Table 1

 Ground-state properties of nuclei calculated by RCHB theory with PC-PK1, in comparison with the available data of masses and charge radii. In addition, the data labeled with underline means the nucleus is unbound.

Α	N	$E_{\rm b}^{\rm Cal.}$ (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
Z=8	(0)																	
12	4	60.44	58.68	5.04	4.88					-19.45	0.44	2.738	2.335	2.919	3.027		0^+	0^+
13	5	77.81	75.56	5.99	5.81			17.38		-17.01	-0.99	2.619	2.373	2.762	2.876		0^+	$3/2^{-}$
14	6	101.86	98.73	7.28	7.05	41.42		24.05		-19.96	-1.34	2.465	2.238	2.621	2.741		0^+	0^+
15	7	112.81	111.96	7.52	7.46	34.99		10.95		-15.48	-5.43	2.599	2.537	2.652	2.770		0^+	1/2-
16	8	127.29	127.62	7.96	7.98	25.43		14.48		-11.64	-7.83	2.638	2.626	2.649	2.768	2.701	0^+	0^+
17	9	132.48	131.76	7.79	7.75	19.67		5.19		-13.49	-9.79	2.690	2.733	2.642	2.760	2.695	0^+	$5/2^{+}$
18	10	141.63	139.81	7.87	7.77	14.34		9.15		-6.94	-11.79	2.736	2.807	2.644	2.763	2.775	0^+	0^+
19	11	145.27	143.76	7.65	7.57	12.79		3.64		-6.18	-13.50	2.792	2.896	2.642	2.760		0^+	5/2+
20	12	153.16	151.37	7.66	7.57	11.54		7.89		-5.76	-15.10	2.842	2.964	2.649	2.767		0+	0+
21	13	156.04	155.18	7.43	7.39	10.77		2.88		-5.74	-16.16	2.935	3.096	2.653	2.771		0+	1/2+
22	14	162.91	162.03	7.41	7.36	9.75		6.87		-4.79	-18.54	2.955	3.111	2.659	2.777		0+	0+
23	15	166.49	164.77	7.24	7.16	10.45		3.58		-3.63	-19.61	3.001	3.173	2.650	2.768		0+	1/2+
24	16	170.90	168.95	7.12	7.02	7.99		4.41		-3.39	-20.52	3.082	3.268	2.672	2.789		0+	0+
25	17	172.02	168.18	6.88	6.73	5.53		1.12		-3.41	-23.79	3.169	3.370	2.692	2.809		0+	3/2+
26	18	175.10	168.86	6.73	6.49	4.20		3.08		-2.14	-22.36	3.230	3.428	2.732	2.847		0+	0+
27	19	175.57		6.50		3.56		0.47		-0.89	-23.36	3.310	3.516	2.760	2.874		0+	$3/2^{+}$
28	20	178.02		6.36		2.92		2.45		-0.89	-23.36	3.370	3.576	2.790	2.903		0^+	0+
7		2.55													0.054			
Z = 9		120.76	120.22	7.57	7.5.4	20.40		16.64	1 47	12.20	0.41	2.704	2 (22	2774	2.007		E /2+	0^{+}
17	8	128.76	128.22	7.57	7.54	28.40		16.64	1.47	-13.36	-8.41	2.704	2.623	2.774	2.887		5/2 ⁺	
18	9	135.84	137.37	7.55	7.63	23.72		7.08	3.36	-12.04	-8.74	2.734	2.720	2.749	2.863	2.000	5/2 ⁺	5/2+
9	10	146.83	147.80	7.73	7.78	18.07		10.99	5.20	-8.65	-11.89	2.766	2.789	2.741	2.855	2.898	5/2 ⁺	0 ⁺
20 21	11 12	152.29 161.83	154.40 162.50	7.61 7.71	7.72 7.74	16.45 15.00		5.46 9.54	7.02 8.67	−7.85 −7.33	-12.81 -14.38	2.805 2.845	2.866 2.928	2.729 2.730	2.844 2.844		5/2 ⁺ 5/2 ⁺	5/2 ⁺ 0 ⁺
22	13	166.10	167.73	7.71	7.62	13.81		4.27	10.05	-6.28	-14.36 -15.07	2.843	2.928	2.723	2.838		5/2 ⁺	5/2+
23	14	174.70	175.29	7.60	7.62	12.87		8.60	11.79	-6.12	-13.07 -17.77	2.933	3.057	2.729	2.844		5/2 ⁺	0+
23 24	15	174.70	175.25	7.49	7.02	13.60		5.00	13.21	-0.12 -4.87	-22.62	2.978	3.122	2.729	2.836		5/2 ⁺	1/2+
2 5	16	184.97	183.38	7.49	7.34	10.28		5.28	14.07	-4.39	-22.02 -21.13	3.051	3.122	2.742	2.856		5/2 ⁺	0+
25 26	17	186.99	184.15	7.40 7.19	7.3 4 7.10	7.30		2.02	14.07	-4.39 -4.37	-21.13 -23.63	3.130	3.307	2.742	2.879		5/2 ⁺	3/2+
20 27	18	191.04	186.25	7.19	6.89	6.06		4.05	15.94	-4.57 -3.09	-23.03 -22.83	3.192	3.369	2.805	2.917		$5/2^{+}$	0 ⁺
28	19	191.04	186.03	6.87	6.64	5.48		1.43	16.90	-3.09 -1.61	-23.41	3.192	3.450	2.834	2.945		5/2 ⁺	3/2 ⁺
29	20	195.92	100.05	6.76	0.04	4.88		3.45	17.90	-1.65	-24.73	3.321	3.507	2.865	2.975		5/2 ⁺	0 ⁺
30	21	195.25		6.51		2.78		-0.67	18.02	-1.67	-24.73 -24.39	3.654	3.943	2.867	2.977		5/2 ⁺	3/2-
31	22	196.42		6.34		0.50		1.17	18.79	-0.49	-24.33 -25.40	3.487	3.704	2.890	2.998		5/2 ⁺	0+
32	23	195.57		6.11		0.32		-0.85	10.73	-0.43	-25.40 -25.31	3.810	4.114	2.893	3.002		5/2 ⁺	3/2-
33	24	196.34		5.95		-0.08		0.77		-0.27	-25.61	3.662	3.907	2.911	3.019		$5/2^{+}$	0+
7	21	2.70		5.55				0.77		0.27	23.01	3.002	3.507	2.311	0.043		3/2	Ü
	0 (Ne)																	
16	6	100.87	97.33	6.30	6.08		-0.99		0.51	-22.43	0.37	2.735	2.280	2.975	3.081		0^+	0^{+}
17	7	115.25	112.89	6.78	6.64		2.45	14.38	3.13	-21.08	$\frac{0.57}{-1.02}$	2.757	2.553	2.891	2.999	3.043	0^{+}	1/2-
18	8	133.74	132.14	7.43	7.34	32.87	6.45	18.48	4.98	-15.60	-2.73	2.754	2.630	2.850	2.960	2.971	0+	0+
19	9	142.63	143.78	7.51	7.57	27.38	10.15	8.90	6.79	-16.73	-4.40	2.774	2.718	2.823	2.934	3.008	0+	5/2 ⁺
20	10	155.45	160.64	7.77	8.03	21.71	13.82	12.82	8.62	-10.73	-6.05	2.798	2.784	2.823	2.923	3.005	0+	0 ⁺
21	11	162.69	167.41	7.75	7.97	20.06	17.42	7.24	10.40	-9.49	-7.75	2.824	2.851	2.795	2.907	2.970	0^{+}	5/2 ⁺
22	12	173.93	177.77	7.73	8.08	18.48	20.77	11.24	12.10	-8.91	-9.35	2.856	2.908	2.791	2.904	2.953	0+	0+
23	13	180.01	182.97	7.83	7.96	17.32	23.97	6.08	13.91	-7.65	-11.03	2.883	2.961	2.777	2.890	2.910	0+	5/2 ⁺
24	14	190.09	191.84	7.92	7.99	16.16	27.17	10.08	15.39	-7.46	-12.48	2.922	3.019	2.781	2.894	2.901	0+	0+
25	15	196.36	196.02	7.85	7.84	16.35	29.87	6.27	16.66	-6.74	-12.46 -13.83	2.966	3.086	2.777	2.890	2.932	0 ⁺	0 1/2 [⊣]
26	16	202.63	201.55	7.79	7.75	12.54	31.73	6.27	17.65	-5.41	-13.03	3.035	3.174	2.799	2.911	2.925	0 ⁺	0+
	17	205.67	203.07	7.62	7.52	9.31	33.65	3.04	18.68	-5.39	-14.73 -15.78	3.107	3.262	2.825	2.936	2.323	0 ⁺	3/2+
27	1/																	

A	N	$E_{\rm b}^{\rm Cal.}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(I)$
29	19	213.25	207.84	7.35	7.18	7.58	37.67	2.47	20.78	-2.69	-17.82	3.235	3.402	2.892	3.001		0+	3/2
30	20	217.80	211.28	7.26	7.04	7.02	39.77	4.55	21.87	-2.49	-18.83	3.290	3.459	2.923	3.031		0^+	0^+
31	21	217.26	211.57	7.01	6.82	4.01	40.03	-0.54	22.01	-2.56	-19.00	3.568	3.836	2.926	3.033		0^+	3/2
32	22	219.51		6.86		1.72	41.88	2.26	23.09	-1.05	-20.25	3.423	3.617	2.951	3.058		0+	0+
3	23	218.86		6.63		1.60		$\frac{-0.65}{1.63}$	23.29	-0.98	-20.48	3.680	3.954	2.955	3.061		0^{+}	3/2 0 ⁺
84 85	24 25	220.49 219.73		6.49 6.28		0.98 0.86		1.63 -0.77	24.16	-0.78 -0.69	-21.46 -21.74	3.565 3.810	3.784 4.095	2.975 2.981	3.081 3.086		0 ⁺	3/2
6	25 26	219.73		6.14		0.68		1.45		-0.69 -0.62	-21.74 -22.56	3.703	3.941	2.998	3.103		0+	3/2 0 ⁺
7	20 27	220.38		5.96		0.65		-0.79		-0.60	-22.75	3.962	4.264	3.001	3.105		0+	1/2
8	28	221.66		5.83		0.49		1.28		-0.49	-23.59	3.832	4.083	3.019	3.123		0^{+}	0+
9	29	220.86		5.66		0.48		-0.80		-0.41	-23.86	4.060	4.360	3.024	3.128		0^+	1/2
0	30	221.97		5.55		0.31		1.11		-0.34	-24.59	3.950	4.209	3.041	3.144		0^+	0+
1	31	221.02		5.39		0.16		-0.95		-0.20	-24.91	4.184	4.489	3.047	3.151		0^+	1/2
2	32	222.04		5.29		0.06		1.02		-0.12	-25.58	4.057	4.320	3.063	3.166		0^+	0+
3	33	220.79		5.13		-0.23		<u>-1.25</u>		0.03	-25.80	4.365	4.688	3.069	3.172		0^+	1/2
4	34	221.59		5.04		-0.45		0.79		0.26	-26.50	4.164	4.431	3.089	3.191		0^+	0^{+}
		3.56													0.046			
	1 (Na)																	
7	6	98.28		5.78			$\frac{-2.08}{1.000}$		$\frac{-2.59}{-1.00}$	-23.41	0.74	3.851	2.284	4.480	4.551		1/2+	0+
3	7	113.49	111.64	6.30	6.25		1.36	15.21	-1.77	-17.86	-0.61	3.139	2.557	3.458	3.550		1/2+	1/
)	8	133.04	131.82	7.00	6.94	34.76	4.28	19.55	$\frac{-0.70}{-0.70}$	-16.92	-1.71	2.830	2.633	2.966	3.072		5/2+	0+
	9	143.69	145.97	7.18	7.30	30.20	7.85	10.65	1.05	-16.07	-3.28	2.826	2.713	2.915	3.023	2.972	5/2 ⁺	5/
	10	158.26	163.08	7.54	7.77	25.22	11.43	14.57	2.81	-12.00	-4.88	2.836	2.775	2.890	2.999	3.014	5/2 ⁺	0+
!	11	167.31	174.15	7.61	7.92	23.63	15.02	9.05	4.62	-11.19	-6.56	2.848	2.833	2.863	2.972	2.985	5/2 ⁺	5/
}	12	180.26	186.56	7.84	8.11	22.00	18.43	12.95	6.33	-10.57	-8.18	2.868	2.884	2.850	2.960	2.994	5/2 ⁺	0+
	13 14	188.50 200.03	193.52 202.53	7.85 8.00	8.06 8.10	21.19 19.77	22.41 25.33	8.24 11.53	8.49 9.94	-9.08 -8.87	-10.03 -11.53	2.873 2.904	2.917 2.970	2.820 2.819	2.932 2.931	2.974 2.977	5/2 ⁺ 5/2 ⁺	5/ 0 ⁺
; ;	15	200.03	202.55	7.97	8.00	18.76	23.33 27.56	7.23	10.90	-0.07 -7.26	-11.55 -12.69	2.957	3.050	2.825	2.931	2.977	5/2 ⁺	1/
7	16	214.37	214.84	7.94	7.96	14.34	29.39	7.23 7.11	11.74	-6.38	-12.03 -13.61	3.022	3.136	2.848	2.958	3.013	5/2 ⁺	0+
3	17	218.37	218.38	7.80	7.80	11.11	31.37	4.00	12.70	-6.32	-14.63	3.090	3.221	2.875	2.985	3.040	5/2 ⁺	3/
)	18	224.49	222.78	7.74	7.68	10.13	33.45	6.13	13.71	-5.10	-15.68	3.150	3.287	2.913	3.021	3.092	5/2 ⁺	0+
)	19	227.96	225.06	7.60	7.51	9.59	35.49	3.47	14.71	-3.37	-16.70	3.212	3.358	2.941	3.048	3.118	5/2 ⁺	3/
ĺ	20	233.54	229.34	7.53	7.39	9.05	37.62	5.58	15.75	-3.43	-17.73	3.264	3.414	2.972	3.078	3.170	5/2 ⁺	0+
2	21	233.16	230.87	7.29	7.21	5.20	37.91	-0.38	15.91	-3.53	-17.95	3.488	3.728	2.976	3.081		5/2+	3/
	22	236.73		7.17		3.19	40.31	3.57	17.22	-1.74	-19.34	3.377	3.551	3.001	3.106		5/2+	0+
	23	236.32		6.95		3.16	40.76	-0.40	17.46	-1.69	-19.62	3.574	3.816	3.006	3.110		5/2+	3/
	24	238.96		6.83		2.23	42.62	2.63	18.46	-1.39	-20.71	3.498	3.694	3.027	3.131		$5/2^{+}$	0^{+}
	25	238.50		6.62		2.17		-0.46	18.77	-1.32	-21.06	3.673	3.921	3.033	3.137		5/2+	3/
	26	240.76		6.51		1.81		2.27	19.59	-1.19	-21.93	3.619	3.834	3.050	3.154		5/2+	0+
	27	240.19		6.32		1.70		<u>-0.57</u>	19.81	-1.08	-22.33	3.782	4.040	3.058	3.161		5/2+	3/
	28	242.32		6.21		1.56		2.13	20.66	-1.03	-23.04	3.736	3.967	3.072	3.175		5/2 ⁺	0+
1	29	241.80		6.04		1.60		$\frac{-0.53}{1.00}$	20.94	-0.98	-23.36	3.900	4.170	3.077	3.180		5/2 ⁺	1/
	30	243.69		5.94		1.37		1.89	21.72	-0.86	-24.09	3.847	4.089	3.093	3.194		5/2 ⁺	0+
	31	243.17		5.79		1.38		$\frac{-0.52}{1.64}$	22.15	-0.73	-24.50	3.990	4.262	3.099	3.201		5/2 ⁺	1/ 0 ⁺
}	32	244.81		5.69		1.12 0.74		1.64	22.78	-0.63	-25.10	3.953	4.203	3.113	3.214		5/2 ⁺	_
1 5	33 34	243.91 245.37		5.54 5.45		0.74 0.56		$\frac{-0.90}{1.46}$	23.12 23.79	-0.36 -0.15	-25.46 -26.04	4.160 4.052	4.453 4.307	3.120 3.136	3.221 3.236		5/2 ⁺ 5/2 ⁺	1/2 0 ⁺
	34 35	243.37		5.30		0.56		-1.40	23./9	-0.15 -0.03	-26.04 -26.13	4.052 4.412	4.307 4.742	3.141	3.236 3.241		5/2+ 5/2+	1/:
5 7	36	243.97		5.21		-0.71		$\frac{-1.40}{0.69}$		0.34	-26.13 -26.72	4.412	4.742	3.141	3.241		5/2 ⁺	0+
	50	3.86		3,21				0.03		0.54	20,72	7,177	7,750	3,171	0.055		3/2	0
1	2 (Mg)	-																
— 1 9	7	114.54	112.14	6.03	5.84		-0.71		1.05	-23.65	0.36	2.935	2.573	3.127	3.228		0^+	1/2
	8	136.23	134.47	6.81	6.72		2.49		3.19	-18.59				3.037			0^{+}	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
21	9	148.42	149.20	7.07	7.10	33.88	5.79	12.19	4.74	-19.93	-2.47	2.874	2.719	2.985	3.090		0+	5/2+
22	10	164.63	168.58	7.48	7.66	28.40	9.18	16.21	6.37	-13.56	-3.97	2.875	2.777	2.954	3.061		0^+	0^+
23	11	175.35	181.73	7.62	7.90	26.93	12.66	10.72	8.04	-12.79	-5.59	2.876	2.828	2.920	3.028		0^+	$5/2^{+}$
24	12	189.98	198.26	7.92	8.26	25.35	16.05	14.62	9.72	-12.18	-7.18	2.887	2.873	2.901	3.010	3.057	0^+	0^+
25	13	200.11	205.59	8.00	8.22	24.76	20.10	10.13	11.61	-10.49	-9.03	2.881	2.897	2.864	2.974	3.029	0^+	$5/2^{+}$
26	14	213.56	216.68	8.21	8.33	23.59	23.48	13.45	13.53	-10.30	-10.77	2.890	2.927	2.845	2.955	3.034	0^+	0+
27	15	221.50	223.12	8.20	8.26	21.39	25.14	7.93	14.24	-9.68	-11.69	2.955	3.024	2.867	2.976		0^+	$1/2^{+}$
28	16	229.57	231.63	8.20	8.27	16.01	26.94	8.07	15.20	-7.41	-12.61	3.019	3.110	2.893	3.002		0^+	0+
29	17	234.63	235.28	8.09	8.11	13.14	28.97	5.07	16.27	-7.37	-13.64	3.083	3.193	2.921	3.028		0^+	$3/2^{+}$
30	18	241.87	241.64	8.06	8.06	12.30	31.09	7.23	17.37	-6.15	-14.71	3.141	3.258	2.957	3.063		0^+	0+
31	19	246.40	243.95	7.95	7.87	11.77	33.16	4.54	18.44	-4.81	-15.75	3.199	3.327	2.985	3.091		0^+	$3/2^{+}$
32	20	253.06	249.72	7.91	7.81	11.19	35.26	6.66	19.52	-4.42	-16.79	3.249	3.382	3.015	3.119		0^{+}	0+
33	21	253.45	252.00	7.68	7.64	7.05	36.19	0.39	20.29	-4.63	-17.77	3.303	3.450	3.029	3.133		0^{+}	7/2-
34	22	257.96	256.71	7.59	7.54	4.90	38.44	4.51	21.23	-2.51	-18.55	3.349	3.504	3.043	3.147		0+	0+
35	23	257.86	257.47	7.37	7.36	4.41	39.00	-0.10	21.53	-2.48	-18.88	3.502	3.717	3.049	3.152		0^{+}	3/2-
36	24	261.63	260.80	7.27	7.24	3.67	41.14	3.77	22.67	-2.06	-20.07	3.454	3.631	3.070	3.173		0^{+}	0+
37	25	261.55	200.00	7.07		3.70	41.83	-0.08	23.05	-2.00	-20.48	3.585	3.805	3.077	3.179		0+	3/2 ⁻
38	26	264.70		6.97		3.07	43.53	3.15	23.94	-1.78	-21.41	3.562	3.758	3.094	3.196		0+	0+
39	27	264.58		6.78		3.03	44.20	-0.12	24.39	-1.69	-21.88	3.676	3.904	3.102	3.203		0^{+}	3/2-
40	28	267.42		6.69		2.72	45.76	2.84	25.09	-1.57	-22.60	3.669	3.882	3.116	3.217		0+	0+
11	29	267.22		6.52		2.64	46.36	-0.20	25.42	-1.56	-22.98	3.793	4.038	3.121	3.222		0+	1/2-
12	30	269.87		6.43		2.45	47.90	2.65	26.18	-1.30 -1.37	-23.69	3.774	4.001	3.135	3.236		0+	0+
13	31	269.84		6.28		2.43	48.82	-0.03	26.67	-1.37 -1.29	-23.03 -24.15	3.873	4.122	3.141	3.241		0+	1/2
14	32	272.04		6.18		2.02	50.00	2.20	27.22	-1.29 -1.12	-24.13 -24.71	3.877	4.122	3.154	3.253		0+	0+
17 45	33	272.04		6.04		1.88	50.93	-0.32	27.22	-0.68	-24.71 -25.22	3.984	4.110	3.161	3.261		0+	1/2-
45 46	33	271.72		5.95		1.56	30.93	1.87	27.01	-0.56	-25.22 -25.64	3.978	4.244	3.174	3.273		0+	0 ⁺
				5.95		1.50											-	_
47	25	272.00		E 00		1.00		0.00		0.57					2 272		ο+	1/2+
	35	272.80		5.80		1.08		$\frac{-0.80}{0.75}$		-0.57	-25.65	4.300	4.623	3.173	3.273		0 ⁺	1/2+
48	35 36	273.55		5.80 5.70		1.08 -0.05		$\frac{-0.80}{0.75}$		-0.57 <u>0.04</u>	-25.65 -26.36	4.300 4.076	4.623 4.325	3.173 3.214	3.312		0 ⁺	1/2 ⁺ 0 ⁺
48 σ	36																	
	36 3 (Al)	273.55 3.51		5.70			1.25		2.40	0.04	-26.36	4.076	4.325	3.214	3.312 0.062		0+	0+
48 $Z = 1$ 20	36 3 (Al) 7	273.55 3.51 112.14		5.70			<u>-1.35</u>	0.75	<u>-2.40</u>	<u>0.04</u> -18.81	-26.36 <u>0.73</u>	4.076 3.645	4.325 2.577	3.214 4.107	3.312 0.062 4.184		0 ⁺	1/2-
$ \begin{array}{c} 48 \\ 7 \\ 7 \\ 7 \\ 2 \\ 2 \\ 2 \\ 1 \end{array} $	36 3 (Al) 7 8	273.55 3.51 112.14 134.70		5.70 5.61 6.00		_0.05	1.66	22.56	<u>-1.53</u>	-18.81 -19.28	-26.36 <u>0.73</u> -0.62	3.645 3.079	2.577 2.648	3.214 4.107 3.317	3.312 0.062 4.184 3.412		1/2 ⁺ 1/2 ⁺	1/2 ⁻ 0 ⁺
18 7 = 1 20 21	36 3 (Al) 7 8 9	273.55 3.51 112.14 134.70 147.87	100.72	5.61 6.00 6.72	7.22	<u>-0.05</u> 35.73	1.66 4.18	22.56 13.71	$\frac{-1.53}{-0.55}$	-18.81 -19.28 -18.08	-26.36 0.73 -0.62 -2.18	3.645 3.079 2.991	2.577 2.648 2.724	3.214 4.107 3.317 3.163	3.312 0.062 4.184 3.412 3.263		0 ⁺ 1/2 ⁺ 1/2 ⁺ 1/2 ⁺	1/2 ⁻ 0 ⁺ 5/2 ⁺
48 7 7 = 1 20 21 22 23	36 3 (Al) 7 8 9 10	273.55 3.51 112.14 134.70 147.87 165.51	168.72	5.61 6.00 6.72 7.20	7.33	<u>-0.05</u> 35.73 30.81	1.66 4.18 7.25	22.56 13.71 17.64	$\frac{-1.53}{-0.55}$ 0.88	-18.81 -19.28 -18.08 -15.11	-26.36 0.73 -0.62 -2.18 -2.53	3.645 3.079 2.991 2.919	2.577 2.648 2.724 2.771	3.214 4.107 3.317 3.163 3.027	3.312 0.062 4.184 3.412 3.263 3.131		1/2 ⁺ 1/2 ⁺ 1/2 ⁺ 1/2 ⁺ 5/2 ⁺	1/2 ⁻ 0 ⁺ 5/2 ⁺ 0 ⁺
7 = 1 $7 = 1$ $9 =$	36 3 (Al) 7 8 9 10 11	273.55 3.51 112.14 134.70 147.87 165.51 178.22	183.59	5.61 6.00 6.72 7.20 7.43	7.65	35.73 30.81 30.35	1.66 4.18 7.25 10.91	22.56 13.71 17.64 12.71	$ \begin{array}{r} -1.53 \\ -0.55 \\ \hline 0.88 \\ 2.86 \end{array} $	-18.81 -19.28 -18.08 -15.11 -14.55	-26.36 0.73 -0.62 -2.18 -2.53 -3.85	3.645 3.079 2.991 2.919 2.897	2.577 2.648 2.724 2.771 2.809	3.214 4.107 3.317 3.163 3.027 2.970	3.312 0.062 4.184 3.412 3.263 3.131 3.076		0 ⁺ 1/2 ⁺ 1/2+ 1/2+ 5/2+ 5/2+	1/2 ⁻ 0 ⁺ 5/2 ⁺ 5/2 ⁺ 5/2 ⁺
7 = 1 $7 = 1$ 100	36 3 (Al) 7 8 9 10 11 12	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86	183.59 200.53	5.61 6.00 6.72 7.20 7.43 7.79	7.65 8.02	35.73 30.81 30.35 29.35	1.66 4.18 7.25 10.91 14.60	22.56 13.71 17.64 12.71 16.64	$ \begin{array}{r} -1.53 \\ -0.55 \\ 0.88 \\ 2.86 \\ 4.88 \end{array} $	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04	-26.36 0.73 -0.62 -2.18 -2.53 -3.85 -5.20	3.645 3.079 2.991 2.919 2.897 2.892	2.577 2.648 2.724 2.771 2.809 2.844	3.214 4.107 3.317 3.163 3.027 2.970 2.935	4.184 3.412 3.263 3.131 3.076 3.042		1/2 ⁺ 1/2 ⁺ 1/2 ⁺ 1/2 ⁺ 5/2 ⁺ 5/2 ⁺ 5/2 ⁺	1/2 ⁻ 0 ⁺ 5/2 ⁺ 5/2 ⁺ 5/2 ⁺ 0 ⁺
18 7 7 120 121 122 123 124 125 126	36 3 (Al) 7 8 9 10 11 12 13	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00	183.59 200.53 211.89	5.61 6.00 6.72 7.20 7.43 7.79 7.96	7.65 8.02 8.15	35.73 30.81 30.35 29.35 28.78	1.66 4.18 7.25 10.91 14.60 18.50	22.56 13.71 17.64 12.71 16.64 12.14	-1.53 -0.55 0.88 2.86 4.88 6.89	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99	-26.36 0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69	3.645 3.079 2.991 2.919 2.897 2.892 2.880	2.577 2.648 2.724 2.771 2.809 2.844 2.866	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894	4.184 3.412 3.263 3.131 3.076 3.042 3.003	2001	1/2 ⁺ 1/2 ⁺ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+	0 ⁺ 1/2 ⁻ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺
18 7 7 120 121 122 123 124 125 126 127	36 3 (Al) 7 8 9 10 11 12 13 14	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44	183.59 200.53 211.89 224.95	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24	7.65 8.02 8.15 8.33	35.73 30.81 30.35 29.35 28.78 27.57	7.25 10.91 14.60 18.50 22.41	22.56 13.71 17.64 12.71 16.64 12.14 15.44	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29	3.645 3.079 2.991 2.919 2.897 2.892 2.880 2.878	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976	3.061	1/2 ⁺ 1/2 ⁺ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+	0 ⁺ 1/2 ⁻ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺
7 = 1 $7 = 1$ 20 21 22 23 24 25 26 27 28	36 3 (AI) 7 8 9 10 11 12 13 14 15	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04	183.59 200.53 211.89 224.95 232.68	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25	7.65 8.02 8.15 8.33 8.31	35.73 30.81 30.35 29.35 28.78 27.57 24.04	7.25 10.91 14.60 18.50 22.41 23.78	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39	3.645 3.079 2.991 2.919 2.897 2.892 2.880 2.878 2.944	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989	4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001	3.061	1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+	0 ⁺ 1/2 ⁻ 0 ⁺ 5/2 ⁺ 6 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 1/2 ⁺
$ \begin{array}{r} 48 \\ 7 \\ \hline 7 \\ 7 \\ \hline 20 \\ 21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28 \\ 29 \\ \end{array} $	36 3 (Al) 7 8 9 10 11 12 13 14 15 16	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85	183.59 200.53 211.89 224.95 232.68 242.11	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27	7.65 8.02 8.15 8.33 8.31 8.35	35.73 30.81 30.35 29.35 28.78 27.57 24.04 17.41	1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52	3.645 3.079 2.991 2.919 2.897 2.892 2.878 2.944 3.006	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074	4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028	3.061	1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+	0+ 1/2 ⁻ 0+ 5/2+ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+
18 7 = 1 20 21 22 23 24 25 26 27 28 29 30	36 3 (Al) 7 8 9 10 11 12 13 14 15 16 17	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81	183.59 200.53 211.89 224.95 232.68 242.11 247.84	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19	7.65 8.02 8.15 8.33 8.31 8.35 8.26	35.73 30.81 30.35 29.35 28.78 27.57 24.04 17.41 14.77	1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18	0.04 -18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19	-26.36 0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67	3.645 3.079 2.991 2.919 2.897 2.892 2.880 2.878 2.944 3.006 3.067	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054	3.061	1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0 ⁺ 1/2 ⁻ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 3/2 ⁺
38	36 3 (Al) 7 8 9 10 11 12 13 14 15 16 17 18	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75	3.645 3.079 2.991 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089	3.061	0 ⁺ 1/2 ⁺ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0 ⁺ 1/2 ⁻ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 5/2 ⁺ 1/2 ⁺ 0 ⁺ 3/2 ⁺ 0 ⁺
38	36 3 (Al) 7 8 9 10 11 12 13 14 15 16 17 18 19	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82	3.645 3.079 2.991 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116	3.061	1/2+ 1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0+ 1/2 ⁻ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 3/2 ⁺ 3/2 ⁺
888	36 3 (AI) 7 8 9 10 11 12 13 14 15 16 17 18 19 20	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.43	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86	3.645 3.079 2.991 2.919 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178 3.226	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342	4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012 3.041	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116 3.144	3.061	0 ⁺ 1/2 ⁺ 1/2 ⁺ 1/2 ⁺ 1/2 ⁺ 5/2 ⁺	0+ 1/2 ⁻ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+
48	36 3 (Al) 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21 268.61	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65 267.32	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10 7.90	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02 7.86	35.73 30.81 30.35 29.35 28.78 27.57 24.04 17.41 14.77 14.20 13.74 13.16 9.05	1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67 35.44	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65 1.40	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15 15.16	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.43 -5.28	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86 -15.85	3.645 3.079 2.991 2.919 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.178 3.226 3.273	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342 3.402	4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012 3.041 3.053	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.054 3.116 3.144 3.156	3.061	1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0+ 1/2 ⁻ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+ 7/2-
488	36 3 (Al) 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21 268.61 273.90	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65 267.32 272.55	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10 7.90 7.83	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02 7.86 7.78		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67 35.44 37.18	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65 1.40 5.30	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15 15.16 15.95	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.23 -5.28 -3.63	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86 -15.85 -16.73	3.645 3.079 2.991 2.919 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178 3.226 3.273 3.315	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342 3.402 3.453	4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012 3.041 3.053 3.067	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116 3.144 3.156 3.169	3.061	0 ⁺ 1/2 ⁺ 1/2 ⁺ 1/2 ⁺ 5/2 ⁺	0+ 1/2 ⁻ 0+ 5/2+ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+ 7/2- 0+
488	36 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21 268.61 273.90 274.45	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65 267.32 272.55 274.45	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10 7.90 7.83 7.62	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02 7.86 7.78 7.63		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67 35.44 37.18 38.12	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65 1.40 5.30 0.54	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15 15.16 15.95 16.59	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.43 -5.23 -5.43 -5.28 -3.63 -2.98	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86 -15.85 -16.73 -17.64	3.645 3.079 2.991 2.997 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178 3.226 3.273 3.315 3.363	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342 3.402 3.453 3.514	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012 3.041 3.053 3.067 3.079	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116 3.144 3.156 3.169 3.182	3.061	0+ 1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0+ 1/2 ⁻ 0+ 5/2+ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+ 7/2- 0+ 7/2-
488	36 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21 268.61 273.90 274.45 279.08	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65 267.32 272.55 274.45 278.66	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10 7.90 7.83 7.62 7.54	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02 7.86 7.78 7.63 7.53		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67 35.44 37.18 38.12 40.12	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65 1.40 5.30 0.54 4.64	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15 15.16 15.95 16.59 17.45	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.43 -5.28 -3.63 -2.98 -2.79	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86 -15.85 -16.73 -17.64 -18.40	3.645 3.079 2.991 2.997 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178 3.226 3.273 3.315 3.363 3.409	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342 3.402 3.453 3.514 3.568	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012 3.041 3.053 3.067 3.079 3.093	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116 3.144 3.156 3.169 3.182 3.093	3.061	0+ 1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0+ 1/2- 0+ 5/2+ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+ 7/2- 0+ 7/2- 0+
488	36 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21 268.61 273.90 274.45	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65 267.32 272.55 274.45	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10 7.90 7.83 7.62	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02 7.86 7.78 7.63		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67 35.44 37.18 38.12	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65 1.40 5.30 0.54	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15 15.16 15.95 16.59	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.43 -5.23 -5.43 -5.28 -3.63 -2.98	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86 -15.85 -16.73 -17.64	3.645 3.079 2.991 2.997 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178 3.226 3.273 3.315 3.363	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342 3.402 3.453 3.514	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012 3.041 3.053 3.067 3.079	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116 3.144 3.156 3.169 3.182	3.061	1/2+ 1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0+ 1/2 ⁻ 0+ 5/2+ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+ 7/2- 0+ 7/2- 0+ 3/2-
448	36 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21 268.61 273.90 274.45 279.08	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65 267.32 272.55 274.45 278.66	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10 7.90 7.83 7.62 7.54	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02 7.86 7.78 7.63 7.53		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67 35.44 37.18 38.12 40.12	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65 1.40 5.30 0.54 4.64	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15 15.16 15.95 16.59 17.45	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.43 -5.28 -3.63 -2.98 -2.79	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86 -15.85 -16.73 -17.64 -18.40	3.645 3.079 2.991 2.997 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178 3.226 3.273 3.315 3.363 3.409	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342 3.402 3.453 3.514 3.568	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012 3.041 3.053 3.067 3.079 3.093	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116 3.144 3.156 3.169 3.182 3.093	3.061	0+ 1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0+ 1/2- 0+ 5/2+ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+ 7/2- 0+ 7/2- 0+
488	36 3 (Al) 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21 268.61 273.90 274.45 279.08 279.36	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65 267.32 272.55 274.45 278.66	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10 7.90 7.83 7.62 7.54 7.35	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02 7.86 7.78 7.63 7.53		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67 35.44 37.18 38.12 40.12	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65 1.40 5.30 0.54 4.64 0.28	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15 15.16 15.95 16.59 17.45 17.81	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.43 -5.28 -3.63 -2.79 -2.78	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86 -15.85 -16.73 -17.64 -18.40 -18.87	3.645 3.079 2.991 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178 3.226 3.273 3.315 3.363 3.409 3.515	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342 3.402 3.453 3.514 3.568 3.713	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.947 2.983 3.012 3.041 3.053 3.067 3.079 3.093 3.101	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116 3.144 3.156 3.169 3.182 3.093 3.203	3.061	1/2+ 1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0+ 1/2 ⁻ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+ 3/2- 0+ 7/2- 0+ 7/2- 0+ 3/2- 0+
488	36 3 (Al) 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	273.55 3.51 112.14 134.70 147.87 165.51 178.22 194.86 207.00 222.44 231.04 239.85 245.81 254.05 259.55 267.21 268.61 273.90 274.45 279.08 279.36 283.47	183.59 200.53 211.89 224.95 232.68 242.11 247.84 254.99 259.21 264.65 267.32 272.55 274.45 278.66	5.70 5.61 6.00 6.72 7.20 7.43 7.79 7.96 8.24 8.25 8.27 8.19 8.20 8.11 8.10 7.90 7.83 7.62 7.54 7.35 7.27	7.65 8.02 8.15 8.33 8.31 8.35 8.26 8.23 8.10 8.02 7.86 7.78 7.63 7.53		1.66 4.18 7.25 10.91 14.60 18.50 22.41 23.78 25.48 27.44 29.55 31.59 33.67 35.44 37.18 38.12 40.12 40.86 42.71	22.56 13.71 17.64 12.71 16.64 12.14 15.44 8.60 8.81 5.96 8.24 5.51 7.65 1.40 5.30 0.54 4.64 0.28 4.11	-1.53 -0.55 0.88 2.86 4.88 6.89 8.87 9.54 10.28 11.18 12.18 13.15 14.15 15.16 15.95 16.59 17.45 17.81	-18.81 -19.28 -18.08 -15.11 -14.55 -14.04 -11.99 -11.68 -9.31 -8.29 -8.19 -7.16 -5.23 -5.43 -5.28 -3.63 -2.79 -2.78 -2.43	0.73 -0.62 -2.18 -2.53 -3.85 -5.20 -6.69 -8.29 -9.39 -10.52 -11.67 -12.75 -13.82 -14.86 -15.85 -16.73 -17.64 -18.87 -19.88	3.645 3.079 2.991 2.919 2.897 2.892 2.880 2.878 2.944 3.006 3.067 3.123 3.178 3.226 3.273 3.315 3.363 3.409 3.515 3.506	2.577 2.648 2.724 2.771 2.809 2.844 2.866 2.888 2.989 3.074 3.156 3.220 3.287 3.342 3.402 3.453 3.514 3.568 3.713 3.685	3.214 4.107 3.317 3.163 3.027 2.970 2.935 2.894 2.866 2.892 2.920 2.947 2.983 3.012 3.041 3.053 3.067 3.079 3.093 3.101 3.118	3.312 0.062 4.184 3.412 3.263 3.131 3.076 3.042 3.003 2.976 3.001 3.028 3.054 3.089 3.116 3.144 3.156 3.169 3.182 3.093 3.203 3.219	3.061	0+ 1/2+ 1/2+ 1/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5/2+ 5	0+ 1/2- 0+ 5/2+ 0+ 5/2+ 0+ 5/2+ 0+ 1/2+ 0+ 3/2+ 0+ 3/2+ 0+ 7/2- 0+ 3/2- 0+ 3/2- 0+ 3/2-

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
13	30	290.90		6.77		3.54	47.21	3.19	21.03	-1.92	-22.33	3.706	3.919	3.160	3.260		5/2+	0+
14	31	291.31		6.62		3.60	48.14	0.41	21.47	-1.87	-22.83	3.783	4.014	3.165	3.264		5/2+	1/2-
45	32	294.10		6.54		3.20	49.29	2.79	22.07	-1.63	-23.37	3.806	4.034	3.176	3.275		5/2 ⁺	0+
																		_
16	33	294.48		6.40		3.17	50.57	0.37	22.76	-1.02	-23.99	3.869	4.110	3.179	3.279		5/2 ⁺	1/2
17	34	296.65		6.31		2.55	51.28	2.17	23.06	-0.94	-24.30	3.907	4.148	3.192	3.291		5/2+	0+
18	35	295.84		6.16		1.36	51.87	-0.81	23.04	-0.96	-24.31	3.974	4.228	3.192	3.291		$5/2^{+}$	1/2
19	36	297.04		6.06		0.39	52.38	1.20	23.49	-0.26	-25.10	4.003	4.244	3.243	3.340		$5/2^{+}$	0^{+}
50	37	296.28		5.93		0.44		-0.76		-0.28	-25.12	4.293	4.605	3.244	3.341		5/2+	1/2
51	38	296.77		5.82		-0.27		0.49		0.02	-25.88	4.100	4.342	3.293	3.389		5/2+	0+
7		2.81													0.085		-/-	
Z = 1	4 (Si)																	
22	8	135.95		6.18			-0.28		1.25	-21.08	0.38	3.035	2.660	3.230	3.328		0^+	0^{+}
23	9	150.93		6.56			2.51	14.98	3.06	-23.58	-0.81	2.991	2.728	3.148	3.248		0^+	5/2
24	10	170.17	172.01	7.09	7.17	34.22	5.54	19.24	4.66	-16.48	-2.04	2.966	2.779	3.093	3.195		0^{+}	0+
25						33.29							2.773	3.033			0+	
	11	184.22	187.01	7.37	7.48		8.87	14.05	6.00	-15.95	-3.33	2.939			3.137			5/2
26	12	202.45	206.05	7.79	7.92	32.28	12.47	18.23	7.59	-15.61	-4.65	2.917	2.838	2.983	3.089		0+	0+
27	13	216.67	219.36	8.02	8.12	32.45	16.56	14.23	9.67	-13.45	-5.97	2.887	2.846	2.924	3.032		0+	5/2
28	14	234.04	236.54	8.36	8.45	31.59	20.48	17.37	11.60	-13.13	-7.35	2.875	2.862	2.889	2.998	3.122	0^+	0^{+}
9	15	243.44	245.01	8.39	8.45	26.77	21.95	9.40	12.41	-13.25	-8.61	2.942	2.964	2.919	3.026	3.117	0^+	1/2
80	16	253.15	255.62	8.44	8.52	19.11	23.58	9.70	13.30	-9.27	-9.90	3.003	3.049	2.949	3.056	3.133	0^{+}	0+
31	17	259.99	262.21	8.39	8.46	16.55	25.36	6.85	14.18	-9.20	-11.08	3.068	3.135	2.985	3.090		0^{+}	3/2
32	18	269.34	271.41	8.42	8.48	16.20	27.48	9.35	15.30	-8.24	-12.13	3.123	3.200	3.020	3.124		0^{+}	0+
																	0+	
3	19	275.89	275.91	8.36	8.36	15.90	29.49	6.55	16.34	-7.20	-13.19	3.176	3.266	3.050	3.153			3/2
34	20	284.63	283.43	8.37	8.34	15.29	31.58	8.74	17.43	-6.47	-14.23	3.223	3.320	3.078	3.180		0+	0^+
35	21	287.11	285.90	8.20	8.17	11.21	33.66	2.47	18.50	-7.26	-15.25	3.263	3.375	3.088	3.190		0^+	7/2
36	22	293.31	292.01	8.15	8.11	8.68	35.36	6.21	19.41	-4.25	-16.17	3.302	3.424	3.101	3.202		0^+	0^+
37	23	294.85	294.28	7.97	7.95	7.74	37.27	1.54	20.40	-3.84	-17.13	3.344	3.478	3.112	3.213		0^+	7/2
38	24	300.29	299.93	7.90	7.89	6.98	38.66	5.44	21.21	-3.59	-17.95	3.386	3.529	3.126	3.226		0^{+}	0^{+}
39	25	301.26	301.51	7.72	7.74	6.41	40.36	0.97	21.90	-3.22	-18.82	3.429	3.583	3.136	3.236		0^{+}	7/2
10	26	306.25	306.47	7.66	7.66	5.96	41.54	4.99	22.78	-3.12	-19.54	3.473	3.635	3.150	3.250		0+	0+
																		_
11	27	307.15	307.85	7.49	7.51	5.89	42.92	0.90	23.32	-3.10	-20.10	3.548	3.734	3.157	3.257		0+	3/2
12	28	311.48		7.42		5.24	44.06	4.82	24.12	-2.76	-20.92	3.564	3.745	3.171	3.271		0+	0^+
13	29	312.46		7.27		5.31	45.24	0.98	24.75	-2.65	-21.54	3.627	3.825	3.179	3.278		0^+	3/2
14	30	316.17		7.19		4.69	46.30	3.71	25.27	-2.44	-22.10	3.659	3.859	3.190	3.289		0^+	0^{+}
15	31	317.05		7.05		4.59	47.21	0.88	25.74	-2.42	-22.61	3.725	3.941	3.194	3.293		0^+	1/2
16	32	320.39		6.97		4.22	48.35	3.34	26.29	-2.10	-23.13	3.757	3.974	3.206	3.304		0^+	0+
17 17	33	321.47		6.84		4.42	49.75	1.08	27.00	-1.42	-23.73	3.810	4.040	3.203	3.301		0^{+}	1/2
	34	323.86		6.75		3.47	50.27	2.39	27.00	-1.42 -1.33	-23.73 -24.03	3.857	4.040	3.219	3.317		0+	0+
18																		-
19	35	323.28		6.60		1.80	50.50	<u>-0.59</u>	27.64	-1.40	-24.43	3.918	4.160	3.234	3.332		0+	5/2
0	36	324.95		6.50		1.09	51.40	1.68	27.91	-0.63	-24.84	3.952	4.185	3.275	3.371		0+	0+
51	37	324.20		6.36		0.92		-0.75	28.47	-0.65	-24.86	4.238	4.550	3.275	3.372		0^+	1/2
52	38	325.46		6.26		0.51		1.26	28.69	-0.35	-25.67	4.043	4.276	3.329	3.423		0^+	0^+
53	39	324.77		6.13		0.57		-0.69	29.42	-0.38	-25.69	4.300	4.599	3.329	3.424		0^+	1/2
54	40	325.46		6.03		-0.00		0.69		0.17	-26.42	4.150	4.389	3.374	3.467		0+	0+
r	10	1.84		0.03				0.05		0.17	20.12	1.150	1.303	3.37 1	0.099		Ü	Ü
Z = 1	5 (P)																	
22	7	108.82		4.95						-19.90	1.73	4.105	2.594	4.645	4.713		1/2+	1/2
23	8	133.70		5.81			-0.22	24.88	-2.25	-21.93	1.01	3.464	2.661	3.824	3.907		1/2+	0+
						41.64												-
24	9	150.46		6.27		41.64	2.82	16.76	$\frac{-0.47}{0.01}$	-22.53	0.52	3.053	2.720	3.237	3.334		1/2+	5/2
25	10	170.98		6.84		37.27	5.46	20.52	0.81	-17.82	-0.97	3.022	2.773	3.177	3.276		1/2+	0^+
	11	186.05		7.16		35.60	7.84	15.08	1.83	-17.12	-2.40	2.997	2.816	3.124	3.225		1/2+	5/2
26	11	100.00																
26 27	12	205.05	206.91	7.59	7.66	34.07	10.18	18.99	2.60	-16.56	-3.52	2.985	2.854	3.086	3.188		1/2+	0 ⁺ 5/2

Table 1 (continued)

ibic i	Commue	.u)																
Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
29	14	237.73	239.29	8.20	8.25	32.69	15.30	18.05	3.69	-14.31	-6.98	2.951	2.892	3.005	3.110		1/2+	0+
30	15	249.13	250.60	8.30	8.35	29.45	18.10	11.40	5.69	-13.99	-8.05	3.002	2.984	3.020	3.124		1/2+	1/2+
31	16	260.83	262.92	8.41	8.48	23.10	20.99	11.70	7.69	-10.78	-8.99	3.047	3.060	3.033	3.137	3.189	1/2+	0+
32	17	269.07	270.85	8.41	8.46	19.94	23.26	8.24	9.08	-10.77	-9.84	3.098	3.134	3.057	3.160	3.100	1/2+	3/2+
33	18	279.40	280.96	8.47	8.51	18.57	25.36	10.33	10.06	-9.20	-10.80	3.146	3.197	3.083	3.185		1/2+	0+
84	19	286.98	287.24	8.44	8.45	17.91	27.42	7.57	11.08	-7.64	-11.76	3.192	3.259	3.106	3.208		1/2+	3/2 ⁺
35	20	296.59	295.62	8.47	8.45	17.19	28.46	9.62	11.96	-7.36	-11.70 -13.41	3.235	3.311	3.130	3.230		1/2+	0 ⁺
36	21	299.94	299.08	8.33	8.31	12.96	31.33	3.35	12.83	−7.30 −7.21	-13.41 -13.94	3.272	3.365	3.138	3.238		1/2+	7/2
37	22	307.06	305.90	8.30	8.27	10.47	32.59	7.12	13.75	-7.21 -5.11	-15.34 -15.36	3.308	3.412	3.148	3.248		1/2+	0+
38	23																1/2+	7/2
18 19	23 24	309.42	309.64	8.14	8.15	9.48	34.64	2.36	14.57	-4.66	-16.30	3.346	3.463	3.157	3.257			0 ⁺
		315.70	315.88	8.09	8.10	8.64	36.62	6.28	15.41	-4.39	-17.12	3.384	3.512	3.169	3.268		1/2+	
10	25	317.45	319.19	7.94	7.98	8.03	38.09	1.75	16.19	-3.99	-18.01	3.423	3.562	3.178	3.277		1/2+	7/2
11	26	323.21	324.17	7.88	7.91	7.51	39.74	5.76	16.96	-3.86	-18.74	3.462	3.611	3.189	3.288		1/2+	0+
12	27	324.82	326.25	7.73	7.77	7.37	40.99	1.61	17.67	-3.42	-19.32	3.523	3.692	3.196	3.294		1/2+	3/2
13	28	329.89	330.65	7.67	7.66	6.68	42.53	5.07	18.41	-3.43	-20.16	3.545	3.713	3.208	3.306		1/2+	0+
14	29	331.55		7.54		6.73	43.84	1.66	19.09	-3.30	-20.87	3.595	3.778	3.214	3.312		1/2+	3/2
1 5	30	335.90		7.46		6.01	45.00	4.35	19.73	-3.05	-21.46	3.631	3.818	3.225	3.322		1/2+	0^+
16	31	337.32		7.33		5.77	46.20	1.42	20.26	-2.70	-22.12	3.680	3.879	3.230	3.328		$1/2^{+}$	3/2
ŀ7	32	341.26		7.26		5.36	47.15	3.94	20.87	-2.61	-22.51	3.721	3.927	3.239	3.337		$1/2^{+}$	0^+
8	33	343.05		7.15		5.73	48.57	1.79	21.57	-1.96	-23.01	3.770	3.989	3.237	3.334		$1/2^{+}$	1/2
9	34	345.61		7.05		4.35	48.96	2.56	21.75	-1.76	-23.41	3.818	4.041	3.254	3.351		1/2+	0^+
0	35	345.45		6.91		2.40	49.61	-0.16	22.18	-1.81	-23.89	3.874	4.106	3.268	3.365		1/2+	5/2
1	36	347.58		6.82		1.97	50.54	2.13	22.63	-1.01	-24.30	3.906	4.132	3.301	3.397		1/2+	0+
2	37	347.04		6.67		1.58	50.76	-0.55	23.01	-0.81	-24.76	3.957	4.187	3.323	3.418		1/2+	5/2
3	38	348.78		6.58		1.20	52.01	1.75	23.32	-0.71	-25.24	3.993	4.220	3.352	3.446		1/2+	0^{+}
4	39	348.14		6.45		1.10	52.79	-0.64	23.38	-0.74	-25.25	4.239	4.534	3.352	3.446		1/2+	1/2
55	40	349.42		6.35		0.63		1.28	23.96	-0.09	-26.09	4.087	4.316	3.403	3.495		1/2+	0+
6	41	348.87		6.23		0.73		-0.55		-0.05	-26.13	4.300	4.584	3.405	3.497		1/2+	1/2
57	42	348.62		6.12		-0.79		$\frac{0.05}{-0.24}$		0.33	-26.40	4.301	4.576	3.415	3.508		1/2+	0+
σ, σ	72	1.36		0.12		0.73		0.24		0.55	20.40	4.501	4.570	5.415	0.052		1/2	U
	_ ,_,	1.50													0.032			
Z = 1		107.21		4.67						22.47	2.00	2 274	2.627	2.640	2 725		0+	4 /2-
23	7	107.31		4.67			0.70	0= 00	$\frac{-1.51}{2.51}$	-22.17	2.90	3.371	2.627	3.649	3.735		0+	1/2
24	8	133.19		5.55		40.00	$\frac{-2.76}{2.21}$	25.88	$\frac{-0.51}{0.11}$	-23.07	2.08	3.212	2.677	3.448	3.540		0+	0+
5	9	150.32		6.01		43.00	-0.61	17.13	-0.14	-23.76	<u>1.18</u>	3.142	2.743	3.346	3.440		0+	5/2
6	10	171.70		6.60		38.51	1.53	21.38	0.72	-18.61	0.27	3.103	2.796	3.280	3.376		0+	0^+
7	11	187.51		6.94		37.19	3.29	15.81	1.46	-17.92	-0.60	3.072	2.840	3.223	3.321		0+	5/2
8	12	207.36	209.41	7.41	7.48	35.66	4.91	19.85	2.31	-17.37	-1.52	3.057	2.880	3.183	3.282		0+	0^+
9	13	222.61	224.71	7.68	7.66	35.10	5.93	15.25	2.92	-15.75	-2.27	3.031	2.899	3.134	3.234		0+	5/2
0	14	241.42	243.68	8.05	7.91	34.06	7.38	18.81	3.69	-15.54	-3.13	3.019	2.923	3.099	3.201		0^+	0^+
1	15	254.85	256.74	8.22	8.25	32.24	11.40	13.43	5.71	-15.31	-4.63	3.054	3.000	3.104	3.205		0^+	1/2
2	16	269.38	271.78	8.42	8.35	27.96	16.24	14.54	8.55	-12.85	-6.75	3.077	3.058	3.058	3.198	3.261	0^+	0+
3	17	278.50	280.42	8.44	8.48	23.65	18.51	9.12	9.43	-12.50	-7.84	3.124	3.131	3.117	3.218		0^+	3/2
4	18	289.64	291.84	8.52	8.46	20.26	20.30	11.14	10.24	-10.03	-8.88	3.168	3.194	3.138	3.238	3.285	0^+	0^{+}
5	19	297.92	298.82	8.51	8.51	19.42	22.02	8.27	10.94	-9.19	-9.79	3.218	3.262	3.166	3.266		0^+	3/2
6	20	308.55	308.71	8.57	8.45	18.90	23.91	10.63	11.95	-8.45	-10.82	3.262	3.317	3.190	3.289	3.298	0^{+}	0+
7	21	312.96	313.02	8.46	8.45	15.04	25.85	4.41	13.02	-9.14	-11.82	3.297	3.370	3.199	3.297		0^{+}	7/2
8	22	321.11	321.05	8.45	8.31	12.57	27.80	8.16	14.05	-6.12	-12.79	3.330	3.416	3.208	3.307		0^{+}	0+
9	23	324.58	325.43	8.32	8.27	11.63	29.74	3.47	15.16	-5.68	-13.77	3.364	3.463	3.217	3.315		0+	7/2
0	24	331.84	333.17	8.30	8.15	10.73	31.55	7.26	16.14	-5.35	-13.77 -14.69	3.399	3.508	3.228	3.325		0+	0 ⁺
														3.228			0+	
1	25	334.72	337.42	8.16	8.10	10.13	33.46	2.87	17.27	-7.43	-15.65	3.432	3.551		3.333			7/2
2	26	341.34	344.12	8.13	7.98	9.50	35.09	6.62	18.13	-4.72	-16.49	3.467	3.596	3.246	3.344		0+	0+
13	27	343.51	346.74	7.99	8.06	8.79	36.36	2.17	18.69	-4.74	-17.11	3.523	3.673	3.253	3.350		0+	3/2
14	28	349.71	351.82	7.95	7.99	8.37	38.23	6.20	19.82	-4.10	-18.09	3.540	3.688	3.264	3.361		0^+	0^+

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
45	29	352.09	354.68	7.82	7.88	8.58	39.63	2.38	20.54	-4.00	-18.78	3.586	3.749	3.270	3.366		0+	3/2
16	30	356.92		7.76		7.20	40.74	4.83	21.02	-3.57	-19.35	3.624	3.794	3.281	3.377		0^+	0^+
! 7	31	358.97		7.64		6.88	41.92	2.05	21.65	-3.18	-19.93	3.671	3.855	3.286	3.382		0^+	3/2
8	32	363.22		7.57		6.31	42.83	4.25	21.97	-3.07	-20.40	3.712	3.903	3.296	3.392		0^+	0^{+}
9	33	365.41		7.47		6.44	43.93	2.18	22.36	-2.53	-20.87	3.760	3.967	3.291	3.387		0^+	1/2
0	34	368.40		7.37		5.18	44.54	3.00	22.79	-2.30	-21.32	3.804	4.014	3.315	3.410		0^+	0^{+}
1	35	368.75		7.23		3.34	45.47	0.34	23.30	-2.33	-21.81	3.856	4.074	3.329	3.424		0^+	5/2
2	36	371.76		7.15		3.35	46.80	3.01	24.17	-1.67	-22.46	3.891	4.105	3.360	3.454		0^+	0^{+}
3	37	371.88		7.02		3.13	47.85	0.12	24.84	-1.49	-23.00	3.938	4.156	3.381	3.474		0^+	5/2
4	38	374.38		6.93		2.63	48.92	2.50	25.60	-1.35	-23.60	3.973	4.188	3.408	3.501		0^+	0+
5	39	374.29		6.81		2.41	50.23	-0.09	26.15	-0.42	-24.14	4.018	4.235	3.432	3.524		0^+	5/2
6	40	376.43		6.72		2.05	50.97	2.14	27.02	-0.50	-24.68	4.054	4.269	3.456	3.548		0^+	0+
7	41	375.89		6.59		1.60		-0.55	27.02	-0.50	-24.71	4.269	4.547	3.457	3.548		0^+	1/2
8	42	375.91		6.48		-0.52		0.03	27.29	0.18	-25.23	4.199	4.444	3.473	3.564		0^+	0+
		1.93													0.046			
	7 (Cl)																	
8	11	185.67		6.63			$\frac{-0.40}{}$		$\frac{-1.84}{1.000}$	-18.80	-0.32	3.160	2.867	3.336	3.430		3/2+	5/2
9	12	206.45		7.12			1.40	20.78	-0.91	-18.27	-1.23	3.134	2.909	3.283	3.379		3/2+	0+
0	13	222.45		7.42		36.78	2.77	16.00	-0.16	-16.79	-2.00	3.104	2.929	3.231	3.328		3/2+	5/2
1	14	242.02	243.98	7.81	7.87	35.57	4.28	19.56	0.60	-16.59	-2.87	3.095	2.963	3.199	3.297		3/2+	0+
2	15	256.77	258.31	8.02	8.07	34.32	7.63	14.75	1.92	-15.60	-4.43	3.114	3.028	3.188	3.287		3/2+	1/2
3	16	272.21	274.06	8.25	8.30	30.19	11.37	15.44	2.82	-14.06	-6.38	3.131	3.082	3.177	3.276		3/2+	0^+
4	17	282.86	285.56	8.32	8.40	26.09	13.79	10.65	4.36	-13.24	-7.29	3.171	3.151	3.192	3.291		3/2+	3/2
5	18	295.51	298.21	8.44	8.52	23.30	16.11	12.65	5.87	-11.45	-8.22	3.210	3.211	3.209	3.307	3.365	$3/2^{+}$	0^+
6	19	305.35	306.79	8.48	8.52	22.49	18.37	9.84	7.43	-9.78	-9.21	3.246	3.266	3.224	3.321		$3/2^{+}$	3/2
7	20	317.07	317.10	8.57	8.57	21.56	20.48	11.72	8.52	-9.45	-10.22	3.282	3.317	3.241	3.338	3.384	$3/2^{+}$	0^{+}
8	21	322.38	323.21	8.48	8.51	17.03	22.44	5.31	9.43	-9.43	-11.09	3.316	3.369	3.249	3.346		$3/2^{+}$	7/2
9	22	331.48	331.28	8.50	8.49	14.41	24.42	9.09	10.36	-7.08	-12.01	3.347	3.414	3.258	3.354		$3/2^{+}$	0^+
0	23	336.11	337.11	8.40	8.43	13.73	26.69	4.63	11.52	-6.64	-12.93	3.378	3.460	3.264	3.361		$3/2^{+}$	7/2
1	24	344.23	344.93	8.40	8.41	12.75	28.53	8.12	12.38	-6.29	-13.82	3.409	3.502	3.274	3.370		$3/2^{+}$	0^{+}
2	25	348.17	350.61	8.29	8.35	12.06	30.72	3.94	13.45	-5.89	-14.58	3.439	3.542	3.281	3.377		$1/2^{+}$	7/2
3	26	355.68	358.09	8.27	8.32	11.45	32.47	7.51	14.34	-5.62	-15.50	3.470	3.582	3.290	3.386		$1/2^{+}$	0^{+}
4	27	358.78	362.45	8.15	8.23	10.60	33.96	3.10	15.27	-4.83	-16.48	3.499	3.622	3.295	3.391		$1/2^{+}$	7/2
5	28	365.77	368.27	8.13	8.18	10.09	35.88	6.99	16.06	-4.81	-17.24	3.534	3.666	3.305	3.401		$1/2^{+}$	0^{+}
6	29	368.87	371.79	8.02	8.10	10.10	37.32	3.10	16.78	-4.70	-17.91	3.575	3.722	3.310	3.405		$1/2^{+}$	3/2
7	30	374.16		7.96		8.39	38.26	5.29	17.24	-4.09	-18.39	3.615	3.770	3.323	3.418		1/2+	0^+
8	31	376.74		7.85		7.86	39.42	2.58	17.77	-3.64	-18.89	3.661	3.831	3.328	3.423		1/2+	3/2
9	32	381.42		7.78		7.27	40.17	4.69	18.20	-3.56	-19.67	3.699	3.877	3.336	3.431		$3/2^{+}$	0^+
0	33	383.96		7.68		7.22	40.91	2.53	18.55	-3.13	-20.15	3.744	3.940	3.332	3.427		$3/2^{+}$	1/2
1	34	387.44		7.60		6.02	41.83	3.48	19.04	-2.82	-20.59	3.787	3.984	3.359	3.453		$3/2^{+}$	0^+
2	35	388.26		7.47		4.30	42.81	0.82	19.17	-2.82	-21.09	3.835	4.040	3.374	3.467		$3/2^{+}$	5/2
3	36	391.95		7.40		4.51	44.37	3.69	20.20	-2.28	-21.43	3.873	4.075	3.403	3.496		1/2+	0+
4	37	392.65		7.27		4.40	45.62	0.70	20.77	-2.09	-22.00	3.917	4.124	3.423	3.515		1/2+	5/2
5	38	395.77		7.20		3.81	46.98	3.11	21.38	-1.93	-22.66	3.951	4.156	3.448	3.540		1/2+	0+
6	39	396.25		7.08		3.59	48.11	0.48	21.96	-0.91	-23.24	3.993	4.201	3.470	3.561		1/2+	5/2
7	40	398.98		7.00		3.21	49.56	2.73	22.55	-0.96	-23.86	4.027	4.234	3.494	3.584		1/2+	0+
8	41	398.46		6.87		2.21	49.59	-0.52	22.57	-0.98	-23.87	4.236	4.507	3.495	3.585		1/2+	1/2
9	42	399.00		6.76		0.02	50.38	0.54	23.09	-0.08	-24.62	4.127	4.351	3.515	3.605		1/2+	0+
0	43	398.43		6.64		-0.03		-0.58	22.82	-0.04	-24.70	4.307	4.582	3.518	3.607		1/2+	1/2
1	44	398.52		6.53		$\frac{-0.48}{-0.48}$		0.10		0.06	-25.20	4.249	4.496	3.532	3.622		1/2+	0+
•	••	2.11		0.00				0.10		<u> </u>	20.20			3.532	0.052		-, -	ŭ
	8 (Ar)																	
= 1																		

Table 1 (continued)

Λ	NI	E _b ^{Cal.}	E _b Exp.	ECal. / A	E _b Exp. /A	C	C	C	C	1	1	D	D	D	$R_c^{\text{Cal.}}$	R _c Exp.	iπ (D)	iπ(N)
Α	N	(MeV)	(MeV)	E _b ^{Cal.} /A (MeV)	(MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	(fm)	(fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
29	11	185.53		6.40			<u>-1.98</u>	17.48	-0.14	-19.74	<u>1.19</u>	3.219	2.907	3.395	3.488		0^+	$5/2^{+}$
30	12	207.30		6.91		39.25	-0.06	21.77	0.86	-19.23	<u>0.25</u>	3.195	2.948	3.349	3.444		0+	0+
31	13	224.12		7.23		38.59	1.52	16.82	1.67	-17.80	-0.61	3.164	2.968	3.298	3.393		0+	$5/2^{+}$
32	14	244.69	246.40	7.65	7.70	37.39	3.27	20.57	2.67	-17.57	-1.60	3.156	3.004	3.269	3.365	3.346	0+	0+
33	15	260.46	261.66	7.89	7.93	34.28	5.62	15.77	3.69	-17.32	-2.51	3.167	3.057	3.255	3.352	3.343	0+	1/2+
34	16	276.72	278.72	8.14	8.20	32.03	7.33	16.26	4.51	-15.04	-3.33	3.180	3.106	3.244	3.341	3.365	0+	0+
35	17	288.87	291.46	8.25	8.33	28.41	10.37	12.16	6.02	-14.57	-4.74	3.215	3.172	3.256	3.353	3.363	0+	3/2+
36	18	303.03	306.72	8.42	8.52	26.32	13.39	14.16	7.52	-12.87	-6.14	3.251	3.230	3.271	3.368	3.390	0+	0+
37	19	314.31	315.50	8.49	8.53	25.44	16.39	11.27	8.96	-11.65	-7.44	3.282	3.282	3.282	3.378	3.390	0+	$3/2^{+}$
38	20	327.54	327.34	8.62	8.61	24.50	18.99	13.23	10.47	-10.70	-8.72	3.313	3.328	3.295	3.391	3.402	0+	0+
39	21	334.09	333.94	8.57	8.56	19.78	21.13	6.55	11.70	-11.26	-9.80	3.340	3.375	3.299	3.394	3.409	0+	$7/2^{-}$
40	22	344.26	343.81	8.61	8.60	16.73	23.15	10.18	12.79	-8.10	-10.81	3.368	3.418	3.305	3.401	3.427	0+	0+
41	23	349.78	349.91	8.53	8.53	15.70	25.20	5.52	13.68	-7.62	-11.84	3.395	3.461	3.309	3.405	3.425	0+	$7/2^{-}$
42	24	358.94	359.34	8.55	8.56	14.68	27.10	9.16	14.71	-7.24	-12.79	3.423	3.501	3.317	3.412	3.441	0+	0+
43	25	363.85	364.99	8.46	8.49	14.06	29.13	4.90	15.68	-6.79	-13.79	3.449	3.538	3.321	3.416	3.435	0+	$7/2^{-}$
44	26	372.26	373.73	8.46	8.49	13.32	30.92	8.41	16.58	-6.50	-14.68	3.477	3.576	3.328	3.423	3.445	0+	0+
45	27	376.48	378.90	8.37	8.42	12.63	32.97	4.22	17.71	-5.54	-15.67	3.498	3.606	3.330	3.425		0+	$7/2^{-}$
46	28	384.22	386.92	8.35	8.41	11.96	34.51	7.74	18.45	-5.51	-16.45	3.531	3.648	3.340	3.434	3.436	0+	0+
47	29	388.03	390.48	8.26	8.31	11.55	35.94	3.80	19.15	-5.41	-17.15	3.569	3.701	3.344	3.439		0+	3/2-
48	30	393.70		8.20		9.48	36.78	5.67	19.54	-4.66	-17.63	3.611	3.755	3.359	3.453		0+	0+
49	31	396.86		8.10		8.83	37.89	3.16	20.12	-4.12	-18.18	3.653	3.811	3.363	3.363		0+	3/2-
50	32	402.03		8.04		8.33	38.81	5.17	20.61	-4.05	-18.67	3.692	3.859	3.376	3.470		0+	0+
51	33	404.93		7.94		8.07	39.52	2.90	20.97	-3.70	-19.02	3.738	3.921	3.376	3.469		0+	1/2-
52	34	408.97		7.86		6.94	40.57	4.04	21.53	-3.35	-19.65	3.777	3.961	3.402	3.495		0+	0+
53	35	410.40		7.74		5.47	41.65	1.43	22.14	-2.73	-20.36	3.821	4.009	3.425	3.517		0+	1/2-
54	36	414.67		7.68		5.70	42.92	4.27	22.72	-2.86	-20.80	3.857	4.050	3.440	3.532		0+	0 ⁺
55	37	415.94		7.56		5.54	44.06	1.27	23.29	-2.68	-21.34	3.899	4.097	3.458	3.550		0+	5/2-
56	38	419.68		7.49		5.01	45.30	3.74	23.91	-2.50	-21.97	3.933	4.130	3.483	3.573		0 ⁺	0 ⁺
57	39	420.74		7.38		4.80	46.45	1.06	24.49	-1.43	-22.51	3.974	4.173	3.503	3.593		0 ⁺	5/2-
58	40	424.09		7.31		4.41	47.66	3.35	25.12	-1.47	-23.11	4.007	4.206	3.526	3.616		0^{+}	0 ⁺
59	41	423.62		7.18 7.08		2.88 0.79	47.74 48.97	$\frac{-0.47}{1.25}$	25.17	-1.49	-23.15 -23.99	4.203	4.468 4.297	3.527 3.550	3.616		0+	$\frac{1/2^{+}}{0^{+}}$
60	42	424.88				0.79	48.97 48.91		25.88	-0.42		4.087			3.639		0+	1/2+
61	43	424.40		6.96			48.91	$\frac{-0.48}{0.61}$	25.97	-0.41	-24.07	4.264	4.528	3.552	3.641		0+	0+
62	44	425.01		6.86		0.13		0.61	26.49	-0.23	-24.71	4.182	4.407	3.571 3.574	3.659		0+	
63 64	45 46	424.48		6.74		0.09		$\frac{-0.53}{0.44}$		-0.20	-24.84	4.333	4.602		3.662		0+	$\frac{1/2^{+}}{0^{+}}$
	40	424.92		6.64		-0.09		0.44		-0.14	-25.34	4.282	4.524	3.588	3.676		U.	U.
σ	0 (11)	1.82													0.019			
Z=1		222.01		6.07			0.46		0.00	1074	1.00	ວ ງວງ	2.001	2 201	2 474		2/2+	5/2 ⁺
32	13	222.91		6.97				21.50	$\frac{-0.99}{0.21}$	-18.74	$\frac{1.09}{0.07}$	3.232	3.001	3.381	3.474		3/2 ⁺ 3/2 ⁺	5/2 ' 0 ⁺
33	14	244.48		7.41		20 21	2.47	21.58	$\frac{-0.21}{0.76}$	-18.52	$\frac{0.07}{0.70}$	3.219	3.036	3.347	3.442			
34	15 16	261.22	270.00	7.68	7.07	38.31	4.45	16.73	0.76	-17.34	-0.79	3.221	3.083	3.326	3.421		$3/2^{+}$	$\frac{1/2^{+}}{0^{+}}$
35	16	278.15	278.80	7.95	7.97	33.67	5.95	16.93	1.44	-15.89	-1.79	3.239	3.139	3.322	3.417		$3/2^{+}$	
36	17	291.85	293.12	8.11	8.14	30.63	9.00	13.70	2.98	-15.46	-2.97	3.259	3.190	3.319	3.414		$3/2^{+}$	$3/2^{+}$
37	18	307.44	308.57	8.31	8.34	29.29	11.93	15.59	4.40	-14.15	-4.30 5.30	3.289	3.245	3.329	3.424	2.426	3/2 ⁺	0 ⁺
38	19	320.00	320.65	8.42	8.44	28.15	14.66	12.57	5.70	-11.79	-5.39	3.313	3.292	3.335	3.429	3.426	$3/2^{+}$	$\frac{3}{2}^{+}$ 0^{+}
39 40	20	334.49	333.72	8.58	8.56	27.06	17.42	14.49	6.96	-11.83	-6.80	3.339	3.335	3.343	3.438	3.435	$3/2^{+}$	
40	21	342.11	341.52	8.55	8.54	22.11	19.73	7.62	8.03	-11.40	-7.78	3.363	3.380	3.344	3.438	3.438	3/2+	$\frac{7/2^{-}}{0^{+}}$
41	22	353.30	351.62	8.62	8.58	18.80	21.82	11.18	9.03	-9.09	-9.13	3.387	3.420	3.348	3.442	3.452	$3/2^{+}$	-
42	23	359.81	359.15	8.57	8.55	17.69	23.70	6.51	10.02	-8.57	-10.03	3.411	3.460	3.350	3.444	3.452	3/2 ⁺	$7/2^{-}$
43	24	369.88	368.78	8.60	8.58	16.58	25.65	10.07	10.93	-8.14	-10.92	3.436	3.499	3.355	3.449	3.455	3/2+	0+
44	25	375.86	376.05	8.54	8.55	16.05	27.68	5.98	12.01	-7.97	-11.61	3.459	3.533	3.359	3.453	3.456	1/2+	$7/2^{-}$
45	26	385.35	384.96	8.56	8.55	15.47	29.67	9.49	13.09	-7.62	-12.54	3.483	3.567	3.364	3.458	3.460	1/2+	0 ⁺
46	27	391.04	391.83	8.50	8.52	15.18	32.26	5.69	14.55	-6.28	-13.31	3.498	3.591	3.361	3.455	3.455	$1/2^{+}$	$7/2^{-}$

Table 1 (continued)

30 409.70 410.24 8.36 8.39 10.07 35.54 5.84 16.00 -4.98 -15.85 3.610 3.740 3.394 3.487 1/2+ 0+ 31 413.33 414.43 8.27 8.28 9.46 36.59 3.63 16.47 -4.62 -16.51 3.646 3.792 3.394 3.487 3/2+ 3/2 1/2 3/2 3/2 3/2 1/2 3/2 3/2 3/2 1/2 3/2 3/2 1/2 3/2 3/2 1/2 3/2 3/2 3/2 3/2 3/2 3/2<	A	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
90 49070 41024 8.36 8.39 1007 35.54 5.84 16.00 -4.98 -15.85 3.610 3.740 3.394 3.487 1/2* 07 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	47	28	399.63	400.20	8.50	8.51	14.28	33.86	8.59	15.41	-6.22	-14.93	3.524	3.626	3.368	3.462	3.453	1/2+	0+
31 41333 41449 827 828 946 36.59 36.29 16.47 -4.62 -1.651 36.46 37.92 3.394 3.487 3.72 3.72 3.72 3.72 3.72 3.72 3.72 3.7	18	29	403.87	404.84	8.41	8.43	12.86	34.99	4.24	15.84	-6.12	-14.97	3.566	3.685	3.376	3.469			3/2
32 418-99 8.22 9.29 37.56 5.66 16.06 -4.57 -17.05 3.685 3.840 3.409 3.501 3.27 10.72 13.3 442.88 8.12 8.85 38.22 31.0 17.25 -4.31 17.17 17.05 3.685 3.840 3.409 3.501 3.27 17.25 14.00 17.25 18.00 17.	19	30	409.70	410.24	8.36	8.39	10.07	35.54	5.84	16.00	-4.98	-15.85	3.610	3.740	3.394	3.487			-
33 4 42218 8 8.12 8.85 38.22 3.19 17.25 -4.31 -17.41 3.731 3.902 3.413 3.505 3/2* 17.5 14.4 42682 8 8.65 7.83 3.938 4.44 17.85 -3.87 -18.02 7.67 3.98 3.438 3.330 3.7° 2.0° 5.0° 5.0° 5.0° 5.0° 5.0° 5.0° 5.0° 5	0	31	413.33	414.43		8.28			3.63				3.646						3/2
44 428.82	51	32	418.99		8.22		9.29	37.56	5.66	16.96	-4.57	-17.05	3.685	3.840	3.409	3.501			0^+
35 429.00	52	33	422.18		8.12		8.85	38.22	3.19	17.25	-4.31	-17.41	3.731	3.902	3.413	3.505			1/2
38 433.60	3	34	426.82		8.05		7.83	39.38	4.64	17.85	-3.87	-18.02	3.767	3.938	3.438	3.530		$3/2^{+}$	0^+
37 435.40 7.78 6.40 42.75 180 19.46 -32.5 -19.56 3.84 40.72 3.490 3.580 3.72 5.73 38 439.73 7.71 6.12 43.96 43.33 20.05 -3.06 -20.24 3.891 4.10 3.512 3.600 3.72 0.72 5.73 39 441.33 7.61 5.93 45.08 1.60 20.59 -2.06 -2.024 3.861 4.151 3.538 3.607 1.72 5.74 40 445.38 7.55 5.66 46.41 40.5 21.29 -2.09 -2.09 1 39.92 4.152 3.500 3.649 1.72 0.74 41 444.88 7.41 3.55 46.42 -0.51 2.125 -2.13 -2.090 4.192 4.453 3.562 3.861 1.72 17.74 42 447.18 7.33 1.79 48.27 2.00 1.82 48.27 -0.57 2.230 -0.89 -2.13 4.09 4.192 4.453 3.562 3.861 1.72 17.74 43 446.70 7.20 1.12 48.27 -0.47 2.230 -0.89 -2.21 4.19 4.49 4.49 3.388 3.676 1.72 17.74 44 446.72 7.00 1.82 48.27 -0.47 2.230 -0.89 -2.21 4.19 4.49 3.388 3.676 1.72 17.74 45 446.70 6.99 0.58 1.02 2.30 -0.92 -2.21 4.19 4.19 4.19 4.19 3.18 3.19 4.19 4.19 4.19 4.19 4.19 4.19 4.19 4	4	35	429.00		7.94		6.82	40.74	2.18	18.60	-3.36	-18.57	3.808	3.986	3.457	3.548			1/2
38 44913	5	36	433.60		7.88		6.78	41.65	4.60	18.93	-3.43	-19.08	3.844	4.026	3.473	3.564			0^+
99 44133 7,61 5,93 45,08 160 20,59 -2.09 -2.04 3,961 4,151 3,538 3,627 1/2" 5/4 40 445,38 7,41 3,55 46,42 -0.51 21,25 -2.19 -2.09 1,399 4,182 3,563 3,649 1/2" 5/4 41 444,88 7,41 3,55 46,42 -0.51 21,25 -2.13 -2.09 4,192 4,63 3,562 3,651 1/2" 1/2" 1/4 42 447,18 7,33 1.79 48,17 2,30 22,30 -0.89 -2.11 4,239 4,653 3,563 3,676 1/2" 1/2" 1/4 43 446,70 7,20 1.82 48,27 -0.47 22,30 -0.90 -22,11 4,239 4,97 3,588 3,676 1/2" 1/2" 1/4 45 447,77 6,99 0.97 -0.44 23,19 -0.62 -22,99 4,947 3,588 3,676 1/2" 1/2" 1/4 46 448,70 6,99 0.93 -0.97 -0.44 23,19 -0.62 -22,99 4,947 3,588 3,676 1/2" 1/2" 1/4 47 448,25 6,79 0.58 -0.38 -0.44 22,319 -0.62 -22,99 4,947 4,951 3,612 3,699 1/2" 1/2" 1/4 48 449,09 6,70 0.40 0.58 -0.44 22,08 -0.46 -2.358 42,14 4,551 3,612 3,699 1/2" 1/2" 1/4 48 449,09 6,70 0.40 0.58 -0.44 22,08 -0.46 -2.358 42,14 4,551 3,612 3,699 1/2" 1/2" 1/4 48 448,09 6,50 0.70 0.40 0.58 -0.47 22,57 -0.47 2,414 4,420 4,454 3,653 3,739 1/2" 1/2" 1/4 49 448,62 6,59 0.36 -0.47 22,57 -0.35 -2.434 4,420 4,684 3,653 3,739 1/2" 1/2" 1/4 49 448,62 6,59 0.36 0.24 -0.59 2,29 -0.47 2,257 -0.35 -2.434 4,420 4,684 3,653 3,739 1/2" 1/2" 1/4 40 448,64 6,69 0.24 -0.59 0.78 0.03 -0.38 -0.33 -0.44 2,208 -0.45 -2.508 4,89 4,758 3,679 3,756 1/2" 1/2" 1/4 56 448,64 6,69 0.24 -0.59 0.24 -0.59 0.24 -0.29 -2.526 4,474 4,480 4,684 3,651 3,719 1/2" 1/2" 1/4 57 448,66 6,40 0.24 -0.59 0.68 -0.33 -0.24 -0.28 -2.509 4,497 3,488 3,759 3,756 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2"	6	37	435.40		7.78		6.40	42.75	1.80	19.46	-3.25	-19.56	3.884	4.072	3.490	3.580		$3/2^{+}$	5/2
440	7	38	439.73		7.71		6.12	43.96	4.33	20.05	-3.06	-20.18	3.917	4.104	3.512	3.602			0^+
442 444.88 7.41 3.55 46.42	8	39	441.33		7.61		5.93	45.08	1.60	20.59	-2.06	-20.24	3.961	4.151	3.538	3.627		1/2+	5/2
42	9	40	445.38		7.55		5.66	46.41	4.05	21.29	-2.09	-20.91	3.992	4.182	3.560	3.649		1/2+	0^+
444 446.70	60	41	444.88		7.41		3.55	46.42	-0.51	21.25	-2.13	-20.90	4.192	4.453	3.562	3.651		1/2+	1/2
444 44812 7.11 0.94 49.59 142 23.11 -0.62 -22.76 4.13 4.341 3.610 3.697 1/2* 0.74 4.44 448.70 6.90 0.58 10.2 23.71 -0.62 -22.99 4.294 4.551 3.612 3.699 1/2* 0.74 4.484.70 6.90 0.58 10.2 23.77 -0.47 -23.48 4.216 4.455 3.630 3.717 1/2* 0.74 4.484.70 6.90 0.58 10.2 23.77 -0.46 -23.68 4.355 4.614 3.633 3.70 1/2* 0.74 4.484.70 6.90 0.58 10.2 23.77 -0.47 -23.48 4.216 4.455 3.630 3.717 1/2* 0.74 4.484.70 6.90 0.58 10.2 23.77 -0.47 2.24 4.24 4.451 3.630 3.717 1/2* 0.74 4.484.80 6.50 6.50 0.36 1.04 0.084 2.03 1 -0.39 -24.10 4.30 2 4.554 3.630 3.775 1/2* 0.74 4.99 4.486 6.33 0.30 0.30 0.084 2.03 1 -0.39 -24.10 4.30 2 4.554 3.648 3.735 1/2* 0.74 4.99 3.655 0.659 0.36 0.78 20.86 -0.33 -24.75 4.39 4.644 3.633 3.79 1/2* 0.75 1.44 4.856 6.40 0.24 0.24 0.254 0.256 0.35 -2.43 4.420 4.684 3.633 3.79 1/2* 0.75 1.44 4.856 6.40 0.24 0.254 0.259 0.80 0.80 -2.256 4.44 4.731 3.669 3.751 1/2* 0.75 1.44 4.856 6.40 0.24 0.254 0.254 0.205 0.28 -25.06 4.489 4.758 3.670 3.765 1/2* 0.75 1.44 4.955 6.66 6.33 0.15 0.69 0.79 2.149 0.22 -25.58 4.561 4.836 3.686 3.775 1/2* 0.75 1.44 4.99 5.66 6.66 0.08 0.08 0.090 0.16 0.022 0.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1	1	42	447.18		7.33		1.79	48.17	2.30	22.30	-0.89	-21.93	4.059	4.256	3.586	3.674		1/2+	0+
44 448.12 7.11 0.94 49.59 1.42 23.11 -0.62 -22.76 4.134 4.341 3.610 3.697 1.1/2 ⁺ 0.1/4 64 448.70 6.90 0.58 1.02 23.77 -0.47 -22.48 4.216 4.435 3.630 3.717 1.1/2 ⁺ 0.1/4 64 448.70 6.90 0.58 1.02 23.77 -0.47 -23.48 4.216 4.435 3.630 3.717 1.1/2 ⁺ 0.1/4 64 448.70 6.90 0.58 1.02 23.77 -0.47 -23.48 4.216 4.435 3.630 3.710 1.1/2 ⁺ 0.1/4 64 448.70 6.90 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2	43	446.70		7.20		1.82	48.27	-0.47		-0.90	-22.11	4.239	4.497	3.588	3.676		1/2+	1/2
45	3	44	448.12		7.11		0.94	49.59		23.11		-22.76	4.134	4.341	3.610	3.697		1/2+	0+
46 448.70 6.90 0.58 10.2 23.77 -0.47 -23.48 4.216 4.435 3.630 3.717 1/2+ 0+ 447 448.25 6.79 0.58 -0.44 22.08 -0.46 -23.68 4.355 4.614 3.633 3.720 1/2+ 1/2+ 1/2+ 1/2+ 48 449.09 6.70 0.40 0.84 20.31 -0.39 -24.10 4.302 4.534 3.648 3.575 1/2+ 1/2+ 1/2+ 1/2+ 1/2+ 1/2+ 1/2+ 1/2+	4	45	447.67				0.97		-0.44	23.19		-22.99	4.294	4.551		3.699		1/2+	1/2
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)	30	427.34	427.51	8.55	8.55	11.95	33.65	6.65	17.64	-5.80	-14.60	3.611	3.731	3.423	3.515	3.517	0^+	0^+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
51	31	431.60	432.33	8.46	8.48	10.91	34.74	4.26	18.28	-5.11	-15.14	3.649	3.784	3.429	3.521		0+	3/2-
52	32	437.73	438.32	8.42	8.43	10.38	35.70	6.13	18.74	-5.07	-15.67	3.686	3.829	3.445	3.537		0+	0^+
53	33	441.20		8.32		9.60	36.28	3.47	19.02	-4.86	-16.06	3.730	3.889	3.451	3.543		0^+	$1/2^{-}$
54	34	446.65		8.27		8.92	37.68	5.45	19.83	-4.46	-16.76	3.763	3.923	3.475	3.565		0^+	0^+
55	35	449.51		8.17		8.31	39.11	2.86	20.51	-4.06	-17.35	3.803	3.971	3.491	3.582		0^+	$1/2^{-}$
56	36	454.65		8.12		8.00	39.98	5.14	21.05	-4.06	-17.90	3.837	4.008	3.508	3.598		0^+	0^+
57	37	457.03		8.02		7.52	41.09	2.38	21.63	-3.89	-18.46	3.875	4.053	3.524	3.613		0^+	$5/2^{-}$
58	38	462.05		7.97		7.39	42.37	5.01	22.32	-3.69	-19.07	3.908	4.086	3.544	3.634		0^+	0^+
59	39	464.23		7.87		7.20	43.49	2.18	22.90	-2.56	-19.59	3.945	4.128	3.561	3.650		0^+	$5/2^{-}$
60	40	468.81		7.81		6.77	44.72	4.58	23.43	-2.57	-20.23	3.976	4.158	3.582	3.670		0^+	0^+
61	41	468.48		7.68		4.25	44.86	-0.34	23.60	-7.68	-20.26	4.146	4.395	3.583	3.672		0^+	$1/2^{+}$
62	42	471.49		7.60		2.68	46.61	3.01	24.32	-1.31	-21.25	4.038	4.229	3.606	3.694		0^+	0^+
63	43	471.20		7.48		2.72	46.80	-0.30	24.50	-1.33	-21.34	4.191	4.437	3.608	3.695		0^+	1/2+
64	44	473.23		7.39		1.74	48.22	2.04	25.11	-0.99	-22.20	4.107	4.307	3.629	3.716		0^+	0+
65	45	472.98		7.28		1.78	48.50	-0.25	25.31	-1.00	-22.30	4.242	4.487	3.631	3.718		0^{+}	1/2+
66	46	474.53		7.19		1.30	49.61	1.55	25.84	-0.82	-22.98	4.182	4.393	3.649	3.736		0^+	$0^{'+}$
57	47	474.29		7.08		1.31	48.12	-0.25	26.03	-0.80	-23.14	4.299	4.545	3.653	3.739		0^+	1/2 ⁺
58	48	475.59		6.99		1.06	46.81	1.30	26.50	-0.70	-23.69	4.261	4.485	3.667	3.754		0^{+}	0+
69	49	475.31		6.89		1.02	49.26	-0.28	26.69	-0.67	-23.87	4.360	4.612	3.672	3.758		0^{+}	1/2 ⁺
70	50	476.50		6.81		0.91	47.97	1.20	27.11	-0.63	-24.33	4.341	4.578	3.684	3.769		0+	0+
71	51	476.14		6.71		0.83	49.34	-0.36	27.11	-0.56	-24.53 -24.53	4.426	4.683	3.690	3.776		0+	1/2 ⁺
72	52	477.32		6.63		0.83	49.18	1.19	27.68	-0.56	-24.33 -24.88	4.421	4.669	3.699	3.784		0+	0+
73	53						49.10										0+	
		476.83		6.53		0.69		$\frac{-0.49}{1.22}$	27.83	-0.47	-25.13	4.496	4.761	3.706	3.792			1/2+
74	54	478.06		6.46		0.74		1.23	28.21	-0.50	-25.44	4.499	4.757	3.713	3.798		0 ⁺	0 ⁺
75	55	477.40		6.37		0.57		<u>-0.66</u>	28.31	-0.38	-25.66	4.572	4.845	3.721	3.806		0+	1/2+
76	56	478.71		6.30		0.64		1.31	28.70	-0.41	-25.91	4.574	4.841	3.726	3.811		0+	0+
77	57	478.10		6.21		0.70		-0.60	28.91	-0.43	-26.09	4.645	4.926	3.730	3.815		0+	3/2+
78	58	479.21		6.14		0.50		1.11	29.12	-0.30	-26.37	4.649	4.924	3.740	3.824		0+	0+
79	59	478.61		6.06		0.51		-0.60	31.86	-0.25	-26.58	4.710	4.996	3.743	3.827		0+	3/2+
80	60	479.49		5.99		0.29		0.88		-0.13	-26.78	4.726	5.009	3.752	3.836		0+	0+
81	61	478.65		5.91		0.04		-0.84		0.20	-27.00	4.786	5.079	3.756	3.840		0^+	3/2 ⁺ 0 ⁺
82	62	479.34		5.85		-0.16		0.68		0.23	-27.15	4.803	5.093	3.766	3.850		0^+	0^+
σ		1.09													0.015			
	1 (Sc)	176.60		F F2				24.70		24.52	2.40	4.400	2.00	4.000	4.700		7./2-	F /5 !
32	11	176.62		5.52		45.40		21.79		-21.50	3.19	4.180	2.967	4.692	4.760		7/2-	5/2+
33	12	200.32		6.07		45.49		23.70		-21.07	2.49	4.118	3.009	4.634	4.703		7/2-	0+
34	13	218.71		6.43		42.09	<u>-4.19</u>	18.40	$\frac{-4.80}{1.00}$	-19.72	1.64	4.036	3.035	4.547	4.617		7/2-	5/2+
35	14	242.64		6.93		42.32	-1.84	23.93	$\frac{-3.46}{1.00}$	-19.48	0.73	3.970	3.068	4.471	4.542		1/2-	0+
6	15	260.23		7.23		41.52	-0.99	17.59	-3.45	-18.55	-0.09	3.947	3.109	4.449	4.521		$1/2^{-}$	1/2+
7	16	278.89		7.54		36.25	0.74	18.66	-2.75	-17.85	-1.25	3.336	3.179	3.452	3.543		$7/2^{-}$	0+
38	17	294.50		7.75		34.27	2.65	15.62	<u>-1.88</u>	-17.47	-2.28	3.344	3.224	3.438	3.530		$7/2^{-}$	$3/2^{+}$
39	18	312.80	312.52	8.02	8.01	33.91	5.36	18.29	-0.66	-16.48	-3.37	3.361	3.270	3.437	3.529		7/2-	0^+
10	19	327.68	326.95	8.19	8.17	33.18	7.68	14.88	0.40	-14.03	-4.34	3.376	3.310	3.434	3.526		7/2-	$3/2^{+}$
11	20	344.59	343.14	8.40	8.37	31.79	10.09	16.91	1.52	-14.02	-5.71	3.394	3.349	3.436	3.528		7/2-	0+
12	21	354.34	354.69	8.44	8.44	26.66	12.23	9.75	2.53	-13.34	-6.49	3.411	3.389	3.433	3.525	3.570	$7/2^{-}$	$7/2^{-}$
13	22	367.57	366.83	8.55	8.53	22.98	14.27	13.23	3.51	-11.11	-7.94	3.430	3.427	3.433	3.525	3.558	7/2-	0^{+}
44	23	376.19	376.52	8.55	8.56	21.85	16.39	8.62	4.52	-10.58	-8.90	3.448	3.463	3.431	3.523	3.543	7/2-	7/2-
15	24	388.24	387.85	8.63	8.62	20.67	18.36	12.05	5.47	-10.12	-10.21	3.468	3.497	3.433	3.525	3.546	7/2-	0+
46	25	396.13	396.61	8.61	8.62	19.94	20.27	7.89	6.48	-9.63	-10.48	3.485	3.529	3.431	3.523	3.524	$\frac{7}{2}$	7/2-
	26	407.27	407.25	8.67	8.67	19.03	21.92	11.14	7.41	-9.25	-11.40	3.505	3.561	3.434	3.526	3.521	7/2-	0+
			107.23	0.07	0.07													
47			415 49	8 64	8 66	18 <i>4</i> 8	23 57	7 33	8 46	_7 84	_1197	3 5 1 7	3 583	3 470	3 5 9 9		7/2-	7 / つー
	27 28	414.60 424.87	415.49 425.62	8.64 8.67	8.66 8.69	18.48 17.60	23.57 25.24	7.33 10.27	8.46 9.48	-7.84 -7.74	-11.97 -13.42	3.517 3.536	3.583 3.613	3.429 3.432	3.522 3.524		7/2 ⁻ 7/2 ⁻	$\frac{7/2^{-}}{0^{+}}$

Table 1 (continued)

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
51	30	437.73	438.43	8.58	8.60	12.86	28.03	7.15	10.39	-6.32	-14.88	3.614	3.719	3.459	3.550		7/2-	0+
52	31	442.46	443.45	8.51	8.53	11.88	29.13	4.73	10.86	-5.66	-15.28	3.651	3.771	3.466	3.557		$7/2^{-}$	3/2
53	32	449.13	449.46	8.47	8.48	11.40	30.14	6.66	11.40	-5.61	-15.85	3.687	3.815	3.482	3.573		$7/2^{-}$	0^{+}
4	33	453.03	453.02	8.39	8.39	10.57	30.85	3.90	11.82	-5.42	-16.23	3.728	3.872	3.489	3.580		$7/2^{-}$	1/2
5	34	459.17	457.47	8.35	8.31	10.04	32.35	6.14	12.52	-5.03	-16.81	3.761	3.906	3.512	3.602		$7/2^{-}$	0^+
6	35	462.63		8.26		9.61	33.64	3.46	13.12	-4.69	-17.31	3.799	3.953	3.528	3.617		$7/2^{-}$	1/2
7	36	468.33		8.22		9.16	34.73	5.69	13.68	-4.64	-17.87	3.832	3.990	3.546	3.635		$7/2^{-}$	0^{+}
8	37	471.27		8.13		8.63	35.87	2.94	14.23	-4.47	-18.38	3.869	4.033	3.561	3.649		$7/2^{-}$	5/2
9	38	476.90		8.08		8.57	37.18	5.64	14.86	-4.28	-19.08	3.900	4.066	3.581	3.669		$7/2^{-}$	0^+
0	39	479.65		7.99		8.38	38.32	2.75	15.42	-3.11	-19.57	3.936	4.108	3.597	3.685		$7/2^{-}$	5/2
1	40	484.86		7.95		7.96	39.47	5.21	16.04	-3.15	-20.29	3.967	4.138	3.617	3.705		$7/2^{-}$	0^+
2	41	485.07		7.82		5.42	40.19	0.21	16.59	-3.14	-20.79	3.997	4.172	3.630	3.717		$7/2^{-}$	9/2
3	42	488.61		7.76		3.75	41.44	3.55	17.12	-1.81	-21.45	4.025	4.204	3.641	3.728		$7/2^{-}$	0^{+}
4	43	488.37		7.63		3.31	41.67	-0.24	17.18	-1.84	-21.54	4.170	4.404	3.643	3.730		$7/2^{-}$	1/2
5	44	491.32		7.56		2.71	43.20	2.95	18.09	-1.44	-22.42	4.087	4.274	3.665	3.751		$7/2^{-}$	0^{+}
5	45	491.16		7.44		2.79	43.48	-0.16	18.18	-1.47	-22.58	4.215	4.448	3.667	3.753		$7/2^{-}$	1/
7	46	493.47		7.37		2.15	44.77	2.31	18.93	-1.20	-23.19	4.153	4.350	3.686	3.772		$7/2^{-}$	0^{+}
8	47	493.36		7.26		2.21	45.11	-0.10	19.08	-1.22	-23.37	4.265	4.498	3.689	3.775		$7/2^{-}$	1/
9	48	495.26		7.18		1.79	46.16	1.89	19.67	-1.04	-23.84	4.224	4.432	3.706	3.791		7/2-	0+
0	49	495.18		7.07		1.81	46.56	-0.08	19.87	-1.03	-24.02	4.320	4.556	3.710	3.795		7/2-	1/
1	50	496.81		7.00		1.56	47.42	1.63	20.31	-0.93	-24.66	4.299	4.519	3.723	3.808		7/2-	0+
2	51	496.71		6.90		1.53	47.86	-0.10	20.57	-0.89	-24.73	4.380	4.622	3.728	3.813		7/2-	1/
3	52	498.21		6.82		1.40	48.57	1.50	20.89	-0.84	-25.41	4.376	4.609	3.738	3.823		7/2-	0+
4	53	498.03		6.73		1.32	49.03	-0.18	21.20	-0.76	-25.58	4.445	4.694	3.744	3.829		$7/2^{-}$	1/
5	54	499.50		6.66		1.28	49.65	1.46	21.43	-0.75	-25.90	4.453	4.698	3.752	3.836		7/2-	0+
6	55	499.17		6.57		1.13	50.08	-0.33	21.77	-0.64	-26.05	4.515	4.773	3.759	3.843		7/2-	3/
7	56	500.65		6.50		1.16	50.65	1.49	21.95	-0.66	-26.34	4.530	4.785	3.764	3.849		7/2-	0+
8	57	500.24		6.41		1.08	51.06	-0.41	22.14	-0.69	-26.50	4.594	4.864	3.768	3.852		7/2-	3/2
79	58	501.63		6.35		0.98	51.55	1.39	22.42	-0.53	-26.72	4.605	4.871	3.777	3.861		7/2-	0+
0	59	501.27		6.27		1.03	54.52	-0.36	22.66	-0.49	-26.94	4.662	4.939	3.779	3.863		7/2-	3/
1	60	502.35		6.20		0.72	53.02	1.08	22.86	-0.34	-27.13	4.682	4.957	3.789	3.872		$7/2^{-}$	0+
2	61	501.75		6.12		0.48		-0.60	23.09	0.00	-27.26	4.738	5.022	3.791	3.875		7/2-	3/
3	62	502.59		6.06		0.24		0.85	23.26	0.02	-27.37	4.758	5.040	3.803	3.886		7/2-	0+
4	63	500.98		5.96		-0.77		-1.62		0.37	-27.49	4.854	5.154	3.816	3.899		7/2-	3/2
5	64	501.83		5.90		$\frac{-0.76}{-0.76}$		0.86		0.40	-27.67	4.817	5.099	3.832	3.915		7/2-	0+
		0.90													0.028		- / -	_
	22 (Ti)														0.020			
8	16	279.57		7.36			-2.06		0.68	-18.77	1.39	3.373	3.192	3.500	3.590		0^+	0^{+}
9	17	296.08		7.59			-0.30	16.51	1.58	-18.36	0.49	3.380	3.235	3.487	3.578		0^+	3/
0	18	315.42	314.49	7.89	7.86	35.85	1.95	19.33	2.62	-17.46	-0.49	3.393	3.280	3.483	3.574		0^{+}	0+
1	19	331.28	329.41	8.08	8.03	35.20	4.00	15.86	3.60	-15.59	-1.45	3.405	3.317	3.479	3.569		0+	3/
2	20	349.24	346.89	8.32	8.26	33.82	6.17	17.96	4.65	-15.00	-2.48	3.420	3.355	3.479	3.570		0+	0+
3	21	359.96	359.18	8.37	8.35	28.68	8.15	10.72	5.62	-15.04	-3.44	3.435	3.394	3.474	3.565		0+	7/
4	22	374.14	375.47	8.50	8.53	24.91	10.08	14.18	6.57	-12.04	-4.36	3.452	3.430	3.473	3.564	3.612	0^{+}	0+
5	23	383.74	385.00	8.53	8.56	23.78	12.06	9.59	7.54	-11.51	-5.32	3.467	3.465	3.470	3.561	3.594	0^{+}	7/
6	24	396.72	398.19	8.62	8.66	22.58	13.95	12.98	8.48	-11.04	-6.24	3.485	3.498	3.471	3.562	3.607	0^{+}	0+
7	25	405.59	407.07	8.63	8.66	21.85	15.94	8.86	9.46	-10.56	-7.21	3.499	3.527	3.468	3.559	3.592	0+	7/
8	26	417.66	418.70	8.70	8.72	20.94	17.80	12.07	10.39	-10.18	-8.12	3.517	3.557	3.469	3.560	3.596	0+	0+
9	27	425.99	426.84	8.69	8.71	20.41	19.85	8.33	11.39	-8.66	-9.13	3.528	3.579	3.463	3.555	3.573	0+	7/:
0	28	437.27	437.78	8.75	8.76	19.61	21.88	11.27	12.39	-8.48	-3.13	3.543	3.605	3.463	3.555	3.570	0+	0+
1	29	443.42	444.15	8.69	8.71	17.43	22.73	6.15	12.39	-8.33	-10.07 -10.57	3.582	3.661	3.475	3.565	3,370	0+	3/
2	30	445.42 451.12	451.96	8.68	8.69	17.43	23.77	7.70	13.39	-6.85	-10.57 -11.11	3.620	3.711	3.492	3.583		0+	0 ⁺
3	31	451.12	457.40	8.61	8.63	12.93	24.75	5.23	13.89	-6.22	-11.11 -11.62	3.656	3.761	3.501	3.591		0+	3/2
	31	400.35	457.40	10.6	8.03	12.93	24./5	5.23	15.89	-0.22	-11.62	3.030	3./61	3.301	5.591		U.	3

Table 1 (continued)

	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
54	32	463.60	464.23	8.59	8.60	12.49	25.88	7.25	14.48	-6.18	-12.20	3.691	3.805	3.518	3.607	<u> </u>	0+	0+
55	33	467.97	468.38	8.51	8.52	11.62	26.77	4.37	14.95	-5.99	-12.68	3.729	3.859	3.526	3.615		0^+	$1/2^{-}$
56	34	474.83	473.99	8.48	8.46	11.23	28.18	6.86	15.66	-5.62	-13.37	3.761	3.893	3.548	3.637		0^+	0+
57	35	478.95	476.72	8.40	8.36	10.97	29.44	4.12	16.31	-5.33	-13.93	3.799	3.940	3.563	3.651		0^+	$1/2^{-}$
58	36	485.19		8.37		10.36	30.54	6.25	16.86	-5.23	-14.56	3.830	3.975	3.581	3.669		0^+	0^+
59	37	488.74		8.28		9.79	31.70	3.54	17.47	-4.92	-15.21	3.865	4.014	3.602	3.690		0^+	$1/2^{-}$
60	38	494.98		8.25		9.78	32.93	6.24	18.07	-4.87	-15.74	3.897	4.051	3.615	3.703		0^+	0^+
61	39	498.29		8.17		9.55	34.06	3.31	18.64	-3.72	-16.26	3.931	4.091	3.630	3.717		0^+	$5/2^{-}$
62	40	504.14		8.13		9.16	35.32	5.85	19.28	-3.73	-16.89	3.961	4.122	3.651	3.737		0^+	0+
63	41	504.96		8.02		6.67	36.48	0.82	19.89	-3.76	-17.51	3.990	4.154	3.663	3.749		0^+	$9/2^{+}$
64	42	509.02		7.95		4.89	37.53	4.07	20.41	-2.34	-18.05	4.016	4.184	3.674	3.760		0^+	0^+
65	43	509.25		7.83		4.29	38.05	0.22	20.87	-2.09	-18.63	4.045	4.217	3.686	3.772		0^+	$9/2^{+}$
66	44	512.77		7.77		3.75	39.54	3.53	21.45	-1.92	-19.12	4.074	4.250	3.698	3.783		0^+	0^+
67	45	512.69		7.65		3.44	39.71	-0.09	21.53	-1.96	-19.20	4.195	4.417	3.700	3.786		0_{+}	$1/2^{+}$
68	46	515.86		7.59		3.09	41.33	3.17	22.39	-1.62	-20.09	4.134	4.318	3.720	3.805		0^+	0^+
69	47	515.87		7.48		3.18	41.58	0.01	22.51	-1.66	-20.20	4.240	4.461	3.723	3.808		0^+	$1/2^{+}$
70	48	518.47		7.41		2.61	42.88	2.60	23.21	-1.40	-20.94	4.198	4.392	3.741	3.825		0^+	0^+
71	49	518.56		7.30		2.69	43.25	0.09	23.38	-1.41	-21.10	4.289	4.513	3.744	3.829		0^+	$1/2^{+}$
72	50	520.71		7.23		2.25	44.21	2.16	23.90	-1.22	-21.66	4.267	4.473	3.758	3.843		0^+	0^+
73	51	520.84		7.13		2.28	44.70	0.13	23.13	-1.21	-21.86	4.345	4.573	3.763	3.847		0^+	$1/2^{+}$
74	52	522.70		7.06		1.99	45.38	1.86	24.49	-1.09	-22.25	4.341	4.560	3.773	3.857		0^+	0^+
75	53	522.79		6.97		1.33	45.96	0.09	24.76	-1.04	-22.49	4.407	4.644	3.779	3.863		0^+	$1/2^{+}$
76	54	524.49		6.90		1.79	46.43	1.70	25.00	-0.99	-22.76	4.418	4.650	3.787	3.870		0^+	0^+
77	55	524.47		6.81		1.67	47.07	-0.03	25.30	-0.88	-23.03	4.475	4.720	3.793	3.876		0^+	$1/2^{+}$
78	56	526.12		6.75		1.62	47.41	1.65	25.47	-0.88	-23.22	4.494	4.740	3.799	3.882		0^+	0^+
79	57	525.88		6.66		1.41	47.78	-0.24	25.64	-0.91	-23.40	4.554	4.813	3.802	3.885		0^+	$3/2^{+}$
80	58	527.53		6.59		1.41	48.33	1.65	25.90	-0.73	-23.65	4.570	4.827	3.811	3.894		0^+	0^+
81	59	527.37		6.51		1.50	48.76	-0.16	26.11	-0.70	-23.83	4.625	4.893	3.813	3.896		0^+	$3/2^{+}$
82	60	528.65		6.45		1.11	49.15	1.27	26.30	-0.53	-24.05	4.646	4.914	3.822	3.905		0^+	0^+
83	61	528.24		6.36		0.86	49.58	-0.41	26.49	-0.20	-24.22	4.699	4.977	3.825	3.907		0+	3/2+
84	62	529.27		6.30		0.62	49.93	1.03	26.67	-0.19	-24.44	4.720	4.995	3.837	3.920		0+	0+
85	63	528.22		6.21		-0.02	50.39	-1.05	27.24	-0.21	-24.43	4.881	5.197	3.837	3.919		0+	1/2+
86	64	528.98		6.15		-0.28		0.76		<u>0.16</u>	-24.92	4.775	5.049	3.868	3.950		0^+	0^+
σ		1.31													0.035			
Z = 23																		
41	18	313.21		7.64			0.41		<u>-2.21</u>	-18.45	0.24	3.430	3.288	3.537	3.626		7/2-	0+
42	19	330.04		7.86			2.36	16.83	$\frac{-1.24}{1.00}$	-16.19	-0.68	3.436	3.323	3.527	3.617		7/2-	$3/2^{+}$
43	20	349.08	346.99	8.12	0.0.	35.88	4.49	19.05	<u>-0.15</u>	-15.98	-1.69	3.448	3.359	3.524	3.614		7/2-	0+
44	21	360.80	361.26	8.20	8.21	30.76	6.46	11.71	0.84	-14.93	-2.63	3.460	3.396	3.517	3.607		7/2-	7/2-
45	22	375.94	377.10	8.35	8.38	26.86	8.37	15.15	1.80	-13.00	-3.55	3.474	3.432	3.514	3.604		7/2-	0+
46	23	386.53	390.36	8.40	8.49	25.73	10.34	10.59	2.79	-12.47	-4.50	3.486	3.464	3.508	3.598		7/2-	7/2-
47	24	400.46	403.36	8.52	8.58	24.52	12.22	13.94	3.74	-11.99	-5.42	3.501	3.496	3.507	3.597		7/2-	0+
48	25	410.33	413.91	8.55	8.62	23.80	14.20	9.86	4.74	-11.52	-6.38	3.514	3.524	3.502	3.592		7/2-	7/2-
49	26	423.35	425.46	8.64	8.68	22.88	16.08	13.02	5.69	-11.13	-7.30	3.529	3.553	3.502	3.592		7/2-	0+
50	27	432.70	434.80	8.65	8.70	22.38	18.10	9.36	6.71	-9.45	-8.31	3.538	3.574	3.495	3.585	2.000	7/2-	7/2-
51	28	444.94	445.85	8.72	8.74	21.60	20.07	12.24	7.68	-9.25	-9.25	3.551	3.598	3.493	3.584	3.600	7/2-	0+
52	29	451.58	453.16	8.68	8.71	18.87	21.00	6.63	8.16	-9.05	-9.75	3.588	3.653	3.505	3.595		7/2-	3/2-
53	30	459.81	461.64	8.68	8.71	14.87	22.08	8.24	8.69	-7.39	-10.31	3.625	3.701	3.523	3.613		7/2-	0+
54	31	465.53	467.75	8.62	8.66	13.95	23.07	5.71	9.17	-6.79	-10.82	3.660	3.751	3.533	3.622		7/2-	3/2-
55	32	473.35	475.08	8.61	8.64	13.54	24.22	7.82	9.74	-6.74	-11.42	3.694	3.794	3.550	3.639		7/2-	0+
56	33	478.17	480.12	8.54	8.57	12.64	25.14	4.82	10.20	-6.56	-11.90	3.731	3.846	3.559	3.647		7/2-	1/2-
57	34	485.72	486.30	8.52	8.53	12.37	26.55	7.55	10.89	-6.22	-12.59	3.762	3.880	3.580	3.668		7/2-	0+
58	35	490.37	490.46	8.45	8.45	12.20	27.74	4.65	11.43	-5.98	-13.15	3.798	3.926	3.594	3.682		$7/2^{-}$	$1/2^{-}$

Table 1 (continued)

A	N	$E_{ m b}^{ m Cal.}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(l)$
59	36	497.27	496.05	8.43	8.39	11.55	28.94	6.90	12.08	-5.83	-13.79	3.829	3.960	3.613	3.700		7/2-	0+
0	37	501.47	499.53	8.36	8.31	11.10	30.20	4.20	12.74	-5.56	-14.43	3.862	3.999	3.632	3.719		$7/2^{-}$	1/2
1	38	508.23	504.86	8.33	8.28	10.96	31.33	6.76	13.26	-5.46	-14.97	3.893	4.034	3.646	3.733		$7/2^{-}$	0^+
2	39	512.08		8.26		10.61	32.43	3.85	13.79	-4.32	-15.49	3.926	4.075	3.660	3.746		$7/2^{-}$	5/2
3	40	518.56		8.23		10.33	33.70	6.48	14.42	-4.33	-16.12	3.955	4.105	3.680	3.766		$7/2^{-}$	0^+
4	41	520.01		8.13		7.93	34.94	1.45	15.05	-4.34	-16.75	3.982	4.136	3.691	3.777		$7/2^{-}$	9/
5	42	524.63		8.07		6.07	36.02	4.62	15.61	-2.90	-17.32	4.008	4.165	3.703	3.788		$7/2^{-}$	0^+
6	43	525.46		7.96		5.45	37.09	0.83	16.22	-2.65	-17.91	4.035	4.196	3.714	3.800		$7/2^{-}$	9/
7	44	529.49		7.90		4.86	38.17	4.03	16.71	-2.44	-18.43	4.062	4.227	3.726	3.811		$7/2^{-}$	0^{+}
3	45	529.96		7.79		4.50	38.80	0.47	17.27	-2.22	-19.01	4.089	4.257	3.737	3.822		$7/2^{-}$	9/
9	46	533.60		7.73		4.11	40.13	3.64	17.74	-2.10	-19.47	4.117	4.290	3.748	3.833		7/2-	0+
)	47	533.73		7.62		3.77	40.37	0.13	17.86	-1.85	-20.01	4.145	4.321	3.759	3.843		7/2-	9/
1	48	537.13		7.57		3.53	41.87	3.40	18.66	-1.80	-20.41	4.175	4.356	3.769	3.853		7/2-	0+
2	49	537.37		7.46		3.64	42.19	0.25	18.81	-1.84	-20.55	4.261	4.472	3.773	3.857		7/2-	1/
3	50	540.13		7.40		3.01	43.32	2.76	19.42	-1.55	-21.18	4.239	4.431	3.788	3.871		7/2-	0+
	51	540.46		7.30		3.09	43.75	0.33	19.62	-1.55	-21.37	4.313	4.528	3.792	3.875		7/2-	1/
	52	542.71		7.24		2.58	44.50	2.25	20.01	-1.36	-21.78	4.310	4.516	3.803	3.886		7/2-	0+
	53	543.05		7.15		2.58	45.02	0.34	20.25	-1.32	-22.00	4.374	4.598	3.808	3.891		7/2-	1/
	54	545.00		7.08		2.29	45.50	1.95	20.50	-1.22	-22.27	4.386	4.607	3.816	3.899		7/2-	0+
	55 56	545.24		6.99		2.19	46.07	0.24	20.77	-1.13	-22.51	4.440	4.675	3.821	3.904		$7/2^{-}$	1,
)	56	547.07		6.92		2.07	46.42	1.83	20.95	-1.10	-22.71	4.462	4.697	3.828	3.911		7/2-	0
)	57	547.08		6.84		1.84	46.84	0.01	21.20	-0.92	-22.96	4.512	4.758	3.834	3.917		$7/2^{-}$	1/
	58	548.90		6.78		1.83	47.27	1.82	21.36	-0.94	-23.12	4.537	4.786	3.840	3.922		7/2-	0-
	59 60	548.93		6.69		1.85	47.66	0.04	21.56	-0.91	-23.28	4.589	4.849	3.841	3.924		7/2 ⁻ 7/2 ⁻	3/ 0 ⁺
}	60 61	550.40 550.18		6.63 6.55		1.50 1.24	48.05 48.43	1.47 -0.23	21.76 21.94	-0.73 -0.42	-23.51 -23.67	4.612 4.662	4.872 4.932	3.852 3.854	3.934 3.936		$\frac{7/2}{7/2^{-}}$	3/
ļ 5	62	551.41		6.49		1.24	48.82	1.23	21.94	-0.42 -0.41	-23.07 -23.91	4.683	4.951	3.868	3.950		$\frac{7/2}{7/2^{-}}$	o/ 0 ⁺
5	63	550.36		6.40		0.18	49.38	-1.05	22.14	-0.41 -0.43	-23.91 -23.90	4.844	5.154	3.867	3.949		$\frac{7/2}{7/2^{-}}$	3/
7	64	551.60		6.34		0.19	49.77	1.24	22.62	-0.45	-23.30 -24.40	4.738	5.005	3.899	3.980		$\frac{7}{2}$	0+
8	65	550.58		6.26		0.13	45.77	-1.02	22.02	-0.03	-24.39	4.889	5.195	3.899	3.980		7/2 ⁻	3/
9	66	551.33		6.19		-0.27		0.76		0.08	-24.92	4.789	5.052	3.935	4.015		$\frac{7/2}{7/2^{-}}$	0+
	00	2.20		0.15		0.27		0.70		0.00	24.32	4.703	3.032	3.535	0.016		7/2	Ū
	4 (Cr)																	
2	18	314.35		7.48			$\frac{-1.07}{0.000}$		1.14	-19.35	0.85	3.464	3.299	3.583	3.671		0+	0+
	19	332.04		7.72			0.77	17.70	2.01	-16.88	-0.02	3.468	3.332	3.571	3.660		0+	3/
ļ	20	352.07	200.05	8.00	0.00	37.72	2.83	20.02	2.98	-16.89	-0.99	3.476	3.366	3.565	3.654		0+	0+
	21	364.70	363.95	8.10	8.09	32.66	4.74	12.64	3.91	-16.87	-1.90	3.485	3.402	3.556	3.645		0+	7/
	22	380.77	381.98	8.28	8.30	28.70	6.62	16.06	4.82	-13.90	-2.80	3.497	3.436	3.551	3.640		0^{+}	0+
	23	392.29	395.13	8.35	8.41	27.59	8.55	11.52	5.76	-13.38	-3.74	3.507	3.467	3.544	3.634		0^{+}	7/
	24	407.15	411.47	8.48	8.57	26.38	10.43	14.86	6.68	-12.91	-4.65	3.520	3.498	3.542	3.631		0 ⁺	0+
	25	417.96	422.05	8.53	8.61	25.67	12.38	10.82	7.64	-12.45	-5.60	3.530	3.524	3.535	3.625	2.050	0 ⁺	7/
)	26	431.90	435.05	8.64	8.70	24.76	14.24	13.94	8.56	-12.06	-6.52	3.543	3.551	3.533	3.623	3.659	0 ⁺	0+
	27	442.24	444.31	8.67	8.71	24.28	16.25	10.34	9.54	-10.28	-7.52	3.550	3.571	3.525	3.615	2 C 4 F	0^{+}	7/ 0 ⁺
	28	455.42	456.35	8.76	8.78	23.52	18.15	13.18	10.48	-10.02	-8.46	3.561	3.594	3.522	3.612	3.645		
	29	462.57	464.29	8.73	8.76	20.33	19.15	7.15	10.99	-9.76	-8.96	3.597	3.648	3.534	3.624	3.651	0^{+}	3/ 0 ⁺
1	30 31	471.39	474.01	8.73	8.78	15.97 15.06	20.28	8.83	11.58	-7.94	-9.54 10.06	3.633	3.696	3.553	3.642	3.689	0 ⁺	_
5 5	31 32	477.63 486.06	480.25 488.50	8.68 8.68	8.73 8.72	15.06 14.67	21.27 22.46	6.23	12.10 12.72	−7.39 −7.33	-10.06 -10.67	3.667 3.700	3.744 3.787	3.564 3.581	3.652 3.669		0+	3/ 0 ⁺
5 7	32 33	486.06	488.50	8.62	8.72 8.66	13.75	23.40	8.44 5.31	13.21	−7.33 −7.15	-10.67 -11.17	3.700 3.735	3.787 3.837	3.591	3.679		0+	1/
3	33 34	491.38	501.19	8.62 8.61	8.64	13.75	23.40	8.26	13.21	-7.15 -6.82	-11.17 -11.86	3.766	3.837 3.871	3.591	3.699		0+	0 ⁺
))	3 4 35	499.64 504.64	501.19	8.55	8.56	13.58	25.69	5.00	13.92	-6.62	-11.86 -12.40	3.800	3.915	3.625	3.712		0+	1/
)	35 36	512.41	512.01	8.54	8.53	12.77	25.69 27.22	5.00 7.78	15.14	-6.62 -6.43	-12.40 -13.06	3.830	3.949	3.644	3.712		0 ⁺	0 ⁺
																		1/
1	37	517.28	516.03	8.48	8.45	12.64	28.54	4.86	15.80	-6.21	-13.69	3.862	3.987	3.662	3.748		0^+	

Table 1 (continued)

		,,																
Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
62	38	524.59	522.54	8.46	8.42	12.17	29.61	7.31	16.35	-6.05	-14.25	3.892	4.022	3.676	3.762		0^+	0^+
53	39	529.14	525.44	8.40	8.34	11.86	30.85	4.56	17.06	-4.93	-14.95	3.923	4.054	3.699	3.785		0^{+}	1/2
4	40	536.08		8.38		11.50	31.95	6.94	17.53	-4.92	-15.39	3.952	4.092	3.708	3.794		0^{+}	0+
55	41	538.17		8.28		9.03	33.22	2.09	18.16	-4.89	-16.02	3.978	4.122	3.719	3.804		0^+	9/2
6	42	543.37		8.23		7.29	34.35	5.20	18.74	-3.47	-16.61	4.002	4.150	3.730	3.815		0^{+}	0^{+}
57	43	544.81		8.13		6.64	35.57	1.44	19.35	-3.21	-17.22	4.028	4.180	3.741	3.826		0^{+}	9/2
8	44	549.37		8.08		6.00	36.59	4.55	19.88	-2.98	-17.77	4.054	4.209	3.753	3.837		0^{+}	0+
69	45	550.44		7.98		5.63	37.76	1.08	20.48	-2.75	-18.36	4.079	4.238	3.764	3.848		0+	9/2
70	46	554.56		7.92		5.20	38.70	4.12	20.46	-2.73 -2.60	-18.86	4.106	4.268	3.775	3.859		0+	0+
71	47	555.29		7.82		4.84	39.41	0.72	21.56	-2.33	-18.80 -19.44	4.131	4.296	3.785	3.869		0 ⁺	9/2
72	48	559.10		7.82 7.77		4.53	40.63	3.81	21.97	-2.33 -2.24	-19.44 -19.88	4.151	4.290	3.796	3.879		0+	9/2 0 ⁺
																	0+	
73	49	559.48		7.66		4.19	40.92	0.38	22.11	-2.30	-20.01	4.239	4.439	3.799	3.883			1/2
74	50	562.94		7.61		3.84	42.23	3.47	22.81	-1.88	-20.72	4.217	4.397	3.815	3.898		0+	0+
75	51	563.46		7.51		3.98	42.61	0.52	22.99	-1.90	-20.90	4.287	4.491	3.819	3.902		0+	1/2
76	52	566.10		7.45		3.16	43.40	2.64	23.39	-1.61	-21.31	4.287	4.481	3.830	3.913		0+	0^+
77	53	566.64		7.36		3.18	43.84	0.54	23.59	-1.58	-21.50	4.348	4.561	3.834	3.917		0+	1/2
78	54	568.84		7.29		2.74	44.34	2.20	23.84	-1.44	-21.78	4.361	4.572	3.843	3.926		0^{+}	0^+
79	55	569.31		7.21		2.67	44.84	0.47	24.07	-1.35	-21.99	4.414	4.640	3.848	3.930		0^+	1/2
30	56	571.32		7.14		2.48	45.20	2.01	24.25	-1.30	-22.20	4.436	4.662	3.855	3.937		0^+	0^+
31	57	571.58		7.06		2.27	45.70	0.26	24.50	-1.13	-22.43	4.483	4.721	3.861	3.943		0^+	1/2
32	58	573.53		6.99		2.22	46.00	1.96	24.64	-1.13	-22.60	4.510	4.751	3.867	3.949		0^+	0^+
33	59	573.74		6.91		2.16	46.37	0.21	24.81	-1.10	-22.76	4.560	4.813	3.869	3.951		0^{+}	3/2
34	60	575.41		6.85		1.88	46.77	1.67	25.01	-0.93	-22.99	4.583	4.835	3.880	3.962		0^{+}	0+
35	61	575.35		6.77		1.61	47.12	-0.06	25.18	-0.63	-23.15	4.630	4.893	3.883	3.964		0^+	3/2
36	62	576.81		6.71		1.40	47.54	1.46	25.40	-0.63	-23.40	4.651	4.912	3.898	3.979		0^+	0^{+}
37	63	575.96		6.62		0.61	47.74	-0.85	25.60	-0.67	-23.62	4.687	4.952	3.908	3.989		0+	7/2
38	64	577.51		6.56		0.70	48.53	1.55	25.91	-0.35	-23.90	4.707	4.967	3.929	4.009		0^{+}	0+
39	65	576.54		6.48		0.59	10.55	-0.97	25.97	-0.28	-24.14	4.738	5.000	3.943	4.023		0^{+}	7/2
90	66	577.80		6.42		0.29		1.26	26.47	-0.19	-24.44	4.758	5.015	3.965	4.045		0+	0+
91	67	576.81		6.34		0.23		-0.99	20.47	-0.19 -0.20	-24.44 -24.44	4.738	5.194	3.964	4.043		0+	3/2
92	68					0.27		1.05			-24.44 -24.98			4.002			0+	0 ⁺
		577.86		6.28						-0.02		4.808	5.062		4.081			
93	69	576.92		6.20		0.11		$\frac{-0.95}{0.65}$		-0.05	-24.98	4.941	5.229	4.002	4.081		0+	3/2
94 T	70	577.56 2.46		6.14		<u>-0.30</u>		0.65		0.47	-25.51	4.865	5.118	4.038	4.116 0.036		0^+	0+
	5 (Mn)	2.10													0.030			
43	18	310.97		7.23			-2.24		-3.38	-20.26	<u>1.55</u>	3.502	3.307	3.635	3.722		$7/2^{-}$	0^{+}
14 14	19	329.59		7.49			$\frac{2.24}{-0.45}$	18.62	$\frac{-3.56}{-2.45}$	-18.07	$\frac{1.55}{0.46}$	3.500	3.342	3.615	3.702		$\frac{7}{2}$	1/2
15	20	350.63		7.79		39.65	1.54	21.03	$\frac{-2.43}{-1.44}$	-17.83	-0.23	3.504	3.370	3.607	3.695		$\frac{7/2}{7/2^{-}}$	0+
16	21	364.24		7.73		34.64	3.44	13.61	$\frac{-1.44}{-0.47}$	-17.61	-0.23 -1.14	3.504	3.405	3.595	3.683		$\frac{7/2}{7/2^{-}}$	7/2
17	22	381.25	382.36	8.11	8.14	30.63	5.31	17.02	0.49	-17.01 -14.85	-2.04	3.518	3.438	3.588	3.676		7/2 ⁻	0 ⁺
17 18	23	393.76	382.36 397.19	8.20	8.14 8.27		7.23			-14.85 -14.33	-2.04 -2.98				3.667			7/2
						29.53		12.51	1.47			3.526	3.467	3.579			7/2-	7/2 0 ⁺
19	24	409.57	413.57	8.36	8.44	28.31	9.10	15.81	2.42	-13.86	-3.89	3.536	3.496	3.574	3.662	2712	7/2-	
0	25	421.38	426.63	8.43	8.53	27.62	11.06	11.81	3.42	-13.41	-4.85	3.544	3.521	3.566	3.654	3.712	7/2-	7/2
1	26	436.28	440.32	8.55	8.63	26.71	12.93	14.89	4.37	-13.03	-5.78	3.554	3.547	3.562	3.651	3.703	7/2-	0+
2	27	447.63	450.86	8.61	8.67	26.25	14.93	11.36	5.39	-10.87	-6.78	3.560	3.566	3.553	3.642	3.671	7/2-	7/2
3	28	461.79	462.91	8.71	8.73	25.51	16.84	14.15	6.37	-10.82	-7.73	3.569	3.588	3.548	3.637	3.666	$7/2^{-}$	0^+
54	29	469.40	471.85	8.69	8.74	21.77	17.83	7.62	6.84	-10.70	-8.22	3.604	3.640	3.561	3.649	3.683	$7/2^{-}$	3/2
55	30	478.81	482.08	8.71	8.77	17.02	18.99	9.40	7.41	-8.49	-8.82	3.639	3.687	3.580	3.668	3.706	$7/2^{-}$	0^+
	31	485.53	489.35	8.67	8.74	16.12	20.00	6.72	7.90	-7.97	-9.34	3.672	3.735	3.591	3.679	3.715	7/2-	3/2
56					8.74	15.75	21.21	9.03	8.49	-7.90	-9.96	3.704	3.777	3.608	3.696		7/2-	0^{+}
	32	494.55	497.99	80.6	0.74													
57	32 33	494.55 500.43	497.99 504.41	8.68 8.63					9.05	-7.80	-10.58	3.737		3.625	3.712		7/2-	5/2
56 57 58 59	32 33 34	494.55 500.43 509.29	497.99 504.41 512.17	8.63 8.63	8.70 8.68	14.90 14.73	22.26 23.57	5.88 8.86	9.05 9.65	-7.80 -7.43	-10.58 -11.15	3.737 3.768	3.820 3.859	3.625 3.639	3.712 3.726		7/2 ⁻ 7/2 ⁻	5/2 0 ⁺

Table 1 (continued)

4	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
51	36	523.25	524.53	8.58	8.60	13.96	25.98	8.42	10.84	-7.03	-12.35	3.829	3.936	3.671	3.757		7/2-	0+
52	37	528.75		8.53	8.53	13.92	27.27	5.50	11.47	-6.85	-12.96	3.861	3.974	3.688	3.773		$7/2^{-}$	1/2
3	38	536.60	535.82	8.52	8.51	13.35	28.37	7.85	12.01	-6.64	-13.53	3.889	4.008	3.702	3.787		$7/2^{-}$	0^+
4	39	541.86	539.99	8.47	8.44	13.12	29.78	5.27	12.72	-5.57	-14.22	3.920	4.040	3.724	3.809		$7/2^{-}$	1/2
5	40	549.22	546.04	8.45	8.40	12.63	30.66	7.36	13.14	-5.52	-14.66	3.948	4.077	3.733	3.818		$7/2^{-}$	0^+
6	41	551.97	549.90	8.36	8.33	10.10	31.96	2.74	13.79	-5.50	-15.30	3.973	4.106	3.743	3.828		$7/2^{-}$	9/2
7	42	557.76		8.32		8.54	33.13	5.80	14.39	-4.07	-15.91	3.996	4.133	3.754	3.838		$7/2^{-}$	0+
8	43	559.84		8.23		7.87	34.37	2.07	15.02	-3.80	-16.53	4.020	4.162	3.764	3.848		$7/2^{-}$	9/2
9	44	564.94		8.19		7.18	35.46	5.11	15.58	-3.56	-17.09	4.045	4.190	3.775	3.859		7/2-	0+
0	45	566.64		8.09		6.80	36.68	1.70	16.20	-3.32	-17.70	4.069	4.218	3.786	3.869		7/2-	9/2
1	46	571.28		8.05		6.33	37.68	4.64	16.71	-3.14	-18.23	4.093	4.246	3.797	3.880		7/2-	0+
2	47	572.63		7.95		5.99	38.90	1.35	17.34	-2.87	-18.84	4.117	4.272	3.807	3.890		7/2-	9/2
3	48	576.90		7.90		5.62	39.78	4.28	17.80	-2.74	-19.32	4.142	4.302	3.818	3.900		7/2-	0+
4	49	577.68		7.81		5.06	40.31	0.78	18.21	-2.18	-19.89	4.166	4.330	3.827	3.909		7/2-	9/2
5	50	581.69		7.76		4.79	41.56	4.01	18.75	-2.22	-20.26	4.195	4.364	3.837	3.919		7/2-	0+
6	51	582.43		7.66		4.74	41.96	0.74	18.97	-2.21	-20.60	4.234	4.413	3.843	3.925		7/2-	5/2
7	52	585.38		7.60		3.69	42.66	2.95	19.28	-1.84	-20.81	4.264	4.449	3.852	3.934		7/2-	0+
8 9	53	586.10		7.51		3.67	43.05	0.72	19.46	-1.82	-20.98	4.323	4.527	3.856	3.938		7/2-	1/2 0 ⁺
	54	588.53		7.45		3.16	43.53	2.44	19.69	-1.65	-21.24	4.337	4.539	3.865	3.947		7/2-	-
)	55 56	589.20		7.36		3.10	43.96	0.67	19.89	-1.58	-21.43	4.389	4.606	3.870	3.951		7/2-	1/: 0 ⁺
1 2	56 57	591.40		7.30		2.87	44.33	2.20	20.08	-1.50	-21.65	4.411	4.629	3.878	3.960		7/2-	
2		591.88		7.22		2.69	44.80	0.49	20.30	-1.35	-21.87	4.457	4.686	3.883	3.964		7/2-	1/: 0 ⁺
	58 59	593.99		7.16		2.60	45.09	2.11 0.37	20.46 20.63	-1.34	-22.04	4.483	4.716	3.890 3.892	3.972		7/2 ⁻ 7/2 ⁻	3/:
4	60	594.37		7.08		2.48	45.43			-1.30	-22.20	4.531	4.776		3.973		$\frac{7/2}{7/2^{-}}$	رد +0
5	61	596.26 596.36		7.01 6.93		2.26 2.00	45.86 46.19	1.89 0.11	20.84 21.01	-1.13 -0.86	-22.44 -22.60	4.554 4.599	4.799 4.855	3.904 3.907	3.985 3.988		$\frac{7/2}{7/2^{-}}$	3/:
7	62	598.05		6.87		1.80	46.19	1.69	21.01	-0.86	-22.86	4.620	4.833	3.923	4.004		$\frac{7/2}{7/2^{-}}$	0 ⁺
8	63	597.47		6.79		1.11	47.12	-0.58	21.51	-0.80 -0.90	-23.07	4.655	4.873	3.934	4.014		7/2 7/2 ⁻	7/2
9	64	599.23		6.73		1.11	47.12	1.76	21.72	-0.50 -0.61	-23.07 -23.35	4.676	4.930	3.954	4.034		7/2 7/2 ⁻	0+
0	65	598.51		6.65		1.16	47.04	-0.72	21.72	-0.55	-23.59	4.707	4.962	3.968	4.048		7/2 7/2 ⁻	7/:
1	66	600.04		6.59		0.80	48.70	1.53	22.24	-0.33 -0.46	-23.39 -23.89	4.707	4.979	3.990	4.070		$\frac{7/2}{7/2^{-}}$	0+
2	67	599.26		6.51		0.74	40.70	-0.78	22.44	-0.46	-23.03 -24.14	4.757	5.008	4.006	4.086		$\frac{7/2}{7/2^{-}}$	7/2
3	68	600.63		6.46		0.60		1.38	22.77	-0.30	-24.14 -24.43	4.778	5.026	4.028	4.106		$\frac{7}{2}$	0+
4	69	599.73		6.38		0.48		-0.90	22.81	0.37	-24.70	4.806	5.053	4.046	4.125		$7/2^{-}$	7/2
5	70	600.91		6.33		0.28		1.18	22.01	$\frac{0.37}{0.32}$	-24.98	4.830	5.075	4.066	4.144		7/2-	0+
,	70	3.08		0.55		0.20		1.10		0.52	24.50	4.050	3.073	4.000	0.041		1/2	U
	.6 (Fe)	3.00													0.041			
5	20	352.23		7.66			0.16		1.61	-18.67	0.36	3.533	3.378	3.648	3.735		0^+	0^{+}
7	21	366.72		7.80			2.01	14.49	2.48	-18.29	-0.51	3.536	3.411	3.633	3.720		0+	7/:
3	22	384.62		8.01		32.39	3.85	17.91	3.37	-15.72	-1.39	3.542	3.443	3.624	3.711		0^+	0+
9	23	398.04	399.90	8.12	8.16	31.33	5.75	13.42	4.28	-15.23	-2.31	3.547	3.471	3.613	3.700		0^+	7/
)	24	414.75	417.71	8.30	8.35	30.13	7.61	16.71	5.19	-14.76	-3.21	3.555	3.499	3.606	3.694		0^{+}	$0^{'+}$
1	25	427.51	431.50	8.38	8.46	29.46	9.55	12.75	6.13	-14.33	-4.17	3.560	3.522	3.596	3.684		0+	7/:
2	26	443.32	447.70	8.53	8.61	28.57	11.42	15.81	7.05	-13.96	-5.09	3.569	3.546	3.591	3.679		0+	0+
3	27	455.65	458.39	8.60	8.65	28.14	13.41	12.33	8.01	-11.62	-6.09	3.572	3.564	3.580	3.668		0^+	7/:
1	28	470.74	471.76	8.72	8.74	27.42	15.32	15.10	8.96	-11.62	-7.04	3.579	3.584	3.574	3.663	3.693	0^+	$0^{'+}$
5	29	478.87	481.06	8.71	8.75	23.22	16.30	8.13	9.47	-11.37	-7.53	3.613	3.636	3.587	3.675		0+	3/
6	30	488.90	492.26	8.73	8.79	18.16	17.51	10.03	10.10	-9.07	-8.15	3.647	3.683	3.606	3.694	3.738	0^{+}	0+
7	31	496.16	499.91	8.70	8.77	17.29	18.53	7.25	10.63	-8.59	-8.68	3.680	3.730	3.618	3.706	3.753	0^{+}	3/
8	32	505.82	509.95	8.72	8.79	16.92	19.76	9.67	11.27	-8.50	-9.30	3.711	3.771	3.636	3.723	3.775	0^+	0+
9	33	512.23	516.53	8.68	8.75	16.07	20.85	6.40	11.80	-8.06	-9.93	3.744	3.815	3.652	3.739		0^+	3/
0	34	521.77	525.35	8.70	8.76	15.95	22.13	9.55	12.49	-8.04	-10.50	3.773	3.852	3.667	3.753		0^+	0+
,																		

Table 1 (continued)

63	Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
84 88 551.52 551.19 8.62 8.81 14.55 26.93 8.39 14.02 -7.23 -12.89 3.890 3.997 3.728 3.813 0° 0° 0° 0° 17 16.06 40 505.28 502.43 8.56 8.52 14.55 24.35 5.86 15.62 -6.21 -13.55 3.90 40.09 3.73 8.813 0° 1 17 16.06 40 505.28 502.43 8.56 8.52 14.55 24.55 5.80 15.62 -6.21 -13.55 3.90 40.09 3.737 3.813 0° 1 17 17 18.06 40 505.28 502.43 8.56 8.52 14.55 24.55 14.55 24.00 15.72 -8.00 15.00 4.00 15.00 14.00 3.97 4.00 3.737 3.810 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0°	62	36	536.97	538.96	8.66	8.69	15.19	24.55	9.09	13.72	-7.64	-11.71	3.832	3.927	3.698	3.783		0+	0+
85 99 557.48 555.28 58.8 85.5 143.8 28.34 5.96 15.62 -8.21 -1-0.35.5 3.920 4.029 3.740 3.833 0.0 1 17 1	63	37	543.13	543.79	8.62	8.63	15.25	25.85	6.16	14.38	-7.49	-12.30	3.863	3.964	3.714	3.799			$1/2^{-}$
66 40 565.28 562.43 8.56 8.52 13.76 29.19 7.80 16.06 -0.11 -1-400 3.947 4.065 3.77 3.842 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0°	64		551.52	551.19	8.62	8.61	14.55	26.93	8.39	14.92	-7.23	-12.89	3.890	3.997		3.813			0^+
87 41 588.88 586.51 8.49 8.45 11.20 30.50 34.0 16.71 -6.08 -14.84 3.971 4.994 3.767 3.851 0	65		557.48	555.52	8.58				5.96										$1/2^{-}$
68	66	40	565.28	562.43	8.56	8.52	13.76	29.19	7.80	16.06	-6.11	-14.00	3.947	4.065	3.757	3.842		0^+	0^+
69 43 577.9 8.37 9.11 32.97 2.70 17.95 -4.40 -15.80 40.16 4.149 3.787 3.781 0.7 9.7 0.7 4.4 5.584.7 8.34 8.34 8.39 34.10 5.868 18.53 -4.14 -15.80 40.16 4.149 3.787 3.781 0.7 9.7 9.7 1.45 5.585.7 8.25 8.00 35.35 2.72 19.15 -3.89 -17.10 4.00 2.4202 3.818 3.881 0.7 0.7 9.7 9.7 1.45 5.585.7 8.25 8.00 35.35 2.72 19.15 -3.89 -17.10 4.00 2.4202 3.818 3.891 0.7 0.7 9.7 9.7 1.45 5.585.7 9.25 4.00 4.20 3.80 3.891 0.7 0.7 9.7 9.7 1.45 5.585.7 9.25 4.00 3.25 3.25 4.26 9.20 3.20 3.20 3.20 3.20 3.20 3.20 3.20 3			568.68	566.51	8.49	8.45	11.20		3.40	16.71		-14.64	3.971	4.094		3.851			$9/2^{+}$
70 44 58347 8.44 8.39 34.10 5.88 18.53 -4.14 -16.48 4.039 4.175 3.798 3.881 0			575.09	572.33	8.46	8.41	9.81	31.72	6.41		-4.68	-15.27	3.993	4.120		3.861			0^+
17	69	43	577.79		8.37		9.11	32.97	2.70		-4.40	-15.89	4.016	4.149		3.871			$9/2^{+}$
72	70	44	583.47		8.34		8.39	34.10	5.68	18.53		-16.48	4.039			3.881			0^+
73 47 99295 8.12 7.16 37.67 1.98 2.033 -3.44 -18.27 4.107 4.254 3.828 3.911 0° 9° 0° 75 4.96 597.74 8.88 6.77 38.64 4.79 2.084 -3.27 -18.79 4.131 4.281 3.828 3.911 0° 9° 0° 75 4.96 599.25 7.99 6.30 39.77 1.51 21.57 -2.53 -19.47 4.150 4.302 3.847 3.930 0° 9° 0° 77 51 60.361 7.94 5.87 40.67 4.36 2.192 -2.57 -19.85 4.178 4.335 3.857 3.940 0° 0° 0° 77 51 60.472 7.85 5.47 41.26 1.11 2.229 -2.56 -2.020 4.214 4.382 3.864 3.946 0° 50° 77 8.52 6.07.55 7.79 4.14 41.55 3.03 2.238 -2.05 -2.034 4.248 4.423 3.864 3.946 0° 50° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0° 0							8.00		2.32										$9/2^{+}$
74 48 597.74 8.80 597.75 3.86.4 4.79 2.84 -3.27 -18.79 4.13 4.281 3.838 3.921 0.0° 0.0° 0.0° 0.0° 0.0° 0.0° 0.0° 0.0			590.97		8.21		7.50	36.41	5.18	19.69	-3.70	-17.65	4.086		3.818	3.901			0^+
75 49 599.25 7.99 6.30 39.77 1.51 21.57 2.53 -19.87 4.150 4.302 3.847 3.930 0° 99.77 5.51 604.72 7.85 5.47 41.26 1.11 22.99 -2.57 -19.85 4.178 4.335 3.857 3.940 0° 1° 0° 77 5.51 604.72 7.85 5.47 41.26 1.11 22.99 -2.56 -2.034 4.24 4.382 3.843 3.940 0° 1° 0° 99.78 5.25 607.75 7.79 4.14 41.26 1.11 22.99 -2.56 -2.034 4.24 4.382 3.843 3.946 0° 1° 0° 0° 99.78 5.25 607.75 7.79 4.14 4.16.5 3.03 2.238 -2.05 -2.034 4.24 4.382 3.843 3.955 0° 1° 0° 0° 0° 10° 3.00 4.00 4.00 4.00 4.00 4.00 4.00 4.00	73	47	592.95		8.12		7.16	37.67	1.98	20.33	-3.44	-18.27	4.107	4.254	3.828	3.911		0^+	$9/2^{+}$
76 50 603.61 7.94 5.87 40.67 4.36 21.92 -2.55 -20.30 4.178 4.235 3.857 3.940 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	74	48	597.74		8.08		6.77	38.64	4.79	20.84	-3.27	-18.79	4.131	4.281	3.838	3.921		0^+	0^+
77 51 604.72	75	49	599.25		7.99		6.30	39.77	1.51	21.57	-2.53	-19.47	4.150	4.302	3.847	3.930		0^+	$9/2^{+}$
78 52 607.75 7.79 4.14 41.65 3.03 22.38 -2.05 -2.044 4.248 4.23 3.853 3.955 0°	76	50	603.61		7.94		5.87	40.67	4.36	21.92	-2.57	-19.85	4.178	4.335	3.857	3.940		0^+	0+
79 53 608.62 7.70 3.90 41.99 0.87 22.53 -2.03 -2.04.9 4.304 4.499 3.877 3.988 0	77	51	604.72		7.85		5.47	41.26	1.11	22.29	-2.56	-20.20	4.214	4.382	3.864	3.946		0^{+}	$5/2^{+}$
79 53 608.62 7,70 3.90 41.99 0.87 22.53 -2.03 -2.04.9 4.304 4.499 3.877 3.958 0° 1° 0° <td>78</td> <td>52</td> <td>607.75</td> <td></td> <td>7.79</td> <td></td> <td>4.14</td> <td>41.65</td> <td>3.03</td> <td>22.38</td> <td>-2.05</td> <td>-20.34</td> <td>4.248</td> <td>4.423</td> <td>3.873</td> <td>3.955</td> <td></td> <td>0^+</td> <td><math>0^{+}</math></td>	78	52	607.75		7.79		4.14	41.65	3.03	22.38	-2.05	-20.34	4.248	4.423	3.873	3.955		0^+	0^{+}
80 54 61130	79	53					3.90	41.99	0.87			-20.49				3.958		0^+	1/2+
81 55 612.14 7.56 3.52 42.84 0.84 22.95 -1.79 -2.092 4370 4579 3.891 3.972 0† 1/2 82 56 614.55 7.49 3.25 43.24 2.41 23.16 -1.70 -2.116 4.31 4.601 3.900 3.982 0† 0† 0† 0/1 83 57 615.25 7.41 31.1 43.67 0.70 23.37 -1.56 -2.136 4.436 4.657 3.905 3.986 0† 1/2 85 59 618.06 7.27 2.81 44.32 0.53 23.69 -1.49 -2.151 4.507 4.74 3.915 3.996 0† 0† 3/2 85 59 618.06 7.27 2.81 44.32 0.53 23.69 -1.49 -2.151 4.507 4.74 3.915 3.996 0† 0† 0/1 87 61 620.45 7.13 2.99 45.10 0.27 24.09 -1.10 -2.212 4.573 4.821 3.933 4.013 0† 3/7 88 62 62.240 7.07 2.22 45.59 1.95 24.34 -1.10 -2.239 4.595 4.800 3.994 4.009 0† 0† 0/1 88 62 62.240 7.07 2.22 45.59 1.95 24.34 -1.10 -2.239 4.595 4.801 3.994 4.009 0† 0† 0/1 90 64 624.10 6.93 1.70 46.59 2.10 24.86 -0.88 -2.289 4.651 4.897 3.990 4.059 0† 0/1 91 65 623.64 6.85 1.64 47.09 -0.46 25.13 -0.54 -2.133 4.821 3.933 4.013 0† 7/2 92 66 623.64 6.85 1.64 47.09 -0.46 25.13 -0.84 -2.133 4.802 4.931 3.994 4.073 0† 0† 0/1 92 66 623.64 6.85 1.64 47.09 -0.46 25.13 -0.84 -2.133 4.802 4.931 3.994 4.073 0† 0† 0/1 94 68 626.65 6.67 1.18 48.79 1.69 2.602 -0.59 -2.319 4.754 4.996 4.053 4.110 0† 7/7 94 68 626.05 6.65 6.67 1.18 48.79 1.69 2.602 -0.59 -2.399 4.754 4.996 4.053 4.110 0† 7/7 95 69 626.05 6.54 0.91 4.999 1.51 6.65 0.10 -2.425 4.805 5.044 4.992 4.110 0† 0† 0† 0† 0† 0† 0† 0† 0† 0† 0† 0† 0†	80																	0^+	0+
82 56 61455 7.49 325 4324 2.41 23.16 -1.70 -21.16 4391 4601 3.900 3.982 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 +	81	55			7.56		3.52	42.84	0.84						3.891	3.972		0^+	1/2+
83 57 615.25																		0^{+}	0+
84 58 617.53 7.35 2.98 44.00 2.28 23.54 -1.53 -21.55 4.462 4.687 3.914 3.995 0+ 0+ 0+ 3/8 86 60 620.18 7.21 2.65 44.77 2.12 23.92 -1.34 -21.95 4.530 4.768 3.929 40.09 0+ 0/ 3/8 86 61 620.45 7.13 2.23 45.10 0.27 24.09 -1.10 -22.12 4.573 4.821 3.933 4.013 0+ 3/8 86 62 622.00 6.99 1.55 46.04 -0.40 24.53 -0.79 -22.64 4.630 4.877 3.967 4.047 0+																			1/2+
85 59 618.06 7.27 2.81 44.32 0.53 23.69 -1.49 -21.71 4.507 4.744 3.915 3.996 0° 3 86 60 620.18 7.21 2.66 44.77 2.12 2.392 -1.10 -22.12 45.73 4.821 3.933 4.013 0° 3 87 61 620.40 7.07 2.22 45.59 1.95 24.34 -1.10 -22.39 4.595 4.840 3.994 4.029 0° 0° 0° 90 64 624.10 6.93 1.70 46.59 2.10 24.86 -0.88 -22.89 4.651 4.897 3.967 4.047 0° 0° 7 90 64 624.10 6.93 1.70 46.59 2.10 24.86 -0.88 -22.89 4.651 4.897 3.980 4.059 0° 7 7 92 66 625.47 6.80 1.37 4.767 1.83 25																			
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88 62 622.40 7.07 2.22 45.59 1.95 24.34 -1.10 -22.39 4.595 4.840 3.949 4.029 0† 0† 0† 0† 0† 0† 0† 0† 0† 0† 0† 0† 0†																			3/2+
89 63 622.02 6.99 1.55 46.04 -0.40 24.53 -0.79 -22.64 4.630 4.877 3.967 4.047 0° 3.99 90 64 624.10 6.93 1.70 46.59 2.10 24.86 -0.88 -22.89 4.651 4.897 3.980 4.059 0°																		-	
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50 23 398.39 7.97 4.63 14.43 0.34 -16.22 -0.57 3.563 3.469 3.640 3.727 7/2- 7/5-			383.05		7.84		2.70			-0.67	_16.72	0.22	3 550	3 442	3 652	3 730		7/2-	0+
51 24 416.07 417.86 8.16 8.19 32.11 6.50 17.68 1.31 -15.75 -1.52 3.569 3.496 3.632 3.719 7/2- 0 ⁺ 52 25 429.83 8.27 31.44 8.45 13.76 2.32 -15.33 -2.50 3.572 3.518 3.621 3.709 7/2- 7/ 7/2- 7/ 7/5- 7/ 7/2- 0 ⁺ 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2 8/2									14.43										7/2 ⁻
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53 26 446.61 449.32 8.43 8.48 30.55 10.34 16.78 3.29 -14.95 -3.17 3.579 3.541 3.614 3.702 7/2- 0 ⁺ 54 27 459.97 462.74 8.52 8.57 30.14 12.33 13.35 4.32 -12.22 -3.82 3.581 3.558 3.603 3.690 7/2- 7/2- 7/2- 7/2- 7/2- 7/2- 7/2- 7/2-				417.00		0.19													7/2 ⁻
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$63 36 546.77 549.22 8.68 8.72 16.36 23.52 9.75 9.80 -8.24 -9.69 3.832 3.914 3.719 3.804 \qquad 7/2^- 0^+ 0^$																			
																			1/2-
64 3/ 553.58 555.23 8.65 8.68 16.56 24.83 6.81 10.46 -8.12 -10.23 3.861 3.951 3.734 3.819 $7/2^ 1/2^$																			
	64	37	553.58	555.23	8.65	8.68	16.56	24.83	6.81	10.46	-8.12	-10.23	3.861	3.951	3.734	3.819		7/2-	$1/2^{-}$

Table 1 (continued)

4	N	$E_{ m b}^{ m Cal.}$ (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
5	38	562.47	562.70	8.65	8.66	15.70	25.87	8.89	10.95	-7.80	-10.80	3.887	3.983	3.749	3.833		7/2-	0+
6	39	569.07	567.99	8.62	8.61	15.49	27.21	6.60	11.60	-6.85	-11.37	3.916	4.015	3.768	3.852		7/2-	1/2
7	40	577.29	574.98	8.62	8.58	14.82	28.07	8.22	12.01	-6.71	-11.95	3.942	4.050	3.776	3.860		7/2-	0+
8	41	581.36	579.64	8.55	8.52	12.28	29.39	4.07	12.68	-6.68	-12.65	3.965	4.079	3.786	3.869		7/2-	9/2
9	42	588.40	585.97	8.53	8.49	11.11	30.64	7.04	13.31	-5.31	-13.42	3.986	4.104	3.795	3.878		7/2-	0+
0	43	591.75	590.79	8.45	8.42	10.39	31.91	3.35	13.96	-5.02	-14.16	4.008	4.131	3.804	3.888		7/2-	9/2
1	44	598.02	596.31	8.42	8.39	9.62	33.08	6.28	14.55	-4.74	-14.71	4.030	4.157	3.815	3.898		7/2-	0+
2	45	600.98		8.35		9.23	34.34	2.96	15.19	-4.50	-15.40	4.052	4.183	3.824	3.906		7/2-	9/2
3	46	606.73		8.31		8.71	35.45	5.75	15.76	-4.29	-15.89	4.074	4.209	3.834	3.916		7/2-	0+
4	47	609.35		8.23		8.38	36.73	2.63	16.40	-4.04	-16.38	4.095	4.233	3.843	3.925		7/2-	9/2
5	48	614.69		8.20		7.96	37.79	5.33	16.95	-3.86	-16.96	4.117	4.258	3.853	3.935		7/2-	0+
6	49	617.00		8.12		7.64	39.32	2.31	17.75	-2.92	-17.63	4.134	4.277	3.861	3.943		$7/2^{-}$	9/2
7	50	621.82		8.08		7.14	40.14	4.83	18.21	-2.93	-17.89	4.157	4.304	3.871	3.953		$7/2^{-}$	0 ⁺
8	51	623.21		7.99		6.21	40.78	1.38	18.49	-2.93	-18.21	4.194	4.353	3.877	3.959		7/2-	5/2 0 ⁺
9	52	626.25		7.93		4.42	40.87	3.04	18.50	-2.24	-18.53	4.229	4.396	3.887	3.969		$7/2^{-}$	-
0	53	627.28		7.84		4.08	41.19	1.03	18.66	-2.10	-18.74	4.268	4.447	3.893	3.974		$7/2^{-}$	5/2 0 ⁺
1	54	630.16		7.78		3.91	41.63	2.88	18.86	-2.05	-19.10	4.299	4.485	3.902	3.983		7/2-	
2 3	55 56	631.15		7.70		3.87	41.96	1.00	19.01	-2.00	-19.27	4.348	4.549	3.906	3.987		7/2 ⁻ 7/2 ⁻	1/2 0 ⁺
4	56 57	633.77		7.64		3.62 3.50	42.38 42.77	2.62	19.22 19.41	-1.89	-19.44 -19.81	4.369 4.412	4.571 4.627	3.916 3.920	3.997 4.001		$\frac{7/2}{7/2^{-}}$	1/2
	58	634.66		7.56 7.50		3.34	43.12	0.88 2.46	19.41	−1.77 −1.73	-19.81 -20.01	4.412	4.655	3.930	4.001		$\frac{7/2}{7/2^{-}}$	0+
5 6	59	637.11 637.79		7.30 7.42		3.34	43.12	0.68	19.58	-1.73 -1.68	-20.01 -20.14	4.437	4.033	3.932	4.010		$\frac{7/2}{7/2^{-}}$	3/2
7	60	640.13		7.42		3.14	43.43	2.34	19.75	-1.55	-20.14 -20.32	4.480	4.710	3.945	4.012		$\frac{7/2}{7/2^{-}}$	3/2 0 ⁺
, 8	61			7.30 7.28		2.77	44.20	0.43	20.11	-1.33 -1.32	-20.52 -20.55	4.545	4.734	3.950	4.020		$\frac{7/2}{7/2^{-}}$	3/2
o 9	62	640.56 642.75		7.28 7.22		2.77	44.20	2.19	20.11	-1.32 -1.32	-20.33 -20.85	4.545	4.783	3.966	4.030		$\frac{7/2}{7/2^{-}}$	0 ⁺
0	63	642.75		7.22 7.14		2.02	45.09	-0.19	20.56	-1.32 -1.03	-20.83 -21.13	4.601	4.803	3.984	4.064		$\frac{7/2}{7/2^{-}}$	3/2
1	64	644.89		7.14		2.00	45.66	2.33	20.79	-1.03 -1.12	-21.13 -21.40	4.623	4.863	3.997	4.076		$\frac{7/2}{7/2^{-}}$	0 ⁺
2	65	644.65		7.03		2.09	46.14	-0.24	21.02	-1.12 -1.08	-21.40 -21.66	4.654	4.896	4.010	4.090		$\frac{7}{2}$	7/2
3	66	646.73		6.95		1.84	46.69	2.08	21.02	-0.99	-21.00 -22.02	4.675	4.914	4.033	4.111		$\frac{7}{2}$	0+
14	67	646.45		6.88		1.80	47.20	-0.28	21.49	-0.90	-22.30	4.705	4.945	4.048	4.127		$\frac{7}{2}$	7/2
5	68	648.35		6.82		1.62	47.20	1.90	21.49	-0.85	-22.50 -22.66	4.703	4.964	4.048	4.149		$\frac{7/2}{7/2^{-}}$	0+
6	69	647.97		6.75		1.52	48.24	-0.38	21.70	-0.09	-22.95	4.756	4.993	4.089	4.167		$\frac{7/2}{7/2^{-}}$	7/2
7	70	649.74		6.70		1.32	48.83	1.77	22.18	-0.03 -0.14	-22.33 -23.30	4.779	5.013	4.112	4.189		$\frac{7}{2}$	0+
8	71	648.86		6.62		0.88	10.05	-0.88	22.10	-0.16	-23.31	4.902	5.170	4.112	4.189		$\frac{7/2}{7/2^{-}}$	3/2
9	72	648.57		6.55		-1.17		$\frac{0.08}{-0.28}$		0.53	-23.71	4.869	5.119	4.128	4.205		$\frac{7/2}{7/2^{-}}$	0+
5	12	2.71		0.55						0.55	23.71	4.003	3.113	4,120	0.043		1/2	U
	8 (Ni)	2.7 1													0.043			
0	22	385.84		7.72			1.22		1.89	-17.54	0.57	3.586	3.449	3.690	3.775		0^{+}	0^{+}
1	23	401.29		7.87			3.25	15.45	2.91	-17.13	$\frac{0.07}{-0.10}$	3.582	3.472	3.670	3.756		0^+	7/2
2	24	419.89		8.07		34.04	5.13	18.59	3.82	-16.66	-0.80	3.586	3.498	3.660	3.747		0^+	0+
3	25	434.60	435.50	8.20	8.22	33.30	7.09	14.71	4.77	-16.26	-1.54	3.587	3.519	3.648	3.734		0^{+}	7/2
4	26	452.31	453.17	8.38	8.39	32.43	8.99	17.72	5.70	-15.89	-2.28	3.592	3.540	3.639	3.726		0^{+}	0+
5	27	466.64	467.35	8.48	8.50	32.04	10.99	14.33	6.67	-13.48	-3.03	3.592	3.556	3.626	3.714		0^{+}	7/2
6	28	483.68	483.99	8.64	8.64	31.37	12.94	17.04	7.63	-13.27	-3.86	3.596	3.574	3.618	3.705		0^{+}	0+
7	29	492.76	494.24	8.64	8.67	26.12	13.89	9.08	8.13	-12.74	-4.48	3.628	3.625	3.631	3.718		0^{+}	3/2
8	30	504.08	506.46	8.69	8.73	20.40	15.18	11.33	8.80	-10.22	-5.19	3.661	3.670	3.651	3.737	3.776	0^+	0+
9	31	512.36	515.46	8.68	8.74	19.60	16.21	8.28	9.34	-9.81	-5.83	3.691	3.715	3.664	3.750		0^+	3/2
0	32	523.31	526.85	8.72	8.78	19.22	17.48	10.95	10.01	-9.69	-6.52	3.721	3.755	3.682	3.768	3.812	0^{+}	0+
1	33	530.94	534.67	8.70	8.77	18.57	18.71	7.63	10.63	-9.34	-7.18	3.752	3.797	3.697	3.783	3.823	0+	3/2
2	34	541.63	545.26	8.74	8.79	18.32	19.86	10.69	11.23	-9.25	−7.85	3.779	3.833	3.712	3.797	3.840	0^{+}	0+
3	35	548.80	552.10	8.71	8.76	17.86	20.92	7.17	11.78	-9.03	-8.46	3.807	3.871	3.726	3.811	3.0.10	0+	5/2
_	36	559.22	561.76	8.74	8.78	17.59	22.25	10.42	12.45	-8.84	-9.11	3.835	3.905	3.742	3.827	3.857	0+	0+
4	רוכ																	

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
66	38	576.10	576.81	8.73	8.74	16.89	24.59	9.79	13.64	-8.38	-10.33	3.888	3.973	3.770	3.854	<u> </u>	0+	0+
67	39	583.34	582.62	8.71	8.70	17.03	25.86	7.23	14.26	-7.49	-10.98	3.916	4.005	3.788	3.872		0^+	$1/2^{-}$
68	40	592.00	590.41	8.71	8.68	15.90	26.72	8.67	14.71	-7.30	-11.49	3.941	4.039	3.796	3.880		0^{+}	0^{+}
69	41	596.73	594.99	8.65	8.62	13.40	28.05	4.73	15.37	-7.27	-12.10	3.963	4.067	3.805	3.889		0^+	$9/2^{+}$
70	42	604.42	602.30	8.63	8.60	12.42	29.33	7.69	16.02	-5.93	-12.73	3.983	4.092	3.814	3.897		0^+	0^+
71	43	608.41	606.56	8.57	8.54	11.68	30.62	3.99	16.67	-5.65	-13.36	4.005	4.118	3.823	3.906		0^+	$9/2^{+}$
72	44	615.29	613.45	8.55	8.52	10.88	31.82	6.88	17.27	-5.35	-13.96	4.026	4.144	3.833	3.915		0^+	0^+
73	45	618.89	617.41	8.48	8.46	10.48	33.10	3.60	17.91	-5.11	-14.58	4.046	4.169	3.841	3.924		0^+	$9/2^{+}$
74	46	625.22		8.45		9.93	34.25	6.34	18.50	-4.89	-15.18	4.067	4.194	3.851	3.933		0^+	0^+
75	47	628.50		8.38		9.61	35.55	3.27	19.14	-4.64	-15.80	4.087	4.217	3.859	3.941		0^+	$9/2^{+}$
76	48	634.40		8.35		9.18	36.66	5.91	19.71	-4.45	-16.38	4.108	4.241	3.869	3.951		0^+	0+
77	49	637.39		8.28		8.90	38.14	2.99	20.39	-3.35	-17.05	4.125	4.260	3.876	3.958		0^{+}	$9/2^{+}$
78	50	642.87		8.24		8.47	39.26	5.48	21.04	-3.32	-17.64	4.144	4.282	3.886	3.967		0^+	0^+
79	51	644.38		8.16		6.99	39.66	1.51	21.17	-3.33	-17.88	4.183	4.334	3.892	3.974		0^+	$5/2^{+}$
80	52	647.57		8.09		4.70	39.82	3.19	21.32	-2.44	-18.08	4.216	4.375	3.903	3.984		0^+	0^+
81	53	648.81		8.01		4.43	40.18	1.24	21.52	-2.29	-18.32	4.254	4.425	3.908	3.989		0^+	$5/2^{+}$
82	54	651.86		7.95		4.30	40.56	3.06	21.71	-2.25	-18.57	4.284	4.462	3.918	3.999		0^+	0^{+}
83	55	653.01		7.87		4.21	40.87	1.15	21.86	-2.22	-18.75	4.331	4.526	3.922	4.003		0^+	$1/2^{+}$
84	56	655.87		7.81		4.00	41.31	2.85	22.09	-2.09	-19.04	4.352	4.546	3.933	4.014		0^+	0^+
85	57	656.93		7.73		3.92	41.68	1.07	22.28	-1.99	-19.25	4.394	4.602	3.937	4.018		0^+	$1/2^{+}$
86	58	659.59		7.67		3.73	42.06	2.66	22.48	-1.93	-19.51	4.418	4.628	3.948	4.028		0^+	0^+
87	59	660.42		7.59		3.49	42.36	0.83	22.63	-1.87	-19.69	4.459	4.681	3.951	4.031		0^+	$3/2^{+}$
88	60	663.01		7.53		3.42	42.83	2.58	22.87	-1.76	-19.99	4.483	4.706	3.965	4.045		0^{+}	0+
89	61	663.60		7.46		3.18	43.15	0.59	23.04	-1.56	-20.19	4.523	4.755	3.970	4.050		0_{+}	$3/2^{+}$
90	62	666.06		7.40		3.05	43.66	2.45	23.30	-1.56	-20.51	4.545	4.775	3.987	4.066		0^+	0^+
91	63	666.11		7.32		2.51	44.11	0.05	23.55	-1.31	-20.82	4.579	4.812	4.005	4.084		0^+	$3/2^{+}$
92	64	668.68		7.27		2.62	44.58	2.57	23.79	-1.40	-21.11	4.602	4.835	4.019	4.098		0^+	0^+
93	65	668.68		7.19		2.57	45.04	0.00	24.03	-1.37	-21.38	4.633	4.869	4.033	4.112		0^+	$7/2^{+}$
94	66	671.06		7.14		2.38	45.59	2.38	24.33	-1.29	-21.75	4.656	4.888	4.057	4.135		0^+	0^+
95	67	671.06		7.06		2.38	46.09	0.00	24.61	-1.22	-22.04	4.686	4.920	4.073	4.151		0^+	$7/2^{+}$
96	68	673.32		7.01		2.26	46.67	2.26	24.97	-1.17	-22.40	4.709	4.939	4.096	4.173		0^+	0^+
97	69	673.25		6.94		2.19	47.21	-0.07	25.28	-0.38	-22.69	4.738	4.970	4.113	4.190		0^+	$7/2^{+}$
98	70	675.37		6.89		2.05	47.82	2.12	25.64	-0.44	-23.04	4.762	4.990	4.135	4.212		0^+	0^+
99	71	674.49		6.81		1.24		-0.88	25.64	-0.46	-23.05	4.882	5.147	4.135	4.212		0^+	$3/2^{-}$
100	72	674.63		6.75		-0.74		0.14	26.06	0.36	-23.59	4.823	5.058	4.157	4.233		0^+	0^+
σ		2.17													0.040			
Z=2	9 (Cu)																	
51	22	383.41		7.52			-0.54		-2.43	-18.02	0.93	3.638	3.457	3.770	3.854		$3/2^{-}$	0^+
52	23	399.15		7.68			0.76	15.74	-2.14	-17.53	0.16	3.634	3.484	3.749	3.833		3/2-	7/2-
53	24	418.16		7.89		34.75	2.10	19.01	-1.73	-17.07	-0.57	3.634	3.510	3.734	3.819		3/2-	0^{+}
54	25	433.26		8.02		34.11	3.43	15.10	-1.34	-16.66	-1.05	3.633	3.531	3.718	3.803		3/2-	$7/2^{-}$
55	26	451.40	452.87	8.21	8.23	33.23	4.78	18.14	-0.92	-16.30	-1.94	3.635	3.554	3.707	3.792		3/2-	0^{+}
56	27	466.09		8.32		32.84	6.13	14.70	-0.55	-14.24	-2.82	3.634	3.570	3.692	3.777		3/2-	7/2-
57	28	483.55	484.69	8.48	8.50	32.15	7.50	17.46	-0.13	-13.83	-3.55	3.636	3.588	3.681	3.767		3/2-	$\mathbf{o}^{'+}$
58	29	493.58	497.12	8.51	8.57	27.49	8.95	10.03	0.82	-13.73	-4.37	3.663	3.636	3.690	3.776		3/2-	$3/2^{-}$
59	30	505.63	509.88	8.57	8.64	22.08	10.35	12.05	1.54	-11.00	-5.01	3.693	3.681	3.705	3.791		3/2-	0^{+}
60	31	514.77	519.94	8.58	8.67	21.19	11.75	9.14	2.41	-10.52	-5.41	3.720	3.724	3.715	3.800		3/2-	3/2-
61	32	526.40	531.65	8.63	8.72	20.77	13.10	11.63	3.09	-10.41	-6.56	3.747	3.764	3.730	3.814		3/2-	0^+
62	33	534.71	540.52	8.62	8.72	19.94	14.40	8.31	3.77	-9.96	-7.20	3.776	3.804	3.743	3.828		3/2-	3/2-
63	34	546.13	551.38	8.67	8.75	19.73	15.73	11.42	4.50	-9.90	-7.68	3.801	3.839	3.755	3.840	3.882	3/2-	0+
64	35	554.00	559.30	8.66	8.74	19.29	16.98	7.87	5.20	-9.67	-8.20	3.827	3.876	3.768	3.852		$3/2^{-}$	5/2 ⁻
65	36	565.00	569.21	8.69	8.76	18.87	18.24	11.01	5.79	-9.45	-8.82	3.853	3.910	3.782	3.866	3.902	3/2-	0+
66	37	572.75	576.28	8.68	8.73	18.75	19.17	7.74	6.44	-9.33	-9.40	3.880	3.945	3.795	3.878	502	3/2-	1/2-
													2.2.2				-/-	-/-

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
67	38	583.10	585.41	8.70	8.74	18.10	20.63	10.36	7.00	-8.97	-10.02	3.904	3.976	3.808	3.891		3/2-	0+
58	39	590.94	591.73	8.69	8.70	18.19	21.87	7.84	7.61	-8.02	-10.61	3.930	4.007	3.825	3.908		$3/2^{-}$	1/2
59	40	600.20	599.97	8.70	8.70	17.10	22.91	9.26	8.20	-7.84	-11.08	3.954	4.040	3.833	3.915		$3/2^{-}$	0^+
70	41	605.42	605.28	8.65	8.65	14.48	24.06	5.22	8.69	-7.80	-11.57	3.975	4.068	3.841	3.923		$3/2^{-}$	9/2
71	42	613.59	613.09	8.64	8.64	13.39	25.19	8.17	9.17	-6.42	-12.55	3.995	4.092	3.849	3.931		$3/2^{-}$	0^+
2	43	618.06	618.23	8.58	8.59	12.64	26.31	4.47	9.65	-6.12	-13.26	4.015	4.119	3.857	3.939		$3/2^{-}$	9/2
73	44	625.42	625.51	8.57	8.57	11.83	27.40	7.36	10.12	-5.82	-13.79	4.035	4.144	3.865	3.947		$3/2^{-}$	0_{+}
4	45	629.65	630.60	8.51	8.52	11.59	28.67	4.23	10.76	-5.79	-14.54	4.060	4.172	3.879	3.961		$5/2^{-}$	9/2
5	46	636.66	637.13	8.49	8.50	11.24	29.93	7.01	11.43	-5.57	-15.12	4.080	4.196	3.888	3.969		$5/2^{-}$	0^+
6	47	640.63	641.71	8.43	8.44	10.99	31.28	3.98	12.13	-5.32	-15.46	4.098	4.218	3.895	3.977		$5/2^{-}$	9/2
7	48	647.20		8.41		10.54	32.51	6.57	12.80	-5.12	-16.12	4.118	4.242	3.904	3.985		5/2-	0+
8	49	650.91	651.37	8.35	8.35	10.28	33.91	3.71	13.52	-3.86	-16.66	4.134	4.261	3.911	3.992		5/2-	9/2
9	50	657.06		8.32		9.86	35.23	6.15	14.19	-3.79	-17.25	4.153	4.282	3.919	4.000		5/2-	0+
30	51	658.78		8.23		7.87	35.58	1.73	14.41	-3.82	-17.45	4.190	4.332	3.926	4.007		5/2-	5/2
1	52	662.23		8.18		5.17	35.98	3.44	14.66	-2.69	-18.05	4.221	4.371	3.938	4.018		5/2-	0+
2	53	663.68		8.09		4.90	36.40	1.46	14.88	-2.54	-18.12	4.257	4.420	3.944	4.024		5/2-	5/2
3	54	667.01		8.04		4.78	36.85	3.33	15.15	-2.50	-18.54	4.287	4.455	3.955	4.035		$5/2^{-}$	0+
4	55	668.33		7.96		4.65	37.18	1.32	15.32	-2.48	-18.62	4.332	4.516	3.959	4.039		5/2-	1/3
5	56	671.50		7.90		4.49	37.73	3.17	15.63	-2.35	-18.97	4.351	4.536	3.971	4.051		5/2-	0+
6	57	672.75		7.82		4.42	38.10	1.25	15.82	-2.26	-19.14	4.392	4.590	3.976	4.056		5/2-	1/3
7	58	675.72		7.77		4.22	38.60	2.97	16.13	-2.20	-19.34	4.415	4.614	3.988	4.067		5/2-	0+
8	59	676.75		7.69		4.00	38.96	1.04	16.33	-2.05	-19.56	4.452	4.661	3.995	4.075		5/2-	1/3
9	60	679.66		7.64		3.94	39.52	2.90	16.65	-2.05	-19.79	4.477	4.687	4.007	4.086		3/2-	0+
0	61	680.48		7.56		3.73	39.92	0.83	16.88	-1.90	-19.89	4.509	4.730	4.003	4.082		5/2-	3/
1	62	683.31		7.51		3.66	40.56	2.83	17.26	-1.91	-20.32	4.536	4.754	4.030	4.109		5/2-	0+
2	63	683.79		7.43		3.30	41.23	0.47	17.68	-1.73	-20.60	4.569	4.791	4.045	4.124		5/2-	3/2
93	64	686.71		7.38		3.40	41.82	2.92	18.03	-1.78	-20.89	4.592	4.814	4.059	4.137		5/2-	0+
94	65	687.06		7.31		3.27	42.41	0.35	18.38	-1.76	-21.15	4.622	4.847	4.071	4.149		5/2-	7/2 0 ⁺
95	66	689.91		7.26		3.20	43.18	2.85	18.85	-1.67	-21.51	4.645	4.868	4.092	4.169		5/2-	
)6	67	690.26		7.19		3.20	43.81	0.35	19.20	-1.60	-21.78	4.674	4.899	4.105	4.182		5/2-	7/2
)7	68	692.96		7.14		3.05	44.61	2.70	19.64	-1.54	-22.14	4.696	4.919	4.126	4.203		5/2-	0+
98 99	69 70	693.23 695.75		7.07 7.03		2.97 2.80	45.26	0.27	19.97	-0.74	-22.41 -22.77	4.725	4.950	4.141	4.218		5/2 ⁻	7/2 0 ⁺
100	70 71			6.95			46.01 46.01	2.52 -0.89	20.38 20.37	$-0.80 \\ -0.82$	-22.77 -22.77	4.747 4.867	4.969 5.127	4.162 4.162	4.238 4.239		5/2 ⁻	3/2
		694.86				1.64		0.76									5/2 ⁻	0 ⁺
01	72	695.63		6.89		-0.13	47.06	0.76	21.00	<u>0.08</u>	-23.41	4.794	5.018	4.187	4.263		5/2-	0
7 _ 2	0 (Zn)	3.27													0.039			
. — ɔ'	26	451.92		8.07			-0.39		0.52	-16.82	0.40	3.673	3.574	3.757	3.841		0^{+}	0^{+}
7	27	467.11		8.19			0.47	15.20	1.02	-14.80	-0.06	3.670	3.591	3.741	3.825		0+	7/2
8	28	485.14	486.96	8.36	8.40	33.22	1.46	18.03	1.59	-14.49	-0.56	3.672	3.610	3.730	3.814		0+	0+
9	29	495.95	499.95	8.41	8.47	28.84	3.19	10.81	2.37	-14.14	-1.36	3.697	3.655	3.738	3.823		0+	3/
0	30	508.82	514.98	8.48	8.58	23.68	4.74	12.87	3.19	-11.76	-2.09	3.726	3.699	3.753	3.837		0^{+}	0+
1	31	518.72	525.22	8.50	8.61	22.77	6.36	9.90	3.95	-11.28	-2.85	3.751	3.740	3.762	3.846		0^{+}	3/2
2	32	531.12	538.12	8.57	8.68	22.30	7.82	12.41	4.73	-11.14	-3.55	3.777	3.779	3.775	3.859		0^{+}	0+
3	33	540.17	547.24	8.57	8.69	21.46	9.24	9.05	5.47	-10.70	-4.24	3.804	3.819	3.788	3.872		0^{+}	3/2
4	34	552.34	559.10	8.63	8.74	21.21	10.71	12.16	6.21	-10.62	-4.94	3.828	3.852	3.799	3.883	3.928	0^{+}	0+
55	35	560.92	567.08	8.63	8.72	20.75	12.12	8.59	6.93	-10.37	-5.62	3.852	3.887	3.811	3.894	3.520	0+	5/2
6	36	572.65	578.14	8.68	8.76	20.32	13.44	11.73	7.65	-10.15	-6.26	3.877	3.921	3.825	3.907	3.949	0+	0+
i7	37	581.11	585.19	8.67	8.73	20.19	14.80	8.46	8.36	-10.05	-6.91	3.903	3.956	3.836	3.919	3.953	0+	1/3
i8	38	592.15	595.39	8.71	8.76	19.50	16.05	11.04	9.05	-9.63	-7.53	3.926	3.986	3.849	3.932	3.966	0+	0+
	39	600.74	601.87	8.71	8.72	19.63	17.40	8.59	9.80	-8.72	-8.20	3.951	4.016	3.864	3.946	3.300	0 ⁺	1/
9			001.07	0.71	0.72													
69 70	40	610.54	611.09	8.72	8.73	18.39	18.53	9.80	10.33	-8.47	-8.74	3.973	4.048	3.872	3.954	3.985	0^+	0^{+}

Table 1 (continued)

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
72	42	625.30	625.81	8.68	8.69	14.77	20.88	8.87	11.71	-7.10	-9.91	4.013	4.100	3.888	3.969		0+	0+
73	43	630.48	631.33	8.64	8.65	14.05	22.07	5.18	12.42	-6.82	-10.50	4.033	4.126	3.895	3.976		0^+	$9/2^{+}$
74	44	638.55	639.56	8.63	8.64	13.25	23.26	8.07	13.14	-6.52	-11.09	4.053	4.151	3.904	3.985		0^+	0^+
75	45	643.36	644.44	8.58	8.59	12.88	24.47	4.80	13.71	-6.29	-11.68	4.072	4.175	3.911	3.992		0^+	9/2+
76	46	650.89	652.25	8.56	8.58	12.34	25.66	7.53	14.23	-6.07	-12.27	4.091	4.199	3.920	4.001		0^+	0^{+}
77	47	655.40	656.81	8.51	8.53	12.04	26.90	4.51	14.77	-5.85	-12.87	4.109	4.221	3.927	4.008		0^+	9/2
78	48	662.51	663.58	8.49	8.51	11.62	28.11	7.11	15.31	-5.66	-13.46	4.128	4.244	3.936	4.016		0^+	0^+
79	49	666.79	667.60	8.44	8.45	11.40	29.40	4.28	15.88	-4.18	-14.09	4.144	4.264	3.942	4.022		0^+	9/2
80	50	673.51	673.88	8.42	8.42	11.00	30.64	6.72	16.45	-4.25	-14.69	4.162	4.284	3.950	4.030		0^+	0^+
81	51	675.57	676.51	8.34	8.35	8.78	31.19	2.06	16.78	-4.24	-14.97	4.197	4.332	3.957	4.037		0+	5/2
32	52	679.37		8.28		5.85	31.80	3.80	17.14	-3.03	-15.29	4.227	4.370	3.969	4.049		0+	0_{+}
83	53	681.16		8.21		5.59	32.35	1.79	17.48	-2.88	-15.58	4.261	4.415	3.975	4.055		0^+	5/2
34	54	684.85		8.15		5.48	32.98	3.69	17.84	-2.85	-15.92	4.290	4.450	3.986	4.066		0^+	0^+
85	55	686.45		8.08		5.29	33.43	1.60	18.12	-2.83	-16.15	4.331	4.507	3.990	4.070		0^+	1/2
86	56	690.03		8.02		5.18	34.16	3.58	18.53	-2.68	-16.54	4.351	4.527	4.003	4.082		0^+	0^+
37	57	691.58		7.95		5.14	34.65	1.55	18.83	-2.60	-16.78	4.389	4.577	4.008	4.087		0^+	1/2
38	58	694.91		7.90		4.89	35.32	3.33	19.20	-2.53	-17.15	4.412	4.601	4.021	4.099		0^+	0^+
39	59	696.25		7.82		4.67	35.83	1.34	19.50	-2.37	-17.43	4.447	4.646	4.029	4.107		0^+	1/2
90	60	699.51		7.77		4.60	36.50	3.26	19.85	-2.38	-17.78	4.471	4.672	4.041	4.120		0^+	0^+
91	61	700.62		7.70		4.36	37.01	1.11	20.13	-2.27	-18.04	4.506	4.714	4.048	4.126		0^+	3/2
92	62	703.84		7.65		4.33	37.78	3.22	20.53	-2.25	-18.44	4.529	4.737	4.065	4.143		0^+	0^+
93	63	704.71		7.58		4.10	38.61	0.88	20.93	-2.11	-18.78	4.561	4.773	4.078	4.156		0^+	3/2
94	64	707.95		7.53		4.12	39.28	3.24	21.25	-2.14	-19.13	4.583	4.796	4.093	4.171		0^+	0^{+}
95	65	708.63		7.46		3.92	39.95	0.68	21.57	-2.11	-19.43	4.613	4.829	4.105	4.182		0^+	7/2
96	66	711.91		7.42		3.95	40.85	3.28	22.00	-2.03	-19.85	4.636	4.851	4.124	4.201		0^+	0^+
97	67	712.59		7.35		3.96	41.53	0.69	22.33	-1.96	-20.15	4.665	4.883	4.136	4.213		0^+	7/2
98	68	715.72		7.30		3.81	42.40	3.12	22.76	-1.90	-20.57	4.687	4.903	4.156	4.233		0^+	0+
99	69	716.32		7.24		3.73	43.07	0.61	23.10	-1.08	-20.86	4.716	4.935	4.169	4.245		0^+	7/2
100	70	719.27		7.19		3.55	43.90	2.95	23.52	-1.15	-21.27	4.739	4.955	4.190	4.266		0^+	0+
101	71	718.41		7.11		2.09	43.92	-0.86	23.55	-1.17	-21.29	4.855	5.110	4.190	4.266		0^+	3/2
102	72	719.85		7.06		0.58	45.22	1.44	24.22	-0.23	-22.01	4.782	4.999	4.216	4.291		0^+	0^{+}
103	73	719.00		6.98		0.59		-0.85		-0.24	-22.03	4.892	5.144	4.216	4.291		0^+	3/2
104	74	719.81		6.92		-0.04		0.81		-0.03	-22.67	4.830	5.050	4.240	4.315		0^+	0+
105	75	718.99		6.85		-0.01		-0.82		-0.03	-22.71	4.933	5.184	4.241	4.315		0^+	3/2
106	76	719.46		6.79		-0.35		0.47		0.10	-23.26	4.884	5.109	4.262	4.336		0+	0+
7		3.82													0.038			
	1 (Ga)																	
59	28	483.81		8.20			0.26		$\frac{-1.34}{2.42}$	-15.06	0.07	3.711	3.623	3.789	3.873		3/2-	0+
50	29	495.46		8.26	0.4-	0=	1.88	11.65	$\frac{-0.49}{0.000}$	-14.89	-0.65	3.732	3.667	3.793	3.876		3/2-	3/2
51	30	509.04	515.23	8.34	8.45	25.23	3.41	13.58	0.22	-12.50	-1.38	3.758	3.710	3.804	3.887		3/2-	0+
52	31	519.75	528.16	8.38	8.52	24.29	4.98	10.71	1.03	-11.96	-2.08	3.779	3.748	3.809	3.892		3/2-	3/2
53	32	532.83	540.79	8.46	8.58	23.79	6.43	13.08	1.70	-11.83	-2.79	3.803	3.786	3.820	3.903		3/2-	0+
54	33	542.51	551.15	8.48	8.61	22.76	7.80	9.69	2.34	-11.32	-3.48	3.828	3.826	3.831	3.914		3/2-	3/2
65	34	555.40	563.04	8.54	8.66	22.57	9.27	12.89	3.06	-11.25	-4.16	3.849	3.858	3.839	3.922		$3/2^{-}$	0+
66	35	564.67	572.18	8.56	8.67	22.15	10.67	9.27	3.74	-10.99	-4.85	3.872	3.892	3.849	3.931		3/2-	5/2
57	36	576.96	583.40	8.61	8.71	21.56	11.95	12.29	4.30	-10.75	-5.50	3.896	3.926	3.862	3.944		$3/2^{-}$	0+
58	37	586.04	591.68	8.62	8.70	21.38	13.30	9.09	4.94	-10.65	-6.14	3.920	3.960	3.873	3.954		$3/2^{-}$	1/2
69	38	597.65	602.00	8.66	8.72	20.69	14.54	11.60	5.50	-10.21	-6.79	3.943	3.989	3.885	3.966	3.997	$3/2^{-}$	0_{+}
70	39	606.85	609.65	8.67	8.71	20.81	15.91	9.21	6.11	-9.29	-7.47	3.966	4.019	3.898	3.980		$3/2^{-}$	1/2
71	40	617.20	618.95	8.69	8.72	19.55	17.00	10.34	6.66	-9.03	-8.00	3.988	4.050	3.906	3.987	4.012	$3/2^{-}$	0^+
72	41	623.62	625.47	8.66	8.69	16.77	18.20	6.43	7.19	-8.96	-8.60	4.008	4.077	3.913	3.994		3/2-	9/2
	42	633.02	634.65	8.67	8.69	15.82	19.43	9.40	7.72	-7.63	-9.22	4.026	4.102	3.920	4.001		3/2-	0+
73	12																	9/2

Table 1 (continued)

abic i (Continue																	
Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
75	44	647.31	649.56	8.63	8.66	14.30	21.90	8.59	8.76	-7.04	-10.43	4.064	4.152	3.935	4.015		3/2-	0^+
76	45	652.75	655.46	8.59	8.62	14.03	23.10	5.44	9.39	-6.94	-11.00	4.084	4.178	3.944	4.024		$5/2^{-}$	$9/2^{+}$
77	46	660.92	663.23	8.58	8.61	13.61	24.27	8.17	10.04	-6.72	-11.57	4.103	4.201	3.952	4.032		$5/2^{-}$	0^+
78	47	666.10	669.02	8.54	8.58	13.35	25.47	5.18	10.70	-6.50	-12.15	4.120	4.223	3.958	4.038		$5/2^{-}$	$9/2^{+}$
79	48	673.86	675.93	8.53	8.56	12.94	26.66	7.76	11.35	-6.31	-12.73	4.138	4.245	3.966	4.046		$5/2^{-}$	0^+
80	49	678.84	680.68	8.49	8.51	12.74	27.93	4.98	12.05	-4.78	-13.34	4.153	4.264	3.972	4.052		$5/2^{-}$	$9/2^{+}$
81	50	686.22	687.15	8.47	8.48	12.36	29.17	7.39	12.71	-4.75	-13.94	4.170	4.285	3.979	4.059		$5/2^{-}$	0^+
82	51	688.50	690.53	8.40	8.42	9.67	29.72	2.28	12.94	-4.72	-14.23	4.204	4.330	3.987	4.066		$5/2^{-}$	$5/2^{+}$
83	52	692.60	694.92	8.34	8.37	6.38	30.37	4.10	13.23	-3.31	-14.58	4.233	4.367	3.999	4.078		$5/2^{-}$	0+
84	53	694.62		8.27		6.12	30.94	2.03	13.47	-3.16	-14.88	4.266	4.411	4.005	4.084		$5/2^{-}$	5/2+
85	54	698.62		8.22		6.03	31.61	4.00	13.78	-3.13	-15.24	4.293	4.444	4.017	4.096		$5/2^{-}$	0^+
86	55	700.41		8.14		5.79	32.08	1.79	13.97	-3.12	-15.48	4.333	4.499	4.021	4.100		$5/2^{-}$	$1/2^{+}$
87	56	704.36		8.10		5.73	32.86	3.94	14.33	-2.98	-15.90	4.352	4.518	4.035	4.114		$5/2^{-}$	0+
88	57	706.12		8.02		5.71	33.37	1.76	14.54	-2.91	-16.16	4.389	4.567	4.040	4.119		$5/2^{-}$	1/2+
89	58	709.82		7.98		5.46	34.10	3.70	14.91	-2.84	-16.55	4.411	4.589	4.055	4.133		$5/2^{-}$	0+
90	59	711.42		7.90		5.30	34.66	1.60	15.17	-2.71	-16.85	4.444	4.632	4.063	4.141		$5/2^{-}$	1/2+
91	60	715.02		7.86		5.20	35.37	3.60	15.51	-2.71	-17.22	4.468	4.657	4.076	4.154		$5/2^{-}$	0+
92	61	716.39		7.79		4.97	35.90	1.37	15.77	-2.63	-17.50	4.500	4.698	4.084	4.161		5/2-	$3/2^{+}$
93	62	720.01		7.74		4.99	36.70	3.62	16.17	-2.60	-17.89	4.523	4.720	4.101	4.178		$5/2^{-}$	0+
94	63	721.23		7.67		4.84	37.44	1.22	16.51	-2.50	-18.23	4.554	4.756	4.112	4.190		5/2-	3/2+
95	64	724.83		7.63		4.82	38.12	3.60	16.87	-2.50	-18.59	4.577	4.779	4.127	4.204		5/2-	0+
96	65	725.89		7.56		4.66	38.83	1.06	17.25	-2.39	-18.98	4.606	4.810	4.144	4.220		5/2-	3/2+
97	66	729.51		7.52		4.69	39.61	3.63	17.61	-2.41	-19.28	4.628	4.834	4.156	4.233		5/2-	0+
98	67	730.51		7.45		4.62	40.25	0.99	17.91	-2.33	-19.56	4.657	4.867	4.167	4.243		5/2-	7/2+
99	68	734.07		7.41		4.55	41.11	3.56	18.35	-2.27	-19.98	4.679	4.887	4.186	4.262		5/2-	0+
100	69	734.97		7.35		4.46	41.74	0.90	18.64	-1.45	-20.24	4.708	4.920	4.197	4.272		5/2-	7/2+
101	70	738.34		7.31		4.27	42.58	3.37	19.07	-1.54	-20.65	4.730	4.940	4.217	4.292		5/2-	0+
102	71	737.68		7.23		2.71	42.81	$\frac{-0.66}{2.04}$	19.27	-1.53	-21.05	4.751	4.961	4.231	4.306		5/2-	11/2-
103	72	739.71		7.18		1.38	44.09	2.04	19.86	-0.61	-21.42	4.770	4.980	4.243	4.318		5/2-	0+
104	73	738.88		7.10		1.20		$\frac{-0.84}{1.53}$	19.88	-0.62	-21.44	4.879	5.125	4.244	4.318		5/2-	3/2-
105	74	740.40		7.05		0.69		1.52	20.59	-0.37	-22.13	4.814	5.025	4.269	4.343		5/2-	0+
106	75 76	739.60		6.98		0.72		$\frac{-0.80}{1.12}$	20.61	-0.38	-22.16	4.916	5.159	4.269	4.343		5/2-	3/2-
107	76	740.72		6.92		0.31		1.12	21.25	-0.21	-22.79	4.859	5.072	4.293	4.367		5/2-	0+
108	77	739.95		6.85		0.35		$\frac{-0.77}{0.93}$		-0.22	-22.83	4.954	5.197	4.294	4.368		5/2 ⁻	$\frac{3/2^{-}}{0^{+}}$
109	78	740.76		6.80		0.05		0.82		-0.08	-23.40	4.908	5.125	4.315	4.389		5/2-	
110	79 80	740.03		6.73		0.08		$\frac{-0.74}{0.57}$		-0.09	-23.45 -23.91	4.996	5.239	4.317 4.334	4.390 4.408		5/2 ⁻	$\frac{3}{2}^{-}$ 0^{+}
111 σ	80	740.60 4.76		6.67		<u>-0.16</u>		0.57		0.02	-23.91	4.964	5.187	4.334	0.028		5/2-	U ·
Z=3	32 (Ge)																	
60	28	484.62		8.08			-0.52		0.82	-15.68	0.39	3.745	3.643	3.832	3.914		0^+	0^+
61	29	496.99		8.15			1.04	12.36	1.53	-15.29	-0.32	3.764	3.684	3.836	3.918		0^{+}	3/2-
62	30	511.34		8.25		26.72	2.52	14.36	2.31	-13.21	-1.03	3.789	3.727	3.846	3.929		0^{+}	0+
63	31	522.75	530.38	8.30	8.42	25.76	4.03	11.41	3.00	-12.68	-1.73	3.808	3.763	3.851	3.933		0^{+}	3/2-
64	32	536.57	545.84	8.38	8.53	25.22	5.44	13.82	3.74	-12.53	-2.41	3.831	3.800	3.861	3.943		0^{+}	0+
65	33	546.97	556.08	8.41	8.56	24.22	6.79	10.40	4.45	-12.03	-3.08	3.854	3.839	3.871	3.952		0^{+}	3/2-
66	34	560.55	569.28	8.49	8.63	23.98	8.21	13.58	5.15	-11.94	-3.75	3.874	3.870	3.878	3.960		0^{+}	0+
67	35	570.51	578.40	8.52	8.63	23.54	9.58	9.96	5.84	-11.65	-4.42	3.895	3.902	3.887	3.968		0^{+}	5/2-
68	36	583.49	590.79	8.58	8.69	22.94	10.84	12.98	6.53	-11.41	-5.05	3.919	3.936	3.899	3.980		0^{+}	0+
69	37	593.23	598.99	8.60	8.68	22.72	12.12	9.74	7.18	-11.32	-5.67	3.941	3.969	3.909	3.990		0^{+}	1/2-
70	38	605.52	610.52	8.65	8.72	22.03	13.37	12.29	7.87	-10.84	-6.30	3.963	3.998	3.920	4.001	4.0414	0^{+}	0+
71	39	615.40	617.93	8.67	8.70	22.18	14.67	9.89	8.55	-9.94	-6.95	3.984	4.027	3.932	4.013	•	0+	1/2-
72	40	626.28	628.69	8.70	8.73	20.77	15.75	10.88	9.09	-9.63	-7.48	4.005	4.057	3.940	4.020	4.0576	0 ⁺	0+
73	41	633.35	635.47	8.68	8.71	17.94	16.92	7.06	9.73	-9.57	-8.06	4.024	4.084	3.946	4.026	4.0632	0^{+}	9/2 ⁺
	••	000,00	000	0.00	o., .				55	0.0.	0,00		.,	3.5 .5			•	٥, ـ

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
74	42	643.39	645.66	8.69	8.73	17.11	18.09	10.05	10.38	-8.26	-8.64	4.042	4.108	3.953	4.033	4.0742	0+	0+
75	43	649.75	652.17	8.66	8.70	16.40	19.27	6.36	11.03	-7.98	-9.22	4.060	4.133	3.959	4.039		0^+	$9/2^{+}$
76	44	659.00	661.60	8.67	8.71	15.61	20.45	9.25	11.69	-7.69	-9.80	4.078	4.158	3.967	4.047	4.0811	0^{+}	0+
77	45	664.99	667.67	8.64	8.67	15.25	21.64	5.99	12.25	-7.46	-10.38	4.096	4.181	3.973	4.053		0^+	$9/2^{+}$
78	46	673.71	676.39	8.64	8.67	14.71	22.82	8.72	12.79	-7.25	-10.96	4.114	4.204	3.981	4.060		0^+	0+
79	47	679.43	682.13	8.60	8.63	14.44	24.04	5.72	13.33	-7.04	-11.55	4.130	4.226	3.987	4.066		0^+	$9/2^{+}$
80	48	687.75	690.21	8.60	8.63	14.03	25.24	8.31	13.88	-6.86	-12.13	4.148	4.247	3.994	4.073		0^+	0+
81	49	693.29	695.03	8.56	8.58	13.85	26.49	5.54	14.45	-4.99	-12.74	4.163	4.266	3.999	4.078		0^+	9/2+
82	50	701.24	702.23	8.55	8.56	13.49	27.72	7.95	15.01	-5.23	-13.33	4.179	4.286	4.006	4.085		0^+	0^+
83	51	703.86	705.86	8.48	8.50	10.57	28.29	2.62	15.35	-5.19	-13.63	4.211	4.330	4.013	4.092		0^+	5/2
84	52	708.33	711.10	8.43	8.47	7.09	28.96	4.47	15.73	-3.66	-13.99	4.239	4.365	4.026	4.105		0^+	0^+
85	53	710.70	714.15	8.36	8.40	6.84	29.54	2.37	16.07	-3.51	-14.30	4.270	4.407	4.033	4.111		0^+	5/2⁴
86	54	715.07		8.31		6.74	30.22	4.38	16.45	-3.48	-14.66	4.297	4.440	4.045	4.123		0^+	0^+
87	55	717.16		8.24		6.47	30.72	2.09	16.75	-3.30	-14.97	4.328	4.481	4.052	4.130		0^+	5/2+
88	56	721.51		8.20		6.44	31.49	4.35	17.16	-3.32	-15.33	4.354	4.511	4.064	4.142		0^+	0^+
89	57	723.58		8.13		6.41	32.00	2.06	17.46	-3.27	-15.60	4.388	4.557	4.068	4.146		0^+	1/2
90	58	727.67		8.09		6.15	32.76	4.09	17.85	-3.17	-16.00	4.410	4.580	4.083	4.161		0^+	0^+
91	59	729.58		8.02		6.01	33.33	1.92	18.17	-3.06	-16.30	4.442	4.621	4.092	4.169		0^+	1/2
92	60	733.56		7.97		5.89	34.05	3.97	18.54	-3.05	-16.68	4.465	4.645	4.106	4.183		0^+	0^{+}
93	61	735.26		7.91		5.67	34.64	1.70	18.87	-2.92	-17.02	4.496	4.681	4.118	4.195		0^+	1/2
94	62	739.23		7.86		5.68	35.40	3.98	19.23	-2.94	-17.37	4.519	4.707	4.130	4.207		0^+	0^{+}
95	63	740.80		7.80		5.55	36.09	1.57	19.58	-2.86	-17.69	4.548	4.742	4.141	4.218		0^+	3/2
96	64	744.75		7.76		5.52	36.80	3.95	19.93	-2.84	-18.06	4.571	4.765	4.156	4.233		0^{+}	0^+
97	65	746.21		7.69		5.41	37.58	1.46	20.33	-2.76	-18.43	4.599	4.796	4.171	4.247		0^+	3/2
98	66	750.14		7.65		5.39	38.23	3.93	20.63	-2.75	-18.75	4.622	4.820	4.184	4.260		0^+	0^+
99	67	751.48		7.59		5.26	38.88	1.34	20.97	-2.62	-19.16	4.649	4.848	4.202	4.278		0^+	3/2
100	68	755.39		7.55		5.25	39.67	3.91	21.32	-2.60	-19.43	4.672	4.873	4.212	4.287		0^+	0^+
101	69	756.57		7.49		5.09	40.24	1.18	21.60	-1.81	-19.67	4.700	4.906	4.221	4.296		0^+	7/2
102	70	760.33		7.45		4.95	41.06	3.77	22.00	-1.88	-20.08	4.722	4.926	4.240	4.315		0+	0^+
103	71	760.07		7.38		3.50	41.66	-0.27	22.39	-1.90	-20.48	4.742	4.947	4.254	4.328		0+	11/2
104	72	762.46		7.33		2.12	42.61	2.39	22.74	-0.95	-20.87	4.761	4.965	4.266	4.341		0+	0+
105	73	761.84		7.26		1.77	42.83	-0.62	22.96	-0.82	-21.25	4.782	4.986	4.280	4.354		0+	11/2
106	74	763.84		7.21		1.39	44.03	2.01	23.44	-0.70	-21.60	4.803	5.007	4.292	4.366		0+	0+
107	75	763.07		7.13		1.24	44.08	$\frac{-0.77}{-0.77}$	23.48	-0.71	-21.63	4.902	5.140	4.292	4.366		0+	3/2
108	76	764.83		7.08		0.98	45.36	1.76	24.11	-0.52	-22.30	4.845	5.051	4.317	4.390		0+	0+
109	77	764.10		7.01		1.03		<u>-0.73</u>	24.15	-0.53	-22.34	4.938	5.174	4.317	4.391		0+	3/2
110	78	765.51		6.96		0.68		1.41	24.75	-0.36	-22.97	4.889	5.097	4.341	4.414		0+	0+
111	79	764.82		6.89		0.73		$\frac{-0.68}{1.00}$	24.80	-0.38	-23.01	4.975	5.210	4.341	4.415		0+	3/2
112	80	765.91		6.84		0.40		1.09	25.31	-0.21	-23.56	4.936	5.148	4.362	4.435		0+	0+
113	81	765.27		6.77		0.45		$\frac{-0.64}{0.75}$		-0.22	-23.62	5.015	5.250	4.364	4.436		0+	3/2
114	82	766.02		6.72		0.11		0.75		-0.07	-24.02	4.992	5.212	4.379	4.451		0+	0+
115	83	765.41		6.66		0.14		$\frac{-0.61}{0.42}$		-0.07	-24.10	5.064	5.303	4.381	4.454		0+	3/2
116	84	765.89		6.60		-0.13		0.48		<u>0.01</u>	-24.32	5.060	5.293	4.390	4.462		0^+	0^+
σ		4.96													0.038			
Z = 3	3 (As)																	
61	28	482.17		7.90			-1.64		-2.46	-16.27	0.97	3.785	3.660	3.888	3.970		$3/2^{-}$	0^{+}
62	29	495.17		7.99			-0.29	13.00	-1.82	-15.98	0.35	3.801	3.699	3.888	3.969		3/2-	3/2
63	30	510.24		8.10		28.07	1.20	15.07	-1.10	-13.87	-0.37	3.823	3.742	3.896	3.977		3/2-	0+
64	31	522.26		8.16		27.09	2.51	12.02	-0.49	-13.35	-0.98	3.840	3.778	3.898	3.979		3/2-	3/2
65	32	536.78	545.76	8.26	8.40	26.55	3.96	14.52	0.22	-13.19	-1.68	3.861	3.814	3.906	3.987		3/2-	0+
66	33	547.88	558.92	8.30	8.47	25.62	5.37	11.09	0.91	-12.71	-2.36	3.882	3.851	3.914	3.995		$3/2^{-}$	3/2
UU																		
67	34	562.11	571.55	8.39	8.53	25.33	6.71	14.23	1.56	-12.60	-3.00	3.901	3.882	3.920	4.001		$3/2^{-}$	0^+

(continued on next page)

Α	N	E _b Cal.	E _b Exp.	E _b ^{Cal.} /A	E _b Exp. /A	S_{2n}	S_{2p}	S_n	S_p	λ_n	λ_p	R_m	R_n	R_p	R _c Cal.	$R_{\rm c}^{\rm Exp.}$	$j^{\pi}(P)$	j ^π (N
		(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(fm)	(fm)	(fm)	(fm)	(fm)	J (-)	, (-
9	36	586.40	594.22	8.50	8.61	24.29	9.44	13.66	2.91	-12.06	-4.33	3.941	3.945	3.937	4.018		3/2-	0^+
0	37	596.74	603.52	8.52	8.62	24.00	10.69	10.34	3.51	-11.98	-4.94	3.962	3.977	3.946	4.026		$3/2^{-}$	1/2
1	38	609.68	615.14	8.59	8.66	23.29	12.04	12.95	4.17	-11.44	-5.61	3.982	4.004	3.956	4.036		$3/2^{-}$	0^{+}
2	39	620.21	623.55	8.61	8.66	23.47	13.36	10.53	4.81	-10.56	-6.26	4.002	4.032	3.966	4.046		3/2-	1/2
3	40	631.59	634.34	8.65	8.69	21.90	14.39	11.37	5.30	-10.20	-6.77	4.022	4.062	3.973	4.053		3/2-	0+
4	41	639.24	642.32	8.64	8.68	19.03	15.62	7.65	5.89	-10.14	-7.38	4.040	4.088	3.979	4.059		3/2-	9/2
' 5	42	649.87	652.57	8.66	8.70	18.28	16.85	10.63	6.48	-8.84	-7.99	4.057	4.112	3.985	4.064	4.097	3/2-	0+
6	43	656.80	659.89	8.64	8.68	17.56	18.08	6.93	7.05	-8.55	-8.59	4.074	4.137	3.990	4.070		3/2-	9/2
7	44	666.61	669.59	8.66	8.70	16.75	19.30	9.81	7.61	-8.25	-9.20	4.091	4.161	3.997	4.076		3/2-	0+
8	45	673.16	676.56	8.63	8.67	16.36	20.41	6.55	8.17	-8.02	-9.80	4.108	4.184	4.002	4.081		3/2-	9/2
9	46	682.46	685.45	8.64	8.68	15.84	21.53	9.29	8.74	-7.85	-10.26	4.125	4.207	4.009	4.088		5/2-	0+
0	47	688.79	692.10	8.61	8.65	15.63	22.69	6.34	9.36	-7.64	-10.81	4.141	4.228	4.014	4.093		5/2-	9/2
1	48	697.72	700.49	8.61	8.65	15.26	23.85	8.92	9.97	−7.47	-11.36	4.158	4.249	4.021	4.100		5/2-	0+
2	49	703.89	706.13	8.58	8.61	15.10	25.06	6.18	10.61	-5.79	-11.91	4.172	4.268	4.026	4.104		5/2-	9/2
3	50	712.47	713.77	8.58	8.60	14.76	26.25	8.58	11.24	-5.74	-11.31 -12.46	4.172	4.287	4.032	4.111		$\frac{5/2}{5/2^{-}}$	0+
4	51	715.36	718.03	8.52	8.55	11.47	26.86	2.89	11.50	-5.61	-12.40 -12.81	4.218	4.329	4.040	4.118		5/2 ⁻	5/
	51 52	713.30	718.03				27.59	4.83		-3.99		4.216	4.329	4.040			$\frac{5/2}{5/2^{-}}$	0 ⁺
5				8.47	8.51	7.71			11.86		-13.21				4.131			5/
6	53	722.83	727.28	8.41	8.46	7.47	28.21	2.65	12.14	-3.84	-13.56	4.275	4.404	4.060	4.138		5/2 ⁻	5/ 0 ⁺
7	54	727.57	732.01	8.36	8.41	7.38	28.94	4.74	12.50	-3.82	-13.95	4.302	4.436	4.073	4.150		5/2 ⁻	
8	55	729.95		8.29		7.11	29.53	2.38	12.78	-3.64	-14.29	4.331	4.475	4.080	4.157		5/2-	5/
9	56	734.66		8.25		7.09	30.30	4.71	13.14	-3.67	-14.67	4.356	4.505	4.092	4.169		5/2-	0+
0	57	736.98		8.19		7.04	30.86	2.33	13.41	-3.63	-15.07	4.388	4.548	4.096	4.173		3/2-	1/
1	58	741.47		8.15		6.81	31.65	4.49	13.80	-3.52	-15.39	4.410	4.571	4.113	4.190		$5/2^{-}$	0+
2	59	743.70		8.08		6.71	32.28	2.23	14.11	-3.42	-15.79	4.440	4.610	4.120	4.197		$3/2^{-}$	1/
3	60	748.05		8.04		6.58	33.03	4.35	14.49	-3.40	-16.18	4.463	4.634	4.134	4.211		$3/2^{-}$	0+
4	61	750.07		7.98		6.38	33.69	2.03	14.82	-3.28	-16.53	4.492	4.669	4.147	4.223		$3/2^{-}$	1/
5	62	754.41		7.94		6.37	34.41	4.34	15.18	-3.29	-16.89	4.515	4.694	4.158	4.235		$3/2^{-}$	0^{+}
6	63	756.32		7.88		6.25	35.10	1.91	15.52	-3.24	-17.20	4.544	4.728	4.169	4.245		$3/2^{-}$	3/
7	64	760.62		7.84		6.20	35.79	4.29	15.87	-3.19	-17.59	4.566	4.751	4.184	4.260		$3/2^{-}$	0^{+}
8	65	762.46		7.78		6.13	36.57	1.84	16.24	-3.12	-17.94	4.593	4.782	4.197	4.273		$3/2^{-}$	3/
9	66	766.70		7.74		6.08	37.19	4.24	16.56	-3.10	-18.16	4.616	4.806	4.211	4.287		5/2-	0+
00	67	768.46		7.68		6.00	37.95	1.76	16.98	-2.99	-18.55	4.643	4.834	4.228	4.303		5/2-	3/
01	68	772.64		7.65		5.94	38.57	4.18	17.25	-2.95	-18.82	4.665	4.859	4.238	4.313		5/2-	0^{+}
02	69	774.21		7.59		5.75	39.24	1.58	17.64	-2.21	-19.23	4.691	4.885	4.257	4.332		5/2-	3/
03	70	778.23		7.56		5.59	39.89	4.02	17.90	-2.25	-19.44	4.714	4.912	4.264	4.338		5/2-	0+
04	71	778.39		7.48		4.18	40.71	0.16	18.32	-2.29	-19.82	4.735	4.933	4.277	4.351		5/2-	11
05	72	781.17		7.44		2.94	41.45	2.78	18.71	-1.34	-20.20	4.753	4.951	4.289	4.363		5/2-	0^{+}
06	73	780.96		7.37		2.57	42.08	-0.21	19.12	-1.21	-20.58	4.773	4.971	4.302	4.376		5/2-	11
07	74	783.32		7.32		2.16	42.92	2.37	19.48	-1.07	-20.93	4.793	4.991	4.315	4.388		5/2-	0+
08	75	782.94		7.25		1.98	43.34	-0.39	19.87	-0.96	-21.29	4.813	5.012	4.328	4.401		5/2-	11
09	76	785.05		7.20		1.73	44.34	2.12	20.23	-0.87	-21.62	4.833	5.032	4.340	4.413		5/2-	0+
10	77	784.53		7.13		1.59	44.58	-0.53	20.43	-0.76	-21.98	4.853	5.052	4.353	4.426		5/2-	11
11	78	786.46		7.13		1.41	45.70	1.94	20.45	-0.70	-21.36 -22.29	4.874	5.074	4.365	4.437		$\frac{5/2}{5/2^{-}}$	0+
	78 79																$\frac{5/2}{5/2^{-}}$	3/
12	79 80	785.81		7.02		1.28	45.78	$\frac{-0.66}{1.76}$	20.98	-0.73	-22.34	4.958	5.186	4.365	4.438			رد 0 ⁺
13 14	80 81	787.56		6.97		1.10	46.96		21.65	-0.51	-22.93	4.915	5.117	4.389	4.461		5/2 ⁻	-
		786.97		6.90		1.16		$\frac{-0.60}{1.27}$	21.69	-0.54	-22.98	4.994	5.220	4.389	4.462		5/2 ⁻	3/: 0 ⁺
15	82	788.23		6.85		0.67		1.27	22.21	-0.26	-23.45	4.963	5.170	4.408	4.480		5/2 ⁻	-
16	83	787.69		6.79		0.73		$\frac{-0.54}{0.60}$	22.28	-0.27	-23.53	5.035	5.263	4.410	4.482		5/2-	3/
17	84	788.37		6.74		0.14		0.68	22.48	-0.10	-23.74	5.029	5.249	4.418	4.490		5/2-	0+
18	85	787.83		6.68		0.14		-0.54		-0.09	-23.82	5.093	5.332	4.420	4.492		$5/2^{-}$	3/
19	86	788.30		6.62		-0.07		0.47		-0.05	-23.96	5.100	5.336	4.425	4.497		$5/2^{-}$	0^{+}
20	87	787.74		6.56		-0.09		-0.56		-0.03	-24.05	5.158	5.409	4.427	4.499		$5/2^{-}$	3/
21	88	788.17		6.51		-0.13		0.43		-0.02	-24.17	5.171	5.422	4.431	4.503		5/2-	0+
22	89	787.60		6.46		-0.14		-0.57		-0.03	-24.23	5.232	5.499	4.433	4.504		5/2-	1/

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
123	90	788.02		6.41		<u>-0.15</u>		0.43		-0.01	-24.37	5.239	5.504	4.437	4.509		5/2-	0+
124	91	787.49		6.35		$\frac{-0.11}{0.15}$		$\frac{-0.54}{0.33}$		0.00	-24.45	5.293	5.570	4.439	4.510		5/2-	1/2-
125	92	787.87		6.30		<u>-0.15</u>		0.38		<u>0.01</u>	-24.56	5.305	5.582	4.443	4.514		$5/2^{-}$	0^+
σ		5.39													0.033			
	34 (Se)	400.05		==0			0.05		2.24	40.05		0.040			4.00=		0.1	0.1
62	28	482.37		7.78			$\frac{-2.25}{0.00}$	12.74	0.21	-16.87	$\frac{1.24}{0.61}$	3.816	3.677	3.927	4.007		0^{+}	0 ⁺
63 64	29 30	496.11 511.90		7.87 8.00		29.53	$\frac{-0.88}{0.56}$	13.74 15.79	0.94 1.66	-16.48 -14.57	$\frac{0.61}{-0.08}$	3.830 3.851	3.714 3.756	3.927 3.934	4.007 4.014		0+	3/2 ⁻ 0 ⁺
65	31	524.65		8.07		28.54	1.90	12.74	2.39	-14.37 -14.03	-0.08 -0.70	3.866	3.789	3.935	4.014		0+	3/2-
66	32	539.85		8.18		27.95	3.28	15.20	3.07	-14.05 -13.86	-0.70 -1.37	3.886	3.825	3.942	4.022		0+	0+
67	33	551.59	560.76	8.23	8.37	26.94	4.63	11.74	3.71	-13.35	-2.03	3.906	3.861	3.949	4.029		0^{+}	3/2-
68	34	566.51	576.44	8.33	8.48	26.66	5.96	14.92	4.40	-13.24	-2.66	3.922	3.890	3.954	4.034		0^+	0+
69	35	577.82	586.76	8.37	8.50	26.23	7.31	11.31	5.08	-12.94	-3.30	3.939	3.920	3.958	4.039		0^+	5/2-
70	36	592.07	600.32	8.46	8.58	25.56	8.58	14.25	5.67	-12.68	-3.94	3.961	3.952	3.969	4.049		0^+	0^+
71	37	603.02	609.61	8.49	8.59	25.20	9.79	10.95	6.28	-12.60	-4.54	3.981	3.984	3.977	4.057		0+	1/2-
72	38	616.58	622.40	8.56	8.64	24.52	11.07	13.57	6.90	-12.04	-5.18	4.000	4.011	3.987	4.066		0+	0+
73	39	627.73	630.83	8.60	8.64	24.71	12.32	11.14	7.52	-11.14	-5.80	4.019	4.039	3.996	4.075	4.070	0+	1/2-
74	40	639.66	642.89	8.64	8.69	23.07	13.37	11.93	8.07	-10.77	-6.33	4.038	4.067	4.003	4.082	4.070	0^{+}	0+
75 76	41 42	647.88 659.09	650.92 662.07	8.64 8.67	8.68 8.71	20.15 19.44	14.54 15.70	8.22 11.21	8.64 9.23	-10.70 -9.41	-6.90 -7.48	4.055 4.071	4.093 4.118	4.008 4.014	4.087 4.093	4.140	0+	9/2 ⁺ 0 ⁺
77	43	666.61	669.49	8.66	8.69	18.73	16.86	7.52	9.23	-9.41 -9.13	-7.46 -8.05	4.071	4.116	4.014	4.093	4.140	0+	9/2+
'8	44	677.02	679.99	8.68	8.72	17.92	18.02	10.41	10.41	-8.84	-8.62	4.105	4.165	4.025	4.103	4.141	0+	0+
9	45	684.17	686.95	8.66	8.70	17.56	19.18	7.15	11.01	-8.61	-9.18	4.121	4.188	4.030	4.108	7,171	0+	9/2 ⁺
80	46	694.04	696.87	8.68	8.71	17.02	20.33	9.87	11.59	-8.40	-9.74	4.137	4.210	4.036	4.114	4.140	0^+	0+
31	47	700.94	703.57	8.65	8.69	16.77	21.50	6.90	12.14	-8.20	-10.30	4.152	4.231	4.041	4.119		0^+	9/2+
32	48	710.41	712.84	8.66	8.69	16.37	22.66	9.47	12.69	-8.02	-10.85	4.168	4.252	4.047	4.125	4.140	0^+	0+
33	49	717.15	718.66	8.64	8.66	16.21	23.86	6.74	13.25	-5.80	-11.41	4.182	4.270	4.051	4.129		0^+	$9/2^{+}$
34	50	726.28	727.34	8.65	8.66	15.87	25.05	9.14	13.81	-6.16	-11.96	4.197	4.289	4.057	4.135		0^+	0^+
35	51	729.52	731.88	8.58	8.61	12.38	25.67	3.24	14.16	-5.83	-12.31	4.226	4.330	4.064	4.142		0+	5/2+
36	52	734.76	738.04	8.54	8.58	8.47	26.43	5.24	14.57	-4.36	-12.72	4.253	4.363	4.078	4.156		0+	0+
37	53	737.75	742.03	8.48	8.53	8.22	27.05	2.99	14.91	-4.21	-13.06	4.281	4.402	4.085	4.163		0^{+}	5/2 ⁺ 0 ⁺
38 39	54 55	742.88 745.60	747.56 750.74	8.44 8.38	8.50 8.44	8.12 7.85	27.81 28.44	5.13 2.72	15.31 15.65	-4.18 -4.00	-13.46 -13.80	4.307 4.335	4.433 4.471	4.098 4.106	4.176 4.183		0+	5/2 ⁺
90	56	743.00 750.70	755.62	8.34	8.40	7.83 7.82	29.18	5.10	16.04	-4.00 -4.02	-13.80 -14.19	4.360	4.471	4.118	4.105		0+	0 ⁺
)1	57	753.31	755.02	8.28	0.40	7.71	29.73	2.61	16.32	-3.99	-14.48	4.390	4.542	4.123	4.200		0+	1/2+
)2	58	758.23		8.24		7.53	30.56	4.93	16.76	-3.88	-14.91	4.412	4.564	4.140	4.216		0^{+}	0+
3	59	760.76		8.18		7.46	31.18	2.53	17.07	-3.80	-15.23	4.441	4.602	4.148	4.224		0^+	1/2+
4	60	765.51		8.14		7.28	31.96	4.75	17.47	-3.75	-15.63	4.463	4.625	4.163	4.239		0^+	0+
5	61	767.90		8.08		7.14	32.65	2.39	17.83	-3.65	-15.97	4.492	4.660	4.174	4.250		0^+	$1/2^{+}$
6	62	772.59		8.05		7.08	33.36	4.69	18.18	-3.64	-16.34	4.514	4.684	4.187	4.263		0+	0+
7	63	774.83		7.99		6.93	34.03	2.24	18.51	-3.54	-16.70	4.542	4.716	4.202	4.277		0+	1/2+
8	64	779.51		7.95		6.92	34.76	4.68	18.90	-3.54	-17.03	4.564	4.740	4.212	4.287		0+	0+
9	65	781.72		7.90		6.89	35.50	2.21	19.26	-3.49	-17.38	4.590	4.771	4.224	4.299		0 ⁺	3/2
00 01	66 67	786.29 788.44		7.86 7.81		6.78 6.73	36.15 36.97	4.57 2.16	19.59 19.99	-3.43 -3.34	-17.71 -18.08	4.612 4.638	4.794 4.823	4.237 4.251	4.312 4.326		0^{+}	0^{+} $3/2^{+}$
01 02	68	788.44 792.89		7.81 7.77		6.61	36.97 37.51	4.45	20.26	-3.34 -3.27	-18.08 -18.36	4.638	4.823 4.847	4.251	4.326		0+	0 ⁺
03	69	794.89		7.77		6.45	38.32	2.00	20.20	-3.27 -2.57	-18.75	4.686	4.874	4.202	4.353		0+	3/2+
103	70	799.12		7.68		6.22	38.78	4.23	20.89	-2.57 -2.60	-18.97	4.708	4.900	4.286	4.360		0+	0 ⁺
105	71	799.67		7.62		4.78	39.60	0.56	21.28	-2.64	-19.35	4.729	4.922	4.298	4.372		0^{+}	11/2
106	72	802.83		7.57		3.72	40.38	3.16	21.67	-1.71	-19.75	4.746	4.938	4.310	4.384		0^+	0+
07	73	803.01		7.50		3.33	41.17	0.17	22.05	-1.57	-20.13	4.766	4.959	4.323	4.396		0^+	11/2
108	74	805.73		7.46		2.90	41.88	2.72	22.40	-1.42	-20.49	4.785	4.978	4.335	4.408		0^+	0+
109	75	805.73		7.39		2.72	42.65	-0.00	22.79	-1.31	-20.86	4.805	4.998	4.347	4.420		0^+	11/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
110	76	808.18		7.35		2.45	43.35	2.45	23.13	-1.22	-21.21	4.824	5.018	4.360	4.432		0+	0+
111	77	808.04		7.28		2.31	43.94	-0.14	23.51	-1.11	-21.58	4.843	5.037	4.372	4.445		0^+	11/2
112	78	810.30		7.23		2.12	44.79	2.26	23.83	-1.04	-21.90	4.863	5.057	4.384	4.457		0+	0+
113	79	810.01		7.17		1.97	45.18	<u>-0.29</u>	24.20	-0.89	-22.28	4.881	5.075	4.397	4.469		0+	11/2
14	80	812.10		7.12		1.81	46.19	2.10	24.54	-0.83	-22.58	4.901	5.096	4.409	4.481		0+	0+
115	81	811.55		7.06		1.54	46.28	$\frac{-0.56}{1.07}$	24.58	-0.86	-22.63	4.978	5.198	4.409	4.481		0 ⁺	3/2 0 ⁺
16 17	82	813.42		7.01		1.32	47.40	1.87	25.19	-0.45	-23.20	4.943	5.141	4.431	4.502		0^{+}	-
18	83 84	812.94 813.77		6.95 6.90		1.39 0.35	47.53 47.88	$\frac{-0.48}{0.83}$	25.25 25.40	$-0.46 \\ -0.20$	-23.27 -23.45	5.013 5.008	5.233 5.220	4.432 4.440	4.504 4.511		0+	3/2 0 ⁺
19	85	813.30		6.83		0.36	47.00	-0.47	25.47	-0.20 -0.19	-23.43 -23.52	5.008	5.303	4.440	4.511		0+	3/2
20	86	813.87		6.78		0.10		0.57	25.57	-0.13 -0.14	-23.52 -23.65	5.077	5.306	4.446	4.517		0^{+}	0+
21	87	813.39		6.72		0.09		-0.49	25.65	-0.12	-23.73	5.134	5.378	4.448	4.519		0+	3/2
22	88	813.92		6.67		0.05		0.53	25.75	-0.11	-23.85	5.145	5.390	4.452	4.523		0+	0+
23	89	813.40		6.61		0.02		-0.52	25.81	-0.09	-23.94	5.197	5.454	4.454	4.526		0^{+}	3/2
24	90	813.95		6.56		0.03		0.55	25.93	-0.10	-24.05	5.213	5.471	4.458	4.529		0^+	0+
25	91	813.47		6.51		0.07		-0.48	25.99	-0.10	-24.12	5.266	5.538	4.459	4.530		0^{+}	1/2
26	92	813.98		6.46		0.03		0.50	26.11	-0.09	-24.24	5.277	5.548	4.464	4.535		0^{+}	0+
27	93	813.51		6.41		0.04		-0.46		-0.06	-24.33	5.324	5.604	4.466	4.537		0^+	1/2
28	94	813.98		6.36		0.00		0.47		-0.06	-24.43	5.340	5.622	4.470	4.541		0^+	0+
29	95	813.42		6.31		-0.10		-0.56		<u>0.01</u>	-24.53	5.378	5.666	4.473	4.544		0^+	1/2
30	96	813.93		6.26		-0.05		0.51		-0.01	-24.62	5.399	5.690	4.477	4.547		0^+	0^{+}
31	97	813.20		6.21		-0.21		-0.73		<u>0.10</u>	-24.73	5.430	5.725	4.481	4.552		0^+	1/2
32	98	813.78		6.17		-0.15		0.58		0.06	-24.81	5.454	5.753	4.484	4.555		0^+	0^+
r		5.00													0.033			
Z = 3 65	35 (Br) 30	509.99		7.85			-0.24		<u>-1.91</u>	-15.18	0.30	3.886	3.768	3.984	4.064		1/2-	0+
ıb .	31	523.36						13.37	$\frac{-1.28}{}$			3 898						
	31 32	523.36 539.17		7.93		29.18	1.10	13.37 15.81	-1.28	-14.62	-0.31	3.898 3.915	3.800	3.982	4.062		1/2-	3/2
7	31 32 33	523.36 539.17 551.54		7.93 8.05		29.18 28.18	1.10 2.39	13.37 15.81 12.37	$\frac{-1.28}{-0.68}$	-14.62 -14.45	-0.31 -0.98	3.915	3.800 3.835	3.982 3.987			1/2 ⁻ 1/2 ⁻	3/2 0 ⁺
6 7 8 9	32	539.17	575.65	7.93	8.34	28.18	1.10	15.81	-1.28	-14.62 -14.45 -13.99	-0.31 -0.98 -1.52		3.800	3.982	4.062 4.067		1/2 ⁻ 1/2 ⁻ 5/2 ⁻	3/2
7 8 9	32 33	539.17 551.54	575.65 589.04	7.93 8.05 8.11	8.34 8.41		1.10 2.39 3.66	15.81 12.37	$ \begin{array}{r} -1.28 \\ \hline -0.68 \\ \hline -0.05 \end{array} $	-14.62 -14.45	-0.31 -0.98	3.915 3.931	3.800 3.835 3.872	3.982 3.987 3.987	4.062 4.067 4.066		1/2 ⁻ 1/2 ⁻ 5/2 ⁻ 5/2 ⁻	3/2 0 ⁺ 3/2 0 ⁺
7 8 9 0	32 33 34	539.17 551.54 567.13		7.93 8.05 8.11 8.22		28.18 27.96	1.10 2.39 3.66 5.02	15.81 12.37 15.59	$ \begin{array}{r} -1.28 \\ \hline{-0.68} \\ \hline{-0.05} \\ \hline 0.61 \end{array} $	-14.62 -14.45 -13.99 -13.88	-0.31 -0.98 -1.52 -2.13	3.915 3.931 3.946	3.800 3.835 3.872 3.900	3.982 3.987 3.987 3.990	4.062 4.067 4.066 4.069		1/2 ⁻ 1/2 ⁻ 5/2 ⁻	3/2 0 ⁺ 3/2
7 8 9 0 1	32 33 34 35	539.17 551.54 567.13 579.14	589.04	7.93 8.05 8.11 8.22 8.27	8.41	28.18 27.96 27.60	1.10 2.39 3.66 5.02 6.40	15.81 12.37 15.59 12.02	$ \begin{array}{r} -1.28 \\ -0.68 \\ -0.05 \\ \hline 0.61 \\ 1.32 \end{array} $	-14.62 -14.45 -13.99 -13.88 -13.57	-0.31 -0.98 -1.52 -2.13 -2.75	3.915 3.931 3.946 3.959	3.800 3.835 3.872 3.900 3.926	3.982 3.987 3.987 3.990 3.991	4.062 4.067 4.066 4.069 4.071		1/2 ⁻ 1/2 ⁻ 5/2 ⁻ 5/2 ⁻ 5/2 ⁻	3/2 0 ⁺ 3/2 0 ⁺ 5/2
7 8 9 0 1 2	32 33 34 35 36 37 38	539.17 551.54 567.13 579.14 593.97	589.04 602.18	7.93 8.05 8.11 8.22 8.27 8.37	8.41 8.48	28.18 27.96 27.60 26.84 26.33 25.71	1.10 2.39 3.66 5.02 6.40 7.57	15.81 12.37 15.59 12.02 14.83	$ \begin{array}{r} -1.28 \\ -0.68 \\ -0.05 \\ \hline 0.61 \\ 1.32 \\ 1.90 \end{array} $	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39	3.915 3.931 3.946 3.959 3.980	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017	4.062 4.067 4.066 4.069 4.071 4.081		1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2-	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+
7 8 9 0 1 2 3	32 33 34 35 36 37 38 39	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42	589.04 602.18 612.82 625.47 635.18	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53	8.41 8.48 8.51 8.57 8.58	28.18 27.96 27.60 26.84 26.33 25.71 25.95	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.69	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104		1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2
7 8 9 0 1 2 3 4	32 33 34 35 36 37 38 39 40	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83	589.04 602.18 612.82 625.47 635.18 647.07	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.58	8.41 8.48 8.51 8.57 8.58 8.63	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.69 -11.32	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.054	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104 4.112		1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+
7 8 9 0 1 2 3 4 5	32 33 34 35 36 37 38 39 40 41	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83 652.61	589.04 602.18 612.82 625.47 635.18 647.07 656.33	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.58 8.59	8.41 8.48 8.51 8.57 8.58 8.63 8.64	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15 21.19	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24 13.37	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41 8.78	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17 4.73	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.69 -11.32 -11.25	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74 -6.30	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.054 4.070	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072 4.098	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033 4.038	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104 4.112 4.116		1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+ 9/2
7 8 9 0 1 2 3 4 5 6	32 33 34 35 36 37 38 39 40 41 42	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83 652.61 664.40	589.04 602.18 612.82 625.47 635.18 647.07 656.33 667.34	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.58 8.59 8.63	8.41 8.48 8.51 8.57 8.58 8.63 8.64 8.67	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15 21.19 20.57	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24 13.37 14.53	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41 8.78 11.79	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17 4.73 5.30	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.69 -11.32 -11.25 -10.04	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74 -6.30 -6.82	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.054 4.070 4.088	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072 4.098 4.124	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033 4.038 4.045	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104 4.112 4.116 4.123		1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+ 9/2 0+
7 8 9 0 1 1 2 3 4 5 7 8	32 33 34 35 36 37 38 39 40 41 42 43	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83 652.61 664.40 672.54	589.04 602.18 612.82 625.47 635.18 647.07 656.33 667.34 675.63	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.58 8.59 8.63 8.62	8.41 8.48 8.51 8.57 8.58 8.63 8.64 8.67 8.66	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15 21.19 20.57 19.93	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24 13.37 14.53 15.74	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41 8.78 11.79 8.14	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17 4.73 5.30 5.93	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.69 -11.32 -11.25 -10.04 -9.75	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74 -6.30 -6.82 -7.41	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.054 4.070 4.088 4.103	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072 4.098 4.124 4.147	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033 4.038 4.045 4.049	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104 4.112 4.116 4.123 4.127	4400	1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+ 9/2 0+ 9/2
7 8 9 0 1 2 3 4 5 6 7 8	32 33 34 35 36 37 38 39 40 41 42 43 44	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83 652.61 664.40 672.54 683.55	589.04 602.18 612.82 625.47 635.18 647.07 656.33 667.34 675.63 686.32	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.58 8.59 8.63 8.62 8.65	8.41 8.48 8.51 8.57 8.58 8.63 8.64 8.67 8.66 8.69	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15 21.19 20.57 19.93 19.16	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24 13.37 14.53 15.74 16.94	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41 8.78 11.79 8.14 11.02	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17 4.73 5.30 5.93 6.54	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.69 -11.32 -11.25 -10.04 -9.75 -9.44	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74 -6.30 -6.82 -7.41	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.054 4.070 4.088 4.103 4.119	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072 4.098 4.124 4.147 4.170	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033 4.038 4.045 4.049 4.054	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104 4.112 4.116 4.123 4.127 4.132	4.163	1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+ 9/2 0+ 9/2 0+
7 8 9 0 11 22 33 4 4 5 6 6 7 8 9 9	32 33 34 35 36 37 38 39 40 41 42 43 44 45	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83 652.61 664.40 672.54 683.55 691.31	589.04 602.18 612.82 625.47 635.18 647.07 656.33 667.34 675.63 686.32 694.21	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.58 8.59 8.63 8.62 8.65 8.64	8.41 8.48 8.51 8.57 8.58 8.63 8.64 8.67 8.66 8.69 8.68	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15 21.19 20.57 19.93 19.16 18.77	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24 13.37 14.53 15.74 16.94 18.14	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41 8.78 11.79 8.14 11.02 7.75	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17 4.73 5.30 5.93 6.54 7.13	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.32 -11.25 -10.04 -9.75 -9.44 -9.21	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74 -6.30 -6.82 -7.41 -7.99 -8.57	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.054 4.070 4.088 4.103 4.119 4.134	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072 4.098 4.124 4.147 4.170 4.192	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033 4.038 4.045 4.045 4.058	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104 4.112 4.116 4.123 4.127 4.132		1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+ 9/2 0+ 9/2 0+ 9/2
7 8 9 0 1 1 2 3 3 4 5 6 6 7 8 9 9 0 1	32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83 652.61 664.40 672.54 683.55 691.31 701.76	589.04 602.18 612.82 625.47 635.18 647.07 656.33 667.34 675.63 686.32 694.21 704.37	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.58 8.59 8.63 8.62 8.65 8.64	8.41 8.48 8.51 8.57 8.58 8.63 8.64 8.67 8.66 8.69 8.68 8.70	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15 21.19 20.57 19.93 19.16 18.77 18.21	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24 13.37 14.53 15.74 16.94 18.14	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41 8.78 11.79 8.14 11.02 7.75 10.45	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17 4.73 5.30 5.93 6.54 7.13 7.72	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.32 -11.25 -10.04 -9.75 -9.44 -9.21 -8.98	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74 -6.30 -6.82 -7.41 -7.99 -8.57 -9.14	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.054 4.070 4.088 4.103 4.119 4.134 4.149	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072 4.098 4.124 4.147 4.170 4.192 4.214	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033 4.038 4.045 4.049 4.054 4.058 4.063	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104 4.112 4.116 4.123 4.123 4.136 4.141	4.163 4.160	1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+ 9/2 0+ 9/2 0+ 9/2 0+
7 8 9 0 1 1 2 3 3 4 5 6 6 7 8 9 0 0 1 1 2 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83 652.61 664.40 672.54 683.55 691.31 701.76 709.23	589.04 602.18 612.82 625.47 635.18 647.07 656.33 667.34 675.63 686.32 694.21 704.37 711.96	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.58 8.59 8.63 8.62 8.65 8.64 8.66	8.41 8.48 8.51 8.57 8.58 8.63 8.64 8.67 8.66 8.69 8.68 8.70 8.68	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15 21.19 20.57 19.93 19.16 18.77 18.21 17.93	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24 13.37 14.53 15.74 16.94 18.14 19.30 20.44	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41 8.78 11.79 8.14 11.02 7.75 10.45 7.47	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17 4.73 5.30 5.93 6.54 7.13 7.72 8.29	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.32 -11.25 -10.04 -9.75 -9.44 -9.21 -8.98 -8.77	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74 -6.30 -6.82 -7.41 -7.99 -8.57 -9.14 -9.72	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.070 4.088 4.103 4.119 4.134 4.149 4.164	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072 4.098 4.124 4.147 4.170 4.192 4.214 4.234	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033 4.038 4.045 4.049 4.054 4.058 4.063 4.067	4.062 4.067 4.066 4.069 4.071 4.081 4.089 4.096 4.104 4.112 4.116 4.123 4.127 4.136 4.141 4.145		1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 3/2- 3/2- 3/2- 3/2- 3/2- 3/2- 3/2- 3/2-	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+ 9/2 0+ 9/2 0+ 9/2 0+ 9/2
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7	32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	539.17 551.54 567.13 579.14 593.97 605.47 619.68 631.42 643.83 652.61 664.40 672.54 683.55 691.31 701.76 709.23 719.27 726.57 736.25 739.84 745.49 748.82	589.04 602.18 612.82 625.47 635.18 647.07 656.33 667.34 675.63 686.32 694.21 704.37 711.96 721.55 728.40 737.26 742.38 748.71 753.61	7.93 8.05 8.11 8.22 8.27 8.37 8.41 8.49 8.53 8.59 8.63 8.62 8.65 8.65 8.65 8.65 8.65 8.65 8.65 8.65	8.41 8.48 8.51 8.57 8.58 8.63 8.64 8.67 8.66 8.69 8.68 8.70 8.68 8.69 8.67 8.67 8.63 8.61 8.56	28.18 27.96 27.60 26.84 26.33 25.71 25.95 24.15 21.19 20.57 19.93 19.16 18.77 18.21 17.93 17.51 17.33 16.98 13.28 9.24 8.98	1.10 2.39 3.66 5.02 6.40 7.57 8.73 9.99 11.21 12.24 13.37 14.53 15.74 16.94 18.14 19.30 20.44 21.55 22.67 23.78 24.49 25.30 25.99	15.81 12.37 15.59 12.02 14.83 11.50 14.21 11.74 12.41 8.78 11.79 8.14 11.02 7.75 10.45 7.47 10.04 7.30 9.69 3.59 5.65 3.33	-1.28 -0.68 -0.05 0.61 1.32 1.90 2.45 3.09 3.69 4.17 4.73 5.30 5.93 6.54 7.13 7.72 8.29 8.86 9.42 9.97 10.32 10.73 11.07	-14.62 -14.45 -13.99 -13.88 -13.57 -13.29 -13.22 -12.60 -11.69 -11.32 -11.25 -10.04 -9.75 -9.44 -9.21 -8.98 -8.77 -8.59 -6.43 -6.66 -6.26 -4.74 -4.58	-0.31 -0.98 -1.52 -2.13 -2.75 -3.39 -3.98 -4.61 -5.22 -5.74 -6.30 -6.82 -7.41 -7.99 -8.57 -9.14 -9.72 -10.28 -10.84 -11.40 -11.75 -12.16 -12.51	3.915 3.931 3.946 3.959 3.980 4.000 4.017 4.035 4.054 4.070 4.088 4.103 4.119 4.134 4.149 4.164 4.179 4.192 4.206 4.234 4.260 4.287	3.800 3.835 3.872 3.900 3.926 3.959 3.990 4.017 4.043 4.072 4.098 4.124 4.147 4.170 4.192 4.214 4.234 4.254 4.272 4.291 4.330 4.363 4.400	3.982 3.987 3.987 3.990 3.991 4.002 4.010 4.017 4.026 4.033 4.045 4.049 4.054 4.054 4.063 4.067 4.072 4.076 4.081 4.081 4.089 4.103 4.110	4.062 4.067 4.066 4.069 4.071 4.089 4.096 4.104 4.112 4.116 4.123 4.127 4.132 4.136 4.141 4.145 4.150 4.154 4.158 4.166 4.180 4.188		1/2- 1/2- 1/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5/2- 5	3/2 0+ 3/2 0+ 5/2 0+ 1/2 0+ 1/2 0+ 9/2 0+ 9/2 0+ 9/2 0+ 9/2 0+ 9/2 0+ 9/2 0+ 5/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
93	58	771.14	776.22	8.29	8.35	8.25	29.67	5.35	12.91	-4.25	-14.38	4.415	4.558	4.167	4.243		3/2-	0+
94	59	773.98		8.23		8.19	30.28	2.84	13.22	-4.18	-14.69	4.443	4.595	4.175	4.251		$3/2^{-}$	1/2+
95	60	779.14		8.20		8.00	31.09	5.16	13.63	-4.12	-15.11	4.465	4.618	4.190	4.266		3/2-	0+
96	61	781.87		8.14		7.89	31.79	2.73	13.96	-4.04	-15.45	4.492	4.651	4.201	4.277		3/2-	1/2+
97	62	786.93		8.11		7.79	32.52	5.07	14.34	-4.01	-15.83	4.514	4.675	4.214	4.289		3/2-	0+
98	63	789.53		8.06		7.66	33.20	2.60	14.70	-3.91	-16.20	4.541	4.706	4.228	4.303		3/2-	1/2+
99	64	794.55		8.03		7.62	33.94	5.03	15.04	-3.90	-16.53	4.562	4.730	4.238	4.313		3/2-	0 ⁺
100 101	65 66	797.11 802.01		7.97 7.94		7.59 7.46	34.66 35.31	2.56 4.90	15.40 15.73	-3.86	-16.87 -17.21	4.588 4.610	4.760 4.784	4.250	4.324 4.337		3/2 ⁻ 3/2 ⁻	3/2 ⁺ 0 ⁺
101	67	804.55		7.89		7.40 7.44	36.09	2.54	16.11	−3.78 −3.70	-17.21 -17.57	4.634	4.784	4.262 4.275	4.337		$3/2^{-}$	3/2 ⁺
102	68	809.27		7.86		7.44	36.64	4.73	16.38	-3.70 -3.60	-17.37 -17.86	4.656	4.836	4.275	4.359		$3/2^{-}$	0 ⁺
104	69	811.66		7.80		7.11	37.44	2.38	16.77	-2.95	-18.21	4.681	4.863	4.300	4.374		$3/2^{-}$	3/2 ⁺
105	70	816.10		7.77		6.82	37.87	4.44	16.98	-2.96	-18.46	4.703	4.888	4.307	4.381		3/2-	0+
106	71	817.06		7.71		5.40	38.67	0.96	17.38	-2.99	-18.83	4.723	4.910	4.319	4.392		3/2-	11/2-
107	72	820.61		7.67		4.52	39.45	3.56	17.78	-2.10	-19.25	4.740	4.927	4.331	4.404		3/2-	0+
108	73	821.17		7.60		4.12	40.22	0.56	18.17	-1.96	-19.63	4.759	4.947	4.343	4.416		3/2-	$11/2^{-}$
109	74	824.26		7.56		3.65	40.94	3.09	18.53	-1.80	-20.01	4.778	4.965	4.355	4.427		3/2-	$0^{+'}$
110	75	824.64		7.50		3.46	41.70	0.38	18.91	-1.69	-20.39	4.797	4.985	4.366	4.439		3/2-	11/2-
111	76	827.43		7.45		3.18	42.38	2.80	19.25	-1.58	-20.75	4.816	5.004	4.378	4.451		$3/2^{-}$	0^+
112	77	827.67		7.39		3.03	43.14	0.23	19.63	-1.47	-21.12	4.834	5.023	4.390	4.462		$3/2^{-}$	$11/2^{-}$
113	78	830.26		7.35		2.82	43.79	2.59	19.96	-1.39	-21.46	4.853	5.042	4.402	4.474		$3/2^{-}$	0^+
114	79	830.35		7.28		2.68	44.54	0.09	20.34	-1.25	-21.84	4.871	5.060	4.414	4.486		$3/2^{-}$	11/2-
115	80	832.76		7.24		2.50	45.20	2.41	20.66	-1.17	-22.17	4.890	5.079	4.425	4.497		3/2-	0+
116	81	832.68		7.18		2.33	45.72	$\frac{-0.08}{2.12}$	21.13	-0.61	-22.62	4.904	5.092	4.440	4.511		3/2-	11/2-
117	82	834.80		7.14		2.04	46.56	2.12	21.38	-0.65	-22.87	4.926	5.116	4.449	4.520		3/2-	0+
118	83	834.40		7.07		1.72	46.71	$\frac{-0.40}{0.02}$	21.46	-0.68	-22.94	4.993	5.205	4.450	4.522		3/2-	3/2 ⁻ 0 ⁺
119 120	84 85	835.33 834.93		7.02 6.96		0.53 0.52	46.96 47.09	$0.92 \\ -0.40$	21.55 21.63	$-0.30 \\ -0.30$	-23.07 -23.14	4.991 5.052	5.197 5.277	4.457 4.458	4.528 4.529		3/2 ⁻ 3/2 ⁻	3/2 ⁻
121	86	835.62		6.91		0.32	47.09	$\frac{-0.40}{0.70}$	21.05	-0.30 -0.25	-23.14 -23.28	5.052	5.279	4.456	4.535		$3/2^{-}$	0 ⁺
122	87	835.22		6.85		0.30	47.33	-0.41	21.73	-0.23 -0.23	-23.28 -23.35	5.112	5.350	4.466	4.537		$3/2^{-}$	3/2-
123	88	835.87		6.80		0.25	47.71	0.66	21.96	-0.23 -0.22	-23.48	5.123	5.360	4.471	4.542		$3/2^{-}$	0+
124	89	835.45		6.74		0.23	47.85	-0.43	22.04	-0.20	-23.57	5.172	5.423	4.473	4.544		3/2-	3/2-
125	90	836.11		6.69		0.24	48.09	0.66	22.16	-0.21	-23.68	5.187	5.438	4.477	4.548		3/2-	0+
126	91	835.69		6.63		0.25	48.21	-0.42	22.22	-0.21	-23.75	5.241	5.506	4.478	4.549		3/2-	1/2-
127	92	836.33		6.59		0.22	48.46	0.64	22.36	-0.19	-23.88	5.250	5.514	4.484	4.554		3/2-	0^+
128	93	835.96		6.53		0.27		-0.37	22.45	-0.17	-23.96	5.297	5.572	4.485	4.556		3/2-	$1/2^{-}$
129	94	836.53		6.48		0.20		0.57	22.55	-0.16	-24.08	5.312	5.587	4.490	4.561		3/2-	0+
130	95	836.08		6.43		0.12		-0.45	22.66	-0.10	-24.17	5.350	5.634	4.493	4.564		$3/2^{-}$	$1/2^{-}$
131	96	836.68		6.39		0.15		0.60	22.75	-0.12	-24.27	5.370	5.655	4.498	4.568		$3/2^{-}$	0^+
132	97	836.07		6.33		-0.01		-0.61	22.86	-0.01	-24.38	5.401	5.691	4.502	4.573		3/2-	1/2-
133	98	836.72		6.29		0.04		0.65	22.94	-0.05	-24.47	5.425	5.717	4.506	4.577		3/2-	0+
134	99	836.01		6.24		$\frac{-0.05}{0.11}$		$\frac{-0.71}{0.000}$		0.00	-24.52	5.463	5.763	4.506	4.577		3/2-	5/2-
135	100	836.62		6.20		<u>-0.11</u>		0.60		0.05	-24.67	5.475	5.774	4.517	4.587		$3/2^{-}$	0^+
σ		4.91													0.026			
	86 (Kr)																	
66	30	510.71		7.74			$\frac{-1.19}{-1.19}$	40	0.72	-15.84	0.81	3.914	3.786	4.017	4.096		0+	0+
67	31	524.66		7.83		20.40	0.01	13.95	1.29	-15.33	0.23	3.925	3.818	4.015	4.094		0+	3/2-
68	32	541.20		7.96		30.49	1.35	16.55	2.03	-15.12	-0.41	3.942	3.852	4.020	4.099		0+	0+
69	33	554.25		8.03		29.59	2.66	13.05	2.71	-14.65	-1.04	3.958	3.886	4.023	4.102		0 ⁺	3/2-
70	34	570.43	E01 22	8.15	0.22	29.22	3.92	16.18	3.30	-14.51	-1.64	3.972	3.914	4.026	4.105		0 ⁺	0 ⁺
71 72	35 36	583.00	591.23	8.21	8.33 8.43	28.75 28.13	5.18 6.49	12.57	3.86	-14.21	-2.24	3.986	3.941 3.971	4.028 4.036	4.107	4 16 4	0^{+}	$\frac{5/2^{-}}{0^{+}}$
72 73	36 37	598.55 610.66	606.91 617.59	8.31 8.37	8.43 8.46	28.13 27.66	7.64	15.56 12.10	4.58 5.19	-13.92 -13.85	-2.88 -3.45	4.004 4.022	4.001	4.036	4.115 4.122	4.164	0 ⁺	1/2-
13	3/	010.00	017.59	0.57	0.40	27.00	7.04	12.10	5.19	-15.05	-5.45	4.022	4.001	4.043	4.122		U.	1/2

(continued on next page)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
74	38	625.54	631.44	8.45	8.53	26.99	8.96	14.88	5.86	-13.20	-4.08	4.037	4.026	4.049	4.127	4.187	0+	0+
75	39	637.88	641.51	8.51	8.55	27.22	10.15	12.34	6.46	-12.34	-4.68	4.054	4.052	4.056	4.134	4.210	0+	1/2-
76	40	650.84	654.27	8.56	8.61	25.30	11.18	12.96	7.01	-11.89	-5.20	4.072	4.080	4.063	4.141	4.202	0+	0+
77 70	41	660.22	663.50	8.57	8.62	22.34	12.34	9.38	7.61	-11.81	-5.77	4.087	4.104	4.067	4.145	4.208	0+	9/2+
78	42	672.58	675.58	8.62	8.66	21.74	13.49	12.37	8.19	-10.54	-6.34	4.102	4.128	4.071	4.148	4.204	0+	0+
79	43	681.23	683.91	8.62	8.66	21.02	14.62	8.65	8.70	-10.25	-6.89	4.116	4.151	4.074	4.152	4.203	0 ⁺	$9/2^{+}$ 0^{+}
80	44	692.76	695.43	8.66	8.69	20.18	15.74	11.53	9.21	-9.95	-7.44	4.131	4.174	4.079	4.156	4.197	0+	
81	45 46	701.02	703.31	8.65	8.68	19.79	16.85 17.94	8.26 10.96	9.72 10.23	-9.71	-7.97	4.146	4.196	4.082 4.087	4.160	4.195	0+	$9/2^{+}$ 0^{+}
82 83	46 47	711.99 719.97	714.27 721.74	8.68 8.67	8.71 8.70	19.23 18.94	17.94	7.98	10.23	-9.48 -9.27	-8.50 -9.02	4.161 4.174	4.217 4.237	4.087	4.165 4.168	4.192 4.187	0 ⁺	9/2+
84	48	719.97	732.27	8.70	8.72	18.52	20.10	10.54	11.24	-9.27 -9.08	-9.02 -9.52	4.174	4.257	4.091	4.173	4.188	0+	0+
85	49	738.30	732.27	8.69	8.72 8.70	18.33	21.15	7.79	11.73	-9.08 -7.10	-9.32 -10.01	4.100	4.237	4.093	4.175	4.185	0+	9/2+
86	50	748.46	749.23	8.70	8.71	17.96	22.18	10.17	12.21	-7.16 -7.16	-10.01 -10.48	4.214	4.273	4.103	4.170	4.184	0+	0+
87	50 51	748.40 752.51	749.23 754.75	8.65	8.68	14.21	22.18	4.04	12.21	-6.74	-10.48 -10.93	4.214	4.293	4.103	4.188	4.184	0+	5/2 ⁺
88	52	752.51 758.59	761.80	8.62	8.66	10.13	23.83	6.08	13.10	-6.74 -5.16	-10.93 -11.36	4.241	4.363	4.111	4.100	4.198	0+	0 ⁺
89	53	762.34	766.72	8.57	8.61	9.83	24.59	3.75	13.52	-3.10 -4.99	-11.30 -11.78	4.207	4.303	4.123	4.202	4.229	0+	5/2 ⁺
90	54	768.29	773.21	8.54	8.59	9.70	25.41	5.95	13.94	-4.96	-11.78 -12.20	4.293	4.429	4.133	4.223	4.242	0+	0+
91	55	708.29	777.30	8.48	8.54	9.40	26.14	3.45	14.34	-4.30 -4.77	-12.20 -12.59	4.344	4.463	4.154	4.223	4.254	0 ⁺	5/2 ⁺
92	56	777.63	783.17	8.45	8.51	9.34	26.14	5.89	14.74	-4.77 -4.78	-12.39 -13.00	4.368	4.492	4.167	4.243	4.272	0 ⁺	0 ⁺
93	57	780.86	786.60	8.40	8.46	9.12	27.56	3.23	15.07	-4.76	-13.33	4.396	4.531	4.172	4.248	4.279	0 ⁺	1/2 ⁺
94	58	786.66	791.89	8.37	8.42	9.03	28.43	5.79	15.52	-4.62	-13.33 -13.77	4.417	4.552	4.189	4.265	4.300	0+	0+
95	59	789.85	794.77	8.31	8.37	8.98	29.09	3.19	15.87	-4.56	-13.77 -14.11	4.444	4.588	4.197	4.272	4.307	0+	1/2 ⁺
96	60	795.41	799.76	8.29	8.33	8.75	29.89	5.56	16.27	-4.48	-14.52	4.465	4.611	4.212	4.287	4.327	0+	0+
97	61	798.50	802.18	8.23	8.27	8.65	30.60	3.09	16.63	-4.40	-14.32 -14.87	4.492	4.643	4.223	4.298	7.527	0 ⁺	1/2 ⁺
98	62	803.93	002.10	8.20	0.27	8.52	31.34	5.43	17.00	-4.36	-15.24	4.513	4.667	4.236	4.311		0+	0+
99	63	806.90		8.15		8.40	32.07	2.97	17.37	-4.26	-15.60	4.539	4.697	4.249	4.324		0+	1/2+
100	64	812.26		8.12		8.33	32.74	5.36	17.70	-4.24	-15.95	4.560	4.721	4.259	4.334		0+	0+
101	65	815.17		8.07		8.27	33.45	2.91	18.05	-4.21	-16.28	4.585	4.750	4.270	4.345		0^{+}	3/2 ⁺
102	66	820.39		8.04		8.14	34.10	5.23	18.38	-4.10	-16.62	4.606	4.774	4.283	4.357		0^{+}	0+
103	67	823.29		7.99		8.13	34.85	2.90	18.74	-4.03	-16.97	4.630	4.801	4.295	4.369		0^{+}	3/2+
104	68	828.29		7.96		7.90	35.40	5.00	19.02	-3.91	-17.25	4.652	4.826	4.305	4.379		0^{+}	0+
105	69	831.03		7.91		7.74	36.14	2.74	19.37	-3.29	-17.60	4.676	4.853	4.318	4.392		0^{+}	3/2+
106	70	835.71		7.88		7.42	36.59	4.68	19.61	-3.28	-17.84	4.697	4.877	4.326	4.399		0^{+}	0+
107	71	837.03		7.82		6.00	37.36	1.32	19.98	-3.31	-18.19	4.718	4.900	4.337	4.410		0^{+}	11/2
108	72	840.96		7.79		5.25	38.13	3.93	20.35	-2.44	-18.57	4.734	4.916	4.348	4.421		0^{+}	0+
109	73	841.88		7.72		4.85	38.87	0.92	20.71	-2.30	-18.92	4.753	4.936	4.359	4.432		0^+	11/2
110	74	845.31		7.68		4.35	39.58	3.43	21.05	-2.13	-19.27	4.771	4.954	4.371	4.444		0^{+}	0+
111	75	846.04		7.62		4.16	40.31	0.73	21.40	-2.02	-19.61	4.790	4.974	4.382	4.455		0^+	11/2
112	76	849.16		7.58		3.85	40.98	3.13	21.73	-1.90	-19.93	4.808	4.992	4.394	4.466		0^+	0+
113	77	849.74		7.52		3.70	41.70	0.57	22.07	-1.79	-20.26	4.826	5.011	4.405	4.477		0^+	11/2-
114	78	852.63		7.48		3.47	42.34	2.90	22.38	-1.70	-20.57	4.844	5.030	4.416	4.488		0^+	0+
115	79	853.06		7.42		3.32	43.05	0.42	22.71	-1.56	-20.89	4.862	5.047	4.427	4.499		0^+	11/2
116	80	855.76		7.38		3.13	43.66	2.71	23.00	-1.47	-21.18	4.880	5.066	4.439	4.510		0^{+}	0+
117	81	856.01		7.32		2.96	44.47	0.25	23.33	-0.83	-21.52	4.895	5.080	4.451	4.522		0^+	11/2
118	82	858.45		7.27		2.68	45.03	2.43	23.65	-0.85	-21.79	4.913	5.099	4.462	4.533		0^{+}	0+
119	83	858.15		7.21		2.14	45.21	-0.30	23.75	-0.88	-21.90	4.976	5.183	4.463	4.534		0^+	$3/2^{-}$
120	84	859.21		7.16		0.76	45.43	1.06	23.88	-0.43	-22.07	4.977	5.179	4.470	4.541		0^+	0+
121	85	858.90		7.10		0.75	45.60	-0.31	23.97	-0.43	-22.17	5.034	5.255	4.471	4.542		0^+	3/2-
122	86	859.77		7.05		0.56	45.90	0.87	24.15	-0.37	-22.36	5.040	5.257	4.477	4.548		0^+	0+
123	87	859.46		6.99		0.56	46.08	-0.31	24.24	-0.36	-22.46	5.092	5.325	4.479	4.550		0^+	3/2-
124	88	860.27		6.94		0.50	46.36	0.81	24.40	-0.34	-22.63	5.103	5.335	4.485	4.556		0^+	0+
125	89	859.95		6.88		0.49	46.54	-0.33	24.50	-0.32	-22.74	5.150	5.395	4.487	4.558		0^+	$3/2^{-}$
126	90	860.75		6.83		0.48	46.80	0.81	24.64	-0.33	-22.90	5.165	5.411	4.492	4.563		0^+	0+
	91	860.42		6.77		0.47	46.94	-0.34	24.72	-0.33	-22.98	5.217	5.477	4.494	4.564		0^+	1/2-

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
128	92	861.21		6.73		0.46	47.24	0.80	24.88	-0.30	-23.15	5.226	5.485	4.499	4.570		0+	0+
129	93	860.92		6.67		0.50	47.41	<u>-0.29</u>	24.96	-0.29	-23.24	5.272	5.542	4.501	4.571		0+	1/2-
130 131	94 95	861.63 861.29		6.63 6.57		0.42 0.37	47.65 47.87	0.72 -0.35	25.10 25.20	$-0.27 \\ -0.22$	-23.39 -23.49	5.286 5.325	5.556 5.603	4.507 4.509	4.577 4.580		0 ⁺	0 ⁺ 1/2 ⁻
132	95 96	861.29		6.53		0.36	48.06	0.70	25.20	-0.22 -0.22	-23.49 -23.62	5.343	5.622	4.515	4.585		0+	0+
133	97	861.48		6.48		0.19	48.27	-0.51	25.41	-0.22 -0.12	-23.02 -23.72	5.375	5.659	4.520	4.590		0+	1/2-
134	98	862.24		6.43		0.25	48.45	0.76	25.51	-0.15	-23.84	5.396	5.683	4.524	4.595		0+	0+
135	99	861.59		6.38		0.12		-0.64	25.58	-0.10	-23.91	5.433	5.728	4.525	4.595		0+	5/2-
136	100	862.33		6.34		0.10		0.74	25.72	-0.06	-24.06	5.445	5.737	4.537	4.607		0^+	0+
137	101	861.52		6.29		-0.07		-0.81		0.08	-24.16	5.478	5.776	4.540	4.610		0^+	$5/2^{-}$
138	102	862.22		6.25		-0.11		0.70		0.05	-24.33	5.489	5.783	4.553	4.623		0^+	0^+
σ		4.45													0.039			
Z=3	37 (Rb)																	
67	30	508.38		7.59			-1.62		-2.33	-16.46	<u>1.19</u>	3.947	3.801	4.062	4.140		1/2-	0^+
68	31	522.93		7.69			-0.43	14.55	<u>-1.73</u>	-15.95	0.61	3.957	3.832	4.059	4.137		1/2-	3/2-
69	32	539.90		7.82		31.52	0.73	16.97	$\frac{-1.31}{0.72}$	-15.72	-0.05	3.972	3.865	4.061	4.139		1/2-	0+
70	33	553.55		7.91		30.63	2.01	13.66	$\frac{-0.70}{0.10}$	-15.24	-0.70	3.986	3.897	4.063	4.141		1/2-	3/2-
71 72	34	570.32		8.03		30.43	3.20	16.77	$\frac{-0.10}{0.43}$	-15.09	-1.31	3.999	3.925 3.952	4.065	4.143		1/2-	0 ⁺ 5/2 ⁻
72 73	35 36	583.43 599.57		8.10 8.21		29.88 29.24	4.29 5.60	13.11 16.13	1.01	14.77 14.48	-1.93 -2.56	4.011 4.028	3.932 3.981	4.067 4.073	4.145 4.151		1/2 ⁻ 1/2 ⁻	5/2 0 ⁺
73 74	30 37	612.28	620.25	8.27	8.38	28.85	6.81	12.72	1.63	-14.40	-2.36 -3.12	4.028	4.009	4.073	4.151		$\frac{1/2}{1/2^{-}}$	1/2-
75	38	627.65	633.62	8.37	8.45	28.09	7.97	15.37	2.11	-13.78	-3.12 -3.77	4.059	4.035	4.084	4.161		1/2	0+
76	39	640.54	644.95	8.43	8.49	28.25	9.12	12.88	2.66	-12.84	-4.38	4.075	4.060	4.090	4.167	4.227	$\frac{1}{2}$	1/2 ⁻
77	40	654.18	657.38	8.50	8.54	26.53	10.35	13.64	3.34	-12.45	-4.86	4.090	4.086	4.095	4.172	4.236	1/2-	0+
78	41	664.08	667.55	8.51	8.56	23.54	11.47	9.90	3.86	-12.37	-5.43	4.104	4.110	4.097	4.175	4.239	1/2-	$9/2^{+}$
79	42	676.94	679.49	8.57	8.60	22.76	12.54	12.86	4.35	-11.05	-6.01	4.118	4.134	4.100	4.178	4.228	1/2-	0+
80	43	686.09	688.93	8.58	8.61	22.01	13.55	9.15	4.85	-10.75	-6.56	4.132	4.157	4.103	4.181	4.227	1/2-	$9/2^{+}$
81	44	698.10	700.29	8.62	8.65	21.17	14.55	12.02	5.34	-10.44	-7.10	4.147	4.179	4.107	4.185	4.221	$1/2^{-}$	0^+
82	45	706.96	709.09	8.62	8.65	20.88	15.66	8.86	5.94	-10.32	-7.13	4.160	4.201	4.110	4.187	4.216	$3/2^{-}$	$9/2^{+}$
83	46	718.51	720.04	8.66	8.68	20.41	16.75	11.55	6.53	-10.07	-7.64	4.174	4.222	4.114	4.191	4.206	$3/2^{-}$	0+
84	47	727.06	728.80	8.66	8.68	20.10	17.83	8.55	7.09	-9.84	-8.13	4.186	4.241	4.116	4.193	4.200	3/2-	9/2+
85 86	48	738.13	739.28	8.68	8.70	19.62	18.86	11.07	7.63	-9.62	-8.61	4.200	4.260	4.120	4.197	4.204	3/2-	0^{+} $9/2^{+}$
86 87	49 50	746.42 757.06	747.93 757.86	8.68 8.70	8.70 8.71	19.36 18.94	19.86 20.81	8.30 10.64	8.13 8.60	-7.44 -7.61	-9.08 -9.53	4.211 4.224	4.278 4.295	4.122 4.125	4.199 4.202	4.203 4.199	3/2 ⁻ 3/2 ⁻	9/2 · 0+
88	51	761.56	763.94	8.65	8.68	15.13	21.71	4.49	9.05	-7.01 -7.18	-9.55 -10.02	4.250	4.233	4.134	4.202	4.133	$3/2^{-}$	5/2 ⁺
89	52	768.08	771.11	8.63	8.66	11.01	22.59	6.52	9.49	-5.58	-10.46	4.275	4.364	4.148	4.224	4.239	$3/2^{-}$	0+
90	53	772.22	776.84	8.58	8.63	10.67	23.40	4.15	9.88	-5.40	-10.40	4.300	4.398	4.156	4.232	4.255	$3/2^{-}$	5/2 ⁺
91	54	778.59	783.29	8.56	8.61	10.52	24.24	6.37	10.30	-5.36	-11.33	4.325	4.428	4.170	4.246	4.272	3/2-	0+
92	55	782.41	788.39	8.50	8.57	10.19	25.01	3.82	10.67	-5.17	-11.76	4.350	4.462	4.179	4.255	4.290	$3/2^{-}$	5/2+
93	56	788.70	794.31	8.48	8.54	10.11	25.81	6.29	11.07	-5.17	-12.17	4.374	4.490	4.192	4.267	4.305	3/2-	0+
94	57	792.23	798.32	8.43	8.49	9.82	26.44	3.53	11.37	-5.15	-12.47	4.401	4.528	4.198	4.273	4.318	$3/2^{-}$	1/2+
95	58	798.48	803.72	8.41	8.46	9.78	27.34	6.25	11.82	-5.01	-12.96	4.421	4.549	4.214	4.289	4.339	3/2-	0+
96	59	801.98	807.25	8.35	8.41	9.75	28.00	3.50	12.13	-4.96	-13.29	4.448	4.584	4.222	4.297	4.350	3/2-	1/2+
97	60	807.97	812.49	8.33	8.38	9.49	28.83	5.99	12.56	-4.86	-13.72	4.469	4.606	4.237	4.312	4.423	3/2-	0 ⁺
98 99	61 62	811.41 817.22	816.36 821.32	8.28 8.25	8.33 8.30	9.43 9.25	29.54 30.29	3.44 5.82	12.91 13.30	-4.80	-14.07	4.494	4.638 4.660	4.247 4.261	4.322 4.335	4.434	3/2 ⁻ 3/2 ⁻	$\frac{1/2^{+}}{0^{+}}$
100	63	817.22 820.56	821.32	8.25 8.21	8.30	9.25 9.16	30.29 31.03	5.82 3.34	13.30	-4.73 -4.65	-14.45 -14.82	4.515 4.540	4.660	4.261	4.335		$\frac{3}{2}$	1/2 ⁺
100	64	820.56 826.26		8.21 8.18		9.16	31.03	5.70	14.01	-4.60	-14.82 -15.15	4.540	4.690	4.273	4.347		$\frac{3}{2}$	0 ⁺
101	65	829.51		8.13		9.04 8.95	32.40	3.25	14.34	-4.50 -4.58	-15.13 -15.48	4.585	4.713	4.283	4.368		$\frac{3}{2}$	3/2+
103	66	835.08		8.11		8.82	33.06	5.57	14.69	-4.45	-15.46 -15.82	4.605	4.765	4.306	4.379		$3/2^{-}$	0 ⁺
104	67	838.33		8.06		8.82	33.78	3.25	15.04	-4.38	-16.15	4.629	4.793	4.317	4.390		$3/2^{-}$	3/2 ⁺
105	68	843.62		8.03		8.54	34.34	5.29	15.33	-4.23	-16.46	4.650	4.817	4.327	4.400		3/2-	0+
106	69	846.68		7.99		8.35	35.02	3.06	15.65	-3.66	-16.78	4.674	4.844	4.338	4.412		3/2-	3/2+

Table 1 (continued)

	N	$E_{\rm b}^{\rm Cal.}$ (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
07	70	851.62		7.96		8.00	35.52	4.94	15.91	-3.63	-17.06	4.694	4.868	4.346	4.419		3/2-	0+
80	71	853.32		7.90		6.64	36.27	1.71	16.29	-3.66	-17.39	4.714	4.890	4.356	4.429		$3/2^{-}$	11/2
09	72	857.66		7.87		6.04	37.04	4.33	16.69	-2.83	-17.77	4.730	4.906	4.367	4.440		$3/2^{-}$	0^+
10	73	858.95		7.81		5.62	37.77	1.29	17.07	-2.68	-18.11	4.748	4.926	4.377	4.450		$3/2^{-}$	11/2
11	74	862.73		7.77		5.08	38.47	3.79	17.42	-2.50	-18.44	4.766	4.944	4.388	4.461		$3/2^{-}$	0^+
12	75	863.81		7.71		4.87	39.18	1.08	17.78	-2.37	-18.77	4.784	4.963	4.398	4.471		3/2-	11/2
13	76	867.27		7.67		4.53	39.83	3.45	18.10	-2.25	-19.09	4.801	4.981	4.409	4.481		$3/2^{-}$	0^+
14	77	868.17		7.62		4.36	40.50	0.91	18.44	-2.12	-19.41	4.819	4.999	4.420	4.491		3/2-	11/2
15	78	871.38		7.58		4.11	41.12	3.20	18.74	-2.02	-19.71	4.836	5.018	4.430	4.502		3/2-	0+
16	79	872.12		7.52		3.95	41.77	0.74	19.06	-1.88	-20.02	4.853	5.035	4.441	4.512		3/2-	11/2
17	80	875.11		7.48		3.74	42.35	2.99	19.35	-1.78	-20.31	4.871	5.053	4.451	4.523		3/2-	0+
18	81	875.68		7.42		3.56	43.00	0.57	19.66	-1.06	-20.64	4.886	5.068	4.462	4.534		3/2-	11/2
19	82	878.42		7.38		3.31	43.62	2.75	19.98	-1.08	-20.93	4.903	5.084	4.473	4.544		3/2-	0+
20	83	878.22		7.32		2.55	43.82	$\frac{-0.20}{1.24}$	20.07	-1.11	-21.02	4.962	5.164	4.474	4.545		3/2-	3/2 ⁻ 0 ⁺
21	84	879.46		7.27		1.04	44.14	1.24	20.26	-0.59	-21.23	4.964	5.162	4.482	4.553		3/2-	-
22	85	879.27		7.21		1.05	44.35	<u>-0.19</u>	20.37	-0.59	-21.34	5.018	5.234	4.484	4.554		3/2-	3/2- 0+
23	86	880.33		7.16		0.87	44.71	1.06	20.56	-0.52	-21.55	5.024	5.237	4.491	4.562		3/2-	-
24 25	87	880.14		7.10		0.87	44.92	$\frac{-0.19}{0.00}$	20.68	-0.51	-21.66	5.073	5.301	4.493	4.564		3/2-	3/2 ⁻ 0 ⁺
	88	881.13		7.05		0.80	45.26	0.99	20.86	-0.49	-21.86	5.084	5.311	4.500	4.570		3/2-	-
6	89	880.92		6.99		0.78	45.47	$\frac{-0.21}{0.07}$	20.97	-0.46	-21.98	5.129	5.369	4.502	4.573		3/2-	3/2 0 ⁺
	90	881.89		6.94		0.76	45.78	0.97	21.13	-0.46	-22.15	5.144	5.384	4.508	4.578		3/2-	
8	91 92	881.64		6.89		0.72	45.95	$\frac{-0.25}{0.97}$	21.22	-0.47	-22.25	5.194	5.448	4.509	4.580		3/2-	1/2 0 ⁺
9	92 93	882.61		6.84		0.72	46.27		21.40	-0.43	-22.43	5.204	5.456	4.516	4.586		$3/2^{-}$ $3/2^{-}$	
80 81	93 94	882.40		6.79		0.76	46.44	$\frac{-0.21}{0.88}$	21.48	-0.42	-22.54	5.248	5.512 5.525	4.518	4.588		$3/2^{-}$	1/2 0 ⁺
2	94 95	883.28 883.05		6.74 6.69		0.67 0.65	46.74 46.96	-0.23	21.64 21.76	$-0.40 \\ -0.34$	-22.70 -22.81	5.262 5.300	5.525 5.573	4.524 4.527	4.594 4.597		3/2 3/2 ⁻	1/2
33	95 96	883.87		6.65		0.59	47.19	$\frac{-0.23}{0.82}$	21.76	-0.34 -0.34	-22.81 -22.96	5.317	5.590	4.533	4.597		$3/2^{-}$	0+
13 14	90 97	883.47		6.59		0.39	47.19	-0.40	21.88	-0.34 -0.25	-22.96 -23.06	5.349	5.627	4.538	4.608		$3/2^{-}$	1/2
15	98	884.34		6.55		0.42	47.61	0.87	22.10	-0.23 -0.27	-23.00 -23.21	5.369	5.649	4.545	4.614		$3/2^{-}$	0+
36	99	883.77		6.50		0.47	47.76	-0.56	22.10	-0.27 -0.23	-23.21 -23.29	5.405	5.692	4.546	4.616		3/2 ⁻	5/2
i7	100	884.67		6.46		0.33	48.05	0.89	22.16	-0.23 -0.20	-23.29 -23.46	5.417	5.702	4.558	4.628		$3/2^{-}$	0 ⁺
8	100	883.96		6.41		0.33	46.03	-0.70	22.34	-0.20 -0.09	-23.40 -23.57	5.448	5.738	4.563	4.632		$3/2^{-}$	5/2
9	101	884.83		6.37		0.13		0.87	22.44	-0.03 -0.11	-23.37 -23.75	5.459	5.746	4.576	4.646		$3/2^{-}$	0 ⁺
10	102	883.89		6.31		-0.07		-0.94	22.01	-0.11	-23.73 -23.74	5.551	5.862	4.575	4.644		3/2-	1/2
1	103	884.83		6.28		$\frac{-0.07}{-0.00}$		0.93		-0.12 -0.04	-23.74 -24.08	5.497	5.782	4.599	4.668		3/2-	0+
2	105	883.91		6.22		0.02		-0.92		-0.04	-24.08	5.585	5.893	4.598	4.667		3/2-	1/2
3	105	884.70		6.19		-0.13		0.79		0.02	-24.05 -24.45	5.531	5.814	4.626	4.694		3/2-	0+
,	100	4.17		0.15				0.75		0.02	21.13	3.331	3.011	1.020	0.049		3/2	Ü
= 38	3 (Sr)																	
)	32	540.80		7.73			-0.40		0.91	-16.32	<u>0.54</u>	3.998	3.879	4.095	4.172		0^+	0^+
	33	555.06		7.82			0.81	14.26	1.51	-15.88	-0.03	4.010	3.911	4.095	4.173		0^+	3/2
	34	572.43		7.95		31.63	2.00	17.37	2.11	-15.71	-0.60	4.023	3.938	4.097	4.174		0^+	0^+
	35	586.15		8.03		31.09	3.15	13.72	2.72	-15.39	-1.15	4.034	3.964	4.097	4.174		0^+	5/2
	36	602.96		8.15		30.53	4.41	16.81	3.39	-15.11	-1.74	4.049	3.992	4.102	4.179		0^+	0^+
	37	616.21	622.24	8.22	8.30	30.06	5.55	13.25	3.92	-15.04	-2.32	4.064	4.019	4.107	4.184		0^+	1/2
	38	632.32	637.94	8.32	8.39	29.36	6.78	16.11	4.66	-14.35	-2.86	4.076	4.043	4.110	4.187		0^+	0^+
	39	645.80	649.57	8.39	8.44	29.59	7.92	13.48	5.26	-13.41	-3.42	4.091	4.067	4.115	4.192	4.257	0^+	1/2
	40	659.85	663.01	8.46	8.50	27.53	9.01	14.05	5.67	-13.01	-4.01	4.107	4.093	4.121	4.198	4.256	0^+	0^+
	41	670.35	673.38	8.49	8.52	24.55	10.13	10.50	6.27	-12.91	-4.56	4.120	4.117	4.123	4.200	4.259	0^+	9/2
	42	683.83	686.29	8.55	8.58	23.98	11.24	13.48	6.89	-11.64	-5.08	4.133	4.139	4.125	4.202	4.256	0^+	0+
	43	693.57	695.58	8.56	8.59	23.22	12.33	9.74	7.48	-11.33	-5.60	4.146	4.162	4.127	4.204	4.255	0^+	9/2
	44	706.16	708.13	8.61	8.64	22.33	13.40	12.59	8.05	-11.00	-6.11	4.159	4.183	4.130	4.207	4.248	0^+	0^{+}
																	0^+	9/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
84	46	727.43	728.91	8.66	8.68	21.27	15.44	11.97	8.91	-10.49	-7.10	4.185	4.224	4.136	4.212	4.239	0+	0+
85	47	736.39	737,44	8.66	8.68	20.93	16.42	8.96	9.33	-10.25	-7.58	4.197	4.243	4.138	4.215	4.230	0^+	9/2+
36	48	747.87	748.93	8.70	8.71	20.44	17.37	11.49	9.74	-10.04	-8.05	4.209	4.263	4.141	4.218	4.231	0^{+}	0+
37	49	756.58	757.36	8.70	8.71	20.19	18.28	8.71	10.16	-7.93	-8.51	4.221	4.280	4.143	4.220	4.225	0^+	9/2
88	50	767.64	768.47	8.72	8.73	19.77	19.18	11.06	10.58	-8.09	-8.96	4.233	4.297	4.147	4.223	4.224	0^+	0^{+}
39	51	772.67	774.83	8.68	8.71	16.09	20.16	5.03	11.11	-7.82	-9.45	4.257	4.332	4.154	4.231	4.241	0^+	5/2
90	52	779.65	782.64	8.66	8.70	12.01	21.06	6.98	11.57	-6.05	-9.89	4.282	4.364	4.168	4.244	4.261	0^+	0+
91	53	784.31	788.41	8.62	8.66	11.64	21.97	4.67	12.09	-5.85	-10.36	4.306	4.397	4.176	4.252	4.274	0^+	5/2
92	54	791.12	795.70	8.60	8.65	11.47	22.83	6.80	12.52	-5.81	-10.78	4.330	4.426	4.189	4.264	4.292	0^+	0+
93	55	795.42	800.99	8.55	8.61	11.10	23.68	4.30	13.01	-5.59	-11.22	4.354	4.458	4.197	4.273	4.303	0^+	5/2
94	56	802.13	807.82	8.53	8.59	11.01	24.50	6.71	13.43	-5.59	-11.63	4.376	4.486	4.210	4.285	4.319	0^+	0^{+}
95	57	806.06	812.17	8.48	8.55	10.65	25.20	3.94	13.83	-5.57	-11.96	4.402	4.522	4.215	4.291	4.331	0^+	1/2
96	58	812.75	818.05	8.47	8.52	10.62	26.09	6.68	14.27	-5.40	-12.44	4.423	4.544	4.231	4.306	4.352	0^+	0+
97	59	816.65	821.78	8.42	8.47	10.59	26.81	3.91	14.67	-5.35	-12.78	4.448	4.577	4.239	4.314	4.363	0^+	1/2
98	60	823.03	827.69	8.40	8.45	10.28	27.62	6.37	15.05	-5.24	-13.21	4.469	4.599	4.254	4.329	4.438	0^+	0+
99	61	826.85	831.84	8.35	8.40	10.20	28.35	3.83	15.44	-5.16	-13.57	4.493	4.630	4.264	4.338	4.450	0^+	1/2
100	62	833.02	837.24	8.33	8.37	9.99	29.09	6.17	15.80	-5.08	-13.94	4.514	4.653	4.277	4.351	4.464	0^+	0^{+}
101	63	836.73	841.04	8.28	8.33	9.87	29.83	3.71	16.16	-4.99	-14.32	4.538	4.682	4.289	4.363		0^+	1/2
102	64	842.76	845.90	8.26	8.29	9.74	30.50	6.03	16.50	-4.93	-14.64	4.558	4.705	4.300	4.374		0^+	0^+
103	65	846.36		8.22		9.64	31.20	3.60	16.85	-4.92	-14.98	4.582	4.734	4.310	4.384		0^+	3/2
104	66	852.24		8.19		9.48	31.85	5.88	17.16	-4.76	-15.31	4.602	4.756	4.322	4.395		0^+	0^{+}
105	67	855.84		8.15		9.48	32.55	3.61	17.52	-4.69	-15.65	4.625	4.783	4.333	4.406		0^+	3/2
06	68	861.40		8.13		9.16	33.11	5.56	17.78	-4.53	-15.95	4.646	4.807	4.343	4.416		0^+	0^{+}
07	69	864.81		8.08		8.96	33.78	3.41	18.13	-3.97	-16.26	4.669	4.834	4.354	4.427		0^+	3/2
80	70	869.98		8.06		8.58	34.27	5.17	18.36	-3.94	-16.54	4.689	4.858	4.362	4.435		0^+	0^{+}
09	71	872.00		8.00		7.19	34.97	2.02	18.68	-3.96	-16.87	4.709	4.880	4.372	4.444		0^+	11/
110	72	876.66		7.97		6.68	35.70	4.66	19.01	-3.15	-17.24	4.725	4.896	4.382	4.455		0^+	0^{+}
111	73	878.27		7.91		6.26	36.39	1.60	19.32	-2.99	-17.57	4.743	4.916	4.392	4.464		0^+	11/
112	74	882.36		7.88		5.70	37.05	4.10	19.63	-2.80	-17.91	4.760	4.933	4.402	4.475		0^+	0^{+}
113	75	883.75		7.82		5.49	37.71	1.39	19.94	-2.67	-18.23	4.778	4.952	4.412	4.484		0^{+}	11/
114	76	887.51		7.79		5.14	38.35	3.76	20.24	-2.54	-18.55	4.795	4.971	4.423	4.495		0^+	0^{+}
115	77	888.72		7.73		4.97	38.99	1.22	20.55	-2.42	-18.87	4.812	4.989	4.433	4.504		0^+	11/
116	78	892.22		7.69		4.72	39.59	3.50	20.85	-2.31	-19.18	4.830	5.007	4.443	4.515		0^+	0^{+}
17	79	893.27		7.63		4.55	40.22	1.05	21.16	-2.18	-19.50	4.846	5.024	4.453	4.525		0^+	11/
118	80	896.56		7.60		4.34	40.80	3.29	21.45	-2.07	-19.79	4.864	5.042	4.464	4.535		0^+	0_{+}
119	81	897.45		7.54		4.18	41.44	0.89	21.77	-1.28	-20.12	4.879	5.057	4.475	4.546		0^+	11/
20	82	900.50		7.50		3.94	42.05	3.05	22.07	-1.31	-20.42	4.895	5.074	4.486	4.556		0^+	0+
121	83	900.40		7.44		2.95	42.25	-0.10	22.18	-1.31	-20.60	4.926	5.113	4.490	4.560		0^+	7/2
22	84	901.84		7.39		1.34	42.63	1.44	22.38	-0.74	-20.74	4.953	5.147	4.495	4.565		0+	0+
23	85	901.75		7.33		1.35	42.86	-0.08	22.48	-0.74	-20.85	5.004	5.215	4.496	4.567		0+	3/2
124	86	903.02		7.28		1.18	43.25	1.27	22.69	-0.67	-21.06	5.011	5.219	4.504	4.574		0+	0+
125	87	902.95		7.22		1.19	43.49	$\frac{-0.07}{1.00}$	22.81	-0.67	-21.18	5.057	5.280	4.506	4.576		0+	3/2
126	88	904.13		7.18		1.11	43.85	1.18	23.00	-0.64	-21.38	5.068	5.290	4.513	4.583		0+	0+
127	89	904.04		7.12		1.09	44.09	<u>-0.08</u>	23.12	-0.62	-21.51	5.111	5.345	4.515	4.585		0+	3/2
128	90	905.18		7.07		1.06	44.43	1.14	23.30	-0.61	-21.69	5.126	5.361	4.521	4.591		0+	0+
129	91	905.05		7.02		1.01	44.64	$\frac{-0.13}{1.11}$	23.41	-0.57	-21.82	5.165	5.410	4.524	4.594		0+	3/2
130	92	906.20		6.97		1.01	44.99	1.14	23.59	-0.58	-21.99	5.183	5.430	4.529	4.600		0+	0+
131	93	906.10		6.92		1.04	45.18	$\frac{-0.10}{0.00}$	23.70	-0.57	-22.10	5.226	5.485	4.531	4.601		0+	1/2
132	94	907.15		6.87		0.95	45.51	1.05	23.87	-0.53	-22.27	5.239	5.497	4.538	4.608		0+	0+
133	95	907.04		6.82		0.94	45.75	<u>-0.11</u>	23.99	-0.48	-22.38	5.277	5.544	4.541	4.611		0+	1/2
134	96	908.00		6.78		0.85	46.01	0.96	24.13	-0.47	-22.54	5.293	5.560	4.548	4.618		0+	0+
35	97	907.71		6.72		0.67	46.23	$\frac{-0.29}{0.000}$	24.24	-0.37	-22.65	5.324	5.597	4.554	4.624		0+	1/2
136	98	908.71		6.68		0.72	46.48	1.01	24.38	-0.40	-22.80	5.343	5.617	4.561	4.630		0+	0+
137	99	908.24		6.63		0.54	46.65	-0.47	24.47	-0.36	-22.89	5.377	5.658	4.563	4.632		0^+	5/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
138	100	909.29		6.59		0.58	46.96	1.05	24.62	-0.33	-23.08	5.389	5.667	4.576	4.646		0+	0+
139	101	908.71		6.54		0.47	47.19	-0.58	24.74	-0.25	-23.19	5.419	5.702	4.581	4.651		0^+	5/2
140	102	909.73		6.50		0.44	47.51	1.03	24.90	-0.26	-23.37	5.431	5.711	4.595	4.664		0^+	0^+
141	103	908.98		6.45		0.27		-0.76	25.08	-0.17	-23.55	5.456	5.738	4.605	4.674		0+	5/2
142	104	910.06		6.41		0.33		1.09	25.24	-0.21	-23.70	5.469	5.749	4.617	4.686		0+	0+
143	105	909.15		6.36		0.17		$\frac{-0.92}{1.16}$	25.24	-0.22	-23.70	5.557	5.860	4.616	4.685		0 ⁺	1/2 0 ⁺
144	106	910.31		6.32		0.24		1.16	25.61	-0.16	-24.06	5.505	5.783	4.642	4.710		0^{+}	1/2
145 146	107 108	909.41 910.49		6.27 6.24		0.26 0.18		$\frac{-0.90}{1.08}$		-0.17 -0.11	-24.06 -24.42	5.590 5.540	5.890 5.815	4.641 4.669	4.710 4.737		0+	0+
147	108	909.61		6.19		0.18		-0.87		-0.11 -0.12	-24.42 -24.43	5.621	5.918	4.668	4.736		0^{+}	1/2
148	110	910.61		6.15		0.12		0.99		-0.04	-24.79	5.574	5.846	4.697	4.765		0^{+}	0+
149	111	909.76		6.11		0.15		-0.85		-0.05	-24.80	5.652	5.945	4.697	4.764		0+	1/2
150	112	910.60		6.07		-0.01		0.84		-1.01	-25.16	5.607	5.876	4.727	4.794		0+	0+
7		3.89													0.053			
	39 (Y)	== 4 00		= 00					0.50	40.00	0.50	4.0.40	0.054		4.000		1 /0	
3	34	571.93		7.83			1.61	1422	$\frac{-0.50}{0.10}$	-16.32	0.50	4.048	3.951	4.131	4.208		1/2-	0 ⁺
4	35	586.25		7.92		24.72	2.82	14.32	0.10	-15.99	-0.08	4.058	3.975	4.130	4.207		1/2-	5/2 0 ⁺
'5 '6	36 37	603.66 617.43		8.05 8.12		31.73 31.18	4.09 5.15	17.40 13.78	0.70 1.23	15.69 15.65	-0.69 -1.21	4.072 4.086	4.002 4.030	4.134 4.138	4.211 4.215		1/2 ⁻ 1/2 ⁻	1/2
7	38	634.14		8.24		30.48	6.48	16.70	1.82	-13.03 -14.90	-1.21 -1.84	4.080	4.052	4.141	4.217		1/2	0+
, '8	39	648.17		8.31		30.73	7.63	14.03	2.37	-13.95	-2.41	4.110	4.076	4.145	4.222		1/2-	1/2
9	40	662.74	665.48	8.39	8.42	28.60	8.56	14.57	2.89	-13.54	-2.91	4.125	4.101	4.149	4.226		1/2-	0+
0	41	673.80	676.34	8.42	8.45	25.63	9.72	11.06	3.45	-13.44	-3.48	4.137	4.124	4.151	4.227		1/2-	9/2
1	42	687.81	688.98	8.49	8.51	25.07	10.87	14.01	3.98	-12.16	-4.07	4.149	4.146	4.152	4.229		1/2-	0+
2	43	698.06	699.40	8.51	8.53	24.26	11.97	10.25	4.49	-11.83	-4.65	4.161	4.168	4.154	4.230		1/2-	9/2
3	44	711.13	711.61	8.57	8.57	23.32	13.03	13.07	4.97	-11.48	-5.21	4.173	4.189	4.156	4.232		1/2-	0+
34	45	720.89	721.37	8.58	8.59	22.84	13.93	9.76	5.44	-11.20	-5.73	4.185	4.209	4.157	4.234		$1/2^{-}$	9/2
35	46	733.30	733.39	8.63	8.63	22.17	14.79	12.41	5.87	-10.93	-6.26	4.198	4.229	4.160	4.236		$1/2^{-}$	0^+
86	47	742.67	742.90	8.64	8.64	21.78	15.61	9.37	6.28	-10.66	-6.78	4.209	4.248	4.161	4.238	4.251	$1/2^{-}$	9/2
37	48	754.53	754.71	8.67	8.67	21.23	16.41	11.86	6.66	-10.43	-7.28	4.221	4.267	4.164	4.241	4.250	$1/2^{-}$	0^+
38	49	763.58	764.06	8.68	8.68	20.91	17.16	9.05	7.00	-8.18	-7.78	4.232	4.284	4.166	4.242	4.244	1/2-	9/2
39	50	774.99	775.55	8.71	8.71	20.46	17.93	11.42	7.35	-8.50	-8.26	4.244	4.301	4.169	4.245	4.243	1/2-	0+
90	51	780.67	782.40	8.67	8.69	17.09	19.11	5.67	8.00	-7.80	-8.70	4.267	4.335	4.176	4.252	4.257	1/2-	5/2 0 ⁺
)1)2	52 53	788.15	790.33	8.66	8.68	13.16	20.07	7.48	8.50	-6.59	-9.13	4.290	4.366 4.397	4.188	4.264	4.289	1/2 ⁻ 1/2 ⁻	5/2
)3	53 54	793.41 800.66	796.87 804.35	8.62 8.61	8.66 8.65	12.74 12.51	21.19 22.07	5.26 7.25	9.10 9.54	-6.36 -6.29	-9.55 -9.97	4.313 4.336	4.397	4.195 4.208	4.271 4.283	4.205	$\frac{1/2}{1/2^{-}}$	0 ⁺
)4	55	805.45	810.55	8.57	8.62	12.04	23.04	4.79	10.04	-6.04	-9.37 -10.38	4.359	4.420	4.216	4.283	4.314	1/2	5/2
5	56	812.59	817.48	8.55	8.61	11.93	23.89	7.14	10.46	-6.04	-10.38 -10.77	4.381	4.484	4.228	4.303	4.328	1/2	0^{+}
)6	57	816.91	822.68	8.51	8.57	11.46	24.68	4.32	10.85	-5.79	-11.19	4.405	4.515	4.239	4.314	4.340	1/2-	5/2
17	58	824.05	828.54	8.50	8.54	11.46	25.57	7.14	11.30	-5.81	-11.55	4.426	4.540	4.250	4.324	4.358	1/2-	0+
98	59	828.33	832.78	8.45	8.50	11.42	26.35	4.28	11.68	-5.77	-11.96	4.450	4.573	4.257	4.332	4.371	1/2-	1/2
9	60	835.11	839.21	8.44	8.48	11.06	27.14	6.78	12.09	-5.63	-12.34	4.470	4.595	4.272	4.346	4.466	1/2-	0+
00	61	839.32	843.96	8.39	8.44	10.99	27.91	4.21	12.47	-5.55	-12.72	4.494	4.625	4.282	4.356	4.471	1/2-	1/2
01	62	845.84	849.76	8.37	8.41	10.73	28.62	6.52	12.83	-5.45	-13.12	4.515	4.648	4.295	4.368	4.486	1/2-	0+
02	63	849.93	853.94	8.33	8.37	10.61	29.37	4.09	13.20	-5.35	-13.47	4.538	4.675	4.306	4.380	4.491	1/2-	1/2
03	64	856.28	859.29	8.31	8.34	10.44	30.02	6.36	13.53	-5.28	-13.83	4.558	4.699	4.317	4.390		1/2-	0+
104	65	860.23		8.27		10.30	30.72	3.95	13.87	-5.27	-14.15	4.581	4.727	4.327	4.400		1/2-	3/2
05	66	866.42		8.25		10.14	31.35	6.19	14.19	-5.09	-14.50	4.601	4.749	4.338	4.411		$1/2^{-}$	0^+
106	67	870.37		8.21		10.14	32.04	3.95	14.53	-5.03	-14.84	4.623	4.776	4.349	4.422		$1/2^{-}$	3/2
07	68	876.20		8.19		9.78	32.59	5.83	14.80	-4.84	-15.09	4.644	4.799	4.358	4.431		$1/2^{-}$	0^+
08	69	879.93		8.15		9.56	33.25	3.73	15.13	-4.30	-15.46	4.666	4.826	4.369	4.442		1/2-	3/2
09	70	885.36		8.12		9.16	33.75	5.43	15.38	-4.26	-15.70	4.686	4.849	4.378	4.450		1/2-	0^+
10	71	887.69		8.07		7.76	34.37	2.33	15.69	-4.27	-16.05	4.705	4.872	4.387	4.459		$1/2^{-}$	11/

Table 1 (continued)

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
113	111	72	892.70		8.04		7.34	35.04	5.01	16.04	-3.48	-16.39	4.721	4.887	4.396	4.468		1/2-	
114 75 900.70 7.80 8.88 38.89 1.68 16.96 -2.97 -17.44 4.772 4.943 4.424 4.496 1/2 11/2 0° 11/5 76 90.474 7.78	112	73	894.62		7.99		6.93	35.67	1.92	16.35	-3.31	-16.76	4.738	4.907	4.405	4.477		1/2-	$11/2^{-}$
155 76 904.74	113	74	899.02		7.96		6.32	36.29	4.40	16.66	-3.11	-17.10	4.755	4.924	4.415	4.487		1/2-	0+
166 77 906.25 7.81 5.55 38.08 151 17.53 -2.70 -18.11 48.06 49.79 44.43 45.14 17.2	114								1.68			-17.44							
117 78 989992 7.78 5.18 38.54 36.7 17.70 -2.59 -18.44 48.23 4.997 4.453 4.534 17.2 0' 118 79 911.26 7.72 5.01 39.14 13.44 17.99 -2.45 -18.44 4.23 4.997 4.453 4.534 17.2 17.2 17.2 119 80 914.80 7.69 4.88 39.88 35.4 18.24 -2.34 -1.909 4.856 5.022 4.473 4.544 17.2 0' 110 81 914.50 7.59 4.88 39.88 35.4 18.24 -2.34 -1.909 4.856 5.022 4.473 4.544 17.2 0' 112 83 915.34 7.50 4.88 4.028 1.14 18.34 -1.54 -1.948 4.871 5.047 4.483 4.544 17.2 0' 112 83 919.34 7.54 4.481 4.18	115																		
188 79	116																		
119 80 91480 7.69 4.88 39.69 3.54 18.24 -2.94 -19.09 4.86 5.032 4.73 4.544 1.72 0.7	117																		
120 81 915.94 7.63 4.68 40.26 1.14 18.48 -1.15 -1.95 -1.																			
121 82 919.23 7.80																			
122 83 919.34 7.54 3.41 41.12 0.11 18.94 -1.55 -1.993 4.916 5.100 4.488 4.569 1/2" 7/2" 7/2" 123 84 920.98 7.49 1.76 41.52 1.64 19.15 -0.95 -2.006 4.949 5.194 6.513 4.563 4.574 1/2" 0° 1.712 1/2" 88 921.09 7.43 1.75 14.82 0.11 19.34 -0.96 -2.017 4.989 5.196 4.504 4.575 1/2" 3/2" 1/2" 3/2" 1/2" 88 921.09 7.43 1.75 1.88 4.233 1.57 19.64 -0.98 -2.016 4.909 5.196 4.504 4.575 1/2" 3/2" 1/2" 88 921.09 7.43 1.75 1.67 4.152 0.10 19.81 -0.88 -2.018 5.040 5.25 1.24 4.591 1/2" 3/2" 1/2" 88 921.09 7.22 1.51 4.344 1.41 2.01 1.93 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08																			
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126 87 922.76 7.32 1.67 42.62 0.10 19.81 -0.88 -2.048 5.040 5.258 4.514 4.584 1/2" 3/2" 1/2"																			
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128 89 924,26 7.18 1.50 43.34 0.09 20.22 -0.82 -2.078 5.09 5.21 45.24 4.594 1/2" 3/2" 0° 1.09 92.562 7.18 1.45 43.73 1.36 20.44 -0.80 -2.095 5.108 5.38 4.531 4.601 1/2" 0° 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09																			
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$82 42 692.33 \qquad \qquad 8.44 \qquad \qquad 25.97 8.50 \qquad 14.45 \qquad 4.52 \qquad -12.64 -3.35 \qquad 4.165 4.151 4.180 4.255 \qquad 0^+ \qquad 0^{'+} \qquad 0^{$																			
				680.88		8.41													
8.49 25.17 9.48 10.72 4.99 -12.32 -3.87 4.176 4.172 4.180 4.256 0+ 9/2+				70.5		0.40													
	83	43	/03.05	/04.54	8.47	8.49	25.17	9.48	10.72	4.99	- 12.32	-3.87	4.1/6	4.172	4.180	4.256		UΤ	9/2⊤

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
84	44	716.60	718.12	8.53	8.55	24.27	10.44	13.55	5.47	-11.98	-4.38	4.188	4.193	4.182	4.258		0+	0+
85	45	726.85	727.94	8.55	8.56	23.80	11.39	10.26	5.96	-11.71	-4.89	4.199	4.213	4.183	4.259		0+	$9/2^{+}$
86	46	739.77	740.81	8.60	8.61	23.17	12.34	12.91	6.46	-11.45	-5.40	4.211	4.233	4.185	4.261		0+	0+
87	47	749.66	750.26	8.62	8.62	22.81	13.28	9.90	6.99	-11.21	-5.91	4.221	4.251	4.186	4.262	4.279	0+	9/2+
88	48	762.09	762.61	8.66	8.67	22.32	14.21	12.42	7.55	-10.99	-6.41	4.233	4.269	4.188	4.264	4.279	0+	0+
89	49	771.73	771.93	8.67	8.67	22.06	15.15	9.64	8.15	-8.87	-6.92	4.242	4.285	4.189	4.265	4.271	0+	9/2
90	50	783.72	783.90	8.71	8.71	21.64	16.08	12.00	8.73	-9.03	-7.42	4.253	4.302	4.191	4.267	4.269	0+	0+
91	51	789.72	791.09	8.68	8.69	17.99	17.05	6.00	9.05	-8.86	-7.85	4.276	4.335	4.199	4.274	4.285	0+	5/2
92	52	797.60	799.73	8.67	8.69	13.87	17.95	7.88	9.45	-6.96	-8.28	4.299	4.366	4.212	4.287	4.306	0+	0+
93	53	803.22	806.46	8.64	8.67	13.50	18.91	5.63	9.81	-6.75	-8.70	4.321	4.397	4.219	4.294	4 222	0+	5/2
94	54	810.89	814.68	8.63	8.67	13.29	19.77	7.67	10.23	-6.68	-9.12	4.344	4.425	4.231	4.306	4.332	0+	0+
95	55 56	816.10	821.14	8.59	8.64	12.88	20.69	5.21	10.65	-6.43	-9.53	4.366	4.456	4.239	4.314	4 25 1	0 ⁺	5/2 ⁻ 0 ⁺
96	56	823.65	829.00	8.58	8.64	12.76	21.52	7.55	11.06	-6.43	-9.93	4.387	4.483	4.251	4.325	4.351	0 ⁺	-
97	57	828.36	834.58	8.54	8.60	12.26	22.29	4.71	11.45	-6.17	-10.33	4.411	4.512	4.262	4.336	4.379	0 ⁺	5/2
98	58	835.91	840.99	8.53	8.58	12.26	23.16	7.55	11.86	-6.19	-10.73	4.431	4.538	4.272	4.346	4.401	0 ⁺	0 ⁺
99	59	840.44	845.39	8.49	8.54	12.08	23.78	4.53	12.10	-6.17	-11.01	4.455	4.571	4.279	4.353	4.416	0+	1/2
100	60	847.73	852.22	8.48	8.52	11.82	24.70	7.29	12.62	-5.99 5.04	-11.49	4.475	4.591	4.294	4.368	4.489	0^{+}	0+
01	61	852.24	857.08	8.44	8.49	11.81	25.39	4.51	12.92	-5.94 5.90	-11.80	4.498	4.622	4.303	4.377	4.512	0 ⁺	1/2 0 ⁺
102	62	859.18	863.58	8.42	8.47	11.45	26.16	6.94	13.34	-5.80	-12.23	4.518	4.643	4.317	4.390	4.529	0^{+}	
03	63	863.64	867.88	8.38	8.43	11.40	26.91	4.46	13.71	-5.73	-12.58	4.541	4.671	4.327	4.401		-	1/2
104	64	870.31	873.86	8.37	8.40	11.13	27.55	6.68	14.03	-5.62	-12.93	4.561	4.694	4.339	4.412		0 ⁺	0+
05	65	874.65	877.67	8.33	8.36	11.02	28.29	4.34	14.42	-5.50 5.43	-13.31	4.583	4.720	4.351	4.424		0 ⁺	1/2
06	66	881.12		8.31		10.81	28.88	6.47	14.70	-5.42	-13.60	4.603	4.744	4.360	4.433		0^{+}	0+
07	67	885.38		8.27		10.73	29.53	4.26	15.01	-5.34 5.16	-13.92	4.625	4.770	4.370	4.443		0 ⁺	3/2
80	68	891.55		8.26		10.43	30.15	6.18	15.35	-5.16	-14.24	4.644	4.793	4.380	4.452		0 ⁺	0+
09	69 70	895.56		8.22		10.18	30.75	4.01	15.63	-4.63	-14.53	4.667	4.820	4.390	4.462		0+	3/2 0 ⁺
110	70 71	901.35		8.19		9.80	31.37	5.79	15.99	-4.59	-14.85	4.686	4.842	4.398	4.470		0+	-
11	71 72	904.01		8.14		8.45 8.06	32.01	2.66	16.32	-4.60	-15.18	4.705 4.720	4.865 4.880	4.407	4.479		0 ⁺	11/ 0 ⁺
12		909.41		8.12			32.75	5.41	16.71	-3.84	-15.57			4.417	4.488		0+	
13	73	911.70		8.07		7.69	33.43	2.29	17.08	-3.68	-15.93	4.737	4.900	4.426	4.497		0 ⁺	11/ 0 ⁺
14	74	916.47		8.04		7.05	34.11	4.77	17.45	-3.48	-16.30	4.754	4.917	4.435	4.507		0 ⁺	-
15 16	75 76	918.53		7.99		6.83	34.78	2.06	17.83	-3.34	-16.65	4.770	4.936	4.444	4.516		0+	11/ 0 ⁺
	76 77	922.93		7.96 7.90		6.47	35.43	4.41	18.19	-3.20	-17.01	4.787	4.953 4.971	4.454	4.526		0+	
17 18	77 78	924.81 928.95		7.90 7.87		6.29 6.01	36.09 36.73	1.88	18.56 19.03	-3.08 -2.96	-17.36 -17.70	4.804 4.820	4.971	4.464 4.473	4.535 4.544		0+	11/ 0 ⁺
	78 79	928.95		7.87 7.82		5.85	36.73 37.39	4.14 1.72	19.03	-2.96 -2.83		4.820	4.989 5.005	4.473	4.544		0+	11/
19 20	80			7.82 7.79		5.63	38.02		19.41	-2.83 -2.72	-18.06		5.003	4.463	4.563		0+	0+
	80 81	934.58 936.15		7.79 7.74				3.91	20.21		-18.40	4.853		4.493			0 ⁺	
21 22	82	939.82		7.74		5.48 5.25	38.69 39.33	1.57 3.68	20.21	-1.77 -1.80	-18.76 -19.10	4.867 4.883	5.038 5.054	4.513	4.573 4.583		0 ⁺	11/ 0 ⁺
22 23	82 83	939.82		7.70 7.64		3.93	39.33 39.68	0.26	20.60		-19.10 -19.27	4.883 4.911	5.054	4.513	4.583 4.587		0+	7/2
23 24	84	941.82		7.60		1.99	39.98	1.74	20.74	-1.79 -1.06	-19.27 -19.40	4.911	5.121	4.517	4.593		0+	0 ⁺
24 25	85	941.82		7.54		1.87	40.19	0.13	20.86	-1.00 -1.00	-19.40 -19.57	4.964	5.121	4.527	4.595		0+	7/2
25 26	86	943.65		7.34 7.49		1.84	40.19	1.71	20.80	-1.00 -1.00	-19.37 -19.71	4.989	5.137	4.533	4.603		0+	0 ⁺
20 27	87	943.81		7.43		1.87	40.86	0.16	21.05	-1.00 -1.00	-19.71 -19.81	5.031	5.243	4.535	4.605		0+	3/2
	88	945.40		7.43 7.39		1.75	41.28	1.59	21.03	-0.95	-19.81 -20.01	5.042	5.253		4.603		0+	0 ⁺
28 29	88 89	945.40		7.39 7.33		1.75	41.28	0.17	21.23	-0.95 -0.94	-20.01 -20.12	5.042	5.303	4.543 4.545	4.615		0+	3/2
29 30	90	943.37		7.33 7.29		1.76	41.90	1.51	21.31	-0.94 -0.91	-20.12 -20.30	5.095	5.319	4.543	4.613		0+	3/∠ 0 ⁺
30 31	91	947.08		7.23		1.66	42.18	0.15	21.40	-0.88	-20.30 -20.42	5.131	5.365	4.555	4.625		0+	3/2
	92	947.23		7.23 7.19			42.16	1.47	21.36	-0.87	-20.42 -20.57	5.148	5.384		4.623		0+	0 ⁺
32 33	92 93	948.83		7.19 7.13		1.62 1.60	42.50	0.13	21.71	-0.87 -0.87	-20.57 -20.67	5.148	5.384 5.434	4.561 4.563	4.633		0+	1/2
34	93 94	948.83 950.24		7.13 7.09		1.54	42.73		21.80	-0.87 -0.82	-20.87 -20.84	5.188	5.434 5.447	4.563 4.571	4.633 4.641		0+	0 ⁺
	94 95	950.24 950.38		7.09 7.04			43.09	1.41 0.14	21.96		-20.84 -20.95	5.236		4.571			0 ⁺	
35 36	95 96	950.38 951.66		7.04 7.00		1.55 1.42		1.28	22.07	-0.77		5.252	5.491 5.507		4.643		0 ⁺	1/2 0 ⁺
.30 .37	96 97			7.00 6.95		1.42	43.66 43.91		22.24	-0.76 -0.66	-21.12 -21.25	5.232	5.542	4.583 4.589	4.652 4.658		0+	1/2
١ر	97	951.61		0.93		1.25	45.91	-0.04	22.37	-0.00	-21.25	3.202	3.342	4.309	4.036		U.	1/.

Table 1 (continued)

0.0 . (
4	N	$E_{ m b}^{ m Cal.}$ (MeV)	E _b ^{Exp.} (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
38	98	952.93		6.91		1.28	44.22	1.32	22.52	-0.69	-21.41	5.299	5.560	4.597	4.666		0^+	0^+
39	99	952.67		6.85		1.06	44.43	-0.26	22.63	-0.59	-21.56	5.324	5.588	4.608	4.677		0^+	1/2
40	100	954.09		6.81		1.15	44.80	1.41	22.83	-0.64	-21.71	5.343	5.608	4.614	4.683		0^+	0^{+}
41	101	953.77		6.76		1.09	45.06	-0.32	22.96	-0.60	-21.84	5.371	5.640	4.620	4.689		0^+	5/2
42	102	955.15		6.73		1.06	45.41	1.38	23.16	-0.60	-22.04	5.384	5.651	4.634	4.702		0^+	0^+
43	103	954.75		6.68		0.98	45.77	-0.40	23.33	-0.55	-22.19	5.409	5.679	4.643	4.711		0^+	5/2
44	104	956.15		6.64		1.00	46.09	1.40	23.51	-0.56	-22.37	5.423	5.691	4.655	4.723		0^+	0+
45	105	955.65		6.59		0.90	46.50	-0.50	23.72	-0.50	-22.57	5.445	5.714	4.667	4.735		0^{+}	5/2
46	106	957.11		6.56		0.96	46.80	1.46	23.88	-0.53	-22.73	5.461	5.728	4.678	4.746		0^{+}	0^{+}
47	107	956.51		6.51		0.86	47.10	-0.60	24.04	-0.52	-22.87	5.483	5.752	4.687	4.754		0^{+}	9/2
48	108	958.03		6.47		0.92	47.54	1.52	24.26	-0.49	-23.09	5.497	5.764	4.702	4.770		0^+	0+
49	109	957.44		6.43		0.93	47.83	-0.59	24.43	-0.45	-23.23	5.519	5.787	4.711	4.779		0^{+}	9/2
50	110	958.90		6.39		0.87	48.29	1.46	24.65	-0.42	-23.45	5.533	5.798	4.727	4.795		0^{+}	0+
51	111	958.27		6.35		0.83	48.51	-0.63	24.81	0.16	-23.59	5.554	5.821	4.737	4.804		0^{+}	9/2
52	112	959.64		6.31		0.74	49.04	1.37	25.04	-1.45	-23.81	5.569	5.832	4.754	4.821		0^{+}	0+
J_		3.50		0.51		0.7 1	15.01	1.57	25.01	1.15	23.01	3.303	3.032	1.751	0.067		Ü	Ü
		3.30													0.007			
	1 (Nb)	CO2 47		7.00			1 10		2.40	1074	0.21	4110	4.010	4 100	4 27 4		0/2+	0+
7	36	602.47		7.82			$\frac{-1.19}{0.01}$	1405	$\frac{-2.46}{1.03}$	-16.74	$\frac{0.21}{0.24}$	4.116	4.019	4.199	4.274		9/2+	
8	37	617.42		7.92		22.64	$\frac{-0.01}{0.01}$	14.95	$\frac{-1.93}{1.24}$	-16.67	-0.34	4.126	4.044	4.200	4.275		9/2+	1/2
9	38	635.08		8.04		32.61	0.94	17.66	$\frac{-1.34}{1.00}$	-16.02	-0.86	4.137	4.066	4.201	4.277		9/2+	0+
)	39	650.18		8.13		32.76	2.01	15.10	-0.79	-15.06	-1.38	4.148	4.089	4.204	4.279		$9/2^{+}$	1/2
1	40	666.07		8.22		30.99	3.33	15.89	-0.28	-14.65	-1.96	4.160	4.112	4.206	4.281		$9/2^{+}$	0_{+}
2	41	678.16		8.27		27.98	4.36	12.09	0.28	-14.55	-2.49	4.170	4.134	4.206	4.281		$9/2^{+}$	9/2
3	42	693.17	696.25	8.35	8.39	27.10	5.37	15.01	0.85	-13.18	-2.98	4.181	4.156	4.206	4.281		$9/2^{+}$	0^+
4	43	704.42		8.39		26.26	6.37	11.25	1.38	-12.84	-3.48	4.191	4.177	4.206	4.282		$9/2^{+}$	9/2
5	44	718.48	720.27	8.45	8.47	25.31	7.35	14.06	1.89	-12.50	-3.98	4.202	4.197	4.207	4.283		$9/2^{+}$	0^+
6	45	729.26	731.19	8.48	8.50	24.83	8.36	10.78	2.41	-12.23	-4.48	4.212	4.216	4.208	4.283		9/2+	9/2
7	46	742.70	744.00	8.54	8.55	24.22	9.40	13.44	2.93	-12.10	-4.11	4.221	4.233	4.208	4.283		$1/2^{-}$	0^{+}
8	47	753.26	754.38	8.56	8.57	24.00	10.59	10.56	3.60	-11.84	-4.70	4.231	4.251	4.208	4.284		$1/2^{-}$	9/2
9	48	766.31	766.90	8.61	8.62	23.61	11.77	13.05	4.22	-11.60	-5.27	4.242	4.269	4.210	4.286		1/2-	0^+
0	49	776.57	777.01	8.63	8.63	23.31	12.99	10.27	4.85	-9.26	-5.86	4.251	4.285	4.211	4.286	4.289	1/2-	9/2
1	50	789.16	789.05	8.67	8.67	22.85	14.16	12.58	5.43	-9.47	-6.43	4.262	4.302	4.213	4.288	4.288	1/2-	0^{+}
2	51	795.43	796.94	8.65	8.66	18.86	14.77	6.28	5.71	-9.29	-6.75	4.284	4.334	4.220	4.295	4.303	1/2-	5/2
3	52	803.70	805.77	8.64	8.66	14.54	15.55	8.26	6.10	-7.29	-7.16	4.307	4.364	4.234	4.309	4.324	1/2-	0+
4	53	809.55	813.00	8.61	8.65	14.12	16.14	5.86	6.33	-7.07	-7.49	4.328	4.394	4.242	4.316		1/2-	5/2
5	54	817.61	821.49	8.61	8.65	13.91	16.95	8.06	6.72	-7.01	-7.90	4.351	4.423	4.255	4.329		1/2-	0+
6	55	823.18	828.38	8.57	8.63	13.62	17.72	5.57	7.08	-6.84	-9.11	4.372	4.454	4.260	4.335		9/2+	5/2
7	56	831.13	836.45	8.57	8.62	13.52	18.54	7.95	7.48	-6.83	-9.52	4.394	4.481	4.272	4.346		$9/2^{+}$	0+
8	57	836.24	842.45	8.53	8.60	13.07	19.33	5.11	7.88	-6.57	-9.92	4.416	4.510	4.283	4.357		9/2 ⁺	5/2
9	58	844.19	849.31	8.53	8.58	13.06	20.14	7.94	8.28	-6.59	-10.32	4.436	4.535	4.293	4.367	4.406	9/2 ⁺	0 ⁺
9 00	59	848.99	854.86	8.49	8.55	12.75	20.14	4.80	8.55	-6.58	-10.52 -10.59	4.450	4.568	4.293	4.307	7.700	9/2 ⁺	1/2
	60	848.99 856.78	862.01	8.49 8.48	8.53	12.75	21.66	4.80 7.79	8.55 9.05	-6.37	-10.59 -11.10		4.588	4.300	4.374	4.486	9/2+ 9/2+	0 ⁺
01												4.479				4.480		
02	61	861.60	867.51	8.45	8.51	12.61	22.28	4.82	9.36	-6.34	-11.39	4.502	4.617	4.324	4.397	4.510	9/2 ⁺	1/2
03	62	868.97	874.29	8.44	8.49	12.20	23.13	7.37	9.79	-6.17	-11.84	4.521	4.638	4.337	4.410	4.510	9/2 ⁺	0+
04	63	873.77	879.17	8.40	8.45	12.17	23.84	4.80	10.13	-6.11	-12.17	4.543	4.666	4.347	4.420		9/2+	1/2
05	64	880.81	885.32	8.39	8.43	11.84	24.53	7.04	10.50	-5.97	-12.54	4.563	4.688	4.359	4.432		9/2+	0+
06	65	885.52	889.68	8.35	8.39	11.75	25.29	4.71	10.87	-5.87	-12.91	4.584	4.714	4.370	4.443		9/2+	1/2
07	66	892.29	895.27	8.34	8.37	11.48	25.87	6.77	11.17	-5.75	-13.21	4.604	4.737	4.380	4.452		9/2+	0+
08	67	896.87	899.17	8.30	8.33	11.35	26.50	4.58	11.50	-5.66	-13.53	4.625	4.763	4.390	4.463		$9/2^{+}$	3/2
09	68	903.36	904.32	8.29	8.30	11.06	27.15	6.48	11.80	-5.48	-13.85	4.644	4.786	4.399	4.471		$9/2^{+}$	0^+
10	69	907.65		8.25		10.77	27.71	4.29	12.09	-4.98	-14.13	4.666	4.813	4.409	4.481		$9/2^{+}$	3/2
	70	913.76		8.23		10.40	28.39	6.11	12.41	-4.93	-14.46	4.685	4.834	4.417	4.489		$9/2^{+}$	0+
11 12	70 71	916.74		8.19		9.10	29.05	2.99	12.74	-4.94	-14.79	4.703	4.857	4.426	11 100		9/2 ⁺	11/

Table 1 (continued)

113 114		(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	S_{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	(MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
14	72	922.56		8.16		8.80	29.86	5.82	13.15	-4.22	-15.17	4.719	4.873	4.435	4.507		9/2+	0+
	73	925.22		8.12		8.47	30.60	2.66	13.52	-4.12	-14.73	4.736	4.890	4.447	4.519		$1/2^{-}$	11/2
15	74	930.42		8.09		7.86	31.40	5.20	13.95	-3.90	-15.14	4.752	4.907	4.457	4.528		$1/2^{-}$	0^{+}
16	75	932.91		8.04		7.69	32.21	2.49	14.38	-3.76	-15.53	4.768	4.926	4.465	4.536		$1/2^{-}$	11/
17	76	937.73		8.01		7.31	32.99	4.82	14.79	-3.61	-15.93	4.784	4.943	4.475	4.546		$1/2^{-}$	0^+
118	77	940.03		7.97		7.12	33.78	2.30	15.21	-3.48	-16.32	4.800	4.961	4.483	4.554		$1/2^{-}$	11/
119	78	944.55		7.94		6.83	34.64	4.53	15.61	-3.36	-16.70	4.816	4.978	4.493	4.563		$1/2^{-}$	0^+
120	79	946.69		7.89		6.66	35.43	2.13	16.02	-3.23	-17.10	4.832	4.995	4.501	4.572		$1/2^{-}$	11/
121	80	950.97		7.86		6.42	36.18	4.29	16.40	-3.11	-17.48	4.848	5.012	4.511	4.581		$1/2^{-}$	0^+
122	81	952.95		7.81		6.27	37.02	1.98	16.81	-1.93	-17.89	4.863	5.028	4.519	4.590		$1/2^{-}$	11/
123	82	956.99		7.78		6.02	37.77	4.04	17.17	-2.06	-18.28	4.878	5.044	4.529	4.599		$1/2^{-}$	0^+
124	83	957.37		7.72		4.42	38.03	0.38	17.30	-1.99	-18.40	4.905	5.079	4.534	4.604		1/2-	7/2
125	84	959.22		7.67		2.23	38.24	1.85	17.40	-1.18	-18.51	4.930	5.109	4.541	4.611		$1/2^{-}$	0^+
126	85	959.46		7.61		2.09	38.37	0.25	17.52	-1.11	-18.64	4.957	5.144	4.546	4.616		$1/2^{-}$	7/2
127	86	961.28		7.57		2.06	38.62	1.81	17.62	-1.11	-18.76	4.981	5.173	4.553	4.623		1/2-	0+
128	87	961.51		7.51		2.05	38.75	0.24	17.70	-1.11	-18.83	5.022	5.227	4.555	4.625		1/2-	3/2
129	88	963.23		7.47		1.95	39.05	1.71	17.83	-1.05	-19.01	5.033	5.237	4.564	4.634		1/2-	0+
130	89	963.47		7.41		1.96	39.21	0.24	17.90	-1.04	-19.09	5.070	5.286	4.567	4.636		1/2-	3/2
131	90	965.09		7.37		1.87	39.47	1.62	18.01	-1.01	-19.25	5.085	5.301	4.575	4.644		1/2-	0+
132	91	965.32		7.31		1.85	39.67	0.23	18.09	-1.03	-20.09	5.117	5.345	4.573	4.642		9/2+	3/2
133	92	966.95		7.27		1.86	39.96	1.63	18.25	-1.02	-20.26	5.134	5.363	4.580	4.649		9/2+	0+
34	93	967.18		7.22		1.85	40.15	0.23	18.35	-1.01	-20.36	5.172	5.412	4.582	4.651		9/2+	1/2
135	94	968.76		7.18		1.81	40.49	1.58	18.52	-0.97	-20.54	5.185	5.424	4.591	4.660		9/2+	0+
136	95	969.01		7.13		1.84	40.70	0.25	18.63	-0.92	-20.65	5.220	5.468	4.594	4.663		9/2+	1/2
137	96	970.46		7.08		1.70	41.04	1.45	18.80	-0.91	-20.83	5.235	5.482	4.603	4.672		9/2+	0+
138	97	970.56		7.03		1.55	41.31	0.10	18.94	-0.83	-20.96	5.264	5.518	4.610	4.678		9/2+	1/2
139	98	972.03		6.99		1.57	41.62	1.47	19.10	-0.85	-21.14	5.281	5.535	4.618	4.687		9/2 ⁺ 9/2 ⁺	0+
140	99	971.93		6.94		1.37	41.89	$\frac{-0.10}{1.57}$	19.26	-0.76	-21.29	5.306	5.563	4.629	4.697			1/2
141	100	973.49		6.90		1.47	42.24	1.57	19.41	-0.81	-21.46	5.324	5.582	4.636	4.705		9/2+	0+
142	101	973.31		6.85		1.38	42.51	$\frac{-0.19}{1.50}$	19.54	-0.78	-21.58	5.351	5.614	4.642	4.710		9/2 ⁺ 9/2 ⁺	5/2 ⁻ 0 ⁺
143	102	974.89		6.82		1.39	42.90	1.58	19.74	-0.77	-21.79	5.365	5.625	4.656	4.724			
144	103 104	974.65		6.77		1.34	43.24	$\frac{-0.24}{1.59}$	19.90 20.08	-0.74	-21.94	5.390	5.653	4.664	4.732		9/2 ⁺ 9/2 ⁺	5/2 ⁻ 0 ⁺
145	104	976.23 975.93		6.73 6.68		1.35	43.59	1.58	20.08	-0.75	-22.13	5.405 5.427	5.666 5.689	4.677	4.745		9/2+ 9/2+	5/2
146 147	105	975.93 977.55		6.65		1.28 1.32	44.01 44.32	$\frac{-0.30}{1.62}$	20.28	-0.70	-22.31		5.704	4.688 4.699	4.756 4.767		9/2+ 9/2+	0 ⁺
	106	977.55 977.17		6.60		1.32	44.32 44.71			-0.72	-22.47	5.443 5.463	5.724	4.699	4.787		9/2+ 9/2+	5/2
148 149	107	977.17		6.57		1.24	45.07	$\frac{-0.37}{1.66}$	20.67 20.81	$-0.66 \\ -0.68$	-22.69 -22.83	5.480	5.741	4.713	4.789		9/2 ⁺	0 ⁺
50	108	978.40		6.52		1.23	45.39	-0.44	20.81	-0.64	-22.83 -22.96	5.501	5.765	4.722	4.789		9/2 ⁺	9/2
	110	980.08		6.49		1.23	45.83	1.68	20.90	-0.64 -0.61	-22.90 -23.18	5.516	5.777	4.730	4.798		9/2 ⁺	9/2 0 ⁺
l51 l52	111	979.61		6.44		1.24	46.15	-0.47	21.16	0.01	-23.16 -23.31	5.538	5.800	4.746	4.822		9/2 ⁺	9/2
53	111	981.19		6.41		1.11	46.60	1.59	21.54	<u>0.01</u> 1.67	-23.51 -23.53	5.552	5.812	4.733 4.771	4.822		9/2 ⁺	9/2 0 ⁺
r	112	3.83		0.41		1.11	40.00	1.55	21.50	-1.07	-23.55	3.332	J.0 12	4.771	0.055		3/2	U
	2 (Mo)	J.6J													0.055			
z = 42 30	38	636.48		7.96			0.06		1.40	-16.56	0.54	4.154	4.072	4.227	4.302		0^{+}	0^{+}
1	39	652.13		7.90 8.05			1.16		1.40	-15.63	0.00	4.154	4.072	4.227	4.304		0+	1/2
32	39 40	668.45		8.05 8.15			2.10	16.32	2.38	-15.63 -15.17	<u>0.00</u> -0.47	4.175	4.093	4.229	4.304		0 ⁺	0 ⁺
33	40	681.13		8.21		29.00	3.25	12.68	2.38	-15.17 -15.05	-0.47 -1.02	4.175	4.118	4.230	4.305		0+	9/2
34	42	696.74		8.29		28.29	4.41	15.61	3.57	-13.03 -13.77	-1.60	4.195	4.159	4.230	4.305		0+	9/2 0 ⁺
35	43	708.61	710.71	8.34	8.36	27.48	5.56	11.87	4.18	-13.77 -13.44	-1.00 -2.17	4.195	4.139	4.230	4.305		0+	9/2
16 16	44	708.01	710.71	8.41	8.43	26.54	6.68	14.67	4.16	-13.44 -13.09	-2.17 -2.73	4.203	4.100	4.230	4.303		0+	9/2 0 ⁺
	44 45	723.28 734.66	725.38 736.23	8.44	8.43 8.46	26.05	5.68 7.81	11.38	4.80 5.40				4.200 4.219	4.231	4.306		0 ⁺	
			750.25 750.10	8.44 8.51	8.46 8.52	25.39	7.81 8.90	14.01	5.40 5.97	-12.81 -12.54	-3.30 -3.86	4.225 4.235	4.219	4.231	4.306		0+	9/2 0 ⁺
37 38	46	748.67																

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
90	48	773.16	773.73	8.59	8.60	24.49	11.07	13.49	6.85	-12.06	-4.98	4.255	4.274	4.234	4.308	4.327	0+	0+
91	49	783.88	783.84	8.61	8.61	24.21	12.15	10.72	7.30	-10.32	-5.54	4.263	4.289	4.233	4.308	4.318	0+	$9/2^{+}$
92	50	796.92	796.51	8.66	8.66	23.76	13.20	13.05	7.77	-9.98	-6.09	4.273	4.306	4.235	4.310	4.315	0+	0+
93	51	803.71	804.58	8.64	8.65	19.83	13.99	6.78	8.27	-10.04	-6.44	4.294	4.337	4.242	4.317	4.050	0+	5/2 ⁺
94	52	812.43	814.26	8.64	8.66	15.51	14.83	8.72	8.73	-7.75	-6.86	4.317	4.367	4.255	4.330	4.353	0+	0 ⁺
95	53	818.80	821.63	8.62	8.65	15.09	15.58	6.37	9.25	-7.53	-7.21	4.338	4.396	4.262	4.337	4.363	0 ⁺	5/2 ⁺
96	54	827.29	830.78	8.62	8.65	14.86	16.40	8.49	9.68	-7.46	-7.62	4.359	4.424	4.275	4.349	4.385	0 ⁺	0 ⁺
97 98	55 56	833.24	837.60	8.59	8.64	14.44	17.14 17.94	5.95	10.07	-7.23	-7.98	4.380	4.453 4.479	4.283 4.295	4.357	4.388	0+	5/2 ⁺ 0 ⁺
98 99	50 57	841.59 847.10	846.25 852.17	8.59 8.56	8.64	14.30 13.85	17.94	8.35 5.50	10.46 10.85	-7.20 -6.96	-8.38 -8.78	4.401 4.423	4.479	4.295	4.369 4.380	4.409	0+	5/2 ⁺
100	58	855.39	860.46	8.55	8.61 8.60	13.80	19.49	8.30	11.21	-6.96	-8.78 -9.15	4.443	4.532	4.316	4.390	4.447	0+	0 ⁺
100	59	860.52	865.86	8.52	8.57	13.43	20.09	5.13	11.53	-6.86	-9.54	4.464	4.558	4.327	4.400	7.77/	0+	7/2 ⁺
102	60	868.75	873.99	8.52	8.57	13.36	21.03	8.23	11.98	-6.75	-9.92	4.484	4.584	4.338	4.411	4.491	0+	0+
103	61	873.88	879.46	8.48	8.54	13.36	21.64	5.13	12.28	-6.73	-10.22	4.507	4.614	4.347	4.420	4.515	0+	1/2 ⁺
104	62	881.72	886.92	8.48	8.53	12.97	22.54	7.84	12.75	-6.54	-10.68	4.525	4.634	4.360	4.433	4.525	0+	0+
105	63	886.86	891.98	8.45	8.50	12.98	23.22	5.14	13.09	-6.50	-11.01	4.547	4.662	4.370	4.443	4.539	0^{+}	1/2 ⁺
106	64	894.31	898.85	8.44	8.48	12.59	24.00	7.45	13.50	-6.32	-11.41	4.566	4.683	4.382	4.454	4.549	0^{+}	0+
107	65	899.38	903.33	8.41	8.44	12.53	24.73	5.08	13.86	-6.23	-11.77	4.587	4.709	4.393	4.465		0^{+}	1/2+
108	66	906.49	909.61	8.39	8.42	12.18	25.37	7.11	14.19	-6.08	-12.10	4.606	4.731	4.402	4.474	4.560	0^+	0+
109	67	911.39	913.59	8.36	8.38	12.01	26.01	4.90	14.52	-5.98	-12.42	4.627	4.757	4.412	4.484		0^+	$3/2^{+}$
110	68	918.19	919.54	8.35	8.36	11.70	26.64	6.80	14.83	-5.78	-12.74	4.646	4.780	4.421	4.493		0^+	0^{+}
111	69	922.76	923.00	8.31	8.36	11.37	27.20	4.57	15.12	-5.32	-13.03	4.667	4.805	4.430	4.502		0^+	$3/2^{+}$
112	70	929.19		8.30		11.00	27.84	6.43	15.44	-5.26	-13.35	4.685	4.827	4.438	4.510		0^+	0+
113	71	932.53		8.25		9.77	28.53	3.34	15.79	-5.27	-13.70	4.703	4.849	4.446	4.518		0^+	$11/2^{-}$
114	72	938.79		8.23		9.60	29.38	6.26	16.23	-4.61	-14.11	4.718	4.866	4.455	4.526		0^+	0^+
115	73	941.85		8.19		9.31	30.15	3.06	16.63	-4.45	-14.50	4.735	4.885	4.464	4.535		0^+	$11/2^{-}$
116	74	947.39		8.17		8.60	30.92	5.54	16.97	-4.23	-14.90	4.751	4.902	4.473	4.544		0+	0^+
117	75	950.21		8.12		8.36	31.68	2.82	17.30	-4.10	-15.28	4.767	4.920	4.481	4.552		0+	$11/2^{-}$
118	76	955.36		8.10		7.97	32.43	5.15	17.64	-3.94	-15.67	4.783	4.937	4.490	4.561		0+	0^+
119	77	958.00		8.05		7.79	33.19	2.64	17.97	-3.82	-16.06	4.799	4.955	4.499	4.569		0+	11/2
120	78	962.86		8.02		7.50	33.91	4.86	18.30	-3.69	-16.43	4.814	4.972	4.508	4.578		0+	0+
121	79	965.33		7.98		7.33	34.66	2.47	18.64	-3.56	-16.82	4.830	4.988	4.516	4.587		0+	11/2-
122	80	969.95		7.95		7.09	35.37	4.62	18.97	-3.45	-17.19	4.845	5.005	4.526	4.596		0+	0+
123	81	972.28		7.90		6.95	36.13	2.33	19.33	-2.29	-17.58	4.860	5.020	4.534	4.604		0 ⁺	11/2-
124	82	976.66		7.88		6.71	36.84	4.38	19.67	-2.31	-17.95	4.875	5.036	4.544	4.613		0+	$0^{+} \\ 7/2^{-}$
125 126	83 84	977.24 979.25		7.82 7.77		4.96 2.59	37.16 37.44	0.58 2.01	19.87 20.03	-2.25 -1.36	-18.10 -18.23	4.901 4.925	5.070 5.099	4.548 4.556	4.618 4.625		0+	0 ⁺
120	85	979.23		7.77		2.39	37. 44 37.75	0.44	20.03	-1.30 -1.29	-18.23 -18.38	4.923	5.133	4.560	4.623		0+	7/2 ⁻
127	86	981.68		7.71		2.43	38.03	1.98	20.40	-1.25 -1.28	-18.58 -18.52	4.974	5.161	4.568	4.637		0+	0 ⁺
129	87	982.01		7.61		2.32	38.20	0.33	20.50	-1.20 -1.30	-18.60	5.013	5.214	4.570	4.639		0+	3/2 ⁻
130	88	983.99		7.57		2.31	38.59	1.98	20.76	-1.23	-18.80	5.023	5.222	4.579	4.648		0+	0+
131	89	984.36		7.51		2.34	38.78	0.37	20.70	-1.23 -1.23	-18.89	5.060	5.270	4.582	4.651		0+	3/2 ⁻
132	90	986.20		7.47		2.21	39.12	1.84	21.10	-1.18	-19.06	5.073	5.284	4.590	4.659		0+	0+
133	91	986.55		7.42		2.20	39.32	0.36	21.23	-1.15	-19.16	5.107	5.328	4.593	4.663		0^{+}	$3/2^{-}$
134	92	988.31		7.38		2.12	39.61	1.76	21.37	-1.13	-19.32	5.123	5.345	4.602	4.671		0^{+}	0+
135	93	988.60		7.32		2.05	39.78	0.29	21.43	-1.07	-19.43	5.156	5.386	4.606	4.675		0+	3/2-
136	94	990.34		7.28		2.03	40.10	1.74	21.58	-1.08	-19.58	5.173	5.404	4.614	4.683		0^+	0+
137	95	990.63		7.23		2.03	40.25	0.29	21.62	-1.05	-19.67	5.207	5.447	4.617	4.686		0^+	$1/2^{-}$
138	96	992.27		7.19		1.93	40.61	1.64	21.81	-1.03	-19.85	5.221	5.460	4.628	4.697		0^+	0^{+}
139	97	992.51		7.14		1.88	40.90	0.24	21.96	-0.98	-19.97	5.251	5.497	4.634	4.703		0^+	$1/2^{-}$
140	98	994.11		7.10		1.84	41.18	1.60	22.08	-0.99	-20.14	5.267	5.512	4.644	4.713		0^+	0^+
141	99	994.21		7.05		1.70	41.54	0.10	22.28	-0.93	-20.31	5.293	5.542	4.653	4.721		0^+	$1/2^{-}$
142	100	995.88		7.01		1.77	41.80	1.67	22.39	-0.96	-20.46	5.310	5.559	4.662	4.730		0^+	0^+
143	101	995.84		6.96		1.63	42.07	-0.04	22.53	-0.89	-20.66	5.333	5.584	4.674	4.742		0^+	$1/2^{-}$

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
144	102	997.60		6.93		1.72	42.46	1.77	22.72	-0.94	-20.79	5.351	5.603	4.682	4.750		0+	0+
45	103	997.51		6.88		1.67	42.77	-0.09	22.86	-0.92	-20.94	5.375	5.631	4.690	4.758		0^+	5/2
46	104	999.30		6.84		1.70	43.15	1.79	23.07	-0.92	-21.14	5.390	5.645	4.702	4.770		0+	0^+
147	105	999.18		6.80		1.67	43.53	-0.12	23.25	-0.89	-21.31	5.413	5.669	4.713	4.780		0+	5/2
48	106	1000.99		6.76		1.68	43.88	1.81	23.44	-0.90	-21.49	5.429	5.684	4.724	4.791		0+	0+
49	107	1000.82		6.72		1.64	44.31	$\frac{-0.17}{1.00}$	23.64	-0.85	-21.69	5.450	5.705	4.737	4.804		0+	5/2
150	108	1002.65		6.68		1.67	44.62	1.83	23.81	-0.86	-21.85	5.466	5.722	4.746	4.813		0+	0+
151	109	1002.42		6.64		1.60	44.98	<u>-0.24</u>	24.01	-0.79	-22.07	5.485	5.740	4.762	4.828		0+	5/2
152	110	1004.28		6.61		1.63	45.38	1.86	24.20	-0.80	-22.21	5.503	5.759	4.769	4.836		0 ⁺	0+
53	111	1003.95		6.56		1.53	45.68	$\frac{-0.33}{1.03}$	24.34	-0.09	-22.33	5.526	5.784	4.777	4.843		0^{+}	9/2 0 ⁺
54 55	112 113	1005.77 1004.96		6.53 6.48		1.50 1.01	46.14	1.83	24.58	-0.16	-22.56 -22.56	5.541 5.615	5.796 5.892	4.793 4.793	4.859 4.859		0+	1/2
56	113	1004.96		6.44				$\frac{-0.81}{-0.30}$		-0.17	-22.36 -22.97	5.581	5.838	4.793	4.878		0+	0+
σ σ	114	3.46		0.44		<u>-1.11</u>		<u>-0.30</u>		<u>0.57</u>	-22.97	3.361	3.030	4.012	0.062		U.	U.
z = 4	3 (Tc)																	
3	40	666.89		8.03			0.82			-15.69	0.09	4.192	4.121	4.256	4.331		$9/2^{+}$	0^{+}
84	41	680.13		8.10			1.97		-1.00	-15.56	-0.46	4.201	4.142	4.256	4.330		9/2+	9/2
5	42	696.33		8.19			3.16	16.19	-0.41	-14.33	-1.04	4.210	4.163	4.255	4.330		$9/2^{+}$	0^{+}
6	43	708.77		8.24		28.63	4.34	12.44	0.16	-14.00	-1.60	4.219	4.183	4.254	4.329		$9/2^{+}$	9/2
7	44	724.01	726.25	8.32	8.35	27.68	5.52	15.24	0.73	-13.65	-2.17	4.229	4.203	4.255	4.329		$9/2^{+}$	0^{+}
8	45	735.96	738.31	8.36	8.39	27.19	6.70	11.95	1.30	-13.37	-2.74	4.238	4.222	4.254	4.329		$9/2^{+}$	9/2
9	46	750.53	752.10	8.43	8.45	26.52	7.83	14.57	1.86	-13.09	-3.31	4.248	4.241	4.255	4.329		9/2+	0+
0	47	762.09	763.50	8.47	8.48	26.13	8.83	11.56	2.42	-12.84	-3.88	4.256	4.258	4.254	4.329		9/2+	9/2
1	48	776.13	776.84	8.53	8.54	25.60	9.83	14.04	2.97	-12.60	-4.44	4.266	4.275	4.255	4.330		9/2+	0^+
2	49	787.40	787.85	8.56	8.56	25.31	10.83	11.27	3.52	-10.58	-5.01	4.274	4.291	4.255	4.329		9/2+	9/2
3	50	800.99	800.60	8.61	8.61	24.86	11.83	13.58	4.07	-10.40	-5.56	4.283	4.307	4.256	4.330		9/2+	0+
4	51	808.14	809.22	8.60	8.61	20.74	12.71	7.15	4.43	-10.34	-5.90	4.304	4.337	4.263	4.337		9/2+	5/2
)5	52	817.29	819.16	8.60	8.62	16.30	13.59	9.15	4.86	-8.15	-6.32	4.326	4.367	4.276	4.350		9/2+	0+
96	53	824.02	827.03	8.58	8.61	15.87	14.46	6.73	5.22	-7.93	-6.66	4.346	4.396	4.283	4.358		9/2+	5/2
)7	54	832.93	836.50	8.59	8.62	15.64	15.32	8.91	5.64	-7.85	−7.08	4.367	4.424	4.296	4.370		9/2+	0+
8	55 56	839.24	843.78	8.56	8.61	15.23	16.07	6.32	6.00	-7.63	-7.44	4.388	4.452	4.305	4.378		9/2 ⁺	5/2 0 ⁺
)9 00	56 57	848.00 853.90	852.75 859.51	8.57	8.61	15.07 14.66	16.87 17.66	8.75 5.90	6.41 6.80	−7.59 −7.37	-7.85	4.408 4.430	4.478 4.505	4.316 4.327	4.390 4.401		9/2 ⁺ 9/2 ⁺	5/2
01	57 58	862.58	867.90	8.54 8.54	8.60 8.59	14.58	18.39	5.90 8.68	7.19	−7.37 −7.36	-8.24 -8.62	4.430 4.449	4.505	4.327	4.401		9/2+ 9/2+	5/2 0 ⁺
02	59	868.10	874.20	8.54 8.51	8.57	14.20	19.11	5.52	7.19	-7.36 -7.25	-8.62 -9.01	4.449	4.556	4.338	4.411		9/2 ⁺	7/2
03	60	876.71	882.31	8.51	8.57	14.14	19.11	8.61	7.96	-7.23 -7.14	-9.40	4.490	4.581	4.359	4.432		9/2 ⁺	0+
04	61	882.13	888.29	8.48	8.54	14.03	20.53	5.42	8.25	-7.14	-9.69	4.511	4.610	4.367	4.440		9/2 ⁺	1/2
05	62	890.44	896.14	8.48	8.53	13.73	21.47	8.31	8.72	-6.92	-10.16	4.530	4.630	4.381	4.454		$9/2^{+}$	0+
06	63	895.91	901.69	8.45	8.51	13.77	22.14	5.46	9.05	-6.89	-10.48	4.551	4.657	4.390	4.463		$9/2^{+}$	1/2
07	64	903.77	908.74	8.45	8.49	13.32	22.95	7.86	9.46	-6.68	-10.90	4.569	4.678	4.402	4.474		$9/2^{+}$	0+
08	65	909.19	913.98	8.42	8.46	13.29	23.67	5.43	9.81	-6.59	-11.24	4.590	4.704	4.412	4.484		9/2+	1/2
09	66	916.63	920.41	8.41	8.44	12.87	24.34	7.44	10.14	-6.41	-11.58	4.608	4.726	4.422	4.494		9/2+	0+
10	67	921.86	925.23	8.38	8.41	12.67	24.99	5.23	10.47	-6.23	-11.93	4.629	4.751	4.433	4.504		9/2+	1/2
11	68	928.96	931.30	8.37	8.39	12.33	25.61	7.10	10.77	-6.09	-12.22	4.647	4.773	4.440	4.512		9/2+	0+
12	69	933.82	935.60	8.34	8.35	11.95	26.17	4.85	11.06	-5.67	-12.51	4.667	4.798	4.449	4.520		9/2+	3/2
13	70	940.57	941.23	8.32	8.33	11.61	26.81	6.75	11.38	-5.61	-12.84	4.685	4.819	4.457	4.528		9/2+	0+
14	71	944.25		8.28		10.43	27.32	3.68	11.72	-5.60	-13.19	4.703	4.841	4.465	4.536		9/2+	11/
15	72	950.93		8.27		10.36	28.37	6.68	12.14	-5.01	-13.59	4.718	4.858	4.473	4.544		9/2+	0+
16	73	954.38		8.23		10.03	29.16	3.45	12.53	-4.85	-13.98	4.735	4.877	4.482	4.552		$9/2^{+}$	11/
17	74	960.31		8.21		9.38	29.90	5.94	12.92	-4.62	-14.39	4.750	4.894	4.490	4.561		$9/2^{+}$	0+
18	75	963.53		8.17		9.15	30.62	3.22	13.32	-4.49	-14.78	4.766	4.912	4.498	4.569		$9/2^{+}$	11,
19	76	969.06		8.14		8.75	31.34	5.53	13.70	-4.33	-15.17	4.781	4.929	4.507	4.577		$9/2^{+}$	0+
20	77	972.08		8.10		8.56	32.06	3.02	14.08	-4.20	-15.56	4.797	4.947	4.515	4.585		9/2+	11/

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
121	78	977.32		8.08		8.26	32.76	5.23	14.46	-4.07	-15.95	4.812	4.964	4.524	4.594		9/2+	0+
122	79	980.17		8.03		8.09	33.49	2.86	14.84	-3.94	-16.34	4.827	4.980	4.532	4.602		9/2+	11/2
123	80	985.16		8.01		7.84	34.18	4.98	15.21	-3.82	-16.72	4.842	4.997	4.541	4.611		$9/2^{+}$	0+
124 125	81 82	987.87 992.62		7.97		7.70	34.92 35.62	2.72	15.59	-2.54	-17.11	4.856	5.012	4.549	4.619		9/2 ⁺ 9/2 ⁺	11/2 ⁻ 0 ⁺
125	82 83	992.62		7.94 7.88		7.46 5.49	35.62 35.99	4.74 0.74	15.96 16.12	-2.58 -2.60	-17.49 -17.64	4.871 4.897	5.028 5.061	4.558 4.563	4.628 4.633		9/2 ⁺	7/2-
127	84	995.53		7.84		2.91	36.31	2.17	16.12	-2.00 -1.52	-17.04 -17.78	4.920	5.089	4.571	4.641		9/2 ⁺	0+
128	85	996.13		7.78		2.77	36.67	0.60	16.43	-1.32 -1.44	-17.78 -17.92	4.945	5.121	4.576	4.645		$9/2^{+}$	7/2 ⁻
129	86	998.26		7.74		2.74	36.99	2.13	16.58	-1.44	-18.07	4.967	5.149	4.584	4.653		$9/2^{+}$	0 ⁺
130	87	998.73		7.68		2.60	37.22	0.47	16.72	-1.36	-18.20	4.993	5.182	4.588	4.658		9/2 ⁺	$7/2^{-}$
131	88	1000.87		7.64		2.60	37.64	2.14	16.88	-1.38	-18.35	5.015	5.208	4.596	4.665		9/2+	0+
132	89	1001.33		7.59		2.60	37.86	0.46	16.97	-1.38	-18.43	5.051	5.255	4.599	4.668		9/2+	$3/2^{-}$
133	90	1003.35		7.54		2.49	38.26	2.02	17.15	-1.32	-18.62	5.064	5.267	4.608	4.677		$9/2^{+}$	0+
134	91	1003.81		7.49		2.49	38.49	0.46	17.26	-1.30	-18.71	5.097	5.311	4.612	4.681		9/2+	$3/2^{-}$
135	92	1005.74		7.45		2.38	38.79	1.92	17.43	-1.27	-18.89	5.112	5.327	4.621	4.690		$9/2^{+}$	0+
136	93	1006.14		7.40		2.33	38.97	0.40	17.54	-1.22	-19.00	5.144	5.366	4.626	4.694		$9/2^{+}$	$3/2^{-}$
137	94	1008.03		7.36		2.29	39.27	1.89	17.69	-1.23	-19.16	5.160	5.384	4.635	4.703		9/2+	0^+
138	95	1008.40		7.31		2.26	39.39	0.37	17.77	-1.21	-19.25	5.194	5.426	4.638	4.707		$9/2^{+}$	1/2-
139	96	1010.24		7.27		2.21	39.78	1.84	17.97	-1.19	-19.44	5.207	5.438	4.650	4.718		9/2+	0+
140	97	1010.61		7.22		2.22	40.06	0.37	18.10	-1.15	-19.56	5.237	5.475	4.656	4.724		9/2+	1/2-
141	98	1012.38		7.18		2.14	40.35	1.77	18.27	-1.16	-19.75	5.252	5.489	4.666	4.735		$9/2^{+}$	0+
142	99	1012.65		7.13		2.04 2.09	40.72 40.98	0.27	18.44	-1.11	-19.90	5.279	5.520	4.675 4.685	4.743		9/2 ⁺ 9/2 ⁺	1/2 ⁻ 0 ⁺
143 144	100 101	1014.47 1014.63		7.09 7.05		1.98	40.98	1.82 0.16	18.59 18.79	-1.13 -1.08	-20.07 -20.26	5.295 5.318	5.536 5.562	4.685	4.753 4.764		9/2 ⁺	1/2-
145	101	1014.03		7.03		2.06	41.65	1.90	18.94	-1.08 -1.12	-20.20 -20.41	5.336	5.581	4.704	4.772		9/2 ⁺	0 ⁺
146	102	1016.54		6.96		1.96	41.95	0.06	19.09	-1.12 -1.10	-20.41 -20.55	5.360	5.608	4.712	4.780		$9/2^{+}$	5/2 ⁻
147	104	1018.59		6.93		2.05	42.35	1.99	19.29	-1.10	-20.75	5.375	5.623	4.725	4.792		9/2 ⁺	0+
148	105	1018.64		6.88		2.04	42.71	0.05	19.46	-1.08	-20.92	5.398	5.647	4.735	4.802		9/2 ⁺	5/2-
149	106	1020.63		6.85		2.04	43.08	1.99	19.64	-1.08	-21.11	5.414	5.663	4.746	4.813		9/2+	0+
150	107	1020.66		6.80		2.02	43.49	0.03	19.84	-1.05	-21.29	5.435	5.685	4.758	4.825		$9/2^{+}$	$5/2^{-}$
151	108	1022.66		6.77		2.03	43.82	2.00	20.01	-1.05	-21.46	5.452	5.702	4.767	4.834		9/2+	0^{+}
152	109	1022.65		6.73		1.99	44.25	-0.01	20.23	-0.98	-21.66	5.472	5.721	4.781	4.848		$9/2^{+}$	$5/2^{-}$
153	110	1024.65		6.70		1.99	44.57	2.00	20.37	-0.98	-21.81	5.489	5.740	4.789	4.856		$9/2^{+}$	0^{+}
154	111	1024.53		6.65		1.88	44.92	-0.12	20.58	-0.31	-22.03	5.508	5.758	4.806	4.872		$9/2^{+}$	$5/2^{-}$
155	112	1026.51		6.62		1.86	45.32	1.98	20.74	-0.37	-22.15	5.527	5.779	4.811	4.877		$9/2^{+}$	0+
156	113	1025.70		6.57		1.17		-0.81	20.74	-0.38	-22.15	5.602	5.875	4.811	4.877		$9/2^{+}$	1/2+
157	114	1025.82		6.53		-0.69		0.12	21.16	0.38	-22.62	5.558	5.808	4.833	4.899		$9/2^{+}$	0^+
σ		3.85																
Z=44	, ,																	
85	41	681.68		8.02						-16.06	<u>0.14</u>	4.216	4.147	4.280	4.354		0+	9/2+
86	42	698.45		8.12			1.71		2.12	-14.90	-0.44	4.225	4.168	4.279	4.353		0+	0+
87	43	711.46		8.18			2.85	13.01	2.69	-14.57	-1.00	4.233	4.188	4.277	4.352		0+	9/2+
88	44	727.26		8.26		28.81	3.98	15.81	3.25	-14.21	-1.56	4.242	4.207	4.277	4.352		0+	0+
89	45	739.79	TEC 00	8.31	0.44	28.33	5.13	12.52	3.83	-13.94	-2.13	4.251	4.225	4.276	4.351		0+	9/2+
90	46	754.92	756.88	8.39	8.41	27.66	6.25	15.14	4.39	-13.66	-2.69	4.260	4.244	4.277	4.351		0 ⁺	0+
91	47	767.06	768.31	8.43	8.44	27.27	7.39	12.14	4.97	-13.41	-3.25	4.268	4.260	4.276	4.350		0 ⁺	9/2 ⁺
92	48	781.67	782.44	8.50	8.50	26.75	8.51	14.61	5.54	-13.17	-3.81	4.277	4.278	4.276	4.351		0 ⁺	0+
93	49	793.52	793.42	8.53	8.53	26.46	9.64	11.85	6.12	-11.04	-4.38	4.284	4.293	4.275	4.350		0 ⁺	9/2 ⁺ 0 ⁺
94	50 51	807.67	806.86	8.59	8.58	26.00	10.75	14.15	6.68	-10.92	-4.93	4.293	4.308	4.276	4.350		0 ⁺	
95 96	51 52	815.15	815.81	8.58	8.59 8.61	21.63 17.06	11.44 12.30	7.47 9.58	7.01	-10.75	-5.27 5.71	4.313	4.338 4.368	4.283	4.357 4.371	4.391	0+	5/2 ⁺ 0 ⁺
96 97	52 53	824.73 831.78	826.50 834.62	8.59 8.58	8.61 8.60	16.63	12.30	9.58 7.05	7.44 7.76	-8.53 -8.31	-5.71 -6.05	4.335 4.355	4.368	4.297 4.305	4.371	4.391	0 ⁺	5/2 ⁺
98	53 54	841.12	834.62 844.79	8.58	8.62	16.40	13.83	7.05 9.34	7.76 8.19	-8.31 -8.24	-6.05 -6.49	4.355	4.396	4.305	4.378	4.423	0+	0 ⁺
30	J-1	071.12	U -1. /3	0.30	0.02	10.40	15.05	J.J+	0.15	-0.24	-0.43	7.3/0	7,724	7.31/	1.331	7.423	U.	U

4	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
99	55	847.79	852.26	8.56	8.61	16.01	14.55	6.67	8.55	-8.03	-6.85	4.396	4.451	4.326	4.400	4.434	0+	5/2+
100	56	856.96	861.93	8.57	8.62	15.84	15.37	9.17	8.96	-7.98	-7.27	4.417	4.477	4.338	4.411	4.453	0+	0+
101	57	863.26	868.73	8.55	8.60	15.47	16.16	6.30	9.36	-7.77	-7.67	4.437	4.504	4.349	4.422	4.461	0+	5/2+
102	58	872.32	877.95	8.55	8.61	15.36	16.93	9.06	9.74	−7.75	-8.05	4.456	4.529	4.359	4.432	4.481	0+	0 ⁺
103	59	878.25	884.18	8.53	8.58	14.99	17.73	5.93	10.15	-7.54	-8.48	4.478	4.556	4.372	4.444	4.5.10	0+	5/2+
104	60	887.24	893.09	8.53	8.59	14.92	18.49	8.99	10.53	-7.52	-8.83	4.496	4.578	4.381	4.453	4.510	0 ⁺	0 ⁺
105	61	892.97	899.00	8.50	8.56	14.72	19.09	5.73	10.84	-7.36	-9.20	4.515	4.603	4.391	4.463		0^{+}	7/2 ⁺ 0 ⁺
106	62	901.75	907.46	8.51	8.56	14.51	20.03	8.78	11.31	-7.29	-9.60	4.535	4.627	4.402	4.474		0+	
107 108	63 64	907.53 915.81	913.07 920.94	8.48 8.48	8.53 8.53	14.56 14.07	20.67 21.50	5.78 8.29	11.62 12.04	-7.28 -7.04	-9.91 -10.33	4.555 4.573	4.654 4.674	4.411 4.423	4.483 4.495		0 ⁺	1/2 ⁻ 0 ⁺
108	65	921.58	926.09	8.45	8.50	14.07	22.20	5.77	12.04	-6.95	-10.55 -10.67	4.573	4.674	4.423	4.493		0 ⁺	7/2
110	66	921.36	933.49	8.45	8.49	13.56	22.20	7.79	12.39	-6.74	-10.07 -11.02	4.594	4.099	4.442	4.514		0 ⁺	0 ⁺
111	67	934.94	938.27	8.42	8.45	13.36	23.55	5.57	13.08	-6.56	-11.02 -11.35	4.632	4.721	4.452	4.514		0+	1/2
112	68	942.34	945.19	8.41	8.44	12.96	24.15	7.40	13.38	-6.40	-11.55 -11.66	4.649	4.768	4.460	4.531		0+	0+
113	69	947.47	949.51	8.38	8.40	12.53	24.71	5.13	13.65	-6.01	-11.95	4.669	4.792	4.468	4.539		0+	3/2
114	70	954.56	955.92	8.37	8.39	12.22	25.37	7.09	13.99	-5.94	-12.28	4.686	4.813	4.476	4.547		0^{+}	0+
115	71	958.59	960.08	8.34	8.35	11.13	26.06	4.04	14.34	-5.93	-12.63	4.703	4.834	4.484	4.555		0^{+}	11/2
116	72	965.67	965.92	8.32	8.33	11.12	26.88	7.08	14.74	-5.40	-13.02	4.719	4.852	4.492	4.563		0^+	0+
117	73	969.52	969.44	8.29	8.29	10.92	27.67	3.84	15.14	-5.25	-13.40	4.735	4.871	4.500	4.571		0^{+}	11/
118	74	975.86		8.27		10.19	28.47	6.35	15.55	-5.02	-13.81	4.750	4.888	4.508	4.579		0^+	0+
119	75	979.48		8.23		9.96	29.27	3.62	15.95	-4.88	-14.20	4.766	4.906	4.516	4.587		0^+	11/
120	76	985.41		8.21		9.55	30.05	5.93	16.35	-4.72	-14.60	4.781	4.923	4.525	4.595		0^+	0+
21	77	988.84		8.17		9.36	30.84	3.43	16.76	-4.59	-14.99	4.796	4.940	4.533	4.603		0^+	11/
22	78	994.46		8.15		9.05	31.60	5.62	17.14	-4.46	-15.38	4.811	4.956	4.541	4.611		0^{+}	0+
123	79	997.72		8.11		8.88	32.39	3.26	17.55	-4.33	-15.77	4.826	4.973	4.549	4.619		0^{+}	11/
124	80	1003.09		8.09		8.63	33.14	5.37	17.93	-4.22	-16.15	4.840	4.989	4.558	4.627		0^+	0+
125	81	1006.22		8.05		8.50	33.94	3.13	18.35	-2.83	-16.55	4.854	5.004	4.565	4.635		0^+	11/
126	82	1011.35		8.03		8.26	34.69	5.13	18.73	-2.86	-16.93	4.869	5.020	4.574	4.644		0^+	0+
127	83	1012.23		7.97		6.01	34.99	0.88	18.87	-2.91	-17.08	4.894	5.052	4.580	4.649		0^+	7/2
128	84	1014.53		7.93		3.19	35.28	2.31	19.00	-1.66	-17.23	4.916	5.080	4.588	4.657		0^+	0^+
129	85	1015.28		7.87		3.05	35.58	0.74	19.15	-1.58	-17.38	4.941	5.111	4.593	4.662		0^+	7/2
130	86	1017.55		7.83		3.01	35.87	2.27	19.29	-1.57	-17.53	4.963	5.138	4.601	4.670		0^+	0^+
131	87	1018.14		7.77		2.87	36.13	0.60	19.41	-1.49	-17.67	4.988	5.170	4.606	4.675		0^+	7/2
132	88	1020.42		7.73		2.87	36.43	2.28	19.55	-1.51	-17.83	5.009	5.196	4.614	4.683		0^+	0^+
133	89	1020.96		7.68		2.82	36.60	0.54	19.63	-1.51	-17.91	5.044	5.242	4.617	4.686		0^+	3/2
34	90	1023.17		7.64		2.75	36.97	2.21	19.82	-1.45	-18.12	5.056	5.253	4.628	4.696		0^+	0^+
135	91	1023.72		7.58		2.76	37.17	0.55	19.91	-1.43	-18.21	5.089	5.296	4.631	4.700		0+	3/2
36	92	1025.81		7.54		2.64	37.50	2.10	20.07	-1.40	-18.41	5.104	5.310	4.642	4.710		0+	0+
37	93	1026.32		7.49		2.60	37.72	0.51	20.18	-1.36	-18.52	5.134	5.350	4.646	4.715		0+	3/2
38	94	1028.37		7.45		2.56	38.03	2.05	20.34	-1.36	-18.70	5.150	5.366	4.656	4.725		0+	0+
39	95	1028.82		7.40		2.50	38.19	0.45	20.42	-1.35	-18.79	5.183	5.408	4.660	4.729		0+	1/2
40	96	1030.87		7.36		2.49	38.60	2.04	20.63	-1.34	-19.00	5.196	5.419	4.672	4.740		0+	0+
41	97	1031.33		7.31		2.51	38.82	0.46	20.72	-1.31	-19.12	5.226	5.456	4.678	4.746		0+	1/2
42	98	1033.31		7.28		2.45	39.20	1.98	20.93	-1.31	-19.32	5.240	5.468	4.690	4.758		0^{+}	0 ⁺
43	99 100	1033.75		7.23		2.42	39.54	0.44	21.10	-1.28	-19.46	5.267	5.501	4.698	4.765		0 ⁺	1/2 0 ⁺
44		1035.73		7.19 7.15		2.42	39.85	1.97	21.26	-1.30	-19.65	5.282	5.515	4.708	4.776		0+	
45	101 102	1036.09		7.15 7.11		2.34 2.40	40.25 40.53	0.36 2.04	21.46	-1.26	-19.82 -19.99	5.306 5.323	5.543 5.560	4.718	4.786 4.795		0+	1/2 0 ⁺
146		1038.13		7.11 7.06					21.59	-1.29				4.728	4.795 4.807		0+	
147	103	1038.42		7.06 7.03		2.33	40.91	0.29	21.82	-1.24	-20.19	5.345	5.584	4.740			0+	1/2 0 ⁺
148 149	104 105	1040.53		7.03 6.98		2.40 2.34	41.23 41.57	2.12 0.22	21.94 22.11	-1.28	-20.33 -20.49	5.363 5.385	5.603 5.628	4.748 4.757	4.815 4.824		0+	5/2
	105	1040.75 1042.93		6.98 6.95		2.34	41.57 41.94	2.18	22.11	-1.26 -1.26	-20.49 -20.68	5.385	5.644	4.757 4.768	4.824 4.835		0 ⁺	5/2 0 ⁺
150 151	106	1042.93		6.95 6.91		2.40	41.94	0.22	22.30 22.50	-1.26 -1.23	-20.68 -20.86	5.402	5.666	4.768 4.779	4.835 4.846		0+	5/2
		1073.10		0.01		2.70	74.54	0.22	44.30	- 1.23	-20.00	J. 1 43	5.000	7.//3	7.040		U	0 ⁺

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
153	109	1045.53		6.83		2.37	43.11	0.20	22.88	-1.17	-21.22	5.460	5.704	4.802	4.868		0+	5/2-
154	110	1047.68		6.80		2.35	43.40	2.15	23.03	-1.16	-21.37	5.477	5.723	4.810	4.876		0+	0+
155 156	111 112	1047.78 1049.89		6.76 6.73		2.26 2.21	43.83 44.12	0.10 2.10	23.25 23.38	$-0.50 \\ -0.58$	-21.57 -21.69	5.498 5.516	5.743 5.763	4.825 4.830	4.891 4.896		0^{+}	5/2 ⁻ 0 ⁺
157	113	1049.89		6.68		1.29	44.12	-0.81	23.36	-0.58 -0.59	-21.69 -21.69	5.590	5.860	4.830	4.896		0+	1/2+
158	114	1049.68		6.64		-0.21	45.02	0.60	23.86	0.16	-21.03 -22.20	5.544	5.789	4.853	4.919		0+	0+
σ	•••	3.77		0.01			10102	0.00	23.00	<u>0.10</u>	22.20	0.011	517-05		0.041		ŭ	· ·
Z=4	5 (Rh)																	
87	42	697.07		8.01						-15.46	0.07	4.240	4.172	4.302	4.376		$9/2^{+}$	0^{+}
88	43	710.65		8.08			1.88		-0.81	-15.13	-0.49	4.248	4.191	4.301	4.374		9/2+	$9/2^{+}$
89	44	727.02		8.17			3.01	16.37	-0.24	-14.77	-1.05	4.256	4.210	4.300	4.374		9/2+	0+
90	45	740.12		8.22		29.47	4.16	13.09	0.33	-14.50	-1.61	4.264	4.228	4.299	4.372		9/2+	9/2+
91 92	46 47	755.82 768.52	770.35	8.31 8.35	8.37	28.79 28.41	5.29 6.43	15.70 12.71	0.90 1.46	-14.22 -13.97	-2.17 -2.74	4.272 4.279	4.246 4.263	4.298 4.297	4.372 4.371		9/2 ⁺ 9/2 ⁺	0 ⁺ 9/2 ⁺
93	48	783.69	770.33 784.44	8.43	8.43	27.87	7.56	15.17	2.02	-13.97 -13.73	-2.74 -3.30	4.279	4.203	4.297	4.371		9/2 ⁺	0+
94	49	796.11	796.41	8.47	8.47	27.58	8.71	12.42	2.59	-11.40	-3.87	4.295	4.294	4.296	4.369		9/2 ⁺	9/2 ⁺
95	50	810.81	809.91	8.53	8.53	27.12	9.82	14.70	3.14	-11.44	-4.43	4.303	4.310	4.296	4.369		9/2 ⁺	0+
96	51	818.63	819.33	8.53	8.53	22.52	10.49	7.82	3.48	-11.07	-4.76	4.322	4.339	4.303	4.377		$9/2^{+}$	5/2+
97	52	828.66	830.31	8.54	8.56	17.84	11.37	10.03	3.93	-8.93	-5.21	4.344	4.368	4.317	4.390		$9/2^{+}$	0+
98	53	836.06	838.96	8.53	8.56	17.43	12.04	7.40	4.28	-8.72	-5.55	4.364	4.396	4.325	4.398		9/2+	5/2+
99	54	845.84	849.43	8.54	8.58	17.18	12.91	9.78	4.72	-8.63	-6.00	4.385	4.423	4.338	4.411		9/2+	0+
100	55 56	852.87	857.51	8.53	8.58	16.82	13.63	7.04	5.08	-8.43	-6.36	4.404	4.451	4.347	4.420		9/2+	5/2 ⁺ 0 ⁺
101 102	56 57	862.46 869.15	867.41	8.54 8.52	8.59	16.62 16.28	14.46	9.59 6.69	5.50 5.89	-8.38 -8.18	-6.78 -7.18	4.424 4.444	4.476 4.503	4.358 4.369	4.431		$9/2^{+}$ $9/2^{+}$	0 ' 5/2 ⁺
102	58	878.60	874.85 884.17	8.53	8.58 8.58	16.14	15.25 16.02	9.45	6.28	-8.16 -8.14	-7.18 -7.57	4.463	4.527	4.389	4.442 4.452	4.495	9/2 ⁺	0 ⁺
104	59	884.96	891.16	8.51	8.57	15.81	16.86	6.36	6.71	-7.94	-8.00	4.484	4.553	4.391	4.464	1, 155	9/2 ⁺	5/2 ⁺
105	60	894.30	900.13	8.52	8.57	15.70	17.59	9.34	7.06	-7.91	-8.35	4.502	4.576	4.401	4.473		9/2+	0+
106	61	900.40	906.71	8.49	8.55	15.44	18.27	6.10	7.43	-7.74	-8.72	4.520	4.600	4.410	4.482		$9/2^{+}$	$7/2^{+}$
107	62	909.58	915.29	8.50	8.55	15.27	19.14	9.17	7.83	-7.67	-9.12	4.540	4.623	4.422	4.493		$9/2^{+}$	0+
108	63	915.66	921.53	8.48	8.53	15.26	19.75	6.09	8.13	-7.67	-9.42	4.560	4.650	4.430	4.502		9/2+	1/2+
109	64	924.38	929.57	8.48	8.53	14.80	20.61	8.72	8.57	-7.40	-9.85	4.577	4.670	4.442	4.513		9/2+	0+
110	65	930.48	935.47	8.46	8.50	14.81	21.29	6.10	8.90	-7.32	-10.18	4.597	4.695	4.451	4.522		9/2+	1/2 ⁺ 0 ⁺
111 112	66 67	938.62 944.51	943.01 948.52	8.46 8.43	8.50 8.47	14.24 14.04	21.99 22.65	8.14 5.89	9.25 9.57	-7.08 -6.89	-10.54 -10.86	4.614 4.634	4.716 4.741	4.461 4.470	4.532 4.541		9/2 ⁺ 9/2 ⁺	1/2 ⁺
113	68	952.21	955.62	8.43	8.46	13.59	23.25	7.70	9.87	-6.72	-10.80 -11.18	4.651	4.762	4.478	4.549		9/2 ⁺	0+
114	69	957.65	960.64	8.40	8.43	13.13	23.83	5.44	10.18	-6.35	-11.52	4.670	4.785	4.488	4.558		9/2 ⁺	1/2 ⁺
115	70	965.05	967.23	8.39	8.41	12.84	24.48	7.41	10.49	-6.29	-11.81	4.686	4.806	4.494	4.564		9/2+	0+
116	71	969.49	971.81	8.36	8.38	11.85	25.24	4.44	10.90	-5.75	-12.30	4.702	4.824	4.504	4.574		$9/2^{+}$	1/2+
117	72	976.91	978.04	8.35	8.36	11.86	25.98	7.42	11.24	-5.79	-12.54	4.719	4.845	4.509	4.580		$9/2^{+}$	0^+
118	73	981.14	982.10	8.31	8.32	11.64	26.76	4.22	11.62	-5.65	-12.92	4.735	4.864	4.517	4.587		9/2+	11/2-
119	74	987.89	988.10	8.30	8.30	10.98	27.58	6.75	12.03	-5.41	-13.33	4.750	4.881	4.525	4.595		9/2+	0+
120 121	75 76	991.90 998.22		8.27 8.25		10.76 10.33	28.37 29.16	4.01 6.33	12.42 12.81	-5.28 -5.11	-13.72 -14.12	4.765 4.780	4.899 4.915	4.533 4.541	4.603 4.611		9/2 ⁺ 9/2 ⁺	11/2 ⁻ 0 ⁺
121	76 77	1002.04		8.25 8.21		10.33	29.16	3.82	13.20	-3.11 -4.99	-14.12 -14.51	4.780 4.794	4.913	4.548	4.611		9/2+ 9/2 ⁺	11/2 ⁻
123	78	1002.04		8.20		9.83	30.73	6.01	13.59	-4.99 -4.85	-14.51 -14.91	4.809	4.949	4.557	4.626		$9/2^{+}$	0+
124	79	1011.71		8.16		9.66	31.54	3.65	13.99	-4.72	-15.30	4.823	4.965	4.564	4.634		9/2 ⁺	11/2-
125	80	1017.45		8.14		9.40	32.29	5.75	14.36	-4.60	-15.69	4.838	4.981	4.572	4.642		9/2+	0+'
126	81	1020.97		8.10		9.27	33.10	3.52	14.75	-3.04	-16.09	4.852	4.997	4.580	4.649		$9/2^{+}$	$11/2^{-}$
127	82	1026.48		8.08		9.02	33.86	5.50	15.13	-3.11	-16.47	4.866	5.012	4.588	4.657		$9/2^{+}$	0+
128	83	1027.52		8.03		6.55	34.16	1.04	15.29	-3.09	-16.62	4.890	5.044	4.594	4.663		9/2+	7/2-
129	84	1029.99		7.98		3.51	34.46	2.47	15.46	-1.82	-16.78	4.912	5.070	4.602	4.671		9/2 ⁺	0 ⁺
130 131	85 86	1030.88 1033.32		7.93 7.89		3.36 3.33	34.75 35.06	0.89 2.43	15.60 15.77	-1.74 -1.74	-16.93 -17.09	4.936 4.958	5.101 5.127	4.608 4.617	4.677 4.685		$9/2^{+}$ $9/2^{+}$	7/2 ⁻ 0 ⁺
131	00	1033.32		7.05		در.ر	33.00	۷.٦٥	13.//	-1./4	-17.09	7.330	5,147	7.017	7.003		3/2	U

Table 1 (continued)

A	N	$E_{ m b}^{ m Cal.}$ (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
132	87	1034.06		7.83		3.18	35.33	0.74	15.92	-1.64	-17.23	4.982	5.158	4.622	4.691		9/2+	7/2
33	88	1036.49		7.79		3.18	35.62	2.43	16.07	-1.66	-17.39	5.003	5.183	4.631	4.699		$9/2^{+}$	0^+
34	89	1037.13		7.74		3.06	35.80	0.63	16.17	-1.68	-17.48	5.037	5.229	4.634	4.702		$9/2^{+}$	3/2
35	90	1039.54		7.70		3.05	36.19	2.42	16.37	-1.60	-17.70	5.049	5.239	4.645	4.713		$9/2^{+}$	0^+
36	91	1040.19		7.65		3.06	36.38	0.65	16.47	-1.59	-17.79	5.080	5.281	4.649	4.717		$9/2^{+}$	3/2
37	92	1042.48		7.61		2.94	36.74	2.29	16.67	-1.56	-18.00	5.095	5.294	4.660	4.728		$9/2^{+}$	0^{+}
38	93	1043.10		7.56		2.91	36.96	0.62	16.78	-1.53	-18.11	5.124	5.333	4.665	4.733		$9/2^{+}$	3/2
39	94	1045.33		7.52		2.86	37.30	2.24	16.96	-1.52	-18.30	5.140	5.348	4.676	4.744		$9/2^{+}$	0^{+}
40	95	1045.89		7.47		2.79	37.49	0.56	17.07	-1.48	-18.44	5.168	5.383	4.682	4.750		$9/2^{+}$	3/2
41	96	1048.13		7.43		2.80	37.89	2.24	17.26	-1.50	-18.62	5.184	5.399	4.693	4.761		$9/2^{+}$	0^{+}
42	97	1048.69		7.39		2.80	38.08	0.56	17.36	-1.49	-18.73	5.214	5.436	4.699	4.766		$9/2^{+}$	1/2
43	98	1050.90		7.35		2.77	38.52	2.21	17.59	-1.48	-18.94	5.228	5.448	4.711	4.778		$9/2^{+}$	0^+
44	99	1051.49		7.30		2.80	38.84	0.59	17.74	-1.46	-19.08	5.255	5.481	4.718	4.786		$9/2^{+}$	1/2
45	100	1053.65		7.27		2.75	39.18	2.16	17.92	-1.47	-19.28	5.269	5.495	4.730	4.797		$9/2^{+}$	0+
46	101	1054.20		7.22		2.71	39.57	0.55	18.11	-1.45	-19.45	5.294	5.524	4.739	4.806		$9/2^{+}$	1/2
47	102	1056.39		7.19		2.75	39.85	2.20	18.26	-1.47	-19.62	5.310	5.540	4.749	4.816		9/2+	0+
48	103	1056.89		7.14		2.69	40.29	0.49	18.47	-1.43	-19.81	5.333	5.565	4.760	4.827		9/2+	1/2
49	104	1059.14		7.11		2.75	40.55	2.26	18.61	-1.46	-19.97	5.350	5.583	4.769	4.835		$9/2^{+}$	0+
50	105	1059.58		7.06		2.69	40.94	0.43	18.83	-1.41	-20.18	5.371	5.604	4.782	4.848		9/2+	1/2
51	106	1061.90		7.03		2.75	41.27	2.32	18.97	-1.44	-20.31	5.389	5.624	4.789	4.855		9/2+	0+
52	107	1062.30		6.99		2.73	41.64	0.41	19.14	-1.42	-20.48	5.410	5.648	4.799	4.865		9/2+	5/2
53	108	1064.64		6.96		2.74	41.98	2.34	19.31	-1.41	-20.65	5.427	5.665	4.809	4.875		9/2+	0+
54	109	1065.04		6.92		2.74	42.39	0.40	19.51	-1.36	-20.83	5.448	5.687	4.821	4.886		9/2+	5/2
55	110	1067.34		6.89		2.70	42.69	2.30	19.66	-1.33	-20.99	5.465	5.705	4.828	4.894		9/2+	0+
56	111	1067.65		6.84		2.61	43.12	0.31	19.87	-0.75	-21.17	5.486	5.727	4.842	4.907		9/2+	5/2
57	112	1069.88		6.81		2.54	43.37	2.23	19.99	-0.79	-21.29	5.504	5.747	4.847	4.913		9/2+	0+
58	113	1069.07		6.77		1.42	43.37	-0.81	20.00	-0.80	-21.29	5.578	5.844	4.847	4.913		9/2+	1/2
59	114	1070.17		6.73		0.29	44.35	1.10	20.49	-0.08	-21.81	5.531	5.771	4.871	4.936		9/2+	0+
160	115	1069.36		6.68		0.29		-0.81		0.08	-21.82	5.602	5.864	4.871	4.936		9/2+	1/2
	116	1069.98		6.65		-0.19		0.62		0.10	-22.29	5.561	5.799	4.893	4.958		9/2+	0+
161																	-/-	
		3.96													0.043			
= 46	6 (Pd)																	
9	43	712.19		8.00						-15.69	0.03	4.262	4.196	4.323	4.397		0^+	9/2
0	44	729.12		8.10			1.86			-15.33	-0.53	4.270	4.215	4.322	4.395		0^+	0+
1	45	742.78		8.16			2.99	13.65	2.66	-15.06	-1.09	4.277	4.232	4.320	4.394		0^+	9/2
2	46	759.04		8.25		29.91	4.12	16.26	3.22	-14.78	-1.64	4.285	4.250	4.319	4.393		0^+	0+
3	47	772.31		8.30		29.53	5.25	13.28	3.79	-14.53	-2.21	4.291	4.266	4.318	4.391		0^+	9/2
4	48	788.04	788.82	8.38	8.39	29.00	6.37	15.73	4.35	-14.30	-2.76	4.299	4.282	4.317	4.391		0^+	0+
5	49	801.03	800.75	8.43	8.43	28.72	7.51	12.99	4.92	-11.87	-3.33	4.306	4.296	4.315	4.389		0^+	9/2
6	50	816.30	815.04	8.50	8.49	28.26	8.63	15.27	5.49	-11.93	-3.89	4.313	4.311	4.315	4.388		0^+	0+
7	51	824.44	824.74	8.50	8.50	23.41	9.29	8.14	5.81	-11.60	-4.22	4.332	4.340	4.322	4.396		0^+	5/2
8	52	834.93	836.32	8.52	8.53	18.64	10.20	10.50	6.27	-9.32	-4.69	4.354	4.369	4.337	4.410		0^+	0+
9	53	842.67	845.26	8.51	8.54	18.23	10.89	7.74	6.61	-9.12	-5.04	4.373	4.397	4.345	4.418		0^+	5/2
00	54	852.91	856.37	8.53	8.56	17.97	11.79	10.23	7.07	-9.03	-5.49	4.394	4.424	4.358	4.431		0^+	0+
	55	860.31	864.65	8.52	8.56	17.63	12.52	7.40	7.44	-8.85	-5.86	4.413	4.451	4.367	4.440		0^+	5/2
		870.33	875.21	8.53	8.58	17.42	13.37	10.02	7.87	-8.77	-6.29	4.433	4.476	4.379	4.451	4.483	0+	0+
01	56		882.84	8.52	8.57	17.12	14.16	7.09	8.27	-8.59	-6.69	4.452	4.503	4.389	4.462		0+	5/2
01 02		877.42					14.94	9.84	8.66	-8.53	-7.08	4.471	4.526	4.400	4.472	4.508	0+	0+
01 02 03	57	877.42 887.26	892.82	8.53	8.58	10.93												
01 02 03 04	57 58	887.26	892.82 899.92	8.53 8.51	8.58 8.57	16.93 16.63												_
01 02 03 04 05	57 58 59	887.26 894.05	899.92	8.51	8.57	16.63	15.80	6.79	9.09	-8.35	-7.51	4.491	4.552	4.412	4.484	4.515	0^+	5/
01 02 03 04	57 58	887.26																5/2 0 ⁺ 7/2

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
109	63	926.19	931.39	8.50	8.54	15.97	18.66	6.39	10.53	-8.05	-8.93	4.565	4.647	4.449	4.521		0+	1/2+
110	64	935.35	940.19	8.50	8.55	15.55	19.54	9.16	10.97	-7.75	-9.37	4.582	4.667	4.461	4.532	4.578	0+	0+
111	65	941.79	945.91	8.48	8.52	15.60	20.21	6.44	11.31	-7.71	-9.70	4.601	4.691	4.471	4.542		0+	1/2+
112	66	950.27	954.32	8.48	8.52	14.93	20.90	8.48	11.65	-7.40	-10.05	4.618	4.712	4.479	4.550		0+	0+
113	67	956.48	959.66	8.46	8.49	14.69	21.54	6.21	11.97	-7.22	-10.36	4.637	4.736	4.488	4.559		0^{+}	1/2 ⁺ 0 ⁺
114	68	964.49	967.63	8.46	8.49	14.22	22.15	8.02	12.28	-7.04	-10.69	4.654	4.757	4.496	4.567		0 ⁺	
115 116	69 70	970.26 977.97	972.64 980.12	8.44 8.43	8.46 8.45	13.78 13.48	22.79 23.41	5.77 7.71	12.61 12.92	-6.71 -6.63	-11.03 -11.34	4.672 4.688	4.780 4.800	4.505 4.512	4.576 4.582		0+	1/2 ⁺ 0 ⁺
117	70 71	982.89	984.78	8.40	8.42	12.63	24.30	4.92	13.40	-6.15	-11.34 -11.80	4.000	4.819	4.512	4.582		0+	1/2+
117	72	990.56	991.82	8.39	8.41	12.59	24.89	7.67	13.65	-6.13	-11.80 -12.06	4.704	4.839	4.527	4.597		0 ⁺	0+
119	73	995.17	995.91	8.36	8.37	12.28	25.65	4.61	14.03	-6.05	-12.43	4.736	4.858	4.534	4.604		0+	11/2 ⁻
120	74	1002.33	1002.85	8.35	8.36	11.77	26.47	7.16	14.44	-5.81	-12.84	4.750	4.875	4.542	4.612		0+	0+
121	75	1006.74	1006.82	8.32	8.36	11.57	27.26	4.41	14.84	-5.68	-13.22	4.765	4.893	4.549	4.619		0+	11/2-
122	76	1013.47	1013.33	8.31	8.31	11.14	28.06	6.73	15.25	-5.51	-13.63	4.780	4.909	4.557	4.627		0+	0+
123	77	1017.69		8.27		10.95	28.85	4.22	15.65	-5.38	-14.02	4.794	4.926	4.564	4.634		0^+	11/2-
124	78	1024.09		8.26		10.63	29.63	6.41	16.04	-5.24	-14.41	4.809	4.942	4.573	4.642		0^+	0 ⁺
125	79	1028.15		8.23		10.46	30.43	4.06	16.44	-5.12	-14.81	4.823	4.959	4.580	4.649		0^+	$11/2^{-}$
126	80	1034.29		8.21		10.20	31.20	6.14	16.84	-5.00	-15.20	4.837	4.974	4.588	4.657		0^+	0+
127	81	1038.22		8.17		10.07	32.00	3.93	17.25	-3.46	-15.59	4.850	4.990	4.595	4.664		0^+	$11/2^{-}$
128	82	1044.12		8.16		9.82	32.77	5.90	17.64	-3.46	-15.98	4.864	5.005	4.603	4.672		0^+	0^+
129	83	1045.31		8.10		7.09	33.08	1.19	17.79	-3.70	-16.13	4.888	5.036	4.609	4.678		0^+	$7/2^{-}$
130	84	1047.93		8.06		3.81	33.40	2.62	17.94	-1.97	-16.30	4.909	5.062	4.618	4.687		0^+	0^+
131	85	1048.97		8.01		3.66	33.69	1.04	18.09	-1.89	-16.45	4.933	5.092	4.624	4.692		0+	$7/2^{-}$
132	86	1051.56		7.97		3.63	34.01	2.59	18.24	-1.89	-16.62	4.954	5.118	4.633	4.701		0+	0+
133	87	1052.44		7.91		3.48	34.30	0.88	18.38	-1.79	-16.77	4.978	5.148	4.638	4.707		0+	7/2-
134	88	1055.04		7.87		3.48	34.62	2.59	18.55	-1.81	-16.94	4.999	5.173	4.648	4.716		0+	0+
135	89	1055.75		7.82		3.30	34.79	0.71	18.62	-1.83	-17.03	5.031	5.217	4.651	4.719		0+	3/2-
136	90	1058.38		7.78		3.34	35.21	2.63	18.84	-1.75	-17.26	5.043	5.227	4.663	4.731		0 ⁺	0+
137	91 92	1059.12		7.73		3.37	35.40	0.74	18.93	-1.75	-17.36	5.074	5.268	4.667	4.735		0^{+}	3/2 ⁻ 0 ⁺
138 139	92 93	1061.62 1062.35		7.69 7.64		3.24 3.23	35.81 36.03	2.50 0.73	19.14 19.25	-1.71 -1.69	-17.58 -17.69	5.088 5.117	5.280 5.318	4.679 4.684	4.747 4.752		0 ⁺	3/2 ⁻
140	94	1062.33		7.61		3.16	36.41	2.43	19.45	-1.68	-17.09 -17.90	5.117	5.332	4.696	4.764		0+	0 ⁺
141	95	1065.47		7.56		3.10	36.65	0.69	19.58	-1.65	-17.30 -18.04	5.160	5.367	4.703	4.770		0+	3/2-
142	96	1067.89		7.52		3.12	37.02	2.43	19.76	-1.66	-18.23	5.175	5.382	4.714	4.781		0+	0+
143	97	1068.55		7.47		3.08	37.22	0.66	19.86	-1.66	-18.35	5.204	5.419	4.720	4.787		0+	1/2-
144	98	1070.99		7.44		3.09	37.68	2.44	20.09	-1.65	-18.57	5.218	5.430	4.732	4.800		0^{+}	0+
145	99	1071.68		7.39		3.13	37.93	0.70	20.19	-1.64	-18.71	5.245	5.464	4.740	4.807		0^{+}	1/2-
146	100	1074.08		7.36		3.09	38.35	2.39	20.43	-1.64	-18.91	5.259	5.477	4.751	4.818		0^+	0+
147	101	1074.81		7.31		3.12	38.72	0.73	20.61	-1.63	-19.07	5.284	5.506	4.760	4.827		0^+	$1/2^{-}$
148	102	1077.17		7.28		3.09	39.04	2.36	20.78	-1.64	-19.26	5.299	5.521	4.771	4.837		0^+	0+
149	103	1077.87		7.23		3.06	39.45	0.70	20.98	-1.62	-19.44	5.323	5.547	4.781	4.848		0^+	$1/2^{-}$
150	104	1080.27		7.20		3.10	39.74	2.40	21.13	-1.63	-19.60	5.339	5.565	4.790	4.857		0^+	0^+
151	105	1080.93		7.16		3.06	40.18	0.66	21.35	-1.60	-19.80	5.360	5.587	4.802	4.868		0+	1/2-
152	106	1083.38		7.13		3.11	40.45	2.45	21.48	-1.61	-19.95	5.378	5.607	4.810	4.876		0+	0+
153	107	1083.98		7.08		3.05	40.82	0.61	21.68	-1.56	-20.16	5.398	5.627	4.823	4.889		0+	1/2-
154	108	1086.47		7.05		3.09	41.14	2.49	21.83	-1.58	-20.28	5.416	5.648	4.829	4.894		0+	0+
155	109	1087.05		7.01		3.07	41.52	0.58	22.01	-1.53	-20.45	5.437	5.671	4.840	4.905		0 ⁺	5/2-
156	110	1089.51		6.98		3.04	41.83	2.46	22.17	-1.50	-20.61	5.454	5.689	4.847	4.913		0 ⁺	0 ⁺
157	111	1090.00		6.94		2.95	42.22	0.49	22.35	-0.97	-20.76	5.476	5.713	4.859	4.924		0 ⁺	5/2 ⁻
158	112	1092.35		6.91		2.84	42.46	2.35	22.47	-1.00	-20.90	5.494	5.732	4.865	4.930		0^{+}	0 ⁺
159 160	113 114	1091.70 1093.17		6.87 6.83		1.70 0.82	42.63 43.49	$\frac{-0.65}{1.47}$	22.75 23.00	-1.02 -0.32	-21.16 -21.43	5.508 5.520	5.745 5.756	4.876 4.888	4.941 4.953		0 ⁺	13/2 ⁺ 0 ⁺
161	114	1093.17		6.78		0.82	45.49	-0.80	23.34	-0.32 -0.33	-21.43 -21.43	5.520	5.849	4.888	4.953 4.953		0+	1/2+
162	116	1092.37		6.75		0.30		1.10	23.49	-0.33 -0.14	-21.43 -21.92	5.549	5.782	4.000	4.933		0+	0+
102	110	1033.47		0.73		0.50		1.10	23.49	-0.14	-21.92	5.549	3.702	4.911	4.370		U ·	U

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
163	117	1092.68		6.70		0.31		<u>-0.79</u>		-0.15	-21.93	5.618	5.872	4.910	4.975		0+	1/2+
164	118	1093.48		6.67		0.01		0.80		-0.01	-22.40	5.578	5.810	4.933	4.998		0+	0+
$\frac{165}{\sigma}$	119	1092.71 3.60		6.62		0.03		<u>-0.77</u>		-0.02	-22.40	5.645	5.897	4.933	4.998 0.038		0^+	1/2+
Z=4	7 (Ag)																	
90	43	710.51		7.89						-16.25	0.53	4.276	4.200	4.345	4.418		$9/2^{+}$	$9/2^{+}$
91	44	728.01		8.00			0.99		<u>-1.11</u>	-15.89	-0.03	4.283	4.218	4.343	4.417		$9/2^{+}$	0^+
92	45	742.23		8.07			2.11	14.22	-0.55	-15.62	-0.59	4.289	4.235	4.341	4.414		9/2+	$9/2^{+}$
93	46	759.05		8.16		31.04	3.23	16.82	0.01	-15.34	-1.15	4.297	4.252	4.340	4.413		9/2+	0+
94	47	772.90		8.22		30.67	4.38	13.85	0.59	-15.10	-1.72	4.303	4.268	4.338	4.411		9/2 ⁺	$9/2^{+}$ 0^{+}
95 96	48 49	789.19 802.75	802.59	8.31 8.36	8.36	30.13 29.85	5.50 6.64	16.29 13.56	1.15 1.72	-14.86 -12.25	-2.27 -2.84	4.310 4.316	4.284 4.298	4.337 4.334	4.410 4.408		$9/2^{+}$ $9/2^{+}$	9/2 ⁺
97	50	818.58	816.97	8.44	8.42	29.39	7.77	15.83	2.28	-12.23 -12.43	-2.84 -3.40	4.323	4.236	4.334	4.407		9/2 ⁺	0+
98	51	827.05	827.29	8.44	8.44	24.30	8.42	8.47	2.61	-11.96	-3.73	4.341	4.341	4.341	4.414		9/2 ⁺	5/2 ⁺
99	52	838.02	839.00	8.46	8.47	19.44	9.36	10.97	3.09	-9.73	-4.21	4.363	4.370	4.355	4.428		9/2 ⁺	0+
100	53	846.10	848.50	8.46	8.48	19.06	10.04	8.08	3.43	-9.54	-4.56	4.381	4.397	4.363	4.436		9/2+	$5/2^{+}$
101	54	856.79	859.77	8.48	8.51	18.78	10.95	10.69	3.88	-9.43	-5.03	4.402	4.424	4.377	4.449	4.480	9/2+	0+
102	55	864.56	868.75	8.48	8.52	18.46	11.69	7.77	4.25	-9.26	-5.40	4.421	4.451	4.386	4.458		9/2+	$5/2^{+}$
103	56	875.01	879.38	8.50	8.54	18.22	12.55	10.45	4.68	-9.17	-5.83	4.440	4.476	4.398	4.470	4.504	9/2+	0+
104	57	882.49	887.76	8.49	8.54	17.93	13.34	7.48	5.07	-9.01	-6.23	4.460	4.502	4.408	4.480	4.512	9/2+	5/2+
105	58 59	892.74	897.79	8.50	8.55	17.73	14.14	10.24	5.48	-8.93	-6.63	4.478	4.525	4.419	4.491	4.527	9/2 ⁺ 9/2 ⁺	0 ⁺ 5/2 ⁺
106 107	60	899.95 910.01	905.73 915.27	8.49 8.50	8.54 8.55	17.45 17.27	14.99 15.71	7.21 10.06	5.90 6.26	-8.76 -8.69	-7.05 -7.41	4.497 4.515	4.550 4.572	4.430 4.439	4.502 4.511	4.545	9/2+ 9/2+	0 ⁺
107	61	916.92	922.54	8.49	8.54	16.97	16.52	6.91	6.70	-8.48	-7.41 -7.85	4.534	4.572	4.452	4.511	4.545	$9/2^{+}$	5/2 ⁺
109	62	926.82	931.72	8.50	8.55	16.81	17.24	9.91	7.02	-8.42	-8.18	4.550	4.618	4.459	4.531	4.564	$9/2^{+}$	0+
110	63	933.50	938.53	8.49	8.53	16.58	17.84	6.68	7.31	-8.44	-8.47	4.569	4.644	4.467	4.538		9/2+	1/2+
111	64	943.10	947.36	8.50	8.53	16.28	18.72	9.60	7.75	-8.11	-8.91	4.586	4.663	4.479	4.549		9/2+	0+
112	65	949.86	953.80	8.48	8.52	16.36	19.38	6.76	8.07	-8.06	-9.23	4.605	4.687	4.488	4.559		$9/2^{+}$	$1/2^{+}$
113	66	958.70	962.32	8.48	8.52	15.60	20.08	8.84	8.43	-7.74	-9.59	4.621	4.708	4.496	4.567		$9/2^{+}$	0+
114	67	965.21	968.29	8.47	8.49	15.35	20.70	6.51	8.73	-7.55	-9.89	4.639	4.732	4.505	4.575		9/2+	1/2+
115	68	973.55	976.41	8.47	8.49	14.85	21.34	8.34	9.06	-7.36	-10.23	4.655	4.752	4.513	4.583		9/2 ⁺	$0^+ 1/2^+$
116 117	69 70	979.65 987.66	982.05 989.76	8.45 8.44	8.47 8.46	14.44 14.11	22.00 22.61	6.09 8.02	9.39 9.69	-7.07 -6.97	-10.56 -10.88	4.674 4.689	4.775 4.794	4.521 4.528	4.592 4.598		$9/2^{+}$ $9/2^{+}$	0+
118	71	993.05	995.20	8.42	8.43	13.40	23.56	5.38	10.16	-6.56	-10.33	4.705	4.813	4.537	4.607		9/2 ⁺	1/2 ⁺
119	72	1000.98	1002.36	8.41	8.42	13.31	24.07	7.93	10.42	-6.56	-11.60	4.720	4.833	4.542	4.612		9/2 ⁺	0+
120	73	1005.96	1007.44	8.38	8.40	12.91	24.82	4.98	10.79	-6.45	-11.96	4.736	4.852	4.550	4.619		9/2+	11/2-
121	74	1013.53	1014.26	8.38	8.38	12.55	25.64	7.57	11.20	-6.21	-12.37	4.750	4.869	4.557	4.627		$9/2^{+}$	0+
122	75	1018.32	1019.04	8.35	8.35	12.36	26.42	4.79	11.58	-6.08	-12.75	4.765	4.886	4.564	4.634		9/2+	11/2
123	76	1025.45	1025.55	8.34	8.34	11.93	27.23	7.13	11.98	-5.90	-13.16	4.779	4.903	4.572	4.641		9/2+	0+
124	77	1030.07	1030.27	8.31	8.31	11.75	28.03	4.61	12.38	-5.78 5.64	-13.55	4.793	4.919	4.579	4.648		9/2+	11/2-
125 126	78 79	1036.87 1041.32	1036.38	8.29 8.26	8.29	11.42 11.25	28.82 29.61	6.80 4.45	12.78 13.17	-5.64 -5.52	-13.95 -14.34	4.807 4.821	4.935 4.951	4.587 4.594	4.656 4.663		9/2 ⁺ 9/2 ⁺	0 ⁺ 11/2 ⁻
126	79 80	1041.32		8.25		10.98	30.40	4.45 6.53	13.17	-5.32 -5.39	-14.34 -14.74	4.821	4.951	4.594 4.601	4.663		9/2+ 9/2+	0 ⁺
128	81	1052.17		8.22		10.85	31.20	4.32	13.95	-3.72	-15.14	4.848	4.982	4.608	4.677		9/2 ⁺	11/2 ⁻
129	82	1058.45		8.21		10.60	31.97	6.28	14.33	-3.68	-15.53	4.862	4.997	4.616	4.684		$9/2^{+}$	0+
130	83	1059.80		8.15		7.63	32.28	1.35	14.49	-4.03	-15.68	4.885	5.028	4.622	4.691		$9/2^{+}$	$7/2^{-}$
131	84	1062.60		8.11		4.14	32.61	2.79	14.67	-2.14	-15.85	4.906	5.053	4.631	4.700		$9/2^{+}$	0^+
132	85	1063.79		8.06		3.99	32.91	1.20	14.82	-2.05	-16.01	4.929	5.083	4.637	4.706		$9/2^{+}$	$7/2^{-}$
133	86	1066.55		8.02		3.96	33.23	2.76	14.99	-2.06	-16.18	4.950	5.108	4.647	4.715		9/2+	0+
134	87	1067.59		7.97		3.80	33.53	1.04	15.15	-1.96	-16.33	4.973	5.137	4.653	4.721		9/2+	7/2-
135	88	1070.35		7.93 7.88		3.80	33.86	2.76	15.31	-1.98	-16.51	4.993	5.161	4.663	4.731		9/2 ⁺	0^{+} $7/2^{-}$
136 137	89 90	1071.20 1074.02		7.88 7.84		3.61 3.66	34.07 34.48	0.84 2.82	15.45 15.64	-1.87 -1.92	-16.66 -16.84	5.017 5.037	5.191 5.214	4.669 4.679	4.737 4.747		$9/2^{+}$ $9/2^{+}$	0^{+}
13/	90	1074.02		7.04		5.00	34.40	2.02	13.04	-1.92	-10.64	5.05/	J.Z 14	4.079	4./4/		9/2	U.

Table 1 (continued)

Α	N	E _b ^{Cal.}	E _b Exp.	E _b ^{Cal.} /A	$E_{\rm b}^{\rm Exp.}/A$	S_{2n}	S_{2p}	S_n	S_p	λ_n	λ_p	R_m	R_n	R_p	R _c Cal.	R _c Exp.	$j^{\pi}(P)$	$j^{\pi}(N)$
		(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(fm)	(fm)	(fm)	(fm)	(fm)		
138	91	1074.86		7.79		3.66	34.67	0.84	15.74	-1.93	-16.94	5.067	5.254	4.683	4.751		9/2+	3/2-
139	92	1077.57		7.75		3.56	35.09	2.71	15.95	-1.88	-17.17	5.081	5.266	4.696	4.764		9/2 ⁺	0 ⁺
140	93	1078.42		7.70		3.56	35.32	0.84	16.07	-1.87	-17.28	5.109	5.303	4.701	4.769		$9/2^{+}$	3/2 ⁻ 0 ⁺
141	94	1081.06		7.67		3.48	35.73	2.64	16.28	-1.85	-17.51	5.124	5.317	4.714	4.781		9/2 ⁺	-
142	95	1081.88		7.62		3.46	35.99	0.82	16.41	-1.83	-17.64	5.151	5.351	4.721	4.788		9/2 ⁺	3/2 ⁻ 0 ⁺
143	96 97	1084.50		7.58		3.44 3.41	36.37 36.60	2.62 0.79	16.61 16.74	-1.84	-17.85	5.166	5.366	4.733	4.800		9/2 ⁺ 9/2 ⁺	3/2-
144	97 98	1085.29 1087.93		7.54 7.50		3.43	36.60 37.03	2.64	16.74	-1.81 -1.83	-18.00 -18.19	5.192 5.208	5.397 5.413	4.741 4.752	4.808 4.818		9/2+ 9/2+	3/2 0 ⁺
145 146	99	1087.93		7.30 7.46		3.43 3.44	37.03 37.25	0.81	17.06	-1.83 -1.83	-18.19 -18.32	5.234	5.446	4.752	4.825		9/2 ⁺	1/2-
140	100	1000.74		7.40 7.42		3.43	37.23 37.71	2.62	17.00	-1.83 -1.82	-18.52 -18.54	5.249	5.459	4.739	4.823		9/2 ⁺	0+
148	101	1091.30		7.38		3.50	38.04	0.88	17.28	-1.82	-18.54 -18.69	5.274	5.489	4.771	4.846		9/2 ⁺	1/2 ⁻
149	101	1094.80		7.35		3.44	38.41	2.56	17.43	-1.82 -1.82	-18.88	5.289	5.503	4.790	4.857		9/2 ⁺	0+
150	102	1095.68		7.30		3.45	38.79	0.89	17.81	-1.82 -1.81	-19.05	5.312	5.530	4.800	4.866		9/2 ⁺	1/2 ⁻
151	103	1098.24		7.27		3.45	39.10	2.56	17.97	-1.81 -1.81	-19.23	5.328	5.547	4.809	4.875		9/2 ⁺	0+
152	105	1099.10		7.23		3.42	39.52	0.86	18.17	-1.78	-19.41	5.350	5.570	4.820	4.886		9/2 ⁺	1/2 ⁻
153	106	1101.69		7.20		3.45	39.79	2.59	18.31	-1.79	-19.56	5.367	5.589	4.828	4.894		$9/2^{+}$	0+
154	107	1102.51		7.16		3.41	40.21	0.82	18.53	-1.74	-19.76	5.387	5.610	4.840	4.906		$9/2^{+}$	$1/2^{-}$
155	108	1105.12		7.13		3.43	40.48	2.61	18.65	-1.75	-19.89	5.405	5.631	4.847	4.912		9/2 ⁺	0+
156	109	1105.12		7.09		3.36	40.83	0.75	18.82	-1.70	-20.05	5.426	5.654	4.857	4.922		9/2 ⁺	5/2 ⁻
157	110	1108.48		7.06		3.36	41.14	2.61	18.97	-1.66	-20.21	5.443	5.673	4.864	4.929		9/2 ⁺	0+
158	111	1109.14		7.02		3.27	41.49	0.66	19.14	-1.18	-20.34	5.466	5.697	4.874	4.940		9/2+	5/2-
159	112	1111.61		6.99		3.13	41.73	2.47	19.26	-1.21	-20.49	5.482	5.716	4.881	4.946		9/2 ⁺	0+
160	113	1111.23		6.95		2.09	42.28	-0.38	19.53	-1.24	-20.74	5.497	5.730	4.892	4.957		9/2-	13/2 ⁺
161	114	1112.97		6.91		1.36	42.80	1.74	19.80	-0.57	-21.02	5.509	5.740	4.904	4.969		9/2+	0+
162	115	1112.33		6.87		1.10	43.30	-0.64	19.96	-0.49	-21.27	5.523	5.753	4.915	4.980		9/2+	$13/2^{+}$
163	116	1113.75		6.83		0.78	43.77	1.42	20.28	-0.38	-21.52	5.537	5.766	4.926	4.991		9/2+	0+
164	117	1113.00		6.79		0.67		-0.75	20.32	-0.32	-21.77	5.551	5.780	4.937	5.002		9/2+	$13/2^{+}$
165	118	1114.23		6.75		0.48		1.23	20.75	-0.25	-22.00	5.565	5.793	4.949	5.013		9/2+	0+
166	119	1113.46		6.71		0.46		-0.77	20.82	-0.26	-22.01	5.632	5.880	4.949	5.013		9/2+	$1/2^{+}$
167	120	1114.49		6.67		0.26		1.05		-0.14	-22.48	5.594	5.820	4.971	5.035		$9/2^{+}$	0+
168	121	1113.74		6.63		0.28		-0.75		-0.15	-22.48	5.657	5.904	4.971	5.035		9/2+	$1/2^{+}$
169	122	1114.56		6.60		0.07		0.78		-0.02	-22.95	5.623	5.848	4.993	5.057		$9/2^{+}$	0+
170	123	1113.84		6.55		0.10		-0.72		-0.07	-22.95	5.685	5.929	4.993	5.057		$9/2^{+}$	$1/2^{+}$
σ		3.34													0.033			
Z=4	8 (Cd)																	
92	44	729.10		7.92			-0.02		1.09	-16.44	0.45	4.297	4.222	4.365	4.437		0^+	0^+
93	45	743.88		8.00			1.10	14.78	1.65	-16.17	-0.11	4.303	4.239	4.362	4.435		0^+	$9/2^{+}$
94	46	761.25		8.10		32.15	2.21	17.38	2.20	-15.90	-0.67	4.309	4.256	4.360	4.433		0+	0+
95	47	775.66		8.16		31.78	3.35	14.40	2.76	-15.66	-1.23	4.315	4.271	4.357	4.430		0+	$9/2^{+}$
96	48	792.50		8.26		31.25	4.46	16.85	3.31	-15.42	-1.79	4.321	4.286	4.356	4.429		0+	0+
97	49	806.63		8.32		30.97	5.60	14.13	3.88	-12.94	-2.35	4.327	4.300	4.353	4.426		0+	$9/2^{+}$
98	50	823.02	821.07	8.40	8.38	30.52	6.72	16.39	4.44	-13.14	-2.91	4.333	4.314	4.352	4.425		0+	0+
99	51	831.81	831.44	8.40	8.40	25.18	7.37	8.79	4.76	-12.32	-3.23	4.351	4.343	4.359	4.432		0+	$5/2^{+}$
100	52	843.29	843.77	8.43	8.44	20.27	8.36	11.48	5.27	-10.14	-3.74	4.373	4.371	4.374	4.447		0+	0+
101	53	851.72	853.49	8.43	8.45	19.91	9.05	8.43	5.62	-9.96	-4.09	4.391	4.399	4.382	4.455		0+	5/2+
102	54	862.89	865.38	8.46	8.48	19.60	9.98	11.17	6.10	-9.84	-4.57	4.411	4.425	4.396	4.468	4.481	0+	0+
103	55	871.03	874.45	8.46	8.49	19.31	10.72	8.14	6.47	-9.68	-4.94	4.430	4.451	4.405	4.477	4.495	0+	5/2+
104	56	881.93	885.83	8.48	8.52	19.03	11.60	10.90	6.92	-9.58	-5.38	4.449	4.476	4.417	4.489	4.512	0+	0+
105	57	889.80	894.27	8.47	8.52	18.78	12.38	7.88	7.31	-9.42	-5.78	4.468	4.502	4.427	4.499	4.522	0+	5/2+
106	58	900.46	905.14	8.49	8.54	18.53	13.20	10.66	7.72	-9.33	-6.19	4.486	4.525	4.438	4.510	4.538	0+	0+
107	59	908.09	913.07	8.49	8.53	18.28	14.04	7.63	8.14	-9.16	-6.60	4.505	4.550	4.449	4.520	4.547	0+	5/2+
108	60	918.52	923.40	8.50	8.55	18.06	14.77	10.43	8.51	-9.08	-6.97	4.522	4.572	4.458	4.529	4.558	0+	0 ⁺
109	61	925.87	930.73	8.49	8.54	17.78	15.65	7.35	8.95	-8.88	-7.40	4.541	4.596	4.470	4.541	4.560	0^+	$5/2^{+}$

4	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
110	62	936.10	940.64	8.51	8.55	17.58	16.30	10.23	9.28	-8.80	-7.73	4.557	4.617	4.478	4.549	4.577	0+	0+
11	63	943.06	947.62	8.50	8.54	17.19	16.87	6.96	9.56	-8.82	-8.01	4.575	4.642	4.485	4.556	4.585	0^+	1/2
12	64	953.11	957.01	8.51	8.54	17.01	17.76	10.04	10.01	-8.46	-8.45	4.591	4.661	4.496	4.567	4.594	0^+	0^{+}
13	65	960.13	963.55	8.50	8.53	17.06	18.34	7.02	10.27	-8.39	-8.74	4.609	4.684	4.504	4.575	4.601	0^+	1/2
14	66	969.38	972.60	8.50	8.53	16.28	19.11	9.26	10.68	-8.07	-9.13	4.625	4.704	4.513	4.584	4.609	0^+	0^+
15	67	976.19	978.74	8.49	8.51	16.07	19.71	6.81	10.98	-7.89	-9.43	4.643	4.728	4.522	4.592	4.611	0^+	1/2
16	68	984.88	987.44	8.49	8.51	15.50	20.39	8.69	11.33	-7.69	-9.78	4.658	4.748	4.529	4.599	4.620	0^+	0^+
17	69	991.30	993.21	8.47	8.49	15.11	21.04	6.42	11.65	-7.42	-10.11	4.676	4.770	4.538	4.608	4.614	0^+	1/2
18	70	999.65	1001.57	8.47	8.49	14.77	21.68	8.35	11.99	-7.31	-10.44	4.691	4.789	4.544	4.614	4.625	0+	0^{+}
19	71	1005.47	1006.91	8.45	8.46	14.17	22.58	5.82	12.42	-6.96	-10.86	4.707	4.808	4.553	4.622		0+	1/2
20	72	1013.68	1014.96	8.45	8.46	14.03	23.12	8.21	12.70	-6.94	-11.15	4.722	4.828	4.559	4.628	4.630	0^+	0+
21	73	1018.78	1020.15	8.42	8.43	13.32	23.86	5.11	13.07	-6.58	-11.67	4.736	4.844	4.567	4.637		0+	11,
22	74	1027.00	1027.76	8.42	8.42	13.32	24.67	8.22	13.47	-6.60	-11.92	4.751	4.863	4.573	4.642		0+	0^+
23	75	1032.19	1032.63	8.39	8.39	13.40	25.45	5.18	13.87	-6.48	-12.30	4.766	4.881	4.580	4.649		0+	11/
24	76	1039.72	1039.99	8.38	8.39	12.72	26.25	7.54	14.27	-6.30	-12.70	4.779	4.897	4.587	4.656		0+	0+
25	77	1044.74	1044.71	8.36	8.36	12.55	27.05	5.01	14.67	-6.18	-13.09	4.793	4.914	4.594	4.663		0+	11,
26	78	1051.94	1051.69	8.35	8.35	12.22	27.85	7.20	15.07	-6.04	-13.49	4.807	4.929	4.601	4.670		0+	0+
27	79	1056.79	1056.00	8.32	8.31	12.06	28.64	4.85	15.47	-5.92	-13.88	4.821	4.945	4.608	4.677		0+	11,
28	80	1063.72	1062.82	8.31	8.30	11.78	29.43	6.93	15.87	-5.79	-14.28	4.834	4.961	4.615	4.684		0+	0+
29	81	1068.45	1072.20	8.28	0.26	11.66	30.23	4.73	16.28	-4.79	-14.68	4.847	4.976	4.622	4.691		0+	11,
30	82	1075.13	1073.26	8.27	8.26	11.41	31.01	6.68	16.68	-4.15	-15.07	4.860	4.991	4.629	4.698		0+	0+
31	83	1076.63		8.22		8.18	31.32	1.50	16.83	-4.93	-15.23	4.883	5.020	4.636	4.704		0+	7/2
32	84	1079.60		8.18		4.47	31.67	2.97	17.00	-2.30	-15.41	4.904	5.046	4.646	4.714		0+	0+
33	85	1080.94		8.13		4.31	31.97	1.34	17.15	-2.22	-15.56	4.926	5.075	4.652	4.720		0^{+}	7/:
34	86	1083.88		8.09		4.28	32.32	2.94	17.33	-2.22	-15.75	4.947	5.099	4.662	4.730		0+	0+
35	87	1085.06		8.04		4.12	32.62	1.18	17.47	-2.12	-15.90	4.969	5.128	4.668	4.736		0+	7/2 0 ⁺
36 37	88 89	1088.00		8.00 7.95		4.13 3.93	32.96 33.24	2.94 0.99	17.65 17.79	-2.15 -2.04	-16.09	4.990	5.152	4.678 4.685	4.746		0+	7/2
38	90	1088.99 1091.99		7.95 7.91		3.93 3.99	33.24 33.61	3.00	17.79 17.97	-2.04 -2.09	-16.24 -16.43	5.013 5.033	5.181 5.203	4.685	4.753 4.763		0+	0+
	91			7.86		3.99		0.94									0+	
39 40	92	1092.93 1095.88		7.86 7.83		3.94 3.89	33.81 34.26	2.95	18.07 18.31	-2.10 -2.05	-16.53 -16.78	5.062 5.075	5.243 5.254	4.700 4.714	4.767 4.781		0 ⁺	3/2 0 ⁺
40	93	1095.88		7.83 7.78		3.91	34.20	0.96	18.42	-2.05 -2.05	-16.78 -16.89	5.103	5.290	4.714	4.786		0+	3/2
41 42	93 94	1090.84		7.78 7.74		3.82	34.49	2.87	18.65	-2.03 -2.03	-10.89 -17.13	5.103	5.303	4.719	4.800		0+	0 ⁺
43	95	1100.66		7.70		3.82	35.19	0.96	18.78	-2.03 -2.02	-17.13 -17.26	5.144	5.337	4.739	4.806		0 ⁺	3/2
44	96	1103.50		7.66		3.79	35.61	2.83	19.00	-2.02	-17.20 -17.48	5.159	5.351	4.752	4.819		0 ⁺	0 ⁺
45	97	1103.30		7.62		3.78	35.89	0.95	19.15	-2.01 -2.00	-17.48 -17.63	5.184	5.382	4.752	4.827		0+	3/:
46	98	1107.27		7.58		3.78	36.28	2.83	19.34	-2.00	-17.83	5.200	5.398	4.772	4.838		0 ⁺	0+
47	99	1107.27		7.54		3.76	36.52	0.93	19.46	-2.01	-17.97	5.226	5.430	4.778	4.845		0+	1/2
48	100	1111.06		7.51		3.78	36.98	2.85	19.70	-2.00	-18.19	5.240	5.443	4.791	4.857		0+	0+
49	101	1112.04		7.46		3.84	37.23	0.98	19.80	-2.00	-18.33	5.265	5.473	4.799	4.865		0+	1/2
50	102	1114.84		7.43		3.79	37.67	2.80	20.04	-1.99	-18.54	5.280	5.487	4.810	4.876		0^{+}	0+
51	103	1115.91		7.39		3.87	38.04	1.07	20.23	-1.99	-18.69	5.303	5.514	4.819	4.885		0^{+}	1/2
52	104	1118.64		7.36		3.79	38.37	2.73	20.40	-1.98	-18.88	5.319	5.530	4.829	4.895		0+	0+
53	105	1119.70		7.32		3.78	38.77	1.06	20.60	-1.97	-19.05	5.341	5.555	4.839	4.905		0+	1/2
54	106	1122.43		7.29		3.79	39.05	2.73	20.74	-1.96	-19.21	5.358	5.573	4.848	4.913		0^{+}	0+
55	107	1123.46		7.25		3.76	39.48	1.03	20.95	-1.92	-19.40	5.378	5.596	4.859	4.924		0^{+}	1/2
56	108	1126.19		7.22		3.76	39.72	2.73	21.07	-1.91	-19.53	5.396	5.615	4.865	4.930		0^{+}	0+
57	109	1127.16		7.18		3.70	40.11	0.96	21.29	-1.83	-19.73	5.415	5.636	4.877	4.942		0^{+}	1/2
58	110	1129.88		7.15		3.68	40.37	2.72	21.40	-1.82	-19.84	5.434	5.658	4.882	4.947		0+	0+
59	111	1130.66		7.13		3.50	40.66	0.78	21.52	-1.39	-19.96	5.456	5.684	4.891	4.956		0^{+}	5/2
60	112	1133.28		7.08		3.41	40.93	2.63	21.67	-1.41	-20.13	5.472	5.701	4.897	4.962		0+	0+
61	113	1133.20		7.04		2.51	41.47	-0.12	21.94	-1.45	-20.35	5.488	5.717	4.907	4.972		0+	13
62	114	1135.17		7.04		1.90	42.01	2.02	22.21	-0.83	-20.55 -20.65	5.499	5.726	4.920	4.984		0+	0+
		1155.10		7.01		1.64	42.52	2.02	22.48	-0.75	20.03	5.155	3.720	4.931	4.995		0+	13

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
164	116	1136.48		6.93		1.29	43.01	1.67	22.73	-0.63	-21.15	5.527	5.752	4.942	5.006		0+	0+
165	117	1135.99		6.88		1.18	43.52	$\frac{-0.49}{1.00}$	22.99	-0.57	-21.40	5.541	5.765	4.953	5.017		0+	13/2 ⁺
166 167	118 119	1137.46 1136.88		6.85 6.81		0.98 0.90	43.98 44.48	1.47 -0.58	23.23 23.48	-0.49 -0.43	-21.65 -21.90	5.555 5.570	5.778 5.792	4.964 4.975	5.028 5.039		0^{+}	0 ⁺ 13/2 ⁺
168	120	1138.21		6.78		0.90	44.40	1.33	23.46	-0.43 -0.38	-21.90 -22.13	5.584	5.805	4.987	5.059		0+	0+
169	121	1137.56		6.73		0.68		-0.65	23.99	-0.31	-22.38	5.598	5.818	4.998	5.062		0+	13/2 ⁺
170	122	1138.78		6.70		0.56		1.22	24.22	-0.26	-22.61	5.612	5.832	5.009	5.072		0+	0+
171	123	1138.04		6.66		0.48		-0.74	24.49	-0.18	-22.87	5.625	5.845	5.021	5.084		0^+	$13/2^{+}$
172	124	1139.15		6.62		0.38		1.11		-0.13	-23.09	5.640	5.859	5.032	5.095		0^+	0^+
173	125	1138.46		6.58		0.42		<u>-0.69</u>		-0.15	-23.10	5.700	5.937	5.032	5.095		0+	1/2+
174	126	1139.28		6.55		0.13		0.82		-1.02	-23.64	5.665	5.880	5.057	5.120 0.022		0^+	0^+
σ		2.87													0.022			
Z = 4 96	9 (In) 47	775.45		8.08			2.55			0.25	-16.22	4.326	4.273	4.376	4.449		9/2+	9/2+
97	48	792.86		8.17			3.67	17.41	0.36	-0.05	-15.98	4.332	4.288	4.374	4.447		9/2 ⁺	0+
98	49	807.56		8.24		32.11	4.81	14.70	0.93	-0.43	-13.33	4.336	4.301	4.371	4.444		9/2 ⁺	9/2 ⁺
99	50	824.51		8.33		31.65	5.93	16.95	1.49	-1.30	-13.53	4.342	4.315	4.369	4.442		9/2+	0+
100	51	833.62	833.11	8.34	8.33	26.06	6.57	9.11	1.81	-1.23	-12.90	4.360	4.343	4.377	4.449		$9/2^{+}$	5/2+
101	52	845.62		8.37		21.10	7.60	12.00	2.33	-2.75	-10.55	4.382	4.372	4.392	4.464		9/2+	0+
102	53	854.39	855.63	8.38	8.39	20.77	8.29	8.77	2.67	-2.99	-10.39	4.399	4.399	4.400	4.472		9/2+	5/2+
103	54	866.04	867.64	8.41	8.42	20.43	9.25	11.66	3.15	-3.71	-10.26	4.420	4.425	4.413	4.485	4.510	9/2 ⁺	0 ⁺
104 105	55 56	874.55 885.90	877.26 888.79	8.41 8.44	8.44 8.46	20.16 19.85	9.99 10.89	8.50 11.35	3.52 3.97	-3.97 -4.35	-10.10 -9.98	4.438 4.457	4.451 4.476	4.422 4.435	4.494 4.506	4.518 4.531	9/2 ⁺ 9/2 ⁺	$\frac{5/2^{+}}{0^{+}}$
105	57	894.16	897.83	8.44	8.47	19.61	11.67	8.26	4.36	-4.53 -4.60	-9.96 -9.84	4.437	4.476	4.445	4.516	4.538	9/2 ⁺	5/2 ⁺
107	58	905.23	908.86	8.46	8.49	19.33	12.49	11.07	4.77	-5.12	-9.73	4.492	4.524	4.455	4.527	4.549	9/2 ⁺	0 ⁺
108	59	913.26	917.48	8.46	8.50	19.10	13.31	8.04	5.18	-5.19	-9.57	4.511	4.548	4.466	4.537	4.557	9/2+	5/2+
109	60	924.07	927.93	8.48	8.51	18.84	14.06	10.80	5.55	-5.86	-9.46	4.527	4.570	4.475	4.546	4.569	9/2+	0+
110	61	931.84	935.98	8.47	8.51	18.58	14.92	7.77	5.97	-5.98	-9.27	4.546	4.593	4.487	4.557	4.574	9/2+	5/2+
111	62	942.40	945.97	8.49	8.52	18.33	15.58	10.56	6.30	-9.17	-6.47	4.561	4.614	4.494	4.565	4.586	9/2+	0+
112	63	949.76	953.65	8.48	8.51	17.92	16.26	7.37	6.70	-8.87	-6.96	4.580	4.637	4.506	4.576	4.591	9/2 ⁺	5/2 ⁺ 0 ⁺
113 114	64 65	960.12 967.41	963.09 970.37	8.50 8.49	8.52 8.51	17.72 17.65	17.02 17.55	10.35 7.30	7.01 7.29	-8.81 -8.75	-7.22 -7.45	4.595 4.612	4.657 4.681	4.512 4.520	4.583 4.590	4.601 4.606	9/2 ⁺ 9/2 ⁺	1/2 ⁺
115	66	977.06	979.40	8.50	8.52	16.94	18.36	9.65	7.67	-8.73 -8.40	-7.43 -7.87	4.628	4.700	4.529	4.599	4.616	9/2 ⁺	0+
116	67	984.15	986.19	8.48	8.50	16.74	18.94	7.09	7.96	-8.23	-8.10	4.645	4.723	4.536	4.606	4.621	$9/2^{+}$	1/2 ⁺
117	68	993.20	994.95	8.49	8.50	16.14	19.65	9.05	8.31	-8.02	-8.38	4.660	4.742	4.544	4.614	4.629	9/2+	$\mathbf{o}^{'+}$
118	69	999.93	1001.31	8.47	8.49	15.78	20.28	6.74	8.63	-7.79	-8.68	4.677	4.764	4.552	4.622	4.634	$9/2^{+}$	1/2+
119	70	1008.62	1009.85	8.48	8.49	15.42	20.96	8.69	8.97	-7.66	-9.03	4.692	4.783	4.559	4.628	4.641	$9/2^{+}$	0+
120	71	1014.85	1015.95	8.46	8.47	14.92	21.80	6.23	9.38	-7.36	-9.60	4.708	4.802	4.567	4.636	4.644	9/2+	1/2+
121	72 73	1023.35	1024.13	8.46	8.46	14.74	22.37	8.50	9.67	-7.32	-9.83	4.722	4.821	4.573	4.642	4.651	9/2 ⁺	0 ⁺
122 123	73 74	1029.06 1037.44	1029.94 1037.86	8.43 8.43	8.44 8.44	14.21 14.09	23.10 23.91	5.71 8.37	10.28 10.44	-7.22 -6.99	-10.14 -10.56	4.737 4.751	4.840 4.857	4.579 4.586	4.649 4.656	4.653 4.659	9/2 ⁺ 9/2 ⁺	11/2 ⁻ 0 ⁺
123	74 75	1037.44	1037.86	8.43	8.41	13.94	24.68	5.56	10.44	-6.88	-10.36 -10.89	4.751	4.874	4.593	4.662	4.663	9/2 ⁺	11/2-
125	76	1050.94	1051.06	8.41	8.41	13.50	25.49	7.94	11.22	-6.70	-11.25	4.779	4.890	4.600	4.669	4.667	9/2 ⁺	0+
126	77	1056.34	1056.42	8.38	8.38	13.34	26.27	5.40	11.61	-6.58	-11.57	4.792	4.907	4.607	4.676	4.670	9/2 ⁺	11/2-
127	78	1063.95	1063.62	8.38	8.37	13.01	27.08	7.61	12.01	-6.43	-11.94	4.806	4.922	4.614	4.683	4.673	9/2+	0+
128	79	1069.20	1068.94	8.35	8.35	12.85	27.88	5.25	12.40	-6.31	-12.29	4.819	4.938	4.620	4.689		$9/2^{+}$	11/2-
129	80	1076.52	1075.70	8.35	8.34	12.57	28.67	7.32	12.80	-6.18	-12.69	4.832	4.953	4.627	4.696		9/2+	0+
130	81	1081.64	1080.82	8.32	8.31	12.45	29.47	5.12	13.19	-4.62	-13.01	4.845	4.968	4.634	4.702		9/2 ⁺	11/2-
131 132	82 83	1088.71	1087.03 1089.49	8.31	8.30 8.25	12.19 8.73	30.26 30.57	7.07 1.66	13.58	-4.45 -4.90	-13.52	4.858 4.880	4.983 5.012	4.641 4.647	4.709		9/2 ⁺ 9/2 ⁺	$0^{+} \\ 7/2^{-}$
132	83 84	1090.37 1093.52	1009.49	8.26 8.22	0.23	8.73 4.81	30.57 30.92	3.15	13.74 13.92	-4.90 -2.48	-13.67 -13.96	4.880	5.012	4.647 4.658	4.716 4.726		9/2 ⁺	0^{+}
134	85	1095.02		8.17		4.65	31.23	1.50	14.08	-2.48 -2.39	-13.30 -14.11	4.923	5.066	4.664	4.720		9/2 ⁺	7/2 ⁻
135	86	1098.14		8.13		4.62	31.59	3.12	14.26	-2.40	-14.33	4.943	5.090	4.674	4.742		9/2+	0+

Table 1 (continued)

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
136	87	1099.47		8.08		4.45	31.88	1.33	14.41	-2.30	-14.49	4.965	5.118	4.681	4.749		9/2+	7/2-
137	88	1102.60		8.05		4.46	32.25	3.12	14.59	-2.32	-14.70	4.985	5.141	4.692	4.759		$9/2^{+}$	0+
138	89	1103.74		8.00		4.27	32.54	1.15	14.75	-2.22	-14.86	5.007	5.169	4.699	4.767		9/2+	7/2-
139	90	1106.93		7.96		4.33	32.91	3.18	14.93	-2.27	-15.07	5.027	5.192	4.710	4.777		9/2+	0+
140	91 92	1107.96		7.91		4.22	33.10	1.04	15.03	-2.28	-15.17	5.056	5.230	4.714	4.781		9/2 ⁺ 9/2 ⁺	3/2 ⁻ 0 ⁺
141	92	1111.15		7.88		4.23	33.58	3.19 1.07	15.27 15.39	-2.23	-15.42 -15.54	5.069 5.096	5.241 5.277	4.729 4.734	4.796		9/2 ⁺	-
142 143	93 94	1112.22 1115.32		7.83 7.80		4.26 4.17	33.80 34.26	3.10	15.62	-2.24 -2.21	-15.34 -15.78	5.110	5.289	4.734	4.801 4.815		9/2 ⁺	3/2 ⁻ 0 ⁺
143 144	9 4 95	1115.52		7.80 7.75		4.17	34.53	1.09	15.02	-2.21 -2.20	-15.78 -15.90	5.116	5.322	4.746	4.822		9/2 ⁺	3/2-
145	96	1119.45		7.73		4.13	34.95	3.05	15.74	-2.20 -2.19	-16.10	5.151	5.336	4.768	4.835		$9/2^{+}$	0 ⁺
146	97	11120.55		7.67		4.14	35.26	1.09	16.11	-2.18	-16.23	5.176	5.367	4.776	4.843		$9/2^{+}$	3/2-
147	98	1123.58		7.64		4.12	35.65	3.03	16.30	-2.18	-16.44	5.192	5.382	4.788	4.854		9/2 ⁺	0+
148	99	1124.67		7.60		4.12	35.93	1.09	16.46	-2.17	-16.61	5.215	5.410	4.797	4.863		9/2 ⁺	3/2-
149	100	1127.70		7.57		4.12	36.34	3.03	16.65	-2.18	-16.79	5.231	5.427	4.808	4.874		9/2+	0+
150	101	1128.81		7.53		4.14	36.57	1.11	16.77	-2.19	-16.94	5.256	5.456	4.815	4.881		9/2+	1/2-
151	102	1131.83		7.50		4.13	37.03	3.02	16.99	-2.17	-17.15	5.270	5.471	4.827	4.893		9/2+	$0^{'+}$
152	103	1133.03		7.45		4.22	37.35	1.20	17.11	-2.17	-17.30	5.294	5.498	4.835	4.901		9/2+	$1/2^{-}$
153	104	1135.96		7.42		4.13	37.72	2.93	17.32	-2.15	-17.50	5.309	5.514	4.846	4.911		9/2+	$0^{'+}$
154	105	1137.20		7.38		4.17	38.10	1.24	17.50	-2.14	-17.67	5.331	5.539	4.855	4.920		9/2+	$1/2^{-}$
155	106	1140.08		7.36		4.12	38.39	2.88	17.65	-2.12	-17.84	5.347	5.556	4.863	4.929		9/2+	0^+
156	107	1141.29		7.32		4.09	38.78	1.21	17.83	-2.09	-18.02	5.368	5.580	4.873	4.939		$9/2^{+}$	$1/2^{-}$
157	108	1144.15		7.29		4.08	39.03	2.86	17.96	-2.07	-18.18	5.385	5.599	4.880	4.945		$9/2^{+}$	0^+
158	109	1145.31		7.25		4.02	39.44	1.15	18.15	-2.00	-18.37	5.404	5.620	4.891	4.956		$9/2^{+}$	$1/2^{-}$
159	110	1148.14		7.22		3.98	39.66	2.83	18.26	-1.98	-18.49	5.423	5.641	4.896	4.961		$9/2^{+}$	0^+
160	111	1149.04		7.18		3.73	39.90	0.90	18.38	-1.59	-18.70	5.441	5.661	4.908	4.972		$9/2^{+}$	$1/2^{-}$
161	112	1151.82		7.15		3.68	40.21	2.78	18.54	-1.61	-18.80	5.460	5.684	4.911	4.976		$9/2^{+}$	0+
162	113	1151.92		7.11		2.89	40.69	0.10	18.76	-1.65	-19.04	5.477	5.702	4.920	4.985		9/2+	13/2+
163	114	1154.23		7.08		2.41	41.26	2.31	19.04	-1.08	-19.34	5.488	5.710	4.933	4.997		9/2+	0+
164	115	1154.10		7.04		2.17	41.77	<u>-0.13</u>	19.29	-1.00	-19.60	5.502	5.724	4.943	5.008		9/2+	13/2+
165	116	1156.01		7.01		1.78	42.26	1.92	19.53	-0.87	-19.88	5.515	5.736	4.955	5.019		9/2+	0+
166	117	1155.77		6.96		1.67	42.77	<u>-0.25</u>	19.78	-0.81	-20.14	5.530	5.750	4.965	5.029		9/2+	13/2+
167	118	1157.47		6.93		1.46	43.24	1.70	20.01	-0.73	-20.41	5.543	5.762	4.977	5.041		$9/2^{+}$	0 ⁺
168 169	119 120	1157.14		6.89		1.37	43.68	$\frac{-0.33}{1.55}$	20.26 20.48	-0.67	-20.67	5.557	5.776 5.789	4.987 4.998	5.051 5.062		9/2 ⁺ 9/2 ⁺	13/2 ⁺ 0 ⁺
170	120	1158.69 1158.28		6.86 6.81		1.22 1.15	44.20 44.54	1.55 -0.41	20.48	-0.61 -0.55	-20.93 -21.20	5.571 5.585	5.802	5.009	5.002		9/2 ⁺	13/2+
170	121	1156.26		6.78		1.13	44.34 45.16	1.43	20.73	-0.50	-21.20 -21.46	5.599	5.802	5.020	5.084		9/2 ⁺	0+
172	123	1159.72		6.74		0.95	45.39	-0.49	21.20	-0.30 -0.42	-21.40 -21.73	5.612	5.828	5.032	5.095		9/2 ⁺	13/2 ⁺
173	123	1160.56		6.71		0.84	43.33	1.33	21.41	-0.42 -0.37	-21.73 -21.99	5.626	5.841	5.043	5.106		$9/2^{+}$	0+
174	125	1159.99		6.67		0.75		-0.57	21.53	0.17	-22.56	5.638	5.851	5.055	5.118		$9/2^{+}$	13/2 ⁺
175	126	1161.19		6.64		0.63		1.20	21.53	$\frac{0.17}{-1.24}$	-22.30	5.652	5.864	5.066	5.129		9/2 ⁺	0+
σ	120	2.28		0.0 1		0.03		1.20	21.55		22.50	0.002	5,551	5.000	0.016		o, z	Ü
Z = 50) (C=)	2,20																
2 = 30	43	708.16		7.61						-17.91	0.50	4.319	4.213	4.408	4.480		0^{+}	9/2+
94	44	727.33		7.74			<u>-1.77</u>	19.18		-17.51 -17.55	-0.04	4.324	4.213	4.405	4.477		0+	0+
9 4 95	45	743.22		7.74		35.07	$\frac{-1.77}{-0.66}$	15.89		-17.33 -17.29	-0.58	4.324	4.246	4.403	4.473		0+	9/2 ⁺
96	46	743.22		7.82		34.39	0.47	18.50		-17.23 -17.01	-0.38 -1.14	4.333	4.240	4.398	4.471		0 ⁺	0^{+}
97	47	777.25		8.01		34.03	1.59	15.53		-16.78	-1.69	4.338	4.276	4.395	4.467		0+	9/2 ⁺
98	48	795.22		8.11		33.50	2.66	17.97	2.36	-16.54	-2.24	4.343	4.291	4.393	4.465		0+	0+
99	49	810.47		8.19		33.23	3.94	15.26	2.91	-14.22	-2.80	4.347	4.304	4.389	4.461		0^{+}	9/2+
100	50	827.99	825.30	8.28	8.25	32.77	6.97	17.52	3.48	-14.12	-3.36	4.352	4.317	4.387	4.459		0+	0+
101	51	837.51	836.39	8.29	8.28	27.01	5.70	9.52	3.88	-13.92	-0.90	4.374	4.347	4.401	4.473		0+	7/2+
102	52	849.96	849.09	8.33	8.32	21.97	6.67	12.46	4.34	-10.98	-1.14	4.391	4.374	4.409	4.481		0^{+}	0+
102								9.19						4.422	4.494			

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
104	54	871.25	871.92	8.38	8.38	21.28	8.35	12.09	5.20	-10.68	-1.70	4.429	4.426	4.431	4.503		0+	0+
105	55	880.13	881.71	8.38	8.40	20.98	9.10	8.89	5.58	-10.50	-2.39	4.448	4.452	4.443	4.515		0+	7/2+
106	56	891.94	893.80	8.41	8.43	20.69	10.01	11.81	6.04	-10.40	-2.60	4.465	4.476	4.453	4.524		0+	0 ⁺
107	57 50	900.59	903.03	8.42	8.44	20.46	10.79	8.66	6.43	-10.26	-3.25	4.483	4.501	4.462	4.534	4 5 6 1	0 ⁺	5/2 ⁺ 0 ⁺
108	58 59	912.09 920.54	914.66 923.29	8.45	8.47	20.15 19.94	11.63 12.45	11.50 8.45	6.86 7.27	-10.13 -9.98	-3.44 -4.06	4.500 4.518	4.524 4.547	4.473 4.484	4.544 4.554	4.561 4.568	0 ⁺	5/2 ⁺
109 110	60	931.72	934.57	8.45 8.47	8.47 8.50	19.94	13.20	6.43 11.18	7.65	-9.98 -9.85	-4.00 -4.31	4.535	4.569	4.493	4.563	4.579	0+	0 ⁺
111	61	939.92	942.74	8.47	8.49	19.38	14.05	8.20	8.07	-9.65	-4.81	4.552	4.592	4.504	4.574	4.584	0+	5/2 ⁺
112	62	950.80	953.53	8.49	8.51	19.08	14.03	10.88	8.40	-9.54	-5.10	4.568	4.613	4.511	4.582	4.595	0+	0 ⁺
113	63	958.59	961.27	8.48	8.51	18.67	15.52	7.79	8.82	-9.23	-5.84	4.586	4.635	4.522	4.592	4.602	0+	5/2 ⁺
114	64	969.23	971.57	8.50	8.52	18.43	16.12	10.64	9.11	-9.16	-5.92	4.600	4.655	4.528	4.599	4.610	0^{+}	0+
115	65	976.80	979.12	8.49	8.51	18.21	16.67	7.57	9.39	-9.10	-6.14	4.617	4.678	4.536	4.606	4.615	0^{+}	1/2+
116	66	986.84	988.68	8.51	8.52	17.61	17.46	10.05	9.79	-8.74	-6.59	4.632	4.697	4.544	4.614	4.625	0^+	$\mathbf{o}^{'+}$
117	67	994.22	995.62	8.50	8.51	17.42	18.03	7.38	10.07	-8.57	-6.93	4.649	4.720	4.552	4.622	4.630	0^+	1/2+
118	68	1003.64	1004.95	8.51	8.52	16.80	18.76	9.42	10.44	-8.36	-7.25	4.663	4.738	4.559	4.629	4.639	0^+	0^{+}
119	69	1010.69	1011.43	8.49	8.50	16.47	19.39	7.05	10.76	-8.15	-7.63	4.680	4.760	4.567	4.637	4.644	0^+	1/2+
120	70	1019.73	1020.54	8.50	8.50	16.09	20.08	9.04	11.12	-8.01	-7.95	4.694	4.778	4.574	4.643	4.652	0^+	0+
121	71	1026.36	1026.71	8.48	8.49	15.67	20.89	6.63	11.51	-7.75	-8.39	4.710	4.798	4.581	4.651	4.657	0^+	$1/2^{+}$
122	72	1035.18	1035.53	8.49	8.49	15.44	21.50	8.82	11.83	-7.68	-8.67	4.724	4.816	4.587	4.657	4.663	0^+	0^+
123	73	1041.29	1041.47	8.47	8.47	14.92	22.50	6.11	12.22	-7.39	-9.13	4.738	4.833	4.595	4.664	4.667	0^+	$1/2^{+}$
124	74	1050.02	1049.96	8.47	8.47	14.84	23.01	8.73	12.58	-7.38	-9.42	4.752	4.851	4.601	4.670	4.674	0+	0^+
125	75	1055.96	1055.70	8.45	8.45	14.67	23.77	5.94	12.96	-7.27	-9.79	4.766	4.869	4.607	4.676	4.677	0+	7/2-
126	76	1064.31	1063.89	8.45	8.44	14.29	24.58	8.35	13.36	-7.09	-10.20	4.779	4.885	4.614	4.683	4.683	0+	0+
127	77	1070.10	1069.41	8.43	8.42	14.14	25.36	5.79	13.75	-6.98	-10.70	4.793	4.901	4.620	4.689	4.687	0+	11/2-
128	78	1078.11	1077.37	8.42	8.42	13.80	26.17	8.01	14.16	-6.83	-10.98	4.806	4.917	4.627	4.696	4.692	0 ⁺	0 ⁺
129	79	1083.75	1082.68	8.40	8.39	13.65	26.96	5.65	14.56	-6.72	-11.44	4.819	4.932	4.634	4.702	4.693	0 ⁺	11/2 ⁻ 0 ⁺
130 131	80 81	1091.48 1097.01	1090.29 1095.50	8.40 8.37	8.39 8.36	13.38 13.25	27.76 28.55	7.73 5.52	14.96 15.36	-6.59 -6.34	-11.81 -12.30	4.832 4.844	4.947 4.962	4.640 4.646	4.709 4.715	4.702 4.708	0+	11/2-
132	82	1104.48	1102.85	8.37	8.35	13.23	29.35	5.52 7.47	15.77	-0.34 -4.81	-12.50 -12.61	4.857	4.902	4.653	4.713	4.708	0+	0+
133	83	1104.40	1105.24	8.32	8.31	9.28	29.66	1.81	15.77	-6.19	-12.85	4.878	5.005	4.660	4.728	4.703	0+	7/2 ⁻
134	84	1109.62	1103.24	8.28	8.27	5.15	30.03	3.33	16.10	-2.65	-13.03	4.899	5.030	4.671	4.739		0+	0+
135	85	1111.27	1111.14	8.23	8.23	4.99	30.34	1.65	16.26	-2.56	-13.17	4.921	5.058	4.677	4.745		0^{+}	7/2-
136	86	1114.58		8.20		4.96	30.71	3.31	16.45	-2.57	-13.40	4.941	5.082	4.688	4.756		0^+	$\mathbf{o}^{'+}$
137	87	1116.07		8.15		4.80	31.01	1.49	16.60	-2.47	-13.67	4.962	5.110	4.695	4.763		0^{+}	$7/2^{-}$
138	88	1119.39		8.11		4.81	31.39	3.32	16.80	-2.50	-13.83	4.982	5.133	4.706	4.774		0^+	0^{+}
139	89	1120.70		8.06		4.63	31.71	1.31	16.96	-2.40	-14.10	5.004	5.160	4.714	4.782		0^+	$7/2^{-}$
140	90	1124.07		8.03		4.68	32.08	3.38	17.15	-2.45	-14.26	5.024	5.182	4.725	4.792		0^+	0^+
141	91	1125.21		7.98		4.51	32.28	1.13	17.25	-2.47	-14.45	5.051	5.220	4.730	4.797		0+	3/2-
142	92	1128.66		7.95		4.59	32.78	3.46	17.51	-2.41	-14.68	5.065	5.230	4.745	4.812		0+	0+
143	93	1129.84		7.90		4.64	33.01	1.18	17.62	-2.43	-14.82	5.091	5.265	4.750	4.817		0+	3/2-
144	94	1133.19		7.87		4.53	33.49	3.35	17.87	-2.39	-15.11	5.105	5.277	4.765	4.832		0+	0+
145	95 06	1134.41		7.82		4.57	33.75	1.22	18.00	-2.40	-15.30	5.131	5.310	4.772	4.838		0 ⁺	3/2-
146	96 97	1137.69		7.79		4.50	34.20 34.49	3.28	18.24	-2.38 -2.38	-15.54	5.146	5.323	4.786 4.793	4.852 4.860		0 ⁺	0 ⁺
147 148	97 98	1138.94 1142.18		7.75 7.72		4.52 4.49	34.49 34.91	1.24 3.25	18.39 18.60	-2.38 -2.37	-15.74 -15.97	5.170 5.185	5.354 5.368	4.793	4.860		0 ⁺	3/2 ⁻ 0 ⁺
149	99	1142.16		7.72		4.50	35.23	1.26	18.77	-2.36	-15.57 -16.18	5.209	5.397	4.815	4.881		0+	3/2-
150	100	1146.67		7.64		4.49	35.61	3.23	18.97	-2.36	-16.39	5.224	5.413	4.826	4.892		0+	0 ⁺
151	101	1147.93		7.60		4.49	35.89	1.26	19.12	-2.34	-16.59	5.247	5.439	4.836	4.901		0+	3/2-
152	102	1151.15		7.57		4.48	36.31	3.22	19.32	-2.34	-16.79	5.263	5.456	4.845	4.911		0+	0+
153	103	1152.46		7.53		4.53	36.55	1.31	19.43	-2.35	-16.97	5.286	5.484	4.853	4.919		0+	1/2-
154	104	1155.63		7.50		4.47	36.99	3.17	19.67	-2.32	-17.17	5.301	5.499	4.863	4.929		0^+	0+
155	105	1157.04		7.46		4.58	37.34	1.42	19.84	-2.32	-17.36	5.323	5.525	4.872	4.937		0^{+}	1/2-
																	- 1	
156	106	1160.07		7.44		4.45	37.64	3.03	20.00	-2.29	-17.54	5.339	5.542	4.881	4.946		0^+	0^+

Table 1 (continued)

58 59 60		(MeV)	(MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	(MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
	108	1164.47		7.37		4.39	38.27	3.00	20.31	-2.23	-17.88	5.376	5.584	4.897	4.962		0+	0+
60	109	1165.80		7.33		4.34	38.65	1.34	20.50	-2.16	-18.07	5.396	5.606	4.906	4.971		0^+	1/2
	110	1168.75		7.30		4.28	38.87	2.94	20.61	-2.13	-18.21	5.414	5.627	4.912	4.977		0+	0^{+}
61	111	1169.84		7.27		4.03	39.18	1.09	20.80	-1.79	-18.41	5.432	5.647	4.922	4.987		0^+	1/2
62	112	1172.72		7.24		3.97	39.43	2.88	20.90	-1.80	-18.53	5.450	5.668	4.927	4.991		0+	0^+
63	113	1173.01		7.20		3.18	39.85	0.30	21.09	-1.85	-18.75	5.467	5.687	4.935	5.000		0+	13/
64	114	1175.64		7.17		2.92	40.46	2.63	21.41	-1.34	-19.06	5.479	5.696	4.947	5.011		0+	
65	115	1175.76		7.13		2.75	40.96	0.12	21.67	-1.26	-19.33	5.493	5.711	4.957	5.021		0+	13/
66	116	1177.94		7.10		2.30	41.46	2.18	21.93	-1.13	-19.61	5.506	5.722	4.969	5.033		0+	0+
67	117	1177.95		7.05		2.19	41.96	0.01	22.18	-1.06	-19.88	5.520	5.736	4.979	5.043		0+	13,
68	118	1179.90		7.02		1.96	42.44	1.95	22.43	-0.98	-20.16	5.534	5.749	4.990	5.054		0+	0+
69	119	1179.83		6.98		1.88	42.95	$\frac{-0.07}{0.07}$	22.69	-0.92	-20.43	5.548	5.762	5.001	5.064		0+	13/
70	120	1181.63		6.95		1.72	43.41	1.80	22.93	-0.86	-20.70	5.561	5.775	5.012	5.075		0+	0+
71	121	1181.48		6.91		1.65	43.92	<u>-0.15</u>	23.19	-0.80	-20.97	5.575	5.788	5.023	5.086		0+	13/
72	122	1183.15		6.88		1.53	44.38	1.67	23.43	-0.75	-21.23	5.589	5.801	5.034	5.097		0+	0+
73	123	1182.93		6.84		1.45	44.89	$\frac{-0.22}{1.53}$	23.70	-0.68	-21.51	5.603	5.814	5.045	5.108		0^{+}	13,
74	124	1184.49		6.81		1.34	45.34	1.56	23.93	-0.63	-21.77	5.617	5.827	5.056	5.119		0+	0+
75 76	125	1184.20		6.77		1.28	45.75	<u>-0.29</u>	24.22	-0.31	-22.07	5.630	5.839	5.068	5.131		0+	13,
76	126	1185.65		6.74		1.16	46.37	1.45		-1.50	-22.33	5.643	5.852	5.080	5.142		0^+	0^+
		1.66													0.009			
= 51		005.04		0.00			1 71			16.00	0.20	4 272	4.313	4.429	4.501		5/2+	9/2
00	49	805.84		8.00			$\frac{-1.71}{0.80}$	17.70	4 27	-16.83	0.30	4.373			4.501			9/2 0 ⁺
01	50	823.62		8.15		27.74	$\frac{-0.89}{0.03}$	17.78	$\frac{-4.37}{2.02}$	-14.38	-0.50	4.417	4.354	4.435	4.507		5/2 ⁺	
)2	51	833.59		8.17		27.74	$\frac{-0.03}{0.03}$	9.97	$\frac{-3.92}{3.51}$	-13.82	-0.49	4.392	4.353	4.431	4.503		5/2 ⁺	5/: 0 ⁺
03 04	52 53	846.45	858.69	8.22		22.83 22.62	0.83 1.82	12.86 9.76	$\frac{-3.51}{-2.94}$	-11.40 -11.32	-1.86 -2.00	4.413	4.382 4.417	4.444	4.516 4.527		5/2 ⁺ 7/2 ⁺	7/
05	54	856.21 868.77	871.60	8.23 8.27	8.30	22.32	2.72	12.56	$\frac{-2.94}{-2.48}$	-11.32 -11.19	-2.00 -3.41	4.436 4.453	4.441	4.456 4.465	4.527		7/2 ⁺	0+
05 06	55	878.22	882.13	8.29	8.32	22.32	3.67	9.45	$\frac{-2.48}{-1.91}$	-11.19 -11.00	-3.41 -3.03	4.433 4.471	4.441	4.403	4.530		7/2 ⁺	7/:
06 07	55 56	878.22 890.48	894.38	8.29 8.32	8.32 8.36	21.72	3.67 4.59	9.45 12.26	$\frac{-1.91}{-1.45}$	-11.00 -10.89	-3.03 -4.32	4.471	4.490	4.476	4.547		7/2+ 7/2+	0+
07 08	50 57		904.25	8.33		21.72	5.44	9.12	$\frac{-1.43}{-0.99}$	-10.89 -10.77	-4.52 -3.69	4.505	4.490	4.495	4.565		7/2+ 7/2+	5/2
	58	899.60			8.37				$\frac{-0.99}{-0.47}$								7/2 ⁺	0 ⁺
09	59	911.62 920.55	916.12 925.39	8.36 8.37	8.40	21.14 20.95	6.39 7.28	12.02 8.93	0.01	-10.60	-5.16	4.522	4.536	4.505	4.576		7/2 ⁺	5/2
10 11	60	932.18	936.85	8.40	8.41 8.44	20.56	7.28 8.11	11.63	0.46	-10.45 -10.29	-4.35 -5.95	4.539 4.555	4.560 4.581	4.515 4.524	4.586 4.594		7/2 ⁺	0+
12	61	940.86	945.69	8.40	8.44	20.30	9.02	8.68	0.95	-10.23 -10.09	-5.08	4.572	4.603	4.534	4.604		7/2 ⁺	5/2
13	62	952.12	956.58	8.43	8.47	19.94	9.73	11.26	1.32	-9.95	-6.66	4.586	4.623	4.541	4.611		7/2 ⁺	0+
14	63	960.38	964.73	8.42	8.46	19.54	10.61	8.26	1.79	-9.63	-5.94	4.603	4.645	4.551	4.621		7/2 ⁺	5/:
15	64	971.35	975.31	8.45	8.48	19.22	11.23	10.97	2.12	-9.54	-7.31	4.617	4.664	4.557	4.627		7/2 ⁺	0+
16	65	979.24	983.20	8.44	8.48	18.86	11.82	7.89	2.44	-9.48	-6.48	4.633	4.686	4.564	4.634		7/2 ⁺	1/:
17	66	989.71	993.09	8.46	8.49	18.36	12.65	10.47	2.86	-9.11	-0.48 -7.97	4.648	4.705	4.572	4.642		7/2 ⁺	0+
18	67	997.40	1000.51	8.45	8.48	18.17	13.25	7.69	3.18	-8.95	-7.37 -7.25	4.664	4.703	4.579	4.649		7/2 ⁺	1/:
19	68	1007.24	1010.06	8.46	8.49	17.53	14.04	9.84	3.59	-8.73	-7.23 -8.63	4.678	4.745	4.587	4.656		7/2 ⁺	0+
20	69	1014.62	1017.08	8.46	8.48	17.22	14.69	7.38	3.93	-8.54	-7.93	4.694	4.766	4.594	4.663		7/2 ⁺	1/
21	70	1014.02	1026.33	8.46	8.48	16.83	15.45	9.45	4.33	-8.39	-7.35 -8.25	4.708	4.784	4.601	4.670	4.680	7/2 ⁺	0+
22	71	1024.07	1020.55	8.45	8.47	16.47	16.24	7.02	4.73	-8.17	-8.68	4.723	4.804	4.608	4.677	1.000	7/2 ⁺	1/:
23	72	1040.28	1033.14	8.46	8.47	16.21	16.93	9.19	5.10	-8.08	-8.96	4.736	4.821	4.614	4.683	4.688	7/2 ⁺	0+
24	73	1046.87	1042.10	8.44	8.46	15.78	17.80	6.59	5.58	-7.83	-9.40	4.750	4.838	4.621	4.690	4.000	7/2 ⁺	1/:
25	73 74	1055.93	1048.37	8.45	8.46	15.65	18.49	9.06	5.91	-7.83 -7.79	-9.40 -9.66	4.764	4.856	4.627	4.695		7/2 ⁺	0+
26	7 5	1055.55	1063.48	8.43	8.44	15.40	19.26	6.33	6.31	-7.73 -7.69	-3.00	4.778	4.873	4.633	4.701		7/2 ⁺	11
20 27	75 76	1002.20	1003.48	8.43	8.44	15.13	20.11	8.79	6.75	-7.52	-10.00 -10.39	4.778	4.889	4.639	4.701		7/2 ⁺	0+
28	70 77	1071.03	1071.86	8.42	8.42	14.99	20.11	6.21	7.16	-7.32 -7.41	-10.39 -10.74	4.791	4.906	4.645	4.714		7/2 ⁺	11
29	77 78	1077.20	1077.80	8.42	8.42	14.66	21.76	8.45	7.10	-7.41 -7.26	-10.74 -11.14	4.816	4.921	4.652	4.714		7/2 ⁺	0+
29 30	78 79	1083.71	1083.93	8.42 8.40	8.40	14.52	22.58	6.06	8.02	-7.26 -7.15	-11.14 -11.50	4.829	4.937	4.658	4.726		7/2 ⁺	11
30 31	80	1091.77	1091.00	8.40	8.39	14.24	23.43	8.18	8.47	-7.13 -7.02	-11.94	4.842	4.951	4.664	4.726		7/2 ⁺	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
132	81	1105.90	1105.15	8.38	8.37	14.12	24.25	5.95	8.89	-6.20	-12.37	4.854	4.966	4.670	4.738		7/2+	11/2-
133	82	1113.81	1112.51	8.37	8.36	13.86	25.10	7.91	9.33	-5.16	-12.82	4.866	4.980	4.677	4.745		7/2+	0^+
134	83	1115.80	1115.68	8.33	8.33	9.90	25.43	1.99	9.51	-6.12	-12.97	4.887	5.009	4.683	4.751		7/2+	7/2-
135	84	1119.41	1119.42	8.29	8.29	5.60	25.89	3.61	9.78	-2.88	-13.24	4.908	5.033	4.695	4.763		7/2 ⁺	0+
136	85	1121.24	1122.31	8.24	8.25	5.44	26.22	1.83	9.96	-2.80	-13.42	4.929	5.060	4.702	4.770		7/2 ⁺	7/2-
137	86 87	1124.83	1125.90	8.21	8.22	5.42	26.69	3.59	10.24	-2.81	-13.64	4.949	5.083	4.714	4.781		7/2 ⁺ 7/2 ⁺	$0^{+} 7/2^{-}$
138 139	88	1126.50 1130.11		8.16 8.13		5.27 5.28	27.03 27.51	1.67 3.61	10.43 10.72	-2.72	-13.81 -14.04	4.970 4.990	5.110 5.133	4.721 4.733	4.789 4.800		7/2+ 7/2+	0 ⁺
140	89	1130.11		8.08		5.28	27.31	1.51	10.72	-2.75 -2.66	-14.04 -14.21	5.011	5.159	4.733	4.809		$\frac{7}{2}^{+}$	7/2-
141	90	1131.02		8.05		5.12	28.35	3.66	11.20	-2.00 -2.70	-14.21 -14.45	5.030	5.181	4.753	4.820		7/2 ⁺	0+
142	91	1136.64		8.00		5.02	28.68	1.36	11.43	-2.70 -2.62	-14.43 -14.63	5.052	5.207	4.763	4.830		7/2 ⁺	7/2 ⁻
143	92	1140.37		7.97		5.09	29.21	3.73	11.70	-2.67	-14.85	5.070	5.228	4.774	4.840		7/2 ⁺	0+
144	93	1141.70		7.93		5.06	29.47	1.33	11.85	-2.69	-14.95	5.096	5.262	4.779	4.845		7/2 ⁺	3/2-
145	94	1145.41		7.90		5.04	30.09	3.71	12.21	-2.65	-15.23	5.110	5.273	4.794	4.861		7/2+	0+
146	95	1146.79		7.85		5.09	30.39	1.38	12.38	-2.66	-15.35	5.135	5.305	4.801	4.867		7/2+	3/2-
147	96	1150.41		7.83		5.01	30.96	3.62	12.72	-2.63	-15.62	5.149	5.318	4.815	4.881		7/2+	0+
148	97	1151.84		7.78		5.05	31.30	1.43	12.91	-2.64	-15.76	5.173	5.348	4.823	4.889		$7/2^{+}$	$3/2^{-}$
149	98	1155.40		7.75		4.99	31.82	3.56	13.22	-2.61	-16.01	5.188	5.362	4.836	4.901		7/2+	0+
150	99	1156.86		7.71		5.02	32.20	1.46	13.43	-2.61	-16.16	5.211	5.390	4.844	4.910		$7/2^{+}$	$3/2^{-}$
151	100	1160.37		7.68		4.97	32.66	3.51	13.70	-2.59	-16.39	5.226	5.405	4.855	4.921		$7/2^{+}$	0^+
152	101	1161.85		7.64		4.99	33.04	1.48	13.92	-2.59	-16.55	5.248	5.432	4.865	4.930		$7/2^{+}$	$3/2^{-}$
153	102	1165.31		7.62		4.95	33.48	3.46	14.16	-2.57	-16.75	5.264	5.448	4.874	4.939		7/2+	0^+
154	103	1166.80		7.58		4.95	33.77	1.49	14.34	-2.55	-16.93	5.285	5.473	4.884	4.949		$7/2^{+}$	$3/2^{-}$
155	104	1170.22		7.55		4.91	34.26	3.42	14.60	-2.53	-17.10	5.301	5.491	4.892	4.957		7/2+	0+
156	105	1171.78		7.51		4.99	34.59	1.56	14.74	-2.53	-17.25	5.323	5.517	4.899	4.964		7/2+	1/2-
157	106	1175.08		7.48		4.86	35.00	3.30	15.01	-2.49	-17.43	5.338	5.533	4.908	4.973		7/2 ⁺	0+
158	107	1176.69		7.45		4.90	35.40	1.61	15.22	-2.47	-17.57	5.359	5.558	4.916	4.981		$7/2^{+}$	1/2-
159	108	1179.85		7.42		4.77	35.70	3.16	15.38	-2.42	-17.75	5.375	5.576	4.923	4.988		7/2 ⁺ 7/2 ⁺	0 ⁺
160 161	109 110	1181.39		7.38 7.36		4.71	36.09 36.35	1.54 3.09	15.59	-2.35 -2.30	-17.90	5.395 5.412	5.599 5.618	4.931 4.937	4.996 5.002		$\frac{7/2}{7/2^{+}}$	1/2 ⁻ 0 ⁺
162	111	1184.48 1185.78		7.30		4.63 4.39	36.75	1.30	15.73 15.95	-2.30 -2.03	-18.05 -18.24	5.430	5.638	4.946	5.002		7/2 ⁺	1/2 ⁻
163	112	1188.80		7.32		4.32	36.98	3.02	16.08	-2.03	-18.35	5.447	5.659	4.951	5.011		7/2 ⁺	0+
164	113	1189.33		7.25		3.55	37.41	0.53	16.32	-2.07	-18.58	5.464	5.677	4.959	5.024		7/2 ⁺	13/2 ⁺
165	114	1192.32		7.23		3.52	38.09	2.99	16.68	-1.65	-18.87	5.476	5.688	4.970	5.034		7/2 ⁺	0+
166	115	1192.74		7.19		3.41	38.64	0.42	16.98	-1.58	-19.12	5.491	5.703	4.980	5.044		7/2+	13/2+
167	116	1195.24		7.16		2.93	39.23	2.50	17.30	-1.44	-19.41	5.504	5.715	4.991	5.055		7/2+	0+
168	117	1195.56		7.12		2.82	39.79	0.32	17.61	-1.37	-19.67	5.518	5.729	5.001	5.065		7/2+	$13/2^{+}$
169	118	1197.83		7.09		2.58	40.36	2.27	17.92	-1.29	-19.94	5.531	5.741	5.012	5.076		7/2+	0+
170	119	1198.06		7.05		2.50	40.92	0.23	18.23	-1.23	-20.20	5.545	5.755	5.022	5.086		7/2+	$13/2^{+}$
171	120	1200.16		7.02		2.33	41.47	2.10	18.53	-1.16	-20.47	5.559	5.768	5.033	5.096		$7/2^{+}$	0^+
172	121	1200.32		6.98		2.26	42.04	0.16	18.84	-1.10	-20.73	5.572	5.781	5.044	5.107		7/2+	13/2+
173	122	1202.29		6.95		2.13	42.58	1.97	19.14	-1.05	-21.00	5.586	5.794	5.054	5.117		7/2+	0+
174	123	1202.39		6.91		2.07	43.16	0.10	19.46	-0.98	-21.27	5.599	5.806	5.065	5.128		7/2+	13/2+
175	124	1204.25		6.88		1.96	43.69	1.86	19.76	-0.93	-21.53	5.613	5.819	5.076	5.138		7/2+	0+
176	125	1204.29		6.84		1.90	44.30	0.04	20.09	-0.34	-21.82	5.626	5.831	5.087	5.149		7/2 ⁺	13/2+
177	126	1206.03		6.81		1.78		1.74	20.38	-0.17	-22.09	5.639	5.843	5.097	5.160		$7/2^{+}$	0 ⁺
178	127 128	1205.38		6.77		1.09		$\frac{-0.65}{0.42}$		-0.36	-22.09	5.696	5.919	5.098	5.160		$\frac{7}{2}^{+}$	$\frac{1/2^{+}}{0^{+}}$
σ	128	1204.96 2.66		6.73		<u>-1.07</u>		<u>-0.42</u>		0.46	-22.14	5.703	5.925	5.102	5.164 0.008		7/2+	U'
Z = 52	2 (Te)																	
109	57	901.01	906.81	8.27	8.32		0.42		1.41	-11.19	0.06	4.523	4.524	4.523	4.593		0^{+}	5/2 ⁺
110	58	913.47	919.39	8.30	8.36		1.38	12.46	1.85	-11.03	-0.41	4.540	4.546	4.533	4.603		0^{+}	0^+

(continued on next page)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
112	60	934.91	940.87	8.35	8.40	21.43	3.19	12.06	2.73	-10.71	-1.29	4.572	4.590	4.551	4.621		0+	0+
113	61	944.02	949.72	8.35	8.40	21.18	4.11	9.12	3.16	-10.51	-1.74	4.589	4.612	4.561	4.630		0^+	5/2
114	62	955.69	961.34	8.38	8.43	20.79	4.89	11.67	3.57	-10.35	-2.12	4.602	4.631	4.568	4.637		0^+	0^{+}
15	63	964.37	969.58	8.39	8.43	20.34	5.78	8.67	3.99	-10.02	-2.56	4.619	4.653	4.577	4.646		0^+	5/2
116	64	975.73	980.86	8.41	8.46	20.04	6.50	11.37	4.39	-9.93	-2.91	4.632	4.672	4.583	4.652	4.685	0^+	0^+
17	65	983.99	988.76	8.41	8.45	19.63	7.20	8.26	4.76	-9.87	-3.26	4.647	4.693	4.589	4.658		0^+	1/2
118	66	994.87	999.43	8.43	8.47	19.14	8.03	10.88	5.16	-9.48	-3.67	4.661	4.712	4.597	4.666	4.696	0^+	0^+
119	67	1002.93	1006.99	8.43	8.46	18.93	8.71	8.06	5.53	-9.32	-4.01	4.677	4.733	4.604	4.673		0^+	1/2
120	68	1013.15	1017.25	8.44	8.48	18.28	9.51	10.22	5.91	-9.09	-4.41	4.691	4.751	4.611	4.680	4.704	0^+	0^{+}
121	69	1020.90	1024.49	8.44	8.47	17.97	10.20	7.75	6.27	-8.90	-4.76	4.706	4.772	4.618	4.687		0+	1/2
122	70	1030.71	1034.33	8.45	8.48	17.56	10.98	9.81	6.64	-8.75	-5.14	4.720	4.789	4.624	4.693	4.710	0^+	0^+
123	71	1038.10	1041.26	8.44	8.47	17.20	11.74	7.39	7.01	-8.53	-5.51	4.735	4.809	4.631	4.700	4.712	0^+	1/2
124	72	1047.65	1050.69	8.45	8.47	16.94	12.47	9.55	7.37	-8.44	-5.88	4.748	4.826	4.637	4.706	4.718	0^+	0^+
125	73	1054.62	1057.26	8.44	8.46	16.52	13.34	6.97	7.76	-8.20	-6.30	4.762	4.843	4.645	4.713	4.720	0^+	1/2
126	74	1064.02	1066.37	8.44	8.46	16.37	14.00	9.40	8.09	-8.15	-6.63	4.775	4.861	4.650	4.718	4.727	0^+	0^{+}
127	75	1070.72	1072.66	8.43	8.45	16.09	14.76	6.70	8.45	-8.05	-7.00	4.788	4.878	4.656	4.724		0^+	11/
128	76	1079.89	1081.44	8.44	8.45	15.87	15.58	9.17	8.83	-7.88	-7.40	4.801	4.894	4.663	4.731	4.735	0^+	0^{+}
129	77	1086.45	1087.52	8.42	8.43	15.74	16.36	6.57	9.20	-7.78	-7.78	4.814	4.910	4.668	4.736		0^+	11,
130	78	1095.30	1095.94	8.43	8.43	15.41	17.19	8.85	9.59	-7.64	-8.19	4.827	4.925	4.675	4.743	4.742	0^+	0^{+}
131	79	1101.74	1101.87	8.41	8.41	15.28	17.99	6.44	9.97	-7.53	-8.57	4.839	4.941	4.681	4.749		0^+	11,
132	80	1110.31	1109.92	8.41	8.41	15.01	18.83	8.57	10.36	-7.40	-8.99	4.852	4.955	4.687	4.755	4.750	0^+	0^+
33	81	1116.64	1115.74	8.40	8.39	14.91	19.64	6.33	10.75	-6.98	-9.38	4.864	4.970	4.693	4.760		0^+	11,
34	82	1124.96	1123.41	8.40	8.38	14.65	20.49	8.32	11.15	-5.64	-9.80	4.876	4.984	4.699	4.767	4.757	0^+	0^{+}
35	83	1127.17	1126.67	8.35	8.35	10.52	20.88	2.20	11.37	-6.77	-10.00	4.896	5.012	4.706	4.773		0^+	7/2
36	84	1131.08	1131.44	8.32	8.32	6.11	21.45	3.91	11.67	-3.13	-10.31	4.917	5.035	4.718	4.785	4.782	0^+	0^{+}
37	85	1133.12	1134.39	8.27	8.28	5.96	21.85	2.05	11.89	-3.05	-10.51	4.937	5.062	4.725	4.792		0^+	7/2
138	86	1137.02	1138.86	8.24	8.25	5.94	22.44	3.90	12.20	-3.07	-10.82	4.957	5.085	4.738	4.805		0^+	0^{+}
139	87	1138.93	1141.44	8.19	8.21	5.80	22.85	1.90	12.42	-2.98	-11.04	4.977	5.111	4.745	4.812		0^+	7/2
140	88	1142.83	1145.66	8.16	8.18	5.81	23.44	3.91	12.73	-3.01	-11.34	4.997	5.133	4.758	4.824		0^+	0^{+}
141	89	1144.60		8.12		5.67	23.90	1.76	12.97	-2.93	-11.58	5.018	5.159	4.766	4.833		0^+	7/2
142	90	1148.54		8.09		5.71	24.46	3.94	13.26	-2.97	-11.87	5.037	5.180	4.778	4.845		0^+	0+
143	91	1150.17		8.04		5.57	24.96	1.63	13.53	-2.89	-12.13	5.057	5.205	4.788	4.855		0^+	7/2
144	92	1154.17		8.02		5.63	25.50	4.00	13.80	-2.93	-12.41	5.076	5.226	4.799	4.865		0^+	0+
145	93	1155.67		7.97		5.50	25.83	1.50	13.97	-2.86	-12.68	5.097	5.250	4.811	4.877		0^+	7/2
146	94	1159.74		7.94		5.57	26.55	4.07	14.33	-2.91	-12.94	5.115	5.270	4.820	4.886		0^+	0+
47	95	1161.31		7.90		5.64	26.90	1.57	14.52	-2.93	-13.11	5.138	5.302	4.826	4.892		0^+	3/2
48	96	1165.27		7.87		5.53	27.58	3.96	14.86	-2.88	-13.45	5.153	5.314	4.841	4.907		0^+	0+
49	97	1166.90		7.83		5.59	27.97	1.63	15.06	-2.90	-13.64	5.176	5.343	4.848	4.914		0^+	3/2
50	98	1170.77		7.81		5.49	28.58	3.86	15.37	-2.85	-13.95	5.191	5.357	4.862	4.927		0^+	0+
151	99	1172.44		7.76		5.54	29.00	1.68	15.58	-2.86	-14.15	5.213	5.385	4.870	4.935		0^+	3/2
52	100	1176.22		7.74		5.46	29.55	3.78	15.85	-2.82	-14.43	5.228	5.400	4.881	4.946		0^+	0+
153	101	1177.93		7.70		5.49	30.00	1.71	16.07	-2.82	-14.64	5.250	5.426	4.890	4.955		0^+	3/2
154	102	1181.63		7.67		5.41	30.48	3.70	16.32	-2.79	-14.88	5.265	5.442	4.900	4.964		0^+	$0^{'+}$
155	103	1183.34		7.63		5.41	30.88	1.71	16.54	-2.76	-15.09	5.286	5.467	4.909	4.973		0^+	3/2
156	104	1186.97		7.61		5.34	31.35	3.64	16.75	-2.74	-15.31	5.302	5.484	4.916	4.981		0^+	0+
57	105	1188.69		7.57		5.35	31.65	1.72	16.91	-2.74	-15.48	5.323	5.510	4.924	4.988		0^+	1/2
158	106	1192.24		7.55		5.26	32.16	3.54	17.16	-2.68	-15.70	5.338	5.526	4.932	4.996		0^+	0+
159	107	1194.04		7.51		5.35	32.58	1.81	17.36	-2.66	-15.87	5.359	5.551	4.939	5.003		0^+	1/2
160	108	1197.38		7.48		5.15	32.92	3.34	17.53	-2.60	-16.07	5.374	5.568	4.946	5.011		0^+	0+
161	109	1199.11		7.45		5.07	33.31	1.73	17.72	-2.53	-16.24	5.394	5.592	4.954	5.018		0^+	1/2
162	110	1202.37		7.42		4.98	33.62	3.26	17.89	-2.48	-16.41	5.410	5.610	4.960	5.024		0^+	0+
163	111	1203.87		7.39		4.76	34.03	1.50	18.09	-2.26	-16.62	5.428	5.630	4.968	5.032		0^+	1/2
164	112	1207.04		7.36		4.68	34.33	3.17	18.25	-2.25	-16.78	5.444	5.650	4.974	5.037		0^+	0+
- '	113	1207.85		7.32		3.98	34.84	0.80	18.52	-1.88	-17.16	5.457	5.661	4.988	5.051		0^{+}	1/2

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
166	114	1211.09		7.30		4.05	35.45	3.25	18.78	-1.93	-17.30	5.474	5.681	4.992	5.055		0+	0+
167	115	1211.79		7.26		3.94	36.03	0.70	19.05	-1.87	-17.56	5.489	5.696	5.001	5.064		0+	13/2+
168	116	1214.60		7.23		3.51	36.66	2.81	19.36	-1.72	-17.88	5.502	5.708	5.012	5.075		0+	0+
169	117	1215.20		7.19		3.41	37.25	0.60	19.64	-1.66	-18.15	5.516	5.723	5.022	5.085		0+	13/2+
170	118	1217.77		7.16		3.17	37.87	2.57	19.94	-1.57	-18.46	5.530	5.735	5.032	5.096		0+	0 ⁺
171 172	119 120	1218.29 1220.69		7.12 7.10		3.09 2.92	38.46 39.06	0.52 2.40	20.23 20.53	-1.52 -1.45	-18.74 -19.04	5.544 5.557	5.749 5.761	5.042 5.053	5.105 5.116		0^{+}	13/2 ⁺ 0 ⁺
172	120	1220.09		7.10		2.86	39.67	0.46	20.33	-1.45 -1.39	-19.04 -19.33	5.571	5.775	5.063	5.116		0+	13/2+
173	122	1223.41		7.03		2.72	40.26	2.26	21.12	-1.34	-19.62	5.584	5.788	5.074	5.137		0+	0+
175	123	1223.41		6.99		2.66	40.88	0.40	21.42	-1.28	-19.92	5.597	5.801	5.084	5.147		0^{+}	13/2 ⁺
176	124	1225.96		6.97		2.55	41.47	2.15	21.71	-1.22	-20.21	5.611	5.813	5.095	5.157		0^+	0+
177	125	1226.31		6.93		2.50	42.11	0.35	22.02	-1.07	-20.51	5.624	5.826	5.105	5.168		0^+	$13/2^{+}$
178	126	1228.35		6.90		2.39	42.70	2.04	22.32	-0.31	-20.80	5.637	5.838	5.116	5.178		0^+	0^{+}
179	127	1227.71		6.86		1.39		-0.65	22.33	-0.56	-20.81	5.693	5.913	5.116	5.178		0^+	1/2+
180	128	1227.35		6.82		-1.00		-0.35	22.39	<u>0.43</u>	-20.88	5.695	5.913	5.122	5.184		0^+	0^+
σ		3.54													0.016			
Z=5	3 (I)													-				
109	56	889.25	895.98	8.16	8.22		-1.23			-11.81	0.89	4.529	4.514	4.545	4.615		7/2+	0+
110	57	899.32	906.84	8.18	8.24		-1.69	10.07	-0.28	-11.57	0.43	4.546	4.537	4.555	4.624		$7/2^{+}$	7/2+
111	58	912.25	919.41	8.22	8.28	23.00	-1.22	12.93	0.63	-11.49	-0.01	4.561	4.559	4.564	4.633		7/2+	0+
112	59	922.08	929.59	8.23	8.30	22.76	-0.76	9.83	1.53	-11.35	-0.46	4.577	4.581	4.572	4.642		7/2+	5/2+
113	60	934.58	941.71	8.27	8.33	22.33	$\frac{-0.33}{2.20}$	12.50	2.40	-11.13	-0.88	4.592	4.602	4.581	4.650		7/2+	0 ⁺
114	61 62	944.15	062.07	8.28	0.27	22.08	3.29	9.57	0.13	-10.92	-1.32	4.607	4.623	4.589	4.659		$7/2^{+}$ $7/2^{+}$	5/2 ⁺ 0 ⁺
115 116	63	956.18 965.28	963.07 972.30	8.31 8.32	8.37 8.38	21.60 21.13	4.06 4.90	12.03 9.10	0.49 0.91	-10.74 -10.40	-1.69 -2.11	4.621 4.636	4.642 4.663	4.596 4.604	4.665 4.673		7/2 ⁺	5/2 ⁺
117	64	976.97	983.31	8.35	8.40	20.79	5.62	11.69	1.24	-10.40 -10.30	-2.11 -2.46	4.649	4.681	4.610	4.679		7/2 ⁺	0 ⁺
118	65	985.53	991.92	8.35	8.41	20.25	6.29	8.56	1.54	-10.24	-2.80	4.663	4.702	4.615	4.684		7/2 ⁺	1/2 ⁺
119	66	996.83	1002.79	8.38	8.43	19.86	7.12	11.30	1.96	-9.85	-3.21	4.677	4.720	4.623	4.692		7/2+	0+
120	67	1005.20	1010.85	8.38	8.42	19.67	7.80	8.37	2.27	-9.66	-3.56	4.692	4.740	4.630	4.699		7/2+	3/2+
121	68	1015.84	1021.42	8.40	8.44	19.01	8.60	10.64	2.69	-9.46	-3.95	4.705	4.758	4.636	4.705		$7/2^{+}$	$0^{'+}$
122	69	1023.91	1029.32	8.39	8.44	18.71	9.29	8.07	3.01	-9.28	-4.29	4.720	4.778	4.643	4.711		$7/2^{+}$	1/2+
123	70	1034.14	1039.25	8.41	8.45	18.30	10.07	10.23	3.43	-9.12	-4.68	4.733	4.795	4.649	4.718		7/2+	0+
124	71	1041.90	1046.75	8.40	8.44	17.99	10.81	7.76	3.80	-8.93	-5.04	4.747	4.815	4.656	4.724		7/2+	1/2+
125	72	1051.83	1056.29	8.41	8.45	17.69	11.55	9.93	4.18	-8.83	-5.41	4.760	4.831	4.662	4.730		7/2+	0+
126	73	1059.25	1063.43	8.41	8.44	17.35	12.38	7.42	4.63	-8.62	-5.81	4.774	4.849	4.669	4.737	4750	7/2 ⁺	1/2+
127	74 75	1068.99	1072.58	8.42	8.45	17.16	13.06	9.74	4.97	-8.55 -8.46	-6.16	4.787	4.866	4.674	4.742	4.750	$7/2^{+}$ $7/2^{+}$	0 ⁺ 11/2 ⁻
128 129	75 76	1076.07 1085.67	1079.40 1088.24	8.41 8.42	8.43 8.44	16.82 16.68	13.81 14.62	7.08 9.60	5.35 5.78	-8.40 -8.30	-6.52 -6.91	4.800 4.812	4.883 4.898	4.680 4.686	4.748 4.754		7/2 ⁺	0+
130	70 77	1092.63	1088.24	8.40	8.42	16.56	15.37	6.96	6.18	-8.20	-0.31 -7.28	4.825	4.915	4.692	4.759		7/2 ⁺	11/2 ⁻
131	78	1101.92	1103.32	8.41	8.42	16.25	16.21	9.29	6.62	-8.06	-7.69	4.837	4.930	4.698	4.766		7/2 ⁺	0+
132	79	1108.76	1109.65	8.40	8.41	16.13	16.99	6.84	7.02	−7.96	-8.07	4.849	4.945	4.703	4.771		7/2 ⁺	11/2-
133	80	1117.78	1117.91	8.40	8.41	15.86	17.83	9.02	7.47	-7.83	-8.48	4.862	4.960	4.710	4.777		7/2+	0+'
134	81	1124.52	1124.16	8.39	8.39	15.76	18.62	6.74	7.88	-6.31	-8.87	4.873	4.974	4.715	4.782		7/2+	$11/2^{-}$
135	82	1133.28	1131.95	8.39	8.38	15.50	19.47	8.76	8.32	-5.60	-9.29	4.885	4.988	4.721	4.788		$7/2^{+}$	0+
136	83	1135.66	1135.78	8.35	8.35	11.14	19.86	2.38	8.49	-6.34	-9.48	4.905	5.015	4.728	4.795		$7/2^{+}$	7/2-
137	84	1139.89	1140.66	8.32	8.33	6.61	20.48	4.23	8.81	-3.39	-9.82	4.926	5.038	4.741	4.808		7/2+	0+
138	85	1142.13	1144.36	8.28	8.29	6.47	20.89	2.24	9.01	-3.32	-10.03	4.946	5.065	4.749	4.815		7/2 ⁺	7/2-
139	86	1146.34	1148.91	8.25	8.27	6.45	21.51	4.21	9.32	-3.33	-10.36	4.965	5.087	4.762	4.829		7/2 ⁺	0 ⁺
140	87	1148.45	1152.12	8.20	8.23	6.32 6.33	21.95 22.56	2.11	9.52 9.84	-3.26 -3.28	-10.58 -10.90	4.986	5.112 5.134	4.770 4.783	4.837		7/2 ⁺ 7/2 ⁺	7/2 ⁻ 0 ⁺
141 142	88 89	1152.67 1154.66	1152.12	8.17 8.13	8.23	6.21	22.56	4.22 1.99	9.84 10.06	-3.28 -3.21	-10.90 -11.15	5.005 5.025	5.134	4.783 4.792	4.849 4.859		7/2+ 7/2+	7/2 ⁻
143	90	1154.00	1132,12	8.10	0.23	6.23	23.62	4.24	10.36	-3.21 -3.24	-11.13 -11.45	5.044	5.180	4.792	4.870		7/2 ⁺	0+
144	91	1160.79		8.06		6.13	24.15	1.89	10.62	-3.17	-11.43 -11.71	5.064	5.204	4.815	4.881		7/2 ⁺	7/2 ⁻
	٠.			0.00		0.10				J		0.001	0.201				- / =	.,_

Table 1 (continued)

	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
45	92	1165.06		8.03		6.16	24.69	4.27	10.89	-3.20	-11.99	5.082	5.224	4.826	4.892		7/2+	0+
46	93	1166.85		7.99		6.06	25.15	1.79	11.18	-3.14	-12.27	5.103	5.248	4.837	4.903		7/2+	7/2
17	94	1171.16		7.97		6.10	25.75	4.31	11.42	-3.17	-12.53	5.120	5.268	4.847	4.913		7/2+	0+
48	95	1172.90		7.92		6.05	26.11	1.74	11.59	-3.20	-12.70	5.143	5.298	4.853	4.919		$7/2^{+}$	3/2
19	96	1177.21		7.90		6.05	26.80	4.31	11.94	-3.14	-13.05	5.158	5.311	4.868	4.934		7/2+	0+
50	97	1179.02		7.86		6.12	27.18	1.81	12.12	-3.16	-13.23	5.180	5.340	4.875	4.940		7/2+	3/2
51	98	1183.21		7.84		6.00	27.81	4.19	12.44	-3.10	-13.56	5.195	5.353	4.889	4.954		7/2+	0+
52	99	1185.08		7.80		6.06	28.22	1.87	12.64	-3.11	-13.75	5.216	5.380	4.896	4.961		7/2+	3/2
3	100	1189.15		7.77		5.94	28.78	4.07	12.93	-3.06	-14.03	5.231	5.395	4.908	4.972		$7/2^{+}$	0+
4	101	1191.05		7.73		5.97	29.20	1.90	13.12	-3.05	-14.23	5.252	5.420	4.916	4.980		7/2+	3/2
5	102	1195.00		7.71		5.85	29.69	3.95	13.37	-3.00	-14.48	5.267	5.437	4.925	4.990		$7/2^{+}$	0+
6	103	1196.91		7.67		5.86	30.11	1.91	13.57	-2.98	-14.68	5.288	5.461	4.934	4.998		$7/2^{+}$	3/2 0 ⁺
7	104	1200.76		7.65		5.76	30.54	3.85	13.79	-2.94	-14.89	5.303	5.478	4.942	5.006		$7/2^{+}$	-
8	105	1202.64		7.61		5.73	30.86	1.88	13.95	-2.90	-15.09	5.323	5.502	4.950	5.014		$7/2^{+}$	3/2 0 ⁺
9	106	1206.40		7.59		5.64	31.32	3.76	14.16	-2.87	-15.28	5.338	5.520	4.956	5.020		$7/2^{+}$	_
)	107	1208.35		7.55		5.71	31.66	1.95	14.31	-2.85	-15.44	5.359	5.544	4.963	5.027		$7/2^{+}$	$\frac{1}{2}$
1	108	1211.90		7.53		5.50	32.05	3.55	14.52	-2.78	-15.64	5.373	5.561	4.970	5.034		$7/2^{+}$	_
2	109	1213.80		7.49		5.45	32.41	1.90	14.69	-2.72	-15.80	5.393	5.584	4.977	5.040		$7/2^{+}$ $7/2^{+}$	1/2 0 ⁺
3	110 111	1217.23		7.47		5.33	32.75	3.43	14.86	-2.66	-16.00	5.408	5.601	4.983 4.991	5.047		7/2+ 7/2+	-
4 5	111	1218.93 1222.27		7.43 7.41		5.13 5.04	33.15 33.47	1.70 3.34	15.06 15.23	-2.49 -2.47	-16.19 -16.38	5.426 5.442	5.622 5.640	4.991	5.055 5.060		7/2+ 7/2+	1/2 0 ⁺
5	113	1223.47		7.41		4.54	34.14	1.20	15.23	-2.47 -2.18	-16.38 -16.71	5.456	5.653	5.009	5.072		7/2 ⁺	1/2
	114	1225.47		7.37 7.35		4.54	34.14	3.37	15.02	-2.18 -2.22	-16.71 -16.86	5.472	5.672	5.009	5.072		7/2 ⁺	0+
7 3	115	1220.84		7.33 7.31		4.34	35.07	0.97	16.02	-2.22 -2.17	-10.80 -17.11	5.487	5.689	5.022	5.085		7/2 ⁺	13,
) }	116	1230.95		7.31		4.34 4.11	35.71	3.14	16.02	-2.17 -2.03	-17.11 -17.43	5.500	5.701	5.022	5.096		$7/2^{+}$	0+
)	117	1230.93		7.28 7.25		4.11	36.28	0.89	16.53	-2.03 -1.97	-17.43 -17.69	5.514	5.716	5.042	5.105		7/2 ⁺	13
1	118	1234.73		7.22		3.78	36.90	2.89	16.96	-1.87 -1.87	-17.03 -18.00	5.527	5.728	5.052	5.115		7/2 ⁺	0+
2	119	1235.55		7.18		3.71	37.49	0.82	17.26	-1.82	-18.28	5.541	5.742	5.062	5.125		7/2 ⁺	13,
3	120	1233.35		7.16		3.52	38.09	2.70	17.56	-1.75	-18.59	5.554	5.754	5.073	5.135		7/2 ⁺	0+
4	121	1239.01		7.10		3.46	38.69	0.76	17.36	-1.73 -1.70	-18.33 -18.87	5.568	5.768	5.082	5.145		7/2 ⁺	13,
‡ 5	122	1239.01		7.12		3.33	39.29	2.57	18.17	-1.70 -1.64	-18.87 -19.17	5.581	5.780	5.093	5.155		7/2 ⁺	0+
5	123	1241.38		7.06		3.27	39.89	0.70	18.47	-1.58	-19.17 -19.46	5.594	5.794	5.102	5.165		7/2 ⁺	13
7	123	1244.74		7.03		3.16	40.49	2.46	18.78	-1.53	-19.76	5.607	5.806	5.113	5.175		7/2 ⁺	0+
3	125	1245.39		7.00		3.11	41.10	0.65	19.08	-0.90	-20.05	5.620	5.819	5.123	5.185		7/2 ⁺	13,
9	126	1247.73		6.97		2.99	41.70	2.34	19.38	-0.49	-20.35	5.633	5.831	5.133	5.195		7/2 ⁺	0+
)	127	1247.79		6.93		1.70	41.71	-0.64	19.38	-0.96	-20.35	5.689	5.906	5.134	5.195		7/2 ⁺	1/2
1	128	1246.81		6.89		-0.92	41.85	$\frac{0.01}{-0.28}$	19.46	<u>0.39</u>	-20.45	5.687	5.899	5.140	5.202		7/2 ⁺	0+
•	120	4.22		0.03		0.32	11.03		13.10	0.55	20.15	3.007	3.033	3.1 10	0.008		,,2	Ü
= 5	4 (Xe)																	
2	58	913.31	921.77	8.15	8.23		-0.16		1.06	-11.91	<u>0.33</u>	4.579	4.569	4.590	4.659		0+	0^+
3	59	923.57	932.02	8.17	8.25		0.73	10.26	1.49	-11.77	-0.11	4.595	4.591	4.599	4.668		0+	5/:
4	60	936.49	944.97	8.21	8.29	23.18	1.58	12.92	1.91	-11.54	-0.52	4.609	4.611	4.606	4.675		0+	0^{+}
5	61	946.48	954.61	8.23	8.30	22.92	2.46	9.99	2.33	-11.32	-0.95	4.624	4.632	4.615	4.684		0+	5/2
5	62	958.91	967.07	8.27	8.34	22.42	3.22	12.43	2.73	-11.14	-1.32	4.637	4.650	4.621	4.689	4.721	0+	0^+
7	63	968.41	976.28	8.28	8.34	21.93	4.04	9.50	3.13	-10.78	-1.73	4.651	4.671	4.629	4.697		0+	5/2
3	64	980.48	988.25	8.31	8.37	21.57	4.75	12.07	3.51	-10.68	-2.08	4.663	4.688	4.634	4.702	4.739	0+	0^+
)	65	989.41	997.03	8.31	8.38	21.00	5.41	8.92	3.88	-10.62	-2.41	4.677	4.708	4.639	4.707		0+	1/2
)	66	1001.11	1008.48	8.34	8.40	20.63	6.24	11.71	4.28	-10.21	-2.82	4.690	4.726	4.646	4.715	4.751	0^+	0^{+}
1	67	1009.85	1016.86	8.35	8.40	20.45	6.92	8.74	4.65	-10.02	-3.17	4.705	4.746	4.653	4.721		0^+	3/2
2	68	1020.85	1027.81	8.37	8.42	19.74	7.70	11.00	5.01	-9.82	-3.55	4.718	4.764	4.659	4.727	4.759	0^+	0^+
3	69	1029.28	1035.77	8.37	8.42	19.43	8.38	8.43	5.37	-9.64	-3.89	4.732	4.784	4.665	4.734		0^+	1/
4	70	1039.87	1046.26	8.39	8.44	19.02	9.16	10.59	5.73	-9.48	-4.28	4.745	4.801	4.672	4.740	4.766	0^+	0^+
		1047.99	1053.86	8.38	8.43	18.71	9.89	8.12	6.09	-9.29	-4.64	4.759	4.820	4.678	4.746		0^+	1/2

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
126	72	1058.28	1063.89	8.40	8.44	18.41	10.63	10.29	6.45	-9.18	-5.01	4.772	4.836	4.684	4.752	4.772	0+	0+
127	73	1066.07	1071.13	8.39	8.43	18.08	11.45	7.79	6.82	-8.98	-5.40	4.785	4.854	4.691	4.758	4.775	0^+	$1/2^{+}$
128	74	1076.16	1080.74	8.41	8.44	17.88	12.14	10.09	7.17	-8.91	-5.75	4.797	4.870	4.696	4.764	4.777	0^+	0+
129	75	1083.61	1087.65	8.40	8.43	17.54	12.89	7.45	7.54	-8.71	-6.18	4.810	4.886	4.703	4.770	4.778	0+	1/2+
130	76	1093.56	1096.91	8.41	8.44	17.40	13.67	9.95	7.89	-8.66	-6.50	4.823	4.903	4.708	4.775	4.782	0+	0+
131	77	1100.88	1103.51	8.40	8.42	17.27	14.43	7.32	8.25	-8.56	-6.86	4.835	4.919	4.713	4.781	4.781	0+	11/2-
132	78	1110.55	1112.45	8.41	8.43	16.99	15.25	9.67	8.63	-8.43	-7.26	4.847	4.934	4.719	4.787	4.786	0+	0+
133	79	1117.75	1118.88	8.40	8.41	16.87	16.01	7.20	8.99	-8.33	-7.63	4.859	4.949	4.725	4.792	4.783	0+	11/2-
134	80	1127.16	1127.43	8.41	8.41	16.61	16.85	9.41	9.38	-8.21	-8.04	4.871	4.964	4.731	4.798	4.790	0+	0+
135	81	1134.27	1133.80	8.40	8.40	16.52	17.63	7.11	9.75	-6.43	-8.42	4.883	4.978	4.736	4.803	4700	0^{+}	11/2
136	82	1143.43	1141.88	8.41	8.40	16.27	18.47	9.16	10.15	-5.95	-8.83	4.894	4.992	4.741	4.809	4.796	0 ⁺	0 ⁺
137	83	1146.03	1145.91	8.37	8.36	11.76	18.86	2.60	10.37	-6.75	-9.03	4.914	5.018	4.748	4.815	4.809	0 ⁺	7/2 ⁻ 0 ⁺
138	84	1150.60	1151.57	8.34	8.34	7.17	19.52	4.57	10.71	-3.66	-9.39	4.934	5.041	4.763	4.829	4.828	-	-
139	85	1153.06	1155.31	8.30	8.31	7.03	19.94	2.46	10.93	-3.60	-9.60	4.954	5.067	4.770	4.837	4.841	0^{+}	7/2 ⁻ 0 ⁺
140	86 87	1157.62	1160.72	8.27	8.29	7.02	20.60	4.56	11.28	-3.60	-9.95	4.973	5.089	4.784 4.792	4.851 4.859	4.857	0 ⁺	7/2 ⁻
141 142	88	1159.96 1164.51	1164.01 1169.11	8.23 8.20	8.26 8.23	6.90 6.89	21.03 21.68	2.34 4.55	11.51	-3.54 -3.55	-10.18 -10.51	4.993 5.012	5.114 5.135	4.792	4.859	4.869 4.884	0 ⁺	0 ⁺
143	89	1164.51	1172.15	8.16	8.20	6.80	22.16	2.25	11.84 12.10	-3.33 -3.49	-10.31 -10.76	5.032	5.159	4.815	4.872	4.894	0+	7/2-
143	90	1171.30	1172.13	8.13	8.17	6.79	22.76	4.54	12.10	-3.49 -3.51	-10.76 -11.06	5.052	5.180	4.827	4.893	4.908	0+	0+
144	91	1171.30	1170.50	8.09	8.14	6.70	23.29	2.16	12.40	-3.31 -3.45	-11.33	5.070	5.204	4.838	4.904	4.500	0+	7/2-
145	92	1173.40	1179.39	8.07	8.11	6.71	23.84	4.55	12.07	-3.43 -3.47	-11.53 -11.62	5.088	5.224	4.849	4.915	4.932	0+	0+
147	93	1180.08	1104,12	8.03	0.11	6.62	24.41	2.07	13.23	-3.41	-11.02 -11.90	5.108	5.247	4.861	4.926	4.332	0+	7/2 ⁻
148	94	1184.66		8.00		6.65	24.92	4.58	13.50	-3.41 -3.43	-11.36	5.126	5.267	4.871	4.936		0^{+}	0+
149	95	1186.64		7.96		6.56	25.33	1.98	13.74	-3.43 -3.37	-12.10 -12.45	5.146	5.289	4.883	4.948		0+	7/2 ⁻
150	96	1191.24		7.94		6.58	25.97	4.60	14.03	-3.39	-12.68	5.162	5.309	4.892	4.957		0+	0+
151	97	1193.23		7.90		6.59	26.33	1.99	14.21	-3.42	-12.86	5.184	5.336	4.898	4.963		0+	3/2-
152	98	1197.74		7.88		6.50	26.97	4.51	14.53	-3.34	-13.18	5.199	5.350	4.912	4.976		0^{+}	0+
153	99	1199.81		7.84		6.58	27.37	2.07	14.73	-3.36	-13.37	5.219	5.376	4.918	4.983		0+	3/2-
154	100	1204.16		7.82		6.42	27.94	4.35	15.01	-3.28	-13.66	5.234	5.391	4.930	4.995		0+	0+
155	101	1206.27		7.78		6.46	28.34	2.11	15.22	-3.28	-13.85	5.254	5.416	4.938	5.002		0^+	$3/2^{-}$
156	102	1210.46		7.76		6.30	28.83	4.19	15.46	-3.21	-14.10	5.269	5.432	4.947	5.012		0^+	0+
157	103	1212.58		7.72		6.31	29.24	2.12	15.67	-3.19	-14.29	5.289	5.456	4.955	5.019		0^+	$3/2^{-}$
158	104	1216.63		7.70		6.17	29.66	4.05	15.87	-3.14	-14.51	5.304	5.473	4.963	5.027		0^+	0+
159	105	1218.71		7.66		6.13	30.02	2.08	16.07	-3.09	-14.70	5.324	5.496	4.971	5.035		0^+	$3/2^{-}$
160	106	1222.66		7.64		6.03	30.42	3.95	16.26	-3.05	-14.89	5.339	5.514	4.977	5.041		0^+	0^+
161	107	1224.72		7.61		6.01	30.68	2.06	16.37	-3.03	-15.05	5.358	5.538	4.983	5.047		0^+	$1/2^{-}$
162	108	1228.53		7.58		5.87	31.15	3.81	16.63	-2.96	-15.26	5.373	5.554	4.991	5.054		0^+	0^+
163	109	1230.60		7.55		5.88	31.49	2.07	16.80	-2.90	-15.42	5.392	5.577	4.997	5.060		0^+	$1/2^{-}$
164	110	1234.21		7.53		5.68	31.84	3.61	16.98	-2.84	-15.62	5.407	5.594	5.003	5.067		0^+	0^+
165	111	1236.10		7.49		5.50	32.23	1.89	17.17	-2.71	-15.81	5.424	5.614	5.011	5.074		0+	1/2-
166	112	1239.63		7.47		5.42	32.59	3.53	17.36	-2.68	-16.01	5.439	5.631	5.017	5.080		0+	0+
167	113	1241.14		7.43		5.04	33.29	1.51	17.67	-2.45	-16.31	5.454	5.646	5.028	5.091		0+	1/2-
168	114	1244.67		7.41		5.04	33.58	3.53	17.83	-2.48	-16.48	5.470	5.665	5.033	5.096		0+	0+
169	115	1245.89		7.37		4.75	34.10	1.22	18.08	-2.44	-16.71	5.485	5.681	5.041	5.104		0+	13/2+
170	116	1249.32		7.35		4.65	34.72	3.43	18.37	-2.30	-17.01	5.498	5.694	5.051	5.114		0+	0 ⁺
171	117	1250.48		7.31		4.59	35.28	1.16	18.64	-2.25	-17.27	5.512	5.709	5.060	5.123		0 ⁺	13/2+
172	118	1253.66		7.29		4.34	35.89	3.18	18.93	-2.15	-17.58	5.525	5.721	5.071	5.133		0 ⁺	0 ⁺
173	119	1254.75		7.25		4.27	36.46	1.09	19.20	-2.10	-17.85	5.539	5.736	5.080	5.142		0 ⁺	13/2+
174	120	1257.75		7.23		4.09	37.06	3.00	19.50	-2.03	-18.15	5.552	5.748	5.090	5.153		0 ⁺	0 ⁺
175	121	1258.79		7.19		4.04	37.64	1.04	19.78	-1.98	-18.43	5.566	5.762	5.100	5.162		0 ⁺	13/2 ⁺
176 177	122 123	1261.65		7.17		3.90	38.24	2.86	20.07	-1.92	-18.73	5.579	5.774	5.110	5.172		0^{+}	0 ⁺
177	123	1262.64 1265.38		7.13 7.11		3.85 3.73	38.83 39.42	0.99 2.74	20.36 20.64	-1.87 -1.81	-19.01 -19.31	5.592 5.605	5.788 5.800	5.119 5.130	5.182 5.192		0+	13/2 ⁺ 0 ⁺
178 179	124	1265.38		7.11 7.07		3.73 3.69	39.42 40.02	0.95	20.64	-1.81 -1.43	-19.51 -19.60	5.618	5.813	5.130	5.192		0+	13/2 ⁺
1/9	123	1200.55		7.07		3.09	40.02	0.95	20.94	-1.45	-19.00	3.018	3.013	3.139	3.201		U.	13/2

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
180	126	1268.96		7.05		3.58	40.61	2.63	21.23	-0.72	-19.89	5.631	5.825	5.150	5.211		0+	0+
181	127	1268.32		7.01		1.99	40.61	-0.64	21.23	-1.16	-19.90	5.686	5.900	5.150	5.212		0^+	1/2
82	128	1268.15		6.97		-0.81	40.80	-0.17	21.34	<u>0.33</u>	-20.01	5.681	5.887	5.157	5.219		0^+	0^+
7		5.52													0.018			
	5 (Cs)																	
113	58	911.34	920.79	8.06	8.15		-0.91		<u>-1.97</u>	-12.36	0.75	4.600	4.582	4.619	4.688		7/2+	0+
114	59	922.04	931.78	8.09	8.17		_0.03	10.70	-1.52	-12.22	0.32	4.615	4.604	4.627	4.695		7/2+	5/2
15	60	935.39		8.13		24.05	0.81	13.35	$\frac{-1.10}{2.32}$	-11.95	-0.08	4.628	4.623	4.634	4.703		7/2+	0+
16	61	945.81	067.04	8.15	0.07	23.76	1.65	10.41	$\frac{-0.68}{0.34}$	-11.71	-0.50	4.642	4.643	4.642	4.710		7/2+	5/2
17	62	958.57	967.81	8.19	8.27	23.18	2.39	12.77	$\frac{-0.34}{0.05}$	-11.51	-0.86	4.654	4.661	4.647	4.715	4700	$7/2^{+}$	0+
18	63	968.46	977.80	8.21	8.29	22.65	3.18	9.89	0.05	-11.15	-1.26	4.668	4.680	4.654	4.722	4.783 4.790	7/2 ⁺	5/2 0 ⁺
19	64 65	980.86	989.76	8.24	8.32	22.29	3.89	12.40	0.38	-11.05	-1.61	4.680	4.697	4.659	4.727		7/2 ⁺ 7/2 ⁺	3/2
20		990.08	999.42	8.25	8.33	21.62	4.55	9.22	0.68	-10.95	-1.97	4.694	4.718	4.666	4.734	4.792	7/2+ 7/2+	3/2 0 ⁺
21 22	66 67	1002.20 1011.26	1010.70 1019.81	8.28 8.29	8.35 8.36	21.34 21.18	5.37 6.06	12.12 9.06	1.09 1.41	-10.58 -10.39	-2.35 -2.70	4.706 4.719	4.734 4.754	4.671 4.677	4.739 4.745	4.777 4.777	7/2+ 7/2+	3/2
23	68	1011.26	1019.81	8.29 8.31	8.38	20.46	6.82	11.40	1.41	-10.39 -10.18	-2.70 -3.08	4.719	4.734	4.677	4.743	4.777	7/2 ⁺	3/2 0+
24	69	1022.00	1030.79	8.32	8.38	20.46	7.51	8.76	2.14	-10.18 -10.02	-3.42	4.732	4.771	4.689	4.757	4.782	7/2 ⁺	1/2
25	70	1031.42	1039.55	8.34	8.40	19.76	8.28	11.00	2.55	-9.85	-3.42 -3.80	4.758	4.790	4.695	4.763	4.788	7/2 ⁺	0+
26	71	1050.90	1058.30	8.34	8.40	19.48	9.00	8.48	2.91	-9.69	-4.16	4.772	4.826	4.701	4.769	4.787	7/2 ⁺	1/2
27 27	72	1061.58	1068.27	8.36	8.41	19.16	9.75	10.68	3.30	-9.56	-4.53	4.784	4.842	4.707	4.775	4.794	7/2 ⁺	0+
28	73	1069.78	1076.03	8.36	8.41	18.88	10.53	8.20	3.71	-9.39	-4.91	4.797	4.859	4.713	4.781	4.792	7/2 ⁺	1/2
29	74	1080.23	1085.67	8.37	8.42	18.65	11.24	10.45	4.07	-9.30	-5.26	4.809	4.875	4.719	4.786	4.798	7/2 ⁺	0+
30	75	1088.14	1093.14	8.37	8.41	18.36	12.07	7.91	4.53	-9.13	-5.67	4.822	4.892	4.725	4.792	4.799	7/2 ⁺	1/2
31	76	1098.42	1102.37	8.38	8.42	18.19	12.75	10.28	4.86	-9.06	-5.99	4.834	4.908	4.730	4.797	4.803	7/2 ⁺	0+
32	77	1106.11	1109.54	8.38	8.41	17.97	13.48	7.69	5.23	-8.96	-6.35	4.846	4.923	4.735	4.802	4.800	7/2 ⁺	11
33	78	1116.21	1118.53	8.39	8.41	17.79	14.29	10.10	5.66	-8.83	-6.74	4.858	4.938	4.741	4.808	4.804	7/2+	0+
34	79	1123.80	1125.42	8.39	8.40	17.69	15.04	7.59	6.05	-8.74	-7.10	4.870	4.954	4.746	4.813	4.803	7/2+	11,
35	80	1133.65	1134.18	8.40	8.40	17.44	15.87	9.85	6.49	-8.62	-7.51	4.881	4.968	4.752	4.819	4.807	7/2+	0+
36	81	1141.16	1141.01	8.39	8.39	17.36	16.64	7.51	6.89	-6.86	-7.87	4.892	4.982	4.757	4.824	4.806	7/2+	11
37	82	1150.77	1149.29	8.40	8.39	17.12	17.49	9.61	7.34	-6.28	-8.29	4.904	4.996	4.762	4.829	4.813	7/2+	0+
38	83	1153.54	1153.70	8.36	8.36	12.38	17.88	2.77	7.51	-6.73	-8.49	4.923	5.022	4.769	4.836	4.826	$7/2^{+}$	7/2
39	84	1158.50	1159.59	8.33	8.34	7.73	18.61	4.96	7.90	-3.95	-8.88	4.943	5.044	4.785	4.851	4.842	$7/2^{+}$	0^+
40	85	1161.15	1164.01	8.29	8.31	7.61	19.02	2.65	8.09	-3.89	-9.09	4.963	5.070	4.793	4.859	4.855	$7/2^{+}$	7/2
41	86	1166.07	1169.51	8.27	8.29	7.57	19.73	4.92	8.45	-3.89	-9.46	4.983	5.091	4.808	4.874	4.869	$7/2^{+}$	0^+
42	87	1168.63	1173.62	8.23	8.26	7.48	20.18	2.56	8.67	-3.83	-9.70	5.002	5.116	4.816	4.882	4.883	$7/2^{+}$	7/2
43	88	1173.52	1178.84	8.21	8.24	7.45	20.85	4.89	9.01	-3.84	-10.04	5.021	5.137	4.830	4.896	4.897	$7/2^{+}$	0^+
44	89	1176.01	1182.51	8.17	8.21	7.38	21.35	2.49	9.25	-3.79	-10.30	5.040	5.160	4.840	4.905	4.906	7/2+	7/2
45	90	1180.88	1187.37	8.14	8.19	7.36	21.98	4.87	9.58	-3.79	-10.62	5.059	5.181	4.853	4.918	4.919	7/2+	0^+
46	91	1183.30	1190.95	8.10	8.16	7.29	22.51	2.42	9.84	-3.75	-10.89	5.078	5.204	4.863	4.929	4.928	$7/2^{+}$	7/:
47	92	1188.15	1195.47	8.08	8.13	7.27	23.09	4.85	10.14	-3.75	-11.18	5.096	5.224	4.875	4.940		7/2+	0+
48	93	1190.51	1198.82	8.04	8.10	7.21	23.66	2.36	10.43	-3.70	-11.46	5.115	5.246	4.886	4.951		7/2+	7/:
49	94	1195.34		8.02		7.19	24.18	4.83	10.68	-3.70	-11.73	5.133	5.266	4.896	4.961		7/2+	0+
50	95	1197.62		7.98		7.11	24.72	2.28	10.98	-3.65	-12.02	5.152	5.288	4.908	4.973		7/2+	7/:
51	96	1202.45		7.96		7.11	25.24	4.83	11.21	-3.65	-12.25	5.168	5.307	4.917	4.982		7/2 ⁺	0+
52	97	1204.64		7.93		7.02	25.62	2.19	11.41	-3.58	-12.55	5.188	5.329	4.929	4.994		7/2 ⁺	7/2 0 ⁺
53	98	1209.45		7.90		7.00	26.24	4.81	11.71	-3.59	-12.75	5.204	5.348	4.937	5.001		$7/2^{+}$	
54 55	99	1211.69		7.87		7.05	26.61	2.24	11.88	-3.61	-12.93	5.224	5.374	4.943	5.007		7/2 ⁺	3/2 0 ⁺
55 56	100	1216.33		7.85		6.88	27.18	4.64	12.17	-3.51	-13.22	5.238	5.388	4.955	5.019		7/2 ⁺	-
56 57	101	1218.62		7.81		6.93	27.57	2.29	12.35	-3.51	-13.40	5.258	5.413	4.961	5.025		7/2 ⁺	3/2 0 ⁺
57 = 0	102	1223.06		7.79 7.76		6.73	28.06	4.44	12.60	-3.43	-13.66	5.273	5.428	4.971	5.035		7/2 ⁺	-
58 59	103 104	1225.36 1229.63		7.76		6.74	28.45	2.30	12.78	-3.40	-13.84	5.292	5.452	4.978	5.042		7/2 ⁺	3/2 0 ⁺
		1779.03		7.73		6.57	28.87	4.27	13.00	-3.34	-14.06	5.306	5.468	4.986	5.050		$7/2^{+}$	U.

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R_p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
161	106	1236.03	· ·	7.68	· ·	6.40	29.63	4.15	13.37	-3.24	-14.44	5.340	5.508	5.000	5.063	· ·	7/2+	0+
162	107	1238.22		7.64		6.34	29.87	2.19	13.50	-3.22	-14.59	5.359	5.532	5.005	5.069		7/2+	$1/2^{-}$
163	108	1242.26		7.62		6.23	30.36	4.04	13.73	-3.15	-14.82	5.373	5.548	5.013	5.076		$7/2^{+}$	0^+
164	109	1244.49		7.59		6.27	30.69	2.23	13.89	-3.10	-14.97	5.392	5.571	5.019	5.082		7/2+	1/2-
165	110	1248.29		7.57		6.03	31.06	3.80	14.08	-3.04	-15.19	5.406	5.586	5.026	5.089		7/2+	0+
166	111	1250.37		7.53		5.88	31.44	2.08	14.27	-2.94	-15.38	5.423	5.607	5.033	5.096		7/2+	1/2-
167	112	1254.10		7.51		5.81	31.83	3.73	14.47	-2.90	-15.59	5.438	5.623	5.039	5.102		7/2 ⁺	0+
168	113	1255.92		7.48		5.55	32.45	1.82	14.78	-2.74	-15.86	5.453	5.639	5.049	5.112		$7/2^{+}$	1/2 ⁻ 0 ⁺
169 170	114 115	1259.62 1261.09		7.45 7.42		5.52 5.17	32.78 33.28	3.70 1.47	14.95 15.20	-2.74 -2.56	-16.04 -16.41	5.468 5.481	5.656 5.669	5.055 5.067	5.117 5.130		7/2 ⁺ 7/2 ⁺	1/2
170 171	116	1264.83		7.42		5.21	33.88	3.74	15.20	-2.50 -2.59	-16.41 -16.56	5.496	5.687	5.072	5.134		7/2 ⁺	0+
172	117	1266.26		7.36		5.17	34.42	1.43	15.78	-2.55	-16.81	5.511	5.702	5.080	5.142		7/2 ⁺	13/2
173	118	1269.76		7.34		4.93	35.03	3.50	16.10	-2.45	-17.11	5.524	5.715	5.090	5.152		7/2 ⁺	0+
174	119	1271.14		7.31		4.88	35.59	1.38	16.39	-2.41	-17.38	5.538	5.729	5.099	5.161		7/2+	13/2
175	120	1274.46		7.28		4.70	36.21	3.32	16.71	-2.33	-17.68	5.551	5.742	5.109	5.171		7/2+	0+
176	121	1275.79		7.25		4.65	36.78	1.33	17.00	-2.29	-17.96	5.564	5.756	5.118	5.180		$7/2^{+}$	13/2
177	122	1278.97		7.23		4.51	37.39	3.18	17.32	-2.22	-18.26	5.577	5.768	5.128	5.190		$7/2^{+}$	0+
178	123	1280.25		7.19		4.46	37.97	1.28	17.61	-2.17	-18.54	5.590	5.781	5.137	5.199		7/2+	13/2
179	124	1283.31		7.17		4.34	38.57	3.06	17.93	-2.12	-18.84	5.603	5.794	5.147	5.209		7/2+	0^+
180	125	1284.56		7.14		4.31	39.17	1.25	18.23	-1.66	-19.13	5.616	5.807	5.156	5.218		$7/2^{+}$	13/2
81	126	1287.50		7.11		4.19	39.77	2.94	18.54	-1.04	-19.43	5.628	5.819	5.166	5.228		7/2+	0+
82	127	1286.86		7.07		2.30	39.77	-0.64	18.54	-1.32	-19.44	5.683	5.893	5.166	5.228		7/2+	1/2
183	128	1286.80		7.03		-0.70	39.99	-0.06	18.65	0.27	-19.56	5.675	5.877	5.175	5.236		$7/2^{+}$	0^+
7 -	C (D-)	6.12													0.025			
z = 5 116	6 (Ba) 60	936.57		8.07			0.08		1.17	-12.34	0.24	4.645	4.633	4.659	4.727		0^+	0^{+}
117	61	947.38	958.15	8.10	8.19		0.90	10.82	1.57	-12.10	$\frac{0.21}{-0.17}$	4.659	4.652	4.666	4.734		0^{+}	5/2+
118	62	960.53		8.14		23.97	1.62	13.15	1.96	-11.89	-0.53	4.670	4.669	4.671	4.739		0+	0+
119	63	970.81	981.27	8.16	8.25	23.43	2.40	10.28	2.35	-11.52	-0.91	4.683	4.688	4.677	4.745		0^+	5/2+
120	64	983.59	993.64	8.20	8.28	23.05	3.10	12.78	2.73	-11.42	-1.27	4.694	4.705	4.682	4.750	4.809	0^{+}	0^{+}
121	65	993.18	1003.56	8.21	8.29	22.38	3.78	9.60	3.10	-11.32	-1.62	4.708	4.724	4.689	4.756	4.818	0^+	3/2
122	66	1005.67	1015.50	8.24	8.32	22.08	4.56	12.49	3.47	-10.94	-2.00	4.719	4.741	4.693	4.761	4.815	0^+	0^+
123	67	1015.10	1024.62	8.25	8.33	21.92	5.25	9.43	3.84	-10.75	-2.34	4.732	4.760	4.699	4.767	4.814	0+	3/2+
124	68	1026.87	1036.12	8.28	8.36	21.20	6.02	11.77	4.21	-10.54	-2.72	4.745	4.777	4.705	4.773	4.819	0+	0+
25	69	1035.97	1044.77	8.29	8.36	20.87	6.69	9.10	4.55	-10.38	-3.06	4.758	4.796	4.711	4.778	4.818	0+	1/2+
26	70	1047.34	1055.84	8.31	8.38	20.47	7.47	11.37	4.92	-10.20	-3.44	4.770	4.813	4.717	4.784	4.822	0+	0+
27	71	1056.17	1064.06	8.32	8.38	20.20	8.18	8.83	5.27	-10.04	-3.79	4.783	4.831	4.722	4.790	4.820	0+	1/2+
28	72 73	1067.21	1074.70	8.34	8.40	19.87	8.93 9.70	11.04	5.63	-9.91	-4.16	4.795	4.847	4.728	4.795	4.826 4.825	0 ⁺	0 ⁺
29 30	73 74	1075.77 1086.56	1082.45 1092.72	8.34 8.36	8.39 8.41	19.60 19.35	9.70 10.40	8.56 10.79	5.99 6.33	-9.75	-4.53	4.808	4.864 4.880	4.734	4.801 4.806		0+	1/2 ⁺ 0 ⁺
31	74 75	1086.56	1100.22	8.36	8.40	19.35	11.25	8.30	6.72	-9.65 -9.49	-4.89 -5.29	4.820 4.833	4.880 4.897	4.739 4.746	4.806	4.828 4.828	0+	1/2
32	75 76	1105.46	1110.22	8.37	8.41	18.90	11.23	10.60	7.04	-9.49 -9.41	-5.62	4.833	4.897	4.740	4.817	4.830	0+	0+
.32	76 77	1113.52	1110.04	8.37 8.37	8.40	18.90	12.64	8.06	7.04 7.41	-9.41 -9.25	-5.62 -6.06	4.844	4.912	4.750 4.757	4.817	4.830	0+	1/2
34	77 78	1113.32	1117.23	8.39	8.41	18.51	13.42	10.45	7.41	-9.23 -9.19	-6.35	4.868	4.943	4.757	4.828	4.832	0+	0+
35	78 79	1131.91	1133.67	8.38	8.40	18.39	14.16	7.94	8.11	-9.19 -9.10	-6.70	4.879	4.958	4.766	4.833	4.832	0 ⁺	11/2
36	80	1142.13	1142.77	8.40	8.40	18.16	14.10	10.22	8.48	-8.98	-0.70 -7.10	4.890	4.972	4.772	4.838	4.833	0+	0+
137	81	1149.99	1149.68	8.39	8.39	18.08	15.72	7.86	8.83	−7.08	-7.46	4.902	4.986	4.776	4.843	4.831	0+	11/2
	82	1159.99	1158.29	8.41	8.39	17.86	16.56	10.00	9.22	-6.62	-7.86	4.913	5.000	4.782	4.848	4.838	0+	0+
		1162.98	1163.02	8.37	8.37	12.99	16.95	2.99	9.44	-7.20	-8.07	4.931	5.025	4.788	4.855	4.851	0^{+}	7/2
138	83	1102.50						5.35	9.83	-4.24	-8.47	4.952	5.048	4.805	4.871	4.868	0+	0+
138 139	83 84	1168.33	1169.44	8.35	8.35	8.34	17.73	3.33	3.03	7,47	-0.47	4.332	J.U 1 0	4.003	7.071	4.000	U.	
138 139 140			1169.44 1173.98	8.35 8.31	8.35 8.33	8.34 8.28	17.73 18.20	2.93	10.11	-4.21	-8.85	4.973	5.071	4.821	4.886	4.881	0+	
138 139 140 141 142	84	1168.33																9/2 ⁻ 0 ⁺

Table 1 (continued)

157 10 158 10 159 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11	39 118 90 119 91 119 92 120 93 120 94 120 95 121 96 121 97 123 98 122 100 123 100 123 100 123 103 124 104 124 105 125 106 125 107 125 108 125 109 126 110 126	187.31 1 192.49 1 195.19 1 100.34 1 102.98 1 10.66 1 115.72 1 18.20 1 23.22 1 123.22 1 123.22 1 124.74 1 144.72 1 144.72 1 144.72 1 147.15 1 151.50 1 153.85 1 160.50 1 164.52 1 166.79 1	194.05 8. 199.54 8. 1202.94 8. 1208.34 8. 8. 8. 8. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	8.23 8.3 8.19 8.3 8.17 8.3 8.13 8.3 8.11 8.4 8.005 8	23 22 18	8.05 7.99 7.93 7.88 7.85 7.79 7.74 7.68 7.64 7.54 7.50 7.44 7.35 7.40 7.17 7.18 6.93 6.93 6.78 6.70	20.05 20.55 21.19 21.73 22.33 22.90 23.42 24.02 24.48 24.97 25.48 25.83 26.41 26.77 27.28 27.64 28.09 28.44 28.84	5.24 2.75 5.18 2.70 5.15 2.64 5.10 2.58 5.06 2.48 5.02 2.42 4.93 2.47 4.70 2.48 4.50 2.43	11.04 11.30 11.61 11.89 12.19 12.47 12.74 13.04 13.27 13.56 13.77 13.95 14.24 14.42 14.68 14.86 15.09	-4.13 -4.08 -4.07 -4.03 -4.02 -3.98 -3.97 -3.91 -3.90 -3.83 -3.83 -3.83 -3.73 -3.74 -3.64 -3.61	-9.67 -9.93 -10.26 -10.53 -10.83 -11.11 -11.38 -11.67 -11.90 -12.19 -12.40 -12.57 -12.86 -13.04 -13.29 -13.47	5.029 5.047 5.066 5.085 5.103 5.122 5.138 5.157 5.174 5.193 5.208 5.227 5.242 5.261 5.275 5.294	5.138 5.161 5.182 5.204 5.224 5.246 5.265 5.287 5.306 5.327 5.346 5.371 5.385 5.410 5.425 5.448	4.851 4.861 4.874 4.885 4.896 4.908 4.918 4.930 4.938 4.951 4.957 4.963 4.975 4.981 4.991 4.997	4.917 4.926 4.939 4.950 4.961 4.973 4.983 4.994 5.003 5.015 5.022 5.027 5.039 5.045 5.055 5.061	4.924 4.935 4.948 4.973	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0 ⁺ 7/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻
146 90 147 91 148 92 149 93 150 94 151 95 152 96 153 97 154 98 155 99 156 10 157 10 158 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	90 119 91 119 92 120 93 120 94 120 95 121 96 121 97 121 98 122 100 123 100 123 1001 123 1002 123 1004 124 1005 125 1007 125 1008 125 110 126 111 126	192.49 1 195.19 1 100.34 1 102.98 2 108.08 08 110.66 2 115.72 2 118.20 2 123.22 2 125.64 2 130.57 2 133.04 2 144.72 2 144.72 2 144.72 2 147.15 2 1551.50 2 158.10 2 1660.50 2 1660.50 2 166.52 2 166.79 2	199.54 8. 1202.94 8. 1208.34 8. 8. 8. 8. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	8.17 8. 8.13 8. 8.11 8. 8.07 6.05 6.02 6.00 6.994 6.91 6.89 6.85 6.83 6.80 6.78 6.75 6.66 6.76 6.67 6.64	22 18	7.93 7.88 7.85 7.79 7.74 7.68 7.64 7.50 7.44 7.35 7.40 7.17 7.18 6.93 6.93 6.78 6.70	21.19 21.73 22.33 22.90 23.42 24.02 24.48 24.97 25.48 25.83 26.41 26.77 27.28 27.64 28.09 28.44	5.18 2.70 5.15 2.64 5.10 2.58 5.06 2.48 5.02 2.42 4.93 2.47 4.70 2.48 4.50	11.61 11.89 12.19 12.47 12.74 13.04 13.27 13.56 13.77 13.95 14.24 14.42 14.68 14.86	-4.07 -4.03 -4.02 -3.98 -3.97 -3.91 -3.90 -3.83 -3.83 -3.85 -3.73 -3.74 -3.64 -3.61	-10.26 -10.53 -10.83 -11.11 -11.38 -11.67 -11.90 -12.19 -12.40 -12.57 -12.86 -13.04 -13.29	5.066 5.085 5.103 5.122 5.138 5.157 5.174 5.193 5.208 5.227 5.242 5.261 5.275	5.182 5.204 5.224 5.246 5.265 5.287 5.306 5.327 5.346 5.371 5.385 5.410 5.425	4.874 4.885 4.896 4.908 4.918 4.930 4.938 4.951 4.957 4.963 4.975 4.981 4.991	4.939 4.950 4.961 4.973 4.983 4.994 5.003 5.015 5.022 5.027 5.039 5.045 5.055 5.061	4.948	0 ⁺	0 ⁺ 7/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺
147 91 148 92 149 93 150 94 151 95 152 96 153 97 154 98 155 99 156 10 157 10 158 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	01 119 02 120 03 120 04 120 05 121 06 121 07 121 08 122 09 123 100 123 101 123 102 123 103 124 104 124 105 125 107 125 108 125 109 126 111 126	195.19 1 100.34 1 102.98 1 102.98 1 103.08 1 104.066 1 115.72 1 118.20 1 123.22 1 125.64 1 130.57 1 133.04 1 137.74 1 140.22 1 144.72 1 147.15 1 151.50 1 153.85 1 158.10 1 160.50 1 164.52 1 166.50 1 164.52 1 166.79 1	8. 8. 8. 8. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	8.13 8. 8.11 8. 8.05 8.05 8.05 8.02 8.00 8.96 8.94 9.91 8.89 8.85 8.83 8.80 7.75 7.75 7.69 6.67	18	7.88 7.85 7.79 7.74 7.68 7.64 7.54 7.50 7.44 7.35 7.40 7.17 7.18 6.93 6.78 6.70	21.73 22.33 22.90 23.42 24.02 24.48 24.97 25.48 25.83 26.41 26.77 27.28 27.64 28.09 28.44	2.70 5.15 2.64 5.10 2.58 5.06 2.48 5.02 2.42 4.93 2.47 4.70 2.48 4.50	11.89 12.19 12.47 12.74 13.04 13.27 13.56 13.77 13.95 14.24 14.42 14.68 14.86	-4.03 -4.02 -3.98 -3.97 -3.91 -3.90 -3.83 -3.85 -3.73 -3.74 -3.64 -3.61	-10.53 -10.83 -11.11 -11.38 -11.67 -11.90 -12.19 -12.40 -12.57 -12.86 -13.04 -13.29	5.085 5.103 5.122 5.138 5.157 5.174 5.193 5.208 5.227 5.242 5.261 5.275	5.204 5.224 5.246 5.265 5.287 5.306 5.327 5.346 5.371 5.385 5.410 5.425	4.885 4.896 4.908 4.918 4.930 4.938 4.951 4.957 4.963 4.975 4.981 4.991	4.950 4.961 4.973 4.983 4.994 5.003 5.015 5.022 5.027 5.039 5.045 5.055 5.061		0 ⁺	7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺
148 92 149 93 150 94 151 95 152 96 153 97 154 98 155 99 156 10 157 10 158 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	02 120 03 120 04 120 05 121 06 127 07 121 08 122 09 122 100 123 101 123 102 123 103 124 104 124 105 125 107 125 108 125 109 126 111 126	200.34 1 202.98 208.08 210.66 215.72 218.20 223.22 225.64 230.57 233.04 244.72 247.15 251.50 253.85 258.10 260.50 266.4.52 266.79	8. 8. 8. 8. 8. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	8.11 8. 6.07 6.05 6.02 6.00 6.994 6.994 6.89 6.85 6.85 6.80 6.78 6.75 6.66 6.67 6.64		7.85 7.79 7.74 7.68 7.64 7.50 7.44 7.35 7.40 7.17 7.18 6.98 6.93 6.78 6.70	22.33 22.90 23.42 24.02 24.48 24.97 25.48 25.83 26.41 26.77 27.28 27.64 28.09 28.44	5.15 2.64 5.10 2.58 5.06 2.48 5.02 2.42 4.93 2.47 4.70 2.48 4.50	12.19 12.47 12.74 13.04 13.27 13.56 13.77 13.95 14.24 14.42 14.68 14.86	-4.02 -3.98 -3.97 -3.91 -3.90 -3.83 -3.83 -3.85 -3.73 -3.74 -3.64 -3.61	-10.83 -11.11 -11.38 -11.67 -11.90 -12.19 -12.40 -12.57 -12.86 -13.04 -13.29	5.103 5.122 5.138 5.157 5.174 5.193 5.208 5.227 5.242 5.261 5.275	5.224 5.246 5.265 5.287 5.306 5.327 5.346 5.371 5.385 5.410 5.425	4.896 4.908 4.918 4.930 4.938 4.951 4.957 4.963 4.975 4.981 4.991	4.961 4.973 4.983 4.994 5.003 5.015 5.022 5.027 5.039 5.045 5.055 5.061	4.973	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺
149 93 150 94 151 95 152 96 153 97 154 98 155 95 156 10 157 10 158 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	03 120 04 120 05 121 06 121 07 123 08 122 09 122 100 123 101 123 102 123 103 124 104 124 105 124 106 125 107 125 108 125 110 126 111 126	202.98 208.08 210.66 215.72 218.20 223.22 225.64 230.57 233.04 237.74 240.22 247.15 251.50 258.10 260.50 266.52	8. 8. 8. 7. 7. 7. 7. 7. 7. 7. 7. 7.	8.07 8.05 8.02 8.00 8.96 8.91 8.89 8.85 8.83 8.80 8.78 8.75 8.77 8.75 8.77 8.69 8.67	16	7.79 7.74 7.68 7.64 7.54 7.50 7.44 7.35 7.40 7.17 7.18 6.98 6.93 6.78 6.70	22.90 23.42 24.02 24.48 24.97 25.48 25.83 26.41 26.77 27.28 27.64 28.09 28.44	2.64 5.10 2.58 5.06 2.48 5.02 2.42 4.93 2.47 4.70 2.48 4.50	12.47 12.74 13.04 13.27 13.56 13.77 13.95 14.24 14.42 14.68 14.86	-3.98 -3.97 -3.91 -3.90 -3.83 -3.83 -3.85 -3.73 -3.74 -3.64 -3.61	-11.11 -11.38 -11.67 -11.90 -12.19 -12.40 -12.57 -12.86 -13.04 -13.29	5.122 5.138 5.157 5.174 5.193 5.208 5.227 5.242 5.261 5.275	5.246 5.265 5.287 5.306 5.327 5.346 5.371 5.385 5.410 5.425	4.908 4.918 4.930 4.938 4.951 4.957 4.963 4.975 4.981 4.991	4.973 4.983 4.994 5.003 5.015 5.022 5.027 5.039 5.045 5.055 5.061		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺
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156 10 157 10 158 10 159 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	100 123 101 123 102 123 103 124 104 124 105 124 106 125 107 125 108 125 109 126 110 126 111 126	230.57 233.04 237.74 240.22 2447.15 251.50 253.85 258.10 260.50 2664.52 266.79	7. 7. 7. 7. 7. 7. 7. 7. 7.	7.89 7.85 7.83 7.78 7.75 7.73 7.69 7.64		7.35 7.40 7.17 7.18 6.98 6.93 6.78 6.70	26.41 26.77 27.28 27.64 28.09 28.44	4.93 2.47 4.70 2.48 4.50	14.24 14.42 14.68 14.86	-3.73 -3.74 -3.64 -3.61	-12.86 -13.04 -13.29	5.242 5.261 5.275	5.385 5.410 5.425	4.975 4.981 4.991	5.039 5.045 5.055 5.061		0 ⁺ 0 ⁺ 0 ⁺ 0 ⁺	0 ⁺ 3/2 ⁻ 0 ⁺
157 10 158 10 159 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	101 123 102 123 103 124 104 124 105 124 106 125 107 125 108 125 109 126 111 126	233.04 237.74 240.22 244.72 247.15 251.50 253.85 258.10 260.50 264.52	7. 7. 7. 7. 7. 7. 7. 7. 7.	2.85 2.83 2.80 2.78 2.75 2.73 2.69 2.67		7.40 7.17 7.18 6.98 6.93 6.78 6.70	26.77 27.28 27.64 28.09 28.44	2.47 4.70 2.48 4.50	14.42 14.68 14.86	-3.74 -3.64 -3.61	-13.04 -13.29	5.261 5.275	5.410 5.425	4.981 4.991	5.045 5.055 5.061		0 ⁺ 0 ⁺	3/2- 0 ⁺
158 10 159 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	102 123 103 124 104 124 105 124 106 125 107 125 108 125 109 126 110 126 111 126	237.74 240.22 244.72 247.15 251.50 253.85 258.10 260.50 264.52 266.79	7. 7. 7. 7. 7. 7. 7. 7.	7.83 7.78 7.75 7.73 7.69 7.67		7.17 7.18 6.98 6.93 6.78 6.70	27.28 27.64 28.09 28.44	4.70 2.48 4.50	14.68 14.86	-3.64 -3.61	-13.29	5.275	5.425	4.991	5.055 5.061		0 ⁺	0+
159 10 160 10 161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	103 124 104 124 105 124 106 125 107 125 108 125 109 126 110 126	240.22 244.72 247.15 251.50 253.85 258.10 260.50 264.52 266.79	7. 7. 7. 7. 7. 7. 7.	2.78 2.75 2.73 2.69 2.67		7.18 6.98 6.93 6.78 6.70	27.64 28.09 28.44	2.48 4.50	14.86	-3.61					5.061		0^+	
160 10 161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	104 124 105 124 106 125 107 125 108 125 109 126 110 126 111 126	244.72 247.15 251.50 253.85 258.10 260.50 264.52 266.79	7. 7. 7. 7. 7. 7.	7.78 7.75 7.73 7.69 7.67 7.64		6.98 6.93 6.78 6.70	28.09 28.44	4.50			-13.47							
161 10 162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 172 173 11 174 11 175 11	105 124 106 125 107 125 108 125 109 126 110 126	247.15 251.50 253.85 258.10 260.50 264.52 266.79	7. 7. 7. 7. 7. 7.	7.75 7.73 7.69 7.67 7.64		6.93 6.78 6.70	28.44		15.09		12.70				F 000		0^+	0 ⁺
162 10 163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	106 125 107 125 108 125 109 126 110 126 111 126	251.50 253.85 258.10 260.50 264.52 266.79	7. 7. 7. 7. 7.	7.73 7.69 7.67 7.64		6.78 6.70		2.43	15.27	-3.53	-13.70	5.308	5.464	5.005	5.069		0 ⁺	
163 10 164 10 165 10 166 11 167 11 168 11 170 11 171 11 172 11 173 11 174 11 175 11	107 125 108 125 109 126 110 126	253.85 258.10 260.50 264.52 266.79	7. 7. 7. 7.	7.69 7.67 7.64		6.70	28.84		15.27	-3.49	-13.87	5.326	5.487	5.012	5.075		0+	3/2 ⁻ 0 ⁺
164 10 165 10 166 11 167 11 168 11 169 11 170 11 171 11 172 11 173 11 174 11 175 11	108 125 109 126 110 126 111 126	258.10 260.50 264.52 266.79	7. 7. 7.	7.67 7.64			29.13	4.35 2.35	15.47 15.63	-3.44	-14.09	5.341	5.503 5.525	5.019 5.026	5.082 5.089		0+	3/2
165 10 166 11 167 11 168 11 169 11 170 11 171 11 172 11 173 11 174 11	109 126 110 126 111 126	260.50 264.52 266.79	7. 7.	.64		6.60				-3.37	-14.27	5.359					0+	3/2 0 ⁺
166 11 167 11 168 11 169 11 170 11 171 11 172 11 173 11 174 11 175 11	110 126 111 126	264.52 266.79	7.				29.57	4.25	15.84	-3.34	-14.47	5.373	5.542	5.032	5.095		0+	1/2
167 11 168 11 169 11 170 11 171 11 172 11 173 11 174 11	111 126	266.79		.02		6.65	29.90	2.40	16.01	-3.30	-14.63	5.391	5.564	5.037	5.100		0+	0 ⁺
168 11 169 11 170 11 171 11 172 11 173 11 174 11				7.59		6.42 6.29	30.31 30.69	4.02 2.27	16.23 16.42	−3.23 −3.15	-14.85	5.405 5.422	5.579 5.600	5.045 5.051	5.108 5.114		0+	
169 11 170 11 171 11 172 11 173 11 174 11	112 127			.59 '.56		6.29	31.09	3.93	16.62	-3.13 -3.11	-15.04 -15.26	5.436	5.615	5.051	5.121		0+	1/2 ⁻ 0 ⁺
170 11 171 11 172 11 173 11 174 11		270.72		.50 7.53		6.01	31.66	2.08	16.88	-3.11 -2.99	-15.20 -15.50	5.450	5.633	5.067	5.130		0+	1/2
171 11 172 11 173 11 174 11 175 11		276.69		.55 '.51		5.97	32.02	3.89	17.07	-2.98	-15.70	5.466	5.649	5.073	5.136		0+	0+
172 11 173 11 174 11 175 11		.70.09 278.49		.31 '.48		5.69	32.60	1.80	17.40	-2.83	-15.70 -16.03	5.480	5.662	5.084	5.147		0+	1/2
173 11 174 11 175 11		282.39		.46 '.46		5.70	33.07	3.90	17.56	-2.83 -2.84	-16.03	5.494	5.680	5.089	5.152		0+	0+
174 11 175 11		284.06		.40 '.42		5.57	33.58	1.67	17.30	-2.84 -2.81	-16.20 -16.44	5.509	5.696	5.097	5.160		0+	13/2
175 11		287.84		.42 '.40		5.45	34.18	3.78	18.08	-2.72	-16.73	5.522	5.708	5.107	5.169		0+	0+
		289.48		.40 7.37		5.42	34.73	1.64	18.34	-2.72 -2.68	-16.73 -16.98	5.536	5.723	5.107	5.177		0 ⁺	13/2
		293.09		.35 '.35		5.25	35.34	3.61	18.63	-2.60	-10.36 -17.29	5.549	5.736	5.115	5.187		0+	0+
		294.69		.33 '.31		5.21	35.90	1.60	18.90	-2.56	-17.55	5.562	5.750	5.134	5.196		0+	13/2
		298.15		.29		5.06	36.50	3.46	19.18	-2.50	-17.85	5.575	5.762	5.144	5.206		0+	0+
		299.71		.26		5.02	37.07	1.56	19.46	-2.45	-18.12	5.588	5.776	5.152	5.214		0+	13/2
		303.06		.24		4.91	37.68	3.35	19.75	-2.40	-18.43	5.601	5.788	5.162	5.224		0+	0+
		804.59		.21 '.21		4.88	38.26	1.53	20.03	-1.81	-18.71	5.614	5.801	5.171	5.233		0 ⁺	13/2
		807.82		.19		4.76	38.86	3.23	20.32	-1.16	-19.01	5.626	5.813	5.181	5.243		0 ⁺	0+
		307.32 307.19		.13 '.14		2.60	38.87	-0.63	20.33	-1.39	-19.01	5.681	5.887	5.181	5.243		0+	1/2
		307.27		7.10		-0.55	39.12	0.08	20.47	0.20	-19.15	5.670	5.867	5.191	5.252		0+	0+
,	6.7		•				30.12	0.00	2011/	<u>0.20</u>	10110	0.070	0.007	0,101	0.028		Ü	Ü
Z = 57 (La	I a \																	
2 - 37 (12)		59.27	Q	3.06			0.70		-1.26	-12.26	0.00	4.687	4.679	4.695	4.763		7/2+	0^{+}
120 63		59.92		3.08			1.46	10.64	$\frac{-1.20}{-0.89}$	-12.20 -11.89	-0.38	4.699	4.697	4.701	4.769		$7/2^{+}$	5/2
120 63 121 64		3.04		3.12		23.77	2.18	13.12	$\frac{-0.89}{-0.54}$	-11.89 -11.78	-0.38 -0.75	4.710	4.713	4.701	4.773		$\frac{7/2}{7/2^{+}}$	0 ⁺
121 65)2.96		3.12 3.14		23.77	2.18	9.92	$\frac{-0.34}{-0.22}$	-11.78 -11.68	-0.73 -1.12	4.710	4.713	4.712	4.779		7/2 ⁺	3/2
122 66		05.84		3.14		22.80	3.64	12.88	0.17	-11.00 -11.31	-1.12 -1.48	4.723	4.732	4.712	4.773		7/2 ⁺	0 ⁺
123 67				8.19 8.1	28	22.65	4.35	9.77	0.17	-11.31 -11.12	-1.46 -1.84	4.746	4.767	4.722	4.789		7/2 ⁺	3/2
124 67 125 68				3.22 8.3		21.92	4.33 5.10	12.15	0.89	-11.12 -10.90	-1.84 -2.20	4.746	4.784	4.722	4.789		7/2 ⁺	0 ⁺
				3.22 8.3 3.23 8.3		21.92	5.76	9.42	1.21	- 10.90 - 10.75			4.784	4.727	4.795		7/2+ 7/2+	1/2
		1.10 I		3.25 8.3 3.26 8.3		21.57	6.53	9.42 11.77	1.61	-10.75 -10.57	-2.55 -2.91	4.771 4.783	4.802	4.733 4.739	4.800		7/2 ⁺	0 ⁺
127 70 128 71	59 103			o.∠∪ ð	34	20.95	5.53 7.23	9.18	1.96	-10.57 -10.42	-2.91 -3.26	4.783 4.796	4.837	4.739 4.744	4.806		7/2 ⁺	1/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
129	72	1069.55	1077.93	8.29	8.36	20.60	7.97	11.42	2.34	-10.28	-3.61	4.807	4.853	4.750	4.816		7/2+	0+
130	73	1078.48	1086.31	8.30	8.36	20.35	8.70	8.93	2.71	-10.13	-3.97	4.820	4.870	4.755	4.822		$7/2^{+}$	1/2+
131	74	1089.64	1096.52	8.32	8.37	20.09	9.41	11.16	3.08	-10.02	-4.31	4.831	4.885	4.760	4.827		7/2+	0+
132	75 76	1098.35	1104.54	8.32	8.37	19.87	10.21	8.71	3.49	-9.88	-4.68	4.844	4.902	4.766	4.833		7/2+	1/2+
133	76	1109.29	1114.39	8.34	8.38	19.65	10.87	10.94	3.83	-9.79	-5.01	4.855	4.917	4.771	4.838		7/2+	0+
134	77	1117.81	1122.18	8.34	8.37	19.46	11.70	8.52	4.29	-9.65	-5.39	4.867	4.932	4.777	4.844	4.0.400	7/2+	1/2+
135	78	1128.56	1131.68	8.36	8.38	19.27	12.35	10.75	4.59	-9.57	-5.70	4.878	4.947	4.781	4.848	4.8488	7/2+	0+
136	79	1136.92	1139.14	8.36	8.38	19.11	13.12	8.36	5.01	-9.45	-6.09	4.889	4.962	4.788	4.854	4.0.406	7/2+	1/2+
137	80	1147.50	1148.32	8.38	8.38	18.94	13.85	10.58	5.37	-9.37	-6.38	4.900	4.976	4.792	4.858	4.8496	7/2 ⁺	0+
138	81	1155.74	1155.77	8.37	8.38	18.82	14.58	8.24	5.75	-7.37	-6.80	4.911	4.990	4.798	4.864	4.8473	$7/2^{+}$	$\frac{1/2^{+}}{0^{+}}$
139	82 83	1166.16	1164.55	8.39	8.38	18.66	15.39	10.42	6.17	-7.09	-7.06	4.922	5.004 5.029	4.801	4.868	4.855	$7/2^{+}$	
140		1169.38	1169.71	8.35	8.36	13.64	15.84	3.22	6.40	-7.60	-7.43	4.944		4.818	4.884		$7/2^{+}$	$9/2^{-}$ 0^{+}
141	84	1175.13	1176.40	8.33	8.34	8.97	16.63	5.75	6.80	-4.56	-7.70	4.961	5.051	4.826	4.892		$7/2^{+}$	
142	85	1178.28	1181.56	8.30	8.32	8.90	17.13	3.15 5.65	7.02	-4.51	-8.05	4.982	5.075	4.842	4.907		7/2+	$9/2^{-}$ 0^{+}
143	86	1183.93	1187.78	8.28	8.31	8.80	17.86		7.42	-4.49	-8.32	5.000	5.097	4.850	4.916		$7/2^{+}$	
144	87	1187.00	1192.53	8.24	8.28	8.72	18.37	3.07	7.68	-4.44	-8.66	5.020	5.119	4.865	4.931		$7/2^+$ $7/2^+$	$9/2^{-}$ 0^{+}
145	88 89	1192.59 1195.58	1198.58 1202.87	8.22	8.27 8.24	8.66 8.58	19.07 19.57	5.59 2.99	8.03	-4.43 -4.38	-8.93 -9.25	5.038 5.057	5.141 5.163	4.874	4.940 4.953		7/2+ 7/2+	9/2 ⁻
146 147	90	1201.13	1202.87	8.19 8.17	8.22	8.54	20.25	5.55	8.27 8.64	-4.36 -4.37	-9.23 -9.52	5.075	5.183	4.888 4.898	4.963		7/2 ⁺	9/2 0 ⁺
147	91	1201.13	1208.57	8.14	8.19	8.51	20.23	2.96	8.90	-4.37 -4.34	-9.32 -9.79	5.073	5.206	4.098	4.903		7/2+ 7/2+	7/2 ⁻
149	92	1204.09	1212.07	8.12	8.18	8.43	21.41	5.47	9.22	-4.34 -4.31	-9.79 -10.09	5.111	5.225	4.908	4.975		7/2 ⁺	0 ⁺
150	93	1212.48	1210.23	8.08	0.10	8.39	21.41	2.92	9.22	-4.31 -4.27	-10.09 -10.37	5.111	5.247	4.932	4.983		7/2 ⁺	7/2 ⁻
151	93 94	1212.46		8.07		8.29	22.51	5.37	9.30	-4.27 -4.24	-10.57 -10.64	5.129	5.266	4.932	5.007		7/2 ⁺	0 ⁺
152	9 4 95	1217.83		8.03		8.24	23.10	2.87	10.06	-4.24 -4.19	-10.04 -10.92	5.146	5.287	4.954	5.018		7/2 ⁺	7/2 ⁻
153	96	1226.72		8.01		8.16	23.56	5.29	10.29	-4.15 -4.16	-10.32	5.180	5.306	4.962	5.026		7/2 ⁺	0+
154	97	1228.78		7.98		8.06	24.14	2.77	10.23	-4.10 -4.08	-11.10 -11.43	5.199	5.327	4.974	5.038		7/2 ⁺	7/2 ⁻
155	98	1233.99		7.96		7.98	24.54	5.21	10.77	-4.06	-11.66	5.214	5.345	4.980	5.044		7/2 ⁺	0+
156	99	1236.61		7.93		7.83	24.92	2.62	10.97	-3.95	-11.92	5.232	5.366	4.991	5.055		7/2 ⁺	7/2 ⁻
157	100	1241.79		7.91		7.80	25.46	5.18	11.22	-3.96	-12.13	5.246	5.384	4.997	5.061		7/2 ⁺	0+
158	101	1244.41		7.88		7.80	25.79	2.62	11.37	-3.96	-12.32	5.265	5.407	5.002	5.066		7/2 ⁺	3/2-
159	102	1249.37		7.86		7.58	26.31	4.96	11.63	-3.85	-12.58	5.279	5.422	5.012	5.075		7/2 ⁺	0+
160	103	1252.00		7.83		7.59	26.64	2.63	11.78	-3.82	-12.76	5.297	5.445	5.017	5.081		7/2 ⁺	3/2-
161	104	1256.74		7.81		7.37	27.11	4.74	12.02	-3.74	-13.00	5.311	5.461	5.026	5.089		7/2+	0+
162	105	1259.33		7.77		7.33	27.45	2.59	12.18	-3.69	-13.18	5.329	5.483	5.032	5.095		7/2 ⁺	3/2-
163	106	1263.90		7.75		7.16	27.87	4.57	12.40	-3.63	-13.41	5.343	5.499	5.039	5.102		7/2+	0+
164	107	1266.42		7.72		7.09	28.20	2.52	12.57	-3.58	-13.60	5.360	5.520	5.046	5.109		7/2+	3/2-
165	108	1270.88		7.70		6.98	28.62	4.46	12.78	-3.54	-13.81	5.374	5.536	5.052	5.115		7/2+	0+
166	109	1273.35		7.67		6.93	28.86	2.47	12.85	-3.50	-13.98	5.392	5.558	5.057	5.120		7/2+	1/2-
167	110	1277.68		7.65		6.80	29.39	4.33	13.16	-3.44	-14.21	5.405	5.573	5.065	5.128		7/2+	0+
168	111	1280.15		7.62		6.80	29.78	2.47	13.36	-3.38	-14.39	5.422	5.593	5.071	5.134		7/2+	1/2-
169	112	1284.30		7.60		6.62	30.20	4.15	13.58	-3.33	-14.62	5.435	5.608	5.079	5.141		7/2+	0+
170	113	1286.62		7.57		6.47	30.70	2.32	13.82	-3.25	-14.83	5.451	5.626	5.086	5.149		7/2+	1/2-
171	114	1290.72		7.55		6.42	31.10	4.10	14.03	-3.22	-15.05	5.465	5.641	5.093	5.156		7/2+	0+
172	115	1292.85		7.52		6.23	31.76	2.13	14.36	-3.12	-15.30	5.479	5.656	5.103	5.166		7/2+	1/2-
173	116	1296.93		7.50		6.21	32.10	4.08	14.54	-3.11	-15.50	5.493	5.672	5.109	5.171		7/2+	$0^{'+}$
174	117	1298.86		7.46		6.01	32.60	1.93	14.80	-3.00	-15.80	5.507	5.685	5.121	5.183		7/2+	$1/2^{-}$
175	118	1302.95		7.45		6.02	33.19	4.09	15.11	-3.01	-15.97	5.521	5.702	5.126	5.188		7/2+	0+
176	119	1304.86		7.41		6.00	33.72	1.91	15.38	-2.98	-16.19	5.535	5.717	5.134	5.196		7/2+	13/2+
177	120	1308.79		7.39		5.84	34.33	3.93	15.70	-2.91	-16.46	5.548	5.730	5.144	5.206		7/2+	0+
178	121	1310.68		7.36		5.82	34.89	1.89	15.99	-2.88	-16.69	5.562	5.744	5.152	5.214		7/2+	13/2+
179	122	1314.48		7.34		5.69	35.51	3.80	16.33	-2.82	-16.95	5.574	5.757	5.162	5.224		7/2+	0+
180	123	1316.36		7.31		5.68	36.11	1.88	16.65	-2.78	-17.18	5.588	5.771	5.170	5.232		7/2+	13/2+
181	124	1320.05		7.29		5.57	36.74	3.69	16.99	-2.73	-17.44	5.600	5.783	5.180	5.241		7/2+	0+
	125	1321.89		7.26		5.53	37.33	1.84	17.30	-1.97	-17.69	5.613	5.796	5.188	5.249		7/2+	13/2+

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
183	126	1325.45		7.24		5.40	37.95	3.56	17.63	-1.43	-17.96	5.625	5.808	5.198	5.259		7/2+	0+
184	127	1324.82		7.20		2.93	37.96	-0.63	17.63	-1.99	-17.97	5.679	5.882	5.198	5.259		$7/2^{+}$	1/2
185	128	1325.02		7.16		-0.43	38.22	0.20	17.75	<u>0.14</u>	-18.15	5.667	5.860	5.208	5.269		$7/2^{+}$	0^+
σ		6.59													0.011			
	8 (Ce)																	
120	62	960.55		8.00			0.01		1.27	-12.63	<u>0.30</u>	4.702	4.688	4.718	4.786		0+	0^+
121	63	971.57		8.03			0.76	11.02	1.65	-12.26	-0.08	4.714	4.705	4.724	4.791		0+	5/2
122	64	985.06		8.07		24.51	1.47	13.49	2.02	-12.15	-0.44	4.724	4.721	4.728	4.795		0+	0+
123	65	995.34		8.09		23.78	2.16	10.28	2.38	-12.04	-0.80	4.737	4.739	4.734	4.801		0+	3/2
124	66	1008.60		8.13		23.54	2.93	13.26	2.76	-11.66	-1.17	4.747	4.755	4.738	4.805		0^{+}	0+
125	67	1018.72	1042.42	8.15	0.27	23.38	3.62	10.12	3.11	-11.47	-1.52	4.760	4.773	4.744	4.811		0^{+}	3/2 0 ⁺
126	68	1031.23	1042.43	8.18	8.27	22.63	4.36	12.51	3.47	-11.26	-1.88	4.771	4.790	4.749	4.815		0+	-
127 128	69 70	1040.99	1051.66	8.20	8.28	22.27	5.02	9.76	3.81	-11.10	-2.22	4.783	4.808	4.753	4.820		0+	1/2 0 ⁺
128 129	70 71	1053.14 1062.65	1063.29 1072.11	8.23 8.24	8.31 8.31	21.91 21.66	5.80 6.48	12.15 9.51	4.19 4.52	-10.92 -10.77	-2.59 -2.93	4.795 4.807	4.825 4.842	4.759 4.764	4.826 4.831		0+	1/2
130	72	1002.03	1072.11	8.26	8.33	21.30	7.23	11.79	4.32	-10.77 -10.63	-2.93 -3.29	4.807	4.858	4.704	4.836		0+	0+
131	72 73	1074.44	1083.32	8.27	8.33	21.07	7.23 7.95	9.28	5.24	-10.03 -10.49	-3.29 -3.65	4.831	4.875	4.775	4.842		0+	1/2
132	73 74	1085.72	1102.51	8.30	8.35	20.79	8.67	11.51	5.59	-10.43 -10.37	-3.03 -3.99	4.842	4.890	4.773	4.847		0^{+}	0+
133	75	1104.30	11102.51	8.30	8.35	20.73	9.44	9.07	5.95	-10.37 -10.23	-4.36	4.854	4.907	4.786	4.852		0^{+}	1/2
134	76	1115.58	1121.02	8.33	8.37	20.35	10.12	11.28	6.29	-10.13	-4.69	4.865	4.921	4.790	4.857		0+	0+
35	77	1124.47	1128.87	8.33	8.36	20.17	10.95	8.89	6.66	-10.01	-5.07	4.877	4.937	4.796	4.862		0+	1/2
36	78	1135.54	1138.83	8.35	8.37	19.96	11.57	11.07	6.98	-9.92	-5.38	4.888	4.951	4.800	4.867	4.874	0^{+}	0+
37	79	1144.30	1146.31	8.35	8.37	19.83	12.39	8.76	7.38	-9.81	-5.78	4.899	4.966	4.806	4.872	1.07 1	0^{+}	1/2
38	80	1155.17	1156.03	8.37	8.38	19.63	13.04	10.87	7.67	-9.72	-6.06	4.909	4.980	4.810	4.876	4.874	0^+	0+
139	81	1163.84	1163.49	8.37	8.37	19.54	13.85	8.67	8.10	-7.83	-6.48	4.920	4.994	4.816	4.882		0^+	1/2
140	82	1174.51	1172.69	8.39	8.38	19.34	14.52	10.67	8.35	-7.55	-6.74	4.931	5.008	4.819	4.885	4.877	0^+	0+
141	83	1178.12	1178.12	8.36	8.36	14.28	15.14	3.61	8.74	-7.87	-7.11	4.952	5.032	4.835	4.901		0^+	9/2
142	84	1184.14	1185.28	8.34	8.35	9.63	15.81	6.02	9.01	-4.87	-7.39	4.970	5.054	4.844	4.910	4.906	0^+	0+
143	85	1187.64	1190.43	8.31	8.32	9.52	16.38	3.50	9.36	-4.82	-7.74	4.990	5.077	4.860	4.925		0^+	9/2
144	86	1193.58	1197.32	8.29	8.31	9.44	17.07	5.94	9.65	-4.80	-8.02	5.008	5.099	4.869	4.934	4.930	0^+	0+
145	87	1196.99	1202.03	8.26	8.29	9.35	17.67	3.41	9.99	-4.74	-8.36	5.028	5.121	4.884	4.949		0^+	9/2
146	88	1202.86	1208.68	8.24	8.28	9.28	18.30	5.87	10.27	-4.73	-8.63	5.045	5.143	4.894	4.959	4.959	0^+	0^{+}
147	89	1206.19	1213.12	8.21	8.25	9.20	18.88	3.33	10.61	-4.66	-8.95	5.065	5.164	4.908	4.972		0^+	9/2
148	90	1212.01	1219.58	8.19	8.24	9.15	19.52	5.82	10.88	-4.66	-9.23	5.082	5.185	4.917	4.982	4.989	0^+	0^{+}
49	91	1215.24	1223.92	8.16	8.21	9.05	20.05	3.23	11.15	-4.63	-9.50	5.100	5.207	4.928	4.992		0^+	7/2
50	92	1221.02	1230.17	8.14	8.20	9.01	20.68	5.78	11.46	-4.59	-9.80	5.117	5.226	4.940	5.005		0^+	0^+
51	93	1224.22	1234.62	8.11	8.18	8.98	21.24	3.20	11.74	-4.55	-10.08	5.135	5.247	4.951	5.015		0+	7/2
52	94	1229.87		8.09		8.85	21.79	5.65	12.02	-4.51	-10.36	5.152	5.266	4.961	5.026		0+	0+
53	95	1233.02		8.06		8.80	22.36	3.15	12.30	-4.45	-10.63	5.170	5.287	4.973	5.037		0+	7/2
154	96	1238.55		8.04		8.68	22.83	5.53	12.54	-4.41	-10.88	5.185	5.305	4.981	5.045		0 ⁺	0+
155	97	1241.59		8.01		8.57	23.39	3.04	12.81	-4.32	-11.15	5.203	5.326	4.992	5.056		0 ⁺	7/2
56	98	1247.03		7.99		8.48	23.81	5.44	13.04	-4.30	-11.37	5.218	5.344	4.999	5.062		0^{+}	0+
57	99 100	1249.90		7.96		8.31	24.26	2.87	13.29	-4.18	-11.63	5.236	5.364	5.009	5.072		0 ⁺	7/2 0 ⁺
58		1255.29		7.94 7.01		8.26	24.72	5.39	13.50	-4.18	-11.84	5.250 5.267	5.382 5.405	5.015	5.078		0+	
59	101 102	1258.09		7.91 7.90		8.19 8.02	25.05 25.57	2.80 5.22	13.68 13.94	-4.18	-12.02 -12.29	5.267 5.281		5.019 5.029	5.083 5.092		0 ⁺	3/2 0 ⁺
160 161	102	1263.31 1266.12		7.90 7.86		8.02 8.03	25.57 25.90	2.81	13.94	-4.06 -4.04	-12.29 -12.47	5.281 5.299	5.419 5.442	5.029	5.092 5.097		0 ⁺	3/2
162	103	1200.12		7.85 7.85		8.03 7.78	25.90	4.97	14.12	-4.04 -3.94	-12.47 -12.71	5.299	5.442 5.457	5.034	5.106		0+	3/2 0 ⁺
163	104	1271.09		7.85 7.82		7.78 7.74	26.37	4.97 2.77	14.53	-3.94 -3.90	-12.71 -12.90	5.330	5.457 5.479	5.043	5.106		0+	3/2
64	105	1273.86		7.82 7.80		7.7 4 7.57	26.71	4.80	14.55 14.76	-3.90 -3.83	-12.90 -13.13	5.344	5.479 5.494	5.049	5.112		0+	3/2 0 ⁺
65	106	1278.00		7.80 7.77		7.57 7.50	27.16	2.70	14.76	-3.83 -3.78	-13.13 -13.31	5.344	5.494	5.063	5.119		0+	3/2
166	107	1286.04		7.77 7.75		7.38	27.51	4.68	15.16	-3.76 -3.74	-13.51 -13.53	5.374	5.531	5.069	5.123		0+	0 ⁺
		1200.04		1.13		1.50	41.34	7.00	13.10	-3.74	- 13.33	J.J/4	J.JJ I	5.005	J.1J2		U	U

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
168	110	1293.24		7.70		7.20	28.72	4.58	15.56	-3.64	-13.94	5.405	5.567	5.083	5.145		0+	0+
169	111	1295.90		7.67		7.24	29.11	2.66	15.75	-3.60	-14.12	5.421	5.587	5.088	5.151		0+	1/2-
170	112	1300.26		7.65		7.02	29.54	4.36	15.96	-3.54	-14.36	5.434	5.601	5.096	5.158		0+	0+
171	113	1302.80		7.62		6.90	30.00	2.54	16.18	-3.48	-14.56	5.450	5.620	5.103	5.165		0+	1/2-
172	114	1307.11		7.60		6.85	30.42	4.31	16.39	-3.45	-14.79	5.463	5.635	5.110	5.172		0+	0+
173	115	1309.51		7.57		6.71	31.02	2.40	16.66	-3.36	-15.03	5.478	5.651	5.119	5.181		0 ⁺	1/2 ⁻ 0 ⁺
174 175	116 117	1313.78 1316.01		7.55 7.52		6.67 6.50	31.39 31.95	4.27 2.23	16.85 17.15	-3.35 -3.25	-15.23 -15.51	5.492 5.505	5.666 5.679	5.125 5.136	5.187 5.198		0+	1/2-
176	117	1320.27		7.52 7.50		6.49	32.43	4.26	17.13	-3.25 -3.25	-15.51 -15.70	5.519	5.696	5.142	5.203		0+	0+
177	119	1322.41		7.30 7.47		6.40	32.43	2.14	17.55	-3.23 -3.22	-15.70 -15.92	5.533	5.711	5.142	5.211		0 ⁺	13/2 ⁺
178	120	1326.61		7.45		6.34	33.52	4.20	17.82	-3.16	-16.18	5.546	5.724	5.158	5.220		0+	0+
179	121	1328.73		7.42		6.32	34.04	2.12	18.05	-3.13	-16.40	5.560	5.739	5.166	5.228		0+	13/2 ⁻
180	122	1332.80		7.40		6.19	34.65	4.07	18.32	-3.07	-16.66	5.572	5.751	5.176	5.237		0^{+}	0+
181	123	1334.91		7.38		6.18	35.20	2.11	18.55	-3.04	-16.89	5.585	5.765	5.184	5.245		0^{+}	13/2
182	124	1338.87		7.36		6.07	35.81	3.96	18.82	-2.99	-17.15	5.598	5.777	5.194	5.255		0^{+}	0+
183	125	1340.98		7.33		6.07	36.39	2.11	19.09	-2.15	-17.39	5.611	5.791	5.202	5.263		0^+	13/2
184	126	1344.83		7.31		5.96	37.01	3.85	19.38	-1.70	-17.65	5.623	5.803	5.211	5.272		0^+	0+
185	127	1344.21		7.27		3.23	37.02	-0.62	19.39	-1.67	-17.66	5.677	5.877	5.212	5.273		0^{+}	1/2+
186	128	1344.57		7.23		-0.26	37.30	0.36	19.55	0.05	-17.86	5.663	5.852	5.223	5.284		0^{+}	0^+
σ		6.76													0.005			
Z=5	9 (Pr)																	
121	62	958.51		7.92			-0.77		-2.04	-13.01	0.65	4.718	4.696	4.742	4.809		$5/2^{+}$	0^+
122	63	969.91		7.95			-0.01	11.40	-1.66	-12.63	0.28	4.729	4.713	4.747	4.814		5/2 ⁺	5/2 ⁺
123	64	983.77		8.00		25.27	0.73	13.87	-1.29	-12.52	-0.08	4.739	4.728	4.751	4.818		5/2 ⁺	0+
124	65	994.42		8.02		24.51	1.46	10.64	-0.93	-12.41	-0.43	4.751	4.746	4.757	4.823		5/2+	$3/2^{+}$
125	66	1008.03		8.06		24.26	2.19	13.61	-0.57	-12.02	-0.79	4.761	4.762	4.760	4.827		5/2+	0+
126	67	1018.51		8.08		24.09	2.90	10.48	-0.21	-11.83	-1.14	4.773	4.780	4.765	4.832		5/2+	$3/2^{+}$
127	68	1031.38		8.12		23.35	3.62	12.87	0.15	-11.61	-1.50	4.784	4.797	4.770	4.837		$5/2^{+}$	0^+
128	69	1041.47	1053.30	8.14	8.23	22.96	4.29	10.09	0.48	-11.46	-1.84	4.796	4.814	4.775	4.841		$5/2^{+}$	$1/2^{+}$
129	70	1053.98	1064.82	8.17	8.25	22.60	5.03	12.51	0.84	-11.27	-2.21	4.808	4.830	4.780	4.847		$5/2^{+}$	0^+
130	71	1063.83	1074.29	8.18	8.26	22.36	5.70	9.85	1.18	-11.12	-2.55	4.819	4.848	4.785	4.851		5/2+	1/2+
131	72	1075.98	1085.48	8.21	8.29	22.00	6.43	12.15	1.54	-10.97	-2.91	4.831	4.863	4.790	4.857		5/2+	0+
132	73	1085.60	1094.47	8.22	8.29	21.77	7.12	9.62	1.88	-10.84	-3.26	4.842	4.880	4.795	4.862		5/2+	1/2+
133	74	1097.45	1105.26	8.25	8.31	21.47	7.81	11.85	2.22	-10.71	-3.61	4.853	4.895	4.800	4.866		5/2+	0+
134	75 76	1106.88	1113.93	8.26	8.31	21.28	8.53	9.43	2.58	-10.58	-3.97	4.865	4.911	4.805	4.871		5/2 ⁺	1/2+
135	76	1118.47	1124.41	8.29	8.33	21.02	9.18	11.59	2.89	-10.47	-4.30	4.875	4.926	4.810	4.876		5/2 ⁺	0 ⁺
136	77 70	1127.73	1132.88	8.29	8.33	20.85	9.92	9.26	3.26	-10.35	-4.68	4.887	4.941	4.815	4.881		5/2 ⁺	1/2 ⁺
137	78 70	1139.11	1142.81	8.31	8.34	20.64	10.55	11.38	3.57	-10.25	-4.99 5.30	4.897	4.955	4.819	4.885		5/2 ⁺	0 ⁺
138 139	79 80	1148.22	1150.81	8.32 8.34	8.34 8.35	20.49	11.30 11.90	9.11 11.18	3.92 4.23	-10.14	-5.39 5.69	4.908	4.970	4.824	4.890		5/2 ⁺ 5/2 ⁺	1/2 ⁺ 0 ⁺
	80 81	1159.40 1168.42	1160.58 1168.52	8.34 8.35	8.35 8.35	20.29 20.20	12.68	9.02	4.23 4.58	-10.05	-5.68 -6.09	4.918 4.929	4.984 4.997	4.828 4.834	4.894 4.899		5/2+ 5/2+	1/2 ⁺
140	81 82	1168.42	1168.52	8.35 8.36	8.35 8.35	20.20 19.98	12.68	9.02 10.96	4.58 4.87	-8.00 -7.75	-6.09 -6.35	4.929	4.997 5.011	4.834 4.837	4.899	4.892	5/2+ 5/2+	0 ⁺
141 142	82 83	1179.38	1177.91	8.33	8.33	19.98	13.22	3.95	4.87 5.21	-7.75 -8.24	-6.33 -6.72	4.939	5.035	4.852	4.903	4.052	5/2+ 5/2+	9/2 ⁻
142	84	1189.65	1183.76	8.32	8.33	14.91	13.95	6.32	5.51	-8.24 -5.19	-6.72 -7.00	4.960 4.977	5.055	4.852	4.918		5/2+ 5/2+	9/2 0 ⁺
144	85	1193.49	1191.11	8.29	8.31	10.27	15.21	3.84	5.85	-5.19 -5.13	-7.00 -7.35	4.977	5.080	4.802	4.942		$5/2^{+}$	9/2-
144	86	1193.49	1203.81	8.27	8.30	10.16	15.78	6.22	6.13	-5.13 -5.11	-7.53 -7.63	5.015	5.101	4.877	4.942		5/2 ⁺	9/2 0 ⁺
146	87	1203.45	1203.81	8.24	8.28	9.96	16.45	3.74	6.46	-5.05	-7.97	5.035	5.123	4.901	4.966		5/2 ⁺	9/2 ⁻
147	88	1209.43	1215.77	8.23	8.27	9.90	17.02	6.16	6.75	-5.03	-7.37 -8.25	5.052	5.144	4.910	4.975		5/2 ⁺	0 ⁺
148	89	1213.24	1213.77	8.20	8.25	9.79	17.66	3.63	7.05	-4.96	-8.57	5.071	5.165	4.924	4.988		5/2 ⁺	9/2-
149	90	1219.35	1227.51	8.18	8.24	9.74	18.22	6.11	7.34	-4.96	-8.85	5.087	5.186	4.934	4.998		5/2 ⁺	0+
		1222.86	1232.84	8.15	8.22	9.62	18.77	3.51	7.62	-4.92	-9.13	5.105	5.207	4.944	5.008		5/2 ⁺	7/2
	91																	
150 151	91 92	1228.92	1239.39	8.14	8.21	9.57	19.36	6.06	7.90	-4.87	-9.43	5.122	5.226	4.956	5.020		5/2 ⁺	0+

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	$^{\lambda_p}$ (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
153	94	1238.33	1250.33	8.09	8.17	9.41	20.48	5.92	8.46	-4.78	-9.98	5.156	5.266	4.977	5.041		5/2+	0+
54	95	1241.75	1255.02	8.06	8.15	9.34	21.03	3.42	8.73	-4.72	-10.26	5.174	5.286	4.988	5.052		5/2+	7/2
55	96	1247.53	1260.31	8.05	8.13	9.20	21.52	5.78	8.98	-4.67	-10.51	5.189	5.304	4.996	5.060		5/2+	0^+
156	97	1250.85		8.02		9.10	22.07	3.32	9.26	-4.58	-10.77	5.207	5.324	5.007	5.070		5/2+	7/2
157	98	1256.52		8.00		8.99	22.53	5.67	9.49	-4.55	-11.00	5.221	5.342	5.014	5.077		5/2+	0+
158	99	1259.64		7.97		8.79	23.03	3.12	9.74	-4.42	-11.26	5.238	5.362	5.024	5.087		5/2+	7/2
159	100	1265.25		7.96		8.73	23.46	5.61	9.96	-4.42	-11.47	5.252	5.379	5.029	5.093		5/2+	0+
160	101	1268.26		7.93		8.62	23.85	3.01	10.17	-4.42	-11.66	5.269	5.402	5.034	5.097		5/2+	3/2
161	102	1273.73		7.91		8.48	24.36	5.47	10.42	-4.29	-11.92	5.283	5.417	5.044	5.107		5/2+	0+
162	103	1276.74		7.88		8.48	24.74	3.01	10.62	-4.26	-12.11	5.300	5.439	5.049	5.112		5/2+	3/2
163	104	1281.95		7.86		8.22	25.21	5.21	10.86	-4.16	-12.35	5.314	5.454	5.058	5.121		5/2 ⁺	0+
164	105	1284.92		7.83		8.18	25.59	2.97	11.06	-4.12	-12.54	5.331	5.475	5.063	5.126		5/2 ⁺	3/2 0 ⁺
165	106	1289.94		7.82		7.99	26.04	5.02	11.28	-4.05	-12.77	5.344	5.490	5.071	5.134		5/2 ⁺	-
166	107	1292.84		7.79		7.92	26.42	2.90	11.48	-4.00	-12.96	5.361	5.511	5.077	5.140		5/2 ⁺	3/2 0 ⁺
167	108	1297.74 1300.54		7.77 7.74		7.80 7.70	26.86 27.19	4.90	11.70 11.88	-3.95	-13.19 -13.39	5.374 5.391	5.526 5.546	5.084 5.091	5.147		5/2 ⁺ 5/2 ⁺	3/2
168	109 110							2.80		-3.88					5.154		5/2+ 5/2+	3/2 0 ⁺
169 170	110	1305.35 1308.20		7.72 7.70		7.61 7.66	27.67	4.81	12.11 12.30	-3.85 -3.81	-13.60	5.404 5.420	5.561 5.581	5.098	5.160		5/2 ⁺	1/2
170	111	1312.79		7.70		7.44	28.05 28.49	2.85 4.59	12.50	-3.76	-13.78 -14.02	5.433	5.595	5.103 5.111	5.166 5.173		5/2 ⁺	0+
172	113	1315.53		7.65		7.33	28.49	2.74	12.73	-3.70 -3.70	-14.02 -14.22	5.449	5.614	5.111	5.180		5/2 ⁺	1/2
173	114	1320.07		7.63		7.33 7.28	29.35	4.54	12.75	-3.70 -3.67	-14.22 -14.45	5.462	5.628	5.125	5.187		5/2 ⁺	0+
174	115	1322.69		7.60		7.16	29.84	2.62	13.18	-3.59	-14.43 -14.69	5.476	5.644	5.133	5.195		5/2 ⁺	1/2
75	116	1327.18		7.58		7.10	30.25	4.49	13.40	-3.57	-14.03 -14.90	5.490	5.659	5.140	5.202		5/2 ⁺	0+
76	117	1329.66		7.55		6.97	30.80	2.48	13.40	-3.48	-14.30 -15.17	5.503	5.673	5.150	5.212		$5/2^{+}$	1/2
77	118	1334.13		7.54		6.95	31.18	4.47	13.86	-3.48	-15.36	5.517	5.689	5.155	5.217		5/2 ⁺	0+
78	119	1336.48		7.51		6.82	31.62	2.35	14.07	-3.46	-15.57	5.531	5.705	5.162	5.224		5/2 ⁺	13/
79	120	1340.92		7.49		6.79	32.13	4.44	14.31	-3.39	-15.83	5.543	5.718	5.171	5.233		5/2 ⁺	0+
180	121	1343.26		7.46		6.78	32.58	2.34	14.53	-3.36	-16.05	5.557	5.732	5.178	5.240		5/2 ⁺	13/
181	122	1347.57		7.45		6.65	33.09	4.31	14.77	-3.30	-16.31	5.569	5.745	5.188	5.249		5/2 ⁺	0+
182	123	1349.90		7.42		6.64	33.54	2.33	14.99	-3.26	-16.54	5.582	5.759	5.195	5.256		5/2 ⁺	13/
183	124	1354.07		7.40		6.50	34.02	4.17	15.20	-3.20	-16.80	5.594	5.771	5.204	5.265		5/2 ⁺	0+
184	125	1356.37		7.37		6.47	34.48	2.30	15.39	-2.38	-17.04	5.607	5.784	5.211	5.272		5/2 ⁺	13/
185	126	1360.42		7.35		6.35	34.97	4.05	15.59	-1.82	-17.30	5.619	5.796	5.220	5.281		5/2+	0+
186	127	1359.83		7.31		3.46	35.01	-0.59	15.62	-1.97	-17.32	5.671	5.869	5.221	5.282		5/2+	1/2
87	128	1360.44		7.28		0.02	35.42	0.61	15.87	-0.09	-17.52	5.658	5.843	5.233	5.293		5/2+	0^+
88	129	1359.89		7.23		0.06		-0.55		-0.10	-17.54	5.707	5.911	5.233	5.294		5/2+	1/2
89	130	1360.45		7.20		0.01		0.56		-0.09	-17.74	5.697	5.891	5.245	5.306		5/2+	0+
90	131	1359.93		7.16		0.04		-0.52		-0.10	-17.76	5.743	5.954	5.246	5.306		5/2+	1/2
91	132	1360.46		7.12		0.01		0.53		-0.09	-17.96	5.736	5.938	5.257	5.318		5/2+	0^+
92	133	1359.99		7.08		0.06		-0.47		-0.11	-17.99	5.780	5.997	5.258	5.319		5/2+	1/2
93	134	1360.50		7.05		0.04		0.51		-0.11	-18.17	5.776	5.985	5.270	5.330		$5/2^{+}$	0^{+}
94	135	1360.05		7.01		0.06		-0.45		-0.12	-18.21	5.816	6.039	5.271	5.331		$5/2^{+}$	1/2
95	136	1360.55		6.98		0.05		0.50		-0.12	-18.39	5.815	6.032	5.282	5.342		$5/2^{+}$	0^+
96	137	1360.13		6.94		0.08		-0.42		-0.13	-18.43	5.852	6.081	5.284	5.344		5/2+	1/2
97	138	1360.65		6.91		0.10		0.52		-0.14	-18.60	5.854	6.077	5.294	5.354		5/2+	0+
98	139	1360.25		6.87		0.12		-0.40		-0.15	-18.66	5.888	6.122	5.297	5.357		5/2+	1/2
99	140	1360.79		6.84		0.14		0.54		-0.17	-18.82	5.892	6.122	5.307	5.367		5/2+	0+
200	141	1360.40		6.80		0.15		<u>-0.39</u>		-0.17	-18.89	5.924	6.162	5.310	5.370		5/2+	1/2
201	142	1360.98		6.77		0.19		0.58		-0.19	-19.04	5.930	6.165	5.320	5.380		5/2+	0+
202	143	1360.61		6.74		0.21		-0.37		-0.20	-19.11	5.959	6.202	5.324	5.384		5/2+	1/2
203	144	1361.22		6.71		0.24		0.61		-0.22	-19.26	5.967	6.207	5.334	5.393		5/2+	0+
204	145	1360.87		6.67		0.26		-0.35		-0.22	-19.35	5.993	6.240	5.339	5.399		5/2+	1/2
205	146	1361.53		6.64		0.31		0.66		-0.25	-19.48	6.003	6.248	5.348	5.407		5/2+	0^+
206	147	1361.18		6.61		0.31		-0.35		-0.25	-19.58	6.027	6.276	5.354	5.414		5/2+	1/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
207	148	1361.90		6.58		0.37		0.72		-0.27	-19.71	6.038	6.287	5.362	5.422		5/2+	0+
208	149	1361.58		6.55		0.40		-0.32		-0.27	-19.82	6.060	6.312	5.370	5.429		$5/2^{+}$	$1/2^{+}$
209	150	1362.33		6.52		0.43		0.75		-0.30	-19.93	6.072	6.324	5.377	5.436		$5/2^{+}$	0+
210	151	1362.01		6.49		0.43		$\frac{-0.32}{-0.32}$		-0.30	-20.05	6.092	6.347	5.386	5.445		5/2+	1/2+
211	152	1362.82		6.46		0.49		0.81		-0.33	-20.16	6.106	6.361	5.392	5.451		5/2+	0+
212	153	1362.50		6.43		0.49		$\frac{-0.32}{0.07}$		-0.33	-20.29	6.124	6.381	5.402	5.461		5/2+	1/2+
213	154	1363.37		6.40		0.55		0.87		-0.35	-20.38	6.139	6.397	5.407	5.466		5/2+	0+
214	155	1363.06		6.37		0.56		$\frac{-0.31}{0.02}$		-0.35	-20.52	6.156	6.415	5.418	5.476		5/2 ⁺	1/2+
215	156	1363.99		6.34		0.62		0.93		-0.38	-20.60	6.171	6.432	5.422	5.480		5/2 ⁺	0+
216	157	1363.67		6.31		0.61		$\frac{-0.32}{0.00}$		-0.37	-20.74	6.187	6.448	5.433	5.492		5/2 ⁺	$\frac{1/2^{+}}{0^{+}}$
217	158 159	1364.66		6.29 6.26		0.67 0.67		0.99		$-0.40 \\ -0.40$	-20.81 -20.92	6.204 6.223	6.467 6.488	5.436	5.495 5.503		5/2 ⁺	-
218 219	160	1364.34 1365.38		6.23		0.67		$\frac{-0.32}{1.04}$		-0.40 -0.41	-20.92 -21.02	6.236	6.502	5.444 5.450	5.508		5/2 ⁺ 5/2 ⁺	3/2 ⁺ 0 ⁺
220	161	1365.08		6.20		0.72		-0.30		-0.41 -0.41	-21.02 -21.13	6.253	6.520	5.459	5.517		5/2 ⁺	3/2+
221	162	1366.14		6.18		0.74		1.06		-0.41 -0.42	-21.13 -21.22	6.268	6.536	5.464	5.522		5/2 ⁺	0 ⁺
222	163	1365.84		6.15		0.76		-0.30		-0.42 -0.40	-21.22 -21.33	6.284	6.553	5.473	5.531		5/2 ⁺	3/2 ⁺
223	164	1366.91		6.13		0.77		1.07		-0.40 -0.41	-21.33 -21.41	6.300	6.570	5.476	5.535		5/2 ⁺	0 ⁺
224	165	1366.60		6.10		0.76		-0.31		-0.41 -0.37	-21.53	6.315	6.586	5.487	5.545		5/2 ⁺	3/2 ⁺
225	166	1367.68		6.08		0.77		1.08		-0.37	-21.59	6.331	6.605	5.489	5.547		5/2 ⁺	0+
226	167	1367.27		6.05		0.67		-0.41		0.04	-21.69	6.346	6.620	5.499	5.556		5/2 ⁺	3/2 ⁺
227	168	1368.36		6.03		0.68		1.09		-1.51	-21.74	6.365	6.642	5.499	5.557		5/2 ⁺	0+
σ	100	8.00		0.03		0.00		1.00		1.0 1	2	0.500	0,0 12	5.155	0.011		5/2	Ü
Z = 6	0 (Nd)																	
124	64	984.86		7.94			-0.20		1.09	-12.88	0.40	4.753	4.736	4.771	4.838		0^{+}	0^+
125	65	995.87		7.97			0.53	11.01	1.46	-12.77	0.03	4.765	4.753	4.777	4.844		0^+	$3/2^{+}$
126	66	1009.85		8.01		24.99	1.25	13.98	1.82	-12.38	-0.32	4.774	4.769	4.780	4.847		0^+	0^+
127	67	1020.68		8.04		24.81	1.96	10.83	2.17	-12.18	-0.68	4.786	4.786	4.785	4.852		0+	$3/2^{+}$
128	68	1033.90		8.08		24.05	2.67	13.22	2.52	-11.96	-1.02	4.797	4.803	4.790	4.856		0+	0^+
129	69	1044.35		8.10		23.67	3.36	10.45	2.88	-11.75	-1.37	4.808	4.820	4.795	4.861		0+	3/2+
130	70	1057.21	1068.93	8.13	8.22	23.31	4.07	12.86	3.23	-11.61	-1.71	4.819	4.836	4.800	4.866		0+	0+
131	71	1067.40	1078.17	8.15	8.23	23.05	4.75	10.19	3.57	-11.47	-2.05	4.831	4.853	4.804	4.870		0+	1/2+
132	72	1079.90	1089.90	8.18	8.26	22.69	5.46	12.50	3.92	-11.31	-2.39	4.842	4.868	4.809	4.875	4.917	0+	0+
133	73	1089.87	1098.88	8.19	8.26	22.47	6.15	9.97	4.27	-11.18	-2.72	4.853	4.885	4.814	4.880	4040	0+	1/2+
134	74	1102.06	1110.26	8.22	8.29	22.16	6.83	12.19	4.61	-11.05	-3.05	4.864	4.900	4.818	4.884	4.913	0+	0+
135	75 76	1111.83	1118.90	8.24	8.29	21.96	7.53	9.77	4.95	-10.92	-3.39	4.875	4.916	4.823	4.889	4.909	0 ⁺	1/2 ⁺ 0 ⁺
136	76	1123.75	1129.96	8.26	8.31	21.69	8.17	11.92	5.28	-10.80	-3.70	4.885	4.930	4.828	4.893	4.911	0^{+}	-
137	77 70	1133.35	1138.41	8.27	8.31	21.52	8.88	9.60	5.62	-10.68	-4.03	4.896	4.945	4.833	4.898	4.908	0^{+}	1/2 ⁺ 0 ⁺
138 139	78 79	1145.05	1148.92 1156.99	8.30	8.33	21.30	9.51	11.70	5.94	-10.58	-4.34	4.906	4.959 4.973	4.837 4.842	4.902 4.907	4.912	0 ⁺	1/2+
140	79 80	1154.51 1165.98		8.31 8.33	8.32 8.34	21.16	10.21	9.46	6.29 6.58	-10.47	-4.66	4.917 4.927			4.907 4.911	4.908 4.910	0 ⁺	0+
140 141	80 81	1175.33	1167.30 1175.31	8.34	8.34 8.34	20.93 20.82	10.81 11.49	11.47 9.35	6.91	10.37 9.74	-4.97 -5.28	4.927 4.937	4.987 5.000	4.845 4.850	4.911	4.910	0 ⁺	1/2+
142	82	1175.55	1175.51	8.36	8.35	20.62	12.09	9.55 11.27	7.22	-9.74 -8.23	-5.28 -5.58	4.937 4.947	5.014	4.853	4.919	4.900	0+	0+
143	83	1190.87	1191.26	8.33	8.33	20.62 15.54	12.09	4.27	7.22 7.54	-8.23 -9.00	-5.90	4.947	5.014	4.869	4.919	4.912	0+	9/2-
144	84	1190.87	1191.28	8.32	8.33	10.90	13.36	6.63	7.3 4 7.85	-5.49	-6.20	4.984	5.057	4.878	4.943	4.942	0+	9/2 0 ⁺
144	85	1201.65	1204.83	8.29	8.31	10.90	14.01	4.15	8.16	-5.49 -5.43	-6.20 -6.51	5.004	5.039	4.893	4.943	4.942	0+	9/2 ⁻
146	86	1201.03	1212.40	8.28	8.30	10.78	14.60	6.53	8.47	-5.40	-6.81	5.021	5.103	4.893	4.967	4.970	0+	0 ⁺
147	87	1212.22	1217.69	8.25	8.28	10.57	15.23	4.04	8.77	-5.34	-7.11	5.040	5.124	4.916	4.981	1.570	0^{+}	9/2 ⁻
148	88	1218.67	1217.03	8.23	8.28	10.37	15.23	6.45	9.06	-5.32	-7.11 -7.40	5.057	5.145	4.926	4.990	5.000	0+	0+
149	89	1222.59	1230.06	8.21	8.26	10.43	16.40	3.92	9.35	-5.24	-7.40 -7.69	5.076	5.166	4.939	5.003	5.500	0+	9/2-
150	90	1228.98	1230.00	8.19	8.25	10.37	16.97	6.39	9.63	-5.23	-7.03 -7.98	5.092	5.186	4.949	5.013	5.040	0+	0+
		1232.79	1242.77	8.16	8.23	10.20	17.55	3.81	9.93	-5.20	-7.38 -8.27	5.110	5.207	4.959	5.023	5.5-10	0^{+}	7/2 ⁻
	91					10.20	17.55	J.U I	٠.٠٠	5.20	0.27		5.201	1.000	5.525			. / 4
151 152	91 92	1232.79	1250.05	8.15	8.22	10.15	18.11	6.34	10.21	-5.14	-8.54	5.127	5.226	4.971	5.035		0^+	0+

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
154	94	1249.08	1261.73	8.11	8.19	9.95	19.21	6.18	10.75	-5.04	-9.09	5.160	5.265	4.991	5.055		0+	0+
155	95	1252.79	1266.40	8.08	8.17	9.89	19.77	3.71	11.04	-4.97	-9.36	5.177	5.285	5.002	5.066		0+	7/2-
156	96	1258.83	1272.66	8.07	8.16	9.75	20.28	6.04	11.30	-4.92	-9.63	5.192	5.303	5.010	5.073		0+	0+
157	97	1262.41	1262.41	8.04	8.13	9.62	20.82	3.58	11.56	-4.83	-9.89	5.209	5.323	5.021	5.084		0+	7/2
158	98	1268.33		8.03		9.50	21.30	5.92	11.81	-4.79	-10.14	5.223	5.340	5.027	5.090		0+	0+
159	99	1271.71		8.00		9.30	21.81	3.38	12.07	-4.66	-10.39	5.240	5.360	5.037	5.100		0 ⁺	7/2
160	100	1277.57		7.98		9.24	22.28	5.86	12.32	-4.65	-10.64	5.254	5.377	5.043	5.106		0 ⁺	0+
161	101	1280.79		7.96		9.08	22.70	3.22	12.53	-4.65	-10.86	5.271	5.399	5.048	5.111		0 ⁺	3/2 ⁻ 0 ⁺
162 163	102 103	1286.52		7.94 7.91		8.95 8.94	23.21 23.61	5.73 3.21	12.79 12.99	-4.51	-11.12	5.285 5.301	5.414	5.058 5.062	5.120		0 ⁺	3/2
164	103	1289.73 1295.18		7.91		8.66	24.09	5.45	13.23	-4.48 -4.37	11.33 11.57	5.315	5.435 5.450	5.002	5.125 5.134		0+	0 ⁺
165	104	1293.16		7.90 7.87		8.62	24.09	3.43	13.43	-4.37 -4.33	-11.37 -11.77	5.331	5.471	5.071	5.134		0+	3/2
166	105	1303.60		7.85		8.42	24.94	5.25	13.45	-4.26	-12.00	5.345	5.486	5.085	5.147		0+	0+
167	107	1306.70		7.82		8.35	25.34	3.10	13.86	-4.20	-12.00	5.361	5.507	5.091	5.153		0+	3/2
168	107	1311.81		7.82		8.21	25.77	5.10	14.07	-4.20 -4.15	-12.20 -12.42	5.374	5.522	5.098	5.161		0+	0+
169	109	1314.82		7.78		8.12	26.16	3.01	14.28	-4.09	-12.63	5.391	5.541	5.105	5.167		0+	3/2
170	110	1319.84		7.76		8.03	26.60	5.02	14.49	-4.06	-12.84	5.404	5.556	5.111	5.174		0+	0+
171	111	1322.85		7.74		8.03	26.95	3.01	14.65	-4.02	-13.03	5.419	5.576	5.117	5.179		0+	1/2
172	112	1327.69		7.72		7.85	27.43	4.84	14.90	-3.96	-13.26	5.432	5.590	5.125	5.187		0^{+}	0+
173	113	1330.64		7.69		7.79	27.84	2.95	15.11	-3.91	-13.45	5.448	5.608	5.131	5.193		0^{+}	1/2
174	114	1335.38		7.67		7.69	28.27	4.74	15.31	-3.87	-13.67	5.460	5.622	5.138	5.200		0^{+}	0+
175	115	1338.22		7.65		7.58	28.71	2.84	15.53	-3.80	-13.88	5.475	5.639	5.146	5.208		0+	1/2
176	116	1342.90		7.63		7.52	29.12	4.68	15.72	-3.78	-14.09	5.488	5.654	5.152	5.214		0+	0+
177	117	1345.60		7.60		7.38	29.59	2.70	15.94	-3.69	-14.30	5.501	5.668	5.162	5.223		0^+	1/2
178	118	1350.26		7.59		7.36	29.99	4.66	16.13	-3.68	-14.50	5.515	5.683	5.167	5.229		0^+	0+
179	119	1352.81		7.56		7.21	30.40	2.55	16.33	-3.59	-14.73	5.527	5.695	5.178	5.239		0^+	1/2
180	120	1357.46		7.54		7.20	30.85	4.65	16.54	-3.59	-14.92	5.541	5.711	5.183	5.244		0^+	0+
181	121	1359.99		7.51		7.18	31.26	2.53	16.73	-3.56	-15.12	5.554	5.726	5.189	5.251		0^+	13/2
182	122	1364.50		7.50		7.04	31.70	4.51	16.93	-3.49	-15.34	5.566	5.739	5.198	5.260		0^+	0^+
183	123	1367.02		7.47		7.03	32.11	2.52	17.12	-3.46	-15.54	5.579	5.753	5.206	5.267		0^+	13/2
184	124	1371.41		7.45		6.91	32.54	4.39	17.34	-3.40	-15.76	5.591	5.765	5.215	5.276		0^+	0^+
185	125	1373.92		7.43		6.90	32.94	2.51	17.55	-2.54	-15.96	5.604	5.778	5.222	5.283		0^+	13/2
186	126	1378.18		7.41		6.77	33.35	4.26	17.76	-2.13	-16.17	5.616	5.790	5.231	5.292		0+	0^+
187	127	1377.66		7.37		3.74	33.45	-0.52	17.83	-2.17	-16.31	5.635	5.815	5.236	5.297		0+	9/2
188	128	1378.46		7.33		0.28	33.89	0.80	18.02	-0.21	-16.45	5.654	5.836	5.244	5.305		0+	0_{+}
189	129	1377.94		7.29		0.28		-0.52	18.05	-0.23	-16.48	5.702	5.903	5.244	5.305		0+	1/2
190	130	1378.73		7.26		0.27		0.79	18.28	-0.21	-16.72	5.691	5.881	5.256	5.317		0+	0^+
191	131	1378.26		7.22		0.32		-0.47	18.33	-0.23	-16.75	5.737	5.944	5.257	5.317		0+	1/2
92	132	1379.01		7.18		0.28		0.75	18.55	-0.22	-16.98	5.729	5.926	5.269	5.329		0+	0+
93	133	1378.57		7.14		0.31		<u>-0.44</u>	18.58	-0.23	-17.02	5.772	5.985	5.270	5.330		0+	1/2
94	134	1379.29		7.11		0.28		0.72	18.79	-0.23	-17.24	5.767	5.972	5.282	5.342		0+	0+
195	135	1378.90		7.07		0.33		<u>-0.39</u>	18.85	-0.24	-17.28	5.807	6.026	5.283	5.343		0+	1/2
96	136	1379.60		7.04		0.31		0.70	19.05	-0.24	-17.49	5.805	6.016	5.295	5.355		0+	0+
97	137	1379.24		7.00		0.34		$\frac{-0.36}{0.71}$	19.11	-0.25	-17.54	5.843	6.066	5.296	5.356		0+	1/2
98	138	1379.95		6.97		0.35		0.71	19.30	-0.26	-17.74	5.843	6.060	5.308	5.368		0 ⁺	0 ⁺
99	139	1379.62		6.93		0.38		$\frac{-0.33}{0.71}$	19.37	-0.27	-17.80	5.878	6.106	5.310	5.370		0 ⁺	1/2 0 ⁺
200	140	1380.33		6.90		0.38		0.71	19.54	-0.28	-17.99	5.880	6.103	5.321	5.381		0 ⁺	
201	141	1380.03		6.87		0.41		$\frac{-0.30}{0.74}$	19.63	-0.29	-18.06	5.912	6.145	5.324	5.384		0 ⁺	1/2 0 ⁺
202	142	1380.77		6.84		0.44			19.79	-0.30	-18.23	5.916	6.145	5.335	5.395		0 ⁺	
203	143	1380.48		6.80		0.45		$\frac{-0.29}{0.77}$	19.87	-0.31	-18.31	5.946	6.184	5.339	5.399		0+	1/2 0 ⁺
204 205	144	1381.25		6.77		0.48 0.51			20.03	-0.33	-18.47	5.953	6.186	5.350 5.354	5.409 5.414		0 ⁺	
205 206	145 146	1380.99		6.74 6.71		0.51		$\frac{-0.26}{0.81}$	20.12 20.27	-0.34	-18.56	5.980	6.221 6.226	5.354 5.364	5.414 5.424		0 ⁺	1/2 0 ⁺
		1381.80								-0.36	-18.71	5.988					0+	1/2
207	147	1381.55		6.67		0.56		-0.25	20.37	-0.36	-18.81	6.013	6.257	5.370	5.429		U.	1/4

Table 1 (continued)

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	$_{p}^{\lambda_{p}}$ (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
208	148	1382.40		6.65		0.60		0.85	20.50	-0.39	-18.95	6.023	6.265	5.379	5.438		0+	0+
209	149	1382.21		6.61		0.66		-0.19	20.63	-0.39	-19.06	6.046	6.292	5.386	5.445		0+	1/2+
210	150	1383.07		6.59		0.67		0.86	20.74	-0.41	-19.19	6.057	6.302	5.394	5.453		0+	0+
211	151	1382.88		6.55		0.67		-0.19	20.87	-0.42	-19.30	6.078	6.327	5.402	5.461		0+	1/2+
212	152	1383.79		6.53		0.72		0.91	20.97	-0.44	-19.42	6.090	6.339	5.409	5.467		0+	0+
213	153	1383.61		6.50		0.73		-0.18	21.11	-0.44	-19.54	6.110	6.362	5.417	5.476		0+	1/2+
214	154	1384.58		6.47		0.79		0.97	21.21	-0.46	-19.65	6.124	6.376	5.423	5.482		0+	0+
215	155	1384.40		6.44		0.79		-0.18	21.34	-0.46	-19.77	6.142	6.396	5.433	5.491		0+	1/2+
216	156	1385.42		6.41		0.84		1.02	21.43	-0.48	-19.87	6.156	6.412	5.437	5.496		0+	0+
217	157	1385.23		6.38		0.83		-0.19	21.56	-0.48	-19.99	6.173	6.429	5.447	5.506		0+	1/2+
218	158	1386.30		6.36		0.88		1.07	21.64	-0.50	-20.08	6.189	6.447	5.451	5.509		0+	0+
219	159	1386.12		6.33		0.89		-0.18	21.78	-0.49	-20.21	6.205	6.463	5.462	5.520		0+	1/2+
220	160	1387.24		6.31		0.94		1.12	21.86	-0.51	-20.29	6.221	6.483	5.464	5.522		0+	0+
221	161	1387.05		6.28		0.93		<u>-0.19</u>	21.97	-0.51	-20.39	6.239	6.502	5.472	5.530		0+	3/2+
222	162	1388.20		6.25		0.96		1.15	22.06	-0.51	-20.48	6.253	6.518	5.477	5.535		0+	0+
223	163	1388.02		6.22		0.97		-0.18	22.18	-0.49	-20.58	6.270	6.535	5.485	5.543		0+	3/2+
224	164	1389.17		6.20		0.97		1.15	22.26	-0.50	-20.67	6.285	6.553	5.489	5.547		0+	0+
225	165	1388.96		6.17		0.94		$\frac{-0.21}{1.00}$	22.36	-0.46	-20.77	6.301	6.569	5.497	5.555		0+	3/2+
226	166	1390.13		6.15		0.96		1.17	22.45	-0.46	-20.85	6.318	6.588	5.500	5.558		0+	0+
227	167	1389.81		6.12		0.85		$\frac{-0.32}{-0.32}$	22.54	-0.08	-20.93	6.333	6.605	5.508	5.566		0+	3/2+
228	168	1390.96		6.10		0.83		1.15	22.60	-0.10	-21.00	6.352	6.626	5.509	5.567		0+	0+
229	169	1389.80		6.07		$\frac{-0.01}{0.01}$		<u>-1.16</u>		-0.13	-21.17	6.361	6.634	5.521	5.579		0+	15/2
230	170	1390.35		6.04		-0.61		0.55		<u>0.37</u>	-21.35	6.369	6.639	5.534	5.592		0^+	0+
σ		8.42													0.017			
	1 (Pm)	1000 EE		7.04			0.52		1 20	12.72	0.12	4700	4776	4 000	4.000		E /2+	0+
127	66	1008.55		7.94				11 10	$\frac{-1.30}{0.05}$	-12.73	$\frac{0.13}{0.22}$	4.788	4.776	4.802	4.868		5/2 ⁺	
128	67	1019.73		7.97		2475	1.22	11.18	$\frac{-0.95}{0.60}$	-12.53	-0.23	4.799	4.793	4.807	4.873		5/2 ⁺	3/2+
129	68	1033.30		8.01		24.75	1.92	13.57	$\frac{-0.60}{0.36}$	-12.31	-0.57	4.810	4.809	4.811	4.877		5/2 ⁺	0 ⁺
130	69	1044.09		8.03		24.36	2.62	10.79	$\frac{-0.26}{0.00}$	-12.10	-0.92	4.821	4.826	4.815	4.881		5/2 ⁺ 5/2 ⁺	3/2 ⁺ 0 ⁺
131	70	1057.29		8.07		23.99	3.31	13.20	0.08	-11.96	-1.25	4.832	4.842	4.820	4.886			1/2 ⁺
132 133	71 72	1067.81	1001 17	8.09	0.20	23.72 23.36	3.98	10.52	0.41 0.75	-11.82	-1.58 -1.91	4.843 4.853	4.858 4.874	4.824 4.829	4.890		5/2 ⁺ 5/2 ⁺	0+
	73	1080.65 1090.96	1091.17 1100.57	8.13	8.20 8.21	23.36	4.67 5.36	12.84	1.09	-11.65		4.853 4.864		4.829	4.895 4.899		5/2+ 5/2+	1/2+
134 135	73 74			8.14 8.17		22.83		10.31 12.52	1.09	-11.52	-2.25 -2.57	4.864 4.874	4.890 4.904	4.833	4.899		5/2+	0+
136	74 75	1103.48 1113.58	1111.93 1121.16	8.17	8.24 8.24	22.62	6.03 6.70	10.10	1.42	-11.38 -11.25	-2.37 -2.90	4.885	4.904	4.842	4.903		5/2 ⁺	1/2+
130 137	75 76					22.62			2.07									0+
	76 77	1125.82	1132.12	8.22	8.26	22.34	7.35 8.02	12.24		-11.13	-3.21	4.895 4.906	4.934 4.949	4.846	4.912		5/2 ⁺ 5/2 ⁺	1/2+
138	77 78	1135.75	1141.06 1151.69	8.23 8.26	8.27			9.93	2.40 2.70	-11.00 -10.90	-3.53			4.851	4.916 4.920		5/2 ⁺	0+
139 140	78 79	1147.75	1160.47	8.26 8.27	8.29 8.29	21.93 21.76	8.64 9.29	12.00 9.76	3.00	-10.90 -10.77	-3.83 -4.14	4.915 4.926	4.963 4.976	4.854 4.859	4.920 4.924		5/2 ⁺	1/2+
140	80	1157.51 1169.29	1170.86	8.29	8.30	21.76	9.89	9.76 11.78	3.31	-10.77 -10.68	-4.14 -4.44	4.926	4.970	4.862	4.924		5/2 ⁺	0+
142	81	1178.93	1170.86	8.30	8.31	21.34	10.51	9.64	3.60	-8.94	-4.44 -4.75	4.935	5.003	4.867	4.928		5/2 ⁺	1/2+
																		0+
143	82 83	1190.50	1189.44 1195.96	8.33	8.32 8.31	21.21	11.12	11.57	3.90 4.21	-8.39 -9.06	-5.05 -5.36	4.955	5.017 5.040	4.870 4.885	4.935		5/2 ⁺ 5/2 ⁺	9/2-
144		1195.08		8.30		16.15	11.75	4.58				4.975			4.950		5/2 ⁺	9/2 0 ⁺
145	84 85	1202.02	1203.89 1210.14	8.29	8.30 8.29	11.52 11.40	12.37 12.99	6.94	4.52 4.83	-5.81 -5.74	-5.67 -5.97	4.991 5.011	5.061 5.083	4.894 4.908	4.959 4.973		5/2 ⁺	9/2
146 147	85 86	1206.48 1213.31	1210.14	8.26 8.25	8.29 8.28	11.40	12.99	4.46 6.83	4.83 5.13	-5.74 -5.71	-5.97 -6.27	5.011	5.083	4.908 4.917	4.973 4.982		5/2 ⁺	9/2 0 ⁺
	80 87			8.23			14.19		5.13	-5.71 -5.63		5.028	5.104	4.917	4.982 4.995		5/2+	9/2-
148		1217.64	1223.70		8.27 8.26	11.16		4.33 6.75			-6.57						5/2+ 5/2+	9/2 0 ⁺
149	88	1224.39	1230.97	8.22	8.26	11.08	14.78	6.75	5.72	-5.61	-6.86	5.063	5.146	4.940	5.005			
150	89	1228.60	1236.57	8.19	8.24	10.96	15.36	4.21	6.01	-5.53	-7.15	5.081	5.167	4.953	5.017		5/2 ⁺	9/2
151	90	1235.28	1244.43	8.18	8.24	10.89	15.93	6.68	6.30	-5.52	-7.44	5.097	5.186	4.963	5.027		5/2 ⁺	0 ⁺
152	91	1239.38	1250.37	8.15	8.23	10.78	16.52	4.10	6.59	-5.48 5.43	-7.72	5.114	5.207	4.972	5.036		5/2 ⁺	7/2-
153	92	1245.98	1257.84	8.14	8.22	10.70	17.06	6.60	6.85	-5.42	-8.00	5.131	5.226	4.984	5.048		5/2 ⁺	0^{+}
154	93	1250.03	1263.75	8.12	8.21	10.65	17.62	4.05	7.13	-5.37	-8.28	5.148	5.246	4.994	5.058		5/2+	7/2

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
155	94	1256.48	1270.27	8.11	8.20	10.50	18.15	6.45	7.40	-5.31	-8.55	5.163	5.264	5.004	5.068		5/2+	0+
156	95	1260.46	1275.57	8.08	8.18	10.43	18.71	3.98	7.67	-5.24	-8.82	5.180	5.284	5.015	5.078		$5/2^{+}$	7/2
57	96	1266.77	1281.77	8.07	8.16	10.29	19.24	6.31	7.94	-5.19	-9.09	5.195	5.302	5.023	5.086		$5/2^{+}$	0^{+}
58	97	1270.61	1286.63	8.04	8.14	10.15	19.76	3.84	8.20	-5.09	-9.35	5.212	5.321	5.033	5.096		5/2+	7/2
59	98	1276.80	1292.17	8.03	8.13	10.03	20.28	6.19	8.47	-5.05	-9.61	5.226	5.338	5.040	5.103		5/2+	0^+
60	99	1280.43		8.00		9.82	20.79	3.63	8.72	-4.90	-9.86	5.242	5.358	5.050	5.113		5/2+	7/2
161	100	1286.55		7.99		9.75	21.30	6.12	8.98	-4.90	-10.11	5.256	5.375	5.055	5.118		$5/2^{+}$	0^+
162	101	1290.00		7.96		9.57	21.74	3.45	9.21	-4.90	-10.33	5.272	5.396	5.060	5.123		$5/2^{+}$	3/2
163	102	1295.97		7.95		9.42	22.24	5.97	9.45	-4.74	-10.59	5.286	5.411	5.070	5.133		$5/2^{+}$	0^{+}
164	103	1299.42		7.92		9.42	22.68	3.45	9.69	-4.71	-10.80	5.302	5.432	5.075	5.138		$5/2^{+}$	3/2
65	104	1305.09		7.91		9.12	23.14	5.67	9.91	-4.60	-11.04	5.316	5.447	5.084	5.146		5/2+	0^{+}
166	105	1308.48		7.88		9.06	23.56	3.39	10.13	-4.55	-11.25	5.332	5.467	5.089	5.152		5/2+	3/2
167	106	1313.95		7.87		8.86	24.01	5.47	10.35	-4.48	-11.48	5.345	5.483	5.097	5.160		5/2+	0+
168	107	1317.26		7.84		8.78	24.42	3.31	10.56	-4.42	-11.68	5.361	5.503	5.103	5.166		5/2+	3/2
169	108	1322.59		7.83		8.64	24.85	5.33	10.78	-4.37	-11.90	5.374	5.518	5.111	5.173		5/2+	0+
70	109	1325.80		7.80		8.54	25.26	3.21	10.98	-4.30	-12.11	5.390	5.537	5.117	5.179		5/2+	3/
171	110	1331.03		7.78		8.44	25.68	5.23	11.19	-4.27	-12.32	5.403	5.552	5.124	5.186		5/2+	0+
172	111	1334.24		7.76		8.44	26.04	3.21	11.39	-4.23	-12.52	5.419	5.571	5.130	5.192		5/2+	1/
73	112	1339.30		7.74		8.27	26.51	5.06	11.61	-4.18	-12.74	5.431	5.585	5.137	5.199		5/2+	0+
174	113	1342.45		7.72		8.21	26.92	3.15	11.81	-4.13	-12.94	5.446	5.603	5.143	5.205		5/2+	1/:
175	114	1347.41		7.70		8.11	27.34	4.96	12.03	-4.08	-13.15	5.459	5.617	5.150	5.212		5/2 ⁺	0+
176	115	1350.45		7.67		8.00	27.76	3.04	12.23	-4.02	-13.36	5.473	5.633	5.158	5.220		5/2 ⁺	1/3
77	116	1355.35		7.66		7.94	28.17	4.90	12.45	-3.99	-13.56	5.486	5.648	5.164	5.226		5/2 ⁺	0+
78	117	1358.26		7.63		7.81	28.60	2.91	12.45	-3.91	-13.78	5.499	5.662	5.173	5.235		5/2 ⁺	1/2
179	118	1363.12		7.62		7.77	28.99	4.86	12.86	-3.89	-13.78 -13.98	5.512	5.677	5.179	5.240		5/2 ⁺	0+
	119			7.52			29.40						5.693				5/2 ⁺	13
180		1365.88				7.62		2.76	13.07	-3.87	-14.18	5.526		5.185	5.246			0+
181	120	1370.73		7.57		7.61	29.81	4.85	13.27	-3.80	-14.40	5.538	5.706	5.193	5.255		5/2 ⁺	_
182	121	1373.47		7.55		7.59	30.21	2.74	13.48	-3.77	-14.60	5.551	5.720	5.200	5.261		5/2 ⁺	13
183	122	1378.19		7.53		7.46	30.62	4.72	13.69	-3.70	-14.82	5.563	5.733	5.209	5.270		5/2+	0+
184	123	1380.91		7.50		7.44	31.01	2.72	13.89	-3.66	-15.02	5.576	5.747	5.216	5.277		5/2+	13,
185	124	1385.49		7.49		7.30	31.42	4.58	14.08	-3.60	-15.24	5.588	5.759	5.225	5.286		5/2+	0^+
186	125	1388.20		7.46		7.29	31.83	2.71	14.28	-2.71	-15.45	5.601	5.772	5.232	5.293		$5/2^{+}$	13,
187	126	1392.67		7.45		7.18	32.25	4.47	14.49	-2.32	-15.66	5.612	5.784	5.241	5.302		5/2+	0^+
188	127	1392.29		7.41		4.09	32.46	-0.38	14.63	-2.37	-15.80	5.632	5.808	5.245	5.306		5/2+	9/2
89	128	1393.24		7.37		0.57	32.80	0.95	14.78	-0.35	-15.94	5.649	5.828	5.254	5.314		5/2+	0^{+}
190	129	1392.81		7.33		0.52	32.92	-0.43	14.87	-0.33	-16.08	5.668	5.852	5.258	5.319		5/2+	9/
191	130	1393.79		7.30		0.55	33.34	0.98	15.06	-0.35	-16.22	5.686	5.872	5.267	5.327		$5/2^{+}$	0^{+}
192	131	1393.35		7.26		0.54	33.42	-0.44	15.09	-0.37	-16.25	5.731	5.934	5.267	5.328		$5/2^{+}$	1/:
93	132	1394.34		7.22		0.55	33.88	0.99	15.33	-0.35	-16.49	5.723	5.916	5.280	5.340		$5/2^{+}$	0^{+}
94	133	1393.95		7.19		0.60	33.96	-0.39	15.38	-0.38	-16.53	5.765	5.974	5.281	5.341		5/2+	1/3
95	134	1394.90		7.15		0.56	34.40	0.95	15.61	-0.36	-16.76	5.759	5.959	5.293	5.354		5/2+	0^{+}
196	135	1394.55		7.12		0.60	34.50	-0.35	15.65	-0.38	-16.80	5.799	6.014	5.294	5.354		5/2+	1/
97	136	1395.47		7.08		0.57	34.92	0.92	15.87	-0.37	-17.02	5.796	6.002	5.307	5.367		5/2+	0+
98	137	1395.16		7.05		0.61	35.03	-0.31	15.92	-0.39	-17.07	5.834	6.053	5.308	5.368		5/2+	1/2
99	138	1396.07		7.02		0.60	35.42	0.91	16.12	-0.39	-17.28	5.832	6.045	5.321	5.381		5/2 ⁺	0+
200	139	1395.80		6.98		0.64	35.55	-0.27	16.18	-0.41	-17.34	5.868	6.091	5.323	5.383		5/2 ⁺	1/2
01	140	1396.71		6.95		0.64	35.92	0.91	16.38	-0.41	-17.54	5.869	6.086	5.336	5.395		5/2 ⁺	0+
202	141	1396.48		6.91		0.68	36.08	-0.23	16.45	-0.42	-17.60	5.902	6.129	5.338	5.398		5/2 ⁺	1/2
203	142	1397.40		6.88		0.69	36.42	0.92	16.63	-0.42 -0.43	-17.00 -17.79	5.904	6.127	5.350	5.410		5/2 ⁺	0+
204	143	1397.40		6.85		0.03	36.58	-0.21	16.71	-0.45 -0.45	-17.73 -17.87	5.935	6.167	5.353	5.413		5/2 ⁺	1/3
204 205	143 144	1397.19		6.82		0.71	36.58 36.91	$\frac{-0.21}{0.94}$	16.71	-0.45 -0.46	-17.87 -18.04	5.935	6.167	5.365	5.415		5/2 ⁺	0 ⁺
																	$5/2^{+}$	
206	145	1397.95		6.79		0.76	37.08	$\frac{-0.18}{0.07}$	16.96	-0.47	-18.13	5.968	6.203	5.369	5.428			1/
207 208	146	1398.92		6.76		0.79	37.39	0.97	17.12	-0.48	-18.29	5.975	6.206	5.380	5.439		5/2 ⁺	0+
/IIX	147	1398.77		6.72		0.82	37.59	-0.15	17.22	-0.49	-18.38	6.001	6.239	5.385	5.444		$5/2^{+}$	1/

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
:09	148	1399.77		6.70		0.85	37.87	1.00	17.37	-0.51	-18.53	6.009	6.244	5.395	5.454		5/2+	0+
10	149	1399.67		6.67		0.90	38.09	-0.10	17.46	-0.52	-18.63	6.033	6.274	5.401	5.460		5/2+	1/2
11	150	1400.67		6.64		0.90	38.34	1.00	17.60	-0.53	-18.77	6.043	6.282	5.410	5.469		5/2+	0+
12	151	1400.61		6.61		0.94	38.60	-0.06	17.73	-0.54	-18.88	6.065	6.309	5.417	5.475		5/2+	1/2
13	152	1401.63		6.58		0.96	38.81	1.02	17.84	-0.56	-19.01	6.076	6.319	5.425	5.483		5/2+	0+
14	153	1401.58		6.55		0.97	39.08	-0.05	17.97	-0.56	-19.12	6.097	6.343	5.432	5.491		5/2+	1/2
15	154	1402.65		6.52		1.02	39.28	1.07	18.07	-0.58	-19.23	6.109	6.355	5.439	5.497		5/2+	0+
16	155	1402.60		6.49		1.02	39.54	-0.05	18.20	-0.58	-19.35	6.129	6.377	5.447	5.505		5/2 ⁺	1/2
17	156	1403.71		6.47		1.06	39.72	1.11	18.29	-0.59	-19.45	6.142	6.392	5.452	5.511		5/2 ⁺	0+
18	157	1403.66		6.44		1.06	39.99	-0.05	18.43	-0.59	-19.57	6.160	6.411	5.461	5.520		5/2 ⁺	1/2
19	158	1404.82		6.41		1.11	40.16	1.16	18.52	-0.61	-19.66	6.175	6.428	5.465	5.524		5/2 ⁺	0+
20	159	1404.76		6.39		1.10	40.42	-0.06	18.64	-0.60	-19.79	6.191	6.445	5.475	5.533		5/2 ⁺	1/2
21	160	1405.96		6.36		1.14	40.58	1.20	18.72	-0.61	-19.87	6.207	6.464	5.478	5.536		5/2 ⁺	0+
22	161	1405.89		6.33		1.13	40.38	-0.07	18.84	-0.59	-19.87 -19.99	6.223	6.479	5.488	5.546		5/2 ⁺	1/2
23																		0+
	162	1407.13		6.31		1.17	40.99	1.24	18.93	-0.61	-20.06	6.239	6.499	5.490	5.548		5/2 ⁺	
24	163	1407.04		6.28		1.15	41.20	<u>-0.09</u>	19.02	-0.60	-20.16	6.256	6.518	5.497	5.555		5/2 ⁺	3/2
25	164	1408.30		6.26		1.17	41.39	1.26	19.13	-0.60	-20.25	6.272	6.535	5.501	5.559		5/2 ⁺	0+
26	165	1408.18		6.23		1.14	41.58	<u>-0.12</u>	19.22	-0.55	-20.34	6.288	6.552	5.509	5.567		5/2+	3/2
27	166	1409.43		6.21		1.13	41.75	1.25	19.30	-0.55	-20.43	6.304	6.571	5.512	5.569		5/2+	0+
28	167	1409.19		6.18		1.01	41.92	-0.24	19.38	-0.21	-20.49	6.320	6.589	5.519	5.576		5/2+	3/2
29	168	1410.42		6.16		0.99	42.06	1.23	19.46	-0.23	-20.58	6.337	6.609	5.521	5.578		5/2+	0^+
30	169	1409.43		6.13		0.24	19.63	-0.99	19.63	-0.26	-20.73	6.348	6.618	5.531	5.589		5/2+	15/
31	170	1410.15		6.10		-0.27	19.80	0.72	19.80	<u>0.21</u>	-20.92	6.355	6.622	5.545	5.602		$5/2^{+}$	0^+
		9.22																
Z = 6	2 (Sm)																	
28	66	1009.40		7.89			-0.45		0.85	-13.08	0.54	4.800	4.781	4.821	4.887		0^+	0^{+}
29	67	1020.96		7.91			0.28	11.56	1.23	-12.87	0.18	4.811	4.798	4.826	4.892		0^+	3/2
30	68	1034.85		7.96		25.45	0.95	13.89	1.55	-12.64	-0.14	4.821	4.814	4.830	4.895		0^+	0+
31	69	1045.99		7.98		25.03	1.64	11.14	1.90	-12.42	-0.49	4.832	4.831	4.834	4.900		0^{+}	3/2
32	70	1059.51		8.03		24.66	2.30	13.52	2.22	-12.29	-0.82	4.843	4.847	4.838	4.904		0+	0+
33	71	1070.38		8.05		24.39	2.98	10.87	2.57	-12.14	-1.15	4.853	4.863	4.842	4.908		0^{+}	1/2
34	72	1083.53		8.09		24.02	3.63	13.15	2.88	-11.97	-1.47	4.864	4.878	4.847	4.912		0^{+}	0+
35	73	1094.17	1103.98	8.10	8.18	23.79	4.30			11.57		1.001			1.512			
36	74			0.10				100 64	3 21	-1183	-180	4874	4 894	4 851	4 916			1/2
50		1106 99	1116.00	8 14				10.64 12.82	3.21 3.51	-11.83 -11.69	-1.80 -2.12	4.874 4.884	4.894 4.908	4.851 4.855	4.916 4.920		0^+	
27		1106.99	1116.00	8.14	8.21	23.46	4.93	12.82	3.51	-11.69	-2.12	4.884	4.908	4.855	4.920		0 ⁺	0+
	75	1117.42	1125.29	8.16	8.21 8.21	23.46 23.25	4.93 5.59	12.82 10.43	3.51 3.84	-11.69 -11.56	-2.12 -2.44	4.884 4.895	4.908 4.924	4.855 4.859	4.920 4.925	4 060	0 ⁺ 0 ⁺ 0 ⁺	0 ⁺ 1/2
38	75 76	1117.42 1129.97	1125.29 1136.83	8.16 8.19	8.21 8.21 8.24	23.46 23.25 22.98	4.93 5.59 6.22	12.82 10.43 12.55	3.51 3.84 4.15	-11.69 -11.56 -11.44	-2.12 -2.44 -2.75	4.884 4.895 4.904	4.908 4.924 4.938	4.855 4.859 4.863	4.920 4.925 4.928	4.960	0 ⁺ 0 ⁺ 0 ⁺ 0 ⁺	0 ⁺ 1/2 0 ⁺
38 39	75 76 77	1117.42 1129.97 1140.20	1125.29 1136.83 1145.79	8.16 8.19 8.20	8.21 8.21 8.24 8.24	23.46 23.25 22.98 22.78	4.93 5.59 6.22 6.85	12.82 10.43 12.55 10.23	3.51 3.84 4.15 4.45	-11.69 -11.56 -11.44 -11.31	-2.12 -2.44 -2.75 -3.07	4.884 4.895 4.904 4.915	4.908 4.924 4.938 4.952	4.855 4.859 4.863 4.867	4.920 4.925 4.928 4.933	4.956	0 ⁺ 0 ⁺ 0 ⁺ 0 ⁺ 0 ⁺	0 ⁺ 1/2 0 ⁺ 1/2
38 39 40	75 76 77 78	1117.42 1129.97 1140.20 1152.51	1125.29 1136.83 1145.79 1156.93	8.16 8.19 8.20 8.23	8.21 8.21 8.24 8.24 8.26	23.46 23.25 22.98 22.78 22.54	4.93 5.59 6.22 6.85 7.46	12.82 10.43 12.55 10.23 12.31	3.51 3.84 4.15 4.45 4.76	-11.69 -11.56 -11.44 -11.31 -11.20	-2.12 -2.44 -2.75 -3.07 -3.37	4.884 4.895 4.904 4.915 4.924	4.908 4.924 4.938 4.952 4.966	4.855 4.859 4.863 4.867 4.871	4.920 4.925 4.928 4.933 4.936	4.956 4.957	0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 0 ⁺ 1/2 0 ⁺
38 39 40 41	75 76 77 78 79	1117.42 1129.97 1140.20 1152.51 1162.59	1125.29 1136.83 1145.79 1156.93 1165.48	8.16 8.19 8.20 8.23 8.25	8.21 8.21 8.24 8.24 8.26 8.27	23.46 23.25 22.98 22.78 22.54 22.39	4.93 5.59 6.22 6.85 7.46 8.08	12.82 10.43 12.55 10.23 12.31 10.08	3.51 3.84 4.15 4.45 4.76 5.08	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68	4.884 4.895 4.904 4.915 4.924 4.934	4.908 4.924 4.938 4.952 4.966 4.980	4.855 4.859 4.863 4.867 4.871 4.875	4.920 4.925 4.928 4.933 4.936 4.940	4.956 4.957 4.952	0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 0 ⁺ 1/2 0 ⁺ 1/2 0 ⁺ 1/2
38 39 40 41 42	75 76 77 78 79 80	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61	8.16 8.19 8.20 8.23 8.25 8.27	8.21 8.21 8.24 8.24 8.26 8.27 8.29	23.46 23.25 22.98 22.78 22.54 22.39 22.16	4.93 5.59 6.22 6.85 7.46 8.08 8.69	12.82 10.43 12.55 10.23 12.31 10.08 12.08	3.51 3.84 4.15 4.45 4.76 5.08 5.38	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99	4.884 4.895 4.904 4.915 4.924 4.934 4.943	4.908 4.924 4.938 4.952 4.966 4.980 4.993	4.855 4.859 4.863 4.867 4.871 4.875 4.879	4.920 4.925 4.928 4.933 4.936 4.940 4.944	4.956 4.957 4.952 4.952	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2
38 39 40 41 42 43	75 76 77 78 79 80 81	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21	8.16 8.19 8.20 8.23 8.25 8.27 8.28	8.21 8.21 8.24 8.24 8.26 8.27 8.29 8.29	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948	4.956 4.957 4.952 4.952 4.948	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 0 ⁺ 1/2 0 ⁺ 1/2 0 ⁺ 1/2
38 39 40 41 42 43	75 76 77 78 79 80 81 82	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31	8.21 8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.30	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951	4.956 4.957 4.952 4.952 4.948 4.952	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 0 ⁺ 1/2 0 ⁺ 1/2 0 ⁺ 1/2 0 ⁺
38 39 40 41 42 43 44 45	75 76 77 78 79 80 81 82 83	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28	8.21 8.24 8.24 8.26 8.27 8.29 8.30 8.29	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59 -4.90	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958	4.956 4.957 4.952 4.952 4.948 4.952 4.965	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2
38 39 40 41 42 43 44 45	75 76 77 78 79 80 81 82 83	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.28	8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.30 8.29 8.29	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 7/2
38 39 40 41 42 43 44 45 46 47	75 76 77 78 79 80 81 82 83 84	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65 1213.42	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90 1217.24	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.28 8.25	8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.30 8.29 8.29 8.29 8.29	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15 12.29	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15 11.77	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52 4.77	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63 6.94	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11 -6.04	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21 -5.52	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999 5.018	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063 5.085	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910 4.924	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974 4.988	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981 4.989	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 7/2 0+ 9/2
38 39 40 41 42 43 44 45 46 47 48	75 76 77 78 79 80 81 82 83 84 85	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65 1213.42 1220.55	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90 1217.24 1225.39	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.28 8.25 8.25	8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.30 8.29 8.29 8.28	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15 12.29 11.90	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15 11.77 12.37	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52 4.77 7.13	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63 6.94 7.24	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11 -6.04 -6.00	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21 -5.52 -5.82	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999 5.018 5.034	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063 5.085 5.106	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910 4.924 4.933	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974 4.988 4.997	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981 4.989 5.004	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 9/2 0+
38 39 40 41 42 43 44 45 46 47 48	75 76 77 78 79 80 81 82 83 84 85 86	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65 1213.42	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90 1217.24 1225.39 1231.26	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.28 8.25	8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.30 8.29 8.29 8.29 8.29	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15 12.29	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15 11.77	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52 4.77	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63 6.94	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11 -6.04 -6.00 -5.92	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21 -5.52	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999 5.018	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063 5.085	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910 4.924	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974 4.988	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981 4.989	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 9/2 0+ 9/2
38 39 40 41 42 43 44 45 46 47 48	75 76 77 78 79 80 81 82 83 84 85	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65 1213.42 1220.55	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90 1217.24 1225.39	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.28 8.25 8.25	8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.30 8.29 8.29 8.28	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15 12.29 11.90	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15 11.77 12.37	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52 4.77 7.13	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63 6.94 7.24	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11 -6.04 -6.00	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21 -5.52 -5.82	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999 5.018 5.034	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063 5.085 5.106	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910 4.924 4.933	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974 4.988 4.997	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981 4.989 5.004	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 9/2 0+
38 39 40 41 42 43 44 45 46 47 48 49 50	75 76 77 78 79 80 81 82 83 84 85 86	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65 1213.42 1220.55 1225.19	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90 1217.24 1225.39 1231.26	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.25 8.25 8.25	8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.29 8.29 8.29 8.28 8.28 8.28	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15 12.29 11.90 11.77	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15 11.77 12.37 12.97	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52 4.77 7.13 4.64	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63 6.94 7.24 7.55	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11 -6.04 -6.00 -5.92	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21 -5.52 -5.82 -6.12	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999 5.018 5.034 5.053	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063 5.063 5.106 5.127	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910 4.924 4.933 4.946	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974 4.988 4.997 5.011	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981 4.989 5.004 5.013	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 9/2 0+ 9/2 0+
38 39 40 41 42 43 44 45 46 47 48 49 50	75 76 77 78 79 80 81 82 83 84 85 86 87 88	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65 1213.42 1220.55 1225.19 1232.23	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90 1217.24 1225.39 1231.26 1239.24	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.28 8.25 8.25 8.25 8.25	8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.30 8.29 8.29 8.28 8.28 8.28 8.26	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15 12.29 11.90 11.77 11.68	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15 11.77 12.37 12.97 13.56	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52 4.77 7.13 4.64 7.04	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63 6.94 7.24 7.55 7.84	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11 -6.04 -6.00 -5.92 -5.90	-2.12 -2.44 -2.75 -3.07 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21 -5.21 -5.82 -6.12 -6.41	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999 5.018 5.034 5.053 5.069	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063 5.085 5.106 5.127 5.147	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910 4.924 4.933 4.946 4.956	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974 4.988 4.997 5.011 5.020	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981 4.989 5.004 5.013 5.039	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 9/2 0+ 9/2 0+
38 39 40 41 42 43 44 45 46 47 48 49 50 51	75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65 1213.42 1220.55 1225.19 1232.23 1236.74 1243.71	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90 1217.24 1225.39 1231.26 1239.24 1244.84 1253.10	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.28 8.25 8.25 8.25 8.25 8.21 8.19	8.21 8.24 8.24 8.26 8.27 8.29 8.29 8.30 8.29 8.28 8.28 8.28 8.26 8.24	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15 12.29 11.90 11.77 11.68 11.55 11.48	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15 11.77 12.37 12.97 13.56 14.15 14.73	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52 4.77 7.13 4.64 7.04 4.51 6.97	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63 6.94 7.24 7.55 7.84 8.14 8.43	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11 -6.04 -6.00 -5.92 -5.90 -5.81 -5.80	-2.12 -2.44 -2.75 -3.07 -3.37 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21 -5.52 -5.82 -6.12 -6.41 -6.70 -6.99	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999 5.018 5.034 5.053 5.069 5.087 5.103	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063 5.106 5.127 5.147 5.168 5.187	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910 4.924 4.933 4.946 4.956 4.968 4.978	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974 4.988 4.997 5.011 5.020 5.032 5.041	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981 4.989 5.004 5.013 5.039 5.055 5.082	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0+ 1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 9/2 0+ 9/2 0+ 9/2 0+
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54	75 76 77 78 79 80 81 82 83 84 85 86 87 88	1117.42 1129.97 1140.20 1152.51 1162.59 1174.67 1184.63 1196.50 1201.13 1208.65 1213.42 1220.55 1225.19 1232.23 1236.74	1125.29 1136.83 1145.79 1156.93 1165.48 1176.61 1185.21 1195.73 1202.49 1210.90 1217.24 1225.39 1231.26 1239.24 1244.84	8.16 8.19 8.20 8.23 8.25 8.27 8.28 8.31 8.28 8.28 8.25 8.25 8.25 8.21 8.19	8.21 8.24 8.24 8.26 8.27 8.29 8.30 8.29 8.29 8.28 8.28 8.26 8.26 8.24	23.46 23.25 22.98 22.78 22.54 22.39 22.16 22.04 21.83 16.50 12.15 12.29 11.90 11.77 11.68 11.55	4.93 5.59 6.22 6.85 7.46 8.08 8.69 9.30 9.90 10.26 11.15 11.77 12.37 12.97 13.56 14.15	12.82 10.43 12.55 10.23 12.31 10.08 12.08 9.96 11.87 4.63 7.52 4.77 7.13 4.64 7.04 4.51	3.51 3.84 4.15 4.45 4.76 5.08 5.38 5.70 6.00 6.05 6.63 6.94 7.24 7.55 7.84 8.14	-11.69 -11.56 -11.44 -11.31 -11.20 -11.08 -10.98 -9.61 -8.75 -9.58 -6.11 -6.04 -6.00 -5.92 -5.90 -5.81	-2.12 -2.44 -2.75 -3.07 -3.68 -3.99 -4.30 -4.59 -4.90 -5.21 -5.52 -5.82 -6.12 -6.41 -6.70	4.884 4.895 4.904 4.915 4.924 4.934 4.943 4.953 4.962 4.978 4.999 5.018 5.053 5.069 5.087	4.908 4.924 4.938 4.952 4.966 4.980 4.993 5.006 5.019 5.041 5.063 5.127 5.147 5.168	4.855 4.859 4.863 4.867 4.871 4.875 4.879 4.883 4.886 4.893 4.910 4.924 4.933 4.946 4.956 4.968	4.920 4.925 4.928 4.933 4.936 4.940 4.944 4.948 4.951 4.958 4.974 4.988 4.997 5.011 5.020 5.032	4.956 4.957 4.952 4.952 4.948 4.952 4.965 4.981 4.989 5.004 5.013 5.039 5.055	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	1/2 0+ 1/2 0+ 1/2 0+ 1/2 0+ 7/2 0+ 9/2 0+ 9/2 0+ 9/2

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
156	94	1266.04	1279.98	8.12	8.21	11.06	16.96	6.72	9.56	-5.58	-8.10	5.168	5.264	5.018	5.082		0+	0+
157	95	1270.30	1285.37	8.09	8.19	10.98	17.51	4.26	9.84	-5.51	-8.38	5.184	5.283	5.029	5.092		0+	7/2-
158	96	1276.86	1292.01	8.08	8.18	10.82	18.03	6.56	10.09	-5.45	-8.64	5.199	5.301	5.037	5.100		0+	0+
159	97	1280.98	1297.04	8.06	8.16	10.68	18.57	4.12	10.37	-5.34	-8.91	5.215	5.320	5.047	5.110		0+	7/2-
160	98	1287.42	1303.14	8.05	8.14	10.56	19.09	6.44	10.62	-5.30	-9.16	5.229	5.337	5.053	5.116		0+	0+
161	99	1291.30	1307.65	8.02	8.12	10.32	19.59	3.88	10.87	-5.14 5.12	-9.42	5.245	5.356	5.063	5.126		0+	7/2-
162	100	1297.66		8.01		10.24	20.09	6.36	11.11	-5.13	-9.67	5.258	5.373	5.069	5.131		0 ⁺	0 ⁺
163	101	1301.36		7.98		10.06	20.57	3.70	11.36	-5.13	-9.89	5.275	5.393	5.077	5.139		0 ⁺	5/2 ⁻ 0 ⁺
164 165	102 103	1307.56 1311.21		7.97 7.95		9.90 9.85	21.04 21.48	6.20 3.65	11.59 11.79	-4.96 -4.93	-10.15 -10.36	5.288 5.303	5.408 5.429	5.083 5.088	5.146 5.150		0 ⁺	3/2-
166	103	1317.13		7.93 7.93		9.63 9.57	21.46	5.92	12.04	-4.93 -4.81	-10.36 -10.60	5.317	5.444	5.097	5.150		0+	0 ⁺
167	104	1320.72		7.93 7.91		9.51	22.37	3.59	12.04	-4.81 -4.76	-10.80	5.333	5.464	5.102	5.164		0+	3/2-
168	105	1326.72		7.90		9.29	22.82	5.70	12.47	-4.68	-10.81 -11.04	5.346	5.479	5.102	5.173		0+	0 ⁺
169	107	1329.93		7.87		9.23	23.23	3.51	12.47	-4.63	-11.04 -11.24	5.362	5.499	5.116	5.178		0+	3/2-
170	107	1335.48		7.86		9.06	23.67	5.55	12.89	-4.57	-11.24 -11.47	5.375	5.514	5.124	5.186		0+	0+
171	109	1338.90		7.83		8.97	24.08	3.42	13.10	-4.51	-11.47 -11.67	5.390	5.533	5.130	5.192		0+	3/2-
172	110	1344.35		7.82		8.87	24.51	5.45	13.32	-4.47	-11.89	5.403	5.547	5.137	5.199		0+	0 ⁺
173	111	1347.71		7.79		8.81	24.86	3.36	13.47	-4.44	-12.08	5.418	5.566	5.142	5.204		0+	1/2-
174	112	1353.03		7.78		8.68	25.34	5.32	13.73	-4.38	-12.31	5.431	5.580	5.150	5.212		0+	0+
175	113	1356.39		7.75		8.68	25.75	3.36	13.94	-4.34	-12.51	5.446	5.598	5.156	5.218		0+	1/2-
176	114	1361.55		7.74		8.52	26.17	5.16	14.14	-4.29	-12.72	5.458	5.612	5.163	5.225		0+	0+
177	115	1364.81		7.71		8.42	26.59	3.26	14.36	-4.23	-12.93	5.472	5.628	5.171	5.232		0+	1/2-
178	116	1369.91		7.70		8.36	27.01	5.10	14.56	-4.20	-13.14	5.485	5.643	5.177	5.238		0^{+}	0+
179	117	1373.06		7.67		8.25	27.46	3.15	14.80	-4.12	-13.36	5.498	5.657	5.186	5.247		0^+	1/2
180	118	1378.11		7.66		8.20	27.85	5.05	14.99	-4.10	-13.56	5.511	5.672	5.191	5.252		0^{+}	0+
181	119	1381.12		7.63		8.06	28.31	3.01	15.24	-4.02	-13.80	5.524	5.685	5.201	5.262		0+	1/2-
182	120	1386.15		7.62		8.04	28.69	5.03	15.42	-4.01	-13.98	5.537	5.700	5.206	5.267		0^{+}	$0^{'}_{+}$
183	121	1389.10		7.59		7.98	29.11	2.95	15.63	-3.98	-14.19	5.550	5.715	5.212	5.273		0+	13/2
184	122	1394.05		7.58		7.90	29.55	4.95	15.86	-3.92	-14.41	5.562	5.727	5.221	5.282		0+	0+
185	123	1396.98		7.55		7.88	29.96	2.93	16.07	-3.88	-14.61	5.574	5.741	5.228	5.289		0+	13/2
186	124	1401.80		7.54		7.75	30.39	4.82	16.31	-3.82	-14.84	5.586	5.753	5.237	5.297		0^+	0+
187	125	1404.73		7.51		7.75	30.81	2.93	16.53	-2.82	-15.04	5.599	5.767	5.244	5.304		0^+	13/2
188	126	1409.43		7.50		7.63	31.25	4.70	16.76	-2.40	-15.27	5.611	5.779	5.253	5.313		0^+	0+
189	127	1409.18		7.46		4.45	31.52	-0.25	16.89	-2.55	-15.40	5.629	5.802	5.257	5.318		0^+	9/2+
190	128	1410.27		7.42		0.84	31.81	1.09	17.03	-0.48	-15.55	5.646	5.822	5.266	5.326		0^+	0+
191	129	1409.96		7.38		0.78	32.02	-0.31	17.15	-0.45	-15.69	5.665	5.845	5.270	5.331		0^+	9/2+
192	130	1411.09		7.35		0.82	32.36	1.13	17.30	-0.48	-15.84	5.682	5.865	5.279	5.340		0^+	0+
193	131	1410.73		7.31		0.77	32.47	-0.36	17.38	-0.45	-15.97	5.701	5.888	5.284	5.344		0^+	$9/2^{+}$
194	132	1411.90		7.28		0.81	32.89	1.17	17.56	-0.48	-16.11	5.718	5.907	5.293	5.353		0^+	0+
195	133	1411.54		7.24		0.81	32.97	-0.36	17.59	-0.51	-16.15	5.760	5.965	5.293	5.354		0^+	1/2+
196	134	1412.72		7.21		0.82	33.43	1.18	17.82	-0.49	-16.39	5.754	5.949	5.307	5.367		0^+	0^+
197	135	1412.41		7.17		0.87	33.51	-0.31	17.86	-0.51	-16.43	5.793	6.003	5.308	5.368		0^+	1/2+
198	136	1413.55		7.14		0.83	33.95	1.14	18.08	-0.50	-16.66	5.789	5.990	5.321	5.381		0^+	0^+
199	137	1413.29		7.10		0.88	34.05	-0.26	18.13	-0.52	-16.71	5.826	6.041	5.322	5.382		0^+	1/2+
200	138	1414.41		7.07		0.86	34.46	1.12	18.34	-0.51	-16.93	5.825	6.031	5.336	5.396		0^+	0+
201	139	1414.19		7.04		0.90	34.57	-0.22	18.39	-0.53	-16.98	5.860	6.078	5.338	5.397		0^+	1/2+
202	140	1415.30		7.01		0.89	34.97	1.11	18.59	-0.53	-17.20	5.860	6.071	5.351	5.411		0+	0+
203	141	1415.13		6.97		0.94	35.10	-0.17	18.65	-0.55	-17.26	5.893	6.115	5.353	5.413		0+	1/2+
204	142	1416.24		6.94		0.94	35.47	1.11	18.84	-0.55	-17.46	5.895	6.111	5.367	5.426		0^+	0^+
205	143	1416.11		6.91		0.98	35.63	<u>-0.13</u>	18.92	-0.57	-17.52	5.926	6.151	5.369	5.428		0^+	1/2+
206	144	1417.22		6.88		0.98	35.97	1.11	19.09	-0.58	-17.71	5.929	6.150	5.382	5.441		0+	0+
207	145	1417.13		6.85		1.02	36.14	-0.09	19.18	-0.59	-17.79	5.958	6.187	5.385	5.444		0^+	1/2+
208	146	1418.26		6.82		1.04	36.46	1.13	19.34	-0.60	-17.96	5.964	6.188	5.397	5.456		0^+	0^+
209	147	1418.20		6.79		1.07	36.65	-0.06	19.43	-0.62	-18.05	5.991	6.222	5.401	5.460		0^+	$1/2^{+}$

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
210	148	1419.35		6.76		1.09	36.95	1.15	19.58	-0.62	-18.21	5.997	6.226	5.412	5.471		0+	0+
211	149	1419.33		6.73		1.13	37.12	-0.02	19.66	-0.64	-18.30	6.023	6.257	5.417	5.476		0+	1/2+
212	150	1420.50		6.70		1.15	37.43	1.17	19.83	-0.65	-18.45	6.031	6.264	5.427	5.485		0+	0+
213	151	1420.52		6.67		1.19	37.64	0.02	19.91	-0.66	-18.55	6.054	6.292	5.432	5.491		0+	1/2+
214	152	1421.69		6.64		1.19	37.90	1.17	20.06	-0.67	-18.68	6.064	6.301	5.441	5.499		0+	0+
215	153	1421.75		6.61		1.23	38.14	0.06	20.17	-0.67	-18.79	6.086	6.326	5.448	5.506		0 ⁺	$\frac{1/2^{+}}{0^{+}}$
216	154	1422.93		6.59		1.24	38.35	1.18	20.28	-0.68	-18.91	6.097	6.337	5.455	5.513		0^{+}	
217 218	155 156	1423.01 1424.21		6.56 6.53		1.26 1.28	38.61 38.79	0.08 1.20	20.41 20.50	-0.69 -0.70	-19.02 -19.13	6.117 6.130	6.360 6.374	5.462 5.468	5.520 5.526		0+	$\frac{1/2^{+}}{0^{+}}$
219	157	1424.21		6.50		1.28	39.06	0.08	20.63	-0.70 -0.69	-19.13 -19.24	6.148	6.395	5.476	5.534		0+	1/2 ⁺
220	158	1425.53		6.48		1.32	39.23	1.24	20.03	-0.03 -0.71	-19.24 -19.34	6.162	6.410	5.480	5.538		0+	0+
221	159	1425.60		6.45		1.31	39.48	0.07	20.84	-0.70	-19.45	6.180	6.429	5.489	5.547		0+	1/2 ⁺
222	160	1426.87		6.43		1.34	39.63	1.27	20.91	-0.71	-19.54	6.195	6.447	5.492	5.550		0+	0+
223	161	1426.92		6.40		1.32	39.87	0.05	21.03	-0.69	-19.65	6.211	6.464	5.501	5.559		0+	1/2 ⁺
224	162	1428.23		6.38		1.36	40.03	1.31	21.10	-0.70	-19.73	6.227	6.483	5.503	5.561		0^{+}	0+
225	163	1428.25		6.35		1.33	40.23	0.02	21.21	-0.69	-19.82	6.244	6.502	5.510	5.567		0+	3/2+
226	164	1429.58		6.33		1.35	40.41	1.33	21.28	-0.69	-19.91	6.259	6.519	5.513	5.571		0^{+}	0+
227	165	1429.57		6.30		1.32	40.61	-0.01	21.39	-0.64	-20.00	6.276	6.537	5.521	5.578		0^{+}	$3/2^{+}$
228	166	1430.90		6.28		1.32	40.77	1.33	21.47	-0.64	-20.08	6.291	6.555	5.523	5.581		0^{+}	0^+
229	167	1430.72		6.25		1.15	40.91	-0.18	21.53	-0.33	-20.16	6.308	6.573	5.530	5.588		0^{+}	$3/2^{+}$
230	168	1432.03		6.23		1.13	41.07	1.31	21.61	-0.35	-20.24	6.324	6.592	5.532	5.590		0^+	0^+
231	169	1431.20		6.20		0.48	41.40	-0.83	21.77	-0.38	-20.38	6.336	6.604	5.541	5.599		0^+	$15/2^{-}$
232	170	1432.12		6.17		0.09	41.77	0.92	21.97	0.05	-20.58	6.343	6.608	5.555	5.613		0^+	0^+
σ		9.63													0.022			
Z=6	3 (Eu)																	
131	68	1033.27		7.89			-0.03		-1.58	-12.99	0.45	4.835	4.820	4.850	4.916		5/2 ⁺	0^+
132	69	1044.75		7.91			0.66	11.48	$\frac{-1.58}{-1.24}$	-12.76	0.11	4.845	4.837	4.854	4.920		5/2+	$3/2^{+}$
133	70	1058.61		7.96		25.34	1.32	13.86	-0.90	-12.62	-0.22	4.855	4.852	4.858	4.924		5/2+	0^+
134	71	1069.80		7.98		25.05	1.99	11.19	-0.58	-12.48	-0.55	4.866	4.868	4.862	4.928		5/2+	$1/2^{+}$
135	72	1083.29		8.02		24.68	2.64	13.49	-0.24	-12.31	-0.88	4.875	4.883	4.866	4.932		5/2+	0+
136	73	1094.25		8.05		24.45	3.29	10.96	0.08	-12.17	-1.21	4.886	4.899	4.870	4.935		5/2+	1/2+
137	74	1107.40	440000	8.08	0.40	24.11	3.92	13.15	0.41	-12.02	-1.53	4.895	4.913	4.874	4.939	4.976	5/2+	0+
138	75 76	1118.15	1126.30	8.10	8.16	23.90	4.57	10.75	0.73	-11.88	-1.86	4.905	4.928	4.878	4.943	4.978	5/2 ⁺	1/2+
139	76	1131.01	1138.02	8.14	8.19	23.61	5.19	12.86	1.04	-11.76	-2.17	4.915	4.942	4.881	4.946	4.976	5/2 ⁺	0 ⁺
140 141	77 78	1141.56 1154.17	1147.68 1158.69	8.15 8.19	8.20 8.22	23.41 23.16	5.81 6.42	10.55 12.61	1.36 1.66	-11.63 -11.51	-2.49 -2.80	4.924 4.934	4.956 4.970	4.885 4.889	4.950 4.954	4.970 4.970	5/2 ⁺ 5/2 ⁺	1/2 ⁺ 0 ⁺
141	78 79	1164.56	1168.15	8.20	8.23	23.10	7.05	10.39	1.97	-11.31 -11.39	-2.80 -3.13	4.943	4.983	4.892	4.957	4.961	5/2 ⁺	1/2 ⁺
143	80	1176.94	1179.15	8.23	8.25	22.77	7.65	12.38	2.27	-11.39 -11.29	-3.13 -3.42	4.952	4.996	4.896	4.961	4.964	$\frac{5/2}{5/2^{+}}$	0+
144	81	1187.20	1188.60	8.24	8.25	22.64	8.27	10.26	2.57	-9.91	-3.76	4.961	5.009	4.900	4.965	4.961	5/2 ⁺	1/2 ⁺
145	82	1199.36	1199.05	8.27	8.27	22.42	8.86	12.16	2.86	-8.97	-4.04	4.970	5.022	4.903	4.968	4.966	5/2 ⁺	0+
146	83	1204.32	1206.24	8.25	8.26	17.12	9.24	4.96	3.19	-9.99	-4.34	4.986	5.044	4.909	4.974	4.979	5/2 ⁺	7/2 ⁻
147	84	1212.14	1214.74	8.25	8.26	12.78	10.12	7.82	3.49	-6.42	-4.66	5.006	5.065	4.926	4.990	4.994	5/2 ⁺	0+
148	85	1217.21	1221.57	8.22	8.25	12.89	10.73	5.07	3.79	-6.34	-4.98	5.025	5.087	4.939	5.004	5.005	5/2 ⁺	9/2-
149	86	1224.64	1229.78	8.22	8.25	12.50	11.33	7.43	4.09	-6.30	-5.27	5.041	5.107	4.948	5.013	5.020	5/2+	0+
150	87	1229.58	1236.20	8.20	8.24	12.37	11.94	4.94	4.39	-6.22	-5.57	5.059	5.128	4.961	5.026	5.030	5/2+	$9/2^{-}$
151	88	1236.90	1244.13	8.19	8.24	12.26	12.51	7.32	4.67	-6.19	-5.86	5.075	5.148	4.971	5.035	5.052	$5/2^{+}$	0+
152	89	1241.70	1250.44	8.17	8.23	12.12	13.10	4.80	4.96	-6.11	-6.16	5.092	5.169	4.983	5.047	5.106	5/2+	$9/2^{-}$
153	90	1248.95	1258.99	8.16	8.23	12.05	13.67	7.25	5.24	-6.09	-6.44	5.108	5.188	4.992	5.056	5.112	5/2+	0+
154	91	1253.63	1265.43	8.14	8.22	11.93	14.25	4.68	5.54	-6.04	-6.73	5.124	5.208	5.001	5.065	5.124	5/2+	7/2-
155	92	1260.79	1273.58	8.13	8.22	11.84	14.81	7.16	5.81	-5.98	-7.01	5.140	5.226	5.013	5.076	5.122	5/2+	0+
156	93	1265.41	1279.92	8.11	8.20	11.78	15.38	4.62	6.09	-5.92	−7.29	5.157	5.246	5.023	5.086	5.126	5/2+	$7/2^{-}$
157	94	1272.40	1287.37	8.10	8.20	11.61	15.92	6.99	6.36	-5.85	-7.56	5.172	5.264	5.032	5.095	5.135	5/2 ⁺	0 ⁺
158	95	1276.93	1293.24	8.08	8.18	11.52	16.47	4.53	6.63	-5.78	-7.84	5.188	5.283	5.042	5.105	5.141	$5/2^{+}$	$7/2^{-}$

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b ^{Exp.} (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
159	96	1283.76	1300.10	8.07	8.18	11.36	16.99	6.83	6.90	-5.72	-8.10	5.202	5.300	5.050	5.113	5.150	5/2+	0+
160	97	1288.15	1305.60	8.05	8.16	11.22	17.54	4.39	7.17	-5.60	-8.37	5.218	5.319	5.060	5.123		5/2+	7/2-
161	98	1294.85	1311.99	8.04	8.15	11.09	18.05	6.70	7.43	-5.56	-8.62	5.232	5.336	5.066	5.129		5/2+	0^+
162	99	1298.98	1316.96	8.02	8.13	10.83	18.55	4.13	7.68	-5.39	-8.87	5.248	5.355	5.076	5.139		5/2+	7/2
163	100	1305.60	1322.98	8.01	8.12	10.75	19.05	6.62	7.94	-5.38	-9.12	5.261	5.371	5.082	5.144		5/2+	0+
164	101	1309.48		7.98		10.50	19.48	3.88	8.12	-5.38	-9.32	5.276	5.392	5.086	5.148		5/2+	3/2
165	102	1315.98		7.98		10.38	20.01	6.50	8.42	-5.20	-9.59	5.290	5.406	5.096	5.158		5/2+	0^+
166	103	1319.85		7.95		10.37	20.43	3.87	8.64	-5.16	-9.80	5.305	5.426	5.101	5.163		5/2+	3/2
167	104	1326.00		7.94		10.02	20.91	6.15	8.87	-5.04	-10.04	5.319	5.441	5.110	5.172		5/2 ⁺	0+
168	105	1329.81		7.92		9.96	21.33	3.81	9.09	-4.99	-10.25	5.334	5.461	5.115	5.177		5/2 ⁺	3/2
169	106	1335.73		7.90		9.73	21.78	5.92	9.31	-4.91	-10.48	5.347	5.476	5.123	5.185		5/2 ⁺	0+
170	107	1339.45		7.88		9.64	22.19	3.72	9.52	-4.85	-10.69	5.362	5.495	5.129	5.191		5/2 ⁺	3/2
171	108	1345.22		7.87		9.49	22.63	5.77	9.74	-4.79	-10.91	5.375	5.510	5.136	5.198		5/2+	0+
172	109	1348.85		7.84		9.40	23.05	3.63	9.95	-4.73	-11.12	5.391	5.529	5.143	5.205		5/2+	3/2
173	110	1354.51		7.83		9.29	23.48	5.66	10.16	-4.69	-11.34	5.403	5.543	5.150	5.211		5/2+	0+
174	111	1358.06		7.80		9.21	23.82	3.55	10.35	-4.65	-11.53	5.418	5.562	5.155	5.217		5/2+	1/2
175	112	1363.62		7.79		9.11	24.32	5.56	10.59	-4.60	-11.76	5.431	5.576	5.163	5.224		5/2 ⁺	0+
176	113	1367.19		7.77		9.13	24.74	3.57	10.80	-4.55	-11.96	5.445	5.594	5.169	5.230		5/2 ⁺	1/2
77	114	1372.56		7.75		8.94	25.15	5.37	11.01	-4.50	-12.18	5.458	5.607	5.176	5.237		5/2+	0+
78	115	1376.02		7.73		8.83	25.57	3.46	11.21	-4.45	-12.39	5.472	5.624	5.183	5.244		5/2+	1/2
79	116	1381.34		7.72		8.78	25.99	5.32	11.43	-4.41	-12.60	5.484	5.638	5.189	5.251		5/2+	0+
80	117	1384.69		7.69		8.67	26.43	3.35	11.63	-4.34	-12.83	5.497	5.652	5.198	5.259		5/2+	1/2
81	118	1389.96		7.68		8.62	26.84	5.27	11.85	-4.32	-13.03	5.510	5.667	5.203	5.264		5/2+	0+
82	119	1393.19		7.65		8.50	27.31	3.23	12.07	-4.24	-13.28	5.523	5.680	5.213	5.274		5/2+	1/2
83	120	1398.42		7.64		8.46	27.69	5.23	12.27	-4.23	-13.46	5.535	5.695	5.217	5.278		5/2+	0+
84	121	1401.57		7.62		8.38	28.10	3.15	12.47	-4.20	-13.66	5.548	5.710	5.224	5.285		5/2+	13/
185	122	1406.73		7.60		8.31	28.54	5.16	12.68	-4.13	-13.90	5.560	5.722	5.232	5.293		5/2+	0+
86	123	1409.87		7.58		8.30	28.96	3.14	12.89	-4.10	-14.10	5.573	5.736	5.239	5.300		5/2+	13/
187	124	1414.91		7.57		8.18	29.42	5.04	13.11	-4.04	-14.34	5.584	5.748	5.247	5.308		5/2+	0^+
188	125	1418.04		7.54		8.17	29.84	3.13	13.31	-3.07	-14.55	5.597	5.761	5.254	5.315		5/2+	13/
189	126	1422.96		7.53		8.05	30.29	4.92	13.53	-2.54	-14.78	5.608	5.773	5.263	5.324		5/2+	0+
190	127	1422.85		7.49		4.81	30.56	-0.11	13.67	-2.77	-14.91	5.626	5.796	5.268	5.328		5/2+	9/2
191	128	1424.09		7.46		1.13	30.85	1.24	13.82	-0.63	-15.07	5.643	5.815	5.277	5.337		5/2+	0+
192	129	1423.93		7.42		1.08	31.12	-0.16	13.97	-0.60	-15.20	5.662	5.838	5.282	5.342		5/2+	9/2
93	130	1425.20		7.38		1.11	31.41	1.27	14.11	-0.63	-15.35	5.678	5.857	5.291	5.351		5/2+	0^+
94	131	1424.99		7.35		1.06	31.64	-0.21	14.26	-0.59	-15.48	5.697	5.880	5.296	5.356		5/2+	9/2
95	132	1426.31		7.31		1.11	31.97	1.32	14.41	-0.63	-15.63	5.713	5.898	5.305	5.365		5/2+	0^+
96	133	1426.03		7.28		1.04	32.08	-0.28	14.49	-0.59	-15.77	5.732	5.921	5.310	5.370		5/2+	9/2
97	134	1427.41		7.25		1.10	32.51	1.38	14.69	-0.63	-15.91	5.748	5.939	5.320	5.379		5/2+	0^{+}
98	135	1427.14		7.21		1.11	32.59	-0.27	14.73	-0.66	-15.95	5.787	5.993	5.320	5.380		5/2+	1/2
99	136	1428.52		7.18		1.11	33.05	1.38	14.97	-0.64	-16.19	5.783	5.979	5.335	5.394		5/2+	0^+
00	137	1428.31		7.14		1.17	33.15	-0.21	15.02	-0.66	-16.24	5.820	6.029	5.335	5.395		5/2+	1/2
01	138	1429.65		7.11		1.13	33.58	1.34	15.24	-0.65	-16.47	5.818	6.019	5.350	5.409		5/2+	0^+
02	139	1429.49		7.08		1.18	33.69	-0.16	15.30	-0.68	-16.52	5.852	6.066	5.351	5.411		5/2+	1/2
03	140	1430.82		7.05		1.17	34.11	1.33	15.52	-0.67	-16.74	5.852	6.058	5.366	5.425		5/2+	0^+
04	141	1430.70		7.01		1.21	34.22	-0.12	15.57	-0.69	-16.79	5.885	6.102	5.367	5.426		5/2+	1/2
05	142	1432.02		6.99		1.20	34.62	1.32	15.78	-0.69	-17.00	5.886	6.097	5.381	5.441		5/2+	0^+
06	143	1431.95		6.95		1.25	34.76	-0.07	15.84	-0.71	-17.07	5.917	6.137	5.383	5.443		5/2+	1/2
07	144	1433.26		6.92		1.24	35.13	1.31	16.04	-0.71	-17.27	5.920	6.135	5.397	5.456		$5/2^{+}$	0^{+}
08	145	1433.24		6.89		1.29	35.29	-0.02	16.11	-0.73	-17.33	5.949	6.172	5.400	5.459		$5/2^{+}$	1/2
09	146	1434.56		6.86		1.30	35.64	1.32	16.30	-0.73	-17.52	5.954	6.172	5.413	5.471		$5/2^{+}$	0^+
10	147	1434.58		6.83		1.34	35.81	0.02	16.38	-0.75	-17.60	5.981	6.207	5.416	5.475		$5/2^{+}$	1/2
211	148	1435.90		6.81		1.34	36.13	1.32	16.55	-0.75	-17.77	5.987	6.210	5.428	5.486		5/2+	0+
212	149	1435.96		6.77		1.38	36.29	0.06	16.63	-0.77	-17.85	6.012	6.242	5.432	5.490		5/2+	1/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
213	150	1437.29		6.75		1.39	36.62	1.33	16.79	-0.77	-18.01	6.020	6.247	5.442	5.501		5/2+	0+
214	151	1437.39		6.72		1.43	36.78	0.10	16.87	-0.78	-18.10	6.044	6.276	5.447	5.506		5/2+	1/2+
215	152	1438.72		6.69		1.43	37.09	1.33	17.03	-0.79	-18.25	6.053	6.284	5.456	5.515		5/2+	0+
216	153	1438.87		6.66		1.48	37.29	0.15	17.12	-0.80	-18.34	6.075	6.310	5.462	5.520		5/2+	1/2+
217	154	1440.19		6.64		1.47	37.54	1.32	17.26	-0.80	-18.47	6.086	6.320	5.470	5.528		5/2+	0+
218	155	1440.38		6.61		1.51	37.78	0.19	17.37	-0.80	-18.57	6.106	6.345	5.476	5.534		5/2+	1/2+
219	156	1441.70		6.58		1.51	37.99	1.32	17.49	-0.81	-18.69	6.118	6.357	5.482	5.540		5/2+	0+
220	157	1441.89		6.55		1.51	38.23	0.19	17.60	-0.81	-18.79	6.137	6.379	5.489	5.547		5/2+	1/2+
221	158	1443.23		6.53		1.53	38.41	1.34	17.70	-0.81	-18.89	6.151	6.394	5.494	5.552		5/2+	0+
222	159	1443.41		6.50		1.52	38.65	0.18	17.81	-0.81	-19.00	6.168	6.414	5.502	5.559		5/2+	1/2+
223	160	1444.78		6.48		1.55	38.82	1.37	17.91	-0.81	-19.09	6.183	6.430	5.505	5.563		5/2+	0+
224	161	1444.94		6.45		1.53	39.05	0.16	18.02	-0.79	-19.20	6.199	6.448	5.513	5.571		5/2+	1/2+
225	162	1446.33		6.43		1.55	39.20	1.39	18.10	-0.80	-19.28	6.215	6.467	5.516	5.574		5/2+	0+
226	163	1446.46		6.40		1.52	39.42	0.13	18.21	-0.77	-19.39	6.230	6.483	5.524	5.582		5/2+	1/2+
227	164	1447.87		6.38		1.54	39.57	1.41	18.29	-0.78	-19.46	6.247	6.503	5.526	5.583		5/2+	0+
228	165	1447.94		6.35		1.48	39.76	0.07	18.37	-0.73	-19.55	6.264	6.522	5.532	5.590		5/2+	3/2+
229	166	1449.37		6.33		1.50	39.94	1.43	18.47	-0.73	-19.63	6.279	6.539	5.535	5.593		5/2+	0+
230	167	1449.26		6.30		1.32	40.07	<u>-0.11</u>	18.54	-0.45	-19.71	6.295	6.557	5.542	5.600		5/2+	3/2+
231	168	1450.67		6.28		1.30	40.25	1.41	18.64	-0.47	-19.80	6.311	6.576	5.545	5.602		5/2+	0+
232	169	1449.97		6.25		0.71	40.54	$\frac{-0.70}{1.11}$	18.77	-0.51	-19.92	6.325	6.589	5.552	5.610		5/2 ⁺	15/2
233	170	1451.08		6.23		0.41	40.93	1.11	18.96	-0.11	-20.13	6.331	6.592	5.566	5.623		5/2 ⁺	0+
234	171	1450.26		6.20		0.29		$\frac{-0.82}{0.04}$		-0.07	-20.29	6.342	6.602	5.577	5.634		5/2 ⁺	15/2
235	172	1451.10		6.17		0.02		0.84		0.00	-20.46	6.352	6.609	5.588	5.645		$5/2^{+}$	0^+
σ	4 (5.1)	10.76													0.031			
۷ = ۵ 134	4 (Gd) 70	1060.02		7.91			0.51		1.41	-12.94	0.10	4.866	4.857	4.876	4.942		0^{+}	0^{+}
135	71	1071.55		7.94			1.17		1.75	-12.79	$\frac{0.10}{-0.23}$	4.876	4.873	4.880	4.945		0+	1/2+
136	72	1085.34		7.98			1.81	13.79	2.05	-12.62	-0.55	4.886	4.887	4.884	4.949		0+	0+
137	73	1096.63		8.00		25.08	2.46	11.29	2.38	-12.48	-0.88	4.896	4.903	4.887	4.952		0+	1/2+
138	74	1110.08		8.04		24.74	3.09	13.45	2.68	-12.33	-1.19	4.905	4.917	4.891	4.956		0^+	0+
139	75	1110100					3.72	11.06	2.99	-12.19	-1.52	4.915	4.932	4.895	4.960		0^+	1/2+
		1121.14		8.07		24.51		11.00							1.000			
140		1121.14 1134.31	1141.70	8.07 8.10	8.15	24.51 24.23		13.16					4.946	4.898	4.963			
	76	1134.31	1141.70 1151.21	8.10	8.15 8.16	24.23	4.34	13.16 10.86	3.30	-12.06	-1.82	4.924	4.946 4.960	4.898 4.902	4.963 4.966		0^+	0+
141	76 77	1134.31 1145.17	1151.21	8.10 8.12	8.16	24.23 24.03	4.34 4.97	10.86	3.30 3.61	-12.06 -11.93	-1.82 -2.15	4.924 4.933	4.960	4.902	4.966		0 ⁺	0 ⁺ 1/2 ⁺
141 142	76 77 78	1134.31 1145.17 1158.08	1151.21 1163.02	8.10 8.12 8.16	8.16 8.19	24.23 24.03 23.78	4.34 4.97 5.57	10.86 12.91	3.30 3.61 3.91	-12.06 -11.93 -11.82	-1.82 -2.15 -2.45	4.924 4.933 4.942	4.960 4.973	4.902 4.905	4.966 4.970		0^+	0 ⁺ 1/2 ⁺ 0 ⁺
141 142 143	76 77 78 79	1134.31 1145.17 1158.08 1168.78	1151.21 1163.02 1172.36	8.10 8.12 8.16 8.17	8.16 8.19 8.20	24.23 24.03 23.78 23.61	4.34 4.97 5.57 6.19	10.86 12.91 10.70	3.30 3.61 3.91 4.22	-12.06 -11.93 -11.82 -11.70	-1.82 -2.15 -2.45 -2.77	4.924 4.933 4.942 4.952	4.960 4.973 4.986	4.902 4.905 4.909	4.966 4.970 4.973		0+ 0+ 0+	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺
141 142 143 144	76 77 78 79 80	1134.31 1145.17 1158.08 1168.78 1181.47	1151.21 1163.02 1172.36 1183.96	8.10 8.12 8.16 8.17 8.20	8.16 8.19 8.20 8.22	24.23 24.03 23.78 23.61 23.38	4.34 4.97 5.57 6.19 6.80	10.86 12.91 10.70 12.69	3.30 3.61 3.91 4.22 4.53	-12.06 -11.93 -11.82 -11.70 -11.59	-1.82 -2.15 -2.45 -2.77 -3.07	4.924 4.933 4.942 4.952 4.961	4.960 4.973 4.986 4.999	4.902 4.905 4.909 4.912	4.966 4.970 4.973 4.977	4.979	0 ⁺ 0 ⁺	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺
141 142 143 144 145	76 77 78 79	1134.31 1145.17 1158.08 1168.78	1151.21 1163.02 1172.36 1183.96 1193.20	8.10 8.12 8.16 8.17 8.20 8.22	8.16 8.19 8.20 8.22 8.23	24.23 24.03 23.78 23.61 23.38 23.27	4.34 4.97 5.57 6.19	10.86 12.91 10.70	3.30 3.61 3.91 4.22	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40	4.924 4.933 4.942 4.952 4.961 4.969	4.960 4.973 4.986 4.999 5.012	4.902 4.905 4.909 4.912 4.915	4.966 4.970 4.973	4.979 4.981	0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺
141 142 143 144 145 146	76 77 78 79 80 81	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05	1151.21 1163.02 1172.36 1183.96	8.10 8.12 8.16 8.17 8.20	8.16 8.19 8.20 8.22	24.23 24.03 23.78 23.61 23.38	4.34 4.97 5.57 6.19 6.80 7.42	10.86 12.91 10.70 12.69 10.58	3.30 3.61 3.91 4.22 4.53 4.85	-12.06 -11.93 -11.82 -11.70 -11.59	-1.82 -2.15 -2.45 -2.77 -3.07	4.924 4.933 4.942 4.952 4.961	4.960 4.973 4.986 4.999	4.902 4.905 4.909 4.912	4.966 4.970 4.973 4.977 4.980	4.979 4.981	0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺
141 142 143 144 145 146 147	76 77 78 79 80 81 82	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77	8.10 8.12 8.16 8.17 8.20 8.22 8.25	8.16 8.19 8.20 8.22 8.23 8.25	24.23 24.03 23.78 23.61 23.38 23.27 23.04	4.34 4.97 5.57 6.19 6.80 7.42 8.00	10.86 12.91 10.70 12.69 10.58 12.45	3.30 3.61 3.91 4.22 4.53 4.85 5.14	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997	4.960 4.973 4.986 4.999 5.012 5.025 5.047	4.902 4.905 4.909 4.912 4.915 4.919 4.932	4.966 4.970 4.973 4.977 4.980 4.983	4.981	0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺
141 142 143 144 145 146 147	76 77 78 79 80 81 82 83	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91	10.86 12.91 10.70 12.69 10.58 12.45 5.54	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30	4.924 4.933 4.942 4.952 4.961 4.969 4.978	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941	4.966 4.970 4.973 4.977 4.980 4.983 4.997		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 0 ⁺ 9/2 ⁻ 0 ⁺
141 142 143 144 145 146 147 148	76 77 78 79 80 81 82 83 84	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23 8.23 8.21	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76 6.08	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.089	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006	4.981 5.008	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 9/2 ⁻
141 142 143 144 145 146 147 148 149	76 77 78 79 80 81 82 83 84 85	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29 1231.02	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68 1236.39	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23 8.23	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24 8.25	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25 13.12	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25 9.87	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39 7.73	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64 -6.60	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61 -4.91	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032 5.048	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.089 5.109	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955 4.964	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006 5.019 5.028	4.981	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0+ 1/2+ 0+ 1/2+ 0+ 1/2+ 0+ 9/2- 0+ 9/2- 0+
141 142 143 144 145 146 147 148 149 150	76 77 78 79 80 81 82 83 84	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29 1231.02 1236.27	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68 1236.39 1242.89	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23 8.23 8.21 8.21 8.19	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24 8.25 8.24 8.23	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25 13.12 12.98	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25 9.87 10.47 11.08	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76 6.08 6.38 6.69	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64 -6.60 -6.51	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61 -4.91 -5.21	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032 5.048 5.066	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.089 5.109 5.130	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955 4.964 4.976	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006 5.019 5.028 5.040	4.9815.0085.034	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0+ 1/2+ 0+ 1/2+ 0+ 1/2+ 0+ 9/2- 0+ 9/2-
141 142 143 144 145 146 147 148 149 150	76 77 78 79 80 81 82 83 84 85 86	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29 1231.02 1236.27 1243.89	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68 1236.39 1242.89 1251.48	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23 8.23 8.21 8.21	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24 8.25	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25 13.12 12.98 12.87	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25 9.87 10.47 11.08 11.66	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39 7.73 5.25 7.62	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76 6.08 6.08 6.69 6.99	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64 -6.60 -6.51 -6.48	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61 -4.91 -5.21 -5.50	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032 5.048 5.066 5.081	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.089 5.109 5.130 5.150	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955 4.964 4.976 4.985	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006 5.019 5.028	4.981 5.008	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0'+ 1/2+ 0+ 1/2+ 0+ 1/2+ 0+ 9/2- 0+ 9/2- 0+ 9/2- 0+
141 142 143 144 145 146 147 148 149 150 151 152	76 77 78 79 80 81 82 83 84 85 86 87	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29 1231.02 1236.27	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68 1236.39 1242.89	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23 8.23 8.21 8.21 8.19 8.18	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24 8.25 8.24 8.23	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25 13.12 12.98	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25 9.87 10.47 11.08	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39 7.73 5.25	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76 6.08 6.38 6.69	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64 -6.60 -6.51 -6.48 -6.39	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61 -4.91 -5.21	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032 5.048 5.066	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.089 5.109 5.130 5.150 5.170	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955 4.964 4.976	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006 5.019 5.028 5.040 5.049	4.981 5.008 5.034 5.077	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 9/2 ⁻ 0 ⁺ 9/2 ⁻ 0 ⁺ 9/2 ⁻
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141 142 143 144 145 146 147 148 149 150 151 152 153	76 77 78 79 80 81 82 83 84 85 86 87 88 89 90	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29 1231.02 1236.27 1243.89 1248.99 1256.53	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68 1236.39 1242.89 1251.48 1257.72	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23 8.23 8.21 8.21 8.19 8.18 8.16 8.16	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24 8.24 8.23 8.23 8.23 8.22 8.22	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25 13.12 12.98 12.87 12.72 12.64	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25 9.87 10.47 11.08 11.66 12.25 12.82	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39 7.73 5.25 7.62 5.10 7.53	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76 6.08 6.38 6.69 6.99 7.29 7.58	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64 -6.60 -6.51 -6.48 -6.39 -6.37 -6.33	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61 -4.91 -5.21 -5.50 -5.80	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032 5.048 5.066 5.081 5.098 5.114 5.130	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.089 5.109 5.130 5.150 5.170 5.189 5.209	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955 4.964 4.976 4.985 4.998 5.007	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006 5.019 5.028 5.040 5.049 5.061 5.070	4.981 5.008 5.034 5.077 5.122	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0'+ 1/2+ 0+ 1/2+ 0+ 1/2+ 0+ 9/2- 0+ 9/2- 0+ 9/2- 0+ 9/2- 0+ 9/2- 0+
141 142 143 144 145 146 147 148 149 150 151 152 153 154	76 77 78 79 80 81 82 83 84 85 86 87 88 89 90	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29 1231.02 1236.27 1248.99 1256.53 1261.50	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68 1236.39 1242.89 1251.48 1257.72 1266.62 1273.05 1281.59	8.10 8.12 8.16 8.17 8.20 8.22 8.23 8.23 8.21 8.21 8.19 8.16 8.16 8.16	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24 8.23 8.23 8.23 8.22 8.22 8.21	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25 13.12 12.98 12.87 12.72 12.64 12.50	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25 9.87 10.47 11.08 11.66 12.25 12.82 13.41	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39 7.73 5.25 7.62 5.10 7.53 4.97	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76 6.08 6.38 6.69 6.99 7.29 7.58 7.87	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64 -6.60 -6.51 -6.48 -6.39 -6.37 -6.33 -6.25	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61 -4.91 -5.21 -5.50 -5.80 -6.08 -6.37	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032 5.048 5.066 5.081 5.098 5.114	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.089 5.109 5.130 5.150 5.170 5.189 5.209 5.227	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955 4.964 4.976 4.985 4.998 5.007 5.016	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006 5.019 5.028 5.040 5.049 5.061 5.070 5.079	4.981 5.008 5.034 5.077 5.122 5.132	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0'+ 1/2+ 0+ 1/2+ 0+ 1/2+ 0+ 9/2- 0+ 9/2- 0+ 9/2- 0+ 7/2- 0+
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141 142 143 144 145 146 147 148 149 150 151 152 153 154	76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29 1231.02 1236.27 1243.89 1248.99 1256.53 1261.50 1268.94 1273.84 1281.11	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68 1236.39 1242.89 1251.48 1257.72 1266.62 1273.05 1281.59 1287.95 1295.89	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23 8.23 8.21 8.19 8.18 8.16 8.16 8.14 8.13 8.11	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24 8.23 8.23 8.23 8.22 8.22 8.22 8.22 8.22	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25 13.12 12.98 12.87 12.72 12.64 12.50 12.41 12.35 12.17	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25 9.87 10.47 11.08 11.66 12.25 12.82 13.41 13.96 14.52 15.07	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39 7.73 5.25 7.62 5.10 7.53 4.97 7.44	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76 6.08 6.38 6.69 6.99 7.29 7.58 7.87 8.15 8.43	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64 -6.60 -6.51 -6.48 -6.39 -6.37 -6.33 -6.25 -6.20 -6.12	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61 -4.91 -5.21 -5.50 -5.80 -6.08 -6.37 -6.65 -6.93 -7.20	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032 5.048 5.066 5.081 5.098 5.114 5.130 5.146 5.162 5.177	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.189 5.150 5.170 5.189 5.209 5.227 5.246 5.264	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955 4.964 4.976 4.985 4.998 5.007 5.016 5.027 5.037 5.046	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006 5.019 5.028 5.040 5.049 5.061 5.070 5.079 5.090 5.100	4.981 5.008 5.034 5.077 5.122 5.132 5.142 5.145	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 9/2 ⁻ 0 ⁺ 9/2 ⁻ 0 ⁺ 9/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺
141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157	76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93	1134.31 1145.17 1158.08 1168.78 1181.47 1192.05 1204.50 1210.04 1217.90 1223.29 1231.02 1236.27 1243.89 1248.99 1256.53 1261.50 1268.94 1273.84	1151.21 1163.02 1172.36 1183.96 1193.20 1204.43 1211.77 1220.75 1227.68 1236.39 1242.89 1251.48 1257.72 1266.62 1273.05 1281.59 1287.95	8.10 8.12 8.16 8.17 8.20 8.22 8.25 8.23 8.21 8.21 8.19 8.18 8.16 8.16 8.14 8.11	8.16 8.19 8.20 8.22 8.23 8.25 8.24 8.25 8.24 8.23 8.23 8.23 8.22 8.21 8.22 8.20 8.20	24.23 24.03 23.78 23.61 23.38 23.27 23.04 17.99 13.40 13.25 13.12 12.98 12.87 12.72 12.64 12.50 12.41 12.35	4.34 4.97 5.57 6.19 6.80 7.42 8.00 8.91 9.25 9.87 10.47 11.08 11.66 12.25 12.82 13.41 13.96 14.52	10.86 12.91 10.70 12.69 10.58 12.45 5.54 7.86 5.39 7.73 5.25 7.62 5.10 7.53 4.97 7.44 4.91 7.26	3.30 3.61 3.91 4.22 4.53 4.85 5.14 5.72 5.76 6.08 6.38 6.69 7.29 7.58 7.87 8.15 8.43 8.71	-12.06 -11.93 -11.82 -11.70 -11.59 -10.46 -9.49 -10.17 -6.72 -6.64 -6.60 -6.51 -6.48 -6.39 -6.37 -6.33 -6.25 -6.20	-1.82 -2.15 -2.45 -2.77 -3.07 -3.40 -3.68 -4.00 -4.30 -4.61 -4.91 -5.21 -5.50 -5.80 -6.08 -6.08 -6.05 -6.93	4.924 4.933 4.942 4.952 4.961 4.969 4.978 4.997 5.013 5.032 5.048 5.066 5.081 5.098 5.114 5.130 5.146 5.162	4.960 4.973 4.986 4.999 5.012 5.025 5.047 5.068 5.089 5.109 5.130 5.150 5.170 5.189 5.209 5.227 5.246	4.902 4.905 4.909 4.912 4.915 4.919 4.932 4.941 4.955 4.964 4.976 4.985 5.007 5.016 5.027 5.037	4.966 4.970 4.973 4.977 4.980 4.983 4.997 5.006 5.019 5.028 5.040 5.049 5.061 5.070 5.079 5.090 5.100 5.109	4.981 5.008 5.034 5.077 5.122 5.132 5.142 5.145	0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 0 ⁺ 1/2 ⁺ 9/2 ⁻ 0 ⁺ 9/2 ⁻ 0 ⁺ 9/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻

Α	N	$E_{ m b}^{ m Cal.}$ (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
162	98	1304.63	1321.76	8.05	8.16	11.61	17.21	6.95	9.78	-5.81	-8.26	5.236	5.335	5.080	5.142		0+	0+
163	99	1309.02	1326.87	8.03	8.14	11.34	17.72	4.39	10.04	-5.63	-8.52	5.251	5.353	5.089	5.152		0+	$7/2^{-}$
164	100	1315.88		8.02		11.26	18.22	6.86	10.28	-5.62	-8.77	5.264	5.370	5.095	5.157		0^+	0^+
165	101	1319.97		8.00		10.95	18.61	4.09	10.49	-5.62	-8.98	5.279	5.390	5.099	5.161		0^+	3/2
166	102	1326.74		7.99		10.85	19.18	6.76	10.76	-5.42	-9.25	5.292	5.404	5.109	5.171		0^+	0+
167	103	1330.81		7.97		10.84	19.60	4.08	10.96	-5.39	-9.45	5.307	5.424	5.113	5.175		0^+	3/2
168	104	1337.21		7.96		10.47	20.08	6.40	11.21	-5.26	-9.70	5.321	5.439	5.123	5.185		0^+	0^+
169	105	1341.22		7.94		10.41	20.50	4.01	11.41	-5.21	-9.91	5.336	5.458	5.128	5.190		0^+	3/2
170	106	1347.38		7.93		10.17	20.96	6.16	11.65	-5.12	-10.15	5.349	5.473	5.136	5.198		0^+	0+
171	107	1351.31		7.90		10.09	21.38	3.93	11.86	-5.06	-10.35	5.364	5.492	5.142	5.204		0^+	3/2
172	108	1357.30		7.89		9.92	21.82	6.00	12.08	-5.00	-10.58	5.377	5.507	5.149	5.211		0^{+}	0+
173	109	1361.14		7.87		9.83	22.24	3.84	12.29	-4.94	-10.79	5.391	5.525	5.156	5.217		0^+	3/2
174	110	1367.02		7.86		9.71	22.67	5.88	12.51	-4.90	-11.01	5.404	5.540	5.162	5.224		0^{+}	0+
175	111	1370.75		7.83		9.62	23.04	3.74	12.69	-4.83	-11.22	5.419	5.557	5.170	5.231		0+	1/2
176	112	1376.55		7.82		9.53	23.52	5.79	12.93	-4.80	-11.43	5.431	5.572	5.176	5.237		0+	0+
177	113	1380.33		7.80		9.58	23.94	3.78	13.14	-4.76	-11.63	5.445	5.589	5.182	5.243		0+	1/2
178	114	1385.91		7.79		9.36	24.36	5.58	13.35	-4.71	-11.85	5.458	5.603	5.189	5.250		0+	0+
179	115	1389.59		7.76		9.26	24.78	3.68	13.57	-4.66	-12.07	5.472	5.619	5.196	5.257		0^{+}	1/2
180	116	1395.11		7.75		9.20	25.20	5.52	13.77	-4.62	-12.07 -12.28	5.484	5.633	5.202	5.263		0+	0+
181	117	1398.70		7.73		9.11	25.64	3.59	14.01	-4.56	-12.50	5.497	5.648	5.210	5.271		0+	1/2
182	117	1404.16		7.73		9.05	26.05	5.46	14.01	-4.53	-12.30 -12.70	5.509	5.662	5.216	5.277		0+	0+
183	119	1407.64		7.69		8.95	26.52	3.49	14.45	-4.46	-12.95	5.522	5.675	5.225	5.286		0 ⁺	1/2
184	120	1413.05		7.68		8.90	26.90	5.41	14.63	-4.44	-13.13	5.534	5.690	5.230	5.291		0+	0 ⁺
185	121	1416.43		7.66		8.79	27.33	3.38	14.86	-4.36	-13.39	5.547	5.702	5.240	5.301		0+	13/
186	122	1421.81		7.64		8.76	27.76	5.38	15.08	-4.35	-13.57	5.559	5.717	5.244	5.305		0+	0+
187	123	1425.16		7.62		8.73	28.18	3.35	15.29	-4.32	-13.77	5.571	5.731	5.251	5.311		0+	13/
188	124	1430.43		7.61		8.62	28.63	5.28	15.52	-4.26	-14.00	5.583	5.743	5.259	5.320		0+	0+
189	125	1433.78		7.59		8.62	29.05	3.34	15.74	-2.99	-14.21	5.595	5.757	5.266	5.326		0+	13/
190	126	1438.94		7.57		8.50	29.51	5.16	15.98	-2.65	-14.44	5.607	5.768	5.274	5.335		0+	0^+
191	127	1438.96		7.53		5.18	29.78	0.02	16.11	-2.84	-14.58	5.625	5.791	5.279	5.339		0+	9/2
192	128	1440.36		7.50		1.42	30.09	1.40	16.27	-0.77	-14.74	5.641	5.810	5.288	5.349		0^+	0+
193	129	1440.32		7.46		1.36	30.36	-0.03	16.39	-0.74	-14.88	5.659	5.832	5.293	5.353		0^+	9/2
194	130	1441.75		7.43		1.40	30.66	1.43	16.55	-0.76	-15.03	5.676	5.851	5.303	5.363		0^+	0^+
195	131	1441.67		7.39		1.34	30.94	-0.09	16.68	-0.73	-15.17	5.693	5.873	5.308	5.368		0^+	9/2
196	132	1443.14		7.36		1.38	31.24	1.47	16.83	-0.76	-15.33	5.710	5.891	5.317	5.377		0^+	0^+
197	133	1442.99		7.32		1.33	31.45	-0.15	16.96	-0.73	-15.46	5.728	5.913	5.323	5.383		0^+	9/2
198	134	1444.52		7.30		1.38	31.80	1.53	17.11	-0.77	-15.62	5.744	5.930	5.333	5.392		0^+	0+
199	135	1444.31		7.26		1.32	31.90	-0.21	17.17	-0.73	-15.75	5.762	5.952	5.339	5.399		0^{+}	9/2
200	136	1445.91		7.23		1.39	32.36	1.60	17.39	-0.77	-15.90	5.778	5.969	5.348	5.408		0^+	0+
201	137	1445.74		7.19		1.43	32.45	-0.17	17.43	-15.95	-15.99	5.814	6.019	5.349	5.408		0^{+}	1/2
202	138	1447.32		7.16		1.41	32.91	1.58	17.67	-16.19	-16.19	5.812	6.008	5.364	5.424		0^{+}	0+
203	139	1447.21		7.13		1.47	33.02	-0.11	17.72	-16.24	-16.28	5.846	6.055	5.365	5.425		0^{+}	1/2
204	140	1448.76		7.10		1.44	33.46	1.55	17.94	-16.47	-16.47	5.845	6.046	5.381	5.440		0+	0+
205	141	1448.70		7.07		1.49	33.57	-0.06	18.00	-16.52	-16.56	5.878	6.090	5.382	5.441		0+	1/2
205	141	1450.23		7.07		1.49	33.99	1.53	18.21	-16.74	-16.74	5.879	6.084	5.397	5.456		0+	0+
207	143	1450.23		7.04		1.52	34.11	-0.01	18.27	-16.74 -16.80	-16.74 -16.84	5.910	6.125	5.398	5.457		0+	1/2
207 208	143	1450.22		6.98		1.52	34.11	1.58	18.48	-10.80 -17.01	-10.84 -17.01	5.912	6.123	5.413	5.472		0+	0 ⁺
208 209	144			6.95			34.52 34.65	0.04	18.54		-17.01 -17.07	5.941	6.159	5.415	5.474		0+	1/2
		1451.78				1.56				-17.07							0 ⁺	1/2 0 ⁺
210	146	1453.29		6.92		1.55	35.03	1.51	18.73	-0.85	-17.27	5.945	6.158	5.428	5.487			
211	147	1453.38		6.89		1.60	35.18	0.10	18.80	-0.87	-17.34	5.972	6.193	5.431	5.490		0+	1/2
212	148	1454.88		6.86		1.59	35.53	1.50	18.98	-0.87	-17.52	5.978	6.195	5.444	5.502		0+	0+
213	149	1455.02		6.83		1.64	35.69	0.14	19.06	-0.89	-17.60	6.004	6.228	5.447	5.505		0+	1/2
214	150	1456.51		6.81		1.63	36.01	1.49	19.22	-0.88	-17.77	6.011	6.232	5.458	5.516		0+	0+
215	151	1456.69		6.78		1.68	36.17	0.19	19.30	-0.90	-17.85	6.035	6.262	5.462	5.520		0^+	1/2

Table 1 (continued)

4	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
216	152	1458.17		6.75		1.67	36.48	1.48	19.45	-0.90	-18.00	6.043	6.268	5.472	5.530		0+	0+
217	153	1458.40		6.72		1.71	36.65	0.23	19.53	-0.91	-18.09	6.066	6.296	5.477	5.535		0+	1/2+
18	154	1459.87		6.70		1.69	36.94	1.47	19.68	-0.91	-18.22	6.076	6.305	5.485	5.543		0+	0+
19	155	1460.15		6.67		1.74	37.14	0.28	19.77	-0.91	-18.32	6.097	6.330	5.490	5.548		0+	1/2+
220	156	1461.59		6.64		1.72	37.38	1.44	19.89	-0.91	-18.44	6.108	6.342	5.497	5.555		0+	0+
21	157	1461.90		6.61		1.75	37.61	0.31	20.01	-0.91	-18.54	6.128	6.365	5.503	5.561		0^+	1/2+
222	158	1463.32		6.59		1.73	37.79	1.42	20.09	-0.91	-18.64	6.140	6.379	5.508	5.566		0+	0+
223	159	1463.62		6.56		1.72	38.02	0.30	20.21	-0.90	-18.75	6.159	6.399	5.515	5.572		0+	1/2+
224	160	1465.07		6.54		1.75	38.20	1.45	20.29	-0.91	-18.84	6.172	6.415	5.519	5.576		0+	0+
225	161	1465.34		6.51		1.72	38.42	0.27	20.40	-0.89	-18.95	6.189	6.434	5.526	5.583		0+	1/2+
226	162	1466.81		6.49		1.74	38.58	1.47	20.48	-0.90	-19.03	6.204	6.452	5.529	5.586		0+	0+
227	163	1467.04		6.46		1.70	38.79	0.23	20.58	-0.86	-19.14	6.220	6.469	5.536	5.594		0+	1/2+
228	164	1468.53		6.44		1.72	38.95	1.49	20.66	-0.87	-19.21	6.236	6.488	5.538	5.596		0+	0+
229	165	1468.68		6.41		1.64	39.11	0.15	20.74	-0.82	-19.29	6.253	6.507	5.544	5.602		0+	3/2+
230	166	1470.19		6.39		1.66	39.29	1.50	20.82	-0.81	-19.38	6.268	6.525	5.547	5.605		0+	0+
231	167	1470.16		6.36		1.47	39.44	-0.03	20.90	-0.57	-19.47	6.284	6.542	5.554	5.611		0+	1/2+
232	168	1471.65		6.34		1.46	39.62	1.49	20.98	-0.59	-19.56	6.299	6.560	5.557	5.614		0+	0+
233	169	1471.07		6.31		0.92	39.87	$\frac{-0.58}{-0.58}$	21.10	-0.63	-19.68	6.313	6.574	5.564	5.621		0+	3/2+
234	170	1472.40		6.29		0.75	40.28	1.33	21.32	-0.28	-19.87	6.320	6.579	5.577	5.634		0+	0+
235	171	1471.74		6.26		0.67		-0.66	21.48	-0.24	-20.02	6.332	6.589	5.587	5.644		0+	15/2
236	172	1472.76		6.24		0.36		1.02	21.66	-0.16	-20.20	6.341	6.596	5.599	5.656		0+	0+
37	173	1472.05		6.21		0.31		$\frac{-0.71}{-0.71}$		-0.13	-20.36	6.352	6.606	5.609	5.666		0+	15/2
238	174	1472.94		6.19		0.18		0.89		-0.08	-20.52	6.362	6.614	5.621	5.678		0+	0+
239	175	1472.21		6.16		0.15		$\frac{-0.74}{0.000}$		-0.06	-20.68	6.374	6.624	5.632	5.688		0+	15/2
240	176	1473.01		6.14		0.07		0.80		-0.03	-20.84	6.384	6.633	5.643	5.700		0+	0 ⁺
241	177	1472.26		6.11		0.05		$\frac{-0.75}{0.74}$		-0.01	-21.00	6.395	6.643	5.654	5.710		0+	15/2
242	178	1473.00		6.09		-0.01		0.74		0.02	-21.16	6.406	6.651	5.666	5.722		0^+	0^+
7		10.44													0.038			
	5 (Tb)																	1
136	71	1069.85		7.87			0.05		-1.70	-13.11	0.09	4.890	4.879	4.902	4.967		3/2+	1/2+
137	72	1083.94		7.91			0.65		-1.40	-12.92	-0.23	4.899	4.894	4.905	4.970		3/2+	0+
38	73	1095.55		7.94			1.30	11.60	-1.08	-12.78	-0.56	4.908	4.909	4.908	4.973		3/2+	1/2+
139	74	1109.27		7.98		25.33	1.87	13.73	-0.81	-12.62	-0.87	4.917	4.923	4.911	4.976		3/2+	0+
40	75	1120.65	1129.61	8.00	8.07	25.10	2.50	11.38	-0.49	-12.54	-0.88	4.926	4.937	4.914	4.979		5/2+	1/2+
41	76	1134.14	1141.74	8.04	8.10	24.87	3.13	13.49	-0.17	-12.40	-1.20	4.935	4.950	4.917	4.982		5/2+	0+
42	77	1145.36	1151.83	8.07	8.11	24.71	3.80	11.22	0.19	-12.27	-1.54	4.944	4.964	4.920	4.985		5/2+	1/2+
43	78	1158.58	1163.77	8.10	8.14	24.44	4.41	13.22	0.49	-12.15	-1.84	4.953	4.977	4.923	4.988		5/2+	0+
44	79	1169.65	1173.79	8.12	8.15	24.29	5.09	11.07	0.87	-12.04	-2.20	4.961	4.990	4.926	4.991		5/2+	1/2+
45	80	1182.61	1185.79	8.16	8.17	24.04	5.67	12.97	1.15	-11.92	-2.49	4.970	5.003	4.930	4.994		5/2+	0+
46	81	1193.58	1195.32	8.18	8.19	23.93	6.38	10.97	1.53	-10.56	-2.86	4.978	5.015	4.933	4.997		5/2+	1/2+
47	82	1206.29	1206.37	8.21	8.21	23.68	6.93	12.71	1.79	-9.63	-3.12	4.987	5.028	4.936	5.000	4.920	5/2+	0+
48	83	1212.16	1214.24	8.19	8.20	18.58	7.84	5.87	2.12	-10.38	-3.46	5.006	5.050	4.949	5.013	4.929	5/2 ⁺	9/2-
49	84	1220.32	1223.26	8.19	8.21	14.02	8.18	8.15	2.41	-7.03	-3.75	5.022	5.070	4.958	5.022	4.943	5/2 ⁺	0+
50	85	1226.03	1230.95	8.17	8.21	13.86	8.82	5.71	2.73	-6.95	-4.07	5.040	5.092	4.971	5.035	4.950	5/2 ⁺	9/2
51	86	1234.04	1239.54	8.17	8.21	13.73	9.40	8.02	3.02	-6.90	-4.36	5.055	5.111	4.980	5.044	4.963	5/2 ⁺	0+
52	87	1239.60	1246.70	8.16	8.20	13.58	10.02	5.56	3.33	-6.81	-4.67	5.073	5.132	4.993	5.057	4.969	5/2 ⁺	9/2-
153	88	1247.51	1255.37	8.15	8.21	13.46	10.61	7.90	3.62	-6.78	-4.96 5.26	5.088	5.151	5.002	5.066	4.995	5/2 ⁺	0+
154	89	1252.91	1262.28	8.14	8.20	13.31	11.21	5.41	3.92	-6.68	-5.26	5.106	5.171	5.014	5.077	5.033	5/2 ⁺	9/2
155	90	1260.73	1271.45	8.13	8.20	13.22	11.78	7.81	4.20	-6.66	-5.54 5.03	5.121	5.190	5.023	5.086	5.039	5/2 ⁺	0 ⁺
56	91	1265.97	1278.36	8.12	8.19	13.06	12.34	5.25	4.48	-6.62	-5.83	5.136	5.210	5.032	5.095	F 0 40	5/2 ⁺	7/2
57	92	1273.70	1287.11	8.11	8.20	12.98	12.91	7.73	4.77	-6.53	-6.11	5.152	5.228	5.043	5.106	5.049	5/2 ⁺	0+
158	93	1278.89	1293.89	8.09 8.09	8.19	12.91 12.72	13.48 14.02	5.19	5.04	-6.48	-6.39	5.168	5.247	5.053	5.116		5/2+	7/2
59	94	1286.42	1302.02		8.19			7.53	5.31	-6.40	-6.67	5.182	5.264	5.062	5.125	5.060	5/2+	0+

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
160	95	1291.52	1308.39	8.07	8.18	12.63	14.59	5.10	5.59	-6.31	-6.94	5.198	5.283	5.072	5.135		5/2 ⁺	7/2-
161	96	1298.86	1316.09	8.07	8.17	12.44	15.10	7.34	5.85	-6.24	-7.20	5.212	5.300	5.079	5.142		5/2 ⁺	0+
162	97 98	1303.80	1322.38 1329.37	8.05	8.16	12.28	15.65	4.94	6.12	-6.12	-7.47	5.227	5.318 5.334	5.089 5.095	5.151		5/2 ⁺ 5/2 ⁺	$\frac{7/2^{-}}{0^{+}}$
163 164	98 99	1310.99 1315.64	1329.37	8.04 8.02	8.16 8.14	12.13 11.84	16.14 16.66	7.19 4.65	6.36 6.62	-6.07 -5.88	-7.72 -7.98	5.240 5.256	5.353	5.104	5.157 5.167		5/2 ⁺	7/2-
165	100	1313.04	1554.52	8.02	0.14	11.75	17.14	7.10	6.86	-5.87	-7.36 -8.21	5.268	5.369	5.110	5.172		5/2 ⁺	0+
166	101	1327.02	1346.87	7.99	8.11	11.73	17.14	4.28	7.05	-5.87 -5.87	-8.40	5.283	5.389	5.114	5.176		5/2 ⁺	3/2-
167	102	1334.07	1340.07	7.99	0.11	11.33	18.09	7.05	7.33	-5.66	-8.69	5.296	5.403	5.124	5.186		5/2 ⁺	0+
168	103	1338.33		7.97		11.31	18.48	4.27	7.52	-5.62	-8.88	5.311	5.423	5.128	5.190		5/2 ⁺	3/2-
169	104	1344.99		7.96		10.93	18.99	6.66	7.78	-5.48	-9.15	5.324	5.437	5.137	5.199		5/2 ⁺	0+
170	105	1349.20		7.94		10.86	19.39	4.20	7.98	-5.44	-9.34	5.338	5.456	5.142	5.204		5/2 ⁺	3/2-
171	106	1355.61		7.93		10.61	19.88	6.41	8.23	-5.34	-9.59	5.352	5.471	5.151	5.213		5/2 ⁺	0+
172	107	1359.73		7.91		10.53	20.28	4.12	8.43	-5.29	-9.79	5.366	5.490	5.156	5.218		5/2+	$3/2^{-}$
173	108	1365.97		7.90		10.36	20.75	6.23	8.66	-5.22	-10.03	5.379	5.504	5.164	5.226		5/2+	0+
174	109	1370.01		7.87		10.28	21.16	4.04	8.87	-5.17	-10.24	5.393	5.522	5.170	5.232		5/2+	$3/2^{-}$
175	110	1376.11		7.86		10.15	21.60	6.11	9.10	-5.12	-10.46	5.406	5.536	5.177	5.239		5/2+	0+
176	111	1380.07		7.84		10.06	22.01	3.95	9.31	-5.06	-10.68	5.420	5.554	5.184	5.246		5/2+	$3/2^{-}$
177	112	1386.07		7.83		9.96	22.45	6.01	9.52	-5.02	-10.89	5.432	5.568	5.190	5.252		5/2+	0^+
178	113	1390.05		7.81		9.99	22.86	3.98	9.72	-4.99	-11.10	5.447	5.586	5.196	5.258		$5/2^{+}$	$1/2^{-}$
179	114	1395.86		7.80		9.79	23.30	5.81	9.95	-4.93	-11.32	5.459	5.599	5.203	5.265		$5/2^{+}$	0^+
180	115	1399.77		7.78		9.71	23.75	3.90	10.18	-4.89	-11.54	5.472	5.615	5.210	5.271		$5/2^{+}$	$1/2^{-}$
181	116	1405.49		7.77		9.63	24.15	5.73	10.39	-4.84	-11.75	5.484	5.629	5.216	5.277		$5/2^{+}$	0^+
182	117	1409.32		7.74		9.55	24.63	3.82	10.62	-4.79	-11.98	5.497	5.644	5.224	5.285		5/2+	1/2-
183	118	1414.98		7.73		9.48	25.02	5.66	10.82	-4.75	-12.19	5.510	5.658	5.230	5.291		5/2+	0^+
184	119	1418.72		7.71		9.40	25.53	3.74	11.07	-4.69	-12.44	5.522	5.671	5.238	5.299		5/2+	1/2-
185	120	1424.31		7.70		9.34	25.89	5.60	11.26	-4.67	-12.62	5.534	5.686	5.243	5.304		5/2+	0+
186	121	1427.96		7.68		9.24	26.39	3.64	11.53	-4.59	-12.90	5.546	5.698	5.253	5.314		5/2 ⁺	1/2-
187	122	1433.51		7.67		9.20	26.78	5.56	11.71	-4.58	-13.07	5.559	5.713	5.257	5.318		5/2 ⁺	0+
188	123	1437.07		7.64		9.11	27.20	3.56	11.92	-4.55	-13.27	5.571	5.727	5.263	5.324		5/2 ⁺	13/2+
189	124	1442.59		7.63		9.07	27.68	5.51	12.15	-4.49	-13.52	5.582	5.739	5.272	5.332		5/2 ⁺	0 ⁺
190	125 126	1446.14		7.61 7.60		9.07 8.95	28.10	3.55 5.40	12.36 12.60	-3.14	-13.73 -13.97	5.594 5.606	5.752 5.764	5.278	5.338		5/2 ⁺	13/2 ⁺ 0 ⁺
191 192	126	1451.54 1451.70		7.60 7.56		8.95 5.56	28.58 28.85	0.16	12.74	-2.50 -3.03	-13.97 -14.10	5.623	5.786	5.286 5.291	5.346 5.351		5/2 ⁺ 5/2 ⁺	9/2 ⁺
193	128	1451.70		7.53		1.72	29.16	1.55	12.74	-0.92	-14.10 -14.26	5.640	5.805	5.301	5.361		5/2 ⁺	0+
194	129	1453.36		7.49		1.66	29.43	0.10	13.03	-0.89	-14.40	5.657	5.826	5.306	5.366		5/2 ⁺	9/2 ⁺
195	130	1454.94		7.46		1.69	29.74	1.59	13.19	-0.91	-14.56	5.674	5.845	5.316	5.376		5/2 ⁺	0+
196	131	1455.00		7.42		1.64	30.01	0.05	13.33	-0.88	-14.69	5.691	5.866	5.321	5.381		5/2 ⁺	9/2 ⁺
197	132	1456.62		7.39		1.68	30.31	1.63	13.48	-0.91	-14.85	5.707	5.884	5.331	5.391		5/2 ⁺	0+
198	133	1456.62		7.36		1.62	30.59	-0.01	13.62	-0.88	-14.99	5.725	5.905	5.337	5.397		5/2 ⁺	9/2+
199	134	1458.30		7.33		1.67	30.89	1.68	13.78	-0.91	-15.15	5.741	5.923	5.347	5.406		5/2+	0+
200	135	1458.23		7.29		1.61	31.09	-0.07	13.92	-0.88	-15.29	5.758	5.943	5.354	5.413		5/2+	$9/2^{+}$
201	136	1459.98		7.26		1.68	31.46	1.75	14.06	-0.92	-15.44	5.774	5.961	5.363	5.422		5/2+	0+
202	137	1459.85		7.23		1.62	31.54	-0.13	14.15	-0.89	-15.58	5.792	5.981	5.371	5.430		5/2+	$9/2^{+}$
203	138	1461.67		7.20		1.70	32.02	1.83	14.35	-0.93	-15.73	5.807	5.998	5.380	5.439		5/2+	0+
204	139	1461.60		7.16		1.75	32.11	-0.07	14.39	-0.96	-15.77	5.841	6.044	5.380	5.440		$5/2^{+}$	$1/2^{+}$
205	140	1463.39		7.14		1.72	32.57	1.79	14.63	-0.94	-16.01	5.840	6.035	5.396	5.455		5/2+	0+
206	141	1463.38		7.10		1.78	32.68	-0.01	14.68	-0.97	-16.06	5.872	6.079	5.397	5.456		5/2+	1/2+
207	142	1465.14		7.08		1.75	33.12	1.76	14.91	-0.96	-16.29	5.873	6.072	5.413	5.472		5/2+	0+
208	143	1465.19		7.04		1.81	33.24	0.05	14.97	-0.98	-16.35	5.904	6.113	5.415	5.473		5/2+	1/2+
209	144	1466.92		7.02		1.78	33.66	1.73	15.18	-0.97	-16.57	5.906	6.109	5.430	5.488		5/2+	0+
210	145	1467.02		6.99		1.84	33.78	0.11	15.24	-1.00	-16.63	5.935	6.147	5.431	5.490		5/2+	1/2+
211	146	1468.77		6.96		1.85	34.21	1.74	15.48	-0.99	-16.98	5.938	6.146	5.442	5.500		$3/2^{+}$	0 ⁺
212	147	1468.91		6.93		1.89	34.33	0.15	15.53	-1.02	-17.05	5.965	6.181	5.444	5.502		3/2+	1/2+
213	148	1470.64		6.90		1.88	34.74	1.73	15.76	-1.00	-17.23	5.970	6.182	5.457	5.515		$3/2^{+}$	0^+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
214	149	1470.85		6.87		1.94	34.89	0.21	15.83	-1.03	-17.31	5.996	6.215	5.460	5.518		3/2+	1/2+
215	150	1472.53		6.85		1.89	35.24	1.68	16.02	-1.01	-17.48	6.002	6.218	5.471	5.529		3/2+	0+
216	151	1472.80		6.82		1.95	35.41	0.27	16.10	-1.03	-17.56	6.026	6.249	5.475	5.533		3/2+	1/2+
217	152	1474.44		6.79		1.91	35.72	1.64	16.27	-1.02	-17.71	6.034	6.255	5.485	5.543		$3/2^{+}$	0 ⁺
218	153	1474.76		6.76		1.96	35.89	0.32	16.35	-1.04	-17.80	6.057	6.283	5.489	5.547		$3/2^{+}$	1/2 ⁺ 0 ⁺
219	154	1476.36		6.74		1.92	36.17	1.61	16.49	-1.02	-17.94	6.066	6.291	5.497	5.555		3/2 ⁺ 3/2 ⁺	1/2 ⁺
220 221	155 156	1476.72 1478.30		6.71 6.69		1.96 1.94	36.34 36.60	0.36 1.58	16.57 16.71	-1.03 -1.03	-18.03 -18.15	6.088 6.098	6.317 6.328	5.502 5.509	5.560 5.567		3/2 ⁺	0+
221	156	1478.71		6.66		1.94	36.82	0.41	16.71	-1.03 -1.03	-18.15 -18.25	6.118	6.352	5.514	5.572		3/2 ⁺	1/2 ⁺
223	158	1478.71		6.64		1.99	37.01	1.54	16.92	-1.03 -1.02	-18.25 -18.36	6.130	6.364	5.520	5.578		$3/2^{+}$	0+
224	159	1480.65		6.61		1.94	37.01	0.41	17.02	-1.02 -1.03	-18.45	6.149	6.386	5.526	5.582		$3/2^{+}$	1/2 ⁺
225	160	1482.19		6.59		1.95	37.41	1.54	17.12	-1.01	-18.55	6.162	6.401	5.530	5.588		$3/2^{+}$	0+
226	161	1482.57		6.56		1.92	37.63	0.38	17.12	-1.00	-18.65	6.179	6.421	5.537	5.594		$3/2^{+}$	1/2 ⁺
227	162	1484.12		6.54		1.93	37.79	1.55	17.03	-1.02	-18.45	6.194	6.437	5.540	5.583		3/2+	0+
228	163	1484.46		6.51		1.89	38.00	0.34	17.12	-1.01	-18.55	6.210	6.455	5.547	5.588		3/2+	1/2+
229	164	1486.03		6.49		1.91	38.16	1.57	17.23	-1.00	-18.65	6.225	6.474	5.549	5.594		3/2+	0+
230	165	1486.29		6.46		1.83	38.35	0.26	17.60	-0.90	-19.02	6.240	6.490	5.557	5.614		3/2+	1/2+
231	166	1487.87		6.44		1.84	38.50	1.58	17.68	-0.91	-19.09	6.257	6.510	5.558	5.615		3/2+	0^{+}
232	167	1487.91		6.41		1.62	38.65	0.04	17.76	-0.69	-19.21	6.270	6.523	5.567	5.625		3/2+	1/2+
233	168	1489.51		6.39		1.64	38.84	1.60	17.86	-0.71	-19.27	6.287	6.544	5.568	5.625		3/2+	0^+
234	169	1489.05		6.36		1.14	39.08	-0.46	17.98	-0.75	-19.39	6.301	6.558	5.575	5.633		3/2+	$15/2^{-}$
235	170	1490.56		6.34		1.04	39.48	1.50	18.16	-0.43	-19.58	6.309	6.564	5.587	5.644		$3/2^{+}$	0^+
236	171	1490.04		6.31		0.99	39.78	-0.52	18.30	-0.40	-19.73	6.321	6.575	5.597	5.654		3/2+	$15/2^{-}$
237	172	1491.22		6.29		0.66	40.12	1.18	18.46	-0.31	-19.91	6.330	6.583	5.609	5.665		$3/2^{+}$	0^+
238	173	1490.66		6.26		0.62		-0.56	18.60	-0.28	-20.06	6.342	6.593	5.619	5.675		3/2+	15/2-
239	174	1491.70		6.24		0.48		1.04	18.76	-0.23	-20.23	6.352	6.601	5.630	5.687		$3/2^{+}$	0+
240	175	1491.11		6.21		0.45		-0.59	18.90	-0.21	-20.38	6.363	6.611	5.641	5.697		3/2+	15/2-
241	176	1492.07		6.19		0.37		0.96	19.06	-0.19	-20.42	6.374	6.620	5.655	5.711		5/2+	0+
242	177	1491.47		6.16		0.36		<u>-0.60</u>	19.21	-0.17	-20.58	6.386	6.630	5.665	5.722		5/2 ⁺	15/2-
243	178	1492.38		6.14		0.31		0.90	19.37	-0.15	-20.75	6.396	6.639	5.677	5.733		5/2 ⁺	0 ⁺
244 245	179 180	1491.77 1492.62		6.11 6.09		0.29 0.25		$\frac{-0.61}{0.86}$		-0.13 -0.11	-20.91 -21.07	6.407 6.418	6.649 6.658	5.688 5.699	5.744 5.755		5/2 ⁺ 5/2 ⁺	15/2 ⁻ 0 ⁺
245	181	1492.02		6.07		0.23		-0.62		-0.11 -0.09	-21.07 -21.24	6.429	6.668	5.710	5.766		5/2 ⁺	15/2 ⁻
247	182	1492.83		6.04		0.24		0.82		-0.03 -0.07	-21.24 -21.40	6.439	6.677	5.722	5.778		5/2 ⁺	0+
248	183	1492.21		6.02		0.20		-0.62		0.74	-21.40 -21.57	6.450	6.687	5.733	5.789		5/2 ⁺	15/2 ⁻
249	184	1493.01		6.00		0.18		0.80		$\frac{0.74}{-0.80}$	-21.73	6.461	6.696	5.745	5.801		$5/2^{+}$	0+
σ		11.75		0.00		0,10		0.00		0.00	21,73	0,101	0,000	017 10	0.073		3,2	
Z = 60	6 (Dy)																	
139	73	1097.22		7.89			0.59		1.67	-13.12	0.04	4.918	4.912	4.924	4.989		0^+	$1/2^{+}$
140	74	1111.31		7.94			1.23		2.04	-12.96	-0.28	4.927	4.926	4.927	4.992		0+	0+
141	75	1123.02		7.96			1.88	11.71	2.37	-12.83	-0.61	4.936	4.940	4.930	4.995		0+	1/2+
142	76	1136.80		8.01		25.49	2.49	13.78	2.66	-12.69	-0.92	4.944	4.954	4.933	4.998		0+	0+
143	77	1148.32	1154.73	8.03	8.08	25.30	3.15	11.52	2.95	-12.57	-1.26	4.953	4.967	4.936	5.000		0+	1/2+
144	78	1161.83	1167.20	8.07	8.11	25.03	3.75	13.52	3.25	-12.44	-1.56	4.962	4.980	4.939	5.004		0+	0+
145	79	1173.19	1176.95	8.09	8.12	24.87	4.41	11.36	3.54	-12.33	-1.90	4.970	4.993	4.942	5.006	F 0 4 4	0+	1/2+
146	80	1186.46	1189.33	8.13	8.15	24.63	4.99	13.27	3.85	-12.21	-2.19	4.979	5.006	4.945	5.009	5.044	0+	0 ⁺
147	81	1197.72	1199.04	8.15	8.16	24.53	5.67	11.26	4.14	-10.86	-2.55	4.987	5.018	4.948	5.012	E 0.40	0 ⁺	1/2+
148	82	1210.73	1210.78	8.18	8.18	24.27	6.23	13.01	4.44	-10.03	-2.82	4.995	5.031	4.951	5.015	5.046	0 ⁺	0+
149	83 84	1216.92 1225.38	1218.69 1228.37	8.17 8.17	8.18 8.19	19.20 14.65	6.87 7.48	6.19 8.47	4.75 5.07	-10.57	-3.15	5.013 5.029	5.052 5.073	4.964 4.973	5.028 5.037	5.057 5.071	0 ⁺	9/2 ⁻ 0 ⁺
150 151	84 85	1225.38	1228.37	8.17 8.15	8.19 8.18	14.65	7.48 8.11	8.47 6.02	5.07 5.37	-7.34 -7.25	-3.44 -3.76	5.029	5.073	4.986	5.050	5.071	0+	9/2 ⁻
151	85 86	1231.40	1235.89	8.16	8.18 8.19	14.48	8.70	8.32	5.68	-7.25 -7.20	-3.76 -4.05	5.047	5.114	4.986	5.058	5.080	0+	9/2 0 ⁺
153	87	1239.72	1243.32	8.14	8.19	14.34	9.32	5.86	5.98	-7.20 -7.11	-4.05 -4.36	5.080	5.134	5.007	5.071	5.104	0+	9/2-
133	07	14-13,33	1232,42	0.14	0.13	17,13	3.32	5.00	5.50	-7.11	-4.50	5.000	J. 1 J4	5.007	3.071	J. 104	U.	3/2

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Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
154	88	1253.79	1261.74	8.14	8.19	14.06	9.89	8.20	6.28	-7.07	-4.65	5.095	5.153	5.016	5.079	5.124	0^+	0^+
155	89	1259.49	1268.57	8.13	8.18	13.90	10.50	5.70	6.58	-6.97	-4.95	5.112	5.173	5.028	5.091	5.146	0^+	$9/2^{-}$
156	90	1267.59	1278.01	8.13	8.19	13.81	11.06	8.10	6.86	-6.94	-5.23	5.127	5.191	5.037	5.100	5.162	0^+	0^+
157	91	1273.13	1284.98	8.11	8.18	13.64	11.64	5.54	7.16	-6.90	-5.51	5.142	5.211	5.045	5.108	5.171	0^+	7/2
158	92	1281.14	1294.04	8.11	8.19	13.55	12.20	8.01	7.44	-6.81	-5.80	5.157	5.229	5.056	5.119	5.182	0^+	0^+
159	93	1286.62	1300.87	8.09	8.18	13.49	12.77	5.48	7.73	-6.75	-6.08	5.173	5.247	5.066	5.129	5.183	0^+	7/2
160	94	1294.42	1309.45	8.09	8.18	13.28	13.32	7.81	8.00	-6.67	-6.35	5.187	5.265	5.075	5.138	5.195	0^+	0^+
161	95	1299.80	1315.90	8.07	8.17	13.18	13.88	5.38	8.29	-6.58	-6.63	5.203	5.283	5.085	5.147	5.196	0^+	7/2
162	96	1307.41	1324.10	8.07	8.17	12.99	14.40	7.61	8.55	-6.51	-6.89	5.216	5.300	5.092	5.154	5.207	0+	0^+
163	97	1312.63	1330.37	8.05	8.16	12.83	14.95	5.21	8.83	-6.38	-7.17	5.231	5.318	5.101	5.164	5.210	0+	7/2
164	98	1320.08	1338.03	8.05	8.16	12.66	15.45	7.45	9.09	-6.33	-7.41	5.244	5.334	5.107	5.169	5.222	0+	0^+
165	99	1324.99	1343.74	8.03	8.14	12.37	15.98	4.92	9.35	-6.12	-7.68	5.259	5.352	5.116	5.178		0+	7/2
166	100	1332.35	1350.79	8.03	8.14	12.27	16.47	7.35	9.61	-6.11	-7.92	5.271	5.368	5.121	5.184		0+	0+
167	101	1336.85	1356.20	8.01	8.12	11.85	16.87	4.50	9.83	-6.11	-8.11	5.285	5.387	5.125	5.187		0+	3/2
168	102	1344.16	1362.91	8.00	8.11	11.81	17.42	7.31	10.09	-5.89	-8.40	5.299	5.401	5.135	5.197		0+	0+
169	103	1348.65	1368.01	7.98	8.09	11.80	17.83	4.49	10.31	-5.84	-8.62	5.314	5.420	5.143	5.205		0+	3/2
170	104	1355.54		7.97		11.39	18.33	6.90	10.55	-5.71	-8.86	5.326	5.435	5.149	5.211		0+	0+
171	105	1359.96		7.95		11.31	18.74	4.41	10.76	-5.66	-9.06	5.340	5.454	5.154	5.216		0+	3/2
172	106	1366.60		7.95		11.06	19.22	6.64	11.00	-5.56	-9.31	5.353	5.468	5.163	5.224		0+	0+
173	107	1370.93		7.92		10.98	19.63	4.33	11.20	-5.51	-9.51	5.368	5.487	5.168	5.230		0^+	3/2
174	108	1377.40		7.92		10.80	20.10	6.46	11.43	-5.44	-9.75	5.380	5.501	5.176	5.237		0^+	0+
175	109	1381.65		7.90		10.71	20.51	4.25	11.64	-5.38	-9.96	5.394	5.519	5.182	5.243		0+	3/2
176	110	1387.98		7.89		10.58	20.96	6.33	11.86	-5.33	-10.1	5.408	5.533	5.189	5.250		0 ⁺	0+
177	111	1392.14		7.87		10.49	21.39	4.17	12.07	-5.27	-10.4	5.421	5.551	5.196	5.257		0 ⁺	3/2 ⁻ 0 ⁺
178 179	112	1398.36		7.86		10.39	21.81	6.22	12.29	-5.23	-10.6	5.433	5.565	5.202	5.263		0^{+}	-
	113 114	1402.50		7.84		10.36 10.21	22.17 22.67	4.14	12.45	-5.20 5.14	-10.8	5.447	5.582	5.208 5.215	5.269 5.276		0+	1/2 ⁻ 0 ⁺
180 181	115	1408.58 1412.70		7.83 7.80		10.21	23.11	6.08 4.12	12.71 12.93	-5.14 -5.10	-11.0 -11.2	5.460 5.473	5.595 5.611	5.213	5.282		0+	1/2-
182	116	1412.70		7.79		10.26	23.11	5.94	13.14	-5.10 -5.05	-11.2 -11.4	5.485	5.625	5.228	5.289		0+	0+
183	117	1422.68		7.73		9.98	23.98	4.04	13.14	-5.03 -5.01	-11.4 -11.7	5.497	5.640	5.235	5.296		0+	1/2
184	118	1428.54		7.76		9.91	24.38	5.86	13.56	-4.96	-11.7 -11.9	5.509	5.654	5.241	5.302		0+	0+
185	119	1432.51		7.74		9.84	24.87	3.98	13.80	-4.91	-11.3 -12.1	5.523	5.667	5.249	5.310		0+	1/2
186	120	1438.31		7.73		9.77	25.25	5.79	13.99	-4.88	-12.1 -12.3	5.534	5.681	5.255	5.315		0+	0+
187	121	1442.20		7.73		9.69	25.77	3.90	14.25	-4.81	-12.6	5.546	5.694	5.264	5.325		0+	1/2-
188	122	1447.94		7.70		9.63	26.13	5.73	14.42	-4.79	-12.7	5.559	5.708	5.268	5.329		0+	0+
189	123	1451.76		7.68		9.55	26.60	3.82	14.68	-4.72	-13.0	5.570	5.719	5.279	5.339		0+	13/2
190	124	1457.44		7.67		9.51	27.01	5.69	14.86	-4.70	-13.2	5.582	5.734	5.282	5.343		0+	0+
191	125	1461.20		7.65		9.45	27.43	3.76	15.07	-3.38	-13.4	5.593	5.748	5.288	5.348		0^{+}	13/2
192	126	1466.84		7.64		9.39	27.90	5.63	15.30	-2.93	-13.6	5.606	5.760	5.297	5.357		0^{+}	0+
193	127	1467.14		7.60		5.93	28.18	0.30	15.44	-3.25	-13.8	5.622	5.781	5.302	5.362		0^{+}	9/2+
194	128	1468.86		7.57		2.02	28.50	1.72	15.61	-1.07	-13.9	5.639	5.800	5.312	5.372		0^+	0^{+}
195	129	1469.10		7.53		1.97	28.78	0.25	15.75	-1.04	-14.1	5.655	5.821	5.317	5.376		0^+	9/2
196	130	1470.85		7.50		2.00	29.10	1.75	15.91	-1.06	-14.2	5.673	5.839	5.327	5.387		0^+	0+
197	131	1471.05		7.47		1.94	29.38	0.19	16.05	-1.03	-14.4	5.688	5.860	5.332	5.392		0^+	9/2
198	132	1472.84		7.44		1.98	29.70	1.79	16.21	-1.06	-14.5	5.706	5.877	5.342	5.402		0^+	0+
199	133	1472.97		7.40		1.92	29.98	0.14	16.36	-1.03	-14.7	5.722	5.898	5.349	5.408		0^+	9/2
200	134	1474.81		7.37		1.98	30.29	1.84	16.51	-1.06	-14.8	5.739	5.915	5.359	5.418		0^+	0+
201	135	1474.89		7.34		1.92	30.58	0.08	16.66	-1.03	-15.0	5.755	5.935	5.366	5.425		0^+	9/2
202	136	1476.79		7.31		1.98	30.88	1.90	16.81	-1.07	-15.1	5.771	5.953	5.375	5.435		0^+	0+
203	137	1476.81		7.27		1.92	31.07	0.02	16.96	-1.03	-15.3	5.788	5.973	5.384	5.443		0^+	9/2
204	138	1478.78		7.25		1.99	31.46	1.97	17.11	-1.07	-15.4	5.804	5.989	5.392	5.451		0^+	0+
205	139	1478.79		7.21		1.98	31.58	0.01	17.40	-1.10	-15.5	5.827	6.020	5.395	5.454		0^+	5/2
206	140	1480.79		7.19		2.01	32.03	2.00	17.48	-1.08	-15.7	5.836	6.026	5.410	5.468		0^+	0+
207	141	1480.86		7.15		2.07	32.16	0.07	17.68	-1.11	-15.8	5.859	6.054	5.413	5.472		0^+	5/2+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
208	142	1482.82		7.13		2.03	32.59	1.96	17.69	-1.09	-16.0	5.869	6.062	5.427	5.485		0+	0+
209	143	1482.95		7.10		2.09	32.73	0.13	17.76	-1.12	-16.1	5.890	6.089	5.431	5.489		0+	5/2+
210	144	1484.88		7.07		2.06	33.14	1.93	17.96	-1.10	-16.3	5.900	6.098	5.443	5.502		0+	0+
211	145	1485.06		7.04		2.11	33.28	0.18	18.03	-1.12	-16.4	5.921	6.123	5.448	5.507		0+	1/2+
212	146	1486.97		7.01		2.09	33.68	1.91	18.20	-1.11	-16.6	5.932	6.133	5.459	5.518		0+	0+
213	147	1487.20		6.98		2.14	33.81	0.23	18.28	-1.14	-16.6	5.960	6.169	5.461	5.520		0+	11/2+
214	148	1489.07		6.96		2.10	34.19	1.87	18.43	-1.12	-16.8	5.965	6.169	5.475	5.533		0+	0+
215	149	1489.36		6.93		2.16	34.34	0.29	18.51	-1.15	-16.9	5.989	6.202	5.477	5.535		0+	1/2+
216	150	1491.19		6.90		2.12	34.69	1.84	18.66	-1.12	-17.1	5.995	6.205	5.489	5.547		0+	0+
217	151	1491.54		6.87		2.18	34.84	0.34	18.74	-1.15	-17.1	6.020	6.236	5.492	5.550		0+	1/2+
218	152	1493.33		6.85		2.14	35.16	1.79	18.89	-1.13	-17.3	6.028	6.241	5.502	5.560		0+	0+
219	153	1493.72		6.82		2.19	35.32	0.39	18.97	-1.14	-17.4	6.050	6.270	5.506	5.563		0+	1/2+
220	154	1495.47		6.80		2.14	35.61	1.75	19.11	-1.12	-17.5	6.060	6.278	5.514	5.572		0+	0+
221	155	1495.91		6.77		2.19	35.76	0.44	19.19	-1.14	-17.6	6.081	6.304	5.518	5.576		0+	1/2+
222	156	1497.62		6.75		2.15	36.03	1.71	19.32	-1.12	-17.7	6.091	6.314	5.526	5.583		0+	0+
223	157	1498.10		6.72		2.19	36.20	0.48	19.40	-1.13	-17.8	6.111	6.339	5.530	5.588		0+	1/2+
224	158	1499.76		6.70		2.14	36.44	1.66	19.52	-1.11	-17.9	6.123	6.351	5.536	5.593		0+	0+
225	159	1500.28		6.67		2.18	36.66	0.52	19.63	-1.11	-18.1	6.141	6.373	5.541	5.596		0+	1/2+
226	160	1501.90		6.65		2.13	36.83	1.77	19.71	-1.10	-18.1	6.154	6.387	5.546	5.603		0+	0+
227	161	1502.38		6.62		2.26	37.04	0.49	19.82	-1.09	-18.2	6.172	6.408	5.552	5.609		0+	1/2+
228	162	1504.01		6.60		2.12	37.20	1.63	19.89	-1.08	-18.3	6.186	6.424	5.555	5.612		0+	0+
229	163	1504.46		6.57		2.08	37.42	0.45	20.00	-1.05	-18.4	6.202	6.442	5.562	5.619		0+	1/2+
230	164	1506.09		6.55		2.08	37.57	1.63	20.07	-1.05	-18.5	6.217	6.460	5.564	5.621		0+	0 ⁺
231	165	1506.47		6.52		2.00	37.78	0.37	20.18	-0.98	-18.6	6.232	6.476	5.571	5.628		0 ⁺	1/2+
232	166	1508.11		6.50		2.01	37.92	1.64	20.24	-0.99	-18.7	6.247	6.496	5.573	5.630		0 ⁺	0 ⁺
233	167	1508.27		6.47		1.81	38.12	0.17	20.36	-0.81	-18.8	6.261	6.509	5.582	5.639		0+	1/2+
234	168	1509.93		6.45		1.82	38.28	1.66	20.42	-0.83	-18.9	6.277	6.529	5.583	5.640		0+	0 ⁺
235	169	1509.69		6.42		1.42	38.62	$\frac{-0.24}{1.61}$	20.64	-0.87	-19.0	6.290	6.543	5.590	5.647		0+	15/2 ⁻ 0 ⁺
236	170	1511.30		6.40		1.37	38.90	1.61	20.75	-0.61	-19.2	6.300	6.551	5.601	5.658		0 ⁺	-
237	171	1510.95		6.38		1.26	39.21	$\frac{-0.35}{1.37}$	20.91	-0.58	-19.3	6.313	6.563	5.610	5.667		0 ⁺	15/2 ⁻ 0 ⁺
238 239	172 173	1512.33		6.35		1.02 0.98	39.56 39.88	1.37	21.11	-0.48	-19.5 -19.7	6.321 6.333	6.570	5.622 5.631	5.678 5.688		0+	
	173	1511.93		6.33				$\frac{-0.39}{1.23}$	21.28 21.46	-0.46			6.581				0+	15/2 ⁻ 0 ⁺
240	174	1513.16		6.30		0.83	40.22			-0.40	-19.8	6.344	6.589	5.643	5.699		0+	
241		1512.74		6.28		0.81	40.53 40.86	$\frac{-0.42}{1.13}$	21.63	-0.38	-20.0	6.354	6.600	5.653	5.709		0+	15/2 ⁻ 0 ⁺
242	176 177	1513.87		6.26		0.71			21.80	-0.35	-20.2 -20.3	6.365	6.608	5.664	5.720		0 ⁺	
243	177	1513.44		6.23		0.70 0.63	41.18 41.50	$\frac{-0.44}{1.07}$	21.96 22.13	-0.33 -0.30	-20.5 -20.5	6.377 6.386	6.619 6.627	5.675	5.731		0 ⁺	15/2 ⁻ 0 ⁺
244 245	178	1514.51 1514.06		6.21 6.18		0.63	41.50	-0.45	22.13	-0.30 -0.28	-20.5 -20.6	6.399	6.638	5.686 5.697	5.742 5.752		0+	15/2 ⁻
245	180	1515.08		6.16		0.62		$\frac{-0.43}{1.02}$	22.29	-0.26	-20.8	6.408	6.647	5.708	5.764		0+	0 ⁺
								-0.45	22.40					5.719			0+	-
247	181 182	1514.63		6.13 6.11		0.57 0.53		0.98	22.62 22.79	-0.24 -0.23	-21.0	6.420	6.657 6.666		5.775 5.786		0 ⁺	15/2 ⁻ 0 ⁺
248 249	182	1515.61 1515.17		6.09		0.53		0.98 -0.45	22.79		-21.1 -21.33	6.431 6.441	6.676	5.731 5.742	5.786 5.797		0+	15/2 ⁻
250	184					0.54		0.95	23.12	<u>0.61</u> -0.96				5.754	5.809		0+	0 ⁺
σ	104	1516.11 12.41		6.06		0.30		0.93	23.12	-0.90	-21.49	6.452	6.685	3.734	0.048		U.	U.
	- / \	12.41													0.048			
Z = 6		1100.04		7.07			0.67		4.07	12.20	0.10	4.020	4.004	4.0.47	F 011		2 /2±	0+
141	74	1109.94		7.87			0.67		$\frac{-1.37}{1.06}$	-13.26	0.10	4.939	4.931	4.947	5.011		$3/2^{+}$	0 ⁺
142	75 76	1121.96		7.90			1.31	1.1.10	$\frac{-1.06}{0.74}$	-13.12	-0.24	4.947	4.946	4.949	5.014		3/2+	1/2+
143	76	1136.06		7.94	0.00	0= 00	1.92	14.10	$\frac{-0.74}{0.12}$	-12.98	-0.56	4.956	4.959	4.952	5.016		3/2+	0+
144	77	1147.89	1154.46	7.97	8.02	25.93	2.53	11.83	$\frac{-0.43}{0.15}$	-12.85	-0.90	4.964	4.972	4.955	5.019		3/2+	1/2+
145	78	1161.68	1167.04	8.01	8.05	25.62	3.11	13.79	<u>-0.15</u>	-12.73	-1.21	4.972	4.985	4.958	5.022		3/2+	0+
146	79	1173.34	1177.23	8.04	8.06	25.45	3.69	11.66	0.15	-12.61	-1.56	4.981	4.998	4.960	5.024		3/2+	$1/2^{+}$
147	80	1186.66	1189.82	8.07	8.09	24.98	4.05	13.33	0.20	-12.49	-1.85	4.989	5.011	4.963	5.027		3/2+	0+
148	81	1198.23	1200.13	8.10	8.11	24.90	4.65	11.57	0.52	-11.15	-2.21	4.997	5.022	4.965	5.029		$3/2^{+}$	$1/2^{+}$

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
149	82	1211.48	1211.87	8.13	8.13	24.81	5.18	13.24	0.74	-10.20	-2.48	5.005	5.035	4.968	5.032		3/2+	0+
150	83	1217.99	1220.23	8.12	8.13	19.76	5.83	6.52	1.07	-10.89	-2.62	5.023	5.056	4.981	5.045		$3/2^{+}$	9/2-
151	84	1226.74	1229.97	8.12	8.15	15.27	6.43	8.75	1.36	-7.64	-3.10	5.038	5.077	4.990	5.053	5.040	3/2+	0^+
152	85	1233.10	1238.03	8.11	8.14	15.11	7.08	6.36	1.70	-7.56	-3.24	5.056	5.097	5.003	5.067	5.061	3/2+	9/2
153	86	1241.70	1247.51	8.12	8.15	14.96	7.66	8.60	1.98	-7.51	-3.53	5.071	5.116	5.013	5.076	5.076	3/2+	0^+
154	87	1247.91	1255.20	8.10	8.15	14.80	8.30	6.20	2.32	-7.41	-3.85	5.088	5.136	5.025	5.088	5.086	3/2+	9/2
155	88	1256.38	1264.68	8.11	8.16	14.68	8.87	8.47	2.59	-7.38	-4.13	5.103	5.155	5.034	5.097	5.108	3/2+	0^+
156	89	1262.41	1272.18	8.09	8.16	14.50	9.49	6.03	2.92	-7.26	-4.44	5.120	5.175	5.046	5.109	5.116	3/2+	9/2
157	90	1270.78	1281.61	8.09	8.16	14.40	10.06	8.37	3.19	-7.24	-4.73	5.135	5.193	5.055	5.118	5.154	3/2+	0+
158	91	1276.60	1289.03	8.08	8.16	14.19	10.63	5.82	3.47	-7.11	-5.02	5.150	5.212	5.065	5.128	5.157	3/2+	9/2
159	92	1284.91	1298.25	8.08	8.17	14.12	11.21	8.31	3.77	-7.09	-5.30	5.165	5.230	5.075	5.137	5.168	3/2+	0+
160	93	1290.66	1305.37	8.07	8.16	14.05	11.77	5.75	4.04	-7.04	-5.58	5.180	5.249	5.084	5.146	5.166	3/2+	7/2
161	94	1298.74	1314.26	8.07	8.16	13.83	12.31	8.08	4.31	-6.94	-5.85	5.195	5.266	5.093	5.155	5.179	3/2+	0+
162	95	1304.39	1321.18	8.05	8.16	13.73	12.87	5.65	4.59	-6.85	-6.13	5.210	5.284	5.102	5.164	5.182	3/2+	7/2
163	96	1312.31	1329.58	8.05	8.16	13.58	13.45	7.93	4.90	-6.79	-6.54	5.221	5.301	5.104	5.167	5.191	3/2+	0+
164	97	1317.83	1336.26	8.04	8.15	13.45	14.04	5.52	5.21	-6.66	-6.81	5.236	5.318	5.114	5.176	F 202	3/2+	7/2 0 ⁺
165	98	1325.71	1344.25	8.03	8.15	13.40	14.73	7.88	5.64	-6.61	-7.06	5.248	5.334	5.120	5.182	5.202	3/2 ⁺	-
166 167	99 100	1330.89	1350.49	8.02	8.14	13.06	15.25 15.73	5.18 7.57	5.90	-6.39	-7.32	5.263	5.352 5.367	5.129	5.191 5.196		$3/2^{+}$	7/2 0 ⁺
167 168	100	1338.47 1343.21	1357.77 1363.62	8.01 8.00	8.13 8.12	12.75 12.32	16.19	4.75	6.12 6.37	-6.37 -6.38	-7.56 -7.75	5.275 5.289	5.387	5.134 5.138	5.200		3/2 ⁺ 3/2 ⁺	3/2
169	101	1350.74	1370.43	7.99	8.11	12.32	16.19	7.53	6.59	-6.13	-7.73 -8.04	5.302	5.401	5.148	5.210		3/2 ⁺	0 ⁺
170	102	1355.46	1375.94	7.99 7.97	8.09	12.25	17.13	4.72	6.81	-6.13	-8.04 -8.26	5.317	5.420	5.146	5.210		3/2 ⁺	5/2
171	103	1362.58	1382.30	7.97 7.97	8.08	11.84	17.13	7.13	7.04	-5.94	-8.50	5.329	5.434	5.162	5.223		3/2 ⁺	0 ⁺
172	104	1367.21	1362.30	7.95	8.08	11.75	18.01	4.62	7.04	-5.89	-8.69	5.343	5.453	5.166	5.228		$3/2^{+}$	7/2
173	105	1374.09		7.93 7.94		11.73	18.48	6.88	7.23	-5.79	-8.95	5.356	5.467	5.175	5.237		$3/2^{+}$	0+
174	107	1378.63		7.92		11.42	18.90	4.54	7.69	-5.74	-9.15	5.370	5.485	5.181	5.242		$3/2^{+}$	7/2
175	108	1385.32		7.92		11.23	19.35	6.69	7.92	-5.66	-9.39	5.383	5.500	5.189	5.250		3/2 ⁺	0+
176	109	1389.78		7.90		11.15	19.77	4.46	8.13	-5.61	-9.60	5.397	5.517	5.194	5.256		3/2 ⁺	7/2
177	110	1396.33		7.89		11.01	20.22	6.55	8.35	-5.55	-9.83	5.409	5.531	5.202	5.263		3/2 ⁺	0+
178	111	1400.71		7.87		10.93	20.64	4.38	8.57	-5.49	-10.04	5.423	5.548	5.208	5.269		3/2 ⁺	7/2
179	112	1407.14		7.86		10.82	21.07	6.44	8.78	-5.45	-10.27	5.435	5.562	5.215	5.276		$3/2^{+}$	0+
180	113	1411.47		7.84		10.76	21.41	4.32	8.97	-5.41	-10.47	5.449	5.579	5.221	5.281		$3/2^{+}$	1/2
181	114	1417.79		7.83		10.64	21.92	6.32	9.21	-5.35	-10.70	5.460	5.593	5.228	5.288		3/2+	0+
182	115	1422.11		7.81		10.65	22.35	4.33	9.42	-5.32	-10.91	5.474	5.609	5.234	5.295		3/2+	1/2
183	116	1428.27		7.80		10.48	22.78	6.16	9.64	-5.26	-11.13	5.485	5.622	5.240	5.301		3/2+	0+
184	117	1432.53		7.79		10.42	23.21	4.26	9.85	-5.22	-11.36	5.498	5.637	5.247	5.308		3/2+	1/2
185	118	1438.61		7.78		10.34	23.64	6.08	10.08	-5.17	-11.57	5.510	5.651	5.253	5.314		3/2+	0+
186	119	1442.82		7.76		10.29	24.10	4.21	10.31	-5.12	-11.81	5.522	5.664	5.261	5.322		3/2+	1/2
187	120	1448.83		7.75		10.21	24.51	6.01	10.52	-5.09	-12.01	5.534	5.678	5.266	5.327		3/2+	0+
188	121	1452.96		7.73		10.14	25.00	4.13	10.75	-5.03	-12.27	5.546	5.691	5.276	5.336		3/2+	1/2
189	122	1458.87		7.72		10.04	25.36	5.91	10.93	-5.00	-12.45	5.558	5.705	5.280	5.340		3/2+	0+
190	123	1462.84		7.70		9.88	25.77	3.97	11.08	-4.97	-12.60	5.570	5.715	5.293	5.353		3/2+	1/2
191	124	1468.68		7.69		9.81	26.09	5.84	11.23	-4.94	-12.76	5.582	5.730	5.296	5.356		3/2+	0+
192	125	1472.75		7.67		9.92	26.61	4.08	11.55	-3.56	-13.07	5.593	5.740	5.307	5.367		3/2+	1/2
193	126	1478.53		7.66		9.86	27.00	5.78	11.70	-2.94	-13.20	5.605	5.756	5.310	5.370		3/2+	0+
194	127	1479.00		7.62		6.25	27.30	0.47	11.86	-3.46	-13.48	5.621	5.777	5.312	5.372		3/2+	9/2
195	128	1480.96		7.59		2.43	27.71	1.96	12.10	-1.25	-13.65	5.637	5.795	5.322	5.382		$3/2^{+}$	0^+
196	129	1481.34		7.56		2.34	27.99	0.38	12.24	-1.22	-13.78	5.654	5.816	5.327	5.387		$3/2^{+}$	9/2
197	130	1483.25		7.53		2.29	28.30	1.90	12.39	-1.24	-13.95	5.670	5.834	5.338	5.397		3/2+	0+
198	131	1483.58		7.49		2.24	28.59	0.33	12.54	-1.20	-14.09	5.687	5.854	5.343	5.403		$3/2^{+}$	9/2
199	132	1485.53		7.46		2.28	28.91	1.95	12.70	-1.23	-14.25	5.702	5.872	5.354	5.413		$3/2^{+}$	0^+
200	133	1485.83		7.43		2.25	29.21	0.29	12.86	-1.20	-14.40	5.719	5.892	5.360	5.419		3/2+	9/2
201	134	1487.83		7.40		2.30	29.53	2.00	13.02	-1.23	-14.56	5.735	5.909	5.370	5.429		3/2+	0+
202	135	1488.07		7.37		2.24	29.84	0.24	13.18	-1.19	-14.70	5.752	5.929	5.377	5.436		3/2+	9/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
203	136	1490.13		7.34		2.30	30.15	2.06	13.34	-1.23	-14.86	5.767	5.945	5.387	5.446		3/2+	0+
204	137	1490.30		7.31		2.24	30.46	0.18	13.50	-1.19	-15.01	5.784	5.965	5.395	5.454		$3/2^{+}$	$9/2^{+}$
205	138	1492.43		7.28		2.30	30.76	2.13	13.65	-1.23	-15.16	5.799	5.981	5.404	5.463		$3/2^{+}$	0^+
206	139	1492.54		7.25		2.24	30.94	0.11	13.75	-1.20	-15.32	5.816	6.001	5.414	5.472		$3/2^{+}$	9/2
207	140	1494.75		7.22		2.32	31.36	2.20	13.96	-1.24	-15.46	5.831	6.017	5.422	5.480		$3/2^{+}$	0^{+}
208	141	1494.92		7.19		2.38	31.54	0.18	14.06	-1.27	-15.55	5.853	6.045	5.425	5.483		$3/2^{+}$	5/2
209	142	1497.08		7.16		2.33	31.94	2.15	14.26	-1.24	-15.75	5.863	6.052	5.439	5.497		$3/2^{+}$	0^+
210	143	1497.32		7.13		2.39	32.13	0.24	14.37	-1.27	-15.85	5.883	6.079	5.443	5.501		3/2+	5/2
211	144	1499.43		7.11		2.35	32.51	2.11	14.55	-1.25	-16.03	5.894	6.088	5.456	5.514		$3/2^{+}$	0^+
212	145	1499.72		7.07		2.40	32.69	0.29	14.66	-1.27	-16.14	5.914	6.113	5.461	5.519		$3/2^{+}$	5/2
213	146	1501.79		7.05		2.36	33.03	2.07	14.82	-1.25	-16.31	5.926	6.123	5.472	5.530		3/2+	0+
214	147	1502.13		7.02		2.41	33.21	0.34	14.93	-1.27	-16.41	5.945	6.146	5.478	5.536		3/2+	5/2
215	148	1504.16		7.00		2.37	33.52	2.04	15.09	-1.25	-16.57	5.957	6.158	5.488	5.546		3/2+	0^{+}
216	149	1504.56		6.97		2.43	33.71	0.40	15.20	-1.26	-16.68	5.976	6.181	5.494	5.552		3/2+	5/2
217	150	1506.54		6.94		2.38	34.01	1.98	15.35	-1.25	-16.81	5.989	6.194	5.502	5.560		3/2+	0+
218	151	1506.96		6.91		2.39	34.16	0.41	15.42	-1.25	-16.93	6.007	6.215	5.508	5.566		3/2+	5/2
219	152	1508.93		6.89		2.38	34.49	1.97	15.59	-1.25	-17.05	6.020	6.230	5.515	5.572		3/2+	0+
220	153	1509.40		6.86		2.44	34.58	0.47	15.61	-1.27	-17.12	6.042	6.258	5.518	5.575		3/2+	1/2
221	154	1511.30		6.84		2.37	34.94	1.90	15.83	-1.24	-17.27	6.051	6.266	5.527	5.584		3/2+	0+
222	155	1511.82		6.81		2.42	34.98	0.52	15.79	-1.26	-17.35	6.072	6.293	5.530	5.588		3/2+	1/2
223	156	1513.67		6.79		2.37	35.37	1.85	16.05	-1.23	-17.48	6.082	6.302	5.538	5.595		3/2+	0+
224	157	1514.23		6.76		2.41	35.40	0.56	16.00	-1.24	-17.56	6.102	6.327	5.541	5.599		3/2 ⁺	1/2
225	158	1516.03		6.74		2.36	35.78	1.92	16.26	-1.22	-17.68	6.113	6.338	5.548	5.605		$3/2^{+}$	0+
226	159	1516.64		6.71		2.54	36.18	0.61	16.59	-1.22	-17.76	6.132	6.361	5.552	5.610		3/2+	1/2
227	160	1518.37		6.69		2.34	36.18	1.73	16.47	-1.21	-17.87	6.145	6.374	5.557	5.615		3/2 ⁺	0+
228	161	1518.97		6.66		2.33	36.40	0.60	16.58	-1.19	-17.96	6.162	6.395	5.563	5.620		3/2 ⁺	1/2
229	162	1520.68		6.64		2.32	36.56	1.72	16.67	-1.13 -1.19	-17.30 -18.05	6.176	6.410	5.567	5.624		3/2 ⁺	0+
230	163	1521.25		6.61		2.32	36.79	0.56	16.78	-1.19 -1.16	-18.03	6.192	6.429	5.573	5.630		3/2+	1/2
231	164	1521.25		6.59		2.28	36.93	1.71	16.87	-1.15 -1.15	-18.14 -18.23	6.206	6.446	5.576	5.633		3/2+	0+
232	165	1523.45		6.57		2.20	37.16	0.49	16.98	-1.13 -1.09	-18.23	6.222	6.463	5.583	5.640		3/2 ⁺	1/2
232 233	166	1525.45		6.55		2.20	37.10	1.71	17.06	-1.09 -1.09	-18.33 -18.41	6.237	6.481	5.585	5.642		3/2 ⁺	0+
234	167	1525.10		6.52		2.20	37.55	0.30	17.00	-0.94	-18.53	6.250	6.495	5.594	5.651		3/2+	1/2
	168					2.02			17.19								3/2 ⁺	0+
235		1527.19		6.50			37.68	1.72		-0.96	-18.61	6.266	6.514	5.595	5.652			1/2
236	169	1527.07		6.47		1.60	38.02	$\frac{-0.12}{1.77}$	17.38	-0.74	-18.83	6.274	6.518	5.611	5.668		3/2+	0 ⁺
237	170	1528.84		6.45		1.65	38.28	1.77	17.54	-0.76	-18.90	6.290	6.538	5.612	5.669		3/2+	-
238	171	1528.63		6.42		1.56	38.59	<u>-0.21</u>	17.68	-0.74	-19.04	6.302	6.550	5.620	5.677		3/2+	15/
239	172	1530.16		6.40		1.32	38.95	1.54	17.84	-0.64	-19.23	6.312	6.558	5.632	5.688		3/2+	0 ⁺
240	173	1529.91		6.37		1.29	39.26	$\frac{-0.25}{1.30}$	17.98	-0.61	-19.38	6.323	6.569	5.641	5.698		3/2+	15/
241	174	1531.30		6.35		1.13	39.60	1.38	18.14	-0.56	-19.56	6.333	6.577	5.652	5.709		3/2+	0+
242	175	1531.02		6.33		1.11	39.91	$\frac{-0.28}{1.00}$	18.28	-0.54	-19.72	6.345	6.588	5.662	5.718		3/2+	15/
243	176	1532.30		6.31		1.01	40.23	1.28	18.43	-0.50	-19.90	6.355	6.596	5.673	5.730		3/2+	0 ⁺
244	177	1532.01		6.28		0.99	40.54	_0.29	18.57	-0.48	-20.06	6.367	6.607	5.684	5.740		3/2+	15/
245	178	1533.23		6.26		0.92	40.85	1.21	18.72	-0.45	-20.23	6.377	6.616	5.695	5.751		3/2+	0+
246	179	1532.92		6.23		0.91	41.16	-0.30	18.86	-0.43	-20.39	6.388	6.626	5.705	5.761		3/2+	15/
247	180	1534.09		6.21		0.86	41.47	1.17	19.01	-0.41	-20.56	6.399	6.635	5.717	5.772		3/2+	0+
248	181	1533.78		6.18		0.86	41.77	<u>-0.31</u>	19.15	-0.39	-20.72	6.410	6.645	5.727	5.783		3/2+	15/
249	182	1534.91		6.16		0.82	42.08	1.13	19.30	-0.38	-20.88	6.421	6.655	5.739	5.794		$3/2^{+}$	0^+
250	183	1534.63		6.14		0.85	42.42	-0.28	19.46	0.52	-21.06	6.433	6.665	5.753	5.808		$11/2^{-}$	15/
251 7	184	1535.75 13.67		6.12		0.84	42.74	1.12	19.64	-1.14	-21.23	6.444	6.674	5.754	5.820 0.020		11/2-	0+
Z = 68		1122.15		7.95			0.12		1.10	12.40	0.22	4.057	4.050	4.000	F 020		0+	1 /2
143 144	75 76	1123.15 1137.56		7.85 7.90			0.13 0.76		1.19 1.50	-13.48 -13.33	$\frac{0.22}{-0.10}$	4.957 4.965	4.950 4.962	4.966 4.968	5.030 5.032		0^{+}	1/2 0 ⁺

4	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
145	77	1149.75		7.93			1.43	12.19	1.86	-13.21	-0.44	4.973	4.976	4.971	5.035		0+	1/2+
146	78	1163.87	1169.53	7.97	8.01	26.31	2.04	14.12	2.19	-13.08	-0.74	4.981	4.988	4.973	5.037		0+	0+
147	79	1175.92	1179.89	8.00	8.03	26.17	2.73	12.05	2.58	-12.98	-1.09	4.989	5.001	4.975	5.039		0+	1/2+
148	80	1189.76	1192.83	8.04	8.06	25.89	3.30	13.84	3.10	-12.84	-1.37	4.997	5.013	4.978	5.042		0^+	0+
149	81	1201.73	1203.17	8.07	8.07	25.82	4.02	11.97	3.50	-11.53	-1.74	5.005	5.025	4.980	5.044		0+	1/2+
150	82	1215.29	1215.33	8.10	8.10	25.52	4.55	13.55	3.81	-10.48	-2.00	5.013	5.037	4.983	5.047	5.055	0+	0+
151	83	1222.13	1223.84	8.09	8.10	20.39	5.21	6.84	4.13	-11.15	-2.33	5.030	5.058	4.996	5.059		0+	9/2
152	84	1231.19	1234.14	8.10	8.12	15.90	5.81	9.06	4.45	-7.95	-2.63	5.046	5.078	5.005	5.068	5.084	0+	0^+
153	85	1237.85	1242.19	8.09	8.12	15.72	6.45	6.66	4.75	-7.86	-2.95	5.063	5.099	5.017	5.080		0+	9/2
154	86	1246.76	1252.39	8.10	8.13	15.57	7.04	8.91	5.05	-7.80	-3.24	5.078	5.118	5.026	5.089	5.113	0+	0^+
155	87	1253.25	1260.06	8.09	8.13	15.40	7.67	6.49	5.35	-7.70	-3.56	5.095	5.138	5.038	5.101		0^+	9/2
156	88	1262.03	1270.14	8.09	8.14	15.27	8.24	8.77	5.65	-7.66	-3.84	5.109	5.157	5.047	5.110	5.143	0+	0^+
157	89	1268.34	1277.39	8.08	8.14	15.09	8.70	6.31	5.78	-7.55	-4.15	5.126	5.177	5.058	5.121		0+	9/2
158	90	1277.01	1287.37	8.08	8.15	14.98	9.42	8.82	6.23	-7.52	-4.43	5.140	5.195	5.067	5.130	5.176	0^+	0^+
159	91	1283.12	1294.70	8.07	8.14	14.93	9.98	6.11	6.51	-7.39	-4.72	5.156	5.213	5.077	5.140		0^+	9/2
160	92	1291.71	1304.27	8.07	8.15	14.70	10.56	8.59	6.80	-7.37	-5.00	5.170	5.231	5.087	5.149	5.205	0^+	0^+
161	93	1297.75	1311.48	8.06	8.15	14.63	11.13	6.04	7.09	-7.31	-5.28	5.185	5.249	5.096	5.158		0^+	7/2
162	94	1306.10	1320.69	8.06	8.15	14.39	11.68	8.35	7.36	-7.21	-5.56	5.199	5.266	5.104	5.167	5.225	0^+	0^+
163	95	1312.04	1327.59	8.05	8.14	14.29	12.24	5.94	7.65	-7.12	-5.83	5.214	5.284	5.114	5.176		0^+	7/2
164	96	1320.17	1336.44	8.05	8.15	14.07	12.75	8.13	7.85	-7.04	-6.09	5.227	5.301	5.120	5.182	5.239	0^+	0^+
165	97	1325.93	1343.09	8.04	8.14	13.89	13.30	5.76	8.10	-6.90	-6.36	5.241	5.318	5.129	5.191		0^+	7/2
166	98	1333.87	1351.56	8.04	8.14	13.71	13.80	7.94	8.16	-6.84	-6.61	5.253	5.334	5.135	5.197	5.252	0^+	0^{+}
67	99	1339.32	1358.00	8.02	8.13	13.39	14.33	5.45	8.43	-6.62	-6.88	5.268	5.351	5.144	5.206	5.256	0^+	7/2
68	100	1347.15	1365.77	8.02	8.13	13.28	14.81	7.83	8.69	-6.60	-7.11	5.280	5.367	5.149	5.211	5.264	0^+	0^{+}
69	101	1352.09	1371.77	8.00	8.12	12.77	15.25	4.94	8.88	-6.34	-7.36	5.295	5.385	5.158	5.220		0^+	7/2
70	102	1359.93	1379.03	8.00	8.11	12.77	15.77	7.83	9.18	-6.36	-7.60	5.306	5.400	5.163	5.224	5.279	0^+	0^+
171	103	1364.88	1384.71	7.98	8.10	12.79	16.23	4.95	9.42	-6.31	-7.82	5.321	5.418	5.170	5.232		0^+	5/2
172	104	1372.24	1391.55	7.98	8.09	12.31	16.70	7.36	9.66	-6.16	-8.07	5.333	5.432	5.176	5.238		0^+	0^+
73	105	1377.06		7.96		12.18	17.10	4.82	9.85	-6.10	-8.29	5.347	5.450	5.183	5.245		0^+	5/2
174	106	1384.20		7.96		11.96	17.60	7.14	10.12	-6.01	-8.52	5.359	5.465	5.190	5.251		0^+	0+
175	107	1388.93		7.94		11.88	18.00	4.73	10.31	-5.96	-8.72	5.373	5.483	5.195	5.256		0^+	3/2
76	108	1395.89		7.93		11.69	18.49	6.96	10.57	-5.88	-8.98	5.385	5.497	5.203	5.264		0^+	0+
77	109	1400.55		7.91		11.62	18.90	4.66	10.77	-5.83	-9.18	5.399	5.514	5.209	5.270		0^+	3/2
78	110	1407.37		7.91		11.48	19.38	6.82	11.03	-5.77	-9.42	5.411	5.528	5.216	5.277		0^+	0^{+}
79	111	1411.94		7.89		11.39	19.80	4.58	11.23	-5.72	-9.63	5.425	5.545	5.222	5.283		0^{+}	3/2
80	112	1418.61		7.88		11.25	20.25	6.67	11.46	-5.67	-9.86	5.437	5.559	5.229	5.290		0^{+}	0+
81	113	1423.13		7.86		11.19	20.63	4.52	11.66	-5.62	-10.08	5.450	5.575	5.236	5.297		0^+	3/2
82	114	1429.69		7.86		11.08	21.11	6.56	11.90	-5.57	-10.30	5.462	5.588	5.242	5.303		0^{+}	0+
83	115	1434.26		7.84		11.14	21.57	4.57	12.15	-5.55	-10.51	5.475	5.604	5.248	5.309		0^{+}	1/2
84	116	1440.61		7.83		10.92	21.98	6.35	12.34	-5.48	-10.73	5.486	5.618	5.255	5.315		0^{+}	0+
85	117	1445.11		7.81		10.85	22.44	4.50	12.58	-5.45	-10.95	5.499	5.633	5.261	5.322		0^+	1/2
86	118	1451.39		7.80		10.78	22.85	6.28	12.77	-5.40	-11.17	5.511	5.646	5.267	5.328		0^+	0+
87	119	1455.84		7.79		10.73	23.33	4.46	13.02	-5.36	-11.40	5.523	5.660	5.275	5.335		0^+	1/2
88	120	1462.03		7.78		10.64	23.72	6.18	13.20	-5.31	-11.60	5.534	5.674	5.280	5.340		0^+	0+
89	121	1466.44		7.76		10.60	24.24	4.42	13.49	-5.27	-11.86	5.546	5.686	5.288	5.348		0^+	1/2
90	122	1472.54		7.75		10.51	24.60	6.09	13.67	-5.23	-12.04	5.558	5.700	5.293	5.353		0^+	0+
91	123	1476.92		7.73		10.47	25.16	4.38	14.08	-5.18	-12.32	5.569	5.712	5.302	5.362		0^{+}	1/2
92	124	1482.93		7.72		10.39	25.48	6.01	14.25	-5.15	-12.48	5.581	5.726	5.306	5.366		0^{+}	0+
93	125	1487.27		7.71		10.36	26.07	4.34	14.52	-3.71	-12.78	5.592	5.736	5.317	5.377		0+	1/2
94	126	1493.21		7.70		10.28	26.37	5.94	14.68	-3.16	-12.92	5.604	5.752	5.319	5.379		0+	0+
195	127	1493.79		7.66		6.52	26.66	0.58	14.79	-3.10 -3.68	-12.32 -13.06	5.620	5.773	5.324	5.384		0+	9/2
96	128	1495.85		7.63		2.65	27.00	2.06	14.79	-3.08 -1.38	-13.00 -13.23	5.637	5.790	5.335	5.395		0 ⁺	0 ⁺
		1495.83		7.60		2.59	27.00	0.53	15.04	-1.35 -1.35	-13.23 -13.38	5.653	5.811	5.340	5.400		0+	9/2
97	129																	

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
199	131	1498.95		7.53		2.57	27.91	0.48	15.37	-1.34	-13.70	5.685	5.849	5.357	5.416		0+	9/2+
200	132	1501.07		7.51		2.60	28.24	2.12	15.54	-1.37	-13.87	5.701	5.866	5.368	5.427		0+	0^+
201	133	1501.50		7.47		2.55	28.53	0.43	15.67	-1.34	-14.01	5.718	5.886	5.374	5.434		0+	$9/2^{+}$
202	134	1503.67		7.44		2.59	28.86	2.16	15.84	-1.37	-14.18	5.733	5.902	5.385	5.444		0+	0+
203	135	1504.04		7.41		2.54	29.16	0.38	15.98	-1.34	-14.33	5.750	5.922	5.392	5.452		0+	$9/2^{+}$
204	136	1506.26		7.38		2.59	29.47	2.22	16.13	-1.37	-14.50	5.765	5.938	5.402	5.461		0+	0+
205	137	1506.59		7.35		2.54	29.78	0.32	16.28	-1.34	-14.65	5.782	5.957	5.411	5.470		0+	$9/2^{+}$
206	138	1508.86		7.32		2.60	30.08	2.28	16.43	-1.38	-14.81	5.797	5.974	5.420	5.479		0+	0+
207	139	1509.13		7.29		2.55	30.34	0.27	16.59	-1.34	-14.97	5.814	5.993	5.430	5.489		0+	$9/2^{+}$
208	140	1511.47		7.27		2.61	30.68	2.34	16.73	-1.38	-15.11	5.828	6.009	5.438	5.497		0+	0+
209	141	1511.72		7.23		2.59	30.86	0.25	16.80	-1.41	-15.20	5.850	6.037	5.441	5.500		0+	5/2+
210	142	1514.10		7.21		2.62	31.27	2.37	17.02	-1.38	-15.41	5.860	6.044	5.456	5.514		0+	0+
211	143	1514.42		7.18		2.69	31.47	0.32	17.10	-1.41	-15.51	5.880	6.070	5.460	5.518		0+	5/2+
212	144	1516.73		7.15		2.63	31.85	2.31	17.30	-1.38	-15.71	5.891	6.078	5.473	5.531		0+	0+
213	145	1517.11		7.12		2.70	32.06	0.38	17.40	-1.41	-15.81	5.911	6.103	5.478	5.536		0+	5/2+
214	146	1519.37		7.10		2.64	32.40	2.25	17.58	-1.38	-15.99	5.922	6.113	5.490	5.548		0+	0+
215	147	1519.80		7.07		2.69	32.61	0.44	17.68	-1.40	-16.09	5.941	6.136	5.495	5.553		0+	5/2 ⁺
216	148	1522.00		7.05		2.63	32.93	2.20	17.84	-1.38	-16.25	5.953	6.148	5.505	5.563		0+	0 ⁺
217	149	1522.51		7.02		2.71	33.15	0.51	17.95	-1.38	-16.36	5.971	6.170	5.511	5.569		0+	5/2+
218	150	1524.62		6.99		2.62	33.43	2.11	18.08	-1.37	-16.50	5.984	6.183	5.519	5.577		0+	0 ⁺
219	151	1525.15		6.96		2.64	33.61	0.52	18.19	-1.37	-16.61	6.002	6.204	5.525	5.583		0+	5/2+
220	152	1527.23		6.94		2.61	33.90	2.08	18.30	-1.35	-16.74	6.015	6.218	5.532	5.590		0+	0+
221	153	1527.77		6.91		2.60	34.03	0.52	18.37	-1.34	-16.85	6.032	6.239	5.538	5.596		0^{+}	1/2 ⁺ 0 ⁺
222	154	1529.81		6.89		2.59	34.34	2.06	18.51	-1.34	-16.96	6.045	6.254	5.544	5.601		0 ⁺	1/2 ⁺
223	155	1530.40		6.86		2.57	34.41	0.50	18.58	-1.32	-17.07	6.063	6.275	5.550	5.607		0 ⁺	0 ⁺
224	156 157	1532.38		6.84		2.56	34.76	2.06	18.71	-1.33	-17.17	6.076	6.290	5.554	5.612		0+	
225		1533.01		6.81		2.57	34.79	0.51	18.78	-1.34	-17.25	6.095	6.313	5.558	5.615		0+	1/2 ⁺ 0 ⁺
226 227	158 159	1534.92		6.79		2.54 2.70	35.16	2.03	18.90 18.95	-1.31	-17.37 -17.45	6.107 6.126	6.326 6.350	5.564 5.568	5.621 5.625		0+	1/2 ⁺
227	160	1535.59		6.76		2.70	35.31	0.67	18.95	-1.31 -1.29	-17.45 -17.56	6.138	6.362	5.574			0 ⁺	0+
228 229	161	1537.44 1538.13		6.74 6.72		2.52	35.55 35.75	1.85 0.69	19.07	-1.29 -1.28	-17.56 -17.65	6.155	6.384	5.578	5.631		0+	1/2+
230	162	1539.13		6.72		2.34	35.73 35.92	1.80	19.16	-1.28 -1.27	-17.03 -17.75	6.168	6.398	5.583	5.635 5.640		0+	0+
230	163	1540.58		6.67		2.49	36.12	0.65	19.23	-1.27 -1.25	-17.73 -17.84	6.185	6.417	5.588	5.645		0+	1/2+
232	164	1542.38		6.65		2.45	36.28	1.80	19.33	-1.23 -1.24	-17.84 -17.93	6.198	6.433	5.592	5.649		0+	0+
232	165	1542.96		6.62		2.43	36.49	0.58	19.51	-1.24 -1.18	-17.93 -18.04	6.214	6.450	5.598	5.655		0+	1/2+
234	166	1544.75		6.60		2.37	36.64	1.79	19.51	-1.18 -1.18	-18.04 -18.12	6.228	6.468	5.601	5.658		0+	0+
235	167	1545.18		6.58		2.22	36.90	0.43	19.71	-1.16 -1.06	-18.12 -18.25	6.242	6.481	5.610	5.666		0+	1/2 ⁺
236	168	1546.97		6.55		2.22	37.04	1.80	19.78	-1.00 -1.08	-18.23	6.257	6.500	5.611	5.668		0+	0+
237	169	1547.09		6.53		1.91	37.40	0.12	20.02	-0.90	-18.53	6.266	6.506	5.626	5.682		0+	1/2 ⁺
238	170	1548.93		6.51		1.95	37.40	1.83	20.02	-0.93	-18.60	6.281	6.525	5.627	5.683		0+	0+
239	171	1548.87		6.48		1.78	37.92	-0.06	20.24	-0.91	-18.74	6.294	6.538	5.635	5.691		0+	15/2 ⁻
240	172	1550.61		6.46		1.68	38.28	1.74	20.44	-0.82	-18.92	6.304	6.546	5.646	5.702		0+	0 ⁺
241	173	1550.52		6.43		1.66	38.59	-0.08	20.44	-0.79	-19.07	6.316	6.558	5.654	5.711		0+	15/2 ⁻
242	174	1552.10		6.41		1.50	38.94	1.58	20.81	-0.74	-19.25	6.326	6.566	5.666	5.722		0+	0 ⁺
243	175	1552.10		6.39		1.48	39.26	-0.10	20.98	-0.74 -0.72	-19.23	6.338	6.577	5.675	5.731		0+	15/2 ⁻
244	176	1553.48		6.37		1.37	39.60	1.47	21.17	-0.72 -0.68	-19.59	6.348	6.586	5.686	5.742		0+	0+
245	177	1553.36		6.34		1.36	39.92	-0.12	21.35	-0.66	-19.74	6.359	6.596	5.696	5.752		0+	15/2 ⁻
246	178	1554.76		6.32		1.29	40.26	1.40	21.54	-0.63	-19.91	6.370	6.605	5.707	5.763		0+	0 ⁺
247	179	1554.64		6.29		1.28	39.84	-0.12	20.97	-0.61	-20.07	6.381	6.616	5.717	5.773		0+	15/2 ⁻
248	180	1555.99		6.27		1.23	40.91	2.09	21.90	-0.59	-20.24	6.392	6.625	5.728	5.784		0+	0 ⁺
249	181	1555.86		6.25		1.23	41.24	-0.13	22.08	-0.57	-20.24 -20.40	6.403	6.635	5.739	5.794		0+	15/2 ⁻
250	182	1557.18		6.23		1.19	41.56	1.31	22.27	-0.57	-20.40 -20.57	6.414	6.645	5.750	5.805		0+	0 ⁺
251	183	1557.16		6.20		1.19	41.89	-0.12	22.43	-1.04	-20.73	6.425	6.655	5.760	5.816		0+	15/2 ⁻
252	184	1558.33		6.18		1.15	42.22	1.27	22.58	-1.29	-20.90	6.436	6.664	5.772	5.827		0+	0 ⁺
232	101	1550.55		0.10		1.15	12,22	1,2,	22.50	1,23	20.50	0.150	0.001	5,,,2	3.027		Ü	Ū

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
σ		12.83													0.046			
Z = 69	9 (Tm)																	
145	76	1136.01		7.83			-0.05		<u>- 1.55</u>	-13.63	0.28	4.976	4.967	4.987	5.051		3/2+	0+
146	77	1148.52		7.87			0.63		<u>-1.2</u> 3	-13.52	-0.06	4.984	4.980	4.989	5.052		3/2+	1/2+
147	78	1162.92	1168.48	7.91	7.95	20.70	1.24	14.40	$\frac{-0.95}{0.63}$	-13.38	-0.37	4.992	4.993	4.991	5.055		3/2+	0+
148	79	1175.29	1179.34	7.94	7.97	26.78	1.95	12.38	$\frac{-0.62}{0.36}$	-13.28	-0.73	4.999	5.005	4.993	5.056		$3/2^{+}$	1/2 ⁺ 0 ⁺
149 150	80 81	1189.40 1201.71		7.98 8.01		26.48 26.42	2.74 3.48	14.11 12.31	$\frac{-0.36}{-0.02}$	-13.13 -11.97	-1.02 -1.40	5.007 5.014	5.017 5.029	4.996 4.997	5.059 5.061		3/2 ⁺ 3/2 ⁺	1/2+
151	82	1201.71	1215.57	8.05	8.05	26.42	4.04	13.80	0.23	-11.97 -10.76	-1.40 -1.66	5.022	5.029	5.000	5.064		3/2 ⁺	0+
152	83	1213.51	1213.57	8.04	8.06	20.11	4.67	7.15	0.54	-10.70 -11.60	-2.00	5.040	5.062	5.012	5.076		$3/2^{+}$	9/2 ⁻
153	84	1232.03	1234.92	8.05	8.07	16.51	5.28	9.36	0.84	-8.26	-2.29	5.055	5.082	5.021	5.084	5.064	3/2 ⁺	0+
154	85	1238.99	1243.43	8.05	8.07	16.33	5.89	6.97	1.14	-8.16	-2.62	5.072	5.103	5.033	5.096	5.076	3/2+	9/2-
155	86	1248.19	1253.70	8.05	8.09	16.17	6.49	9.20	1.44	-8.10	-2.90	5.086	5.122	5.042	5.105		3/2+	0+
156	87	1254.99	1261.98	8.04	8.09	15.99	7.08	6.79	1.73	-8.00	-3.22	5.103	5.142	5.053	5.116	5.098	3/2+	$9/2^{-}$
157	88	1264.05	1271.95	8.05	8.10	15.85	7.67	9.06	2.02	-7.96	-3.50	5.117	5.160	5.062	5.125	5.114	$3/2^{+}$	0^+
158	89	1270.65	1279.99	8.04	8.10	15.67	8.25	6.61	2.31	-7.85	-3.81	5.133	5.179	5.073	5.136	5.124	3/2+	9/2
159	90	1279.60	1289.93	8.05	8.11	15.56	8.82	8.95	2.60	-7.81	-4.09	5.147	5.197	5.081	5.144	5.139	3/2+	0+
160	91	1286.00	1297.73	8.04	8.11	15.34	9.40	6.39	2.88	-7.76	-4.37	5.162	5.216	5.090	5.152	5.150	3/2+	7/2
161	92	1294.86	1307.40	8.04	8.12	15.26	9.96	8.87	3.16	-7.66	-4.66	5.177	5.233	5.100	5.163	5.162	$3/2^{+}$	0 ⁺
162	93	1301.19	1315.05	8.03	8.12	15.19	10.53	6.32	3.44	-7.60	-4.94 5.21	5.191	5.251	5.109	5.171	5.171	$3/2^{+}$	7/2 ⁻ 0 ⁺
163 164	94 95	1309.81 1316.03	1324.37 1331.62	8.04 8.02	8.12 8.12	14.95 14.85	11.08 11.65	8.63 6.22	3.71 4.00	−7.50 −7.41	-5.21 -5.49	5.205 5.219	5.268 5.286	5.118 5.127	5.180 5.189	5.185 5.191	3/2 ⁺ 3/2 ⁺	7/2
165	95 96	1324.43	1340.71	8.03	8.13	14.62	12.12	8.40	4.00	-7.41 -7.32	-5.49 -5.74	5.232	5.302	5.133	5.195	5.200	3/2 ⁺	0 ⁺
166	97	1330.48	1347.74	8.03	8.12	14.02	12.12	6.04	4.55	-7.32 -7.18	-6.02	5.246	5.319	5.142	5.204	5.205	$3/2^{+}$	7/2
167	98	1338.69	1356.47	8.02	8.12	14.26	12.98	8.21	4.82	-7.11	-6.25	5.258	5.334	5.148	5.210	5.213	$3/2^{+}$	0+
168	99	1344.40	1363.31	8.00	8.11	13.93	13.51	5.71	5.08	-6.88	-6.52	5.272	5.351	5.157	5.218	5.217	3/2+	7/2
169	100	1352.50	1371.35	8.00	8.11	13.81	14.04	8.10	5.35	-6.86	-6.75	5.284	5.367	5.162	5.223	5.226	3/2+	0^{+}
170	101	1357.67	1377.94	7.99	8.11	13.27	14.46	5.17	5.58	-6.58	-7.01	5.299	5.384	5.171	5.232	5.230	3/2+	7/2
171	102	1365.77	1385.42	7.99	8.10	13.27	15.03	8.10	5.84	-6.60	-7.23	5.310	5.399	5.175	5.237	5.239	$3/2^{+}$	0^+
172	103	1370.97	1391.66	7.97	8.09	13.30	15.51	5.20	6.09	-6.55	-7.45	5.325	5.417	5.183	5.244	5.241	3/2+	5/2
173	104	1378.55	1398.61	7.97	8.08	12.78	15.96	7.58	6.31	-6.40	-7.70	5.336	5.432	5.189	5.250		3/2+	0^+
174	105	1383.60	1404.29	7.95	8.07	12.63	16.39	5.05	6.54	-6.33	-7.92	5.350	5.449	5.196	5.257		3/2+	5/2
175	106	1390.97	1410.81	7.95	8.06	12.42	16.88	7.37	6.76	-6.24	-8.17	5.362	5.464	5.203	5.264		$3/2^{+}$	0 ⁺
176 177	107 108	1395.90 1403.10	1415.94	7.93 7.93	8.05	12.30 12.13	17.27 17.78	4.93 7.20	6.97 7.21	-6.17 -6.11	-8.39 -8.62	5.376 5.388	5.481 5.495	5.209 5.216	5.270 5.277		3/2 ⁺ 3/2 ⁺	5/2 ⁻ 0 ⁺
177	108	1403.10		7.93 7.91		12.13	18.19	4.86	7.42	-6.06	-8.82	5.401	5.512	5.221	5.282		3/2 ⁺	3/2
179	110	1415.00		7.91		11.90	18.67	7.03	7.64	-5.99	-9.07	5.414	5.526	5.229	5.290		$3/2^{+}$	0+
180	111	1419.80		7.89		11.83	19.09	4.80	7.86	-5.95	-9.28	5.427	5.543	5.235	5.296		$3/2^{+}$	3/2
181	112	1426.69		7.88		11.69	19.55	6.89	8.08	-5.89	-9.52	5.439	5.556	5.242	5.303		3/2 ⁺	0+
182	113	1431.43		7.86		11.63	19.96	4.74	8.30	-5.84	-9.74	5.452	5.572	5.248	5.309		3/2+	3/2
183	114	1438.20		7.86		11.51	20.42	6.77	8.51	-5.79	-9.96	5.463	5.586	5.255	5.315		3/2+	0+
184	115	1442.95		7.84		11.52	20.84	4.75	8.69	-5.76	-10.17	5.476	5.602	5.261	5.321		3/2+	1/2
185	116	1449.55		7.84		11.35	21.28	6.60	8.94	-5.70	-10.40	5.488	5.615	5.267	5.328		$3/2^{+}$	0^+
186	117	1454.26		7.82		11.31	21.73	4.71	9.15	-5.67	-10.62	5.500	5.630	5.273	5.334		3/2+	1/2
187	118	1460.75		7.81		11.20	22.13	6.48	9.36	-5.61	-10.84	5.512	5.643	5.280	5.340		3/2+	0+
188	119	1465.42		7.79		11.15	22.60	4.67	9.57	-5.58	-11.07	5.524	5.657	5.286	5.347		3/2+	1/2
189	120	1471.80		7.79		11.06	22.98	6.39	9.78	-5.53	-11.27	5.535	5.670	5.292	5.352		3/2+	0+
190	121	1476.44		7.77		11.03	23.48	4.64	10.00	-5.49	-11.53	5.547	5.683	5.300	5.360		$3/2^{+}$	1/2
191	122	1482.73		7.76		10.93	23.86	6.29	10.19	-5.44 5.43	-11.71	5.559	5.697	5.305	5.365		$3/2^{+}$	0 ⁺
192	123	1487.35		7.75		10.91	24.51	4.62	10.44	-5.42 5.26	-11.98	5.570	5.708	5.314	5.374		11/2-	1/2 0 ⁺
193	124 125	1493.54		7.74		10.81	24.86	6.19	10.61	-5.36	-12.16	5.581	5.723	5.317	5.377		3/2 ⁺	
194 195	125	1498.18 1504.26		7.72 7.71		10.83 10.72	25.42 25.73	4.64 6.09	10.91 11.05	-3.87 -3.30	-12.43 -12.57	5.592 5.604	5.732 5.748	5.328 5.330	5.388 5.390		11/2 ⁻ 11/2 ⁻	1/2 ⁻ 0 ⁺
193	120	1304.20		7.71		10.72	23./3	0.09	11.05	-5.50	-12.57	5.004	J./48	5.550	5.390		11/2	U.

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
196	127	1504.99		7.68		6.81	25.99	0.72	11.19	-3.87	-12.74	5.620	5.769	5.335	5.395		3/2+	$9/2^{+}$
197	128	1507.23		7.65		2.96	26.26	2.24	11.37	-1.56	-12.91	5.636	5.787	5.346	5.405		3/2+	0+
198	129	1507.92		7.62		2.94	26.58	0.70	11.54	-1.53	-13.05	5.652	5.807	5.351	5.411		3/2+	$9/2^{+}$
199	130	1510.19		7.59		2.96	26.94	2.26	11.72	-1.55	-13.23	5.668	5.824	5.362	5.422		3/2+	0+
200	131	1510.84		7.55		2.91	27.25	0.65	11.88	-1.52	-13.37	5.684	5.844	5.368	5.428		3/2+	$9/2^{+}$
201	132	1513.13		7.53		2.94	27.59	2.29	12.05	-1.54	-13.54	5.700	5.861	5.379	5.438		3/2+	0+
202	133	1513.72		7.49		2.89	27.89	0.60	12.22	-1.51	-13.69	5.716	5.880	5.386	5.445		$3/2^{+}$	9/2+
203	134	1516.05		7.47		2.93	28.23	2.33	12.39	-1.54	-13.86	5.732	5.897	5.396	5.455		$3/2^{+}$	0+
204	135	1516.60		7.43		2.87	28.53	0.54	12.55	-1.50	-14.01	5.748	5.916	5.404	5.463		$3/2^{+}$	$9/2^{+}$
205	136	1518.98		7.41		2.92	28.85	2.38	12.71	-1.54	-14.17	5.763	5.932	5.414	5.473		3/2+	0+
206	137	1519.46		7.38		2.87	29.16	0.49	12.88	-1.50	-14.33	5.779	5.951	5.423	5.482		3/2+	9/2+
207	138	1521.90		7.35		2.92	29.47	2.43	13.03	-1.54	-14.48	5.794	5.967	5.432	5.491		3/2+	0+
208	139	1522.33		7.32		2.87	29.79	0.43	13.20	-1.50	-14.65	5.811	5.985	5.442	5.501		3/2+	9/2+
209	140	1524.82		7.30		2.93	30.07	2.49	13.35	-1.54	-14.79	5.825	6.002	5.451	5.509		3/2+	0+
210	141	1525.20		7.26		2.87	30.27	0.37	13.47	-1.50	-14.96	5.842	6.020	5.462	5.520		3/2+	9/2+
211	142	1527.75		7.24		2.93	30.67	2.56	13.66	-1.54	-15.10	5.856	6.036	5.469	5.527		3/2+	0+
212	143	1528.18		7.21		2.98	30.86	0.42	13.76	-1.57	-15.19	5.876	6.062	5.472	5.530		3/2+	5/2 ⁺
213	144	1530.68		7.19		2.93	31.26	2.50	13.95	-1.53	-15.39	5.887	6.070	5.486	5.544		3/2+	0+
214	145	1531.18		7.16		3.00	31.46	0.49	14.07	-1.56	-15.49	5.906	6.094	5.490	5.548		3/2+	5/2 ⁺
215	146	1533.61		7.13		2.92	31.82	2.43	14.24	-1.52	-15.68	5.918	6.104	5.503	5.561		3/2+	0+
216	147	1534.22		7.10		3.04	32.09	0.61	14.41	-1.54	-15.78	5.936	6.127	5.508	5.566		3/2+	5/2+
217	148	1536.51		7.08		2.91	32.35	2.30	14.51	-1.51	-15.94	5.948	6.138	5.519	5.576		3/2+	0+
218	149	1537.14		7.05		2.93	32.58	0.63	14.64	-1.52	-16.05	5.966	6.160	5.524	5.582		3/2 ⁺	$\frac{5/2^{+}}{0^{+}}$
219	150	1539.39		7.03		2.88	32.85	2.25	14.77	-1.49	-16.19	5.979	6.173	5.533	5.590		3/2+	
220	151	1540.03		7.00		2.89	33.08	0.64	14.89	-1.49	-16.30	5.996	6.194	5.538	5.596		3/2 ⁺	$\frac{5/2^{+}}{0^{+}}$
221	152 153	1542.24		6.98		2.85	33.32	2.21	15.01	-1.47	-16.43	6.009	6.208	5.545	5.603		5/2 ⁺ 3/2 ⁺	5/2 ⁺
222		1542.88		6.95		2.84	33.48	0.64	15.11	-1.46	-16.53	6.026	6.229	5.551	5.608		3/2+	0 ⁺
223 224	154 155	1545.05		6.93 6.90		2.81 2.84	33.75 33.90	2.18	15.24 15.32	-1.46	-16.65	6.039	6.244 6.271	5.557 5.559	5.614		3/2+	1/2+
224		1545.72				2.84	33.90 34.17	0.67	15.32	-1.47 -1.44	-16.71 -16.85	6.060 6.070	6.271	5.567	5.616		3/2 ⁺	0+
225	156 157	1547.84 1548.55		6.88 6.85		2.78	34.17 34.32	2.12 0.71	15.46	-1.44 -1.45	-16.85 -16.92	6.090	6.305	5.570	5.624 5.627		3/2 ⁺	1/2+
227	157	1550.59		6.83		2.83	34.56	2.04	15.67	-1.43 -1.42	-10.92 -17.05	6.100	6.315	5.577	5.634		3/2 ⁺	0+
228	158	1551.33		6.80		2.73	34.69	0.74	15.74	-1.42 -1.42	-17.03 -17.13	6.119	6.338	5.580	5.637		3/2 ⁺	1/2+
229	160	1553.31		6.78		2.78	34.94	1.98	15.87	-1.42 -1.40	-17.13 -17.24	6.130	6.350	5.586	5.643		3/2 ⁺	0+
230	161	1554.10		6.76		2.72	35.14	0.79	15.97	-1.40 -1.39	-17.24 -17.33	6.148	6.372	5.591	5.648		3/2 ⁺	1/2+
230	162	1556.00		6.74		2.77	35.32	1.90	16.07	-1.39 -1.37	-17.33 -17.43	6.160	6.385	5.596	5.653		3/2 ⁺	0+
232	163	1556.75		6.71		2.65	35.51	0.75	16.17	-1.37 -1.35	-17.43 -17.52	6.177	6.405	5.601	5.658		$3/2^{+}$	1/2 ⁺
232	164	1558.64		6.69		2.64	35.68	1.89	16.17	-1.33 -1.34	-17.52 -17.62	6.190	6.420	5.605	5.662		$3/2^{+}$	0+
234	165	1559.33		6.66		2.58	35.88	0.69	16.37	-1.34 -1.29	-17.02	6.205	6.438	5.611	5.668		3/2 ⁺	1/2 ⁺
235	166	1561.21		6.64		2.57	36.04	1.88	16.46	-1.29	-17.72 -17.81	6.219	6.454	5.614	5.671		3/2 ⁺	0+
236	167	1561.77		6.62		2.44	36.30	0.56	16.59	-1.19	-17.94	6.233	6.468	5.623	5.679		3/2 ⁺	1/2 ⁺
237	168	1563.65		6.60		2.44	36.46	1.88	16.67	-1.20	-18.02	6.247	6.485	5.625	5.682		3/2 ⁺	0+
238	169	1563.96		6.57		2.19	36.89	0.31	16.87	-1.26 -1.06	-18.22	6.258	6.493	5.638	5.695		3/2 ⁺	1/2 ⁺
239	170	1565.87		6.55		2.19	37.02	1.91	16.94	-1.00 -1.08	-18.22 -18.29	6.272	6.512	5.640	5.696		3/2 ⁺	0+
240	170	1565.94		6.52		1.98	37.32	0.08	17.08	-1.08 -1.07	-18.23	6.285	6.525	5.647	5.703		$3/2^{+}$	15/2 ⁻
241	172	1567.85		6.51		1.98	37.68	1.90	17.00	-0.98	-18.61	6.295	6.534	5.657	5.714		3/2 ⁺	0+
242	173	1567.91		6.48		1.97	38.00	0.06	17.24	-0.96	-18.76	6.307	6.546	5.666	5.722		3/2 ⁺	15/2 ⁻
243	174	1569.65		6.46		1.81	38.36	1.74	17.55	-0.90	-18.95	6.317	6.554	5.677	5.733		3/2 ⁺	0+
244	175	1569.70		6.43		1.79	38.68	0.05	17.70	-0.30 -0.88	-19.10	6.329	6.566	5.685	5.741		3/2 ⁺	15/2 ⁻
245	176	1571.34		6.41		1.68	39.03	1.64	17.76	-0.84	-19.28	6.339	6.574	5.696	5.752		3/2 ⁺	0+
245	170	1571.34		6.39		1.67	39.36	0.03	18.01	-0.84 -0.82	-19.28 -19.44	6.351	6.585	5.706	5.762		3/2 ⁺	15/2 ⁻
247	177	1571.57		6.37		1.59	39.70	1.56	18.16	-0.32 -0.79	-19.44 -19.62	6.361	6.594	5.717	5.772		$3/2^{+}$	0^{+}
248	178	1572.95		6.34		1.58	40.03	0.02	18.31	-0.79 -0.77	-19.02 -19.78	6.373	6.605	5.726	5.782		3/2 ⁺	15/2-
249	180	1574.46		6.32		1.53	40.03	1.50	18.47	-0.77 -0.75	-19.76 -19.95	6.383	6.614	5.737	5.793		3/2 ⁺	0+
249	100	13/4.40		0.32		1.55	40.57	1.50	10.4/	-0.75	- 19.95	0.383	0.014	5./5/	5./95		3/2'	U '

Table 1 (continued)

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
250	181	1574.49		6.30		1.53	40.70	0.03	18.62	-0.74	-20.14	6.395	6.625	5.749	5.805		11/2-	15/2-
251	182	1575.97		6.28		1.51	41.06	1.48	18.79	-0.72	-20.30	6.406	6.634	5.760	5.816		$11/2^{-}$	0^+
252	183	1576.01		6.25		1.53	41.39	0.05	18.96	-1.21	-20.46	6.417	6.645	5.771	5.826		$11/2^{-}$	15/2
253	184	1577.46		6.24		1.49	41.71	1.45	19.13	-1.46	-20.63	6.428	6.654	5.782	5.837		$11/2^{-}$	0^+
σ $Z = 7$	0 (Vb)	14.87													0.009			
2 = 7 148	78	1164.33		7.87			0.46		1.41	-13.71	0.03	5.002	4.997	5.007	5.071		0^{+}	0^{+}
149	78 79	1177.07		7.90			1.15		1.78	-13.71 -13.63	-0.32	5.002	5.009	5.007	5.072		0+	1/2+
150	80	1191.49		7.94			1.73	14.42	2.09	-13.47	-0.61	5.016	5.021	5.011	5.075		0+	0+
151	81	1204.19	1205.55	7.97	7.98	27.12	2.46	12.70	2.48	-12.40	-0.97	5.023	5.032	5.012	5.076		0^{+}	1/2 ⁺
152	82	1218.26	1218.40	8.01	8.02	26.78	2.98	14.07	2.75	-11.15	-1.23	5.031	5.044	5.015	5.078	5.042	0^{+}	0+
153	83	1225.77		8.01		21.58	3.64	7.50	3.10	-11.86	-1.56	5.048	5.065	5.027	5.090		0^+	$9/2^{-}$
154	84	1235.43	1238.15	8.02	8.04	17.16	4.24	9.66	3.40	-8.57	-1.86	5.063	5.085	5.036	5.099	5.088	0^+	0^+
155	85	1242.74	1246.79	8.02	8.04	16.97	4.89	7.31	3.74	-8.47	-2.18	5.079	5.105	5.048	5.111	5.104	0^+	$9/2^{-}$
156	86	1252.23	1257.62	8.03	8.06	16.80	5.47	9.49	4.04	-8.41	-2.47	5.094	5.124	5.057	5.120	5.122	0+	0^+
157	87	1259.36	1265.86	8.02	8.06	16.63	6.11	7.13	4.38	-8.31	-2.79	5.110	5.144	5.069	5.131	5.132	0+	9/2-
158	88	1268.71	1276.51	8.03	8.08	16.48	6.68	9.35	4.66	-8.26	-3.08	5.125	5.162	5.077	5.140	5.150	0+	0+
159	89	1275.65	1284.41	8.02	8.08	16.29	7.31	6.94	4.99	-8.14	-3.39	5.141	5.181	5.089	5.151	5.163	0+	$9/2^{-}$
160	90 91	1284.88	1294.81	8.03	8.09	16.17	7.87	9.23	5.28	-8.10	-3.67	5.155	5.199	5.098	5.160	5.178	0 ⁺	0+
161 162	91 92	1291.58 1300.73	1302.56 1312.61	8.02 8.03	8.09	15.93	8.47 9.03	6.70 9.15	5.58 5.87	-7.95 -7.94	-3.97	5.170	5.217 5.235	5.108	5.170 5.179	5.189 5.205	0+	$9/2^{-}$ 0^{+}
163	92 93	1300.73	1312.61	8.03 8.02	8.10 8.10	15.85 15.75	9.03	6.60	6.15	-7.94 -7.87	-4.25 -4.53	5.184 5.198	5.255 5.252	5.117 5.125	5.179	5.205	0+	7/2 ⁻
164	94	1316.24	1329.95	8.03	8.11	15.75	10.14	8.90	6.42	-7.87 -7.75	-4.80	5.212	5.269	5.134	5.196	5.231	0+	0 ⁺
165	95	1322.73	1323.33	8.02	8.10	15.40	10.69	6.49	6.70	-7.73 -7.66	-5.08	5.226	5.286	5.142	5.204	5.240	0 ⁺	$\frac{0}{7/2^{-}}$
166	96	1331.37	1346.67	8.02	8.11	15.13	11.21	8.64	6.94	-7.56	-5.33	5.238	5.302	5.149	5.211	5.253	0+	0+
167	97	1337.68	1353.73	8.01	8.11	14.95	11.75	6.31	7.20	-7.42	-5.60	5.252	5.319	5.157	5.219	5.262	0+	7/2-
168	98	1346.11	1362.80	8.01	8.11	14.74	12.24	8.43	7.42	-7.35	-5.85	5.264	5.335	5.163	5.225	5.270	0+	0^{+}
169	99	1352.09	1369.66	8.00	8.10	14.41	12.77	5.98	7.69	-7.12	-6.11	5.278	5.352	5.171	5.233	5.277	0^{+}	$7/2^{-}$
170	100	1360.40	1378.12	8.00	8.11	14.29	13.25	8.31	7.90	-7.10	-6.35	5.289	5.367	5.176	5.238	5.285	0^+	0+
171	101	1365.84	1384.74	7.99	8.10	13.75	13.75	5.44	8.18	-6.82	-6.61	5.303	5.384	5.185	5.246	5.291	0^{+}	$7/2^{-}$
172	102	1374.15	1392.76	7.99	8.10	13.75	14.22	8.30	8.38	-6.84	-6.84	5.315	5.399	5.190	5.251	5.300	0^+	0^+
173	103	1379.58	1399.12	7.97	8.09	13.73	14.70	5.43	8.61	-6.79	-7.07	5.329	5.417	5.197	5.258	5.305	0+	$5/2^{-}$
174	104	1387.41	1406.59	7.97	8.08	13.26	15.17	7.83	8.86	-6.63	-7.32	5.340	5.431	5.203	5.264	5.311	0+	0+
175	105	1392.68	1412.41	7.96	8.07	13.10	15.62	5.27	9.08	-6.57	-7.54	5.354	5.448	5.210	5.271	5.314	0+	5/2-
176	106	1400.30	1419.28	7.96	8.06	12.89	16.09	7.62	9.33	-6.47	-7.79	5.366	5.462	5.217	5.278	5.322	0 ⁺	0 ⁺
177	107	1405.45	1424.84	7.94	8.05	12.77	16.51	5.15	9.55	-6.40	-8.01	5.379	5.479	5.223	5.284		0+	5/2 ⁻ 0 ⁺
178 179	108 109	1412.89 1417.96	1431.62	7.94 7.92	8.04	12.60 12.51	17.00 17.41	7.45 5.06	9.79 9.99	-6.33 -6.29	-8.25 -8.45	5.391 5.404	5.493 5.510	5.230 5.235	5.291 5.296		0 ⁺	3/2 ⁻
180	110	1417.90		7.92 7.92		12.31	17.41	7.29	10.25	-6.29	-8.43 -8.70	5.416	5.524	5.243	5.304		0+	0 ⁺
181	111	1430.26		7.90		12.30	18.32	5.01	10.46	-6.18	-8.91	5.429	5.540	5.249	5.309		0+	3/2-
182	112	1437.40		7.90		12.15	18.79	7.14	10.71	-6.11	-9.15	5.441	5.554	5.256	5.317		0+	0+
183	113	1442.36		7.88		12.10	19.23	4.96	10.93	-6.07	-9.37	5.454	5.569	5.262	5.323		0+	3/2-
184	114	1449.36		7.88		11.96	19.67	7.01	11.16	-6.01	-9.59	5.465	5.583	5.269	5.329		0^{+}	0+
185	115	1454.27		7.86		11.91	20.01	4.90	11.32	-5.97	-9.82	5.478	5.598	5.275	5.336		0^{+}	3/2-
186	116	1461.16		7.86		11.80	20.55	6.90	11.61	-5.92	-10.03	5.489	5.611	5.281	5.341		0^+	0+
187	117	1466.14		7.84		11.87	21.02	4.97	11.88	-5.90	-10.25	5.502	5.626	5.287	5.347		0^+	$1/2^{-}$
188	118	1472.81		7.83		11.65	21.42	6.68	12.07	-5.84	-10.47	5.513	5.639	5.293	5.353		0^+	0+
189	119	1477.73		7.82		11.60	21.89	4.92	12.32	-5.82	-10.69	5.525	5.653	5.300	5.360		0+	$1/2^{-}$
190	120	1484.32		7.81		11.51	22.30	6.59	12.52	-5.75	-10.90	5.536	5.666	5.306	5.366		0+	0^+
191	121	1489.24		7.80		11.50	22.79	4.91	12.79	-5.73	-11.14	5.548	5.680	5.313	5.372		0+	1/2-
192	122	1495.71		7.79		11.38	23.17	6.47	12.97	-5.67	-11.33	5.559	5.693	5.318	5.377		0+	0+
193	123	1500.62 1506.97		7.78 7.77		11.38	23.71 24.04	4.92	13.27	-5.65	-11.60	5.570	5.705	5.326	5.385		0^{+}	$\frac{1/2^{-}}{0^{+}}$
194	124					11.26		6.35	13.43	-5.59	-11.76	5.582	5.719	5.330	5.389			

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
195	125	1511.90		7.75		11.28	24.63	4.93	13.72	-4.03	-12.05	5.592	5.729	5.339	5.398		0+	1/2-
196	126	1518.12		7.75		11.15	24.91	6.22	13.85	-3.54	-12.19	5.604	5.745	5.342	5.401		0+	0+
197	127 128	1518.99		7.71		7.09	25.20	0.87	14.00	-4.07	-12.34	5.620	5.765	5.347	5.406		0^{+}	$9/2^{+}$ 0^{+}
198 199	128	1521.41 1522.23		7.68 7.65		3.29 3.24	25.56 25.84	2.42 0.82	14.18 14.30	-1.70 -1.67	-12.52 -12.67	5.636 5.652	5.782 5.802	5.358 5.364	5.418 5.423		0+	9/2 ⁺
200	130	1524.67		7.62		3.24	26.20	2.44	14.30	-1.67 -1.69	-12.67 -12.85	5.668	5.820	5.376	5.435		0+	9/2· 0+
201	131	1525.45		7.59		3.22	26.49	0.78	14.61	-1.67	-12.00	5.684	5.839	5.382	5.441		0+	9/2 ⁺
202	132	1527.92		7.56		3.24	26.84	2.47	14.79	-1.69	-13.18	5.700	5.856	5.393	5.452		0+	0+
203	133	1528.65		7.53		3.20	27.15	0.73	14.93	-1.66	-13.33	5.716	5.875	5.400	5.459		0^+	9/2 ⁺
204	134	1531.15		7.51		3.24	27.49	2.50	15.10	-1.69	-13.51	5.731	5.892	5.411	5.470		0^+	0+
205	135	1531.84		7.47		3.19	27.80	0.69	15.25	-1.66	-13.66	5.747	5.910	5.419	5.478		0^{+}	$9/2^{+}$
206	136	1534.39		7.45		3.23	28.13	2.55	15.41	-1.69	-13.83	5.762	5.927	5.429	5.488		0_{+}	0^+
207	137	1535.03		7.42		3.19	28.45	0.65	15.57	-1.66	-13.99	5.778	5.945	5.438	5.497		0^+	$9/2^{+}$
208	138	1537.62		7.39		3.24	28.76	2.59	15.73	-1.69	-14.15	5.793	5.961	5.447	5.506		0^+	0+
209	139	1538.22		7.36		3.19	29.09	0.60	15.89	-1.66	-14.32	5.810	5.979	5.458	5.516		0+	$9/2^{+}$
210	140	1540.86		7.34		3.24	29.39	2.64	16.04	-1.69	-14.47	5.824	5.995	5.466	5.524		0+	0+
211	141	1541.41		7.31		3.19	29.69	0.55	16.21	-1.65	-14.64	5.841	6.013	5.477	5.535		0^{+}	$9/2^{+}$
212 213	142 143	1544.10 1544.61		7.28		3.24 3.19	30.00 30.19	2.69 0.51	16.35 16.43	-1.69	-14.78 -14.87	5.855 5.874	6.029 6.054	5.484 5.488	5.542 5.546		0^{+}	0 ⁺ 5/2 ⁺
213	143	1544.61		7.25 7.23		3.19	30.19	2.73	16.45	-1.72 -1.68	-14.87 -15.09	5.885	6.062	5.502	5.560		0+	0 ⁺
215	145	1547.55		7.20		3.31	30.80	0.58	16.74	-1.08 -1.71	-15.03 -15.18	5.904	6.086	5.506	5.564		0+	5/2 ⁺
216	146	1550.54		7.18		3.21	31.18	2.63	16.94	-1.66	-15.38	5.915	6.096	5.519	5.577		0+	0+
217	147	1551.19		7.15		3.28	31.47	0.65	17.05	-1.68	-15.48	5.933	6.119	5.524	5.581		0^+	5/2 ⁺
218	148	1553.72		7.13		3.18	31.72	2.53	17.21	-1.64	-15.65	5.945	6.130	5.535	5.592		0^+	0+
219	149	1554.46		7.10		3.27	31.95	0.74	17.32	-1.65	-15.76	5.963	6.152	5.540	5.597		0^+	5/2+
220	150	1556.85		7.08		3.13	32.23	2.39	17.46	-1.61	-15.91	5.975	6.164	5.549	5.606		0^{+}	0+
221	151	1557.60		7.05		3.14	32.45	0.75	17.56	-1.61	-16.01	5.992	6.185	5.554	5.611		0_{+}	$5/2^{+}$
222	152	1559.93		7.03		3.08	32.70	2.33	17.68	-1.58	-16.14	6.005	6.199	5.561	5.618		0^+	0^+
223	153	1560.67		7.00		3.07	34.92	0.74	17.79	-1.57	-16.25	6.022	6.219	5.566	5.624		0+	5/2+
224	154	1562.95		6.98		3.03	35.10	2.28	17.90	-1.56	-16.36	6.035	6.234	5.572	5.629		0+	0+
225	155	1563.68		6.95		3.01	35.31	0.73	17.96	-1.58	-16.43	6.056	6.261	5.574	5.635		0+	5/2 ⁺
226	156	1565.93		6.93		2.98	35.49	2.25	18.09	-1.54	-16.57	6.065	6.269	5.582	5.639		0+	0 ⁺
227 228	157 158	1566.71 1568.88		6.90		3.03 2.94	35.75 33.95	0.78 2.16	18.16 18.29	-1.55 -1.51	-16.64 -16.78	6.084 6.094	6.294 6.304	5.584 5.592	5.631 5.649		0^{+}	$\frac{5/2^{+}}{0^{+}}$
229	159	1569.68		6.88 6.85		2.94	34.09	0.81	18.35	-1.51 -1.52	-16.78 -16.85	6.113	6.328	5.595	5.642		0+	1/2+
230	160	1571.79		6.83		2.91	34.34	2.10	18.47	-1.32 -1.49	-16.98	6.124	6.339	5.602	5.659		0+	0+
231	161	1572.64		6.81		2.95	34.50	0.85	18.53	-1.49	-17.06	6.142	6.361	5.605	5.662		0+	1/2 ⁺
232	162	1574.66		6.79		2.87	34.73	2.02	18.66	-1.47	-17.17	6.153	6.373	5.611	5.668		0^+	0+
233	163	1575.50		6.76		2.87	34.92	0.84	18.75	-1.45	-17.26	6.170	6.394	5.616	5.672		0^+	1/2+
234	164	1577.48		6.74		2.82	35.10	1.98	18.84	-1.43	-17.37	6.182	6.407	5.620	5.677		0^+	0+
235	165	1578.27		6.72		2.77	35.31	0.79	18.94	-1.40	-17.47	6.198	6.426	5.626	5.683		0_{+}	1/2+
236	166	1580.24		6.70		2.76	35.49	1.97	19.03	-1.39	-17.57	6.211	6.440	5.630	5.687		0^+	0^+
237	167	1580.93		6.67		2.66	35.75	0.69	19.16	-1.32	-17.70	6.225	6.455	5.638	5.694		0+	1/2+
238	168	1582.89		6.65		2.65	35.92	1.96	19.24	-1.32	-17.79	6.239	6.471	5.641	5.697		0+	0+
239	169	1583.40		6.63		2.47	36.31	0.51	19.44	-1.21	-17.97	6.250	6.482	5.653	5.709		0+	1/2+
240	170	1585.38		6.61		2.49	36.46	1.98	19.52	-1.23	-18.05	6.264	6.499	5.655	5.711		0+	0+
241	171	1585.67		6.58		2.27	36.80	0.29	19.73	-1.12	-18.28	6.274	6.505	5.670	5.726		0 ⁺	1/2+
242	172	1587.69		6.56		2.31	37.09	2.02	19.84	-1.14	-18.35	6.288	6.522	5.671	5.727		0^{+}	0 ⁺
243 244	173 174	1587.91 1589.85		6.53 6.52		2.24 2.15	37.39 37.74	0.22 1.93	20.00 20.19	-1.13 -1.07	-18.49 -18.67	6.300 6.310	6.535 6.544	5.679 5.690	5.735 5.746		0 ⁺	15/2 ⁻ 0 ⁺
244 245	174	1589.85		6.52		2.15	37.74 38.06	0.21	20.19	-1.07 -1.05	-18.67 -18.82	6.322	6.555	5.698	5.754		0 ⁺	0 ' 15/2 ⁻
245	175	1590.00		6.47		2.13	38.41	1.83	20.55	-1.03 -1.01	-18.82 -19.00	6.333	6.564	5.709	5.765		0+	0+
247	177	1592.09		6.45		2.03	38.73	0.20	20.72	-0.99	-19.15	6.344	6.576	5.718	5.773		0+	15/2 ⁻
248	178	1593.83		6.43		1.95	39.07	1.75	20.91	-0.96	-19.33	6.355	6.585	5.729	5.784		0^{+}	0+
																	-	-

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
249	179	1594.03	(,	6.40	()	1.95	49.39	0.20	21.08	-0.95	-19.49	6.366	6.596	5.738	5.793	()	0+	15/2-
250	180	1595.72		6.38		1.89	39.73	1.69	21.27	-0.92	-19.66	6.377	6.605	5.749	5.804		0^+	0+
251	181	1595.92		6.36		1.89	40.06	0.20	21.43	-0.90	-19.82	6.388	6.615	5.758	5.814		0^+	$15/2^{-}$
252	182	1597.57		6.34		1.85	40.39	1.65	21.60	-0.88	-19.99	6.399	6.625	5.769	5.825		0^+	0^+
253	183	1597.77		6.32		1.85	40.72	0.20	21.76	-1.37	-20.15	6.410	6.635	5.779	5.834		0+	15/2-
254	184	1599.38		6.30		1.81	41.05	1.61	21.92	-1.62	-20.32	6.421	6.645	5.790	5.845		0^+	0^+
σ		14.25													0.035			
Z=7		4455.50		= 0.4			0.45			10.05	0.04	= 0.40	= 0.40	= 00=	= 000		0 (0	4 (0)
150	79	1175.76		7.84			0.47		$\frac{-1.31}{1.02}$	-13.95	0.04	5.019	5.013	5.025	5.089		3/2+	$\frac{1/2^{+}}{0^{+}}$
151	80	1190.45		7.88 7.92			1.05	12.00	$\frac{-1.03}{0.69}$	-13.78	-0.25	5.026	5.024	5.028 5.029	5.091 5.092		3/2 ⁺ 3/2 ⁺	1/2 ⁺
152 153	81 82	1203.51 1217.82	1217.79	7.92 7.96	7.96	27.37	1.80 2.31	13.06 14.31	$\frac{-0.68}{-0.44}$	-12.58 -11.39	-0.63 -0.89	5.033 5.040	5.036 5.047	5.029	5.092		3/2 ⁺	0+
154	83	1225.63	1217.73	7.96	7.50	22.12	2.97	7.81	$\frac{-0.44}{-0.13}$	-11.08	-0.83 -1.23	5.057	5.068	5.043	5.106		3/2 ⁺	9/2 ⁻
155	84	1235.60	1238.06	7.97	7.99	17.77	3.57	9.96	0.17	-8.88	-1.52	5.072	5.088	5.052	5.115		3/2 ⁺	0+
156	85	1243.21	1247.33	7.97	8.00	17.58	4.22	7.61	0.47	-8.77	-1.85	5.088	5.108	5.064	5.127		3/2+	$9/2^{-}$
157	86	1253.00	1258.11	7.98	8.01	17.40	4.81	9.79	0.77	-8.71	-2.14	5.102	5.127	5.072	5.135		3/2+	0+
158	87	1260.43	1266.93	7.98	8.02	17.22	5.44	7.43	1.07	-8.60	-2.46	5.118	5.146	5.084	5.146		$3/2^{+}$	$9/2^{-}$
159	88	1270.07	1277.51	7.99	8.03	17.07	6.02	9.64	1.36	-8.55	-2.75	5.133	5.165	5.093	5.155		$3/2^{+}$	0+
160	89	1277.30	1286.13	7.98	8.04	16.87	6.64	7.23	1.65	-8.43	-3.06	5.148	5.183	5.103	5.166		3/2+	$9/2^{-}$
161	90	1286.82	1296.50	7.99	8.05	16.75	7.21	9.52	1.94	-8.39	-3.34	5.162	5.201	5.112	5.174	5.229	3/2+	0+
162	91	1293.81	1304.84	7.99	8.05	16.51	7.81	6.99	2.22	-8.24	-3.64	5.177	5.219	5.122	5.184	5.240	3/2+	9/2-
163	92	1303.24	1314.87	8.00	8.07	16.42	8.37	9.43	2.50	-8.22	-3.92	5.191	5.236	5.131	5.193	5.257	3/2+	0 ⁺
164 165	93 94	1310.12 1319.30	1322.79 1332.66	7.99 8.00	8.07 8.08	16.32 16.06	8.93 9.48	6.89 9.18	2.79 3.06	-8.16 -8.03	-4.19 -4.47	5.205 5.218	5.254 5.270	5.139 5.148	5.201 5.209	5.268 5.283	$3/2^{+}$ $3/2^{+}$	$\frac{7/2^{-}}{0^{+}}$
166	9 4 95	1326.07	1340.31	7.99	8.07	15.95	10.04	6.78	3.34	-8.03 -7.94	-4.47 -4.74	5.232	5.288	5.146	5.218	5.297	$3/2^{+}$	7/2 ⁻
167	96	1334.98	1349.86	7.99	8.08	15.68	10.55	8.91	3.61	-7.83	-4.74 -4.99	5.244	5.303	5.163	5.224	5.311	$3/2^{+}$	0+
168	97	1341.57	1357.50	7.99	8.08	15.49	11.09	6.58	3.89	-7.69	-5.26	5.258	5.320	5.171	5.232	5.323	3/2+	$7/2^{-}$
169	98	1350.26	1366.59	7.99	8.09	15.28	11.57	8.69	4.15	-7.61	-5.50	5.269	5.335	5.176	5.238	5.329	3/2+	$0^{'+}$
170	99	1356.50	1373.88	7.98	8.08	14.94	12.10	6.24	4.41	-7.38	-5.76	5.283	5.352	5.184	5.246	5.336	3/2+	$7/2^{-}$
171	100	1365.06	1382.48	7.98	8.08	14.80	12.56	8.56	4.66	-7.35	-5.99	5.294	5.367	5.190	5.251	5.344	$3/2^{+}$	0^+
172	101	1370.75	1389.46	7.97	8.08	14.25	13.09	5.69	4.91	-7.06	-6.26	5.308	5.384	5.198	5.259	5.349	3/2+	$7/2^{-}$
173	102	1379.30	1397.67	7.97	8.08	14.24	13.53	8.55	5.16	-7.08	-6.48	5.319	5.398	5.203	5.264	5.358	3/2+	0+
174	103	1384.98	1404.43	7.96	8.07	14.23	14.01	5.68	5.40	-7.03	-6.70	5.333	5.416	5.210	5.271	5.363	3/2+	5/2-
175 176	104 105	1393.04	1412.10 1418.39	7.96 7.95	8.07	13.73 13.55	14.49 14.93	8.06 5.50	5.63 5.86	-6.87	-6.96	5.344	5.430	5.216	5.277 5.284	5.370 5.374	3/2 ⁺ 3/2 ⁺	0 ⁺ 5/2 ⁻
177	105	1398.53 1406.39	1416.39	7.95 7.95	8.06 8.05	13.35	15.42	7.86	6.09	-6.80 -6.70	-7.18 -7.44	5.358 5.369	5.447 5.461	5.223 5.230	5.291	5.382	3/2 ⁺	0^{+}
178	107	1411.77	1431.49	7.93	8.04	13.23	15.42	5.38	6.32	-6.63	-7. 44 -7.66	5.383	5.477	5.237	5.297	5.386	3/2 ⁺	5/2 ⁻
179	108	1419.45	1438.28	7.93	8.04	13.06	16.34	7.68	6.55	-6.56	-7.90	5.394	5.492	5.243	5.304	5.392	$3/2^{+}$	0+
180	109	1424.71	1443.97	7.92	8.02	12.94	16.74	5.26	6.75	-6.53	-8.10	5.407	5.508	5.248	5.309		3/2 ⁺	3/2-
181	110	1432.25	1450.16	7.91	8.01	12.81	17.25	7.54	7.00	-6.44	-8.36	5.419	5.522	5.256	5.317		3/2+	0^{+}
182	111	1437.47		7.90		12.76	17.67	5.21	7.21	-6.41	-8.57	5.432	5.538	5.262	5.322		3/2+	$3/2^{-}$
183	112	1444.85	1461.22	7.90	7.98	12.59	18.15	7.38	7.45	-6.34	-8.82	5.443	5.551	5.269	5.329		3/2+	0^+
184	113	1450.02		7.88		12.55	18.59	5.17	7.66	-6.30	-9.03	5.456	5.567	5.275	5.335		3/2+	3/2-
185	114	1457.25		7.88		12.40	19.05	7.23	7.88	-6.24	-9.26	5.467	5.580	5.281	5.342		3/2+	0+
186	115	1462.37		7.86		12.36	19.42	5.13	8.11	-6.20	-9.49	5.480	5.595	5.288	5.348		3/2 ⁺	3/2 ⁻ 0 ⁺
187 188	116 117	1469.48 1474.66		7.86 7.84		12.23 12.28	19.93 20.40	7.11 5.18	8.32 8.52	-6.14 -6.13	-9.71 -9.92	5.491 5.503	5.609 5.623	5.294 5.300	5.354 5.360		$\frac{3}{2}^{+}$ $\frac{3}{2}^{+}$	1/2 ⁻
189	117	1474.66		7.84 7.84		12.28	20.40	6.90	8.32 8.75	-6.13 -6.05	-9.92 -10.15	5.514	5.636	5.306	5.366		3/2+	0 ⁺
190	119	1486.70		7.84 7.82		12.08	21.28	5.14	8.73 8.97	-6.03 -6.04	-10.13 -10.37	5.526	5.650	5.312	5.372		3/2 ⁺	1/2-
191	120	1493.50		7.82		11.94	21.69	6.80	9.17	-5.97	-10.57	5.537	5.663	5.318	5.378		3/2 ⁺	0+
192	121	1498.63		7.81		11.93	22.19	5.13	9.39	-5.95	-10.83	5.549	5.677	5.324	5.384		3/2 ⁺	1/2-
193	122	1505.30		7.80		11.80	22.57	6.67	9.59	-5.88	-11.02	5.560	5.690	5.329	5.389		3/2+	0+
194	123	1510.44		7.79		11.81	23.09	5.14	9.82	-5.87	-11.28	5.571	5.702	5.337	5.396		$3/2^{+}$	$1/2^{-}$

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
195	124	1516.98		7.78		11.68	23.44	6.53	10.01	-5.80	-11.45	5.582	5.716	5.341	5.401		3/2+	0+
196	125	1522.15		7.77		11.71	23.98	5.18	10.26	-4.20	-11.70	5.593	5.726	5.350	5.409		11/2	1/2-
197	126	1528.54		7.76		11.56	24.27	6.38	10.42	-3.85	-11.88	5.604	5.741	5.352	5.412		3/2+	0+
198	127	1529.57		7.73		7.42	24.58	1.04	10.58	-4.27	-12.01	5.620	5.761	5.357	5.417		3/2+	9/2+
199	128	1532.18		7.70		3.64	24.95	2.60	10.77	-1.88	-12.20	5.636	5.779	5.369	5.429		3/2+	0+
200	129	1533.16		7.67		3.58	25.23	0.98	10.93	-1.85	-12.34	5.652	5.798	5.375	5.434		3/2+	9/2+
201	130	1535.78		7.64		3.60	25.59	2.62	11.11	-1.87	-12.53	5.668	5.815	5.387	5.446		3/2+	0+
202	131	1536.72		7.61		3.56	25.88	0.94	11.27	-1.84	-12.67	5.683	5.835	5.393	5.452		3/2+	9/2+
203	132	1539.36		7.58		3.58	26.24	2.65	11.45	-1.86	-12.86	5.699	5.851	5.405	5.464		3/2+	0+
204	133	1540.26		7.55		3.54	26.53	0.89	11.61	-1.83	-13.01	5.715	5.870	5.412	5.471		3/2+	9/2+
205	134	1542.93		7.53		3.57	26.88	2.68	11.78	-1.86	-13.18	5.730	5.886	5.423	5.482		3/2+	0+
206	135	1543.78		7.49		3.53	27.19	0.85	11.94	-1.83	-13.34	5.746	5.905	5.431	5.490		3/2+	9/2+
207	136	1546.49		7.47		3.56	27.52	2.71	12.11	-1.86	-13.51	5.761	5.921	5.442	5.500		$3/2^{+}$	0+
208	137	1547.30		7.44		3.52	27.84	0.81	12.27	-1.83	-13.67	5.777	5.939	5.451	5.509		$3/2^{+}$	9/2+
209	138	1550.05		7.42		3.56	28.16	2.75	12.43	-1.86	-13.83	5.792	5.955	5.460	5.519		3/2+	0+
210	139	1550.82		7.38		3.52	28.49	0.76	12.60	-1.82	-14.00	5.808	5.973	5.471	5.529		3/2+	9/2+
211	140	1553.61		7.36		3.56	28.79	2.79	12.75	-1.85	-14.15	5.822	5.989	5.479	5.537		3/2+	0+
212	141	1554.33		7.33		3.51	29.13	0.72	12.92	-1.82	-14.33	5.838	6.006	5.490	5.548		3/2+	9/2
213	142	1557.16		7.31		3.55	29.41	2.83	13.06	-1.84	-14.47	5.852	6.022	5.498	5.555		3/2+	0^+
214	143	1557.82		7.28		3.49	29.64	0.66	13.21	-1.80	-14.64	5.869	6.039	5.509	5.567		3/2+	9/2
215	144	1560.70		7.26		3.54	30.02	2.88	13.37	-1.83	-14.77	5.882	6.055	5.516	5.573		3/2+	0^+
216	145	1561.38		7.23		3.56	30.21	0.68	13.47	-1.86	-14.87	5.901	6.079	5.519	5.577		3/2+	5/2
217	146	1564.20		7.21		3.50	30.59	2.82	13.66	-1.80	-15.07	5.912	6.088	5.533	5.590		$3/2^{+}$	0^+
218	147	1565.04		7.18		3.66	30.82	0.84	13.85	-1.83	-15.17	5.930	6.111	5.537	5.594		$3/2^{+}$	5/2
219	148	1567.66		7.16		3.45	31.14	2.61	13.93	-1.77	-15.34	5.942	6.121	5.548	5.606		$3/2^{+}$	0^{+}
220	149	1568.52		7.13		3.48	31.38	0.86	14.06	-1.78	-15.44	5.959	6.143	5.553	5.610		$3/2^{+}$	5/2
221	150	1571.04		7.11		3.38	31.65	2.52	14.19	-1.74	-15.60	5.971	6.155	5.562	5.619		3/2+	0^{+}
222	151	1571.90		7.08		3.38	31.87	0.86	14.30	-1.73	-15.70	5.988	6.176	5.567	5.624		3/2+	5/2
223	152	1574.35		7.06		3.31	32.11	2.45	14.43	-1.70	-15.83	6.001	6.190	5.574	5.632		3/2+	0^{+}
224	153	1575.21		7.03		3.30	32.33	0.85	14.54	-1.69	-15.94	6.017	6.210	5.580	5.637		3/2+	5/2
225	154	1577.60		7.01		3.25	32.55	2.40	14.65	-1.67	-16.05	6.030	6.224	5.586	5.643		3/2+	0^{+}
226	155	1578.43		6.98		3.22	32.71	0.82	14.75	-1.65	-16.16	6.047	6.244	5.591	5.648		3/2+	5/2⁴
227	156	1580.80		6.96		3.20	32.96	2.37	14.87	-1.64	-16.27	6.059	6.259	5.596	5.653		3/2+	0^+
228	157	1581.64		6.94		3.21	33.09	0.84	14.93	-1.66	-16.33	6.079	6.278	5.598	5.655		3/2+	1/2+
229	158	1583.95		6.92		3.15	33.36	2.31	15.08	-1.62	-16.47	6.089	6.293	5.606	5.663		3/2+	0+
230	159	1584.83		6.89		3.19	33.50	0.88	15.15	-1.63	-16.54	6.107	6.317	5.609	5.665		3/2+	1/2
231	160	1587.07		6.87		3.11	33.75	2.23	15.28	-1.60	-16.67	6.118	6.328	5.616	5.672		$3/2^{+}$	0+
232	161	1587.97		6.84		3.14	33.87	0.91	15.34	-1.60	-16.75	6.136	6.350	5.619	5.676		3/2+	1/2
233	162	1590.14		6.82		3.07	34.14	2.16	15.48	-1.57	-16.87	6.147	6.361	5.625	5.682		3/2+	0^{+}
234	163	1591.08		6.80		3.11	34.33	0.95	15.58	-1.56	-16.95	6.163	6.382	5.630	5.686		3/2+	1/2
235	164	1593.16		6.78		3.02	34.52	2.08	15.68	-1.54	-17.07	6.175	6.395	5.635	5.691		3/2+	0^{+}
236	165	1594.06		6.75		2.97	34.72	0.89	15.79	-1.51	-17.17	6.191	6.413	5.641	5.697		3/2+	1/2
237	166	1596.12		6.73		2.96	34.92	2.07	15.89	-1.50	-17.28	6.203	6.427	5.645	5.701		$3/2^{+}$	0+
238	167	1596.94		6.71		2.88	35.17	0.82	16.01	-1.45	-17.40	6.217	6.443	5.653	5.709		3/2+	1/2
239	168	1599.00		6.69		2.87	35.35	2.06	16.11	-1.45	-17.50	6.230	6.458	5.656	5.712		3/2+	0+
240	169	1599.68		6.67		2.74	35.72	0.68	16.28	-1.37	-17.67	6.243	6.469	5.667	5.723		3/2+	1/2
241	170	1601.75		6.65		2.75	35.88	2.07	16.37	-1.37	-17.76	6.256	6.485	5.669	5.725		3/2+	0+
242	171	1602.26		6.62		2.58	36.32	0.51	16.59	-1.28	-17.97	6.266	6.493	5.683	5.739		3/2 ⁺	1/2
243	172	1604.36		6.60		2.61	36.51	2.10	16.66	-1.30	-18.06	6.280	6.510	5.685	5.741		3/2 ⁺	0+
244	173	1604.72		6.58		2.46	36.80	0.36	16.81	-1.29	-18.19	6.292	6.523	5.692	5.748		3/2 ⁺	15/2
245	174	1606.82		6.56		2.47	37.17	2.11	16.98	-1.23 -1.23	-18.37	6.303	6.532	5.702	5.758		$3/2^{+}$	0+
245 246	175	1607.18		6.53		2.47	37.17	0.36	17.13	-1.23 -1.22	-18.57 -18.52	6.315	6.544	5.702	5.766		$3/2^{+}$	15/2
247	176	1609.18		6.51		2.36	37.84	2.00	17.13	-1.22 -1.17	-18.32 -18.70	6.325	6.554	5.720	5.776		3/2 ⁺	0+
	1/0	1005.10		0.51		٥٠.٥٥	37.04	2.00	17.50	-1.17	- 10.70	0.525	0.334	3.720	5.770		J/2	15/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp.	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S_{2p}	S _n	S _p (MeV)	λ_n	λ_p	R _m	R _n	R_p	R _c Cal. (fm)	R _c Exp.	$j^{\pi}(P)$	$j^{\pi}(N)$
249	178	· , ,	(MeV)	6.47	(iviev)	2.28	(MeV) 38.53	(MeV) 1.92	17.62	(MeV)	(MeV) -19.06	(fm) 6.348	(fm) 6.574	(fm) 5.739	5.795	(fm)	11/2-	0+
249 250	178	1611.46 1611.82		6.45		2.28	38.86	0.36	17.62	-1.13 -1.11	-19.06 -19.22	6.359	6.586	5.748	5.795		11/2 ⁻ 3/2 ⁺	15/2 ⁻
251	180	1613.68		6.43		2.23	39.22	1.86	17.76	-1.11 -1.09	-19.22 -19.39	6.370	6.595	5.759	5.814		$11/2^{-}$	0+
252	181	1614.03		6.40		2.22	39.55	0.36	18.11	-1.07	-19.54	6.381	6.606	5.768	5.823		3/2+	15/2
253	182	1615.85		6.39		2.17	39.88	1.82	18.28	-1.05	-19.71	6.391	6.615	5.779	5.834		11/2-	0+
254	183	1616.22		6.36		2.18	40.20	0.36	18.44	-1.53	-19.87	6.403	6.626	5.788	5.843		3/2+	15/2-
255	184	1617.99		6.35		2.14	40.53	1.78	18.61	-1.79	-20.04	6.413	6.635	5.799	5.854		$11/2^{-}$	0+
σ		15.06													0.084			
Z = 72	2 (Hf)																	
152	80	1191.74		7.84			0.25		1.29	-14.10	0.12	5.036	5.029	5.043	5.107		0^+	0^+
153	81	1205.17		7.88			0.98		1.66	-12.97	-0.24	5.042	5.040	5.044	5.107		0+	1/2+
154	82	1219.76		7.92			1.49	14.59	1.93	-11.72	-0.50	5.049	5.051	5.047	5.110		0+	0+
155	83	1227.92		7.92		22.75	2.15	8.16	2.28	-12.26	-0.82	5.065	5.072	5.058	5.121		0+	$9/2^{-}$
156	84	1238.18	1240.66	7.94	7.95	18.42	2.75	10.26	2.58	-9.19	-1.12	5.080	5.091	5.067	5.130		0+	0+
157	85	1246.14	100101	7.94	7.00	18.22	3.40	7.96	2.93	-9.09	-1.44	5.096	5.111	5.079	5.141		0+	9/2-
158	86	1256.22	1261.04	7.95	7.98	18.04	3.99	10.08	3.22	-9.02	-1.74	5.111	5.130	5.088	5.150		0+	0+
159	87	1263.99	1269.86	7.95	7.99	17.86	4.63	7.77	3.57	-8.91	-2.06	5.126	5.149	5.099	5.161		0 ⁺	9/2-
160	88	1273.92	1281.02	7.96	8.01	17.70	5.21	9.93	3.85	-8.86	-2.34	5.141	5.167	5.108	5.170		0^{+}	0+
161 162	89 90	1281.49	1289.47	7.96	8.01	17.49	5.84	7.57	4.19	-8.73	-2.66	5.156	5.186	5.119	5.181 5.189		0 ⁺	$9/2^{-}$ 0^{+}
	90 91	1291.29	1300.39	7.97 7.97	8.03	17.37	6.41	9.80 7.30	4.47	-8.69	-2.94	5.170	5.203 5.221	5.127 5.137			0+	9/2-
163 164	91	1298.59 1308.30	1308.56 1319.19	7.97 7.98	8.03 8.04	17.10 17.01	7.01 7.57	7.30 9.71	4.78 5.06	-8.52 -8.50	-3.24 -3.52	5.184 5.198	5.221	5.137	5.199 5.208		0+	9/2 0 ⁺
165	93	1315.46	1319.19	7.98 7.97	8.04	16.87	8.13	7.16	5.34	-8.30 -8.44	-3.32 -3.80	5.212	5.256	5.154	5.216		0+	7/2-
166	93 94	1313.40	1337.37	7.98	8.06	16.61	8.68	9.45	5.62	-8.44 -8.29	-3.80 -4.07	5.225	5.272	5.163	5.224		0+	0 ⁺
167	95	1331.96	1345.05	7.98	8.05	16.50	9.23	7.05	5.89	-8.29 -8.20	-4.07 -4.35	5.239	5.289	5.171	5.232		0^{+}	7/2 ⁻
168	96	1341.11	1355.01	7.98	8.07	16.20	9.74	9.15	6.13	-8.20 -8.08	-4.60	5.250	5.305	5.177	5.239		0+	0+
169	97	1347.96	1362.44	7.98	8.06	15.99	10.28	6.85	6.39	-7.93	-4.87	5.264	5.321	5.185	5.246		0+	7/2 ⁻
170	98	1356.88	1372.05	7.98	8.07	15.77	10.77	8.92	6.62	-7.86	-5.11	5.275	5.336	5.191	5.252	5.290	0+	0+
171	99	1363.38	1379.30	7.97	8.07	15.43	11.29	6.50	6.88	-7.62	-5.38	5.288	5.353	5.198	5.259	5.304	0+	7/2-
172	100	1372.17	1388.34	7.98	8.07	15.29	11.77	8.79	7.11	-7.59	-5.62	5.299	5.367	5.203	5.264	5.307	0+	0+
173	101	1378.13	1395.42	7.97	8.07	14.75	12.29	5.96	7.38	-7.31	-5.88	5.313	5.384	5.212	5.273	5.314	0 ⁺	$\frac{3}{7/2}$
174	102	1386.90	1403.93	7.97	8.07	14.73	12.75	8.77	7.60	-7 . 33	-6.11	5.324	5.399	5.216	5.277	5.320	0^{+}	0+
175	103	1392.83	1410.63	7.96	8.06	14.69	13.25	5.92	7.85	-7.27	-6.34	5.338	5.416	5.224	5.284	5.319	0+	5/2 ⁻
176	104	1401.13	1418.80	7.96	8.06	14.22	13.72	8.30	8.09	-7.11	-6.60	5.349	5.430	5.230	5.291	5.329	0+	0+
177	105	1406.85	1425.18	7.95	8.05	14.03	14.18	5.73	8.32	-7.04	-6.83	5.362	5.447	5.237	5.297	5.331	0^+	$5/2^{-}$
178	106	1414.96	1432.81	7.95	8.05	13.84	14.67	8.11	8.57	-6.94	-7.08	5.374	5.460	5.243	5.304	5.337	0^+	0^{+}
179	107	1420.57	1438.90	7.94	8.04	13.72	15.12	5.61	8.80	-6.87	-7.31	5.387	5.477	5.250	5.310	5.341	0^+	$5/2^{-}$
180	108	1428.49	1446.29	7.94	8.03	13.53	15.60	7.92	9.05	-6.80	-7.55	5.398	5.491	5.256	5.317	5.347	0^+	0+
181	109	1433.99	1451.99	7.92	8.02	13.42	16.03	5.49	9.28	-6.73	-7.78	5.411	5.506	5.263	5.323		0^+	$5/2^{-}$
182	110	1441.77	1458.70	7.92	8.01	13.28	16.52	7.78	9.52	-6.67	-8.01	5.422	5.520	5.269	5.330	5.352	0^+	0^+
183	111	1447.19	1464.01	7.91	8.00	13.20	16.93	5.42	9.72	-6.64	-8.22	5.435	5.536	5.275	5.335		0^+	$3/2^{-}$
184	112	1454.82	1470.30	7.91	7.99	13.06	17.42	7.64	9.98	-6.56	-8.47	5.446	5.549	5.282	5.342		0^+	0^+
185	113	1460.21	1475.18	7.89	7.97	13.02	17.85	5.38	10.19	-6.53	-8.68	5.459	5.565	5.288	5.348		0^+	$3/2^{-}$
186	114	1467.68	1481.36	7.89	7.96	12.86	18.32	7.48	10.44	-6.46	-8.92	5.470	5.578	5.295	5.355		0+	0^+
187	115	1473.04		7.88		12.83	18.77	5.35	10.66	-6.43	-9.14	5.482	5.593	5.301	5.361		0+	3/2-
188	116	1480.37		7.87		12.69	19.21	7.34	10.89	-6.36	-9.36	5.493	5.606	5.307	5.367		0+	0+
189	117	1485.69		7.86		12.65	19.55	5.32	11.03	-6.33	-9.59	5.506	5.620	5.314	5.373		0+	3/2-
190	118	1492.90		7.86		12.53	20.08	7.21	11.34	-6.27	-9.80	5.516	5.633	5.319	5.379		0+	0+
191	119	1498.29		7.84		12.60	20.56	5.40	11.59	-6.26	-10.01	5.528	5.648	5.325	5.384		0+	1/2-
192	120	1505.28		7.84		12.38	20.95	6.98	11.78	-6.18	-10.23	5.539	5.660	5.330	5.390		0+	0+
193	121	1510.66		7.83		12.36	21.42	5.38	12.03	-6.18	-10.46	5.550	5.674	5.337	5.396		0+	1/2-
194	122	1517.52		7.82		12.24	21.81	6.86	12.22	-6.10	-10.66	5.561	5.687	5.342	5.401		0+	0+
195	123	1522.93		7.81		12.28	22.31	5.42	12.49	-6.10	-10.90	5.572	5.699	5.349	5.408		0^+	$1/2^{-}$

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{ m b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
196	124	1529.63		7.80		12.11	22.66	6.69	12.65	-6.01	-11.07	5.583	5.713	5.353	5.412		0+	0+
197	125	1535.11		7.79		12.18	23.21	5.48	12.95	-4.38	-11.34	5.594	5.724	5.361	5.420		0^+	1/2-
198	126	1541.61		7.79		11.98	23.49	6.50	13.07	-4.00	-11.48	5.605	5.738	5.364	5.423		0+	0+
199	127	1542.77		7.75		7.67	23.78	1.16	13.20	-4.41	-11.63	5.620	5.758	5.369	5.428		0 ⁺	9/2+
200	128	1545.57		7.73		3.96	24.16	2.80	13.40	-2.04	-11.82	5.637	5.775	5.381	5.441		0^{+}	0+
201	129	1546.69		7.69		3.91	24.46	1.11	13.53	-2.01	-11.97	5.652	5.795	5.387	5.446		0 ⁺	9/2+
202	130	1549.51		7.67		3.93	24.83	2.82	13.72	-2.03	-12.17	5.668	5.812	5.399	5.458		0 ⁺	0+
203	131	1550.58		7.64		3.89	25.14	1.08	13.87	-2.01	-12.32	5.684	5.831	5.406	5.465		0 ⁺	9/2+
204	132 133	1553.42		7.61		3.91	25.50	2.83	14.05	-2.02	-12.51	5.699	5.847	5.418	5.477		0 ⁺	0^{+} $9/2^{+}$
205 206	134	1554.46		7.58 7.56		3.88 3.90	25.81 26.17	1.04 2.86	14.21 14.39	$-2.00 \\ -2.02$	-12.66 -12.85	5.715 5.730	5.866	5.425 5.436	5.484 5.495		0+	9/2 · 0+
200 207	135	1557.32 1558.33		7.56 7.53		3.87	26.17	1.01	14.55	-2.02 -2.00	-12.83 -13.01	5.746	5.882 5.900	5.445	5.503		0+	9/2+
207	136	1561.22		7.55 7.51		3.90	26.83	2.89	14.55	-2.00 -2.02	-13.01 -13.18	5.761	5.916	5.455	5.513		0+	0 ⁺
208	137	1562.19		7.31		3.86	27.16	0.98	14.72	-2.02 -1.99	-13.16 -13.35	5.777	5.934	5.464	5.523		0+	9/2+
210	138	1565.11		7.47		3.89	27.10	2.92	15.05	-1.99 -2.02	-13.55 -13.51	5.791	5.950	5.474	5.532		0+	0+
210	139	1566.05		7.43		3.86	27.48	0.94	15.03	-2.02 -1.99	-13.51 -13.68	5.807	5.968	5.484	5.542		0+	9/2+
212	140	1568.99		7.42		3.89	28.13	2.95	15.23	-1.99 -2.01	-13.84	5.821	5.983	5.493	5.551		0^{+}	0 ⁺
213	141	1569.89		7.40		3.84	28.48	0.90	15.56	-2.01 -1.98	-13.84 -14.02	5.837	6.000	5.504	5.562		0+	9/2 ⁺
214	142	1572.87		7.35		3.88	28.77	2.98	15.71	-2.00	-14.16	5.851	6.016	5.511	5.569		0+	0+
215	143	1573.71		7.32		3.82	29.11	0.84	15.89	-1.95	-14.10 -14.34	5.867	6.033	5.523	5.581		0+	9/2 ⁺
216	144	1576.72		7.32		3.85	29.39	3.01	16.02	-1.98	-14.48	5.881	6.049	5.529	5.587		0+	0+
217	145	1577.50		7.27		3.78	29.58	0.77	16.11	-2.01	-14.57	5.899	6.072	5.533	5.590		0+	5/2 ⁺
218	146	1580.53		7.25		3.81	29.99	3.03	16.33	-1.95	-14.78	5.910	6.081	5.546	5.604		0+	0+
219	147	1581.38		7.22		3.88	30.19	0.85	16.38	-1.97	-14.87	5.928	6.104	5.550	5.608		0+	5/2 ⁺
220	148	1584.26		7.20		3.73	30.54	2.88	16.61	-1.90	-15.06	5.939	6.114	5.562	5.619		0+	0+
221	149	1585.25		7.17		3.87	30.78	0.98	16.73	-1.92	-15.16	5.956	6.136	5.567	5.624		0+	5/2+
222	150	1587.91		7.15		3.64	31.06	2.66	16.87	-1.86	-15.32	5.968	6.148	5.576	5.633		0^{+}	0+
223	151	1588.88		7.13		3.63	31.28	0.97	16.97	-1.86	-15.42	5.985	6.168	5.581	5.638		0^{+}	5/2+
224	152	1591.46		7.10		3.55	31.53	2.58	17.10	-1.81	-15.56	5.997	6.182	5.588	5.645		0^+	0+
225	153	1592.41		7.08		3.53	31.74	0.95	17.20	-1.80	-15.66	6.014	6.202	5.593	5.650		0^+	5/2+
226	154	1594.93		7.06		3.47	31.97	2.52	17.32	-1.78	-15.78	6.026	6.216	5.599	5.656		0^+	0+
227	155	1595.85		7.03		3.44	32.17	0.93	17.42	-1.76	-15.89	6.043	6.236	5.604	5.661		0^+	5/2+
228	156	1598.33		7.01		3.41	32.40	2.48	17.53	-1.75	-16.00	6.055	6.250	5.610	5.667		0^+	0+
229	157	1599.24		6.98		3.39	32.53	0.91	17.60	-1.77	-16.07	6.074	6.275	5.612	5.668		0^+	$1/2^{+}$
230	158	1601.69		6.96		3.36	32.81	2.45	17.73	-1.72	-16.21	6.084	6.284	5.620	5.677		0^+	0^+
231	159	1602.63		6.94		3.39	32.95	0.94	17.80	-1.73	-16.28	6.102	6.308	5.622	5.679		0^+	1/2+
232	160	1605.00		6.92		3.31	33.22	2.37	17.94	-1.70	-16.42	6.112	6.317	5.630	5.686		0^+	0^+
233	161	1605.97		6.89		3.34	33.34	0.97	18.00	-1.70	-16.50	6.130	6.340	5.633	5.689		0^+	$1/2^{+}$
234	162	1608.27		6.87		3.27	33.62	2.30	18.14	-1.67	-16.63	6.141	6.351	5.640	5.696		0^+	0^+
235	163	1609.29		6.85		3.32	33.79	1.02	18.21	-1.67	-16.71	6.157	6.371	5.643	5.700		0^+	$1/2^{+}$
236	164	1611.50		6.83		3.23	34.02	2.21	18.34	-1.64	-16.84	6.168	6.383	5.649	5.706		0^+	0^+
237	165	1612.50		6.80		3.21	34.23	1.00	18.44	-1.62	-16.94	6.184	6.402	5.654	5.711		0^+	1/2+
238	166	1614.67		6.78		3.17	34.43	2.17	18.55	-1.61	-17.06	6.196	6.415	5.660	5.716		0+	0^+
239	167	1615.61		6.76		3.11	34.69	0.94	18.67	-1.57	-17.18	6.211	6.431	5.666	5.723		0+	1/2
240	168	1617.77		6.74		3.10	34.88	2.16	18.77	-1.57	-17.29	6.223	6.445	5.671	5.727		0+	0+
241	169	1618.62		6.72		3.01	35.22	0.85	18.94	-1.51	-17.44	6.236	6.458	5.680	5.736		0+	1/2+
242	170	1620.78		6.70		3.01	35.40	2.16	19.03	-1.51	-17.54	6.248	6.473	5.683	5.739		0+	0+
243	171	1621.50		6.67		2.88	35.83	0.72	19.24	-1.44	-17.73	6.260	6.483	5.696	5.752		0+	1/2
244	172	1623.68		6.65		2.90	35.99	2.18	19.32	-1.45	-17.82	6.273	6.498	5.698	5.754		0+	0+
245	173	1624.26		6.63		2.76	36.35	0.58	19.54	-1.38	-18.05	6.283	6.505	5.713	5.769		0+	1/2+
246	174	1626.46		6.61		2.79	36.62	2.20	19.64	-1.39	-18.12	6.296	6.522	5.714	5.770		0+	0+
247	175	1626.97		6.59		2.71	36.92	0.51	19.79	-1.38	-18.26	6.308	6.534	5.722	5.777		0+	15/2
248	176	1629.15		6.57		2.69	37.27	2.18	19.97	-1.34	-18.44	6.319	6.544	5.732	5.788		0+	0+
249	177	1629.66		6.54		2.69	37.58	0.51	20.13	-1.33	-18.59	6.331	6.556	5.740	5.795		0^{+}	15/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
250	178	1631.76		6.53		2.61	37.93	2.10	20.30	-1.29	-18.76	6.341	6.565	5.750	5.806		0+	0+
251	179	1632.28		6.50		2.61	38.24	0.51	20.46	-1.28	-18.91	6.353	6.576	5.759	5.814		0^+	$15/2^{-}$
252	180	1634.31		6.49		2.55	38.59	2.04	20.64	-1.25	-19.09	6.363	6.586	5.769	5.825		0^+	0+
253	181	1634.83		6.46		2.55	38.91	0.51	20.79	-1.24	-19.24	6.374	6.597	5.778	5.833		0^+	$15/2^{-}$
254	182	1636.82		6.44		2.50	39.25	1.99	20.97	-1.22	-19.42	6.385	6.606	5.789	5.844		0^+	0^+
255	183	1637.34		6.42		2.51	39.57	0.52	21.13	-1.69	-19.57	6.396	6.617	5.798	5.853		0^+	$15/2^{-}$
256	184	1639.29		6.40		2.47	39.91	1.95	21.30	-1.96	-19.74	6.407	6.626	5.809	5.863		0^+	0^+
σ		14.33													0.037			
Z = 73	3 (Ta)																	
154	81	1203.84		7.82			0.33		<u>-1.32</u>	-13.18	<u>0.11</u>	5.051	5.043	5.060	5.123		$3/2^{+}$	$1/2^{+}$
155	82	1218.68		7.86			0.85		-1.08	-11.96	-0.15	5.058	5.054	5.062	5.125		$3/2^{+}$	$0^{'+}$
156	83	1227.16		7.87			1.53	8.48	-0.76	-12.43	-0.49	5.074	5.075	5.074	5.136		$3/2^{+}$	$9/2^{-}$
157	84	1237.72	1239.73	7.88	7.90	19.04	2.12	10.56	-0.46	-9.50	-0.78	5.089	5.094	5.083	5.145		$3/2^{+}$	0^+
158	85	1246.00		7.89		18.84	2.79	8.28	-0.14	-9.39	-1.12	5.105	5.114	5.094	5.156		$3/2^{+}$	$9/2^{-}$
159	86	1256.37	1260.67	7.90	7.93	18.65	3.37	10.38	0.15	-9.33	-1.41	5.119	5.133	5.103	5.165		3/2+	0^+
160	87	1264.46	1270.17	7.90	7.94	18.46	4.03	8.08	0.46	-9.21	-1.73	5.135	5.152	5.114	5.176		3/2+	$9/2^{-}$
161	88	1274.67	1281.08	7.92	7.96	18.30	4.60	10.22	0.75	-9.16	-2.02	5.148	5.170	5.123	5.185		3/2+	0^+
162	89	1282.54	1290.22	7.92	7.96	18.09	5.24	7.87	1.05	-9.02	-2.34	5.164	5.188	5.133	5.195		3/2+	$9/2^{-}$
163	90	1292.62	1301.05	7.93	7.98	17.95	5.81	10.08	1.34	-8.98	-2.62	5.177	5.206	5.142	5.204		3/2+	0+
164	91	1300.22	1309.87	7.93	7.99	17.68	6.41	7.59	1.63	-8.80	-2.92	5.192	5.223	5.152	5.213		3/2+	9/2-
165	92	1310.21	1320.51	7.94	8.00	17.58	6.97	9.99	1.91	-8.78	-3.20	5.205	5.240	5.160	5.222		3/2+	0+
166	93	1317.65	1328.83	7.94	8.00	17.43	7.53	7.44	2.19	-8.72	-3.48	5.219	5.257	5.169	5.230		3/2+	7/2-
167	94	1327.38	1339.15	7.95	8.02	17.17	8.08	9.73	2.46	-8.57	-3.75	5.231	5.274	5.177	5.238		3/2+	0+
168	95	1334.70	1347.26	7.94	8.02	17.05	8.62	7.32	2.74	-8.47	-4.02	5.245	5.290	5.185	5.246		3/2+	$7/2^{-}$
169	96	1344.10	1357.23	7.95	8.03	16.73	9.12	9.41	2.99	-8.35	-4.27	5.256	5.306	5.191	5.252		$3/2^{+}$	0 ⁺
170	97 98	1351.22	1365.15	7.95	8.03	16.52	9.65	7.11	3.26	-8.19	-4.54	5.269	5.322	5.199	5.260		3/2 ⁺ 3/2 ⁺	7/2 ⁻ 0 ⁺
171	98 99	1360.38	1374.80 1382.49	7.96	8.04	16.28 15.93	10.12	9.17	3.50 3.77	-8.11 7.00	-4.77 5.02	5.281	5.337	5.204	5.265			7/2-
172	99 100	1367.15		7.95	8.04		10.65	6.76		-7.88	-5.03	5.293	5.353	5.212	5.273		$3/2^{+}$	0 ⁺
173 174	100	1376.17 1382.40	1391.62	7.95 7.94	8.04 8.04	15.79	11.11	9.02 6.23	4.00 4.26	-7.84	-5.27 -5.53	5.304 5.318	5.367 5.384	5.217	5.278		$3/2^{+}$ $3/2^{+}$	7/2 ⁻
174	101	1302.40	1399.04 1407.78	7.9 4 7.95	8.04	15.25 15.22	11.64 12.09	9.00	4.20	-7.56 -7.57	-5.76	5.328	5.398	5.225 5.230	5.286 5.290		3/2 ⁺	0 ⁺
176	102	1397.56	1414.81	7.94	8.04	15.22	12.58	6.17	4.74	-7.57 -7.52	-5.98	5.342	5.415	5.237	5.298		3/2 ⁺	5/2 ⁻
177	103	1406.10	1423.23	7.94	8.04	14.71	13.06	8.53	4.74	-7.32 -7.35	-6.25	5.353	5.429	5.243	5.304		3/2 ⁺	0^{+}
178	105	1412.05	1430.09	7.93	8.03	14.48	13.51	5.95	5.19	-7.29	-6.47	5.366	5.445	5.250	5.310		3/2 ⁺	5/2 ⁻
179	106	1420.41	1438.02	7.94	8.03	14.31	14.02	8.36	5.45	-7.18	-6.73	5.377	5.459	5.256	5.317		3/2 ⁺	0+
180	107	1426.25	1444.66	7.92	8.03	14.20	14.48	5.84	5.67	-7.11	-6.96	5.390	5.475	5.263	5.323		3/2+	5/2 ⁻
181	108	1434.41	1452.24	7.92	8.02	14.00	14.96	8.16	5.92	-7.03	−7.21	5.401	5.489	5.269	5.330	5.351	3/2 ⁺	0+
182	109	1440.13	1458.30	7.91	8.01	13.89	15.43	5.72	6.15	-6.97	-7.44	5.414	5.504	5.276	5.336	0.501	3/2+	5/2 ⁻
183	110	1448.15	1465.24	7.91	8.01	13.74	15.90	8.01	6.38	-6.91	-7.68	5.425	5.518	5.282	5.342		3/2 ⁺	0+
184	111	1453.77	1470.85	7.90	7.99	13.63	16.30	5.62	6.58	-6.88	-7.88	5.437	5.534	5.287	5.347		3/2+	3/2-
185	112	1461.66	1477.48	7.90	7.99	13.51	16.82	7.89	6.84	-6.79	-8.14	5.449	5.547	5.295	5.355		3/2+	0+
186	113	1467.25	1482.76	7.89	7.97	13.48	17.24	5.59	7.04	-6.76	-8.35	5.461	5.562	5.300	5.360		3/2+	3/2-
187	114	1474.97	1489.13	7.89	7.96	13.31	17.72	7.72	7.29	-6.69	-8.60	5.472	5.575	5.307	5.367		3/2+	0+
188	115	1480.54	1493.91	7.88	7.95	13.29	18.17	5.57	7.50	-6.66	-8.82	5.484	5.590	5.313	5.373		3/2+	$3/2^{-}$
189	116	1488.10		7.87		13.13	18.62	7.56	7.73	-6.59	-9.05	5.495	5.603	5.319	5.379		3/2+	0^{+}
190	117	1493.65		7.86		13.11	18.99	5.55	7.96	-6.56	-9.28	5.507	5.617	5.326	5.386		3/2+	$3/2^{-}$
191	118	1501.07		7.86		12.96	19.51	7.42	8.17	-6.49	-9.49	5.518	5.630	5.331	5.391		3/2+	0+
192	119	1506.69		7.85		13.04	19.99	5.62	8.40	-6.49	-9.71	5.530	5.644	5.337	5.397		3/2+	$1/2^{-}$
193	120	1513.89		7.84		12.82	20.39	7.20	8.61	-6.40	-9.92	5.540	5.657	5.343	5.402		$3/2^{+}$	0+
194	121	1519.48		7.83		12.79	20.85	5.59	8.82	-6.40	-10.15	5.552	5.671	5.348	5.408		$3/2^{+}$	$1/2^{-}$
151		450054		7.83		12.65	21.24	7.06	9.02	-6.31	-10.35	5.562	5.683	5.354	5.413		$3/2^{+}$	0^+
195	122	1526.54				12.03						0.002	0.003					
	122 123 124	1526.54 1532.18 1539.06		7.82 7.81		12.70 12.52	21.74 22.09	5.64 6.88	9.25 9.44	-6.32 -6.22	-10.59 -10.77	5.573 5.584	5.696 5.709	5.360 5.364	5.419 5.424		3/2 ⁺ 3/2 ⁺	1/2 ⁻ 0 ⁺

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{ m b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
198	125	1544.78		7.80		12.60	22.63	5.72	9.67	-4.60	-11.03	5.594	5.721	5.371	5.430		3/2+	1/2-
199	126	1551.45		7.80		12.38	22.91	6.66	9.84	-4.21	-11.17	5.605	5.735	5.374	5.433		3/2+	0+
200	127	1552.76		7.76		7.98	23.19	1.32	9.99	-4.54	-11.31	5.621	5.755	5.380	5.439		3/2+	9/2+
201	128	1555.75		7.74		4.31	23.58	2.99	10.18	-2.21	-11.51	5.637	5.772	5.393	5.452		3/2+	0+
202	129	1557.02		7.71		4.26	23.86	1.27	10.33	-2.19	-11.65	5.652	5.791	5.399	5.458		3/2+	9/2+
203	130	1560.02		7.68		4.27	24.24	3.00	10.52	-2.20	-11.85	5.668	5.808	5.411	5.470		3/2+	0 ⁺
204	131	1561.25		7.65		4.23	24.54	1.23	10.67	-2.18	-12.00	5.684	5.826	5.418	5.477		3/2+	9/2+
205	132	1564.27		7.63		4.25	24.91	3.02	10.85	-2.20	-12.19	5.699	5.843	5.430	5.489		3/2 ⁺ 3/2 ⁺	0^{+} $9/2^{+}$
206	133 134	1565.47		7.60		4.22	25.21	1.20	11.01	-2.17	-12.34	5.715	5.861	5.438	5.496		3/2 ⁺	9/2· 0 ⁺
207 208	134	1568.51		7.58		4.23 4.20	25.57 25.89	3.04 1.17	11.19	-2.19	-12.53	5.730	5.877	5.449 5.457	5.507 5.516		3/2 ⁺	9/2 ⁺
208	136	1569.67 1572.73		7.55 7.53		4.20	26.24	3.06	11.34	-2.17 -2.19	-12.69 -12.87	5.745	5.895	5.468	5.526		3/2+	0+
210	137	1572.75		7.33 7.49		4.22	26.56	1.14	11.51 11.68	-2.19 -2.17	-12.67 -13.03	5.760 5.776	5.911 5.929	5.478	5.536		3/2+	9/2+
210	138	1576.95		7.49 7.47		4.19	26.89	3.08	11.84	-2.17 -2.18	-13.03 -13.20	5.791	5.945	5.487	5.545		3/2 ⁺	0+
211	139	1578.95		7.47 7.44		4.22	27.24	1.11	12.01	-2.16 -2.16	-13.20 -13.37	5.806	5.962	5.498	5.555		3/2+	9/2+
213	140	1578.00		7.44		4.13	27.54	3.10	12.16	-2.10 -2.17	-13.57 -13.53	5.820	5.978	5.506	5.564		$11/2^{-}$	0+
213	141	1582.23		7.42		4.21	27.90	1.07	12.10	-2.17 -2.14	-13.33 -13.70	5.836	5.995	5.517	5.575		3/2+	9/2 ⁺
215	142	1585.35		7.33		4.17	28.19	3.12	12.48	-2.14 -2.16	-13.76 -13.86	5.850	6.010	5.524	5.581		11/2 ⁻	0+
216	143	1586.37		7.34		4.14	28.55	1.02	12.65	-2.10 -2.12	-14.03	5.866	6.027	5.535	5.593		11/2	9/2 ⁺
217	144	1589.52		7.32		4.17	28.82	3.15	12.80	-2.14	-14.18	5.879	6.042	5.542	5.599		11/2	0+
218	145	1590.45		7.32		4.09	29.07	0.93	12.96	-2.07	-14.35	5.895	6.059	5.554	5.611		11/2	9/2 ⁺
219	146	1593.63		7.28		4.11	29.43	3.18	13.10	-2.10	-14.48	5.908	6.075	5.559	5.616		11/2	0+
220	147	1594.59		7.25		4.14	29.55	0.96	13.21	-2.13	-14.58	5.925	6.097	5.563	5.620		11/2	5/2 ⁺
221	148	1597.65		7.23		4.02	30.00	3.06	13.39	-2.04	-14.77	5.936	6.107	5.574	5.631		11/2	0+
222	149	1598.75		7.20		4.16	30.23	1.10	13.51	-2.06	-14.87	5.953	6.128	5.579	5.636		11/2	5/2 ⁺
223	150	1601.56		7.18		3.91	30.52	2.81	13.65	-1.99	-15.03	5.965	6.140	5.588	5.645		11/2	0+
224	151	1602.64		7.15		3.89	30.74	1.08	13.77	-1.98	-15.13	5.981	6.161	5.593	5.650		11/2-	5/2+
225	152	1605.35		7.13		3.79	31.00	2.71	13.90	-1.93	-15.27	5.994	6.174	5.600	5.657		11/2-	0+
226	153	1606.41		7.11		3.77	31.21	1.06	14.00	-1.92	-15.37	6.010	6.194	5.605	5.662		11/2-	5/2+
227	154	1609.05		7.09		3.70	31.45	2.64	14.13	-1.89	-15.50	6.022	6.207	5.612	5.668		11/2	0+
228	155	1610.08		7.06		3.67	31.65	1.03	14.23	-1.87	-15.61	6.038	6.227	5.617	5.673		11/2-	5/2+
229	156	1612.68		7.04		3.63	31.88	2.60	14.35	-1.86	-15.73	6.051	6.241	5.622	5.679		11/2-	0+
230	157	1613.67		7.02		3.59	32.03	0.99	14.43	-1.84	-15.83	6.067	6.260	5.628	5.684		11/2-	5/2+
231	158	1616.25		7.00		3.57	32.30	2.58	14.57	-1.83	-15.95	6.079	6.274	5.633	5.689		11/2-	0+
232	159	1617.27		6.97		3.59	32.43	1.01	14.63	-1.85	-16.01	6.097	6.298	5.635	5.691		11/2-	1/2+
233	160	1619.78		6.95		3.53	32.72	2.52	14.78	-1.81	-16.16	6.107	6.307	5.643	5.699		11/2-	0^{+}
234	161	1620.83		6.93		3.56	32.85	1.05	14.85	-1.82	-16.24	6.124	6.330	5.645	5.702		$11/2^{-}$	1/2+
235	162	1623.27		6.91		3.49	33.13	2.44	14.99	-1.78	-16.38	6.135	6.340	5.653	5.709		11/2-	0^+
236	163	1624.34		6.88		3.51	33.26	1.07	15.05	-1.78	-16.46	6.151	6.361	5.656	5.713		$11/2^{-}$	$1/2^{+}$
237	164	1626.71		6.86		3.44	33.55	2.37	15.21	-1.76	-16.60	6.162	6.371	5.663	5.719		$11/2^{-}$	0^+
238	165	1627.82		6.84		3.49	33.77	1.11	15.33	-1.75	-16.69	6.178	6.391	5.668	5.724		$11/2^{-}$	$1/2^{+}$
239	166	1630.10		6.82		3.39	33.98	2.28	15.43	-1.73	-16.82	6.189	6.402	5.674	5.730		$11/2^{-}$	0^+
240	167	1631.17		6.80		3.34	34.23	1.07	15.56	-1.70	-16.93	6.204	6.419	5.680	5.736		$11/2^{-}$	$1/2^{+}$
241	168	1633.44		6.78		3.33	34.44	2.27	15.67	-1.69	-17.05	6.215	6.432	5.685	5.741		11/2-	0^+
242	169	1634.44		6.75		3.27	34.76	1.00	15.82	-1.65	-17.19	6.229	6.447	5.693	5.749		$11/2^{-}$	$1/2^{+}$
243	170	1636.70		6.74		3.26	34.95	2.26	15.92	-1.65	-17.30	6.241	6.460	5.697	5.753		$11/2^{-}$	0^+
244	171	1637.61		6.71		3.17	35.35	0.91	16.11	-1.59	-17.48	6.253	6.472	5.708	5.764		$11/2^{-}$	1/2+
245	172	1639.87		6.69		3.18	35.52	2.26	16.20	-1.60	-17.57	6.265	6.486	5.711	5.767		$11/2^{-}$	0+
246	173	1640.68		6.67		3.07	35.96	0.81	16.42	-1.54	-17.78	6.276	6.495	5.724	5.780		$11/2^{-}$	$1/2^{+}$
247	174	1642.96		6.65		3.09	36.14	2.28	16.49	-1.55	-17.87	6.289	6.510	5.727	5.782		$11/2^{-}$	0+
248	175	1643.65		6.63		2.97	36.47	0.69	16.68	-1.48	-18.10	6.299	6.517	5.742	5.797		$11/2^{-}$	$1/2^{+}$
249	176	1645.96		6.61		3.00	36.78	2.31	16.81	-1.50	-18.17	6.312	6.533	5.743	5.799		$11/2^{-}$	0^+
250	177	1646.62		6.59		2.96	37.08	0.66	16.95	-1.49	-18.31	6.324	6.545	5.751	5.806		$11/2^{-}$	15/2
	178	1648.89		6.57		2.93	37.43	2.27	17.12	-1.45	-18.49	6.334	6.555	5.761	5.816		11/2-	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	$R_{\rm c}^{\rm Exp.}$ (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
252	179	1649.55		6.55		2.93	37.73	0.66	17.27	-1.44	-18.64	6.346	6.567	5.769	5.824		11/2-	15/2
253	180	1651.76		6.53		2.87	38.08	2.21	17.44	-1.41	-18.81	6.356	6.576	5.779	5.834		11/2-	0^+
254	181	1652.42		6.51		2.87	38.39	0.66	17.59	-1.40	-18.96	6.368	6.587	5.787	5.842		$11/2^{-}$	15/2
255	182	1654.58		6.49		2.82	38.73	2.16	17.76	-1.38	-19.13	6.378	6.597	5.798	5.853		$11/2^{-}$	0+
256	183	1655.25		6.47		2.83	39.04	0.67	17.91	-1.86	-19.28	6.389	6.608	5.806	5.861		11/2-	15/2
257	184	1657.37		6.45		2.79	39.37	2.11	18.08	-2.13	-19.45	6.400	6.617	5.817	5.872		$11/2^{-}$	0^+
σ		14.12													0.021			
2 = 7. 156	4 (W) 82	1219.84		7.82			0.08		1.16	-12.31	0.21	5.068	5.058	5.078	5.140		0^{+}	0^{+}
157	83	1228.65		7.83			0.74	8.81	1.49	-12.67	$\frac{0.21}{-0.11}$	5.084	5.079	5.089	5.151		0+	9/2
158	84	1239.52		7.85		19.68	1.34	10.86	1.80	-9.81	-0.41	5.098	5.098	5.098	5.160		0^+	0+
159	85	1248.13		7.85		19.47	1.99	8.61	2.13	-9.70	-0.73	5.113	5.118	5.109	5.171		0+	9/2
160	86	1258.80	1262.89	7.87	7.89	19.28	2.58	10.67	2.43	-9.64	-1.03	5.128	5.136	5.118	5.180		0+	0+
161	87	1267.22		7.87		19.09	3.22	8.41	2.76	-9.52	-1.34	5.143	5.155	5.129	5.191		0+	9/2
162	88	1277.72	1283.66	7.89	7.92	18.92	3.80	10.51	3.05	-9.46	-1.63	5.157	5.173	5.137	5.199		0+	0+
63	89	1285.92	1292.64	7.89	7.93	18.70	4.43	8.20	3.38	-9.32	-1.94	5.172	5.191	5.148	5.210		0^+	9/2
64	90	1296.29	1304.04	7.90	7.95	18.57	5.00	10.37	3.67	-9.27	-2.23	5.185	5.208	5.157	5.218		0^+	0^{+}
65	91	1304.19	1312.74	7.90	7.96	18.27	5.61	7.90	3.98	-9.08	-2.52	5.199	5.226	5.166	5.228		0^+	9/2
66	92	1314.47	1323.83	7.92	7.97	18.18	6.17	10.28	4.26	-9.06	-2.81	5.213	5.243	5.175	5.236		0_{+}	0+
67	93	1322.19	1332.11	7.92	7.98	17.99	6.72	7.72	4.54	-9.00	-3.08	5.226	5.260	5.183	5.244		0^+	7/2
68	94	1332.19	1342.98	7.93	7.99	17.72	7.28	10.00	4.82	-8.83	-3.36	5.239	5.276	5.191	5.252		0^+	0^+
59	95	1339.78	1351.08	7.93	7.99	17.59	7.82	7.59	5.09	-8.73	-3.63	5.252	5.292	5.199	5.260		0^+	7/2
70	96	1349.44	1361.52	7.94	8.01	17.25	8.33	9.66	5.34	-8.60	-3.89	5.263	5.308	5.205	5.266		0+	0^+
71	97	1356.81	1369.39	7.93	8.01	17.03	8.86	7.37	5.60	-8.45	-4.15	5.276	5.324	5.212	5.273		0+	7/2
72	98	1366.23	1379.47	7.94	8.02	16.79	9.35	9.42	5.85	-8.36	-4.40	5.287	5.338	5.217	5.278		0+	0+
73	99	1373.26	1387.17	7.94	8.02	16.44	9.87	7.03	6.11	-8.13	-4.66	5.299	5.354	5.224	5.285		0+	7/2
74	100	1382.52	1396.74	7.95	8.03	16.29	10.35	9.27	6.35	-8.10	-4.90	5.310	5.369	5.230	5.290		0+	0+
75	101	1389.02	1404.22	7.94	8.02	15.76	10.88	6.49	6.62	-7.81	-5.17	5.323	5.385	5.237	5.298		0+	7/2
76	102	1398.25	1413.30	7.94	8.03	15.73	11.35	9.23	6.86	-7.82	-5.40	5.334	5.399	5.242	5.303		0+	0+
77	103	1404.67	1420.43	7.94	8.03	15.65	11.84	6.42	7.10	-7.77 7.60	-5.63	5.347	5.416	5.249	5.310		0^{+}	5/2
78	104	1413.46	1429.21	7.94	8.03	15.21	12.33	8.79	7.36	-7.60	-5.90	5.358	5.429	5.255	5.316		0^{+}	0+
79 80	105 106	1419.65 1428.26	1436.17	7.93 7.93	8.02 8.03	14.98	12.80 13.30	6.19	7.60 7.85	-7.53	-6.13	5.371 5.382	5.446 5.459	5.262 5.268	5.323 5.329	5.349	0^{+}	5/2 0 ⁺
81	100	1428.20	1444.58 1451.27	7.93 7.92	8.02	14.80 14.69	13.77	8.61 6.08	8.09	−7.42 −7.35	-6.38 -6.62	5.394	5.475	5.275	5.335	3.349	0+	5/2
82	107	1442.74	1459.33	7.93	8.02	14.48	14.25	8.40	8.33	−7.33 −7.27	-6.86	5.405	5.489	5.282	5.342	5.356	0+	0 ⁺
83	109	1448.71	1465.52	7.92	8.01	14.37	14.72	5.96	8.57	-7.27 -7.20	-7.10	5.418	5.504	5.288	5.348	5.361	0^{+}	5/2
84	110	1456.95	1472.94	7.92	8.01	14.21	15.19	8.25	8.81	-7.20 -7.14	-7.10 -7.33	5.429	5.518	5.294	5.354	5.366	0+	0 ⁺
85	111	1462.81	1478.69	7.91	7.99	14.10	15.62	5.85	9.04	-7.07	-7.57	5.441	5.532	5.301	5.361	2,300	0+	5/2
36	112	1470.93	1485.88	7.91	7.99	13.98	16.11	8.13	9.27	-7.02	-7.80	5.452	5.546	5.307	5.367	5.374	0^+	0+
87	113	1476.73	1491.35	7.90	7.98	13.92	16.52	5.80	9.48	-7.00	-8.01	5.464	5.561	5.312	5.372		0^+	3/2
88	114	1484.71	1498.18	7.90	7.97	13.77	17.02	7.97	9.73	-6.91	-8.25	5.475	5.574	5.319	5.379		0^+	0+
39	115	1490.49	1503.20	7.89	7.95	13.76	17.45	5.78	9.95	-6.89	-8.47	5.487	5.589	5.325	5.385		0^+	3/
90	116	1498.29	1510.04	7.89	7.95	13.58	17.92	7.80	10.18	-6.81	-8.70	5.498	5.601	5.332	5.391		0^+	0^{+}
91	117	1504.06	1514.90	7.87	7.93	13.57	18.37	5.77	10.41	-6.78	-8.93	5.510	5.616	5.338	5.397		0^+	3/2
92	118	1511.70		7.87		13.41	18.80	7.64	10.63	-6.71	-9.14	5.520	5.628	5.343	5.403		0^+	0+
93	119	1517.46		7.86		13.40	19.17	5.76	10.77	-6.68	-9.38	5.532	5.642	5.350	5.409		0^+	3/2
94	120	1524.94		7.86		13.24	19.66	7.48	11.05	-6.61	-9.57	5.542	5.655	5.355	5.414		0^+	0+
95	121	1530.78		7.85		13.32	20.13	5.84	11.30	-6.62	-9.79	5.553	5.668	5.360	5.420		0^+	1/2
96	122	1538.03		7.85		13.09	20.51	7.24	11.49	-6.52	-9.99	5.564	5.681	5.365	5.425		0^+	0^{+}
97	123	1543.90		7.84		13.12	20.97	5.88	11.72	-6.54	-10.22	5.575	5.694	5.371	5.430		0+	1/2
98	124	1550.96		7.83		12.93	21.33	7.05	11.89	-6.42	-10.40	5.585	5.707	5.376	5.435		0+	0^+
99	125	1556.94		7.82		13.03	21.83	5.98	12.15	-4.78	-10.64	5.595	5.718	5.382	5.441		0+	1/2
200	126	1563.72		7.82		12.76	22.11	6.78	12.27	-4.42	-10.78	5.607	5.733	5.385	5.444		0^+	0^{+}

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
201	127	1565.18		7.79		8.24	22.41	1.46	12.42	-4.77	-10.93	5.622	5.752	5.390	5.449		0+	9/2+
202	128	1568.38		7.76		4.66	22.81	3.20	12.63	-2.38	-11.14	5.638	5.769	5.404	5.463		0+	0+
203	129	1569.80		7.73		4.62	23.11	1.42	12.78	-2.36	-11.29	5.653	5.788	5.410	5.469		0+	$9/2^{+}$
204	130	1573.01		7.71		4.63	23.50	3.21	12.98	-2.38	-11.49	5.669	5.805	5.423	5.481		0+	0+
205	131	1574.40		7.68		4.60	23.81	1.39	13.14	-2.36	-11.65	5.684	5.823	5.429	5.488		0+	$9/2^{+}$
206	132	1577.61		7.66		4.60	24.19	3.21	13.34	-2.37	-11.84	5.700	5.840	5.442	5.500		0+	0+
207	133	1578.97		7.63		4.58	24.51	1.36	13.50	-2.35	-12.00	5.715	5.858	5.449	5.508		0+	$9/2^{+}$
208	134	1582.20		7.61		4.59	24.88	3.23	13.69	-2.36	-12.19	5.730	5.874	5.461	5.519		0+	0+
209	135	1583.54		7.58		4.56	25.21	1.33	13.86	-2.35	-12.36	5.746	5.892	5.469	5.528		0+	$9/2^{+}$
210	136	1586.77		7.56		4.58	25.56	3.24	14.05	-2.36	-12.54	5.761	5.908	5.480	5.538		0+	0+
211	137	1588.09		7.53		4.55	25.90	1.32	14.22	-2.34	-12.71	5.776	5.925	5.489	5.547		0+	9/2+
212	138	1591.34		7.51		4.57	26.24	3.25	14.40	-2.35	-12.88	5.790	5.941	5.499	5.557		0+	0+
213	139	1592.63		7.48		4.54	26.58	1.29	14.57	-2.33	-13.05	5.806	5.958	5.510	5.567		0+	9/2+
214	140	1595.90		7.46		4.55	26.90	3.27	14.74	-2.34	-13.21	5.820	5.973	5.518	5.576		0+	0+
215	141	1597.15		7.43		4.52	27.26	1.25	14.92	-2.31	-13.39	5.836	5.990	5.529	5.587		0+	9/2+
216	142	1600.43		7.41		4.53	27.56	3.28	15.08	-2.32	-13.54	5.849	6.005	5.537	5.595		0+	0+
217	143	1601.63		7.38		4.48	27.92	1.20	15.26	-2.28	-13.72	5.865	6.022	5.549	5.606		0+	9/2+
218	144	1604.92		7.36		4.49	28.19	3.29	15.40	-2.29	-13.86	5.878	6.037	5.555	5.612		0+	0+
219	145	1606.03		7.33		4.40	28.54	1.11	15.58	-2.22	-14.04	5.894	6.054	5.567	5.624		0+	9/2+
220	146	1609.33		7.32		4.42	28.80	3.30	15.70	-2.24	-14.17	5.906	6.069	5.572	5.629		0+	0+
221	147	1610.37		7.29		4.34	28.99	1.04	15.78	-2.27	-14.27	5.923	6.091	5.576	5.633		0+	5/2+
222	148	1613.64		7.27		4.31	29.38	3.27	15.99	-2.18	-14.46	5.935	6.101	5.588	5.645		0+	0+
223	149	1614.81		7.24		4.43	29.56	1.16	16.05	-2.19	-14.56	5.951	6.122	5.592	5.649		0 ⁺	5/2 ⁺
224	150	1617.81		7.22		4.17	29.90	3.00	16.25	-2.11	-14.73	5.963	6.133	5.602	5.658		0 ⁺	0 ⁺
225	151	1619.00		7.20		4.20	30.12	1.19	16.36	-2.11	-14.83	5.979	6.154	5.606	5.662		0+	5/2 ⁺ 0 ⁺
226	152	1621.84		7.18		4.03	30.38	2.84	16.49	-2.05	-14.97	5.991	6.166	5.614	5.671		0+	
227	153	1623.00		7.15		4.00	30.59	1.16	16.59	-2.04	-15.07	6.007	6.186	5.618	5.675		0+	5/2 ⁺ 0 ⁺
228 229	154 155	1625.77		7.13 7.10		3.93 3.90	30.84 31.04	2.76	16.71	-2.01	-15.21	6.019	6.200 6.219	5.625 5.630	5.682 5.686		0+	5/2 ⁺
229	156	1626.90		7.10			31.04	1.13	16.81 16.93	-1.99 -1.97	-15.31 -15.44	6.035	6.232	5.636	5.693		0 ⁺	0 ⁺
230	156	1629.61		7.09		3.85 3.81	31.47	2.72 1.10	17.04	-1.97 -1.95	-15.44 -15.54	6.047 6.063	6.252	5.641	5.698		0+	5/2 ⁺
231	157	1630.71 1633.40		7.06		3.79	31.47	2.69	17.04	-1.93 -1.94	-15.54 -15.66	6.075	6.265	5.647	5.703		0+	0 ⁺
232	158	1634.48		7.04 7.01		3.79	31.85	1.08	17.13	-1.94 -1.96	-15.00 -15.73	6.093	6.289	5.648	5.705		0+	1/2+
234	160	1637.14		7.01		3.74	32.14	2.66	17.21	-1.90 -1.92	-15.75 -15.89	6.102	6.297	5.657	5.713		0+	0+
235	161	1638.26		6.97		3.74	32.14	1.12	17.30	-1.92 -1.93	-15.85 -15.96	6.120	6.320	5.659	5.716		0+	1/2+
236	162	1640.84		6.95		3.70	32.57	2.58	17.43	-1.95 -1.89	-15.30 -16.11	6.129	6.329	5.668	5.724		0+	0+
237	163	1641.99		6.93		3.73	32.57	1.14	17.56	-1.89 -1.90	-16.11 -16.19	6.146	6.350	5.671	5.727		0+	1/2 ⁺
238	164	1644.50		6.91		3.66	33.00	2.52	17.03	-1.90 -1.87	-16.13 -16.33	6.156	6.360	5.678	5.734		0+	0+
239	165	1645.68		6.89		3.70	33.19	1.18	17.75	-1.86	-16.42	6.172	6.380	5.682	5.738		0+	1/2 ⁺
240	166	1648.12		6.87		3.62	33.45	2.43	18.02	-1.84	-16.56	6.183	6.391	5.689	5.745		0+	0+
241	167	1649.30		6.84		3.62	33.69	1.18	18.13	-1.83	-16.67	6.198	6.408	5.694	5.750		0+	1/2 ⁺
242	168	1651.69		6.83		3.57	33.92	2.38	18.25	-1.81	-16.80	6.209	6.420	5.700	5.756		0+	0+
243	169	1652.82		6.80		3.52	34.20	1.14	18.38	-1.79	-16.93	6.223	6.435	5.707	5.763		0+	1/2 ⁺
243	170	1655.20		6.78		3.51	34.42	2.37	18.50	-1.73 -1.78	-10.93 -17.05	6.234	6.448	5.712	5.768		0+	0+
244	170	1656.28		6.76		3.45	34.78	1.08	18.67	-1.78 -1.74	-17.03 -17.21	6.247	6.461	5.722	5.777		0+	1/2 ⁺
246	172	1658.65		6.74		3.45	34.97	2.37	18.77	-1.74	-17.21 -17.32	6.259	6.475	5.726	5.781		0+	0+
247	173	1659.65		6.72		3.38	35.39	1.01	18.97	-1.69	-17.52	6.270	6.485	5.737	5.793		0+	1/2 ⁺
248	174	1662.03		6.70		3.38	35.56	2.37	19.07	-1.70	-17.60	6.283	6.500	5.740	5.796		0+	0+
249	175	1662.95		6.68		3.30	35.98	0.92	19.30	-1.65	-17.82	6.293	6.508	5.754	5.809		0+	1/2 ⁺
250	176	1665.34		6.66		3.31	36.19	2.39	19.38	-1.66	-17.90	6.306	6.523	5.756	5.811		0+	0+
251	170	1666.18		6.64		3.23	36.52	0.84	19.57	-1.61	-17.30 -18.14	6.316	6.530	5.771	5.827		0+	1/2 ⁺
252	177	1668.59		6.62		3.25	36.83	2.41	19.70	-1.61 -1.62	-18.14 -18.21	6.328	6.545	5.771	5.828		0+	0+
253	178	1669.40		6.60		3.23	37.13	0.81	19.85	-1.61	-18.35	6.340	6.558	5.780	5.835		0+	15/2 ⁻
254	180	1671.79		6.58		3.20	37.13	2.39	20.03	-1.51 -1.58	-18.53 -18.53	6.350	6.567	5.790	5.845		0+	0+
∠54	190	10/1./9		0.38		3.20	37.47	2.59	∠∪.∪3	-1.58	-18.33	0.330	0.307	5.790	J.843		U '	U.

Table 1 (continued)

4	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
255	181	1672.61		6.56		3.20	37.78	0.82	20.19	-1.57	-18.67	6.362	6.579	5.797	5.852		0+	15/2
256	182	1674.94		6.54		3.15	38.12	2.34	20.36	-1.54	-18.85	6.372	6.588	5.808	5.863		0^+	0^+
257	183	1675.77		6.52		3.17	38.43	0.83	20.52	-0.40	-18.99	6.384	6.600	5.816	5.871		0+	15/2
258	184	1678.06		6.50		3.12	38.78	2.29	20.70	-2.30	-19.17	6.394	6.609	5.826	5.881		0^+	0^+
σ		13.21													0.014			
Z = 75																		
158	83	1227.32		7.77			0.16		$\frac{-1.34}{1.35}$	-13.17	0.16	5.093	5.082	5.104	5.167		1/2+	9/2
159	84	1238.47		7.79			0.75		$\frac{-1.05}{1.05}$	-10.11	-0.14	5.107	5.101	5.113	5.175		1/2+	0+
160	85	1247.38	1261 70	7.80	7.04	10.00	1.39	8.92	$\frac{-0.74}{0.45}$	-10.02	-0.40	5.122	5.120	5.124	5.186		3/2+	9/2
161	86	1258.35	1261.70	7.82	7.84	19.88	1.98	10.97	$\frac{-0.45}{0.13}$	-9.95	-0.70	5.136	5.139	5.132	5.194		3/2+	0+
62	87	1267.09	1202.00	7.82	7.07	19.71	2.64	8.74	$\frac{-0.12}{0.17}$	-9.82	-1.02	5.151	5.157	5.143	5.205		3/2+	9/2 0 ⁺
63	88	1277.89	1282.96	7.84	7.87	19.54	3.22	10.80	0.17	-9.77	-1.31	5.164	5.175	5.152	5.214		3/2+	_
64	89	1286.41	1292.54	7.84	7.88	19.31	3.86	8.52	0.48	-9.62	-1.63	5.179	5.193	5.163	5.224		3/2+	9/2 0 ⁺
65	90	1297.06	1303.74	7.86	7.90	19.17	4.44	10.65	0.77	-9.57	-1.92	5.193	5.211	5.171	5.233		3/2+	_
66	91	1305.26	1313.06	7.86	7.91	18.86	5.04	8.20	1.07	-9.37	-2.22	5.207	5.228	5.181	5.242		3/2+	9/2 0 ⁺
67	92	1315.81	1222 10	7.88	7.04	18.76	5.61	10.55	1.35	-9.35	-2.50	5.220	5.245	5.189	5.250		3/2+	•
68	93	1323.81	1333.10	7.88	7.94	18.55	6.16	7.99	1.62	-9.28	-2.78	5.233	5.261	5.197	5.258		3/2 ⁺	7/2 0 ⁺
69 70	94 95	1334.08	1343.79 1352.37	7.89	7.95	18.27	6.71	10.28	1.89	-9.10	-3.05	5.245	5.277 5.293	5.205 5.213	5.266		$3/2^{+}$ $3/2^{+}$	_
70 71	95 96	1341.94	1362.37	7.89	7.96 7.97	18.13	7.24	7.86	2.16 2.40	-8.99	-3.32	5.258	5.308	5.213	5.274		3/2+	7/2 0 ⁺
71 72	96 97	1351.84		7.91		17.76	7.74	9.90		-8.85	-3.57	5.269			5.280		$3/2^{+}$	7/2
72 73	98	1359.47	1371.11 1381.22	7.90	7.97	17.53	8.25	7.63	2.65	-8.69	-3.82	5.281	5.324 5.339	5.226 5.231	5.286		3/2+	0+
73 74	98 99	1369.12	1381.22	7.91	7.98 7.99	17.27 16.93	8.73 9.24	9.65	2.89 3.14	-8.61 -8.38	-4.07	5.292	5.354	5.231	5.292 5.299		3/2+	7/2
74 75	99 100	1376.39 1385.88	1389.41	7.91 7.92	7.99 7.99	16.93	9.24 9.71	7.28 9.49	3.14	-8.38 -8.34	-4.32 -4.56	5.304 5.315	5.369	5.238	5.304		3/2 ⁺	0 ⁺
75 76	100	1392.65	1406.94	7.92 7.91	7.99 7.99	16.77	10.25	6.77	3.63	-8.07	-4.36 -4.83	5.328	5.384	5.251	5.311		$3/2^{+}$	7/2
70 77	101	1402.09	1416.22	7.91	8.00	16.21	10.23	9.44	3.84	-8.07 -8.07	-4.85 -5.05	5.338	5.398	5.256	5.316		3/2 ⁺	0 ⁺
77 78	102	1402.03	1410.22	7.91	8.00	15.97	11.06	6.53	3.96	-8.07 -8.02	-5.28	5.352	5.416	5.262	5.322		$11/2^{-}$	5/2
79	103	1408.02	1423.67	7.92	8.00	15.70	11.69	9.17	4.34	-3.02 -7.85	-5.55	5.362	5.428	5.268	5.329		3/2+	0 ⁺
80	105	1417.79	1440.00	7.91	8.00	15.57	12.15	6.41	4.55	-7.83 -7.79	-5.78	5.375	5.445	5.275	5.336		3/2 ⁺	5/2
81	105	1433.09	1448.76	7.92	8.00	15.29	12.13	8.89	4.82	-7.75 -7.66	-5.76 -6.05	5.385	5.458	5.281	5.342		3/2 ⁺	0+
82	100	1435.05	1455.75	7.91	8.00	15.29	13.14	6.30	5.05	-7.60	-6.28	5.398	5.473	5.288	5.348		3/2 ⁺	5/2
83	107	1448.05	1464.19	7.91	8.00	14.96	13.14	8.66	5.31	-7.51	-6.53	5.409	5.487	5.294	5.354		3/2 ⁺	0^{+}
84	109	1454.25	1470.67	7.90	7.99	14.86	14.11	6.20	5.54	-7.45	-6.77	5.421	5.502	5.301	5.361		3/2 ⁺	5/2
85	110	1462.74	1478.34	7.91	7.99	14.69	14.59	8.49	5.78	-7.38	-7.01	5.432	5.515	5.307	5.367	5.360	3/2 ⁺	0+
86	111	1468.83	1484.52	7.90	7.98	14.58	15.07	6.09	6.03	-7.31	-7.01 -7.25	5.444	5.530	5.313	5.373	3.300	3/2 ⁺	5/2
87	112	1477.19	1491.88	7.90	7.98	14.45	15.53	8.35	6.25	-7.26	-7.48	5.455	5.544	5.320	5.380	5.370	3/2 ⁺	0+
88	113	1483.19	1497.75	7.89	7.97	14.35	15.94	6.00	6.46	-7.24	-7.68	5.467	5.559	5.325	5.384	3.570	3/2 ⁺	3/2
89	114	1491.42	1504.78	7.89	7.96	14.24	16.45	8.24	6.72	-7.14	-7.94	5.478	5.571	5.332	5.392		3/2 ⁺	0+
90	115	1497.42	1510.51	7.88	7.95	14.23	16.88	5.99	6.93	-7.12	-8.16	5.489	5.586	5.337	5.397		3/2 ⁺	3/2
91	116	1505.46	1517.30	7.88	7.94	14.04	17.36	8.05	7.18	-7.04	-8.40	5.500	5.599	5.344	5.404		3/2 ⁺	0+
92	117	1511.46	1522.61	7.87	7.93	14.04	17.81	5.99	7.40	-7.02	-8.62	5.512	5.613	5.350	5.409		3/2+	3/
93	118	1519.32	1529.32	7.87	7.92	13.86	18.25	7.86	7.62	-6.93	-8.84	5.522	5.625	5.356	5.415		3/2 ⁺	0+
94	119	1525.31		7.86	-	13.86	18.62	6.00	7.86	-6.91	-9.07	5.534	5.639	5.362	5.421		3/2 ⁺	3/2
95	120	1533.00		7.86		13.68	19.11	7.68	8.06	-6.83	-9.27	5.544	5.652	5.367	5.426		3/2 ⁺	0+
96	121	1539.10		7.85		13.78	19.62	6.10	8.31	-6.84	-9.49	5.555	5.665	5.372	5.432		3/2 ⁺	1/2
97	122	1546.51		7.85		13.51	19.97	7.41	8.48	-6.73	-9.69	5.565	5.678	5.377	5.437		3/2 ⁺	0+
98	123	1552.60		7.84		13.51	20.42	6.10	8.70	-6.75	-9.91	5.576	5.690	5.383	5.442		3/2 ⁺	1/2
99	124	1559.84		7.84		13.33	20.78	7.24	8.88	-6.62	-10.09	5.586	5.704	5.387	5.446		3/2 ⁺	0+
00	125	1566.05		7.83		13.44	21.26	6.21	9.11	-5.02	-10.33	5.596	5.715	5.392	5.451		3/2 ⁺	1/2
01	126	1572.98		7.83		13.14	21.53	6.94	9.26	-4.53	-10.46	5.607	5.730	5.396	5.455		3/2 ⁺	0+
02	127	1574.58		7.79		8.54	21.82	1.60	9.40	-4.99	-10.40	5.622	5.749	5.401	5.460		3/2 ⁺	9/2
:02	128	1577.98		7.73		5.00	22.23	3.40	9.60	-2.56	-10.81 -10.82	5.639	5.766	5.415	5.474		$3/2^{+}$	0 ⁺
		1311.30		1.11		5.00		3.40	5.00	2.50	10.02	5.055	3.700	J.T 1J	J.T/T		J/2	U

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{ m b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
205	130	1582.95		7.72		4.96	22.92	3.41	9.94	-2.55	-11.18	5.670	5.801	5.435	5.493		3/2+	0+
206	131	1584.48		7.69		4.94	23.23	1.53	10.08	-2.53	-11.33	5.685	5.819	5.442	5.500		$3/2^{+}$	$9/2^{-}$ 0^{+}
207 208	132 133	1587.89 1589.40		7.67 7.64		4.94 4.92	23.62 23.93	3.41 1.51	10.28 10.42	-2.54 -2.52	-11.53 -11.69	5.700 5.715	5.836 5.853	5.454 5.462	5.513 5.520		3/2 ⁺ 3/2 ⁺	9/2-
209	134	1509.40		7.62		4.92	23.93	3.41	10.42	-2.52 -2.54	-11.88	5.731	5.870	5.474	5.532		3/2 ⁺	9/2 0 ⁺
210	135	1594.30		7.59		4.90	24.63	1.49	10.76	-2.54 -2.52	-11.88 -12.04	5.746	5.887	5.483	5.541		3/2 ⁺	9/2-
211	136	1597.71		7.57		4.91	24.98	3.42	10.70	-2.52 -2.53	-12.04	5.761	5.903	5.494	5.552		$3/2^{+}$	0 ⁺
212	137	1599.19		7.54		4.89	25.32	1.47	11.10	-2.51	-12.22 -12.39	5.776	5.920	5.503	5.561		3/2 ⁺	9/2 ⁻
213	138	1602.61		7.52		4.89	25.66	3.42	11.16	-2.51 -2.52	-12.53 -12.57	5.790	5.936	5.513	5.571		3/2 ⁺	0 ⁺
214	139	1604.06		7.50		4.87	26.01	1.46	11.43	-2.50	-12.74	5.806	5.953	5.523	5.581		$3/2^{+}$	9/2-
215	140	1607.48		7.48		4.88	26.33	3.42	11.59	-2.50	-12.90	5.820	5.968	5.532	5.590		3/2+	0+
216	141	1608.91		7.45		4.85	26.69	1.43	11.76	-2.48	-13.08	5.835	5.985	5.543	5.601		3/2+	9/2-
217	142	1612.33		7.43		4.85	26.98	3.42	11.90	-2.49	-13.22	5.848	6.000	5.548	5.605		11/2-	0+
218	143	1613.71		7.40		4.80	27.35	1.38	12.08	-2.44	-13.40	5.863	6.017	5.559	5.617		11/2-	9/2-
219	144	1617.15		7.38		4.82	27.63	3.44	12.23	-2.45	-13.54	5.876	6.032	5.566	5.623		11/2-	0+
220	145	1618.44		7.36		4.73	27.99	1.29	12.41	-2.38	-13.72	5.892	6.048	5.578	5.635		11/2	9/2-
221	146	1621.88		7.34		4.73	28.25	3.44	12.55	-2.40	-13.86	5.904	6.063	5.583	5.640		11/2	0+
222	147	1623.02		7.31		4.58	28.43	1.14	12.65	-2.29	-14.02	5.920	6.080	5.594	5.651		11/2-	9/2-
223	148	1626.48		7.29		4.60	28.83	3.46	12.84	-2.32	-14.15	5.932	6.095	5.599	5.655		11/2-	0+
224	149	1627.71		7.27		4.69	28.96	1.23	12.90	-2.34	-14.25	5.948	6.115	5.602	5.659		11/2-	$9/2^{-}$
225	150	1630.92		7.25		4.44	29.36	3.21	13.11	-2.24	-14.42	5.960	6.127	5.612	5.669		11/2-	0+
226	151	1632.23		7.22		4.52	29.59	1.31	13.23	-2.24	-14.52	5.976	6.147	5.616	5.673		11/2-	$9/2^{-}$
227	152	1635.20		7.20		4.28	29.85	2.97	13.36	-2.18	-14.67	5.988	6.159	5.625	5.681		11/2-	0+
228	153	1636.47		7.18		4.24	30.06	1.27	13.47	-2.16	-14.77	6.004	6.179	5.629	5.686		11/2-	$9/2^{-}$
229	154	1639.37		7.16		4.17	30.32	2.90	13.60	-2.13	-14.91	6.016	6.192	5.636	5.693		11/2-	0^+
230	155	1640.61		7.13		4.13	30.52	1.24	13.71	-2.11	-15.02	6.031	6.211	5.641	5.698		11/2-	$9/2^{-}$
231	156	1643.45		7.11		4.08	30.77	2.84	13.84	-2.09	-15.15	6.043	6.224	5.648	5.704		11/2-	0^+
232	157	1644.65		7.09		4.05	30.98	1.20	13.94	-2.07	-15.25	6.058	6.243	5.653	5.709		$11/2^{-}$	$9/2^{-}$
233	158	1647.47		7.07		4.02	31.21	2.81	14.07	-2.06	-15.38	6.070	6.256	5.659	5.715		11/2-	0^+
234	159	1648.63		7.05		3.98	31.37	1.17	14.15	-2.04	-15.49	6.086	6.275	5.664	5.720		$11/2^{-}$	$9/2^{-}$
235	160	1651.44		7.03		3.97	31.66	2.80	14.29	-2.04	-15.61	6.097	6.288	5.669	5.725		$11/2^{-}$	0^+
236	161	1652.63		7.00		4.00	31.80	1.19	14.37	-2.05	-15.75	6.114	6.310	5.669	5.725		1/2+	$1/2^{+}$
237	162	1655.37		6.98		3.93	32.10	2.74	14.52	-2.01	-15.84	6.124	6.319	5.680	5.736		$11/2^{-}$	0^+
238	163	1656.59		6.96		3.96	32.25	1.23	14.61	-2.02	-15.99	6.140	6.340	5.680	5.736		$1/2^{+}$	$1/2^{+}$
239	164	1659.26		6.94		3.89	32.55	2.66	14.75	-1.99	-16.07	6.151	6.350	5.691	5.747		$11/2^{-}$	0^+
240	165	1660.54		6.92		3.95	32.72	1.29	14.86	-1.99	-16.23	6.165	6.369	5.692	5.748		$1/2^{+}$	$1/2^{+}$
241	166	1663.11		6.90		3.85	33.00	2.57	14.99	-1.97	-16.31	6.177	6.380	5.702	5.758		$11/2^{-}$	0+
242	167	1664.41		6.88		3.87	33.24	1.30	15.10	-1.96	-16.41	6.192	6.398	5.707	5.763		$11/2^{-}$	1/2+
243	168	1666.92		6.86		3.81	33.48	2.51	15.23	-1.94	-16.55	6.202	6.409	5.713	5.769		11/2-	0+
244	169	1668.19		6.84		3.78	33.75	1.27	15.37	-1.92	-16.67	6.217	6.425	5.720	5.775		$11/2^{-}$	1/2+
245	170	1670.68		6.82		3.76	33.98	2.49	15.48	-1.91	-16.80	6.227	6.436	5.725	5.781		$11/2^{-}$	0+
246	171	1671.92		6.80		3.73	34.30	1.24	15.64	-1.89	-16.94	6.241	6.450	5.733	5.789		$11/2^{-}$	1/2+
247	172	1674.39		6.78		3.71	34.52	2.48	15.74	-1.88	-17.06	6.252	6.463	5.738	5.794		$11/2^{-}$	0+
248	173	1675.58		6.76		3.67	34.90	1.19	15.93	-1.84	-17.23	6.264	6.475	5.748	5.804		11/2	1/2+
249	174	1678.05		6.74		3.66	35.09	2.47	16.02	-1.84	-17.34	6.276	6.489	5.752	5.807		11/2-	0+
250	175	1679.18		6.72		3.60	35.53	1.13	16.23	-1.80	-17.53	6.287	6.498	5.764	5.819		11/2-	1/2+
251	176	1681.65		6.70		3.60	35.69	2.47	16.31	-1.81	-17.63	6.299	6.513	5.767	5.822		11/2-	0+
252	177	1682.72		6.68		3.54	36.10	1.07	16.54	-1.76	-17.84	6.309	6.520	5.781	5.836		11/2-	1/2+
253	178	1685.20		6.66		3.55	36.31	2.48	16.61	-1.77	-17.93	6.322	6.536	5.782	5.837		11/2-	0+
254	179	1686.21		6.64		3.49	36.66	1.00	16.80	-1.73	-18.16	6.331	6.542	5.798	5.853		11/2-	1/2+
255	180	1688.70		6.62		3.50	36.95	2.50	16.91	-1.73	-18.23	6.344	6.558	5.799	5.854		11/2	0 ⁺
256	181	1689.66		6.60		3.45	37.24	0.96	17.05	-1.72	-18.37	6.355	6.570	5.806	5.861		11/2-	15/2
257	182	1692.16		6.58		3.46	37.58	2.50	17.22	-1.70	-18.54	6.366	6.579	5.816	5.871		11/2-	0+
258	183	1693.13		6.56		3.47	37.88	0.97	17.36	-0.66	-18.68	6.377	6.591	5.823	5.878		$11/2^{-}$	15/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
259	184	1695.59		6.55		3.43	38.22	2.46	17.52	-0.12	-18.88	6.388	6.600	5.836	5.891		11/2-	0+
260	185	1694.53		6.52		1.40	38.24	-1.06	17.53	-0.53	-18.88	6.426	6.650	5.836	5.890		$3/2^{+}$	3/2-
$\frac{261}{\sigma}$	186	1693.86 12.88		6.49		<u>-1.73</u>	38.38	<u>-0.67</u>	17.62	0.81	-18.95	6.428	6.650	5.840	5.894 0.009		11/2-	0+
Z = 76	5 (Os)																	
160	84	1239.49		7.75			-0.02		1.03	-10.43	0.28	5.116	5.105	5.128	5.190		0^+	0^+
161	85	1248.75		7.76			0.62		1.36	-10.32	-0.03	5.131	5.124	5.138	5.200		0^+	$9/2^{-}$
162	86	1260.02		7.78			1.21	11.27	1.66	-10.25	-0.33	5.145	5.143	5.147	5.209		0+	0^+
163	87	1269.07		7.79		20.32	1.85	9.05	1.97	-10.12	-0.64	5.160	5.161	5.157	5.219		0+	$9/2^{-}$
164	88	1280.16	1284.71	7.81	7.83	20.14	2.43	11.09	2.27	-10.06	-0.93	5.173	5.179	5.166	5.228		0+	0+
165	89	1288.98	1205.02	7.81	7.07	19.91	3.06	8.82	2.57	-9.91	-1.24	5.188	5.197	5.177	5.238		0 ⁺	9/2-
166	90 91	1299.93	1305.82	7.83	7.87	19.77	3.63	10.95	2.87	-9.86	-1.52	5.201	5.214	5.185	5.246		0 ⁺	0^{+} $9/2^{-}$
167 168	91	1308.42 1319.26	1314.95 1326.51	7.83 7.85	7.87 7.90	19.44 19.34	4.23 4.80	8.50 10.84	3.16 3.45	-9.65 -9.63	-1.82 -2.10	5.214 5.227	5.231 5.248	5.194 5.203	5.256 5.264		0+	9/2 0 ⁺
169	93	1319.20	1335.32	7.86	7.90	19.11	5.35	8.27	3.73	-9.56	-2.10 -2.38	5.240	5.264	5.211	5.272		0+	7/2-
170	94	1338.09	1346.59	7.87	7.92	18.83	5.90	10.55	4.01	-9.37	-2.65	5.252	5.280	5.218	5.279		0+	0+
171	95	1346.22	1355.04	7.87	7.92	18.69	6.44	8.13	4.28	-9.26	-2.92	5.265	5.296	5.226	5.286		0 ⁺	$\frac{3}{7/2^{-}}$
172	96	1356.39	1366.05	7.89	7.94	18.30	6.95	10.17	4.55	-9.12	-3.18	5.276	5.311	5.231	5.292		0^{+}	0+
173	97	1364.29	1374.32	7.89	7.94	18.07	7.48	7.90	4.82	-8.96	-3.44	5.288	5.327	5.238	5.299		0+	7/2-
174	98	1374.20	1384.95	7.90	7.96	17.81	7.97	9.91	5.09	-8.87	-3.69	5.299	5.341	5.243	5.304		0^+	0^{+}
175	99	1381.75	1393.13	7.90	7.96	17.46	8.49	7.55	5.36	-8.64	-3.95	5.310	5.356	5.250	5.311		0^+	$7/2^{-}$
176	100	1391.50	1403.19	7.91	7.97	17.30	8.98	9.75	5.62	-8.60	-4.20	5.321	5.371	5.255	5.316		0^+	0^+
177	101	1398.53	1411.11	7.90	7.97	16.78	9.51	7.03	5.88	-8.32	-4.46	5.333	5.386	5.263	5.323		0+	7/2-
178	102	1408.23	1420.78	7.91	7.98	16.73	9.98	9.70	6.14	-8.32	-4.70	5.344	5.400	5.267	5.328		0+	0^+
179	103	1414.98	1428.33	7.90	7.98	16.45	10.31	6.75	6.36	-8.28	-4.93	5.357	5.417	5.274	5.335		0+	$5/2^{-}$
180	104	1424.44	1437.74	7.91	7.99	16.20	10.98	9.46	6.65	-8.09	-5.20	5.367	5.429	5.280	5.340		0+	0+
181	105	1431.10	1445.00	7.91	7.98	16.12	11.45	6.66	6.90	-8.03	-5.44 5.70	5.380	5.446	5.287	5.347		0+	5/2-
182	106 107	1440.23	1454.13	7.91	7.99	15.79	11.97	9.12 6.55	7.14	-7.91	-5.70 5.03	5.390	5.459	5.293	5.353		0 ⁺	0 ⁺
183 184	107	1446.78 1455.68	1461.26 1469.92	7.91 7.91	7.99 7.99	15.68	12.44 12.93	8.90	7.39 7.63	-7.84 -7.75	-5.93 -6.18	5.402 5.413	5.474 5.487	5.300 5.306	5.360 5.366	5.382	0+	5/2 ⁻ 0 ⁺
185	108	1455.08	1409.92	7.91	7.98	15.45 15.34	13.41	6.45	7.03 7.87	-7.73 -7.68	-6.18 -6.42	5.425	5.502	5.312	5.372	3.362	0+	5/2 ⁻
186	110	1470.84	1484.81	7.91	7.98	15.17	13.89	8.72	8.10	-7.61	-6.66	5.436	5.516	5.318	5.378	5.391	0 ⁺	0 ⁺
187	111	1477.18	1491.10	7.90	7.97	15.06	14.37	6.34	8.35	-7.54	-6.90	5.447	5.530	5.325	5.384	5.393	0+	5/2 ⁻
188	112	1485.76	1499.09	7.90	7.97	14.92	14.83	8.58	8.57	-7.48	-7.13	5.459	5.544	5.331	5.391	5.399	0+	0+
189	113	1491.99	1505.01	7.89	7.96	14.81	15.26	6.23	8.80	-7.41	-7.38	5.470	5.557	5.337	5.397	5.402	0^+	$5/2^{-}$
190	114	1500.46	1512.80	7.90	7.96	14.70	15.75	8.47	9.03	-7.37	-7.59	5.481	5.571	5.343	5.403	5.406	0^+	$0^{'+}$
191	115	1506.65	1518.56	7.89	7.95	14.67	16.17	6.20	9.24	-7.35	-7.80	5.492	5.585	5.348	5.408		0^+	$3/2^{-}$
192	116	1514.95	1526.12	7.89	7.95	14.49	16.66	8.29	9.48	-7.25	-8.05	5.503	5.598	5.355	5.415	5.413	0^+	0^+
193	117	1521.15	1531.70	7.88	7.94	14.50	17.09	6.20	9.70	-7.24	-8.26	5.514	5.612	5.361	5.420		0+	3/2-
194	118	1529.24	1538.81	7.88	7.93	14.30	17.55	8.09	9.92	-7.14	-8.49	5.525	5.624	5.367	5.426		0+	0+
195	119	1535.46	1543.96	7.87	7.92	14.31	18.00	6.22	10.15	-7.13	-8.72	5.536	5.638	5.373	5.432		0+	3/2-
196	120	1543.35	1550.80	7.87	7.91	14.11	18.41	7.89	10.35	-7.04	-8.92	5.546	5.650	5.378	5.437		0+	0+
197	121	1549.58		7.87		14.12	18.79	6.23	10.48	-7.02	-9.15	5.557	5.663	5.384	5.443		0 ⁺	3/2-
198 199	122 123	1557.26		7.86		13.91	19.23 19.67	7.68 6.31	10.75 10.97	-6.93	-9.33	5.567 5.578	5.676	5.388 5.393	5.447 5.452		0 ⁺	$0^+ \ 1/2^-$
200	123	1563.57 1570.97		7.86 7.85		14.00 13.71	20.02	6.31 7.40	10.97	-6.95 -6.81	-9.54 -9.72	5.578 5.588	5.689 5.702	5.393	5.452 5.456		0+	0 ⁺
200	124	1570.97		7.85 7.85		13.71	20.02	6.43	11.13	-6.81 -5.22	-9.72 -9.94	5.598	5.702	5.402	5.456		0+	1/2-
202	126	1577.40		7.83		13.49	20.75	7.06	11.48	-3.22 -4.94	-9.94 -10.08	5.609	5.728	5.406	5.465		0+	0+
203	127	1586.24		7.81		8.84	21.06	1.77	11.66	-5.20	-10.24	5.624	5.747	5.411	5.470		0+	9/2 ⁺
204	128	1589.85		7.79		5.39	21.47	3.62	11.87	-2.75	-10.45	5.640	5.764	5.425	5.484		0+	0+
205	129	1591.64		7.76		5.40	21.84	1.79	12.10	-2.74	-10.65	5.657	5.782	5.439	5.497		0+	9/2 ⁺
206	130	1595.20		7.74		5.35	22.19	3.56	12.25	-2.73	-10.81	5.671	5.799	5.445	5.503		0^+	0+
207	131	1596.91		7.71		5.27	22.51	1.71	12.43	-2.72	-10.98	5.686	5.817	5.452	5.510		0^{+}	$9/2^{+}$

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
208	132	1600.52		7.69		5.32	22.90	3.61	12.63	-2.73	-11.18	5.701	5.833	5.465	5.523		0+	0+
209	133	1602.21		7.67		5.30	23.23	1.69	12.81	-2.71	-11.34	5.716	5.851	5.472	5.531		0+	$9/2^{+}$
210	134	1605.81		7.65		5.29	23.61	3.60	13.00	-2.72	-11.54	5.731	5.867	5.484	5.542		0+	0+
211	135	1607.48		7.62		5.28	23.94	1.67	13.18	-2.70	-11.70	5.746	5.884	5.493	5.551		0+	9/2+
212	136	1611.08		7.60		5.28	24.31	3.60	13.37	-2.71	-11.89	5.761	5.900	5.504	5.562		0^+	0+
213	137	1612.74		7.57		5.26	24.65	1.66	13.55	-2.69	-12.06	5.776	5.917	5.513	5.571		0 ⁺	9/2+
214	138	1616.34		7.55		5.26	25.00	3.60	13.74	-2.70	-12.24	5.790	5.932	5.523	5.581		0 ⁺	0+
215	139	1617.98		7.53		5.24	25.35	1.64	13.92	-2.67	-12.41	5.806	5.949	5.534	5.591		0 ⁺	$\frac{9/2^{+}}{0^{+}}$
216	140	1621.58		7.51		5.23	25.68	3.59	14.09	-2.68	-12.58	5.819	5.964	5.543	5.600		0 ⁺	9/2 ⁺
217 218	141 142	1623.19 1626.77		7.48 7.46		5.21 5.20	26.04 26.35	1.61 3.58	14.28 14.44	-2.65 -2.65	-12.76 -12.91	5.835 5.848	5.981 5.996	5.553 5.561	5.611 5.618		0+	9/2· 0+
219	143	1628.34		7.40 7.44		5.15	26.33	3.56 1.56	14.44	-2.63 -2.61	-12.91 -13.09	5.863	6.012	5.572	5.630		0+	9/2 ⁺
219	143	1631.91		7.44 7.42		5.13	26.71	3.57	14.05	-2.61	-13.09 -13.24	5.876	6.027	5.579	5.636		0+	0+
221	145	1633.39		7.42		5.05	27.35	1.47	14.76	-2.54	-13.24 -13.42	5.891	6.043	5.590	5.647		0+	9/2 ⁺
222	145	1636.95		7.33		5.04	27.62	3.57	15.07	-2.54 -2.54	-13.42 -13.55	5.904	6.058	5.596	5.653		0+	0+
223	147	1638.27		7.35		4.88	27.90	1.32	15.25	-2.43	-13.72	5.919	6.075	5.607	5.664		0+	9/2 ⁺
224	148	1641.85		7.33		4.89	28.20	3.58	15.36	-2.46	-13.85	5.931	6.089	5.611	5.668		0+	0+
225	149	1643.14		7.30		4.88	28.34	1.30	15.43	-2.48	-13.95	5.947	6.110	5.615	5.672		0+	5/2 ⁺
226	150	1646.55		7.29		4.70	28.74	3.40	15.63	-2.37	-14.12	5.959	6.121	5.625	5.682		0^{+}	0+
227	151	1647.97		7.26		4.83	28.97	1.42	15.74	-2.37	-14.22	5.974	6.141	5.629	5.686		0^{+}	5/2 ⁺
228	152	1651.08		7.24		4.53	29.24	3.11	15.88	-2.30	-14.38	5.986	6.153	5.638	5.694		0^{+}	0+
229	153	1652.45		7.22		4.48	29.45	1.37	15.98	-2.29	-14.48	6.001	6.172	5.642	5.698		0^{+}	5/2+
230	154	1655.48		7.20		4.40	29.72	3.03	16.12	-2.25	-14.63	6.013	6.185	5.650	5.706		0^+	0^{+}
231	155	1656.82		7.17		4.37	29.92	1.34	16.21	-2.23	-14.73	6.028	6.204	5.654	5.710		0^+	5/2+
232	156	1659.80		7.15		4.31	30.18	2.98	16.35	-2.21	-14.87	6.040	6.217	5.661	5.717		0^+	$\mathbf{o}^{'+}$
233	157	1661.10		7.13		4.28	30.39	1.31	16.45	-2.19	-14.98	6.055	6.235	5.666	5.722		0^+	5/2+
234	158	1664.05		7.11		4.25	30.64	2.94	16.58	-2.18	-15.11	6.067	6.248	5.672	5.729		0^+	0+
235	159	1665.32		7.09		4.22	30.84	1.27	16.69	-2.15	-15.22	6.082	6.266	5.678	5.734		0^+	5/2+
236	160	1668.24		7.07		4.20	31.10	2.92	16.81	-2.15	-15.35	6.094	6.279	5.683	5.739		0^+	0^+
237	161	1669.50		7.04		4.18	31.24	1.25	16.87	-2.17	-15.42	6.111	6.301	5.685	5.741		0^+	$1/2^{+}$
238	162	1672.40		7.03		4.16	31.56	2.90	17.04	-2.13	-15.58	6.120	6.310	5.695	5.750		0^+	0^+
239	163	1673.69		7.00		4.20	31.71	1.29	17.10	-2.14	-15.66	6.136	6.331	5.697	5.753		0+	$1/2^{+}$
240	164	1676.52		6.99		4.12	32.02	2.83	17.27	-2.11	-15.82	6.146	6.339	5.706	5.761		0+	0+
241	165	1677.85		6.96		4.15	32.16	1.32	17.31	-2.11	-15.91	6.162	6.359	5.709	5.765		0+	1/2+
242	166	1680.61		6.94		4.09	32.49	2.76	17.50	-2.09	-16.06	6.172	6.369	5.717	5.773		0+	0+
243	167	1681.96		6.92		4.12	32.66	1.35	17.56	-2.09	-16.16	6.187	6.387	5.721	5.777		0+	1/2+
244	168	1684.66		6.90		4.05	32.97	2.70	17.75	-2.06	-16.31	6.197	6.397	5.728	5.784		0^+	0 ⁺
245	169	1686.07		6.88		4.10	33.24	1.40	17.88	-2.06	-16.42	6.211	6.414	5.734	5.789		0 ⁺	1/2+
246	170	1688.68		6.86		4.02	33.48	2.61	18.00	-2.04	-16.56	6.222	6.425	5.740	5.796		0 ⁺	0 ⁺
247	171	1690.06		6.84		3.99	33.78	1.38	18.14	-2.03	-16.69	6.235	6.440	5.747	5.803			1/2+
248	172 173	1692.66 1694.01		6.83		3.98 3.95	34.01	2.60 1.35	18.26	-2.02 2.00	-16.82 -16.97	6.246 6.259	6.452 6.465	5.753 5.763	5.808 5.817		0 ⁺	0 ⁺ 1/2 ⁺
249 250	173 174	1694.01		6.80 6.79		3.95 3.94	34.36 34.57	2.59	18.43 18.55	-2.00 -1.99	-16.97 -17.09	6.259	6.465 6.478	5.762 5.766	5.817 5.821		0 ⁺	0 ⁺
250 251	174	1696.60		6.79		3.94 3.91	34.57 34.97	2.59 1.32	18.55	-1.99 -1.96	-17.09 -17.27	6.282	6.489	5.777	5.832		0+	1/2 ⁺
251	175	1700.49		6.75		3.90	34.97 35.15	2.57	18.74	-1.96 -1.96	-17.27 -17.37	6.282	6.503	5.777	5.835		0+	0+
253	177	1700.49		6.73		3.86	35.60	1.29	19.06	-1.93	-17.57 -17.57	6.304	6.512	5.793	5.848		0+	1/2 ⁺
254	177	1701.76		6.71		3.86	35.76	2.57	19.15	-1.93 -1.93	-17.57 -17.66	6.316	6.526	5.795	5.850		0+	0+
255	179	1705.60		6.69		3.82	36.19	1.25	19.39	-1.89	-17.89	6.326	6.534	5.809	5.864		0+	1/2 ⁺
256	180	1703.00		6.67		3.82	36.38	2.57	19.47	-1.90	-17.96	6.339	6.549	5.810	5.865		0+	0+
257	181	1709.38		6.65		3.78	36.77	1.21	19.72	-1.86	-18.20	6.348	6.555	5.826	5.881		0+	1/2 ⁺
258	182	1711.95		6.64		3.78	37.01	2.57	19.79	-1.86	-18.27	6.361	6.571	5.826	5.881		0+	0+
259	183	1713.12		6.61		3.75	37.35	1.17	19.99	-0.95	-18.52	6.370	6.576	5.844	5.899		0+	1/2 ⁺
260	184	1715.70		6.60		3.75	37.64	2.58	20.11	-0.21	-18.57	6.382	6.592	5.843	5.898		0^+	0+
	185	1714.65		6.57		1.52		-1.06	20.12	-0.64	-18.58	6.420	6.642	5.843	5.897		0^{+}	3/2-

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
262 σ	186	1714.07 11.32		6.54		<u>-1.63</u>		<u>-0.58</u>	20.21	0.77	-18.69	6.419	6.638	5.850	5.905 0.009		0+	0+
$Z = 7^{\circ}$	7 (Ir)																	
162	85	1247.51		7.70			0.13		-1.23	-10.62	0.22	5.140	5.128	5.153	5.215		1/2+	$9/2^{-}$
163	86	1259.07		7.72			0.72		$\frac{1.25}{-0.95}$	-10.54	-0.08	5.153	5.146	5.162	5.223		1/2+	0+
164	87	1268.41		7.73			1.31	9.34	$\frac{-0.66}{-0.66}$	-10.41	-0.39	5.168	5.164	5.172	5.233		1/2+	9/2-
165	88	1279.78		7.76		20.71	1.89	11.37	$\frac{-0.38}{-0.38}$	-10.34	-0.69	5.181	5.182	5.180	5.241		1/2+	0+
166	89	1288.91		7.76		20.50	2.51	9.13	${-0.07}$	-10.22	-0.92	5.195	5.199	5.191	5.252		3/2+	9/2
167	90	1300.14	1304.75	7.79	7.81	20.36	3.08	11.23	0.21	-10.16	-1.21	5.208	5.216	5.199	5.260		3/2+	0+
168	91	1308.95	1314.46	7.79	7.82	20.04	3.69	8.81	0.53	-9.93	-1.51	5.222	5.233	5.209	5.270		3/2+	9/2
169	92	1320.07	1325.89	7.81	7.85	19.93	4.26	11.12	0.81	-9.91	-1.79	5.235	5.249	5.217	5.278		3/2+	0^{+}
170	93	1328.61		7.82		19.66	4.80	8.54	1.07	-9.84	-2.06	5.247	5.266	5.225	5.286		3/2+	7/2
171	94	1339.43	1346.38	7.83	7.87	19.36	5.35	10.82	1.34	-9.63	-2.33	5.259	5.281	5.232	5.293		3/2+	0^+
172	95	1347.82	1355.41	7.84	7.88	19.21	5.88	8.38	1.59	-9.50	-2.60	5.271	5.297	5.239	5.300		$3/2^{+}$	7/2
173	96	1358.22	1366.37	7.85	7.90	18.79	6.38	10.40	1.83	-9.36	-2.85	5.282	5.312	5.245	5.306		$3/2^{+}$	0^+
174	97	1366.35	1375.04	7.85	7.90	18.54	6.88	8.13	2.06	-9.20	-3.11	5.294	5.327	5.252	5.312		$3/2^{+}$	7/2
175	98	1376.49	1385.63	7.87	7.92	18.27	7.37	10.13	2.28	-9.10	-3.35	5.304	5.341	5.257	5.317		$3/2^{+}$	0^+
176	99	1384.27	1394.17	7.87	7.92	17.92	7.88	7.78	2.52	-8.88	-3.61	5.316	5.356	5.263	5.324		$3/2^{+}$	7/2
177	100	1394.24	1404.43	7.88	7.93	17.75	8.35	9.96	2.73	-8.84	-3.85	5.326	5.370	5.269	5.329		$3/2^{+}$	0^+
178	101	1401.54	1412.71	7.87	7.94	17.27	8.90	7.31	3.01	-8.58	-4.12	5.338	5.386	5.276	5.336		$3/2^{+}$	7/2
179	102	1411.44	1422.60	7.89	7.95	17.21	9.35	9.90	3.21	-8.57	-4.35	5.349	5.399	5.281	5.341		$3/2^{+}$	0^+
180	103	1418.35	1430.57	7.88	7.95	16.81	9.73	6.91	3.37	-8.52	-4.70	5.361	5.417	5.285	5.345		1/2+	5/2
181	104	1428.15	1440.14	7.89	7.96	16.71	10.36	9.80	3.71	-8.35	-4.85	5.371	5.428	5.293	5.353		3/2+	0^+
182	105	1435.02	1447.79	7.88	7.95	16.67	10.82	6.87	3.92	-8.30	-5.08	5.384	5.444	5.300	5.360	5.371	3/2+	5/2
183	106	1444.44	1457.01	7.89	7.96	16.29	11.36	9.42	4.21	-8.16	-5.35	5.394	5.457	5.306	5.366	5.378	3/2+	0+
184	107	1451.21	1464.49	7.89	7.96	16.19	11.82	6.77	4.43	-8.10	-5.59	5.406	5.472	5.312	5.372	5.381	3/2+	5/2
185	108	1460.39	1473.29	7.89	7.96	15.95	12.34	9.18	4.71	-8.00	-5.84	5.416	5.485	5.318	5.378	5.385	3/2+	0+
186	109	1467.07	1480.20	7.89	7.96	15.86	12.82	6.68	4.95	-7.94	-6.09	5.428	5.500	5.325	5.385	5.390	3/2+	5/2
187	110	1476.05	1488.64	7.89	7.96	15.66	13.31	8.98	5.20	-7.86	-6.33	5.439	5.513	5.331	5.391	5.381	3/2+	0+
188	111	1482.63	1495.52	7.89	7.95	15.56	13.80	6.59	5.45	-7.79	-6.58	5.450	5.527	5.337	5.397	5.384	3/2+	5/2
189	112	1491.45	1503.69	7.89	7.96	15.40	14.26	8.81	5.69	-7.73	-6.81	5.461	5.541	5.343	5.403	5.390	3/2+	0+
190	113	1497.94	1510.07	7.88	7.95	15.30	14.75	6.49	5.95	-7.66	-7.06	5.472	5.554	5.349	5.409	5 207	3/2 ⁺	5/2
191	114	1506.62	1518.09	7.89	7.95	15.17	15.20	8.68	6.17	-7.61	-7.28	5.483	5.568	5.356	5.415	5.397	3/2+	0+
192	115	1513.02	1524.29	7.88	7.94	15.08	15.60	6.40	6.37	-7.60	-7.48	5.494	5.582	5.360	5.420	5.403	3/2+	3/2 ⁻ 0 ⁺
193	116	1521.58	1532.06	7.88	7.94	14.96	16.12	8.56	6.64	-7.49	-7.73	5.505	5.595	5.368	5.427	5.403	3/2+	
194 195	117	1528.00	1538.13	7.88	7.93	14.98	16.54	6.42	6.85	-7.48	-7.95	5.516	5.609	5.373	5.432		3/2 ⁺	3/2 0 ⁺
	118 119	1536.34	1545.36	7.88	7.92	14.75	17.02	8.34	7.09 7.32	-7.37	-8.18	5.527	5.621	5.379	5.438 5.444		3/2 ⁺	
196 197	120	1542.78 1550.88	1551.18 1558.07	7.87 7.87	7.91 7.91	14.78 14.55	17.46 17.88	6.44	7.52 7.54	−7.37 −7.25	-8.40	5.538 5.548	5.634 5.647	5.385 5.390	5.444 5.449		$3/2^{+}$ $3/2^{+}$	3/2 0 ⁺
197	120	1550.88	1558.07	7.87 7.87	7.91	14.55 14.57	17.88	8.11 6.46	7.5 4 7.77	-7.25 -7.24	-8.61 -8.84	5.559	5.660	5.390	5.455		3/2 ⁺	3/2
199	121	1565.21	1570.35	7.87	7.89	14.33	18.23	7.86	7.77	-7.24 -7.13	-9.02	5.569	5.673	5.400	5.459		3/2 ⁺	0 ⁺
200	123	1505.21	1370.33	7.86	7.09	14.33	19.14	6.53	7.93 8.17	-7.13 -7.16	-9.02 -9.23	5.579	5.685	5.405	5.464		3/2 ⁺	1/2
201	123	1571.74		7.86		14.10	19.14	7.56	8.33	-7.10 -7.00	-9.23 -9.40	5.589	5.698	5.409	5.467		3/2 ⁺	0+
202	125	1575.51		7.85		14.10	19.90	6.64	8.54	-5.40	-9.61	5.599	5.710	5.413	5.472		3/2 ⁺	1/2
202	125	1503.94		7.85 7.85		13.84	20.17	7.21	8.68	-5.40 -5.15	-9.75	5.610	5.725	5.416	5.475		$3/2^{+}$	0+
204	120	1595.15		7.82		9.10	20.17	1.90	8.81	-5.13 -5.38	-9.73 -9.90	5.624	5.743	5.422	5.481		3/2 ⁺	9/2
204	127	1593.04		7.82		5.73	20.40	3.83	9.02	-3.38 -2.92	-9.90 -10.12	5.641	5.760	5.437	5.495		3/2 ⁺	9/2 0 ⁺
205	128	1600.75		7.77		5.70	21.20	1.87	9.11	-2.92 -2.91	-10.12 -10.38	5.655	5.779	5.440	5.499		1/2 ⁺	9/2
200	130	1604.56		7.75		5.69	21.20	3.81	9.36	-2.91	-10.38 -10.49	5.672	5.795	5.457	5.515		3/2 ⁺	9/2 0 ⁺
207	131	1606.43		7.73 7.72		5.68	21.01	1.87	9.52	-2.91 -2.90	-10.49 -10.75	5.685	5.813	5.461	5.519		3/2+ 1/2+	9/2
208 209	132	1610.22		7.72		5.66	22.33	3.79	9.71	-2.90 -2.91	-10.75 -10.95	5.701	5.830	5.473	5.532		1/2+	9/2 0 ⁺
209 210	132	1610.22		7.70		5.65	22.33	3.79 1.86	9.71	-2.91 -2.89	-10.95 -11.12	5.716	5.847	5.481	5.532 5.539		1/2 ⁺	9/2
210	134	1612.08		7.66		5.64	23.06	3.78	9.87 10.06	-2.89 -2.89	-11.12 -11.32	5.731	5.863	5.481	5.551		1/2 ⁺	9/2 0 ⁺
-11	134	1013.00		7.00		5.04	25.00	5.70	10.00	-2.09	-11.52	5./51	5.005	5.495	J.JJ I		1/2	U

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
212	135	1617.71		7.63		5.63	23.41	1.84	10.22	-2.88	-11.49	5.745	5.880	5.501	5.559		1/2+	9/2+
213	136	1621.48		7.61		5.62	23.77	3.77	10.40	-2.88	-11.67	5.760	5.896	5.512	5.570		1/2+	0+
214	137	1623.31		7.59		5.60	24.12	1.82	10.56	-2.87	-11.85	5.775	5.913	5.522	5.579		1/2+	$9/2^{+}$
215	138	1627.08		7.57		5.59	24.47	3.77	10.73	-2.87	-12.02	5.789	5.928	5.532	5.589		1/2+	0+
216	139	1628.88		7.54		5.58	24.82	1.81	10.90	-2.85	-12.20	5.804	5.945	5.541	5.599		$1/2^{+}$	$9/2^{+}$
217	140	1632.64		7.52		5.56	25.15	3.75	11.06	-2.85	-12.37	5.818	5.960	5.550	5.608		$1/2^{+}$	0^+
218	141	1634.42		7.50		5.53	25.51	1.78	11.23	-2.82	-12.55	5.833	5.976	5.561	5.618		$1/2^{+}$	$9/2^{+}$
219	142	1638.16		7.48		5.52	25.83	3.74	11.39	-2.81	-12.71	5.846	5.991	5.569	5.626		1/2+	0^+
220	143	1639.89		7.45		5.47	26.18	1.73	11.55	-2.77	-12.89	5.861	6.007	5.580	5.637		1/2+	$9/2^{+}$
221	144	1643.61		7.44		5.45	26.47	3.73	11.70	-2.77	-13.03	5.874	6.022	5.586	5.643		1/2+	0+
222	145	1645.25		7.41		5.36	26.81	1.63	11.86	-2.69	-13.21	5.889	6.038	5.597	5.654		1/2+	$9/2^{+}$
223	146	1648.96		7.39		5.35	27.08	3.71	12.01	-2.70	-13.35	5.901	6.053	5.603	5.660		1/2+	0+
224	147	1650.43		7.37		5.18	27.41	1.47	12.16	-2.58	-13.52	5.916	6.069	5.613	5.670		1/2+	$9/2^{+}$
225	148	1654.15		7.35		5.19	27.67	3.72	12.30	-2.61	-13.65	5.928	6.083	5.618	5.675		$1/2^{+}$	0^+
226	149	1655.59		7.33		5.16	27.88	1.43	12.44	-2.62	-13.74	5.944	6.103	5.622	5.679		1/2+	5/2+
227	150	1659.14		7.31		4.98	28.22	3.55	12.59	-2.51	-13.92	5.955	6.115	5.632	5.688		1/2+	0+
228	151	1660.69		7.28		5.11	28.46	1.56	12.72	-2.51	-14.02	5.971	6.134	5.636	5.692		1/2+	5/2+
229	152	1663.94		7.27		4.80	28.73	3.24	12.86	-2.43	-14.18	5.982	6.146	5.645	5.701		1/2+	0^+
230	153	1665.43		7.24		4.74	28.96	1.50	12.99	-2.42	-14.28	5.997	6.165	5.649	5.705		1/2+	$5/2^{+}$
231	154	1668.60		7.22		4.67	29.23	3.17	13.12	-2.38	-14.43	6.009	6.178	5.657	5.713		1/2+	0^+
232	155	1670.06		7.20		4.63	29.46	1.46	13.24	-2.36	-14.54	6.024	6.197	5.661	5.718		1/2+	$5/2^{+}$
233	156	1673.17		7.18		4.57	29.73	3.11	13.38	-2.34	-14.68	6.036	6.209	5.668	5.725		1/2+	0+
234	157	1674.60		7.16		4.54	29.95	1.43	13.50	-2.32	-14.78	6.051	6.227	5.673	5.730		1/2+	5/2+
235	158	1677.68		7.14		4.50	30.21	3.08	13.63	-2.31	-14.92	6.062	6.240	5.680	5.736		1/2+	0+
236	159	1679.07		7.11		4.47	30.44	1.39	13.75	-2.28	-15.03	6.077	6.258	5.685	5.741		1/2+	5/2+
237	160	1682.13		7.10		4.45	30.69	3.06	13.88	-2.28	-15.16	6.089	6.271	5.691	5.747		1/2+	0+
238	161	1683.52		7.07		4.45	30.85	1.39	13.98	-2.29	-15.23	6.105	6.292	5.694	5.750		1/2+	1/2+
239	162	1686.54		7.06		4.41	31.17	3.02	14.14	-2.26	-15.40	6.115	6.301	5.703	5.759		1/2+	0+
240	163	1687.96		7.03		4.44	31.29	1.42	14.19	-2.23	-15.48	6.131	6.321	5.706	5.762		1/2+	1/2+
241	164	1690.91		7.02		4.37	31.65	2.95	14.39	-2.24	-15.64	6.140	6.330	5.714	5.770		1/2+	0+
242	165	1692.35		6.99		4.39	31.73	1.44	14.42	-2.24	-15.73	6.156	6.350	5.718	5.774		1/2+	1/2+
243	166	1695.25		6.98		4.34	32.14	2.90	14.64	-2.22	-15.89	6.166	6.359	5.726	5.781		1/2+	0+
244	167	1696.72		6.95		4.37	32.31	1.47	14.76	-2.21	-15.99	6.180	6.377	5.730	5.786		1/2+	1/2+
245	168	1699.55		6.94		4.30	32.63	2.83	14.89	-2.19	-16.13	6.191	6.388	5.737	5.793		1/2+	0+
246	169	1701.06		6.91		4.34	32.87	1.51	14.99	-2.19	-16.25	6.205	6.404	5.743	5.798		1/2+	1/2+
247	170	1703.82		6.90		4.27	33.14	2.77	15.14	-2.17	-16.39	6.215	6.415	5.749	5.805		1/2+	0+
248	171	1705.30		6.88		4.24	33.38	1.48	15.24	-2.16	-16.52	6.228	6.430	5.756	5.811		1/2+	1/2+
249	172	1708.06		6.86		4.24	33.67	2.76	15.40	-2.15	-16.65	6.240	6.442	5.761	5.817		1/2+	0+
250	173	1709.51		6.84		4.21	33.93	1.45	15.50	-2.13	-16.81	6.252	6.455	5.769	5.825		1/2+	1/2+
251	174	1712.26		6.82		4.20	34.21	2.75	15.67	-2.12	-16.91	6.263	6.468	5.774	5.829		1/2+	0+
252	175	1713.67		6.80		4.16	34.49	1.41	15.75	-2.10	-17.10	6.275	6.479	5.784	5.839		1/2+	1/2+
253	176	1716.43		6.78		4.17	34.77	2.76	15.93	-2.10	-17.19	6.286	6.493	5.788	5.843		1/2+	0+
254	177	1717.79		6.76		4.12	35.07	1.36	16.01	-2.06	-17.40	6.297	6.502	5.799	5.853		1/2+	1/2+
255	178	1720.55		6.75		4.13	35.35	2.76	16.20	-2.07	-17.48	6.309	6.517	5.802	5.857		1/2+	0+
256	179	1721.86		6.73		4.07	35.66	1.31	16.27	-2.03	-17.71	6.319	6.524	5.814	5.869		1/2+	1/2+
257	180	1724.64		6.71		4.09	35.94	2.78	16.48	-2.04	-17.78	6.331	6.539	5.816	5.871		1/2+	0+
258	181	1725.98		6.69		4.11	36.32	1.33	16.60	-2.03	-17.88	6.343	6.546	5.838	5.892		1/2+	1/2+
259	182	1728.70		6.67		4.05	36.54	2.72	16.75	-2.00	-18.08	6.353	6.561	5.832	5.886		1/2+	0+
260	183	1730.06		6.65		4.09	36.93	1.36	16.94	-1.09	-18.20	6.365	6.568	5.854	5.909		1/2+	1/2+
261	184	1732.72		6.64		4.02	37.13	2.66	17.02	-0.37	-18.39	6.375	6.583	5.848	5.902		1/2+	0^+
262	185	1731.70		6.61		1.64	37.17	-1.02	17.06	-0.92	-18.39	6.412	6.632	5.848	5.902		1/2+	3/2-
263	186	1731.22		6.58		-1.50	37.37	-0.48	17.15	0.70	-18.51	6.409	6.625	5.856	5.910		$1/2^{+}$	0+
7		10.35													0.013			

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	$\lambda_p \ ({ m MeV})$	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
Z = 7	8 (Pt)																	
164	86	1259.89		7.68			-0.12		0.83	-10.85	<u>0.37</u>	5.162	5.150	5.176	5.237		0^+	0^+
165	87	1269.57		7.69			0.50		1.16	-10.72	<u>0.06</u>	5.176	5.168	5.186	5.247		0+	9/2-
166	88	1281.24		7.72			1.08	11.68	1.47	-10.66	-0.23	5.189	5.185	5.194	5.255		0+	0+
167	89	1290.68	1000.00	7.73		21.11	1.70	9.43	1.77	-10.50	-0.53	5.204	5.203	5.204	5.265		0+	9/2-
168	90	1302.19	1306.02	7.75	7.77	20.95	2.27	11.52	2.05	-10.44	-0.81	5.216	5.220	5.212	5.273		0+	0+
169	91	1311.28	1227 41	7.76	7.01	20.60	2.86	9.09	2.33	-10.21	-1.10	5.230	5.237	5.221	5.282		0^{+}	9/2 ⁻ 0 ⁺
170	92 93	1322.68	1327.41 1336.64	7.78	7.81	20.49 20.23	3.42 3.97	11.40	2.61 2.90	-10.19 -10.12	-1.38	5.242	5.253 5.269	5.229 5.237	5.290 5.298		0 ⁺	7/2
171 172	93 94	1331.51 1342.61	1348.35	7.79 7.81	7.82 7.84	19.93	4.52	8.83 11.10	3.18	-10.12 -9.91	-1.65 -1.93	5.255 5.266	5.284	5.244	5.305		0+	0+
173	95	1351.29	1357.26	7.81	7.85	19.77	5.06	8.68	3.47	-9.79	-2.20	5.278	5.300	5.251	5.312		0+	7/2 ⁻
174	96	1361.23	1368.70	7.83	7.87	19.36	5.58	10.69	3.75	-9.64	-2.46	5.289	5.315	5.257	5.317		0+	0+
175	97	1370.40	1377.15	7.83	7.87	19.11	6.11	8.43	4.05	-9.48	-2.72	5.300	5.330	5.263	5.324		0+	7/2
176	98	1380.82	1388.46	7.85	7.89	18.84	6.61	10.41	4.33	-9.38	-2.98	5.311	5.344	5.269	5.329		0^{+}	0+
177	99	1388.88	1396.97	7.85	7.89	18.48	7.13	8.07	4.61	-9.15	-3.24	5.322	5.359	5.275	5.335		0^{+}	7/2
178	100	1399.13	1407.67	7.86	7.91	18.31	7.62	10.24	4.89	-9.11	-3.49	5.332	5.373	5.280	5.340	5.373	0^{+}	0+
179	101	1406.69	1416.01	7.86	7.91	17.80	8.16	7.56	5.14	-8.83	-3.75	5.344	5.388	5.287	5.347	5.392	0^+	7/2
180	102	1416.87	1426.25	7.87	7.92	17.74	8.64	10.18	5.43	-8.83	-3.99	5.354	5.401	5.292	5.352	5.389	0^+	0+
181	103	1424.02	1434.26	7.87	7.92	17.33	9.04	7.15	5.67	-8.79	-4.22	5.367	5.418	5.299	5.359	5.400	0^+	5/2
182	104	1434.08	1444.13	7.88	7.93	17.21	9.64	10.07	5.93	-8.59	-4.50	5.376	5.430	5.304	5.364	5.397	0^+	0^+
183	105	1441.22	1451.80	7.88	7.93	17.20	10.12	7.14	6.20	-8.54	-4.73	5.389	5.446	5.311	5.371	5.404	0^+	5/2
84	106	1450.87	1461.43	7.89	7.94	16.78	10.64	9.64	6.43	-8.40	-5.00	5.399	5.458	5.316	5.376	5.402	0^+	0^{+}
85	107	1457.90	1468.85	7.88	7.94	16.68	11.12	7.03	6.69	-8.34	-5.24	5.411	5.474	5.323	5.383	5.415	0^+	5/2
86	108	1467.30	1478.11	7.89	7.95	16.43	11.62	9.40	6.91	-8.23	-5.49	5.421	5.487	5.329	5.389	5.404	0+	0^+
87	109	1474.23	1485.00	7.88	7.94	16.33	12.11	6.93	7.16	-8.17	-5.73	5.433	5.501	5.335	5.395	5.406	0+	5/2
188	110	1483.43	1494.21	7.89	7.95	16.13	12.59	9.20	7.39	-8.09	-5.97	5.443	5.514	5.341	5.401	5.405	0+	0+
189	111	1490.26	1500.94	7.88	7.94	16.03	13.08	6.83	7.63	-8.02	-6.22	5.454	5.528	5.348	5.407	5.406	0+	5/2
190	112	1499.30	1509.85	7.89	7.95	15.87	13.54	9.04	7.85	-7.95	-6.44	5.465	5.542	5.354	5.413	5.411	0+	0+
191	113	1506.03	1516.30	7.88	7.94	15.76	14.04	6.73	8.09	-7.88	-6.69	5.476	5.555	5.360	5.419	5.410	0 ⁺	5/2
192	114	1514.93	1524.96	7.89	7.94	15.63	14.48	8.91	8.31	-7.83	-6.91	5.487	5.568	5.366	5.425	5.417	0^{+}	0 ⁺
193	115	1521.54 1530.34	1531.22 1539.58	7.88 7.89	7.93 7.94	15.51 15.41	14.89 15.40	6.61 8.80	8.52 8.76	-7.75 -7.71	−7.16 −7.37	5.497	5.581 5.595	5.371 5.378	5.431 5.437	5.419 5.424	0+	5/2 0 ⁺
194	116 117	1536.96	1545.68	7.88	7.94 7.93	15.41	15.40		8.96	-7.71 -7.70	-7.57 -7.58	5.509 5.510	5.609	5.383		5.424	0+	3/2
195 196	117	1545.53	1553.60	7.88 7.89	7.93 7.93	15.42	16.29	6.62 8.58	9.20	-7.70 -7.58	-7.38 -7.82	5.519 5.530	5.621	5.389	5.442 5.448	5.431	0+	0 ⁺
197	119	1552.18	1559.45	7.88	7.92	15.13	16.23	6.65	9.40	-7.58	-7.82 -8.03	5.541	5.634	5.395	5.454	J. 1 J1	0+	3/2
198	120	1560.50	1567.00	7.88	7.91	14.96	17.15	8.32	9.62	-7.45	-8.24	5.551	5.646	5.400	5.459	5.438	0 ⁺	0+
99	121	1567.18	1572.56	7.88	7.90	15.00	17.60	6.68	9.83	-7.44	-8.47	5.561	5.659	5.406	5.465	3.130	0^{+}	3/2
200	122	1575.21	1579.84	7.88	7.90	14.72	17.95	8.04	10.00	-7.32	-8.64	5.571	5.672	5.410	5.469		0+	0+
201	123	1581.97	1585.05	7.87	7.89	14.80	18.40	6.76	10.23	-7.34	-8.85	5.581	5.685	5.414	5.473		0+	1/2
202	124	1589.67	1592.08	7.87	7.88	14.46	18.70	7.69	10.36	-7.18	-9.02	5.591	5.697	5.418	5.477		0^+	0+
:03	125	1596.50		7.86		14.52	19.09	6.83	10.56	-5.56	-9.22	5.601	5.710	5.422	5.481		0^+	1/2
204	126	1603.84		7.86		14.18	19.38	7.35	10.70	-5.53	-9.36	5.612	5.724	5.426	5.484		0+	0+
205	127	1605.94		7.83		9.44	19.70	2.10	10.90	-5.55	-9.53	5.626	5.742	5.431	5.490		0^+	9/2
:06	128	1609.98		7.82		6.14	20.13	4.04	11.11	-3.12	-9.74	5.642	5.759	5.446	5.504		0^+	0+
.07	129	1612.04		7.79		6.10	20.40	2.06	11.29	-3.11	-9.91	5.657	5.777	5.452	5.511		0^+	9/2
208	130	1616.07		7.77		6.09	20.87	4.03	11.51	-3.11	-10.12	5.673	5.793	5.466	5.524		0^+	0^+
209	131	1618.11		7.74		6.07	21.20	2.04	11.68	-3.09	-10.29	5.687	5.811	5.473	5.531		0^+	9/2
210	132	1622.12		7.72		6.05	21.60	4.01	11.90	-3.09	-10.49	5.703	5.827	5.486	5.544		0+	0^+
211	133	1624.14		7.70		6.03	21.94	2.03	12.06	-3.08	-10.66	5.717	5.844	5.494	5.552		0+	9/2
12	134	1628.14		7.68		6.02	22.33	3.99	12.27	-3.08	-10.86	5.733	5.860	5.506	5.564		0+	0+
213	135	1630.15		7.65		6.01	22.67	2.02	12.45	-3.07	-11.03	5.747	5.877	5.515	5.573		0+	9/2
214	136	1634.13		7.64		5.99	23.04	3.97	12.64	-3.06	-11.22	5.762	5.893	5.526	5.584		0+	0+
15	137	1636.13		7.61		5.98	23.39	2.01	12.83	-3.05	-11.39	5.777	5.910	5.536	5.593		0^+	9/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
216	138	1640.09		7.59		5.96	23.75	3.95	13.01	-3.05	-11.57	5.791	5.925	5.546	5.603		0+	0+
217	139	1642.08		7.57		5.95	24.10	2.00	13.20	-3.03	-11.75	5.806	5.941	5.556	5.613		0+	9/2+
18	140	1646.01		7.55		5.92	24.44	3.93	13.37	-3.02	-11.92	5.819	5.956	5.565	5.622		0+	0+
219	141	1647.99		7.53		5.90	24.80	1.97	13.57	-2.99	-12.10	5.834	5.972	5.575	5.633		0+	9/2
220	142	1651.89		7.51		5.87	25.11	3.90	13.73	-2.99	-12.26	5.847	5.987	5.583	5.640		0+	0^+
221	143	1653.81		7.48		5.83	25.47	1.93	13.93	-2.94	-12.44	5.862	6.003	5.594	5.651		0+	9/2
222	144	1657.68		7.47		5.80	25.77	3.87	14.07	-2.93	-12.59	5.875	6.018	5.601	5.658		0+	0+
223	145	1659.52		7.44		5.70	26.13	1.83	14.27	-2.86	-12.76	5.890	6.034	5.612	5.669		0+	9/2
224	146	1663.36		7.43		5.68	26.40	3.84	14.39	-2.85	-12.90	5.902	6.048	5.618	5.674		0+	0+
225	147	1665.01		7.40		5.50	26.74	1.66	14.58	-2.73	-13.07	5.917	6.064	5.628	5.685		0+	9/2
226	148	1668.85		7.38		5.49	27.00	3.83	14.70	-2.75	-13.21	5.929	6.079	5.633	5.689		0+	0+
227	149	1670.33		7.36		5.32	27.19	1.48	14.75	-2.77	-13.30	5.944	6.099	5.636	5.693		0+	5/2
228	150	1674.11		7.34		5.26	27.56	3.77	14.97	-2.64	-13.49	5.955	6.109	5.647	5.703		0+	0+
229	151	1675.65		7.32		5.32	27.68	1.55	14.96	-2.64	-13.59	5.970	6.129	5.650	5.707		0+	5/2+
230	152	1679.16		7.30		5.05	28.08	3.50	15.22	-2.56	-13.76	5.982	6.140	5.660	5.716		0+	0+
231	153	1680.74		7.28		5.09	28.30	1.59	15.31	-2.55	-13.86	5.997	6.159	5.664	5.720		0+	5/2
232	154	1684.06		7.26		4.91	28.58	3.32	15.46	-2.50	-14.02	6.008	6.171	5.672	5.729		0+	0+
233	155	1685.61		7.23		4.87	28.79	1.55	15.55	-2.49	-14.12	6.023	6.190	5.677	5.733		0+	5/2
234	156	1688.87		7.22		4.81	29.07	3.26	15.70	-2.46	-14.28	6.034	6.202	5.684	5.740		0+	0+
235	157	1690.40		7.19		4.78	29.29	1.52	15.79	-2.44	-14.39	6.049	6.220	5.689	5.745		0+	5/2
236	158	1693.61		7.18		4.74	29.56	3.21	15.93	-2.42	-14.53	6.060	6.232	5.696	5.752		0+	0^+
237	159	1695.11		7.15		4.71	29.79	1.50	16.04	-2.41	-14.64	6.075	6.250	5.702	5.757		0+	5/2
238	160	1698.29		7.14		4.68	30.05	3.18	16.16	-2.40	-14.78	6.086	6.262	5.708	5.764		0+	0^{+}
239	161	1699.77		7.11		4.66	30.27	1.47	16.25	-2.38	-14.90	6.100	6.279	5.714	5.770		0+	5/2
240	162	1702.94		7.10		4.64	30.53	3.17	16.40	-2.38	-15.03	6.112	6.292	5.720	5.775		0^+	0^+
241	163	1704.38		7.07		4.61	30.69	1.45	16.42	-2.36	-15.16	6.126	6.308	5.726	5.782		0^+	5/2
242	164	1707.54		7.06		4.61	31.02	3.16	16.63	-2.36	-15.28	6.137	6.321	5.731	5.787		0^+	0^+
243	165	1709.03		7.03		4.65	31.15	1.49	16.68	-2.37	-15.37	6.152	6.341	5.733	5.789		0^+	1/2
244	166	1712.12		7.02		4.58	31.51	3.09	16.88	-2.34	-15.53	6.162	6.349	5.743	5.798		0^+	0^+
245	167	1713.65		6.99		4.62	31.68	1.53	16.93	-2.35	-15.62	6.177	6.368	5.746	5.801		0^+	1/2
246	168	1716.67		6.98		4.55	32.01	3.03	17.12	-2.32	-15.78	6.186	6.377	5.754	5.810		0^+	0^+
247	169	1718.23		6.96		4.59	32.17	1.56	17.18	-2.33	-15.88	6.201	6.395	5.758	5.814		0^+	1/2
248	170	1721.20		6.94		4.53	32.52	2.96	17.38	-2.30	-16.04	6.211	6.404	5.766	5.821		0^+	0^{+}
249	171	1722.82		6.92		4.59	32.76	1.62	17.52	-2.31	-16.15	6.225	6.421	5.771	5.827		0^+	1/2
250	172	1725.70		6.90		4.50	33.04	2.88	17.64	-2.28	-16.30	6.235	6.431	5.778	5.833		0^+	0^+
251	173	1727.35		6.88		4.53	33.34	1.65	17.84	-2.28	-16.42	6.248	6.446	5.785	5.840		0^+	1/2
252	174	1730.17		6.87		4.48	33.58	2.83	17.91	-2.26	-16.56	6.258	6.457	5.791	5.846		0^+	0^+
253	175	1731.82		6.85		4.47	33.90	1.65	18.15	-2.26	-16.70	6.271	6.470	5.799	5.854		0^+	1/2
254	176	1734.62		6.83		4.45	34.13	2.80	18.20	-2.24	-16.83	6.282	6.483	5.803	5.858		0^+	0^+
255	177	1736.28		6.81		4.45	34.50	1.65	18.49	-2.23	-16.99	6.294	6.494	5.813	5.868		0^+	1/2
256	178	1739.05		6.79		4.42	34.70	2.77	18.49	-2.22	-17.10	6.305	6.507	5.816	5.871		0^+	0^+
257	179	1740.70		6.77		4.43	35.11	1.65	18.84	-2.20	-17.28	6.316	6.517	5.828	5.883		0^+	1/2
258	180	1743.45		6.76		4.40	35.28	2.74	18.80	-2.19	-17.38	6.327	6.531	5.830	5.885		0^+	0^{+}
259	181	1745.10		6.74		4.40	35.72	1.65	19.12	-2.18	-17.58	6.338	6.539	5.844	5.898		0^+	1/2
260	182	1747.82		6.72		4.37	35.87	2.72	19.12	-2.17	-17.66	6.349	6.554	5.844	5.899		0+	$0^{'+}$
261	183	1749.47		6.70		4.37	36.35	1.65	19.41	-1.37	-17.88	6.359	6.560	5.860	5.914		0+	1/2
262	184	1752.17		6.69		4.35	36.46	2.69	19.45	-0.54	-17.95	6.371	6.576	5.859	5.913		0+	$0^{'+}$
263	185	1751.12		6.66		1.65	36.48	-1.04	19.42	-1.00	-17.96	6.408	6.626	5.858	5.913		0+	3/2
264	186	1750.78		6.63		<u>-1.39</u>	36.71	$\frac{-0.35}{-0.35}$	19.55	0.65	-18.09	6.403	6.615	5.868	5.922		0+	0+
σ		8.41													0.024		-	=
	(Au)																	
165	86	1258.52		7.63			-0.55		-1.37	-11.15	<u>0.59</u>	5.171	5.153	5.190	5.251		1/2+	0^+
166	87	1268.49		7.64			0.08		-1.08	-11.01	0.28	5.185	5.171	5.200	5.261		1/2+	9/2

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
167	88	1280.45		7.67			0.67		_0.80	-10.94	-0.01	5.198	5.188	5.208	5.269		1/2+	0+
168	89	1290.16		7.68			1.25	9.72	-0.51	-10.78	-0.31	5.211	5.206	5.218	5.279		1/2+	9/2-
169	90	1301.95		7.70		21.50	1.81	11.79	-0.24	-10.72	-0.60	5.224	5.222	5.226	5.286		1/2+	0^+
170	91	1311.31		7.71		21.15	2.36	9.36	0.03	-10.49	-0.89	5.237	5.239	5.234	5.295		1/2+	9/2
171	92	1322.97	1325.96	7.74	7.75	21.02	2.90	11.67	0.29	-10.46	-1.17	5.249	5.255	5.242	5.303		1/2+	0+
172	93	1332.07	1335.83	7.74	7.77	20.76	3.45	9.09	0.55	-10.39	-1.45	5.261	5.271	5.249	5.310		1/2+	7/2
173	94	1343.42	1347.35	7.77	7.79	20.45	3.99	11.36	0.81	-10.17	-1.72	5.273	5.287	5.256	5.317		1/2+	0+
174	95	1352.36		7.77		20.29	4.54	8.93	1.07	-10.05	-2.00	5.284	5.302	5.263	5.324		1/2+	7/2
175	96	1363.30	1368.09	7.79	7.82	19.87	5.08	10.94	1.32	-9.90	-2.26	5.295	5.316	5.269	5.329		1/2+	0+
176	97	1371.98	1377.14	7.80	7.82	19.62	5.62	8.68	1.58	-9.73	-2.53	5.306	5.331	5.275	5.335		1/2+	7/2
177	98	1382.64	1388.36	7.81	7.84	19.35	6.16	10.67	1.83	-9.64	-2.78	5.316	5.345	5.280	5.340		1/2+	0+
178	99	1390.96	1397.22	7.81	7.85	18.98	6.69	8.32	2.08	-9.40	-3.05	5.327	5.360	5.286	5.346		1/2+	7/2
179	100	1401.45	1407.94	7.83	7.87	18.81	7.21	10.49	2.32	-9.36	-3.29	5.337	5.374	5.291	5.351		1/2+	0+
180	101	1409.25	1416.63	7.83	7.87	18.29	7.71	7.80	2.56	-9.08	-3.56	5.349	5.389	5.298	5.358		1/2+	7/2
181	102	1419.68	1426.97	7.84	7.88	18.23	8.23	10.43	2.81	-9.07	-3.80	5.359	5.402	5.303	5.363		1/2+	0+
182	103	1427.04	1435.48	7.84	7.89	17.79	8.69	7.36	3.02	-9.03	-4.03	5.371	5.418	5.309	5.369	E 40E	1/2+	5/2
183	104	1437.36	1445.43	7.85	7.90	17.69	9.21	10.32	3.28	-8.83	-4.31	5.381	5.431	5.314	5.374	5.425	1/2+	0+
184	105	1444.72	1453.64	7.85	7.90	17.68	9.70	7.36	3.50	-8.78	-4.54	5.393	5.446	5.321	5.381	5.431	1/2+	5/2 0 ⁺
185	106	1454.61	1463.26	7.86	7.91	17.25	10.17	9.89	3.74	-8.63	-4.81	5.403	5.459	5.326	5.386	5.430	1/2+	
186	107	1461.86	1471.17	7.86	7.91	17.13	10.65	7.25	3.96	-8.57	-5.05	5.414	5.474	5.333	5.392	5.435	1/2+	5/2 0 ⁺
187	108	1471.50	1480.56	7.87	7.92	16.89	11.11	9.64	4.20	-8.47	-5.30	5.424	5.487	5.338	5.398	5.402	1/2+	
188	109	1478.64 1488.08	1487.88	7.87	7.91 7.92	16.79	11.57 12.03	7.15 9.43	4.41	-8.40	-5.54 5.79	5.436	5.501	5.344	5.404	5.405	1/2 ⁺ 1/2 ⁺	5/2 0 ⁺
189	110		1497.26	7.87		16.58			4.64	-8.32	-5.78	5.446	5.514	5.350	5.410	5.408		5/2
190 191	111 112	1495.12 1504.39	1504.63 1513.63	7.87 7.88	7.92 7.92	16.48 16.31	12.49 12.94	7.05 9.27	4.86 5.08	-8.25 -8.18	-6.02 -6.25	5.457 5.468	5.528 5.541	5.356 5.362	5.415 5.421	5.411 5.415	1/2 ⁺ 1/2 ⁺	5/2 0 ⁺
192	113	1511.36	1520.66	7.86 7.87	7.92	16.24	13.42	6.97	5.33	-8.16 -8.14	-6.23	5.478	5.552	5.372	5.431	5.418	1/2 ⁺	5/2
193	114	1520.48	1529.36	7.88	7.92	16.10	13.42	9.12	5.55	-8.07	-6.45	5.489	5.565	5.378	5.437	5.422	1/2 1/2 ⁺	0 ⁺
194	115	1527.38	1536.24	7.87	7.92	16.02	14.36	6.90	5.84	-8.00	-6.69	5.500	5.578	5.383	5.443	5.425	1/2 1/2 ⁺	5/2
195	116	1536.37	1544.67	7.88	7.92	15.89	14.79	8.99	6.03	-7.95	-6.90	5.511	5.592	5.390	5.449	5.430	1/2+	0+
196	117	1543.18	1551.31	7.87	7.91	15.81	15.19	6.81	6.23	-7.95	-7.12	5.521	5.605	5.394	5.453	5.433	1/2+	3/2
197	118	1552.03	1559.39	7.88	7.92	15.66	15.70	8.85	6.50	-7.81	-7.35	5.532	5.617	5.401	5.460	5.437	1/2+	0+
198	119	1558.89	1565.90	7.87	7.91	15.71	16.12	6.86	6.71	-7.82	-7.56	5.543	5.631	5.407	5.466	5.440	1/2+	1/2
199	120	1567.44	1573.48	7.88	7.91	15.41	16.56	8.55	6.95	-7.67	-7.78	5.552	5.643	5.412	5.471	5.445	1/2+	0+
200	121	1574.35	1579.70	7.87	7.90	15.45	17.00	6.90	7.17	-7.66	-8.00	5.563	5.656	5.417	5.476		1/2+	3/2
201	122	1582.56	1586.93	7.87	7.90	15.12	17.35	8.22	7.35	-7.56	-8.45	5.572	5.670	5.417	5.476		1/2+	0+
202	123	1589.49	1592.95	7.87	7.89	15.14	17.75	6.93	7.51	-7.59	-8.64	5.582	5.683	5.422	5.481		1/2+	1/2
203	124	1597.50	1599.82	7.87	7.88	14.94	18.19	8.01	7.83	-7.40	-8.82	5.592	5.695	5.426	5.485		1/2+	0+
204	125	1604.59		7.87		15.10	18.65	7.10	8.10	-5.70	-9.01	5.602	5.707	5.431	5.489		1/2+	1/2
205	126	1612.08		7.86		14.58	18.93	7.49	8.24	-5.70	-9.16	5.613	5.721	5.435	5.493		1/2+	0+
206	127	1614.35		7.84		9.75	19.30	2.27	8.41	-5.74	-9.33	5.627	5.740	5.440	5.499		1/2+	9/2
207	128	1618.59		7.82		6.51	19.71	4.24	8.61	-3.31	-9.54	5.643	5.756	5.455	5.513		1/2+	0+
208	129	1620.82		7.79		6.48	20.08	2.23	8.78	-3.29	-9.71	5.657	5.774	5.461	5.520		1/2+	9/2
:09	130	1625.05		7.78		6.45	20.48	4.22	8.98	-3.29	-9.92	5.673	5.791	5.475	5.533		1/2+	0+
10	131	1627.26		7.75		6.43	20.83	2.21	9.15	-3.28	-10.09	5.688	5.808	5.482	5.540		1/2+	9/2
11	132	1631.46		7.73		6.41	21.23	4.20	9.34	-3.28	-10.30	5.703	5.824	5.495	5.553		1/2+	0+
12	133	1633.65		7.71		6.40	21.57	2.20	9.51	-3.26	-10.47	5.717	5.841	5.503	5.561		1/2+	9/2
13	134	1637.83		7.69		6.37	21.96	4.17	9.69	-3.26	-10.67	5.732	5.857	5.515	5.573		1/2+	0+
14	135	1640.01		7.66		6.36	22.31	2.19	9.86	-3.25	-10.84	5.747	5.874	5.523	5.581		1/2+	9/2
215	136	1644.16		7.65		6.34	22.68	4.15	10.04	-3.24	-11.03	5.761	5.889	5.535	5.592		1/2+	0+
16	137	1646.34		7.62		6.33	23.04	2.18	10.21	-3.23	-11.21	5.776	5.906	5.544	5.601		1/2+	9/2
17	138	1650.47		7.61		6.30	23.39	4.12	10.38	-3.22	-11.39	5.790	5.921	5.554	5.611		1/2+	0+
18	139	1652.63		7.58		6.29	23.75	2.17	10.55	-3.20	-11.57	5.805	5.937	5.564	5.621		1/2+	9/2
219	140	1656.73		7.56		6.26	24.09	4.09	10.71	-3.19	-11.74	5.818	5.952	5.573	5.630		1/2+	0+
220	141	1658.87		7.54		6.23	24.45	2.14	10.88	-3.16	-11.92	5.833	5.968	5.583	5.640		1/2+	9/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{ m b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
221	142	1662.93		7.52		6.20	24.77	4.06	11.04	-3.15	-12.08	5.846	5.983	5.591	5.648		1/2+	0+
222	143	1665.02		7.50		6.15	25.13	2.09	11.21	-3.10	-12.26	5.860	5.999	5.601	5.658		1/2+	$9/2^{+}$
223	144	1669.04		7.48		6.12	25.43	4.02	11.36	-3.09	-12.41	5.873	6.013	5.608	5.665		$1/2^{+}$	0^+
224	145	1671.04		7.46		6.02	25.79	2.00	11.52	-3.01	-12.59	5.887	6.029	5.619	5.675		$1/2^{+}$	$9/2^{+}$
225	146	1675.03		7.44		5.99	26.07	3.99	11.67	-3.01	-12.73	5.900	6.043	5.624	5.681		$1/2^{+}$	0^+
226	147	1676.84		7.42		5.80	26.41	1.81	11.83	-2.88	-12.90	5.914	6.059	5.635	5.691		$1/2^{+}$	$9/2^{+}$
227	148	1680.82		7.40		5.79	26.67	3.98	11.97	-2.90	-13.04	5.926	6.073	5.640	5.696		$1/2^{+}$	0^+
228	149	1682.44		7.38		5.60	26.85	1.62	12.11	-2.92	-13.13	5.941	6.093	5.643	5.700		$1/2^{+}$	5/2+
229	150	1686.36		7.36		5.54	27.23	3.92	12.26	-2.78	-13.32	5.952	6.104	5.654	5.710		$1/2^{+}$	0^+
230	151	1688.03		7.34		5.59	27.34	1.67	12.38	-2.78	-13.42	5.967	6.123	5.658	5.714		$1/2^{+}$	$5/2^{+}$
231	152	1691.69		7.32		5.33	27.75	3.66	12.53	-2.70	-13.60	5.978	6.134	5.667	5.723		$1/2^{+}$	0^+
232	153	1693.41		7.30		5.38	27.97	1.72	12.66	-2.69	-13.69	5.993	6.153	5.671	5.727		1/2+	$5/2^{+}$
233	154	1696.86		7.28		5.17	28.26	3.45	12.80	-2.63	-13.86	6.005	6.165	5.679	5.735		$1/2^{+}$	0^+
234	155	1698.54		7.26		5.13	28.47	1.67	12.93	-2.62	-13.96	6.019	6.183	5.684	5.740		$1/2^{+}$	$5/2^{+}$
235	156	1701.94		7.24		5.07	28.76	3.40	13.06	-2.59	-14.12	6.030	6.195	5.692	5.747		1/2+	0^+
236	157	1703.58		7.22		5.04	28.98	1.65	13.19	-2.58	-14.23	6.045	6.213	5.696	5.752		1/2+	$5/2^{+}$
237	158	1706.93		7.20		5.00	29.25	3.35	13.32	-2.56	-14.37	6.056	6.225	5.704	5.759		1/2+	0+
238	159	1708.55		7.18		4.97	29.48	1.62	13.44	-2.54	-14.49	6.070	6.242	5.709	5.765		1/2+	5/2+
239	160	1711.87		7.16		4.94	29.74	3.32	13.58	-2.53	-14.63	6.082	6.255	5.716	5.771		1/2+	0+
240	161	1713.47		7.14		4.92	29.95	1.59	13.70	-2.51	-14.75	6.096	6.271	5.721	5.777		1/2+	5/2+
241	162	1716.77		7.12		4.90	30.23	3.30	13.84	-2.51	-14.88	6.107	6.284	5.727	5.783		1/2+	0+
242	163	1718.34		7.10		4.87	30.38	1.56	13.96	-2.49	-15.01	6.121	6.300	5.734	5.789		1/2+	5/2+
243	164	1721.64		7.08		4.86	30.73	3.30	14.09	-2.49	-15.13	6.132	6.312	5.739	5.795		1/2+	0+
244	165	1723.25		7.06		4.91	30.90	1.61	14.22	-2.48	-15.47	6.147	6.331	5.755	5.810		1/2+	1/2+
245	166	1726.47		7.05		4.83	31.22	3.22	14.35	-2.47	-15.38	6.157	6.341	5.751	5.806		1/2+	0+
246	167	1728.12		7.02		4.87	31.33	1.65	14.41	-2.46	-15.73	6.171	6.359	5.767	5.822		1/2+	1/2+
247	168	1731.27		7.01		4.81	31.73	3.15	14.60	-2.45	-15.64	6.181	6.368	5.763	5.818		1/2+	0+
248	169	1732.95		6.99		4.83	31.90	1.68	14.72	-2.46	-15.74	6.195	6.385	5.767	5.822		1/2+	1/2+
249	170	1736.06		6.97		4.78	32.24	3.10	14.86	-2.43	-15.89	6.205	6.395	5.774	5.830		1/2+	0+
250	171	1737.80		6.95		4.85	32.50	1.75	14.98	-2.44	-16.01	6.219	6.411	5.780	5.835		1/2+	1/2+
251	172	1740.81		6.94		4.76	32.76	3.01	15.12	-2.42	-16.15	6.229	6.422	5.786	5.841		1/2+	0+
252	173	1742.57		6.91		4.77	33.06	1.76	15.22	-2.41	-16.28	6.242	6.436	5.792	5.847		$1/2^{+}$	1/2 ⁺ 0 ⁺
253	174	1745.55		6.90		4.73	33.29	2.98	15.38	-2.40	-16.41	6.252	6.448	5.798	5.853		$1/2^{+}$	
254	175	1747.30		6.88		4.73	33.63	1.75	15.48	-2.39	-16.56	6.264	6.461	5.806	5.860		$1/2^{+}$	1/2 ⁺ 0 ⁺
255	176	1750.26		6.86		4.71	33.83	2.96	15.64	-2.38	-16.67	6.275	6.473	5.811	5.866		$1/2^{+}$	_
256	177	1752.01		6.84		4.71	34.22	1.75	15.73	-2.36	-16.84	6.287	6.485	5.819	5.874		$1/2^{+}$	$\frac{1/2^{+}}{0^{+}}$
257	178	1754.95		6.83		4.69	34.40	2.94	15.90	-2.35	-16.94	6.298	6.498	5.823	5.878		$1/2^{+}$	_
258	179	1756.69		6.81		4.68	34.82	1.74	15.99	-2.34	-17.14	6.309	6.508	5.833	5.888		1/2+	1/2 ⁺ 0 ⁺
259	180	1759.61		6.79		4.67	34.97	2.93	16.17	-2.33	-17.22	6.321	6.522	5.836	5.891		$1/2^{+}$	-
260 261	181 182	1761.34		6.77 6.76		4.65 4.64	35.36 35.56	1.72 2.92	16.24 16.44	-2.31 -2.30	-17.43 -17.50	6.330 6.343	6.530 6.545	5.848 5.850	5.902 5.904		1/2 ⁺ 1/2 ⁺	1/2 ⁺ 0 ⁺
		1764.26															1/2 ⁺	1/2+
262	183	1765.96		6.74		4.62	35.89	1.70	16.48	-1.38	-17.74	6.352	6.551	5.863	5.917			
263	184	1768.87		6.73		4.62	36.15	2.92	16.71	-0.66	-17.78	6.364	6.567	5.864	5.918		1/2 ⁺	0 ⁺
264 265	185 186	1767.86 1767.63		6.70 6.67		1.90 1.24	36.16 36.41	$\frac{-1.01}{-0.23}$	16.74 16.86	1.16 0.57	-17.78 -17.92	6.401 6.395	6.617 6.604	5.864 5.874	5.918 5.928		1/2 ⁺ 1/2 ⁺	3/2 ⁻ 0 ⁺
	180			0.67		$\frac{-1.24}{}$	30.41	<u>-0.23</u>	10.80	0.57	-17.92	0.393	0.004	5.874			1/2	0
σ 7 — 90) (Ua)	7.29													0.027			
Z = 80		1200.06		764			0.20		0.80	11.07	0.22	E 220	E 210	E 221	E 202		0^+	9/2-
169	89	1290.96		7.64			0.29		0.80	-11.07	0.23	5.220	5.210	5.231	5.292		0 ⁺	9/2 0 ⁺
170	90	1303.04		7.66			0.85	0.65	1.09	-11.01	-0.04	5.232	5.226	5.239	5.299			
171	91	1312.69	1226 70	7.68	771	21.61	1.41	9.65	1.39	-10.77	-0.32	5.245	5.243	5.247	5.308		0 ⁺	9/2-
172	92	1324.65	1326.78	7.70	7.71	21.61	1.97	11.96	1.67	-10.74	-0.58	5.257	5.259	5.255	5.315		0 ⁺	0 ⁺
173	93	1334.03	1240 47	7.71	7.75	21.34	2.52	9.39	1.97	-10.67	-0.86	5.269	5.275	5.262	5.323		0 ⁺	7/2-
174	94	1345.68	1348.47	7.73	7.75	21.03	3.07	11.64	2.25	-10.45	-1.12	5.280	5.289	5.269	5.329		0^+	0^+

I	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
175	95	1354.90	1357.87	7.74	7.76	20.87	3.61	9.22	2.55	-10.33	-1.40	5.292	5.305	5.276	5.336	<u> </u>	0+	7/2-
176	96	1366.12	1369.74	7.76	7.78	20.44	4.14	11.21	2.82	-10.17	-1.66	5.302	5.319	5.281	5.342		0^+	0+
77	97	1375.08	1378.82	7.77	7.79	20.17	4.67	8.96	3.10	-10.00	-1.92	5.313	5.333	5.287	5.348		0^+	$7/2^{-}$
78	98	1386.00	1390.42	7.79	7.81	19.89	5.19	10.93	3.36	-9.90	-2.18	5.323	5.347	5.293	5.353		0^+	0^+
79	99	1394.59	1399.10	7.79	7.82	19.52	5.71	8.59	3.63	-9.67	-2.44	5.334	5.362	5.299	5.359		0^+	$7/2^{-}$
80	100	1405.34	1410.50	7.81	7.84	19.33	6.21	10.74	3.89	-9.62	-2.69	5.344	5.375	5.304	5.364		0^+	0^+
81	101	1413.43	1418.98	7.81	7.84	18.83	6.74	8.09	4.18	-9.35	-2.94	5.355	5.390	5.310	5.370	5.436	0+	7/2-
82	102	1424.10	1429.97	7.82	7.86	18.76	7.23	10.67	4.42	-9.34	-3.19	5.365	5.403	5.315	5.375	5.383	0+	0+
83	103	1431.76	1438.27	7.82	7.86	18.33	7.74	7.66	4.72	-9.26	-3.45	5.375	5.417	5.321	5.380	5.441	0+	13/2+
84	104	1442.32	1448.88	7.84	7.87	18.23	8.24	10.56	4.96	-9.10	-3.69	5.386	5.431	5.327	5.387	5.395	0+	0+
85	105	1449.95	1456.78	7.84	7.87	18.19	8.63	7.63	5.13	-9.05	-3.92	5.398	5.446	5.334	5.393	5.440	0+	5/2-
86	106	1460.11	1467.22	7.85	7.89	17.78	9.24	10.16	5.50	-8.90	-4.18	5.408	5.459	5.339	5.398	5.402	0+	0+
187	107	1467.62	1474.87	7.85	7.89	17.67	9.72	7.52	5.77	-8.84	-4.41	5.419	5.474	5.345	5.405	5.405	0+	5/2-
88	108	1477.52	1485.03	7.86	7.90	17.42	10.23	9.90	6.03	-8.72	-4.66	5.429	5.486	5.351	5.410	5.409	0+	0+
89	109	1484.95	1492.52	7.86	7.90	17.33	10.72	7.43	6.31	-8.66	-4.90	5.440	5.501	5.357	5.417	5.410	0+	5/2-
190	110	1494.63	1502.33	7.87	7.91	17.10	11.20	9.68	6.55	-8.57	-5.14	5.451	5.514	5.363	5.422	5.416	0^{+}	0+
91	111	1501.96	1509.63	7.86	7.90	17.01	11.69	7.33	6.84	-8.50	-5.38	5.461	5.527	5.369	5.428	5.417	0^{+}	5/2-
92	112	1511.46	1519.12	7.87	7.91	16.83	12.15	9.50	7.07	-8.43	-5.60 5.04	5.472	5.540	5.375	5.434	5.423	0^{+}	0 ⁺
93	113	1518.68	1526.24	7.87	7.91	16.72	12.66	7.23	7.32	-8.36	-5.84	5.482	5.553	5.381	5.440	5.424	0+	5/2 ⁻ 0 ⁺
94	114	1528.03	1535.44	7.88	7.91	16.57	13.10	9.35	7.55	-8.29	-6.07	5.493	5.567	5.387	5.446	5.431	0+	
95	115	1535.14	1542.32	7.87	7.91	16.46	13.60	7.11	7.76	-8.21	-6.30	5.503	5.579	5.392	5.451	5.435	0+	5/2 ⁻ 0 ⁺
96 97	116 117	1544.37 1551.39	1551.22 1558.00	7.88 7.88	7.91 7.91	16.34 16.25	14.02 14.43	9.23 7.02	7.99 8.20	-8.16 -8.17	-6.52	5.514 5.525	5.593 5.606	5.399 5.404	5.458 5.463	5.439 5.441	0+	1/2-
97 98	117		1566.49	7.88	7.91 7.91	16.23	14.43	9.07	8.42	-8.17 -8.02	-6.72 -6.96	5.535	5.618		5.469	5.446	0+	0+
90 99	119	1560.46 1567.54	1500.49	7.88	7.91 7.91	16.15	15.36	7.08	8.64	-8.02 -8.03	-0.90 -7.17	5.546	5.631	5.410 5.416	5.475	5.447	0+	1/2-
:00	120	1576.28	1573.13	7.88	7.91	15.82	15.79	8.75	8.84	-8.03 -7.87	-7.17 -7.39	5.555	5.643	5.421	5.479	5.455	0^{+}	0+
01	121	1583.39	1587.41	7.88	7.90	15.85	16.22	7.11	9.05	-7.86	-7.61	5.566	5.656	5.427	5.485	5.458	0^{+}	1/2-
202	122	1591.78	1595.16	7.88	7.90	15.49	16.56	8.38	9.21	-7.70	-7.81	5.575	5.668	5.430	5.488	5.465	0+	0+
03	123	1598.86	1601.16	7.88	7.89	15.47	16.88	7.08	9.37	-7.64	-8.01	5.585	5.681	5.435	5.493	5.468	0+	3/2-
04	124	1606.94	1608.65	7.88	7.89	15.16	17.27	8.08	9.44	-7.54	-8.21	5.595	5.694	5.437	5.496	5.474	0+	0+
:05	125	1614.15	1614.32	7.87	7.87	15.30	17.66	7.21	9.56	-5.86	-8.43	5.604	5.706	5.440	5.499	5.478	0^{+}	1/2-
06	126	1621.79	1621.05	7.87	7.87	14.85	17.94	7.63	9.71	-5.96	-8.57	5.615	5.720	5.444	5.503	5.484	0^+	0+
07	127	1624.23	1624.66	7.85	7.85	10.07	18.29	2.44	9.88	-5.92	-8.75	5.628	5.738	5.450	5.509		0+	9/2+
08	128	1628.70	1629.51	7.83	7.83	6.91	18.71	4.47	10.10	-3.51	-8.96	5.645	5.755	5.465	5.523		0+	0+
09	129	1631.10		7.80		6.87	19.06	2.41	10.28	-3.49	-9.13	5.659	5.772	5.472	5.530		0^+	9/2+
10	130	1635.54		7.79		6.85	19.47	4.44	10.50	-3.48	-9.34	5.675	5.788	5.485	5.543		0^+	0+
11	131	1637.93		7.76		6.83	19.82	2.39	10.67	-3.47	-9.52	5.689	5.806	5.493	5.551		0^+	9/2+
12	132	1642.34		7.75		6.80	20.22	4.41	10.88	-3.47	-9.71	5.705	5.822	5.506	5.564		0^+	0+
13	133	1644.71		7.72		6.79	20.57	2.37	11.06	-3.45	-9.89	5.719	5.839	5.514	5.572		0^+	$9/2^{+}$
14	134	1649.09		7.71		6.75	20.95	4.38	11.26	-3.45	-10.08	5.734	5.854	5.526	5.584		0^+	0+
15	135	1651.46		7.68		6.75	21.31	2.37	11.45	-3.44	-10.26	5.748	5.871	5.535	5.592		0^+	$9/2^{+}$
16	136	1655.81		7.67		6.72	21.68	4.35	11.64	-3.43	-10.44	5.763	5.887	5.546	5.603		0^+	0^+
17	137	1658.17		7.64		6.71	22.04	2.36	11.83	-3.41	-10.62	5.777	5.903	5.555	5.613		0^+	$9/2^{+}$
18	138	1662.48		7.63		6.67	22.39	4.31	12.01	-3.40	-10.80	5.791	5.918	5.566	5.623		0^+	0+
19	139	1664.83		7.60		6.66	22.75	2.35	12.20	-3.38	-10.97	5.806	5.934	5.575	5.632		0^+	$9/2^{+}$
20	140	1669.10		7.59		6.62	23.09	4.27	12.38	-3.37	-11.15	5.819	5.949	5.584	5.642		0^+	0+
21	141	1671.43		7.56		6.60	23.45	2.33	12.57	-3.34	-11.32	5.834	5.965	5.595	5.652		0^+	$9/2^{+}$
22	142	1675.66		7.55		6.55	23.77	4.22	12.73	-3.32	-11.49	5.847	5.979	5.603	5.660		0^+	0^+
23	143	1677.94		7.52		6.51	24.13	2.29	12.92	-3.28	-11.66	5.861	5.995	5.613	5.670		0^+	$9/2^{+}$
24	144	1682.12		7.51		6.46	24.43	4.17	13.07	-3.26	-11.82	5.873	6.009	5.620	5.677		0^+	0^+
25	145	1684.30		7.49		6.36	24.79	2.19	13.26	-3.18	-11.99	5.888	6.025	5.631	5.687		0^+	$9/2^{+}$
26	146	1688.43		7.47		6.32	25.08	4.13	13.40	-3.17	-12.14	5.900	6.039	5.637	5.693		0^+	0^+
27	147	1690.43		7.45		6.12	25.41	1.99	13.59	-3.03	-12.30	5.914	6.055	5.647	5.703		0^+	$9/2^{+}$
228	148	1694.53		7.43		6.10	25.69	4.11	13.71	-3.05	-12.44	5.926	6.069	5.652	5.708		0^+	0^{+}

Table 1 (continued)

Δ	N	E _b ^{Cal.}	E _b Exp.	rCal. /∧	E _b Exp. /A	C.	C.	C	C	1	1	D	D	D	$R_c^{\text{Cal.}}$	R _c Exp.	įπ (D)	įπ (NI)
Α	IN	(MeV)	(MeV)	E _b ^{Cal.} /A (MeV)	(MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	(fm)	(fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
229	149	1696.22		7.41		5.80	25.87	1.69	13.76	-3.07	-12.55	5.941	6.088	5.655	5.711		0+	5/2+
230	150	1700.36		7.39		5.83	26.26	4.14	14.00	-2.92	-12.74	5.952	6.099	5.666	5.722		0+	0+
231	151	1702.08		7.37		5.86	26.43	1.71	14.05	-2.92	-12.85	5.966	6.118	5.669	5.725		0+	5/2+
232	152	1705.96		7.35		5.60	26.80	3.88	14.27	-2.83	-13.02	5.978	6.129	5.679	5.735		0+	0+
233	153	1707.78		7.33		5.70	27.04	1.82	14.37	-2.82	-13.13	5.992	6.147	5.683	5.739		0+	5/2+
234	154	1711.40		7.31		5.44	27.33	3.62	14.54	-2.77	-13.29	6.003	6.159	5.692	5.748		0+	0 ⁺
235	155	1713.17		7.29		5.39	27.56	1.77	14.63	-2.76	-13.41	6.017	6.177	5.696	5.752		0+	5/2+
236	156	1716.73		7.27		5.33	27.86	3.56	14.79	-2.72	-13.56	6.029	6.188	5.705	5.760		0+	0+
237 238	157	1718.47		7.25		5.31	28.08	1.75	14.89	-2.71	-13.68	6.043	6.206	5.709 5.717	5.765 5.773		0^{+}	5/2 ⁺ 0 ⁺
239	158 159	1721.98 1723.71		7.24 7.21		5.25 5.24	28.37 28.60	3.51 1.73	15.05 15.16	-2.69 -2.67	-13.83 -13.95	6.054 6.068	6.218 6.235	5.722	5.778		0+	5/2 ⁺
240	160	1723.71		7.21		5.19	28.88	3.46	15.10	-2.66	-13.93 -14.09	6.079	6.247	5.729	5.785		0+	0+
241	161	1727.17		7.20		5.18	29.12	1.71	15.42	-2.64	-14.03	6.093	6.263	5.735	5.790		0+	5/2 ⁺
242	162	1732.32		7.17		5.15	29.39	3.43	15.55	-2.64	-14.21 -14.35	6.104	6.276	5.741	5.796		0+	0 ⁺
243	163	1734.02		7.14		5.13	29.64	1.70	15.68	-2.62	-14.47	6.118	6.291	5.747	5.803		0+	5/2 ⁺
244	164	1737.44		7.12		5.11	29.90	3.42	15.80	-2.62	-14.61	6.129	6.304	5.753	5.808		0^+	0+
245	165	1739.12		7.10		5.09	30.09	1.68	15.87	-2.60	-14.74	6.142	6.319	5.760	5.815		0^+	5/2 ⁺
246	166	1742.52		7.08		5.09	30.40	3.41	16.05	-2.60	-14.87	6.153	6.332	5.765	5.820		0^{+}	0+
247	167	1744.24		7.06		5.12	30.57	1.72	16.12	-2.61	-14.98	6.167	6.350	5.767	5.822		0^{+}	1/2+
248	168	1747.58		7.05		5.06	30.91	3.34	16.31	-2.58	-15.12	6.177	6.359	5.776	5.831		0^+	0+
249	169	1749.34		7.03		5.10	31.11	1.76	16.39	-2.60	-15.24	6.191	6.377	5.780	5.835		0^+	1/2+
250	170	1752.62		7.01		5.04	31.42	3.28	16.57	-2.56	-15.38	6.201	6.386	5.788	5.843		0^+	$0^{'+}$
251	171	1754.43		6.99		5.08	31.61	1.80	16.62	-2.58	-15.50	6.215	6.403	5.792	5.847		0^{+}	$1/2^{+}$
252	172	1757.64		6.97		5.02	31.94	3.22	16.83	-2.55	-15.64	6.224	6.412	5.800	5.855		0^{+}	0^{+}
253	173	1759.50		6.95		5.08	32.16	1.86	16.93	-2.56	-15.75	6.238	6.428	5.805	5.860		0_{+}	1/2+
254	174	1762.64		6.94		5.00	32.47	3.13	17.09	-2.53	-15.90	6.248	6.438	5.812	5.866		0^+	0^+
255	175	1764.57		6.92		5.06	32.75	1.93	17.27	-2.54	-16.01	6.260	6.453	5.818	5.873		0^+	$1/2^{+}$
256	176	1767.62		6.90		4.98	33.00	3.05	17.36	-2.51	-16.16	6.271	6.464	5.823	5.878		0^+	0^+
257	177	1769.56		6.89		5.00	33.29	1.94	17.55	-2.52	-16.28	6.283	6.477	5.831	5.886		0+	1/2+
258	178	1772.58		6.87		4.96	33.53	3.02	17.63	-2.49	-16.42	6.294	6.489	5.835	5.890		0+	0+
259	179	1774.55		6.85		4.99	33.85	1.97	17.87	-2.49	-16.54	6.305	6.500	5.845	5.899		0+	$1/2^{+}$
260	180	1777.52		6.84		4.94	34.08	2.97	17.91	-2.47	-16.68	6.316	6.513	5.848	5.902		0+	0+
261	181	1779.53		6.82		4.97	34.43	2.00	18.19	-2.47	-16.81	6.327	6.523	5.859	5.913		0+	1/2+
262	182	1782.44		6.80		4.92	34.62	2.92	18.19	-2.45	-16.95	6.338	6.537	5.860	5.914		0+	0+
263	183	1784.48		6.79		4.95	35.01	2.04	18.52	-1.78	-17.08	6.348	6.545	5.873	5.927		0+	1/2+
264	184	1787.34		6.77		4.90	35.17	2.86	18.47	-0.87	-17.22	6.360	6.561	5.872	5.927		0 ⁺	0+
265 266	185 186	1786.32		6.74 6.72		1.84	34.30 35.46	$\frac{-1.02}{-0.08}$	17.56 18.61	0.02 0.50	-17.24 -17.38	6.410 6.390	6.629 6.596	5.872 5.883	5.926 5.937		0^{+}	3/2 ⁻ 0 ⁺
	100	1786.24 5.50		0.72		<u>-1.10</u>	33.40	_0.08	10.01	0.30	-17.56	0.390	0.390	3.003	0.026		U.	U.
σ		3.30													0.020			
Z=8																		
172	91	1312.42		7.63			1.11		-0.27	-11.05	0.15	5.253	5.246	5.260	5.321		1/2+	$9/2^{-}$
173	92	1324.64		7.66			1.67		-0.00	-11.02	-0.19	5.264	5.261	5.268	5.328		1/2+	0+
174	93	1334.30		7.67			2.24	9.66	0.27	-10.95	-0.52	5.276	5.277	5.275	5.335		1/2+	7/2-
175	94	1346.21	40=	7.69		21.57	2.79	11.91	0.53	-10.72	-0.84	5.287	5.292	5.281	5.341		1/2+	0+
176	95	1355.70	1356.60	7.70	7.71	21.40	3.35	9.49	0.80	-10.59	-1.12	5.298	5.307	5.288	5.348		1/2+	$7/2^{-}$
177	96	1367.18	1368.58	7.72	7.73	20.97	3.89	11.48	1.07	-10.44	-1.37	5.308	5.321	5.293	5.353		1/2+	0 ⁺
178	97	1376.40	1200.00	7.73	7.76	20.70	4.43	9.22	1.33	-10.26	-1.64	5.319	5.335	5.299	5.359		1/2+	$7/2^{-}$
179	98	1387.59	1389.68	7.75	7.76	20.40	4.94	11.18	1.58	-10.16	-1.89	5.329	5.349	5.304	5.364		1/2+	0 ⁺
180	99	1396.43	1398.73	7.76	7.77	20.03	5.47	8.84	1.84	-9.92	-2.12	5.339	5.363	5.310	5.370		1/2+	$\frac{7/2^{-}}{0^{+}}$
181	100	1407.42	1410.34	7.78	7.79	19.84	5.97 6.51	10.99	2.09	-9.87	-2.38	5.349	5.376	5.315	5.375		1/2 ⁺ 1/2 ⁺	-
182 183	101 102	1415.76 1426.67	1418.92 1430.27	7.78 7.80	7.80 7.82	19.33 19.25	6.51 6.99	8.33 10.91	2.33 2.58	-9.60 -9.58	-2.59 -2.85	5.360 5.370	5.391 5.404	5.321 5.326	5.381 5.386		1/2 ⁺	$\frac{7/2^{-}}{0^{+}}$
184	102	1426.67	1430.27	7.80 7.80	7.82 7.82	18.82	6.99 7.54	7.90	2.58 2.82	-9.58 -9.50	-2.85 -3.07	5.370	5.404 5.417	5.326	5.386		1/2 ⁺	13/2 ⁺
104	103	17,4.30	CO.0CF1	7.00	7.02	10.02	1.54	7.30	2.02	-3.30	-5.07	5.560	J. -1 17	3,331	5.551		1/2	13/2

	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
85	104	1445.38	1449.58	7.81	7.84	18.70	8.01	10.80	3.05	-9.34	-3.30	5.391	5.432	5.337	5.397		1/2+	0+
86	105	1453.23	1457.78	7.81	7.84	18.65	8.50	7.85	3.28	-9.29	-3.47	5.402	5.447	5.344	5.403		1/2+	5/2-
87	106	1463.63	1468.41	7.83	7.85	18.25	9.02	10.40	3.52	-9.13	-3.68	5.412	5.459	5.348	5.408		1/2+	0^+
88	107	1471.36	1476.38	7.83	7.85	18.13	9.50	7.73	3.74	-9.08	-3.84	5.423	5.474	5.355	5.414	5.402	1/2+	5/2
89	108	1481.50	1486.71	7.84	7.87	17.87	10.00	10.14	3.97	-8.95	-4.05	5.433	5.487	5.360	5.419		1/2+	0^+
90	109	1489.14		7.84		17.78	10.49	7.64	4.19	-8.89	-4.26	5.444	5.501	5.366	5.425	5.412	1/2+	5/2
91	110	1499.05	1504.53	7.85	7.88	17.55	10.97	9.91	4.42	-8.80	-4.57	5.454	5.514	5.372	5.431	5.417	1/2+	0+
92	111	1506.59	1512.20	7.85	7.88	17.45	11.46	7.54	4.63	-8.73	-4.69	5.464	5.527	5.377	5.436	5.419	1/2+	5/2
93	112	1516.31	1521.87	7.86	7.88	17.26	11.92	9.72	4.85	-8.65	-5.08	5.475	5.540	5.383	5.442	5.424	1/2+	0+
94	113	1523.74	1529.40	7.85	7.88	17.16	12.38	7.43	5.06	-8.58	-5.26	5.485	5.553	5.388	5.448	5.426	1/2+	5/2
95 oc	114	1533.31	1538.69	7.86	7.89	17.00	12.83	9.57	5.28	-8.52	-5.62	5.496	5.566	5.394	5.453	5.433	1/2+	0 ⁺
96 97	115 116	1540.63 1550.07	1546.10	7.86 7.87	7.89 7.89	16.89 16.76	13.25	7.32 9.45	5.49 5.71	-8.44	-5.82	5.505	5.579 5.592	5.399	5.458 5.465	5.433 5.439	1/2 ⁺ 1/2 ⁺	5/2 0 ⁺
	117		1555.02				13.70		5.71	-8.38	-6.08	5.516		5.406			1/2+	3/2
98 99	117	1557.37 1566.60	1562.25 1570.88	7.87 7.87	7.89 7.89	16.74 16.52	14.18 14.56	7.29 9.23	5.98 6.14	-8.38 -8.25	-6.30 -6.53	5.526 5.536	5.605 5.617	5.411 5.417	5.469 5.475	5.440 5.448	1/2+	3/2 0 ⁺
99 00	119	1573.92	1570.88	7.87 7.87	7.89	16.55	15.02	9.23 7.32	6.38	-8.23 -8.24		5.547	5.630	5.422	5.480	5.449	1/2+	3/2
00 01	120	1575.92	1577.94	7.88	7.89	16.28	15.02	7.32 8.96	6.59	-8.24 -8.11	-6.74 -6.99	5.557	5.642	5.427	5.486	5.457	1/2 ⁺	0 ⁺
02	121	1590.21	1593.02	7.87	7.89	16.30	15.43	7.34	6.82	-8.09	-0.39 -7.20	5.567	5.655	5.432	5.491	5.460	1/2 1/2 ⁺	3/2
02	121	1598.87	1600.87	7.88	7.89	16.00	16.31	8.66	7.10	 7.94	-7.20 -7.43	5.576	5.667	5.437	5.495	5.467	1/2 1/2 ⁺	0 ⁺
04	123	1606.19	1607.53	7.87	7.88	15.97	16.70	7.32	7.33	-7.96	-7.64	5.586	5.680	5.441	5.500	5.470	1/2 ⁺	1/2
05	124	1614.52	1615.07	7.88	7.88	15.65	17.02	8.34	7.58	-7.75	-7.83	5.596	5.692	5.446	5.504	5.476	1/2 ⁺	0+
06	125	1621.96	1621.58	7.87	7.87	15.77	17.36	7.44	7.81	-6.07	-7.80	5.606	5.704	5.450	5.508	3.170	1/2+	1/2
07	126	1629.75	1628.43	7.87	7.87	15.22	17.67	7.79	7.96	-6.23	-7.97	5.616	5.718	5.454	5.512	5.485	1/2+	0+
)8	127	1632.37	1632.22	7.85	7.85	10.41	18.02	2.62	8.14	-6.13	-8.12	5.630	5.736	5.460	5.518	5.495	1/2 ⁺	9/2
)9	128	1637.04	1637.17	7.83	7.83	7.29	18.45	4.67	8.34	-3.70	-8.30	5.646	5.752	5.474	5.532	0.100	1/2+	0+
10	129	1639.63	1640.85	7.81	7.81	7.26	18.81	2.59	8.53	-3.68	-8.39	5.662	5.770	5.487	5.545		1/2+	11,
11	130	1644.26	1645.76	7.79	7.80	7.22	19.22	4.63	8.72	-3.68	-8.63	5.676	5.786	5.494	5.552		1/2+	0+
12	131	1646.83		7.77		7.20	19.57	2.57	8.90	-3.66	-8.72	5.690	5.803	5.502	5.560		1/2+	9/2
13	132	1651.43	1654.06	7.75	7.77	7.17	19.98	4.60	9.09	-3.65	-8.88	5.705	5.819	5.515	5.572		1/2+	0+
14	133	1653.98		7.73		7.15	20.33	2.55	9.27	-3.64	-8.99	5.719	5.836	5.523	5.580		1/2+	9/2
15	134	1658.55		7.71		7.12	20.72	4.56	9.46	-3.63	-9.16	5.734	5.851	5.535	5.592		1/2+	0+
16	135	1661.09		7.69		7.11	21.08	2.54	9.63	-3.62	-9.25	5.748	5.868	5.543	5.601		1/2+	9/2
17	136	1665.62		7.68		7.07	21.45	4.53	9.81	-3.61	-9.56	5.763	5.883	5.554	5.612		1/2+	0+
18	137	1668.16		7.65		7.06	21.81	2.54	9.99	-3.59	-9.58	5.777	5.899	5.564	5.621		$1/2^{+}$	9/2
9	138	1672.64		7.64		7.02	22.17	4.48	10.16	-3.58	-10.23	5.791	5.915	5.574	5.631		$1/2^{+}$	0^{+}
20	139	1675.17		7.61		7.01	22.53	2.53	10.34	-3.56	-10.35	5.805	5.930	5.584	5.641		$1/2^{+}$	9/
21	140	1679.61		7.60		6.96	22.88	4.44	10.50	-3.54	-10.73	5.818	5.945	5.593	5.649		$1/2^{+}$	0^{+}
22	141	1682.11		7.58		6.94	23.24	2.50	10.68	-3.51	-10.91	5.833	5.961	5.603	5.659		1/2+	9/
3	142	1686.49		7.56		6.89	23.57	4.38	10.84	-3.49	-11.08	5.846	5.975	5.611	5.667		1/2+	0^+
4	143	1688.96		7.54		6.85	23.94	2.47	11.02	-3.45	-11.17	5.860	5.991	5.621	5.677		1/2+	9/
25	144	1693.28		7.53		6.79	24.24	4.32	11.16	-3.43	-11.22	5.872	6.005	5.628	5.684		1/2+	0^{+}
6	145	1695.64		7.50		6.67	24.60	2.36	11.33	-3.34	-11.32	5.886	6.020	5.638	5.694		1/2+	9/2
7	146	1699.91		7.49		6.63	24.88	4.28	11.48	-3.33	-11.39	5.898	6.034	5.644	5.700		1/2+	0+
8	147	1702.07		7.47		6.43	25.23	2.15	11.64	-3.19	-11.84	5.912	6.050	5.654	5.710		1/2+	9/
9	148	1706.32		7.45		6.41	25.50	4.25	11.79	-3.20	-12.03	5.924	6.064	5.659	5.715		1/2+	0+
0	149	1708.13		7.43		6.06	25.69	1.81	11.93	-3.03	-12.20	5.938	6.080	5.668	5.724		1/2+	9/
31	150	1712.44		7.41		6.12	26.08	4.31	12.07	-3.07	-12.34	5.949	6.093	5.673	5.729		1/2+	0+
2	151	1714.27		7.39		6.14	26.24	1.83	12.19	-3.07	-12.41	5.964	6.112	5.677	5.733		1/2+	5/
3	152	1718.31		7.37		5.88	26.63	4.04	12.35	-2.97	-12.63	5.975	6.123	5.687	5.743		1/2+	0+
4	153	1720.25		7.35		5.97	26.84	1.93	12.47	-2.97	-12.72	5.989	6.141	5.691	5.747		1/2+	5/
35	154	1724.02		7.34		5.71	27.16	3.78	12.63	-2.90	-12.89	6.000	6.152	5.700	5.755		1/2+	0+
6	155	1725.92		7.31		5.67	27.38	1.90	12.75	-2.90	-12.96	6.014	6.170	5.704	5.760		1/2+	5/3
37	156	1729.62		7.30		5.60	27.69	3.70	12.89	-2.86	-13.12	6.025	6.182	5.712	5.768		1/2+	0+
38	157	1731.49		7.28		5.57	27.91	1.87	13.02	-2.85	-13.18	6.039	6.199	5.717	5.773		$1/2^{+}$	5/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
239	158	1735.14		7.26		5.52	28.20	3.65	13.16	-2.82	-13.36	6.050	6.211	5.725	5.780		1/2+	0+
240	159	1736.99		7.24		5.50	28.44	1.85	13.28	-2.81	-13.41	6.064	6.227	5.730	5.786		1/2+	5/2+
241	160	1740.59		7.22		5.46	28.72	3.60	13.42	-2.79	-13.64	6.075	6.239	5.737	5.793		1/2+	0+
242	161	1742.43		7.20		5.44	28.96	1.84	13.54	-2.78	-13.70	6.089	6.256	5.743	5.798		1/2+	5/2+
243	162	1746.00		7.19		5.41	29.23	3.57	13.68	-2.77	-13.90	6.100	6.268	5.749	5.805		1/2+	0+
244	163	1747.82		7.16		5.39	29.49	1.82	13.80	-2.75	-13.98	6.113	6.283	5.755	5.811		1/2+	5/2+
245	164	1751.37		7.15		5.37	29.74	3.55	13.94	-2.75	-14.10	6.124	6.296	5.761	5.816		1/2+	0+
246	165	1753.18		7.13		5.35	29.93	1.80	14.06	-2.73	-14.23	6.137	6.311	5.768	5.823		1/2+	5/2+
247	166	1756.72		7.11		5.34	30.24	3.54	14.19	-2.73	-14.33	6.148	6.323	5.773	5.828		1/2+	0+
248	167	1758.54		7.09		5.36	30.42	1.82	14.30	-2.75	-14.30	6.163	6.342	5.777	5.832		1/2+	1/2+
249	168	1762.03		7.08		5.32	30.76	3.49	14.45	-2.71	-14.57	6.172	6.350	5.785	5.840		1/2+	0+
250	169	1763.90		7.06		5.37	30.95	1.87	14.56	-2.73	-14.56	6.186	6.368	5.789	5.844		1/2+	1/2+
251	170	1767.32		7.04		5.29	31.27	3.42	14.70	-2.69	-14.80	6.196	6.377	5.796	5.851		1/2+	0+
252	171	1769.24		7.02		5.34	31.44	1.92	14.81	-2.71	-14.84	6.209	6.394	5.801	5.856		1/2+	1/2+
253	172	1772.60		7.01		5.27	31.78	3.36	14.96	-2.68	-15.02	6.219	6.403	5.808	5.863		1/2+	0+
254	173	1774.56		6.99		5.32	31.99	1.96	15.05	-2.69	-15.08	6.232	6.419	5.813	5.868		1/2+	1/2+
255	174	1777.85		6.97		5.25	32.30	3.29	15.21	-2.66	-15.24	6.242	6.429	5.820	5.874		1/2+	0+
256	175	1779.90		6.95		5.35	32.60	2.05	15.34	-2.67	-15.35	6.255	6.444	5.825	5.880		1/2+	1/2+
257	176	1783.08		6.94		5.23	32.82	3.18	15.46	-2.64	-15.49	6.265	6.455	5.831	5.886		1/2+	0+
258	177	1785.15		6.92		5.24	33.14	2.06	15.58	-2.65	-15.64	6.277	6.468	5.838	5.892		1/2+	1/2+
259	178	1788.30		6.90		5.22	33.35	3.15	15.72	-2.62	-15.73	6.287	6.480	5.843	5.897		1/2+	0+
260	179	1790.39		6.89		5.24	33.70	2.09	15.83	-2.63	-15.93	6.299	6.491	5.850	5.905		1/2+	1/2+
261	180	1793.50		6.87		5.20	33.88	3.11	15.97	-2.60	-15.98	6.310	6.504	5.855	5.909		1/2+	0+
262	181	1795.61		6.85		5.22	34.27	2.11	16.08	-2.60	-16.23	6.320	6.514	5.863	5.918		1/2+	1/2+
263	182	1798.67		6.84		5.17	34.41	3.06	16.23	-2.58	-16.23	6.332	6.528	5.866	5.921		1/2+	0+
264	183	1800.81		6.82		5.20	34.85	2.14	16.33	-1.76	-16.51	6.341	6.536	5.877	5.931		1/2+	1/2+
265	184	1803.82		6.81		5.15	34.95	3.01	16.48	-0.96	-16.47	6.354	6.552	5.878	5.932		1/2+	0+
266	185	1802.82		6.78		2.01	34.96	$\frac{-1.00}{0.05}$	16.50	-1.55	-16.54	6.368	6.569	5.882	5.936		1/2+	11/2-
267	186	1802.88		6.75		-0.94	35.24	0.05	16.64	0.42	-16.63	6.383	6.586	5.889	5.943		1/2+	0^+
σ		3.68													0.024			
Z = 82		1000 10	1000.01	==0	==0		0.45		4.50	10.10	0.00	= 00.4	= 0=4	- 0.4.4	- 0- 4		0.1	0.1
180	98	1389.18	1390.61	7.72	7.73		3.17		1.59	-10.40	0.22	5.334	5.351	5.314	5.374		0+	0+
181	99	1398.25	1399.87	7.73	7.73		3.66	4404	1.82	-10.15	-0.28	5.344	5.365	5.319	5.379	- 0-0	0+	7/2-
182	100	1409.49	1411.65	7.74	7.76	40.50	4.15	11.24	2.06	-10.10	-0.45	5.354	5.378	5.324	5.384	5.379	0+	0+
183	101	1418.03	1420.47	7.75	7.76	19.78	4.61	8.55	2.28	-9.82	-0.59	5.365	5.393	5.330	5.390	5.387	0+	7/2-
184	102	1429.20	1432.02	7.77	7.78	19.71	5.10	11.16	2.52	-9.81	-0.75	5.374	5.406	5.335	5.394	5.393	0+	0+
185	103	1437.30	1440.58	7.77	7.79	19.27	5.54	8.10	2.72	-9.73	-1.02	5.384	5.419	5.340	5.399	5.398	0+	13/2 ⁺
186	104	1448.35	1451.79	7.79	7.81	19.15	6.03	11.05	2.97	-9.56	-1.28	5.395	5.433	5.345	5.405	5.403	0 ⁺	0 ⁺
187	105	1456.40	1460.17	7.79	7.81	19.10	6.45	8.06	3.18	-9.51	-1.48	5.406	5.448	5.352	5.411	5.408	0 ⁺	5/2 ⁻
188	106	1467.04	1471.07	7.80	7.82	18.69	6.93	10.64	3.42	-9.35	-1.75	5.415	5.461	5.356	5.416	5.414	0 ⁺	0 ⁺
189	107	1474.97	1479.20	7.80	7.83	18.57	7.35	7.93	3.61	-9.30	-2.01	5.426	5.475	5.362	5.422	5.418	0+	5/2-
190	108	1485.36	1489.82	7.82	7.84	18.31	7.83	10.38	3.86	-9.18	-2.24	5.436	5.488	5.367	5.427	5.422	0+	0 ⁺
191	109	1493.19	1497.70	7.82	7.84	18.22	8.10	7.83	3.92	-9.12	-2.46	5.447	5.502	5.373	5.432	5.423	0 ⁺	5/2 ⁻
192	110	1503.34	1508.10	7.83	7.85	17.99	8.72	10.15	4.30	-9.02	-2.74	5.457	5.514	5.378	5.438	5.430	0 ⁺	0 ⁺
193	111	1511.08	1515.81	7.83	7.85	17.89	9.12	7.74	4.50	-8.96	-2.99	5.467	5.528	5.384	5.443	5.431	0 ⁺	5/2 ⁻ 0 ⁺
194	112	1521.05	1525.89	7.84	7.87	17.70	9.59	9.97	4.74	-8.88	-3.22	5.477	5.541	5.389	5.448	5.437	0^{+}	
195	113	1528.69	1533.47	7.84	7.86	17.61	10.00	7.64	4.95	-8.81	-3.49	5.487	5.554	5.394	5.453	5.439		5/2 ⁻ 0 ⁺
196	114	1538.50	1543.19	7.85	7.87	17.45	10.47	9.81	5.19	-8.74	-3.73	5.498	5.566	5.400	5.459	5.444	0^{+}	
197	115	1546.10	1550.65	7.85	7.87	17.42	10.96	7.61	5.48	-8.71	-3.97	5.508	5.580	5.405	5.464	5.445	0+	3/2 ⁻ 0 ⁺
198	116	1555.71	1560.02	7.86	7.88	17.21	11.35	9.61	5.64	-8.62	-4.20	5.518	5.592	5.411	5.470	5.452		
199	117	1563.29	1567.27	7.86	7.88	17.19	11.91	7.58	5.93	-8.59	-4.45	5.528	5.605	5.416	5.475	5.453	0 ⁺	$\frac{3}{2}^{-}$ 0^{+}
200	118	1572.71	1576.37	7.86	7.88	16.99	12.25	9.41	6.11	-8.49	-4.69	5.538	5.617	5.421	5.480	5.461	0^{+}	
201	119	1580.27	1583.44	7.86	7.88	16.97	12.73	7.56	6.35	-8.46	-4.90	5.548	5.629	5.427	5.485	5.463	U ·	$3/2^{-}$

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
202	120	1589.49	1592.19	7.87	7.88	16.78	13.20	9.22	6.61	-8.37	-5.16	5.557	5.641	5.432	5.490	5.471	0+	0+
203	121	1597.01	1599.11	7.87	7.88	16.75	13.62	7.53	6.80	-8.32	-5.36	5.567	5.654	5.437	5.496	5.473	0+	3/2-
204	122	1606.05	1607.51	7.87	7.88	16.56	14.27	9.03	7.18	-8.23	-5.64	5.577	5.666	5.441	5.500	5.480	0+	0+
205	123	1613.56	1614.24	7.87	7.87	16.54	14.70	7.51	7.37	-8.30	-5.82	5.587	5.679	5.446	5.505	5.483	0+	1/2
206	124	1622.32	1622.33	7.88	7.88	16.27	15.38	8.76	7.80	-8.01	-6.16	5.596	5.690	5.451	5.509	5.490	0+	0+
207	125	1630.07	1629.06	7.87	7.87	16.51	15.91	7.75	8.11	-6.25	-6.37	5.606	5.703	5.455	5.514	5.494	0+	1/2
208	126	1637.92	1636.43	7.87	7.87	15.60	16.13	7.85	8.17	-6.62	-6.50	5.617	5.717	5.460	5.518	5.501	0 ⁺	0+
209	127 128	1640.73	1640.37	7.85	7.85	10.66	16.50	2.82	8.36	-6.33	-6.65	5.630	5.734	5.466	5.524	5.510	0+	9/2 ⁻ 0 ⁺
210 211	128	1645.59 1648.37	1645.55 1649.39	7.84 7.81	7.84 7.82	7.68 7.64	16.90 17.27	4.86 2.78	8.55 8.74	-3.89 -3.87	-6.88 -7.11	5.647 5.662	5.751 5.768	5.480 5.492	5.538 5.550	5.521 5.529	0+	11/3
211	130	1653.19	1654.52	7.80	7.82	7.60	17.27	4.82	8.93	-3.86	-7.11 -7.30	5.676	5.784	5.500	5.558	5.540	0 ⁺	0 ⁺
212	131	1655.19	1658.24	7.77	7.80	7.57	18.01	2.75	9.11	-3.85	-7.30 -7.46	5.690	5.801	5.507	5.565	3.340	0+	9/2
214	132	1660.73	1663.29	7.76	7.77	7.53	18.39	4.78	9.30	-3.83	-7.70	5.705	5.817	5.520	5.578	5.558	0+	0+
215	133	1663.46	1003.23	7.74	,,,,	7.52	18.74	2.73	9.47	-3.82	-7.87	5.719	5.833	5.528	5.585	3.550	0+	9/2
216	134	1668.20		7.72		7.47	19.11	4.74	9.65	-3.81	-8.11	5.733	5.849	5.539	5.597		0^{+}	0+
217	135	1670.92		7.70		7.46	19.46	2.72	9.83	-3.80	-8.28	5.747	5.865	5.548	5.605		0^{+}	9/2
218	136	1675.62		7.69		7.42	19.82	4.70	10.00	-3.78	-8.51	5.762	5.880	5.559	5.616		0^{+}	0+
219	137	1678.33		7.66		7.41	20.16	2.71	10.17	-3.77	-8.69	5.776	5.896	5.568	5.625		0^+	9/2
220	138	1682.98		7.65		7.36	20.50	4.65	10.34	-3.75	-8.90	5.789	5.911	5.578	5.635		0^+	0+
221	139	1685.68		7.63		7.35	20.85	2.70	10.51	-3.73	-9.09	5.803	5.927	5.587	5.644		0^+	9/2
222	140	1690.28		7.61		7.30	21.18	4.60	10.68	-3.71	-9.28	5.817	5.942	5.596	5.653		0^+	0^{+}
223	141	1692.95		7.59		7.27	21.52	2.67	10.84	-3.68	-9.47	5.831	5.957	5.606	5.663		0^+	9/2
224	142	1697.50		7.58		7.22	21.85	4.55	11.01	-3.66	-9.65	5.843	5.972	5.614	5.670		0^+	0+
225	143	1700.13		7.56		7.18	22.19	2.63	11.17	-3.61	-9.84	5.857	5.987	5.624	5.680		0^+	9/2
226	144	1704.61		7.54		7.11	22.49	4.48	11.33	-3.59	-10.01	5.869	6.001	5.630	5.687		0^+	0^+
227	145	1707.12		7.52		6.99	22.82	2.51	11.48	-3.50	-10.19	5.883	6.016	5.640	5.697		0^+	9/2
228	146	1711.56		7.51		6.95	23.13	4.44	11.65	-3.49	-10.35	5.895	6.030	5.646	5.703		0^+	0^+
229	147	1713.87		7.48		6.74	23.44	2.31	11.80	-3.34	-10.53	5.909	6.046	5.656	5.712		0^+	9/2
230	148	1718.28		7.47		6.72	23.74	4.41	11.96	-3.35	-10.68	5.920	6.059	5.661	5.717		0+	0^+
231	149	1720.27		7.45		6.40	24.07	1.99	12.14	-3.37	-10.82	5.935	6.078	5.665	5.722		0+	5/2
232	150	1724.70		7.43		6.42	24.33	4.43	12.26	-3.22	-11.00	5.946	6.089	5.675	5.731		0+	0+
233	151	1726.71		7.41		6.45	24.63	2.02	12.44	-3.22	-11.14	5.960	6.107	5.679	5.735		0+	5/2
234	152	1730.87		7.40		6.17	24.91	4.16	12.55	-3.12	-11.31	5.971	6.118	5.688	5.744		0+	0+
235	153	1732.98		7.37		6.27	25.20	2.11	12.73	-3.11	-11.45	5.985	6.136	5.693	5.749		0+	5/2
236	154	1736.87		7.36		6.00	25.47	3.89	12.85	-3.05	-11.62	5.996	6.147	5.701	5.757		0 ⁺	0+
237	155	1738.92		7.34		5.94	25.75	2.05	13.00	-3.04	-11.76	6.010	6.165	5.706	5.762		0 ⁺	5/2 0 ⁺
238	156	1742.76		7.32		5.89	26.03	3.84	13.14	-3.00	-11.92	6.021	6.177	5.714	5.769		0^{+}	5/2
239 240	157 158	1744.78 1748.56		7.30 7.29		5.86 5.80	26.30 26.58	2.02 3.78	13.29 13.42	-2.99 -2.96	-12.06 -12.22	6.035 6.046	6.193 6.205	5.719 5.726	5.774 5.781		0+	5/2 0 ⁺
240 241	159	1746.56		7.29		5.78	26.85	2.00	13.42	-2.96 -2.95	-12.22 -12.36	6.059	6.222	5.731	5.787		0+	5/2
242	160	1754.30		7.25		5.74	27.13	3.74	13.71	-2.93 -2.93	-12.50 -12.52	6.070	6.234	5.738	5.793		0+	0 ⁺
243	161	1756.28		7.23		5.74	27.13	1.97	13.71	-2.93 -2.92	-12.52 -12.66	6.084	6.250	5.744	5.799		0+	5/2
244	162	1750.28		7.23		5.69	27.67	3.72	13.99	-2.91	-12.81	6.095	6.262	5.750	5.805		0+	0+
245	163	1761.97		7.19		5.70	27.95	1.98	14.15	-2.91	-12.96	6.109	6.280	5.754	5.809		0+	1/2
246	164	1765.64		7.13		5.65	28.21	3.67	14.13	-2.92 -2.89	-12.30 -13.10	6.119	6.290	5.762	5.817		0+	0+
247	165	1767.65		7.16		5.68	28.53	2.01	14.47	-2.89	-13.10 -13.24	6.133	6.307	5.766	5.821		0+	1/2
248	166	1771.26		7.14		5.62	28.74	3.61	14.55	-2.87	-13.39	6.143	6.317	5.774	5.829		0+	0+
249	167	1773.29		7.12		5.64	29.05	2.03	14.75	-2.87	-13.52	6.156	6.333	5.779	5.834		0+	1/2
250	168	1776.85		7.12		5.59	29.27	3.56	14.82	-2.85	-13.67	6.166	6.344	5.785	5.840		0^{+}	0+
251	169	1778.94		7.09		5.65	29.60	2.09	15.04	-2.85	-13.80	6.179	6.359	5.791	5.846		0^{+}	1/2
252	170	1782.42		7.07		5.56	29.80	3.48	15.10	-2.83	-13.96	6.190	6.370	5.797	5.852		0^{+}	0+
253	171	1784.51		7.05		5.57	30.09	2.09	15.27	-2.83	-14.08	6.202	6.385	5.803	5.858		0^{+}	1/2
254	172	1787.96		7.04		5.54	30.32	3.45	15.36	-2.81	-14.24	6.213	6.397	5.809	5.863		0^+	$0^{'\!+}$
255	173	1790.04		7.02		5.53	30.54	2.08	15.49	-2.80	-14.36	6.225	6.410	5.815	5.870		0+	1/2

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
256	174	1793.48		7.01		5.52	30.84	3.44	15.63	-2.79	-14.53	6.236	6.422	5.820	5.875		0+	0+
257	175	1795.55		6.99		5.51	30.98	2.07	15.65	-2.78	-14.63	6.247	6.434	5.828	5.882		0+	1/2+
258	176	1798.98		6.97		5.50	31.36	3.43	15.90	-2.77	-14.81	6.258	6.447	5.832	5.886		0+	0+
259	177	1801.07		6.95		5.52	31.51	2.09	15.93	-2.78	-14.98	6.270	6.460	5.838	5.893		0+	3/2+
260	178	1804.46		6.94		5.48	31.88	3.38	16.16	-2.75	-15.09	6.281	6.472	5.843	5.898		0+	0+
261	179	1806.57		6.92		5.50	32.02	2.12	16.19	-2.75	-15.28	6.291	6.483	5.851	5.905		0+	3/2+
262	180	1809.92		6.91		5.46	32.40	3.34	16.42	-2.73	-15.37	6.303	6.496	5.855	5.910		0^{+}	0+
263	181	1812.05		6.89		5.47	32.52 32.91	2.13	16.44	-2.72	-15.58	6.313	6.506 6.520	5.863 5.867	5.917 5.921		0 ⁺	3/2 ⁺ 0 ⁺
264 265	182 183	1815.36 1817.50		6.88 6.86		5.44 5.45	33.02	3.31 2.14	16.69 16.69	-2.71 -1.85	-15.65 -15.89	6.325 6.334	6.529	5.876	5.930		0 ⁺	3/2 ⁺
266	184	1820.77		6.85		5.42	33.43	3.28	16.95	-1.83 -1.18	-15.83 -15.93	6.346	6.543	5.879	5.933		0^{+}	0 ⁺
267	185	1819.86		6.82		2.37	33.54	-0.91	17.04	-1.59	-16.00	6.360	6.560	5.883	5.938		0+	11/2 ⁻
268	186	1820.01		6.79		-0.76	33.77	0.15	17.13	0.33	-16.10	6.375	6.577	5.890	5.944		0+	0+
σ		3.25													0.015		_	-
	2 (D:)	3.20													0.010			
Z = 83		126472		7.62			2.46			10.04	0.25	E 220	E 222	E 22.4	E 204		$9/2^{-}$	0^+
179 180	96 97	1364.72 1374.44		7.62 7.64			$\frac{-2.46}{-1.96}$			10.94 10.76	0.25 0.03	5.329 5.339	5.333 5.347	5.324 5.330	5.384 5.389		$9/2$ $9/2^{-}$	0' 7/2 ⁻
181	98	1374.44		7.66			$\frac{-1.96}{-1.47}$	11.68	-3.05	-10.76 -10.65	-0.20	5.348	5.360	5.334	5.394		$9/2^{-}$	0+
182	99	1395.46		7.67		21.02	$\frac{1.47}{-0.97}$	9.34	$\frac{-3.05}{-2.79}$	-10.42	-0.46	5.358	5.374	5.340	5.399		$9/2^{-}$	7/2 ⁻
183	100	1406.94		7.69		20.82	$\frac{0.37}{-0.48}$	11.49	$\frac{2.75}{-2.55}$	-10.36	-0.68	5.368	5.387	5.344	5.404		$9/2^{-}$	0+
184	101	1415.79	1419.00	7.69	7.71	20.33	0.03	8.85	$\frac{2.33}{-2.24}$	-10.10	-0.87	5.378	5.401	5.350	5.409		9/2-	7/2 ⁻
185	102	1427.19		7.71		20.24	0.52	11.40	$\frac{-2.01}{-2.01}$	-10.08	-1.09	5.387	5.414	5.354	5.414		9/2-	0+
186	103	1435.59	1439.46	7.72	7.74	19.80	1.01	8.40	-1.71	-10.00	-1.36	5.397	5.427	5.359	5.419		9/2-	$13/2^{-}$
187	104	1446.89	1450.78	7.74	7.76	19.70	1.52	11.30	-1.46	-9.84	-1.56	5.407	5.441	5.365	5.424		$9/2^{-}$	0 ⁺
188	105	1455.21	1459.66	7.74	7.76	19.62	1.99	8.32	-1.19	-9.79	-1.73	5.419	5.456	5.371	5.430		9/2-	$5/2^{-}$
189	106	1466.14	1470.61	7.76	7.78	19.25	2.51	10.92	-0.90	-9.63	-1.95	5.428	5.468	5.376	5.435		$9/2^{-}$	0^+
190	107	1474.31	1479.21	7.76	7.79	19.10	2.95	8.17	-0.66	-9.58	-2.12	5.439	5.482	5.382	5.441		$9/2^{-}$	$5/2^{-}$
191	108	1485.00	1489.93	7.77	7.80	18.86	3.50	10.68	-0.36	-9.45	-2.39	5.448	5.495	5.386	5.445		$9/2^{-}$	0^+
192	109	1493.08	1498.29	7.78	7.80	18.77	3.95	8.08	<u>-0.11</u>	-9.39	-2.57	5.458	5.508	5.392	5.451		9/2-	5/2-
193	110	1503.52	1508.70	7.79	7.82	18.52	4.47	10.44	0.18	-9.28	-2.86	5.468	5.521	5.397	5.456		9/2-	0+
194	111	1511.52	1527.00	7.79	7.00	18.44	4.93	8.00	0.44	-9.22	-3.03	5.478	5.534	5.402	5.461		9/2-	5/2-
195 196	112 113	1521.75 1529.66	1527.00 1535.05	7.80 7.80	7.83 7.83	18.23 18.14	5.44 5.92	10.23 7.91	0.70 0.97	-9.14 -9.07	-3.32 -3.50	5.488 5.498	5.547 5.560	5.408 5.413	5.467 5.472		9/2 ⁻ 9/2 ⁻	0 ⁺ 5/2 ⁻
190	113	1539.72	1533.03	7.80	7.83 7.84	17.97	6.40	10.06	1.22	-9.07 -9.00	-3.30 -3.79	5.508	5.572	5.419	5.472		$9/2^{-}$	0 ⁺
198	115	1539.72	1552.56	7.82	7.84	17.90	6.93	7.84	1.46	-8.97	-3.79 -4.12	5.518	5.585	5.423	5.482		$9/2^{-}$	3/2-
199	116	1557.44	1562.06	7.83	7.85	17.72	7.36	9.88	1.72	-8.87	-4.12	5.528	5.597	5.429	5.488		$9/2^{-}$	0 ⁺
200	117	1565.26	1569.70	7.83	7.85	17.72	7.90	7.83	1.97	-8.84	-4.53	5.538	5.610	5.434	5.493		$9/2^{-}$	3/2 ⁻
201	118	1574.93	1578.82	7.84	7.85	17.49	8.33	9.66	2.22	-8.74	-4.65	5.547	5.622	5.439	5.498		9/2 ⁻	0+
202	119	1582.74	1586.21	7.84	7.85	17.48	8.83	7.82	2.48	-8.71	-4.94	5.557	5.635	5.445	5.503	5.484	9/2 ⁻	3/2-
203	120	1592.19	1595.07	7.84	7.86	17.26	9.32	9.45	2.70	-8.61	-5.09	5.567	5.647	5.449	5.508	5.491	9/2-	0+
204	121	1599.99	1602.26	7.84	7.85	17.25	9.77	7.80	2.97	-8.57	-5.38	5.577	5.659	5.455	5.513	5.493	9/2-	$3/2^{-}$
205	122	1609.22	1610.75	7.85	7.86	17.02	10.34	9.23	3.17	-8.46	-5.79	5.586	5.670	5.459	5.517	5.501	9/2-	0+
206	123	1616.93	1617.79	7.85	7.85	16.94	10.74	7.71	3.37	-8.31	-6.08	5.596	5.682	5.465	5.523	5.503	9/2-	$3/2^{-}$
207	124	1625.93	1625.88	7.85	7.85	16.71	11.40	9.00	3.61	-8.21	-6.45	5.605	5.694	5.468	5.526	5.510	$9/2^{-}$	0+
208	125	1633.85	1632.77	7.86	7.85	16.93	11.89	7.93	3.79	-6.47	-6.67	5.615	5.707	5.473	5.531	5.515	$9/2^{-}$	$11/2^{+}$
209	126	1641.86	1640.23	7.86	7.85	15.93	12.11	8.00	3.94	-6.71	-6.81	5.626	5.721	5.477	5.536	5.521	9/2-	0+
210	127	1644.98	1644.83	7.83	7.83	11.13	12.61	3.12	4.25	-6.31	-6.99	5.642	5.739	5.490	5.548	5.530	9/2-	11/2+
211	128	1650.03	1649.97	7.82	7.82	8.18	12.99	5.06	4.44	-4.14	-7.10	5.655	5.755	5.498	5.556	F F 40	9/2-	0 ⁺
212	129	1653.10	1654.30	7.80	7.80	8.13	13.48	3.07	4.73	-4.11	-7.21	5.671	5.772	5.510	5.568	5.549	9/2-	11/2+
213	130	1658.13	1659.49	7.78	7.79	8.09	13.86	5.02	4.93	-4.10	-7.41	5.685	5.788	5.519	5.576	5.559	9/2-	0 ⁺
214	131	1661.16	1663.53	7.76	7.77	8.05	14.33	3.03	5.22	-4.08	-7.52	5.700 5.714	5.805	5.531	5.588		9/2-	11/2 ⁺ 0 ⁺
215 216	132 133	1666.15 1669.13	1668.75 1672.60	7.75 7.73	7.76 7.74	8.02 7.97	14.71 15.15	4.99 2.98	5.42 5.67	-4.07 -4.04	-7.72 -7.90	5.714 5.729	5.821 5.837	5.539 5.550	5.597 5.608		9/2 ⁻ 9/2 ⁻	11/2 ⁺
210	133	1009.13	1072.00	1.13	7.74	1.31	13.13	2.30	3.07	-4.04	-7.50	3.143	3.03/	3,330	5.008		3/2	11/2

S_n (MeV)	S_p (M	eV) λ_n (MeV	λ_p (MeV		R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
4.97	5.9	0 -4.0	04 -8.0	05 5	5.742	5.852	5.559	5.616		9/2-	0+
2.93	6.1	1 -4.0	-8.2	28 5	5.757	5.868	5.570	5.627		$9/2^{-}$	11/2
4.95	6.3	-4.0	-8.4	42 5	5.770	5.884	5.579	5.636		$9/2^{-}$	0^{+}
2.92	6.5				5.784	5.900	5.587	5.644		$9/2^{-}$	9/2
4.89	6.8			91 5	5.797	5.914	5.597	5.654		$9/2^{-}$	0^+
2.91	7.0				5.811	5.930	5.607	5.664		$9/2^{-}$	9/2
4.82	7.2				5.824	5.945	5.616	5.672		9/2-	0^+
2.89	7.4				5.838	5.960	5.625	5.682		$9/2^{-}$	9/2
4.74	7.6				5.851	5.974	5.633	5.689		$9/2^{-}$	0^{+}
2.85	7.8	7 -3.8	80 -9.7	76 5	5.864	5.989	5.642	5.699		$9/2^{-}$	9/2
4.65	8.0	-3.7	-9.9	90 5	5.876	6.003	5.649	5.705		$9/2^{-}$	0^+
2.73	8.2	-3.6	-10.0	0.06	5.890	6.018	5.658	5.715		$9/2^{-}$	9/2
4.58	8.4	-3.6	-10).20	5.901	6.032	5.664	5.721		$9/2^{-}$	0^+
2.52	8.6	-3.5	-10).38	5.915	6.047	5.673	5.729		$9/2^{-}$	9/2
4.55	8.7	-3.5	-10).53	5.926	6.060	5.679	5.735		$9/2^{-}$	0^+
2.17	8.9	-3.3	-10).70	5.940	6.076	5.687	5.743		$9/2^{-}$	9/2
4.59	9.0	9 -3.3	-10).85	5.951	6.089	5.692	5.748		$9/2^{-}$	0+
2.12	9.1	9 -3.3	39 -11.	.01	5.965	6.107	5.697	5.752		$9/2^{-}$	5/2
4.39	9.4	-3.2	-11.	.15 5	5.975	6.118	5.706	5.761		$9/2^{-}$	0+
2.20	9.5	2 -3.2	-11.	.31 5	5.989	6.135	5.710	5.766		9/2-	5/2
4.13	9.7	-3.2	21 –11.	.45 (6.000	6.147	5.719	5.774		9/2-	0+
2.18	9.8	9 -3.2	21 –11.	.60	6.014	6.163	5.723	5.779		9/2-	5/2
4.03	10.				6.025	6.175	5.731	5.787		9/2-	0+
2.15	10.				6.038	6.192	5.736	5.792		9/2-	5/2
3.97	10.				6.049	6.203	5.744	5.799		9/2-	0+
2.13	10.				6.062	6.219	5.749	5.804		9/2-	5/2
3.92	10.				6.073	6.231	5.756	5.811		9/2-	0+
2.12	10.				6.086	6.247	5.762	5.817		9/2-	5/2
3.88	11.				6.097	6.259	5.768	5.823		9/2-	0+
2.10	11.				6.110	6.274	5.774	5.829		9/2-	5/2
3.86	11.				6.121	6.286	5.780	5.835		9/2-	0+
2.12	11.				6.135	6.303	5.784	5.839		$9/2^{-}$	1/2
3.81	11.				6.144	6.313	5.792	5.847		$9/2^{-}$	0+
2.15	11.				6.158	6.329	5.797	5.852		9/2-	1/2
3.75	11.				6.168	6.340	5.804	5.859		9/2-	0+
2.18	12.				6.181	6.355	5.809	5.864		9/2-	1/2
3.69	12.				6.191	6.366	5.815	5.870		9/2 ⁻	0+
2.25	12.				6.203	6.380	5.821	5.876		$9/2^{-}$	1/2
3.60	12.				6.214	6.392	5.827	5.882		$9/2^{-}$	0+
2.26	12.				6.226	6.405	5.833	5.888		9/2 ⁻	1/2
3.57	12.				6.236	6.417	5.838	5.893		9/2 ⁻	0+
2.26	13.				6.248	6.430	5.845	5.900		9/2 ⁻	1/2
3.55	13.				6.259	6.442	5.850	5.904		9/2 ⁻	0+
2.26	13.				6.270	6.455	5.855	5.910		9/2 ⁻	3/2
3.52	13.				6.281	6.467	5.861	5.915		9/2 9/2 ⁻	0+
2.31	13.				6.292	6.479	5.867	5.921		9/2 9/2 ⁻	3/2
3.46	13.				6.303	6.492	5.872	5.926		9/2 9/2 ⁻	0+
2.35						6.503	5.872	5.933		9/2 9/2 ⁻	3/2
	14.				6.313						3/2 0 ⁺
3.40	14.				6.325	6.517	5.883	5.937		9/2-	-
2.39	14.				6.335	6.526	5.891	5.945		9/2-	3/2
3.34	14.				6.347	6.541	5.893	5.947		9/2-	0+
<u>-0.85</u>	14.				6.360	6.557	5.898	5.952		9/2-	3/2
0.25	14.	56 <u>0.25</u>	<u> </u>	.86 (6.3/5	6.573	5.906			$9/2^{-}$	0^+
	0.25	0.25 14.	0.25 14.56 <u>0.2</u>	0.25 14.56 <u>0.25</u> –15	0.25 14.56 <u>0.25</u> -15.86	0.25 14.56 <u>0.25</u> -15.86 6.375	0.25 14.56 <u>0.25</u> -15.86 6.375 6.573	0.25 14.56 <u>0.25</u> -15.86 6.375 6.573 5.906	0.25 14.56 <u>0.25</u> -15.86 6.375 6.573 5.906 5.960 0.018		

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
Z = 8	4 (Po)																	
190	106	1466.77	1472.40	7.72	7.75		-0.27		0.63	-9.90	0.42	5.440	5.475	5.394	5.453		0^+	0^+
191	107	1475.19	1480.97	7.72	7.75		0.22		0.88	-9.85	0.18	5.450	5.490	5.400	5.459		0+	$5/2^{-}$
192	108	1486.17	1492.05	7.74	7.77		0.81	10.98	1.17	-9.71	-0.12	5.459	5.502	5.405	5.464	5.522	0+	0+
193	109	1494.50	1500.41	7.74	7.77	19.31	1.31	8.34	1.42	-9.66	-0.37	5.470	5.515	5.410	5.469		0+	5/2-
194	110	1505.22	1511.12	7.76	7.79	19.05	1.88	10.72	1.70	-9.54	-0.65	5.479	5.528	5.415	5.474	5.517	0+	0 ⁺
195	111	1513.48	1519.26	7.76	7.79	18.98	2.39	8.26	1.96 2.22	-9.49	-0.91	5.489	5.541	5.421	5.479	E E 1 4	0 ⁺	5/2 ⁻ 0 ⁺
196 197	112 113	1523.97 1532.14	1529.74 1537.69	7.78 7.78	7.80 7.81	18.75 18.67	2.92 3.46	10.50 8.17	2.22	-9.39	-1.17 -1.43	5.499 5.509	5.553	5.426 5.431	5.485 5.490	5.514	0 ⁺	5/2 ⁻
197	114	1532.14	1547.88	7.78 7.79	7.82	18.48	3.40	10.30	2.49	-9.33 -9.25	-1.43 -1.68	5.519	5.566 5.578	5.436	5.495	5.515	0+	0 ⁺
199	115	1550.53	1555.69	7.79	7.82	18.39	4.43	8.08	2.73	-9.23 -9.18	-1.06 -1.95	5.528	5.591	5.441	5.500	3.313	0+	5/2 ⁻
200	116	1560.67	1565.50	7.73	7.83	18.22	4.96	10.14	3.23	-9.11	-2.18	5.538	5.603	5.447	5.505	5.520	0 ⁺	0+
201	117	1568.74	1573.14	7.80	7.83	18.20	5.44	8.07	3.47	-9.09	-2.42	5.548	5.616	5.452	5.510	3.320	0+	3/2 ⁻
202	118	1578.65	1582.61	7.82	7.83	17.98	5.94	9.91	3.72	-8.97	-2.66	5.557	5.628	5.457	5.516	5.528	0+	0+
203	119	1586.71	1590.07	7.82	7.83	17.98	6.45	8.06	3.97	-8.95	-2.91	5.567	5.640	5.462	5.520	0.020	0^{+}	3/2-
204	120	1596.39	1599.18	7.83	7.84	17.74	6.90	9.67	4.19	-8.83	-3.13	5.577	5.652	5.467	5.525	5.538	0+	0+
205	121	1604.44	1606.41	7.83	7.84	17.73	7.42	8.05	4.45	-8.80	-3.39	5.586	5.664	5.472	5.531	5.539	0^{+}	3/2-
206	122	1613.86	1615.16	7.83	7.84	17.47	7.81	9.42	4.64	-8.68	-3.58	5.595	5.676	5.477	5.535	5.548	0^+	0^+
207	123	1621.83	1622.19	7.83	7.84	17.39	8.28	7.97	4.91	-8.51	-3.84	5.605	5.687	5.482	5.540	5.550	0^+	$3/2^{-}$
208	124	1630.99	1630.59	7.84	7.84	17.13	8.67	9.16	5.06	-8.40	-4.00	5.614	5.699	5.485	5.543	5.558	0^+	0+
209	125	1639.09	1637.55	7.84	7.84	17.26	9.02	8.10	5.24	-6.69	-4.17	5.624	5.712	5.490	5.548	5.563	0^+	$1/2^{-}$
210	126	1647.25	1645.21	7.84	7.83	16.26	9.34	8.16	5.40	-6.86	-4.33	5.634	5.726	5.494	5.552	5.570	0^+	0^+
211	127	1650.68	1649.76	7.82	7.82	11.59	9.95	3.43	5.71	-6.54	-4.64	5.650	5.743	5.507	5.565		0^+	$11/2^{+}$
212	128	1655.95	1655.77	7.81	7.81	8.70	10.36	5.27	5.92	-4.39	-4.85	5.664	5.759	5.516	5.574		0^+	0^+
213	129	1659.33	1660.13	7.79	7.79	8.64	10.96	3.37	6.22	-4.36	-5.15	5.680	5.776	5.528	5.586		0^+	$11/2^{+}$
214	130	1664.56	1666.02	7.78	7.79	8.61	11.37	5.23	6.43	-4.35	-5.37	5.693	5.792	5.537	5.594		0+	0^+
215	131	1667.88	1670.16	7.76	7.77	8.55	11.94	3.32	6.72	-4.32	-5.66	5.709	5.809	5.549	5.606		0+	$11/2^{+}$
216	132	1673.08	1675.91	7.75	7.76	8.52	12.36	5.20	6.94	-4.32	-5.87	5.722	5.825	5.558	5.615	5.636	0+	0+
217	133	1676.35	1679.87	7.73	7.74	8.46	12.89	3.26	7.22	-4.28	-6.15	5.737	5.841	5.569	5.626		0+	11/2+
218	134	1681.52	1685.47	7.71	7.73	8.44	13.32	5.18	7.43	-4.28	-6.37	5.751	5.856	5.578	5.635	5.656	0+	0+
219	135	1684.72	1689.22	7.69	7.71	8.37	13.80	3.19	7.69	-4.23	-6.62	5.765	5.872	5.589	5.646		0+	11/2+
220	136	1689.89	1694.71	7.68	7.70	8.36	14.27	5.17	7.91	-4.23	-6.84	5.779	5.887	5.598	5.655		0 ⁺	0+
221 222	137 138	1693.02 1698.16	1698.27 1703.63	7.66 7.65	7.68	8.30 8.27	14.69 15.18	3.13 5.14	8.12 8.36	-4.23	-7.05 -7.29	5.792 5.806	5.903 5.918	5.607 5.617	5.664 5.674		0 ⁺	9/2 ⁺ 0 ⁺
223	139	1701.29	1703.03	7.63	7.67	8.27	15.16	3.14	8.58	-4.18 -4.17	-7.29 -7.51	5.820	5.933	5.626	5.683		0+	9/2 ⁺
224	140	1701.23		7.62		8.16	16.04	5.03	8.80	-4.17 -4.12	-7.71 -7.72	5.832	5.948	5.635	5.692		0+	0+
225	141	1700.32		7.60		8.14	16.48	3.11	9.02	-4.12 -4.09	-7.72 -7.94	5.846	5.963	5.644	5.701		0+	9/2 ⁺
226	142	1714.36		7.59		8.03	16.86	4.92	9.21	-4.05 -4.05	-7.34 -8.12	5.858	5.977	5.652	5.701		0+	0+
227	143	1717.42		7.57		7.99	17.29	3.06	9.42	-3.99	-8.33	5.872	5.992	5.661	5.717		0+	9/2 ⁺
228	144	1722.23		7.55		7.87	17.62	4.81	9.59	-3.95	-8.49	5.883	6.006	5.668	5.724		0+	0+
229	145	1725.18		7.53		7.76	18.06	2.95	9.80	-3.86	-8.69	5.897	6.020	5.676	5.732		0^{+}	9/2 ⁺
230	146	1729.90		7.52		7.67	18.34	4.73	9.95	-3.84	-8.85	5.908	6.034	5.682	5.738		0+	0+
231	147	1732.63		7.50		7.45	18.76	2.72	10.15	-3.69	-9.05	5.921	6.049	5.691	5.747		0^+	$9/2^{+}$
232	148	1737.32		7.49		7.41	19.04	4.69	10.29	-3.70	-9.19	5.932	6.062	5.696	5.752		0^+	0^{+}
233	149	1739.70		7.47		7.07	19.44	2.39	10.51	-3.52	-9.40	5.945	6.077	5.705	5.760		0^+	$9/2^{+}$
234	150	1744.43		7.45		7.11	19.73	4.73	10.64	-3.56	-9.54	5.956	6.090	5.710	5.766		0^+	0+
235	151	1746.65		7.43		6.95	19.94	2.22	10.74	-3.57	-9.64	5.970	6.108	5.714	5.769		0^+	$5/2^{+}$
236	152	1751.29		7.42		6.86	20.42	4.64	10.99	-3.46	-9.89	5.981	6.118	5.723	5.779		0+	0^+
237	153	1753.53		7.40		6.88	20.55	2.24	11.03	-3.45	-10.00	5.994	6.135	5.727	5.783		0+	5/2+
238	154	1757.96		7.39		6.67	21.09	4.43	11.33	-3.38	-10.24	6.005	6.146	5.736	5.792		0+	0+
239	155	1760.29		7.37		6.76	21.37	2.33	11.48	-3.38	-10.35	6.018	6.163	5.741	5.796		0+	5/2+
240	156	1764.50		7.35		6.54	21.74	4.22	11.67	-3.32	-10.57	6.029	6.174	5.749	5.805		0+	0+
241	157	1766.79		7.33		6.50	22.01	2.29	11.80	-3.32	-10.70	6.042	6.191	5.754	5.810		0^+	$5/2^{+}$

Α	N	$E_{\rm b}^{\rm Cal.}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
242	158	1770.95		7.32		6.45	22.39	4.16	12.00	-3.28	-10.90	6.053	6.202	5.762	5.817		0+	0+
243	159	1773.22		7.30		6.43	22.66	2.27	12.13	-3.27	-11.04	6.066	6.218	5.767	5.822		0+	5/2+
244	160	1777.33		7.28		6.38	23.03	4.11	12.32	-3.25	-11.23	6.077	6.230	5.775	5.830		0+	0+
245	161	1779.59		7.26		6.37	23.31	2.26	12.46	-3.24	-11.37	6.090	6.245	5.780	5.835		0+	5/2+
246	162	1783.65		7.25		6.32	23.65	4.06	12.64	-3.22	-11.55	6.100	6.257	5.787	5.842		0+	0+
247	163	1785.90		7.23		6.31	23.93	2.25	12.79	-3.21	-11.70	6.113	6.272	5.793	5.848		0+	5/2+
248	164	1789.92		7.22		6.27	24.28	4.02	12.95	-3.19	-11.86	6.124	6.284	5.799	5.854		0+	0+
249	165	1792.17		7.20		6.27	24.52	2.24	13.08	-3.18	-12.02	6.136	6.298	5.805	5.860		0+	5/2+
250	166	1796.16		7.18		6.24	24.90	3.99	13.27	-3.17	-12.17	6.147	6.310	5.811	5.866		0+	0+
251	167	1798.42		7.17		6.26	25.13	2.26	13.38	-3.19	-12.28	6.160	6.327	5.815	5.870		0+	1/2+
252	168	1802.37		7.15		6.21	25.51	3.95	13.58	-3.15	-12.48	6.170	6.337	5.823	5.878		0+	0+
253	169	1804.67		7.13		6.25	25.73	2.30	13.70	-3.17	-12.60	6.183	6.352	5.827	5.882		0+	1/2+
254	170	1808.55		7.12		6.18	26.13	3.88	13.89	-3.13	-12.79	6.193	6.362	5.835	5.889		0+	0+
255	171	1810.89		7.10		6.22	26.37	2.34	13.97	-3.15	-12.92	6.205	6.377	5.840	5.894		0+	1/2+
256	172	1814.70		7.09		6.16	26.74	3.82	14.19	-3.11	-13.09	6.216	6.388	5.846	5.901		0+	0+
257	173	1817.11		7.07		6.22	27.07	2.41	14.34	-3.12	-13.23	6.228	6.402	5.852	5.906		0+	1/2+
258	174	1820.84		7.06		6.13	27.36	3.73	14.50	-3.09	-13.39	6.238	6.414	5.857	5.912		0+	0+
259	175	1823.28		7.04		6.17	27.73	2.45	14.69	-3.10	-13.54	6.250	6.427	5.864	5.918		0+	1/2+
260	176	1826.95		7.03		6.11	27.97	3.66	14.80	-3.07	-13.68	6.260	6.439	5.869	5.923		0+	0+
261	177	1829.40		7.01		6.12	28.33	2.46	14.99	-3.08	-13.85	6.272	6.451	5.875	5.930		0+	1/2+
262	178	1833.03		7.00		6.09	28.57	3.63	15.10	-3.05	-13.97	6.282	6.464	5.879	5.934		0+	0+
263	179	1835.51		6.98		6.11	28.94	2.48	15.27	-3.07	-14.13	6.293	6.476	5.885	5.939		0+	3/2+
264	180	1839.09		6.97		6.06	29.17	3.58	15.39	-3.03	-14.24	6.304	6.489	5.890	5.944		0+	0+
265	181	1841.63		6.95		6.12	29.58	2.54	15.58	-3.05	-14.42	6.315	6.500	5.896	5.950		0+	3/2+
266	182	1845.12		6.94 6.92		6.03	29.76	3.49	15.67	-3.00	-14.51	6.326	6.514	5.900	5.954		0 ⁺	0 ⁺
267	183	1847.71				6.08	30.22	2.59	15.88	-2.06	-14.70	6.337	6.525	5.906	5.960		0+	3/2+
268	184	1851.11		6.91		5.99	30.34	3.40	15.94	-1.31	-14.76	6.349	6.539	5.909	5.963 5.967		0+	0 ⁺
269	185 186	1850.33		6.88 6.85		2.62	30.47 30.68	$\frac{-0.78}{0.36}$	16.01	-1.76	-14.83	6.362	6.556	5.914 5.922			0+	11/2 0 ⁺
270 σ	180	1850.69 3.99		0.85		-0.42	30.08	0.36	16.12	<u>0.16</u>	-14.95	6.376	6.571	5.922	5.976 0.024		U.	0
	- (4+)	3. 99													0.024			
Z = 85 193	108	1485.17	1491.33	7.70	7.73		0.17	0.00	-1.00	-9.98	0.20	5.471	5.509	5.423	5.482		$9/2^{-}$	0^{+}
194	108	1493.75	1500.05	7.70	7.73		0.17	8.58	$\frac{-1.00}{-0.75}$	-9.93	-0.04	5.481	5.522	5.429	5.487		9/2 ⁻	5/2 ⁻
195	110	1504.76	1510.88	7.72	7.75	19.59	1.24	11.01	$\frac{-0.75}{-0.46}$	-9.81	-0.33	5.490	5.534	5.433	5.492		$9/2^{-}$	0+
196	111	1513.28	1519.39	7.72	7.75	19.53	1.76	8.52	$\frac{0.40}{-0.20}$	-9.76	-0.58	5.500	5.547	5.439	5.497		$9/2^{-}$	5/2 ⁻
	111	1313.20		1.12	1.13	13.33					0.50	3.300						
	112	1524 04		7 74	7 77	19.28	2 29	10.76	0.07		_0.85	5 5 1 0	5 560	5 444	5 502		9/2-	U+
197	112 113	1524.04 1532.48	1529.89	7.74 7.74	7.77	19.28 19.20	2.29	10.76 8 44	0.07	-9.65	-0.85 -1.11	5.510 5.519	5.560 5.572	5.444 5.449	5.502 5.507		$9/2^{-}$	0 ⁺ 5/2 ⁻
197 198	113	1532.48	1529.89	7.74		19.20	2.82	8.44	0.34	-9.65 -9.59	-1.11	5.519	5.572	5.449	5.507		9/2-	5/2-
197 198 199	113 114	1532.48 1543.04	1529.89 1548.51	7.74 7.75	7.78	19.20 19.00	2.82 3.32	8.44 10.56	0.34 0.59	-9.65 -9.59 -9.50	-1.11 -1.36	5.519 5.529	5.572 5.584	5.449 5.454	5.507 5.512		9/2 ⁻ 9/2 ⁻	5/2 ⁻ 0 ⁺
197 198 199 200	113 114 115	1532.48 1543.04 1551.39	1529.89 1548.51 1556.75	7.74 7.75 7.76	7.78 7.78	19.20 19.00 18.91	2.82 3.32 3.83	8.44 10.56 8.35	0.34 0.59 0.86	-9.65 -9.59 -9.50 -9.44	-1.11 -1.36 -1.63	5.519 5.529 5.538	5.572 5.584 5.597	5.449 5.454 5.459	5.507 5.512 5.517		9/2 ⁻ 9/2 ⁻ 9/2 ⁻	5/2 ⁻ 0 ⁺ 5/2 ⁻
197 198 199 200 201	113 114 115 116	1532.48 1543.04 1551.39 1561.76	1529.89 1548.51 1556.75 1566.62	7.74 7.75 7.76 7.77	7.78 7.78 7.79	19.20 19.00 18.91 18.72	2.82 3.32 3.83 4.32	8.44 10.56 8.35 10.37	0.34 0.59 0.86 1.09	-9.65 -9.59 -9.50 -9.44 -9.36	-1.11 -1.36 -1.63 -1.86	5.519 5.529 5.538 5.548	5.572 5.584 5.597 5.609	5.449 5.454 5.459 5.464	5.507 5.512 5.517 5.523		9/2 ⁻ 9/2 ⁻ 9/2 ⁻ 9/2 ⁻	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺
197 198 199 200 201 202	113 114 115 116 117	1532.48 1543.04 1551.39 1561.76 1570.06	1529.89 1548.51 1556.75 1566.62 1574.50	7.74 7.75 7.76 7.77 7.77	7.78 7.78 7.79 7.79	19.20 19.00 18.91 18.72 18.67	2.82 3.32 3.83 4.32 4.80	8.44 10.56 8.35 10.37 8.30	0.34 0.59 0.86 1.09 1.32	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34	-1.11 -1.36 -1.63 -1.86 -2.09	5.519 5.529 5.538 5.548 5.558	5.572 5.584 5.597 5.609 5.621	5.449 5.454 5.459 5.464 5.469	5.507 5.512 5.517 5.523 5.527		9/2 ⁻ 9/2 ⁻ 9/2 ⁻ 9/2 ⁻ 9/2 ⁻	5/2- 0+ 5/2- 0+ 3/2-
197 198 199 200 201 202 203	113 114 115 116 117 118	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14	7.74 7.75 7.76 7.77 7.77 7.78	7.78 7.78 7.79 7.79 7.80	19.20 19.00 18.91 18.72 18.67 18.47	2.82 3.32 3.83 4.32 4.80 5.30	8.44 10.56 8.35 10.37 8.30 10.17	0.34 0.59 0.86 1.09 1.32 1.58	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34	5.519 5.529 5.538 5.548 5.558 5.567	5.572 5.584 5.597 5.609 5.621 5.633	5.449 5.454 5.459 5.464 5.469 5.474	5.507 5.512 5.517 5.523 5.527 5.533		9/2 ⁻ 9/2 ⁻ 9/2 ⁻ 9/2 ⁻ 9/2 ⁻ 9/2 ⁻	5/2- 0+ 5/2- 0+ 3/2- 0+
197 198 199 200 201 202 203 204	113 114 115 116 117 118 119	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93	7.74 7.75 7.76 7.77 7.77 7.78 7.79	7.78 7.78 7.79 7.79 7.80 7.80	19.20 19.00 18.91 18.72 18.67 18.47	2.82 3.32 3.83 4.32 4.80 5.30 5.79	8.44 10.56 8.35 10.37 8.30 10.17 8.30	0.34 0.59 0.86 1.09 1.32 1.58 1.82	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58	5.519 5.529 5.538 5.548 5.558 5.567 5.577	5.572 5.584 5.597 5.609 5.621 5.633 5.645	5.449 5.454 5.459 5.464 5.469 5.474 5.479	5.507 5.512 5.517 5.523 5.527 5.533 5.537		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻
197 198 199 200 201 202 203 204 205	113 114 115 116 117 118 119 120	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53 1598.43	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93 1601.09	7.74 7.75 7.76 7.77 7.77 7.78 7.79 7.80	7.78 7.78 7.79 7.79 7.80 7.80 7.81	19.20 19.00 18.91 18.72 18.67 18.47 18.47 18.20	2.82 3.32 3.83 4.32 4.80 5.30 5.79 6.24	8.44 10.56 8.35 10.37 8.30 10.17 8.30 9.90	0.34 0.59 0.86 1.09 1.32 1.58 1.82 2.04	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19 -9.06	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58 -2.80	5.519 5.529 5.538 5.548 5.558 5.567 5.577 5.586	5.572 5.584 5.597 5.609 5.621 5.633 5.645 5.657	5.449 5.454 5.459 5.464 5.469 5.474 5.479 5.484	5.507 5.512 5.517 5.523 5.527 5.533 5.537 5.542		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻
197 198 199 200 201 202 203 204 205 206	113 114 115 116 117 118 119 120 121	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53 1598.43 1606.73	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93 1601.09 1608.62	7.74 7.75 7.76 7.77 7.77 7.78 7.79 7.80 7.80	7.78 7.78 7.79 7.79 7.80 7.80 7.81	19.20 19.00 18.91 18.72 18.67 18.47 18.47 18.20 18.20	2.82 3.32 3.83 4.32 4.80 5.30 5.79 6.24 6.74	8.44 10.56 8.35 10.37 8.30 10.17 8.30 9.90 8.30	0.34 0.59 0.86 1.09 1.32 1.58 1.82 2.04 2.29	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19 -9.06 -9.03	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58 -2.80 -3.05	5.519 5.529 5.538 5.548 5.558 5.567 5.577 5.586 5.596	5.572 5.584 5.597 5.609 5.621 5.633 5.645 5.657 5.669	5.449 5.454 5.459 5.464 5.469 5.474 5.479 5.484 5.489	5.507 5.512 5.517 5.523 5.527 5.533 5.537 5.542 5.547		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻
197 198 199 200 201 202 203 204 205 206 207	113 114 115 116 117 118 119 120 121 122	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53 1598.43 1606.73 1616.34	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93 1601.09 1608.62 1617.49	7.74 7.75 7.76 7.77 7.77 7.78 7.79 7.80 7.80 7.81	7.78 7.78 7.79 7.79 7.80 7.80 7.81 7.81	19.20 19.00 18.91 18.72 18.67 18.47 18.47 18.20 18.20 17.91	2.82 3.32 3.83 4.32 4.80 5.30 5.79 6.24 6.74 7.12	8.44 10.56 8.35 10.37 8.30 10.17 8.30 9.90 8.30 9.61	0.34 0.59 0.86 1.09 1.32 1.58 1.82 2.04 2.29 2.48	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19 -9.06 -9.03 -8.89	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58 -2.80 -3.05 -3.24	5.519 5.529 5.538 5.548 5.558 5.567 5.577 5.586 5.596 5.605	5.572 5.584 5.597 5.609 5.621 5.633 5.645 5.657 5.669 5.681	5.449 5.454 5.459 5.464 5.469 5.474 5.479 5.484 5.489 5.494	5.507 5.512 5.517 5.523 5.527 5.533 5.537 5.542 5.547 5.552		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻
197 198 199 200 201 202 203 204 205 206 207 208	113 114 115 116 117 118 119 120 121 122 123	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53 1598.43 1606.73 1616.34 1624.57	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93 1601.09 1608.62 1617.49 1624.80	7.74 7.75 7.76 7.77 7.77 7.78 7.79 7.80 7.80 7.81 7.81	7.78 7.78 7.79 7.79 7.80 7.80 7.81 7.81 7.81	19.20 19.00 18.91 18.72 18.67 18.47 18.47 18.20 17.91 17.84	2.82 3.32 3.83 4.32 4.80 5.30 5.79 6.24 6.74 7.12 7.64	8.44 10.56 8.35 10.37 8.30 10.17 8.30 9.90 8.30 9.61 8.23	0.34 0.59 0.86 1.09 1.32 1.58 1.82 2.04 2.29 2.48 2.74	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19 -9.06 -9.03 -8.89 -8.71	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58 -2.80 -3.05 -3.24 -3.48	5.519 5.529 5.538 5.548 5.558 5.567 5.577 5.586 5.596 5.605 5.614	5.572 5.584 5.597 5.609 5.621 5.633 5.645 5.657 5.669 5.681 5.692	5.449 5.454 5.459 5.464 5.469 5.474 5.479 5.484 5.489 5.494 5.499	5.507 5.512 5.517 5.523 5.527 5.533 5.537 5.542 5.547 5.552 5.557		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻
197 198 199 200 201 202 203 204 205 206 207 208 209	113 114 115 116 117 118 119 120 121 122 123 124	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53 1598.43 1606.73 1616.34 1624.57 1633.88	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93 1601.09 1608.62 1617.49 1624.80 1633.29	7.74 7.75 7.76 7.77 7.78 7.79 7.80 7.80 7.81 7.81 7.82	7.78 7.78 7.79 7.79 7.80 7.80 7.81 7.81 7.81 7.81	19.20 19.00 18.91 18.72 18.67 18.47 18.20 18.20 17.91 17.84 17.54	2.82 3.32 3.83 4.32 4.80 5.30 5.79 6.24 6.74 7.12 7.64 7.95	8.44 10.56 8.35 10.37 8.30 10.17 8.30 9.90 8.30 9.61 8.23 9.31	0.34 0.59 0.86 1.09 1.32 1.58 1.82 2.04 2.29 2.48 2.74 2.89	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19 -9.06 -9.03 -8.89 -8.71 -8.59	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58 -2.80 -3.05 -3.24 -3.48 -3.64	5.519 5.529 5.538 5.548 5.558 5.567 5.577 5.586 5.605 5.605 5.614 5.623	5.572 5.584 5.597 5.609 5.621 5.633 5.645 5.657 5.669 5.681 5.692 5.704	5.449 5.454 5.459 5.464 5.469 5.474 5.479 5.484 5.489 5.494 5.502	5.507 5.512 5.517 5.523 5.527 5.533 5.537 5.542 5.547 5.552 5.557 5.560		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻
197 198 199 200 201 202 203 204 205 206 207 208 209 210	113 114 115 116 117 118 119 120 121 122 123 124 125	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53 1598.43 1606.73 1616.34 1624.57 1633.88 1642.14	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93 1601.09 1608.62 1617.49 1624.80 1633.29 1640.45	7.74 7.75 7.76 7.77 7.77 7.78 7.79 7.80 7.80 7.81 7.81 7.82 7.82	7.78 7.78 7.79 7.79 7.80 7.81 7.81 7.81 7.81 7.81 7.81	19.20 19.00 18.91 18.72 18.67 18.47 18.20 18.20 17.91 17.84 17.54	2.82 3.32 3.83 4.32 4.80 5.30 5.79 6.24 6.74 7.12 7.64 7.95 8.29	8.44 10.56 8.35 10.37 8.30 10.17 8.30 9.90 8.30 9.61 8.23 9.31 8.26	0.34 0.59 0.86 1.09 1.32 1.58 1.82 2.04 2.29 2.48 2.74 2.89 3.05	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19 -9.06 -9.03 -8.89 -8.71 -8.59 -8.25	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58 -2.80 -3.05 -3.24 -3.48 -3.64 -3.81	5.519 5.529 5.538 5.548 5.558 5.567 5.577 5.586 5.596 5.605 5.614 5.623 5.633	5.572 5.584 5.597 5.609 5.621 5.633 5.645 5.657 5.669 5.681 5.692 5.704 5.717	5.449 5.454 5.459 5.464 5.469 5.474 5.489 5.489 5.494 5.499 5.502 5.507	5.507 5.512 5.517 5.523 5.527 5.533 5.537 5.542 5.542 5.554 5.552 5.557 5.560 5.564		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 1/2 ⁻
197 198 199 200 201 202 203 204 205 206 207 208 209 210 211	113 114 115 116 117 118 119 120 121 122 123 124 125 126	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53 1598.43 1606.73 1616.34 1624.57 1633.88 1642.14	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93 1601.09 1608.62 1617.49 1624.80 1633.29 1640.45 1648.20	7.74 7.75 7.76 7.77 7.77 7.78 7.79 7.80 7.80 7.81 7.81 7.82 7.82	7.78 7.79 7.79 7.80 7.80 7.81 7.81 7.81 7.81 7.81 7.81 7.81	19.20 19.00 18.91 18.72 18.67 18.47 18.20 18.20 17.91 17.84 17.54 17.57 16.58	2.82 3.32 3.83 4.32 4.80 5.30 5.79 6.24 6.74 7.12 7.64 7.95 8.29 8.60	8.44 10.56 8.35 10.37 8.30 10.17 8.30 9.90 8.30 9.61 8.23 9.31 8.26 8.32	0.34 0.59 0.86 1.09 1.32 1.58 1.82 2.04 2.29 2.48 2.74 2.89 3.05 3.21	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19 -9.06 -9.03 -8.89 -8.71 -8.59 -8.25 -7.16	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58 -2.80 -3.05 -3.24 -3.48 -3.64 -3.81	5.519 5.529 5.538 5.548 5.558 5.567 5.577 5.586 5.605 5.605 5.614 5.623 5.633 5.643	5.572 5.584 5.597 5.609 5.621 5.633 5.645 5.657 5.669 5.681 5.692 5.704 5.717 5.730	5.449 5.454 5.459 5.464 5.469 5.474 5.479 5.484 5.494 5.499 5.502 5.507 5.511	5.507 5.512 5.517 5.523 5.527 5.533 5.537 5.542 5.547 5.552 5.557 5.560 5.564 5.569		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 1/2 ⁻ 0 ⁺
197 198 199 200 201 202 203 204 205 206 207 208 209	113 114 115 116 117 118 119 120 121 122 123 124 125	1532.48 1543.04 1551.39 1561.76 1570.06 1580.23 1588.53 1598.43 1606.73 1616.34 1624.57 1633.88 1642.14	1529.89 1548.51 1556.75 1566.62 1574.50 1584.14 1591.93 1601.09 1608.62 1617.49 1624.80 1633.29 1640.45	7.74 7.75 7.76 7.77 7.77 7.78 7.79 7.80 7.80 7.81 7.81 7.82 7.82	7.78 7.78 7.79 7.79 7.80 7.81 7.81 7.81 7.81 7.81 7.81	19.20 19.00 18.91 18.72 18.67 18.47 18.20 18.20 17.91 17.84 17.54	2.82 3.32 3.83 4.32 4.80 5.30 5.79 6.24 6.74 7.12 7.64 7.95 8.29	8.44 10.56 8.35 10.37 8.30 10.17 8.30 9.90 8.30 9.61 8.23 9.31 8.26	0.34 0.59 0.86 1.09 1.32 1.58 1.82 2.04 2.29 2.48 2.74 2.89 3.05	-9.65 -9.59 -9.50 -9.44 -9.36 -9.34 -9.21 -9.19 -9.06 -9.03 -8.89 -8.71 -8.59 -8.25	-1.11 -1.36 -1.63 -1.86 -2.09 -2.34 -2.58 -2.80 -3.05 -3.24 -3.48 -3.64 -3.81	5.519 5.529 5.538 5.548 5.558 5.567 5.577 5.586 5.596 5.605 5.614 5.623 5.633	5.572 5.584 5.597 5.609 5.621 5.633 5.645 5.657 5.669 5.681 5.692 5.704 5.717	5.449 5.454 5.459 5.464 5.469 5.474 5.489 5.489 5.494 5.499 5.502 5.507	5.507 5.512 5.517 5.523 5.527 5.533 5.537 5.542 5.542 5.554 5.552 5.557 5.560 5.564		9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2- 9/2-	5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 1/2 ⁻

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
215	130	1668.83	1670.09	7.76	7.77	9.13	10.70	5.46	4.27	-4.61	-5.03	5.702	5.796	5.555	5.612		9/2-	0+
216	131	1672.44	1674.65	7.74	7.75	9.07	11.28	3.61	4.56	-4.57	-5.32	5.717	5.813	5.567	5.624		9/2-	$11/2^{+}$
217	132	1677.86	1680.58	7.73	7.74	9.03	11.71	5.42	4.78	-4.57	-5.55	5.731	5.828	5.576	5.633		$9/2^{-}$	0^+
218	133	1681.41	1684.95	7.71	7.73	8.97	12.28	3.55	5.06	-4.52	-5.83	5.746	5.845	5.587	5.644		$9/2^{-}$	$11/2^{+}$
219	134	1686.81	1690.72	7.70	7.72	8.95	12.71	5.40	5.29	-4.52	-6.05	5.759	5.860	5.596	5.653		$9/2^{-}$	0+
220	135	1690.27	1694.81	7.68	7.70	8.86	13.24	3.46	5.55	-4.46	-6.32	5.774	5.876	5.608	5.664		$9/2^{-}$	$11/2^{+}$
221	136	1695.65	1700.48	7.67	7.69	8.84	13.67	5.38	5.76	-4.47	-6.54	5.787	5.891	5.616	5.673		$9/2^{-}$	0+
222	137	1698.99	1704.38	7.65	7.68	8.72	14.09	3.34	5.97	-4.39	-6.78	5.801	5.906	5.627	5.683		$9/2^{-}$	11/2+
223	138	1704.38	1709.98	7.64	7.67	8.73	14.59	5.39	6.22	-4.40	-7.00	5.814	5.921	5.636	5.692		$9/2^{-}$	0+
224	139	1707.72	1713.77	7.62	7.65	8.73	15.01	3.34	6.43	-4.39	-7.21	5.827	5.936	5.645	5.701		9/2-	$9/2^{+}$
225	140	1712.97		7.61		8.59	15.45	5.25	6.65	-4.32	-7.42	5.840	5.951	5.653	5.710		9/2-	0+
226	141	1716.29		7.59		8.57	15.88	3.32	6.86	-4.29	-7.63	5.853	5.966	5.662	5.719		9/2-	9/2+
227	142	1721.39		7.58		8.42	16.24	5.10	7.03	-4.23	-7.81	5.865	5.979	5.670	5.726		9/2-	0+
228	143	1724.64		7.56		8.35	16.65	3.25	7.23	-4.18	-8.01	5.878	5.994	5.678	5.734		9/2-	9/2 ⁺
229	144	1729.62		7.55		8.23	16.98	4.98	7.39	-4.13	-8.17	5.890	6.008	5.685	5.741		9/2-	0+
230	145	1732.76		7.53		8.12	17.39	3.14	7.59	-4.04	-8.36	5.903	6.022	5.693	5.749		9/2-	9/2 ⁺
231	146	1737.64		7.52		8.02	17.68	4.88	7.74	-4.01	-8.52	5.914	6.036	5.699	5.755		9/2-	0+
232	147	1740.55		7.50		7.79	18.07	2.91	7.92	-3.87	-8.71	5.927	6.050	5.707	5.763		9/2-	9/2 ⁺
233	148	1745.39		7.49		7.75	18.37	4.84	8.07	-3.87	-8.86	5.938	6.063	5.713	5.768		9/2-	0+
234 235	149	1747.99		7.47		7.44	18.80	2.60	8.29	-3.71	-9.08	5.950	6.078	5.721	5.776		9/2 ⁻ 9/2 ⁻	$9/2^{+}$ 0^{+}
	150	1752.85		7.46		7.46	19.06	4.86	8.42	-3.74	-9.22	5.961 5.975	6.091	5.726 5.733	5.782			7/2 ⁺
236 237	151	1755.18		7.44		7.19	19.28	2.33	8.53	-3.74	-9.35 -9.58	5.985	6.107	5.733 5.739	5.788 5.795		9/2 ⁻ 9/2 ⁻	0 ⁺
237	152 153	1760.06 1762.40		7.43 7.41		7.21 7.22	19.77 19.90	4.88 2.34	8.77 8.87	-3.63 -3.64	-9.58 -9.68	5.998	6.118 6.135	5.743	5.795		9/2 9/2 ⁻	5/2 ⁺
239	154	1762.40		7.41		7.22	20.46	4.69	9.13	-3.54 -3.55	-9.08 -9.93	6.009	6.146	5.753	5.808		9/2 9/2 ⁻	0 ⁺
240	155	1767.03		7.33		7.03	20.72	2.44	9.13	-3.55 -3.55	-9.93 -10.05	6.022	6.162	5.757	5.812		$9/2^{-}$	5/2 ⁺
240	156	1703.33		7.36		6.88	21.14	4.44	9.47	-3.33 -3.49	-10.03 -10.28	6.033	6.173	5.766	5.821		$9/2^{-}$	0 ⁺
242	157	1776.40		7.34		6.87	21.14	2.43	9.61	-3.49	-10.20	6.046	6.189	5.770	5.826		$9/2^{-}$	5/2 ⁺
243	158	1770.46		7.33		6.79	21.41	4.36	9.81	-3.45	-10.62	6.056	6.201	5.779	5.834		9/2-	0 ⁺
244	159	1783.17		7.31		6.77	22.08	2.41	9.95	-3.45	-10.75	6.069	6.216	5.784	5.839		$9/2^{-}$	5/2 ⁺
245	160	1787.46		7.30		6.70	22.45	4.29	10.13	-3.41	-10.95	6.080	6.228	5.791	5.846		9/2-	0 ⁺
246	161	1789.87		7.28		6.70	22.74	2.41	10.28	-3.41	-11.09	6.092	6.243	5.797	5.852		9/2-	5/2 ⁺
247	162	1794.11		7.26		6.65	23.10	4.24	10.46	-3.38	-11.27	6.103	6.254	5.804	5.859		9/2-	0+
248	163	1796.51		7.24		6.64	23.40	2.40	10.61	-3.37	-11.42	6.115	6.269	5.809	5.864		9/2-	5/2 ⁺
249	164	1800.70		7.23		6.59	23.73	4.19	10.78	-3.35	-11.59	6.126	6.281	5.816	5.871		9/2-	0+
250	165	1803.10		7.21		6.59	24.01	2.40	10.93	-3.35	-11.75	6.138	6.295	5.822	5.877		9/2-	5/2+
251	166	1807.25		7.20		6.55	24.36	4.15	11.09	-3.33	-11.91	6.149	6.307	5.828	5.883		9/2-	0+
252	167	1809.65		7.18		6.55	24.61	2.40	11.23	-3.32	-12.07	6.161	6.321	5.834	5.889		9/2-	$5/2^{+}$
253	168	1813.77		7.17		6.52	24.98	4.12	11.40	-3.31	-12.22	6.172	6.333	5.840	5.894		9/2-	0^{+}
254	169	1816.19		7.15		6.54	25.22	2.42	11.52	-3.33	-12.33	6.184	6.349	5.844	5.898		9/2-	1/2+
255	170	1820.25		7.14		6.48	25.59	4.06	11.70	-3.29	-12.52	6.194	6.359	5.851	5.906		9/2-	0+
256	171	1822.72		7.12		6.53	25.81	2.47	11.83	-3.30	-12.65	6.207	6.374	5.856	5.910		9/2-	$1/2^{+}$
257	172	1826.71		7.11		6.46	26.20	3.99	12.01	-3.26	-12.82	6.217	6.384	5.863	5.917		$9/2^{-}$	0^+
258	173	1829.23		7.09		6.51	26.46	2.52	12.12	-3.28	-12.96	6.229	6.399	5.868	5.922		$9/2^{-}$	$1/2^{+}$
259	174	1833.14		7.08		6.43	26.80	3.91	12.30	-3.24	-13.12	6.239	6.409	5.874	5.928		9/2-	0+
260	175	1835.76		7.06		6.53	27.16	2.62	12.48	-3.25	-13.27	6.250	6.423	5.879	5.934		$9/2^{-}$	$1/2^{+}$
261	176	1839.55		7.05		6.41	27.41	3.79	12.60	-3.22	-13.40	6.261	6.435	5.885	5.939		$9/2^{-}$	0+
262	177	1842.17		7.03		6.41	27.76	2.62	12.77	-3.23	-13.57	6.272	6.447	5.891	5.945		$9/2^{-}$	$1/2^{+}$
263	178	1845.92		7.02		6.37	27.99	3.75	12.89	-3.19	-13.68	6.283	6.460	5.895	5.949		$9/2^{-}$	0+
264	179	1848.56		7.00		6.39	28.32	2.64	13.05	-3.19	-13.85	6.294	6.472	5.902	5.956		$9/2^{-}$	1/2+
265	180	1852.25		6.99		6.33	28.55	3.69	13.16	-3.16	-13.95	6.305	6.485	5.905	5.959		$9/2^{-}$	0+
266	181	1854.95		6.97		6.39	28.90	2.70	13.32	-3.18	-14.11	6.315	6.497	5.910	5.964		$9/2^{-}$	3/2+
267	182	1858.53		6.96		6.28	29.09	3.58	13.41	-3.13	-14.19	6.327	6.510	5.914	5.968		$9/2^{-}$	0+
268	183	1861.29		6.95		6.34	29.46	2.76	13.58	-1.97	-14.35	6.337	6.522	5.919	5.973		$9/2^{-}$	$3/2^{+}$

Α	N	$E_{\rm b}^{\rm Cal.}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
269	184	1864.75		6.93		6.22	29.58	3.46	13.64	-1.70	-14.41	6.349	6.537	5.922	5.976		9/2-	0+
270	185	1864.04		6.90		2.75	29.72	$\frac{-0.71}{1}$	13.71	-1.75	-14.48	6.363	6.553	5.927	5.981		9/2-	11/2-
271	186	1864.52		6.88		-0.23	29.95	0.48	13.83	0.06	-14.61	6.376	6.568	5.936	5.990		$9/2^{-}$	0^+
σ		3.69																
Z=80		4 40 4 50	4504.55	= 00	==0			0.00	. ==	10.00		= 400	= =00	= 440			0.1	= 10
195	109	1494.52	1501.57	7.66	7.70	20.42	0.00	8.83	0.77	-10.20	0.26	5.493	5.529	5.446	5.505		0+	5/2-
196	110	1505.82	1512.73	7.68	7.72	20.13	0.60	11.30	1.06	-10.07	-0.03	5.502	5.541	5.451	5.509		0 ⁺	0 ⁺
197	111	1514.58	1521.29	7.69	7.72	20.06	1.10	8.76	1.30	-10.02	-0.28	5.511	5.554	5.456	5.514		0+	5/2-
198	112	1525.61 1534.32	1532.07	7.71	7.74 7.74	19.79 19.74	1.64	11.03	1.57	-9.90	-0.55	5.521 5.530	5.566 5.578	5.461	5.519		0^{+}	0 ⁺
199	113 114	1534.32	1540.42 1550.99	7.71 7.73	7.74 7.75		2.18 2.67	8.71 10.80	1.84 2.08	-9.85 -9.75	-0.81	5.540	5.591	5.466	5.524 5.529		0+	$\frac{5/2^{-}}{0^{+}}$
200 201	115	1553.74	1559.13	7.73 7.73	7.75 7.76	19.51 19.42	3.21	8.62	2.08	-9.73 -9.69	-1.06 -1.33	5.549	5.603	5.471 5.476	5.534		0+	5/2 ⁻
202	116	1564.34	1569.40	7.74	7.77	19.22	3.67	10.60	2.58	-9.60	-1.55 -1.55	5.558	5.615	5.481	5.539	5.552	0+	0+
203	117	1572.87	1577.36	7.75	7.77	19.13	4.13	8.53	2.81	-9.52	-1.33 -1.82	5.567	5.626	5.486	5.544	3,332	0+	5/2 ⁻
204	118	1583.28	1587.25	7.76	7.78	18.94	4.63	10.41	3.05	-9.44	-2.03	5.577	5.639	5.491	5.549	5.557	0+	0 ⁺
205	119	1591.82	1595.05	7.76	7.78	18.95	5.11	8.54	3.29	-9.44 -9.43	-2.03 -2.26	5.586	5.651	5.496	5.554	5.557	0+	3/2-
206	120	1601.95	1604.53	7.78	7.79	18.67	5.56	10.13	3.52	-9.28	-2.20 -2.48	5.596	5.662	5.501	5.559	5.564	0+	0 ⁺
207	121	1610.49	1612.12	7.78	7.79	18.67	6.05	8.54	3.76	-9.25	-2.72	5.605	5.674	5.506	5.564	5.565	0+	3/2-
208	122	1620.28	1621.21	7.79	7.79	18.33	6.42	9.79	3.94	-9.09	-2.91	5.614	5.686	5.510	5.568	5.573	0+	0+
209	123	1628.74	1628.55	7.79	7.79	18.25	6.91	8.46	4.17	-8.89	-3.14	5.623	5.697	5.515	5.573	5.574	0^{+}	3/2-
210	124	1638.20	1637.30	7.80	7.80	17.92	7.21	9.46	4.32	-8.76	-3.30	5.631	5.708	5.518	5.576	5.581	0+	0+
211	125	1646.63	1644.52	7.80	7.79	17.89	7.54	8.43	4.49	-8.41	-3.46	5.641	5.721	5.523	5.581	5.585	0+	1/2-
212	126	1655.11	1652.50	7.81	7.79	16.91	7.86	8.48	4.65	-7.13	-3.62	5.651	5.735	5.527	5.585	5.592	0^+	0+
213	127	1659.16	1657.61	7.79	7.78	12.53	8.48	4.05	4.96	-7.57	-3.92	5.667	5.752	5.540	5.597		0^{+}	11/2+
214	128	1664.89	1664.30	7.78	7.78	9.78	8.94	5.73	5.19	-4.92	-4.16	5.681	5.768	5.550	5.607		0^{+}	$0^{+'}$
215	129	1668.87	1669.22	7.76	7.76	9.71	9.54	3.98	5.50	-4.88	-4.47	5.697	5.785	5.562	5.619		0^+	$11/2^{+}$
216	130	1674.56	1675.87	7.75	7.76	9.67	10.00	5.69	5.73	-4.87	-4.70	5.710	5.801	5.571	5.629		0^+	0+
217	131	1678.47	1680.54	7.73	7.74	9.60	10.59	3.91	6.03	-4.83	-5.00	5.726	5.817	5.584	5.641		0^+	$11/2^{+}$
218	132	1684.12	1687.05	7.73	7.74	9.56	11.04	5.65	6.26	-4.82	-5.23	5.739	5.832	5.593	5.650	5.654	0^+	0^+
219	133	1687.96	1691.51	7.71	7.72	9.49	11.61	3.84	6.55	-4.77	-5.52	5.754	5.849	5.605	5.662	5.665	0^+	$11/2^{+}$
220	134	1693.58	1697.80	7.70	7.72	9.46	12.06	5.62	6.77	-4.77	-5.75	5.767	5.864	5.614	5.671	5.673	0^+	0^+
221	135	1697.31	1702.01	7.68	7.70	9.35	12.59	3.73	7.04	-4.70	-6.02	5.782	5.880	5.625	5.682	5.683	0^+	$11/2^{+}$
222	136	1702.91	1708.18	7.67	7.69	9.33	13.02	5.60	7.26	-4.70	-6.24	5.795	5.894	5.635	5.691	5.692	0^+	0^+
223	137	1706.50	1712.23	7.65	7.68	9.19	13.48	3.59	7.51	-4.60	-6.48	5.809	5.910	5.645	5.701		0+	$11/2^{+}$
224	138	1712.11	1718.25	7.64	7.67	9.20	13.95	5.61	7.73	-4.62	-6.70	5.822	5.924	5.654	5.710		0+	0+
225	139	1715.66	1722.23	7.63	7.65	9.16	14.37	3.55	7.94	-4.61	-6.91	5.835	5.940	5.663	5.719		0+	9/2+
226	140	1721.12	1728.09	7.62	7.65	9.01	14.80	5.46	8.15	-4.52	-7.12	5.848	5.954	5.671	5.727		0+	0+
227	141	1724.65	1732.03	7.60	7.63	8.99	15.22	3.53	8.36	-4.48	-7.33	5.861	5.969	5.680	5.736		0+	$9/2^{+}$
228	142	1729.93	1737.73	7.59	7.62	8.81	15.57	5.28	8.54	-4.42	-7.50	5.873	5.982	5.687	5.743		0+	0+
229	143	1733.38	1741.69	7.57	7.61	8.73	15.97	3.45	8.74	-4.35	-7.69	5.885	5.997	5.695	5.751		0+	9/2+
230	144	1738.52		7.56		8.59	16.29	5.14	8.90	-4.30	-7.86	5.897	6.010	5.702	5.757		0+	0+
231	145	1741.84		7.54		8.46	16.67	3.32	9.08	-4.21	-8.04	5.909	6.024	5.709	5.765		0+	9/2+
232	146	1746.88		7.53		8.36	16.98	5.04	9.24	-4.18	-8.20	5.920	6.038	5.715	5.771		0 ⁺	0+
233	147	1749.98		7.51		8.14	17.35	3.10	9.43	-4.05	-8.38	5.932	6.052	5.723	5.778		0 ⁺	9/2+
234	148	1754.97		7.50		8.09	17.65	4.99	9.58	-4.05	-8.54	5.944	6.065	5.729	5.784		0 ⁺	0 ⁺
235	149 150	1757.78		7.48 7.47		7.80	18.08	2.81	9.79	-3.89	-8.75	5.956	6.079	5.736	5.792		0 ⁺	$9/2^{+}$ 0^{+}
236 237	150 151	1762.79 1765.29		7.47 7.45		7.82 7.51	18.36 18.64	5.01 2.50	9.94 10.11	-3.92 -3.77	-8.90 -9.13	5.967 5.980	6.092 6.106	5.742 5.750	5.798		0+	9/2 ⁺
238	151	1765.29		7.45 7.44		7.51 7.57	19.07	2.50 5.07	10.11	-3.77 -3.81	-9.13 -9.26	5.980	6.119	5.750 5.756	5.806 5.811		0+	9/2 · 0 ⁺
238	152	1770.36		7.44 7.42		7.57 7.55		2.48	10.30			6.003	6.134	5.762	5.818		0+	7/2 ⁺
239 240	153	1772.84 1777.74		7.42 7.41		7.55 7.38	19.31 19.78	2.48 4.90	10.44	-3.81 -3.73	-9.41 -9.62	6.003	6.134	5.762	5.824		0 ⁺	7/2 ' 0 ⁺
240	154	1777.74		7.41 7.39		7.38 7.39	19.78	2.49	10.65	−3.73 −3.73	-9.62 -9.74	6.026	6.162	5.769	5.824		0+	5/2 ⁺
241	156	1780.23		7.39 7.38		7.39 7.24	20.48	4.75	10.70	-3.73 -3.67	-9.74 -9.98	6.026	6.173	5.782	5.837		0 ⁺	0 ⁺
242	130	1/04.98		7.58		1.24	20.48	4./3	11.01	-5.0 <i>/</i>	-9.98	0.037	0.1/3	3./82	3.83/		U.	U.

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
243	157	1787.56		7.36		7.33	20.77	2.58	11.16	-3.67	-10.10	6.050	6.189	5.787	5.842		0+	5/2+
244	158	1792.11		7.34		7.13	21.16	4.55	11.35	-3.62	-10.33	6.060	6.200	5.795	5.850		0+	0+
245	159	1794.66		7.33		7.10	21.44	2.55	11.49	-3.62	-10.46	6.073	6.215	5.800	5.855		0+	5/2+
246	160	1799.15		7.31		7.04	21.82	4.49	11.69	-3.57	-10.66	6.084	6.227	5.808	5.863		0^+	0+
247	161	1801.70		7.29		7.04	22.11	2.55	11.83	-3.57	-10.80	6.096	6.241	5.813	5.868		0+	5/2+
248	162	1806.13		7.28		6.98	22.48	4.43	12.02	-3.54	-11.00	6.106	6.253	5.821	5.875		0+	0+
249	163	1808.67		7.26		6.97	22.77	2.54	12.16	-3.54	-11.14	6.119	6.267	5.826	5.881		0+	5/2+
250	164	1813.04		7.25		6.91	23.12	4.37	12.34	-3.51	-11.32	6.129	6.279	5.833	5.888		0^+	0+
251	165	1815.60		7.23		6.93	23.43	2.56	12.50	-3.51	-11.47	6.141	6.293	5.839	5.893		0+	5/2+
252	166	1819.91		7.22		6.87	23.75	4.31	12.66	-3.48	-11.64	6.152	6.305	5.845	5.900		0^+	0+
253	167	1822.47		7.20		6.87	24.05	2.56	12.82	-3.48	-11.80	6.164	6.319	5.851	5.906		0+	5/2+
254	168	1826.74		7.19		6.83	24.37	4.27	12.97	-3.46	-11.95	6.174	6.331	5.857	5.911		0+	0+
255	169	1829.31		7.17		6.84	24.64	2.57	13.12	-3.45	-12.12	6.186	6.344	5.864	5.918		0+	5/2+
256	170	1833.54		7.16		6.80	24.99	4.23	13.29	-3.43	-12.25	6.197	6.356	5.869	5.923		0+	0+
257	171	1836.12		7.14		6.81	25.23	2.58	13.40	-3.46	-12.37	6.209	6.371	5.873	5.927		0+	1/2+
258	172	1840.30		7.13		6.76	25.60	4.18	13.59	-3.41	-12.55	6.219	6.381	5.880	5.934		0+	0+
259	173	1842.94		7.12		6.82	25.83	2.64	13.71	-3.43	-12.67	6.231	6.396	5.884	5.939		0+	1/2+
260	174	1847.02		7.10		6.72	26.18	4.08	13.88	-3.38	-12.84	6.241	6.406	5.891	5.945		0+	0+
261	175	1849.72		7.09		6.78	26.44	2.70	13.96	-3.40	-12.98	6.252	6.420	5.896	5.950		0+	1/2+
262	176	1853.71		7.08		6.69	26.76	3.99	14.16	-3.36	-13.12	6.262	6.431	5.901	5.955		0+	0+
263	177	1856.52		7.06		6.80	27.12	2.81	14.35	-3.37	-13.27	6.274	6.444	5.907	5.961		0+	1/2+
264	178	1860.35		7.05		6.64	27.32	3.83	14.43	-3.32	-13.39	6.284	6.456	5.911	5.965		0+	0+
265	179	1863.17		7.03		6.65	27.66	2.82	14.61	-3.33	-13.54	6.295	6.469	5.917	5.971		0+	1/2+
266	180	1866.94		7.02		6.59	27.85	3.77	14.69	-3.28	-13.63	6.306	6.482	5.920	5.974		0+	0+
267	181	1869.79		7.00		6.62	28.16	2.85	14.84	-3.30	-13.78	6.317	6.494	5.925	5.979		0+	3/2+
268	182	1873.45		6.99		6.51	28.33	3.66	14.92	-3.24	-13.86	6.328	6.508	5.929	5.982		0+	0+
269	183	1876.34		6.98		6.55	28.63	2.89	15.05	-1.87	-13.99	6.339	6.520	5.933	5.987		0+	3/2+
270	184	1879.87		6.96		6.42	28.76	3.53	15.12	-1.77	-14.05	6.350	6.535	5.936	5.990		0 ⁺	0 ⁺
271	185	1879.22		6.93		2.88	28.89	$\frac{-0.65}{0.63}$	15.18	-1.94	-14.12	6.364	6.551	5.941	5.994		0 ⁺	11/2-
272 273	186 187	1879.85		6.91		$\frac{-0.02}{0.00}$	29.16	0.63	15.33	-0.04	-14.27	6.377	6.565	5.951 5.956	6.005		0^{+}	0 ⁺
	187	1879.22		6.88		0.00		-0.63		-0.03	-14.34	6.391	6.581	5.950	6.010		0	$11/2^{-}$
σ		4.77													0.005			
Z = 87																		
198	111	1513.77		7.65			0.49	9.01	<u>-0.81</u>	-10.29	0.04	5.523	5.561	5.473	5.532		$9/2^{-}$	1/2-
199	112	1525.09	1531.37	7.66	7.70	20.33	1.05	11.32	$\frac{-0.52}{1.00}$	-10.16	-0.23	5.531	5.573	5.478	5.536		9/2-	0+
200	113	1534.05	1540.06	7.67	7.70	20.28	1.57	8.96	$\frac{-0.27}{1.00}$	-10.11	-0.49	5.541	5.585	5.483	5.541		9/2-	1/2-
201	114	1545.10	1550.67	7.69	7.71	20.01	2.06	11.05	<u>-0.02</u>	-10.00	-0.74	5.550	5.597	5.488	5.546		9/2-	0+
202	115	1554.00	450051	7.69	7.70	19.95	2.61	8.90	0.26	-9.94	-1.01	5.559	5.609	5.493	5.551		9/2-	1/2-
203	116	1564.82	1569.54	7.71	7.73	19.72	3.06	10.82	0.48	-9.84	-1.23	5.569	5.621	5.498	5.556		9/2-	0+
204	117	1573.63	1577.88	7.71	7.73	19.63	3.57	8.81	0.76	-9.77	-1.50	5.577	5.632	5.502	5.560		9/2-	1/2-
205	118	1584.25	1587.87	7.73	7.75	19.43	4.02	10.62	0.97	-9.68	-1.70	5.587	5.645	5.508	5.566		9/2-	0+
206	119	1593.01	1595.87	7.73	7.75	19.38	4.48	8.76	1.19	-9.66	-1.93	5.596	5.657	5.513	5.570	5 550	9/2-	3/2-
207	120	1603.36	1605.54	7.75	7.76	19.11	4.93	10.35	1.41	-9.50	-2.15	5.605	5.668	5.518	5.576	5.572	9/2-	0+
208	121	1612.13	1613.44	7.75	7.76	19.12	5.40	8.77	1.64	-9.47	-2.38	5.615	5.680	5.523	5.580	5.573	9/2-	3/2-
209	122	1622.11	1622.61	7.76	7.76	18.75	5.77	9.98	1.83	-9.29	-2.56	5.623	5.691	5.527	5.585	5.598	9/2-	0+
210	123	1630.79	1630.24	7.77	7.76	18.66	6.22	8.68	2.05	-9.07	-2.78	5.632	5.702	5.531	5.589	5.582	9/2-	3/2-
211	124	1640.40	1639.12	7.77	7.77	18.29	6.52	9.61	2.20	-8.94	-2.93	5.640	5.713	5.535	5.592	5.558	9/2-	0 ⁺
212	125	1648.98	1646.57	7.78	7.77	18.19	6.84	8.58	2.35	-8.78	-3.09	5.650	5.726	5.539	5.597	5.592	9/2-	1/2-
213	126	1657.61	1654.68	7.78	7.77	17.21	7.15	8.63	2.50	-7.39	-3.25	5.660	5.739	5.544	5.601	5.598	9/2-	0 ⁺
214	127	1661.97	1660.16	7.77	7.76	12.99	7.77	4.36	2.81	-7.83	-3.55	5.676	5.756	5.556	5.613		9/2-	11/2+
215	128	1667.96	1666.95	7.76	7.75	10.35	8.26	5.99	3.07	-5.20 5.10	-3.81	5.690	5.772	5.566	5.623		9/2-	0 ⁺
216	129	1672.24	1672.37	7.74	7.74	10.27	8.87	4.28	3.37	-5.16 5.14	-4.11	5.705	5.789	5.578	5.635		9/2-	11/2+
217	130	1678.18	1679.10	7.73	7.74	10.22	9.35	5.94	3.62	-5.14	-4.36	5.719	5.805	5.588	5.645		$9/2^{-}$	0^+

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
218	131	1682.39	1684.42	7.72	7.73	10.15	9.95	4.21	3.92	-5.10	-4.66	5.734	5.821	5.600	5.657	. , ,	9/2-	11/2
219	132	1688.28	1690.94	7.71	7.72	10.10	10.42	5.89	4.16	-5.09	-4.90	5.748	5.837	5.610	5.667		9/2-	0+
220	133	1692.41	1696.15	7.69	7.71	10.02	11.00	4.13	4.45	-5.03	-5.19	5.762	5.852	5.622	5.678	5.669	$9/2^{-}$	11/2
221	134	1698.26	1702.42	7.68	7.70	9.98	11.45	5.85	4.68	-5.02	-5.43	5.776	5.868	5.631	5.688	5.679	$9/2^{-}$	0^{+}
222	135	1702.28	1707.42	7.67	7.69	9.87	12.01	4.02	4.97	-4.94	-5.71	5.790	5.883	5.643	5.699	5.689	$9/2^{-}$	11/:
223	136	1708.11	1713.46	7.66	7.68	9.85	12.46	5.83	5.20	-4.94	-5.94	5.803	5.898	5.652	5.708	5.695	$9/2^{-}$	0^+
224	137	1711.95	1718.12	7.64	7.67	9.67	12.96	3.84	5.45	-4.82	-6.18	5.817	5.913	5.662	5.719	5.706	$9/2^{-}$	11/
225	138	1717.77	1724.17	7.63	7.66	9.66	13.39	5.82	5.66	-4.84	-6.41	5.830	5.928	5.671	5.728	5.711	9/2-	0+
226	139	1721.53	1728.51	7.62	7.65	9.58	13.81	3.76	5.87	-4.83	-6.61	5.843	5.943	5.680	5.736	5.719	9/2-	9/2
227	140	1727.20	1734.44	7.61	7.64	9.43	14.23	5.67	6.08	-4.72	-6.83	5.855	5.957	5.689	5.745	5.734	9/2-	0+
228	141	1730.92	1738.83	7.59	7.63	9.39	14.63	3.72	6.27	-4.67	-7.02	5.868	5.971	5.697	5.753	5.740	9/2-	9/2 0 ⁺
29	142 143	1736.38	1744.59 1748.83	7.58	7.62	9.18	14.99 15.36	5.46	6.45 6.62	-4.59	-7.20	5.880	5.985 5.999	5.704 5.711	5.759 5.767		9/2 ⁻ 9/2 ⁻	9/2
230 231	143	1740.00 1745.31	1746.65	7.57 7.56	7.60 7.59	9.08 8.93	15.69	3.62 5.31	6.79	-4.53 -4.47	−7.38 −7.54	5.892 5.903	6.012	5.711	5.767 5.773		$9/2^{-}$	9/2 0 ⁺
232	145	1743.31	1754.55	7.54	7.55	8.80	16.04	3.49	6.96	-4.47 -4.38	-7.34 -7.72	5.915	6.026	5.725	5.781		$9/2^{-}$	9/2
233	146	1754.00		7.54		8.69	16.36	5.20	7.12	-4.35	-7.72 -7.88	5.926	6.040	5.731	5.787		$9/2^{-}$	0 ⁺
:34	147	1757.27		7.51		8.47	16.72	3.27	7.12	-4.23	-7.86 -8.06	5.938	6.053	5.738	5.794		$9/2^{-}$	9/2
235	148	1762.43		7.50		8.43	17.04	5.16	7.46	-4.22	-8.23	5.949	6.066	5.744	5.800		$9/2^{-}$	0+
236	149	1765.45		7.48		8.18	17.46	3.02	7.67	-4.08	-8.43	5.961	6.080	5.752	5.807		9/2 ⁻	9/2
237	150	1770.61		7.47		8.18	17.76	5.16	7.82	-4.10	-8.59	5.972	6.093	5.758	5.813		9/2-	0+
38	151	1773.34		7.45		7.89	18.16	2.73	8.05	-3.97	-8.81	5.984	6.107	5.765	5.821		9/2-	9/2
39	152	1778.55		7.44		7.94	18.49	5.21	8.19	-4.00	-8.95	5.995	6.120	5.771	5.826		9/2-	0+
40	153	1781.20		7.42		7.86	18.80	2.65	8.36	-3.97	-9.17	6.006	6.132	5.778	5.833		9/2-	15/
41	154	1786.30		7.41		7.75	19.21	5.10	8.56	-3.91	-9.32	6.018	6.146	5.784	5.839		9/2-	0+
42	155	1788.92		7.39		7.72	19.39	2.62	8.69	-3.91	-9.47	6.031	6.161	5.791	5.846		9/2-	7/2
43	156	1793.90		7.38		7.60	19.93	4.98	8.92	-3.85	-9.69	6.041	6.173	5.798	5.853		9/2-	0+
44	157	1796.58		7.36		7.66	20.18	2.68	9.02	-3.85	-9.81	6.053	6.188	5.802	5.857		$9/2^{-}$	5/2
45	158	1801.38		7.35		7.48	20.62	4.80	9.27	-3.79	-10.04	6.064	6.199	5.811	5.866		$9/2^{-}$	0^{+}
246	159	1804.08		7.33		7.50	20.91	2.70	9.42	-3.79	-10.17	6.076	6.214	5.815	5.870		$9/2^{-}$	5/2
247	160	1808.76		7.32		7.38	21.30	4.68	9.61	-3.75	-10.39	6.087	6.225	5.824	5.878		$9/2^{-}$	0^{+}
248	161	1811.45		7.30		7.37	21.58	2.69	9.75	-3.75	-10.52	6.099	6.240	5.829	5.883		$9/2^{-}$	5/2
249	162	1816.07		7.29		7.31	21.96	4.62	9.94	-3.71	-10.72	6.110	6.251	5.836	5.891		$9/2^{-}$	0^+
50	163	1818.77		7.28		7.32	22.26	2.70	10.10	-3.71	-10.87	6.121	6.266	5.842	5.896		$9/2^{-}$	5/2
251	164	1823.32		7.26		7.25	22.62	4.55	10.28	-3.67	-11.05	6.132	6.277	5.849	5.903		$9/2^{-}$	0+
52	165	1826.03		7.25		7.26	22.93	2.71	10.43	-3.67	-11.20	6.144	6.291	5.854	5.909		$9/2^{-}$	5/2
53	166	1830.51		7.24		7.19	23.26	4.48	10.60	-3.64	-11.37	6.154	6.303	5.861	5.915		9/2-	0+
54	167	1833.23		7.22		7.20	23.58	2.72	10.76	-3.64	-11.53	6.166	6.316	5.867	5.921		9/2-	5/2
55	168	1837.66		7.21		7.15	23.89	4.43	10.92	-3.61	-11.69	6.177	6.328	5.873	5.927		9/2-	0+
56	169	1840.39		7.19		7.16	24.20	2.73	11.08	-3.61	-11.85	6.188	6.341	5.879	5.933		9/2-	5/2 0 ⁺
57	170 171	1844.76		7.18		7.10	24.51	4.37	11.22	-3.59	-11.99	6.199	6.353	5.884	5.939		9/2 ⁻ 9/2 ⁻	5/2
58 59	171	1847.50 1851.82		7.16		7.11 7.06	24.78 25.11	2.74 4.32	11.38 11.52	-3.58	-12.16 -12.29	6.210 6.220	6.366 6.378	5.891	5.945		9/2 9/2 ⁻	5/2 0 ⁺
59 60				7.15			25.11			-3.56			6.393	5.896	5.950			1/2
50 51	173 174	1854.59 1858.84		7.13 7.12		7.09 7.02	25.36 25.70	2.77 4.25	11.65 11.82	-3.58 -3.53	-12.41 -12.57	6.232 6.242	6.403	5.900 5.906	5.954 5.960		9/2 ⁻ 9/2 ⁻	0+
62	174	1861.67		7.12 7.11		7.02	25.70	2.83	11.02	-3.55 -3.55	-12.37 -12.70	6.253	6.417	5.911	5.965		$9/2^{-}$	1/2
63	175	1865.80		7.11		6.96	26.25	4.13	12.09	-3.33 -3.49	-12.70 -12.85	6.263	6.428	5.916	5.970		$9/2^{-}$	0+
64	177	1868.69		7.03		7.02	26.52	2.89	12.03	-3.43 -3.51	-12.98	6.275	6.441	5.921	5.975		$9/2^{-}$	1/2
65	178	1872.71		7.07		6.91	26.79	4.02	12.36	-3.45	-13.10	6.285	6.453	5.926	5.980		$9/2^{-}$	0+
:66	179	1875.67		7.05		6.98	27.11	2.96	12.50	-3.46	-13.24	6.296	6.466	5.931	5.985		$9/2^{-}$	1/2
267	180	1879.53		7.04		6.82	27.28	3.86	12.59	-3.40	-13.33	6.307	6.479	5.934	5.988		9/2 ⁻	0+
68	181	1882.52		7.02		6.85	27.57	2.99	12.73	-3.42	-13.46	6.317	6.491	5.939	5.993		9/2-	3/2
269	182	1886.25		7.01		6.72	27.72	3.73	12.80	-3.34	-13.54	6.328	6.505	5.942	5.996		9/2-	0+
70	183	1889.27		7.00		6.75	27.98	3.02	12.93	-2.30	-13.65	6.339	6.518	5.946	5.999		9/2-	3/2
271	184	1892.86		6.98		6.61	28.11	3.59	12.99	-2.05	-13.71	6.351	6.532	5.949	6.002		9/2-	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
272	185	1892.28		6.96		3.01	28.24	<u>-0.58</u>	13.06	-2.08	-13.78	6.364	6.548	5.953	6.007		9/2-	11/2-
273	186	1893.06		6.93		0.20	28.54	0.78	13.21	-0.15	-13.95	6.378	6.562	5.965	6.018		$9/2^{-}$	0^+
274	187	1892.53		6.91		0.25		<u>-0.53</u>	13.31	-0.15	-14.03	6.391	6.578	5.970	6.024		9/2-	11/2-
275	188	1893.29		6.88		0.23		0.76	13.44	-0.18	-14.19	6.405	6.591	5.982	6.035		9/2-	0+
276	189	1892.71		6.86		0.18		$\frac{-0.58}{0.05}$	13.52	-0.17	-14.28	6.418	6.607	5.988	6.041		9/2-	11/2-
277	190	1893.56		6.84		0.27		0.85	13.67	-0.20	-14.43	6.432	6.620	5.999	6.052		9/2-	0+
278	191	1892.98		6.81		0.27		$\frac{-0.58}{0.00}$	13.76	-0.20	-14.53	6.445	6.635	6.006	6.059		9/2-	11/2 ⁻ 0 ⁺
279 280	192 193	1893.88 1893.31		6.79 6.76		0.32 0.33		0.90 -0.57	13.91 14.02	-0.23 -0.23	-14.68 -14.79	6.458 6.472	6.649 6.664	6.017 6.024	6.070 6.077		9/2 ⁻ 9/2 ⁻	11/2
281	193	1894.25		6.74		0.33		0.94	14.02	-0.25	-14.79 -14.94	6.485	6.677	6.035	6.088		$9/2^{-}$	0+
282	195	1893.69		6.72		0.37		-0.56	14.13	-0.25	-14.94 -15.05	6.498	6.691	6.043	6.096		$9/2^{-}$	11/2 ⁻
283	196	1894.67		6.69		0.42		0.98	14.39	-0.23 -0.28	-15.19	6.511	6.705	6.053	6.106		$9/2^{-}$	0+
284	197	1894.12		6.67		0.43		-0.55	14.52	-0.28	-15.31	6.525	6.719	6.062	6.114		$9/2^{-}$	11/2 ⁻
285	198	1895.15		6.65		0.48		1.03	14.64	-0.30	-15.44	6.537	6.732	6.071	6.124		9/2-	0+
286	199	1894.61		6.62		0.49		-0.54	14.74	-0.30	-15.57	6.551	6.746	6.081	6.133		9/2-	11/2 ⁻
287	200	1895.67		6.61		0.52		1.06	14.88	-0.32	-15.69	6.563	6.759	6.089	6.141		9/2-	0+
288	201	1895.14		6.58		0.53		-0.53	14.94	-0.32	-15.83	6.577	6.773	6.099	6.152		9/2-	11/2-
289	202	1896.24		6.56		0.57		1.10	15.12	-0.34	-15.93	6.589	6.787	6.107	6.159		9/2-	0 +′
290	203	1895.71		6.54		0.57		-0.53	15.14	-0.36	-15.95	6.614	6.820	6.107	6.160		9/2-	$3/2^{-}$
291	204	1896.84		6.52		0.60		1.13	15.35	-0.35	-16.16	6.615	6.814	6.124	6.176		9/2-	0+
292	205	1896.36		6.49		0.65		-0.48	15.38	-0.37	-16.18	6.639	6.846	6.125	6.177		9/2-	$3/2^{-}$
293	206	1897.46		6.48		0.62		1.10	15.58	-0.35	-16.38	6.641	6.841	6.140	6.192		$9/2^{-}$	0^+
294	207	1897.02		6.45		0.66		-0.44	15.60	-0.38	-16.40	6.664	6.872	6.141	6.193		$9/2^{-}$	$3/2^{-}$
295	208	1898.07		6.43		0.61		1.05	15.77	-0.35	-16.58	6.666	6.869	6.154	6.206		$9/2^{-}$	0^+
296	209	1897.68		6.41		0.66		-0.39	15.80	-0.37	-16.61	6.689	6.898	6.156	6.207		$9/2^{-}$	$3/2^{-}$
297	210	1898.67		6.39		0.60		0.99	15.96	-0.34	-16.77	6.692	6.898	6.167	6.219		$9/2^{-}$	0^+
298	211	1898.32		6.37		0.64		-0.35	15.98	-0.35	-16.79	6.714	6.926	6.169	6.221		$9/2^{-}$	3/2-
299	212	1899.24		6.35		0.57		0.92	16.12	-0.32	-16.92	6.719	6.928	6.179	6.230		$9/2^{-}$	0+
300	213	1898.93		6.33		0.61		<u>-0.31</u>	16.14	-0.33	-16.95	6.739	6.955	6.180	6.232		9/2-	3/2-
301	214	1899.78		6.31		0.54		0.85	16.26	-0.31	-17.07	6.746	6.959	6.188	6.240		9/2-	0+
302	215	1899.51		6.29		0.58		$\frac{-0.27}{0.70}$	16.27	-0.32	-17.10	6.765	6.985	6.190	6.242		9/2-	3/2 ⁻ 0 ⁺
303 304	216 217	1900.30		6.27		0.52 0.57		0.79 -0.22	16.38	-0.30 -0.31	-17.19 -17.23	6.773 6.791	6.991 7.015	6.197 6.199	6.248 6.250		9/2 ⁻ 9/2 ⁻	3/2 ⁻
30 4 305	217	1900.08 1900.82		6.25 6.23		0.57		$\frac{-0.22}{0.74}$	16.43 16.50	-0.31 -0.30	-17.23 -17.32	6.800	7.013	6.205	6.256		9/2 9/2 ⁻	3/2 0 ⁺
305	219	1900.62		6.21		0.52		-0.22	16.55	-0.30 -0.31	-17.32 -17.35	6.818	7.023	6.207	6.259		9/2 9/2 ⁻	3/2-
307	219	1900.00		6.19		0.52		$\frac{-0.22}{0.74}$	16.61	-0.31	-17.33 -17.43	6.827	7.040	6.212	6.264		9/2 ⁻	0 ⁺
308	221	1901.13		6.17		0.53		-0.21	16.67	-0.31	-17.43 -17.47	6.844	7.076	6.215	6.266		$9/2^{-}$	3/2-
309	222	1901.88		6.15		0.54		0.75	16.72	-0.31	-17.55	6.854	7.087	6.220	6.271		9/2-	0 ⁺
310	223	1901.66		6.13		0.53		-0.22	16.77	-0.31	-17.59	6.870	7.106	6.223	6.274		9/2-	3/2-
311	224	1902.43		6.12		0.55		0.77	16.83	-0.32	-17.66	6.880	7.118	6.227	6.278		9/2-	0+
312	225	1902.21		6.10		0.55		-0.22	16.86	-0.32	-17.71	6.896	7.137	6.230	6.282		9/2-	3/2-
313	226	1902.99		6.08		0.56		0.78	16.93	-0.33	-17.77	6.907	7.149	6.234	6.285		9/2-	0+
314	227	1902.80		6.06		0.59		-0.19	16.97	-0.34	-17.80	6.924	7.170	6.236	6.287		9/2-	$1/2^{-}$
315	228	1903.58		6.04		0.59		0.78	17.04	-0.33	-17.88	6.933	7.180	6.241	6.292		$9/2^{-}$	$0^{'+}$
316	229	1903.40		6.02		0.60		-0.18	17.08	-0.34	-17.91	6.949	7.199	6.244	6.295		9/2-	$1/2^{-}$
317	230	1904.18		6.01		0.60		0.78	17.15	-0.34	-17.99	6.959	7.210	6.248	6.299		9/2-	0+
318	231	1904.02		5.99		0.62		<u>-0.16</u>	17.20	-0.34	-18.03	6.974	7.228	6.251	6.302		$9/2^{-}$	$1/2^{-}$
319	232	1904.80		5.97		0.62		0.78	17.26	-0.34	-18.10	6.985	7.239	6.256	6.307		$9/2^{-}$	0^+
320	233	1904.64		5.95		0.62		<u>-0.16</u>	17.32	-0.34	-18.16	6.999	7.255	6.259	6.310		$9/2^{-}$	$1/2^{-}$
321	234	1905.43		5.94		0.63		0.79	17.37	-0.35	-18.22	7.010	7.268	6.263	6.314		$9/2^{-}$	0^+
322	235	1905.26		5.92		0.62		<u>-0.17</u>	17.44	-0.34	-18.28	7.023	7.282	6.268	6.318		9/2-	1/2-
323	236	1906.06		5.90		0.63		0.80	17.48	-0.34	-18.34	7.035	7.296	6.271	6.322		9/2-	0+
324	237	1905.86		5.88		0.60		$\frac{-0.20}{0.02}$	17.57	-0.32	-18.43	7.046	7.308	6.277	6.327		9/2-	1/2-
325	238	1906.68		5.87		0.62		0.82	17.61	-0.34	-18.48	7.059	7.323	6.280	6.330		$9/2^{-}$	0^+

A	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
326	239	1906.44		5.85		0.58		-0.24	17.73	-0.31	-18.59	7.068	7.332	6.287	6.338		9/2-	1/2-
327	240	1907.28		5.83		0.60		0.84	17.76	-0.32	-18.63	7.082	7.348	6.289	6.340		9/2-	0+
328	241	1906.98		5.81		0.54		$\frac{-0.30}{0.07}$	17.92	-0.28	-18.79	7.090	7.354	6.299	6.350		9/2-	1/2-
329	242	1907.85		5.80		0.57		0.87	17.96	-0.30	-18.82	7.103	7.370	6.301	6.352		9/2-	0 ⁺
330 331	243 244	1907.47 1908.37		5.78 5.77		0.49 0.52		$\frac{-0.38}{0.90}$	18.18 18.20	-0.26 -0.27	-19.02 -19.05	7.109 7.123	7.374 7.390	6.313 6.315	6.364 6.365		9/2 ⁻ 9/2 ⁻	1/2 ⁻ 0 ⁺
332	244	1908.37		5.75		0.32		-0.45	18.34	-0.27 -0.23	-19.03 -19.28	7.123	7.390	6.329	6.380		9/2 9/2 ⁻	1/2
333	246	1907.92		5.73		0.43		0.93	18.48	-0.25	-19.20 -19.30	7.128	7.408	6.331	6.381		9/2 9/2 ⁻	0+
334	247	1908.40		5.71		0.48		-0.45	18.60	-0.26	-19.41	7.152	7.418	6.337	6.388		$9/2^{-}$	17/2
335	248	1909.30		5.70		0.45		0.90	18.76	-0.24	-19.58	7.160	7.424	6.348	6.398		$9/2^{-}$	0+
336	249	1908.87		5.68		0.47		-0.43	18.88	-0.24	-19.69	7.170	7.434	6.355	6.405		9/2-	17/2
337	250	1909.73		5.67		0.43		0.86	19.05	-0.23	-19.86	7.178	7.440	6.365	6.415		9/2-	0+
38	251	1909.32		5.65		0.45		-0.41	19.17	-0.23	-19.98	7.188	7.450	6.373	6.423		9/2-	17/2
339	252	1910.15		5.63		0.42		0.83	19.32	-0.22	-20.14	7.196	7.456	6.383	6.433		9/2-	0+
40	253	1909.76		5.62		0.44		-0.39	19.45	-0.22	-20.26	7.206	7.465	6.391	6.441		9/2-	17/
41	254	1910.58		5.60		0.43		0.82	19.60	-0.22	-20.42	7.214	7.472	6.402	6.452		$9/2^{-}$	0^{+}
342	255	1910.22		5.59		0.46		<u>-0.36</u>	19.74	-0.22	-20.55	7.224	7.481	6.410	6.460		$9/2^{-}$	17/
43	256	1911.03		5.57		0.45		0.81	19.88	-0.22	-20.71	7.232	7.487	6.421	6.471		$9/2^{-}$	0^{+}
44	257	1910.69		5.55		0.47		-0.34	20.00	0.88	-20.83	7.241	7.496	6.430	6.479		$9/2^{-}$	17/
345	258	1911.51		5.54		0.48		0.82		-0.83	-20.98	7.250	7.503	6.440	6.490		$9/2^{-}$	0^+
r		4.77													0.014			
	3 (Ra)	4500.05		= 00					0.00	40.44	0.00	= = 40		= 40=	===0		0.1	0.1
.00	112	1526.05		7.63			0.44	0.04	0.96	-10.41	0.06	5.542	5.579	5.495	5.553		0+	0+
01	113	1535.26	1550 47	7.64	7.00	20.52	0.94	9.21	1.21	-10.37	-0.20	5.551	5.591	5.500	5.557		0^{+}	5/2 0 ⁺
02 03	114 115	1546.57 1555.73	1552.47 1560.97	7.66 7.66	7.69 7.69	20.52 20.47	1.45 1.99	11.31 9.16	1.47 1.73	-10.24 -10.19	$-0.45 \\ -0.71$	5.560 5.569	5.603 5.615	5.505 5.509	5.562 5.567		0+	-
204	116	1566.78	1571.65	7.68	7.09	20.47	2.44	11.05	1.75	-10.19 -10.07	-0.71 -0.93	5.579	5.627	5.515	5.572		0+	5/2 0 ⁺
:05	117	1575.86	1571.03	7.69	7.70	20.21	2.99	9.08	2.23	-10.07 -10.00	-0.93 -1.20	5.587	5.638	5.519	5.577		0+	5/2
:06	118	1575.60	1575.55	7.70	7.72	19.89	3.39	10.81	2.42	-9.90	-1.40	5.597	5.650	5.524	5.582		0+	0 ⁺
207	119	1595.66	1598.38	7.71	7.72	19.80	3.84	8.99	2.65	-9.89	-1.62	5.606	5.662	5.529	5.586		0+	3/2
208	120	1606.22	1608.27	7.72	7.73	19.55	4.27	10.56	2.86	-9.71	-1.84	5.615	5.674	5.534	5.592	5.585	0^{+}	0+
209	121	1615.21	1616.20	7.73	7.73	19.55	4.72	8.99	3.08	-9.68	-2.06	5.624	5.685	5.539	5.596	5.585	0^{+}	3/2
210	122	1625.37	1625.67	7.74	7.74	19.15	5.09	10.16	3.26	-9.48	-2.24	5.633	5.696	5.543	5.601	5.592	0^{+}	0+
211	123	1634.26	1633.37	7.75	7.74	19.05	5.52	8.89	3.47	-9.24	-2.45	5.641	5.707	5.547	5.605	5.593	0^+	3/2
12	124	1644.02	1642.48	7.75	7.75	18.65	5.82	9.76	3.62	-9.10	-2.60	5.649	5.718	5.551	5.608	5.599	0^{+}	0^{+}
13	125	1652.77	1649.99	7.76	7.75	18.51	6.14	8.75	3.79	-8.64	-2.76	5.659	5.731	5.555	5.612	5.602	0^+	1/2
14	126	1661.55	1658.32	7.76	7.75	17.53	6.44	8.78	3.94	-7.49	-2.91	5.669	5.744	5.559	5.617	5.608	0^+	0^{+}
15	127	1666.21	1663.95	7.75	7.74	13.44	7.05	4.66	4.24	-7.86	-3.22	5.684	5.761	5.572	5.629		0^+	11/
16	128	1672.46	1671.27	7.74	7.74	10.91	7.57	6.25	4.50	-5.47	-3.48	5.698	5.777	5.582	5.639		0+	0+
17	129	1677.05	1676.74	7.73	7.73	10.84	8.18	4.59	4.81	-5.43	-3.78	5.713	5.793	5.594	5.651		0+	11/
18	130	1683.24	1684.05	7.72	7.73	10.78	8.68	6.19	5.06	-5.41	-4.04	5.727	5.809	5.604	5.661		0+	0+
19	131	1687.75	1689.38	7.71	7.71	10.70	9.28	4.51	5.36	-5.36	-4.34	5.742	5.825	5.616	5.673	F 600	0+	11/
20	132	1693.89	1696.57	7.70	7.71	10.65	9.77	6.14	5.61	-5.35	-4.59	5.756	5.841	5.626	5.683	5.668	0 ⁺	0+
21	133	1698.32	1701.95	7.68	7.70	10.57	10.36	4.43	5.91	-5.29	-4.88 5.13	5.770	5.856	5.638	5.695	5.680	0 ⁺	11/
22	134	1704.41	1708.67	7.68	7.70	10.52	10.83	6.09	6.15	-5.28 5.10	-5.12 5.41	5.784	5.872	5.648	5.704	5.687	0 ⁺	0 ⁺
23 24	135 136	1708.71 1714.77	1713.82 1720.31	7.66 7.66	7.69 7.68	10.39 10.36	11.40 11.86	4.30 6.06	6.43 6.66	-5.19 -5.19	-5.41 -5.64	5.798 5.811	5.887 5.902	5.660 5.669	5.716 5.725	5.697 5.705	0 ⁺	11/ 0 ⁺
25	136	1714.77	1720.31	7.66 7.64	7.68 7.67	10.36	12.36	4.09	6.91	-5.19 -5.04	-5.64 -5.90	5.825	5.902	5.679	5.735	5.705	0+	11/
:25 !26	137	1718.86	1725.20	7.63	7.67 7.66	10.15	12.36	4.09 6.05	7.14	-5.04 -5.06	-5.90 -6.12	5.838	5.931	5.688	5.744	5.715	0+	0 ⁺
27	138	1724.91	1731.60	7.63 7.62	7.65	10.14	13.21	3.96	7.14 7.34	-5.06 -5.05	-6.12 -6.32	5.851	5.946	5.697	5.753	5.721	0+	9/2
228	140	1728.87	1730.10	7.62 7.61	7.63 7.64	9.85	13.64	5.89	7.54 7.56	-3.03 -4.91	-6.52 -6.54	5.863	5.960	5.705	5.761	5.737	0+	9/2 0 ⁺
	1-10		1742.47		7.63	9.80	14.02	3.91	7.75	-4.91 -4.86	-6.72	5.875	5.974	5.703	5.769	5.746	0+	9/2
229	141	1738.67	1 / 4h u 4	7.59														

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
231	143	1748.09	1757.41	7.57	7.61	9.42	14.71	3.79	8.09	-4.69	-7.07	5.899	6.002	5.727	5.783		0+	9/2+
232	144	1753.57	1763.20	7.56	7.60	9.27	15.05	5.48	8.26	-4.64	-7.24	5.910	6.015	5.733	5.789	5.771	0+	0+
233	145	1757.22	1767.45	7.54	7.59	9.13	15.38	3.65	8.42	-4.55	-7.41	5.921	6.029	5.740	5.796		0+	9/2+
234	146	1762.59	1772.95	7.53	7.58	9.02	15.71	5.37	8.59	-4.52	-7.58	5.932	6.042	5.746	5.802		0+	0 ⁺
235	147	1766.05		7.52		8.83	16.07	3.46	8.78	-4.41	-7.76	5.944	6.055	5.753	5.809		0+	9/2+
236	148	1771.37		7.51		8.78	16.40	5.32	8.94	-4.40	-7.93	5.955	6.068	5.760	5.815		0+	0+
237	149	1774.59		7.49		8.54	16.81	3.22	9.14	-4.27	-8.13	5.967	6.082	5.767	5.822		0+	9/2+
238	150	1779.91		7.48		8.54	17.12	5.32	9.30	-4.28	-8.29	5.978	6.094	5.773	5.828		0+	0+
239	151	1782.87		7.46		8.28	17.58	2.96	9.53	-4.16	-8.52	5.990	6.108	5.780	5.836		0+	9/2+
240	152	1788.22		7.45		8.31	17.86	5.35	9.67	-4.18	-8.66	6.000	6.121	5.786	5.841		0+	0+
241	153	1791.08		7.43		8.21	18.24	2.86	9.88	-4.15	-8.87	6.011	6.133	5.793	5.848		0+	15/2-
242	154	1796.34		7.42		8.12	18.60	5.26	10.04	-4.10	-9.03	6.023	6.147	5.800	5.855		0+	0+
243	155	1799.16		7.40		8.08	18.93	2.82	10.24	-4.06	-9.24	6.034	6.159	5.807	5.862		0+	15/2-
244	156	1804.31		7.39		7.97	19.33	5.15	10.41	-4.02	-9.40	6.046	6.173	5.813	5.868		0+	0+
245	157	1807.10		7.38		7.94	19.54	2.79	10.52	-4.02	-9.56	6.058	6.187	5.820	5.875		0+	7/2+
246	158	1812.15		7.37		7.84	20.04	5.05	10.77	-3.97	-9.77	6.068	6.199	5.826	5.881		0+	0+
247	159	1815.00		7.35		7.90	20.34	2.85	10.92	-3.97	-9.89	6.080	6.214	5.831	5.885		0+	$5/2^{+}$
248	160	1819.89		7.34		7.74	20.74	4.89	11.13	-3.92	-10.12	6.091	6.225	5.839	5.894		0+	0+
249	161	1822.73		7.32		7.73	21.03	2.84	11.28	-3.92	-10.25	6.102	6.239	5.844	5.898		0+	5/2+
250	162	1827.54		7.31		7.65	21.41	4.81	11.47	-3.87	-10.46	6.113	6.250	5.852	5.907		0^+	0^+
251	163	1830.38		7.29		7.65	21.71	2.84	11.61	-3.88	-10.60	6.125	6.265	5.857	5.911		0^+	$5/2^{+}$
252	164	1835.12		7.28		7.58	22.08	4.74	11.80	-3.83	-10.79	6.135	6.276	5.865	5.919		0+	0^+
253	165	1837.98		7.26		7.60	22.38	2.86	11.95	-3.84	-10.94	6.147	6.290	5.870	5.924		0^{+}	$5/2^{+}$
254	166	1842.64		7.25		7.52	22.73	4.66	12.13	-3.80	-11.12	6.157	6.301	5.877	5.931		0^{+}	0^+
255	167	1845.51		7.24		7.53	23.04	2.87	12.28	-3.80	-11.27	6.169	6.315	5.883	5.937		0^{+}	$5/2^{+}$
256	168	1850.10		7.23		7.46	23.36	4.59	12.44	-3.77	-11.43	6.179	6.326	5.889	5.943		0^+	0^+
257	169	1852.99		7.21		7.48	23.68	2.89	12.60	-3.77	-11.59	6.191	6.340	5.895	5.949		0^+	$5/2^{+}$
258	170	1857.51		7.20		7.41	23.97	4.52	12.75	-3.73	-11.73	6.201	6.351	5.900	5.954		0^+	0^+
259	171	1860.41		7.18		7.42	24.29	2.90	12.91	-3.73	-11.90	6.213	6.364	5.907	5.961		0^+	$5/2^{+}$
260	172	1864.86		7.17		7.35	24.56	4.45	13.04	-3.70	-12.03	6.223	6.376	5.911	5.965		0^+	0^+
261	173	1867.77		7.16		7.36	24.83	2.91	13.18	-3.69	-12.20	6.234	6.389	5.918	5.972		0^+	$5/2^{+}$
262	174	1872.16		7.15		7.30	25.14	4.39	13.32	-3.66	-12.31	6.244	6.401	5.922	5.976		0^+	0^+
263	175	1875.11		7.13		7.34	25.39	2.95	13.44	-3.69	-12.42	6.256	6.415	5.926	5.980		0^+	$1/2^{+}$
264	176	1879.39		7.12		7.23	25.68	4.28	13.59	-3.62	-12.57	6.265	6.426	5.932	5.985		0^+	0^+
265	177	1882.41		7.10		7.30	25.89	3.02	13.72	-3.64	-12.70	6.277	6.439	5.936	5.990		0^+	$1/2^{+}$
266	178	1886.55		7.09		7.16	26.20	4.14	13.84	-3.57	-12.81	6.287	6.451	5.941	5.994		0^+	0^+
267	179	1889.66		7.08		7.25	26.49	3.11	13.99	-3.57	-12.94	6.298	6.464	5.945	5.999		0^{+}	$1/2^{+}$
268	180	1893.59		7.07		7.04	26.65	3.93	14.06	-3.50	-13.03	6.308	6.477	5.949	6.002		0^+	0^+
269	181	1896.69		7.05		7.03	26.90	3.10	14.17	-3.51	-13.15	6.319	6.489	5.953	6.006		0^+	$3/2^{+}$
270	182	1900.49		7.04		6.90	27.04	3.80	14.24	-3.43	-13.22	6.330	6.503	5.955	6.009		0^+	0^+
271	183	1903.61		7.02		6.92	27.27	3.12	14.34	-2.24	-13.32	6.341	6.516	5.959	6.012		0^+	$3/2^{+}$
272	184	1907.26		7.01		6.77	27.39	3.65	14.40	-2.00	-13.38	6.352	6.530	5.962	6.015		0^+	0^{+}
273	185	1906.76		6.98		3.15	27.54	-0.50	14.48	-2.04	-13.45	6.365	6.546	5.966	6.020		0^+	$11/2^{-}$
274	186	1907.70		6.96		0.44	27.85	0.94	14.64	-0.27	-13.63	6.379	6.560	5.979	6.032		0^+	0+
275	187	1907.24		6.94		0.48	28.02	-0.46	14.71	-0.27	-13.71	6.392	6.575	5.984	6.038		0^+	$11/2^{-}$
276	188	1908.18		6.91		0.48	28.33	0.94	14.89	-0.30	-13.89	6.406	6.588	5.997	6.050		0^+	0+
277	189	1907.70		6.89		0.46	28.51	-0.48	14.99	-0.30	-13.98	6.419	6.604	6.003	6.056		0^+	$11/2^{-}$
278	190	1908.71		6.87		0.53	28.82	1.01	15.15	-0.33	-14.15	6.432	6.617	6.015	6.068		0^+	0+
279	191	1908.23		6.84		0.53	29.01	-0.48	15.25	-0.33	-14.25	6.446	6.632	6.022	6.075		0^{+}	11/2-
280	192	1909.29		6.82		0.58	29.32	1.06	15.41	-0.35	-14.41	6.459	6.645	6.034	6.087		0^{+}	0+
281	193	1908.82		6.79		0.59	29.53	-0.47	15.51	-0.36	-14.52	6.472	6.660	6.041	6.094		0^+	11/2
282	194	1909.92		6.77		0.63	29.82	1.10	15.67	-0.38	-14.67	6.485	6.673	6.052	6.105		0^{+}	0+
283	195	1909.47		6.75		0.65	30.05	-0.45	15.78	-0.39	-14.79	6.499	6.687	6.061	6.113		0^{+}	11/2-
		1910.60		6.73		0.68	30.32	1.13	15.93	-0.41	-14.94	6.512	6.700	6.071	6.124		0^{+}	0+

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
285	197	1910.18		6.70		0.71	30.58	-0.42	16.06	-0.41	-15.06	6.525	6.714	6.080	6.133		0+	11/2
286	198	1911.34		6.68		0.74	30.83	1.16	16.19	-0.43	-15.19	6.538	6.727	6.090	6.142		0^+	0^{+}
287	199	1910.93		6.66		0.75	31.06	-0.41	16.32	-0.43	-15.33	6.551	6.741	6.100	6.152		0^+	11/2
288	200	1912.11		6.64		0.77	31.32	1.18	16.44	-0.45	-15.44	6.564	6.754	6.108	6.160		0^+	0^+
289	201	1911.72		6.61		0.79	31.52	-0.39	16.58	-0.45	-15.58	6.577	6.768	6.118	6.170		0^+	11/
90	202	1912.93		6.60		0.82	31.81	1.21	16.69	-0.46	-15.69	6.589	6.781	6.126	6.178		0^+	0^{+}
291	203	1912.54		6.57		0.82	31.97	-0.39	16.83	-0.45	-15.83	6.602	6.795	6.136	6.188		0^+	11/
92	204	1913.76		6.55		0.83	32.27	1.22	16.92	-0.46	-15.92	6.614	6.808	6.143	6.195		0^+	0+
93	205	1913.36		6.53		0.82	32.38	-0.40	17.00	-0.45	-16.06	6.628	6.821	6.153	6.205		0^+	11/
294	206	1914.60		6.51		0.84	32.72	1.24	17.14	-0.46	-16.14	6.640	6.835	6.158	6.210		0^{+}	0+
95	207	1914.18		6.49		0.82	32.76	-0.42	17.16	-0.48	-16.16	6.663	6.866	6.159	6.211		0^+	3/2
96	208	1915.42		6.47		0.82	33.12	1.24	17.35	-0.44	-16.34	6.665	6.863	6.173	6.225		0+	0+
297	209	1915.05		6.45		0.87	33.17	-0.37	17.37	-0.46	-16.36	6.687	6.892	6.174	6.225		0+	3/2
298	210	1916.20		6.43		0.78	33.49	1.15	17.53	-0.42	-16.52	6.690	6.891	6.186	6.237		0+	0+
299	211	1915.87		6.41		0.82	33.53	-0.33	17.55	-0.44	-16.54	6.712	6.919	6.187	6.238		0+	3/2
800	212	1916.92		6.39		0.72	33.80	1.05	17.68	-0.39	-16.68	6.716	6.920	6.197	6.248		0+	0+
01	213	1916.63		6.37		0.72	33.84	-0.29	17.70	-0.33 -0.41	-16.70	6.737	6.947	6.198	6.249		0+	3/2
02	214	1917.60		6.35		0.76	34.08	0.97	17.70	-0.41 -0.38	-16.70 -16.82	6.742	6.951	6.206	6.258		0 ⁺	0 ⁺
02	214	1917.35		6.33		0.08	34.11	-0.25	17.84	-0.38 -0.39	-16.85	6.762	6.976	6.208	6.259		0+	3/2
03 04								0.90									0+	0 ⁺
	216	1918.25		6.31		0.65	34.33		17.95	-0.37	-16.95	6.769	6.982	6.215	6.266		0 ⁺	
05	217	1918.04		6.29		0.69	34.39	$\frac{-0.21}{0.05}$	17.96	-0.38	-16.99	6.788	7.006	6.217	6.268			3/2
06	218	1918.89		6.27		0.64	34.57	0.85	18.07	-0.36	-17.08	6.795	7.013	6.223	6.274		0+	0+
07	219	1918.72		6.25		0.68	34.67	$\frac{-0.17}{0.01}$	18.12	-0.37	-17.12	6.813	7.036	6.225	6.276		0^+	3/2
08	220	1919.53		6.23		0.64	34.80	0.81	18.19	-0.37	-17.21	6.822	7.044	6.231	6.282		0+	0+
09	221	1919.36		6.21		0.64	34.90	<u>-0.17</u>	18.23	-0.37	-17.24	6.839	7.066	6.233	6.284		0+	3/:
10	222	1920.17		6.19		0.64	35.01	0.81	18.29	-0.37	-17.33	6.848	7.075	6.239	6.290		0+	0+
311	223	1920.00		6.17		0.64	35.11	-0.17	18.34	-0.37	-17.37	6.865	7.095	6.241	6.292		0+	3/2
312	224	1920.83		6.16		0.66	35.23	0.83	18.40	-0.38	-17.45	6.874	7.105	6.246	6.297		0^+	0^+
313	225	1920.67		6.14		0.67	35.32	<u>-0.16</u>	18.46	-0.38	-17.49	6.890	7.125	6.249	6.300		0^+	3/2
14	226	1921.51		6.12		0.68	35.45	0.84	18.52	-0.38	-17.57	6.900	7.136	6.254	6.305		0^+	0^{+}
315	227	1921.35		6.10		0.68	35.52	-0.16	18.55	-0.40	-17.60	6.917	7.157	6.256	6.307		0^+	1/2
316	228	1922.21		6.08		0.70	35.67	0.86	18.63	-0.39	-17.69	6.926	7.165	6.261	6.312		0^+	0^{+}
317	229	1922.07		6.06		0.72	35.75	-0.14	18.67	-0.40	-17.72	6.942	7.186	6.264	6.314		0^+	1/2
318	230	1922.92		6.05		0.71	35.89	0.85	18.74	-0.40	-17.81	6.951	7.195	6.269	6.320		0^+	0+
19	231	1922.80		6.03		0.73	35.98	-0.12	18.78	-0.40	-17.85	6.967	7.214	6.272	6.322		0^+	1/2
20	232	1923.66		6.01		0.74	36.12	0.86	18.86	-0.41	-17.93	6.976	7.223	6.277	6.328		0^+	0+
21	233	1923.55		5.99		0.75	36.23	-0.11	18.91	-0.41	-17.98	6.991	7.241	6.280	6.331		0+	1/2
22	234	1924.40		5.98		0.74	36.34	0.85	18.97	-0.41	-18.06	7.001	7.252	6.285	6.335		0+	0+
23	235	1924.30		5.96		0.75	36.48	-0.10	19.04	-0.41	-18.12	7.014	7.267	6.289	6.339		0^{+}	1/2
24	236	1925.16		5.94		0.76	36.58	0.86	19.10	-0.41	-18.19	7.025	7.279	6.293	6.344		0+	0+
25	237	1925.05		5.92		0.75	36.76	-0.11	19.19	-0.40	-18.27	7.037	7.292	6.298	6.349		0+	1/:
26	238	1925.92		5.91		0.76	36.85	0.87	19.24	-0.40 -0.41	-18.34	7.048	7.305	6.302	6.353		0+	0+
27	239	1925.80		5.89		0.75	37.09	-0.12	19.36	-0.41 -0.40	-18.34 -18.44	7.048	7.303	6.309	6.359		0+	1/2
28	239	1925.60		5.87		0.73	37.09 37.17	$\frac{-0.12}{0.89}$	19.41	-0.40 -0.41	-18.44 -18.50	7.039	7.317	6.312	6.363		0+	0+
20 29	240	1926.53		5.86		0.77	37.17 37.47	-0.16	19.41	-0.41 -0.39	-18.50 -18.63	7.071	7.339	6.320	6.371		0+	
29 30																	0+	1/2 0 ⁺
	242	1927.44		5.84		0.75	37.55	0.91	19.59	-0.40	-18.68	7.093	7.353	6.323	6.374		0 ⁺	
31	243	1927.24		5.82		0.71	37.95	$\frac{-0.20}{0.04}$	19.77	-0.38	-18.84	7.101	7.360	6.333	6.384			1/2
32	244	1928.18		5.81		0.74	38.01	0.94	19.81	-0.39	-18.89	7.114	7.375	6.336	6.386		0+	0+
333	245	1927.94		5.79		0.70	38.36	$\frac{-0.24}{-0.24}$	20.02	-0.37	-19.08	7.121	7.379	6.348	6.398		0+	1/2
34	246	1928.91		5.78		0.73	38.54	0.97	20.06	-0.38	-19.12	7.134	7.395	6.350	6.400		0+	0+
35	247	1928.63		5.76		0.69	38.83	-0.28	20.23	-0.36	-19.33	7.140	7.397	6.364	6.414		0+	1/2
36	248	1929.62		5.74		0.71	39.08	0.99	20.32	-0.37	-19.36	7.153	7.413	6.365	6.415		0+	0^{+}
37	249	1929.31		5.72		0.68	39.32	-0.31	20.44	-0.38	-19.46	7.164	7.424	6.371	6.421		0^+	17
38	250	1930.33		5.71		0.71	39.65	1.02	20.60	-0.36	-19.62	7.172	7.431	6.381	6.431		0^{+}	0^{+}

Table 1 (continued)

231 1930.14 5.88 0.71 39.88 0.72 39.88 0.12 0.021 10.02 20.88 0.38 -19.89 17.47 6.388 6.488 0.7 0.7 17.27 14.23 1930.18 5.68 0.74 40.27 40.21 10.02 20.88 -0.38 -19.88 -19.77 7.487 6.388 6.488 0.7 0.7 17.27 14.23 1930.18 5.68 0.74 40.47 40.47 40.28 21.02 -0.27 -0.000 7.201 7.457 6.408 6.458 0.7 0.7 17.27 14.24 25.6 1932.49 5.62 0.73 41.34 0.07 21.46 -0.36 -0.24 7.27 7.47 6.403 6.45 0.7 0.7 7.27 14.24 25.6 1932.49 5.62 0.73 41.34 0.07 21.46 -0.36 -0.24 7.227 7.49 6.44 6.481 0.7 0.7 7.24 7	Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
141 253 1890.78	339	251	1930.04		5.69		0.73	39.89	-0.29	20.72	-0.37	-19.73	7.182	7.441	6.388	6.438			17/2+
242 254 1931/76 5.66 0.72 4078 0.98 0.98 21.18 -0.36 -20.16 7.209 7.464 6.416 6.465 0° 0° 17/24 1404 -0.24 21.30 -0.36 -20.43 7.227 7.480 6.44 6.483 0° 0° 17/24 1404 -0.27 12.165 -0.38 -2.20 12.165 -0.38 -2.20 12.165 -0.20 -2.20	340	252	1931.04		5.68		0.71	40.21	1.00	20.89	-0.36	-19.89	7.191	7.447	6.398	6.448		0^{+}	-
255 1931.52 5.63 0.74 41.04 0.024 21.30 -0.36 -20.27 7.219 7.474 6.423 6.473 0° 17/2° 14.04 257 1932.48 5.62 0.73 41.34 0.97 21.65 0.32 -20.54 7.237 7.240 6.441 6.491 0° 17/2° 14.05 0.025 1.05 0.025			1930.78		5.66					21.02					6.405	6.455			
244 256 1932,49 5.62 0.73 41.34 0.97 21.46 0.93 -20.43 7.227 7.480 6.44 6.481 0.91 17/2 346 258 1932,25 5.59 0.76 41.99 0.97 21.75 -0.99 -20.70 7.245 7.497 6.42 6.501 0.97																			
145 157 1932.28 5.60 0.76 41.59 0.97 21.75 0.99 -20.50 7.243 7.490 6.441 6.491 0" 17/2" 2.490 6.501 0" 0" 0" 0" 0" 0" 0"																			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$																			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $																			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		258			5.59		0.76	41.90	0.97	21.75	-0.99	-20.70	7.245	7.497	6.452			0^{+}	0+
202 113 1534.40 7.60 0.35 9.48 -0.86 -10.64 0.11 5.562 5.598 5.516 5.574 9.72 0°1 203 114 1545.96 7.62 20.99 1.39 9.43 -0.34 -10.44 -0.37 5.580 5.521 5.579 9.72 0°1 204 115 1555.39 7.62 20.99 1.39 9.43 -0.34 -10.44 -0.37 5.580 5.631 5.531 5.588 9.72 0°1 205 116 1566.66 7.64 20.70 1.84 1.127 -0.122 -10.31 -0.99 5.589 5.633 5.531 5.588 9.72 0°1 206 117 1576.00 7.65 7.65 20.61 2.37 9.34 0.14 -10.24 -0.86 5.598 5.645 5.333 5.538 9.72 0°1 207 118 1887.01 1589.99 7.67 7.68 20.61 2.37 9.34 0.14 -10.24 -0.86 5.598 5.645 5.333 5.588 9.72 0°1 208 118 1887.01 1589.99 7.67 7.68 20.61 2.37 9.34 0.14 -10.24 -0.86 5.598 5.645 5.333 5.538 9.72 0°1 209 120 120 1366.91 1598.94 7.67 7.68 20.83 2.38 1.09 0.03 0) (Ac)	5.47													0.017			
203 114 1545.96 7.62 21.04 0.86 11.56 -0.61 -10.49 -0.11 5.571 5.610 5.521 5.579 9/2" 0°		` '	1534 40		7 60			0.35	9.48	-0.86	-10.64	0.14	5 562	5 598	5 5 1 6	5 574		9/2-	5/2-
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208 19 1596.21 1598.45 7.67 7.68 20.21 3.20 9.20 0.55 -10.11 -1.27 5.616 5.668 5.545 5.602 9/2 0 +	206	117	1576.00		7.65		20.61	2.37	9.34	0.14			5.598			5.593		9/2-	$5/2^{-}$
209 120 1606.99 1608.43 7.69 7.70 19.98 3.63 10.78 0.77 -9.91 -1.48 5.625 5.680 5.550 5.608 9/2" 0/2" 0/2" 0/2" 11/2" 1616.56 17.70 7.70 19.98 4.46 9.20 0.98 -9.88 -1.69 5.634 5.691 5.555 5.617 9/2" 0/2"	207	118	1587.01	1589.99	7.67	7.68	20.35	2.76	11.01	0.34	-10.12	-1.05	5.607	5.657	5.541	5.598		$9/2^{-}$	0+
1			1596.21	1598.45	7.67	7.68	20.21	3.20	9.20		-10.11	-1.27	5.616	5.668		5.602			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	209		1606.99	1608.43	7.69	7.70		3.63	10.78		-9.91		5.625	5.680		5.608			
212 123 1635.61 1634.22 7.72 7.71 19.42 482 9.99 1.35 -9.40 -2.06 5.651 5.713 5.563 5.21 9/2 0^+ 214 125 1634.41 1651.19 7.73 7.72 18.99 5.11 9.90 1.49 -9.27 -2.21 5.568 5.724 5.567 5.624 9/2 0^+ 214 125 16.64.41 1651.19 7.73 7.72 18.80 5.43 8.90 1.64 -8.86 -2.36 5.668 5.736 5.571 5.628 9/2 0^+ 215 126 1663.34 1695.67 7.4 7.72 17.83 5.73 8.93 1.79 -7.58 -2.52 5.678 5.749 5.575 5.622 9/2 0^+ 216 127 1668.31 1655.63 7.72 7.71 13.90 6.34 497 2.10 -8.16 -2.82 5.663 5.765 5.587 5.644 9/2 0^+ 11/2 128 1673.14 7.72 7.71 11.50 6.88 6.53 2.38 -5.76 -3.10 5.77 5.781 5.598 5.652 9/2 0^+ 11/2 128 1679.73 1679.08 7.71 7.70 11.42 7.49 4.89 2.68 -5.72 -3.40 5.722 5.738 5.610 5.666 9/2 11/2 0^+ 219 130 1685.19 1685.42 7.70 7.70 11.13 8.01 6.46 2.95 -5.65 -5.57 3.73 5.813 5.520 5.677 9/2 0^+ 211 132 1697.41 1699.61 7.68 7.69 11.28 8.62 4.82 3.26 -5.65 -5.63 -3.97 5.750 5.845 5.642 5.699 9/2 11/2 0^+ 221 132 1697.41 1699.61 7.68 7.69 11.22 9.13 6.40 3.52 -5.65 -5.65 -3.97 5.779 5.82 5.60 5.60 9/2 11/2 0^+ 223 134 1702.14 1705.58 7.67 7.68 11.13 9.73 4.73 3.82 -5.56 -5.65 -4.78 5.779 5.81 5.644 5.649 9/2 0^+ 224 133 1702.14 1705.58 7.67 7.68 11.13 9.73 4.73 3.82 -5.56 -5.65 -5.65 5.80 5.80 5.60 9/2 0^+ 222 11/2 0^+ 223 134 1703.48 1702.48 7.76 7.00 11.22 9.13 6.40 3.52 -5.65 -5.65 -5.65 5.80 5.80 9/2 0^+ 222 11/2 0^+ 223 134 1703.48 1702.48 7.76 7.80 11.07 10.22 6.34 4.07 -5.55 -4.78 5.79 5.86 5.60 5.80 9/2 0^+ 222 11/2 0^+ 223 134 1703.48 1702.48 7.76 7.80 11.07 10.22 6.34 4.07 -5.55 -5.65 5.80 5.80 5.80 5.71 9/2 0^+ 225 136 1713.09 1713.11 7.65 7.67 10.95 10.81 4.61 4.35 -5.65 5.80 5.80 5.80 5.80 5.80 9/2 0^+ 225 136 1713.09 173.11 7.71 3.10 9.73 4.89 -5.56 5.80 5.80 5.80 5.80 5.80 9/2 0^+ 227 11/2 0^+ 228 138 173.00 173.11 7.81 7.81 7.81 7.81 7.81 8.81 7.81 8.81 7.81 8.81 7.81 8.81 7.81 8.81 7.81 8.81 7.81 8.81 7.81 8.81 7.81 8.81 7.81 8.81 8																			
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215 126 1663 146563 165967 7.74 7.72 17.83 5.73 8.93 1.79 -7.58 -2.52 5.678 5.749 5.575 5.632 9/2" 0 [†] 216 127 16683 166563 7.72 7.71 11.90 6.34 4.97 2.10 -8.16 -2.82 5.693 5.765 5.585 5.644 9/2" 11/2 [†] 217 128 1674.84 1673.14 7.72 7.71 11.50 6.88 6.53 2.38 -5.76 -3.10 5.707 5.781 5.598 5.665 9/2" 0 [†] 218 129 1079.73 1679.08 7.71 7.70 11.42 7.49 4.89 2.68 -5.72 -3.40 5.722 5.798 5.610 5.666 9/2" 11/2 [†] 220 131 1699.01 1692.32 7.69 7.69 11.28 8.62 4.82 3.26 -5.65 -3.97 5.750 5.829 5.632 5.669 9/2" 0 [†] 221 132 1697.41 1699.61 7.68 7.69 11.28 8.62 4.82 3.26 -5.65 -3.97 5.750 5.829 5.632 5.699 9/2" 11/2 [†] 221 132 1697.41 1699.61 7.68 7.69 11.28 8.62 4.82 3.26 -5.65 -3.97 5.750 5.829 5.632 5.699 9/2" 11/2 [†] 222 133 1702.14 1705.58 7.66 7.68 11.13 9.73 4.73 3.82 -5.57 -4.53 5.779 5.861 5.654 5.699 9/2" 11/2 [†] 224 135 1713.09 1718.11 7.65 7.66 7.68 11.07 10.22 6.34 4.07 -5.55 -4.78 5.792 5.865 5.891 9/2" 11/2 [†] 224 135 1713.09 1718.11 7.65 7.67 10.95 10.81 4.61 4.38 -5.45 -5.08 5.806 5.891 5.676 5.732 9/2" 11/2 [†] 226 137 1723.75 1730.18 7.64 7.66 10.66 11.80 4.37 4.89 -5.26 -5.58 5.833 5.921 5.696 5.752 9/2" 11/2 [†] 226 137 1723.75 1730.18 7.63 7.66 10.66 11.80 4.37 4.89 -5.26 -5.58 5.833 5.921 5.696 5.752 9/2" 11/2 [†] 228 139 1734.17 1741.73 7.61 7.64 10.42 12.64 4.15 5.30 -5.27 -6.01 5.859 5.950 5.714 5.769 9/2" 9/2" 229 140 1740.27 1748.00 7.60 7.65 10.64 12.26 6.27 5.310 -5.28 -5.58 5.833 5.991 5.696 5.752 9/2" 11/2 [†] 230 141 1743.75 1740.00 7.60 7.65 10.64 10.42 13.64 10.55 10.64 10.6																			-
216 127 1683 1 1656 3 7.72 7.71 13.90 6.34 4.97 2.10 -8.16 -2.82 5.693 5.765 5.587 5.644 9/2 11/2 11/2 128 1674.84 1673.14 7.72 7.71 11.50 6.88 6.53 2.38 -5.76 -3.10 5.707 5.781 5.598 5.655 9/2 0 0 0 11/2 1.99 1793.73 1679.08 7.71 7.70 11.42 7.49 4.89 2.68 -5.72 -3.40 5.722 5.798 5.610 5.666 9/2 11/2 11/2 11/2 11/2 130 1686.19 1686.42 7.70 7.70 11.35 8.01 6.46 2.95 -5.70 -3.67 5.736 5.813 5.620 5.666 9/2 11/2 11/2 130 1686.19 1686.42 7.70 7.70 11.35 8.01 6.46 2.95 -5.70 -3.67 5.736 5.813 5.620 5.669 9/2 0 0 0 0 0 0 0 0 0																			
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	224	135	1713.09	1718.11	7.65	7.67	10.95	10.81	4.61	4.38			5.806	5.891	5.676	5.732			$11/2^{+}$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	225	136	1719.38	1724.78	7.64	7.67	10.90	11.27	6.29	4.61	-5.44	-5.32	5.820	5.906	5.685	5.741		$9/2^{-}$	0+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			1723.75	1730.18	7.63	7.66	10.66	11.80	4.37	4.89			5.833		5.696	5.752		$9/2^{-}$	
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239 150 1787.14 7.48 8.90 16.53 5.47 7.23 -4.47 -7.97 5.983 6.096 5.788 5.843 9/2- 0+ 240 151 1790.34 7.46 8.67 17.00 3.20 7.47 -4.35 -8.20 5.995 6.109 5.795 5.850 9/2- 9/2+ 241 152 1795.83 7.45 8.69 17.28 5.49 7.61 -4.37 -8.34 6.005 6.122 5.801 5.856 9/2- 0+ 242 153 1798.91 7.43 8.57 17.71 3.08 7.83 -4.34 -8.55 6.016 6.134 5.808 5.863 9/2- 15/2- 243 154 1804.33 7.43 8.50 18.03 5.42 7.99 -4.29 -8.72 6.028 6.147 5.814 5.869 9/2- 0+																			-
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241 152 1795.83 7.45 8.69 17.28 5.49 7.61 -4.37 -8.34 6.005 6.122 5.801 5.856 9/2- 0+ 242 153 1798.91 7.43 8.57 17.71 3.08 7.83 -4.34 -8.55 6.016 6.134 5.808 5.863 9/2- 15/2- 243 154 1804.33 7.43 8.50 18.03 5.42 7.99 -4.29 -8.72 6.028 6.147 5.814 5.869 9/2- 0+																			$9/2^{+}$
$243 154 1804.33 \qquad \qquad 7.43 \qquad \qquad 8.50 18.03 5.42 \qquad 7.99 \qquad -4.29 -8.72 6.028 6.147 5.814 5.869 \qquad 9^{^{\prime}}/2^{^{-}} 0^{+^{\prime}}$	241	152	1795.83		7.45		8.69	17.28	5.49	7.61		-8.34	6.005	6.122	5.801	5.856			0+
	242	153	1798.91		7.43		8.57	17.71	3.08	7.83	-4.34	-8.55	6.016	6.134	5.808	5.863		$9/2^{-}$	$15/2^{-}$
244 155 1807.36 7.41 8.45 18.44 3.03 8.20 -4.25 -8.93 6.039 6.160 5.821 5.876 9/2 15/2																			
	244	155	1807.36		7.41		8.45	18.44	3.03	8.20	-4.25	-8.93	6.039	6.160	5.821	5.876		$9/2^{-}$	$15/2^{-}$

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
245	156	1812.68		7.40		8.35	18.78	5.32	8.37	-4.21	-9.10	6.050	6.173	5.828	5.882		9/2-	0^+
246	157	1815.66		7.38		8.30	19.08	2.98	8.56	-4.18	-9.30	6.061	6.186	5.835	5.889		$9/2^{-}$	15/2
247	158	1820.89		7.37		8.21	19.51	5.23	8.74	-4.15	-9.47	6.072	6.199	5.841	5.895		$9/2^{-}$	0+
248	159	1823.85		7.35		8.19	19.77	2.96	8.85	-4.15	-9.64	6.084	6.212	5.848	5.902		9/2-	7/2+
249	160	1828.98		7.35		8.09	20.22	5.13	9.09	-4.09	-9.83	6.094	6.224	5.854	5.908		9/2-	0+
250	161	1831.98		7.33		8.13	20.53	3.00	9.25	-4.10	-9.96	6.106	6.238	5.858	5.913		9/2-	5/2+
251	162	1836.98		7.32		8.00	20.91	5.00	9.44	-4.04	-10.18	6.116	6.249	5.867	5.921		9/2-	0+
252	163	1839.98		7.30		8.00	21.21	3.00	9.60	-4.05	-10.31	6.128	6.263	5.872	5.926		9/2-	5/2
253	164	1844.90		7.29		7.92	21.58	4.92	9.78	-4.00	-10.51	6.138	6.275	5.879	5.934		9/2-	0 ⁺
254	165	1847.91		7.28		7.93	21.88	3.01	9.93	-4.01	-10.66	6.150	6.288	5.884	5.939		9/2-	5/2+
255	166	1852.75		7.27		7.85	22.24	4.84	10.11	-3.96	-10.84	6.160	6.300	5.892	5.946		9/2-	0 ⁺
256	167	1855.77		7.25		7.86	22.54	3.02	10.26	-3.97	-10.99	6.172	6.313	5.897	5.951		9/2-	5/2 ⁻ 0 ⁺
257	168 169	1860.53		7.24		7.78	22.87	4.76	10.43	-3.92	-11.16	6.182	6.325	5.904	5.958		9/2 ⁻ 9/2 ⁻	5/2 ⁺
258	170	1863.58		7.22		7.81	23.19	3.05	10.59	-3.93	-11.31	6.193	6.338	5.909	5.963		9/2 9/2 ⁻	0 ⁺
259 260	170	1868.24 1871.31		7.21 7.20		7.71 7.73	23.48 23.81	4.66 3.07	10.73 10.90	-3.88 -3.88	-11.46 -11.62	6.204 6.215	6.349 6.362	5.915 5.921	5.969 5.975		9/2 9/2 ⁻	5/2 ⁺
260 261	171	1875.89		7.20		7.73 7.65	24.07	4.58	11.03	-3.84	-11.02 -11.75	6.225	6.374	5.926	5.980		9/2 9/2 ⁻	0 ⁺
262	172	1878.97		7.19		7.66	24.07	3.08	11.03	-3.84	-11.73 -11.91	6.236	6.387	5.932	5.986		$9/2^{-}$	5/2 ⁺
263	173	1883.47		7.17		7.58	24.58	4.50	11.20	-3.84 -3.80	-11.91 -12.02	6.246	6.399	5.936	5.990		9/2 ⁻	0 ⁺
264	175	1886.54		7.15		7.57	24.87	3.07	11.43	-3.78	-12.02	6.257	6.411	5.943	5.996		$9/2^{-}$	5/2 [⊣]
265	176	1890.96		7.13		7.49	25.16	4.42	11.57	-3.75 -3.75	-12.13 -12.27	6.267	6.424	5.946	5.999		9/2 ⁻	0+
266	177	1894.10		7.12		7.56	25.41	3.14	11.69	-3.77	-12.39	6.278	6.437	5.950	6.003		9/2 ⁻	1/2+
267	178	1898.35		7.12		7.39	25.64	4.25	11.80	-3.68	-12.50	6.288	6.449	5.954	6.008		9/2 ⁻	0+
268	179	1901.58		7.10		7.48	25.91	3.23	11.92	-3.69	-12.62	6.299	6.462	5.958	6.012		9/2 ⁻	1/2⁴
269	180	1905.60		7.08		7.25	26.07	4.02	12.01	-3.60	-12.71	6.309	6.474	5.962	6.015		9/2 ⁻	0+
270	181	1908.81		7.07		7.23	26.29	3.21	12.12	-3.60	-12.81	6.320	6.487	5.965	6.019		9/2-	3/2+
271	182	1912.68		7.06		7.08	26.43	3.87	12.19	-3.51	-12.88	6.331	6.501	5.968	6.022		9/2-	0+
272	183	1915.88		7.04		7.07	26.61	3.20	12.27	-2.39	-12.97	6.342	6.515	5.971	6.024		9/2-	3/2+
273	184	1919.60		7.03		6.92	26.74	3.72	12.34	-2.25	-13.03	6.353	6.528	5.974	6.027		9/2-	0+
274	185	1919.17		7.00		3.29	26.89	-0.43	12.41	-2.40	-13.11	6.366	6.544	5.979	6.032		9/2-	11/2
275	186	1920.31		6.98		0.71	27.25	1.14	12.61	-0.41	-13.30	6.380	6.557	5.993	6.046		9/2-	0+
276	187	1919.87		6.96		0.70	27.34	-0.44	12.63	-0.41	-13.39	6.393	6.573	5.998	6.051		$9/2^{-}$	11/2
277	188	1921.05		6.94		0.74	27.76	1.18	12.87	-0.43	-13.58	6.407	6.586	6.012	6.065		9/2-	0+
278	189	1920.66		6.91		0.79	27.95	-0.39	12.96	-0.44	-13.67	6.420	6.601	6.018	6.071		9/2-	11/2
279	190	1921.84		6.89		0.79	28.28	1.18	13.13	-0.46	-13.85	6.433	6.614	6.031	6.084		$9/2^{-}$	0^+
280	191	1921.46		6.86		0.80	28.48	-0.38	13.23	-0.47	-13.95	6.447	6.628	6.038	6.091		$9/2^{-}$	11/2
281	192	1922.69		6.84		0.85	28.81	1.23	13.40	-0.49	-14.13	6.460	6.641	6.050	6.103		$9/2^{-}$	0^+
282	193	1922.33		6.82		0.87	29.02	-0.36	13.51	-0.50	-14.24	6.473	6.656	6.058	6.111		$9/2^{-}$	11/2
283	194	1923.58		6.80		0.89	29.33	1.25	13.66	-0.51	-14.40	6.486	6.669	6.069	6.122		$9/2^{-}$	0^{+}
284	195	1923.25		6.77		0.92	29.56	-0.33	13.78	-0.52	-14.52	6.499	6.683	6.078	6.130		$9/2^{-}$	11/2
285	196	1924.53		6.75		0.95	29.86	1.28	13.93	-0.54	-14.67	6.512	6.696	6.089	6.141		$9/2^{-}$	0^+
286	197	1924.23		6.73		0.98	30.11	-0.30	14.05	-0.55	-14.80	6.525	6.710	6.098	6.150		$9/2^{-}$	11/2
287	198	1925.52		6.71		0.99	30.37	1.29	14.18	-0.56	-14.94	6.538	6.723	6.107	6.160		$9/2^{-}$	0^+
288	199	1925.25		6.68		1.02	30.64	-0.27	14.32	-0.56	-15.07	6.551	6.736	6.117	6.169		$9/2^{-}$	11/2
289	200	1926.55		6.67		1.03	30.88	1.30	14.44	-0.57	-15.19	6.564	6.749	6.126	6.178		9/2-	0+
90	201	1926.30		6.64		1.05	31.16	$\frac{-0.25}{1.24}$	14.58	-0.57	-15.33	6.577	6.763	6.136	6.188		9/2-	11/2
291	202	1927.61		6.62		1.06	31.37	1.31	14.68	-0.58	-15.43	6.589	6.776	6.143	6.195		9/2-	0+
292	203	1927.36		6.60		1.06	31.65	$\frac{-0.25}{1.21}$	14.82	-0.57	-15.57	6.602	6.789	6.154	6.205		9/2-	11/2
293	204	1928.67		6.58		1.06	31.83	1.31	14.91	-0.58	-15.67	6.614	6.802	6.160	6.212		9/2-	0+
94	205	1928.41		6.56		1.05	32.05	$\frac{-0.26}{1.33}$	15.05	-0.56	-15.80	6.627	6.816	6.170	6.222		9/2-	11/
295	206	1929.73		6.54		1.06	32.27	1.32	15.13	-0.56	-15.88	6.639	6.829	6.175	6.227		9/2-	0+
296	207	1929.42		6.52		1.01	32.40	<u>-0.31</u>	15.24	-0.52	-16.01	6.652	6.843	6.185	6.236		9/2-	11/2
297	208	1930.74		6.50		1.01	32.67	1.32	15.32	-0.54	-16.08	6.663	6.856	6.189	6.241		9/2-	0+
298	209	1930.40		6.48		0.98	32.72	-0.34	15.35	-0.56	-16.10	6.686	6.886	6.190	6.242		$9/2^{-}$	3/2

Table 1 (continued)

	N	$E_{ m b}^{ m Cal.}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	$\frac{\lambda_p}{({\sf MeV})}$	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
99	210	1931.70		6.46		0.96	33.03	1.30	15.50	-0.50	-16.26	6.688	6.884	6.202	6.253		$9/2^{-}$	0^+
00	211	1931.41		6.44		1.01	33.09	-0.29	15.54	-0.52	-16.30	6.704	6.903	6.205	6.256		$9/2^{-}$	7/2
01	212	1932.58		6.42		0.88	33.34	1.17	15.66	-0.47	-16.42	6.714	6.913	6.213	6.264		$9/2^{-}$	0+
02	213	1932.32		6.40		0.91	33.39	-0.26	15.69	-0.49	-16.44	6.734	6.940	6.214	6.265		9/2-	3/2
03	214	1933.40		6.38		0.82	33.62	1.08	15.80	-0.45	-16.57	6.739	6.943	6.222	6.274		$9/2^{-}$	0+
04	215	1933.18		6.36		0.86	33.67	-0.22	15.83	-0.46	-16.59	6.759	6.968	6.224	6.275		$9/2^{-}$	3/2
05	216	1934.19		6.34		0.79	33.89	1.01	15.94	-0.44	-16.71	6.765	6.973	6.231	6.283		$9/2^{-}$	0+
06	217	1934.00		6.32		0.82	33.92	-0.19	15.96	-0.45	-16.74	6.784	6.997	6.233	6.284		$9/2^{-}$	3/2
07	218	1934.96		6.30		0.77	34.14	0.96	16.07	-0.43	-16.85	6.791	7.003	6.240	6.291		$9/2^{-}$	0+
80	219	1934.82		6.28		0.82	34.22	<u>-0.14</u>	16.10	-0.44	-16.88	6.809	7.026	6.242	6.293		9/2-	3/2
09	220	1935.72		6.26		0.76	34.38	0.90	16.19	-0.43	-16.98	6.816	7.033	6.249	6.300		9/2-	0+
10	221	1935.60		6.24		0.78	34.47	$\frac{-0.12}{-0.12}$	16.24	-0.44	-17.02	6.834	7.055	6.251	6.302		9/2-	3/2
11	222	1936.49		6.23		0.77	34.61	0.89	16.32	-0.44	-17.11	6.842	7.063	6.257	6.308		9/2-	0+
12	223	1936.38		6.21		0.78	34.72	<u>-0.11</u>	16.38	-0.44	-17.15	6.859	7.084	6.259	6.310		9/2-	3/2
13	224	1937.28		6.19		0.79	34.85	0.90	16.45	-0.44	-17.24	6.867	7.093	6.265	6.316		9/2-	0+
14	225	1937.16		6.17		0.78	34.95	<u>-0.12</u>	16.49	-0.45	-17.29	6.884	7.112	6.268	6.319		9/2-	3/2
15	226	1938.08		6.15		0.80	35.09	0.92	16.57	-0.45	-17.37	6.893	7.122	6.273	6.324		9/2-	0+
16	227	1937.97		6.13		0.81	35.17	$\frac{-0.11}{0.02}$	16.62	-0.45	-17.43	6.908	7.140	6.277	6.327		9/2-	3/2
17	228	1938.90		6.12		0.82	35.32	0.93	16.69	-0.46	-17.50	6.918	7.151	6.281	6.332		9/2-	0+
18	229	1938.80		6.10		0.83	35.40	$\frac{-0.10}{0.05}$	16.73	-0.46	-17.56	6.932	7.168	6.285	6.336		9/2-	3/2
9	230	1939.75		6.08		0.85	35.57	0.95	16.83	-0.47	-17.64	6.942	7.179	6.289	6.340		9/2-	0+
0	231	1939.66		6.06		0.86	35.64	$\frac{-0.09}{0.05}$	16.86	-0.48	-17.68	6.959	7.199	6.292	6.343		9/2-	1/2
1	232	1940.61		6.05		0.86	35.81	0.95	16.95	-0.48	-17.77	6.967	7.207	6.298	6.348		9/2-	0+
2	233	1940.55		6.03		0.89	35.91	$\frac{-0.06}{0.04}$	17.00	-0.48	-17.82	6.982	7.225	6.301	6.351		9/2-	1/2
3	234	1941.49		6.01		0.88	36.06	0.94	17.09	-0.48	-17.91	6.991	7.234	6.306	6.357		9/2-	0+
4	235	1941.44		5.99		0.89	36.18	$\frac{-0.05}{0.05}$	17.14	-0.49	-17.97	7.005	7.251	6.310	6.361		9/2-	1/2
25	236	1942.39		5.98		0.90	36.33	0.95	17.23	-0.49	-18.06	7.015	7.261	6.315	6.366		9/2-	0+
26	237	1942.35		5.96		0.91	36.49	$\frac{-0.04}{0.05}$	17.30	-0.49	-18.13	7.028	7.276	6.320	6.370		9/2-	1/2 0 ⁺
27	238	1943.30		5.94		0.91	36.62	0.95	17.38	-0.49	-18.21	7.038	7.287	6.325	6.375		9/2-	-
28 29	239	1943.27		5.92		0.92 0.93	36.83 36.95	$\frac{-0.00}{0.06}$	17.47	-0.49	-18.30 -18.38	7.050	7.300	6.330	6.381		9/2-	1/2 0 ⁺
29 30	240 241	1944.23		5.91		0.93	30.95 37.21	0.96	17.54 17.66	-0.50 -0.49	-18.38 -18.49	7.061 7.072	7.312 7.323	6.335 6.341	6.385 6.392		9/2 ⁻ 9/2 ⁻	
		1944.19		5.89				$\frac{-0.04}{0.97}$										1/2 0 ⁺
31 32	242	1945.16		5.88		0.93	37.31		17.72	-0.50	-18.55	7.083	7.335	6.345	6.396		9/2-	
33	243	1945.12		5.86		0.93	37.65	$\frac{-0.04}{0.00}$	17.88	-0.49	-18.69	7.093	7.345	6.353	6.404		9/2-	1/2 0 ⁺
	244 245	1946.11		5.84		0.95 0.92	37.74 38.12	0.99	17.93 18.10	-0.50	-18.75	7.104	7.358	6.357 6.367	6.407		9/2-	-
14 15	245 246	1946.04 1947.05		5.83 5.81		0.92	38.20	$\frac{-0.07}{1.01}$	18.10	-0.49 -0.50	-18.90 -18.95	7.113 7.125	7.365 7.379	6.369	6.417		9/2 ⁻ 9/2 ⁻	1/2 0 ⁺
15 16	246 247	1947.05		5.79		0.94	38.57	-0.08	18.14	-0.50 -0.48	-18.95 -19.13	7.125	7.379 7.385	6.381	6.419 6.431		9/2 9/2 ⁻	1/2
7	247	1948.00		5.78		0.95	38.70	1.03	18.38	-0.48 -0.50	-19.13 -19.18	7.133 7.145	7.363	6.383	6.433		9/2 9/2 ⁻	0+
8	249	1948.00		5.76		0.93	39.04	-0.09	18.60	-0.30 -0.48	-19.18 -19.38	7.143	7.399	6.396	6.445		9/2 9/2 ⁻	1/2
9	250	1947.91		5.75		0.94	39.04	1.05	18.63	-0.48 -0.49	-19.36 -19.41	7.132	7.403 7.419	6.397	6.447		9/2 9/2 ⁻	0+
10	250 251	1948.85		5.73		0.94	39.23 39.53	-0.11	18.81	-0.49 -0.48	-19.41 -19.63	7.103	7.419	6.411	6.461		9/2 9/2 ⁻	1/2
1	251	1949.93		5.73 5.72		0.94	39.33 39.78	1.08	18.89	-0.48 -0.49	-19.65 -19.66	7.171	7.421	6.412	6.462		9/2 9/2 ⁻	0+
2	252	1949.93		5.72		0.95	40.04		19.02	-0.49 -0.48	-19.80 -19.89	7.184	7.437	6.428	6.477		9/2 9/2 ⁻	1/2
2 3	253 254	1949.80		5.70 5.69		0.95	40.04	$\frac{-0.13}{1.11}$	19.02	-0.48 -0.49	-19.89 -19.91	7.189 7.202	7.438 7.454	6.428	6.477		9/2 9/2 ⁻	1/2 0 ⁺
د 4	254 255	1950.91		5.69		0.98	40.55 40.55	-0.14	19.15	-0.49 -0.50	-19.91 -20.01	7.202 7.212	7.454 7.465	6.434	6.484		9/2 9/2 ⁻	17/
15	256	1950.77		5.66		0.99	40.33	1.13	19.23	-0.30 -0.49	-20.01 -20.17	7.212	7.403	6.445	6.494		9/2 9/2 ⁻	0+
	256 257	1951.90		5.64		1.03	40.87	-0.10	19.41		-20.17 -20.27	7.221	7.472	6.451	6.501		9/2 9/2 ⁻	17/
16 17	257 258	1951.80		5.63		1.03		<u>-0.10</u> 1.11	19.52 19.66	<u>0.82</u> -1.13	-20.27 -20.43	7.231 7.239	7.482 7.489	6.461	6.511		9/2 9/2 ⁻	0 ⁺
:1	230	5.89		3.03		1.01	41.41	1.11	19.00	-1.13	-20.43	1.239	7.409	0.401	0.311		9/2	U.
 = 90) (Th)																	
)4	114	1546.83		7.58			0.26		0.87	-10.74	0.19	5.581	5.616	5.537	5.594		0^{+}	0^{+}
	115	1556.52		7.59			0.79	9.69	1.13	-10.69	-0.08	5.590	5.628	5.541	5.599		0^{+}	5/2

(continued on next page)

106 168 1588.01	l	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{ m b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
288 188 1888.82 1991.74 7.64 7.65 20.81 2.15 11.20 181 -10.24 -0.74 5.617 5.663 5.557 5.614 0° 210 120 1509.21 1519.55 7.66 7.67 20.39 2.99 10.95 2.22 -10.11 -11.15 5.635 5.685 5.566 5.624 0° 211 121 1509.21 1519.57 7.67 7.67 20.39 2.99 10.95 2.22 -10.11 -11.15 5.635 5.685 5.566 5.624 0° 212 1608.23 1615.77 7.67 7.67 20.39 2.99 10.95 2.22 -10.11 -11.15 5.635 5.685 5.566 5.624 0° 213 123 1638.26 1636.66 7.60 7.68 16.77 41.3 5.27 2.78 -0.16 -1.72 5.660 5.718 5.77 5.636 0° 214 124 1648.55 1646.4 7.70 7.79 19.33 4.43 10.06 2.94 -0.43 -0.15 5.665 5.685 5.595 5.585 5.666 0° 215 166.59 166.57 166.57 7.70 7.68 18.12 4.74 9.06 3.10 -8.90 -2.03 5.677 5.741 5.886 5.633 0° 216 178 1888.85 7.70 7.72 7.70 18.14 5.04 9.06 3.10 -8.90 -2.03 5.677 5.741 5.886 5.635 5.591 5.648 0° 217 188 187 1888.85 7.70 7.69 18.35 5.00 5.00 3.25 5.90 5.677 5.744 5.868 5.753 5.591 5.668 5.728 5.70 5.																		-	0+
19				450454		= 0=													5/2-
210 120 169021 161051 7.68 7.67 20.39 2.99 10.96 2.22 -10.11 -1.16 5.635 5.685 5.686 5.624 0'																			0+
121																			5/2-
122 122 1628 1628 1638 17.08 17.08 17.08 17.09 17.																			0+
14 12 16 16 16 16 16 17 18 18 19 17 18 19 19 19 19 19 19 19																			3/2-
144																			0+
125																			3/2-
126 1665.59 1667.79 7.72 7.70 7.81 5.94 5.																			0 ⁺
17	15																		$\frac{1/2^{-}}{0^{+}}$
171 171	16	126	1666.59	1662.70	1.12	7.70	18.14	5.04	9.08	3.25	-7.96	-2.18	5.686	5./53	5.591	5.648		0	0
218 128 1678,66 1676,77 7.70 7.89 12.07 6.20 6.79 3.82 -6.04 -2.76 5.715 5.786 5.613 5.670 0 120 130 1690,58 1690,61 7.68 11.99 6.18 5.20 4.33 -6.94 -5.98 5.34 5.74 5.818 5.635 5.682 0 212 131 1690,58 1690,58 1690,64 7.67 7.68 11.84 7.95 5.12 4.69 -5.93 -3.34 5.74 5.84 5.60 7.67 7.68 11.78 8.47 6.66 4.95 -5.90 -3.90 5.772 5.84 5.66 7.77 7.77 7.77 7.77 7.77 7.77 7.78 11.18 11.29 6.60 5.51 -5.90 -3.90 5.77 5.84 5.89 5.79 5.736 6.77 7.77 7.77 7.78 11.14 11.63 10.19 4.31 5.82 -5.84		127	1671.87	1668 85	7 70	7 69	14 36	5.66	5 28	3 56	-821	_2 48	5 701	5 770	5 602	5 659		0^+	11/2+
199																			0+
190 190																			11/2 ⁺
221 131 1695.70 1696.41 7.67 7.68 11.84 7.95 5.12 4.69 -5.93 -3.64 5.788 5.834 5.647 5.704 0†																			0+
222 132 1702.36 1704.22 7.67 7.68 11.78 8.47 6.66 4.95 -5.90 -3.90 5.772 5.849 5.668 5.714 0° 224 134 1713.99 1717.57 7.65 7.67 11.63 9.58 6.60 5.51 -5.82 -4.47 5.804 5.69 5.736 0° 226 135 1718.90 1712.33 7.64 7.66 11.51 10.19 431 -5.72 -4.47 5.804 5.89 5.570 5.736 0° 226 136 1725.44 1730.98 7.62 7.65 11.18 11.62 4.60 6.56 -5.50 5.824 5.99 5.711 5.777 5.756 0° 228 138 1735.85 1743.08 7.62 7.65 11.18 11.62 4.61 6.56 -5.50 5.884 5.93 5.712 5.767 0° 220 140 174.02.31 17.61																			11/2 ⁺
224 134 1707.39 1710.11 7.66 7.67 11.69 9.07 5.03 5.25 -5.84 -4.21 5.787 5.864 5.669 5.726 0° 1° 224 134 1713.99 1715.77 7.65 7.67 11.63 9.58 6.00 5.51 -6.82 -4.47 5.800 5.879 5.736 0° 1° 225 135 1718.90 1723.33 7.64 7.66 11.51 10.19 4.91 5.81 -5.72 -4.77 5.814 5.895 5.91 5.747 0° 1° 227 137 1730.08 173.59 7.62 7.65 11.45 10.67 6.54 6.66 .5.51 -5.70 -5.70 5.70 5.70 5.70 5.70 5.740 0° 1° 227 137 1730.08 173.59 7.62 7.65 11.48 11.22 464 6.33 -5.48 -5.29 5.841 5.925 5.712 5.768 5.740 0° 1° 228 138 174.308 7.63 7.66 11.45 11.67 6.50 6.56 -5.50 -5.50 -5.52 5.845 5.999 5.712 5.768 5.740 0° 1° 229 139 1740.92 1748.33 7.60 7.63 10.84 12.05 4.34 6.75 -5.40 -5.50 -5.52 5.845 5.999 5.712 5.768 5.760 0° 1° 229 139 1740.92 1748.33 7.60 7.63 10.84 12.05 4.34 6.75 -5.40 -5.27 -5.92 5.878 5.966 5.373 5.730 5.785 5.767 0° 1° 229 139 1740.92 1748.33 7.60 7.63 10.85 10.65 12.47 6.31 6.56 12.47 6.31 6.31 6.31 6.31 6.31 6.31 6.31 6.31																			0+
224 134 1713.99 171.757 7.65 7.67 11.63 9.58 6.60 5.51 -5.82 -4.47 5.80 5.879 5.736 0° 226 136 1725.44 1730.51 7.63 7.66 11.18 10.99 491 5.81 -5.72 -4.77 5.81 5.891 5.74 0° 227 137 173.098 173.597 7.62 7.65 11.18 11.62 6.64 6.60 -5.70 -5.91 5.821 5.768 5.742 5.768 5.740 0° 228 138 173.658 1743.08 7.62 7.65 11.18 11.67 6.50 6.56 -5.50 -5.52 5.841 5.939 5.721 5.768 7.778 5.756 0° 230 140 174.23 175.313 7.60 7.63 10.65 12.41 6.31 6.96 -5.27 -5.90 5.931 5.74 5.80 7.72 7.75 5.756	22																		11/2 ⁺
225 135 1718.90 1723.33 7.64 7.66 11.51 10.19 491 5.81 -5.72 -4.77 5.814 5.895 5.691 5.747 0° 226 136 1730.08 1735.97 7.62 7.65 11.18 11.22 4.64 6.33 -5.48 -5.29 5.841 5.925 5.712 5.775 5.740 0° 228 138 1736.98 1743.08 7.62 7.63 11.14 11.67 6.50 6.55 -5.50 -5.84 5.925 5.712 5.771 5.756 0° 229 139 1740.02 1743.33 7.60 7.63 10.65 12.47 6.31 6.65 -5.50 -5.80 5.851 5.721 5.772 5.772 5.722 5.878 5.966 5.737 5.792 0° 11.14 11.67 6.30 6.82 5.27 -5.92 5.878 5.966 5.737 5.792 0° 7.72 5.780 7																			0+
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25X IDX 1X7245 - 776 - X119 2235 492 - 11.47 407 10.40 6.1X5 6.374 5.41X 5.477 - 0.7	.57 !58	168	1872.45		7.26		8.09	22.35	4.92	11.70	-4.13	-10.75 -10.90	6.185	6.324	5.918	5.972		0+	0 ⁺

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{ m b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
259	169	1875.65		7.24		8.12	22.66	3.20	12.07	-4.08	-11.05	6.196	6.337	5.924	5.978		0+	5/2+
260	170	1880.47		7.23		8.02	22.96	4.82	12.23	-4.03	-11.19	6.207	6.348	5.930	5.984		0^+	0+
261	171	1883.69		7.22		8.04	23.28	3.22	12.38	-4.03	-11.35	6.218	6.361	5.936	5.989		0 ⁺	5/2+
262	172	1888.40		7.21		7.93	23.54	4.71	12.51	-3.98	-11.48	6.228	6.373	5.941	5.994		0 ⁺	0 ⁺
263	173	1891.64		7.19		7.95	23.87	3.24	12.67	-3.97	-11.64	6.239	6.385	5.947	6.000		0 ⁺	5/2 ⁺
264	174 175	1896.24		7.18		7.84	24.08 24.37	4.60 3.24	12.77 12.94	-3.92 -3.90	-11.74	6.249 6.260	6.397	5.951 5.957	6.004 6.010		0 ⁺	0^{+} $5/2^{+}$
265 266	175 176	1899.48 1903.98		7.17		7.84 7.74	24.57 24.59		13.02		-11.90	6.269	6.410 6.422	5.960	6.013		0 ⁺	0 ⁺
266 267	176	1903.98		7.16		7.74 7.75	24.59	4.50		-3.86 -3.89	-11.98 -12.09	6.289	6.435	5.963	6.013		0+	1/2+
268	177	1907.23		7.14 7.13		7.73	25.03	3.25 4.35	13.13 13.23	-3.78	-12.09 -12.20	6.290	6.447	5.968	6.021		0+	0+
269	178	1911.38		7.13		7.66	25.03	3.31	13.31	-3.78 -3.79	-12.20 -12.31	6.301	6.460	5.971	6.025		0+	1/2+
270	180	1919.02		7.12		7.44	25.43	4.13	13.42	-3.79 -3.69	-12.31 -12.39	6.311	6.473	5.975	6.028		0+	0+
271	181	1919.02		7.11		7.44	25.64	3.31	13.52	-3.68	-12.39 -12.49	6.322	6.486	5.978	6.031		0+	3/2+
272	182	1926.27		7.03		7.25	25.78	3.94	13.59	-3.59	-12.43	6.333	6.499	5.981	6.034		0+	0+
273	183	1929.55		7.07		7.23	25.76	3.28	13.67	-2.62	-12.50 -12.64	6.343	6.513	5.983	6.037		0+	3/2 ⁺
274	184	1933.34		7.06		7.22	26.08	3.79	13.74	-2.31	-12.70	6.354	6.527	5.986	6.040		0+	0+
275	185	1933.01		7.03		3.46	26.25	-0.33	13.84	-2.45	-12.89	6.369	6.541	6.000	6.053		0+	13/2
276	186	1934.32		7.01		0.98	26.62	1.31	14.01	-0.55	-12.99	6.381	6.555	6.006	6.059		0+	0+
277	187	1934.02		6.98		1.01	26.78	-0.30	14.15	-0.56	-13.18	6.395	6.569	6.019	6.072		0+	13/2
278	188	1935.35		6.96		1.03	27.17	1.33	14.30	-0.57	-13.28	6.408	6.583	6.026	6.079		0+	0+
279	189	1935.07		6.94		1.05	27.37	-0.28	14.41	-0.58	-13.46	6.422	6.597	6.039	6.091		0+	13/2
280	190	1936.42		6.92		1.07	27.71	1.35	14.58	-0.60	-13.57	6.435	6.611	6.046	6.099		0+	0+
281	191	1936.17		6.89		1.10	27.94	-0.25	14.71	-0.61	-13.74	6.449	6.624	6.058	6.111		0^{+}	13/2
282	192	1937.55		6.87		1.13	28.26	1.38	14.86	-0.63	-13.86	6.461	6.638	6.066	6.119		0^{+}	0+
283	193	1937.31		6.85		1.14	28.49	-0.24	14.98	-0.63	-14.02	6.475	6.652	6.078	6.130		0^{+}	13/2
284	194	1938.72		6.83		1.17	28.80	1.41	15.14	-0.65	-14.14	6.487	6.665	6.086	6.139		0^+	0+
285	195	1938.52		6.80		1.21	29.05	-0.20	15.27	-0.67	-14.26	6.501	6.680	6.095	6.147		0^+	11/2
286	196	1939.95		6.78		1.23	29.35	1.43	15.42	-0.67	-14.42	6.513	6.692	6.106	6.158		0^+	0 ^{+'}
287	197	1939.78		6.76		1.26	29.60	-0.17	15.55	-0.68	-14.54	6.527	6.706	6.115	6.167		0^+	11/2
288	198	1941.21		6.74		1.26	29.87	1.43	15.69	-0.69	-14.69	6.539	6.719	6.125	6.177		0^+	0+
289	199	1941.07		6.72		1.29	30.14	-0.14	15.82	-0.70	-14.82	6.552	6.733	6.134	6.186		0^{+}	11/2
290	200	1942.50		6.70		1.29	30.39	1.43	15.95	-0.70	-14.94	6.564	6.745	6.143	6.195		0^+	0+
291	201	1942.38		6.67		1.31	30.66	-0.12	16.08	-0.70	-15.08	6.578	6.759	6.153	6.205		0^+	11/2
292	202	1943.80		6.66		1.30	30.87	1.42	16.19	-0.70	-15.19	6.589	6.772	6.161	6.212		0^+	0+
293	203	1943.69		6.63		1.31	31.15	-0.11	16.33	-0.69	-15.32	6.602	6.785	6.171	6.222		0^+	11/2
294	204	1945.10		6.62		1.30	31.34	1.41	16.43	-0.69	-15.41	6.614	6.798	6.177	6.228		0^+	0^+
295	205	1944.97		6.59		1.28	31.61	-0.13	16.56	-0.66	-15.54	6.627	6.812	6.186	6.238		0^+	11/2
296	206	1946.36		6.58		1.26	31.76	1.39	16.63	-0.66	-15.62	6.639	6.825	6.192	6.243		0^+	0^+
297	207	1946.18		6.55		1.21	32.00	-0.18	16.76	-0.62	-15.75	6.651	6.838	6.201	6.252		0^+	11/2
298	208	1947.58		6.54		1.22	32.16	1.40	16.84	-0.63	-15.82	6.663	6.851	6.205	6.257		0^+	0^+
299	209	1947.29		6.51		1.11	32.24	-0.29	16.89	-0.56	-15.93	6.676	6.866	6.213	6.265		0^+	11/2
300	210	1948.71		6.50		1.13	32.51	1.42	17.01	-0.59	-16.00	6.687	6.879	6.217	6.269		0+	0^+
301	211	1948.44		6.47		1.15	32.57	-0.27	17.03	-0.61	-16.04	6.702	6.898	6.220	6.271		0+	7/2-
302	212	1949.75		6.46		1.04	32.83	1.31	17.17	-0.55	-16.16	6.712	6.907	6.228	6.280		0+	0+
303	213	1949.52		6.43		1.08	32.89	-0.23	17.20	-0.56	-16.21	6.727	6.926	6.231	6.283		0+	7/2-
304	214	1950.72		6.42		0.97	33.12	1.20	17.32	-0.52	-16.32	6.737	6.936	6.239	6.290		0+	0+
305	215	1950.52		6.40		1.00	33.17	-0.20	17.34	-0.54	-16.35	6.757	6.962	6.240	6.291		0+	3/2-
306	216	1951.65		6.38		0.93	33.40	1.13	17.46	-0.51	-16.47	6.762	6.965	6.248	6.299		0+	0+
307	217	1951.48		6.36		0.96	33.44	-0.17	17.48	-0.52	-16.50	6.781	6.990	6.249	6.300		0+	3/2-
308	218	1952.56		6.34		0.91	33.67	1.08	17.60	-0.50	-16.62	6.787	6.994	6.257	6.308		0+	0+
309	219	1952.42		6.32		0.94	33.70	$\frac{-0.14}{1.00}$	17.60	-0.51	-16.65	6.805	7.018	6.259	6.310		0+	3/2-
310	220	1953.46		6.30		0.90	33.93	1.04	17.74	-0.50	-16.77	6.812	7.023	6.266	6.317		0+	0+
311	221	1953.37		6.28		0.95	34.01	-0.09	17.77	-0.51	-16.80	6.830	7.046	6.268	6.319		0+	3/2-
312	222	1954.37		6.26		0.91	34.20	1.00	17.88	-0.50	-16.91	6.837	7.052	6.275	6.326		0^+	0^{+}

A	N	E _b ^{Cal.}	E _b Exp.	E _b ^{Cal.} /A	E _b Exp. /A	S _{2n}	S_{2p}	Sn	S_p	λ_n	λ_p	R_m	R_n	R_p	R _c Cal.	R _c Exp.	$j^{\pi}(P)$	j ^π (N)
212	222	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(fm)	(fm)	(fm)	(fm)	(fm)	0+	2 /2-
313 314	223 224	1954.30 1955.29		6.24 6.23		0.93 0.92	34.30 34.46	$\frac{-0.07}{0.99}$	17.92 18.01	-0.51 -0.51	-16.95 -17.06	6.854 6.862	7.073 7.081	6.278 6.284	6.328 6.335		0 ⁺	3/2 ⁻ 0 ⁺
315	225	1955.29		6.21		0.92	34.56	-0.06	18.07	-0.51 -0.52	-17.00 -17.10	6.878	7.001	6.287	6.337		0+	3/2
316	226	1956.22		6.19		0.93	34.71	0.99	18.14	-0.52 -0.52	-17.10 -17.20	6.886	7.101	6.293	6.344		0 ⁺	0+
317	227	1956.17		6.17		0.94	34.82	-0.05	18.20	-0.52	-17.25	6.902	7.103	6.296	6.347		0+	3/2
318	228	1957.18		6.15		0.96	34.97	1.01	18.28	-0.52 -0.53	-17.23 -17.34	6.911	7.128	6.302	6.352		0+	0+
319	229	1957.13		6.14		0.96	35.06	-0.05	18.33	-0.53	-17.34 -17.40	6.926	7.155	6.305	6.356		0+	3/2
320	230	1958.16		6.12		0.98	35.24	1.03	18.41	-0.54	-17.49	6.935	7.164	6.311	6.361		0+	0+
321	231	1958.12		6.10		0.99	35.32	-0.04	18.46	-0.54	-17.55	6.949	7.181	6.315	6.365		0+	3/2
322	232	1959.16		6.08		1.00	35.50	1.04	18.55	-0.55	-17.64	6.959	7.191	6.319	6.370		0^{+}	0+
323	233	1959.14		6.07		1.02	35.59	-0.02	18.59	-0.56	-17.68	6.974	7.211	6.322	6.372		0^{+}	1/2
324	234	1960.18		6.05		1.02	35.78	1.04	18.69	-0.56	-17.79	6.982	7.218	6.329	6.379		0+	0+
325	235	1960.19		6.03		1.05	35.89	0.01	18.75	-0.57	-17.84	6.997	7.236	6.332	6.382		0+	1/2
326	236	1961.23		6.02		1.05	36.07	1.04	18.84	-0.57	-17.94	7.006	7.244	6.338	6.388		0+	0+
327	237	1961.26		6.00		1.07	36.21	0.03	18.91	-0.57	-18.00	7.020	7.261	6.342	6.392		0+	1/2
328	238	1962.30		5.98		1.07	36.38	1.04	19.00	-0.57	-18.10	7.029	7.270	6.347	6.398		0+	0+
329	239	1962.35		5.96		1.09	36.55	0.05	19.08	-0.58	-18.17	7.042	7.285	6.352	6.402		0+	1/2
330	240	1963.39		5.95		1.09	36.70	1.04	19.16	-0.58	-18.27	7.051	7.294	6.357	6.408		0+	0+
331	241	1963.46		5.93		1.11	36.93	0.07	19.27	-0.59	-18.35	7.063	7.308	6.363	6.413		0+	1/2
332	242	1964.51		5.92		1.12	37.07	1.05	19.35	-0.59	-18.44	7.073	7.318	6.368	6.418		0^+	0+
333	243	1964.58		5.90		1.12	37.34	0.07	19.46	-0.59	-18.55	7.085	7.330	6.374	6.424		0^+	1/2
334	244	1965.64		5.89		1.13	37.46	1.06	19.53	-0.60	-18.62	7.095	7.342	6.379	6.429		0^+	0+
335	245	1965.72		5.87		1.14	37.78	0.08	19.68	-0.60	-18.75	7.105	7.352	6.386	6.436		0^+	1/2
336	246	1966.79		5.85		1.15	37.88	1.07	19.74	-0.60	-18.81	7.116	7.364	6.390	6.440		0^+	0+
337	247	1966.87		5.84		1.15	38.24	0.08	19.90	-0.60	-18.96	7.126	7.372	6.399	6.449		0^+	1/2
338	248	1967.96		5.82		1.17	38.34	1.09	19.96	-0.61	-19.02	7.137	7.386	6.403	6.452		0^+	0+
339	249	1968.05		5.81		1.18	38.74	0.09	20.14	-0.60	-19.18	7.145	7.392	6.413	6.463		0^{+}	1/2
340	250	1969.14		5.79		1.18	38.81	1.09	20.18	-0.61	-19.23	7.157	7.406	6.415	6.465		0^{+}	0^+
341	251	1969.23		5.77		1.18	39.19	0.09	20.38	-0.61	-19.41	7.165	7.411	6.427	6.477		0^{+}	1/2
342	252	1970.35		5.76		1.21	39.31	1.12	20.42	-0.61	-19.45	7.177	7.426	6.429	6.478		0^{+}	0^+
343	253	1970.44		5.74		1.21	39.66	0.09	20.64	-0.61	-19.65	7.184	7.430	6.442	6.491		0^+	1/2
344	254	1971.57		5.73		1.22	39.81	1.13	20.66	-0.62	-19.68	7.197	7.445	6.443	6.492		0^+	0^+
345	255	1971.68		5.72		1.24	40.16	0.11	20.91	-0.61	-19.89	7.203	7.448	6.457	6.506		0^+	1/2
346	256	1972.82		5.70		1.25	40.33	1.14	20.92	-0.62	-19.91	7.216	7.464	6.457	6.507		0^+	0^+
347	257	1972.93		5.69		1.25	40.65	0.11	21.13	<u>0.59</u>	-20.14	7.221	7.466	6.473	6.522		0^+	1/2
348	258	1974.09		5.67		1.27	40.84	1.16	21.18	-1.30	-20.15	7.235	7.482	6.473	6.522		0^+	0^+
σ		5.96													0.018			
Z = 91																		
200	118	1588.46		7.60		21.23	1.45	11.37	-0.36	-10.55	0.12	5.628	5.669	5.573	5.630		$9/2^{-}$	0^+
209	110	1500 13		7.61		21.04	1.00	0.67	0.13	10.41	0.11	E C2C	E C00	E E 77	E C34		0/2=	F /2-
210	119	1598.13		7.61		21.04	1.92	9.67	$\frac{-0.12}{0.04}$	-10.41	-0.11	5.636	5.680	5.577	5.634		9/2-	5/2
211	120	1609.25	1610 21	7.63	7.63	20.79	2.26	11.12	0.04	-10.30	-0.29	5.645	5.692	5.583	5.640		9/2-	0+
212	121	1618.84	1618.31	7.64	7.63	20.71	2.65	9.59	0.22	-10.26	-0.49	5.654	5.704	5.587	5.644		9/2-	3/2
213	122	1629.51	1628.33	7.65	7.64	20.26	2.99	10.67	0.39	-10.01	-0.67	5.662	5.714	5.591	5.648		9/2-	0+
214	123	1638.94	1636.58	7.66	7.65	20.10	3.33	9.43	0.55	-9.72	-0.85	5.670	5.725	5.595	5.652		9/2-	3/2 0 ⁺
215	124	1649.14	1646.27	7.67	7.66	19.63	3.63	10.20	0.69	-9.58	-1.01	5.677	5.735	5.598	5.655		9/2-	1/2
216	125	1658.34	1654.42	7.68	7.66	19.40	3.93	9.20	0.83	-9.48	-1.18	5.687	5.747	5.602	5.659		9/2-	1/2 0 ⁺
217	126	1667.56	1663.21	7.68	7.66	18.42	4.22	9.22	0.97	-8.19	-1.34	5.696	5.759	5.607	5.664		9/2-	-
218	127	1673.17	1669.67	7.68	7.66	14.83	4.86	5.61	1.30	-8.61	-1.62	5.710	5.775	5.618	5.675		9/2-	11/
219	128	1680.26	1677.88	7.67	7.66	12.70	5.42	7.09	1.60	-6.36	-1.89	5.724	5.791	5.629	5.686		9/2-	0 ⁺
220	129	1685.78	1002.10	7.66	7.66	12.61	6.05	5.52	1.92	-6.31	-2.17	5.739	5.807	5.641	5.697		9/2-	11/
221	130	1692.80 1698.24	1692.19	7.66 7.65	7.66	12.54 12.46	6.61 7.23	7.02 5.44	2.22 2.54	-6.28 -6.23	-2.43 -2.70	5.753 5.767	5.823 5.838	5.651 5.663	5.708 5.719		9/2 ⁻ 9/2 ⁻	0 ⁺ 11/
222	131																	

Table 1 (continued)

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
223	132	1705.17	1706.39	7.65	7.65	12.37	7.76	6.93	2.81	-6.20	-2.96	5.781	5.854	5.673	5.729		9/2-	0+
224	133	1710.52	1712.92	7.64	7.65	12.28	8.38	5.35	3.13	-6.14	-3.23	5.795	5.869	5.685	5.741		$9/2^{-}$	11/2+
225	134	1717.39	1720.51	7.63	7.65	12.22	8.91	6.87	3.40	-6.11	-3.48	5.808	5.884	5.695	5.751		9/2-	0+
226	135	1722.62	1726.89	7.62	7.64	12.10	9.53	5.23	3.72	-6.01	-3.74	5.822	5.899	5.707	5.763		9/2-	11/2+
227	136	1729.42	1734.16	7.62	7.64	12.03	10.04	6.80	3.98	-5.99	-4.01	5.835	5.914	5.717	5.772		9/2-	0 ⁺
228	137	1734.37	1740.15	7.61	7.63	11.75	10.62	4.95	4.29	-5.71	-4.27	5.850	5.929	5.728	5.784		9/2-	11/2 ⁺ 0 ⁺
229	138	1741.10	1747.24	7.60	7.63	11.68	11.08	6.73	4.52	-5.73	-4.66	5.862	5.943	5.737	5.793		9/2-	-
230 231	139	1745.62	1753.04	7.59	7.62	11.25	11.45	4.52	4.70 4.90	-5.72	-4.62 5.03	5.874	5.957	5.745 5.752	5.801		9/2-	$9/2^{+}$ 0^{+}
231	140 141	1752.13 1756.53	1759.85 1765.41	7.58 7.57	7.62 7.61	11.03 10.91	11.86 12.18	6.51	4.90 5.05	-5.45 -5.38	-5.03	5.885 5.897	5.970 5.984	5.752	5.807 5.814		9/2 ⁻ 9/2 ⁻	9/2 ⁺
232	141	1762.70	1703.41	7.57 7.57	7.60	10.57	12.16	4.40 6.17	5.24	-5.28	-5.18 -5.35	5.907	5.997	5.765	5.820		$9/2^{-}$	9/2 0 ⁺
234	143	1766.96	1777.15	7.55	7.59	10.37	12.34	4.26	5.38	-5.21	-5.49	5.919	6.010	5.772	5.827		9/2 ⁻	9/2 ⁺
235	144	1770.30	1777.13	7.54	7.59	10.43	13.21	6.01	5.57	-5.16	-5.43 -5.67	5.929	6.023	5.778	5.833		$9/2^{-}$	0+
236	145	1772.37	1788.30	7.53	7.58	10.27	13.53	4.14	5.74	-5.08	-5.80	5.940	6.036	5.785	5.840		9/2 ⁻	9/2 ⁺
237	146	1783.01	1794.18	7.52	7.57	10.13	13.90	5.90	5.91	-5.05	-5.98	5.951	6.049	5.791	5.846		9/2-	0+
238	147	1787.00	1798.89	7.51	7.56	9.89	14.25	3.99	6.08	-4.96	-6.17	5.962	6.062	5.798	5.853		$9/2^{-}$	9/2 ⁺
239	148	1792.84	1750.05	7.50	7.50	9.83	14.60	5.84	6.26	-4.95	-6.36	5.973	6.074	5.804	5.859		$9/2^{-}$	0+
240	149	1796.67		7.49		9.67	15.00	3.83	6.47	-4.85	-6.59	5.984	6.087	5.811	5.866		$9/2^{-}$	9/2 ⁺
241	150	1802.48		7.48		9.64	15.34	5.81	6.64	-4.85	-6.74	5.994	6.100	5.817	5.872		9/2-	0+
242	151	1806.13		7.46		9.46	15.79	3.65	6.86	-4.75	-6.99	6.006	6.112	5.824	5.879		9/2-	9/2 ⁺
243	152	1811.92		7.46		9.44	16.09	5.79	7.01	-4.76	-7.11	6.016	6.125	5.830	5.885		9/2-	0+
244	153	1815.42		7.44		9.29	16.51	3.50	7.22	-4.72	-7.30	6.027	6.137	5.837	5.891		9/2-	15/2-
245	154	1821.20		7.43		9.28	16.87	5.78	7.41	-4.67	-7.48	6.038	6.150	5.843	5.898		9/2-	0+
246	155	1824.65		7.42		9.23	17.29	3.45	7.62	-4.63	-7.67	6.048	6.162	5.850	5.904		9/2-	15/2-
247	156	1830.31		7.41		9.11	17.63	5.66	7.79	-4.59	-7.85	6.059	6.174	5.856	5.911		9/2-	0+′
248	157	1833.70		7.39		9.05	18.04	3.39	7.99	-4.55	-8.04	6.070	6.187	5.863	5.917		9/2-	$15/2^{-}$
249	158	1839.28		7.39		8.97	18.39	5.58	8.18	-4.52	-8.19	6.081	6.199	5.869	5.924		9/2-	0+
250	159	1842.61		7.37		8.91	18.76	3.33	8.38	-4.48	-8.37	6.091	6.211	5.876	5.930		9/2-	$15/2^{-}$
251	160	1848.11		7.36		8.83	19.13	5.50	8.55	-4.45	-8.54	6.102	6.224	5.882	5.937		9/2-	0+
252	161	1851.43		7.35		8.82	19.45	3.32	8.72	-4.45	-8.71	6.114	6.237	5.889	5.943		9/2-	$7/2^{+}$
253	162	1856.83		7.34		8.72	19.85	5.40	8.91	-4.39	-8.89	6.124	6.249	5.895	5.949		$9/2^{-}$	0^+
254	163	1860.17		7.32		8.74	20.19	3.34	9.10	-4.39	-9.06	6.135	6.261	5.902	5.956		$9/2^{-}$	$7/2^{+}$
255	164	1865.43		7.32		8.60	20.53	5.26	9.25	-4.34	-9.26	6.145	6.273	5.908	5.962		$9/2^{-}$	0^+
256	165	1868.78		7.30		8.61	20.87	3.35	9.44	-4.33	-9.39	6.156	6.286	5.915	5.969		$9/2^{-}$	$7/2^{+}$
257	166	1873.94		7.29		8.51	21.19	5.16	9.58	-4.28	-9.66	6.167	6.298	5.920	5.974		$9/2^{-}$	0+
258	167	1877.28		7.28		8.50	21.51	3.34	9.75	-4.26	-9.75	6.178	6.310	5.927	5.981		$9/2^{-}$	7/2+
259	168	1882.36		7.27		8.42	21.83	5.08	9.91	-4.23	-9.98	6.188	6.323	5.932	5.986		$9/2^{-}$	0+
260	169	1885.71		7.25		8.43	22.13	3.35	10.06	-4.24	-10.07	6.199	6.335	5.937	5.991		9/2-	5/2+
261	170	1890.67		7.24		8.31	22.43	4.96	10.20	-4.17	-10.25	6.209	6.347	5.944	5.997		9/2-	0+
262	171	1894.05		7.23		8.34	22.74	3.38	10.36	-4.18	-10.46	6.220	6.360	5.949	6.003		9/2-	5/2+
263	172	1898.89		7.22		8.22	23.00	4.84	10.49	-4.12	-10.56	6.230	6.372	5.954	6.008		9/2-	0 ⁺
264	173	1902.28		7.21		8.23	23.31	3.39	10.64	-4.11	-10.71	6.241	6.384	5.960	6.013		9/2-	5/2+
265	174	1906.99		7.20		8.10	23.52	4.71	10.75	-4.05	-10.81	6.251	6.396	5.964	6.017		9/2-	0 ⁺
266	175	1910.37		7.18		8.09	23.83	3.38	10.89	-4.03	-10.95	6.262	6.409	5.970	6.023		9/2-	5/2 ⁺ 0 ⁺
267	176	1914.96		7.17		7.97	24.00	4.59	10.98	-3.98	-11.04	6.272	6.421	5.973	6.026		9/2-	-
268	177	1918.32		7.16		7.95	24.22	3.36	11.09	-4.01	-11.24	6.282	6.434	5.976	6.029		9/2-	1/2 ⁺ 0 ⁺
269 270	178 179	1922.77		7.15		7.81	24.42	4.45	11.19	-3.89	-11.33	6.292	6.446	5.980	6.034		9/2-	0 ' 1/2 ⁺
270 271		1926.19		7.13		7.87	24.61 24.79	3.42	11.30	-3.89	-11.41	6.303	6.459	5.984	6.037		9/2-	1/2 ' 0 ⁺
271 272	180	1930.39		7.12		7.62		4.20	11.37	-3.78	-11.54	6.313	6.471	5.987	6.040		9/2-	0 ' 3/2 ⁺
272	181	1933.79		7.11		7.60	24.98	3.40	11.46	-3.77	-11.62	6.323	6.485	5.990	6.043		$9/2^{-}$	3/2 ' 0 ⁺
273 274	182 183	1937.80 1941.16		7.10 7.08		7.41 7.37	25.12 25.28	4.01 3.36	11.53 11.61	-3.67 -3.09	-11.65 -11.87	6.334 6.345	6.498 6.512	5.993 5.996	6.046 6.049		9/2 ⁻ 9/2 ⁻	3/2 ⁺
274	184	1941.16		7.08 7.07		7.37 7.21	25.28	3.85	11.67	-3.09 -2.47	-11.87 -11.72	6.356	6.525	5.996	6.052		9/2 9/2 ⁻	3/2 · 0 ⁺
275 276	184	1945.01		7.07 7.05		3.71	25.41	-0.14	11.86	-2.47 -3.01	-11.72 -12.17	6.370	6.539	6.012	6.065		9/2 9/2 ⁻	13/2 ⁻
2/0	103	1377.07		7.03		J./ I	23.70	-0.14	11.00	-3.01	-12.17	0.570	0.333	0.012	0.003		3/2	13/2

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
277	186	1946.29		7.03		1.28	25.98	1.42	11.97	-0.70	-12.01	6.383	6.553	6.020	6.072		9/2-	0+
278	187	1946.17		7.00		1.30	26.30	-0.12	12.15	-0.71	-12.33	6.397	6.567	6.032	6.085		$9/2^{-}$	13/2
279	188	1947.61		6.98		1.32	26.56	1.44	12.26	-0.72	-12.33	6.410	6.581	6.040	6.093		$9/2^{-}$	0^+
280	189	1947.52		6.96		1.35	26.86	-0.09	12.45	-0.73	-12.47	6.424	6.595	6.053	6.106		$9/2^{-}$	13/
281	190	1948.98		6.94		1.37	27.14	1.46	12.56	-0.75	-12.62	6.436	6.608	6.061	6.114		9/2-	0+
282	191	1948.91		6.91		1.39	27.45	-0.07	12.74	-0.75	-12.78	6.450	6.622	6.074	6.126		9/2-	13/
283	192	1950.40		6.89		1.42	27.71	1.49	12.85	-0.78	-12.90	6.463	6.635	6.082	6.134		9/2-	0+
284	193	1950.34		6.87		1.43	28.01	-0.06	13.03	-0.77	-13.05	6.476	6.649	6.094	6.146		9/2-	13/
285	194	1951.87		6.85		1.47	28.29	1.53	13.15	-0.80	-13.20	6.489	6.662	6.102	6.155		9/2-	0+
286	195	1951.80		6.82		1.46	28.55	-0.07	13.28	-0.79	-13.39	6.502	6.676	6.114	6.166		9/2-	13/
287	196	1953.37		6.81		1.50	28.84	1.57	13.42	-0.81	-13.55	6.515	6.689	6.122	6.174		9/2-	0+
288	197	1953.33		6.78		1.53	29.10	-0.04	13.55	-0.83	-13.60	6.528	6.703	6.131	6.183		$9/2^{-}$	11/
289	198	1954.91		6.76		1.54	29.39	1.58	13.70	-0.82	-13.94	6.540	6.715	6.142	6.194		9/2-	0+
290	199	1954.90		6.74		1.57	29.65	-0.01	13.83	-0.82 -0.83	-13.94 -13.94	6.553	6.729	6.151	6.203		9/2 ⁻	11/
290 291	200	1956.45		6.72		1.54	29.90	1.55	13.95	-0.83 -0.82	-13.94 -14.23	6.565	6.742	6.160	6.212		9/2 ⁻	0+
292	201	1956.47		6.70		1.57	30.17	0.02	14.09	-0.83	-14.24	6.578	6.755	6.170	6.221		9/2-	11/
293	202	1957.99		6.68		1.54	30.38	1.52	14.19	-0.81	-14.47	6.590	6.768	6.177	6.228		9/2-	0+
294	203	1958.01		6.66		1.54	30.65	0.02	14.32	-0.80	-14.59	6.603	6.781	6.186	6.238		9/2-	11,
95	204	1959.51		6.64		1.52	30.84	1.50	14.41	-0.80	-14.70	6.614	6.794	6.192	6.244		9/2-	0+
296	205	1959.51		6.62		1.50	31.10	0.00	14.54	-0.77	-14.73	6.627	6.807	6.201	6.253		$9/2^{-}$	11,
297	206	1960.98		6.60		1.47	31.25	1.47	14.62	-0.77	-14.67	6.638	6.820	6.207	6.258		$9/2^{-}$	0^+
298	207	1960.92		6.58		1.41	31.50	-0.06	14.74	-0.72	-14.84	6.651	6.834	6.215	6.266		$9/2^{-}$	11/
99	208	1962.38		6.56		1.40	31.64	1.46	14.80	-0.73	-14.86	6.662	6.847	6.220	6.271		$9/2^{-}$	0^{+}
300	209	1962.20		6.54		1.28	31.80	-0.18	14.91	-0.66	-14.96	6.675	6.861	6.228	6.279		$9/2^{-}$	11/
301	210	1963.69		6.52		1.31	31.99	1.49	14.98	-0.68	-15.30	6.686	6.873	6.232	6.283		9/2-	0+
302	211	1963.44		6.50		1.24	32.03	-0.25	15.00	-0.70	-15.30	6.701	6.893	6.235	6.286		9/2-	7/2
303	212	1964.90		6.48		1.21	32.32	1.46	15.15	-0.64	-15.19	6.710	6.901	6.243	6.294		9/2-	0+
304	213	1964.73		6.46		1.29	32.41	-0.17	15.21	-0.65	-15.24	6.725	6.919	6.246	6.297		9/2-	7/2
305	214	1966.03		6.45		1.13	32.63	1.30	15.31	-0.61	-15.65	6.734	6.929	6.254	6.305		9/2-	0+
306	215	1965.85		6.42		1.12	32.67	-0.18	15.33	-0.62	-15.39	6.754	6.955	6.255	6.306		9/2-	3/2
307	216	1967.12		6.41		1.09	32.93	1.27	15.47	-0.59	-15.77	6.759	6.957	6.264	6.315		$9/2^{-}$	0+
308	217	1966.97		6.39		1.12	32.97	-0.15	15.49	-0.60	-15.76	6.778	6.982	6.265	6.316		$9/2^{-}$	3/2
309	217	1968.18		6.37		1.12	33.22	1.21	15.49	-0.58	-15.76 -15.85	6.783	6.985	6.274	6.325		9/2 ⁻	0 ⁺
310	219	1968.06		6.35		1.00	33.24	-0.12	15.64	-0.58 -0.59	-15.86	6.802	7.009	6.275	6.326		9/2 ⁻	3/2
																		0 ⁺
311	220	1969.23		6.33		1.05	33.51	1.17	15.77	-0.58	-15.99	6.808	7.013	6.284	6.334		9/2-	
312	221	1969.16		6.31		1.10	33.56	-0.07	15.79	-0.59	-15.99	6.825	7.036	6.285	6.336		9/2-	3/2
313	222	1970.29		6.29		1.06	33.80	1.13	15.92	-0.58	-15.98	6.832	7.041	6.293	6.344		9/2-	0+
314	223	1970.26		6.27		1.10	33.88	-0.03	15.96	-0.59	-16.14	6.849	7.063	6.295	6.346		$9/2^{-}$	3/2
15	224	1971.36		6.26		1.07	34.08	1.10	16.07	-0.59	-16.29	6.856	7.069	6.303	6.353		$9/2^{-}$	0^+
316	225	1971.36		6.24		1.10	34.20	0.00	16.13	-0.60	-16.20	6.873	7.089	6.305	6.356		$9/2^{-}$	3/2
317	226	1972.44		6.22		1.08	34.36	1.08	16.22	-0.60	-16.36	6.880	7.096	6.312	6.363		$9/2^{-}$	0^{+}
318	227	1972.45		6.20		1.09	34.48	0.01	16.28	-0.61	-16.40	6.896	7.115	6.315	6.365		$9/2^{-}$	3/2
319	228	1973.55		6.19		1.11	34.65	1.10	16.37	-0.61	-16.56	6.904	7.123	6.321	6.372		$9/2^{-}$	0^+
320	229	1973.57		6.17		1.12	34.77	0.02	16.44	-0.61	-16.58	6.919	7.141	6.325	6.375		9/2-	3/2
321	230	1974.68		6.15		1.13	34.93	1.11	16.52	-0.62	-16.72	6.927	7.150	6.331	6.381		$9/2^{-}$	0+
22	231	1974.71		6.13		1.14	35.05	0.03	16.59	-0.62	-16.76	6.942	7.167	6.335	6.385		9/2-	3/2
323	232	1975.83		6.12		1.15	35.22	1.12	16.67	-0.63	-16.88	6.951	7.176	6.340	6.391		9/2-	0+
324	233	1975.88		6.10		1.17	35.33	0.05	16.74	-0.63	-16.94	6.965	7.192	6.345	6.395		9/2-	3/2
325	234	1977.02		6.08		1.17	35.53	1.14	16.84	-0.64	-16.95	6.974	7.132	6.350	6.400		9/2 ⁻	0 ⁺
325 326	235	1977.02		6.06		1.19	35.63	0.05	16.88	-0.65	-10.93 -17.08	6.989	7.202	6.353	6.403		9/2 ⁻	1/2
																		0 ⁺
327	236	1978.22		6.05		1.20	35.83	1.15	16.99	-0.65	-17.15	6.997	7.228	6.360	6.410		9/2-	
328	237	1978.31		6.03		1.24	35.96	0.09	17.05	-0.66	-17.20	7.011	7.245	6.363	6.413		9/2-	1/2
30 30	238 239	1979.46		6.02		1.24	36.16	1.15	17.16	-0.66	-17.25	7.019	7.253	6.369	6.419		9/2-	0+
		1979.58		6.00		1.27	36.31	0.12	17.23	-0.67	-17.37	7.033	7.269	6.373	6.423		$9/2^{-}$	1/2

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
331	240	1980.72		5.98		1.26	36.49	1.14	17.33	-0.67	-17.52	7.042	7.277	6.379	6.429		9/2-	0+
332	241	1980.87		5.97		1.29	36.68	0.15	17.41	-0.68	-17.51	7.055	7.292	6.384	6.433		$9/2^{-}$	$1/2^{-}$
333	242	1982.01		5.95		1.29	36.85	1.14	17.50	-0.68	-17.68	7.064	7.301	6.389	6.439		$9/2^{-}$	0^+
334	243	1982.18		5.93		1.31	37.06	0.17	17.60	-0.69	-17.77	7.076	7.315	6.394	6.444		$9/2^{-}$	1/2-
335	244	1983.32		5.92		1.31	37.21	1.14	17.68	-0.69	-17.80	7.086	7.325	6.400	6.450		9/2-	0+
336	245	1983.52		5.90		1.34	37.48	0.20	17.80	-0.70	-17.81	7.097	7.337	6.406	6.456		9/2-	1/2-
337	246	1984.66		5.89		1.34	37.61	1.14	17.87	-0.70	-17.99	7.107	7.348	6.411	6.460		9/2-	0+
338	247	1984.88		5.87		1.36	37.91 38.03	0.22	18.01	-0.71	-17.97	7.118 7.128	7.359	6.417 6.422	6.467		9/2 ⁻ 9/2 ⁻	1/2 ⁻ 0 ⁺
339 340	248 249	1986.03 1986.27		5.86 5.84		1.37 1.39	38.36	1.15 0.24	18.07 18.22	-0.71 -0.71	-18.02 -18.16	7.128	7.371 7.380	6.422	6.471 6.479		$9/2^{-}$	1/2-
341	250	1980.27		5.83		1.39	38.46	1.15	18.28	-0.71 -0.72	-18.10 -18.22	7.138	7.393	6.433	6.482		$9/2^{-}$	0 ⁺
342	251	1987.68		5.81		1.41	38.83	0.26	18.45	-0.72	-18.34	7.158	7.400	6.442	6.491		9/2 ⁻	1/2-
343	252	1988.84		5.80		1.42	38.91	1.16	18.49	-0.72	-18.34	7.170	7.414	6.445	6.494		9/2-	0+
344	253	1989.11		5.78		1.43	39.31	0.27	18.67	-0.73	-18.47	7.177	7.420	6.455	6.504		9/2-	1/2-
345	254	1990.28		5.77		1.44	39.37	1.17	18.71	-0.73	-18.60	7.190	7.435	6.457	6.506		9/2-	$\mathbf{o}^{'+}$
346	255	1990.57		5.75		1.46	39.80	0.29	18.89	-0.73	-18.64	7.197	7.439	6.468	6.517		$9/2^{-}$	$1/2^{-}$
347	256	1991.75		5.74		1.47	39.85	1.18	18.93	-0.74	-18.62	7.210	7.455	6.469	6.518		$9/2^{-}$	0^{+}
348	257	1992.06		5.72		1.49	40.26	0.31	19.13	0.51	-18.89	7.216	7.458	6.482	6.531		9/2-	$1/2^{-}$
349	258	1993.24		5.71		1.49	40.33	1.18	19.15	-1.45	-18.77	7.229	7.475	6.482	6.531		$9/2^{-}$	0^+
σ		6.56																
Z = 92	2 (U)																	
211	119	1599.48		7.58			1.23	9.89	1.35	-10.60	0.14	5.646	5.687	5.592	5.649		0^+	$5/2^{-}$
212	120	1610.76		7.60		21.17	1.55	11.28	1.51	-10.49	-0.04	5.655	5.698	5.598	5.655		0^{+}	0+
213	121	1620.54		7.61		21.06	1.92	9.78	1.70	-10.45	-0.25	5.663	5.709	5.602	5.659		0^+	$3/2^{-}$
214	122	1631.36		7.62		20.60	2.24	10.82	1.85	-10.18	-0.42	5.671	5.720	5.606	5.663		0^+	0^+
215	123	1640.97		7.63		20.43	2.58	9.61	2.03	-9.88	-0.61	5.679	5.730	5.610	5.667		0+	3/2-
216	124	1651.32		7.65		19.96	2.87	10.35	2.18	-9.74	-0.77	5.686	5.740	5.613	5.670		0+	0+
217	125	1660.67		7.65		19.70	3.16	9.35	2.33	-9.50	-0.94	5.695	5.751	5.617	5.674		0+	1/2-
218	126	1670.05	1665.66	7.66	7.64	18.73	3.46	9.38	2.49	-8.44	-1.11	5.704	5.763	5.621	5.678		0+	0+
219	127	1675.96	1672.36	7.65	7.64	15.29	4.09	5.91	2.79	-9.02	-1.38	5.718	5.780	5.633	5.689		0^{+}	11/2 ⁺ 0 ⁺
220 221	128 129	1683.33 1689.16		7.65 7.64		13.28 13.20	4.67 5.30	7.37 5.83	3.07 3.38	-6.64 -6.60	-1.64 -1.90	5.733 5.747	5.796 5.812	5.644 5.655	5.700 5.712		0+	11/2 ⁺
221	130	1696.46		7.64 7.64		13.13	5.88	7.30	3.66	-6.57	-2.16	5.761	5.827	5.666	5.722		0+	0+
223	131	1702.21	1702.09	7.63	7.63	13.15	6.51	5.75	3.97	-6.52	-2.10 -2.44	5.775	5.843	5.678	5.734		0^{+}	11/2 ⁺
224	132	1709.42	1710.29	7.63	7.64	12.96	7.06	7.21	4.25	-6.49	-2.69	5.789	5.858	5.688	5.744		0+	0+
225	133	1715.08	1716.69	7.62	7.63	12.87	7.69	5.66	4.56	-6.42	-2.97	5.803	5.873	5.699	5.755		0+	11/2 ⁺
226	134	1722.21	1724.81	7.62	7.63	12.79	8.22	7.13	4.82	-6.40	-3.22	5.816	5.888	5.710	5.765		0^+	0+
227	135	1727.75	1731.19	7.61	7.63	12.67	8.85	5.54	5.13	-6.30	-3.50	5.830	5.903	5.721	5.777		0^+	11/2 ⁺
228	136	1734.81	1739.06	7.61	7.63	12.60	9.37	7.06	5.39	-6.26	-3.75	5.843	5.918	5.731	5.787		0^+	0^+
229	137	1740.08	1745.15	7.60	7.62	12.33	10.00	5.27	5.71	-5.94	-4.03	5.857	5.933	5.744	5.799		0^+	$11/2^{+}$
230	138	1747.05	1752.81	7.60	7.62	12.24	10.47	6.97	5.95	-5.96	-4.27	5.870	5.947	5.753	5.808	5.820	0^+	0+
231	139	1751.74	1758.69	7.58	7.61	11.66	10.82	4.69	6.12	-5.95	-4.44	5.882	5.961	5.760	5.816	5.829	0^+	9/2+
232	140	1758.45	1765.96	7.58	7.61	11.40	11.22	6.71	6.32	-5.63	-4.64	5.892	5.973	5.767	5.822	5.834	0^+	0+
233	141	1763.00	1771.72	7.57	7.60	11.26	11.52	4.55	6.47	-5.55	-4.80	5.904	5.987	5.773	5.828	5.843	0+	$9/2^{+}$
234	142	1769.36	1778.56	7.56	7.60	10.91	11.90	6.36	6.66	-5.46	-5.00	5.914	6.000	5.780	5.835		0+	0+
235	143	1773.79	1783.86	7.55	7.59	10.79	12.21	4.43	6.83	-5.39	-5.16	5.925	6.013	5.786	5.841	5.857	0+	9/2+
236	144	1779.99	1790.41	7.54	7.59	10.63	12.59	6.20	7.02	-5.33 5.36	-5.36	5.936	6.025	5.792	5.847		0 ⁺	0+
237	145	1784.28	1795.53	7.53	7.58	10.49	12.91	4.29	7.17	-5.26 5.23	-5.53	5.947	6.039	5.799	5.854		0 ⁺	9/2 ⁺
238	146	1790.39	1801.69	7.52	7.57	10.40	13.29	6.11	7.38	-5.23 5.15	-5.73	5.957	6.051	5.805	5.860		0^{+}	0 ⁺
239 240	147 148	1794.54 1800.58	1806.49 1812.42	7.51 7.50	7.56 7.55	10.26 10.19	13.62 14.00	4.15 6.04	7.54 7.74	-5.15 -5.13	-5.91 -6.09	5.968 5.979	6.064 6.076	5.812 5.818	5.867 5.873		0+	9/2 ⁺ 0 ⁺
240 241	148	1800.58	1012.42	7.50 7.49	1.55	10.19	14.00	4.02	7.74 7.93	-5.13 -5.05	-6.09 -6.28	5.990	6.089	5.825	5.873 5.879		0+	9/2 ⁺
241	150	1810.58		7.49		10.00	14.40	5.98	7.93 8.10	-5.03 -5.04	-6.28 -6.46	6.000	6.101	5.831	5.886		0+	9/2 0 ⁺
272	130	10.10.50		7, 10		10.00	1 1.7 7	5.55	0.10	5.04	0.40	0.000	0.101	5.551	5.500		J	J

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
243	151	1814.45		7.47		9.85	15.18	3.87	8.32	-4.95	-6.67	6.011	6.114	5.838	5.892		0+	9/2+
244	152	1820.41		7.46		9.83	15.50	5.96	8.49	-4.95	-6.83	6.021	6.126	5.844	5.898		0^+	0^+
245	153	1824.11		7.45		9.66	15.91	3.70	8.69	-4.86	-7.05	6.032	6.139	5.851	5.905		0+	9/2
246	154	1830.07		7.44		9.66	16.28	5.96	8.87	-4.86	-7.21	6.043	6.151	5.857	5.911		0+	0^+
247	155	1833.72		7.42		9.61	16.69	3.65	9.07	-4.83	-7.40	6.053	6.163	5.864	5.918		0+	15/
248	156	1839.57		7.42		9.50	17.05	5.85	9.26	-4.78	-7.58	6.064	6.176	5.870	5.924		0+	0+
249	157	1843.16		7.40		9.44	17.45	3.59	9.46	-4.74	-7.77	6.074	6.188	5.877	5.931		0+	15/
250	158	1848.92		7.40		9.35	17.82	5.76	9.64	-4.71	-7.95	6.085	6.200	5.883	5.937		0+	0^+
251	159	1852.44		7.38		9.28	18.21	3.52	9.83	-4.66	-8.13	6.096	6.212	5.890	5.944		0+	15/
252	160	1858.13		7.37		9.21	18.57	5.69	10.02	-4.64	-8.31	6.107	6.224	5.896	5.950		0+	0+
253	161	1861.62		7.36		9.18	18.91	3.49	10.19	-4.64	-8.48	6.118	6.237	5.903	5.957		0+	7/2 0 ⁺
254	162	1867.21		7.35		9.08	19.29	5.59	10.38	-4.57	-8.66	6.128	6.249	5.909	5.963		0+	•
255	163	1870.73		7.34		9.11	19.66	3.52	10.56	-4.57	-8.83	6.139	6.261	5.916	5.970		0+	7/2
256	164	1876.16		7.33		8.95	19.98	5.43	10.73	-4.50	-8.99	6.149	6.273	5.922	5.975		0 ⁺	0 ⁺
257	165	1879.70		7.31		8.97	20.36	3.54	10.92	-4.49	-9.18	6.160	6.285	5.928	5.982		0+ 0+	7/2 0 ⁺
258	166	1885.00		7.31		8.84	20.64	5.30	11.06	-4.44	-9.32	6.170	6.298	5.934	5.988		0 ⁺	-
259	167	1888.53		7.29		8.83	21.00	3.53	11.25	-4.42	-9.50	6.181	6.310	5.941	5.994			7/2 0 ⁺
260 261	168 169	1893.73 1897.23		7.28 7.27		8.73 8.70	21.28 21.58	5.20 3.50	11.37 11.52	-4.38	-9.62	6.192 6.202	6.322 6.334	5.946 5.952	6.000 6.006		0 ⁺	7/2
262	170	1902.34		7.27		8.61	21.38	5.11	11.52	-4.35 -4.31	-9.80 -9.91	6.213	6.346	5.957	6.011		0+	0 ⁺
.62 .63	170	1902.34		7.25 7.25		8.63	22.17	3.52	11.81	-4.31 -4.32	-9.91 -10.05	6.223	6.359	5.963	6.016		0+	5/2
.63 264	171	1905.86		7.23 7.24		8.49	22.17	3.32 4.97	11.01	-4.32 -4.24	-10.03 -10.18	6.233	6.371	5.968	6.021		0+	0 ⁺
65	172	1914.37		7.24		8.51	22.73	3.54	12.09	-4.24 -4.24	-10.18 -10.32	6.244	6.383	5.973	6.027		0+	5/2
:66	173	1914.37		7.22		8.34	22.73	4.80	12.09	-4.24 -4.17	-10.32 -10.43	6.254	6.395	5.977	6.031		0+	0^{+}
267	175	1919.17		7.21		8.33	23.22	3.53	12.18	-4.17 -4.14	-10.43 -10.57	6.265	6.408	5.983	6.036		0 ⁺	5/2
268	176	1927.36		7.19		8.19	23.38	4.66	12.40	-4.14 -4.08	-10.57	6.274	6.420	5.986	6.039		0^{+}	0+
269	177	1930.82		7.18		8.12	23.59	3.46	12.50	-4.11	-10.76	6.285	6.433	5.989	6.042		0+	1/2
270	178	1935.37		7.17		8.01	23.79	4.55	12.60	-3.98	-10.86	6.294	6.445	5.993	6.046		0+	0+
271	179	1938.88		7.15		8.06	23.99	3.51	12.69	-3.98	-10.96	6.305	6.458	5.996	6.049		0+	1/2
272	180	1943.16		7.14		7.79	24.14	4.28	12.77	-3.86	-11.05	6.315	6.470	5.999	6.052		0+	0+
273	181	1946.64		7.13		7.76	24.31	3.48	12.85	-3.84	-11.14	6.325	6.484	6.002	6.055		0^{+}	3/2
274	182	1950.71		7.12		7.55	24.44	4.07	12.91	-3.74	-11.22	6.336	6.497	6.005	6.058		0+	0+
275	183	1954.14		7.11		7.50	24.59	3.43	12.98	-3.33	-11.30	6.347	6.510	6.008	6.061		0^{+}	3/2
76	184	1958.06		7.09		7.35	24.72	3.92	13.05	-2.62	-11.38	6.357	6.524	6.011	6.064		0^+	0+
277	185	1958.12		7.07		3.98	25.11	0.06	13.25	-3.18	-11.56	6.372	6.538	6.024	6.077		0^{+}	13/
78	186	1959.65		7.05		1.59	25.33	1.53	13.36	-0.85	-11.69	6.384	6.552	6.032	6.085		0^+	0+
279	187	1959.72		7.02		1.60	25.70	0.07	13.55	-0.86	-11.87	6.398	6.565	6.045	6.098		0^+	13/
80	188	1961.29		7.00		1.64	25.94	1.57	13.68	-0.88	-11.99	6.411	6.579	6.054	6.107		0^{+}	0+
81	189	1961.38		6.98		1.66	26.31	0.09	13.86	-0.88	-12.17	6.425	6.593	6.067	6.119		0^{+}	13/
282	190	1962.97		6.96		1.68	26.55	1.59	13.99	-0.90	-12.29	6.438	6.606	6.076	6.128		0^+	0+
283	191	1963.08		6.94		1.70	26.91	0.11	14.17	-0.90	-12.47	6.452	6.620	6.088	6.141		0^+	13/
284	192	1964.70		6.92		1.73	27.15	1.62	14.30	-0.93	-12.59	6.464	6.633	6.097	6.149		0^+	0+
85	193	1964.81		6.89		1.73	27.50	0.11	14.47	-0.92	-12.76	6.478	6.647	6.109	6.161		0^+	13/
86	194	1966.47		6.88		1.77	27.75	1.66	14.60	-0.94	-12.89	6.490	6.660	6.118	6.170		0^+	0+
87	195	1966.57		6.85		1.76	28.05	0.10	14.77	-0.93	-13.05	6.504	6.673	6.130	6.182		0^+	13/
88	196	1968.27		6.83		1.80	28.32	1.70	14.90	-0.96	-13.18	6.516	6.686	6.139	6.191		0^+	0+
289	197	1968.35		6.81		1.78	28.57	0.08	15.02	-0.97	-13.30	6.529	6.700	6.148	6.199		0^+	11/
90	198	1970.08		6.79		1.81	28.87	1.73	15.17	-0.96	-13.45	6.542	6.712	6.158	6.210		0^+	0^+
291	199	1970.21		6.77		1.86	29.14	0.13	15.31	-0.97	-13.58	6.555	6.726	6.168	6.219		0^+	11/
92	200	1971.89		6.75		1.81	29.39	1.68	15.44	-0.95	-13.71	6.567	6.739	6.176	6.228		0^+	0+
93	201	1972.04		6.73		1.83	29.66	0.15	15.57	-0.95	-13.84	6.579	6.752	6.186	6.237		0^+	11,
94	202	1973.67		6.71		1.78	29.87	1.63	15.68	-0.93	-13.96	6.591	6.765	6.193	6.244		0^+	0+
295	203	1973.82		6.69		1.78	30.13	0.15	15.81	-0.91	-14.07	6.604	6.778	6.202	6.253		0^+	11/
96	204	1975.40		6.67		1.73	30.30	1.58	15.89	-0.90	-14.17	6.615	6.791	6.208	6.259		0^+	0^{+}

Table 1 (continued)

4	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
297	205	1975.52		6.65	· · /	1.70	30.55	0.12	16.01	-0.87	-14.29	6.627	6.804	6.216	6.267		0+	11/2
98	206	1977.07		6.63		1.67	30.71	1.55	16.09	-0.86	-14.37	6.639	6.817	6.221	6.273		0^{+}	0+
99	207	1977.12		6.61		1.60	30.94	0.05	16.20	-0.81	-14.49	6.651	6.830	6.229	6.280		0^+	11/
00	208	1978.66		6.60		1.59	31.08	1.54	16.28	-0.82	-14.58	6.662	6.843	6.234	6.285		0^+	0+
01	209	1978.59		6.57		1.47	31.30	-0.07	16.39	-0.75	-14.68	6.674	6.856	6.242	6.293		0^+	11/
02	210	1980.15		6.56		1.49	31.44	1.56	16.46	-0.77	-14.77	6.685	6.869	6.246	6.297		0^+	0+
03	211	1979.92		6.53		1.33	31.48	-0.23	16.48	-0.69	-14.86	6.698	6.883	6.253	6.304		0^+	11/
04	212	1981.54		6.52		1.39	31.79	1.62	16.64	-0.72	-14.94	6.709	6.896	6.258	6.309		0^+	0+
05	213	1981.40		6.50		1.48	31.88	-0.14	16.67	-0.74	-15.00	6.724	6.914	6.260	6.311		0^+	7/2
06	214	1982.84		6.48		1.30	32.12	1.44	16.81	-0.69	-15.13	6.733	6.923	6.269	6.320		0^{+}	0+
07	215	1982.72		6.46		1.32	32.20	-0.12	16.87	-0.70	-15.18	6.747	6.941	6.272	6.323		0^{+}	7/2
08	216	1984.10		6.44		1.26	32.45	1.38	16.98	-0.67	-15.30	6.757	6.950	6.280	6.330		0^{+}	0+
09	217	1983.97		6.42		1.25	32.49	-0.13	17.00	-0.68	-15.36	6.771	6.967	6.283	6.334		0^+	7/2
10	218	1985.32		6.40		1.22	32.76	1.35	17.14	-0.66	-15.47	6.781	6.977	6.290	6.341		0^+	0^+
11	219	1985.23		6.38		1.26	32.81	-0.09	17.17	-0.68	-15.50	6.799	7.001	6.292	6.342		0^+	3/2
12	220	1986.54		6.37		1.22	33.08	1.31	17.31	-0.66	-15.64	6.804	7.004	6.301	6.351		0^+	0^+
13	221	1986.48		6.35		1.25	33.11	-0.06	17.32	-0.68	-15.68	6.822	7.027	6.302	6.353		0^+	3/2
14	222	1987.76		6.33		1.22	33.39	1.28	17.47	-0.66	-15.81	6.828	7.031	6.311	6.362		0^+	0^+
15	223	1987.74		6.31		1.26	33.44	-0.02	17.48	-0.68	-15.85	6.845	7.053	6.313	6.363		0^+	3/2
16	224	1988.99		6.29		1.23	33.70	1.25	17.63	-0.67	-15.99	6.852	7.058	6.321	6.372		0^+	0^{+}
17	225	1989.02		6.27		1.28	33.79	0.03	17.66	-0.68	-16.03	6.868	7.079	6.323	6.374		0^+	3/2
18	226	1990.23		6.26		1.24	34.01	1.21	17.79	-0.68	-16.15	6.875	7.084	6.331	6.382		0+	0^{+}
19	227	1990.30		6.24		1.28	34.13	0.07	17.85	-0.69	-16.19	6.891	7.104	6.334	6.384		0^+	3/2
20	228	1991.50		6.22		1.27	34.32	1.20	17.95	-0.69	-16.31	6.898	7.111	6.341	6.391		0+	0^+
21	229	1991.58		6.20		1.28	34.45	0.08	18.01	-0.70	-16.36	6.913	7.129	6.344	6.394		0+	3/2
22	230	1992.79		6.19		1.29	34.63	1.21	18.11	-0.70	-16.47	6.921	7.136	6.351	6.401		0+	0^+
23	231	1992.89		6.17		1.31	34.77	0.10	18.18	-0.71	-16.53	6.936	7.154	6.355	6.405		0+	3/2
24	232	1994.11		6.15		1.32	34.95	1.22	18.28	-0.71	-16.64	6.944	7.162	6.361	6.411		0+	0+
25	233	1994.22		6.14		1.33	35.08	0.11	18.34	-0.72	-16.70	6.958	7.179	6.365	6.415		0+	3/2
26	234	1995.45		6.12		1.34	35.27	1.23	18.43	-0.72	-16.80	6.967	7.188	6.371	6.421		0+	0+
27	235	1995.59		6.10		1.37	35.40	0.14	18.52	-0.73	-16.87	6.980	7.203	6.375	6.425		0+	3/2
28	236	1996.83		6.09		1.38	35.60	1.24	18.61	-0.73	-16.96	6.989	7.213	6.381	6.431		0+	0+
29	237	1996.98		6.07		1.39	35.72	0.15	18.67	-0.74	-17.04	7.002	7.227	6.386	6.436		0+	3/2
30	238	1998.23		6.06		1.40	35.93	1.25	18.77	-0.75	-17.13	7.012	7.237	6.391	6.441		0+	0+
31	239	1998.40		6.04		1.42	36.05	0.17	18.82	-0.76	-17.18	7.026	7.255	6.394	6.444		0+	1/2
32	240	1999.66		6.02		1.43	36.27	1.26	18.94	-0.76	-17.29	7.034	7.262	6.401	6.451		0+	0+
33	241	1999.87		6.01		1.47	36.41	0.21	19.00	-0.77	-17.35	7.048	7.278	6.404	6.454		0^{+}	1/2
34	242	2001.12		5.99 5.07		1.46	36.61 36.79	1.25	19.11	-0.77	-17.46	7.056	7.286	6.411	6.461		0^{+}	0 ⁺
35	243	2001.37		5.97		1.50		0.25	19.19	-0.78	-17.53	7.069	7.301	6.415	6.465		0 ⁺	1/2 0 ⁺
36	244	2002.61		5.96		1.49	36.97	1.24	19.29	-0.78	-17.63	7.078	7.310	6.421	6.471		0+	-
37	245	2002.90		5.94		1.53	37.18	0.29	19.38	-0.79	-17.71	7.090	7.324	6.426	6.475		0+	1/2 0 ⁺
38 39	246 247	2004.13		5.93		1.52	37.34 37.58	1.23	19.47 19.57	-0.79	-17.80 -17.88	7.099	7.333 7.346	6.431	6.481		0+	1/2
39 40	247	2004.45		5.91		1.55		0.32		-0.80		7.111		6.436	6.486		0 ⁺	0 ⁺
40 41	248 249	2005.68 2006.04		5.90 5.88		1.55 1.59	37.72 37.99	1.23 0.36	19.65 19.77	$-0.80 \\ -0.81$	-17.96 -18.06	7.121 7.131	7.357 7.368	6.441 6.447	6.491 6.497		0 ⁺	1/2
41 42	249 250	2005.04		5.88 5.87		1.59	38.12	1.22	19.77	-0.81	-18.06 -18.13	7.131	7.388	6.447	6.501		0+	0+
42 43	250 251	2007.26		5.85		1.58	38.42	0.39	19.84 19.97	-0.81 -0.82	-18.13 -18.24	7.142 7.152	7.380	6.451	6.508		0+	1/2
43 44	251	2007.65		5.84		1.60	38.51	1.21	20.02	-0.82 -0.82	-18.24 -18.30	7.152 7.163	7.390 7.402	6.462	6.511		0+	0+
44 45	252 253	2008.86		5.82		1.64	38.85	0.43	20.02	-0.82 -0.83	-18.30 -18.42	7.163 7.172	7.402 7.411	6.470	6.511		0+	1/2
45 46	253 254	2009.29		5.81		1.64	38.93	1.21	20.18	-0.83	-18.42 -18.47	7.172	7.411	6.472	6.521		0+	0+
40 47	255	2010.30		5.80		1.67	39.28	0.46	20.22	-0.83 -0.84	-18.47 -18.60	7.184	7.423	6.481	6.530		0+	1/2
47 48	255 256	2010.96		5.78		1.66	39.28 39.34	1.20	20.39	-0.84 -0.83	-18.60 -18.64	7.192	7.432 7.447	6.482	6.532		0+	0+
40 49	257	2012.16		5.77		1.70	39.73	0.50	20.41	0.40	-18.04 -18.79	7.203	7.447 7.452	6.493	6.542		0+	1/2
TJ	231	2012.00		5.75		1.69	39.76	1.19	20.61	-1.62	-18.73 -18.81	7.212	1.732	6.493	0.542		0+	0+

1	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
r		7.56													0.014			
z = 93	(Np)																	
14	121	1618.71		7.56			-0.13	10.02	<u>-1.83</u>	-10.69	0.00	5.671	5.713	5.616	5.672		$7/2^{-}$	3/2
15	122	1629.77		7.58		21.08	0.26	11.06	<u>- 1.59</u>	-10.40	-0.17	5.679	5.723	5.620	5.676		$7/2^{-}$	0^+
16	123	1639.59		7.59		20.88	0.65	9.82	-1.38	-10.10	-0.35	5.686	5.733	5.623	5.679		$7/2^{-}$	3/2
217	124	1650.15		7.60		20.38	1.01	10.56	-1.17	-9.96	-0.51	5.693	5.743	5.626	5.683		$7/2^{-}$	0+
18	125	1659.73		7.61		20.14	1.39	9.58	-0.94	-9.77	-0.67	5.702	5.755	5.630	5.687		$7/2^{-}$	1/2
19	126	1669.32		7.62		19.17	1.76	9.59	$\frac{-0.73}{-0.73}$	-8.78	-0.84	5.711	5.767	5.634	5.691		7/2-	0+
220	127	1675.44		7.62		15.71	2.27	6.12	$\frac{-0.52}{0.01}$	-9.15	-1.11	5.725	5.783	5.646	5.702		7/2-	11/
21	128	1683.02		7.62		13.70	2.76	7.58	$\frac{-0.31}{0.12}$	-6.85	-1.38	5.739	5.798	5.656	5.712		7/2-	0+
222	129	1689.04		7.61		13.60	3.26	6.02	$\frac{-0.12}{0.06}$	-6.76	-1.91	5.753	5.814	5.667	5.723		7/2-	11/ 0 ⁺
23	130	1696.52		7.61		13.50	3.72	7.48	0.06	-6.80	-1.65	5.767	5.830	5.677	5.734		7/2 ⁻ 7/2 ⁻	-
24 25	131 132	1702.45	1711.70	7.60 7.60	7.61	13.41	4.21 4.72	5.93 7.44	0.24 0.47	-6.70	-2.19	5.781 5.795	5.845 5.860	5.689 5.702	5.745 5.758		7/2 13/2 ⁺	11/ 0 ⁺
:25 !26	133	1709.89 1715.82	1/11./0	7.60 7.59	7.61	13.37 13.37	5.30	7. 44 5.93	0.47	-6.75 -6.69	-2.49 -2.75	5.809	5.875	5.702	5.769		13/2 ⁺	11/
27	134	1713.82	1726.87	7.59 7.59	7.61	13.37	5.82	7.39	1.00	-6.65	-2.73 -3.02	5.822	5.890	5.724	5.780		13/2 ⁺	0+
228	134	1723.21	1720.87	7.58	7.60	13.32	6.40	7.39 5.81	1.00	-6.56	-3.02 -3.28	5.836	5.905	5.736	5.791		13/2 ⁺	11/
29	136	1725.02	1733.31	7.58	7.61	13.20	6.91	7.31	1.52	-6.52	-3.28 -3.53	5.849	5.919	5.746	5.801		13/2 ⁺	0+
230	137	1741.89	1741.73	7.57	7.60	12.87	7.52	5.56	1.81	-6.16	-3.33 -3.87	5.864	5.934	5.758	5.814		13/2+	11,
:31	138	1741.03	1756.09	7.57	7.60	12.76	7.99	7.20	2.04	-6.18	-4.19	5.876	5.948	5.767	5.822		13/2+	0+
32	139	1753.96	1750.05	7.56	7.00	12.07	8.34	4.87	2.22	-6.17	-4.24	5.888	5.962	5.775	5.830		13/2+	9/2
33	140	1760.85	1769.91	7.56	7.60	11.76	8.72	6.89	2.40	-5.80	-4.55	5.898	5.975	5.781	5.836		13/2 ⁺	0+
34	141	1765.56	1775.97	7.55	7.59	11.60	9.03	4.71	2.56	-5.73	-4.67	5.909	5.988	5.787	5.842		13/2+	9/2
235	142	1772.12	1782.96	7.54	7.59	11.27	9.42	6.56	2.76	-5.64	-4.88	5.919	6.001	5.794	5.849		13/2 ⁺	0+
236	143	1776.70	1788.70	7.53	7.58	11.14	9.74	4.58	2.91	-5.57	-5.03	5.930	6.014	5.800	5.855		13/2+	9/2
237	144	1783.10	1795.27	7.52	7.57	10.98	10.13	6.40	3.11	-5.51	-5.22	5.941	6.026	5.806	5.861		13/2+	0+
238	145	1787.56	1800.76	7.51	7.57	10.86	10.45	4.46	3.28	-5.44	-5.39	5.952	6.039	5.813	5.868		13/2+	9/2
239	146	1793.85	1806.97	7.51	7.56	10.75	10.84	6.29	3.46	-5.41	-5.57	5.962	6.052	5.819	5.874		13/2+	0^{+}
240	147	1798.20	1812.04	7.49	7.55	10.64	11.20	4.35	3.66	-5.33	-5.76	5.973	6.065	5.826	5.880		13/2+	9/2
241	148	1804.40	1818.17	7.49	7.54	10.55	11.56	6.20	3.82	-5.31	-5.94	5.984	6.077	5.832	5.887		13/2+	0+
242	149	1808.62	1823.08	7.47	7.53	10.42	11.95	4.22	4.02	-5.24	-6.14	5.994	6.090	5.839	5.893		13/2+	9/2
243	150	1814.77		7.47		10.37	12.29	6.15	4.19	-5.22	-6.32	6.005	6.102	5.845	5.899		13/2 ⁺	0^+
244	151	1818.84		7.45		10.22	12.71	4.07	4.39	-5.14	-6.53	6.015	6.114	5.852	5.906		$13/2^{+}$	9/2
245	152	1824.96		7.45		10.19	13.04	6.12	4.55	-5.13	-6.69	6.026	6.126	5.858	5.912		$13/2^{+}$	0^{+}
46	153	1828.89		7.43		10.05	13.47	3.93	4.78	-5.05	-6.91	6.037	6.139	5.865	5.919		$13/2^{+}$	9/2
247	154	1835.00		7.43		10.04	13.80	6.11	4.93	-5.05	-7.05	6.047	6.151	5.871	5.925		$13/2^{+}$	0^+
248	155	1838.85		7.41		9.96	14.20	3.85	5.13	-5.01	-7.24	6.057	6.163	5.877	5.931		13/2+	15/
49	156	1844.87		7.41		9.87	14.56	6.02	5.30	-4.97	-7.42	6.068	6.175	5.884	5.938		13/2+	0^+
250	157	1848.66		7.39		9.81	14.96	3.79	5.50	-4.92	-7.61	6.078	6.187	5.890	5.944		13/2+	15/
251	158	1854.59		7.39		9.72	15.31	5.93	5.67	-4.89	-7.79	6.089	6.199	5.897	5.951		13/2+	0+
252	159	1858.31		7.37		9.65	15.70	3.72	5.87	-4.84	-7.98	6.099	6.211	5.903	5.957		13/2+	15/
253	160	1864.17		7.37		9.58	16.06	5.86	6.04	-4.81	-8.16	6.110	6.223	5.910	5.964		13/2+	0+
54	161	1867.83		7.35		9.52	16.40	3.66	6.21	-4.82	-8.32	6.121	6.236	5.917	5.970		13/2+	7/2
55	162	1873.60		7.35		9.43	16.77	5.77	6.39	-4.74	-8.51	6.131	6.247	5.923	5.976		13/2 ⁺	0 ⁺
256	163	1877.30		7.33		9.47	17.13	3.70	6.57	-4.74	-8.67	6.142	6.260	5.930	5.983		13/2 ⁺	$\frac{7}{2}$
257	164 165	1882.90		7.33 7.31		9.30 9.32	17.47	5.60 3.72	6.74 6.92	-4.67	-8.86	6.152	6.272	5.935	5.989		13/2 ⁺	7/2
258		1886.62					17.84			-4.66	-9.03	6.163	6.284	5.942 5.948	5.996		13/2 ⁺ 13/2 ⁺	0 ⁺
259	166	1892.06		7.31 7.29		9.16	18.12	5.44	7.06 7.25	-4.60	-9.23 -9.39	6.173	6.296 6.308		6.001 6.008		13/2 ⁺	7/2
260 261	167 168	1895.78		7.29 7.28		9.16 9.03	18.50	3.72 5.21	7.25 7.36	-4.58		6.184	6.320	5.955 5.960			,	7/2 0 ⁺
261 262	168	1901.09 1904.77		7.28 7.27		9.03 8.99	18.73 19.06	5.31 3.68	7.36 7.54	-4.52	-9.53	6.194 6.205	6.332	5.966	6.013 6.020		13/2 ⁺ 13/2 ⁺	-
:62 !63	170	1904.77		7.27 7.26		8.99 8.90	19.06	5.22	7.54 7.65	-4.49 -4.45	-9.71 -9.82	6.215	6.345	5.966	6.025		13/2 ⁺	7/2 0 ⁺
COS	1/0	1909.99		7.26 7.25		8.88	19.32	3.66	7.65 7.79	-4.45 -4.46	-9.82 -9.94	6.215	6.357	5.976	6.025		13/2 ⁺	5/2

Table 1 (continued)

265 266	172		(MeV)	(MeV)	(MeV)	S_{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
266		1918.74	7.24		8.75	19.85	5.09	7.91	-4.37	-10.08	6.236	6.369	5.982	6.035		13/2+	0+
	173	1922.41	7.23		8.76	20.13	3.67	8.04	-4.36	-10.21	6.247	6.382	5.987	6.040		13/2+	$5/2^{+}$
267	174	1927.32	7.22		8.58	20.33	4.91	8.15	-4.28	-10.33	6.256	6.394	5.991	6.044		13/2+	0+
268	175	1930.97	7.21		8.56	20.60	3.65	8.27	-4.24	-10.45	6.267	6.406	5.996	6.049		13/2+	5/2+
269	176	1935.71	7.20		8.39	20.75	4.74	8.35	-4.18	-10.54	6.276	6.418	5.999	6.052		13/2+	0+
270	177	1939.27	7.18		8.30	20.95	3.56	8.45	-4.10	-10.65	6.287	6.431	6.004	6.057		$13/2^{+}$	5/2+
271	178	1943.90	7.17		8.19	21.13	4.63	8.53	-4.07	-10.73	6.296	6.443	6.006	6.059		$13/2^{+}$	0+
272	179	1947.51	7.16		8.24	21.32	3.61	8.63	-4.06	-10.83	6.306	6.455	6.009	6.062		13/2+	1/2+
273	180	1951.86	7.15		7.96	21.47	4.35	8.70	-3.94	-10.90	6.316	6.468	6.012	6.065		13/2+	0+
274	181	1955.42	7.14		7.91	21.63	3.56	8.78	-3.91	-10.99	6.327	6.481	6.015	6.068		13/2+	3/2+
275	182	1959.56	7.13		7.70	21.76	4.14	8.85	-3.81	-11.07	6.337	6.494	6.018	6.071		13/2+	0+
276	183	1963.06	7.11		7.64	21.90	3.50	8.92	-2.74	-11.15	6.348	6.508	6.020	6.073		13/2+	3/2+
277	184	1967.12	7.10		7.56	22.11	4.06	9.06	-2.71	-11.17	6.356	6.520	6.019	6.071		7/2-	0 ⁺
278	185	1967.32	7.08		4.26	22.45	0.20	9.20	-2.85	-11.35	6.370	6.534	6.031	6.084		7/2-	13/2-
279	186	1968.99	7.06		1.87	22.70	1.67	9.34	-0.99	-11.47	6.383	6.548	6.040	6.093		7/2-	0 ⁺
280	187	1969.21	7.03		1.89	23.04	0.22	9.49	-1.00	-11.64	6.397	6.562	6.053	6.105		7/2-	13/2 ⁻ 0 ⁺
281 282	188	1970.90	7.01 6.99		1.91	23.29 23.64	1.69	9.61 9.78	-1.02 -1.03	-11.78	6.410	6.575 6.590	6.061 6.081	6.114		7/2 ⁻ 13/2 ⁺	13/2 ⁻
282	189 190	1971.16 1972.88	6.99 6.97		1.95 1.98	23.90	0.26 1.72		-1.03 -1.05	-12.03	6.426	6.603	6.090	6.133 6.142		13/2+ 13/2+	0 ⁺
283 284	190		6.95		2.00	23.90	0.28	9.91 10.08		-12.17 -12.33	6.439	6.617	6.103				13/2 ⁻
285	191	1973.16 1974.91	6.93		2.00	24.23	1.75	10.08	1.05 1.07	-12.33 -12.47	6.453 6.465	6.630	6.112	6.155 6.164		13/2 ⁺ 13/2 ⁺	0 ⁺
286	193	1975.19	6.91		2.03	24.85	0.28	10.21	-1.07 -1.06	-12.47 -12.65	6.479	6.643	6.125	6.177		13/2+	13/2 ⁻
287	194	1976.97	6.89		2.05	25.10	1.78	10.50	-1.00 -1.09	-12.03 -12.79	6.492	6.656	6.134	6.186		13/2 ⁺	0+
288	195	1977.23	6.87		2.04	25.43	0.26	10.56	-1.03	-12.75	6.505	6.670	6.146	6.197		13/2+	13/2 ⁻
289	196	1979.06	6.85		2.09	25.49	1.83	10.79	-1.09	-13.09	6.518	6.683	6.155	6.207		13/2+	0+
290	197	1979.27	6.83		2.04	25.94	0.21	10.92	-1.06	-13.31	6.531	6.696	6.165	6.217		13/2+	13/2-
291	198	1981.15	6.81		2.09	26.24	1.88	11.07	-1.09	-13.36	6.543	6.709	6.175	6.226		13/2+	0+
292	199	1981.40	6.79		2.13	26.50	0.25	11.19	-1.10	-13.51	6.556	6.722	6.184	6.235		13/2+	11/2 ⁻
293	200	1983.21	6.77		2.06	26.76	1.81	11.32	-1.07	-13.68	6.568	6.735	6.193	6.244		13/2+	0+
294	201	1983.49	6.75		2.09	27.02	0.28	11.45	-1.07	-13.79	6.580	6.748	6.202	6.253		13/2 ⁺	11/2-
295	202	1985.22	6.73		2.01	27.23	1.73	11.55	-1.04	-13.84	6.592	6.761	6.209	6.260		13/2+	0+
296	203	1985.49	6.71		2.00	27.48	0.27	11.67	-1.02	-13.99	6.604	6.774	6.217	6.269		13/2+	$11/2^{-}$
297	204	1987.17	6.69		1.95	27.66	1.68	11.77	-1.00	-14.05	6.615	6.787	6.223	6.274		13/2+	0+′
298	205	1987.40	6.67		1.91	27.89	0.23	11.88	-0.97	-14.16	6.628	6.800	6.231	6.282		13/2+	$11/2^{-}$
299	206	1989.04	6.65		1.87	28.06	1.64	11.97	-0.96	-14.28	6.639	6.812	6.236	6.288		13/2+	0+
300	207	1989.20	6.63		1.80	28.28	0.16	12.08	-0.91	-14.35	6.651	6.826	6.244	6.295		13/2+	$11/2^{-}$
301	208	1990.82	6.61		1.78	28.44	1.62	12.16	-0.91	-14.47	6.662	6.838	6.249	6.300		$13/2^{+}$	0^+
302	209	1990.86	6.59		1.66	28.66	0.04	12.27	-0.84	-14.56	6.674	6.852	6.256	6.307		$13/2^{+}$	$11/2^{-}$
303	210	1992.50	6.58		1.68	28.81	1.64	12.35	-0.86	-14.70	6.685	6.864	6.261	6.312		$13/2^{+}$	0^+
304	211	1992.38	6.55		1.52	28.94	-0.12	12.46	-0.78	-14.73	6.697	6.878	6.268	6.319		$13/2^{+}$	$11/2^{-}$
305	212	1994.07	6.54		1.57	29.17	1.69	12.53	-0.82	-14.82	6.708	6.890	6.273	6.324		$13/2^{+}$	0^+
306	213	1994.00	6.52		1.62	29.27	-0.07	12.60	-0.83	-14.79	6.719	6.907	6.266	6.317		7/2-	7/2-
307	214	1995.56	6.50		1.49	29.53	1.56	12.72	-0.78	-15.01	6.731	6.916	6.285	6.335		$13/2^{+}$	0^+
308	215	1995.52	6.48		1.52	29.67	$\frac{-0.04}{0.02}$	12.80	-0.79	-14.97	6.742	6.933	6.278	6.329		7/2-	7/2-
309	216	1996.99	6.46		1.43	29.87	1.47	12.89	-0.76	-15.19	6.755	6.943	6.296	6.347		13/2+	0+
310	217	1996.94	6.44		1.42	29.97	<u>-0.05</u>	12.97	-0.77	-15.15	6.766	6.960	6.289	6.340		7/2-	7/2-
311	218	1998.40	6.43		1.41	30.22	1.46	13.08	-0.75	-15.37	6.778	6.969	6.307	6.358		13/2+	0+
312	219	1998.35	6.40		1.41	30.29	-0.05	13.12	-0.75	-15.34	6.789	6.986	6.300	6.351		7/2-	7/2-
313	220	1999.79	6.39		1.39	30.56	1.44	13.25	-0.75	-15.56	6.801	6.995	6.318	6.369		13/2+	0+
314	221	1999.76	6.37		1.41	30.60	<u>-0.03</u>	13.28	-0.76	-15.50	6.816	7.019	6.309	6.360		7/2-	3/2-
315	222	2001.18	6.35		1.39	30.89	1.42	13.42	-0.75	-15.73	6.824	7.021	6.329	6.380		13/2+	0+
316	223	2001.19	6.33		1.43	30.93	0.01	13.45	-0.76	-15.67	6.839	7.045	6.320	6.370		7/2-	3/2-
317	224	2002.58	6.32		1.40	31.22	1.39	13.59	-0.76	-15.91	6.848	7.047	6.340	6.390		13/2+	0 ⁺
318	225	2002.63	6.30		1.44	31.27	0.05	13.61	-0.77	-15.84	6.862	7.070	6.330	6.381		7/2-	3/2-

9 228 2004.00	A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n	S _p (MeV)	λ_n (MeV)	λ_p	R _m	R _n	R_p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
0 227 2004.09 6.26 1.46 31.64 0.09 13.79 -0.78 -1.612 6.887 7.094 6.333 6.403 13.72 13.72 12.25 2005.43 6.25 1.43 31.88 1.34 13.93 -0.77 -1.612 6.887 7.094 6.333 6.403 13.72 13.72 13.21 13.21 13.22 10.35 13.80 13.81 13.93 13.91 13.93 13.91 13.93 13.91 13.93 13.91 13.91 13.93 13.91	319	226		(IVIEV)		(IVIEV)		· , ,		· '				, ,	, ,		(1111)	12 /2+	0+
1 228 2005.43	320																		3/2-
2 2 29 2008.58 6.23 1.49 32.01 0.15 1.400 -0.79 -16.30 6.909 7.118 6.364 6.414 13/2" 3/2" 0.008.59 6.21 1.46 3.221 1.31 1.410 -0.78 -16.418 6.931 7.118 6.364 6.414 13/2" 3/2" 0.008.59 6.12 1.46 3.221 1.31 1.410 -0.78 -16.418 6.931 7.143 6.375 6.425 13/2" 0.008.59 6.18 1.49 32.36 0.18 1.418 -0.80 -16.43 6.931 7.143 6.375 6.425 13/2" 3/2" 0.008.59 6.18 1.49 32.35 1.31 1.42 1.20 1.00 1.648 6.931 7.143 6.375 6.425 13/2" 3/2" 0.008.59 6.18 1.49 32.35 1.31 1.42 1.42 1.42 1.42 1.42 1.42 1.42 1.4	321																		0+
3 230 2006.89 6.21 1.46 32.21 1.31 1.41.0 -0.78 -16.41 6.916 7.124 6.372 6.422 131/2" 07 07 07 0.100.000 1.49 32.36 0.18 1.41.8 -0.80 -1.684 6.931 7.143 6.375 6.425 13.72* 3.75 5.75 5.75 5.75 5.75 5.75 5.75 5.75	322																		3/2
4 221 2007.07	323																		0+
5 292 2008.38 6.18 1.49 32.55 1.31 14.27 -0.79 -16.58 6.938 7.140 6.382 6.432 13/2" 07 0.29 0.20 0.20 0.20 0.20 0.20 0.20 0.20	324																		3/2
6 233 2008.57 6.16 1.50 22.69 0.19 14.35 -0.81 -16.65 6.953 7.167 6.386 6.435 13/2* 3,7 7 234 2009.89 6.15 1.51 32.87 13.22 14.44 -0.81 -16.65 6.961 7.174 6.392 6.442 13/2* 0.9 2.9 2.9 2.0 2.0 0.10 6.13 1.53 33.03 0.21 14.51 -0.82 -16.82 6.9 0.9 7.191 6.306 6.442 13/2* 3,9 2.9 2.9 2.0 0.10 6.13 1.53 33.02 0.21 14.51 -0.82 -16.83 6.9 0.9 7.196 6.403 6.442 13/2* 3,9 2.0 0.2 3.0 0.10 6.13 1.53 33.0 0.21 14.51 -0.82 -16.93 6.9 0.9 7.196 6.403 6.442 13/2* 3,9 0.2 3.0 1.0 0.2 3.0	325																		0+
7 234 2009.89 6.15 1.51 32.87 1.32 14.44 -0.81 -16.75 6.661 7.174 6.392 6.442 13/2* 0.7 8 250 1.0 1 1.5 1 1.	326																		3/2
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3 240 2014.61 6.05 1.60 33.89 1.35 14.95 -0.84 -17.24 7.027 7.248 6.423 6.472 13/2+ 0/4 241 2014.89 6.03 1.63 34.02 0.28 15.02 -0.85 -17.32 7.039 7.261 6.428 6.478 13/2+ 3/2 0.25 15/2+ 0/4 2016.24 6.02 1.63 34.23 1.35 15.12 -0.85 -17.32 7.039 7.261 6.428 6.478 13/2+ 3/2 0.25 15/2+ 0/4 2016.55 6.00 1.66 34.37 0.31 15.18 -0.87 -17.48 7.062 7.288 6.436 6.486 13/2+ 1/2 0/4 12/2+ 0/4 2017.90 5.99 1.66 34.58 1.35 15.12 -0.85 -17.52 7.084 7.311 6.446 6.466 13/2+ 1/2 0/4 13/2+ 0/	331	238	2013.01		6.08		1.57	33.55	1.34	14.78		-17.09	7.005	7.223	6.413	6.462			0+
3 240 2014.61 6.05 1.60 33.89 1.35 14.95 -0.84 -17.24 7.027 7.248 6.423 6.472 13/2+ 0/4 241 2014.89 6.03 1.63 34.02 0.28 15.02 -0.85 -17.32 7.039 7.261 6.428 6.478 13/2+ 3/2 0.25 15/2+ 0/4 2016.24 6.02 1.63 34.23 1.35 15.12 -0.85 -17.32 7.039 7.261 6.428 6.478 13/2+ 3/2 0.25 15/2+ 0/4 2016.55 6.00 1.66 34.37 0.31 15.18 -0.87 -17.48 7.062 7.288 6.436 6.486 13/2+ 1/2 0/4 12/2+ 0/4 2017.90 5.99 1.66 34.58 1.35 15.12 -0.85 -17.52 7.084 7.311 6.446 6.466 13/2+ 1/2 0/4 13/2+ 0/	332	239	2013.26		6.06		1.59	33.68	0.25	14.86	-0.84	-17.15	7.018	7.238	6.418	6.467		13/2+	3/2
4 241 2014.89 6.03 1.63 3402 0.28 15.02 -0.85 -17.32 7.039 7.261 6.428 6.478 13/2* 3/2 0.20 1.63 3423 1.35 15.12 -0.85 -17.41 7.049 7.272 6.433 6.482 13/2* 0/3 0/3 1.51.8 -0.87 -17.48 7.062 7.288 6.436 6.486 13/2* 0/3 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25	333																		0+
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	334	241	2014.89		6.03		1.63	34.02	0.28	15.02	-0.85	-17.32	7.039	7.261	6.428	6.478		13/2+	3/2
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	335	242	2016.24		6.02		1.63	34.23	1.35	15.12	-0.85	-17.41	7.049	7.272	6.433	6.482		13/2+	0+
8 245 2018.25 5.97 1.70 34.73 0.35 15.35 -0.88 -17.65 7.084 7.311 6.446 6.496 13/2+ 1/2	336	243	2016.55		6.00		1.66	34.37	0.31	15.18	-0.87	-17.48	7.062	7.288	6.436	6.486		13/2+	1/2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	337	244	2017.90		5.99		1.66	34.58	1.35	15.29	-0.86	-17.58	7.071	7.296	6.442	6.492		13/2+	0^{+}
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	338	245	2018.25		5.97		1.70	34.73	0.35	15.35	-0.88	-17.65	7.084	7.311	6.446	6.496		13/2+	1/2
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	339	246	2019.58		5.96		1.68	34.92	1.33	15.45	-0.87	-17.74	7.092	7.320	6.452	6.501		13/2+	0+
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	340	247	2019.99		5.94		1.74	35.11	0.41	15.54	-0.89	-17.81	7.105	7.334	6.456	6.506		13/2+	1/2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	341	248	2021.30		5.93		1.72	35.27	1.31	15.62	-0.88	-17.91	7.114	7.343	6.462	6.511		13/2+	0^+
4 251 2023.54 5.88 1.79 35.86 0.49 15.89 -0.91 -18.15 7.146 7.379 6.476 6.526 13/2+ 1/2 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	342	249	2021.75		5.91		1.76	35.48	0.45	15.71	-0.90	-17.98	7.125	7.356	6.466	6.516		$13/2^{+}$	1/2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	343	250	2023.05		5.90		1.75	35.63	1.30	15.79	-0.89	-18.06	7.135	7.367	6.471	6.520		$13/2^{+}$	0^+
6 253 2025.36 5.85 1.82 36.25 0.54 16.07 -0.92 -18.31 7.167 7.401 6.486 6.535 13/2+ 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	344		2023.54				1.79		0.49			-18.15	7.146						1/2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	345				5.87				1.28			-18.22	7.157						0^+
8 255 2027.20 5.83 1.84 36.63 0.59 16.24 -0.93 -18.49 7.188 7.424 6.496 6.545 13/2+ 1/9 256 2028.43 5.81 1.82 36.68 1.23 16.27 -0.91 -18.53 7.200 7.438 6.497 6.546 13/2+ 0/9 0.257 2029.07 5.80 1.87 37.01 0.64 16.41 0.59 -18.65 7.208 7.446 6.505 6.554 13/2+ 0/9 1.258 2030.27 5.78 1.84 37.03 1.20 16.42 -1.77 -18.68 7.221 7.463 6.505 6.554 13/2+ 0/9 10.30	346		2025.36		5.85		1.82		0.54	16.07	-0.92	-18.31	7.167	7.401					1/2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	347	254					1.79		1.25	16.11	-0.91	-18.38	7.178					,	0^+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	348				5.83		1.84		0.59										1/2
$\begin{array}{c} 1 \\ 258 \\ 2030.27 \\ 10.30 \\ \end{array} \begin{array}{c} 5.78 \\ \end{array} \begin{array}{c} 1.84 \\ \end{array} \begin{array}{c} 37.03 \\ \end{array} \begin{array}{c} 1.20 \\ \end{array} \begin{array}{c} 16.42 \\ \end{array} \begin{array}{c} -1.77 \\ -18.68 \\ \end{array} \begin{array}{c} -1.21 \\ \end{array} \begin{array}{c} 7.463 \\ \end{array} \begin{array}{c} 6.505 \\ \end{array} \begin{array}{c} 6.554 \\ \end{array} \begin{array}{c} 6.554 \\ \end{array} \begin{array}{c} 13/2^{+} \\ \end{array} \begin{array}{c} 9^{-1} \\ \end{array} \begin{array}{c} 9^{-1} \\ \end{array} \begin{array}{c} 9^{-1} \\ \end{array} \begin{array}{c} 9^{-1} \\ \end{array} \begin{array}{c} 1.20 \\ \end{array} \begin{array}{c} -1.77 \\ \end{array} \begin{array}{c} -18.68 \\ \end{array} \begin{array}{c} 7.221 \\ \end{array} \begin{array}{c} 7.463 \\ \end{array} \begin{array}{c} 6.505 \\ \end{array} \begin{array}{c} 6.554 \\ \end{array} \begin{array}{c} 1.3/2^{+} \\ \end{array} \begin{array}{c} 9^{-1} \\ \end{array} \begin{array}{c} 9^{-1} \\ \end{array} \begin{array}{c} 9^{-1} \\ \end{array} \begin{array}{c} 1.20 \\ \end{array} \begin{array}{$	349																		0^{+}
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	350																		1/2
= 94 (Pu) 9 125 1661.10	351	258			5.78		1.84	37.03	1.20	16.42	-1.77	-18.68	7.221	7.463	6.505	6.554		$13/2^{+}$	0^+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	σ		10.30																
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Z = 9 219	. ,	1661 10		7.50			0.42	0.72	1 27	10.12	0.17	F 700	E 7E7	F C 4 4	F 700		0+	1/2-
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							10.50												0+
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	22 <i>1</i> 228			1720.64		7.50													
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	228 229																		11/2
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	230 231																		11/3
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5 141 1770.41 1781.04 7.53 7.58 12.00 7.41 4.91 4.85 -5.92 -3.36 5.914 5.989 5.798 5.853 5.870 0^+ 9/	233 234																		
	234 235																		9/2
0 1.00 كر 3.50 كر 3.50 كر 2.50 كر 3.50	235 236																		9/2 0 ⁺
	۷٥٥	142	1///.10	1/08.39	1.33	7.58	11.00	7.80	0.75	5.04	-5.83	-5.55	5.924	0.002	5.804	3.639	3.673	U.	U.

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
237	143	1781.94	1794.27	7.52	7.57	11.53	8.15	4.78	5.24	-5.76	-3.73	5.935	6.015	5.810	5.865	5.882	0+	$9/2^{+}$
238	144	1788.53	1801.27	7.51	7.57	11.37	8.54	6.59	5.43	-5.70	-3.93	5.945	6.027	5.817	5.872		0+	0+
239	145	1793.19	1806.91	7.50	7.56	11.25	8.91	4.66	5.63	-5.63	-4.11	5.956	6.040	5.823	5.878	5.895	0+	9/2+
240	146	1799.66	1813.45	7.50	7.56	11.13	9.27	6.47	5.81	-5.59	-4.30	5.966	6.052	5.829	5.884		0 ⁺	0+
241	147	1804.20	1818.69	7.49	7.55	11.01	9.66	4.54	6.00	-5.52	-4.48	5.977	6.065	5.836	5.890		0^{+}	9/2 ⁺ 0 ⁺
242	148	1810.59	1825.00	7.48	7.54	10.93	10.01	6.39	6.19	-5.49	-4.67	5.987	6.077	5.842	5.896		0+	
243 244	149 150	1814.99 1821.33	1830.03 1836.05	7.47 7.46	7.53 7.52	10.79 10.74	10.39 10.75	4.40 6.34	6.37 6.56	-5.42 -5.40	-4.86 -5.04	5.998 6.008	6.090 6.102	5.848 5.855	5.903 5.909		0+	9/2 ⁺ 0 ⁺
244	151	1825.59	1840.75	7.46 7.45	7.52 7.51	10.74	11.14	4.26	6.75	-5.40	-5.23	6.019	6.102	5.861	5.916		0+	9/2 ⁺
245	152	1831.89	1846.61	7.45 7.45	7.51	10.56	11.14	6.30	6.93	-5.32 -5.31	-5.25 -5.40	6.029	6.126	5.867	5.922		0^{+}	0 ⁺
247	153	1835.99	1040.01	7.43	7.51	10.40	11.88	4.10	7.10	-5.22	-5.60	6.040	6.139	5.875	5.929		0^{+}	9/2 ⁺
248	154	1842.28		7.43		10.39	12.21	6.29	7.10	-5.22	-5.77	6.050	6.151	5.880	5.934		0+	0+
249	155	1846.31		7.41		10.32	12.59	4.03	7.46	-5.18	-5.96	6.060	6.162	5.887	5.941		0+	15/2 ⁻
250	156	1852.50		7.41		10.22	12.93	6.19	7.63	-5.14	-6.13	6.070	6.175	5.893	5.947		0+	0+
251	157	1856.47		7.40		10.16	13.31	3.97	7.81	-5.09	-6.32	6.081	6.186	5.900	5.954		0+	15/2 ⁻
252	158	1862.57		7.39		10.07	13.65	6.10	7.98	-5.06	-6.49	6.091	6.199	5.907	5.960		0^+	0+
253	159	1866.46		7.38		9.99	14.02	3.89	8.15	-5.00	-6.68	6.102	6.210	5.913	5.967		0^+	15/2-
254	160	1872.48		7.37		9.91	14.35	6.02	8.31	-4.98	-6.85	6.112	6.223	5.920	5.973		0^+	0+
255	161	1876.32		7.36		9.86	14.70	3.84	8.49	-4.99	-7.02	6.123	6.236	5.926	5.980		0^+	$7/2^{+}$
256	162	1882.25		7.35		9.77	15.04	5.93	8.65	-4.90	-7.19	6.133	6.247	5.933	5.986		0^+	0+
257	163	1886.12		7.34		9.80	15.39	3.87	8.82	-4.90	-7.37	6.144	6.259	5.940	5.993		0^+	$7/2^{+}$
258	164	1891.87		7.33		9.62	15.71	5.75	8.97	-4.82	-7.53	6.154	6.271	5.945	5.999		0^+	0+
259	165	1895.76		7.32		9.64	16.06	3.89	9.14	-4.81	-7.70	6.165	6.283	5.952	6.006		0^+	$7/2^{+}$
260	166	1901.35		7.31		9.48	16.35	5.59	9.29	-4.74	-7.85	6.175	6.295	5.958	6.011		0^+	0^+
261	167	1905.24		7.30		9.48	16.71	3.89	9.46	-4.72	-8.02	6.186	6.307	5.965	6.018		0^+	$7/2^{+}$
262	168	1910.69		7.29		9.34	16.96	5.45	9.60	-4.67	-8.15	6.196	6.319	5.970	6.023		0^+	0^+
263	169	1914.53		7.28		9.29	17.30	3.84	9.76	-4.63	-8.32	6.207	6.331	5.977	6.030		0^+	$7/2^{+}$
264	170	1919.87		7.27		9.18	17.53	5.34	9.88	-4.59	-8.44	6.217	6.343	5.982	6.035		0+	0+
265	171	1923.67		7.26		9.14	17.81	3.80	10.02	-4.60	-8.57	6.227	6.356	5.987	6.040		0+	5/2+
266	172	1928.90		7.25		9.03	18.07	5.23	10.16	-4.50	-8.70	6.237	6.368	5.992	6.045		0+	0+
267	173	1932.71		7.24		9.04	18.34	3.81	10.30	-4.49	-8.84	6.248	6.380	5.997	6.050		0+	5/2+
268	174	1937.74		7.23		8.84	18.57	5.03	10.42	-4.40	-8.95	6.258	6.392	6.001	6.054		0+	0+
269	175	1941.52		7.22		8.81	18.82	3.78	10.55	-4.36	-9.08	6.268	6.404	6.006	6.059		0+	5/2 ⁺
270	176	1946.37		7.21		8.63	19.01	4.85	10.66	-4.29	-9.17	6.277	6.416	6.009	6.062		0^{+}	0 ⁺
271	177	1950.05		7.20		8.53	19.23	3.68	10.78	-4.21	-9.30	6.288	6.429	6.013	6.066		0 ⁺	5/2 ⁺
272 273	178 179	1954.79		7.19 7.17		8.42 8.46	19.42 19.63	4.74 3.72	10.89 11.00	-4.18 -4.18	-9.38 -9.48	6.297 6.307	6.440 6.453	6.015 6.018	6.068 6.071		0+	0^{+} $1/2^{+}$
273 274	180	1958.51 1962.98		7.17		8.19	19.82	3.72 4.47	11.12	-4.18 -4.05	-9.48 -9.58	6.317	6.466	6.021	6.074		0+	0+
274	181	1966.65		7.10		8.14	20.01	3.67	11.12	-4.03 -4.02	-9.58 -9.68	6.327	6.479	6.023	6.074		0+	3/2 ⁺
276	182	1970.91		7.13		7.93	20.20	4.26	11.25	-3.93	-9.77	6.337	6.492	6.026	6.079		0+	0 ⁺
277	183	1974.52		7.13		7.87	20.38	3.61	11.46	-3.29	-9.86	6.347	6.505	6.028	6.081		0+	3/2 ⁺
278	184	1978.64		7.12		7.73	20.58	4.12	11.52	-2.79	-9.96	6.357	6.518	6.031	6.084		0+	0+
279	185	1979.02		7.09		4.50	20.90	0.38	11.70	-3.18	-10.12	6.372	6.532	6.044	6.097		0+	13/2-
280	186	1980.83		7.07		2.19	21.18	1.81	11.84	-1.14	-10.26	6.384	6.545	6.053	6.106		0+	0+
281	187	1981.22		7.05		2.20	21.50	0.39	12.01	-1.15	-10.42	6.398	6.559	6.066	6.119		0^+	13/2-
282	188	1983.05		7.03		2.22	21.76	1.83	12.15	-1.16	-10.56	6.411	6.573	6.075	6.128		0^+	0+
283	189	1983.46		7.01		2.24	22.08	0.41	12.30	-1.17	-10.72	6.425	6.586	6.088	6.141		0^+	13/2-
284	190	1985.32		6.99		2.27	22.35	1.86	12.44	-1.19	-10.86	6.438	6.600	6.098	6.150		0^{+}	0+
285	191	1985.74		6.97		2.28	22.66	0.42	12.58	-1.18	-11.01	6.452	6.613	6.110	6.163		0^{+}	$13/2^{-}$
286	192	1987.62		6.95		2.30	22.92	1.88	12.71	-1.20	-11.15	6.464	6.626	6.120	6.172		0^+	0+
287	193	1988.04		6.93		2.30	23.23	0.42	12.85	-1.19	-11.30	6.478	6.640	6.132	6.184		0^+	$13/2^{-}$
288	194	1989.96		6.91		2.34	23.49	1.92	12.99	-1.22	-11.43	6.490	6.653	6.141	6.193		0^+	0+
289	195	1990.35		6.89		2.31	23.78	0.39	13.12	-1.19	-11.58	6.504	6.666	6.153	6.205		0^+	$13/2^{-}$
290	196	1992.31		6.87		2.35	24.04	1.96	13.25	-1.22	-11.71	6.516	6.679	6.162	6.214		0^{+}	0^{+}

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
291	197	1992.65		6.85		2.30	24.30	0.34	13.38	-1.18	-11.85	6.529	6.692	6.173	6.224		0+	13/2
292	198	1994.66		6.83		2.35	24.58	2.01	13.51	-1.21	-11.98	6.541	6.705	6.182	6.234		0^+	0^+
293	199	1995.04		6.81		2.39	24.83	0.38	13.64	-1.22	-12.11	6.554	6.719	6.191	6.243		0+	11/2
294	200	1996.97		6.79		2.31	25.08	1.93	13.76	-1.19	-12.24	6.566	6.731	6.200	6.251		0+	0^{+}
295	201	1997.38		6.77		2.34	25.34	0.41	13.89	-1.18	-12.36	6.578	6.744	6.209	6.260		0^+	11/2
296	202	1999.23		6.75		2.26	25.56	1.85	14.01	-1.15	-12.48	6.590	6.757	6.216	6.267		0+	0^+
297	203	1999.62		6.73		2.24	25.80	0.39	14.13	-1.14	-12.60	6.602	6.770	6.224	6.276		0+	11/2
298	204	2001.41		6.72		2.18	26.01	1.79	14.24	-1.12	-12.70	6.613	6.782	6.230	6.281		0^+	0^+
299	205	2001.77		6.69		2.15	26.25	0.36	14.37	-1.08	-12.82	6.625	6.795	6.238	6.289		0^+	11/2
300	206	2003.51		6.68		2.10	26.44	1.74	14.47	-1.07	-12.92	6.636	6.808	6.243	6.294		0^+	0^+
301	207	2003.79		6.66		2.02	26.67	0.28	14.59	-1.02	-13.03	6.648	6.821	6.250	6.301		0^+	11/2
302	208	2005.52		6.64		2.01	26.86	1.73	14.70	-1.02	-13.13	6.659	6.833	6.255	6.306		0^+	0^+
303	209	2005.67		6.62		1.88	27.08	0.15	14.81	-0.94	-13.24	6.671	6.846	6.263	6.313		0^+	11/2
304	210	2007.41		6.60		1.89	27.26	1.74	14.91	-0.96	-13.34	6.681	6.858	6.267	6.318		0^+	0^{+}
305	211	2007.39		6.58		1.72	27.47	-0.02	15.01	-0.87	-13.44	6.694	6.872	6.275	6.325		0^+	11/2
306	212	2009.19		6.57		1.78	27.65	1.80	15.12	-0.91	-13.54	6.704	6.884	6.279	6.330		0^+	0^{+}
307	213	2009.13		6.54		1.74	27.73	-0.06	15.13	-0.92	-13.59	6.718	6.902	6.282	6.332		0^+	7/2
308	214	2010.87		6.53		1.68	28.03	1.74	15.31	-0.87	-13.73	6.727	6.910	6.291	6.342		0^{+}	0+
309	215	2010.88		6.51		1.75	28.16	0.01	15.36	-0.88	-13.79	6.741	6.928	6.294	6.344		0^+	7/2-
310	216	2012.48		6.49		1.61	28.38	1.60	15.49	-0.85	-13.92	6.750	6.936	6.303	6.353		0^+	0^{+}
311	217	2012.50		6.47		1.62	28.53	0.02	15.56	-0.86	-13.98	6.764	6.953	6.306	6.356		0^+	7/2
312	218	2014.06		6.46		1.58	28.74	1.56	15.66	-0.84	-14.11	6.774	6.962	6.314	6.365		0^+	0+
313	219	2014.08		6.43		1.58	28.85	0.02	15.73	-0.84	-14.17	6.787	6.979	6.318	6.368		0^{+}	7/2
314	220	2015.63		6.42		1.57	29.09	1.55	15.84	-0.83	-14.29	6.797	6.988	6.326	6.376		0^{+}	$0^{'+}$
315	221	2015.66		6.40		1.58	29.18	0.03	15.90	-0.84	-14.36	6.810	7.004	6.329	6.380		0^{+}	7/2
316	222	2017.19		6.38		1.56	29.43	1.53	16.01	-0.83	-14.47	6.819	7.014	6.337	6.387		0^{+}	0+
317	223	2017.24		6.36		1.58	29.50	0.05	16.05	-0.84	-14.54	6.832	7.029	6.341	6.391		0^{+}	7/2
318	224	2018.76		6.35		1.57	29.77	1.52	16.18	-0.84	-14.65	6.842	7.039	6.348	6.398		0^{+}	0+
319	225	2018.85		6.33		1.61	29.83	0.09	16.22	-0.85	-14.69	6.859	7.061	6.350	6.400		0+	3/2
320	226	2020.35		6.31		1.59	30.12	1.50	16.35	-0.84	-14.83	6.865	7.065	6.359	6.409		0+	0+
321	227	2020.48		6.29		1.63	30.18	0.13	16.39	-0.86	-14.87	6.881	7.085	6.361	6.411		0^{+}	3/2
322	228	2021.95		6.28		1.60	30.45	1.47	16.52	-0.85	-15.00	6.888	7.090	6.370	6.420		0^{+}	0+
323	229	2022.13		6.26		1.65	30.55	0.18	16.55	-0.87	-15.05	6.903	7.109	6.372	6.422		0^{+}	3/2
324	230	2023.57		6.25		1.62	30.78	1.44	16.68	-0.86	-15.17	6.910	7.115	6.380	6.430		0+	0+
325	231	2023.81		6.23		1.68	30.92	0.24	16.74	-0.88	-15.22	6.925	7.134	6.383	6.433		0+	3/2
326	232	2025.22		6.21		1.65	31.11	1.41	16.84	-0.87	-15.34	6.932	7.140	6.391	6.441		0+	0+
327	233	2025.49		6.19		1.68	31.27	0.27	16.92	-0.89	-15.40	6.947	7.157	6.394	6.444		0+	3/2
328	234	2026.90		6.18		1.68	31.45	1.41	17.01	-0.88	-15.51	6.954	7.164	6.401	6.451		0+	0+
329	235	2027.18		6.16		1.69	31.59	0.28	17.08	-0.90	-15.57	6.968	7.181	6.405	6.455		0+	3/2
330	236	2028.60		6.15		1.70	31.77	1.42	17.16	-0.90	-15.68	6.976	7.189	6.412	6.461		0+	0+
331	237	2028.91		6.13		1.73	31.93	0.31	17.10	-0.91	-15.75	6.990	7.105	6.416	6.465		0+	3/2
332	238	2030.33		6.12		1.73	32.10	1.42	17.32	-0.91	-15.84	6.998	7.213	6.422	6.472		0+	0+
333	239	2030.55		6.10		1.76	32.10	0.34	17.41	-0.91	-15.92	7.011	7.213	6.426	6.476		0+	3/2
334	240			6.08				1.43	17.49	-0.92	-16.01		7.237				0+	0+
335	240	2032.10 2032.46		6.07		1.77 1.79	32.44 32.59	0.36	17.49	-0.92 -0.93	-16.01 -16.09	7.020 7.032	7.257 7.251	6.432 6.437	6.482 6.487		0+	3/2
336	241	2032.40		6.05		1.79	32.76	1.42	17.57	-0.93 -0.93	-16.09 -16.17	7.032	7.251	6.442	6.491		0+	0 ⁺
337	242	2033.88		6.04		1.78	32.70	0.39	17.04	-0.93 -0.94	-16.17 -16.26	7.042	7.201	6.447	6.497		0+	3/2
338	243 244	2034.27		6.02		1.81	33.09	1.43	17.72	-0.94 -0.94	-16.26 -16.33	7.054	7.275 7.285	6.452	6.501		0+	3/2 0 ⁺
ააი 339	244	2035.70		6.02			33.22	0.42	17.80		-16.33 -16.39	7.063	7.285 7.301	6.455			0+	1/2
						1.85				-0.96					6.504		0 ⁺	0 ⁺
340	246	2037.54		5.99		1.84	33.41	1.42	17.96	-0.95	-16.49	7.085	7.309	6.461	6.510			
341	247	2038.01		5.98		1.89	33.56	0.47	18.02	-0.97	-16.55	7.097	7.324	6.465	6.514		0 ⁺	1/2
342	248	2039.41		5.96		1.87	33.73	1.40	18.11	-0.96	-16.64	7.106	7.333	6.470	6.520		0+	0+
343	249	2039.93		5.95		1.92	33.89	0.52	18.18	-0.98	-16.71	7.118	7.347	6.475	6.524		0+	1/2
344	250	2041.31		5.93		1.90	34.05	1.38	18.26	-0.97	-16.79	7.128	7.357	6.479	6.528		0^+	0^+

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
345	251	2041.88		5.92		1.95	34.23	0.57	18.34	-0.99	-16.87	7.139	7.369	6.484	6.533		0+	1/2-
346	252	2043.23		5.91		1.92	34.37	1.35	18.41	-0.97	-16.94	7.149	7.381	6.488	6.537		0+	0+
347	253 254	2043.85		5.89		1.97	34.56	0.62	18.49	-0.99	-17.03	7.160	7.392	6.493	6.542		0 ⁺	1/2 ⁻ 0 ⁺
348 349	254 255	2045.17 2045.85		5.88 5.86		1.94 2.00	34.67 34.89	1.32 0.68	18.56 18.65	-0.98 -1.00	-17.08 -17.18	7.171 7.181	7.405 7.415	6.496 6.502	6.545 6.551		0+	1/2-
350	256	2045.85		5.85		1.96	34.89	1.28	18.70	-0.98	-17.18 -17.22	7.191	7.413	6.504	6.553		0+	0+
351	257	2047.13		5.83		2.02	35.21	0.74	18.80	-0.05	-17.32	7.132	7.438	6.511	6.560		0+	1/2-
352	258	2049.11		5.82		1.98	35.26	1.24	18.84	-1.87	-17.35	7.214	7.454	6.511	6.560		0+	0+
σ	200	11.63		5,62			30.20	.,	10.01	1.07	17,50	7,211	71101	0,011	0.016			
	5 (Am)	1675.05		7.55			0.51	6.55	1.20	0.56	0.00	F 720	F 707	F 674	F 707		7./2-	11 /2+
222	127	1675.95		7.55		14.61	0.51	6.57	-1.28	-9.56	0.09	5.738	5.787	5.671	5.727		7/2-	11/2 ⁺ 0 ⁺
223 224	128 129	1683.99 1690.47		7.55 7.55		14.61 14.52	0.97 1.43	8.04 6.48	-1.07 -0.86	-7.30 -7.25	-0.14 -0.38	5.752 5.766	5.803 5.818	5.682 5.693	5.738 5.749		7/2 ⁻ 7/2 ⁻	0 ' 11/2 ⁺
224	130	1690.47		7.55 7.55		14.52	1.43	5.48 7.95	-0.86 -0.65	-7.25 -7.22	-0.38 -0.61	5.779	5.834	5.703	5.759		7/2 7/2 ⁻	0+
226	131	1704.81		7.53 7.54		14.43	2.36	6.39	-0.03 -0.46	-7.22 -7.16	-0.84	5.793	5.849	5.714	5.770		7/2 ⁻	11/2 ⁺
227	132	1712.68		7.54		14.26	2.79	7.87	-0.26	-7.13	-1.07	5.806	5.864	5.724	5.780		$\frac{7}{2}$	0+
228	133	1719.06		7.54		14.25	3.24	6.38	0.01	-7.14	-1.30	5.821	5.879	5.738	5.794		13/2 ⁺	11/2 ⁺
229	134	1726.90		7.54		14.22	3.69	7.84	0.26	-7.11	-1.52	5.834	5.894	5.749	5.804		13/2+	0+'
230	135	1733.19		7.54		14.13	4.17	6.29	0.53	-7.02	-1.76	5.848	5.909	5.760	5.816		13/2+	$11/2^{+}$
231	136	1740.95		7.54		14.05	4.62	7.76	0.78	-6.98	-1.98	5.861	5.923	5.771	5.826		$13/2^{+}$	0^+
232	137	1747.03		7.53		13.84	5.14	6.08	1.09	-6.59	-2.24	5.875	5.938	5.784	5.839		$13/2^{+}$	$11/2^{+}$
233	138	1754.66		7.53		13.71	5.57	7.63	1.32	-6.61	-2.46	5.887	5.952	5.793	5.848		13/2+	0+
234	139	1759.90		7.52		12.87	5.94	5.24	1.49	-6.60	-2.64	5.899	5.966	5.800	5.855		13/2+	9/2+
235	140	1767.18	1777.81	7.52	7.57	12.52	6.33	7.28	1.68	-6.18	-2.84	5.909	5.977	5.805	5.860	5.893	13/2+	0+
236	141	1772.24		7.51		12.34	6.68	5.06	1.83	-6.10	-3.02	5.919	5.991	5.812	5.866	E 00E	13/2 ⁺	$9/2^{+}$ 0^{+}
237 238	142 143	1779.21 1784.14	1798.23	7.51 7.50	7.56	12.03 11.90	7.09 7.44	6.97 4.93	2.05 2.20	-6.01 -5.94	-3.22 -3.40	5.929 5.940	6.003 6.016	5.818 5.824	5.873 5.879	5.905	13/2 ⁺ 13/2 ⁺	9/2 ⁺
239	143	1790.93	1805.33	7.30 7.49	7.55	11.90	7.44	4.93 6.79	2.40	-5.88	-3.40 -3.60	5.950	6.028	5.830	5.885		13/2+	9/2 · 0 ⁺
240	145	1795.77	1811.28	7.48	7.55	11.63	8.21	4.84	2.58	-5.82	-3.78	5.961	6.041	5.837	5.891		13/2 ⁺	9/2 ⁺
241	146	1802.43	1817.93	7.48	7.54	11.50	8.58	6.66	2.77	-5.77	-3.97	5.971	6.053	5.843	5.897		13/2 ⁺	0+
242	147	1807.14	1823.46	7.47	7.53	11.37	8.94	4.71	2.94	-5.71	-4.16	5.982	6.066	5.849	5.904		13/2 ⁺	9/2 ⁺
243	148	1813.72	1829.83	7.46	7.53	11.29	9.32	6.58	3.13	-5.68	-4.34	5.992	6.078	5.856	5.910		13/2+	0+
244	149	1818.31	1835.20	7.45	7.52	11.17	9.69	4.59	3.32	-5.61	-4.53	6.003	6.090	5.862	5.916		13/2+	$9/2^{+}$
245	150	1824.83	1841.25	7.45	7.52	11.11	10.06	6.52	3.50	-5.59	-4.71	6.013	6.102	5.868	5.922		$13/2^{+}$	0+
246	151	1829.29		7.44		10.98	10.45	4.46	3.70	-5.51	-4.91	6.023	6.115	5.875	5.929		$13/2^{+}$	$9/2^{+}$
247	152	1835.76		7.43		10.93	10.80	6.47	3.87	-5.50	-5.08	6.033	6.127	5.881	5.935		13/2+	0+
248	153	1840.08		7.42		10.79	11.19	4.32	4.09	-5.42	-5.28	6.044	6.139	5.888	5.942		13/2+	9/2+
249	154	1846.53		7.42		10.77	11.53	6.45	4.25	-5.41	-5.45	6.054	6.151	5.894	5.948		13/2+	0 ⁺
250 251	155	1850.76		7.40		10.68	11.91 12.26	4.23 6.37	4.45 4.63	-5.37 -5.33	-5.64 5.83	6.064 6.075	6.162 6.175	5.900	5.954 5.961		13/2+	15/2 ⁻ 0 ⁺
251	156 157	1857.13 1861.29		7.40 7.39		10.60 10.53	12.26	4.16	4.82	-5.33 -5.28	-5.82 -6.00	6.085	6.186	5.907 5.913	5.967		13/2 ⁺ 13/2 ⁺	15/2 ⁻
252 253	157	1861.29		7.39 7.38		10.53	12.03	6.28	4.82 5.00	-5.28 -5.24	-6.00 -6.18	6.095	6.198	5.920	5.974		13/2+	0 ⁺
253 254	159	1871.66		7.36 7.37		10.44	13.35	4.09	5.20	-5.24 -5.19	-6.36	6.105	6.210	5.926	5.980		13/2+	15/2-
255	160	1877.86		7.36		10.37	13.69	6.20	5.38	-5.16	-6.54	6.116	6.222	5.933	5.986		13/2 ⁺	0+
256	161	1881.87		7.35		10.21	14.04	4.01	5.55	-5.17	-6.70	6.127	6.235	5.940	5.993		13/2 ⁺	7/2 ⁺
257	162	1887.99		7.35		10.13	14.39	6.12	5.74	-5.07	-6.88	6.137	6.246	5.946	5.999		13/2+	0^{+}
258	163	1892.04		7.33		10.17	14.74	4.05	5.92	-5.08	-7.06	6.147	6.258	5.953	6.006		13/2+	$7/2^{+}$
259	164	1897.96		7.33		9.97	15.06	5.92	6.09	-4.99	-7.22	6.157	6.270	5.959	6.012		13/2+	0+
260	165	1902.04		7.32		10.00	15.42	4.08	6.28	-4.98	-7.40	6.168	6.282	5.966	6.019		$13/2^{+}$	$7/2^{+}$
261	166	1907.77		7.31		9.81	15.71	5.73	6.42	-4.90	-7.54	6.178	6.294	5.971	6.025		13/2+	0^{+}
262	167	1911.84		7.30		9.80	16.06	4.07	6.60	-4.88	-7.72	6.189	6.306	5.978	6.031		13/2+	7/2+
263	168	1917.41		7.29		9.64	16.32	5.57	6.72	-4.81	-7.84	6.199	6.318	5.983	6.037		13/2+	0 ⁺
264	169	1921.43		7.28		9.59	16.66	4.02	6.90	-4.77	-8.01	6.210	6.330	5.990	6.043		$13/2^{+}$	$7/2^{+}$

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
265	170	1926.88		7.27		9.47	16.89	5.45	7.01	-4.72	-8.13	6.220	6.342	5.995	6.048		13/2+	0+
266	171	1930.82		7.26		9.39	17.17	3.94	7.15	-4.73	-8.26	6.230	6.355	6.000	6.053		13/2+	5/2+
267	172	1936.16		7.25		9.28	17.42	5.34	7.26	-4.62	-8.39	6.240	6.366	6.005	6.058		13/2+	0+
268	173	1940.11		7.24		9.29	17.70	3.95	7.40	-4.61	-8.53	6.251	6.379	6.010	6.063		13/2 ⁺	$\frac{5/2^{+}}{0^{+}}$
269 270	174 175	1945.22 1949.13		7.23 7.22		9.06 9.02	17.90 18.16	5.11 3.91	7.48 7.61	-4.51 -4.46	-8.64 -8.77	6.260 6.270	6.390 6.403	6.014 6.019	6.067 6.072		13/2 ⁺ 13/2 ⁺	5/2 ⁺
270	175	1949.13		7.22 7.21		9.02 8.84	18.35	4.93	7.61	-4.46 -4.39	-8.77 -8.86	6.279	6.414	6.021	6.074		13/2+	0 ⁺
271	177	1957.85		7.21		8.72	18.58	3.79	7.80	-4.39 -4.30	-8.97	6.290	6.427	6.025	6.074		13/2+	5/2 ⁺
273	177	1962.66		7.20		8.60	18.76	4.81	7.87	-4.30 -4.27	-8.97 -9.06	6.299	6.439	6.023	6.080		13/2+	0+
274	179	1966.46		7.13		8.61	18.95	3.80	7.95	-4.27 -4.27	-9.16	6.308	6.451	6.030	6.083		13/2 ⁺	1/2 ⁺
275	180	1971.01		7.17		8.35	19.15	4.55	8.03	-4.13	-9.26	6.318	6.464	6.033	6.086		13/2+	0+
276	181	1974.77		7.17		8.31	19.35	3.76	8.12	-4.09	-9.37	6.328	6.477	6.036	6.089		13/2+	1/2 ⁺
277	182	1979.10		7.14		8.09	19.54	4.33	8.19	-4.01	-9.46	6.338	6.489	6.038	6.091		13/2+	0+
278	183	1982.80		7.13		8.03	19.74	3.70	8.28	-3.52	-9.57	6.347	6.502	6.038	6.091		7/2-	1/2+
279	184	1987.03		7.12		7.93	19.91	4.23	8.39	-3.00	-9.64	6.357	6.515	6.040	6.092		7/2-	0+
280	185	1987.56		7.10		4.76	20.24	0.53	8.54	-3.32	-9.80	6.371	6.529	6.052	6.105		7/2-	$13/2^{-}$
281	186	1989.50		7.08		2.47	20.51	1.94	8.67	-1.28	-9.94	6.384	6.542	6.062	6.114		$7/2^{-}$	0+
282	187	1990.05		7.06		2.49	20.84	0.55	8.83	-1.30	-10.12	6.400	6.557	6.079	6.131		13/2+	$13/2^{-}$
283	188	1992.02		7.04		2.52	21.12	1.97	8.97	-1.32	-10.26	6.412	6.570	6.088	6.141		$13/2^{+}$	0^+
284	189	1992.61		7.02		2.56	21.45	0.59	9.15	-1.32	-10.42	6.426	6.584	6.101	6.154		$13/2^{+}$	$13/2^{-}$
285	190	1994.60		7.00		2.58	21.72	1.99	9.28	-1.34	-10.56	6.439	6.597	6.111	6.163		$13/2^{+}$	0^+
286	191	1995.19		6.98		2.58	22.03	0.59	9.45	-1.34	-10.72	6.453	6.610	6.124	6.176		13/2+	$13/2^{-}$
287	192	1997.21		6.96		2.61	22.30	2.02	9.59	-1.36	-10.86	6.465	6.624	6.134	6.186		13/2+	0^+
288	193	1997.80		6.94		2.61	22.61	0.59	9.76	-1.34	-11.01	6.479	6.637	6.146	6.198		13/2+	13/2
289	194	1999.86		6.92		2.65	22.89	2.06	9.90	-1.37	-11.15	6.492	6.650	6.156	6.208		13/2+	0+
290	195	2000.42		6.90		2.62	23.19	0.56	10.07	-1.34	-11.30	6.505	6.663	6.168	6.220		13/2+	13/2-
291	196	2002.51		6.88		2.65	23.45	2.09	10.20	-1.36	-11.43	6.518	6.676	6.178	6.229		13/2+	0+
292	197	2003.00		6.86		2.58	23.73	0.49	10.35	-1.31	-11.57	6.531	6.689	6.188	6.240		13/2+	13/2-
293	198	2005.14		6.84		2.63	23.99	2.14	10.48	-1.34	-11.70	6.543	6.702	6.198	6.249		13/2+	0 ⁺
294 295	199 200	2005.65 2007.71		6.82 6.81		2.65 2.57	24.25 24.50	0.51 2.06	10.61 10.74	-1.36 -1.31	-11.83 -11.96	6.555 6.567	6.715 6.728	6.207 6.215	6.258 6.267		13/2 ⁺ 13/2 ⁺	11/2 ⁻ 0 ⁺
295 296	200	2007.71		6.78		2.57	24.50 24.75	0.53	10.74	-1.31 -1.30	-11.96 -12.09	6.580	6.741	6.224	6.275		13/2 ⁺	11/2
290	201	2010.19		6.77		2.39	24.73	1.95	10.86	-1.30 -1.26	-12.09 -12.20	6.591	6.753	6.231	6.282		13/2+	0+
298	203	2010.13		6.75		2.47	25.22	0.52	11.09	-1.20 -1.24	-12.20 -12.32	6.603	6.766	6.239	6.290		13/2+	11/2 ⁻
299	204	2012.59		6.73		2.40	25.42	1.88	11.18	-1.22	-12.42	6.614	6.779	6.244	6.295		13/2+	0+
300	205	2013.06		6.71		2.35	25.66	0.47	11.29	-1.18	-12.54	6.625	6.792	6.252	6.303		13/2+	11/2-
301	206	2014.89		6.69		2.30	25.85	1.83	11.38	-1.17	-12.64	6.636	6.804	6.257	6.308		13/2+	0+
302	207	2015.28		6.67		2.22	26.08	0.39	11.49	-1.12	-12.75	6.648	6.817	6.264	6.315		13/2+	11/2
303	208	2017.10		6.66		2.21	26.28	1.82	11.58	-1.12	-12.85	6.658	6.829	6.269	6.320		13/2 ⁺	0+'
304	209	2017.36		6.64		2.08	26.50	0.26	11.69	-1.04	-12.97	6.670	6.842	6.276	6.327		13/2+	$11/2^{-}$
305	210	2019.19		6.62		2.09	26.69	1.83	11.78	-1.06	-13.07	6.681	6.854	6.281	6.332		13/2+	0+
306	211	2019.28		6.60		1.92	26.90	0.09	11.89	-0.98	-13.18	6.693	6.867	6.289	6.339		13/2+	$11/2^{-}$
307	212	2021.16		6.58		1.97	27.09	1.88	11.97	-1.01	-13.27	6.703	6.879	6.294	6.344		$13/2^{+}$	0^+
308	213	2021.13		6.56		1.85	27.13	-0.03	12.00	-1.03	-13.33	6.717	6.897	6.296	6.346		13/2+	7/2-
309	214	2023.04		6.55		1.88	27.48	1.91	12.17	-0.97	-13.48	6.726	6.905	6.306	6.357		$13/2^{+}$	0+
310	215	2023.09		6.53		1.96	27.57	0.05	12.21	-0.99	-13.54	6.740	6.922	6.308	6.359		13/2+	7/2-
311	216	2024.86		6.51		1.82	27.87	1.77	12.38	-0.95	-13.67	6.749	6.930	6.318	6.369		13/2+	0+
312	217	2024.94		6.49		1.85	28.00	0.08	12.44	-0.96	-13.74	6.762	6.947	6.321	6.371		13/2+	7/2-
313	218	2026.64		6.47		1.78	28.24	1.70	12.58	-0.94	-13.87	6.772	6.955	6.330	6.381		13/2+	0+
314	219	2026.72		6.45		1.78	28.37	0.08	12.64	-0.95	-13.94	6.785	6.972	6.334	6.384		13/2+	7/2-
315	220	2028.40		6.44		1.76	28.61	1.68	12.77	-0.93	-14.06	6.794	6.980	6.342	6.393		13/2+	0 ⁺
316	221	2028.50		6.42		1.78	28.74	0.10	12.84	-0.94	-14.13	6.807	6.996	6.346	6.396		13/2+	$\frac{7/2^{-}}{0^{+}}$
317 318	222 223	2030.16		6.40 6.38		1.76 1.77	28.98 29.08	1.66 0.11	12.97 13.03	-0.93 -0.94	-14.25	6.817 6.830	7.006 7.021	6.354 6.358	6.404 6.408		13/2 ⁺	0 ' 7/2 ⁻
318	223	2030.27		0.38		1.//	29.08	U. I I	15.05	-0.94	-14.32	0.830	7.UZ I	0.558	0.408		$13/2^{+}$	1/2

Table 1 (continued)

Α	N	$E_{ m b}^{ m Cal.}$ (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
319	224	2031.92		6.37		1.76	29.34	1.65	13.16	-0.93	-14.44	6.839	7.031	6.366	6.416		13/2+	0+
320	225	2032.05		6.35		1.78	29.42	0.13	13.20	-0.94	-14.51	6.852	7.045	6.370	6.420		13/2+	$7/2^{-}$
321	226	2033.69		6.34		1.77	29.69	1.64	13.34	-0.94	-14.62	6.862	7.055	6.377	6.427		13/2+	0+
322	227	2033.84		6.32		1.79	29.75	0.15	13.36	-0.94	-14.70	6.874	7.070	6.382	6.432		13/2+	7/2-
323	228	2035.47		6.30		1.78	30.04	1.63	13.52	-0.94	-14.80	6.884	7.080	6.389	6.439		13/2+	0+
324	229	2035.67		6.28		1.83	30.09	0.20	13.54	-0.96	-14.84	6.899	7.100	6.391	6.441		13/2+	3/2-
325	230	2037.28		6.27		1.81	30.39	1.61	13.71	-0.95	-14.98	6.906	7.104	6.400	6.450		13/2+	0+
326	231	2037.53		6.25		1.86	30.46	0.25	13.72	-0.97	-15.03	6.921	7.123	6.402	6.452		13/2+	3/2-
327	232	2039.11		6.24		1.83	30.73	1.58	13.89	-0.96	-15.16	6.928	7.129	6.411	6.461		13/2+	0+
328	233	2039.42		6.22		1.89	30.85	0.31	13.93	-0.98	-15.21	6.943	7.147	6.413	6.463		13/2+	3/2-
329	234	2040.97		6.20		1.86	31.08	1.55	14.07	-0.97	-15.33	6.950	7.153	6.422	6.471		13/2+	0+
330	235	2041.33		6.19		1.91	31.23	0.36	14.15	-0.99	-15.39	6.964	7.170	6.425	6.474		13/2+	3/2-
331	236	2042.85		6.17		1.88	31.41	1.52	14.25	-0.98	-15.50	6.971	7.177	6.432	6.482		13/2+	0+
332	237	2043.24		6.15		1.91	31.57	0.39	14.33	-1.00	-15.56	6.985	7.194	6.436	6.485		13/2+	3/2-
333	238	2044.76		6.14		1.91	31.75	1.52	14.43	-0.99	-15.67	6.993	7.201	6.443	6.492		13/2+	0+
334	239	2045.17		6.12		1.93	31.91	0.41	14.50	-1.01	-15.74	7.006	7.217	6.446	6.496		13/2+	3/2-
335	240	2046.69		6.11		1.93	32.08	1.52	14.59	-1.00	-15.84	7.015	7.225	6.453	6.502		13/2+	0+
336	241	2047.13		6.09		1.96	32.24	0.44	14.67	-1.02	-15.91	7.027	7.240	6.457	6.506		13/2+	3/2-
337	242	2048.65		6.08		1.96	32.41	1.52	14.77	-1.01	-16.00	7.036	7.249	6.462	6.512		13/2+	0+
338	243	2049.12		6.06		1.99	32.57	0.47	14.85	-1.02	-16.07	7.048	7.263	6.467	6.516		13/2+	3/2-
339	244	2050.63		6.05		1.98	32.73	1.51	14.93	-1.02	-16.15	7.058	7.273	6.472	6.521		13/2+	0+
340	245	2051.14		6.03		2.02	32.89	0.51	15.02	-1.03	-16.24	7.069	7.286	6.477	6.526		13/2+	3/2-
341	246	2052.63		6.02		2.00	33.05	1.49	15.09	-1.03	-16.31	7.079	7.297	6.481	6.530		13/2 ⁺	0+
342	247	2053.17		6.00		2.03	33.18	0.54	15.16	-1.04	-16.40	7.091	7.310	6.486	6.536		13/2 ⁺	3/2-
343	248	2054.65		5.99		2.02	33.35	1.48	15.24	-1.03	-16.45	7.101	7.321	6.489	6.538		13/2+	0 ⁺
344	249	2055.24		5.97		2.07	33.49	0.59	15.31	-1.06	-16.52	7.113	7.336	6.493	6.542		13/2+	1/2-
345	250	2056.70		5.96		2.05	33.65	1.46	15.39	-1.04	-16.60	7.122	7.346	6.497	6.546		13/2+	0 ⁺
346	251	2057.34		5.95		2.10	33.80	0.64	15.46	-1.06	-16.66	7.134	7.360	6.501	6.550		13/2+	1/2-
347	252	2058.75		5.93		2.05	33.93	1.41	15.52	-1.04	-16.73	7.144	7.371	6.504	6.553		13/2+	0 ⁺
348	253	2059.46		5.92		2.12	34.10	0.71	15.61	-1.07	-16.80	7.155	7.383	6.509	6.558		13/2+	$\frac{1/2^{-}}{0^{+}}$
349 350	254 255	2060.82		5.90		2.07	34.21 34.39	1.36 0.77	15.65 15.74	-1.04 -1.07	-16.86 -16.94	7.166 7.176	7.396	6.511 6.516	6.560		13/2 ⁺ 13/2 ⁺	
351	255 256	2061.59		5.89		2.13 2.08	34.39 34.47						7.407		6.565		13/2 ⁺	1/2 ⁻ 0 ⁺
352	256 257	2062.90		5.88				1.31	15.77	-1.04	-16.98	7.188	7.421 7.432	6.517 6.522	6.566			1/2-
	257 258	2063.74		5.86		2.15	34.67	0.84	15.87	-0.18	-17.07	7.198			6.571		13/2+	0^{+}
353	258	2064.99		5.85		2.09	34.72	1.25	15.88	-2.02	-17.09	7.210	7.448	6.522	6.571		$13/2^{+}$	0 '
σ $Z = 96$	6 (Cm)	15.20													0.003			
2 = 90	128	1685.15		7.52			0.09		1.16	-7.55	0.23	5.758	5.805	5.695	5.751		0^+	0^+
225	128	1691.89		7.52			0.56	6.74	1.42	-7.51	-0.01	5.772	5.821	5.706	5.762		0 ⁺	11/2 ⁺
226	130	1700.10		7.52		14.95	1.03	8.21	1.68	-7.31 -7.47	-0.01 -0.24	5.786	5.836	5.717	5.772		0+	0+
227	131	1706.10		7.52		14.88	1.50	6.67	1.96	-7.47 -7.42	-0.24 -0.47	5.800	5.851	5.728	5.784		0+	11/2+
228	132	1714.89		7.52		14.79	1.95	8.12	2.21	-7.42 -7.39	-0.47 -0.70	5.813	5.866	5.738	5.794		0+	0+
229	133	1714.83		7.52		14.73	2.43	6.59	2.42	-7.39 -7.34	-0.70 -0.93	5.826	5.881	5.750	5.805		0+	11/2 ⁺
230	134	1721.48		7.52 7.52		14.71	2.43	8.05	2.63	−7.34 −7.31	-0.93 -1.16	5.840	5.896	5.760	5.815		0+	0+
231	135	1729.33		7.52 7.52		14.54	3.36	6.49	2.83	-7.31 -7.22	-1.10 -1.40	5.853	5.911	5.772	5.827		0+	11/2 ⁺
232	136	1730.02		7.52 7.52		14.34	3.83	7.98	3.05	-7.22 -7.19	-1.40 -1.63	5.866	5.925	5.782	5.837		0+	0+
232	137	1744.00	1758.22	7.52 7.51	7.55	14.47	3.83 4.36	6.30	3.03	-6.79	-1.89	5.881	5.940	5.795	5.850		0+	11/2+
234	138	1750.50	1756.22	7.51 7.51	7.55 7.55	14.28	4.80	7.84	3.48	-6.79 -6.81	-1.69 -2.11	5.893	5.954	5.804	5.859		0+	0+
234	138	1758.14	1700.00	7.51 7.50	1.33	13.27	4.80 5.16	7.84 5.43	3.48 3.67	-6.80	-2.11 -2.29	5.893	5.954 5.967	5.804	5.866	5.829	0+	9/2 ⁺
235	140	1763.57	1781.87	7.50 7.50	755	13.27	5.16 5.55		3.67		-2.29 -2.49	5.904		5.811	5.866	3.629	0+	9/2 · 0+
					7.55			7.48		-6.37			5.979			E 0.42	0+	
237	141	1776.31	1788.55	7.49	7.55	12.74	5.90	5.26	4.07	-6.30	-2.67	5.924	5.992	5.822	5.877	5.843	0 ⁺	9/2 ⁺
238	142	1783.46	1796.42	7.49	7.55	12.41	6.30	7.15	4.25	-6.20	-2.87	5.934	6.005	5.829	5.883	5.848	0 ⁺	0 ⁺
239	143	1788.59	1802.79	7.48	7.54	12.28	6.65	5.13	4.45	-6.13	-3.05	5.945	6.017	5.835	5.889	5.856	U·	$9/2^{+}$

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
240	144	1795.58	1810.29	7.48	7.54	12.12	7.05	6.99	4.65	-6.07	-3.25	5.955	6.030	5.841	5.896		0+	0+
241	145	1800.60	1816.38	7.47	7.54	12.01	7.41	5.02	4.83	-6.00	-3.43	5.965	6.042	5.847	5.901	5.869	0^+	9/2
242	146	1807.46	1823.35	7.47	7.53	11.88	7.80	6.86	5.03	-5.96	-3.62	5.975	6.054	5.853	5.908		0+	0^+
243	147	1812.36	1829.04	7.46	7.53	11.76	8.16	4.90	5.22	-5.89	-3.80	5.986	6.067	5.859	5.914		0+	9/2
244	148	1819.13	1835.84	7.46	7.52	11.67	8.54	6.77	5.41	-5.86	-3.99	5.996	6.079	5.866	5.920		0+	0+
245	149	1823.91	1841.36	7.44	7.52	11.55	8.92	4.78	5.60	-5.79	-4.18	6.006	6.091	5.872	5.926		0+	9/2
246	150	1830.61	1847.82	7.44	7.51	11.48	9.28	6.70	5.78	-5.77	-4.36	6.016	6.103	5.878	5.932		0+	0+
247	151	1835.26	1852.97	7.43	7.50	11.35	9.67	4.65	5.97	-5.69	-4.56	6.027	6.115	5.885	5.939		0+	9/2
248	152	1841.91	1859.19	7.43	7.50	11.30	10.02	6.65	6.15	-5.68	-4.73	6.037	6.127	5.891	5.945		0 ⁺	0+
249	153	1846.42	1863.90	7.42	7.49	11.16	10.43	4.51	6.34	-5.60	-4.94	6.047	6.139	5.898	5.952		0^{+}	9/2
250	154	1853.04	1869.73	7.41	7.48	11.13	10.76	6.62	6.51	-5.59	-5.11 5.20	6.057	6.151	5.904	5.958		0^{+}	0 ⁺
251	155	1857.45	1874.15	7.40	7.47	11.03	11.14	4.41	6.69	-5.55 5.50	-5.29 5.47	6.067	6.163	5.910	5.964		0+	15/ 0 ⁺
252	156 157	1864.00 1868.35		7.40 7.38		10.96 10.90	11.50 11.88	6.55 4.35	6.87 7.06	-5.50 -5.45	-5.47 -5.66	6.078 6.088	6.175 6.186	5.917 5.923	5.970 5.977		0+	-
253 254						10.90	12.23							5.930			0+	15/ 0 ⁺
254 255	158 159	1874.80 1879.07		7.38 7.37		10.80	12.23	6.45 4.27	7.23 7.41	-5.41 -5.36	-5.84 -6.02	6.098 6.108	6.198 6.210	5.936	5.983 5.990		0+	15/
255 256	160	1885.44		7.36		10.72	12.01	6.37	7.41	-5.33	-6.02 -6.20	6.119	6.222	5.943	5.996		0+	0 ⁺
250 257	161	1889.61		7.35		10.54	13.29	4.17	7.74	-5.34	-6.37	6.130	6.235	5.950	6.003		0^{+}	7/2
257 258	162	1895.91		7.35 7.35		10.34	13.29	6.30	7.74	-5.24	-6.55	6.139	6.245	5.956	6.009		0+	0+
259	163	1900.13		7.34		10.52	14.01	4.22	8.09	-5.24	-6.73	6.150	6.258	5.963	6.016		0+	7/2
260	164	1906.13		7.33		10.32	14.34	6.08	8.25	-5.15	-6.89	6.160	6.269	5.969	6.022		0+	0+
261	165	1910.46		7.32		10.33	14.70	4.25	8.42	-5.14	-7.07	6.170	6.281	5.976	6.029		0+	7/2
62	166	1916.34		7.31		10.13	14.99	5.88	8.57	-5.05	-7.22	6.181	6.293	5.981	6.035		0+	0+
63	167	1920.58		7.30		10.13	15.34	4.24	8.74	-5.03	-7.39	6.191	6.305	5.988	6.042		0+	7/2
264	168	1926.28		7.30		9.94	15.59	5.70	8.87	-4.96	-7.52	6.201	6.317	5.994	6.047		0^{+}	0+
265	169	1930.47		7.28		9.89	15.94	4.19	9.04	-4.91	-7.69	6.212	6.329	6.000	6.053		0^{+}	7/2
266	170	1936.04		7.28		9.76	16.17	5.57	9.16	-4.86	-7.81	6.222	6.341	6.005	6.058		0+	0+
267	171	1940.13		7.27		9.66	16.46	4.09	9.31	-4.87	-7.94	6.232	6.354	6.010	6.063		0^+	5/2
268	172	1945.60		7.26		9.56	16.70	5.47	9.44	-4.75	-8.07	6.242	6.365	6.016	6.068		0^{+}	0+
269	173	1949.68		7.25		9.55	16.97	4.08	9.57	-4.74	-8.21	6.253	6.378	6.021	6.073		0^{+}	5/2
270	174	1954.92		7.24		9.32	17.18	5.24	9.70	-4.63	-8.31	6.262	6.389	6.024	6.077		0^+	0+
271	175	1958.95		7.23		9.27	17.43	4.03	9.82	-4.58	-8.44	6.272	6.401	6.028	6.081		0^+	5/2
272	176	1963.98		7.22		9.06	17.61	5.03	9.92	-4.50	-8.53	6.281	6.413	6.031	6.084		0^+	0+
273	177	1967.89		7.21		8.94	17.84	3.91	10.04	-4.41	-8.64	6.291	6.425	6.034	6.087		0^+	5/2
274	178	1972.81		7.20		8.83	18.02	4.92	10.15	-4.38	-8.73	6.300	6.437	6.036	6.089		0^+	0+
275	179	1976.71		7.19		8.82	18.20	3.90	10.25	-4.39	-8.83	6.309	6.449	6.039	6.092		0^+	1/2
276	180	1981.39		7.18		8.58	18.41	4.68	10.38	-4.24	-8.93	6.319	6.462	6.042	6.095		0^+	0^+
77	181	1985.26		7.17		8.55	18.61	3.87	10.49	-4.20	-9.03	6.329	6.474	6.044	6.097		0^+	1/2
78	182	1989.70		7.16		8.31	18.79	4.44	10.60	-4.12	-9.12	6.338	6.487	6.047	6.100		0^+	0^+
279	183	1993.52		7.15		8.26	19.00	3.82	10.72	-3.42	-9.23	6.349	6.500	6.050	6.102		0^+	1/2
80	184	1997.80		7.14		8.10	19.16	4.28	10.77	-3.08	-9.31	6.358	6.513	6.051	6.104		0^+	0^{+}
81	185	1998.52		7.11		5.00	19.50	0.72	10.96	-3.41	-9.47	6.372	6.527	6.064	6.117		0^+	13/
82	186	2000.60		7.09		2.80	19.77	2.08	11.10	-1.44	-9.62	6.385	6.540	6.074	6.127		0^+	0^+
283	187	2001.32		7.07		2.80	20.10	0.72	11.27	-1.44	-9.78	6.399	6.554	6.087	6.139		0+	13/
284	188	2003.43		7.05		2.83	20.38	2.11	11.41	-1.46	-9.92	6.412	6.567	6.097	6.149		0+	0^{+}
285	189	2004.17		7.03		2.85	20.71	0.74	11.56	-1.46	-10.09	6.426	6.581	6.110	6.162		0^+	13/
86	190	2006.30		7.02		2.87	20.98	2.13	11.70	-1.48	-10.23	6.439	6.594	6.119	6.171		0+	0+
287	191	2007.04		6.99		2.87	21.30	0.74	11.85	-1.47	-10.39	6.452	6.607	6.132	6.184		0^+	13/
288	192	2009.20		6.98		2.90	21.58	2.16	11.99	-1.49	-10.53	6.465	6.621	6.142	6.194		0+	0+
289	193	2009.94		6.95		2.90	21.90	0.74	12.14	-1.48	-10.69	6.479	6.634	6.155	6.207		0+	13/
290	194	2012.12		6.94		2.92	22.16	2.18	12.26	-1.50	-10.82	6.491	6.647	6.164	6.216		0+	0^+
91	195	2012.83		6.92		2.89	22.48	0.71	12.41	-1.47	-10.98	6.505	6.660	6.177	6.228		0^+	13/
92	196	2015.05		6.90		2.93	22.74	2.22	12.54	-1.49	-11.11	6.517	6.673	6.186	6.238		0^+	0+
293	197	2015.68		6.88		2.85	23.03	0.63	12.68	-1.44	-11.26	6.530	6.686	6.197	6.248		0^+	13/

Table 1 (continued)

	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
294	198	2017.95		6.86		2.90	23.29	2.27	12.81	-1.47	-11.39	6.542	6.699	6.206	6.258		0+	0+
295	199	2018.59		6.84		2.91	23.55	0.64	12.94	-1.48	-11.52	6.555	6.712	6.215	6.267		0+	11/2
296	200	2020.77		6.83		2.82	23.80	2.18	13.06	-1.43	-11.65	6.566	6.724	6.224	6.275		0 ⁺	0 ⁺
297	201	2021.43		6.81		2.84	24.05	0.66	13.19	-1.42	-11.77	6.579	6.738	6.232	6.284		0 ⁺	11/2 ⁻ 0 ⁺
298 299	202 203	2023.50		6.79		2.73	24.27	2.07	13.31	-1.38 -1.36	-11.88	6.589	6.750	6.239	6.290		0+	
300	203	2024.14 2026.13		6.77 6.75		2.71 2.63	24.52 24.72	0.64 1.99	13.43 13.54	-1.36 -1.33	-12.00 -12.11	6.601 6.612	6.763 6.775	6.247 6.252	6.298 6.303		0+	11/2 ⁻ 0 ⁺
300 301	204	2026.13		6.73		2.53	24.72	0.59	13.54		-12.11 -12.22	6.624	6.773	6.252	6.310		0+	11/2 ⁻
302	205	2028.66		6.73		2.58	24.95 25.15	1.94	13.77	-1.30 -1.28	-12.22 -12.32	6.634	6.800	6.264	6.315		0 ⁺	0+
303	200	2028.00		6.72		2.33	25.38	0.51	13.77	-1.28 -1.23	-12.32 -12.44	6.646	6.813	6.271	6.322		0+	11/2
304	207	2023.17		6.68		2.43	25.57	1.92	13.99	-1.23 -1.23	-12.44 -12.54	6.656	6.824	6.276	6.327		0+	0+
305	209	2031.47		6.66		2.30	25.80	0.38	14.11	-1.25 -1.15	-12.65	6.668	6.837	6.283	6.334		0+	11/2 ⁻
306	210	2033.40		6.65		2.31	25.99	1.93	14.21	-1.17	-12.75	6.678	6.849	6.289	6.339		0+	0+
307	211	2033.40		6.62		2.13	26.21	0.20	14.32	-1.08	-12.87	6.690	6.862	6.296	6.347		0+	11/2 ⁻
308	212	2035.59		6.61		2.19	26.40	1.99	14.43	-1.11	-12.96	6.701	6.874	6.301	6.352		0+	0+
309	213	2035.62		6.59		2.02	26.49	0.03	14.49	-1.13	-13.02	6.714	6.892	6.303	6.353		0+	7/2 ⁻
310	214	2037.67		6.57		2.08	26.80	2.05	14.63	-1.07	-13.17	6.723	6.899	6.314	6.364		0+	0+
311	215	2037.77		6.55		2.15	26.89	0.10	14.68	-1.08	-13.23	6.737	6.916	6.316	6.366		0+	7/2 ⁻
312	216	2039.68		6.54		2.01	27.20	1.91	14.82	-1.04	-13.38	6.746	6.924	6.326	6.377		0+	0+
313	217	2039.84		6.52		2.07	27.34	0.16	14.90	-1.05	-13.44	6.759	6.941	6.329	6.379		0+	7/2-
314	218	2041.65		6.50		1.97	27.59	1.81	15.01	-1.03	-13.58	6.768	6.949	6.339	6.389		0+	0+
315	219	2041.81		6.48		1.97	27.73	0.16	15.09	-1.04	-13.65	6.781	6.965	6.342	6.392		0+	7/2-
316	220	2043.60		6.47		1.95	27.97	1.79	15.20	-1.02	-13.78	6.791	6.974	6.351	6.401		0+	0+
317	221	2043.77		6.45		1.96	28.11	0.17	15.27	-1.03	-13.85	6.804	6.990	6.355	6.405		0^{+}	7/2-
318	222	2045.54		6.43		1.94	28.35	1.77	15.38	-1.02	-13.97	6.813	6.999	6.364	6.414		0^+	0+
319	223	2045.73		6.41		1.96	28.49	0.19	15.46	-1.03	-14.05	6.826	7.014	6.367	6.417		0^+	$7/2^{-}$
320	224	2047.48		6.40		1.94	28.72	1.75	15.56	-1.02	-14.17	6.835	7.023	6.376	6.426		0^+	o ^{'+}
321	225	2047.69		6.38		1.96	28.84	0.21	15.64	-1.03	-14.24	6.848	7.038	6.380	6.430		0^+	$7/2^{-}$
322	226	2049.43		6.36		1.95	29.08	1.74	15.74	-1.02	-14.36	6.858	7.048	6.387	6.437		0^+	0+
323	227	2049.67		6.35		1.98	29.19	0.24	15.83	-1.03	-14.44	6.870	7.062	6.392	6.442		0^+	$7/2^{-}$
324	228	2051.40		6.33		1.97	29.45	1.73	15.93	-1.03	-14.54	6.880	7.072	6.399	6.449		0^+	0+
325	229	2051.66		6.31		1.99	29.53	0.26	15.99	-1.04	-14.63	6.892	7.086	6.404	6.454		0^+	$7/2^{-}$
326	230	2053.38		6.30		1.98	29.81	1.72	16.10	-1.04	-14.73	6.901	7.096	6.411	6.460		0^+	0+
327	231	2053.66		6.28		2.00	29.85	0.28	16.13	-1.05	-14.82	6.913	7.110	6.416	6.466		0^+	$7/2^{-}$
328	232	2055.38		6.27		2.00	30.16	1.72	16.27	-1.05	-14.91	6.923	7.120	6.422	6.472		0^+	0^+
329	233	2055.72		6.25		2.06	30.23	0.34	16.30	-1.07	-14.95	6.938	7.139	6.424	6.474		0^+	$3/2^{-}$
330	234	2057.41		6.23		2.03	30.51	1.69	16.44	-1.06	-15.09	6.945	7.144	6.433	6.482		0^+	0^+
331	235	2057.81		6.22		2.09	30.63	0.40	16.48	-1.07	-15.14	6.959	7.162	6.435	6.485		0+	$3/2^{-}$
332	236	2059.46		6.20		2.05	30.86	1.65	16.61	-1.06	-15.26	6.966	7.168	6.444	6.493		0+	0^+
333	237	2059.92		6.19		2.11	31.01	0.46	16.68	-1.08	-15.32	6.980	7.185	6.446	6.496		0+	$3/2^{-}$
334	238	2061.54		6.17		2.08	31.21	1.62	16.78	-1.07	-15.43	6.988	7.192	6.454	6.503		0+	0^+
335	239	2062.03		6.16		2.11	31.36	0.49	16.86	-1.09	-15.49	7.001	7.208	6.457	6.507		0+	3/2-
336	240	2063.63		6.14		2.09	31.53	1.60	16.94	-1.08	-15.60	7.009	7.216	6.464	6.513		0+	0^+
337	241	2064.15		6.13		2.12	31.69	0.52	17.02	-1.10	-15.66	7.022	7.231	6.468	6.517		0+	3/2-
338	242	2065.75		6.11		2.12	31.87	1.60	17.10	-1.09	-15.76	7.030	7.239	6.474	6.523		0+	0+
339	243	2066.31		6.10		2.16	32.04	0.56	17.19	-1.10	-15.83	7.043	7.254	6.478	6.527		0+	3/2-
340	244	2067.89		6.08		2.14	32.19	1.58	17.26	-1.09	-15.92	7.052	7.263	6.483	6.532		0+	0+
341	245	2068.48		6.07		2.17	32.36	0.59	17.34	-1.11	-15.99	7.064	7.277	6.488	6.537		0+	3/2-
342	246	2070.05		6.05		2.16	32.51	1.57	17.42	-1.10	-16.07	7.073	7.287	6.491	6.541		0+	0+
343	247	2070.67		6.04		2.19	32.66	0.62	17.50	-1.11	-16.15	7.085	7.300	6.497	6.546		0+	3/2-
344	248	2072.22		6.02		2.17	32.81	1.55	17.57	-1.10	-16.21	7.094	7.312	6.499	6.548		0+	0+
345	249	2072.87		6.01		2.20	32.94	0.65	17.63	-1.11	-16.30	7.106	7.324	6.505	6.554		0+	3/2-
346	250	2074.40		6.00		2.18	33.09	1.53	17.70	-1.11	-16.34	7.116	7.336	6.507	6.556		0+	0+
347	251	2075.10		5.98		2.23	33.22	0.70	17.76	-1.13	-16.41	7.128	7.351	6.510	6.559		0^+	$1/2^{-}$

Table 1 (continued)

A	N	E _b ^{Cal.}	E _b Exp.	E _b ^{Cal.} /A	E _b Exp. /A	S _{2n}	S _{2p}	S _n	S _p	λ_n	λ _p	R _m	R_n	R _p	R _c Cal.	R _c Exp.	$j^{\pi}(P)$	j ^π (I
0.40	050	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(fm)	(fm)	(fm)	(fm)	(fm)		0.1
348 349	252 253	2076.59		5.97		2.19	33.36	1.49	17.84	-1.11	-16.47	7.138	7.362	6.513	6.562		0^{+}	0 ⁺
349 350	253 254	2077.36 2078.79		5.95 5.94		2.26 2.20	33.51 33.62	0.77 1.43	17.90 17.97	-1.13 -1.11	-16.54 -16.59	7.149 7.159	7.375 7.387	6.517 6.519	6.566 6.568		0+	1/2 0 ⁺
351	255	2078.79		5.92		2.27	33.78	0.84	18.04	-1.11 -1.14	-16.59 -16.66	7.139	7.399	6.523	6.572		0+	1/2
351 352	255 256	2079.03		5.92		2.27	33.86	1.36	18.04	-1.14 -1.10	-16.00 -16.70	7.170	7.399	6.524	6.573		0+	0+
352 353	257	2080.99		5.90		2.28	34.04	0.92	18.03	-0.30	-16.78	7.182	7.413	6.529	6.577		0+	1/2
354	258	2083.19		5.88		2.20	34.04	1.28	18.17	-0.30 -2.14	-16.78 -16.81	7.192	7.424	6.529	6.577		0+	0+
σ σ	230	15.14		5.66		2.20	34.00	1.20	16.20	-2.14	-10.61	7.204	7.440	0.323	0.034		U	U
z = 97	7 (Bk)																	
27	130	1698.80		7.48			0.38		-1.30	-7.68	0.09	5.792	5.839	5.729	5.784		$7/2^{-}$	0^{+}
28	131	1705.67		7.48			0.86	6.87	-1.10	-7.63	-0.15	5.806	5.854	5.740	5.795		$7/2^{-}$	11
29	132	1714.00		7.48		15.20	1.32	8.33	-0.89	-7.60	-0.38	5.819	5.869	5.750	5.805		$7/2^{-}$	0^{+}
30	133	1720.84		7.48		15.17	1.78	6.84	-0.64	-7.59	-0.61	5.833	5.884	5.763	5.818		$13/2^{+}$	11
31	134	1729.14		7.49		15.14	2.24	8.30	-0.39	-7.56	-0.84	5.846	5.898	5.773	5.828		$13/2^{+}$	0^+
32	135	1735.91		7.48		15.07	2.72	6.77	-0.11	-7.48	-1.08	5.860	5.913	5.785	5.840		$13/2^{+}$	11
33	136	1744.13		7.49		14.99	3.18	8.22	0.13	-7.45	-1.30	5.872	5.927	5.795	5.850		13/2+	0^+
34	137	1750.73		7.48		14.82	3.70	6.60	0.43	-7.02	-1.56	5.887	5.942	5.808	5.863		13/2+	11
35	138	1758.82		7.48		14.69	4.16	8.09	0.68	-7.04	-1.78	5.899	5.956	5.818	5.873		$13/2^{+}$	0^+
36	139	1764.41		7.48		13.68	4.51	5.59	0.84	-7.03	-1.96	5.910	5.969	5.825	5.879		13/2+	9/
37	140	1772.09		7.48		13.27	4.91	7.68	1.04	-6.55	-2.17	5.919	5.981	5.830	5.884		13/2+	0+
38	141	1777.50		7.47		13.09	5.26	5.41	1.19	-6.48	-2.34	5.930	5.994	5.835	5.890		13/2+	9/
39	142	1784.87		7.47		12.78	5.66	7.37	1.41	-6.38	-2.55	5.940	6.006	5.842	5.896		13/2+	0^{+}
40	143	1790.17		7.46		12.67	6.03	5.30	1.58	-6.32	-2.73	5.950	6.019	5.848	5.902		13/2+	9/
41	144	1797.36		7.46		12.49	6.43	7.19	1.78	-6.26	-2.93	5.960	6.031	5.854	5.909		13/2+	0⊣
42	145	1802.55		7.45		12.38	6.78	5.19	1.95	-6.19	-3.11	5.971	6.043	5.860	5.915		13/2 ⁺	9/
43	146	1809.61	1826.75	7.45	7.52	12.25	7.18	7.06	2.15	-6.15	-3.31	5.981	6.055	5.867	5.921		13/2+	0+
44	147	1814.69	1832.80	7.44	7.51	12.14	7.55	5.08	2.33	-6.08	-3.49	5.991	6.068	5.873	5.927		13/2+	9/
45	148	1821.65	1839.77	7.44	7.51	12.04	7.93	6.96	2.52	-6.05	-3.68	6.001	6.080	5.879	5.933		13/2+	0+
46	149	1826.62	1845.69	7.43	7.50	11.93	8.31	4.97	2.71	-5.98	-3.87	6.011	6.092	5.885	5.939		13/2+	9/
47	150	1833.50	1852.24	7.42	7.50	11.85	8.67	6.88	2.89	-5.95	-4.06	6.021	6.104	5.891	5.946		13/2+	0^{+}
48	151	1838.35		7.41		11.73	9.06	4.85	3.09	-5.88	-4.25	6.032	6.116	5.898	5.952		13/2+	9/
49	152	1845.17	1864.02	7.41	7.49	11.67	9.41	6.82	3.26	-5.86	-4.43	6.042	6.128	5.904	5.958		13/2+	0^{+}
50	153	1849.90	1868.99	7.40	7.48	11.55	9.82	4.73	3.48	-5.79	-4.63	6.052	6.140	5.911	5.965		$13/2^{+}$	9/
51	154	1856.68	1874.78	7.40	7.47	11.51	10.15	6.78	3.64	-5.78	-4.80	6.062	6.151	5.917	5.971		$13/2^{+}$	0^{+}
52	155	1861.29		7.39		11.39	10.53	4.61	3.84	-5.73	-4.99	6.072	6.163	5.923	5.977		$13/2^{+}$	15
53	156	1868.03		7.38		11.35	10.90	6.74	4.03	-5.69	-5.17	6.082	6.175	5.930	5.983		$13/2^{+}$	0^{+}
54	157	1872.57		7.37		11.28	11.28	4.54	4.22	-5.64	-5.36	6.092	6.186	5.936	5.989		$13/2^{+}$	15
55	158	1879.21		7.37		11.18	11.64	6.64	4.41	-5.60	-5.54	6.102	6.198	5.942	5.996		13/2+	0^{+}
56	159	1883.67		7.36		11.10	12.01	4.46	4.60	-5.54	-5.72	6.112	6.210	5.949	6.002		$13/2^{+}$	15
57	160	1890.22		7.35		11.01	12.36	6.55	4.78	-5.51	-5.90	6.122	6.221	5.955	6.009		$13/2^{+}$	0^+
58	161	1894.58		7.34		10.91	12.71	4.36	4.97	-5.44	-6.08	6.132	6.233	5.962	6.015		$13/2^{+}$	15
59	162	1901.07		7.34		10.85	13.08	6.49	5.16	-5.42	-6.26	6.143	6.245	5.968	6.022		13/2+	0^{+}
60	163	1905.47		7.33		10.89	13.43	4.40	5.34	-5.43	-6.43	6.153	6.257	5.975	6.029		$13/2^{+}$	7/
61	164	1911.72		7.32		10.65	13.76	6.25	5.51	-5.31	-6.60	6.163	6.268	5.981	6.035		$13/2^{+}$	0^{+}
62	165	1916.16		7.31		10.69	14.12	4.44	5.70	-5.31	-6.78	6.174	6.280	5.988	6.042		$13/2^{+}$	7/
63	166	1922.17		7.31		10.45	14.40	6.01	5.83	-5.21	-6.92	6.184	6.292	5.994	6.047		$13/2^{+}$	0+
64	167	1926.60		7.30		10.44	14.76	4.43	6.02	-5.18	-7.10	6.194	6.304	6.001	6.054		$13/2^{+}$	7/
65	168	1932.42		7.29		10.25	15.01	5.82	6.14	-5.10	-7.22	6.205	6.316	6.006	6.059		13/2+	0+
66	169	1936.79		7.28		10.19	15.36	4.37	6.32	-5.05	-7.39	6.215	6.328	6.013	6.066		13/2+	7/
67	170	1942.45		7.28		10.03	15.57	5.66	6.41	-4.99	-7.50	6.225	6.340	6.018	6.071		13/2+	0+
68	171	1946.69		7.26		9.90	15.87	4.24	6.56	-5.01	-7.63	6.235	6.353	6.022	6.075		13/2+	5/
69	172	1952.27		7.26		9.82	16.11	5.58	6.67	-4.87	-7.77	6.245	6.364	6.028	6.081		13/2+	0+
	173	1956.48		7.25		9.79	16.37	4.21	6.80	-4.86	-7.90	6.255	6.377	6.033	6.086		13/2 ⁺	5/

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
271	174	1961.80		7.24		9.53	16.58	5.32	6.88	-4.73	-8.01	6.264	6.388	6.036	6.089		13/2+	0+
272	175	1965.95		7.23		9.47	16.82	4.15	7.00	-4.67	-8.13	6.274	6.400	6.041	6.093		13/2+	5/2+
273	176	1971.06		7.22		9.26	17.00	5.11	7.08	-4.60	-8.22	6.283	6.412	6.043	6.095		13/2+	0 ⁺
274	177	1975.07		7.21		9.12	17.22	4.01	7.18	-4.50	-8.33	6.293	6.424	6.046	6.099		13/2+	5/2 ⁺ 0 ⁺
275	178 179	1980.07		7.20		9.01	17.41	5.00	7.26	-4.47	-8.43	6.302	6.435	6.048	6.101		13/2 ⁺	1/2+
276 277	179	1984.05 1988.81		7.19 7.18		8.98 8.74	17.59 17.80	3.98 4.76	7.34 7.42	-4.48 -4.33	-8.52 -8.63	6.311 6.320	6.448 6.460	6.050 6.053	6.103 6.106		13/2 ⁺ 13/2 ⁺	0+
277 278	181	1900.01		7.18 7.17		8.72	18.00	3.96	7.42 7.51	-4.33 -4.29	-8.03 -8.73	6.330	6.473	6.056	6.108		13/2+	1/2+
278 279	182	1997.29		7.17		8.48	18.19	4.52	7.59	-4.29 -4.20	-8.73 -8.82	6.340	6.485	6.058	6.111		13/2+	0+
280	183	2001.20		7.15		8.43	18.40	3.91	7.68	-3.74	-8.93	6.350	6.498	6.061	6.114		13/2 ⁺	1/2+
281	184	2005.58		7.14		8.29	18.55	4.38	7.78	-3.19	-9.00	6.358	6.510	6.060	6.113		$\frac{13/2}{7/2^{-}}$	0+
282	185	2006.44		7.12		5.24	18.88	0.86	7.92	-3.59	-9.17	6.372	6.524	6.073	6.125		7/2-	13/2
283	186	2008.67		7.10		3.09	19.17	2.23	8.07	-1.60	-9.33	6.386	6.538	6.086	6.138		13/2+	0+
284	187	2009.57		7.08		3.13	19.52	0.90	8.25	-1.60	-9.49	6.400	6.551	6.099	6.151		13/2+	13/2
285	188	2011.83		7.06		3.16	19.81	2.26	8.40	-1.62	-9.63	6.413	6.565	6.109	6.161		13/2+	0+
286	189	2012.74		7.04		3.17	20.13	0.91	8.57	-1.62	-9.80	6.427	6.578	6.122	6.174		13/2+	13/2
287	190	2015.01		7.02		3.18	20.41	2.27	8.71	-1.64	-9.94	6.440	6.592	6.132	6.184		13/2+	0+
288	191	2015.93		7.00		3.19	20.74	0.92	8.89	-1.63	-10.10	6.454	6.605	6.145	6.197		13/2+	13/2
289	192	2018.23		6.98		3.22	21.02	2.30	9.03	-1.65	-10.24	6.466	6.618	6.155	6.207		$13/2^{+}$	0^{+}
290	193	2019.14		6.96		3.21	21.34	0.91	9.20	-1.63	-10.40	6.480	6.631	6.168	6.220		$13/2^{+}$	13/2
291	194	2021.47		6.95		3.24	21.61	2.33	9.35	-1.65	-10.54	6.493	6.644	6.178	6.230		$13/2^{+}$	0^+
292	195	2022.35		6.93		3.21	21.93	0.88	9.52	-1.62	-10.70	6.506	6.658	6.191	6.242		13/2+	13/2
293	196	2024.71		6.91		3.24	22.20	2.36	9.66	-1.64	-10.84	6.518	6.670	6.200	6.252		13/2+	0^{+}
294	197	2025.49		6.89		3.14	22.49	0.78	9.81	-1.57	-10.98	6.531	6.683	6.211	6.263		13/2+	13/2
295	198	2027.90		6.87		3.19	22.76	2.41	9.95	-1.60	-11.12	6.544	6.696	6.221	6.272		13/2+	0+
296	199	2028.67		6.85		3.18	23.02	0.77	10.08	-1.62	-11.25	6.556	6.709	6.230	6.281		13/2+	11/2
297	200	2030.98		6.84		3.08	23.27	2.31	10.21	-1.55	-11.38	6.568	6.722	6.238	6.289		13/2+	0+
298	201	2031.76		6.82		3.09	23.52	0.78	10.33	-1.54	-11.50	6.580	6.735	6.246	6.297		13/2+	11/2
299	202	2033.93		6.80		2.95	23.74	2.17	10.43	-1.49	-11.61	6.590	6.747	6.252	6.303		13/2+	0+
300 301	203	2034.68		6.78		2.92	23.97	0.75	10.54	-1.46	-11.73	6.602	6.760	6.260	6.311		13/2+	11/2 0 ⁺
301 302	204	2036.77		6.77		2.84	24.18	2.09	10.64	-1.44	-11.83	6.613	6.772	6.265 6.272	6.316 6.323		13/2 ⁺ 13/2 ⁺	11/2
302 303	205 206	2037.46 2039.50		6.75 6.73		2.78 2.73	24.40 24.61	0.69 2.04	10.74 10.84	-1.40 -1.39	-11.95 -12.05	6.624 6.635	6.784 6.796	6.277	6.328		13/2+	0+
304	200	2039.30		6.73		2.73	24.84	0.62	10.84	-1.39 -1.33	-12.03 -12.17	6.646	6.809	6.284	6.335		13/2+	11/2
305	208	2040.12		6.70		2.64	25.04	2.02	11.05	-1.33 -1.33	-12.17 -12.27	6.656	6.821	6.289	6.340		13/2+	0+
306	209	2042.14		6.68		2.50	25.26	0.48	11.15	-1.35 -1.26	-12.27 -12.39	6.668	6.833	6.296	6.347		13/2+	11/2
307	210	2044.66		6.66		2.52	25.47	2.04	11.26	-1.27	-12.49	6.678	6.845	6.302	6.352		13/2+	0+
308	211	2044.98		6.64		2.36	25.70	0.32	11.38	-1.19	-12.61	6.690	6.858	6.309	6.360		13/2+	11/2
309	212	2047.06		6.62		2.40	25.90	2.08	11.47	-1.22	-12.71	6.700	6.870	6.314	6.365		13/2+	0+
310	213	2047.21		6.60		2.23	26.08	0.15	11.59	-1.14	-12.83	6.712	6.883	6.323	6.373		13/2+	11/2
311	214	2049.36		6.59		2.30	26.32	2.15	11.69	-1.18	-12.92	6.723	6.894	6.327	6.378		13/2+	0+
312	215	2049.48		6.57		2.27	26.39	0.12	11.71	-1.19	-12.98	6.736	6.911	6.329	6.380		13/2+	7/2
313	216	2051.59		6.55		2.23	26.73	2.11	11.91	-1.15	-13.14	6.745	6.919	6.341	6.391		13/2+	0+
314	217	2051.79		6.53		2.31	26.85	0.20	11.95	-1.16	-13.20	6.758	6.935	6.343	6.393		13/2+	7/2
315	218	2053.77		6.52		2.18	27.13	1.98	12.12	-1.13	-13.35	6.767	6.943	6.354	6.404		13/2+	0+
316	219	2054.01		6.50		2.22	27.29	0.24	12.20	-1.15	-13.41	6.780	6.959	6.357	6.407		13/2+	7/2
317	220	2055.93		6.49		2.16	27.53	1.92	12.33	-1.12	-13.55	6.789	6.967	6.367	6.417		13/2+	0^+
318	221	2056.18		6.47		2.17	27.68	0.25	12.41	-1.14	-13.62	6.802	6.983	6.370	6.420		13/2+	7/2
319	222	2058.08		6.45		2.15	27.92	1.90	12.54	-1.12	-13.76	6.811	6.992	6.380	6.430		13/2+	0^+
320	223	2058.35		6.43		2.17	28.08	0.27	12.62	-1.13	-13.83	6.824	7.007	6.383	6.433		13/2+	7/2
321	224	2060.23		6.42		2.15	28.31	1.88	12.75	-1.12	-13.96	6.833	7.016	6.392	6.442		13/2+	0+
322	225	2060.52		6.40		2.17	28.47	0.29	12.83	-1.13	-14.03	6.846	7.030	6.396	6.446		13/2+	7/2
323	226	2062.38		6.39		2.15	28.69	1.86	12.95	-1.12	-14.15	6.855	7.040	6.405	6.454		13/2+	0+
324	227	2062.70		6.37		2.18	28.86	0.32	13.03	-1.14	-14.23	6.867	7.054	6.409	6.459		$13/2^{+}$	7/2

		E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
237 230 2088.73 6.32 2.18 2945 183 13.35 -11.3 -14.54 6.899 7.087 6.429 6.478 13/2 238 231 2667.10 6.30 2.20 2957 0.37 13.44 -1.14 -1.14 -1.14 2 6.200 7.111 6.434 6.484 13/2 239 232 2668.93 6.29 2.20 2982 1.83 13.55 -1.14 -1.47 6.200 7.111 6.441 6.490 13/2 231 234 2071.14 6.20 2 2.21 30.17 1.81 3.55 -1.14 -1.47 6.200 7.111 6.441 6.490 13/2 231 234 2071.14 6.20 2 2.21 30.17 1.81 3.55 -1.14 -1.15 -1.15 6.60 6.002 7.111 6.42 6.40 6.406 13/2 231 232 200.14 6.20 2 2.21 30.17 1.81 3.73 -1.15 -1.15 6.60 6.002 7.115 6.42 6.001 13/2 231 232 2071.15 6.15 6.21 2.28 30.61 0.47 13.93 -1.15 -1.15 6.00 6.05 7.18 6.40 6.00 13/2 2334 2071.15 6.16 6.20 2.25 30.87 1.78 14.09 -1.16 -1.51 6.00 6.05 7.18 6.40 6.00 6.14 13/2 2335 238 2076.18 6.18 2.33 31.01 0.55 14.15 -1.18 -1.53 6.077 7.175 6.46 6.523 13/2 2338 241 2075.51 6.15 2.33 13.38 0.61 14.36 -1.19 -1.548 7.00 7.70 6.483 6.53 13/2 2339 2076.18 6.14 2.29 31.15 1.81 1.81 1.436 -1.19 -1.548 7.00 7.70 6.483 6.53 13/2 2340 2078.18 6.14 2.29 31.15 1.88 14.44 -1.17 -1.548 7.00 7.70 6.483 6.53 13/2 240 208.18 6.14 2.29 31.15 1.88 14.44 -1.17 -1.58 7.00 7.15 6.483 6.53 13/2 241 2078.51 6.15 2.33 31.30 0.61 14.36 -1.19 -1.548 7.00 7.00 6.48 6.53 13/2 242 242 2.00 1.00 6.14 2.29 31.15 1.88 14.44 -1.17 -1.58 7.00 7.00 7.00 6.48 6.53 13/2 243 2.00 1.00 6.14 2.29 3.15 1.83 1.70 0.65 14.65 -1.19 -1.585 7.00 7.00 7.00 6.48 6.54 13/2 244 2.00 2.00 1.00 6.00 2.33 31.30 0.61 14.77 1.19 -1.585 7.00 7.00 7.00 6.48 6.53 13/2 244 2.00 2.00 1.00 6.00 2.33 31.24 1.00 6.67 14.67 -1.19 -1.585 7.00 7.00 7.00 6.58 13/2 245 2.00 2.00 1.00 6.00 2.33 31.35 1.00 6.67 14.67 -1.19 -1.585 7.00 7.00 7.00 6.55 13/2 246 2.00 2.00 5.00 6.00 2.33 3.25 0.77 14.82 -1.18 -1.10 1.00 7.00 7.00 7.00 6.55 13/2 247 248 2087.09 6.05 2.31 2.34 1.80 1.32 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30									13.15		-14.35						13/2+	0+
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239 141 1780.86 7.45 13.48 4.55 5.60 3.36 -6.68 -2.02 5.935 5.996 5.846 5.901 0+ 240 142 1788.43 1802.46 7.45 7.51 13.17 4.97 7.57 3.56 -6.58 -2.23 5.945 6.008 5.853 5.907 0+ 241 143 1793.92 7.44 13.06 5.33 5.49 3.75 -6.51 -2.41 5.955 6.020 5.858 5.913 0+ 242 144 1801.30 1817.20 7.44 7.51 12.87 5.72 7.38 3.94 -6.45 -2.61 5.965 6.032 5.865 5.919 0+ 243 145 1806.69 7.43 12.77 6.09 5.39 4.14 -6.38 -2.79 5.975 6.045 5.871 5.925 0+ 244 146 1813.94 1831.26 7.43 7.51 12.64 6.48 7.25 4.33 -6.33 -2.99 5.985 6.057 5.877 5.931 0+ 245 147 1819.21 1837.41 7.43 7.50 12.52 6.85 5.27 <td< td=""><td></td><td></td><td>1770.50</td><td></td><td>7.50</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0+</td></td<>			1770.50		7.50													0+
240 142 1788.43 1802.46 7.45 7.51 13.17 4.97 7.57 3.56 -6.58 -2.23 5.945 6.008 5.853 5.907 0+ 241 143 1793.92 7.44 13.06 5.33 5.49 3.75 -6.51 -2.41 5.955 6.020 5.858 5.913 0+ 242 144 1801.30 1817.20 7.44 7.51 12.87 5.72 7.38 3.94 -6.45 -2.61 5.965 6.032 5.865 5.919 0+ 243 145 1806.69 7.43 12.77 6.09 5.39 4.14 -6.38 -2.79 5.975 6.045 5.871 5.925 0+ 244 146 1813.94 1831.26 7.43 7.51 12.64 6.48 7.25 4.33 -6.33 -2.99 5.985 6.057 5.877 5.931 0+ 245 147 1819.21 1837.41 7.43 7.50 12.52 6.85 5.27 4.52 -6.27 -3.17 5.995 6.069 5.883 5.937 0+ 246 148 1826.35 1844.78 7.42 7.50 12.41																		9/2+
241 143 1793.92 7.44 13.06 5.33 5.49 3.75 -6.51 -2.41 5.955 6.020 5.858 5.913 0+ 242 144 1801.30 1817.20 7.44 7.51 12.87 5.72 7.38 3.94 -6.45 -2.61 5.965 6.032 5.865 5.919 0+ 243 145 1806.69 7.43 12.77 6.09 5.39 4.14 -6.38 -2.79 5.975 6.045 5.871 5.925 0+ 244 146 1813.94 1831.26 7.43 7.51 12.64 6.48 7.25 4.33 -6.33 -2.99 5.985 6.057 5.877 5.931 0+ 245 147 1819.21 1837.41 7.43 7.50 12.52 6.85 5.27 4.52 -6.27 -3.17 5.995 6.069 5.883 5.937 0+ 246 148 1826.35 1844.78 7.42 7.50 12.41 7.22 7.14 4.70 -6.23 -3.36 6.005 6.081 5.889 5.944 0+			1802 46		7.5.1													0+
242 144 1801.30 1817.20 7.44 7.51 12.87 5.72 7.38 3.94 -6.45 -2.61 5.965 6.032 5.865 5.919 0+ 243 145 1806.69 7.43 12.77 6.09 5.39 4.14 -6.38 -2.79 5.975 6.045 5.871 5.925 0+ 244 146 1813.94 1831.26 7.43 7.51 12.64 6.48 7.25 4.33 -6.33 -2.99 5.985 6.057 5.877 5.931 0+ 245 147 1819.21 1837.41 7.43 7.50 12.52 6.85 5.27 4.52 -6.27 -3.17 5.995 6.069 5.883 5.937 0+ 246 148 1826.35 1844.78 7.42 7.50 12.41 7.22 7.14 4.70 -6.23 -3.36 6.005 6.081 5.889 5.944 0+			1002.40		7.51													9/2 ⁺
243 145 1806.69 7.43 12.77 6.09 5.39 4.14 -6.38 -2.79 5.975 6.045 5.871 5.925 0+ 244 146 1813.94 1831.26 7.43 7.51 12.64 6.48 7.25 4.33 -6.33 -2.99 5.985 6.057 5.877 5.931 0+ 245 147 1819.21 1837.41 7.43 7.50 12.52 6.85 5.27 4.52 -6.27 -3.17 5.995 6.069 5.883 5.937 0+ 246 148 1826.35 1844.78 7.42 7.50 12.41 7.22 7.14 4.70 -6.23 -3.36 6.005 6.081 5.889 5.944 0+			1817 20		7.51													0 ⁺
244 146 1813.94 1831.26 7.43 7.51 12.64 6.48 7.25 4.33 -6.33 -2.99 5.985 6.057 5.877 5.931 0+ 245 147 1819.21 1837.41 7.43 7.50 12.52 6.85 5.27 4.52 -6.27 -3.17 5.995 6.069 5.883 5.937 0+ 246 148 1826.35 1844.78 7.42 7.50 12.41 7.22 7.14 4.70 -6.23 -3.36 6.005 6.081 5.889 5.944 0+			1017.20		7.51													9/2+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			1831 26		7.5.1													0+
$246 148 1826.35 1844.78 7.42 7.50 12.41 7.22 7.14 4.70 -6.23 -3.36 6.005 6.081 5.889 5.944 \qquad 0^{+}$																		9/2
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																		9/2 ⁺
248 150 1838.58 1857.78 7.41 7.49 12.23 7.97 7.07 5.08 -6.14 -3.74 6.025 6.105 5.902 5.956 0^+																		9/2 0 ⁺

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
249	151	1843.62	1863.36	7.40	7.48	12.11	8.36	5.04	5.27	-6.07	-3.93	6.036	6.117	5.908	5.962		0+	9/2+
250	152	1850.63	1869.99	7.40	7.48	12.05	8.72	7.01	5.46	-6.05	-4.11	6.045	6.129	5.914	5.968		0+	0+
251	153	1855.55	1877.47	7.39	7.48	11.93	9.13	4.92	5.65	-5.97	-4.31	6.056	6.140	5.921	5.975		0+	$9/2^{+}$
252	154	1862.50	1881.27	7.39	7.47	11.87	9.46	6.95	5.82	-5.96	-4.48	6.065	6.152	5.927	5.981		0+	0^+
253	155	1867.30	1886.07	7.38	7.45	11.75	9.85	4.80	6.01	-5.91	-4.67	6.075	6.163	5.933	5.987		0+	15/2
254	156	1874.21	1892.10	7.38	7.45	11.71	10.21	6.91	6.18	-5.87	-4.86	6.085	6.175	5.940	5.993		0+	0^+
255	157	1878.94		7.37		11.64	10.59	4.73	6.37	-5.82	-5.04	6.095	6.187	5.946	5.999		0+	15/2
256	158	1885.75		7.37		11.54	10.95	6.81	6.54	-5.78	-5.23	6.105	6.198	5.952	6.006		0+	0+
257	159	1890.40		7.36		11.46	11.33	4.65	6.73	-5.72	-5.41	6.115	6.210	5.959	6.012		0+	15/2
258	160	1897.13		7.35		11.38	11.69	6.73	6.91	-5.69	-5.59	6.125	6.221	5.965	6.019		0+	0+
259	161	1901.66		7.34		11.26	12.05	4.53	7.08	-5.61	-5.77	6.135	6.233	5.972	6.025		0+	15/2
260	162	1908.32		7.34		11.19	12.41	6.66	7.25	-5.58	-5.95	6.146	6.244	5.978	6.032		0+	0+
261	163	1912.89		7.33		11.23	12.76	4.57	7.42	-5.60	-6.13	6.156	6.257	5.985	6.039		0+	7/2
262	164	1919.31		7.33		10.99	13.10	6.42	7.59	-5.48	-6.30	6.166	6.268	5.991	6.045		0+	0+
263	165	1923.93		7.32		11.04	13.47	4.62	7.77	-5.47	-6.48	6.176	6.280	5.998	6.051		0+	7/2
264	166	1930.09		7.31		10.78	13.75	6.16	7.92	-5.36	-6.62	6.186	6.292	6.004	6.057		0+	0^+
265	167	1934.69		7.30		10.76	14.11	4.60	8.09	-5.33	-6.80	6.197	6.303	6.011	6.064		0+	7/2
266	168	1940.63		7.30		10.54	14.35	5.94	8.21	-5.25	-6.92	6.207	6.316	6.016	6.069		0+	0^+
267	169	1945.17		7.29		10.48	14.70	4.54	8.38	-5.19	-7.09	6.218	6.328	6.023	6.076		0+	7/2
268	170	1950.97		7.28		10.34	14.93	5.80	8.52	-5.13	-7.20	6.228	6.340	6.028	6.081		0^+	0^+
269	171	1955.35		7.27		10.18	15.22	4.38	8.66	-5.02	-7.36	6.238	6.352	6.034	6.087		0^+	7/2
270	172	1961.05		7.26		10.08	15.45	5.70	8.78	-5.00	-7.47	6.248	6.364	6.038	6.091		0+	0^+
71	173	1965.41		7.25		10.06	15.73	4.36	8.93	-4.99	-7.60	6.258	6.376	6.043	6.096		0+	5/2
272	174	1970.84		7.25		9.79	15.92	5.43	9.04	-4.84	-7.70	6.266	6.387	6.046	6.099		0^+	0^+
273	175	1975.11		7.23		9.70	16.16	4.27	9.16	-4.79	-7.82	6.276	6.399	6.050	6.103		0^+	5/2
274	176	1980.32		7.23		9.48	16.34	5.21	9.26	-4.71	-7.92	6.285	6.410	6.052	6.105		0^+	0^+
275	177	1984.45		7.22		9.34	16.56	4.13	9.38	-4.61	-8.03	6.294	6.423	6.055	6.108		0^+	5/2
276	178	1989.55		7.21		9.23	16.74	5.10	9.48	-4.58	-8.12	6.303	6.434	6.057	6.110		0^+	0^{+}
277	179	1993.64		7.20		9.19	16.93	4.09	9.59	-4.58	-8.22	6.312	6.446	6.060	6.113		0^+	3/2
278	180	1998.52		7.19		8.97	17.13	4.88	9.71	-4.44	-8.32	6.321	6.458	6.062	6.115		0^+	0^{+}
279	181	2002.60		7.18		8.96	17.34	4.08	9.83	-4.41	-8.42	6.331	6.471	6.065	6.117		0^+	1/2
280	182	2007.22		7.17		8.70	17.52	4.62	9.93	-4.31	-8.51	6.341	6.483	6.067	6.120		0^+	0^+
281	183	2011.25		7.16		8.65	17.73	4.03	10.05	-3.54	-8.62	6.350	6.496	6.070	6.122		0^+	1/2
282	184	2015.69		7.15		8.47	17.89	4.44	10.11	-3.29	-8.70	6.360	6.508	6.071	6.124		0^+	0^+
283	185	2016.74		7.13		5.49	18.22	1.05	10.30	-3.59	-8.86	6.374	6.522	6.084	6.137		0^+	13/2
284	186	2019.12		7.11		3.43	18.52	2.38	10.45	-1.75	-9.01	6.387	6.535	6.094	6.147		0^+	0^+
285	187	2020.17		7.09		3.43	18.85	1.05	10.60	-1.75	-9.18	6.401	6.549	6.107	6.159		0^+	13/2
286	188	2022.57		7.07		3.45	19.14	2.40	10.74	-1.76	-9.33	6.413	6.562	6.117	6.170		0^+	0^+
287	189	2023.63		7.05		3.46	19.46	1.06	10.89	-1.76	-9.49	6.427	6.576	6.130	6.182		0^+	13/
288	190	2026.05		7.03		3.48	19.75	2.42	11.04	-1.78	-9.64	6.440	6.589	6.141	6.192		0^+	0^{+}
289	191	2027.12		7.01		3.49	20.08	1.07	11.19	-1.77	-9.80	6.454	6.602	6.154	6.205		0^+	13/
290	192	2029.56		7.00		3.51	20.36	2.44	11.33	-1.79	-9.94	6.466	6.615	6.164	6.215		0^+	0^{+}
91	193	2030.63		6.98		3.51	20.69	1.07	11.49	-1.77	-10.11	6.480	6.629	6.177	6.228		0^+	13/
92	194	2033.09		6.96		3.53	20.97	2.46	11.62	-1.79	-10.25	6.493	6.642	6.187	6.238		0^+	0+
93	195	2034.12		6.94		3.49	21.29	1.03	11.77	-1.76	-10.41	6.506	6.655	6.200	6.251		0^+	13/
94	196	2036.61		6.93		3.52	21.56	2.49	11.90	-1.78	-10.55	6.518	6.668	6.209	6.261		0^+	0+
95	197	2037.54		6.91		3.42	21.86	0.93	12.05	-1.70	-10.69	6.531	6.681	6.221	6.272		0^{+}	13/
296	198	2040.08		6.89		3.47	22.13	2.54	12.18	-1.73	-10.83	6.544	6.693	6.230	6.281		0^+	0+
297	199	2040.98		6.87		3.44	22.39	0.90	12.31	-1.75	-10.96	6.556	6.706	6.239	6.290		0+	11/
298	200	2043.41		6.86		3.33	22.64	2.43	12.43	-1.67	-11.09	6.567	6.719	6.247	6.298		0+	0+
299	201	2044.32		6.84		3.34	22.89	0.91	12.56	-1.65	-11.21	6.579	6.732	6.255	6.306		0^+	11/
800	202	2046.60		6.82		3.19	23.10	2.28	12.67	-1.60	-11.32	6.590	6.743	6.261	6.312		0^{+}	0+
301	203	2047.48		6.80		3.16	23.34	0.88	12.80	-1.58	-11.44	6.601	6.756	6.268	6.319		0+	11/
302	204	2049.67		6.79		3.07	23.54	2.19	12.90	-1.55	-11.55	6.612	6.768	6.273	6.324		0+	0+

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
303	205	2050.49		6.77		3.01	23.77	0.82	13.03	-1.51	-11.66	6.623	6.781	6.280	6.331		0+	11/2-
304	206	2052.64		6.75		2.97	23.98	2.15	13.14	-1.50	-11.76	6.633	6.793	6.285	6.336		0+	0+
305	207	2053.37		6.73		2.88	24.20	0.73	13.25	-1.44	-11.88	6.645	6.805	6.292	6.342		0+	11/2
306	208	2055.50		6.72		2.86	24.41	2.13	13.36	-1.44	-11.98	6.655	6.817	6.297	6.348		0^{+}	0 ⁺
307	209	2056.11		6.70		2.74	24.64	0.61	13.49	-1.36	-12.10	6.666	6.829	6.304	6.355		0 ⁺	11/2 ⁻ 0 ⁺
308	210	2058.25		6.68		2.75	24.85	2.14	13.59	-1.38	-12.20	6.677	6.841	6.310	6.360		0+	11/2
309 310	211 212	2058.68 2060.86		6.66 6.65		2.57 2.61	25.08 25.27	0.43 2.18	13.70 13.80	-1.29 -1.32	-12.32 -12.43	6.688 6.698	6.854 6.865	6.317 6.322	6.368 6.373		0+	0 ⁺
311	212	2060.86		6.63		2.45	25.51	0.27	13.92	-1.32 -1.24	-12.43 -12.55	6.710	6.878	6.331	6.381		0+	11/2
312	214	2063.38		6.61		2.52	25.71	2.25	14.02	-1.24	-12.55	6.720	6.889	6.336	6.386		0+	0+
313	215	2063.57		6.59		2.44	25.80	0.19	14.02	-1.29	-12.03 -12.74	6.732	6.903	6.342	6.392		0^{+}	9/2 ⁻
14	216	2065.82		6.58		2.44	26.14	2.25	14.23	-1.25	-12.87	6.742	6.913	6.349	6.400		0+	0+
315	217	2066.07		6.56		2.50	26.23	0.25	14.28	-1.27	-12.93	6.755	6.930	6.351	6.402		0^{+}	7/2-
316	218	2068.20		6.54		2.38	26.55	2.13	14.43	-1.23	-13.08	6.765	6.938	6.363	6.413		0+	0+
317	219	2068.53		6.53		2.46	26.72	0.33	14.52	-1.25	-13.15	6.777	6.953	6.365	6.415		0+	7/2-
318	220	2070.57		6.51		2.37	26.97	2.04	14.64	-1.22	-13.30	6.787	6.962	6.376	6.426		0^+	0+
319	221	2070.90		6.49		2.37	27.13	0.33	14.72	-1.23	-13.37	6.799	6.977	6.379	6.429		0^{+}	7/2-
320	222	2072.91		6.48		2.34	27.37	2.01	14.83	-1.22	-13.51	6.809	6.986	6.389	6.439		0^+	0^{+}
321	223	2073.26		6.46		2.36	27.53	0.35	14.91	-1.23	-13.58	6.821	7.001	6.393	6.443		0^{+}	$7/2^{-}$
322	224	2075.26		6.44		2.35	27.78	2.00	15.03	-1.22	-13.71	6.830	7.009	6.403	6.452		0^{+}	0^+
323	225	2075.63		6.43		2.37	27.94	0.37	15.11	-1.23	-13.79	6.842	7.024	6.406	6.456		0^{+}	$7/2^{-}$
324	226	2077.60		6.41		2.34	28.17	1.97	15.22	-1.22	-13.92	6.852	7.033	6.415	6.465		0^{+}	0+
325	227	2078.01		6.39		2.38	28.34	0.41	15.31	-1.23	-14.00	6.864	7.047	6.420	6.469		0^+	7/2-
326	228	2079.96		6.38		2.36	28.56	1.95	15.41	-1.22	-14.12	6.874	7.057	6.428	6.478		0^{+}	0^+
327	229	2080.39		6.36		2.38	28.73	0.43	15.49	-1.23	-14.20	6.886	7.070	6.433	6.482		0^+	$7/2^{-}$
328	230	2082.33		6.35		2.37	28.95	1.94	15.60	-1.22	-14.31	6.895	7.080	6.440	6.490		0^+	0^+
329	231	2082.79		6.33		2.40	29.13	0.46	15.69	-1.24	-14.40	6.907	7.094	6.446	6.495		0^+	$7/2^{-}$
330	232	2084.71		6.32		2.38	29.33	1.92	15.78	-1.23	-14.50	6.917	7.104	6.452	6.502		0^+	0^+
331	233	2085.21		6.30		2.42	29.49	0.50	15.88	-1.24	-14.60	6.928	7.117	6.458	6.508		0^+	$7/2^{-}$
332	234	2087.11		6.29		2.40	29.70	1.90	15.97	-1.23	-14.69	6.938	7.127	6.464	6.513		0+	0^+
333	235	2087.64		6.27		2.43	29.83	0.53	16.07	-1.24	-14.79	6.949	7.139	6.470	6.520		0+	7/2-
334	236	2089.53		6.26		2.42	30.07	1.89	16.15	-1.24	-14.87	6.959	7.150	6.475	6.524		0+	0+
335	237	2090.08		6.24		2.44	30.16	0.55	16.23	-1.25	-14.97	6.970	7.162	6.482	6.531		0+	7/2-
336	238	2091.95		6.23		2.42	30.41	1.87	16.32	-1.24	-15.04	6.980	7.174	6.486	6.535		0+	0+
337	239	2092.53		6.21		2.45	30.50	0.58	16.35	-1.25	-15.15	6.991	7.186	6.493	6.542		0+	7/2-
338	240	2094.39		6.20		2.44	30.76	1.86	16.49	-1.24	-15.21	7.001	7.197	6.496	6.545		0+	0 ⁺
339	241	2095.03		6.18		2.50	30.88	0.64	16.52	-1.27	-15.26	7.014	7.213	6.498	6.547		0+	3/2-
340	242	2096.83		6.17		2.44	31.08	1.80	16.64	-1.24	-15.37	7.022	7.221	6.505	6.554		0^{+}	0 ⁺
341 342	243	2097.54		6.15		2.51	31.23	0.71	16.72	-1.27	-15.43	7.034	7.236	6.508	6.557		0 ⁺	3/2-
	244 245	2099.28		6.14		2.45	31.39	1.74	16.80	-1.24	-15.52	7.043	7.245	6.513	6.562 6.565		0+	0 ⁺ 3/2 ⁻
343 344	245 246	2100.02 2101.72		6.12 6.11		2.48 2.44	31.54 31.67	0.74 1.70	16.87 16.94	-1.26 -1.24	-15.58 -15.66	7.055 7.064	7.259 7.269	6.516 6.520	6.569		0+	3/2 0 ⁺
345	240	2101.72		6.09		2.44	31.82	0.77	17.00	-1.24 -1.25	-15.00 -15.72	7.004	7.283	6.524	6.573		0+	3/2-
346	247	2102.49		6.08		2.47	31.82	1.67	17.00	-1.23 -1.23	-15.72 -15.78	7.076	7.263 7.294	6.526	6.575		0+	0 ⁺
347	249	2104.10		6.07		2.44	32.09	0.80	17.14	-1.25 -1.25	-15.76 -15.85	7.083	7.294	6.530	6.579		0+	3/2-
347 348	249 250	2104.96		6.05		2.47	32.09 32.19	1.63	17.14	-1.25 -1.23	-15.85 -15.90	7.097	7.307 7.319	6.532	6.581		0+	3/2 0 ⁺
349	251	2100.39		6.04		2.45	32.19	0.83	17.26	-1.23 -1.23	-15.97	7.100	7.332	6.536	6.584		0+	3/2-
350	252	2107.42		6.03		2.42	32.42	1.59	17.31	-1.23	-16.01	7.118	7.345	6.536	6.585		0+	0 ⁺
351	253	2109.89		6.01		2.42	32.53	0.88	17.37	-1.25	-16.06	7.120	7.360	6.539	6.587		0+	1/2-
352	254	2103.83		6.00		2.41	32.63	1.53	17.42	-1.23	-16.00	7.150	7.372	6.540	6.589		0+	0+
353	255	2111.32		5.98		2.49	32.75	0.96	17.48	-1.25	-16.17	7.161	7.385	6.543	6.591		0+	1/2-
354	256	2113.82		5.97		2.40	32.83	1.44	17.53	-1.20	-16.21	7.172	7.399	6.544	6.592		0+	0+
355	257	2114.87		5.96		2.49	32.96	1.05	17.59	-0.53	-16.27	7.183	7.411	6.546	6.595		0^{+}	1/2 ⁻
	258	2116.20		5.94		2.38	33.01	1.33	17.63	-2.41	-16.29	7.195	7.427	6.546	6.595		0+	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
357 358	259 260	2114.96 2113.74		5.92 5.90		0.09 -2.46		$\frac{-1.24}{-1.22}$		-0.35 <u>1.26</u>	-16.30 -16.30	7.222 7.249	7.462 7.497	6.546 6.545	6.595 6.594		0 ⁺	1/2 ⁺ 0 ⁺
σ		17.83																
Z = 99																		
232	133	1721.29		7.42		10.00	0.45	7.30	-1.26	-8.05	0.03	5.845	5.888	5.787	5.842		13/2+	11/2+
233 234	134 135	1730.05 1737.29		7.43 7.42		16.06 16.00	0.91	8.76	-1.01 -0.74	-8.02	-0.20 -0.43	5.858 5.872	5.903 5.917	5.797 5.809	5.852		13/2+	0 ⁺ 11/2 ⁺
234	135	1737.29		7.42 7.43		15.93	1.38 1.85	7.24 8.69	-0.74 -0.49	-7.95 -7.91	-0.43 -0.66	5.884	5.931	5.819	5.864 5.874		13/2 ⁺ 13/2 ⁺	0+
236	137	1743.38		7.43		15.79	2.35	7.10	-0.49 -0.21	-7.91 -7.47	-0.00 -0.91	5.899	5.946	5.832	5.887		13/2 ⁺	11/2 ⁺
237	138	1761.65		7.43		15.67	2.83	8.57	0.06	-7.47 -7.48	-0.31 -1.14	5.911	5.960	5.842	5.897		13/2 ⁺	0+
238	139	1767.57		7.43		14.49	3.16	5.92	0.19	-7.47	-1.31	5.921	5.973	5.848	5.902		13/2+	9/2 ⁺
239	140	1775.68		7.43		14.03	3.59	8.11	0.42	-6.94	-1.53	5.931	5.985	5.853	5.908		13/2+	0+
240	141	1781.44		7.42		13.87	3.94	5.76	0.58	-6.87	-1.70	5.941	5.997	5.859	5.913		13/2+	9/2+
241	142	1789.24		7.42		13.56	4.37	7.80	0.81	-6.77	-1.92	5.951	6.009	5.866	5.920		13/2+	0^{+}
242	143	1794.88		7.42		13.44	4.71	5.64	0.96	-6.71	-2.10	5.961	6.022	5.871	5.925		13/2+	$9/2^{+}$
243	144	1802.49		7.42		13.25	5.13	7.61	1.19	-6.63	-2.30	5.971	6.034	5.878	5.932		$13/2^{+}$	0^+
244	145	1808.03		7.41		13.15	5.48	5.54	1.34	-6.58	-2.48	5.981	6.046	5.883	5.938		$13/2^{+}$	$9/2^{+}$
245	146	1815.50		7.41		13.01	5.89	7.47	1.56	-6.52	-2.68	5.991	6.058	5.890	5.944		$13/2^{+}$	0^+
246	147	1820.95		7.40		12.92	6.26	5.45	1.74	-6.46	-2.87	6.001	6.070	5.896	5.950		13/2+	$9/2^{+}$
247	148	1828.29	1847.58	7.40	7.48	12.79	6.64	7.34	1.94	-6.42	-3.06	6.011	6.082	5.902	5.956		13/2+	0+
248	149	1833.64		7.39		12.69	7.02	5.35	2.13	-6.36	-3.25	6.021	6.094	5.908	5.962		13/2+	9/2+
249	150	1840.89		7.39		12.60	7.39	7.25	2.31	-6.33	-3.44	6.030	6.106	5.915	5.968		13/2+	0+
250	151	1846.13	4072.02	7.38	7.47	12.49	7.78	5.24	2.51	-6.26	-3.63	6.041	6.118	5.921	5.975		13/2+	$\frac{9}{2}^{+}$
251 252	152	1853.32	1873.93	7.38	7.47	12.43	8.15	7.19	2.69	-6.24	-3.81	6.050	6.129	5.927	5.981		13/2 ⁺	-
252	153 154	1858.45	1879.22 1885.58	7.37 7.37	7.46 7.45	12.32 12.25	8.55 8.89	5.13 7.12	2.90 3.07	-6.17 -6.15	-4.01 -4.18	6.060 6.070	6.141 6.153	5.934 5.939	5.987 5.993		13/2 ⁺ 13/2 ⁺	$9/2^{+}$ 0^{+}
254	155	1865.57 1870.59	1890.67	7.37 7.36	7.43 7.44	12.23	9.30	5.02	3.07	-6.13 -6.08	-4.18 -4.39	6.080	6.164	5.947	6.000		13/2+	9/2 ⁺
255	156	1877.66	1896.64	7.36	7.44	12.14	9.63	7.07	3.45	-6.06	-4.56	6.090	6.176	5.952	6.006		13/2+	0+
256	157	1882.58	1030.04	7.35	7.44	11.99	10.01	4.92	3.64	-6.01	-4.74	6.099	6.187	5.958	6.012		13/2 ⁺	15/2 ⁻
257	158	1889.59		7.35		11.93	10.38	7.01	3.84	-5.97	-4.93	6.110	6.198	5.965	6.018		13/2 ⁺	0+
258	159	1894.42		7.34		11.84	10.75	4.83	4.02	-5.91	-5.11	6.119	6.210	5.971	6.024		13/2 ⁺	15/2 ⁻
259	160	1901.34		7.34		11.75	11.12	6.92	4.21	-5.87	-5.29	6.129	6.221	5.978	6.031		13/2+	0+
260	161	1906.06		7.33		11.64	11.48	4.72	4.40	-5.79	-5.47	6.139	6.232	5.984	6.037		13/2+	$15/2^{-}$
261	162	1912.91		7.33		11.57	11.84	6.85	4.59	-5.76	-5.65	6.149	6.244	5.991	6.044		13/2+	0+
262	163	1917.65		7.32		11.59	12.18	4.74	4.76	-5.79	-5.83	6.160	6.256	5.997	6.050		13/2+	$7/2^{+}$
263	164	1924.26		7.32		11.35	12.54	6.61	4.95	-5.64	-6.00	6.169	6.267	6.003	6.056		$13/2^{+}$	0^+
264	165	1929.06		7.31		11.41	12.90	4.80	5.13	-5.64	-6.18	6.180	6.279	6.010	6.063		$13/2^{+}$	$7/2^{+}$
265	166	1935.35		7.30		11.09	13.18	6.29	5.26	-5.51	-6.32	6.190	6.291	6.016	6.069		13/2+	0+
266	167	1940.14		7.29		11.08	13.54	4.79	5.45	-5.48	-6.49	6.200	6.303	6.023	6.076		13/2+	$7/2^{+}$
267	168	1946.19		7.29		10.84	13.77	6.05	5.56	-5.39	-6.62	6.210	6.315	6.028	6.081		13/2+	0+
268	169	1950.90		7.28		10.76	14.11	4.71	5.73	-5.33	-6.79	6.221	6.327	6.035	6.088		13/2+	7/2+
269	170	1956.79		7.27		10.60	14.34	5.89	5.82	-5.27	-6.90	6.231	6.339	6.040	6.093		13/2+	0 ⁺
270	171	1961.33		7.26		10.43	14.64	4.54	5.98	-5.14	-7.06	6.241	6.351	6.046	6.099		13/2+	7/2+
271 272	172 173	1967.14		7.26		10.35 10.32	14.87 15.17	5.81	6.09 6.24	-5.12 -5.11	−7.17 −7.30	6.251 6.261	6.363	6.050 6.055	6.103		13/2 ⁺	0^{+} $5/2^{+}$
272	173 174	1971.65 1977.13		7.25 7.24		10.32 9.99	15.17 15.33	4.51 5.48	6.24 6.29	-5.11 -4.95	−7.30 −7.40	6.261	6.375 6.386	6.055	6.108 6.110		13/2 ⁺ 13/2 ⁺	5/2 ' 0 ⁺
273	174	1977.13		7.24		9.99	15.55	4.39	6.41	-4.93 -4.88	-7.40 -7.52	6.279	6.398	6.062	6.114		13/2+	5/2 ⁺
274	175	1981.32		7.23 7.22		9.68	15.75	4.39 5.29	6.49	-4.80	-7.52 -7.61	6.287	6.409	6.063	6.116		13/2+	0 ⁺
276	177	1991.04		7.22		9.52	15.75	4.23	6.59	-4.70	-7.01 -7.72	6.296	6.421	6.067	6.119		13/2+	5/2 ⁺
277	178	1996.22		7.21		9.41	16.15	5.18	6.67	-4.67	-7.72 -7.82	6.305	6.433	6.068	6.121		13/2+	0 ⁺
278	179	2000.40		7.21		9.36	16.35	4.18	6.76	-4.67	-7.92	6.314	6.445	6.071	6.124		13/2 ⁺	3/2 ⁺
279	180	2005.35		7.19		9.13	16.54	4.95	6.83	-4.53	-8.02	6.323	6.457	6.073	6.126		13/2+	0+
280	181	2009.51		7.18		9.11	16.74	4.16	6.91	-4.50	-8.12	6.333	6.469	6.076	6.128		13/2+	1/2+
∠80	101	2009.5 I		7.18		9.11	10.74	4.10	0.91	-4.50	−8.1Z	0.333	0.409	0.070	0.128		13/2	

4	N	$E_{\rm b}^{\rm Cal.}$ (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
281	182	2014.23		7.17		8.88	16.94	4.72	7.01	-4.40	-8.22	6.342	6.481	6.078	6.131		13/2+	0+
82	183	2018.35		7.16		8.84	17.15	4.12	7.10	-3.55	-8.33	6.352	6.494	6.081	6.133		13/2+	1/2
83	184	2022.88		7.15		8.65	17.30	4.53	7.19	-3.39	-8.40	6.360	6.506	6.081	6.133		$7/2^{-}$	0^{+}
84	185	2024.09		7.13		5.74	17.65	1.21	7.35	-3.40	-8.57	6.375	6.520	6.095	6.147		$13/2^{+}$	13/
85	186	2026.62		7.11		3.74	17.95	2.53	7.50	-1.91	-8.73	6.388	6.533	6.106	6.158		$13/2^{+}$	0^+
86	187	2027.85		7.09		3.76	18.28	1.23	7.68	-1.91	-8.89	6.402	6.547	6.118	6.170		$13/2^{+}$	13/
87	188	2030.40		7.07		3.78	18.57	2.55	7.83	-1.93	-9.04	6.415	6.560	6.129	6.181		$13/2^{+}$	0^+
88	189	2031.64		7.05		3.79	18.90	1.24	8.01	-1.93	-9.20	6.428	6.574	6.142	6.194		$13/2^{+}$	13/
89	190	2034.21		7.04		3.81	19.20	2.57	8.16	-1.94	-9.35	6.441	6.587	6.152	6.204		13/2+	0^+
90	191	2035.46		7.02		3.82	19.53	1.25	8.34	-1.94	-9.51	6.455	6.600	6.165	6.217		$13/2^{+}$	13/
91	192	2038.05		7.00		3.84	19.82	2.59	8.49	-1.95	-9.66	6.468	6.613	6.176	6.227		13/2+	0+
92	193	2039.29		6.98		3.83	20.15	1.24	8.66	-1.93	-9.82	6.481	6.626	6.189	6.241		13/2+	13,
93	194	2041.90		6.97		3.85	20.43	2.61	8.81	-1.95	-9.97	6.494	6.639	6.199	6.251		13/2+	0+
94	195	2043.10		6.95		3.81	20.75	1.20	8.98	-1.91	-10.13	6.508	6.653	6.213	6.264		13/2+	13,
95	196	2045.74		6.93		3.84	21.03	2.64	9.13	-1.93	-10.27	6.520	6.665	6.223	6.274		13/2+	0+
96	197	2046.83		6.91		3.73	21.34	1.09	9.29	-1.84	-10.42	6.533	6.678	6.234	6.285		13/2+	13
97	198	2049.51		6.90		3.77	21.61	2.68	9.43	-1.87	-10.56	6.545	6.691	6.244	6.295		13/2+	0^{+}
98	199	2050.54		6.88		3.71	21.87	1.03	9.56	-1.88	-10.69	6.557	6.704	6.252	6.303		13/2+	11
99	200	2053.10		6.87		3.59	22.12	2.56	9.69	-1.78	-10.82	6.569	6.716	6.260	6.311		13/2+	0+
00	201	2054.12		6.85		3.58	22.36	1.02	9.80	-1.77	-10.94	6.580	6.729	6.268	6.319		13/2+	11
801	202	2056.51		6.83		3.41	22.58	2.39	9.91	-1.71	-11.05	6.591	6.741	6.274	6.324		13/2+	0+
802	203	2057.49		6.81		3.37	22.81	0.98	10.01	-1.68	-11.16	6.602	6.754	6.280	6.331		13/2+	11
03	204	2059.79		6.80		3.28	23.02	2.30	10.12	-1.66	-11.27	6.612	6.765	6.286	6.336		13/2+	0+
04	205	2060.71		6.78		3.22	23.25	0.92	10.12	-1.62	-11.39	6.624	6.778	6.292	6.343		13/2 ⁺	11
05	206	2062.96		6.76		3.17	23.46	2.25	10.22	-1.61	-11.50	6.634	6.789	6.298	6.348		13/2 ⁺	0+
305 306	207	2063.80		6.74		3.17	23.40	0.84	10.32	-1.55	-11.50 -11.61	6.645	6.802	6.304	6.354		13/2 ⁺	11
807	208	2066.03		6.73		3.07	23.89	2.23	10.43	-1.55 -1.55	-11.72	6.655	6.813	6.309	6.360		13/2 ⁺	0+
307 308	208	2066.75		6.71		2.95	24.13	0.72	10.55	-1.33 -1.48	-11.72 -11.83	6.666	6.826	6.316	6.367		13/2 ⁺	11
309	210	2068.99		6.70		2.96	24.13	2.24	10.74	-1.46 -1.49	-11.83 -11.94	6.677	6.837	6.322	6.372		13/2 ⁺	0+
310	210			6.68		2.80	24.55 24.57	0.56				6.688		6.330	6.380		13/2+	11
	211	2069.55							10.87	-1.41	-12.06		6.850	6.335				0+
311		2071.84		6.66		2.85	24.78	2.29	10.98	-1.44	-12.17	6.698	6.861		6.385		13/2 ⁺	
312	213	2072.24		6.64		2.69	25.03	0.40	11.11	-1.36	-12.30	6.710	6.874	6.344	6.394		13/2 ⁺	11
313	214	2074.58		6.63		2.74	25.22	2.34	11.20	-1.40	-12.40	6.720	6.885	6.349	6.399		13/2+	0+
14	215	2074.91		6.61		2.67	25.43	0.33	11.34	-1.40	-12.53	6.731	6.896	6.357	6.407		13/2+	17,
15	216	2077.25		6.59		2.67	25.66	2.34	11.43	-1.37	-12.62	6.742	6.909	6.363	6.413		13/2+	0+
316	217	2077.59		6.57		2.68	25.80	0.34	11.52	-1.36	-12.75	6.753	6.920	6.371	6.421		13/2+	17
317	218	2079.87		6.56		2.62	26.10	2.28	11.67	-1.35	-12.85	6.764	6.932	6.377	6.427		13/2+	0+
318	219	2080.23		6.54		2.64	26.22	0.36	11.70	-1.36	-12.91	6.776	6.948	6.379	6.429		13/2+	7/2
19	220	2082.46		6.53		2.59	26.53	2.23	11.89	-1.33	-13.07	6.786	6.956	6.391	6.440		$13/2^{+}$	0+
20	221	2082.88		6.51		2.65	26.70	0.42	11.98	-1.35	-13.13	6.798	6.971	6.393	6.443		13/2+	7/:
21	222	2085.03		6.50		2.57	26.95	2.15	12.12	-1.33	-13.28	6.807	6.980	6.404	6.454		13/2+	0^+
322	223	2085.46		6.48		2.58	27.11	0.43	12.20	-1.34	-13.35	6.819	6.995	6.407	6.457		13/2+	7/2
23	224	2087.60		6.46		2.57	27.37	2.14	12.34	-1.32	-13.50	6.829	7.003	6.418	6.468		$13/2^{+}$	0^{+}
24	225	2088.05		6.44		2.59	27.53	0.45	12.42	-1.34	-13.57	6.841	7.018	6.421	6.471		13/2+	7/2
25	226	2090.16		6.43		2.56	27.78	2.11	12.56	-1.32	-13.71	6.851	7.026	6.431	6.481		13/2+	0^{+}
26	227	2090.65		6.41		2.60	27.95	0.49	12.64	-1.34	-13.78	6.862	7.041	6.435	6.485		$13/2^{+}$	7/2
27	228	2092.73		6.40		2.57	28.18	2.08	12.77	-1.32	-13.91	6.872	7.050	6.444	6.494		$13/2^{+}$	0^{+}
28	229	2093.25		6.38		2.60	28.35	0.52	12.86	-1.34	-13.99	6.884	7.063	6.449	6.498		$13/2^{+}$	7/2
29	230	2095.31		6.37		2.58	28.58	2.06	12.98	-1.33	-14.11	6.893	7.073	6.457	6.507		13/2+	0^{+}
30	231	2095.87		6.35		2.62	28.77	0.56	13.08	-1.34	-14.20	6.905	7.086	6.462	6.511		13/2+	7/
31	232	2097.90		6.34		2.59	28.97	2.03	13.19	-1.33	-14.31	6.915	7.096	6.470	6.519		13/2+	0+
32	233	2098.49		6.32		2.62	29.16	0.59	13.28	-1.34	-14.40	6.926	7.109	6.475	6.524		13/2+	7/
33	234	2100.50		6.31		2.60	29.36	2.01	13.39	-1.33	-14.50	6.936	7.119	6.482	6.531		13/2+	0+
34	235	2101.12		6.29		2.63	29.55	0.62	13.48	-1.34	-14.59	6.947	7.132	6.488	6.537		13/2+	7/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
335	236	2103.10		6.28		2.60	29.72	1.98	13.57	-1.33	-14.68	6.957	7.142	6.493	6.542		13/2+	0+
336	237	2103.76		6.26		2.64	29.91	0.66	13.68	-1.34	-14.78	6.968	7.155	6.499	6.549		13/2+	7/2-
337	238	2105.71		6.25		2.61	30.08	1.95	13.76	-1.33	-14.85	6.978	7.166	6.503	6.552		13/2+	0^+
338	239	2106.40		6.23		2.64	30.22	0.69	13.87	-1.34	-14.96	6.989	7.177	6.510	6.559		13/2+	7/2-
339	240	2108.32		6.22		2.61	30.42	1.92	13.93	-1.32	-15.02	6.998	7.189	6.513	6.562		13/2+	0^+
340	241	2109.02		6.20		2.62	30.51	0.70	13.99	-1.33	-15.12	7.009	7.201	6.520	6.569		13/2+	7/2-
341	242	2110.92		6.19		2.60	30.73	1.90	14.09	-1.32	-15.17	7.019	7.213	6.522	6.571		13/2+	0^+
342	243	2111.65		6.17		2.63	30.83	0.73	14.11	-1.34	-15.23	7.032	7.228	6.524	6.573		13/2+	3/2-
343	244	2113.50		6.16		2.58	31.02	1.85	14.22	-1.31	-15.32	7.040	7.237	6.529	6.578		13/2+	0^+
344	245	2114.32		6.15		2.67	31.17	0.82	14.30	-1.33	-15.37	7.052	7.252	6.532	6.581		13/2+	3/2-
345	246	2116.08		6.13		2.58	31.30	1.76	14.36	-1.30	-15.45	7.061	7.261	6.536	6.584		13/2+	0+
346	247	2116.92		6.12		2.60	31.43	0.84	14.43	-1.32	-15.51	7.072	7.275	6.538	6.587		13/2+	3/2-
347	248	2118.63		6.11		2.55	31.54	1.71	14.47	-1.29	-15.57	7.082	7.286	6.541	6.590		13/2+	0+
348	249	2119.50		6.09		2.58	31.68	0.87	14.54	-1.30	-15.63	7.093	7.300	6.544	6.593		13/2+	3/2-
349	250	2121.16		6.08		2.53	31.77	1.66	14.57	-1.28	-15.68	7.103	7.312	6.545	6.594		13/2+	0+
350	251	2122.05		6.06		2.55	31.89	0.89	14.63	-1.29	-15.74	7.114	7.325	6.548	6.597		13/2+	3/2-
351	252	2123.68		6.05		2.52	31.98	1.63	14.67	-1.27	-15.78	7.124	7.338	6.549	6.598		13/2+	0+
352	253	2124.60		6.04		2.55	32.08	0.92	14.71	-1.30	-15.83	7.136	7.353	6.551	6.599		13/2+	1/2-
353	254	2126.17		6.02		2.49	32.17	1.57	14.75	-1.26	-15.87	7.146	7.365	6.552	6.601		13/2+	0+
354	255	2127.18		6.01		2.58	32.28	1.01	14.80	-1.29	-15.92	7.158	7.379	6.554	6.603		13/2+	1/2-
355	256	2128.65		6.00		2.48	32.36	1.47	14.83	-1.24	-15.96	7.168	7.392	6.555	6.603		13/2+	0+
356	257	2129.76		5.98		2.58	32.48	1.11	14.89	-0.12	-16.02	7.179	7.405	6.557	6.605		13/2+	1/2-
357	258	2131.10		5.97		2.45	32.53	1.34	14.90	-0.03	-16.05	7.191	7.420	6.557	6.605		13/2+	0+
358	259	2129.86		5.95		0.10		$\frac{-1.24}{1.24}$	14.90	-0.07	-16.05	7.218	7.456	6.556	6.605		13/2+	1/2+
359 σ	260	2128.65 19.97		5.93		-2.45		<u>-1.21</u>	14.91	<u>1.25</u>	-16.05	7.245	7.491	6.556	6.605		13/2+	0^+
	00 (Fm)																	
234	134	1731.30		7.40			0.24		1.25	-8.24	0.11	5.864	5.905	5.809	5.864		0^{+}	0^{+}
235	135	1738.76		7.40			0.73	7.46	1.47	-8.16		5.878	5.920	5.820	5.875		0+	11/2
236	136	1747.66		7.41		16.36	1.19	8.90	1.68	-8.13	-0.36	5.890	5.934	5.830	5.885		0+	0+
237	137	1754.98		7.41		16.22	1.69	7.32	1.90	-7.68	-0.60	5.904	5.949	5.843	5.898		0^+	11/2
238	138	1763.77		7.41		16.11	2.18	8.79	2.12	-7.68	-0.84	5.917	5.962	5.854	5.908		0^+	0+
239	139	1769.88		7.41		14.90	2.50	6.11	2.31	-7.67	-1.01	5.927	5.975	5.859	5.913		0^+	$9/2^{+}$
240	140	1778.19		7.41		14.42	2.93	8.31	2.51	-7.13	-1.22	5.936	5.987	5.864	5.919		0^+	0^{+}
241	141	1784.14		7.40		14.26	3.28	5.95	2.70	-7.07	-1.40	5.946	5.999	5.870	5.924		0^+	$9/2^{+}$
242	142	1792.14		7.41		13.95	3.71	8.00	2.90	-6.96	-1.61	5.956	6.011	5.876	5.931		0^+	0+
243	143	1797.98		7.40		13.84	4.06	5.84	3.10	-6.90	-1.79	5.966	6.024	5.882	5.936		0^+	$9/2^{+}$
244	144	1805.78		7.40		13.64	4.48	7.80	3.29	-6.83	-2.00	5.976	6.036	5.889	5.943		0^+	0^{+}
245	145	1811.53		7.39		13.55	4.84	5.75	3.50	-6.77	-2.18	5.986	6.048	5.894	5.948		0^+	$9/2^{+}$
246	146	1819.18	1837.12	7.40	7.47	13.40	5.24	7.65	3.68	-6.71	-2.38	5.996	6.060	5.901	5.955		0^+	0+
247	147	1824.82		7.39		13.29	5.61	5.64	3.87	-6.65	-2.57	6.005	6.072	5.906	5.960		0^+	$9/2^{+}$
248	148	1832.35	1851.56	7.39	7.47	13.17	6.00	7.53	4.06	-6.61	-2.76	6.015	6.083	5.913	5.967		0^+	0^{+}
249	149	1837.89	1858.00	7.38	7.46	13.07	6.38	5.54	4.25	-6.55	-2.95	6.025	6.095	5.919	5.973		0^{+}	$9/2^{+}$
250	150	1845.33	1865.52	7.38	7.46	12.98	6.75	7.44	4.44	-6.51	-3.14	6.035	6.107	5.925	5.979		0^+	0+
250	151	1850.76	1871.71	7.37	7.46	12.87	7.14	5.43	4.63	-6.45	-3.33	6.045	6.119	5.931	5.985		0^+	$9/2^{+}$
	151		1878.92	7.37	7.46	12.80	7.50	7.37	4.81	-6.42	-3.51	6.054	6.130	5.937	5.991		0^+	0^{+}
251	152	1858.13					7.00	5.32	5.00	-6.35	-3.72	6.065	6.142	5.944	5.998		0^{+}	$9/2^{+}$
251 252 253		1858.13 1863.45	1884.46	7.37	7.45	12.69	7.90	3.32									U	
251 252	152			7.37 7.37	7.45 7.44	12.69 12.62	7.90 8.25	7.30	5.18	-6.33	-3.89	6.074	6.153	5.950	6.003		0^{+}	0+
251 252 253	152 153	1863.45	1884.46							-6.33 -6.26	-3.89 -4.10	6.074 6.084	6.153 6.165	5.950 5.957			-	-
251 252 253 254 255	152 153 154	1863.45 1870.75	1884.46 1890.97	7.37	7.44	12.62	8.25	7.30	5.18	-6.26	-4.10				6.003		0^+	-
251 252 253 254 255 256	152 153 154 155	1863.45 1870.75 1875.96	1884.46 1890.97 1896.15	7.37 7.36	7.44 7.44	12.62 12.51 12.46	8.25 8.66	7.30 5.21	5.18 5.37	-6.26 -6.24	-4.10 -4.26	6.084 6.094	6.165 6.176	5.957 5.962	6.003 6.010		0^{+}	9/2 ⁺ 0 ⁺
251 252 253 254 255	152 153 154 155 156	1863.45 1870.75 1875.96 1883.21	1884.46 1890.97 1896.15 1902.54	7.37 7.36 7.36	7.44 7.44 7.43	12.62 12.51	8.25 8.66 9.00	7.30 5.21 7.25	5.18 5.37 5.55	-6.26	-4.10	6.084	6.165	5.957	6.003 6.010 6.016		0 ⁺ 0 ⁺ 0 ⁺	9/2+

Α	N	$E_{\rm b}^{\rm Cal.}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
260	160	1907.62		7.34		12.12	10.49	7.10	6.28	-6.05	-5.00	6.133	6.222	5.988	6.041		0+	0+
261	161	1912.52		7.33		12.00	10.86	4.90	6.46	-5.96	-5.18	6.142	6.233	5.993	6.047		0+	15/2
262	162	1919.54		7.33		11.92	11.22	7.02	6.63	-5.94	-5.36	6.152	6.244	6.000	6.054		0+	0+
263	163	1924.46		7.32		11.94	11.57	4.92	6.81	-5.96	-5.54	6.163	6.256	6.007	6.060		0^{+}	7/2+
264	164	1931.24		7.32		11.70	11.93	6.78	6.98	-5.81	-5.71	6.172	6.267	6.013	6.066		0+	0+
265	165	1936.21		7.31		11.75	12.28	4.97	7.15	-5.81	-5.89	6.183	6.279	6.020	6.073		0+	7/2+
266	166	1942.65		7.30		11.41	12.56	6.44	7.30	-5.67	-6.03	6.193	6.291	6.026	6.079		0+	0+
267	167	1947.61		7.29		11.40	12.92	4.96	7.47	-5.63	-6.21	6.203	6.303	6.033	6.085		0+	7/2
268	168	1953.79		7.29		11.14	13.16	6.18	7.60	-5.54	-6.33	6.213	6.315	6.038	6.091		0+	0+
269	169	1958.66		7.28		11.05	13.49	4.87	7.76	-5.47	-6.50	6.224	6.327	6.045	6.098		0+	7/2
270	170	1964.69		7.28		10.90	13.72	6.03	7.90	-5.41	-6.61	6.234	6.339	6.050	6.102		0+	0+
271	171	1969.38		7.27		10.72	14.03	4.69	8.05	-5.27	-6.77	6.244	6.351	6.056	6.108		0+	7/2
272	172	1975.31		7.26		10.62	14.26	5.93	8.17	-5.25	-6.88	6.253	6.363	6.060	6.113		0+	0+
273	173	1979.90		7.25		10.52	14.49	4.59	8.25	-5.24	-7.01	6.263	6.375	6.065	6.117		0+	5/2+
274	174	1985.55		7.25		10.24	14.71	5.65	8.42	-5.06	-7.11	6.272	6.386	6.068	6.120		0+	0 ⁺
275	175	1990.05		7.24		10.15	14.94	4.50	8.53	-4.99	-7.23	6.281	6.398	6.071	6.123		0+	5/2
276	176	1995.44		7.23		9.89	15.12	5.39	8.63	-4.91	-7.32	6.289	6.408	6.073	6.125		0^{+}	0 ⁺
277	177	1999.79		7.22		9.74	15.34	4.35	8.75	-4.81	-7.43	6.298	6.420	6.076	6.128		0^{+}	5/2 ⁻ 0 ⁺
278 279	178 179	2005.07		7.21		9.63	15.52	5.28	8.85	-4.78	-7.52	6.306	6.431	6.078	6.130		0+	3/2
	180	2009.36		7.20 7.19		9.57 9.36	15.72 15.91	4.29 5.07	8.96 9.08	-4.78	−7.63 −7.72	6.316 6.325	6.443 6.455	6.080 6.082	6.133 6.135		0+	3/2 0 ⁺
280	181	2014.43 2018.69		7.19 7.18		9.33	16.09	4.26	9.08	-4.63 -4.58	-7.72 -7.82	6.334	6.467	6.085	6.135		0+	3/2
281 282	182	2018.09		7.18		9.09	16.30	4.83	9.18	-4.50	-7.82 -7.92	6.343	6.479	6.087	6.139		0+	0 ⁺
282 283	183	2023.52		7.18 7.17		9.09	16.51			-4.50 -3.66	-7.92 -8.03	6.353	6.492	6.090	6.142		0+	1/2
284	184	2027.76		7.17 7.16		9.07 8.85	16.68	4.24 4.61	9.41 9.49	-3.00 -3.47	-8.03 -8.11	6.362	6.504	6.091	6.144		0+	0+
285	185	2032.37		7.10		5.99	17.01	1.38	9.66	-3.47 -3.46	-8.11 -8.27	6.376	6.518	6.104	6.156		0^{+}	13/2
286	186	2036.43		7.12		4.06	17.31	2.68	9.81	-2.06	-8.43	6.389	6.531	6.114	6.167		0+	0+
287	187	2037.82		7.12		4.07	17.65	1.39	9.97	-2.06	-8.59	6.402	6.545	6.127	6.179		0+	13/2
288	188	2040.52		7.10		4.09	17.95	2.70	10.12	-2.08	-8.75	6.415	6.558	6.138	6.190		0+	0+
289	189	2041.91		7.07		4.09	18.28	1.39	10.27	-2.07	-8.91	6.429	6.572	6.151	6.202		0^{+}	13/2
290	190	2044.63		7.05		4.11	18.58	2.72	10.42	-2.09	-9.06	6.442	6.585	6.161	6.213		0^+	0+
291	191	2046.03		7.03		4.12	18.91	1.40	10.57	-2.08	-9.23	6.455	6.598	6.174	6.226		0^+	13/2
292	192	2048.76		7.02		4.13	19.20	2.73	10.71	-2.10	-9.38	6.468	6.611	6.185	6.236		0^+	0+
293	193	2050.16		7.00		4.13	19.53	1.40	10.87	-2.08	-9.54	6.482	6.624	6.198	6.249		0^{+}	13/2
294	194	2052.92		6.98		4.16	19.83	2.76	11.02	-2.10	-9.69	6.494	6.637	6.208	6.260		0^{+}	0+
295	195	2054.28		6.96		4.12	20.16	1.36	11.18	-2.06	-9.85	6.508	6.650	6.222	6.273		0^{+}	13/2
296	196	2057.06		6.95		4.14	20.45	2.78	11.32	-2.07	-9.99	6.520	6.663	6.232	6.283		0^{+}	0+
297	197	2058.29		6.93		4.01	20.75	1.23	11.46	-1.97	-10.15	6.534	6.676	6.244	6.295		0^{+}	13/2
298	198	2061.10		6.92		4.04	21.02	2.81	11.59	-2.00	-10.29	6.546	6.688	6.253	6.304		0^+	0+
299	199	2062.28		6.90		3.99	21.30	1.18	11.74	-2.02	-10.41	6.558	6.702	6.262	6.313		0^+	11/2
300	200	2064.95		6.88		3.85	21.54	2.67	11.85	-1.90	-10.54	6.569	6.713	6.270	6.320		0^+	0+
301	201	2066.09		6.86		3.81	21.77	1.14	11.97	-1.88	-10.66	6.580	6.726	6.277	6.328		0^+	11/2
302	202	2068.59		6.85		3.64	21.99	2.50	12.08	-1.83	-10.77	6.591	6.738	6.282	6.333		0^+	0+
303	203	2069.69		6.83		3.60	22.21	1.10	12.20	-1.80	-10.89	6.602	6.751	6.289	6.339		0^+	11/
304	204	2072.10		6.82		3.51	22.43	2.41	12.31	-1.77	-11.00	6.612	6.762	6.294	6.345		0^{+}	0+
305	205	2073.14		6.80		3.45	22.65	1.04	12.43	-1.73	-11.11	6.623	6.775	6.300	6.351		0^+	11/2
306	206	2075.51		6.78		3.41	22.87	2.37	12.55	-1.72	-11.22	6.633	6.786	6.306	6.356		0^{+}	0+
307	207	2076.46		6.76		3.32	23.09	0.95	12.66	-1.66	-11.33	6.644	6.799	6.312	6.363		0^{+}	11/
308	208	2078.81		6.75		3.30	23.31	2.35	12.78	-1.66	-11.45	6.654	6.810	6.318	6.368		0^{+}	0+
309	209	2079.65		6.73		3.19	23.54	0.84	12.90	-1.59	-11.56	6.665	6.822	6.324	6.375		0^+	11/
310	210	2082.00		6.72		3.19	23.75	2.35	13.01	-1.61	-11.67	6.675	6.834	6.330	6.381		0^+	0+
311	211	2082.68		6.70		3.03	24.00	0.68	13.13	-1.52	-11.80	6.687	6.846	6.338	6.388		0^+	11/
312	212	2085.07		6.68		3.07	24.21	2.39	13.23	-1.55	-11.90	6.697	6.857	6.343	6.394		0^+	0+
313	213	2085.60		6.66		2.92	24.47	0.53	13.36	-1.47	-12.04	6.709	6.869	6.352	6.402		0^+	11/

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
314	214	2088.04		6.65		2.97	24.66	2.44	13.46	-1.51	-12.14	6.718	6.881	6.357	6.407		0+	0+
315	215	2088.51		6.63		2.91	24.94	0.47	13.60	-1.50	-12.27	6.729	6.892	6.366	6.416		0+	17/2+
316	216	2090.94		6.62		2.90	25.12	2.43	13.69	-1.47	-12.37	6.740	6.904	6.372	6.422		0+	0+
317	217	2091.40		6.60		2.89	25.33	0.46	13.81	-1.47	-12.50	6.751	6.915	6.380	6.430		0+	17/2+
318	218	2093.78		6.58		2.84	25.58	2.38	13.91	-1.45	-12.60	6.762	6.928	6.386	6.436		0+	0+
319	219	2094.24		6.57		2.84	25.71	0.46	14.01	-1.45	-12.73	6.773	6.939	6.394	6.444		0+	17/2+
320	220	2096.58		6.55		2.80	26.01	2.34	14.12	-1.44	-12.83	6.784	6.951	6.400	6.450		0+	0+
321	221	2097.06		6.53		2.82	26.16	0.48	14.18	-1.45	-12.93	6.795	6.963	6.407	6.457		0+	$9/2^{-}$
322	222	2099.37		6.52		2.79	26.46	2.31	14.34	-1.43	-13.05	6.805	6.974	6.414	6.464		0+	0+
323	223	2099.88		6.50		2.82	26.62	0.51	14.42	-1.45	-13.12	6.817	6.989	6.417	6.467		0+	7/2-
324	224	2102.14		6.49		2.77	26.88	2.26	14.54	-1.42	-13.27	6.827	6.998	6.428	6.478		0+	0+
325	225	2102.68		6.47		2.80	27.05	0.54	14.63	-1.44	-13.34	6.839	7.012	6.432	6.481		0+	7/2-
326	226	2104.91		6.46		2.77	27.31	2.23	14.75	-1.42	-13.48	6.848	7.021	6.442	6.492		0+	0+
327	227	2105.48		6.44		2.80	27.47	0.57	14.83	-1.44	-13.56	6.860	7.035	6.446	6.495		0+	7/2-
328	228	2107.68		6.43		2.77	27.72	2.20	14.95	-1.42	-13.69	6.870	7.044	6.456	6.505		0+	0+
329	229	2108.29		6.41		2.81	27.90	0.61	15.04	-1.44	-13.77	6.881	7.057	6.460	6.509		0+	$7/2^{-}$
330	230	2110.46		6.40		2.78	28.13	2.17	15.15	-1.42	-13.90	6.891	7.067	6.469	6.518		0+	0 ⁺
331	231	2111.10		6.38		2.81	28.31	0.64	15.23	-1.44	-13.98	6.902	7.080	6.473	6.523		0+	7/2-
332	232	2113.24		6.37		2.78	28.53	2.14	15.34	-1.42	-14.10	6.912	7.090	6.481	6.531		0+	0+
333	233	2113.92		6.35		2.82	28.71	0.68	15.43	-1.44	-14.19	6.923	7.103	6.487	6.536		0+	7/2-
334	234	2116.03		6.34		2.79	28.92	2.11	15.53	-1.42	-14.29	6.933	7.113	6.494	6.543		0+	0+
335	235	2116.75		6.32		2.83	29.11	0.72	15.63	-1.43	-14.39	6.944	7.125	6.499	6.548		0+	7/2-
336	236	2118.82		6.31		2.79	29.29	2.07	15.72	-1.42	-14.48	6.954	7.136	6.505	6.554		0+	0 ⁺
337	237	2119.57		6.29		2.82	29.49	0.75	15.81	-1.43	-14.58	6.965	7.148	6.511	6.560		0+	7/2-
338	238	2121.60		6.28		2.78	29.65	2.03	15.89	-1.41	-14.65	6.975	7.159	6.516	6.565		0+	0 ⁺
339	239	2122.39		6.26		2.82	29.86	0.79	15.99	-1.42	-14.75	6.986	7.171	6.522	6.571		0+	$7/2^{-}$
340	240	2124.37		6.25		2.77	29.98	1.98	16.05	-1.40	-14.82	6.995	7.182	6.525	6.574		0+	0 ⁺
341	241	2125.18		6.23		2.79	30.15	0.81	16.16	-1.40	-14.92	7.006	7.194	6.532	6.581		0+	$\frac{7/2^{-}}{0^{+}}$
342	242	2127.12		6.22		2.75	30.29	1.94	16.20	-1.39	-14.97	7.016	7.206	6.533	6.582		0+	
343	243	2127.93		6.20		2.75	30.39	0.81	16.28	-1.38	-15.07	7.027	7.218	6.540	6.589		0^{+}	$\frac{7/2^{-}}{0^{+}}$
344	244 245	2129.85		6.19		2.73 2.77	30.57 30.68	1.92	16.35 16.38	-1.38	-15.10	7.036	7.230 7.245	6.540 6.542	6.589 6.591		0+	
345	245 246	2130.70		6.18				0.85 1.85		-1.40	-15.15	7.048					0+	$\frac{3}{2}^{-}$ 0^{+}
346		2132.55		6.16		2.70	30.83 30.97		16.47	-1.36	-15.23	7.057	7.254 7.269	6.546	6.594		0+	3/2-
347	247	2133.46		6.15		2.76	31.06	0.91	16.54	-1.38	-15.28	7.069	7.289	6.548	6.597		0+	3/2 0 ⁺
348	248 249	2135.22		6.14		2.67		1.76 0.93	16.59	-1.35	-15.34	7.078	7.280	6.550	6.599		0+	3/2-
349 350	249 250	2136.15 2137.87		6.12		2.69 2.65	31.19 31.28	1.72	16.65	-1.36 -1.33	-15.40	7.089 7.099		6.553	6.601 6.603		0+	3/2 0 ⁺
350 351	250 251	2137.87		6.11 6.09		2.65	31.28	0.95	16.71 16.77	-1.33 -1.34	-15.45 -15.50	7.099 7.110	7.305 7.319	6.554 6.557	6.605		0+	3/2-
352	251	2140.49		6.08		2.62	31.48	1.67	16.77	-1.34 -1.32	-15.54	7.110	7.331	6.557	6.606		0+	0 ⁺
353	252	2140.49		6.07		2.64	31.46	0.97	16.86	-1.32 -1.35	-15.54 -15.59	7.120	7.346	6.559	6.607		0+	1/2-
354	253 254	2141.40		6.05		2.60	31.57	1.63	16.92	-1.33 -1.31	-15.59 -15.63	7.132	7.358	6.560	6.609		0+	0+
355	255					2.68	31.07	1.05					7.336 7.372				0+	1/2-
		2144.14		6.04					16.96	-1.35	-15.68	7.153		6.561	6.610		0+	0+
356 357	256 257	2145.66		6.03		2.57 2.68	31.84 31.95	1.52 1.16	17.01 17.06	-1.29	-15.72	7.163	7.385 7.398	6.562	6.611		0+	
357 358	257 258	2146.82 2148.20		6.01 6.00		2.54	31.95	1.16	17.06	$\frac{0.00}{-0.10}$	-15.77 -15.80	7.174 7.186	7.398 7.414	6.564 6.564	6.612 6.612		0+	1/2 ⁻ 0 ⁺
358 359	258 259	2148.20		5.98		0.14	32.00	-1.24	17.10	-0.10 -0.66	-15.80 -15.80	7.186	7.414 7.449	6.563	6.612		0+	1/2+
360	259	2146.96		5.98 5.96		-2.45	32.00 32.01	$\frac{-1.24}{-1.21}$	17.10	-0.66 1.23	-15.80 -15.82	7.213 7.235	7.449 7.477	6.565	6.613		0+	0+
	200	19.94		5.50		<u>-2.43</u>	J2.U I	<u>— 1.2 1</u>	17.10	1.23	-13.62	1.233	7.4//	0.505	0.015		U	U.
σ		19.94																
	01 (Md)	450		=														0.1
235	134	1729.70		7.36			-0.35		-1.60	-8.48	0.42	5.871	5.908	5.821	5.876		13/2+	0+
236	135	1737.41		7.36			0.12	7.71	-1.35	-8.41	0.19	5.884	5.922	5.832	5.887		13/2+	11/2+
237	136	1746.56		7.37		16.86	0.58	9.15	<u>-1.10</u>	-8.38	-0.04	5.896	5.936	5.843	5.897		13/2+	0+
238	137	1754.15		7.37		16.74	1.07	7.59	-0.83	-7.91	-0.28	5.910	5.951	5.855	5.909		$13/2^{+}$	$11/2^{+}$

(continued on next page)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
239	138	1763.19		7.38		16.63	1.54	9.04	-0.58	-7.92	-0.51	5.923	5.964	5.866	5.920		13/2+	0+
240	139	1769.45		7.37		15.30	1.88	6.26	-0.43	-7.90	-0.69	5.932	5.977	5.871	5.925		$13/2^{+}$	9/2+
241	140	1778.00		7.38		14.81	2.32	8.55	-0.19	-7.33	-0.90	5.942	5.989	5.877	5.931		$13/2^{+}$	0^{+}
242	141	1784.11		7.37		14.66	2.67	6.11	-0.03	-7.27	-1.08	5.952	6.001	5.882	5.936		$13/2^{+}$	9/2
243	142	1792.35		7.38		14.35	3.11	8.24	0.21	-7.15	-1.30	5.962	6.013	5.889	5.943		$13/2^{+}$	0^+
244	143	1798.35		7.37		14.24	3.47	6.00	0.37	-7.10	-1.48	5.971	6.025	5.894	5.948		$13/2^{+}$	9/2
245	144	1806.38		7.37		14.03	3.89	8.03	0.60	-7.02	-1.69	5.981	6.037	5.901	5.955		$13/2^{+}$	0^+
246	145	1812.29		7.37		13.94	4.26	5.91	0.76	-6.96	-1.87	5.991	6.049	5.906	5.960		$13/2^{+}$	9/2
247	146	1820.15		7.37		13.77	4.65	7.86	0.97	-6.90	-2.07	6.001	6.061	5.913	5.967		13/2+	0_{+}
248	147	1825.97		7.36		13.68	5.02	5.82	1.15	-6.85	-2.26	6.011	6.073	5.919	5.973		13/2+	9/2
249	148	1833.71		7.36		13.56	5.42	7.74	1.36	-6.80	-2.46	6.021	6.085	5.925	5.979		13/2+	0^{+}
250	149	1839.43		7.36		13.46	5.79	5.72	1.54	-6.74	-2.65	6.030	6.097	5.931	5.985		13/2+	9/2
251	150	1847.07	1867.92	7.36	7.44	13.36	6.18	7.64	1.74	-6.70	-2.83	6.040	6.108	5.937	5.991		13/2+	0^+
252	151	1852.70		7.35		13.27	6.57	5.63	1.94	-6.64	-3.03	6.050	6.120	5.944	5.997		13/2+	9/2
253	152	1860.24		7.35		13.17	6.92	7.54	2.11	-6.61	-3.21	6.059	6.131	5.950	6.003		13/2+	0+
254	153	1865.78		7.35		13.08	7.33	5.54	2.33	-6.55	-3.41	6.069	6.143	5.956	6.010		13/2+	9/2
255	154	1873.25	1894.32	7.35	7.43	13.01	7.68	7.47	2.50	-6.52	-3.59	6.079	6.154	5.962	6.015		13/2+	0+
256	155	1878.69	1006.21	7.34	7.40	12.91	8.10	5.44	2.73	-6.46	-3.79	6.089	6.166	5.969	6.022		13/2+	9/2
257	156	1886.09	1906.31	7.34	7.42	12.84	8.43	7.40	2.88	-6.43	-3.96	6.098	6.177	5.974	6.028		13/2+	0+
58	157	1891.42	1911.69	7.33	7.41	12.73	8.84	5.33	3.10	-6.36	-4.17	6.108	6.188	5.982	6.035		13/2+	9/2
59	158	1898.76		7.33		12.67	9.17	7.34	3.26	-6.34	-4.33	6.117	6.199	5.987	6.040		13/2+	0+
60 61	159	1903.97		7.32		12.55	9.55 9.92	5.21	3.45	-6.26	-4.55	6.128	6.211	5.995	6.048		13/2+	9/2 0 ⁺
61	160	1911.26		7.32		12.50	9.92 10.28	7.29	3.64 3.82	-6.24	-4.70	6.137	6.222 6.233	5.999	6.052		13/2 ⁺	
62	161	1916.34		7.31		12.37		5.08		-6.15	-4.88 5.00	6.146		6.005	6.058		13/2 ⁺	15/ 0 ⁺
63 64	162 163	1923.56 1928.64		7.31 7.31		12.30 12.30	10.65 10.99	7.22 5.08	4.02 4.18	-6.12 -6.15	-5.06 -5.23	6.156 6.166	6.244 6.256	6.012 6.019	6.065 6.072		13/2 ⁺ 13/2 ⁺	7/2
265	164	1935.60		7.30		12.04	11.34	6.96	4.16	-5.97	-5.23 -5.41	6.176	6.267	6.025	6.078		13/2+	0+
266	165	1933.00		7.30		12.04	11.70	5.16	4.55	-5.98	-5.58	6.186	6.279	6.031	6.084		13/2+	7/2
267	166	1947.33		7.29		11.73	11.70	6.57	4.68	-5.82	-5.72	6.196	6.290	6.037	6.090		13/2+	0+
268	167	1952.46		7.29		11.70	12.32	5.13	4.85	-5.77	-5.72 -5.90	6.206	6.302	6.044	6.097		13/2 ⁺	7/2
269	168	1958.76		7.28		11.43	12.57	6.30	4.97	-5.68	-6.02	6.216	6.315	6.049	6.102		13/2 ⁺	0+
270	169	1963.79		7.27		11.43	12.89	5.03	5.13	-5.61	-6.18	6.227	6.327	6.056	6.102		13/2 ⁺	7/2
271	170	1969.93		7.27		11.17	13.14	6.14	5.24	-5.54	-6.31	6.237	6.339	6.061	6.114		13/2+	0+
72	171	1974.77		7.26		10.98	13.44	4.84	5.39	-5.39	-6.46	6.247	6.351	6.067	6.120		13/2+	7/2
273	172	1980.81		7.26		10.88	13.67	6.04	5.50	-5.37	-6.58	6.257	6.363	6.072	6.124		13/2+	0+
74	173	1985.49		7.25		10.72	13.84	4.68	5.59	-5.36	-6.70	6.266	6.374	6.076	6.129		13/2+	5/2
75	174	1991.25		7.24		10.44	14.12	5.76	5.70	-5.16	-6.80	6.274	6.385	6.079	6.131		13/2+	0+
76	175	1995.86		7.23		10.37	14.34	4.61	5.81	-5.08	-6.92	6.283	6.397	6.082	6.134		13/2+	5/2
77	176	2001.34		7.23		10.09	14.53	5.48	5.90	-5.01	-7.01	6.291	6.408	6.084	6.136		13/2+	0+
78	177	2005.78		7.22		9.92	14.74	4.44	5.99	-4.90	-7.12	6.300	6.419	6.086	6.139		13/2+	5/2
79	178	2011.15		7.21		9.81	14.93	5.37	6.08	-4.87	-7.22	6.309	6.430	6.088	6.141		13/2+	0^+
80	179	2015.54		7.20		9.76	15.14	4.39	6.18	-4.87	-7.33	6.318	6.442	6.091	6.143		13/2+	3/2
81	180	2020.69		7.19		9.54	15.34	5.15	6.26	-4.73	-7.43	6.326	6.454	6.093	6.145		13/2+	0+
82	181	2025.04		7.18		9.50	15.53	4.35	6.35	-4.68	-7.53	6.335	6.466	6.095	6.147		13/2+	3/2
83	182	2029.96		7.17		9.27	15.73	4.92	6.44	-4.59	-7.63	6.345	6.478	6.098	6.150		$13/2^{+}$	0+
84	183	2034.30		7.16		9.26	15.95	4.34	6.54	-3.74	-7.74	6.354	6.490	6.100	6.152		13/2+	1/2
85	184	2038.99		7.15		9.03	16.11	4.69	6.62	-3.60	-7.82	6.363	6.502	6.102	6.154		13/2+	0+
86	185	2040.54		7.13		6.24	16.45	1.55	6.79	-3.63	-7.99	6.377	6.516	6.114	6.166		$13/2^{+}$	13/
287	186	2043.38		7.12		4.39	16.76	2.84	6.95	-2.22	-8.14	6.390	6.529	6.125	6.177		13/2+	0^{+}
88	187	2044.94		7.10		4.40	17.09	1.56	7.12	-2.23	-8.31	6.404	6.543	6.138	6.190		13/2+	13/
289	188	2047.79		7.09		4.41	17.39	2.85	7.27	-2.24	-8.46	6.417	6.556	6.148	6.200		13/2+	0^{+}
90	189	2049.36		7.07		4.42	17.72	1.57	7.45	-2.24	-8.62	6.430	6.569	6.161	6.213		$13/2^{+}$	13,
91	190	2052.23		7.05		4.44	18.02	2.87	7.60	-2.25	-8.78	6.443	6.583	6.172	6.224		$13/2^{+}$	0^{+}
92	191	2053.81		7.03		4.45	18.35	1.58	7.78	-2.25	-8.94	6.457	6.596	6.185	6.237		$13/2^{+}$	13/

Table 1 (continued)

192 2056,770 7.02 4.47 18.65 2.89 7.94 -2.26 -9.09 6.469 6.690 6.261	I	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
295 194 2061 188 6.99 448 19.28 291 15.4 8.44 -2.26 -9.57 6.510 6.648 6.233 6.285 297 186 2005.65 6.96 4.47 19.91 2.93 8.59 -2.23 -9.71 6.522 6.661 6.244 6.295 298 197 2070.010 6.92 4.36 20.50 2.96 8.91 -2.14 -10.01 6.57 6.526 6.307 299 138 2070.011 6.92 4.36 20.50 2.96 8.91 -2.14 -10.01 6.56 6.676 6.266 6.317 300 202 2077.56 6.86 8.87 4.41 2.12 2.96 9.57 -1.99 -1.018 6.56 6.86 3.86 21.85 2.12 2.94 6.32 6.32 6.33 6.32 6.32 6.32 6.32 6.33 6.22 5.30 6.22 8.30 7.32 2.92																		13/2+	0+
256 195 2062/72 6,97 4.45 1962 1.54 8.44 -2.22 -9.57 6,510 6,686 6,233 6,285 279 196 2005,655 6.96 4.47 19.91 2.93 8.87 -2.11 -9.57 6,525 6,661 6,244 6,237 288 137 2007,055 6.94 4.35 20.52 1.46 8.76 -2.11 -9.57 6,525 6,686 6,367 289 138 2074,10 6.89 4.30 2.13 2.14 1.14 1.14 6.686 6.686 6.36 6.31 302 2017,366 6.86 3.86 21.45 2.60 9.37 -1.94 -10.50 6.50 6.728 6.33 303 202 2079,66 6.86 3.86 21.45 2.60 9.37 -1.94 -10.50 6.592 6.738 6.214 6.313 3.73 21.90 2.52 9.59 -1.88 -10.72																		13/2+	13/2
297 196 2065.65 6.96																		13/2 ⁺	0 ⁺
288 197 2067.06 6.94 4.33 20.22 1.40 8.76 -2.11 -9.87 6.535 6.674 6.256 6.307 299 198 2070.01 6.52 6.90 4.30 20.50 8.91 -2.14 -1.01 6.55 6.686 6.266 6.317 300 200 2071.35 6.90 4.30 20.20 2.75 9.15 -2.02 -1.02 6.671 6.282 6.332 302 201 2075.36 6.87 4.01 2.124 1.26 9.27 -1.99 -1.036 6.52 6.735 6.284 6.334 3.81 2.188 1.21 9.49 -1.01 6.00 6.745 6.234 6.334 3.81 2.188 1.21 9.49 -1.01 6.00 6.735 6.234 6.334 3.81 2.188 1.21 9.49 -1.01 6.00 6.735 6.234 6.341 9.00 -1.18 -1.10 6.60 6.34 6.31<																		13/2+	13/2 ⁻ 0 ⁺
299 188 2070.01 6.92 4.36 205.0 2.96 8.91 -2.14 -10.10 6.57 6.686 6.266 6.37 300 199 2071.10 6.89 4.09 21.00 2.75 9.15 -2.02 -10.26 6.570 6.711 6.282 6.332 301 201 2077.96 6.86 3.86 21.45 2.60 9.37 -1.94 -10.50 6.592 6.735 6.294 6.343 305 204 2031.917 6.84 3.81 21.88 1.21 9.48 -1.91 -10.61 6.603 6.36 6.35 6.356 6.352 6.273 6.361 6.356 6.356 6.356 6.356 6.356 6.352																		13/2 ⁺ 13/2 ⁺	13/2 ⁻
300 200 2071.55 6.90 4.30 20.81 13.4 9.07 -2.16 -10.14 6.559 6.699 6.274 6.325 332 302 201 2075.36 6.87 4.01 21.24 1.26 9.27 -1.99 -10.38 6.581 6.724 6.282 6.332 303 202 2077.96 6.86 3.86 21.45 2.660 9.37 -1.94 -10.50 6.562 6.735 6.346 6.345 304 203 2079.17 6.84 3.81 21.68 1.21 9.48 -1.91 -10.61 6.603 6.748 6.300 6.351 6.376 6.365 6.3																		13/2+	0 ⁺
301 200 2074,10 6,88 4,09 21,00 275 9,15 -2,02 -10,26 6,570 6,711 6,288 6,339 302 201 2075,36 6,86 3,86 21,45 2,60 9,37 -1,94 -10,50 6,925 6,294 6,345 303 202 2079,19 6,84 3,81 21,68 1,94 -10,50 6,592 6,735 6,294 6,341 305 204 2081,69 6,33 3,73 21,90 2,52 9,59 -1,88 -10,72 6,613 6,79 6,306 6,362 6,372 1,00 9,99 -1,88 -1,024 6,612 6,362 6,362 6,362 1,00 9,99 -1,88 -1,024 6,612 6,362 6,362 6,362 6,362 6,362 6,362 8,362 2,235 2,48 9,90 -1,88 -1,108 6,656 6,372 6,312 6,362 3,342 2,22,35 1,48 1,924																		13/2+	11/2-
302 201 2075.56 6.87 4.01 21.24 1.26 9.27 -1.99 4 -10.56 6.592 6.734 6.288 6.339 308 202 2077.96 6.86 3.86 21.45 2.660 9.37 -1.91 4 -10.56 6.592 6.735 6.294 6.345 304 203 2079.17 6.84 3.81 21.68 1.21 9.48 -1.91 1.061 6.603 6.748 6.300 6.351 305 204 2081.69 6.83 3.73 21.90 2.52 9.59 1.88 -1.91 1.061 6.603 6.748 6.300 6.356 306 205 2082.83 6.81 3.66 22.12 1.14 9.69 1.84 -1.084 6.623 6.772 6.312 6.362 307 206 2085.31 6.79 3.52 2.248 9.80 1.84 -1.084 6.623 6.772 6.312 6.362 308 207 2063.7 6.77 3.54 22.57 1.06 9.91 1.78 1.106 6.644 6.793 6.316 6.386 308 207 2088.83 6.76 6.77 3.54 22.57 1.06 9.91 1.78 1.118 6.655 6.807 6.329 6.330 310 209 2089.78 6.74 3.41 23.03 0.95 1.013 1.71 1.10 6.664 6.79 6.326 6.380 311 210 209.244 6.73 3.44 23.25 2.46 1.002 1.718 1.113 6.665 6.819 6.336 6.346 6.331 2.12 2082.24 6.73 3.44 23.25 2.46 1.024 1.72 1.144 6.667 6.838 6.346 6.346 3.31 2.12 2082.24 6.73 3.341 23.25 2.46 1.024 1.72 1.144 6.667 6.839 6.346 6.346 3.31 2.12 2083.25 6.670 3.31 2.72 2.83 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.0																		13/2+	0+
303 202 2077.96 6.86 3.86 21.45 2.60 9.37 -1.94 -10.50 6.593 6.244 6.345 304 203 204 2081.69 6.83 3.73 21.90 2.52 9.59 -1.84 -10.72 6.613 6.75 6.306 6.36 307 206 2085.51 6.79 3.62 22.35 2.48 9.80 -1.84 -10.95 6.64 6.73 6.317 6.38 308 207 2086.37 6.77 3.54 22.25 7.24 1.10 6.644 6.79 6.32 6.73 3.41 22.30 2.46 10.02 -1.78 -11.18 6.654 6.79 6.32 6.73 3.41 23.30 0.95 10.13 -1.71 -11.18 6.654 6.79 6.32 22.80 2.46 10.02 -1.78 -1.16 6.657 6.32 6.32 6.32 2.46 10.22 -1.78 -1.11 6.666 6.31 <td></td> <td>13/2⁺</td> <td>11/2⁻</td>																		13/2 ⁺	11/2 ⁻
304 203 2091/7 6.84 3.81 21.68 1.21 9.48 -1.91 -1.061 6.03 6.748 6.300 6.351 305 204 2081,69 6.83 3.73 21.190 2.52 1.84 -10.84 6.623 6.779 6.312 6.32 307 206 2085,31 6.79 3.54 22.57 1.06 9.91 -1.78 -1.106 6.644 6.783 6.317 6.38 308 207 2085,37 6.77 3.54 22.57 1.06 9.91 -1.78 -1.106 6.644 6.73 6.33 6.74 310 209 2089.78 6.74 3.41 22.53 0.95 10.13 -1.71 -1.134 6.655 6.819 6.336 6.34 6.336 6.34 6.336 6.342 6.336 6.342 6.336 6.342 6.336 6.342 6.336 6.342 6.336 6.342 6.336 6.336 1.342 1																		13/2+	0+
305 204 2081.69 6.83 3.73 21.90 2.52 9.59 -1.84 -10.72 6.613 6.79 6.306 6.366 306 205 2082.83 6.81 3.66 2.12 1.14 -10.95 6.644 6.723 6.312 6.382 307 206 2085.31 6.77 3.54 22.57 1.06 9.90 -1.83 -10.95 6.644 6.732 6.312 6.334 6.373 6.334 6.374 3.341 23.23 0.95 10.13 -1.78 -11.18 6.665 6.891 6.336 6.386 6.380 6.380 6.380 6.380 6.380 6.380 6.321 22.280 2.246 10.02 -1.71 -11.30 6.665 6.819 6.336 6.380 6.380 6.342 6.390 6.342 6.390 6.342 6.390 6.404 3.31 22.17 2.49 10.48 -1.67 11.54 6.68 8.34 6.350 6.405 3.																		13/2+	11/2-
306 205 2082.83 6.81 3.66 22.12 1.14 9.99 -1.84 -10.84 6.623 6.772 6.312 6.323 6.73 6.374 6.388 3.08 20.235 2.48 9.90 -1.78 -11.06 6.644 6.783 6.317 6.334 6.374 2.374 2.38 2.08 2.08 9.90 -1.78 -1.106 6.644 6.733 6.334 2.374 2.39 2.08 9.90 1.718 -1.118 6.655 6.819 6.326 6.336 6.336 6.336 6.336 6.336 6.336 6.386 3.13 2.171 2.90 1.114 6.665 6.819 6.336 6.336 6.336 6.342 6.392 6.336 6.336 6.336 6.342 6.392 6.304 6.336 6.342 6.336 6.342 6.393 6.432 6.393 6.432 6.336 6.342 6.335 6.222 1.102 1.103 1.118 6.655 6.895 6.336																		13/2+	0+
307 206 2085.31 6.79 3.62 22.35 2.48 9.80 -1.83 -1.05 6.634 6.78 5.32 6.374 308 207 2088.37 6.76 3.52 22.80 2.46 11.02 -1.78 -1.11.06 6.64 6.75 6.36 6.386 310 209 2088.78 6.74 3.41 23.23 9.95 10.13 -1.71 -1.13 6.656 6.819 6.36 6.366 6.31 6.36 6.366 6.31 6.36 6.366 6.31 3.24 22.51 0.82 10.38 -1.65 -1.14 6.67 6.36 6.30 6.40 313 212 2095.55 6.70 3.31 23.71 2.49 10.48 -1.67 -1.165 6.697 6.836 6.34 6.414 315 214 2098.76 6.66 3.21 24.18 2.54 10.72 -1.63 -1.18 6.718 6.37 6.427																		13/2+	11/2-
309 208 2088.83 6.76 3.52 22.80 2.46 10.02 -1.78 -1.118 6.655 6.807 6.329 6.386 310 209 2088.78 6.74 3.41 23.25 2.46 10.24 -1.72 -1.14 6.655 6.819 6.336 6.336 311 212 2095.55 6.70 3.31 23.71 2.49 10.48 -1.65 -1.68 6.87 6.842 6.350 6.400 312 211 2095.55 6.70 3.31 23.71 2.49 10.48 -1.67 -1.168 6.697 6.884 6.355 6.405 314 213 2098.76 6.66 3.21 24.18 2.54 10.72 -1.63 -1.188 6.78 6.842 6.356 6.449 315 214 2098.76 6.66 3.21 24.46 0.61 10.58 -1.62 2.729 6.88 6.67 6.419 316 215	307	206					3.62	22.35	2.48	9.80		-10.95		6.783	6.317	6.368		13/2+	0+
101 209 2088.78 6.74 3.41 23.03 0.95 10.13 -1.71 -11.30 6.665 6.819 6.336 6.386 6.332 11.1 2093.06 6.71 3.28 23.51 0.82 10.38 -1.65 -11.54 6.687 6.842 6.350 6.400 6.313 12.2 2095.55 6.70 3.31 23.71 2.49 10.48 -1.65 -11.65 6.687 6.842 6.355 6.405 6.	808	207	2086.37		6.77		3.54	22.57	1.06	9.91	-1.78	-11.06	6.644	6.795	6.323	6.374		13/2+	$11/2^{-}$
311 210 2092.24 6.73 3.41 23.25 2.46 10.24 -1.72 -11.41 6.676 6.830 6.342 6.392 312 211 2093.55 6.70 3.31 23.71 2.49 10.48 -1.67 -11.65 6.697 6.854 6.355 6.405 314 213 2096.22 6.68 3.21 24.18 2.54 11.62 -1.160 -1.178 6.708 6.66 6.414 315 214 2098.76 6.66 3.21 24.18 2.54 10.72 -1.63 -1.188 6.718 6.877 6.38 6.419 316 215 2099.37 6.64 3.15 24.46 0.61 10.36 -1.62 -1.20 6.720 6.888 6.377 6.419 317 216 210.19 6.663 3.14 24.51 10.56 -1.62 -1.20 6.740 6.90 6.93 6.442 3.03 6.461 3.13 24.	309	208	2088.83		6.76		3.52	22.80	2.46	10.02	-1.78	-11.18	6.655	6.807	6.329	6.380		13/2+	0+
312 211 2093.06 6.71 3.28 2.351 0.82 10.38 -1.65 -1.154 6.687 6.842 6.350 6.400 314 213 2096.22 6.68 3.16 23.98 0.67 10.62 -1.60 -1.178 6.708 6.864 6.364 6.414 315 214 2098.76 6.66 3.21 24.18 2.54 10.72 -1.63 -1.188 6.718 6.877 6.369 6.414 315 216 2099.37 6.64 3.15 24.46 0.61 10.86 -1.60 -12.02 6.729 6.88 6.377 6.427 317 216 2101.90 6.63 3.14 24.65 2.53 10.96 -1.60 -12.12 6.701 6.911 6.342 6.442 318 217 2104.98 6.60 3.08 25.11 2.48 11.20 -1.57 -12.25 6.751 6.911 6.392 6.492 31	310	209	2089.78		6.74		3.41	23.03	0.95	10.13	-1.71	-11.30	6.665	6.819	6.336	6.386		$13/2^{+}$	$11/2^{-}$
313 212 2095.55 6.70 3.31 23.71 2.49 10.48 -1.67 -11.65 6.697 6.854 6.355 6.405 314 213 2096.22 6.68 3.16 23.98 0.67 10.62 -1.60 -11.88 6.718 6.877 6.364 6.414 315 214 2098.75 6.64 3.15 24.48 0.61 10.72 -1.63 -1.188 6.718 6.877 6.369 6.419 316 215 2099.37 6.64 3.15 24.46 0.61 10.86 -1.60 -1.202 6.720 6.888 6.377 6.427 318 217 210.25 6.61 3.13 24.91 0.60 11.10 -1.59 -1.25 6.751 6.911 6.323 6.398 6.442 319 218 2102.50 6.66 3.08 25.55 0.60 11.34 -1.59 -1.235 6.751 6.93 6.442 320<												-11.41	6.676					$13/2^{+}$	0^+
314 213 2096,22 6.68 3.16 23.98 0.67 10.62 -1.60 -11.78 6.708 6.866 6.341 315 214 2098,76 6.66 3.21 24.18 2.54 10.72 -1.63 -11.88 6.718 6.897 6.39 6.419 316 215 2099,37 6.64 3.15 24.46 0.61 10.86 -1.62 -12.02 6.740 6.90 6.38 4.34 317 2102.50 6.61 3.13 24.91 0.60 11.10 -1.59 -12.25 6.751 6.901 6.38 4.48 11.20 -1.57 -12.25 6.761 6.932 6.442 3.99 21.915.58 6.58 3.08 25.35 0.60 11.10 -1.59 -1.25 6.761 6.934 6.407 6.456 321 220 2108.03 6.57 3.05 25.57 2.45 11.45 -1.56 -12.59 6.783 6.94 6.412									0.82	10.38		-11.54				6.400		$13/2^{+}$	$11/2^{-}$
315 214 2098,76 6,66 3.21 24,18 2.54 10,72 -1,62 -12,02 6,72 6,89 6,419 316 215 2099,37 6,64 3,15 24,66 0,61 1,086 -1,62 -12,02 6,729 6,888 6,377 6,43 318 217 2102,50 6,61 3,13 24,91 0,60 11,10 -1,59 -12,25 6,511 6,392 6,442 319 218 2104,98 6,60 3,08 25,15 0,60 11,10 -1,57 -12,35 6,761 6,932 6,442 320 219 2105,58 6,58 3,08 25,35 0,60 11,34 -1,57 -12,48 6,772 6,934 6,407 6,456 321 220 2108,63 6,55 3,05 25,75 2,45 11,48 -1,56 -12,29 6,816 6,413 6,463 322 221 2108,63 6,55 3,05 <td></td> <td>13/2+</td> <td>0^+</td>																		13/2+	0^+
316 215 2099.37 6.64 3.15 24.46 0.61 10.86 -1.62 -12.02 6.729 6.888 6.377 6.427 317 216 2101.90 6.63 3.14 24.65 2.53 10.96 -1.60 -12.12 6.70 6.900 6.344 318 217 2102.50 6.61 3.13 24.91 0.60 11.10 -1.59 -12.25 6.751 6.911 6.398 6.442 319 218 2104.98 6.60 3.08 25.51 2.48 11.20 -1.57 -12.35 6.761 6.923 6.398 6.448 320 219 2105.58 6.58 3.05 25.57 2.45 11.45 -1.56 -12.93 6.816 6.413 6.463 321 221 2108.63 6.55 3.05 25.57 2.45 11.45 -1.55 -12.71 6.794 6.957 6.421 6.471 322 221 2111.0																		13/2+	11/2-
317 216 2101.90 6.63 3.14 24.65 2.53 10.96 -1.60 -12.12 6.740 6.900 6.384 6.434 318 217 2102.50 6.61 3.13 24.91 0.60 11.10 -1.57 -12.25 6.751 6.911 6.392 6.442 319 218 2104.98 6.60 3.08 25.35 0.60 11.34 -1.57 -12.35 6.761 6.932 6.984 6.488 320 219 2108.03 6.57 3.05 25.57 2.06 11.35 -1.56 -12.59 6.894 6.411 6.463 322 221 1208.63 6.55 3.05 25.57 0.60 11.57 -1.55 -12.71 6.794 6.967 6.421 6.471 324 223 2111.05 6.54 3.02 26.02 2.43 11.18 -1.54 -13.94 6.85 6.969 6.428 6.477 325 224<																		13/2+	0+
318 217 2102.50 6.61 3.13 24.91 0.60 11.10 -1.59 -1.225 6.751 6.912 6.392 6.442 320 219 2105.58 6.58 3.08 25.35 0.60 11.34 -1.57 -12.35 6.761 6.934 6.486 321 220 2108.03 6.57 3.05 25.57 2.45 11.45 -1.56 -12.59 6.783 6.946 6.413 6.463 321 222 22111.05 6.54 3.02 26.02 2.42 11.68 -1.55 -12.21 6.994 6.428 6.477 324 223 2111.06 6.54 3.02 26.02 2.42 11.68 -1.55 -12.21 6.996 6.428 6.477 324 223 2111.06 6.50 3.00 26.45 2.37 11.91 -1.56 -12.93 6.816 6.992 6.485 325 224 2114.05 6.50 3.0																		13/2+	17/2+
319 218 2104.98 6.60 3.08 25.11 2.48 11.20 -1.57 -12.35 6.761 6.923 6.398 6.448 320 219 2105.58 6.58 3.08 25.35 0.60 11.34 -1.56 -12.59 6.783 6.946 6.43 6.463 321 220 2108.63 6.55 3.05 25.75 0.60 11.57 -1.55 -12.91 6.784 6.957 6.421 6.463 322 221 2111.05 6.54 3.02 26.02 2.42 11.68 -1.55 -12.81 6.805 6.981 6.487 6.471 6.481 6.487 6.471 6.481 6.805 3.00 26.62 0.63 11.80 -1.56 -12.93 6.816 6.981 6.435 6.485 325 224 2114.05 6.50 3.00 26.42 2.37 11.91 -1.54 -13.48 6.826 6.981 6.442 6.492																		13/2+	0+
320 219 2105.58 6.58 3.08 25.35 0.60 11.34 -1.57 -12.48 6.772 6.934 6.407 6.456 321 220 2108.03 6.57 3.05 25.57 2.45 11.45 -1.56 -12.59 6.783 6.946 6.431 6.463 322 221 2108.63 6.55 3.05 25.75 0.60 11.57 -1.55 -12.71 6.794 6.957 6.421 6.471 323 222 2111.05 6.54 3.02 26.02 2.42 11.68 -1.55 -12.81 6.805 6.477 325 224 2114.05 6.50 3.00 26.45 2.37 11.91 -1.54 -13.04 6.826 6.992 6.442 6.492 326 225 2114.71 6.49 3.03 26.66 0.66 12.03 -1.55 -13.15 6.837 7.004 6.450 6.506 326 225 2117.																		13/2+	17/2 ⁺ 0 ⁺
321 220 2108.03 6.57 3.05 25.75 2.45 11.45 -1.56 -12.59 6.783 6.946 6.413 6.463 322 221 108.63 6.55 3.05 25.75 0.60 11.57 -1.55 -12.71 6.794 6.957 6.421 6.471 324 223 2111.05 6.54 3.02 26.02 2.42 11.68 -1.56 -12.93 6.816 6.981 6.435 6.485 325 224 2114.05 6.50 3.00 26.45 2.37 11.91 -1.54 -13.04 6.826 6.992 6.442 6.492 326 225 2114.71 6.49 3.03 26.66 0.66 12.03 -1.55 -13.15 6.837 7.015 6.450 6.500 327 226 2114.71 6.46 3.03 27.93 2.35 12.15 -1.53 -13.26 6.847 7.015 6.650 6.502 6.502 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>13/2+</td><td>-</td></t<>																		13/2+	-
322 221 2108.63 6.55 3.05 25.75 0.60 11.57 -1.55 -12.71 6.794 6.957 6.421 6.471 323 222 2111.05 6.54 3.02 26.02 2.42 11.68 -1.55 -12.81 6.805 6.969 6.428 6.475 324 223 2111.068 6.52 3.05 26.22 0.63 11.80 -1.56 -12.93 6.816 6.691 6.492 325 224 2114.05 6.50 3.00 26.45 2.37 11.91 -1.54 -13.04 6.826 6.992 6.442 6.492 326 225 2114.71 6.49 3.03 26.66 0.66 12.03 -1.55 -13.15 6.837 7.015 6.456 6.500 328 227 2117.74 6.46 3.03 27.09 0.68 12.26 -1.54 -13.38 6.89 7.077 6.465 6.514 329 228																		13/2 ⁺ 13/2 ⁺	17/2 ⁺ 0 ⁺
323 222 2111.05 6.54 3.02 26.02 2.42 11.68 -1.55 -12.81 6.805 6.99 6.428 6.477 324 223 2111.05 6.50 3.05 26.22 0.63 11.80 -1.56 -12.93 6.816 6.981 6.435 6.482 325 224 2114.05 6.50 3.00 26.45 2.37 11.91 -1.55 -13.15 6.837 7.004 6.492 3.03 26.66 0.66 12.03 -1.55 -13.15 6.837 7.004 6.450 6.500 327 226 2117.06 6.47 3.01 26.90 2.35 12.15 -1.53 -13.26 6.847 7.015 6.456 6.500 328 227 2117.74 6.46 3.03 27.09 0.68 12.26 -1.53 -13.47 6.899 7.038 6.470 6.520 330 229 2120.75 6.43 3.02 27.71 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>13/2+</td><td>17/2⁺</td></td<>																		13/2+	17/2 ⁺
324 223 2111.68 6.52 3.05 26.22 0.63 11.80 -1.56 -12.93 6.816 6.981 6.435 6.485 325 224 2114.05 6.50 3.00 26.45 2.37 11.91 -1.54 -13.04 6.826 6.992 6.442 6.492 326 225 2114.71 6.49 3.03 26.60 0.66 12.03 -1.55 -13.15 6.837 7.004 6.450 6.500 327 226 2117.06 6.47 3.01 26.90 2.35 12.15 -1.53 -13.26 6.847 7.015 6.456 6.506 328 227 2117.74 6.46 3.03 27.09 0.68 12.26 -1.54 -13.38 6.858 7.027 6.465 6.514 330 229 2120.76 6.43 3.02 27.51 0.71 12.47 -1.53 -13.60 6.80 7.049 6.528 331 232<																		13/2+	0+
325 224 2114.05 6.50 3.00 26.45 2.37 11.91 -1.54 -13.04 6.826 6.992 6.442 6.492 326 225 2114.71 6.49 3.03 26.66 0.66 12.03 -1.55 -13.15 6.837 7.004 6.450 6.500 327 226 2117.06 6.47 3.01 26.90 2.35 12.15 -1.53 -13.26 6.847 7.015 6.46 6.506 6.506 328 227 2117.74 6.46 3.03 27.09 0.68 12.26 -1.54 -13.38 6.858 7.027 6.465 6.514 329 228 2120.05 6.44 2.99 27.32 2.31 12.37 -1.53 -13.47 6.869 7.038 6.470 6.520 330 229 2120.06 6.43 3.02 27.51 0.71 12.47 -1.53 -13.47 6.809 7.04 6.484 6.533																		13/2 ⁺	9/2 ⁻
326 225 2114.71 6.49 3.03 26.66 0.66 12.03 -1.55 -13.15 6.837 7.004 6.450 6.500 327 226 2117.06 6.47 3.01 26.90 2.35 12.15 -1.53 -13.26 6.847 7.015 6.456 6.506 328 227 2117.74 6.46 3.03 27.09 0.68 12.26 -1.54 -13.38 6.858 7.027 6.655 6.514 329 228 2120.05 6.44 2.99 27.32 2.31 12.37 -1.53 -13.47 6.869 7.038 6.470 6.520 330 229 2120.76 6.43 3.02 27.51 0.71 12.47 -1.53 -13.68 6.890 7.061 6.484 6.528 331 233 2123.05 6.41 3.00 27.74 2.29 12.59 -1.53 -13.68 6.890 7.061 6.484 6.533 3																		13/2+	0 ⁺
327 226 2117.06 6.47 3.01 26.90 2.35 12.15 -1.53 -13.26 6.847 7.015 6.456 6.506 328 227 2117.74 6.46 3.03 27.09 0.68 12.26 -1.54 -1.338 6.858 7.027 6.455 6.514 329 228 2120.05 6.44 2.99 27.32 2.31 12.37 -1.53 -13.47 6.869 7.038 6.470 6.520 330 229 2120.05 6.43 3.02 27.51 0.71 12.47 -1.53 -13.60 6.880 7.049 6.479 6.528 331 230 2123.05 6.41 3.00 27.74 2.29 12.59 -1.53 -13.68 6.890 7.061 6.484 6.533 332 231 2123.05 6.40 3.02 27.91 0.73 12.68 -1.52 -13.88 6.911 7.084 6.497 6.546 3																		13/2+	9/2-
328 227 2117.74 6.46 3.03 27.09 0.68 12.26 -1.54 -13.38 6.858 7.027 6.465 6.514 329 228 2120.05 6.44 2.99 27.32 2.31 12.37 -1.53 -13.47 6.869 7.038 6.470 6.520 330 229 2120.76 6.43 3.02 27.51 0.71 12.47 -1.53 -13.68 6.890 7.049 6.479 6.528 331 230 2123.78 6.40 3.02 27.91 0.73 12.68 -1.55 -13.76 6.901 7.074 6.488 6.537 333 232 2126.04 6.38 2.99 28.14 2.26 12.80 -1.52 -13.88 6.911 7.084 6.497 6.546 334 233 2126.82 6.37 3.04 28.33 0.78 12.90 -1.54 -13.97 6.922 7.096 6.502 6.551 3																		13/2+	0+
329 228 2120.05 6.44 2.99 27.32 2.31 12.37 -1.53 -13.47 6.869 7.038 6.470 6.520 330 229 2120.76 6.43 3.02 27.51 0.71 12.47 -1.53 -13.60 6.880 7.049 6.479 6.528 331 230 2123.05 6.41 3.00 27.74 2.29 12.59 -1.53 -13.68 6.890 7.061 6.484 6.533 332 231 2123.78 6.40 3.02 27.91 0.73 12.68 -1.55 -13.76 6.901 7.074 6.488 6.537 333 232 2126.04 6.38 2.99 28.14 2.26 12.80 -1.52 -13.88 6.911 7.084 6.497 6.546 334 233 2126.82 6.37 3.04 28.33 0.78 12.90 -1.54 -13.97 6.922 7.096 6.502 6.551 3		227																13/2+	$9/2^{-}$
330 229 2120.76 6.43 3.02 27.51 0.71 12.47 -1.53 -13.60 6.880 7.049 6.479 6.528 331 230 2123.05 6.41 3.00 27.74 2.29 12.59 -1.53 -13.68 6.890 7.061 6.484 6.533 332 231 2123.78 6.40 3.02 27.91 0.73 12.68 -1.55 -13.76 6.901 7.074 6.488 6.537 333 232 2126.04 6.38 2.99 28.14 2.26 12.80 -1.52 -13.88 6.911 7.084 6.497 6.546 334 233 2126.82 6.37 3.04 28.33 0.78 12.90 -1.54 -13.97 6.922 7.066 6.502 6.551 335 234 2129.04 6.36 3.00 28.54 2.22 13.01 -1.52 -14.08 6.932 7.106 6.510 6.551 3		228							2.31									13/2+	0+
332 231 2123.78 6.40 3.02 27.91 0.73 12.68 -1.55 -13.76 6.901 7.074 6.488 6.537 333 232 2126.04 6.38 2.99 28.14 2.26 12.80 -1.52 -13.88 6.911 7.084 6.497 6.546 334 233 2126.82 6.37 3.04 28.33 0.78 12.90 -1.54 -13.97 6.922 7.096 6.502 6.551 335 234 2129.04 6.36 3.00 28.54 2.22 13.01 -1.52 -14.08 6.932 7.106 6.510 6.559 336 235 2129.85 6.34 3.03 28.73 0.81 13.10 -1.54 -14.17 6.943 7.119 6.515 6.564 337 236 2132.02 6.633 2.98 28.92 2.17 13.20 -1.51 -14.27 6.953 7.129 6.570 338 23	330	229						27.51										13/2+	$9/2^{-}$
333 232 2126.04 6.38 2.99 28.14 2.26 12.80 -1.52 -13.88 6.911 7.084 6.497 6.546 334 233 2126.82 6.37 3.04 28.33 0.78 12.90 -1.54 -13.97 6.922 7.096 6.502 6.551 335 234 2129.04 6.36 3.00 28.54 2.22 13.01 -1.52 -14.08 6.932 7.106 6.510 6.559 336 235 2129.85 6.34 3.03 28.73 0.81 13.10 -1.54 -14.17 6.943 7.119 6.515 6.564 337 236 2132.02 6.33 2.98 28.92 2.17 13.20 -1.51 -14.27 6.953 7.129 6.516 6.570 338 237 2132.88 6.31 3.03 2.912 0.86 13.31 -1.52 -14.36 6.964 7.141 6.527 6.576 3																		$13/2^{+}$	0^+
334 233 2126.82 6.37 3.04 28.33 0.78 12.90 -1.54 -13.97 6.922 7.096 6.502 6.551 335 234 2129.04 6.36 3.00 28.54 2.22 13.01 -1.52 -14.08 6.932 7.106 6.510 6.559 336 235 2129.85 6.34 3.03 28.73 0.81 13.10 -1.54 -14.17 6.943 7.119 6.515 6.564 337 236 2132.02 6.33 2.98 28.92 2.17 13.20 -1.51 -14.27 6.953 7.129 6.521 6.576 338 237 2132.88 6.31 3.03 29.12 0.86 13.31 -1.52 -14.36 6.964 7.141 6.527 6.576 339 238 2134.98 6.30 2.96 29.27 2.10 13.38 -1.50 -14.44 6.973 7.152 6.532 6.581 3			2123.78															$13/2^{+}$	$7/2^{-}$
335 234 2129.04 6.36 3.00 28.54 2.22 13.01 -1.52 -14.08 6.932 7.106 6.510 6.559 336 235 2129.85 6.34 3.03 28.73 0.81 13.10 -1.54 -14.17 6.943 7.119 6.515 6.564 337 236 2132.02 6.33 2.98 28.92 2.17 13.20 -1.51 -14.27 6.953 7.129 6.521 6.570 338 237 2132.88 6.31 3.03 29.12 0.86 13.31 -1.52 -14.36 6.964 7.141 6.527 6.576 339 238 2134.98 6.30 2.96 29.27 2.10 13.38 -1.50 -14.44 6.973 7.152 6.532 6.581 340 239 2135.87 6.28 2.99 29.47 0.89 13.48 -1.50 -14.54 6.984 7.164 6.538 6.587 3																		13/2+	0^+
336 235 2129.85 6.34 3.03 28.73 0.81 13.10 -1.54 -14.17 6.943 7.119 6.515 6.564 337 236 2132.02 6.33 2.98 28.92 2.17 13.20 -1.51 -14.27 6.953 7.129 6.521 6.570 338 237 2132.88 6.31 3.03 29.12 0.86 13.31 -1.52 -14.36 6.964 7.141 6.527 6.576 339 238 2134.98 6.30 2.96 29.27 2.10 13.38 -1.50 -14.44 6.973 7.152 6.532 6.581 340 239 2135.87 6.28 2.99 29.47 0.89 13.48 -1.50 -14.54 6.984 7.164 6.538 6.587 341 240 2137.91 6.27 2.93 29.59 2.04 13.54 -1.48 -14.60 6.994 7.176 6.541 6.596 3																		13/2+	$7/2^{-}$
337 236 2132.02 6.33 2.98 28.92 2.17 13.20 -1.51 -14.27 6.953 7.129 6.521 6.570 338 237 2132.88 6.31 3.03 29.12 0.86 13.31 -1.52 -14.36 6.964 7.141 6.527 6.576 339 238 2134.98 6.30 2.96 29.27 2.10 13.38 -1.50 -14.44 6.973 7.152 6.532 6.581 340 239 2135.87 6.28 2.99 29.47 0.89 13.48 -1.50 -14.54 6.984 7.164 6.538 6.587 341 240 2137.91 6.27 2.93 29.59 2.04 13.54 -1.48 -14.60 6.994 7.176 6.541 6.589 342 241 2138.82 6.25 2.95 29.80 0.91 13.64 -1.48 -14.70 7.004 7.187 6.547 6.596 3																		13/2+	0+
338 237 2132.88 6.31 3.03 29.12 0.86 13.31 -1.52 -14.36 6.964 7.141 6.527 6.576 339 238 2134.98 6.30 2.96 29.27 2.10 13.38 -1.50 -14.44 6.93 7.152 6.532 6.581 340 239 2135.87 6.28 2.99 29.47 0.89 13.48 -1.50 -14.54 6.984 7.164 6.538 6.587 341 240 2137.91 6.27 2.93 29.59 2.04 13.54 -1.48 -14.60 6.994 7.176 6.541 6.589 342 241 2138.82 6.25 2.95 29.80 0.91 13.64 -1.48 -14.70 7.004 7.187 6.547 6.596 343 242 2140.81 6.24 2.90 29.89 1.99 13.69 -1.46 -14.74 7.014 7.199 6.544 6.597 34																		13/2+	$7/2^{-}$
339 238 2134.98 6.30 2.96 29.27 2.10 13.38 -1.50 -14.44 6.973 7.152 6.532 6.581 340 239 2135.87 6.28 2.99 29.47 0.89 13.48 -1.50 -14.54 6.984 7.164 6.538 6.587 341 240 2137.91 6.27 2.93 29.59 2.04 13.54 -1.48 -14.60 6.994 7.176 6.541 6.589 342 241 2138.82 6.25 2.95 29.80 0.91 13.64 -1.48 -14.70 7.004 7.187 6.547 6.596 343 242 2140.81 6.24 2.90 29.89 1.99 13.69 -1.46 -14.74 7.014 7.199 6.548 6.597 344 243 2141.71 6.23 2.89 30.06 0.90 13.78 -1.45 -14.87 7.034 7.223 6.554 6.603 345 244 2143.66 6.21 2.85 30.16 1.95 13.81 -1.44 -14.87 7.034 7.223 6.554 6.603																		13/2+	0 ⁺
340 239 2135.87 6.28 2.99 29.47 0.89 13.48 -1.50 -14.54 6.984 7.164 6.538 6.587 341 240 2137.91 6.27 2.93 29.59 2.04 13.54 -1.48 -14.60 6.994 7.176 6.541 6.589 342 241 2138.82 6.25 2.95 29.80 0.91 13.64 -1.48 -14.70 7.004 7.187 6.547 6.596 343 242 2140.81 6.24 2.90 29.89 1.99 13.69 -1.46 -14.74 7.014 7.199 6.548 6.597 344 243 2141.71 6.23 2.89 30.06 0.90 13.78 -1.45 -14.84 7.025 7.211 6.554 6.603 345 244 2143.66 6.21 2.85 30.16 1.95 13.81 -1.44 -14.87 7.034 7.223 6.554 6.603																		13/2 ⁺	$7/2^{-}$
341 240 2137.91 6.27 2.93 29.59 2.04 13.54 -1.48 -14.60 6.994 7.176 6.541 6.589 342 241 2138.82 6.25 2.95 29.80 0.91 13.64 -1.48 -14.70 7.004 7.187 6.547 6.596 343 242 2140.81 6.24 2.90 29.89 1.99 13.69 -1.46 -14.74 7.014 7.199 6.548 6.597 344 243 2141.71 6.23 2.89 30.06 0.90 13.78 -1.45 -14.84 7.025 7.211 6.554 6.603 345 244 2143.66 6.21 2.85 30.16 1.95 13.81 -1.44 -14.87 7.034 7.223 6.554 6.603																		13/2 ⁺	0 ⁺
342 241 2138.82 6.25 2.95 29.80 0.91 13.64 -1.48 -14.70 7.004 7.187 6.547 6.596 343 242 2140.81 6.24 2.90 29.89 1.99 13.69 -1.46 -14.74 7.014 7.199 6.548 6.597 344 243 2141.71 6.23 2.89 30.06 0.90 13.78 -1.45 -14.84 7.025 7.211 6.554 6.603 345 244 2143.66 6.21 2.85 30.16 1.95 13.81 -1.44 -14.87 7.034 7.223 6.554 6.603																		13/2 ⁺	$\frac{7/2^{-}}{0^{+}}$
343 242 2140.81 6.24 2.90 29.89 1.99 13.69 -1.46 -14.74 7.014 7.199 6.548 6.597 344 243 2141.71 6.23 2.89 30.06 0.90 13.78 -1.45 -14.84 7.025 7.211 6.554 6.603 345 244 2143.66 6.21 2.85 30.16 1.95 13.81 -1.44 -14.87 7.034 7.223 6.554 6.603																		13/2 ⁺ 13/2 ⁺	0 ' 7/2-
344 243 2141.71 6.23 2.89 30.06 0.90 13.78 -1.45 -14.84 7.025 7.211 6.554 6.603 345 244 2143.66 6.21 2.85 30.16 1.95 13.81 -1.44 -14.87 7.034 7.223 6.554 6.603																		13/2 ⁺	0 ⁺
345 244 2143.66 6.21 2.85 30.16 1.95 13.81 -1.44 -14.87 7.034 7.223 6.554 6.603																		13/2+	7/2-
																		13/2+	0 ⁺
346 245 2144.54 6.20 2.83 30.22 0.88 13.84 -1.46 -14.94 7.045 7.236 6.558 6.606																		13/2+	5/2 ⁻

Α	N	E _b Cal.	E _b Exp.	E _b ^{Cal.} /A	E _b Exp. /A	S_{2n}	S_{2p}	S_n	S_p	λ_n	λ_p	R_m	R_n	R_p	R _c Cal.	R _c Exp.	$j^{\pi}(P)$	$j^{\pi}(N)$
		(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(MeV)	(fm)	(fm)	(fm)	(fm)	(fm)		- 1
347	246	2146.47		6.19		2.81	30.39	1.93	13.92	-1.42	-14.99	7.054	7.248	6.559	6.607		13/2 ⁺	0+
348	247 248	2147.45 2149.24		6.17		2.91 2.77	30.53 30.61	0.98 1.79	13.99 14.02	-1.44	-15.04	7.066 7.075	7.262 7.273	6.560 6.562	6.609 6.611		13/2 ⁺ 13/2 ⁺	$\frac{3}{2}^{-}$ 0^{+}
349 350	249	2149.24		6.16 6.14		2.77	30.73	0.99	14.02	-1.40 -1.41	-15.10 -15.15	7.073	7.273	6.564	6.613		13/2 ⁺	3/2-
351	250	2150.25		6.13		2.74	30.73	1.75	14.11	-1.41 -1.38	-15.13 -15.20	7.086	7.299	6.566	6.614		13/2+	0 ⁺
352	251	2152.99		6.12		2.76	30.94	1.01	14.17	-1.39	-15.26	7.107	7.312	6.568	6.616		13/2+	3/2-
353	252	2154.68		6.10		2.70	31.00	1.69	14.19	-1.36	-15.30	7.117	7.325	6.568	6.617		13/2+	0+
354	253	2155.71		6.09		2.72	31.11	1.03	14.25	-1.37	-15.35	7.128	7.338	6.570	6.619		13/2+	3/2-
355	254	2157.36		6.08		2.68	31.19	1.65	14.27	-1.35	-15.39	7.138	7.352	6.570	6.619		13/2+	0+
356	255	2158.46		6.06		2.75	31.28	1.10	14.32	-1.39	-15.43	7.149	7.366	6.572	6.620		$13/2^{+}$	$1/2^{-}$
357	256	2160.01		6.05		2.65	31.36	1.55	14.35	-1.33	-15.47	7.160	7.379	6.572	6.621		$13/2^{+}$	0^+
358	257	2161.21		6.04		2.75	31.45	1.20	14.39	-0.33	-15.52	7.171	7.392	6.574	6.622		$13/2^{+}$	$1/2^{-}$
359	258	2162.61		6.02		2.60	31.51	1.40	14.41	-0.20	-15.55	7.183	7.408	6.573	6.622		13/2+	0+
360	259	2161.38		6.00		0.17	31.52	-1.23	14.42	-0.73	-15.55	7.210	7.443	6.573	6.622		13/2+	$1/2^{+}$
361	260	2160.20		5.98		-2.41	31.55	<u>-1.18</u>	14.45	<u>1.19</u>	-15.61	7.221	7.456	6.579	6.627		$13/2^{+}$	0^+
σ		20.61																
Z = 10 239	02 (No) 137	1755.43		7 24			0.45	7.82	1.28	-8.11	0.01	5.916	5.953	5.866	5.920		0^{+}	11/2+
240	137	1755.43		7.34 7.35		17.08	0.45	7.82 9.26	1.28	-8.11 -8.13	-0.22	5.929	5.967	5.877	5.920		0+	0+
241	139	1771.14		7.35 7.35		15.71	1.26	6.45	1.69	-8.13 -8.11	-0.22 -0.39	5.938	5.979	5.882	5.936		0+	9/2+
242	140	1771.14		7.35		15.71	1.71	8.76	1.90	-7.53	-0.53 -0.61	5.948	5.991	5.888	5.942		0+	0 ⁺
243	141	1775.30		7.35		15.06	2.06	6.30	2.09	-7.46	-0.79	5.957	6.003	5.893	5.947		0+	9/2 ⁺
244	142	1794.64		7.36		14.74	2.50	8.44	2.29	-7.35	-1.01	5.967	6.015	5.900	5.954		0+	0+
245	143	1800.84		7.35		14.64	2.86	6.20	2.49	-7.29	-1.19	5.977	6.027	5.905	5.959		0^{+}	9/2 ⁺
246	144	1809.06		7.35		14.42	3.28	8.22	2.68	-7.21	-1.40	5.987	6.039	5.912	5.966		0^{+}	0+
247	145	1815.16		7.35		14.32	3.63	6.10	2.87	-7.16	-1.58	5.996	6.051	5.917	5.971		0^+	$9/2^{+}$
248	146	1823.22		7.35		14.16	4.04	8.06	3.07	-7.09	-1.79	6.006	6.063	5.924	5.978		0^+	0^+
249	147	1829.23		7.35		14.07	4.41	6.01	3.26	-7.04	-1.97	6.016	6.075	5.929	5.983		0^+	$9/2^{+}$
250	148	1837.16		7.35		13.94	4.81	7.93	3.45	-6.99	-2.17	6.025	6.086	5.936	5.989		0^+	0^+
251	149	1843.08		7.34		13.85	5.19	5.92	3.65	-6.93	-2.36	6.035	6.098	5.942	5.995		0+	$9/2^{+}$
252	150	1850.90	1871.30	7.34	7.43	13.74	5.57	7.82	3.83	-6.89	-2.55	6.045	6.109	5.948	6.001		0+	0+
253	151	1856.72	1877.88	7.34	7.42	13.64	5.96	5.82	4.02	-6.83	-2.74	6.054	6.121	5.954	6.008		0+	$9/2^{+}$
254	152	1864.45	1885.59	7.34	7.42	13.55	6.32	7.73	4.21	-6.79	-2.93	6.064	6.132	5.960	6.013		0+	0+
255	153	1870.18	1891.58	7.33	7.42	13.46	6.73	5.73	4.40	-6.74	-3.13	6.074	6.144	5.967	6.020		0+	9/2+
256	154	1877.83	1898.63	7.34	7.42	13.38	7.08	7.65	4.58	-6.70	-3.30	6.083	6.155	5.972	6.025		0+	0+
257	155	1883.46	1904.28	7.33	7.41	13.28	7.50	5.63	4.77	-6.64	-3.51	6.093	6.167	5.979	6.032		0 ⁺	$9/2^{+}$ 0^{+}
258 259	156 157	1891.04 1896.57		7.33 7.32		13.21 13.11	7.83 8.25	7.58 5.53	4.95	-6.61	-3.68	6.102	6.178 6.189	5.984 5.992	6.038 6.045		0 ⁺	9/2 ⁺
									5.15	-6.54	-3.89	6.112		5.992 5.997			0 ⁺	9/2 · 0 ⁺
260 261	158 159	1904.08 1909.49		7.32 7.32		13.04 12.92	8.58 8.97	7.51 5.41	5.32 5.52	-6.52 -6.44	-4.05 -4.27	6.121 6.131	6.200 6.211	5.997 6.005	6.050 6.058		0 ⁺	9/2 ⁺
262	160	1916.94		7.32 7.32		12.92	9.32	7.45	5.68	-6.44 -6.41	-4.27 -4.42	6.140	6.222	6.003	6.062		0+	0+
263	161	1910.94		7.32 7.31		12.72	9.52	7.43 5.27	5.87	-6.41	-4.42 -4.64	6.150	6.233	6.017	6.070		0+	9/2+
264	162	1929.60		7.31		12.72	10.06	7.39	6.04	-6.29	-4.04 -4.78	6.159	6.244	6.022	6.075		0+	0+
265	163	1934.86		7.30		12.65	10.40	5.26	6.22	-6.33	-4.75 -4.95	6.170	6.257	6.028	6.081		0+	7/2 ⁺
266	164	1942.00		7.30		12.40	10.76	7.14	6.40	-6.14	-5.13	6.179	6.267	6.034	6.087		0 ⁺	0+
267	165	1947.33		7.29		12.47	11.12	5.33	6.57	-6.14	-5.31	6.189	6.279	6.041	6.094		0^{+}	7/2 ⁺
268	166	1954.04		7.29		12.04	11.39	6.71	6.71	-5.97	-5.45	6.199	6.291	6.047	6.099		0^{+}	0+
269	167	1959.34		7.28		12.01	11.73	5.30	6.88	-5.92	-5.61	6.209	6.302	6.053	6.106		0+	7/2+
270	168	1965.77		7.28		11.73	11.98	6.43	7.01	-5.82	-5.74	6.219	6.315	6.059	6.111		0+	0^{+}
271	169	1970.96		7.27		11.62	12.30	5.19	7.17	-5.75	-5.90	6.230	6.327	6.066	6.118		0^{+}	$7/2^{+}$
272	170	1977.23		7.27		11.46	12.54	6.27	7.30	-5.69	-6.03	6.240	6.339	6.071	6.123		0^+	0^+
273	171	1982.24		7.26		11.28	12.86	5.01	7.47	-5.51	-6.18	6.250	6.351	6.077	6.130		0^+	$7/2^{+}$
274	172											0.200					0^{+}	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
275	173	1993.22		7.25		10.98	13.32	4.83	7.73	-5.49	-6.43	6.269	6.374	6.086	6.138		0+	5/2+
276	174	1999.08		7.24		10.69	13.53	5.86	7.83	-5.27	-6.53	6.277	6.385	6.088	6.140		0+	0+
277	175	2003.80		7.23		10.58	13.75	4.72	7.94	-5.19	-6.64	6.286	6.396	6.091	6.143		0+	5/2+
278	176	2009.38		7.23		10.30	13.94	5.58	8.04	-5.12	-6.73	6.294	6.407	6.093	6.145		0+	0+
279	177	2013.93		7.22		10.13	14.14	4.55	8.15	-5.01	-6.84	6.302	6.419	6.096	6.148		0+	5/2+
280	178	2019.41		7.21		10.03	14.34	5.48	8.26	-4.98	-6.94	6.310	6.429	6.097	6.150		0+	0^+
281	179	2023.91		7.20		9.98	14.55	4.50	8.37	-4.98	-7.04	6.319	6.441	6.100	6.152		0^+	$3/2^{+}$
282	180	2029.16		7.20		9.75	14.73	5.25	8.47	-4.83	-7.14	6.328	6.452	6.102	6.154		0^+	0^+
283	181	2033.62		7.19		9.71	14.93	4.46	8.58	-4.78	-7.24	6.337	6.464	6.104	6.156		0^+	$3/2^{+}$
284	182	2038.65		7.18		9.49	15.13	5.03	8.69	-4.70	-7.34	6.346	6.476	6.107	6.159		0^+	0^+
285	183	2043.10		7.17		9.48	15.34	4.45	8.80	-3.82	-7.45	6.355	6.489	6.109	6.161		0^+	$1/2^{+}$
286	184	2047.87		7.16		9.22	15.50	4.77	8.88	-3.71	-7.53	6.364	6.501	6.111	6.163		0^+	0^{+}
287	185	2049.59		7.14		6.49	15.84	1.72	9.05	-3.62	-7.70	6.378	6.514	6.123	6.175		0^{+}	13/2
288	186	2052.58		7.13		4.71	16.15	2.99	9.20	-2.38	-7.86	6.391	6.527	6.134	6.186		0^{+}	0+
289	187	2054.30		7.11		4.71	16.48	1.72	9.36	-2.38	-8.02	6.405	6.541	6.147	6.198		0^{+}	13/2
290	188	2057.31		7.09		4.73	16.79	3.01	9.52	-2.39	-8.18	6.417	6.554	6.157	6.209		0^{+}	0+
291	189	2059.04		7.08		4.74	17.13	1.73	9.68	-2.39	-8.34	6.431	6.568	6.170	6.222		0^{+}	13/2
292	190	2062.06		7.06		4.75	17.43	3.02	9.83	-2.40	-8.50	6.444	6.581	6.181	6.233		0^{+}	0+
293	191	2063.80		7.04		4.76	17.77	1.74	9.99	-2.40	-8.66	6.458	6.594	6.194	6.245		0+	13/2
294	192	2066.83		7.03		4.77	18.07	3.03	10.13	-2.41	-8.82	6.470	6.607	6.205	6.256		0+	0+
295	193	2068.57		7.01		4.77	18.41	1.74	10.30	-2.39	-8.98	6.484	6.620	6.218	6.269		0+	13/2
296	194	2071.62		7.00		4.79	18.70	3.05	10.44	-2.41	-9.13	6.496	6.633	6.229	6.280		0+	0+
290 297	195	2071.02		6.98		4.75	19.04	1.70	10.44	-2.41 -2.36	-9.13 -9.30	6.510	6.646	6.243	6.294		0+	13/2
297 298	195	2075.32		6.97		4.73	19.04	3.07	10.74	-2.30 -2.38	-9.30 -9.45	6.523	6.659	6.253	6.304		0+	0 ⁺
	190						19.55										0+	
299		2077.95		6.95		4.63		1.56	10.90	-2.24	-9.60	6.536	6.672	6.266	6.317		0+	13/2 0 ⁺
300	198	2081.05		6.94		4.66	19.95	3.10	11.04	-2.28	-9.75	6.548	6.684	6.276	6.326			
301	199	2082.48		6.92		4.53	20.20	1.43	11.13	-2.29	-9.87	6.560	6.697	6.284	6.334		0+	11/2
302	200	2085.39		6.91		4.34	20.44	2.91	11.29	-2.14	-10.00	6.571	6.709	6.291	6.341		0+	0+
303	201	2086.77		6.89		4.29	20.68	1.38	11.41	-2.11	-10.12	6.582	6.721	6.297	6.348		0+	11/2
304	202	2089.49		6.87		4.10	20.90	2.72	11.53	-2.05	-10.23	6.592	6.733	6.303	6.353		0+	0+
305	203	2090.81		6.86		4.04	21.12	1.32	11.64	-2.02	-10.34	6.603	6.745	6.309	6.359		0+	11/2
306	204	2093.45		6.84		3.96	21.35	2.64	11.76	-2.00	-10.46	6.613	6.757	6.314	6.365		0+	0_{+}
307	205	2094.71		6.82		3.90	21.57	1.26	11.88	-1.95	-10.57	6.623	6.769	6.320	6.371		0^+	11/2
308	206	2097.30		6.81		3.85	21.79	2.59	11.99	-1.94	-10.69	6.633	6.780	6.326	6.376		0^+	0^+
309	207	2098.48		6.79		3.77	22.02	1.18	12.11	-1.89	-10.80	6.644	6.792	6.332	6.382		0^+	11/2
310	208	2101.05		6.78		3.75	22.24	2.57	12.22	-1.89	-10.92	6.654	6.804	6.338	6.388		0^+	0^{+}
311	209	2102.12		6.76		3.64	22.47	1.07	12.34	-1.83	-11.04	6.665	6.816	6.345	6.395		0^+	11/2
312	210	2104.70		6.75		3.65	22.70	2.58	12.46	-1.84	-11.15	6.675	6.827	6.350	6.401		0^+	0^{+}
313	211	2105.64		6.73		3.52	22.96	0.94	12.58	-1.77	-11.28	6.686	6.839	6.358	6.408		0^+	11/2
314	212	2108.25		6.71		3.55	23.18	2.61	12.70	-1.79	-11.39	6.696	6.850	6.364	6.414		0^{+}	0^{+}
315	213	2109.04		6.70		3.40	23.44	0.79	12.82	-1.72	-11.53	6.707	6.862	6.373	6.423		0^+	11/2
316	214	2111.69		6.68		3.44	23.65	2.65	12.93	-1.74	-11.63	6.717	6.873	6.378	6.428		0^{+}	0+
317	215	2112.43		6.66		3.39	23.92	0.74	13.06	-1.74	-11.77	6.728	6.884	6.386	6.436		0+	17/2
318	216	2115.06		6.65		3.37	24.12	2.63	13.16	-1.71	-11.88	6.739	6.896	6.393	6.443		0+	0+
319	217	2115.80		6.63		3.37	24.40	0.74	13.30	-1.70	-12.01	6.749	6.907	6.401	6.451		0+	17/2
320	218	2118.38		6.62		3.32	24.60	2.58	13.40	-1.69	-12.12	6.760	6.919	6.408	6.458		0+	0+
321	219	2119.11		6.60		3.31	24.87	0.73	13.53	-1.68	-12.12 -12.25	6.771	6.930	6.416	6.466		0+	17/2
321 322	219	2119.11		6.59		3.28	25.08	2.55	13.63	-1.68 -1.67	-12.25 -12.35	6.782	6.942	6.423	6.472		0+	0+
322 323	220																0+	17/2
		2122.38		6.57		3.27	25.32	0.72	13.75	-1.66	-12.48	6.792	6.953	6.431	6.480			
324	222	2124.90		6.56		3.24	25.53	2.52	13.85	-1.65	-12.59	6.803	6.965	6.438	6.487		0 ⁺	0+
325	223	2125.64		6.54		3.26	25.76	0.74	13.96	-1.67	-12.70	6.814	6.977	6.445	6.495		0+	9/2
326	224	2128.13		6.53		3.23	25.99	2.49	14.08	-1.65	-12.82	6.824	6.987	6.452	6.502		0+	0+
327	225	2128.90		6.51		3.26	26.22	0.77	14.19	-1.66	-12.93	6.836	6.999	6.460	6.510		0+	9/2
328	226	2131.35		6.50		3.22	26.44	2.45	14.29	-1.64	-13.04	6.846	7.010	6.467	6.516		0^+	0^+

4	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
329	227	2132.15		6.48		3.25	26.67	0.80	14.41	-1.65	-13.16	6.857	7.021	6.475	6.524		0+	9/2-
330	228	2134.56		6.47		3.21	26.88	2.41	14.51	-1.63	-13.26	6.867	7.033	6.481	6.530		0^+	0+
331	229	2135.39		6.45		3.24	27.10	0.83	14.63	-1.64	-13.39	6.878	7.044	6.490	6.539		0+	9/2-
332	230	2137.76		6.44		3.20	27.30	2.37	14.71	-1.63	-13.47	6.888	7.055	6.495	6.544		0+	0+
333	231	2138.61		6.42		3.22	27.51	0.85	14.83	-1.63	-13.60	6.899	7.066	6.504	6.553		0^{+}	9/2 ⁻ 0 ⁺
334	232 233	2140.96		6.41 6.39		3.20	27.72	2.35 0.86	14.92	-1.62	-13.68 -13.76	6.909	7.078	6.508	6.557 6.562		0 ⁺	-
335 336	233	2141.82 2144.15		6.38		3.21 3.19	27.90 28.12	2.33	15.00 15.11	-1.64 -1.61	-13.76 -13.88	6.920 6.930	7.091 7.101	6.513 6.521	6.570		0+	7/2 ⁻ 0 ⁺
337	235	2144.15		6.37		3.13	28.30	0.90	15.11	-1.63	-13.88 -13.97	6.941	7.101	6.526	6.575		0+	7/2
338	236	2147.32		6.35		3.17	28.50	2.27	15.20	-1.60	-13.37 -14.07	6.951	7.113	6.533	6.582		0+	0+
39	237	2148.27		6.34		3.22	28.70	0.95	15.39	-1.61	-14.16	6.961	7.124	6.539	6.587		0+	7/2
340	238	2150.45		6.32		3.13	28.85	2.18	15.47	-1.58	-14.24	6.971	7.146	6.543	6.592		0+	0+
841	239	2151.44		6.31		3.17	29.05	0.99	15.57	-1.59	-14.34	6.982	7.158	6.549	6.598		0+	7/2-
342	240	2153.54		6.30		3.09	29.17	2.10	15.63	-1.55	-14.40	6.991	7.170	6.552	6.600		0+	0+
343	241	2154.54		6.28		3.10	29.36	1.00	15.72	-1.55	-14.49	7.002	7.182	6.558	6.606		0+	7/2
344	242	2156.58		6.27		3.04	29.46	2.04	15.77	-1.53	-14.53	7.011	7.193	6.559	6.607		0^+	0+
345	243	2157.57		6.25		3.03	29.64	0.99	15.86	-1.51	-14.62	7.022	7.206	6.564	6.612		0^+	7/2
46	244	2159.56		6.24		2.98	29.71	1.99	15.90	-1.50	-14.66	7.031	7.218	6.564	6.612		0^+	0+
47	245	2160.51		6.23		2.94	29.81	0.95	15.97	-1.47	-14.74	7.042	7.230	6.568	6.617		0_{+}	7/2
48	246	2162.49		6.21		2.93	29.94	1.98	16.02	-1.47	-14.77	7.051	7.242	6.568	6.616		0_{+}	0^+
49	247	2163.47		6.20		2.96	30.01	0.98	16.02	-1.49	-14.84	7.062	7.255	6.571	6.619		0^+	5/2
50	248	2165.37		6.19		2.88	30.15	1.90	16.13	-1.45	-14.88	7.071	7.267	6.571	6.620		0^+	0^+
51	249	2166.41		6.17		2.94	30.26	1.04	16.18	-1.47	-14.93	7.083	7.281	6.573	6.621		0+	3/2
52	250	2168.20		6.16		2.83	30.33	1.79	16.22	-1.43	-14.97	7.092	7.293	6.574	6.622		0+	0^+
53	251	2169.27		6.15		2.86	30.45	1.07	16.28	-1.44	-15.03	7.103	7.306	6.576	6.624		0^+	3/2
354	252	2171.01		6.13		2.81	30.52	1.74	16.33	-1.41	-15.07	7.113	7.319	6.576	6.625		0+	0+
355	253	2172.09		6.12		2.82	30.63	1.08	16.38	-1.41	-15.12	7.124	7.332	6.578	6.627		0+	3/2-
356	254	2173.78		6.11		2.77	30.69	1.69	16.42	-1.39	-15.15	7.134	7.345	6.578	6.627		0+	0+
357	255	2174.92		6.09		2.83	30.78	1.14	16.46	-1.43	-15.20	7.145	7.360	6.579	6.628		0+	1/2
358	256	2176.52		6.08		2.74	30.86	1.60	16.51	-1.37	-15.24	7.156	7.373	6.580	6.628		0 ⁺	0+
359 360	257 258	2177.77 2179.20		6.07		2.85 2.68	30.95 31.00	1.25 1.43	16.56 16.59	-0.22	-15.28	7.166	7.386 7.401	6.581 6.581	6.629 6.629		0^{+}	1/2 ⁻ 0 ⁺
861	258 259	2179.20		6.05 6.03		2.68 0.19	31.00	-1.24	16.59	-0.20 -0.57	-15.31 -15.31	7.178 7.205	7.401	6.580	6.629		0+	1/2+
862	260	2177.30		6.01		-2.34	31.11	$\frac{-1.24}{-1.10}$	16.66	_0.57 <u>1.14</u>	-15.31 -15.41	7.203	7.437	6.590	6.638		0+	0+
7	200	20.96		0.01		-2.54	31.11	<u>—1.10</u>	10.00	1.14	-13.41	7.203	7.457	0.550	0.030		U	U
		20.50																
	03 (Lr)	4762.40		7.00			0.20		1.21	0.06	0.11	5.005	F 000	F 000	5.040		42 /2+	0+
41	138	1763.48		7.32			0.29	C CC	$\frac{-1.21}{0.00}$	-8.36	0.11	5.935	5.969	5.888	5.942		13/2 ⁺	0 ⁺
42 43	139 140	1770.16		7.31		15.01	0.71	6.68	$\frac{-0.98}{0.81}$	-8.38	-0.11	5.945	5.981	5.895	5.949		13/2 ⁺	15/2 0 ⁺
43 44	140	1779.09 1785.55		7.32 7.32		15.61 15.39	1.09 1.44	8.93 6.46	$\frac{-0.81}{-0.65}$	-7.73 -7.66	-0.29 -0.47	5.953 5.963	5.993 6.005	5.899 5.904	5.953 5.958		13/2 ⁺ 13/2 ⁺	9/2
44 45	141	1783.33		7.32		15.14	1.88	8.68	$\frac{-0.63}{-0.41}$	-7.55	-0.47 -0.69	5.973	6.003	5.911	5.965		13/2+	9/2 0 ⁺
45 46	143	1800.59		7.32		15.14	2.24	6.36	$\frac{-0.41}{-0.25}$	-7.33 -7.49	-0.89 -0.87	5.982	6.029	5.916	5.970		13/2+	9/2
40 47	144	1809.05		7.32		14.82	2.67	8.46	$\frac{-0.23}{-0.01}$	-7.43 -7.41	-0.87 -1.08	5.992	6.041	5.923	5.977		13/2 ⁺	0+
48	145	1815.33		7.32		14.74	3.04	6.28	0.17	-7. 4 1 -7.35	-1.06	6.001	6.053	5.929	5.982		13/2 ⁺	9/2
49	146	1823.61		7.32		14.56	3.46	8.28	0.39	-7.29	-1.47	6.011	6.064	5.936	5.989		13/2 ⁺	0+
50	147	1829.79		7.32		14.46	3.82	6.18	0.56	-7.24	-1.65	6.021	6.076	5.941	5.995		13/2+	9/2
51	148	1837.94		7.32		14.33	4.23	8.15	0.78	-7.18	-1.85	6.031	6.088	5.948	6.001		13/2+	0+
52	149	1844.04		7.32		14.25	4.61	6.10	0.96	-7.13	-2.04	6.040	6.099	5.953	6.007		13/2+	9/2
253	150	1852.06		7.32		14.12	4.99	8.02	1.16	-7.08	-2.24	6.050	6.111	5.960	6.013		13/2+	0+
254	151	1858.08		7.32		14.04	5.38	6.02	1.36	-7.03	-2.43	6.059	6.122	5.966	6.019		13/2+	9/2
255	152	1865.99	1887.66	7.32	7.40	13.93	5.75	7.91	1.54	-6.98	-2.61	6.069	6.133	5.972	6.025		13/2+	0+
256	153	1871.93	1893.93	7.31	7.40	13.85	6.15	5.94	1.75	-6.93	-2.81	6.078	6.145	5.978	6.032		13/2+	9/2+
		1879.75		7.31		13.76	6.50	7.82	1.92	-6.89	-2.99	6.088	6.156	5.984	6.037		13/2+	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
258	155	1885.60		7.31		13.67	6.91	5.85	2.14	-6.84	-3.19	6.097	6.167	5.991	6.044		13/2+	9/2+
259	156	1893.34		7.31		13.59	7.25	7.74	2.30	-6.80	-3.36	6.107	6.178	5.996	6.049		$13/2^{+}$	0^+
260	157	1899.10		7.30		13.50	7.68	5.76	2.53	-6.74	-3.57	6.116	6.190	6.003	6.056		$13/2^{+}$	$9/2^{+}$
261	158	1906.75		7.31		13.41	7.99	7.65	2.67	-6.71	-3.73	6.125	6.201	6.008	6.061		$13/2^{+}$	0^+
262	159	1912.41		7.30		13.31	8.44	5.66	2.92	-6.63	-3.95	6.135	6.212	6.016	6.069		$13/2^{+}$	9/2
263	160	1919.99		7.30		13.24	8.73	7.58	3.05	-6.60	-4.10	6.144	6.222	6.020	6.073		$13/2^{+}$	0^+
264	161	1925.52		7.29		13.11	9.18	5.53	3.31	-6.50	-4.32	6.154	6.233	6.028	6.081		$13/2^{+}$	9/2
265	162	1933.02		7.29		13.03	9.46	7.50	3.42	-6.47	-4.46	6.163	6.244	6.033	6.086		13/2+	0^+
266	163	1938.44		7.29		12.92	9.80	5.42	3.58	-6.51	-4.63	6.173	6.257	6.039	6.092		13/2+	7/2
267	164	1945.77		7.29		12.75	10.17	7.33	3.77	-6.30	-4.81	6.182	6.267	6.045	6.098		$13/2^{+}$	0+
268	165	1951.28		7.28		12.84	10.52	5.51	3.95	-6.31	-4.98	6.192	6.278	6.052	6.104		13/2+	7/2
269	166	1958.12		7.28		12.35	10.79	6.84	4.08	-6.11	-5.12	6.202	6.290	6.057	6.110		13/2+	0+
270	167	1963.58		7.27		12.30	11.12	5.46	4.24	-6.06	-5.29	6.212	6.302	6.064	6.116		13/2+	7/2
271	168	1970.12		7.27		12.00	11.36	6.54	4.35	-5.96	-5.42	6.223	6.315	6.069	6.122		13/2+	0+
272	169	1975.48		7.26		11.90	11.69	5.36	4.52	-5.89	-5.58	6.233	6.327	6.076	6.129		13/2+	7/2
273	170	1981.86		7.26		11.74	11.93	6.38	4.63	-5.83	-5.71	6.243	6.339	6.081	6.134		13/2+	0^+
274	171	1987.02		7.25		11.54	12.25	5.16	4.78	-5.63	-5.86	6.253	6.351	6.088	6.140		$13/2^{+}$	7/2
275	172	1993.29		7.25		11.43	12.48	6.27	4.90	-5.62	-5.99	6.263	6.362	6.092	6.145		13/2+	0^+
276	173	1998.24		7.24		11.22	12.75	4.95	5.02	-5.61	-6.11	6.272	6.374	6.097	6.149		13/2+	5/2
277	174	2004.18		7.24		10.89	12.93	5.94	5.10	-5.37	-6.21	6.280	6.384	6.098	6.151		13/2+	0^+
278	175	2009.01		7.23		10.77	13.15	4.83	5.21	-5.29	-6.32	6.288	6.396	6.101	6.153		13/2+	5/2
79	176	2014.68		7.22		10.50	13.34	5.67	5.30	-5.22	-6.42	6.296	6.406	6.103	6.155		13/2+	0_{+}
80	177	2019.33		7.21		10.32	13.55	4.65	5.40	-5.11	-6.53	6.305	6.418	6.106	6.158		$13/2^{+}$	5/2
281	178	2024.90		7.21		10.22	13.75	5.57	5.49	-5.08	-6.63	6.313	6.428	6.108	6.160		$13/2^{+}$	0^+
282	179	2029.50		7.20		10.17	13.96	4.60	5.59	-5.08	-6.74	6.321	6.440	6.110	6.162		$13/2^{+}$	3/2
283	180	2034.85		7.19		9.95	14.16	5.35	5.69	-4.93	-6.84	6.330	6.451	6.112	6.164		$13/2^{+}$	0^+
284	181	2039.41		7.18		9.91	14.37	4.56	5.79	-4.88	-6.95	6.339	6.463	6.114	6.166		$13/2^{+}$	3/2
285	182	2044.53		7.17		9.68	14.57	5.12	5.88	-4.79	-7.05	6.348	6.475	6.117	6.169		$13/2^{+}$	0_{+}
286	183	2049.08		7.16		9.67	14.78	4.55	5.98	-3.94	-7.16	6.357	6.487	6.119	6.171		$13/2^{+}$	1/2
287	184	2053.94		7.16		9.41	14.95	4.86	6.07	-3.88	-7.24	6.366	6.499	6.120	6.173		$13/2^{+}$	0^+
288	185	2055.82		7.14		6.74	15.28	1.88	6.23	-3.92	-7.41	6.379	6.512	6.133	6.185		13/2+	13/
289	186	2058.98		7.12		5.04	15.60	3.16	6.40	-2.54	-7.57	6.392	6.526	6.144	6.196		$13/2^{+}$	0^+
290	187	2060.87		7.11		5.05	15.93	1.89	6.57	-2.55	-7.73	6.406	6.539	6.156	6.208		$13/2^{+}$	13/2
291	188	2064.03		7.09		5.05	16.24	3.16	6.72	-2.56	-7.89	6.419	6.552	6.167	6.219		$13/2^{+}$	0_{+}
292	189	2065.94		7.08		5.07	16.58	1.91	6.90	-2.55	-8.05	6.432	6.566	6.180	6.232		$13/2^{+}$	13/
293	190	2069.11		7.06		5.08	16.88	3.17	7.05	-2.57	-8.21	6.445	6.579	6.191	6.243		$13/2^{+}$	0^+
294	191	2071.02		7.04		5.08	17.21	1.91	7.22	-2.56	-8.37	6.459	6.592	6.204	6.255		$13/2^{+}$	13/
95	192	2074.22		7.03		5.11	17.52	3.20	7.39	-2.57	-8.53	6.471	6.605	6.215	6.266		$13/2^{+}$	0^+
296	193	2076.12		7.01		5.10	17.85	1.90	7.55	-2.56	-8.69	6.485	6.618	6.228	6.280		$13/2^{+}$	13/
97	194	2079.33		7.00		5.11	18.15	3.21	7.71	-2.57	-8.84	6.498	6.631	6.239	6.290		$13/2^{+}$	0^+
298	195	2081.21		6.98		5.09	18.49	1.88	7.89	-2.53	-9.01	6.512	6.644	6.253	6.304		$13/2^{+}$	13/
299	196	2084.43		6.97		5.10	18.78	3.22	8.04	-2.54	-9.16	6.524	6.657	6.264	6.315		$13/2^{+}$	0^+
300	197	2086.17		6.95		4.96	19.12	1.74	8.22	-2.38	-9.32	6.538	6.670	6.277	6.328		$13/2^{+}$	13/
801	198	2089.41		6.94		4.98	19.40	3.24	8.36	-2.42	-9.46	6.550	6.682	6.287	6.338		$13/2^{+}$	0^+
02	199	2090.92		6.92		4.75	19.57	1.51	8.44	-2.43	-9.58	6.561	6.695	6.295	6.346		$13/2^{+}$	11/
03	200	2093.99		6.91		4.58	19.89	3.07	8.60	-2.25	-9.71	6.572	6.707	6.302	6.352		$13/2^{+}$	0^+
04	201	2095.48		6.89		4.56	20.12	1.49	8.71	-2.22	-9.83	6.583	6.719	6.308	6.358		$13/2^{+}$	11/
805	202	2098.31		6.88		4.32	20.35	2.83	8.82	-2.17	-9.95	6.593	6.730	6.313	6.364		13/2+	0+
306	203	2099.74		6.86		4.26	20.57	1.43	8.93	-2.13	-10.06	6.603	6.743	6.319	6.370		13/2+	11/
307	204	2102.49		6.85		4.18	20.80	2.75	9.04	-2.11	-10.18	6.613	6.754	6.325	6.375		13/2+	0+
308	205	2103.86		6.83		4.12	21.03	1.37	9.15	-2.07	-10.29	6.624	6.766	6.331	6.381		13/2+	11/
809	206	2106.57		6.82		4.08	21.26	2.71	9.27	-2.06	-10.41	6.634	6.778	6.337	6.387		13/2+	0+
310	207	2107.86		6.80		4.00	21.49	1.29	9.38	-2.01	-10.53	6.644	6.790	6.343	6.393		13/2+	11/
311	208	2110.55		6.79		3.98	21.72	2.69	9.50	-2.01	-10.65	6.654	6.801	6.349	6.399		13/2+	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
312	209	2111.74		6.77		3.88	21.96	1.19	9.62	-1.95	-10.77	6.665	6.813	6.355	6.405		13/2+	11/2
313	210	2114.43		6.76		3.88	22.19	2.69	9.73	-1.96	-10.88	6.675	6.824	6.361	6.411		$13/2^{+}$	0^{+}
314	211	2115.50		6.74		3.76	22.44	1.07	9.86	-1.89	-11.01	6.686	6.836	6.369	6.419		13/2+	11/2
315	212	2118.22		6.72		3.79	22.67	2.72	9.97	-1.91	-11.12	6.696	6.847	6.375	6.425		$13/2^{+}$	0^{+}
316	213	2119.16		6.71		3.66	22.94	0.94	10.12	-1.84	-11.26	6.707	6.858	6.384	6.434		13/2+	11/2
317	214	2121.91		6.69		3.69	23.15	2.75	10.22	-1.87	-11.37	6.717	6.869	6.389	6.439		13/2+	0+
318	215	2122.79		6.68		3.63	23.42	0.88	10.36	-1.86	-11.50	6.728	6.881	6.397	6.447		13/2+	17/
319	216	2125.54		6.66		3.63	23.64	2.75	10.48	-1.84	-11.61	6.738	6.892	6.404	6.454		13/2+	0+
320	217	2126.41		6.65		3.62	23.91	0.87	10.61	-1.83	-11.75	6.749	6.903	6.412	6.462		13/2+	17/
321	218	2129.10		6.63		3.56	24.12	2.69	10.72	-1.81	-11.86	6.760	6.915	6.419	6.469		13/2 ⁺	0+
22	219	2129.97		6.61		3.56	24.39	0.87	10.86	-1.80	-11.99	6.770	6.926	6.427	6.477		13/2+	17/
23	220	2132.63		6.60		3.53	24.60	2.66	10.97	-1.79	-12.10	6.781	6.938	6.434	6.484		13/2+	0+
324	221	2133.49		6.58		3.52	24.86	0.86	11,11	-1.78	-12.23	6.792	6.949	6.443	6.492		13/2+	17/
325	222	2136.12		6.57		3.49	25.07	2.63	11.22	-1.77	-12.33	6.802	6.960	6.450	6.499		13/2 ⁺	0+
326	223	2136.12		6.56		3.48	25.29	0.85	11.33	-1.77 -1.79	-12.35 -12.45	6.814	6.972	6.457	6.507		13/2+	9/2
20 27	224	2130.57		6.54		3.47	25.54	2.62	11.46	-1.75 -1.76	-12.43	6.824	6.983	6.465	6.514		13/2+	0 ⁺
28	225																13/2 ⁺	9/2
		2140.49		6.53		3.52	25.78	0.90	11.59	-1.78	-12.68	6.835	6.994	6.473	6.522			9/2 0 ⁺
29	226	2143.04		6.51		3.45	25.98	2.55	11.69	-1.75	-12.79	6.845	7.005	6.480	6.529		13/2+	
30	227	2143.98		6.50		3.49	26.24	0.94	11.83	-1.76	-12.92	6.856	7.017	6.488	6.537		13/2+	9/2
31	228	2146.49		6.48		3.45	26.44	2.51	11.93	-1.74	-13.02	6.866	7.028	6.494	6.543		13/2+	0+
32	229	2147.45		6.47		3.47	26.69	0.96	12.06	-1.75	-13.14	6.877	7.039	6.503	6.552		13/2+	9/2
33	230	2149.92		6.46		3.43	26.87	2.47	12.16	-1.73	-13.23	6.887	7.050	6.508	6.557		13/2+	0^{+}
34	231	2150.91		6.44		3.46	27.13	0.99	12.30	-1.74	-13.36	6.898	7.061	6.517	6.566		13/2+	9/2
35	232	2153.33		6.43		3.41	27.29	2.42	12.37	-1.72	-13.44	6.908	7.073	6.522	6.571		$13/2^{+}$	0^{+}
36	233	2154.33		6.41		3.42	27.51	1.00	12.51	-1.72	-13.57	6.919	7.084	6.531	6.580		$13/2^{+}$	9/2
37	234	2156.73		6.40		3.40	27.69	2.40	12.58	-1.71	-13.64	6.929	7.095	6.535	6.584		$13/2^{+}$	0^+
38	235	2157.72		6.38		3.39	27.87	0.99	12.67	-1.73	-13.72	6.940	7.108	6.540	6.588		$13/2^{+}$	7/2
339	236	2160.09		6.37		3.36	28.07	2.37	12.77	-1.69	-13.82	6.950	7.118	6.547	6.596		$13/2^{+}$	0^+
340	237	2161.13		6.36		3.41	28.25	1.04	12.86	-1.71	-13.91	6.960	7.130	6.552	6.601		13/2+	7/2
841	238	2163.40		6.34		3.31	28.42	2.27	12.95	-1.66	-14.00	6.970	7.141	6.557	6.606		13/2+	0+
342	239	2164.48		6.33		3.35	28.61	1.08	13.04	-1.67	-14.09	6.981	7.153	6.563	6.611		13/2 ⁺	7/2
343	240	2166.64		6.32		3.24	28.73	2.16	13.10	-1.62	-14.15	6.990	7.164	6.565	6.614		13/2+	0+
344	241	2167.73		6.30		3.25	28.91	1.09	13.19	-1.62	-14.23	7.000	7.176	6.571	6.619		13/2+	7/2
45	242	2169.80		6.29		3.16	28.99	2.07	13.22	-1.59	-14.28	7.010	7.188	6.571	6.619		13/2+	0+
46	243	2170.87		6.27		3.14	29.16	1.07	13.30	-1.57	-14.36	7.020	7.100	6.576	6.624		13/2 ⁺	7/2
47	244	2170.87		6.26		3.09	29.23	2.02	13.33	-1.56	-14.40	7.020	7.212	6.575	6.624		13/2+	0+
48	244	2172.89		6.25			29.23						7.212	6.579	6.628		13/2+	7/2
	245 246	2175.91		6.23		3.04 3.03	29.37 29.45	1.02	13.40	-1.52 -1.53	-14.47	7.040	7.225 7.237	6.579	6.627		13/2 ⁺	0+
49 50								2.01	13.43		-14.51	7.049						
50	247	2176.97		6.22		3.06	29.52	1.05	13.50	-1.54	-14.57	7.059	7.249	6.581	6.630		13/2 ⁺	5/2
51	248	2178.90		6.21		2.98	29.66	1.93	13.53	-1.50	-14.62	7.069	7.262	6.582	6.630		13/2+	0+
52	249	2180.00		6.19		3.03	29.77	1.10	13.59	-1.52	-14.66	7.080	7.276	6.583	6.631		13/2+	3/2
53	250	2181.83		6.18		2.93	29.85	1.83	13.63	-1.48	-14.72	7.089	7.287	6.584	6.632		13/2+	0+
54	251	2182.94		6.17		2.94	29.95	1.11	13.67	-1.49	-14.77	7.100	7.301	6.585	6.634		13/2+	3/2
55	252	2184.72		6.15		2.89	30.04	1.78	13.71	-1.46	-14.81	7.110	7.313	6.586	6.634		13/2+	0+
56	253	2185.85		6.14		2.91	30.14	1.13	13.76	-1.46	-14.86	7.120	7.326	6.588	6.636		13/2+	3/2
57	254	2187.57		6.13		2.85	30.21	1.72	13.79	-1.44	-14.90	7.131	7.339	6.588	6.636		$13/2^{+}$	0^+
58	255	2188.75		6.11		2.90	30.29	1.18	13.83	-1.48	-14.94	7.142	7.354	6.589	6.637		$13/2^{+}$	1/2
59	256	2190.39		6.10		2.82	30.38	1.64	13.87	-1.41	-14.98	7.152	7.366	6.589	6.637		$13/2^{+}$	0^+
860	257	2191.67		6.09		2.92	30.46	1.28	13.90	-0.40	-15.03	7.163	7.380	6.590	6.638		13/2+	1/2
61	258	2193.13		6.08		2.74	30.52	1.46	13.93	-0.21	-15.05	7.175	7.395	6.590	6.638		13/2+	0^{+}
62	259	2191.89		6.05		0.22	30.51	-1.24	13.93	-0.15	-15.06	7.201	7.431	6.589	6.638		13/2+	1/2
363	260	2190.90		6.04		-2.23	30.70	$\frac{-0.99}{-0.99}$	14.04	1.08	-15.18	7.200	7.424	6.602	6.650		13/2 ⁺	0+
		21.84															,-	-

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
Z = 10	04 (Rf)																	
243	139	1771.27		7.29			0.13	6.89	1.11	-8.57	0.17	5.950	5.984	5.906	5.960		0^{+}	$15/2^{-}$
244	140	1780.40		7.30		16.02	0.50	9.13	1.31	-7.93	-0.01	5.959	5.995	5.910	5.964		0^+	0+
245	141	1787.06		7.29		15.79	0.86	6.66	1.51	-7.84	-0.23	5.969	6.007	5.917	5.971		0^+	$15/2^{-}$
246	142	1795.94		7.30		15.54	1.30	8.88	1.71	-7.74	-0.41	5.978	6.019	5.922	5.976		0^+	0+
247	143	1802.50		7.30		15.44	1.66	6.56	1.91	-7.69	-0.59	5.988	6.031	5.927	5.981		0^+	$9/2^{+}$
248	144	1811.15		7.30		15.21	2.09	8.65	2.10	-7.60	-0.80	5.997	6.043	5.934	5.988		0^+	0+
249	145	1817.61		7.30		15.11	2.45	6.46	2.28	-7.55	-0.98	6.007	6.055	5.939	5.993		0^+	$9/2^{+}$
250	146	1826.10		7.30		14.95	2.88	8.49	2.49	-7.48	-1.19	6.017	6.066	5.946	6.000		0^+	0 ⁺
251	147	1832.47		7.30		14.86	3.24	6.37	2.68	-7.43	-1.38	6.026	6.078	5.952	6.005		0^+	$9/2^{+}$
252	148	1840.81		7.30		14.71	3.65	8.34	2.87	-7.37	-1.58	6.036	6.089	5.958	6.012		0^+	0+
253	149	1847.10		7.30		14.63	4.02	6.29	3.06	-7.32	-1.77	6.045	6.101	5.964	6.017		0^+	$9/2^{+}$
254	150	1855.31		7.30		14.50	4.41	8.21	3.25	-7.27	-1.96	6.054	6.112	5.970	6.024		0^+	0+
255	151	1861.52		7.30		14.42	4.80	6.21	3.44	-7.22	-2.15	6.064	6.124	5.976	6.029		0^+	$9/2^{+}$
256	152	1869.62	1890.67	7.30	7.39	14.31	5.17	8.10	3.63	-7.17	-2.34	6.073	6.135	5.982	6.035		0^+	0+
257	153	1875.75	1897.10	7.30	7.38	14.23	5.57	6.13	3.82	-7.12	-2.54	6.083	6.146	5.989	6.042		0^+	$9/2^{+}$
258	154	1883.75	1904.69	7.30	7.38	14.13	5.92	8.00	4.00	-7.08	-2.72	6.092	6.157	5.994	6.047		0^+	0+
259	155	1889.80		7.30		14.05	6.34	6.05	4.20	-7.02	-2.92	6.102	6.168	6.001	6.054		0^+	$9/2^{+}$
260	156	1897.71		7.30		13.96	6.67	7.91	4.37	-6.98	-3.09	6.111	6.179	6.006	6.059		0^+	0+
261	157	1903.68	1923.93	7.29	7.37	13.88	7.11	5.97	4.58	-6.92	-3.30	6.120	6.191	6.013	6.066		0^+	$9/2^{+}$
262	158	1911.50		7.30		13.79	7.42	7.82	4.75	-6.89	-3.46	6.129	6.201	6.018	6.071		0^+	0+
263	159	1917.36		7.29		13.68	7.87	5.86	4.95	-6.81	-3.68	6.139	6.212	6.026	6.079		0^+	$9/2^{+}$
264	160	1925.10		7.29		13.60	8.16	7.74	5.11	-6.78	-3.83	6.148	6.223	6.030	6.083		0^+	0^+
265	161	1930.84		7.29		13.48	8.63	5.74	5.32	-6.68	-4.05	6.158	6.234	6.038	6.091		0^+	$9/2^{+}$
266	162	1938.50		7.29		13.40	8.90	7.66	5.48	-6.65	-4.19	6.166	6.245	6.042	6.095		0^+	0^+
267	163	1944.08		7.28		13.24	9.22	5.58	5.64	-6.69	-4.36	6.177	6.257	6.049	6.101		0^+	$7/2^{+}$
268	164	1951.59		7.28		13.09	9.59	7.51	5.82	-6.47	-4.54	6.185	6.267	6.054	6.107		0^+	0^+
269	165	1957.27		7.28		13.19	9.94	5.68	5.99	-6.47	-4.71	6.195	6.279	6.061	6.113		0^+	$7/2^{+}$
270	166	1964.26		7.28		12.67	10.22	6.99	6.14	-6.26	-4.85	6.205	6.291	6.067	6.119		0^+	0^+
271	167	1969.88		7.27		12.61	10.54	5.62	6.30	-6.21	-5.02	6.216	6.303	6.073	6.126		0^+	$7/2^{+}$
272	168	1976.56		7.27		12.30	10.79	6.68	6.44	-6.11	-5.14	6.226	6.315	6.079	6.131		0^+	0^+
273	169	1982.08		7.26		12.20	11.12	5.52	6.60	-6.04	-5.31	6.236	6.327	6.085	6.138		0^+	$7/2^{+}$
274	170	1988.59		7.26		12.03	11.36	6.51	6.73	-5.97	-5.44	6.246	6.339	6.091	6.143		0^+	0^+
275	171	1993.92		7.25		11.84	11.68	5.33	6.90	-5.76	-5.60	6.256	6.351	6.098	6.150		0^+	$7/2^{+}$
276	172	2000.31		7.25		11.72	11.92	6.39	7.02	-5.75	-5.72	6.266	6.362	6.102	6.154		0^+	0+
277	173	2005.40		7.24		11.48	12.18	5.09	7.16	-5.74	-5.85	6.275	6.374	6.106	6.159		0^+	5/2+
278	174	2011.43		7.24		11.12	12.35	6.03	7.25	-5.48	-5.94	6.282	6.384	6.108	6.160		0^+	0^+
279	175	2016.37		7.23		10.97	12.57	4.94	7.36	-5.39	-6.05	6.291	6.395	6.110	6.163		0^+	5/2+
280	176	2022.14		7.22		10.71	12.76	5.77	7.46	-5.32	-6.15	6.298	6.406	6.112	6.164		0^+	0^+
281	177	2026.91		7.21		10.54	12.98	4.77	7.58	-5.21	-6.26	6.307	6.417	6.115	6.167		0^+	5/2+
282	178	2032.58		7.21		10.44	13.17	5.67	7.68	-5.18	-6.36	6.315	6.428	6.117	6.169		0^+	0^+
283	179	2037.29		7.20		10.38	13.38	4.71	7.79	-5.18	-6.46	6.323	6.439	6.119	6.171		0^+	$3/2^{+}$
284	180	2042.74		7.19		10.16	13.58	5.45	7.89	-5.04	-6.57	6.332	6.450	6.121	6.173		0^+	0^+
285	181	2047.40		7.18		10.11	13.78	4.66	7.99	-4.98	-6.67	6.340	6.462	6.123	6.175		0^+	$3/2^{+}$
286	182	2052.63		7.18		9.89	13.98	5.23	8.10	-4.90	-6.77	6.349	6.474	6.126	6.178		0^+	0^+
287	183	2057.30		7.17		9.90	14.20	4.67	8.22	-3.96	-6.88	6.358	6.486	6.128	6.180		0^+	$1/2^{+}$
288	184	2062.23		7.16		9.60	14.36	4.93	8.29	-3.93	-6.96	6.367	6.497	6.130	6.182		0^+	0+
289	185	2064.29		7.14		6.99	14.70	2.06	8.47	-3.81	-7.13	6.381	6.511	6.142	6.194		0^+	$13/2^{-}$
290	186	2067.60		7.13		5.37	15.02	3.31	8.62	-2.70	-7.29	6.394	6.524	6.153	6.205		0^+	0+
291	187	2069.65		7.11		5.36	15.35	2.05	8.78	-2.70	-7.46	6.407	6.538	6.166	6.217		0^+	$13/2^{-}$
292	188	2072.98		7.10		5.38	15.67	3.33	8.95	-2.71	-7.61	6.420	6.551	6.177	6.228		0^+	0+
293	189	2075.04		7.08		5.39	16.00	2.06	9.10	-2.71	-7.78	6.434	6.564	6.189	6.241		0^+	$13/2^{-}$
294	190	2078.37		7.07		5.39	16.31	3.33	9.26	-2.72	-7.94	6.446	6.577	6.200	6.252		0^+	0^+
		20.0.07				0.00		3.33	0.20	22		0.1.0	0.0	0.200	0.202		•	Ü

(continued on next page)

Α	N	$E_{ m b}^{ m Cal.}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
295	191	2080.44		7.05		5.40	16.64	2.07	9.42	-2.72	-8.10	6.460	6.590	6.213	6.264		0+	13/2-
296	192	2083.79		7.04		5.42	16.96	3.35	9.57	-2.73	-8.26	6.473	6.603	6.224	6.275		0+	0^+
297	193	2085.86		7.02		5.42	17.29	2.07	9.74	-2.71	-8.42	6.486	6.616	6.237	6.288		0+	13/2
298	194	2089.22		7.01		5.43	17.60	3.36	9.89	-2.72	-8.58	6.499	6.629	6.248	6.299		0+	0^+
299	195	2091.26		6.99		5.40	17.94	2.04	10.05	-2.68	-8.74	6.513	6.642	6.262	6.313		0+	13/2
300	196	2094.63		6.98		5.41	18.24	3.37	10.20	-2.69	-8.89	6.525	6.655	6.273	6.324		0^+	0^+
301	197	2096.53		6.97		5.27	18.58	1.90	10.36	-2.52	-9.06	6.539	6.668	6.287	6.337		0^+	13/2
302	198	2099.91		6.95		5.28	18.86	3.38	10.50	-2.55	-9.20	6.551	6.680	6.297	6.347		0^+	0^+
303	199	2101.55		6.94		5.02	19.07	1.64	10.63	-2.57	-9.33	6.562	6.693	6.304	6.355		0^+	11/2
304	200	2104.74		6.92		4.83	19.35	3.19	10.75	-2.37	-9.45	6.572	6.705	6.311	6.361		0^+	0^+
305	201	2106.35		6.91		4.80	19.58	1.61	10.87	-2.34	-9.57	6.583	6.717	6.317	6.367		0^+	11/2
306	202	2109.30		6.89		4.56	19.81	2.95	10.99	-2.28	-9.69	6.593	6.728	6.322	6.373		0^+	0^+
307	203	2110.84		6.88		4.49	20.03	1.54	11.10	-2.25	-9.80	6.604	6.740	6.328	6.378		0^+	11/2
308	204	2113.72		6.86		4.42	20.27	2.88	11.23	-2.22	-9.92	6.614	6.752	6.334	6.384		0^+	0+
309	205	2115.20		6.85		4.36	20.49	1.48	11.34	-2.19	-10.04	6.624	6.764	6.339	6.390		0^+	11/2-
310	206	2118.03		6.83		4.31	20.73	2.83	11.46	-2.17	-10.16	6.634	6.775	6.345	6.396		0^+	0+
311	207	2119.43		6.81		4.23	20.95	1.40	11.57	-2.13	-10.27	6.644	6.787	6.351	6.401		0^{+}	11/2
312	208	2122.25		6.80		4.22	21.20	2.82	11.70	-2.13	-10.39	6.654	6.798	6.358	6.408		0+	0+
313	209	2123.56		6.78		4.13	21.44	1.31	11.82	-2.07	-10.52	6.665	6.810	6.364	6.414		0^{+}	11/2
314	210	2126.37		6.77		4.12	21.67	2.81	11.94	-2.08	-10.63	6.675	6.821	6.370	6.420		0+	0+
315	211	2127.57		6.75		4.01	21.93	1.20	12.07	-2.01	-10.76	6.686	6.833	6.378	6.428		0^{+}	11/2
316	212	2130.40		6.74		4.03	22.15	2.83	12.18	-2.03	-10.88	6.696	6.844	6.384	6.434		0+	0+
317	213	2131.47		6.72		3.90	22.43	1.07	12.31	-1.97	-11.02	6.707	6.855	6.393	6.443		0+	11/2
318	214	2134.34		6.71		3.94	22.45	2.87	12.43	-1.99	-11.02 -11.13	6.717	6.866	6.398	6.448		0^{+}	0+
319	214	2135.35		6.69		3.88	22.92	1.01	12.45	-1.98	-11.13 -11.26	6.727	6.877	6.406	6.456		0+	17/2 ⁺
320	215			6.68		3.86		2.85	12.56		-11.26 -11.38	6.738	6.889	6.413			0+	0+
	217	2138.20					23.14			-1.96					6.463		0+	
321		2139.21		6.66		3.86	23.41	1.01	12.80	-1.95	-11.51	6.748	6.900	6.421	6.471		0+	17/2 ⁺ 0 ⁺
322	218	2142.01		6.65		3.81	23.63	2.80	12.91	-1.93	-11.62	6.759	6.911	6.428	6.478			
323	219	2143.01		6.63		3.80	23.90	1.00	13.04	-1.92	-11.76	6.770	6.922	6.437	6.486		0+	17/2+
324	220	2145.78		6.62		3.77	24.12	2.77	13.15	-1.91	-11.87	6.780	6.934	6.444	6.493		0+	0+
325	221	2146.77		6.61		3.76	24.39	0.99	13.28	-1.89	-12.00	6.791	6.945	6.452	6.501		0+	17/2
326	222	2149.51		6.59		3.73	24.61	2.74	13.39	-1.89	-12.11	6.801	6.956	6.459	6.509		0+	0+
327	223	2150.48		6.58		3.71	24.84	0.97	13.51	-1.87	-12.24	6.812	6.967	6.467	6.517		0+	17/2+
328	224	2153.21		6.56		3.70	25.08	2.73	13.62	-1.87	-12.35	6.823	6.978	6.475	6.524		0+	0^+
329	225	2154.22		6.55		3.74	25.32	1.01	13.73	-1.89	-12.47	6.834	6.990	6.483	6.532		0^+	$9/2^{-}$
330	226	2156.89		6.54		3.68	25.54	2.67	13.85	-1.86	-12.58	6.844	7.001	6.490	6.539		0^+	0^+
331	227	2157.95		6.52		3.73	25.80	1.06	13.97	-1.88	-12.70	6.855	7.012	6.498	6.547		0^+	$9/2^{-}$
332	228	2160.56		6.51		3.67	26.00	2.61	14.07	-1.85	-12.81	6.865	7.023	6.504	6.553		0^+	0+
333	229	2161.65		6.49		3.70	26.26	1.09	14.20	-1.86	-12.93	6.876	7.034	6.513	6.562		0^+	$9/2^{-}$
334	230	2164.20		6.48		3.64	26.44	2.55	14.28	-1.84	-13.02	6.886	7.046	6.519	6.568		0^+	0^+
335	231	2165.32		6.46		3.67	26.71	1.12	14.41	-1.84	-13.15	6.897	7.057	6.528	6.577		0^+	$9/2^{-}$
336	232	2167.82		6.45		3.62	26.86	2.50	14.49	-1.82	-13.23	6.907	7.068	6.533	6.581		0^+	0+
337	233	2168.96		6.44		3.64	27.14	1.14	14.63	-1.82	-13.36	6.918	7.079	6.542	6.591		0^+	$9/2^{-}$
338	234	2171.42		6.42		3.60	27.27	2.46	14.69	-1.80	-13.43	6.928	7.091	6.546	6.594		0+	0+
339	235	2172.54		6.41		3.58	27.49	1.12	14.82	-1.78	-13.56	6.938	7.102	6.555	6.603		0^{+}	9/2-
340	236	2174.97		6.40		3.55	27.65	2.43	14.88	-1.77	-13.62	6.948	7.113	6.558	6.606		0^{+}	0+
341	237	2176.10		6.38		3.56	27.83	1.13	14.97	-1.80	-13.71	6.959	7.126	6.563	6.611		0^{+}	7/2-
342	238	2178.45		6.37		3.48	28.00	2.35	15.05	-1.74	-13.79	6.968	7.136	6.568	6.616		0+	0+
343	239	2179.62		6.35		3.52	28.18	1.17	15.14	-1.7 4 -1.75	-13.73 -13.88	6.979	7.130	6.573	6.622		0+	7/2 ⁻
344	240	2173.02		6.34		3.38	28.29	2.21	15.14	-1.73 -1.69	-13.88 -13.94	6.988	7.148	6.575	6.624		0+	0 ⁺
	240 241																0+	
345		2183.01		6.33		3.39	28.47	1.18	15.28	-1.68	-14.02	6.999	7.172	6.580	6.629		0 ⁺	7/2 ⁻
346	242	2185.12		6.32		3.29	28.54	2.11	15.32	-1.65	-14.06	7.007	7.183	6.580	6.629			0 ⁺
347 348	243	2186.27		6.30		3.26	28.70	1.15	15.40	-1.63	-14.14	7.018	7.195	6.584	6.633		0 ⁺	7/2-
	244	2188.33		6.29		3.21	28.77	2.06	15.44	-1.61	-14.18	7.027	7.207	6.584	6.633		0^+	0^+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
349	245	2189.42		6.27		3.15	28.91	1.09	15.51	-1.58	-14.25	7.037	7.220	6.588	6.636		0+	7/2-
350	246	2191.47		6.26		3.14	28.98	2.05	15.55	-1.58	-14.29	7.046	7.231	6.587	6.636		0^{+}	0 ⁺
351 352	247 248	2192.58 2194.55		6.25 6.23		3.16 3.08	29.11 29.18	1.11 1.97	15.61 15.65	-1.59 -1.55	-14.35 -14.39	7.056 7.066	7.244 7.256	6.589 6.590	6.638 6.638		0 ⁺	5/2 ⁻ 0 ⁺
353	249	2194.33		6.22		3.13	29.10	1.16	15.03	-1.55 -1.57	-14.39 -14.44	7.000	7.270	6.591	6.639		0+	3/2-
354	250	2197.58		6.21		3.03	29.38	1.87	15.75	-1.52	-14.49	7.086	7.281	6.592	6.640		0+	0+
355	251	2198.74		6.19		3.03	29.47	1.16	15.80	-1.54	-14.54	7.097	7.295	6.593	6.642		0^{+}	3/2-
356	252	2200.56		6.18		2.98	29.55	1.82	15.84	-1.50	-14.58	7.106	7.307	6.594	6.642		0+	0+
357	253	2201.75		6.17		3.01	29.66	1.19	15.90	-1.51	-14.63	7.117	7.321	6.595	6.644		0^{+}	3/2-
358	254	2203.51		6.16		2.95	29.73	1.76	15.94	-1.48	-14.67	7.127	7.334	6.595	6.644		0^{+}	0^+
359	255	2204.73		6.14		2.98	29.81	1.22	15.98	-1.52	-14.71	7.138	7.348	6.596	6.645		0+	1/2
360	256	2206.41		6.13		2.90	29.89	1.68	16.02	-1.45	-14.75	7.148	7.361	6.597	6.645		0+	0^{+}
361	257	2207.73		6.12		3.00	29.96	1.32	16.06	-0.28	-14.79	7.159	7.374	6.597	6.646		0+	1/2
362	258	2209.22		6.10		2.81	30.02	1.49	16.09	-0.29	-14.82	7.171	7.389	6.597	6.646		0+	0+
363	259	2207.99		6.08		0.26	30.03	$\frac{-1.23}{0.06}$	16.10	-0.49	-14.82	7.197	7.425	6.597	6.645		0+	1/2+
364	260	2207.13		6.06		-2.09	30.27	-0.86	16.23	<u>1.01</u>	-14.96	7.195	7.415	6.611	6.659		0^+	0^+
σ	05 (DI)	20.90																
z = 10 245	05 (Db) 140	1778.98		7.26			-0.11		-1.42	-8.13	0.26	5.965	5.997	5.921	5.975		7/2-	0+
246	141	1785.86		7.26			0.31	6.88	$\frac{1112}{-1.20}$	-8.04	$\frac{0.23}{0.04}$	5.975	6.009	5.928	5.982		7/2-	15/2
247	142	1794.92		7.27		15.94	0.69	9.06	$\frac{-1.02}{-1.02}$	-7.94	$\frac{-0.14}{-0.14}$	5.984	6.021	5.933	5.987		7/2-	0+
248	143	1801.65		7.26		15.79	1.06	6.73	-0.85	-7.87	-0.36	5.994	6.033	5.940	5.993		7/2-	15/2
249	144	1810.52		7.27		15.60	1.47	8.87	-0.63	-7.80	-0.54	6.003	6.044	5.945	5.999		$7/2^{-}$	0+
250	145	1817.17		7.27		15.52	1.84	6.65	-0.44	-7.75	-0.72	6.012	6.056	5.950	6.004		$7/2^{-}$	9/2
251	146	1825.86		7.27		15.34	2.25	8.69	-0.24	-7.67	-0.93	6.022	6.068	5.957	6.011		$7/2^{-}$	0^+
252	147	1832.41		7.27		15.24	2.62	6.55	-0.06	-7.62	-1.12	6.031	6.079	5.962	6.016		$7/2^{-}$	9/2
253	148	1840.96		7.28		15.10	3.02	8.55	0.15	-7.56	-1.24	6.041	6.091	5.969	6.023		13/2+	0+
254	149	1847.44		7.27		15.03	3.40	6.48	0.34	-7.51	-1.43	6.050	6.102	5.975	6.028		13/2+	9/2
255	150	1855.85		7.28		14.89	3.79	8.41	0.54	-7.46	-1.62	6.059	6.113	5.981	6.034		13/2 ⁺	0+
256 257	151 152	1862.25 1870.54		7.27 7.28		14.81 14.69	4.17 4.55	6.40 8.29	0.73 0.92	-7.41 -7.36	-1.81 -2.00	6.069 6.078	6.125 6.136	5.987 5.993	6.040 6.046		13/2 ⁺ 13/2 ⁺	9/2 ⁻ 0 ⁺
257 258	153	1876.88		7.28 7.27		14.63	4.33 4.95	6.34	1.13	-7.30 -7.31	-2.00 -2.19	6.087	6.147	5.999	6.052		13/2 ⁺	9/2
259	154	1885.06	1906.33	7.28	7.36	14.52	5.31	8.18	1.31	-7.27	-2.37	6.097	6.158	6.005	6.058		13/2+	0+
260	155	1891.31	1000.33	7.27	,,50	14.43	5.71	6.25	1.51	-7.21	-2.57	6.106	6.169	6.012	6.065		13/2+	9/2
261	156	1899.39		7.28		14.33	6.05	8.08	1.68	-7.17	-2.75	6.115	6.180	6.017	6.070		13/2+	0+
262	157	1905.57		7.27		14.26	6.47	6.18	1.89	-7.11	-2.95	6.125	6.191	6.024	6.077		13/2+	9/2
263	158	1913.55		7.28		14.16	6.80	7.98	2.05	-7.07	-3.11	6.133	6.202	6.029	6.081		13/2+	0+
264	159	1919.64		7.27		14.07	7.23	6.09	2.28	-7.00	-3.32	6.143	6.213	6.036	6.089		13/2 ⁺	9/2
265	160	1927.52		7.27		13.97	7.53	7.88	2.42	-6.96	-3.48	6.152	6.224	6.040	6.093		13/2+	0+
266	161	1933.48		7.27		13.84	7.96	5.96	2.64	-6.87	-3.69	6.161	6.234	6.048	6.101		13/2+	9/2
267	162	1941.28		7.27		13.76	8.26	7.80	2.78	-6.83	-3.84	6.170	6.245	6.052	6.105		13/2+	0+
268	163	1947.02		7.26		13.54	8.58	5.74	2.94	-6.88	-4.01	6.180	6.257	6.059	6.111		13/2 ⁺	7/2 ⁻ 0 ⁺
269 270	164	1954.72		7.27		13.44	8.95	7.70	3.13	-6.63	-4.19	6.189	6.267	6.064	6.117		13/2 ⁺	0 ⁺ 7/2
270 271	165 166	1960.57 1967.69		7.26 7.26		13.55 12.97	9.29 9.57	5.85 7.12	3.30 3.43	-6.63 -6.41	-4.36 -4.50	6.198 6.208	6.278 6.291	6.070 6.076	6.123 6.129		13/2 ⁺ 13/2 ⁺	0 ⁺
271 272	166	1967.69		7.26 7.26		12.97	9.57	7.12 5.78	3.43 3.59	-6.41 -6.35	-4.50 -4.67	6.219	6.303	6.083	6.135		13/2 ⁺	7/2
273	168	1980.27		7.25		12.58	10.15	6.80	3.71	-6.26	-4.80	6.229	6.315	6.088	6.141		13/2 ⁺	0+
274	169	1985.94		7.25		12.47	10.15	5.67	3.86	-6.18	-4.96	6.239	6.327	6.095	6.147		13/2 ⁺	7/2 ⁻
275	170	1992.59		7.25		12.32	10.73	6.65	4.00	-6.11	-5.10	6.249	6.339	6.101	6.153		13/2+	0+
276	171	1998.08		7.24		12.14	11.06	5.49	4.16	-5.89	-5.26	6.260	6.351	6.108	6.160		13/2+	7/2
277	172	2004.59		7.24		12.00	11.30	6.51	4.28	-5.87	-5.39	6.269	6.362	6.112	6.164		13/2+	0+
278	173	2009.80		7.23		11.72	11.56	5.21	4.40	-5.87	-5.52	6.278	6.374	6.116	6.168		13/2+	5/2
279	174	2015.92		7.23		11.33	11.74	6.12	4.49	-5.58	-5.62	6.285	6.384	6.117	6.170		13/2+	0+

Α	N	$E_{\rm b}^{\rm Cal.}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
80	175	2020.97		7.22		11.17	11.96	5.05	4.60	-5.50	-5.73	6.293	6.395	6.120	6.172		13/2+	5/2
81	176	2026.84		7.21		10.92	12.16	5.87	4.70	-5.43	-5.83	6.301	6.405	6.122	6.174		13/2+	0^+
82	177	2031.71		7.20		10.74	12.38	4.87	4.80	-5.32	-5.94	6.309	6.416	6.124	6.176		13/2+	5/2
83	178	2037.48		7.20		10.64	12.58	5.77	4.90	-5.29	-6.05	6.317	6.427	6.126	6.178		13/2+	0+
84	179	2042.29		7.19		10.58	12.79	4.81	5.00	-5.28	-6.16	6.325	6.438	6.128	6.180		13/2+	3/2
285	180	2047.85		7.19		10.37	13.00	5.56	5.11	-5.14	-6.26	6.334	6.449	6.131	6.183		13/2+	0+
286	181	2052.61		7.18		10.32	13.20	4.76	5.21	-5.08	-6.37	6.342	6.461	6.133	6.185		13/2+	3/2
287	182	2057.95		7.17		10.10	13.42	5.34	5.32	-5.00	-6.47	6.351	6.472	6.135	6.187		13/2+	0+
288	183	2062.72		7.16		10.11	13.64	4.77	5.42	-4.22	-6.58	6.360	6.484	6.137	6.189		13/2+	1/2 0 ⁺
89	184	2067.74		7.15		9.79	13.80	5.02	5.51	-4.07	-6.67	6.368	6.496	6.139	6.191		13/2+	-
290	185	2069.96		7.14		7.24	14.14	2.22	5.67	-4.15	-6.84	6.382	6.509	6.151	6.203		13/2 ⁺	13 _/ 0 ⁺
91 92	186	2073.43		7.13		5.69	14.45	3.47	5.83	-2.87	-7.00	6.395	6.522	6.162	6.214		13/2+	-
	187 188	2075.66		7.11		5.70	14.79	2.23	6.01	-2.87	-7.16	6.408	6.536	6.175	6.226		13/2 ⁺ 13/2 ⁺	13 _/ 0 ⁺
293 294	189	2079.14 2081.37		7.10 7.08		5.71 5.71	15.11 15.43	3.48 2.23	6.16 6.33	-2.88 -2.87	−7.32 −7.48	6.421 6.435	6.549 6.562	6.186 6.199	6.237 6.250		13/2+	13/
95	190	2081.37		7.08		5.72	15.45	3.49	6.49	-2.87 -2.88	-7.46 -7.64	6.448	6.575	6.210	6.261		13/2+	0+
96	191	2084.80		7.07		5.72	16.08	2.24	6.66	-2.88	-7.80	6.461	6.589	6.222	6.274		13/2 ⁺	13,
97	192	2090.60		7.03		5.74	16.38	3.50	6.81	-2.89	-7.86 -7.96	6.474	6.601	6.234	6.285		13/2 ⁺	0+
98	193	2090.84		7.04		5.74	16.72	2.24	6.98	-2.85 -2.87	-7.30 -8.12	6.487	6.615	6.247	6.298		13/2+	13
99	194	2096.35		7.02		5.75	17.02	3.51	7.13	-2.88	-8.12	6.500	6.627	6.258	6.309		13/2 ⁺	0+
00	195	2098.57		7.00		5.73	17.36	2.22	7.31	-2.84	-8.44	6.514	6.640	6.271	6.322		13/2+	13
01	196	2102.09		6.98		5.74	17.66	3.52	7.46	-2.85	-8.59	6.526	6.653	6.283	6.333		13/2+	0+
02	197	2104.17		6.97		5.60	18.00	2.08	7.64	-2.66	-8.75	6.540	6.666	6.297	6.347		13/2+	13
03	198	2107.70		6.96		5.61	18.29	3.53	7.79	-2.70	-8.90	6.552	6.679	6.307	6.357		13/2+	0+
04	199	2109.46		6.94		5.29	18.54	1.76	7.91	-2.71	-9.02	6.563	6.691	6.314	6.365		13/2+	11
05	200	2112.77		6.93		5.07	18.78	3.31	8.03	-2.49	-9.15	6.573	6.702	6.320	6.371		13/2+	0+
06	201	2114.48		6.91		5.02	19.00	1.71	8.13	-2.45	-9.26	6.584	6.715	6.326	6.376		13/2+	11
07	202	2117.56		6.90		4.79	19.25	3.08	8.26	-2.40	-9.39	6.594	6.726	6.332	6.382		13/2+	0+
08	203	2119.21		6.88		4.73	19.47	1.65	8.37	-2.37	-9.50	6.604	6.738	6.337	6.387		13/2+	11
09	204	2122,21		6.87		4.65	19.72	3.00	8.49	-2.34	-9.63	6.614	6.749	6.343	6.394		13/2+	0^{+}
10	205	2123.80		6.85		4.59	19.94	1.59	8.60	-2.30	-9.74	6.624	6.761	6.349	6.399		13/2+	11
11	206	2126.75		6.84		4.54	20.18	2.95	8.72	-2.29	-9.87	6.634	6.772	6.355	6.405		13/2+	0^{+}
12	207	2128.27		6.82		4.47	20.41	1.52	8.84	-2.25	-9.99	6.645	6.784	6.361	6.411		13/2+	11
13	208	2131.20		6.81		4.45	20.65	2.93	8.95	-2.25	-10.11	6.655	6.795	6.367	6.417		$13/2^{+}$	0^{+}
14	209	2132.64		6.79		4.37	20.90	1.44	9.08	-2.19	-10.23	6.665	6.807	6.374	6.424		13/2+	11
15	210	2135.49		6.78		4.29	21.06	2.85	9.12	-2.20	-10.38	6.675	6.818	6.381	6.430		$7/2^{-}$	0^{+}
16	211	2136.90		6.76		4.26	21.40	1.41	9.33	-2.14	-10.48	6.686	6.829	6.388	6.438		$13/2^{+}$	11
17	212	2139.84		6.75		4.35	21.62	2.94	9.44	-2.16	-10.60	6.696	6.840	6.394	6.444		13/2+	0^{+}
18	213	2141.06		6.73		4.16	21.90	1.22	9.59	-2.10	-10.74	6.707	6.852	6.402	6.452		13/2+	11
19	214	2144.04		6.72		4.20	22.13	2.98	9.70	-2.12	-10.85	6.717	6.863	6.408	6.458		13/2+	0^{+}
20	215	2145.19		6.70		4.13	22.40	1.15	9.84	-2.11	-10.98	6.727	6.874	6.416	6.466		13/2+	17
21	216	2148.16		6.69		4.12	22.62	2.97	9.96	-2.08	-11.10	6.738	6.885	6.423	6.473		13/2+	0+
22	217	2149.30		6.67		4.11	22.89	1.14	10.09	-2.07	-11.23	6.748	6.896	6.431	6.481		13/2+	17
23	218	2152.22		6.66		4.06	23.12	2.92	10.21	-2.05	-11.35	6.759	6.908	6.438	6.488		13/2+	0+
24	219	2153.36		6.65		4.06	23.39	1.14	10.35	-2.04	-11.48	6.769	6.918	6.446	6.496		13/2+	17
25	220	2156.24		6.63		4.02	23.61	2.88	10.46	-2.03	-11.59	6.780	6.930	6.454	6.503		13/2+	0 ⁺
26	221	2157.36		6.62		4.00	23.87	1.12	10.59	-2.02	-11.72	6.790	6.941	6.462	6.511		13/2+	17
27	222	2160.21		6.61		3.97	24.09	2.85	10.70	-2.01	-11.83	6.801	6.952	6.470	6.519		13/2+	0+
28	223	2161.32		6.59		3.96	24.35	1.11	10.84	-1.99	-11.96	6.811	6.963	6.477	6.527		13/2+	17
29	224	2164.16		6.58		3.95	24.57	2.84	10.95	-1.99	-12.07	6.822	6.974	6.485	6.534		13/2+	0+
30	225	2165.29		6.56		3.97	24.80	1.13	11.07	-2.01	-12.19	6.833	6.986	6.493	6.542		13/2+	9/
31	226	2168.08		6.55		3.92	25.04	2.79	11.19	-1.98	-12.30	6.843	6.996	6.500	6.549		13/2+	0+
32	227	2169.27		6.53		3.98	25.29	1.19	11.32	-1.99	-12.42	6.854	7.008	6.509	6.558		13/2+	9/
33	228	2171.98		6.52		3.90	25.49	2.71	11.42	-1.96	-12.52	6.864	7.019	6.515	6.564		13/2+	0^{+}

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
334	229	2173.20		6.51		3.93	25.75	1.22	11.55	-1.97	-12.65	6.875	7.030	6.524	6.573		13/2+	9/2-
335	230	2175.85		6.50		3.87	25.93	2.65	11.65	-1.95	-12.74	6.885	7.041	6.530	6.579		13/2+	0^+
336	231	2177.10		6.48		3.90	26.19	1.25	11.78	-1.95	-12.87	6.896	7.052	6.539	6.588		13/2+	9/2-
337	232	2179.69		6.47		3.84	26.36	2.59	11.87	-1.93	-12.95	6.906	7.064	6.544	6.592		13/2+	0+
338	233	2180.95		6.45		3.85	26.62	1.26	11.99	-1.92	-13.07	6.917	7.074	6.553	6.602		13/2+	9/2-
339	234	2183.48		6.44		3.79	26.75	2.53	12.06	-1.90	-13.14	6.927	7.086	6.557	6.606		13/2+	0+
340	235	2184.73		6.43		3.78	27.01	1.25	12.19	-1.88	-13.27	6.937	7.097	6.566	6.614		13/2+	9/2-
341	236	2187.22		6.41		3.74	27.13	2.49	12.25	-1.86	-13.33	6.947	7.109	6.569	6.618		13/2+	0+
342	237	2188.45		6.40		3.72	27.32	1.23	12.35	-1.89	-13.41	6.957	7.121	6.573	6.622		13/2+	7/2-
343	238	2190.88		6.39		3.66	27.48	2.43	12.43	-1.81	-13.50	6.967	7.132	6.579	6.627		13/2+	0+
344	239	2192.13		6.37		3.68	27.65	1.25	12.51	-1.82	-13.58	6.978	7.144	6.584	6.632		13/2+	7/2-
345	240	2194.40		6.36		3.52	27.76	2.27	12.57	-1.76	-13.64	6.987	7.155	6.586	6.634		13/2+	0+
346	241	2195.66		6.35		3.53	27.93	1.26	12.65	-1.75	-13.72	6.997	7.167	6.590	6.639		13/2+	7/2-
347	242	2197.81		6.33		3.41	28.01	2.15	12.69	-1.71	-13.77	7.006	7.178	6.590	6.639		13/2+	0+
348	243	2199.03		6.32		3.37	28.16	1.22	12.76	-1.68	-13.85	7.016	7.191	6.594	6.642		13/2+	7/2-
349	244	2201.13		6.31		3.32	28.24	2.10	12.80	-1.67	-13.89	7.025	7.202	6.593	6.642		13/2+	0+
350	245	2202.29		6.29		3.26	28.38	1.16	12.87	-1.63	-13.96	7.035	7.215	6.596	6.645		13/2+	7/2-
351	246	2204.37		6.28		3.24	28.45	2.08	12.90	-1.64	-14.01	7.044	7.226	6.596	6.644		13/2+	0+
352	247	2205.55		6.27		3.26	28.58	1.18	12.97	-1.65	-14.07	7.054	7.239	6.598	6.647		13/2+	5/2-
353	248	2207.56		6.25		3.19	28.66	2.01	13.01	-1.60	-14.11	7.063	7.251	6.599	6.647		13/2+	0+
354	249	2208.75		6.24		3.20	28.75	1.19	13.04	-1.60	-14.17	7.073	7.263	6.600	6.649		13/2+	5/2-
355	250	2210.68		6.23		3.12	28.85	1.93	13.10	-1.57	-14.22	7.083	7.276	6.601	6.649		13/2+	0+
356	251	2211.90		6.21		3.15	28.96	1.22	13.16	-1.59	-14.27	7.094	7.290	6.602	6.650		13/2+	3/2-
357	252	2213.76		6.20		3.08	29.04	1.86	13.20	-1.55	-14.32	7.103	7.302	6.602	6.651		13/2+	0+
358	253	2215.00		6.19		3.10	29.15	1.24	13.25	-1.55	-14.37	7.114	7.315	6.604	6.652		13/2+	3/2-
359	254	2216.79		6.17		3.03	29.22	1.79	13.28	-1.52	-14.41	7.124	7.328	6.604	6.652		13/2+	0+
360	255	2218.05		6.16		3.05	29.30	1.26	13.32	-1.56	-14.45	7.135	7.342	6.605	6.653		13/2+	1/2-
361	256	2219.77		6.15		2.98	29.38	1.72	13.36	-1.49	-14.49	7.145	7.355	6.605	6.653		13/2+	0+
362	257	2221.14		6.14		3.09	29.47	1.37	13.41	-0.44	-14.53	7.156	7.368	6.606	6.654		13/2 ⁺	1/2-
363	258	2222.65		6.12		2.88	29.52	1.51	13.43	-0.43	-14.56	7.167	7.383	6.606	6.654		13/2+	0 ⁺ 1/2 ⁺
364 365	259 260	2221.43		6.10		0.29	29.54	$\frac{-1.22}{0.72}$	13.44	-0.46	-14.56	7.194	7.419	6.605	6.654		13/2+	0+
	200	2220.71		6.08		-1.94	29.81	-0.72	13.58	0.93	-14.72	7.190	7.408	6.621	6.669		$13/2^{+}$	U.
σ		21.27																
	06 (Sg)																	
248	142	1796.04		7.24			0.10		1.12	-8.14	0.20	5.989	6.023	5.944	5.997		0+	0^+
249	143	1802.99		7.24			0.49	6.95	1.34	-8.07	-0.01	5.999	6.035	5.950	6.004		0+	$15/2^{-}$
250	144	1812.05		7.25		16.01	0.90	9.06	1.53	-7.99	-0.19	6.008	6.047	5.956	6.009		0^{+}	0^+
251	145	1818.88		7.25		15.89	1.27	6.83	1.71	-7.93	-0.40	6.018	6.058	5.962	6.016		0^{+}	$15/2^{-}$
252	146	1827.78		7.25		15.73	1.68	8.90	1.92	-7.87	-0.59	6.027	6.070	5.968	6.021		0+	0+
253	147	1834.52		7.25		15.64	2.05	6.74	2.11	-7.82	-0.77	6.036	6.081	5.973	6.026		0+	$9/2^{+}$
254	148	1843.28		7.26		15.50	2.47	8.76	2.32	-7.75	-0.97	6.046	6.093	5.980	6.033		0+	0+
255	149	1849.94		7.25		15.42	2.84	6.66	2.50	-7.71	-1.16	6.055	6.104	5.985	6.038		0+	$9/2^{+}$
256	150	1858.55		7.26		15.27	3.24	8.61	2.70	-7.65	-1.36	6.064	6.115	5.992	6.045		0+	0+
257	151	1865.15		7.26		15.21	3.63	6.60	2.90	-7.60	-1.55	6.074	6.127	5.997	6.050		0+	$9/2^{+}$
258	152	1873.63		7.26		15.08	4.01	8.48	3.09	-7.55	-1.74	6.083	6.138	6.003	6.057		0+	0+
259	153	1880.15		7.26		15.00	4.40	6.52	3.27	-7.50	-1.93	6.092	6.149	6.010	6.063		0+	9/2+
260	154	1888.52	1909.07	7.26	7.34	14.89	4.77	8.37	3.46	-7.45	-2.11	6.101	6.160	6.015	6.068		0+	0+
261	155	1894.97	1915.68	7.26	7.34	14.82	5.17	6.45	3.66	-7.40	-2.31	6.111	6.171	6.022	6.075		0+	$9/2^{+}$
262	156	1903.22	1923.39	7.26	7.34	14.70	5.51	8.25	3.83	-7.35	-2.48	6.119	6.182	6.027	6.080		0+	0+
263	157	1909.60		7.26		14.63	5.92	6.38	4.03	-7.30	-2.69	6.129	6.192	6.034	6.087		0+	$9/2^{+}$
264	158	1917.75		7.26		14.53	6.25	8.15	4.20	-7.25	-2.85	6.138	6.203	6.039	6.091		0+	0+
								C 20	4 40	7.40								
265 266	159 160	1924.04 1932.09		7.26 7.26		14.44 14.34	6.68 6.99	6.29 8.05	4.40 4.57	−7.19 −7.14	-3.06 -3.22	6.147 6.156	6.214 6.225	6.046 6.050	6.098 6.103		0^{+}	$\frac{9}{2}^{+}$

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
267	161	1938.26		7.26		14.22	7.42	6.17	4.78	-7.05	-3.42	6.165	6.235	6.057	6.110		0+	9/2+
268	162	1946.20		7.26		14.11	7.70	7.94	4.92	-7.01	-3.58	6.174	6.246	6.062	6.114		0^+	0^+
269	163	1952.13		7.26		13.87	8.05	5.93	5.11	-6.80	-3.78	6.183	6.257	6.069	6.122		0^+	9/2
270	164	1960.00		7.26		13.80	8.41	7.87	5.28	-6.79	-3.93	6.192	6.267	6.073	6.126		0^+	0^+
271	165	1966.02		7.25		13.89	8.75	6.02	5.45	-6.80	-4.10	6.202	6.279	6.080	6.132		0^+	7/2
272	166	1973.27		7.25		13.27	9.01	7.25	5.58	-6.56	-4.24	6.212	6.291	6.086	6.138		0^+	0+
273	167	1979.21		7.25		13.19	9.33	5.94	5.74	-6.50	-4.40	6.222	6.303	6.092	6.144		0^+	7/2
274	168	1986.16		7.25		12.89	9.60	6.95	5.89	-6.40	-4.54	6.232	6.315	6.098	6.150		0^+	0+
275	169	1991.99		7.24		12.78	9.91	5.83	6.05	-6.33	-4.70	6.242	6.327	6.104	6.156		0^{+}	7/2
276	170	1998.77		7.24		12.61	10.18	6.78	6.18	-6.26	-4.84	6.252	6.339	6.110	6.162		0^+	0+
277	171	2004.43		7.24		12.44	10.51	5.66	6.35	-6.02	-5.00	6.263	6.351	6.117	6.169		0+	7/2
278	172	2011.07		7.23		12.30	10.76	6.64	6.48	-6.00	-5.13	6.272	6.363	6.122	6.174		0+	0+
279	173	2016.41		7.23		11.98	11.01	5.34	6.61	-5.99	-5.26	6.281	6.374	6.126	6.178		0+	5/2
280	174	2022.62		7.22		11.55	11.19	6.21	6.70	-5.69	-5.35	6.288	6.384	6.127	6.179		0+	0+
281	175	2027.77		7.22		11.36	11.40	5.15	6.80	-5.60	-5.46	6.296	6.395	6.129	6.181		0+	5/2
282	176	2027.77		7.22		11.13	11.40	5.98	6.91	-5.53	-5.57	6.303	6.405	6.131	6.183		0+	0 ⁺
283	177			7.21		10.96			7.02	-5.42							0+	5/2
		2038.73					11.82	4.98			-5.68	6.312	6.416	6.133	6.185		0+	0 ⁺
284	178	2044.60		7.20		10.85	12.02	5.87	7.12	-5.39	-5.78 5.80	6.319	6.426	6.135	6.187		0+	
285	179	2049.52		7.19		10.79	12.23	4.92	7.23	-5.39	-5.89 5.00	6.328	6.438	6.138	6.189		0 ⁺	3/2 0 ⁺
286	180	2055.18		7.19		10.58	12.44	5.66	7.33	-5.25	-5.99	6.336	6.448	6.140	6.192			
287	181	2060.05		7.18		10.53	12.65	4.87	7.44	-5.18	-6.10	6.344	6.460	6.142	6.194		0+	3/2
288	182	2065.48		7.17		10.30	12.85	5.43	7.53	-5.10	-6.20	6.353	6.471	6.144	6.196		0+	0+
289	183	2070.36		7.16		10.31	13.06	4.88	7.64	-4.46	-6.31	6.362	6.483	6.147	6.199		0+	1/2
290	184	2075.46		7.16		9.98	13.23	5.10	7.72	-4.17	-6.39	6.370	6.495	6.148	6.200		0+	0^+
291	185	2077.85		7.14		7.49	13.56	2.39	7.89	-4.44	-6.56	6.384	6.508	6.161	6.212		0+	13/
292	186	2081.49		7.13		6.03	13.89	3.64	8.06	-3.03	-6.72	6.397	6.521	6.172	6.223		0+	0^+
293	187	2083.88		7.11		6.03	14.23	2.39	8.22	-3.03	-6.89	6.410	6.535	6.184	6.236		0+	13/
294	188	2087.52		7.10		6.03	14.54	3.64	8.38	-3.04	-7.05	6.423	6.548	6.195	6.247		0^+	0^{+}
295	189	2089.92		7.08		6.04	14.88	2.40	8.55	-3.03	-7.22	6.436	6.561	6.208	6.259		0^+	13/
296	190	2093.56		7.07		6.04	15.19	3.64	8.70	-3.04	-7.37	6.449	6.574	6.219	6.270		0^+	0^{+}
297	191	2095.97		7.06		6.05	15.53	2.41	8.87	-3.04	-7.54	6.462	6.587	6.231	6.283		0^+	13/
298	192	2099.63		7.05		6.07	15.84	3.66	9.03	-3.05	-7.70	6.475	6.600	6.243	6.294		0^+	0+
299	193	2102.03		7.03		6.06	16.17	2.40	9.19	-3.03	-7.86	6.489	6.613	6.256	6.307		0^+	13/
300	194	2105.70		7.02		6.07	16.48	3.67	9.35	-3.04	-8.02	6.501	6.626	6.267	6.318		0^+	0+
301	195	2108.08		7.00		6.05	16.82	2.38	9.51	-3.00	-8.18	6.515	6.639	6.280	6.331		0^+	13/
302	196	2111.76		6.99		6.06	17.13	3.68	9.67	-3.01	-8.33	6.527	6.651	6.291	6.342		0^{+}	0+
303	197	2114.01		6.98		5.93	17.48	2.25	9.84	-2.80	-8.50	6.541	6.665	6.306	6.357		0^{+}	13/
304	198	2117.68		6.97		5.92	17.77	3.67	9.98	-2.84	-8.65	6.553	6.677	6.316	6.367		0+	0+
305	199	2119.57		6.95		5.56	18.02	1.89	10.11	-2.85	-8.77	6.565	6.690	6.323	6.374		0^{+}	11/
306	200	2123.00		6.94		5.32	18.26	3.43	10.23	-2.61	-8.90	6.574	6.701	6.329	6.379		0+	0+
307	201	2124.83		6.92		5.26	18.48	1.83	10.35	-2.57	-9.01	6.585	6.713	6.335	6.385		0+	11/
308	202	2128.03		6.91		5.03	18.73	3.20	10.47	-2.52	-9.14	6.594	6.724	6.341	6.391		0+	0+
309	203	2129.79		6.89		4.96	18.95	1.76	10.47	-2.32 -2.49	-9.25	6.605	6.736	6.346	6.396		0+	11/
310	203	2129.79		6.88		4.89	19.20	3.13	10.58	-2.49 -2.46	-9.23 -9.38	6.615	6.747	6.352	6.402		0+	0+
311	204	2132.92		6.86		4.89	19.20		10.71	-2.46 -2.42	-9.58 -9.50	6.625	6.759	6.358	6.408		0+	11/
312	205	2134.62		6.85		4.83 4.78	19.42	1.70 3.08	10.82	-2.42 -2.41	-9.50 -9.62	6.635	6.770	6.364			0+	0 ⁺
															6.414		0 ⁺	_
313	207	2139.34		6.83		4.72	19.91	1.64	11.07	-2.37	-9.74	6.645	6.782	6.370	6.420			11/
314	208	2142.39		6.82		4.69	20.14	3.05	11.19	-2.37	-9.87	6.655	6.793	6.376	6.426		0+	0+
315	209	2143.95		6.81		4.61	20.39	1.56	11.31	-2.32	-9.99	6.665	6.804	6.383	6.433		0+	11/
316	210	2147.00		6.79		4.61	20.63	3.05	11.51	-2.32	-10.11	6.675	6.815	6.389	6.439		0+	0+
317	211	2148.46		6.78		4.51	20.89	1.46	11.56	-2.27	-10.24	6.686	6.827	6.397	6.447		0+	11/
318	212	2151.52		6.77		4.52	21.12	3.06	11.68	-2.28	-10.36	6.696	6.838	6.403	6.453		0+	0^{+}
319	213	2152.88		6.75		4.42	21.41	1.36	11.82	-2.22	-10.50	6.707	6.849	6.412	6.461		0+	11/
320	214	2155.97		6.74		4.45	21.63	3.09	11.93	-2.24	-10.61	6.717	6.860	6.417	6.467		0^+	0^{+}

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
321	215	2157.25		6.72		4.37	21.90	1.28	12.06	-2.23	-10.75	6.727	6.871	6.425	6.475		0+	17/2+
322	216	2160.34		6.71		4.37	22.14	3.09	12.18	-2.21	-10.86	6.737	6.882	6.432	6.482		0+	0+
323	217	2161.62		6.69		4.37	22.41	1.28	12.32	-2.20	-11.00	6.748	6.893	6.440	6.490		0+	$17/2^{+}$
324	218	2164.66		6.68		4.32	22.65	3.04	12.44	-2.18	-11.12	6.758	6.904	6.448	6.497		0+	0+
325	219	2165.93		6.66		4.31	22.92	1.27	12.57	-2.16	-11.25	6.769	6.915	6.456	6.505		0^+	$17/2^{+}$
326	220	2168.92		6.65		4.26	23.14	2.99	12.68	-2.15	-11.37	6.779	6.926	6.463	6.512		0+	0+
327	221	2170.18		6.64		4.25	23.41	1.26	12.82	-2.14	-11.50	6.790	6.937	6.471	6.520		0+	$17/2^{+}$
328	222	2173.15		6.63		4.23	23.64	2.97	12.94	-2.13	-11.61	6.800	6.948	6.479	6.528		0+	0+
329	223	2174.38		6.61		4.20	23.90	1.23	13.06	-2.11	-11.74	6.811	6.959	6.487	6.536		0+	$17/2^{+}$
330	224	2177.34		6.60		4.19	24.13	2.96	13.18	-2.11	-11.86	6.821	6.970	6.494	6.544		0+	0^+
331	225	2178.59		6.58		4.21	24.37	1.25	13.30	-2.13	-11.97	6.832	6.982	6.502	6.551		0+	$9/2^{-}$
332	226	2181.49		6.57		4.15	24.60	2.90	13.41	-2.09	-12.09	6.842	6.993	6.510	6.559		0+	0^+
333	227	2182.80		6.55		4.21	24.85	1.31	13.53	-2.11	-12.21	6.853	7.004	6.518	6.567		0+	$9/2^{-}$
334	228	2185.62		6.54		4.13	25.06	2.82	13.64	-2.07	-12.32	6.863	7.015	6.525	6.574		0^+	0^+
335	229	2186.97		6.53		4.17	25.32	1.35	13.77	-2.08	-12.44	6.874	7.026	6.534	6.583		0+	$9/2^{-}$
336	230	2189.71		6.52		4.09	25.51	2.74	13.86	-2.05	-12.53	6.884	7.037	6.540	6.588		0+	0^+
337	231	2191.09		6.50		4.12	25.77	1.38	13.99	-2.05	-12.66	6.895	7.048	6.549	6.597		0+	$9/2^{-}$
338	232	2193.75		6.49		4.04	25.93	2.66	14.06	-2.03	-12.74	6.905	7.060	6.553	6.602		0+	0^+
339	233	2195.15		6.48		4.06	26.19	1.40	14.20	-2.02	-12.87	6.916	7.070	6.563	6.611		0+	$9/2^{-}$
340	234	2197.75		6.46		4.00	26.33	2.60	14.27	-1.99	-12.94	6.926	7.082	6.567	6.615		0+	0^+
341	235	2199.13		6.45		3.98	26.59	1.38	14.40	-1.97	-13.06	6.936	7.093	6.576	6.624		0+	$9/2^{-}$
342	236	2201.68		6.44		3.93	26.71	2.55	14.46	-1.95	-13.13	6.946	7.105	6.579	6.627		0+	0^+
343	237	2203.00		6.42		3.87	26.90	1.32	14.55	-1.98	-13.20	6.956	7.117	6.583	6.631		0+	$7/2^{-}$
344	238	2205.50		6.41		3.82	27.05	2.50	14.62	-1.89	-13.29	6.966	7.128	6.589	6.637		0+	0+
345	239	2206.84		6.40		3.84	27.22	1.34	14.71	-1.90	-13.38	6.976	7.140	6.594	6.642		0+	7/2-
346	240	2209.16		6.38		3.66	27.33	2.32	14.76	-1.82	-13.43	6.985	7.151	6.595	6.644		0+	0+
347	241	2210.49		6.37		3.65	27.48	1.33	14.83	-1.80	-13.51	6.995	7.163	6.599	6.647		0+	7/2-
348	242	2212.68		6.36		3.52	27.56	2.19	14.87	-1.77	-13.56	7.004	7.174	6.599	6.647		0+	0+
349	243	2213.97		6.34		3.48	27.70	1.29	14.94	-1.74	-13.63	7.014	7.186	6.602	6.650		0+	7/2-
350	244	2216.11		6.33		3.43	27.78	2.14	14.98	-1.72	-13.67	7.023	7.198	6.602	6.650		0+	0+
351	245	2217.33		6.32		3.36	27.91	1.22	15.04	-1.68	-13.74	7.033	7.210	6.604	6.653		0+	7/2-
352	246	2219.46		6.31		3.35	27.99	2.13	15.09	-1.69	-13.79	7.041	7.222	6.604	6.653		0+	0+
353	247	2220.70		6.29		3.37	28.12	1.24	15.15	-1.70	-13.85	7.051	7.234	6.606	6.654		0+	5/2-
354	248	2222.75		6.28		3.29	28.20	2.05	15.19	-1.65	-13.89	7.061	7.246	6.607	6.655		0+	0+
355	249	2224.00		6.26		3.30	28.29	1.25	15.25	-1.65	-13.95	7.071	7.259	6.608	6.656		0+	5/2-
356	250	2225.97		6.25		3.22	28.39	1.97	15.29	-1.62	-14.00	7.080	7.271	6.609	6.657		0+	0+
357	251	2227.24		6.24		3.24	28.50	1.27	15.34	-1.64	-14.04	7.091	7.285	6.610	6.658		0+	3/2-
358	252	2229.14		6.23		3.17	28.58	1.90	15.38	-1.59	-14.09	7.100	7.296	6.610	6.659		0+	0+
359	253	2230.43		6.21		3.19	28.68	1.29	15.43	-1.60	-14.14	7.111	7.310	6.612	6.660		0+	3/2-
360	254	2232.26		6.20		3.12	28.75	1.83	15.47	-1.56	-14.18	7.120	7.322	6.612	6.660		0+	0+
361	255	2233.56		6.19		3.13	28.83	1.30	15.51	-1.60	-14.22	7.131	7.336	6.612	6.661		0+	1/2-
362	256	2235.32		6.17		3.06	28.91	1.76	15.55	-1.52	-14.26	7.141	7.349	6.613	6.661		0+	0+
363	257	2236.73		6.16		3.17	29.00	1.41	15.59	-0.46	-14.30	7.152	7.363	6.613	6.661		0+	1/2-
364	258	2238.27		6.15		2.95	29.05	1.54	15.62	-0.50	-14.33	7.164	7.378	6.613	6.661		0+	0 ⁺
365	259	2237.05		6.13		0.32	29.06	$\frac{-1.22}{0.56}$	15.62	-0.49	-14.34	7.190	7.413	6.613	6.661		0 ⁺	1/2+
366	260	2236.49		6.11		-1.78	29.36	-0.56	15.78	0.86	-14.50	7.186	7.401	6.629	6.678		0^+	0^+
σ		20.48																
	07 (Bh)																	- 1
251	144	1810.93		7.21			0.41		$\frac{-1.12}{1.12}$	-8.20	0.08	6.014	6.048	5.967	6.020		7/2-	0+
252	145	1817.98		7.21			0.81	7.05	-0.90	-8.13	-0.13	6.023	6.060	5.973	6.027		7/2-	$15/2^{-}$
253	146	1827.03		7.22		16.10	1.17	9.05	-0.75	-8.07	-0.32	6.032	6.071	5.979	6.032		$7/2^{-}$	0^+
254	147	1834.00		7.22		16.02	1.59	6.97	-0.52	-8.00	-0.53	6.042	6.083	5.985	6.038		7/2-	15/2
255	148	1842.95		7.23		15.92	1.99	8.95	-0.33	-7.95	-0.71	6.051	6.094	5.991	6.044		$7/2^{-}$	0^+

(continued on next page)

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
256	149	1849.80		7.23		15.80	2.36	6.85	<u>-0.14</u>	-7.90	-0.90	6.060	6.105	5.996	6.049		7/2-	9/2+
257	150	1858.61		7.23		15.66	2.76	8.81	0.06	-7.84	-1.09	6.069	6.116	6.003	6.056		$7/2^{-}$	0^+
258	151	1865.39		7.23		15.59	3.14	6.78	0.24	-7.80	-1.29	6.078	6.128	6.008	6.061		$7/2^{-}$	9/2+
259	152	1874.07		7.24		15.46	3.53	8.68	0.44	-7.74	-1.48	6.088	6.139	6.014	6.067		$7/2^{-}$	0+
260	153	1880.79		7.23		15.40	3.91	6.72	0.64	-7.69	-1.67	6.097	6.150	6.020	6.073		$7/2^{-}$	9/2+
261	154	1889.33		7.24		15.26	4.27	8.54	0.81	-7.64	-1.85	6.106	6.161	6.026	6.079		$7/2^{-}$	0^+
262	155	1895.98		7.24		15.19	4.67	6.65	1.01	-7.59	-2.05	6.115	6.171	6.032	6.085		$7/2^{-}$	9/2
263	156	1904.40		7.24		15.07	5.01	8.42	1.18	-7.54	-2.22	6.124	6.182	6.037	6.090		$7/2^{-}$	0^{+}
264	157	1910.99		7.24		15.01	5.42	6.59	1.39	-7.49	-2.43	6.133	6.193	6.044	6.097		$7/2^{-}$	9/2
265	158	1919.29		7.24		14.89	5.74	8.30	1.54	-7.44	-2.59	6.142	6.204	6.049	6.102		$7/2^{-}$	0^+
266	159	1925.80		7.24		14.81	6.16	6.51	1.76	-7.37	-2.80	6.151	6.214	6.056	6.108		$7/2^{-}$	9/2
267	160	1933.99		7.24		14.70	6.47	8.19	1.90	-7.32	-2.96	6.159	6.225	6.060	6.113		$7/2^{-}$	0^{+}
268	161	1940.37		7.24		14.57	6.89	6.38	2.11	-7.23	-3.16	6.169	6.235	6.067	6.120		$7/2^{-}$	9/2
269	162	1948.47		7.24		14.48	7.19	8.10	2.27	-7.19	-3.32	6.177	6.246	6.071	6.124		$7/2^{-}$	0^+
270	163	1954.60		7.24		14.23	7.58	6.13	2.47	-6.96	-3.52	6.187	6.256	6.079	6.131		$7/2^{-}$	9/2
271	164	1962.60		7.24		14.13	7.88	8.00	2.60	-6.96	-3.66	6.195	6.267	6.083	6.135		$7/2^{-}$	0^+
272	165	1968.80		7.24		14.20	8.23	6.20	2.78	-6.96	-3.84	6.205	6.279	6.089	6.141		$7/2^{-}$	7/2
273	166	1976.17		7.24		13.57	8.48	7.37	2.90	-6.71	-3.97	6.215	6.291	6.095	6.147		$7/2^{-}$	0+
274	167	1982.27		7.23		13.47	8.80	6.10	3.06	-6.64	-4.13	6.225	6.303	6.101	6.154		7/2-	7/2
275	168	1989.34		7.23		13.17	9.07	7.07	3.18	-6.55	-4.27	6.235	6.315	6.107	6.159		7/2-	0+
276	169	1995.33		7.23		13.06	9.39	5.99	3.34	-6.48	-4.43	6.245	6.327	6.114	6.166		7/2-	7/2
277	170	2002.24		7.23		12.90	9.65	6.91	3.47	-6.41	-4.57	6.255	6.339	6.120	6.172		7/2-	0+
278	171	2008.07		7.22		12.74	9.99	5.83	3.64	-6.15	-4.74	6.266	6.352	6.127	6.179		7/2-	7/2
279	172	2014.83		7.22		12.59	10.24	6.76	3.76	-6.13	-4.86	6.275	6.363	6.132	6.184		7/2-	0+
280	173	2020.29		7.22		12.22	10.49	5.46	3.88	-6.12	-4.99	6.284	6.374	6.135	6.187		7/2-	5/2
281	174	2026.59		7.21		11.76	10.67	6.30	3.97	-5.79	-5.08	6.291	6.383	6.137	6.188		7/2-	0+
282	175	2031.85		7.21		11.56	10.88	5.26	4.08	-5.70	-5.19	6.298	6.394	6.139	6.191		$\frac{7}{2}$	5/2
283	176	2037.92		7.20		11.33	11.08	6.07	4.17	-5.63	-5.29	6.306	6.404	6.141	6.193		$\frac{7}{2}$	0+
284	177	2043.00		7.19		11.15	11.29	5.08	4.27	-5.52	-5.40	6.314	6.415	6.143	6.195		7/2-	5/2 ⁻
285	177	2043.00		7.19		11.15	11.50	5.98	4.38	-5.32 -5.49	-5.50	6.322	6.426	6.145	6.197		7/2 ⁻	0+
286	178	2053.99		7.19		10.99	11.70	5.01	4.47	-5.49 -5.48	-5.60	6.330	6.437	6.148	6.199		$\frac{7/2}{7/2^{-}}$	3/2
	180	2055.99		7.18		10.99	11.70	5.76	4.47	-5.46 -5.34	-5.71	6.338	6.448	6.150	6.202		$\frac{7/2}{7/2^{-}}$	0 ⁺
287 288	181	2059.75		7.18		10.77	12.10	4.96	4.57	-5.34 -5.27	-5.71 -5.81	6.347	6.459	6.152	6.204		$\frac{7/2}{7/2^{-}}$	3/2
							12.10										7/2 7/2 ⁻	0 ⁺
289	182	2070.24		7.16		10.49		5.53	4.76	-5.19	-5.91	6.355	6.470	6.155	6.206		,	1/2
290	183	2075.21		7.16		10.50	12.49	4.97	4.85	-4.51	-6.01	6.364	6.482	6.157	6.209		7/2-	0+
291	184	2080.40		7.15		10.16	12.66	5.19	4.94	-4.28	-6.09	6.372	6.493	6.157	6.209		13/2+	-
292	185	2082.96		7.13		7.75	13.00	2.56	5.11	-4.69	-6.26	6.385	6.507	6.169	6.221		13/2+	13/2
293	186	2086.76		7.12		6.36	13.33	3.80	5.27	-3.19	-6.42	6.398	6.520	6.181	6.232		13/2+	0+
294	187	2089.32		7.11		6.36	13.66	2.56	5.44	-3.20	-6.60	6.412	6.533	6.194	6.246		7/2-	13/2
295	188	2093.12		7.10		6.36	13.98	3.80	5.60	-3.21	-6.76	6.425	6.546	6.205	6.257		7/2-	0+
296	189	2095.69		7.08		6.37	14.32	2.57	5.77	-3.20	-6.93	6.438	6.559	6.218	6.269		7/2-	13/2
297	190	2099.50		7.07		6.38	14.64	3.81	5.94	-3.21	-7.09	6.451	6.572	6.229	6.280		$7/2^{-}$	0+
298	191	2102.07		7.05		6.38	14.97	2.57	6.10	-3.21	-7.26	6.464	6.585	6.241	6.292		$7/2^{-}$	13/2
299	192	2105.89		7.04		6.39	15.29	3.82	6.26	-3.22	-7.42	6.477	6.598	6.253	6.304		$7/2^{-}$	0_{+}
300	193	2108.46		7.03		6.39	15.62	2.57	6.43	-3.20	-7.58	6.490	6.611	6.265	6.316		$7/2^{-}$	13/
301	194	2112.28		7.02		6.39	15.93	3.82	6.58	-3.21	-7.74	6.503	6.624	6.277	6.327		$7/2^{-}$	0+
302	195	2114.84		7.00		6.38	16.27	2.56	6.76	-3.17	-7.91	6.516	6.637	6.290	6.341		$7/2^{-}$	13/
303	196	2118.67		6.99		6.39	16.58	3.83	6.91	-3.17	-8.06	6.529	6.650	6.301	6.352		$7/2^{-}$	0^+
304	197	2121.10		6.98		6.26	16.93	2.43	7.09	-2.94	-8.24	6.543	6.663	6.316	6.367		$7/2^{-}$	13/
305	198	2124.92		6.97		6.25	17.22	3.82	7.24	-2.98	-8.38	6.555	6.675	6.326	6.377		$7/2^{-}$	0^{+}
306	199	2126.92		6.95		5.82	17.46	2.00	7.35	-2.99	-8.50	6.566	6.688	6.333	6.384		7/2-	11/2
307	200	2130.47		6.94		5.55	17.70	3.55	7.47	-2.73	-8.63	6.575	6.699	6.339	6.389		$7/2^{-}$	0+
308	201	2132.41		6.92		5.49	17.93	1.94	7.58	-2.69	-8.75	6.586	6.711	6.344	6.394		7/2-	11/
309	202	2135.73		6.91		5.26	18.17	3.32	7.70	-2.64	-8.88	6.596	6.722	6.350	6.401		7/2-	$0^{+'}$

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{ m b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
310	203	2137.61		6.90		5.20	18.40	1.88	7.82	-2.61	-8.99	6.606	6.734	6.356	6.406		7/2-	11/2-
311	204	2140.85		6.88		5.12	18.64	3.24	7.93	-2.58	-9.12	6.616	6.745	6.362	6.413		7/2-	0+
312	205	2142.67		6.87		5.06	18.87	1.82	8.05	-2.55	-9.24	6.626	6.757	6.368	6.418		7/2-	11/2
313	206	2145.87		6.86		5.02	19.12	3.20	8.17	-2.53	-9.37	6.636	6.768	6.375	6.425		7/2-	0 ⁺
314	207	2147.63		6.84		4.96	19.36	1.76	8.29	-2.49	-9.48	6.646	6.779	6.380	6.430		7/2-	11/2 ⁻ 0 ⁺
315 316	208 209	2150.80		6.83		4.93 4.85	19.60 19.84	3.17 1.68	8.41 8.53	-2.49 -2.44	-9.61 -9.73	6.656	6.790 6.802	6.387 6.393	6.437		7/2 ⁻ 7/2 ⁻	11/2
317	209	2152.48 2155.65		6.81 6.80		4.85 4.85	20.16	3.17	8.65	-2.44 -2.45	-9.73 -9.86	6.666 6.676	6.813	6.400	6.443 6.450		7/2 7/2 ⁻	0 ⁺
318	210	2155.05		6.78		4.63 4.77	20.16	1.60	8.79	-2.43 -2.40	-9.80 -9.99	6.687	6.824	6.407	6.457		$\frac{7/2}{7/2^{-}}$	11/2
319	211	2160.43		6.77		4.77	20.55	3.18	8.79 8.91	-2.40 -2.41	-9.99 -10.11	6.696	6.835	6.414	6.463		$\frac{7/2}{7/2^{-}}$	0+
320	213	2161.93		6.76		4.78	20.33	1.50	9.05	-2.41 -2.36	-10.11 -10.25	6.707	6.846	6.422	6.472		7/2 ⁻	11/2 ⁻
321	214	2165.12		6.74		4.69	21.08	3.19	9.15	-2.37	-10.25	6.717	6.857	6.428	6.477		7/2 ⁻	0+
322	215	2166.54		6.73		4.61	21.35	1.42	9.29	-2.36	-10.50	6.727	6.868	6.435	6.485		$\frac{7}{2}$	17/2 ⁺
323	216	2169.75		6.72		4.63	21.59	3.21	9.41	-2.34	-10.62	6.738	6.879	6.443	6.492		7/2 ⁻	0+
324	217	2171.17		6.70		4.63	21.87	1.42	9.55	-2.33	-10.75	6.748	6.890	6.450	6.500		$\frac{7}{2}$	17/2 ⁺
325	218	2174.32		6.69		4.57	22.10	3.15	9.66	-2.31	-10.88	6.758	6.901	6.458	6.507		$\frac{7}{2}$	0+
326	219	2175.73		6.67		4.56	22.37	1.41	9.80	-2.29	-11.01	6.768	6.912	6.466	6.515		$\frac{7}{2}$	17/2 ⁺
327	220	2178.84		6.66		4.52	22.60	3.11	9.92	-2.28	-11.13	6.779	6.923	6.473	6.523		$\frac{7}{2}$	0+
328	221	2180.23		6.65		4.50	22.87	1.39	10.05	-2.26	-11.26	6.789	6.934	6.481	6.530		7/2-	17/2 ⁺
329	222	2183.32		6.64		4.48	23.11	3.09	10.17	-2.26	-11.38	6.800	6.945	6.489	6.538		7/2-	0+
330	223	2184.68		6.62		4.45	23.36	1.36	10.30	-2.24	-11.51	6.810	6.955	6.497	6.546		7/2-	17/2+
331	224	2187.76		6.61		4.44	23.60	3.08	10.42	-2.23	-11.63	6.821	6.967	6.505	6.554		7/2-	0+
332	225	2189.12		6.59		4.44	23.83	1.36	10.53	-2.26	-11.74	6.831	6.978	6.512	6.561		7/2-	9/2-
333	226	2192.15		6.58		4.39	24.07	3.03	10.66	-2.21	-11.87	6.841	6.989	6.520	6.569		7/2-	0+
334	227	2193.58		6.57		4.46	24.31	1.43	10.78	-2.23	-11.99	6.852	7.000	6.528	6.577		7/2-	$9/2^{-}$
335	228	2196.50		6.56		4.35	24.52	2.92	10.88	-2.19	-12.09	6.862	7.011	6.535	6.584		7/2-	0^{+}
336	229	2197.98		6.54		4.40	24.78	1.48	11.01	-2.20	-12.22	6.873	7.022	6.543	6.592		7/2-	$9/2^{-}$
337	230	2200.81		6.53		4.31	24.96	2.83	11.10	-2.16	-12.31	6.883	7.033	6.549	6.598		7/2-	0^{+}
338	231	2202.32		6.52		4.34	25.22	1.51	11.23	-2.16	-12.44	6.894	7.044	6.558	6.607		7/2-	$9/2^{-}$
339	232	2205.06		6.50		4.25	25.37	2.74	11.31	-2.13	-12.52	6.904	7.055	6.563	6.612		$7/2^{-}$	0^{+}
340	233	2206.58		6.49		4.26	25.63	1.52	11.43	-2.12	-12.64	6.915	7.066	6.572	6.621		7/2-	$9/2^{-}$
341	234	2209.25		6.48		4.19	25.77	2.67	11.50	-2.09	-12.72	6.924	7.078	6.576	6.625		7/2-	0+
342	235	2210.75		6.46		4.17	26.02	1.50	11.62	-2.06	-12.84	6.935	7.089	6.585	6.633		$7/2^{-}$	$9/2^{-}$
343	236	2213.37		6.45		4.12	26.15	2.62	11.69	-2.04	-12.90	6.945	7.101	6.589	6.637		$7/2^{-}$	0^+
344	237	2214.77		6.44		4.02	26.32	1.40	11.77	-1.96	-13.01	6.955	7.112	6.596	6.644		$7/2^{-}$	$9/2^{-}$
345	238	2217.36		6.43		3.99	26.48	2.59	11.86	-1.97	-13.07	6.965	7.123	6.599	6.647		$7/2^{-}$	0^+
346	239	2218.79		6.41		4.02	26.66	1.43	11.95	-1.98	-13.15	6.975	7.135	6.603	6.651		7/2-	$7/2^{-}$
347	240	2221.15		6.40		3.79	26.75	2.36	11.99	-1.88	-13.21	6.984	7.146	6.604	6.653		7/2-	0+
348	241	2222.56		6.39		3.77	26.90	1.41	12.07	-1.86	-13.28	6.994	7.158	6.608	6.656		7/2-	$7/2^{-}$
349	242	2224.80		6.37		3.65	26.99	2.24	12.12	-1.83	-13.33	7.002	7.170	6.608	6.656		7/2-	0+
350	243	2226.15		6.36		3.59	27.12	1.35	12.18	-1.80	-13.39	7.012	7.182	6.611	6.659		7/2-	7/2-
351	244	2228.34		6.35		3.54	27.21	2.19	12.23	-1.78	-13.44	7.021	7.193	6.611	6.659		7/2-	0+
352	245	2229.63		6.33		3.48	27.34	1.29	12.30	-1.74	-13.50	7.031	7.205	6.613	6.661		7/2-	7/2-
353	246	2231.81		6.32		3.47	27.44	2.18	12.35	-1.74	-13.55	7.039	7.217	6.613	6.661		7/2-	0+
354	247	2233.10		6.31		3.47	27.55	1.29	12.40	-1.75	-13.61	7.049	7.229	6.615	6.663		7/2-	5/2-
355	248	2235.20		6.30		3.39	27.64	2.10	12.45	-1.71	-13.66	7.058	7.241	6.615	6.664		7/2-	0+
356	249	2236.50		6.28		3.40	27.75	1.30	12.50	-1.70	-13.71	7.068	7.253	6.617	6.665		7/2-	5/2-
357	250	2238.53		6.27		3.33	27.85	2.03	12.56	-1.68	-13.71	7.077	7.266	6.616	6.664		13/2+	0+
358	251	2239.86		6.26		3.36	27.96	1.33	12.62	-1.70	-13.76	7.088	7.279	6.617	6.665		13/2+	3/2-
359	252	2241.81		6.24		3.28	28.05	1.95	12.67	-1.65	-13.81	7.097	7.291	6.618	6.666		13/2+	0+
360	253	2243.15		6.23		3.29	28.15	1.34	12.72	-1.65	-13.86	7.107	7.304	6.619	6.667		13/2 ⁺	3/2-
361	254	2245.03		6.22		3.22	28.24	1.88	12.77	-1.61	-13.91	7.117	7.317	6.619	6.667		13/2+	0+
362	255	2246.37		6.21		3.22	28.32	1.34	12.81	-1.65	-13.95	7.128	7.331	6.620	6.668		13/2+	1/2-
363	256	2248.17		6.19		3.14	28.40	1.80	12.85	-1.56	-13.99	7.138	7.343	6.620	6.668		$13/2^{+}$	0^+

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\mathrm{b}}^{\mathrm{Cal.}}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
364	257	2249.62		6.18		3.25	28.48	1.45	12.89	-0.94	-14.03	7.149	7.357	6.621	6.669		13/2+	1/2-
365	258	2251.19		6.17		3.02	28.54	1.57	12.92	-0.66	-14.06	7.160	7.372	6.621	6.669		$13/2^{+}$	0^+
366	259	2249.98		6.15		0.36	28.55	-1.21	12.93	-0.68	-14.07	7.186	7.407	6.621	6.669		$13/2^{+}$	1/2
367	260	2249.58		6.13		<u>-1.61</u>	28.87	-0.40	13.09	0.77	-14.24	7.182	7.395	6.638	6.686		$13/2^{+}$	0^+
σ	/ \																	
	08 (Hs)	1000.04		7.00			0.46		4.24	0.26	0.05	C 0.27	6.07.4	F 000	C 0 4 4		0+	0^{+}
254	146	1828.24		7.20			0.46	7.40	1.21	-8.26	0.05	6.037	6.074	5.988	6.041		0+	_
255	147	1835.37		7.20		16.27	0.85	7.13	1.37	-8.19	-0.15	6.047	6.085	5.994	6.047		0+	15/2
256 257	148	1844.51		7.21		16.27	1.23 1.62	9.14	1.56	-8.14	-0.34	6.056	6.096	6.000	6.053		0 ⁺	0 ⁺ 9/2 ⁻
	149	1851.56		7.20 7.21		16.19 16.05	2.01	7.05	1.76 1.95	-8.09 -8.03	-0.53 -0.72	6.065 6.074	6.107 6.119	6.005 6.011	6.058		0+	9/2 0 ⁺
258 259	150 151	1860.56 1867.54		7.21 7.21		15.98	2.01	9.00 6.98	2.15	-8.03 -7.98	-0.72 -0.91	6.083	6.130	6.011	6.064 6.070		0+	9/2
259 260	151	1876.40		7.21		15.84	2.39	8.86	2.13	-7.98 -7.92	-0.91 -1.10	6.092	6.141	6.023	6.076		0+	0+
260 261	153	1883.31		7.22		15.84	3.16	6.91	2.53	-7.92 -7.88	-1.10 -1.28	6.101	6.151	6.023	6.082		0+	9/2+
262	154	1892.03		7.22		15.63	3.51	8.72	2.70	-7.88 -7.82	-1.28 -1.47	6.110	6.162	6.034	6.087		0+	0+
263	155	1898.88		7.22		15.57	3.91	6.85	2.70	-7.82 -7.77	-1.47 -1.66	6.119	6.173	6.041	6.093		0+	9/2
264	156	1907.48	1926.77	7.22	7.30	15.45	4.26	8.60	3.08	-7.77 -7.72	-1.84	6.128	6.184	6.046	6.098		0+	0+
265	157	1914.26	1933.50	7.23	7.30	15.38	4.66	6.78	3.27	-7.72 -7.67	-2.03	6.137	6.194	6.052	6.105		0 ⁺	9/2
266	158	1922.75	1933.30	7.22	7.30	15.27	5.00	8.49	3.46	-7.62	-2.03 -2.21	6.145	6.205	6.057	6.110		0 ⁺	0+
267	159	1929.43	1341.34	7.23	7.50	15.17	5.39	6.68	3.63	-7.55	-2.21 -2.39	6.155	6.216	6.064	6.116		0+	9/2
268	160	1937.81		7.23		15.06	5.72	8.38	3.82	-7.51	-2.57	6.163	6.226	6.068	6.121		0+	0+
269	161	1944.38		7.23		14.95	6.12	6.57	4.01	-7.41	-2.76	6.172	6.236	6.075	6.127		0+	9/2
270	162	1952.65		7.23		14.84	6.45	8.27	4.18	-7.36	-2.93	6.180	6.247	6.079	6.132		0+	0+
271	163	1958.97		7.23		14.59	6.84	6.32	4.37	-7.13	-3.12	6.190	6.257	6.086	6.139		0^{+}	9/2
272	164	1967.15		7.23		14.50	7.15	8.18	4.55	-7.12	-3.29	6.198	6.268	6.091	6.143		0^{+}	0+
273	165	1973.52		7.23		14.55	7.50	6.37	4.72	-7.13	-3.46	6.208	6.279	6.097	6.149		0+	7/2
274	166	1981.05		7.23		13.90	7.78	7.53	4.88	-6.86	-3.61	6.218	6.292	6.103	6.155		0+	0+
275	167	1987.31		7.23		13.79	8.10	6.26	5.04	-6.80	-3.77	6.228	6.304	6.109	6.161		0+	7/2
276	168	1994.53		7.23		13.48	8.37	7.22	5.19	-6.70	-3.92	6.238	6.316	6.115	6.168		0+	0+
277	169	2000.68		7.22		13.37	8.69	6.15	5.35	-6.63	-4.08	6.248	6.328	6.122	6.174		0+	7/2
278	170	2007.75		7.22		13.22	8.98	7.07	5.51	-6.56	-4.22	6.258	6.340	6.128	6.180		0+	0+
279	171	2013.75		7.22		13.07	9.32	6.00	5.68	-6.29	-4.40	6.269	6.352	6.135	6.187		0^{+}	7/2
280	172	2020.65		7.22		12.90	9.58	6.90	5.82	-6.27	-4.53	6.278	6.363	6.140	6.192		0+	$0^{'+}$
281	173	2026.23		7.21		12.48	9.82	5.58	5.94	-6.25	-4.66	6.286	6.374	6.143	6.195		0^+	5/2
282	174	2032.64		7.21		11.99	10.02	6.41	6.05	-5.91	-4.76	6.293	6.384	6.145	6.197		0^+	0+
283	175	2038.01		7.20		11.78	10.24	5.37	6.16	-5.82	-4.87	6.301	6.394	6.147	6.199		0^+	5/2
284	176	2044.20		7.20		11.56	10.45	6.19	6.28	-5.75	-4.98	6.308	6.404	6.149	6.201		0^+	0+
285	177	2049.39		7.19		11.38	10.66	5.19	6.39	-5.64	-5.09	6.316	6.415	6.151	6.203		0^+	5/2
286	178	2055.48		7.19		11.28	10.88	6.09	6.50	-5.61	-5.20	6.324	6.425	6.154	6.205		0^+	0+
287	179	2060.61		7.18		11.22	11.09	5.13	6.62	-5.60	-5.31	6.332	6.436	6.156	6.207		0^+	3/2
288	180	2066.49		7.18		11.01	11.31	5.88	6.74	-5.46	-5.42	6.340	6.447	6.158	6.210		0^+	0^+
289	181	2071.56		7.17		10.95	11.51	5.07	6.85	-5.39	-5.52	6.348	6.458	6.160	6.212		0^+	3/2
290	182	2077.21		7.16		10.72	11.73	5.65	6.97	-5.31	-5.63	6.357	6.469	6.163	6.214		0^+	0^+
291	183	2082.29		7.16		10.73	11.93	5.08	7.08	-5.04	-5.74	6.365	6.481	6.165	6.217		0^+	1/2
292	184	2087.57		7.15		10.36	12.11	5.28	7.17	-4.40	-5.82	6.374	6.492	6.167	6.218		0^+	0+
293	185	2090.30		7.13		8.01	12.45	2.73	7.34	-4.74	-5.99	6.387	6.506	6.179	6.230		0^+	13/
294	186	2094.26		7.12		6.69	12.77	3.96	7.50	-3.36	-6.16	6.400	6.519	6.190	6.241		0^+	0+
295	187	2096.99		7.11		6.69	13.11	2.73	7.67	-3.36	-6.32	6.413	6.532	6.202	6.253		0^+	13/
296	188	2100.95		7.10		6.69	13.43	3.96	7.83	-3.36	-6.48	6.426	6.545	6.213	6.264		0^+	0+
297	189	2103.68		7.08		6.69	13.76	2.73	7.99	-3.36	-6.65	6.439	6.558	6.225	6.277		0^+	13/
298	190	2107.64		7.07		6.69	14.08	3.96	8.14	-3.37	-6.81	6.452	6.571	6.237	6.288		0^+	0+
299	191	2110.38		7.06		6.70	14.41	2.74	8.31	-3.36	-6.97	6.465	6.584	6.249	6.300		0^+	13/2
300	192	2114.35		7.05		6.71	14.72	3.97	8.46	-3.37	-7.13	6.478	6.597	6.260	6.311		0^{+}	$0^{+'}$

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
301	193	2117.08		7.03		6.70	15.05	2.73	8.62	-3.35	-7.29	6.491	6.610	6.273	6.324		0+	13/2-
302	194	2121.06		7.02		6.71	15.36	3.98	8.78	-3.36	-7.44	6.504	6.623	6.284	6.335		0^+	0^+
303	195	2123.78		7.01		6.70	15.70	2.72	8.94	-3.32	-7.61	6.517	6.636	6.297	6.348		0^{+}	$13/2^{-}$
304	196	2127.76		7.00		6.70	16.00	3.98	9.09	-3.32	-7.76	6.530	6.648	6.309	6.359		0^+	0^+
305	197	2130.37		6.98		6.59	16.36	2.61	9.27	-3.08	-7.92	6.544	6.662	6.324	6.374		0^+	$13/2^{-}$
306	198	2134.32		6.97		6.56	16.64	3.95	9.40	-3.12	-8.07	6.556	6.674	6.334	6.384		0^+	0^+
307	199	2136.46		6.96		6.09	16.89	2.14	9.54	-3.13	-8.19	6.567	6.686	6.341	6.391		0^+	$11/2^{-}$
308	200	2140.13		6.95		5.81	17.13	3.67	9.66	-2.85	-8.32	6.576	6.697	6.346	6.396		0+	0^+
309	201	2142.19		6.93		5.73	17.36	2.06	9.78	-2.82	-8.44	6.586	6.709	6.351	6.401		0+	11/2
310	202	2145.65		6.92		5.52	17.62	3.46	9.92	-2.76	-8.57	6.596	6.720	6.358	6.408		0+	0^+
311	203	2147.65		6.91		5.46	17.86	2.00	10.04	-2.73	-8.69	6.606	6.732	6.363	6.413		0+	$11/2^{-}$
312	204	2151.03		6.89		5.38	18.11	3.38	10.18	-2.71	-8.82	6.616	6.743	6.370	6.420		0+	0+
313	205	2152.97		6.88		5.32	18.35	1.94	10.30	-2.67	-8.94	6.626	6.754	6.375	6.425		0+	11/2-
314	206	2156.30		6.87		5.27	18.60	3.33	10.43	-2.66	-9.07	6.636	6.765	6.382	6.432		0+	0+
315	207	2158.17		6.85		5.20	18.83	1.87	10.54	-2.62	-9.19	6.646	6.777	6.387	6.437		0+	$11/2^{-}$
316	208	2161.48		6.84		5.18	19.09	3.31	10.68	-2.61	-9.32	6.656	6.788	6.394	6.444		0+	0+
317	209	2163.29		6.82		5.12	19.34	1.81	10.81	-2.57	-9.45	6.666	6.799	6.401	6.450		0+	11/2
318	210	2166.58		6.81		5.10	19.58	3.29	10.93	-2.57	-9.57	6.676	6.810	6.407	6.457		0+	0+
319	211	2168.31		6.80		5.02	19.85	1.73	11.06	-2.52	-9.70	6.686	6.821	6.414	6.464		0+	11/2-
320	212	2171.61		6.79		5.03	20.09	3.30	11.18	-2.53	-9.83	6.696	6.832	6.421	6.470		0+	0+
321	213	2173.25		6.77		4.94	20.37	1.64	11.32	-2.48	-9.96	6.707	6.843	6.429	6.479		0+	11/2-
322	214	2176.56		6.76		4.95	20.59	3.31	11.44	-2.50	-10.08	6.716	6.854	6.435	6.484		0+	0+
323	215	2178.12		6.74		4.87	20.87	1.56	11.58	-2.49	-10.21	6.727	6.865	6.442	6.492		0+	17/2 ⁺
324	216	2181.44		6.73		4.88	21.10	3.32	11.69	-2.46	-10.33	6.737	6.876	6.450	6.499		0+	0 ⁺
325	217	2183.00		6.72		4.88	21.38	1.56	11.83	-2.45	-10.47	6.747	6.887	6.457	6.507		0+	17/2+
326	218	2186.27		6.71		4.83	21.61	3.27	11.95	-2.43	-10.59	6.758	6.898	6.465	6.514		0+	0 ⁺
327	219	2187.81		6.69		4.81	21.88	1.54	12.08	-2.42	-10.72	6.768	6.909	6.473	6.522		0+	17/2+
328	220	2191.04		6.68		4.77	22.12	3.23	12.20	-2.40	-10.84	6.778	6.920	6.480	6.530		0+	0 ⁺
329	221	2192.56		6.66		4.75	22.38	1.52	12.33	-2.38	-10.97	6.788	6.930	6.488	6.537		0^{+}	17/2 ⁺ 0 ⁺
330 331	222 223	2195.77		6.65		4.73	22.62	3.21	12.45 12.58	-2.38	-11.09	6.799	6.941 6.952	6.496	6.545		0+	17/2 ⁺
	223 224	2197.26		6.64		4.70	22.88	1.49		-2.35	-11.21	6.809		6.504	6.553		0+	0+
332 333	224	2200.45		6.63		4.68	23.11 23.34	3.19	12.69	-2.35 -2.38	-11.33	6.820	6.963 6.975	6.512 6.519	6.561		0+	
334	225 226	2201.93 2205.08		6.61 6.60		4.67 4.63	23.54 23.59	1.48 3.15	12.81 12.93	-2.38 -2.32	-11.44 -11.56	6.830 6.840	6.985	6.527	6.568 6.576		0+	$9/2^{-}$ 0^{+}
334 335	226 227	2205.08		6.59			23.59			-2.32 -2.34	-11.56 -11.68		6.996	6.535	6.584		0+	9/2-
	228					4.70		1.55	13.05			6.851	7.007				0+	9/2 0 ⁺
336 337	229	2209.66 2211.26		6.58		4.58	24.04 24.29	3.03 1.60	13.16	-2.29 -2.31	-11.78 -11.90	6.861 6.872	7.007	6.542 6.551	6.591 6.599		0+	9/2-
338	230	2211.20		6.56 6.55		4.63 4.52	24.29	2.92	13.28 13.37	-2.31 -2.26	-11.90 -12.00	6.882	7.018	6.557	6.605		0+	9/2 0 ⁺
339	231	2215.82		6.54		4.56	24.47	1.64	13.50	-2.26	-12.00 -12.12	6.892	7.029	6.565	6.614		0+	9/2-
340	232	2213.62		6.53		4.46	24.73	2.82	13.58	-2.20 -2.22	-12.12 -12.20	6.902	7.040	6.570	6.619		0+	0 ⁺
341	233	2220.28		6.51		4.46	25.13	1.64	13.70	-2.22 -2.21	-12.20 -12.31	6.913	7.063	6.579	6.627		0+	9/2-
342	234	2223.03		6.50		4.39	25.28	2.75	13.78	-2.21 -2.18	-12.31 -12.39	6.923	7.003	6.583	6.632		0+	0 ⁺
343	235	2224.64		6.49		4.36	25.51	1.61	13.89	-2.15	-12.50	6.934	7.085	6.592	6.640		0+	9/2-
343 344	236	2227.33		6.47		4.30	25.65	2.69	13.96	-2.13 -2.13	-12.50 -12.57	6.943	7.083	6.596	6.644		0+	9/2 0 ⁺
345	230	2227.33		6.46		4.20	25.84	1.51	14.07	-2.13 -2.04	-12.57 -12.68	6.954	7.108	6.603	6.651		0+	9/2-
346	238	2231.49		6.45		4.16	25.99	2.65	14.13	-2.04	-12.74	6.963	7.120	6.606	6.654		0+	0+
347	239	2233.02		6.44		4.18	26.18	1.53	14.13	-2.04 -2.05	-12.74 -12.83	6.974	7.120	6.610	6.659		0+	7/2 ⁻
348	240	2235.42		6.42		3.93	26.26	2.40	14.27	-2.05 -1.95	-12.89	6.982	7.132	6.611	6.660		0+	0+
349	240	2235.42		6.41		3.88	26.41	1.48	14.27	-1.93 -1.92	-12.85 -12.96	6.992	7.143	6.615	6.663		0+	7/2 ⁻
350	242	2239.19		6.40		3.77	26.51	2.29	14.39	-1.32 -1.89	-12.30 -13.02	7.000	7.166	6.614	6.663		0+	0+
351	243	2240.61		6.38		3.71	26.64	1.42	14.46	-1.85	-13.02 -13.09	7.010	7.178	6.617	6.665		0^{+}	$\frac{0}{7/2^{-}}$
352	243	2242.85		6.37		3.66	26.74	2.24	14.51	-1.83 -1.84	-13.03 -13.14	7.010	7.178	6.617	6.665		0 ⁺	0+
353	245	2244.20		6.36		3.59	26.87	1.35	14.57	-1.80	-13.14 -13.21	7.018	7.103	6.619	6.667		0+	7/2 ⁻
354	246	2244.20		6.35		3.58	26.97	2.23	14.62	-1.80 -1.80	-13.21 -13.26	7.028	7.212	6.619	6.668		0+	0+
227	270	2270,73		0.55		3.30	20.37	2,23	17.02	1.00	13.20	1.001	1.414	0.013	0.000		U	U

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
355	247	2247.79		6.33		3.59	27.09	1.36	14.69	-1.81	-13.33	7.047	7.225	6.621	6.669		0+	5/2-
356	248	2249.94		6.32		3.51	27.19	2.15	14.74	-1.76	-13.38	7.056	7.236	6.622	6.670		0+	0^+
357	249	2251.30		6.31		3.51	27.30	1.36	14.80	-1.75	-13.44	7.065	7.249	6.623	6.671		0+	5/2
358	250	2253.37		6.29		3.43	27.40	2.07	14.84	-1.72	-13.49	7.075	7.261	6.624	6.672		0+	0+
359	251	2254.76		6.28		3.46	27.52	1.39	14.90	-1.74	-13.54	7.085	7.274	6.625	6.673		0+	3/2
360	252	2256.74		6.27		3.37	27.60	1.98	14.93	-1.69	-13.59	7.094	7.286	6.626	6.674		0 ⁺	0+
361 362	253 254	2258.13		6.26		3.37	27.70	1.39	14.98	-1.70	-13.65	7.105	7.299	6.627	6.675		0 ⁺	3/2 0 ⁺
363	254 255	2260.04 2261.42		6.24 6.23		3.30 3.29	27.78 27.86	1.91 1.38	15.01 15.05	-1.65 -1.68	-13.69 -13.73	7.114 7.125	7.312 7.326	6.627 6.628	6.675 6.676		0+	1/2
364	256	2263.26		6.22		3.23	27.80	1.38	15.09	-1.60	-13.73 -13.77	7.125	7.338	6.628	6.676		0+	0+
365	257	2264.74		6.20		3.32	28.01	1.48	15.12	-0.94	-13.81	7.146	7.352	6.628	6.677		0+	1/2
366	258	2266.35		6.19		3.09	28.08	1.61	15.12	-0.69	-13.84	7.157	7.367	6.629	6.677		0+	0+
367	259	2265.13		6.17		0.39	28.08	-1.22	15.15	-0.76	-13.84	7.183	7.402	6.628	6.676		0+	1/2
368	260	2264.91		6.15		-1.44	28.42	${-0.22}$	15.33	0.69	-14.02	7.179	7.389	6.647	6.695		0+	0+
7		18.96																
z = 10	09 (Mt)																	
256	147	1834.34		7.17			0.34	7.34	-1.03	-8.39	<u>0.16</u>	6.052	6.086	6.005	6.058		$7/2^{-}$	15/2
257	148	1843.66		7.17		16.66	0.71	9.32	-0.85	-8.33	-0.04	6.061	6.098	6.010	6.063		7/2-	0+
258	149	1850.89		7.17		16.55	1.09	7.23	$\frac{-0.67}{0.47}$	-8.29	-0.23	6.070	6.109	6.015	6.068		7/2-	9/2
259	150	1860.09		7.18		16.43	1.48	9.20	$\frac{-0.47}{0.30}$	-8.22	-0.41	6.079	6.120	6.022	6.075		7/2-	0+
260	151 152	1867.26 1876.31		7.18 7.19		16.37 16.22	1.87 2.24	7.17 9.05	$\frac{-0.28}{-0.09}$	-8.18 -8.11	-0.60 -0.79	6.088 6.097	6.131 6.142	6.027 6.033	6.080 6.086		7/2 ⁻ 7/2 ⁻	9/2 0 ⁺
261 262	152	1883.41		7.19 7.19		16.22	2.24	9.05 7.10	0.10	-8.11 -8.07	-0.79 -0.98	6.105	6.142	6.039	6.092		$\frac{7/2}{7/2^{-}}$	9/2
263	154	1892.32		7.19		16.13	2.02	8.91	0.10	-8.07 -8.01	-0.98 -1.16	6.114	6.163	6.044	6.092		$\frac{7/2}{7/2^{-}}$	9/2 0 ⁺
264	155	1899.36		7.20 7.19		15.95	3.38	7.04	0.29	-8.01 -7.96	-1.16 -1.35	6.123	6.174	6.050	6.103		$\frac{7/2}{7/2^{-}}$	9/2
265	156	1908.14		7.13		15.82	3.74	8.78	0.66	-7.91	-1.53 -1.53	6.132	6.185	6.056	6.108		7/2 ⁻	0+
266	157	1915.10		7.20		15.74	4.11	6.96	0.84	-7.85	-1.71	6.141	6.195	6.062	6.114		$\frac{7}{2}$	9/2
267	158	1923.76		7.21		15.62	4.47	8.66	1.01	-7.80	-1.90	6.149	6.206	6.067	6.119		7/2-	0+
268	159	1930.64		7.20		15.54	4.84	6.88	1.21	-7.74	-2.08	6.158	6.216	6.073	6.125		7/2-	9/2
269	160	1939.19		7.21		15.43	5.20	8.55	1.38	-7.69	-2.27	6.167	6.227	6.078	6.130		7/2-	0+
270	161	1945.95		7.21		15.31	5.58	6.76	1.57	-7.59	-2.44	6.176	6.237	6.084	6.136		7/2-	9/2
271	162	1954.39		7.21		15.20	5.92	8.44	1.74	-7.54	-2.63	6.184	6.247	6.089	6.141		$7/2^{-}$	0+
272	163	1960.91		7.21		14.96	6.31	6.52	1.94	-7.29	-2.81	6.193	6.257	6.095	6.147		7/2-	9/2
273	164	1969.23		7.21		14.84	6.63	8.32	2.08	-7.29	-2.99	6.201	6.268	6.100	6.152		$7/2^{-}$	0^+
274	165	1975.77		7.21		14.86	6.97	6.54	2.25	-7.29	-3.16	6.211	6.279	6.106	6.158		$7/2^{-}$	7/2
275	166	1983.42		7.21		14.19	7.25	7.65	2.37	-7.01	-3.31	6.221	6.292	6.112	6.164		$7/2^{-}$	0_{+}
276	167	1989.83		7.21		14.06	7.56	6.41	2.52	-6.94	-3.47	6.231	6.304	6.119	6.171		$7/2^{-}$	7/2
277	168	1997.19		7.21		13.77	7.85	7.36	2.66	-6.85	-3.62	6.241	6.316	6.125	6.177		$7/2^{-}$	0^+
278	169	2003.49		7.21		13.66	8.16	6.30	2.81	-6.78	-3.78	6.252	6.328	6.131	6.183		7/2-	7/2
279	170	2010.69		7.21		13.50	8.45	7.20	2.94	-6.71	-3.93	6.261	6.340	6.137	6.189		7/2-	0+
280	171	2016.85		7.20		13.36	8.78	6.16	3.10	-6.41	-4.10	6.272	6.352	6.145	6.197		7/2-	7/2
81	172	2023.90		7.20		13.21	9.07	7.05	3.25	-6.40	-4.25	6.282	6.364	6.150	6.202		7/2-	0+
82	173	2029.58		7.20		12.73	9.29	5.68	3.35	-6.38	-4.37	6.289	6.374	6.153	6.205		7/2-	5/2 0 ⁺
283	174	2036.08		7.19		12.18	9.49	6.50	3.44	-6.01	-4.47	6.296	6.383	6.154	6.206		7/2-	5/2
.84 .85	175 176	2041.55		7.19 7.10		11.97	9.70 9.92	5.47 6.29	3.54	-5.92	-4.58	6.304	6.394 6.404	6.157	6.209		$\frac{7}{2}$	5/2 0 ⁺
285 286	176	2047.84 2053.13		7.19 7.18		11.76 11.58	9.92 10.13	5.29 5.29	3.64 3.74	-5.85 -5.74	-4.69 -4.80	6.311 6.319	6.404	6.159 6.161	6.211 6.213		7/2 ⁻ 7/2 ⁻	5/2
287	177	2055.15		7.18		11.36	10.13	6.18	3.74	-5.74 -5.71	-4.80 -4.90	6.327	6.425	6.164	6.215		$\frac{7/2}{7/2^{-}}$	0 ⁺
288	178	2064.54		7.18		11.47	10.55	5.23	3.93	-5.69	-4.90 -5.01	6.335	6.436	6.166	6.217		7/2 ⁻	3/2
289	180	2070.51		7.17		11.41	10.55	5.23	4.02	-5.55	-5.12	6.343	6.446	6.168	6.220		7/2 7/2 ⁻	0+
290	181	2075.67		7.16		11.20	10.76	5.16	4.02	-5.48	-5.12 -5.22	6.351	6.457	6.170	6.222		7/2 7/2 ⁻	3/2
291	182	2073.07		7.15		10.90	11.17	5.74	4.11	-5.39	-5.22 -5.33	6.359	6.468	6.173	6.225		$\frac{7/2}{7/2^{-}}$	0 ⁺
	102	2086.58		7.15		10.91	11.17	5.17	4.29	-5.17	-5.43	6.368	6.480	6.175	6.227		$\frac{7/2}{7/2^{-}}$	1/2

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
293	184	2091.93		7.14		10.52	11.53	5.35	4.36	-4.51	-5.52	6.376	6.491	6.177	6.229		7/2-	0+
294	185	2094.84		7.13		8.26	11.88	2.91	4.54	-4.81	-5.69	6.389	6.504	6.189	6.241		$7/2^{-}$	13/2
295	186	2098.97		7.12		7.04	12.21	4.13	4.71	-3.54	-5.85	6.402	6.517	6.200	6.252		7/2-	0+
296	187	2101.87		7.10		7.03	12.55	2.90	4.88	-3.53	-6.02	6.415	6.531	6.212	6.264		7/2-	13/2-
297	188	2106.00		7.09		7.03	12.88	4.13	5.05	-3.54	-6.18	6.428	6.544	6.224	6.275		7/2-	0+
298	189	2108.90		7.08		7.03	13.21	2.90	5.22	-3.53	-6.35	6.441	6.557	6.236	6.287		7/2-	13/2-
299	190	2113.03		7.07		7.03	13.53	4.13	5.39	-3.54	-6.51	6.454	6.570	6.247	6.298		7/2-	0+
300	191	2115.94		7.05		7.04	13.87	2.91	5.56	-3.53	-6.68	6.467	6.583	6.259	6.310		7/2-	13/2-
301	192	2120.07		7.04		7.04	14.18	4.13	5.72	-3.54	-6.84	6.480	6.595	6.270	6.321		7/2-	0+
302	193	2122.98		7.03		7.04	14.52	2.91	5.90	-3.52	-7.00	6.493	6.608	6.283	6.334		$7/2^{-}$	13/2 ⁻ 0 ⁺
303	194	2127.12		7.02		7.05	14.84	4.14	6.06	-3.53	-7.16	6.505	6.621	6.294	6.345		7/2-	-
304	195	2130.01		7.01		7.03	15.17	2.89	6.23	-3.49	-7.32	6.519	6.634	6.307	6.358		7/2-	13/2 ⁻ 0 ⁺
305	196	2134.15		7.00		7.03	15.48	4.14	6.39	-3.49	-7.47	6.531	6.647	6.318	6.369		7/2 ⁻ 7/2 ⁻	
306	197 198	2136.94		6.98 6.97		6.93	15.84	2.79	6.57	-3.23 -3.27	-7.64	6.546	6.660	6.334	6.384		7/2 7/2 ⁻	13/2 ⁻ 0 ⁺
307 308	198	2141.05		6.96		6.90	16.13 16.38	4.11 2.25	6.73 6.84	-3.27 -3.28	-7.78	6.557	6.672 6.684	6.344	6.394		,	
309	200	2143.30 2147.09		6.95		6.36 6.04	16.62	3.79	6.96	-3.28 -2.97	-7.91 -8.04	6.568 6.577	6.695	6.350 6.355	6.401 6.406		$7/2^{-}$ $7/2^{-}$	11/2 ⁻ 0 ⁺
310	200	2147.09		6.93		5.96	16.85	2.17	7.07	-2.97 -2.94	-8.04 -8.16	6.587	6.707	6.361	6.411		$\frac{7/2}{7/2^{-}}$	11/2
311	201	2152.85		6.92		5.76	17.12	3.59	7.07	-2.94 -2.89	-8.10 -8.29	6.597	6.718	6.367	6.417		$\frac{7/2}{7/2^{-}}$	0+
312	202	2154.95		6.91		5.69	17.12	2.10	7.30	-2.85	-8.29 -8.41	6.607	6.730	6.373	6.423		7/2 ⁻	11/2
313	204	2154.55		6.90		5.61	17.61	3.51	7.43	-2.83	-8.55	6.617	6.741	6.380	6.430		$\frac{7}{2}$	0+
314	205	2160.51		6.88		5.56	17.84	2.05	7.54	-2.80	-8.67	6.627	6.752	6.385	6.435		$\frac{7}{2}$	11/2 ⁻
315	206	2163.97		6.87		5.51	18.10	3.46	7.67	-2.78	-8.80	6.637	6.763	6.392	6.442		$\frac{7/2}{7/2^{-}}$	0+
316	207	2165.97		6.85		5.46	18.34	2.00	7.80	-2.75	-8.92	6.647	6.775	6.398	6.448		$\frac{7}{2}$	11/2-
317	208	2169.40		6.84		5.43	18.60	3.43	7.92	-2.74	-9.05	6.657	6.785	6.405	6.454		$\frac{7}{2}$	0+
318	209	2171.33		6.83		5.36	18.85	1.93	8.04	-2.70	-9.18	6.667	6.797	6.411	6.461		$\frac{7}{2}$	11/2-
319	210	2174.75		6.82		5.35	19.10	3.42	8.17	-2.70	-9.30	6.677	6.808	6.418	6.467		$\frac{7}{2}$	0+
320	211	2176.61		6.80		5.28	19.36	1.86	8.30	-2.66	-9.44	6.687	6.819	6.425	6.475		7/2-	11/2-
321	212	2180.03		6.79		5.28	19.60	3.42	8.42	-2.66	-9.56	6.697	6.830	6.431	6.481		7/2-	0+
322	213	2181.81		6.78		5.20	19.88	1.78	8.56	-2.62	-9.69	6.708	6.841	6.439	6.489		$\frac{7}{2}$	11/2-
323	214	2185.24		6.77		5.21	20.12	3.43	8.68	-2.63	-9.81	6.717	6.851	6.445	6.495		7/2-	0+
324	215	2186.94		6.75		5.13	20.40	1.70	8.82	-2.58	-9.95	6.728	6.863	6.454	6.504		7/2-	11/2-
325	216	2190.38		6.74		5.14	20.63	3.44	8.94	-2.59	-10.07	6.737	6.873	6.460	6.509		7/2-	0 ^{+'}
326	217	2192.07		6.72		5.13	20.90	1.69	9.07	-2.58	-10.20	6.747	6.884	6.467	6.517		7/2-	17/2 ⁺
327	218	2195.47		6.71		5.09	21.15	3.40	9.20	-2.56	-10.32	6.758	6.895	6.475	6.524		7/2-	$0^{+'}$
328	219	2197.14		6.70		5.07	21.41	1.67	9.33	-2.55	-10.45	6.768	6.905	6.482	6.532		7/2-	17/2 ⁺
329	220	2200.50		6.69		5.03	21.66	3.36	9.46	-2.53	-10.58	6.778	6.916	6.490	6.539		7/2-	0 ^{+'}
330	221	2202.16		6.67		5.02	21.93	1.66	9.60	-2.51	-10.71	6.788	6.927	6.498	6.547		7/2-	$17/2^{+}$
331	222	2205.48		6.66		4.98	22.16	3.32	9.71	-2.50	-10.82	6.799	6.938	6.506	6.555		7/2-	0+
332	223	2207.11		6.65		4.95	22.43	1.63	9.85	-2.48	-10.95	6.809	6.949	6.513	6.562		7/2-	$17/2^{+}$
333	224	2210.41		6.64		4.93	22.65	3.30	9.96	-2.47	-11.07	6.819	6.960	6.521	6.570		7/2-	0+
334	225	2212.00		6.62		4.89	22.88	1.59	10.07	-2.50	-11.18	6.830	6.971	6.528	6.577		7/2-	$9/2^{-}$
335	226	2215.29		6.61		4.88	23.14	3.29	10.21	-2.44	-11.30	6.840	6.981	6.536	6.585		7/2-	0^{+}
336	227	2216.95		6.60		4.95	23.37	1.66	10.32	-2.47	-11.41	6.850	6.992	6.544	6.593		$7/2^{-}$	$9/2^{-}$
337	228	2220.10		6.59		4.81	23.60	3.15	10.44	-2.41	-11.52	6.860	7.003	6.551	6.600		$7/2^{-}$	0+
338	229	2221.82		6.57		4.87	23.84	1.72	10.56	-2.42	-11.64	6.871	7.014	6.559	6.608		7/2-	$9/2^{-}$
339	230	2224.83		6.56		4.73	24.02	3.01	10.65	-2.37	-11.73	6.881	7.025	6.565	6.614		7/2-	0+
340	231	2226.59		6.55		4.77	24.27	1.76	10.77	-2.37	-11.85	6.891	7.036	6.574	6.622		$7/2^{-}$	$9/2^{-}$
341	232	2229.49		6.54		4.66	24.43	2.90	10.85	-2.32	-11.93	6.901	7.048	6.579	6.627		7/2-	0+
342	233	2231.25		6.52		4.66	24.67	1.76	10.97	-2.31	-12.05	6.912	7.059	6.587	6.636		7/2-	$9/2^{-}$
343	234	2234.07		6.51		4.58	24.82	2.82	11.04	-2.28	-12.12	6.922	7.070	6.592	6.640		7/2-	0+
344	235	2235.80		6.50		4.55	25.05	1.73	11.16	-2.25	-12.23	6.933	7.081	6.600	6.648		$7/2^{-}$	$9/2^{-}$
245	236	2238.55		6.49		4.48	25.18	2.75	11.22	-2.22	-12.31	6.942	7.093	6.604	6.652		7/2-	0+
345										-2.12	-12.41							$9/2^{-}$

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
347	238	2242.88		6.46		4.33	25.52	2.71	11.39	-2.12	-12.48	6.962	7.116	6.615	6.663		7/2-	0+
348	239	2244.46		6.45		4.29	25.67	1.58	11.44	-2.13	-12.56	6.972	7.128	6.619	6.667		7/2-	7/2-
349	240	2246.95		6.44		4.07	25.80	2.49	11.53	-2.01	-12.63	6.981	7.139	6.620	6.668		$7/2^{-}$	0+
350	241	2248.50		6.42		4.04	25.94	1.55	11.60	-1.98	-12.70	6.990	7.150	6.623	6.671		7/2-	7/2
351	242 243	2250.84		6.41		3.89	26.04	2.34	11.65	-1.95	-12.76	6.999	7.161	6.623	6.671		7/2-	0 ⁺
352 353	243 244	2252.33 2254.62		6.40 6.39		3.83 3.78	26.18 26.28	1.49 2.29	11.72 11.77	-1.91 -1.90	-12.83 -12.88	7.008 7.017	7.173 7.185	6.625 6.625	6.673 6.673		7/2 ⁻ 7/2 ⁻	7/2 ⁻ 0 ⁺
354	244	2256.03		6.37		3.70	26.40	1.41	11.77	-1.90 -1.85	-12.86 -12.95	7.017	7.183	6.627	6.676		$\frac{7/2}{7/2^{-}}$	7/2
355	246	2258.31		6.36		3.69	26.50	2.28	11.88	-1.86	-12.55 -13.01	7.025	7.208	6.628	6.676		7/2-	0+
356	247	2259.73		6.35		3.70	26.63	1.42	11.94	-1.86	-13.07	7.045	7.220	6.630	6.678		$\frac{7}{2}$	5/2
357	248	2261.92		6.34		3.61	26.72	2.19	11.98	-1.81	-13.12	7.054	7.232	6.630	6.678		7/2-	0+
358	249	2263.34		6.32		3.61	26.84	1.42	12.04	-1.80	-13.18	7.063	7.244	6.632	6.680		7/2-	5/2
359	250	2265.46		6.31		3.54	26.93	2.12	12.09	-1.77	-13.23	7.073	7.256	6.633	6.681		7/2-	0+
860	251	2266.87		6.30		3.53	27.01	1.41	12.11	-1.79	-13.28	7.083	7.270	6.634	6.682		$7/2^{-}$	3/2
61	252	2268.92		6.29		3.46	27.11	2.05	12.18	-1.73	-13.34	7.092	7.281	6.635	6.683		$7/2^{-}$	0+
362	253	2270.35		6.27		3.48	27.20	1.43	12.22	-1.74	-13.39	7.102	7.294	6.636	6.684		$7/2^{-}$	3/2
63	254	2272.30		6.26		3.38	27.27	1.95	12.26	-1.69	-13.43	7.112	7.307	6.636	6.684		7/2-	0+
64	255	2273.73		6.25		3.38	27.36	1.43	12.31	-1.66	-13.48	7.122	7.320	6.637	6.685		7/2-	3/2
65 cc	256	2275.59		6.23		3.29	27.42	1.86	12.33	-1.63	-13.51	7.133	7.333	6.637	6.685		7/2-	0 ⁺
66 67	257 258	2277.10 2278.74		6.22 6.21		3.37 3.15	27.48 27.55	1.51 1.64	12.36 12.39	-0.85 -0.72	-13.55 -13.55	7.143 7.153	7.347 7.361	6.638 6.635	6.686 6.683		7/2 ⁻ 13/2 ⁺	1/2 0 ⁺
68	258 259	2278.74 2277.54		6.19		0.44	27.55 27.56	-1.20	12.39	-0.72 -0.93	-13.55 -13.66	7.153 7.165	7.361	6.648	6.696		13/2+	15/
69	260	2277.34		6.17		-1.27	27.30	$\frac{-1.20}{-0.07}$	12.41	_0.59	-13.00 -13.74	7.103	7.383	6.654	6.702		13/2+	0+
r	200	22//.4/		0.17		1.27	27.03		12.50	0.55	15.74	7.175	7.505	0.034	0.702		13/2	O
	10 (Ds)																	
259	149	1851.88		7.15			0.32	7.43	0.99	-8.47	<u>0.13</u>	6.074	6.111	6.023	6.076		0^+	9/2
260	150	1861.25		7.16		16.80	0.69	9.37	1.16	-8.41	-0.05	6.083	6.122	6.029	6.082		0+	0+
61	151	1868.60		7.16		16.72	1.06	7.35	1.34	-8.36	-0.24	6.092	6.133	6.035	6.087		0+	9/2
62	152	1877.83		7.17		16.58	1.43	9.23	1.52	-8.30	-0.42	6.100	6.144	6.040	6.093		0^{+}	0+
63 64	153 154	1885.12 1894.22		7.17 7.18		16.52 16.39	1.81 2.19	7.29 9.10	1.71 1.90	-8.25 -8.19	-0.61 -0.80	6.109 6.118	6.154 6.165	6.046 6.051	6.099 6.104		0^{+}	9/2 0 ⁺
65	155	1901.43		7.18		16.31	2.19	7.21	2.07	-8.19 -8.14	-0.80 -0.98	6.127	6.176	6.057	6.110		0+	9/2
66	156	1910.41		7.18		16.19	2.93	8.98	2.27	-8.09	-0.38 -1.17	6.135	6.186	6.062	6.115		0+	0 ⁺
67	157	1917.54		7.18		16.11	3.28	7.13	2.44	-8.03	-1.34	6.144	6.197	6.068	6.121		0+	9/2
68	158	1926.40		7.19		15.99	3.65	8.86	2.64	-7.98	-1.53	6.153	6.207	6.073	6.126		0^{+}	0+
69	159	1933.45	1950.29	7.19	7.25	15.91	4.02	7.05	2.81	-7.92	-1.70	6.162	6.218	6.079	6.132		0^+	9/2
70	160	1942.20	1958.52	7.19	7.25	15.80	4.39	8.75	3.01	-7.87	-1.90	6.170	6.228	6.084	6.137		0^+	0^{+}
71	161	1949.13		7.19		15.68	4.75	6.93	3.18	-7.77	-2.07	6.179	6.238	6.090	6.143		0^+	9/2
72	162	1957.78		7.20		15.58	5.13	8.65	3.39	-7.72	-2.26	6.187	6.248	6.095	6.147		0^+	0+
73	163	1964.45		7.20		15.32	5.48	6.67	3.54	-7.47	-2.43	6.196	6.259	6.101	6.154		0+	9/2
74	164	1972.99		7.20		15.21	5.84	8.54	3.76	-7.46	-2.62	6.204	6.269	6.106	6.158		0+	0+
75	165	1979.71		7.20		15.26	6.19	6.72	3.94	-7.47	-2.80	6.214	6.280	6.112	6.164		0+	7/2
76	166	1987.53		7.20		14.54	6.48	7.82	4.11	-7.18	-2.95	6.224	6.293	6.119	6.171		0 ⁺	0 ⁺
77	167	1994.12		7.20		14.41	6.81	6.59	4.29	-7.11	-3.12	6.234	6.305	6.125	6.177		0 ⁺	7/2
78 79	168 169	2001.64 2008.12		7.20 7.20		14.11 14.00	7.11 7.44	7.52 6.48	4.45 4.63	-7.01 -6.95	-3.27 -3.44	6.244 6.254	6.317 6.329	6.132 6.138	6.184 6.190		0^{+}	0 ⁺ 7/2
79 80	170	2008.12		7.20 7.20		13.84	7.44 7.73	7.36	4.63 4.79	-6.88	-3.44 -3.59	6.264	6.340	6.145	6.196		0+	7/2 0 ⁺
81	170	2013.48		7.20		13.71	8.08	6.35	4.79	-6.57	-3.39 -3.77	6.275	6.352	6.152	6.204		0+	7/2
82	171	2021.03		7.20		13.56	8.39	7.21	5.14	-6.55	-3.77 -3.92	6.285	6.364	6.158	6.210		0+	0+
83	173	2034.84		7.19		13.01	8.61	5.80	5.26	-6.53	-4.04	6.292	6.374	6.160	6.212		0^+	5/2
84	174	2041.46		7.19		12.42	8.82	6.62	5.38	-6.13	-4.15	6.299	6.384	6.162	6.214		0^+	0+
85	175	2047.06		7.18		12.22	9.05	5.60	5.51	-6.04	-4.27	6.306	6.394	6.164	6.216		0^+	5/2
	176	2053.47		7.18		12.01	9.27	6.41	5.63	-5.97	-4.38	6.314	6.404	6.166	6.218		0^{+}	0+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
287	177	2058.89		7.17		11.83	9.50	5.42	5.76	-5.86	-4.49	6.321	6.414	6.169	6.220		0+	5/2+
288	178	2065.20		7.17		11.73	9.72	6.31	5.89	-5.83	-4.61	6.329	6.424	6.171	6.223		0+	0^+
289	179	2070.55		7.16		11.66	9.94	5.35	6.01	-5.81	-4.72	6.337	6.435	6.173	6.225		0+	3/2+
290	180	2076.65		7.16		11.45	10.16	6.10	6.14	-5.68	-4.83	6.345	6.446	6.176	6.227		0+	0+
291	181	2081.93		7.15		11.38	10.37	5.28	6.26	-5.60	-4.94	6.353	6.457	6.178	6.229		0+	$3/2^{+}$
292	182	2087.80		7.15		11.15	10.59	5.87	6.39	-5.52	-5.05	6.361	6.468	6.181	6.232		0+	0+
293	183	2093.09		7.14		11.16	10.80	5.29	6.51	-5.25	-5.16	6.369	6.479	6.183	6.234		0+	1/2+
294	184	2098.55		7.14		10.75	10.98	5.46	6.62	-4.64	-5.25	6.377	6.490	6.185	6.236		0+	0^+
295	185	2101.62		7.12		8.53	11.32	3.07	6.78	-4.92	-5.41	6.391	6.503	6.196	6.248		0+	13/2
296	186	2105.90		7.11		7.35	11.64	4.28	6.93	-3.69	-5.58	6.403	6.516	6.208	6.259		0+	0+
297	187	2108.96		7.10		7.34	11.97	3.06	7.09	-3.68	-5.74	6.417	6.530	6.219	6.271		0+	13/2-
298	188	2113.25		7.09		7.35	12.30	4.29	7.25	-3.69	-5.90	6.429	6.543	6.231	6.282		0+	0+
299	189	2116.31		7.08		7.35	12.63	3.06	7.41	-3.68	-6.07	6.442	6.556	6.242	6.294		0+	13/2-
300	190	2120.59		7.07		7.34	12.95	4.28	7.56	-3.69	-6.23	6.455	6.568	6.254	6.305		0+	0+
301	191	2123.65		7.06		7.34	13.27	3.06	7.71	-3.68	-6.39	6.468	6.582	6.266	6.317		0+	$13/2^{-}$
302	192	2127.93		7.05		7.34	13.58	4.28	7.86	-3.68	-6.54	6.480	6.594	6.277	6.328		0+	0+
303	193	2130.99		7.03		7.34	13.91	3.06	8.01	-3.67	-6.70	6.494	6.607	6.289	6.340		0+	13/2 ⁻ 0 ⁺
304	194	2135.28		7.02		7.35	14.22	4.29	8.16	-3.67	-6.85	6.506	6.620	6.300	6.351		0+	Ü
305	195	2138.31		7.01		7.32	14.53	3.03	8.30	-3.64	-7.01	6.519	6.633	6.313	6.364		0 ⁺	13/2 ⁻ 0 ⁺
306	196	2142.60		7.00		7.32	14.84	4.29	8.45	-3.63	-7.16	6.532	6.645	6.324	6.375		0 ⁺	-
307	197	2145.54		6.99		7.23	15.17	2.94	8.60	-3.37	-7.32	6.546	6.658	6.339	6.390		0 ⁺	13/2 ⁻ 0 ⁺
308	198	2149.78		6.98		7.18	15.46	4.24	8.73	-3.40	-7.46	6.558	6.671	6.349	6.399			-
309 310	199 200	2152.18 2156.10		6.96 6.96		6.64 6.32	15.72 15.97	2.40 3.92	8.88 9.01	-3.41 -3.11	−7.59 −7.72	6.568 6.577	6.683 6.693	6.356 6.361	6.406 6.411		0^{+}	11/2 ⁻ 0 ⁺
311	200	2158.40		6.94		6.22	16.21	2.30	9.01	-3.11 -3.07	-7.72 -7.85	6.587	6.705	6.366	6.416		0+	11/2-
312	201	2162.12		6.93		6.02	16.47	3.72	9.14	-3.07 -3.02	-7.83 -7.98	6.597	6.716	6.373	6.423		0+	0+
313	202	2164.36		6.91		5.96	16.71	2.24	9.41	-3.02 -2.99	-7.38 -8.11	6.607	6.728	6.378	6.428		0+	11/2 ⁻
314	203	2168.01		6.90		5.89	16.98	3.65	9.55	-2.96	-8.11 -8.24	6.617	6.739	6.385	6.435		0+	0+
315	205	2170.19		6.89		5.83	17.22	2.18	9.68	-2.90 -2.92	-8.24 -8.37	6.627	6.750	6.391	6.441		0+	11/2 ⁻
316	206	2170.13		6.88		5.77	17.48	3.59	9.81	-2.91	-8.50	6.637	6.761	6.397	6.447		0+	0+
317	207	2175.76		6.86		5.72	17.74	2.13	9.94	-2.87	-8.62	6.647	6.772	6.403	6.453		0+	11/2 ⁻
318	208	2179.47		6.85		5.69	17.99	3.56	10.07	-2.87	-8.75	6.657	6.783	6.410	6.460		0+	0+
319	209	2181.53		6.84		5.62	18.24	2.06	10.20	-2.83	-8.88	6.667	6.795	6.417	6.466		0+	11/2-
320	210	2185.07		6.83		5.60	18.49	3.54	10.32	-2.83	-9.01	6.676	6.805	6.423	6.473		0+	0+
321	211	2187.06		6.81		5.53	18.75	1.99	10.45	-2.78	-9.14	6.687	6.816	6.430	6.480		0+	11/2-
322	212	2190.61		6.80		5.54	19.00	3.55	10.58	-2.79	-9.26	6.696	6.827	6.437	6.486		0+	0+
323	213	2192.52		6.79		5.46	19.27	1.91	10.71	-2.74	-9.40	6.707	6.838	6.444	6.494		0^{+}	11/2-
324	214	2196.07		6.78		5.46	19.51	3.55	10.83	-2.75	-9.52	6.716	6.849	6.451	6.500		0^{+}	0+
325	215	2197.90		6.76		5.38	19.78	1.83	10.96	-2.70	-9.65	6.727	6.860	6.459	6.509		0+	11/2-
326	216	2201.46		6.75		5.39	20.02	3.56	11.08	-2.72	-9.77	6.736	6.870	6.465	6.514		0+	0+
327	217	2203.28		6.74		5.38	20.28	1.82	11.21	-2.70	-9.90	6.746	6.881	6.472	6.522		0+	17/2+
328	218	2206.80		6.73		5.34	20.53	3.52	11.33	-2.68	-10.02	6.757	6.892	6.480	6.529		0+	0+
329	219	2208.60		6.71		5.32	20.79	1.80	11.46	-2.67	-10.15	6.767	6.902	6.487	6.536		0+	17/2 ⁺
330	220	2212.07		6.70		5.27	21.03	3.47	11.57	-2.65	-10.27	6.777	6.913	6.495	6.544		0^{+}	0+
331	221	2213.86		6.69		5.26	21.30	1.79	11.70	-2.63	-10.40	6.787	6.924	6.503	6.552		0^{+}	17/2 ⁺
332	222	2217.29		6.68		5.22	21.52	3.43	11.81	-2.62	-10.52	6.797	6.935	6.510	6.559		0+	0+
333	223	2219.04		6.66		5.18	21.78	1.75	11.93	-2.59	-10.64	6.807	6.945	6.518	6.567		0+	17/2+
334	224	2222.46		6.65		5.17	22.01	3.42	12.05	-2.58	-10.76	6.817	6.956	6.526	6.575		0+	0+
335	225	2224.16		6.64		5.12	22.23	1.70	12.16	-2.55	-10.88	6.828	6.967	6.533	6.582		0+	17/2+
336	226	2227.56		6.63		5.10	22.48	3.40	12.27	-2.55	-10.99	6.838	6.978	6.541	6.590		0+	0+
337	227	2229.33		6.62		5.17	22.70	1.77	12.38	-2.57	-11.10	6.848	6.989	6.549	6.597		0^{+}	9/2-
338	228	2232.59		6.61		5.03	22.93	3.26	12.49	-2.51	-11.21	6.858	7.000	6.556	6.604		0^{+}	0+
339	229	2234.42		6.59		5.09	23.16	1.83	12.60	-2.52	-11.32	6.869	7.011	6.564	6.612		0+	9/2-
				6.58		4.94	23.35	3.11	12.70	-2.46	-11.41	6.879	7.022	6.570	6.618		0^{+}	0+

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	$\lambda_p \ ({\sf MeV})$	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N$
341	231	2239.39		6.57		4.97	23.57	1.86	12.80	-2.46	-11.53	6.889	7.033	6.578	6.626		0+	9/2
342	232	2242.38		6.56		4.85	23.74	2.99	12.89	-2.42	-11.61	6.899	7.044	6.583	6.632		0+	0_{+}
343	233	2244.24		6.54		4.85	23.96	1.86	12.99	-2.40	-11.72	6.910	7.055	6.591	6.640		0+	9/2
344	234	2247.14		6.53		4.76	24.11	2.90	13.07	-2.37	-11.80	6.920	7.067	6.596	6.644		0+	0+
345	235	2248.98		6.52		4.74	24.34	1.84	13.18	-2.33	-11.90	6.930	7.078	6.604	6.653		0+	9/2
346	236	2251.81		6.51		4.67	24.48	2.83	13.26	-2.31	-11.98	6.940	7.089	6.608	6.657		0+	0+
347	237	2253.53		6.49		4.55	24.69	1.72	13.36	-2.20	-12.08	6.951	7.101	6.616	6.664		0+	9/2
148	238	2256.32		6.48		4.51	24.83	2.79	13.44	-2.20	-12.16	6.960	7.112	6.619	6.667		0+	0+
349	239	2257.96		6.47		4.43	24.94	1.64	13.50	-2.21	-12.24	6.970	7.124	6.623	6.672		0^{+}	7/2 0 ⁺
50	240	2260.54		6.46		4.22	25.12	2.58	13.59	-2.08	-12.31	6.978	7.135	6.624	6.672		0^{+}	-
51 52	241 242	2262.16		6.44 6.43		4.20 4.03	25.26 25.38	1.62 2.41	13.66 13.73	-2.06 -2.02	-12.38 -12.45	6.988 6.996	7.146 7.157	6.627 6.627	6.675 6.675		0 ⁺	7/2 0 ⁺
352 353	242	2264.57 2266.14		6.42		3.98	25.53	1.57	13.73	-2.02 -1.98	-12.43 -12.52	7.006	7.157	6.630	6.678		0+	7/2
353 354	243	2268.49		6.41		3.92	25.64	2.35	13.87	-1.96 -1.97	-12.52 -12.59	7.000	7.180	6.630	6.678		0+	0+
355 355	244	2269.98		6.39		3.84	25.78	1.49	13.95	-1.97 -1.92	-12.55 -12.66	7.014	7.193	6.632	6.680		0+	7/2
356 356	246	2272.32		6.38		3.83	25.76	2.34	14.01	-1.92 -1.92	-12.72	7.024	7.133	6.633	6.681		0+	0+
57	247	2272.32		6.37		3.83	26.02	1.49	14.08	-1.93	-12.72 -12.79	7.032	7.216	6.635	6.683		0+	5/2
58	248	2275.01		6.36		3.75	26.13	2.26	14.15	-1.88	-12.75 -12.85	7.042	7.210	6.635	6.683		0+	0^{+}
59	249	2277.57		6.34		3.76	26.27	1.50	14.23	-1.87	-12.91	7.060	7.239	6.637	6.685		0+	5/2
60	250	2279.74		6.33		3.67	26.37	2.17	14.28	-1.84	-12.97	7.069	7.251	6.638	6.686		0^{+}	0+
61	251	2281.20		6.32		3.63	26.44	1.46	14.33	-1.80	-13.03	7.079	7.264	6.639	6.687		0^{+}	5/2
62	252	2283.33		6.31		3.59	26.59	2.13	14.41	-1.79	-13.08	7.089	7.276	6.640	6.688		0^{+}	0+
63	253	2284.82		6.29		3.62	26.69	1.49	14.47	-1.80	-13.13	7.099	7.289	6.641	6.689		0+	3/2
64	254	2286.82		6.28		3.49	26.78	2.00	14.52	-1.74	-13.18	7.108	7.301	6.642	6.690		0^{+}	0+
365	255	2288.30		6.27		3.48	26.88	1.48	14.57	-1.71	-13.23	7.119	7.315	6.642	6.690		0^{+}	3/2
866	256	2290.20		6.26		3.38	26.94	1.90	14.61	-1.68	-13.26	7.129	7.328	6.643	6.691		0^+	0+
867	257	2291.76		6.24		3.46	27.02	1.56	14.66	-0.97	-13.30	7.139	7.341	6.643	6.691		0^+	1/2
368	258	2293.44		6.23		3.24	27.09	1.68	14.70	-0.80	-13.34	7.150	7.356	6.643	6.691		0^+	0+
369	259	2292.36		6.21		0.60	27.23	-1.08	14.82	-0.83	-13.45	7.162	7.366	6.656	6.704		0^+	15/
370 r	260	2292.36 16.49		6.20		<u>-1.08</u>	27.45	0.00	14.89	<u>0.50</u>	-13.53	7.173	7.378	6.663	6.711		0+	0+
z = 1	11 (Rg)																	
262	151	1867.69		7.13			0.43	7.54	-0.91	-8.55	0.12	6.096	6.134	6.044	6.097		$7/2^{-}$	9/2
263	152	1877.11		7.14		16.96	0.80	9.42	-0.72	-8.49	-0.07	6.105	6.145	6.050	6.102		$7/2^{-}$	0^+
64	153	1884.58		7.14		16.89	1.17	7.47	-0.54	-8.44	-0.25	6.113	6.155	6.055	6.108		$7/2^{-}$	9/2
65	154	1893.86		7.15		16.75	1.54	9.28	-0.36	-8.38	-0.44	6.122	6.166	6.061	6.113		$7/2^{-}$	0^+
66	155	1901.26		7.15		16.68	1.90	7.40	<u>-0.17</u>	-8.33	-0.61	6.131	6.177	6.066	6.119		$7/2^{-}$	9/2
67	156	1910.42		7.16		16.56	2.28	9.16	0.01	-8.28	-0.81	6.139	6.187	6.071	6.124		$7/2^{-}$	0^+
68	157	1917.73		7.16		16.47	2.63	7.31	0.19	-8.22	-0.98	6.148	6.198	6.077	6.129		$7/2^{-}$	9/2
69	158	1926.78		7.16		16.36	3.02	9.05	0.38	-8.17	-1.17	6.156	6.208	6.082	6.135		$7/2^{-}$	0+
70	159	1934.00		7.16		16.27	3.36	7.22	0.55	-8.10	-1.34	6.165	6.218	6.088	6.140		7/2-	9/2
71	160	1942.94		7.17		16.16	3.75	8.94	0.74	-8.05	-1.54	6.173	6.228	6.093	6.145		7/2-	0+
72	161	1950.04		7.17		16.04	4.09	7.10	0.91	-7.96	-1.70	6.182	6.238	6.099	6.151		$7/2^{-}$	9/2
73	162	1958.87		7.18		15.93	4.48	8.83	1.09	−7.91	-1.90	6.190	6.249	6.104	6.156		7/2-	0+
74	163	1965.73		7.17		15.69	4.82	6.86	1.28	-7.64	-2.06	6.199	6.259	6.109	6.161		7/2-	9/2
75	164	1974.45		7.18		15.58	5.22	8.72	1.46	-7.63	-2.26	6.207	6.269	6.114	6.167		7/2-	0+
76	165	1981.34		7.18		15.61	5.57	6.89	1.63	-7.64	-2.44	6.216	6.280	6.120	6.173		7/2-	7/2
277	166	1989.29		7.18		14.84	5.87	7.95	1.76	-7.33	-2.60	6.227	6.293	6.127	6.179		7/2-	0+
278	167	1996.04		7.18		14.70	6.21	6.75	1.92	-7.26	-2.77	6.237	6.305	6.134	6.186		7/2-	7/2
279	168	2003.70		7.18		14.41	6.51	7.66	2.06	-7.17	-2.93	6.247	6.317	6.141	6.193		$7/2^{-}$	0+
80	169	2010.33		7.18		14.29	6.84	6.63	2.21	-7.10	-3.10	6.257	6.329	6.147	6.199		7/2-	7/2
	170	2017.84		7.18		14.14	7.15	7.51 6.51	2.36 2.52	-7.03	-3.26 -3.44	6.267	6.340	6.154	6.205		$7/2^{-}$	0 ⁺ 7/2
81 82	171	2024.35		7.18		14.02	7.50			-6.71		6.278	6.353	6.161	6.213		$7/2^{-}$	

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
283	172	2031.70		7.18		13.86	7.80	7.35	2.66	-6.68	-3.60	6.288	6.364	6.167	6.219		7/2-	0+
284	173	2037.61		7.17		13.26	8.03	5.91	2.77	-6.69	-3.71	6.295	6.374	6.169	6.221		$7/2^{-}$	5/2 ⁺
285	174	2044.33		7.17		12.63	8.25	6.72	2.87	-6.24	-3.82	6.302	6.384	6.171	6.223		$7/2^{-}$	0^{+}
286	175	2050.03		7.17		12.42	8.48	5.70	2.97	-6.14	-3.94	6.309	6.394	6.174	6.225		$7/2^{-}$	5/2+
287	176	2056.54		7.17		12.21	8.70	6.51	3.07	-6.07	-4.05	6.317	6.404	6.176	6.228		7/2-	0+
288	177	2062.06		7.16		12.03	8.93	5.52	3.17	-5.96	-4.17	6.324	6.414	6.179	6.230		7/2-	5/2+
289	178	2068.46		7.16		11.92	9.15	6.40	3.26	-5.93	-4.28	6.332	6.424	6.181	6.233		7/2-	0 ⁺
290	179	2073.90		7.15		11.84	9.36	5.44	3.35	-5.90	-4.39	6.340	6.435	6.183	6.235		7/2-	3/2+
291	180	2080.09		7.15		11.63	9.58	6.19	3.44	-5.77	-4.50	6.348	6.445	6.186	6.238		7/2-	0 ⁺
292 293	181 182	2085.45 2091.41		7.14		11.55 11.32	9.78 10.00	5.36 5.96	3.52 3.61	-5.68 -5.60	-4.61 -4.72	6.356 6.364	6.456 6.467	6.188 6.191	6.240 6.243		7/2 ⁻ 7/2 ⁻	3/2 ⁺ 0 ⁺
293 294	183	2091.41		7.14 7.13		11.32	10.00	5.37	3.69	-5.57	-4.72 -4.82	6.372	6.478	6.193	6.245		7/2 7/2 ⁻	1/2+
294	184	2102.31		7.13 7.13		10.90	10.20	5.53	3.76	-3.37 -4.76	-4.82 -4.91	6.380	6.489	6.195	6.243		7/2 7/2 ⁻	0+
296	185	2102.51		7.13		8.77	10.58	3.24	3.70	-5.03	-5.08	6.393	6.502	6.207	6.258		7/2 7/2 ⁻	13/2 ⁻
297	186	2110.02		7.10		7.71	11.05	4.47	4.12	-3.87	-5.25	6.406	6.515	6.218	6.270		$\frac{7}{2}$	0+
298	187	2113.26		7.09		7.71	11.39	3.24	4.30	-3.87	-5.41	6.419	6.529	6.230	6.281		$\frac{7/2}{7/2^{-}}$	13/2 ⁻
299	188	2117.71		7.08		7.69	11.71	4.45	4.46	-3.87	-5.58	6.432	6.541	6.241	6.292		$\frac{7}{2}$	0+
300	189	2120.95		7.07		7.69	12.05	3.24	4.64	-3.86	-5.74	6.445	6.555	6.253	6.304		$\frac{7}{2}$	13/2 ⁻
301	190	2125.40		7.06		7.69	12.37	4.45	4.81	-3.86	-5.90	6.457	6.567	6.264	6.315		7/2-	0+
302	191	2128.64		7.05		7.69	12.70	3.24	4.99	-3.85	-6.06	6.470	6.580	6.276	6.327		7/2-	13/2-
303	192	2133.08		7.04		7.68	13.01	4.44	5.15	-3.86	-6.22	6.482	6.593	6.287	6.337		7/2-	0+
304	193	2136.31		7.03		7.67	13.33	3.23	5.32	-3.84	-6.37	6.495	6.606	6.299	6.350		7/2-	$13/2^{-}$
305	194	2140.76		7.02		7.68	13.64	4.45	5.48	-3.84	-6.53	6.508	6.618	6.310	6.360		7/2-	0 ⁺
306	195	2143.97		7.01		7.66	13.96	3.21	5.66	-3.81	-6.68	6.521	6.631	6.322	6.373		7/2-	$13/2^{-}$
307	196	2148.41		7.00		7.65	14.26	4.44	5.81	-3.80	-6.83	6.533	6.644	6.333	6.384		7/2-	0^+
308	197	2151.54		6.99		7.57	14.60	3.13	6.00	-3.52	-6.98	6.547	6.657	6.348	6.398		$7/2^{-}$	$13/2^{-}$
309	198	2155.92		6.98		7.51	14.87	4.38	6.14	-3.55	-7.12	6.559	6.669	6.358	6.408		$7/2^{-}$	0^+
310	199	2158.44		6.96		6.90	15.14	2.52	6.26	-3.56	-7.26	6.570	6.681	6.365	6.415		$7/2^{-}$	$11/2^{-}$
311	200	2162.48		6.95		6.56	15.39	4.04	6.38	-3.23	-7.39	6.578	6.691	6.370	6.420		$7/2^{-}$	0^+
312	201	2164.90		6.94		6.46	15.64	2.42	6.50	-3.20	-7.52	6.589	6.703	6.375	6.425		$7/2^{-}$	$11/2^{-}$
313	202	2168.76		6.93		6.28	15.91	3.86	6.64	-3.14	-7.66	6.598	6.714	6.382	6.432		7/2-	0^{+}
314	203	2171.11		6.91		6.21	16.16	2.35	6.75	-3.11	-7.78	6.608	6.726	6.388	6.438		7/2-	11/2-
315	204	2174.88		6.90		6.12	16.42	3.77	6.87	-3.08	−7.92	6.618	6.737	6.395	6.444		7/2-	0+
316	205	2177.18		6.89		6.07	16.67	2.30	6.99	-3.05	-8.05	6.628	6.748	6.400	6.450		7/2-	11/2-
317	206	2180.91		6.88		6.03	16.94	3.73	7.13	-3.04	-8.18	6.638	6.759	6.407	6.457		7/2-	0+
318	207	2183.15		6.87		5.97	17.18	2.24	7.24	-3.00	-8.31	6.648	6.770	6.413	6.463		7/2-	11/2 ⁻ 0 ⁺
319 320	208 209	2186.84 2189.03		6.86 6.84		5.93 5.88	17.44 17.70	3.69 2.19	7.37 7.50	-3.00 -2.96	-8.44 -8.57	6.658 6.668	6.781 6.792	6.420 6.426	6.470 6.476		7/2 ⁻ 7/2 ⁻	11/2 ⁻
321	210	2192.70		6.83		5.86	17.70	3.67	7.63	-2.96	-8.70	6.677	6.803	6.433	6.483		7/2 7/2 ⁻	0+
322	211	2194.82		6.82		5.79	18.21	2.12	7.76	-2.92	-8.83	6.687	6.814	6.440	6.490		$\frac{7}{2}$	11/2 ⁻
323	212	2198.49		6.81		5.79	18.46	3.67	7.88	-2.92	-8.95	6.697	6.825	6.446	6.496		7/2-	0+
324	213	2200.54		6.79		5.72	18.73	2.05	8.02	-2.32 -2.88	-9.09	6.707	6.836	6.454	6.503		$\frac{7}{2}$	11/2 ⁻
325	214	2204.21		6.78		5.72	18.97	3.67	8.14	-2.88	-9.21	6.717	6.846	6.460	6.510		7/2-	0+
326	215	2206.19		6.77		5.65	19.25	1.98	8.29	-2.84	-9.34	6.727	6.857	6.469	6.518		$\frac{7}{2}$	$11/2^{-}$
327	216	2209.87		6.76		5.66	19.49	3.68	8.41	-2.85	-9.46	6.737	6.868	6.474	6.524		7/2-	0+
328	217	2211.82		6.74		5.63	19.75	1.95	8.54	-2.84	-9.60	6.747	6.878	6.482	6.531		7/2-	17/2+
329	218	2215.46		6.73		5.59	19.99	3.64	8.66	-2.82	-9.72	6.757	6.889	6.489	6.538		7/2-	0+'
330	219	2217.40		6.72		5.58	20.26	1.94	8.80	-2.80	-9.85	6.767	6.900	6.496	6.545		7/2-	$17/2^{+}$
331	220	2220.99		6.71		5.53	20.49	3.59	8.92	-2.78	-9.96	6.777	6.910	6.504	6.553		7/2-	0+
332	221	2222.91		6.70		5.51	20.75	1.92	9.05	-2.76	-10.09	6.787	6.921	6.511	6.560		7/2-	$17/2^{+}$
333	222	2226.47		6.69		5.48	20.99	3.56	9.18	-2.75	-10.21	6.797	6.932	6.519	6.568		$7/2^{-}$	0 ⁺
334	223	2228.35		6.67		5.44	21.24	1.88	9.31	-2.72	-10.33	6.807	6.942	6.526	6.575		7/2-	$17/2^{+}$
335	224	2231.88		6.66		5.41	21.47	3.53	9.42	-2.71	-10.45	6.817	6.953	6.534	6.582		$7/2^{-}$	0^+
336	225	2233.70		6.65		5.35	21.70	1.82	9.54	-2.67	-10.57	6.827	6.963	6.541	6.590		$7/2^{-}$	$17/2^{+}$

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
337	226	2237.22		6.64		5.34	21.93	3.52	9.66	-2.67	-10.67	6.837	6.974	6.549	6.597		7/2-	0+
338	227	2239.10		6.62		5.40	22.15	1.88	9.77	-2.70	-10.78	6.847	6.985	6.556	6.605		$7/2^{-}$	$9/2^{-}$
339	228	2242.47		6.61		5.25	22.37	3.37	9.88	-2.62	-10.89	6.857	6.996	6.563	6.612		$7/2^{-}$	0^+
340	229	2244.42		6.60		5.32	22.60	1.95	10.00	-2.63	-11.00	6.868	7.007	6.571	6.619		$7/2^{-}$	$9/2^{-}$
341	230	2247.62		6.59		5.15	22.79	3.20	10.09	-2.57	-11.10	6.878	7.018	6.577	6.625		$7/2^{-}$	0+
342	231	2249.60		6.58		5.18	23.01	1.98	10.21	-2.57	-11.21	6.888	7.029	6.585	6.633		$7/2^{-}$	$9/2^{-}$
343	232	2252.67		6.57		5.05	23.18	3.07	10.29	-2.52	-11.29	6.898	7.040	6.590	6.638		$7/2^{-}$	0^+
344	233	2254.64		6.55		5.04	23.39	1.97	10.40	-2.50	-11.40	6.908	7.052	6.598	6.646		$7/2^{-}$	$9/2^{-}$
345	234	2257.62		6.54		4.95	23.55	2.98	10.48	-2.46	-11.48	6.918	7.063	6.603	6.651		$7/2^{-}$	0^+
346	235	2259.56		6.53		4.92	23.76	1.94	10.58	-2.43	-11.59	6.929	7.074	6.611	6.659		7/2-	9/2-
347	236	2262.47		6.52		4.85	23.92	2.91	10.66	-2.40	-11.67	6.939	7.086	6.615	6.663		$7/2^{-}$	0^+
348	237	2264.30		6.51		4.74	24.13	1.83	10.77	-2.28	-11.77	6.949	7.097	6.623	6.671		$7/2^{-}$	9/2-
349	238	2267.16		6.50		4.69	24.28	2.86	10.84	-2.29	-11.85	6.959	7.108	6.626	6.675		$7/2^{-}$	0^+
350	239	2268.89		6.48		4.59	24.43	1.73	10.93	-2.30	-11.93	6.969	7.120	6.631	6.679		$7/2^{-}$	$7/2^{-}$
351	240	2271.53		6.47		4.37	24.58	2.64	10.99	-2.15	-12.00	6.977	7.131	6.631	6.680		$7/2^{-}$	0^+
352	241	2273.22		6.46		4.33	24.72	1.69	11.06	-2.12	-12.08	6.986	7.143	6.634	6.682		$7/2^{-}$	$7/2^{-}$
353	242	2275.69		6.45		4.16	24.85	2.47	11.12	-2.08	-12.15	6.995	7.154	6.635	6.683		$7/2^{-}$	0^+
354	243	2277.32		6.43		4.10	24.99	1.63	11.18	-2.04	-12.22	7.004	7.165	6.637	6.685		$7/2^{-}$	$7/2^{-}$
355	244	2279.73		6.42		4.04	25.11	2.41	11.24	-2.03	-12.29	7.012	7.176	6.638	6.686		$7/2^{-}$	0^+
356	245	2281.29		6.41		3.97	25.26	1.56	11.31	-1.98	-12.36	7.022	7.188	6.640	6.688		$7/2^{-}$	$7/2^{-}$
357	246	2283.68		6.40		3.95	25.37	2.39	11.36	-1.98	-12.43	7.030	7.199	6.641	6.689		$7/2^{-}$	0^+
358	247	2285.24		6.38		3.95	25.51	1.56	11.43	-1.98	-12.50	7.040	7.211	6.642	6.690		7/2-	$5/2^{-}$
359	248	2287.55		6.37		3.87	25.63	2.31	11.48	-1.93	-12.56	7.049	7.223	6.644	6.692		7/2-	0^+
360	249	2289.10		6.36		3.86	25.76	1.55	11.53	-1.92	-12.63	7.058	7.235	6.645	6.693		7/2-	$5/2^{-}$
361	250	2291.32		6.35		3.77	25.86	2.22	11.58	-1.89	-12.68	7.068	7.247	6.646	6.694		7/2-	0+
362	251	2292.83		6.33		3.73	25.96	1.51	11.63	-1.85	-12.74	7.077	7.259	6.648	6.696		7/2-	$5/2^{-}$
363	252	2295.00		6.32		3.68	26.08	2.17	11.67	-1.84	-12.80	7.087	7.271	6.649	6.697		7/2-	0+
364	253	2296.55		6.31		3.72	26.20	1.55	11.73	-1.85	-12.85	7.097	7.284	6.650	6.698		7/2-	$3/2^{-}$
365	254	2298.57		6.30		3.57	26.27	2.02	11.75	-1.78	-12.90	7.106	7.297	6.651	6.699		7/2-	0+
366	255	2300.09		6.28		3.54	26.36	1.52	11.79	-1.74	-12.95	7.117	7.310	6.652	6.699		7/2-	$3/2^{-}$
367	256	2302.02		6.27		3.45	26.43	1.93	11.82	-1.71	-12.98	7.127	7.323	6.652	6.700		7/2-	0^{+}
368	257	2303.61		6.26		3.52	26.51	1.59	11.85	-1.19	-13.02	7.137	7.337	6.652	6.700		7/2-	1/2-
369	258	2305.30		6.25		3.28	26.56	1.69	11.86	-0.91	-13.05	7.148	7.351	6.653	6.701		7/2-	0^{+}
370	259	2304.34		6.23		0.73	26.80	-0.96	11.98	-1.04	-13.16	7.160	7.362	6.665	6.713		7/2-	15/2+
371	260	2304.42		6.21		-0.88	26.95	0.08	12.06	0.40	-13.25	7.170	7.373	6.673	6.721		7/2-	0+
σ																	,	
Z = 1	12 (Cn)																	
265	153	1885.57		7.12			0.45	7.65	0.99	-8.62	0.08	6.117	6.158	6.062	6.114		0^+	$9/2^{+}$
266	154	1895.04		7.12		17.12	0.82	9.47	1.18	-8.57	-0.11	6.126	6.168	6.067	6.120		0^+	0^+
267	155	1902.60		7.13		17.03	1.17	7.56	1.34	-8.51	-0.28	6.134	6.179	6.073	6.125		0^+	$9/2^{+}$
268	156	1911.97		7.13		16.93	1.56	9.37	1.55	-8.46	-0.48	6.143	6.189	6.078	6.130		0^+	0+
269	157	1919.44		7.14		16.84	1.90	7.47	1.71	-8.40	-0.64	6.151	6.199	6.084	6.136		0^+	$9/2^{+}$
270	158	1928.70		7.14		16.73	2.30	9.26	1.92	-8.35	-0.84	6.160	6.210	6.089	6.141		0^+	0+
271	159	1936.07		7.14		16.63	2.62	7.37	2.07	-8.28	-1.00	6.168	6.220	6.094	6.147		0^+	$9/2^{+}$
272	160	1945.23		7.15		16.53	3.03	9.16	2.29	-8.23	-1.21	6.176	6.230	6.099	6.152		0^+	0+
273	161	1952.47		7.15		16.40	3.34	7.24	2.43	-8.13	-1.36	6.185	6.240	6.105	6.157		0+	9/2+
274	162	1961.53		7.16		16.30	3.75	9.06	2.66	-8.09	-1.57	6.193	6.250	6.110	6.162		0+	0+
275	163	1968.52		7.16		16.05	4.07	6.99	2.79	−7.82	-1.71	6.202	6.260	6.116	6.168		0+	9/2+
276	164	1977.47		7.16		15.94	4.48	8.95	3.02	-7.81	-1.92	6.210	6.270	6.121	6.173		0+	0+
277	165	1984.55		7.16		16.03	4.84	7.08	3.21	-7.82	-2.10	6.219	6.281	6.127	6.179		0+	7/2 ⁺
278	166	1992.67		7.10		15.20	5.14	8.12	3.38	-7.52 -7.51	-2.16	6.230	6.294	6.134	6.186		0+	0+
278 279	167	1992.67		7.17 7.17		15.20	5.48	6.93	3.56	-7.31 -7.44	-2.20 -2.44	6.240	6.306	6.140	6.192		0+	
280	168	2007.44		7.17 7.17		14.77	5.80	7.84	3.74	-7.44 -7.34	-2.44 -2.60	6.250	6.318	6.147	6.192		0+	$\frac{7/2^{+}}{0^{+}}$
∠0U	108	2007.44		/.1/		14.//	5.60	7.04	3.74	-7.54	-2.00	0.230	0.518	0.14/	0.199		U.	U.

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
281	169	2014.26		7.17		14.66	6.14	6.82	3.93	-7.27	-2.77	6.260	6.330	6.154	6.206		0+	7/2+
282	170	2021.94		7.17		14.50	6.46	7.68	4.10	-7.20	-2.94	6.270	6.341	6.160	6.212		0+	0+
283	171 172	2028.64		7.17		14.38	6.81	6.70	4.29 4.47	-6.93	-3.12	6.280	6.353	6.167	6.219		0^{+}	$\frac{7/2^{+}}{0^{+}}$
284 285	172	2036.17 2042.21		7.17 7.17		14.23 13.57	7.13 7.37	7.53 6.04	4.47	-6.83 -6.83	-3.28 -3.40	6.290 6.297	6.365 6.374	6.174 6.176	6.225 6.228		0+	5/2 ⁺
286	173	2042.21		7.17 7.16		12.89	7.60	6.85	4.73	-6.37	-3.40 -3.52	6.304	6.384	6.178	6.230		0+	0+
287	174	2049.00		7.16		12.68	7.83	5.83	4.73	-6.37 -6.27	-3.52 -3.64	6.312	6.394	6.180	6.232		0+	5/2 ⁺
288	175	2054.89		7.16		12.48	7.83 8.07	5.65 6.65	5.00	-6.27 -6.21	-3.04 -3.75	6.319	6.404	6.183	6.235		0+	0+
289	177	2067.19		7.15		12.40	8.30	5.65	5.13	-6.10	-3.73 -3.87	6.326	6.414	6.185	6.237		0+	5/2 ⁺
290	177	2077.13		7.15		12.19	8.53	6.54	5.27	-6.06	-3.99	6.334	6.424	6.188	6.239		0+	0 ⁺
291	179	2079.31		7.15		12.13	8.76	5.58	5.41	-6.04	-4.10	6.342	6.435	6.190	6.242		0+	3/2 ⁺
292	180	2085.63		7.14		11.90	8.98	6.32	5.54	-5.91	-4.22	6.349	6.445	6.193	6.244		0^{+}	0+
293	181	2091.13		7.14		11.82	9.20	5.50	5.68	-5.82	-4.33	6.357	6.456	6.195	6.246		0^{+}	3/2+
294	182	2097.23		7.13		11.60	9.43	6.10	5.82	-5.73	-4.44	6.366	6.466	6.198	6.249		0^{+}	0+
295	183	2102.73		7.13		11.60	9.64	5.50	5.95	-5.51	-4.55	6.374	6.477	6.200	6.252		0^{+}	1/2+
296	184	2108.37		7.12		11.14	9.82	5.64	6.06	-4.89	-4.64	6.382	6.488	6.202	6.254		0^+	0+
297	185	2111.77		7.11		9.04	10.15	3.40	6.22	-5.13	-4.81	6.395	6.502	6.214	6.265		0^+	13/2
298	186	2116.39		7.10		8.02	10.49	4.62	6.37	-4.02	-4.97	6.407	6.515	6.225	6.276		0^+	0+
299	187	2119.78		7.09		8.01	10.82	3.39	6.52	-4.01	-5.14	6.420	6.528	6.236	6.287		0^+	13/2
300	188	2124.38		7.08		7.99	11.13	4.60	6.67	-4.01	-5.30	6.433	6.541	6.247	6.298		0^+	0+
301	189	2127.76		7.07		7.98	11.45	3.38	6.81	-4.00	-5.46	6.445	6.554	6.259	6.310		0^+	13/2
302	190	2132.36		7.06		7.98	11.77	4.60	6.96	-4.01	-5.61	6.458	6.566	6.270	6.321		0^{+}	0+
303	191	2135.74		7.05		7.98	12.09	3.38	7.10	-3.99	-5.77	6.471	6.579	6.282	6.332		0^+	13/2
304	192	2140.33		7.04		7.97	12.40	4.59	7.25	-4.00	-5.92	6.483	6.592	6.292	6.343		0^+	0+
305	193	2143.70		7.03		7.96	12.71	3.37	7.39	-3.98	-6.07	6.496	6.605	6.304	6.355		0^+	13/2
306	194	2148.29		7.02		7.96	13.01	4.59	7.53	-3.98	-6.22	6.508	6.617	6.315	6.366		0^+	0^{+}
307	195	2151.63		7.01		7.93	13.32	3.34	7.66	-3.94	-6.37	6.521	6.630	6.328	6.378		0^+	13/2
308	196	2156.21		7.00		7.92	13.61	4.58	7.80	-3.93	-6.52	6.533	6.642	6.338	6.389		0^+	0^+
309	197	2159.46		6.99		7.83	13.92	3.25	7.92	-3.65	-6.66	6.547	6.656	6.353	6.403		0^+	13/2
310	198	2163.99		6.98		7.78	14.21	4.53	8.07	-3.68	-6.80	6.559	6.668	6.362	6.413		0^+	0^+
311	199	2166.65		6.97		7.19	14.47	2.66	8.21	-3.69	-6.94	6.570	6.680	6.369	6.419		0+	11/2
312	200	2170.83		6.96		6.84	14.73	4.18	8.35	-3.37	-7.08	6.578	6.690	6.374	6.424		0^+	0^+
313	201	2173.39		6.94		6.74	14.99	2.56	8.49	-3.33	-7.21	6.588	6.702	6.380	6.430		0+	11/2
314	202	2177.38		6.93		6.55	15.26	3.99	8.62	-3.28	-7.35	6.598	6.712	6.386	6.436		0+	0+
315	203	2179.88		6.92		6.49	15.52	2.50	8.77	-3.25	-7.48	6.608	6.724	6.392	6.442		0+	11/2
316	204	2183.79		6.91		6.41	15.78	3.91	8.91	-3.22	-7.61	6.618	6.735	6.399	6.449		0+	0+
317	205	2186.23		6.90		6.35	16.04	2.44	9.05	-3.19	-7.75	6.628	6.746	6.405	6.454		0+	11/2
318	206	2190.08		6.89		6.29	16.30	3.85	9.17	-3.17	-7.88	6.637	6.757	6.411	6.461		0+	0+
319	207	2192.47		6.87		6.24	16.56	2.39	9.32	-3.13	-8.01	6.647	6.768	6.417	6.467		0+	11/2
320	208	2196.29		6.86		6.21	16.82	3.82	9.45	-3.12	-8.14	6.657	6.779	6.424	6.474		0+	0+
321	209	2198.61		6.85		6.14	17.08	2.32	9.58	-3.09	-8.27	6.667	6.790	6.430	6.480		0+	11/2
322	210	2202.41		6.84		6.12	17.34	3.80	9.71	-3.08	-8.40	6.676	6.801	6.437	6.486		0^{+}	0 ⁺
323	211	2204.66		6.83		6.05	17.60	2.25	9.84	-3.04	-8.53	6.686	6.812	6.444	6.493		0 ⁺	11/2 ⁻ 0 ⁺
324	212	2208.45		6.82		6.04	17.84	3.79	9.96	-3.04	-8.66	6.696	6.822	6.450	6.500		0+	•
325 326	213 214	2210.63 2214.42		6.80 6.79		5.97 5.97	18.11 18.35	2.18 3.79	10.09 10.21	-3.00 -3.01	-8.79 -8.92	6.706 6.716	6.833 6.844	6.458 6.464	6.507 6.513		0 ⁺	11/2 ⁻ 0 ⁺
326 327	214	2214.42		6.79		5.89	18.35	3.79 2.10	10.21	-3.01 -2.96	-8.92 -9.05	6.716	6.855	6.472	6.521		0 ⁺	11/2
327 328	215	2216.52		6.78		5.89 5.91	18.62	2.10 3.81	10.33	-2.96 -2.97	-9.05 -9.17	6.735	6.865	6.472	6.521		0 ⁺	0 ⁺
328 329	216	2220.33		6.76		5.89	19.13	2.08	10.46	-2.97 -2.95	-9.17 -9.30	6.745	6.876	6.485	6.534		0+	17/2
330	217	2222.41		6.75		5.89	19.13	2.08 3.75	10.59	-2.95 -2.93	-9.30 -9.42	6.745	6.886	6.485	6.542		0 ⁺	0 ⁺
331	218	2228.23		6.73		5.82	19.36	3.75 2.07	10.70	-2.93 -2.91	-9.42 -9.55	6.765	6.897	6.500	6.549		0+	17/2
332	219	2228.23		6.72		5.82	19.63	3.71	10.83	-2.91 -2.90	-9.55 -9.67	6.775	6.908	6.507	6.556		0+	0 ⁺
	220	2231.94		6.72		5.78	20.12	2.04	10.95	-2.90 -2.87	-9.87 -9.80	6.775	6.918	6.514	6.563		0+	17/2
333							7.11.17.	4.114										1//2

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	E _b ^{Cal.} /A (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
335	223	2239.65		6.69		5.67	20.61	2.01	11.30	-2.83	-10.04	6.805	6.939	6.529	6.578		0+	17/2 ⁺
336	224	2243.28		6.68		5.64	20.82	3.63	11.40	-2.82	-10.15	6.815	6.950	6.537	6.586		0+	0^+
337	225	2245.23		6.66		5.58	21.07	1.95	11.53	-2.77	-10.27	6.825	6.960	6.544	6.593		0+	$17/2^{+}$
338	226	2248.84		6.65		5.56	21.28	3.61	11.62	-2.77	-10.38	6.835	6.971	6.552	6.601		0+	0^+
339	227	2250.84		6.64		5.61	21.51	2.00	11.74	-2.80	-10.48	6.845	6.982	6.559	6.608		0+	$9/2^{-}$
340	228	2254.31		6.63		5.47	21.72	3.47	11.84	-2.72	-10.59	6.855	6.993	6.566	6.615		0^+	0^+
341	229	2256.37		6.62		5.53	21.95	2.06	11.95	-2.73	-10.70	6.866	7.004	6.574	6.623		0^+	$9/2^{-}$
342	230	2259.66		6.61		5.35	22.13	3.29	12.04	-2.66	-10.80	6.875	7.015	6.580	6.629		0^+	0^+
343	231	2261.75		6.59		5.38	22.36	2.09	12.15	-2.66	-10.91	6.886	7.026	6.588	6.637		0+	$9/2^{-}$
344	232	2264.90		6.58		5.24	22.52	3.15	12.23	-2.61	-10.99	6.896	7.037	6.593	6.642		0+	0^+
345	233	2266.98		6.57		5.23	22.74	2.08	12.34	-2.59	-11.10	6.906	7.048	6.601	6.650		0+	$9/2^{-}$
346	234	2270.04		6.56		5.14	22.90	3.06	12.42	-2.55	-11.18	6.916	7.060	6.606	6.655		0+	0^+
347	235	2272.08		6.55		5.10	23.10	2.04	12.52	-2.52	-11.29	6.927	7.071	6.614	6.662		0+	$9/2^{-}$
348	236	2275.07		6.54		5.03	23.26	2.99	12.60	-2.49	-11.37	6.937	7.082	6.619	6.667		0+	0^+
349	237	2277.00		6.52		4.92	23.47	1.93	12.70	-2.36	-11.47	6.947	7.094	6.627	6.675		0+	$9/2^{-}$
350	238	2279.94		6.51		4.87	23.62	2.94	12.78	-2.37	-11.55	6.957	7.105	6.630	6.678		0+	0+
351	239	2281.76		6.50		4.76	23.80	1.82	12.87	-2.38	-11.64	6.966	7.117	6.634	6.682		0+	$7/2^{-}$
352	240	2284.47		6.49		4.53	23.93	2.71	12.94	-2.23	-11.71	6.974	7.127	6.635	6.683		0+	0+
353	241	2286.25		6.48		4.49	24.09	1.78	13.03	-2.20	-11.79	6.984	7.139	6.638	6.686		0+	7/2-
354	242	2288.79		6.47		4.32	24.22	2.54	13.10	-2.16	-11.86	6.992	7.150	6.638	6.686		0+	0+
355	243	2290.50		6.45		4.25	24.36	1.71	13.18	-2.12	-11.93	7.001	7.161	6.641	6.689		0+	7/2-
356	244	2292.99		6.44		4.20	24.50	2.49	13.26	-2.11	-12.00	7.010	7.172	6.641	6.689		0+	0+
357	245	2294.63		6.43		4.13	24.65	1.64	13.34	-2.06	-12.08	7.019	7.184	6.644	6.692		0+	7/2-
358	246	2297.11		6.42		4.12	24.79	2.48	13.43	-2.06	-12.15	7.027	7.195	6.644	6.692		0+	0+
359	247	2298.74		6.40		4.11	24.93	1.63	13.50	-2.06	-12.22	7.037	7.207	6.646	6.694		0+	5/2-
360	248	2301.12		6.39		4.01	25.05	2.38	13.57	-2.01	-12.29	7.046	7.218	6.648	6.696		0 ⁺	0 ⁺
361	249	2302.76		6.38		4.02	25.19	1.64	13.66	-2.00	-12.36	7.055	7.230	6.649	6.697		0 ⁺	5/2-
362	250	2305.05		6.37		3.93	25.31	2.29	13.73	-1.96	-12.42	7.064	7.242	6.651	6.699		0 ⁺	0 ⁺
363	251	2306.63		6.35		3.87	25.43	1.58	13.80	-1.91	-12.48	7.074	7.254	6.652	6.700		0 ⁺	$\frac{5/2^{-}}{0^{+}}$
364	252	2308.87		6.34		3.82	25.54	2.24	13.87	-1.90	-12.54	7.083	7.266	6.653	6.701		0 ⁺	
365	253	2310.50		6.33		3.87	25.68	1.63	13.95	-1.91	-12.60	7.093	7.279	6.654	6.702		0 ⁺	$\frac{3/2^{-}}{0^{+}}$
366 367	254 255	2312.57 2314.15		6.32		3.70 3.65	25.75 25.85	2.07	14.00	-1.83 -1.79	-12.65 -12.70	7.103 7.113	7.291 7.305	6.655	6.703 6.704		0+	3/2-
368	255 256			6.31 6.29			25.83	1.58 1.97	14.06		-12.70 -12.73	7.113	7.318	6.656 6.656	6.704		0+	0 ⁺
369	257	2316.12 2317.76		6.28		3.55	26.00	1.64	14.10	-1.76		7.123	7.331		6.704		0+	1/2-
370	258	2317.76		6.27		3.61 3.39	26.00	1.75	14.15 14.21	-1.16 -0.93	-12.77 -12.81	7.133 7.144	7.345	6.657 6.657	6.704		0+	0+
370 371	259	2318.65		6.25		0.89	26.29	-0.86	14.21	-0.95 -0.86	-12.81 -12.92	7.144	7.343 7.356	6.670	6.717		0+	15/2 ⁺
372	260	2318.82		6.23		-0.69	26.29	0.17	14.40		-12.92 -13.01	7.136	7.367	6.678	6.725		0+	0+
	200	2310.02		0.23		<u>-0.03</u>	20.40	0.17	14.40	<u>0.31</u>	-13.01	7.100	7.307	0.076	0.723		U	U
σ	10 (11)																	
	13 (Nh)	1011 10		7.10		17.20	0.77	0.55	0.70	0.65	0.02	C 1 47	C 100	C 007	C 120		7 /2-	0+
269	156	1911.19		7.10		17.30	0.77	9.55	$\frac{-0.78}{0.60}$	-8.65	0.03	6.147	6.190	6.087	6.139		$7/2^{-}$	0+
270	157	1918.84		7.11		17.20	1.11	7.65	$\frac{-0.60}{0.42}$	-8.58	-0.14	6.155	6.200	6.092	6.144		7/2-	9/2+
271	158	1928.28		7.12		17.09	1.50	9.44	$\frac{-0.42}{0.24}$	-8.54	-0.34	6.164	6.211	6.097	6.149		7/2-	0+
272	159	1935.83		7.12		16.99	1.83	7.55	$\frac{-0.24}{0.05}$	-8.46	-0.50	6.172	6.221	6.102	6.155		$7/2^{-}$	9/2 ⁺
273	160	1945.18		7.13		16.90	2.24	9.35	$\frac{-0.05}{0.13}$	-8.42	-0.71	6.180	6.231	6.108	6.160		$7/2^{-}$	0 ⁺
274	161	1952.59		7.13		16.76	2.55	7.41	0.12	-8.31	-0.86	6.188	6.241	6.113	6.165		$7/2^{-}$	$9/2^{+}$
275	162	1961.84		7.13		16.66	2.97	9.25	0.31	-8.27	-1.07	6.197	6.251	6.118	6.170		7/2-	0+
276	163	1968.99		7.13		16.40	3.26	7.15	0.47	-7.99	-1.21	6.205	6.261	6.123	6.175		7/2-	9/2+
277	164	1978.14		7.14		16.30	3.69	9.15	0.67	-7.98	-1.44	6.213	6.271	6.129	6.181		$7/2^{-}$	0 ⁺
278	165	1985.39		7.14		16.40	4.05	7.25	0.84	-7.99	-1.62	6.222	6.282	6.135	6.187		7/2-	7/2+
279	166	1993.67		7.15		15.53	4.38	8.28	1.00	-7.67	-1.80	6.233	6.295	6.142	6.194		7/2-	0+
280	167	2000.77		7.15		15.38	4.73	7.10	1.17	-7.60	-1.99	6.243	6.306	6.149	6.201		7/2-	$7/2^{+}$
281	168	2008.76		7.15		15.09	5.06	7.99	1.32	-7.51	-2.16	6.253	6.318	6.156	6.207		$7/2^{-}$	0^+

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S_{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
282	169	2015.78		7.15		15.01	5.45	7.02	1.52	-7.46	-2.57	6.264	6.331	6.162	6.214		5/2-	7/2+
283	170	2023.59		7.15		14.83	5.75	7.81	1.65	-7.37	-2.53	6.273	6.342	6.169	6.221		$7/2^{-}$	0^+
284	171	2030.46		7.15		14.68	6.11	6.87	1.82	-7.09	-2.72	6.284	6.354	6.176	6.228		$7/2^{-}$	$7/2^{+}$
285	172	2038.16		7.15		14.57	6.46	7.70	1.99	-6.98	-3.07	6.293	6.366	6.182	6.234		$5/2^{-}$	0+
286	173	2044.31		7.15		13.85	6.70	6.15	2.10	-7.06	-3.20	6.300	6.375	6.184	6.236		$5/2^{-}$	$5/2^{+}$
287	174	2051.27		7.15		13.11	6.94	6.96	2.21	-6.48	-3.32	6.307	6.385	6.187	6.238		$5/2^{-}$	0+
288	175	2057.22		7.14		12.91	7.19	5.95	2.33	-6.38	-3.44	6.315	6.395	6.189	6.240		$5/2^{-}$	$5/2^{+}$
289	176	2063.98		7.14		12.71	7.44	6.76	2.44	-6.32	-3.56	6.322	6.404	6.192	6.243		$5/2^{-}$	0+
290	177	2069.74		7.14		12.52	7.68	5.76	2.55	-6.21	-3.68	6.330	6.415	6.194	6.245		$5/2^{-}$	5/2+
291	178	2076.39		7.14		12.41	7.93	6.65	2.66	-6.17	-3.80	6.337	6.424	6.197	6.248		$5/2^{-}$	0+
292	179	2082.09		7.13		12.35	8.19	5.70	2.78	-6.14	-3.91	6.345	6.435	6.199	6.250		5/2-	3/2+
293	180	2088.53		7.13		12.14	8.44	6.44	2.90	-6.02	-4.03	6.352	6.445	6.202	6.253		5/2-	0+
294	181	2094.14		7.12		12.05	8.69	5.61	3.01	-5.93	-4.14	6.360	6.456	6.204	6.255		5/2-	3/2+
295	182	2100.35		7.12		11.82	8.94	6.21	3.12	-5.84	-4.26	6.368	6.466	6.207	6.258		5/2-	0+
296	183	2105.96		7.11		11.82	9.18	5.61	3.23	-5.81	-4.37	6.376	6.477	6.209	6.260		5/2-	1/2+
297	184	2111.68		7.11		11.33	9.37	5.72	3.31	-5.01	-4.46	6.384	6.488	6.211	6.262		5/2-	0+
298	185	2115.25		7.10		9.29	9.70	3.57	3.48	-5.28	-4.62	6.397	6.501	6.222	6.274		5/2-	13/2-
299	186	2120.03		7.09		8.35	10.01	4.78	3.64	-4.18	-4.79	6.410	6.514	6.233	6.285		5/2-	0+
300	187	2123.59		7.08		8.34	10.33	3.56	3.81	-4.17	-4.95	6.422	6.527	6.245	6.296		5/2-	13/2-
301	188	2128.36		7.07		8.33	10.65	4.77	3.98	-4.17	-5.11	6.435	6.540	6.256	6.307		5/2-	0+
302	189	2131.90		7.06		8.31	10.95	3.54	4.14	-4.16	-5.27	6.448	6.553	6.267	6.318		5/2-	13/2-
303	190	2136.64		7.05		8.28	11.24	4.74	4.28	-4.16	-5.43	6.460	6.566	6.278	6.329		5/2-	0+
304	191	2140.12		7.04		8.22	11.48	3.48	4.38	-4.14	-5.58	6.473	6.579	6.289	6.340		5/2-	13/2-
305	192	2144.84		7.03		8.20	11.76	4.72	4.51	-4.15	-5.73	6.485	6.591	6.300	6.351		5/2-	0+
306	193	2148.32		7.02		8.20	12.01	3.48	4.62	-4.15	-5.64	6.498	6.604	6.314	6.364		$7/2^{-}$	13/2-
307	194	2153.07		7.01		8.23	12.31	4.75	4.78	-4.15	-5.79	6.510	6.616	6.324	6.375		$7/2^{-}$	0+
308	195	2156.57		7.00		8.25	12.60	3.50	4.94	-4.10	-5.93	6.523	6.629	6.336	6.387		$7/2^{-}$	13/2-
309	196	2161.31		6.99		8.24	12.90	4.74	5.10	-4.10	-6.08	6.535	6.641	6.347	6.397		$7/2^{-}$	0+
310	197	2164.71		6.98		8.14	13.17	3.40	5.25	-3.80	-6.21	6.549	6.654	6.361	6.411		7/2-	13/2 ⁻ 0 ⁺
311 312	198 199	2169.38		6.98		8.07 7.46	13.46 13.73	4.67 2.79	5.39 5.52	-3.83 -3.84	-6.35	6.560	6.666	6.370	6.421		7/2 ⁻ 7/2 ⁻	11/2 ⁻
313	200	2172.17		6.96							-6.50	6.571	6.678	6.377 6.382	6.427			0+
314	200	2176.49		6.95		7.11	14.01 14.33	4.32	5.66 5.84	-3.51 -3.48	-6.64	6.580 6.589	6.689 6.701	6.386	6.432		7/2 ⁻ 5/2 ⁻	11/2-
314	201	2179.23		6.94 6.93		7.06 6.85	14.58	2.74	5.84 5.96	-3.48 -3.42	−7.01 −7.15	6.599	6.701	6.393	6.436		5/2 5/2 ⁻	0+
316	202	2183.34 2185.95		6.92		6.72	14.58	4.11 2.61	6.07	-3.42 -3.39	-7.15 -7.28	6.609	6.711	6.399	6.443 6.448		5/2 5/2 ⁻	11/2-
317	203							4.03	6.19	-3.39 -3.36	-7.28 -7.41		6.733				,	0+
317	204	2189.98 2192.55		6.91 6.89		6.64 6.60	15.10 15.37	2.57	6.32	-3.33	-7.41 -7.55	6.618 6.628	6.745	6.405 6.411	6.455 6.461		5/2 ⁻ 5/2 ⁻	11/2
319	203	2192.55		6.89		6.56	15.63	3.99	6.46	-3.33 -3.31	-7.53 -7.68	6.638	6.755	6.418	6.467		$\frac{5/2}{5/2^{-}}$	0+
320	207	2190.54		6.87		6.50	15.90	2.51	6.58	-3.31 -3.27	-7.81	6.648	6.767	6.424	6.473		$\frac{5/2}{5/2^{-}}$	11/2-
321	207	2203.00		6.86		6.46	16.16	3.95	6.71	-3.27 -3.26	-7.81 -7.94	6.657	6.777	6.430	6.480		$\frac{5/2}{5/2^{-}}$	0+
321	208	2205.46		6.85		6.41	16.43	2.46	6.85	-3.20 -3.22	-7.94 -8.07	6.667	6.788	6.437	6.486		$\frac{5/2}{5/2^{-}}$	11/2-
323	210	2209.39		6.84		6.39	16.69	3.93	6.98	-3.22 -3.22	-8.20	6.677	6.799	6.443	6.493		$\frac{5/2}{5/2^{-}}$	0+
324	211	2203.33		6.83		6.32	16.96	2.39	7.12	-3.22 -3.18	-8.33	6.687	6.810	6.450	6.500		$\frac{5}{2}$	11/2 ⁻
325	212	2211.70		6.82		6.31	17.21	3.92	7.12	-3.18 -3.18	-8.46	6.696	6.820	6.456	6.506		$\frac{5}{2}$	0+
326	213	2213.70		6.80		6.23	17.47	2.31	7.23	-3.18 -3.13	-8.59	6.706	6.831	6.464	6.513		$\frac{5/2}{5/2^{-}}$	11/2 ⁻
327	213	2221.93		6.79		6.23	17.72	3.92	7.50 7.51	-3.13 -3.14	-8.71	6.716	6.842	6.470	6.519		$\frac{5/2}{5/2^{-}}$	0+
328	214	2224.15		6.78		6.14	17.72	2.22	7.63	-3.14 -3.09	-8.84	6.726	6.852	6.478	6.527		$\frac{5/2}{5/2^{-}}$	11/2-
329	216	2224.13		6.77		6.16	18.22	3.94	7.76	-3.09 -3.10	-8.96	6.735	6.863	6.484	6.533		$\frac{5/2}{5/2^{-}}$	0+
330	217	2230.30		6.76		6.15	18.48	2.21	7.70	-3.10 -3.08	-9.09	6.745	6.873	6.491	6.540		$\frac{5/2}{5/2^{-}}$	17/2 ⁺
331	218	2234.18		6.75		6.09	18.72	3.88	8.02	-3.07	-9.05	6.755	6.884	6.500	6.549		$\frac{3}{2}$	0+
332	219	2234.18		6.74		6.08	18.98	2.20	8.15	-3.07 -3.05	-9.18	6.765	6.894	6.507	6.556		$\frac{7}{2}$	17/2 ⁺
333	220	2240.20		6.73		6.02	19.21	3.82	8.26	-3.03 -3.03	-9.29	6.775	6.905	6.515	6.563		7/2 ⁻	0+
334	221	2242.38		6.71		6.00	19.47	2.18	8.40	-3.00	-9.42	6.785	6.915	6.522	6.571		7/2-	17/2 ⁺
335	222	2246.16		6.70		5.96	19.69	3.78	8.52	-2.99	-9.54	6.795	6.926	6.529	6.578		7/2-	0+
333		22 10,10		0.70		5.50	15.05	3.70	0.52	2.55	J.J I	0.755	0.520	0.525	0.570		,, _	J

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
336	223	2248.30		6.69		5.92	19.95	2.14	8.65	-2.95	-9.66	6.804	6.936	6.536	6.585		7/2-	17/2+
337	224	2252.05		6.68		5.89	20.17	3.75	8.77	-2.94	-9.77	6.814	6.947	6.544	6.592		$7/2^{-}$	0+
338	225	2254.12		6.67		5.82	20.42	2.07	8.89	-2.89	-9.90	6.824	6.957	6.551	6.600		7/2-	17/2+
339	226	2257.85		6.66		5.80	20.63	3.73	9.01	-2.89	-10.00	6.834	6.968	6.558	6.607		$\frac{7}{2}$	0+
340	227 228	2259.95		6.65		5.83	20.85	2.10	9.11	-2.92	-10.11	6.844	6.979	6.566	6.614		7/2-	9/2 ⁻ 0 ⁺
341	228 229	2263.54		6.64		5.69	21.07	3.59	9.23 9.34	-2.83	-10.22	6.854	6.989	6.573	6.621 6.629		7/2-	-
342 343	229	2265.71 2269.10		6.62 6.62		5.76 5.56	21.29 21.48	2.17 3.39	9.34	-2.85 -2.77	-10.34 -10.43	6.864 6.874	7.000 7.011	6.580 6.586	6.635		7/2 ⁻ 7/2 ⁻	9/2 ⁻ 0 ⁺
344	230	2209.10		6.60		5.58	21.48	2.19	9.44	-2.77 -2.76	-10.43 -10.54	6.885	7.011	6.594	6.642		$\frac{7/2}{7/2^{-}}$	9/2-
345	232	2274.53		6.59		5.43	21.86	3.24	9.63	-2.70 -2.71	-10.63	6.895	7.022	6.599	6.648		$\frac{7/2}{7/2^{-}}$	0+
346	233	2274.33		6.58		5.43	22.08	2.19	9.74	-2.69	-10.74	6.905	7.045	6.607	6.655		$\frac{7}{2}$	9/2-
347	234	2279.87		6.57		5.34	22.25	3.15	9.83	-2.65	-10.83	6.915	7.056	6.612	6.660		7/2-	0+
348	235	2282.02		6.56		5.30	22.46	2.15	9.94	-2.62	-10.93	6.925	7.068	6.620	6.668		7/2-	9/2-
349	236	2285.10		6.55		5.23	22.63	3.08	10.03	-2.59	-11.02	6.935	7.079	6.625	6.673		7/2-	0+
350	237	2287.13		6.53		5.11	22.83	2.03	10.13	-2.45	-11.12	6.946	7.090	6.633	6.681		7/2-	$9/2^{-}$
351	238	2290.15		6.52		5.05	22.99	3.02	10.21	-2.46	-11.21	6.955	7.102	6.637	6.685		7/2-	0^{+}
352	239	2292.06		6.51		4.93	23.17	1.91	10.30	-2.47	-11.29	6.965	7.113	6.641	6.689		7/2-	$7/2^{-}$
353	240	2294.83		6.50		4.68	23.30	2.77	10.36	-2.30	-11.36	6.973	7.124	6.641	6.689		7/2-	0^{+}
354	241	2296.68		6.49		4.62	23.46	1.85	10.43	-2.27	-11.44	6.982	7.135	6.644	6.692		7/2-	$7/2^{-}$
355	242	2299.29		6.48		4.46	23.60	2.61	10.50	-2.23	-11.52	6.990	7.146	6.645	6.693		$7/2^{-}$	0^+
356	243	2301.07		6.46		4.39	23.75	1.78	10.57	-2.19	-11.59	7.000	7.158	6.647	6.695		$7/2^{-}$	$7/2^{-}$
357	244	2303.63		6.45		4.34	23.90	2.56	10.64	-2.17	-11.66	7.008	7.169	6.648	6.696		$7/2^{-}$	0^+
358	245	2305.34		6.44		4.27	24.05	1.71	10.71	-2.13	-11.74	7.017	7.180	6.651	6.698		$7/2^{-}$	$7/2^{-}$
359	246	2307.87		6.43		4.24	24.19	2.53	10.76	-2.13	-11.94	7.025	7.191	6.650	6.698		$5/2^{-}$	0^+
360	247	2309.58		6.42		4.24	24.34	1.71	10.84	-2.13	-12.01	7.035	7.203	6.652	6.700		5/2-	$5/2^{-}$
361	248	2312.04		6.40		4.17	24.49	2.46	10.92	-2.08	-12.08	7.043	7.214	6.654	6.702		5/2-	0+
362	249	2313.74		6.39		4.16	24.64	1.70	10.98	-2.07	-12.16	7.053	7.226	6.656	6.703		5/2-	5/2-
363	250	2316.10		6.38		4.06	24.78	2.36	11.05	-2.03	-12.22	7.062	7.238	6.657	6.705		5/2-	0+
364	251	2317.75		6.37		4.01	24.92	1.65	11.12	-1.97	-12.29	7.071	7.250	6.658	6.706		5/2-	5/2-
365	252	2320.06		6.36		3.96	25.06	2.31	11.19	-1.96	-12.35	7.081	7.261	6.660	6.708		5/2-	0 ⁺
366	253 254	2321.73		6.34		3.98	25.18	1.67	11.23	-1.97	-12.41	7.091	7.274	6.661	6.709		5/2 ⁻ 5/2 ⁻	$\frac{3}{2}^{-}$ 0^{+}
367 368	254 255	2323.86 2325.49		6.33 6.32		3.80 3.76	25.29 25.40	2.13 1.63	11.29 11.34	-1.88 -1.83	-12.46 -12.51	7.100 7.110	7.286 7.300	6.662 6.662	6.710 6.710		5/2 5/2 ⁻	3/2-
369	256	2323.49		6.31		3.63	25.40	2.00	11.34	-1.80	-12.51 -12.54	7.110	7.313	6.663	6.711		$\frac{5/2}{5/2^{-}}$	0 ⁺
370	257	2329.17		6.30		3.68	25.56	1.68	11.37	-1.33	-12.54 -12.58	7.120	7.315	6.663	6.711		$\frac{5/2}{5/2^{-}}$	1/2-
371	258	2330.95		6.28		3.46	25.65	1.78	11.44	-1.04	-12.56 -12.62	7.130	7.340	6.664	6.712		$\frac{5/2}{5/2^{-}}$	0+
372	259	2330.33		6.26		1.02	25.85	-0.76	11.54	-1.06	-12.73	7.153	7.351	6.676	6.724		5/2 ⁻	15/2 ⁺
373	260	2330.45		6.25		-0.50	26.03	0.26	11.63	0.21	-12.82	7.163	7.362	6.685	6.732		5/2 ⁻	0+
σ																	-/-	
Z = 11	14 (Fl)																	
271	Ì57	1919.91		7.08			0.47	7.80	1.07	-8.76	0.13	6.159	6.202	6.099	6.151		0^+	$9/2^{+}$
272	158	1929.57		7.09		17.46	0.87	9.66	1.29	-8.71	-0.08	6.167	6.212	6.104	6.156		0^+	0^{+}
273	159	1937.25		7.10		17.34	1.18	7.68	1.42	-8.63	-0.23	6.176	6.223	6.109	6.161		0^+	$9/2^{+}$
274	160	1946.83		7.11		17.26	1.60	9.58	1.65	-8.59	-0.44	6.184	6.233	6.114	6.166		0^+	0+
275	161	1954.36		7.11		17.11	1.89	7.53	1.77	-8.48	-0.58	6.192	6.243	6.120	6.172		0^+	$9/2^{+}$
276	162	1963.85		7.12		17.02	2.32	9.49	2.01	-8.44	-0.80	6.200	6.252	6.125	6.177		0^+	0^+
277	163	1971.11		7.12		16.75	2.59	7.26	2.12	-8.50	-0.99	6.210	6.264	6.131	6.183		0+	$7/2^{+}$
278	164	1980.50		7.12		16.65	3.03	9.39	2.36	-8.16	-1.15	6.217	6.272	6.135	6.187		0+	0+
279	165	1987.94		7.13		16.83	3.39	7.44	2.55	-8.17	-1.34	6.226	6.283	6.141	6.193		0+	$7/2^{+}$
280	166	1996.40		7.13		15.90	3.73	8.46	2.73	-7.85	-1.52	6.236	6.296	6.149	6.200		0+	0+
281	167	2003.69		7.13		15.75	4.09	7.29	2.92	-7.78	-1.70	6.246	6.308	6.155	6.207		0+	$7/2^{+}$
282	168 169	2011.87 2019.05		7.13		15.47	4.43	8.18	3.11	-7.69	-1.88	6.256	6.319	6.162	6.214		0^{+}	0^{+} $7/2^{+}$
283				7.13		15.36	4.79	7.18	3.27	-7.62	-2.07	6.266	6.331	6.169	6.220			7/2+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
284	170	2027.07		7.14		15.20	5.13	8.02	3.48	-7.55	-2.24	6.276	6.343	6.175	6.227		0+	0+
285	171	2034.13		7.14		15.08	5.49	7.06	3.67	-7.26	-2.43	6.286	6.354	6.182	6.234		0+	7/2+
286	172	2042.01		7.14		14.94	5.84	7.88	3.85	-7.13	-2.61	6.296	6.366	6.189	6.241		0+	0+
287	173	2048.28		7.14		14.15	6.07	6.27	3.97	-7.21	-2.73	6.303	6.375	6.191	6.243		0+	5/2+
288	174	2055.37		7.14		13.36	6.31	7.09	4.10	-6.61	-2.84	6.310	6.385	6.194	6.245		0+	0+
289	175	2061.44		7.13		13.16	6.55	6.07	4.22	-6.51	-2.96	6.317	6.395	6.196	6.248		0+	5/2+
290	176	2068.32		7.13		12.95	6.78	6.88	4.34	-6.44	-3.08	6.324	6.404	6.199	6.250		0+	0+
291	177	2074.21		7.13		12.77	7.02	5.89	4.47	-6.34	-3.20	6.332	6.415	6.202	6.253		0+	5/2+
292	178	2080.98		7.13		12.66	7.25	6.77	4.59	-6.30	-3.31	6.339	6.424	6.204	6.256		0+	0+
293	179	2086.79		7.12		12.58	7.48	5.81	4.70	-6.27	-3.43	6.347	6.435	6.207	6.258		0+	3/2+
294	180	2093.35		7.12		12.37	7.72	6.56	4.82	-6.14	-3.54	6.355	6.445	6.209	6.261		0+	0+
295	181	2099.08		7.12		12.29	7.95	5.73	4.94	-6.04	-3.66	6.362	6.455	6.212	6.263		0+	3/2+
296	182	2105.41		7.11		12.06	8.18	6.33	5.06	-5.96	-3.78	6.370	6.466	6.215	6.266		0+	0^+
297	183	2111.13		7.11		12.05	8.40	5.72	5.17	-5.93	-3.89	6.378	6.477	6.217	6.268		0+	$1/2^{+}$
298	184	2116.96		7.10		11.55	8.59	5.83	5.28	-5.13	-3.98	6.386	6.487	6.219	6.271		0+	0^+
299	185	2120.68		7.09		9.55	8.91	3.72	5.43	-5.40	-4.14	6.399	6.500	6.231	6.282		0+	$13/2^{-}$
300	186	2125.63		7.09		8.67	9.24	4.95	5.60	-4.34	-4.30	6.411	6.513	6.241	6.293		0^+	0^+
301	187	2129.34		7.07		8.66	9.56	3.71	5.75	-4.33	-4.46	6.424	6.526	6.253	6.304		0^+	$13/2^{-}$
302	188	2134.26		7.07		8.63	9.88	4.92	5.90	-4.33	-4.62	6.436	6.539	6.263	6.314		0^+	0^+
303	189	2137.95		7.06		8.61	10.19	3.69	6.05	-4.32	-4.77	6.449	6.552	6.275	6.325		0^+	$13/2^{-}$
304	190	2142.86		7.05		8.60	10.50	4.91	6.22	-4.32	-4.93	6.461	6.565	6.285	6.336		0^+	0^+
305	191	2146.54		7.04		8.59	10.80	3.68	6.42	-4.30	-5.08	6.474	6.577	6.297	6.347		0^+	$13/2^{-}$
306	192	2151.44		7.03		8.58	11.11	4.90	6.60	-4.30	-5.23	6.486	6.590	6.307	6.358		0^+	0^{+}
307	193	2155.10		7.02		8.56	11.40	3.66	6.78	-4.28	-5.37	6.499	6.603	6.319	6.369		0^+	$13/2^{-}$
308	194	2159.99		7.01		8.55	11.70	4.89	6.92	-4.27	-5.52	6.511	6.615	6.329	6.379		0^+	0^+
309	195	2163.62		7.00		8.52	11.99	3.63	7.05	-4.23	-5.66	6.523	6.628	6.341	6.391		0^+	$13/2^{-}$
310	196	2168.48		7.00		8.49	12.27	4.86	7.17	-4.22	-5.80	6.535	6.640	6.351	6.401		0^+	0+
311	197	2172.01		6.98		8.39	12.55	3.53	7.30	-3.93	-5.93	6.549	6.653	6.365	6.415		0^+	$13/2^{-}$
312	198	2176.81		6.98		8.33	12.82	4.80	7.43	-3.96	-6.07	6.560	6.665	6.374	6.424		0^+	0+
313	199	2179.76		6.96		7.75	13.11	2.95	7.59	-3.97	-6.22	6.571	6.677	6.381	6.431		0^+	$11/2^{-}$
314	200	2184.21		6.96		7.40	13.38	4.45	7.72	-3.65	-6.36	6.580	6.687	6.386	6.436		0^+	0+
315	201	2187.06		6.94		7.30	13.67	2.85	7.83	-3.61	-6.51	6.589	6.699	6.392	6.442		0^+	$11/2^{-}$
316	202	2191.32		6.93		7.11	13.94	4.26	7.98	-3.55	-6.65	6.599	6.710	6.398	6.448		0^+	0+
317	203	2194.09		6.92		7.03	14.21	2.77	8.14	-3.52	-6.79	6.609	6.721	6.404	6.454		0^{+}	$11/2^{-}$
318	204	2198.27		6.91		6.95	14.48	4.18	8.29	-3.49	-6.93	6.618	6.732	6.411	6.461		0^{+}	0+
319	205	2200.98		6.90		6.89	14.75	2.71	8.43	-3.46	-7.07	6.628	6.743	6.417	6.466		0^{+}	11/2-
320	206	2205.10		6.89		6.83	15.02	4.12	8.56	-3.44	-7.20	6.638	6.753	6.423	6.473		0+	0+
321	207	2207.76		6.88		6.78	15.29	2.66	8.71	-3.40	-7.34	6.648	6.765	6.429	6.479		0+	11/2-
322	208	2211.84		6.87		6.74	15.55	4.08	8.84	-3.39	-7.47	6.657	6.775	6.436	6.486		0^{+}	$0^{+'}$
323	209	2214.43		6.86		6.67	15.82	2.59	8.97	-3.35	-7.61	6.667	6.786	6.442	6.492		0+	11/2-
324	210	2218.49		6.85		6.65	16.08	4.06	9.10	-3.35	-7.74	6.676	6.797	6.449	6.498		0+	0+
325	211	2221.00		6.83		6.57	16.34	2.51	9.22	-3.30	-7.88	6.686	6.808	6.456	6.505		0+	11/2-
326	212	2225.05		6.83		6.56	16.60	4.05	9.35	-3.30	-8.01	6.696	6.818	6.462	6.511		0+	0+
327	213	2227.49		6.81		6.49	16.86	2.44	9.48	-3.26	-8.14	6.706	6.829	6.469	6.519		0+	11/2
328	214	2231.54		6.80		6.49	17.12	4.05	9.61	-3.26 -3.26	-8.14	6.715	6.839	6.475	6.525		0+	0+
329	215	2233.90		6.79		6.41	17.12	2.36	9.75	-3.25	-8.40	6.725	6.850	6.482	6.531		0+	17/2 ⁺
330	216	2237.95		6.78		6.41	17.62	4.05	9.86	-3.23 -3.22	-8.53	6.734	6.860	6.489	6.538		0+	0+
331	217	2240.30		6.77		6.40	17.89	2.35	10.00	-3.22 -3.21	-8.66	6.744	6.871	6.496	6.545		0+	17/2 ⁺
332	217	2244.29		6.76		6.34	18.13	3.99	10.00	-3.21 -3.18	-8.78	6.754	6.881	6.503	6.552		0+	0+
333	219	2244.29		6.75		6.32	18.39	2.33	10.11	-3.16 -3.16	-8.78 -8.91	6.763	6.892	6.510	6.559		0+	17/2 ⁺
334	219	2250.56		6.74		6.27	18.62	2.55 3.94	10.24	-3.16 -3.14	-0.91 -9.02	6.773	6.902	6.518	6.566		0+	0+
335	220			6.74				2.30	10.36			6.783			6.574		0+	-
		2252.86				6.24	18.88			-3.11	-9.15		6.912	6.525			0 ⁺	17/2 ⁺ 0 ⁺
336	222	2256.75		6.72		6.19	19.11	3.89	10.59	-3.10	-9.27	6.793	6.923	6.532	6.581		-	-
337	223	2259.01		6.70		6.15	19.36	2.26	10.71	-3.06	-9.39	6.802	6.933	6.539	6.588		0^+	$17/2^{+}$

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{ m b}^{ m Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	$_{p}^{\lambda_{p}}$ (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
338	224	2262.86		6.69		6.11	19.58	3.85	10.81	-3.05	-9.50	6.813	6.944	6.547	6.595		0+	0+
339	225	2265.05		6.68		6.04	19.82	2.19	10.93	-3.00	-9.63	6.822	6.954	6.554	6.603		0+	17/2
340	226	2268.88		6.67		6.02	20.04	3.83	11.03	-3.00	-9.73	6.832	6.965	6.561	6.610		0+	0+
341	227	2271.09		6.66		6.04	20.25	2.21	11.14	-3.03	-9.84	6.843	6.976	6.569	6.617		0+	9/2-
342	228	2274.78		6.65		5.90	20.47	3.69	11.24	-2.93	-9.95	6.852	6.986	6.576	6.624		0+	0+
343	229	2277.06		6.64		5.97	20.69	2.28	11.35	-2.95	-10.07	6.862	6.997	6.583	6.632		0+	9/2-
344	230	2280.54		6.63		5.76	20.88	3.48	11.44	-2.86	-10.16	6.872	7.008	6.590	6.638		0+	0^+
345	231	2282.84		6.62		5.78	21.09	2.30	11.55	-2.86	-10.27	6.883	7.019	6.597	6.646		0^+	$9/2^{-}$
346	232	2286.17		6.61		5.63	21.27	3.33	11.64	-2.80	-10.36	6.893	7.031	6.603	6.651		0+	0^+
347	233	2288.46		6.59		5.62	21.48	2.29	11.74	-2.78	-10.47	6.903	7.042	6.610	6.659		0^+	$9/2^{-}$
348	234	2291.69		6.59		5.52	21.65	3.23	11.82	-2.74	-10.55	6.913	7.053	6.616	6.664		0^+	0^+
349	235	2293.94		6.57		5.48	21.86	2.25	11.92	-2.71	-10.66	6.923	7.065	6.623	6.671		0^+	$9/2^{-}$
350	236	2297.10		6.56		5.41	22.03	3.16	12.00	-2.68	-10.75	6.933	7.076	6.628	6.676		0^+	0^+
351	237	2299.24		6.55		5.30	22.24	2.14	12.11	-2.54	-10.85	6.944	7.087	6.636	6.684		0^+	$9/2^{-}$
352	238	2302.34		6.54		5.24	22.40	3.10	12.19	-2.54	-10.93	6.953	7.098	6.640	6.688		0^+	0^{+}
353	239	2304.34		6.53		5.10	22.58	2.00	12.28	-2.55	-11.02	6.963	7.110	6.644	6.692		0^+	$7/2^{-}$
354	240	2307.19		6.52		4.85	22.72	2.85	12.36	-2.38	-11.10	6.971	7.120	6.645	6.693		0^+	0^+
355	241	2309.12		6.50		4.78	22.87	1.93	12.44	-2.35	-11.17	6.980	7.132	6.647	6.695		0^+	$7/2^{-}$
356	242	2311.81		6.49		4.62	23.02	2.69	12.52	-2.31	-11.25	6.988	7.142	6.648	6.696		0^+	0+
357	243	2313.68		6.48		4.56	23.18	1.87	12.61	-2.27	-11.33	6.997	7.154	6.651	6.699		0^+	$7/2^{-}$
358	244	2316.32		6.47		4.51	23.33	2.64	12.69	-2.26	-11.40	7.005	7.165	6.652	6.700		0^+	0^{+}
359	245	2318.11		6.46		4.43	23.48	1.79	12.77	-2.21	-11.48	7.015	7.176	6.654	6.702		0^+	$7/2^{-}$
360	246	2320.73		6.45		4.41	23.62	2.62	12.86	-2.21	-11.55	7.023	7.187	6.655	6.703		0^+	0+
361	247	2322.52		6.43		4.41	23.78	1.79	12.94	-2.21	-11.63	7.032	7.199	6.657	6.705		0^+	5/2-
362	248	2325.04		6.42		4.31	23.92	2.52	13.00	-2.15	-11.70	7.041	7.210	6.659	6.707		0^{+}	0+
363	249	2326.82		6.41		4.30	24.06	1.78	13.08	-2.14	-11.77	7.050	7.222	6.661	6.709		0^+	5/2-
364	250	2329.24		6.40		4.20	24.19	2.42	13.14	-2.10	-11.84	7.059	7.233	6.662	6.710		0+	0+
365	251	2330.96		6.39		4.14	24.33	1.72	13.21	-2.03	-11.91	7.069	7.245	6.664	6.712		0+	5/2 ⁻
366	252	2333.33		6.38		4.09	24.46	2.37	13.27	-2.02	-11.98	7.078	7.257	6.665	6.713		0+	0+
367	253	2335.05		6.36		4.09	24.55	1.72	13.32	-2.03	-12.04	7.088	7.270	6.667	6.715		0+	3/2-
368	254	2337.24		6.35		3.91	24.67	2.19	13.38	-1.93	-12.04	7.097	7.282	6.667	6.715		0+	0 ⁺
369	255	2338.92		6.34		3.87	24.77	1.68	13.43	-1.87	-12.03 -12.13	7.107	7.295	6.668	6.716		0^{+}	3/2 ⁻
370	256	2340.97		6.33		3.73	24.77	2.05	13.48	-1.84	-12.13 -12.17	7.107	7.293	6.669	6.717		0+	0 ⁺
370 371	257	2340.57		6.31		3.77	24.83	1.72	13.52	-1.34 -1.37	-12.17 -12.22	7.117	7.321	6.669	6.717		0+	1/2-
371 372	258	2344.51		6.30		3.54	25.00	1.72	13.56	-1.37 -1.12	-12.22	7.127	7.335	6.670	6.718		0+	0+
																	0+	
373	259	2343.87		6.28		1.18	25.22	$\frac{-0.64}{0.35}$	13.68	-1.07	-12.37	7.150	7.346	6.682	6.730		0+	15/2 0 ⁺
374 σ	260	2344.22		6.27		<u>-0.29</u>	25.40	0.33	13.77	<u>0.11</u>	-12.46	7.160	7.357	6.691	6.739		U.	0
	15 (Mc)																	
273	158	1928.59		7.06			0.31		-0.98	-8.90	0.15	6.171	6.214	6.112	6.164		$5/2^{-}$	0^+
274	159	1936.43		7.07			0.60	7.84	$\frac{-0.82}{-0.82}$	-8.83	-0.04	6.179	6.224	6.117	6.169		5/2-	15/2
275	160	1946.23		7.08		17.64	1.05	9.80	$\frac{-0.60}{-0.60}$	-8.77	-0.20	6.187	6.234	6.122	6.174		5/2 ⁻	0+
276	161	1954.00		7.08		17.57	1.41	7.77	$\frac{0.36}{-0.36}$	-8.68	-0.40	6.195	6.243	6.127	6.179		5/2 ⁻	15/2
277	162	1963.73		7.09		17.50	1.89	9.73	$\frac{0.56}{-0.12}$	-8.62	-0.56	6.204	6.254	6.132	6.184		$5/2^{-}$	0+
278	163	1971.18		7.09		17.18	2.19	7.45	0.07	-8.36	-0.75	6.211	6.263	6.137	6.188		$5/2^{-}$	15/2
279	164	1980.68		7.03		16.95	2.13	9.50	0.18	-8.34	-0.73 -0.91	6.220	6.274	6.143	6.195		$5/2^{-}$	0+
280	165	1988.27		7.10		17.09	2.88	7.59	0.18	-8.35	-0.91 -1.09	6.229	6.285	6.149	6.200		$\frac{5/2}{5/2^{-}}$	7/2 ⁺
281	166	1996.89		7.10		16.21	3.22	8.62	0.33	-8.04	-1.03 -1.27	6.240	6.297	6.156	6.208		5/2 ⁻	0+
																		-
282	167	2004.36		7.11		16.09	3.59	7.47	0.67	-7.97	-1.46	6.249	6.309	6.163	6.214		5/2 ⁻	7/2 ⁺ 0 ⁺
283	168	2012.72		7.11		15.83	3.96	8.36	0.85	-7.87	-1.64	6.260	6.320	6.170	6.221		5/2 ⁻	
284	169	2020.08		7.11		15.72	4.30	7.36	1.03	-7.81	-1.83	6.269	6.332	6.176	6.228		5/2 ⁻	7/2+
285	170 171	2028.27 2035.53		7.12		15.55	4.68	8.19	1.20	-7.74	-2.00	6.279	6.343	6.183	6.235		5/2-	0+
286				7.12		15.45	5.07	7.26	1.40	-7.39	-2.19	6.289	6.355	6.190	6.242		$5/2^{-}$	$7/2^{+}$

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
287	172	2043.58		7.12		15.31	5.42	8.05	1.57	-7.28	-2.38	6.299	6.366	6.197	6.248		5/2-	0+
288	173	2049.96		7.12		14.43	5.65	6.38	1.68	-7.42	-2.49	6.306	6.376	6.199	6.250		5/2-	$5/2^{+}$
289	174	2057.17		7.12		13.59	5.90	7.21	1.80	-6.73	-2.61	6.313	6.385	6.202	6.253		$5/2^{-}$	0+
290	175	2063.36		7.12		13.40	6.14	6.19	1.92	-6.63	-2.73	6.320	6.395	6.204	6.256		5/2-	$5/2^{+}$
291	176	2070.36		7.11		13.19	6.38	7.00	2.04	-6.56	-2.85	6.327	6.405	6.207	6.258		$5/2^{-}$	0^+
292	177	2076.37		7.11		13.01	6.63	6.01	2.16	-6.45	-2.97	6.335	6.415	6.210	6.261		$5/2^{-}$	$5/2^{+}$
293	178	2083.25		7.11		12.89	6.86	6.88	2.27	-6.41	-3.08	6.342	6.424	6.212	6.264		5/2-	0^+
294	179	2089.17		7.11		12.80	7.08	5.92	2.38	-6.38	-3.20	6.350	6.435	6.215	6.266		$5/2^{-}$	$3/2^{+}$
295	180	2095.85		7.10		12.60	7.32	6.68	2.50	-6.25	-3.32	6.357	6.445	6.218	6.269		$5/2^{-}$	0^+
296	181	2101.68		7.10		12.51	7.54	5.83	2.60	-6.15	-3.43	6.365	6.455	6.220	6.271		$5/2^{-}$	$3/2^{+}$
297	182	2108.13		7.10		12.28	7.78	6.45	2.72	-6.07	-3.55	6.373	6.466	6.223	6.275		$5/2^{-}$	0+
298	183	2113.96		7.09		12.28	8.00	5.83	2.83	-6.01	-3.66	6.381	6.476	6.226	6.277		$5/2^{-}$	1/2+
299	184	2119.87		7.09		11.74	8.19	5.91	2.91	-5.25	-3.75	6.388	6.487	6.228	6.279		$5/2^{-}$	0^+
300	185	2123.75		7.08		9.79	8.50	3.88	3.07	-5.49	-3.91	6.401	6.500	6.239	6.290		$5/2^{-}$	13/2-
301	186	2128.85		7.07		8.98	8.82	5.10	3.22	-4.50	-4.08	6.414	6.513	6.250	6.301		$5/2^{-}$	0^+
302	187	2132.71		7.06		8.96	9.12	3.86	3.37	-4.49	-4.23	6.426	6.526	6.261	6.312		$5/2^{-}$	13/2-
303	188	2137.79		7.06		8.94	9.43	5.08	3.53	-4.48	-4.39	6.438	6.538	6.271	6.322		5/2-	0+
304	189	2141.63		7.04		8.92	9.73	3.84	3.68	-4.47	-4.54	6.451	6.551	6.282	6.333		5/2-	13/2-
305	190	2146.68		7.04		8.89	10.04	5.05	3.82	-4.47	-4.69	6.463	6.564	6.293	6.344		5/2-	0+
306	191	2150.51		7.03		8.88	10.39	3.83	3.97	-4.45	-4.84	6.476	6.577	6.304	6.355		5/2-	13/2-
307	192	2155.55		7.02		8.87	10.71	5.04	4.11	-4.45	-4.99	6.488	6.589	6.314	6.365		5/2-	0+
308	193	2159.35		7.01		8.84	11.03	3.80	4.25	-4.42	-5.13	6.500	6.602	6.326	6.376		5/2-	13/2-
309	194	2164.37		7.00		8.82	11.30	5.02	4.38	-4.42	-5.27	6.512	6.614	6.336	6.386		5/2-	0+
310	195	2168.14		6.99		8.79	11.57	3.77	4.52	-4.37	-5.41	6.525	6.627	6.347	6.398		5/2-	13/2-
311	196	2173.13		6.99		8.76	11.82	4.99	4.65	-4.36	-5.55 5.60	6.536	6.639	6.358	6.408		5/2-	0+
312	197	2176.78		6.98		8.64	12.07	3.65	4.77	-4.07	-5.68	6.550	6.652	6.371	6.421		5/2-	13/2-
313	198	2181.71		6.97		8.58	12.33	4.93	4.90	-4.10	-5.82	6.561	6.664	6.380	6.430		5/2-	0+
314	199	2184.81		6.96		8.03	12.64	3.10	5.05	-4.11	-5.97	6.572	6.676	6.387	6.437		5/2-	11/2-
315	200	2189.40		6.95		7.69	12.91	4.59	5.19	-3.80	-6.11	6.580	6.686	6.392	6.442		5/2-	0+
316	201	2192.40		6.94		7.59	13.17	3.00	5.34	-3.76	-6.26	6.590	6.697	6.398	6.448		5/2-	11/2
317	202	2196.79		6.93		7.39	13.45	4.39	5.47	-3.70	-6.40	6.599	6.708	6.404	6.454		5/2-	0+
318 319	203 204	2199.72		6.92		7.32	13.77	2.93	5.63	-3.66	-6.54	6.609	6.719	6.410	6.460		5/2 ⁻	$\frac{11/2^{-}}{0^{+}}$
320	204	2204.03 2206.89		6.91 6.90		7.24 7.17	14.05 14.34	4.31 2.86	5.76 5.91	-3.63 -3.60	-6.68 -6.82	6.619 6.628	6.730 6.741	6.417 6.423	6.466 6.472		5/2 ⁻ 5/2 ⁻	11/2-
320 321	205						14.54			-3.50 -3.58	-6.82 -6.96	6.638	6.752	6.423	6.472		5/2 5/2 ⁻	0 ⁺
321	200	2211.14		6.89		7.11		4.25	6.04	-3.56 -3.54	-0.90 -7.10		6.763				,	
323	207	2213.93 2218.15		6.88 6.87		7.04	14.88 15.15	2.79 4.22	6.17 6.31	-3.54 -3.53	-7.10 -7.23	6.648	6.773	6.435 6.442	6.485 6.491		5/2 ⁻ 5/2 ⁻	$\frac{11/2^{-}}{0^{+}}$
323 324	208	2220.87		6.85		7.01 6.94	15.15	2.72	6.44	-3.33 -3.49	-7.23 -7.37	6.657 6.667	6.784	6.448	6.497		$\frac{5/2}{5/2^{-}}$	11/2 ⁻
325	210	2225.06		6.85		6.91	15.41	4.19	6.57	-3.49 -3.48	-7.50	6.676	6.795	6.454	6.504		$\frac{5/2}{5/2^{-}}$	0+
325	210	2223.00		6.83		6.84	15.07	2.65	6.71	-3.46 -3.44	-7.50 -7.64	6.686	6.805	6.461	6.510		$\frac{5/2}{5/2^{-}}$	11/2-
327	211	2231.89		6.83		6.83	16.19	4.18	6.84	-3.44 -3.44	-7.04 -7.77	6.695	6.816	6.467	6.517		$\frac{5/2}{5/2^{-}}$	0+
328	213	2234.46		6.81		6.75	16.15	2.57	6.97	-3.44 -3.39	-7.77 -7.90	6.705	6.827	6.475	6.524		$\frac{5/2}{5/2^{-}}$	11/2 ⁻
329	214	2234.40		6.80		6.75	16.71	4.18	7.10	-3.39	-8.03	6.715	6.837	6.481	6.530		$\frac{5/2}{5/2^{-}}$	0+
330	215	2241.13		6.79		6.67	16.98	2.49	7.10	-3.38	-8.16	6.724	6.847	6.487	6.537		$\frac{5/2}{5/2^{-}}$	17/2 ⁺
331	215	2241.13		6.78		6.66	17.21	4.17	7.25 7.35	-3.35	-8.10 -8.29	6.734	6.858	6.494	6.543		$\frac{5/2}{5/2^{-}}$	0+
332	217	2247.78		6.77		6.65	17.48	2.48	7.48	-3.33	-8.42	6.743	6.868	6.501	6.550		$5/2^{-}$	17/2 ⁺
333	218	2251.89		6.76		6.59	17.71	4.11	7.60	-3.33 -3.31	-8.54	6.753	6.879	6.508	6.557		$\frac{5/2}{5/2^{-}}$	0+
334	219	2254.34		6.75		6.56	17.71	2.45	7.72	-3.31 -3.29	-8.67	6.762	6.889	6.515	6.564		$\frac{5/2}{5/2^{-}}$	17/2 ⁺
335	220	2258.39		6.74		6.50	18.19	4.05	7.72	-3.26	-8.78	6.772	6.899	6.522	6.571		$\frac{5/2}{5/2^{-}}$	0+
336	221	2260.82		6.73		6.48	18.44	2.43	7.96	-3.20 -3.24	-8.91	6.782	6.909	6.529	6.578		$\frac{5/2}{5/2^{-}}$	17/2 ⁺
337	222	2264.82		6.72		6.43	18.66	4.00	8.07	-3.24 -3.22	-9.02	6.792	6.920	6.537	6.585		$\frac{5/2}{5/2^{-}}$	0+
338	223	2267.20		6.72		6.38	18.90	2.38	8.19	-3.22 -3.18	-9.02 -9.15	6.801	6.930	6.544	6.593		$\frac{5/2}{5/2^{-}}$	17/2 ⁺
339	224	2271.16		6.70		6.34	19.11	3.96	8.30	-3.16 -3.17	-9.26	6.811	6.941	6.551	6.600		$\frac{5/2}{5/2^{-}}$	0+
340	225	2273.47		6.69		6.27	19.35	2.31	8.42	-3.17 -3.11	-9.38	6.821	6.951	6.558	6.607		$\frac{5/2}{5/2^{-}}$	17/2 ⁺
3-10	223	22,3,71		0.03		0.27	10.33	2.51	0.12	3.11	5.50	0.021	0.551	0.550	0.007		5,2	1,,2

l	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
41	226	2277.40		6.68		6.24	19.55	3.93	8.52	-3.11	-9.48	6.831	6.962	6.566	6.614		5/2-	0+
42	227	2279.72		6.67		6.25	19.77	2.32	8.63	-3.14	-9.59	6.841	6.973	6.573	6.621		5/2-	9/2
43	228	2283.51		6.66		6.11	19.97	3.79	8.73	-3.04	-9.70	6.850	6.983	6.580	6.628		5/2-	0+
44	229	2285.90		6.65		6.18	20.19	2.39	8.84	-3.05	-9.81	6.861	6.994	6.588	6.636		5/2-	9/2-
45	230	2289.47		6.64		5.96	20.37	3.57	8.93	-2.96	-9.91	6.871	7.005	6.594	6.642		5/2 ⁻	0+
46 47	231 232	2291.88		6.62		5.98	20.59	2.41	9.04	-2.96	-10.01	6.881	7.016 7.027	6.601	6.649		5/2 ⁻ 5/2 ⁻	9/2 ⁻ 0 ⁺
47	232	2295.30		6.61		5.83	20.77	3.42	9.13	-2.90	-10.10	6.891		6.607	6.655		,	9/2
48 49	233 234	2297.69 2301.01		6.60 6.59		5.81 5.71	20.97 21.14	2.39 3.32	9.23 9.32	-2.88 -2.85	-10.21 -10.30	6.901 6.911	7.038 7.050	6.614 6.620	6.663 6.668		5/2 ⁻ 5/2 ⁻	9/2 0 ⁺
4 9	235	2303.37		6.58		5.68	21.14	2.36	9.43	-2.83 -2.81	-10.30 -10.40	6.922	7.050	6.627	6.676		$\frac{5/2}{5/2^{-}}$	9/2
50 51	236	2306.62		6.57		5.61	21.52	3.25	9.52	-2.78	-10.40 -10.49	6.931	7.072	6.633	6.681		$\frac{5/2}{5/2^{-}}$	0 ⁺
52	237	2308.87		6.56		5.50	21.74	2.25	9.63	-2.73	-10.43	6.942	7.072	6.641	6.689		5/2 ⁻	9/2
53	238	2312.06		6.55		5.44	21.74	3.19	9.72	-2.63	-10.68	6.951	7.095	6.645	6.693		5/2 ⁻	0+
54	239	2314.14		6.54		5.27	22.08	2.08	9.80	-2.64	-10.77	6.961	7.106	6.649	6.697		5/2-	7/2
55	240	2317.07		6.53		5.01	22.24	2.93	9.88	-2.46	-10.84	6.969	7.117	6.650	6.697		5/2-	0+
56	241	2319.08		6.51		4.94	22.40	2.01	9.96	-2.43	-10.92	6.978	7.128	6.652	6.700		5/2-	7/2
57	242	2321.85		6.50		4.78	22.56	2.77	10.04	-2.39	-11.00	6.986	7.139	6.653	6.701		5/2-	0+
58	243	2323.80		6.49		4.72	22.73	1.95	10.12	-2.35	-11.08	6.995	7.150	6.655	6.703		5/2-	7/2
59	244	2326.51		6.48		4.66	22.88	2.71	10.19	-2.33	-11.16	7.003	7.161	6.657	6.705		5/2-	0+
50	245	2328.39		6.47		4.59	23.05	1.88	10.28	-2.29	-11.24	7.012	7.172	6.659	6.707		5/2-	7/2
61	246	2331.08		6.46		4.57	23.21	2.69	10.35	-2.28	-11.31	7.021	7.183	6.660	6.708		5/2-	0^{+}
52	247	2332.95		6.44		4.56	23.37	1.87	10.43	-2.28	-11.39	7.030	7.195	6.663	6.710		5/2-	5/2
53	248	2335.55		6.43		4.47	23.51	2.60	10.51	-2.23	-11.47	7.039	7.206	6.664	6.712		5/2-	0^{+}
64	249	2337.41		6.42		4.46	23.67	1.86	10.59	-2.21	-11.55	7.048	7.217	6.666	6.714		5/2-	5/2
55	250	2339.91		6.41		4.36	23.81	2.50	10.67	-2.17	-11.62	7.057	7.229	6.668	6.716		5/2-	0+
66	251	2341.71		6.40		4.30	23.96	1.80	10.75	-2.10	-11.69	7.066	7.241	6.670	6.718		5/2-	5/2
67	252	2344.14		6.39		4.23	24.08	2.43	10.81	-2.09	-11.76	7.075	7.252	6.671	6.719		$5/2^{-}$	0^+
68	253	2345.92		6.37		4.21	24.19	1.78	10.87	-2.10	-11.82	7.085	7.265	6.673	6.721		5/2-	3/2
69	254	2348.16		6.36		4.02	24.30	2.24	10.92	-1.97	-11.87	7.094	7.277	6.674	6.721		5/2-	0^+
70	255	2349.88		6.35		3.96	24.39	1.72	10.96	-1.91	-11.92	7.105	7.290	6.674	6.722		$5/2^{-}$	3/2
71	256	2351.97		6.34		3.81	24.48	2.09	11.00	-1.88	-11.96	7.114	7.303	6.675	6.723		$5/2^{-}$	0^+
72	257	2353.72		6.33		3.84	24.55	1.75	11.03	-1.46	-12.00	7.124	7.316	6.676	6.723		$5/2^{-}$	1/2
73	258	2355.58		6.32		3.61	24.63	1.86	11.07	-1.15	-12.04	7.135	7.330	6.677	6.724		$5/2^{-}$	0^+
74	259	2355.04		6.30		1.32	24.85	-0.54	11.17	-1.26	-12.15	7.147	7.341	6.689	6.736		$5/2^{-}$	15/2
75	260	2355.49		6.28		-0.09	25.04	0.45	11.27	0.01	-12.24	7.157	7.351	6.698	6.745		$5/2^{-}$	0^+
76	261	2355.00		6.26		-0.04	25.25	-0.49		-0.02	-12.35	7.169	7.362	6.710	6.757		5/2-	15/
	16 (Lv)																	
78	162	1964.55		7.07			0.70		0.82	-8.80	0.02	6.209	6.257	6.141	6.192		0^{+}	0^+
79	163	1972.21		7.07			1.10	7.66	1.03	-8.85	-0.18	6.218	6.269	6.147	6.199		0^+	7/2
30	164	1981.91		7.08		17.36	1.41	9.70	1.23	-8.53	-0.34	6.225	6.277	6.151	6.203		0^+	0+
31	165	1989.72		7.08		17.51	1.78	7.81	1.45	-8.53	-0.53	6.234	6.288	6.157	6.209		0^+	7/2
32	166	1998.58		7.09		16.67	2.18	8.86	1.69	-8.23	-0.73	6.244	6.300	6.164	6.216		0^+	0+
3	167	2006.26		7.09		16.54	2.57	7.68	1.90	-8.17	-0.92	6.254	6.311	6.171	6.222		0^+	7/2
34	168	2014.81		7.09		16.23	2.94	8.55	2.09	-8.07	-1.12	6.264	6.323	6.178	6.229		0^+	0+
35	169	2022.38		7.10		16.12	3.33	7.57	2.30	-8.00	-1.32	6.273	6.334	6.184	6.236		0^+	7/2
36	170	2030.77		7.10		15.96	3.70	8.39	2.50	-7.93	-1.51	6.283	6.345	6.191	6.242		0^+	0+
37	171	2038.23		7.10		15.85	4.10	7.46	2.70	-7.79	-1.72	6.293	6.357	6.198	6.249		0^+	7/2
88	172	2046.48		7.11		15.71	4.47	8.25	2.90	-7.43	-1.91	6.302	6.368	6.204	6.256		0^+	0^+
39	173	2052.97		7.10		14.74	4.69	6.49	3.01	-7.70	-2.02	6.309	6.377	6.207	6.258		0+	5/2
90	174	2060.29		7.10		13.81	4.92	7.32	3.12	-6.84	-2.13	6.316	6.387	6.209	6.261		0+	0^+
91	175	2066.59		7.10		13.62	5.15	6.30	3.23	-6.75	-2.24	6.324	6.397	6.212	6.263		0+	5/2
92	176	2073.71		7.10		13.42	5.39	7.12	3.35	-6.67	-2.35	6.331	6.406	6.215	6.266		0^+	0^{+}

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{\rm Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
293	177	2079.83		7.10		13.24	5.62	6.12	3.46	-6.57	-2.47	6.338	6.416	6.218	6.269		0+	5/2+
294	178	2086.83		7.10		13.12	5.85	7.00	3.58	-6.53	-2.58	6.346	6.426	6.220	6.272		0^+	0^+
295	179	2092.87		7.09		13.04	6.08	6.04	3.70	-6.49	-2.69	6.353	6.436	6.223	6.274		0^+	$3/2^{+}$
296	180	2099.66		7.09		12.83	6.31	6.79	3.81	-6.37	-2.81	6.361	6.446	6.226	6.277		0^+	0^+
297	181	2105.61		7.09		12.74	6.53	5.95	3.93	-6.27	-2.92	6.368	6.456	6.228	6.279		0^+	3/2+
298	182	2112.18		7.09		12.52	6.77	6.57	4.05	-6.18	-3.04	6.376	6.467	6.231	6.283		0^+	0^{+}
299	183	2118.12		7.08		12.51	6.99	5.94	4.16	-6.14	-3.15	6.384	6.477	6.234	6.285		0^+	1/2
300	184	2124.14		7.08		11.96	7.18	6.02	4.27	-5.38	-3.25	6.391	6.488	6.236	6.287		0^+	0+
301	185	2128.19		7.07		10.07	7.51	4.05	4.44	-5.61	-3.40	6.404	6.501	6.247	6.298		0^{+}	13/2
302	186	2133.45		7.06		9.31	7.82	5.26	4.60	-4.66	-3.56	6.416	6.513	6.258	6.309		0^{+}	0+
303	187	2137.47		7.05		9.28	8.13	4.02	4.76	-4.64	-3.71	6.429	6.526	6.268	6.319		0^+	13/2
304	188	2142.69		7.05		9.24	8.43	5.22	4.90	-4.64	-3.87	6.441	6.539	6.279	6.330		0^{+}	0+
305	189	2146.69		7.04		9.22	8.74	4.00	5.06	-4.62	-4.01	6.453	6.552	6.290	6.340		0+	13/2
306	190	2151.90		7.03		9.21	9.04	5.21	5.22	-4.62	-4.16	6.465	6.564	6.300	6.351		0+	0+
307	191	2155.88		7.02		9.19	9.34	3.98	5.37	-4.60	-4.31	6.478	6.577	6.311	6.361		0+	13/2
308	192	2161.06		7.02		9.16	9.62	5.18	5.51	-4.59	-4.45	6.490	6.590	6.321	6.372		0+	0+
309	193	2165.01		7.02		9.13	9.91	3.95	5.66	-4.56	-4.59	6.502	6.602	6.332	6.383		0+	13/
310	194	2170.18		7.00		9.12	10.19	5.17	5.81	-4.56	-4.74	6.514	6.614	6.342	6.393		0+	0+
311	195	2174.09		6.99		9.08	10.13	3.91	5.95	-4.51	-4.74 -4.87	6.526	6.627	6.354	6.404		0+	13/
312	196	2179.23		6.98		9.05	10.47	5.14	6.10	-4.51 -4.50	-5.01	6.538	6.639	6.364	6.414		0+	0+
313	197	2179.23		6.97		8.92	11.00	3.78	6.23	-4.30 -4.22	-5.14	6.552	6.652	6.377	6.427		0+	13/
																	0+	0 ⁺
314	198	2188.09		6.97		8.86	11.28	5.08	6.38	-4.24	-5.28	6.563	6.664	6.386	6.436			•
315	199	2191.35		6.96		8.34	11.59	3.26	6.54	-4.25	-5.44	6.573	6.676	6.393	6.443		0+	11/
316	200	2196.09		6.95		8.00	11.88	4.74	6.69	-3.94	-5.58	6.582	6.686	6.398	6.448		0+	0+
317	201	2199.25		6.94		7.90	12.19	3.16	6.85	-3.90	-5.74	6.591	6.697	6.404	6.454		0+	11/
318	202	2203.78		6.93		7.69	12.46	4.53	6.99	-3.84	-5.89	6.601	6.708	6.410	6.460		0+	0+
319	203	2206.86		6.92		7.61	12.77	3.08	7.14	-3.81	-6.04	6.610	6.719	6.416	6.465		0+	11/
320	204	2211.31		6.91		7.53	13.04	4.45	7.28	-3.78	-6.18	6.620	6.730	6.422	6.472		0+	0^+
321	205	2214.32		6.90		7.46	13.34	3.01	7.43	-3.74	-6.33	6.629	6.741	6.428	6.478		0+	11/
322	206	2218.71		6.89		7.40	13.61	4.39	7.57	-3.72	-6.47	6.639	6.751	6.435	6.484		0+	0^{+}
323	207	2221.66		6.88		7.34	13.90	2.95	7.73	-3.68	-6.62	6.648	6.762	6.441	6.490		0^+	11/2
324	208	2226.01		6.87		7.30	14.17	4.35	7.86	-3.67	-6.76	6.658	6.772	6.447	6.496		0^+	0^+
325	209	2228.88		6.86		7.22	14.45	2.87	8.01	-3.62	-6.90	6.667	6.783	6.453	6.503		0^+	11/2
326	210	2233.20		6.85		7.19	14.71	4.32	8.14	-3.62	-7.04	6.677	6.794	6.460	6.509		0^+	0^{+}
327	211	2236.00		6.84		7.12	15.00	2.80	8.29	-3.57	-7.17	6.686	6.804	6.466	6.516		0^{+}	11/2
328	212	2240.31		6.83		7.11	15.26	4.31	8.42	-3.57	-7.31	6.696	6.815	6.473	6.522		0^+	0^{+}
329	213	2243.01		6.82		7.01	15.52	2.70	8.55	-3.52	-7.44	6.706	6.825	6.480	6.529		0^+	11/2
330	214	2247.33		6.81		7.02	15.79	4.32	8.69	-3.52	-7.58	6.715	6.836	6.486	6.535		0^+	0+
331	215	2249.95		6.80		6.94	16.05	2.62	8.82	-3.51	-7.71	6.724	6.846	6.492	6.542		0^+	17/2
332	216	2254.26		6.79		6.93	16.31	4.31	8.96	-3.48	-7.84	6.734	6.856	6.499	6.548		0^+	0+
333	217	2256.87		6.78		6.92	16.57	2.61	9.09	-3.46	-7.97	6.743	6.867	6.506	6.555		0^+	17/
334	218	2261.10		6.77		6.84	16.81	4.23	9.21	-3.43	-8.09	6.753	6.877	6.513	6.562		0^{+}	0+
35	219	2263.69		6.76		6.82	17.07	2.59	9.35	-3.41	-8.23	6.762	6.887	6.520	6.569		0+	17/
336	220	2267.86		6.75		6.76	17.30	4.17	9.47	-3.39	-8.34	6.772	6.898	6.527	6.576		0+	0+
337	221	2270.42		6.74		6.73	17.56	2.56	9.60	-3.36	-8.47	6.781	6.908	6.534	6.583		0+	17/
338	222	2274.54		6.73		6.68	17.79	4.12	9.72	-3.34	-8.59	6.791	6.918	6.541	6.590		0+	0+
339	223	2277.05		6.72		6.63	18.04	2.51	9.72	-3.34 -3.30	-8.72	6.801	6.928	6.549	6.597		0+	17/
340	223	2281.12		6.72		6.58	18.04	4.07	9.83	-3.30 -3.29	-8.72 -8.83	6.811	6.939	6.556	6.605		0+	0+
	224																0+	-
341		2283.57		6.70		6.52	18.52	2.45	10.10	-3.23	-8.95	6.820	6.949	6.563	6.612		0 ⁺	17/ 0 ⁺
342	226	2287.61		6.69		6.49	18.73	4.04	10.21	-3.22	-9.06	6.830	6.960	6.571	6.619			-
343	227	2290.04		6.68		6.47	18.95	2.43	10.32	-3.26	-9.17	6.840	6.971	6.578	6.626		0 ⁺	9/2
344	228	2293.95		6.67		6.34	19.17	3.91	10.44	-3.15	-9.29	6.850	6.981	6.585	6.633		0+	0+
345	229	2296.46		6.66		6.42	19.40	2.51	10.56	-3.16	-9.40	6.860	6.992	6.592	6.641		0+	9/2
346	230	2300.13		6.65		6.18	19.59	3.67	10.66	-3.07	-9.50	6.870	7.003	6.599	6.647		0^+	0^{+}

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	$\lambda_p \ ({\sf MeV})$	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
347	231	2302.65		6.64		6.19	19.81	2.52	10.77	-3.06	-9.61	6.880	7.014	6.606	6.654		0+	9/2-
348	232	2306.16		6.63		6.03	19.99	3.51	10.86	-3.00	-9.71	6.890	7.025	6.612	6.660		0+	0^+
349	233	2308.66		6.62		6.01	20.20	2.50	10.97	-2.98	-9.81	6.900	7.036	6.619	6.667		0+	9/2
350	234	2312.07		6.61		5.91	20.38	3.41	11.06	-2.94	-9.91	6.910	7.048	6.625	6.673		0+	0^+
351	235	2314.54		6.59		5.88	20.60	2.47	11.17	-2.91	-10.02	6.921	7.059	6.632	6.680		0+	9/2
352	236	2317.88		6.58		5.81	20.78	3.34	11.26	-2.88	-10.11	6.931	7.070	6.638	6.686		0+	0^+
353	237	2320.24		6.57		5.70	21.00	2.36	11.37	-2.71	-10.22	6.941	7.081	6.646	6.694		0+	9/2
354	238	2323.52		6.56		5.64	21.18	3.28	11.46	-2.72	-10.31	6.951	7.092	6.650	6.698		0^+	0^+
355	239	2325.69		6.55		5.45	21.35	2.17	11.55	-2.73	-10.39	6.960	7.104	6.655	6.702		0+	7/2
356	240	2328.67		6.54		5.15	21.48	2.98	11.60	-2.54	-10.46	6.968	7.114	6.654	6.702		0+	0^{+}
357	241	2330.77		6.53		5.08	21.65	2.10	11.69	-2.50	-10.54	6.977	7.125	6.657	6.705		0^+	7/2
358	242	2333.61		6.52		4.94	21.80	2.84	11.76	-2.46	-10.62	6.985	7.136	6.658	6.706		0^+	0^+
359	243	2335.64		6.51		4.87	21.96	2.03	11.84	-2.43	-10.70	6.994	7.147	6.660	6.708		0^+	7/2
360	244	2338.42		6.50		4.81	22.10	2.78	11.91	-2.41	-10.77	7.002	7.158	6.662	6.710		0^+	0^+
361	245	2340.38		6.48		4.74	22.27	1.96	11.99	-2.36	-10.85	7.011	7.169	6.664	6.712		0^+	7/2
362	246	2343.13		6.47		4.71	22.40	2.75	12.05	-2.36	-10.92	7.019	7.180	6.665	6.713		0^+	0^+
863	247	2345.08		6.46		4.70	22.56	1.95	12.13	-2.36	-11.00	7.028	7.192	6.668	6.715		0^+	5/2
364	248	2347.75		6.45		4.62	22.71	2.67	12.20	-2.30	-11.08	7.037	7.202	6.669	6.717		0^+	0^+
365	249	2349.69		6.44		4.61	22.87	1.94	12.28	-2.29	-11.15	7.046	7.214	6.671	6.719		0^+	5/2
366	250	2352.26		6.43		4.51	23.02	2.57	12.35	-2.24	-11.23	7.055	7.225	6.673	6.721		0^{+}	0^+
367	251	2354.13		6.41		4.44	23.17	1.87	12.42	-2.16	-11.30	7.064	7.237	6.675	6.723		0^+	5/2
868	252	2356.63		6.40		4.37	23.30	2.50	12.49	-2.15	-11.37	7.073	7.249	6.677	6.725		0^+	0+
369	253	2358.48		6.39		4.35	23.43	1.85	12.56	-2.16	-11.44	7.083	7.261	6.678	6.726		0^+	3/2
370	254	2360.76		6.38		4.13	23.52	2.28	12.60	-2.02	-11.48	7.092	7.273	6.679	6.727		0^+	0+
371	255	2362.53		6.37		4.05	23.61	1.77	12.65	-1.96	-11.53	7.102	7.286	6.680	6.728		0^+	3/2
372	256	2364.66		6.36		3.90	23.69	2.13	12.69	-1.93	-11.57	7.112	7.299	6.681	6.728		0^+	0+
373	257	2366.47		6.34		3.94	23.78	1.81	12.75	-1.53	-11.61	7.122	7.312	6.681	6.729		0^+	1/2
374	258	2368.38		6.33		3.72	23.87	1.91	12.80	-1.28	-11.66	7.132	7.326	6.682	6.730		0^+	0^{+}
375	259	2367.95		6.31		1.48	24.08	-0.43	12.91	-1.39	-11.77	7.144	7.336	6.694	6.742		0^+	15/2
376	260	2368.50		6.30		0.12	24.28	0.55	13.01	-0.10	-11.87	7.155	7.347	6.703	6.751		0^+	0+
377	261	2368.12		6.28		0.17		-0.38	13.12	-0.12	-11.97	7.166	7.358	6.715	6.763		0^+	15/2
378	262	2368.72		6.27		0.22		0.60	13.23	-0.15	-12.07	7.177	7.368	6.725	6.772		0^{+}	0+
379	263	2368.40		6.25		0.28		-0.32	13.34	-0.17	-12.18	7.189	7.379	6.737	6.785		0+	15/
380	264	2369.05		6.23		0.33		0.65	13.45	-0.20	-12.28	7.199	7.389	6.747	6.794		0^{+}	0+
381	265	2368.78		6.22		0.38		-0.27	13.56	-0.23	-12.38	7.211	7.400	6.759	6.807		0+	15/2
382	266	2369.48		6.20		0.43		0.70	13.66	-0.26	-12.48	7.222	7.410	6.769	6.816		0+	0+
383	267	2369.26		6.19		0.48		-0.22	13.77	-0.27	-12.58	7.234	7.421	6.782	6.829		0+	15/
884	268	2370.01		6.17		0.53		0.75	13.87	-0.31	-12.68	7.244	7.432	6.792	6.839		0^{+}	0+
885	269	2369.83		6.16		0.57		-0.18	13.99	-0.32	-12.78	7.256	7.442	6.805	6.852		0^{+}	15/
886	270	2370.64		6.14		0.63		0.81	14.09	-0.35	-12.88	7.267	7.453	6.815	6.862		0+	0+
887	271	2370.49		6.13		0.66		-0.15	14.21	-0.35	-12.98	7.279	7.463	6.829	6.876		0+	15/
88	272	2371.35		6.11		0.71		0.86	14.31	-0.38	-13.08	7.290	7.474	6.839	6.886		0+	0+
89	273	2371.18		6.10		0.69		-0.17	14.42	-0.34	-13.18	7.302	7.485	6.852	6.899		0+	15/
90	274	2372.09		6.08		0.74		0.91	14.51	-0.38	-13.27	7.312	7.495	6.862	6.909		0+	0+
91	275	2371.97		6.07		0.79		-0.12	14.63	-0.41	-13.37	7.323	7.506	6.872	6.918		0+	13/
92	276	2372.75		6.05		0.75		0.78	14.69	-0.41 -0.33	-13.37 -13.45	7.333	7.516	6.878	6.924		0+	0+
193	277	2372.73		6.04		0.66		-0.12	14.78	-0.33 -0.32	-13.54	7.343	7.527	6.885	6.932		0+	13/
193 194	277	2372.03		6.02		0.56		0.68	14.78	-0.32 -0.30	-13.54 -13.61	7.352	7.537	6.889	6.935		0+	0+
194 195	278	2373.31		6.02		0.55		-0.13	14.92	-0.30 -0.29	-13.01 -13.70	7.362	7.547	6.895	6.942		0+	13/
	279			5.99				$\frac{-0.13}{0.64}$	14.92			7.362 7.370	7.547 7.557	6.899	6.942		0+	0+
396 207	280 281	2373.82				0.51				-0.28	-13.77						0+	•
397		2373.70		5.98 5.07		0.52		$\frac{-0.12}{0.63}$	15.08	-0.27	-13.86	7.380	7.567	6.905	6.951		-	13/
198	282	2374.32		5.97		0.50		0.62	15.15	-0.27	-13.93	7.389	7.577	6.909	6.955		0 ⁺	0 ⁺
399 400	283	2374.18		5.95		0.48		$\frac{-0.14}{0.61}$	15.22	-0.26	-14.01	7.398	7.588	6.914	6.961		0 ⁺	13/ 0 ⁺
41 11 1	284	2374.79		5.94		0.47		0.61	15.30	-0.26	-14.09	7.407	7.598	6.919	6.965		0^+	U '

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
401	285	2374.64		5.92		0.46		<u>-0.15</u>	15.37	-0.24	-14.17	7.416	7.608	6.924	6.970		0+	13/2+
402	286	2375.24		5.91		0.45		0.60	15.45	-0.24	-14.25	7.425	7.617	6.928	6.974		0+	0+
403	287	2375.07		5.89		0.43		<u>-0.17</u>	15.53	-0.47	-14.33	7.434	7.627	6.932	6.978		0+	13/2+
404	288	2375.64		5.88		0.40		0.57	15.61	-0.04	-14.41	7.442	7.637	6.936	6.982		0 ⁺	0 ⁺
405	289	2374.91		5.86		$\frac{-0.16}{-0.68}$		$\frac{-0.73}{0.05}$		-0.07	-14.51	7.452	7.646	6.946	6.992		0^{+}	19/2 ⁻ 0 ⁺
406	290	2374.96		5.85		<u>-0.68</u>		0.05		0.32	-14.54	7.463	7.659	6.949	6.995		U.	0 '
σ																		
Z=1		1001 11		7.05			0.70		0.50	0.72	0.01	6 220	6.270	C 150	6.244		F /2-	0+
281	164	1981.41		7.05			0.73	0.00	$\frac{-0.50}{0.21}$	-8.72	0.01	6.230	6.279	6.159	6.211		5/2 ⁻	0 ⁺
282 283	165 166	1989.41 1998.47		7.05 7.06		17.06	1.14 1.58	8.00 9.06	$\frac{-0.31}{-0.11}$	-8.72 -8.43	-0.18 -0.39	6.238 6.248	6.290 6.302	6.165 6.172	6.216 6.224		5/2 ⁻ 5/2 ⁻	$\frac{7/2^{+}}{0^{+}}$
284	167	2006.34		7.06		16.93	1.98	7.87	0.08	-8.43 -8.37	-0.59	6.258	6.313	6.178	6.230		$5/2^{-}$	7/2 ⁺
285	168	2015.09		7.07		16.62	2.37	8.75	0.28	-8.26	-0.79	6.268	6.324	6.185	6.237		5/2 ⁻	0+
286	169	2022.86		7.07		16.52	2.78	7.77	0.48	-8.20	-1.00	6.277	6.335	6.192	6.243		5/2 ⁻	7/2 ⁺
287	170	2031.44		7.08		16.35	3.17	8.58	0.67	-8.13	-1.20	6.287	6.346	6.199	6.250		5/2-	0+
288	171	2039.10		7.08		16.24	3.57	7.66	0.87	-7.93	-1.41	6.296	6.358	6.205	6.256		5/2-	$7/2^{+}$
289	172	2047.54		7.08		16.10	3.96	8.44	1.06	-7.59	-1.61	6.306	6.369	6.212	6.263		5/2-	0+
290	173	2054.14		7.08		15.04	4.18	6.60	1.17	-7.89	-1.71	6.313	6.378	6.214	6.266		$5/2^{-}$	$5/2^{+}$
291	174	2061.58		7.08		14.04	4.41	7.44	1.29	-6.95	-1.82	6.320	6.388	6.217	6.269		5/2-	0+
292	175	2067.99		7.08		13.85	4.63	6.41	1.40	-6.86	-1.93	6.327	6.397	6.220	6.271		5/2-	5/2+
293	176	2075.22		7.08		13.64	4.86	7.23	1.51	-6.79	-2.04	6.334	6.407	6.223	6.274		5/2-	0 ⁺
294 295	177	2081.45		7.08		13.46 13.34	5.08	6.23	1.62 1.73	-6.69	-2.15 -2.26	6.342	6.417 6.427	6.226 6.229	6.277		5/2 ⁻	5/2 ⁺ 0 ⁺
295 296	178 179	2088.56 2094.70		7.08 7.08		13.34	5.31 5.53	7.11 6.14	1.73	-6.64 -6.60	-2.26 -2.37	6.349 6.356	6.427	6.231	6.280 6.282		5/2 ⁻ 5/2 ⁻	3/2 ⁺
297	180	2101.61		7.08		13.25	5.76	6.91	1.85	-6.49	-2.37 -2.48	6.364	6.447	6.234	6.285		$\frac{5/2}{5/2^{-}}$	0 ⁺
298	181	2107.66		7.07		12.96	5.98	6.05	2.05	-6.38	-2.59	6.371	6.457	6.237	6.288		5/2-	3/2 ⁺
299	182	2114.35		7.07		12.74	6.22	6.69	2.17	-6.29	-2.71	6.379	6.467	6.240	6.291		5/2 ⁻	0+
300	183	2120.40		7.07		12.74	6.44	6.05	2.28	-6.22	-2.82	6.387	6.477	6.242	6.293		5/2-	1/2+
301	184	2126.50		7.06		12.15	6.63	6.10	2.36	-5.49	-2.91	6.394	6.488	6.244	6.295		5/2-	0^{+}
302	185	2130.70		7.06		10.30	6.95	4.20	2.51	-5.68	-3.07	6.407	6.501	6.255	6.306		5/2-	$13/2^{-}$
303	186	2136.11		7.05		9.61	7.26	5.41	2.66	-4.81	-3.22	6.419	6.514	6.266	6.317		$5/2^{-}$	0^{+}
304	187	2140.27		7.04		9.57	7.56	4.16	2.80	-4.80	-3.37	6.431	6.526	6.276	6.327		5/2-	13/2-
305	188	2145.65		7.03		9.54	7.86	5.38	2.96	-4.79	-3.52	6.443	6.539	6.287	6.337		5/2-	0+
306	189	2149.79		7.03		9.52	8.16	4.14	3.10	-4.77	-3.66	6.456	6.552	6.297	6.348		5/2 ⁻	13/2 ⁻ 0 ⁺
307 308	190 191	2155.14 2159.26		7.02 7.01		9.49 9.47	8.46 8.75	5.35 4.12	3.24 3.38	-4.76 -4.74	-3.81 -3.95	6.468 6.480	6.564 6.577	6.308 6.318	6.358 6.369		5/2 ⁻ 5/2 ⁻	13/2 ⁻
309	192	2164.58		7.01		9.44	9.03	5.32	3.52	-4.74 -4.73	-3.93 -4.10	6.492	6.589	6.328	6.379		$5/2^{-}$	0+
310	193	2168.66		7.00		9.40	9.31	4.08	3.65	-4.70	-4.23	6.504	6.602	6.339	6.389		$5/2^{-}$	13/2-
311	194	2173.97		6.99		9.39	9.60	5.31	3.79	-4.69	-4.37	6.516	6.614	6.349	6.399		5/2-	0+
312	195	2177.99		6.98		9.33	9.85	4.02	3.90	-4.64	-4.50	6.528	6.627	6.360	6.410		5/2-	$13/2^{-}$
313	196	2183.27		6.98		9.30	10.14	5.28	4.04	-4.63	-4.64	6.540	6.639	6.370	6.420		5/2-	0+
314	197	2187.15		6.97		9.16	10.37	3.88	4.14	-4.36	-4.76	6.553	6.652	6.382	6.432		$5/2^{-}$	$13/2^{-}$
315	198	2192.36		6.96		9.09	10.65	5.21	4.27	-4.39	-4.91	6.563	6.663	6.391	6.441		5/2-	0^+
316	199	2195.78		6.95		8.63	10.97	3.42	4.43	-4.39	-5.07	6.574	6.675	6.398	6.448		5/2-	11/2
317	200	2200.68		6.94		8.32	11.28	4.90	4.59	-4.10	-5.22 5.20	6.582	6.685	6.403	6.453		5/2 ⁻	0 ⁺
318 319	201 202	2204.00		6.93		8.22	11.60	3.32	4.75 4.90	-4.06	-5.39 5.53	6.592	6.696 6.707	6.409	6.459 6.465		5/2 ⁻	11/2 ⁻ 0 ⁺
319	202	2208.68 2211.92		6.92 6.91		8.00 7.92	11.89 12.20	4.68 3.24	4.90 5.06	-4.00 -3.96	-5.53 -5.69	6.601 6.611	6.707 6.718	6.415 6.421	6.465 6.471		5/2 ⁻ 5/2 ⁻	0 ' 11/2-
320 321	203	2211.92		6.91		7.92 7.83	12.20	3.24 4.59	5.06	-3.96 -3.93	-5.89 -5.84	6.620	6.718	6.421	6.477		5/2 5/2 ⁻	0 ⁺
322	204	2210.51		6.89		7.85 7.75	12.48	3.16	5.35	-3.89	-5.99	6.630	6.739	6.434	6.483		5/2 ⁻	11/2-
323	206	2224.20		6.89		7.69	13.06	4.53	5.49	-3.86	-6.14	6.639	6.750	6.440	6.489		$5/2^{-}$	0+
324	207	2227.29		6.87		7.62	13.36	3.09	5.63	-3.82	-6.29	6.649	6.760	6.446	6.495		5/2 ⁻	11/2 ⁻
325	208	2231.78		6.87		7.58	13.63	4.49	5.77	-3.81	-6.43	6.658	6.771	6.452	6.502		5/2-	0+'

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	$\lambda_p \ ({\sf MeV})$	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
326	209	2234.79		6.86		7.50	13.92	3.01	5.91	-3.76	-6.58	6.667	6.782	6.458	6.508		5/2-	11/2
327	210	2239.26		6.85		7.48	14.20	4.47	6.06	-3.76	-6.72	6.677	6.792	6.465	6.514		$5/2^{-}$	0^+
328	211	2242.18		6.84		7.39	14.47	2.92	6.18	-3.71	-6.85	6.686	6.802	6.471	6.521		5/2-	11/2
329	212	2246.63		6.83		7.37	14.74	4.45	6.32	-3.71	-6.99	6.695	6.813	6.478	6.527		5/2-	0 ⁺
330	213	2249.46		6.82		7.28	15.00	2.83	6.45	-3.65	-7.12	6.705	6.823	6.485	6.534		5/2 ⁻	11/2 ⁻ 0 ⁺
331	214	2253.91		6.81		7.28	15.27	4.45	6.58	-3.66	-7.26	6.714	6.833	6.491	6.540		5/2-	-
332	215	2256.67		6.80		7.21	15.54	2.76	6.72	-3.64	-7.40	6.724	6.844	6.497	6.546		5/2 ⁻	17/2 0 ⁺
333	216	2261.09		6.79		7.18	15.79	4.42	6.83	-3.61	-7.53	6.733	6.854	6.504	6.553		5/2 ⁻	_
334 335	217 218	2263.84		6.78 6.77		7.17 7.10	16.06 16.30	2.75 4.35	6.97 7.09	-3.59 -3.56	-7.66	6.742 6.752	6.864 6.875	6.511 6.518	6.559		5/2 ⁻ 5/2 ⁻	17/2 0 ⁺
336	219	2268.19 2270.91		6.76		7.10	16.50	2.72	7.09	-3.56 -3.54	−7.78 −7.91	6.761	6.885	6.524	6.566 6.573		$\frac{5/2}{5/2^{-}}$	17/2
337	219	2275.18		6.75		6.99	16.57	4.27	7.22	-3.54 -3.51	-7.91 -8.03	6.771	6.895	6.531	6.580		$\frac{5/2}{5/2^{-}}$	0 ⁺
338	221	2277.87		6.74		6.96	17.05	2.69	7.32 7.45	-3.48	-8.03 -8.16	6.780	6.905	6.538	6.587		$\frac{5/2}{5/2^{-}}$	17/2
339	222	2282.09		6.73		6.91	17.03	4.22	7.55	-3.46	-8.10	6.790	6.915	6.545	6.594		5/2 ⁻	0+
340	223	2284.73		6.72		6.86	17.53	2.64	7.68	-3.40 -3.42	-8.40	6.799	6.925	6.552	6.601		5/2 ⁻	17/2
341	224	2288.90		6.71		6.81	17.74	4.17	7.78	-3.40	-8.51	6.809	6.936	6.560	6.608		5/2 ⁻	0+
342	225	2291.47		6.70		6.74	18.00	2.57	7.90	-3.34	-8.63	6.819	6.946	6.567	6.615		$\frac{5/2}{5/2^{-}}$	17/2
343	226	2295.60		6.69		6.70	18.20	4.13	7.99	-3.33	-8.74	6.828	6.957	6.574	6.623		5/2 ⁻	0+
344	227	2298.14		6.68		6.67	18.42	2.54	8.10	-3.37	-8.85	6.839	6.968	6.581	6.630		5/2 ⁻	9/2
345	228	2302.15		6.67		6.55	18.64	4.01	8.20	-3.25	-8.97	6.848	6.978	6.588	6.637		5/2 ⁻	0+
346	229	2304.77		6.66		6.63	18.87	2.62	8.31	-3.27	-9.08	6.858	6.988	6.596	6.644		5/2 ⁻	9/2
347	230	2308.53		6.65		6.38	19.06	3.76	8.40	-3.17	-9.18	6.868	6.999	6.602	6.650		5/2-	0+
348	231	2311.16		6.64		6.39	19.28	2.63	8.51	-3.16	-9.29	6.878	7.010	6.609	6.658		5/2-	9/2
349	232	2314.76		6.63		6.23	19.46	3.60	8.60	-3.10	-9.39	6.888	7.022	6.615	6.663		5/2-	0+
350	233	2317.37		6.62		6.21	19.68	2.61	8.71	-3.08	-9.50	6.898	7.033	6.623	6.671		5/2-	9/2
351	234	2320.87		6.61		6.11	19.86	3.50	8.80	-3.05	-9.59	6.908	7.044	6.628	6.676		5/2-	0^{+}
352	235	2323.44		6.60		6.07	20.07	2.57	8.90	-3.01	-9.70	6.919	7.055	6.636	6.684		5/2-	9/2
353	236	2326.88		6.59		6.01	20.26	3.44	9.00	-2.98	-9.80	6.929	7.067	6.641	6.689		5/2-	0^{+}
354	237	2329.35		6.58		5.91	20.48	2.47	9.11	-2.81	-9.91	6.939	7.078	6.650	6.698		5/2-	9/2
355	238	2332.72		6.57		5.84	20.66	3.37	9.20	-2.82	-10.00	6.949	7.089	6.654	6.702		5/2-	0+
356	239	2334.98		6.56		5.63	20.84	2.26	9.29	-2.82	-10.09	6.958	7.100	6.659	6.707		5/2-	7/2
357	240	2338.04		6.55		5.32	20.97	3.06	9.37	-2.62	-10.16	6.965	7.110	6.658	6.706		5/2-	0+
358	241	2340.22		6.54		5.24	21.14	2.18	9.45	-2.59	-10.24	6.974	7.122	6.661	6.709		5/2-	7/2
359	242	2343.14		6.53		5.10	21.29	2.92	9.53	-2.55	-10.32	6.982	7.132	6.662	6.710		$5/2^{-}$	0^{+}
360	243	2345.25		6.51		5.03	21.45	2.11	9.61	-2.51	-10.40	6.991	7.143	6.665	6.712		$5/2^{-}$	7/2
361	244	2348.12		6.50		4.98	21.61	2.87	9.70	-2.49	-10.47	7.000	7.154	6.666	6.714		$5/2^{-}$	0^+
362	245	2350.16		6.49		4.91	21.77	2.04	9.78	-2.45	-10.55	7.009	7.165	6.668	6.716		$5/2^{-}$	7/2
363	246	2353.00		6.48		4.88	21.92	2.84	9.87	-2.44	-10.63	7.017	7.176	6.670	6.718		$5/2^{-}$	0^+
864	247	2355.03		6.47		4.87	22.08	2.03	9.95	-2.44	-10.71	7.026	7.187	6.672	6.720		$5/2^{-}$	5/2
365	248	2357.78		6.46		4.78	22.23	2.75	10.03	-2.39	-10.79	7.034	7.198	6.674	6.722		$5/2^{-}$	0^+
366	249	2359.81		6.45		4.78	22.40	2.03	10.12	-2.37	-10.87	7.044	7.210	6.676	6.724		5/2-	5/2
367	250	2362.46		6.44		4.68	22.55	2.65	10.20	-2.33	-10.94	7.052	7.221	6.678	6.726		5/2-	0+
368	251	2364.42		6.43		4.61	22.71	1.96	10.29	-2.23	-11.02	7.062	7.232	6.680	6.728		5/2-	5/2
869	252	2366.99		6.41		4.53	22.85	2.57	10.36	-2.22	-11.10	7.071	7.244	6.682	6.730		5/2-	0+
370	253	2368.90		6.40		4.48	22.98	1.91	10.42	-2.23	-11.16	7.080	7.256	6.684	6.731		5/2-	3/2
371	254	2371.22		6.39		4.23	23.06	2.32	10.46	-2.07	-11.20	7.089	7.268	6.685	6.732		5/2 ⁻	0+
372	255	2373.04		6.38		4.14	23.16	1.82	10.51	-2.00	-11.25	7.099	7.281	6.685	6.733		5/2 ⁻	3/2
373	256	2375.20		6.37		3.98	23.23	2.16	10.54	-1.96	-11.29	7.109	7.294	6.686	6.734		5/2 ⁻	0+
374	257	2377.04		6.36		4.00	23.32	1.84	10.57	-1.80	-11.33	7.119	7.307	6.687	6.735		5/2 ⁻	1/2
375	258	2378.98		6.34		3.78	23.40	1.94	10.60	-1.31	-11.37	7.129	7.321	6.688	6.736		5/2-	0+
376	259	2378.66		6.33		1.62	23.62	$\frac{-0.32}{0.64}$	10.71	-1.61	-11.48	7.141	7.331	6.700	6.748		5/2-	15/
377	260	2379.30		6.31		0.32	23.81	0.64	10.80	-0.20	-11.58	7.152	7.342	6.709	6.757		5/2 ⁻	0 ⁺
378	261	2379.02		6.29		0.36	24.02	$\frac{-0.28}{0.60}$	10.90	-0.22	-11.68	7.163	7.353	6.721	6.769		5/2 ⁻	15/
379	262	2379.71		6.28		0.41	24.22	0.69	10.99	-0.25	-11.78	7.174	7.363	6.731	6.778		$5/2^{-}$	0^{+}

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ $E_{\rm b}^{\rm Cal.}$ (MeV) (MeV	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
380	263	2379.48	6.26	0.46	24.42	-0.23	11.08	-0.27	-11.89	7.185	7.374	6.743	6.790		5/2-	15/2
381	264	2380.22	6.25	0.51	24.62	0.74	11.17	-0.30	-11.99	7.196	7.384	6.753	6.800		$5/2^{-}$	0^+
382	265	2380.04	6.23	0.56	24.82	<u>-0.18</u>	11.26	-0.32	-12.09	7.208	7.395	6.765	6.812		5/2-	15/2
383	266	2380.83	6.22	0.61	25.01	0.79	11.35	-0.35	-12.19	7.218	7.405	6.775	6.822		5/2-	0+
384	267	2380.70	6.20	0.66	25.21	-0.13	11.44	-0.37	-12.29	7.230	7.416	6.787	6.834		5/2-	15/2
385	268	2381.54	6.19	0.71	25.40	0.84	11.53	-0.40	-12.39	7.241	7.426	6.797	6.844		5/2-	0+
386	269	2381.46	6.17	0.76	25.62	-0.08	11.63	-0.41	-12.49	7.253	7.437	6.810	6.857		5/2-	15/2
387	270	2382.35	6.16	0.81	25.80	0.89	11.71	-0.44	-12.58	7.263	7.447	6.820	6.867		5/2-	0+
388	271	2382.29	6.14	0.83	26.01	-0.06	11.80	-0.44	-12.68	7.275	7.458	6.833	6.880		5/2-	15/2
389	272	2383.23	6.13	0.88	26.19	0.94	11.88	-0.47	-12.78	7.286	7.469	6.844	6.890		5/2-	0+
390	273	2383.15	6.11	0.86	26.39	$\frac{-0.08}{-0.08}$	11.97	-0.43	-12.88	7.298	7.479	6.856	6.903		5/2-	15/2
391	274	2384.14	6.10	0.91	26.56	0.99	12.05	-0.47	-12.98	7.309	7.490	6.866	6.913		5/2-	0+
392	275	2384.11	6.08	0.96	26.77	<u>-0.03</u>	12.14	-0.50	-13.07	7.320	7.500	6.876	6.922		5/2-	13/2
393	276	2384.97	6.07	0.83	26.91	0.86	12.22	-0.41	-13.15	7.329	7.511	6.882	6.929		5/2-	0+
394	277	2384.94	6.05	0.83	27.09	<u>-0.03</u>	12.31	-0.41	-13.24	7.339	7.521	6.889	6.936		5/2-	13/2
395	278	2385.70	6.04	0.73	27.23	0.76	12.39	-0.38	-13.32	7.348	7.531	6.893	6.940		5/2-	0+
396	279	2385.66	6.02	0.72	27.40	-0.04	12.48	-0.38	-13.41	7.358	7.541	6.899	6.946		5/2-	13/2
397	280	2386.39	6.01	0.69	27.56	0.73	12.57	-0.37	-13.49	7.366	7.551	6.904	6.950		5/2-	0+
398	281	2386.34	6.00	0.68	27.72	<u>-0.05</u>	12.64	-0.36	-13.57	7.376	7.562	6.909	6.955		5/2-	13/2
399	282	2387.04	5.98	0.65	27.87	0.70	12.72	-0.36	-13.65	7.385	7.572	6.914	6.960		5/2-	0+
100	283	2387.00	5.97	0.66	28.04	$\frac{-0.04}{-0.04}$	12.82	-0.35	-13.73	7.394	7.582	6.919	6.965		5/2-	13/2
101	284	2387.68	5.95	0.64	28.19	0.68	12.89	-0.34	-13.81	7.403	7.592	6.923	6.969		5/2-	0+
102	285	2387.63	5.94	0.63	28.36	<u>-0.05</u>	12.99	-0.33	-13.90	7.412	7.602	6.928	6.974		5/2-	13/2
103	286	2388.30	5.93	0.62	28.51	0.67	13.06	-0.32	-13.98	7.421	7.612	6.933	6.979		5/2-	0+
104	287	2388.23	5.91	0.60	28.69	$\frac{-0.07}{0.07}$	13.16	-0.06	-14.06	7.430	7.621	6.937	6.983		5/2-	13/2
105	288	2388.88	5.90	0.58	28.85	0.65	13.24	-0.12	-14.14	7.438	7.631	6.941	6.987		5/2-	0+
406	289	2388.23	5.88	0.00		<u>-0.65</u>	13.32	-0.12	-14.24	7.448	7.640	6.951	6.997		5/2-	19/2
107 7	290	2388.28	5.87	<u>-0.60</u>		0.05	13.32	0.27	-14.28	7.459	7.653	6.955	7.001		5/2-	0^+
	18 (Og)															
	10 (05)															
184	166	1999 23	7 04		0.65		0.76	-8 64	0.02	6 253	6 305	6 180	6 232		0^+	0^+
284 285	166 167	1999.23 2007 31	7.04 7.04		0.65 1.05	8.08	0.76 0.97	-8.64 -8.57	0.02 -0.18	6.253 6.263	6.305 6.316	6.180 6.187	6.232 6.238		0 ⁺	0 ⁺ 7/2 ⁺
285	167	2007.31	7.04	17 04	1.05	8.08 8.96	0.97	-8.57	-0.18	6.263	6.316	6.187	6.238		0^+	$7/2^{+}$
85 86	167 168	2007.31 2016.27	7.04 7.05	17.04 16.94	1.05 1.46	8.96	0.97 1.18	-8.57 -8.47	-0.18 -0.39	6.263 6.272	6.316 6.327	6.187 6.194	6.238 6.245		0 ⁺	7/2 ⁺ 0 ⁺
.85 .86 .87	167 168 169	2007.31 2016.27 2024.25	7.04 7.05 7.05	16.94	1.05 1.46 1.87	8.96 7.98	0.97 1.18 1.39	-8.57 -8.47 -8.41	-0.18 -0.39 -0.60	6.263 6.272 6.282	6.316 6.327 6.338	6.187 6.194 6.200	6.238 6.245 6.251		0 ⁺ 0 ⁺	7/2 ⁺ 0 ⁺ 7/2 ⁺
85 86 87 88	167 168 169 170	2007.31 2016.27 2024.25 2033.04	7.04 7.05 7.05 7.06	16.94 16.77	1.05 1.46 1.87 2.27	8.96 7.98 8.79	0.97 1.18 1.39 1.60	-8.57 -8.47 -8.41 -8.33	-0.18 -0.39 -0.60 -0.80	6.263 6.272 6.282 6.291	6.316 6.327 6.338 6.349	6.187 6.194 6.200 6.206	6.238 6.245 6.251 6.258		0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺
85 86 87 88 88	167 168 169 170 171	2007.31 2016.27 2024.25 2033.04 2040.91	7.04 7.05 7.05 7.06 7.06	16.94 16.77 16.66	1.05 1.46 1.87 2.27 2.68	8.96 7.98 8.79 7.87	0.97 1.18 1.39 1.60 1.81	-8.57 -8.47 -8.41 -8.33 -8.01	-0.18 -0.39 -0.60 -0.80 -1.01	6.263 6.272 6.282 6.291 6.300	6.316 6.327 6.338 6.349 6.360	6.187 6.194 6.200 6.206 6.213	6.238 6.245 6.251 6.258 6.264		0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺
85 86 87 88 89	167 168 169 170 171 172	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57	7.04 7.05 7.05 7.06 7.06 7.07	16.94 16.77 16.66 16.53	1.05 1.46 1.87 2.27 2.68 3.09	8.96 7.98 8.79 7.87 8.66	0.97 1.18 1.39 1.60 1.81 2.03	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21	6.263 6.272 6.282 6.291 6.300 6.310	6.316 6.327 6.338 6.349 6.360 6.371	6.187 6.194 6.200 6.206 6.213 6.219	6.238 6.245 6.251 6.258 6.264 6.271		0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺
85 86 87 88 89 90	167 168 169 170 171 172 173	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26	7.04 7.05 7.05 7.06 7.06 7.07 7.07	16.94 16.77 16.66 16.53 15.35	1.05 1.46 1.87 2.27 2.68 3.09 3.29	8.96 7.98 8.79 7.87 8.66 6.69	0.97 1.18 1.39 1.60 1.81 2.03 2.12	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31	6.263 6.272 6.282 6.291 6.300 6.310 6.317	6.316 6.327 6.338 6.349 6.360 6.371 6.380	6.187 6.194 6.200 6.206 6.213 6.219 6.222	6.238 6.245 6.251 6.258 6.264 6.271 6.273		0+ 0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺
285 286 287 288 289 290 291	167 168 169 170 171 172 173 174	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81	7.04 7.05 7.05 7.06 7.06 7.07 7.07	16.94 16.77 16.66 16.53 15.35 14.24	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52	8.96 7.98 8.79 7.87 8.66 6.69 7.55	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 5/2 ⁺
285 286 287 288 289 290 291 292	167 168 169 170 171 172 173 174 175	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07	16.94 16.77 16.66 16.53 15.35 14.24 14.07	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.399	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 5/2 ⁺ 5/2 ⁺
285 286 287 288 289 290 291 292 293	167 168 169 170 171 172 173 174 175	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07	16.94 16.77 16.66 16.53 15.35 14.24 14.07	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.338	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.399 6.409	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282		0^{+} 0^{+} 0^{+} 0^{+} 0^{+} 0^{+} 0^{+} 0^{+} 0^{+} 0^{+} 0^{+}	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺
285 286 287 288 289 290 291 292 293 294 295	167 168 169 170 171 172 173 174 175 176	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67 2084.01	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.07	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.338 6.345	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.399 6.409 6.419	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 5/2 ⁺ 5/2 ⁺ 5/2 ⁺ 5/2 ⁺
285 286 287 288 289 290 291 292 293 294 295	167 168 169 170 171 172 173 174 175 176 177	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67 2084.01 2091.23	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.97 -6.80 -6.75	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.338 6.345 6.353	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.399 6.409 6.419 6.428	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.288		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺
285 286 287 288 289 290 291 292 293 294 295 296 297	167 168 169 170 171 172 173 174 175 176 177 178	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67 2084.01 2091.23 2097.48	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68 13.56	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40 4.61	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22 6.25	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67 2.78	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80 -6.75 -6.71	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85 -1.96	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.338 6.345 6.353 6.360	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.409 6.419 6.428 6.438	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237 6.239	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.288 6.290		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 3/2 ⁺
285 286 287 288 289 290 291 292 293 294 295 296 297	167 168 169 170 171 172 173 174 175 176 177 178 179 180	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67 2084.01 2091.23 2097.48 2104.51	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68 13.56 13.47	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40 4.61 4.85	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22 6.25 7.03	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67 2.78 2.90	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80 -6.75 -6.71	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85 -1.96 -2.07	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.338 6.345 6.365 6.360 6.368	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.409 6.419 6.428 6.438 6.448	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237 6.239 6.242	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.285 6.290 6.293		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	$7/2^{+}$ 0^{+} $7/2^{+}$ 0^{+} $7/2^{+}$ 0^{+} $5/2^{+}$ 0^{+} $5/2^{+}$ 0^{+} $5/2^{+}$ 0^{+} 0^{+} $3/2^{+}$ 0^{+}
285 286 287 288 289 290 291 292 293 294 295 296 297 298	167 168 169 170 171 172 173 174 175 176 177 178 179 180 181	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67 2084.01 2091.23 2097.48 2104.51 2110.67	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68 13.56 13.47 13.28 13.19	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40 4.61 4.85 5.06	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22 6.25 7.03 6.16	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67 2.78 2.90 3.01	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80 -6.75 -6.71 -6.60 -6.50	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85 -1.96 -2.07 -2.18	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.338 6.345 6.353 6.360 6.368 6.375	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.499 6.419 6.428 6.438 6.448 6.448	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237 6.239 6.242 6.245	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.285 6.290 6.293 6.296		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 3/2 ⁺ 3/2 ⁺
285 286 287 288 289 290 291 292 293 294 295 296 297 298 299	167 168 169 170 171 172 173 174 175 176 177 178 179 180 181	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67 2084.01 2091.23 2097.48 2104.51 2110.67 2117.48	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68 13.56 13.47 13.28 13.19	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40 4.61 4.85 5.06 5.30	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22 6.25 7.03 6.16 6.81	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67 2.78 2.90 3.01 3.13	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80 -6.75 -6.71 -6.60 -6.50 -6.41	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85 -1.96 -2.07 -2.18 -2.30	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.338 6.345 6.353 6.360 6.368 6.375 6.383	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.409 6.419 6.428 6.438 6.448 6.458 6.469	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237 6.239 6.242 6.245 6.248	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.288 6.290 6.293 6.296 6.299		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 3/2 ⁺ 0 ⁺ 3/2 ⁺ 0 ⁺
285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300	167 168 169 170 171 172 173 174 175 176 177 178 180 181 182 183	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67 2084.01 2091.23 2097.48 2104.51 2110.67 2117.48 2123.64	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68 13.56 13.47 13.28 13.19 12.97	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40 4.61 4.85 5.06 5.30 5.52	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22 6.25 7.03 6.16 6.81 6.16	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67 2.78 2.90 3.01 3.13 3.24	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80 -6.75 -6.71 -6.60 -6.50 -6.41 -6.37	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85 -1.96 -2.07 -2.18 -2.30 -2.41	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.338 6.345 6.353 6.360 6.366 6.375 6.383 6.390	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.399 6.409 6.419 6.428 6.438 6.448 6.458 6.469 6.479	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237 6.239 6.242 6.245 6.248 6.250	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.288 6.290 6.293 6.296 6.299 6.301		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 3/2 ⁺ 0 ⁺ 1/2 ⁺
285 286 287 288 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302	167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2077.67 2084.01 2091.23 2097.48 2104.51 2117.48 2123.64 2129.86	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68 13.56 13.47 13.28 13.19 12.97 12.97 12.97	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40 4.61 4.85 5.06 5.30 5.52 5.72	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22 6.25 7.03 6.16 6.81 6.16 6.22	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67 2.78 2.90 3.01 3.13 3.24 3.36	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80 -6.75 -6.71 -6.60 -6.50 -6.41 -6.37 -5.62	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85 -1.96 -2.07 -2.18 -2.30 -2.41 -2.51	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.345 6.345 6.353 6.360 6.368 6.375 6.383 6.390 6.398	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.399 6.409 6.419 6.428 6.438 6.448 6.458 6.469 6.479 6.489	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237 6.239 6.242 6.245 6.245 6.250 6.252	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.288 6.290 6.293 6.296 6.301 6.303		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 1/2 ⁻ 0 ⁺
285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303	167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2070.33 2077.67 2084.01 2091.23 2097.48 2104.51 2110.67 2117.48 2123.64 2129.86 2134.21	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68 13.56 13.47 13.28 13.19 12.97 12.97 12.97 12.38	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40 4.61 4.85 5.06 5.30 5.52 5.72 6.02	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22 6.25 7.03 6.16 6.81 6.16 6.22 4.35	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67 2.78 2.90 3.01 3.13 3.24 3.36 3.51	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80 -6.75 -6.71 -6.60 -6.50 -6.41 -6.37 -5.62 -5.78	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85 -1.96 -2.07 -2.18 -2.30 -2.41 -2.51	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.331 6.353 6.360 6.368 6.375 6.383 6.390 6.398 6.410	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.390 6.409 6.419 6.428 6.438 6.448 6.458 6.469 6.479 6.489 6.502	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237 6.239 6.242 6.245 6.245 6.245 6.245	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.288 6.290 6.293 6.296 6.299 6.303 6.314		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 7/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 5/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 3/2 ⁻ 0 ⁺ 1/2 ⁻ 0 ⁺ 13/2 ⁻ 0 ⁺ 12/2 ⁻ 0
285 286 287 288 289 290 291 292 293 294 295 296 297	167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183	2007.31 2016.27 2024.25 2033.04 2040.91 2049.57 2056.26 2063.81 2077.67 2084.01 2091.23 2097.48 2104.51 2117.48 2123.64 2129.86	7.04 7.05 7.05 7.06 7.06 7.07 7.07 7.07 7.07 7.06 7.06	16.94 16.77 16.66 16.53 15.35 14.24 14.07 13.86 13.68 13.56 13.47 13.28 13.19 12.97 12.97 12.97	1.05 1.46 1.87 2.27 2.68 3.09 3.29 3.52 3.74 3.96 4.18 4.40 4.61 4.85 5.06 5.30 5.52 5.72	8.96 7.98 8.79 7.87 8.66 6.69 7.55 6.52 7.34 6.34 7.22 6.25 7.03 6.16 6.81 6.16 6.22	0.97 1.18 1.39 1.60 1.81 2.03 2.12 2.23 2.34 2.45 2.56 2.67 2.78 2.90 3.01 3.13 3.24 3.36	-8.57 -8.47 -8.41 -8.33 -8.01 -7.75 -8.00 -7.06 -6.97 -6.90 -6.80 -6.75 -6.71 -6.60 -6.50 -6.41 -6.37 -5.62	-0.18 -0.39 -0.60 -0.80 -1.01 -1.21 -1.31 -1.42 -1.53 -1.64 -1.75 -1.85 -1.96 -2.07 -2.18 -2.30 -2.41 -2.51	6.263 6.272 6.282 6.291 6.300 6.310 6.317 6.324 6.345 6.345 6.353 6.360 6.368 6.375 6.383 6.390 6.398	6.316 6.327 6.338 6.349 6.360 6.371 6.380 6.399 6.409 6.419 6.428 6.438 6.448 6.458 6.469 6.479 6.489	6.187 6.194 6.200 6.206 6.213 6.219 6.222 6.225 6.228 6.231 6.234 6.237 6.239 6.242 6.245 6.245 6.250 6.252	6.238 6.245 6.251 6.258 6.264 6.271 6.273 6.276 6.279 6.282 6.285 6.288 6.290 6.293 6.296 6.301 6.303		0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0+ 0	7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 7/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 5/2 ⁺ 0 ⁺ 3/2 ⁺ 0 ⁺ 3/2 ⁺ 1/2 ⁺

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	E _b Exp. (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
307	189	2153.91		7.02		9.82	7.22	4.28	4.12	-4.92	-3.25	6.459	6.553	6.305	6.355		0+	13/2
308	190	2159.42		7.01		9.79	7.52	5.51	4.28	-4.91	-3.40	6.470	6.565	6.315	6.365		0+	0^+
309	191	2163.67		7.00		9.76	7.79	4.25	4.41	-4.88	-3.54	6.483	6.578	6.325	6.376		0+	13/2
310	192	2169.15		7.00		9.73	8.09	5.48	4.57	-4.88	-3.68	6.494	6.590	6.335	6.385		0+	0^{+}
311	193	2173.37		6.99		9.70	8.36	4.22	4.71	-4.84	-3.82	6.506	6.603	6.346	6.396		0+	13/2
312	194	2178.82		6.98		9.67	8.64	5.45	4.85	-4.84	-3.96	6.518	6.615	6.356	6.406		0+	0^+
313	195	2182.99		6.97		9.62	8.90	4.17	5.00	-4.78	-4.09	6.530	6.628	6.367	6.417		0+	13/2
314	196	2188.41		6.97		9.59	9.18	5.42	5.14	-4.77	-4.23	6.542	6.640	6.376	6.426		0^+	0^+
315	197	2192.42		6.96		9.43	9.41	4.01	5.27	-4.51	-4.35	6.555	6.652	6.389	6.439		0+	13/
316	198	2197.79		6.96		9.38	9.70	5.37	5.43	-4.53	-4.50	6.566	6.664	6.397	6.447		0+	0^{+}
317	199	2201.37		6.94		8.95	10.02	3.58	5.59	-4.54	-4.66	6.576	6.676	6.405	6.454		0^+	11/2
318	200	2206.42		6.94		8.63	10.33	5.05	5.74	-4.25	-4.81	6.585	6.686	6.410	6.459		0^+	0^{+}
319	201	2209.90		6.93		8.53	10.65	3.48	5.90	-4.21	-4.97	6.594	6.697	6.416	6.465		0^+	11/
320	202	2214.73		6.92		8.31	10.95	4.83	6.05	-4.15	-5.12	6.603	6.707	6.421	6.471		0^+	0^+
321	203	2218.13		6.91		8.23	11.27	3.40	6.21	-4.11	-5.28	6.613	6.718	6.427	6.477		0^+	11/2
322	204	2222.86		6.90		8.13	11.55	4.73	6.35	-4.07	-5.43	6.622	6.728	6.433	6.483		0^+	0^{+}
323	205	2226.19		6.89		8.06	11.87	3.33	6.52	-4.03	-5.58	6.631	6.739	6.439	6.489		0^+	11/
324	206	2230.86		6.89		8.00	12.15	4.67	6.66	-4.01	-5.73	6.640	6.750	6.446	6.495		0^+	0^{+}
325	207	2234.11		6.87		7.92	12.45	3.25	6.82	-3.97	-5.88	6.650	6.760	6.451	6.501		0^+	11/
326	208	2238.74		6.87		7.88	12.73	4.63	6.96	-3.95	-6.02	6.659	6.771	6.458	6.507		0^+	0^{+}
327	209	2241.90		6.86		7.79	13.02	3.16	7.11	-3.91	-6.17	6.668	6.781	6.464	6.513		0^+	11/
328	210	2246.51		6.85		7.77	13.31	4.61	7.25	-3.90	-6.31	6.678	6.791	6.470	6.519		0^+	0+
329	211	2249.57		6.84		7.67	13.57	3.06	7.39	-3.84	-6.45	6.687	6.802	6.477	6.526		0^+	11/
330	212	2254.17		6.83		7.66	13.86	4.60	7.54	-3.85	-6.59	6.696	6.812	6.483	6.532		0^{+}	0+
331	213	2257.13		6.82		7.56	14.12	2.96	7.67	-3.79	-6.72	6.706	6.823	6.490	6.539		0^{+}	11/
332	214	2261.72		6.81		7.55	14.39	4.59	7.81	-3.79	-6.86	6.715	6.833	6.496	6.545		0^{+}	0+
333	215	2264.62		6.80		7.49	14.67	2.90	7.95	-3.78	-7.00	6.724	6.843	6.502	6.551		0^{+}	17/
334	216	2269.18		6.79		7.46	14.92	4.56	8.09	-3.74	-7.12	6.734	6.853	6.509	6.558		0+	0+
335	217	2272.06		6.78		7.44	15.19	2.88	8.22	-3.72	-7.26	6.743	6.863	6.516	6.565		0^{+}	17/
336	218	2276.53		6.78		7.35	15.43	4.47	8.34	-3.69	-7.38	6.753	6.874	6.523	6.572		0+	0+
337	219	2279.39		6.76		7.33	15.70	2.86	8.48	-3.66	-7.51	6.762	6.884	6.529	6.578		0+	17/
338	220	2283.79		6.76		7.26	15.93	4.40	8.61	-3.63	-7.63	6.771	6.894	6.537	6.585		0^{+}	0+
339	221	2286.62		6.75		7.23	16.20	2.83	8.75	-3.60	-7.76	6.781	6.904	6.543	6.592		0^{+}	17/
340	222	2290.96		6.74		7.17	16.42	4.34	8.87	-3.58	-7.88	6.790	6.915	6.551	6.599		0^{+}	0+
341	223	2293.73		6.73		7.11	16.68	2.77	9.00	-3.54	-8.00	6.800	6.924	6.558	6.606		0+	17/
342	224	2298.02		6.72		7.06	16.90	4.29	9.12	-3.52	-8.12	6.810	6.935	6.565	6.614		0^{+}	0+
343	225	2300.72		6.71		6.99	17.15	2.70	9.25	-3.47	-8.24	6.819	6.945	6.572	6.621		0+	17/
344	226	2304.97		6.70		6.95	17.36	4.25	9.37	-3.46	-8.35	6.829	6.955	6.580	6.628		0+	0+
345	227	2307.64		6.69		6.92	17.60	2.67	9.50	-3.49	-8.47	6.839	6.967	6.587	6.635		0+	9/2
346	228	2311.78		6.68		6.81	17.83	4.14	9.63	-3.37	-8.58	6.849	6.977	6.594	6.643		0+	0+
347	229	2314.52		6.67		6.88	18.06	2.74	9.75	-3.38	-8.70	6.859	6.987	6.602	6.650		0+	9/2
348	230	2318.39		6.66		6.61	18.26	3.87	9.86	-3.28	-8.80	6.868	6.998	6.608	6.656		0+	0+
349	231	2321.14		6.65		6.62	18.49	2.75	9.98	-3.27	-8.92	6.879	7.009	6.615	6.664		0+	9/2
350	232	2324.83		6.64		6.44	18.67	3.69	10.07	-3.27 -3.21	-9.02	6.889	7.003	6.621	6.669		0+	0 ⁺
351	233	2327.56		6.63		6.42	18.90	2.73	10.19	-3.19	-9.13	6.899	7.021	6.629	6.677		0+	9/2
351 352	233	2327.30		6.62		6.32	19.08	3.59	10.19	-3.19 -3.15	-9.13 -9.23	6.909	7.032	6.634	6.682		0+	9/2 0 ⁺
353	235	2333.84		6.61		6.28	19.08	2.69	10.28	-3.13 -3.12	-9.23 -9.34	6.919	7.043	6.642	6.690		0+	9/2
354	235 236	2333.84		6.60		6.22	19.30	3.53	10.40	-3.12 -3.08	-9.34 -9.43	6.929	7.054	6.647	6.695		0+	9/2 0 ⁺
355 355	236	2337.37		6.59		6.14	19.49	3.53 2.61	10.49	-3.08 -2.90	-9.43 -9.56	6.940	7.065 7.077	6.657	6.705		0+	9/2
																	0 ⁺	9/2 0 ⁺
356	238	2343.43		6.58		6.06	19.91	3.45	10.71	-2.90	-9.65	6.949	7.087	6.661	6.709			
357	239	2345.77		6.57		5.79	20.08	2.34	10.79	-2.91	-9.73	6.958	7.099	6.665	6.712		0 ⁺	7/2
358	240	2348.89		6.56		5.46	20.22	3.12	10.85	-2.69	-9.80	6.965	7.109	6.664	6.712		0+	0 ⁺
359	241	2351.14		6.55		5.37	20.37	2.25	10.92	-2.65	-9.87	6.974	7.120	6.667	6.714		0+	7/2
360	242	2354.13		6.54		5.24	20.52	2.99	10.99	-2.62	-9.95	6.982	7.130	6.668	6.716		0^+	0^+

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
361	243	2356.31		6.53		5.17	20.67	2.18	11.06	-2.58	-10.03	6.991	7.141	6.670	6.718		0+	7/2-
362	244	2359.25		6.52		5.12	20.83	2.94	11.13	-2.56	-10.10	6.999	7.152	6.672	6.719		0+	0^+
363	245	2361.36		6.51		5.05	20.98	2.11	11.20	-2.52	-10.18	7.008	7.163	6.674	6.722		0+	$7/2^{-}$
364	246	2364.27		6.50		5.02	21.14	2.91	11.27	-2.51	-10.26	7.016	7.174	6.676	6.723		0+	0+
365	247	2366.38		6.48		5.02	21.30	2.11	11.35	-2.51	-10.34	7.025	7.185	6.678	6.725		0+	5/2-
366	248	2369.20		6.47		4.93	21.45	2.82	11.42	-2.46	-10.41	7.033	7.196	6.680	6.727		0+	0^+
367	249	2371.30		6.46		4.92	21.61	2.10	11.49	-2.44	-10.49	7.042	7.207	6.682	6.729		0+	5/2-
368	250	2374.03		6.45		4.83	21.77	2.73	11.57	-2.40	-10.57	7.051	7.218	6.684	6.731		0+	0^+
369	251	2376.06		6.44		4.76	21.93	2.03	11.64	-2.30	-10.65	7.060	7.230	6.686	6.734		0+	5/2-
370	252	2378.70		6.43		4.67	22.07	2.64	11.71	-2.28	-10.73	7.069	7.241	6.688	6.735		0+	0+
371	253	2380.68		6.42		4.62	22.20	1.98	11.78	-2.30	-10.79	7.079	7.253	6.689	6.737		0+	$3/2^{-}$
372	254	2383.04		6.41		4.34	22.28	2.36	11.82	-2.12	-10.83	7.088	7.265	6.690	6.738		0+	0+
373	255	2384.91		6.39		4.23	22.38	1.87	11.87	-2.05	-10.87	7.098	7.278	6.691	6.738		0+	3/2-
374	256	2387.12		6.38		4.08	22.46	2.21	11.92	-2.02	-10.92	7.107	7.290	6.692	6.739		0+	0^+
375	257	2389.01		6.37		4.10	22.54	1.89	11.97	-1.82	-10.96	7.117	7.304	6.692	6.740		0+	1/2-
376	258	2391.01		6.36		3.89	22.63	2.00	12.03	-1.27	-11.01	7.127	7.317	6.693	6.741		0+	0+
377	259	2390.79		6.34		1.78	22.84	-0.22	12.13	-1.57	-11.11	7.139	7.328	6.705	6.753		0+	15/2+
378	260	2391.54		6.33		0.53	23.04	0.75	12.24	-0.31	-11.22	7.149	7.338	6.715	6.762		0+	0+
379	261	2391.38		6.31		0.59	23.26	-0.16	12.36	-0.33	-11.32	7.161	7.349	6.727	6.774		0+	15/2+
380	262	2392.17		6.30		0.63	23.45	0.79	12.46	-0.36	-11.42	7.172	7.359	6.736	6.784		0+	0+
381	263	2392.06		6.28		0.68	23.66	-0.11	12.58	-0.38	-11.53	7.183	7.370	6.748	6.796		0+	15/2+
382	264	2392.91		6.26		0.74	23.86	0.85	12.69	-0.41	-11.63	7.194	7.380	6.758	6.805		0+	0+
383	265	2392.85		6.25		0.79	24.07	-0.06	12.81	-0.43	-11.74	7.206	7.391	6.770	6.818		0+	15/2+
384	266	2393.74		6.23		0.83	24.26	0.89	12.91	-0.46	-11.84	7.216	7.402	6.780	6.827		0+	0+
385	267	2393.73		6.22		0.88	24.47	-0.01	13.03	-0.48	-11.94	7.228	7.412	6.793	6.840		0+	15/2+
386	268	2394.68		6.20		0.94	24.67	0.95	13.14	-0.51	-12.04	7.239	7.423	6.803	6.850		0+	0+
387	269	2394.71		6.19		0.98	24.88	0.03	13.25	-0.52	-12.15	7.251	7.433	6.816	6.863		0+	15/2+
388	270	2395.71		6.17		1.03	25.07	1.00	13.36	-0.55	-12.25	7.262	7.444	6.827	6.873		0+	0+
389	271	2395.77		6.16		1.06	25.28	0.06	13.48	-0.55	-12.35	7.274	7.455	6.840	6.887		0+	15/2+
390	272	2396.82		6.15		1.11	25.47	1.05	13.59	-0.58	-12.45	7.285	7.465	6.851	6.897		0+	0+
391	273	2396.86		6.13		1.09	25.68	0.04	13.71	-0.53	-12.56	7.297	7.476	6.865	6.911		0+	15/2+
392	274	2397.96		6.12		1.14	25.87	1.10	13.82	-0.57	-12.66	7.308	7.486	6.875	6.921		0+	0+
393	275	2398.01		6.10		1.15	26.04	0.05	13.90	-0.60	-12.76	7.319	7.497	6.885	6.931		0+	13/2+
394	276	2398.97		6.09		1.01	26.22	0.96	14.00	-0.49	-12.84	7.328	7.507	6.889	6.936		0+	0+
395	277	2399.02		6.07		1.01	26.39	0.05	14.08	-0.48	-12.93	7.337	7.518	6.896	6.942		0+	13/2+
396	278	2399.85		6.06		0.88	26.54	0.83	14.15	-0.46	-13.00	7.346	7.527	6.900	6.946		0+	0+
397	279	2399.90		6.05		0.88	26.72	0.05	14.24	-0.45	-13.09	7.355	7.538	6.905	6.951		0+	13/2+
398	280	2400.69		6.03		0.84	26.87	0.79	14.30	-0.44	-13.17	7.364	7.548	6.909	6.956		0+	0 ⁺
399	281	2400.74		6.02		0.84	27.04	0.05	14.40	-0.44	-13.25	7.373	7.558	6.915	6.961		0+	13/2+
400	282	2401.51		6.00		0.82	27.19	0.77	14.47	-0.43	-13.33	7.382	7.568	6.919	6.965		0+	0 ⁺
401	283	2401.55		5.99		0.81	27.37	0.04	14.55	-0.42	-13.42	7.391	7.578	6.924	6.970		0+	13/2+
402	284	2402.31		5.98		0.80	27.52	0.76	14.63	-0.42	-13.50	7.400	7.587	6.928	6.974		0+	0+
403	285	2402.35		5.96		0.80	27.71	0.04	14.72	-0.41	-13.58	7.409	7.597	6.933	6.979		0+	13/2+
404	286	2403.09		5.95		0.78	27.85	0.74	14.79	-0.40	-13.66	7.418	7.607	6.937	6.983		0 ⁺	0 ⁺
405	287	2403.11		5.93		0.76	28.04	0.02	14.88	-0.20	-13.75	7.426	7.617	6.941	6.987		0 ⁺	13/2+
406	288	2403.84		5.92		0.75	28.20	0.73	14.96	-0.20	-13.83	7.435	7.626	6.946	6.992			0 ⁺
407	289	2403.30		5.90		0.19	28.39	$\frac{-0.54}{0.03}$	15.07	-0.22	-13.92	7.445	7.635	6.955	7.001		0 ⁺	19/2 ⁻ 0 ⁺
$\frac{408}{\sigma}$	290	2403.33		5.89		<u>-0.51</u>	28.37	0.03	15.05	0.23	-13.98	7.455	7.647	6.961	7.007		U '	U.
Z = 1	19																	
288	169	2024.10		7.03			1.24	8.18	-0.15	-8.62	0.08	6.285	6.340	6.208	6.259		$5/2^{-}$	$7/2^{+}$
289	170	2024.10		7.03		17.18	1.66	9.00	0.06	-8.52	-0.19	6.295	6.350	6.214	6.266		5/2 ⁻	0+
290	170	2033.10		7.03		17.18	2.08	8.08	0.00	-8.34 -8.43	-0.19 -0.41	6.304	6.361	6.221	6.272		5/2 ⁻	7/2 ⁺
	., .	20 11.10					2.50	5.50	J.27	5.15	0.11	3.30 1	5.501	0,221	0.272		5,2	.,2

(continued on next page)

Α	N	$E_{\mathrm{b}}^{\mathrm{Cal.}}$ (MeV)	$E_{\rm b}^{\rm Exp.}$ (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	j ^π (N
291	172	2050.04		7.04		16.94	2.50	8.86	0.47	-7.92	-0.47	6.313	6.372	6.227	6.278		5/2-	0+
292	173	2056.83		7.04		15.65	2.69	6.79	0.57	-8.23	-0.67	6.320	6.381	6.230	6.281		$5/2^{-}$	5/2
293	174	2064.49		7.05		14.45	2.91	7.66	0.68	-7.17	-0.82	6.327	6.391	6.233	6.284		$5/2^{-}$	0^{+}
294	175	2071.10		7.04		14.27	3.11	6.61	0.77	-7.08	-0.96	6.334	6.401	6.236	6.287		$5/2^{-}$	5/2
295	176	2078.55		7.05		14.06	3.33	7.45	0.88	-7.00	-0.98	6.342	6.410	6.239	6.290		5/2-	0^+
296	177	2085.00		7.04		13.90	3.55	6.45	0.99	-6.90	-1.15	6.349	6.420	6.242	6.293		$5/2^{-}$	5/2
297	178	2092.31		7.04		13.76	3.75	7.31	1.08	-6.85	-1.24	6.356	6.430	6.245	6.296		5/2-	0^{+}
298	179	2098.66		7.04		13.66	3.96	6.35	1.18	-6.80	-1.40	6.364	6.440	6.248	6.299		5/2-	3/2
299	180	2105.79		7.04		13.48	4.18	7.13	1.28	-6.70	-1.49	6.371	6.449	6.251	6.302		5/2-	0+
300	181	2112.03		7.04		13.37	4.37	6.24	1.36	-6.59	-1.54	6.378	6.459	6.253	6.304		$5/2^{-}$	3/2
301	182	2118.96		7.04		13.17	4.61	6.93	1.48	-6.50	-1.65	6.386	6.470	6.256	6.307		5/2-	0+
302	183	2125.21		7.04		13.18	4.81	6.25	1.57	-6.45	-1.76	6.394	6.480	6.259	6.310		5/2-	1/2
303	184	2131.48		7.03		12.52	4.98	6.27	1.62	-5.72	-1.93	6.401	6.490	6.261	6.312		5/2-	0+
304	185	2135.97		7.03		10.76	5.27	4.49	1.76	-5.84	-2.07	6.413	6.503	6.271	6.322		5/2-	13/
305	186	2141.70		7.02		10.22	5.59	5.73	1.92	-5.12	-2.22	6.425	6.515	6.282	6.332		5/2-	0+
806	187	2146.15		7.01		10.18	5.88	4.45	2.06	-5.10	-2.36	6.437	6.528	6.292	6.343		5/2 ⁻	13
307	188	2151.83		7.01		10.13	6.18	5.68	2.20	-5.08	-2.51	6.449	6.541	6.302	6.353		5/2 ⁻	0+
308	189	2156.24		7.00		10.09	6.45	4.41	2.33	-5.06	-2.65	6.461	6.553	6.312	6.363		$5/2^{-}$	13
309	190	2161.89		7.00		10.06	6.75	5.65	2.47	-5.05	-2.03 -2.79	6.473	6.566	6.322	6.372		$5/2^{-}$	0+
310	191	2166.27		6.99		10.03	7.01	4.38	2.60	-5.02	-2.73 -2.93	6.485	6.578	6.332	6.383		5/2 ⁻	13
311	192	2171.88		6.98		9.99	7.30	5.61	2.73	-5.02 -5.01	-2.93 -3.07	6.496	6.590	6.342	6.392		$\frac{5/2}{5/2^{-}}$	0+
														6.352				13
312	193	2176.22		6.98		9.95	7.56	4.34	2.85	-4.98	-3.20	6.508	6.603		6.403		5/2 ⁻	
313	194	2181.80		6.97		9.92	7.83	5.58	2.98	-4.97	-3.34	6.520	6.615	6.362	6.412		5/2-	0+
314	195	2186.07		6.96		9.85	8.08	4.27	3.08	-4.91	-3.48	6.532	6.627	6.373	6.423		5/2-	13,
315	196	2191.62		6.96		9.82	8.35	5.55	3.21	-4.89	-3.62	6.543	6.639	6.382	6.432		5/2-	0+
316	197	2195.72		6.95		9.65	8.57	4.10	3.30	-4.65	-3.76	6.556	6.652	6.394	6.444		5/2-	13
317	198	2201.23		6.94		9.61	8.87	5.51	3.44	-4.68	-3.90	6.567	6.663	6.402	6.452		$5/2^{-}$	0^+
318	199	2204.97		6.93		9.25	9.19	3.74	3.60	-4.68	-4.05	6.577	6.675	6.409	6.459		$5/2^{-}$	11,
319	200	2210.19		6.93		8.96	9.51	5.22	3.77	-4.42	-4.19	6.585	6.685	6.415	6.464		$5/2^{-}$	0_{+}
320	201	2213.85		6.92		8.88	9.85	3.66	3.95	-4.38	-4.34	6.595	6.696	6.421	6.470		$5/2^{-}$	11,
321	202	2218.84		6.91		8.65	10.16	4.99	4.11	-4.32	-4.48	6.604	6.706	6.426	6.476		$5/2^{-}$	0^{+}
322	203	2222.41		6.90		8.56	10.49	3.57	4.28	-4.28	-4.63	6.613	6.717	6.432	6.482		$5/2^{-}$	11,
323	204	2227.30		6.90		8.46	10.79	4.89	4.44	-4.24	-4.77	6.622	6.727	6.438	6.488		$5/2^{-}$	0^+
324	205	2230.80		6.89		8.39	11.13	3.50	4.61	-4.20	-4.91	6.632	6.738	6.444	6.493		$5/2^{-}$	11
325	206	2235.62		6.88		8.32	11.42	4.82	4.76	-4.17	-5.05	6.641	6.748	6.450	6.499		$5/2^{-}$	0^{+}
326	207	2239.03		6.87		8.23	11.74	3.41	4.92	-4.12	-5.19	6.650	6.759	6.456	6.505		5/2-	11
327	208	2243.81		6.86		8.19	12.03	4.78	5.07	-4.11	-5.33	6.659	6.769	6.462	6.511		5/2-	0^{+}
328	209	2247.12		6.85		8.09	12.33	3.31	5.22	-4.05	-5.47	6.668	6.780	6.468	6.518		5/2-	11
329	210	2251.87		6.84		8.06	12.61	4.75	5.36	-4.05	-5.61	6.677	6.790	6.474	6.524		5/2-	0+
330	211	2255.08		6.83		7.96	12.90	3.21	5.51	-3.99	-5.74	6.687	6.800	6.481	6.530		5/2-	11
331	212	2259.82		6.83		7.95	13.19	4.74	5.65	-3.99	-5.88	6.696	6.810	6.487	6.536		5/2-	0+
332	213	2262.90		6.82		7.82	13.44	3.08	5.77	-3.92	-6.01	6.705	6.821	6.494	6.543		5/2-	11
333	214	2267.64		6.81		7.82	13.73	4.74	5.92	-3.93	-6.15	6.714	6.831	6.500	6.549		$5/2^{-}$	0+
334	215	2270.68		6.80		7.78	14.01	3.04	6.06	-3.91	-6.13	6.723	6.841	6.506	6.555		5/2 ⁻	17
335	216	2275.35		6.79		7.73	14.26	4.67	6.17	-3.87	-6.41	6.733	6.851	6.513	6.562		$5/2^{-}$	0+
36	217	2273.33		6.78		7.71	14.20	3.01	6.30	-3.85	-6.41 -6.55	6.742	6.861	6.519	6.568		$\frac{5/2}{5/2^{-}}$	17
337	217	2282.94		6.77		7.59	14.75	4.58	6.41	-3.83 -3.81	-6.68	6.751	6.871	6.526	6.575		$\frac{5/2}{5/2^{-}}$	0+
338	219	2285.93		6.76		7.59 7.57	15.02	2.99	6.54	-3.78	-6.82	6.760	6.881	6.533	6.581		$\frac{5/2}{5/2^{-}}$	17
339	220	2290.43		6.76		7.49	15.25	4.50	6.64	-3.75	-6.95	6.770	6.891	6.539	6.588		5/2 ⁻	0+
340	221	2293.37		6.75		7.44	15.50	2.94	6.75	-3.72	-7.08	6.779	6.901	6.546	6.595		5/2-	17
341	222	2297.80		6.74		7.37	15.71	4.43	6.84	-3.69	-7.21	6.789	6.911	6.553	6.602		5/2-	0+
342	223	2300.69		6.73		7.32	15.96	2.89	6.96	-3.65	-7.36	6.798	6.921	6.560	6.609		$5/2^{-}$	17
343	224	2305.07		6.72		7.27	16.17	4.38	7.05	-3.63	-7.49	6.808	6.932	6.568	6.616		$5/2^{-}$	0^+
344	225	2307.88		6.71		7.19	16.41	2.81	7.16	-3.58	-7.64	6.817	6.942	6.575	6.624		$5/2^{-}$	17

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c Cal. (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
345	226	2312.22		6.70		7.15	16.62	4.34	7.25	-3.56	-7.77	6.827	6.953	6.583	6.631		5/2-	0+
346	227	2314.99		6.69		7.11	16.85	2.77	7.35	-3.60	-7.89	6.837	6.964	6.590	6.638		$5/2^{-}$	$9/2^{-}$
347	228	2319.23		6.68		7.01	17.08	4.24	7.45	-3.48	-8.03	6.847	6.974	6.598	6.646		$5/2^{-}$	0^+
348	229	2322.08		6.67		7.09	17.31	2.85	7.56	-3.49	-8.16	6.857	6.984	6.605	6.654		$5/2^{-}$	$9/2^{-}$
349	230	2326.05		6.66		6.82	17.52	3.97	7.66	-3.39	-8.26	6.867	6.996	6.612	6.660		$5/2^{-}$	0^+
350	231	2328.91		6.65		6.83	17.75	2.86	7.77	-3.37	-8.39	6.877	7.006	6.619	6.667		$5/2^{-}$	9/2-
351	232	2332.70		6.65		6.65	17.94	3.79	7.87	-3.31	-8.48	6.887	7.018	6.625	6.673		$5/2^{-}$	0^+
352	233	2335.53		6.64		6.62	18.16	2.83	7.97	-3.29	-8.60	6.897	7.029	6.632	6.680		$5/2^{-}$	9/2-
353	234	2339.23		6.63		6.53	18.36	3.70	8.08	-3.26	-8.69	6.907	7.040	6.638	6.686		5/2-	0+
354	235	2342.03		6.62		6.50	18.59	2.80	8.19	-3.22	-8.81	6.917	7.051	6.645	6.693		5/2-	$9/2^{-}$
355	236	2345.65		6.61		6.42	18.77	3.62	8.28	-3.19	-8.90	6.927	7.062	6.651	6.699		5/2-	0+
356	237	2348.38		6.60		6.35	19.03	2.73	8.40	-2.99	-9.03	6.938	7.073	6.660	6.708		5/2-	9/2-
357	238	2351.93		6.59		6.28	19.21	3.55	8.50	-3.00	-9.11	6.947	7.084	6.665	6.713		5/2-	0+
358	239	2354.35		6.58		5.97	19.37	2.42	8.58	-3.01	-9.19	6.956	7.095	6.668	6.716		5/2-	7/2-
359	240	2357.55		6.57		5.62	19.51	3.20	8.66	-2.78	-9.24	6.963	7.105	6.668	6.716		5/2-	0+
360	241	2359.89		6.56		5.54	19.67	2.34	8.75	-2.74	-9.31	6.972	7.116	6.670	6.718		5/2-	7/2-
361	242	2362.96		6.55		5.41	19.82	3.07	8.83	-2.70	-9.38	6.980	7.126	6.671	6.719		5/2-	0 ⁺
362	243	2365.23		6.53		5.34	19.98	2.27	8.92	-2.67	-9.45	6.988	7.137	6.674	6.721		5/2-	7/2-
363	244	2368.26		6.52		5.30	20.14	3.03	9.01	-2.65	-9.51	6.996	7.148	6.675	6.723		5/2-	0 ⁺
364	245 246	2370.46		6.51		5.23	20.30	2.20	9.10	-2.61	-9.58	7.005	7.159	6.677	6.725		5/2 ⁻	7/2 ⁻ 0 ⁺
365		2373.46		6.50		5.20	20.46	3.00	9.19	-2.60	-9.65	7.013	7.169	6.679	6.727		5/2 ⁻	
366	247 248	2375.66		6.49		5.20	20.63	2.20	9.28	-2.60	-9.72	7.022	7.181	6.681	6.729		5/2 ⁻	5/2 ⁻ 0 ⁺
367 368	248 249	2378.57 2380.76		6.48 6.47		5.11 5.10	20.79 20.95	2.91 2.19	9.37 9.46	-2.55 -2.54	-9.79 -9.86	7.031 7.039	7.191 7.202	6.683 6.685	6.731 6.733		5/2 ⁻ 5/2 ⁻	5/2 ⁻
369	250	2383.58		6.46		5.01	20.93	2.19	9.40	-2.34 -2.49	-9.80 -9.93	7.039	7.202	6.687	6.735		$\frac{5/2}{5/2^{-}}$	0 ⁺
370	250 251	2385.72		6.45		4.96	21.12	2.02	9.55	-2.49 -2.37	-9.93 -10.00	7.048	7.215	6.690	6.737		$\frac{5/2}{5/2^{-}}$	5/2 ⁻
370 371	252	2388.45		6.44		4.87	21.46	2.14	9.00	-2.37 -2.36	-10.00 -10.12	7.057	7.223	6.692	6.740		$\frac{5/2}{5/2^{-}}$	0 ⁺
371	253	2390.48		6.43		4.76	21.58	2.73	9.80	-2.35	-10.12 -10.13	7.075	7.230	6.693	6.741		$\frac{5/2}{5/2^{-}}$	3/2-
373	254	2392.86		6.42		4.41	21.56	2.38	9.82	-2.35 -2.15	-10.13	7.075	7.248	6.694	6.742		$\frac{5/2}{5/2^{-}}$	0 ⁺
374	255	2394.76		6.40		4.28	21.72	1.90	9.85	-2.13 -2.08	-10.16	7.094	7.273	6.695	6.743		$\frac{5/2}{5/2^{-}}$	3/2-
375	256	2396.99		6.39		4.13	21.72	2.23	9.87	-2.04	-10.24	7.104	7.286	6.697	6.744		$\frac{5/2}{5/2^{-}}$	0 ⁺
376	257	2398.90		6.38		4.14	21.86	1.91	9.89	-1.96	-10.38	7.114	7.299	6.698	6.745		5/2 ⁻	1/2-
377	258	2400.92		6.37		3.93	21.94	2.02	9.91	-1.39	-10.45	7.124	7.312	6.699	6.746		5/2 ⁻	0+
378	259	2400.80		6.35		1.90	22.14	-0.12	10.01	-1.38	-10.56	7.136	7.323	6.710	6.758		5/2 ⁻	15/2 ⁺
379	260	2401.65		6.34		0.73	22.35	0.85	10.11	-0.41	-10.67	7.146	7.333	6.720	6.767		5/2-	0+
380	261	2401.57		6.32		0.77	22.55	-0.08	10.19	-0.43	-10.79	7.158	7.344	6.732	6.779		5/2-	15/2 ⁺
381	262	2402.46		6.31		0.81	22.75	0.89	10.29	-0.46	-10.89	7.169	7.355	6.741	6.789		5/2-	0+
382	263	2402.44		6.29		0.87	22.96	-0.02	10.38	-0.48	-11.01	7.180	7.365	6.753	6.801		5/2-	15/2 ⁺
383	264	2403.38		6.28		0.92	23.16	0.94	10.47	-0.51	-11.12	7.191	7.376	6.763	6.810		5/2-	0+
384	265	2403.41		6.26		0.97	23.37	0.03	10.56	-0.53	-11.24	7.203	7.386	6.776	6.823		5/2-	15/2 ⁺
385	266	2404.40		6.25		1.02	23.57	0.99	10.66	-0.56	-11.34	7.213	7.397	6.786	6.833		5/2-	0 +′
386	267	2404.48		6.23		1.07	23.78	0.08	10.75	-0.58	-11.47	7.225	7.408	6.798	6.845		5/2-	$15/2^{+}$
387	268	2405.51		6.22		1.11	23.97	1.03	10.83	-0.61	-11.57	7.236	7.418	6.808	6.855		$5/2^{-}$	0+
388	269	2405.64		6.20		1.16	24.18	0.13	10.93	-0.62	-11.70	7.248	7.429	6.822	6.868		5/2-	$15/2^{+}$
389	270	2406.73		6.19		1.22	24.38	1.09	11.02	-0.65	-11.81	7.259	7.439	6.832	6.879		5/2-	0+
390	271	2406.89		6.17		1.25	24.60	0.16	11.12	-0.65	-11.93	7.271	7.450	6.846	6.893		5/2-	$15/2^{+}$
391	272	2408.03		6.16		1.30	24.80	1.14	11.21	-0.68	-12.04	7.282	7.461	6.857	6.903		5/2-	0^+
392	273	2408.17		6.14		1.28	25.02	0.14	11.31	-0.63	-12.17	7.295	7.472	6.871	6.917		5/2-	$15/2^{+}$
393	274	2409.36		6.13		1.33	25.22	1.19	11.40	-0.66	-12.28	7.305	7.482	6.881	6.928		5/2-	0^+
394	275	2409.50		6.12		1.33	25.39	0.14	11.49	-0.69	-12.38	7.316	7.493	6.891	6.937		5/2-	$13/2^{+}$
395	276	2410.53		6.10		1.17	25.56	1.03	11.56	-0.58	-12.45	7.325	7.503	6.895	6.941		5/2-	0+
396	277	2410.68		6.09		1.18	25.74	0.15	11.66	-0.57	-12.54	7.335	7.513	6.901	6.948		$5/2^{-}$	$13/2^{+}$
397	278	2411.59		6.07		1.06	25.89	0.91	11.74	-0.55	-12.61	7.343	7.523	6.905	6.951		$5/2^{-}$	0^+
398	279	2411.72		6.06		1.04	26.06	0.13	11.82	-0.54	-12.69	7.352	7.533	6.911	6.957		$5/2^{-}$	$13/2^{+}$

Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b ^{Exp.} (MeV)	$E_{\rm b}^{\rm Cal.}/A$ (MeV)	$E_{\rm b}^{ m Exp.}/A$ (MeV)	S_{2n} (MeV)	S_{2p} (MeV)	S_n (MeV)	S_p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R_n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
399	280	2412.60		6.05		1.01	26.21	0.88	11.91	-0.53	-12.76	7.361	7.543	6.915	6.961		5/2-	0+
400	281	2412.73		6.03		1.01	26.39	0.13	11.99	-0.52	-12.84	7.370	7.553	6.920	6.966		5/2-	$13/2^{+}$
401	282	2413.59		6.02		0.99	26.55	0.86	12.08	-0.52	-12.91	7.379	7.562	6.924	6.970		$5/2^{-}$	0^+
402	283	2413.72		6.00		0.99	26.72	0.13	12.17	-0.51	-12.98	7.388	7.572	6.929	6.975		$5/2^{-}$	13/2
403	284	2414.56		5.99		0.97	26.88	0.84	12.25	-0.51	-13.06	7.397	7.582	6.934	6.980		5/2-	0+
404	285	2414.68		5.98		0.96	27.05	0.12	12.33	-0.49	-13.13	7.405	7.592	6.938	6.984		5/2-	13/2
405	286	2415.51		5.96		0.95	27.21	0.83	12.42	-0.49	-13.20	7.414	7.602	6.943	6.988		5/2-	0+
406	287	2415.62		5.95		0.94	27.39	0.11	12.51	-0.06	-13.27	7.423	7.611	6.946	6.992		5/2-	13/2
407	288	2416.44		5.94		0.93	27.56	0.82	12.60	-0.27	-13.34	7.431	7.621	6.951	6.997		5/2-	0+
408	289	2415.99		5.92		0.37	27.76	$\frac{-0.45}{0.01}$	12.69	-0.28	-13.46	7.441	7.630	6.960	7.006		5/2 ⁻	19/2
$\frac{409}{\sigma}$	290	2416.00		5.91		-0.44	27.72	0.01	12.67	<u>0.18</u>	-13.54	7.451	7.641	6.967	7.013		5/2-	0^+
Z=12		2050 10		7.00			1.00	C 00	1.20	0.22	0.00	C 22.4	C 202	C 227	C 200		0+	F /2+
293	173	2058.19		7.02		14.66	1.93	6.89	1.36	-8.22	0.06	6.324	6.383	6.237	6.289		0 ⁺	5/2 ⁺ 0 ⁺
294 295	174	2065.96		7.03		14.66	2.15	7.77	1.47	-7.27	-0.09	6.331	6.393	6.241	6.292		0 ⁺	
295 296	175 176	2072.68 2080.23		7.03 7.03		14.49 14.27	2.35 2.56	6.72 7.55	1.58 1.68	−7.18 −7.10	-0.24 -0.43	6.338 6.346	6.403 6.412	6.244 6.247	6.295 6.298		0+	5/2 ⁺ 0 ⁺
290 297	176	2086.79		7.03		14.27	2.78	6.56	1.79	-7.10 -7.01	-0.43 -0.56	6.353	6.422	6.250	6.301		0+	5/2 ⁺
298	177	2080.79		7.03		13.97	2.78	7.41	1.79	-7.01 -6.96	-0.36 -0.71	6.360	6.431	6.253	6.304		0+	0 ⁺
299	179	2100.65		7.03		13.86	3.17	6.45	1.99	-6.90	-0.71 -0.88	6.367	6.441	6.256	6.307		0+	3/2⁴
300	180	2100.03		7.03		13.70	3.39	7.25	2.11	-6.81	-0.00 -1.03	6.375	6.451	6.259	6.310		0+	0+
301	181	2114.23		7.02		13.58	3.56	6.33	2.20	-6.70	-1.19	6.382	6.461	6.261	6.312		0+	3/2⁴
302	182	2121.29		7.02		13.39	3.81	7.06	2.33	-6.62	-1.32	6.390	6.471	6.264	6.315		0+	0+
303	183	2127.64		7.02		13.41	4.00	6.35	2.43	-6.56	-1.47	6.397	6.481	6.267	6.317		0+	1/2
304	184	2134.05		7.02		12.76	4.19	6.41	2.57	-5.83	-1.62	6.404	6.491	6.268	6.319		0+	0+
305	185	2138.69		7.01		11.05	4.48	4.64	2.72	-5.95	-1.76	6.416	6.504	6.279	6.330		0^{+}	13/2
306	186	2144.57		7.01		10.52	4.79	5.88	2.87	-5.27	-1.91	6.428	6.516	6.289	6.340		0^+	0+
307	187	2149.17		7.00		10.48	5.08	4.60	3.02	-5.24	-2.05	6.440	6.529	6.299	6.350		0^+	13/2
308	188	2155.00		7.00		10.43	5.37	5.83	3.17	-5.23	-2.20	6.452	6.541	6.309	6.360		0^+	0+
309	189	2159.56		6.99		10.39	5.65	4.56	3.32	-5.20	-2.34	6.464	6.554	6.319	6.370		0^+	13/2
310	190	2165.36		6.99		10.36	5.94	5.80	3.47	-5.19	-2.48	6.476	6.566	6.329	6.379		0^+	0^{+}
311	191	2169.88		6.98		10.32	6.21	4.52	3.61	-5.16	-2.62	6.487	6.579	6.339	6.389		0^+	13/2
312	192	2175.64		6.97		10.28	6.49	5.76	3.76	-5.15	-2.77	6.499	6.591	6.349	6.399		0+	0^+
313	193	2180.12		6.97		10.24	6.75	4.48	3.90	-5.12	-2.90	6.511	6.604	6.359	6.409		0+	13/2
314	194	2185.86		6.96		10.22	7.04	5.74	4.06	-5.11	-3.05	6.522	6.616	6.369	6.419		0+	0^+
315	195	2190.28		6.95		10.16	7.29	4.42	4.21	-5.05	-3.19	6.535	6.628	6.380	6.430		0+	13/2
316	196	2195.98		6.95		10.12	7.57	5.70	4.36	-5.04	-3.33	6.546	6.640	6.389	6.439		0+	0+
317	197	2200.23		6.94		9.95	7.81	4.25	4.51	-4.80	-3.47	6.559	6.653	6.401	6.451		0+	13/2
318	198	2205.89		6.94		9.91	8.10	5.66	4.66	-4.82	-3.62	6.569	6.665	6.409	6.459		0 ⁺	0 ⁺
319	199	2209.77		6.93		9.54	8.40	3.88	4.80	-4.83	-3.77	6.580	6.676	6.416	6.466		0+	11/2 0 ⁺
320 321	200 201	2215.15 2218.95		6.92 6.91		9.26 9.18	8.73 9.05	5.38 3.80	4.96 5.10	-4.57 -4.52	-3.91 -4.06	6.588 6.597	6.686 6.697	6.422 6.427	6.471 6.477		0+	11/2
321 322	201	2216.93		6.91		9.18 8.94	9.03	5.14	5.10	-4.32 -4.46	-4.00 -4.20	6.606	6.707	6.433	6.483		0+	0 ⁺
323	202	2224.09		6.90		8.86	9.56	3.72	5.40	-4.40 -4.42	-4.20 -4.35	6.615	6.718	6.439	6.488		0+	11/2
323 324	203	2232.84		6.89		8.75	9.08	5.72	5.54	-4.42 -4.38	-4.33 -4.49	6.624	6.728	6.445	6.494		0+	0 ⁺
325	204	2236.49		6.88		8.68	10.30	3.65	5.69	-4.34	-4.49 -4.63	6.633	6.738	6.450	6.500		0 ⁺	11/2
326	206	2241.45		6.88		8.61	10.50	4.96	5.83	-4.34 -4.32	-4.03	6.642	6.749	6.456	6.506		0+	0+
327	207	2245.02		6.87		8.53	10.91	3.57	5.99	-4.27	-4.91	6.651	6.759	6.462	6.511		0+	11/2
328	208	2249.94		6.86		8.49	11.20	4.92	6.13	-4.25	-5.05	6.660	6.769	6.468	6.517		0+	0+
329	209	2253.40		6.85		8.38	11.50	3.46	6.28	-4.20	-5.19	6.670	6.779	6.474	6.523		0+	11/2
330	210	2258.29		6.84		8.35	11.78	4.89	6.42	-4.19	-5.32	6.679	6.790	6.480	6.529		0+	0+
331	211	2261.64		6.83		8.24	12.07	3.35	6.56	-4.12	-5.46	6.688	6.800	6.486	6.535		0^{+}	11/2
332	212	2266.53		6.83		8.24	12.36	4.89	6.71	-4.13	-5.60	6.697	6.810	6.492	6.541		0^{+}	0+

Table 1 (continued)

A	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b ^{Exp.} /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R_m (fm)	R _n (fm)	R_p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
333	213	2269.74		6.82		8.10	12.61	3.21	6.84	-4.05	-5.73	6.706	6.820	6.499	6.548		0+	11/2-
334	214	2274.63		6.81		8.10	12.91	4.89	6.99	-4.06	-5.87	6.715	6.830	6.505	6.554		0^+	0^{+}
335	215	2277.81		6.80		8.07	13.19	3.18	7.13	-4.04	-6.00	6.724	6.840	6.511	6.560		0^+	$17/2^{+}$
336	216	2282.60		6.79		7.97	13.42	4.79	7.25	-4.00	-6.14	6.734	6.850	6.518	6.567		0^+	0^+
337	217	2285.76		6.78		7.95	13.70	3.16	7.40	-3.98	-6.27	6.743	6.860	6.525	6.573		0^+	$17/2^{+}$
338	218	2290.46		6.78		7.86	13.93	4.70	7.52	-3.94	-6.41	6.752	6.871	6.532	6.581		0+	0+
339	219	2293.59		6.77		7.83	14.20	3.13	7.66	-3.91	-6.55	6.762	6.881	6.539	6.587		0+	17/2+
340	220	2298.21		6.76		7.75	14.42	4.62	7.78	-3.88	-6.68	6.771	6.891	6.546	6.595		0+	0+
341	221	2301.30		6.75		7.71	14.68	3.09	7.93	-3.85	-6.83	6.781	6.901	6.553	6.602		0+	17/2+
342	222	2305.86		6.74		7.65	14.90	4.56	8.06	-3.83	-6.96	6.790	6.912	6.561	6.609		0+	0+
343	223	2308.90		6.73		7.60	15.17	3.04	8.21	-3.79	−7.11 7.24	6.800	6.921	6.568	6.616		0+	17/2+
344	224	2313.41		6.73		7.55	15.39	4.51	8.34	-3.77	-7.24	6.810	6.932	6.576	6.624		0+	0+
345	225	2316.38		6.71		7.48	15.66	2.97	8.50	-3.71	-7.39	6.819	6.942	6.583	6.631		0+	17/2 ⁺
346	226	2320.86		6.71		7.45	15.89	4.48	8.64	-3.70	-7.52	6.829	6.953	6.591	6.639		0+	0+
347	227	2323.75		6.70		7.37	16.11	2.89	8.76	-3.74	-7.64	6.840	6.964	6.598	6.646		0+	$9/2^{-}$ 0^{+}
348	228	2328.14		6.69		7.28	16.36	4.39	8.91	-3.60	-7.79	6.849	6.974	6.606	6.654		0^{+}	•
349	229	2331.13		6.68		7.38	16.61	2.99	9.05	-3.62	-7.92	6.859	6.985	6.614	6.662		0+	9/2 ⁻ 0 ⁺
350	230 231	2335.20		6.67		7.06	16.81	4.07	9.15 9.27	-3.49	-8.02	6.869	6.996	6.620 6.627	6.668		0+	9/2-
351 352	231	2338.18 2342.07		6.66 6.65		7.05 6.87	17.04 17.24	2.98 3.89	9.27	-3.48 -3.42	-8.14 -8.23	6.879 6.889	7.007 7.018	6.633	6.675 6.681		0+	9/2 0 ⁺
353	232	2342.07		6.64		6.84	17.24	2.95	9.37	-3.42 -3.40	-8.25 -8.35	6.899	7.018	6.640	6.688		0+	9/2-
354	234	2348.81		6.64		6.74	17.46	3.79	9.58	-3.40 -3.36	-8.44	6.909	7.029	6.646	6.694		0+	0 ⁺
355	235	2351.73		6.62		6.71	17.89	2.92	9.70	-3.33	-8.56	6.919	7.040	6.653	6.701		0+	9/2-
356	236	2355.46		6.62		6.65	18.09	3.73	9.81	-3.30 -3.30	-8.65	6.929	7.062	6.659	6.707		0+	0 ⁺
357	237	2358.31		6.61		6.58	18.33	2.85	9.93	-3.09	-8.78	6.939	7.073	6.668	6.716		0+	9/2-
358	238	2361.96		6.60		6.50	18.53	3.65	10.03	-3.09	-8.87	6.949	7.084	6.674	6.722		0+	0+
359	239	2364.44		6.59		6.13	18.67	2.48	10.09	-3.09	-8.94	6.957	7.095	6.676	6.723		0+	7/2 ⁻
360	240	2367.69		6.58		5.73	18.80	3.25	10.14	-2.84	-9.00	6.965	7.105	6.676	6.723		0+	0+
361	241	2370.09		6.57		5.65	18.95	2.40	10.20	-2.80	-9.07	6.973	7.115	6.678	6.725		0+	7/2-
362	242	2373.23		6.56		5.54	19.10	3.14	10.27	-2.77	-9.13	6.981	7.126	6.679	6.727		0^+	0+
363	243	2375.57		6.54		5.48	19.26	2.34	10.34	-2.73	-9.20	6.989	7.137	6.681	6.729		0+	7/2-
364	244	2378.65		6.53		5.42	19.40	3.08	10.39	-2.72	-9.27	6.997	7.147	6.683	6.730		0^+	$\mathbf{o}^{'+}$
365	245	2380.93		6.52		5.36	19.57	2.28	10.47	-2.68	-9.34	7.006	7.158	6.685	6.733		0^+	$7/2^{-}$
366	246	2383.98		6.51		5.33	19.71	3.05	10.52	-2.67	-9.41	7.014	7.168	6.686	6.734		0^+	0^{+}
367	247	2386.25		6.50		5.32	19.87	2.27	10.59	-2.66	-9.48	7.023	7.179	6.688	6.736		0^+	$5/2^{-}$
368	248	2389.23		6.49		5.25	20.03	2.98	10.66	-2.62	-9.55	7.031	7.190	6.690	6.738		0^+	0^+
369	249	2391.49		6.48		5.24	20.19	2.26	10.73	-2.60	-9.62	7.040	7.201	6.692	6.740		0^+	$5/2^{-}$
370	250	2394.38		6.47		5.15	20.35	2.89	10.80	-2.56	-9.68	7.048	7.212	6.694	6.742		0^+	0^+
371	251	2396.59		6.46		5.10	20.53	2.21	10.87	-2.43	-9.75	7.057	7.223	6.696	6.744		0^+	$5/2^{-}$
372	252	2399.38		6.45		5.00	20.68	2.79	10.93	-2.42	-9.82	7.066	7.234	6.698	6.746		0^+	0^+
373	253	2401.47		6.44		4.88	20.79	2.09	10.99	-2.42	-9.88	7.075	7.246	6.699	6.747		0^+	$3/2^{-}$
374	254	2403.91		6.43		4.53	20.87	2.44	11.05	-2.21	-9.93	7.084	7.258	6.701	6.748		0^+	0^+
375	255	2405.86		6.42		4.39	20.95	1.95	11.10	-2.14	-9.99	7.094	7.271	6.702	6.749		0+	3/2-
376	256	2408.16		6.40		4.25	21.04	2.30	11.17	-2.11	-10.06	7.103	7.283	6.703	6.750		0^+	0^+
377	257	2410.14		6.39		4.28	21.13	1.98	11.24	-1.53	-10.12	7.113	7.296	6.703	6.751		0+	1/2-
378	258	2412.23		6.38		4.07	21.22	2.09	11.31	-1.47	-10.19	7.123	7.309	6.704	6.752		0^{+}	0+
379	259	2412.24		6.36		2.10	21.45	0.01	11.44	-1.37	-10.31	7.134	7.320	6.716	6.764		0^{+}	15/2+
380	260	2413.19		6.35		0.96	21.65	0.95	11.54	-0.52	-10.42	7.145	7.330	6.726	6.773		0+	0 ⁺
381	261	2413.24		6.33		1.00	21.86	0.05	11.67	-0.54	-10.54	7.156	7.341	6.738	6.785		0+	15/2 ⁺
382	262	2414.24		6.32		1.05	22.07	1.00	11.78	-0.57	-10.64	7.167	7.351	6.748	6.795		0+	0 ⁺
383	263	2414.35		6.30		1.11	22.29	0.11	11.91	-0.59	-10.76	7.179	7.362	6.760	6.807		0 ⁺	15/2 ⁺
384	264	2415.40		6.29		1.16	22.49	1.05	12.02	-0.62	-10.87	7.190	7.372	6.770	6.817		0 ⁺	0 ⁺
385	265	2415.55		6.27		1.20	22.70	0.15	12.14	-0.64	-10.99	7.201	7.383	6.782	6.829		0^{+}	15/2 ⁺ 0 ⁺
386	266	2416.65		6.26		1.25	22.91	1.10	12.25	-0.67	-11.10	7.212	7.394	6.792	6.839		U.	U.

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Table 1 (continued)

Α	N	E _b ^{Cal.} (MeV)	E _b Exp. (MeV)	E _b ^{Cal.} /A (MeV)	E _b Exp. /A (MeV)	S _{2n} (MeV)	S _{2p} (MeV)	S _n (MeV)	S _p (MeV)	λ_n (MeV)	λ_p (MeV)	R _m (fm)	R _n (fm)	R _p (fm)	R _c ^{Cal.} (fm)	R _c Exp. (fm)	$j^{\pi}(P)$	$j^{\pi}(N)$
387	267	2416.86		6.25		1.31	23.13	0.21	12.38	-0.69	-11.22	7.224	7.405	6.805	6.852		0+	15/2 ⁺
388	268	2418.01		6.23		1.36	23.33	1.15	12.50	-0.72	-11.34	7.235	7.415	6.816	6.863		0^+	0+
389	269	2418.27		6.22		1.41	23.56	0.26	12.63	-0.74	-11.46	7.247	7.426	6.829	6.876		0^{+}	$15/2^{+}$
390	270	2419.47		6.20		1.46	23.76	1.20	12.74	-0.77	-11.57	7.258	7.437	6.840	6.886		0^+	0+
391	271	2419.77		6.19		1.50	24.00	0.30	12.88	-0.77	-11.70	7.271	7.448	6.854	6.901		0^+	$15/2^{+}$
392	272	2421.02		6.18		1.55	24.20	1.25	12.99	-0.80	-11.81	7.282	7.458	6.865	6.911		0^+	0^+
393	273	2421.31		6.16		1.54	24.45	0.29	13.14	-0.73	-11.94	7.295	7.470	6.881	6.928		0^+	$15/2^{+}$
394	274	2422.62		6.15		1.60	24.66	1.31	13.26	-0.77	-12.05	7.306	7.480	6.892	6.938		0^+	0^+
395	275	2422.87		6.13		1.56	24.86	0.25	13.37	-0.80	-12.15	7.317	7.491	6.901	6.948		0^+	$13/2^{+}$
396	276	2423.94		6.12		1.32	24.97	1.07	13.41	-0.65	-12.21	7.324	7.500	6.903	6.949		0^+	0+
397	277	2424.17		6.11		1.30	25.15	0.23	13.49	-0.64	-12.30	7.334	7.510	6.908	6.955		0^+	$13/2^{+}$
398	278	2425.15		6.09		1.21	25.30	0.98	13.56	-0.62	-12.37	7.342	7.520	6.912	6.958		0^+	0+
399	279	2425.37		6.08		1.20	25.47	0.22	13.65	-0.61	-12.45	7.351	7.530	6.917	6.963		0^+	$13/2^{+}$
400	280	2426.31		6.07		1.16	25.62	0.94	13.71	-0.60	-12.52	7.360	7.540	6.921	6.967		0^+	0^+
401	281	2426.53		6.05		1.16	25.79	0.22	13.80	-0.60	-12.60	7.369	7.550	6.926	6.972		0^+	$13/2^{+}$
402	282	2427.46		6.04		1.15	25.95	0.93	13.87	-0.60	-12.67	7.377	7.559	6.930	6.976		0^+	0^+
403	283	2427.67		6.02		1.14	26.12	0.21	13.95	-0.59	-12.75	7.386	7.569	6.935	6.981		0^+	$13/2^{+}$
404	284	2428.59		6.01		1.13	26.28	0.92	14.03	-0.59	-12.82	7.395	7.579	6.939	6.985		0^+	0^+
405	285	2428.79		6.00		1.12	26.44	0.20	14.11	-0.57	-12.90	7.403	7.588	6.944	6.990		0^+	$13/2^{+}$
406	286	2429.70		5.98		1.11	26.61	0.91	14.19	-0.57	-12.97	7.412	7.598	6.948	6.994		0^+	0^+
407	287	2429.90		5.97		1.11	26.79	0.20	14.28	-0.20	-13.04	7.420	7.607	6.952	6.998		0^+	$13/2^{+}$
408	288	2430.79		5.96		1.09	26.95	0.89	14.35	-0.36	-13.11	7.429	7.617	6.956	7.002		0^+	0^+
409	289	2430.45		5.94		0.55	27.15	-0.34	14.46	-0.41	-13.23	7.438	7.626	6.966	7.011		0^+	$19/2^{-}$
410	290	2430.45		5.93		-0.34	27.12	0.00	14.45	<u>0.13</u>	-13.32	7.448	7.636	6.974	7.020		0^+	0^+
σ																		