

Results:

Dataset #1:

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Parent Nucleus	Parent E(level)	Parent J π	Parent T $_{1/2}$	Decay Mode	GS-GS Q-value (keV)	Daughter Nucleus
$^{200}_{82}\text{Pb}$	0	0+	21.5 h 4	ε : 100 %	805 12	$^{200}_{81}\text{Tl}$

[Decay Scheme](#) [ENSDF file](#)

Electrons:

	Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
Auger L	7.78	86 % 3	0.00669 20
CE L	17.39 3	0.91 % 15	1.6E-4 3
CE K	24.01 4	2.6 % 4	6.3E-4 9
CE M	29.04 3	0.21 % 4	6.2E-5 10
CE N	31.89 3	0.054 % 9	1.7E-5 3
CE O	32.67 3	0.0105 % 18	3.4E-6 6
Auger K	55.2	4.0 % 4	0.00221 25
CE K	56.75 3	8.2 % 5	0.0047 3
CE K	62.10 3	12.7 % 5	0.0079 3
CE K	69.76 10	0.09 % 3	6.6E-5 24
CE K	75.79 4	0.55 % 6	4.2E-4 5
CE L	94.19 4	0.45 % 6	4.3E-4 6
CE M	105.84 4	0.106 % 15	1.12E-4 16
CE K	107.86 10	0.036 % 15	3.9E-5 16
CE N	108.69 4	0.027 % 4	2.9E-5 4
CE O	109.47 4	0.0052 % 7	5.7E-6 8
CE L	126.93 3	1.41 % 9	0.00178 11
CE L	132.28 3	25.6 % 10	0.0339 14
CE M	138.58 3	0.328 % 20	4.6E-4 3
CE L	139.94 10	0.016 % 6	2.3E-5 8
CE N	141.43 3	0.083 % 5	1.17E-4 7
CE O	142.21 3	0.0161 % 10	2.29E-5 14
CE M	143.93 3	6.7 % 3	0.0097 4
CE L	145.97 4	0.094 % 11	1.37E-4 16
CE N	146.78 3	1.68 % 7	0.00247 10
CE O	147.56 3	0.291 % 12	4.29E-4 17
CE K	150.09 4	2.71 % 12	0.00407 18
CE M	151.59 10	0.0038 % 14	5.7E-6 21
CE N	154.44 10	1.0E-3 % 3	1.5E-6 5

CE O	155.22	10	1.8E-4 %	7	2.9E-7	10
CE M	157.62	4	0.022 %	3	3.5E-5	4
CE N	160.47	4	0.0056 %	6	8.9E-6	10
CE O	161.25	4	0.00108 %	12	1.74E-6	20
CE K	171.66	3	1.17 %	11	0.00202	19
CE L	178.04	10	0.0062 %	25	1.1E-5	4
CE K	182.83	3	1.75 %	9	0.00320	17
CE M	189.69	10	0.0014 %	6	2.7E-6	11
CE N	192.54	10	3.7E-4 %	15	7E-7	3
CE O	193.32	10	7E-5 %	3	1.4E-7	6
CE K	203.71	15	0.38 %	12	7.8E-4	24
CE K	204.39	10	0.62 %	12	0.00126	25
CE K	217.40	5	0.053 %	11	1.15E-4	23
CE L	220.27	4	0.460 %	20	0.00101	4
CE K	230.07	8	0.063 %	10	1.45E-4	22
CE M	231.92	4	0.107 %	5	2.49E-4	11
CE N	234.77	4	0.0271 %	12	6.4E-5	3
CE O	235.55	4	0.00527 %	23	1.24E-5	5
CE L	241.84	3	0.325 %	15	7.9E-4	4
CE L	253.01	3	0.296 %	15	7.5E-4	4
CE M	253.49	3	0.080 %	3	2.03E-4	9
CE N	256.34	3	0.0203 %	20	5.2E-5	5
CE O	257.12	3	0.0038 %	6	9.8E-6	14
CE M	264.66	3	0.069 %	4	1.83E-4	9
CE N	267.51	3	0.0174 %	9	4.67E-5	24
CE O	268.29	3	0.00338 %	18	9.1E-6	5
CE L	273.89	15	0.065 %	20	1.8E-4	6
CE L	274.57	10	0.104 %	20	2.9E-4	6
CE M	285.54	15	0.015 %	5	4.3E-5	14
CE M	286.22	10	0.024 %	5	7.0E-5	14
CE L	287.58	5	0.0089 %	18	2.6E-5	5
CE N	288.39	15	0.0038 %	12	1.1E-5	3
CE N	289.07	10	0.0062 %	12	1.8E-5	3
CE O	289.17	15	7.4E-4 %	23	2.1E-6	7
CE O	289.85	10	0.00120 %	23	3.5E-6	7
CE M	299.23	5	0.0021 %	4	6.2E-6	13
CE L	300.25	8	0.0107 %	16	3.2E-5	5
CE N	302.08	5	5.2E-4 %	11	1.6E-6	3
CE O	302.86	5	1.02E-4 %	21	3.1E-7	6
CE M	311.90	8	0.0025 %	4	7.8E-6	12
CE N	314.75	8	6.3E-4 %	10	2.0E-6	3
CE O	315.53	8	1.22E-4 %	19	3.8E-7	6

CE K	365.03	5	0.363 %	0.001324
CE K	372.27	7	0.0122 % 21	4.5E-5 8
CE L	435.21	5	0.0607 %	2.64E-4
CE K	440.01	6	0.030 % 3	1.34E-4 11
CE L	442.45	7	0.0020 % 4	9.0E-6 16
CE M	446.86	5	0.01412 %	6.31E-5
CE N	449.71	5	0.00356 %	1.602E-5
CE O	450.49	5	6.91E-4 %	3.11E-6
CE M	454.10	7	4.7E-4 % 8	2.1E-6 4
CE N	456.95	7	1.19E-4 % 21	5.5E-7 10
CE O	457.73	7	2.3E-5 % 4	1.06E-7 19
CE L	510.19	6	0.0051 % 4	2.58E-5 22
CE K	519.91	6	0.0282 % 22	1.47E-4 11
CE M	521.84	6	0.00118 % 10	6.1E-6 5
CE N	524.69	6	3.0E-4 % 3	1.56E-6 13
CE O	525.47	6	5.8E-5 % 5	3.0E-7 3
CE L	590.09	6	0.0047 % 4	2.75E-5 21
CE M	601.74	6	0.00109 % 8	6.5E-6 5
CE N	604.59	6	2.74E-4 % 21	1.66E-6 13
CE O	605.37	6	5.3E-5 % 4	3.22E-7 25

Gamma and X-ray radiation:

	Energy (keV)		Intensity (%)	Dose (MeV/Bq-s)
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XR 1	10.3		49.9 % 22	0.00514 23
	32.74	3	0.029 % 5	9.4E-6 16
XR k α 2	70.832		29.8 % 10	0.0211 7
XR k α 1	72.873		50.0 % 16	0.0365 12
XR k β 3	82.115		6.04 % 19	0.00496 16
XR k β 1	82.574		11.6 % 4	0.0095 3
XR k β 2	84.865		4.21 % 14	0.00358 12
	109.54	4	0.49 % 7	5.4E-4 8
	142.28	3	3.20 % 19	0.0046 3
	147.63	3	38.2 % 14	0.0564 21
	155.29	10 ?	0.047 % 17	7E-5 3
	161.32	4	0.31 % 3	4.9E-4 6
	193.39	10	0.034 % 14	7E-5 3
	235.62	4	4.35 % 18	0.0102 4
	257.19	3	4.52 % 18	0.0116 5
	268.36	3	4.01 % 20	0.0108 5
	289.24	15	1.1 % 3	0.0031 10

289.92	10	1.8 %	3	0.0051	10
302.93	5	0.17 %	3	5.1E-4	10
315.60	8	0.23 %	3	7.1E-4	11
348.23	8	0.16 %	5	5.6E-4	18
377.92	5	0.027 %	10	1.0E-4	4
450.56	5	3.37 %		0.0152	
457.80	7	0.118 %	20	5.4E-4	9
525.54	6	0.42 %	4	0.00223	19
605.44	6	0.57 %	4	0.0034	3

Gamma Coincidence Data:

For each gamma, the list of gammas in coincidence is given. If experimentally known, an estimate of the average time interval (in seconds) between both gammas is given

E(γ) Coincidence

32.74 109.54, 147.63 (7.10E-9), 235.62, 257.19, 315.60
109.54 32.74, 147.63 (7.10E-9), 155.29, 193.39, 235.62, 268.36, 315.60, 348.23
142.28 147.63 (7.10E-9), 235.62, 315.60
147.63 32.74 (7.10E-9), 109.54 (7.10E-9), 142.28 (7.10E-9), 155.29 (7.10E-9), 193.39 (7.10E-9),
235.62 (7.10E-9), 268.36 (7.10E-9), 302.93 (7.10E-9), 315.60 (7.10E-9),
348.23 (7.10E-9), 377.92 (7.10E-9), 457.80 (7.10E-9)
155.29 109.54, 147.63 (7.10E-9), 161.32, 193.39, 257.19, 289.24, 302.93, 450.56
161.32 155.29, 289.24
193.39 109.54, 147.63 (7.10E-9), 155.29, 257.19
235.62 32.74, 109.54, 142.28, 147.63 (7.10E-9), 257.19, 289.92
257.19 32.74, 155.29, 193.39, 235.62, 268.36, 315.60, 348.23
268.36 109.54, 147.63 (7.10E-9), 257.19
289.24 155.29, 161.32
289.92 235.62, 315.60
302.93 147.63 (7.10E-9), 155.29
315.60 32.74, 109.54, 142.28, 147.63 (7.10E-9), 257.19, 289.92
348.23 109.54, 147.63 (7.10E-9), 257.19
377.92 147.63 (7.10E-9)
450.56 155.29
457.80 147.63 (7.10E-9)