

ω	R	$N = 6$				
		HF	SRG	CCSD	FCI	DMC
1.0	3	21.59320	21.41211		21.420589	20.15932(8)
	4	20.76692	20.40701		20.415833	
	5	20.74840	20.30093		20.316762	
	6	20.72026	20.24258		20.257196	
	7	20.72013	20.21740		20.232307	
	8	20.71925	20.20197		20.216428	
	9	20.71925	20.19147			
	10	20.71922	20.18407	20.2161		
	11	20.71922	20.17852			
	12	20.71922	20.17423	20.2063		
	13	20.71922	20.17082			
	14	20.71922	20.16804	20.2000		
	15	20.71922	20.16573			
	16	20.71922	20.16378	20.1957		
	17	20.71922	20.16212			
	18	20.71922	20.16068	20.1925		
	20	20.71922	20.15833	20.1901		
0.5	3	13.05160	12.88169		12.897229	11.78484(6)
	4	12.35747	12.02571		12.036943	
	5	12.32513	11.87957		11.913062	
	6	12.27150	11.81401		11.840364	
	7	12.27138	11.79987		11.825317	
	8	12.27136	11.79151		11.815817	
	9	12.27134	11.78593			
	10	12.27133	11.78203	11.8301		
	11	12.27132	11.77914			
	12	12.27132	11.77691	11.8245		
	13	12.27132	11.77516			
	14	12.27132	11.77374	11.8209		
	16	12.27132	11.77158	11.8185		
	18	12.27132	11.77003	11.8167		
	20	12.27132	11.76885	11.8154		

ω	R	$N = 6$				
		HF	SRG	CCSD	FCI	DMC
0.28	4	8.13972	7.83914		7.851833	7.60019(6)
	5	8.09588	7.64560		7.710452	
	6	8.02196	7.58885		7.629581	
	7	8.02057	7.58345		7.620985	
	8	8.01963	7.58020		7.615535	
	9	8.01961	7.57795			
	10	8.01957	7.57634	7.6390		
	11	8.01957	7.57519			
	12	8.01957	7.57430	7.6360		
	13	8.01957	7.57362			
	14	8.01957	7.57307	7.6341		
	16	8.01957	7.57226	7.6328		
	18	8.01957	7.57169	7.6319		
	20	8.01957	7.57126	7.6312		
0.1	4	4.01979	3.77883		3.797439	3.55385(5)
	6	3.87062	3.48576		3.567998	
	7	3.86314	3.48124			
	8	3.85288	3.49061			
	9	3.85259	3.49250			
	10	3.85239	3.49329	3.5841		
	11	3.85239	3.49397			
	12	3.85238	3.49436	3.5835		
	13	3.85238	3.49473			
	14	3.85238	3.49501	3.5831		
	16	3.85238	3.49550	3.5828		
	18	3.85238	3.495893	3.5826		
	20	3.85238	3.496203	3.5825		

ω	R	$N = 12$			
		HF	SRG	CCSD	DMC
1.0	4	70.67385	70.29589		
	5	67.56993	67.00566		
	6	67.29687	66.47442		
	7	66.93474	65.99242		
	8	66.92309	65.91119		
	9	66.91224	65.85942		
	10	66.91204	65.82642	65.8880	
	11	66.91136	65.80346		65.7001(1)
	12	66.91136	65.78621	65.8484	
	13	66.91132	65.77311		
	14	66.91132	65.76275	65.8250	
	15	66.91132	65.75437		
	16	66.91132	65.74746	65.8097	
0.5	18	66.91132	65.73671	65.7989	
	20	66.91132	65.72874	65.7909	
	5	41.10885	40.62285		
	6	40.75051	39.98939		
	7	40.30272	39.42398		
	8	40.26375	39.30358		
	9	40.21669	39.23755		
	10	40.21625	39.21784	39.3081	
	11	40.21619	39.20457		39.1596(1)
	12	40.21617	39.19486	39.2842	
	13	40.21614	39.18748		
	14	40.21614	39.18171	39.2703	
	16	40.21614	39.17328	39.2614	
	18	40.21614	39.16742	39.2551	
	20	40.21614	39.16313	39.2504	

ω	R	$N = 12$			
		HF	SRG	CCSD	DMC
0.28	5	27.59611	27.17675		25.63577(9)
	6	27.19490	26.49848		
	7	26.72253	25.92512		
	8	26.65115	25.74255		
	9	26.55970	25.65997		
	10	26.55443	25.64839	25.7634	
	11	26.55004	25.64090		
	12	26.55004	25.63619	25.7476	
	13	26.55003	25.63261		
	14	26.55003	25.62985	25.7396	
	16	26.55002	25.62587	25.7345	
	18	26.55002	25.62316	25.7310	
	20	26.55002	25.62121	25.7284	
0.1	5	14.09824	13.78429		12.26984(8)
	7	13.27086	12.63665		
	9	13.00015	12.25154		
	10	12.96987	12.21380	12.3887	
	11	12.93358	12.21849		
	12	12.92922	12.21819	12.3628	
	13	12.92495	12.22015		
	14	12.92476	12.22080	12.3596	
	16	12.92466	12.22152	12.3583	
	18	12.92466	12.22196	12.3574	
	20	12.92466	12.22229	12.3568	

ω	R	$N = 20$			
		HF	SRG	CCSD	DMC
1.0	6	161.3397	160.5668		
	7	159.9587	158.7748		
	8	158.4002	156.9626		
	9	158.2260	156.5807		
	10	158.0177	156.2704	156.3659	
	11	158.0103	156.1920		
	12	158.0050	156.1371	156.2363	155.8822(1)
	13	158.0048	156.0968		
	14	158.0043	156.0665	156.1671	
	16	158.0043	156.0232	156.1243	
	18	158.0043	155.9944	156.0956	
	20	158.0043	155.9737	156.0750	
0.5	6	99.75460	99.08287		
	7	98.19348	97.12898		
	8	96.55322	95.29265		
	9	96.22321	94.70851		
	10	95.83332	94.21776	94.3572	
	11	95.78579	94.09619		
	12	95.73460	94.02036	94.1641	93.8752(1)
	13	95.73331	93.99475		
	14	95.73278	93.97612	94.1187	
	16	95.73274	93.95049	94.0922	
	18	95.73274	93.93370	94.0747	
	20	95.73274	93.92186	94.0623	

ω	R	$N = 20$			
		HF	SRG	CCSD	DMC
0.28	6	67.90736	67.31049		61.9268(1)
	7	66.33661	65.35869		
	8	64.75479	63.66640		
	9	64.30909	62.94660		
	10	63.80561	62.35022	62.5234	
	11	63.69533	62.13682		
	12	63.56727	62.01239	62.1948	
	13	63.55277	61.98829		
	14	63.53940	61.97226	62.1476	
	16	63.53881	61.95845	62.1312	
	18	63.53880	61.94968	62.1207	
	20	63.53880	61.94362	62.1134	
0.1	6	35.57216	35.06703		29.9779(1)
	7	34.23072	32.11004		
	8	32.90761	32.11003		
	9	32.37905	nc		
	10	31.82309	30.70206	30.9173	
	11	31.60656	30.26807		
	12	31.35975	30.10850	30.3592	
	13	31.28027	29.99937		
	14	31.19017	29.96846		
	16	31.14599	29.95255		
	18	31.13953	29.95236		
	20	31.13922	29.95263		

ω	R	$N = 30$			
		HF	SRG	CCSD	DMC
1.0	7	322.6847	321.6779		308.5627(2)
	8	318.4354	316.8561		
	9	314.0800	312.1890		
	10	313.1707	310.8837	311.0017	
	11	312.1390	309.6182		
	12	312.0104	309.3140	309.4549	
	13	311.8694	309.0741		
	14	311.8639	308.9924	309.1373	
	16	311.8603	308.8829	309.0300	
	18	311.8600	308.8143	308.9623	
	20	311.8600	308.7673	308.9157	
0.5	7	202.1003	201.2100		187.0426(2)
	7	202.1003	201.2100		
	9	193.5541	191.9332		
	10	192.2256	190.2075	190.3676	
	11	190.8102	189.2440		
	12	190.4624	187.9951	188.2003	
	13	190.0695	187.5046		
	14	190.0072	187.3669	187.5791	
	16	189.9396	187.2400	187.4476	
	18	189.9376	187.1958	187.4023	
	20	189.9376	187.1671	187.3726	

ω	R	$N = 30$			
		HF	SRG	CCSD	DMC
0.28	7	139.0730	138.2659		
	9	131.1536	129.7463		
	10	129.6246	127.8474	128.0461	
	11	128.0639	126.1378		
	12	127.5162	125.3208	125.5740	123.9683(2)
	13	126.9189	124.6269		
	14	126.7486	124.3451	124.6214	
	16	126.5257	124.1040		
	18	126.4898	124.0579		
	20	126.4878	124.0410		
0.1	9	68.01272	66.91276		
	10	66.51783	nc	65.3814	
	11	65.02427	63.62582		
	12	64.28835	nc	62.9388	
	13	63.53191	61.81515		60.4205(2)
	14	63.16953	61.23935	61.6347	
	16	62.11632	60.65165		
	18	62.36082	60.47087		
	20	62.27164	60.43186		

ω	R	$N = 42$			
		HF	SRG	CCSD	DMC
1.0	8	574.7947	573.5344		542.9428(8)
	10	555.3932	553.0438	553.1292	
	11	552.4725	549.5708		
	12	549.3884	546.1358	546.2805	
	13	548.6881	545.0728		
	14	547.9075	544.0770	544.2634	
	16	547.6913	543.5977	543.7953	
	18	547.6834	543.4402	543.6410	
	20	547.6832	543.3398	543.5423	
0.5	8	363.7667	362.6384		330.6306(2)
	10	345.7212	343.6797	343.7933	
	12	338.5124	335.7230	335.9015	
	13	337.2062	334.0219		
	14	335.8230	332.4212	332.6689	
	16	334.9900	331.2554		
	18	334.8158	330.9641		
	20	334.8026	330.8885		
0.28	12	229.0335	226.6320	226.8383	219.8426(2)
	14	225.6415	222.7101	222.9902	
	16	224.1895	220.8758		
	18	223.6466	220.1885		
	20	223.5045	220.0226		
0.1	14	114.6498	112.53086	112.8385	107.6389(2)
	16	112.5870	110.1581		
	17	112.0146	109.3611		
	18	111.4172	108.7591		
	20	110.7797	108.0603		
	22	110.4670	107.7851		

ω	R	$N = 56$			
		HF	SRG	CCSD	DMC
1.0	14	889.7655	885.2797	885.4848	879.3986(6)
	16	886.7047	881.5277	881.7727	
	18	885.9553	880.4159	880.6746	
0.5	16	545.7742	541.2165	541.5433	537.353(2)
	18	543.8377	538.8199		
0.28	18	365.2326	360.83689		358.145(2)

Table 1: No convergence for lower values of R . For $\omega = 0.1$ no convergence until at least $R = 18$.