

## Supplementary Information

# Exhaustive exploration of the conformational landscape of mono- and disubstituted five-membered rings by DFT and MP2 calculations

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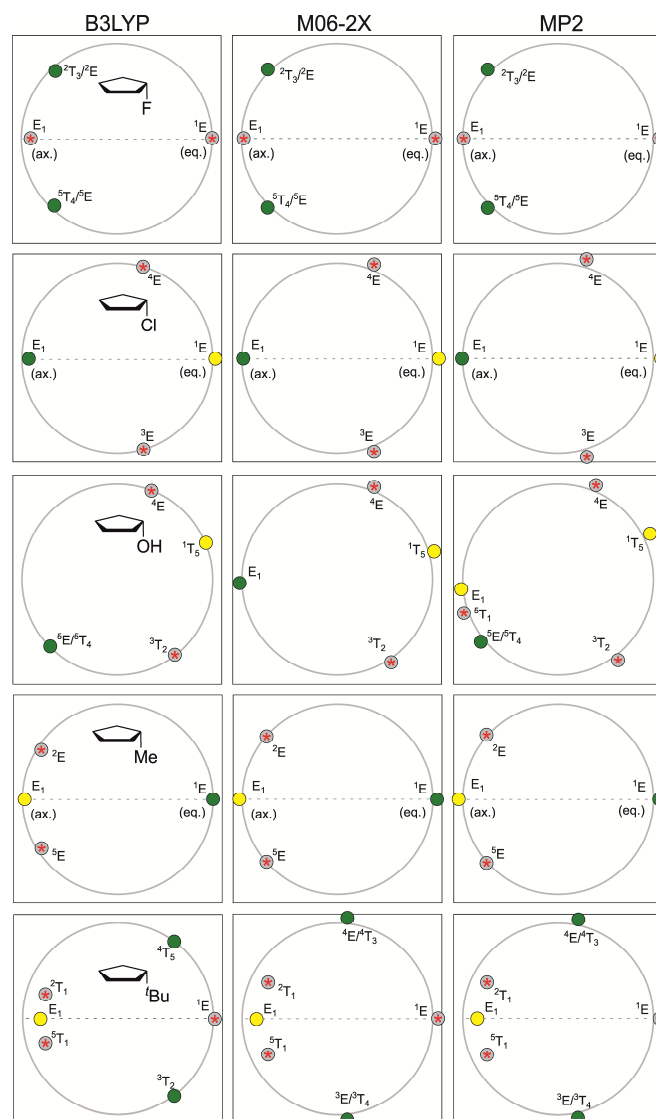
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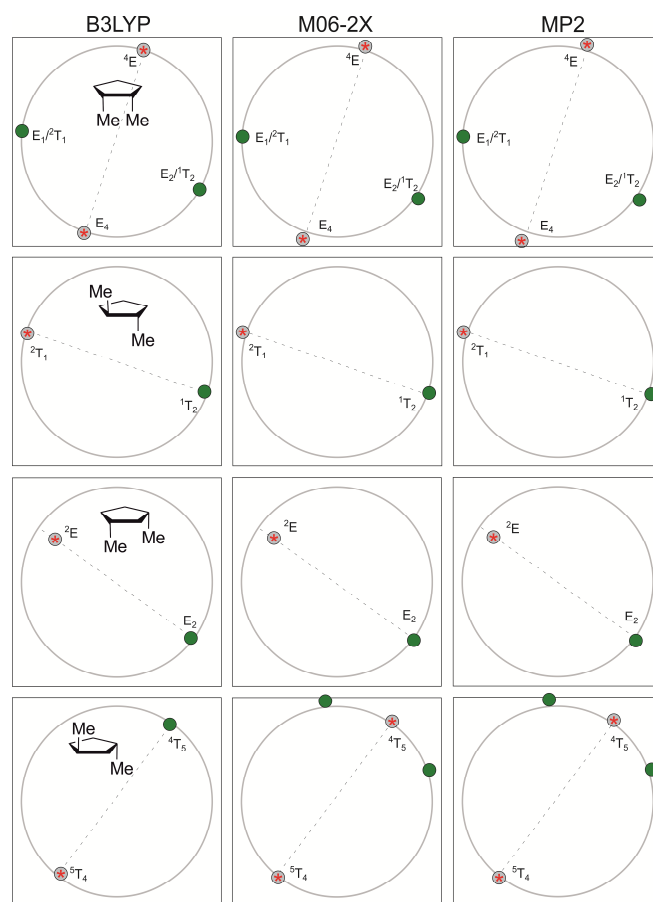
1- Geometry representations of the Cremer-Pople puckering parameters of minima and transition states computed for compounds **1-22** at the three levels of theory under study. Pages S2-S7.

1- SCF and Gibbs free energies (in Hartress), amplitudes (Q), phase coordinates ( $\phi$ ), relative energies (in kcal/mol) and lower frequencies computed for all shapes found for compounds **1-22** at the B3LYP, M06-2X and MP2 levels of theory. Pages S8-S18

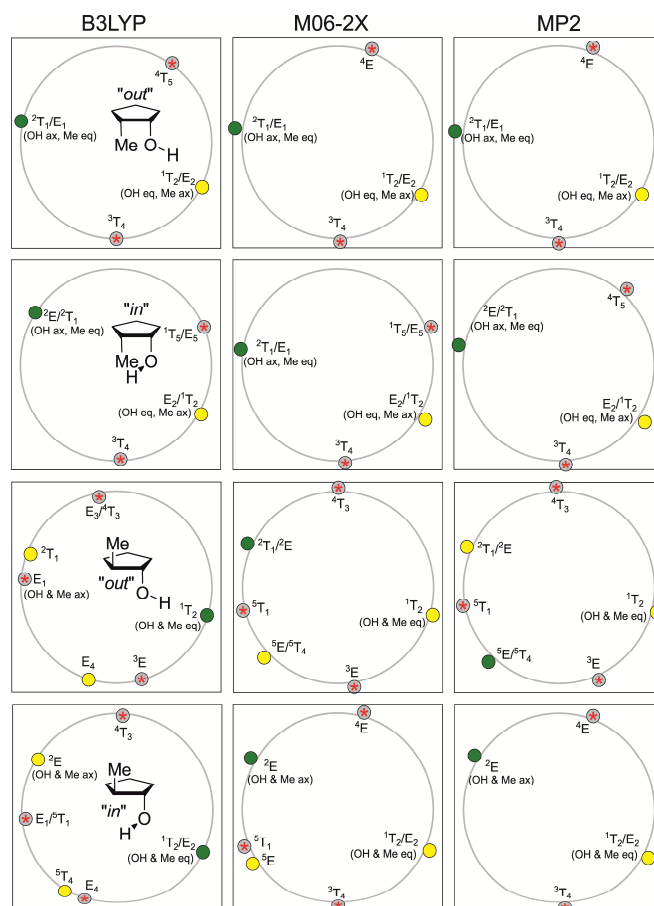
2- Cartesian coordinates of all shapes found for compounds **1-22** at the B3LYP, M06-2X and MP2 levels of theory. Pages S19-S75.



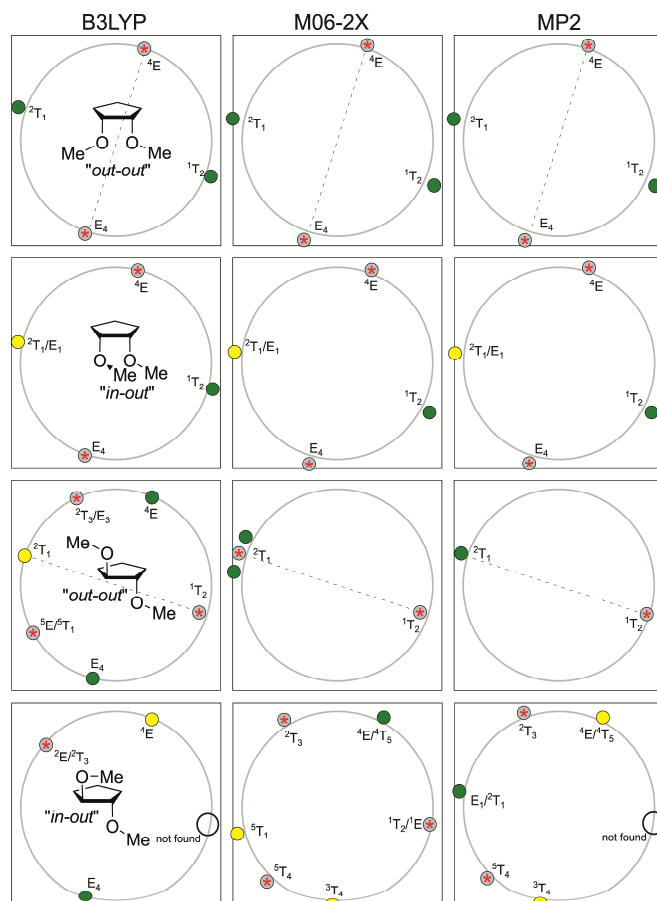
**Figure S1.** Geometry representations of the Cremer-Pople puckering parameters of minima (green, global minima; yellow, local minima) and transition states (grey circle with red star) computed for compounds **2-6** at the three levels of theory under study.



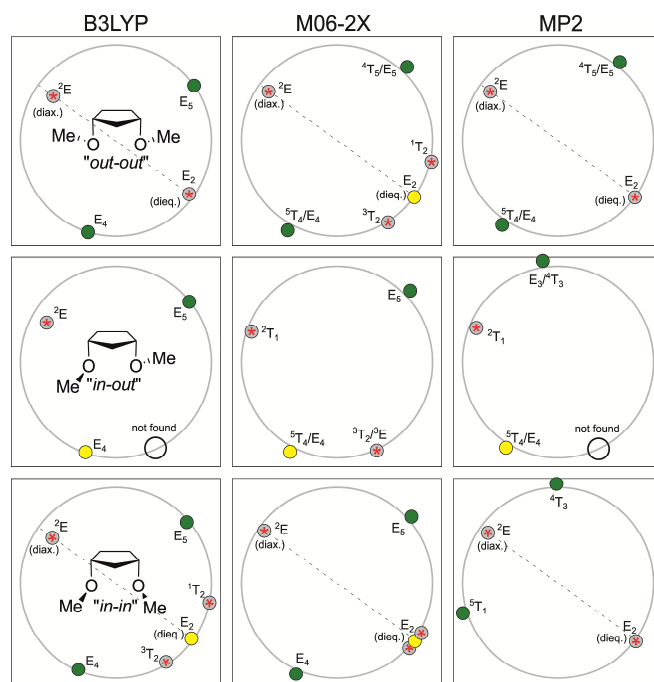
**Figure S2.** Geometry representations of the Cremer-Pople puckering parameters of minima (green, global minima; yellow, local minima) and transition states (grey circle with red star) computed for compounds **10-13** at the three levels of theory under study.



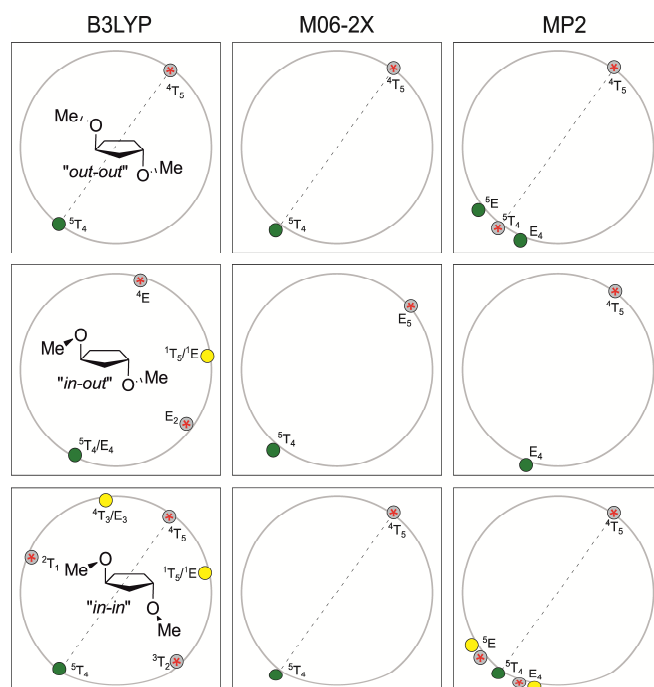
**Figure S3.** Geometry representations of the Cremer-Pople puckering parameters of minima (green, global minima; yellow, local minima) and transition states (grey circle with red star) computed for compounds **14-15** at the three levels of theory under study.



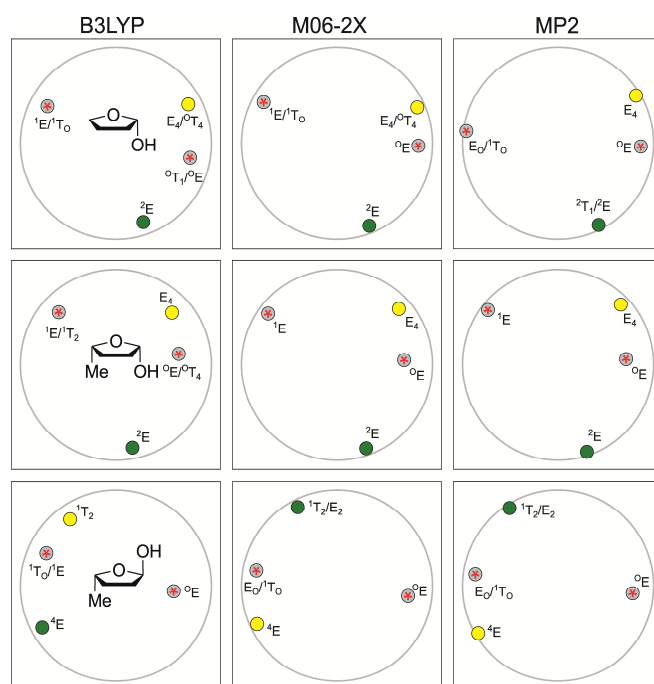
**Figure S4.** Geometry representations of the Cremer-Pople puckering parameters of minima (green, global minima; yellow, local minima) and transition states (grey circle with red star) computed for compounds **16-17** at the three levels of theory under study.



**Figure S5.** Geometry representations of the Cremer-Pople puckering parameters of minima (green, global minima; yellow, local minima) and transition states (grey circle with red star) computed for compound **18** at the three levels of theory under study.



**Figure S6.** Geometry representations of the Cremer-Pople puckering parameters of minima (green, global minima; yellow, local minima) and transition states (grey circle with red star) computed for compound **19** at the three levels of theory under study.



**Figure S7.** Geometry representations of the Cremer-Pople puckering parameters of minima (green, global minima; yellow, local minima) and transition states (grey circle with red star) computed for compounds **20-22** at the three levels of theory under study.

SCF and Gibbs free energies (in Hartrees), amplitudes (Q), phase coordinates ( $\phi$ ), relative energies (in kcal/mol) and lower frequencies computed for all shapes found for compounds 1-22 at the B3LYP, M06-2X and MP2 levels of theory.

Compound 1: cyclopentane						
Shape	Level of theory	Energy (Hartrees)	Q (Å)	$\Phi$ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
E (E)	B3LYP/6-311+G**	-196.611648	0.399	0.4	<b>0.000</b>	+24.7
	idem Ultrafine / Tight	-196.611644	0.399	0.0	0.003	<b>-12.9</b>
	idem Superfine / Tight	-196.611645	0.399	0.5	0.001	<b>-8.3</b>
	M06-2X/6-311+G**	-196.502249	0.419	0.5	0.003	<b>-40.9</b>
	idem Ultrafine / Tight	-196.502265	0.419	0.5	0.002	<b>-16.4</b>
	idem Superfine / Tight	-196.502267	0.419	0.0	0.001	<b>-12.2</b>
	MP2/6-311+G**	-195.964900	0.427	0.4	<b>0.000</b>	+7.9
	idem Tight	-195.964900	0.426	0.4	<b>0.000</b>	<b>-2.5</b>
	G (B3LYP/6-311+G**)	-196.500820			<b>0.000</b>	
	idem Ultrafine / Tight	-196.498843			2.046	
	idem Superfine / Tight	-196.498835			1.779	
	G (M06-2X/6-311+G**)	-196.388231			1.824	
	idem Ultrafine / Tight	-196.387885			2.304	
	idem Superfine / Tight	-196.387870			2.523	
	G (MP2/6-311+G**)	-195.852896			<b>0.000</b>	
idem Tight	-195.849809			0.002		
T (T <sub>5</sub> )	B3LYP/6-311+G**	-196.611636	0.399	345.1	0.008	<b>-22.4</b>
	idem Ultrafine / Tight	-196.611649	0.399	346.7	<b>0.000</b>	+10.9
	idem Superfine / Tight	-196.611646	0.399	342.0	0.000	+10.3
	M06-2X/6-311+G**	-196.502240	0.419	345.0	0.008	<b>-43.5</b>
	idem Ultrafine / Tight	-196.502269	0.419	344.6	<b>0.000</b>	+4.3
	idem Superfine / Tight	-196.502268	0.419	344.6	0.000	+2.9
	MP2/6-311+G**	-195.964900	0.427	345.1	<b>0.000</b>	+8.1
	idem Tight	-195.964900	0.426	345.1	<b>0.000</b>	<b>-0.5</b>
	G (B3LYP/6-311+G**)	-196.498804			1.265	
	idem Ultrafine / Tight	-196.501625			0.301	
	idem Superfine / Tight	-196.501670			<b>0.000</b>	
	G (M06-2X/6-311+G**)	-196.388262			1.804	
	idem Ultrafine / Tight	-196.391556			<b>0.000</b>	
	idem Superfine / Tight	-196.391890			<b>0.000</b>	
	G (MP2/6-311+G**)	-195.852870			0.016	
idem Tight	-195.849812			<b>0.000</b>		
E/T (T <sub>5</sub> /E)	B3LYP/6-311+G**	-196.611648	0.399	352.7	0.000	<b>-21.1</b>
	idem Ultrafine / Tight	-196.611645	0.399	352.7	0.003	+6.6
	M06-2X/6-311+G**	-196.502253	0.419	352.5	<b>0.000</b>	+23.2
	idem Ultrafine / Tight	-196.502267	0.419	352.5	0.001	+12.4
	idem Superfine / Tight	-196.502267	0.419	348.3	0.001	+9.0
	MP2/6-311+G**	-195.964900	0.427	352.7	<b>0.000</b>	+8.1
	idem Tight	-195.964900	0.426	352.7	<b>0.000</b>	<b>-2.1</b>
	G (B3LYP/6-311+G**)	-196.498815			1.258	
	idem Ultrafine / Tight	-196.502104			<b>0.000</b>	
	G (M06-2X/6-311+G**)	-196.391137			<b>0.000</b>	
	idem Ultrafine / Tight	-196.390561			0.624	
	idem Superfine / Tight	-196.390826			0.668	
	G (MP2/6-311+G**)	-195.852874			0.014	
	idem Tight	-195.849810			0.001	

Compound 2: fluorocyclopentane						
Shape	Level of theory	Energy (Hartrees)	Q (Å)	$\Phi$ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>5</sup> T <sub>4</sub> / <sup>3</sup> E (= <sup>2</sup> T <sub>3</sub> / <sup>2</sup> E)	B3LYP/6-311+G**	-295.885200	0.387	133.1	<b>0.00</b>	+51.9
	M06-2X/6-311+G**	-295.749442	0.412	135.0	<b>0.00</b>	+54.8
	MP2/6-311+G**	-295.048299	0.416	135.5	<b>0.00</b>	+62.2
	G (B3LYP/6-311+G**)	-295.782647			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-295.645115			<b>0.00</b>	
	G(MP2/6-311+G**)	-294.943139			<b>0.00</b>	
E <sub>1</sub>	B3LYP/6-311+G**	-295.884951	0.366	180.0	0.16	-44.2
	M06-2X/6-311+G**	-295.749195	0.394	180.0	0.15	-39.0
	MP2/6-311+G**	-295.047958	0.399	180.0	0.21	-48.8
	G (B3LYP/6-311+G**)	-295.781188			0.92	
	G (M06-2X/6-311+G**)	-295.643719			0.88	
	G(MP2/6-311+G**)	-294.941863			0.80	
E	B3LYP/6-311+G**	-295.882831	0.395	0.0	1.49	<b>-34.8</b>
	M06-2X/6-311+G**	-295.746684	0.415	0.0	1.73	<b>-32.6</b>
	MP2/6-311+G**	-295.045425	0.426	0.0	1.80	<b>-27.5</b>
	G (B3LYP/6-311+G**)	-295.779044			2.26	
	G (M06-2X/6-311+G**)	-295.641194			2.46	
	G(MP2/6-311+G**)	-294.939311			2.40	

Compound 3: chlorocyclopentane						
Shape	Level of theory	Energy (Hartrees)	Q (Å)	$\Phi$ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
E <sub>1</sub>	B3LYP/6-311+G**	-656.239554	0.371	180.0	<b>0.00</b>	+61.9
	M06-2X/6-311+G**	-656.110253	0.396	180.0	<b>0.00</b>	+86.0
	MP2/6-311+G**	-655.030234	0.405	180.0	<b>0.00</b>	+78.7



	G (B3LYP/6-311+G**)	-656.138981			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-656.007630			<b>0.00</b>	
	G(MP2/6-311+G**)	-654.927005			<b>0.00</b>	
<sup>1</sup> E	B3LYP/6-311+G**	-656.238772	0.410	0.0	0.49	+34.7
	M06-2X/6-311+G**	-656.108325	0.428	0.0	1.21	+43.8
	MP2/6-311+G**	-655.028563	0.433	0.0	1.05	+33.8
	G (B3LYP/6-311+G**)	-656.138831			0.09	
	G (M06-2X/6-311+G**)	-656.006547			0.68	
	G(MP2/6-311+G**)	-654.926332			0.42	
<sup>3</sup> E(= <sup>4</sup> E)	B3LYP/6-311+G**	-656.238121	0.405	72.8	0.90	<b>-34.6</b>
	M06-2X/6-311+G**	-656.107497	0.426	68.7	1.73	<b>-49.3</b>
	MP2/6-311+G**	-655.027259	0.434	74.0	1.87	<b>-53.3</b>
	G (B3LYP/6-311+G**)	-656.136164			1.77	
	G (M06-2X/6-311+G**)	-656.003998			2.28	
	G(MP2/6-311+G**)	-654.923024			2.50	

**Compound 4: cyclopentanol**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm-1)
<sup>1</sup> T <sub>5</sub>	B3LYP/6-311+G**	-271.854158	0.402	337.1	0.64	+31.6
	M06-2X/6-311+G**	-271.722418	0.422	340.9	1.12	+33.7
	MP2/6-311+G**	-271.043388	0.431	333.6	1.33	+26.9
	G (B3LYP/6-311+G**)	-271.740353			0.30	
	G (M06-2X/6-311+G**)	-271.606769			0.59	
	G (MP2/6-311+G**)	-270.927360			0.84	
<sup>5</sup> E/ <sup>2</sup> T <sub>4</sub>	B3LYP/6-311+G**	-271.855181	0.397	135.3	<b>0.00</b>	+39.2 <sup>a</sup>
	MP2/6-311+G**	-271.045515	0.418	141.1	<b>0.00</b>	+43.1
	G (B3LYP/6-311+G**)	-271.740839			<b>0.00</b>	
	G (MP2/6-311+G**)	-270.928409			0.18	
E <sub>1</sub>	M06-2X/6-311+G**	-271.724204	0.413	177.8	<b>0.00</b>	+51.9
	MP2/6-311+G**	-271.045496	0.416	176.9	0.01	+41.9
	G (M06-2X/6-311+G**)	-271.607712			<b>0.00</b>	
	G (MP2/6-311+G**)	-270.928693			<b>0.00</b>	
<sup>5</sup> T <sub>1</sub>	MP2/6-311+G**	-271.045479	0.413	161.5	0.02	<b>-33.5</b>
	G (MP2/6-311+G**)	-270.927041			1.04	
<sup>3</sup> T <sub>2</sub>	B3LYP/6-311+G**	-271.853846	0.395	52.5	0.84	<b>-45.2</b>
	M06-2X/6-311+G**	-271.721964	0.416	56.9	1.41	<b>-49.7</b>
	MP2/6-311+G**	-271.042941	0.424	53.5	1.62	<b>-52.7</b>
	G (B3LYP/6-311+G**)	-271.738161			1.68	
	G (M06-2X/6-311+G**)	-271.604486			2.02	
	G (MP2/6-311+G**)	-270.924846			2.41	
<sup>4</sup> E	B3LYP/6-311+G**	-271.853964	0.399	291.0	0.76	<b>-38.3</b>
	M06-2X/6-311+G**	-271.722086	0.420	291.7	1.33	<b>-43.7</b>
	MP2/6-311+G**	-271.043170	0.429	291.9	1.47	<b>-44.8</b>
	G (B3LYP/6-311+G**)	-271.738150			1.69	
	G (M06-2X/6-311+G**)	-271.604484			2.03	
	G (MP2/6-311+G**)	-270.924848			2.41	

a) B3PW91 is 0.404/135.8/+40.8 (only). PBE1PBE is 0.409/134.8/+44.8 (only)

**Compound 5: methylcyclopentane**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm-1)
E <sub>1</sub>	B3LYP/6-311+G**	-235.935865	0.394	180.0	1.16	+68.7
	M06-2X/6-311+G**	-235.807909	0.415	180.0	0.31	+98.4
	MP2/6-311+G**	-235.163719	0.420	180.0	0.33	+94.3
	G (B3LYP/6-311+G**)	-235.797975			1.86	
	G (M06-2X/6-311+G**)	-235.667698			1.21	
	G(MP2/6-311+G**)	-235.022728			1.16	
<sup>1</sup> E	B3LYP/6-311+G**	-235.937711	0.401	0.0	<b>0.00</b>	+28.5
	M06-2X/6-311+G**	-235.808405	0.418	0.0	<b>0.00</b>	+33.6
	MP2/6-311+G**	-235.164241	0.425	0.0	<b>0.00</b>	+35.3
	G (B3LYP/6-311+G**)	-235.800941			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-235.669632			<b>0.00</b>	
	G(MP2/6-311+G**)	-235.024572			<b>0.00</b>	
<sup>5</sup> E(= <sup>2</sup> E)	B3LYP/6-311+G**	-235.935642	0.385	146.9	1.30	<b>-60.2</b>
	M06-2X/6-311+G**	-235.807145	0.402	138.3	0.79	<b>-68.5</b>
	MP2/6-311+G**	-235.162980	0.408	138.0	0.79	<b>-68.8</b>
	G (B3LYP/6-311+G**)	-235.796573			2.74	
	G (M06-2X/6-311+G**)	-235.666089			2.22	
	G(MP2/6-311+G**)	-235.021080			2.19	

**Compound 6: t-butylcyclopentane**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm-1)
<sup>3</sup> T <sub>2</sub> (= <sup>4</sup> T <sub>5</sub> )	B3LYP/6-311+G**	-353.905924	0.403	53.9	<b>0.00</b>	+29.6
	M06-2X/6-311+G**	-353.722523	0.425	84.5	<b>0.00</b>	+61.6
<sup>3</sup> E/ <sup>2</sup> T <sub>4</sub>	MP2/6-31+G*	-352.502553	0.425	78.6	<b>0.00</b>	+51.6
	MP2/6-311+G**//	-352.758144			<b>0.00</b>	
	G (B3LYP/6-311+G**)	-353.689318			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-353.501821			<b>0.00</b>	
	G (MP2/6-31+G*)	-352.278197			<b>0.00</b>	

<sup>1</sup> E	B3LYP/6-311+G**	-353.905718	0.407	0.0	0.13	<b>-33.4</b>
	M06-2X/6-311+G**	-353.721612	0.423	0.0	0.57	<b>-55.4</b>
	MP2/6-311+G*	-352.501771	0.427	0.0	0.49	<b>-46.5</b>
	MP2/6-311+G**//	-352.757065			0.68	
	G (B3LYP/6-311+G**)	-353.688131			0.74	
	G (M06-2X/6-311+G**)	-353.501475			0.22	
	G (MP2/6-311+G*)	-352.277558			0.40	
E <sub>1</sub>	B3LYP/6-311+G**	-353.901303	0.330	180.0	2.90	+30.5
	M06-2X/6-311+G**	-353.718466	0.344	179.4	2.55	+34.9
	MP2/6-311+G*	-352.497819	0.344	180.0	2.97	+21.9
	MP2/6-311+G**//	-352.753703			2.79	
	G (B3LYP/6-311+G**)	-353.684952			2.74	
	G (M06-2X/6-311+G**)	-353.499200			1.64	
	G (MP2/6-311+G*)	-352.274508			2.31	
<sup>5</sup> T <sub>1</sub> (= <sup>2</sup> T <sub>1</sub> )	B3LYP/6-311+G**	-353.901273	0.326	161.5	2.92	<b>-65.2</b>
	M06-2X/6-311+G**	-353.718312	0.333	152.5	2.64	<b>-85.2</b>
	MP2/6-311+G*	-352.497653	0.339	153.1	3.08	<b>-85.3</b>
	MP2/6-311+G**//	-352.753522			2.90	
	G (B3LYP/6-311+G**)	-353.683149			3.87	
	G (M06-2X/6-311+G**)	-353.496971			3.04	
	G (MP2/6-311+G*)	-352.272401			3.64	

**Compound 7: oxolane**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>1</sup> E (E)	B3LYP/6-311+G**	-232.518663	0.367	0.0	0.02	+24.5
	M06-2X/6-311+G**	-232.406246	0.380	0.7	0.07	<b>-15.1</b>
	MP2/6-311+G**	-231.830787	0.394	0.0	0.20	<b>-78.7</b>
	G (B3LYP/6-311+G**)	-232.431315			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-232.315234			1.02	
	G (MP2/6-311+G**)	-231.739332			1.12	
T ( <sup>3</sup> T <sub>4</sub> )	B3LYP/6-311+G**	-232.518693	0.367	90.0	<b>0.00</b>	+46.8
	M06-2X/6-311+G**	-232.406358	0.386	89.9	<b>0.00</b>	+60.0
	MP2/6-311+G**	-231.831046	0.398	90.0	0.04	<b>-23.5</b>
	G (B3LYP/6-311+G**)	-232.431031			0.18	
	G (M06-2X/6-311+G**)	-232.316867			<b>0.00</b>	
	G (MP2/6-311+G**)	-231.739731			0.87	
Int (E <sub>2</sub> / <sup>3</sup> T <sub>2</sub> )	B3LYP/6-311+G**	-232.518581	0.365	44.6	0.07	<b>-46.2</b>
	M06-2X/6-311+G**	-232.406192	0.383	47.6	0.10	<b>-59.6</b>
	MP2/6-311+G**	-231.831107	0.401	42.3	<b>0.00</b>	+42.0
	G (B3LYP/6-311+G**)	-232.429357			1.05	
	G (M06-2X/6-311+G**)	-232.315334			0.96	
	G (MP2/6-311+G**)	-231.741113			<b>0.00</b>	

**Compound 8: pyrrolidine**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>1</sup> E (H eq)	B3LYP/6-311+G**	-212.646344	0.420	0.0	<b>0.00</b>	+76.5
	M06-2X/6-311+G**	-212.536770	0.436	0.0	<b>0.00</b>	+71.7
	MP2/6-311+G**	-211.982186	0.449	0.0	<b>0.00</b>	+70.2
	G (B3LYP/6-311+G**)	-212.545361			0.47	
	G (M06-2X/6-311+G**)	-212.434211			0.40	
	G (MP2/6-311+G**)	-211.879120			<b>0.00</b>	
E <sub>1</sub> (H ax)	B3LYP/6-311+G**	-212.646038	0.342	180.0	0.19	+24.1
	M06-2X/6-311+G**	-212.536631	0.360	180.0	0.09	<b>-23.6</b>
	MP2/6-311+G**	-211.981964	0.365	180.0	0.14	<b>-65.5</b>
	G (B3LYP/6-311+G**)	-212.546103			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-212.433096			1.10	
	G (MP2/6-311+G**)	-211.877852			0.80	
<sup>3</sup> T <sub>4</sub>	B3LYP/6-311+G**	-212.645217	0.381	89.3	0.71	<b>-60.5</b>
	M06-2X/6-311+G**	-212.535809	0.398	93.6	0.60	<b>-58.7</b>
	MP2/6-311+G**	-211.981208	0.414	84.9	0.61	<b>-49.6</b>
	G (B3LYP/6-311+G**)	-212.543597			1.57	
	G (M06-2X/6-311+G**)	-212.432556			1.44	
	G (MP2/6-311+G**)	-211.877304			1.14	
E <sub>1</sub> / <sup>5</sup> T <sub>1</sub> <sup>5</sup> E	M06-2X/6-311+G**	-212.536632	0.361	172.9	0.09	+31.6
	MP2/6-311+G**	-211.982117	0.379	150.0	0.04	+71.1
	G (M06-2X/6-311+G**)	-212.434849			<b>0.00</b>	
	G (MP2/6-311+G**)	-211.878969			0.09	
Inversion TS	B3LYP/6-311+G**	-212.640904	0.363	90.0	3.41	<b>-473.0</b>
	M06-2X/6-311+G**	-212.531150	0.389	90.0	3.53	<b>-497.3</b>
	MP2/6-311+G**	-211.975243	0.404	90.0	4.36	<b>-533.5</b>
	G (B3LYP/6-311+G**)	-212.540944			3.24	
	G (M06-2X/6-311+G**)	-212.429520			2.24	
	G (MP2/6-311+G**)	-211.872975			3.86	

**Compound 9: cyclopentanone**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>5</sup> T <sub>4</sub> (= <sup>4</sup> T <sub>3</sub> )	B3LYP/6-311+G**	-270.652704	0.361	90.0	<b>0.00</b>	+99.6

	M06-2X/6-311+G**	-270.524551	0.383	90.0	<b>0.00</b>	+100.9
	MP2/6-311+G**	-269.856359	0.338	90.0	<b>0.00</b>	+94.8
	G (B3LYP/6-311+G**)	-270.561030			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-270.431385			<b>0.00</b>	
	G (MP2/6-311+G**)	-269.762905			<b>0.00</b>	
<sup>1</sup> E (=E <sub>1</sub> )	B3LYP/6-311+G**	-270.648465	0.192	0.0	2.66	<b>-151.2</b>
	M06-2X/6-311+G**	-270.519467	0.238	0.0	3.19	<b>-149.6</b>
	MP2/6-311+G**	-269.850670	0.280	0.0	3.57	<b>-149.3</b>
	G (B3LYP/6-311+G**)	-270.556906			2.59	
	G (M06-2X/6-311+G**)	-270.426289			3.20	
	G (MP2/6-311+G**)	-269.757038			3.68	

**Compound 10: *cis*-1,2-dimethylcyclopentane**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>1</sup> T <sub>2</sub> /E <sub>2</sub> (=2 <sup>2</sup> T <sub>1</sub> /2 <sup>2</sup> E)	B3LYP/6-311+G**	-275.260095	0.412	28.7	<b>0.00</b>	+80.4
	M06-2X/6-311+G**	-275.113348	0.425	34.1	<b>0.00</b>	+100.3
	MP2/6-311+G**	-274.362108	0.431	34.4	<b>0.00</b>	+101.1
	G (B3LYP/6-311+G**)	-275.095772			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-274.946385			<b>0.00</b>	
	G (MP2/6-311+G**)	-274.194280			<b>0.00</b>	
<sup>4</sup> E	B3LYP/6-311+G**	-275.259256	0.405	288.0	0.53	<b>-36.1</b>
	M06-2X/6-311+G**	-275.111380	0.421	288.0	1.24	<b>-54.5</b>
	MP2/6-311+G**	-274.359885	0.427	288.0	1.39	<b>-63.7</b>
	G (B3LYP/6-311+G**)	-275.093495			1.43	
	G (M06-2X/6-311+G**)	-274.943356			1.90	
	G (MP2/6-311+G**)	-274.191056			2.02	
E <sub>4</sub>	B3LYP/6-311+G**	-275.256516	0.406	108.0	2.25	<b>-59.4</b>
	M06-2X/6-311+G**	-275.109664	0.432	108.0	2.31	<b>-54.1</b>
	MP2/6-311+G**	-274.358036	0.437	108.0	2.56	<b>-62.0</b>
	G (B3LYP/6-311+G**)	-275.090468			3.33	
	G (M06-2X/6-311+G**)	-274.941265			3.21	
	G (MP2/6-311+G**)	-274.188854			3.40	

**Compound 11: *trans*-1,2-dimethylcyclopentane**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>1</sup> T <sub>2</sub>	B3LYP/6-311+G**	-275.263308	0.402	18.0	<b>0.00</b>	+46.3
	M06-2X/6-311+G**	-275.114866	0.420	18.0	<b>0.00</b>	+54.2
	MP2/6-311+G**	-274.363919	0.425	18.0	<b>0.00</b>	+51.1
	G (B3LYP/6-311+G**)	-275.100090			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-274.949369			<b>0.00</b>	
	G (MP2/6-311+G**)	-274.197546			<b>0.00</b>	
<sup>2</sup> T <sub>1</sub>	B3LYP/6-311+G**	-275.259822	0.384	198.0	2.19	<b>-15.7</b>
	M06-2X/6-311+G**	-275.113121	0.405	198.0	1.09	+55.4 <sup>a</sup>
	MP2/6-311+G**	-274.362212	0.408	198.0	1.07	+49.7 <sup>a</sup>
	G (B3LYP/6-311+G**)	-275.094663			3.41	
	G (M06-2X/6-311+G**)	-274.946877			1.56	
	G (MP2/6-311+G**)	-274.195224			1.46	

a) All efforts to find the TS were unsuccessful

**Compound 12: *cis*-1,3-dimethylcyclopentane**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
E <sub>2</sub>	B3LYP/6-311+G**	-275.263431	0.403	36.0	<b>0.00</b>	+44.9
	M06-2X/6-311+G**	-275.114146	0.418	36.0	<b>0.00</b>	+49.1
	MP2/6-311+G**	-274.363204	0.423	36.0	<b>0.00</b>	+31.3
	G (B3LYP/6-311+G**)	-275.100144			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-274.948663			<b>0.00</b>	
	G (MP2/6-311+G**)	-274.197160			<b>0.00</b>	
<sup>4</sup> E	B3LYP/6-311+G**	-275.257044	0.308	216.0	4.01	<b>-112.8</b>
	M06-2X/6-311+G**	-275.108347	0.318	216.0	3.64	<b>-128.7</b>
	MP2/6-311+G**	-274.357211	0.323	216.0	3.76	<b>-128.4</b>
	G (B3LYP/6-311+G**)	-275.091805			5.23	
	G (M06-2X/6-311+G**)	-274.941022			4.79	
	G (MP2/6-311+G**)	-274.188878			5.20	

**Compound 13: *trans*-1,3-dimethylcyclopentane**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>4</sup> T <sub>5</sub>	B3LYP/6-311+G**	-275.262981	0.403	306.0	<b>0.00</b>	+25.6
	M06-2X/6-311+G**	-275.113674	0.418	306.0	0.11	<b>-13.6</b>
	MP2/6-311+G**	-274.362888	0.424	306.0	0.06	<b>-8.0</b>
	G (B3LYP/6-311+G**)	-275.099773			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-274.946401			1.04	
	G (MP2/6-311+G**)	-274.194534			0.06	
<sup>5</sup> T <sub>4</sub>	B3LYP/6-311+G**	-275.260061	0.382	126.0	1.83	<b>-39.0</b>
	M06-2X/6-311+G**	-275.112248	0.399	126.0	1.00	<b>-46.4</b>
	MP2/6-311+G**	-274.361278	0.402	126.0	1.07	<b>-45.7</b>
	G (B3LYP/6-311+G**)	-275.094525			3.29	

	G (M06-2X/6-311+G**)	-274.944341			2.33	
	G (MP2/6-311+G**)	-274.192458			1.36	
<sup>4</sup> T <sub>3</sub>	M06-2X/6-311+G**	-275.113845	0.423	265.3	<b>0.00</b>	+39.0
	MP2/6-311+G**	-274.362979	0.428	266.8	<b>0.00</b>	+32.9
	G (M06-2X/6-311+G**)	-274.948052			<b>0.00</b>	
	G (MP2/6-311+G**)	-274.194625			<b>0.00</b>	

**Compound 14: *cis*-2-methylcyclopentanol**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>2</sup> T <sub>1</sub> /E <sub>1</sub> out	B3LYP/6-311+G**	-311.180157	0.404	192.6	0.13	+59.2
	M06-2X/6-311+G**	-311.030116	0.422	187.9	0.07	+71.9
	MP2/6-311+G**	-310.244401	0.425	185.5	<b>0.00</b>	+60.1
	G (B3LYP/6-311+G**)	-311.039549			0.41	
	G (M06-2X/6-311+G**)	-310.887113			0.19	
	G (MP2/6-311+G**)	-310.100678			0.27	
<sup>4</sup> T <sub>4</sub> out	B3LYP/6-311+G**	-311.175757	0.402	89.1	2.89	<b>-52.9</b>
	M06-2X/6-311+G**	-311.025809	0.417	86.6	2.77	<b>-61.8</b>
	MP2/6-311+G**	-310.239611	0.426	88.2	3.01	<b>-62.5</b>
	G (B3LYP/6-311+G**)	-311.033347			4.30	
	G (M06-2X/6-311+G**)	-310.881087			3.97	
	G (MP2/6-311+G**)	-310.094162			4.36	
<sup>1</sup> T <sub>2</sub> /E <sub>2</sub> out	B3LYP/6-311+G**	-311.177572	0.411	26.9	1.75	+77.1
	M06-2X/6-311+G**	-311.028071	0.426	31.0	1.35	+95.5
	MP2/6-311+G**	-310.242099	0.433	31.3	1.44	+96.1
	G (B3LYP/6-311+G**)	-311.036635			2.24	
	G (M06-2X/6-311+G**)	-310.884515			1.82	
	G (MP2/6-311+G**)	-310.097905			2.01	
<sup>4</sup> T <sub>5</sub> out <sup>4</sup> E out	B3LYP/6-311+G**	-311.177215	0.409	305.9	1.97	<b>-28.4</b>
	M06-2X/6-311+G**	-311.026682	0.422	292.1	2.23	<b>-48.4</b>
	MP2/6-311+G**	-310.240394	0.430	292.1	2.51	<b>-58.2</b>
	G (B3LYP/6-311+G**)	-311.034894			3.33	
	G (M06-2X/6-311+G**)	-310.882146			3.31	
	G (MP2/6-311+G**)	-310.095303			3.65	
<sup>2</sup> E/ <sup>2</sup> T <sub>1</sub> in <sup>2</sup> T <sub>1</sub> /E <sub>1</sub> in	B3LYP/6-311+G**	-311.180362	0.401	212.7	<b>0.00</b>	+32.7
	M06-2X/6-311+G**	-311.030230	0.416	189.2	<b>0.00</b>	+51.0
	MP2/6-311+G**	-310.244250	0.421	190.5	0.09	+38.1
	G (B3LYP/6-311+G**)	-311.040204			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-310.887421			<b>0.00</b>	
	G (MP2/6-311+G**)	-310.101113			<b>0.00</b>	
<sup>3</sup> T <sub>4</sub> in	B3LYP/6-311+G**	-311.175700	0.396	87.4	2.93	<b>-61.2</b>
	M06-2X/6-311+G**	-311.025659	0.415	86.2	2.87	<b>-66.6</b>
	MP2/6-311+G**	-310.239260	0.422	85.2	3.23	<b>-72.3</b>
	G (B3LYP/6-311+G**)	-311.033297			4.33	
	G (M06-2X/6-311+G**)	-310.880794			4.16	
	G (MP2/6-311+G**)	-310.093828			4.57	
E <sub>2</sub> in	B3LYP/6-311+G**	-311.177666	0.416	29.9	1.69	+89.2
	M06-2X/6-311+G**	-311.028140	0.431	32.3	1.31	+100.8
	MP2/6-311+G**	-310.242051	0.439	32.5	1.47	+105.8
	G (B3LYP/6-311+G**)	-311.036620			2.25	
	G (M06-2X/6-311+G**)	-310.884680			1.72	
	G (MP2/6-311+G**)	-310.097947			1.99	
<sup>1</sup> T <sub>3</sub> /E <sub>5</sub> in <sup>4</sup> T <sub>5</sub> in	B3LYP/6-311+G**	-311.176985	0.404	336.9	2.12	<b>-28.8</b>
	M06-2X/6-311+G**	-311.026862	0.418	338.2	2.11	<b>-50.5</b>
	MP2/6-311+G**	-310.240334	0.432	312.6	2.55	<b>-40.0</b>
	G (B3LYP/6-311+G**)	-311.034937			3.31	
	G (M06-2X/6-311+G**)	-310.882929			2.82	
	G (MP2/6-311+G**)	-310.095332			3.63	
<sup>2</sup> T <sub>1</sub> (TS between in/out)	B3LYP/6-311+G**	-311.178488	0.411	200.5	1.18	<b>-264.7</b>
	M06-2X/6-311+G**	-311.028116	0.431	190.7	1.33	<b>-261.0</b>
	MP2/6-311+G**	-310.242303	0.435	188.9	1.32	<b>-263.2</b>
	G (B3LYP/6-311+G**)	-311.038484			1.08	
	G (M06-2X/6-311+G**)	-310.885701			1.08	
	G (MP2/6-311+G**)	-310.099335			1.12	
<sup>1</sup> T <sub>2</sub> (TS between in/out)	B3LYP/6-311+G**	-311.176596	0.409	29.1	2.36	<b>-232.7</b>
	M06-2X/6-311+G**	-311.026813	0.424	32.0	2.14	<b>-256.7</b>
	MP2/6-311+G**	-310.240898	0.431	30.9	2.20	<b>-228.9</b>
	G (B3LYP/6-311+G**)	-311.035727			2.81	
	G (M06-2X/6-311+G**)	-310.883499			2.46	
	G (MP2/6-311+G**)	-310.096943			2.62	

**Compound 15: *trans*-2-methylcyclopentanol**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>1</sup> T <sub>2</sub> out	B3LYP/6-311+G**	-311.180566	0.404	16.6	<b>0.00</b>	+49.7
	M06-2X/6-311+G**	-311.029403	0.422	15.9	0.41	+54.1
	MP2/6-311+G**	-310.243522	0.430	14.4	0.71	+51.7
	G (B3LYP/6-311+G**)	-311.040476			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-310.887032			<b>0.00</b>	
	G (MP2/6-311+G**)	-310.100658			<b>0.00</b>	
<sup>3</sup> E out	B3LYP/6-311+G**	-311.180151	0.399	74.0	0.26	<b>-26.2</b>
	M06-2X/6-311+G**	-311.028644	0.420	80.1	0.89	<b>-30.0</b>

	MP2/6-311+G**	-310.242968	0.422	66.2	1.05	<b>-41.9</b>
	G (B3LYP/6-311+G**)	-311.038318			1.35	
	G (M06-2X/6-311+G**)	-310.884677			1.48	
	G (MP2/6-311+G**)	-310.098416			1.41	
$E_4$ out	B3LYP/6-311+G**	-311.180213	0.406	105.9	0.22	+18.4
${}^5E/{}^2T_4$	M06-2X/6-311+G**	-311.029485	0.425	135.7	0.36	+42.6
	MP2/6-311+G**	-310.244204	0.427	133.2	0.28	+46.5
	G (B3LYP/6-311+G**)	-311.040322			0.10	
	G (M06-2X/6-311+G**)	-310.886491			0.34	
	G (MP2/6-311+G**)	-310.100154			0.32	
$E_1$ out	B3LYP/6-311+G**	-311.179151	0.383	185.1	0.89	<b>-46.1</b>
${}^5T_1$	M06-2X/6-311+G**	-311.029275	0.405	165.7	0.49	<b>-48.8</b>
	MP2/6-311+G**	-310.243801	0.405	169.2	0.53	<b>-55.5</b>
	G (B3LYP/6-311+G**)	-311.037173			2.07	
	G (M06-2X/6-311+G**)	-310.884838			1.38	
	G (MP2/6-311+G**)	-310.098628			1.27	
${}^2T_1$ out	B3LYP/6-311+G**	-311.179175	0.386	201.1	0.87	+44.5
${}^2T_1/{}^2E$	M06-2X/6-311+G**	-311.029762	0.417	206.4	0.19	+78.1
	MP2/6-311+G**	-310.244125	0.418	204.1	0.33	+71.5
	G (B3LYP/6-311+G**)	-311.038784			1.06	
	G (M06-2X/6-311+G**)	-310.886383			0.41	
	G (MP2/6-311+G**)	-310.100310			0.22	
$E_3/{}^4T_3$ out	B3LYP/6-311+G**	-311.178078	0.387	260.0	1.56	<b>-48.2</b>
${}^4T_3$	M06-2X/6-311+G**	-311.027279	0.412	271.6	1.75	<b>-49.0</b>
	MP2/6-311+G**	-310.241628	0.416	269.5	1.90	<b>-53.5</b>
	G (B3LYP/6-311+G**)	-311.035939			2.85	
	G (M06-2X/6-311+G**)	-310.882787			2.66	
	G (MP2/6-311+G**)	-310.096486			2.62	
${}^1T_2$ in	B3LYP/6-311+G**	-311.180456	0.408	26.1	0.07	+54.9
	M06-2X/6-311+G**	-311.029323	0.426	23.9	0.46	+59.8
	MP2/6-311+G**	-310.243356	0.432	27.8	0.81	+55.4
	G (B3LYP/6-311+G**)	-311.040274			0.13	
	G (M06-2X/6-311+G**)	-310.886949			0.05	
	G (MP2/6-311+G**)	-310.100390			0.17	
$E_4$ in	B3LYP/6-311+G**	-311.179567	0.402	109.7	0.63	<b>-19.2</b>
${}^3T_4$	M06-2X/6-311+G**	-311.028201	0.420	89.3	1.17	<b>-33.8</b>
	MP2/6-311+G**	-310.242517	0.427	86.3	1.34	<b>-36.4</b>
	G (B3LYP/6-311+G**)	-311.037529			1.85	
	G (M06-2X/6-311+G**)	-310.883980			1.92	
	G (MP2/6-311+G**)	-310.097656			1.88	
${}^5T_4$ in	B3LYP/6-311+G**	-311.179581	0.403	122.0	0.62	+20.5
${}^5E$	M06-2X/6-311+G**	-311.029296	0.419	146.8	0.48	+35.7
	G (B3LYP/6-311+G**)	-311.039670			0.51	
	G (M06-2X/6-311+G**)	-310.886589			0.28	
$E_1/{}^6T_1$ in	B3LYP/6-311+G**	-311.179193	0.382	174.0	0.86	<b>-49.3</b>
${}^6T_1$	M06-2X/6-311+G**	-311.029284	0.411	157.8	0.49	<b>-29.6</b>
	G (B3LYP/6-311+G**)	-311.037150			2.09	
	G (M06-2X/6-311+G**)	-310.884894			1.34	
${}^2E$ in	B3LYP/6-311+G**	-311.179471	0.393	213.4	0.69	+65.2
	M06-2X/6-311+G**	-311.030060	0.416	211.3	<b>0.00</b>	+80.3
	MP2/6-311+G**	-310.244648	0.417	213.1	<b>0.00</b>	+85.1
	G (B3LYP/6-311+G**)	-311.038581			1.19	
	G (M06-2X/6-311+G**)	-310.886532			0.31	
	G (MP2/6-311+G**)	-310.100318			0.21	
${}^4T_3$ in	B3LYP/6-311+G**	-311.178507	0.393	273.8	1.29	<b>-27.3</b>
${}^4E$	M06-2X/6-311+G**	-311.027537	0.418	286.7	1.58	<b>-29.8</b>
	MP2/6-311+G**	-310.241827	0.425	290.6	1.77	<b>-30.4</b>
	G (B3LYP/6-311+G**)	-311.036290			2.63	
	G (M06-2X/6-311+G**)	-310.883132			2.45	
	G (MP2/6-311+G**)	-310.096773			2.44	
${}^2E$ (TS between in/out)	B3LYP/6-311+G**	-311.177181	0.402	209.7	2.12	<b>-279.8</b>
	M06-2X/6-311+G**	-311.027518	0.427	209.8	1.60	<b>-314.8</b>
	MP2/6-311+G**	-310.241960	0.428	209.8	1.69	<b>-273.4</b>
	G (B3LYP/6-311+G**)	-311.036861			2.27	
	G (M06-2X/6-311+G**)	-310.884632			1.51	
	G (MP2/6-311+G**)	-310.098421			1.40	
${}^1T_2$ (TS between in/out)	B3LYP/6-311+G**	-311.179443	0.401	25.0	0.70	<b>-235.2</b>
	M06-2X/6-311+G**	-311.028080	0.419	24.3	1.24	<b>-273.5</b>
	MP2/6-311+G**	-310.242286	0.425	22.8	1.48	<b>-221.1</b>
	G (B3LYP/6-311+G**)	-311.039467			0.63	
	G (M06-2X/6-311+G**)	-310.885920			0.70	
	G (MP2/6-311+G**)	-310.099452			0.76	
${}^5T_4$ (TS between in/out)	M06-2X/6-311+G**	-311.027023	0.434	138.9	1.91	<b>-301.5<sup>d</sup></b>
	G (M06-2X/6-311+G**)	-310.884480			1.60	

a) With B3LYP, the TS falls into  ${}^1T_2$

#### Compound 16: *cis*-1,2-dimethoxycyclopentane

Shape	Level of theory	Energy (Hartrees)	Q (Å)	$\Phi$ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
${}^2T_1$ sym (= ${}^1T_2$ )	B3LYP/6-311+G**	-425.712042	0.430	198.9	1.34	+64.1
	M06-2X/6-311+G**	-425.518092	0.446	191.8	1.62	+63.3
	MP2/6-31+G*	-424.208130	0.447	192.1	1.83	+69.2
	MP2/6-311+G**//	-424.474889			1.50	
	G (B3LYP/6-311+G**)	-425.543308			1.44	
	G (M06-2X/6-311+G**)	-425.345832			1.50	

	G (MP2/6-31+G*)	-424.033475			1.57	
<sup>4</sup> E sym	B3LYP/6-311+G**	-425.707902	0.401	288.0	3.94	-60.3
	M06-2X/6-311+G**	-425.513442	0.419	288.0	4.54	-62.1
	MP2/6-31+G*	-424.202266	0.419	288.0	5.51	-72.8
	MP2/6-311+G**//	-424.469609			4.81	
	G (B3LYP/6-311+G**)	-425.537501			5.09	
	G (M06-2X/6-311+G**)	-425.339473			5.49	
	G (MP2/6-31+G*)	-424.025983			6.27	
E <sub>4</sub> sym	B3LYP/6-311+G**	-425.706901	0.412	108.0	4.57	-64.1
	M06-2X/6-311+G**	-425.512180	0.439	108.0	5.33	-64.9
	MP2/6-31+G*	-424.201479	0.437	108.0	6.01	-71.1
	MP2/6-311+G**//	-424.469003			5.19	
	G (B3LYP/6-311+G**)	-425.536285			5.85	
	G (M06-2X/6-311+G**)	-425.338091			6.36	
	G (MP2/6-31+G*)	-424.025253			6.73	
<sup>2</sup> T <sub>1</sub> /E <sub>1</sub> asym	B3LYP/6-311+G**	-425.713331	0.416	192.3	0.53	+50.5
	M06-2X/6-311+G**	-425.519935	0.429	185.9	0.46	+48.2
	MP2/6-31+G*	-424.209818	0.433	185.3	0.77	+56.5
	MP2/6-311+G**//	-424.476620			0.41	
	G (B3LYP/6-311+G**)	-425.544721			0.56	
	G (M06-2X/6-311+G**)	-425.347646			0.37	
	G (MP2/6-31+G*)	-424.035114			0.54	
<sup>4</sup> E asym	B3LYP/6-311+G**	-425.711848	0.399	283.7	1.46	-40.7
	M06-2X/6-311+G**	-425.517599	0.419	290.5	1.93	-46.6
	MP2/6-31+G*	-424.206880	0.419	287.5	2.62	-49.9
	MP2/6-311+G**//	-424.473759			2.21	
	G (B3LYP/6-311+G**)	-425.540714			3.07	
	G (M06-2X/6-311+G**)	-425.343092			3.22	
	G (MP2/6-31+G*)	-424.029986			3.76	
<sup>1</sup> T <sub>2</sub> asym	B3LYP/6-311+G**	-425.714182	0.426	14.6	<b>0.00</b>	+43.8
	M06-2X/6-311+G**	-425.520672	0.443	28.3	<b>0.00</b>	+61.5
	MP2/6-31+G*	-424.211051	0.444	27.7	<b>0.00</b>	+72.5
	MP2/6-311+G**//	-424.477276			<b>0.00</b>	
	G (B3LYP/6-311+G**)	-425.545608			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-425.348229			<b>0.00</b>	
	G (MP2/6-31+G*)	-424.035982			<b>0.00</b>	
E <sub>4</sub> asym	B3LYP/6-311+G**	-425.710560	0.408	107.6	2.27	-45.9
	M06-2X/6-311+G**	-425.516566	0.437	104.9	2.58	-48.1
	MP2/6-31+G*	-424.206000	0.435	106.0	3.17	-56.0
	MP2/6-311+G**//	-424.472999			2.68	
	G (B3LYP/6-311+G**)	-425.539363			3.92	
	G (M06-2X/6-311+G**)	-425.342014			3.90	
	G (MP2/6-31+G*)	-424.029229			4.24	
<sup>2</sup> T <sub>1</sub> (TS between in/out)	B3LYP/6-311+G**	-425.710159	0.428	199.7	2.52	-84.6
	M06-2X/6-311+G**	-425.515102	0.444	197.0	3.49	-95.7
	MP2/6-31+G*	-424.205563	0.446	196.8	3.44	-90.1
	MP2/6-311+G**//	-424.472318			3.11	
	G (B3LYP/6-311+G**)	-425.540690			3.09	
	G (M06-2X/6-311+G**)	-425.342294			3.72	
	G (MP2/6-31+G*)	-424.030326			3.55	
<sup>1</sup> T <sub>2</sub> (TS between in/out)	B3LYP/6-311+G**	-425.711393	0.431	18.3	1.75	-78.3
	M06-2X/6-311+G**	-425.517170	0.446	24.7	2.20	-87.9
	MP2/6-31+G*	-424.207435	0.447	24.8	2.27	-85.1
	MP2/6-311+G**//	-424.474069			2.01	
	G (B3LYP/6-311+G**)	-425.541895			2.33	
	G (M06-2X/6-311+G**)	-425.344004			2.65	
	G (MP2/6-31+G*)	-424.031800			2.62	

**Compound 17: *trans*-1,2-dimethoxycyclopentane**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>2</sup> T <sub>1</sub> sym	B3LYP/6-311+G**	-425.716533	0.399	198.0	0.52	+44.6
	M06-2X/6-311+G**	-425.522635	0.428	198.0	0.16	-10.2
	MP2/6-31+G*	-424.213129	0.424	198.0	<b>0.00</b>	+43.9
	MP2/6-311+G**//	-424.479547			<b>0.00</b>	
	G (B3LYP/6-311+G**)	-425.548025			0.26	
	G (M06-2X/6-311+G**)	-425.349467			1.28	
	G (MP2/6-31+G*)	-424.039086			0.44	
<sup>2</sup> T <sub>3</sub> /E <sub>3</sub> sym	B3LYP/6-311+G**	-425.716254	0.396	246.2	0.70	-35.1
	G (B3LYP/6-311+G**)	-425.545805			1.65	
<sup>4</sup> E sym (=E <sub>4</sub> )	B3LYP/6-311+G**	-425.716568	0.402	292.9	0.50	+22.2
	G (B3LYP/6-311+G**)	-425.548022			0.26	
<sup>2</sup> T <sub>1</sub> sym (min)	M06-2X/6-311+G**	-425.522636	0.428	201.4	0.16	+22.8
	G (M06-2X/6-311+G**)	-425.351505			<b>0.00</b>	
<sup>1</sup> T <sub>2</sub> sym	B3LYP/6-311+G**	-425.715095	0.374	18.0	1.43	-59.7
	M06-2X/6-311+G**	-425.519927	0.392	18.0	1.86	-51.9
	MP2/6-31+G*	-424.209570	0.395	18.0	2.23	-59.2
	MP2/6-311+G**//	-424.476126			2.15	
	G (B3LYP/6-311+G**)	-425.545739			1.69	
	G (M06-2X/6-311+G**)	-425.346474			3.16	
	G (MP2/6-31+G*)	-424.034519			3.31	
E <sub>4</sub> asym	B3LYP/6-311+G**	-425.717369	0.400	108.3	<b>0.00</b>	+26.0
<sup>3</sup> T <sub>4</sub> asym	M06-2X/6-311+G**	-425.522792	0.421	92.1	0.06	+39.6
	MP2/6-31+G*	-424.212940	0.421	100.0	0.12	+29.3

	MP2/6-311+G**//	-424.479468			0.05	
	G (B3LYP/6-311+G**)	-425.548437			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-425.350114			0.87	
	G (MP2/6-31+G*)	-424.037882			1.20	
<sup>5</sup> T <sub>4</sub> asym	M06-2X/6-311+G**	-425.522297	0.426	133.2	0.37	<b>-23.1</b>
	MP2/6-31+G*	-424.212682	0.420	134.5	0.28	<b>-20.9</b>
	MP2/6-311+G**//	-424.479452			0.06	
	G (M06-2X/6-311+G**)	-425.348539			1.86	
	G (MP2/6-31+G*)	-424.036461			2.09	
<sup>5</sup> T <sub>1</sub> asym	M06-2X/6-311+G**	-425.522482	0.430	165.1	0.26	+34.8
	MP2/6-31+G*	-424.212971	0.418	188.5	0.10	+24.2
	MP2/6-311+G**//	-424.479432			0.07	
	G (M06-2X/6-311+G**)	-425.351005			0.31	
	G (MP2/6-31+G*)	-424.039788			<b>0.00</b>	
<sup>2</sup> E/ <sup>2</sup> T <sub>3</sub> asym	B3LYP/6-311+G**	-425.716440	0.392	222.0	0.58	<b>-20.8</b>
	M06-2X/6-311+G**	-425.522258	0.423	238.8	0.40	<b>-30.2</b>
	MP2/6-31+G*	-424.212399	0.416	248.9	0.46	<b>-36.9</b>
	MP2/6-311+G**//	-424.478998			0.34	
	G (B3LYP/6-311+G**)	-425.546319			1.33	
	G (M06-2X/6-311+G**)	-425.348466			1.91	
	G (MP2/6-31+G*)	-424.036127			2.30	
<sup>4</sup> E asym	B3LYP/6-311+G**	-425.716978	0.399	293.0	0.25	+25.9
<sup>4</sup> E/ <sup>4</sup> T <sub>5</sub>	M06-2X/6-311+G**	-425.522889	0.422	298.2	<b>0.00</b>	+34.6
	MP2/6-31+G*	-424.212893	0.423	297.0	0.15	+29.3
	MP2/6-311+G**//	-424.479363			0.12	
	G (B3LYP/6-311+G**)	-425.548061			0.24	
	G (M06-2X/6-311+G**)	-425.350231			0.80	
	G (MP2/6-31+G*)	-424.038095			1.06	
<sup>1</sup> T <sub>2</sub> / <sup>1</sup> E asym	M06-2X/6-311+G**	-425.521410	0.402	10.3	0.93	<b>-33.9<sup>a</sup></b>
	G (M06-2X/6-311+G**)	-425.348726			1.74	
<sup>2</sup> T <sub>1</sub> (TS between in/out)	B3LYP/6-311+G**	-425.714652	0.403	197.8	1.70	<b>-85.2</b>
	MP2/6-31+G*	-424.211135	0.424	196.6	1.25	<b>-88.0</b>
	MP2/6-311+G**//	-424.477419			1.34	
	G (B3LYP/6-311+G**)	-425.545520			1.83	
	G (MP2/6-31+G*)	-424.036248			2.22	
<sup>3</sup> E/ <sup>3</sup> T <sub>4</sub> (TS between in/out)	B3LYP/6-311+G**	-425.714871	0.401	79.2	1.57	<b>-76.1</b>
	G (B3LYP/6-311+G**)	-425.545539			1.82	
E <sub>5</sub> (TS between in/out)	M06-2X/6-311+G**	-425.518434	0.415	332.6	2.80	<b>-85.0</b>
	G (M06-2X/6-311+G**)	-425.346547			3.11	

a) All efforts to find this TS with B3LYP or MP2 were unsuccessful

#### Compound 18: *cis*-1,3-dimethoxycyclopentane

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
E <sub>4</sub> out (=E <sub>5</sub> )	B3LYP/6-311+G**	-425.717026	0.405	106.2	0.09	+25.7
	M06-2X/6-311+G**	-425.521788	0.427	118.2	0.35	+21.7
	MP2/6-31+G*	-424.211715	0.423	122.9	0.63	+11.4
	MP2/6-311+G**//	-424.478604			0.48	
	G (B3LYP/6-311+G**)	-425.548321			0.19	
	G (M06-2X/6-311+G**)	-425.349910			0.29	
	G (MP2/6-31+G*)	-424.038110			0.08	
<sup>2</sup> E out	B3LYP/6-311+G**	-425.713330	0.321	216.0	2.41	<b>-87.2</b>
	M06-2X/6-311+G**	-425.517865	0.351	216.0	2.81	<b>-95.4</b>
	MP2/6-31+G*	-424.208111	0.350	216.0	2.89	<b>-98.4</b>
	MP2/6-311+G**//	-424.474616			2.98	
	G (B3LYP/6-311+G**)	-425.543358			3.30	
	G (M06-2X/6-311+G**)	-425.344409			3.74	
	G (MP2/6-31+G*)	-424.032635			3.52	
<sup>3</sup> T <sub>2</sub> out (= <sup>1</sup> T <sub>2</sub> )	M06-2X/6-311+G**	-425.521012	0.408	57.3	0.83	<b>-32.8</b>
	G (M06-2X/6-311+G**)	-425.347390			1.87	
E <sub>2</sub> out	B3LYP/6-311+G**	-425.716148	0.387	36.0	0.64	<b>-41.8</b>
	M06-2X/6-311+G**	-425.521046	0.409	36.0	0.81	+29.7
	MP2/6-31+G*	-424.210526	0.406	36.0	1.38	<b>-39.5</b>
	MP2/6-311+G**//	-424.477162			1.39	
	G (B3LYP/6-311+G**)	-425.546142			1.55	
	G (M06-2X/6-311+G**)	-425.349388			0.62	
	G (MP2/6-31+G*)	-424.034655			2.25	
E <sub>4</sub> io	B3LYP/6-311+G**	-425.716923	0.397	108.1	0.16	+22.9
	M06-2X/6-311+G**	-425.521794	0.423	116.7	0.34	+29.5
	MP2/6-31+G*	-424.211611	0.418	120.6	0.70	+11.5
	MP2/6-311+G**//	-424.478511			0.54	
	G (B3LYP/6-311+G**)	-425.548378			0.15	
	G (M06-2X/6-311+G**)	-425.349613			0.48	
	G (MP2/6-31+G*)	-424.038069			0.11	
<sup>2</sup> E io	B3LYP/6-311+G**	-425.714349	0.334	210.1	1.77	<b>-74.1</b>
<sup>2</sup> T <sub>1</sub> io	M06-2X/6-311+G**	-425.519201	0.377	200.1	1.97	<b>-63.2</b>
	MP2/6-31+G*	-424.209617	0.370	203.1	1.95	<b>-71.0</b>
	MP2/6-311+G**//	-424.476390			1.87	
	G (B3LYP/6-311+G**)	-425.544346			2.68	
	G (M06-2X/6-311+G**)	-425.346027			2.73	
	G (MP2/6-31+G*)	-424.034153			2.57	
	E <sub>5</sub> io	B3LYP/6-311+G**	-425.717175	0.403	321.5	<b>0.00</b>
	M06-2X/6-311+G**	-425.522338	0.426	315.7	<b>0.00</b>	+20.1
E <sub>3</sub> / <sup>4</sup> T <sub>3</sub> io	MP2/6-31+G*	-424.212723	0.428	262.2	<b>0.00</b>	+37.5
	MP2/6-311+G**//	-424.479372			<b>0.00</b>	

	G (B3LYP/6-311+G**)	-425.548567			0.03	
	G (M06-2X/6-311+G**)	-425.350374			<b>0.00</b>	
	G (MP2/6-31+G*)	-424.037584			0.41	
<sup>3</sup> T <sub>2</sub> <sup>a</sup> E io	M06-2X/6-311+G**	-425.521138	0.409	65.1	0.75	<b>-34.2<sup>a</sup></b>
	G (M06-2X/6-311+G**)	-425.347552			1.77	
E <sub>5</sub> in	B3LYP/6-311+G**	-425.716816	0.397	320.4	0.23	+18.9
(=E <sub>5</sub> )	M06-2X/6-311+G**	-425.522045	0.422	319.4	0.18	+29.5
<sup>4</sup> T <sub>3</sub> in	MP2/6-31+G*	-424.211943	0.417	270.2	0.49	+13.2
	MP2/6-311+G**//	-424.478623			0.47	
	G (B3LYP/6-311+G**)	-425.548458			0.10	
	G (M06-2X/6-311+G**)	-425.349868			0.32	
	G (MP2/6-31+G*)	-424.038241			<b>0.00</b>	
<sup>2</sup> E in	B3LYP/6-311+G**	-425.714169	0.328	216.0	1.89	<b>-78.3</b>
	M06-2X/6-311+G**	-425.519303	0.374	216.0	1.90	<b>-80.3</b>
	MP2/6-31+G*	-424.209469	0.360	216.0	2.04	<b>-83.1</b>
	MP2/6-311+G**//	-424.476395			1.87	
	G (B3LYP/6-311+G**)	-425.544189			2.78	
	G (M06-2X/6-311+G**)	-425.346162			2.64	
	G (MP2/6-31+G*)	-424.034169			2.56	
<sup>3</sup> T <sub>2</sub> in	B3LYP/6-311+G**	-425.716500	0.396	57.1	0.42	<b>-26.6</b>
(= <sup>1</sup> T <sub>2</sub> )	M06-2X/6-311+G**	-425.521139	0.413	41.3	0.75	<b>-23.7</b>
	G (B3LYP/6-311+G**)	-425.546392			1.40	
	G (M06-2X/6-311+G**)	-425.347819			1.60	
E <sub>2</sub> in	B3LYP/6-311+G**	-425.716523	0.400	36.0	0.41	+22.3
	M06-2X/6-311+G**	-425.521141	0.414	36.0	0.75	+26.2
	MP2/6-31+G*	-424.210836	0.413	36.0	1.18	<b>-28.3</b>
	MP2/6-311+G**//	-424.477440			1.21	
	G (B3LYP/6-311+G**)	-425.548617			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-425.349761			0.38	
	G (MP2/6-31+G*)	-424.035072			1.99	
E <sub>4</sub> (TS between in/in-out)	B3LYP/6-311+G**	-425.713942	0.403	127.9	2.03	<b>-97.6</b>
	M06-2X/6-311+G**	-425.518317	0.430	129.8	2.52	<b>-111.0</b>
	G (B3LYP/6-311+G**)	-425.545022			2.26	
	G (M06-2X/6-311+G**)	-425.345718			2.92	
E <sub>4</sub> (TS between in-out/out)	B3LYP/6-311+G**	-425.714600	0.402	98.1	1.62	<b>-85.5</b>
	M06-2X/6-311+G**	-425.518273	0.425	105.1	2.55	<b>-96.4</b>
	MP2/6-31+G*	-424.208520	0.422	100.6	2.64	<b>-91.6</b>
	MP2/6-311+G**//	-424.475081			2.69	
	G (B3LYP/6-311+G**)	-425.545255			2.11	
	G (M06-2X/6-311+G**)	-425.345674			2.95	
	G (MP2/6-31+G*)	-424.033551			2.94	
E <sub>5</sub> (TS between in/in-out)	B3LYP/6-311+G**	-425.714689	0.401	335.3	1.56	<b>-84.2</b>
	M06-2X/6-311+G**	-425.518809	0.424	331.2	2.21	<b>-96.8</b>
E <sub>3</sub> (TS between in/in-out)	MP2/6-31+G*	-424.208778	0.427	257.5	2.48	<b>-108.8</b>
	MP2/6-311+G**//	-424.475294			2.56	
	G (B3LYP/6-311+G**)	-425.545280			2.09	
	G (M06-2X/6-311+G**)	-425.345937			2.78	
	G (MP2/6-31+G*)	-424.033296			3.10	
E <sub>5</sub> (TS between in-out/out)	B3LYP/6-311+G**	-425.714090	0.410	312.8	1.94	<b>-97.5</b>
	M06-2X/6-311+G**	-425.518523	0.431	296.4	2.39	<b>-110.8</b>
	G (B3LYP/6-311+G**)	-425.545221			2.13	
	G (M06-2X/6-311+G**)	-425.345886			2.82	

a) All efforts to find this TS with B3LYP or MP2 were unsuccessful

#### Compound 19: *trans*-1,3-dimethoxycyclopentane

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>5</sup> T <sub>4</sub> out	B3LYP/6-311+G**	-425.718710	0.396	126.0	<b>0.00</b>	+19.8
	M06-2X/6-311+G**	-425.523894	0.428	126.0	<b>0.00</b>	+22.7
	MP2/6-31+G*	-424.214271	0.420	126.0	0.00	<b>-6.7</b>
	MP2/6-311+G**//	-424.480935			<b>0.00</b>	
	G (B3LYP/6-311+G**)	-425.550220			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-425.352135			<b>0.00</b>	
	G (MP2/6-31+G*)	-424.038169			1.80	
E <sub>4</sub> out	MP2/6-31+G*	-424.214276	0.420	111.5	<b>0.00</b>	+9.4
	MP2/6-311+G**//	-424.480830			0.07	
	G (MP2/6-31+G*)	-424.041042			<b>0.00</b>	
<sup>4</sup> T <sub>5</sub> out	B3LYP/6-311+G**	-425.717116	0.394	306.0	1.00	<b>-14.4</b>
	M06-2X/6-311+G**	-425.521886	0.411	306.0	1.26	<b>-10.7</b>
	MP2/6-31+G*	-424.211549	0.412	306.0	1.71	<b>-26.7</b>
	MP2/6-311+G**//	-424.478118			1.77	
	G (B3LYP/6-311+G**)	-425.546596			2.27	
	G (M06-2X/6-311+G**)	-425.347860			2.68	
	G (MP2/6-31+G*)	-424.035081			3.74	
<sup>5</sup> T <sub>4</sub> /E <sub>4</sub> io	B3LYP/6-311+G**	-425.718412	0.394	115.0	0.19	+20.3
	M06-2X/6-311+G**	-425.523750	0.426	127.7	0.09	+21.1
E <sub>4</sub> io	MP2/6-31+G*	-424.214011	0.417	107.6	0.17	+13.6
	MP2/6-311+G**//	-424.480443	0.412	306.0	0.31	
	G (B3LYP/6-311+G**)	-425.549855			0.23	
	G (M06-2X/6-311+G**)	-425.351901			0.15	
	G (MP2/6-31+G*)	-424.040221			0.52	
<sup>4</sup> E io	B3LYP/6-311+G**	-425.717346	0.389	286.3	0.86	<b>-16.1</b>
E <sub>5</sub> io	M06-2X/6-311+G**	-425.522153	0.412	319.5	1.09	<b>-18.2</b>
<sup>4</sup> T <sub>5</sub> io	MP2/6-31+G*	-424.211882	0.410	306.8	1.50	<b>-27.1</b>
	MP2/6-311+G**//	-424.478505			1.52	



	G (B3LYP/6-311+G**)	-425.546754			2.17	
	G (M06-2X/6-311+G**)	-425.348088			2.54	
	G (MP2/6-31+G*)	-424.035449			3.51	
<sup>1</sup> T <sub>5</sub> io	B3LYP/6-311+G**	-425.717748	0.394	351.8	0.60	+15.6
	G (B3LYP/6-311+G**)	-425.549710			0.32	
E <sub>2</sub> io	B3LYP/6-311+G**	-425.717581	0.382	37.1	0.71	<b>-36.6</b>
	G (B3LYP/6-311+G**)	-425.547504			1.70	
<sup>5</sup> T <sub>4</sub> in	B3LYP/6-311+G**	-425.717914	0.396	126.0	0.50	+17.0
	M06-2X/6-311+G**	-425.523476	0.428	126.0	0.26	+20.4
	MP2/6-31+G*	-424.213543	0.420	126.0	0.46	+8.7
	MP2/6-311+G**//	-424.480104			0.52	
	G (B3LYP/6-311+G**)	-425.549568			0.41	
	G (M06-2X/6-311+G**)	-425.351573			0.35	
	G (MP2/6-31+G*)	-424.040223			0.51	
E <sub>4</sub> in	MP2/6-31+G*	-424.213539	0.418	111.5	0.46	<b>-8.1</b>
	MP2/6-311+G**//	-424.480023			0.57	
	G (MP2/6-31+G*)	-424.037189			2.42	
E <sub>4</sub> / <sup>2</sup> T <sub>4</sub> in	MP2/6-31+G*	-424.213540	0.416	102.9	0.46	+10.5
	MP2/6-311+G**//	-424.479939			0.62	
	G (MP2/6-31+G*)	-424.039972			0.67	
<sup>2</sup> T <sub>1</sub> / <sup>2</sup> E in	B3LYP/6-311+G**	-425.717260	0.381	202.5	0.91	<b>-31.1</b>
	G (B3LYP/6-311+G**)	-425.547091			1.96	
<sup>1</sup> T <sub>5</sub> in	B3LYP/6-311+G**	-425.717576	0.392	348.2	0.71	+17.2
	G (B3LYP/6-311+G**)	-425.549497			0.45	
<sup>4</sup> T <sub>5</sub> in	B3LYP/6-311+G**	-425.717477	0.389	306.0	0.77	<b>-16.1</b>
	M06-2X/6-311+G**	-425.522889	0.413	306.0	0.63	<b>-13.6</b>
	MP2/6-31+G*	-424.211827	0.410	306.0	1.54	<b>-28.1</b>
	MP2/6-311+G**//	-424.478547			1.50	
	G (B3LYP/6-311+G**)	-425.546936			2.06	
	G (M06-2X/6-311+G**)	-425.348399			2.34	
	G (MP2/6-31+G*)	-424.035551			3.45	
<sup>5</sup> E (TS between in/in-out)	B3LYP/6-311+G**	-425.715534	0.399	139.8	1.99	<b>-95.1</b>
	M06-2X/6-311+G**	-425.520448	0.429	140.9	2.16	<b>-107.3</b>
	MP2/6-31+G*	-424.211032	0.419	156.0	2.04	<b>-98.7</b>
	MP2/6-311+G**//	-424.477189			2.35	
	G (B3LYP/6-311+G**)	-425.546425			2.38	
	G (M06-2X/6-311+G**)	-425.347679			2.80	
	G (MP2/6-31+G*)	-424.035966			3.19	
E <sub>4</sub> (TS between in-out/out)	B3LYP/6-311+G**	-425.715987	0.401	108.4	1.71	<b>-93.9</b>
	M06-2X/6-311+G**	-425.520576	0.432	114.0	2.08	<b>-110.0</b>
	MP2/6-31+G*	-424.211347	0.421	101.7	1.84	<b>-99.0</b>
	MP2/6-311+G**//	-424.477550			2.12	
	G (B3LYP/6-311+G**)	-425.546734			2.19	
	G (M06-2X/6-311+G**)	-425.347965			2.62	
	G (MP2/6-31+G*)	-424.036468			2.87	
<sup>1</sup> T <sub>5</sub> (TS between in/in-out)	B3LYP/6-311+G**	-425.715608	0.395	359.7	1.95	<b>-86.7</b>
	G (B3LYP/6-311+G**)	-425.546600			2.27	

**Compound 20: 2-hydroxytetrahydrofuran**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>2</sup> E	B3LYP/6-311+G**	-307.775887	0.354	69.6	<b>0.00</b>	+87.1
	M06-2X/6-311+G**	-307.642140	0.377	67.5	<b>0.00</b>	+72.5
<sup>2</sup> T <sub>1</sub> / <sup>2</sup> E	MP2/6-311+G**	-306.926076	0.386	63.2	<b>0.00</b>	+81.2
	G (B3LYP/6-311+G**)	-307.684183			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-307.548671			<b>0.00</b>	
	G (MP2/6-311+G**)	-306.831943			<b>0.00</b>	
<sup>0</sup> E	B3LYP/6-311+G**	-307.775279	0.326	10.8	0.38	<b>-62.8</b>
	M06-2X/6-311+G**	-307.641317	0.350	1.7	0.52	<b>-60.2</b>
	MP2/6-311+G**	-306.924789	0.355	2.4	0.81	<b>-91.8</b>
	G (B3LYP/6-311+G**)	-307.682447			1.09	
	G (M06-2X/6-311+G**)	-307.546474			1.38	
	G (MP2/6-311+G**)	-306.829562			1.49	
E <sub>4</sub>	B3LYP/6-311+G**	-307.775540	0.354	332.0	0.22	+62.9
	M06-2X/6-311+G**	-307.641428	0.372	335.7	0.45	+57.0
	MP2/6-311+G**	-306.925281	0.391	328.8	0.50	+81.6
	G (B3LYP/6-311+G**)	-307.683748			0.27	
	G (M06-2X/6-311+G**)	-307.547763			0.57	
	G (MP2/6-311+G**)	-306.830823			0.70	
<sup>1</sup> E	B3LYP/6-311+G**	-307.770531	0.331	208.9	3.36	<b>-77.3</b>
	M06-2X/6-311+G**	-307.636007	0.360	210.8	3.85	<b>-65.9</b>
E <sub>0</sub> / <sup>1</sup> E <sub>0</sub>	MP2/6-311+G**	-306.919423	0.380	188.4	4.17	<b>-61.9</b>
	G (B3LYP/6-311+G**)	-307.678524			3.55	
	G (M06-2X/6-311+G**)	-307.542118			4.11	
	G (MP2/6-311+G**)	-306.824927			4.40	

**Compound 21: cis-2-hydroxy-5-methyloxolane (β-2,3,5-trideoxy-L-glycero-pentose)**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	Φ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>2</sup> E	B3LYP/6-311+G**	-347.106048	0.360	78.1	<b>0.00</b>	+66.1
	M06-2X/6-311+G**	-346.952092	0.377	70.1	<b>0.00</b>	+59.0
	MP2/6-311+G**	-346.129031	0.389	71.3	<b>0.00</b>	+61.4

	G (B3LYP/6-311+G**)	-346.988398			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-346.832260			<b>0.00</b>	
	G (MP2/6-311+G**)	-346.008497			<b>0.00</b>	
<sup>0</sup> E	B3LYP/6-311+G**	-347.103177	0.278	350.8	1.80	<b>-78.3</b>
	M06-2X/6-311+G**	-346.949274	0.294	356.0	1.77	<b>-96.9</b>
	MP2/6-311+G**	-346.125265	0.296	356.4	2.36	<b>-103.4</b>
	G (B3LYP/6-311+G**)	-346.984230			2.62	
	G (M06-2X/6-311+G**)	-346.827941			2.71	
	G (MP2/6-311+G**)	-346.003448			3.17	
E <sub>4</sub>	B3LYP/6-311+G**	-347.103491	0.328	318.3	1.60	+73.6
	M06-2X/6-311+G**	-346.950040	0.356	318.6	1.29	+95.8
	MP2/6-311+G**	-346.126343	0.368	316.6	1.69	+101.5
	G (B3LYP/6-311+G**)	-346.985633			1.74	
	G (M06-2X/6-311+G**)	-346.829644			1.64	
	G (MP2/6-311+G**)	-346.005326			1.99	
<sup>1</sup> E	B3LYP/6-311+G**	-347.100781	0.326	222.8	3.30	<b>-56.6</b>
	M06-2X/6-311+G**	-346.945861	0.358	216.8	3.91	<b>-57.0</b>
	MP2/6-311+G**	-346.122623	0.379	217.9	4.02	<b>-42.7</b>
	G (B3LYP/6-311+G**)	-346.982576			3.65	
	G (M06-2X/6-311+G**)	-346.825391			4.31	
	G (MP2/6-311+G**)	-346.001577			4.34	

**Compound 22: *trans*-2-hydroxy-5-methyloxolane ( $\alpha$ -2,3,5-trideoxy-L-glycero-pentose)**

Shape	Level of theory	Energy (Hartrees)	Q (Å)	$\Phi$ (°)	Rel. Energy (kcal/mol)	Lower freq. (cm <sup>-1</sup> )
<sup>4</sup> E	B3LYP/6-311+G**	-347.106102	0.354	149.8	<b>0.00</b>	+66.2
	M06-2X/6-311+G**	-346.951422	0.370	153.6	0.22	+65.0
	MP2/6-311+G**	-346.128529	0.387	148.8	0.17	+82.1
	G (B3LYP/6-311+G**)	-346.988543			<b>0.00</b>	
	G (M06-2X/6-311+G**)	-346.831606			0.10	
	G (MP2/6-311+G**)	-346.007912			0.20	
<sup>0</sup> E	B3LYP/6-311+G**	-347.099249	0.257	5.1	4.30	<b>-95.0</b>
	M06-2X/6-311+G**	-346.944601	0.311	8.3	4.50	<b>-85.1</b>
	MP2/6-311+G**	-346.120611	0.323	4.9	5.14	<b>-96.9</b>
	G (B3LYP/6-311+G**)	-346.981405			4.48	
	G (M06-2X/6-311+G**)	-346.824096			4.82	
	G (MP2/6-311+G**)	-345.999598			5.42	
<sup>1</sup> T <sub>2</sub> /E <sub>2</sub>	B3LYP/6-311+G**	-347.105645	0.339	235.7	0.29	+40.3
	M06-2X/6-311+G**	-346.951775	0.373	244.0	<b>0.00</b>	+58.5
	MP2/6-311+G**	-346.128801	0.383	239.0	<b>0.00</b>	+60.2
	G (B3LYP/6-311+G**)	-346.988366			0.11	
	G (M06-2X/6-311+G**)	-346.831772			<b>0.00</b>	
	G (MP2/6-311+G**)	-346.008229			<b>0.00</b>	
<sup>1</sup> E/ <sup>1</sup> T <sub>0</sub> <sup>1</sup> T <sub>0</sub> /E <sub>0</sub> E <sub>0</sub> / <sup>1</sup> E <sub>0</sub>	B3LYP/6-311+G**	-347.105557	0.323	206.3	0.34	<b>-38.1</b>
	M06-2X/6-311+G**	-346.951151	0.344	190.8	0.39	<b>-52.8</b>
	MP2/6-311+G**	-346.127866	0.349	187.9	0.59	<b>-76.6</b>
	G (B3LYP/6-311+G**)	-346.986741			1.13	
	G (M06-2X/6-311+G**)	-346.830108			1.04	
	G (MP2/6-311+G**)	-346.006308			1.21	

Cartesian coordinates of all shapes found for compounds **1-22** at the B3LYP, M06-2X and MP2 levels of theory.

COMP. 01\_E-T\_B3LYP

C 0.561438 -1.125731 0.259104  
C -0.898154 -0.912907 -0.177305  
C -1.159877 0.600157 0.041597  
C 0.243976 1.274982 0.098204  
C 1.259257 0.155744 -0.221782  
H 1.002567 -2.038061 -0.151047  
H 0.621978 -1.195025 1.351917  
H -1.604050 -1.545187 0.366918  
H -0.998017 -1.161664 -1.239331  
H -1.779887 1.015738 -0.756313  
H -1.701274 0.767194 0.976511  
H 0.430746 1.670372 1.100996  
H 0.328876 2.117197 -0.592549  
H 2.232626 0.320897 0.247286  
H 1.426596 0.095071 -1.303302

COMP. 01\_E-T\_M06-2X

C 0.332873 -1.202023 0.273085  
C -1.048579 -0.721297 -0.184940  
C -1.018659 0.807187 0.042363  
C 0.483916 1.196982 0.102506  
C 1.256248 -0.090941 -0.233780  
H 0.592343 -2.191154 -0.108664  
H 0.371299 -1.242968 1.367177  
H -1.870831 -1.209357 0.340700  
H -1.166668 -0.939168 -1.250583  
H -1.545945 1.338075 -0.951706  
H -1.516257 1.065139 0.979326  
H 0.744657 1.527228 1.110976  
H 0.729967 2.015772 -0.575122  
H 2.252803 -0.115306 0.210479  
H 1.373835 -0.187708 -1.317992

COMP. 01\_E-T\_MP2

C 0.460476 -1.158166 0.278302  
C -0.963518 -0.830803 -0.188445  
C -1.100840 0.692586 0.043754  
C 0.352706 1.242587 0.103415  
C 1.258230 0.043929 -0.237211  
H 0.826146 -2.118227 -0.098862  
H 0.500252 -1.185896 1.374880  
H -1.734527 -1.406237 0.332466  
H -1.047596 -1.056554 -1.258073  
H -1.683267 1.166572 -0.751537  
H -1.622927 0.890812 0.984938  
H 0.579371 1.596157 1.114862  
H 0.506939 2.085506 -0.576289  
H 2.256253 0.130672 0.203030  
H 1.377029 -0.043603 -1.324310

COMP. 01\_E\_B3LYP

C 0.000135 -1.257118 0.261966  
C -1.203194 -0.420348 -0.201044  
C -0.779802 1.043530 0.069742  
C 0.779502 1.043749 0.069876  
C 1.203359 -0.420029 -0.200745  
H 0.000321 -2.272201 -0.143990  
H 0.000008 -1.341216 1.355461  
H -1.360189 -0.574885 -1.274400  
H -2.135084 -0.689895 0.302377  
H -1.192282 1.728114 -0.675150  
H -1.157925 1.373227 1.041439  
H 1.191912 1.728394 -0.674998  
H 1.157368 1.373629 1.041610  
H 1.360688 -0.574559 -1.274053  
H 2.135186 -0.689308 0.302936

COMP. 01\_E\_M06-2X

C -0.013974 -1.246188 0.276120  
C -1.198365 -0.406876 -0.212358  
C -0.766038 1.045211 0.074137

C 0.788061 1.029379 0.070455  
C 1.190006 -0.433182 -0.209286  
H -0.024602 -2.270450 -0.101044  
H -0.016121 -1.290294 1.370832  
H -1.322530 -0.556466 -1.289487  
H -2.143190 -0.668538 0.266926  
H -1.174282 1.742704 -0.658691  
H -1.136749 1.359149 1.052436  
H 1.206325 1.713231 -0.669551  
H 1.170180 1.343070 1.044373  
H 1.316005 -0.588914 -1.285280  
H 2.126823 -0.713560 0.275079

COMP. 01\_E\_MP2

C -0.029048 -1.245022 0.281286  
C -1.202302 -0.393285 -0.215855  
C -0.754213 1.054625 0.075427  
C 0.801376 1.019964 0.071719  
C 1.183722 -0.448447 -0.212805  
H -0.052116 -2.273749 -0.091392  
H -0.031542 -1.280040 1.378421  
H -1.318163 -0.541947 -1.296326  
H -2.156286 -0.641989 0.258753  
H -1.153171 1.760057 -0.659051  
H -1.122903 1.368842 1.057202  
H 1.227173 1.701759 -0.669979  
H 1.188906 1.324813 1.049127  
H 1.297640 -0.605803 -1.292211  
H 2.123256 -0.738952 0.266826

COMP. 01\_T\_B3LYP

C 0.861319 -0.919403 0.252855  
C -0.607455 -1.133333 -0.155959  
C -1.282261 0.255366 0.018099  
C -0.121193 1.287903 0.121343  
C 1.159117 0.505830 -0.236448  
H 1.534873 -1.671218 -0.166903  
H 0.960426 -0.964158 1.344017  
H -1.100241 -1.915705 0.426321  
H -0.650473 -1.442197 -1.205576  
H -1.944668 0.477505 -0.822053  
H -1.901581 0.281160 0.918281  
H -0.045913 1.666271 1.145472  
H -0.274323 2.155246 -0.525196  
H 2.058800 0.938172 0.209148  
H 1.305937 0.496748 -1.322849

COMP. 01\_T\_M06-2X

C 0.849216 -0.917970 0.263229  
C -0.612826 -1.123835 -0.154861  
C -1.273776 0.267611 0.010171  
C -0.105297 1.280303 0.134543  
C 1.153738 0.490442 -0.253288  
H 1.518915 -1.682784 -0.134167  
H 0.934115 -0.932622 1.355188  
H -1.115974 -1.899639 0.424207  
H -0.645110 -1.430250 -1.204160  
H -1.913933 0.499132 -0.842737  
H -1.907892 0.299102 0.897949  
H -0.013309 1.618530 1.170101  
H -0.252298 2.168242 -0.482045  
H 2.068742 0.918703 0.159795  
H 1.260415 0.462281 -1.342898

COMP. 01\_T\_MP2

C 0.886427 -0.880479 0.268893  
C -0.563758 -1.148608 -0.159164  
C -1.284987 0.213320 0.012606  
C -0.158336 1.275417 0.134467  
C 1.132247 0.537044 -0.256863  
H 1.590305 -1.621434 -0.122476  
H 0.964568 -0.883406 1.363611  
H -1.038923 -1.949992 0.414124  
H -0.574731 -1.447696 -1.213516  
H -1.939171 0.420414 -0.839345  
H -1.915255 0.213703 0.906926

H -0.076418 1.616962 1.172286  
H -0.345768 2.157145 -0.485118  
H 2.031022 1.008106 0.152830  
H 1.234813 0.506040 -1.348954

COMP. 02\_1E\_B3LYP

C 0.785517 -0.000001 0.368668  
C 0.003167 -1.204971 -0.145576  
C -1.473441 -0.781816 0.019241  
C -1.473442 0.781815 0.019237  
C 0.003167 1.204972 -0.145573  
F 2.112418 0.000000 -0.097553  
H 0.851582 -0.000002 1.462008  
H 0.257423 -1.340498 -1.201683  
H 0.251853 -2.130162 0.377556  
H -2.096771 -1.193048 -0.776800  
H -1.879084 -1.160104 0.960919  
H -2.096766 1.193044 -0.776810  
H -1.879091 1.160108 0.960911  
H 0.257427 1.340503 -1.201679  
H 0.251852 2.130161 0.377564

COMP. 02\_1E\_M06-2X

C 0.780885 -0.000003 0.364161  
C 0.005008 -1.196606 -0.164566  
C -1.463641 -0.779398 0.029798  
C -1.463644 0.779396 0.029780  
C 0.005010 1.196609 -0.164551  
F 2.097084 0.000000 -0.078189  
H 0.815379 -0.000010 1.458941  
H 0.246942 -1.300117 -1.226469  
H 0.264040 -2.130282 0.335029  
H -2.102844 -1.190740 -0.751337  
H -1.843553 -1.156112 0.981308  
H -2.102823 1.190716 -0.751387  
H -1.843591 1.156132 0.981267  
H 0.246961 1.300142 -1.226448  
H 0.264033 2.130275 0.335066

COMP. 02\_1E\_MP2

C 0.777509 0.000000 0.361018  
C 0.004001 -1.194959 -0.174912  
C -1.465039 -0.780466 0.035915  
C -1.465040 0.780466 0.035913  
C 0.004001 1.194959 -0.174910  
F 2.106132 0.000000 -0.067564  
H 0.798685 -0.000001 1.457747  
H 0.236108 -1.286301 -1.241949  
H 0.267073 -2.135219 0.315801  
H -2.112978 -1.191955 -0.741823  
H -1.833437 -1.159177 0.994067  
H -2.112976 1.191952 -0.741829  
H -1.833442 1.159179 0.994062  
H 0.236110 1.286304 -1.241946  
H 0.267072 2.135218 0.315805

COMP. 02\_5T4\_B3LYP

C -0.886005 0.106022 0.474365  
C 0.096068 1.269318 0.273425  
C 1.438688 0.630751 -0.185378  
C 1.125671 -0.864584 -0.414458  
C -0.024527 -1.147909 0.565693  
F -1.710303 -0.002033 -0.677705  
H -1.572326 0.242581 1.312091  
H -0.318303 1.959617 -0.463704  
H 0.216029 1.828097 1.205221  
H 1.841627 1.110637 -1.079238  
H 2.191930 0.738122 0.600717  
H 0.780130 -1.029344 -1.438824  
H 1.992966 -1.508163 -0.251916  
H -0.598009 -2.049911 0.343720  
H 0.359314 -1.234929 1.589396

COMP. 02\_5T4\_M06-2X

C -0.888727 0.118909 0.469625  
C 0.105437 1.267603 0.281647

C 1.427609 0.610944 -0.194372  
C 1.085455 -0.873720 -0.418550  
C -0.035194 -1.132348 0.594194  
F -1.658807 -0.000702 -0.695446  
H -1.594213 0.269993 1.287814  
H -0.303295 1.973381 -0.442548  
H 0.242331 1.805310 1.221758  
H 1.826475 1.084099 -1.091715  
H 2.189189 0.700329 0.584079  
H 0.697973 -1.025678 -1.428675  
H 1.945185 -1.531102 -0.284887  
H -0.615029 -2.037141 0.408590  
H 0.373164 -1.181208 1.609336

COMP. 02\_5T4\_MP2

C -0.888192 0.121450 0.472228  
C 0.108234 1.268513 0.283785  
C 1.428013 0.608743 -0.200317  
C 1.081096 -0.877091 -0.420746  
C -0.033813 -1.129086 0.601305  
F -1.660217 -0.002487 -0.699622  
H -1.595053 0.276319 1.291381  
H -0.300438 1.980911 -0.437321  
H 0.250429 1.800361 1.229687  
H 1.820106 1.082334 -1.103821  
H 2.195783 0.697210 0.575511  
H 0.687430 -1.029928 -1.430281  
H 1.944286 -1.535040 -0.288711  
H -0.615896 -2.037530 0.426738  
H 0.383272 -1.167421 1.615887

COMP. 02\_E1\_B3LYP

C -0.915052 0.000004 0.459442  
C 0.016266 1.204015 0.506421  
C 1.253031 0.779570 -0.322227  
C 1.253019 -0.779580 -0.322232  
C 0.016260 -1.204010 0.506431  
F -1.596894 0.000000 -0.786014  
H -1.692765 0.000010 1.226064  
H -0.473175 2.105847 0.133961  
H 0.289398 1.384569 1.551748  
H 1.172213 1.158205 -1.342814  
H 2.173430 1.190662 0.097625  
H 1.172176 -1.158206 -1.342820  
H 2.173419 -1.190689 0.097601  
H -0.473186 -2.105845 0.133988  
H 0.289400 -1.384550 1.551759

COMP. 02\_E1\_M06-2X

C -0.888728 0.118909 0.469625  
C 0.105436 1.267604 0.281650  
C 1.427606 0.610947 -0.194376  
C 1.085456 -0.873720 -0.418548  
C -0.035194 -1.132348 0.594196  
F -1.658802 -0.000704 -0.695450  
H -1.594218 0.269990 1.287811  
H -0.303301 1.973387 -0.442538  
H 0.242334 1.805302 1.221766  
H 1.826466 1.084100 -1.091721  
H 2.189189 0.700333 0.584071  
H 0.697977 -1.025685 -1.428673  
H 1.945188 -1.531098 -0.284878  
H -0.615028 -2.037142 0.408594  
H 0.373165 -1.181203 1.609337

COMP. 02\_E1\_MP2

C -0.920078 0.000002 0.453194  
C 0.013493 1.195550 0.530625  
C 1.226242 0.778177 -0.329182  
C 1.226238 -0.778181 -0.329183  
C 0.013491 -1.195548 0.530628  
F -1.538015 0.000000 -0.811422  
H -1.721909 0.000004 1.196464  
H -0.470430 2.113299 0.187114  
H 0.305850 1.333605 1.578163  
H 1.110451 1.154976 -1.348352

H 2.158003 1.189384 0.067993  
H 1.110439 -1.154977 -1.348354  
H 2.157998 -1.189394 0.067985  
H -0.470435 -2.113298 0.187123  
H 0.305851 -1.333599 1.578167

COMP. 03\_1E\_B3LYP

C 0.341860 -0.000034 0.406239  
C -0.421165 -1.205408 -0.141339  
C -1.901468 -0.781235 0.002162  
C -1.901464 0.781236 0.002337  
C -0.421167 1.205430 -0.141136  
Cl 2.106546 0.000005 -0.053679  
H 0.345077 -0.000124 1.497428  
H -0.156394 -1.340219 -1.194022  
H -0.180995 -2.131819 0.383004  
H -2.510861 -1.192770 -0.804616  
H -2.319722 -1.160381 0.937830  
H -2.510897 1.192959 -0.804316  
H -2.319665 1.160173 0.938114  
H -0.156421 1.340402 -1.193805  
H -0.180982 2.131759 0.383345

COMP. 03\_1E\_M06-2X

C -0.343651 -0.000001 0.400545  
C 0.414610 1.196889 -0.158506  
C 1.887410 0.778832 0.013535  
C 1.887410 -0.778833 0.013538  
C 0.414610 -1.196889 -0.158509  
Cl -2.086598 0.000000 -0.045294  
H -0.322599 -0.000002 1.491760  
H 0.160577 1.300605 -1.216982  
H 0.162472 2.130904 0.343883  
H 2.512556 1.190593 -0.778896  
H 2.280607 1.156154 0.959305  
H 2.512560 -1.190598 -0.778887  
H 2.280599 -1.156150 0.959313  
H 0.160581 -1.300600 -1.216986  
H 0.162471 -2.130906 0.343876

COMP. 03\_1E\_MP2

C -0.349742 -0.000004 0.396399  
C 0.411287 1.194917 -0.165137  
C 1.884602 0.779739 0.018435  
C 1.884597 -0.779740 0.018461  
C 0.411290 -1.194913 -0.165159  
Cl -2.080131 0.000000 -0.041769  
H -0.310644 -0.000016 1.490509  
H 0.164059 1.291569 -1.228198  
H 0.159266 2.135443 0.331644  
H 2.517381 1.190246 -0.772698  
H 2.269631 1.158566 0.970019  
H 2.517414 -1.190282 -0.772624  
H 2.269574 -1.158536 0.970080  
H 0.164086 -1.291530 -1.228229  
H 0.159256 -2.135453 0.331588

COMP. 03\_3E\_B3LYP

C 0.368552 -0.061163 0.550388  
C -0.461401 -1.232117 -0.003872  
C -1.904621 -0.702915 0.017389  
C -1.740111 0.760613 -0.426709  
C -0.453444 1.227969 0.288183  
Cl 2.042265 0.000181 -0.197324  
H 0.574623 -0.187589 1.611117  
H -0.313114 -2.150260 0.567775  
H -0.160621 -1.432071 -1.035917  
H -2.315050 -0.747105 1.032760  
H -2.570767 -1.278304 -0.629555  
H -2.603326 1.384625 -0.185399  
H -1.602695 0.799390 -1.512068  
H -0.693680 1.697762 1.246242  
H 0.112275 1.956148 -0.292718

COMP. 03\_3E\_M06-2X

C 0.369973 -0.059431 0.529230

C -0.451093 -1.219632 -0.042256  
C -1.890387 -0.706584 0.054289  
C -1.750284 0.748863 -0.408606  
C -0.445320 1.227101 0.256629  
Cl 2.031411 0.000150 -0.179885  
H 0.540900 -0.193953 1.595546  
H -0.266486 -2.156176 0.484641  
H -0.185962 -1.362095 -1.093440  
H -2.237632 -0.741072 1.092234  
H -2.587452 -1.287579 -0.550933  
H -2.606652 1.371041 -0.146523  
H -1.644706 0.770425 -1.496774  
H -0.654832 1.728814 1.203684  
H 0.111499 1.926150 -0.366117

COMP. 03\_3E\_MP2

C 0.379867 -0.063922 0.544863  
C -0.454054 -1.224762 -0.017006  
C -1.890473 -0.693975 0.038489  
C -1.714803 0.752465 -0.441842  
C -0.446538 1.222377 0.293935  
Cl 2.012844 0.000103 -0.194545  
H 0.560350 -0.202131 1.612649  
H -0.289663 -2.154774 0.533957  
H -0.176141 -1.394059 -1.063003  
H -2.266092 -0.706518 1.069357  
H -2.579223 -1.276303 -0.580406  
H -2.578564 1.391546 -0.238267  
H -1.542834 0.751698 -1.524427  
H -0.713195 1.671543 1.256589  
H 0.123012 1.964154 -0.269818

COMP. 03\_E1\_B3LYP

C 0.380374 0.000004 0.823493  
C -0.531682 -1.202236 0.587973  
C -1.460203 -0.779146 -0.574386  
C -1.460213 0.779137 -0.574386  
C -0.531683 1.202241 0.587962  
Cl 1.764699 0.000000 -0.397338  
H 0.879586 0.000009 1.789824  
H 0.020416 -2.122718 0.396175  
H -1.111905 -1.353045 1.506307  
H -1.074758 -1.158000 -1.522641  
H -2.463248 -1.192031 -0.449332  
H -1.074788 1.157997 -1.522647  
H -2.463262 1.192008 -0.449317  
H 0.020415 2.122720 0.396148  
H -1.111900 1.353063 1.506299

COMP. 03\_E1\_M06-2X

C -0.383370 0.000003 0.835758  
C 0.532506 1.194996 0.604313  
C 1.410791 0.776799 -0.591405  
C 1.410783 -0.776806 -0.591404  
C 0.532503 -1.194993 0.604321  
Cl -1.716297 0.000000 -0.400353  
H -0.888232 0.000007 1.798824  
H -0.015897 2.122488 0.442239  
H 1.142918 1.316261 1.505343  
H 0.979856 1.152845 -1.519967  
H 2.416147 1.190552 -0.508788  
H 0.979833 -1.152847 -1.519963  
H 2.416134 -1.190571 -0.508799  
H -0.015901 -2.122486 0.442256  
H 1.142918 -1.316250 1.505350

COMP. 03\_E1\_MP2

C 0.393252 0.000002 0.830437  
C -0.528898 -1.193716 0.608379  
C -1.404581 -0.777645 -0.591958  
C -1.404586 0.777640 -0.591959  
C -0.528899 1.193719 0.608374  
Cl 1.704912 0.000000 -0.402142  
H 0.891051 0.000005 1.801423  
H 0.014522 -2.127635 0.447347  
H -1.143191 -1.306950 1.510674

H -0.973438 -1.155040 -1.522622  
H -2.414026 -1.189118 -0.507716  
H -0.973453 1.155038 -1.522626  
H -2.414034 1.189106 -0.507710  
H 0.014521 2.127637 0.447334  
H -1.143190 1.306959 1.510669

COMP. 04\_1T5\_B3LYP

C -0.791008 -0.016270 0.358437  
C 0.019429 1.217827 -0.056038  
C 1.501884 0.758588 -0.070168  
C 1.472443 -0.788848 0.099695  
C 0.020830 -1.190549 -0.205785  
O -2.122104 0.096421 -0.145295  
H -0.820539 -0.091222 1.455933  
H -0.313305 1.506837 -1.057172  
H -0.161652 2.069025 0.603021  
H 1.981635 1.039596 -1.010484  
H 2.081019 1.228816 0.727780  
H 2.194000 -1.296881 -0.543606  
H 1.722671 -1.058821 1.130685  
H -0.153155 -1.238912 -1.286674  
H -0.260224 -2.156760 0.224074  
H -2.635082 -0.657536 0.161960

COMP. 04\_1T5\_M06-2X

C 0.783254 0.010719 0.355636  
C -0.020680 -1.208893 -0.087573  
C -1.497468 -0.754436 -0.045547  
C -1.460584 0.791687 0.101748  
C -0.014145 1.179719 -0.222757  
O 2.112578 -0.099179 -0.118393  
H 0.779689 0.079427 1.453515  
H 0.182116 -2.085806 0.527692  
H 0.290481 -1.442387 -1.109417  
H -2.035598 -1.210568 0.786642  
H -2.017847 -1.050063 -0.957521  
H -1.693814 1.075236 1.131531  
H -2.185193 1.292855 -0.540583  
H 0.276885 2.150117 0.186986  
H 0.153305 1.198062 -1.304865  
H 2.607089 0.673789 0.164121

COMP. 04\_1T5\_MP2

C -0.783725 -0.020240 0.358060  
C 0.019200 1.214236 -0.053594  
C 1.497967 0.749774 -0.083508  
C 1.458529 -0.787222 0.127110  
C 0.021432 -1.177205 -0.233410  
O -2.116695 0.101329 -0.127451  
H -0.790701 -0.113755 1.455673  
H -0.323492 1.502998 -1.052861  
H -0.153839 2.060869 0.615483  
H 1.954794 0.994000 -1.046832  
H 2.097104 1.240106 0.688681  
H 2.209522 -1.314146 -0.467741  
H 1.647222 -1.027247 1.179859  
H -0.123997 -1.173597 -1.320885  
H -0.275704 -2.157438 0.155104  
H -2.587761 -0.698477 0.125177

COMP. 04\_3T2\_B3LYP

C 0.810785 -0.051993 0.380605  
C -0.054252 -1.205299 -0.133898  
C -1.487427 -0.735148 0.140804  
C -1.455484 0.760666 -0.240839  
C -0.015836 1.234319 0.097897  
O 2.084369 -0.087378 -0.268995  
H 0.958355 -0.166311 1.463268  
H 0.199225 -2.159477 0.332983  
H 0.117161 -1.303830 -1.211691  
H -1.722442 -0.850379 1.205326  
H -2.237944 -1.299634 -0.417345  
H -2.223466 1.341641 0.274738  
H -1.641706 0.868390 -1.313294  
H -0.002258 1.906950 0.959965

H 0.435409 1.771160 -0.740355  
H 2.655996 0.575240 0.130949

COMP. 04\_3T2\_M06-2X

C 0.809024 -0.059719 0.384343  
C -0.060789 -1.201170 -0.134882  
C -1.482300 -0.721044 0.154112  
C -1.434007 0.755912 -0.269541  
C -0.014337 1.227730 0.122351  
O 2.063778 -0.090149 -0.277111  
H 0.963123 -0.187389 1.463679  
H 0.192910 -2.160091 0.318503  
H 0.100498 -1.279204 -1.215196  
H -1.692307 -0.799977 1.226086  
H -2.246613 -1.291708 -0.375109  
H -2.221297 1.356094 0.188260  
H -1.562543 0.822031 -1.352793  
H -0.035533 1.865054 1.009058  
H 0.456825 1.796996 -0.681710  
H 2.629166 0.589133 0.097812

COMP. 04\_3T2\_MP2

C 0.804124 -0.058213 0.379648  
C -0.058914 -1.197179 -0.154000  
C -1.479708 -0.727268 0.162542  
C -1.446199 0.755209 -0.251721  
C -0.013117 1.228174 0.099148  
O 2.078873 -0.091387 -0.259191  
H 0.933750 -0.186801 1.464439  
H 0.205995 -2.163087 0.284330  
H 0.087623 -1.254924 -1.239692  
H -1.669724 -0.816294 1.239549  
H -2.252432 -1.297223 -0.361115  
H -2.220518 1.352706 0.237516  
H -1.608023 0.829095 -1.332325  
H -0.007589 1.893990 0.968220  
H 0.447141 1.766427 -0.735379  
H 2.615675 0.602880 0.134285

COMP. 04\_4E\_B3LYP

C 0.823968 0.047477 0.409446  
C -0.037612 -1.225241 0.213289  
C -1.405321 -0.747999 -0.327079  
C -1.493948 0.726060 0.108851  
C -0.052755 1.222297 -0.076059  
O 2.046268 -0.100492 -0.323974  
H 1.064189 0.176069 1.472747  
H 0.472824 -1.905104 -0.471199  
H -0.155408 -1.751449 1.164004  
H -1.419069 -0.804229 -1.420320  
H -2.238796 -1.353018 0.037248  
H -2.222177 1.303510 -0.466033  
H -1.786188 0.792053 1.163564  
H 0.151108 1.378968 -1.141189  
H 0.160795 2.158116 0.448479  
H 2.596590 0.673454 -0.166190

COMP. 04\_4E\_M06-2X

C 0.818671 0.046392 0.407399  
C -0.040682 -1.221445 0.207601  
C -1.400364 -0.737681 -0.332941  
C -1.482427 0.724027 0.127036  
C -0.049369 1.212886 -0.092193  
O 2.036542 -0.102841 -0.309584  
H 1.042286 0.181566 1.472762  
H 0.472391 -1.896430 -0.478398  
H -0.165313 -1.748074 1.155649  
H -1.403037 -0.769075 -1.426067  
H -2.235682 -1.346417 0.015635  
H -2.225080 1.309101 -0.417601  
H -1.737085 0.769386 1.191390  
H 0.136503 1.333551 -1.164701  
H 0.178360 2.158558 0.404922  
H 2.569344 0.685496 -0.178336

COMP. 04\_4E\_MP2

C -0.816610 -0.049739 0.409009  
C 0.039064 1.220971 0.208189  
C 1.399395 0.738350 -0.336764  
C 1.485062 -0.721519 0.132693  
C 0.052872 -1.211955 -0.098176  
O -2.043977 0.104291 -0.306497  
H -1.035510 -0.190671 1.476869  
H -0.477407 1.896744 -0.478624  
H 0.166551 1.746736 1.159256  
H 1.395190 0.760763 -1.432433  
H 2.235024 1.355206 0.005900  
H 2.235000 -1.308411 -0.405829  
H 1.729836 -0.760330 1.201818  
H -0.125767 -1.322848 -1.174975  
H -0.181004 -2.162728 0.392424  
H -2.548800 -0.705441 -0.182136

COMP. 04\_5EB3P

C -0.873347 0.128318 0.481371  
C 0.141899 1.262836 0.282126  
C 1.451192 0.599717 -0.214408  
C 1.104544 -0.882720 -0.430683  
C -0.013980 -1.134976 0.582367  
O -1.707707 0.102604 -0.679830  
H -1.494287 0.282853 1.373573  
H -0.266573 1.977411 -0.435588  
H 0.301482 1.801359 1.220183  
H 1.836805 1.070326 -1.121841  
H 2.232667 0.692583 0.546961  
H 0.719471 -1.037271 -1.443001  
H 1.964058 -1.545004 -0.297672  
H -0.586425 -2.050274 0.397636  
H 0.399764 -1.207184 1.596405  
H -2.307157 -0.644691 -0.602651

COMP. 04\_5E\_M06-2X

C 0.903431 -0.043975 0.478180  
C -0.082751 -1.204034 0.518175  
C -1.257903 -0.731958 -0.363369  
C -1.194070 0.820119 -0.355855  
C -0.009879 1.178986 0.562960  
O 1.559698 -0.110279 -0.784633  
H 1.639564 -0.084581 1.288659  
H 0.377111 -2.127859 0.165773  
H -0.407077 -1.355202 1.551356  
H -1.136925 -1.107540 -1.379512  
H -2.212166 -1.105122 0.010757  
H -1.010525 1.191077 -1.364841  
H -2.123887 1.272123 -0.008367  
H 0.497164 2.103322 0.272916  
H -0.342037 1.297848 1.598776  
H 2.088226 0.683338 -0.898993

COMP. 04\_5E\_MP2

C -0.878158 0.138814 0.486942  
C 0.148203 1.264053 0.312212  
C 1.432582 0.592914 -0.247981  
C 1.076629 -0.897743 -0.425595  
C -0.024571 -1.123955 0.616690  
O -1.660156 0.105839 -0.713887  
H -1.532932 0.301375 1.352796  
H -0.263676 2.019974 -0.361138  
H 0.344412 1.744354 1.275870  
H 1.758827 1.050016 -1.185646  
H 2.253455 0.697715 0.469242  
H 0.670042 -1.070117 -1.426110  
H 1.939900 -1.555328 -0.288782  
H -0.604342 -2.041061 0.461438  
H 0.407743 -1.162677 1.625229  
H -2.220294 -0.675466 -0.665409

COMP. 04\_5T1\_MP2

C 0.896042 -0.101421 0.481083  
C -0.121215 -1.237288 0.429262  
C -1.345955 -0.656718 -0.324749  
C -1.119375 0.876970 -0.384312

C 0.018699 1.142923 0.614192  
O 1.588997 -0.111545 -0.772110  
H 1.610132 -0.213462 1.307523  
H 0.308857 -2.115304 -0.059383  
H -0.393243 -1.516512 1.452910  
H -1.424647 -1.076720 -1.330354  
H -2.272936 -0.899865 0.203050  
H -0.799476 1.166203 -1.388624  
H -2.024138 1.442826 -0.145245  
H 0.564865 2.072138 0.414695  
H -0.368041 1.194430 1.639865  
H 2.117482 0.691832 -0.810420

COMP. 04\_E1B3P

C -0.873347 0.128318 0.481371  
C 0.141899 1.262836 0.282129  
C 1.451190 0.599718 -0.214411  
C 1.104544 -0.882720 -0.430682  
C -0.013981 -1.134976 0.582367  
O -1.707704 0.102604 -0.679831  
H -1.494289 0.282852 1.373572  
H -0.266574 1.977414 -0.435581  
H 0.301484 1.801354 1.220189  
H 1.836798 1.070326 -1.121847  
H 2.232669 0.692587 0.546955  
H 0.719473 -1.037275 -1.443000  
H 1.964059 -1.545002 -0.297668  
H -0.586425 -2.050274 0.397636  
H 0.399763 -1.207185 1.596406  
H -2.307154 -0.644691 -0.602655

COMP. 04\_E1\_B3LYP

C -0.875332 0.124269 0.484256  
C 0.137787 1.267611 0.281949  
C 1.457706 0.608149 -0.212063  
C 1.119358 -0.882633 -0.430023  
C -0.012164 -1.143522 0.575859  
O -1.722395 0.101952 -0.678275  
H -1.493242 0.273374 1.377701  
H -0.272025 1.976756 -0.439178  
H 0.293486 1.809080 1.218242  
H 1.841406 1.079917 -1.118875  
H 2.235744 0.706311 0.551099  
H 0.747840 -1.041591 -1.445836  
H 1.981034 -1.538548 -0.285111  
H -0.583521 -2.055452 0.376077  
H 0.393936 -1.227692 1.591468  
H -2.329624 -0.641022 -0.599254

COMP. 04\_E1\_M06-2X

C 0.903431 -0.043972 0.478180  
C -0.082750 -1.204032 0.518179  
C -1.257900 -0.731961 -0.363371  
C -1.194072 0.820117 -0.355855  
C -0.009881 1.178987 0.562958  
O 1.559696 -0.110279 -0.784634  
H 1.639565 -0.084574 1.288658  
H 0.377114 -2.127857 0.165782  
H -0.407078 -1.355195 1.551360  
H -1.136911 -1.107539 -1.379513  
H -2.212163 -1.105130 0.010747  
H -1.010530 1.191074 -1.364842  
H -2.123890 1.272118 -0.008366  
H 0.497160 2.103324 0.272913  
H -0.342039 1.297849 1.598775  
H 2.088234 0.683332 -0.898992

COMP. 04\_E1\_MP2

C 0.903936 -0.048015 0.480466  
C -0.085209 -1.205500 0.516828  
C -1.261035 -0.728179 -0.364462  
C -1.186737 0.825125 -0.359735  
C -0.007430 1.175415 0.570719  
O 1.560082 -0.112473 -0.790351  
H 1.642442 -0.092648 1.291798  
H 0.371530 -2.133245 0.162141

H -0.411410 -1.355584 1.552268  
H -1.146856 -1.108549 -1.382127  
H -2.218234 -1.093060 0.018587  
H -0.990855 1.193900 -1.369636  
H -2.119036 1.283165 -0.017772  
H 0.501163 2.105251 0.291191  
H -0.347643 1.282673 1.607954  
H 2.057092 0.704806 -0.894493

COMP. 05\_1E\_B3LYP

C -0.761659 -0.000043 -0.362747  
C 0.054995 -1.198314 0.154375  
C 1.531499 -0.779991 -0.026085  
C 1.531499 0.779986 -0.026269  
C 0.054994 1.198351 0.154090  
C -2.231246 0.000006 0.053741  
H -0.708403 -0.000174 -1.460888  
H -0.170689 -1.347784 1.217608  
H -0.187775 -2.132626 -0.359523  
H 2.168618 -1.192332 0.759856  
H 1.921274 -1.158749 -0.975003  
H 2.168616 1.192510 0.759577  
H 1.921276 1.158519 -0.975274  
H -0.170691 1.348074 1.217286  
H -0.187775 2.132540 -0.360031  
H -2.754460 0.883068 -0.325824  
H -2.326024 0.000136 1.145202  
H -2.754460 -0.883147 -0.325613

COMP. 05\_1E\_M06-2X

C -0.753619 -0.000040 -0.365896  
C 0.052754 -1.189578 0.166574  
C 1.523208 -0.777640 -0.032410  
C 1.523204 0.777635 -0.032618  
C 0.052756 1.189614 0.166310  
C -2.219406 0.000005 0.043672  
H -0.683156 -0.000160 -1.461938  
H -0.167853 -1.308018 1.233987  
H -0.197993 -2.131555 -0.326165  
H 2.169931 -1.190432 0.743144  
H 1.893600 -1.154721 -0.988197  
H 2.169959 1.190642 0.742794  
H 1.893547 1.154460 -0.988525  
H -0.167831 1.308276 1.233704  
H -0.198003 2.131486 -0.326622  
H -2.738719 0.883711 -0.335348  
H -2.308147 0.000127 1.134519  
H -2.738719 -0.883786 -0.335150

COMP. 05\_1E\_MP2

C -0.753106 0.000000 -0.365012  
C 0.052637 -1.188170 0.172543  
C 1.524264 -0.778556 -0.036467  
C 1.524264 0.778555 -0.036466  
C 0.052637 1.188170 0.172541  
C -2.222393 0.000000 0.038977  
H -0.678012 -0.000001 -1.463345  
H -0.163453 -1.295905 1.244389  
H -0.199587 -2.136276 -0.314194  
H 2.176473 -1.191551 0.738480  
H 1.886788 -1.157545 -0.997462  
H 2.176472 1.191549 0.738484  
H 1.886792 1.157547 -0.997459  
H -0.163455 1.295907 1.244387  
H -0.199587 2.136276 -0.314197  
H -2.740056 0.886038 -0.343713  
H -2.312140 0.000000 1.131650  
H -2.740056 -0.886038 -0.343713

COMP. 05\_5E\_B3LYP

C -0.844252 0.082069 0.537327  
C 0.150446 1.260463 0.355877  
C 1.432779 0.666668 -0.301689  
C 1.177465 -0.853765 -0.442360  
C 0.078547 -1.154672 0.590929  
C -1.867538 -0.001155 -0.604364

H -1.394840 0.189825 1.477364  
H 0.394970 1.697779 1.327822  
H -0.287697 2.061778 -0.245324  
H 2.302136 0.848994 0.335880  
H 1.652534 1.129334 -1.266713  
H 2.080954 -1.447440 -0.282719  
H 0.818940 -1.089076 -1.449148  
H 0.523297 -1.237579 1.589440  
H -0.453445 -2.089996 0.393793  
H -2.530012 -0.863243 -0.478897  
H -1.380271 -0.095340 -1.580020  
H -2.491250 0.897311 -0.635788

COMP. 05\_5E\_M06-2X

C -0.835225 0.099045 0.543333  
C 0.156080 1.266376 0.311918  
C 1.451339 0.637084 -0.270203  
C 1.141920 -0.859048 -0.460901  
C 0.073265 -1.140899 0.600211  
C -1.859989 -0.002783 -0.588010  
H -1.373147 0.228324 1.485999  
H 0.373002 1.779343 1.251035  
H -0.273855 2.010666 -0.362555  
H 2.272922 0.753547 0.440586  
H 1.765363 1.115055 -1.199274  
H 2.027144 -1.487798 -0.351602  
H 0.736162 -1.043264 -1.459256  
H 0.547921 -1.205752 1.585078  
H -0.473162 -2.071955 0.430999  
H -2.515697 -0.866416 -0.450955  
H -1.367191 -0.103878 -1.559297  
H -2.483808 0.893480 -0.628850

COMP. 05\_5E\_MP2

C -0.835076 0.100382 0.544669  
C 0.156928 1.267630 0.311478  
C 1.452728 0.634970 -0.271144  
C 1.137122 -0.861171 -0.464091  
C 0.073895 -1.139360 0.605219  
C -1.858070 -0.003450 -0.590035  
H -1.375827 0.234317 1.488792  
H 0.374448 1.782477 1.252867  
H -0.274624 2.011440 -0.366996  
H 2.275078 0.746853 0.443432  
H 1.767137 1.115753 -1.202025  
H 2.024782 -1.492566 -0.360113  
H 0.722483 -1.041695 -1.461717  
H 0.555680 -1.198541 1.589825  
H -0.476388 -2.072547 0.442338  
H -2.508598 -0.874494 -0.455369  
H -1.361384 -0.096734 -1.561869  
H -2.487948 0.891724 -0.625734

COMP. 05\_E1\_B3LYP

C 0.855994 0.000002 0.545057  
C -0.114529 -1.200035 0.535394  
C -1.272205 -0.778783 -0.402815  
C -1.272213 0.778777 -0.402811  
C -0.114533 1.200039 0.535388  
C 1.803697 0.000001 -0.662628  
H 1.461707 0.000005 1.457399  
H 0.366351 -2.130821 0.221427  
H -0.496595 -1.362067 1.548903  
H -1.108361 -1.160884 -1.413748  
H -2.227344 -1.189681 -0.067610  
H -1.108385 1.160885 -1.413744  
H -2.227353 1.189662 -0.067594  
H 0.366346 2.130821 0.221408  
H -0.496593 1.362080 1.548897  
H 2.448698 0.883894 -0.655390  
H 1.255578 0.000002 -1.610068  
H 2.448697 -0.883894 -0.655391

COMP. 05\_E1\_M06-2X

C -0.854597 -0.000004 0.555688  
C 0.114111 1.192024 0.555854



C 1.241196 0.776496 -0.413385  
C 1.241205 -0.776488 -0.413384  
C 0.114117 -1.192027 0.555849  
C -1.751290 -0.000002 -0.683109  
H -1.482752 -0.000006 1.450739  
H -0.368011 2.128874 0.266792  
H 0.519491 1.327026 1.562967  
H 1.042647 1.157808 -1.417153  
H 2.204085 1.187280 -0.106756  
H 1.042668 -1.157805 -1.417152  
H 2.204096 -1.187261 -0.106744  
H -0.368000 -2.128877 0.266777  
H 0.519495 -1.327036 1.562961  
H -2.392716 -0.884459 -0.703002  
H -1.156737 0.000003 -1.601515  
H -2.392720 0.884453 -0.702996

COMP. 05\_E1\_MP2

C 0.854509 0.000001 0.555381  
C -0.115538 -1.191091 0.559682  
C -1.239226 -0.777414 -0.416998  
C -1.239229 0.777412 -0.416997  
C -0.115539 1.191093 0.559679  
C 1.750711 0.000000 -0.685188  
H 1.486639 0.000002 1.451541  
H 0.365837 -2.133302 0.275983  
H -0.526334 -1.317382 1.568668  
H -1.034310 -1.161028 -1.421157  
H -2.206057 -1.187409 -0.111334  
H -1.034321 1.161028 -1.421156  
H -2.206061 1.187402 -0.111327  
H 0.365836 2.133303 0.275974  
H -0.526332 1.317388 1.568665  
H 2.392633 0.887188 -0.702142  
H 1.155716 0.000001 -1.604921  
H 2.392630 -0.887189 -0.702142

COMP. 06\_1E\_B3LYP

C 0.199134 0.000000 -0.358783  
C 1.031112 -1.199885 0.142166  
C 2.500474 -0.778846 -0.083861  
C 2.500474 0.778846 -0.083861  
C 1.031112 1.199885 0.142166  
C -1.320896 0.000000 -0.022136  
C -1.977058 1.250237 -0.643273  
C -1.594775 -0.000001 1.494896  
C -1.977059 -1.250236 -0.643274  
H 0.264981 0.000000 -1.457656  
H 0.848541 -1.356907 1.210465  
H 0.786937 -2.134326 -0.367694  
H 3.161322 -1.192025 0.681896  
H 2.860270 -1.157938 -1.044420  
H 3.161322 1.192024 0.681896  
H 2.860270 1.157939 -1.044420  
H 0.848541 1.356907 1.210465  
H 0.786937 2.134325 -0.367694  
H -1.791497 1.298801 -1.721318  
H -1.597089 2.172100 -0.195347  
H -3.061077 1.232092 -0.492721  
H -1.180721 0.884488 1.985875  
H -1.180721 -0.884490 1.985874  
H -2.673469 0.000000 1.679966  
H -1.597089 -2.172100 -0.195349  
H -1.791497 -1.298799 -1.721319  
H -3.061077 -1.232092 -0.492722

COMP. 06\_1E\_M06-2X

C -0.197945 0.000000 -0.355972  
C -1.019715 1.192147 0.156710  
C -2.481953 0.776710 -0.090785  
C -2.481953 -0.776709 -0.090783  
C -1.019714 -1.192147 0.156709  
C 1.310838 0.000000 -0.026250  
C 1.957535 -1.246602 -0.644193  
C 1.587564 -0.000001 1.482669  
C 1.957536 1.246603 -0.644192

H -0.276649 0.000001 -1.454204  
H -0.845644 1.320342 1.229874  
H -0.766863 2.133396 -0.334374  
H -3.154020 1.190249 0.662554  
H -2.819967 1.153731 -1.058511  
H -3.154018 -1.190246 0.662560  
H -2.819971 -1.153733 -1.058507  
H -0.845642 -1.320345 1.229872  
H -0.766864 -2.133396 -0.334377  
H 1.755556 -1.299753 -1.718418  
H 1.580165 -2.161868 -0.181607  
H 3.042201 -1.225008 -0.505419  
H 1.176719 -0.885891 1.972236  
H 1.176718 0.885888 1.972238  
H 2.667195 0.000000 1.658039  
H 1.580165 2.161868 -0.181604  
H 1.755556 1.299755 -1.718417  
H 3.042201 1.225008 -0.505418

COMP. 06\_1E\_MP2

C -0.199534 0.000000 -0.347739  
C -1.023061 1.190445 0.165046  
C -2.483105 0.776125 -0.094741  
C -2.483105 -0.776125 -0.094742  
C -1.023061 -1.190445 0.165046  
C 1.310400 0.000000 -0.025807  
C 1.955342 -1.244299 -0.648898  
C 1.600587 -0.000001 1.479517  
C 1.955341 1.244300 -0.648896  
H -0.277865 0.000000 -1.450348  
H -0.853268 1.318270 1.242066  
H -0.768888 2.137884 -0.322052  
H -3.164437 1.191914 0.655531  
H -2.814717 1.158126 -1.067119  
H -3.164438 -1.191916 0.655529  
H -2.814715 -1.158125 -1.067121  
H -0.853268 -1.318269 1.242067  
H -0.768887 -2.137884 -0.322050  
H 1.744270 -1.297290 -1.724459  
H 1.586724 -2.164130 -0.182436  
H 3.044340 -1.217432 -0.519452  
H 1.193034 -0.887975 1.974218  
H 1.193032 0.887971 1.974220  
H 2.684936 0.000000 1.645032  
H 1.586723 2.164131 -0.182432  
H 1.744268 1.297294 -1.724457  
H 3.044340 1.217433 -0.519451

COMP. 06\_3T2\_B3LYP

C -0.179143 0.046676 -0.458446  
C -1.041854 1.212837 0.077154  
C -2.481477 0.748390 -0.179018  
C -2.450261 -0.738758 0.217217  
C -1.028095 -1.231117 -0.163682  
C 1.307661 0.004141 0.003458  
C 1.450068 -0.147792 1.530696  
C 2.011731 1.305877 -0.430546  
C 2.012514 -1.182395 -0.685195  
H -0.144336 0.164628 -1.549935  
H -0.889374 1.346468 1.154161  
H -0.810626 2.165209 -0.405634  
H -3.226640 1.323058 0.377567  
H -2.719543 0.852324 -1.244145  
H -2.601094 -0.830314 1.297761  
H -3.240124 -1.321487 -0.263020  
H -0.598727 -1.825219 0.646002  
H -1.055475 -1.881655 -1.041194  
H 1.015108 0.699264 2.067372  
H 0.974481 -1.060250 1.900136  
H 2.508228 -0.198668 1.805393  
H 1.922536 1.461063 -1.510738  
H 1.589158 2.180838 0.070422  
H 3.078157 1.268296 -0.186655  
H 1.579506 -2.140586 -0.385824  
H 1.935976 -1.105913 -1.774800  
H 3.075927 -1.204216 -0.426688

COMP. 06\_3T2\_M06-2X

C -0.147366 0.069757 -0.614905  
C -1.031625 1.241067 -0.114614  
C -2.458542 0.684195 -0.087304  
C -2.240616 -0.751222 0.395341  
C -1.019914 -1.205152 -0.417315  
C 1.260520 0.006594 0.026789  
C 1.200043 -0.316008 1.525467  
C 1.961179 1.357291 -0.167938  
C 2.087975 -1.073772 -0.681690  
H 0.020939 0.208906 -1.688883  
H -0.747138 1.526266 0.902855  
H -0.928566 2.131598 -0.737348  
H -3.131429 1.262748 0.548432  
H -2.879755 0.671995 -1.098370  
H -1.996138 -0.740041 1.463394  
H -3.109453 -1.397604 0.258684  
H -0.480351 -2.020518 0.066733  
H -1.349506 -1.580709 -1.285633  
H 0.651383 0.444427 2.086149  
H 0.726255 -1.282960 1.713203  
H 2.212133 -0.359771 1.937693  
H 2.000892 1.624240 -1.228525  
H 1.443093 2.159196 0.363741  
H 2.987401 1.315286 0.208041  
H 1.641337 -2.064654 -0.568872  
H 2.169023 -0.859576 -1.751486  
H 3.099956 -1.115328 -0.268794

COMP. 06\_3T2\_MP2

C -0.149148 0.069727 -0.601835  
C -1.031343 1.239684 -0.094288  
C -2.461922 0.687615 -0.104497  
C -2.257481 -0.747617 0.389048  
C -1.019514 -1.208113 -0.398083  
C 1.263192 0.006067 0.025156  
C 1.219816 -0.309291 1.525763  
C 1.964926 1.354503 -0.182674  
C 2.080331 -1.078637 -0.689187  
H 0.009394 0.212336 -1.680739  
H -0.762352 1.501114 0.936285  
H -0.909778 2.141108 -0.702775  
H -3.151927 1.271342 0.513316  
H -2.853023 0.672231 -1.130125  
H -2.034911 -0.731558 1.463725  
H -3.125778 -1.396134 0.234831  
H -0.480357 -2.011567 0.111565  
H -1.329992 -1.602784 -1.372279  
H 0.672473 0.454944 2.087188  
H 0.751351 -1.279386 1.723103  
H 2.239918 -0.346055 1.926112  
H 1.987624 1.618455 -1.247046  
H 1.457213 2.159658 0.358569  
H 2.999545 1.307097 0.177707  
H 1.629256 -2.069191 -0.568841  
H 2.149546 -0.863793 -1.762316  
H 3.098650 -1.121433 -0.284699

COMP. 06\_5T1\_B3LYP

C 0.105647 -0.023536 -0.799608  
C 1.054864 -1.231409 -0.556612  
C 2.225069 -0.742152 0.340228  
C 2.110554 0.802229 0.410601  
C 1.061043 1.189289 -0.650591  
C -1.198786 -0.000436 0.066367  
C -2.030139 1.250808 -0.285627  
C -0.920886 -0.003636 1.581800  
C -2.054309 -1.236732 -0.284780  
H -0.250928 -0.059147 -1.835276  
H 1.447110 -1.568670 -1.520328  
H 0.542244 -2.090668 -0.121214  
H 3.185538 -1.049280 -0.081344  
H 2.171978 -1.181949 1.339308  
H 3.068624 1.296009 0.229189  
H 1.783969 1.113895 1.405388

H 1.561557 1.348748 -1.611940  
H 0.549744 2.123575 -0.411515  
H -2.231551 1.301261 -1.360603  
H -1.527828 2.176446 0.004933  
H -2.994035 1.226754 0.232218  
H -0.389822 0.897244 1.898507  
H -0.329043 -0.871738 1.885137  
H -1.862761 -0.039404 2.138525  
H -1.560030 -2.173155 -0.015462  
H -2.274708 -1.271078 -1.356588  
H -3.008400 -1.205395 0.250401

COMP. 06\_5T1\_M06-2X

C -0.098813 0.041167 -0.806977  
C -1.040521 1.240419 -0.527978  
C -2.233232 0.720080 0.314149  
C -2.061879 -0.809742 0.419232  
C -1.041462 -1.174123 -0.669422  
C 1.186331 0.001824 0.064275  
C 2.049481 -1.200434 -0.343709  
C 0.878349 -0.091313 1.563272  
C 2.014922 1.269015 -0.197629  
H 0.258791 0.098739 -1.840922  
H -1.404699 1.636671 -1.478326  
H -0.528064 2.063518 -0.029511  
H -3.178070 0.971219 -0.171667  
H -2.257856 1.181834 1.303309  
H -3.006066 -1.340400 0.283814  
H -1.685331 -1.081900 1.406008  
H -1.566990 -1.309551 -1.619969  
H -0.521583 -2.110492 -0.460732  
H 2.285924 -1.165267 -1.411476  
H 1.556026 -2.151716 -0.136374  
H 2.993055 -1.193217 0.209276  
H 0.437743 -1.057434 1.819671  
H 0.190807 0.697825 1.883144  
H 1.799928 0.014096 2.143103  
H 1.524275 2.170437 0.174056  
H 2.199075 1.399731 -1.268237  
H 2.983980 1.194560 0.303551

COMP. 06\_5T1\_MP2

C -0.103355 0.037518 -0.797103  
C -1.045715 1.237367 -0.525905  
C -2.236473 0.720413 0.320098  
C -2.068143 -0.809200 0.424250  
C -1.052368 -1.172529 -0.666924  
C 1.187151 0.000940 0.064197  
C 2.026445 -1.225794 -0.317752  
C 0.910954 -0.040238 1.570777  
C 2.029567 1.246476 -0.248755  
H 0.256093 0.094070 -1.835890  
H -1.411232 1.626617 -1.483901  
H -0.534135 2.070951 -0.035608  
H -3.186825 0.974512 -0.162712  
H -2.257776 1.186323 1.311627  
H -3.018011 -1.339537 0.290447  
H -1.689865 -1.089257 1.411660  
H -1.580602 -1.299266 -1.622182  
H -0.537041 -2.117558 -0.467205  
H 2.226555 -1.241812 -1.396455  
H 1.531485 -2.164121 -0.049089  
H 2.991275 -1.201859 0.203406  
H 0.431790 -0.978635 1.867419  
H 0.272646 0.791684 1.890639  
H 1.855304 0.034922 2.124578  
H 1.540244 2.170581 0.074260  
H 2.226032 1.324202 -1.325350  
H 2.995685 1.188471 0.267050

COMP. 06\_E1\_B3LYP

C 0.103534 0.000004 -0.809266  
C 1.061065 -1.207067 -0.621953  
C 2.150922 -0.776291 0.388992  
C 2.150935 0.776284 0.388986  
C 1.061068 1.207071 -0.621946

C -1.193526 0.000001 0.067494  
C -2.039708 1.243967 -0.277016  
C -0.904329 -0.000025 1.580720  
C -2.039725 -1.243943 -0.277057  
H -0.261193 0.000008 -1.842871  
H 0.551376 -2.122038 -0.315035  
H 1.527945 -1.425582 -1.587762  
H 1.928696 -1.158067 1.388328  
H 3.126524 -1.183846 0.112620  
H 1.928737 1.158074 1.388322  
H 3.126539 1.183820 0.112590  
H 0.551381 2.122039 -0.315013  
H 1.527939 1.425597 -1.587756  
H -2.257793 1.288064 -1.348968  
H -1.539836 2.174726 0.001255  
H -2.995223 1.215052 0.255814  
H -0.340427 0.885079 1.886190  
H -0.340454 -0.885155 1.886166  
H -1.842718 -0.000019 2.144449  
H -1.539852 -2.174719 0.001156  
H -2.257834 -1.287985 -1.349007  
H -2.995228 -1.215049 0.255796

COMP. 06\_E1\_M06-2X

C -0.095975 0.015210 -0.827461  
C -1.060743 1.205358 -0.633648  
C -2.117365 0.767417 0.401658  
C -2.098281 -0.780532 0.399164  
C -1.038481 -1.194194 -0.644586  
C 1.174205 0.003527 0.066212  
C 2.089556 -1.141888 -0.391299  
C 0.856604 -0.184951 1.554048  
C 1.949976 1.316204 -0.113226  
H 0.279101 0.030154 -1.857017  
H -0.559571 2.132499 -0.354001  
H -1.555301 1.395012 -1.590625  
H -1.878367 1.153179 1.394197  
H -3.102412 1.161017 0.145188  
H -1.838879 -1.159137 1.389091  
H -3.075659 -1.197648 0.150970  
H -0.516752 -2.110170 -0.361826  
H -1.530611 -1.395367 -1.600220  
H 2.376095 -1.015193 -1.439486  
H 1.609592 -2.117210 -0.287504  
H 3.004503 -1.158840 0.207548  
H 0.385953 -1.152922 1.743250  
H 0.195992 0.601448 1.927310  
H 1.779889 -0.147010 2.139593  
H 1.432521 2.164012 0.340012  
H 2.104824 1.538293 -1.173523  
H 2.932106 1.240968 0.361861

COMP. 06\_E1\_MP2

C 0.096528 -0.000007 -0.824728  
C 1.053279 -1.199401 -0.641361  
C 2.107389 -0.775022 0.405535  
C 2.107396 0.775026 0.405517  
C 1.053279 1.199389 -0.641380  
C -1.172739 0.000000 0.066630  
C -2.019052 1.239043 -0.262132  
C -0.863933 -0.000044 1.568477  
C -2.019111 -1.238987 -0.262193  
H -0.282206 -0.000013 -1.857066  
H 0.542943 -2.126233 -0.365313  
H 1.552341 -1.385243 -1.600251  
H 1.849583 -1.158797 1.396440  
H 3.092408 -1.180884 0.155312  
H 1.849604 1.158827 1.396416  
H 3.092415 1.180873 0.155273  
H 0.542942 2.126224 -0.365341  
H 1.552336 1.385220 -1.600274  
H -2.234847 1.288397 -1.336202  
H -1.517488 2.166897 0.028978  
H -2.974294 1.196268 0.274356  
H -0.297663 0.889112 1.863573  
H -0.297735 -0.889258 1.863535

H -1.801700 -0.000019 2.137472  
H -1.517580 -2.166881 0.028848  
H -2.234928 -1.288264 -1.336263  
H -2.974341 -1.196206 0.274315

COMP. 07\_E-T\_B3LYP

O -0.062354 -1.228373 -0.192647  
C 1.103703 -0.515319 0.213518  
C 0.834416 0.931728 -0.198371  
C -0.669554 1.074641 0.111982  
C -1.200170 -0.377839 0.009829  
H 1.244802 -0.595179 1.302700  
H 1.961316 -0.972421 -0.282509  
H 1.451578 1.653303 0.341163  
H 1.023024 1.051517 -1.268531  
H -0.817501 1.467031 1.121129  
H -1.175386 1.749235 -0.580816  
H -1.727116 -0.676677 0.924124  
H -1.872254 -0.529086 -0.837834

COMP. 07\_E-T\_M06-2X

O -0.085320 -1.216766 -0.200949  
C 1.080511 -0.535464 0.224024  
C 0.850182 0.908096 -0.208656  
C -0.640856 1.084507 0.117574  
C -1.198715 -0.353881 0.008576  
H 1.187182 -0.601138 1.316559  
H 1.939523 -1.015235 -0.244423  
H 1.489592 1.622014 0.311114  
H 1.024889 0.997473 -1.282817  
H -0.764214 1.466050 1.132814  
H -1.139992 1.774996 -0.561813  
H -1.725012 -0.645720 0.923560  
H -1.876141 -0.483857 -0.836506

COMP. 07\_E-T\_MP2

O -0.093278 -1.218893 -0.223973  
C 1.069930 -0.542919 0.237449  
C 0.860840 0.899419 -0.209483  
C -0.631701 1.094372 0.107772  
C -1.200058 -0.344120 0.023242  
H 1.143014 -0.602620 1.335055  
H 1.936691 -1.035332 -0.207354  
H 1.506883 1.612851 0.308618  
H 1.042206 0.970678 -1.285591  
H -0.755288 1.496912 1.117129  
H -1.122701 1.775134 -0.591159  
H -1.693233 -0.629194 0.961292  
H -1.905412 -0.477797 -0.800090

COMP. 07\_E\_B3LYP

O -0.000018 -1.204699 -0.291314  
C 1.136286 -0.469157 0.155649  
C 0.776903 1.016049 -0.049797  
C -0.776898 1.016056 -0.049720  
C -1.136276 -0.469148 0.155752  
H 1.323566 -0.682810 1.218776  
H 1.998104 -0.803289 -0.422923  
H 1.196337 1.645301 0.737816  
H 1.163040 1.378170 -1.004330  
H -1.196248 1.645307 0.737939  
H -1.163126 1.378189 -1.004212  
H -1.323464 -0.682803 1.218895  
H -1.998148 -0.803270 -0.422746

COMP. 07\_E\_M06-2X

O -0.001396 -1.192610 -0.302948  
C 1.123774 -0.472044 0.162636  
C 0.776222 1.010354 -0.053336  
C -0.772151 1.014002 -0.048329  
C -1.126243 -0.468764 0.158633  
H 1.280311 -0.680982 1.230201  
H 1.996853 -0.809909 -0.394013  
H 1.201126 1.642969 0.726275  
H 1.159020 1.356809 -1.013446  
H -1.188284 1.641701 0.739953

H -1.159924 1.371476 -1.002341  
H -1.290320 -0.681839 1.224165  
H -1.997231 -0.800636 -0.404832

COMP. 07\_E\_MP2TS

O 0.000001 -1.198067 -0.312257  
C 1.123090 -0.468786 0.167103  
C 0.774885 1.013499 -0.053471  
C -0.774885 1.013499 -0.053474  
C -1.123091 -0.468786 0.167099  
H 1.269110 -0.675933 1.238377  
H 2.001672 -0.805780 -0.385357  
H 1.195834 1.648708 0.729892  
H 1.161208 1.356997 -1.015645  
H -1.195837 1.648708 0.729888  
H -1.161205 1.356997 -1.015649  
H -1.269115 -0.675934 1.238372  
H -2.001671 -0.805780 -0.385364

COMP. 07\_T\_B3LYP

O -0.000012 -1.251665 -0.000006  
C -1.169724 -0.428992 -0.130799  
C -0.734404 0.995886 0.224887  
C 0.734426 0.995870 -0.224890  
C 1.169713 -0.429014 0.130807  
H -1.534308 -0.486703 -1.164660  
H -1.946068 -0.822988 0.530078  
H -1.340225 1.756870 -0.271089  
H -0.801381 1.158289 1.304930  
H 0.801408 1.158263 -1.304935  
H 1.340262 1.756844 0.271080  
H 1.946062 -0.823026 -0.530055  
H 1.534279 -0.486727 1.164675

COMP. 07\_T\_M06-2X

O -0.000157 -1.242877 -0.000354  
C 1.160578 -0.426906 0.136822  
C 0.728064 0.989893 -0.236756  
C -0.727629 0.990273 0.236506  
C -1.160834 -0.426559 -0.136332  
H 1.508119 -0.468568 1.175700  
H 1.945138 -0.825173 -0.508961  
H 1.342211 1.756329 0.236237  
H 0.772239 1.127674 -1.320249  
H -0.771696 1.128688 1.319922  
H -1.341502 1.756704 -0.236848  
H -1.944845 -0.824391 0.510401  
H -1.509482 -0.468453 -1.174809

COMP. 07\_T\_MP2TS

O -0.000030 -1.251363 -0.000046  
C 1.161848 -0.422594 0.140102  
C 0.725630 0.989977 -0.244450  
C -0.725548 0.990056 0.244375  
C -1.161896 -0.422532 -0.140000  
H 1.501724 -0.452807 1.183846  
H 1.951105 -0.824904 -0.500624  
H 1.345386 1.761733 0.218842  
H 0.757503 1.116490 -1.331677  
H -0.757400 1.116717 1.331586  
H -1.345252 1.761801 -0.219004  
H -1.951057 -0.824742 0.500909  
H -1.501971 -0.452819 -1.183673

COMP. 08\_1E\_B3LYP

N -0.000006 -1.172453 -0.346845  
C 1.164932 -0.446735 0.168907  
C 0.778333 1.028828 -0.056432  
C -0.778363 1.028810 -0.056356  
C -1.164904 -0.446760 0.169032  
H 0.000019 -2.151527 -0.082864  
H 1.332048 -0.629015 1.245143  
H 2.072267 -0.737756 -0.365702  
H 1.196534 1.675114 0.717889  
H 1.159393 1.378640 -1.017691  
H -1.196504 1.675093 0.718000

H -1.159524 1.378604 -1.017581  
H -1.331897 -0.629039 1.245288  
H -2.072291 -0.737804 -0.365476

COMP. 08\_1E\_M06-2X

N -0.000021 -1.164093 -0.359128  
C 1.155332 -0.445963 0.176041  
C 0.775656 1.024994 -0.058410  
C -0.775619 1.025021 -0.058411  
C -1.155348 -0.445921 0.176042  
H -0.000039 -2.143561 -0.098748  
H 1.292434 -0.626354 1.254466  
H 2.070777 -0.738634 -0.340099  
H 1.194843 1.675343 0.709805  
H 1.155105 1.361257 -1.023633  
H -1.194783 1.675387 0.709802  
H -1.155054 1.361296 -1.023636  
H -1.292455 -0.626307 1.254467  
H -2.070804 -0.738560 -0.340097

COMP. 08\_1E\_MP2

N 0.000003 -1.162613 -0.370585  
C 1.152826 -0.446294 0.181474  
C 0.776506 1.025117 -0.060477  
C -0.776513 1.025112 -0.060480  
C -1.152823 -0.446301 0.181476  
H 0.000006 -2.142390 -0.099486  
H 1.272208 -0.625269 1.264554  
H 2.076585 -0.741667 -0.323129  
H 1.195628 1.678791 0.708762  
H 1.158298 1.355600 -1.029373  
H -1.195643 1.678787 0.708754  
H -1.158303 1.355586 -1.029379  
H -1.272200 -0.625274 1.264558  
H -2.076581 -0.741681 -0.323123

COMP. 08\_3T4\_B3LYP

N -0.017165 -1.263179 -0.079691  
C 1.197005 -0.433214 0.098741  
C 0.745698 1.005633 -0.206367  
C -0.717364 1.015366 0.260926  
C -1.200990 -0.378899 -0.168591  
H -0.114658 -1.934638 0.669020  
H 1.582097 -0.498166 1.125413  
H 1.995824 -0.761793 -0.572841  
H 1.367997 1.752203 0.291622  
H 0.794867 1.195601 -1.283431  
H -0.763204 1.116296 1.350964  
H -1.305570 1.825582 -0.176627  
H -2.020297 -0.756730 0.449098  
H -1.562996 -0.349416 -1.203640

COMP. 08\_3T4\_M06-2X

N -0.010800 -1.262297 -0.062316  
C 1.195573 -0.422535 0.089365  
C 0.729358 1.009632 -0.208746  
C -0.721529 0.999765 0.278438  
C -1.186417 -0.382172 -0.189401  
H -0.113100 -1.887546 0.724291  
H 1.594558 -0.481353 1.108450  
H 1.982297 -0.745634 -0.595779  
H 1.351878 1.760775 0.278555  
H 0.754150 1.195000 -1.286294  
H -0.749923 1.058186 1.371131  
H -1.321487 1.816089 -0.126474  
H -2.029176 -0.773209 0.383466  
H -1.495506 -0.334372 -1.239077

COMP. 08\_3T4\_MP2

N -0.029495 -1.258400 -0.102051  
C 1.183095 -0.440694 0.123264  
C 0.751865 0.985423 -0.234093  
C -0.692302 1.020591 0.274176  
C -1.203409 -0.357270 -0.162389  
H -0.140975 -1.939530 0.638660  
H 1.510301 -0.473281 1.172644

H 2.008246 -0.795738 -0.501349  
H 1.397673 1.742810 0.218047  
H 0.766724 1.120426 -1.321451  
H -0.697178 1.100215 1.367770  
H -1.282364 1.844293 -0.137429  
H -2.018622 -0.730413 0.465612  
H -1.572835 -0.308287 -1.193904

COMP. 08\_5T1\_MP2

N -0.011958 -1.271821 -0.172541  
C -1.186262 -0.424447 0.105157  
C -0.726051 1.063753 0.032191  
C 0.801021 0.976869 -0.180706  
C 1.126791 -0.456827 0.266776  
H 0.062795 -1.396804 -1.179884  
H -1.990154 -0.657762 -0.597750  
H -1.546137 -0.657565 1.112592  
H -1.218001 1.604641 -0.780721  
H -0.960711 1.584852 0.965070  
H 1.045611 1.083078 -1.243474  
H 1.352115 1.742945 0.372734  
H 2.062298 -0.847358 -0.142512  
H 1.182898 -0.509369 1.361223

COMP. 08\_E1\_B3LYP

N 0.000016 -1.269486 -0.190749  
C -1.161392 -0.451851 0.189484  
C -0.777432 1.030007 -0.070792  
C 0.777457 1.029997 -0.070655  
C 1.161347 -0.451858 0.189732  
H 0.000124 -1.405899 -1.197721  
H -2.051851 -0.773002 -0.354426  
H -1.354510 -0.609417 1.256395  
H -1.163507 1.363009 -1.037798  
H -1.193393 1.696703 0.688442  
H 1.163705 1.362957 -1.037606  
H 1.193295 1.696713 0.688628  
H 2.051925 -0.773025 -0.353972  
H 1.354223 -0.609408 1.256690

COMP. 08\_E1\_M06-2X

N 0.002724 -1.262292 -0.205099  
C -1.157255 -0.451990 0.176252  
C -0.769214 1.032275 -0.047058  
C 0.779156 1.016731 -0.096507  
C 1.146109 -0.450276 0.215999  
H 0.022084 -1.359722 -1.216307  
H -2.041870 -0.758707 -0.382408  
H -1.356368 -0.631508 1.236972  
H -1.183574 1.405109 -0.985491  
H -1.150063 1.669964 0.752097  
H 1.133039 1.286106 -1.094096  
H 1.229589 1.715356 0.610084  
H 2.061623 -0.785745 -0.272113  
H 1.273696 -0.585252 1.294836

COMP. 08\_E1\_M06-2X2

N 0.000001 -1.261934 -0.207317  
C -1.151375 -0.451752 0.196860  
C -0.774843 1.024743 -0.071604  
C 0.774846 1.024737 -0.071624  
C 1.151370 -0.451751 0.196876  
H 0.000010 -1.356170 -1.219060  
H -2.053335 -0.773437 -0.324503  
H -1.311696 -0.609702 1.267872  
H -1.159710 1.345669 -1.041665  
H -1.191956 1.694403 0.681930  
H 1.159688 1.345620 -1.041710  
H 1.191989 1.694423 0.681871  
H 2.053343 -0.773447 -0.324457  
H 1.311661 -0.609682 1.267896

COMP. 08\_E1\_MP2

N 0.000005 -1.266079 -0.210771  
C -1.151026 -0.451902 0.199217  
C -0.775686 1.025647 -0.072089

C 0.775687 1.025641 -0.072120  
C 1.151022 -0.451895 0.199242  
H 0.000017 -1.338652 -1.226618  
H -2.056533 -0.772328 -0.322421  
H -1.304636 -0.609961 1.272987  
H -1.161328 1.342561 -1.045795  
H -1.192182 1.697862 0.683511  
H 1.161290 1.342493 -1.045862  
H 1.192223 1.697896 0.683422  
H 2.056549 -0.772334 -0.322352  
H 1.304588 -0.609925 1.273023

COMP. 08\_NITROGEN-INVERSION\_B3LYP

N 0.000000 -1.199553 -0.000041  
C -1.214546 -0.414371 -0.126862  
C -0.736189 1.005930 0.224323  
C 0.736189 1.005945 -0.224256  
C 1.214546 -0.414380 0.126835  
H 0.000000 -2.202466 -0.000076  
H -1.632277 -0.438944 -1.147038  
H -2.003836 -0.753550 0.555307  
H -1.331924 1.782516 -0.260025  
H -0.796394 1.160258 1.306243  
H 0.796395 1.160344 -1.306165  
H 1.331925 1.782498 0.260144  
H 2.003837 -0.753513 -0.555356  
H 1.632275 -0.439021 1.147010

COMP. 08\_NITROGEN-INVERSION\_M06-2X

N 0.000000 -1.194627 -0.000006  
C -1.209530 -0.408982 -0.133656  
C -0.728839 0.999343 0.238248  
C 0.728840 0.999345 -0.238239  
C 1.209530 -0.408984 0.133652  
H 0.000000 -2.196661 -0.000010  
H -1.608299 -0.418355 -1.158878  
H -2.004315 -0.753416 0.535566  
H -1.331719 1.785865 -0.216740  
H -0.761517 1.123264 1.324225  
H 0.761518 1.123276 -1.324215  
H 1.331720 1.785863 0.216757  
H 2.004315 -0.753412 -0.535573  
H 1.608299 -0.418366 1.158875

COMP. 08\_NITROGEN-INVERSION\_MP2

N 0.000000 1.193916 0.000000  
C -1.211039 0.407661 0.136494  
C -0.727103 -0.997642 -0.244752  
C 0.727103 -0.997642 0.244752  
C 1.211039 0.407661 -0.136494  
H 0.000000 2.198082 0.000000  
H -1.606906 0.407806 1.165316  
H -2.009302 0.755545 -0.530637  
H -1.334117 -1.789691 0.201910  
H -0.749356 -1.111521 -1.334147  
H 0.749356 -1.111521 1.334147  
H 1.334117 -1.789691 -0.201910  
H 2.009302 0.755545 0.530638  
H 1.606906 0.407806 -1.165316

COMP. 09\_1E\_B3LYP

C 0.930678 0.000000 0.016636  
C 0.052958 1.239987 0.161033  
C -1.395512 0.783549 -0.100115  
C -1.395512 -0.783549 -0.100115  
C 0.052958 -1.239987 0.161033  
O 2.122961 0.000000 -0.171228  
H 0.188911 1.606486 1.185561  
H 0.407459 2.029570 -0.503523  
H -2.081139 1.176647 0.652232  
H -1.743785 1.158135 -1.064774  
H -2.081139 -1.176647 0.652231  
H -1.743785 -1.158135 -1.064775  
H 0.188911 -1.606486 1.185561  
H 0.407459 -2.029570 -0.503522

COMP. 09\_1E\_M06-2X  
C -0.182623 0.906374 0.000000  
C 0.184453 0.094497 1.233226  
C 0.184453 -1.374008 0.781109  
C 0.184453 -1.374008 -0.781109  
C 0.184453 0.094497 -1.233226  
O -0.673369 2.002196 0.000000  
H 1.184318 0.423664 1.536039  
H -0.495011 0.322181 2.053764  
H 1.044337 -1.914624 1.175512  
H -0.705740 -1.882059 1.153448  
H 1.044337 -1.914624 -1.175512  
H -0.705740 -1.882059 -1.153448  
H 1.184318 0.423664 -1.536039  
H -0.495011 0.322181 -2.053764

COMP. 09\_1E\_MP2  
C -0.210886 0.898446 0.000000  
C 0.219216 0.108407 1.229716  
C 0.219216 -1.364282 0.782288  
C 0.219216 -1.364282 -0.782288  
C 0.219216 0.108407 -1.229716  
O -0.801464 1.960068 0.000000  
H 1.232347 0.446329 1.483787  
H -0.429424 0.327669 2.080136  
H 1.081141 -1.905550 1.179009  
H -0.676136 -1.868807 1.155245  
H 1.081141 -1.905550 -1.179009  
H -0.676136 -1.868807 -1.155245  
H 1.232347 0.446329 -1.483787  
H -0.429424 0.327669 -2.080136

COMP. 09\_3T4\_B3LYP  
C -0.926256 0.000000 0.000001  
C -0.031317 -1.235818 0.121660  
C 1.380916 -0.739675 -0.225436  
C 1.380919 0.739674 0.225429  
C -0.031318 1.235820 -0.121650  
O -2.133037 -0.000001 -0.000005  
H -0.089040 -1.572184 1.164596  
H -0.409097 -2.050582 -0.498478  
H 2.170957 -1.324015 0.249712  
H 1.540491 -0.796151 -1.307518  
H 1.540505 0.796149 1.307509  
H 2.170955 1.324013 -0.249728  
H -0.409093 2.050571 0.498508  
H -0.089053 1.572208 -1.164578

COMP. 09\_3T4\_M06-2X  
C -0.920319 0.000000 -0.000154  
C -0.028751 1.232467 -0.127978  
C 1.371162 0.732090 0.240043  
C 1.371242 -0.732091 -0.239585  
C -0.028794 -1.232466 0.127970  
O -2.120950 0.000000 -0.000357  
H -0.069348 1.546565 -1.177260  
H -0.414153 2.053049 0.476810  
H 2.170675 1.322733 -0.206949  
H 1.502939 0.761316 1.325811  
H 1.503380 -0.761318 -1.325309  
H 2.170605 -1.322733 0.207675  
H -0.413994 -2.053050 -0.476944  
H -0.069742 -1.546562 1.177239

COMP. 09\_3T4\_MP2  
C -0.919481 0.000000 0.000000  
C -0.024215 -1.232908 0.132303  
C 1.372489 -0.729346 -0.248935  
C 1.372489 0.729346 0.248934  
C -0.024215 1.232908 -0.132302  
O -2.134022 0.000000 -0.000001  
H -0.052497 -1.541436 1.185923  
H -0.411725 -2.059063 -0.468626  
H 2.179672 -1.326258 0.183061  
H 1.489437 -0.743169 -1.339163  
H 1.489440 0.743169 1.339161

H 2.179672 1.326258 -0.183063  
H -0.411724 2.059061 0.468630  
H -0.052499 1.541438 -1.185920

COMP. 10\_1T2\_B3LYP  
C 0.716568 -0.486974 -0.462052  
C -0.057621 0.855960 -0.524939  
C -1.520858 0.371930 -0.603004  
C -1.596498 -0.864919 0.331908  
C -0.132550 -1.361824 0.490081  
C 2.198295 -0.409444 -0.094950  
C 0.182201 1.778051 0.679199  
H 0.644540 -0.925723 -1.466417  
H 0.216148 1.404503 -1.433352  
H -2.237860 1.151164 -0.330054  
H -1.748938 0.074812 -1.631796  
H -2.019599 -0.595904 1.303084  
H -2.247714 -1.636233 -0.085990  
H 0.209607 -1.229253 1.521725  
H -0.023810 -2.425306 0.261675  
H 2.660423 -1.400640 -0.135478  
H 2.343636 -0.022551 0.917901  
H 2.748913 0.238606 -0.784381  
H 1.222133 2.110320 0.734955  
H -0.060231 1.287936 1.627394  
H -0.444469 2.671590 0.603283

COMP. 10\_1T2\_M06-2X  
C 0.719851 -0.477339 -0.478897  
C -0.063968 0.849502 -0.538125  
C -1.512467 0.348557 -0.626386  
C -1.574108 -0.839163 0.360004  
C -0.117446 -1.357574 0.472280  
C 2.186930 -0.366927 -0.084265  
C 0.152747 1.728368 0.694794  
H 0.664329 -0.916732 -1.482412  
H 0.213183 1.419349 -1.430670  
H -2.245118 1.126039 -0.397921  
H -1.711728 -0.002072 -1.643295  
H -1.937533 -0.508328 1.335195  
H -2.262641 -1.611196 0.013824  
H 0.252234 -1.249656 1.496397  
H -0.028563 -2.415380 0.217361  
H 2.673930 -1.344470 -0.124437  
H 2.291351 0.011441 0.936086  
H 2.730136 0.306478 -0.753060  
H 1.181863 2.088533 0.756849  
H -0.066081 1.182986 1.618116  
H -0.504597 2.600463 0.661530

COMP. 10\_1T2\_MP2  
C 0.724981 -0.471277 -0.475757  
C -0.068698 0.848721 -0.537344  
C -1.511705 0.332917 -0.636741  
C -1.568534 -0.847842 0.360880  
C -0.106085 -1.354858 0.479477  
C 2.194615 -0.353561 -0.085541  
C 0.129885 1.731107 0.697703  
H 0.668157 -0.915371 -1.480529  
H 0.209210 1.423031 -1.430850  
H -2.257686 1.105761 -0.421241  
H -1.694786 -0.031303 -1.654948  
H -1.937281 -0.510058 1.334415  
H -2.250372 -1.630780 0.016506  
H 0.263218 -1.238528 1.505290  
H -0.009143 -2.415371 0.225614  
H 2.683215 -1.333257 -0.121991  
H 2.299725 0.031759 0.933857  
H 2.733623 0.317860 -0.763477  
H 1.155187 2.107736 0.763046  
H -0.086511 1.183193 1.621611  
H -0.543309 2.594086 0.656634

COMP. 10\_4E\_B3LYP  
C 0.316702 0.790241 0.457796  
C 0.316710 -0.790238 0.457795

C -1.020469 -1.196463 -0.209423  
C -1.954415 -0.000014 0.012200  
C -1.020489 1.196453 -0.209409  
C 1.526146 1.479339 -0.180924  
C 1.526169 -1.479322 -0.180914  
H 0.277887 1.111226 1.504895  
H 0.277889 -1.111224 1.504893  
H -0.864887 -1.340328 -1.286248  
H -1.413815 -2.137274 0.185730  
H -2.821063 -0.000017 -0.654270  
H -2.333149 -0.000023 1.041232  
H -0.864914 1.340336 -1.286233  
H -1.413849 2.137252 0.185757  
H 1.412523 2.566636 -0.126998  
H 1.633145 1.214610 -1.237156  
H 2.461182 1.223117 0.324895  
H 2.461197 -1.223094 0.324916  
H 1.633177 -1.214586 -1.237144  
H 1.412554 -2.566620 -0.126995

COMP. 10\_4E\_M06-2X

C -0.310007 -0.785063 0.464571  
C -0.310006 0.785056 0.464584  
C 1.012757 1.188030 -0.217974  
C 1.945962 -0.000002 0.019641  
C 1.012754 -1.188027 -0.217996  
C -1.519787 -1.457293 -0.179272  
C -1.519784 1.457298 -0.179249  
H -0.263642 -1.114586 1.507483  
H -0.263642 1.114561 1.507501  
H 0.844799 1.302839 -1.295800  
H 1.402048 2.137734 0.155303  
H 2.822465 0.000003 -0.630846  
H 2.297610 -0.000012 1.057016  
H 0.844796 -1.302816 -1.295824  
H 1.402044 -2.137740 0.155264  
H -1.408339 -2.544102 -0.141652  
H -1.618650 -1.173172 -1.230307  
H -2.451921 -1.200468 0.328953  
H -2.451919 1.200466 0.328970  
H -1.618646 1.173194 -1.230289  
H -1.408335 2.544106 -0.141611

COMP. 10\_4E\_MP2

C 0.310291 0.785192 0.463764  
C 0.310291 -0.785192 0.463764  
C -1.012845 -1.187588 -0.220652  
C -1.947110 0.000000 0.024207  
C -1.012845 1.187588 -0.220652  
C 1.520601 1.462161 -0.179032  
C 1.520602 -1.462161 -0.179031  
H 0.261791 1.115610 1.509598  
H 0.261791 -1.115610 1.509598  
H -0.844478 -1.295085 -1.301494  
H -1.399646 -2.142435 0.151114  
H -2.829464 0.000000 -0.623563  
H -2.290287 -0.000001 1.066735  
H -0.844479 1.295085 -1.301493  
H -1.399647 2.142435 0.151115  
H 1.400600 2.550508 -0.141247  
H 1.621093 1.176283 -1.231205  
H 2.453560 1.209507 0.334546  
H 2.453561 -1.209506 0.334547  
H 1.621094 -1.176283 -1.231205  
H 1.400600 -2.550508 -0.141246

COMP. 10\_E4\_B3LYP

C -0.353797 -0.790685 0.577580  
C -0.353760 0.790700 0.577581  
C 1.087023 1.197039 0.157846  
C 1.620828 -0.000035 -0.639324  
C 1.086964 -1.197092 0.157832  
C -1.409377 -1.456897 -0.317024  
C -1.409300 1.456963 -0.317033  
H -0.540190 -1.133616 1.599922  
H -0.540147 1.133639 1.599922

H 1.104654 2.134490 -0.405144  
H 1.711004 1.344624 1.046302  
H 1.203486 -0.000019 -1.652973  
H 2.709584 -0.000061 -0.738660  
H 1.104546 -2.134535 -0.405170  
H 1.710942 -1.344721 1.046283  
H -1.349108 -2.544482 -0.215353  
H -1.262525 -1.218200 -1.374679  
H -2.426181 -1.160054 -0.047566  
H -2.426121 1.160168 -0.047587  
H -1.262447 1.218261 -1.374687  
H -1.348980 2.544545 -0.215358

COMP. 10\_E4\_M06-2X

C -0.347984 -0.786105 0.595307  
C -0.347938 0.786133 0.595296  
C 1.082758 1.187651 0.163733  
C 1.573386 -0.000048 -0.665652  
C 1.082686 -1.187713 0.163741  
C -1.388906 -1.435037 -0.320571  
C -1.388812 1.435113 -0.320602  
H -0.539289 -1.139941 1.611506  
H -0.539231 1.139995 1.611488  
H 1.097616 2.135671 -0.379180  
H 1.727890 1.299601 1.040754  
H 1.090567 -0.000037 -1.649170  
H 2.652885 -0.000082 -0.826874  
H 1.097485 -2.135736 -0.379168  
H 1.727814 -1.299698 1.040760  
H -1.334129 -2.522272 -0.228729  
H -1.212066 -1.183022 -1.370060  
H -2.407400 -1.132675 -0.069966  
H -2.407326 1.132805 -0.070013  
H -1.211966 1.183082 -1.370086  
H -1.333980 2.522346 -0.228767

COMP. 10\_E4\_MP2

C -0.348528 -0.785943 0.594622  
C -0.348525 0.785944 0.594622  
C 1.083919 1.186770 0.165283  
C 1.570656 -0.000003 -0.670549  
C 1.083915 -1.186774 0.165282  
C -1.388794 -1.440130 -0.321334  
C -1.388788 1.440135 -0.321334  
H -0.540928 -1.138545 1.614748  
H -0.540925 1.138547 1.614748  
H 1.099372 2.141733 -0.371350  
H 1.731159 1.288253 1.045429  
H 1.082226 -0.000002 -1.653389  
H 2.652866 -0.000005 -0.834500  
H 1.099363 -2.141737 -0.371351  
H 1.731154 -1.288260 1.045428  
H -1.329707 -2.529102 -0.222471  
H -1.209977 -1.191279 -1.372791  
H -2.409037 -1.136660 -0.069394  
H -2.409032 1.136669 -0.069395  
H -1.209971 1.191284 -1.372792  
H -1.329697 2.529107 -0.222471

COMP. 11\_1T2\_B3LYP

C -0.372103 -0.697886 0.330447  
C -0.372100 0.697886 -0.330450  
C 1.034565 1.237309 -0.002801  
C 1.972136 -0.000001 0.000008  
C 1.034563 -1.237310 0.002807  
C -1.508077 1.624667 0.100132  
C -1.508078 -1.624665 -0.100142  
H -0.439972 -0.543761 1.417830  
H -0.439963 0.543761 -1.417833  
H 1.356522 2.010978 -0.705003  
H 1.016008 1.700614 0.990424  
H 2.625910 -0.008292 -0.875606  
H 2.625900 0.008288 0.875629  
H 1.016012 -1.700612 -0.990420  
H 1.356514 -2.010982 0.705009  
H -1.490887 1.782608 1.184263

H -2.488104 1.216641 -0.163475  
H -1.422192 2.604968 -0.378644  
H -1.422196 -2.604967 0.378634  
H -1.490883 -1.782605 -1.184273  
H -2.488106 -1.216640 0.163461

COMP. 11\_1T2\_M06-2X

C 0.364141 0.690919 0.334262  
C 0.364143 -0.690919 -0.334260  
C -1.028554 -1.232436 0.015189  
C -1.965526 -0.000009 -0.000015  
C -1.028565 1.232430 -0.015168  
C 1.506104 -1.604960 0.086925  
C 1.506089 1.604971 -0.086933  
H 0.415057 0.527614 1.420552  
H 0.415044 -0.527615 -1.420550  
H -1.352711 -2.022599 -0.665140  
H -0.991786 -1.667846 1.019697  
H -2.616344 -0.005332 -0.875969  
H -2.616401 0.005307 0.875897  
H -0.991803 1.667884 -1.019657  
H -1.352730 2.022561 0.665193  
H 1.501520 -1.741579 1.173068  
H 2.477754 -1.194757 -0.198556  
H 1.413093 -2.591252 -0.374576  
H 1.413073 2.591263 0.374569  
H 1.501495 1.741590 -1.173076  
H 2.477745 1.194777 0.198540

COMP. 11\_1T2\_MP2

C -0.364051 -0.690582 0.334615  
C -0.364051 0.690582 -0.334615  
C 1.027672 1.232913 0.021493  
C 1.967215 0.000000 0.000001  
C 1.027671 -1.232913 -0.021493  
C -1.506971 1.608595 0.082587  
C -1.506972 -1.608595 -0.082587  
H -0.409877 -0.525835 1.423674  
H -0.409877 0.525834 -1.423674  
H 1.354323 2.029088 -0.655633  
H 0.985992 1.660581 1.031780  
H 2.618101 0.010717 -0.879342  
H 2.618099 -0.010718 0.879345  
H 0.985991 -1.660579 -1.031782  
H 1.354322 -2.029090 0.655631  
H -1.501847 1.744197 1.170866  
H -2.480378 1.199066 -0.206337  
H -1.407851 2.596000 -0.381125  
H -1.407853 -2.596000 0.381125  
H -1.501848 -1.744196 -1.170866  
H -2.480378 -1.199065 0.206337

COMP. 11\_2T1\_B3LYP

C 0.652593 -0.649794 0.417833  
C -0.652810 -0.649561 -0.417876  
C -0.684080 0.768454 -1.036705  
C 0.000400 1.702614 0.000011  
C 0.684204 0.768117 1.036847  
C -1.893963 -0.933725 0.439817  
C 1.893671 -0.934133 -0.439911  
H 0.600174 -1.411670 1.203533  
H -0.600582 -1.411335 -1.203688  
H -1.703152 1.085238 -1.274614  
H -0.127517 0.777610 -1.977836  
H -0.724878 2.358115 0.487931  
H 0.726185 2.357473 -0.488018  
H 0.127318 0.777353 1.977788  
H 1.703308 1.084513 1.275138  
H -2.016005 -0.191706 1.235247  
H -2.802593 -0.913438 -0.169425  
H -1.830738 -1.918737 0.912530  
H 1.830202 -1.919062 -0.912763  
H 2.015880 -0.192033 -1.235240  
H 2.802312 -0.914152 0.169324

COMP. 11\_2T1\_M06-2X

C 0.640550 -0.665919 0.427813  
C -0.640773 -0.665688 -0.427856  
C -0.636224 0.736931 -1.063838  
C 0.000402 1.668082 0.000020  
C 0.636345 0.736604 1.063977  
C -1.892936 -0.881730 0.423019  
C 1.892645 -0.882138 -0.423116  
H 0.592635 -1.447336 1.192906  
H -0.593046 -1.447005 -1.193063  
H -1.642395 1.054834 -1.346097  
H -0.035812 0.736424 -1.976162  
H -0.746464 2.321032 0.454814  
H 0.747797 2.320359 -0.454875  
H 0.035627 0.736194 1.976101  
H 1.642536 1.054115 1.346605  
H -2.009619 -0.083641 1.162262  
H -2.790260 -0.885712 -0.200393  
H -1.848385 -1.832696 0.959924  
H 1.847873 -1.833038 -0.960119  
H 2.009471 -0.084002 -1.162286  
H 2.789989 -0.886378 0.200265

COMP. 11\_2T1\_MP2

C 0.639630 -0.666608 0.428320  
C -0.639795 -0.666436 -0.428353  
C -0.630503 0.735145 -1.067869  
C 0.000302 1.668848 0.000015  
C 0.630590 0.734900 1.067973  
C -1.895364 -0.879483 0.421106  
C 1.895149 -0.879787 -0.421178  
H 0.592152 -1.451579 1.194436  
H -0.592460 -1.451331 -1.194557  
H -1.638114 1.053657 -1.355873  
H -0.022240 0.732628 -1.978080  
H -0.752410 2.321774 0.451767  
H 0.753406 2.321271 -0.451810  
H 0.022091 0.732458 1.978027  
H 1.638212 1.053122 1.356261  
H -2.013989 -0.077109 1.157640  
H -2.791727 -0.887089 -0.208191  
H -1.848049 -1.831030 0.961890  
H 1.847676 -1.831292 -0.962022  
H 2.013873 -0.077387 -1.157669  
H 2.791527 -0.887568 0.208095

COMP. 11\_E1\_MP2

C 0.464495 -0.763527 0.375475  
C -0.809227 -0.376389 -0.427202  
C -0.684491 1.153468 -0.689913  
C 0.673202 1.574456 -0.099318  
C 0.876694 0.564178 1.034796  
C 1.600545 -1.321600 -0.514446  
C -2.088811 -0.710801 0.337512  
H 0.203555 -1.510780 1.134159  
H -0.823794 -0.923729 -1.377210  
H -0.777044 1.402236 -1.751717  
H -1.491834 1.677987 -0.163420  
H 1.465480 1.453288 -0.847173  
H 0.688127 2.616928 0.233459  
H 1.898073 0.540754 1.429877  
H 0.198692 0.802293 1.864869  
H 1.925485 -2.307689 -0.168999  
H 2.479532 -0.667947 -0.504458  
H 1.286646 -1.428377 -1.557716  
H -2.094341 -0.207646 1.311720  
H -2.178752 -1.788711 0.510105  
H -2.974271 -0.377312 -0.214923

COMP. 12\_2E\_B3LYP

C 1.245365 0.031957 0.402059  
C 0.000000 -0.427962 1.196788  
C -1.245365 0.031957 0.402059  
C -0.778083 1.329617 -0.315185  
C 0.778083 1.329617 -0.315185  
C 1.792732 -1.024044 -0.569938  
C -1.792732 -1.024044 -0.569938



H 2.052361 0.268657 1.103097  
H 0.000000 -1.505297 1.390302  
H 0.000000 0.068281 2.173489  
H -2.052361 0.268657 1.103097  
H -1.184066 1.383505 -1.329146  
H -1.152919 2.210239 0.213243  
H 1.184066 1.383505 -1.329146  
H 1.152919 2.210239 0.213243  
H 2.696157 -0.657673 -1.067518  
H 1.071374 -1.280529 -1.350187  
H 2.054931 -1.946989 -0.043364  
H -2.054931 -1.946989 -0.043364  
H -1.071374 -1.280529 -1.350187  
H -2.696157 -0.657673 -1.067518

COMP. 12\_2E\_M06-2X

C -0.274610 0.297206 1.237245  
C -1.165326 0.517763 0.000000  
C -0.274610 0.297206 -1.237245  
C 1.128823 0.759051 -0.776093  
C 1.128823 0.759051 0.776093  
C -0.274610 -1.144429 1.751846  
C -0.274610 -1.144429 -1.751846  
H -0.626597 0.932179 2.054917  
H -2.049762 -0.126088 0.000000  
H -1.518750 1.553665 0.000000  
H -0.626597 0.932179 -2.054917  
H 1.904835 0.106253 -1.183087  
H 1.339066 1.763739 -1.148532  
H 1.904835 0.106253 1.183087  
H 1.339066 1.763739 1.148532  
H 0.312384 -1.219925 2.670899  
H 0.162597 -1.835384 1.028840  
H -1.289667 -1.484910 1.971797  
H -1.289667 -1.484910 -1.971797  
H 0.162597 -1.835384 -1.028840  
H 0.312384 -1.219925 -2.670899

COMP. 12\_2E\_MP2

C -0.275170 0.296799 1.237582  
C -1.165066 0.524499 0.000000  
C -0.275170 0.296799 -1.237582  
C 1.129492 0.759083 -0.777303  
C 1.129492 0.759083 0.777303  
C -0.275170 -1.148185 1.747317  
C -0.275170 -1.148185 -1.747317  
H -0.625690 0.931903 2.060111  
H -2.056664 -0.114181 0.000000  
H -1.508541 1.566931 0.000000  
H -0.625690 0.931903 -2.060111  
H 1.906930 0.103226 -1.184258  
H 1.338877 1.767146 -1.149900  
H 1.906930 0.103226 1.184258  
H 1.338877 1.767146 1.149900  
H 0.314601 -1.225026 2.667383  
H 0.161451 -1.835619 1.018138  
H -1.293280 -1.487683 1.967163  
H -1.293280 -1.487683 -1.967163  
H 0.161451 -1.835619 -1.018138  
H 0.314601 -1.225026 -2.667383

COMP. 12\_E2\_B3LYP

C -1.211628 -0.133158 -0.369794  
C 0.000001 -1.006432 -0.004982  
C 1.211628 -0.133153 -0.369791  
C 0.777177 1.286873 0.077663  
C -0.777181 1.286877 0.077641  
C -2.543251 -0.596193 0.219410  
C 2.543255 -0.596190 0.219402  
H -1.300962 -0.135051 -1.464337  
H 0.000001 -1.207658 1.075786  
H 0.000003 -1.973925 -0.516735  
H 1.300955 -0.135033 -1.464334  
H 1.157344 1.486731 1.085019  
H 1.197202 2.058844 -0.572498  
H -1.157377 1.486766 1.084980

H -1.197180 2.058833 -0.572554  
H -3.359671 0.075804 -0.063308  
H -2.497150 -0.620917 1.313678  
H -2.806640 -1.600514 -0.126666  
H 2.806646 -1.600506 -0.126688  
H 2.497158 -0.620929 1.313669  
H 3.359671 0.075813 -0.063311

COMP. 12\_E2\_M06-2X

C -1.202359 -0.134141 -0.374414  
C 0.000000 -0.999818 0.011075  
C 1.202359 -0.134140 -0.374413  
C 0.774902 1.278753 0.078933  
C -0.774903 1.278754 0.078927  
C -2.531106 -0.591694 0.211559  
C 2.531107 -0.591693 0.211557  
H -1.277549 -0.139943 -1.468759  
H 0.000000 -1.162229 1.098176  
H 0.000001 -1.980018 -0.473376  
H 1.277547 -0.139938 -1.468759  
H 1.154483 1.462823 1.088710  
H 1.197758 2.053542 -0.563646  
H -1.154492 1.462832 1.088701  
H -1.197753 2.053539 -0.563660  
H -3.342535 0.084304 -0.070329  
H -2.476884 -0.612581 1.304357  
H -2.794258 -1.595092 -0.132391  
H 2.794260 -1.595090 -0.132397  
H 2.476886 -0.612585 1.304355  
H 3.342534 0.084306 -0.070329

COMP. 12\_E2\_MP2

C -1.202103 -0.136239 -0.373517  
C 0.000001 -0.999807 0.020110  
C 1.202102 -0.136234 -0.373515  
C 0.776071 1.278070 0.079253  
C -0.776075 1.278074 0.079232  
C -2.536687 -0.590027 0.207334  
C 2.536691 -0.590024 0.207326  
H -1.270213 -0.145001 -1.471112  
H 0.000001 -1.152491 1.110789  
H 0.000003 -1.985168 -0.460444  
H 1.270207 -0.144984 -1.471110  
H 1.156682 1.461493 1.091546  
H 1.198326 2.054023 -0.567401  
H -1.156714 1.461526 1.091510  
H -1.198307 2.054012 -0.567454  
H -3.346063 0.088298 -0.083916  
H -2.485709 -0.604534 1.302379  
H -2.798408 -1.596917 -0.135280  
H 2.798414 -1.596909 -0.135300  
H 2.485716 -0.604544 1.302371  
H 3.346062 0.088307 -0.083918

COMP. 13\_4T3\_M06-2X

C 1.251354 -0.103204 0.480040  
C -0.046555 -0.949178 0.485611  
C -1.058375 -0.160818 -0.356746  
C -0.728278 1.285168 0.025494  
C 0.804688 1.311288 0.014745  
C 2.324714 -0.690492 -0.434511  
C -2.508291 -0.564146 -0.129719  
H 1.656012 -0.046926 1.493859  
H 0.117453 -1.963281 0.110696  
H -0.439350 -1.038760 1.504644  
H -0.809355 -0.294928 -1.417893  
H -1.177063 2.021678 -0.645109  
H -1.108533 1.479367 1.035837  
H 1.157320 1.483180 -1.007831  
H 1.222802 2.105994 0.635166  
H 3.194208 -0.030768 -0.497737  
H 1.929916 -0.820639 -1.447382  
H 2.663566 -1.665841 -0.076750  
H -3.189042 0.040901 -0.733699  
H -2.779332 -0.427912 0.921820  
H -2.674139 -1.613766 -0.385107

COMP. 13\_4T3\_MP2

C 1.251028 -0.101375 0.478067  
C -0.046450 -0.950912 0.476654  
C -1.062433 -0.157625 -0.357925  
C -0.730900 1.285531 0.036128  
C 0.803258 1.310223 0.004349  
C 2.335027 -0.689129 -0.426226  
C -2.512573 -0.566758 -0.128618  
H 1.647277 -0.038913 1.498364  
H 0.121922 -1.963809 0.091891  
H -0.439099 -1.048654 0.497838  
H -0.816080 -0.283039 -1.423381  
H -1.188413 2.031843 -0.622592  
H -1.096090 1.466440 1.056960  
H 1.140168 1.469425 -1.028371  
H 1.234845 2.110506 0.613924  
H 3.204907 -0.025201 -0.481574  
H 1.946714 -0.820619 -1.443283  
H 2.672020 -1.665389 -0.061710  
H -3.197404 0.043731 -0.726957  
H -2.777191 -0.438992 0.927636  
H -2.675320 -1.617062 -0.393326

COMP. 13\_4T5\_B3LYP

C 1.186355 -0.116738 0.400763  
C -0.000006 -1.042141 0.000168  
C -1.186336 -0.116834 -0.400725  
C -0.761049 1.283635 0.088605  
C 0.761052 1.283617 -0.088889  
C 2.548755 -0.580627 -0.115094  
C -2.548769 -0.580592 0.115164  
H 1.233155 -0.079024 1.496215  
H 0.278674 -1.697474 -0.831192  
H -0.278710 -1.697185 0.831749  
H -1.233069 -0.079388 -1.496189  
H -1.265310 2.089405 -0.452559  
H -1.012016 1.398534 1.151091  
H 1.012016 1.398274 -1.151401  
H 1.265311 2.089514 0.452087  
H 3.345184 0.107449 0.185783  
H 2.551761 -0.637292 -1.209168  
H 2.805329 -1.572550 0.269692  
H -3.345178 0.107409 -0.185936  
H -2.551842 -0.636979 1.209253  
H -2.805319 -1.572611 -0.269385

COMP. 13\_4T5\_M06-2X

C -1.177446 -0.113532 -0.404757  
C -0.000012 -1.037374 -0.000042  
C 1.177485 -0.113636 0.404750  
C 0.757451 1.276269 -0.098494  
C -0.757442 1.276237 0.098873  
C -2.533373 -0.577840 0.112073  
C 2.533344 -0.577829 -0.112366  
H -1.218503 -0.067066 -1.498859  
H -0.286865 -1.690229 0.829535  
H 0.286786 -1.690206 -0.829654  
H 1.218685 -0.067439 1.498856  
H 1.272703 2.086112 0.422943  
H 0.990965 1.365794 -1.166646  
H -0.990966 1.365460 1.167049  
H -1.272698 2.086219 -0.422344  
H -3.328335 0.112658 -0.181471  
H -2.522826 -0.635525 1.204869  
H -2.788044 -1.568402 -0.273188  
H 3.328345 0.112603 0.181227  
H 2.522651 -0.635268 -1.205174  
H 2.788065 -1.568478 0.272638

COMP. 13\_4T5\_MP2

C 1.178210 -0.111138 0.404279  
C -0.000006 -1.035876 0.000052  
C -1.178190 -0.111143 -0.404266  
C -0.757645 1.277682 0.103580  
C 0.757649 1.277685 -0.103570

C 2.534789 -0.581359 -0.111213  
C -2.534804 -0.581348 0.111147  
H 1.217616 -0.060832 1.501211  
H 0.287458 -1.689234 -0.832657  
H -0.287497 -1.689130 0.832834  
H -1.217524 -0.060856 -1.501202  
H -1.278356 2.090396 -0.414443  
H -0.983227 1.361356 1.176211  
H 0.983227 1.361358 -1.176202  
H 1.278358 2.090402 0.414448  
H 3.331867 0.112111 0.178592  
H 2.519561 -0.645116 -1.205584  
H 2.787084 -1.572254 0.281393  
H -3.331863 0.112112 -0.178732  
H -2.519650 -0.645074 1.205521  
H -2.787072 -1.572255 -0.281447

COMP. 13\_5T4\_B3LYP

C -1.128715 -0.254817 -0.558889  
C -0.000001 -1.174810 0.000008  
C 1.128720 -0.254818 0.558890  
C 0.491402 1.154369 0.590435  
C -0.491398 1.154370 -0.590430  
C -2.396498 -0.298688 0.305649  
C 2.396492 -0.298691 -0.305662  
H -1.403332 -0.566474 -1.571344  
H -0.395585 -1.830303 0.781395  
H 0.395576 -1.830321 -0.781367  
H 1.403348 -0.566473 1.571343  
H -0.054452 1.298641 1.528837  
H 1.236661 1.952658 0.528696  
H -1.236657 1.952659 -0.528688  
H 0.054456 1.298646 -1.528831  
H -3.174255 0.356367 -0.099008  
H -2.192005 0.021150 1.332852  
H -2.805096 -1.312779 0.352922  
H 3.174253 0.356366 0.098984  
H 2.191988 0.021144 -1.332864  
H 2.805091 -1.312781 -0.352935

COMP. 13\_5T4\_M06-2X

C 1.112775 -0.260507 0.571494  
C 0.000000 -1.180786 -0.000005  
C -1.112775 -0.260504 -0.571495  
C -0.469269 1.138438 -0.605465  
C 0.469268 1.138435 0.605470  
C 2.364680 -0.277993 -0.307568  
C -2.364679 -0.277995 0.307569  
H 1.395824 -0.577525 1.578269  
H 0.411268 -1.833380 -0.774654  
H -0.411267 -1.833387 0.774639  
H -1.395827 -0.577517 -1.578271  
H 0.110531 1.266238 -1.524273  
H -1.212470 1.938852 -0.574238  
H 1.212470 1.938849 0.574247  
H -0.110532 1.266231 1.524278  
H 3.134676 0.388881 0.088412  
H 2.130633 0.044267 -1.326742  
H 2.785789 -1.284584 -0.368462  
H -3.134676 0.388882 -0.088405  
H -2.130630 0.044258 1.326745  
H -2.785788 -1.284586 0.368457

COMP. 13\_5T4\_MP2

C 1.111819 0.260772 -0.573820  
C 0.000000 1.182151 0.000001  
C -1.111820 0.260772 0.573820  
C -0.466230 -1.137928 0.608720  
C 0.466230 -1.137928 -0.608720  
C 2.363520 0.276220 0.308276  
C -2.363520 0.276220 -0.308276  
H 1.395437 0.580891 -1.583099  
H 0.414017 1.835803 0.776573  
H -0.414017 1.835804 -0.776571  
H -1.395438 0.580891 1.583099  
H 0.120478 -1.263207 1.526325

H -1.212893 -1.939316 0.582234  
H 1.212893 -1.939316 -0.582234  
H -0.120478 -1.263207 -1.526324  
H 3.131732 -0.397654 -0.086355  
H 2.123842 -0.041663 1.329247  
H 2.787916 1.284308 0.364521  
H -3.131731 -0.397654 0.086353  
H -2.123841 -0.041662 -1.329248  
H -2.787916 1.284308 -0.364521

COMP. 14\_1T2I\_B3LYP

C 0.694309 -0.539555 -0.465262  
C 0.033611 0.859594 -0.522858  
C -1.458398 0.479797 -0.604539  
C -1.618746 -0.746586 0.337398  
C -0.198566 -1.355335 0.481178  
O 2.043349 -0.573615 -0.000667  
C 0.358344 1.730124 0.696871  
H 0.648616 -0.976975 -1.473135  
H 0.350630 1.392802 -1.427015  
H -2.115726 1.309997 -0.333881  
H -1.711030 0.196121 -1.631529  
H -2.006358 -0.440812 1.311897  
H -2.334014 -1.464527 -0.069683  
H 0.186106 -1.241355 1.497877  
H -0.163363 -2.420583 0.245349  
H 2.615959 -0.204188 -0.680050  
H 0.016715 1.270860 1.628745  
H 1.433563 1.895185 0.792878  
H -0.131214 2.704160 0.607151

COMP. 14\_1T2I\_M06-2X

C -0.706607 -0.522776 0.471121  
C -0.021575 0.854375 0.531149  
C 1.452491 0.441433 0.632542  
C 1.590400 -0.750143 -0.347191  
C 0.166879 -1.341728 -0.484072  
O -2.043305 -0.518722 0.004069  
C -0.299689 1.690110 -0.716970  
H -0.666390 -0.968944 1.474729  
H -0.342800 1.410644 1.418146  
H 2.133607 1.262330 0.399288  
H 1.674157 0.112984 1.652217  
H 1.957555 -0.409446 -1.316884  
H 2.308321 -1.483864 0.020830  
H -0.227616 -1.212351 -1.494415  
H 0.121084 -2.406322 -0.253820  
H -2.600353 -0.093105 0.660426  
H 0.048807 1.182499 -1.620384  
H -1.367470 1.876927 -0.840120  
H 0.216134 2.650808 -0.652032

COMP. 14\_1T2I\_MP2

C -0.715519 -0.510338 0.467384  
C -0.009406 0.854579 0.529912  
C 1.455276 0.411655 0.646308  
C 1.577989 -0.771996 -0.347973  
C 0.142815 -1.338354 -0.494265  
O -2.061429 -0.490926 0.003738  
C -0.257742 1.698827 -0.720264  
H -0.674286 -0.961342 1.471319  
H -0.330003 1.418450 1.416032  
H 2.159245 1.221937 0.430574  
H 1.655284 0.063580 1.666932  
H 1.953989 -0.424203 -1.314439  
H 2.282996 -1.524204 0.016350  
H -0.247185 -1.194095 -1.506603  
H 0.079063 -2.405829 -0.268551  
H -2.596258 -0.079270 0.689385  
H 0.086519 1.185193 -1.623525  
H -1.321866 1.913225 -0.849100  
H 0.283456 2.647723 -0.644885

COMP. 14\_1T2O\_B3LYP

C 0.689845 -0.532644 -0.471405  
C 0.028337 0.856567 -0.524923

C -1.465956 0.480397 -0.585573  
C -1.621238 -0.762340 0.337400  
C -0.192531 -1.349705 0.494907  
O 2.060509 -0.432706 -0.085721  
C 0.374481 1.732815 0.685704  
H 0.630100 -0.973075 -1.477429  
H 0.339200 1.382113 -1.433188  
H -2.113302 1.308647 -0.287218  
H -1.738869 0.217688 -1.612734  
H -2.028581 -0.480062 1.310807  
H -2.317078 -1.486277 -0.092225  
H 0.183116 -1.208443 1.511993  
H -0.150263 -2.421126 0.280432  
H 2.453662 -1.310299 -0.109671  
H 0.046729 1.280783 1.626572  
H 1.451236 1.895458 0.754988  
H -0.117651 2.705706 0.596780

COMP. 14\_1T2O\_M06-2X

C 0.709344 -0.505020 -0.480845  
C 0.003963 0.853512 -0.534850  
C -1.466185 0.423032 -0.615431  
C -1.580336 -0.778340 0.355894  
C -0.143520 -1.340855 0.489510  
O 2.061321 -0.352448 -0.087590  
C 0.292748 1.696521 0.706443  
H 0.665150 -0.951367 -1.484171  
H 0.313147 1.406883 -1.425376  
H -2.151255 1.234567 -0.362569  
H -1.701523 0.102320 -1.634384  
H -1.952810 -0.453602 1.328932  
H -2.282729 -1.524530 -0.017060  
H 0.245774 -1.194966 1.500125  
H -0.086146 -2.408443 0.267252  
H 2.476062 -1.217722 -0.061426  
H -0.038907 1.191358 1.618112  
H 1.361119 1.890842 0.803712  
H -0.234534 2.651147 0.643249

COMP. 14\_1T2O\_MP2

C 0.711905 -0.501138 -0.479548  
C 0.000558 0.852748 -0.534133  
C -1.465832 0.409294 -0.625585  
C -1.576317 -0.784907 0.357636  
C -0.134175 -1.338084 0.496462  
O 2.072560 -0.339674 -0.091852  
C 0.273552 1.699131 0.709898  
H 0.662993 -0.951539 -1.483347  
H 0.309822 1.411223 -1.425126  
H -2.163735 1.217974 -0.386333  
H -1.686551 0.073934 -1.646067  
H -1.951186 -0.451737 1.329652  
H -2.274629 -1.541032 -0.011562  
H 0.254488 -1.184965 1.508457  
H -0.068890 -2.408425 0.275483  
H 2.463581 -1.217410 -0.049002  
H -0.044342 1.184047 1.622456  
H 1.339041 1.920741 0.804693  
H -0.279224 2.642316 0.647133

COMP. 14\_1T2TS\_MP2

C -0.720795 -0.503352 0.453606  
C 0.000660 0.848328 0.537092  
C 1.462600 0.397899 0.647087  
C 1.580736 -0.790968 -0.343812  
C 0.138883 -1.330493 -0.515640  
O -2.073678 -0.383035 0.009957  
C -0.249687 1.707352 -0.702929  
H -0.696829 -0.965532 1.450721  
H -0.322535 1.400575 1.427690  
H 2.169223 1.203921 0.424636  
H 1.667025 0.053236 1.668168  
H 1.981566 -0.454706 -1.304391  
H 2.264127 -1.555270 0.036512  
H -0.237851 -1.158301 -1.528422  
H 0.056434 -2.402641 -0.315082

H -2.638078 -0.810199 0.657225  
H 0.114234 1.214923 -1.610879  
H -1.317336 1.902132 -0.830705  
H 0.275069 2.663549 -0.607547

COMP. 14\_1T2\_B3LYP

C -0.702519 -0.529276 0.453261  
C -0.020470 0.854587 0.529272  
C 1.467105 0.460145 0.606179  
C 1.617635 -0.768412 -0.336342  
C 0.189557 -1.352499 -0.496523  
O -2.060568 -0.464469 0.002288  
C -0.341970 1.740616 -0.680432  
H -0.676880 -0.974946 1.455642  
H -0.337472 1.378929 1.436989  
H 2.131275 1.283979 0.333104  
H 1.720782 0.174748 1.632645  
H 2.021347 -0.468639 -1.306150  
H 2.316526 -1.498090 0.078525  
H -0.186117 -1.219964 -1.514123  
H 0.137194 -2.421054 -0.275246  
H -2.631585 -0.880719 0.651059  
H 0.004154 1.295178 -1.617897  
H -1.417759 1.901913 -0.769431  
H 0.147055 2.713450 -0.575908

COMP. 14\_1T2\_M06-2X

C -0.718381 -0.507109 0.458540  
C -0.002897 0.849893 0.538840  
C 1.463125 0.411968 0.636322  
C 1.583823 -0.778457 -0.348467  
C 0.149735 -1.338730 -0.499204  
O -2.059553 -0.397468 0.002974  
C -0.271101 1.702632 -0.700063  
H -0.701338 -0.961516 1.456754  
H -0.322473 1.398907 1.429197  
H 2.157470 1.222107 0.404688  
H 1.681640 0.076322 1.654575  
H 1.965539 -0.441376 -1.313786  
H 2.283811 -1.528208 0.022055  
H -0.235531 -1.190525 -1.510319  
H 0.082230 -2.405750 -0.282151  
H -2.651802 -0.789000 0.644831  
H 0.085965 1.209035 -1.608427  
H -1.339338 1.886462 -0.819641  
H 0.244431 2.662113 -0.617373

COMP. 14\_1T5I\_B3LYPT

C 0.494723 -0.702605 -0.437213  
C 0.208582 0.826970 -0.505170  
C -1.332940 0.926138 -0.287512  
C -1.823514 -0.492295 0.118167  
C -0.552438 -1.247729 0.530257  
O 1.803882 -1.068577 -0.005669  
C 0.994351 1.631320 0.537402  
H 0.307681 -1.134971 -1.431277  
H 0.476793 1.204480 -1.498019  
H -1.547702 1.650164 0.503291  
H -1.848753 1.282546 -1.182316  
H -2.573467 -0.462817 0.911322  
H -2.287678 -0.991809 -0.738256  
H -0.253728 -0.996152 1.553442  
H -0.648295 -2.333923 0.471735  
H 2.435237 -0.847850 -0.697354  
H 2.073256 1.546284 0.389510  
H 0.777077 1.291842 1.554156  
H 0.725945 2.690021 0.473528

COMP. 14\_1T5I\_M06-2X

C 0.504330 -0.689817 -0.440906  
C 0.193251 0.824425 -0.512654  
C -1.344822 0.892960 -0.311494  
C -1.800011 -0.524281 0.123135  
C -0.513049 -1.233289 0.551154  
O 1.816839 -1.018240 -0.027135  
C 0.942484 1.614754 0.559683

H 0.301651 -1.137027 -1.424893  
H 0.473262 1.218243 -1.494449  
H -1.580586 1.628850 0.461104  
H -1.861602 1.212293 -1.217931  
H -2.551901 -0.496722 0.912183  
H -2.242244 -1.053911 -0.725029  
H -0.210648 -0.937549 1.560349  
H -0.579123 -2.321564 0.525085  
H 2.438063 -0.733068 -0.701722  
H 2.024108 1.551763 0.430455  
H 0.709009 1.238849 1.559192  
H 0.652208 2.667256 0.519231

COMP. 14\_1T5I\_M06-2XF

C 0.504330 -0.689817 -0.440906  
C 0.193251 0.824425 -0.512654  
C -1.344822 0.892960 -0.311494  
C -1.800011 -0.524281 0.123135  
C -0.513049 -1.233289 0.551154  
O 1.816839 -1.018240 -0.027135  
C 0.942484 1.614754 0.559683  
H 0.301651 -1.137027 -1.424893  
H 0.473262 1.218243 -1.494449  
H -1.580586 1.628850 0.461104  
H -1.861602 1.212293 -1.217931  
H -2.551901 -0.496722 0.912183  
H -2.242244 -1.053911 -0.725029  
H -0.210648 -0.937549 1.560349  
H -0.579123 -2.321564 0.525085  
H 2.438063 -0.733068 -0.701722  
H 2.024108 1.551763 0.430455  
H 0.709009 1.238849 1.559192  
H 0.652208 2.667256 0.519231

COMP. 14\_2EIN\_B3LYP

C -0.024858 0.891354 0.457670  
C 0.679111 -0.483088 0.459537  
C -0.195295 -1.312945 -0.498054  
C -1.643451 -0.864072 -0.194322  
C -1.519495 0.543607 0.460654  
O 0.232988 1.635756 -0.743754  
C 2.170839 -0.464928 0.129340  
H 0.261889 1.497520 1.326655  
H 0.554966 -0.884099 1.475601  
H 0.070203 -1.064445 -1.530034  
H -0.049041 -2.388860 -0.371430  
H -2.254606 -0.839497 -1.098499  
H -2.126554 -1.562471 0.494528  
H -2.076133 1.313656 -0.075756  
H -1.891946 0.528720 1.488396  
H 1.168660 1.858921 -0.775336  
H 2.732148 0.167114 0.826037  
H 2.350156 -0.101144 -0.887409  
H 2.595246 -1.471025 0.188320

COMP. 14\_2EIN\_M06-2X

C -0.056915 0.892937 0.458145  
C 0.714305 -0.434153 0.489912  
C -0.125654 -1.340503 -0.427274  
C -1.586230 -0.840582 -0.289662  
C -1.508803 0.446883 0.564236  
O 0.082099 1.553064 -0.795484  
C 2.183491 -0.336546 0.100968  
H 0.241408 1.565955 1.271322  
H 0.644536 -0.804820 1.520077  
H 0.216436 -1.218819 -1.457988  
H -0.012532 -2.394813 -0.168144  
H -2.007010 -0.622775 -1.271424  
H -2.230317 -1.585558 0.179825  
H -2.186461 1.230947 0.225364  
H -1.735611 0.231043 1.611534  
H 1.001766 1.804103 -0.912749  
H 2.727232 0.357628 0.748489  
H 2.291405 -0.004664 -0.936067  
H 2.671187 -1.310955 0.175676

## COMP. 14\_2EI\_MP2

C -0.064169 0.893800 0.458747  
 C 0.719963 -0.424630 0.483303  
 C -0.109672 -1.330767 -0.443723  
 C -1.578867 -0.858537 -0.282057  
 C -1.509996 0.430106 0.575254  
 O 0.051253 1.560149 -0.801978  
 C 2.194660 -0.322839 0.108803  
 H 0.233655 1.570635 1.272286  
 H 0.643466 -0.803707 1.513221  
 H 0.221468 -1.184580 -1.477129  
 H 0.022936 -2.389787 -0.200604  
 H -2.022661 -0.647900 -1.258079  
 H -2.199097 -1.618525 0.202015  
 H -2.202250 1.208123 0.242594  
 H -1.724431 0.207708 1.626521  
 H 0.981166 1.770227 -0.931832  
 H 2.732354 0.364562 0.772130  
 H 2.312886 0.021187 -0.925092  
 H 2.678965 -1.301931 0.177828

## COMP. 14\_2T1TS\_MP2

C -0.054505 0.883894 0.454910  
 C 0.721805 -0.436895 0.482614  
 C -0.116728 -1.331093 -0.449833  
 C -1.583362 -0.846184 -0.287584  
 C -1.503524 0.423978 0.595505  
 O 0.115859 1.505631 -0.829583  
 C 2.192868 -0.334082 0.102888  
 H 0.257363 1.568534 1.253683  
 H 0.637173 -0.823252 1.509226  
 H 0.219387 -1.180155 -1.481114  
 H 0.006504 -2.392293 -0.211896  
 H -2.016357 -0.607364 -1.262221  
 H -2.217469 -1.608430 0.174302  
 H -2.206910 1.204246 0.292874  
 H -1.696056 0.175368 1.645934  
 H 0.452784 2.392269 -0.687282  
 H 2.742429 0.305580 0.803087  
 H 2.291454 0.085428 -0.902102  
 H 2.663510 -1.322683 0.111182

## COMP. 14\_2T1\_B3LYP

C -0.028500 0.887012 0.450107  
 C 0.697023 -0.472487 0.467366  
 C -0.172941 -1.328430 -0.476133  
 C -1.630152 -0.850078 -0.239643  
 C -1.511997 0.498143 0.527975  
 O 0.233019 1.563241 -0.797039  
 C 2.182113 -0.428749 0.118575  
 H 0.278980 1.526667 1.284259  
 H 0.584109 -0.864471 1.488000  
 H 0.126112 -1.133911 -1.510185  
 H -0.044653 -2.398774 -0.295988  
 H -2.158929 -0.723254 -1.186157  
 H -2.198705 -1.577940 0.344670  
 H -2.142655 1.285996 0.112472  
 H -1.794930 0.368801 1.577531  
 H 0.583189 2.437402 -0.614962  
 H 2.743700 0.184440 0.831293  
 H 2.330333 -0.010464 -0.879492  
 H 2.616019 -1.432891 0.135389

## COMP. 14\_2T1\_M06-2X

C -0.046672 0.883570 0.453330  
 C 0.714480 -0.447026 0.486004  
 C -0.130784 -1.329709 -0.448931  
 C -1.591944 -0.838812 -0.281053  
 C -1.503718 0.444209 0.580279  
 O 0.146667 1.502354 -0.821117  
 C 2.183590 -0.351074 0.104726  
 H 0.266445 1.560621 1.254562  
 H 0.626462 -0.831771 1.509785  
 H 0.202983 -1.170598 -1.477372  
 H -0.011336 -2.391124 -0.224359  
 H -2.033498 -0.617996 -1.253152

H -2.222739 -1.589932 0.196699  
 H -2.187262 1.229139 0.255004  
 H -1.717933 0.219692 1.629026  
 H 0.482924 2.390183 -0.700232  
 H 2.736437 0.287247 0.799752  
 H 2.282118 0.066711 -0.899127  
 H 2.652347 -1.337949 0.112212

## COMP. 14\_3T4I\_B3LYPT

C -0.494005 -0.750405 0.536367  
 C -0.267477 0.804327 0.583048  
 C 1.255855 0.963866 0.361293  
 C 1.622472 -0.182542 -0.593235  
 C 0.798592 -1.362836 -0.052225  
 O -1.593133 -1.169931 -0.281952  
 C -1.080335 1.578917 -0.463483  
 H -0.657772 -1.123948 1.554328  
 H -0.546605 1.182140 1.572338  
 H 1.518603 1.953417 -0.022852  
 H 1.789450 0.833480 1.309885  
 H 1.315276 0.061484 -1.615019  
 H 2.695077 -0.389666 -0.618989  
 H 0.546536 -2.107503 -0.808994  
 H 1.355487 -1.874638 0.738645  
 H -2.412671 -0.844304 0.103010  
 H -2.157714 1.463617 -0.316788  
 H -0.856592 1.250842 -1.480922  
 H -0.854615 2.646567 -0.389616

## COMP. 14\_3T4I\_M06-2X

C -0.540339 -0.715608 0.539805  
 C -0.214718 0.811243 0.594973  
 C 1.310913 0.865921 0.391349  
 C 1.584263 -0.265423 -0.604428  
 C 0.698765 -1.399057 -0.073552  
 O -1.664353 -1.042691 -0.267394  
 C -0.945375 1.613797 -0.483262  
 H -0.713433 -1.090792 1.554635  
 H -0.488066 1.218004 1.572780  
 H 1.648473 1.846265 0.047512  
 H 1.824736 0.649436 1.333906  
 H 1.267694 0.029567 -1.608319  
 H 2.638451 -0.541075 -0.659638  
 H 0.386658 -2.112334 -0.836789  
 H 1.235449 -1.952003 0.701664  
 H -2.450659 -0.647532 0.116951  
 H -2.029108 1.587334 -0.351494  
 H -0.732835 1.229729 -1.482615  
 H -0.633585 2.659705 -0.438757

## COMP. 14\_3T4I\_MP2

C -0.556848 -0.702777 0.541212  
 C -0.196349 0.815074 0.594282  
 C 1.332150 0.829708 0.402544  
 C 1.576258 -0.297838 -0.607296  
 C 0.662296 -1.414157 -0.082705  
 O -1.698843 -1.013023 -0.261300  
 C -0.896587 1.639704 -0.490106  
 H -0.729622 -1.072580 1.560947  
 H -0.469712 1.228890 1.572800  
 H 1.699260 1.807873 0.073959  
 H 1.833829 0.582746 1.347173  
 H 1.264385 0.015407 -1.609311  
 H 2.625284 -0.602868 -0.665550  
 H 0.327660 -2.114206 -0.852613  
 H 1.188158 -1.986819 0.689181  
 H -2.451308 -0.547927 0.116710  
 H -1.982998 1.649963 -0.359755  
 H -0.691568 1.248987 -1.489988  
 H -0.548144 2.676432 -0.440736

## COMP. 14\_3T4O\_B3LYPT

C -0.510600 -0.733665 0.536928  
 C -0.249640 0.806590 0.585687  
 C 1.274803 0.937683 0.353042  
 C 1.612313 -0.214041 -0.605895

C 0.778256 -1.377902 -0.046333  
O -1.679530 -0.999458 -0.249592  
C -1.057415 1.602421 -0.449598  
H -0.686045 -1.105610 1.553610  
H -0.516658 1.183680 1.577391  
H 1.549747 1.921941 -0.035119  
H 1.816878 0.798010 1.295703  
H 1.289560 0.032429 -1.622155  
H 2.681093 -0.437666 -0.649534  
H 0.535251 -2.136691 -0.794898  
H 1.332027 -1.877564 0.756020  
H -1.870676 -1.940527 -0.195820  
H -2.129614 1.453795 -0.318185  
H -0.812611 1.308561 -1.473221  
H -0.839017 2.668799 -0.340040

COMP. 14\_3T4O\_M06-2X

C -0.577802 -0.677814 0.540574  
C -0.170999 0.820744 0.595879  
C 1.354575 0.796609 0.388666  
C 1.566950 -0.343693 -0.612107  
C 0.627704 -1.431064 -0.076328  
O -1.769718 -0.814473 -0.223698  
C -0.866293 1.661694 -0.476773  
H -0.766591 -1.043608 1.556156  
H -0.424222 1.236801 1.574008  
H 1.738483 1.759002 0.043572  
H 1.862711 0.552583 1.327779  
H 1.257562 -0.030328 -1.612460  
H 2.605345 -0.672604 -0.675538  
H 0.297861 -2.136182 -0.842396  
H 1.139370 -2.003733 0.702791  
H -2.038447 -1.735489 -0.201631  
H -1.948860 1.636739 -0.357872  
H -0.642877 1.296014 -1.481159  
H -0.527403 2.697737 -0.403138

COMP. 14\_3T4O\_MP2

C -0.563310 -0.691575 0.545306  
C -0.187318 0.814922 0.599100  
C 1.338102 0.823055 0.380138  
C 1.562161 -0.313044 -0.624730  
C 0.662130 -1.420338 -0.061241  
O -1.753402 -0.850306 -0.232423  
C -0.900862 1.651396 -0.468016  
H -0.753739 -1.060036 1.562475  
H -0.444588 1.222992 1.583008  
H 1.696410 1.797435 0.032218  
H 1.861458 0.586055 1.315619  
H 1.220619 -0.010626 -1.620280  
H 2.609762 -0.617602 -0.707300  
H 0.352784 -2.158438 -0.808700  
H 1.197390 -1.953860 0.733628  
H -1.948226 -1.791870 -0.249481  
H -1.985129 1.598119 -0.354536  
H -0.658583 1.307618 -1.477335  
H -0.586365 2.696163 -0.373275

COMP. 14\_4T3I\_MP2

C -0.357679 -0.780072 0.435090  
C -0.313832 0.778006 0.498224  
C 1.129271 1.144996 0.058065  
C 1.900412 -0.185080 -0.011846  
C 0.819126 -1.174525 -0.448459  
O -1.556348 -1.340613 -0.090135  
C -1.361482 1.449821 -0.389796  
H -0.180049 -1.177287 1.446145  
H -0.480230 1.096709 1.534704  
H 1.093323 1.590251 -0.944180  
H 1.596220 1.878288 0.722704  
H 2.754392 -0.142533 -0.693762  
H 2.278027 -0.463277 0.979811  
H 0.542708 -1.002373 -1.496460  
H 1.093456 -2.226389 -0.331032  
H -2.271771 -1.109435 0.509812  
H -2.382877 1.248068 -0.052389

H -1.274846 1.099255 -1.422710  
H -1.212460 2.534755 -0.379228

COMP. 14\_4T5I\_MP2

C 0.437803 -0.742132 -0.432629  
C 0.252151 0.792717 -0.516389  
C -1.267452 0.993970 -0.250977  
C -1.845436 -0.400955 0.092407  
C -0.625091 -1.194206 0.564738  
O 1.743788 -1.204063 -0.103858  
C 1.096768 1.559228 0.506394  
H 0.180459 -1.167467 -1.413345  
H 0.522370 1.143119 -1.519144  
H -1.401451 1.674321 0.597793  
H -1.775953 1.447629 -1.106818  
H -2.646368 -0.348226 0.834770  
H -2.259604 -0.871365 -0.806741  
H -0.325468 -0.894869 1.576578  
H -0.767799 -2.278246 0.556687  
H 2.306313 -0.437868 0.027422  
H 2.173536 1.489318 0.307159  
H 0.910129 1.201669 1.524457  
H 0.841070 2.622760 0.470777

COMP. 14\_4T5O\_B3LYPT

C -0.313251 -0.799281 0.439516  
C -0.361397 0.763175 0.482421  
C 1.036958 1.220079 -0.023186  
C 1.925129 -0.038084 -0.011624  
C 0.939294 -1.154030 -0.378072  
O -1.530258 -1.330716 -0.089427  
C -1.511031 1.380092 -0.319659  
H -0.182817 -1.170666 1.465252  
H -0.482657 1.066480 1.527073  
H 0.947194 1.589076 -1.050971  
H 1.449007 2.037878 0.573046  
H 2.771955 0.031145 -0.698533  
H 2.334282 -0.211600 0.990366  
H 0.688056 -1.103603 -1.443752  
H 1.313380 -2.160645 -0.167875  
H -1.489171 -2.290613 -0.040703  
H -2.482654 1.058777 0.059187  
H -1.458121 1.095995 -1.373977  
H -1.460599 2.471795 -0.260068

COMP. 14\_4T5O\_M06-2X

C 0.237743 0.823205 0.450284  
C 0.416320 -0.725446 0.471430  
C -0.870048 -1.287483 -0.168483  
C -1.913591 -0.182055 0.019389  
C -1.095469 1.077856 -0.268573  
O 1.346902 1.439679 -0.187850  
C 1.686610 -1.212497 -0.217627  
H 0.173097 1.188162 1.482769  
H 0.448025 -1.041795 1.518315  
H -0.702491 -1.445574 -1.239846  
H -1.165505 -2.245813 0.262512  
H -2.781681 -0.289102 -0.632734  
H -2.272816 -0.171605 1.053955  
H -0.890459 1.143696 -1.342638  
H -1.579585 2.005512 0.045666  
H 1.212407 2.390192 -0.177208  
H 2.580949 -0.814582 0.263182  
H 1.704725 -0.893731 -1.261644  
H 1.728735 -2.304276 -0.188053

COMP. 14\_4T5O\_MP2

C 0.231382 0.825390 0.450341  
C 0.420659 -0.721778 0.469984  
C -0.862024 -1.290486 -0.173599  
C -1.914110 -0.192922 0.024763  
C -1.102542 1.070965 -0.271242  
O 1.344743 1.454293 -0.186347  
C 1.695091 -1.210581 -0.215294  
H 0.160161 1.188691 1.485522  
H 0.450313 -1.038777 1.519803

H -0.693768 -1.436138 -1.248999  
H -1.147374 -2.257519 0.252429  
H -2.788403 -0.305546 -0.623193  
H -2.263363 -0.184923 1.065036  
H -0.899199 1.130141 -1.348070  
H -1.588387 2.001879 0.040672  
H 1.163560 2.399080 -0.189026  
H 2.590360 -0.814339 0.270249  
H 1.715352 -0.895532 -1.262113  
H 1.732068 -2.304886 -0.181246

COMP. 14\_E1O\_B3LYP

C -0.056673 0.888948 0.461474  
C 0.729120 -0.431378 0.472151  
C -0.111445 -1.349417 -0.444032  
C -1.584511 -0.886894 -0.270365  
C -1.517164 0.426922 0.555160  
O 0.214683 1.549121 -0.784766  
C 2.204527 -0.319147 0.093894  
H 0.230981 1.544875 1.293545  
H 0.658147 -0.812528 1.499797  
H 0.208414 -1.214891 -1.480517  
H 0.029048 -2.404500 -0.195996  
H -2.052469 -0.716335 -1.241781  
H -2.189328 -1.638070 0.243144  
H -2.215154 1.192406 0.202287  
H -1.760474 0.237649 1.606027  
H -0.355996 2.320514 -0.852006  
H 2.746203 0.329631 0.789078  
H 2.315812 0.096435 -0.909479  
H 2.684234 -1.302354 0.114342

COMP. 14\_E1O\_M06-2X

C -0.063870 0.885798 0.462413  
C 0.735559 -0.417748 0.487134  
C -0.088307 -1.340876 -0.430042  
C -1.559782 -0.873520 -0.289704  
C -1.507524 0.400630 0.585180  
O 0.169681 1.496911 -0.802981  
C 2.196665 -0.273755 0.086421  
H 0.230021 1.568460 1.268848  
H 0.675658 -0.796000 1.514889  
H 0.251822 -1.211552 -1.459945  
H 0.046553 -2.391969 -0.168678  
H -1.981798 -0.649186 -1.269869  
H -2.192599 -1.636958 0.165028  
H -2.230230 1.162117 0.279900  
H -1.710674 0.161820 1.633097  
H -0.421702 2.247353 -0.895228  
H 2.733306 0.387039 0.771923  
H 2.270110 0.146249 -0.918044  
H 2.695630 -1.245837 0.093521

COMP. 14\_E1O\_MP2

C -0.069794 0.886076 0.464903  
C 0.741160 -0.408938 0.485508  
C -0.077994 -1.345041 -0.425486  
C -1.552520 -0.875193 -0.299322  
C -1.506575 0.384744 0.597553  
O 0.150269 1.499439 -0.809702  
C 2.202991 -0.257982 0.082109  
H 0.221795 1.573816 1.271216  
H 0.687408 -0.786188 1.517032  
H 0.268901 -1.233440 -1.457511  
H 0.053884 -2.394052 -0.142375  
H -1.957881 -0.630075 -1.284293  
H -2.195320 -1.646370 0.134692  
H -2.245811 1.142886 0.313866  
H -1.690740 0.122890 1.646416  
H -0.485237 2.217179 -0.889475  
H 2.735663 0.411804 0.765807  
H 2.274695 0.154169 -0.927552  
H 2.706886 -1.230136 0.098201

COMP. 14\_E1TS\_MP2

C -0.054515 0.883862 0.454907

C 0.721835 -0.436903 0.482577  
C -0.116686 -1.331124 -0.449835  
C -1.583357 -0.846422 -0.287411  
C -1.503584 0.424074 0.595246  
O 0.115949 1.505789 -0.829475  
C 2.192904 -0.334095 0.102858  
H 0.257254 1.568409 1.253802  
H 0.637235 -0.823232 1.509205  
H 0.219300 -1.180022 -1.481136  
H 0.006694 -2.392337 -0.212037  
H -2.016702 -0.608119 -1.262018  
H -2.217150 -1.608634 0.174965  
H -2.206747 1.204337 0.292073  
H -1.696560 0.175931 1.645703  
H 0.451994 2.392723 -0.686948  
H 2.742360 0.305927 0.802810  
H 2.291510 0.085005 -0.902295  
H 2.663637 -1.322648 0.111620

COMP. 15\_1T2I\_B3LYP

C 0.184915 0.784560 0.325162  
C 0.552974 -0.559134 -0.330148  
C -0.655706 -1.436871 0.036250  
C -1.883414 -0.488967 -0.038218  
C -1.309099 0.952542 0.028943  
O 0.901136 1.914469 -0.172555  
C 1.909331 -1.125625 0.082569  
H 0.345542 0.700560 1.411956  
H 0.551918 -0.385719 -1.414788  
H -0.752291 -2.308867 -0.615287  
H -0.530731 -1.816802 1.057183  
H -2.434757 -0.638304 -0.969478  
H -2.585127 -0.687276 0.774942  
H -1.400701 1.460584 -0.935169  
H -1.805971 1.579635 0.771608  
H 1.820223 1.847409 0.104434  
H 1.953255 -1.289892 1.165097  
H 2.106777 -2.083974 -0.406311  
H 2.728779 -0.452137 -0.191084

COMP. 15\_1T2I\_M06-2X

C 0.191067 0.774541 0.323835  
C 0.534393 -0.562553 -0.337881  
C -0.673990 -1.419231 0.050259  
C -1.885445 -0.456518 -0.026491  
C -1.286908 0.971192 -0.001018  
O 0.938912 1.879440 -0.147721  
C 1.882375 -1.137145 0.070328  
H 0.326035 0.667462 1.412216  
H 0.520417 -0.386400 -1.421327  
H -0.787201 -2.298958 -0.585596  
H -0.539335 -1.778522 1.076527  
H -2.452437 -0.617492 -0.944554  
H -2.573348 -0.623534 0.803302  
H -1.342124 1.440736 -0.986569  
H -1.781083 1.636196 0.707569  
H 1.856072 1.766577 0.113917  
H 1.923966 -1.283731 1.154437  
H 2.063536 -2.103821 -0.405004  
H 2.705253 -0.475756 -0.217341

COMP. 15\_1T2I\_MP2

C 0.185965 0.774409 0.327754  
C 0.538844 -0.559226 -0.335125  
C -0.659811 -1.423084 0.067813  
C -1.880091 -0.476109 -0.051502  
C -1.297692 0.960263 0.013652  
O 0.917577 1.897852 -0.150394  
C 1.895331 -1.125075 0.063970  
H 0.330854 0.667514 1.416676  
H 0.513602 -0.386568 -1.421336  
H -0.758179 -2.326135 -0.542658  
H -0.529226 -1.744736 1.109689  
H -2.397593 -0.635336 -1.001929  
H -2.606659 -0.660753 0.744540  
H -1.365041 1.459475 -0.958726

H -1.797727 1.595952 0.748842  
H 1.840638 1.759852 0.083671  
H 1.941186 -1.273352 1.149572  
H 2.079442 -2.090878 -0.417300  
H 2.712812 -0.454920 -0.227261

COMP. 15\_1T2O\_B3LYP

C 0.196093 0.778002 0.318152  
C 0.550701 -0.564185 -0.329508  
C -0.677735 -1.431670 0.003414  
C -1.894786 -0.461254 0.010097  
C -1.292456 0.968383 -0.015037  
O 1.053530 1.802982 -0.184803  
C 1.892493 -1.146386 0.105778  
H 0.330352 0.690771 1.408179  
H 0.577085 -0.382286 -1.412427  
H -0.801267 -2.256717 -0.701922  
H -0.546472 -1.881303 0.994032  
H -2.541445 -0.623553 -0.854962  
H -2.514143 -0.620541 0.895805  
H -1.356594 1.401723 -1.017864  
H -1.795744 1.654961 0.671535  
H 0.865846 2.623946 0.280231  
H 1.903444 -1.337573 1.184720  
H 2.096785 -2.093899 -0.401740  
H 2.708053 -0.456725 -0.124538

COMP. 15\_1T2O\_M06-2X

C 0.200416 0.767463 0.317576  
C 0.536200 -0.567307 -0.337102  
C -0.688239 -1.418796 0.018241  
C -1.891847 -0.438264 0.015728  
C -1.273602 0.978617 -0.037222  
O 1.074975 1.771911 -0.162561  
C 1.873207 -1.148403 0.093976  
H 0.314981 0.659188 1.408025  
H 0.549068 -0.382140 -1.419011  
H -0.823242 -2.255915 -0.668371  
H -0.548092 -1.843535 1.017733  
H -2.544002 -0.607807 -0.841883  
H -2.503841 -0.573318 0.908752  
H -1.310606 1.382833 -1.052827  
H -1.775140 1.688937 0.623741  
H 0.867047 2.602166 0.272099  
H 1.878865 -1.330863 1.173307  
H 2.073445 -2.097773 -0.408308  
H 2.684907 -0.456926 -0.139948

COMP. 15\_1T2O\_MP2

C 0.192579 0.767337 0.318650  
C 0.540906 -0.562042 -0.338821  
C -0.677733 -1.423701 0.019474  
C -1.890143 -0.449831 0.023749  
C -1.278113 0.970134 -0.052180  
O 1.071263 1.785222 -0.148607  
C 1.881785 -1.140937 0.090184  
H 0.293806 0.653914 1.411934  
H 0.547991 -0.377189 -1.423214  
H -0.810738 -2.260475 -0.672691  
H -0.530238 -1.850368 1.019586  
H -2.555050 -0.632200 -0.824868  
H -2.487416 -0.577483 0.931150  
H -1.307504 1.353872 -1.078369  
H -1.788694 1.692089 0.594069  
H 0.791583 2.613645 0.252425  
H 1.889012 -1.313559 1.173070  
H 2.075642 -2.097387 -0.406505  
H 2.695813 -0.452395 -0.154061

COMP. 15\_1T2TS\_MP2

C 0.229661 0.762064 0.310825  
C 0.504795 -0.593992 -0.337432  
C -0.741908 -1.390403 0.059148  
C -1.911193 -0.371477 -0.012906  
C -1.242518 1.025877 -0.015517  
O 1.081249 1.790273 -0.197033

C 1.829025 -1.223110 0.069386  
H 0.366420 0.662200 1.399242  
H 0.496547 -0.422772 -1.424326  
H -0.903529 -2.267578 -0.574778  
H -0.617834 -1.751435 1.088749  
H -2.501604 -0.517722 -0.921824  
H -2.592143 -0.494518 0.834043  
H -1.273794 1.477156 -1.012997  
H -1.706082 1.730140 0.681206  
H 1.577775 2.159124 0.536027  
H 1.851314 -1.393857 1.152832  
H 1.980144 -2.187466 -0.426524  
H 2.665612 -0.569204 -0.196416

COMP. 15\_1T2\_B3LYP

C 0.225408 0.774194 0.312402  
C 0.523015 -0.590520 -0.328615  
C -0.726662 -1.407224 0.038479  
C -1.909748 -0.401455 -0.025352  
C -1.265564 1.009993 0.021721  
O 1.046428 1.819190 -0.223015  
C 1.853231 -1.211030 0.086689  
H 0.392363 0.697979 1.396177  
H 0.532981 -0.421580 -1.414113  
H -0.616428 -1.798411 1.056963  
H -0.869661 -2.270229 -0.616324  
H -2.483354 -0.530830 -0.946087  
H -2.606642 -0.560547 0.800644  
H -1.335216 1.509453 -0.948562  
H -1.730402 1.671134 0.756734  
H 1.558002 2.220094 0.482641  
H 1.881186 -1.391324 1.167599  
H 2.687871 -0.553009 -0.170751  
H 2.019798 -2.169990 -0.412733

COMP. 15\_1T2\_M06-2X

C 0.231776 0.763227 0.310719  
C 0.505068 -0.594544 -0.335952  
C -0.741986 -1.390192 0.056000  
C -1.908643 -0.372596 -0.020690  
C -1.244320 1.025069 -0.000325  
O 1.076036 1.782271 -0.204578  
C 1.828888 -1.217772 0.074141  
H 0.378903 0.665367 1.395932  
H 0.500270 -0.423313 -1.420496  
H -0.622664 -1.752588 1.083251  
H -0.899670 -2.265506 -0.576324  
H -2.484298 -0.509595 -0.937305  
H -2.602198 -0.506537 0.810536  
H -1.285031 1.496439 -0.985533  
H -1.704681 1.713090 0.710175  
H 1.584548 2.174043 0.505451  
H 1.852405 -1.388863 1.155524  
H 2.661320 -0.560708 -0.188361  
H 1.988119 -2.179150 -0.419592

COMP. 15\_2EIN\_B3LYP

C -0.638971 -0.692184 -0.402774  
C 0.671042 -0.621262 0.409060  
C 0.582238 0.774212 1.062019  
C -0.060332 1.681134 -0.017555  
C -0.820061 0.721136 -0.977198  
O -1.770855 -0.945456 0.446197  
C 1.908781 -0.784674 -0.483750  
H -0.595710 -1.457335 -1.188486  
H 0.684702 -1.413765 1.167149  
H -0.068553 0.722702 1.937836  
H 1.556317 1.140651 1.397213  
H -0.727858 2.418869 0.431393  
H 0.704106 2.241041 -0.562483  
H -1.884897 0.947913 -1.049861  
H -0.409190 0.769756 -1.988685  
H -1.642324 -1.794507 0.881667  
H 2.824533 -0.717796 0.110099  
H 1.960065 -0.009269 -1.253967  
H 1.909460 -1.754792 -0.990263



COMP. 15\_2EIN\_M06-2X

C -0.642085 -0.691171 -0.412327  
C 0.647115 -0.649073 0.418762  
C 0.548259 0.729009 1.090661  
C -0.029541 1.652483 -0.006299  
C -0.750243 0.714012 -1.009222  
O -1.783943 -0.869956 0.420834  
C 1.885726 -0.768047 -0.468790  
H -0.614765 -1.472419 -1.181734  
H 0.653393 -1.460603 1.155042  
H -0.145262 0.674172 1.931375  
H 1.511982 1.075890 1.469909  
H -0.710590 2.389965 0.418256  
H 0.767091 2.206693 -0.506770  
H -1.801476 0.966936 -1.148342  
H -0.271107 0.742546 -1.989794  
H -1.690404 -1.700795 0.894093  
H 2.795953 -0.730277 0.133356  
H 1.933472 0.051661 -1.191172  
H 1.887861 -1.707399 -1.027603

COMP. 15\_2EI\_MP2

C -0.647444 -0.684021 -0.417019  
C 0.639328 -0.655591 0.415839  
C 0.550959 0.719438 1.095635  
C -0.003226 1.654304 -0.005208  
C -0.748068 0.726859 -1.003623  
O -1.799015 -0.861702 0.416504  
C 1.880079 -0.781531 -0.470730  
H -0.623041 -1.462317 -1.192824  
H 0.638453 -1.473755 1.149233  
H -0.155093 0.671405 1.929410  
H 1.517745 1.054483 1.486191  
H -0.668155 2.412492 0.416029  
H 0.810318 2.184490 -0.509872  
H -1.802024 0.990587 -1.122931  
H -0.283134 0.756549 -1.993818  
H -1.671109 -1.682077 0.903852  
H 2.790102 -0.746793 0.136488  
H 1.932504 0.037010 -1.196258  
H 1.875780 -1.725206 -1.026892

COMP. 15\_2ETS\_B3LYP

C 0.663983 -0.672688 0.378243  
C -0.650815 -0.640058 -0.423855  
C -0.614687 0.770393 -1.049933  
C 0.004413 1.684189 0.040430  
C 0.767521 0.731217 1.004360  
O 1.763981 -0.878586 -0.533901  
C -1.880442 -0.862745 0.467505  
H 0.664756 -1.464193 1.135033  
H -0.622029 -1.417522 -1.192458  
H 0.031289 0.753732 -1.930812  
H -1.602885 1.108569 -1.373282  
H 0.668871 2.429183 -0.401173  
H -0.770367 2.235583 0.579174  
H 1.815983 1.004896 1.132417  
H 0.307928 0.731334 1.996913  
H 2.262512 -1.649537 -0.255487  
H -2.797346 -0.821217 -0.127096  
H -1.963995 -0.102772 1.250392  
H -1.846404 -1.841214 0.957090

COMP. 15\_2ETS\_M06-2X

C 0.670631 -0.667306 0.389158  
C -0.623197 -0.670574 -0.432063  
C -0.577178 0.720756 -1.081988  
C -0.043646 1.653021 0.031506  
C 0.701394 0.727650 1.029209  
O 1.778592 -0.798633 -0.506059  
C -1.856300 -0.848485 0.453508  
H 0.690298 -1.469220 1.134245  
H -0.582727 -1.469212 -1.176808  
H 0.125102 0.700720 -1.917266  
H -1.550835 1.034388 -1.464770

H 0.615522 2.418245 -0.378496  
H -0.862928 2.173836 0.531216  
H 1.733569 1.032314 1.202486  
H 0.194826 0.707271 1.996942  
H 2.309353 -1.552711 -0.249171  
H -2.765035 -0.846796 -0.152304  
H -1.945570 -0.037859 1.182253  
H -1.820536 -1.792281 1.004167

COMP. 15\_2ETS\_MP2

C 0.670857 -0.666322 0.391061  
C -0.620162 -0.671800 -0.432551  
C -0.576126 0.719005 -1.084718  
C -0.048936 1.654090 0.032038  
C 0.694970 0.727889 1.032457  
O 1.791201 -0.789463 -0.503142  
C -1.856849 -0.852053 0.450569  
H 0.693451 -1.470712 1.137105  
H -0.578688 -1.473272 -1.178508  
H 0.130894 0.702047 -1.919300  
H -1.552685 1.030476 -1.470314  
H 0.613783 2.421065 -0.376729  
H -0.874089 2.173278 0.529120  
H 1.728011 1.036337 1.210202  
H 0.181967 0.703515 1.999619  
H 2.277074 -1.579815 -0.258703  
H -2.764204 -0.854029 -0.161797  
H -1.950701 -0.039996 1.179270  
H -1.816939 -1.798048 1.002040

COMP. 15\_2T1O\_B3LYP

C 0.567358 -0.766924 0.367704  
C -0.729221 -0.551808 -0.426857  
C -0.536587 0.864457 -1.016698  
C 0.274633 1.658015 0.045427  
C 0.839171 0.595363 1.028308  
O 1.583143 -1.106846 -0.590226  
C -1.976376 -0.662893 0.459639  
H 0.473234 -1.576278 1.103073  
H -0.787743 -1.304507 -1.217881  
H 0.033970 0.794753 -1.944639  
H -1.491182 1.341201 -1.254846  
H 1.074626 2.231544 -0.426434  
H -0.354086 2.377152 0.575925  
H 1.904056 0.732166 1.239448  
H 0.323179 0.640900 1.992123  
H 2.434184 -1.124757 -0.141366  
H -2.881379 -0.505599 -0.133446  
H -1.978081 0.082303 1.261414  
H -2.049789 -1.651378 0.923311

COMP. 15\_2T1O\_M06-2X

C 0.606689 -0.737705 0.382321  
C -0.681228 -0.615655 -0.432025  
C -0.529062 0.777262 -1.064701  
C 0.129945 1.643328 0.036407  
C 0.763566 0.641491 1.036129  
O 1.650548 -0.989869 -0.553650  
C -1.920777 -0.708411 0.456535  
H 0.558376 -1.550039 1.117546  
H -0.706525 -1.404274 -1.187803  
H 0.131167 0.708802 -1.930066  
H -1.485775 1.183491 -1.400156  
H 0.875627 2.315700 -0.388284  
H -0.608919 2.268779 0.540983  
H 1.813409 0.859654 1.247751  
H 0.238710 0.656806 1.994346  
H 2.493412 -0.934153 -0.097324  
H -2.828014 -0.630435 -0.146133  
H -1.945420 0.100271 1.192936  
H -1.955234 -1.657508 0.997405

COMP. 15\_2T1O\_MP2

C 0.589974 -0.752211 0.382069  
C -0.691633 -0.602713 -0.435017  
C -0.513362 0.790376 -1.062099

C 0.174943 1.638524 0.038914  
C 0.761911 0.617398 1.049452  
O 1.637818 -1.007060 -0.560645  
C -1.937911 -0.678077 0.448798  
H 0.529995 -1.573390 1.110121  
H -0.731522 -1.389351 -1.196633  
H 0.137762 0.714502 -1.936554  
H -1.467646 1.220234 -1.384290  
H 0.954690 2.273962 -0.388642  
H -0.541535 2.300201 0.534836  
H 1.813148 0.812806 1.289273  
H 0.210812 0.636758 1.995808  
H 2.470504 -0.933648 -0.084175  
H -2.841432 -0.590737 -0.162633  
H -1.956707 0.133864 1.183928  
H -1.984147 -1.628509 0.991420

COMP. 15\_3EO\_B3LYP

C 0.050899 0.834167 0.349298  
C 0.704302 -0.407191 -0.290822  
C -0.311371 -1.534565 -0.044390  
C -1.668308 -0.843944 -0.253072  
C -1.477167 0.545331 0.395827  
O 0.408366 1.979909 -0.435025  
C 2.127481 -0.684981 0.188006  
H 0.438279 0.969940 1.368191  
H 0.727812 -0.203064 -1.368966  
H -0.155802 -2.391764 -0.704896  
H -0.224778 -1.899443 0.987508  
H -1.862496 -0.736111 -1.325045  
H -2.507173 -1.399250 0.173257  
H -2.032327 1.330996 -0.122466  
H -1.823841 0.532283 1.433827  
H 0.137246 2.774766 0.034362  
H 2.559013 -1.547051 -0.329320  
H 2.145905 -0.898645 1.262512  
H 2.776211 0.175165 0.002159

COMP. 15\_3EO\_M06-2X

C 0.007155 0.835365 0.353300  
C 0.731228 -0.356100 -0.294134  
C -0.211520 -1.540484 -0.064203  
C -1.595036 -0.919482 -0.278854  
C -1.483975 0.428086 0.454383  
O 0.240211 1.977704 -0.461704  
C 2.157633 -0.547558 0.199718  
H 0.419845 1.018719 1.354181  
H 0.746081 -0.138025 -1.368721  
H -0.000144 -2.381262 -0.728024  
H -0.115372 -1.898444 0.968550  
H -1.755806 -0.754105 -1.348092  
H -2.415142 -1.537547 0.089500  
H -2.128132 1.201099 0.030407  
H -1.763450 0.302296 1.504010  
H -0.106285 2.753694 -0.015136  
H 2.650423 -1.372071 -0.320799  
H 2.166800 -0.772716 1.270708  
H 2.746587 0.357768 0.035791

COMP. 15\_3EO\_MP2

C 0.124516 0.808984 0.344659  
C 0.636679 -0.482611 -0.297412  
C -0.468297 -1.492119 0.021055  
C -1.748943 -0.688406 -0.243674  
C -1.423291 0.715492 0.314113  
O 0.663589 1.914212 -0.383264  
C 2.038669 -0.873082 0.150973  
H 0.479972 0.852219 1.385765  
H 0.634351 -0.301441 -1.382295  
H -0.396181 -2.404629 -0.579445  
H -0.410430 -1.780272 1.080358  
H -1.919020 -0.631797 -1.324632  
H -2.642035 -1.127502 0.210431  
H -1.832715 1.515748 -0.309923  
H -1.832266 0.836414 1.323054  
H 0.472140 2.711885 0.118707

H 2.381703 -1.777342 -0.362310  
H 2.051758 -1.069073 1.229792  
H 2.748010 -0.067459 -0.061673

COMP. 15\_3T4I\_M06-2X

C -0.081965 0.845583 0.366867  
C 0.784268 -0.250219 -0.304191  
C -0.032076 -1.539976 -0.148449  
C -1.476070 -1.052211 -0.289148  
C -1.478411 0.228117 0.557504  
O -0.211647 2.009254 -0.443140  
C 2.208059 -0.329124 0.232313  
H 0.352016 1.130746 1.333987  
H 0.809324 -0.000933 -1.371817  
H 0.250283 -2.304610 -0.875262  
H 0.124020 -1.958843 0.853437  
H -1.681715 -0.810851 -1.336320  
H -2.217769 -1.782109 0.038640  
H -2.249053 0.946516 0.276754  
H -1.625654 -0.029823 1.609606  
H 0.663646 2.374836 -0.596750  
H 2.783604 -1.102411 -0.281871  
H 2.202335 -0.568468 1.299841  
H 2.739302 0.618896 0.105501

COMP. 15\_4T3I\_B3LYPT

C -0.812335 -0.396126 -0.337054  
C 0.538402 -0.675221 0.398108  
C 1.032858 0.717924 0.853241  
C 0.494803 1.677739 -0.220752  
C -0.916263 1.133808 -0.493657  
O -1.964950 -0.838459 0.393766  
C 1.551661 -1.386650 -0.509268  
H -0.806937 -0.889171 -1.317960  
H 0.337019 -1.314078 1.263563  
H 0.589383 0.972057 1.821561  
H 2.119274 0.761317 0.970551  
H 0.489432 2.722016 0.100873  
H 1.112407 1.623873 -1.124066  
H -1.611423 1.489224 0.273100  
H -1.320292 1.429093 -1.464327  
H -1.967709 -1.800750 0.414030  
H 2.484751 -1.585475 0.025636  
H 1.797169 -0.784082 -1.389834  
H 1.161783 -2.345192 -0.866962

COMP. 15\_4T3I\_M06-2X

C -0.832267 -0.305838 -0.313193  
C 0.495452 -0.679340 0.409831  
C 1.152175 0.671366 0.765428  
C 0.593349 1.643943 -0.280742  
C -0.874604 1.223277 -0.361625  
O -1.999464 -0.767647 0.351555  
C 1.400229 -1.533919 -0.477655  
H -0.812848 -0.712795 -1.333605  
H 0.246903 -1.239678 1.315173  
H 0.833058 0.995745 1.759905  
H 2.243163 0.614549 0.768971  
H 0.724561 2.692169 -0.008399  
H 1.088088 1.489627 -1.245596  
H -1.409478 1.562587 0.531025  
H -1.403844 1.601169 -1.237110  
H -2.019221 -1.726937 0.312516  
H 2.312016 -1.821979 0.050281  
H 1.693612 -0.982505 -1.376478  
H 0.893698 -2.447710 -0.801377

COMP. 15\_4T3I\_MP2

C -0.834804 -0.275921 -0.307168  
C 0.485401 -0.679556 0.411410  
C 1.194561 0.655528 0.732025  
C 0.622377 1.640967 -0.297626  
C -0.858065 1.253001 -0.321283  
O -2.017562 -0.743120 0.342619  
C 1.348331 -1.591150 -0.463481  
H -0.813526 -0.655762 -1.340492

H 0.222168 -1.209385 1.334183  
H 0.922164 0.995345 1.738086  
H 2.285518 0.564692 0.694043  
H 0.788869 2.688518 -0.029993  
H 1.076812 1.471421 -1.282026  
H -1.344165 1.585236 0.604126  
H -1.419927 1.655580 -1.168583  
H -2.032599 -1.701436 0.259055  
H 2.252028 -1.906736 0.067807  
H 1.657556 -1.068874 -1.376392  
H 0.798801 -2.490850 -0.764020

COMP. 15\_4T3O\_B3LYPT

C -0.782609 -0.476403 -0.357120  
C 0.560382 -0.680073 0.387824  
C 0.908130 0.721168 0.936001  
C 0.415876 1.683131 -0.157442  
C -0.911887 1.050249 -0.622866  
O -1.831620 -0.977251 0.487274  
C 1.652330 -1.237538 -0.535880  
H -0.787397 -1.043883 -1.296167  
H 0.391055 -1.392370 1.198802  
H 0.353334 0.901875 1.862395  
H 1.971871 0.834137 1.162968  
H 0.289624 2.708524 0.198492  
H 1.133839 1.719091 -0.983043  
H -1.738069 1.429846 -0.013414  
H -1.144702 1.274816 -1.667199  
H -2.676293 -0.824535 0.051426  
H 2.594201 -1.359044 0.006643  
H 1.845093 -0.577870 -1.388185  
H 1.367068 -2.215782 -0.934015

COMP. 15\_4T3O\_M06-2X

C -0.804954 -0.412003 -0.340159  
C 0.525396 -0.686578 0.398622  
C 0.993423 0.696945 0.884752  
C 0.512431 1.649404 -0.215359  
C -0.896125 1.120992 -0.514045  
O -1.869078 -0.937112 0.446316  
C 1.555397 -1.341915 -0.522041  
H -0.798804 -0.915513 -1.315159  
H 0.313801 -1.356107 1.234585  
H 0.493661 0.950679 1.824440  
H 2.071461 0.737996 1.056042  
H 0.514683 2.697577 0.087796  
H 1.151222 1.563298 -1.099348  
H -1.589401 1.496986 0.245104  
H -1.274300 1.417372 -1.494548  
H -2.701636 -0.727477 0.015453  
H 2.491710 -1.524635 0.009955  
H 1.779336 -0.706112 -1.384052  
H 1.187476 -2.298241 -0.901416

COMP. 15\_4T3O\_MP2

C -0.804917 -0.413468 -0.347856  
C 0.517886 -0.694650 0.397976  
C 0.975146 0.684235 0.906730  
C 0.527939 1.642582 -0.204325  
C -0.877554 1.120134 -0.538430  
O -1.878961 -0.921080 0.452257  
C 1.557072 -1.333251 -0.527073  
H -0.805651 -0.930437 -1.318199  
H 0.302143 -1.380056 1.223913  
H 0.445210 0.933796 1.833876  
H 2.050715 0.719071 1.110094  
H 0.524446 2.692903 0.102399  
H 1.189702 1.554601 -1.073412  
H -1.589889 1.511044 0.198262  
H -1.225985 1.406724 -1.535996  
H -2.699113 -0.681219 0.009311  
H 2.496291 -1.508533 0.007528  
H 1.773689 -0.689404 -1.386892  
H 1.196696 -2.293344 -0.911074

COMP. 15\_5EIN\_M06-2X

C 0.350568 -0.862540 0.330239  
C -0.846136 -0.257082 -0.432585  
C -0.440330 1.219109 -0.705330  
C 0.940919 1.416745 -0.047963  
C 0.987549 0.330427 1.032020  
O 1.338527 -1.374553 -0.558704  
C -2.137902 -0.359208 0.377808  
H 0.033158 -1.647423 1.027553  
H -0.979491 -0.802270 -1.372684  
H -1.176024 1.886162 -0.245961  
H -0.421652 1.451191 -1.770935  
H 1.735788 1.231979 -0.772310  
H 1.074935 2.422714 0.352007  
H 1.993018 0.096853 1.384107  
H 0.375442 0.615656 1.893382  
H 0.934709 -2.046856 -1.112692  
H -2.023131 0.130871 1.349515  
H -2.420435 -1.399864 0.555455  
H -2.962546 0.132706 -0.142933

COMP. 15\_5T1I\_B3LYPT

C 0.435674 -0.842490 0.348650  
C -0.814462 -0.388009 -0.435080  
C -0.465887 1.056448 -0.894659  
C 0.690162 1.549570 0.024468  
C 0.911431 0.423707 1.058309  
O 1.496287 -1.244136 -0.532879  
C -2.084917 -0.446152 0.424501  
H 0.210090 -1.658518 1.047377  
H -0.960699 -1.046030 -1.299935  
H -0.149620 1.063549 -1.939495  
H -1.344500 1.703762 -0.826696  
H 1.598278 1.698836 -0.562055  
H 0.458550 2.502440 0.505791  
H 1.950128 0.329537 1.380604  
H 0.301404 0.585983 1.952039  
H 1.181084 -1.969934 -1.080889  
H -2.009082 0.205701 1.300279  
H -2.282990 -1.462102 0.780215  
H -2.954939 -0.118581 -0.151332

COMP. 15\_5T1I\_M06-2X

C 0.375708 -0.863653 0.331306  
C -0.834250 -0.313052 -0.444191  
C -0.436979 1.147070 -0.796196  
C 0.854329 1.454343 -0.000422  
C 0.924503 0.352661 1.065666  
O 1.407778 -1.294598 -0.550402  
C -2.111835 -0.377674 0.392893  
H 0.093393 -1.680128 1.007144  
H -0.983115 -0.908479 -1.351202  
H -0.278333 1.274669 -1.867646  
H -1.244002 1.827067 -0.510420  
H 1.724496 1.373129 -0.652916  
H 0.851496 2.456460 0.430138  
H 1.932262 0.170521 1.440861  
H 0.278243 0.587566 1.916179  
H 1.055150 -1.978005 -1.125416  
H -1.999106 0.191063 1.320526  
H -2.367845 -1.407063 0.656202  
H -2.953720 0.051817 -0.154562

COMP. 15\_5T1I\_MP2

C 0.354438 -0.865133 0.331275  
C -0.841729 -0.275565 -0.438696  
C -0.435154 1.196652 -0.737448  
C 0.920848 1.422805 -0.029886  
C 0.956542 0.335112 1.051694  
O 1.370701 -1.345728 -0.555893  
C -2.132465 -0.362146 0.379589  
H 0.042720 -1.667803 1.014339  
H -0.982028 -0.840810 -1.369471  
H -0.371236 1.395854 -1.810956  
H -1.196479 1.872610 -0.330418  
H 1.743875 1.257454 -0.729486  
H 1.016568 2.434115 0.375638

H 1.959369 0.117429 1.429533  
H 0.316978 0.608713 1.899363  
H 0.955503 -1.989885 -1.137617  
H -2.014162 0.150739 1.340686  
H -2.412586 -1.402022 0.579259  
H -2.959013 0.119085 -0.152897

COMP. 15\_5T4I\_B3LYP

C 0.298909 -0.847132 0.355833  
C -0.865292 -0.093629 -0.362705  
C -0.399762 1.386374 -0.464625  
C 1.112813 1.361629 -0.188486  
C 1.245917 0.246412 0.859243  
O 1.056881 -1.666418 -0.549631  
C -2.218462 -0.252626 0.337249  
H -0.077082 -1.473442 1.174683  
H -0.944956 -0.511787 -1.372332  
H -0.903474 1.979193 0.308369  
H -0.654378 1.836413 -1.427429  
H 1.664048 1.085326 -0.1092009  
H 1.499133 2.324365 0.155344  
H 2.260014 -0.137451 0.984626  
H 0.898061 0.606866 1.834031  
H 0.466703 -2.315636 -0.945454  
H -2.171121 0.107221 1.370609  
H -2.541091 -1.298315 0.362607  
H -2.995636 0.322428 -0.175051

COMP. 15\_5T4I\_MP2

C 0.574940 -0.746668 0.388186  
C -0.704596 -0.573229 -0.429246  
C -0.537775 0.832410 -1.043469  
C 0.226721 1.662027 0.021562  
C 0.813248 0.627759 1.022941  
O 1.707278 -1.010963 -0.455173  
C -1.939989 -0.681883 0.467317  
H 0.480256 -1.540906 1.139080  
H -0.770965 -1.348056 -1.204276  
H -1.489330 1.272620 -1.352258  
H 0.087123 0.778791 -1.935198  
H 0.992882 2.319000 -0.395768  
H -0.470405 2.332849 0.526602  
H 1.880606 0.762345 1.209524  
H 0.319944 0.703620 1.999680  
H 1.502933 -1.781549 -0.994522  
H -2.034080 0.179182 1.137786  
H -1.903355 -1.583551 1.086363  
H -2.849126 -0.729136 -0.139383

COMP. 15\_E1O\_B3LYP

C 0.485987 -0.823694 0.340711  
C -0.785908 -0.455622 -0.438087  
C -0.499014 0.983951 -0.940582  
C 0.526679 1.603491 0.054589  
C 0.875719 0.476227 1.056862  
O 1.469729 -1.205910 -0.634699  
C -2.043940 -0.539560 0.436201  
H 0.318483 -1.654771 1.037773  
H -0.893344 -1.148931 -1.276599  
H -0.072411 0.949682 -1.944436  
H -1.418995 1.571400 -1.002264  
H 1.419452 1.934009 -0.479522  
H 0.124412 2.479490 0.568475  
H 1.927542 0.479907 1.359532  
H 0.285662 0.570912 1.974048  
H 2.314296 -1.323806 -0.188464  
H -1.997224 0.146687 1.287834  
H -2.191593 -1.550304 0.828828  
H -2.931241 -0.275751 -0.145769

COMP. 15\_E1O\_M06-2X

C 0.406573 -0.862976 0.310900  
C -0.821761 -0.361338 -0.453030  
C -0.462498 1.099555 -0.831475  
C 0.751460 1.498844 0.046634  
C 0.887521 0.368000 1.078306

O 1.362692 -1.255205 -0.670079  
C -2.087242 -0.440215 0.400186  
H 0.167869 -1.710821 0.964152  
H -0.948249 -0.981519 -1.343055  
H -0.212961 1.180072 -1.889685  
H -1.317442 1.756036 -0.651179  
H 1.652874 1.543177 -0.565974  
H 0.625886 2.474885 0.516834  
H 1.905035 0.250561 1.461400  
H 0.233516 0.537903 1.938570  
H 2.192162 -1.455146 -0.228871  
H -1.993093 0.165699 1.306357  
H -2.304468 -1.468357 0.700117  
H -2.946981 -0.062075 -0.157161

COMP. 15\_E1O\_MP2

C 0.418331 -0.859970 0.316236  
C -0.813101 -0.383921 -0.455324  
C -0.464126 1.071727 -0.860352  
C 0.710921 1.514112 0.054661  
C 0.868670 0.381091 1.084995  
O 1.392130 -1.234347 -0.665295  
C -2.077711 -0.451640 0.403720  
H 0.192548 -1.713991 0.969798  
H -0.939125 -1.023142 -1.335763  
H -0.170845 1.123076 -1.912093  
H -1.338602 1.719311 -0.733329  
H 1.625744 1.605996 -0.536212  
H 0.526578 2.481027 0.531316  
H 1.890727 0.287363 1.470407  
H 0.207559 0.534678 1.945696  
H 2.222848 -1.376909 -0.200460  
H -1.990523 0.189218 1.288137  
H -2.277956 -1.474553 0.740281  
H -2.943904 -0.105686 -0.169039

COMP. 15\_E4I\_B3LYP

C -0.248557 0.845690 0.364245  
C 0.856533 -0.012406 -0.333748  
C 0.306675 -1.460722 -0.344892  
C -1.217031 -1.301310 -0.240023  
C -1.362267 -0.137655 0.752714  
O -0.827457 1.817525 -0.522278  
C 2.241717 0.116369 0.304635  
H 0.152940 1.364658 1.243881  
H 0.912746 0.339991 -1.370073  
H 0.627220 -2.019865 -1.227895  
H 0.680633 -2.002509 0.532999  
H -1.638484 -1.019027 -1.209994  
H -1.723207 -2.212484 0.088486  
H -2.337313 0.352381 0.735063  
H -1.187192 -0.499442 1.771963  
H -0.134595 2.416892 -0.817988  
H 2.973235 -0.514552 -0.209234  
H 2.220315 -0.192496 1.355178  
H 2.610938 1.146449 0.268258

COMP. 15\_E4I\_MP2

C -0.049370 0.841719 0.368396  
C 0.765848 -0.290647 -0.300842  
C -0.099632 -1.544513 -0.118230  
C -1.520973 -0.999830 -0.294599  
C -1.482060 0.298587 0.527237  
O -0.102560 2.029321 -0.429461  
C 2.194982 -0.412304 0.217771  
H 0.383915 1.087995 1.349001  
H 0.783796 -0.055214 -1.374414  
H 0.162639 -2.341049 -0.822472  
H 0.026146 -1.939062 0.900078  
H -1.696441 -0.772238 -1.352559  
H -2.301753 -1.690402 0.037737  
H -2.207633 1.051134 0.207606  
H -1.673195 0.069902 1.581578  
H 0.803739 2.329507 -0.552927  
H 2.737728 -1.210225 -0.299492  
H 2.193297 -0.641886 1.289444

H 2.755469 0.518900 0.073711

COMP. 15\_E4O\_B3LYP

C -0.243558 0.839993 0.358275  
C 0.850831 -0.029418 -0.320801  
C 0.304690 -1.476305 -0.294940  
C -1.221152 -1.310031 -0.249458  
C -1.392735 -0.127212 0.715982  
O -0.640956 1.839930 -0.595652  
C 2.243873 0.126412 0.290997  
H 0.146782 1.340263 1.253384  
H 0.885213 0.310578 -1.360767  
H 0.646547 -1.988571 0.613533  
H 0.652959 -2.065339 -1.147321  
H -1.602064 -1.043281 -1.240585  
H -1.746366 -2.211449 0.076068  
H -2.370683 0.359026 0.656627  
H -1.263431 -0.474725 1.747895  
H -1.285605 2.421243 -0.179443  
H 2.247274 -0.166245 1.346765  
H 2.591854 1.161371 0.226343  
H 2.973476 -0.502942 -0.227619

COMP. 15\_E4O\_M06-2X

C 0.343097 -0.853557 0.320006  
C -0.852409 -0.214177 -0.412285  
C -0.475463 1.282837 -0.583829  
C 0.976421 1.412388 -0.095582  
C 1.067194 0.323228 0.076809  
O 1.162338 -1.464985 -0.673942  
C -2.160246 -0.395798 0.354672  
H 0.016011 -1.608330 1.044945  
H -0.931968 -0.705755 -1.384213  
H -1.129185 1.894124 0.047445  
H -0.604885 1.627503 -1.610576  
H 1.671246 1.181372 -0.905860  
H 1.210928 2.409432 0.280047  
H 2.088002 0.073001 1.278364  
H 0.518833 0.629652 1.874669  
H 1.956015 -1.802843 -0.250988  
H -2.073528 0.011267 1.367461  
H -2.434131 -1.450375 0.434524  
H -2.977602 0.131308 -0.143023

COMP. 15\_E4O\_MP2

C 0.334388 -0.851740 0.327023  
C -0.853698 -0.199990 -0.405730  
C -0.469158 1.296497 -0.563562  
C 0.997240 1.403509 -0.111555  
C 1.087449 0.317111 0.965472  
O 1.136551 -1.491699 -0.674360  
C -2.170226 -0.383238 0.349356  
H -0.001025 -1.594706 1.063749  
H -0.927392 -0.683924 -1.385310  
H -1.099761 1.903221 0.099456  
H -0.626101 1.657034 -1.584337  
H 1.668806 1.154834 -0.938689  
H 1.256418 2.401185 0.255062  
H 2.110671 0.048652 1.252818  
H 0.556061 0.638749 1.871213  
H 1.931529 -1.813364 -0.236692  
H -2.087964 0.016694 1.367149  
H -2.447586 -1.440216 0.417838  
H -2.982035 0.152539 -0.153399

COMP. 15\_E4\_B3LYP

C 0.225409 0.774193 0.312400  
C 0.523014 -0.590520 -0.328617  
C -0.726667 -1.407223 0.038470  
C -1.909750 -0.401448 -0.025337  
C -1.265560 1.009996 0.021709  
O 1.046436 1.819186 -0.223010  
C 1.853227 -1.211036 0.086691  
H 0.392355 0.697977 1.396177  
H 0.532985 -0.421578 -1.414114  
H -0.616429 -1.798428 1.056947

H -0.869672 -2.270217 -0.616347  
H -2.483386 -0.530827 -0.946053  
H -2.606620 -0.560531 0.800681  
H -1.335203 1.509436 -0.948586  
H -1.730398 1.671156 0.756705  
H 1.558007 2.220088 0.482650  
H 1.881177 -1.391330 1.167601  
H 2.687870 -0.553018 -0.170746  
H 2.019791 -2.169996 -0.412730

COMP. 15\_E4\_M06-2X

C 0.372571 -0.839764 0.314073  
C -0.844407 -0.243066 -0.427811  
C -0.502604 1.260786 -0.619293  
C 0.926453 1.440962 -0.077755  
C 1.020634 0.360066 1.002861  
O 1.301323 -1.373991 -0.634086  
C -2.142180 -0.442676 0.353394  
H 0.068761 -1.619661 1.019611  
H -0.920960 -0.748646 -1.392558  
H -1.198798 1.867882 -0.031209  
H -0.597999 1.577645 -1.658658  
H 1.659084 1.227451 -0.859395  
H 1.113850 2.447568 0.298712  
H 2.037270 0.138943 1.330298  
H 0.425324 0.647628 1.876790  
H 1.446254 -2.302289 -0.450769  
H -2.057562 -0.015854 1.358069  
H -2.391855 -1.501901 0.454740  
H -2.976752 0.055319 -0.145756

COMP. 16\_1T2A\_B3LYP

C -0.493922 -0.476331 0.398402  
C 0.762517 0.384014 0.638121  
C 1.876131 -0.669669 0.625888  
C 1.423452 -1.754645 -0.396280  
C -0.058640 -1.437766 -0.722511  
O -1.631484 0.322511 0.124807  
O 1.016828 1.294175 -0.426324  
C -2.850849 -0.396765 0.088086  
C 0.375706 2.558827 -0.316484  
H -0.677223 -1.050303 1.323439  
H 0.703803 0.934440 1.586094  
H 2.827367 -0.205320 0.364349  
H 1.981831 -1.100195 1.625725  
H 2.033585 -1.727491 -1.300414  
H 1.531991 -2.755306 0.028948  
H -0.141758 -0.908010 -1.674712  
H -0.676773 -2.336065 -0.778137  
H -0.710176 2.472990 -0.395936  
H 0.630736 3.042763 0.636956  
H 0.758654 3.170849 -1.134465  
H -3.649466 0.335158 -0.037588  
H -2.885294 -1.105349 -0.748495  
H -3.016400 -0.947638 1.025036

COMP. 16\_1T2A\_M06-2X

C -0.509221 -0.453555 0.453291  
C 0.772517 0.359688 0.663297  
C 1.831902 -0.736083 0.652360  
C 1.383641 -1.686893 -0.483891  
C -0.131043 -1.423390 -0.678616  
O -1.610135 0.380670 0.184690  
O 1.035430 1.210740 -0.433377  
C -2.817179 -0.328440 0.034230  
C 0.453358 2.495900 -0.338597  
H -0.703961 -1.018420 1.380227  
H 0.748484 0.939456 1.594322  
H 2.824446 -0.315314 0.494730  
H 1.827959 -1.252702 1.615735  
H 1.924909 -1.459087 -1.401967  
H 1.589988 -2.728381 -0.234507  
H -0.316144 -0.916040 -1.628243  
H -0.722050 -2.340095 -0.659452  
H -0.636607 2.445208 -0.336997  
H 0.794631 3.005609 0.571435

H 0.796066 3.059021 -1.206217  
H -3.614041 0.406178 -0.073998  
H -2.799705 -0.969606 -0.853981  
H -3.020175 -0.950464 0.915972

COMP. 16\_1T2A\_MP2

C -0.508189 -0.464279 0.436198  
C 0.762886 0.352655 0.675077  
C 1.827347 -0.736215 0.670751  
C 1.401749 -1.677418 -0.481741  
C -0.109400 -1.413116 -0.703080  
O -1.619117 0.381253 0.164963  
O 1.053887 1.214519 -0.424421  
C -2.839984 -0.344484 0.048643  
C 0.443124 2.505890 -0.337751  
H -0.717889 -1.040223 1.357789  
H 0.721657 0.932485 1.610115  
H 2.823544 -0.306091 0.533666  
H 1.815494 -1.262460 1.633639  
H 1.964206 -1.445916 -1.390534  
H 1.602366 -2.725514 -0.235973  
H -0.284296 -0.891432 -1.650117  
H -0.699406 -2.335594 -0.709557  
H -0.646035 2.440059 -0.388328  
H 0.741073 3.007627 0.593476  
H 0.826687 3.071891 -1.188598  
H -3.631907 0.398308 -0.058111  
H -2.835776 -1.000456 -0.830036  
H -3.023071 -0.947056 0.949653

COMP. 16\_1T2T\_MP2

C 0.736703 0.211140 0.426486  
C -0.734730 -0.130242 0.624853  
C -1.375419 1.252023 0.692109  
C -0.623179 2.059183 -0.397193  
C 0.693437 1.285122 -0.669578  
O 1.479653 -0.959569 0.131191  
O -1.196906 -0.807077 -0.547356  
C 2.874860 -0.701581 0.012143  
C -1.989944 -1.952411 -0.259430  
H 1.115426 0.649066 1.369825  
H -0.899508 -0.750127 1.516669  
H -2.454839 1.198078 0.518532  
H -1.217548 1.688345 1.687193  
H -1.221613 2.122359 -1.310331  
H -0.431365 3.085410 -0.066598  
H 0.657288 0.773753 -1.637533  
H 1.572168 1.938416 -0.660414  
H 3.357990 -1.671848 -0.111876  
H 3.094603 -0.073174 -0.859573  
H 3.264374 -0.213050 0.917277  
H -1.407823 -2.703479 0.289561  
H -2.883720 -1.686509 0.322509  
H -2.297772 -2.363472 -1.222273

COMP. 16\_1T2\_B3LYP

C 0.741473 0.200190 0.388099  
C -0.744403 -0.123437 0.598430  
C -1.373969 1.275121 0.668020  
C -0.559580 2.134462 -0.345075  
C 0.712471 1.309030 -0.682356  
O 1.476239 -0.964050 0.073867  
O -1.235442 -0.829178 -0.539826  
C 2.878200 -0.775102 0.057286  
C -2.030079 -1.959372 -0.240810  
H 1.121613 0.619818 1.335675  
H -0.902712 -0.716765 1.505162  
H -2.439054 1.234960 0.434055  
H -1.274821 1.674381 1.682448  
H -1.139116 2.332004 -1.248160  
H -0.305905 3.105203 0.087172  
H 0.618388 0.832702 -1.661152  
H 1.617490 1.919783 -0.686515  
H 3.329112 -1.753446 -0.112607  
H 3.193189 -0.097196 -0.746035  
H 3.241308 -0.377235 1.016488

H -1.466428 -2.705973 0.333428  
H -2.936434 -1.688496 0.319769  
H -2.327684 -2.399272 -1.193622

COMP. 16\_1T2\_M06-2X

C 0.736262 0.201349 0.436876  
C -0.742187 -0.129373 0.620585  
C -1.373704 1.259723 0.678500  
C -0.601839 2.062866 -0.400868  
C 0.711064 1.278393 -0.659456  
O 1.471560 -0.957602 0.148679  
O -1.195793 -0.807366 -0.536999  
C 2.849148 -0.715022 0.000977  
C -1.987668 -1.937458 -0.267867  
H 1.103433 0.642000 1.379128  
H -0.916787 -0.737223 1.514389  
H -2.446988 1.213261 0.490755  
H -1.222052 1.693258 1.670850  
H -1.186566 2.129315 -1.318099  
H -0.407239 3.082729 -0.066651  
H 0.672881 0.768195 -1.624652  
H 1.592490 1.920706 -0.642224  
H 3.335804 -1.680641 -0.129715  
H 3.057279 -0.090534 -0.875251  
H 3.263089 -0.222913 0.891635  
H -1.421235 -2.691728 0.290473  
H -2.888745 -1.672480 0.300774  
H -2.287953 -2.357077 -1.227338

COMP. 16\_2T1A\_B3LYP

C -0.341531 0.361616 0.565690  
C 0.665279 -0.758401 0.214590  
C -0.138363 -1.712301 -0.676821  
C -1.597572 -1.623635 -0.159192  
C -1.617858 -0.445738 0.855067  
O -0.471215 1.209386 -0.568571  
O 1.852334 -0.368323 -0.437620  
C -1.146811 2.424526 -0.313874  
C 2.715952 0.434013 0.343881  
H -0.023658 0.959211 1.431711  
H 0.921067 -1.256305 1.166129  
H -0.060944 -1.350655 -1.703970  
H 0.266265 -2.725541 -0.649248  
H -2.286910 -1.438818 -0.984824  
H -1.918081 -2.552378 0.318212  
H -2.517300 0.168550 0.779475  
H -1.577560 -0.819126 1.883562  
H -0.647204 3.000086 0.478895  
H -2.194560 2.269917 -0.024018  
H -1.122287 3.001614 -1.238904  
H 3.631507 0.569716 -0.232766  
H 2.964700 -0.054772 1.297426  
H 2.281442 1.419524 0.551808

COMP. 16\_2T1A\_M06-2X

C -0.272093 0.375047 0.580445  
C 0.572296 -0.864361 0.244892  
C -0.343606 -1.695361 -0.655382  
C -1.784472 -1.359467 -0.200620  
C -1.637323 -0.252324 0.869227  
O -0.288765 1.195870 -0.568300  
O 1.790503 -0.620269 -0.402770  
C -0.803058 2.483265 -0.334680  
C 2.646971 0.234116 0.314405  
H 0.121644 0.942244 1.435259  
H 0.760170 -1.388269 1.197254  
H -0.169080 -1.368412 -1.681375  
H -0.110114 -2.758290 -0.594782  
H -2.370225 -0.995124 -1.044859  
H -2.304929 -2.229299 0.201830  
H -2.446677 0.478758 0.845360  
H -1.621435 -0.683087 1.874552  
H -0.221689 3.003810 0.438069  
H -1.854289 2.459432 -0.024875  
H -0.725386 3.036153 -1.269886  
H 3.602846 0.245138 -0.207595

H 2.803780 -0.128092 1.339610  
H 2.249187 1.254748 0.350269

COMP. 16\_2T1A\_MP2

C -0.292394 0.361597 0.586321  
C 0.614095 -0.826920 0.240731  
C -0.259207 -1.699043 -0.661323  
C -1.713503 -1.440368 -0.198931  
C -1.615970 -0.341885 0.883971  
O -0.361974 1.182178 -0.577223  
O 1.824273 -0.520749 -0.426639  
C -0.963269 2.447850 -0.328818  
C 2.668992 0.342049 0.326375  
H 0.075071 0.957708 1.437759  
H 0.844894 -1.346811 1.190259  
H -0.100143 -1.362963 -1.690348  
H 0.030585 -2.752824 -0.604316  
H -2.323776 -1.094755 -1.038430  
H -2.190634 -2.344381 0.193722  
H -2.469028 0.344319 0.881034  
H -1.564842 -0.783191 1.888357  
H -0.415364 2.991220 0.454469  
H -2.014763 2.354243 -0.029195  
H -0.905616 3.004106 -1.265559  
H 3.614705 0.395225 -0.215162  
H 2.848545 -0.061068 1.333910  
H 2.239523 1.348070 0.404441

COMP. 16\_2T1S\_B3LYP

C 0.683566 -0.191024 0.614674  
C -0.790690 0.157764 0.376865  
C -0.727813 1.263795 -0.694634  
C 0.542345 2.076340 -0.326630  
C 1.335170 1.200411 0.689512  
O 1.154349 -0.930831 -0.506031  
O -1.548389 -0.988954 0.058874  
C 2.346270 -1.649392 -0.264253  
C -2.945429 -0.768191 0.037567  
H 0.816772 -0.783043 1.529285  
H -1.171486 0.590070 1.318592  
H -0.617656 0.786238 -1.671014  
H -1.626528 1.883352 -0.718006  
H 1.137403 2.285595 -1.216994  
H 0.286061 3.041967 0.115488  
H 2.402600 1.154797 0.466210  
H 1.238459 1.596936 1.705117  
H 2.214965 -2.374480 0.551107  
H 3.189898 -0.990685 -0.014781  
H 2.584401 -2.188630 -1.181798  
H -3.417396 -1.736892 -0.129997  
H -3.243524 -0.086377 -0.769022  
H -3.302157 -0.358788 0.994460

COMP. 16\_2T1S\_M06-2X

C 0.676984 -0.203585 0.640831  
C -0.789899 0.154140 0.424944  
C -0.728129 1.229653 -0.671126  
C 0.586600 1.997191 -0.381697  
C 1.326996 1.180368 0.708806  
O 1.117152 -0.913622 -0.498312  
O -1.550752 -0.984605 0.129571  
C 2.324443 -1.603565 -0.296286  
C -2.920560 -0.706366 -0.025214  
H 0.823813 -0.810591 1.542710  
H -1.158850 0.606725 1.361030  
H -0.677666 0.719817 -1.635795  
H -1.601607 1.882941 -0.670398  
H 1.190531 2.065230 -1.286416  
H 0.396184 3.016877 -0.044466  
H 2.404552 1.136112 0.546368  
H 1.163672 1.611184 1.700380  
H 2.221209 -2.349535 0.501556  
H 3.149531 -0.927114 -0.040656  
H 2.564839 -2.112678 -1.228703  
H -3.431112 -1.659692 -0.154590  
H -3.109238 -0.080009 -0.904593

H -3.325670 -0.200459 0.861956

COMP. 16\_2T1S\_MP2

C 0.674125 -0.195894 0.640447  
C -0.787306 0.166313 0.413474  
C -0.713741 1.238824 -0.681783  
C 0.599128 2.004136 -0.376522  
C 1.328497 1.182906 0.717603  
O 1.119712 -0.904641 -0.515108  
O -1.548637 -0.989135 0.111167  
C 2.317010 -1.636369 -0.282021  
C -2.938631 -0.705328 -0.007368  
H 0.813241 -0.814940 1.539918  
H -1.169216 0.613504 1.351238  
H -0.660421 0.728020 -1.649079  
H -1.588524 1.897384 -0.690567  
H 1.213927 2.079263 -1.277909  
H 0.403809 3.026510 -0.036106  
H 2.410853 1.133319 0.562236  
H 1.163709 1.613654 1.713897  
H 2.159626 -2.400743 0.491188  
H 3.145694 -0.982728 0.021930  
H 2.570259 -2.121101 -1.226042  
H -3.439107 -1.666689 -0.131561  
H -3.147896 -0.072707 -0.878757  
H -3.319044 -0.210068 0.898166

COMP. 16\_2T1T\_MP2

C 0.540783 -0.268974 0.591721  
C -0.806556 0.324654 0.187017  
C -0.410954 1.428012 -0.794520  
C 0.901091 2.002012 -0.210218  
C 1.365976 0.987476 0.871386  
O 1.045926 -0.971989 -0.541945  
O -1.696724 -0.633139 -0.370494  
C 2.072273 -1.895948 -0.202672  
C -2.948737 -0.700104 0.303912  
H 0.457476 -0.953288 1.450930  
H -1.254695 0.767204 1.092543  
H -0.244264 0.956493 -1.767669  
H -1.199108 2.179586 -0.911845  
H 1.656995 2.113235 -0.992896  
H 0.747760 2.993686 0.228899  
H 2.441238 0.786182 0.831880  
H 1.144229 1.357351 1.881196  
H 1.688848 -2.668858 0.477633  
H 2.933015 -1.399911 0.265814  
H 2.390553 -2.360102 -1.137311  
H -3.541738 -1.449804 -0.222300  
H -3.473679 0.264427 0.271694  
H -2.823490 -1.007947 1.351188

COMP. 16\_2T1\_B3LYP

C 0.559662 -0.265073 0.578657  
C -0.811465 0.316192 0.189030  
C -0.450926 1.456907 -0.775009  
C 0.857106 2.053556 -0.196350  
C 1.387640 1.006650 0.831545  
O 1.054647 -1.007101 -0.528871  
O -1.701171 -0.635932 -0.364691  
C 2.103528 -1.896927 -0.208139  
C -2.943356 -0.751385 0.302049  
H 0.492819 -0.918951 1.458850  
H -1.245824 0.737822 1.106972  
H -0.282797 1.018703 -1.760723  
H -1.254858 2.190575 -0.865471  
H 1.585819 2.234179 -0.988217  
H 0.678137 3.013943 0.293055  
H 2.457507 0.816553 0.727464  
H 1.224991 1.352015 1.857560  
H 1.783758 -2.635927 0.540180  
H 2.993592 -1.376749 0.172394  
H 2.370898 -2.418511 -1.127846  
H -3.520315 -1.507893 -0.231380  
H -3.504713 0.193306 0.289647  
H -2.819956 -1.074323 1.345313

## COMP. 16\_2T1\_M06-2X

C 0.536585 -0.279978 0.587600  
 C -0.812628 0.320471 0.185896  
 C -0.413835 1.430493 -0.789542  
 C 0.900141 1.999070 -0.205757  
 C 1.367427 0.975663 0.867187  
 O 1.035338 -0.985820 -0.528882  
 O -1.702130 -0.617282 -0.367522  
 C 2.081172 -1.869104 -0.213321  
 C -2.938276 -0.706064 0.297738  
 H 0.451212 -0.954779 1.449538  
 H -1.248491 0.764451 1.092605  
 H -0.242994 0.961944 -1.759927  
 H -1.197281 2.180826 -0.903398  
 H 1.650553 2.113397 -0.987816  
 H 0.750191 2.983040 0.241193  
 H 2.438126 0.773384 0.819700  
 H 1.150546 1.340310 1.874915  
 H 1.746783 -2.635963 0.496787  
 H 2.947016 -1.348593 0.214514  
 H 2.385840 -2.353055 -1.140348  
 H -3.534245 -1.450815 -0.228422  
 H -3.473204 0.251920 0.282709  
 H -2.813243 -1.024557 1.340365

## COMP. 16\_4EA\_B3LYP

C -0.143575 0.597553 0.440135  
 C -0.072875 -0.976629 0.321004  
 C -1.409537 -1.400393 -0.300355  
 C -2.392508 -0.295920 0.105396  
 C -1.558235 0.985398 -0.050055  
 O 0.906121 1.192241 -0.304386  
 O 0.985096 -1.483695 -0.461233  
 C 1.045345 2.582322 -0.079761  
 C 2.248365 -1.498602 0.183493  
 H -0.023911 0.879614 1.497423  
 H 0.010437 -1.385348 1.339717  
 H -1.281340 -1.413338 -1.387508  
 H -1.712451 -2.401788 0.011832  
 H -3.298977 -0.285664 -0.503828  
 H -2.706097 -0.425053 1.147907  
 H -1.484813 1.249395 -1.110701  
 H -1.980221 1.841877 0.480997  
 H 1.207169 2.800929 0.986117  
 H 0.168572 3.146325 -0.422920  
 H 1.917090 2.910899 -0.646787  
 H 2.205899 -2.079162 1.116761  
 H 2.602540 -0.486325 0.399032  
 H 2.944496 -1.983101 -0.502221

## COMP. 16\_4EA\_M06-2X

C -0.153014 0.583559 0.444983  
 C -0.048329 -0.979888 0.337778  
 C -1.386171 -1.434986 -0.250352  
 C -2.366664 -0.317670 0.108410  
 C -1.532376 0.942824 -0.132955  
 O 0.924511 1.190417 -0.226497  
 O 0.993104 -1.443002 -0.478382  
 C 0.943566 2.589091 -0.076373  
 C 2.257539 -1.436285 0.147343  
 H -0.115880 0.871646 1.507005  
 H 0.080122 -1.389212 1.350210  
 H -1.260021 -1.485979 -1.335853  
 H -1.682048 -2.422634 0.104072  
 H -3.281262 -0.343484 -0.484878  
 H -2.654775 -0.384260 1.162990  
 H -1.413217 1.104565 -1.209931  
 H -1.965364 1.843508 0.305662  
 H 0.965382 2.872800 0.984512  
 H 0.072499 3.059025 -0.547371  
 H 1.847154 2.954120 -0.562914  
 H 2.251843 -2.081853 1.035633  
 H 2.556560 -0.424461 0.431040  
 H 2.970780 -1.832974 -0.574150

## COMP. 16\_4EA\_MP2

C -0.162214 0.581965 0.447045  
 C -0.046912 -0.978082 0.333335  
 C -1.369366 -1.439515 -0.278014  
 C -2.367650 -0.349950 0.113501  
 C -1.556667 0.931451 -0.098112  
 O 0.905636 1.195612 -0.264660  
 O 1.014267 -1.446543 -0.479704  
 C 0.928632 2.607234 -0.078314  
 C 2.283861 -1.411958 0.172522  
 H -0.090111 0.876622 1.509484  
 H 0.070611 -1.397010 1.347688  
 H -1.238621 -1.459475 -1.367286  
 H -1.647360 -2.447066 0.047072  
 H -3.287060 -0.374814 -0.480728  
 H -2.657865 -0.451381 1.168148  
 H -1.456456 1.132567 -1.173241  
 H -1.999762 1.814565 0.374982  
 H 0.989726 2.860932 0.990139  
 H 0.042463 3.088072 -0.510812  
 H 1.820376 2.970799 -0.591067  
 H 2.261232 -2.021488 1.087525  
 H 2.579166 -0.386712 0.412755  
 H 2.996342 -1.845037 -0.531521

## COMP. 16\_4ES\_B3LYP

C 0.786036 0.021319 0.428359  
 C -0.786037 0.021319 0.428357  
 C -1.202034 1.366398 -0.209321  
 C 0.000000 2.291352 0.026502  
 C 1.202034 1.366398 -0.209319  
 O 1.292860 -1.116134 -0.236891  
 H 1.124280 -0.006841 1.475764  
 O -1.292860 -1.116134 -0.236893  
 H -1.124282 -0.006841 1.475763  
 H -1.339542 1.202194 -1.283756  
 H -2.136752 1.762580 0.193870  
 H 0.000000 3.164492 -0.629857  
 H -0.000001 2.663696 1.057603  
 H 1.339544 1.202194 -1.283754  
 H 2.136751 1.762580 0.193873  
 C 2.675134 -1.324953 -0.027546  
 H 2.909613 -1.403319 1.044462  
 H 3.288675 -0.524169 -0.461875  
 H 2.930673 -2.266104 -0.515643  
 C -2.675134 -1.324953 -0.027550  
 H -3.288674 -0.524169 -0.461879  
 H -2.909614 -1.403319 1.044458  
 H -2.930672 -2.266104 -0.515647

## COMP. 16\_4ES\_M06-2X

C -0.455149 0.001593 0.780869  
 C -0.455149 0.001593 -0.780869  
 C 0.200271 1.332015 -1.194011  
 C -0.052923 2.254465 0.000000  
 C 0.200271 1.332015 1.194011  
 O 0.200271 -1.134633 1.276849  
 H -1.499652 -0.012947 1.127994  
 O 0.200271 -1.134633 -1.276849  
 H -1.499652 -0.012947 -1.127994  
 H 1.275896 1.155337 -1.302862  
 H -0.181157 1.726473 -2.137209  
 H 0.584448 3.139393 0.000000  
 H -1.093106 2.597297 0.000000  
 H 1.275896 1.155337 1.302862  
 H -0.181157 1.726473 2.137209  
 C 0.091006 -1.254062 2.672901  
 H -0.961465 -1.267394 2.987643  
 H 0.602329 -0.436052 3.194921  
 H 0.558221 -2.197363 2.952464  
 C 0.091006 -1.254062 -2.672901  
 H 0.602329 -0.436052 -3.194921  
 H -0.961465 -1.267394 -2.987643  
 H 0.558221 -2.197363 -2.952464

## COMP. 16\_4ES\_MP2



C 0.780241 0.017768 0.448652  
C -0.780241 0.017768 0.448652  
C -1.193740 1.338853 -0.220537  
C 0.000000 2.264125 0.023484  
C 1.193740 1.338853 -0.220537  
O 1.273633 -1.139949 -0.204769  
H 1.132533 0.005862 1.495477  
O -1.273633 -1.139949 -0.204769  
H -1.132534 0.005862 1.495477  
H -1.306857 1.150625 -1.296666  
H -2.141016 1.737668 0.157978  
H 0.000000 3.144807 -0.627356  
H 0.000000 2.625544 1.060885  
H 1.306857 1.150625 -1.296665  
H 2.141016 1.737668 0.157979  
C 2.682565 -1.270705 -0.052950  
H 2.963299 -1.277439 1.010571  
H 3.226249 -0.464088 -0.561646  
H 2.951400 -2.226085 -0.505772  
C -2.682565 -1.270704 -0.052950  
H -3.226249 -0.464088 -0.561646  
H -2.963299 -1.277438 1.010571  
H -2.951400 -2.226085 -0.505772

COMP. 16\_E4A\_B3LYP

C -0.344941 -0.525866 0.578569  
C 0.744292 0.619586 0.522743  
C 2.052691 -0.088671 0.124322  
C 1.610076 -1.350150 -0.628540  
C 0.407813 -1.823408 0.199690  
O -1.395278 -0.222486 -0.330746  
O 0.479881 1.624622 -0.437724  
C -0.457956 2.607078 -0.032424  
C -2.582643 -0.954375 -0.097305  
H -0.767501 -0.594498 1.590815  
H 0.830171 1.090961 1.511908  
H 2.682855 0.585438 -0.457310  
H 2.605631 -0.372643 1.026683  
H 1.291036 -1.089999 -1.641984  
H 2.398089 -2.102989 -0.707200  
H -0.241202 -2.526723 -0.326857  
H 0.759088 -2.323309 1.110000  
H -0.138317 3.090505 0.902728  
H -1.457678 2.183706 0.099185  
H -0.488082 3.356570 -0.824429  
H -2.973763 -0.769223 0.913867  
H -2.438228 -2.035594 -0.221300  
H -3.314915 -0.614452 -0.830677

COMP. 16\_E4A\_M06-2X

C -0.364721 -0.509589 0.583306  
C 0.766266 0.582989 0.542979  
C 2.040101 -0.182093 0.167471  
C 1.531221 -1.364317 -0.658436  
C 0.325702 -1.823428 0.164895  
O -1.389710 -0.149800 -0.319678  
O 0.550522 1.564167 -0.440520  
C -0.348729 2.577394 -0.051766  
C -2.598187 -0.828482 -0.082599  
H -0.790561 -0.582111 1.593037  
H 0.857078 1.071097 1.522441  
H 2.732226 0.476159 -0.357188  
H 2.530834 -0.552073 1.073358  
H 1.200040 -1.012774 -1.639176  
H 2.277344 -2.146764 -0.803620  
H -0.357945 -2.477650 -0.378739  
H 0.670683 -2.362733 1.053055  
H 0.025766 3.104795 0.835903  
H -1.343179 2.174211 0.154265  
H -0.412611 3.281025 -0.881042  
H -2.987470 -0.602146 0.918912  
H -2.486003 -1.915226 -0.174626  
H -3.312620 -0.485593 -0.830099

COMP. 16\_E4A\_MP2

C -0.331656 -0.531349 0.587203

C 0.737025 0.618406 0.544615  
C 2.047000 -0.073294 0.154728  
C 1.599987 -1.289499 -0.656962  
C 0.427860 -1.806644 0.179013  
O -1.374907 -0.223229 -0.336569  
O 0.470875 1.602105 -0.445321  
C -0.498691 2.566267 -0.039585  
C -2.559567 -0.970418 -0.083214  
H -0.766835 -0.616407 1.596872  
H 0.806149 1.112875 1.527662  
H 2.695831 0.625642 -0.381208  
H 2.575583 -0.409034 1.057543  
H 1.249731 -0.973901 -1.646457  
H 2.391650 -2.034159 -0.794597  
H -0.224133 -2.509921 -0.349708  
H 0.811020 -2.318340 1.073222  
H -0.163304 3.085778 0.870046  
H -1.474927 2.104293 0.132355  
H -0.571357 3.283840 -0.858702  
H -2.952702 -0.750341 0.919869  
H -2.390951 -2.051515 -0.169745  
H -3.285248 -0.660627 -0.836822

COMP. 16\_E4S\_B3LYP

C 0.786924 0.008029 0.563903  
C -0.786924 0.008028 0.563903  
C -1.195917 1.444423 0.155441  
C -0.000001 1.975125 -0.645801  
C 1.195917 1.444423 0.155440  
O 1.274178 -0.971301 -0.335907  
O -1.274178 -0.971300 -0.335908  
C -2.615385 -1.344649 -0.097401  
C 2.615386 -1.344648 -0.097400  
H 1.148776 -0.232085 1.573450  
H -1.148776 -0.232086 1.573450  
H -2.136009 1.448645 -0.400154  
H -1.342752 2.057953 1.052150  
H -0.000001 1.541560 -1.650214  
H -0.000001 3.062896 -0.749319  
H 2.136008 1.448645 -0.400157  
H 1.342753 2.057953 1.052149  
H -3.316048 -0.509136 -0.233627  
H -2.743471 -1.743780 0.919488  
H -2.859377 -2.125620 -0.818530  
H 2.743472 -1.743779 0.919488  
H 3.316048 -0.509134 -0.233626  
H 2.859378 -2.125618 -0.818530

COMP. 16\_E4S\_M06-2X

C 0.782833 0.004022 0.578229  
C -0.782833 0.004022 0.578229  
C -1.187077 1.432020 0.160975  
C 0.000000 1.918285 -0.671755  
C 1.187077 1.432020 0.160975  
O 1.257764 -0.959581 -0.330674  
O -1.257764 -0.959581 -0.330674  
C -2.597792 -1.314935 -0.104551  
C 2.597792 -1.314935 -0.104551  
H 1.153338 -0.240920 1.582585  
H -1.153338 -0.240920 1.582585  
H -2.136639 1.435795 -0.376314  
H -1.299627 2.064867 1.047465  
H 0.000000 1.414081 -1.641980  
H 0.000000 2.996051 -0.840502  
H 2.136639 1.435795 -0.376314  
H 1.299627 2.064867 1.047465  
H -3.278625 -0.460997 -0.209539  
H -2.727761 -1.742665 0.898316  
H -2.860293 -2.065990 -0.848535  
H 2.727761 -1.742665 0.898316  
H 3.278625 -0.460997 -0.209539  
H 2.860293 -2.065990 -0.848535

COMP. 16\_E4S\_MP2

C 0.781853 0.011835 0.578591  
C -0.781853 0.011834 0.578591

C -1.186422 1.437076 0.160437  
C 0.000000 1.925845 -0.671183  
C 1.186421 1.437076 0.160437  
O 1.254505 -0.962484 -0.343763  
O -1.254505 -0.962484 -0.343763  
C -2.606576 -1.326248 -0.094306  
C 2.606576 -1.326248 -0.094306  
H 1.155106 -0.242511 1.584286  
H -1.155106 -0.242511 1.584286  
H -2.141430 1.440443 -0.374863  
H -1.301173 2.074588 1.048633  
H 0.000000 1.434293 -1.651082  
H 0.000000 3.009732 -0.830792  
H 2.141430 1.440443 -0.374864  
H 1.301173 2.074588 1.048633  
H -3.292693 -0.475273 -0.201377  
H -2.715931 -1.747535 0.915300  
H -2.860156 -2.085363 -0.835718  
H 2.715931 -1.747535 0.915300  
H 3.292693 -0.475273 -0.201377  
H 2.860156 -2.085363 -0.835718

COMP. 17\_1T2A\_B3LYPT

C 0.466197 -0.218634 0.410584  
C -0.850230 0.295833 -0.276280  
C -0.750131 1.823399 -0.219901  
C 0.763810 2.005891 -0.383415  
C 1.240221 1.073089 0.742872  
O 1.129633 -1.037309 -0.558497  
O -2.063123 -0.156699 0.293205  
C 2.257965 -1.733702 -0.064332  
C -2.345590 -1.518625 0.020865  
H 0.259649 -0.819343 1.305622  
H -0.775115 -0.037067 -1.321232  
H -1.398005 2.339091 -0.929962  
H -1.039298 2.139332 0.788657  
H 1.063503 1.558264 -1.339918  
H 1.143804 3.028318 -0.368921  
H 2.316244 0.961339 0.888562  
H 0.828515 1.448474 1.687710  
H 2.587186 -2.405783 -0.857512  
H 3.085304 -1.060672 0.193449  
H 2.001182 -2.328170 0.824394  
H -2.580644 -1.669220 -1.041642  
H -1.506083 -2.173460 0.286860  
H -3.211768 -1.792544 0.623911

COMP. 17\_1T2A\_M06-2X

C 0.472137 -0.279792 -0.245508  
C -0.867660 0.254814 0.260557  
C -1.850549 -0.864535 -0.078203  
C -1.035219 -2.178775 -0.013118  
C 0.439110 -1.753332 0.173077  
O 1.538441 0.459703 0.308040  
O -1.304787 1.451267 -0.333161  
C 2.801169 0.064226 -0.174070  
C -0.628838 2.610622 0.110711  
H 0.487258 -0.184963 -1.343826  
H -0.775374 0.390429 1.350124  
H -2.713440 -0.858393 0.587195  
H -2.217810 -0.677341 -1.089948  
H -1.360617 -2.820168 0.806334  
H -1.161671 -2.752973 -0.931914  
H 0.729815 -1.802610 1.227459  
H 1.131186 -2.378940 -0.391971  
H 3.535996 0.756191 0.235353  
H 3.054960 -0.952964 0.145030  
H 2.836405 0.110282 -1.270188  
H -0.657723 2.682698 1.204827  
H 0.415328 2.618573 -0.209865  
H -1.154450 3.463046 -0.318326

COMP. 17\_1T2A\_MP2

C 0.409711 -0.339772 0.366667  
C -0.824429 0.189405 -0.423794  
C -0.633856 1.713661 -0.500993

C 0.852272 1.867528 -0.168563  
C 0.898602 0.932592 1.041798  
O 1.314443 -0.841737 -0.633827  
O -2.069257 -0.068951 0.230469  
C 2.432760 -1.529278 -0.081036  
C -2.479871 -1.426332 0.098277  
H 0.190358 -1.163725 1.061677  
H -0.826574 -0.284410 -1.417090  
H -0.959105 2.145088 -1.452723  
H -1.252174 2.151526 0.292743  
H 1.464756 1.450876 -0.978044  
H 1.197859 2.892956 -0.003006  
H 1.811452 0.875155 1.643922  
H 0.103564 1.237142 1.739862  
H 3.054836 -1.831012 -0.924974  
H 3.019910 -0.889608 0.587975  
H 2.105327 -2.422530 0.469815  
H -2.643246 -1.682282 -0.957300  
H -1.742375 -2.120863 0.521519  
H -3.417219 -1.519632 0.648345

COMP. 17\_1T2S\_M06-2X

C 0.000000 0.759755 -0.041213  
C 0.000000 -0.759755 -0.041213  
C 0.519540 -1.123443 1.355546  
C 0.000000 0.000000 2.285813  
C -0.519540 1.123443 1.355546  
O -0.791950 1.237576 -1.099070  
O 0.791950 -1.237576 -1.099070  
C -0.694067 2.629095 -1.280272  
C 0.694067 -2.629095 -1.280272  
H 1.040719 1.096112 -0.174172  
H -1.040719 -1.096112 -0.174172  
H 0.204765 -2.115069 1.682348  
H 1.612715 -1.119888 1.311290  
H -0.798024 -0.358869 2.936573  
H 0.798024 0.358869 2.936573  
H -1.612715 1.119888 1.311290  
H -0.204765 2.115069 1.682348  
H -1.283416 2.883275 -2.160181  
H -1.088049 3.179596 -0.417345  
H 0.347510 2.931707 -1.447758  
H 1.088049 -3.179596 -0.417345  
H -0.347510 -2.931707 -1.447758  
H 1.283416 -2.883275 -2.160181

COMP. 17\_1T2S\_MP2

C 0.724224 -0.022198 0.226316  
C -0.724224 -0.022198 -0.226316  
C -1.225988 1.371666 0.165962  
C 0.000000 2.303195 0.000001  
C 1.225988 1.371666 -0.165963  
O 1.412926 -1.094907 -0.400396  
O -1.412926 -1.094906 0.400396  
C 2.704504 -1.315967 0.156810  
C -2.704504 -1.315967 -0.156809  
H 0.739808 -0.163738 1.321710  
H -0.739808 -0.163738 -1.321710  
H -2.086060 1.701009 -0.425604  
H -1.547599 1.321468 1.213792  
H -0.109722 2.957818 -0.870417  
H 0.109722 2.957816 0.870420  
H 1.547597 1.321468 -1.213793  
H 2.086061 1.701009 0.425602  
H 3.110991 -2.194751 -0.345747  
H 3.371556 -0.460895 -0.012978  
H 2.634472 -1.512247 1.235679  
H -3.371556 -0.460895 0.012978  
H -2.634472 -1.512248 -1.235678  
H -3.110992 -2.194751 0.345748

COMP. 17\_1TS\_B3LYPT

C -0.731775 -0.011201 -0.218794  
C 0.731774 -0.011199 0.218799  
C 1.232860 1.398071 -0.150056  
C 0.000000 2.330578 -0.000032

C -1.232855 1.398075 0.150043  
O -1.425525 -1.067956 0.420624  
O 1.425522 -1.067965 -0.420605  
C -2.678428 -1.376286 -0.160111  
C 2.678426 -1.376285 0.160132  
H -0.756767 -0.163922 -1.308945  
H 0.756765 -0.163907 1.308951  
H 2.076959 1.720223 0.462663  
H 1.575727 1.369943 -1.188824  
H 0.095346 2.984051 0.869646  
H -0.095350 2.984000 -0.869748  
H -1.575696 1.369968 1.188820  
H -2.076970 1.720214 -0.462662  
H -3.074083 -2.239646 0.375921  
H -3.392482 -0.546821 -0.069120  
H -2.571301 -1.635401 -1.222622  
H 3.392481 -0.546822 0.069126  
H 2.571302 -1.635383 1.222648  
H 3.074080 -2.239654 -0.375887

COMP. 17\_2EA\_B3LYP

C 0.519180 -0.334973 0.271360  
C -0.728936 -0.096618 -0.603250  
C -0.609982 1.375526 -0.990252  
C -0.100217 2.071438 0.290120  
C 0.687953 0.979833 1.069790  
O -1.924136 -0.259944 0.161299  
O 1.601631 -0.581160 -0.628274  
C 2.758795 -1.115970 -0.016008  
C -2.360558 -1.600705 0.286630  
H 0.394848 -1.206363 0.927202  
H -0.737341 -0.772912 -1.466203  
H 0.126866 1.459942 -1.793244  
H -1.560601 1.771463 -1.352122  
H -0.943479 2.423373 0.887502  
H 0.518307 2.941383 0.060009  
H 1.747375 1.227123 1.166965  
H 0.293319 0.861441 2.081370  
H 2.538960 -2.070244 0.483756  
H 3.196264 -0.429177 0.720336  
H 3.487916 -1.289519 -0.808248  
H -1.638077 -2.228764 0.824367  
H -2.548679 -2.050212 -0.698110  
H -3.293045 -1.579891 0.851879

COMP. 17\_2EA\_MP2

C -0.547953 -0.254497 -0.252847  
C 0.726684 -0.107938 0.592681  
C 0.755682 1.365252 0.963984  
C 0.340001 2.049306 -0.341784  
C -0.777312 1.137493 -0.890719  
O 1.884644 -0.361419 -0.213447  
O -1.596321 -0.626621 0.650294  
C -2.782818 -1.025843 -0.027772  
C 2.192247 -1.748779 -0.314883  
H -0.430986 -1.046695 -1.008555  
H 0.707047 -0.788568 1.456178  
H 0.011154 1.546042 1.749727  
H 1.739875 1.669233 1.334105  
H 1.190658 2.071249 -1.030137  
H 0.000517 3.080809 -0.198189  
H -1.759598 1.504761 -0.571754  
H -0.779831 1.097735 -1.985399  
H -2.582699 -1.883475 -0.685473  
H -3.206231 -0.208643 -0.625369  
H -3.497815 -1.316197 0.743322  
H 1.372210 -2.319025 -0.770148  
H 2.413374 -2.170606 0.674634  
H 3.076558 -1.822256 -0.949672

COMP. 17\_2T1A\_B3LYP

C 0.486369 -0.205280 0.347561  
C -0.841471 0.241546 -0.332941  
C -0.838373 1.776504 -0.314462  
C 0.646254 2.156616 -0.228854  
C 1.209101 1.101645 0.738133

O 1.214908 -0.982297 -0.607635  
O -2.012724 -0.232200 0.318315  
C 2.284740 -1.727469 -0.058307  
C -2.293844 -1.599979 0.079404  
H 0.270778 -0.829328 1.224857  
H -0.815942 -0.139145 -1.362950  
H -1.356514 2.201011 -1.176513  
H -1.367454 2.104413 0.586434  
H 1.123702 2.058747 -1.209272  
H 0.806055 3.181640 0.113436  
H 2.296172 1.003866 0.699386  
H 0.942164 1.365888 1.767220  
H 1.929425 -2.418142 0.719938  
H 3.062724 -1.085547 0.374669  
H 2.722396 -2.305128 -0.873307  
H -2.418060 -1.798260 -0.993848  
H -3.226099 -1.827812 0.597383  
H -1.503482 -2.257731 0.463917

COMP. 17\_2T1S\_B3LYP

C 0.665127 -0.391534 0.381436  
C -0.665132 -0.391528 -0.381439  
C -0.712717 1.009198 -1.014585  
C 0.000011 1.944867 0.000002  
C 0.712723 1.009187 1.014589  
O 1.688612 -0.589804 -0.595807  
O -1.688617 -0.589798 0.595804  
C 2.953771 -0.916140 -0.054075  
C -2.953777 -0.916135 0.054075  
H 0.694716 -1.200204 1.121533  
H -0.694726 -1.200193 -1.121541  
H -0.166573 0.981343 -1.960386  
H -1.734709 1.322966 -1.237624  
H 0.712423 2.594808 -0.511817  
H -0.712388 2.594822 0.511821  
H 1.734717 1.322945 1.237637  
H 0.166572 0.981330 1.960386  
H 2.903677 -1.834552 0.547531  
H 3.360518 -0.110530 0.570772  
H 3.627779 -1.079169 -0.895822  
H -3.627784 -1.079163 0.895824  
H -2.903684 -1.834547 -0.547530  
H -3.360527 -0.110525 -0.570772

COMP. 17\_2T1S\_M06-2X

C -0.660327 -0.422508 -0.382194  
C 0.660309 -0.422532 0.382194  
C 0.670371 0.961467 1.038444  
C 0.000056 1.895035 -0.000002  
C -0.670366 0.961506 -1.038417  
O -1.680121 -0.561858 0.591824  
O 1.680098 -0.561880 -0.591830  
C -2.944204 -0.851995 0.047482  
C 2.944185 -0.852019 -0.047497  
H -0.705729 -1.248272 -1.102126  
H 0.705695 -1.248313 1.102108  
H 0.075787 0.914094 1.952215  
H 1.677390 1.280966 1.310530  
H -0.732688 2.541686 0.483590  
H 0.732884 2.541573 -0.483620  
H -1.677392 1.281049 -1.310426  
H -0.075849 0.914129 -1.952231  
H -2.918822 -1.786332 -0.527220  
H -3.305957 -0.048794 -0.604394  
H -3.636025 -0.965202 0.881152  
H 3.635994 -0.965246 -0.881174  
H 2.918801 -1.786346 0.527219  
H 3.305953 -0.048811 0.604361

COMP. 17\_2T1S\_MP2

C 0.656439 -0.413605 0.386193  
C -0.656440 -0.413604 -0.386193  
C -0.667129 0.967732 -1.041210  
C 0.000003 1.899623 0.000000  
C 0.667130 0.967729 1.041211  
O 1.685030 -0.546501 -0.602696

O -1.685031 -0.546500 0.602696  
C 2.950888 -0.877420 -0.040586  
C -2.950889 -0.877418 0.040585  
H 0.708410 -1.247809 1.101480  
H -0.708412 -1.247807 -1.101481  
H -0.075543 0.924413 -1.961963  
H -1.679028 1.286932 -1.312191  
H 0.737343 2.549264 -0.481558  
H -0.737332 2.549271 0.481556  
H 1.679028 1.286927 1.312196  
H 0.075540 0.924411 1.961962  
H 2.897669 -1.831058 0.502012  
H 3.311594 -0.096806 0.640601  
H 3.644026 -0.972049 -0.877730  
H -3.644028 -0.972046 0.877728  
H -2.897670 -1.831057 -0.502011  
H -3.311594 -0.096805 -0.640603

COMP. 17\_2T1TS\_MP2

C 0.563801 -0.399846 0.347758  
C -0.727039 -0.183392 -0.457240  
C -0.570294 1.239336 -1.010196  
C 0.211438 2.020987 0.081409  
C 0.754879 0.947494 1.065054  
O 1.595172 -0.672122 -0.603462  
O -1.833843 -0.245482 0.451378  
C 2.792741 -1.170120 -0.038963  
C -2.824295 -1.198238 0.114543  
H 0.465911 -1.245176 1.040723  
H -0.832228 -0.938832 -1.241163  
H 0.008398 1.195417 -1.935773  
H -1.543659 1.677428 -1.239015  
H 1.022327 2.600026 -0.364828  
H -0.435414 2.727615 0.604729  
H 1.795237 1.117012 1.350556  
H 0.162532 0.937063 1.983118  
H 2.613269 -2.101729 0.516150  
H 3.268018 -0.446955 0.636192  
H 3.473470 -1.375294 -0.865989  
H -3.596254 -1.140973 0.883214  
H -2.419008 -2.219228 0.095864  
H -3.280614 -0.982867 -0.861287

COMP. 17\_2T1\_B3LYP

C 0.563801 -0.399846 0.347758  
C -0.727039 -0.183392 -0.457240  
C -0.570294 1.239336 -1.010196  
C 0.211438 2.020987 0.081409  
C 0.754879 0.947494 1.065054  
O 1.595172 -0.672122 -0.603462  
O -1.833843 -0.245482 0.451378  
C 2.792741 -1.170120 -0.038963  
C -2.824295 -1.198238 0.114543  
H 0.465911 -1.245176 1.040723  
H -0.832228 -0.938832 -1.241163  
H 0.008398 1.195417 -1.935773  
H -1.543659 1.677428 -1.239015  
H 1.022327 2.600026 -0.364828  
H -0.435414 2.727615 0.604729  
H 1.795237 1.117012 1.350556  
H 0.162532 0.937063 1.983118  
H 2.613269 -2.101729 0.516150  
H 3.268018 -0.446955 0.636192  
H 3.473470 -1.375294 -0.865989  
H -3.596254 -1.140973 0.883214  
H -2.419008 -2.219228 0.095864  
H -3.280614 -0.982867 -0.861287

COMP. 17\_2T3A\_B3LYPT

C 0.455871 -0.257202 0.359694  
C -0.839650 0.208614 -0.368934  
C -0.773234 1.745112 -0.425879  
C 0.703513 2.092556 -0.182039  
C 1.129533 1.037663 0.851005  
O -2.036890 -0.175219 0.298150  
O 1.247908 -0.953553 -0.606649

C 2.371980 -1.657611 -0.093310  
C -2.395643 -1.531923 0.106144  
H 0.208864 -0.934333 1.186802  
H -0.823489 -0.231633 -1.374005  
H -1.170763 2.141985 -1.361940  
H -1.392937 2.133327 0.388625  
H 0.847268 3.118305 0.165213  
H 1.284747 1.970018 -1.101270  
H 2.211463 0.931273 0.959949  
H 0.723912 1.299253 1.834947  
H 2.492725 -1.510819 0.984812  
H 3.282405 -1.313097 -0.593178  
H 2.249260 -2.728652 -0.287008  
H -1.641325 -2.220983 0.508240  
H -2.538964 -1.757404 -0.959403  
H -3.335526 -1.690320 0.636125

COMP. 17\_3ETS\_B3LYP

C 0.651055 -0.110277 0.339085  
C -0.786127 0.179151 -0.137302  
C -0.965791 1.691575 0.035877  
C 0.409538 2.247628 -0.357947  
C 1.403531 1.247640 0.277476  
O 1.201737 -1.124288 -0.499281  
O -1.747107 -0.583855 0.583211  
C 2.359154 -1.742846 0.030180  
C -2.584269 -1.405899 -0.211913  
H 0.602214 -0.490628 1.367576  
H -0.826754 -0.080139 -1.202576  
H -1.791178 2.087953 -0.559959  
H -1.183980 1.900460 1.089046  
H 0.514606 2.242370 -1.448035  
H 0.570328 3.275055 -0.024135  
H 2.331420 1.159174 -0.291827  
H 1.671305 1.573882 1.286600  
H 2.150004 -2.210620 1.002370  
H 3.187625 -1.032577 0.154247  
H 2.662679 -2.514340 -0.678456  
H -3.183555 -0.814452 -0.917615  
H -3.259540 -1.923129 0.471104  
H -2.004756 -2.149703 -0.772512

COMP. 17\_3ETS\_MP2

C 0.648438 -0.103208 0.340358  
C -0.780227 0.183546 -0.125198  
C -0.959836 1.684937 0.071543  
C 0.398337 2.232557 -0.373402  
C 1.403099 1.243079 0.250604  
O 1.180287 -1.127167 -0.505489  
O -1.728069 -0.599238 0.599358  
C 2.346652 -1.732005 0.043730  
C -2.567732 -1.392537 -0.236579  
H 0.605422 -0.482645 1.373310  
H -0.830251 -0.064669 -1.196682  
H -1.810877 2.085609 -0.489555  
H -1.134815 1.881784 1.137617  
H 0.468732 2.205220 -1.468232  
H 0.574000 3.267667 -0.062341  
H 2.320660 1.140755 -0.338594  
H 1.692559 1.584473 1.251826  
H 2.122519 -2.194558 1.014642  
H 3.158295 -1.003765 0.171695  
H 2.661249 -2.500640 -0.663758  
H -3.162052 -0.764640 -0.913856  
H -3.238953 -1.935912 0.430528  
H -1.976621 -2.105652 -0.823887

COMP. 17\_3T4A\_M06-2X

C 0.506459 -0.083079 0.326733  
C -0.884079 0.196522 -0.285214  
C -1.113156 1.693423 -0.117876  
C 0.294068 2.269877 -0.284065  
C 1.153638 1.302013 0.543703  
O 1.227320 -0.901377 -0.579340  
O -1.928639 -0.534713 0.311043  
C 2.352305 -1.514468 0.001046

C -1.860323 -1.913943 0.028877  
H 0.382653 -0.621674 1.276634  
H -0.814458 -0.059552 -1.353357  
H -1.845184 2.082004 -0.826163  
H -1.485656 1.875910 0.895341  
H 0.591337 2.226533 -1.336269  
H 0.379867 3.306184 0.044484  
H 2.206067 1.303102 0.254803  
H 1.097694 1.575177 1.600905  
H 2.055774 -2.171939 0.829113  
H 3.070391 -0.778076 0.380878  
H 2.834423 -2.109977 -0.773100  
H -1.899043 -2.095233 -1.052200  
H -2.718395 -2.383972 0.507429  
H -0.938387 -2.361833 0.418663

COMP. 17\_4EA\_B3LYP

C -0.560945 0.008514 -0.195063  
C 0.829027 -0.076376 0.499033  
C 1.320784 1.373741 0.633354  
C 0.527269 2.164118 -0.420142  
C -0.863357 1.514552 -0.356958  
O -1.514535 -0.710514 0.579264  
O 1.781530 -0.800988 -0.278365  
C -2.774954 -0.857669 -0.048339  
C 1.573327 -2.201956 -0.282855  
H -0.476946 -0.459929 -1.187194  
H 0.709252 -0.569077 1.472037  
H 1.077488 1.746310 1.633513  
H 2.403426 1.426614 0.510197  
H 0.503663 3.239046 -0.226128  
H 0.969851 2.019409 -1.411114  
H -1.397667 1.858621 0.536227  
H -1.485122 1.737407 -1.227277  
H -2.677549 -1.349905 -1.026814  
H -3.280868 0.105828 -0.189719  
H -3.385467 -1.482833 0.604113  
H 0.615011 -2.478736 -0.740902  
H 1.598354 -2.608986 0.737334  
H 2.383706 -2.641298 -0.865649

COMP. 17\_4EA\_B3LYPF

C -0.560945 0.008514 -0.195063  
C 0.829027 -0.076376 0.499033  
C 1.320784 1.373741 0.633354  
C 0.527269 2.164118 -0.420142  
C -0.863357 1.514552 -0.356958  
O -1.514535 -0.710514 0.579264  
O 1.781530 -0.800988 -0.278365  
C -2.774954 -0.857669 -0.048339  
C 1.573327 -2.201956 -0.282855  
H -0.476946 -0.459929 -1.187194  
H 0.709252 -0.569077 1.472037  
H 1.077488 1.746310 1.633513  
H 2.403426 1.426614 0.510197  
H 0.503663 3.239046 -0.226128  
H 0.969851 2.019409 -1.411114  
H -1.397667 1.858621 0.536227  
H -1.485122 1.737407 -1.227277  
H -2.677549 -1.349905 -1.026814  
H -3.280868 0.105828 -0.189719  
H -3.385467 -1.482833 0.604113  
H 0.615011 -2.478736 -0.740902  
H 1.598354 -2.608986 0.737334  
H 2.383706 -2.641298 -0.865649

COMP. 17\_4EA\_M06-2X

C -0.539123 0.038140 -0.181100  
C 0.844841 -0.103061 0.495456  
C 1.413129 1.317989 0.583448  
C 0.606260 2.125603 -0.440670  
C -0.802633 1.548083 -0.279529  
O -1.498537 -0.689898 0.554361  
O 1.730552 -0.897623 -0.270627  
C -2.767849 -0.701320 -0.053454  
C 1.369514 -2.259306 -0.277541

H -0.462440 -0.380428 -1.197325  
H 0.707138 -0.562902 1.482517  
H 1.237318 1.719955 1.584785  
H 2.487815 1.309798 0.402102  
H 0.650777 3.202732 -0.275181  
H 0.978254 1.925197 -1.450059  
H -1.243820 1.887134 0.664764  
H -1.479970 1.816300 -1.092240  
H -2.710402 -1.097000 -1.076310  
H -3.208640 0.301568 -0.088838  
H -3.408290 -1.348606 0.544113  
H 0.374811 -2.416458 -0.711442  
H 1.366729 -2.666963 0.741061  
H 2.109761 -2.786920 -0.877488

COMP. 17\_4EA\_MP2

C -0.541331 0.039327 -0.185557  
C 0.834370 -0.099406 0.502622  
C 1.396824 1.321447 0.602439  
C 0.611856 2.123528 -0.441721  
C -0.800259 1.547593 -0.301747  
O -1.509333 -0.683437 0.574627  
O 1.744450 -0.881439 -0.277517  
C -2.783827 -0.717197 -0.061540  
C 1.395732 -2.264226 -0.280130  
H -0.472422 -0.401638 -1.195707  
H 0.698683 -0.577405 1.485456  
H 1.195012 1.726283 1.602277  
H 2.480569 1.315157 0.451738  
H 0.652824 3.205739 -0.277998  
H 1.005377 1.924486 -1.446505  
H -1.261931 1.896908 0.632367  
H -1.466329 1.810306 -1.130814  
H -2.701888 -1.134081 -1.075631  
H -3.233386 0.281699 -0.118875  
H -3.417084 -1.363480 0.547919  
H 0.407913 -2.435684 -0.725762  
H 1.394297 -2.664209 0.742850  
H 2.157228 -2.771469 -0.874386

COMP. 17\_4ES\_B3LYP

C -0.731011 -0.096444 -0.229942  
C 0.694384 -0.181374 0.362936  
C 1.134549 1.277913 0.618037  
C 0.238221 2.121351 -0.304269  
C -1.114619 1.398901 -0.218247  
O -1.596361 -0.937808 0.522951  
O 1.517753 -0.852658 -0.593538  
C -2.861886 -1.143426 -0.076654  
C 2.730288 -1.350942 -0.061772  
H -0.675189 -0.467082 -1.262677  
H 0.663592 -0.772010 1.285967  
H 0.937207 1.539179 1.663366  
H 2.202553 1.422091 0.441730  
H 0.182203 3.171840 -0.009182  
H 0.619737 2.088967 -1.330178  
H -1.602920 1.627076 0.736217  
H -1.802268 1.671513 -1.021941  
H -2.759083 -1.562981 -1.087336  
H -3.445749 -0.215750 -0.138460  
H -3.399779 -1.855337 0.550402  
H 2.542428 -2.063187 0.753708  
H 3.380563 -0.550353 0.315547  
H 3.246019 -1.866118 -0.873009

COMP. 17\_4ES\_M06-2X

C -0.667601 -0.412919 -0.381919  
C 0.652993 -0.432014 0.382318  
C 0.673225 0.946088 1.048763  
C 0.045964 1.894345 -0.001373  
C -0.668632 0.977536 -1.026780  
O -1.689570 -0.553786 0.589702  
O 1.670328 -0.571412 -0.594145  
C -2.952288 -0.841722 0.041121  
C 2.936256 -0.861314 -0.053914  
H -0.719118 -1.231440 -1.109628

H 0.691747 -1.264352 1.095063  
H 0.052579 0.901454 1.945352  
H 1.677149 1.247991 1.350671  
H -0.651718 2.586056 0.471480  
H 0.810820 2.493655 -0.496227  
H -1.678336 1.314601 -1.265825  
H -0.102938 0.929627 -1.958529  
H -2.927771 -1.778682 -0.529315  
H -3.307914 -0.040150 -0.616233  
H -3.648380 -0.948475 0.872077  
H 2.910750 -1.790688 0.528793  
H 3.304471 -0.053864 0.588914  
H 3.623095 -0.984149 -0.890343

COMP. 17\_4ES\_MP2

C 0.656439 -0.413608 0.386193  
C -0.656441 -0.413605 -0.386191  
C -0.667134 0.967731 -1.041204  
C 0.000008 1.899625 -0.000003  
C 0.667136 0.967728 1.041206  
O 1.685025 -0.546530 -0.602702  
O -1.685031 -0.546519 0.602704  
C 2.950898 -0.877400 -0.040584  
C -2.950899 -0.877400 0.040580  
H 0.708397 -1.247802 1.101490  
H -0.708404 -1.247801 -1.101484  
H -0.075552 0.924408 -1.961959  
H -1.679033 1.286934 -1.312179  
H 0.737345 2.549261 -0.481568  
H -0.737321 2.549273 0.481560  
H 1.679032 1.286926 1.312195  
H 0.075543 0.924407 1.961954  
H 2.897704 -1.831031 0.502027  
H 3.311579 -0.096764 0.640587  
H 3.644035 -0.972022 -0.877728  
H -2.897700 -1.831042 -0.502011  
H -3.311572 -0.096776 -0.640609  
H -3.644044 -0.972005 0.877720

COMP. 17\_4E\_B3LYP

C 0.560529 -0.402992 0.348600  
C -0.730506 -0.179169 -0.454402  
C -0.570801 1.245155 -1.003578  
C 0.235554 2.018672 0.076537  
C 0.758038 0.942607 1.067094  
O 1.588377 -0.681031 -0.604568  
O -1.836870 -0.241744 0.454142  
C 2.788708 -1.174588 -0.042022  
C -2.829582 -1.189938 0.111096  
H 0.458966 -1.248263 1.041209  
H -0.839301 -0.931748 -1.240860  
H -0.010465 1.201967 -1.940293  
H -1.545188 1.690946 -1.212372  
H 1.058741 2.570696 -0.381420  
H -0.388586 2.748483 0.595594  
H 1.796014 1.103755 1.366154  
H 0.154617 0.937150 1.978026  
H 2.611077 -2.098807 0.525892  
H 3.270336 -0.444118 0.620576  
H 3.463167 -1.391689 -0.871143  
H -2.426754 -2.211804 0.086700  
H -3.284254 -0.967716 -0.863975  
H -3.602076 -1.135135 0.879377

COMP. 17\_5T1A\_M06-2X

C 0.382132 -0.476228 0.278821  
C -0.794350 0.050726 -0.554878  
C -0.444292 1.525472 -0.820963  
C 0.674627 1.899377 0.182095  
C 0.718046 0.722141 1.166010  
O 1.403509 -0.776185 -0.655405  
O -1.998662 0.006565 0.190904  
C 2.581984 -1.286648 -0.081141  
C -2.620246 -1.256973 0.189452  
H 0.128732 -1.377822 0.851764  
H -0.900799 -0.534466 -1.475668

H -0.116558 1.663243 -1.851257  
H -1.347034 2.118850 -0.670746  
H 1.631403 1.979767 -0.337273  
H 0.486975 2.850361 0.681062  
H 1.665243 0.625272 1.698737  
H -0.077928 0.815793 1.909527  
H 2.361774 -2.127898 0.588649  
H 3.130085 -0.522553 0.480811  
H 3.210930 -1.638302 -0.898179  
H -2.867343 -1.569495 -0.832549  
H -3.539557 -1.163890 0.766338  
H -1.992101 -2.029101 0.648413

COMP. 17\_5T1A\_MP2

C 0.434728 -0.447654 0.257981  
C -0.747235 -0.030895 -0.621400  
C -0.452645 1.433950 -0.932166  
C 0.326159 1.974718 0.293476  
C 0.593478 0.748844 1.193315  
O 1.539360 -0.590804 -0.642055  
O -1.970936 -0.075548 0.121001  
C 2.677277 -1.199807 -0.040424  
C -2.515851 -1.387847 0.231889  
H 0.269798 -1.398036 0.788806  
H -0.827176 -0.661855 -1.519473  
H 0.159346 1.491264 -1.837702  
H -1.390253 1.966932 -1.118251  
H 1.266835 2.434859 -0.024210  
H -0.243930 2.739308 0.830287  
H 1.573835 0.778628 1.680554  
H -0.164159 0.673922 1.981493  
H 2.422054 -2.191381 0.358481  
H 3.092442 -0.584137 0.766634  
H 3.422136 -1.306068 -0.830473  
H -2.675173 -1.827019 -0.762190  
H -3.475585 -1.278265 0.739204  
H -1.873024 -2.055190 0.819241

COMP. 17\_5T4A\_M06-2X

C 0.419107 -0.338995 0.331873  
C -0.826412 0.163453 -0.433990  
C -0.653499 1.687224 -0.569695  
C 0.767593 1.991247 -0.074070  
C 0.981523 0.919239 0.997990  
O 1.302139 -0.872923 -0.640998  
O -2.024786 -0.091886 0.274173  
C 2.407469 -1.554168 -0.099563  
C -2.480963 -1.416745 0.137338  
H 0.154832 -1.120594 1.055916  
H -0.855122 -0.341310 -1.407217  
H -0.843393 2.037195 -1.584295  
H -1.390661 2.151297 0.090568  
H 1.493001 1.851305 -0.879123  
H 0.873223 3.008462 0.304920  
H 2.016732 0.811706 1.325208  
H 0.371871 1.145160 1.878783  
H 2.946386 -2.004957 -0.932035  
H 3.087039 -0.882620 0.436297  
H 2.081634 -2.346062 0.587257  
H -2.707365 -1.645699 -0.911213  
H -1.745420 -2.144565 0.500589  
H -3.390485 -1.508372 0.729646

COMP. 17\_5T4A\_MP2

C 0.415691 -0.342013 0.335667  
C -0.818164 0.155252 -0.444329  
C -0.642847 1.676533 -0.590876  
C 0.763279 1.990284 -0.058377  
C 0.964665 0.913974 1.011237  
O 1.313825 -0.865435 -0.652316  
O -2.033736 -0.080242 0.274778  
C 2.432667 -1.546594 -0.093241  
C -2.499514 -1.420501 0.139872  
H 0.153892 -1.138828 1.049226  
H -0.857304 -0.363324 -1.413982  
H -0.802917 2.012496 -1.620230

H -1.405600 2.151380 0.037595  
H 1.513405 1.872048 -0.847975  
H 0.846627 3.009975 0.332913  
H 1.999768 0.808325 1.351999  
H 0.345489 1.135317 1.891261  
H 2.970249 -1.991952 -0.931745  
H 3.104209 -0.866186 0.443700  
H 2.100909 -2.339052 0.592223  
H -2.705484 -1.654532 -0.913093  
H -1.775884 -2.147160 0.531040  
H -3.422734 -1.484707 0.717662

COMP. 17\_E1S\_MP2

C -0.656446 -0.413600 -0.386190  
C 0.656438 -0.413610 0.386190  
C 0.667136 0.967722 1.041210  
C 0.000025 1.899625 -0.000001  
C -0.667132 0.967738 -1.041199  
O -1.685035 -0.546515 0.602702  
O 1.685024 -0.546527 -0.602704  
C -2.950904 -0.877399 0.040578  
C 2.950895 -0.877409 -0.040584  
H -0.708408 -1.247791 -1.101490  
H 0.708392 -1.247808 1.101483  
H 0.075532 0.924398 1.961952  
H 1.679030 1.286913 1.312212  
H -0.737290 2.549293 0.481557  
H 0.737376 2.549244 -0.481570  
H -1.679030 1.286949 -1.312168  
H -0.075557 0.924412 -1.961959  
H -2.897700 -1.831037 -0.502017  
H -3.311579 -0.096773 -0.640608  
H -3.644047 -0.972010 0.877718  
H 3.644033 -0.972032 -0.877728  
H 2.897692 -1.831042 0.502021  
H 3.311578 -0.096777 0.640590

COMP. 17\_E1TS\_MP2

C 0.546942 -0.424043 0.343240  
C -0.719565 -0.192146 -0.474420  
C -0.525790 1.217116 -1.025858  
C 0.222657 1.978961 0.096076  
C 0.702621 0.898088 1.096111  
O 1.595136 -0.630713 -0.611639  
O -1.828678 -0.204076 0.439736  
C 2.789010 -1.138014 -0.024148  
C -2.818332 -1.172544 0.106818  
H 0.457279 -1.301988 1.001718  
H -0.848274 -0.955793 -1.252293  
H 0.085780 1.164315 -1.932869  
H -1.489749 1.667001 -1.285130  
H 1.066882 2.540369 -0.315896  
H -0.434129 2.699158 0.593460  
H 1.728846 1.060260 1.442147  
H 0.055237 0.873704 1.979475  
H 2.599434 -2.099138 0.473218  
H 3.216837 -0.436490 0.702511  
H 3.496428 -1.284019 -0.841785  
H -3.251438 -0.973296 -0.882446  
H -3.598165 -1.091541 0.865834  
H -2.401894 -2.188743 0.120357

COMP. 17\_E3A\_B3LYP

C -0.539183 -0.299326 -0.256129  
C 0.720953 -0.117114 0.604529  
C 0.668157 1.352880 0.991947  
C 0.278527 2.035729 -0.325072  
C -0.722557 1.056267 -0.982447  
O 1.885518 -0.314638 -0.178756  
O -1.603174 -0.583495 0.634963  
C -2.766900 -1.035932 -0.011955  
C 2.257258 -1.665972 -0.307046  
H -0.423270 -1.134764 -0.958502  
H 0.711774 -0.801921 1.460207  
H -0.116079 1.484981 1.741982  
H 1.617760 1.697204 1.402640

H 1.165339 2.141370 -0.951669  
H -0.147798 3.028210 -0.175765  
H -1.750666 1.395116 -0.836699  
H -0.555120 0.967447 -2.056548  
H -2.571881 -1.964918 -0.563219  
H -3.163131 -0.291312 -0.712507  
H -3.513333 -1.227272 0.757829  
H 1.473915 -2.267028 -0.783800  
H 2.485276 -2.103846 0.672460  
H 3.150930 -1.697393 -0.929041

COMP. 17\_E3A\_M06-2X

C -0.539183 -0.299326 -0.256129  
C 0.720953 -0.117114 0.604529  
C 0.668157 1.352880 0.991947  
C 0.278527 2.035729 -0.325072  
C -0.722557 1.056267 -0.982447  
O 1.885518 -0.314639 -0.178756  
O -1.603174 -0.583495 0.634963  
C -2.766900 -1.035932 -0.011955  
C 2.257258 -1.665973 -0.307046  
H -0.423270 -1.134764 -0.958502  
H 0.711774 -0.801921 1.460207  
H -0.116079 1.484981 1.741982  
H 1.617760 1.697204 1.402640  
H 1.165339 2.141370 -0.951669  
H -0.147797 3.028210 -0.175765  
H -1.750666 1.395116 -0.836699  
H -0.555120 0.967447 -2.056548  
H -2.571881 -1.964918 -0.563219  
H -3.163131 -0.291312 -0.712507  
H -3.513333 -1.227271 0.757829  
H 1.473915 -2.267028 -0.783800  
H 2.485276 -2.103847 0.672460  
H 3.150930 -1.697394 -0.929041

COMP. 17\_E3S\_B3LYP

C -0.720274 -0.257386 -0.340228  
C 0.635377 -0.377599 0.380086  
C 0.856677 1.013164 0.989731  
C 0.361299 1.965418 -0.111157  
C -0.866941 1.243965 -0.719000  
H 0.232174 1.100170 1.884991  
H 1.891118 1.193169 1.291044  
H 0.601299 -1.181045 1.124910  
O 1.603444 -0.691088 -0.624654  
O -1.721869 -0.693917 0.579760  
H -0.722589 -0.913305 -1.218678  
H -1.793128 1.625849 -0.281418  
H -0.932640 1.389310 -1.799271  
H 1.139162 2.085987 -0.868961  
H 0.116948 2.960119 0.268332  
C -2.987636 -0.912505 -0.012454  
H -2.927692 -1.668382 -0.808242  
H -3.413446 0.007034 -0.435571  
H -3.650072 -1.275010 0.774392  
C 2.857500 -1.104730 -0.116748  
H 2.750655 -1.980701 0.538336  
H 3.365987 -0.309153 0.442757  
H 3.473605 -1.375969 -0.974852

COMP. 17\_E3S\_MP2

C -0.720184 -0.185115 -0.280920  
C 0.664303 -0.277205 0.384429  
C 0.991719 1.150515 0.828630  
C 0.334434 2.003245 -0.260232  
C -1.028660 1.319971 -0.419354  
H 0.513873 1.347732 1.798379  
H 2.066690 1.321609 0.945862  
H 0.637306 -1.006570 1.207096  
O 1.572870 -0.731511 -0.630315  
O -1.654097 -0.880999 0.550403  
H -0.665188 -0.686034 -1.259848  
H -1.679749 1.607994 0.417133  
H -1.543847 1.574839 -1.351779  
H 0.915010 1.931469 -1.187230

H 0.249921 3.063545 0.002351  
C -2.937836 -0.981011 -0.058316  
H -2.866428 -1.486367 -1.031617  
H -3.398821 0.004927 -0.198564  
H -3.555127 -1.574893 0.617203  
C 2.798931 -1.219740 -0.094629  
H 2.614497 -2.060734 0.587525  
H 3.354834 -0.439636 0.440165  
H 3.390603 -1.561756 -0.945044

COMP. 17\_E4A\_B3LYP

C 0.486371 -0.205276 0.347561  
C -0.841470 0.241548 -0.332939  
C -0.838379 1.776505 -0.314453  
C 0.646248 2.156620 -0.228858  
C 1.209105 1.101650 0.738124  
O 1.214905 -0.982301 -0.607631  
O -2.012723 -0.232206 0.318318  
C 2.284740 -1.727468 -0.058306  
C -2.293837 -1.599984 0.079401  
H 0.270779 -0.829318 1.224861  
H -0.815944 -0.139140 -1.362948  
H -1.356530 2.201014 -1.176497  
H -1.367453 2.104409 0.586450  
H 1.123687 2.058750 -1.209281  
H 0.806050 3.181644 0.113429  
H 2.296177 1.003872 0.699364  
H 0.942181 1.365894 1.767214  
H 1.929431 -2.418128 0.719954  
H 3.062731 -1.085543 0.374653  
H 2.722386 -2.305141 -0.873302  
H -2.418028 -1.798268 -0.993854  
H -3.226104 -1.827816 0.597358  
H -1.503486 -2.257738 0.463934

COMP. 17\_E4A\_MP2

C 0.488145 -0.159574 0.344582  
C -0.849066 0.261832 -0.305002  
C -0.900629 1.783189 -0.212783  
C 0.574023 2.186223 -0.274007  
C 1.233963 1.152249 0.647014  
O 1.173769 -0.987249 -0.605523  
O -1.995149 -0.296389 0.331099  
C 2.246051 -1.721323 -0.022896  
C -2.145565 -1.685446 0.043822  
H 0.295688 -0.746876 1.256848  
H -0.817691 -0.064337 -1.358160  
H -1.524354 2.224418 -0.996460  
H -1.333863 2.055319 0.758610  
H 0.956120 2.079174 -1.297076  
H 0.753680 3.219620 0.041092  
H 2.314812 1.054137 0.501627  
H 1.065885 1.436216 1.694332  
H 1.876882 -2.373974 0.780889  
H 3.022268 -1.060443 0.382753  
H 2.673586 -2.330233 -0.820825  
H -2.252941 -1.848751 -1.036787  
H -3.051334 -2.009599 0.558423  
H -1.289234 -2.268473 0.405749

COMP. 17\_E5TS\_MP2

C 0.662280 -0.055101 0.213535  
C -0.783534 0.144979 -0.232754  
C -1.036025 1.667103 -0.143566  
C 0.332358 2.303459 0.193639  
C 1.362013 1.238155 -0.206053  
O 1.159635 -1.240014 -0.360849  
O -1.665888 -0.609082 0.573894  
C 2.419697 -1.617668 0.139592  
C -2.511972 -1.479279 -0.141550  
H 0.667113 -0.144264 1.311589  
H -0.847180 -0.201621 -1.271366  
H -1.424040 2.050223 -1.089062  
H -1.784840 1.863073 0.624488  
H 0.493605 3.256619 -0.310335  
H 0.403060 2.489034 1.268670

H 1.506543 1.219958 -1.292101  
H 2.334086 1.386330 0.266866  
H 2.393250 -1.724939 1.231315  
H 3.195222 -0.889788 -0.126102  
H 2.670869 -2.579169 -0.306303  
H -1.931603 -2.211374 -0.713887  
H -3.169152 -0.927802 -0.825417  
H -3.125809 -2.003402 0.590216

COMP. 17\_E5\_M06-2X

C 0.662280 -0.055101 0.213535  
C -0.783534 0.144979 -0.232754  
C -1.036025 1.667103 -0.143566  
C 0.332358 2.303459 0.193639  
C 1.362013 1.238155 -0.206053  
O 1.159635 -1.240014 -0.360849  
O -1.665888 -0.609082 0.573894  
C 2.419697 -1.617668 0.139592  
C -2.511972 -1.479279 -0.141550  
H 0.667113 -0.144264 1.311589  
H -0.847180 -0.201621 -1.271366  
H -1.424040 2.050223 -1.089062  
H -1.784840 1.863073 0.624488  
H 0.493605 3.256619 -0.310335  
H 0.403060 2.489034 1.268670  
H 1.506543 1.219958 -1.292101  
H 2.334086 1.386330 0.266866  
H 2.393250 -1.724939 1.231315  
H 3.195222 -0.889788 -0.126102  
H 2.670869 -2.579169 -0.306303  
H -1.931603 -2.211374 -0.713887  
H -3.169152 -0.927802 -0.825417  
H -3.125809 -2.003402 0.590216

COMP. 17\_TDI1T2AS

C 0.508452 -0.352944 0.271777  
C -0.731768 -0.088448 -0.605640  
C -0.583307 1.383048 -0.986573  
C -0.033934 2.068467 0.285690  
C 0.670448 0.942938 1.097178  
O 1.595974 -0.579611 -0.626844  
O -1.932453 -0.233640 0.153674  
C 2.747798 -1.134537 -0.022407  
C -2.389871 -1.567613 0.277746  
H 0.378722 -1.238527 0.907473  
H -0.750157 -0.759688 -1.472573  
H 0.139624 1.453677 -1.802988  
H -1.531356 1.800647 -1.330195  
H 0.648795 2.883833 0.038296  
H -0.850331 2.498005 0.869290  
H 1.726927 1.155886 1.274210  
H 0.200918 0.819549 2.075740  
H 3.480507 -1.289811 -0.815149  
H 3.183766 -0.468882 0.733768  
H 2.522191 -2.100929 0.450731  
H -2.577089 -2.016108 -0.707656  
H -1.681174 -2.205286 0.822300  
H -3.326428 -1.531814 0.835485

COMP. 18\_2EI\_B3LYP

C 1.229675 0.498442 0.380538  
C 0.000000 0.065647 1.202494  
C -1.229675 0.498442 0.380538  
C -0.775839 1.781282 -0.341632  
C 0.775839 1.781282 -0.341632  
O 1.614659 -0.451982 -0.612113  
O -1.614659 -0.451982 -0.612113  
C 2.287845 -1.585744 -0.107499  
C -2.287846 -1.585744 -0.107499  
H 2.095796 0.682947 1.032524  
H 0.000000 -0.996164 1.455851  
H 0.000000 0.617529 2.149939  
H -2.095796 0.682947 1.032524  
H -1.194958 1.788205 -1.348420  
H -1.165114 2.658833 0.180796  
H 1.194958 1.788205 -1.348420



H 1.165114 2.658832 0.180797  
H 1.648386 -2.203818 0.536938  
H 3.183283 -1.298380 0.463674  
H 2.592432 -2.183430 -0.967427  
H -3.183283 -1.298379 0.463674  
H -1.648387 -2.203818 0.536938  
H -2.592432 -2.183430 -0.967427

COMP. 18\_2EI\_M06-2X

C 1.214114 0.520987 0.368737  
C 0.000000 0.161475 1.234924  
C -1.214114 0.520987 0.368737  
C -0.774338 1.794453 -0.365750  
C 0.774338 1.794453 -0.365750  
O 1.514320 -0.455470 -0.611017  
O -1.514320 -0.455469 -0.611017  
C 2.031361 -1.652424 -0.092041  
C -2.031361 -1.652424 -0.092041  
H 2.110225 0.685507 0.983335  
H 0.000000 -0.866315 1.599669  
H 0.000000 0.814574 2.114094  
H -2.110225 0.685508 0.983335  
H -1.195364 1.786505 -1.370742  
H -1.161932 2.673776 0.152293  
H 1.195364 1.786505 -1.370742  
H 1.161933 2.673776 0.152293  
H 1.278743 -2.224806 0.463075  
H 2.886301 -1.462106 0.571180  
H 2.365162 -2.251768 -0.938337  
H -2.886301 -1.462106 0.571180  
H -1.278744 -2.224805 0.463075  
H -2.365163 -2.251767 -0.938337

COMP. 18\_2EI\_MP2

C 1.215105 0.519109 0.376138  
C 0.000000 0.144796 1.231633  
C -1.215105 0.519109 0.376138  
C -0.773493 1.788042 -0.362271  
C 0.773492 1.788042 -0.362271  
O 1.530499 -0.457355 -0.619804  
O -1.530499 -0.457355 -0.619804  
C 2.113058 -1.639493 -0.090027  
C -2.113058 -1.639493 -0.090027  
H 2.113394 0.687082 0.994477  
H 0.000000 -0.894805 1.572213  
H 0.000000 0.776359 2.132332  
H -2.113394 0.687081 0.994477  
H -1.197096 1.777990 -1.370517  
H -1.163905 2.673306 0.152935  
H 1.197096 1.777990 -1.370517  
H 1.163905 2.673306 0.152935  
H 1.399814 -2.220942 0.508352  
H 2.989812 -1.402402 0.530522  
H 2.425852 -2.237311 -0.947558  
H -2.989812 -1.402402 0.530522  
H -1.399814 -2.220942 0.508352  
H -2.425852 -2.237311 -0.947558

COMP. 18\_2EN\_B3LYP

C 1.110912 0.250534 0.657305  
C -0.278435 0.170141 1.294556  
C -1.271898 0.634216 0.210389  
C -0.484176 1.672683 -0.614182  
C 1.020612 1.470653 -0.290961  
O 1.359116 -0.978957 -0.022655  
O -1.681977 -0.400069 -0.681669  
C 2.702462 -1.160356 -0.419719  
C -2.568258 -1.346328 -0.121400  
H 1.895593 0.390103 1.414939  
H -0.485875 -0.825528 1.688955  
H -0.324660 0.875082 2.132228  
H -2.172816 1.071220 0.665518  
H -0.709316 1.519520 -1.670212  
H -0.804731 2.684813 -0.355731  
H 1.618682 1.313364 -1.190333  
H 1.430467 2.352501 0.210211

H 3.383916 -1.113411 0.442820  
H 3.026175 -0.415727 -1.159221  
H 2.769940 -2.150306 -0.872292  
H -3.456831 -0.857989 0.306306  
H -2.093111 -1.955694 0.657651  
H -2.881854 -2.004999 -0.932163

COMP. 18\_2EN\_M06-2X

C 1.081267 0.239277 0.691512  
C -0.315569 0.263209 1.298617  
C -1.241931 0.686049 0.146652  
C -0.382159 1.636070 -0.708218  
C 1.079844 1.468818 -0.232496  
O 1.223935 -0.982020 -0.009183  
O -1.643003 -0.378380 -0.695111  
C 2.540905 -1.247687 -0.419699  
C -2.442188 -1.349096 -0.069590  
H 1.868070 0.304936 1.455872  
H -0.580242 -0.687534 1.761181  
H -0.350596 1.038308 2.070623  
H -2.145374 1.177276 0.534168  
H -0.509559 1.349367 -1.751939  
H -0.715099 2.669737 -0.603850  
H 1.780532 1.359109 -1.060936  
H 1.398906 2.340748 0.344622  
H 3.225721 -1.266089 0.438766  
H 2.907357 -0.509831 -1.142838  
H 2.538765 -2.228021 -0.894425  
H -3.256857 -0.885662 0.503814  
H -1.858376 -1.992739 0.596851  
H -2.871725 -1.966246 -0.858229

COMP. 18\_2EN\_M06-2XF

C 1.081267 0.239277 0.691512  
C -0.315569 0.263209 1.298617  
C -1.241931 0.686049 0.146652  
C -0.382159 1.636070 -0.708218  
C 1.079844 1.468818 -0.232496  
O 1.223935 -0.982020 -0.009183  
O -1.643003 -0.378380 -0.695111  
C 2.540905 -1.247687 -0.419699  
C -2.442188 -1.349096 -0.069590  
H 1.868070 0.304936 1.455872  
H -0.580242 -0.687534 1.761181  
H -0.350596 1.038308 2.070623  
H -2.145374 1.177276 0.534168  
H -0.509559 1.349367 -1.751939  
H -0.715099 2.669737 -0.603850  
H 1.780532 1.359109 -1.060936  
H 1.398906 2.340748 0.344622  
H 3.225721 -1.266089 0.438766  
H 2.907357 -0.509831 -1.142838  
H 2.538765 -2.228021 -0.894425  
H -3.256857 -0.885662 0.503814  
H -1.858376 -1.992739 0.596851  
H -2.871725 -1.966246 -0.858229

COMP. 18\_2EN\_MP2

C 1.082462 0.259230 0.683304  
C -0.307745 0.270854 1.302856  
C -1.248519 0.682350 0.162261  
C -0.412425 1.647551 -0.694496  
C 1.061272 1.472113 -0.260043  
O 1.228739 -0.985671 -0.005030  
O -1.628923 -0.392871 -0.699477  
C 2.566946 -1.241405 -0.412522  
C -2.441743 -1.374832 -0.071396  
H 1.880437 0.339559 1.440792  
H -0.555202 -0.684811 1.773303  
H -0.343806 1.047870 2.079729  
H -2.167691 1.152299 0.552009  
H -0.570625 1.388980 -1.745304  
H -0.744718 2.682172 -0.554392  
H 1.736312 1.339635 -1.110989  
H 1.411069 2.355372 0.289632  
H 3.246995 -1.237608 0.451768

H 2.921011 -0.507860 -1.147967  
H 2.564543 -2.231949 -0.869627  
H -3.285214 -0.908356 0.459015  
H -1.868453 -1.992018 0.630163  
H -2.824671 -2.010102 -0.871866

COMP. 18\_2EO\_B3LYP

C 1.228116 0.446739 0.491515  
C 0.000000 0.392396 1.406162  
C -1.228117 0.446738 0.491516  
C -0.776531 1.314194 -0.711292  
C 0.776528 1.314191 -0.711295  
O 1.576340 -0.885685 0.122075  
O -1.576338 -0.885685 0.122073  
C 2.853621 -1.005369 -0.467875  
C -2.853619 -1.005372 -0.467876  
H 2.089541 0.897059 1.005462  
H 0.000001 -0.494338 2.040804  
H 0.000000 1.279264 2.048594  
H -2.089542 0.897055 1.005465  
H -1.187394 0.919007 -1.642112  
H -1.161179 2.332307 -0.603932  
H 1.187385 0.918996 -1.642116  
H 1.161180 2.332303 -0.603944  
H 3.640944 -0.630534 0.203213  
H 2.928092 -0.468294 -1.423472  
H 3.020770 -2.067067 -0.653010  
H -2.928092 -0.468295 -1.423470  
H -3.640943 -0.630541 0.203215  
H -3.020765 -2.067069 -0.653013

COMP. 18\_2EO\_M06-2X

C 1.215410 0.472021 0.474068  
C 0.000000 0.503807 1.396706  
C -1.215410 0.472021 0.474068  
C -0.774531 1.288762 -0.759735  
C 0.774531 1.288762 -0.759735  
O 1.501309 -0.877101 0.160037  
O -1.501309 -0.877101 0.160037  
C 2.760927 -1.056325 -0.433694  
C -2.760927 -1.056326 -0.433694  
H 2.098810 0.914667 0.954571  
H 0.000000 -0.324431 2.105100  
H 0.000000 1.449015 1.947929  
H -2.098810 0.914666 0.954572  
H -1.184348 0.852580 -1.671495  
H -1.159069 2.308746 -0.690707  
H 1.184347 0.852580 -1.671495  
H 1.159069 2.308745 -0.690708  
H 3.563399 -0.703256 0.228113  
H 2.847169 -0.532200 -1.393528  
H 2.886869 -2.124184 -0.607718  
H -2.847169 -0.532200 -1.393528  
H -3.563399 -0.703256 0.228113  
H -2.886869 -2.124184 -0.607718

COMP. 18\_2EO\_MP2

C 1.214120 0.480905 0.472447  
C 0.000000 0.512912 1.394147  
C -1.214120 0.480905 0.472447  
C -0.774238 1.293848 -0.761329  
C 0.774238 1.293848 -0.761329  
O 1.492144 -0.885828 0.159098  
O -1.492144 -0.885828 0.159098  
C 2.772808 -1.063694 -0.431181  
C -2.772808 -1.063694 -0.431181  
H 2.106302 0.916462 0.952930  
H 0.000000 -0.314630 2.109469  
H 0.000000 1.461851 1.948311  
H -2.106302 0.916462 0.952930  
H -1.187312 0.857418 -1.675654  
H -1.160337 2.318291 -0.693268  
H 1.187312 0.857418 -1.675654  
H 1.160337 2.318291 -0.693268  
H 3.566916 -0.703280 0.239061  
H 2.859329 -0.544698 -1.395116

H 2.891039 -2.136271 -0.591696  
H -2.859330 -0.544698 -1.395116  
H -3.566916 -0.703280 0.239061  
H -2.891039 -2.136271 -0.591696

COMP. 18\_3T2I\_B3LYPT

C 1.208083 0.217640 0.377622  
C 0.000467 -0.641178 -0.047912  
C -1.204863 0.260485 0.269810  
C -0.738082 1.650908 -0.176422  
C 0.777207 1.684557 0.127095  
O 2.405416 -0.042924 -0.344600  
O -2.409051 -0.077072 -0.399774  
C 3.013224 -1.282619 -0.033994  
C -3.053330 -1.234142 0.099884  
H 1.411602 0.059062 1.447814  
H 0.039277 -0.802448 -1.131165  
H -0.035122 -1.613298 0.448395  
H -1.391459 0.254446 1.356685  
H -0.925143 1.730845 -1.250832  
H -1.297805 2.450133 0.312613  
H 1.352357 2.076851 -0.713130  
H 1.009066 2.306978 0.994081  
H 2.391266 -2.135183 -0.336213  
H 3.224174 -1.364938 1.042050  
H 3.954270 -1.322641 -0.583534  
H -3.263957 -1.141229 1.174915  
H -2.458768 -2.141932 -0.065022  
H -3.996903 -1.330589 -0.438161

COMP. 18\_3T2I\_M06-2X

C 1.191251 0.246206 0.334636  
C 0.000188 -0.608165 -0.113561  
C -1.190973 0.258341 0.307605  
C -0.766112 1.680901 -0.072037  
C 0.776141 1.689922 0.008853  
O 2.409922 -0.043557 -0.310689  
O -2.411185 -0.049516 -0.324186  
C 2.927624 -1.311089 0.012973  
C -2.937584 -1.299865 0.048985  
H 1.329588 0.124474 1.420813  
H 0.010036 -0.693130 -1.206740  
H -0.008080 -1.608108 0.324136  
H -1.324856 0.177848 1.398719  
H -1.108056 1.857780 -1.093846  
H -1.238868 2.427411 0.566104  
H 1.223188 1.951777 -0.951588  
H 1.161260 2.390363 0.750078  
H 2.288490 -2.117967 -0.364043  
H 3.038983 -1.426868 1.099142  
H 3.907827 -1.389429 -0.455275  
H -3.046754 -1.373383 1.138981  
H -2.306046 -2.125450 -0.298996  
H -3.919805 -1.388237 -0.413208

COMP. 18\_3T2I\_MP2

C 1.189824 0.247399 0.322841  
C 0.000000 -0.609018 -0.116750  
C -1.189824 0.247382 0.322877  
C -0.772653 1.681720 -0.024200  
C 0.772639 1.681708 -0.024309  
O 2.420950 -0.041673 -0.333479  
O -2.420949 -0.041664 -0.333460  
C 2.962984 -1.305216 0.038503  
C -2.962970 -1.305232 0.038454  
H 1.341121 0.136440 1.411940  
H -0.000013 -0.688217 -1.213026  
H 0.000010 -1.616526 0.311486  
H -1.341126 0.136368 1.411969  
H -1.173055 1.906719 -1.018442  
H -1.205002 2.407055 0.671695  
H 1.172900 1.906593 -1.018635  
H 1.205107 2.407105 0.671447  
H 2.335025 -2.133425 -0.312450  
H 3.078944 -1.376191 1.129277  
H 3.943301 -1.371007 -0.435436

H -3.078930 -1.376267 1.129224  
H -2.335003 -2.133415 -0.312544  
H -3.943287 -1.371007 -0.435489

COMP. 18\_3T2N\_M06-2X

C 1.110517 -0.203885 0.356031  
C -0.235764 -0.810204 -0.033308  
C -1.238305 0.303304 0.281479  
C -0.523430 1.555378 -0.217705  
C 0.952970 1.331059 0.155659  
O 2.124549 -0.782103 -0.438198  
O -2.486119 0.182936 -0.357627  
C 3.419826 -0.468948 0.012557  
C -3.245283 -0.912156 0.095364  
H 1.330406 -0.419866 1.411782  
H -0.238182 -0.984390 -1.114576  
H -0.426540 -1.755708 0.475551  
H -1.395435 0.363335 1.371644  
H -0.651539 1.585974 -1.302820  
H -0.946238 2.471331 0.195266  
H 1.623313 1.669170 -0.636791  
H 1.220578 1.872708 1.065255  
H 3.606354 0.611758 -0.004319  
H 4.124676 -0.959153 -0.657505  
H 3.580106 -0.836138 1.034647  
H -3.377815 -0.877248 1.184695  
H -2.778802 -1.866751 -0.173308  
H -4.221509 -0.848974 -0.383390

COMP. 18\_3T2N\_MP2

C 1.095788 0.192108 0.530731  
C -0.227543 -0.269571 1.170155  
C -1.347370 0.501632 0.451489  
C -0.639379 1.736714 -0.094861  
C 0.696015 1.170500 -0.586349  
O 1.803339 -0.963517 0.077695  
O -1.843984 -0.210850 -0.688635  
C 3.092538 -0.642611 -0.433826  
C -2.726074 -1.272611 -0.344272  
H 1.727631 0.710383 1.273611  
H -0.325514 -1.352285 1.047754  
H -0.241180 -0.057905 2.246134  
H -2.193646 0.744772 1.114140  
H -1.231509 2.228202 -0.872927  
H -0.475644 2.457441 0.718416  
H 0.540593 0.602721 -1.510889  
H 1.450770 1.942247 -0.772564  
H 3.026708 -0.035469 -1.345281  
H 3.577116 -1.591744 -0.667242  
H 3.687869 -0.102372 0.316506  
H -3.590147 -0.893439 0.219550  
H -2.224705 -2.048611 0.247430  
H -3.067029 -1.705970 -1.285524

COMP. 18\_3T2O\_M06-2X

C 1.200735 -0.194212 0.349335  
C -0.000108 -1.060903 -0.005841  
C -1.190357 -0.171142 0.314572  
C -0.759327 1.199707 -0.232917  
C 0.760717 1.262398 0.030856  
O 2.326197 -0.622294 -0.385481  
O -2.357678 -0.697368 -0.269362  
C 3.520702 -0.010890 0.036239  
C -3.517182 0.033249 0.049908  
H 1.427333 -0.287287 1.422111  
H 0.010268 -1.251807 -1.083482  
H -0.015450 -2.015954 0.518593  
H -1.331524 -0.106861 1.406582  
H -0.967418 1.200222 -1.307008  
H -1.299350 2.035353 0.214475  
H 1.299847 1.613878 -0.851400  
H 1.000575 1.939690 0.852544  
H 3.725254 -0.232748 1.091818  
H 3.487570 1.077898 -0.092800  
H 4.326349 -0.414260 -0.575575  
H -3.489859 1.043386 -0.374924

H -3.647812 0.110814 1.137333  
H -4.365006 -0.504277 -0.372437

COMP. 18\_3T2O\_MP2

C 1.189252 -0.185637 0.320909  
C -0.000281 -1.048008 -0.067403  
C -1.184871 -0.172541 0.304260  
C -0.770939 1.223549 -0.193737  
C 0.771533 1.255465 -0.062336  
O 2.354609 -0.652322 -0.352288  
O -2.367531 -0.687048 -0.296254  
C 3.537161 -0.004326 0.102913  
C -3.536561 0.016342 0.110337  
H 1.366093 -0.255442 1.409113  
H 0.003946 -1.198508 -1.154528  
H -0.006298 -2.026424 0.420841  
H -1.321847 -0.163437 1.401438  
H -1.075456 1.297859 -1.244785  
H -1.258534 2.039603 0.349282  
H 1.241444 1.508325 -1.019587  
H 1.111188 1.992780 0.672621  
H 3.672601 -0.152129 1.183771  
H 3.517933 1.071674 -0.112784  
H 4.368362 -0.463957 -0.433426  
H -3.528122 1.054695 -0.243828  
H -3.636627 0.009284 1.205056  
H -4.383073 -0.508433 -0.334511

COMP. 18\_4T5I\_B3LYP

C 1.197237 0.378082 0.226792  
C 0.041838 -0.599549 0.569436  
C -1.262021 0.249749 0.559297  
C -0.803803 1.692316 0.277957  
C 0.512359 1.540885 -0.491948  
O 2.213304 -0.174676 -0.596100  
O -2.155082 -0.130486 -0.489070  
C 3.057215 -1.097814 0.065371  
C -2.834325 -1.348148 -0.255977  
H 1.660304 0.743462 1.157843  
H -0.013815 -1.355719 -0.218595  
H 0.194786 -1.116012 1.519899  
H -1.802268 0.175874 1.513025  
H -1.574992 2.243163 -0.261863  
H -0.627488 2.207452 1.228807  
H 0.322022 1.246723 -1.528278  
H 1.125042 2.444459 -0.502097  
H 2.513854 -1.994819 0.390762  
H 3.538638 -0.641520 0.942410  
H 3.827724 -1.394017 -0.647218  
H -3.416130 -1.306743 0.676399  
H -2.148812 -2.204536 -0.201441  
H -3.515632 -1.499610 -1.093858

COMP. 18\_4T5I\_M06-2X

C 1.188330 0.402871 0.215523  
C 0.057162 -0.587087 0.574492  
C -1.250517 0.246420 0.568982  
C -0.805739 1.688534 0.297564  
C 0.475916 1.531075 -0.518441  
O 2.200542 -0.148235 -0.593955  
O -2.115218 -0.133917 -0.488039  
C 2.980296 -1.109748 0.073752  
C -2.758391 -1.363346 -0.263402  
H 1.644822 0.795886 1.138331  
H 0.005987 -1.337689 -0.220000  
H 0.225922 -1.103277 1.521284  
H -1.798801 0.158065 1.515791  
H -1.595250 2.244632 -0.207090  
H -0.585675 2.186468 1.247166  
H 0.244231 1.191057 -1.531670  
H 1.080182 2.436273 -0.582207  
H 2.385252 -1.984596 0.362530  
H 3.442965 -0.686145 0.974996  
H 3.763869 -1.426928 -0.612985  
H -3.365802 -1.326829 0.650509  
H -2.044274 -2.191190 -0.174552

H -3.408364 -1.550827 -1.116973

COMP. 18\_E2I\_B3LYP

C 1.200855 0.231629 0.310743  
C 0.000000 -0.627266 -0.121726  
C -1.200855 0.231627 0.310746  
C -0.774775 1.676217 -0.014080  
C 0.774775 1.676216 -0.014091  
O 2.423793 -0.056309 -0.350573  
O -2.423792 -0.056308 -0.350571  
C 3.034370 -1.268623 0.050483  
C -3.034370 -1.268624 0.050478  
H 1.355657 0.116830 1.395813  
H -0.000001 -0.719197 -1.213827  
H 0.000001 -1.628612 0.314157  
H -1.355657 0.116822 1.395816  
H -1.170663 1.925756 -1.001047  
H -1.203430 2.387624 0.694128  
H 1.170648 1.925743 -1.001067  
H 1.203442 2.387630 0.694103  
H 2.434115 -2.144874 -0.226454  
H 3.207085 -1.288701 1.136096  
H 3.995351 -1.325781 -0.461753  
H -3.207085 -1.288708 1.136091  
H -2.434114 -2.144873 -0.226463  
H -3.995351 -1.325780 -0.461758

COMP. 18\_E2I\_M06-2X

C 1.190696 0.251738 0.320442  
C 0.000001 -0.607094 -0.118447  
C -1.190694 0.251830 0.320242  
C -0.772301 1.685956 -0.031222  
C 0.772374 1.686024 -0.030616  
O 2.411579 -0.046327 -0.315711  
O -2.411590 -0.046371 -0.315808  
C 2.932600 -1.306218 0.031845  
C -2.932672 -1.306137 0.032112  
H 1.324020 0.148274 1.409424  
H 0.000074 -0.687307 -1.212032  
H -0.000061 -1.608859 0.315146  
H -1.323983 0.148674 1.409262  
H -1.167268 1.905552 -1.024896  
H -1.204166 2.409776 0.659937  
H 1.168128 1.906259 -1.023831  
H 1.203583 2.409497 0.661317  
H 2.298168 -2.121839 -0.334020  
H 3.039963 -1.402954 1.120238  
H 3.915056 -1.388819 -0.430916  
H -3.040008 -1.402567 1.120534  
H -2.298298 -2.121895 -0.333549  
H -3.915147 -1.388809 -0.430596

COMP. 18\_E2N\_B3LYP

C 1.118867 -0.177002 0.297054  
C -0.209669 -0.804286 -0.121416  
C -1.239456 0.255140 0.299558  
C -0.574754 1.589353 -0.080854  
C 0.954809 1.337208 -0.012391  
O 2.187615 -0.810625 -0.390353  
O -2.504584 0.165455 -0.336943  
C 3.471469 -0.458147 0.090739  
C -3.304355 -0.917040 0.102338  
H 1.269557 -0.318202 1.379425  
H -0.225993 -0.910044 -1.211627  
H -0.364000 -1.788509 0.324619  
H -1.391632 0.202339 1.390172  
H -0.886798 1.831827 -1.099456  
H -0.908254 2.406841 0.560723  
H 1.428629 1.547825 -0.974690  
H 1.446590 1.962874 0.735551  
H 3.573779 -0.689802 1.160734  
H 3.690839 0.606747 -0.060575  
H 4.195924 -1.049040 -0.470542  
H -3.460526 -0.882424 1.190056  
H -2.864519 -1.887786 -0.159411  
H -4.269296 -0.822644 -0.396782

COMP. 18\_E2OT\_MP2

C 1.188535 -0.177163 0.315530  
C 0.000000 -1.046363 -0.059116  
C -1.188535 -0.177163 0.315531  
C -0.774391 1.243155 -0.124732  
C 0.774391 1.243154 -0.124736  
O 2.359578 -0.670574 -0.328298  
O -2.359578 -0.670572 -0.328300  
C 3.539680 0.001549 0.101304  
C -3.539680 0.001548 0.101303  
H 1.351394 -0.207803 1.408199  
H 0.000000 -1.202842 -1.145456  
H 0.000000 -2.022119 0.434571  
H -1.351395 -0.207806 1.408199  
H -1.165717 1.407130 -1.135702  
H -1.192741 2.023226 0.519863  
H 1.165711 1.407123 -1.135709  
H 1.192745 2.023228 0.519853  
H 3.660174 -0.078022 1.191048  
H 3.528169 1.061314 -0.183179  
H 4.375384 -0.494926 -0.393638  
H -3.528169 1.061315 -0.183175  
H -3.660175 -0.078027 1.191047  
H -4.375384 -0.494925 -0.393641

COMP. 18\_E2O\_B3LYP

C 1.200360 -0.160939 0.311544  
C 0.000000 -1.034751 -0.041357  
C -1.200360 -0.160941 0.311547  
C -0.776437 1.269900 -0.115439  
C 0.776436 1.269896 -0.115456  
O 2.361420 -0.651917 -0.341269  
O -2.361418 -0.651913 -0.341274  
C 3.566854 -0.052374 0.095343  
C -3.566853 -0.052377 0.095341  
H 1.373746 -0.187299 1.399573  
H -0.000001 -1.222478 -1.119998  
H 0.000001 -1.996459 0.473731  
H -1.373751 -0.187311 1.399575  
H -1.163706 1.454029 -1.121173  
H -1.192394 2.038330 0.539646  
H 1.163682 1.454002 -1.121204  
H 1.192413 2.038337 0.539603  
H 3.706379 -0.180038 1.178507  
H 3.604267 1.019349 -0.139672  
H 4.380868 -0.554802 -0.428106  
H -3.604266 1.019350 -0.139660  
H -3.706383 -0.180054 1.178503  
H -4.380866 -0.554798 -0.428118

COMP. 18\_E2O\_M06-2X

C 1.189163 -0.190842 0.312985  
C 0.000000 -1.056980 -0.069510  
C -1.189163 -0.190843 0.312987  
C -0.773991 1.233391 -0.121205  
C 0.773991 1.233388 -0.121216  
O 2.357309 -0.667109 -0.313108  
O -2.357308 -0.667106 -0.313112  
C 3.517490 0.018131 0.091890  
C -3.517490 0.018129 0.091891  
H 1.334701 -0.218904 1.404941  
H -0.000001 -1.198708 -1.155016  
H 0.000001 -2.033866 0.413342  
H -1.334705 -0.218912 1.404941  
H -1.161503 1.400765 -1.129594  
H -1.192275 2.005836 0.525736  
H 1.161489 1.400747 -1.129614  
H 1.192288 2.005840 0.525708  
H 3.652741 -0.044356 1.179733  
H 3.486294 1.075038 -0.198531  
H 4.364283 -0.458344 -0.400012  
H -3.486294 1.075040 -0.198517  
H -3.652744 -0.044371 1.179733  
H -4.364281 -0.458339 -0.400020

## COMP. 18\_E2O\_MP2

C 1.188534 -0.177164 0.315529  
 C 0.000000 -1.046364 -0.059119  
 C -1.188535 -0.177166 0.315533  
 C -0.774391 1.243155 -0.124719  
 C 0.774391 1.243148 -0.124749  
 O 2.359580 -0.670580 -0.328286  
 O -2.359577 -0.670572 -0.328299  
 C 3.539679 0.001557 0.101301  
 C -3.539679 0.001553 0.101299  
 H 1.351383 -0.207797 1.408200  
 H -0.000001 -1.202839 -1.145460  
 H 0.000002 -2.022121 0.434565  
 H -1.351393 -0.207818 1.408202  
 H -1.165733 1.407148 -1.135680  
 H -1.192726 2.023221 0.519895  
 H 1.165695 1.407101 -1.135731  
 H 1.192759 2.023231 0.519823  
 H 3.660171 -0.077985 1.191047  
 H 3.528167 1.061316 -0.183209  
 H 4.375385 -0.494929 -0.393627  
 H -3.528166 1.061319 -0.183182  
 H -3.660179 -0.078020 1.191042  
 H -4.375382 -0.494920 -0.393648

## COMP. 18\_E3IT\_MP2

C 0.978518 0.557372 0.352748  
 C -0.174076 0.125165 1.272212  
 C -1.437243 0.361287 0.442603  
 C -1.126673 1.687250 -0.240145  
 C 0.340411 1.522454 -0.675414  
 O 1.531173 -0.592048 -0.312448  
 O -1.603271 -0.579478 -0.620018  
 C 2.929664 -0.750699 -0.101669  
 C -1.735935 -1.930502 -0.191745  
 H 1.777816 1.045801 0.927632  
 H -0.035668 -0.898329 1.631651  
 H -0.224640 0.781639 2.152390  
 H -2.351486 0.380959 1.059099  
 H -1.807104 1.875802 -1.076281  
 H -1.237894 2.505090 0.483810  
 H 0.394396 1.039082 -1.654904  
 H 0.871007 2.479295 -0.736778  
 H 3.161793 -0.896570 0.962575  
 H 3.492000 0.115205 -0.476826  
 H 3.226776 -1.640499 -0.659459  
 H -2.467389 -2.015402 0.625007  
 H -0.773834 -2.345344 0.127658  
 H -2.096979 -2.488490 -1.057390

## COMP. 18\_E4ITS\_B3LYP

C 1.210082 0.108664 0.574860  
 C -0.161551 -0.586667 0.766779  
 C -1.237996 0.406029 0.235540  
 C -0.447783 1.492477 -0.501777  
 C 0.861393 1.580465 0.289756  
 O 1.888571 -0.445402 -0.561816  
 O -2.189915 -0.171923 -0.646139  
 C 3.152194 -1.015399 -0.283603  
 C -3.135750 -1.006868 -0.007076  
 H 1.849954 0.003650 1.457130  
 H -0.180376 -1.507496 0.180349  
 H -0.331766 -0.847578 1.814436  
 H -1.778285 0.852773 1.085236  
 H -0.251745 1.142749 -1.519255  
 H -0.993390 2.436030 -0.564070  
 H 1.668434 2.087844 -0.241449  
 H 0.697477 2.106525 1.238308  
 H 3.075701 -1.859189 0.416520  
 H 3.852367 -0.276674 0.131335  
 H 3.551624 -1.381886 -1.230249  
 H -3.690364 -0.460780 0.769960  
 H -2.666425 -1.887521 0.451484  
 H -3.835992 -1.342059 -0.772966

## COMP. 18\_E4ITS\_M06-2X

C 1.194980 0.103644 0.592237  
 C -0.181430 -0.564199 0.795052  
 C -1.225713 0.426977 0.215065  
 C -0.403081 1.472410 -0.534201  
 C 0.867366 1.573662 0.308908  
 O 1.832494 -0.447699 -0.554944  
 O -2.159304 -0.165202 -0.658977  
 C 3.086726 -1.029144 -0.298175  
 C -3.075988 -1.002390 0.000906  
 H 1.846997 -0.017850 1.463091  
 H -0.207585 -1.501894 0.235961  
 H -0.368670 -0.784033 1.848073  
 H -1.773047 0.909901 1.039725  
 H -0.163050 1.070774 -1.522210  
 H -0.937424 2.414581 -0.657603  
 H 1.695711 2.078422 -0.189009  
 H 0.657709 2.092462 1.250926  
 H 3.005448 -1.866884 0.405919  
 H 3.795135 -0.295330 0.106895  
 H 3.470329 -1.402319 -1.247124  
 H -3.643352 -0.446307 0.759075  
 H -2.575351 -1.847842 0.488645  
 H -3.765521 -1.386235 -0.749746

## COMP. 18\_E4IT\_MP2

C 1.210082 0.108664 0.574860  
 C -0.161551 -0.586667 0.766779  
 C -1.237996 0.406029 0.235540  
 C -0.447783 1.492477 -0.501777  
 C 0.861393 1.580465 0.289756  
 O 1.888571 -0.445402 -0.561816  
 O -2.189915 -0.171923 -0.646139  
 C 3.152194 -1.015399 -0.283603  
 C -3.135750 -1.006868 -0.007076  
 H 1.849954 0.003650 1.457130  
 H -0.180376 -1.507496 0.180349  
 H -0.331766 -0.847578 1.814436  
 H -1.778285 0.852773 1.085236  
 H -0.251745 1.142749 -1.519255  
 H -0.993390 2.436030 -0.564070  
 H 1.668434 2.087844 -0.241449  
 H 0.697477 2.106525 1.238308  
 H 3.075701 -1.859189 0.416520  
 H 3.852367 -0.276674 0.131335  
 H 3.551624 -1.381886 -1.230249  
 H -3.690364 -0.460780 0.769960  
 H -2.666425 -1.887521 0.451484  
 H -3.835992 -1.342059 -0.772966

## COMP. 18\_E4N\_B3LYP

C 1.158891 -0.172147 0.576688  
 C -0.250738 -0.799004 0.485165  
 C -1.238325 0.369492 0.245669  
 C -0.375043 1.461115 -0.387550  
 C 0.943276 1.350781 0.385903  
 O 1.955071 -0.751176 -0.460973  
 O -2.329643 0.057178 -0.605852  
 C 3.345428 -0.536962 -0.314640  
 C -3.296885 -0.793771 -0.020394  
 H 1.643053 -0.385718 1.539050  
 H -0.268173 -1.461662 -0.383878  
 H -0.493373 -1.392973 1.368464  
 H -1.636178 0.727484 1.209578  
 H -0.226463 1.213424 -1.442957  
 H -0.838229 2.448242 -0.332768  
 H 1.786018 1.825652 -0.119998  
 H 0.845807 1.828144 1.367950  
 H 3.613418 0.526629 -0.365485  
 H 3.835849 -1.059276 -1.136786  
 H 3.712559 -0.944407 0.638339  
 H -2.891053 -1.789678 0.200078  
 H -3.697439 -0.363276 0.908886  
 H -4.108838 -0.897615 -0.740923

## COMP. 18\_E4N\_M06-2X

C 1.144406 -0.172178 0.624963

C -0.282406 -0.753504 0.607195  
C -1.222545 0.413922 0.230354  
C -0.304756 1.433061 -0.432662  
C 0.957892 1.343450 0.422157  
O 1.855500 -0.760592 -0.453804  
O -2.265945 0.055335 -0.645034  
C 3.247007 -0.570363 -0.383641  
C -3.217335 -0.792562 -0.049851  
H 1.675869 -0.397816 1.558095  
H -0.326224 -1.514000 -0.176490  
H -0.545574 -1.222353 1.556406  
H -1.659249 0.851460 1.142622  
H -0.098011 1.092631 -1.451184  
H -0.745529 2.429163 -0.478401  
H 1.831000 1.814031 -0.031229  
H 0.790148 1.821524 1.393192  
H 3.524573 0.488974 -0.431921  
H 3.685695 -1.085299 -1.237317  
H 3.655318 -0.997325 0.541526  
H -2.778014 -1.755423 0.237315  
H -3.658085 -0.326851 0.841674  
H -4.001930 -0.967621 -0.784672

COMP. 18\_E4N\_MP2

C 1.147462 -0.151462 0.659840  
C -0.282863 -0.717017 0.692334  
C -1.212962 0.426024 0.228669  
C -0.286087 1.423954 -0.453384  
C 0.970275 1.355042 0.412553  
O 1.817127 -0.793181 -0.435672  
O -2.228634 0.018528 -0.683574  
C 3.226192 -0.590528 -0.425970  
C -3.225820 -0.784283 -0.060745  
H 1.709750 -0.364037 1.583184  
H -0.340547 -1.547926 -0.019768  
H -0.544960 -1.098763 1.685190  
H -1.697637 0.903250 1.099689  
H -0.075918 1.062372 -1.466526  
H -0.727074 2.423105 -0.525551  
H 1.851298 1.813872 -0.046550  
H 0.798957 1.864418 1.371785  
H 3.493791 0.464246 -0.565179  
H 3.624687 -1.172675 -1.258041  
H 3.663904 -0.949761 0.516037  
H -2.810947 -1.732486 0.304496  
H -3.691990 -0.248321 0.778439  
H -3.978442 -0.990458 -0.823013

COMP. 18\_E4OTS\_B3LYP

C 1.210795 -0.183807 0.522284  
C -0.112096 -0.949632 0.320587  
C -1.220200 0.114618 0.218615  
C -0.496577 1.322782 -0.389089  
C 0.851045 1.319704 0.343379  
O 2.140920 -0.656094 -0.454557  
O -2.313507 -0.329031 -0.579636  
C 3.484909 -0.301616 -0.193801  
C -3.567379 -0.360251 0.074840  
H 1.639994 -0.363191 1.517344  
H -0.057542 -1.474833 -0.636106  
H -0.298896 -1.691374 1.099608  
H -1.587700 0.377337 1.220357  
H -0.359834 1.135289 -1.458580  
H -1.054714 2.255491 -0.278944  
H 1.633933 1.862207 -0.190046  
H 0.746867 1.789490 1.327943  
H 3.818583 -0.693234 0.777958  
H 3.640273 0.785503 -0.203402  
H 4.090850 -0.747269 -0.983415  
H -3.871302 0.636172 0.424218  
H -3.565263 -1.049085 0.930792  
H -4.297535 -0.712284 -0.655076

COMP. 18\_E4OTS\_M06-2X

C 1.208588 -0.193121 0.558563  
C -0.122596 -0.949507 0.404133

C -1.207529 0.121539 0.218075  
C -0.447699 1.285385 -0.415254  
C 0.848204 1.302185 0.394013  
O 2.080359 -0.644764 -0.465913  
O -2.271378 -0.340034 -0.590007  
C 3.424874 -0.291712 -0.255312  
C -3.532321 -0.322160 0.033382  
H 1.684847 -0.382817 1.528885  
H -0.070799 -1.536747 -0.515368  
H -0.328542 -1.628980 1.231860  
H -1.599586 0.437996 1.194762  
H -0.245873 1.029254 -1.459490  
H -1.003156 2.224138 -0.387935  
H 1.652960 1.866167 -0.079062  
H 0.668289 1.745353 1.379016  
H 3.801399 -0.720982 0.682195  
H 3.567945 0.794939 -0.223579  
H 3.999052 -0.695721 -1.088064  
H -3.820759 0.694405 0.328368  
H -3.551761 -0.967099 0.920624  
H -4.254984 -0.697173 -0.690442

COMP. 18\_E4OT\_MP2

C 1.202025 -0.189841 0.544592  
C -0.118350 -0.950327 0.346233  
C -1.207431 0.119159 0.213572  
C -0.466265 1.295867 -0.413665  
C 0.845933 1.305486 0.370638  
O 2.108619 -0.655254 -0.464969  
O -2.294852 -0.335148 -0.595190  
C 3.459306 -0.286057 -0.209045  
C -3.550214 -0.333285 0.076178  
H 1.654867 -0.385064 1.529790  
H -0.061334 -1.491217 -0.605241  
H -0.320201 -1.679656 1.137658  
H -1.589914 0.412536 1.204728  
H -0.290631 1.063993 -1.471231  
H -1.026561 2.235353 -0.356518  
H 1.649485 1.860705 -0.123283  
H 0.690354 1.765547 1.356592  
H 3.798473 -0.695026 0.753028  
H 3.594191 0.803099 -0.201410  
H 4.053554 -0.714662 -1.017227  
H -3.830306 0.678993 0.397433  
H -3.537526 -0.999176 0.949527  
H -4.284610 -0.698215 -0.643589

COMP. 18\_E4O\_B3LYP

C 1.255817 -0.159553 0.566223  
C -0.019576 -1.027283 0.536723  
C -1.208909 -0.064183 0.397147  
C -0.603268 1.173051 -0.290253  
C 0.759747 1.300613 0.401983  
O 2.092801 -0.581471 -0.514120  
O -2.254124 -0.712398 -0.311034  
C 3.428222 -0.124680 -0.426169  
C -3.478290 -0.002476 -0.320185  
H 1.816756 -0.282412 1.502279  
H 0.016805 -1.660982 -0.352209  
H -0.110032 -1.678397 1.407656  
H -1.585907 0.226732 1.391773  
H -0.474862 0.952663 -1.355067  
H -1.215718 2.072803 -0.197345  
H 1.471329 1.918531 -0.149191  
H 0.637043 1.755471 1.391730  
H 3.905893 -0.467998 0.502760  
H 3.500830 0.970193 -0.471276  
H 3.964959 -0.544537 -1.277594  
H -3.402747 0.944657 -0.869640  
H -3.824662 0.209919 0.701581  
H -4.211551 -0.638622 -0.817039

COMP. 18\_E4O\_M06-2X

C 1.262341 -0.172862 0.619800  
C -0.019957 -1.017987 0.709642  
C -1.196255 -0.063451 0.458063

C -0.559493 1.146790 -0.237178  
C 0.766284 1.280749 0.512069  
O 1.956471 -0.572604 -0.552563  
O -2.186402 -0.734134 -0.287189  
C 3.285396 -0.116574 -0.605356  
C -3.342506 0.038850 -0.497555  
H 1.922218 -0.317970 1.484314  
H -0.001375 -1.763347 -0.087367  
H -0.110893 -1.539670 1.662412  
H -1.635344 0.266534 1.413577  
H -0.375874 0.888058 -1.284917  
H -1.170921 2.049694 -0.196626  
H 1.486202 1.935899 0.019983  
H 0.589198 1.678596 1.517101  
H 3.861632 -0.485876 0.252851  
H 3.349313 0.977724 -0.624014  
H 3.723795 -0.507315 -1.522725  
H -3.139272 0.906089 -1.136446  
H -3.760572 0.392265 0.454465  
H -4.073512 -0.599857 -0.991511

COMP. 18\_E4O\_MP2

C 1.265205 -0.143115 0.655350  
C -0.023947 -0.960140 0.824999  
C -1.190032 -0.022220 0.477973  
C -0.538300 1.155997 -0.255274  
C 0.785878 1.307239 0.493611  
O 1.905390 -0.621532 -0.536934  
O -2.150011 -0.754131 -0.280417  
C 3.244880 -0.160457 -0.675773  
C -3.324975 0.003249 -0.550803  
H 1.962845 -0.266245 1.499021  
H -0.015426 -1.794725 0.116560  
H -0.120151 -1.373322 1.834296  
H -1.681841 0.348332 1.395945  
H -0.356745 0.863241 -1.296806  
H -1.145626 2.067425 -0.247634  
H 1.514695 1.943215 -0.018526  
H 0.610184 1.745572 1.486593  
H 3.848433 -0.451565 0.195418  
H 3.297797 0.928541 -0.799178  
H 3.642746 -0.640702 -1.570865  
H -3.116122 0.849690 -1.216714  
H -3.772246 0.378866 0.380748  
H -4.023831 -0.676329 -1.040546

COMP. 18\_E5ITS\_B3LYP

C 1.164337 0.132213 0.209260  
C -0.097185 -0.740354 0.358887  
C -1.281725 0.249026 0.524813  
C -0.689256 1.652721 0.256638  
C 0.641278 1.405638 -0.465663  
O 2.176022 -0.520671 -0.552189  
O -2.329499 0.025356 -0.418954  
C 3.405722 -0.719168 0.119114  
C -3.082218 -1.146588 -0.173934  
H 1.565163 0.385181 1.200596  
H -0.223301 -1.294354 -0.575673  
H -0.014349 -1.465724 1.171447  
H -1.714442 0.190234 1.533330  
H -1.396032 2.256822 -0.313483  
H -0.513149 2.161533 1.210158  
H 0.476924 1.190098 -1.525868  
H 1.340695 2.241966 -0.396105  
H 3.289024 -1.354982 1.007552  
H 3.863284 0.232184 0.423346  
H 4.073717 -1.219366 -0.583305  
H -3.530162 -1.128690 0.830435  
H -2.476238 -2.057209 -0.270112  
H -3.879035 -1.176102 -0.917859

COMP. 18\_E5ITS\_M06-2X

C 1.149514 0.137327 0.201717  
C -0.099989 -0.732238 0.405031  
C -1.280900 0.258652 0.542751  
C -0.680649 1.650230 0.271811

C 0.604035 1.374254 -0.508739  
O 2.141062 -0.535160 -0.547917  
O -2.289155 0.027638 -0.425785  
C 3.372155 -0.692161 0.114934  
C -3.015553 -1.153087 -0.191592  
H 1.563458 0.434984 1.175316  
H -0.232433 -1.314299 -0.511450  
H -0.003360 -1.427652 1.240485  
H -1.741115 0.208531 1.538453  
H -1.401398 2.274151 -0.255967  
H -0.441759 2.135892 1.222704  
H 0.378521 1.101369 -1.543753  
H 1.308627 2.207291 -0.514785  
H 3.262340 -1.283091 1.032715  
H 3.817972 0.277282 0.369379  
H 4.039896 -1.219113 -0.565653  
H -3.501629 -1.125583 0.792730  
H -2.376949 -2.043387 -0.241033  
H -3.779113 -1.224054 -0.965003

COMP. 18\_E5IT\_MP2

C 1.164337 0.132213 0.209260  
C -0.097185 -0.740354 0.358887  
C -1.281725 0.249026 0.524813  
C -0.689256 1.652721 0.256638  
C 0.641278 1.405638 -0.465663  
O 2.176022 -0.520671 -0.552189  
O -2.329499 0.025356 -0.418954  
C 3.405722 -0.719168 0.119114  
C -3.082218 -1.146588 -0.173934  
H 1.565163 0.385181 1.200596  
H -0.223301 -1.294354 -0.575673  
H -0.014349 -1.465724 1.171447  
H -1.714442 0.190234 1.533330  
H -1.396032 2.256822 -0.313483  
H -0.513149 2.161533 1.210158  
H 0.476924 1.190098 -1.525868  
H 1.340695 2.241966 -0.396105  
H 3.289024 -1.354982 1.007552  
H 3.863284 0.232184 0.423346  
H 4.073717 -1.219366 -0.583305  
H -3.530162 -1.128690 0.830435  
H -2.476238 -2.057209 -0.270112  
H -3.879035 -1.176102 -0.917859

COMP. 18\_E5I\_MP2

C 1.075988 0.621777 0.227062  
C 0.032876 -0.041485 1.155945  
C -1.328536 0.313545 0.548317  
C -1.094344 1.713619 -0.003786  
C 0.284120 1.593301 -0.664411  
O 1.744054 -0.311385 -0.628004  
O -1.659372 -0.499737 -0.580420  
C 2.767356 -1.036159 0.043010  
C -1.993286 -1.840261 -0.244324  
H 1.841263 1.151228 0.818583  
H 0.200200 -1.118369 1.253350  
H 0.089243 0.386526 2.166266  
H -2.147784 0.261399 1.284657  
H -1.886991 2.011493 -0.696945  
H -1.074847 2.432317 0.826507  
H 0.190446 1.129502 -1.651000  
H 0.794164 2.554483 -0.785812  
H 2.366167 -1.650041 0.860757  
H 3.527824 -0.354668 0.450263  
H 3.224650 -1.687987 -0.702918  
H -2.781668 -1.867736 0.521600  
H -1.122903 -2.403839 0.112870  
H -2.362270 -2.301352 -1.161665

COMP. 18\_E5N\_B3LYP

C 1.134126 0.003888 0.421603  
C -0.200337 -0.709394 0.707560  
C -1.317684 0.352876 0.517582  
C -0.578047 1.658120 0.170971  
C 0.743893 1.203654 -0.460364

O 2.039786 -0.921767 -0.161245  
O -2.185837 0.048636 -0.576002  
C 3.365920 -0.441479 -0.279857  
C -3.084961 -1.012171 -0.319968  
H 1.572529 0.378256 1.361340  
H -0.318494 -1.504455 -0.032727  
H -0.211858 -1.172661 1.696264  
H -1.931708 0.464875 1.421625  
H -1.187977 2.288254 -0.477721  
H -0.381179 2.217863 1.092008  
H 0.579142 0.852051 -1.483885  
H 1.499445 1.992200 -0.484806  
H 3.764537 -0.124689 0.694712  
H 3.439011 0.400413 -0.980043  
H 3.970706 -1.266284 -0.658213  
H -3.717137 -0.795224 0.553450  
H -2.567023 -1.965007 -0.147815  
H -3.719042 -1.113506 -1.201372

COMP. 18\_E5N\_M06-2X

C 1.118415 0.016612 0.463984  
C -0.215111 -0.659279 0.817145  
C -1.320382 0.381929 0.517849  
C -0.565290 1.664707 0.157040  
C 0.727758 1.158454 -0.482520  
O 1.994066 -0.946055 -0.077473  
O -2.094134 0.022892 -0.615203  
C 3.274170 -0.435948 -0.361205  
C -2.996223 -1.025099 -0.361973  
H 1.580049 0.446883 1.367517  
H -0.330447 -1.521105 0.155767  
H -0.231596 -1.020268 1.846194  
H -1.996048 0.527745 1.370403  
H -1.168128 2.301351 -0.490151  
H -0.335000 2.220537 1.071620  
H 0.521909 0.739681 -1.472664  
H 1.492913 1.930801 -0.576158  
H 3.721459 0.026512 0.528681  
H 3.244361 0.306505 -1.166881  
H 3.894281 -1.274230 -0.675920  
H -3.704839 -0.749385 0.430080  
H -2.482683 -1.947475 -0.065121  
H -3.545710 -1.210501 -1.283878

COMP. 18\_E5N\_MP2

C 0.995975 0.413370 0.577589  
C -0.324690 0.191247 1.323959  
C -1.415464 0.534431 0.308072  
C -0.820547 1.742049 -0.403178  
C 0.643189 1.324235 -0.625995  
O 1.489134 -0.872528 0.183558  
O -1.580570 -0.458562 -0.706609  
C 2.794711 -0.800892 -0.377597  
C -1.994014 -1.730113 -0.217404  
H 1.752017 0.881120 1.230400  
H -0.373855 -0.819830 1.737205  
H -0.408144 0.894230 2.163607  
H -2.389710 0.733164 0.784959  
H -1.352869 1.967137 -1.332627  
H -0.885999 2.620628 0.251892  
H 0.715820 0.728840 -1.541542  
H 1.317175 2.182900 -0.722004  
H 3.500830 -0.348969 0.334239  
H 2.806145 -0.221403 -1.309517  
H 3.098305 -1.827231 -0.589010  
H -2.841243 -1.628623 0.476121  
H -1.171453 -2.256438 0.278868  
H -2.310496 -2.302758 -1.090854

COMP. 18\_E5OTS\_B3LYP

C 1.193926 0.001930 0.444743  
C -0.079505 -0.798992 0.787647  
C -1.282936 0.143615 0.535228  
C -0.650776 1.521223 0.253044  
C 0.691631 1.184170 -0.407280  
O 2.127364 -0.858560 -0.192305

O -2.017036 -0.289661 -0.619647  
C 3.409334 -0.288767 -0.376813  
C -3.374130 -0.607098 -0.381125  
H 1.654996 0.395330 1.365516  
H -0.147508 -1.654326 0.113294  
H -0.054004 -1.178638 1.811288  
H -1.962402 0.181215 1.392723  
H -1.305353 2.142667 -0.360332  
H -0.480369 2.045144 1.201424  
H 0.531846 0.836587 -1.433017  
H 1.382963 2.029531 -0.432298  
H 3.836348 0.051845 0.577677  
H 3.388464 0.558407 -1.074294  
H 4.048136 -1.069206 -0.791713  
H -3.936175 0.257038 0.000533  
H -3.481214 -1.438214 0.329818  
H -3.803621 -0.908101 -1.337665

COMP. 18\_E5OTS\_M06-2X

C 1.176551 0.118688 0.515733  
C -0.088434 -0.511901 1.133897  
C -1.284696 0.259550 0.549841  
C -0.674262 1.578864 0.068876  
C 0.658312 1.123393 -0.528999  
O 1.994934 -0.903087 -0.011052  
O -1.803491 -0.434949 -0.579411  
C 3.210815 -0.422751 -0.528800  
C -3.166662 -0.764637 -0.480493  
H 1.747618 0.659976 1.286199  
H -0.144165 -1.564256 0.853874  
H -0.068503 -0.444899 2.223023  
H -2.082262 0.408869 1.284600  
H -1.326222 2.093190 -0.638193  
H -0.500222 2.237940 0.926598  
H 0.474088 0.583737 -1.462966  
H 1.350103 1.944443 -0.723629  
H 3.766823 0.144203 0.230149  
H 3.053638 0.220471 -1.402543  
H 3.799895 -1.288362 -0.828910  
H -3.790900 0.131797 -0.373641  
H -3.358371 -1.431563 0.369452  
H -3.442808 -1.278486 -1.400630

COMP. 18\_E5OT\_MP2

C 1.193926 0.001930 0.444743  
C -0.079505 -0.798992 0.787647  
C -1.282936 0.143615 0.535228  
C -0.650776 1.521223 0.253044  
C 0.691631 1.184170 -0.407280  
O 2.127364 -0.858560 -0.192305  
O -2.017036 -0.289661 -0.619647  
C 3.409334 -0.288767 -0.376813  
C -3.374130 -0.607098 -0.381125  
H 1.654996 0.395330 1.365516  
H -0.147508 -1.654326 0.113294  
H -0.054004 -1.178638 1.811288  
H -1.962402 0.181215 1.392723  
H -1.305353 2.142667 -0.360332  
H -0.480369 2.045144 1.201424  
H 0.531846 0.836587 -1.433017  
H 1.382963 2.029531 -0.432298  
H 3.836348 0.051845 0.577677  
H 3.388464 0.558407 -1.074294  
H 4.048136 -1.069206 -0.791713  
H -3.936175 0.257038 0.000533  
H -3.481214 -1.438214 0.329818  
H -3.803621 -0.908101 -1.337665

COMP. 19\_1T5IT\_B3LYP

C -1.036875 0.050645 -0.088847  
C 0.099610 -0.471633 0.800670  
C 1.326002 0.379819 0.414488  
C 0.746168 1.693026 -0.177807  
C -0.787571 1.564611 -0.109909  
O -2.322214 -0.280012 0.430761  
O 2.126664 -0.231794 -0.602648



C -3.146470 -1.037389 -0.435205  
C 2.991122 -1.246700 -0.129954  
H -0.932563 -0.358773 -1.101498  
H -0.179833 -0.282021 1.842716  
H 0.276900 -1.543866 0.695801  
H 1.966234 0.572195 1.285178  
H 1.115003 2.575579 0.348336  
H 1.093834 1.762283 -1.210983  
H -1.180799 1.977913 0.824474  
H -1.297805 2.069042 -0.933410  
H -2.696429 -2.008629 -0.682376  
H -3.360192 -0.500019 -1.369168  
H -4.085812 -1.210787 0.091615  
H 2.443798 -2.098255 0.295452  
H 3.679907 -0.858301 0.633847  
H 3.570235 -1.596182 -0.985509

COMP. 19\_1T5I\_B3LYP

C -1.101823 0.209080 -0.245797  
C -0.025068 -0.534461 0.569130  
C 1.258900 0.320035 0.420664  
C 0.785464 1.701103 -0.097244  
C -0.749622 1.680935 -0.030380  
O -2.437639 -0.036679 0.167418  
O 2.182571 -0.208919 -0.532999  
C -2.938179 -1.306767 -0.206765  
C 2.965092 -1.283315 -0.049329  
H -1.003353 -0.045978 -1.312401  
H -0.349361 -0.553203 1.615408  
H 0.137435 -1.565923 0.250629  
H 1.776028 0.407557 1.385310  
H 1.226181 2.526921 0.464107  
H 1.127729 1.791178 -1.131408  
H -1.110414 1.973563 0.961363  
H -1.222916 2.338473 -0.761987  
H -2.398584 -2.125441 0.287130  
H -2.880892 -1.453950 -1.294581  
H -3.984043 -1.340697 0.100352  
H 2.355193 -2.156575 0.218343  
H 3.550812 -0.983979 0.831542  
H 3.648141 -1.566822 -0.850829

COMP. 19\_1T5I\_M06-2X

C 1.077099 0.056640 0.608938  
C -0.000003 -0.874637 0.000015  
C -1.077093 0.056638 -0.608932  
C -0.423760 1.435982 -0.637070  
C 0.423766 1.435983 0.637072  
O 2.216923 0.150667 -0.233963  
O -2.216932 0.150673 0.233948  
C 3.076369 -0.956798 -0.137578  
C -3.076370 -0.956796 0.137570  
H 1.399948 -0.276108 1.603203  
H 0.448028 -1.518830 -0.759286  
H -0.448040 -1.518812 0.759327  
H -1.399926 -0.276120 -1.603200  
H 0.227392 1.515176 -1.511055  
H -1.175880 2.223743 -0.677063  
H 1.175887 2.223744 0.677064  
H -0.227383 1.515179 1.511059  
H 2.581318 -1.891565 -0.428608  
H 3.458091 -1.069599 0.885435  
H 3.912855 -0.779223 -0.812382  
H -2.581328 -1.891554 0.428648  
H -3.458058 -1.069632 -0.885452  
H -3.912880 -0.779203 0.812340

COMP. 19\_1T5I\_MP2

C -1.006553 0.036274 -0.526360  
C -0.051341 -0.793862 0.368444  
C 1.139802 0.127620 0.666795  
C 0.538391 1.524346 0.595385  
C -0.375477 1.429621 -0.628891  
O -2.295765 0.196577 0.085173  
O 2.131167 0.056610 -0.369039  
C -3.068006 -0.997570 0.045594

C 2.989665 -1.070691 -0.241501  
H -1.148962 -0.424251 -1.516437  
H -0.569778 -1.038015 1.304323  
H 0.263939 -1.736462 -0.091437  
H 1.617565 -0.094030 1.634432  
H -0.051744 1.714300 1.500796  
H 1.314177 2.291800 0.514396  
H -1.157319 2.194125 -0.666277  
H 0.225408 1.499768 -1.541550  
H -2.597243 -1.809981 0.614918  
H -3.217792 -1.329588 -0.991593  
H -4.033241 -0.757942 0.494114  
H 2.440593 -2.017762 -0.322565  
H 3.522457 -1.048065 0.719298  
H 3.709835 -1.003824 -1.058280

COMP. 19\_1T5N\_B3LYP

C -1.014244 -0.168761 -0.134449  
C 0.193154 -0.697319 0.642744  
C 1.308201 0.351041 0.429568  
C 0.582637 1.642013 -0.028959  
C -0.925645 1.353507 0.075838  
O -2.198201 -0.782304 0.353009  
O 2.232346 -0.011569 -0.599701  
C -3.348564 -0.534086 -0.433929  
C 3.202117 -0.961142 -0.200980  
H -0.904794 -0.399822 -1.205543  
H -0.087796 -0.746520 1.700017  
H 0.493065 -1.699942 0.333701  
H 1.874443 0.511951 1.356300  
H 0.886550 2.516238 0.549811  
H 0.874031 1.822487 -1.066602  
H -1.303703 1.579853 1.079064  
H -1.512059 1.932337 -0.641026  
H -3.195568 -0.850529 -1.475442  
H -3.633027 0.525988 -0.426879  
H -4.162008 -1.118411 -0.002432  
H 2.753660 -1.923097 0.080250  
H 3.795486 -0.591349 0.647493  
H 3.862632 -1.119723 -1.054177

COMP. 19\_1T5N\_M06-2X

C -0.847822 -0.258911 -0.025814  
C 0.212134 -0.402479 1.065025  
C 1.353510 0.469947 0.544299  
C 0.611546 1.725217 0.104237  
C -0.660662 1.180133 -0.585108  
O -2.124807 -0.497734 0.530470  
O 1.956297 -0.075888 -0.618722  
C -3.131570 -0.603810 -0.445977  
C 2.718385 -1.235011 -0.384924  
H -0.668111 -0.994109 -0.821030  
H -0.179962 0.032714 1.989311  
H 0.479244 -1.439304 1.270667  
H 2.128554 0.664371 1.297283  
H 0.347896 2.301685 0.994281  
H 1.229353 2.353629 -0.536531  
H -1.537547 1.784442 -0.343861  
H -0.554125 1.170155 -1.670193  
H -2.925739 -1.433387 -1.134855  
H -3.228264 0.319379 -1.030585  
H -4.070576 -0.794288 0.072150  
H 2.091353 -2.101598 -0.146628  
H 3.271464 -1.445814 -1.299760  
H 3.431420 -1.079417 0.435334

COMP. 19\_1T5N\_MP2

C -0.969711 -0.359552 -0.360273  
C 0.199192 -0.958671 0.446307  
C 1.208744 0.179998 0.645120  
C 0.354414 1.437489 0.559246  
C -0.598700 1.115225 -0.594092  
O -2.141042 -0.497518 0.461934  
O 2.145429 0.250320 -0.441617  
C -3.352021 -0.290929 -0.256909  
C 3.201463 -0.695782 -0.325091

H -1.145236 -0.896437 -1.305334  
H -0.199300 -1.298355 1.409791  
H 0.649484 -1.824103 -0.050007  
H 1.766009 0.095882 1.591384  
H -0.207104 1.560383 1.493879  
H 0.967266 2.329378 0.396506  
H -1.484064 1.758381 -0.623895  
H -0.071022 1.220594 -1.548702  
H -3.437733 -1.006130 -1.086898  
H -3.425795 0.728614 -0.655675  
H -4.163446 -0.457524 0.453138  
H 2.831965 -1.729306 -0.342392  
H 3.767584 -0.534988 0.602932  
H 3.856010 -0.535477 -1.183107

COMP. 19\_1T5OT\_B3LYP

C 1.274570 -0.049014 0.621151  
C -0.018441 -0.826220 0.864331  
C -1.031067 -0.196906 -0.092796  
C -0.713231 1.310423 -0.001473  
C 0.817873 1.385240 0.215501  
O 1.982488 -0.707803 -0.434335  
O -2.348144 -0.550453 0.304920  
C 3.322225 -0.282703 -0.585032  
C -3.349005 -0.211397 -0.636627  
H 1.916795 -0.035900 1.511616  
H 0.118181 -1.897686 0.714772  
H -0.370851 -0.662526 1.888349  
H -0.854818 -0.561087 -1.115594  
H -1.038321 1.875229 -0.877698  
H -1.248039 1.709898 0.866362  
H 1.335498 1.680776 -0.699926  
H 1.077692 2.121818 0.979527  
H 3.894479 -0.437053 0.341174  
H 3.396538 0.776195 -0.867580  
H 3.762299 -0.886782 -1.379219  
H -3.148141 -0.670108 -1.615184  
H -3.440141 0.874547 -0.769836  
H -4.293467 -0.597805 -0.251772

COMP. 19\_2T1I\_B3LYPT

C 1.275672 0.300850 0.587746  
C -0.053184 -0.438791 0.797599  
C -0.969263 0.125421 -0.308485  
C -0.530051 1.595967 -0.479619  
C 0.840792 1.730055 0.229740  
O 2.010815 -0.219004 -0.525706  
O -2.358263 0.085741 0.002768  
C 2.711261 -1.418004 -0.257861  
C -2.930526 -1.206502 -0.063112  
H 1.917340 0.270338 1.478912  
H 0.052664 -1.525308 0.774461  
H -0.470646 -0.163066 1.772957  
H -0.802822 -0.431836 -1.240064  
H -0.473412 1.865547 -1.535285  
H -1.287204 2.235111 -0.020749  
H 1.601610 2.210357 -0.387021  
H 0.744449 2.313906 1.149159  
H 2.039206 -2.255578 -0.029159  
H 3.409632 -1.291328 0.581730  
H 3.278665 -1.662754 -1.156536  
H -2.521083 -1.880589 0.700985  
H -2.775870 -1.661795 -1.051786  
H -4.001161 -1.090874 0.109854

COMP. 19\_4EN\_B3LYPT

C 1.153649 -0.102456 0.445477  
C -0.227900 -0.791066 0.364423  
C -1.190936 0.234780 -0.278465  
C -0.554903 1.590472 0.032559  
C 0.946942 1.324262 -0.127451  
O 2.100700 -0.881254 -0.281810  
O -2.517224 0.198318 0.227502  
C 3.440911 -0.458531 -0.115306  
C -3.269757 -0.920203 -0.204854  
H 1.490338 -0.042864 1.490466

H -0.139139 -1.720315 -0.200151  
H -0.597006 -1.036123 1.364304  
H -1.223673 0.084020 -1.368745  
H -0.928435 2.389792 -0.610726  
H -0.799924 1.854686 1.067024  
H 1.215161 1.305543 -1.189563  
H 1.568230 2.079383 0.358759  
H 3.730062 -0.460973 0.945637  
H 3.612485 0.546373 -0.522606  
H 4.068803 -1.167757 -0.655629  
H -2.849551 -1.866133 0.160938  
H -3.326976 -0.962436 -1.301867  
H -4.276231 -0.803253 0.198322

COMP. 19\_4EN\_MP2

C 1.110879 -0.139372 0.350226  
C -0.225882 -0.843332 0.065953  
C -1.228045 0.269144 -0.316498  
C -0.535251 1.573856 0.066415  
C 0.940043 1.282098 -0.205170  
O 2.158809 -0.895174 -0.256998  
O -2.475780 0.188972 0.370648  
C 3.451768 -0.388127 0.059972  
C -3.287921 -0.879431 -0.106699  
H 1.302871 -0.088191 1.436050  
H -0.070623 -1.570830 -0.737965  
H -0.590961 -1.384681 0.945645  
H -1.425924 0.253165 -1.401909  
H -0.929220 2.436570 -0.479834  
H -0.707247 1.747293 1.136760  
H 1.140214 1.258299 -1.285414  
H 1.615465 2.014846 0.248675  
H 3.595276 -0.336018 1.148516  
H 3.613717 0.606986 -0.372499  
H 4.170633 -1.088188 -0.367951  
H -2.810650 -1.854145 0.057473  
H -3.500151 -0.759528 -1.178315  
H -4.221175 -0.834979 0.456366

COMP. 19\_4T5I\_B3LYPT

C 1.206970 0.258250 0.298659  
C 0.000001 -0.675946 -0.000010  
C -1.206973 0.258252 -0.298662  
C -0.752614 1.655209 0.140586  
C 0.752614 1.655209 -0.140584  
O 2.401792 -0.087743 -0.389473  
O -2.401788 -0.087746 0.389480  
C 3.062989 -1.222504 0.137569  
C -3.062991 -1.222503 -0.137564  
H 1.414589 0.260072 1.379015  
H 0.238171 -1.318673 -0.851315  
H -0.238167 -1.318691 0.851282  
H -1.414602 0.260079 -1.379015  
H -1.296578 2.451446 -0.370933  
H -0.948858 1.755850 1.213386  
H 0.948858 1.755854 -1.213384  
H 1.296578 2.451443 0.370938  
H 2.453630 -2.132095 0.051759  
H 3.325960 -1.075476 1.194853  
H 3.977979 -1.357069 -0.440250  
H -2.453631 -2.132095 -0.051768  
H -3.325973 -1.075467 -1.194845  
H -3.977974 -1.357072 0.440264

COMP. 19\_4T5I\_M06-2X

C -1.199971 0.275379 -0.294083  
C 0.000004 -0.659423 -0.000049  
C 1.199961 0.275373 0.294071  
C 0.745557 1.659651 -0.163425  
C -0.745557 1.659650 0.163429  
O -2.385656 -0.083764 0.379222  
O 2.385681 -0.083747 -0.379183  
C -2.982096 -1.246933 -0.140945  
C 2.982084 -1.246944 0.140965  
H -1.398361 0.293610 -1.375914  
H -0.239957 -1.300036 0.852221

H 0.239982 -1.299943 -0.852384  
H 1.398294 0.293578 1.375912  
H 1.307574 2.462743 0.313410  
H 0.905191 1.727722 -1.244296  
H -0.905187 1.727705 1.244302  
H -1.307573 2.462751 -0.313391  
H -2.321221 -2.117488 -0.047717  
H -3.242329 -1.116425 -1.199344  
H -3.891192 -1.430345 0.430068  
H 2.321217 -2.117493 0.047641  
H 3.242239 -1.116492 1.199390  
H 3.891222 -1.430324 -0.429991

COMP. 19\_4T5I\_MP2

C -1.198137 -0.271349 0.296920  
C 0.000000 0.661557 -0.000001  
C 1.198137 -0.271349 -0.296920  
C 0.746982 -1.656152 0.158740  
C -0.746982 -1.656152 -0.158740  
O -2.394241 0.082333 -0.395130  
O 2.394241 0.082334 0.395131  
C -3.011499 1.244621 0.149363  
C 3.011500 1.244621 -0.149362  
H -1.411941 -0.285923 1.379262  
H -0.245341 1.305198 -0.852869  
H 0.245341 1.305200 0.852866  
H 1.411942 -0.285923 -1.379262  
H 1.308582 -2.459849 -0.327234  
H 0.918344 -1.732351 1.240383  
H -0.918344 -1.732351 -1.240383  
H -1.308583 -2.459849 0.327235  
H -2.364232 2.126550 0.057606  
H -3.263792 1.093060 1.208191  
H -3.925830 1.407254 -0.422933  
H 2.364232 2.126550 -0.057607  
H 3.263794 1.093059 -1.208190  
H 3.925830 1.407254 0.422934

COMP. 19\_4T5O\_B3LYPT

C -1.195844 -0.154737 -0.327427  
C -0.000001 -1.072087 0.000012  
C 1.195848 -0.154736 0.327435  
C 0.756328 1.254398 -0.126230  
C -0.756328 1.254398 0.126240  
O -2.358470 -0.652164 0.324088  
O 2.358465 -0.652165 -0.324092  
C -3.560601 -0.020768 -0.074660  
C 3.560601 -0.020769 0.074639  
H -1.382889 -0.144599 -1.411947  
H -0.262826 -1.715691 0.841190  
H 0.262821 -1.715709 -0.841153  
H 1.382906 -0.144597 1.411953  
H 1.275616 2.063606 0.392253  
H 0.966115 1.353406 -1.197578  
H -0.966116 1.353404 1.197588  
H -1.275617 2.063605 -0.392244  
H -3.707719 -0.093575 -1.161821  
H -3.587503 1.038373 0.212765  
H -4.376100 -0.541287 0.428589  
H 3.707733 -0.093572 1.161798  
H 3.587500 1.038372 -0.212789  
H 4.376094 -0.541289 -0.428619

COMP. 19\_4T5O\_M06-2X

C 1.184605 -0.180126 0.341888  
C -0.000001 -1.097636 0.000009  
C -1.184600 -0.180121 -0.341879  
C -0.752817 1.218041 0.131093  
C 0.752818 1.218044 -0.131058  
O 2.350290 -0.671722 -0.283706  
O -2.350296 -0.671725 0.283687  
C 3.508119 0.051357 0.055996  
C -3.508119 0.051358 -0.056026  
H 1.351221 -0.156460 1.429331  
H 0.279320 -1.737890 -0.837411  
H -0.279328 -1.737876 0.837438

H -1.351195 -0.156439 -1.429325  
H -1.276609 2.033174 -0.370800  
H -0.953150 1.291676 1.206193  
H 0.953149 1.291698 -1.206157  
H 1.276610 2.033169 0.370848  
H 3.651138 0.079003 1.144272  
H 3.469160 1.080619 -0.319802  
H 4.354676 -0.459108 -0.401186  
H -3.651118 0.079020 -1.144304  
H -3.469168 1.080615 0.319787  
H -4.354684 -0.459113 0.401133

COMP. 19\_4T5O\_MP2

C 1.183783 0.168280 -0.341410  
C 0.000000 1.085257 0.000000  
C -1.183783 0.168280 0.341411  
C -0.753069 -1.227784 -0.131897  
C 0.753069 -1.227784 0.131897  
O 2.352906 0.676261 0.301308  
O -2.352906 0.676261 -0.301308  
C 3.530655 -0.036050 -0.064598  
C -3.530655 -0.036050 0.064598  
H 1.365908 0.149098 -1.429969  
H 0.280502 1.729752 0.839036  
H -0.280502 1.729753 -0.839035  
H -1.365909 0.149098 1.429969  
H -1.279034 -2.046729 0.370228  
H -0.956627 -1.303681 -1.209154  
H 0.956627 -1.303681 1.209155  
H 1.279034 -2.046729 -0.370227  
H 3.662474 -0.039482 -1.155887  
H 3.507682 -1.071241 0.298311  
H 4.365779 0.489750 0.400276  
H -3.662474 -0.039482 1.155886  
H -3.507682 -1.071241 -0.298312  
H -4.365778 0.489750 -0.400277

COMP. 19\_5T4IT\_B3LYP

C 1.102711 -0.105901 0.535713  
C -0.131357 -0.923425 0.092767  
C -1.126367 0.088249 -0.548738  
C -0.399356 1.442079 -0.521819  
C 0.577375 1.330507 0.657937  
O 2.111626 -0.156239 -0.486522  
O -2.327576 0.223344 0.218628  
C 3.356882 -0.679154 -0.068974  
C -3.227825 -0.856386 0.073093  
H 1.524445 -0.478701 1.474889  
H 0.171644 -1.716903 -0.592820  
H -0.607226 -1.389365 0.959853  
H -1.401344 -0.204303 -1.570340  
H 0.162624 1.569088 -1.450843  
H -1.112817 2.262731 -0.434956  
H 1.388524 2.060651 0.631473  
H 0.039535 1.444855 1.604804  
H 3.270109 -1.720422 0.272160  
H 3.801520 -0.080984 0.738697  
H 4.022299 -0.648801 -0.932995  
H -2.807740 -1.803688 0.438151  
H -3.522851 -0.989391 -0.977884  
H -4.113497 -0.617424 0.663087

COMP. 19\_5T4IT\_M06-2X

C 1.089017 -0.121238 0.551034  
C -0.143593 -0.932691 0.117967  
C -1.106014 0.082323 -0.555684  
C -0.358671 1.418950 -0.534710  
C 0.559116 1.305911 0.685595  
O 2.066305 -0.151115 -0.486074  
O -2.298496 0.246925 0.198481  
C 3.316128 -0.657627 -0.088405  
C -3.189013 -0.831933 0.065337  
H 1.528315 -0.501922 1.478632  
H 0.154993 -1.750821 -0.538751  
H -0.639348 -1.355801 0.995354  
H -1.375637 -0.220045 -1.574975

H 0.251358 1.508278 -1.436163  
H -1.061083 2.251183 -0.495068  
H 1.368400 2.036983 0.702683  
H -0.025949 1.397343 1.605366  
H 3.238537 -1.697674 0.253053  
H 3.756561 -0.054561 0.715615  
H 3.972801 -0.619968 -0.957023  
H -2.750561 -1.774284 0.417027  
H -3.495472 -0.960778 -0.980973  
H -4.067209 -0.606580 0.669170

COMP. 19\_5T4I\_B3LYP

C 1.093966 0.066720 0.597542  
C -0.000098 -0.861807 0.000784  
C -1.093693 0.066524 -0.597237  
C -0.457558 1.460422 -0.616115  
C 0.457885 1.460622 0.616064  
O 2.253446 0.135891 -0.239940  
O -2.253772 0.136170 0.239373  
C 3.111648 -0.981924 -0.135443  
C -3.111818 -0.981776 0.134972  
H 1.407493 -0.259422 1.597994  
H 0.434390 -1.510447 -0.763588  
H -0.435011 -1.508932 0.766204  
H -1.406534 -0.260121 -1.597737  
H 0.141584 1.574366 -1.523972  
H -1.221134 2.239661 -0.605053  
H 1.221449 2.239872 0.604751  
H -0.141231 1.574816 1.523913  
H 2.628799 -1.913571 -0.460925  
H 3.465981 -1.116394 0.896787  
H 3.968292 -0.789699 -0.782545  
H -2.629138 -1.913174 0.461418  
H -3.465375 -1.116946 -0.897432  
H -3.968955 -0.789192 0.781315

COMP. 19\_5T4I\_M06-2X

C -1.077096 0.056637 -0.608930  
C -0.000001 -0.874637 0.000006  
C 1.077098 0.056639 0.608933  
C 0.423768 1.435985 0.637068  
C -0.423765 1.435983 -0.637068  
O -2.216927 0.150668 0.233959  
O 2.216925 0.150666 -0.233963  
C -3.076375 -0.956795 0.137569  
C 3.076373 -0.956797 -0.137573  
H -1.399935 -0.276116 -1.603197  
H -0.448036 -1.518816 0.759317  
H 0.448031 -1.518828 -0.759297  
H 1.399943 -0.276110 1.603199  
H -0.227376 1.515185 1.511058  
H 1.175890 2.223745 0.677055  
H -1.175887 2.223743 -0.677058  
H 0.227379 1.515181 -1.511059  
H -2.581334 -1.891560 0.428623  
H -3.458078 -1.069607 -0.885450  
H -3.912874 -0.779208 0.812354  
H 2.581332 -1.891563 -0.428619  
H 3.458082 -1.069602 0.885445  
H 3.912869 -0.779212 -0.812363

COMP. 19\_5T4I\_MP2

C 1.071718 0.054408 0.613043  
C -0.000116 -0.875949 0.000804  
C -1.071433 0.054215 -0.612734  
C -0.423869 1.434975 -0.636429  
C 0.424213 1.435175 0.636413  
O 2.221378 0.157179 -0.242326  
O -2.221744 0.157490 0.241701  
C 3.091615 -0.962500 -0.132712  
C -3.091761 -0.962374 0.132235  
H 1.403860 -0.279953 1.608390  
H 0.453339 -1.525044 -0.756790  
H -0.454029 -1.523473 0.759474  
H -1.402853 -0.280646 -1.608151  
H 0.224373 1.526203 -1.515826

H -1.184085 2.220946 -0.674078  
H 1.184410 2.221177 0.673813  
H -0.224004 1.526628 1.515813  
H 2.599842 -1.897252 -0.433072  
H 3.460557 -1.069367 0.897013  
H 3.931131 -0.768954 -0.802065  
H -2.600108 -1.896845 0.433666  
H -3.459882 -1.070045 -0.897701  
H -3.931825 -0.768438 0.800787

COMP. 19\_5T4N\_B3LYP

C -1.010492 -0.348761 -0.408055  
C 0.204821 -0.989145 0.304164  
C 1.198092 0.154317 0.618892  
C 0.342804 1.421782 0.551454  
C -0.632327 1.135553 -0.599482  
O -2.142370 -0.519326 0.454399  
O 2.218705 0.276801 -0.378839  
C -3.389781 -0.283051 -0.168299  
C 3.260630 -0.670883 -0.263233  
H -1.231418 -0.837054 -1.366059  
H -0.152113 -1.465178 1.220277  
H 0.673506 -1.762748 -0.306978  
H 1.679081 0.024076 1.597276  
H -0.206690 1.534619 1.490951  
H 0.958006 2.310565 0.401976  
H -1.507535 1.788548 -0.603391  
H -0.119756 1.260165 -1.557592  
H -3.534266 -0.946152 -1.033370  
H -3.501042 0.756351 -0.503941  
H -4.161099 -0.494230 0.573383  
H 2.906968 -1.702117 -0.397596  
H 3.757795 -0.598640 0.714841  
H 3.985399 -0.446871 -1.046895

COMP. 19\_5T4N\_M06-2X

C -1.022419 -0.376104 -0.489676  
C 0.233827 -1.036395 0.106317  
C 1.142275 0.114264 0.600908  
C 0.250950 1.353153 0.559361  
C -0.634595 1.098197 -0.662345  
O -2.067079 -0.535055 0.461433  
O 2.221770 0.347450 -0.293566  
C -3.343611 -0.223455 -0.039170  
C 3.264159 -0.586109 -0.164969  
H -1.331693 -0.842959 -1.433160  
H -0.071293 -1.704881 0.912577  
H 0.758135 -1.627726 -0.646484  
H 1.548088 -0.077316 1.601755  
H -0.366815 1.386421 1.460125  
H 0.847512 2.263341 0.499936  
H -1.499463 1.759647 -0.727675  
H -0.045337 1.213442 -1.576011  
H -3.579551 -0.834584 -0.919978  
H -3.436678 0.833809 -0.312105  
H -4.061685 -0.445011 0.749510  
H 2.931404 -1.609789 -0.376566  
H 3.690443 -0.561602 0.846325  
H 4.035878 -0.313263 -0.883745

COMP. 19\_5T4N\_MP2

C -0.969715 -0.359553 -0.360284  
C 0.199194 -0.958682 0.446283  
C 1.208739 0.179990 0.645119  
C 0.354406 1.437480 0.559252  
C -0.598699 1.115224 -0.594095  
O -2.141038 -0.497518 0.461933  
O 2.145432 0.250327 -0.441610  
C -3.352024 -0.290922 -0.256897  
C 3.201472 -0.695768 -0.325081  
H -1.145251 -0.896432 -1.305346  
H -0.199295 -1.298394 1.409759  
H 0.649493 -1.824097 -0.050053  
H 1.765996 0.095865 1.591387  
H -0.207119 1.560364 1.493881  
H 0.967258 2.329371 0.396525

H -1.484061 1.758382 -0.623903  
H -0.071013 1.220594 -1.548700  
H -3.437745 -1.006118 -1.086889  
H -3.425801 0.728624 -0.655656  
H -4.163442 -0.457519 0.453158  
H 2.831980 -1.729294 -0.342383  
H 3.767589 -0.534972 0.602944  
H 3.856021 -0.535461 -1.183095

COMP. 19\_5T4OT\_B3LYP  
C -1.075648 -0.312473 -0.409682  
C 0.083386 -1.097967 0.249062  
C 1.197619 -0.078409 0.554343  
C 0.452875 1.259502 0.651277  
C -0.591353 1.155441 -0.470604  
O -2.229658 -0.479458 -1.420341  
O 2.127270 -0.024034 -0.540915  
C -3.447917 -0.107480 -0.190463  
C 3.468427 -0.310260 -0.197873  
H -1.314985 -0.695762 -1.409725  
H -0.298988 -1.540585 1.172048  
H 0.459756 -1.902715 -0.384019  
H 1.738086 -0.325535 1.473779  
H -0.043309 1.329254 1.625011  
H 1.128570 2.110746 0.547467  
H -1.414370 1.865655 -0.367852  
H -0.111118 1.338741 -1.435860  
H -3.623543 -0.685982 -1.108814  
H -3.482081 0.961168 -0.440539  
H -4.243808 -0.324161 0.523188  
H 3.580806 -1.328911 0.199266  
H 3.862041 0.400488 0.542324  
H 4.057700 -0.224580 -1.112042

COMP. 19\_5T4OT\_M06-2X  
C -1.073346 -0.331503 -0.446938  
C 0.091617 -1.133231 0.169811  
C 1.172517 -0.107568 0.547014  
C 0.401606 1.206119 0.673317  
C -0.569216 1.121064 -0.507664  
O -2.185165 -0.466486 0.429699  
O 2.110244 0.014935 -0.520402  
C -3.404663 -0.058948 -0.138753  
C 3.440895 -0.253472 -0.154499  
H -1.359536 -0.708105 -1.436334  
H -0.290860 -1.646593 1.054033  
H 0.500627 -1.875970 -0.515390  
H 1.698962 -0.381372 1.466595  
H -0.155612 1.215308 1.614627  
H 1.066091 2.070510 0.642367  
H -1.382857 1.846160 -0.462604  
H -0.020144 1.276791 -1.439583  
H -3.631106 -0.641565 -1.041067  
H -3.405135 1.005244 -0.401658  
H -4.182210 -0.236121 0.603416  
H 3.559367 -1.283496 0.204947  
H 3.789540 0.434373 0.626237  
H 4.055772 -0.117523 -1.043686

COMP. 19\_5T4O\_B3LYP  
C -1.137694 -0.321782 -0.502493  
C 0.000000 -1.234688 0.000002  
C 1.137695 -0.321782 0.502495  
C 0.506458 1.081568 0.576768  
C -0.506458 1.081568 -0.576764  
O -2.196471 -0.387984 0.461826  
O 2.196469 -0.387980 -0.461829  
C -3.427532 0.144264 0.014032  
C 3.427533 0.144262 -0.014036  
H -1.532098 -0.648925 -1.473296  
H -0.386956 -1.874798 0.794489  
H 0.386955 -1.874802 -0.794482  
H 1.532104 -0.648925 1.473295  
H -0.015551 1.190520 1.532431  
H 1.246613 1.881782 0.510528  
H -1.246612 1.881783 -0.510525

H 0.015553 1.190520 -1.532426  
H -3.773057 -0.365256 -0.896948  
H -3.370478 1.221581 -0.189868  
H -4.154552 -0.021274 0.810094  
H 3.773058 -0.365263 0.896941  
H 3.370483 1.221578 0.189869  
H 4.154550 -0.021275 -0.810100

COMP. 19\_5T4O\_M06-2X  
C -1.125441 -0.343120 -0.510278  
C -0.000001 -1.258715 0.000002  
C 1.125442 -0.343123 0.510280  
C 0.476864 1.044830 0.598473  
C -0.476860 1.044832 -0.598467  
O -2.163900 -0.372068 0.460922  
O 2.163898 -0.372071 -0.460923  
C -3.372990 0.190388 0.015450  
C 3.372988 0.190389 -0.015457  
H -1.532724 -0.678234 -1.472001  
H -0.398927 -1.894688 0.790852  
H 0.398923 -1.894691 -0.790848  
H 1.532727 -0.678238 1.472001  
H -0.096243 1.116040 1.526820  
H 1.205245 1.856662 0.583217  
H -1.205238 1.856666 -0.583210  
H 0.096248 1.116043 -1.526814  
H -3.734774 -0.320557 -0.886192  
H -3.278452 1.260166 -0.203482  
H -4.102524 0.060716 0.814040  
H 3.734771 -0.320544 0.886192  
H 3.278450 1.260170 0.203461  
H 4.102523 0.060707 -0.814045

COMP. 19\_5T4O\_MP2  
C -1.119061 -0.343245 -0.519069  
C 0.000000 -1.258067 0.000002  
C 1.119062 -0.343247 0.519071  
C 0.476571 1.045791 0.598210  
C -0.476569 1.045792 -0.598205  
O -2.167290 -0.385182 0.464335  
O 2.167288 -0.385182 -0.464337  
C -3.383596 0.200464 0.013347  
C 3.383596 0.200464 -0.013352  
H -1.530151 -0.680919 -1.483309  
H -0.406664 -1.898762 0.789224  
H 0.406662 -1.898765 -0.789218  
H 1.530155 -0.680922 1.483309  
H -0.094357 1.130933 1.531005  
H 1.212090 1.856264 0.577945  
H -1.212088 1.856266 -0.577938  
H 0.094359 1.130937 -1.531000  
H -3.729893 -0.285373 -0.909628  
H -3.282768 1.277931 -0.166551  
H -4.115048 0.037525 0.806370  
H 3.729895 -0.285372 0.909621  
H 3.282768 1.277931 0.166544  
H 4.115045 0.037525 -0.806378

COMP. 19\_E2N\_B3LYPT  
C -0.918883 -0.206379 -0.066003  
C 0.193791 -0.499841 0.942078  
C 1.341651 0.418089 0.504940  
C 0.635962 1.714613 0.062458  
C -0.815526 1.319497 -0.320771  
O -2.164945 -0.633449 0.469395  
O 2.042399 -0.098158 -0.633018  
C -3.226032 -0.627978 -0.467098  
C 2.958709 -1.134093 -0.335794  
H -0.726832 -0.754280 -0.998927  
H -0.155304 -0.205935 1.938318  
H 0.464079 -1.556314 0.984563  
H 2.065802 0.594184 1.311502  
H 0.637645 2.433486 0.885398  
H 1.189101 2.162840 -0.764001  
H -1.541787 1.824631 0.322477  
H -1.052045 1.582867 -1.353319

H -2.993777 -1.258976 -1.336864  
H -3.458456 0.384976 -0.821138  
H -4.102691 -1.032249 0.040333  
H 2.463612 -2.036288 0.046001  
H 3.704082 -0.805340 0.402517  
H 3.468900 -1.384190 -1.266741

COMP. 19\_E2N\_M06-2X

C -0.918535 -0.199025 -0.060550  
C 0.209581 -0.509346 0.913980  
C 1.329223 0.430019 0.460393  
C 0.599299 1.699404 -0.033580  
C -0.897729 1.334960 -0.121937  
O -2.124991 -0.755579 0.409192  
O 2.041720 -0.105040 -0.647237  
C -3.198947 -0.603025 -0.487327  
C 2.991864 -1.079771 -0.293086  
H -0.679957 -0.618409 -1.049158  
H -0.128186 -0.238279 1.919837  
H 0.494737 -1.561664 0.922504  
H 2.042810 0.646250 1.264775  
H 0.767710 2.542969 0.636575  
H 1.017625 1.963135 -1.005403  
H -1.443448 1.700928 0.753808  
H -1.376817 1.744659 -1.011865  
H -2.950182 -1.013448 -1.474532  
H -3.483515 0.448980 -0.604644  
H -4.044349 -1.153275 -0.076172  
H 2.530389 -1.965922 0.157183  
H 3.727882 -0.671833 0.411621  
H 3.502933 -1.378430 -1.207526

COMP. 19\_E3O\_B3LYP

C 1.271806 -0.069031 0.597582  
C -0.018955 -0.875898 0.779177  
C -1.052799 -0.187983 -0.114341  
C -0.731790 1.308566 0.071345  
C 0.808116 1.365550 0.190739  
O 2.045124 -0.702077 -0.431774  
O -2.364904 -0.573430 0.285980  
C 3.384097 -0.233938 -0.536686  
C -3.399792 -0.178652 -0.606955  
H 1.871940 -0.055310 1.518008  
H 0.132372 -1.929158 0.542347  
H -0.369071 -0.802045 1.814089  
H -0.897198 -0.480696 -1.164584  
H -1.109833 1.939538 -0.735844  
H -1.207443 1.637866 1.001436  
H 1.263256 1.618677 -0.769979  
H 1.130882 2.123569 0.908187  
H 3.929628 -0.371292 0.409872  
H 3.437015 0.828099 -0.816639  
H 3.872588 -0.823447 -1.315748  
H -3.221760 -0.564856 -1.621873  
H -3.506412 0.913622 -0.661308  
H -4.331821 -0.602198 -0.226774

COMP. 19\_E4IT\_MP2

C 1.118023 -0.066305 0.608014  
C -0.168533 -0.856829 0.368208  
C -1.058408 0.067859 -0.498953  
C -0.344221 1.428240 -0.527631  
C 0.642380 1.382712 0.644041  
O 1.987503 -0.233362 -0.527922  
O -2.351874 0.269905 0.089793  
C 3.273410 -0.736807 -0.185188  
C -3.172920 -0.888651 -0.000358  
H 1.641607 -0.379493 1.521984  
H 0.043167 -1.828665 -0.089464  
H -0.677405 -1.025654 1.326251  
H -1.199798 -0.337406 -1.512823  
H 0.209265 1.534566 -1.466339  
H -1.077412 2.237929 -0.463369  
H 1.474039 2.088210 0.547161  
H 0.125958 1.578597 1.592973  
H 3.202656 -1.730543 0.277938

H 3.798452 -0.056871 0.499523  
H 3.835289 -0.813177 -1.117528  
H -2.752000 -1.733519 0.560591  
H -3.308133 -1.189083 -1.049124  
H -4.139100 -0.618545 0.428457

COMP. 19\_E4I\_MP2

C -1.030171 0.037259 -0.560821  
C -0.033706 -0.841992 0.236640  
C 1.114700 0.094788 0.651498  
C 0.489134 1.482973 0.620517  
C -0.386565 1.423095 -0.632533  
O -2.272434 0.190155 0.143930  
O 2.165581 0.099436 -0.327194  
C -3.088790 -0.972408 0.070336  
C 3.042888 -1.013561 -0.204276  
H -1.245846 -0.375233 -1.558788  
H -0.538059 -1.239216 1.125847  
H 0.337702 -1.695380 -0.340910  
H 1.543739 -0.167492 1.631555  
H -0.133863 1.625796 1.512165  
H 1.255056 2.264040 0.596284  
H -1.157219 2.198077 -0.683001  
H 0.243776 1.494875 -1.525544  
H -2.609502 -1.841897 0.539532  
H -3.324053 -1.216739 -0.975213  
H -4.010139 -0.738895 0.605926  
H 2.521903 -1.967580 -0.358510  
H 3.521876 -1.024745 0.784691  
H 3.804517 -0.893264 -0.976100

COMP. 19\_E4OT\_MP2

C -1.037115 -0.318837 -0.369424  
C 0.074846 -1.084836 0.372408  
C 1.203084 -0.077026 0.592073  
C 0.472957 1.259411 0.687567  
C -0.557494 1.145172 -0.440272  
O -2.230386 -0.464012 0.418645  
O 2.046853 -0.050994 -0.575879  
C -3.409418 -0.099564 -0.290374  
C 3.416009 -0.310239 -0.288830  
H -1.230303 -0.733335 -1.370611  
H -0.337871 -1.415042 1.333514  
H 0.428910 -1.964990 -0.172791  
H 1.809133 -0.308781 1.478591  
H -0.029958 1.336919 1.660470  
H 1.156239 2.107872 0.577297  
H -1.389639 1.850164 -0.344500  
H -0.066562 1.328560 -1.402693  
H -3.528051 -0.718167 -1.190877  
H -3.402971 0.958164 -0.582826  
H -4.244873 -0.278935 0.388023  
H 3.550232 -1.309977 0.146374  
H 3.828723 0.440301 0.399171  
H 3.948040 -0.257192 -1.240154

COMP. 19\_E4O\_MP2

C -1.074549 -0.297326 -0.456207  
C -0.023183 -1.252607 0.137913  
C 1.163167 -0.387834 0.565561  
C 0.548105 0.999672 0.762550  
C -0.428590 1.096676 -0.411253  
O -2.228077 -0.377709 0.398864  
O 2.094564 -0.407848 -0.527866  
C -3.393630 0.194992 -0.183470  
C 3.341640 0.205024 -0.219156  
H -1.376049 -0.585417 -1.474979  
H -0.473613 -1.754875 1.001250  
H 0.308353 -2.016649 -0.571850  
H 1.667999 -0.771230 1.466634  
H 0.000254 1.016623 1.713484  
H 1.288608 1.805416 0.789287  
H -1.171828 1.892619 -0.299480  
H 0.124283 1.277886 -1.340366  
H -3.638242 -0.302546 -1.132295  
H -3.278545 1.271143 -0.364456

H -4.203501 0.036729 0.530283  
H 3.781086 -0.240861 0.684180  
H 3.246076 1.287957 -0.073312  
H 3.995461 0.016084 -1.071998

COMP. 19\_E5N\_M06-2X

C -1.084648 -0.166268 -0.283546  
C 0.220819 -0.848009 0.145027  
C 1.254924 0.288267 0.343385  
C 0.528161 1.574416 -0.060990  
C -0.943713 1.276774 0.220312  
O -2.178109 -0.880651 0.247378  
O 2.415454 0.149967 -0.449446  
C -3.425071 -0.383729 -0.174892  
C 3.283303 -0.854919 0.015433  
H -1.166133 -0.152414 -1.381386  
H 0.027215 -1.391454 1.072331  
H 0.569885 -1.564332 -0.600628  
H 1.556127 0.341108 1.399125  
H 0.911622 2.454525 0.455337  
H 0.687605 1.717436 -1.134248  
H -1.147226 1.288076 1.297212  
H -1.621592 1.980431 -0.265393  
H -3.488862 -0.356462 -1.270535  
H -3.612761 0.623780 0.214062  
H -4.189166 -1.058235 0.209113  
H 2.800966 -1.839985 0.016736  
H 3.630907 -0.634466 1.032999  
H 4.140006 -0.881728 -0.656563

COMP. 20\_1E\_B3LYP

O -0.065120 -1.120170 -0.134229  
C -0.768441 0.013251 0.366861  
C 0.067191 1.217377 -0.057218  
C 1.512622 0.679558 -0.036373  
C 1.336432 -0.862294 -0.007770  
O -2.044035 0.067896 -0.198228  
H -0.840076 -0.072167 1.464663  
H -0.246275 1.491814 -1.066672  
H -0.085377 2.077359 0.596317  
H 2.073453 1.006397 -0.912993  
H 2.057763 1.021883 0.845764  
H 1.834939 -1.372189 -0.833314  
H 1.709948 -1.285642 0.933235  
H -2.517967 -0.736622 0.039655

COMP. 20\_1E\_M06-2X

O -0.071419 -1.105345 -0.161753  
C -0.756201 0.016424 0.359727  
C 0.071115 1.211415 -0.085297  
C 1.508928 0.673016 -0.015180  
C 1.319332 -0.865252 -0.000886  
O -2.038245 0.072236 -0.167418  
H -0.789172 -0.068837 1.458821  
H -0.224396 1.439062 -1.110924  
H -0.098433 2.090953 0.534466  
H 2.103752 1.001377 -0.866534  
H 2.016639 1.005441 0.891055  
H 1.834952 -1.372803 -0.815295  
H 1.662761 -1.292756 0.947873  
H -2.487840 -0.751182 0.043718

COMP. 20\_1E\_MP2

O -0.061267 -1.106749 -0.208370  
C -0.757718 -0.006643 0.359647  
C 0.071764 1.221239 -0.003033  
C 1.508969 0.666644 -0.108487  
C 1.313532 -0.855677 0.067956  
O -2.034731 0.081843 -0.188440  
H -0.808240 -0.155020 1.452549  
H -0.290672 1.583469 -0.967834  
H -0.035332 2.018061 0.735777  
H 1.944010 0.894727 -1.083536  
H 2.171005 1.071749 0.660621  
H 1.902955 -1.460158 -0.622561  
H 1.549234 -1.159485 1.098091

H -2.484251 -0.747465 0.004882

COMP. 20\_2E\_B3LYP

O 0.009593 -1.153703 0.421811  
C -0.841935 -0.027413 0.479130  
C 0.077952 1.187173 0.479990  
C 1.210197 0.722129 -0.451729  
C 1.275607 -0.789304 -0.176630  
O -1.677426 0.056842 -0.666231  
H -1.450928 -0.142174 1.381015  
H -0.434020 2.085261 0.135422  
H 0.447210 1.357819 1.494853  
H 0.939721 0.913217 -1.491459  
H 2.159633 1.219930 -0.247750  
H 1.423982 -1.379755 -1.083777  
H 2.061008 -1.048336 0.539713  
H -2.134870 -0.786587 -0.757224

COMP. 20\_2E\_M06-2X

O -0.009070 -1.142655 -0.447928  
C 0.840087 -0.025718 -0.481813  
C -0.079962 1.182692 -0.497045  
C -1.181096 0.719417 0.463662  
C -1.249239 -0.788762 0.182361  
O 1.627594 0.054360 0.684203  
H 1.473165 -0.135424 -1.365948  
H 0.433263 2.087722 -0.176861  
H -0.470890 1.323447 -1.506981  
H -0.872607 0.903951 1.492756  
H -2.135985 1.214532 0.290245  
H -1.372306 -1.380071 1.091296  
H -2.053052 -1.042041 -0.513039  
H 2.071478 -0.791527 0.795350

COMP. 20\_2E\_MP2

O -0.010522 -1.145718 -0.475880  
C 0.841659 -0.024721 -0.483012  
C -0.079238 1.181199 -0.508925  
C -1.176707 0.723362 0.460754  
C -1.236547 -0.791734 0.202243  
O 1.609910 0.058631 0.704077  
H 1.490416 -0.135302 -1.357379  
H 0.430823 2.095243 -0.201148  
H -0.474338 1.303520 -1.521663  
H -0.870527 0.927059 1.488517  
H -2.137213 1.208927 0.274834  
H -1.316174 -1.370936 1.126134  
H -2.060374 -1.066395 -0.463149  
H 2.047279 -0.794059 0.801917

COMP. 20\_E4\_B3LYP

O -0.055353 -1.069361 0.538642  
C -0.815328 0.122399 0.467710  
C 0.166320 1.258774 0.123358  
C 1.506525 0.535768 -0.141634  
C 1.072384 -0.919085 -0.338501  
O -1.788338 0.062140 -0.563554  
H -1.305757 0.226753 1.439879  
H -0.201280 1.782308 -0.760086  
H 0.241049 1.979581 0.938568  
H 2.037937 0.934983 -1.007542  
H 2.165798 0.613364 0.726241  
H 0.770396 -1.113350 -1.374542  
H 1.818307 -1.656208 -0.040979  
H -2.356335 -0.696802 -0.387845

COMP. 20\_E4\_M06-2X

O -0.067141 -1.045800 0.576297  
C -0.811255 0.141390 0.472025  
C 0.186542 1.259977 0.132508  
C 1.498826 0.506841 -0.162943  
C 1.020371 -0.933923 -0.338181  
O -1.740789 0.066447 -0.584052  
H -1.327382 0.268034 1.426650  
H -0.183584 1.803168 -0.736664  
H 0.293287 1.961649 0.958866

H 2.016392 0.886406 -1.043604  
H 2.177277 0.567986 0.689438  
H 0.668429 -1.114600 -1.359596  
H 1.758286 -1.688545 -0.070842  
H -2.306170 -0.694993 -0.422656

COMP. 20\_E4\_MP2

O -0.057941 -1.063616 0.551594  
C -0.805367 0.133050 0.472245  
C 0.179527 1.255650 0.105258  
C 1.510236 0.513757 -0.120709  
C 1.036035 -0.916558 -0.361816  
O -1.774362 0.071485 -0.557534  
H -1.288345 0.251448 1.447033  
H -0.174403 1.739112 -0.808070  
H 0.246672 2.006685 0.894917  
H 2.086415 0.917895 -0.956544  
H 2.127553 0.543645 0.781140  
H 0.688482 -1.052500 -1.393536  
H 1.770606 -1.685263 -0.117832  
H -2.321128 -0.699366 -0.369455

COMP. 20\_OE\_B3LYP

O 0.059235 -1.058766 -0.611718  
C 0.838969 0.107994 -0.472203  
C -0.154981 1.256383 -0.288089  
C -1.409555 0.571859 0.312296  
C -1.071514 -0.933595 0.270024  
O 1.665754 0.055723 0.681925  
H 1.451429 0.176964 -1.375691  
H 0.264900 2.028468 0.356111  
H -0.378419 1.702661 -1.258660  
H -1.603055 0.901893 1.333804  
H -2.297420 0.794128 -0.282045  
H -0.806592 -1.310757 1.262719  
H -1.867467 -1.554256 -0.142087  
H 2.219200 -0.730597 0.612041

COMP. 20\_OE\_M06-2X

O 0.073507 -1.031890 -0.638560  
C 0.829464 0.137221 -0.473307  
C -0.180399 1.261933 -0.246864  
C -1.431107 0.527198 0.287393  
C -1.011371 -0.951956 0.284434  
O 1.644501 0.059850 0.674246  
H 1.438888 0.245825 -1.373443  
H 0.223977 1.989916 0.454479  
H -0.392394 1.765882 -1.189554  
H -1.710438 0.859282 1.286585  
H -2.283822 0.687771 -0.372454  
H -0.674190 -1.267288 1.275996  
H -1.787260 -1.631843 -0.063618  
H 2.201649 -0.719609 0.586580

COMP. 20\_OE\_MP2

O 0.070417 -1.041688 -0.641519  
C 0.830248 0.131849 -0.474869  
C -0.176258 1.260185 -0.257524  
C -1.428136 0.534703 0.289990  
C -1.015744 -0.947113 0.291663  
O 1.646338 0.065168 0.680691  
H 1.440863 0.231297 -1.377294  
H 0.231229 1.998738 0.434429  
H -0.390666 1.749270 -1.210168  
H -1.695451 0.874442 1.292741  
H -2.285905 0.696559 -0.366626  
H -0.677981 -1.260351 1.285159  
H -1.797169 -1.623687 -0.056902  
H 2.180379 -0.731844 0.589731

COMP. 21\_1E\_B3LYP

O -0.046265 -0.920023 0.302808  
C -1.187690 -0.070184 0.341102  
C -0.736095 1.229248 -0.313893  
C 0.740529 1.333041 0.101872  
C 1.149151 -0.128532 0.446041

O -2.237479 -0.650438 -0.377485  
C 2.231388 -0.719871 -0.442733  
H -1.486010 0.078939 1.392428  
H -0.844415 1.104703 -1.393839  
H -1.338564 2.084402 -0.004118  
H 1.361933 1.745521 -0.695323  
H 0.861914 1.978011 0.975440  
H 1.472411 -0.185973 1.493748  
H -2.453738 -1.496618 0.029354  
H 1.944615 -0.649095 -1.495450  
H 2.392789 -1.772781 -0.200339  
H 3.175324 -0.185633 -0.298813

COMP. 21\_1E\_M06-2X

O -0.044240 -0.922665 0.218973  
C -1.172017 -0.079508 0.336546  
C -0.740470 1.226729 -0.307853  
C 0.734751 1.324658 0.101751  
C 1.127530 -0.138560 0.442360  
O -2.249866 -0.636591 -0.338432  
C 2.247735 -0.700758 -0.408357  
H -1.409120 0.051979 1.405264  
H -0.852063 1.101264 -1.386583  
H -1.345243 2.073959 0.013304  
H 1.355933 1.724795 -0.700739  
H 0.864270 1.968960 0.972781  
H 1.396454 -0.212285 1.503552  
H -2.417435 -1.509430 0.028604  
H 1.987447 -0.614150 -1.465769  
H 2.412759 -1.753892 -0.176019  
H 3.174674 -0.152516 -0.225408

COMP. 21\_1E\_MP2

O -0.046090 -0.933499 0.200836  
C -1.169529 -0.074487 0.333044  
C -0.731638 1.221358 -0.324555  
C 0.734710 1.324187 0.118795  
C 1.127523 -0.143147 0.445131  
O -2.265079 -0.627246 -0.327279  
C 2.251816 -0.696342 -0.408477  
H -1.388388 0.066157 1.406072  
H -0.815940 1.074341 -1.404774  
H -1.344233 2.075667 -0.028769  
H 1.372938 1.742944 -0.663948  
H 0.835595 1.954669 1.006889  
H 1.390006 -0.230156 1.509258  
H -2.427782 -1.489493 0.069133  
H 2.000396 -0.584899 -1.467367  
H 2.407915 -1.757035 -0.194618  
H 3.181553 -0.155656 -0.203965

COMP. 21\_2E\_B3LYP

O -0.073431 -0.719762 -0.836325  
C 1.203542 -0.280479 -0.418006  
C 1.053279 1.202792 -0.098690  
C -0.376990 1.254910 0.457165  
C -1.109031 0.195873 -0.382014  
O 1.618333 -0.944127 0.767753  
C -2.200306 -0.572467 0.344213  
H 1.900234 -0.504141 -1.232175  
H 1.815035 1.544446 0.601776  
H 1.137664 1.783171 -1.021765  
H -0.380829 0.970537 1.512404  
H -0.838145 2.240078 0.365669  
H -1.527841 0.656475 -1.285631  
H 1.542789 -1.892313 0.612488  
H -1.799756 -1.051008 1.241584  
H -2.623779 -1.344735 -0.302100  
H -3.007549 0.104824 0.640323

COMP. 21\_2E\_M06-2X

O 0.076865 -0.643166 0.924550  
C -1.185145 -0.311477 0.408988  
C -1.108102 1.165632 0.060965  
C 0.321056 1.255277 -0.480525  
C 1.079994 0.247625 0.395750



O -1.449823 -1.015687 -0.784271  
C 2.140247 -0.546451 -0.341868  
H -1.922326 -0.567585 1.174366  
H -1.874502 1.453529 -0.656690  
H -1.222462 1.757125 0.971965  
H 0.343368 0.933893 -1.524053  
H 0.746508 2.256552 -0.414303  
H 1.526144 0.753656 1.258557  
H -1.309620 -1.950442 -0.606480  
H 1.685877 -1.074942 -1.183055  
H 2.606228 -1.276297 0.321889  
H 2.916147 0.121692 -0.724301

COMP. 21\_2E\_MP2

O 0.082297 -0.658703 0.922121  
C -1.185648 -0.313278 0.412604  
C -1.105066 1.166175 0.079791  
C 0.315561 1.246875 -0.487706  
C 1.082286 0.247466 0.389158  
O -1.466562 -0.999986 -0.795273  
C 2.153126 -0.540370 -0.341752  
H -1.917059 -0.578168 1.182793  
H -1.885688 1.471435 -0.619006  
H -1.191328 1.746847 1.003386  
H 0.320520 0.914309 -1.529608  
H 0.746215 2.249779 -0.432998  
H 1.519945 0.761334 1.254895  
H -1.335607 -1.935846 -0.607971  
H 1.706739 -1.074004 -1.185788  
H 2.623585 -1.265548 0.327543  
H 2.925238 0.138160 -0.720604

COMP. 21\_E4\_B3LYP

O -0.086929 -0.459383 1.079215  
C -1.176191 0.084961 0.354927  
C -0.625716 1.250976 -0.484342  
C 0.863276 1.329013 -0.095411  
C 1.160374 -0.073809 0.458784  
O -1.754096 -0.861724 -0.530495  
C 1.612528 -1.087462 -0.590614  
H -1.917693 0.384770 1.102568  
H -0.763119 1.010498 -1.539639  
H -1.159293 2.180253 -0.280970  
H 1.506975 1.591587 -0.937266  
H 1.016285 2.073649 0.689680  
H 1.891078 -0.041931 1.270481  
H -2.046215 -1.616008 -0.006386  
H 0.913964 -1.135691 -1.428818  
H 1.678769 -2.083407 -0.146367  
H 2.601824 -0.816930 -0.973109

COMP. 21\_E4\_M06-2X

O -0.102785 -0.405482 1.109141  
C -1.156037 0.135741 0.348194  
C -0.556758 1.251455 -0.521147  
C 0.919971 1.293788 -0.099512  
C 1.143517 -0.111110 0.467711  
O -1.726787 -0.825457 -0.509354  
C 1.486455 -1.146147 -0.595825  
H -1.905176 0.484241 1.064641  
H -0.675179 0.967513 -1.567398  
H -1.064802 2.202499 -0.367330  
H 1.591774 1.522368 -0.927677  
H 1.073805 2.035915 0.686023  
H 1.897184 -0.123149 1.256916  
H -2.024253 -1.562292 0.032536  
H 0.757404 -1.127355 -1.408466  
H 1.482848 -2.145965 -0.158528  
H 2.480087 -0.948623 -1.005527

COMP. 21\_E4\_MP2

O -0.103927 -0.412765 1.114925  
C -1.155808 0.142920 0.347147  
C -0.544593 1.242929 -0.532934  
C 0.924996 1.292354 -0.086688  
C 1.146880 -0.117615 0.465804

O -1.751697 -0.813336 -0.509114  
C 1.492193 -1.146315 -0.604172  
H -1.893875 0.507662 1.069695  
H -0.641409 0.939436 -1.578043  
H -1.057890 2.197862 -0.402985  
H 1.610785 1.538095 -0.901855  
H 1.058206 2.022906 0.716470  
H 1.900304 -0.137377 1.258596  
H -2.060008 -1.530280 0.055663  
H 0.765638 -1.125357 -1.420213  
H 1.492137 -2.149965 -0.170310  
H 2.489101 -0.939806 -1.008452

COMP. 21\_OE\_B3LYP

O -0.036616 -0.435259 1.102028  
C -1.188426 -0.080457 0.369576  
C -0.869585 1.235899 -0.351800  
C 0.667061 1.383922 -0.240033  
C 1.142540 0.082536 0.442822  
O -1.520560 -1.052516 -0.614696  
C 1.754766 -0.940216 -0.511780  
H -2.000258 -0.005552 1.099359  
H -1.216865 1.178428 -1.383342  
H -1.384798 2.067593 0.131004  
H 1.139765 1.517186 -1.214751  
H 0.926726 2.249603 0.372300  
H 1.850656 0.289951 1.248645  
H -1.639363 -1.896527 -0.164340  
H 1.084551 -1.151793 -1.347532  
H 1.956731 -1.875892 0.015393  
H 2.702127 -0.560901 -0.908099

COMP. 21\_OE\_M06-2X

O -0.034659 -0.396622 1.123492  
C -1.177186 -0.110623 0.364756  
C -0.906017 1.213459 -0.351944  
C 0.625775 1.387315 -0.268748  
C 1.121386 0.116953 0.448957  
O -1.415153 -1.095645 -0.618186  
C 1.725467 -0.912860 -0.496824  
H -2.013351 -0.075486 1.067794  
H -1.275318 1.155345 -1.374746  
H -1.423003 2.028284 0.154164  
H 1.083580 1.483949 -1.253698  
H 0.880841 2.277204 0.307059  
H 1.838085 0.352135 1.237784  
H -1.468203 -1.945979 -0.171298  
H 1.047665 -1.119125 -1.326901  
H 1.920294 -1.844848 0.037058  
H 2.671364 -0.538805 -0.896855

COMP. 21\_OE\_MP2

O -0.033679 -0.403669 1.130072  
C -1.179808 -0.112367 0.366284  
C -0.909535 1.212787 -0.347596  
C 0.623985 1.386607 -0.270438  
C 1.123756 0.117435 0.446277  
O -1.426622 -1.093948 -0.627317  
C 1.737855 -0.908622 -0.498648  
H -2.012427 -0.077907 1.076200  
H -1.281607 1.159097 -1.372061  
H -1.424004 2.027108 0.167131  
H 1.077863 1.483167 -1.259934  
H 0.880731 2.277428 0.307961  
H 1.838236 0.357828 1.238981  
H -1.462830 -1.939416 -0.166305  
H 1.064891 -1.118252 -1.333368  
H 1.939747 -1.840748 0.036877  
H 2.684291 -0.522411 -0.892791

COMP. 22\_1E\_B3LYP

O -0.073280 -0.928649 0.479253  
C 1.172730 -0.273854 0.497746  
C 0.853271 1.216900 0.422398  
C -0.455928 1.259830 -0.397762  
C -0.964404 -0.205205 -0.405306

O 1.967732 -0.610644 -0.631356  
C -2.388079 -0.405364 0.082696  
H 1.672240 -0.586154 1.419593  
H 0.695779 1.598452 1.433301  
H 1.671127 1.775032 -0.032848  
H -1.189936 1.928608 0.057164  
H -0.277094 1.608521 -1.415818  
H -0.856757 -0.628563 -1.409957  
H 2.067912 -1.569321 -0.644737  
H -2.512901 0.010231 1.086459  
H -2.639094 -1.468141 0.115595  
H -3.092443 0.091835 -0.590565

COMP. 22\_1E\_M06-2X

O -0.081860 -0.868337 0.564556  
C 1.178917 -0.264141 0.489656  
C 0.911479 1.230523 0.336829  
C -0.470769 1.275052 -0.347544  
C -0.935234 -0.196187 -0.370709  
O 1.885942 -0.690500 -0.653519  
C -2.372820 -0.421431 0.043200  
H 1.715694 -0.540287 1.400478  
H 0.876857 1.696183 1.321865  
H 1.701771 1.701955 -0.244981  
H -1.172316 1.885715 0.224227  
H -0.416759 1.682334 -1.356820  
H -0.756459 -0.621983 -1.363838  
H 1.946143 -1.650091 -0.620442  
H -2.538784 -0.020452 1.045591  
H -2.609832 -1.486376 0.049813  
H -3.048406 0.080803 -0.652784

COMP. 22\_1E\_MP2

O -0.084717 -0.869475 0.575075  
C 1.181321 -0.262134 0.488263  
C 0.917511 1.232339 0.324445  
C -0.479587 1.280462 -0.333244  
C -0.935302 -0.191621 -0.370360  
O 1.893605 -0.695885 -0.656906  
C -2.375116 -0.427419 0.034602  
H 1.716067 -0.533785 1.403718  
H 0.904000 1.707589 1.307979  
H 1.699815 1.694495 -0.279731  
H -1.173847 1.876386 0.266684  
H -0.447279 1.705401 -1.339109  
H -0.746355 -0.610863 -1.366429  
H 1.927196 -1.657662 -0.606332  
H -2.548814 -0.028512 1.038286  
H -2.606859 -1.495796 0.034285  
H -3.047998 0.075859 -0.666927

COMP. 22\_1T2\_B3LYP

O -0.049448 -1.018537 0.304088  
C 1.138690 -0.291314 0.515828  
C 0.718154 1.172001 0.553509  
C -0.410823 1.210362 -0.492529  
C -0.988232 -0.226497 -0.473831  
O 2.060192 -0.455916 -0.553563  
C -2.363274 -0.358530 0.162791  
H 1.571286 -0.667795 1.447751  
H 0.342617 1.408801 1.552025  
H 1.547960 1.840539 0.325058  
H -1.173142 1.955177 -0.255824  
H -0.004959 1.445031 -1.477544  
H -1.012668 -0.641763 -1.486269  
H 2.208588 -1.401185 -0.669313  
H -2.371631 0.080435 1.164630  
H -2.645646 -1.410465 0.247765  
H -3.115449 0.150708 -0.447083

COMP. 22\_1T2\_M06-2X

O -0.039529 -1.042028 0.253776  
C 1.115651 -0.296551 0.527099  
C 0.652797 1.147970 0.597337  
C -0.379062 1.176872 -0.536181  
C -0.974279 -0.244700 -0.500283

O 2.051679 -0.393477 -0.522543  
C -2.324458 -0.326663 0.188007  
H 1.536725 -0.692201 1.454907  
H 0.183678 1.326680 1.567076  
H 1.476241 1.846836 0.460799  
H -1.146665 1.938406 -0.394198  
H 0.122406 1.359648 -1.486550  
H -1.040371 -0.666757 -1.506509  
H 2.208388 -1.327679 -0.688661  
H -2.271591 0.136360 1.176912  
H -2.624144 -1.368410 0.311737  
H -3.085754 0.189589 -0.401255

COMP. 22\_1T2\_MP2

O -0.054828 -1.037485 0.305182  
C 1.124003 -0.301440 0.525952  
C 0.679563 1.147671 0.599108  
C -0.367085 1.183485 -0.522890  
C -0.966571 -0.238245 -0.490553  
O 2.026406 -0.411025 -0.560499  
C -2.335279 -0.318457 0.161794  
H 1.570205 -0.699687 1.442683  
H 0.221064 1.328042 1.575688  
H 1.508513 1.841936 0.451911  
H -1.133839 1.946127 -0.362804  
H 0.122307 1.372855 -1.480442  
H -1.002053 -0.669775 -1.496954  
H 2.159359 -1.353973 -0.706269  
H -2.307156 0.149275 1.151068  
H -2.638752 -1.362059 0.280281  
H -3.080064 0.197256 -0.453092

COMP. 22\_4E\_B3LYP

O -0.063009 -0.856588 0.514034  
C 1.190708 -0.205770 0.466637  
C 0.916101 1.270560 0.120019  
C -0.604210 1.319662 -0.135748  
C -0.971943 -0.152309 -0.360429  
O 2.024127 -0.743290 -0.549288  
C -2.393557 -0.547498 -0.012867  
H 1.651591 -0.360882 1.446737  
H 1.222514 1.933872 0.930004  
H 1.492580 1.532872 -0.768189  
H -1.135685 1.696419 0.743297  
H -0.870852 1.948766 -0.987418  
H -0.747191 -0.437302 -1.397096  
H 2.135615 -1.684031 -0.370546  
H -2.616975 -0.296944 1.027582  
H -2.541674 -1.621135 -0.149129  
H -3.101461 -0.020480 -0.658880

COMP. 22\_4E\_M06-2X

O -0.068452 -0.831709 0.556967  
C 1.187246 -0.210069 0.469857  
C 0.928075 1.265935 0.124431  
C -0.584206 1.314964 -0.154839  
C -0.945718 -0.158206 -0.351678  
O 1.958244 -0.762708 -0.572352  
C -2.372702 -0.530856 -0.020510  
H 1.680228 -0.369261 1.432053  
H 1.219203 1.924223 0.942144  
H 1.519848 1.524374 -0.753560  
H -1.127354 1.702002 0.711304  
H -0.839057 1.924837 -1.021867  
H -0.695271 -0.468313 -1.374243  
H 2.037571 -1.707172 -0.407702  
H -2.596888 -0.259310 1.013308  
H -2.529299 -1.603756 -0.140449  
H -3.063486 -0.002901 -0.681472

COMP. 22\_4E\_MP2

O -0.070873 -0.837458 0.554011  
C 1.187603 -0.202409 0.467470  
C 0.924827 1.266915 0.095944  
C -0.597444 1.318098 -0.119984  
C -0.949950 -0.149597 -0.353082

O 1.982991 -0.762480 -0.561118  
C -2.375358 -0.543442 -0.033822  
H 1.665946 -0.345899 1.441487  
H 1.261018 1.947599 0.880923  
H 1.472789 1.494340 -0.821341  
H -1.108711 1.663090 0.784899  
H -0.889715 1.958908 -0.956064  
H -0.692223 -0.435630 -1.383011  
H 2.050634 -1.704151 -0.368118  
H -2.605616 -0.291658 1.005457  
H -2.521277 -1.617303 -0.176420  
H -3.067863 -0.007175 -0.690113

COMP. 22\_OE\_B3LYP

O 0.082863 -0.907514 -0.458023  
C 1.021721 -0.247226 0.382859  
C 0.704818 1.249160 0.294922  
C -0.733806 1.321604 -0.262346  
C -1.138626 -0.152425 -0.520360  
O 2.323116 -0.489894 -0.080037  
C -2.167610 -0.689840 0.472932  
H 0.916795 -0.637562 1.406503  
H 0.810370 1.735336 1.265948  
H 1.425428 1.702389 -0.387537  
H -1.424116 1.798274 0.436925  
H -0.762289 1.896918 -1.188955  
H -1.517912 -0.288460 -1.536253  
H 2.477425 -1.441002 -0.065397  
H -1.832650 -0.554691 1.506068  
H -2.339449 -1.755328 0.304226  
H -3.120421 -0.164246 0.354919

COMP. 22\_OE\_M06-2X

O 0.099970 -0.857173 -0.553075  
C 0.986967 -0.242782 0.359961  
C 0.685151 1.251959 0.286803  
C -0.762967 1.323043 -0.234050  
C -1.136254 -0.148753 -0.529961  
O 2.300675 -0.489522 -0.026411  
C -2.081782 -0.738183 0.509562  
H 0.806494 -0.652749 1.364788  
H 0.822052 1.738923 1.251723  
H 1.388541 1.689880 -0.422227  
H -1.447071 1.754587 0.498362  
H -0.821266 1.929368 -1.137509  
H -1.569077 -0.265081 -1.524874  
H 2.430463 -1.441776 -0.060283  
H -1.683249 -0.605865 1.519417  
H -2.225232 -1.804721 0.329966  
H -3.053496 -0.240714 0.462630

COMP. 22\_OE\_MP2

O 0.105669 -0.859431 -0.575172  
C 0.982419 -0.245210 0.358825  
C 0.672539 1.248973 0.301286  
C -0.767355 1.321008 -0.247826  
C -1.139797 -0.152584 -0.531489  
O 2.306888 -0.474945 -0.022350  
C -2.069798 -0.739618 0.524985  
H 0.796917 -0.669872 1.357605  
H 0.785617 1.721657 1.279288  
H 1.386718 1.702755 -0.389644  
H -1.464945 1.767900 0.465944  
H -0.802612 1.912173 -1.165613  
H -1.584998 -0.274892 -1.522792  
H 2.431539 -1.429545 -0.045351  
H -1.664112 -0.589298 1.530952  
H -2.204593 -1.811624 0.357991  
H -3.048034 -0.249663 0.477115