

Figure S1: Population of energy bins of  $(\text{H}_2\text{O})_{32}$  in the original MCTBP method. The X-axis defines energy bins and Y-axis represents the frequency of the structures.

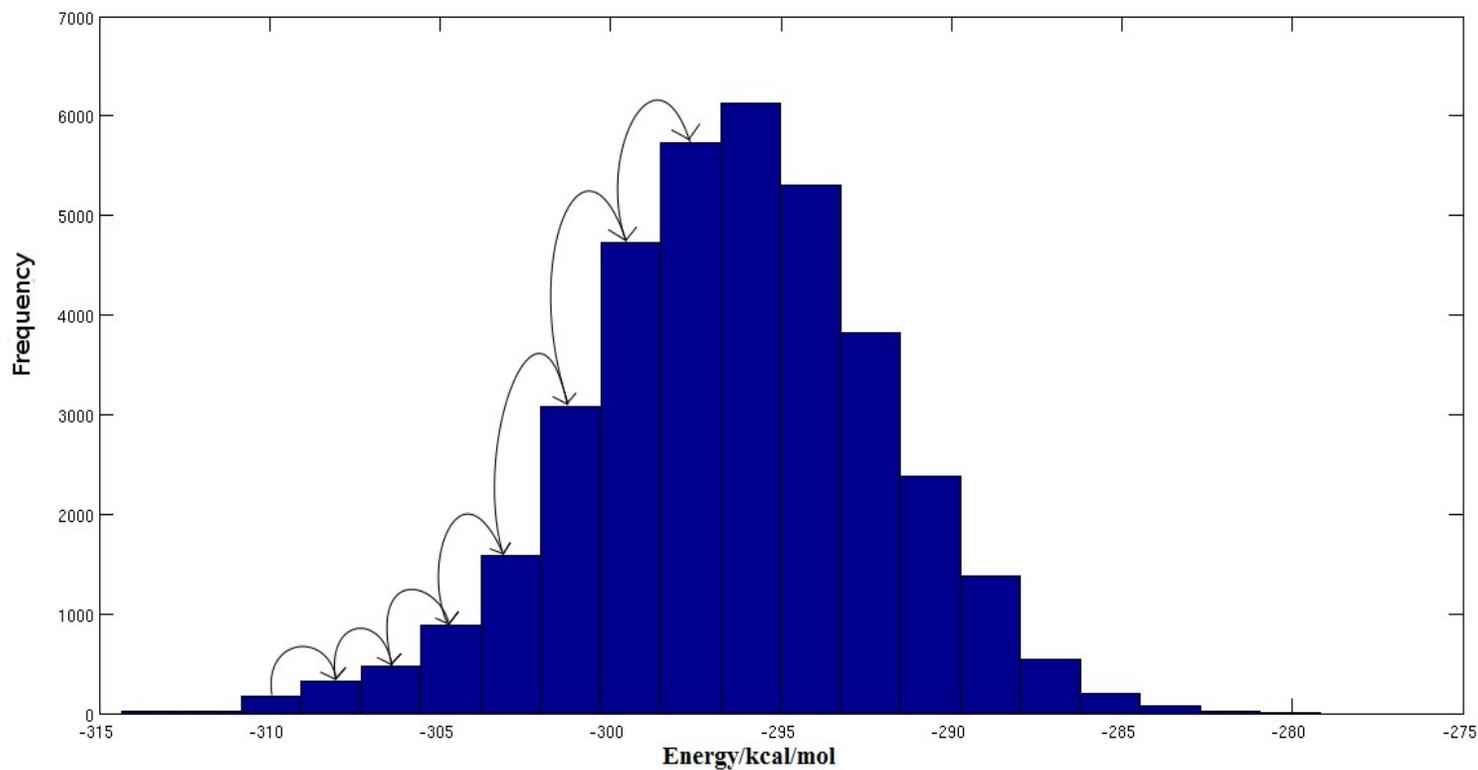


Figure S2: Variation in energy and effective temperature in the original MCTBP method for  $(\text{H}_2\text{O})_{33}$  with occasional lowering of effective temperature.

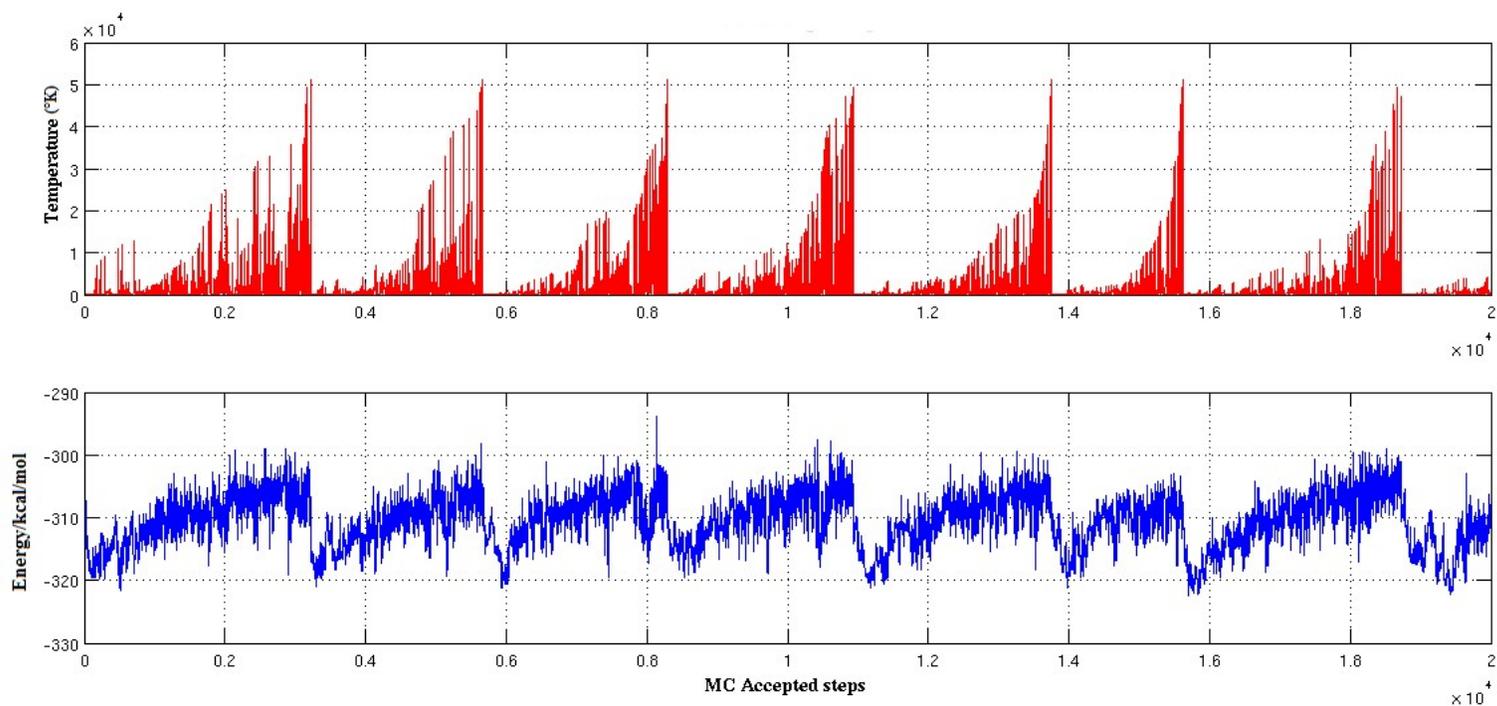


Figure S3. Graphical representation of undirected and directed graph of  $(\text{H}_2\text{O})_4$ .

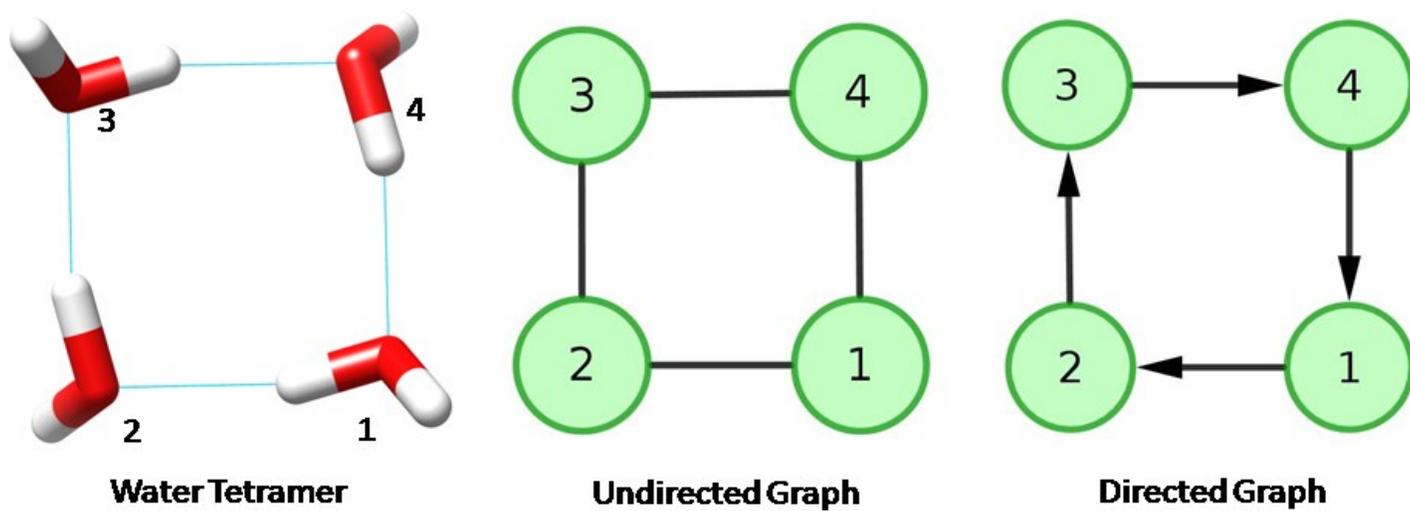
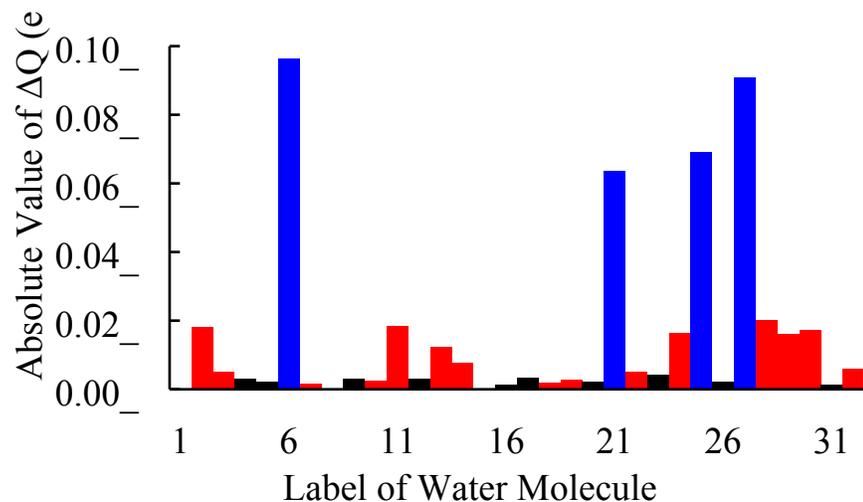


Figure S4. The decomposition analysis of polarized charges on oxygen atom into the contribution of each surrounded molecule by adapting the CDRK approach for the most stable structure. (a) w15 in structure 1 for  $(\text{H}_2\text{O})_{32}$  and (b) w6 in structure 11 for  $(\text{H}_2\text{O})_{33}$  molecules were analyzed (see Figure 6). Absolute values of  $\Delta Q$  by surrounded water molecules on oxygen atom were shown. The water molecule belonging to the first, second and third solvation shells were indicated by blue, red, and black colors, respectively.

(a)



(b)

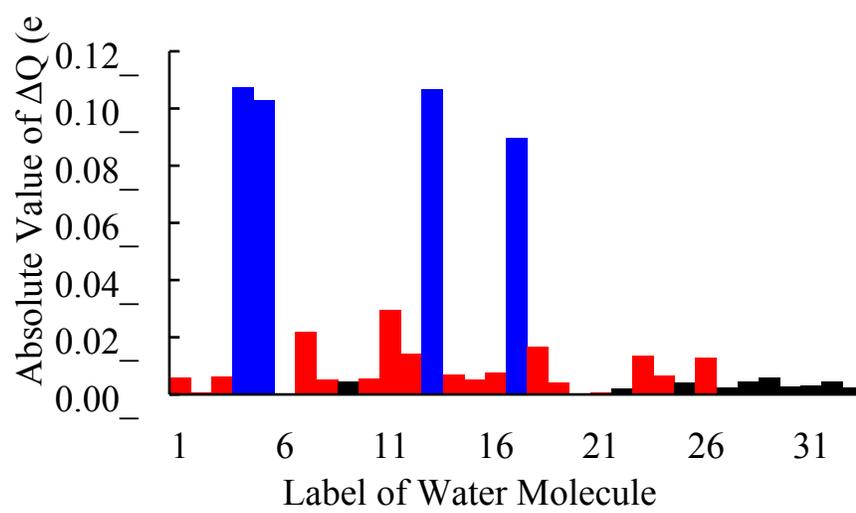


Table ST1. Total energies by the quantum mechanical calculation  $E_{QM}$ , sum of atomic energies by QTAIM method  $E_{QTAIM}$ , and their difference  $DE$  for  $(H_2O)_{32}$  clusters. The wave functions are constructed using M06-2x/6-311G(d,p) and M06-2x/6-311+G(d,p) level of theory. The structure numbers with reference to figure number 4 are also given.

Structure No.	M062x / 6-311G(d,p) Level			M062x / 6-311+G(d,p) Level		
	EQM (hartree)	EQTAIM (hartree)	$\Delta E$ (kcal/mol)	EQM (hartree)	EQTAIM (hartree)	$\Delta E$ (kcal/mol)
1. (6(a))	-2445.94906	-2445.94880	-0.16	-2446.06671	-2446.06700	0.18
2. (6(b))	-2445.93454	-2445.93562	0.67	-2446.05758	-2446.05718	-0.25
3. (6(c))	-2445.93676	-2445.93660	-0.10	-2446.05899	-2446.05946	0.29
4.	-2445.94407	-2445.94356	-0.31	-2446.06258	-2446.06218	-0.25
5.	-2445.93643	-2445.93607	-0.23	-2446.05857	-2446.05826	-0.19
6.	-2445.93246	-2445.93207	-0.25	-2446.05625	-2446.05591	-0.21
7.	-2445.93175	-2445.93132	-0.27	-2446.05539	-2446.05516	-0.15
8.	-2445.93304	-2445.93288	-0.10	-2446.05677	-2446.05641	-0.23
9.	-2445.93043	-2445.93018	-0.16	-2446.05482	-2446.05477	-0.03
10.	-2445.93280	-2445.93240	-0.25	-2446.05621	-2446.05589	-0.20
11. Structure T	-2445.94856	-2445.94815	-0.26	-2446.06659	-2446.06625	-0.22
12. Structure H	-2445.94409	-2445.94478	0.43	-2446.06208	-2446.06198	-0.07

$${}^a\Delta E = E_{QM} - E_{QTAIM}$$

Table ST2. Total energies by the quantum mechanical calculation  $E_{QM}$ , sum of atomic energies by QTAIM method  $E_{QTAIM}$ , and their difference  $DE$  for  $(H_2O)_{33}$  clusters. The wave functions are constructed using M06-2x/6-311G(d,p) and M06-2x/6-311+G(d,p) level of theory. The structure numbers with reference to figure number 5 are also given.

Structure	M062x / 6-311G(d,p) Level			M062x / 6-311+G(d,p) Level		
	EQM (hartree)	EQTAIM (hartree)	$\Delta E$ (kcal/mol)	EQM (hartree)	EQTAIM (hartree)	$\Delta E$ (kcal/mol)
1. (7(a))	-2522.37349	-2522.37306	-0.27	-2522.49901	-2522.49864	-0.23
2. (7(b))	-2522.37023	-2522.37134	0.70	-2522.49682	-2522.49647	-0.22
3. (7(c))	-2522.37006	-2522.36967	-0.25	-2522.49692	-2522.49666	-0.16
4. (7(d))	-2522.37842	-2522.37947	0.66	-2522.50090	-2522.50118	0.17
5. (7(e))	-2522.37137	-2522.37076	-0.39	-2522.49645	-2522.49580	-0.41
6.	-2522.36144	-2522.36136	-0.05	-2522.49165	-2522.49137	-0.18
7.	-2522.36828	-2522.36797	-0.19	-2522.49508	-2522.49485	-0.14
8.	-2522.37307	-2522.37272	-0.22	-2522.49698	-2522.49657	-0.26
9.	-2522.36827	-2522.37095	1.68	-2522.49495	-2522.49491	-0.02
10.	-2522.36686	-2522.36820	0.84	-2522.49353	-2522.49353	0.00
11. Structure T33	-2522.38608	-2522.38685	0.49	-2522.50452	-2522.50550	0.61
12. Structure H33	-2522.37749	-2522.37889	0.88	-2522.49951	-2522.50074	0.77

$${}^a\Delta E = E_{QM} - E_{QTAIM}$$

Table ST3. Hydrogen bond network of the lowest energy structures of  $(\text{H}_2\text{O})_{32}$ .  $N_{\text{HB}}$  represents number of different HB networks (directed graph) for each structure.

<b>Structure</b>	<b><math>N_{\text{HB}}</math></b>
1 <sup>a</sup> .	7
2 <sup>b</sup> .	193
3 <sup>c</sup> .	66
4.	14
5.	12
6.	57
7.	43
8.	20
9.	10
10.	7
11 <sup>d</sup> .	2
12 <sup>e</sup> .	7

- a) This structure is depicted in Figure 6(a).
- b) This structure is depicted in Figure 6(b).
- c) This structure is depicted in Figure 6(c).
- d) This is T structure.
- e) This is H structure.

Table ST4. Hydrogen bond network of lowest energy unique oxygen frames of  $(\text{H}_2\text{O})_{33}$ . The structure numbers with reference to figure number 4 are also given.  $N_{\text{HB}}$  represents number of different HB networks (directed graph) for each structure.

Structure	$N_{\text{HB}}$
1 <sup>a</sup> .	12
2 <sup>b</sup> .	6
3 <sup>c</sup> .	4
4 <sup>d</sup> .	11
5 <sup>e</sup> .	2
6.	24
7.	13
8.	16
9.	3
10.	6
11 <sup>f</sup> .	8
12 <sup>g</sup> .	1

- a) This structure is depicted in Figure 7(a).  
b) This structure is depicted in Figure 7(b).  
c) This structure is depicted in Figure 7(c).  
d) This structure is depicted in Figure 7(d).  
e) This structure is depicted in Figure 7(e).  
f) This is T33 structure.  
g) This is H33 structure.

The coordinates of the three structures in figure 6 and coordinates of 5 structures in figure 7 are given below.

Coordinate Figure 6(a)

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Energy -317.459209670007

O	-3.8048469977	2.7056331788	0.8952304031
H	-4.0767909600	3.5519277945	1.2125793575
H	-3.8614327997	2.1108840212	1.6259491867
O	-1.0735695713	2.2161502117	0.0457972539
H	-1.9711071067	2.3509977659	0.3048743923
H	-0.8386407067	1.3455152206	0.3245114353
O	-3.3647061124	-1.0103209490	0.3459640368
H	-4.1723135655	-1.1130259776	-0.1316344692
H	-2.7083491380	-0.7554287380	-0.2826089001
O	-3.5186521565	0.6999685080	2.6984583693
H	-2.7239360737	0.7281090433	3.2069000199
H	-3.4252630863	-0.0141738048	2.0884110819
O	-4.8943894596	1.8705669160	-1.6922662682
H	-5.0811457394	0.9454425987	-1.7043304168
H	-4.6018441324	2.0768972563	-0.8189258556
O	-1.3246486906	-0.7924395071	-1.6474127037
H	-0.4451190503	-0.4944131828	-1.4786336295
H	-1.2584678062	-1.6949189658	-1.9157955855
O	-0.0439352546	-0.0931474026	1.4598096250
H	-0.2813379452	0.2471182040	2.3075936385
H	-0.4187506625	-0.9573085312	1.3996647348
O	-5.3628306936	-1.0666624688	-1.7451694400
H	-4.8863024957	-1.5035926068	-2.4328404261
H	-6.2468037274	-1.3960783806	-1.7760771512
O	-0.8292836081	0.9777637996	3.9598259679
H	-0.4365792803	0.4079239129	4.6016548147
H	-0.3866830303	1.8086470873	4.0277681859
O	-1.3404117463	-2.6108122197	1.4566852258
H	-0.9800527916	-3.1883703529	0.8028913129
H	-2.2165252800	-2.3979657204	1.1774006076
O	-0.6195295986	3.2440696467	-2.5838429324
H	-0.7572838718	2.8005327272	-1.7621512534
H	-1.4542679112	3.2654063440	-3.0238828726
O	-3.2781655058	2.7975049727	-3.7297502710
H	-3.7560544572	3.3505037715	-4.3269880233
H	-3.8821245838	2.5481810584	-3.0486119062
O	1.0707463434	3.7477656663	1.0176494775
H	1.1472021884	3.7068045599	1.9575192268
H	0.2623226781	3.3159281912	0.7921588421
O	-2.1386719877	0.1434056675	-4.1836385720
H	-1.9187788239	0.0286291225	-3.2729510321
H	-2.5117810120	1.0064787980	-4.2659360908
O	1.3662027212	0.0669087882	-1.6859066669
H	1.4352733348	0.5020698467	-2.5206177292
H	1.7718158637	0.6341764511	-1.0498533426
O	1.2336920296	3.1024879992	3.9070054614
H	1.8537524076	2.4005741554	4.0241401603

H	1.4363523776	3.7549782900	4.5582071643
O	-3.7676215561	-2.2380453189	-3.6999338896
H	-3.0954707537	-2.8220269725	-3.3867930569
H	-3.3273447111	-1.5303673896	-4.1429087221
O	1.4245557616	5.1294396192	-1.6164435886
H	0.6564574861	4.7460071446	-2.0087228648
H	1.3515866616	4.9911090629	-0.6856274834
O	-1.2267901451	-3.4853791115	-2.6334700080
H	-1.0004588520	-4.0742297168	-1.9313962481
H	-0.5099155564	-3.5066022463	-3.2470813318
O	0.6760482855	-1.0195279322	5.4025223059
H	0.5504568506	-1.8069108098	4.8974149414
H	0.6116100905	-1.2669144593	6.3111069631
O	2.8959201021	2.0047697549	-0.2577142380
H	2.3842461520	2.6770967431	0.1630524951
H	3.3610621199	2.4210130122	-0.9657134670
O	0.2534347132	-4.2326610983	-0.1738476166
H	0.6761607422	-4.7300245457	0.5079226964
H	0.9196976697	-3.6935523493	-0.5692384153
O	0.1300659900	-3.2627984902	3.8661100424
H	0.7886457011	-3.7881074929	3.4404321480
H	-0.5287169763	-3.0750934327	3.2167640108
O	2.8397739277	-0.2210118530	1.5766984770
H	3.1725254897	0.4546442171	1.0078015382
H	1.9010155986	-0.2201974226	1.4786648596
O	1.5244285799	1.8614398784	-3.8528595832
H	2.3123488085	2.3627168771	-3.7158138315
H	0.8050978466	2.4049068487	-3.5734219292
O	2.7131542773	0.7960943183	4.2808949307
H	2.1874193389	0.1577727488	4.7358969114
H	2.9700807516	0.4022608899	3.4625047599
O	2.0947647148	-2.6440884541	-1.6381617222
H	2.0261206893	-2.9272828179	-2.5359185959
H	1.9064330661	-1.7192383748	-1.6302893086
O	0.4560294402	-0.5004221892	-5.2838033406
H	-0.4466907386	-0.2920493224	-5.1033719647
H	0.9643883621	0.2532171296	-5.0298792621
O	1.0766636773	-3.0384273739	-4.3579531884
H	1.3566524482	-3.5754516707	-5.0818935498
H	0.9217769057	-2.1744758543	-4.7050501688
O	3.5306117468	3.6624833787	-2.6294335004
H	4.2952117463	4.1195079642	-2.9415133348
H	2.9169573744	4.3216966244	-2.3470425266
O	2.0128055271	-4.7903611262	2.1525748127
H	2.4878760812	-5.5481331087	2.4541839062
H	2.6524962957	-4.1900242893	1.8043365940
O	3.6099744250	-2.9433938889	0.8762150953
H	3.5061251325	-2.0603490732	1.1929573122
H	3.3730559629	-2.9335219191	-0.0373770679

Coordinates Figure 6(b).

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Energy -316.853667005944

O	3.6309697125	-2.6651772485	3.1141607811
H	2.8152756232	-2.2415933730	3.3288659446
H	4.1337294229	-2.7058812255	3.9119416494
O	2.5380254790	0.5738630412	-2.6154473183
H	2.2170379460	1.4421160718	-2.4311048852
H	3.4727028511	0.6475866292	-2.7241740245
O	-1.7244665214	1.4484462969	1.5464615312
H	-2.0150036260	2.0698026849	2.1948309352
H	-0.8102428160	1.2865555472	1.7163581341
O	6.7403205965	-1.1832275006	-3.5993574746
H	6.4298313762	-1.8601447606	-3.0194799692
H	6.4905793132	-1.4387882473	-4.4729686297
O	3.0194758714	-5.0604216394	1.5430658491
H	2.0767536039	-5.0229713302	1.5156677708
H	3.3049828234	-4.3281891846	2.0657510953
O	-1.3084852087	-2.8295924592	2.8168813567
H	-1.7987165794	-2.3117619515	2.1984937578
H	-1.8905076294	-3.0161372161	3.5361375068
O	4.2496116587	-5.4559754290	-0.9249591858
H	4.7698946899	-6.2422730159	-0.8811399400
H	3.8570371913	-5.3426782448	-0.0741199003
O	0.9797096479	0.7879458884	1.6560866404
H	1.1440538559	0.2082286655	0.9295899942
H	1.5920734990	1.5018737519	1.5773721330
O	-2.7045701162	-1.2525707097	1.0453501063
H	-2.5688460229	-0.3367877503	1.2291951388
H	-2.5276405344	-1.3738679914	0.1261867114
O	-1.5328739566	-1.4056983456	-1.6267135765
H	-0.8790212779	-2.0794698706	-1.5298267315
H	-1.8023590960	-1.4172539854	-2.5312149203
O	2.0854205814	-4.8730781062	-2.8399663056
H	2.4646718888	-4.3696498760	-3.5425379510
H	2.8032625996	-5.1928894535	-2.3171833745
O	-0.0083021805	3.0022162037	-5.8418003402
H	-0.6634633377	2.6317451100	-5.2722448286
H	-0.4590957292	3.5876321909	-6.4291262740
O	1.1927664211	-1.3934751225	3.5709555631
H	0.4075654164	-1.8781069993	3.3722855346
H	1.1348660254	-0.5779659238	3.0992875177
O	2.8487719638	2.8331864674	0.8324833096
H	3.1351767560	3.5961616644	1.3086341237
H	3.6278511428	2.3781325103	0.5552830516
O	4.3319207144	-1.3553983553	0.5741087068
H	4.3586104950	-1.7826073536	1.4153331605
H	3.4206060219	-1.2372842300	0.3586254389
O	1.3092935257	2.8837663984	-1.6457922794

H	0.4521049225	2.5153761736	-1.5029819333
H	1.6966840713	3.0076112485	-0.7940473221
O	5.0873681655	-2.8018300618	-1.8233334763
H	4.9360864536	-2.2846861912	-1.0483789519
H	4.9803792907	-3.7052375550	-1.5717649252
O	5.0440836822	1.4148056069	0.0263013090
H	5.2404852261	1.4227320623	-0.8968682631
H	4.9986979263	0.5085730084	0.2862264226
O	4.7938492837	3.0519062562	-4.8877934295
H	5.3089226948	3.8047224297	-5.1303746409
H	3.9317777025	3.3707530542	-4.6732060058
O	5.2942305779	1.0935305244	-2.8466146515
H	5.8724602679	0.3979653365	-3.1162773095
H	5.3539250525	1.7667189122	-3.5055019093
O	3.5200141589	-2.7861601235	-4.2707070809
H	4.1131950949	-2.5933523279	-4.9791137333
H	3.9849896600	-2.6028774516	-3.4700300551
O	1.7823257771	-0.9322015339	-0.4220406238
H	1.3475300472	-1.7357572839	-0.6589568199
H	1.9913792121	-0.4888532119	-1.2286491911
O	0.4946183668	-3.3393751098	-1.1137405390
H	0.3561408968	-3.9047382263	-0.3707284322
H	0.9540040546	-3.8499026390	-1.7612008743
O	-1.4813248016	-1.1231292835	-4.5070949800
H	-1.8460798811	-1.6125213705	-5.2270446805
H	-0.5427140421	-1.1725602271	-4.5933786868
O	2.2378873135	3.9550041385	-4.2316827221
H	1.9286829364	3.7835467478	-3.3565407505
H	1.5450654262	3.6987973875	-4.8192492182
O	-1.8607543529	1.7758199457	-4.1628900727
H	-1.7540151613	1.8896523134	-3.2320155424
H	-1.8874714433	0.8457030005	-4.3211528903
O	5.4263838916	-1.6836041460	-6.1602047744
H	5.7970840941	-2.0633523195	-6.9407501854
H	5.1051938609	-0.8291884674	-6.4003906744
O	1.3070664850	-1.0071185315	-4.5747771901
H	1.6317372394	-0.3928241615	-3.9359424837
H	1.9027420171	-1.7392721240	-4.5742959941
O	-1.1690914388	1.4569460222	-1.3121420020
H	-1.0885436883	0.5175195669	-1.3553675631
H	-1.5996265574	1.6550350934	-0.4958830446
O	4.4606650751	0.8137710782	-6.8223282138
H	4.6506293509	1.5234457156	-6.2297457833
H	3.5301917004	0.8333102432	-6.9795413625
O	1.6055051242	0.7295820976	-6.8872515541
H	1.4302602759	0.0876721409	-6.2178344160
H	1.1172918215	1.5034207005	-6.6555188595
O	0.0708556729	-4.8259484922	1.3450281410
H	-0.4455826979	-5.6159452208	1.3363660428
H	-0.3722345745	-4.2184281381	1.9155266127

Coordinates Figure 6(c).

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Energy -316.732596776585

O	1.7839649926	6.5950534232	3.4289318935
H	2.0635806991	7.4958869081	3.4634651120
H	2.4738503473	6.0817570860	3.8181150401
O	-2.7866179454	4.2798100199	2.7481773844
H	-2.2793619003	4.0709399891	1.9800998695
H	-2.2221268632	4.7755773340	3.3195293272
O	2.2637182483	0.5465461296	2.6018848042
H	1.3595723139	0.8138947779	2.5580295461
H	2.3426759856	-0.0211601961	3.3517872362
O	0.3320529164	-3.2998423435	-0.9733647866
H	-0.3368887887	-3.6253192579	-0.3924515164
H	0.0798754174	-2.4224023675	-1.2129144716
O	2.0268094005	-1.1624508407	4.7812951561
H	2.3740498635	-0.8100486757	5.5851080878
H	1.0983212473	-1.2712063944	4.9115273830
O	-2.4840940309	-0.1200501966	3.0900590345
H	-3.2044946127	0.4581966160	3.2837910135
H	-2.6952909282	-0.5542589178	2.2790491017
O	3.7051729056	4.7928716470	4.3033718165
H	3.4624439731	4.2476310505	5.0345857464
H	3.8976575734	4.2125101607	3.5843386796
O	-4.0570136545	2.1345012479	3.9374591906
H	-4.9872140352	2.2945139365	3.9387419051
H	-3.6553449508	2.8727637285	3.5079138307
O	2.8327755945	-3.2135582140	0.1934924070
H	3.4278576581	-3.8429186936	-0.1815558277
H	1.9941898498	-3.3557913395	-0.2156801005
O	-1.6039276720	-0.3915288709	7.6386057363
H	-0.8178795187	-0.0495914058	8.0336823423
H	-2.0583567781	-0.8729896243	8.3113376179
O	-0.0394788707	-0.3209950771	-0.9066553290
H	-0.2140341016	0.4740837152	-1.3844195381
H	0.8343880295	-0.2421485985	-0.5587784432
O	3.5980153433	2.9474172972	2.0048664157
H	4.0611521408	2.7727864347	1.2011955734
H	3.2469351326	2.1226159253	2.3003724845
O	-0.2894367129	2.4369192784	-2.0186364529
H	0.5535945893	2.8612628800	-2.0290856326
H	-0.7180771254	2.6651498463	-2.8279921588
O	0.7107884085	0.7430687581	8.6676283943
H	1.5079957550	0.4888097144	8.2309463138
H	0.7130985482	1.6860148299	8.7091714195
O	4.1877550590	1.9136696470	-0.7272679938
H	3.7596935723	1.0805081488	-0.6111485055
H	4.9800661766	1.7463412420	-1.2121625718
O	-0.8479740639	3.4294647486	0.6877451022

H	-0.0665742916	3.9561457322	0.7415966706
H	-0.9094987005	3.1257404711	-0.2037955511
O	2.4762180217	3.0306179985	6.3164676840
H	1.7002185163	2.8852029045	5.7992079117
H	2.1917989932	3.4156914661	7.1299187857
O	2.1011823204	3.7929004945	-1.6161483237
H	2.8421942063	3.2446190798	-1.4132509865
H	1.9796968305	4.3687825684	-0.8782597368
O	1.5997136796	4.7839998933	1.1183102467
H	1.5513754096	5.5463510116	1.6727132031
H	2.2126444451	4.1919187007	1.5240616388
O	3.1357203682	0.4029612085	6.9860140833
H	4.0138439605	0.2493616929	7.2961505043
H	3.1074910425	1.2963477202	6.6827945259
O	-2.3709482802	2.0396511075	6.2803925526
H	-3.0316785384	1.9554231766	5.6116477316
H	-2.3427930367	1.2153293985	6.7392819253
O	-1.6208897689	-4.0429136583	1.0540393799
H	-2.1808461008	-4.8005785531	0.9968443839
H	-1.2233362012	-4.0633827103	1.9098493079
O	-0.6923850418	5.3663956757	4.5230794408
H	-0.2748578285	4.5253093321	4.6185951088
H	-0.0363625156	5.9589180229	4.1922771324
O	-0.3138593857	1.4684469277	2.5720709254
H	-0.5578524871	2.0674934391	1.8846925015
H	-1.0371790338	0.8720422822	2.6815635717
O	-0.3974623877	-4.0535652319	3.5266754739
H	0.5422874863	-4.0670353077	3.4396859032
H	-0.6047861258	-3.3507449043	4.1216031239
O	-0.8326256634	-1.4913863678	5.0284055712
H	-1.3838553545	-1.0362110592	4.4120941887
H	-1.1523274133	-1.2749062304	5.8896869395
O	-1.4684476267	4.6354734062	7.3332974089
H	-1.9647164934	3.8715968259	7.0861370641
H	-1.3354478098	5.1389734750	6.5461016369
O	2.7424608489	-0.3507805537	0.0670643565
H	2.6496101454	-0.1441125051	0.9833315220
H	2.9678883633	-1.2659538994	0.0168783304
O	0.8197114023	3.7201589757	8.6153300669
H	0.0455462481	4.0873158443	8.2194227522
H	0.9664075284	4.1964279792	9.4169075972
O	2.4102140323	-3.5968514700	3.1441289846
H	2.6128192572	-3.3916799498	2.2453886305
H	2.5533681798	-2.8075383392	3.6414921573
O	-2.4308130306	-1.2932108954	0.6115197084
H	-1.6883999583	-0.9303360791	0.1554241572
H	-2.2788522810	-2.2221517915	0.6811989468
O	0.0663267198	2.7263534885	4.9646453189
H	0.0073709630	2.2686639287	4.1412845597
H	-0.6670251559	2.4418340847	5.4862986419

Coordinates Figure 7(a).

99

Energy	-325.768527792549		
O	0.0102969424	4.8652819401	-4.5734691602
H	0.2671410555	5.6395275370	-5.0482884010
H	-0.7482409121	4.5162927837	-5.0135888553
O	-2.9164382896	3.3878785899	1.6241601595
H	-3.0600070536	4.2900223130	1.3866666505
H	-2.7866295407	3.3707846302	2.5588985931
O	-1.7227739996	-1.2807044529	-3.1589569184
H	-1.8433607119	-1.0596040978	-4.0686007673
H	-1.6928146170	-2.2228441078	-3.1104413537
O	-3.4143021690	5.9761945758	0.7839725516
H	-2.7166852385	6.4801454488	0.3963611612
H	-4.1443375738	6.0197551165	0.1872906924
O	-3.6287307775	5.4811960206	-5.5714625064
H	-3.5166117497	4.9309834865	-6.3301284045
H	-3.5690618811	4.9177983139	-4.8165445633
O	-5.1854650049	1.9341367169	0.4249422213
H	-4.8161180661	1.2611876859	-0.1242398018
H	-4.4626421846	2.3524060759	0.8647789727
O	0.3942463398	7.1921092334	-6.2873496517
H	0.2160390964	6.8746939369	-7.1581930142
H	1.1710539917	7.7249770786	-6.3465120188
O	-4.2900183114	8.6361466223	-7.3692522083
H	-3.6296081729	8.6975154809	-6.6977086384
H	-5.0521727763	8.2522957103	-6.9659440097
O	-7.7652711740	4.5488754337	-5.7351794373
H	-8.6538220102	4.4704378593	-6.0437299396
H	-7.7226867268	4.0902016187	-4.9113570351
O	-5.9678392978	8.1223513922	-3.0760519515
H	-6.0492088526	7.7642903096	-3.9455631421
H	-6.5587756779	8.8568120562	-3.0287213928
O	0.6716546364	1.9613879961	-4.5864393641
H	0.7293331015	1.5198436288	-3.7542193089
H	0.8917951074	2.8657154102	-4.4295682218
O	-1.3233789795	2.3401531389	-0.5809515313
H	-1.6564253113	2.5576147039	0.2750093689
H	-1.1768006560	3.1569922163	-1.0305815690
O	-2.2902951806	7.9415812407	-5.3737782857
H	-2.6347068806	7.0646995340	-5.4315494499
H	-1.3780813153	7.8909103080	-5.6107946871
O	-5.4372863435	5.9106255108	-1.2955083245
H	-5.7899293925	6.6600690074	-1.7481182884
H	-6.1672410371	5.3472303293	-1.0939383150
O	0.3901663759	0.5344746151	-2.1847670130
H	-0.2112973558	-0.1589584914	-2.4044721799
H	-0.0028861932	1.0205953990	-1.4776074020
O	-1.0340870882	4.8517818319	-1.9617140228

H	-1.0258792268	5.6923725023	-1.5325073012
H	-0.5193754295	4.9434011435	-2.7475615043
O	-6.0145574654	6.8916593089	-5.5804741043
H	-5.2188068680	6.3840579680	-5.5810393846
H	-6.7235071993	6.2848541376	-5.7220940640
O	-3.3277535356	0.5170453646	-1.4872533917
H	-2.6247202961	1.1086144165	-1.2712238222
H	-2.9359371689	-0.2213871808	-1.9255178835
O	-3.6543528091	4.4504579044	-2.9543008549
H	-2.7925988320	4.4958151016	-2.5719381190
H	-4.2172589504	4.9865095201	-2.4188909228
O	-0.9564053662	3.2816611152	-8.2486152593
H	-1.1451861947	3.1583066779	-7.3320870624
H	-0.4968126574	2.5094310292	-8.5372563693
O	0.3409842526	0.6433952809	-7.1226825885
H	1.0425503347	0.0658331664	-7.3778403643
H	0.6220434802	1.0798893213	-6.3344205017
O	-5.9027107032	2.9589026642	-7.4759537214
H	-6.4957304511	3.4936477010	-6.9727104618
H	-5.2863565116	3.5465828200	-7.8829156349
O	-3.1424606991	7.0823748537	-9.3746277712
H	-3.3653766536	7.4131856557	-10.2300523117
H	-3.5383669950	7.6653261587	-8.7466911224
O	-2.0949340700	-0.6349373983	-5.8717078505
H	-1.3899689601	-0.2896612126	-6.3958137592
H	-2.8521122866	-0.1001270763	-6.0492959188
O	-1.7784772472	2.8372782273	-5.6411038179
H	-1.1800959637	2.2698607165	-5.1819135936
H	-2.6011525382	2.3776876164	-5.6945854977
O	-3.0545856520	8.7322263121	-2.7244156369
H	-2.7587065379	8.5873481999	-3.6089179470
H	-3.9848113122	8.5724185327	-2.7199268914
O	-0.3917992138	6.1333500962	-8.6899792540
H	-0.4784908859	5.1941710267	-8.6538450118
H	-1.2257118542	6.4720246507	-8.9741758555
O	-3.5891551733	4.4688363705	-8.2771533556
H	-3.5324667209	5.2748698089	-8.7649801381
H	-2.8550661705	3.9385335640	-8.5431810297
O	-7.5590716923	3.0349306502	-3.3962311012
H	-6.7848407358	2.4962646577	-3.4320616539
H	-7.6256176620	3.3557489829	-2.5110612387
O	-1.4951509361	7.4690419172	-0.8304793379
H	-2.0268607761	7.9313872045	-1.4584920251
H	-0.8909028281	8.0986552965	-0.4708271856
O	-4.9079063635	1.9707153892	-3.3017893155
H	-4.5393594086	1.3720127118	-2.6720221361
H	-4.4601367003	2.7937720048	-3.1879535121
O	-4.1561496936	1.3944994032	-5.8915591135
H	-4.5636582548	1.4489796510	-5.0419432419
H	-4.7756845458	1.7431521604	-6.5124425776
O	-7.1397250829	3.7281257615	-0.5493532948
H	-7.8168179079	3.7191447521	0.1081747288
H	-6.4891438772	3.1006993284	-0.2773999533

Coordinates Figure 7(b).

99

Energy -325.72034733038

O	-0.1075827694	7.9698723211	-3.5012454272
H	0.5930139679	7.3611759784	-3.6730925343
H	0.0559734061	8.7298917052	-4.0365008497
O	-1.7917933518	-2.1568478326	-1.1040246185
H	-2.5484936172	-1.6144122800	-0.9489542030
H	-1.3985102639	-2.3210161387	-0.2618514570
O	2.0671164410	2.0183843216	-1.5893505201
H	1.8488925666	1.9060654360	-0.6779552916
H	2.3844647335	2.9020937977	-1.6854029906
O	-2.0212829196	3.0220283087	3.5206206008
H	-1.7153877666	2.4556841536	4.2109545109
H	-1.8612885980	2.5697510172	2.7077703547
O	-0.3322773089	5.1076733756	-0.0299075909
H	-0.3688272470	5.0186695561	0.9090390935
H	-1.1527591551	4.7833209225	-0.3652931605
O	-0.8980588849	7.8180191903	3.3566213809
H	-1.1400759098	8.2798737557	4.1433847342
H	-1.6001261130	7.9475041011	2.7391963093
O	2.2333128502	4.8463964931	-1.2189994841
H	2.8139469787	5.2267188469	-0.5793922843
H	1.3664618789	4.8697800415	-0.8463051626
O	2.0464647037	1.5914922667	4.7101771819
H	2.2535017778	2.3652539379	4.2108706826
H	2.6021606899	0.9016268428	4.3843457501
O	3.3570631238	6.0872292644	1.2238345949
H	4.2088645395	6.4788301924	1.3332033082
H	2.7231639928	6.7701043109	1.3746060002
O	-0.3172535260	5.0723249229	2.8207967718
H	-0.9711655926	4.5201776908	3.2188054365
H	-0.4616226929	5.9448115912	3.1506497866
O	-2.8253828544	4.7068486063	-1.2994168924
H	-2.7725675576	5.2114414538	-2.0953283553
H	-3.5243629057	5.0807339213	-0.7870546052
O	1.4593712213	8.1290212037	1.5605093542
H	0.9336082553	8.2602126726	0.7876959510
H	0.8637079186	8.0995901006	2.2920812878
O	-4.6501207108	0.5524446818	1.9282652252
H	-4.0171418301	0.1178709373	2.4772295695
H	-4.5096861191	0.2366796858	1.0499435035
O	-1.9026869839	-0.4912625873	2.9248100096
H	-1.7200562409	0.1787164421	2.2855506210
H	-1.5498687426	-0.1865483682	3.7455090941
O	2.4868736968	-0.9107038897	-1.6794279129
H	1.7478366594	-1.1410938204	-2.2194493858
H	2.6484545316	0.0087426141	-1.8186694817
O	1.6102340520	5.8565627535	-3.8599061423

H	1.0949202794	5.1423458224	-4.1993532592
H	1.9830944978	5.5589731089	-3.0454775417
O	-0.3359023639	3.8139619428	-4.8183061836
H	-0.3375794820	3.0028576295	-4.3356205361
H	-0.3330312758	3.5847636270	-5.7339143656
O	-0.6077833611	-2.5309696123	1.5690131643
H	-1.0840783992	-1.9543774338	2.1448281957
H	-0.6458715381	-3.3916195186	1.9546418504
O	-2.3694332419	1.9761393092	-1.4194917990
H	-1.6813706327	1.8700677331	-2.0568277548
H	-2.6438124181	2.8781408711	-1.4640754730
O	-0.1662962308	1.5231053740	-3.1457175902
H	0.6089988285	1.6860011069	-2.6326279244
H	-0.1668585264	0.6019374980	-3.3514550011
O	-0.6544649734	1.0159669176	5.1365049389
H	-0.7544919227	0.8637651047	6.0626300232
H	0.2614576397	1.1882862517	4.9872726773
O	3.5477315844	-0.5350471984	3.3862624483
H	3.1257806524	-0.9042064583	2.6269487411
H	4.4754970899	-0.6648575331	3.2710283480
O	-4.5827700313	5.6390677929	0.7404766734
H	-5.4627472780	5.9707445151	0.6597979810
H	-4.6210761876	4.9113620698	1.3403562221
O	1.4502246334	1.6046244797	1.0888287465
H	1.7329783171	0.7461621967	1.3608054314
H	1.8170853802	2.2187923324	1.7045311870
O	2.1930604371	3.7850913713	2.7172322202
H	1.3785727976	4.2512459024	2.8181692906
H	2.7997944572	4.3837161580	2.3117687228
O	-4.6959333445	3.4710561146	2.5109211141
H	-4.8597387439	2.5822489756	2.2387665352
H	-3.9418642405	3.4465061322	3.0780679547
O	-3.9904173117	-0.2070625150	-0.8728239511
H	-3.5371099959	0.5733991889	-1.1489950216
H	-4.7232484721	-0.3163996499	-1.4575310020
O	-1.3068003525	1.6074013370	1.1866406305
H	-0.3773257118	1.6698399335	1.0347960784
H	-1.7259925317	1.7034503600	0.3464436559
O	1.9730549834	-1.1818726383	1.1089742305
H	1.1806016576	-1.6840555911	1.2124559312
H	2.2112708840	-1.2357751245	0.1972581778
O	-2.1974977366	5.8928402538	-3.7306187209
H	-1.6889707799	6.6868752033	-3.6883423999
H	-1.6574310111	5.2472324821	-4.1576983285
O	-0.4646197747	7.8473120950	-0.6026646475
H	-0.3886307112	8.0640396025	-1.5181608538
H	-0.3536295788	6.9124366787	-0.5350807268
O	-0.0596252743	-1.3729725816	-3.1233621189
H	-0.1241560627	-2.0049309054	-3.8214616163
H	-0.6610917468	-1.6495618896	-2.4505955239
O	-2.6918250743	7.9457210685	1.2692284883
H	-3.2423538561	7.1963643940	1.1071757532
H	-2.1186088382	8.0274891620	0.5238322316

Coordinates Figure 7(c).

99

Energy -325.358848563249

O	-3.0813706735	-0.7144253992	-0.9873970384
H	-2.9894703837	-1.4850416388	-0.4501974460
H	-2.4084463917	-0.1115364901	-0.7143103703
O	1.3883509940	1.3820677628	1.6522266063
H	1.8633856565	1.9251789569	1.0437442694
H	0.5188915551	1.7436292511	1.7169724812
O	-1.0570143426	2.6461988996	1.7913654492
H	-0.8471112075	3.4996148351	2.1356042746
H	-1.7295621679	2.2871338758	2.3478096832
O	2.8900786011	2.7481101587	-2.4789701454
H	2.0301866401	2.8885675152	-2.8419246887
H	3.0594608031	1.8211721464	-2.5335049521
O	-0.1353922455	5.0272246854	3.0175094692
H	0.4057421480	4.7652895397	3.7451371223
H	-0.8909981685	5.4589436195	3.3829638510
O	0.3936382365	-1.7719842665	4.4261569319
H	0.6694491219	-1.0600797736	4.9811333300
H	0.4543705898	-2.5588184266	4.9439233269
O	0.2216650682	-2.7585171139	-0.2103412919
H	0.8117384886	-2.4323551542	0.4501965107
H	0.2340068410	-2.1335916111	-0.9175854157
O	0.0534112344	3.1220947300	-2.9122611429
H	-0.2981319288	2.6170912171	-2.1965326256
H	-0.4881421439	2.9409862319	-3.6637916508
O	1.5099661365	4.1099021390	5.0551504022
H	1.0315553168	3.7145414097	5.7662702482
H	2.1079690170	3.4545336176	4.7330275838
O	4.8791667836	1.9559043208	1.7465550222
H	5.7604834582	2.2739881024	1.6326160870
H	4.3180457697	2.5262675276	1.2458480479
O	-1.9781405525	-0.4867862439	-3.7259476908
H	-1.1072082663	-0.6462898533	-3.3989706189
H	-2.5739344266	-0.6974783643	-3.0248649966
O	-3.0757208173	5.5853237658	-1.1228022417
H	-3.4460863021	6.4029865091	-1.4145821245
H	-2.1386103961	5.6701692503	-1.1969895466
O	-2.2829374324	-1.2820310929	3.2015772533
H	-2.3339848207	-1.8125057909	2.4225591451
H	-1.4338504247	-1.4401281209	3.5822805985
O	-2.6025515681	3.1670644059	5.4431100602
H	-2.6634965110	4.0060537507	5.0150200611
H	-2.8423735727	2.5172805719	4.8019042982
O	-5.3866143935	2.1963638846	1.6360720835
H	-5.4156770661	1.7945690917	0.7824944599
H	-6.2656204600	2.1690609719	1.9788275943
O	-0.3474071202	5.6785036049	-1.5662912005

H	0.2673355917	5.7142471063	-0.8509645238
H	-0.0871233940	4.9534784931	-2.1116987758
O	-1.4046942776	1.7209686297	-0.8237286169
H	-2.1851099244	2.0957060293	-1.1997628623
H	-1.2983631435	2.1137269297	0.0279245178
O	2.9029081335	1.8084249612	3.9781450540
H	2.3410069979	1.5990515889	3.2492360344
H	3.7866827937	1.8131451877	3.6467864513
O	1.3693416484	0.3290428940	5.9519258983
H	0.7920752695	1.0005407694	6.2786254315
H	2.0472616507	0.7681224131	5.4635488918
O	-3.5139875558	2.9914393911	-2.2316656025
H	-3.2206819176	2.9264311098	-3.1264416527
H	-3.5013438220	3.9083254001	-2.0079724276
O	0.3538008863	-0.4446230805	-1.9751088431
H	-0.0185535990	0.2840333753	-1.5046937490
H	1.2749499463	-0.2629062474	-2.0717621196
O	-2.1366719681	2.1251609614	-4.6094374917
H	-2.3277887003	2.1890903913	-5.5315361180
H	-2.1240419530	1.2053384089	-4.3981428899
O	1.3948666436	5.7512902032	0.7934671421
H	1.8430587722	6.5637103709	0.9666021792
H	0.8543001307	5.5738396491	1.5465790860
O	3.2179118145	-0.1245382343	-2.0954883152
H	3.6674829083	-0.7112542881	-2.6824538660
H	3.5707657925	-0.2796843777	-1.2339187019
O	-5.2817059106	1.1359947223	-0.8783274579
H	-4.8956356273	1.7763987432	-1.4542709278
H	-4.7402629029	0.3645110275	-0.9286348329
O	2.9072536321	3.3138627575	0.2199131973
H	2.5176686473	4.1561634833	0.3920511680
H	2.9671106427	3.2292850899	-0.7182457501
O	4.1879565158	-0.6439355618	0.4640814931
H	3.5664727568	-1.1144856218	0.9962647628
H	4.4697077984	0.1009854890	0.9706259599
O	-2.8045039848	5.6616867279	3.8235990554
H	-3.2981316650	5.4289462385	3.0535068323
H	-3.2169596663	6.4280709906	4.1888577674
O	-2.3146568295	-2.9028554638	0.7279997086
H	-2.6924819045	-3.7677875287	0.7236190934
H	-1.4268134680	-2.9930949941	0.4206408846
O	-3.0998191322	1.4262821514	3.2087042518
H	-2.9320212002	0.4979896145	3.2402522153
H	-3.9148332788	1.5390734296	2.7462017951
O	-4.1982608000	4.8922444775	1.5477364805
H	-3.8171574444	5.0286641762	0.6950769047
H	-4.5646702619	4.0224079454	1.5450968427
O	1.7120414425	-1.4200297276	1.8320865229
H	1.4103847237	-1.6694510494	2.6909640941
H	1.5162994508	-0.5021517944	1.7317688954
O	-0.2619574514	2.6301065691	6.8256635412
H	-1.0858270708	2.7728194284	6.3877704674
H	-0.4191049654	2.7575236401	7.7475897872

Coordinates Figure 7(d).

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Energy -325.172022710616

O	-4.2939445040	6.0926533948	0.5845768013
H	-4.6744846586	5.7027066510	1.3552967127
H	-3.9082562512	5.3894273836	0.0869864045
O	-5.1101365164	2.1622563544	-1.6944471503
H	-4.8032427645	1.2703954218	-1.7302068479
H	-5.6851945189	2.2215591757	-0.9483439917
O	-3.2003668269	4.1750296972	-1.1178376731
H	-3.2232682965	4.6772538217	-1.9166648793
H	-3.7495298877	3.4199576763	-1.2562740483
O	-4.5884591685	0.1565113861	2.0805906469
H	-3.7734911994	0.4459871538	1.7025569931
H	-4.6924438889	-0.7501020857	1.8395146327
O	-1.4028004057	-0.3154428222	4.6012001568
H	-1.1851191204	-0.7629778352	5.4032012318
H	-2.2622784132	0.0554247330	4.7221681902
O	-2.1482217787	2.3273275035	-4.9753692799
H	-3.0100092603	2.6589661895	-4.7798786850
H	-2.1068002474	2.2147495012	-5.9115791411
O	-5.2103876759	7.6114878969	-1.6494159729
H	-5.1023192678	7.1747785312	-0.8196662497
H	-6.1389832018	7.6606280593	-1.8111999272
O	-0.6467480099	6.0384065656	2.4855387143
H	0.1696935912	6.0044968499	2.0131493651
H	-1.1178603754	6.7884918985	2.1594964063
O	-0.1471483411	7.7630346867	-1.1020907570
H	0.4964301524	7.2552887853	-0.6342454018
H	-0.8618700465	7.9124930142	-0.5039991701
O	3.3544514081	3.6831371952	-0.2088034871
H	4.2981861972	3.6796477032	-0.2239997140
H	3.0686549863	3.2892100256	-1.0175186683
O	0.9388654505	-0.1991605168	-2.2765472574
H	0.0984857914	-0.1450744978	-2.7028278989
H	1.3917234107	-0.9322871833	-2.6616750450
O	-3.7567774016	-2.3521018316	0.7708566762
H	-4.0119460624	-3.2608018496	0.7764857014
H	-2.9171323261	-2.3034474478	1.1992342575
O	-2.2424974081	1.0558820469	0.7132449801
H	-2.1167436697	1.9784710645	0.8678216793
H	-1.3876590655	0.6568317994	0.7430570919
O	-1.1642117167	4.6429506783	5.1137232212
H	-0.9680629270	5.2632444318	4.4298813055
H	-0.6500541995	3.8716324103	4.9359913135
O	-4.5744222550	3.4243258843	-4.3017148669
H	-4.4196273525	4.3316389211	-4.0926693089
H	-4.9835263893	3.0373870815	-3.5442251810
O	-0.1113382138	3.7938808791	-3.4941202168

H	-0.7392845518	3.3195854963	-4.0152782931
H	-0.2839695875	4.7117945344	-3.6301767649
O	-2.2516355467	7.9550271321	0.9919056905
H	-3.0009352852	7.4021973780	0.8376085135
H	-2.5860032598	8.8068445867	1.2231711450
O	1.2478814812	5.6974934136	0.3396829573
H	0.6708512739	5.0461020653	-0.0258357224
H	2.1237107728	5.3519458030	0.2733628636
O	-1.3202419762	-1.9840174804	2.1325910012
H	-1.3853820685	-1.5068067931	2.9443207483
H	-0.6545522748	-1.5555191370	1.6186602225
O	0.3448832961	-0.1759208693	0.5506733826
H	0.9079801528	0.4990197481	0.8945564253
H	0.5693896237	-0.2784253679	-0.3603525175
O	-3.8469984028	3.7942592804	5.3775162630
H	-2.9656307730	4.1257797293	5.3129891597
H	-4.1613049816	4.0248207954	6.2371273473
O	-2.0251109663	3.5193388893	2.1414773850
H	-1.5870667631	3.0528182180	2.8352743245
H	-1.6239153309	4.3722967758	2.0926577154
O	-0.4253222459	3.6782847484	-0.6406013819
H	-0.2397001946	3.5275583496	-1.5536755634
H	-1.3528983690	3.8402744870	-0.5754836848
O	1.2840097941	2.3398489004	1.3492912896
H	0.6436073010	2.7535084784	0.7928302806
H	2.12111112530	2.7127395805	1.1232555796
O	-6.2564235262	2.2398647581	0.9081290996
H	-5.9736876453	2.9747732141	1.4285601105
H	-5.9121036309	1.4651592026	1.3230430257
O	-0.7661725191	6.6868577430	-3.5846435806
H	-0.5464944421	7.0587467646	-2.7454066938
H	-0.3967476131	7.2576045331	-4.2393586290
O	2.2921896056	2.4401979638	-2.4855488937
H	1.9334047564	1.5740078078	-2.3766154290
H	1.6582611927	2.9364188610	-2.9782740125
O	-0.1629929761	2.1875323478	3.8503477591
H	-0.3788174105	1.3000905085	4.0885603731
H	0.5034737777	2.1351248927	3.1840490432
O	-4.7454024545	4.1244387764	2.6043142992
H	-4.8243615064	4.1589967818	3.5442343312
H	-3.8779917081	3.8031421897	2.4165763051
O	-3.8948347306	0.8607494393	4.7971929482
H	-3.9420612788	1.7919998581	4.9435512915
H	-4.3462925736	0.6903900827	3.9859950934
O	-3.5585436736	-0.2515038449	-1.3844036462
H	-3.1044879148	0.2622553626	-0.7357409459
H	-3.8023961320	-1.0619462553	-0.9665549510
O	-1.5431647261	-0.0932399871	-3.4617727507
H	-2.2683380238	-0.2463953565	-2.8773537442
H	-1.7601900957	0.6729916159	-3.9683964509
O	-3.5402078259	5.9477483339	-3.2836278905
H	-2.7089175842	6.3147343836	-3.5388850698
H	-4.0421364115	6.6511249217	-2.9038812319

Coordinates Figure 7(e).

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Energy -325.018870577002

O	0.8874397435	5.0257846925	-3.3104845796
H	0.8918667357	5.5810044446	-4.0737603376
H	1.0247548019	4.1433870703	-3.6160945681
O	-4.1298730105	3.6682373238	1.4123862540
H	-4.1591951681	4.5821757030	1.1784304797
H	-4.2455170695	3.6238907439	2.3480882827
O	-2.0305234299	-1.1841745206	-2.8954751896
H	-2.0037010072	-2.1197677449	-2.7737199830
H	-1.9480615557	-1.0288115113	-3.8228051356
O	-4.2859489593	6.3048775440	0.5640238633
H	-4.8819976433	6.3927136827	-0.1625359987
H	-3.5013796652	6.7742947527	0.3295521997
O	-3.2509052714	5.4175385838	-5.5492953203
H	-4.0866567775	5.3158155799	-5.9759688543
H	-3.3942777278	5.2575436587	-4.6302064145
O	-6.0737073406	2.3090400396	-0.3614337360
H	-5.5930195484	1.6102017317	-0.7754901572
H	-5.4838209333	2.7180594231	0.2514411489
O	0.9387006132	6.8208161162	-5.6630523859
H	0.9536424153	6.3678901272	-6.4910096584
H	1.7115145147	7.3620187618	-5.6359078819
O	-3.1327148281	8.7723162970	-7.6238697072
H	-2.5876600894	8.7371541655	-6.8540922001
H	-3.0351615224	9.6384661069	-7.9860109963
O	-5.7161702963	4.8849100685	-6.7552176964
H	-5.5742284906	4.2472214233	-7.4364549309
H	-6.3034916293	4.4891541031	-6.1312711267
O	-5.7972692770	8.4414059380	-3.8194406531
H	-6.3893661744	9.1731735231	-3.7500438263
H	-5.7840402544	8.1884277741	-4.7286741191
O	0.5175019807	2.2669963522	-4.1525736007
H	-0.3185902207	2.5148336484	-4.5136898695
H	0.3395029006	1.8001802259	-3.3517755702
O	-2.0468090712	2.5628496621	-0.3237209607
H	-2.5807185459	2.7872307812	0.4215791402
H	-1.7539204246	3.3763143263	-0.7023631862
O	-1.7666210935	7.8570727530	-5.3657441897
H	-2.2417478576	7.0422571824	-5.4005090876
H	-0.8490600042	7.6374177248	-5.3924232109
O	-5.7803736206	6.2649166955	-1.9215246529
H	-5.9289328734	6.9843240515	-2.5141979682
H	-6.5506377288	5.7205803395	-1.9571559476
O	-0.1499197746	0.7859635133	-1.8102881288
H	-0.6899338731	0.0456022487	-2.0364040847
H	-0.5957993285	1.2451720968	-1.1166042279
O	-1.2925632818	5.0666115465	-1.5483743443

H	-0.5243724865	5.0863199168	-2.0964372387
H	-1.3363483971	5.9026519481	-1.1124870139
O	-5.7301072371	7.8064506236	-6.5415241375
H	-4.9710763730	8.1187765475	-7.0075746912
H	-5.8435256340	6.9012058378	-6.7834881825
O	-3.8359109696	0.7638449398	-1.6610860996
H	-3.3899284759	-0.0084330557	-1.9702216153
H	-3.1761339435	1.3282276656	-1.2908903827
O	-3.6607826645	4.7510091680	-2.9647733249
H	-4.3186745448	5.2514005558	-2.5090703658
H	-2.8734559158	4.8027098682	-2.4467751759
O	-0.0163676336	2.7875411677	-8.0517376456
H	-0.5074900526	2.9012705498	-7.2537759602
H	0.4930045378	1.9998750372	-7.9468543208
O	0.9545082183	0.5284961711	-6.3179737767
H	1.7046856648	-0.0438728017	-6.2954790713
H	1.0239286172	1.0963419272	-5.5672338353
O	-4.8433089247	2.7293385006	-8.5785225345
H	-4.0281084811	2.9572085368	-8.9961371144
H	-5.3903563665	2.3433830983	-9.2438464992
O	-2.1207995101	6.1209677879	-8.3966989019
H	-2.3308685816	5.8318247379	-7.5231167730
H	-2.4808984557	6.9885168112	-8.4892510255
O	-1.7396230743	-0.6853012189	-5.6388172097
H	-2.4193000105	-0.1386803147	-5.9995432879
H	-0.9191937070	-0.3426791807	-5.9556519399
O	-1.6475949164	3.0605137411	-5.8174754229
H	-2.0701545733	3.9002883162	-5.7332112348
H	-2.3315501710	2.4256602290	-5.9590546660
O	-2.9849793102	8.8909993193	-2.9267766548
H	-2.5051305848	8.6730483143	-3.7097970978
H	-3.9000605433	8.7797692578	-3.1295885487
O	0.7252910982	5.5960409677	-8.1281962827
H	0.7516747283	4.6547473815	-8.1926070172
H	-0.1182374496	5.8667057733	-8.4538933907
O	-2.4078798764	3.5065426252	-9.6715254939
H	-2.3109473235	4.4341979481	-9.5268253342
H	-1.6188817260	3.0983284877	-9.3525872700
O	-7.1315081676	3.4903695687	-4.7299077716
H	-6.4730808009	2.8851249757	-4.4281945976
H	-7.5369406225	3.8561486720	-3.9600320504
O	-1.9962654272	7.7086304385	-0.6020283895
H	-1.4822012903	8.3468747311	-0.1337755303
H	-2.3279592814	8.1402954790	-1.3730815226
O	-4.7598350411	2.2599957954	-3.8242647283
H	-4.3361238077	3.0684804293	-3.5840568152
H	-4.5957042261	1.6491297956	-3.1237061941
O	-3.7770611460	1.3385305475	-6.2578014172
H	-4.2885806833	1.5543530666	-5.4944883378
H	-4.2664885592	1.6399538394	-7.0064557168
O	-7.6662963675	4.1245073837	-1.8459024309
H	-7.1312052034	3.4794744213	-1.4117499488
H	-8.5081489293	4.1102115510	-1.4193366712

