

*Electronic Supplementary Information*

**The influence of NHCs on C–Si and C–C reductive elimination: A computational study of the selectivity of Ni-catalyzed C–H activation of arenes with vinylsilanes**

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## 1. Computational details

Geometry optimizations were performed in toluene using the SMD solvation model<sup>1</sup> at the B3LYP<sup>2</sup> level of theory with the LANL2DZ basis set for Ni and the 6-31G(d,p) basis set for the other atoms. Zero-point vibrational energy (ZPVE) and thermal corrections at reaction temperature (120 °C and 90 °C for **cat1** and **cat2**, respectively) were obtained by vibrational frequencies at the same theoretical level. The results of frequency calculations were also examined to verify whether each optimized stationary point is an energy minimum or a transition state. The single-point energies and solvation energies in toluene were computed with the Grimme's dispersion corrected functional B3LYP-D3-BJ<sup>3</sup> and a mixed basis set ECP10MDF for Ni and 6-311++G(2d,2p) for the other atoms. Using the wave function got from B3LYP/LANL2DZ/6-31G(d,p), we performed further wave function analysis by Multiwfn 3.4<sup>4</sup> and natural bond orbital (NBO) analysis by GenNBO 5.0.<sup>5</sup> All DFT calculations were performed by using Gaussian 09 software package.<sup>6</sup> The 3D diagrams of molecules were prepared by CYLview.<sup>7</sup>

The percent buried volumes % $V_{bur}$  of NHC ligands were calculated using the web based SambVca 2.0 program at <https://www.molnac.unisa.it/OMtools/sambvca2.0/index.html>.<sup>8</sup> The steric contour plots were generated by the same program, following the procedure reported previously by Liu.<sup>9</sup> The default parameters in SambVca 2.0 were used as suggested by Cavallo: sphere radius: 3.5 Å, distance from the center of the sphere: 2.1 Å, mesh spacing: 0.1 Å, H atoms omitted, atom radii: Bondi radii scaled by 1.17.

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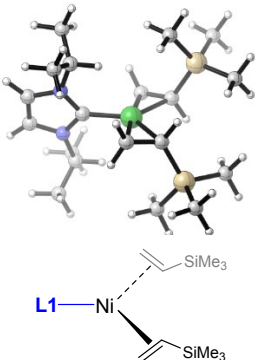
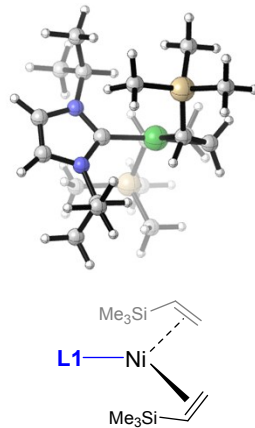
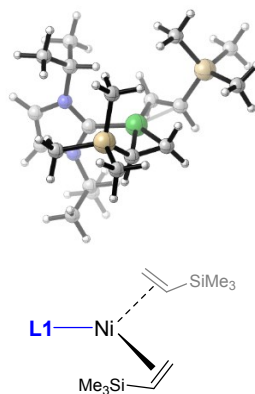
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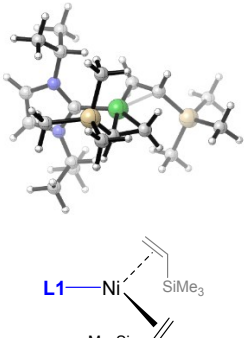
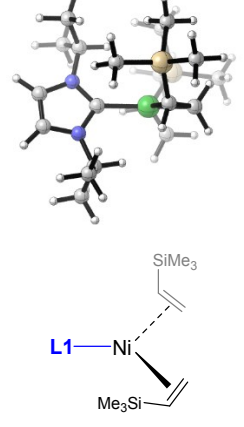
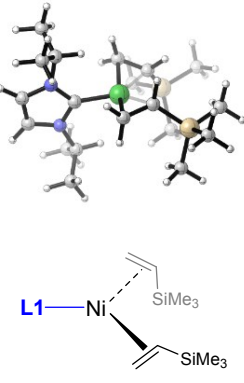
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## 2. Different isomers of cat1 and cat2

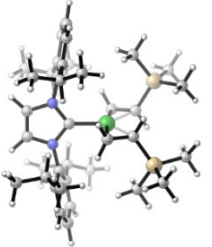
For both **cat1** and **cat2**, rotation around the Ni- $\eta^2$ -alkene bonds will lead to different isomers. We have optimized all the possible isomers, and their geometries and relative free energies are listed below. Finally, the isomer with the lowest energy was used for further calculations.

**Table S1.** Geometries and relative energies of different isomers of **cat1**.

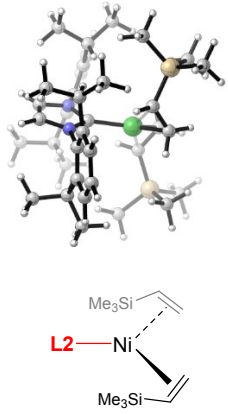
isomer	geometry	relative free energies (kcal/mol)
<b>cat1</b>		0.0
<b>cat1-b</b>		0.9
<b>cat1-c</b>		1.1

<p><b>cat1-d</b></p>		<p>2.4</p>
<p><b>cat1-e</b></p>		<p>7.0</p>
<p><b>cat1-f</b></p>		<p>8.6</p>

**Table S2.** Geometries and relative energies of different isomers of **cat2**.

isomer	geometry	relative free energies (kcal/mol)
<p><b>cat2</b></p>		<p>0.0</p>

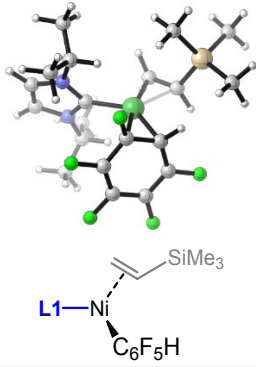
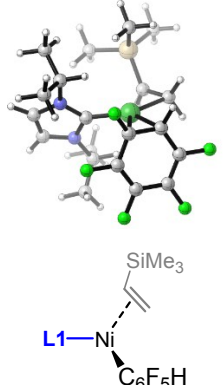
cat2-b	 	6.8
cat2-c	 	8.7
cat2-d	 	10.1
cat2-e	 	13.4

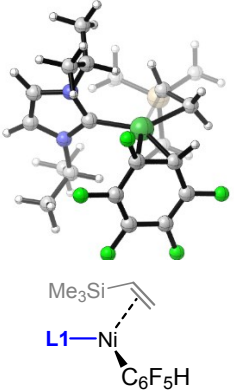
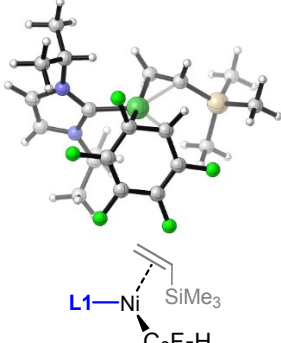
cat2-f		17.2
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### 3. Different isomers of **2**

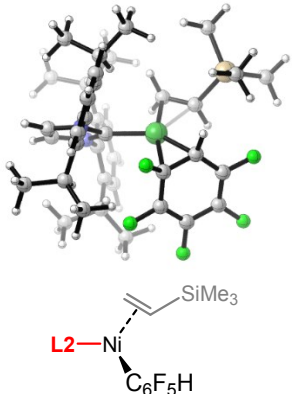
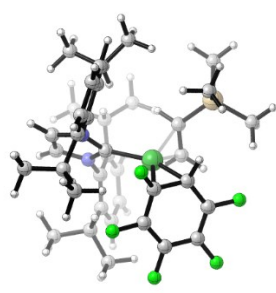
We have optimized all the possible isomers of complex **2**, and their geometries and relative free energies are listed below.

**Table S3.** Geometries and relative energies of different isomers of **2-cat1**.

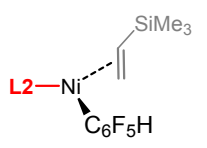
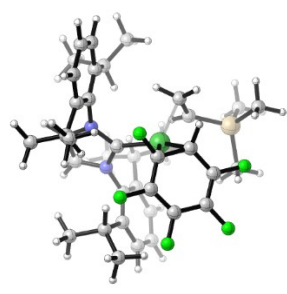
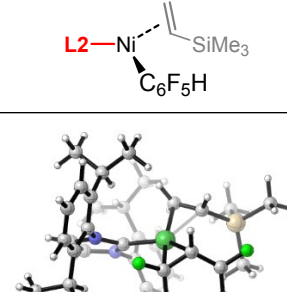
isomer	geometry	relative free energies (kcal/mol)
2-L1		0.0
2-L1-b		1.2

<p><b>2-L1-c</b></p>		<p>3.4</p>
<p><b>2-L1-d</b></p>		<p>4.1</p>

**Table S4.** Geometries and relative energies of different isomers of **2-cat2**.

isomer	geometry	relative free energies (kcal/mol)
<p><b>2-L2</b></p>		<p>0.0</p>
<p><b>2-L2-b</b></p>		<p>-1.1</p>



		
2-L2-c		0.5
2-L2-d		4.6

#### 4. On the endergonicity of ligand exchange for cat1 and cat2

As shown in Fig. 1, the substitution reaction for **cat2 (L2)** is endergonic by 17.9 kcal/mol, which is 10.0 kcal/mol higher than that of **cat1 (L1)**. The energy differences should be attributed to the significant ligand-substrate steric repulsion in **2-L2**. To obtain a better understanding of the steric environment, we created the NHC steric contour plots of **2-L1** and **2-L2** respectively using the following procedure:

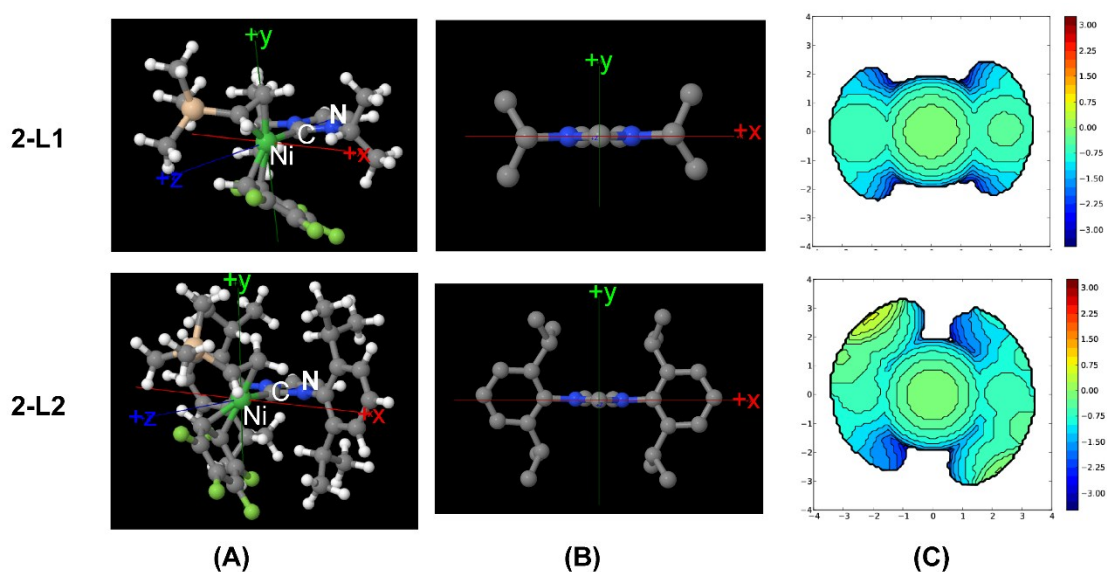
**(A).** The Ni atom is placed at the origin of the coordinate system. The negative z axis is oriented along the Ni atom and the coordinated C atom of NHC. Thus, the NHC ligand is placed in the half-space along the negative z axis. The x axis is aligned along the two N atoms on the NHC ligand

**(B).** Delete the Ni atom, C<sub>6</sub>F<sub>5</sub>H and H<sub>2</sub>C=CHSiMe<sub>3</sub> moieties.

**(C).** The van der Waals surface of the ligand was built up. The contour lines are created along the z axis.

Finally, the contour line of zero is drawn through all points on the van der Waals surface having the same z coordinate as the Ni atom. The positive contour lines (coloured in yellow and red) indicate regions on the ligand van der Waals surface having a positive z coordinate, *i.e.* closer to the half-space containing the substrate. The negative contour lines (coloured in

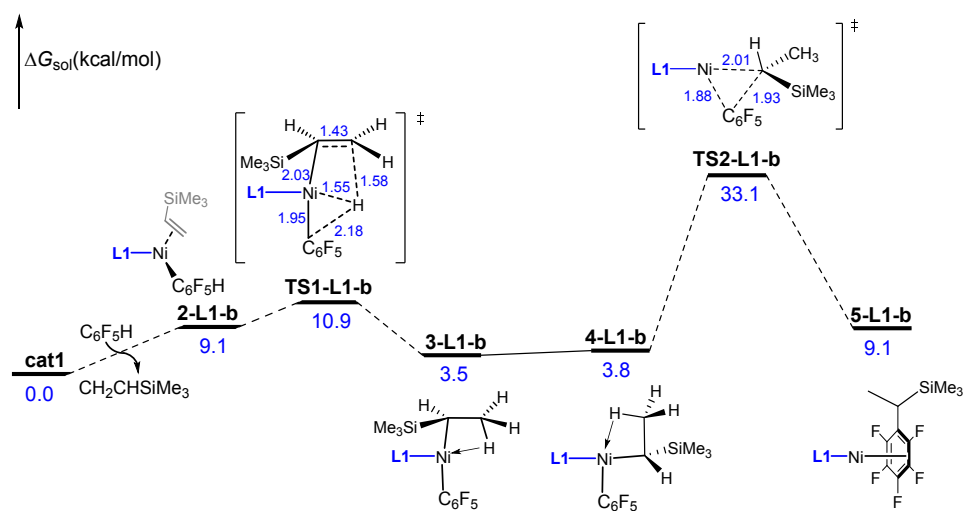
green and blue) indicate regions on the ligand surface with a negative  $z$  coordinate, *i.e.* more distant from the half-space containing the substrate. As shown in Fig. S1, there is significant steric repulsion between NHC and  $\text{H}_2\text{C}=\text{CHSiMe}_3$  in **2-L2**.



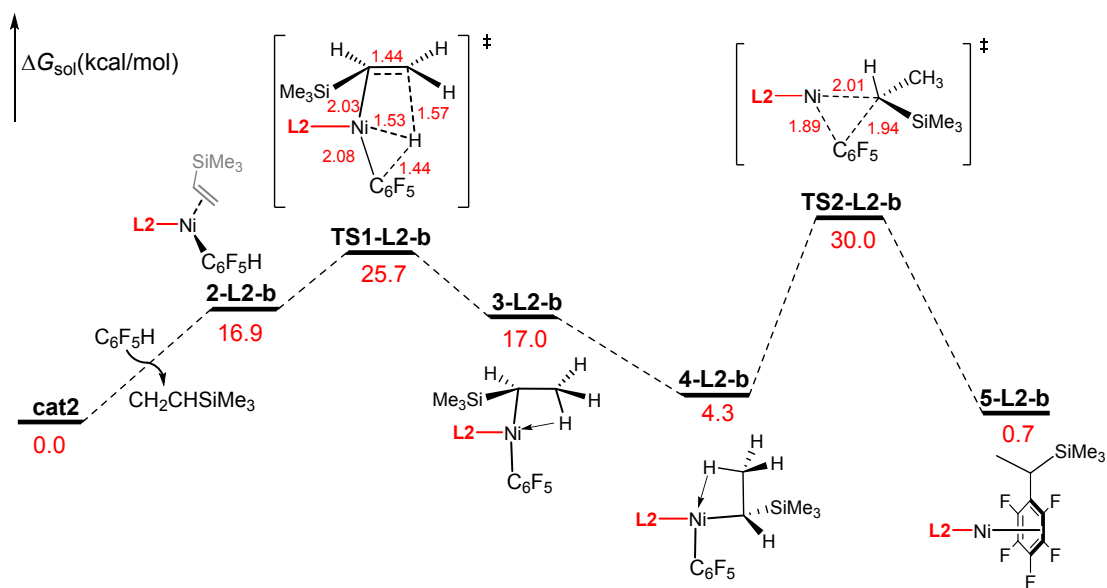
**Fig. S1** Steric contour plots of NHC ligands in **2-L1** and **2-L2**.

## 5. Free energy profiles for hydrogen transfer to 2-site of $\text{H}_2\text{C}=\text{CHSiMe}_3$

We also considered the hydrogen transfer to 2-site of  $\text{H}_2\text{C}=\text{CHSiMe}_3$ , and the corresponding free energy profiles are listed below. As shown in Fig. S2, for **cat1**, the hydrogen transfer to 2-site of  $\text{H}_2\text{C}=\text{CHSiMe}_3$  can occur readily, but the following  $\text{C}(\text{sp}^2)\text{--C}(\text{sp}^3)$  reductive elimination requires a much higher barrier (33.1 kcal/mol for **TS2-L1-b**). Similar result was observed in the case of **cat2**, as shown in Fig. S3.



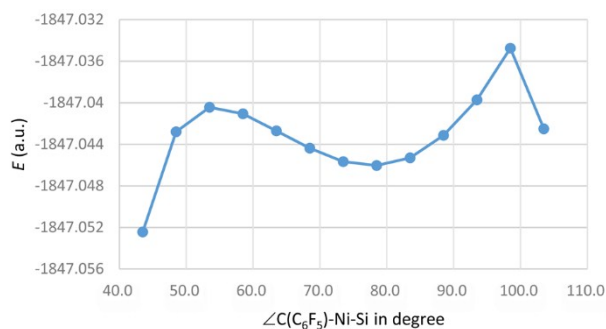
**Fig. S2** Free energy profiles for hydrogen transfer to 2-site of  $\text{H}_2\text{C}=\text{CHSiMe}_3$  catalyzed by **cat1**, with bond lengths in Å.



**Fig. S3** Free energy profiles for hydrogen transfer to 2-site of  $\text{H}_2\text{C}=\text{CHSiMe}_3$  catalyzed by **cat2**, with bond lengths in Å.

## 6. On the possibility of concerted $\text{SiMe}_3$ transfer

Herein, we explored the possibility of concerted  $\text{SiMe}_3$  transfer; that is, intermediate **3** in Fig. 3 directly undergoes  $\text{SiMe}_3$  transfer to yield **7** via a concerted transition state. However, we failed to locate the concerted transition state. Then we performed a relaxed potential energy surface (PES) scan by decreasing the values of  $\angle\text{C}(\text{C}_6\text{F}_5)\text{-Ni-Si}$ . As shown in Fig. S4, the potential energy curve indicates there exists an intermediate during the  $\text{SiMe}_3$  transfer.



**Fig. S4** The potential energy curve for  $\text{SiMe}_3$  transfer.

## 7. The feasibility of alkene loss from 4-L1

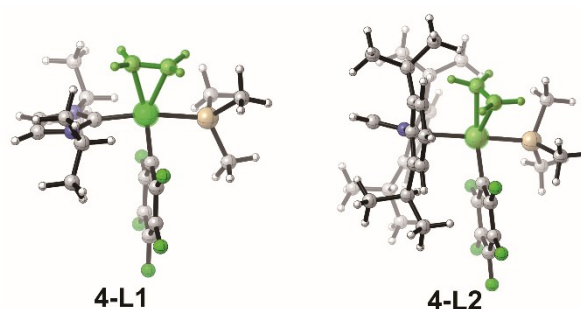
As shown in Fig. 3, the direct C–Si reductive elimination transition state **TS4-L1** is 2.3 kcal/mol higher than **TS3-L1**. To investigate the influence of different density functional methods on the relative energies between the two transition states, we chose the widely-used M06, M062x and  $\omega$ B97xd functionals to calculate their energies. As shown in Table S5, **TS4-L1** is higher in energy than **TS3-L1** based on the results of various functionals, which should indicate that the alkene loss prior to the C–Si reductive elimination (the gray path in Fig. 3) is less favorable. In addition, the gray path (alkene loss and then C–Si reductive elimination) in Fig. 3 involves two comparably higher-lying transition states **TS4-L1** and **TS5-L1**, and the C–Si reductive elimination in this route (19.8 kcal/mol barrier for **5-L1** to **TS5-L1**) requires a much higher barrier as compared to that in the direct C–Si reductive elimination (6.8 kcal/mol barrier for **5-L1** to **TS5-L1**).

**Table S5.** The energy differences between **TS4-L1** and **TS3-L1** calculated using different functionals.

density functional method	$\Delta G^\ddagger(\mathbf{TS4-L1}) - \Delta G^\ddagger(\mathbf{TS3-L1})$ (kcal/mol)
M06	11.4
M062x	3.2
$\omega$ B97xd	7.6
B3LYP-D3	2.3

## 8. Optimized structure of 4 and its influence on the subsequent alkene loss

As shown in Fig. 3, the alkene loss from intermediate **4** requires 9.1 and 10.7 kcal/mol respectively for **L1** and **L2**. Although the energy barrier is similar, it should be noted both **4-L2** and **TS4-L2** are higher in energy due to the steric repulsions between alkene and the bulky **L2** ligand. This stronger steric repulsions are well revealed by the fact that the coordinated alkene in **4-L2** is twisted as compared to **4-L1** (see Fig. S5).



**Fig. S5** Optimized structure of **4-L1** and **4-L2**.

## 9. Optimized structure of transition states

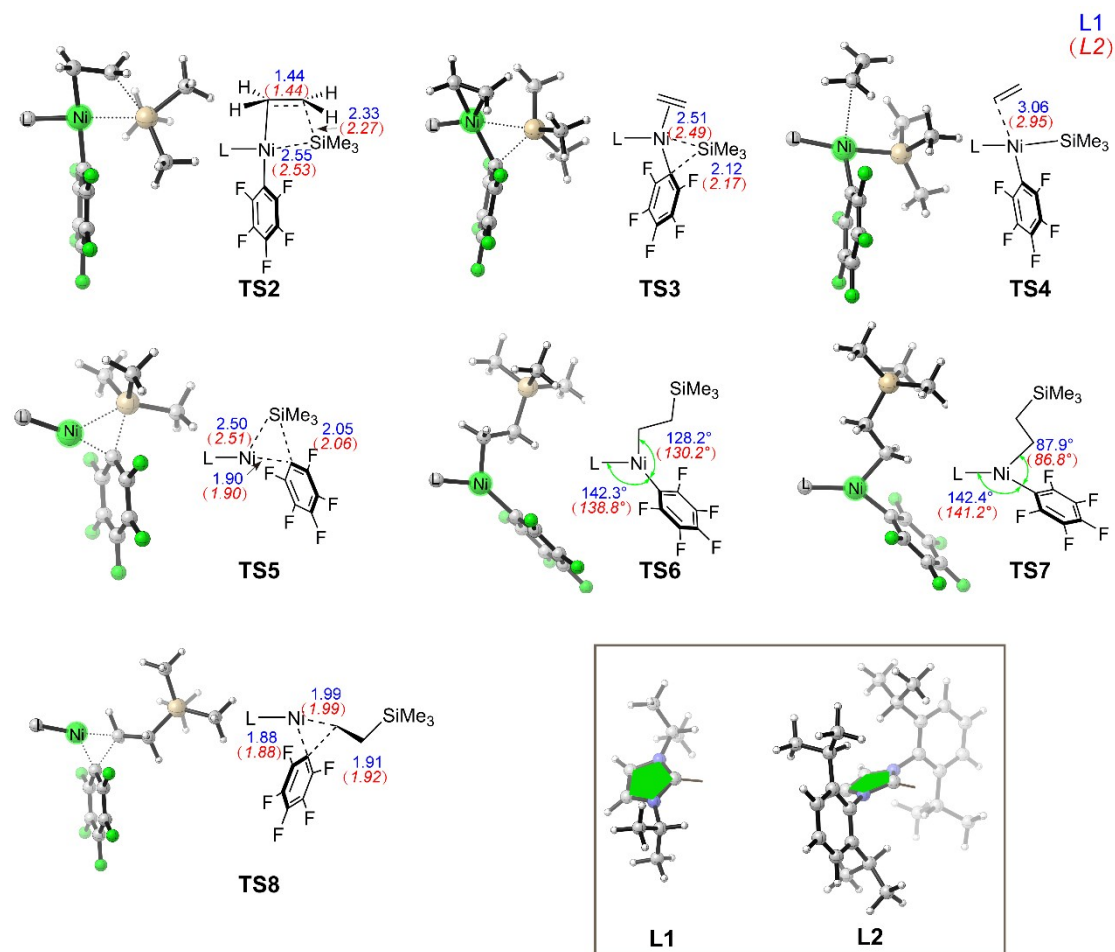


Fig. S6 Optimized structures of transition states, with selected bond lengths in Å and bond angles.

## 10. On the possibility of triplet state PES

We also considered the impact of the lowest-lying singlet and triplet electronic states during the isomerization from **3** to **9**. As seen from Table S6, for intermediates **3-L1**, **8-L1** and **9-L1**, the triplet electronic states are all higher in energy than their singlet state counterparts. We then tried to optimize the triplet **TS6-L1**, while we failed. We next performed a TDDFT calculation on **TS6-L1** and the TDDFT result reveals that the first triplet is 9.6 kcal/mol higher than the ground singlet. Therefore, based on the results given above, the triplet PES is high-lying and the singlet and triplet surfaces do not cross during the isomerization.

**Table S6.** The energy differences between singlet and triplet of the intermediates during isomerization from **3** to **9**.

intermediate	$G(\text{triplet}) - G(\text{singlet})$ (kcal/mol)
<b>3-L1</b>	13.2
<b>8-L1</b>	7.8
<b>9-L1</b>	9.3

## 11. The percent buried volumes %V<sub>bur</sub> of NHC ligands

During the calculation of percent buried volumes %V<sub>bur</sub>, the geometries of NHC ligands were taken from the optimized TS3 or TS8 separately. It should be noted that the calculated %V<sub>bur</sub> values are affected by the way the ligand geometries were obtained; that is, the %V<sub>bur</sub> for the same NHC ligand derives from TS3 or TS8 will be different. As listed in Table S7, **TS3** with bulky ligand (bigger %V<sub>bur</sub>) has higher free energy overall. However, for **TS8**, the similar trend cannot be outlined.

**Table S7.** Calculated %V<sub>bur</sub> of NHC ligands in various **TS3** and **TS8**.

	%V <sub>bur</sub> of NHC in <b>TS3</b>	$\Delta G^\ddagger(\mathbf{TS3})$	%V <sub>bur</sub> of NHC in <b>TS8</b>	$\Delta G^\ddagger(\mathbf{TS8})$
<b>L2</b>	31.5	31.1	38.4	25.3
<b>L2'</b>	32.3	23.9	36.0	20.0
<b>L2''</b>	30.4	24.7	33.3	31.5
<b>L1</b>	27.0	25.1	28.3	29.9
<b>L1'</b>	26.2	19.9	27.3	27.7

## 12. Table of calculated energies and imaginary frequencies.

**Table S8.** Calculated energies and imaginary frequencies.

stationary point	thermal correction to Gibbs free energy at B3LYP/LANL2DZ/6-31G(d,p) (in a.u.)	single-point energy including solvation energy at B3LYP-D3/ECP10MDF f/6-311++G(2d,2p) (in a.u.)	imaginary frequencies
<b>cat1</b>	0.449809	-1608.125064	
<b>2-L1</b>	0.351921	-1849.372734	
<b>TS1-L1</b>	0.349242	-1849.356026	656.85 <i>i</i>
<b>3-L1</b>	0.351785	-1849.380463	
<b>TS2-L1</b>	0.360432	-1849.357039	120.45 <i>i</i>
<b>4-L1</b>	0.357841	-1849.362121	
<b>TS4-L1</b>	0.348319	-1849.337999	61.82 <i>i</i>
<b>5-L1</b>	0.306101	-1770.727415	
<b>TS5-L1</b>	0.3049	-1770.694646	119.18 <i>i</i>
<b>6-L1</b>	0.302628	-1770.71507	
<b>P1</b>	0.097101	-1137.443409	
<b>TS3-L1</b>	0.359109	-1849.352513	66.35 <i>i</i>
<b>7-L1</b>	0.357736	-1849.378055	
<b>TS6-L1</b>	0.351207	-1849.362396	107.10 <i>i</i>
<b>8-L1</b>	0.351353	-1849.367997	
<b>TS7-L1</b>	0.351729	-1849.359928	103.95 <i>i</i>
<b>9-L1</b>	0.351758	-1849.378132	

<b>10-L1</b>	0.350647	-1849.360964	
<b>TS8-L1</b>	0.352413	-1849.338214	329.55 <i>i</i>
<b>11-L1</b>	0.352024	-1849.373618	
<b>P2</b>	0.144131	-1216.103818	
<b>2-L1-b</b>	0.354984	-1849.373826	
<b>TS1-L1-b</b>	0.351109	-1849.367098	655.71 <i>i</i>
<b>3-L1-b</b>	0.354509	-1849.38233	
<b>4-L1-b</b>	0.354765	-1849.382109	
<b>TS2-L1-b</b>	0.355124	-1849.335838	298.68 <i>i</i>
<b>5-L1-b</b>	0.355166	-1849.374092	
<b>cat2</b>	0.764393	-2306.410002	
<b>2-L2</b>	0.671749	-2547.647055	
<b>TS1-L2</b>	0.664717	-2547.636299	997.11 <i>i</i>
<b>3-L2</b>	0.669464	-2547.661559	
<b>TS2-L2</b>	0.674612	-2547.638928	126.83 <i>i</i>
<b>4-L2</b>	0.671631	-2547.636678	
<b>TS4-L2</b>	0.668922	-2547.616881	38.27 <i>i</i>
<b>5-L2</b>	0.61879	-2469.013529	
<b>TS5-L2</b>	0.615494	-2468.985562	107.71 <i>i</i>
<b>6-L2</b>	0.616243	-2469.005774	
<b>TS3-L2</b>	0.674869	-2547.629572	66.93 <i>i</i>
<b>7-L2</b>	0.672087	-2547.65262	
<b>TS6-L2</b>	0.666982	-2547.651786	94.10 <i>i</i>
<b>8-L2</b>	0.662119	-2547.656985	
<b>TS7-L2</b>	0.665816	-2547.647934	79.39 <i>i</i>
<b>9-L2</b>	0.667614	-2547.660198	
<b>10-L2</b>	0.664249	-2547.649123	
<b>TS8-L2</b>	0.666056	-2547.629428	331.37 <i>i</i>
<b>11-L2</b>	0.663743	-2547.665185	
<b>2-L2-b</b>	0.667812	-2547.644821	
<b>TS1-L2-b</b>	0.668812	-2547.631725	994.42 <i>i</i>
<b>3-L2-b</b>	0.673345	-2547.650121	
<b>4-L2-b</b>	0.667854	-2547.664941	
<b>TS2-L2-b</b>	0.669934	-2547.625959	302.43 <i>i</i>
<b>5-L2-b</b>	0.663342	-2547.666164	

### 13. Cartesian coordinates of all optimized structures

#### cat1

Ni,-0.3678170806,-0.1764771821,-0.5772186162  
C,-2.1722000605,-0.9299867132,-1.2461731179  
C,-1.2352759574,-1.946042701,-0.9758432568  
C,3.106541862,1.6799858877,-0.2206963406  
C,-0.8811346526,1.7887338326,-0.9643998099  
C,1.2405588981,-1.0174680485,1.614325929  
H,-0.1988339868,-0.4276614518,2.1248413597  
H,1.5343438885,-0.9955200569,-2.3246461207  
H,-0.6886672056,-2.433176267,-1.784002231  
H,-1.3083830358,-2.551699893,-0.0730654546  
H,-2.2716612561,-0.6353484998,-2.2918203607  
H,-1.7865247575,1.9951939672,-0.3910902604  
H,1.2804945837,1.8386630051,-0.6902416719  
H,3.160140239,1.8453546883,8573322283  
Si,-3.6934543832,-0.6477215665,-0.1823232843  
Si,-0.889933235,2.405693323,-2.7377128328  
N,1.5551252602,-1.2363945455,1.4742738338  
N,2.3131061032,-1.5257216,-0.5179422682  
C,6921106109,-0.8429982177,2.6026631403  
C,2.4286474764,-1.5265031244,-1.9874822797  
C,-3.2717312962,-0.5343009095,1.6633154528  
C,-4.6383116067,9135861583,-0.691368986  
C,-4.8860099719,-2.1137090073,-0.4072652163  
C,-2.4957131867,2.0115390417,-3.6616810385  
C,-0.7209846005,4.3008933552,-2.7163048445  
C,5693548113,1.7119906988,-3.7295086947  
C,2.7897294175,-1.862865995,1.6052377015  
C,3.2667883439,-2.0460794524,3500876247  
C,1.3602404142,2445860282,3.4504778742  
C,2905414103,-2.0642711161,3.4360096702  
C,3.6717677102,-0.7532299588,-2.438818408  
C,2.4031456638,-2.9561541866,-2.5384618334  
H,-2.7384982452,-1.4251339958,2.0150227555  
H,-4.1850858266,-0.4463202174,2.2653629725  
H,-2.6481205297,3395152668,1.8825407774  
H,-4.0714885655,1.8323083716,-0.5078208579  
H,-5.5742788788,9911012075,-0.1236063413  
H,-4.9076719832,8928356042,-1.7534410142  
H,-5.1862893588,-2.2254483154,-1.4563728932  
H,-5.8019448266,-1.9858134227,1836869043

H,-4.424727945,-3.0599979287,-0.1004743251  
H,-2.6406292348,9379818079,-3.8207425111  
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H,-0.4356292351,-1.7728831473,4.201309378  
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H,3.6792875618,-0.6600807998,-3.5292303556  
H,4.5943375684,-1.265621975,-2.1438196106  
H,3.285190768,-3.5246391697,-2.2226141483  
H,2.3951287804,-2.9358246378,-3.6329581367  
H,1.5126154515,-3.4931263109,-2.1991155882

#### cat1-b

Ni,-0.2549824696,-0.3951536589,-0.6233775144  
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C,-2.2059765134,-0.9448901222,-0.7337348356  
C,-0.9241416535,1.1950231402,-1.6930350088  
C,3787160756,1.4743155224,-1.238592699  
C,1.42754858,-1.0634258507,1344323899  
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H,1.8145793495,-0.9269338406,-2.3557570458  
H,-2.7669222164,-0.3134651248,-0.0442235699  
H,-2.5870611491,-0.926973336,-1.753284861  
H,-1.4393270272,-2.1838851031,8190460136  
H,1.1874902632,1.2910457337,-1.9495821902  
H,-1.7886874321,1.6718010979,-1.2344755879  
H,-1.0999295038,8562075686,-2.7143518999  
Si,-1.1754381366,-3.5795227614,-1.2946043548  
Si,7269418891,2.7648169038,0754614579  
N,1.7266071197,-1.3161299614,1.4485796621  
N,2.5856342478,-1.3895789988,-0.523388374



C,7799011453,-1.1504916451,2.5684467502  
C,2.7855728386,-1.2584304751,-1.9796221337  
C,-0.8032804671,-3.1259513514,-3.0977725792  
C.2112388856,-4.6498054139,-0.5648130604  
C,-2.7489169472,-4.6484872174,-1.3023854638  
C,2.4865989902,2.5855695247.7628229699  
C.6063796479,4.5065329681,-0.6798341708  
C,-0.5567751892,2.6733300343,1.4680679881  
C,3.02730615,-1.7835375034,1.597481618  
C,3.5682634889,-1.8292379938.3561619648  
C,1.3137040436,-0.1523083455,3.6009869339  
C.4428322356,-2.5051046751,3.2007975576  
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C,3.1372014547,-2.6082658286,-2.6134647869  
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H,-0.6713273569,-4.0228447759,-3.7157217365  
H.0987580462,-2.5137100442,-3.1963570865  
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H,2.2151836145,-0.529272445,4.096875825  
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H,4.1091341295,-2.975555641,-2.2654470343

H,3.1957433824,-2.5041316761,-3.7015196977  
H,2.3831476095,-3.365456227,-2.3836434716

**cat1-c**

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C,11.3359371151,11.0846267764,3.1526925389  
C,10.0990048505,8.956930864.4820696001  
C,8.7583648844,8.9168288708.9120668231  
C,8.5604892992,10.5295263508,3.4991477636  
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H,8.2959597997,11.8918522609,1.4085330208  
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H,12.0113312928,11.0429544734,1.1381153876  
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Si,13.2913115225,9.1534990564,2.2512520481  
Si,7.893059274,7.3451389477,1.4484404231  
N,8.3195888787,10.1159722998,4.7821342087  
N,7.6206284253,11.5033447556,3.2929939186  
C,9.1321348732,9.112241175,5.4946015448  
C,7.4963599957,12.2799958556,2.0453880538  
C,12.8839727501,7.9274671051,3.6377697265  
C,13.6216861081,8.2100293602.6396906584  
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C,6.2984854207,7.7312207534,2.402550056  
C,7.3773210809,6.3483246538,-0.0871557432  
C,9.0282776329,6.2317236484,2.481401965  
C,7.2601078395,10.8137155121,5.3527565285  
C,6.8197630187,11.6865016615,4.4142367069  
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C,6.1456677627,12.023482289,1.3703642616  
C,7.7445389939,13.7693547925,2.3049204824  
H,12.727821489,8.4379909318,4.5955752041  
H,13.7071263328,7.2168877654,3.7846260485  
H,11.9831352464,7.3462433706,3.4138126098  
H,12.8532439255,7.4611446998.4221219639  
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H,13.672363019,8.8877086755,-0.2210079722  
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H,14.7970756265,10.6024304305,3.6560651183  
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H,6.8283014533,5.4385477123.1876448541  
H,8.248807008,6.0412638211,-0.6777321715  
H,9.9212082233,5.9409827051,1.9156325977  
H,8.5135667946,5.3050586237,2.7649239967  
H,9.3631455567,6.7207472407,3.4013900974  
H,6.9120248069,10.6320484706,6.3571037743  
H,6.0175080005,12.4063180473,4.4497547006  
H,7.5625512708,8.2637243512,6.7591086092  
H,8.9083001831,7.1711429478,6.4237980326  
H,7.7025004469,7.4956496858,5.1665664023  
H,10.5180564537,10.6045506977,6.275538534  
H,10.5949089053,9.032871124,7.0934546343  
H,9.2520370425,10.1346779661,7.4232368019  
H,5.9822437625,10.9534340226,1.2151934942  
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H,5.3149730589,12.4128424111,1.969663852  
H,6.9704281233,14.2012023985,2.9489612171  
H,7.7349691469,14.3207476566,1.3593099796  
H,8.7154289442,13.9287934256,2.7835087369

**cat1-d**

Ni.2900516963.3973036368,-0.0149221022  
C,-1.216556946,1.7739552748.2686768585  
C.0050312417,2.404248914,-0.0376063697  
C,1.9705562915,-0.6247457494,-0.4517031582  
C,2.2459575316.746698059,-0.6089886148  
C,-0.6847212008,-1.2333647008.4606009248  
H,-0.1965394783.035768398,2.5686969563  
H,-0.4403696838,-1.4137382645,-2.0480456713  
H.5950259451,2.8706716077.7481985076  
H.1934906291,2.8101196524,-1.0305815181  
H,-1.472201765,1.7252627954,1.3311320084  
H,2.1681924191,1.136595184,-1.6279671812  
H,2.3298564911,-1.170466819.4211801926  
H,1.7793137405,-1.2579951798,-1.316654801  
Si,-2.6862286757,1.761988263,-0.8909941776  
Si,3.4251919238,1.6827592962.5135060656  
N,-1.0372612383,-1.6196684078,1.7257308115  
N,-1.1479911831,-2.2545535475,-0.3272243456

C,-0.7208468306,-0.8482101049,2.9415995287  
C,-0.9347467344,-2.3518559284,-1.7837956736  
C,-2.1509698438,1.4604484215,-2.6845092885  
C,-3.9751198762.4855354363,-0.3336631592  
C,-3.5493881043,3.456657249,-0.8466585852  
C,3.4612411815,3.5302093989.0876710164  
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C,5.1861141615,1.0177311444.2437968709  
C,-1.7005508738,-2.8408235434,1.7231015943  
C,-1.7695630765,-3.2414782984.4307107542  
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C,-0.002303383,-3.5240065761,-2.1128632264  
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H,2.5166240881,4.0396118922.3039824266  
H,2.044463571,1.914179277,2.6040696933  
H,3.770180794,1.8785346655,2.9921935472  
H,2.9235325149.3787449559,2.599474382  
H,5.2525666811,-0.0505539077.482395352  
H,5.9180214004,1.5412560022.8719538827  
H,5.5049941162,1.1364994183,-0.798954732  
H,-2.0628598139,-3.3123869789,2.6226420086  
H,-2.2024520986,-4.1279040966,-0.0046460758  
H,-0.260323555,-2.5287212983,4.2667891481  
H.5364579274,-1.0107412221,4.6985421281  
H,1.1198402286,-1.9530822398,3.3146550552  
H,-2.6663799751.1290823814,2.9816281466  
H,-1.7530373781.2474553969,4.498883193  
H,-2.5486325511,-1.2706691174,4.0639308332  
H.9339717329,-3.4547728532,-1.5518653608  
H.2368212964,-3.5254788301,-3.1811919345  
H,-0.4718557851,-4.4852875589,-1.8764109453  
H,-2.7874083339,-3.3874064901,-2.3087813631

H,-2.0773177399,-2.4383224193,-3.6178128026  
H,-2.9262800359,-1.6190722541,-2.2966214216

**cat1-e**

Ni,1085772619,-0.7699262193,-1.072241522  
C,-0.7211709173,-2.7654472438,-1.116082737  
C,-0.591431191,-2.2119628023,-2.3851199395  
C,-1.0157844351.6271879509,-1.9263171524  
C,1152299287,1.250196589,-1.3305724526  
C,1.8062322452,-1.2049362911,-0.0970005188  
H,1333824968,-1.5359145397,1.7503503755  
H,2.2478505896,-0.6252800947,-2.4920193395  
H,2884610162,-2.3997640431,-3.0028387545  
H,-1.456769729,-1.8542645862,-2.9340866734  
H,1001979771,-3.38883639,-0.7619663436  
H,9362386037,1.4866963949,-2.0168852939  
H,-1.9922984422.6819410139,-1.4398965616  
H,-1.0790797204.5120114087,-3.0089197751  
Si,-2.4126965137,-3.0373356555,-0.3262204264  
Si,0394676762,2.3700328547.1631237364  
N,2.0924647125,-1.5767416213,1.1897106219  
N,3.038633279,-1.1749293835,-0.696435767  
C,1.0792669326,-1.774268013,2.2409468716  
C,3.2548928795,-0.8128836948,-2.1092459471  
C,-3.775119833,-2.3206048303,-1.4276205404  
C,-2.6740646122,-4.9114560292,-0.1636566592  
C,-2.5980349008,-2.282151216,1.4015263615  
C,1.7502527704,2.550408065.9658895121  
C,-0.5082179642,4.1171876187,-0.357586282  
C,-1.2170378249,1.7542048017,1.4434757422  
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C,4.052591418,-1.5142316991.1897672494  
C,1.2968315264,-0.8074842018,3.4096185048  
C,1.0541751599,-3.2357863356,2.7023392728  
C,4.0755591033.4748859091,-2.2219568581  
C,3.8756699453,-1.9786695174,-2.8847132007  
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H,2.4584509363,3.0332579215.2806714842  
H,1650679489,4.5416406871,-1.112555665  
H,-0.5249056897,4.8101998545.4932738358  
H,-1.5147587815,4.104881427,-0.792951467  
H,-2.2198426196,1.6755776347,1.0068230766  
H,-1.2901268818,2.4480305539,2.2904663515  
H,-0.9507053305.7704520181,1.8430294926  
H,3.8801738814,-2.063957569,2.326388175  
H,5.0930024889,-1.5487823333,-0.0924540842  
H,2.2335249424,-1.0180739562,3.9378254975  
H,4804308719,-0.9074923438,4.1319777397  
H,1.3230731362.2302756599,3.0669246001  
H,8820996433,-3.9140569,1.861509495  
H,2548943729,-3.3864219602,3.4349461045  
H,1.99696003,-3.5211354338,3.1826293556  
H,3.6087924525,1.2817284305,-1.6498646091  
H,4.1404919875.7882013718,-3.2689845394  
H,5.0978813129.3379418307,-1.8518795868  
H,4.8907971081,-2.2018530118,-2.5375104102  
H,3.9373715077,-1.729682352,-3.9489038035  
H,3.2726033799,-2.885904205,-2.7798452107

**cat1-f**

Ni,-0.1289903188.3256478617,-0.461616166  
C,1.1371404178,1.9649695174,-0.4652853298  
C,-0.0565614067,2.191905318.2580714055  
C,-0.2440031738,-1.1705055579,-1.819309508  
C,1.1190081356,-1.0190769639,-1.5323573056  
C,-1.9620338681.0536397314.1721732207  
H,-0.4449987522,-0.8358197297,1.939265003  
H,-2.1634805168,1.1854376075,-2.0502300971  
H,-0.8934742911,2.7353107416,-0.1812159733  
H,-0.0403247132,2.2293388055,1.3480348997  
H,1.1032761409,2.2635726414,-1.5197905656  
H,1.6945702964,-0.3739623317,-2.1961642551  
H,-0.8007649626,-2.0323105177,-1.4600456385  
H,-0.6958589017,-0.6794183981,-2.6833601053  
Si,2.8348298629,2.144944368.2982735328  
Si,2.0793861871,-2.4079253702,-0.6872635095  
N,-2.3648532481,-0.4861200062,1.3615436166

N,-3.1348178883.4006535975,-0.4404531643  
C,-1.4319704635,-0.9828421262,2.3882523775  
C,-3.2092941725,1.0462226771,-1.7634850359  
C,2.8413723275,1.6403423786,2.1260244674  
C,4.1598515436,1.2087469404,-0.6817533464  
C,3.3316133523,3.9822147337.2283599372  
C,3.5570503104,-2.8446369771,-1.797626739  
C,2.7515191644,-2.0572473086,1.0520623376  
C.980659274,-3.9486574803,-0.5321000243  
C,-3.7501658562,-0.4763586112,1.4839343021  
C,-4.235449541.080971968.3475453569  
C,-1.6495751978,-2.4758140767,2.648523043  
C,-1.5284909783,-0.1435268516,3.6658684093  
C,-3.8924268821.1297011525,-2.7832664728  
C,-3.8853942454,2.4176488982,-1.6667307723  
H,2.2229870594,2.3220101061,2.7225744841  
H,3.8560875697,1.6833854055,2.5404977612  
H,2.4609928404.6268373966,2.2838656985  
H,3.998249679.1277807906,-0.6874305063  
H,5.1609819377,1.3922954421,-0.272131561  
H,4.1730469334,1.5419491829,-1.7272499683  
H,3.3567953994,4.3515752999,-0.8042827461  
H,4.3276837241,4.1501203099.6578957216  
H,2.6233506334,4.6108553661.7812268639  
H,3.2289928403,-3.1428691382,-2.8004268332  
H,4.1367568909,-3.6767710561,-1.3791927647  
H,4.2425541052,-1.9972167531,-1.9178397533  
H,3.473655909,-1.2360523174,1.0711789374  
H,3.2631571659,-2.9495316838,1.4358516071  
H,1.9497094667,-1.8148481822,1.7583684801  
H.1068122404,-3.7751546471.1065925322  
H,1.5476610292,-4.7725398461,-0.0811686791  
H.6163350498,-4.2959552899,-1.5053415879  
H,-4.2649539192,-0.8603139296,2.3503099892  
H,-5.251438979.2730353069.0409410816  
H,-2.6260819521,-2.6692572385,3.1065149091  
H,-0.882587276,-2.8537444049,3.3319024913  
H,-1.5908160232,-3.0471471686,1.7172672977  
H,-1.3630822817.9163970894,3.451304501  
H,-0.7713767629,-0.4687692875,4.3864082888  
H,-2.5087422617,-0.2474324706,4.1447230307  
H,-3.3889857686,-0.8398598643,-2.8391062814  
H,-3.8645868107.5883529325,-3.7768832984  
H,-4.9434743797,-0.0450587832,-2.5271132918

H,-4.9413934161,2.3305640494,-1.3875945018  
H,-3.8400963908,2.9245335809,-2.6357717014  
H,-3.3874078868,3.0501551711,-0.9258401014

#### cat2

Ni.0039585239.910188345,-0.0057576725  
C.8859003486,2.346824227,1.2180788055  
C,1.0259956657,1.0396653907,1.7197872277  
C,-0.8270462713,2.3798719307,-1.2191997086  
C,-1.0472202395,1.0795002961,-1.7093585513  
C,-0.0250958597,-1.0593856782,-0.0160976291  
H.0692383389,2.9345488615,1.6413725487  
H,1.968488434.5099267698,1.6149058743  
H,-0.4597623892.6824520282,-2.5355568034  
H,-2.0118781397.5989385248,-1.5739648181  
H.0054797385,2.9233642792,-1.6693083308  
H.3913685511.6741315818,2.5254386268  
Si,2.3811863002,3.3353166518.6443691167  
Si,-2.2422932817,3.4476805478,-0.5900645668  
N,1.0182516803,-1.9356499122,-0.2474325668  
N,-1.0896947092,-1.9161218103.1913359345  
C,1.9664730041,4.8352532154,-0.4377322711  
C,3.6151500051,2.2506990497,-0.2911957488  
C,3.250524566,4.0150813099,2.1955216146  
C,-1.6679720106,5.0513707557.2410153859  
C,-3.3650954731,2.5190991653.6159670315  
C,-3.2959630321,3.9695649907,-2.0871941647  
C.6067970455,-3.2673628501,-0.1923541257  
C,2.4034356965,-1.6204915949,-0.5209439799  
C,-0.7110562877,-3.2554968638.0961264975  
C,-2.4627608455,-1.5741974398.4935765158  
H,1.5250738082,4.5557773604,-1.399793557  
H,2.8846260015,5.3970196564,-0.65322268  
H,1.2770360457,5.524585103.0604597875  
H,3.9603702121,1.4042226598.3101828092  
H,4.5022664628,2.8311448779,-0.5752174647  
H,3.1779423294,1.8442749887,-1.2085847635  
H,2.5858957808,4.6675357157,2.7753471478  
H,4.1419024867,4.601788874,1.9390470987  
H,3.5688764001,3.2043699286,2.8620024055  
H,-1.089989669,4.8760700898,1.1539984521  
H,-2.5414685183,5.6544620918.5207972521  
H,-1.0579308729,5.6634636835,-0.4319482303  
H,-3.7567359837,1.5924943513.1842903216  
H,-4.2266898922,3.139096542.8952084962

H,-2.8347363111,2.2560757296,1.5370444474  
H,-2.7020310263,4.5348953228,-2.8160809046  
H,-4.1401669341,4.6046980421,-1.789836576  
H,-3.7069538445,3.0985952659,-2.6111551977  
H,1.2893907743,-4.0833489088,-0.364152759  
C,2.7859496075,-1.3170034449,-1.8456955639  
C,3.3503620722,-1.7628216368,5.197679687  
H,-1.4134007211,-4.0593790942,2.435596894  
C,-3.4247535711,-1.6378029424,-0.5414036354  
C,-2.8224731743,-1.3193050921,1.8350385397  
C,4.1482158312,-1.1127030598,-2.1010571853  
C,1.7842298891,-1.2943225283,-2.997295207  
C,4.6991476441,-1.5500659394,2.04607312  
C,2.9683818247,-2.1987189076,1.9354903728  
C,-4.762107516,-1.3941579136,-0.2014952192  
C,-3.0740650736,-2.0234597443,-1.9793863236  
C,-4.1746634914,-1.0821967256,2.1149113628  
C,-1.8112714499,-1.3712576035,2.9780654252  
H,4.4717139988,-0.8754653177,-3.1093707027  
C,5.0963771407,-1.2233896318,-1.0886287868  
H,7864642939,-1.1879936992,-2.5669233862  
C,1.8192738361,-2.6299546835,-3.7680097895  
C,1.9898899253,-0.11163344,-3.9588866568  
H,5.4494763716,-1.6495359263,9.825809765  
H,1.8901617268,-2.0550264768,2.0511565894  
C,3.6629709057,-1.3766497071,3.0368257506  
C,3.2698301544,-3.6976138343,2.1479603441  
H,-5.5228209848,-1.4324516132,-0.9746280109  
C,-5.1359031342,-1.1145567183,1.1096591876  
H,-1.9956523734,-1.8932241863,-2.1076781999  
C,-3.4057972981,-3.5073101925,-2.2456161788  
C,-3.7734086322,-1.1457702921,-3.0340538677  
H,-4.4801083662,-0.8814418696,3.1366881537  
H,-0.8128653877,-1.2881037946,2.5435018241  
C,-1.8889514516,-2.7264881262,3.7106459726  
C,-1.9701888216,-0.211167745,3.975866656  
H,6.1480959218,-1.0635640132,-1.309750178  
H,2.7986899577,-2.7945652626,-4.2318107384  
H,1.0657367843,-2.6332562764,-4.5638828847  
H,1.6141404019,-3.4807660261,-3.1100288715  
H,1.9813570851,8.453616772,-3.4283112813  
H,1.1861321258,-0.0917852193,-4.7030763897  
H,2.934170231,-0.1844464603,-4.5093880837  
H,4.7452630044,-1.5441190934,3.0523051383

H,3.2779365517,-1.673738405,4.0185841906  
H,3.4898188488,-0.3033140522,2.922136867  
H,2.7602886032,-4.3291818359,1.4148076693  
H,2.9456023075,-4.0159510616,3.1452289721  
H,4.3445579298,-3.8964548931,2.0669267712  
H,-6.1794598282,-0.9298943936,1.3493898974  
H,-2.8895785163,-4.1767882035,-1.551922788  
H,-3.1107808108,-3.7886895343,-3.2628894625  
H,-4.4815801428,-3.6918634012,-2.1465965019  
H,-4.8567648429,-1.3065295333,-3.0483590605  
H,-3.3982056935,-1.3963933428,-4.0322683013  
H,-3.5938758172,-0.0804575818,-2.8677110916  
H,-2.8749246195,-2.8753342302,4.1657975163  
H,-1.140226042,-2.7732437924,4.5096643213  
H,-1.7049069315,-3.5648537876,3.03080201  
H,-1.9460929805,7.595754072,3.4719184757  
H,-1.1557337302,-0.2324857902,4.7083014904  
H,-2.9081631815,-0.2753211539,4.5380845745

#### cat2-b

Ni,0.0984402817,9.183992903,-0.0793678922  
C,-1.3142766464,1.4701875627,-1.5466320953  
C,-1.1680191641,2.4432269012,-0.5455493847  
C,9.498984563,2.2798684877,1.2564562747  
C,1.3772361365,9.559930144,1.4673147592  
C,1.284363301,-1.0568036646,-0.1990373525  
H,-2.1221045243,7.533675706,-1.4033711  
H,-0.6725469909,3.3877169604,-0.7482553469  
H,9.715342381,3.578698836,2.2798362099  
H,2.3558521895,6.363943091,1.1202362979  
H,1.1310286561,2.624927215,1.8947576952  
H,-1.8490476495,2.4764758639,3.06490474  
Si,-0.829651932,1.8508320363,-3.3212162519  
Si,2.1518109726,3.6379107733,7.618524876  
N,-0.955401211,-1.8687782984,0.917989352  
N,1.1487741173,-1.9776700997,-0.3743905051  
C,-0.9552647299,3.395731148,-4.4619392494  
C,9.116100415,2.5869410322,-3.4259181403  
C,-2.0317268989,3.1432816908,-4.0320896744  
C,1.3128854731,5.141877522,-0.0344272227  
C,3.5219252844,3.0026464472,-0.3783159571  
C,2.9673501638,4.2654350533,2.3628320736  
C,-0.6106637913,-3.2196252819,10.16117636  
C,-2.2914831877,-1.4513911124,4.684809241

C,7022140253,-3.2882052425,-0.2012714017  
 C,2.5603766641,-1.7175258125,-0.5855748862  
 H,-0.4585155459,-0.5478014938,-4.060166847  
 H,-0.5030487138.5618724787,-5.4363945654  
 H,-2.0009565851.0758280906,-4.6506965879  
 H.9613553176,3.560681702,-2.9264374553  
 H,1.2148711114,2.7429443383,-4.4686349241  
 H,1.6485421835,1.9330860271,-2.9505691032  
 H,-3.0695592337,2.7896401475,-4.0034709604  
 H,-1.7951652798,3.3798879802,-5.0775052957  
 H,-1.9926199337,4.0812015846,-3.4656082775  
 H.9604354265,4.9433116689,-1.0519327026  
 H,2.0194387812,5.979309072,-0.0950776306  
 H.4539790983,5.4879509273.5531583442  
 H,4.0701176251,2.1648079834.0668115932  
 H,4.2520965325,3.7965874046,-0.579828648  
 H,3.1285146885,2.6649186669,-1.3421534291  
 H,2.2208733125,4.6565947065,3.0652551435  
 H,3.6833870395,5.0728106503,2.1640193619  
 H,3.5080346759,3.4626196754,2.8779223263  
 H,-1.3253882596,-3.9927786119.3299135189  
 C,-2.540463629,-1.0994234806,1.8139672417  
 C,-3.3317307238,-1.51579531,-0.4877346982  
 H,1.3598188226,-4.1343928571,-0.310567748  
 C,3.4335251703,-1.777259339.5269075738  
 C,3.0432712291,-1.5261295672,-1.8997828212  
 C,-3.8483985054,-0.7422606933,2.1681150026  
 C,-1.4739357905,-1.178517139,2.9027627853  
 C,-4.6199854618,-1.1508797116,-0.0748301653  
 C,-3.1162303492,-2.017556533,-1.9154016709  
 C,4.7985957105,-1.5559403458.298170514  
 C,2.9690056239,-2.1373349739,1.9395149198  
 C,4.4167883526,-1.3045778057,-2.0656459673  
 C,2.1359161957,-1.6468303921,-3.1216841198  
 H,-4.0623784939,-0.4632899689,3.1948997729  
 C,-4.8780535566,-0.7560759552,1.2341603904  
 H,-0.5016495656,-1.2710299031,2.4154377051  
 C,-1.6801742548,-2.4380303094,3.7692334817  
 C,-1.4272173473.0811844317,3.78485975  
 H,-5.4350869669,-1.1796536651,-0.7895829775  
 H,-2.0582250788,-1.8846069132,-2.1608939352  
 C,-3.9418891912,-1.2424157373,-2.9579459216  
 C,-3.4476699967,-3.5213601085,-2.0276464433  
 H,5.4884202875,-1.5841980433,1.1351512623

C,5.2863695311,-1.305883431,-0.9795307788  
 H,1.889397262,-1.9725530221,1.9921410325  
 C,3.2352302485,-3.6290367724,2.237124457  
 C,3.6220576056,-1.2801980877,3.040256446  
 H,4.8134117955,-1.1376100886,-3.0606871474  
 H,1.1429245377,-1.2942042905,-2.8306970133  
 C,1.9993453831,-3.1236430145,-3.5529439327  
 C,2.5990769634,-0.8069774349,-4.3228965679  
 H,-5.8854499765,-0.4748570634,1.5284842588  
 H,-2.6397334204,-2.4048738906,4.2977296915  
 H,-0.8869606829,-2.5201762339,4.5211728464  
 H,-1.6644430475,-3.3514608048,3.1654721731  
 H,-1.2879959595.9845788634,3.1840921864  
 H,-0.5958892226.0145415696,4.4952914966  
 H,-2.3431218632.2039439416,4.3729170203  
 H,-5.0133786355,-1.4523090511,-2.8680575088  
 H,-3.644124815,-1.5445354286,-3.9670065769  
 H,-3.8038928083,-0.1615477931,-2.870038196  
 H,-2.8392587508,-4.1337346534,-1.3571255749  
 H,-3.2727104586,-3.8761745739,-3.0496634498  
 H,-4.5001786997,-3.7063782852,-1.7843092585  
 H,6.3474953986,-1.1291400277,-1.1322988114  
 H,2.7379027156,-4.2914169656,1.5234483783  
 H,2.8749359709,-3.8882285905,3.2392225512  
 H,4.3085020424,-3.8478255951,2.2008947081  
 H,4.6871764631,-1.507570712,3.1579157175  
 H,3.1441005112,-1.4898419178,4.0035829144  
 H,3.5233304995,-0.2101496663,2.8437558499  
 H,2.9731191514,-3.5386780422,-3.8379772467  
 H,1.3327252605,-3.20682915,-4.418872168  
 H,1.5876017212,-3.7499317671,-2.7568673622  
 H,2.7728137649.2386141851,-4.0549914005  
 H,1.8355097367,-0.8290423058,-5.1064118252  
 H,3.5205213522,-1.200317015,-4.7666813463

**cat2-c**

Ni	0.2136	0.60585	0.88713
C	1.80838	-0.51168	1.69104
C	1.80037	0.81486	2.14761
C	-1.26039	1.96696	0.69892
C	-0.62053	2.2033	1.93071
C	-0.23275	-0.45094	-0.7294
H	2.41655	1.57836	1.67158
H	1.52117	1.04604	3.17104

H	2.44019	-0.72617	0.83225	H	5.49323	1.23936	-2.66712
H	-1.06029	1.68055	2.78782	C	-2.72626	-0.98956	-0.55179
H	-1.09212	2.63849	-0.14334	C	-3.14594	-1.94157	0.40273
H	-2.19136	1.40972	0.65422	C	-3.61105	-0.00897	-1.06126
Si	1.50961	-1.87755	2.94374	C	-4.45448	-1.84287	0.89481
Si	0.17414	3.83976	2.40089	C	-4.90989	0.03702	-0.53782
N	0.63075	-0.72619	-1.7768	C	-5.32705	-0.86007	0.4393
N	-1.3986	-1.08393	-1.13326	H	-4.79794	-2.55307	1.63867
C	0.02813	-1.44163	4.04349	H	-5.60463	0.78549	-0.90475
C	1.30167	-3.59382	2.15814	H	-6.33694	-0.8027	0.83598
C	3.01821	-2.01754	4.0969	C	2.97452	-2.48248	-1.36137
C	1.27567	3.71056	3.94132	H	2.00004	-2.62037	-0.88298
C	1.16721	4.61003	0.98648	C	0.87192	1.96784	-2.88977
C	-1.2266	5.04766	2.84381	H	0.04593	1.6899	-2.23081
C	0.02536	-1.5001	-2.76582	C	-2.25451	-3.09874	0.84044
C	-1.24001	-1.73112	-2.3594	H	-1.22001	-2.75415	0.77651
H	0.24825	-0.56003	4.65754	C	-3.23149	0.94953	-2.18989
H	-0.21386	-2.26011	4.73241	H	-2.1413	0.96991	-2.26186
H	-0.86711	-1.21348	3.45782	C	3.03785	-3.41051	-2.59351
H	0.58422	-3.61688	1.33351	H	3.99662	-3.30206	-3.11341
H	0.97119	-4.32152	2.90961	H	2.93861	-4.45833	-2.28812
H	2.26033	-3.95533	1.76983	H	2.244	-3.19881	-3.31466
H	3.93381	-2.26219	3.54503	C	4.05764	-2.9107	-0.35401
H	2.87397	-2.80098	4.85222	H	4.10457	-2.24364	0.51074
H	3.20034	-1.07668	4.62967	H	3.849	-3.92284	0.00735
H	0.78167	3.15405	4.74714	H	5.05281	-2.93778	-0.81093
H	1.49291	4.71297	4.33146	C	1.08858	3.48161	-2.73411
H	2.23613	3.22415	3.7426	H	1.77055	3.88158	-3.49311
H	1.98913	3.96186	0.66469	H	0.13444	4.00583	-2.85728
H	1.60184	5.56856	1.29624	H	1.4881	3.73883	-1.7505
H	0.53182	4.81001	0.11712	C	0.45323	1.65508	-4.34292
H	-1.89979	5.21226	1.99414	H	1.25888	1.90862	-5.0418
H	-0.83429	6.02587	3.15006	H	0.20654	0.59937	-4.48405
H	-1.83662	4.66721	3.67233	H	-0.42868	2.24317	-4.62232
H	0.54784	-1.79747	-3.65988	C	-3.78392	0.44304	-3.53935
H	-2.04343	-2.28029	-2.822	H	-4.8793	0.40801	-3.52477
C	1.96053	-0.18602	-1.9806	H	-3.4823	1.11203	-4.35329
C	2.08484	1.12753	-2.49294	H	-3.4219	-0.56012	-3.78141
C	3.08643	-1.01627	-1.77951	C	-3.70345	2.39536	-1.94752
C	3.37576	1.62063	-2.72001	H	-3.3956	2.7673	-0.96725
C	4.35268	-0.47067	-2.03468	H	-3.27752	3.05755	-2.7096
C	4.50093	0.83637	-2.48424	H	-4.79271	2.48882	-2.01679
H	3.50137	2.62913	-3.09831	C	-2.40875	-4.30011	-0.11703
H	5.23591	-1.08084	-1.87912	H	-1.75706	-5.12423	0.19495

H	-3.44072	-4.66967	-0.11379	H,3.7923153107,-1.7563525009.4954229735
H	-2.1479	-4.04282	-1.14733	H,3.3837877999,-3.4689342949.384616831
C	-2.50983	-3.56151	2.28429	H,2.2034768022,-2.3142990638,1.0209994945
H	-1.72466	-4.25764	2.59473	H.3345705119,-3.8183494903,-1.226762515
H	-2.51773	-2.72735	2.99069	H,1.8027704782,-4.6752262303,-1.6941707192
H	-3.4628	-4.09442	2.37839	H.8904146225,-3.7675507333,-2.9043834195
<b>cat2-d</b>				H,-4.2076496034,-0.3074775629,2.4232003682
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C,1.5278645815,1.8289096281,-0.0167827178				C,-1.5030972004,-0.5782253356,2.6295561491
C.4225691315,1.9110614451.8544042733				C,-1.0853302226,-1.9252303064,2.7369004957
C,-0.0850025361,-0.7370990123,-2.0603786573				C,-1.2904573915.3579395394,3.6677462536
C,1.2916061262,-0.6652559818,-1.8170267139				C,-0.3754337528,-2.2947469584,3.8865049438
C,-1.7761491592.1619319718.2179141391				C,-0.5832473027,-0.0734347663,4.7987908173
H,-0.3808276661,2.6276160652.6949926343				C,-0.117398345,-1.3790693379,4.9030968816
H.5294882464,1.5802921996,1.884719714				H,-0.0274076205,-3.3157495271,3.995525294
H,1.4477880953,2.4250654027,-0.9334754785				H,-0.3966736937.6241481672,5.6088915878
H,1.833558104.139006125,-2.3148120853				H.4361864671,-1.6903924327,5.7847342671
H,-0.6287729164,-1.6631684569,-1.8991189768				C,-3.0458583645.8492912252,-1.8699164124
H,-0.5756232905,-0.0380232019,-2.7355426539				C,-2.8935455872,2.2061293334,-2.223653481
Si,3.280797213,1.7173692502.6331629553				C,-3.400599247,-0.1368181594,-2.8196958409
Si,2.2926493648,-2.2312868249,-1.4883815251				C,-3.0493806283,2.5510534623,-3.5734245731
N,-2.2657841773,-0.1719242489,1.4682533257				C,-3.5528427747.2668296397,-4.1520035455
N,-2.9310476812.4635008304,-0.4803549476				C,-3.3694135151,1.5940639102,-4.5304938938
C,3.3704542288.7449114926,2.2574498758				H,-2.931693379,3.5877134317,-3.8735318097
C,4.5180472787,1.0490299646,-0.6382443675				H,-3.8181076104,-0.4689229118,-4.9042405794
C,3.8556601936,3.4926665042,1.0170902754				H,-3.4879875392,1.8835920622,-5.5710262586
C,3.7407121686,-2.2597755656,-2.7183950979				C,-1.8530979965,1.7802478592,3.6336306899
C,2.9821952831,-2.4543186088.2643197162				H,-2.0935754604,2.0205905372,2.5943251531
C,1.2252391272,-3.7571740708,-1.8606867199				C,-1.4658431581,-2.9772682385,1.6945965121
C,-3.6558188397,-0.0728825691,1.5283578137				H,-1.464197798,-2.4890736888.7153238932
C,-4.0719155305.3346097754.3109831155				C,-2.6423009826,3.3060586578,-1.1962597183
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H,2.8498084887,-0.2151678091,2.2029896732				H,-3.2024563388,-1.7683826668,-1.4592318372
H,4.4046774523,-0.0203765011,-0.827700507				C,-3.1564221628,1.8735765936,4.4562989004
H,5.546907587,1.2126707906,-0.2934986465				H,-2.9664957465,1.6537656022,5.5130977828
H,4.4145447478,1.5687453464,-1.5988314787				H,-3.5743995566,2.8848199796,4.3954579982
H,3.8517137673,4.1228082981.1188049235				H,-3.9230903715,1.1760164838,4.1075170417
H,4.8776015162,3.5061137892,1.4179783127				C,-0.8637992266,2.8469068721,4.1389061227
H,3.2047173424,3.9761428432,1.7553334804				H.0965134067,2.800274603,3.6199394458
H,3.3754644295,-2.2808774331,-3.752323406				H,-1.2824763907,3.8460450468,3.9760578863
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H,4.3896008294,-1.3824197195,-2.6204648554				C,-2.8916668714,-3.5092734449,1.9601116729
				H,-3.6422405593,-2.7150378193,1.9378305595



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H,-5.6468103236,-1.2190237411,-1.5680693804  
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H,-1.974206943,-2.3915114567,-3.6014770069  
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H,-3.5438703642,-2.5863018943,-4.3950592404  
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H,-3.7523012422,4.9033163525,-0.2058121068  
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H,-4.7590119756,3.5159583676,-0.649897416  
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H,-1.2671898858,4.939487949,-0.7801814696  
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**cat2-e**

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C,-1.5417989985,-0.3431298557,2.9946052552  
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C,-0.3573669604.3310080119,-0.5904565976  
H.9635137517,-0.8923014907,3.4781915872  
H,1.2123601254,-1.6757517897,1.8471342342  
H,2.1037551527.4332173076.9432250702  
H,-2.8838096104,-0.7001940751,1.3801867891  
H,-1.3413458546.2854417609,3.8634916728  
H,-1.3996864454,-1.4078972697,3.1876567727  
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C,2.6592117595,4.6119822137,-1.0765023312  
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C,-3.8247107932,-1.0325474973,-1.5744319904  
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H,1.1908986756,-1.8275459774,-0.4985980006  
C,3.4258024224.8547015309,-3.3185940905  
H,4.1614825541,1.6307037816,-3.5585537021  
H,3.8635444082,-0.114070332,-3.5847168843  
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**cat2-f**

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C,-0.818003711,-2.2275133494,-1.3065813978  
C.2468667204,-2.2962050793,1.3410024433

C,1.4721777845,-1.6306014349,1.2025585921  
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H,-0.4572112129,-2.0165184363,2.1283290266  
Si,-3.5189008693,-1.6542453946,-0.6204230285  
Si,2.9585021507,-2.504045928.4471858755  
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C,-3.4180659874,-2.6422434226.9941993219  
C,-4.6217970998,-0.1269168786,-0.3924755417  
C,-4.4201165458,-2.7665983763,-1.8757868566  
C,4.5084113663,-1.4132989065.534622691  
C,3.3351197108,-4.0838302983,1.438493537  
C,2.673327382,-3.0497352563,-1.3460455916  
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C.0243684416,3.3661439975.7524259102  
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H,-2.9003563383,-2.0965359801,1.7886151931  
H,-4.1311923095.6843945213.1524253657  
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C,1.224682317,1.6575592586,3.221953519  
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C,-2.2148248422,2.2916806587,-2.7959132462  
H,-2.2859959366,2.0801663238,-1.7249646122  
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H,-3.2729668434.4781047763,-3.4524256249  
H,-4.3240757558,1.8341872337,-3.0109342537  
H,-3.4693080111,1.855045242,-4.5459311481  
C,3.3458748852,3.0127457882,-2.0230576623  
H,4.2298104536,3.0929541581,-1.3799518564  
H,3.6292395799,3.3505816635,-3.0266388506  
H,2.5924329936,3.704390276,-1.6377052794  
C,3.9797400227.6349240576,-2.5224078384  
H,4.8012819011.6723185233,-1.8007425724  
H,3.662393521,-0.4072993803,-2.6131463104  
H,4.3940247737.9492912271,-3.4867153975  
C,2.9107666586,3.4794185355,2.7274408781  
H,3.8551048523,3.7113541309,2.2218809939  
H,2.1449547815,4.1447308398,2.3211917108  
H,3.0323281665,3.7195846926,3.7899171698  
C,3.7216057134,1.1231934109,3.0456524359  
H,3.4825459768.0575738009,3.0180812893

H,4.6044414705,1.2894858276,2.4203563355  
H,4.0061711152,1.3791183481,4.0720614759  
C,-3.0574836511,3.1358374992,2.6111554203  
H,-4.0208359537,3.2591527115,2.1033922747  
H,-3.1847660925,3.4494610001,3.6537269137  
H,-2.3445452811,3.8187738006,2.1409572158  
C,-3.68832263.7513761688,3.1076821754  
H,-4.5892254572.816243892,2.4907472539  
H,-3.375241927,-0.2959050822,3.1365985781  
H,-3.978032676,1.0461375196,4.1222032959

#### C<sub>6</sub>F<sub>5</sub>H

H,1.7919178078,-1.5592579473,1.1631467796  
C.7236664542,-1.7368687082,1.1355795303  
C.2043247579,-2.8504126657.487266233  
C,-0.1600011699,-0.8565157405,1.7465543528  
C,-1.1666641284,-3.0902018322.4430315241  
F,1.0236185457,-3.7254768107,-0.1156139689  
C,-1.5356619112,-1.0720037614,1.7173236951  
F.3001311541.2314443014,2.383086906  
C,-2.0356054069,-2.1944832417,1.0619336164  
F,-1.6531057618,-4.1679487177,-0.1852939495  
F,-2.3749929646,-0.2140620348,2.3108219843  
F,-3.3538283768,-2.4137318412,1.0268912969

#### CH<sub>2</sub>CHSiMe<sub>3</sub>

C,-5.4081334299,-2.5279315618,-1.4602337306  
C,-4.5586237453,-3.4107812724,-0.9206179329  
H,-4.0450158189,-4.1669584698,-1.5137221413  
H,-4.3337590729,-3.4213404984.1446469049  
H,-5.5703968615,-2.5955754923,-2.5400469095  
Si,-6.3412280739,-1.1878506965,-0.5211941496  
C,-5.9085565878,-1.2599116378,1.317505319  
C,-5.8656614098.50163574,-1.229353382  
C,-8.2000084459,-1.4550377224,-0.7566142806  
H,-6.179541779,-2.2225447441,1.7655649302  
H,-6.4488802282,-0.4817564331,1.8696752607  
H,-4.8390563827,-1.099073182,1.4940189368  
H,-4.7984644322.7098895578,-1.0925014755  
H,-6.4250118887,1.3088375751,-0.741395294  
H,-6.0767647037.5614217009,-2.3035740728  
H,-8.4762157181,-1.4490249763,-1.8176382228  
H,-8.7804391544,-0.6658333074,-0.2638358196  
H,-8.5253477671,-2.4142559796,-0.3382099204

**2-L1**

Ni,-0.4295098372,-0.0431772176,-0.5456275434  
C,-2.1433849755,-0.8573955608,-1.4191669529  
C,-1.1948477862,-1.8396793797,-1.1068131817  
C,1.1900978545,-0.7968881164.2756580211  
H,-0.3683889814,-0.3442723758,2.1897644514  
H,1.5816294754,-0.7374511897,-2.2134872037  
H,-0.5352046991,-2.2477028237,-1.8721386232  
H,-1.3066832354,-2.4767567942,-0.230947301  
H,-2.1425977817,-0.4895257767,-2.4482667548  
Si,-3.7667393763,-0.6837562849,-0.4807140091  
N,1.463059919,-1.0176409526,1.5944530241  
N,2.3244893786,-1.2053887221,-0.3688018895  
C.5292283469,-0.7071695852,2.6943808855  
C,2.4934296301,-1.2088146842,-1.8353199183  
C,-3.505513867,-0.8749378853,1.3855639143  
C,-4.6029156723.9855079597,-0.8225243473  
C,-4.9450052673,-2.0502946278,-1.0723486629  
C,2.7347019608,-1.5497428167,1.7670033439  
C,3.2767930646,-1.6698936309.5302696319  
C,1.0870698422.4114332852,3.5793427156  
C.1814222421,-1.9709846422,3.4862826484  
C,3.702930443,-0.3697873862,-2.2574075638  
C,2.5723773213,-2.6456923248,-2.3623365562  
H,-2.9694534178,-1.7970251094,1.6368962319  
H,-4.4682929435,-0.9097377805,1.9106051058  
H,-2.9389638302,-0.0320561019,1.7970589684  
H,-4.1658191569,1.8070136927,-0.24320451  
H,-5.6655803798.9411267369,-0.554060278  
H,-4.5496390807,1.2610137055,-1.8826416611  
H,-5.148963247,-1.9659633339,-2.1465749473  
H,-5.9089342834,-2.0061619067,-0.5502021792  
H,-4.5194255824,-3.0458942485,-0.8996230549  
H,3.1428897918,-1.7887709363,2.7359647412  
H,4.2434060341,-2.0362068307.2231805446  
H,1.9899222376.091211968,4.1113191352  
H.3433759466.6980159103,4.3296896896  
H,1.3278351814,1.2924211256,2.980738493  
H,-0.1954778369,-2.7584794887,2.8262708896  
H,-0.5926556621,-1.7448337581,4.2262614488  
H,1.0494767192,-2.3640426936,4.0270153141  
H,3.6300792894.6565343559,-1.8895615501  
H,3.7620047537,-0.3345226547,-3.3499378857

H,4.640867933,-0.8014866564,-1.8912234465  
H,3.4778771431,-3.151347288,-2.0089595712  
H,2.5972367116,-2.6444373872,-3.4565511338  
H,1.7073746082,-3.2321950913,-2.0390975253  
H,-2.0860264785,1.9859676535,-0.8190616506  
C,-1.0405881653,1.841097378,-1.059299378  
C,-0.6135979526,2.1867197495,-2.3782844167  
C,-0.0508850223,1.8802749394,-0.0273889314  
C.6625091718,2.5916069089,-2.6522072812  
F,-1.525374088,2.1547009733,-3.3719878927  
C,1.2527402593,2.3979243221,-0.3135123078  
F,-0.4759343565,2.0642221974,1.2726976096  
C,1.6090110493,2.7025462082,-1.5936152942  
F,1.0617863484,2.8887149782,-3.9033150122  
F,2.1547132954,2.464334632.6838137384  
F,2.8803351507,3.027401733,-1.9021980606

**2-L1-b**

Ni.4304864121.033890229,-0.1229008338  
C,1.63780221.3508248576,-1.8032247303  
C,2.0585461825,-0.7785964161,-1.097793562  
C,-0.9295864863,1.4228657289,-0.442998818  
H.369355381,2.4327405062,1.4857084823  
H,-1.3190095656,-0.5371620734,-1.9731285227  
H,1.7808754079,-1.7835555663,-1.4112583705  
H,2.9318168472,-0.739101713,-0.4479884312  
H.9692605561.1652839256,-2.6479029436  
Si,2.6059029807,1.9603721962,-1.8688116538  
N,-1.160102615,2.6352624485.1452890413  
N,-1.9186237982,1.3230976829,-1.3828547379  
C,-0.4226882622,3.1625801303,1.3125906746  
C,-2.1113446635.1573303314,-2.2671704711  
C,4.0759668355,1.7453542128,-3.0504776611  
C,1.5269284325,3.3496628978,-2.5751797928  
C,3.3067164648,2.4089979659,-0.1668990195  
C,-2.2602047935,3.2703654671,-0.418381305  
C,-2.7370294785,2.4446547557,-1.3813760542  
C,-1.3363785238,3.1995173924,2.5426847226  
C.195673759,4.5298486791,1.0089446633  
C,-3.4699439261,-0.5020311216,-2.0102536925  
C,-1.9180693972.5483534613,-3.7352408477  
H,4.761185687.9643236086,-2.7002712455  
H,4.6545860436,2.673197466,-3.1438081018  
H,3.7476552317,1.4628340876,-4.0579568961

H,1.2985797792,3.1541027691,-3.6305231607  
H,2.047586494,4.3144942123,-2.5384515285  
H,5728852867,3.4623253775,-2.0518155937  
H,2.5283119184,2.5126115613.595447527  
H,3.8649260334,3.3523549731,-0.2069465972  
H,4.0050809056,1.6391928504.1834857574  
H,-2.6065188564,4.2374322518,-0.0904370831  
H,-3.573977641,2.5600395911,-2.0514619381  
H,-2.1335661383,3.9425330668,2.4273863237  
H,-0.7553628104,3.4700459965,3.4301438568  
H,-1.7910421904,2.2223669359,2.7144985463  
H.8623413811,4.4869794561.1439359019  
H.7784158829,4.8691873586,1.8711751488  
H,-0.57247136,5.2864118615.8132883257  
H,-3.5858558791,-0.7786280855,-0.9592062831  
H,-3.5622241309,-1.4106393527,-2.6136257153  
H,-4.2976614995.1616716952,-2.2834516126  
H,-2.698713356,1.238226089,-4.0742867114  
H,-1.964357544,-0.3430737886,-4.3687571643  
H,-0.9482911179,1.0304644465,-3.8896940286  
H,1.6973196867,-1.343451819,1.7043018494  
C.7151457061,-1.4705614207,1.2600590695  
C.3537030841,-2.7808434104.8185760145  
C,-0.3420328963,-0.5753354002,1.6203364926  
C,-0.9467795078,-3.1826296229.7165465637  
F,1.342606259,-3.6461965692.5139697933  
C,-1.6969508962,-1.0412272775,1.5637307823  
F,-0.0895816013.3623611951,2.6069056254  
C,-1.9891482066,-2.2839612132,1.0865129194  
F,-1.2835702746,-4.4031684355.2577701256  
F,-2.6876698189,-0.1825015872,1.8777779764  
F,-3.2648748534,-2.6617318556.8747123239

**2-L1-c**

Ni,2797354254,-0.0536894522,-0.1866179316  
C,1.7723099087.6346285195,-1.4859111663  
C,2.2396759785,-0.420138128,-0.6974278671  
C,-1.1010076211,1.3259804102,-0.4674432182  
H.7249042412,2.2261781927,1.0022557229  
H,-2.0890116314,-0.6441028877,-1.7226871412  
H,2.8318386135,-0.2338819426.1988896259  
H,2.3437242669,-1.4257298331,-1.1014255601  
H,1.987219379,1.641649204,-1.1199138131  
Si,1.5270110748.4859846839,-3.3432328053

N,-1.0463958785,2.5876712157.0559280083  
N,-2.2687470826,1.3192704465,-1.1811733754  
C.0230090692,3.0633697333.955257851  
C,-2.8232783083.1482379363,-1.8917913595  
C.5924166378,-1.098530699,-3.790472694  
C.6551025875,2.0325193005,-4.0028774786  
C,3.2293939617.3888353094,-4.1792068842  
C,-2.145970626,3.3452338851,-0.3237784059  
C,-2.9150127756,2.5476036849,-1.1042358717  
C,-0.530454638,3.3236431043,2.3592387201  
C.7333260357,4.2841355724.3637554916  
C,-4.1694490593,-0.2674534866,-1.2859530825  
C,-2.9448417077.416032204,-3.3952173532  
H,1.1552082346,-1.9843974683,-3.4717621553  
H.4498515232,-1.1833094386,-4.8749360723  
H,-0.393758099,-1.1543899127,-3.3199572775  
H,-0.2951956405,2.2264963997,-3.4958634051  
H.4523144543,1.9551671137,-5.0779980548  
H,1.2853909066,2.9190300622,-3.857952849  
H,3.8449767253,1.2683665832,-3.9553303765  
H,3.136645533.322746446,-5.2707495693  
H,3.7870622877,-0.4932914517,-3.842705697  
H,-2.2908782874,4.3671521082,-0.0117231815  
H,-3.852644897,2.7458291487,-1.5982115049  
H,-1.2581783759,4.1428050277,2.3588751435  
H.2838907825,3.6011733274,3.0362799309  
H,-1.0138931556,2.4264891861,2.7527491725  
H,1.1025733745,4.0763402938,-0.6450733843  
H,1.586913149,4.5583499237.9916757635  
H.069190308,5.1541535372.3113927648  
H,-4.0994920901,-0.3995407007,-0.2053167318  
H,-4.499401479,-1.2123204053,-1.7280882895  
H,-4.9428562245.4813012681,-1.4906743143  
H,-3.6652861644,1.215811614,-3.5996943873  
H,-3.3004800613,-0.4860216915,-3.9032391135  
H,-1.9858880509.6977265849,-3.8349382653  
H,1.4685450861,-1.6149451441,1.5623541678  
C.5181896148,-1.6833383008,1.0437850151  
C.2086967324,-2.9164018073.3932712863  
C,-0.5839759544,-0.8718459188,1.4621129635  
C,-1.0754611713,-3.3482212287.2157652775  
F,1.2318108031,-3.6935980844,-0.0182320046  
C,-1.9138911925,-1.3921900243,1.3654279572  
F,-0.3815027481.0036171905,2.5098448996

C,-2.1555064936,-2.5698185063,7197691345  
F,-1.3576545241,-4.4951053681,-0.4298906226  
F,-2.9329949652,-0.6508751014,1.8424806611  
F,-3.4123462518,-2.9949959352,4921944569

## 2-L1-d

Ni.6837430344.2108030046.0434503765  
C,2.6508421188,1596912267,-0.6911622482  
C,1.8959512189,1.2134746073,-1.224445706  
C,-0.8539271262,1.3715355405,-0.3356801149  
H,4450371835,2.5926725689,1.4404184215  
H,-1.0623897955,-0.6720001189,-1.7813060297  
H,1.9658790964,2.2238830938,-0.8227535831  
H,1.511064898,1.1703248466,-2.2429601409  
H,3.2440387435,4096026344,1942513056  
Si,3.3328295382,-1.2575953813,-1.7272181052  
N,-1.1829383393,2.5795854087,2072700799  
N,-1.8479360047,1.1330389876,-1.2415496145  
C,-0.4044678314,3.2552878078,1.264873936  
C,-1.909636612,-0.060911472,-2.1072646678  
C,4.4788556679,-0.5187021448,-3.0516278809  
C,4.3834527857,-2.3929986433,-0.6355324079  
C,1.974477647,-2.2284997775,-2.6220052787  
C,-2.3551554467,3.0794138815,-0.3464861964  
C,-2.7729625796,2.1697346807,-1.2607883628  
C,-1.2215644375,3.3561883008,2.5563866528  
C.1070326477,4.6140233287,7781749799  
C,-3.2106428242,-0.836362799,-1.8805493956  
C,-1.7122020536,3.220399002,-3.5777391354  
H,3.9313571641,136392975,-3.7398254547  
H,4.9597306023,-1.2999213041,-3.6537479712  
H,5.2749367888,0829215855,-2.5967720469  
H,5.1894312109,-1.8309905376,-0.1476667324  
H,4.8567437265,-3.1817832108,-1.23318291  
H,3.7943269922,-2.8832325792,1442561918  
H,1.3315576902,-2.7704448935,-1.9219986111  
H,2.409162326,-2.966505607,-3.3075945003  
H,1.3404348372,-1.5654154339,-3.2227394791  
H,-2.7894432162,4.0199103246,-0.0473582121  
H,-3.6351387903,2.1742159083,-1.9084323667  
H,-2.0794054075,4.0282049378,2.4401956653  
H,-0.5956818934,3.7517843042,3.3626651911  
H,-1.5865378507,2.3715451392,2.8557538349  
H.689022967,4.5100865198,-0.1428089086

H.7504652694,5.0645228113,1.5405428637  
H,-0.715811373,5.311067491,5848148984  
H,-3.3334357941,-1.1198919863,-0.8323891905  
H,-3.2060048432,-1.7513169499,-2.4812613274  
H,-4.0851401418,-0.2489558411,-2.18107265  
H,-2.5400829572,9378492285,-3.9462831308  
H,-1.6679234547,-0.5806388785,-4.1951159497  
H,-0.7822295866,8804570746,-3.7199565204  
H,1.9912795126,-1.2716257961,1.7799635131  
C.9928109946,-1.3691334552,1.3696260961  
C.580789145,-2.6534298336,9053684761  
C,-0.0451065591,-0.4748488163,1.7851468066  
C,-0.7304118992,-3.0402316311,8624682224  
F,1.5269950852,-3.5473702809,5447044165  
C,-1.4022629219,-0.9268210348,1.8197679474  
F.2667641686,4886832005,2.725908903  
C,-1.7381392806,-2.1548665671,1.3310409287  
F,-1.0981016495,-4.2472991071,3938517894  
F,-2.3578977352,-0.0712927033,2.2295466261  
F,-3.0281702158,-2.5226646851,1.2057878573

## TS1-L1

Ni.7279653438.2182390983,-0.507806999  
C,2.4689292631,-0.3449625856,-1.4992907957  
C,2.5172502107,9943131745,-1.0839589886  
C.0499566742,1.8841269791,2559531977  
H,1.0244945385,6059160212,2.1861530234  
H,-0.3967105045,1.9559453807,-2.2140202831  
H,2.3340910223,1.8034599574,-1.7886781304  
H,3.079381479,1.2860167025,-0.198445854  
H,2.1725484742,-0.509563546,-2.5394223288  
Si,3.459017215,-1.7572236342,-0.7313441499  
N.0499488494,2.2880400553,1.557890055  
N,-0.5910807559,2.8887480764,-0.4071653826  
C.6260238397,1.5018613469,2.6672656556  
C,-0.8373070253,2.8926651203,-1.8631630538  
C,3.5684636901,-1.5629648778,1.1464320817  
C,2.6526712121,-3.4113814433,-1.1674569589  
C,5.2057798331,-1.7212060693,-1.4708970143  
C,-0.5794634752,3.5184864339,1.7028960537  
C,-0.9837356865,3.8967202396,4648127411  
C,-0.4629421693,1.0830324947,3.6595514098  
C,1.7700370326,2.2662130842,3.3395105963  
C,-2.3388430504,2.8684465291,-2.1626711473

C,-0.1220960058,4.0710790905,-2.5303434454  
H,3.950264947,-0.5772406444,1.436987604  
H,4.2455769211,-2.3112531445,1.5765443415  
H,2.5870903165,-1.6988493334,1.6124529773  
H,1.6950949783,-3.5487281596,-0.6533235795  
H,3.2990988538,-4.2512758895,-0.885355102  
H,2.4636615042,-3.493855245,-2.2447477219  
H,5.1801895444,-1.8056702804,-2.5639838357  
H,5.8183403797,-2.5483774071,-1.0916206067  
H,5.7254435909,-0.7867117638,-1.2285720942  
H,-0.6865217426,4.0120090425,2.655544539  
H,-1.5088666583,4.7806865233,1.396702698  
H,-0.8794612973,1.947109174,4.1890752387  
H,-0.0436376716,4.042424124,4.4083459309  
H,-1.2806750453,5.657587089,3.1507531482  
H,2.5362557557,2.5507549735,2.611960207  
H,2.2404242517,1.637890529,4.1023456627  
H,1.4120899121,3.1763579412,3.8335128457  
H,-2.8182444713,2.0112883388,-1.6837873536  
H,-2.5005810185,2.788121523,-3.2420683042  
H,-2.8344665962,3.7829783498,-1.8187250789  
H,-0.5439203902,5.0313696906,-2.2132738776  
H,-0.2284084184,4.0052198139,-3.617636255  
H,9455018229,4.072729752,-2.2899323919  
H,6251058912,-1.1870607416,-0.9027557435  
C,-0.7780315147,-0.9791182946,-0.2206100139  
C,-1.8484706385,-1.0385407599,-1.1133495158  
C,-0.9588155036,-1.7038362848,9573191004  
C,-3.0233977463,-1.7392181376,-0.8635589383  
F,-1.7670494288,-0.3729201426,-2.2970541653  
C,-2.113326547,-2.4217691906,1.2525841061  
F,0287545213,-1.718383458,1.8951018995  
C,-3.1577428569,-2.4404955747,3321478837  
F,-4.0303708007,-1.7473917013,-1.7554149786  
F,-2.2364838477,-3.090813627,2.4130830352  
F,-4.2816950014,-3.1281816206,5933724844

**3-L1**

Ni,-0.1525922273,-0.2743469073,-0.56964001  
C,-2.1945733219,-0.7728295832,-1.2168871986  
C,-1.2868887848,-1.8151771041,-0.6264665891  
C,1.3916743193,-1.0948212951,1.199681006  
H,-0.1264360016,-0.6952410347,2.0902024306  
H,1.7144744309,-0.8808512795,-2.3662919541

H,-0.9947444044,-2.6208577172,-1.3017831434  
H,-1.5570458402,-2.2042716769,3579613936  
H,-2.3029258834,-0.8854247496,-2.3019847507  
Si,-3.8786175341,-0.4510131611,-0.370585239  
N,1.6757105998,-1.3867614576,1.4187605724  
N,2.4926418605,-1.4896147505,-0.5766025509  
C,7634406576,-1.1300404978,2.5520254828  
C,2.6389020492,-1.3623551084,-2.0413035693  
C,-3.5784638597,-0.1296160583,1.4678841176  
C,-4.6627880461,1.0773967633,-1.1601515122  
C,-4.9892449003,-1.9595446099,-0.6171472104  
C,2.9401057288,-1.9525596925,1.5312794626  
C,3.4530119776,-2.0180185096,2.77640455  
C,1.3679237953,-0.1061251619,3.5163059062  
C,3832234433,-2.4429026972,3.2424810629  
C,3.8126973114,-0.4442074765,-2.3920884113  
C,2.7478336153,-2.74166498,-2.6966113799  
H,-3.1765920797,-1.0091067668,1.9831986636  
H,-4.5138975735,1.408747345,1.9728118036  
H,-2.8754820754,6.986340506,1.6163937671  
H,-4.0301545043,1.9636730901,-1.0300070334  
H,-5.6372526207,1.3035965754,-0.710886048  
H,-4.8230192018,9.422880903,-2.2364854406  
H,-5.1826309664,-2.1442939947,-1.6803941414  
H,-5.9610552791,-1.8210127303,-0.1281920193  
H,-4.5369780031,-2.8673196003,-0.2016634968  
H,3.3619098977,-2.2514102303,2.4773880873  
H,4.4038475195,-2.3879652691,-0.0711215472  
H,2.2870027976,-0.4813569162,3.9797388941  
H,6556043265,1.116397811,4.3183948622  
H,1.5909967602,8.298084757,2.9994220255  
H,-0.0330800037,-3.1579264699,2.5264770441  
H,-0.368179447,-2.2537298357,4.0154288261  
H,1.2474740292,-2.9094720672,3.7279631739  
H,3.7161538263,5.232160596,-1.8917003326  
H,3.8349019523,-0.2684095471,-3.4716682452  
H,4.773690382,-0.8865888819,-2.1065595402  
H,3.665472176,-3.2607294583,-2.3982728844  
H,2.7654286381,-2.6350514617,-3.7857921421  
H,1.8947406527,-3.3723413471,-2.4287581988  
H,-1.7092435885,2.853250406,-1.1410675068  
C,4464367456,1.6083652396,-0.7252630501  
C,9241139396,2.1522244786,-1.9087230366  
C,3868424639,2.5019686606,3339793717

C,1.330586028,3.4763106153,-2.0554460238  
F,1.0095191961,1.3700454446,-3.0284915507  
C.7756170821,3.8369878227.2560364208  
F,-0.086343177,2.084149139,1.5488770409  
C,1.2542424421,4.3270547347,-0.9561674243  
F,1.7891703323,3.949736161,-3.2311527972  
F.6957767806,4.6607073619,1.3198875256  
F,1.6373408869,5.6114901762,-1.0650487723

#### TS2-L1

Ni.6398655391.874763525,-0.5230281849  
C,1.7370689465,-0.6632215119,-0.1094796172  
Si,-0.7953866149,2.982461481,-0.4293255818  
C,-0.9938429988,-0.0070015664.1197700134  
N,1.9375903726,-1.7874454263,-0.8503873928  
N,2.4957994658,-0.845126547,1.0070968112  
C,-2.5898974884,2.4640168764,-0.8148211999  
C,-0.5279810946,3.3550663981,1.4138668105  
C,-0.7572942684,4.7073499269,-1.2673522128  
C,-1.3713415691,-0.2700718697,1.4301023203  
C,-1.8139198698,-0.6057284697,-0.8310409313  
C,1.3109351909,-2.0474166465,-2.1622801783  
C,2.8076861872,-2.6586120786,-0.2054601411  
C,2.6249772832.1398884192,2.1015428937  
C,3.1589077749,-2.0661831899.9618723537  
H,-2.6648525704,1.9321886002,-1.7684925196  
H,-3.2096558117,3.3657981956,-0.8904857131  
H,-3.0165544227,1.8229372113,-0.0409320718  
H,-0.6998398164,2.4867603038,2.0515677717  
H,-1.213685019,4.1533100777,1.7276435924  
H.4909605606,3.7158255446,1.6002390163  
H.1591271556,5.2788731107,-1.0839293607  
H,-1.5912879672,5.2968323028,-0.8661356057  
H,-0.9021869674,4.6527210325,-2.3533132205  
C,-2.4776816222,-1.0367665025,1.7922341227  
F,-0.6446421538.2409013682,2.4710302079  
C,-2.9266137499,-1.3877175866,-0.5380389535  
F,-1.5526620368,-0.4151448834,-2.1621982642  
H.6780179745,-1.1765402313,-2.3397271866  
C.4239506999,-3.2947749296,-2.1042838848  
C,2.3733825395,-2.1381534684,-3.2620768902  
H,3.0922072603,-3.6121954594,-0.6204038983  
H,1.8771654897.9024478767,1.8703696049  
C,2.2816316107,-0.494129293,3.452002674

C,4.0183642392.7771125864,2.0941171326  
H,3.8076735193,-2.4069459393,1.7525626747  
C,-3.2649350352,-1.6038135813.7953101031  
F,-2.7920523992,-1.2444297164,3.0855394075  
F,-3.6817988533,-1.9316007246,-1.5121896073  
H,1.0157754717,-4.2055004988,-1.9594599482  
H,-0.1260947038,-3.4009627142,-3.0441933984  
H,-0.3028213204,-3.2243141447,-1.2905097213  
H,2.9981403219,-1.2400666804,-3.2856016723  
H,1.8893761264,-2.243736234,-4.2379899574  
H,3.0272301217,-3.0055902055,-3.1193947646  
H,1.2871057299,-0.9442410719,3.4312441976  
H,2.2897474952.275961158,4.2297137788  
H,3.0109678608,-1.2595884028,3.7391164144  
H,4.7984332399.0387979511,2.3103990972  
H,4.0755718275,1.5564129638,2.86062062  
H,4.2406189635,1.2343518005,1.1252539617  
F,-4.3340675947,-2.354230637,1.1140230264  
H,2.3518931869.9733889223,-2.369181368  
C,2.1762320117,1.5808430675,-1.4829334998  
C,1.2139413994,2.6431126374,-1.5564222609  
H,3.0605013143,1.728208069,-0.8665916782  
H,1.5045937942,3.558127204,-1.0455617059  
H.7575402736,2.8349086007,-2.5263690151

#### 4-L1

Ni.5689479047,1.0478545488,-0.5033626852  
C,1.7469945948,-0.5086555693,-0.1097173307  
Si,-1.1350655655,2.7495121336,-0.3257385125  
C,-0.9541718214.0068634962.0562320457  
N,1.975093816,-1.587546985,-0.9102889111  
N,2.4977723012,-0.746558736,1.0026636284  
C,-2.9461515661,2.2610307868.0507393112  
C,-0.5788265949,3.7324567414,1.2162373749  
C,-1.4329801772,3.9795586056,-1.7679511847  
C,-1.2403904023,-0.3360801661,1.3733258891  
C,-1.75467111,-0.6304307453,-0.88688868  
C,1.3769529601,-1.7817168441,-2.2471466876  
C,2.8506193793,-2.4827083207,-0.3072935248  
C,2.6133695172.1713710069,2.1559332557  
C,3.1792910244,-1.9536779615.8961854379  
H,-3.4132509818,1.7222132826,-0.7811901029  
H,-3.5214642653,3.1849050669.1978070432  
H,-3.0646572232,1.6525585633.9510613137



H,-0.5372698096,3.0810339973,2.0966052013  
H,-1.299677999,4.5317857486,1.4338985457  
H.4063848712,4.1995089442,1.1045009623  
H,-0.5799655654,4.6157753043,-2.0215572856  
H,-2.2634498081,4.6449938934,-1.4992427361  
H,-1.7351795071,3.4501637416,-2.6805268759  
C,-2.2257443581,-1.2449980804,1.7476528818  
F,-0.5507379002.2572581185,2.3897709089  
C,-2.7558241834,-1.5453415094,-0.5728575952  
F,-1.5896168086,-0.3445466236,-2.2117114743  
H.7091476135,-0.9284323367,-2.377542798  
C.5454533152,-3.0668747927,-2.2880045352  
C,2.4545084138,-1.751936351,-3.3353760719  
H,3.1527867227,-3.407064687,-0.7730751339  
H,1.8790411713.954710557,1.9550431082  
C,2.2412834417,-0.5395648126,3.4606104171  
C,4.0166045886.784412282,2.2205914708  
H,3.8223638769,-2.3309086151,1.6748133057  
C,-2.9917422927,-1.8612974007.7621040427  
F,-2.4482012495,-1.5355777523,3.0433191866  
F,-3.4960433819,-2.1261373373,-1.5359809792  
H,1.1746576759,-3.9586913285,-2.1904431034  
H.0166020627,-3.1363891526,-3.2432364994  
H,-0.1966524194,-3.0807553245,-1.4855903142  
H,3.03821739,-0.8272003496,-3.2935281535  
H,1.9858956621,-1.815067172,-4.3223406679  
H,3.1472703546,-2.5953780009,-3.2409550463  
H,1.2483973293,-0.9877488196,3.3952803297  
H,2.2335415812.1840476801,4.2815799906  
H,2.9667667244,-1.319654224,3.7164400529  
H,4.7747425487.0256273257,2.4441348689  
H,4.0564151535,1.537818505,3.0135576454  
H,4.2894746065,1.2670353336,1.2776854444  
F,-3.9461397171,-2.7477274233,1.0947490996  
H,2.680075599,1.1422165663,-2.0232014171  
C,2.3253998991,1.8298114991,-1.2625014283  
C,1.3055736332,2.7274862764,-1.5417788068  
H,3.0122250252,2.0170297734,-0.4422065676  
H,1.2456577671,3.6561550971,-0.9858947293  
H.8472441826,2.7398235464,-2.5253309235

**TS3-L1**

Ni.5465958023.7434952726,-0.9742570294  
C,1.6665241569,-0.7223183438,-0.2292814992

Si,-0.7505619128,2.6308402626.0458543826  
C,-1.1385433758.5500015312.1319956131  
N,1.5869795219,-2.0469846634,-0.5667035181  
N,2.7321791728,-0.6741243702.6259413947  
C,-1.5310787148,2.993017425,1.7537965469  
C.9192436044,3.5471740512.2012291165  
C,-1.9519202482,3.4864086164,-1.1446423794  
C,-1.0366125775,-0.0358764007,1.408340586  
C,-2.2596869878.1178635769,-0.6000997576  
C.5961273255,-2.6000998263,-1.5083930891  
C,2.5752867312,-2.7956109536.0603455245  
C,3.2434264251.5647436988,1.2393840313  
C,3.2982286488,-1.9293439648.8114916301  
H,-2.5702867829,2.651021588,1.8149838388  
H,-1.5343846629,4.0795244379,1.9125308985  
H,-0.9794159616,2.5440216563,2.5849363158  
H.6973773348,4.6243338948.2112743662  
H,1.63538284,3.361229939,-0.6004022849  
H,1.3974439774,3.3157346167,1.1586519587  
H,-1.6618963446,3.447724091,-2.1954484818  
H,-2.0241178461,4.5421809206,-0.8520943147  
H,-2.9575787108,3.0626486582,-1.0586966891  
C,-1.9269379815,-0.9662336944,1.9179918216  
F,-0.0052103368.3128952987,2.2106737771  
C,-3.1777767887,-0.8190063841,-0.1291282431  
F,-2.5019591831.5988189802,-1.8393715587  
H,-0.000903316,-1.734222113,-1.8073672758  
C,-0.3112559757,-3.6198148171,-0.8139724574  
C,1.2843553699,-3.1822105309,-2.7473662681  
H,2.6784399426,-3.8608549321,-0.0721999959  
H,2.5225324874,1.3271761577.9386918246  
C,3.258788683.4591165662,2.7670548889  
C,4.6186841411.9265589246.6682056124  
H,4.1478081897,-2.100690723,1.4533284308  
C,-3.0140178247,-1.3646529901,1.1384036191  
F,-1.7560928394,-1.4990519532,3.139670932  
F,-4.2145627373,-1.2060982878,-0.890774245  
H.2430505688,-4.5156682025,-0.5127946899  
H,-1.1084711909,-3.936892631,-1.4937345456  
H,-0.7728222141,-3.1898750365.0791020195  
H,1.9323228163,-2.4402938215,-3.2232045616  
H.5325757847,-3.4991264217,-3.4770764053  
H,1.8941071892,-4.0576169515,-2.4972865601  
H,2.2712255604.1937543099,3.1513900647

H,3.5521287848,1.4199824894,3.2019622895  
H,3.9776918197,-0.2915902549,3.1135867472  
H,5.3763967692.1849812395.9448809215  
H,4.9442997512,1.8960387903,1.0591652491  
H,4.5862283019.9913696771,-0.4234174107  
F,-3.8883926752,-2.2626154514,1.6092032067  
H,1.5160002823.0315785001,-3.235384046  
C,1.5271640363.9787978972,-2.6994432329  
C.3971675427,1.8173135666,-2.6951823931  
H,2.5234759064,1.3912953291,-2.5435907871  
H.5273221109,2.8920047752,-2.5978926768  
H,-0.5056893901,1.5167459809,-3.2232782118

#### TS4-L1

Ni,-0.890491232.8202903379.4336427434  
C,-2.1642393457,-0.7558124398.3746693392  
Si.0058730717,2.8925504965.1504166451  
C.8302910532.3348047889,-0.0613486197  
N,-2.0889251163,-1.9667765376.9976138767  
N,-3.2279736214,-0.8847827413,-0.4696250453  
C,1.2415597034,3.3064754412,-1.2368583621  
C,-1.6012215673,3.8488601001,-0.2980397838  
C.7357580673,3.6550073162,1.7399490951  
C,1.1666915831.0161746732,-1.3789247852  
C,1.8086866731.0191370847.8828712251  
C,-1.0490780007,-2.3204806031,1.9859832511  
C,-3.0767745208,-2.8294763186.5473862979  
C,-3.6792221723.1843374677,-1.3837682512  
C,-3.7986564437,-2.1448309722,-0.3778375538  
H,2.2498519604,2.9464412788,-1.0046037698  
H,1.3058061328,4.3945206771,-1.3697613391  
H.9467388869,2.8717051266,-2.1976886252  
H,-1.8526055127,3.7113382862,-1.356383686  
H,-1.452784822,4.9255490365,-0.1333627596  
H,-2.4705787906,3.5478234038.2967361764  
H,-0.0023617063,3.7197245064,2.5465518071  
H,1.1014645474,4.6724040389,1.5456377003  
H,1.5795772228,3.0660445396,2.1155589426  
C,2.3730981235,-0.5706221137,-1.7458822755  
F.289085673.2860112101,-2.3824220422  
C,3.030434565,-0.5670528985.5640394227  
F,1.5794101284.2728273798,2.2024523396  
H,-0.4973541108,-1.3908753264,2.1439315603  
C,-0.0954337629,-3.3740724604,1.4136584199

C,-1.6810170041,-2.7620452183,3.3091921356  
H,-3.1870910819,-3.8387001374.9113513033  
H,-3.0055363983,1.021150012,-1.1740009307  
C,-3.4916589233,-0.2347133671,-2.8443257698  
C,-5.1146070258.6060691845,-1.0604543864  
H,-4.653685487,-2.4482486096,-0.9608605206  
C,3.3173112866,-0.8651675829,-0.7648799227  
F,2.6407997421,-0.8618535057,-3.0325784931  
F,3.9317876356,-0.8574320559,1.5211400713  
H,-0.6067908281,-4.3279605081,1.2427016859  
H.7238275119,-3.5552047862,2.1163800487  
H.3342605777,-3.0390886936.4656208841  
H,-2.3738499114,-2.0062776293,3.6921363653  
H,-0.898796522,-2.9175821475,4.0583445617  
H,-2.2304809751,-3.7039211256,3.2034675382  
H,-2.4503495554,-0.5090928218,-3.0362348621  
H,-3.7527953184.5974847031,-3.5057631111  
H,-4.1313806683,-1.0838671754,-3.1085669447  
H,-5.8289648515,-0.2005855131,-1.2585861529  
H,-5.4007466732,1.4611933012,-1.680522426  
H,-5.2096831816.8986227512,-0.010064987  
F,4.4887523548,-1.4353305034,-1.0972519693  
H,-0.8298444946,1.6346969111,3.4364700379  
C,-1.877332469,1.3995207552,3.2729483488  
C,-2.7804447847,2.3398663192,2.9848852343  
H,-2.1659168778.3600326752,3.396091295  
H,-3.8318523245,2.0980733907,2.845255489  
H,-2.507825219,3.3872135189,2.8879400935

#### 5-L1

Ni,-0.2615264079,-0.4853566542,-0.1717029962  
C,1.6396325625,-0.4236602846.0561488362  
Si,-0.7540339198,1.6509039822.3146568934  
C,-2.1114725888,-0.8592971372,-0.4369931321  
N,2.5944620973,-0.2396244423,-0.9018974543  
N,2.3476802294,-0.7108898412,1.1877319951  
C,-2.1649860717,2.4043381528,-0.7174705413  
C,-1.2552572739,1.762503466,2.1500304363  
C.7262131063,2.8305807732.0621552107  
C,-2.9270742225,-1.3632527024.572105195  
C,-2.6954450477,-0.8410168761,-1.701267193  
C,2.2869689071.0438592375,-2.3209000394  
C,3.8657667461,-0.4109825459,-0.3791459618  
C,1.7199857764,-1.0279152484,2.4893903115

C,3.7104308937,-0.7075809719.9384236621  
H,-2.0210478514,2.2419316538,-1.7908433946  
H,-2.2158924075,3.4882894366,-0.5468669206  
H,-3.1356620377,1.9773059782,-0.4461036745  
H,-2.0365402115,1.0403571913,2.404877224  
H,-1.6372750994,2.7684263264,2.3723859194  
H,-0.4065714819,1.5805052535,2.818997539  
H,1.6195561701,2.51594752.6116611085  
H.461771028,3.8396618007.4078986252  
H.9948979136,2.9137141979,-0.9972306279  
C,-4.2281774249,-1.815641968.3682538649  
F,-2.4612976367,-1.4273759993,1.8520034206  
C,-3.9889332607,-1.2809052368,-1.9662465534  
F,-1.9916647485,-0.3631276743,-2.7650032716  
H,1.2206607025.2883041315,-2.3193082755  
C,2.5099183573,-1.2040813901,-3.1808436456  
C,3.0817033932,1.2507599173,-2.8240210134  
H,4.7620724806,-0.3070565282,-0.9697577868  
H.6588554273,-0.8098295672,2.335324691  
C,1.8791207855,-2.5155213152,2.8170170884  
C,2.2667373981,-0.1201974809,3.5937844764  
H,4.447011256,-0.9083490423,1.6999873283  
C,-4.7616428157,-1.7729997871,-0.9170203093  
F,-4.9740087102,-2.2963179809,1.3809557469  
F,-4.5049739849,-1.244554759,-3.2093101709  
H,3.5633622816,-1.5052503698,-3.1860991262  
H,2.2131014021,-1.0020452256,-4.2147801529  
H,1.9133165475,-2.0449974272,-2.8143958254  
H,2.944063611,2.1168968235,-2.1709063906  
H,2.7404507496,1.521215316,-3.827721243  
H,4.1534697017,1.0336498832,-2.8891389415  
H,1.4626118142,-3.1385130083,2.019592896  
H,1.3485313117,-2.7509482777,3.7448029131  
H,2.9316176863,-2.7876563811,2.9537615819  
H,3.3193507701,-0.3331117368,3.8107646071  
H,1.7013683479,-0.2804047399,4.5166321029  
H,2.180523192.9351672136,3.3192758341  
F,-6.0108114436,-2.2100726553,-1.1451758663

**TS5-L1**

Ni.3453867841.1319413636,-0.2207297175  
C,2.1499724721,-0.1304248836.2695211005  
Si,-0.8662701764.8321179592,-2.2932236273  
C,-1.5406590015.2718513718,-0.4353201847

N,2.8367283615,-1.3178522842.2981178335  
N,3.0385799039.7675749228.8018819718  
C,-2.5928895603,1.0389511066,-3.0683376097  
C,-0.0219763035,2.5235043463,-2.4207960495  
C.0158214309,-0.4653632394,-3.3607358148  
C,-1.9433952353,1.2314561538.5153289271  
C,-2.0785723656,-1.016781884,-0.2406486074  
C,2.2610176303,-2.5979625111,-0.1544210467  
C,4.1048087382,-1.1594355798.8364637821  
C,2.7317251404,2.1964209617.995439571  
C,4.2322825213.1549308496,1.1539436102  
H,-3.1508931337.0954238505,-3.0739452739  
H,-2.5047022856,1.3753522776,-4.1095362202  
H,-3.1980497661,1.7786496053,-2.5319586183  
H,-0.4465396157,3.2421100862,-1.7150637604  
H,-0.1625214953,2.9255843395,-3.4336726239  
H,1.0526196408,2.4555593893,-2.2304783971  
H,1.096773247,-0.4668980801,-3.1968345016  
H,-0.1686251662,-0.2464390092,-4.4220729928  
H,-0.359578556,-1.4728080287,-3.1620525923  
C,-2.8033802809.9459919436,1.5713402567  
F,-1.5450247793,2.5213834991.3966874963  
C,-2.9416442177,-1.3360386218.8003521576  
F,-1.8024150129,-2.0061319307,-1.1252244353  
H,1.2914538144,-2.3131657412,-0.5767421418  
C,2.0275974701,-3.5388046178,1.0309886951  
C,3.1205153499,-3.231949615,-1.2512349338  
H,4.803861297,-1.9737089425.9439393212  
H,1.7412866508,2.3158646831.54419789  
C,2.6420023399,2.5365979703,2.4860960711  
C,3.7359987192,3.0780556132.2478579041  
H,5.0620126889.6903995427,1.5876933588  
C,-3.2976723136,-0.3473572933,1.7161561626  
F,-3.142598157,1.8910245151,-2.4643669864  
F,-3.4146221447,-2.5845172573.9538982743  
H,2.9698093121,-3.823490548,1.5127537961  
H,1.5345544347,-4.455794095.692375673  
H,1.3878150721,-3.063947357,1.7811862088  
H,3.2773414287,-2.5338590635,-2.0792001782  
H,2.6207317028,-4.1222625492,-1.64576049  
H,4.1009734186,-3.54338424,-0.8735191917  
H,1.8978877203,1.9062574906,2.9825979428  
H,2.3456104976,3.582511614,2.615776857  
H,3.6043773056,2.3961552503,2.9910493888

H,4.7425276447,3.0014324464.6744882179  
H,3.4295979064,4.1269647597.3100488248  
H,3.7913794101,2.7997780419,-0.8090839348  
F,-4.111023487,-0.6434435813,2.7371526639

#### 6-L1

Ni,3.0085310781,-0.4973867022,2.9394614383  
C,2.9263005354,-0.2958057132,4.861643489  
Si,-0.1391395843.2826145053.3311551943  
C,1.7550990702.2969706429.5850275967  
N,2.7946325274.8494582871,5.5926084537  
N,2.9619556179,-1.2871296593,5.7985204042  
C,-0.5229732347,-0.839216289,-1.1397650487  
C,-0.9442410368,-0.3875344265,1.9024133531  
C,-0.7991381211,2.0188436778,-0.0101258598  
C,2.4015815281,-0.8630757944,1.1323656429  
C,2.5890902939,1.3426058169.2453827272  
C,2.7318795946,2.1973801902,4.9925091235  
C,2.7490528845.577124899,6.949473251  
C,3.0987398394,-2.7195146961,5.4618991403  
C,2.8547873874,-0.7726864206,7.0789290219  
H,-0.0812469958,-0.4510115419,-2.0648148983  
H,-1.604955859,-0.9228687606,-1.2990048494  
H,-0.1279274715,-1.8478457682,-0.9805422634  
H,-0.5818614579,-1.3927260704,2.1372591029  
H,-2.0339981051,-0.4386281416,1.7878165155  
H,-0.7304935399.2546089216,2.7644545259  
H,-0.5522330684,2.7236319301.7908152647  
H,-1.8932960439,1.9780516342,-0.0852845613  
H,-0.4177806481,2.4340225525,-0.9474807955  
C,3.8321325551,-0.966752252,1.2659441932  
F,1.6951668665,-2.0515491325,1.0726724264  
C,3.9962935564,1.2881696636.3533400682  
F,2.0930154241,2.5143479266,-0.2201718465  
H,2.7748402845,2.0080884372,3.9152610895  
C,3.9494455378,3.0303256696,5.4017806086  
C,1.4047203608,2.8816576216,5.3280927606  
H,2.6478724249,1.3440332938,7.7009658355  
H,3.2117289211,-2.7221351195,4.3732127479  
C,4.3614092711,-3.3070572701,6.0968644849  
C,1.8307436743,-3.4911855159,5.8350395466  
H,2.8628225517,-1.3902755832,7.9630738301  
C,4.6048605081.1497517424.8290703042  
F,4.4566628625,-2.1883230735,1.2460602942

F,4.7332512887,2.3614095354.0078679814  
H,3.959192395,3.2318055909,6.4787641547  
H,3.9320367027,3.9934636335,4.882373819  
H,4.8793248602,2.5171217352,5.1383650121  
H.5565188881,2.2615128692,5.0223857532  
H,1.3375470094,3.8380644603,4.8004016649  
H,1.3125315307,3.0865362143,6.4003440435  
H,5.2477290003,-2.7348215724,5.8065560608  
H,4.4972512981,-4.3398458608,5.7616533803  
H,4.3004917476,-3.3190063846,7.1910158023  
H,1.6643622054,-3.5016042614,6.9181138956  
H,1.9181601653,-4.5300071982,5.5015939669  
H.950889685,-3.0522836799,5.3549390898  
F,5.9436211843.0674319369.8613826734

#### 7-L1

Ni.0438453842.3592639569,-0.8758576915  
C,1.9426990188.1990151773,-0.3975024793  
Si,-2.7888905073,1.8613841307.1925827031  
C,-1.7721952611.2325780104.1331539515  
N,2.7291098256,-0.9148102319,-0.4794056837  
N,2.7813894701,1.1604758008.0862269239  
C,-3.6464341869,1.9196483335,1.879946069  
C,-1.6856429956,3.3839050159.0070475162  
C,-4.1173850494,1.9151360864,-1.150702595  
C,-0.6128587359.0909142671.9789298565  
C,-2.4424934019,-1.002200712,-0.1688336594  
C,2.2631711964,-2.2236521144,-0.9775952966  
C,4.0258875603,-0.6501996557,-0.0563349606  
C,2.372441409,2.5525285528.3539672949  
C,4.0584762217.6572991209.3009087805  
H,-4.2910757267,1.0455783883,2.0292406601  
H,-4.2783653763,2.8121871077,1.9679240794  
H,-2.9220492852,1.9421079997,2.7013515785  
H,-2.3052462571,4.2888790483.0477380115  
H,-1.1520680124,3.3963207287,-0.9492439829  
H,-0.9501231318,3.4494912639.813230871  
H,-3.7192527731,1.7512136831,-2.1565031012  
H,-4.59072059,2.9053066474,-1.1432331552  
H,-4.9016199147,1.1723202312,-0.9807691125  
C,-0.287299191,-1.1756327256,1.573111128  
F,-0.2691627799,1.1740483075,1.7887210696  
C,-2.0855255042,-2.2135684192.3491197378  
F,-3.5330840407,-0.967538221,-0.9732378975

H,1.1938077545,-2.076514332,-1.1543495336  
C,2.4536636131,-3.3137839105.0814624411  
C,2.9475615606,-2.574678263,-2.3025596589  
H,4.8009849924,-1.3997536928,-0.0413203978  
H,1.3190501734,2.5805861721.065996807  
C,2.4885063229,2.8777807969,1.845560386  
C,3.1598808351,3.5289559643,-0.5246692325  
H,4.8671188201,1.2577319342.6861719498  
C,-0.9734576118,-2.3002710251,1.2337873132  
F.7967040535,-1.2525162609,2.3732044579  
F,-2.7460347704,-3.3472115483.0353568744  
H,3.5156901983,-3.5139048633.2622272324  
H,1.9958035049,-4.2474505449,-0.2595624233  
H,1.9910981386,-3.0308563798,1.0289257994  
H,2.8099336289,-1.7796136264,-3.0414370682  
H,2.5245301046,-3.4988722071,-2.7085390467  
H,4.0234889722,-2.7309926466,-2.1674695516  
H,1.9161957576,2.162181793,2.4396788402  
H,2.0942068595,3.8806534512,2.0389453895  
H,3.5309322363,2.8606762707,2.1827450381  
H,4.2260525479,3.5314488425,-0.2721055833  
H,2.7833600134,4.5466709195,-0.3807312408  
H,3.061395314,3.2746881409,-1.5844878718  
F,-0.5831118954,-3.5158077315,1.6620224496  
H.9456082037,-0.2699705546,-3.2287107885  
C.4432436133.6277195391,-2.8772955589  
C,-0.9299610491.6451943216,-2.6892775203  
H,1.0037279806,1.5510536103,-3.0012625648  
H,-1.4685483514,1.5875418876,-2.6647485021  
H,-1.5376008861,-0.2361358358,-2.8780360518

#### P1

Si,-1.3847165048,3.2434209245.5708116354  
C,-0.6367136458,1.4759685534.4333199841  
C,-3.0279888666,3.2363207697,-0.3537914168  
C,-1.6668255201,3.7179805228,2.3711139038  
C,-0.1608535958,4.4398642957,-0.2205100768  
C,-0.3377815269.6431695935,1.5128337053  
C,-0.3531440546.9388481714,-0.8247014157  
H,-2.8995861432,2.9716048916,-1.4077616056  
H,-3.4954937165,4.2273629361,-0.3124766344  
H,-3.7321684869,2.5222387664.0878173361  
H,-2.3676659969,3.0474440233,2.8770290457  
H,-2.0926413522,4.7285110866,2.4067713008

H,-0.739364335,3.7309833326,2.9511243912  
H.8048265676,4.4247593488.2971822887  
H,-0.5431609877,5.466543291,-0.1733222495  
H.0195110691,4.1989927145,-1.2725857715  
C.2037125765,-0.632255107,1.3658782854  
F,-0.5663764518,1.0481377955,2.7789106686  
C.186884997,-0.3278052465,-1.0192476025  
F,-0.6061388945,1.6651006334,-1.9369693384  
C.4673463144,-1.1197277474.0904758431  
F.471563194,-1.3901533832,2.4387647556  
F.4375837859,-0.7891952899,-2.2523752672  
F.9867837549,-2.3409849869,-0.0696685456

#### TS6-L1

Ni.2663802121.2694587267.131521547  
C,-1.0448904695,-1.9289392598,-0.660251428  
C.2640716608,-1.6366510021.0540493454  
C,2.1020282729.2315258208.4866691103  
H.9202726972.5862661509,2.6832185838  
H,1.8673363334,-0.1495898271,-1.9899755582  
H,1.1312324677,-2.0707500805,-0.4513998997  
H.262234651,-1.9700968715,1.0994364428  
H,-1.0326544092,-1.5346271288,-1.6858041679  
Si,-1.4800907808,-3.7937200773,-0.7715625355  
N,2.7051968595.4128017458,1.694989965  
N,3.1270038063.1352798567,-0.406055661  
C,1.975836347.6088862827,2.9679367564  
C,2.9454073328,-0.0159406335,-1.8656165259  
C,-1.6234682057,-4.5217749574.9693250469  
C,-3.1378002223,-3.9558909518,-1.6696476972  
C,-0.1410671464,-4.7193570649,-1.7397384697  
C,4.0859859739.4347858773,1.5558988778  
C,4.3508595301.2626208487.2354550559  
C,2.2922991287,1.9842580658,3.5622306652  
C,2.2627879386,-0.5376262699,3.9408312435  
C,3.3733944938,1.2600352514,-2.5963000046  
C,3.6726702803,-1.2608825487,-2.379477812  
H,-0.6664345789,-4.4960169299,1.5028045127  
H,-1.9485178799,-5.5687055571.9350514711  
H,-2.3540872487,-3.9731788319,1.5757342811  
H,-3.9373285179,-3.4298057708,-1.134646212  
H,-3.4421392967,-5.0054624291,-1.7638130385  
H,-3.0896531999,-3.5359072708,-2.6813761329  
H,-0.0085796745,-4.301811668,-2.7450299164

H,-0.4016344039,-5.7781901082,-1.8580454962  
H.8299562113,-4.6788757841,-1.2328368218  
H,4.7551216932,5.715048305,2.3900901964  
H,5.2915227804,2.260242146,-0.2901482233  
H,3.3418539468,2.0656204913,3.8658936076  
H,1.6749154051,2.1528344225,4.4496964842  
H,2.0776191256,2.7797440464,2.8423958251  
H,2.0243058853,-1.5063164094,3.4916429163  
H,1.6518867477,-0.4202111273,4.8411841341  
H,3.3132077841,-0.5529053524,4.2519368806  
H,2.8229470267,2.1282634447,-2.222011757  
H,3.1673940675,1.1612620571,-3.6666611403  
H,4.4455243734,1.4513810335,-2.4767693771  
H,4.7601965602,-1.1626889607,-2.2898551873  
H,3.4413638453,-1.4115022663,-3.4382382819  
H,3.3631861819,-2.1561198361,-1.831849917  
H,-1.8860478315,-1.4400375381,-0.1506780709  
C,-1.3062224014,1.5277916354,-0.0231093856  
C,-1.7324846213,2.0777468206,-1.2232865558  
C,-2.010603637,1.9546238984,1.0931351888  
C,-2.7811093047,2.9861775107,-1.3370420722  
F,-1.1143748116,1.7290743897,-2.3892382834  
C,-3.0673996451,2.859987698,1.051948056  
F,-1.681251245,1.4767364024,2.3313185866  
C,-3.4527787794,3.3789693044,-0.1816958687  
F,-3.1603546871,3.4934618096,-2.5273181651  
F,-3.7230539162,3.2440271582,2.1659358837  
F,-4.4688547065,4.2547996467,-0.2575305822

#### 8-L1

Ni.8169444635.1295052427,-0.1283918079  
C,-0.8131667388,2.3429377475,7.180061388  
C.4558977027,1.5857902647,1.0850265804  
C,2.3068180782,9.477987089,-1.067923039  
H,3.1342529365,4.791169639,1.2535900575  
H.3470000155.9482169838,-2.6384750287  
H.3793943714,1.0979466433,2.0608613451  
H,1.3353813471,2.2373480404,1.0771029634  
H,-1.6787160196,1.668778264,7.24035322  
Si,-1.221369921,3.80897519,1.8782665124  
N,3.5798116818,1.1503033038,-0.6237372313  
N,2.3346670783,1.3533142541,-2.3699720378  
C,4.0420891742,8.016680064,7.371225631  
C,1.1655004842,1.2985901118,-3.2744086314

C,-1.2834635115,3.2263496807,3.6786379271  
C.0912458003,5.1657148715,1.7052051731  
C,-2.9094264458,4.5147421805,1.3825100928  
C,4.3825204991,1.6698065199,-1.6265430015  
C,3.5973644861,1.7974414431,-2.7287081041  
C,4.6189973176,2.0280706693,1.4485882894  
C,5.0254108913,-0.3708894582,6.861406313  
C.8239428044,2.6917175089,-3.8082160625  
C,1.3943141485,2.776941858,-4.3928382997  
H,-1.9963615203,2.4038530723,3.8117712159  
H,-1.5917557255,4.0387452295,4.3479357319  
H,-0.3063794816,2.871158666,4.0255472468  
H,1.0879079042,4.8116667483,1.9936642487  
H,-0.1431978815,6.0264841752,2.3433753703  
H.1577162164,5.5348265559,6.744692751  
H,-2.9140782086,4.8574636111,3.406546273  
H,-3.1883423172,5.3702255805,2.0097871972  
H,-3.7023266795,3.7639530677,1.4826007931  
H,5.4259579182,1.9007126395,-1.4819958951  
H,3.8331618044,2.1619507348,-3.7158284139  
H,5.5472120257,2.3731450154,9.9797032938  
H,4.848196505,1.7769979404,2.4887524521  
H,3.9047344088,2.8568893765,1.4481033875  
H,4.5744210139,-1.2363357462,1.912390476  
H,5.3044284416,-0.6660625792,1.7022978138  
H,5.9430081561,-0.1057458026,1.495141055  
H.6787093547,3.4030132284,-2.9898443777  
H,-0.1014342588,2.6464021392,-4.3903257898  
H,1.6105665887,3.0793577919,-4.4649438127  
H,2.2136685153,5.793130674,-5.0546277097  
H.4894315028.1852815356,-5.0012164259  
H,1.630203297,-0.7087077898,-3.9819182487  
H,-0.75443604,2.7499680125,-0.3012598214  
C,-0.5723388983,-1.0419586207,5.587329019  
C,-1.6178616411,-1.4271381082,-0.2721770683  
C,-0.5897317486,-1.6287361982,1.8187887299  
C,-2.6217545991,-2.3199475444,0.93488275  
F,-1.699676192,-0.9149103461,-1.5369306051  
C,-1.566864975,-2.5245014016,2.2464570873  
F.3860586358,-1.3327287305,2.723265857  
C,-2.5922751117,-2.8725924969,1.3708682917  
F,-3.6136125096,-2.6572886604,-0.7538904936  
F,-1.5370375829,-3.0664078835,3.4796568291  
F,-3.5447903311,-3.7392059464,1.755095581

**TS7-L1**

Ni,1.191662108,-0.2494174767,0.032312194  
C,7386747107,2.3732466786,1.164633837  
C,-0.4576432662,1.5043767123,4.745745882  
C,1.9918507672,-0.9247498501,-0.4732143253  
H,1.8634343554,-0.8695177702,2.0275641396  
H,8242830864,-0.4649187187,-2.6408615869  
H,-1.3650635707,1.8015967294,-0.0581327089  
H,-0.6690055974,1.4790490921,1.5494231089  
H,9117609472,2.3743287619,-0.9687895517  
Si,5696175663,4.2030021477,6.662579824  
N,2.9710087687,-1.3449199384,3.782771767  
N,2.5101814447,-1.1542222325,-1.7134764707  
C,2.8486306188,-1.3110499169,1.8516938067  
C,1.7849641318,-0.8705910226,-2.9713565545  
C,-0.9649632768,4.9843628564,-0.1174058898  
C,4406200981,4.2956014063,2.5521176965  
C,2.1142631435,5.1377241024,0.888506818  
C,4.0705702938,-1.8210188296,-0.312999967  
C,3.7791253475,-1.70052327,-1.6365493823  
C,3.9233805431,-0.4103002905,2.465924322  
C,2.8657158787,-2.730011022,2.4259889586  
C,2.524837621,1.842678899,-3.7975875886  
C,1.5330590644,-2.1626556825,-3.7532282583  
H,-0.9424552343,4.9124034476,-1.2114400993  
H,-1.0382767617,6.0485030774,1.382391785  
H,-1.8873104592,4.5020728279,2.249891141  
H,-0.4613705608,3.7955234222,2.9222807068  
H,399669616,5.3371558713,2.8929341034  
H,1.3017843548,3.8250719166,3.0417254677  
H,3.0287076626,4.721607002,5.282443525  
H,2.0690397238,6.1968305433,3.707050695  
H,2.2245649864,5.094724069,-1.001374156  
H,4.9537091312,-2.2012740332,1.756109677  
H,4.3641973048,-1.9572311446,-2.5054146853  
H,4.9284291422,-0.8247234503,2.3296238761  
H,3.7507571229,-0.3075670496,3.5415840909  
H,3.9019448074,5.888460275,2.0204574517  
H,2.0813332133,-3.3437462033,1.9728442892  
H,2.6906243714,-2.695498262,3.5056272593  
H,3.8303208346,-3.2223134442,2.2592880472  
H,2.6948226822,1.0941392394,-3.2143299416  
H,1.9310925542,4.485524104,-4.6779847489

H,3.494868503,-0.1846885738,-4.148697302  
H,2.4679363196,-2.6120149193,-4.10590318  
H,9141244934,-1.9497416769,-4.6301771702  
H,1.0072531483,-2.8973279227,-3.1361055998  
H,1.6605701036,1.9944018888,5.807181093  
C,-1.6499817317,-0.8307182411,2.819993609  
C,-2.5000560871,-1.0752442861,-0.7917303244  
C,-2.1655007972,-1.1567184521,1.5323317405  
C,-3.7731944044,-1.6232027524,-0.6568869691  
F,-2.0969236874,-0.7774206446,-2.0587697184  
C,-3.4306764066,-1.7069672614,1.7224724331  
F,-1.4221488697,-0.9432354917,2.652556818  
C,-4.2411789607,-1.9423428966,6.150194716  
F,-4.557428706,-1.8469843377,-1.7289274282  
F,-3.8818854372,-2.0169228392,2.9531241643  
F,-5.4656028586,-2.4747952165,7.728634705

**9-L1**

Ni,-0.4262458829,1.952435275,3.794039528  
C,-2.2115057541,1.1992615593,1.2347212192  
C,-0.9229166918,1.9327192757,9.661823332  
C,-0.4018330284,-1.7115707605,-0.1336114698  
H,-1.1608915301,-0.4277150001,-2.1415382224  
H,4221826449,-1.596354393,2.2294581703  
H,-0.4067036913,2.3130540323,1.8478491438  
H,-0.9339097613,2.668898231,1.58877226  
H,-2.3022206907,9.111771761,2.2887283784  
Si,-3.8274142028,2.0302070843,6.370109842  
N,-0.7127690452,-2.2526614477,-1.3449341451  
N,-0.0166851417,-2.7779568459,6.221233196  
C,-1.1844282465,-1.4601764735,-2.4993665766  
C,4336330849,-2.6693466328,2.0255683481  
C,-4.0358794112,3.6552948299,1.5765366633  
C,-3.7222481342,2.3497654168,-1.2222458687  
C,-5.2874206659,8.809231138,9.985062243  
C,-0.5269673469,-3.6279486791,-1.3441412122  
C,-0.0868987097,-3.9591101754,-0.1029276219  
C,-2.6207671839,-1.8434636464,-2.8663520498  
C,-0.2191171863,-1.5838415933,-3.6806460617  
C,-0.5440333465,-3.3774364224,2.9673840677  
C,1.8711119744,-3.1742617151,2.1752580638  
H,-4.0969984558,3.4897288589,2.6586556916  
H,-4.9515467637,4.1760531454,1.2714576681  
H,-3.1938186095,4.3325345534,1.3950988341

H,-2.8667856072,2.981778195,-1.4849275927  
H,-4.6256654091,2.857560864,-1.5812599078  
H,-3.6288518841,1.4145058296,-1.7869969294  
H,-5.1969886159,-0.0710581995.4614753384  
H,-6.2369487499,1.3367885682.6927225795  
H,-5.3663372734.6493413673,2.0673542476  
H,-0.7155541774,-4.2461512235,-2.2074242191  
H.1793061223,-4.918400357.3114555663  
H,-2.6809269408,-2.8752430482,-3.2301935001  
H,-2.9913510783,-1.1892629649,-3.6616635408  
H,-3.2890740477,-1.7478899215,-2.0047632838  
H.7905969947,-1.2818727421,-3.3920104459  
H,-0.5475558103,-0.929503763,-4.4939927123  
H,-0.1816082121,-2.6068815751,-4.0709912128  
H,-1.5592979975,-2.9861822637,2.8485396106  
H,-0.2385839153,-3.2212341743,4.0067693303  
H,-0.5698982095,-4.4578719163,2.7868108554  
H,1.9444128025,-4.2529073618,1.9968254637  
H,2.2271818061,-2.9801755549,3.1913954359  
H,2.5398112917,-2.6629289956,1.477358117  
H,-2.222326256.18595181.6777146007  
C,1.382223234.6813985214.0536202638  
C,2.3600771803.6376175149,1.0393752286  
C,1.8259967797,1.1038396003,-1.193087604  
C,3.692599702.980280258.823604402  
F,2.0336983576.2379687596,2.3040982593  
C,3.1448985593,1.4581529002,-1.4661899625  
F.9468457284,1.1857747922,-2.2349686171  
C,4.0880949565,1.3972410316,-0.4441830828  
F,4.6020857183.9165034097,1.8157275773  
F,3.5223559073,1.8592805631,-2.695943416  
F,5.3695228198,1.732814057,-0.6800949096

**10-L1**

Ni.7739575623.4358601473,-0.2655718125  
C,-0.6202974293,2.4804154571,1.2972279819  
C.3219355894,1.2791442998,1.3663746122  
C,1.693740387,-0.1086866916,-1.9519275928  
H,2.1910317266,-1.8962463599,-0.264063946  
H.4500463092,2.0052242096,-2.4471019728  
H.0887916908.6237608284,2.2116383595  
H,1.390106503,1.5968081312,1.4722859912  
H,-1.6552726781,2.1301768479,1.1810957111  
Si,-0.5830555656,3.648705293,2.806970751

N,2.4676325209,-1.2093893749,-2.1701992706  
N,1.650409898.5158171351,-3.1630014822  
C,2.7782689893,-2.2127295458,-1.129464041  
C.8931991934,1.7600348714,-3.4163220324  
C,-0.9503154535,2.6847936742,4.3957477293  
C,1.1190534202,4.4717387617,2.9529443239  
C,-1.9015462328,4.9912414579,2.5716232612  
C,2.8960136773,-1.2695476449,-3.4861878977  
C,2.3792577962,-0.1797240814,-4.1136601918  
C,4.2665948823,-2.1811280142,-0.7720239273  
C,2.3028095391,-3.6031672251,-1.5577485503  
C,1.833264141,2.8905291692,-3.8427421721  
C,-0.2372421714,1.5150067202,-4.4184579875  
H,-1.9056969125,2.1503431531,4.3316426316  
H,-1.0081968314,3.3557663112,5.2614700631  
H,-0.1732770114,1.9422717597,4.6109596268  
H,1.9109004091,3.7401889443,3.1521283973  
H,1.1390473961,5.2014906734,3.7715348251  
H,1.3887048414,5.0066669017,2.0339088044  
H,-1.7354251519,5.5630821979,1.6505869294  
H,-1.9040998226,5.7062606662,3.4033961654  
H,-2.9075125678,4.5591627776,2.5094880493  
H,3.5197084207,-2.0627561192,-3.8666447224  
H,2.4709719472.1453920293,-5.1378586766  
H,4.8917799443,-2.4797271857,-1.6208316715  
H,4.465994993,-2.8750427544.0505278187  
H,4.5738686116,-1.1797312247,-0.4548059864  
H,1.2420540395,-3.5898065732,-1.8242888587  
H,2.43752407,-4.3073721923,-0.731334826  
H,2.8707981119,-3.9835745085,-2.4139791692  
H,2.6280817039,3.0418959891,-3.1055673503  
H,1.2711752493,3.82484691,-3.9360412166  
H,2.2993899236,2.685567203,-4.8127938083  
H.1474215502,1.23597109,-5.4056960932  
H,-0.8285635305,2.4281822814,-4.5377179372  
H,-0.9037922098.7246488151,-4.0644615101  
H,-0.4116681753,3.0941830133.4075911137  
C,-0.7796909725,-0.6057965345,-0.1622063863  
C,-1.9323663497,-0.2812722204,-0.8684854876  
C,-0.8457571312,-1.779680755.5799983525  
C,-3.0842626237,-1.0639863377,-0.8577271181  
F,-1.9688320795.8502206158,-1.6262729695  
C,-1.972572521,-2.5970870981.6223979931  
F.2315507735,-2.185234702,1.3089581153



C,-3.1046677233,-2.2327899502,-0.1015174649  
F,-4.1746549265,-0.7082993318,-1.5632854016  
F,-1.9853937519,-3.7295679975,1.350781319  
F,-4.2046771783,-3.0061090933,-0.0755208445

#### TS8-L1

Ni,-0.0267048228,-1.35824691,-0.8765142237  
C,-3.0013760193,-1.0278963509,-0.0117044867  
C,-1.9143126553,-0.7437057501,-1.042778722  
H,-2.2373896052,-0.027149476,-1.7984147887  
H,-1.6627415551,-1.6811767253,-1.6242924578  
H,-3.2849065594,-0.0957829937,4.957031598  
C,-5.3048982828,-0.7153716988,-2.0946039259  
C,-4.2373852469,-3.5359896771,-1.3963634759  
C,-5.851731279,-1.93583192,6.949182684  
H,-5.4957677108,3.061499227,-1.7441181909  
H,-6.2567383599,-1.1167383051,-2.462888382  
H,-4.6287733314,-0.6469053343,-2.954810521  
H,-3.5354412338,-3.5140565712,-2.2381455694  
H,-5.1557180005,-4.0184738218,-1.7523884268  
H,-3.8056694698,-4.1857433254,-0.6253468287  
H,-5.4719009322,-2.5566760068,1.5151691655  
H,-6.7935144809,-2.3828973804,3.545740674  
H,-6.0899328889,-0.9507854455,1.1134549707  
H,-2.6258586973,-1.6955016449,7.724340154  
C,-0.5415205957,3.549478901,-0.3017189356  
C,-0.5557057773,6.095305069,1.0822480352  
C,-0.2942278464,1.493123352,-1.0912822051  
C,-0.3394193369,1.8651220774,1.6354085851  
F,-0.7315250307,-0.4217623483,1.9498189908  
C,-0.0751382249,2.7619837179,-0.5757179027  
F,-0.2611485741,1.3547059203,-2.4438374748  
C,-0.1051140453,2.9576908097,8.040962346  
F,-0.3338781162,2.0358931066,2.970954622  
F,1.660635539,3.806435969,-1.3904219605  
F,0.964810125,4.1809081163,1.3251886708  
C,1.7214475203,-2.1094020165,-0.7504813491  
N,2.8321518792,-1.798655944,-1.4846945088  
N,2.1681350349,-3.0393457095,1.468140397  
C,3.9393191775,-2.5108829235,-1.0498840969  
C,3.521050826,-3.2926895823,-0.0205280018  
H,4.9146184361,-2.4121431152,-1.4995584547  
H,4.0666363176,-3.9955609389,5.889240414  
Si,-4.5970391712,-1.8044609806,-0.7175788069

C,2.8374405392,-0.8074058351,-2.5789743263  
H,1.8023531549,-0.4576315699,-2.62687311  
C,1.310481929,-3.6510945891,1.1808167455  
H,3.107025077,-3.2665407461,9.55765264  
C,3.2066350265,-1.4678442333,-3.9095801852  
H,3.1195789293,-0.7399404849,-4.7222639453  
H,4.2370488851,-1.8408515767,-3.9058187729  
H,2.5382781134,-2.3061986705,-4.1290694465  
C,3.7410773726,3.793598044,-2.2329726256  
H,4.7931190368,0.827544498,-2.1558373128  
H,3.6673124538,1.1430945778,-3.0135619528  
H,3.4409793124,8.325611491,-1.2833086814  
C,1.3017353259,-5.1762630494,1.0516004542  
H,2.2828091588,-5.6103768747,1.2743491504  
H,5.833479377,-5.6045379765,1.757535114  
H,1.0127265988,-5.4822725947,0.412462041  
C,1.7171374953,-3.1717640113,2.5770013024  
H,1.0390767371,-3.5889959854,3.328269586  
H,2.7346427373,-3.4883762335,2.8317354053  
H,1.6655254507,-2.0812259232,2.6413986126

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C,1.7671157868,-0.0445107049,5.110435434  
C,9.181738114,2.092469173,-0.7575724214  
H,1.1555701065,-0.5420210645,-1.5179028788  
H,1.1664425249,1.1865954302,-1.1819896631  
H,1.4826893333,-1.0129770762,9.418129374  
Si,3.6528654498,-0.0317160654,2.4656661  
C,4.1475094947,-1.4069824224,-0.9576854358  
C,4.1995589777,1.6412358219,-0.4517957925  
C,4.4936257428,-0.3238277178,1.9176853735  
H,3.815089983,-2.3901965076,-0.603625383  
H,5.2364721516,-1.4545672793,-1.0793316323  
H,3.7174605399,-1.2556328096,-1.9547517727  
H,3.770650086,1.834459781,-1.4421493773  
H,5.2901619675,1.6876710835,-0.5586769084  
H,3.9013429792,2.4696028931,2.020546362  
H,4.2575724595,4.73371574,2.6326247434  
H,5.5849800505,-0.3579481693,1.8147353775  
H,4.177772339,-1.2721831173,2.368194664  
H,1.5168298701,7.097358258,1.2697217298  
C,-0.5696375836,1.657832523,-0.4906557299  
C,-1.3026354309,1.30411587,-0.2285262586  
C,-1.2679944122,-1.0847076307,-0.4360315827

C,-2.6649094107,1.2710563417.1434831492  
F,-0.7320582932,2.5270600152,-0.334091734  
C,-2.6566845094,-1.1582184099,-0.0587247982  
F,-0.4940324001,-2.2121379844,-0.2633874293  
C,-3.3192670487.0666761616.2551225946  
F,-3.319905138,2.4282518355.3581023018  
F,-3.1624006668,-2.2940887392.5217745633  
F,-4.5943001951.0282479823.6771551529  
Ni,-2.4528484327,-1.2490578435,-1.9701285054  
C,-2.9983577899,-1.6479024247,-3.7799694753  
H,-3.2633117789.8192503775,-3.5152504372  
H,-2.3326875213,-3.7882435041,-2.6953025788  
N,-3.4521024056,-0.7956585413,-4.7447930809  
N,-3.0246780106,-2.87399985,-4.3795137223  
C,-3.6053876467.6594544918,-4.5423561355  
C,-2.612510633,-4.1196985321,-3.700285169  
C,-3.752977568,-1.4740494059,-5.913785297  
C,-3.4821675508,-2.7869013927,-5.6825881171  
C,-5.0765332291,1.0692217297,-4.6461048394  
C,-2.6987776266,1.4387277474,-5.4980502998  
C,-3.7861857794,-5.0964270114,-3.5961951069  
C,-1.3887372902,-4.7315673672,-4.386023776  
H,-4.1281481927,-0.9839411254,-6.7982720181  
H,-3.5783913345,-3.6436543851,-6.3306661765  
H,-5.471790339.9106603383,-5.6555732307  
H,-5.1843969875,2.1321623537,-4.4089880055  
H,-5.6893708816.4984510235,-3.9418357005  
H,-1.6568122102,1.1212717427,-5.3925562134  
H,-2.7543582932,2.5085627878,-5.2739922086  
H,-2.9972990639,1.3015389341,-6.5433420367  
H,-4.643592225,-4.6257037462,-3.1058176065  
H,-3.4905509388,-5.9676745388,-3.0034735815  
H,-4.1049089722,-5.4563568357,-4.5808217772  
H,-1.6179740291,-5.0638084374,-5.4047859863  
H,-1.0440829887,-5.6034625934,-3.8214117238  
H,-0.5668809413,-4.010674578,-4.4353910032

**P2**

C,-2.0128836139,1.2454597437,3.3849758666  
C,-1.5159801298.1810674459,2.3799007071  
H,-0.4419869201.0182143536,2.5096910882  
H,-1.6666260782.533543858,1.3554720837  
H,-1.8729783511.8685359338,4.4070996595  
Si,-1.1707220876,2.9521500175,3.2583623539

C.6967329113,2.769858084,3.5116143314  
C,-1.5080575321,3.7186680778,1.5613029712  
C,-1.8949568866,4.0573425664,4.6124078351  
H.9310878232,2.2665598528,4.4569969359  
H,1.186751541,3.7505925607,3.5339194315  
H,1.1670629146,2.1943921921,2.7058736396  
H,-1.1002872374,3.1106468712.7455207484  
H,-1.0518532458,4.7126425121,1.4806851636  
H,-2.5825601552,3.837119015,1.3779305375  
H,-2.9778823209,4.1829368344,4.4959660939  
H,-1.4466832903,5.057743444,4.5936964114  
H,-1.7189872141,3.6392118954,5.6105091457  
H,-3.0955879113,1.3819838617,3.2605156656  
C,-2.2197768856,-1.1494647507,2.5323862502  
C,-3.3802333095,-1.456050245,1.8207763935  
C,-1.7661996529,-2.1216841977,3.4248437955  
C,-4.0530695353,-2.6653146636,1.9706867973  
F,-3.881527031,-0.5619584563.9471618007  
C,-2.4152237507,-3.3403594179,3.5987684872  
F,-0.6565593386,-1.8897533156,4.1521256794  
C,-3.5673298768,-3.6124379497,2.86698685  
F,-5.1614661561,-2.9215561461,1.2619275469  
F,-1.9417395287,-4.2486764263,4.4631893347  
F,-4.2042255705,-4.7791683713,3.0242167149

**2-L2**

Ni.4627735055,-0.1894697071.2319430071  
C,2.0116108027,-1.1804922747,-0.8970124853  
C,1.2716753643,-0.2926503223,-1.6678580249  
C,-0.87939777,1.2026722674,-0.2531130004  
H.4160181763,-0.6340746918,-2.2403246967  
H,1.6865710266.6636360428,-1.9773513174  
H,1.6261844603,-2.2027328146,-0.8620684714  
Si,3.8861619277,-1.0593671287,-0.6373349922  
N,-1.0529558351,2.4628638004.2875287791  
N,-1.8441468166,1.1677521645,-1.2451250742  
C,4.4924096125,-0.5723751182,1.0903380963  
C,4.5756951685,-2.7767937978,-1.0407603438  
C,4.6042793889.1885691662,-1.869376421  
C,-2.0751209316,3.1648403813,-0.3482897878  
C,-2.5764137156,2.3517071955,-1.2998425846  
H,4.0915284227.39201274,1.4235231741  
H,5.5859104279,-0.4799289643,1.0794778053  
H,4.2411217426,-1.3273418968,1.8419384393

H,4.1750380545,-3.5355675264,-0.3591175474  
H,5.6689446917,-2.7996445006,-0.9545963246  
H,4.3189945252,-3.0819527844,-2.0621201969  
H,4.3591908908,-0.0762250893,-2.9041441155  
H,5.6979857777.2187498555,-1.7882825387  
H,4.2418845181,1.2064663109,-1.6920203747  
H,-2.3373444502,4.1705686946,-0.065680878  
H,-3.3761917493,2.4944093889,-2.0073554094  
H,2.080001049,-0.7233152904,2.133923701  
C,1.161520304,-1.2304424636,1.8610066225  
C,1.1833645346,-2.6558097404,1.8503927137  
C,-0.0822000285,-0.5644839426,2.1183491306  
C.0549278111,-3.4000111164,2.0278233237  
F,2.372494846,-3.2802384235,1.6894760978  
C,-1.2444003826,-1.3778892106,2.3456076164  
F,-0.0351795785.5833046045,2.8936238133  
C,-1.1820338612,-2.7384337869,2.2777908882  
F.0663073436,-4.7457829206,1.9821942916  
F,-2.4210592164,-0.7676394375,2.6109191963  
F,-2.2850821332,-3.4977127611,2.4164412047  
C,-0.319413075,3.1122062988,1.3580694257  
C,-0.9546549733,3.2773869154,2.609575577  
C.9439469157,3.6775335781,1.0761811233  
C,-0.2693972041,4.0008347637,3.5937811956  
C,1.5864969761,4.3789578472,2.1050145718  
C.9899542226,4.5385751931,3.3520246209  
H,-0.7292935298,4.1392613391,4.566870824  
H,2.5608243522,4.8194574987,1.9243509432  
H,1.5049155945,5.090850816,4.1333568341  
C,-2.1155322727.1274143644,-2.2193468417  
C,-2.9774578241,-0.9358456778,-1.8718841054  
C,-1.6080094249.2843800057,-3.5311430603  
C,-3.2678473163,-1.8858122515,-2.8607769293  
C,-1.941804786,-0.6914595024,-4.4796308792  
C,-2.7529916559,-1.7715427066,-4.148224896  
H,-3.9156605164,-2.721978367,-2.6220318432  
H,-1.5613478108,-0.6023297036,-5.4919272309  
H,-2.9942136102,-2.5201836815,-4.8977481334  
C,-0.7566846368,1.480904189,-3.9588546076  
C.4524717167,1.0847512337,-4.8278350318  
C,-1.6096397573,2.523522473,-4.7126630768  
H.1465161678.7536134767,-5.8260638332  
H,1.1095502875,1.9502710086,-4.9665106872  
H,1.0417218086.2837430274,-4.3744537778

H,-0.997179093,3.3885535196,-4.9910223373  
H,-2.0244480046,2.0972771915,-5.6330921537  
H,-2.4459571247,2.8879770877,-4.1098883596  
H,-0.3695553697,1.9583565704,-3.0538786547  
C,-3.6518223171,-1.0266284985,-0.5059155578  
C,-3.9128220851,-2.4699090422,-0.04666777  
C,-4.9780711055,-0.2362446172,-0.5022885848  
H,-4.716719428,-2.9430864473,-0.62170255  
H,-3.0217204475,-3.0976560719,-0.1341972605  
H,-4.2209884634,-2.4731132826,1.0018393495  
H,-5.4532848988,-0.2986273989.4831276045  
H,-4.8275671404.8228570641,-0.7310439087  
H,-5.6787035921,-0.6437583482,-1.2403647234  
H,-2.992280565,-0.5631064123.2301461454  
C,1.5691050412,3.6206477926,-0.3168291141  
C,1.0760816838,4.7999840096,-1.1822224749  
C,3.1056218748,3.5954849024,-0.3002152799  
H,1.3770880399,5.7588177603,-0.7443683564  
H,1.5056867724,4.7423313418,-2.1890888385  
H,-0.013021207,4.8066473849,-1.2848040233  
H,3.4835750551,3.4200973977,-1.312829601  
H,3.5327926505,4.5472449414.0338645638  
H,3.4944289855,2.8057113194.3497659864  
H,1.236647052,2.6942090517,-0.792280617  
C,-2.3510031118,2.736485716,2.9198575962  
C,-2.436568798,2.0280107051,4.2852192114  
C,-3.4040936666,3.8627689503,2.8639545308  
H,-2.3254752518,2.7311066765,5.1181951952  
H,-3.418520835,1.5548919455,4.3932143948  
H,-1.6737258142,1.2554479056,4.3819254655  
H,-4.4049308997,3.4583211702,3.0531867358  
H,-3.2025659531,4.6236689076,3.6266647742  
H,-3.4278042386,4.3682660319,1.8944152485  
H,-2.603016096,1.9942866454,2.1581434861

**2-L2-b**

Ni.0684549404.5488946813,-0.1555580841  
C,1.6740903612,1.7588051469.8597517393  
C.4431077501,1.9587013173,1.4337128481  
C.5034913153,-1.3460058961.3514016074  
H.0795071995,1.3499481132,2.2584030302  
H,-0.1321694652,2.8583299458,1.2315817655  
H,2.2732167515.9363232361,1.2498792366

Si,2.5938785958,3.0642129241,-0.1637701441  
 N,1.0617311577,-2.3757532162,-0.3790626585  
 N,2242185613,-1.952335514,1.5601072195  
 C,1.7255684812,4.7335325151,0.0090160454  
 C,4.3285049551,3.1950755084,5.897062275  
 C,2.7519528752,2.6386575592,-2.007930455  
 C,1.1187450696,-3.5595924887,3.530976725  
 C,5.893189434,-3.2962764168,1.5665895251  
 H,6.991594149,4.7076702049,-0.3696118632  
 H,2.2633599647,5.5029248428,-0.5590061568  
 H,1.6884391769,5.0634047826,1.0536271812  
 H,4.2839654925,3.4564577171,1.6534996688  
 H,4.9170941198,3.9714118316,0.0857624223  
 H,4.8867263747,2.2559843998,5.03734391  
 H,2.7258960147,1.5628672646,-2.2053241343  
 H,3.6962272386,3.0271615089,-2.4090307374  
 H,1.9468062052,3.0951351216,-2.5950658086  
 H,1.5330710084,-4.4657147532,-0.0560349505  
 H,4.409893714,-3.9262122797,2.428144897  
 H,-0.0620696722,2.2478305061,-2.0177733768  
 C,-0.8652574721,1.8292269038,-1.4167893398  
 C,-1.8852314111,2.7348913679,-0.9991289535  
 C,-1.2151638388,4.36981713,-1.6167383978  
 C,-3.1610458385,2.3309388584,-0.7401971977  
 F,-1.5753604789,4.0486064573,-0.8806771184  
 C,-2.5819236278,0.0598917566,-1.3665887431  
 F,-0.6480381176,-0.2054335933,-2.7207007601  
 C,-3.5057449447,9.618602918,-0.929643447  
 F,-4.1136797501,3.1822600674,-0.3075000555  
 F,-2.9379573797,-1.2370665858,-1.5256652294  
 F,-4.7591086982,5.790064481,-0.6135368518  
 C,-0.2971970551,-1.3332209193,2.7618032208  
 C,6.202622499,-0.9107362632,3.7509409925  
 C,-1.6950235375,-1.2634673419,2.9533525989  
 C,0.996464434,-0.3672375599,4.9330245485  
 C,-2.156158955,-0.7043020204,4.1527444292  
 C,-1.2724921141,-0.2560962367,5.1305153439  
 H,7.793698654,-0.028500111,5.7079626155  
 H,-3.223254727,-0.623850351,4.3270304436  
 H,-1.655829244,1.731338062,6.0520583768  
 C,1.630416577,-2.3198418531,-1.7126131012  
 C,2.9817009515,-1.926961991,-1.8507869259  
 C,8.621588584,-2.7755623346,-2.807186585  
 C,3.5296941843,-1.9278738364,-3.1402301703  
 C,1.4682329141,-2.7625092399,-4.0705494823  
 C,2.7798926159,-2.3324572085,-4.2405545315  
 H,4.5598716406,-1.6205686591,-3.2839603222  
 H,9.027874801,-3.0941058728,-4.9347163231  
 H,3.2246860518,-2.3254394073,-5.2319068612  
 C,2.1325878274,-1.0693927224,3.6001243348  
 H,2.3483727627,-1.2260920616,2.5390429936  
 C,-2.6871602513,-1.8218119926,1.9360202049  
 H,-2.2422009126,-1.7245379904,9.425619637  
 C,3.8668972535,-1.6011031517,-0.6471441624  
 H,3.2225663476,-1.2120002739,1.467850486  
 C,-0.5523011152,-3.3347556085,-2.6508019026  
 H,-0.9845835005,-2.9035711064,-1.7447180164  
 C,2.9200516604,1.742214424,4.0532592943  
 H,3.9770904347,0.0617367901,3.7877848014  
 H,2.5491887491,1.0886015019,3.5824327971  
 H,2.8761036611,3.129178648,5.1387747469  
 C,2.6328996651,-2.3121073728,4.3661817548  
 H,2.45181422,-2.2075146728,5.4418735787  
 H,2.1353303446,-3.2274403394,4.0330282259  
 H,3.7107909187,-2.4442979438,4.2195717165  
 C,-2.9477178562,-3.3227132363,2.1871365394  
 H,-3.3799133125,-3.4830890305,3.1818280421  
 H,-3.6554951689,-3.7120379831,1.4468037468  
 H,-2.0340734056,-3.9195987412,2.1171292165  
 C,-4.0262263588,-1.067721524,1.9158759179  
 H,-3.8876059889,0.0146623404,1.8495242128  
 H,-4.6131348317,-1.3823112806,1.0495299644  
 H,-4.6271817849,-1.277126722,2.8080912721  
 C,4.5515614252,-2.8789828035,-0.1144919604  
 H,3.8279511698,-3.6406167048,1.870037027  
 H,5.2017783283,-3.3180957536,-0.8798255785  
 H,5.1724716215,-2.6456643018,7.58176653  
 C,4.9386151739,-0.5365329325,-0.9342040892  
 H,5.7231343948,-0.9139300554,-1.5991554164  
 H,4.5163992755,3.621551261,-1.3904861423  
 H,5.4301903856,-0.2471207888,0.008279367  
 C,-0.5139732309,-4.869424208,-2.4847120658  
 H,-1.5286328982,-5.2642337368,-2.3600069774  
 H,-0.0758099347,-5.346994146,-3.3687347944  
 H,0.0704874175,-5.1810819774,-1.6150098103  
 C,-1.4914762487,-2.9754553882,-3.815948625  
 H,-1.215668791,-3.4933492294,-4.7414027133  
 H,-2.5131204672,-3.2839149222,-3.5712937054

H,-1.499937463,-1.9020033812,-4.007056217

**2-L2-c**

Ni,-0.2028271316,-0.3351991087,-0.61732977  
C,-1.870160523,-1.9446907918,-0.0235495547  
C,-1.9471708648,-1.4094472555,-1.2808831491  
C,-0.8351158848,1.327208149.3249138266  
H,-2.4589956042,-0.4751800362,-1.4918203671  
H,-1.693068717,-2.0000660511,-2.1578711772  
H,-2.3019843258,-1.3535138759.7846984193  
Si,-1.4485448647,-3.7528304098.3448003822  
N,-1.5686765818,2.3712384768,-0.2057297911  
N,-0.6848333794,1.7067918163,1.6439177001  
C.0710005262,-3.9203113907,1.457894348  
C,-2.9520470226,-4.5053232225,1.2263002236  
C,-1.1978679452,-4.708731746,-1.2672308676  
C,-1.8590524992,3.3412634624.7507386345  
C,-1.3050314374,2.926015307,1.9090809585  
H.9899873695,-3.6993138432.9064367683  
H.1581533646,-4.9434704886,1.8439710084  
H.0275251384,-3.2447712665,2.3195096386  
H,-3.1699023984,-4.0178467984,2.1824283254  
H,-2.784412482,-5.5695508199,1.4338688576  
H,-3.8530881252,-4.4308858142.6058556271  
H,-2.1004886333,-4.6972257978,-1.888978683  
H,-0.9715396931,-5.7589456174,-1.0445718575  
H,-0.3658789538,-4.3200195934,-1.8599791409  
H,-2.4265017419,4.2259039333.5146798406  
H,-1.2881306199,3.3755910701,2.8879219783  
H.4549895269,-1.6823062554,-2.7052378637  
C,1.0413744177,-1.2942630949,-1.8758863983  
C,2.0618274726,-2.1564582823,-1.368033639  
C,1.2844091521.1336945786,-1.8025337965  
C,3.2387462931,-1.6917976439,-0.8620443606  
F,1.8775162929,-3.4960888057,-1.4561034441  
C,2.5701522562.5862164723,-1.3423676082  
F.7635646444.9029836542,-2.841284155  
C,3.4997250395,-0.2911077432,-0.8718826835  
F,4.181955262,-2.5171808406,-0.3648656951  
F,2.8262825298,1.9145051629,-1.336063262  
F,4.6717842904.132581697,-0.358873992  
C,-2.0566704369,2.5169143032,-1.5641599676  
C,-1.2616663265,3.2059082587,-2.5098817964  
C,-3.3643949759,2.067343098,-1.8635451752

C,-1.7888342234,3.3670895125,-3.7979102821  
C,-3.8358748391,2.2599669344,-3.1690587898  
C,-3.0538334004,2.8919109475,-4.1300568724  
H,-1.1998954856,3.8758223265,-4.5528230482  
H,-4.8302262032,1.9160920269,-3.4330487386  
H,-3.4365447787,3.0275467539,-5.1379928058  
C,-0.0159716663.9863339246,2.7086489804  
C,-0.7961390724.1900423893,3.5766700454  
C,1.3643401939,1.2035619038,2.9245233898  
C,-0.1433490269,-0.4456813821,4.6415846942  
C,1.9626621546.5363143757,4.0016184825  
C,1.2228198569,-0.2863342153,4.8460630281  
H,-0.7141803321,-1.0686018616,5.3223162474  
H,3.0225743978.6677165854,4.1875745728  
H,1.7109325415,-0.7924994506,5.6742801706  
C.0893122202,3.8299121578,-2.1543707114  
H.5548784181,3.204795886,-1.3887765575  
C,-4.293209619,1.4616289693,-0.8079873877  
H,-3.6688222125,1.0294560362,-0.0192115877  
C,2.1812327796,2.1813539772,2.0809007368  
H,1.7889128951,2.1546689491,1.0602099823  
C,-2.3122115579.0601527165,3.4395410556  
H,-2.5805756038.326600991,2.4125561288  
C,-5.1991133453.3397002504,-1.3480403317  
H,-4.6387548373,-0.4251980758,-1.8923285649  
H,-5.7128559508,-0.1524470053,-0.5152823259  
H,-5.975046199.7278251853,-2.0165806739  
C,-5.173866385,2.5557629785,-0.1658588166  
H,-4.5790457714,3.3414513129.3069130197  
H,-5.8142873475,3.0286161209,-0.9190149299  
H,-5.8241533395,2.1222538102.6025127679  
C,-0.0973509474,5.2488993313,-1.5726771266  
H.8765125337,5.6831591444,-1.3200993946  
H,-0.5781025787,5.9094230175,-2.3037010901  
H,-0.7055649236,5.2557998368,-0.6648729931  
C,1.0732059155,3.9058495592,-3.334757763  
H,2.0556495439,4.2186567842,-2.9666973493  
H,1.1941314861,2.9411998529,-3.8288185473  
H.7625739645,4.6457072327,-4.0812771069  
C,2.0329875909,3.6259667437,2.6080092663  
H,2.6346519461,4.3114756592,2.0004986688  
H,1.0000154342,3.9804759636,2.5785421714  
H,2.3857671356,3.6992360024,3.6434419594  
C,3.6757994134,1.8295655873,2.013350964

H,4.1901932285,2.0641962641,2.9524544503  
H,3.8454031346.7749777028,1.7906770299  
H,4.1573330815,2.4159714451,1.2259682928  
C,-3.0401847601,1.0404831197,4.3840441867  
H,-2.805786621.8190940369,5.4314478158  
H,-2.7633178378,2.0811640893,4.1945752198  
H,-4.1257709284.956258638,4.2588526069  
C,-2.8184916094,-1.3697937503,3.6963277635  
H,-2.2537656613,-2.1084131489,3.1234043184  
H,-2.7489439574,-1.6441164207,4.7542843701  
H,-3.873351222,-1.4509920986,3.4128818671

**2-L2-d**

Ni.3003417812,-0.5289143559,-0.5347776016  
C,2.223926841,-1.4386550769,-0.1206025637  
C,1.1808100248,-2.02613433.5834425284  
C,-1.4651000716,-0.8007819779.3554473875  
H.6929215655,-2.9316985801.2328821827  
H,1.0327707616,-1.7995977242,1.6324134095  
H,2.4804832116,-1.9031532414,-1.0745391066  
Si,3.6653395151,-0.5326046069.7234228645  
N,-2.6349423818,-1.3490760496,-0.1375325927  
N,-1.7822504202,-0.5576172229,1.6788106413  
C,3.8254899615,-1.1866562988,2.4969136856  
C,5.2272107116,-0.9988984259,-0.2421143337  
C,3.5573735669,1.3531158484.8473829796  
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C,-3.0910672462,-0.9298504608,1.9774208075  
H,2.9738534024,-0.8957481503,3.1219663285  
H,4.7269567272,-0.7792825654,2.9722204735  
H,3.907824167,-2.2791309129,2.5246899389  
H,5.3778362022,-2.0849585025,-0.2665064037  
H,6.1214211776,-0.5532975641.2103472183  
H,5.1714191223,-0.6468294653,-1.2779571327  
H,3.7288029432,1.8598719435,-0.1050142289  
H,4.3275636071,1.7093997684,1.5435393932  
H,2.5900588974,1.6821891405,1.2417289539  
H,-4.5893827034,-1.8576319372.6405192358  
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H,1.203965363,-0.6716904065,-2.8966011488  
C,1.0947049836.2196250702,-2.2841394061  
C,2.1615000477,1.1613148072,-2.3167803752  
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F,3.3982451931.7282913862,-2.6485683918  
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F.5311964301,4.2408315423,-1.3509063413  
C,-2.9493782115,-1.8275185853,-1.4718735119  
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C,-2.9308156,-3.5845094622,-3.1191437838  
C,-4.1754823464,-1.5646743181,-3.5273550502  
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H,-2.6162006691,-4.5715547868,-3.4441513678  
H,-4.8182993443,-0.980402988,-4.1778299104  
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C,-4.3101516968.3393480892,-1.8721939044  
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H,-2.1371024615,-3.8161750574,4.7084804024  
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Ni.7090217255.55963093,-0.2519701033  
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H,3.2231849228,1.0053117141.1309059209  
H,2.0024182412,-0.4348374068,-2.3004371734  
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C,3.3497188,-2.0044016062,1.222081007  
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C,4.8615139372,-2.0236424174,-1.4757087707  
H,3.9048781303,-1.1343018962,1.5904949082  
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H,1.1757008883,-3.5347670637,-0.7639374473  
H,2.6886060531,-4.419937606,-0.9815260378  
H,2.0178331987,-3.4784180005,-2.3165745562  
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H,5.488055672,-1.18733729,-1.1443495294  
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C,-1.9752761645,-2.5816283424.9857067743  
F,-0.0530071868,-1.6198419391,1.9118154659  
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C,-0.4515237538,3.867048457,-3.9029249873  
C,-2.606644124,2.9877564319,-3.2781204723  
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C,1.7692881748.8444278482,5.1931544799  
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H,-1.717197709,-0.8828963798,3.4601501259  
H,-3.4229736701,2.4234923259,4.0322449533  
H,-2.2070059238,2.3662426778,5.318384285  
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H,-1.7852254876,1.4585087244,2.4194727231  
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C,4.5066178875,2.4575511314,2.2395696868  
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C,-4.007331956,3.5909386504,-0.2882064077  
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H,-3.7043165127,5.689218171,-1.9857712947  
H,-2.6445506536,1.9409666582,-0.0770472256  
C,1.3931242809,4.2950509355,-2.2227460075  
C,2.4629625129,3.8689460643,-3.2447458603  
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H,2.3480470337,4.3913028565,-4.2007242009  
H,3.4616925931,4.1118195356,-2.8657852583  
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H,1.1113933697,6.3209970331,-3.0021726562  
H,700246845,6.1618557724,-1.2892298997  
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Ni,-1.9488999907,-3.7612712081,2.8197047784  
C,-0.2152969147,-4.9963389295,2.2129375731  
C,-0.0691610665,-3.5411456408,2.5572955635  
H,3.114887273,-2.907578899,1.7587815193  
H,4.0813195,-3.3203752194,3.5127250369  
H,-0.2427974321,-5.1561846067,1.128657016  
Si,9594157361,-6.2524803801,3.0551385713  
C,7830437661,-6.1035664011,4.928782104  
C,4709492824,-7.9904268676,2.4920935134  
C,2.727271803,-5.8721221696,2.5050729432  
H,1.1102379098,-5.1262324726,5.3005911544

H,1.3808669548,-6.8670256333,5.4410227444  
H,-0.2601111079,-6.2348271421,5.2381248539  
H,-0.5496453436,-8.2431739223,2.8033521097  
H,1.138900487,-8.7497219907,2.9164708289  
H,5.167950755,-8.0880300712,1.4008300369  
H,2.8305176387,-5.9424416007,1.4157233374  
H,3.4444861848,-6.573722563,2.9476244135  
H,3.0311997266,-4.8611765944,2.7992228336  
H,-1.2424829553,-5.3885921026,2.5647320457  
C,-3.5645499304,-4.8748412267,3.1630339632  
C,-4.5275195827,-5.2417258271,2.2360017362  
C,-3.7063894464,-5.4864669148,4.4003489637  
C,-5.5891213184,-6.1017519084,2.5077574671  
F,-4.4655132152,-4.7570592337,9.619971813  
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N,-2.1391725115,-1.1261527689,4.1275044032  
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C,-0.2249915241,-1.2733568507,5.6706465985  
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C,-1.9183065989,-2.3406980833,7.6498930192  
C,-3.976121574,-2.1482323064,6.1718733966  
C,267332175,-1.6127558033,6.9381534931  
C,7009600621,-0.5981726876,4.6586069136  
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C,-5.7622580247,-1.6537573863,1.6929484598  
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H,-2.5578073391,-2.7452709447,8.4261192276  
C,-0.5651007506,-2.1492532033,7.9144044855  
H,-4.1242167386,-2.4181648464,5.1217339222



C,-4.6881715582,-0.8013575665,6.425621692	Si -1.29678 -0.55511 3.37435
C,-4.6482482163,-3.2373414924,7.0252181735	C -1.40224 -1.02377 0.55037
H,1.3154228724,-1.4466500849,7.1646200792	C -3.17424 -0.64289 3.00622
H.2550942084,-0.7127099108,3.666565187	C -0.78475 -2.2929 3.97123
C,2.110364657,-1.2155780741,4.6054270716	C -1.35552 0.54761 4.95084
C.8178711799.9127612131,4.9538543774	C -1.22519 -2.39925 0.44368
H,-6.2070896155,-2.0914013192,-0.9532926115	C -2.61381 -0.5658 0.04421
C,-4.2647367149,-1.8506848463,-1.8233683407	H -3.54345 0.23496 2.46832
H,-5.2363889841,-1.934559553,2.6106147884	H -3.69969 -0.69309 3.96829
C,-6.364415406,-0.2466329747,1.898659464	H -3.44395 -1.53256 2.43089
C,-6.9068576104,-2.6634759947,1.4884118599	H -0.70777 -3.01449 3.15335
H,-2.2333029988,-1.53946936,-2.4332269404	H -1.54189 -2.65715 4.67799
H,-0.7451948611,-1.0546110738.9605387008	H 0.17688 -2.28788 4.49807
C,-0.7567631983.5337450747,-0.4778855304	H -0.42556 0.5687 5.52833
C,-0.0072607034,-1.8494174337,-0.8798710243	H -2.14155 0.15215 5.60731
H,-0.1617543783,-2.4090477826,8.889254504	H -1.62972 1.58458 4.71306
H,-4.5557266248,-0.4829489882,7.4661616552	C -2.176 -3.2784 -0.06963
H,-5.7637882058,-0.9010137237,6.2407533377	F -0.06245 -2.9628 0.88533
H,-4.3148489462,-0.0026028445,5.7797893962	C -3.59685 -1.39525 -0.49126
H,-4.1358082261,-4.1972371148,6.9469333381	F -2.9255 0.75551 0.11919
H,-5.6812164757,-3.3760497533,6.688975061	C -3.37631 -2.76831 -0.55557
H,-4.6954102833,-2.9570963556,8.0838019503	F -1.94281 -4.60331 -0.1234
H,2.6844326061,-1.0065506003,5.5144581175	F -4.75932 -0.88762 -0.94404
H,2.6705541852,-0.7863792649,3.7675371458	F -4.30758 -3.58545 -1.07148
H,2.0825330686,-2.2997530511,4.4685776698	H 2.10457 1.59869 1.78606
H,-0.1546048699,1.4125630026,4.9423541153	C 1.79149 0.60747 2.09607
H,1.4535843609,1.4013008438,4.2067751766	C 0.93242 0.46352 3.19671
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H,-4.6175534759,-2.033254647,-2.8346660224	H 1.10194 -0.36646 3.87797
H,-5.6064345016.5027181009,2.1401898924	H 0.58066 1.36964 3.676
H,-7.0893373536,-0.2598574223,2.7205578795	C 0.88664 0.63318 -0.40936
H,-6.8896718732.0869366384.9960917542	N 2.02648 0.18715 -1.04918
H,-7.6096867327,-2.3291695054.7168065306	N 0.57865 1.78972 -1.09666
H,-7.4802030837,-2.7640656274,2.4162061254	C 2.41815 1.05748 -2.06558
H,-6.5406439934,-3.6505442768,1.204092014	C 1.52115 2.06368 -2.08654
H,-0.9741298415.7096869636,-1.5375639419	H 3.28742 0.86577 -2.67238
H.2841343745.8253001357,-0.2966096699	H 1.4523 2.94526 -2.70204
H,-1.3976161696,1.2011428936.1072333821	C 2.7991 -1.01452 -0.78863
H,-0.1743950638,-2.9075843083,-0.6575117037	C 4.05257 -0.89352 -0.14494
H,1.028045391,-1.6055653147,-0.6172923187	C 2.33427 -2.2478 -1.30113
H,-0.1021027562,-1.7168437692,-1.9629354096	C 4.78986 -2.06597 0.069
	C 3.11293 -3.38472 -1.04902
	C 4.31874 -3.3014 -0.35835
	H 5.75086 -2.00575 0.57032
<b>TS2-L2</b>	
Ni 0.05669 0.02043 1.30966	

H 2.7763 -4.35063 -1.40584  
 H 4.90155 -4.19982 -0.17444  
 C -0.57594 2.66426 -0.97259  
 C -0.55148 3.71478 -0.03341  
 C -1.62774 2.52089 -1.90868  
 C -1.64588 4.58898 0.0013  
 C -2.68565 3.43388 -1.83636  
 C -2.70702 4.44931 -0.8854  
 H -1.65408 5.40078 0.72242  
 H -3.51239 3.34174 -2.53276  
 H -3.54461 5.13932 -0.84578  
 C -1.63018 1.45786 -3.00794  
 C -3.02637 0.8623 -3.27476  
 C -1.07729 2.02522 -4.33558  
 H -3.66716 1.56911 -3.81554  
 H -2.93136 -0.02772 -3.90722  
 H -3.54118 0.5805 -2.35682  
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 H -0.97632 0.63997 -2.68613  
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 C 1.4326 5.21639 0.38118  
 H -0.35009 5.05862 2.51243  
 H -0.35489 3.29823 2.69433  
 H 1.13426 4.22536 2.98024  
 H 2.31548 5.38214 1.01032  
 H 1.77273 5.0862 -0.65265  
 H 0.81757 6.12326 0.41793  
 H 1.31153 3.12505 0.80939  
 C 1.09424 -2.35355 -2.18966  
 C 1.42505 -1.912 -3.63422  
 C 0.47756 -3.76178 -2.23198  
 H 2.20613 -2.55207 -4.06235  
 H 0.53442 -2.0005 -4.26669  
 H 1.76872 -0.87527 -3.68685  
 H -0.48334 -3.72313 -2.75723  
 H 1.11338 -4.4659 -2.78135  
 H 0.29813 -4.16478 -1.23271  
 H 0.33428 -1.67229 -1.79302  
 C 4.68016 0.44834 0.24199  
 C 5.29288 0.45944 1.65741  
 C 5.76445 0.85089 -0.78299

H 6.16641 -0.19802 1.72724  
 H 5.63032 1.47253 1.90463  
 H 4.57371 0.14899 2.41944  
 H 6.18382 1.83205 -0.53092  
 H 6.58488 0.12406 -0.7868  
 H 5.3698 0.90599 -1.80305  
 H 3.89965 1.21422 0.21646

#### 4-L2

Ni,-0.0106623254,-0.0360130812,1.3616471432  
 Si,1.3209525952.1512324497,3.3012257366  
 C,1.7677791088,-0.4582717077.6957011439  
 C,2.8857379694,1.2391497141,3.1891776753  
 C.315816609,1.0516939591,4.6691052467  
 C,1.8928380307,-1.500989917,4.0623785167  
 C,2.6930598343.4357514105.164139585  
 C,2.1728090521,-1.7900258604.6428891299  
 H,3.7229733649.7175928462,2.7156441517  
 H,3.1986884431,1.5052786851,4.2073431569  
 H,2.7197371927,2.1705676541,2.6402752478  
 H.0574676477,2.0766047443,4.3774833317  
 H.9457378006,1.1257469526,5.5658376943  
 H,-0.6085291635.5479193765,4.9699407918  
 H,1.0685173074,-2.1955070147,4.2553320969  
 H,2.3920069745,-1.3061812961,5.0207773778  
 H,2.6124725278,-2.0179919672,3.4203735942  
 C,3.929599666.0628709779,-0.3549359685  
 F,2.4245155803,1.7676468704.1667895794  
 C,3.3956675426,-2.2193164086.1339483954  
 F,1.3523378393,-2.7676644918,1.1180812779  
 C,4.2848460027,-1.2821180519,-0.3808002786  
 F,4.7827992721.9846778273,-0.8463724188  
 F,3.7151148447,-3.5283572892.1086717772  
 F,5.4680489787,-1.667177403,-0.8886155955  
 H,-2.6412884678.2359562012,1.5493922984  
 C,-1.9054102803.173958187,2.3373524596  
 C,-1.3122314388,-1.0252255614,2.6688164561  
 H,-1.8668553305,1.0160400704,3.0202733288  
 H,-0.8971181303,-1.2007769063,3.653442002  
 H,-1.5050016943,-1.9236375504,2.0875030453  
 C,-1.05991115.2667870767,-0.4746198604  
 N,-1.9363351679,-0.5961856088,-1.0985434227  
 N,-1.2516307687,1.4440228529,-1.1627356272  
 C,-2.651078809.0346620968,-2.115984199

C,-2.1464402852,-2.0034105163,-0.8138382795  
C,-2.227418617,1.3158541102,-2.1499377756  
C,-0.5472932264,2.7039030234,-1.0066624198  
H,-3.3793414757,-0.4883410117,-2.7135891451  
C,-1.2118737864,-2.9485770366,-1.3014133344  
C,-3.3364061259,-2.3977870151,-0.1597457465  
H,-2.5213269124,2.1445591034,-2.7724657033  
C.5181707696,2.9938260933,-1.8905352707  
C,-1.0233856623,3.6475635758,-0.0720553548  
C,-1.4545031368,-4.2997062128,-1.0257070767  
C,-0.0201882599,-2.5462517902,-2.171743677  
C,-3.5256050244,-3.7664713687.0806517012  
C,-4.4565862158,-1.4285050242.2220487996  
C,1.1387034317,4.243103367,-1.7680764772  
C.968856878,2.0367070346,-2.9938211038  
C,-0.3577663632,4.8782337584.0100493698  
C,-2.2723006669,3.41483374.772487535  
H,-0.7490831438,-5.0477669749,-1.3674827388  
C,-2.5897492513,-4.7071212158,-0.3307225123  
H.3719734051,-1.6016705543,-1.783045862  
C,-0.4675213941,-2.3116405364,-3.6317999854  
C,1.1300845214,-3.5662311321,-2.1560726681  
H,-4.4255740895,-4.0963489681.5893929237  
H,-4.0705322141,-0.4081694403.1451179202  
C,-4.965782533,-1.6264632475,1.6619820841  
C,-5.634307323,-1.5485770035,-0.7684162095  
H,1.9670677079,4.4919742432,-2.4226447601  
C.7163289146,5.1724040191,-0.8225403623  
H.6637993616,1.0255216727,-2.708143364  
C.2835106067,2.3785176022,-4.3346450084  
C,2.493931407,2.021908816,-3.2031085385  
H,-0.6979536845,5.6218580174.7237129029  
H,-2.4957501179,2.3468426307.755026926  
C,-3.4803938007,4.1514326441.1572501197  
C,-2.0851727846,3.8229435745,2.2438018686  
H,-2.7526349641,-5.762060541,-0.1283346099  
H,-0.8777136539,-3.2316382851,-4.0643391857  
H.387365678,-2.0057463957,-4.2455278826  
H,-1.2303847377,-1.5332818524,-3.7157955468  
H,1.4324772265,-3.8341272727,-1.1423162553  
H,2.0003548441,-3.1455984522,-2.6698466275  
H.8647861404,-4.4878763351,-2.6866154839  
H,-5.4833084089,-2.5839572768,1.7826378845  
H,-5.6840251216,-0.8388123697,1.9154815994

H,-4.1534775917,-1.58891042,2.391840914  
H,-5.3226832811,-1.3725516782,-1.8024991128  
H,-6.4164476832,-0.8205360956,-0.5253442502  
H,-6.0831809115,-2.5470967492,-0.7256099215  
H,1.2182419332,6.1327881321,-0.7438831043  
H,-0.8069586135,2.3365248059,-4.2728413508  
H.5994304176,1.6746774099,-5.1131127005  
H.560304252,3.3868171669,-4.6631045053  
H,2.8432032454,2.9359902808,-3.6961838857  
H,2.7709034421,1.185932165,-3.8545590022  
H,3.0412427268,1.9200454745,-2.2661304825  
H,-3.3135153243,5.2342244745.135412286  
H,-4.38727002,3.9640816719.7437806788  
H,-3.6727577406,3.8247091182,-0.869955922  
H,-1.1981358563,3.3539919708,2.6794301148  
H,-2.95733205,3.5202096153,2.8336075678  
H,-1.9810863149,4.9069736228,2.3598481374

#### TS3-L2

Ni.11413587,-0.0794967976,1.3903721627  
Si.598650719,2.0038142715,2.6611495973  
C,1.5902835148,1.1951954921.9143700226  
C.8378125377,3.8170220634,2.0971283213  
C,-1.2175395139,2.0501834196,3.2418850559  
C,1.8018316678,1.8844952439,4.1249241754  
C,1.4497307131,1.9803875135,-0.2398917556  
C,2.9120644816.7854952877,1.1582185586  
H,1.8736513683,4.039513351,1.8185828151  
H.5778857863,4.4719896961,2.9390626428  
H.1942380754,4.0948708454,1.2579449978  
H,-1.897881381,2.2094470046,2.4006239413  
H,-1.3270763736,2.9150485653,3.9117462868  
H,-1.5385594884,1.1587712052,3.7832948972  
H,1.8705747233.9061329065,4.6026647672  
H,1.4693869003,2.6056955718,4.8832341596  
H,2.8118746289,2.1834954613,3.8257694024  
C,2.4847757938,2.3310615549,-1.0911632973  
F.2238026992,2.4561890478,-0.543274916  
C,3.9889701289,1.1307728617.3456280338  
F,3.2127912468.0147649849,2.2257259889  
C,3.7760928976,1.8997602934,-0.7914604121  
F,2.2666200685,3.0661259758,-2.1966100949  
F,5.2254199653.6785239618.6173459171  
F,4.795434213,2.1929837282,-1.6104578224

H,-0.191550115,-2.531383519,1.9729314355  
C,-0.535810954,-1.6413252547,2.4852739933  
C.3601070935,-0.8935564269,3.2605572273  
H,-1.6049902846,-1.5975901646,2.6805619946  
H,-0.0052602018,-0.3200897948,4.1062357013  
H,1.3998377317,-1.2031206962,3.335554875  
C,-0.7564406168,-0.6069183848,-0.3795483701  
N,-0.4547804143,-1.7475407289,-1.1049346698  
N,-1.7979232744,-0.058980526,-1.1113578049  
C,-1.2709752424,-1.8854714563,-2.2263519  
C.4398881603,-2.8326782678,-0.7448127937  
C,-2.1169284066,-0.8363707111,-2.2242123453  
C,-2.6142300715,1.0970508414,-0.7896919947  
H,-1.1723911275,-2.7155659441,-2.9058592812  
C,1.8096638912,-2.7629488567,-1.0897710163  
C,-0.1265987024,-3.9955750151,-0.1671970018  
H,-2.9192786167,-0.575823569,-2.8926898632  
C,-2.5229081514,2.2614550954,-1.5904366314  
C,-3.5804719486.9745171445.2379029715  
C,2.6173223064,-3.8602111707,-0.7601341773  
C,2.4011699185,-1.5848561032,-1.866181842  
C.7309286762,-5.0636883328.1286226262  
C,-1.6275641534,-4.1642759819.0840944232  
C,-3.3511957728,3.3427327457,-1.2580979091  
C,-1.635565111,2.3740168165,-2.8333054416  
C,-4.3733250772,2.0929171045.5270317856  
C,-3.8649108983,-0.3547927154.9374884412  
H,3.674970976,-3.8346781567,-0.9939284126  
C,2.0903564036,-4.9945003323,-0.1500947125  
H,1.9530143011,-0.6680559887,-1.46992167  
C,2.0464393448,-1.6769392031,-3.3665996462  
C,3.9282135329,-1.4630002838,-1.7294157905  
H.3244163616,-5.9632629257.5791883576  
H,-2.0896184242,-3.1736916741.0581479944  
C,-1.9588227799,-4.7910189867,1.4524592887  
C,-2.2726243051,-5.017748693,-1.0297451243  
H,-3.2909699488,4.2542570225,-1.8432029589  
C,-4.2494609699,3.2730207799,-0.1996044454  
H,-0.8542808881,1.6127012058,-2.7628139239  
C,-2.4567702552,2.1089861405,-4.1149362719  
C,-0.9416148279,3.7435233457,-2.9773082761  
H,-5.1101716448,2.0335987426,1.3206716122  
H,-2.9372416383,-0.9296481943.956438321  
C,-4.9083284141,-1.156845965.1290652099

C,-4.3379123366,-0.2097363458,2.3928731945  
H,2.7396206047,-5.831131758.092841485  
H,2.449176221,-2.598341185,-3.8029461034  
H,2.4818544518,-0.8311591032,-3.9106703447  
H.9686563027,-1.6630283869,-3.5433907548  
H,4.2607422756,-1.4609407245,-0.6879134518  
H,4.2701019906,-0.5321645547,-2.1919917776  
H,4.4469326848,-2.2780030496,-2.2465589727  
H,-1.66499127,-5.8448327159,1.5019989679  
H,-3.0406180768,-4.7545385157,1.6224602255  
H,-1.4721077958,-4.2668065703,2.2780683019  
H,-2.1181929408,-4.5903572252,-2.0241005121  
H,-3.3530773642,-5.10355295,-0.8680578902  
H,-1.853985058,-6.0305474095,-1.0357322063  
H,-4.8723813082,4.1295878409.0431115765  
H,-2.9495833926,1.1333588377,-4.1139057029  
H,-1.8084307918,2.1518358329,-4.9974998855  
H,-3.2373934367,2.8682008623,-4.2382149961  
H,-1.6545967428,4.531431151,-3.2441415712  
H,-0.2014588908,3.698259714,-3.78315863  
H,-0.4251142623,4.0444660827,-2.0661011931  
H,-5.8606690021,-0.6162452921.0782149799  
H,-5.0992695498,-2.1264148118.6034069813  
H,-4.5771178839,-1.3464310319,-0.8962638359  
H,-3.6579001523.4085443546,2.9845261178  
H,-4.3931142814,-1.197226411,2.8638863267  
H,-5.3397296977.2288168937,2.4608952423

#### TS4-L2

Ni.2459445181,-0.010085354,1.0852670938  
Si,1.5104143212.2289792642,3.0102569508  
C,1.8049994953,-0.9513257718.7090685786  
C,3.3814042381.5956542448,2.9764090114  
C.761619113,1.8286421893,3.7543655755  
C,1.3247030019,-1.1726538493,4.2971129221  
C,2.880939842,-0.3618151982.0391596668  
C,1.9179248153,-2.3346914779.8663372345  
H,3.9802742979,-0.3010467029,2.7833561632  
H,3.6841545565.9840148452,3.95801003  
H,3.649482933,1.3459950415,2.22698926  
H,1.126930685,2.7068930947,3.211185061  
H,1.0801417055,1.9300907809,4.8014958867  
H,-0.3311652448,1.8424663025,3.7374353241  
H.3523616584,-1.1472667334,4.7993508665

H,2.0954122393,-1.0627427032,5.0714846093  
H,1.4430627089,-2.1639872062,3.8492338089  
C,3.9734127593,-1.0654792748,-0.4521400252  
F,2.9068096791.9881269525,-0.1198467916  
C,2.9974233056,-3.0814024238.4028209009  
F.9333208202,-3.0302084172,1.4983645078  
C,4.0350210444,-2.4453361656,-0.2716739529  
F,4.9728410795,-0.4309758055,-1.0949327785  
F,3.0275598292,-4.4180619108.5645937309  
F,5.0783381918,-3.1498036623,-0.7430391331  
H,-2.9294610228.6205020046,3.0076354838  
C,-2.2705622022,-0.1066601533,3.4752376428  
C,-1.8286316132,-1.1853138081,2.82156829  
H,-1.9929720447.0917337755,4.5071736556  
H,-1.1848146599,-1.9163813794,3.2981509273  
H,-2.1253641649,-1.4030838175,1.8018150893  
C,-1.0218481157.4210253924,-0.5209344565  
N,-1.9556633509,-0.3211712378,-1.2134714248  
N,-1.0022833594,1.6088591862,-1.2180277094  
C,-2.4817362502.3854525331,-2.2904917668  
C,-2.4352229333,-1.6609122033,-0.9266220188  
C,-1.8895853575,1.600004699,-2.2877778992  
C,-0.1723416248,2.7654364102,-0.941487896  
H,-3.2181701707,-0.041881466,-2.9506374656  
C,-1.6630861175,-2.7744120372,-1.3332268094  
C,-3.7215795143,-1.806124273,-0.3558382858  
H,-2.0148044353,2.4477250567,-2.9401676206  
C.948030332,3.0081436256,-1.7686711507  
C,-0.5686412098,3.659992761.0795666778  
C,-2.1885362992,-4.0485904563,-1.0846981574  
C,-0.3393457285,-2.6244866445,-2.084168337  
C,-4.1965912197,-3.1081264204,-0.1439615911  
C,-4.6310327427,-0.6241909821,-0.0143268081  
C,1.7178911401,4.146193977,-1.4933706974  
C,1.2877389653,2.1476872673,-2.9875534788  
C.243837561,4.7774106314.3086188151  
C,-1.8797189887,3.485273029.8500593861  
H,-1.6161177306,-4.9243485047,-1.3667730547  
C,-3.4365138448,-4.2177425572,-0.4918521171  
H.1934576561,-1.7731631432,-1.6509595536  
C,-0.5834730072,-2.3230955625,-3.5792683577  
C.5773182734,-3.8524786082,-1.9622120091  
H,-5.176568083,-3.2512636116.2993284366  
H,-4.0210336041.283528402.0016726359

C,-5.3021927686,-0.755217376,1.3663438493  
C,-5.7196076826,-0.4390016751,-1.093193197  
H,2.5916174555,4.3556565294,-2.1012799351  
C,1.3817862211,5.012431618,-0.4591750411  
H.7990438988,1.176601584,-2.8634884402  
C.7330437535,2.8031145579,-4.2722060704  
C,2.7933112032,1.8864698877,-3.176321125  
H,-0.0207289195,5.4798945785,1.0908851527  
H,-2.0357983285,2.4130029583,1.0058202413  
C,-3.0708763225,4.0197827636.0240572277  
C,-1.8863752418,4.155009428,2.2334638417  
H,-3.8198401129,-5.2182212154,-0.3118381063  
H,-1.133966579,-3.1419954401,-4.0569308954  
H.3727948917,-2.2133040879,-4.1030193731  
H,-1.1513459798,-1.4016960832,-3.7324526825  
H.7180042297,-4.1644858697,-0.9249022823  
H,1.5605704777,-3.6183753188,-2.3820423519  
H.1885282414,-4.7087334234,-2.5250398291  
H,-6.0570259818,-1.5487420668,1.3784836264  
H,-5.8179400776.1784765138,1.6170558384  
H,-4.5813505914,-0.9679734828,2.1587743628  
H,-5.2965258764,-0.280780929,-2.0892032436  
H,-6.3492143383.4259994319,-0.8562904521  
H,-6.3686839478,-1.3201656263,-1.1463412513  
H,1.9981134774,5.8847545637,-0.2602643194  
H,-0.3414370898,2.9976784122,-4.2175725301  
H.9123884498,2.1580692981,-5.1396182778  
H,1.2294755583,3.7618691037,-4.4606771842  
H,3.3347547564,2.8005927725,-3.4436218165  
H,2.9400588143,1.1795145968,-4.0004945513  
H,3.2566735583,1.4678759128,-2.2832957448  
H,-2.9538708937,5.0914054635,-0.1741009861  
H,-4.0087540837,3.8817477532.5741932333  
H,-3.1727698081,3.5097324705,-0.9372567382  
H,-1.023223704,3.8671378074,2.8378820068  
H,-2.7906502429,3.8636343437,2.7786405952  
H,-1.9010265426,5.2480033022,2.1585265728

## 5-L2

Ni,-0.45035026.2323245167.4493319545  
Si,-0.3087756338,-0.0240000491,-1.7863005423  
C,1.4206518313,-0.1188662498.5138199515  
C,1.1604035489.8729771361,-2.6029853903  
C,-0.172086233,-1.8705996613,-2.2319636872

C,-1.8425129158.6651593559,-2.6848523306  
C,1.9712046295,-1.3850975105.6986133834  
C,2.3410825304.9247603925.601542134  
H,1.2303557552,1.9186477838,-2.2848893294  
H,1.0382039261.8668011046,-3.6948707583  
H,2.1150128343.3896332956,-2.3718492407  
H.7776557316,-2.297324514,-1.8970732288  
H,-0.2309312559,-1.9961507134,-3.3221454243  
H,-0.9707319893,-2.469328281,-1.7827009499  
H,-2.7854388544.304894459,-2.2664118841  
H,-1.816239859.379553338,-3.7457262922  
H,-1.8535176905,1.7583121455,-2.6453893022  
C,3.3203885582,-1.6206596026.9521818637  
F,1.1753401506,-2.4887009198.6413147795  
C,3.6979650278.7512903346.8566940817  
F,1.9232907656,2.2120104048.4455763079  
C,4.1927114028,-0.5389256963,1.0285988818  
F,3.7936602325,-2.8688667575,1.1275371402  
F,4.5369498955,1.8010403067.939920044  
F,5.4971287752,-0.7368130611,1.2787864322  
C,-2.3073762576.6205306708.8055852948  
N,-3.3053046223,-0.2682146126,1.1272483903  
N,-2.8388828013,1.8399326709,1.1544008452  
C,-4.4097529057.3809052232,1.6699853424  
C,-3.2392778642,-1.712829774,1.0199414718  
C,-4.1160877839,1.702585989,1.6892028906  
C,-2.1775926152,3.1296153881,1.0876445471  
H,-5.2885852658,-0.1530732809,1.9928129361  
C,-3.9509091292,-2.3499884201,-0.0190390253  
C,-2.5301818752,-2.4392249832,2.0040304823  
H,-4.684442274,2.5492718646,2.0372165025  
C,-2.5838259474,4.0518437557.0982451114  
C,-1.215401836,3.4557449749,2.0715770476  
C,-3.9147868424,-3.7504516033,-0.0679129251  
C,-4.7783320122,-1.5878832686,-1.0520490221  
C,-2.5223252979,-3.8350243675,1.8973050312  
C,-1.8526130751,-1.7608254646,3.1932749399  
C,-1.9913759031,5.3220556976.112020069  
C,-3.647179752,3.7389771892,-0.9536655109  
C,-0.6515005069,4.7364284604,2.0264672156  
C,-0.827275704,2.4960172811,3.1957873203  
H,-4.4513212757,-4.2682465373,-0.8563665092  
C,-3.2035897688,-4.4865329442.8727286286  
H,-4.5009395154,-0.5317005436,-0.9933822927

C,-6.2843528698,-1.6904789371,-0.7340330704  
C,-4.5071595577,-2.0555079593,-2.4939405517  
H,-1.9786622038,-4.4221452474,2.6291189474  
H,-1.5746347567,-0.7487233198,2.8829797625  
C,-0.560953711,-2.4601769354,3.6496225724  
C,-2.8382982034,-1.6373261799,4.37444040338  
H,-2.2836675868,6.0524776808,-0.6352001521  
C,-1.0344474216,5.6623598178,1.0608033608  
H,-3.7634608728,2.6525609008,-1.0031149699  
C,-5.0133560605,4.3460243899,-0.5699090113  
C,-3.2470511854,4.222806099,-2.3607002009  
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H,-0.9529397912,1.4743609161,2.8224702916  
C,-1.7657057767,2.6698492916,4.4082325926  
C.6412407861,2.6293274287,3.6330910554  
H,-3.1829561626,-5.5710384906.8122553623  
H,-6.6263883955,-2.7306604537,-0.7765197694  
H,-6.8709893335,-1.1157414582,-1.4594189231  
H,-6.5182974823,-1.306498885.2640580549  
H,-3.4401026522,-2.043141268,-2.7324235837  
H,-5.0190699049,-1.3965469648,-3.2037402937  
H,-4.8783756232,-3.0707586962,-2.670681923  
H,-0.7613744353,-3.4226642479,4.1332888217  
H,-0.0460007915,-1.836081509,4.3882829946  
H.1217032291,-2.634007183,2.8144924064  
H,-3.7377721353,-1.0767332813,4.101696637  
H,-2.3659207448,-1.1220638171,5.2183941673  
H,-3.1542356121,-2.6277553086,4.7216268407  
H,-0.5851704131,6.6514142575,1.0494938238  
H,-5.3769879415,3.9771963883.3936152571  
H,-5.7678037833,4.1001153163,-1.3257089742  
H,-4.9504262311,5.4380655971,-0.5037760036  
H,-3.2938772733,5.3139405653,-2.4455896105  
H,-3.9344420435,3.8123220275,-3.1079546267  
H,-2.2332157598,3.9131395044,-2.6279258756  
H,-1.6902243146,3.6853835673,4.8136942562  
H,-1.496260387,1.9698040985,5.2071025911  
H,-2.8130660274,2.4907923213,4.146642932  
H,1.3165952913,2.6159562114,2.7744419507  
H.90713411,1.796681316,4.2932316819  
H.8212744483,3.551632926,4.1959815192

**TSS-L2**  
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Si,1.0628184652,-0.5801175529,-2.9216883595  
C,2.1417219116,-0.3553253061,-1.1786384529  
C,2.5611124952,-0.4398511981,-4.0873265142  
C.3567472355,-2.3171566327,-3.1751218848  
C,-0.1292148439.7764676496,-3.5065632828  
C,2.6855021514,-1.4809503518,-0.5273278371  
C,2.8664284285.8403600884,-0.9927835386  
H,3.01978517.5542137779,-4.0407606367  
H,2.2437733933,-0.6072506211,-5.1249967433  
H,3.3372183098,-1.177952642,-3.8558076554  
H,1.1292329562,-3.0823730588,-3.051673939  
H,-0.0280581408,-2.3979788001,-4.2008079644  
H,-0.4570329073,-2.5514363864,-2.4848644072  
H,-1.1425718747.6307862827,-3.1261293894  
H,-0.167117796.7729326733,-4.6056088077  
H.2169870628,1.7633298342,-3.186376811  
C,3.8278758406,-1.4283360528.2635708763  
F,2.1169967055,-2.6996477186,-0.6808170473  
C,4.0103617519.9277896545,-0.2116786472  
F,2.4731463171,1.9680253352,-1.6302904841  
C,4.4880309169,-0.2136204828.4307584876  
F,4.2816292017,-2.5258657904.8938482134  
F,4.6334161709,2.105393747,-0.0242356301  
F,5.5753149898,-0.1403370596,1.2084729222  
C,-1.1969291623.1763171878.4620237937  
N,-2.0451686776,-0.7631530143,1.0120971682  
N,-1.6521049239,1.3576392817,1.0140037928  
C,-2.9802329536,-0.1836300046,1.8658055733  
C,-2.0202634048,-2.1796788067.7345698451  
C,-2.7329534129,1.1474562795,1.8678935462  
C,-1.1301994156,2.6770733189.7383581982  
H,-3.7254844406,-0.7667580484,2.3827697022  
C,-2.919847651,-2.6933687792,-0.2230924261  
C,-1.1456605154,-3.0111458807,1.4702050577  
H,-3.2163222127,1.9555717274,2.3926902862  
C,-1.8137226666,3.4904408318,-0.190631407  
C,-0.0011866297,3.1371240842,1.4551123336  
C,-2.9162353589,-4.0776242132,-0.4445369544  
C,-3.9042391155,-1.8116630162,-0.9888634104  
C,-1.1839920697,-4.3854264833,1.2056845156  
C,-0.2252406468,-2.4571810476,2.5561110402  
C,-1.3380755808,4.7937481749,-0.3906423402  
C,-3.0529568331,3.0152510412,-0.9470667961  
C.4322463885,4.4454103241,1.2093550629

C.7105122577,2.2647050039,2.4879892605  
H,-3.5975154311,-4.5018112213,-1.1761388002  
C,-2.0568381909,-4.9157084751.2582132479  
H,-3.6695072579,-0.7683205923,-0.7629242653  
C,-5.3522361777,-2.0697172962,-0.5270188618  
C,-3.7805306974,-1.9825487656,-2.5134730231  
H,-0.5218574661,-5.0516858485,1.7483137772  
H,-0.011138437,-1.4155238169,2.2998322229  
C,1.1269837597,-3.1844139043,2.6450733785  
C,-0.9294831815,-2.4764594538,3.9288529474  
H,-1.8443438751,5.4440329765,-1.0969370435  
C,-0.2284466353,5.268004478.299859557  
H,-3.1013576456,1.9261404121,-0.8603099815  
C,-4.3380058006,3.594771137,-0.3213674792  
C,-2.9993617836,3.3469402146,-2.4494790786  
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C.0151434893,2.3494511792,3.8629862848  
C,2.2044475531,2.5926621658,2.6461926394  
H,-2.068297241,-5.9860322515.0712307302  
H,-5.6612617146,-3.1005829057,-0.7341586845  
H,-6.0471363251,-1.4026341087,-1.0497345988  
H,-5.4701581831,-1.8996266015.5483462598  
H,-2.7600049762,-1.7861892067,-2.8547972135  
H,-4.4494591845,-1.2828374709,-3.0272442351  
H,-4.0542324536,-2.9927496317,-2.8368959615  
H,1.0244902216,-4.2037106484,3.0340556109  
H,1.7896789856,-2.6477541363,3.3330269114  
H,1.6234641333,-3.2412714761,1.6737078556  
H,-1.8588460112,-1.8991149071,3.9195008843  
H,-0.2794155184,-2.049073244,4.7008743464  
H,-1.1753758273,-3.5020482928,4.2282102658  
H.1256723963,6.2810305036.1291975055  
H,-4.443405959,3.3125507481.7307704766  
H,-5.2241619758,3.2322363277,-0.8547857987  
H,-4.3415134569,4.6895987434,-0.3731048471  
H,-3.0761314283,4.4233520575,-2.6374448404  
H,-3.8393315524,2.8698877736,-2.966717618  
H,-2.0741982686,2.9894162445,-2.9099363418  
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H.5214310141,1.702087687,4.5881780753  
H,-1.0322973356,2.0389944759,3.8152266666  
H,2.7256655153,2.6450407533,1.6867395467  
H,2.6896455565,1.818345963,3.2502577845

H,2.3630462993,3.5445480379,3.1655749288

## 6-L2

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Si,3.1770421697,-0.252734799,-1.9851172806

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C,4.650562826,-1.4038831811,-1.713286384

C,2.0974442429,-0.914563708,-3.3857878165

C,3.7834771076,1.472785744,-2.4588470839

C,1.2025085074,-1.2028529049,-0.0456900901

C,2.3891315624.7496551099.6279352547

H,5.3051402796,-1.0420294928,-0.9122308748

H,5.2560330989,-1.4863114187,-2.624365785

H,4.321150078,-2.4132880312,-1.4425910689

H,1.8065361303,-1.9548519639,-3.2198305888

H,2.6451938961,-0.8630149815,-4.3350201873

H,1.1817479563,-0.325039823,-3.5044344445

H,2.9593902789,2.1921641264,-2.5214224767

H,4.2594302429,1.4343967933,-3.4468721815

H,4.5160579646,1.8683814626,-1.7503248377

C,5574483007,-1.3061040695,1.2418337805

F,1.2633548685,-2.3685712498,-0.7921306014

C,1.7716356054.7052992645,1.8972596001

F,3.2387937979,1.788676818.4361594198

C,8971923334,-0.3085586145,2.2040683577

F,1724972143,-2.5278758726,1.7452677584

F,2.0080540996,1.6895715809,2.7886572501

F,3529274619,-0.3771535279,3.4312883018

C,-2.4954965856,-0.0367194804,-0.1778017446

N,-3.5670669088,-0.8910236926,-0.2173195256

N,-3.073444318,1.2028081516,-0.285784331

C,-4.767634395,-0.2040039416,-0.3517141052

C,-3.4898953883,-2.3301553163,-0.1017128988

C,-4.4573065224,1.1160428917,-0.3950989122

C,-2.3573525221,2.4592650605,-0.2772309719

H,-5.716681897,-0.7134274667,-0.4055612634

C,-3.2689100569,-3.0968832362,-1.2640249063

C,-3.67942092,-2.9171375045,1.1671092302

H,-5.0810701654,1.9896295601,-0.498585208

C,-2.0264488389,3.058371536,-1.5091826432

C,-2.0519955537,3.0598400615.9654069542

C,-3.2451940464,-4.490596278,-1.1261191419

C,-3.0450446624,-2.4735831059,-2.6384732977

C,-3.6511704994,-4.3152031966,1.2443792973

C,-3.9145468014,-2.0960432929,2.4329931643

C,-1.3669536745,4.2946823831,-1.474036672

C,-2.3322663423,2.4081521602,-2.8559337443

C,-1.3898989089,4.2929996866.938572878

C,-2.4641705881,2.4315099056,2.2952986039

H,-3.0713911467,-5.1078664484,-2.0022556683

C,-3.4363759392,-5.0960456491.1122906942

H,-3.141752088,-1.3890836809,-2.5391860636

C,-4.1028453025,-2.9354970529,-3.6577954981

C,-1.619289823,-2.7568829623,-3.1481993068

H,-3.7926791059,-4.7971697936,2.2068514933

H,-3.789731353,-1.0400265534,2.1786801852

C,-2.8843786311,-2.4215921998,3.5307435608

C,-5.3515753274,-2.2769766582,2.9596944161

H,-1.0949940016,4.779508899,-2.4068341011

C,-1.0503303915,4.9060000195,-0.2657299016

H,-2.8864868222,1.4845545919,-2.6699076435

C,-3.2219193816,3.2992520138,-3.7421473695

C,-1.0320796267,2.0215868658,-3.5861065769

H,-1.1346746885,4.7816788652,1.8726386925

H,-2.5406121197,1.3514252378,2.1404875989

C,-3.8522002353,2.9469008889,2.7299188591

C,-1.4426055542,2.6526873802,3.4238257902

H,-3.4156116988,-6.1790889657.1960630563

H,-4.0515754638,-4.0151962137,-3.8362492158

H,-3.9475560998,-2.4355523397,-4.6205416461

H,-5.1179217136,-2.7020673951,-3.3184300799

H,-0.8693561536,-2.4221728646,-2.4256500619

H,-1.4422183602,-2.2345513221,-4.0953235299

H,-1.4605679463,-3.8268178457,-3.3243120209

H,-2.9890331461,-3.4499150546,3.8940160637

H,-3.027958385,-1.7559376888,4.3896388287

H,-1.8607792293,-2.295194465,3.169432417

H,-6.0984635865,-1.9970432658,2.2089973947

H,-5.5169133109,-1.6524170335,3.8448065569

H,-5.5443611047,-3.3167823718,3.2468447229

H,-0.536152722,5.8630394172,-0.2599122868

H,-4.1651389442,3.5496973591,-3.2447975075

H,-3.4634785168,2.7823582087,-4.6776093754

H,-2.7255178191,4.2395076035,-4.0054451846

H,-0.4334834509,2.9041994001,-3.8379460874

H,-1.2566826959,1.4934211974,-4.5197742378

H,-0.4153901866,1.3662896055,-2.9632900701

H,-3.8329511569,4.0309375814,2.8916117562



H,-4.1623747697,2.4725042251,3.6679071122  
H,-4.6201799017,2.7347714814,1.9799110105  
H,-0.4287587677,2.3716919509,3.1286616212  
H,-1.7173909439,2.0450381993,4.292378664  
H,-1.4192851549,3.6957701584,3.7589472368

## 7-L2

Ni,-0.1517437506.7664706491,-0.50820325  
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C,-0.1477370595,1.7757345724,1.1817641441  
C.3217368085,-1.1251019397,-0.0641605326  
Si,1.0315811827,3.8949883563,-0.5162828919  
C,-1.6924391651,3.2582270284.0226644045  
C,-1.1924290123,1.5494344882,2.1458926179  
F,1.120606622,1.7572405076,1.7705865638  
N,1.5458328063,-1.6706327744.2540797903  
N,-0.4732718125,-2.2436685307,-0.2328898318  
C.8650265617,5.4957313017.4817392561  
C,2.7590139071,3.186590302,-0.257193285  
C.8473029585,4.3040140691,-2.3548423498  
C,-2.6849619817,2.9925910613.9168643813  
F,-1.9660883311,4.1462230557,-0.9723437387  
C,-2.4218461989,2.1170183664,2.0066376384  
F,-0.9407913604.7164146251,3.181332655  
C,1.5117650928,-3.0644296922.2549009567  
C,2.7771528754,-0.9723342529.5636581937  
C.2457386254,-3.4231725489,-0.0472385091  
C,-1.8910991751,-2.2763650022,-0.5347658669  
H,-0.1091394143,5.9720848128.3239957948  
H,1.6365246273,6.2208883475.1944161922  
H.9735652632,5.3082805431,1.5563193365  
H,3.494384426,3.8541360195,-0.7250278819  
H,2.8751183602,2.1988113681,-0.7113744577  
H,3.0133383275,3.0933438715.8008495924  
H.9759516604,3.4247486613,-2.9952649061  
H,1.6248432864,5.0247645727,-2.6386711199  
H,-0.121039987,4.7545090253,-2.5884851627  
F,-3.9185115909,3.5278460252.8034898761  
F,-3.4307588094,1.8438557688,2.8583760782  
H,2.3852732721,-3.6572922555.4709221897  
C,3.7034399449,-0.7424755885,-0.476488961  
C,3.0631115558,-0.6571362935,1.9117422095  
H,-0.2129090699,-4.3935007061,-0.1432416994  
C,-2.3037365819,-2.5512364721,-1.8581837453

C,-2.8186588451,-2.1409798508.5263298904  
C,4.9267702062,-0.1463286234,-0.1412626317  
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C,4.3006343798,-0.061508837,2.1857338102  
C,2.1111235629,-1.0043987608,3.0562752278  
C,-3.6813910942,-2.5879659946,-2.1179628049  
C,-1.3303172663,-2.8996139448,-2.9838539706  
C,-4.180936744,-2.1806818478.2032744396  
C,-2.3816747387,-2.0527259015,1.9887261557  
H,5.6579782392.0456428214,-0.9199808122  
C,5.2217205719.1961312577,1.1740054959  
H,2.3699574515,-1.350528988,-2.0244387588  
C,4.169065707,-2.4993487068,-2.2303569725  
C,3.8388129803,-0.102711654,-2.9496408864  
H,4.5485913033.2022901642,3.2082229553  
H,1.0971605165,-1.0272713494,2.6490315876  
C,2.1154311014.0270615036,4.197430459  
C,2.4333343951,-2.4029455945,3.6254900592  
H,-4.0279970378,-2.7880233503,-3.1268251168  
C,-4.6109930872,-2.3851828398,-1.1050741128  
H,-0.3261353783,-2.6019384464,-2.6691263214  
C,-1.3033409101,-4.4256558493,-3.2155745103  
C,-1.6424584632,-2.1761803289,-4.3066086078  
H,-4.9186354819,-2.0610837578.9884330484  
H,-1.4601155311,-1.466295703,2.031934993  
C,-2.0770732024,-3.4586894392,2.552456347  
C,-3.4081764018,-1.3639160308,2.9018410462  
H,6.1750921492.6588325651,1.4140649966  
H,5.2548600815,-2.3835197038,-2.137688503  
H,3.9532063388,-2.8252770933,-3.254222594  
H,3.861538904,-3.3013433252,-1.5524098902  
H,3.4002709257.8712026567,-2.7139815841  
H,3.4945325189,-0.3969519392,-3.947329786  
H,4.9246981024.0270867534,-3.0094381236  
H,3.0560128337.0134181179,4.7593903958  
H,1.3162782137,-0.2085233753,4.9079824531  
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H,2.3674201558,-3.1864516163,2.8655037427  
H,1.7317540116,-2.6589565941,4.4275251928  
H,3.4456136889,-2.4289271208,4.0457507216  
H,-5.6739445063,-2.4091255264,-1.3288726853  
H,-1.0316733007,-4.9733744227,-2.308034406  
H,-0.5758466774,-4.6831065758,-3.9936067997  
H,-2.2844467336,-4.7896487806,-3.5402825775

H,-2.5793280813,-2.527169658,-4.7517558378  
H,-0.8479931344,-2.3719458566,-5.0352723779  
H,-1.7178262087,-1.093890691,-4.1749343612  
H,-2.9702820127,-4.0931382203,2.5153451503  
H,-1.7622123542,-3.3849126307,3.5995819243  
H,-1.2799335703,-3.9668173597,2.0047182625  
H,-3.7522076775,-0.4101508563,2.4999896286  
H,-2.9566723865,-1.1667658726,3.8786628336  
H,-4.2852678204,-1.9977737234,3.0750681645  
H,1.0383168416,1.0585891739,-2.8534118084  
C,1272747666.5153660522,-2.6155405072  
H,1555279567,-0.5501202372,-2.7984021035  
C,-1.0529031618,1.1826644143,-2.407207936  
H,-1.1283694439,2.2573188362,-2.5127329088  
H,-1.9977229613.6470873825,-2.3445742103

#### TS6-L2

Ni,3015409545,-0.1796872068.3091834969  
C,-0.1809900423,-0.7925786189,2.7815491938  
C,-1.0562494305,-0.6681122928,1.5480058798  
H,-1.8968065621.0154799456,1.6810881327  
H,-1.4129185549,-1.6287601082,1.1586523338  
H,1126892996.1966238939,3.1575843228  
Si,-0.9293262065,-1.782241586,4.2456452575  
C,-1.1576791057,-3.58879582,3.7318730235  
C,2934597903,-1.6803306761,5.6875040384  
C,-2.5896698093,-1.0488597392,4.7837084453  
H,-1.8483881942,-3.6937913522,2.8874509603  
H,-1.5588700704,-4.1887562258,4.5576100819  
H,-0.2044286177,-4.0395760165,3.4310716091  
H,1.272026504,-2.0917710955,5.413652543  
H,-0.0665459335,-2.2417112057,6.5583782215  
H,4515812749,-0.6441752057,6.0093120679  
H,-2.4901026559.001620834,5.0812593721  
H,-2.9921865092,-1.593851843,5.6463406247  
H,-3.3415760926,-1.0968472608,3.9880819938  
H,7543755487,-1.3209159072,2.5396631949  
C,2.2958462852,-0.5996580438.3085320339  
C,3.276210398.2950910651.7108618159  
C,2.7780894354,-1.8527023774,-0.0405244216  
C,4.6375367786.0059465711.7497392568  
F,2.9293528997,1.5591761799,1.099133966  
C,4.1225611326,-2.213223606,-0.0234318434

F,1.9071702792,-2.8351968398,-0.427315581  
C,5.061694383,-1.2669178551.3778877196  
F,5.5492050159.9206013917,1.138075826  
F,4.5349077562,-3.4481024398,-0.3746115408  
F,6.3682165979,-1.5803356732.4060086267  
C,-0.9720346199.5851004852,-0.8196806811  
N,-1.8023953483,-0.0139438864,-1.7332333133  
N,-1.1945107825,1.9268573701,-0.9992203539  
C,-2.5133946031.9368237427,-2.4632789661  
C,-1.9366014935,-1.4348255922,-1.9814762408  
C,-2.1339841539,2.15088053,-2.0030076242  
C,-0.550240894,3.0183085067,-0.2970079963  
H,-3.2098618003.6577483466,-3.2367430755  
C,-1.0091433812,-2.0661491737,-2.839722006  
C,-3.0365243055,-2.1184648766,-1.420285121  
H,-2.4355468298,3.1458161148,-2.2874768217  
C,6607195384,3.5341968178,-0.8101475139  
C,-1.2021921043,3.5846497538.8181626158  
C,-1.1897125634,-3.4320767074,-3.0899411913  
C,1116601219,-1.2996324308,-3.5392632792  
C,-3.1693386781,-3.4824302455,-1.7128586046  
C,-4.0941844897,-1.4196797613,-0.5675454387  
C,1.2187859655,4.6387346398,-0.1554841091  
C,1.3340161973,2.9582878559,-2.0542039794  
C,-0.5976735051,4.6907424287,1.4302505807  
C,-2.5407413016,3.0711131658,1.342477885  
H,-0.4896644214,-3.9524089785,-3.7342700704  
C,-2.2531475982,-4.1352152564,-2.5311212638  
H,3568684586,-0.4299656904,-2.9230317659  
C,-0.3654016802,-0.7845025453,-4.9139093034  
C,1.4046997441,-2.1166149218,-3.6966078342  
H,-4.0024092202,-4.0387891614,-1.2955621897  
H,-3.6764778073,-0.4668508815,-0.2299288692  
C,-4.4805036749,-2.219471274.6890509792  
C,-5.3530581918,-1.1089370041,-1.4032412799  
H,2.153071329,5.0558113501,-0.5153043356  
C,5994565022,5.2123589518.9515239698  
H,1.0373492331,1.9081790425,-2.1339677215  
C,8546875842,3.6862769276,-3.3275972639  
C,2.8701464547,2.9881899737,-1.9767848095  
H,-1.0745535169,5.1510714552,2.2899729239  
H,-2.7299933731,2.0966168742.884721828  
C,-3.6928657253,4.0084776045.9290644269  
C,-2.5353479825,2.863149925,2.8675973201

H,-2.3711303931,-5.1947119252,-2.7406942591  
H,-0.6291348649,-1.6185359686,-5.5743885533  
H,4.276939444,-0.2078226436,-5.403236272  
H,-1.2431790029,-0.1366309646,-4.827168381  
H,1.7167821827,-2.5566753784,-2.7472463551  
H,2.2107326879,-1.4658510651,-4.0527463861  
H,1.2980267036,-2.9223328679,-4.4318282951  
H,-5.0300651012,-3.1343594467,4.428274816  
H,-5.1324613734,-1.6162921749,1.3304307491  
H,-3.6007691314,-2.5031809185,1.2731015261  
H,-5.1240172714,-0.4821887103,-2.2706661744  
H,-6.0972149296,-0.5813397047,-0.7959495756  
H,-5.8154584758,-2.0307936922,-1.7735254346  
H,1.0526087386,6.069997196,1.4409821015  
H,-0.2291909574,3.6172625341,-3.4601388973  
H,1.3272642679,3.2539046586,-4.2168273444  
H,1.1199618852,4.7492574655,-3.2913167953  
H,3.2671224625,4.0027106325,-2.094300827  
H,3.2943348125,2.384059629,-2.7858766951  
H,3.2292296696,2.5906438449,-1.0256463299  
H,-3.5608676842,5.0091796128,1.3554954793  
H,-4.6530459495,3.6175234469,1.2844220182  
H,-3.7571517491,4.1170352562,-0.1584371112  
H,-1.6990690207,2.2329104356,3.1838397795  
H,-3.4656964239,2.3794196146,3.1845981097  
H,-2.4621756586,3.8117017728,3.4103952832

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Ni,4.121948523,-0.4655197695,-0.1844940284  
C,8.496744661,-0.8292461747,2.6478982067  
C,3.228253011,1.1767211733,1.6335597812  
H,9.285066789,1.0877671622,1.582432773  
H,-0.7169023651,4.478001218,1.8357306512  
H,1.8466320033,-1.1817818745,2.3593395096  
Si,1.0348197628,-0.1716265865,4.4341497202  
C,-0.6357745908,3.507262525,5.1621044824  
C,1.7615825575,-1.5601834152,5.5001693298  
C,2.2117872731,1.3127500827,4.4516011256  
H,-1.088728764,1.1712983199,4.5946425182  
H,-0.5235827454,6.948969447,6.1976186192  
H,-1.3523993873,-0.4792668549,5.1703178122  
H,1.0958083768,-2.4308652302,5.5369202726  
H,1.9255843884,-1.2293932529,6.53309446

H,2.7266971277,-1.9028002331,5.1087364691  
H,3.1756252144,1.0658683401,3.9903678965  
H,2.4147909553,1.6470793109,5.4763395804  
H,1.7986530997,2.1684311616,3.905374867  
H,2.141450619,-1.7247983758,2.6750785333  
C,2.3571384003,-0.5736755436,-0.235420339  
C,3.1775020634,5.35899364,-0.3994883533  
C,3.0358115423,-1.7850068641,-0.1756996681  
C,4.5659561922,4.752456257,-0.4924958806  
F,2.6278915167,1.7824523371,-0.4832155959  
C,4.4192825706,-1.9148573709,-0.2644851419  
F,2.3339521351,-2.9465361265,-0.0160199591  
C,5.1913790169,-0.766555067,-0.4197240809  
F,5.3132585541,1.5851053324,-0.6514390936  
F,5.0230170964,-3.1177411242,-0.1982273717  
F,6.5293648481,-0.856654259,-0.509063075  
C,-1.4754403208,-0.4036772867,-0.6445569699  
N,-2.3230742172,-1.4624802913,-0.841649861  
N,-2.1890082262,6.710696494,-1.1094348343  
C,-3.5197311042,-1.0574914021,-1.4227007108  
C,-2.0458848935,-2.8448599312,-0.5120357131  
C,-3.4357232477,2.851899286,-1.5900100707  
C,-1.7370576646,2.0469986397,-1.1513195032  
H,-4.307634157,-1.7545615158,-1.6580668978  
C,-1.2942459911,-3.6258067137,-1.4160694982  
C,-2.5945763186,-3.3752185791,6.744708814  
H,-4.135421966,9.936230184,-2.0033263647  
C,-0.9217226831,2.4672201332,-2.2236426057  
C,-2.1903986357,2.935325166,-0.1534882185  
C,-1.0959199539,-4.973945424,-1.0933792966  
C,-0.7450208817,-3.0648562656,-2.7257464431  
C,-2.3677359589,-4.7316137337,9.419548007  
C,-3.4379111223,-2.5432404981,1.6377596469  
C,-0.5633729181,3.820352271,-2.2715789935  
C,-0.4578550174,1.5242767068,-3.3306138465  
C,-1.8022653996,4.277355741,-0.2545031327  
C,-3.0964764173,2.4968550077,9.943433372  
H,-0.5188170782,-5.6022577048,-1.7633130649  
C,-1.6262373352,-5.5231679412,0.704742534  
H,-0.6833954859,-1.9771117601,-2.6230858367  
C,-1.7055215912,-3.3643866477,-3.894361228  
C,6.737507968,-3.5676592182,-3.0454927689  
H,-2.7760871156,-5.1717034506,1.8459793997  
H,-3.2893374843,-1.4876694586,1.3925341214

C,-3.0148157776,-2.7299448274,3.1054423076  
C,-4.9382245921,-2.8558579934,1.4670577723  
H.0649857301,4.1756946933,-3.0816986003  
C,-0.9980728407,4.717805683,-1.3009402295  
H,-0.5946010203.4984024847,-2.9771714856  
C,-1.3172671246,1.697135371,-4.5988994504  
C,1.0370129725,1.6935817995,-3.6575280064  
H,-2.1348834131,4.9853044537.4979897426  
H,-3.0998200976,1.4034158314,1.0228011361  
C,-4.5485512968,2.961083384.7639976113  
C,-2.5867039254,2.9844055757,2.3625755922  
H,-1.4592456588,-6.5720398091.299201706  
H,-1.8176782082,-4.4444736579,-4.0426108648  
H,-1.3212495174,-2.9358003726,-4.8267949804  
H,-2.7024062439,-2.9467343101,-3.7193731159  
H,1.3484280313,-3.4289409702,-2.1967227083  
H,1.0798712193,-3.0169140771,-3.9009759046  
H.6833715518,-4.6293457803,-3.3153240781  
H,-3.2325865193,-3.7388387873,3.4717244593  
H,-3.5619714723,-2.0290487539,3.7452512237  
H,-1.94443396,-2.5479629264,3.2390675633  
H,-5.2794173568,-2.6666487195.4441703766  
H,-5.5403167708,-2.2358782314,2.1408193837  
H,-5.1509419432,-3.9054641968,1.69912559  
H,-0.7073604451,5.7629692924,-1.3596155437  
H,-2.3775990249,1.5065894363,-4.4021105597  
H,-0.9916096042,1.002322682,-5.3813659645  
H,-1.2294827797,2.7142907381,-4.9975401422  
H,1.2380475203,2.6392579422,-4.1727443059  
H,1.3692029534.8887003933,-4.3224585028  
H,1.648355992,1.6676485361,-2.7520833606  
H,-4.612770469,4.0545053017.729223617  
H,-5.1969191388,2.613917653,1.5763235829  
H,-4.9560723084,2.5760122594,-0.1764903464  
H,-1.5452450257,2.6932279081,2.5270606957  
H,-3.1951892938,2.5524470662,3.1646483379  
H,-2.6492193963,4.0736087026,2.4601099387

**TS7-L2**

Ni,-0.4325100626.3909258026.2944902477  
C,1.3438042093,1.6281383228,1.9453414035  
C,-0.1622233473,1.4198171,1.8804971002  
H,-0.7072891739,2.3657879928,1.9004943602  
H,-0.5463568108.7747830703,2.681479135

H,1.6932340463,2.1878063137,1.0665089209  
Si,1.9051196449,2.6309369255,3.4828700019  
C,1.1588412553,4.3681661017,3.4132002275  
C,1.357291109,1.7749837462,5.0803727507  
C,3.79674363,2.7660574027,3.4769178514  
H,1.4132315224,4.8819163106,2.4784237728  
H,1.5281296471,4.9886450254,4.2390730703  
H.0657246269,4.3453429668,3.4873073481  
H.2667541244,1.6898870356,5.144924711  
H,1.6918376637,2.3403544906,5.9589997995  
H,1.77337114.7644474069,5.1671625882  
H,4.2765500822,1.78005629,3.4706279807  
H,4.1521616294,3.2937972152,4.3708500406  
H,4.1665341237,3.3196601418,2.6061422563  
H,1.8856245657.6729489995,1.9519587956  
C,-2.1719697008,1.1174636434.2462276089  
C,-2.455045754,2.3038400622,-0.4243011222  
C,-3.2780679368.4902032047.8108312015  
C,-3.7372836638,2.82617609,-0.5697315154  
F,-1.4450844296,3.0215176898,-0.9926760924  
C,-4.5815010425.968274667.6983102416  
F,-3.1215921025,-0.6670743287,1.5127149496  
C,-4.8123563478,2.1504298985.0007662823  
F,-3.9544227001,3.9700508005,-1.2470773723  
F,-5.6180472693.310497034,1.2525753293  
F,-6.0611703673,2.6322786559,-0.1247120334  
C.7747391383,-0.9707435315,-0.689884754  
N.8257372872,-2.3282274606,-0.5025926306  
N,1.563396992,-0.7779805718,-1.7963583365  
C,1.6202739719,-2.951801223,-1.4551517066  
C.153117792,-3.0786292443.5377600533  
C,2.0837388759,-1.9741434717,-2.2730494573  
C,1.8786112452.4955943646,-2.411478302  
H,1.7787020996,-4.0182745916,-1.4635263431  
C.8218795798,-3.2907379364,1.761385933  
C,-1.1095882595,-3.6419719402.2569457837  
H,2.728134285,-2.0174472378,-3.1363361154  
C,3.1386396215,1.0718047747,-2.1453687934  
C.9532874315,1.0752887057,-3.3079455697  
C.1790042985,-4.082489618,2.7216318659  
C,2.2136582492,-2.7347106293,2.0492795044  
C,-1.7028337185,-4.4267843196,1.2537125602  
C,-1.8177362208,-3.4576328392,-1.0831577698  
C,3.4512872758,2.2752586912,-2.7918583477

C,4.1725923072,4.239632417,-1.225834814  
C,1.3183544692,2.2819058744,-3.9170935957  
C,-0.3713666975,4.0197335344,-3.6634855738  
H,6650615446,-4.2635489803,3.6750843747  
C,-1.0691751297,-4.6452883847,2.4732604036  
H,2.4418836236,-1.9848630907,1.2868115381  
C,3.2815538822,-3.841941339,1.9461673738  
C,2.2902114627,-2.0304416984,3.4156083406  
H,-2.675463986,-4.872410529,1.0716989675  
H,-1.3425958305,-2.6207334424,-1.6026608301  
C,-3.3074456653,-3.1059695338,-0.9175668539  
C,-1.6532848455,-4.7099189478,-1.9681763599  
H,4.4126568179,2.7447829635,-2.6079831304  
C,2.5509251921,2.8781064531,-3.6630623533  
H,3.6797084181,-0.3788544076,-0.6707768451  
C,5.3161140605,-0.2106216571,-2.0428950801  
C,4.737118423,1.410736035,-0.1888414912  
H,6291599653,2.7622607531,-4.6025035194  
H,-0.6952646044,-0.1724053582,-2.7906161829  
C,-0.1824404105,-0.585052368,-4.8349322247  
C,-1.4957917671,1.399232245,-3.9877517902  
H,-1.5495876386,-5.2570762544,3.2317206647  
H,3.1097104513,-4.6282787723,2.6898694929  
H,4.2820315931,-3.4299158249,2.1205447993  
H,3.2821360135,-4.3142950221,9.582069472  
H,1.5038007556,-1.2774260666,3.5187989448  
H,3.2599708306,-1.5334078764,3.5297308165  
H,2.1891507859,-2.7363943204,4.2471164005  
H,-3.8895815577,-3.9582606591,-0.5501914808  
H,-3.734631178,-2.8178698378,-1.8843401281  
H,-3.4466317994,-2.2792099846,-0.2174298537  
H,-0.6000718137,-4.9422176086,-2.1565523576  
H,-2.1414010022,-4.5618024173,-2.9380910772  
H,-2.1083663619,-5.5881461516,-1.4961990868  
H,2.8098258429,3.8143973584,-4.1496617747  
H,4.9463733368,-0.9658023009,-2.7440294488  
H,6.0396024219,-0.6967444273,-1.3787452397  
H,5.8531107977,5.466677114,-2.6250061379  
H,5.3347017119,2.200651272,-0.6558558028  
H,5.3901083161,8.849466108,5.164130595  
H,3.9367060517,1.8877325423,3.820393804  
H,1592610076,-0.0616801707,-5.7353942128  
H,-1.1305417004,-1.07980878,-5.0743345992  
H,5499895097,-1.3645468056,-4.6034764658

H,-1.5927396023,2.1602605075,-3.2103976125  
H,-2.4493846886,8.66331101,-4.0662982133  
H,-1.3342135695,1.9061198152,-4.9458647816

#### 9-L2

Ni,-0.3988897056,-0.09693511,-0.0374662646  
C,-2.468231569,-0.8496694164,-0.7477275651  
C,-1.1978708512,-1.6757457205,-0.7074021196  
H,-0.860332036,-2.0278666536,-1.6832507429  
H,-1.1864741805,-2.4886941753,0.242410681  
H,-2.552484299,-0.310102865,-1.6981330907  
Si,-4.0788145678,-1.853952389,-0.484128903  
C,-4.2146255439,-3.0964016002,-1.9018315555  
C,-4.0178081621,-2.7742054117,1.1653212826  
C,-5.5721792729,-0.6895170586,-0.5245727617  
H,-4.2039585443,-2.5968183173,-2.8779109012  
H,-5.1465762469,-3.6712941876,-1.8397204638  
H,-3.3839675761,-3.8109124124,-1.8890667948  
H,-3.2015173882,-3.5042264044,1.1923861869  
H,-4.9523952314,-3.3233830184,1.3332575212  
H,-3.8798915551,-2.0964048038,2.015283371  
H,-5.5130257616,0.813243447,2.524281727  
H,-6.5064663528,-1.2417221109,-0.3651853047  
H,-5.6575545895,-0.1802599776,-1.4916282794  
H,-2.4632487093,-0.0623874323,0.584790443  
C,1.2728343145,-0.9793038278,-0.1617686897  
C,2.0570087955,-0.9309953868,-1.3076368509  
C,1.7756102362,-1.7855319383,8.52185379  
C,3.2781095728,-1.5864145609,-1.4398128024  
F,1.6359888956,-0.2142418946,-2.3876072373  
C,2.9901937143,-2.4622062574,7.738181815  
F,1.0676756994,-1.9488307978,2.0053908808  
C,3.7560297622,-2.3562761442,-0.3833559947  
F,4.0054730699,-1.4793812524,-2.5703300537  
F,3.4378477595,-3.2056450109,1.8060806899  
F,4.9372640736,-2.9930044178,-0.4821263416  
C,-0.0700755583,1.7520388424,6.505630059  
N,-0.0376089981,2.2096682485,1.9470291011  
N,1.217721966,2.8973346277,-0.0871986841  
C,1.468082116,3.588006681,2.0034902555  
C,-0.2396259213,1.4329980176,3.1539618082  
C,2.469193925,4.0196439128,7.258635873  
C,1.78553423,3.0079252034,-1.5316313786  
H,1.807147345,4.12449993,2.9375612189

C,-1.544823488,1.3506669003,3.6834494295  
C.879920819.8730697425,3.8100846197  
H.3921587679,5.0076781936.3213487529  
C,-1.0289208835,3.1700720649,-2.2470199354  
C,1.4419997309,3.0556902998,-2.161695903  
C,-1.7200422614.6376093546,4.8769980701  
C,-2.7389140842,2.0582308487,3.0471952764  
C.6433401027.1727299294,4.9994040623  
C,2.3087793217,1.0626202779,3.3009015963  
C,-0.943439465,3.3391263922,-3.6347695428  
C,-2.3874092092,3.2363784074,-1.5508041638  
C,1.4640219045,3.2320985415,-3.5511970092  
C,2.7584105968,2.9796833892,-1.3882131955  
H,-2.7130459812.5518628724,5.3069006721  
C,-0.6401723268.0477048218,5.5245760869  
H,-2.4410689687,2.3995517986,2.0522215074  
C,-3.1353920219,3.3067949238,3.8612721623  
C,-3.9534013491,1.1315913878,2.8677673123  
H,1.4763064178,-0.2829499884,5.5232018333  
H,2.2635672889,1.1429084869,2.2102790854  
C,3.2439601688,-0.1107565748,3.6413425507  
C,2.9180836629,2.3713945538,3.849439298  
H,-1.8516638509,3.4591974045,-4.2158507957  
C.2882625117,3.3663152536,-4.2821279297  
H,-2.3071000884,2.6834938436,-0.610321301  
C,-2.7529229118,4.6964639542,-1.2074327299  
C,-3.5236435957,2.5922302155,-2.3635394527  
H,2.4173740433,3.2623132628,-4.0677660333  
H,2.5594040199,2.474536694,-0.4386059101  
C,3.2911488237,4.3938302236,-1.0711501424  
C,3.8509528163,2.1773292091,-2.1185260435  
H,-0.7960231197,-0.5036563477,6.4477355428  
H,-3.4588802953,3.0338691371,4.8719867463  
H,-3.964281599,3.833949078,3.3753666226  
H,-2.3024973178,4.0105259958,3.9585785323  
H,-3.6865118467.2253280436,2.3173185781  
H,-4.7426974341,1.65103534,2.3131617  
H,-4.3818588729.8248287769,3.8279065691  
H,3.4928284026,-0.1350722133,4.7084378555  
H,4.1884673444.0031249844,3.0990857706  
H,2.8106418852,-1.0747710763,3.3716172946  
H,2.3425435868,3.2540277718,3.5585606248  
H,3.9385407504,2.5027434947,3.4722565965  
H,2.9664994747,2.3478189766,4.9442982509

H.3316528695,3.4983434435,-5.3597010728  
H,-2.008059465,5.1631530753,-0.5562049525  
H,-3.7196625406,4.7407636392,-0.6930280483  
H,-2.8290176058,5.3025561445,-2.1173563186  
H,-3.794593509,3.1924967624,-3.2388524849  
H,-4.4227206537,2.5074712167,-1.7437013048  
H,-3.258676141,1.5906529415,-2.7142989397  
H,3.499411092,4.9458161379,-1.9947798658  
H,4.2251618032,4.3309189255,-0.5015498021  
H,2.5836607629,4.9843602531,-0.4827646849  
H,3.4871705424,1.2091937752,-2.4640328817  
H,4.6960104851,2.0059992629,-1.4430150042  
H,4.2433174193,2.7205515414,-2.9856776262

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Ni,-0.3067008607,-0.2161572776,-0.6374054629  
C,-3.1346055927,-0.6232485475,-1.6259416114  
C,-1.6829858512,-0.2681185406,-1.9339947691  
H,-1.6114767045.5901589367,-2.6128880652  
H,-1.1452532732,-1.1246672045,-2.4134066741  
H,-3.6300281466.2401043219,-1.1604525251  
C,-4.1653735504.2437567413,-4.4387082753  
C,-3.537888801,-2.7306933344,-3.8983614084  
C,-5.980660077,-1.4075929518,-2.5557760371  
H,-4.4709828119,1.2092814891,-4.017996189  
H,-4.8472416025.017450237,-5.2675458924  
H,-3.1647001019.374736305,-4.8661614994  
H,-2.515343224,-2.6134267935,-4.2760692188  
H,-4.1599703811,-3.0511914216,-4.7430582743  
H,-3.5287404401,-3.551850753,-3.1711963025  
H,-6.0406488744,-2.2010844666,-1.801172122  
H,-6.6317758365,-1.6984487513,-3.3892797653  
H,-6.4070246755,-0.5010776212,-2.1097361172  
H,-3.1927893981,-1.4336101704,-0.8855150696  
C,-1.155145248,1.2613373589.1416462058  
C,-1.9722072985,1.1312143578,1.2592499668  
C,-0.9987996089,2.5609574989,-0.326226702  
C,-2.5720853524,2.210113399,1.9030274388  
F,-2.2064597204,-0.0989507431,1.7917431936  
C,-1.5759653093,3.6723395804.2828740258  
F,-0.2323032166,2.8052506007,-1.4239206062  
C,-2.370329131,3.4968627284,1.4121095502  
F,-3.3285984629,2.0250711778,3.0031795657  
F,-1.3622004698,4.9128251273,-0.1976894116

F,-2.9322634882,4.5556936993,2.0220873724  
C,1.4154138017,-0.6561680332.3034100678  
N,2.6775135495,-0.2521633478,-0.049745579  
N,1.6400264101,-1.5264151818,1.3388931677  
C,3.6504628258,-0.8638573193.7316417663  
C,3.0112301325.6364740148,-1.1440126865  
C,2.996673422,-1.6673774512,1.6060887063  
C.6276854692,-2.2720769419,2.0576064961  
H,4.7027944061,-0.6787662205.5878196768  
C,3.2215490417.0797092275,-2.422787544  
C,3.1848063108,2.0127293716,-0.8797206255  
H,3.3651127507,-2.3239503054,2.3776459162  
C.1668228579,-3.4873299674,1.5110776539  
C.1839855358,-1.7884084854,3.3076934107  
C,3.5956529111.9486549334,-3.4564864098  
C,3.0809338585,-1.4122446266,-2.7145526723  
C,3.5615731675,2.8320005515,-1.9507372612  
C,3.0135216688,2.6081398383.5161977328  
C,-0.778007058,-4.2140283532,2.248022604  
C.6698628561,-4.0499409437.1840459494  
C,-0.7564329397,-2.5594813501,4.0012298215  
C.7162697897,-0.4976469256,3.9261230072  
H,3.7611574913.549916099,-4.4527277843  
C,3.7633204508,2.309823377,-3.2256596877  
H,2.7389527386,-1.9067600148,-1.8012882236  
C,4.4364873082,-2.0400324899,-3.0921694832  
C,2.028332628,-1.6873456942,-3.8044930245  
H,3.6958478938,3.8955812394,-1.78536203  
H,2.3625675887,1.9381595415,1.0851818857  
C,2.3425857901,3.9932980139.5030213922  
C,4.3678989778,2.6839669502,1.251864478  
H,-1.1529458324,-5.1528841769,1.8516681474  
C,-1.2368235978,-3.757295039,3.4789480961  
H,1.3609138659,-3.3247622348,-0.2538320306  
C,1.4520495807,-5.361068126.3939058417  
C,-0.4768300772,-4.2506382807,-0.8238462069  
H,-1.122839898,-2.2132704728,4.9618267854  
H,1.1356000772.1104023728,3.118819981  
C,1.8505158096,-0.7955751517,4.928645572  
C,-0.3799884064.3401371937,4.609037001  
H,4.05294731,2.9675260564,-4.0404547278  
H,4.8349430645,-1.6089143839,-4.0170745913  
H,4.3281622132,-3.1191252516,-3.248668286  
H,5.1843170863,-1.888225889,-2.3068461735

H,1.0601026089,-1.2472415679,-3.5456267152  
H,1.8886158286,-2.766550246,-3.9343605573  
H,2.3305538089,-1.2762512744,-4.7736666755  
H,3.0137969417,4.7704040331.1206831628  
H,2.0700017264,4.2821419656,1.523750869  
H,1.4377043253,4.0003453674,-0.1078810602  
H,4.8364436962,1.7003722119,1.3546118893  
H,4.2340585387,3.0967792241,2.2581097125  
H,5.0690066394,3.3328868798.7145664502  
H,-1.9695519571,-4.3357678592,4.0346073988  
H,2.2993477079,-5.2209822265,1.0734669565  
H,1.8433166834,-5.7307528425,-0.5606482293  
H.8144740224,-6.1454045086.8163862428  
H,-1.1936648485,-5.0038898847,-0.4795675109  
H,-0.0819241578,-4.5884581904,-1.7885714889  
H,-1.0286338858,-3.3200686135,-0.989272133  
H,1.4851725587,-1.4091364073,5.7601213829  
H,2.245615087.1362537637,5.3487228903  
H,2.6832384752,-1.3307488791,4.4622400322  
H,-1.2494965772.4769012899,3.9635156887  
H.0156278815,1.3284246954,4.8675124058  
H,-0.7234407393,-0.1194394073,5.5425879437  
Si,-4.1954506861,-1.1261996283,-3.1302341053

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Ni,-0.009791275.0917124574,-0.2026239889  
C,3.0813590796,-0.5850414568.176963139  
C,1.8340150894,-0.4746421366,-0.6928435388  
H,1.9717539157,-0.9288131606,-1.6749015787  
H,1.5985649578.6135336597,-0.891005476  
H,3.3219254009,-1.6428415378.3507272483  
C,4.9146284452,-0.3783483731,-2.3341189274  
C,4.4758918319,2.1158251659,-0.5642416844  
C,6.1199116483,-0.2682193906.5145359393  
H,4.9701955435,-1.4724993287,-2.3817251609  
H,5.851214956.013956387,-2.7485739393  
H,4.1066029172,-0.0611116604,-3.0036527574  
H,3.6634578289,2.4560369181,-1.216543229  
H,5.3980628019,2.5887701752,-0.9237495338  
H,4.2797467055,2.5076184194.4408466981  
H,5.9771049883.0323872091,1.5594590471  
H,7.0483298188.1986591449.164232197  
H,6.2760559887,-1.3536278064.5060559594  
H,2.9033157494,-0.1465960191,1.1655030737

C.5146378273,-1.7101476534,-0.0505685451  
C.6820148159,-2.2440926384,1.2398827902  
C.1876533342,-2.6698462776,-1.0244076624  
C.5119144904,-3.5869369299,1.5477101093  
F.977779096,-1.4141572251,2.2732153253  
C.0094643986,-4.0194595953,-0.7550956568  
F.012828241,-2.2731024443,-2.3119498527  
C.1711411967,-4.4917210284.5451038009  
F.6399830869,-4.018599715,2.8179933681  
F,-0.3385359999,-4.8730631203,-1.7372713317  
F.0049958091,-5.7959086448.8263931522  
C,-1.7094139323.883130271.1348794897  
N,-2.7296367703,1.1051324942,-0.7612590519  
N,-2.1928589256,1.4327142482,1.3001637414  
C,-3.7954422596,1.7789160633,-0.1723124926  
C,-2.710462925.7637844469,-2.1665898742  
C,-3.4573253738,1.9859107883,1.1231130141  
C,-1.4842034889,1.5067802984,2.5584273116  
H,-4.6796614268,2.0499884002,-0.7265914418  
C,-2.2290597272,1.7184530913,-3.086053228  
C,-3.2342763751,-0.4821951857,-2.576388349  
H,-3.9856615346,2.4771285251,1.9243112039  
C,-0.6394065001,2.6106055178,2.7951935162  
C,-1.7070015646.5058572111,3.5294472807  
C,-2.2839458008,1.3955944209,-4.4485749361  
C,-1.668475004,3.0726215708,-2.6599160249  
C,-3.264738966,-0.7503339228,-3.9502588691  
C,-3.7813237359,-1.5016026882,-1.5795968893  
C.0021209393,2.6853100516,4.038824456  
C,-0.3996624297,3.7085213843,1.7622776946  
C,-1.0485435657.6378655519,4.7579372995  
C,-2.6450823551,-0.6735109242,3.2847955652  
H,-1.9198547185,2.1112531669,-5.1796830043  
C,-2.7974971809.1767509122,-4.8785832008  
H,-1.6670244507,3.1114372623,-1.5677104814  
C,-2.5519390878,4.2307318739,-3.1616809502  
C,-0.209847396,3.2512901065,-3.1206213922  
H,-3.6558902345,-1.6999466768,-4.2993509655  
H,-3.2828563339,-1.3228224817,-0.6223110514  
C,-3.485109597,-2.956854837,-1.982727528  
C,-5.2970997325,-1.3091670258,-1.3660793915  
H.6657815768,3.5197347772,4.2456862833  
C,-0.2005088539,1.7126388324,5.0123249433  
H,-1.0277290959,3.4987881555.8926601682

C,-0.8078524154,5.09451529,2.2960575958  
C,1.0630545641,3.7091429744,1.279344772  
H,-1.1958740696,-0.1154535186,5.5246574848  
H,-2.7300541163,-0.8055039731,2.2022486443  
C,-4.056677593,-0.3853768386,3.8366368132  
C,-2.1110375878,-1.9946789515,3.8666775887  
H,-2.8324152415,-0.0542175893,-5.9397184192  
H,-2.588978487,4.2647356294,-4.256278549  
H,-2.1579428672,5.1926067748,-2.8143706747  
H,-3.5810671834,4.1397629122,-2.7979870427  
H.4212203648,2.439404812,-2.7454129107  
H.1962776354,4.1977097367,-2.7458798238  
H,-0.1257759043,3.2659338647,-4.2128397639  
H,-4.0906133335,-3.2774308224,-2.8380262346  
H,-3.7267791943,-3.6291748179,-1.1524196283  
H,-2.4339524365,-3.1030712428,-2.2421245046  
H,-5.5338442488,-0.3095843598,-0.9891082656  
H,-5.6782220205,-2.037227153,-0.6410787231  
H,-5.8457344832,-1.4520809782,-2.30419735  
H.3035821194,1.7900092313,5.9717329227  
H,-1.8540465701,5.1089915373,2.6197176  
H,-0.6864926086,5.8540862991,1.5156438561  
H,-0.1923239588,5.3992190869,3.149470175  
H,1.7566841913,3.933392259,2.0973523179  
H,1.2107699888,4.4659292221.5003093743  
H,1.3366537821,2.7344922341.8629223293  
H,-4.0289114048,-0.2348260285,4.9220312251  
H,-4.7273790717,-1.2277624513,3.632219315  
H,-4.4991295261.5090306315,3.3876138321  
H,-1.0703835376,-2.1717961277,3.5884636683  
H,-2.710811909,-2.8339771837,3.498265313  
H,-2.1732368794,-2.0148579302,4.9606123959  
Si,4.6431783008.2290769772,-0.5613952931

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C,-3.5723433211,-0.4443859455,-0.2776346863  
C,-2.3184046221,-0.1144978517.5666222314  
H,-1.8595993332,-1.0422618706.9221128915  
H,-2.6088005652.4619864612,1.4499960781  
H,-3.2646978044,-1.0056970176,-1.1694538643  
Si,-4.9242289056,-1.4374638774.6244110399  
C,-4.2592883038,-3.1389674561,1.1253217081  
C,-5.4880911659,-0.5051406968,2.1738319263  
C,-6.3878249156,-1.6565436029,-0.5556526428



H,-3.8957361866,-3.7006920718.2566141918  
 H,-5.0405249231,-3.7440266442,1.6016172703  
 H,-3.4296151011,-3.0637638462,1.8380393286  
 H,-4.6802941893,-0.4055529104,2.908460382  
 H,-6.3147633793,-1.0258644347,2.6722854166  
 H,-5.8377009885.5060061897,1.9326929891  
 H,-6.8168765352,-0.6913682868,-0.8498398089  
 H,-7.1905832838,-2.2450499605,-0.0953397894  
 H,-6.0884215847,-2.175035653,-1.4743065715  
 H,-4.0157188971.4910196637,-0.6458127277  
 C,-1.2810245242.6715171735,-0.2031407673  
 C,-1.2529298438,2.0504089248,-0.1944035187  
 C,-0.3250020171.0058452382,-1.0373458273  
 C,-0.379173375,2.8007988613,-1.0104604595  
 F,-2.0736734422,2.7485696573.6247378656  
 C.5713507669.7351105075,-1.8991633414  
 F,-0.6115926307,-1.3033711881,-1.3668855829  
 C.4870457954,2.1596755952,-1.8639628816  
 F,-0.3782499023,4.1440904677,-0.9201223265  
 F,1.0226480637.1786105397,-3.0740801508  
 F,1.2779290454,2.8799574504,-2.6820698901  
 Ni,1.4870970011.1770427813,-0.317187247  
 C,3.1517487013,-0.171963588.5892909886  
 N,4.0385039494,-1.1834147087.3261507595  
 N,3.7369578565.5013501128,1.6308594049  
 C,5.1359063155,-1.1380924137,1.1771701756  
 C,3.8722011223,-2.18416324,-0.7047597392  
 C,4.9461670555,-0.0757388767,2.000378733  
 C,3.1768057396,1.6717237958,2.2680638971  
 H,5.9377456535,-1.8570805603,1.1207100936  
 C,3.177753835,-3.3712480872,-0.3931413333  
 C,4.4464520081,-1.95401996,-1.9721255482  
 H,5.5494083019.3151997121,2.8044014425  
 C,2.3035030331,1.4973383562,3.3615177813  
 C,3.5409238163,2.9469708383,1.7866370463  
 C,3.0700158739,-4.3420536334,-1.3969325641  
 C,2.5432981383,-3.6249693299.9710149639  
 C,4.3120090883,-2.9616921481,-2.9356773402  
 C,5.193539935,-0.6703753237,-2.3237627492  
 C,1.7688771533,2.6485461135,3.9541304653  
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 C,2.0962687777,3.918280406,3.4870804768  
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