

Supporting Information for:

**Nitrogen Reduction by Multimetallic Trans-Uranium Actinide Complexes: A Theoretical
Comparison of Np and Pu to U**

Dipak Panthi, Olajumoke Adeyiga, Naveen K. Dandu and Samuel O. Odoh*

Department of Chemistry, University of Nevada Reno, 1664 N. Virginia Street, Reno, NV
89557-0216

Email Addresses:

dpanthi@unr.edu

oadeyiga@unr.edu

ndandu@unr.edu

sodoh@unr.edu

Relative Spin State Energies Obtained at the PBE/L1 Level

Table S1: Relative energies (kcal/mol) of various spin-states of the optimized complexes. N/A implies we were not able to converge to the lowest HS state. For K₃-Pu-N(N₂)-Pu, the lowest HS state that we obtained was far away in energy from the LS state.

	Rel. Energy	Ground		Rel. Energy	Ground
K ₃ U-N-U	+1.1	HS	K ₃ U-N(N ₂)-U	-1.7	LS
K ₃ -Np-N-Np	-0.7	LS	K ₃ -Np-N(N ₂)-Np	+1.2	HS
K ₃ -Pu-N-Pu	+3.8	HS	K ₃ -Pu-N(N ₂)-Pu	-25.4	N/A
K ₃ -Np-N-Np[NH]	-1.3	LS	K ₃ -Np-N(N ₂)-Np[NH]	+1.9	HS
K ₃ -Pu-N-Pu[NH]	+1.8	HS	K ₃ -Pu-N(N ₂)-Pu[NH]	-1.5	LS
K ₃ -Np-N-Np[CH ₂]	+0.2	HS	K ₃ -Np-N(N ₂)-Np[CH ₂]	+2.2	HS
K ₃ -Pu-N-Pu[CH ₂]	+1.8	HS	K ₃ -Pu-N(N ₂)-Pu[CH ₂]	-11.2	LS

On the Use of Mulliken Spin Densities

There are some shortcomings to using the Mulliken population analysis approach. Most of these shortcomings are however associated with incomplete basis sets. Hirshfeld charges¹ and spins do are not as sensitive to basis sets as their Mulliken counterparts.² The L1 basis sets used in our all-electron calculations with Priroda are rather extended and possess several polarization functions on the various atoms e.g. 6 G functions on the actinides and 3 D functions on oxygen. Crucially, despite their ‘shortcomings’ the Mulliken populations will most likely correctly reproduce the number of electrons involved in the reduction of the actinide centers. It is the Δe that ultimately matters. To illustrate, we considered the truncated K_3U-N-U and $K_3U-N(N_2)-U$ complexes. The obtained results are shown in Table S2.

Table S2: Comparison of Mulliken and Hirshfeld spin densities on the actinide centers obtained from all-electron PBE/L1 calculations and calculations with Stuttgart relativistic effective core pseudopotentials.

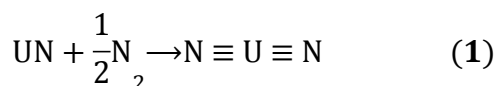
	Gaussian 16: Stuttgart RECP & def2-tzvp		Priroda AE-PBE/L1	
	Mulliken	Hirshfeld	Mulliken	Hirshfeld
K_3U-N-U LS	2.88 & -2.88	2.75 & -2.75	2.87 & -2.87	2.62 & -2.63
K_3U-N-U HS	2.85 & 2.85	2.81 & 2.82	2.81 & 2.81	2.72 & 2.73
$K_3U-N(N_2)-U$ LS	1.24 & -1.23	1.17 & -1.17	1.17 & -1.13	1.10 & -1.04
$K_3U-N(N_2)-U$ HS	1.24 & 1.22	1.15 & 1.16	1.12 & 1.14	1.04 & 1.05
Δe LS	~ 1.64	~ 1.58	~ 1.70	~ 1.52
Δe HS	~ 1.61	~ 1.66	~ 1.69	~ 1.68

To summarize, the Mulliken spin densities are quite close to the Hirshfeld spin densities and yield similar #s of electrons involved in the $N_2 \rightarrow N_2^{4-}$ transformations.

On the Use of the PBE Exchange-Correlation Density Functional

CASSCF/CASPT2 is often used to account for strong correlation effects. We have however used the PBE exchange-correlation density functional to treat the systems of interest because Pure DFT functionals like PBE correct for static correlation effects, in an indirect manner. DFT also accounts for dynamical correlation in efficiently. We therefore expect that DFT will be able to predict the redox reactivities of actinide complexes correctly. We illustrate with three examples:

First, we considered reaction **1** below in which uranium nitride, UN is converted to UN₂.



This reaction involves a three-electron transfer from U to N, U(III) to U(VI). Also this reaction involves N₂ and is therefore a N₂-induced redox transformation just like the K₃U-N-U → K₃U-N(N₂)-U transformation. The results obtained with CASPT2, PBE and CASSCF are presented in Table S3 below. The CASSCF and CASPT2 calculations were performed at the DKH2/ANO-RCC-VTZP level (using the MOLCAS software 8.1 package³) while PBE calculations were performed with L1 basis sets in Priroda. For CASSCF and CASPT2, we used CAS(11/14) for UN and CAS(14/14) for UN₂. CCSDT (*iterative* treatment of singles, doubles and triples) calculations were performed with Stuttgart small-core ECPs and associated valence basis sets, cc-pVTZ basis sets on nitrogen and the MRCC⁴ code while freezing 10/11 core orbitals during the correlation step. The CASPT2 calculations were performed without the IPEA shift (IPEA = 0.0 eV). We note that the use of the IPEA shift has been recently questioned.⁵ The results are presented in Table S3. We also examined the effect of correlating the 5*d* orbitals in the second-order perturbation step.

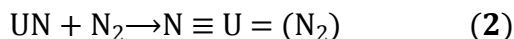
Table S3: Dependence of CASPT2 results for **1** on frozen and correlated orbitals.

	5d orbitals	CASSCF	CASPT2	PBE	CCSDT
CASPT2 with no IPEA shift	Frozen	-25.6	-57.4	-55.3	-55.4
CASPT2 with no IPEA shift	Correlated		-58.8		

CASPT2, PBE and CCSDT are clustered in a range of 3-4 kcal/mol. These results indicate that the PBE exchange-correlation functional is sufficient to study the systems of interest in our manuscript. To perform analogous CASSCF/CASPT2 calculations on the large complexes studied

in this manuscript will require CAS(16/32) for K_3U-N-U and CAS(24/32) for $K_3U-N(N_2)-U$. These calculations are intractable with modern machines. The Np and Pu analogues will require even larger active space sizes.

Second, we considered **2** below in which the uranium nitride, UN is converted to UN_3 .



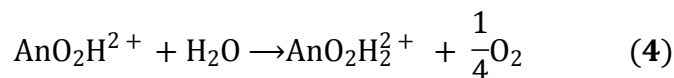
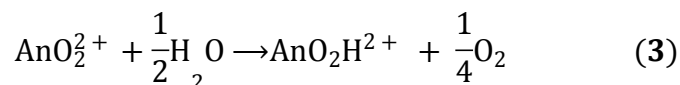
This reaction involves a 2-electron transfer from a U(III) center to N_2 . In UN_3 , U is in the +5 oxidation state (like in $K_3U-N(N_2)-U$) and the overall species is of doublet character. Importantly, this reaction is comparable to one half of the $K_3U-N-U \rightarrow K_3U-N(N_2)-U$ transformation. For UN_3 , we used an active space of 13 electrons in 14 orbitals in the CASSCF and CASPT2 calculations while employing ANO-RCC-VTZP basis sets and the DKH2 Hamiltonian. The PBE calculations were performed with Priroda using L1 basis sets.

Table S4: Calculated energetics (kcal/mol) for **2** using CASSCF, CASPT2 and PBE.

	CASSCF	CASPT2	PBE
2	152.5	-14.5	-11.2

Again, we find that PBE is within 3-4 kcal/mol of the CASPT2 results. CCSDT calculations on UN_3 are beyond the capabilities of our computational resources.

Lastly, we consider the water-induced reduction of actinyl complexes (**3** & **4**). The reaction energies were calculated at the CASPT2, CASSCF, CCSD(T), MC-PDFT and KS-DFT levels. The details of MC-PDFT have been previously provided.⁶ All the calculations were performed with ANO-RCC-TZVP basis sets while using the DKH2 Hamiltonian.



In these reactions, the actinyl (where An = U, Np and Pu) dications are reduced to the +5 oxidation state (**3**) and then to the +4 oxidation state (**4**). We ensured that we converged to the same electronic states for the different species with all the methods. *3 & 4 are redox reactions just as the title reactions in our manuscript are redox reactions.*

Our results are presented below. PBE has a MAD of 3.2 kcal/mol from CASPT2 and performs as well as CCSD(T) and MC-PDFT. Given that the perturbative triples in CCSD(T) ameliorates some of the multireference characters in the complexes, it is actually questionable to use CASPT2 as the reference benchmark. The best we can say is that CASPT2, CCSD(T) and PBE are clustered in a range of 3.2-4.0 kcal/mol. PBE does better than CASSCF. We obtained similar PBE results with the L1 basis sets in Priroda.

Table S5: Deviations (given in kcal/mol) for CASSCF, CCSD(T), MC-PDFT and KS-DFT from CASPT2 for the energetics of the water-induced reduction of actinyl groups (reactions **3** and **4**).

	CASSCF	CCSD(T)	MC-PDFT	KS-DFT				
			ft-PBE	LSDA	BLYP	PBE	B3LYP	PBE0
MSD	7.4	-3.2	-2.7	2.3	-3.0	-0.7	-4.7	-3.2
MAD	7.9	4.0	3.0	3.7	3.4	3.2	4.7	3.4

As such, we have used PBE in our studies of the bis-actinide nitride complexes

Plutonium-NH Species

Reactant:

Reactant -LS

94	1.635745310	-0.478219290	-1.160842660
94	-1.690437950	0.403501610	1.108562070
19	0.511630590	-2.555215240	1.739361890
19	1.287613630	2.761603760	0.792558030
19	-1.650308810	0.430007560	-2.701739460
14	0.185671690	-1.993826470	-4.531907850
14	3.837646140	-3.273469180	0.660890860
14	3.262836300	3.049010980	-1.870454980
14	-0.382008090	2.887484060	3.896513140
14	-4.007014520	2.568669740	-1.132262090
7	0.849099450	-1.051182200	-3.253485770
8	-1.325812340	-1.288917800	-4.887846230
8	0.005745340	-3.625878800	-4.233590500
8	1.027736640	-1.904341180	-5.976062080
7	2.731731990	-2.319962120	-0.250002780
8	3.166948700	-3.356572390	2.223821130
8	3.940003520	-4.872041470	0.167239740
8	5.434118600	-2.767604730	0.746286480
7	2.932051450	1.468447980	-1.282995620
8	4.150034010	4.020850280	-0.810460470
8	1.743749210	3.790034960	-1.867722940
8	4.078939710	3.201670320	-3.326620470
7	-2.240928600	-1.440944750	2.422111720
8	-1.720817360	-4.099008820	2.269817470
8	-4.395946800	-3.407698490	2.519141890
7	-1.026269090	2.101975760	2.507880560
8	0.241517150	1.869425170	5.061319170
8	-1.424998050	3.900434200	4.723195660
8	0.823276930	3.929120440	3.290496460
7	-3.345971290	1.195997260	-0.342038440
8	-5.670746460	2.815271940	-1.103825860
8	-3.321588950	3.993671750	-0.588069770
8	-3.510407120	2.451658510	-2.762563300
7	-0.020471930	-0.079286150	-0.006493460
6	-2.156248510	-1.445520100	-6.078303430
6	-1.667007270	-0.453052720	-7.140811030
1	-2.288196480	-0.513588580	-8.049628890
1	-1.715523180	0.579440810	-6.757543430
1	-0.621724200	-0.676935150	-7.402118000
6	-3.585249490	-1.108711390	-5.634477760
1	-4.285510730	-1.174860670	-6.483255020
1	-3.921620080	-1.810165150	-4.852962900
1	-3.641008720	-0.083698770	-5.232017200
6	-2.114710000	-2.876655330	-6.627307530
1	-2.777271630	-2.956575330	-7.504917810
1	-1.094737170	-3.149627270	-6.933060120
1	-2.455230880	-3.597164690	-5.869006850
6	-0.540195960	-4.417765530	-3.153771790
6	-1.414421420	-3.580153410	-2.216856770
1	-1.822505460	-4.207630700	-1.408423390
1	-0.833261710	-2.763939470	-1.750849430
1	-2.263803410	-3.141241160	-2.767091590
6	-1.372853820	-5.531721420	-3.804781290
1	-1.750076240	-6.230552350	-3.040283950
1	-2.236883350	-5.110291690	-4.342111940
1	-0.758095980	-6.096193230	-4.523443640
6	0.639814600	-5.032683080	-2.392208710
1	0.291763220	-5.714464890	-1.599256880
1	1.278017140	-5.601166900	-3.086768250
1	1.245081660	-4.242549340	-1.920395380
6	2.203858590	-2.622204540	-6.430196030
6	1.752578720	-3.929222650	-7.098013860
1	2.621574750	-4.497265970	-7.468576880
1	1.204282050	-4.548655180	-6.371995920
1	1.090524860	-3.714022200	-7.952181580
6	3.165087520	-2.920660230	-5.273109240

1	4.065950810	-3.432481640	-5.649489200
1	3.475151040	-1.992223640	-4.768168980
1	2.680175740	-3.572244060	-4.529832780
6	2.874804060	-1.700800470	-7.456477100
1	3.765253200	-2.181526230	-7.891854460
1	2.170994180	-1.460876360	-8.269419980
1	3.182530480	-0.757945380	-6.976575460
6	3.617387840	-4.142949710	3.370387310
6	2.894675270	-3.548179210	4.584705290
1	3.161485520	-4.093673700	5.504607820
1	3.172690980	-2.489937030	4.716111210
1	1.800165710	-3.613295430	4.464479200
6	3.208975800	-5.608734600	3.174057600
1	3.516094210	-6.214592340	4.042426290
1	2.116272710	-5.697135290	3.065855090
1	3.674535230	-6.012231520	2.263693020
6	5.133723580	-4.039508940	3.579307760
1	5.419160530	-4.598487670	4.485854090
1	5.686672590	-4.451950400	2.723429250
1	5.437067760	-2.989046880	3.710823010
6	4.799888190	-5.543551980	-0.786164170
6	4.102700550	-6.875237600	-1.092924820
1	4.691445500	-7.468860460	-1.810456600
1	3.980329360	-7.462442550	-0.168631000
1	3.103304210	-6.692299960	-1.518657690
6	6.171992010	-5.795293940	-0.144751770
1	6.832114410	-6.337971330	-0.841128550
1	6.641119400	-4.837974530	0.125563760
1	6.058385830	-6.402778890	0.767853150
6	4.948640390	-4.716933140	-2.069989020
1	5.581480150	-5.249185890	-2.798741660
1	3.965533860	-4.541466150	-2.534690470
1	5.414467720	-3.742788210	-1.854090010
6	6.059204700	-1.465410010	0.727859120
6	7.455800840	-1.663490160	1.334910920
1	8.021860730	-0.718099510	1.321744560
1	7.378295910	-2.011098060	2.376925830
1	8.016799420	-2.415598810	0.758136140
6	6.182613260	-1.002798440	-0.729815370
1	6.678063540	-0.021179790	-0.794946280
1	6.776133290	-1.729340940	-1.307424360
1	5.183017110	-0.929669660	-1.190580610
6	5.259285460	-0.459850030	1.564844910
1	5.766541600	0.519538110	1.587472780
1	4.247182380	-0.317305640	1.147823350
1	5.160103140	-0.817943220	2.602648720
6	5.577343730	4.240506260	-0.679041230
6	6.349449590	2.925826170	-0.841266490
1	7.430218670	3.089238960	-0.697149180
1	6.008488800	2.193098110	-0.092014950
1	6.193066680	2.507310510	-1.848278590
6	5.784336680	4.797695330	0.734439530
1	5.201741450	5.722833270	0.870265550
1	5.452929690	4.065192340	1.488208100
1	6.847910790	5.026049720	0.912535560
6	6.032833400	5.265636360	-1.727201380
1	5.496245870	6.218348500	-1.586198670
1	7.113352140	5.463360200	-1.632328800
1	5.824038270	4.887083080	-2.738932460
6	1.386313170	5.182659440	-2.109800110
6	1.418434070	5.934882650	-0.771343210
1	1.170362290	6.999689450	-0.914734500
1	0.677818220	5.519454230	-0.067143590
1	2.425118650	5.866877450	-0.329182700
6	2.327917210	5.865125140	-3.109569840
1	1.981797190	6.894960040	-3.297182370
1	3.356421640	5.909362070	-2.721962180
1	2.341900780	5.324287120	-4.067443980
6	-0.038495470	5.148834250	-2.670123280
1	-0.416605490	6.171520530	-2.835116280

1	-0.049172800	4.617510900	-3.635476950	1	-3.909333520	2.087537660	6.206642640
1	-0.722159010	4.629770020	-1.978110280	1	-3.602992330	2.291648620	4.454965800
6	3.957964840	2.466079150	-4.570695890	6	-1.731836980	3.556018080	7.109717240
6	4.691009040	3.315299920	-5.617847600	1	-1.256710630	4.524638670	7.334172630
1	4.653650880	2.830765500	-6.606646380	1	-2.465492520	3.339573230	7.903499550
1	4.226543960	4.310968750	-5.697048740	1	-0.958297730	2.773421070	7.113403640
1	5.746519910	3.445756110	-5.331289080	6	-3.419698730	4.765970760	5.684815260
6	2.484908810	2.297223450	-4.962621380	1	-2.899975830	5.721670210	5.859007850
1	2.390281310	1.722590100	-5.899052290	1	-3.902510740	4.807837350	4.696216110
1	1.934569560	1.762129370	-4.170427280	1	-4.198975070	4.644592540	6.454066140
1	2.005909830	3.278518240	-5.107713280	6	1.440111560	5.098995530	3.909982730
6	4.642868080	1.101517560	-4.423728710	6	1.689123230	4.882437490	5.407233830
1	4.622875550	0.551082330	-5.378304210	1	2.187300220	5.767880730	5.835520550
1	5.694741620	1.234147010	-4.122661640	1	0.741812460	4.720731700	5.941217730
1	4.132502980	0.495438680	-3.657127450	1	2.336699860	4.007559430	5.572949200
6	-5.220534420	-3.138150980	1.363941630	6	0.524013000	6.307969750	3.682928600
6	-6.314423490	-4.215680560	1.370970570	1	0.968483740	7.220775500	4.113339640
1	-7.015002500	-4.062954560	0.534158540	1	0.369890640	6.474616540	2.603754080
1	-5.869319280	-5.218480750	1.276531990	1	-0.454891900	6.127672790	4.152367670
1	-6.881534220	-4.174838590	2.314287470	6	2.775695380	5.294149640	3.184264050
6	-5.848640400	-1.749347910	1.522563570	1	3.309888880	6.174578870	3.577825860
1	-6.511508390	-1.518824230	0.673538040	1	3.422274750	4.411240570	3.320353510
1	-6.442587230	-1.701846910	2.449600320	1	2.616166450	5.451486820	2.104577710
1	-5.057127920	-0.983191350	1.575841250	6	-6.820455470	1.953587920	-0.941459960
6	-4.405386140	-3.218791380	0.068409050	6	-6.656512090	0.638153690	-1.716189600
1	-5.051221010	-3.043151970	-0.808755150	1	-7.577589710	0.036403830	-1.647844320
1	-3.600265880	-2.463322400	0.066999700	1	-6.450574610	0.836146510	-2.779422330
1	-3.945680740	-4.214641450	-0.037284020	1	-5.829084580	0.034315570	-1.310653830
6	-1.621559060	-5.535078980	2.515532620	6	-7.039837460	1.679513370	0.553014950
6	-0.770453010	-6.091261200	1.367238190	1	-7.906393180	1.015755670	0.704904020
1	-1.262348380	-5.897212450	0.400744540	1	-6.151472970	1.202313220	0.994459220
1	0.230943220	-5.629773560	1.346798830	1	-7.231612260	2.622628840	1.088504680
1	-0.632438730	-7.179482960	1.475492600	6	-8.012537430	2.741941850	-1.503565490
6	-2.995512520	-6.217628340	2.509979420	1	-8.950238570	2.180202380	-1.365837040
1	-3.508722260	-6.051401870	1.550339580	1	-8.102590790	3.708972020	-0.984800970
1	-2.867220140	-7.303496420	2.651505730	1	-7.878759150	2.936899260	-2.579581500
1	-3.637541960	-5.832702080	3.315280950	6	-3.750781500	4.947778640	0.418139710
6	-0.924910550	-5.764536150	3.863274640	6	-2.492460130	5.737698530	0.796288450
1	-0.807699790	-6.842691610	4.061978830	1	-2.729028690	6.521676860	1.534343850
1	0.078541870	-5.308840650	3.866026240	1	-1.736424270	5.070649260	1.242670770
1	-1.511006210	-5.305148440	4.672307690	1	-2.058649930	6.213609110	-0.097285450
6	-3.700466590	-2.975443280	5.638888290	6	-4.329395090	4.248555480	1.652628390
6	-4.758955960	-4.087350970	5.676139580	1	-4.599419180	4.996011630	2.416192090
1	-5.472061150	-3.918665710	6.499726390	1	-5.230862190	3.677398590	1.388639080
1	-5.307220850	-4.113784160	4.722967280	1	-3.597631240	3.553606070	2.093752140
1	-4.275276230	-5.065282420	5.832585010	6	-4.800916080	5.892884580	-0.186138240
6	-2.873161520	-2.982227260	6.930627920	1	-5.128271950	6.629625550	0.565652260
1	-3.512201540	-2.788387910	7.806942440	1	-4.380984980	6.439154960	-1.044893580
1	-2.382359310	-3.959796160	7.063735280	1	-5.675739200	5.316196950	-0.522669080
1	-2.089492210	-2.208886580	6.884474450	6	-3.834139160	3.273232880	-3.924173890
6	-4.366043280	-1.606207130	5.446535120	6	-3.954974210	4.757825760	-3.567532080
1	-5.066215370	-1.399728670	6.272371940	1	-4.127883340	5.346172310	-4.484400150
1	-3.610341060	-0.804260830	5.433141550	1	-4.799651370	4.927426280	-2.884484390
1	-4.930355610	-1.577361290	4.501039080	1	-3.035949140	5.118708070	-3.082783650
6	1.136860560	0.735830880	5.071299090	6	-2.676744380	3.070729820	-4.910148330
6	0.286758340	-0.523295360	5.275329340	1	-2.837837390	3.656086740	-5.830186900
1	0.922033290	-1.418331810	5.373983860	1	-1.726032130	3.395217790	-4.457973980
1	-0.312768980	-0.426820070	6.194767090	1	-2.590018050	2.011082830	-5.203626480
1	-0.402248750	-0.671527560	4.426944090	6	-5.146199070	2.775348510	-4.542720930
6	1.949578890	0.637216140	3.775398630	1	-5.369362550	3.325575250	-5.472099420
1	2.554426930	1.548019380	3.627385670	1	-5.080798590	1.702237630	-4.786700710
1	2.637372600	-0.223429360	3.814281240	1	-5.978095670	2.929248020	-3.839795260
1	1.282204260	0.501998290	2.904300840	14	-2.823026530	-2.982173340	2.921633010
6	2.075181890	0.937176920	6.269803450	8	-2.756513450	-3.250919380	4.576164360
1	2.687147590	1.843309490	6.136017610	1	1.372919080	-0.284214270	-3.728161910
1	1.490107690	1.048125870	7.196325520	1	3.840520990	1.023545060	-1.045779670
1	2.752563670	0.074907730	6.384091070	1	-3.973634180	0.374609690	-0.420645290
6	-2.420183620	3.604326080	5.738113890	1	2.608979120	-2.835170950	-1.147688600
6	-3.130102730	2.275941280	5.449842210	1	-2.479602560	-0.801885900	3.211242900
1	-2.409167460	1.443439190	5.477568410	1	-1.631772460	2.808660350	2.034383350

Reactant –HS

94	1.761410260	-0.660350840	-1.171231740
94	-1.682293490	0.438596490	0.991855600
19	0.596480970	-2.398177800	1.993561320
19	1.525820870	2.529453150	0.876499430
19	-1.077420130	1.045982930	-2.767937050
14	-0.018564680	-1.816082690	-4.550991410
14	3.827004000	-3.431990940	0.920991040
14	3.411793760	2.870788590	-1.839595900
14	-0.375975100	2.905089790	3.831199530
14	-3.912531500	2.609103600	-1.363435830
7	0.951597360	-0.984160180	-3.403552770
8	-1.597941170	-1.256338050	-4.271487280
8	0.004518840	-3.498264200	-4.543060500
8	0.293406560	-1.427174360	-6.153426450
7	2.686794690	-2.594937150	-0.048463940
8	3.172569270	-3.456306680	2.501770490
8	4.020030100	-5.051514370	0.532266990
8	5.389988600	-2.822080420	0.992710260
7	3.157716400	1.282332020	-1.259213300
8	4.235755700	3.896313360	-0.773059490
8	1.850808720	3.535393460	-1.861799640
8	4.237965070	3.080604590	-3.285575700
7	-2.190873300	-1.408317930	2.436040100
8	-1.554732720	-4.046737970	2.391123050
8	-4.255311200	-3.461626260	2.242855190
7	-0.994791300	2.202000450	2.393647790
8	0.099568870	1.808414550	5.000031290
8	-1.380392920	3.965636170	4.648912310
8	0.934490140	3.869201590	3.317991780
7	-3.235975360	1.193240820	-0.680744910
8	-5.578188400	2.850384980	-1.355969860
8	-3.231807450	3.974898170	-0.669009790
8	-3.381450870	2.640277020	-2.991608390
7	0.150911310	0.034006920	-0.005196530
6	-2.823520530	-1.527534660	-5.015779070
6	-2.833335810	-0.678906390	-6.294031530
1	-3.763486610	-0.844488650	-6.862599160
1	-2.771564150	0.392767370	-6.045881530
1	-1.969256480	-0.934063160	-6.924314960
6	-3.963206190	-1.105432210	-4.082099470
1	-4.942520880	-1.254691530	-4.566277720
1	-3.938479400	-1.704865100	-3.156563760
1	-3.873542450	-0.040001350	-3.812615460
6	-2.970342010	-3.012309580	-5.372691900
1	-3.930551150	-3.170972470	-5.890999560
1	-2.155940300	-3.351037200	-6.029053160
1	-2.962081000	-3.633701850	-4.464095930
6	0.114334990	-4.450381440	-3.463023250
6	-0.657058060	-3.983670450	-2.222976000
1	-0.580308520	-4.729071030	-1.414481310
1	-0.264361510	-3.023463010	-1.844466140
1	-1.722292870	-3.837648730	-2.459858280
6	-0.484820720	-5.761887860	-3.991660430
1	-0.391031970	-6.562705870	-3.240201580
1	-1.551165250	-5.631236480	-4.232561990
1	0.042340070	-6.076659000	-4.906010840
6	1.600161920	-4.650006270	-3.139559400
1	1.732651960	-5.367975680	-2.313212010
1	2.134450130	-5.034693660	-4.023296140
1	2.056222400	-3.687201430	-2.854136620
6	1.229283130	-1.976080700	-7.110194640
6	0.643369050	-3.261325440	-7.712873830
1	1.322833180	-3.681045700	-8.472792330
1	0.482598100	-4.006033450	-6.919642670
1	-0.323983480	-3.045119740	-8.194590010
6	2.588254620	-2.261202410	-6.455680120
1	3.300704950	-2.651557930	-7.200598700
1	3.013215980	-1.338931610	-6.026122070

1	2.484073980	-3.007692450	-5.652658880
6	1.381547760	-0.900708820	-8.193902330
1	2.074068150	-1.233072910	-8.983766840
1	0.403899020	-0.681482810	-8.651941850
1	1.768674770	0.032406700	-7.752682790
6	3.656473130	-4.155644050	3.689674980
6	2.916719710	-3.517324040	4.871536250
1	3.195170650	-4.006440230	5.819313620
1	3.167026210	-2.446485180	4.949718950
1	1.825082710	-3.619255140	4.750941730
6	3.301715300	-5.644838190	3.586435920
1	3.654278250	-6.188359350	4.478512500
1	2.211114330	-5.779641800	3.512083410
1	3.761704170	-6.079606910	2.687745580
6	5.168468260	-3.982159170	3.883999280
1	5.477872230	-4.469394400	4.823605550
1	5.734291580	-4.428635570	3.054302690
1	5.432868450	-2.914663850	3.945105150
6	4.960901470	-5.741022210	-0.327271180
6	4.312129140	-7.097198010	-0.634441490
1	4.972368220	-7.712811200	-1.265837560
1	4.109738120	-7.643410550	0.300692040
1	3.355641350	-6.952443430	-1.161883410
6	6.280815170	-5.942225710	0.431626500
1	7.002840450	-6.500938340	-0.186250130
1	6.714360090	-4.965379470	0.692872410
1	6.104999810	-6.512317840	1.358152600
6	5.206629980	-4.964932370	-1.627558600
1	5.894687110	-5.525365100	-2.281335780
1	4.262805280	-4.807024760	-2.171068950
1	5.653799350	-3.983244050	-1.411363670
6	5.928703350	-1.490554250	0.882602910
6	7.320904180	-1.541023110	1.528943880
1	7.823844980	-0.563593120	1.447381480
1	7.242546730	-1.806853100	2.594743910
1	7.943710000	-2.297849110	1.026804110
6	6.057352290	-1.133899880	-0.604860090
1	6.458199660	-0.116185780	-0.739701380
1	6.738938920	-1.840180840	-1.105041630
1	5.073988960	-1.204123390	-1.099592920
6	5.045149150	-0.481029460	1.626857440
1	5.476325250	0.533081830	1.574046460
1	4.031132220	-0.446151670	1.192030590
1	4.956453290	-0.763667590	2.688407560
6	5.652606930	4.173396700	-0.627534740
6	6.481273900	2.891602540	-0.778239660
1	7.552771140	3.100838110	-0.624394800
1	6.166240830	2.147220870	-0.028584960
1	6.352984070	2.463831440	-1.785335460
6	5.825099680	4.742047980	0.785677910
1	5.208433730	5.645951420	0.913241010
1	5.514350000	4.000899080	1.539997970
1	6.877853770	5.009946010	0.972875620
6	6.079066810	5.213433800	-1.673524560
1	5.509351200	6.147221300	-1.536966290
1	7.151370950	5.448765260	-1.571263000
1	5.890488750	4.826896780	-2.686105320
6	1.447500020	4.920844610	-2.079695490
6	1.418445460	5.642571430	-0.724504080
1	1.124674300	6.697650930	-0.850351880
1	0.683528330	5.177390040	-0.046298730
1	2.418378530	5.610403750	-0.263634890
6	2.382233790	5.662113610	-3.043504650
1	2.000116140	6.681999480	-3.214611560
1	3.399531370	5.735934400	-2.632820000
1	2.437550090	5.145503130	-4.013271210
6	0.039205230	4.849911860	-2.674953810
1	-0.359959020	5.861893540	-2.856789730
1	0.072038700	4.319586890	-3.640415980
1	-0.658328540	4.328507040	-1.997992000

6	4.178447720	2.344252260	-4.532609630	6	-1.809704310	3.599676320	7.012567210
6	4.927072310	3.213753830	-5.552016820	1	-1.286762890	4.533783430	7.274036770
1	4.942713790	2.728845480	-6.541315820	1	-2.588282090	3.416332810	7.71195990
1	4.437564520	4.195781600	-5.650187580	1	-1.085962950	2.771171230	7.034703120
1	5.966226940	3.375169280	-5.224380600	6	-3.361413850	4.930000890	5.541762700
6	2.725249320	2.141121400	-4.976759710	1	-2.796270890	5.849857240	5.761177430
1	2.682059700	1.607332380	-5.940866270	1	-3.793097180	5.019784190	4.532982140
1	2.167214790	1.547025640	-4.234218770	1	-4.182320770	4.839825100	6.270914930
1	2.218506980	3.111512400	-5.099692000	6	1.549051230	5.036409010	3.941157880
6	4.889915410	0.994665390	-4.367195650	6	1.712536380	4.848024400	5.453677370
1	4.904061940	0.440830920	-5.320370080	1	2.206509240	5.730558880	5.892747530
1	5.931901310	1.150392210	-4.043468080	1	0.733431100	4.716331810	5.935946750
1	4.377326340	0.381994290	-3.608075420	1	2.331569640	3.963543330	5.671077510
6	-4.870094190	-3.256069180	0.952761640	6	0.682656350	6.265552780	3.637807650
6	-5.909580260	-4.376232820	0.800613120	1	1.136510110	7.177247450	4.060678700
1	-6.457856280	-4.271663000	-0.149683960	1	0.582690680	6.402023420	2.548003550
1	-5.419934320	-5.362467060	0.816187170	1	-0.321178370	6.129952410	4.067683680
1	-6.633411630	-4.335332110	1.629651750	6	2.924430060	5.176246930	3.280471610
6	-5.566046700	-1.890553320	0.949746570	1	3.464050550	6.052399600	3.676237580
1	-6.083032880	-1.714047080	-0.007302270	1	3.538104050	4.279943280	3.472313930
1	-6.309596300	-1.839687500	1.761288180	1	2.820604730	5.305562420	2.190363630
1	-4.825895590	-1.088148560	1.103906080	6	-6.721884330	1.980856000	-1.175227610
6	-3.837085660	-3.339432580	-0.177553290	6	-6.602121570	0.715211390	-2.034298970
1	-4.327284900	-3.217903320	-1.158305580	1	-7.513172960	0.101432870	-1.941611240
1	-3.072452450	-2.550856690	-0.071742720	1	-6.465460330	0.974873070	-3.094851690
1	-3.324889720	-4.314501220	-0.165726780	1	-5.746133730	0.102079320	-1.713092330
6	-1.423356680	-5.471499640	2.679272900	6	-6.862080140	1.607932700	0.306821960
6	-0.436603190	-6.015193920	1.638270990	1	-7.713904980	0.924621800	0.454756400
1	-0.836661850	-5.868971340	0.621841450	1	-5.946977790	1.111481670	0.664753180
1	0.541006010	-5.509467870	1.704878850	1	-7.036302260	2.508716730	0.915946850
1	-0.264132910	-7.093246820	1.790343270	6	-7.938302230	2.803319660	-1.623978170
6	-2.760667520	-6.213071210	2.555868710	1	-8.868510910	2.231297030	-1.478311980
1	-3.179571310	-6.097199870	1.544667730	1	-8.003015640	3.733480230	-1.038224620
1	-2.603683060	-7.287791650	2.745573950	1	-7.856232000	3.069432940	-2.689897690
1	-3.496148950	-5.833103150	3.279670940	6	-3.706610830	4.898922420	0.344696940
6	-0.860621210	-5.635345470	4.097426930	6	-2.478626330	5.720786300	0.753761390
1	-0.711047040	-6.700969610	4.337928100	1	-2.749233580	6.486888320	1.498688320
1	0.112559320	-5.126339960	4.189552110	1	-1.706656030	5.073833230	1.202099420
1	-1.551430480	-5.189555550	4.828002560	1	-2.046811930	6.221634590	-0.127251890
6	-4.032623280	-2.930612590	5.427169840	6	-4.273181150	4.148435290	1.553941130
6	-5.070346240	-4.059458330	5.343545000	1	-4.587113930	4.863131870	2.331829270
1	-5.898613420	-3.881438800	6.048919500	1	-5.145929450	3.547982200	1.260887750
1	-5.472358380	-4.122107790	4.321525720	1	-3.517970840	3.474859960	1.989505030
1	-4.600507060	-5.023491770	5.597533390	6	-4.778396870	5.828167250	-0.245580430
6	-3.399612990	-2.887468410	6.823816860	1	-5.136492600	6.530756310	0.524584980
1	-4.160369160	-2.682010350	7.593894680	1	-4.365021930	6.414484700	-1.080780740
1	-2.918269760	-3.851510940	7.054081810	1	-5.630242360	5.236099890	-0.611811590
1	-2.629202640	-2.100481070	6.867754390	6	-3.769441510	3.490505230	-4.111947840
6	-4.683891360	-1.578698250	5.102691450	6	-3.942597650	4.950276820	-3.681748960
1	-5.501385890	-1.367163630	5.811125960	1	-4.149971740	5.579990260	-4.563467450
1	-3.947836800	-0.761633730	5.180470160	1	-4.782815920	5.051477450	-2.979998910
1	-5.103236170	-1.583196040	4.084043970	1	-3.029665660	5.321679410	-3.191121000
6	0.997717980	0.684513540	5.075524810	6	-2.630922710	3.381293790	-5.133460460
6	0.144981430	-0.568410210	5.309404590	1	-2.863715800	3.956954400	-6.043947580
1	0.779839270	-1.455531350	5.466737410	1	-1.693842850	3.776763990	-4.710724760
1	-0.479330680	-0.434873470	6.207574820	1	-2.474117370	2.331068520	-5.430820080
1	-0.525806760	-0.758452390	4.454398870	6	-5.073433040	2.966711020	-4.727152400
6	1.837502220	0.536071090	3.801039790	1	-5.342339940	3.556842650	-5.619106450
1	2.480229040	1.421318180	3.657537950	1	-4.965119070	1.912881540	-5.031575330
1	2.492229120	-0.348588300	3.867804360	1	-5.891769550	3.045412480	-3.997161220
1	1.183026810	0.424209100	2.916555110	14	-2.776327590	-2.964717270	2.869081810
6	1.914975490	0.924228160	6.283806680	8	-2.942996690	-3.219624780	4.519250940
1	2.526653040	1.827741910	6.134123320	1	1.815051280	-0.716630570	-3.907360990
1	1.313062770	1.061616940	7.195661280	1	4.085481700	0.879919380	-1.042373580
1	2.592251930	0.067664770	6.437419750	1	-3.661742150	0.357544970	-1.115828540
6	-2.433922610	3.710736510	5.614039340	1	2.262253410	-3.325848950	-0.647488990
6	-3.208381570	2.430587530	5.273544850	1	-2.498650970	-0.792263120	3.211926870
1	-2.539050340	1.556633230	5.315805520	1	-1.404874560	2.993305200	1.859606230
1	-4.027113890	2.277570180	5.995872540				
1	-3.639329440	2.492177180	4.262019830				

Product

Product - LS

94	0.074987500	-0.036578500	-1.876524450
94	-0.017739910	0.182994130	1.688738170
14	-2.920450940	-2.222551190	-3.022790020
14	3.650066240	0.418748130	3.285969260
7	-2.020765350	-0.878034950	-2.482885200
8	-4.254431410	-2.568506510	-2.022276650
8	-3.521355470	-2.258304060	-4.586224600
8	-1.912081290	-3.534378590	-2.689640920
7	2.107125270	0.004158920	2.673511570
8	4.781966210	-0.334382450	2.246653120
8	4.017409600	-0.211341420	4.794603740
8	3.984033460	2.051499230	3.426249390
6	-5.599697870	-2.028918980	-2.037264730
6	-6.199758890	-2.371469000	-0.668076500
1	-6.179065350	-3.461102790	-0.505015210
1	-7.246054210	-2.031196200	-0.601244720
1	-5.627783310	-1.886138860	0.140727040
6	-5.578618620	-0.506354950	-2.231951560
1	-4.963788430	-0.026614470	-1.452065050
1	-6.599028720	-0.092343620	-2.171070570
1	-5.164666360	-0.243418750	-3.218534300
6	-6.409790330	-2.707837760	-3.150833330
1	-5.938377150	-2.521965110	-4.127341260
1	-7.444301330	-2.326851830	-3.168370380
1	-6.443103030	-3.796903450	-2.984262500
6	-3.129577330	-1.539603770	-5.788694080
6	-3.645956330	-0.098074980	-5.703256310
1	-4.737298080	-0.087065930	-5.549076810
1	-3.422763840	0.447151490	-6.634706030
1	-3.155572640	0.430542920	-4.870345650
6	-1.608548080	-1.543815370	-5.974758260
1	-1.113981900	-1.061576870	-5.116019490
1	-1.336233280	-0.989880040	-6.887829500
1	-1.227724650	-2.571752600	-6.067655650
6	-3.815374850	-2.282091700	-6.942562570
1	-3.468889870	-3.327007000	-6.985475570
1	-3.586926800	-1.797715880	-7.905233360
1	-4.907971570	-2.285855320	-6.801560340
6	-2.010790480	-4.923956970	-3.109410180
6	-3.464600280	-5.410767220	-3.160456200
1	-3.955182790	-5.284480070	-2.183099990
1	-3.491320930	-6.479095280	-3.432644580
1	-4.040152110	-4.846769700	-3.911231850
6	-1.355890440	-5.074611560	-4.488119460
1	-1.923731030	-4.509451350	-5.241906270
1	-1.332184420	-6.133984340	-4.792631290
1	-0.321186900	-4.696657810	-4.464920450
6	-1.223962890	-5.727204230	-2.067240600
1	-0.191904980	-5.349590770	-1.990568700
1	-1.187200600	-6.793554470	-2.342606750
1	-1.700959900	-5.647262110	-1.076938750
6	6.179577370	-0.668704230	2.495218640
6	6.813462580	-0.880977200	1.114766010
1	6.298932440	-1.689025130	0.566241880
1	7.873747490	-1.166842380	1.211259370
1	6.760079350	0.042128370	0.514945450
6	6.236213180	-1.969240710	3.307979870
1	5.720610080	-1.829483560	4.269508230
1	7.280805100	-2.269118220	3.494825520
1	5.735541480	-2.785330990	2.759948330
6	6.908007390	0.464081330	3.229492240
1	6.848483340	1.400814160	2.653120380
1	7.971391430	0.204627370	3.362902370
1	6.461621010	0.635927860	4.219363120
6	3.673186900	0.265509410	6.120420010
6	3.697520950	-0.975949010	7.021135340
1	2.944427330	-1.705962480	6.684424360
1	3.482004760	-0.703897690	8.066820100
1	4.688646000	-1.455620560	6.980556570

6	4.736851090	1.276469900	6.572724890
1	5.731041360	0.801461860	6.593710850
1	4.511611770	1.650673000	7.584927550
1	4.765146870	2.126132460	5.874191740
6	2.280114920	0.907562730	6.143233190
1	2.249838300	1.793207090	5.489102940
1	2.024380190	1.220968050	7.168644340
1	1.519514280	0.192691350	5.794498620
6	3.803849610	3.214905360	2.594793350
6	4.937783240	4.178624100	2.975038570
1	4.892740650	4.412180500	4.050386060
1	4.858828590	5.120352280	2.407766600
1	5.916786290	3.721588340	2.760314270
6	2.444861750	3.849732420	2.918072430
1	1.625656970	3.174120700	2.625868680
1	2.319351690	4.801089310	2.373729950
1	2.365358320	4.056857290	3.997067520
6	3.889565980	2.857834250	1.108914980
1	4.850665860	2.368274980	0.888650860
1	3.815972660	3.765716510	0.487827210
1	3.065749230	2.183993080	0.818029120
7	0.373289830	-0.998814850	-0.004978550
7	0.160710270	1.922682180	0.065028550
7	-0.898230880	1.541563100	-0.373667330
14	3.214503820	-1.546902940	-3.356878310
14	-2.284519930	2.964573920	3.545926650
7	1.538161770	-1.384914570	-3.134396300
8	4.014408090	-2.588767720	-2.258512260
8	3.780570000	-2.017243850	-4.867369560
8	3.840299650	-0.057570690	-2.867738360
7	-1.044989460	1.944478500	2.965381230
8	-2.291691430	4.423659990	2.627627690
8	-2.086756020	3.532712290	5.113113880
8	-3.821699570	2.298987370	3.538064870
6	4.195793940	-4.026973570	-2.296605370
6	4.602738140	-4.433522420	-0.873647880
1	5.500354120	-3.875977900	-0.558407200
1	4.832041510	-5.510473410	-0.822629850
1	3.786506190	-4.231136770	-0.158524580
6	2.888263290	-4.731079580	-2.681773200
1	2.076345920	-4.421875390	-2.002827250
1	3.000173080	-5.826339160	-2.615576130
1	2.597808560	-4.481427170	-3.714507430
6	5.320053260	-4.377746340	-3.281065640
1	5.065993170	-4.011405880	-4.286483780
1	5.478520030	-5.468281480	-3.319512580
1	6.262669130	-3.900011100	-2.967242710
6	3.153009590	-2.001170890	-6.178812900
6	2.229156450	-3.220235740	-6.304806160
1	2.789273310	-4.149957540	-6.114895110
1	1.797700740	-3.277370080	-7.317479290
1	1.399873830	-3.146121010	-5.584079120
6	2.356335980	-0.711826150	-6.412561340
1	1.583850030	-0.601534850	-5.634922730
1	1.869666190	-0.741334510	-7.400988350
1	3.016027520	0.168455870	-6.378825770
6	4.308140000	-2.111332470	-7.182599620
1	4.989219510	-1.251756860	-7.079662210
1	3.924294970	-2.131109870	-8.215055520
1	4.885261380	-3.032671310	-7.004542440
6	5.130028680	0.551535630	-3.152223350
6	6.266463860	-0.479357950	-3.149962290
1	6.324458360	-0.999149180	-2.181141620
1	7.229610220	0.025607460	-3.33333100
1	6.112173450	-1.231738310	-3.939034370
6	5.061461260	1.256888690	-4.512940380
1	4.921782740	0.519581220	-5.316869940
1	5.993256240	1.812592150	-4.708628990
1	4.220932550	1.968520710	-4.531714510
6	5.349564100	1.583708010	-2.042617150

1	4.514482940	2.300538230	-2.016681830	1	2.060801060	2.734974860	-5.541389550
1	6.287783730	2.140154480	-2.202202620	6	-0.500746670	2.391080760	-6.492833120
1	5.411688930	1.085806540	-1.061945280	1	-0.285280440	1.652152220	-5.704554720
6	-2.801802920	5.734172250	3.019395070	1	-0.166016050	1.990716090	-7.463772580
6	-2.960303450	6.543431340	1.722406620	1	-1.589965400	2.540198380	-6.535306430
1	-1.983442100	6.706794280	1.232052550	6	-0.198112860	4.792368730	-7.199604780
1	-3.378975120	7.540134550	1.936029110	1	-1.285094810	4.964412930	-7.154781670
1	-3.648746900	6.037536800	1.021884410	1	0.063541510	4.486380670	-8.225108190
6	-1.774595750	6.419022050	3.930681170	1	0.310817170	5.743464260	-6.975455500
1	-1.635123220	5.821496040	4.842496710	6	-3.134896410	4.203083550	-3.350373620
1	-2.108425620	7.433939070	4.204193190	6	-2.856619720	5.703693130	-3.173580480
1	-0.802624980	6.500699180	3.415045350	1	-2.637180390	5.957369850	-2.122680280
6	-4.165389410	5.627227140	3.714252500	1	-3.737414880	6.290484430	-3.483339340
1	-4.901643390	5.141517150	3.054233510	1	-1.995536730	6.016159150	-3.784475510
1	-4.539450250	6.632688250	3.969849550	6	-3.511738930	3.920091630	-4.811871250
1	-4.081388710	5.036773210	4.636768100	1	-2.709389130	4.261660120	-5.480413040
6	-2.280303440	2.870751380	6.386388680	1	-4.442549140	4.446018800	-5.081042680
6	-1.320672950	3.563541300	7.363008200	1	-3.663915190	2.839774000	-4.960087500
1	-0.278369460	3.424520880	7.034306060	6	-4.289685840	3.767050790	-2.438439190
1	-1.429078400	3.148085360	8.377647730	1	-4.478412910	2.687620180	-2.551033850
1	-1.531964070	4.644090450	7.402780170	1	-5.213903890	4.314042500	-2.685762230
6	-3.737349960	3.073907390	6.827582050	1	-4.057906400	3.958177150	-1.377000200
1	-3.960184940	4.147966540	6.933520610	6	-3.486686770	-4.925747660	2.706626410
1	-3.921908670	2.585732750	7.798572980	6	-3.929593450	-5.436663710	1.329604410
1	-4.416953820	2.644244690	6.076061710	1	-4.368755340	-4.621551070	0.729601490
6	-1.953980140	1.375384620	6.301935750	1	-4.691551980	-6.226802910	1.431902950
1	-2.634972950	0.868329500	5.599560490	1	-3.071974550	-5.860112090	0.780476710
1	-2.062770830	0.908477330	7.294222990	6	-4.680983530	-4.319667420	3.456289420
1	-0.921719170	1.226442030	5.950743700	1	-4.343968070	-3.903875440	4.417571400
6	-4.667746520	1.673398260	2.554721150	1	-5.455093770	-5.082740380	3.642147620
6	-6.106304400	2.066306900	2.923886240	1	-5.130604140	-3.506045440	2.862814320
1	-6.331296050	1.749829800	3.954318440	6	-2.869119920	-6.077180290	3.508945560
1	-6.830686340	1.588564700	2.244122160	1	-2.010662140	-6.509179630	2.970744200
1	-6.235655400	3.158581340	2.861439600	1	-3.616200550	-6.873402640	3.663274700
6	-4.501137970	0.152062660	2.655253610	1	-2.523106530	-5.724312500	4.490429140
1	-3.468008720	-0.150485560	2.419229720	6	-1.501212810	-3.168386960	6.329803210
1	-5.185293400	-0.362175780	1.958970410	6	-2.610207900	-2.643189060	7.250495950
1	-4.729937790	-0.191802300	3.676734800	1	-2.909857570	-1.628428190	6.944920880
6	-4.339717160	2.154381750	1.136263040	1	-2.266565760	-2.611128460	8.296843180
1	-4.442338020	3.250548750	1.076437250	1	-3.494070710	-3.298320820	7.191417040
1	-5.033949250	1.706011650	0.406406230	6	-1.098644760	-4.593117150	6.737332130
1	-3.312686040	1.868042030	0.848537400	1	-1.980522260	-5.253889180	6.748912970
19	3.209563230	-1.145373430	0.083641130	1	-0.653722830	-4.595861080	7.745971480
14	-0.363670130	3.498815670	-3.387076320	1	-0.364645570	-4.993230860	6.021686080
14	-1.372949700	-3.141206560	3.487078940	6	-0.283850990	-2.237560540	6.378550450
7	0.323990330	1.963406310	-3.167876110	1	0.504585700	-2.601434680	5.700722200
8	0.074126950	4.741017360	-2.280532980	1	0.124596640	-2.196018300	7.401535080
8	-0.146452520	4.238869490	-4.887506710	1	-0.565518360	-1.218441280	6.073706020
8	-2.001360820	3.390983410	-2.963673190	6	0.985294030	-4.656580830	2.737295150
7	-1.103287680	-1.558533350	2.884670930	6	1.146213290	-6.145832000	3.078328210
8	-2.518044330	-3.870324490	2.446017310	1	1.384554990	-6.267478870	4.146785960
8	-2.083672940	-3.202585500	5.002999430	1	1.957132780	-6.599286440	2.484794590
8	-0.037368530	-4.147433360	3.614412630	1	0.213694900	-6.692893930	2.867960400
6	1.309483900	5.495847640	-2.214763540	6	2.292368880	-3.912291680	3.040488160
6	1.406528860	6.024126930	-0.775787630	1	2.188412390	-2.840932340	2.808074180
1	0.522961400	6.640504640	-0.531075290	1	3.125123240	-4.322067820	2.443726270
1	2.297949770	6.659834040	-0.648358450	1	2.555428030	-4.008046730	4.106120730
1	1.483364420	5.187580180	-0.059245710	6	0.613036490	-4.488307810	1.260021940
6	2.523264150	4.606129990	-2.513274880	1	-0.341518010	-4.996201730	1.047297050
1	2.508835030	3.719207590	-1.860981330	1	1.385562520	-4.945682010	0.618508370
1	3.460153710	5.163879900	-2.346307970	1	0.536522270	-3.418341430	0.988957040
1	2.511238470	4.267710670	-3.560699030	19	-1.374961780	4.202146330	0.030805540
6	1.233452910	6.671029530	-3.199596570	19	-2.121376950	-2.491977680	0.126293840
1	1.069342550	6.291795140	-4.218986280	1	1.043682600	-2.283606080	-3.244881350
1	2.162200230	7.265108480	-3.175670770	1	-2.604750640	-0.026017840	-2.466744160
1	0.390988020	7.334066120	-2.939573380	1	1.196775310	1.845736710	-3.700630460
6	0.217268490	3.712784290	-6.190032210	1	1.875600980	-0.887002120	3.154102030
6	1.739192530	3.514698520	-6.249671980	1	-1.625383050	-0.939909460	3.531222370
1	2.259251570	4.454002960	-6.003150160	1	-0.168766220	2.342366940	3.348953050
1	2.049461600	3.201045800	-7.259642850				

Product -HS

94	0.011060920	0.042832800	-1.757038920	1	5.487829320	0.989658700	6.687676620
94	-0.116196850	0.057426480	1.619566060	1	4.198964800	1.776758350	7.641375680
14	-2.936585860	-2.167532670	-3.065573880	1	4.472576520	2.259306320	5.936532610
14	3.484335110	0.471601640	3.324854010	6	2.049701650	0.914990800	6.149179300
7	-2.029784470	-0.823706140	-2.537662870	1	1.996517060	1.806953450	5.504521140
8	-4.251653260	-2.530523100	-2.038743850	1	1.749231330	1.202694640	7.169905450
8	-3.584883790	-2.199850530	-4.609607380	1	1.338944690	0.165020210	5.769913140
8	-1.919972790	-3.480749380	-2.760630830	6	3.554244540	3.254375050	2.552867540
7	1.990459660	-0.069995770	2.687307680	6	4.731742180	4.181299070	2.889046000
8	4.691057960	-0.198301090	2.313298380	1	4.707662450	4.453348380	3.956037460
8	3.874239670	-0.112527380	4.846109080	1	4.685878530	5.105735010	2.290217430
8	3.666094950	2.127395840	3.448589550	1	5.689898200	3.679039960	2.680917840
6	-5.599297040	-1.994873690	-2.023180360	6	2.225991830	3.965630510	2.843747600
6	-6.167949890	-2.339243810	-0.640806870	1	1.371638210	3.307220920	2.617106230
1	-6.138496180	-3.428698950	-0.477196960	1	2.135649480	4.880564120	2.232973740
1	-7.214702850	-2.005276080	-0.552324210	1	2.171196750	4.257069390	3.905058010
1	-5.584168310	-1.847910640	0.156239200	6	3.619126810	2.823919630	1.084313460
6	-5.587579980	-0.472332240	-2.216261930	1	4.535041360	2.241560220	0.897218840
1	-4.957947490	0.009171670	-1.449544720	1	3.642956900	3.711035520	0.429461430
1	-6.608035050	-0.062203710	-2.132063900	1	2.731833990	2.229179950	0.807412440
1	-5.197509520	-0.207202090	-3.211773850	7	0.244118020	-1.165722850	0.064346150
6	-6.432127210	-2.676570840	-3.117893730	7	0.371564070	1.520072650	-0.022500770
1	-5.980446630	-2.492832160	-4.104059940	7	-0.956971860	1.211994040	-0.135441220
1	-7.466704290	-2.295409840	-3.115142410	14	3.346211590	-1.399025000	-3.181816390
1	-6.462759360	-3.765280500	-2.947710430	14	-2.067324600	2.828644270	3.607479700
6	-3.218794420	-1.482520880	-5.821223620	7	1.701119130	-1.271281710	-2.750085270
6	-3.752317020	-0.047465430	-5.731506750	8	4.231660280	-2.407780790	-2.123825480
1	-4.841445830	-0.050408730	-5.562046220	8	3.764199330	-1.908038970	-4.723442770
1	-3.549738980	0.498434930	-6.667187880	8	3.982973850	0.115795480	-2.811260580
1	-3.257534750	0.489558520	-4.906607380	7	-0.918685110	1.659231250	3.106129190
6	-1.700340600	-1.470970370	-6.025436640	8	-1.889385850	4.235689870	2.644030490
1	-1.204809410	-0.981827410	-5.171212040	8	-1.835904550	3.394538650	5.168737340
1	-1.444697560	-0.915486930	-6.942275300	8	-3.662782630	2.327857610	3.578183820
1	-1.310766010	-2.255029370	-6.119340790	6	4.443099890	-3.843073800	-2.143927030
6	-3.913267040	-2.235161780	-6.963058210	6	4.976092320	-4.203085590	-0.750827630
1	-3.552698310	-3.274861450	-7.014265310	1	5.890505830	-3.628220020	-0.531287760
1	-3.709036570	-1.746516080	-7.929031220	1	5.219376690	-5.276391120	-0.689041470
1	-5.003103820	-2.255042680	-6.803082410	1	4.224891410	-3.982271710	0.02732480
6	-2.016847510	-4.868215120	-3.185895720	6	3.124248850	-4.583534120	-2.403091950
6	-3.449730030	-5.404308710	-3.072558790	1	2.368019530	-4.294175160	-1.654130220
1	-3.829018820	-5.308017670	-2.043615850	1	3.271156600	-5.674845710	-2.340880410
1	-3.473186790	-6.469360010	-3.357642500	1	2.733941820	-4.350599630	-3.406539380
1	-4.128272540	-4.852584340	-3.741912850	6	5.488772890	-4.195466600	-3.210877920
6	-1.522982790	-4.993421100	-4.632674290	1	5.141314030	-3.867676510	-4.201670050
1	-2.197810660	-4.451965270	-5.311831830	1	5.672445220	-5.282454150	-3.231287450
1	-1.494328580	-6.051861580	-4.939959830	1	6.441101410	-3.685813720	-2.991520420
1	-0.508804830	-4.574559330	-4.729252270	6	3.000691320	-1.939341600	-5.961395100
6	-1.085874150	-5.648367480	-2.250058320	6	2.013088820	-3.111671650	-5.912967350
1	-0.062098670	-5.244410160	-2.302889160	1	2.546984700	-4.060528750	-5.741059650
1	-1.055626620	-6.714619290	-2.527755810	1	1.461127810	-3.193674520	-6.863398040
1	-1.433278780	-5.577481630	-1.206571320	1	1.283922730	-2.954431970	-5.102641250
6	6.090413170	-0.490952370	2.598690790	6	2.247142020	-0.623886650	-6.184543080
6	6.776503670	-0.627581950	1.233823210	1	1.554099420	-0.435205730	-5.348831320
1	6.308135740	-1.429053560	0.637215490	1	1.665050300	-0.672207850	-7.119153710
1	7.843111740	-0.878554530	1.355383580	1	2.949757370	0.219529600	-6.259073920
1	6.708847090	0.317009990	0.669555290	6	4.037218690	-2.162421080	-7.069660820
6	6.164696690	-1.818377390	3.365474960	1	4.764089400	-1.334895020	-7.086936530
1	5.617314570	-1.729706680	4.315699290	1	3.545709910	-2.216971720	-8.054080430
1	7.212219840	-2.092432540	3.574392580	1	4.586286800	-3.102066460	-6.898896040
1	5.707290460	-2.628467730	2.772670300	6	5.257854770	0.712702330	-3.182580410
6	6.750130650	0.637302250	3.399974470	6	6.391319620	-0.320417990	-3.209267210
1	6.684367290	1.591492190	2.853699300	1	6.496018180	-0.812663240	-2.230138940
1	7.815326220	0.408287290	3.569872460	1	7.344070290	0.177437580	-3.455185250
1	6.256957540	0.758580760	4.374670950	1	6.198101870	-1.093856060	-3.969069300
6	3.473531520	0.344660730	6.161412490	6	5.113492530	1.374463920	-4.558874390
6	3.539299010	-0.893296670	7.065065240	1	4.929092970	0.611839190	-5.329924260
1	2.831696340	-1.660291730	6.711939730	1	6.032919480	1.921899740	-4.823979240
1	3.286455750	-0.631952850	8.105127650	1	4.273405400	2.087030090	-4.553752310
1	4.553890830	-1.322580100	7.047683110	6	5.540134060	1.776920710	-2.117262910
6	4.470811010	1.410902840	6.637569390	1	4.712038750	2.500576560	-2.069523640

1	6.470928000	2.321754680	-2.344937530	6	-0.656066220	2.292862160	-6.570372950
1	5.651753990	1.307699320	-1.126863030	1	-0.415176300	1.553818260	-5.789755520
6	-2.281551970	5.603439400	2.973917770	1	-0.390659310	1.877711840	-7.556575670
6	-2.302349160	6.380702460	1.649006860	1	-1.740321780	2.478523990	-6.550690420
1	-1.294814210	6.425944250	1.198302760	6	-0.304995320	4.677431260	-7.313657600
1	-2.625504940	7.420535780	1.817441500	1	-1.384783130	4.878466980	-7.231891650
1	-3.009905570	5.925071160	0.933491110	1	-0.087830160	4.360294950	-8.346176840
6	-1.229035720	6.211917500	3.910110490	1	0.237241740	5.615302120	-7.113146090
1	-1.190463600	5.638688480	4.847084180	6	-3.125107930	4.114076620	-3.304155130
1	-1.467761010	7.265105040	4.134006490	6	-2.847223740	5.584203360	-2.957652930
1	-0.233095460	6.173428370	3.437932720	1	-2.594511070	5.706239240	-1.891173180
6	-3.676813890	5.656625340	3.609561900	1	-3.741099070	6.195952230	-3.164667800
1	-4.431087380	5.226503300	2.931596760	1	-2.008853510	5.978410220	-3.552475990
1	-3.955724650	6.702892800	3.818530690	6	-3.529382450	4.000194080	-4.780728640
1	-3.694701680	5.093726880	4.552728960	1	-2.735399950	4.406303700	-5.423557760
6	-2.198700290	2.820626280	6.449276400	1	-4.458809130	4.562129240	-4.970134210
6	-1.213285270	3.419263600	7.461360340	1	-3.699249050	2.944996900	-5.045885700
1	-0.181371560	3.136591630	7.199722620	6	-4.252837830	3.568966540	-2.419285310
1	-1.432144250	3.058555800	8.479081130	1	-4.460594920	2.516624770	-2.669162700
1	-1.283960590	4.518710490	7.456806550	1	-5.177854100	4.151829830	-2.559083760
6	-3.637178840	3.235768390	6.790604770	1	-3.973532490	3.613545450	-1.354213950
1	-3.716736390	4.333386540	6.847169100	6	-3.537464290	-5.053934350	2.597850650
1	-3.940493710	2.818082340	7.764583470	6	-3.962492820	-5.550478070	1.210097050
1	-4.324903030	2.869589370	6.013694560	1	-4.419915150	-4.735106300	0.624237210
6	-2.076041450	1.292613740	6.432988840	1	-4.706205540	-6.359785040	1.294988070
1	-2.765051640	0.856830310	5.692032900	1	-3.093192870	-5.943334520	0.656315810
1	-2.322276770	0.881776710	7.425617440	6	-4.744374370	-4.474286920	3.347785400
1	-1.049491500	0.992952240	6.173804620	1	-4.419635810	-4.067679260	4.317166110
6	-4.561995580	1.751577290	2.610159040	1	-5.509101270	-5.250391410	3.517544120
6	-5.966574730	2.226325010	3.012088830	1	-5.201381990	-3.658450270	2.763149440
1	-6.192359150	1.912734590	4.043403890	6	-2.909399310	-6.207690150	3.388280270
1	-6.730416610	1.800316250	2.341319440	1	-2.042538150	-6.622072680	2.849825070
1	-6.030226460	3.324993720	2.961829470	1	-3.647286850	-7.015137760	3.527849650
6	-4.482067980	0.222499700	2.704529530	1	-2.573399190	-5.864284760	4.376625530
1	-3.472275000	-0.138363330	2.451573640	6	-1.600711390	-3.297876630	6.260799810
1	-5.205185320	-0.247252880	2.016249970	6	-2.711977660	-2.761210060	7.171883090
1	-4.716049830	-0.112713930	3.727783570	1	-2.994296040	-1.741050210	6.867751810
6	-4.233491210	2.218478570	1.188306020	1	-2.378588350	-2.738021000	8.221731710
1	-4.269960710	3.319162690	1.134767280	1	-3.603985700	-3.403977460	7.101068890
1	-4.972306300	1.817842520	0.474202580	6	-1.220561520	-4.728990140	6.666648860
1	-3.232820110	1.872030880	0.872434390	1	-2.110832650	-5.378430510	6.663988580
19	3.178732580	-0.903423810	0.094195930	1	-0.788809230	-4.741499980	7.680883330
14	-0.361910100	3.401042070	-3.495584550	1	-0.482334500	-5.134900940	5.958797740
14	-1.448866830	-3.264739600	3.418429860	6	-0.372799840	-2.382119770	6.323638730
7	0.297063120	1.849253400	-3.271333630	1	0.417878610	-2.751618050	5.651655850
8	0.146241890	4.634775360	-2.415254250	1	0.026618910	-2.348856200	7.350389740
8	-0.170538210	4.133684490	-5.000578160	1	-0.640305190	-1.358379780	6.021186980
8	-1.979604410	3.270933720	-3.033725660	6	0.921508480	-4.769632230	2.693096160
7	-1.173253930	-1.673811200	2.826779530	6	1.115152890	-6.248342990	3.061282520
8	-2.581240150	-3.980856580	2.359373370	1	1.353369950	-6.345752080	4.132225350
8	-2.171398210	-3.319976060	4.927694040	1	1.937811230	-6.692783700	2.477343930
8	-0.116253280	-4.270731240	3.560812000	1	0.196107580	-6.820392940	2.858082400
6	1.349227220	5.442773420	-2.444089390	6	2.210525980	-3.990556340	2.985124560
6	1.519558240	5.997664540	-1.022428240	1	2.082970150	-2.928637510	2.724310560
1	0.621046360	6.563856090	-0.721234480	1	3.053826920	-4.394415360	2.399591600
1	2.381017180	6.683337140	-0.968714720	1	2.470802150	-4.056584450	4.053587220
1	1.697597780	5.179879020	-0.302569380	6	0.547172250	-4.633480530	1.213554630
6	2.571950850	4.591729570	-2.809939330	1	-0.399076980	-5.160393190	1.009979250
1	2.639491570	3.723399670	-2.135059580	1	1.327927370	-5.089426960	0.581209500
1	3.498289370	5.184038380	-2.722472730	1	0.454254580	-3.570121250	0.923804510
1	2.497591620	4.227721280	-3.846297750	19	-0.965084180	3.852154090	0.019276260
6	1.164834980	6.600577580	-3.435087070	19	-2.238967850	-2.562515540	0.066519080
1	0.946982950	6.202317950	-4.436709770	1	1.288042420	-2.213043960	-2.647886840
1	2.071643440	7.226449950	-3.478849890	1	-2.622316900	0.022265920	-2.494353940
1	0.319732900	7.237573710	-3.124235860	1	1.281264430	1.799450620	-3.574380120
6	0.118057160	3.590799510	-6.315512690	1	1.859790570	-1.014260970	3.094806190
6	1.628015780	3.340114110	-6.435223760	1	-1.631946200	-1.050284910	3.514557080
1	2.189877370	4.265788310	-6.232053170	1	-0.058281810	1.804718600	3.661644260
1	1.884200120	2.996406120	-7.450700930				
1	1.947651480	2.563125950	-5.723748440				

Neptunium-O Species

Reactant -LS

93	1.605526210	-0.460533780	-1.279645510
93	-1.707579410	0.430043430	1.180551280
19	0.450785010	-2.645929600	1.586700980
19	1.380345650	2.603029420	0.947650180
19	-1.935892370	-0.015073510	-2.528620620
14	0.121625460	-2.234525210	-4.362527540
14	3.937484810	-2.677279210	0.820466080
14	3.325384950	2.891198450	-2.046082620
14	-0.364720480	2.554731060	4.078212030
14	-3.949761760	2.516541380	-1.144445900
8	0.544838750	-1.329370490	-3.079947700
8	-1.543599660	-1.941688060	-4.530678330
8	0.441088850	-3.870152400	-4.226521650
8	0.772012530	-1.787810730	-5.831067820
8	2.738993110	-1.897892430	0.044898270
8	3.136149610	-3.506888290	2.067724380
8	4.729604180	-3.867652520	-0.037397540
8	5.154480230	-1.700141700	1.421165330
8	2.527346090	1.590656950	-1.482521440
8	4.981774350	2.752462560	-2.176959610
8	3.078133410	4.062147860	-0.840776240
8	2.823493500	3.431574220	-3.548307020
8	-2.208216590	-1.647992250	1.923011090
8	-1.798597650	-4.157246990	2.530892530
8	-4.335960730	-3.416941460	1.608772800
8	-0.720385520	1.785661850	2.691471480
8	-0.259489720	1.575082830	5.430494130
8	-1.415955600	3.769259960	4.526873460
8	1.096241310	3.347494250	3.729951440
8	-3.123353790	1.378111700	-0.327667050
8	-5.473862870	2.866175120	-0.560617240
8	-3.204473570	3.999955280	-1.325209750
8	-4.026041710	1.923555750	-2.734060040
7	-0.040449940	-0.022233740	-0.033446900
6	-2.412399220	-2.276548780	-5.653686060
6	-2.348350120	-1.127384090	-6.668010010
1	-3.008035980	-1.324733490	-7.529128000
1	-2.667159690	-0.179398390	-6.203586030
1	-1.314553480	-1.007581940	-7.026616260
6	-3.821866740	-2.410572740	-5.064073810
1	-4.559531400	-2.618307990	-5.856512270
1	-3.853672000	-3.238176920	-4.336517250
1	-4.128397110	-1.483367170	-4.552623620
6	-2.007845160	-3.597553150	-6.320215290
1	-2.716722330	-3.836721380	-7.129980510
1	-0.997921410	-3.526803930	-6.749568820
1	-2.018550380	-4.422756100	-5.591855300
6	0.385370310	-4.780030720	-3.101111630
6	-0.685853000	-4.359342120	-2.088931750
1	-0.726122390	-5.078904510	-1.253353070
1	-0.462831240	-3.357261520	-1.683127920
1	-1.679979920	-4.327520700	-2.563086890
6	0.041712700	-6.153699510	-3.693201320
1	0.030622940	-6.925989610	-2.906905610
1	-0.950083110	-6.130754460	-4.172703530
1	0.787525950	-6.436641770	-4.452532210
6	1.767969990	-4.818557700	-2.441394000
1	1.794386750	-5.546475750	-1.613096070
1	2.528078230	-5.114535160	-3.181623500
1	2.039532990	-3.830797750	-2.034015510
6	2.066080270	-2.091435170	-6.416391660
6	1.969912330	-3.435388810	-7.152055330
1	2.935748800	-3.693939470	-7.616154220
1	1.688097980	-4.229657480	-6.444384070
1	1.208399390	-3.382087580	-7.946843070
6	3.160953520	-2.142233940	-5.344462700
1	4.145310370	-2.315097350	-5.809439690

1	3.201319720	-1.194066560	-4.785085490
1	2.966818490	-2.959647910	-4.632339230
6	2.342419320	-0.955325810	-7.407919770
1	3.294300700	-1.121583880	-7.936945760
1	1.532218450	-0.895768250	-8.152312620
1	2.395217670	0.008488360	-6.877727900
6	3.663769850	-4.570363800	2.917260370
6	2.830942450	-4.526091510	4.202842800
1	3.143400840	-5.320304840	4.900539730
1	2.953702190	-3.553432750	4.707191780
1	1.761484030	-4.675212570	3.982711810
6	3.475129450	-5.907800190	2.190228290
1	3.838226960	-6.745240130	2.808539660
1	2.408857670	-6.081547280	1.969501450
1	4.028938900	-5.893892600	1.239369770
6	5.143451150	-4.353002150	3.258852550
1	5.487988900	-5.151853630	3.935953810
1	5.763668730	-4.372833970	2.351226150
1	5.291658870	-3.383942280	3.759258190
6	5.824574260	-3.771965010	-0.987312900
6	5.744533320	-5.047594720	-1.833853360
1	6.566431210	-5.079981010	-2.566675820
1	5.815697140	-5.937072390	-1.187565850
1	4.786129040	-5.088074540	-2.373777390
6	7.151331450	-3.724916870	-0.216208830
1	8.001869430	-3.656140520	-0.913945310
1	7.164358530	-2.852649650	0.454168120
1	7.274168270	-4.638284430	0.387987100
6	5.673673930	-2.531217970	-1.874971240
1	6.478689320	-2.495272060	-2.627172180
1	4.705325500	-2.545533260	-2.401475830
1	5.726747540	-1.613897530	-1.267475070
6	5.142731070	-0.380708490	2.018117050
6	6.280994720	-0.376110940	3.047857600
1	6.383049700	0.618514880	3.511906130
1	6.086594970	-1.112728160	3.843878380
1	7.234098870	-0.634866380	2.560554310
6	5.420773120	0.646722290	0.916566860
1	5.477928630	1.668227770	1.329462830
1	6.382415120	0.426048590	0.427419790
1	4.628433850	0.632376040	0.150708230
6	3.807141030	-0.085564130	2.709556190
1	3.828413980	0.916679790	3.170755510
1	2.977549570	-0.123360840	1.981950220
1	3.606253050	-0.823668360	3.502854050
6	5.797835950	2.207300820	-3.248502890
6	5.127934680	0.983007880	-3.882257310
1	5.782272560	0.541344310	-4.651643620
1	4.922032810	0.215419680	-3.118430770
1	4.176539710	1.268250040	-4.357901890
6	7.124997250	1.808775810	-2.592581670
1	7.576431960	2.679394280	-2.090475610
1	6.959849290	1.021905090	-1.840601000
1	7.833472480	1.432518810	-3.347699480
6	6.028869860	3.300363310	-4.301492890
1	6.549031100	4.161217750	-3.851150200
1	6.649305770	2.916694520	-5.127904820
1	5.063524630	3.640126260	-4.705831860
6	3.761955160	5.341370240	-0.677528670
6	5.046477840	5.102314130	0.125894600
1	5.585805660	6.048934500	0.295011060
1	4.810299110	4.661555240	1.109003670
1	5.701722290	4.405666290	-0.418973230
6	4.088643100	5.994190430	-2.026708410
1	4.561101130	6.975913170	-1.858406550
1	4.780315680	5.368996250	-2.609334280
1	3.173848490	6.145443350	-2.620135170
6	2.791984020	6.235424160	0.102007650
1	3.238176900	7.225358130	0.292101290
1	1.857376500	6.379490950	-0.464737760

1	2.543855610	5.787209430	1.077750270	1	-3.624929970	2.385117960	3.805110670
6	1.498406760	3.534693280	-4.125603360	6	-2.384314820	3.764292720	6.754294090
6	1.571193980	4.693196520	-5.129537870	1	-1.855750030	4.696558160	7.011141330
1	0.611267460	4.811660120	-5.658141480	1	-3.322765840	3.729690670	7.331381750
1	1.803037370	5.638113100	-4.612440120	1	-1.755491420	2.908429110	7.042055340
1	2.360524330	4.502122960	-5.873496630	6	-3.452037390	4.961459520	4.809331980
6	0.443878410	3.829494140	-3.054579707	1	-2.859830030	5.868209780	5.012088410
1	-0.551291150	3.954854500	-3.510641050	1	-3.664626880	4.917646150	3.729768060
1	0.385115150	3.001755860	-2.327266690	1	-4.406688940	5.036840400	5.354113890
1	0.696126830	4.756432780	-2.514352900	6	1.704906290	4.481663820	4.418754570
6	1.180753740	2.223823870	-4.854349830	6	1.538600740	4.384256080	5.940250840
1	0.194417720	2.273932410	-5.345980640	1	2.028278470	5.245584460	6.423573890
1	1.937088250	2.027222340	-5.630794150	1	0.474138110	4.388543750	6.216121000
1	1.178085470	1.372592470	-4.153641190	1	1.998536350	3.462561630	6.325235230
6	-4.600327140	-3.614330980	0.201353470	6	1.058761300	5.771505060	3.896959540
6	-6.119290980	-3.455319320	0.044606040	1	1.514194810	6.656890570	4.370693830
1	-6.426295500	-3.632465120	-0.999018830	1	1.193178010	5.861013880	2.806510900
1	-6.642976210	-4.175965320	0.691976110	1	-0.019859630	5.760434940	4.115092680
1	-6.428936360	-2.437903820	0.330055500	6	3.193997050	4.432651970	4.057891460
1	-3.870778660	-2.582737780	-0.667018390	1	3.735527980	5.277448960	4.513928340
6	-4.146965770	-2.718152590	-1.726681830	1	3.646857120	3.494954620	4.419794670
1	-4.142491950	-1.560150220	-0.358971670	1	3.337354830	4.491145840	2.966130750
1	-2.778412560	-2.688535910	-0.571595740	6	-6.481776010	2.027812830	0.050371450
6	-4.179217930	-5.035741990	-0.196146130	6	-6.574729740	0.670609340	-0.655421890
1	-4.401163800	-5.224764460	-1.259607480	1	-7.374635190	0.056871460	-0.209799580
1	-3.098312340	-5.178010440	-0.038669830	1	-6.795187980	0.802569090	-1.727412770
1	-4.724310300	-5.778508840	0.407102760	1	-5.622693250	0.124249920	-0.563090370
6	-1.791437180	-5.407350790	3.285373120	6	-6.141813720	1.842923680	1.534408850
6	-0.801581940	-6.323358850	2.556909690	1	-6.908759200	1.234564030	2.040559690
1	-1.140645810	-6.514603450	1.525537170	1	-5.167712530	1.337242610	1.641794120
1	0.201333160	-5.867253830	2.516327470	1	-6.084389490	2.821831260	2.036271950
1	-0.708838170	-7.291290290	3.076086600	6	-7.801573640	2.797024800	-0.099297310
6	-3.175963100	-6.066323340	3.317827190	1	-8.628006580	2.250374360	0.382501590
1	-3.529989060	-6.282512350	2.299448220	1	-7.714883170	3.789935570	0.368726910
1	-3.122156900	-7.015252440	3.876311700	1	-8.048337230	2.936073760	-1.163997510
1	-3.907185250	-5.411487660	3.813198270	6	-2.862241620	5.060353500	-0.402162290
6	-1.312620350	-5.110298510	4.712066030	6			

14	0.108661480	-2.240231700	-4.360733410	1	3.150795050	-5.298697730	4.908820510
14	3.938238630	-2.669788640	0.818670670	1	2.957977400	-3.532901450	4.709337670
14	3.322984370	2.894236620	-2.042902090	1	1.767215640	-4.659384730	3.989426310
14	-0.366636560	2.549004970	4.079651110	6	3.481441110	-5.895985570	2.201080910
14	-3.948145870	2.519905560	-1.156573930	1	3.846244360	-6.730253870	2.822692220
8	0.532063220	-1.331473580	-3.080943690	1	2.415295320	-6.072221410	1.981780990
8	-1.558436680	-1.954781210	-4.524213960	1	4.034611810	-5.885368650	1.249809780
8	0.437123030	-3.874177080	-4.224603120	6	5.148087690	-4.334310720	3.262204360
8	0.752114620	-1.791715460	-5.832006080	1	5.494173570	-5.129911170	3.942348400
8	2.739036060	-1.893049950	0.041903080	1	5.767772530	-4.356991620	2.354270030
8	3.138426780	-3.496058680	2.069194860	1	5.295362820	-3.362961640	3.758423340
8	4.730207520	-3.862622500	-0.036042130	6	5.824356160	-3.769814970	-0.987140390
8	5.155265860	-1.690749090	1.416536560	6	5.746541370	-5.050525350	-1.826221660
8	2.512981780	1.599324850	-1.483773040	1	6.567918630	-5.085421000	-2.559497740
8	4.976636110	2.737091280	-2.187721460	1	5.820279230	-5.935842820	-1.174510190
8	3.097881360	4.058744910	-0.826730770	1	4.787765260	-5.096424560	-2.365036250
8	2.816126720	3.452214100	-3.537090590	6	7.151711050	-3.715495490	-0.217519380
8	-2.206843810	-1.647377650	1.918399020	1	8.001452620	-3.648509230	-0.916402250
8	-1.793254970	-4.151565500	2.542203060	1	7.163314070	-2.839684350	0.448222100
8	-4.331157950	-3.422436220	1.613346550	1	7.277239500	-4.625297130	0.391494420
8	-0.718927280	1.784629730	2.689505270	6	5.669921500	-2.534407100	-1.881624110
8	-0.267323140	1.562980350	5.428029750	1	6.474003240	-2.501100660	-2.634961540
8	-1.416700710	3.763748430	4.531019310	1	4.700910920	-2.553600250	-2.406783850
8	1.096423390	3.341073410	3.739336510	1	5.721764130	-1.613478750	-1.279449080
8	-3.120636550	1.381880470	-0.340603640	6	5.143764610	-0.368019910	2.005874310
8	-5.478207550	2.858620010	-0.581743970	6	6.280872350	-0.358050510	3.036854570
8	-3.209520100	4.008005660	-1.325299820	1	6.383332570	0.639375680	3.494784720
8	-4.011994150	1.933791410	-2.749437030	1	6.085024980	-1.089491040	3.837296850
7	-0.037244770	-0.026544790	-0.026981730	1	7.234259360	-0.620649170	2.552174140
6	-2.428133490	-2.294028120	-5.645394170	6	5.423557260	0.652627130	0.898616210
6	-2.359472840	-1.153242230	-6.668813760	1	5.481255790	1.676603560	1.305174810
1	-3.019983640	-1.355000440	-7.528233160	1	6.385201660	0.428158170	0.411249910
1	-2.674776280	-0.200546910	-6.211790120	1	4.631532020	0.634195810	0.132516290
1	-1.325141300	-1.040189380	-7.027784180	6	3.807565240	-0.068119690	2.694266420
6	-3.838393190	-2.417649790	-5.055399910	1	3.828649940	0.936932120	3.149390790
1	-4.576153290	-2.629847420	-5.846572380	1	2.978848800	-0.110827650	1.965951300
1	-3.873774570	-3.238635380	-4.320570560	1	3.605792370	-0.801226820	3.491949450
1	-4.142070760	-1.484684940	-4.552748840	6	5.779664350	2.195341200	-3.270814130
6	-2.028405310	-3.621896150	-6.301019840	6	5.097084470	0.978719250	-3.905595890
1	-2.736218650	-3.863587290	-7.110986870	1	5.741402330	0.538244010	-4.684055130
1	-1.016858980	-3.560077860	-6.727957780	1	4.894379940	0.207539800	-3.144408340
1	-2.045291370	-4.441816730	-5.566759220	1	4.142581190	1.271857340	-4.370196570
6	0.388595890	-4.783524570	-3.098416590	6	7.111008630	1.785834410	-2.630313670
6	-0.679380930	-4.365065440	-2.081871530	1	7.572094340	2.651333650	-2.128129720
1	-0.714205770	-5.084118350	-1.245626190	1	6.949544880	0.995357510	-1.881275160
1	-0.457103820	-3.362074160	-1.677956720	1	7.809897850	1.410396810	-3.394706410
1	-1.675598880	-4.336036810	-2.551758170	6	6.006673100	3.293745950	-4.319122030
6	0.046338930	-6.158629420	-3.687946520	1	6.536356460	4.148831560	-3.868875210
1	0.041003010	-6.930365200	-2.901036760	1	6.616821680	2.911559410	-5.153806330
1	-0.947570530	-6.139025120	-4.163168300	1	5.039371790	3.641624310	-4.711679610
1	0.789704530	-6.439944240	-4.450282570	6	3.814103770	5.319059080	-0.650191110
6	1.774019560	-4.817745790	-2.444426990	6	5.102517600	5.040187730	0.134289600
1	1.805879490	-5.545240160	-1.615976810	1	5.661957730	5.973056680	0.314049690
1	2.532054520	-5.111566220	-3.187624380	1	4.867485210	4.587161210	1.112222410
1	2.044266770	-3.829019720	-2.038446440	1	5.737793100	4.340556470	-0.429721490
6	2.046077160	-2.088492670	-6.420821310	6	4.137285490	5.985792880	-1.993245710
6	1.951928850	-3.429511710	-7.162087200	1	4.631429290	6.955305540	-1.816674350
1	2.916388330	-3.682058280	-7.632306120	1	4.809150430	5.355719940	-2.593499850
1	1.677334850	-4.228155440	-6.456427220	1	3.218326380	6.163941910	-2.572651260
1	1.185943040	-3.375993440	-7.952549350	6	2.872857240	6.219868060	0.155409940
6	3.143116640	-2.141175940	-5.351244060	1	3.340833800	7.197909530	0.354220150
1	4.127050870	-2.309648030	-5.818699910	1	1.933538020	6.390108540	-0.396041140
1	3.182096750	-1.195275010	-4.787981730	1	2.630160860	5.761348820	1.127633860
1	2.952139810	-2.961974040	-4.642268060	6	1.488464860	3.567181890	-4.105767750
6	2.317197590	-0.946823400	-7.407412660	6	1.561991040	4.733392620	-5.100599000
1	3.269851190	-1.106264000	-7.937163440	1	0.599333380	4.862622000	-5.621694200
1	1.506765380	-0.887459290	-8.151585640	1	1.803579570	5.672218510	-4.576864030
1	2.365534630	0.014763180	-6.872634540	1	2.345077690	4.543473820	-5.851419220
6	3.668491150	-4.555287860	2.922519320	6	0.442103340	3.859365370	-3.025991840
6	2.836496850	-4.507539240	4.208508730	1	-0.555183390	3.994808460	-3.474449140

1	0.382698300	3.025563040	-2.305801010
1	0.704045020	4.779977960	-2.479544690
6	1.159225050	2.263559070	-4.842741410
1	0.170787730	2.323468320	-5.328927300
1	1.910579680	2.067826970	-5.624246830
1	1.155208660	1.407536080	-4.147785200
6	-4.591973220	-3.628230730	0.206503820
6	-6.111266200	-3.476029310	0.046027740
1	-6.415610170	-3.659813170	-0.997231390
1	-6.633368330	-4.195321140	0.696178350
1	-6.425461140	-2.458366090	0.325662510
6	-3.864927210	-2.598010590	-0.665710000
1	-4.138733420	-2.739503210	-1.725105750
1	-4.141451300	-1.575208760	-0.362633570
1	-2.772375030	-2.699094290	-0.567905790
6	-4.164456080	-5.050009660	-0.182802010
1	-4.383518560	-5.245513260	-1.245693370
1	-3.083326510	-5.187179890	-0.022385780
1	-4.707831090	-5.791736230	0.423276450
6	-1.783960950	-5.397006670	3.304187980
6	-0.794703450	-6.316761900	2.579690950
1	-1.136584120	-6.516094450	1.550770590
1	0.207215170	-5.859129010	2.532253770
1	-0.698842880	-7.280628520	3.105769960
6	-3.167882940	-6.056931200	3.343075320
1	-3.523494820	-6.279518570	2.326619070
1	-3.112183440	-7.002485960	3.907085960
1	-3.898834370	-5.399828030	3.835809700
6	-1.303221200	-5.090487220	4.728253420
1	-1.248195830	-6.012519250	5.330310970
1	-0.300107890	-4.633669910	4.710490840
1	-1.996849220	-4.385311580	5.210652000
6	-4.762441640	-2.253954430	4.601624960
6	-5.858470000	-3.328887820	4.590196820
1	-6.799784270	-2.927226410	4.999617880
1	-6.035097710	-3.671347550	3.559360620
1	-5.555442750	-4.191620730	5.205150000
6	-4.426541680	-1.846488980	6.041037240
1	-5.315819450	-1.440847340	6.549366040
1	-4.063929960	-2.718188400	6.608904140
1	-3.638298220	-1.077076840	6.045641980
6	-5.202197310	-1.030265960	3.791523840
1	-6.093259410	-0.568305690	4.247336680
1	-4.398413330	-0.276758990	3.759414560
1	-5.450399170	-1.320986490	2.758951770
6	0.399322220	0.317250580	5.734759150
6	0.350984660	-0.660201550	4.554367490
1	0.834930900	-1.611076990	4.837579310
1	-0.691129280	-0.870599540	4.263985690
1	0.877624660	-0.240430460	3.681384970
6	1.853759200	0.607564150	6.129637180
1	1.885418030	1.286423610	6.996073600
1	2.376504990	-0.324294740	6.402295160
1	2.396757850	1.076660100	5.294105120
6	-0.360058440	-0.270258130	6.932251360
1	-0.358933290	0.445154920	7.769380730
1	-1.403627370	-0.486915830	6.655145260
1	0.108660600	-1.208734690	7.270436310
6	-2.682701180	3.705924080	5.239316230
6	-3.474351440	2.452351750	4.850816800
1	-2.930283000	1.544985780	5.156979470
1	-4.460273950	2.449856260	5.343748970
1	-3.629365520	2.414637780	3.759756170
6	-2.407591340	3.721373620	6.749609980
1	-1.873501450	4.643145770	7.031592440
1	-3.352596390	3.683440390	7.315660730
1	-1.789221660	2.854321720	7.025996740
6	-3.443639110	4.969270330	4.820594940
1	-2.853441740	5.866465800	5.067574750
1	-3.626805450	4.963209500	3.734867790

1	-4.411749940	5.032109980	5.342741920
6	1.700647850	4.476110560	4.430653000
6	1.515230930	4.387013970	5.950539410
1	2.002961150	5.248493100	6.435546390
1	0.447383630	4.397513930	6.212617180
1	1.965998910	3.465157680	6.345793250
6	1.064404070	5.765182090	3.894865680
1	1.517687090	6.651875380	4.368304200
1	1.209934470	5.848312640	2.805404000
1	-0.016384020	5.758976430	4.102612590
6	3.194191590	4.420468340	4.089652220
1	3.731464520	5.268015940	4.545566550
1	3.639624870	3.485205780	4.466752350
1	3.354132450	4.467743910	2.999657090
6	-6.486421730	2.012104870	0.017353800
6	-6.562782330	0.655374530	-0.691343510
1	-7.362633820	0.035287590	-0.254465990
1	-6.773753430	0.787099150	-1.765282430
1	-5.607882900	0.115607720	-0.590186100
6	-6.160052480	1.827105270	1.504371470
1	-6.928425520	1.213510920	2.001946730
1	-5.184149420	1.326825850	1.620617100
1	-6.113238610	2.805563440	2.008219210
6	-7.810230070	2.771962280	-0.144283740
1	-8.637133210	2.218657910	0.329143190
1	-7.735268940	3.764976640	0.325553450
1	-8.047973250	2.910244540	-1.211150330
6	-2.877237530	5.064474640	-0.394061650
6	-1.541377670	4.728546130	0.283231810
1	-1.228159650	5.545255680	0.955092470
1	-1.635170490	3.810710360	0.888249890
1	-0.764533700	4.580142780	-0.484505380
6	-3.970526940	5.270004840	0.660845290
1	-3.710670530	6.127754850	1.303006920
1	-4.942329510	5.461270290	0.181757820
1	-4.073837630	4.377833570	1.297438540
6	-2.732676810	6.329361370	-1.251626540
1	-2.429795000	7.189798630	-0.633533220
1	-1.971521290	6.173996250	-2.033396180
1	-3.689761850	6.569739380	-1.741439390
6	-4.505714810	2.607722480	-3.946754940
6	-5.522526760	3.710950250	-3.626613430
1	-5.875420850	4.168542030	-4.565277580
1	-6.389210670	3.304590270	-3.084975790
1	-5.062997250	4.493950400	-3.005021990
6	-3.297263030	3.206569960	-4.677272760
1	-3.604519790	3.694709880	-5.617402580
1	-2.810395570	3.955511150	-4.033435120
1	-2.563838670	2.420710270	-4.926318390
6	-5.170537720	1.523459240	-4.801455390
1	-5.551824810	1.948027340	-5.744608890
1	-4.451937390	0.727784220	-5.053963910
1	-6.014939560	1.069412960	-4.257937580
14	-2.990360220	-2.947322610	2.495605770
8	-3.541614850	-2.828523050	4.065417240

Product -LS

93	0.035824140	0.053527520	-1.829099510
93	-0.057880260	0.038896710	1.514750420
14	-2.630352530	-2.366485770	-3.175867610
14	3.416776340	0.525867650	3.211031400
8	-1.567869370	-1.214916980	-2.753850260
8	-3.837925470	-2.541789250	-2.003106130
8	-3.396563700	-2.247576060	-4.646787080
8	-1.801510790	-3.824809770	-2.993392010
8	2.036421220	0.283424690	2.377295820
8	4.625380990	-0.085120120	2.177011700
8	3.637527950	-0.313861750	4.632488810
8	3.726015000	2.120260070	3.605030150
6	-5.032795320	-1.733938940	-1.794186910

6	-5.480593010	-2.028375120	-0.358132220	1	1.322201000	3.176002420	2.939819730
1	-5.677878440	-3.105248100	-0.232729740	1	1.918630580	4.850627040	2.744602430
1	-6.406220570	-1.479368650	-0.119158500	1	2.027546520	4.044045180	4.332525790
1	-4.704302520	-1.724311500	0.363331000	6	3.616389190	3.153726990	1.366470050
6	-4.722531800	-0.241216540	-1.954701790	1	4.586659280	2.696136020	1.110152290
1	-3.906070360	0.069027530	-1.284160990	1	3.547821930	4.122653600	0.846683090
1	-5.619740230	0.357213570	-1.721993330	1	2.796003980	2.515161830	0.999202520
1	-4.418475720	-0.010652210	-2.986880880	7	0.510323740	-1.094894310	-0.142146640
6	-6.113129150	-2.184001950	-2.786362610	7	0.140328670	1.495307670	-0.109835380
1	-5.762078180	-2.042403560	-3.819387430	7	-1.170055660	0.901122250	-0.222061950
1	-7.040872450	-1.606883470	-2.638633070	14	3.384847050	-1.083729390	-3.267309810
1	-6.341262480	-3.252895940	-2.641476660	14	-2.063603950	2.679490150	3.496814000
6	-3.104645720	-1.501599840	-5.859832960	8	1.842729930	-0.712356800	-2.921561860
6	-3.556550330	-0.049793780	-5.669493390	8	4.068442130	-2.144092050	-2.133788300
1	-4.628440110	-0.014283580	-5.415897970	8	3.717478540	-1.717080740	-4.769480020
1	-3.402309990	0.524282960	-6.597202460	8	4.256560820	0.317376890	-2.934181240
1	-2.979961200	0.432587880	-4.863986690	8	-1.143038300	1.516424550	2.822830370
6	-1.611474560	-1.564153960	-6.189794000	8	-2.059514630	4.012283590	2.425829370
1	-1.020632420	-1.128572170	-5.368913580	8	-1.525357020	3.326125540	4.937863010
1	-1.398441080	-0.999704750	-7.111976310	8	-3.642041550	2.217963670	3.818549730
1	-1.290998050	-2.606512700	-6.337077620	6	3.947518180	-3.589101000	-2.008663490
6	-3.931155730	-2.176707600	-6.961265370	6	4.455598820	-3.919382460	-0.599073250
1	-3.622409390	-3.226611180	-7.087447240	1	5.485727800	-3.549607520	-0.469290070
1	-3.794006770	-1.654500570	-7.921423180	1	4.457084700	-5.008929300	-0.430643320
1	-5.001489090	-2.159328990	-6.701786050	1	3.812367700	-3.459845040	0.170259670
6	-2.102871490	-5.160582330	-3.481133520	6	2.485653060	-4.024580890	-2.158851460
6	-3.597632820	-5.481786670	-3.367433070	1	1.844369310	-3.465668600	-1.458283230
1	-3.940781120	-5.392349450	-2.324936050	1	2.386582290	-5.104535780	-1.955934250
1	-3.790676810	-6.511057730	-3.713203340	1	2.119404170	-3.833604380	-3.179202430
1	-4.191998180	-4.791397960	-3.987018030	6	4.843344110	-4.263453780	-3.055478390
6	-1.640355390	-5.270609520	-4.939746150	1	4.539332300	-3.961892940	-4.068485330
1	-2.235139690	-4.599383650	-5.576908890	1	4.779416070	-5.360961910	-2.970906730
1	-1.762060820	-6.301864060	-5.310319280	1	5.893948960	-3.963158830	-2.907699910
1	-0.577723700	-4.990453700	-5.023319720	6	2.948653400	-1.795281470	-6.000825540
6	-1.281329940	-6.110029520	-2.600088610	6	1.903809390	-2.908936730	-5.866142970
1	-0.214945960	-5.833652570	-2.637041940	1	2.394345390	-3.870840480	-5.645304980
1	-1.386557320	-7.152949290	-2.940565670	1	1.335741520	-3.019020680	-6.804108960
1	-1.622557280	-6.059990540	-1.552656530	1	1.194984580	-2.674301950	-5.056496730
6	6.010746510	-0.430463850	2.474336690	6	2.275352340	-0.454701630	-6.301648680
6	6.725715250	-0.477672220	1.118210730	1	1.600811090	-0.174095400	-5.477859800
1	6.261252620	-1.227144120	0.454399060	1	1.688120040	-0.519411870	-7.232050730
1	7.785398350	-0.753405300	1.244654570	1	3.030195240	0.337431790	-6.420572860
1	6.685597240	0.507792550	0.624681030	6	3.965445100	-2.147652470	-7.093297270
6	6.046125360	-1.812317520	3.139164110	1	4.729320240	-1.358410650	-7.177310580
1	5.469234710	-1.791542470	4.075234780	1	3.463366950	-2.253511370	-8.068080640
1	7.084452210	-2.112754220	3.357297820	1	4.472536470	-3.096012200	-6.854736590
1	5.599500070	-2.568468730	2.471826050	6	5.583673000	0.734825650	-3.352522490
6	6.671418370	0.624699330	3.368973220	6	6.592657090	-0.415762490	-3.257858640
1	6.627509690	1.618663700	2.896230040	1	6.641643880	-0.811551240	-2.231318720
1	7.729983010	0.365864450	3.536728960	1	7.597209290	-0.063885970	-3.546189870
1	6.167506970	0.683659170	4.343911820	1	6.308033260	-1.239364020	-3.932337310
6	3.319260350	0.030447380	6.006526490	6	5.505530080	1.262933050	-4.791124930
6	3.310792030	-1.298016220	6.772241300	1	5.232902610	0.448122870	-5.478478400
1	2.526980580	-1.962749530	6.378693300	1	6.477009480	1.677291660	-5.107392480
1	3.120042710	-1.125133610	7.843451500	1	4.744468610	2.056667450	-4.862237130
1	4.283767700	-1.804210990	6.667177370	6	5.971573730	1.870027770	-2.397512160
6	4.406015200	0.958259700	6.567360850	1	5.210766090	2.666407360	-2.429089090
1	5.386331740	0.454732150	6.555577460	1	6.947067250	2.301325370	-2.674809060
1	4.174488020	1.231841230	7.609823870	1	6.043494500	1.496921000	-1.362793480
1	4.466967910	1.874655760	5.961742600	6	-2.429449170	5.394275410	2.726669840
6	1.945650070	0.698713950	6.080848260	6	-2.652403350	6.092522930	1.376360130
1	1.950169690	1.655980400	5.536481430	1	-1.727923340	6.102999410	0.773233160
1	1.663396090	0.889249560	7.128648940	1	-2.946291050	7.142287170	1.535211200
1	1.187413910	0.044124730	5.625608210	1	-3.466069570	5.607172620	0.807574760
6	3.498533790	3.355313860	2.882545260	6	-1.272968870	6.077823720	3.467581990
6	4.586038850	4.321701580	3.371760760	1	-1.079916830	5.558482860	4.416156990
1	4.530968090	4.431156850	4.466321210	1	-1.511928870	7.135609000	3.668275440
1	4.459398750	5.316164070	2.913574690	1	-0.355623050	6.037570850	2.857537500
1	5.587142360	3.941471640	3.111098640	6	-3.727018740	5.467690670	3.540518750
6	2.107364420	3.886065060	3.245323380	1	-4.553300790	4.976033350	3.002537860

1	-4.002991280	6.521508390	3.712404490
1	-3.609011310	4.974584390	4.513901080
6	-1.767096050	2.962802260	6.320888850
6	-0.616727330	3.593352530	7.116091050
1	0.348556710	3.188983730	6.776099680
1	-0.729246770	3.384627780	8.192083030
1	-0.608129970	4.685558750	6.971869830
6	-3.110818130	3.545473250	6.782037850
1	-3.101473770	4.645083670	6.711842250
1	-3.303583360	3.272522620	7.832492930
1	-3.925981740	3.151596290	6.156572270
6	-1.763598740	1.442340870	6.484938900
1	-2.583740130	0.995951610	5.902013620
1	-1.890436610	1.163447960	7.543549700
1	-0.810714420	1.030718140	6.124499080
6	-4.578779600	1.408896660	3.068257480
6	-5.969381230	1.824286370	3.568907880
1	-6.042430140	1.669752210	4.656913040
1	-6.755209890	1.228084740	3.077069720
1	-6.154155110	2.889945150	3.356595910
6	-4.322233810	-0.069639830	3.380377770
1	-3.303167460	-0.365489600	3.086303860
1	-5.041861990	-0.714634590	2.848684640
1	-4.434234240	-0.255362090	4.459909210
6	-4.461127280	1.674017920	1.562118680
1	-4.617614610	2.746147820	1.351243150
1	-5.226182440	1.103854360	1.010866850
1	-3.469952600	1.368276250	1.183660460
19	3.304643620	-0.384618390	-0.107671810
14	-0.707436270	3.319005750	-3.468591040
14	-1.356546960	-3.189329980	3.262434890
8	-0.178993430	1.800261090	-3.242629910
8	-0.161028720	4.436072270	-2.316226680
8	-0.398907010	4.003696070	-4.959786220
8	-2.358580090	3.352538510	-3.115521230
8	-0.916957250	-1.819810710	2.492474140
8	-2.364695200	-3.982202870	2.143102890
8	-2.280223320	-3.042074890	4.639110080
8	-0.091450940	-4.185641060	3.716706490
6	1.145702910	5.050748390	-2.146064650
6	1.144885330	5.623382910	-0.722398640
1	0.315888260	6.340879970	-0.600639450
1	2.087133190	6.156881150	-0.515210920
1	1.040235400	4.814729460	0.020590190
6	2.259320980	4.008069480	-2.286758000
1	2.090408550	3.182413480	-1.578498610
1	3.240348980	4.466699240	-2.077521380
1	2.285938550	3.588416530	-3.303591040
6	1.304714290	6.185106250	-3.166546280
1	1.221425120	5.793082450	-4.190492050
1	2.282408990	6.680603760	-3.047249020
1	0.512587960	6.939160730	-3.024570370
6	0.116753230	3.480143320	-6.210372210
6	1.618096470	3.204246190	-6.064378130
1	2.152583730	4.125816240	-5.783516720
1	2.037651000	2.838554640	-7.015646190
1	1.791075200	2.439826340	-5.291259240
6	-0.629431680	2.203812050	-6.608447450
1	-0.514432510	1.439300980	-5.825502740
1	-0.232003490	1.805311570	-7.556246290
1	-1.702595430	2.411193920	-6.740213300
6	-0.121294080	4.588161680	-7.244281730
1	-1.197974710	4.800983370	-7.339825540
1	0.264294200	4.285920740	-8.230939930
1	0.388283010	5.515155290	-6.936818020
6	-3.394654660	4.276810060	-3.542544600
6	-2.914519100	5.733062440	-3.496155900
1	-2.585058150	6.010938940	-2.481782660
1	-3.732020610	6.411311170	-3.792930920
1	-2.068486300	5.885052110	-4.184968600

6	-3.837674000	3.906013350	-4.964096240
1	-3.002364260	4.048321910	-5.665354890
1	-4.680123720	4.539005940	-5.288464700
1	-4.154701730	2.851835100	-4.998714800
6	-4.560262690	4.067350020	-2.566243930
1	-4.833991420	3.000514220	-2.526497040
1	-5.443298250	4.648222980	-2.878231680
1	-4.290893700	4.396721780	-1.547484490
6	-3.324725730	-5.058733870	2.359534870
6	-3.622222290	-5.629795000	0.967449690
1	-4.017170340	-4.846178900	0.298835770
1	-4.374022300	-6.433610640	1.026830900
1	-2.707381850	-6.055553430	0.520386110
6	-4.601930400	-4.473978760	2.976126070
1	-4.369796700	-4.011007880	3.945924800
1	-5.359269120	-5.262454770	3.119143000
1	-5.024443350	-3.700437630	2.314452990
6	-2.739540440	-6.158541140	3.252513360
1	-1.813222960	-6.563864930	2.814799760
1	-3.463376850	-6.983785990	3.356709590
1	-2.506847190	-5.769814410	4.253528850
6	-1.922138560	-2.991434620	6.045533710
6	-3.117001650	-2.336648530	6.748834290
1	-3.265864920	-1.312180280	6.376352480
1	-2.950020110	-2.295253190	7.837044780
1	-4.034467070	-2.915453880	6.556697470
6	-1.714745640	-4.418691510	6.571033570
1	-2.639195820	-5.008698320	6.463305240
1	-1.445417990	-4.396679850	7.639759750
1	-0.905874420	-4.911802300	6.011092830
6	-0.655669520	-2.156861150	6.246291330
1	0.200425570	-2.640373880	5.751794220
1	-0.427999950	-2.045168000	7.318734620
1	-0.796453190	-1.156676240	5.812019300
6	1.139710980	-4.578382110	3.065328610
6	1.450708030	-5.987415270	3.588753820
1	1.514585540	-5.977600250	4.688274590
1	2.410251510	-6.351237080	3.185988370
1	0.657547480	-6.693750600	3.293995960
6	2.244022800	-3.599176700	3.475374840
1	2.001501800	-2.574643930	3.152034210
1	3.210250090	-3.885475880	3.026357310
1	2.367979040	-3.596170410	4.569474230
6	0.994346480	-4.604035890	1.538364910
1	0.145268640	-5.244140820	1.243078210
1	1.905698850	-5.017875940	1.077216380
1	0.854283230	-3.581117620	1.146842880
19	-1.708448670	3.472439310	-0.228017640
19	-1.598666610	-2.965346900	-0.212827540

Product –HS

93	0.034543470	0.052392080	-1.835036360
93	-0.056560790	0.039843680	1.521498910
14	-2.636673390	-2.373798290	-3.169391950
14	3.424231180	0.528439280	3.206632260
8	-1.578027770	-1.220737610	-2.740949030
8	-3.848404420	-2.551354380	-2.001546770
8	-3.396374160	-2.255024960	-4.643597840
8	-1.805206980	-3.830048670	-2.984623080
8	2.043518030	0.290346550	2.372195390
8	4.631831160	-0.080743230	2.170649410
8	3.641961200	-0.315711400	4.625836190
8	3.735257970	2.121498860	3.604928470
6	-5.043574070	-1.743198390	-1.795319040
6	-5.495323250	-2.038257940	-0.360636780
1	-5.692194810	-3.115301660	-0.236095670
1	-6.422085120	-1.490000950	-0.124381160
1	-4.721511950	-1.733885300	0.363372320
6	-4.733017900	-0.250302840	-1.954091920
1	-3.918031380	0.059494340	-1.281575910

1	-5.630740640	0.347878380	-1.722751120	1	2.801197650	2.521287660	1.002328870
1	-4.426847950	-0.018744110	-2.985392340	7	0.513351200	-1.094760760	-0.143135210
6	-6.121325490	-2.192655610	-2.790573300	7	0.131974190	1.504586790	-0.112103270
1	-5.767382970	-2.051172710	-3.822631150	7	-1.170734540	0.911018570	-0.219350290
1	-7.049138220	-1.614965290	-2.645464770	14	3.395842910	-1.080214570	-3.267972550
1	-6.350378310	-3.261415820	-2.646285160	14	-2.067883810	2.684514940	3.498964100
6	-3.102237570	-1.506351200	-5.854447760	8	1.855100080	-0.706418690	-2.919312410
6	-3.561340210	-0.056645990	-5.664520670	8	4.079306170	-2.141013990	-2.134722010
1	-4.633979340	-0.026100550	-5.413514570	8	3.726319780	-1.714695360	-4.770327370
1	-3.407633260	0.518524820	-6.591659070	8	4.269844390	0.319909560	-2.936328940
1	-2.988875290	0.428313330	-4.857596760	8	-1.147892640	1.520065890	2.827966520
6	-1.607448880	-1.560663340	-6.178067200	8	-2.064488910	4.016012440	2.426149700
1	-1.022169560	-1.125507260	-5.352977710	8	-1.530401510	3.334202850	4.939102920
1	-1.393474580	-0.990188770	-7.096316450	8	-3.646596160	2.223322050	3.821526900
1	-1.279084330	-2.599968630	-6.330024390	6	3.954564580	-3.585586310	-2.008178010
6	-3.920798050	-2.183614740	-6.960464340	6	4.460795580	-3.915846400	-0.597940730
1	-3.607183050	-3.232080920	-7.086605570	1	5.491955280	-3.549200430	-0.467556720
1	-3.781463740	-1.659633260	-7.919332210	1	4.458681800	-5.005192840	-0.428122050
1	-4.992354910	-2.171034020	-6.705831550	1	3.818275290	-3.453279450	0.170183620
6	-2.101170350	-5.166173620	-3.474713870	6	2.491710050	-4.017674990	-2.158814780
6	-3.595437790	-5.491380540	-3.366619920	1	1.851153520	-3.457117620	-1.458843390
1	-3.942201810	-5.404890280	-2.325070120	1	2.389791570	-5.097253860	-1.955471880
1	-3.784809740	-6.520380210	-3.715168950	1	2.126718390	-3.826411580	-3.179606050
1	-4.189258570	-4.801084310	-3.986834540	6	4.849210310	-4.262860580	-3.054097230
6	-1.633160810	-5.273057310	-4.931845890	1	4.545282300	-3.962536510	-4.067531660
1	-2.227195470	-4.602250710	-5.570237160	1	4.784001410	-5.360150290	-2.967771470
1	-1.751291560	-6.304089360	-5.304160030	1	5.900167400	-3.963395730	-2.907146200
1	-0.570883960	-4.990422290	-5.011311960	6	2.957186770	-1.790297150	-6.001550980
6	-1.279981570	-6.114125320	-2.591773130	6	1.911664830	-2.903539340	-5.868486730
1	-0.214272120	-5.834652720	-2.624864310	1	2.401367990	-3.866218740	-5.649186310
1	-1.381060400	-7.156994810	-2.933657700	1	1.343386680	-3.011590980	-6.806557040
1	-1.624919270	-6.065901460	-1.545477870	1	1.203045780	-2.669627530	-5.058448530
6	6.016174620	-0.430942070	2.467041250	6	2.284368590	-0.448906940	-6.300097980
6	6.731568250	-0.474043570	1.111046270	1	1.609874070	-0.169449320	-5.475860540
1	6.264479090	-1.218288050	0.443241520	1	1.697147730	-0.511702530	-7.230647710
1	7.790120840	-0.754510230	1.236584120	1	3.039439630	0.343229260	-6.417524340
1	6.695465730	0.514030610	0.622495310	6	3.973279840	-2.141716470	-7.094987980
6	6.047417800	-1.815824380	3.125822380	1	4.737494030	-1.352748720	-7.178483110
1	5.470362930	-1.797557460	4.061861400	1	3.470682880	-2.246110170	-8.069664640
1	7.084803990	-2.120180380	3.343033460	1	4.480000850	-3.090638150	-6.857869300
1	5.599326940	-2.567760170	2.455026760	6	5.596935830	0.735711730	-3.356149480
6	6.679067470	0.618500350	3.366721420	6	6.604742360	-0.415927690	-3.261848080
1	6.636614570	1.615068770	2.899355590	1	6.654926020	-0.810588680	-2.234956190
1	7.737257660	0.357001600	3.532697100	1	7.609229030	-0.065472540	-3.552134490
1	6.175741600	0.673247420	4.342222330	1	6.318132140	-1.239900860	-3.935007930
6	3.324491060	0.02596910	6.000839190	6	5.518026080	1.263270300	-4.794919400
6	3.316309200	-1.304196970	6.763452020	1	5.244254540	0.448398680	-5.481745750
1	2.532640120	-1.968165110	6.368359630	1	6.489544220	1.676808940	-5.112144420
1	3.125901760	-1.134014140	7.835152080	1	4.757472470	2.057547390	-4.865721560
1	4.289399250	-1.809795030	6.656619550	6	5.986972400	1.870961920	-2.402028450
6	4.411598580	0.952432700	6.563257180	1	5.227230780	2.668390830	-2.433620210
1	5.391832550	0.448748120	6.550201360	1	6.962856860	2.300828000	-2.680192110
1	4.180362250	1.223801600	7.606353610	1	6.058989030	1.498269210	-1.367182270
1	4.472646800	1.870049820	5.959526420	6	-2.432153890	5.398613840	2.727031190
6	1.951063890	0.694530040	6.077447220	6	-2.661456150	6.095501800	1.377036200
1	1.954769080	1.651446710	5.532441800	1	-1.739599350	6.107038350	0.769910860
1	1.671534060	0.886218730	7.125788170	1	-2.956317310	7.144981330	1.536131080
1	1.191236960	0.039739020	5.625174690	1	-3.476770700	5.608229410	0.812302180
6	3.505412680	3.358386750	2.886199440	6	-1.271620390	6.082057150	3.461642200
6	4.593018840	4.324322740	3.375978310	1	-1.074502100	5.563410760	4.409787590
1	4.539626110	4.431015990	4.470880360	1	-1.508863740	7.140205700	3.662524790
1	4.465174160	5.319827410	2.920498570	1	-0.357326070	6.040628290	2.847059270
1	5.593907870	3.945264370	3.112785530	6	-3.725832760	5.473943610	3.547003880
6	2.114411800	3.887067610	3.252797530	1	-4.554846440	4.982044230	3.013467450
1	1.329430580	3.175825160	2.949562910	1	-4.000304020	6.528167600	3.718796730
1	1.922595230	4.851150960	2.752387700	1	-3.603293820	4.981963520	4.520396840
1	2.037346970	4.045226950	4.340143660	6	-1.766999800	2.967632440	6.322056280
6	3.620667110	3.161101170	1.369370740	6	-0.617250130	3.601723200	7.115378990
1	4.591595000	2.706846400	1.109602650	1	0.348765310	3.200315370	6.773754870
1	3.548137370	4.131259980	0.852447660	1	-0.727238350	3.392615010	8.191560960

1	-0.612237590	4.693935480	6.971094720	1	-5.448306270	4.654087260	-2.883808330
6	-3.112312040	3.543524480	6.787189840	1	-4.296144690	4.407804300	-1.552038700
1	-3.107503270	4.643435090	6.721098280	6	-3.335839970	-5.062707230	2.362615590
1	-3.302829980	3.265941840	7.836820960	6	-3.633645090	-5.635460100	0.971286080
1	-3.926467870	3.148677230	6.161032040	1	-4.026608650	-4.852076720	0.301261780
6	-1.756035780	1.446874430	6.484001300	1	-4.386854930	-6.437911550	1.031411180
1	-2.575945660	0.997296770	5.903168400	1	-2.719165200	-6.063197720	0.525435340
1	-1.878215480	1.165988450	7.542629850	6	-4.612281100	-4.475426520	2.978329860
1	-0.802374540	1.040174970	6.119994710	1	-4.379427670	-4.011108880	3.947316000
6	-4.581798790	1.412756570	3.071091310	1	-5.370589960	-5.262710500	3.122865430
6	-5.973387870	1.828679470	3.568660900	1	-5.034106370	-3.702612420	2.315367070
1	-6.048705180	1.674953650	4.656628900	6	-2.752186500	-6.161768760	3.257560070
1	-6.758437910	1.232493310	3.075556460	1	-1.825537290	-6.568050520	2.821424420
1	-6.157111720	2.894271300	3.355200350	1	-3.476629460	-6.986465360	3.361949500
6	-4.325478470	-0.065268690	3.385916810	1	-2.520617590	-5.771962330	4.258440400
1	-3.305758690	-0.361432200	3.094535810	6	-1.925156770	-2.989953450	6.045175400
1	-5.043812110	-0.711384120	2.853789130	6	-3.119578300	-2.335359710	6.749415910
1	-4.439712360	-0.249343870	4.465503770	1	-3.271934870	-1.312686210	6.373451960
6	-4.462062470	1.675184910	1.564562280	1	-2.949901290	-2.289527930	7.837018880
1	-4.620242070	2.746622680	1.351454950	1	-4.036161410	-2.917011660	6.561775750
1	-5.225253500	1.102620360	1.013160630	6	-1.713255670	-4.415065850	6.574632700
1	-3.469717180	1.370687770	1.188180840	1	-2.637230830	-5.006864420	6.472638990
19	3.305804620	-0.376498480	-0.112839750	1	-1.439599280	-4.389209090	7.642184330
14	-0.712494280	3.322721950	-3.470964500	1	-0.906008190	-4.908673670	6.012813700
14	-1.364769570	-3.194603130	3.262161770	6	-0.660036460	-2.151719610	6.239557030
8	-0.184498990	1.803862330	-3.246799250	1	0.196145250	-2.635412730	5.745321830
8	-0.165826510	4.438857720	-2.317815640	1	-0.430154560	-2.034765200	7.310982970
8	-0.404756820	4.007651310	-4.962344640	1	-0.804135500	-1.153755210	5.801219430
8	-2.363691400	3.357435470	-3.117517520	6	1.130742280	-4.585271770	3.063556670
8	-0.924495070	-1.826165210	2.491103160	6	1.434557790	-6.000020260	3.575611810
8	-2.374650040	-3.987663140	2.144551410	1	1.494065760	-6.000144530	4.675414250
8	-2.286855740	-3.046097870	4.639894010	1	2.394281670	-6.363847460	3.173298930
8	-0.099950350	-4.192087030	3.715422330	1	0.640026870	-6.700884330	3.271555700
6	1.142722270	5.048528700	-2.143929850	6	2.238353970	-3.614509250	3.485202370
6	1.139361870	5.622736040	-0.720862850	1	2.000898090	-2.585884860	3.171220680
1	0.312091360	6.342827950	-0.602545700	1	3.204405250	-3.900215260	3.035475830
1	2.082556980	6.153652340	-0.511401300	1	2.359747870	-3.622756450	4.579583850
1	1.030000240	4.815206680	0.022698110	6	0.989630730	-4.596562670	1.536007480
6	2.252590660	4.001170430	-2.279669130	1	0.140276140	-5.232327440	1.232216890
1	2.077732630	3.177707580	-1.570321510	1	1.901659490	-5.007198500	1.073357410
1	3.234911990	4.455909390	-2.067951870	1	0.852573100	-3.569711880	1.153848600
1	2.280638680	3.579662460	-3.295680140	19	-1.719532220	3.478790270	-0.231128610
6	1.309459940	6.181272000	-3.164970680	19	-1.606559570	-2.960064840	-0.206409560
1	1.228060800	5.788857770	-4.188900110				
1	2.288564180	6.673280640	-3.042899230				
1	0.519544280	6.938254550	-3.026140520				
6	0.112867490	3.483551480	-6.211924750				
6	1.613907740	3.207217560	-6.063424450				
1	2.148174510	4.128462900	-5.781118130				
1	2.035049880	2.841859010	-7.014112320				
1	1.785159900	2.442410500	-5.290316480				
6	-0.632726660	2.207034350	-6.610941460				
1	-0.519226950	1.442838620	-5.827478230				
1	-0.233031150	1.808424970	-7.557760460				
1	-1.705649060	2.414215070	-6.745169720				
6	-0.123465430	4.591348540	-7.246420390				
1	-1.200004070	4.804282660	-7.343370540				
1	0.263298170	4.288791730	-8.232527310				
1	0.385894520	5.518287140	-6.938445120				
6	-3.399520700	4.280971480	-3.546667590				
6	-2.918638340	5.737107310	-3.504176140				
1	-2.588733630	6.017352100	-2.490624400				
1	-3.735820910	6.415074680	-3.802406200				
1	-2.072659850	5.886725560	-4.193627120				
6	-3.842926060	3.906567620	-4.967074010				
1	-3.007478070	4.045577780	-5.668856190				
1	-4.684627770	4.539471310	-5.293558810				
1	-4.161147210	2.852622860	-4.998796300				
6	-4.565130130	4.074590680	-2.569673330				
1	-4.838652030	3.007811080	-2.526305350				

Neptunium-NH Species

Reactant:

Reactant -LS

93	1.683954470	-0.470214330	-1.186430750
93	-1.720147380	0.408486470	1.117778660
19	0.498681330	-2.582506870	1.659658300
19	1.270677450	2.746509370	0.786707530
19	-1.600433740	0.471097370	-2.704586180
14	0.168959500	-1.985909620	-4.542292910
14	3.854347730	-3.290189710	0.674623690
14	3.276976670	3.095325020	-1.859381480
14	-0.371807270	2.907530000	3.896915960
14	-4.023565230	2.546621530	-1.166926270
7	0.866502450	-1.028591900	-3.291873310
8	-1.346159460	-1.279219230	-4.872270280
8	-0.016828870	-3.615853770	-4.232042170
8	0.989663890	-1.909653460	-5.999209340
7	2.767082580	-2.342043040	-0.264809060
8	3.149309260	-3.355638220	2.220614760
8	3.967580160	-4.893814110	0.199482250
8	5.453564980	-2.791057400	0.775626510
7	2.965447820	1.511917870	-1.267196450
8	4.182666790	4.077837380	-0.827438950
8	1.754269760	3.828744460	-1.828288900
8	4.062600310	3.246410380	-3.332794580

7	-2.216202400	-1.479003230	2.424098220	1	6.859399120	-6.360359140	-0.807095500
8	-1.709865240	-4.137549890	2.258621840	1	6.667057190	-4.859505550	0.158746390
8	-4.382109460	-3.430604790	2.523229040	1	6.084246890	-6.423590710	0.801497180
7	-1.041194830	2.142847620	2.507703380	6	4.975601300	-4.740644410	-2.038621220
8	0.231375040	1.875472350	5.059671590	1	5.609884070	-5.272754100	-2.766201250
8	-1.394207060	3.940434730	4.723925980	1	3.992379660	-4.568490160	-2.505169870
8	0.855613730	3.922145890	3.291235290	1	5.440872230	-3.765634730	-1.824286690
7	-3.378439580	1.159380480	-0.388644400	6	6.079696850	-1.488262280	0.766881670
8	-5.687429660	2.790015720	-1.163621490	6	7.466689260	-1.689007430	1.394919360
8	-3.343551070	3.958805850	-0.581646770	1	8.034078900	-0.744272740	1.392341990
8	-3.497145280	2.460368590	-2.789118320	1	7.372634770	-2.038320150	2.435005450
7	-0.026467660	-0.007279210	-0.066495440	1	8.035755580	-2.440603230	0.825472350
6	-2.205817710	-1.447101080	-6.039396320	6	6.225976650	-1.024518940	-0.688351090
6	-1.741817380	-0.464657860	-7.122695740	1	6.724619460	-0.043753720	-0.744349370
1	-2.383292750	-0.534657840	-8.016572070	1	6.826346140	-1.751464960	-1.258403560
1	-1.782214210	0.571546510	-6.748908220	1	5.233689550	-0.946812920	-1.165028500
1	-0.702456940	-0.690448370	-7.405406470	6	5.270565780	-0.479148580	1.590822500
6	-3.623174210	-1.104919630	-5.563907970	1	5.781213680	0.498278240	1.619088170
1	-4.342924220	-1.171997850	-6.396203290	1	4.265780650	-0.333507450	1.158285990
1	-3.943734080	-1.802825420	-4.772634590	1	5.153963920	-0.835064420	2.627448340
1	-3.666621850	-0.07749370	-5.162953510	6	5.615260430	4.263468940	-0.703773540
6	-2.177917840	-2.882466560	-6.578491930	6	6.355274640	2.928694980	-0.853226590
1	-2.863360710	-2.968868850	-7.437671970	1	7.439968810	3.068123500	-0.713169090
1	-1.166147990	-3.157224180	-6.908996630	1	5.999063430	2.211639390	-0.095824690
1	-2.497433280	-3.597765720	-5.806207640	1	6.188230800	2.503126890	-1.855822470
6	-0.531567150	-4.393690000	-3.127329540	6	5.841713320	4.833079920	0.701750270
6	-1.400417250	-3.548016530	-2.192390310	1	5.281738140	5.773536400	0.827404280
1	-1.788409880	-4.164001600	-1.365346800	1	5.495669830	4.118743680	1.466198450
1	-0.821522120	-2.716820470	-1.749925380	1	6.911174440	5.038380820	0.872429060
1	-2.263004740	-3.127379000	-2.736111490	6	6.089427850	5.264571040	-1.766927010
6	-1.362686770	-5.528393240	-3.743597690	1	5.577947840	6.231966410	-1.633042080
1	-1.724993310	-6.213704590	-2.959927140	1	7.175337210	5.435741690	-1.682580610
1	-2.236201170	-5.125546670	-4.279934070	1	5.861976800	4.880383370	-2.772474620
1	-0.751689310	-6.103354120	-4.457156000	6	1.390608390	5.222527490	-2.056454410
6	0.667293920	-4.980288660	-2.372801680	6	1.423998520	5.961159890	-0.710688550
1	0.338289810	-5.659062520	-1.569067310	1	1.169089650	7.025900700	-0.842137960
1	1.304884820	-5.548281980	-3.068501720	1	0.689919040	5.533824870	-0.006748380
1	1.267199360	-4.177452930	-1.915437230	1	2.433112340	5.894817860	-0.273808350
6	2.151313410	-2.641210080	-6.469067410	6	2.327596270	5.917994390	-3.051649140
6	1.675859480	-3.943759390	-7.128623350	1	1.977862390	6.948632650	-3.227781280
1	2.532576750	-4.520822170	-7.513472430	1	3.356536890	5.960862630	-2.664865160
1	1.133175670	-4.557382390	-6.393476400	1	2.341470090	5.387015200	-4.015027460
1	1.001898940	-3.721659500	-7.971607440	6	-0.035377160	5.189075970	-2.613408200
6	3.126765070	-2.949213330	-5.326081960	1	-0.418320720	6.211956110	-2.765556850
1	4.015000960	-3.473029130	-5.715783150	1	-0.047325740	4.668641750	-3.584622860
1	3.458027820	-2.023723410	-4.828571900	1	-0.715096150	4.659391180	-1.925531620
1	2.645856330	-3.592735230	-4.573172990	6	3.912779190	2.518621350	-4.578206620
6	2.817664000	-1.728131540	-7.505778320	6	4.617815960	3.377229720	-5.637203630
1	3.697150280	-2.218792110	-7.952337590	1	4.560894340	2.898035020	-6.627682210
1	2.105432890	-1.482046300	-8.309444500	1	4.147028750	4.371119880	-5.700187370
1	3.141824220	-0.787759860	-7.031639190	1	5.678660190	3.511732790	-5.373134230
6	3.576199020	-4.128955110	3.385099110	6	2.431447280	2.348098680	-4.936941820
6	2.808972000	-3.536840960	4.573030850	1	2.318282570	1.784114460	-5.877944850
1	3.056175900	-4.072522090	5.504053580	1	1.899823820	1.801757310	-4.139981710
1	3.068268740	-2.474096750	4.704869590	1	1.946186630	3.329355740	-5.060617970
1	1.719575550	-3.617664560	4.421083460	6	4.606251800	1.155708420	-4.457841360
6	3.196949240	-5.602336420	3.188493860	1	4.559155980	0.609124160	-5.413887830
1	3.482970490	-6.194631990	4.073235300	1	5.666229290	1.290526880	-4.187855110
1	2.110251860	-5.708687120	3.043248510	1	4.121724650	0.542614320	-3.679138120
1	3.699482370	-6.007813710	2.299064080	6	-5.209065630	-3.150705670	1.371986300
6	5.083900050	-3.999857320	3.638018550	6	-6.309165020	-4.222027170	1.378070230
1	5.351553100	-4.549306920	4.555705790	1	-7.013810660	-4.059813910	0.546476950
1	5.668371710	-4.407398990	2.800827500	1	-5.870258300	-5.226665660	1.274553610
1	5.365951830	-2.943793970	3.772883060	1	-6.870185280	-4.184058110	2.325085790
6	4.826552500	-5.565898960	-0.753461440	6	-5.829517280	-1.759079170	1.537422440
6	4.128804300	-6.897305050	-1.060235670	1	-6.492188530	-1.522555750	0.689791540
1	4.717780650	-7.492202650	-1.776564130	1	-6.422598030	-1.712003330	2.465027670
1	4.004366030	-7.483736430	-0.135736040	1	-5.035802200	-0.994865380	1.592937340
1	3.130043850	-6.713365260	-1.487360970	6	-4.399590690	-3.231511750	0.072959220
6	6.198648700	-5.817112030	-0.111724180	1	-5.047585420	-3.049121440	-0.801189570

1	-3.589545880	-2.481554340	0.070855780	1	-6.426104230	0.824386550	-2.871477130
1	-3.946053010	-4.229619680	-0.038144980	1	-5.840926790	0.006962050	-1.396539230
6	-1.618303360	-5.575848270	2.497211530	6	-7.087065630	1.636334240	0.455225330
6	-0.766982350	-6.130314910	1.348369520	1	-7.953984360	0.967942980	0.583048970
1	-1.255883310	-5.931398510	0.381292440	1	-6.205891420	1.158725890	0.910606770
1	0.236272830	-5.672631410	1.332756580	1	-7.293855250	2.573567220	0.995440810
1	-0.633350380	-7.219453700	1.452583750	6	-8.021107800	2.715495620	-1.610521130
6	-2.996226220	-6.250103750	2.484051470	1	-8.960201770	2.151136660	-1.494854190
1	-3.506013810	-6.075734310	1.523945900	1	-8.122922980	3.678175030	-1.085865920
1	-2.874641570	-7.337475580	2.619869720	1	-7.867708800	2.919008910	-2.682270840
1	-3.638049960	-5.865836850	3.289912200	6	-3.794050650	4.899314700	0.428825340
6	-0.926592120	-5.816858910	3.845253540	6	-2.544918670	5.686079620	0.842433250
1	-0.812977610	-6.896853860	4.035679270	1	-2.797470240	6.460362600	1.585330380
1	0.077444720	-5.363179160	3.854327600	1	-1.794762520	5.016769040	1.295354930
1	-1.513957170	-5.362410000	4.656094960	1	-2.094513500	6.174207100	-0.036179990
6	-3.666602060	-3.007581120	5.642524190	6	-4.398051150	4.181614760	1.640329860
6	-4.743873130	-4.100979530	5.681948530	1	-4.680298510	4.916330450	2.411805670
1	-5.449895070	-3.922153440	6.509492340	1	-5.296054350	3.618468770	1.349163100
1	-5.297110790	-4.115780430	4.731431680	1	-3.678423670	3.474529310	2.082855130
1	-4.276350340	-5.087506990	5.833596910	6	-4.832806160	5.851768410	-0.183507870
6	-2.832064570	-3.032521430	6.929363410	1	-5.177876700	6.576042200	0.572439930
1	-3.462922650	-2.831532560	7.809982530	1	-4.395432290	6.412277450	-1.024174660
1	-2.356425500	-4.018381240	7.056132150	1	-5.699063770	5.279021870	-0.547841160
1	-2.036462510	-2.271648090	6.881156430	6	-3.799428180	3.300487940	-3.943147990
6	-4.308843110	-1.626031680	5.457656330	6	-3.914207600	4.780618590	-3.566656740
1	-4.999450750	-1.408650140	6.288751590	1	-4.064297180	5.384316720	-4.477545670
1	-3.538855390	-0.837749840	5.440408630	1	-4.770482180	4.947609420	-2.897540280
1	-4.879879810	-1.584733980	4.516478090	1	-3.001690000	5.126086360	-3.058925350
6	1.114724560	0.732871820	5.074597590	6	-2.630500480	3.102354260	-4.916226230
6	0.251791250	-0.512852900	5.306769790	1	-2.776829020	3.697788120	-5.832214870
1	0.876639570	-1.413527060	5.418368960	1	-1.683936720	3.418223970	-4.449151930
1	-0.340169770	-0.390354030	6.227913070	1	-2.545100060	2.045002040	-5.218220790
1	-0.443101220	-0.672088040	4.465516200	6	-5.106764920	2.821259230	-4.586000780
6	1.910267550	0.608650890	3.770483060	1	-5.315217100	3.388800550	-5.508329870
1	2.526305690	1.508851790	3.605133000	1	-5.044523430	1.752193530	-4.847579670
1	2.585765220	-0.261625820	3.809703950	1	-5.945982380	2.968018340	-3.890334870
1	1.232581080	0.473465110	2.907047810	14	-2.803833820	-3.019812580	2.921205040
6	2.070177320	0.937740920	6.258979300	8	-2.732907080	-3.295731510	4.573615480
1	2.694460320	1.832120440	6.104741040	1	1.481330090	-0.354162250	-3.793969920
1	1.497609610	1.071340180	7.190308470	1	3.886530630	1.064938270	-1.089794660
1	2.735680680	0.066955170	6.378323400	1	-4.013370570	0.348405650	-0.489088500
6	-2.397938250	3.662689050	5.735947870	1	2.818236140	-2.762688980	-1.218539100
6	-3.113712360	2.333612410	5.464923970	1	-2.501401180	-0.838921640	3.198881630
1	-2.398237040	1.497354760	5.509153530	1	-1.661587540	2.857167360	2.070883930
1	-3.897461060	2.162451790	6.221195570	Reactant -HS			
1	-3.582480810	2.335434170	4.467971730	93	1.674089740	-0.514506510	-1.189816990
6	-1.715963770	3.631070000	7.111170800	93	-1.761288030	0.442435500	1.128108640
1	-1.235282780	4.599813800	7.322923090	19	0.535244680	-2.443742740	1.872601300
1	-2.453868020	3.431072140	7.905328640	19	1.323849760	2.691432550	0.804831050
1	-0.947589060	2.843447720	7.130060110	19	-1.660772540	0.417220390	-2.697710600
6	-3.391075620	4.828536710	5.659886480	14	0.137404270	-1.939630860	-4.610193720
1	-2.867434260	5.784115190	5.822591060	14	3.775128730	-3.360227270	0.728924100
1	-3.867508260	4.857819310	4.667656080	14	3.337935170	3.047294090	-1.826679240
1	-4.175937840	4.722648290	6.425757370	14	-0.360539790	2.944973540	3.884686160
6	1.496948870	5.080742340	3.906593140	14	-4.086669620	2.490964490	-1.204276010
6	1.724246290	4.873873410	5.408645350	7	0.821238370	-0.993609000	-3.349354050
1	2.242698600	5.749797700	5.832345010	8	-1.385126260	-1.247048900	-4.945133070
1	0.767247060	4.744623290	5.933984480	8	-0.043411390	-3.573469960	-4.304729640
1	2.345195660	3.983208630	5.590715410	8	0.953307200	-1.860266420	-6.070177280
6	0.613655250	6.309851840	3.658149660	7	2.629756730	-2.455837310	-0.176259120
1	1.075578090	7.215651720	4.084922080	8	3.154602380	-3.426547870	2.317547600
1	0.474681700	6.469967620	2.575984200	8	3.904083730	-4.965892340	0.267864080
1	-0.374130680	6.158325140	4.119431490	8	5.357272140	-2.803186090	0.772026770
6	2.844801040	5.234015800	3.193523640	7	3.034092820	1.463589800	-1.242833890
1	3.396339420	6.106027310	3.581901540	8	4.222814970	4.038251890	-0.782387650
1	3.467537900	4.337076890	3.348120500	8	1.805248140	3.764866030	-1.818347010
1	2.701691960	5.380677320	2.110175420	8	4.140795850	3.215421830	-3.291544630
6	-6.838694550	1.924578390	-1.031939120	7	-2.199494820	-1.427082250	2.550561650
6	-6.657554090	0.616446460	-1.815346900	8	-1.653945730	-4.066362670	2.328772800
1	-7.580605430	0.015216480	-1.774475650				

8	-4.339241840	-3.412110730	2.585712130	1	6.050503030	-6.462496940	0.818481050
7	-1.039541430	2.235864850	2.475738800	6	4.856254540	-4.800908440	-1.998721890
8	0.197350040	1.856015770	5.021896480	1	5.482977290	-5.327701860	-2.736680640
8	-1.354636120	3.982068320	4.742184750	1	3.862493910	-4.639896890	-2.444915800
8	0.902095590	3.938741230	3.314495120	1	5.310588660	-3.818942870	-1.795615710
7	-3.465488250	1.091848940	-0.436131180	6	5.932077760	-1.481383220	0.708205220
8	-5.748826880	2.752386590	-1.232149260	6	7.339736810	-1.603195900	1.309705960
8	-3.400907400	3.889628820	-0.586814540	1	7.867786730	-0.637036500	1.261496730
8	-3.529488480	2.431237460	-2.818773970	1	7.283978050	-1.919985300	2.362871170
7	-0.023104510	-0.013320360	-0.016096160	1	7.925892570	-2.350646080	0.752398270
6	-2.231990460	-1.406482190	-6.122880520	6	6.027409650	-1.058779660	-0.763953820
6	-1.767747730	-0.404855560	-7.188363260	1	6.470282620	-0.054682190	-0.862898330
1	-2.400271330	-0.468698230	-8.089086010	1	6.657643120	-1.770390490	-1.320818700
1	-1.821556220	0.625568810	-6.800935000	1	5.025154380	-1.057037520	-1.226301720
1	-0.723895050	-0.617562530	-7.464560010	6	5.100045020	-0.482936900	1.522621900
6	-3.656596340	-1.084405270	-5.655035690	1	5.558582830	0.520112060	1.501124550
1	-4.368611460	-1.142945940	-6.494595170	1	4.075366560	-0.400292710	1.120543750
1	-3.977978960	-1.798793720	-4.878882180	1	5.033121890	-0.808158170	2.573614020
1	-3.711044540	-0.065887510	-5.236360460	6	5.650043810	4.259339580	-0.656996430
6	-2.184685460	-2.833735220	-6.682029640	6	6.425247400	2.945598710	-0.817476160
1	-2.861103820	-2.914990100	-7.548830280	1	7.506077420	3.112050210	-0.677412220
1	-1.166719140	-3.092453200	-7.006441050	1	6.089494510	2.214296130	-0.064110450
1	-2.503697020	-3.563407780	-5.923168620	1	6.267171750	2.523728180	-1.822956760
6	-0.553303960	-4.359510630	-3.207438010	6	5.862418310	4.822282680	0.753417710
6	-1.335871380	-3.507447850	-2.203818270	1	5.276539860	5.745396590	0.888591850
1	-1.719698740	-4.133511020	-1.382662710	1	5.537583750	4.091535720	1.511678180
1	-0.703810480	-2.718293770	-1.758403070	1	6.925919950	5.055871800	0.925045470
1	-2.199325930	-3.028937820	-2.696427840	6	6.100989490	5.280759940	-1.710933970
6	-1.470874640	-5.431767080	-3.813610410	1	5.568938190	6.235601370	-1.567620050
1	-1.815305230	-6.133106490	-3.035896640	1	7.182915440	5.475127930	-1.625482850
1	-2.357077250	-4.970185130	-4.276953240	1	5.881919490	4.900683290	-2.719887170
1	-0.931053530	-6.001209350	-4.586335490	6	1.430427530	5.155831270	-2.043315480
6	0.649345110	-5.033112060	-2.535063070	6	1.430407590	5.884573300	-0.691702940
1	0.336711630	-5.678053330	-1.697858370	1	1.170933820	6.948513240	-0.819808530
1	1.195434440	-5.646547970	-3.268536670	1	0.685010870	5.446521960	-0.006323490
1	1.339390950	-4.269617140	-2.142589720	1	2.430832920	5.822188370	-0.234710440
6	2.135462260	-2.565843770	-6.528140750	6	2.377074460	5.867735850	-3.017273580
6	1.691942910	-3.875334680	-7.196564960	1	2.020162560	6.895932850	-3.193145480
1	2.563168840	-4.435300450	-7.574089560	1	3.398319880	5.918180170	-2.611895370
1	1.153331260	-4.501185460	-6.468704650	1	2.413639870	5.343064250	-3.983430690
1	1.022119130	-3.663691810	-8.045531890	6	0.014470530	5.113767140	-2.625579090
6	3.106499130	-2.859480950	-5.377498590	1	-0.374674380	6.134233840	-2.777984680
1	4.009730450	-3.359755400	-5.763588480	1	0.023097350	4.598656140	-3.599516110
1	3.411006170	-1.930796820	-4.869852670	1	-0.672309350	4.575084620	-1.951807890
1	2.635593480	-3.519601500	-4.632908880	6	4.009972380	2.480904490	-4.534517080
6	2.794104120	-1.636721000	-7.555640340	6	4.735266260	3.330281990	-5.587225060
1	3.686232540	-2.109263630	-7.996552710	1	4.689099480	2.847470490	-6.576522930
1	2.084284660	-1.400701190	-8.364454040	1	4.272071260	4.327016880	-5.660367990
1	3.096669490	-0.692269590	-7.075275790	1	5.793174030	3.458650200	-5.308819860
6	3.651406090	-4.173631240	3.470523720	6	2.533687270	2.315128740	-4.916075000
6	2.924716450	-3.582379300	4.684567500	1	2.430472210	1.742969680	-5.853156560
1	3.219804430	-4.103089340	5.610170000	1	1.987866880	1.780561740	-4.121105400
1	3.170283980	-2.513577790	4.796028440	1	2.054767460	3.297328000	-5.054842610
1	1.831680210	-3.685353980	4.577375660	6	4.693790340	1.114592250	-4.396749130
6	3.296422000	-5.657572330	3.310655740	1	4.665025390	0.566106000	-5.352343060
1	3.640660630	-6.232800510	4.185852930	1	5.748313700	1.245300400	-4.104369320
1	2.206298830	-5.788184660	3.221466100	1	4.189689080	0.507383810	-3.626943060
1	3.762313650	-6.061910930	2.400905590	6	-5.141966460	-3.120923070	1.421352270
6	5.165795400	-4.007391860	3.652491300	6	-6.233318450	-4.200789000	1.385798770
1	5.488660420	-4.537492730	4.563859460	1	-6.916663000	-4.036093950	0.537034740
1	5.720487380	-4.412786710	2.794261380	1	-5.782838650	-5.200505000	1.284733910
1	5.429503810	-2.943346680	3.760246790	1	-6.819912000	-4.176995140	2.317591760
6	4.745953050	-5.625972280	-0.709861280	6	-5.778881870	-1.736736590	1.590117140
6	4.057325180	-6.966255900	-0.998474150	1	-6.431306790	-1.499589800	0.734541920
1	4.638634620	-7.556713990	-1.724628510	1	-6.387229220	-1.705086220	2.508363140
1	3.957194450	-7.550589400	-0.069769560	1	-4.995355470	-0.963733630	1.665101340
1	3.048653720	-6.795094530	-1.407429840	6	-4.303549430	-3.176871970	0.138649210
6	6.135586220	-5.858753060	-0.099656670	1	-4.933030120	-2.984432320	-0.746790690
1	6.786540070	-6.396379300	-0.808452700	1	-3.497185870	-2.423791020	0.165761390
1	6.599340000	-4.894283790	0.154882890	1	-3.840611670	-4.169794440	0.022459510

6	-1.530389970	-5.506628150	2.529086170
6	-0.652567220	-6.008388920	1.375586050
1	-1.133438300	-5.788356780	0.408952430
1	0.341255750	-5.530279230	1.387491440
1	-0.498443490	-7.097455600	1.447543160
6	-2.892135020	-6.211915530	2.483685140
1	-3.393845350	-6.029168710	1.520822850
1	-2.748519830	-7.298954000	2.598878340
1	-3.552180160	-5.857866160	3.288822730
6	-0.847410000	-5.767206970	3.877996340
1	-0.703330560	-6.848411850	4.038915520
1	0.142487870	-5.284137460	3.911038910
1	-1.456588490	-5.353913380	4.694820190
6	-3.656187040	-3.029766040	5.720513850
6	-4.724780950	-4.132342610	5.736176330
1	-5.439840480	-3.970781030	6.559560770
1	-5.269207310	-4.138818350	4.780399220
1	-4.250087660	-5.116838740	5.878203420
6	-2.832229760	-3.064006680	7.013901860
1	-3.471090250	-2.877165860	7.891918460
1	-2.350577000	-4.047860380	7.133062660
1	-2.041344780	-2.297144380	6.980845760
6	-4.309106160	-1.651145020	5.548667620
1	-5.009874880	-1.452084110	6.375867560
1	-3.546142720	-0.855541030	5.551445260
1	-4.871086850	-1.601648900	4.602447850
6	1.117319080	0.745015330	5.038109090
6	0.298168590	-0.521636020	5.313900470
1	0.953819200	-1.400053710	5.428851250
1	-0.275341020	-0.400086270	6.246954750
1	-0.415510240	-0.718739090	4.496091570
6	1.885808370	0.614750700	3.717969390
1	2.493158720	1.517110020	3.533679280
1	2.568331680	-0.250562080	3.751248350
1	1.189270490	0.474033420	2.870217970
6	2.097033050	0.994789640	6.194067640
1	2.691306370	1.903762100	6.010781270
1	1.544918420	1.126738670	7.137777280
1	2.790299300	0.145167680	6.309526140
6	-2.373452000	3.703788470	5.737653930
6	-3.104907890	2.387581150	5.443891340
1	-2.400885690	1.541516070	5.485651750
1	-3.898005730	2.218955410	6.190970920
1	-3.563983200	2.408998200	4.442851460
6	-1.705918950	3.645270000	7.119216450
1	-1.213374770	4.604067410	7.348098440
1	-2.453775690	3.444952470	7.903973120
1	-0.949085430	2.846296040	7.135099220
6	-3.351167300	4.883058060	5.666027930
1	-2.817865270	5.829812340	5.847497750
1	-3.815272010	4.931243730	4.668525590
1	-4.146556860	4.777170590	6.421023010
6	1.527480870	5.107664890	3.924826940
6	1.739991360	4.914575930	5.430766290
1	2.241762410	5.799442100	5.855928650
1	0.777942240	4.775151630	5.944023380
1	2.371411760	4.033808880	5.625381970
6	0.639713930	6.329512370	3.655844520
1	1.094757740	7.242917510	4.073653060
1	0.507342840	6.474715430	2.570652720
1	-0.350203990	6.179182520	4.112696850
6	2.881204550	5.263398100	3.223681960
1	3.423399780	6.142556630	3.609102340
1	3.508093330	4.371894080	3.392189450
1	2.746206300	5.397708580	2.137786530
6	-6.907035490	1.894268530	-1.120552920
6	-6.725014300	0.590407000	-1.911167210
1	-7.653480850	-0.003494120	-1.890001050
1	-6.474623720	0.805079960	-2.961708220
1	-5.919964100	-0.028882540	-1.484110540

6	-7.175364070	1.596663860	0.361332120
1	-8.049762970	0.935240170	0.474392220
1	-6.303559690	1.107710310	0.822483970
1	-7.379412310	2.531844160	0.906198260
6	-8.077228240	2.696879260	-1.707831750
1	-9.021369410	2.137886950	-1.608273200
1	-8.179535700	3.656479670	-1.177616910
1	-7.908683850	2.907293360	-2.775985550
6	-3.863674330	4.817171050	0.429800160
6	-2.628775370	5.631768580	0.832948930
1	-2.891228890	6.399812220	1.578744000
1	-1.857430220	4.981555970	1.278072760
1	-2.197792330	6.129802910	-0.049871770
6	-4.438504130	4.077964370	1.643048140
1	-4.728610210	4.799660740	2.423946060
1	-5.328140610	3.498086290	1.357541160
1	-3.698513020	3.382857950	2.071307170
6	-4.928384830	5.751657330	-0.166241430
1	-5.285381990	6.459155990	0.599902110
1	-4.508773430	6.331814960	-1.002655730
1	-5.782112710	5.162577480	-0.533302840
6	-3.806649080	3.292839290	-3.962568500
6	-3.916312040	4.767292660	-3.562802850
1	-4.046336090	5.387705050	-4.465507270
1	-4.782296450	4.929628560	-2.905073240
1	-3.009750870	5.096511900	-3.033781240
6	-2.623823330	3.101289810	-4.919777080
1	-2.753614500	3.707337330	-5.831321070
1	-1.683680890	3.408257150	-4.434441620
1	-2.537470020	2.046833840	-5.230913730
6	-5.107604400	2.834921380	-4.633724710
1	-5.298371650	3.419865740	-5.548971030
1	-5.049247400	1.770119760	-4.912810200
1	-5.956021320	2.975637620	-3.947922880
14	-2.770081840	-2.981631950	3.009527800
8	-2.712412000	-3.297699690	4.656035080
1	1.332281980	-0.236934270	-3.846028430
1	3.955045770	1.030474170	-1.049867460
1	-4.108337660	0.292206380	-0.551535270
1	2.283970810	-3.117508390	-0.897280650
1	-2.493715010	-0.799089170	3.325203770
1	-1.563781860	3.004483060	2.012132460

Product -LS

93	0.017972770	0.029554410	-1.707471550
93	-0.105890140	0.056020980	1.600795980
14	-2.906376930	-2.173475450	-3.090830030
14	3.472357610	0.447082220	3.334876390
7	-1.991213760	-0.831096860	-2.567460130
8	-4.212473010	-2.532956930	-2.053698990
8	-3.572249890	-2.197789400	-4.627290800
8	-1.890280220	-3.489120440	-2.799286170
7	1.969730810	-0.096601000	2.707476850
8	4.667705160	-0.235154110	2.321176620
8	3.857059930	-0.135247430	4.856872070
8	3.662768380	2.100651130	3.451153460
6	-5.556510990	-1.989452710	-2.018686710
6	-6.108118480	-2.334051480	-0.629541450
1	-6.083062030	-3.424235100	-0.469249150
1	-7.151511660	-1.993941140	-0.525793740
1	-5.509924780	-1.848273950	0.160205450
6	-5.537918940	-0.466578210	-2.208179770
1	-4.889956070	0.007745930	-1.452526110
1	-6.553903120	-0.050120270	-2.103325850
1	-5.164949360	-0.202094410	-3.210483700
6	-6.406496700	-2.664011180	-3.104545620
1	-5.967293240	-2.477418560	-4.095873770
1	-7.439796240	-2.279556280	-3.086654610
1	-6.438531680	-3.753441460	-2.938512380
6	-3.208834220	-1.490749760	-5.845075340

6	-3.768056090	-0.064113730	-5.774035140	8	4.224078250	-2.388842600	-2.135767670
1	-4.856870890	-0.086685260	-5.604629260	8	3.763021460	-1.903227000	-4.733416950
1	-3.575452030	0.474366030	-6.716171460	8	4.007764330	0.138136220	-2.840198450
1	-3.285422380	0.492737830	-4.954905360	7	-0.942564220	1.671433200	3.091016520
6	-1.689518380	-1.456552230	-6.039800280	8	-1.888526680	4.251829680	2.639679520
1	-1.207343230	-0.953784480	-5.185669520	8	-1.833030730	3.421112170	5.162277730
1	-1.436477150	-0.905237290	-6.959918400	8	-3.677909450	2.365737500	3.586936170
1	-1.283811240	-2.475584540	-6.122587740	6	4.423095250	-3.826407580	-2.154912100
6	-3.884254110	-2.267609150	-6.982537510	6	4.954526650	-4.189221360	-0.762143530
1	-3.505068060	-3.301253790	-7.021273750	1	5.875088010	-3.623153630	-0.545491000
1	-3.683403000	-1.785443450	-7.952457060	1	5.187573500	-5.264785100	-0.699145600
1	-4.974419160	-2.305437210	-6.827919010	1	4.206789090	-3.960233430	0.016887120
6	-1.993366060	-4.877131280	-3.220270380	6	3.096335900	-4.554117640	-2.410124370
6	-3.427528410	-5.409430580	-3.102820500	1	2.343698970	-4.253413440	-1.661923660
1	-3.803836180	-5.312814930	-2.072663520	1	3.231481920	-5.646769970	-2.342944420
1	-3.454419070	-6.474414750	-3.388050520	1	2.708691890	-4.321360780	-3.414566480
1	-4.106887560	-4.855646950	-3.769702060	6	5.463297010	-4.191542500	-3.222873170
6	-1.504335030	-5.007067160	-4.668289730	1	5.117195580	-3.864450780	-4.214272480
1	-2.180840640	-4.467096040	-5.347039930	1	5.636320250	-5.280476390	-3.238787350
1	-1.477383240	-6.066270050	-4.973157990	1	6.421068420	-3.690372230	-3.007511670
1	-0.490228330	-4.588936500	-4.769079570	6	3.008640750	-1.918343490	-5.977073620
6	-1.061463910	-5.657460170	-2.285355940	6	2.009748170	-3.081706660	-5.941640050
1	-0.037951380	-5.252854720	-2.339210150	1	2.533510020	-4.036291850	-5.770578900
1	-1.031630180	-6.723602030	-2.563249420	1	1.463344090	-3.154028410	-6.896219890
1	-1.407812200	-5.587859930	-1.241197700	1	1.276544630	-2.921051520	-5.135580010
6	6.069963690	-0.526358330	2.595656820	6	2.268318550	-0.595160130	-6.197862640
6	6.742075150	-0.673497630	1.224987540	1	1.567415430	-0.408562910	-5.368263370
1	6.267962200	-1.479346200	0.639062440	1	1.696847850	-0.631597960	-7.139544290
1	7.809651340	-0.924406580	1.337532500	1	2.978515150	0.243149430	-6.257200120
1	6.669605270	0.267254060	0.654844380	6	4.050590800	-2.145199800	-7.079430160
6	6.150541880	-1.847934270	3.371327510	1	4.785973240	-1.325001240	-7.086558040
1	5.611706350	-1.752098920	4.325736090	1	3.565686010	-2.188773580	-8.067695950
1	7.199844450	-2.120747130	3.572682490	1	4.588997660	-3.091426120	-6.910758340
1	5.686997540	-2.662122770	2.789023910	6	5.290924690	0.718709690	-3.206092780
6	6.739103670	0.607886570	3.381408050	6	6.413830800	-0.326355930	-3.214599440
1	6.669223810	1.557728150	2.828217540	1	6.507127130	-0.809599240	-2.229807930
1	7.805532490	0.377837110	3.541362840	1	7.373558700	0.158379680	-3.460063750
1	6.256615420	0.738266770	4.360489750	1	6.216694070	-1.105829230	-3.967281310
6	3.467993010	0.334068940	6.172560990	6	5.164672980	1.369934080	-4.589351870
6	3.548296170	-0.895378430	7.086373170	1	4.982247200	0.602204700	-5.355961140
1	2.841638060	-1.669497250	6.747121610	1	6.090717760	1.908260880	-4.850247630
1	3.303456310	-0.625467510	8.126041000	1	4.329598330	2.088442420	-4.598538350
1	4.564985210	-1.319397180	7.063628920	6	5.574983720	1.790060760	-2.148114400
6	4.466144610	1.408271020	6.627406520	1	4.752185110	2.520582530	-2.113071440
1	5.485503140	0.991673980	6.670256120	1	6.511911000	2.325055280	-2.373956240
1	4.203636490	1.781825010	7.630772010	1	5.675651020	1.329152910	-1.152461040
1	4.456861510	2.249938310	5.918428700	6	-2.268497190	5.624716190	2.956206190
6	2.041969920	0.898591480	6.168837520	6	-2.271517460	6.387615610	1.623567080
1	1.977372460	1.782926000	5.514588590	1	-1.261650830	6.408984890	1.176674110
1	1.750622010	1.197173750	7.189099810	1	-2.581585380	7.433943330	1.776470700
1	1.329592620	0.141859230	5.806701500	1	-2.982204010	5.932675640	0.910635560
6	3.556813900	3.230407290	2.557132260	6	-1.215608250	6.230779430	3.893598680
6	4.752356250	4.139104830	2.878725660	1	-1.188548970	5.664973890	4.835591640
1	4.747261350	4.410464910	3.946230950	1	-1.444997100	7.288260870	4.106859480
1	4.711503650	5.064766810	2.281524820	1	-0.217344570	6.177826100	3.427857850
1	5.700236040	3.623325030	2.656796150	6	-3.666315080	5.696381430	3.584029360
6	2.242878120	3.959540630	2.866397230	1	-4.421167290	5.269575950	2.904498750
1	1.375283900	3.315936020	2.647503390	1	-3.935844530	6.746718520	3.785038280
1	2.158712260	4.877865480	2.260246640	1	-3.695562260	5.139263210	4.530618720
1	2.205783270	4.247305380	3.929468030	6	-2.191995070	2.867050020	6.451457980
6	3.597654840	2.800092300	1.087725910	6	-1.196146280	3.473643640	7.448814730
1	4.500652460	2.200789000	0.890043530	1	-0.167704970	3.180678160	7.184626130
1	3.632411930	3.687468810	0.433944890	1	-1.410295160	3.129478750	8.473277750
1	2.695117580	2.224962120	0.817741460	1	-1.259969470	4.573320860	7.428309350
7	0.244875150	-1.183015340	-0.023192880	6	-3.625386910	3.296905030	6.795852550
7	0.413886860	1.447019710	0.017360440	1	-3.697273860	4.395866020	6.834192590
7	-0.990514470	1.127283820	-0.138849410	1	-3.924664850	2.897774600	7.778812520
14	3.354213050	-1.370857260	-3.197354930	1	-4.321304330	2.922705620	6.030025050
14	-2.075075260	2.848243160	3.604574450	6	-2.079375230	1.338240700	6.457217570
7	1.709504460	-1.222070990	-2.769530080	1	-2.773012640	0.896005430	5.724367040

1	-2.324605480	0.942642860	7.456572080
1	-1.055721470	1.029020090	6.198306770
6	-4.589911800	1.782410160	2.636788270
6	-5.986790350	2.281598020	3.036284600
1	-6.210410860	1.991403930	4.074888630
1	-6.759504390	1.852035930	2.378047270
1	-6.036926900	3.379839500	2.964691520
6	-4.526605050	0.254518370	2.760794620
1	-3.528336310	-0.122026060	2.487104300
1	-5.270395830	-0.220906540	2.099217270
1	-4.739831080	-0.056365260	3.796333420
6	-4.267093630	2.215273970	1.203019500
1	-4.291177050	3.314898220	1.126036350
1	-5.015501910	1.808738370	0.502328200
1	-3.273862990	1.847384720	0.887693980
19	3.178869650	-0.892229240	0.084027130
14	-0.412643100	3.383462900	-3.443771110
14	-1.443865920	-3.258110270	3.386599150
7	0.239673910	1.824653110	-3.197606400
8	0.095542520	4.612392570	-2.366446730
8	-0.187496520	4.098578430	-4.949820570
8	-2.033967050	3.255128230	-3.012144480
7	-1.213764500	-1.667434340	2.775968500
8	-2.556252800	-4.019764840	2.338357220
8	-2.165696670	-3.325650220	4.894707690
8	-0.070080240	-4.203266920	3.534197740
6	1.315601170	5.397171760	-2.378066420
6	1.480331390	5.942042610	-0.952429240
1	0.588741020	6.522138510	-0.658146990
1	2.353947030	6.611307060	-0.886620250
1	1.635422740	5.117517180	-0.235284480
6	2.526030610	4.525301800	-2.735812830
1	2.573125880	3.653607050	-2.063534400
1	3.460939150	5.102282550	-2.637424630
1	2.455954980	4.167737480	-3.774789730
6	1.160689700	6.561848500	-3.365761340
1	0.948981910	6.171878390	-4.372006430
1	2.077487740	7.174021800	-3.396125140
1	0.321616800	7.210030420	-3.061657250
6	0.104740060	3.559944860	-6.265296090
6	1.615371630	3.311214330	-6.378826070
1	2.174618320	4.237355630	-6.170496500
1	1.876757430	2.970423750	-7.393874050
1	1.933586730	2.533022700	-5.668034690
6	-0.668413660	2.263356050	-6.526530840
1	-0.428607610	1.518864090	-5.751140990
1	-0.402467200	1.853305270	-7.514681340
1	-1.752811790	2.448342760	-6.506097650
6	-0.315206450	4.650405250	-7.260675230
1	-1.395517890	4.849962100	-7.182596780
1	-0.093162500	4.338110570	-8.293568900
1	0.225264010	5.587781090	-7.053205260
6	-3.172530020	4.109015190	-3.282964110
6	-2.883723660	5.576899780	-2.936879500
1	-2.620343150	5.694603030	-1.872832000
1	-3.776374420	6.193147450	-3.136219020
1	-2.048517190	5.967963850	-3.538449190
6	-3.574748210	3.995541460	-4.759981780
1	-2.778196270	4.397725950	-5.402365550
1	-4.501353950	4.561385430	-4.951747040
1	-3.748713950	2.940777940	-5.024753000
6	-4.303568270	3.571484190	-2.397778500
1	-4.509968300	2.516834340	-2.639160210
1	-5.228096550	4.152942840	-2.546222220
1	-4.027853620	3.626143470	-1.332349590
6	-3.519530110	-5.083213950	2.588546680
6	-3.924560150	-5.608229340	1.205127860
1	-4.369962860	-4.803262410	0.595828400
1	-4.671857340	-6.413722620	1.294731530
1	-3.047835630	-6.014709560	0.673241320

6	-4.736202890	-4.484386100	3.306987620
1	-4.426507970	-4.062004560	4.274533760
1	-5.507561140	-5.253744500	3.477409540
1	-5.178688640	-3.677354040	2.699389830
6	-2.906131140	-6.219954230	3.414395130
1	-2.034319820	-6.649922050	2.896318180
1	-3.647791510	-7.022169200	3.563765560
1	-2.582016790	-5.852311720	4.398059040
6	-1.604674480	-3.248425760	6.229922540
6	-2.744864890	-2.741076240	7.121590070
1	-3.068729530	-1.740331300	6.795170910
1	-2.420573270	-2.681523200	8.172767300
1	-3.607584850	-3.423362450	7.058446930
6	-1.166391560	-4.653428950	6.666968960
1	-2.027457830	-5.341234020	6.673455470
1	-0.739182770	-4.626678980	7.682821470
1	-0.407577480	-5.041433870	5.970701560
6	-0.416879020	-2.280758060	6.281213190
1	0.396605420	-2.633537270	5.627480420
1	-0.031709470	-2.204654760	7.311166930
1	-0.724168120	-1.278187230	5.947940760
6	0.948740860	-4.750741740	2.673423380
6	1.112876590	-6.223978410	3.075660520
1	1.349976550	-6.301337780	4.148470880
1	1.925984980	-6.698356480	2.501914840
1	0.182254450	-6.781761780	2.886381280
6	2.255052290	-3.992050530	2.942330080
1	2.152134420	-2.934299500	2.653776160
1	3.087905190	-4.430995460	2.367181220
1	2.515200080	-4.035364510	4.012141360
6	0.574048310	-4.641115600	1.191903230
1	-0.382567830	-5.154206860	1.001073730
1	1.345136290	-5.125454980	0.569105770
1	0.502449890	-3.581674210	0.880953590
19	-1.002990370	3.746059780	0.051945330
19	-2.185467640	-2.629480650	0.021532440
1	1.294915040	-2.162781530	-2.647777690
1	-2.574431200	0.023368570	-2.554449490
1	1.226423560	1.768215140	-3.496402320
1	1.819820910	-1.019921570	3.153616060
1	-1.774247450	-1.054037830	3.393919650
1	-0.082972880	1.821419550	3.647448350

Product -HS

93	0.015094930	0.028102950	-1.707389000
93	-0.090235310	0.061964520	1.612456110
14	-2.927970250	-2.158518410	-3.082835880
14	3.501669600	0.470770380	3.324030460
7	-2.014481480	-0.817123180	-2.556567320
8	-4.247547900	-2.509611660	-2.057432450
8	-3.578807620	-2.187772510	-4.626081340
8	-1.920997120	-3.475422850	-2.770146640
7	2.004519680	-0.086050360	2.697785400
8	4.702084830	-0.196073940	2.305610920
8	3.894270680	-0.111636270	4.844241250
8	3.673353520	2.126035550	3.445735890
6	-5.594517790	-1.971919130	-2.049503010
6	-6.164568000	-2.297720660	-0.663251770
1	-6.133426400	-3.384752650	-0.484055610
1	-7.212060130	-1.964480950	-0.581056180
1	-5.583304700	-1.793756760	0.127800930
6	-5.579399330	-0.452288300	-2.262307350
1	-4.945462950	0.037056270	-1.504243480
1	-6.598219070	-0.037698340	-2.180873770
1	-5.190694480	-0.202592470	-3.262297870
6	-6.427096420	-2.666711300	-3.136104710
1	-5.972972870	-2.496652690	-4.123644930
1	-7.460740940	-2.282940440	-3.140736300
1	-6.460875430	-3.752995620	-2.951505610

6	-3.202326050	-1.488059650	-5.844316210	7	1.721452080	-1.238781280	-2.755670470
6	-3.741510690	-0.053461570	-5.780338770	8	4.244081790	-2.394347260	-2.130548450
1	-4.831712170	-0.058962260	-5.618296790	8	3.776362280	-1.902370510	-4.729391870
1	-3.534955360	0.478672150	-6.723041780	8	4.013059900	0.129716760	-2.832848000
1	-3.256048220	0.499800850	-4.960614630	7	-0.921028170	1.673632070	3.113554090
6	-1.682253040	-1.476982500	-6.034820140	8	-1.894876190	4.244579760	2.657090840
1	-1.194724790	-0.978778960	-5.181114720	8	-1.842161740	3.406288100	5.181036000
1	-1.418616870	-0.932856510	-6.956153970	8	-3.666724790	2.336489710	3.590926760
1	-1.291618930	-2.502238910	-6.112650130	6	4.446000480	-3.831380550	-2.148871430
6	-3.885055890	-2.257958420	-6.981990670	6	4.979474080	-4.193242650	-0.756501900
1	-3.522329870	-3.297624290	-7.014960480	1	5.897529110	-3.623547280	-0.538456820
1	-3.672550420	-1.782859190	-7.952942300	1	5.216640200	-5.267903450	-0.694444740
1	-4.976283210	-2.277486600	-6.831823530	1	4.230706930	-3.968257400	0.022734300
6	-2.020497310	-4.864490190	-3.187372540	6	3.121422790	-4.563103470	-2.403513790
6	-3.455915780	-5.394727150	-3.077707320	1	2.368520130	-4.266820720	-1.653780550
1	-3.839426560	-5.290597470	-2.051087990	1	3.260645390	-5.655309590	-2.339278080
1	-3.482325630	-6.461421750	-3.356306390	1	2.730726040	-4.329626590	-3.406600810
1	-4.129276630	-4.844236530	-3.753279530	6	5.487275080	-4.191995600	-3.217308300
6	-1.520700160	-4.999119850	-4.631314240	1	5.141061450	-3.861560570	-4.207592670
1	-2.191541530	-4.460513580	-5.316703800	1	5.662791160	-5.280353010	-3.237559050
1	-1.492593380	-6.059258490	-4.932661250	1	6.443882580	-3.689811960	-2.990999930
1	-0.505455030	-4.582278260	-4.725775010	6	3.010082480	-1.938921670	-5.965363860
6	-1.096469000	-5.642267040	-2.243061010	6	2.013449920	-3.103036200	-5.906039280
1	-0.071729430	-5.240501470	-2.292482720	1	2.540043980	-4.054963480	-5.728828290
1	-1.067850280	-6.710085180	-2.514895560	1	1.458690970	-3.187098500	-6.854689320
1	-1.449068930	-5.564291130	-1.201980490	1	1.287363960	-2.933923350	-5.095350140
6	6.104083650	-0.486125570	2.581998370	6	2.266331420	-0.619450700	-6.196117530
6	6.777523130	-0.635582440	1.212145300	1	1.575153220	-0.422588300	-5.360611280
1	6.305388190	-1.444248710	0.628372770	1	1.683126740	-0.668254190	-7.130076400
1	7.845595910	-0.883818130	1.326125780	1	2.975479380	0.217938210	-6.275151320
1	6.702900670	0.302959880	0.638671300	6	4.042411230	-2.178412200	-7.074064370
6	6.186514590	-1.805522590	3.361166930	1	4.775409030	-1.356510340	-7.099759740
1	5.647941570	-1.708031310	4.315469760	1	3.548246460	-2.237376530	-8.056912300
1	7.236269040	-2.076343040	3.562549410	1	4.584962170	-3.120678790	-6.897027600
1	5.724043850	-2.621757690	2.780882980	6	5.290126160	0.719292460	-3.204341200
6	6.770174910	0.651532080	3.365351800	6	6.422993250	-0.314934170	-3.198759890
1	6.700735010	1.598653620	2.807462780	1	6.518704530	-0.786851200	-2.208731650
1	7.836423050	0.423796700	3.529639960	1	7.378547740	0.176379850	-3.447095310
1	6.284408200	0.785360430	4.342393730	1	6.235419500	-1.104111380	-3.943683310
6	3.494530650	0.345775410	6.160765390	6	5.160704970	1.352128060	-4.595714630
6	3.555624630	-0.893548630	7.062598760	1	4.981878630	0.573362300	-5.351775250
1	2.844615200	-1.657101690	6.708844550	1	6.084208500	1.891516050	-4.863179270
1	3.303843990	-0.632212820	8.102870290	1	4.322418830	2.066698600	-4.614391080
1	4.568406710	-1.326994920	7.044775760	6	5.561897800	1.805644510	-2.158581770
6	4.496951510	1.407234090	6.636090120	1	4.733713700	2.530515860	-2.135381860
1	5.512347930	0.981667350	6.682576210	1	6.495514970	2.344962430	-2.387698950
1	4.229234160	1.772675450	7.641122190	1	5.661613180	1.358025720	-1.156855540
1	4.500411530	2.256691930	5.936340950	6	-2.290468170	5.612891350	2.974776380
6	2.072975690	0.921752400	6.149488070	6	-2.305604080	6.376813040	1.642450300
1	2.022380070	1.813708860	5.504710030	1	-1.297705950	6.407959810	1.191618860
1	1.774387750	1.210899990	7.170335570	1	-2.621218200	7.421043300	1.798683640
1	1.358002980	0.174901790	5.771780650	1	-3.014147780	5.916446120	0.931279990
6	3.568738920	3.258713640	2.555552380	6	-1.243047310	6.229049180	3.911747290
6	4.754902610	4.174271200	2.892055890	1	-1.205778550	5.659340910	4.851070150
1	4.737711480	4.440595740	3.960618710	1	-1.485964360	7.282198010	4.131071890
1	4.713536290	5.102254700	2.298587220	1	-0.245358320	6.191977160	3.443076330
1	5.708045890	3.665712270	2.676910720	6	-3.688269150	5.668522940	3.604579350
6	2.247429800	3.977853400	2.856865510	1	-4.438973580	5.232509600	2.926472760
1	1.387203800	3.324544670	2.637541090	1	-3.969733660	6.715785510	3.805141500
1	2.157425890	4.893807620	2.247699760	1	-3.709268600	5.111799900	4.551464450
1	2.202198070	4.269016650	3.918688350	6	-2.204928650	2.834810600	6.461730560
6	3.625420090	2.834010890	1.084947840	6	-1.213834490	3.427343560	7.472048850
1	4.533575980	2.240266750	0.894425630	1	-0.184097180	3.138264110	7.208442060
1	3.662314670	3.723959160	0.434509550	1	-1.432767000	3.068242380	8.490359920
1	2.729412420	2.253622260	0.804230730	1	-1.277410140	4.527226210	7.467339110
7	0.230764240	-1.194639380	-0.010761980	6	-3.640073850	3.259406870	6.806176490
7	0.444291650	1.445046960	0.012644410	1	-3.712114070	4.357707110	6.860268610
7	-0.975328890	1.150629140	-0.125133560	1	-3.943642950	2.845944600	7.781896810
14	3.363884460	-1.381772770	-3.189738860	1	-4.332641530	2.896658200	6.031860590
14	-2.070480760	2.837980570	3.619923770	6	-2.091870480	1.305959590	6.446096950

1	-2.784196990	0.874575180	5.705678300	1	-3.119417500	-5.938057210	0.654924390
1	-2.339823360	0.896753480	7.438999420	6	-4.751659920	-4.469347950	3.357916600
1	-1.067529510	0.999400900	6.185827620	1	-4.420614160	-4.062512680	4.325071110
6	-4.568652110	1.762116420	2.625063020	1	-5.515359370	-5.245329490	3.532703720
6	-5.970276990	2.251514360	3.020429060	1	-5.212185460	-3.653336890	2.776262470
1	-6.200837510	1.947851280	4.053669710	6	-2.915635890	-6.202477160	3.386105920
1	-6.736277180	1.826923830	2.351218360	1	-2.053875990	-6.617422140	2.839855770
1	-6.024445010	3.350219280	2.961638670	1	-3.652504650	-7.009706760	3.532179930
6	-4.503683470	0.232787850	2.730522230	1	-2.571231350	-5.858492190	4.371372300
1	-3.498394780	-0.140121590	2.478018300	6	-1.594655530	-3.282720630	6.248121540
1	-5.232323970	-0.235027540	2.046733370	6	-2.701736300	-2.742718250	7.162263060
1	-4.739172180	-0.092233310	3.756736350	1	-2.986590610	-1.724395040	6.854458510
6	-4.234358950	2.215055230	1.199861930	1	-2.363073750	-2.713743240	8.210236410
1	-4.258519610	3.315710590	1.138091250	1	-3.593498610	-3.386665290	7.099425070
1	-4.977974470	1.817275970	0.489003860	6	-1.212440220	-4.712312220	6.657198610
1	-3.237828560	1.855986560	0.884545280	1	-2.102511210	-5.362013370	6.659023960
19	3.192597460	-0.898734160	0.085415810	1	-0.777626860	-4.721682850	7.670158640
14	-0.402604270	3.377571810	-3.457994130	1	-0.476107400	-5.120137730	5.948419900
14	-1.456950370	-3.256759090	3.404965740	6	-0.366574520	-2.366354600	6.301921960
7	0.250555980	1.819916260	-3.208217990	1	0.421305950	-2.739071080	5.628400960
8	0.098958080	4.606569710	-2.375512430	1	0.036669840	-2.328275230	7.327014030
8	-0.159381390	4.092500920	-4.961462270	1	-0.635737430	-1.344197180	5.995457270
8	-2.026788010	3.240779550	-3.043714170	6	0.907679380	-4.769957530	2.668908020
7	-1.191802020	-1.667091080	2.807764080	6	1.111117810	-6.239624290	3.066685810
8	-2.595214710	-3.976258320	2.354640720	1	1.365569590	-6.312555530	4.135869300
8	-2.171518740	-3.310035060	4.917854230	1	1.926381890	-6.694664580	2.480598700
8	-0.118974430	-4.255386540	3.540807990	1	0.190761710	-6.818308290	2.890132370
6	1.302587760	5.416577010	-2.400177310	6	2.198363020	-3.980834670	2.925070400
6	1.464241900	5.979232950	-0.980801110	1	2.062705250	-2.925488890	2.642529110
1	0.560493480	6.538947700	-0.684074950	1	3.034089790	-4.395181330	2.336089870
1	2.320531070	6.671482050	-0.930227510	1	2.473749040	-4.023251780	3.990964040
1	1.649393110	5.167641930	-0.255876190	6	0.512150830	-4.666821570	1.192396930
6	2.527583810	4.563882890	-2.754144760	1	-0.438249010	-5.195015980	1.014038750
1	2.589708700	3.697414370	-2.076205180	1	1.283322440	-5.138418480	0.559658700
1	3.453138040	5.156497320	-2.660202400	1	0.417977480	-3.610436190	0.878573530
1	2.461848590	4.197939530	-3.790413040	19	-0.922414850	3.765813910	0.086051350
6	1.123393400	6.569824460	-3.397264710	19	-2.274179710	-2.538338530	0.063688970
1	0.912368230	6.167688710	-4.398623240	1	1.311592300	-2.180596490	-2.631446970
1	2.030677710	7.195327670	-3.437557540	1	-2.585145330	0.044931510	-2.581509780
1	0.277064260	7.208696170	-3.093787250	1	1.236594270	1.762595290	-3.507633560
6	0.129445100	3.546714970	-6.274656390	1	1.872738130	-1.017372540	3.133078060
6	1.636204040	3.273844670	-6.382144230	1	-1.671311300	-1.043303520	3.481315840
1	2.209542250	4.192102590	-6.177231570	1	-0.069317510	1.820790140	3.682264870
1	1.895315780	2.923432750	-7.394493890	Plutonium-O Species			
1	1.939590770	2.494749260	-5.666024980	94	1.613863300	-0.504439710	-1.274301870
6	-0.664025920	2.262096060	-6.533711350	94	-1.716584200	0.419946570	1.164044050
1	-0.437467260	1.516290010	-5.755458000	19	0.469844670	-2.631123200	1.645463070
1	-0.403804360	1.844356670	-7.520148910	19	1.392307600	2.556530580	0.954104500
1	-1.745035520	2.465836650	-6.515418190	19	-1.908658420	0.041724250	-2.557214410
6	-0.269744460	4.639963340	-7.275353000	14	0.095415280	-2.207993600	-4.386236470
1	-1.347745620	4.853932450	-7.204913780	14	3.938395150	-2.679867040	0.879710390
1	-0.045034790	4.321702100	-8.305852250	14	3.327223680	2.855016880	-2.038539520
1	0.282165740	5.570471210	-7.067284490	14	-0.368965350	2.543056330	4.063006190
6	-3.165575020	4.098756220	-3.297209470	14	-3.926232360	2.549428270	-1.170418810
6	-2.892400650	5.549566890	-2.875414930	8	0.521011980	-1.325111020	-3.092958440
1	-2.657251840	5.616434660	-1.800312200	8	-1.570003010	-1.910081160	-4.548699060
1	-3.782753530	6.171266260	-3.066641810	8	0.414745440	-3.846946780	-4.271112050
1	-2.044164520	5.972025710	-3.435721240	8	0.742062990	-1.750751480	-5.855257040
6	-3.537164630	4.053688250	-4.785913550	8	2.732893910	-1.920088700	0.100847140
1	-2.725361300	4.479284030	-5.393316790	8	3.152974930	-3.485110450	2.153939480
1	-4.456929750	4.632651400	-4.970839720	8	4.721644140	-3.890719950	0.039469900
1	-3.711063080	3.012779310	-5.100898780	8	5.166019040	-1.693970150	1.446628940
6	-4.309893970	3.514934950	-2.460094130	8	2.574643270	1.536028180	-1.465111140
1	-4.519658060	2.478753300	-2.768384180	8	4.985620180	2.757483520	-2.192122860
1	-5.229248430	4.110219120	-2.583972680	8	3.068645200	4.027214770	-0.835551470
1	-4.044212580	3.502392290	-1.391029360	8	2.795631470	3.385730020	-3.536053480
6	-3.549719130	-5.048925830	2.600031320	8	-2.180809750	-1.662758670	1.947798340
6	-3.984695370	-5.545847020	1.215349010	8	-1.773748000	-4.166916470	2.572100620
1	-4.446504560	-4.730472840	0.632889210				
1	-4.727492940	-6.355376890	1.305745550				

8	-4.302989360	-3.426669290	1.618808620	1	7.274476290	-4.638645800	0.442604970
8	-0.741233320	1.795597420	2.672483160	6	5.629494340	-2.592869580	-1.844004400
8	-0.269237450	1.550489360	5.408813240	1	6.426132700	-2.567928610	-2.605483680
8	-1.405538660	3.763981500	4.532368310	1	4.656539870	-2.628001350	-2.360789910
8	1.101770600	3.324195040	3.725914870	1	5.681997010	-1.661560890	-1.258093660
8	-3.085934110	1.410305250	-0.373780340	6	5.164302120	-0.360960460	2.011701440
8	-5.450185530	2.883758940	-0.573500530	6	6.309647710	-0.335993200	3.033321540
8	-3.195066530	4.041719930	-1.342330790	1	6.417362410	0.668536550	3.474180680
8	-4.011161260	1.973938470	-2.766939800	1	6.119145760	-1.054231740	3.846871210
7	-0.024910320	-0.018746470	-0.028420310	1	7.258680000	-0.607983270	2.545294030
6	-2.444285890	-2.233906690	-5.670171400	6	5.438567410	0.639366550	0.884472130
6	-2.372075670	-1.084178910	-6.683283980	1	5.512151200	1.668898820	1.274161030
1	-3.035493260	-1.274336860	-7.543162440	1	6.391864110	0.397351880	0.388996620
1	-2.681763160	-0.134106800	-6.216919760	1	4.636623730	0.619095500	0.129002910
1	-1.338032760	-0.973151270	-7.043950430	6	3.834563160	-0.044646360	2.705405900
6	-3.853360970	-2.355395060	-5.076649390	1	3.858477040	0.970687030	3.137021900
1	-4.595569400	-2.553670630	-5.867245010	1	3.000322020	-0.106784680	1.985347790
1	-3.891127410	-3.184508870	-4.351101980	1	3.639803440	-0.759318830	3.521285060
1	-4.148425080	-1.426537150	-4.561500330	6	5.797187680	2.216028700	-3.267531280
6	-2.053151320	-3.557405130	-6.339445480	6	5.145259140	0.968195060	-3.874603930
1	-2.764571860	-3.788334880	-7.149380170	1	5.792903480	0.536211870	-4.654952090
1	-1.042541460	-3.496452480	-6.768789390	1	4.977676300	0.202794230	-3.099545340
1	-2.071660160	-4.383781680	-5.612538140	1	4.176589930	1.225254160	-4.331218090
6	0.371945190	-4.766762900	-3.154344090	6	7.142808130	1.855935210	-2.626959780
6	-0.688247750	-4.357932120	-2.125865720	1	7.585658650	2.744867400	-2.149944680
1	-0.719166080	-5.086317770	-1.297802010	1	7.005067690	1.081935620	-1.856242240
1	-0.463362620	-3.359900930	-1.712596130	1	7.846009220	1.477887280	-3.386132280
1	-1.687150090	-4.321844780	-2.589441620	6	5.987636340	3.298406310	-4.339594320
6	0.023053820	-6.135575720	-3.754981070	1	6.493427610	4.177665720	-3.908997010
1	0.017830430	-6.914754620	-2.975463240	1	6.605219490	2.917542380	-5.169443720
1	-0.972642870	-6.107522430	-4.225930250	1	5.008789820	3.609963220	-4.734179170
1	0.761966350	-6.412213380	-4.523332830	6	3.733070090	5.317556080	-0.681932290
6	1.761778400	-4.812189090	-2.509242250	6	5.027798210	5.101316390	0.111796260
1	1.796965840	-5.549647570	-1.689957960	1	5.552420390	6.057104560	0.275464120
1	2.514573680	-5.097061660	-3.261273580	1	4.806792350	4.657556940	1.097113730
1	2.036196060	-3.829524530	-2.091614620	1	5.690205760	4.415144730	-0.437650500
6	2.031851760	-2.059189160	-6.446417890	6	4.038861080	5.971705150	-2.035452610
6	1.932837710	-3.407372080	-7.174112430	1	4.497063390	6.961192740	-1.873401570
1	2.896017550	-3.667044070	-7.643068930	1	4.735571060	5.355466190	-2.621529040
1	1.655363890	-4.198307170	-6.461180770	1	3.117316980	6.106867030	-2.622228170
1	1.166563680	-3.358494530	-7.964644580	6	2.756210790	6.198803390	0.103149450
6	3.132963240	-2.103204640	-5.380081970	1	3.188298270	7.196383900	0.286103120
1	4.114242000	-2.283524310	-5.848599860	1	1.814429940	6.327694970	-0.455365480
1	3.179763000	-1.149483560	-4.831193560	1	2.524362900	5.750367910	1.082674430
1	2.940487380	-2.913635430	-4.659513200	6	1.459024520	3.464109590	-4.088716300
6	2.303932990	-0.929770800	-7.446866250	6	1.479560400	4.647377710	-5.066086620
1	3.254271540	-1.098744770	-7.977795230	1	0.507894780	4.748625700	-5.576716760
1	1.491281100	-0.876511340	-8.189029840	1	1.690517300	5.586848520	-4.530448390
1	2.357135060	0.038019820	-6.924117390	1	2.262275930	4.498438850	-5.826492660
6	3.690068450	-4.531496310	3.018079690	6	0.412966940	3.702395760	-2.995333940
6	2.867543260	-4.466446420	4.309501750	1	-0.593142050	3.808842150	-3.431702980
1	3.183831750	-5.251160860	5.016160740	1	0.393042560	2.859068740	-2.283716790
1	2.996533490	-3.486941970	4.798831750	1	0.645788710	4.624656050	-2.438759670
1	1.795939890	-4.616107160	4.099642510	6	1.168489750	2.162120310	-4.844161430
6	3.499425420	-5.882842730	2.317462850	1	0.176466440	2.196558000	-5.325947960
1	3.872219180	-6.707343660	2.947253480	1	1.921635890	2.004774880	-5.632466560
1	2.431723540	-6.064786900	2.111223580	1	1.195286440	1.294250970	-4.165006780
1	4.043359420	-5.884023960	1.360872490	6	-4.545074980	-3.628166110	0.208548000
6	5.172024700	-4.3044492000	3.342915520	6	-6.064504110	-3.495212690	0.031275500
1	5.526118080	-5.093062140	4.027196750	1	-6.354592040	-3.677142090	-1.016380020
1	5.783853570	-4.334947480	2.429854680	1	-6.584625760	-4.224718230	0.671519160
1	5.321862500	-3.328387360	3.828969820	1	-6.395386330	-2.483221530	0.312711240
6	5.799671680	-3.812327800	-0.929816910	6	-3.823912320	-2.583129050	-0.651828110
6	5.711805910	-5.107440200	-1.745677400	1	-4.080995600	-2.727144390	-1.715019540
1	6.518970400	-5.151497120	-2.494139320	1	-4.125411840	-1.566207680	-0.352487510
1	5.802260100	-5.981285430	-1.080789580	1	-2.731361900	-2.664515630	-0.539180800
1	4.742914510	-5.166726040	-2.264913380	6	-4.094921970	-5.042072400	-0.184020090
6	7.139296290	-3.741537470	-0.182911910	1	-4.301425830	-5.235598730	-1.249728240
1	7.977968240	-3.688873020	-0.896226540	1	-3.013802670	-5.165763810	-0.013251200
1	7.160686530	-2.852505940	0.464807020	1	-4.634172810	-5.793332610	0.413922280

8	-4.019042610	1.945763140	-2.762274250	1	6.080166570	-1.075306730	3.852989590
7	-0.029909360	-0.023852380	-0.035566060	1	7.232946090	-0.617272480	2.567282840
6	-2.447162740	-2.284376650	-5.647216540	6	5.430317340	0.647161960	0.900496270
6	-2.375144590	-1.138854080	-6.665207940	1	5.498365300	1.672895660	1.301113490
1	-3.034390650	-1.335714130	-7.526747490	1	6.389314220	0.410888140	0.413334790
1	-2.690675840	-0.188103080	-6.204139870	1	4.637306470	0.633074230	0.135534850
1	-1.340096490	-1.025077390	-7.021951710	6	3.807805110	-0.053584950	2.698460870
6	-3.858890880	-2.407420880	-5.060306920	1	3.828949300	0.957374410	3.140359510
1	-4.596241210	-2.611907860	-5.853874220	1	2.979777910	-0.109011790	1.970691950
1	-3.897905790	-3.233354260	-4.331216620	1	3.605207070	-0.775785350	3.505777410
1	-4.159486120	-1.476965050	-4.551279340	6	5.786980720	2.228960240	-3.252243440
6	-2.048971250	-3.610023420	-6.308094470	6	5.128199380	0.986179020	-3.861706400
1	-2.755872580	-3.847357390	-7.120151490	1	5.776758670	0.547937360	-4.637864000
1	-1.036644180	-3.548463760	-6.733275120	1	4.949511140	0.222893800	-3.087011820
1	-2.068547450	-4.432843370	-5.577124760	1	4.164189370	1.250292050	-4.324128220
6	0.381303640	-4.785707400	-3.110754660	6	7.128886000	1.859517520	-2.608928610
6	-0.682758680	-4.375887270	-2.086854340	1	7.573353280	2.744282720	-2.125729960
1	-0.709146620	-5.097001530	-1.252276770	1	6.985149000	1.082244770	-1.842632410
1	-0.465084090	-3.372395710	-1.682993420	1	7.833286700	1.482321840	-3.367398320
1	-1.681492570	-4.350588870	-2.551476670	6	5.986966300	3.311474940	-4.322355110
6	0.040994530	-6.160107800	-3.703559190	1	6.498977930	4.186138110	-3.889749910
1	0.040500360	-6.934646380	-2.919396880	1	6.602730120	2.927039970	-5.151918320
1	-0.954604910	-6.141283860	-4.175198750	1	5.011096140	3.630947060	-4.717962680
1	0.782288310	-6.436639430	-4.469645890	6	3.739497350	5.349316960	-0.673096740
6	1.770239110	-4.818778190	-2.463569920	6	5.037726600	5.129468220	0.113737910
1	1.808520820	-5.550476440	-1.639167260	1	5.566430820	6.083629920	0.273813420
1	2.525737700	-5.105565210	-3.212035520	1	4.820009720	4.688129200	1.100948450
1	2.039242440	-3.831987320	-2.052442560	1	5.694748760	4.440051610	-0.438007140
6	2.026352450	-2.077968980	-6.414321790	6	4.039231930	6.001617730	-2.028754510
6	1.934931440	-3.426297810	-7.142738730	1	4.497996840	6.991482130	-1.870669850
1	2.900002590	-3.680677140	-7.610771300	1	4.732991600	5.384411940	-2.617415120
1	1.662396550	-4.218777880	-6.429576910	1	3.114595220	6.135781120	-2.610951130
1	1.168841810	-3.382001490	-7.933667510	6	2.768655120	6.232239470	0.117802440
6	3.127135540	-2.116725530	-5.347512620	1	3.204686640	7.227962410	0.300896950
1	4.109921870	-2.289068300	-5.815949490	1	1.824451190	6.363265740	-0.436081530
1	3.167266830	-1.163400230	-4.797059060	1	2.540169950	5.781482370	1.097151920
1	2.939475660	-2.929177340	-4.628134420	6	1.456713010	3.496049080	-4.079002620
6	2.291939340	-0.946040040	-7.413559090	6	1.491454160	4.668261560	-5.069368890
1	3.243789030	-1.108506690	-7.943847820	1	0.521893570	4.774315750	-5.582969730
1	1.479725800	-0.897130600	-8.156531750	1	1.711891040	5.611139940	-4.543727410
1	2.338825610	0.021612880	-6.889802030	1	2.273806160	4.502485310	-5.826646440
6	3.677079800	-4.547923590	2.977107950	6	0.412650590	3.757818260	-2.989372440
6	2.849663970	-4.495795880	4.265992900	1	-0.592066150	3.868160240	-3.427946690
1	3.167539250	-5.283443640	4.968674740	1	0.383180420	2.922841700	-2.268571630
1	2.971559110	-3.518764990	4.762050020	1	0.654730260	4.683854250	-2.443215510
1	1.779734580	-4.649918060	4.051136760	6	1.151929920	2.189603330	-4.821285640
6	3.490132090	-5.892894100	2.263495640	1	0.158733540	2.228448710	-5.300114720
1	3.860124470	-6.722980410	2.887627490	1	1.901391700	2.016543740	-5.609794960
1	2.423347110	-6.073033070	2.050657610	1	1.173413110	1.328019190	-4.133907870
1	4.038512730	-5.885679460	1.309443680	6	-4.566476450	-3.599520330	0.182221460
6	5.157585640	-4.322060640	3.309491710	6	-6.085138190	-3.454840630	0.009062550
1	5.508552340	-5.113292020	3.992240180	1	-6.379108130	-3.633224270	-1.038128610
1	5.773319380	-4.347708680	2.398947880	1	-6.608810900	-4.181640710	0.649501260
1	5.304567780	-3.347848170	3.800221540	1	-6.407816100	-2.440995190	0.292882630
6	5.806164960	-3.783923280	-0.952537490	6	-3.838034110	-2.560101730	-0.678794050
6	5.727278290	-5.070306020	-1.783211740	1	-4.100617520	-2.698142940	-1.741357440
1	6.542485290	-5.106501110	-2.523333630	1	-4.126150560	-1.541082220	-0.373761970
1	5.810365270	-5.951068020	-1.126524100	1	-2.745988020	-2.654401810	-0.569914740
1	4.764147880	-5.123946880	-2.313489700	6	-4.128582630	-5.016863610	-0.211446760
6	7.138652220	-3.720535420	-0.192539250	1	-4.333789440	-5.206019790	-1.278254500
1	7.983327470	-3.654021180	-0.897599650	1	-3.049243720	-5.151159960	-0.037998830
1	7.151349560	-2.841195450	0.468496390	1	-4.676737080	-5.764501850	0.382921360
1	7.271489250	-4.626736160	0.420207570	6	-1.787312020	-5.420271940	3.278561730
6	5.641887900	-2.554815110	-1.854257800	6	-0.796760850	-6.339883030	2.555514860
1	6.443002590	-2.521816610	-2.610684180	1	-1.133678800	-6.533535420	1.523886070
1	4.671459340	-2.583565210	-2.376238330	1	0.206278570	-5.884003990	2.515235300
1	5.690828790	-1.630168210	-1.257615580	1	-0.706365840	-7.306395500	3.077702490
6	5.143994880	-0.364488690	2.014771160	6	-3.173731910	-6.075452550	3.308276710
6	6.279062370	-0.349567330	3.048140810	1	-3.523489920	-6.295359210	2.289147820
1	6.382692940	0.650622640	3.499766620	1	-3.125829420	-7.021865230	3.871527030

1	-3.904809400	-5.415395270	3.796986520
6	-1.311994490	-5.120495080	4.705783480
1	-1.261090490	-6.045103050	5.304272990
1	-0.307699030	-4.665952120	4.693870980
1	-2.005908770	-4.415860120	5.188482700
6	-4.749141950	-2.270250710	4.587457890
6	-5.856535920	-3.332856730	4.545061900
1	-6.798357660	-2.927784610	4.950010730
1	-6.024332020	-3.655692510	3.506530920
1	-5.570597630	-4.209111000	5.148958050
6	-4.423757400	-1.893950520	6.037772060
1	-5.312814950	-1.484833390	6.543675700
1	-4.079869720	-2.780978420	6.593337940
1	-3.624536720	-1.136403160	6.065478870
6	-5.169020850	-1.026763260	3.796830840
1	-6.062610840	-0.567180470	4.249929950
1	-4.359418330	-0.279105390	3.792440270
1	-5.404779370	-1.295061650	2.755385030
6	0.403085470	0.301746340	5.720868020
6	0.360690390	-0.667412600	4.532942950
1	0.842519280	-1.620448050	4.812474090
1	-0.679813060	-0.875308970	4.235169630
1	0.893707860	-0.240937080	3.667218900
6	1.855604750	0.579441620	6.131997440
1	1.882717330	1.253078900	7.002587190
1	2.369060220	-0.357628460	6.404564670
1	2.410610630	1.049911200	5.305154910
6	-0.370597650	-0.290737130	6.906732000
1	-0.369980520	0.416422950	7.750830840
1	-1.413890260	-0.495501410	6.619600070
1	0.087045840	-1.236601530	7.239551450
6	-2.658946440	3.704015910	5.209441280
6	-3.447107210	2.452754560	4.806676120
1	-2.904901460	1.543884960	5.111792520
1	-4.436873150	2.446661490	5.291673990
1	-3.594109210	2.423069810	3.714452880
6	-2.405259530	3.715823560	6.723447750
1	-1.870182410	4.634561440	7.013224430
1	-3.357980820	3.682103100	7.276760170
1	-1.794959730	2.845460580	7.007414670
6	-3.412593240	4.969365340	4.782290000
1	-2.826281300	5.865417530	5.042129260
1	-3.576837080	4.967206580	3.693329710
1	-4.389670560	5.031231210	5.287645380
6	1.738072510	4.460605790	4.448110800
6	1.560229040	4.352228450	5.967650080
1	2.044841680	5.210709740	6.461051420
1	0.493362470	4.353054330	6.234547850
1	2.018325420	3.428405230	6.349622950
6	1.096814540	5.755031770	3.931482290
1	1.551456920	6.636300730	4.413568000
1	1.236903220	5.851225750	2.842392770
1	0.017153600	5.744528780	4.144133490
6	3.229602000	4.413734430	4.096800770
1	3.767913760	5.255763150	4.561634890
1	3.680111490	3.473959390	4.456373180
1	3.379700450	4.478556020	3.006196860
6	-6.449370600	2.027929650	0.038568430
6	-6.550784070	0.681173110	-0.685841540
1	-7.346812110	0.061380320	-0.241660970
1	-6.781182750	0.829104610	-1.753566690
1	-5.598561250	0.132357270	-0.611638890
6	-6.098296650	1.821322650	1.517112360
1	-6.863063900	1.209376270	2.022030410
1	-5.125600530	1.310483730	1.608986280
1	-6.032016740	2.793276160	2.031309540
6	-7.769563030	2.800868440	-0.088743610
1	-8.592989730	2.248255040	0.391535910
1	-7.677417900	3.786623750	0.393108610
1	-8.024514780	2.956000900	-1.149242650

6	-2.844611680	5.076816500	-0.425632470
6	-1.554838900	4.692280710	0.311793390
1	-1.226824710	5.507881760	0.977997040
1	-1.711352560	3.794774080	0.932880660
1	-0.758058030	4.489048120	-0.422331960
6	-3.969600070	5.357988030	0.577898170
1	-3.696946140	6.217802440	1.211917250
1	-4.909566850	5.584490120	0.052264280
1	-4.145822180	4.486992900	1.226877790
6	-2.604000780	6.316072380	-1.299284060
1	-2.286889860	7.173775620	-0.684485360
1	-1.819108880	6.109598980	-2.044851750
1	-3.527062630	6.590799180	-1.834237810
6	-4.526765760	2.620858460	-3.952556420
6	-5.536611540	3.726260790	-3.618297230
1	-5.901794330	4.185038330	-4.551711600
1	-6.396657470	3.321318190	-3.065026510
1	-5.066785740	4.507744120	-3.002523070
6	-3.327393410	3.217289570	-4.700135000
1	-3.646718400	3.704516410	-5.636700810
1	-2.830673180	3.966998110	-4.064650500
1	-2.599024940	2.429705690	-4.958602560
6	-5.205032340	1.537721260	-4.798381360
1	-5.598351610	1.962893250	-5.736308960
1	-4.491189450	0.740644040	-5.059908910
1	-6.042682930	1.085146900	-4.243328920
14	-2.971309040	-2.952768450	2.482076090
8	-3.529000640	-2.844986630	4.051578080

Product –LS

94	0.261867930	0.207705920	-2.156339730
94	0.026783410	0.064349010	2.046981340
14	-2.517459720	-2.234947700	-3.236394520
14	3.664630760	0.358103830	3.282109310
8	-1.495904280	-1.019091750	-2.944841840
8	-3.732970820	-2.356890890	-2.052724250
8	-3.286130040	-2.290773530	-4.715355590
8	-1.662601600	-3.656960590	-2.924565260
8	2.266696030	0.179092270	2.468903020
8	4.820673730	-0.279097940	2.210364050
8	3.853251520	-0.534584030	4.679918890
8	4.008513300	1.927690090	3.744327940
6	-4.970512520	-1.610167210	-1.909391600
6	-5.463145780	-1.897595290	-0.485770500
1	-5.606353790	-2.980707250	-0.344206830
1	-6.426523270	-1.395472110	-0.297559050
1	-4.738047070	-1.536627370	0.262928160
6	-4.724364060	-0.107672450	-2.086046310
1	-3.950180910	0.242317120	-1.384337700
1	-5.652878640	0.456548780	-1.897454930
1	-4.380778800	0.122412390	-3.105860470
6	-5.998437440	-2.124900800	-2.926349560
1	-5.621119860	-1.993417140	-3.950818160
1	-6.953812560	-1.585034620	-2.819709730
1	-6.185288190	-3.199380650	-2.764982040
6	-3.072961340	-1.588314000	-5.967462190
6	-3.607803430	-0.157651460	-5.835687100
1	-4.677957120	-0.171824500	-5.572950500
1	-3.493668100	0.387416020	-6.786704900
1	-3.054627090	0.386661260	-5.054471730
6	-1.587385800	-1.579245390	-6.340232580
1	-0.999970340	-1.075428990	-5.556934680
1	-1.433600410	-1.047948940	-7.293784090
1	-1.211772390	-2.607963680	-6.448988570
6	-3.883816160	-2.364182000	-7.013271600
1	-3.514920000	-3.398830540	-7.096931570
1	-3.802747860	-1.883005890	-8.000941880
1	-4.946571230	-2.398453530	-6.725482790
6	-1.924408480	-5.026509320	-3.334193480
6	-3.413344850	-5.377768990	-3.229041410

1	-3.780136270	-5.233592990	-2.201398350	1	2.752141060	-5.576322660	-2.044115810
1	-3.574169210	-6.430803430	-3.514380720	1	2.427909260	-4.233584120	-3.176492860
1	-4.009461220	-4.741766740	-3.902707910	6	5.167524490	-4.563180050	-3.041008310
6	-1.433945520	-5.215794470	-4.775819560	1	4.852674590	-4.232053450	-4.041839820
1	-2.030334780	-4.595547620	-5.461429870	1	5.158056540	-5.665180630	-3.005625770
1	-1.530353950	-6.269907000	-5.084519390	1	6.200569580	-4.218041340	-2.871029820
1	-0.376106660	-4.920042150	-4.859684460	6	3.025863940	-2.029811720	-5.863792550
6	-1.097330620	-5.900324510	-2.382954290	6	1.911759730	-3.074408370	-5.734479600
1	-0.034901910	-5.612492520	-2.432429240	1	2.345502760	-4.074789550	-5.571839640
1	-1.186103610	-6.966017140	-2.650149890	1	1.304192100	-3.108269630	-6.653240830
1	-1.446980130	-5.777897530	-1.344913850	1	1.252137160	-2.827228870	-4.887403090
6	6.172212900	-0.759452030	2.482106130	6	2.432186140	-0.635922970	-6.099430500
6	6.890515610	-0.759218010	1.128009520	1	1.769083530	-0.351964650	-5.266134280
1	6.360586300	-1.398516070	0.401317450	1	1.840591290	-0.626222280	-7.029526150
1	7.917870190	-1.145630700	1.231137540	1	3.228592370	0.118670260	-6.183446980
1	6.944858170	0.263621520	0.721871420	6	3.978894800	-2.404301500	-7.005847410
6	6.084148140	-2.185737040	3.039696860	1	4.790734840	-1.664378000	-7.088961450
1	5.498750050	-2.188123890	3.971399910	1	3.438614130	-2.441272680	-7.965105860
1	7.090760530	-2.587110370	3.243627820	1	4.429223040	-3.391881820	-6.817942820
1	5.589884740	-2.851880340	2.312785170	6	5.796018680	0.341333780	-3.266342410
6	6.907680700	0.163996210	3.459707510	6	6.788489220	-0.824030870	-3.178335490
1	6.947660540	1.191376850	3.065624210	1	6.838575860	-1.218841820	-2.151780230
1	7.940341630	-0.191719880	3.609378280	1	7.795629360	-0.485961330	-3.474050890
1	6.400363150	0.183907040	4.434801250	1	6.487869470	-1.643397980	-3.850856230
6	3.530249870	-0.230691250	6.061561500	6	5.716734620	0.865081300	-4.706608850
6	3.455501240	-1.586915950	6.773131380	1	5.432188300	0.051903490	-5.391081830
1	2.654837460	-2.204603570	6.338315560	1	6.691679200	1.267351270	-5.027846320
1	3.252739710	-1.450948950	7.847486280	1	4.965923390	1.668909920	-4.775444530
1	4.409762090	-2.126475210	6.662414830	6	6.214035970	1.474392640	-2.321915130
6	4.647277920	0.628214560	6.670929550	1	5.487144650	2.300292030	-2.369159840
1	5.604966680	0.083251440	6.651637020	1	7.208380370	1.863104450	-2.595606760
1	4.414087420	0.873401560	7.719999970	1	6.257847020	1.112424080	-1.282509230
1	4.756732940	1.562540040	6.100609010	6	-2.921892990	5.518341910	2.309751710
6	2.183988980	0.493342060	6.153006770	6	-3.388355020	6.018870580	0.938186380
1	2.237391810	1.466257800	5.639677270	1	-2.579938110	5.925644640	0.193809770
1	1.905698020	0.667631650	7.205050900	1	-3.684020710	7.079801070	0.988005810
1	1.396721110	-0.115911320	5.682035580	1	-4.257098700	5.435988490	0.590257150
6	3.909088140	3.215058370	3.086896670	6	-1.719069320	6.333961430	2.800593870
6	4.288518860	4.241119590	4.163956750	1	-1.353383780	5.921817100	3.752779620
1	3.581429620	4.189122010	5.007071230	1	-1.998888460	7.390328920	2.946497300
1	4.266757430	5.263379510	3.753419620	1	-0.900278210	6.289971530	2.064626930
1	5.301910290	4.035886750	4.544084690	6	-4.078320990	5.600532190	3.313215670
6	2.479516830	3.476287980	2.596121270	1	-4.932493610	4.992391170	2.976043700
1	2.198383120	2.758646820	1.810682050	1	-4.413841420	6.646130040	3.411889290
1	2.401293320	4.495933730	2.182959640	1	-3.766144950	5.239330440	4.303682530
1	1.757633800	3.386338930	3.424195600	6	-1.564561810	3.236876170	5.954083450
6	4.901533570	3.285812880	1.920097400	6	-0.328155860	3.930170070	6.539049720
1	5.929595780	3.117950140	2.279264120	1	0.584532050	3.573879890	6.035713190
1	4.859812840	4.274613540	1.434536240	1	-0.238848790	3.723820060	7.617545700
1	4.668914560	2.526215630	1.157993940	1	-0.400299480	5.019937650	6.394560660
7	-0.053446670	-0.069408860	-0.085712480	6	-2.839550410	3.740069850	6.645191810
7	2.899276970	2.384259480	-1.024166770	1	-2.907863110	4.837335330	6.570709320
7	2.097218670	1.684281460	-1.385271050	1	-2.834571810	3.466864830	7.713085650
14	3.574102720	-1.448575220	-3.130360810	1	-3.725227060	3.295200950	6.166577110
14	-2.304389500	2.892855790	3.234922710	6	-1.441426830	1.716605960	6.094875420
8	2.048594250	-1.111173780	-2.704677990	1	-2.325111370	1.217828480	5.666983510
8	4.284775430	-2.529518880	-2.028228950	1	-1.356572480	1.430862600	7.155813610
8	3.840002430	-2.057831250	-4.659869400	1	-0.543096970	1.359343970	5.567073950
8	4.465830540	-0.054618100	-2.835794600	6	-4.763448030	1.464715650	3.175481690
8	-1.414806870	1.784092750	2.445100350	6	-6.128060960	1.921836400	3.708450060
8	-2.494152220	4.139027090	2.096211140	1	-6.130840990	1.898837830	4.809563710
8	-1.601280980	3.625061490	4.556954650	1	-6.932367820	1.263563920	3.341525720
8	-3.790617730	2.350057920	3.781965740	1	-6.343988480	2.952397280	3.383166300
6	4.232339970	-3.979111500	-1.973461390	6	-4.466417790	0.030921330	3.629360750
6	4.738788650	-4.355214420	-0.575034720	1	-3.468481350	-0.289842340	3.290110820
1	5.747550310	-3.942608890	-0.411751960	1	-5.212444830	-0.675122840	3.227494710
1	4.788298340	-5.450177680	-0.456904190	1	-4.494582410	-0.032791790	4.728355350
1	4.067305490	-3.959896020	0.206296180	6	-4.739091370	1.556659630	1.644443760
6	2.796991290	-4.481329150	-2.169276680	1	-4.897009190	2.595982410	1.312091710
1	2.117809030	-4.015039120	-1.437595110	1	-5.535161100	0.930807980	1.209802830

1	-3.770871540	1.196598080	1.257548700
19	3.234070030	-0.770872350	0.035491650
14	-1.002649810	3.745769850	-3.219746360
14	-1.354358980	-3.329314450	3.262180600
8	-0.393318540	2.313544630	-2.777624840
8	-0.598130010	4.963465850	-2.112682060
8	-0.630781680	4.318939900	-4.741916720
8	-2.660861440	3.580454250	-2.952514420
8	-0.789102120	-1.977162680	2.558255040
8	-2.399476540	-3.990525430	2.098663750
8	-2.288155690	-3.149301630	4.630567530
8	-0.171532440	-4.433321510	3.695555610
6	0.435575000	5.988048120	-2.129940140
6	0.475265590	6.554494110	-0.705945810
1	-0.507715300	6.966898550	-0.428450170
1	1.223047850	7.360714890	-0.628399560
1	0.745711960	5.766142780	0.016608820
6	1.799234660	5.392876050	-2.490454440
1	2.084664860	4.606114770	-1.776789680
1	2.575869800	6.175543910	-2.467312760
1	1.780027360	4.958330970	-3.500273370
6	0.047318030	7.091136090	-3.124145800
1	-0.045616500	6.671308620	-4.137290800
1	0.813234310	7.884037880	-3.135483810
1	-0.915340910	7.545177890	-2.839689310
6	-0.116054770	3.644136590	-5.924105980
6	1.369554990	3.318168040	-5.726469510
1	1.953655200	4.239255930	-5.571708110
1	1.769900000	2.803422300	-6.615158700
1	1.505787560	2.660531880	-4.853072100
6	-0.907338310	2.364179320	-6.204087820
1	-0.817291700	1.667075730	-5.356006150
1	-0.520912050	1.864548150	-7.107657370
1	-1.972466500	2.591321110	-6.358297170
6	-0.293387300	4.647382060	-7.070223350
1	-1.358546230	4.896460750	-7.200973140
1	0.087154910	4.227628170	-8.014967380
1	0.256060870	5.577030620	-6.853037160
6	-3.799368080	4.370074560	-3.380044050
6	-3.524840940	5.874021560	-3.273769320
1	-3.246822460	6.149037420	-2.244675850
1	-4.424794460	6.444743360	-3.558204770
1	-2.704331170	6.168119340	-3.946633830
6	-4.148305500	3.996681730	-4.827284850
1	-3.329813250	4.292295370	-5.501262000
1	-5.069100490	4.509591800	-5.150894330
1	-4.302920530	2.909079670	-4.913148250
6	-4.946958010	3.970220450	-2.444016940
1	-5.108988380	2.881587780	-2.489179070
1	-5.882560560	4.478491170	-2.728601770
1	-4.707880880	4.246221310	-1.404167360
6	-3.439103690	-5.000303700	2.278316760
6	-3.723175420	-5.550801480	0.877238750
1	-4.024045950	-4.738746170	0.194629900
1	-4.538210860	-6.292497640	0.905328040
1	-2.826437900	-6.043026030	0.466269850
6	-4.691058620	-4.323166410	2.850937530
1	-4.459003700	-3.874803130	3.828138010
1	-5.507484290	-5.054459070	2.970950470
1	-5.035660160	-3.525166320	2.173418630
6	-2.966577750	-6.134018620	3.196288950
1	-2.051849890	-6.602187450	2.799415610
1	-3.748868260	-6.907534740	3.269345490
1	-2.752122420	-5.757623730	4.206901560
6	-1.914708150	-3.033833070	6.028651330
6	-3.118421600	-2.385784930	6.722964780
1	-3.303558620	-1.382852650	6.308821860
1	-2.937934150	-2.293224910	7.805849610
1	-4.021400420	-2.997879470	6.569338830
6	-1.658719950	-4.434904190	6.601098400

1	-2.568646160	-5.051929050	6.525493450
1	-1.374221820	-4.370888070	7.664129400
1	-0.849211720	-4.926967210	6.041430290
6	-0.673298280	-2.150581570	6.182856400
1	0.188562250	-2.604816740	5.668998440
1	-0.417030620	-2.022275300	7.247012110
1	-0.860664900	-1.156453440	5.747488520
6	1.060392580	-4.826604260	3.047746510
6	1.279843960	-6.296673370	3.430419280
1	1.299924580	-6.403018120	4.526409480
1	2.234176670	-6.669860880	3.024172920
1	0.463224860	-6.923579910	3.037031850
6	2.197359870	-3.956316720	3.595461250
1	2.021866960	-2.892034340	3.370709870
1	3.166779510	-4.248315450	3.157032680
1	2.272388310	-4.072033290	4.688147450
6	0.973230110	-4.692187070	1.521421780
1	0.118708840	-5.266791390	1.127189640
1	1.891488900	-5.078948340	1.050747860
1	0.858273560	-3.631501880	1.238668370
19	-1.526945500	2.886090310	-0.146729000
19	-1.634488040	-2.517960420	-0.137257750

Product –HS

94	0.041066270	0.049383720	-1.853900120
94	-0.058877580	0.046119370	1.567295000
14	-2.638254280	-2.383312450	-3.149328200
14	3.438831690	0.529633620	3.189454730
8	-1.584124170	-1.231490230	-2.714026350
8	-3.857587010	-2.564463350	-1.988710420
8	-3.390616670	-2.265049820	-4.627788110
8	-1.806437830	-3.839732500	-2.965273420
8	2.062821480	0.284876710	2.351659490
8	4.650276780	-0.090303740	2.163905240
8	3.656484680	-0.304665370	4.615493970
8	3.753355660	2.124816220	3.578566720
6	-5.058600230	-1.764120800	-1.791944300
6	-5.522208070	-2.064901970	-0.362164680
1	-5.712759280	-3.143509850	-0.241689600
1	-6.454727010	-1.523240130	-0.133389540
1	-4.757098260	-1.757347790	0.369814200
6	-4.754384940	-0.269020810	-1.944160690
1	-3.948426480	0.042458430	-1.261773380
1	-5.657198130	0.324590670	-1.721060660
1	-4.437022830	-0.033492570	-2.971162290
6	-6.125715640	-2.215280330	-2.797963260
1	-5.763241640	-2.069579470	-3.826421880
1	-7.057279310	-1.642057840	-2.659311540
1	-6.351451290	-3.285391200	-2.658720870
6	-3.094000990	-1.513198430	-5.835498670
6	-3.544685040	-0.061502860	-5.640177460
1	-4.617146090	-0.025825710	-5.389134570
1	-3.386867950	0.516364240	-6.564891330
1	-2.969578080	0.417194320	-4.831271510
6	-1.599781580	-1.575298190	-6.160902060
1	-1.011522000	-1.142052070	-5.336998010
1	-1.383346740	-1.008636130	-7.080966070
1	-1.279058420	-2.617335180	-6.309650600
6	-3.917463910	-2.181548750	-6.943374220
1	-3.610839230	-3.231683500	-7.073004790
1	-3.775087210	-1.655433350	-7.900629760
1	-4.988804580	-2.162753150	-6.688237190
6	-2.098418200	-5.175660370	-3.457250940
6	-3.591045570	-5.507195700	-3.344434140
1	-3.934477240	-5.423412360	-2.301590860
1	-3.777439020	-6.536527490	-3.693587470
1	-4.189858390	-4.818558270	-3.961698390
6	-1.635329320	-5.279232400	-4.916051600
1	-2.233980900	-4.609804550	-5.551492390
1	-1.751286520	-6.310334090	-5.288855100

1	-0.574197590	-4.993196150	-4.999110590	6	2.968993560	-1.777971770	-6.000986850
6	-1.270634620	-6.121686580	-2.578175520	6	1.921823070	-2.891863210	-5.886764650
1	-0.205982570	-5.838704120	-2.615709470	1	2.410638530	-3.858758920	-5.684455250
1	-1.369752440	-7.164778480	-2.919999730	1	1.352337740	-2.983169970	-6.825860260
1	-1.611224790	-6.074290550	-1.530510590	1	1.214747850	-2.671068520	-5.071736520
6	6.031709970	-0.442534990	2.470709500	6	2.298214900	-0.430586400	-6.277419870
6	6.756505230	-0.492491750	1.119921270	1	1.625493360	-0.162516580	-5.447871800
1	6.292911350	-1.238584580	0.451678750	1	1.709481470	-0.477718000	-7.207946600
1	7.813612140	-0.774561770	1.254141710	1	3.054602020	0.361890520	-6.383332560
1	6.725156160	0.493256300	0.626823550	6	3.984252800	-2.112257690	-7.100651240
6	6.055227690	-1.825227470	3.134461140	1	4.749503360	-1.323040290	-7.171188220
1	5.470176410	-1.802813050	4.065432020	1	3.481158680	-2.199462570	-8.076776640
1	7.090214130	-2.130503350	3.361687890	1	4.489798360	-3.065725280	-6.879751950
1	5.612475910	-2.579208680	2.462234920	6	5.605026350	0.717639280	-3.324942810
6	6.690949900	0.608548160	3.371395110	6	6.619428010	-0.427796000	-3.226395760
1	6.654131410	1.603364700	2.899877590	1	6.664935020	-0.824867590	-2.200218760
1	7.747237150	0.344958140	3.545738710	1	7.623601940	-0.070343510	-3.509053920
1	6.180437800	0.668038720	4.342958920	1	6.342445080	-1.252021100	-3.903285480
6	3.314903860	0.040213450	5.983643220	6	5.532512690	1.246569770	-4.763753690
6	3.307624700	-1.286202930	6.752909310	1	5.268750690	0.430867550	-5.453438190
1	2.536573560	-1.959718750	6.349150810	1	6.503335380	1.667042400	-5.074001960
1	3.099525800	-1.112816660	7.820802080	1	4.767264570	2.035960790	-4.838589900
1	4.286948230	-1.783107740	6.663285810	6	5.982472930	1.854557640	-2.367746550
6	4.385677500	0.979263190	6.556517730	1	5.220143670	2.649204740	-2.406305900
1	5.370603130	0.484638540	6.557140550	1	6.959201010	2.287968740	-2.637345890
1	4.139100260	1.252389000	7.595599490	1	6.045886400	1.482400080	-1.332232010
1	4.446041040	1.894676860	5.949382970	6	-2.418159440	5.437250810	2.774195910
6	1.934338350	0.696460780	6.038090510	6	-2.647508440	6.158526420	1.436769820
1	1.934967420	1.649406860	5.485937050	1	-1.728438720	6.172024220	0.825228890
1	1.641053480	0.893684100	7.081587640	1	-2.929374580	7.208330330	1.615657570
1	1.185416190	0.031153720	5.582774920	1	-3.472840480	5.691873290	0.868806270
6	3.526028390	3.356795830	2.850964340	6	-1.248659840	6.100943540	3.512896960
6	4.614904290	4.324542530	3.334470380	1	-1.052871380	5.567951060	4.453204690
1	4.561129150	4.439048180	4.428555580	1	-1.475729140	7.158424010	3.728545700
1	4.488909360	5.317001340	2.871778680	1	-0.337199120	6.059423010	2.894061440
1	5.615167070	3.941925110	3.074280020	6	-3.708263540	5.512175580	3.599915200
6	2.135882960	3.890850200	3.214056810	1	-4.542590480	5.031427480	3.064401660
1	1.348481480	3.182001230	2.911183450	1	-3.975056480	6.566233740	3.784464770
1	1.948412720	4.855346770	2.712775510	1	-3.584887220	5.008546780	4.567081920
1	2.057814350	4.050369540	4.301175420	6	-1.783298720	2.965147910	6.340939730
6	3.641658710	3.148310700	1.335784140	6	-0.633864430	3.587986730	7.143555360
1	4.614348230	2.696592330	1.078721490	1	0.332652140	3.195344090	6.793166380
1	3.563492480	4.113758110	0.810838200	1	-0.741488370	3.359483080	8.216030140
1	2.826563270	2.499769200	0.974808210	1	-0.632034600	4.682600360	7.018820850
7	0.492058490	-1.066524680	-0.144114740	6	-3.129395180	3.531083770	6.816168730
7	0.080679900	1.572742550	-0.121598650	1	-3.126760100	4.631851320	6.766636700
7	-1.142805380	1.034291300	-0.222052560	1	-3.318846450	3.236943780	7.861457890
14	3.406187850	-1.104453570	-3.259927250	1	-3.943186140	3.144624970	6.184227780
14	-2.075509940	2.713219550	3.515649160	6	-1.769886970	1.442029910	6.477704940
8	1.868325790	-0.740560020	-2.902796960	1	-2.589590370	1.000286670	5.890613030
8	4.099835700	-2.178388060	-2.141967760	1	-1.890756040	1.143892380	7.531739430
8	3.737545670	-1.725826800	-4.768487600	1	-0.815948400	1.042578290	6.106368140
8	4.278439690	0.293809830	-2.913415440	6	-4.584963760	1.443050060	3.064098670
8	-1.159167650	1.548653810	2.843729610	6	-5.983086910	1.849749910	3.551071710
8	-2.063473310	4.055497210	2.451742760	1	-6.066109810	1.692954560	4.638007230
8	-1.549889540	3.355856490	4.964056230	1	-6.760831260	1.250344670	3.050374610
8	-3.661319910	2.259835560	3.820925840	1	-6.171007490	2.914886330	3.338844040
6	3.985155920	-3.624683210	-2.037935660	6	-4.322574270	-0.034068780	3.378316630
6	4.492915200	-3.974000910	-0.632578900	1	-3.298923770	-0.324307130	3.094890100
1	5.518816160	-3.595842690	-0.493582970	1	-5.033007620	-0.683769280	2.839875450
1	4.504706080	-5.066082020	-0.481955630	1	-4.445103880	-0.220602840	4.456616250
1	3.843434650	-3.533903750	0.143035300	6	-4.455989810	1.708904720	1.558506210
6	2.525682660	-4.066264080	-2.196441110	1	-4.617563710	2.780453380	1.347867840
1	1.879669070	-3.525008280	-1.486515110	1	-5.211785020	1.133864150	0.999622310
1	2.432828120	-5.150170760	-2.012950380	1	-3.458809380	1.410515430	1.190820010
1	2.158393810	-3.858716380	-3.213246490	19	3.302655980	-0.462224430	-0.097647970
6	4.884940140	-4.280516930	-3.093279400	14	-0.722493330	3.330661800	-3.479159560
1	4.579572800	-3.966128780	-4.101964110	14	-1.374181980	-3.207107520	3.257641700
1	4.826764380	-5.379427930	-3.023876830	8	-0.190295200	1.815447920	-3.256070720
1	5.933813130	-3.976703330	-2.940458320	8	-0.178162920	4.451136880	-2.325500870

8	-0.424237450	4.019754390	-4.971840050
8	-2.374600460	3.372143350	-3.119275490
8	-0.937016190	-1.843448220	2.481546620
8	-2.382678080	-4.008070610	2.143856910
8	-2.297200980	-3.063109640	4.636181320
8	-0.105955460	-4.201094470	3.713481590
6	1.129127060	5.064877220	-2.156502960
6	1.132178810	5.635270000	-0.731891710
1	0.304383450	6.354028340	-0.607011560
1	2.075082630	6.167868060	-0.525826650
1	1.028903450	4.825774960	0.010513020
6	2.243163940	4.023065390	-2.301533560
1	2.080029000	3.198146270	-1.591353440
1	3.224784210	4.482907600	-2.098061470
1	2.264777950	3.602246710	-3.317826530
6	1.285928340	6.201025260	-3.175498260
1	1.198287100	5.810801370	-4.199731300
1	2.264480740	6.695426090	-3.059122210
1	0.494910150	6.955503850	-3.029364340
6	0.097383900	3.496764190	-6.220696460
6	1.600099780	3.229313270	-6.072490650
1	2.128856490	4.153062100	-5.788200840
1	2.023450770	2.868847920	-7.024108200
1	1.775949860	2.463314210	-5.301633640
6	-0.639497960	2.214695850	-6.618519540
1	-0.522350460	1.452775390	-5.833306840
1	-0.235861020	1.817005910	-7.564041530
1	-1.713456490	2.414564410	-6.755303010
6	-0.145235000	4.601741510	-7.256788790
1	-1.223063790	4.807072660	-7.355828250
1	0.245322440	4.300854550	-8.241894980
1	0.357158310	5.532549300	-6.949016220
6	-3.412754040	4.284030160	-3.566430810
6	-2.939736220	5.743183340	-3.538542540
1	-2.618816600	6.038707380	-2.526202950
1	-3.757844440	6.413687580	-3.850784530
1	-2.089365430	5.888024390	-4.223461940
6	-3.847376950	3.891429440	-4.984789910
1	-3.008869070	4.026969930	-5.683287550
1	-4.690390690	4.516730500	-5.322302740
1	-4.160259240	2.835720720	-5.005984930
6	-4.584242570	4.083394190	-2.594919050
1	-4.851997840	3.015693840	-2.539598350
1	-5.468445620	4.653598930	-2.922768500
1	-4.326455980	4.431866330	-1.579251720
6	-3.341251130	-5.084431240	2.364521050
6	-3.634129580	-5.664224730	0.975197270
1	-4.027648210	-4.884475700	0.301197080
1	-4.385324890	-6.468507870	1.036832000
1	-2.717262090	-6.090435130	0.533005300
6	-4.620564810	-4.497114310	2.974443010
1	-4.390231360	-4.026017920	3.940823230
1	-5.376879380	-5.285523220	3.123284620
1	-5.043580570	-3.729752390	2.305904850
6	-2.757251080	-6.177360860	3.266790230
1	-1.828031160	-6.583176150	2.835736140
1	-3.479586520	-7.003618330	3.373267470
1	-2.529718720	-5.781119000	4.266053710
6	-1.935271300	-2.997497560	6.040409320
6	-3.132496900	-2.344862760	6.741950650
1	-3.290697150	-1.325482440	6.359362770
1	-2.961900590	-2.290901830	7.829055830
1	-4.046380720	-2.932362790	6.559354580
6	-1.716365350	-4.418690400	6.577650670
1	-2.636899460	-5.015894670	6.476000680
1	-1.445564670	-4.385845940	7.645757640
1	-0.905102840	-4.910704950	6.020296820
6	-0.674216120	-2.152029940	6.230629140
1	0.183675740	-2.632386860	5.735980400
1	-0.442790770	-2.031954410	7.301406660

1	-0.824503830	-1.155534700	5.791020470
6	1.125029230	-4.590450680	3.061159650
6	1.432560110	-6.005158410	3.571358900
1	1.493231500	-6.006298510	4.671110880
1	2.392600810	-6.366808740	3.167797380
1	0.638943640	-6.707141170	3.267523880
6	2.231106070	-3.617937040	3.483433240
1	1.990893540	-2.589199350	3.171905660
1	3.197521030	-3.900402270	3.032314150
1	2.353990200	-3.628000730	4.577659310
6	0.985318000	-4.601807090	1.533176190
1	0.135971660	-5.237188840	1.228758720
1	1.897362860	-5.013855530	1.071583200
1	0.847829930	-3.575594200	1.149933740
19	-1.773570350	3.591709190	-0.239374070
19	-1.614125550	-2.951606580	-0.191130910

Truncated structures

Cs3-U-N3-U

U	-0.009447000	-0.074106000	-1.741644000
U	0.062478000	-0.022434000	1.621445000
O	-1.751900000	-1.017827000	-2.902389000
O	1.955371000	0.274764000	2.883736000
Cs	-2.555975000	-2.642306000	0.051793000
N	1.091696000	-1.022472000	-0.021688000
N	1.396237000	0.420503000	-0.143513000
O	1.497823000	-1.057280000	-3.134864000
O	-1.121734000	1.596082000	2.779236000
Cs	3.984462000	-0.994692000	0.132997000
O	0.035210000	1.984742000	-2.721577000
O	-0.694240000	-1.974602000	2.547938000
Cs	-0.979588000	3.371083000	0.080238000
N	-1.217948000	0.205163000	-0.024993000
H	-1.615857000	-1.375555000	-3.782475000
H	1.425718000	-1.112733000	-4.089936000
H	0.597474000	2.228776000	-3.457515000
H	1.990786000	0.309648000	3.842112000
H	-0.859281000	1.851467000	3.666771000
H	-0.339888000	-2.419924000	3.318099000

Cs3-U-N-U

U	1.653442000	-0.460981000	-1.297428000
U	-1.698088000	0.425867000	1.189203000
Cs	0.454736000	-2.930918000	1.525964000
Cs	1.591576000	2.704839000	1.066175000
Cs	-1.988173000	0.105949000	-2.770289000
O	0.749161000	-1.527941000	-3.074184000
O	2.992305000	-1.651268000	0.082588000
O	2.560637000	1.550719000	-1.783803000
O	-2.438456000	-1.633310000	1.799841000
O	-0.783891000	1.594047000	2.904567000
O	-3.054154000	1.665961000	-0.153808000
N	-0.055931000	-0.074636000	-0.080336000
H	3.223021000	1.840963000	-2.411326000
H	3.897666000	-1.934129000	-0.051793000
H	1.175112000	-1.978544000	-3.804305000
H	-3.849978000	2.152355000	0.063728000
H	-3.231133000	-1.856178000	2.289961000
H	-1.143210000	1.888317000	3.742201000

N2

N	0.000000000	0.000000000	0.55155391
N	0.000000000	0.000000000	-0.55155391

K3-Np-N3-Np

Np	0.038367000	0.049356000	-1.829774000
Np	-0.062347000	0.037870000	1.526237000
O	-1.588500000	-1.210628000	-2.731306000
O	2.040285000	0.270229000	2.374535000

N	0.501940000	-1.102325000	-0.135688000
N	0.135649000	1.500969000	-0.109255000
N	-1.168639000	0.914814000	-0.218155000
O	1.867305000	-0.716636000	-2.897441000
O	-1.148091000	1.521204000	2.833663000
K	3.291373000	-0.512341000	-0.072184000
O	-0.180532000	1.795118000	-3.250937000
O	-0.936281000	-1.825753000	2.496043000
K	-1.719346000	3.479670000	-0.225083000
K	-1.621128000	-2.952391000	-0.196303000
H	2.141829000	-0.276087000	-3.705676000
H	-0.755145000	1.757490000	-4.019288000
H	-1.595117000	-1.656221000	-3.579600000
H	2.352910000	0.055962000	3.254253000
H	-0.724601000	1.977723000	3.564754000
H	-1.496533000	-1.738836000	3.271112000

K3-Np-N-Np

Np	1.616955000	-0.475819000	-1.277970000
Np	-1.704148000	0.437908000	1.165843000
K	0.462116000	-2.627512000	1.601943000
K	1.412951000	2.566535000	0.973853000
K	-1.909392000	0.037448000	-2.567972000
O	0.525631000	-1.352391000	-3.059148000
O	2.752785000	-1.906232000	0.049904000
O	2.548426000	1.570349000	-1.478466000
O	-2.211538000	-1.640913000	1.906754000
O	-0.726711000	1.787093000	2.687526000
O	-3.063732000	1.414490000	-0.379837000
N	-0.001196000	-0.022109000	0.002372000
H	3.204506000	1.933332000	-2.073574000
H	3.643284000	-2.254218000	0.001474000
H	0.822496000	-1.871967000	-3.806348000
H	-3.945236000	1.776903000	-0.286556000
H	-2.901544000	-1.935133000	2.502208000
H	-1.115722000	2.259192000	3.424746000

K3-Pu-N3-Pu

Pu	0.041068000	0.049379000	-1.853900000
Pu	-0.058799000	0.046032000	1.567190000
O	-1.584149000	-1.231481000	-2.714024000
O	2.062817000	0.284885000	2.351672000
N	0.492062000	-1.066526000	-0.144115000
N	0.080648000	1.572767000	-0.121579000
N	-1.142812000	1.034299000	-0.222017000
O	1.868326000	-0.740560000	-2.902797000
O	-1.159165000	1.548654000	2.843732000
K	3.302659000	-0.462223000	-0.097640000
O	-0.190295000	1.815448000	-3.256071000
O	-0.937088000	-1.843411000	2.481611000
K	-1.773570000	3.591709000	-0.239374000
K	-1.614076000	-2.951601000	-0.191143000
H	2.136375000	-0.290811000	-3.708595000
H	-1.640372000	-1.589899000	-3.600404000
H	-0.690547000	1.770416000	-4.074278000
H	2.364999000	0.437869000	3.246867000
H	-1.476682000	-1.754901000	3.271155000
H	-0.811833000	2.004064000	3.613978000

K3-Pu-N-Pu

Pu	1.606421000	-0.478771000	-1.276006000
Pu	-1.692852000	0.431919000	1.167886000
K	0.461463000	-2.635941000	1.612170000
K	1.419308000	2.569383000	0.971161000
K	-1.921208000	0.010634000	-2.543257000
O	0.503690000	-1.341713000	-3.066061000
O	2.721436000	-1.910234000	0.084683000
O	2.552016000	1.575458000	-1.444574000
O	-2.172689000	-1.658474000	1.918272000

O	-0.680113000	1.788230000	2.674459000
O	-3.082084000	1.395191000	-0.371004000
N	-0.029909000	-0.023852000	-0.035566000
H	0.811092000	-1.841701000	-3.822384000
H	3.604946000	-2.272605000	0.024823000
H	3.357835000	1.840284000	-1.889729000
H	-1.000298000	2.141226000	3.504327000
H	-2.851559000	-1.931176000	2.536948000
H	-3.882338000	1.910831000	-0.271611000

K3-U-N-U

U	1.598999000	-0.477246000	-1.282309000
U	-1.709197000	0.415288000	1.193320000
K	0.453905000	-2.669984000	1.587547000
K	1.410304000	2.592834000	0.956423000
K	-1.976533000	-0.037333000	-2.528366000
O	0.516025000	-1.314744000	-3.086130000
O	2.770432000	-1.846491000	0.074185000
O	2.543425000	1.560511000	-1.519026000
O	-2.227434000	-1.673657000	1.880226000
O	-0.702773000	1.781800000	2.685622000
O	-3.142630000	1.373491000	-0.289016000
N	-0.036083000	-0.078050000	-0.004640000
H	3.249304000	1.896507000	-2.072244000
H	3.624482000	-2.252534000	-0.082180000
H	0.885923000	-1.700895000	-3.881456000
H	-3.976850000	1.834748000	-0.198791000
H	-2.969098000	-1.947775000	2.422254000
H	-1.087769000	2.176767000	3.469805000

K3-U-N3-U

U	0.042299000	0.041921000	-1.826356000
U	-0.055106000	0.032131000	1.518641000
O	-1.500390000	-1.290909000	-2.781822000
O	2.040484000	0.220141000	2.399503000
N	0.531185000	-1.127948000	-0.140072000
N	0.154280000	1.484030000	-0.116687000
N	-1.195038000	0.858469000	-0.206920000
O	1.927976000	-0.628038000	-2.893882000
O	-1.096156000	1.551565000	2.839779000
K	3.318599000	-0.536870000	-0.059148000
O	-0.270959000	1.778556000	-3.255023000
O	-0.995517000	-1.820723000	2.476785000
K	-1.680643000	3.439570000	-0.204532000
K	-1.569741000	-3.010466000	-0.213035000
H	2.185457000	-0.253704000	-3.739224000
H	-2.019361000	-1.172335000	-3.577055000
H	-0.410631000	1.741522000	-4.203108000
H	-1.477239000	-1.800145000	3.306233000
H	-1.137667000	1.602286000	3.796590000
H	2.278893000	0.734712000	3.171707000

K3-Np-N3-Np[CH2]

Np	0.020985000	0.072664000	-1.895601000
Np	-0.110043000	0.070050000	1.384692000
C	-1.758233000	-1.077568000	-3.274419000
C	2.031754000	-0.112584000	2.755285000
H	1.367340000	-1.984442000	-3.308348000
H	-2.374031000	-0.155533000	-3.344196000
H	1.113090000	2.042797000	-3.700066000
H	1.931195000	-1.222818000	2.825128000
H	-0.959612000	-1.212994000	3.575640000
H	0.068849000	2.335612000	3.052907000
H	1.498991000	-0.448498000	-4.221522000
H	-1.097678000	-1.098954000	-4.168067000
H	-0.336405000	1.363579000	-4.499770000
H	1.384779000	0.280058000	3.575353000
H	-0.938024000	1.135798000	3.880574000
H	-2.401910000	-1.302525000	2.566241000
N	0.428551000	-1.116757000	-0.226173000

N	0.187709000	1.507423000	-0.205390000
N	-1.180072000	0.961509000	-0.329932000
C	1.846583000	-0.983516000	-3.313811000
C	-0.933101000	1.848707000	3.025567000
K	3.314230000	-0.604700000	-0.064461000
C	0.011539000	1.942917000	-3.621324000
C	-1.386194000	-1.746795000	2.693207000
K	-1.536893000	3.586056000	-0.211547000
K	-1.719407000	-3.011278000	-0.201036000
H	-0.464956000	2.923492000	-3.594922000
H	-2.427475000	-1.939512000	-3.334483000
H	2.928093000	-1.119657000	-3.396633000
H	-1.467459000	-2.805839000	2.943448000
H	3.059317000	0.170725000	2.992846000
H	-1.747846000	2.565573000	3.110148000

K3-Np-N-Np[CH2]

Np	1.725654000	-0.397079000	-1.120515000
Np	-1.652255000	0.418265000	1.147458000
K	0.453751000	-2.730030000	1.860207000
K	1.015521000	2.931267000	0.610696000
K	-1.584756000	0.496646000	-2.585813000
H	2.179849000	-3.229451000	-0.422169000
H	-2.557642000	-2.087405000	0.527425000
H	-4.038350000	0.233831000	-0.805994000
H	1.147490000	-0.086349000	-3.974997000
H	3.552952000	1.737152000	-0.173828000
H	-1.599623000	3.162346000	2.128792000
H	-4.204950000	1.173465000	0.676977000
H	2.006645000	-1.556174000	-3.546910000
H	3.568313000	-2.274592000	-0.884236000
H	-3.400705000	-1.288886000	1.870440000
H	4.022597000	1.097476000	-1.734447000
H	-2.091833000	1.957140000	3.317445000
C	0.998118000	-1.073740000	-3.474432000
C	2.867291000	-2.440018000	-0.024721000
C	3.220494000	1.696999000	-1.240606000
C	-2.508860000	-1.929431000	1.636318000
C	-1.196103000	2.332887000	2.759094000
C	-3.639108000	1.133698000	-0.288160000
N	-0.018485000	0.291693000	-0.166948000
H	0.319889000	-1.671713000	-4.087058000
H	3.282428000	2.707045000	-1.654723000
H	3.460152000	-2.879177000	0.781474000
H	-2.703046000	-2.894674000	2.111417000
H	-3.930569000	2.019405000	-0.859344000
H	-0.529645000	2.774976000	3.503669000

K3-Np-N3-Np[NH]

Np	0.016863000	0.026219000	-1.705652000
Np	-0.088680000	0.066259000	1.613405000
H	1.308053000	-2.177729000	-2.655007000
H	-2.581221000	0.036359000	-2.581644000
H	1.207814000	1.745745000	-3.543599000
H	1.873798000	-1.021262000	3.128091000
H	-1.724338000	-1.034890000	3.456038000
H	-0.062126000	1.848194000	3.663766000
N	-2.011228000	-0.825960000	-2.552809000
N	2.005044000	-0.085911000	2.700776000
N	0.241629000	-1.191558000	-0.007249000
N	0.434316000	1.450124000	0.011212000
N	-0.982513000	1.143597000	-0.126680000
N	1.721671000	-1.235568000	-2.764850000
N	-0.917206000	1.691053000	3.102889000
K	3.197386000	-0.899250000	0.084050000
N	0.232472000	1.814417000	-3.214057000
N	-1.216007000	-1.652351000	2.798621000
K	-0.948078000	3.759320000	0.089311000
K	-2.272534000	-2.533747000	0.061111000
H	-0.331516000	1.947973000	-4.047592000

H	-2.191683000	-1.309492000	-3.425432000
H	2.013217000	-1.152062000	-3.732378000
H	-0.892317000	-2.447140000	3.336873000
H	2.416611000	0.496951000	3.419879000
H	-1.685830000	1.654246000	3.763846000

K3-Np-N-Np[NH]

Np	1.677368000	-0.502434000	-1.188257000
Np	-1.762035000	0.440234000	1.133265000
K	0.523298000	-2.471119000	1.836618000
K	1.312775000	2.692182000	0.804477000
K	-1.668996000	0.401948000	-2.693259000
H	1.318017000	-0.221853000	-3.844594000
H	3.961601000	1.034629000	-1.061451000
H	-4.116920000	0.295432000	-0.536631000
H	2.361645000	-3.078636000	-0.964323000
H	-2.476215000	-0.816135000	3.327992000
H	-1.582288000	2.997806000	2.031402000
N	0.824237000	-0.988051000	-3.345014000
N	2.644946000	-2.445597000	-0.192243000
N	3.040473000	1.474566000	-1.239294000
N	-2.199738000	-1.438837000	2.542311000
N	-1.047376000	2.231619000	2.486501000
N	-3.470252000	1.092506000	-0.424973000
N	-0.021772000	-0.006838000	-0.013628000
H	0.808788000	-1.767442000	-3.992007000
H	3.222600000	2.156688000	-1.968881000
H	3.577551000	-2.745769000	0.068051000
H	-2.852735000	-2.213676000	2.585524000
H	-4.052610000	1.919640000	-0.493903000
H	-1.041697000	2.458043000	3.474073000

K3-Pu-N3-Pu[CH2]

Pu	0.004573000	0.070528000	-1.906527000
Pu	-0.123685000	0.081828000	1.413320000
C	-1.755580000	-1.093050000	-3.278521000
C	2.021255000	-0.069998000	2.749126000
N	0.381401000	-1.097797000	-0.213323000
N	0.146081000	1.544322000	-0.208393000
N	-1.164686000	1.043562000	-0.332893000
C	1.891100000	-0.974845000	-3.240625000
C	-0.953138000	1.900858000	3.017849000
K	3.276855000	-0.668355000	-0.072971000
C	0.001142000	1.946646000	-3.617199000
C	-1.459257000	-1.725907000	2.665150000
H	1.405603000	-1.972989000	-3.229181000
H	-2.366375000	-0.168952000	-3.360791000
H	1.104813000	2.036977000	-3.666482000
H	1.848360000	-1.166636000	2.875829000
H	-1.146389000	-1.132373000	3.555811000
H	0.039510000	2.405221000	2.991515000
H	1.521880000	-0.431358000	-4.135720000
H	-1.082071000	-1.123398000	-4.161874000
H	-0.335096000	1.368912000	-4.500417000
H	1.391620000	0.412862000	3.532822000
H	-0.912769000	1.202464000	3.883211000
H	-2.486974000	-1.357127000	2.434862000
K	-1.563198000	3.658271000	-0.191090000
K	-1.730876000	-3.007812000	-0.192731000
H	-0.483200000	2.921564000	-3.571679000
H	-2.425902000	-1.954567000	-3.331837000
H	2.969504000	-1.113843000	-3.357210000
H	3.062548000	0.157816000	2.986245000
H	-1.491609000	-2.779550000	2.947541000
H	-1.788320000	2.593996000	3.095671000

K3-Pu-N-Pu[CH2]

Pu	1.736465000	-0.374634000	-1.112250000
Pu	-1.658098000	0.451771000	1.160651000
K	0.437629000	-2.675032000	1.822652000

K	1.022804000	2.923857000	0.628354000
K	-1.565474000	0.460849000	-2.556833000
C	0.991990000	-1.061866000	-3.473530000
C	2.844464000	-2.478610000	-0.069996000
C	3.229731000	1.742771000	-1.172177000
C	-2.529158000	-1.879320000	1.718049000
C	-1.184623000	2.423995000	2.728039000
C	-3.640079000	1.076066000	-0.342193000
H	2.128066000	-3.263643000	-0.414643000
H	-2.631278000	-1.996890000	0.608460000
H	-4.005490000	0.185740000	-0.899170000
H	1.151758000	-0.086475000	-3.992474000
H	3.539970000	1.808829000	-0.100791000
H	-1.542836000	3.279153000	2.108001000
H	-4.237771000	1.073373000	0.603217000
H	1.994695000	-1.555799000	-3.536802000
H	3.527547000	-2.374603000	-0.952243000
H	-3.407323000	-1.248741000	2.014726000
H	4.055690000	1.152748000	-1.635296000
H	-2.101629000	2.089587000	3.275712000
N	0.013307000	0.224240000	-0.080060000
H	3.285920000	2.746731000	-1.602947000
H	0.306974000	-1.664897000	-4.073987000
H	3.442995000	-2.893314000	0.744988000
H	-2.693903000	-2.863705000	2.163114000
H	-0.498432000	2.818500000	3.482220000
H	-3.939499000	1.971748000	-0.894587000

K3-Pu-N3-Pu[NH]

Pu	0.011087000	0.042794000	-1.757068000
Pu	-0.116203000	0.057395000	1.619602000
N	-2.029779000	-0.823709000	-2.537657000
N	1.990475000	-0.070001000	2.687354000
N	0.244114000	-1.165728000	0.064353000
N	0.371533000	1.520115000	-0.022478000
N	-0.956978000	1.212020000	-0.135437000
N	1.701133000	-1.271270000	-2.750073000
N	-0.918671000	1.659234000	3.106176000
H	1.288038000	-2.213043000	-2.647901000
H	-2.622312000	0.022269000	-2.494340000
H	1.281258000	1.799446000	-3.574402000
H	1.859771000	-1.014301000	3.094708000
H	-1.631965000	-1.050181000	3.514451000
H	-0.058259000	1.804726000	3.661607000
K	3.178763000	-0.903390000	0.094211000
N	0.297066000	1.849267000	-3.271302000
N	-1.173271000	-1.673843000	2.826804000
K	-0.965084000	3.852154000	0.019276000
K	-2.238988000	-2.562600000	0.066560000
H	-1.684404000	1.601593000	3.769697000
H	-0.947438000	-2.534130000	3.309797000
H	2.332424000	0.503114000	3.450493000
H	2.070660000	-1.208421000	-3.691939000
H	-2.226304000	-1.258953000	-3.431662000
H	-0.237490000	1.931332000	-4.131986000

K3-Pu-N-Pu[NH]

Pu	1.761305000	-0.660341000	-1.171270000
Pu	-1.682257000	0.438608000	0.991870000
K	0.596474000	-2.398176000	1.993565000
K	1.525703000	2.529598000	0.876512000
K	-1.077524000	1.046017000	-2.767925000
H	1.815051000	-0.716635000	-3.907364000
H	4.085484000	0.879922000	-1.042379000
H	-3.661766000	0.357569000	-1.115851000
H	2.262269000	-3.325860000	-0.647486000
H	-2.498657000	-0.792284000	3.211941000
H	-1.404861000	2.993360000	1.859677000
N	0.951712000	-0.984178000	-3.403554000
N	2.686782000	-2.594912000	-0.048437000

N	3.157853000	1.282199000	-1.259247000
N	-2.190885000	-1.408313000	2.436031000
N	-0.994793000	2.201907000	2.393603000
N	-3.235944000	1.193219000	-0.680706000
N	0.150952000	0.033995000	-0.005235000
H	-1.075354000	2.459645000	3.369748000
H	-3.964553000	1.897470000	-0.679805000
H	-2.809938000	-2.210353000	2.473005000
H	3.625899000	-2.922759000	0.146068000
H	0.527302000	-1.715850000	-3.962162000
H	3.334444000	1.939689000	-2.012155000

Cs₃-U Species

Reactant -LS

92	1.63911019	-0.41306888	-1.28785678
92	-1.67840200	0.47140709	1.17280793
55	0.45288238	-2.91483253	1.51854274
55	1.61498215	2.75562243	1.08253108
55	-2.02415086	0.09239164	-2.79611096
14	0.44111974	-2.56678965	-4.24382703
14	4.23851381	-2.40880455	0.72832789
14	3.27707145	2.87288740	-2.44781278
14	-0.45025422	2.27111551	4.34762000
14	-4.00540511	2.78202153	-0.86789211
8	0.74121489	-1.60849649	-2.95666342
8	-1.18352257	-2.27817855	-4.62566004
8	0.72693904	-4.19515444	-3.98089332
8	1.26209807	-2.20662877	-5.64835745
8	3.00279935	-1.63811252	-0.01063281
8	3.50428990	-3.32082501	1.95167348
8	5.06410591	-3.53056374	-0.18567482
8	5.42156584	-1.39942526	1.34663228
8	2.52637203	1.58195148	-1.78586462
8	4.92722215	2.75088129	-2.64432276
8	3.07977436	4.10898757	-1.30702615
8	2.69659095	3.31730998	-3.95275528
8	-2.47594503	-1.55568456	1.73829716
8	-2.29175399	-4.13832647	2.26644109
8	-4.73120347	-3.14527536	1.35672042
8	-0.75519847	1.55540190	2.91232327
8	-0.41187753	1.22775090	5.65532077
8	-1.50980519	3.47524118	4.80182294
8	1.02842021	3.07038160	4.12777480
8	-3.08988280	1.64894362	-0.12932865
8	-5.43283242	3.18761871	-0.10985711
8	-3.26291299	4.24609216	-1.17988283
8	-4.31032545	2.17059467	-2.41789479
7	-0.03033316	0.06136738	-0.08009502
6	-1.91121833	-2.62639845	-5.83782037
6	-1.65972404	-1.53821287	-6.89092456
1	-2.20618886	-1.76028097	-7.82266961
1	-2.00004737	-0.55576457	-6.52186008
1	-0.58325589	-1.47392587	-7.10963573
6	-3.39468988	-2.65912920	-5.44552997
1	-4.02052752	-2.91939804	-6.31459628
1	-3.56861884	-3.40781650	-4.65511485
1	-3.73162511	-1.67557714	-5.07513166
6	-1.49637974	-4.00128719	-6.37744437
1	-2.09415830	-4.24998805	-7.26988995
1	-0.43311335	-4.00726898	-6.65662346
1	-1.66081907	-4.78249436	-5.61919096
6	0.45703588	-5.03458571	-2.83270127
6	-0.79776974	-4.56901706	-2.08352931
1	-0.99781097	-5.22714654	-1.22047778
1	-0.66805646	-3.53449953	-1.72096642
1	-1.67894109	-4.59202398	-2.74466882
6	0.24573399	-6.44861646	-3.38995168
1	0.07945167	-7.16976266	-2.57297029
1	-0.62808505	-6.47256459	-4.06051290

1 1.13145445 -6.76649086 -3.96234231
6 1.68159256 -5.00599000 -1.91025126
1 1.52768398 -5.65321799 -1.02927973
1 2.57376646 -5.37243036 -2.44312437
1 1.89138010 -3.97889557 -1.56729671
6 2.58716336 -2.58198543 -6.10708201
6 2.49858222 -3.94288057 -6.81153372
1 3.49067654 -4.25469427 -7.17742721
1 2.12202637 -4.70347097 -6.11058081
1 1.81588925 -3.88499451 -7.67481067
6 3.57396118 -2.64294613 -4.93812605
1 4.59216101 -2.85677581 -5.30204065
1 3.58608109 -1.68045695 -4.40202181
1 3.28245292 -3.43290699 -4.22814598
6 3.00059541 -1.48835441 -7.09881810
1 3.98626733 -1.71177683 -7.53753373
1 2.26269810 -1.41514764 -7.91404560
1 3.05358867 -0.51277864 -6.59031477
6 4.06194856 -4.41268819 2.73680700
1 3.22256122 -4.48156407 4.01985806
1 3.58463966 -5.28730640 4.67890462
1 3.28007634 -3.52853672 4.57123360
1 2.16309239 -4.68991459 3.79125302
6 3.92235149 -5.71452389 1.93582366
1 4.32455067 -6.56942112 2.50446463
1 2.86151133 -5.92014749 1.71329188
1 4.46640541 -5.62580405 0.98343471
6 5.53102294 -4.16158704 3.10065059
1 5.90811135 -4.98581603 3.72834554
1 6.15272696 -4.09881678 2.19608887
1 5.63764164 -3.21995326 3.66111954
6 6.16631067 -3.37896310 -1.11854324
6 6.08049963 -4.59114880 -2.05314107
1 6.91186003 -4.58538021 -2.77613233
1 6.12914014 -5.52542613 -1.47073077
1 5.12978707 -4.57803304 -2.60908736
6 7.48550410 -3.39675693 -0.33410425
1 8.34349309 -3.28776522 -1.01771424
1 7.50077516 -2.56983942 0.39208943
1 7.59692393 -4.34951647 0.20861984
6 6.03005108 -2.07950880 -1.91689903
1 6.83296795 -2.00092582 -2.66790767
1 5.05898638 -2.05328253 -2.43613372
1 6.09109200 -1.20721401 -1.24718331
6 5.32710435 -0.13565599 2.04692179
6 6.55361357 -0.07575049 2.96717186
1 6.58892028 0.88350515 3.50915329
1 6.52277756 -0.89289026 3.70552322
1 7.47693192 -0.17737436 2.37524544
6 5.38411680 0.99666473 1.01451331
1 5.34271594 1.98296620 1.50873038
1 6.32422746 0.94897673 0.44152297
1 4.54848966 0.91955077 0.29868935
6 4.03960938 -0.04979071 2.87614467
1 3.99304911 0.91231743 3.41475101
1 3.15329522 -0.13367861 2.2261237
1 3.99774939 -0.86224886 3.61928353
6 5.72683270 2.19198753 -3.71927145
6 5.07091123 0.93025410 -4.28697531
1 5.71325269 0.47297267 -5.05715099
1 4.90662671 0.19472779 -3.48384657
1 4.09765491 1.17294438 -4.74184112
6 7.08037329 1.85067949 -3.08527476
1 7.52974087 2.75201515 -2.63800631
1 6.95109098 1.09724477 -2.29236209
1 7.77523199 1.45136167 -3.84136847
6 5.89854583 3.25278888 -4.81528504
1 6.40622800 4.14381702 -4.41165465
1 6.50676165 2.85645268 -5.64494257
1 4.91347374 3.55044290 -5.20556556

6 3.76987152 5.38775181 -1.21474154
6 5.11095391 5.17273340 -0.50000195
1 5.65785265 6.12486145 -0.39879293
1 4.94793198 4.76232309 0.51094111
1 5.72657826 4.45980464 -1.06869251
6 3.99152602 6.01472645 -2.59716099
1 4.47955194 6.99755499 -2.49010378
1 4.63126249 5.37316337 -3.21996268
1 3.03176318 6.15777203 -3.11750897
6 2.86066649 6.29945821 -0.37957089
1 3.30963318 7.29995439 -0.26932720
1 1.87480796 6.41178991 -0.86011389
1 2.71072523 5.88947197 0.63408747
6 1.34527536 3.39995956 -4.46826955
6 1.37071896 4.50993752 -5.52765479
1 0.38573569 4.60936109 -6.01245079
1 1.63181879 5.47629031 -5.06721746
1 2.12047684 4.27979164 -6.30102571
6 0.34489590 3.74810764 -3.36054662
1 -0.67331442 3.84723266 -3.77215137
1 0.33306768 2.96214891 -2.58544766
1 0.61714100 4.70330814 -2.88296537
6 0.99136633 2.05648803 -5.11804909
1 -0.02444244 2.08391448 -5.54978591
1 1.69751084 1.82279511 -5.93112473
1 1.04240913 1.23988197 -4.37734583
6 -4.97149674 -3.39360113 -0.04733475
6 -6.47089345 -3.14191811 -0.25704221
1 -6.76087383 -3.35368562 -1.29901435
1 -7.06045156 -3.79060930 0.40967936
1 -6.71741411 -2.09199040 -0.03360072
6 -4.15110970 -2.45035376 -0.93379986
1 -4.39813559 -2.62081190 -1.99611959
1 -4.37123325 -1.40092550 -0.67892179
1 -3.07097240 -2.61721973 -0.79067726
6 -4.63285891 -4.85471968 -0.37353572
1 -4.83416385 -5.07146476 -1.43583260
1 -3.56928433 -5.05856742 -0.17297650
1 -5.24437065 -5.53553536 0.23932482
6 -2.33169673 -5.36966438 3.04474640
6 -1.44322176 -6.37317485 2.29638493
1 -1.82782553 -6.54554071 1.27776197
1 -0.40343063 -6.01114005 2.22006267
1 -1.42022572 -7.33953461 2.82572351
6 -3.75366921 -5.93322730 3.15554437
1 -4.16569087 -6.14823646 2.15867405
1 -3.74150496 -6.87043832 3.73600564
1 -4.41389239 -5.21622277 3.66257574
6 -1.76127658 -5.08612164 4.44168370
1 -1.75819251 -6.00160761 5.05643752
1 -0.72276570 -4.71938205 4.37413142
1 -2.37061354 -4.31922750 4.94361487
6 -5.09984547 -2.12979338 4.41263332
6 -6.24339373 -3.15222307 4.35180606
1 -7.16622667 -2.72284335 4.77531030
1 -6.43270213 -3.44022114 3.30650428
1 -5.98853820 -4.05455868 4.93092090
6 -4.73806336 -1.81757664 5.86948145
1 -5.60494005 -1.39943224 6.40596027
1 -4.41484438 -2.73494944 6.38742189
1 -3.91533801 -1.08650325 5.90917333
6 -5.48742782 -0.84819496 3.67231959
1 -6.34663649 -0.36496845 4.16546204
1 -4.64365021 -0.14050728 3.66752592
1 -5.76161343 -1.07202042 2.62980624
6 0.27708339 -0.00997641 5.94243994
6 0.27643844 -0.94964196 4.73175417
1 0.76161859 -1.90469298 4.99977801
1 -0.75513534 -1.15357749 4.40036044
1 0.82547428 -0.49576391 3.88992024

6	1.71775135	0.29722118	6.37428100
1	1.72112897	0.94753798	7.26310798
1	2.25431139	-0.63292017	6.62521076
1	2.26399069	0.80502163	5.56365922
6	-0.49602040	-0.64878533	7.10414101
1	-0.53337507	0.04287053	7.96041078
1	-1.52746398	-0.88203700	6.79556991
1	-0.01195666	-1.58421215	7.42887062
6	-2.77826927	3.43528658	5.50633806
6	-3.55784203	2.16462200	5.16065776
1	-3.01664376	1.27457841	5.51684289
1	-4.55544682	2.18228590	5.62861873
1	-3.68208393	2.08272074	4.06864219
6	-2.50841726	3.50582267	7.01597249
1	-1.98642174	4.44208969	7.27198330
1	-3.45567502	3.47577505	7.57909457
1	-1.88466336	2.65300112	7.32463625
6	-3.54464424	4.67803477	5.03878376
1	-2.96121900	5.58792769	5.25408130
1	-3.72247618	4.63065353	3.95298292
1	-4.51570902	4.75464563	5.55365669
6	1.58796559	4.20455673	4.85021620
6	1.33363108	4.10455321	6.35927011
1	1.78813405	4.96648800	6.87508881
1	0.25506743	4.10036799	6.56965695
1	1.77581536	3.18355250	6.76704755
6	0.97345020	5.49556707	4.29040449
1	1.38387613	6.37992428	4.80579766
1	1.19308413	5.59881697	3.21397708
1	-0.11869773	5.47547242	4.42426657
6	3.09931599	4.17043179	4.58440728
1	3.60235238	5.00655450	5.09674021
1	3.53448661	3.22650023	4.95176477
1	3.31869683	4.25985185	3.50647971
6	-6.42121119	2.41601271	0.61021689
6	-6.48763285	0.97177140	0.10315340
1	-7.28182049	0.41724433	0.62968373
1	-6.70349737	0.94698334	-0.97794445
1	-5.52696515	0.46133316	0.28080354
6	-6.05074572	2.44956979	2.09622025
1	-6.78302414	1.89259332	2.70266976
1	-5.05732376	1.99250982	2.23879017
1	-6.01331543	3.48995779	2.45562338
6	-7.76186114	3.12718655	0.38070141
1	-8.56128002	2.64635787	0.96736303
1	-7.68631110	4.18259653	0.68589865
1	-8.04473451	3.09303898	-0.68360696
6	-2.76275329	5.30826965	-0.33570176
6	-1.39233182	4.89854170	0.21860931
1	-0.95237106	5.71425341	0.81821902
1	-1.49925392	4.00898064	0.86302455
1	-0.71163112	4.65726381	-0.61437841
6	-3.72572481	5.63000945	0.81313968
1	-3.34597485	6.48948895	1.39051302
1	-4.72639658	5.87296773	0.42505246
1	-3.82197745	4.77104037	1.49440627
6	-2.62023424	6.52490015	-1.26050200
1	-2.20691505	7.38760526	-0.71368800
1	-1.94789486	6.28761839	-2.10109978
1	-3.60267121	6.80847861	-1.67111545
6	-4.90839810	2.83499049	-3.56635150
6	-5.93275945	3.90210754	-3.15952630
1	-6.37613086	4.35383220	-4.06224601
1	-6.73896411	3.46240043	-2.55454985
1	-5.45200942	4.69683246	-2.56942639
6	-3.78706872	3.48164569	-4.39257538
1	-4.19714661	3.99238637	-5.27986073
1	-3.24953397	4.21761624	-3.77504523
1	-3.06962815	2.72092558	-4.74653177
6	-5.60404821	1.73097637	-4.37395903

1	-6.07151617	2.14564323	-5.28205325
1	-4.88294228	0.95705256	-4.68804599
1	-6.38712886	1.24724148	-3.76784259
14	-3.36171276	-2.82272892	2.26336289
8	-3.90580782	-2.72077951	3.83628189

Reactant -HS

92	1.65344162	-0.46098052	-1.29742760
92	-1.69808839	0.42586662	1.18920291
55	0.45473568	-2.93091773	1.52596433
55	1.59157632	2.70483880	1.06617543
55	-1.98817304	0.10594858	-2.77028946
14	0.43274453	-2.48676316	-4.35218940
14	4.22504087	-2.42577931	0.81334041
14	3.29379351	2.85033239	-2.43800422
14	-0.47038178	2.31435055	4.33150224
14	-3.97934025	2.78784724	-0.88843037
8	0.74916110	-1.52794125	-3.07418406
8	-1.18515788	-2.16639569	-4.74048002
8	0.67795306	-4.12203972	-4.07956883
8	1.26706324	-2.15772259	-5.75713438
8	2.99230533	-1.65126791	0.08258828
8	3.49642946	-3.33212112	2.04492922
8	5.04368939	-3.55800469	-0.09649894
8	5.41614732	-1.41754554	1.42310945
8	2.56063684	1.55071940	-1.78380304
8	4.94446960	2.74973040	-2.65006274
8	3.09359224	4.08155739	-1.29114418
8	2.69516282	3.30194929	-3.93598407
8	-2.43845573	-1.63330972	1.79984125
8	-2.25464501	-4.21140781	2.33146292
8	-4.69445324	-3.22019792	1.42112052
8	-0.78389136	1.59404746	2.90456729
8	-0.42537545	1.27810188	5.64648855
8	-1.52679240	3.52230309	4.78742560
8	1.01078746	3.10855231	4.10420725
8	-3.05415357	1.66596120	-0.15380793
8	-5.40833501	3.18346474	-0.12461516
8	-3.25172431	4.26128409	-1.20116011
8	-4.28723570	2.17771221	-2.43917393
7	-0.05593087	-0.07463614	-0.08033642
6	-1.91967435	-2.49631845	-5.95212698
6	-1.63379052	-1.42016554	-7.00869607
1	-2.18709266	-1.62749074	-7.93975987
1	-1.94214272	-0.42664594	-6.64150525
1	-0.55582361	-1.39061945	-7.22733505
6	-3.40410150	-2.48130983	-5.56199920
1	-4.03773173	-2.72585645	-6.42995351
1	-3.60234647	-3.22032735	-4.76810948
1	-3.70906259	-1.48540020	-5.19702219
6	-1.54462447	-3.88539609	-6.48468771
1	-2.14669795	-4.12092258	-7.37783241
1	-0.48094534	-3.92381247	-6.76035129
1	-1.73391245	-4.65793907	-5.72327752
6	0.39978906	-4.94553304	-2.92296520
6	-0.82530360	-4.43655421	-2.15310540
1	-1.03738629	-5.09100472	-1.29010489
1	-0.65085124	-3.40933535	-1.78801888
1	-1.71639717	-4.42535166	-2.80115135
6	0.13240496	-6.35492831	-3.46833793
1	-0.04437643	-7.06643750	-2.64515062
1	-0.75290442	-6.35251472	-4.12412674
1	0.99693467	-6.70498014	-4.05420683
6	1.63992223	-4.95428257	-2.02054995
1	1.48354016	-5.60012567	-1.13904017
1	2.51227247	-5.34320502	-2.56986355
1	1.88243643	-3.93513506	-1.67471643
6	2.58988953	-2.55884802	-6.19877310
6	2.48447233	-3.92344396	-6.89372518

1 3.47397942 -4.25519803 -7.24889872
1 2.08881163 -4.67186527 -6.19008684
1 1.80953731 -3.86060605 -7.76271362
6 3.56512467 -2.62884045 -5.01988247
1 4.58160217 -2.86824516 -5.37264612
1 3.59541016 -1.66215002 -4.49291558
1 3.25146285 -3.40607816 -4.30544845
6 3.03261537 -1.48003731 -7.19428147
1 4.01991016 -1.72201076 -7.61927703
1 2.30573857 -1.40179592 -8.01882395
1 3.09453495 -0.50117228 -6.69297903
6 4.05079070 -4.42471558 2.82927657
6 3.22500046 -4.47670952 4.12195436
1 3.57896600 -5.28808289 4.77851567
1 3.30664743 -3.52394132 4.67058256
1 2.15924530 -4.66416553 3.90487539
6 3.88706462 -5.72875325 2.03589121
1 4.28489259 -6.58666659 2.60310897
1 2.82135040 -5.92328969 1.82650780
1 4.42186309 -5.65022794 1.07733803
6 5.52713421 -4.18875193 3.17374547
1 5.90280088 -5.01349150 3.80164109
1 6.13750953 -4.13867260 2.26054317
1 5.65180731 -3.24478372 3.72652017
6 6.11786351 -3.40553923 -1.06050819
6 6.02173499 -4.63060776 -1.97728841
1 6.83172033 -4.62382003 -2.72412555
1 6.09899504 -5.55652477 -1.38471858
1 5.05505975 -4.63693974 -2.50539562
6 7.45737414 -3.39754267 -0.31099604
1 8.29631707 -3.28632228 -1.01752099
1 7.48043629 -2.56225090 0.40544584
1 7.59409892 -4.34206255 0.24027494
6 5.94519326 -2.11830710 -1.87224472
1 6.72542372 -2.04186908 -2.64705297
1 4.95880315 -2.10844592 -2.36392682
1 6.01618600 -1.23567121 -1.21689426
6 5.31565528 -0.13620370 2.08817991
6 6.54573037 -0.04214127 3.00088465
1 6.57546728 0.93058138 3.51873120
1 6.52505261 -0.84119118 3.75912009
1 7.46719760 -0.15096626 2.40742409
6 5.35861137 0.96972873 1.02667918
1 5.31407468 1.96848963 1.49482255
1 6.29563023 0.91348274 0.44952523
1 4.52065384 0.86959014 0.31686441
6 4.03204919 -0.03790484 2.92277473
1 3.97956704 0.93774733 3.43584339
1 3.14287512 -0.15128062 2.27873400
1 4.00259644 -0.82986712 3.68819332
6 5.73255318 2.17499756 -3.72420808
6 5.07604804 0.89897615 -4.25957042
1 5.70609653 0.43611189 -5.03655427
1 4.93666654 0.17271756 -3.44334085
1 4.09184981 1.12671954 -4.69868485
6 7.09664130 1.85229370 -3.10288339
1 7.54746629 2.76447505 -2.67983496
1 6.98207157 1.11456022 -2.29289623
1 7.78303813 1.44097937 -3.86025950
6 5.88328067 3.21615070 -4.84201221
1 6.38986688 4.11753283 -4.46052202
1 6.48342535 2.80904486 -5.67234351
1 4.89131842 3.50128590 -5.22406435
6 3.77226521 5.36620392 -1.20160643
6 5.11818819 5.16316094 -0.49253190
1 5.65742643 6.11996192 -0.39416994
1 4.96281189 4.75176106 0.51921757
1 5.73741818 4.45544868 -1.06385236
6 3.98281497 5.99544754 -2.58491706
1 4.46122814 6.98316275 -2.47965298

1 4.62702769 5.35990521 -3.20943267
1 3.02012309 6.12826839 -3.10249814
6 2.85840986 6.26904331 -0.36175065
1 3.29767725 7.27403169 -0.25355989
1 1.86905143 6.37173525 -0.83738475
1 2.71825623 5.85696475 0.65253052
6 1.33563069 3.35621947 -4.43146010
6 1.32165724 4.46792750 -5.48931313
1 0.32796334 4.54754815 -5.95990216
1 1.56908821 5.43889015 -5.03117286
1 2.06508333 4.25497057 -6.27367893
6 0.34282857 3.68268496 -3.30977660
1 -0.68207842 3.76746295 -3.70785892
1 0.35554016 2.89399634 -2.53733323
1 0.60472702 4.64033104 -2.83151069
6 0.99896652 2.00664657 -5.07804122
1 -0.02286325 2.01484717 -5.49626112
1 1.69676434 1.78903562 -5.90262180
1 1.07763120 1.18791829 -4.34313035
6 -4.93084893 -3.46167202 0.01619976
6 -6.43142284 -3.21742424 -0.19516534
1 -6.71889771 -3.42511959 -1.23865300
1 -7.01846522 -3.87268608 0.46732702
1 -6.68431553 -2.17006406 0.03367692
6 -4.11567232 -2.50871985 -0.86603250
1 -4.36372711 -2.67392715 -1.92891845
1 -4.34157037 -1.46175205 -0.60562646
1 -3.03472626 -2.66983479 -0.72526870
6 -4.58323389 -4.91931623 -0.31705470
1 -4.78273352 -5.13355267 -1.38016187
1 -3.51865845 -5.11754614 -0.11596067
1 -5.19023974 -5.60625931 0.29352259
6 -2.28641047 -5.43876820 3.11375215
6 -1.39651285 -6.44076459 2.36514086
1 -1.78749296 -6.62174887 1.35041094
1 -0.36035743 -6.07064756 2.27908109
1 -1.36233691 -7.40392107 2.89965137
6 -3.70598805 -6.00698148 3.23244664
1 -4.12138391 -6.22607321 2.23768827
1 -3.68917348 -6.94228836 3.81589059
1 -4.36618362 -5.28973817 3.73943580
6 -1.71073985 -5.14681016 4.50698189
1 -1.70280880 -6.05844895 5.12736912
1 -0.67343233 -4.77809630 4.43198470
1 -2.31960641 -4.37804777 5.00666817
6 -5.06248791 -2.19055439 4.47119688
6 -6.21265615 -3.20560587 4.41016705
1 -7.13364682 -2.77032594 4.83161165
1 -6.40136364 -3.49450138 3.36502644
1 -5.96368784 -4.10871041 4.99068919
6 -4.70238235 -1.87614256 5.92810745
1 -5.56840393 -1.45398822 6.46277622
1 -4.38268651 -2.79365605 6.44790784
1 -3.87673080 -1.14814017 5.96773993
6 -5.44059808 -0.90801739 3.72676623
1 -6.29817227 -0.41844260 4.21667720
1 -4.59306916 -0.20488170 3.72026642
1 -5.71458012 -1.13287110 2.68426815
6 0.26388081 0.04031305 5.93104576
6 0.26453703 -0.89914750 4.71943444
1 0.75309837 -1.85238902 4.98720730
1 -0.76675170 -1.10757074 4.38985837
1 0.81149614 -0.44417360 3.87689305
6 1.70417401 0.34821606 6.36375584
1 1.70583391 0.99754253 7.25333342
1 2.24215745 -0.58130119 6.61394953
1 2.24991046 0.85834671 5.55432062
6 -0.50842700 -0.60146847 7.09170809
1 -0.54842928 0.08985441 7.94809425
1 -1.53899032 -0.83717427 6.78218268

1	-0.02259519	-1.53585551	7.41663229
6	-2.79920378	3.47172745	5.48326230
6	-3.56936689	2.19706995	5.12827984
1	-3.01894184	1.30854093	5.47407319
1	-4.56448774	2.20096683	5.60183925
1	-3.70223816	2.12480780	4.03718234
6	-2.53887791	3.53705694	6.99474821
1	-2.02192977	4.47438132	7.25700470
1	-3.48887485	3.50078142	7.55282472
1	-1.91260865	2.68605903	7.30325249
6	-3.57094767	4.71151100	5.01647368
1	-2.99603366	5.62453039	5.24119177
1	-3.73961672	4.66914223	3.92889629
1	-4.54676097	4.77846532	5.52377842
6	1.57579614	4.24449669	4.81852468
6	1.32696374	4.15246312	6.32916089
1	1.78887918	5.01363269	6.83959365
1	0.24903703	4.15542755	6.54368007
1	1.76483942	3.23026089	6.73876098
6	0.96278794	5.53453027	4.25481622
1	1.37762881	6.42012853	4.76449136
1	1.17871030	5.63135901	3.17702237
1	-0.12890504	5.51824184	4.39330247
6	3.08577215	4.20506751	4.54561965
1	3.59420678	5.04230141	5.05076013
1	3.52016572	3.26191015	4.91580702
1	3.29904078	4.28805559	3.46588385
6	-6.38885589	2.39116974	0.58306465
6	-6.47819824	0.96860526	0.01966480
1	-7.26402336	0.39825958	0.54191053
1	-6.71778309	0.98738635	-1.05628787
1	-5.51786025	0.44480667	0.15523259
6	-5.99169619	2.35762365	2.06186322
1	-6.72337098	1.79002991	2.65915876
1	-5.00541584	1.87526207	2.16707528
1	-5.92795969	3.38168407	2.46216551
6	-7.72687234	3.12218833	0.40703965
1	-8.52191490	2.62197046	0.98333443
1	-7.63735775	4.16219355	0.75800108
1	-8.02486440	3.13897368	-0.65350752
6	-2.74255236	5.30996513	-0.34684826
6	-1.41178719	4.85596328	0.26766199
1	-0.96337324	5.66407226	0.87111710
1	-1.57343685	3.98268523	0.92205433
1	-0.71173412	4.57885922	-0.53788605
6	-3.74034642	5.68275661	0.75641386
1	-3.35217373	6.53298837	1.34167945
1	-4.71175891	5.96267977	0.32108449
1	-3.90455141	4.83630391	1.43976489
6	-2.51458000	6.51017222	-1.27620314
1	-2.09474038	7.36385519	-0.72019553
1	-1.81540523	6.23901826	-2.08405454
1	-3.46701856	6.82373498	-1.73290830
6	-4.89221730	2.83737540	-3.58555745
6	-5.92810439	3.89227435	-3.17589391
1	-6.37764065	4.34111445	-4.07703478
1	-6.72885966	3.44216662	-2.57115765
1	-5.45584786	4.69089218	-2.58418479
6	-3.77841547	3.49802820	-4.41114503
1	-4.19409418	4.00298906	-5.29908540
1	-3.25073928	4.24123503	-3.79373323
1	-3.05141843	2.74575204	-4.76365573
6	-5.57530547	1.72735085	-4.39573464
1	-6.04796071	2.13825783	-5.30280774
1	-4.84495286	0.96295812	-4.71168401
1	-6.35230226	1.23275851	-3.79066125
14	-3.32381811	-2.89383840	2.32778951
8	-3.87143644	-2.79156613	3.90025147

Product -LS

92	-0.00944685	-0.07410606	-1.74164439
92	0.06247787	-0.02243397	1.62144455
14	-2.97586151	-1.97175797	-3.38856284
14	3.27337307	0.83715609	3.66760685
8	-1.75189956	-1.01782701	-2.90238875
8	-4.31502921	-1.93474535	-2.35049500
8	-3.62753337	-1.78184118	-4.91334935
8	-2.41933441	-3.54428141	-3.15398013
8	1.95537143	0.27476438	2.88373597
8	4.63101395	0.45241677	2.71496472
8	3.62282848	0.13021003	5.14086267
8	3.26076250	2.48125988	4.00149446
6	-5.45787960	-1.04659249	-2.27411372
6	-6.14822887	-1.37595877	-0.94157365
1	-6.39840770	-2.44890415	-0.89984906
1	-7.08044261	-0.79727401	-0.83761262
1	-5.49922292	-1.12455139	-0.08660081
6	-5.00069025	0.41752346	-2.28908992
1	-4.24415855	0.59558453	-1.50828996
1	-5.85691390	1.09214216	-2.11825221
1	-4.55006057	0.67447564	-3.25971520
6	-6.42749264	-1.33977005	-3.42777403
1	-5.92092977	-1.21160992	-4.39440910
1	-7.29852110	-0.66536484	-3.38110762
1	-6.79118778	-2.37896273	-3.36598629
6	-3.26646622	-1.04206020	-6.10379350
6	-3.51599797	0.45139378	-5.86609866
1	-4.57537517	0.62795107	-5.61871094
1	-3.27493312	1.03221166	-6.77083711
1	-2.88998160	0.81861210	-5.03773327
6	-1.80500426	-1.30494268	-6.46235809
1	-1.15115161	-1.00328572	-5.63038489
1	-1.51717316	-0.73735084	-7.36173380
1	-1.64726174	-2.37587023	-6.65814525
6	-4.19248120	-1.55955911	-7.21268615
1	-4.03367792	-2.63737709	-7.37644882
1	-3.99527489	-1.02957458	-8.15805847
1	-5.24794687	-1.40407311	-6.93765840
6	-2.90019781	-4.81615852	-3.65874012
6	-4.42379404	-4.93858166	-3.52801390
1	-4.74020630	-4.81302059	-2.48026578
1	-4.75642079	-5.93042276	-3.87733542
1	-4.93016421	-4.17000713	-4.13303688
6	-2.47794218	-4.97002308	-5.12595953
1	-2.97341968	-4.20505556	-5.74192731
1	-2.75650301	-5.96534933	-5.50995770
1	-1.38710639	-4.84894691	-5.22059283
6	-2.20511598	-5.88343086	-2.80298080
1	-1.11153120	-5.75477179	-2.85229402
1	-2.45784207	-6.89594613	-3.15758816
1	-2.51825210	-5.80413541	-1.74895203
6	6.03348427	0.42705775	3.11441254
6	6.86441891	0.49669472	1.82166503
1	6.72754146	-0.40303201	1.19912610
1	7.93783923	0.55720186	2.06345490
1	6.59476753	1.38723597	1.22988731
6	6.32260180	-0.88849726	3.85047605
1	5.70318385	-0.95206611	4.75637155
1	7.38782367	-0.95527590	4.12781316
1	6.08019407	-1.75119005	3.20684606
6	6.40310756	1.63103325	3.99034846
1	6.22389182	2.57287153	3.44933850
1	7.47154290	1.58421934	4.25897913
1	5.81064508	1.64329561	4.91355503
6	3.23501137	0.46364189	6.49642507
6	3.38714466	-0.83483082	7.29865068
1	2.71955684	-1.61265335	6.89762622
1	3.13910033	-0.66943294	8.35944442
1	4.42483012	-1.20058249	7.23630809

6 4.17458968 1.54347779 7.05255331
1 5.21526208 1.18183165 7.07524244
1 3.88257954 1.80878521 8.08195829
1 4.11953336 2.44613238 6.42541215
6 1.78831504 0.95371602 6.53250389
1 1.68722288 1.88765312 5.95834076
1 1.46391298 1.13750599 7.56933423
1 1.12837045 0.19792696 6.08491299
6 2.99180444 3.61629264 3.14634150
6 3.87883592 4.75624409 3.66847608
1 3.67094322 4.93777030 4.73486800
1 3.68445978 5.68764564 3.11153429
1 4.94478655 4.50070257 3.56174297
6 1.51463899 3.99619647 3.29692838
1 0.85640957 3.15626075 3.02146414
1 1.27290056 4.87569370 2.67383661
1 1.28740303 4.25563091 4.34359377
6 3.33041583 3.31046198 1.68281727
1 4.38907401 3.02223229 1.58330928
1 3.16150144 4.20274048 1.05849721
1 2.71467053 2.48224876 1.28990241
55 -2.55597534 -2.64230581 0.05179333
7 1.09169604 -1.02247213 -0.02168793
7 1.39623692 0.42050325 -0.14351295
14 2.99316244 -1.53672946 -3.56236754
14 -2.25031887 2.47737620 3.56862312
8 1.49782265 -1.05727995 -3.13486419
8 3.73984676 -2.62850116 -2.50080688
8 3.16675282 -2.27764353 -5.05309604
8 3.98028118 -0.18176772 -3.42539944
8 -1.12173379 1.59608236 2.77923600
8 -2.50745963 3.84225262 2.58336199
8 -1.80962686 3.11538654 5.04613388
8 -3.69086584 1.68585969 3.88913614
6 3.71228708 -4.07812371 -2.44037249
6 4.42915337 -4.45911180 -1.13553912
1 5.44668268 -4.03416896 -1.12139558
1 4.51227877 -5.55456710 -1.04869161
1 3.86857828 -4.09826354 -0.25853951
6 2.26219979 -4.57711734 -2.40983876
1 1.71310357 -4.09982251 -1.58266510
1 2.22707643 -5.67174059 -2.27628535
1 1.74720751 -4.32646910 -3.34961348
6 4.48736875 -4.68438223 -3.61896183
1 4.05581275 -4.35708983 -4.57337193
1 4.46863332 -5.78536679 -3.56400867
1 5.54145402 -4.35966994 -3.59035786
6 2.35573189 -2.40117299 -6.24196192
6 1.16637053 -3.32339120 -5.95021669
1 1.52434526 -4.32240187 -5.65251579
1 0.53844520 -3.43955889 -6.84806703
1 0.54930787 -2.90982522 -5.13733570
6 1.88526886 -1.02136092 -6.70529059
1 1.30058805 -0.53584196 -5.91032111
1 1.25622645 -1.10518832 -7.60633560
1 2.75298699 -0.38620205 -6.93949423
6 3.26379261 -3.03542522 -7.30564355
1 4.13885534 -2.39467865 -7.49769608
1 2.71384637 -3.16671556 -8.25133049
1 3.62103658 -4.02248264 -6.97158332
6 5.33016404 0.09538299 -3.86994650
6 6.33536986 -0.89513858 -3.26462115
1 6.32347597 -0.84368702 -2.16296990
1 7.35759960 -0.65388126 -3.60045941
1 6.10123614 -1.92830334 -3.56213296
6 5.41337138 0.05007059 -5.40219895
1 5.18320402 -0.96107467 -5.76821778
1 6.42389115 0.33197654 -5.74144174
1 4.68982422 0.75612714 -5.83937361
6 5.63361581 1.51695791 -3.37745808

1 4.92027633 2.23029821 -3.81784127
1 6.65636443 1.81894487 -3.65638407
1 5.53792940 1.57588424 -2.28028845
6 -3.15797942 5.10869975 2.88381848
6 -3.41586162 5.78737804 1.52913333
1 -2.46926810 6.01685684 1.01030137
1 -3.95128158 6.74012883 1.67050198
1 -4.03451629 5.14070022 0.88415239
6 -2.21909610 5.97798653 3.73048926
1 -1.97925275 5.46461386 4.67232283
1 -2.68382183 6.95336759 3.95004940
1 -1.27427589 6.15852364 3.19092420
6 -4.49995954 4.89706674 3.59524285
1 -5.17902436 4.29705935 2.96915300
1 -4.98137810 5.86966711 3.79090724
1 -4.36199185 4.37752567 4.55210024
6 -2.09009530 2.75256969 6.42200140
6 -1.05741583 3.51594863 7.26108004
1 -0.03768331 3.21944351 6.97426530
1 -1.19850822 3.30835744 8.33396338
1 -1.16189065 4.60120458 7.09983808
6 -3.50900744 3.19408427 6.80740094
1 -3.61970565 4.28560598 6.70607648
1 -3.71449350 2.92753486 7.85729038
1 -4.24893765 2.69229274 6.16611686
6 -1.93591546 1.24460959 6.61960387
1 -2.67327270 0.70744868 6.00405935
1 -2.08821818 0.96964903 7.67612812
1 -0.92680068 0.93321673 6.31888550
6 -4.56239382 0.88917398 3.05251790
6 -5.98397646 1.13601153 3.57746357
1 -6.04499571 0.87572424 4.64619868
1 -6.71505653 0.52125646 3.02684968
1 -6.26187064 2.19540490 3.46068626
6 -4.18463874 -0.58679199 3.23052531
1 -3.13905288 -0.76334149 2.93183403
1 -4.85036316 -1.23168444 2.62982291
1 -4.28788122 -0.88944863 4.28495753
6 -4.46091829 1.29892990 1.57924006
1 -4.65836060 2.37696786 1.46554411
1 -5.20989241 0.75365027 0.98296257
1 -3.45996664 1.06886698 1.17147681
55 3.98446187 -0.99469188 0.13299708
14 -0.20131513 3.48501074 -3.30858496
14 -0.86581116 -3.37333875 3.37791061
8 0.03520959 1.98474247 -2.72157709
8 0.44124287 4.68672583 -2.30203423
8 0.36209353 3.88325215 -4.82461946
8 -1.85538264 3.74450501 -3.14979802
8 -0.69423954 -1.97460174 2.54793801
8 -1.80593925 -4.36525609 2.36787169
8 -1.75202983 -3.31036762 4.79014073
8 0.55923034 -4.12856202 3.81791922
6 1.75318348 5.30768545 -2.27103009
6 1.81406014 6.07309567 -0.94245625
1 0.98082753 6.79215139 -0.87484061
1 2.75793850 6.63602221 -0.85714413
1 1.75643043 5.38653297 -0.08159230
6 2.85280533 4.24081762 -2.32564087
1 2.72338997 3.49919435 -1.52110851
1 3.84845166 4.70377839 -2.22024547
1 2.82129660 3.70477706 -3.28577759
6 1.89062169 6.30041928 -3.43401200
1 1.75510530 5.78124381 -4.39333415
1 2.88578758 6.77489471 -3.41729746
1 1.12818599 7.09268430 -3.35574974
6 0.74927104 3.14483764 -6.00794552
6 2.16601306 2.59490817 -5.81051696
1 2.87022206 3.42092273 -5.61914377
1 2.50033480 2.06299724 -6.71568987

1	2.20039483	1.89206328	-4.96228744
6	-0.24496534	2.01791620	-6.27893855
1	-0.27401358	1.32335935	-5.42519320
1	0.04031952	1.45534840	-7.18169362
1	-1.25448177	2.42911586	-6.42669398
6	0.73223870	4.16389826	-7.15516929
1	-0.27685093	4.58790829	-7.28054180
1	1.03112176	3.68420018	-8.10087729
1	1.43129282	4.98962138	-6.94706406
6	-2.72453050	4.78642465	-3.66202423
6	-2.04480617	6.16104678	-3.66044538
1	-1.71120523	6.43347402	-2.64725472
1	-2.74920889	6.93103821	-4.01761275
1	-1.16557059	6.16195495	-4.32377922
6	-3.15781939	4.41215116	-5.08543592
1	-2.28612582	4.40760203	-5.75741919
1	-3.89152076	5.13791673	-5.47380554
1	-3.61599136	3.41058830	-5.09353744
6	-3.94338978	4.79553763	-2.72930787
1	-4.39190723	3.78971818	-2.68270548
1	-4.70607770	5.50734876	-3.08484568
1	-3.64835644	5.09413568	-1.70946068
6	-2.51488842	-5.59924431	2.67678908
6	-2.81364238	-6.26461926	1.32509266
1	-3.49715090	-5.64561607	0.71903322
1	-3.30273200	-7.24125784	1.47378967
1	-1.88186029	-6.42649031	0.75884794
6	-3.82710811	-5.26192031	3.39797537
1	-3.61279192	-4.72717008	4.33421441
1	-4.39658467	-6.17945332	3.62058134
1	-4.45796131	-4.61258140	2.76733790
6	-1.65879452	-6.54708867	3.52526521
1	-0.72943809	-6.80808034	2.99579215
1	-2.21528360	-7.47740554	3.72645232
1	-1.39215073	-6.08514376	4.48549134
6	-1.36153296	-3.15761703	6.17813032
6	-2.63041636	-2.70867381	6.91293197
1	-2.98562334	-1.74701804	6.51161132
1	-2.43328003	-2.58861769	7.99022779
1	-3.43044729	-3.45590380	6.78547260
6	-0.87531003	-4.50476727	6.73075712
1	-1.67633493	-5.25947135	6.67225542
1	-0.58151561	-4.39934195	7.78805225
1	-0.00690438	-4.85492244	6.15318183
6	-0.26643011	-2.09950465	6.30265098
1	0.64222973	-2.42518764	5.77308643
1	-0.01449188	-1.91592384	7.35941199
1	-0.61450484	-1.15795411	5.85488384
6	1.76517227	-4.42559262	3.07280217
6	2.26948207	-5.77215002	3.61042153
1	2.41442945	-5.71547039	4.70096064
1	3.23257790	-6.04078874	3.14600827
1	1.54509616	-6.57404022	3.39796505
6	2.79137955	-3.32451037	3.36504181
1	2.40945668	-2.33596790	3.06208047
1	3.73778924	-3.52757583	2.83302362
1	3.01676493	-3.28217419	4.44265176
6	1.48614395	-4.52392126	1.56924445
1	0.67786447	-5.24638380	1.37198254
1	2.38720536	-4.87378186	1.04047216
1	1.19769048	-3.54271974	1.15524950
55	-0.97958771	3.37108295	0.08023824
7	-1.21794775	0.20516273	-0.02499267
8	-1.74839024	-1.05402083	-2.83277056
8	-4.31831103	-1.98495100	-2.33464978
8	-3.62765113	-1.73941119	-4.86924061
8	-2.40325554	-3.57042937	-3.17982543
8	1.94694104	0.28674803	2.94271135
8	4.62970476	0.36285363	2.78867125
8	3.59932130	0.12402463	5.21466555
8	3.32824533	2.46494462	4.01769395
6	-5.48396118	-1.12168150	-2.28907148
6	-6.19473097	-1.46256705	-0.97133864
1	-6.42999827	-2.53893047	-0.93378962
1	-7.13902135	-0.90234372	-0.87579209
1	-5.56756721	-1.20557505	-0.10148618
6	-5.06083351	0.35199131	-2.30130189
1	-4.33648262	0.55781100	-1.49765780
1	-5.93846542	1.00660156	-2.16538964
1	-4.58384598	0.61068680	-3.25890396
6	-6.42829591	-1.43765052	-3.45634244
1	-5.91360068	-1.28725798	-4.41444660
1	-7.31818965	-0.78816533	-3.41472734
1	-6.76262909	-2.48689375	-3.40421452
6	-3.29867214	-1.04690577	-6.09422232
6	-3.57781853	0.44801296	-5.90142377
1	-4.63430547	0.60784841	-5.63162838
1	-3.37274392	1.00512289	-6.82999855
1	-2.94114087	0.85426996	-5.10017208
6	-1.83750733	-1.28755649	-6.47391662
1	-1.17658867	-0.94780070	-5.66277824
1	-1.58311807	-0.73555012	-7.39261018
1	-1.65104061	-2.35861808	-6.64597850
6	-4.23527016	-1.62506608	-7.16496576
1	-4.05330979	-2.70385445	-7.29554206
1	-4.07436278	-1.12446531	-8.13351599
1	-5.28711577	-1.48518952	-6.86969205
6	-2.89968041	-4.83098279	-3.69513358
6	-4.42667962	-4.93257718	-3.58742883
1	-4.75686174	-4.81439486	-2.54333152
1	-4.76629216	-5.91647698	-3.95233199
1	-4.91269273	-4.15127219	-4.19240965
6	-2.45740368	-4.98231633	-5.15683331
1	-2.93132586	-4.20551293	-5.77529026
1	-2.74695089	-5.96977374	-5.55272566
1	-1.36365574	-4.87826559	-5.23349261
6	-2.23195917	-5.91440016	-2.83684117
1	-1.13591126	-5.80311894	-2.87126013
1	-2.49577487	-6.92048331	-3.20180136
1	-2.55775589	-5.83426520	-1.78668948
6	6.03283573	0.32190404	3.18701610
6	6.86024465	0.37760975	1.89225086
1	6.70026783	-0.51594869	1.26547203
1	7.93609313	0.41592636	2.12842565
1	6.60387053	1.27574299	1.30582165
6	6.30072949	-0.99638576	3.92648640
1	5.67119419	-1.05146927	4.82643098
1	7.36170269	-1.07492231	4.21687039
1	6.05584457	-1.85743002	3.28188797
6	6.41935718	1.51981066	4.06433140
1	6.23112090	2.46671776	3.53562407
1	7.49293881	1.46845975	4.31087811
1	5.84565220	1.52325288	4.99965775
6	3.20285263	0.50379376	6.55784863
6	3.33116166	-0.76999417	7.40247370
1	2.66087848	-1.55335291	7.01737109
1	3.06933588	-0.56515971	8.45304399
1	4.36556382	-1.14845400	7.36877103
6	4.15195063	1.58819083	7.09088550
1	5.18367977	1.20575996	7.15101888
1	3.84562680	1.90008515	8.10310381
1	4.12856965	2.46644236	6.42825186
6	1.76326341	1.01526983	6.56466696

Product -HS

92	0.00283727	-0.07936427	-1.69864723
92	0.06103245	-0.00790554	1.66309971
14	-2.96555978	-1.99562504	-3.36235119
14	3.28188856	0.81236547	3.72534989

1 1.68265565 1.93349259 5.96227266
1 1.43503177 1.23502287 7.59317463
1 1.09615508 0.25616753 6.13449081
6 3.03736974 3.57976957 3.14803562
6 3.93416412 4.72894760 3.63124321
1 3.74154991 4.93949678 4.69508240
1 3.73612642 5.64679110 3.05287652
1 4.99769437 4.46759773 3.51330387
6 1.56373570 3.96111046 3.33044672
1 0.89826655 3.11328278 3.09938695
1 1.30164697 4.82437136 2.69286434
1 1.36743496 4.25112977 4.37540387
6 3.34470227 3.25616434 1.67807104
1 4.40493930 2.98282910 1.55476555
1 3.14839714 4.13886761 1.04719245
1 2.73254817 2.41360435 1.31073275
55 -2.60302935 -2.54574746 0.10987037
7 1.07189959 -1.03799930 0.02903149
7 1.41167953 0.39878530 -0.09146004
14 3.01792023 -1.51311383 -3.55238833
14 -2.28093893 2.50759726 3.55832922
8 1.52987429 -1.05337772 -3.07354199
8 3.83318886 -2.58139669 -2.51835246
8 3.14608678 -2.26669161 -5.03982523
8 3.96705655 -0.13243853 -3.47232849
8 -1.14547464 1.59858998 2.81265166
8 -2.50088428 3.85885180 2.54815378
8 -1.87371451 3.17298659 5.03579405
8 -3.74147459 1.74599275 3.85602564
6 3.89125482 -4.03094299 -2.46439942
6 4.71641621 -4.37976214 -1.21366245
1 5.70756488 -3.90193718 -1.27014310
1 4.85585400 -5.47131105 -1.15054584
1 4.21175616 -4.06363577 -0.28636690
6 2.47504480 -4.61369186 -2.36131817
1 1.94861584 -4.18765728 -1.49225629
1 2.50700387 -5.71179567 -2.25537638
1 1.89229866 -4.37058914 -3.26310875
6 4.62682715 -4.59328878 -3.68980016
1 4.12349612 -4.28243132 -4.61329862
1 4.66431168 -5.69367287 -3.64213423
1 5.66236532 -4.21535547 -3.71884257
6 2.31626062 -2.39877785 -6.21374355
6 1.17730164 -3.38105036 -5.91233883
1 1.59130443 -4.36138578 -5.62514423
1 0.54111166 -3.52542010 -6.80065829
1 0.55218193 -3.00320346 -5.08766137
6 1.77416417 -1.03357806 -6.63470869
1 1.18718641 -0.59296373 -5.81599634
1 1.12881735 -1.12690204 -7.52300273
1 2.60642540 -0.35355069 -6.87188852
6 3.22785315 -2.96415687 -7.31325138
1 4.05755894 -2.26858053 -7.51600246
1 2.66053003 -3.11215942 -8.24604888
1 3.65396782 -3.93266332 -7.00653510
6 5.30782416 0.18128447 -3.91129476
6 6.33649324 -0.81131899 -3.35106116
1 6.28296784 -0.85016463 -2.25097200
1 7.35654487 -0.50059508 -3.63217690
1 6.16104927 -1.82623551 -3.73830853
6 5.37422260 0.19159136 -5.44491381
1 5.16453828 -0.81265638 -5.84263431
1 6.37346547 0.50763038 -5.78728060
1 4.62920985 0.89466408 -5.84906008
6 5.58640685 1.58680499 -3.36180736
1 4.84121300 2.29856132 -3.74770970
1 6.59272271 1.93227511 -3.64973710
1 5.51662049 1.58856448 -2.26110084
6 -3.12249242 5.14376926 2.83285189
6 -3.41486120 5.78510648 1.46860011

1 -2.48307183 5.98354908 0.91117044
1 -3.93088534 6.75070352 1.59553100
1 -4.05962663 5.12783227 0.86172074
6 -2.13885660 6.01585006 3.62474618
1 -1.88685373 5.52534179 4.57603629
1 -2.57408208 7.00832036 3.82783841
1 -1.20591537 6.15886739 3.05397046
6 -4.43970654 4.97546496 3.59944996
1 -5.14584029 4.35470036 3.02587129
1 -4.90474298 5.96074414 3.77007670
1 -4.26758424 4.49806087 4.57259471
6 -2.13085513 2.75610513 6.40218987
6 -1.09183368 3.49334660 7.25568573
1 -0.07480576 3.21336973 6.94468887
1 -1.21736850 3.24384978 8.32153271
1 -1.20356827 4.58326542 7.13649047
6 -3.54795297 3.17777552 6.81684540
1 -3.65506589 4.27346881 6.77250550
1 -3.75501958 2.85683177 7.85125862
1 -4.28870303 2.71149668 6.15030162
6 -1.96793232 1.24228838 6.54527000
1 -2.72703425 0.72078445 5.94278183
1 -2.07750664 0.93659585 7.59860174
1 -0.97145835 0.94218405 6.19451027
6 -4.58814003 0.90431833 3.04082034
6 -6.01068611 1.11307279 3.57562424
1 -6.05296481 0.86811008 4.64890283
1 -6.72766073 0.46653303 3.04300886
1 -6.32178775 2.16189689 3.44446524
6 -4.15932416 -0.55545882 3.24040706
1 -3.11277157 -0.70411391 2.93006386
1 -4.81238315 -1.23393039 2.66287776
1 -4.23737875 -0.84295129 4.30126945
6 -4.51036015 1.29766847 1.56413807
1 -4.76262513 2.36248649 1.43609587
1 -5.23131662 0.70729825 0.97553910
1 -3.49977025 1.11776555 1.15586785
55 3.93525840 -1.08656424 0.21377351
14 -0.18647673 3.48361062 -3.27082596
14 -0.87572304 -3.37129729 3.38331809
8 0.07108385 1.99386261 -2.66263133
8 0.48222507 4.70705452 -2.30738031
8 0.33788118 3.85257580 -4.80864563
8 -1.83459996 3.75165232 -3.07708956
8 -0.69082453 -1.95986594 2.57785938
8 -1.85249945 -4.32463470 2.37351699
8 -1.73731071 -3.31519412 4.81091752
8 0.53984124 -4.16426022 3.78035568
6 1.79620844 5.32396933 -2.31916744
6 1.88353501 6.12574631 -1.01297355
1 1.05412455 6.84942793 -0.95386191
1 2.83172078 6.68460691 -0.95471379
1 1.83439475 5.46157198 -0.13364466
6 2.89138608 4.25338587 -2.36602425
1 2.78218447 3.53689912 -1.53569618
1 3.89080951 4.71609041 -2.30156367
1 2.83259144 3.68695424 -3.30715727
6 1.91545643 6.28555585 -3.50999978
1 1.76035292 5.74198653 -4.45242721
1 2.91137584 6.75794670 -3.52379541
1 1.15595003 7.08091406 -3.43822152
6 0.71321444 3.10399002 -5.98821196
6 2.13719651 2.56627717 -5.80978954
1 2.83990974 3.39843017 -5.64152753
1 2.45603378 2.02781705 -6.71674242
1 2.19165667 1.87283383 -4.95473072
6 -0.27618130 1.96593074 -6.23070331
1 -0.29705907 1.29338582 -5.35919696
1 0.00893750 1.38156545 -7.11884517
1 -1.28926986 2.36566181 -6.38435661

6	0.66940626	4.10463892	-7.15034175
1	-0.34030093	4.53282824	-7.25216061
1	0.93410750	3.60693483	-8.09689927
1	1.37971843	4.92912675	-6.97939759
6	-2.71587311	4.77846728	-3.59470155
6	-2.04518586	6.15951145	-3.58646314
1	-1.71809808	6.43074704	-2.57089873
1	-2.75275128	6.92648990	-3.94420140
1	-1.16313466	6.16737346	-4.24566021
6	-3.13781717	4.40412067	-5.02216152
1	-2.26266736	4.40708606	-5.68948198
1	-3.87546130	5.12513902	-5.41182794
1	-3.58911849	3.39935640	-5.03323411
6	-3.94220360	4.77288238	-2.67321125
1	-4.38339888	3.76360187	-2.63625631
1	-4.70589597	5.48065020	-3.03426455
1	-3.65950430	5.06593536	-1.64866450
6	-2.61629970	-5.52756953	2.67330401
6	-2.92783710	-6.18004313	1.31887168
1	-3.56324497	-5.52697818	0.69688865
1	-3.47220178	-7.12828847	1.45852824
1	-1.99639224	-6.39205163	0.76874313
6	-3.91768888	-5.13069263	3.38485100
1	-3.68402461	-4.61801385	4.32864797
1	-4.53643797	-6.01932009	3.59345451
1	-4.50990213	-4.44429553	2.75647507
6	-1.81094309	-6.50955277	3.53146357
1	-0.88422164	-6.80327145	3.01446416
1	-2.40577392	-7.41839908	3.72025836
1	-1.54241630	-6.06055699	4.49748837
6	-1.31496510	-3.14880336	6.18589830
6	-2.55979221	-2.68684140	6.94762855
1	-2.92332420	-1.72900680	6.54453561
1	-2.33314440	-2.55572995	8.01751297
1	-3.36474503	-3.43311518	6.84840316
6	-0.82021587	-4.49429543	6.73575242
1	-1.63140019	-5.24014495	6.71605918
1	-0.48758751	-4.37978437	7.78090007
1	0.02309227	-4.86232086	6.13234439
6	-0.20794302	-2.09464168	6.26612770
1	0.69061704	-2.43582154	5.72863548
1	0.06201671	-1.89074668	7.31496535
1	-0.55688674	-1.15957348	5.80450639
6	1.74532521	-4.45476019	3.03359126
6	2.20090852	-5.84562109	3.49645922
1	2.33162401	-5.85927467	4.59009621
1	3.15983864	-6.11902482	3.02659951
1	1.45202221	-6.60684253	3.22690322
6	2.79647827	-3.40230652	3.40833102
1	2.44843410	-2.38805823	3.15172953
1	3.74888001	-3.60483813	2.88679098
1	2.99799462	-3.42557600	4.49131224
6	1.49432176	-4.45728129	1.52213925
1	0.68620107	-5.16101169	1.26334151
1	2.40533787	-4.78121397	0.99195223
1	1.22016049	-3.45115492	1.16166063
55	-0.75966339	3.40906461	0.18052608
7	-1.20395022	0.24447669	0.00783431
14	-1.831602680	1.363775100	4.321413430
8	1.433825540	2.895017960	-0.316031320
8	3.110669450	4.105421330	1.288331520
8	1.507947680	5.678818860	-0.372876080
8	3.574432400	4.372107180	-1.350297530
8	-1.359397590	1.709191110	-2.564065870
8	-3.890478760	2.181845740	-3.561598750
8	-1.868497890	2.183442560	-5.264392460
8	-2.449712010	-0.154103860	-4.085545790
8	1.522243150	-0.123273950	-2.889024390
8	1.958804460	-0.746115630	-5.589070780
8	1.735615160	-2.608444470	-3.718326510
8	3.976005920	-0.926949670	-3.883272260
8	-1.894735980	-2.768462700	0.630635220
8	-2.020961400	-5.444953190	1.437978740
8	-2.152436490	-4.692654010	-1.122990380
8	-4.247365970	-4.240803410	0.687048610
8	0.976916090	-1.668352780	2.844414760
8	3.367542340	-2.954109030	2.159770660
8	2.654081980	-2.869785560	4.700690640
8	3.317145100	-0.555968740	3.327058640
8	-1.559476100	0.519815020	2.949574130
8	-0.449885170	2.323130020	4.508044810
8	-1.926842100	0.460317690	5.721000130
8	-3.244464220	2.253945090	4.289910330
7	0.085204380	-0.192003700	0.019146610
6	4.274476750	4.852597300	1.767893460
6	4.186333120	4.846515810	3.297005500
1	3.278301300	5.370611120	3.634627200
1	5.061723150	5.352982370	3.735705950
1	4.164328990	3.816414270	3.686247090
6	4.269489160	6.304479570	1.273042150
1	4.336893030	6.349152740	0.177848930
1	5.132261420	6.842783570	1.698651510
1	3.349917680	6.822078270	1.587516480
6	5.538314150	4.126786740	1.291043920
1	5.557215830	3.092804610	1.672454970
1	6.444180880	4.642965920	1.649555280
1	5.555513670	4.091930530	0.191103350
6	0.258474380	6.151153050	0.182171540
6	0.156915700	5.797522600	1.669089390
1	0.124522150	4.705080390	1.808025340
1	-0.761223250	6.224310600	2.106085230
1	1.022499590	6.196607150	2.221264800
6	0.282622760	7.675326010	0.002811630
1	1.129130740	8.113572100	0.555267170
1	-0.651118870	8.126224350	0.375632240
1	0.393400530	7.929694930	-1.062852530
6	-0.909663180	5.541371200	-0.600546750
1	-0.836653240	5.802933060	-1.668388450
1	-1.872877680	5.913995540	-0.216182140
1	-0.900145200	4.443225040	-0.515751040
6	3.584239750	4.984756230	-2.671159580
6	3.798513950	6.498644070	-2.533274020
1	2.990777900	6.941428470	-1.932275200
1	3.806293890	6.973539680	-3.527846550
1	4.765150520	6.707521070	-2.047573460
6	4.770848140	4.351020590	-3.405569470
1	5.699039870	4.511357330	-2.834313280
1	4.890705320	4.799316910	-4.404687580
1	4.616490800	3.268314080	-3.521077990
6	2.277197730	4.696609040	-3.417594430
1	2.100975640	3.609336570	-3.480128080
1	2.322206930	5.098102940	-4.443007960
1	1.428234440	5.163704130	-2.895539280
6	-4.702535900	2.251942730	-2.365770170
6	-4.594567180	0.960305090	-1.550192440
1	-4.883712470	0.095893430	-2.166779010
1	-5.257642950	0.999386410	-0.670762210
1	-3.561658890	0.805579260	-1.195676290

K₂-U-N-U

92	0.474644230	1.208419140	-1.474577540
92	-0.784500720	-1.108661790	1.667454200
19	-0.547886690	-2.354293190	-1.971681150
19	1.576653440	1.645727700	2.320862730
14	2.353849730	4.244607800	-0.220745470
14	-2.381818420	1.507927360	-3.826194880
14	2.313882980	-1.037387410	-3.988353190
14	-2.593468510	-4.233552860	0.447295780
14	2.512514650	-2.043698000	3.261313340

6	-4.250767050	3.460054320	-1.535810590	1	4.041865900	0.979573270	-1.969965000
1	-4.335056210	4.383589620	-2.130640710	1	5.419757720	1.172619380	-3.094123110
1	-3.202270300	3.333991290	-1.225296350	1	5.703475290	0.632654820	-1.416159440
1	-4.876276890	3.568654530	-0.634712340	6	-2.411775760	-5.840946340	2.781078840
6	-6.142788520	2.452911100	-2.857682430	6	-2.724126810	-4.614461540	3.645178380
1	-6.460399330	1.596767160	-3.473133880	1	-3.592964900	-4.070824240	3.242933210
1	-6.210858290	3.365586970	-3.470112150	1	-1.859152900	-3.929844080	3.665953010
1	-6.834843670	2.549629690	-2.005836910	1	-2.949851730	-4.917938250	4.680401320
6	-1.977649570	3.552670650	-5.739257630	6	-1.208026790	-6.601890090	3.347381690
6	-1.682215960	4.548483730	-4.610956310	1	-0.962096330	-7.458760380	2.699902940
1	-2.419968940	4.447137360	-3.800086570	1	-1.426736630	-6.977746420	4.359559030
1	-1.721671830	5.581906390	-4.992456850	1	-0.327431120	-5.943506220	3.397569880
1	-0.678959960	4.366778390	-4.193639570	6	-3.634858280	-6.764370300	2.693814810
6	-3.385999150	3.774638930	-6.309231410	1	-3.394360430	-7.661323630	2.100583540
1	-4.137559270	3.610310310	-5.523681050	1	-4.472546730	-6.234648820	2.216202450
1	-3.575083500	3.069307340	-7.134382340	1	-3.943787740	-7.090533750	3.700361460
1	-3.487189740	4.800190550	-6.700482930	6	-2.289343770	-6.017839200	-1.729900680
6	-0.929143660	3.689391540	-6.849813650	6	-1.090981580	-6.876184140	-1.307279470
1	-1.116361810	2.950351660	-7.644495450	1	-0.146387160	-6.401238190	-1.618458190
1	0.081451140	3.519647570	-6.447475880	1	-1.143856460	-7.874385660	-1.772344370
1	-0.967502190	4.697180340	-7.293500800	1	-1.078030260	-6.986368420	-0.212773230
6	-3.041021710	-0.866468760	-5.210604410	6	-3.603726940	-6.695732860	-1.322321120
6	-4.431585340	-0.317154970	-5.557944430	1	-4.468274160	-6.074844280	-1.604176830
1	-5.106934050	-0.388522790	-4.690805440	1	-3.640362590	-6.870060760	-0.237329580
1	-4.866882350	-0.898104900	-6.387643300	1	-3.693073430	-7.667885140	-1.834280550
1	-4.373422000	0.738064260	-5.863879890	6	-2.284345720	-5.786226500	-3.244383410
6	-2.106141950	-0.772340730	-6.421547760	1	-1.347865510	-5.301972430	-3.566024740
1	-1.098838340	-1.130017420	-6.154044110	1	-3.130499330	-5.146918820	-3.542189620
1	-2.021018190	0.273023410	-6.749713540	1	-2.365993820	-6.744496320	-3.783149740
1	-2.487344690	-1.386509310	-7.254828060	6	-5.281034140	-3.302719710	0.299672380
6	-3.160916570	-2.323010210	-4.749658060	6	-6.593866510	-4.095278830	0.352348780
1	-3.768791530	-2.392352140	-3.832877370	1	-6.563708220	-4.935867280	-0.359019600
1	-2.160697450	-2.741935070	-4.551511170	1	-7.449058530	-3.449581130	0.096102180
1	-3.631415640	-2.943949570	-5.529468170	1	-6.751475180	-4.501686110	1.363635650
6	2.461218770	0.281388500	-6.487678290	6	-5.035112190	-2.775648530	-1.117132950
6	2.601860000	1.616954490	-5.751362790	1	-4.977989870	-3.610389230	-1.834351500
1	3.348636950	1.537519120	-4.945170070	1	-4.092215760	-2.206527330	-1.160138630
1	1.635063960	1.905664110	-5.309613850	1	-5.854465540	-2.107196380	-1.428432180
1	2.925111890	2.409371240	-6.445833830	6	-5.316372430	-2.148278310	1.309187880
6	1.416815040	0.398384630	-7.602926780	1	-5.498311850	-2.533522280	2.325355250
1	1.273137350	-0.578720230	-8.092061920	1	-6.117655880	-1.434442880	1.058253400
1	1.744858100	1.124557980	-8.364034060	1	-4.355541860	-1.608391440	1.310239510
1	0.452498620	0.728625290	-7.189408850	6	3.176957840	-4.303157020	1.659368670
6	3.811045670	-0.172212250	-7.059666400	6	2.113105030	-4.276250900	0.554182160
1	3.691099240	-1.114575330	-7.618681400	1	2.394196380	-3.548890350	-0.223124520
1	4.530984650	-0.334635450	-6.243710460	1	1.130612470	-3.992049470	0.966733480
1	4.212467410	0.588033790	-7.749455860	1	2.009649930	-5.272505410	0.092086630
6	1.979393810	-3.794274940	-4.539457810	6	2.766297780	-5.277550660	2.769137870
6	0.887461110	-3.869034150	-5.613310870	1	3.496398360	-5.262051240	3.591885230
1	-0.113332810	-3.924101100	-5.153428610	1	2.705648080	-6.299548980	2.360069030
1	1.018953700	-4.762858450	-6.245482570	1	1.781068570	-5.013410580	3.181198960
1	0.928488630	-2.971275100	-6.248992410	6	4.538112160	-4.717078090	1.084628030
6	3.364518890	-3.771349340	-5.198083490	1	5.299763590	-4.728055930	1.880411640
1	4.159551350	-3.697285890	-4.441033600	1	4.855533130	-4.008326970	0.304706830
1	3.460113700	-2.919297430	-5.886784650	1	4.482311300	-5.724165620	0.640799220
1	3.513936590	-4.701548910	-5.770603700	6	1.931396210	-2.775293100	5.951322190
6	1.888848000	-4.987603940	-3.582709190	6	0.656290590	-3.620386340	5.840743330
1	2.661581920	-4.916047120	-2.800396010	1	0.012054160	-3.224258410	5.039533410
1	2.030059510	-5.936281270	-4.126280050	1	0.092220860	-3.605802180	6.787477780
1	0.903229590	-5.027058350	-3.091641850	1	0.911250590	-4.665052310	5.603229740
6	4.857090500	-0.894214720	-2.729990450	6	2.868783060	-3.366906970	7.012560950
6	6.202821050	-1.442382970	-3.223513500	1	3.787179410	-2.763805880	7.094773570
1	6.096249080	-2.486649440	-3.557603160	1	3.152086970	-4.394777940	6.737316700
1	6.953992890	-1.408195930	-2.418087470	1	2.376405120	-3.387400950	7.998023690
1	6.569865920	-0.842616050	-4.071152480	6	1.591761280	-1.321340220	6.287330310
6	4.313014480	-1.762001900	-1.593461470	1	2.509801560	-0.712022250	6.323850920
1	3.343583970	-1.379458490	-1.232729000	1	1.096459400	-1.255943440	7.269896700
1	5.014390200	-1.763284280	-0.744394300	1	0.911679300	-0.890916710	5.535085150
1	4.176959630	-2.800692720	-1.935089170	6	4.757150400	-0.336970410	3.451196090
6	5.014467850	0.559980320	-2.274142550	6	5.467393210	-1.484106060	4.181561930

1	5.054281270	-1.625627230	5.191315330	8	1.635081010	-0.044599380	-2.850496430
1	6.541664710	-1.253129300	4.269500240	8	2.096038080	-0.694516060	-5.533790400
1	5.355678120	-2.426798630	3.625396060	8	1.952502280	-2.535916960	-3.651399160
6	4.912075980	0.956869060	4.255677240	8	4.121284410	-0.760912430	-3.820059760
1	4.461999890	0.846664010	5.255895420	8	-1.928387780	-2.768797420	0.760024490
1	4.420238150	1.797748090	3.741065920	8	-2.038159620	-5.445324950	1.573882240
1	5.975616950	1.219354770	4.379293740	8	-2.275216760	-4.711780020	-0.981820080
6	5.326348290	-0.176593410	2.036939840	8	-4.285042940	-4.235560270	0.888276960
1	4.813725580	0.638262680	1.498719440	8	1.152726420	-1.713242260	2.718149710
1	5.176814530	-1.109930910	1.474349750	8	3.486193410	-3.173611740	2.199438510
1	6.404488800	0.055802600	2.067545730	8	2.584214080	-3.048251650	4.680547120
6	-0.081224150	3.117726440	5.681282000	8	3.544363040	-0.795955860	3.388645720
6	0.860327850	4.208545340	5.164784520	8	-1.521393370	0.363259730	3.108088050
1	0.352144310	4.845997630	4.423633560	8	-0.558718550	2.253115250	4.674964040
1	1.751271360	3.764730340	4.692636000	8	-2.068575020	0.393308220	5.847954330
1	1.206391180	4.846919400	5.994146580	8	-3.320907380	2.113016610	4.277868440
6	0.648863940	2.209282770	6.676545200	7	-0.019246600	0.020197220	0.066801030
1	-0.016141940	1.394111050	6.996460860	6	4.376072640	4.867391400	1.507482420
1	0.973156780	2.782193660	7.561207030	6	4.352727540	4.701218330	3.032128990
1	1.541479060	1.764805880	6.206729250	1	3.433906090	5.138664150	3.456618440
6	-1.305604140	3.763884200	6.341946920	1	5.219130260	5.204392210	3.490421550
1	-1.846338180	4.401256300	5.625726200	1	4.400526980	3.635644970	3.313204000
1	-0.980824740	4.388407230	7.190205730	6	4.349904470	6.360580210	1.157285000
1	-2.000667810	2.999542850	6.719130220	1	4.353848190	6.506831780	0.067886670
6	-3.049804410	-0.273487090	6.282362050	1	5.236956860	6.860682800	1.579856760
6	-2.431029120	-1.287241890	7.251596640	1	3.449959010	6.843493200	1.569336260
1	-1.832410390	-0.765054430	8.014884380	6	5.620137810	4.194166340	0.913638240
1	-1.774010410	-1.983594570	6.708695900	1	5.641899880	3.124461110	1.181029910
1	-3.218275490	-1.866530720	7.760230670	1	6.541345020	4.665128710	1.295112990
6	-3.957632020	0.703623820	7.042716520	1	5.599916300	4.275839870	-0.183341920
1	-4.335765840	1.475890770	6.357140840	6	0.297799700	6.245532800	0.091012610
1	-3.393562970	1.193444940	7.852691610	6	0.163746860	5.699547690	1.516794820
1	-4.810412570	0.168409040	7.491275990	1	0.105475190	4.599041990	1.503040240
6	-3.834459960	-1.002400370	5.185206170	1	-0.754903150	6.082962350	1.990951130
1	-4.271957120	-0.284480200	4.474139310	1	1.027179890	6.002846370	2.130175390
1	-4.651539000	-1.594317490	5.628645440	6	0.339126400	7.779384620	0.115935010
1	-3.173914190	-1.686790650	4.628017970	1	1.181184090	8.130944510	0.733650700
6	-3.916598110	2.942404800	3.206630990	1	-0.595587510	8.188726330	0.532273540
6	-4.829145310	3.975374760	3.881403320	1	0.469711760	8.172194000	-0.904595600
1	-5.531480350	3.473572420	4.565219480	6	-0.863136030	5.757052320	-0.783819580
1	-5.409321720	4.531927710	3.128119270	1	-0.771972840	6.163718860	-1.803842890
1	-4.230843840	4.693664960	4.463787640	1	-1.831100940	6.079410190	-0.365908750
6	-4.753547540	1.927088360	2.418830800	1	-0.857807560	4.657135340	-0.847866430
1	-5.475373490	1.427980700	3.084879490	6	3.565344870	5.209859060	-2.911303610
1	-4.099217340	1.163823210	1.969059350	6	3.759947580	6.723076680	-2.739888410
1	-5.313193500	2.428546470	1.612795640	1	2.953654510	7.138099990	-2.116968200
6	-2.905997130	3.640119040	2.292837140	1	3.750148390	7.225375990	-3.721048090
1	-2.285203040	4.338870350	2.875024990	1	4.728427970	6.932531870	-2.257628030
1	-3.423170570	4.208267770	1.503248090	6	4.744465270	4.607754690	-3.683531260
1	-2.245052950	2.901979160	1.808849490	1	5.684916870	4.782091860	-3.136878710

Cs₂-U-N-U

92	0.445618380	1.271569040	-1.537196480	1	4.609198960	3.522553320	-3.805126070
92	-0.701698780	-1.117500050	1.676707040	6	2.246060470	4.917779720	-3.633996410
55	-0.950428160	-2.163440180	-2.327440420	1	2.091743060	3.830030400	-3.722594860
55	1.747969870	1.685873800	2.409577190	1	2.256386430	5.348913030	-4.648311000
14	2.390886190	4.388351630	-0.461968650	1	1.401125790	5.352923820	-3.078453800
14	-2.470395190	1.438358060	-3.967770370	6	-4.709842120	2.245743990	-2.417084790
14	2.467012620	-0.951703760	-3.928543580	6	-4.657224390	0.908146300	-1.672651660
14	-2.636611860	-4.233249360	0.598947680	1	-4.992066470	0.092147050	-2.332143660
14	2.622453200	-2.204993270	3.242455240	1	-5.312023270	0.929205670	-0.786178000
14	-1.896888550	1.250421590	4.427707820	1	-3.629830930	0.691028160	-1.335082150
8	1.451142320	3.059603600	-0.611833930	6	-4.178778090	3.381326130	-1.533816130
8	3.193697070	4.174743010	1.010571890	1	-4.211247250	4.336874740	-2.081406640
8	1.548893200	5.834657500	-0.507378300	1	-3.137555240	3.176686370	-1.239628720
8	3.590791100	4.573564010	-1.604973690	1	-4.788430840	3.483637820	-0.621251970
8	-1.412345580	1.468491770	-2.721996780	6	-6.144690290	2.549203330	-2.869226420
8	-3.921725780	2.198405270	-3.630480330	1	-6.522090280	1.742300640	-3.517267790
8	-1.938864490	2.149866950	-5.380516030	1	-6.173094090	3.492268060	-3.437265860
8	-2.677359610	-0.198701050	-4.329075200	1	-6.815580080	2.642396680	-2.000015680
				6	-1.973607720	3.543479700	-5.795086580

6	-1.620661100	4.471788420	-4.627125470	1	-0.921101570	-7.439313790	2.821149900
1	-2.362915420	4.379608440	-3.819222340	1	-1.337817750	-6.943645410	4.488943410
1	-1.601917320	5.520858260	-4.965001090	1	-0.281639870	-5.908687360	3.479554180
1	-0.628508060	4.219435420	-4.220805190	6	-3.598902730	-6.774741210	2.882107620
6	-3.370202680	3.868142730	-6.343991480	1	-3.366672530	-7.670722190	2.283982760
1	-4.127224700	3.705780290	-5.562820610	1	-4.457817250	-6.256626740	2.429439660
1	-3.600956960	3.218708220	-7.203946010	1	-3.873362810	-7.101575480	3.898480620
1	-3.418047240	4.916460910	-6.681471640	6	-2.397034340	-6.035844550	-1.579861850
6	-0.925053460	3.668751800	-6.906461880	6	-1.167323540	-6.866879500	-1.191918700
1	-1.154965410	2.971730790	-7.727887950	1	-0.244515280	-6.364467520	-1.525748850
1	0.077514910	3.430906160	-6.519046430	1	-1.206538510	-7.864825660	-1.659411280
1	-0.912600790	4.693578080	-7.311195500	1	-1.123088710	-6.979998940	-0.098667120
6	-3.325775270	-0.786305440	-5.496797960	6	-3.685837370	-6.740357150	-1.137615320
6	-4.596311630	-0.019255420	-5.886097710	1	-4.570831960	-6.142388590	-1.406144800
1	-5.313759880	-0.000362110	-5.050993400	1	-3.692617000	-6.899493580	-0.049622030
1	-5.077837570	-0.507268180	-6.749280400	1	-3.766148280	-7.721687780	-1.633803820
1	-4.359276320	1.018767510	-6.162022520	6	-2.431071010	-5.810499170	-3.097028400
6	-2.327080330	-0.802448750	-6.659617600	1	-1.498119070	-5.335867570	-3.446003870
1	-1.407783400	-1.337213070	-6.369215480	1	-3.281994070	-5.167150530	-3.376324970
1	-2.053405490	0.228039220	-6.929309670	1	-2.533621760	-6.769963340	-3.628794800
1	-2.760001600	-1.304049870	-7.541370370	6	-5.325335570	-3.300273650	0.517365200
6	-3.697525940	-2.220031130	-5.094943920	6	-6.633077330	-4.101644350	0.558360610
1	-4.343649060	-2.218631470	-4.201348080	1	-6.603077860	-4.924840070	-0.173552510
1	-2.793736860	-2.815154520	-4.880870490	1	-7.494806590	-3.455872070	0.323775400
1	-4.236517200	-2.724137370	-5.913305380	1	-6.781437430	-4.534177340	1.560292440
6	2.531350340	0.346835630	-6.447132190	6	-5.091177420	-2.741766850	-0.890757460
6	2.604709140	1.696054160	-5.726317990	1	-5.008895160	-3.560208470	-1.624064520
1	3.357292220	1.663301480	-4.922250540	1	-4.164960340	-2.144989830	-0.916862680
1	1.625279670	1.937268730	-5.283094900	1	-5.926848370	-2.087693210	-1.189636750
1	2.882351830	2.498261720	-6.429346220	6	-5.362208430	-2.163759230	1.546359960
6	1.470548560	0.391040870	-7.552137930	1	-5.551179300	-2.565636060	2.554812770
1	1.389244830	-0.593296310	-8.041673840	1	-6.158744880	-1.440723980	1.304634970
1	1.735487250	1.139317220	-8.316676580	1	-4.397806380	-1.631139270	1.559998140
1	0.488900530	0.651368620	-7.127017400	6	3.225005080	-4.489790070	1.647005950
6	3.900356990	-0.037425640	-7.024232780	6	2.015566900	-4.425664500	0.706998120
1	3.830383550	-0.993396710	-7.568502460	1	2.170852230	-3.648067280	-0.058049100
1	4.633883260	-0.146882040	-6.211288630	1	1.093463220	-4.190199610	1.262861970
1	4.254208730	0.733899680	-7.727951290	1	1.865663880	-5.395235340	0.202939110
6	2.209521270	-3.722059310	-4.459466660	6	2.994862370	-5.520050950	2.759722440
6	1.123625060	-3.820139650	-5.540782490	1	3.853979760	-5.540974480	3.448293020
1	0.122591920	-3.909236030	-5.084840640	1	2.866636450	-6.523530520	2.321384910
1	1.281068130	-4.708157260	-6.175566470	1	2.097216090	-5.275345490	3.345688440
1	1.144778500	-2.919034940	-6.172303980	6	4.492298960	-4.848481310	0.859767450
6	3.597796920	-3.686288120	-5.111352000	1	5.364678820	-4.871504470	1.532212070
1	4.385139510	-3.589431140	-4.348611630	1	4.676668880	-4.100372070	0.073535970
1	3.683062210	-2.838843040	-5.807688790	1	4.389243270	-5.838505690	0.387013820
1	3.769715360	-4.618831730	-5.673818590	6	1.869979270	-2.822003680	5.918444960
6	2.122098750	-4.910564250	-3.494405210	6	0.521648910	-3.544820960	5.830360670
1	2.891437620	-4.828502530	-2.710165970	1	-0.081763510	-3.112297810	5.016929440
1	2.269096710	-5.861963290	-4.031445160	1	-0.040214440	-3.448684860	6.773742040
1	1.136221070	-4.946615550	-3.001968150	1	0.676202780	-4.615171140	5.622497150
6	4.980367890	-0.681223250	-2.650991620	6	2.736119080	-3.450582350	7.018428000
6	6.359110520	-1.162104520	-3.122319120	1	3.707879230	-2.935777570	7.087227610
1	6.307615000	-2.208673010	-3.462245290	1	2.922368380	-4.512231670	6.793067110
1	7.094083760	-1.095987540	-2.303804950	1	2.235217980	-3.378957850	7.997499720
1	6.712120120	-0.541650410	-3.961115840	6	1.661171540	-1.328793160	6.189486770
6	4.460467850	-1.576236050	-1.523181540	1	2.628351830	-0.801400990	6.220594800
1	3.463508400	-1.248332520	-1.184162510	1	1.154564350	-1.180525750	7.157594660
1	5.142924780	-1.541688020	-0.659739740	1	1.031859290	-0.872388470	5.408238790
1	4.383307310	-2.619884330	-1.866722930	6	4.984135130	-0.682517220	3.590209920
6	5.056500020	0.780401870	-2.196491260	6	5.551734850	-1.848014390	4.410770810
1	4.061323540	1.153270900	-1.905726970	1	5.073438210	-1.903868050	5.400184740
1	5.440160420	1.414066280	-3.011444900	1	6.636044000	-1.708198670	4.553161970
1	5.733116670	0.888209930	-1.332086880	1	5.386955550	-2.803815100	3.891179120
6	-2.385379570	-5.835845110	2.928645130	6	5.201764410	0.633638450	4.346892930
6	-2.691795760	-4.607318280	3.791702910	1	4.671960440	0.616959930	5.313323010
1	-3.576804180	-4.078270690	3.406178910	1	4.833257880	1.491671230	3.759797640
1	-1.834424890	-3.914251920	3.785853770	1	6.273755170	0.799795670	4.540881570
1	-2.887030750	-4.905060620	4.834715560	6	5.654876520	-0.630480060	2.212112440
6	-1.156074020	-6.577251310	3.465857710	1	5.243551690	0.199776430	1.613572030

1	5.465628150	-1.572789850	1.676900880
1	6.743753600	-0.482186740	2.307490180
6	-0.258964730	3.078540770	5.840538100
6	0.721536670	4.153531610	5.353613740
1	0.277850260	4.742794980	4.534575420
1	1.658816830	3.696764320	4.994032380
1	0.982648970	4.840613620	6.174858050
6	0.402955330	2.201177600	6.910086390
1	-0.288932520	1.403977520	7.219305130
1	0.680705980	2.802956230	7.791444740
1	1.315769700	1.730520820	6.509700650
6	-1.519413690	3.750641380	6.400386420
1	-2.004160830	4.373160590	5.632467980
1	-1.251507840	4.394830740	7.253985540
1	-2.245070050	2.999678000	6.745582670
6	-3.214068240	-0.328575590	6.375323530
6	-2.637641330	-1.324155360	7.388333530
1	-2.070160610	-0.788755890	8.166482210
1	-1.958153410	-2.029409380	6.885443020
1	-3.444640170	-1.895467760	7.874510350
6	-4.149791000	0.666155760	7.076670830
1	-4.498422210	1.422547670	6.358078760
1	-3.618505940	1.174009820	7.897751490
1	-5.022021340	0.143105170	7.501781480
6	-3.955953680	-1.075500170	5.260808230
1	-4.362800780	-0.367029110	4.522679440
1	-4.791809530	-1.657683460	5.681983210
1	-3.275950250	-1.769142130	4.741355020
6	-3.901195170	2.805088230	3.145924530
6	-4.844659070	3.856104710	3.746470770
1	-5.598532710	3.369686870	4.385136900
1	-5.364897580	4.412569530	2.950254640
1	-4.279020940	4.573470840	4.362045810
6	-4.694556410	1.794824660	2.308759570
1	-5.459398270	1.301777380	2.929776060
1	-4.019361030	1.026128050	1.901375430
1	-5.199737450	2.297357130	1.468011630
6	-2.819286690	3.481217040	2.298748460
1	-2.224475630	4.170053480	2.918746780
1	-3.272985150	4.057764310	1.476312050
1	-2.143402520	2.729295210	1.857509210

K₂-Np-N-Np

93	0.53721002	1.25041933	-1.47769950
93	-0.76167645	-1.12724819	1.62347372
19	-0.74117319	-2.19140419	-2.09178210
19	1.47628924	1.65009991	2.33479291
14	2.36575165	4.28364370	-0.18549033
14	-2.35297186	1.46885641	-3.79113584
14	2.30502153	-1.03080297	-3.99511691
14	-2.62097481	-4.17136107	0.35385365
14	2.50394934	-2.09207895	3.24684437
14	-1.81202359	1.33119762	4.29651439
8	1.46561647	2.92080272	-0.29847610
8	3.10321155	4.16727450	1.33000625
8	1.49462611	5.69900301	-0.37153826
8	3.59824808	4.41168659	-1.30309183
8	-1.33356136	1.65051069	-2.52129845
8	-3.85582444	2.14869678	-3.52649141
8	-1.82342137	2.15394609	-5.21766584
8	-2.42340665	-0.19506481	-4.06608781
8	1.54714606	-0.06986916	-2.90829502
8	1.96403347	-0.74223501	-5.59938740
8	1.66646488	-2.57092660	-3.70782405
8	3.96881116	-0.96730331	-3.88253832
8	-1.93662165	-2.69795463	0.48825918
8	-2.00782849	-5.36593194	1.34409856
8	-2.23205181	-4.66089690	-1.22266980

8	-4.26874089	-4.19687056	0.64802085
8	0.95812734	-1.81693583	2.80910314
8	3.42269578	-2.98352446	2.17606400
8	2.68605599	-2.88250255	4.70427452
8	3.24358227	-0.56690447	3.28707556
8	-1.53053472	0.50976229	2.91928098
8	-0.44337193	2.31338964	4.49592092
8	-1.89933730	0.42640161	5.69750476
8	-3.23105515	2.21754511	4.28511278
7	0.16444239	-0.02930130	-0.00807651
6	4.25967869	4.92589467	1.81316925
6	4.15210158	4.94520513	3.34076573
1	3.23597235	5.46792630	3.65786742
1	5.01807019	5.46720569	3.77994272
1	4.13336962	3.92219277	3.74740676
6	4.25720928	6.36856475	1.29157532
1	4.33657073	6.39213828	0.19631079
1	5.11476530	6.91576077	1.71609815
1	3.33354787	6.89026349	1.58665725
6	5.53058022	4.19464054	1.36447920
1	5.54403990	3.16587838	1.75948562
1	6.43040056	4.71664006	1.72967050
1	5.56498733	4.14561846	0.26545406
6	0.23913412	6.15815956	0.18359186
6	0.15906728	5.84649331	1.68096081
1	0.16082017	4.75861323	1.85410863
1	-0.76842358	6.25861530	2.11231957
1	1.01629021	6.28622961	2.21511998
6	0.22440639	7.67612408	-0.04202307
1	1.07102309	8.14984701	0.47996177
1	-0.71190860	8.11672733	0.33627333
1	0.30799441	7.90081268	-1.11681038
6	-0.92189807	5.49821396	-0.56871942
1	-0.85792180	5.71952300	-1.64620190
1	-1.88929185	5.86963794	-0.19399582
1	-0.89427523	4.40513423	-0.43848908
6	3.60992289	4.98428185	-2.63976030
6	3.75821153	6.50969596	-2.54473192
1	2.92153033	6.93571671	-1.97212816
1	3.76822416	6.95563761	-3.55260142
1	4.70476594	6.77241472	-2.04593500
6	4.83430416	4.37827581	-3.33402480
1	5.74507355	4.60144181	-2.75601931
1	4.95039462	4.79490791	-4.34713935
1	4.73155611	3.28575084	-3.41062091
6	2.32839558	4.62078132	-3.39832263
1	2.21274490	3.52505841	-3.45473064
1	2.36347081	5.01218628	-4.42794582
1	1.45017005	5.04955977	-2.89132496
6	-4.68029904	2.21215322	-2.33683600
6	-4.55283293	0.93009621	-1.51008250
1	-4.82230849	0.05539916	-2.12124454
1	-5.22329876	0.96299198	-0.63643776
1	-3.51998821	0.79842364	-1.14683484
6	-4.25653596	3.43613434	-1.51606619
1	-4.35299272	4.35222058	-2.12041416
1	-3.20912274	3.33218104	-1.19438308
1	-4.89106289	3.54178859	-0.62109236
6	-6.11983035	2.38173833	-2.84138278
1	-6.41791369	1.51356209	-3.44977624
1	-6.20098336	3.28681757	-3.46344337
1	-6.81935756	2.47374402	-1.99518852
6	-1.94356997	3.52059869	-5.69964591
6	-1.66188064	4.52316629	-4.57429359
1	-2.39772523	4.41347137	-3.76285785
1	-1.71558088	5.55486378	-4.95835091
1	-0.65496814	4.35768210	-4.15870300
6	-3.35100560	3.72809018	-6.27698619
1	-4.10521002	3.56556510	-5.49365447
1	-3.53159235	3.01560397	-7.09779912

1	-3.45728108	4.74980997	-6.67661174	6	-2.38697740	-5.99888444	-1.79524575
6	-0.89188621	3.66093736	-6.80652255	6	-1.19289047	-6.86224088	-1.36940229
1	-1.06880407	2.91571613	-7.59770433	1	-0.24693716	-6.40515053	-1.70123609
1	0.11910562	3.50378690	-6.39985007	1	-1.26388375	-7.86875092	-1.81376501
1	-0.93832270	4.66566245	-7.25627930	1	-1.16718036	-6.94927669	-0.27336667
6	-3.02008147	-0.87633061	-5.21458058	6	-3.70174312	-6.65551703	-1.35378058
6	-4.39291696	-0.28815757	-5.56645772	1	-4.56505470	-6.03537774	-1.64113147
1	-5.08188943	-0.36480836	-4.71065949	1	-3.72623760	-6.80051780	-0.26415230
1	-4.82825593	-0.84189006	-6.41444637	1	-3.80483521	-7.63998350	-1.83902700
1	-4.30916603	0.77145011	-5.84955921	6	-2.39973486	-5.80539259	-3.31514341
6	-2.06686736	-0.77872903	-6.41053253	1	-1.46387454	-5.33551519	-3.65848469
1	-1.06864162	-1.15685520	-6.13712695	1	-3.24543298	-5.16766656	-3.61782247
1	-1.96030742	0.27009252	-6.72060229	1	-2.49524700	-6.77656620	-3.82789213
1	-2.44755607	-1.37255892	-7.25862518	6	-5.32239600	-3.27388762	0.28531146
6	-3.18295625	-2.33776328	-4.78541456	6	-6.62891558	-4.06587028	0.43006187
1	-3.79834406	-2.41215621	-3.87393907	1	-6.63079946	-4.93016542	-0.25300905
1	-2.19868371	-2.79646760	-4.59677785	1	-7.49823579	-3.43076459	0.19542256
1	-3.66907310	-2.92469178	-5.58145719	1	-6.73425493	-4.43789440	1.46119707
6	2.50825725	0.25300808	-6.50932972	6	-5.15063575	-2.79363711	-1.15958151
2	6.9098697	1.59365180	-5.79106260	1	-5.12732139	-3.65138163	-1.85101608
1	3.42657735	1.49936559	-4.97626534	1	-4.21062136	-2.22837159	-1.26542857
1	1.73027767	1.92378307	-5.36566946	1	-5.98476495	-2.13436855	-1.45172636
1	3.04910312	2.36366274	-6.49359296	6	-5.31035351	-2.08500449	1.25474081
6	1.47480278	0.38987937	-7.63241312	1	-5.43376514	-2.43572896	2.29212159
1	1.30819966	-0.58598180	-8.11662442	1	-6.12927890	-1.38426153	1.02452489
1	1.82534376	1.10328254	-8.39554304	1	-4.35403052	-1.54267767	1.18354230
1	0.51644586	0.74608440	-7.22598967	6	3.26092423	-4.33863012	1.68308718
6	3.84489680	-0.25555920	-7.06563672	6	2.16532223	-4.35335134	0.60930469
1	3.69530026	-1.20210522	-7.61002825	1	2.39552151	-3.61717919	-0.17621739
1	4.55424802	-0.42883102	-6.24278432	1	1.18573628	-4.10293514	1.04804297
1	4.27561730	0.47917648	-7.76541460	1	2.08463654	-5.35290343	0.14924869
6	1.88962487	-3.78588091	-4.49271484	6	2.91856328	-5.32200091	2.80927197
6	0.81360781	-3.85800400	-5.58227404	1	3.67448960	-5.27687530	3.60743878
1	-0.19566505	-3.87046515	-5.13882649	1	2.88024558	-6.34775034	2.40708051
1	0.92806780	-4.77355143	-6.18616003	1	1.93986501	-5.08836835	3.25351791
1	0.89265261	-2.98190672	-6.24422273	6	4.61896306	-4.71100353	1.07265630
6	3.28395978	-3.82080837	-5.13043830	1	5.40247778	-4.68687414	1.84660105
1	4.07010441	-3.74741814	-4.36439151	1	4.88941527	-4.00006654	0.27742585
1	3.41429544	-2.99309433	-5.84300449	1	4.58560559	-5.72394119	0.64013558
1	3.41409932	-4.77150109	-5.67315028	6	1.96371484	-2.79929667	5.95366784
6	1.74754491	-4.94607974	-3.50331793	6	0.70935939	-3.67687858	5.85599332
1	2.51724740	-4.88159380	-2.71763994	1	0.05091370	-3.30140047	5.05721088
1	1.85383023	-5.91541682	-4.01753513	1	0.15184915	-3.67156273	6.80682763
1	0.75960240	-4.92881605	-3.01650220	1	0.98908567	-4.71600540	5.62166624
6	4.83734472	-0.93518789	-2.71862271	6	2.91862874	-3.35884531	7.01730475
6	6.17180326	-1.53408011	-3.18264699	1	3.82350434	-2.73426195	7.08866378
1	6.03810312	-2.58284969	-3.49154480	1	3.22401158	-4.38269662	6.75088184
1	6.91390744	-1.50204617	-2.36890160	1	2.43130582	-3.38056986	8.00530776
1	6.56621887	-0.96691139	-4.04031940	6	1.58853510	-1.35187175	6.28013053
6	4.25336448	-1.76121855	-1.57138710	1	2.49154486	-0.72026873	6.30853412
1	3.28991864	-1.34695627	-1.23103277	1	1.09414486	-1.29009165	7.26346365
1	4.94218888	-1.76528684	-0.71259266	1	0.89651045	-0.94418588	5.52581324
1	4.09220959	-2.80239325	-1.89307981	6	4.66985905	-0.28304870	3.42115804
6	5.03373473	0.52439965	-2.29568108	6	5.41979551	-1.37366054	4.19727917
1	4.07116111	0.98101368	-2.01479913	1	5.00445355	-1.49564280	5.20860580
1	5.46812243	1.10404964	-3.12508926	1	6.48342998	-1.09683014	4.28373070
1	5.71334458	0.59752880	-1.43044773	1	5.34927169	-2.33899456	3.67432857
6	-2.34692025	-5.73825698	2.70612106	6	4.76020599	1.04274385	4.18294630
6	-2.61914866	-4.49548159	3.56053717	1	4.29248257	0.95028671	5.17692231
1	-3.49263008	-3.94752738	3.17432420	1	4.25095500	1.84674369	3.62737080
1	-1.74390609	-3.82351105	3.54812214	1	5.81051058	1.34863562	4.31994119
1	-2.81891188	-4.77913078	4.60667898	6	5.25297653	-0.14362200	2.00985794
6	-1.12544149	-6.49590758	3.23819171	1	4.71333956	0.63049700	1.43879559
1	-0.91083317	-7.36644973	2.59789509	1	5.15124700	-1.10094635	1.47796240
1	-1.30484101	-6.85073734	4.26562642	1	6.31972059	0.13598147	2.04732505
1	-0.24014418	-5.84206699	3.24002029	6	-0.07459915	3.08967544	5.68016625
6	-3.57672817	-6.65708984	2.68491034	6	0.85165469	4.20037852	5.17761982
1	-3.36468935	-7.56305822	2.09453860	1	0.32872990	4.85178750	4.45892619
1	-4.43179931	-6.13076619	2.23540790	1	1.73990907	3.77584338	4.68317950
1	-3.84323998	-6.96770150	3.70838606	1	1.20362466	4.82177130	6.01742724

6	0.67317167	2.17127492	6.65291003
1	0.01927971	1.34293365	6.96164619
1	0.99753355	2.73049993	7.54637389
1	1.56717544	1.74604530	6.16816373
6	-1.30043531	3.71079210	6.36176877
1	-1.85254611	4.35633544	5.66161487
1	-0.97535981	4.32247366	7.21930084
1	-1.98479835	2.93218171	6.72860508
6	-3.01764466	-0.31233701	6.25943679
6	-2.39394088	-1.33638122	7.21471576
1	-1.78922711	-0.82247043	7.97886415
1	-1.74168164	-2.02882325	6.66119919
1	-3.17893022	-1.91896899	7.72323463
6	-3.92038986	0.65725454	7.03576738
1	-4.30020381	1.43796986	6.36075353
1	-3.35193858	1.13653976	7.84906699
1	-4.77202547	0.11807161	7.48198383
6	-3.81151884	-1.03039733	5.16150422
1	-4.25438869	-0.30470166	4.46186435
1	-4.62497213	-1.62666429	5.60585695
1	-3.15478888	-1.70786158	4.59235949
6	-3.90629864	2.91713079	3.21361595
6	-4.81362493	3.94620938	3.90175466
1	-5.51208286	3.43980989	4.58618332
1	-5.39801031	4.50986670	3.15687758
1	-4.21055357	4.65906433	4.48608271
6	-4.74981115	1.91055328	2.42092149
1	-5.46648183	1.40496761	3.08768735
1	-4.09844720	1.15143035	1.96035872
1	-5.31627120	2.41964629	1.62419073
6	-2.90033135	3.62144632	2.29894936
1	-2.27533765	4.31538354	2.88281714
1	-3.42189391	4.19635344	1.51707309
1	-2.24327629	2.88495659	1.80749229

K₂-Pu-N-Pu

94	0.52950518	1.23529969	-1.48087021
94	-0.86442492	-1.10282250	1.65221214
19	-0.63782657	-2.25229070	-2.03382262
19	1.43773928	1.61838843	2.34133721
14	2.37665346	4.23995150	-0.18401073
14	-2.36212003	1.43003805	-3.77173753
14	2.32867441	-1.04638922	-3.97009897
14	-2.60117541	-4.21216937	0.34797196
14	2.44106137	-2.06081205	3.20462387
14	-1.79531676	1.40847672	4.29811682
8	1.47882926	2.87470123	-0.28419970
8	3.14037812	4.12104645	1.31726668
8	1.50360724	5.65663236	-0.34581532
8	3.58215525	4.37299943	-1.33062900
8	-1.33437704	1.64777324	-2.51466492
8	-3.88270684	2.06912062	-3.50457572
8	-1.86297207	2.11628290	-5.20848073
8	-2.39264869	-0.23550321	-4.03623944
8	1.55561120	-0.12527210	-2.86078195
8	1.96395413	-0.74657639	-5.56779632
8	1.74171069	-2.61079538	-3.69674264
8	3.99222683	-0.93324829	-3.87744892
8	-1.92199818	-2.73846575	0.48739938
8	-2.02575696	-5.39793760	1.37364803
8	-2.16659489	-4.71818689	-1.21049645
8	-4.26025480	-4.22921897	0.59081544
8	0.89665618	-1.72926038	2.80774697
8	3.31345666	-2.95754708	2.09912748
8	2.62936339	-2.88490387	4.64334642
8	3.22326160	-0.55713754	3.25760378
8	-1.52761734	0.63004992	2.89554399
8	-0.42302331	2.38229199	4.51067268

8	-1.87184766	0.46680544	5.67833997
8	-3.21577254	2.29516358	4.32381120
7	0.08466386	-0.04086877	-0.01455248
6	4.28638358	4.89515196	1.79790367
6	4.17298015	4.92344999	3.32491833
1	3.24586516	5.43206160	3.63256135
1	5.02663013	5.46482128	3.76474006
1	4.16989080	3.90311216	3.73918509
6	4.27081697	6.33462929	1.26791652
1	4.37016693	6.35337500	0.17433447
1	5.11096967	6.89839505	1.70534596
1	3.33314294	6.84214150	1.54208207
6	5.56648198	4.17573979	1.35719203
1	5.59513760	3.15230013	1.76493136
1	6.45890597	4.71554637	1.71455948
1	5.60125614	4.11376759	0.25859735
6	0.25978882	6.13170243	0.21778192
6	0.18618818	5.82211059	1.71587340
1	0.16284754	4.73476896	1.89121836
1	-0.72662110	6.25693854	2.15607133
1	1.05873994	6.24154906	2.24133754
6	0.26553901	7.65008007	-0.00844375
1	1.12027672	8.11119605	0.51157543
1	-0.66306913	8.10528749	0.37165093
1	0.35080910	7.87278521	-1.08350895
6	-0.91680514	5.48847173	-0.52493250
1	-0.85355345	5.69884046	-1.60453604
1	-1.87495030	5.88195749	-0.14877463
1	-0.91049329	4.39607483	-0.38539039
6	3.56848108	4.97732410	-2.65414809
6	3.76612139	6.49486851	-2.52691513
1	2.96495216	6.92995895	-1.91178694
1	3.74893583	6.96659373	-3.52291988
1	4.73920598	6.71746042	-2.06080613
6	4.75192173	4.35483338	-3.40250261
1	5.68574732	4.52684900	-2.84421594
1	4.85327347	4.80184790	-4.40422316
1	4.60855349	3.27012429	-3.51391940
6	2.25509632	4.67142872	-3.38255501
1	2.09750867	3.58195312	-3.45402223
1	2.27718426	5.08003245	-4.40583084
1	1.40673938	5.12056269	-2.84437189
6	-4.68051743	2.17833925	-2.30118591
6	-4.46444777	0.97328303	-1.38225587
1	-4.70071645	0.04033794	-1.91601230
1	-5.11581632	1.04116715	-0.49653636
1	-3.41735621	0.92523991	-1.04087285
6	-4.30496252	3.48329382	-1.58695394
1	-4.46457379	4.34324979	-2.25667855
1	-3.24641685	3.45980813	-1.28544005
1	-4.92332821	3.62578722	-0.68552926
6	-6.13882701	2.23311414	-2.77672558
1	-6.40857086	1.29907318	-3.29404021
1	-6.27830491	3.07099515	-3.47752039
1	-6.82156976	2.37140858	-1.92309863
6	-1.95774836	3.49087138	-5.66999043
6	-1.66024956	4.47397820	-4.53150953
1	-2.41047395	4.38149687	-3.73125744
1	-1.67594390	5.51003507	-4.90726079
1	-0.66591204	4.27219922	-4.10271606
6	-3.36084185	3.73093168	-6.24482566
1	-4.11876432	3.57025772	-5.46439237
1	-3.55460616	3.03332567	-7.07529838
1	-3.44845169	4.76028863	-6.62915261
6	-0.90124640	3.62717141	-6.77296935
1	-1.09350131	2.90030308	-7.57759763
1	0.10393216	3.43808357	-6.36594313
1	-0.92135115	4.64048048	-7.20513603
6	-2.96543311	-0.94950972	-5.17490593
6	-4.38233808	-0.45363035	-5.49138563

1 -5.04358591 -0.57907180 -4.61920543
1 -4.80000295 -1.03330397 -6.33099799
1 -4.37687556 0.61043926 -5.77112818
6 -2.04811735 -0.78828377 -6.39235017
1 -1.01985125 -1.09007362 -6.13576143
1 -2.02485169 0.26313686 -6.71025678
1 -2.40034386 -1.41539331 -7.22871035
6 -3.01597345 -2.41977491 -4.74896565
1 -3.61146675 -2.54159824 -3.82967668
1 -1.99651578 -2.80164966 -4.57733375
1 -3.46723853 -3.04004525 -5.54027286
6 2.49498433 0.25566153 -6.47923281
6 2.66116602 1.59790784 -5.76064938
1 3.39504028 1.51039663 -4.94372513
1 1.69624783 1.91875654 -5.33764297
1 3.01429998 2.37131931 -6.46193141
6 1.46102396 0.37883987 -7.60336286
1 1.29978372 -0.60207405 -8.07917080
1 1.81080110 1.08623942 -8.37239174
1 0.50038232 0.73545593 -7.20314893
6 3.83753473 -0.23550760 -7.03754814
1 3.69911824 -1.18242859 -7.58428224
1 4.54942869 -0.40138519 -6.21558930
1 4.25838418 0.50578259 -7.73641373
6 1.98413066 -3.80390620 -4.51003829
6 0.89154278 -3.88420813 -5.58228137
1 -0.10745116 -3.94643058 -5.12052842
1 1.02688063 -4.77748047 -6.21449324
1 0.92655711 -2.98734412 -6.21967875
6 3.36840271 -3.78612527 -5.16987358
1 4.16430037 -3.70425445 -4.41462152
1 3.46305894 -2.94163218 -5.86789112
1 3.51778374 -4.72197339 -5.73306536
6 1.89156325 -4.98973901 -3.54509336
1 2.67041920 -4.91917668 -2.76901813
1 2.02242866 -5.94211402 -4.08476880
1 0.90992179 -5.01641438 -3.04552125
6 4.87795920 -0.89174107 -2.72784435
6 6.23303433 -1.40648033 -3.23143962
1 6.14644595 -2.44847335 -3.57798403
1 6.98471016 -1.36732073 -2.42686252
1 6.58655848 -0.78889656 -4.07193739
6 4.35542566 -1.78387895 -1.60118300
1 3.38030308 -1.42581125 -1.23214213
1 5.05946754 -1.78489588 -0.75468490
1 4.23631903 -2.81962914 -1.95705932
6 5.00866178 0.56029338 -2.25706485
1 4.02822360 0.96282453 -1.95744886
1 5.41135956 1.18808292 -3.06677794
1 5.68875299 0.63568488 -1.39242392
6 -2.42687045 -5.74496191 2.72650307
6 -2.75025556 -4.48823925 3.54301626
1 -3.60657783 -3.95408433 3.10358206
1 -1.87850236 -3.81190003 3.56348374
1 -3.00016682 -4.75480202 4.58278838
6 -1.22880123 -6.47973984 3.33692261
1 -0.97075101 -7.36013745 2.72699810
1 -1.46115501 -6.81633616 4.35992186
1 -0.35139965 -5.81693047 3.37491993
6 -3.64629244 -6.67591842 2.66366778
1 -3.39244210 -7.59741625 2.11543709
1 -4.47803203 -6.17173513 2.14946690
1 -3.96993868 -6.95781219 3.67893721
6 -2.31793846 -6.05855603 -1.77821952
6 -1.12140103 -6.91467737 -1.34551151
1 -0.17773474 -6.46597082 -1.69559164
1 -1.19780076 -7.92954896 -1.76960526
1 -1.08723195 -6.98238301 -0.24789712
6 -3.63144732 -6.71654288 -1.33537960
1 -4.49520649 -6.09586213 -1.61969790

1 -3.65268253 -6.86185172 -0.24585417
1 -3.73571061 -7.70093343 -1.82041497
6 -2.32759722 -5.87266675 -3.29900842
1 -1.38963758 -5.40765897 -3.64354630
1 -3.17020506 -5.23314161 -3.60584094
1 -2.42686412 -6.84617811 -3.80664833
6 -5.28956323 -3.28624579 0.21075199
6 -6.61566478 -4.04788038 0.33896628
1 -6.63051978 -4.91187568 -0.34428826
1 -7.46606418 -3.39155790 0.09367815
1 -6.74311588 -4.41724275 1.36859465
6 -5.08669631 -2.81600823 -1.23318474
1 -5.08632758 -3.67625028 -1.92204188
1 -4.12593555 -2.28518926 -1.33067520
1 -5.89405119 -2.12903570 -1.53640928
6 -5.27053561 -2.09378564 1.17661755
1 -5.41287787 -2.43877208 2.21346896
1 -6.07411953 -1.37967034 0.93432186
1 -4.30527258 -1.56692174 1.11417289
6 3.08734782 -4.29262425 1.57776702
6 2.01121215 -4.22551479 0.48638565
1 2.30016478 -3.49480569 -0.28489081
1 1.04241984 -3.92378322 0.91700649
1 1.87637155 -5.21183641 0.01147659
6 2.66892857 -5.27643310 2.67687032
1 3.41639641 -5.30026266 3.48377678
1 2.56629230 -6.28759554 2.24944766
1 1.70184799 -4.98905543 3.11498723
6 4.43282252 -4.73063407 0.98389033
1 5.19916117 -4.77546578 1.77397630
1 4.76381348 -4.01674113 0.21482604
1 4.34751012 -5.72795321 0.52277096
6 1.94262576 -2.78935746 5.91194603
6 0.65858571 -3.62552083 5.83920927
1 -0.00603424 -3.22336001 5.05853570
1 0.12440157 -3.60819722 6.80312916
1 0.89858569 -4.67152546 5.59208152
6 2.90500897 -3.39019203 6.94595008
1 3.83491369 -2.80124334 6.99418397
1 3.16329788 -4.42367462 6.66707725
1 2.44553875 -3.39818230 7.94743090
6 1.62174560 -1.33403348 6.26085652
1 2.54397395 -0.73041419 6.27226729
1 1.15405130 -1.26674700 7.25687645
1 0.92394187 -0.89849710 5.52771188
6 4.65716812 -0.30969406 3.38859932
6 5.39137157 -1.45176685 4.10315926
1 4.98026294 -1.61734411 5.10986273
1 6.46069814 -1.20014361 4.19535734
1 5.29794098 -2.38800297 3.53279019
6 4.78560817 0.97776143 4.20863765
1 4.33091522 0.84871790 5.20452093
1 4.28389857 1.81650708 3.69945611
1 5.84419655 1.25492577 4.34366615
6 5.22636668 -0.11904729 1.97787139
1 4.70609226 0.69941824 1.45253378
1 5.08833612 -1.04524895 1.40093318
1 6.30200337 0.12431647 2.01455263
6 -0.04466435 3.13714207 5.70552846
6 0.87985592 4.25466586 5.21568871
1 0.35112206 4.92010614 4.51443770
1 1.76129273 3.83699992 4.70391107
1 1.24059250 4.85913242 6.06409145
6 0.70709534 2.20031110 6.65751792
1 0.05425184 1.36605571 6.95268061
1 1.03476345 2.74201070 7.56046587
1 1.59956385 1.78454561 6.16166610
6 -1.26472795 3.74902908 6.40540158
1 -1.82373883 4.40158386 5.71733670
1 -0.93245280 4.35133340 7.26678305

1	-1.94525178	2.96602690	6.76971510
6	-2.99739687	-0.24478077	6.26000247
6	-2.38410406	-1.28439600	7.20495943
1	-1.75231194	-0.78608377	7.95742221
1	-1.76052646	-1.99557901	6.64236014
1	-3.17581197	-1.84425705	7.72841799
6	-3.86572067	0.74222731	7.05411381
1	-4.23637924	1.53525651	6.38879103
1	-3.27372668	1.20289159	7.86135072
1	-4.72284018	0.22100216	7.51085941
6	-3.82667579	-0.94312168	5.17503399
1	-4.24943262	-0.20684843	4.47432749
1	-4.65720345	-1.50652137	5.63056734
1	-3.20079522	-1.65036312	4.60667295
6	-3.92306056	2.99091124	3.27094754
6	-4.87498077	3.96014931	3.98511045
1	-5.55142430	3.40470040	4.65344761
1	-5.48303020	4.51680166	3.25408650
1	-4.30505072	4.68285954	4.59014777
6	-4.72345573	1.97251384	2.44929864
1	-5.42153647	1.42086073	3.09923230
1	-4.04005825	1.25340254	1.97204582
1	-5.30784000	2.47964081	1.66446726
6	-2.94857588	3.76227828	2.37659803
1	-2.36214330	4.47475966	2.97799001
1	-3.49330571	4.32485678	1.60119341
1	-2.25262633	3.06817544	1.87751402

Plutonium-CH₂ Species

Reactant -LS

94	1.759346950	-0.357309010	-1.087412850
94	-1.664716220	0.423797480	1.192986950
19	0.413061540	-2.694849280	1.767676270
19	0.918998910	2.985204970	0.558555610
19	-1.529527790	0.494874960	-2.555113260
14	-0.015772370	-2.044362630	-4.607769460
14	3.916488760	-3.320429070	1.167247260
14	3.433656580	3.463447050	-1.892107570
14	-0.135924790	3.139592050	4.011949440
14	-4.149048820	2.599613900	-1.191518250
6	1.027424310	-1.085495110	-3.426186090
8	-1.574264770	-1.351993610	-4.537810660
8	-0.068903320	-3.704381500	-4.352387060
8	0.353012710	-1.922531920	-6.245506150
6	2.844331770	-2.493029800	-0.084613830
8	2.981869670	-3.446599100	2.593976050
8	4.336570080	-4.927070790	0.886719980
8	5.404056420	-2.588261300	1.436052130
6	3.198765240	1.795100060	-1.138893050
8	4.587437890	4.476132290	-1.193533460
8	1.994575670	4.334438210	-1.594124360
8	3.857845260	3.467664760	-3.518302460
6	-2.563649090	-1.899070090	1.752807590
8	-1.677085420	-4.576994510	1.960883100
8	-4.446921300	-4.238539800	2.091881630
6	-1.230009530	2.436223970	2.713290400
8	0.257041980	2.053438020	5.237076910
8	-0.647008150	4.494694530	4.866806920
8	1.244157150	3.712865560	3.190252000
6	-3.622138600	1.058113770	-0.333772780
8	-5.792564990	2.863928350	-1.491380320
8	-3.628868020	3.988868560	-0.403283140
8	-3.318826810	2.582872360	-2.683449740
7	-0.007805600	0.209928140	-0.091771400
6	-2.696238520	-1.517298930	-5.458757400
6	-2.519138680	-0.543160100	-6.630343520
1	-3.363638940	-0.622049530	-7.334776360
1	-2.474076940	0.496697850	-6.266285800
1	-1.581396240	-0.767941530	-7.159193300

6	-3.950735270	-1.165210610	-4.649100920
1	-4.855686450	-1.251954670	-5.272818850
1	-4.060387080	-1.846706280	-3.788774920
1	-3.905808410	-0.128682320	-4.274760020
6	-2.804647080	-2.958215530	-5.973374730
1	-3.686231130	-3.052230850	-6.628908790
1	-1.909109780	-3.238006440	-6.546143080
1	-2.917373380	-3.663967350	-5.136326910
6	-0.209264170	-4.526102310	-3.172875030
6	-0.904593820	-3.769532240	-2.035300300
1	-1.015866960	-4.411886170	-1.146188200
1	-0.331842790	-2.868575600	-1.755218060
1	-1.910447320	-3.445558220	-2.350086370
6	-1.054954630	-5.737614230	-3.592020590
1	-1.149682740	-6.454740080	-2.760052700
1	-2.065587850	-5.418859900	-3.892458790
1	-0.584975700	-6.250910270	-4.445604480
6	1.192317690	-4.991410640	-2.754377440
1	1.146497300	-5.660746640	-1.878738750
1	1.670090400	-5.536606370	-3.583766360
1	1.825649790	-4.129530330	-2.942438240
6	1.392480060	-2.547328420	-7.033543950
6	0.865442940	-3.888146950	-7.566657560
1	1.626502780	-4.389363130	-8.187087920
1	0.598761870	-4.544396880	-6.724422380
1	-0.032231990	-3.725418100	-8.184726940
6	2.674620560	-2.768527110	-6.218530680
1	3.456753200	-3.213613030	-6.855181480
1	3.052104820	-1.814237020	-5.818500720
1	2.486288240	-3.453626250	-5.376457150
6	1.668182250	-1.581125060	-8.193430770
1	2.435004680	-1.988162320	-8.871795030
1	0.745786820	-1.406776340	-8.770123280
1	2.019142580	-0.611308560	-7.804695590
6	3.302996870	-4.168372700	3.827059960
6	2.353646850	-3.608795380	4.894022470
1	2.502061280	-4.125079530	5.856403500
1	2.536356720	-2.533403590	5.048452980
1	1.298700310	-3.750923140	4.602639690
6	3.056253700	-5.669270060	3.630921980
1	3.281537140	-6.218718770	4.559906090
1	2.004600050	-5.861402380	3.368942320
1	3.689906210	-6.048216620	2.817197760
6	4.755214020	-3.924119240	4.257738560
1	4.946366950	-4.429858970	5.218744420
1	5.462058230	-4.312754740	3.510384400
1	4.946156880	-2.847550560	4.389509790
6	5.334967150	-5.519103740	0.024656800
6	4.823255610	-6.931809840	-0.287967370
1	5.536844190	-7.476369400	-0.927017740
1	4.681674630	-7.501346390	0.644586430
1	3.853100460	-6.877148160	-0.808556440
6	6.666629700	-5.586553310	0.787117740
1	7.447826420	-6.061256930	0.170768810
1	6.990829350	-4.571470020	1.061126240
1	6.545597040	-6.177647400	1.709333780
6	5.506371460	-4.727251870	-1.279557560
1	6.246440490	-5.222245230	-1.929509370
1	4.550891530	-4.666630410	-1.824454990
1	5.861233120	-3.705428610	-1.071197710
6	5.857093060	-1.221001430	1.529032760
6	7.146548430	-1.261603270	2.362521410
1	7.579293350	-0.252867270	2.460437480
1	6.939802940	-1.653715180	3.370464570
1	7.889204610	-1.916923010	1.880929430
6	6.168109820	-0.711551540	0.116149270
1	6.577875490	0.310572570	0.146060480
1	6.905675300	-1.369510110	-0.370016340
1	5.254482110	-0.694900140	-0.499348190
6	4.813348490	-0.332336080	2.213983810

1	5.166663330	0.711099210	2.269661680	1	-5.550566170	-4.403754120	6.074242940
1	3.862289490	-0.352945820	1.655655930	1	-5.320865120	-4.736789790	4.324167860
1	4.616655690	-0.686820430	3.238741770	1	-4.225795030	-5.471922960	5.530396740
6	6.026623700	4.515828470	-1.334772720	6	-3.073027750	-3.171557210	6.461033160
6	6.616395630	3.114729520	-1.544430770	1	-3.751116730	-2.992251300	7.310785280
1	7.715904270	3.168244050	-1.603053060	1	-2.474897570	-4.072201060	6.673853730
1	6.342497790	2.453349210	-0.707723870	1	-2.386210760	-2.315270980	6.370162220
1	6.240475040	2.670525010	-2.479813500	6	-4.664008520	-2.084347120	4.847019980
6	6.554225560	5.115249230	-0.024366280	1	-5.380993470	-1.867887780	5.655733180
1	6.110378140	6.109733210	0.144113530	1	-3.985278860	-1.221641050	4.746825910
1	6.283477220	4.468300590	0.825829250	1	-5.228946730	-2.201380450	3.908681200
1	7.650766980	5.221105160	-0.053457260	6	0.694402470	0.679446830	5.210786960
6	6.380991360	5.424330150	-2.521444040	6	-0.539613270	-0.231885640	5.211229720
1	5.985978940	6.439789910	-2.354787350	1	-0.252756160	-1.295376240	5.270520410
1	7.474044310	5.495525540	-2.646931430	1	-1.181559020	0.002030620	6.075495470
1	5.938902000	5.020961200	-3.444994330	1	-1.136817910	-0.089728150	4.293872350
6	1.726435440	5.760289140	-1.777388570	6	1.579725460	0.388387380	3.993309130
6	2.171966090	6.515593820	-0.519650030	1	2.461276590	1.048819250	3.985348540
1	1.975345840	7.596042450	-0.622164470	1	1.938296090	-0.654048180	4.014284510
1	1.618589020	6.160556320	0.365969650	1	1.025719940	0.552548640	3.051051790
1	3.248411690	6.360273650	-0.352189270	6	1.494456180	0.472269050	6.505572690
6	2.440557020	6.326856660	-3.011127150	1	2.375710330	1.132846190	6.520661320
1	2.177629290	7.390711840	-3.133747970	1	0.867961880	0.711131550	7.379292040
1	3.531860200	6.245682120	-2.905775000	1	1.837075160	-0.571680010	6.595576740
1	2.136775350	5.788725830	-3.921883570	6	-1.590451650	4.639558360	5.952929320
6	0.208988570	5.875073900	-1.959778780	6	-2.747059580	3.636214030	5.840961660
1	-0.088165590	6.928050840	-2.094519690	1	-2.371310360	2.601990930	5.901925700
1	-0.113711220	5.308472920	-2.847957730	1	-3.464553680	3.789849790	6.663621190
1	-0.333723170	5.481583460	-1.083493870	1	-3.280719800	3.763921780	4.885761380
6	3.361857120	2.770485170	-4.680591140	6	-0.844999250	4.445740780	7.281753340
6	3.827844490	3.593980640	-5.889997100	1	-0.037155450	5.189177510	7.375644240
1	3.495633380	3.127662360	-6.831607270	1	-1.530110380	4.568894740	8.136682400
1	3.416155260	4.614239930	-5.839158150	1	-0.402450300	3.438804900	7.317172600
1	4.926919800	3.663770790	-5.901599940	6	-2.128768900	6.072398140	5.842661430
6	1.830674580	2.689022430	-4.658674060	1	-1.300732670	6.795870960	5.910095240
1	1.455208460	2.128848910	-5.531227190	1	-2.632072730	6.214153410	4.872485430
1	1.487820900	2.182737960	-3.740435120	1	-2.848154850	6.285216580	6.649694410
1	1.392045510	3.699342580	-4.676315270	6	2.308689640	4.582391770	3.691712260
6	3.985926030	1.369457080	-4.735658440	6	2.688158810	4.233339760	5.137262200
1	3.677771450	0.839879190	-5.652057840	1	3.516610740	4.881159060	5.468296920
1	5.085069130	1.444716560	-4.727781110	1	1.834605890	4.381094190	5.814201390
1	3.671285300	0.765022760	-3.870473650	1	3.017591730	3.185439150	5.213296830
6	-5.319348560	-4.152369630	0.940982130	6	1.841314830	6.040447390	3.601640000
6	-6.313603310	-5.313314850	1.092061520	1	2.635825000	6.724216660	3.943349400
1	-7.045683550	-5.308907500	0.268689360	1	1.591002410	6.302460960	2.560956610
1	-5.781958190	-6.277424020	1.084308550	1	0.945016920	6.181757060	4.222505240
1	-6.858158680	-5.223695250	2.045088790	6	3.512987720	4.343189530	2.772541630
6	-6.072337780	-2.813687590	0.966160940	1	4.368517010	4.961627080	3.089601830
1	-6.780209520	-2.751419240	0.123119040	1	3.822169610	3.284827050	2.807041840
1	-6.641020950	-2.713154550	1.904267310	1	3.286806420	4.611322230	1.727367990
1	-5.366334660	-1.971742360	0.890414500	6	-6.937927120	1.984280770	-1.594409620
6	-4.539782480	-4.300268690	-0.372502190	6	-6.644939860	0.773909150	-2.491371650
1	-5.229362490	-4.283841360	-1.232783090	1	-7.549619160	0.153743320	-2.605828780
1	-3.817813660	-3.478028600	-0.495299480	1	-6.320265890	1.099524520	-3.491340980
1	-3.985040430	-5.251124910	-0.391892520	1	-5.853743010	0.146274440	-2.051941700
6	-1.434494950	-5.989999240	2.242471870	6	-7.360922830	1.514037140	-0.195062200
6	-0.292224880	-6.404342870	1.305551810	1	-8.265317580	0.886755360	-0.254810610
1	-0.592949550	-6.267697240	0.254388090	1	-6.558333390	0.920806290	0.270645220
1	0.618699700	-5.810708120	1.488978270	1	-7.582755500	2.378854130	0.449922090
1	-0.030664780	-7.464730980	1.453841650	6	-8.052882190	2.838133900	-2.215995380
6	-2.670722280	-6.849197710	1.945807990	1	-8.981368460	2.253887230	-2.318230730
1	-2.972727980	-6.741572060	0.892132590	1	-8.257813830	3.716373840	-1.583951870
1	-2.436373380	-7.910587380	2.130113620	1	-7.752780910	3.193491080	-3.214806900
1	-3.520657260	-6.557611000	2.579117560	6	-4.267347170	4.881354940	0.544067820
6	-1.018718120	-6.161291220	3.709107830	6	-3.152677180	5.799089970	1.063391190
1	-0.765819910	-7.214082840	3.916747860	1	-3.559714610	6.549293290	1.760879740
1	-0.135838160	-5.544950340	3.940990350	1	-2.384096440	5.218094400	1.598265250
1	-1.831928370	-5.844901360	4.377401300	1	-2.675971170	6.328207810	0.222961100
6	-3.866303120	-3.357176380	5.161574230	6	-4.878945670	4.083803100	1.703879780
6	-4.804028280	-4.567496450	5.279843020	1	-5.312130710	4.763696290	2.455703850

1	-5.678566310	3.420508850	1.339041540
1	-4.105911940	3.471665610	2.195814630
6	-5.346202620	5.725044480	-0.153010130
1	-5.841712700	6.385998300	0.576683110
1	-4.894346790	6.356014460	-0.934696430
1	-6.096656310	5.069456950	-0.617453910
6	-3.380287950	3.495528730	-3.819805250
6	-3.505019560	4.956847890	-3.373848530
1	-3.456294200	5.617992730	-4.255400150
1	-4.465068350	5.128823810	-2.866116280
1	-2.694075930	5.226991980	-2.681787340
6	-2.062619980	3.297483720	-4.579982920
1	-2.012376330	3.962768970	-5.457174120
1	-1.203709020	3.525130220	-3.927638170
1	-1.968741330	2.261165660	-4.948417050
6	-4.567721920	3.120845770	-4.714885610
1	-4.590877410	3.762164660	-5.611730000
1	-4.494769890	2.071936180	-5.045827970
1	-5.511242830	3.255213100	-4.165497110
14	-2.947605100	-3.555790440	2.461134360
8	-2.875608470	-3.612458730	4.136862790
1	2.115519970	-3.269454130	-0.421769460
1	-2.787026310	-1.964912330	0.657842570
1	-3.961892910	0.172084040	-0.913465780
1	1.310093270	-0.154947780	-3.972131070
1	3.469826530	1.892671450	-0.059411190
1	-1.612410030	3.277520240	2.090162390
1	-4.239656360	1.028709590	0.598368270
1	1.980574590	-1.673803050	-3.393855810
1	3.530655940	-2.413931880	-0.966042960
1	-3.395358030	-1.271496210	2.167745540
1	4.043977490	1.197948450	-1.558187920
1	-2.134563840	2.090596100	3.274970000

Reactant -HS

94	1.736431210	-0.374627790	-1.112241980
94	-1.658107230	0.451749650	1.160598560
19	0.437583470	-2.675033630	1.822635790
19	1.022792270	2.923855060	0.628352840
19	-1.565478780	0.460842160	-2.556833310
14	-0.047421640	-2.057904340	-4.625978470
14	3.937375920	-3.308019390	1.162255850
14	3.438096890	3.429927720	-1.890507510
14	-0.103813190	3.107051290	4.047999720
14	-4.148880950	2.612699680	-1.217657910
6	0.991977640	-1.061884730	-3.473554640
8	-1.636003410	-1.452393090	-4.466075870
8	0.004136410	-3.723103830	-4.408497380
8	0.232564570	-1.883509170	-6.276952680
6	2.844460490	-2.478590510	-0.070020600
8	3.017605700	-3.457622720	2.597255060
8	4.372647450	-4.906437910	0.861186100
8	5.420375260	-2.565157070	1.428291520
6	3.229752550	1.742803620	-1.172184580
8	4.574940040	4.444992370	-1.166225930
8	1.987759870	4.272840780	-1.574952070
8	3.861613760	3.476193850	-3.516024640
6	-2.529112590	-1.879321070	1.718085600
8	-1.690552620	-4.552591640	2.040656550
8	-4.464346680	-4.176607300	2.037963800
6	-1.184605210	2.424004920	2.728065910
8	0.251339140	2.013471110	5.277652160
8	-0.608812020	4.470266460	4.893305820
8	1.300791460	3.659686070	3.252855630
6	-3.640089500	1.076105500	-0.342209340
8	-5.788605090	2.905956820	-1.509531560
8	-3.589298260	4.002237720	-0.457456230
8	-3.333518980	2.532763200	-2.717251740
7	0.013317960	0.224253620	-0.080047520
6	-2.796476040	-1.672505870	-5.325333870

6	-2.721964760	-0.709535870	-6.517233760
1	-3.598517220	-0.834184210	-7.174384670
1	-2.702298730	0.336627090	-6.169254150
1	-1.804422820	-0.902230530	-7.091768580
6	-4.020821590	-1.356670550	-4.456142520
1	-4.952517910	-1.494837390	-5.028979790
1	-4.055035680	-2.022609820	-3.577493310
1	-4.001761270	-0.310532350	-4.106801780
6	-2.871917020	-3.124356770	-5.814218780
1	-3.783108440	-3.265986710	-6.418782390
1	-1.997897770	-3.376130600	-6.431919540
1	-2.908262990	-3.820972050	-4.962572320
6	-0.010787020	-4.578923210	-3.245817750
6	-0.739877680	-3.919508000	-2.069467720
1	-0.751825190	-4.586863060	-1.191875060
1	-0.252305380	-2.969807820	-1.789570840
1	-1.784134170	-3.695884430	-2.342331050
6	-0.745725820	-5.859512730	-3.668218420
1	-0.745543110	-6.598021800	-2.849805710
1	-1.790721560	-5.635562920	-3.934811880
1	-0.252611840	-6.307625090	-4.545094910
6	1.442551040	-4.910803520	-2.881091930
1	1.490086800	-5.598840140	-2.020318940
1	1.944795720	-5.388697920	-3.737230970
1	1.995007650	-3.995405070	-2.617739860
6	1.254517310	-2.444906910	-7.132245100
6	0.764920670	-3.802623330	-7.658062050
1	1.512048060	-4.254859700	-8.330921870
1	0.582268260	-4.484094960	-6.813550260
1	-0.175015160	-3.676447730	-8.219288480
6	2.589963610	-2.612313860	-6.393446610
1	3.356568350	-3.007685650	-7.079845350
1	2.940763430	-1.645597170	-5.999012560
1	2.484070210	-3.317684920	-5.553776350
6	1.416797420	-1.449494740	-8.288908320
1	2.163935150	-1.807734770	-9.015151360
1	0.456202560	-1.313391360	-8.811074860
1	1.739979930	-0.468873660	-7.903141630
6	3.358176150	-4.202130850	3.811740630
6	2.448215820	-3.640865960	4.911682370
1	2.607656240	-4.178387950	5.860630110
1	2.660739970	-2.573216090	5.081452560
1	1.383453060	-3.752003880	4.644264460
6	3.079691690	-5.694826470	3.596634280
1	3.314879660	-6.264978920	4.510555570
1	2.019585710	-5.863919430	3.353789840
1	3.689511770	-6.069806450	2.762919250
6	4.824648610	-3.991592780	4.210696340
1	5.027726850	-4.515704060	5.159361250
1	5.506282500	-4.382372660	3.441563390
1	5.039204000	-2.921182130	4.354310840
6	5.378147490	-5.478993590	-0.006162750
6	4.881609100	-6.893351800	-0.335036240
1	5.603831350	-7.424481310	-0.975590080
1	4.741220260	-7.473160050	0.591326670
1	3.913778120	-6.843447040	-0.860143360
6	6.709806550	-5.541777610	0.756805490
1	7.496036740	-6.001377590	0.135471120
1	7.023553590	-4.526524180	1.042011360
1	6.594165050	-6.144880920	1.671859080
6	5.542672750	-4.670028420	-1.300791720
1	6.290796860	-5.147724660	-1.954438410
1	4.587807470	-4.615622250	-1.847234400
1	5.883591600	-3.646347360	-1.079122750
6	5.857844250	-1.195045800	1.547543380
6	7.135928040	-1.232276030	2.398436220
1	7.558161980	-0.220571720	2.511367590
1	6.919906990	-1.634827670	3.400294360
1	7.891054760	-1.876244490	1.920969690
6	6.183492380	-0.665409490	0.145538610

1	6.583365170	0.359937350	0.193663530	1	-0.050969540	-5.425163600	3.987937600
1	6.934587280	-1.310275640	-0.337525730	1	-1.734687660	-5.594015170	4.538197330
1	5.278849940	-0.649665420	-0.482947020	6	-4.026558810	-3.227956040	5.095169120
6	4.795124750	-0.325879030	2.228383940	6	-4.978305730	-4.428047360	5.206716920
1	5.137342970	0.720264150	2.301436410	1	-5.761615050	-4.233832720	5.957736090
1	3.851895110	-0.350222060	1.657009850	1	-5.449305950	-4.624834980	4.232819150
1	4.588488320	-0.694396340	3.246292830	1	-4.419248020	-5.326622130	5.515086410
6	6.014463210	4.504830750	-1.304129220	6	-3.300584810	-3.001632520	6.427116300
6	6.621288060	3.120264840	-1.566814300	1	-4.020707850	-2.789191390	7.233459340
1	7.720074770	3.190100120	-1.621735620	1	-2.721502960	-3.898058140	6.701812930
1	6.355202890	2.422611840	-0.757673710	1	-2.602963950	-2.153693760	6.342777240
1	6.251982060	2.708288790	-2.519398040	6	-4.796766550	-1.962446050	4.694553830
6	6.534912840	5.061111560	0.027896760	1	-5.547609250	-1.708657450	5.460561570
1	6.078388650	6.042762570	0.233753440	1	-4.105550890	-1.109890930	4.591800170
1	6.274150150	4.379130060	0.853511160	1	-5.319230640	-2.112642950	3.736499300
1	7.630022220	5.182531730	0.002659070	6	0.662145570	0.631236350	5.256624710
6	6.358537720	5.461519790	-2.455621440	6	-0.588736340	-0.256374030	5.237700040
1	5.955653450	6.466475860	-2.248960370	1	-0.323216700	-1.324850790	5.308196590
1	7.450658050	5.546797220	-2.580296430	1	-1.241000540	-0.006081380	6.089522900
1	5.917725710	5.090126920	-3.393192620	1	-1.165840900	-0.109438290	4.308750470
6	1.688115010	5.694937710	-1.731497960	6	1.559074830	0.325126790	4.051283810
6	2.048288360	6.415916460	-0.426932840	1	2.453130440	0.968607920	4.056738550
1	1.831397690	7.494839270	-0.501451190	1	1.898157440	-0.723813660	4.077004180
1	1.458710080	6.018868000	0.416826870	1	1.020154670	0.501803890	3.102676280
1	3.119258810	6.282252340	-0.209820170	6	1.439343390	0.407579810	6.562402320
6	2.448049210	6.324393460	-2.905648790	1	2.332199150	1.051991250	6.591632840
1	2.158805170	7.383672410	-3.006432220	1	0.804525360	0.657019900	7.427167850
1	3.534019150	6.271155310	-2.743539740	1	1.760879720	-0.642712440	6.655775470
1	2.210334820	5.809345090	-3.848574700	6	-1.568700880	4.630523970	5.962575920
6	0.179304890	5.773786390	-1.989560650	6	-2.741132170	3.648665890	5.827315570
1	-0.143932770	6.822337160	-2.095931390	1	-2.385823510	2.607648430	5.895019360
1	-0.076918620	5.237059150	-2.917220680	1	-3.471570730	3.815097000	6.636001830
1	-0.395528000	5.322458510	-1.163338480	1	-3.253538880	3.786008750	4.861918410
6	3.371217190	2.807202420	-4.696869720	6	-0.851413660	4.420794990	7.304440910
6	3.867281090	3.645509600	-5.883972210	1	-0.031370520	5.148616130	7.414047860
1	3.541899350	3.202258380	-6.838951970	1	-1.549430080	4.555770740	8.147005900
1	3.471198040	4.671216620	-5.819788210	1	-0.428286120	3.405765960	7.345829830
1	4.967341390	3.697711390	-5.877942610	6	-2.078423500	6.073278630	5.845157760
6	1.838691000	2.750845580	-4.696403730	1	-1.238760010	6.781283560	5.930762750
1	1.465557380	2.212156450	-5.583362490	1	-2.559322510	6.225756680	4.865299000
1	1.475123660	2.234093230	-3.792404390	1	-2.809740470	6.297985180	6.638108170
1	1.415904520	3.768088650	-4.701402390	6	2.369407180	4.513692200	3.771659960
6	3.970643710	1.396456740	-4.771700570	6	2.723840270	4.153947610	5.220714040
1	3.672911100	0.895913410	-5.707634790	1	3.554071410	4.790887930	5.568018780
1	5.070587190	1.450462130	-4.738903230	1	1.861535190	4.307634770	5.885151700
1	3.625512910	0.776783500	-3.929376830	1	3.040087280	3.101888400	5.297022440
6	-5.255598660	-4.145531110	0.827805190	6	1.924693620	5.978724090	3.679532520
6	-6.270469830	-5.289584970	0.971101950	1	2.723516670	6.648859060	4.037862170
1	-6.942520200	-5.326388870	0.098763900	1	1.696550340	6.248420210	2.635821490
1	-5.749745750	-6.255985990	1.055029900	1	1.020461730	6.130845250	4.286104970
1	-6.879812730	-5.143557030	1.876750410	6	3.582497360	4.260993570	2.867345660
6	-5.993797520	-2.801741100	0.732995850	1	4.443668840	4.862929110	3.200333310
1	-6.646104620	-2.777379000	-0.155742050	1	3.873595040	3.197320790	2.899092500
1	-6.619759030	-2.646873500	1.626100650	1	3.374105010	4.540080440	1.821097260
1	-5.275525490	-1.969955110	0.659144510	6	-6.955439150	2.050436660	-1.570392310
6	-4.390157210	-4.367674240	-0.419781970	6	-6.707350800	0.813869030	-2.444914210
1	-5.018669740	-4.389893990	-1.325565310	1	-7.628345260	0.213200640	-2.529018160
1	-3.651208690	-3.559152990	-0.533130760	1	-6.393530830	1.108964250	-3.457771260
1	-3.846118270	-5.322929050	-0.353060840	1	-5.923318980	0.177274400	-2.005547770
6	-1.468893770	-5.948281390	2.411397370	6	-7.361168910	1.620089470	-0.153110220
6	-0.394483060	-6.463824120	1.445508000	1	-8.278975300	1.010338490	-0.182044170
1	-0.760897380	-6.416096820	0.407311920	1	-6.562081000	1.020515170	0.310523960
1	0.531018580	-5.868595510	1.516205270	1	-7.553321960	2.503099780	0.476511450
1	-0.134925960	-7.510841580	1.672085660	6	-8.062855140	2.915763700	-2.189071770
6	-2.739584860	-6.794761860	2.257878550	1	-9.006756710	2.351578740	-2.257353100
1	-3.109726350	-6.756585080	1.221843060	1	-8.233740480	3.812930590	-1.573700900
1	-2.513132690	-7.844880750	2.505861430	1	-7.776823160	3.240737860	-3.202268690
1	-3.540256600	-6.440456980	2.922904220	6	-4.195673620	4.918229070	0.488630650
6	-0.974650830	-6.011646440	3.862213860	6	-3.054820120	5.816964120	0.983457840
1	-0.757981550	-7.052424450	4.154294830	1	-3.435829800	6.580632940	1.681014860

1	-2.290950930	5.223734750	1.511705470
1	-2.579493550	6.329131870	0.132050250
6	-4.808316290	4.147401060	1.665683410
1	-5.216557570	4.845214860	2.415008390
1	-5.626745410	3.497086770	1.319973110
1	-4.042194220	3.524354100	2.154943250
6	-5.264877230	5.776525240	-0.205115210
1	-5.733543760	6.460467570	0.521111630
1	-4.810168040	6.383680090	-1.003852900
1	-6.037710140	5.132186070	-0.648170060
6	-3.401762940	3.437453340	-3.875516700
6	-3.527169030	4.908683070	-3.464096890
1	-3.489188800	5.548701740	-4.361605900
1	-4.483181560	5.089806790	-2.951602560
1	-2.709881880	5.197367840	-2.786879080
6	-2.087086990	3.222762930	-4.636841030
1	-2.040654280	3.867712550	-5.529289920
1	-1.225834010	3.466041320	-3.993414190
1	-1.994306990	2.178384570	-4.982533810
6	-4.592341520	3.036414620	-4.754730260
1	-4.617597830	3.648471080	-5.671716990
1	-4.521218590	1.977121960	-5.051487770
1	-5.534155760	3.189169880	-4.207239310
14	-2.970122130	-3.507900280	2.454683230
8	-2.986572790	-3.526871100	4.132903770
1	2.128071200	-3.263652300	-0.414633080
1	-2.631276990	-1.996888890	0.608459170
1	-4.005480380	0.185726610	-0.899154860
1	1.151772440	-0.086468050	-3.992456580
1	3.539965900	1.808805980	-0.100788350
1	-1.542843090	3.279144350	2.107993280
1	-4.237766390	1.073364030	0.603219550
1	1.994698100	-1.555792310	-3.536796550
1	3.527561600	-2.374610010	-0.952231760
1	-3.407323120	-1.248742290	2.014727270
1	4.055686660	1.152737020	-1.635288760
1	-2.101631490	2.089585500	3.275705710

Product -LS

94	0.182380570	0.008777310	-1.958864920
94	0.201498920	0.160080370	1.607474490
14	-2.986269880	-2.111844870	-2.968838660
14	4.110192020	-0.025714770	3.414397810
6	-2.233415770	-0.507097970	-2.510738590
8	-4.178659310	-2.574319210	-1.837427810
8	-3.640007910	-2.347621870	-4.500603970
8	-1.839814320	-3.332422260	-2.672133040
6	2.362745150	-0.213212680	2.872302800
8	5.060397290	-0.658296840	2.141901130
8	4.609408610	-0.946419440	4.734555430
8	4.572153220	1.527609820	3.848995170
6	-5.584415460	-2.212356040	-1.779816080
6	-6.030424070	-2.494492330	-0.340560970
1	-5.880570570	-3.557209230	-0.093140750
1	-7.098667350	-2.257530960	-0.206889990
1	-5.449434550	-1.882866090	0.370112060
6	-5.804509120	-0.728878210	-2.105305890
1	-5.240945590	-0.088788320	-1.408182450
1	-6.874524510	-0.476502850	-2.018209260
1	-5.478536770	-0.495219360	-3.130032480
6	-6.368058320	-3.098126510	-2.759030460
1	-6.011158230	-2.932749060	-3.786813910
1	-7.446252720	-2.872845930	-2.710972970
1	-6.223335030	-4.161884580	-2.509794510
6	-3.489726510	-1.669802270	-5.770898630
6	-4.336894040	-0.390255400	-5.767789570
1	-5.396330120	-0.630542260	-5.584133590
1	-4.261794550	0.129574280	-6.736855580
1	-3.988502060	0.293667990	-4.978035620
6	-2.020014050	-1.336360160	-6.062708500

1	-1.619951620	-0.627244820	-5.321567990
1	-1.924678580	-0.877189070	-7.060195700
1	-1.401379240	-2.246388960	-6.038387530
6	-4.025511710	-2.650082400	-6.823689490
1	-3.424916000	-3.573567080	-6.832051470
1	-3.989962380	-2.200640870	-7.828879770
1	-5.068780530	-2.919254070	-6.595156390
6	-1.793396000	-4.725407030	-3.089897700
6	-3.186945720	-5.362677200	-3.157261250
1	-3.693336780	-5.303751520	-2.181255210
1	-3.100357850	-6.424742390	-3.442944030
1	-3.812322040	-4.850593910	-3.904658040
6	-1.105425320	-4.800398660	-4.459288110
1	-1.728021720	-4.307859550	-5.220885540
1	-0.949853860	-5.849047540	-4.762695090
1	-0.127113870	-4.294785920	-4.421247000
6	-0.938115300	-5.447165260	-2.039093850
1	0.033217100	-4.938951590	-1.922573840
1	-0.749864570	-6.492110170	-2.334898070
1	-1.450706660	-5.465844560	-1.062653050
6	6.449755600	-1.109884110	2.190992760
6	6.960540690	-1.059299490	0.746301080
1	6.356147020	-1.706251420	0.087493130
1	8.003565910	-1.411806880	0.689229750
1	6.925147910	-0.028555520	0.358296410
6	6.479230480	-2.550239760	2.718172890
1	6.047715230	-2.582444520	3.729531670
1	7.512753910	-2.933281230	2.750862490
1	5.887759920	-3.212717570	2.063611090
6	7.312983490	-0.191338070	3.065844850
1	7.265261140	0.847360780	2.702629140
1	8.363805090	-0.524049580	3.032928600
1	6.969160080	-0.212256010	4.109241350
6	4.431569890	-0.739300620	6.155989030
6	4.541837690	-2.131581520	6.792036070
1	3.748465920	-2.791267510	6.407096580
1	4.450754790	-2.069451320	7.888295850
1	5.516341810	-2.583595640	6.546832890
6	5.553571620	0.172871870	6.675059040
1	6.536720950	-0.292464670	6.497289560
1	5.445112070	0.344742880	7.758576310
1	5.521557670	1.139200790	6.150326650
6	3.060448530	-0.125081610	6.473521640
1	2.967584370	0.874136880	6.018341710
1	2.935719720	-0.019306990	7.563569690
1	2.248914840	-0.764284370	6.091439530
6	4.358397820	2.841749080	3.285160440
6	5.424323360	3.739089520	3.930124300
1	5.310024100	3.738091310	5.025645800
1	5.332399060	4.776175160	3.569172990
1	6.433120890	3.369378650	3.686093870
6	2.954310080	3.333729810	3.659085160
1	2.186685760	2.700619510	3.188003180
1	2.797366860	4.369365660	3.315265950
1	2.819915710	3.306342010	4.752462850
6	4.532571170	2.819653770	1.763650040
1	5.531071750	2.437507330	1.496672790
1	4.423585890	3.833641700	1.343940890
1	3.764253260	2.179771380	1.301572500
7	0.312737430	-1.002797440	-0.151080060
7	1.153710630	2.270722970	0.497854990
7	0.814332900	1.659387560	-0.451510900
14	3.293495110	-1.525265410	-3.459238760
14	-2.606843110	3.270724010	3.169407790
6	1.480223820	-1.614528850	-3.392691330
8	4.026942440	-2.551328460	-2.299274920
8	4.128165730	-1.725183460	-4.911069530
8	3.738529000	-0.017709760	-2.799631980
6	-1.380776430	2.024620040	2.600891500
8	-2.649344010	4.488047790	1.966474300

8	-2.255848670	4.147083970	4.563111420	1	-7.213051550	1.682639700	2.528697030
8	-4.154067520	2.682578430	3.474460300	1	-6.550779400	3.344139260	2.538267300
6	4.382481390	-3.958307890	-2.363699410	6	-4.921274610	0.395859010	3.408560050
6	4.668593550	-4.381827300	-0.917149260	1	-3.901765040	-0.002936840	3.283887790
1	5.473916050	-3.764762350	-0.485778100	1	-5.627972540	-0.314318590	2.947564600
1	4.986492140	-5.436110780	-0.872033440	1	-5.140392540	0.450157650	4.486463400
1	3.762652670	-4.276561440	-0.294970480	6	-4.725499650	1.723104490	1.274609920
6	3.228161990	-4.799189230	-2.921154180	1	-4.812152290	2.725164970	0.821894790
1	2.324309770	-4.667600380	-2.304761130	1	-5.433282270	1.053294930	0.759444990
1	3.495810250	-5.868906900	-2.916342280	1	-3.700235450	1.345010940	1.118564830
1	2.986693600	-4.509542190	-3.954533550	19	3.348817310	-1.076772970	0.003806980
6	5.646127010	-4.124742780	-3.218702990	14	-0.561671700	3.582826830	-3.603272840
1	5.464774560	-3.760480760	-4.240545230	14	-1.469148020	-3.270766200	3.664604610
1	5.952792800	-5.182890310	-3.259739550	6	0.343572570	1.994875170	-3.575868980
1	6.475540330	-3.538179000	-2.790497040	8	-0.151093950	4.609131150	-2.301406020
6	3.701303500	-1.886135690	-6.287516150	8	-0.538501510	4.540214670	-4.994346300
6	2.930815560	-3.202797220	-6.457247400	8	-2.183233700	3.269838770	-3.198299370
1	3.560848400	-4.058571720	-6.166800170	6	-1.037721140	-1.597157560	3.025764670
1	2.629137180	-3.340083400	-7.508554980	8	-2.458862070	-3.989172450	2.471998720
1	2.024569110	-3.198580090	-5.830862780	8	-2.430504110	-3.313619250	5.045703780
6	2.832926010	-0.704710010	-6.743737710	8	-0.191214570	-4.282561760	4.070637120
1	1.905811490	-0.645950570	-6.153073190	6	0.950121520	5.540808600	-2.113881480
1	2.558132770	-0.823154630	-7.804365770	6	0.957209850	5.880963990	-0.618033540
1	3.374889270	0.246522540	-6.631312730	1	-0.007168240	6.326027380	-0.319992390
6	4.998287470	-1.925802090	-7.107802610	1	1.749986960	6.611652840	-0.388734300
1	5.559851880	-0.986471570	-6.982075620	1	1.142803050	4.976357920	-0.013713250
1	4.778440290	-2.062860200	-8.178574570	6	2.283827090	4.889434720	-2.496335450
1	5.637414420	-2.757473280	-6.771275810	1	2.432051420	3.965710950	-1.915316260
6	4.932278680	0.797061960	-2.995471980	1	3.122290670	5.572945390	-2.282222440
6	6.200786850	-0.060964620	-3.086521610	1	2.311052070	4.641045550	-3.568242710
1	6.321194780	-0.679598770	-2.183710590	6	0.692973770	6.805841260	-2.942458050
1	7.088190150	0.586951950	-3.182172880	1	0.614400550	6.555164240	-4.010460540
1	6.154905030	-0.727265450	-3.961241990	1	1.507077470	7.535512140	-2.799807620
6	4.758976800	1.629622050	-4.271626620	1	-0.254276130	7.277828870	-2.632750640
1	4.715107190	0.969054940	-5.149483870	6	-0.008438750	4.355431560	-6.330851620
1	5.603834250	2.326196720	-4.400188710	6	1.523182470	4.264558370	-6.290151300
1	3.826855800	2.214613670	-4.221928850	1	1.952422760	5.170496290	-5.833648520
6	5.006629220	1.723995300	-1.777289410	1	1.930351900	4.167639390	-7.309921700
1	4.070073070	2.293227160	-1.668042680	1	1.836868910	3.385723920	-5.704949760
1	5.838890240	2.439738630	-1.879649690	6	-0.587372970	3.098511800	-6.997173260
1	5.177695270	1.149085360	-0.852760020	1	-0.294001310	2.194587000	-6.441929830
6	-3.076817100	5.879157740	2.085531190	1	-0.208229300	3.008281640	-8.028138200
6	-3.342757880	6.358251350	0.652912910	1	-1.686148770	3.143934170	-7.035740490
1	-2.429006030	6.282529430	0.037938320	6	-0.440306730	5.605553170	-7.110385770
1	-3.656623880	7.414874150	0.645995310	1	-1.539038620	5.681892190	-7.135819400
1	-4.142049470	5.760117950	0.183809710	1	-0.067611900	5.567254260	-8.146368250
6	-1.939536560	6.695501630	2.713210830	1	-0.043456050	6.512767010	-6.627708510
1	-1.716871160	6.307310540	3.717496770	6	-3.397704290	4.003124630	-3.526177870
1	-2.218905390	7.759574140	2.787019330	6	-3.214891570	5.515890470	-3.345423770
1	-1.027291960	6.617861880	2.098344350	1	-2.915024580	5.760799030	-2.314457820
6	-4.362335090	6.002837080	2.913455920	1	-4.160793610	6.040127010	-3.561810800
1	-5.169824130	5.398728360	2.469847120	1	-2.440470890	5.894563760	-4.030462430
1	-4.691310240	7.054947130	2.941895560	6	-3.806917890	3.691698920	-4.971281020
1	-4.193480830	5.656749870	3.942704530	1	-3.053500680	4.087305840	-5.666281950
6	-2.316559000	3.771227760	5.958528970	1	-4.779505120	4.153958800	-5.207483610
6	-1.274729940	4.646853940	6.667587040	1	-3.891458820	2.603544690	-5.118014630
1	-0.270150700	4.443199980	6.263155950	6	-4.472548860	3.476443920	-2.565760420
1	-1.267295560	4.448724690	7.751437180	1	-4.544813560	2.379129530	-2.637460840
1	-1.502120570	5.712971910	6.507532060	1	-5.457557590	3.909172070	-2.805026080
6	-3.726310250	4.074624030	6.487887580	1	-4.241879290	3.743047670	-1.520148500
1	-3.951361380	5.147942020	6.379397810	6	-3.484155630	-5.019027760	2.620265650
1	-3.808827470	3.809885200	7.554851850	6	-3.701893590	-5.59059880	1.215621470
1	-4.469924840	3.500427540	5.914853080	1	-4.020154320	-4.809594590	0.509032960
6	-1.981878090	2.287174620	6.168859850	1	-4.486627020	-6.369297340	1.228163100
1	-2.716234390	1.645417560	5.655732720	1	-2.773526020	-6.058291080	0.840871610
1	-2.004148390	2.043911910	7.243813290	6	-4.770344750	-4.360849910	3.136231470
1	-0.978279600	2.055818280	5.778869820	1	-4.583021050	-3.906733920	4.120335360
6	-5.042164670	1.788423480	2.774339870	1	-5.579059580	-5.104895190	3.227974000
6	-6.458592080	2.342248180	2.987890860	1	-5.103057980	-3.571701320	2.442427420
1	-6.673104190	2.426588120	4.064716150	6	-3.029747640	-6.137251700	3.566455490

1	-2.099236100	-6.600612390	3.203007470
1	-3.806065650	-6.918286210	3.622998620
1	-2.851741410	-5.740883570	4.575680570
6	-2.105892840	-3.123380170	6.442083240
6	-3.390715380	-2.599105120	7.097287510
1	-3.682772840	-1.638499240	6.643488520
1	-3.247305180	-2.450675710	8.179610270
1	-4.212981890	-3.316920030	6.947471180
6	-1.709005990	-4.479190240	7.045327910
1	-2.539963470	-5.197063190	6.952509120
1	-1.461411910	-4.373845770	8.114457960
1	-0.834945650	-4.882047640	6.511596740
6	-0.969378070	-2.108429990	6.632481130
1	-0.046345580	-2.464780630	6.146900660
1	-0.760508700	-1.971310170	7.706140650
1	-1.242564530	-1.131101870	6.204234820
6	0.984504860	-4.779049910	3.397286340
6	0.988037710	-6.304414730	3.579481990
1	0.942235210	-6.559313760	4.649909490
1	1.902359180	-6.747632740	3.151231870
1	0.117151430	-6.756759210	3.078781990
6	2.203748930	-4.170856230	4.101162590
1	2.205131830	-3.073654370	4.006609940
1	3.146380370	-4.552737470	3.673909240
1	2.180513080	-4.426607890	5.172129540
6	0.989083220	-4.432923850	1.902349910
1	0.140163210	-4.922397610	1.394876390
1	1.916778580	-4.798814990	1.430443360
1	0.914157040	-3.343861980	1.743480500
19	-1.592559290	3.353988020	-0.256557640
19	-1.855526730	-2.713276160	0.132307210
1	1.117826160	-2.615664690	-3.103061500
1	-2.854485590	-0.044171420	-1.716953550
1	1.435116080	2.170569830	-3.521970520
1	2.129816870	-1.299459940	2.991826690
1	-0.474806130	-1.141111880	3.875994350
1	-0.400929090	2.490607010	2.874032910
1	1.003823780	-1.339630030	-4.355241780
1	-2.238812130	0.216042860	-3.352344620
1	0.136404950	1.412717910	-4.497825530
1	1.796038210	0.275533510	3.704984030
1	-1.528558820	1.198351540	3.337360670
1	-2.017210550	-1.060727520	3.023223370

Product –HS

94	0.004528700	0.070426080	-1.906598840
94	-0.123483600	0.082127440	1.413643520
14	-2.820210340	-2.572760520	-3.328030120
14	3.726647340	0.235800380	3.376282620
6	-1.755602000	-1.093043570	-3.278497790
8	-3.899674350	-2.634352120	-2.007680900
8	-3.719138590	-2.939393380	-4.706219870
8	-1.822922360	-3.890777130	-2.948511020
6	2.021272430	-0.070425610	2.748691790
8	4.788190790	-0.444306640	2.227791600
8	4.146969690	-0.545840630	4.805793380
8	4.098909210	1.840621680	3.690447670
6	-5.166401470	-1.956728940	-1.786583660
6	-5.471324790	-2.124092740	-0.293691450
1	-5.515135050	-3.192746860	-0.031514560
1	-6.441712130	-1.667233840	-0.039461960
1	-4.694847920	-1.641072180	0.323344850
6	-5.058626430	-0.463840250	-2.124084520
1	-4.238354100	0.003141460	-1.555490810
1	-5.999950780	0.052086730	-1.870075650
1	-4.869585400	-0.312013630	-3.198059410
6	-6.257909490	-2.639790420	-2.621057060
1	-6.009380950	-2.591956000	-3.690997630
1	-7.235504290	-2.158382030	-2.453139720
1	-6.339498080	-3.702442390	-2.338715880

6	-3.801253470	-2.362263420	-6.033893910
6	-4.390051750	-0.946045430	-5.964208320
1	-5.383636880	-0.961724820	-5.489041010
1	-4.499799380	-0.525693060	-6.977324520
1	-3.726225830	-0.284427290	-5.385295970
6	-2.426693480	-2.320558720	-6.716240160
1	-1.733788080	-1.676463780	-6.153399240
1	-2.522910950	-1.917029160	-7.737261190
1	-1.989350090	-3.328191490	-6.783416080
6	-4.746339240	-3.286519010	-6.814410090
1	-4.333131230	-4.306630670	-6.859630820
1	-4.888456380	-2.919603260	-7.843375760
1	-5.728983680	-3.334190610	-6.319047210
6	-1.898329720	-5.297762720	-3.301644010
6	-3.330905570	-5.832841610	-3.182128100
1	-3.716303320	-5.694609850	-2.159890190
1	-3.356871860	-6.909299270	-3.420510550
1	-3.997344650	-5.302339780	-3.879722560
6	-1.372137810	-5.484233460	-4.730488960
1	-2.041597950	-4.986035510	-5.445829330
1	-1.315551600	-6.554424080	-4.989603170
1	-0.364671990	-5.046133530	-4.823623820
6	-0.971199580	-6.020322340	-2.314831840
1	0.044681680	-5.595174650	-2.365246070
1	-0.912202950	-7.096003180	-2.547781450
1	-1.345670120	-5.922740790	-1.282134230
6	6.156146310	-0.923809050	2.421199970
6	6.794289750	-0.947478710	1.028521560
1	6.216960880	-1.584215090	0.337408110
1	7.819789820	-1.349543860	1.077202290
1	6.847253630	0.070422420	0.610134400
6	6.096698020	-2.340617300	3.006480430
1	5.584365430	-2.318594310	3.979661320
1	7.111708060	-2.750309520	3.140386450
1	5.539679520	-3.010555480	2.330194040
6	6.958886320	0.012919920	3.332727250
1	6.967167510	1.036611800	2.926025990
1	8.001093250	-0.339685910	3.406027450
1	6.522887610	0.040984140	4.340733360
6	3.846695820	-0.232986610	6.187152430
6	3.940469730	-1.566539430	6.940219190
1	3.199168710	-2.279318420	6.545603950
1	3.755010910	-1.422134260	8.016591090
1	4.943594530	-2.003937720	6.812785080
6	4.896925240	0.755908510	6.715066510
1	5.904088620	0.312434990	6.657240310
1	4.693780570	1.013535250	7.767533010
1	4.881637090	1.674142380	6.109048040
6	2.438296410	0.359070940	6.342477990
1	2.355514320	1.312123810	5.795307360
1	2.224521780	0.553902410	7.406089180
1	1.677922850	-0.338937800	5.957537390
6	3.938626410	3.090329510	2.982339290
6	5.270894840	3.839917640	3.130909270
1	5.525784580	3.955559240	4.196067640
1	5.211317120	4.840465050	2.671930430
1	6.083273830	3.280672140	2.639155950
6	2.814407420	3.873905880	3.672955220
1	1.858427840	3.331361480	3.597736100
1	2.681553460	4.866669430	3.211415780
1	3.051116570	4.015513480	4.739222540
6	3.618026350	2.881138670	1.498307300
1	4.428632130	2.317390630	1.007655560
1	3.524509860	3.853465160	0.987120260
1	2.670723000	2.331727670	1.369573950
7	0.381382560	-1.097809030	-0.213460920
7	0.146058720	1.544322820	-0.208413930
7	-1.164678640	1.043525570	-0.332918470
14	3.703531420	-1.148324390	-3.345775290
14	-2.136848710	3.205797570	3.562642830

6	1.891091730	-0.974849620	-3.240629420	1	-2.368721350	1.567900850	6.039252350
8	4.284331130	-2.262560550	-2.187495110	1	-1.648184140	1.890405600	7.640178890
8	4.455883910	-1.509362300	-4.810290240	1	-0.600797450	1.821519380	6.194458480
8	4.356956550	0.291018720	-2.738047040	6	-4.685031150	1.916523840	3.193504590
6	-0.953155060	1.900866760	3.017844560	6	-6.046465850	2.559796440	3.495899300
8	-2.137962200	4.444306280	2.381972620	1	-6.214330280	2.600114100	4.583544730
8	-1.697520430	4.021512250	4.970008730	1	-6.863645290	1.981295350	3.034863420
8	-3.704582340	2.708089570	3.899613490	1	-6.082884320	3.588383020	3.102119540
6	4.387408200	-3.710737540	-2.215958110	6	-4.640780460	0.492580520	3.762150780
6	4.692532380	-4.135889510	-0.773852610	1	-3.655886470	0.032524730	3.586162250
1	5.619315470	-3.657507980	-0.419560560	1	-5.407521720	-0.147793370	3.294834330
1	4.822151690	-5.228648290	-0.708156250	1	-4.825180260	0.516894610	4.847826860
1	3.865351980	-3.853342820	-0.100089300	6	-4.432468920	1.909054850	1.680553970
6	3.066020860	-4.347097250	-2.666496010	1	-4.492040780	2.936202920	1.281711740
1	2.239306540	-4.009193080	-2.020271780	1	-5.194331580	1.301299940	1.165204760
1	3.130465410	-5.446471890	-2.607194500	1	-3.437932570	1.493807700	1.444175480
1	2.826252120	-4.075383600	-3.706267300	19	3.276825900	-0.668096010	-0.072645070
6	5.543103840	-4.124657870	-3.136836090	14	-0.778208170	3.602341390	-3.602495570
1	5.364179590	-3.764269030	-4.160225860	14	-1.720352390	-3.414649090	3.361149720
1	5.654195510	-5.221470460	-3.152742220	6	0.001136410	1.946665860	-3.617175890
1	6.488313700	-3.683083090	-2.780539830	8	-0.170634960	4.632302790	-2.385638550
6	3.971797110	-1.635032640	-6.171677030	8	-0.794962950	4.512761470	-5.025183980
6	2.983194720	-2.804143500	-6.281790060	8	-2.373388730	3.443439970	-3.054489920
1	3.463047530	-3.746433040	-5.972424740	6	-1.459489940	-1.725858040	2.664637600
1	2.639196610	-2.920268940	-7.322632850	8	-2.561045880	-4.274184350	2.150724820
1	2.104543020	-2.624082730	-5.641894530	8	-2.720979500	-3.505787320	4.710628890
6	3.305226710	-0.335997230	-6.647623810	8	-0.352466290	-4.243433370	3.870601230
1	2.420098330	-0.103177980	-6.035827930	6	1.065137390	5.384660710	-2.279946260
1	2.981203030	-0.438056520	-7.696116170	6	1.188715670	5.775026250	-0.800475970
1	4.004798050	0.510889020	-6.582540350	1	0.315581160	6.371697230	-0.485785810
6	5.221287730	-1.919676010	-7.016698990	1	2.090833740	6.385255570	-0.630311300
1	5.939902590	-1.089530910	-6.928344130	1	1.262252780	4.874010120	-0.167382260
1	4.954150540	-2.041468800	-8.078507000	6	2.272666500	4.527974250	-2.680423070
1	5.715159380	-2.841436170	-6.670584990	1	2.300877370	3.606882200	-2.076653440
6	5.648092020	0.924087300	-2.952822670	1	3.208609190	5.087232840	-2.515205730
6	6.790950520	-0.098509740	-2.918923040	1	2.227071630	4.249616400	-3.744545070
1	6.800096240	-0.642808240	-1.962152970	6	0.965885310	6.645227190	-3.149190370
1	7.761324050	0.411500650	-3.039598970	1	0.805585540	6.372322980	-4.202411660
1	6.676640670	-0.829212550	-3.734866560	1	1.884042040	7.250226540	-3.067652920
6	5.627774680	1.660312420	-4.298558420	1	0.111493550	7.263006160	-2.826067090
1	5.547885720	0.937219730	-5.122541450	6	-0.363302760	4.266253390	-6.386101130
1	6.551037060	2.247278010	-4.435077820	6	1.155421020	4.047272840	-6.437572930
1	4.765576910	2.345788690	-4.341336390	1	1.686275830	4.918609240	-6.022392240
6	5.800376250	1.939369470	-1.813822520	1	1.488249340	3.906037760	-7.478837980
1	4.956666580	2.648005430	-1.821040580	1	1.432066610	3.151642690	-5.859189240
1	6.738354070	2.509187590	-1.917459490	6	-1.085828290	3.054578790	-6.992995860
1	5.819801250	1.427318370	-0.838385710	1	-0.847423860	2.138668430	-6.431118460
6	-2.471622650	5.855948740	2.562047630	1	-0.770199490	2.910129570	-8.039063360
6	-2.761756230	6.417045020	1.162225800	1	-2.176612450	3.198751480	-6.978750430
1	-1.866436490	6.373368140	0.517327780	6	-0.736871210	5.538045610	-7.161158170
1	-3.058203480	7.476321590	1.227146350	1	-1.824666080	5.706684390	-7.118851200
1	-3.590381720	5.867622770	0.681746820	1	-0.435951440	5.453947560	-8.217602050
6	-1.261494180	6.576540330	3.170649200	1	-0.235058730	6.414554300	-6.721366580
1	-1.035767920	6.149872520	4.158250060	6	-3.567699180	4.220678190	-3.331218470
1	-1.461756710	7.655935130	3.275225270	6	-3.291816840	5.728175300	-3.246402050
1	-0.377124520	6.448203300	2.523832110	1	-2.912154460	6.006473090	-2.249324370
6	-3.717522220	6.034599920	3.439412850	1	-4.218167130	6.297223030	-3.432014850
1	-4.581975390	5.511880770	2.999850480	1	-2.541215510	6.024290360	-3.995901170
1	-3.966111350	7.105705330	3.523729520	6	-4.101855100	3.852445350	-4.721744150
1	-3.541834310	5.632621070	4.446238470	1	-3.384097460	4.164243210	-5.492944340
6	-1.788748390	3.646164480	6.364077970	1	-5.065636040	4.351782540	-4.915108020
6	-0.671916670	4.422765160	7.074546800	1	-4.250224600	2.762543670	-4.792730430
1	0.309982990	4.131847930	6.668459100	6	-4.591938360	3.803960160	-2.266511640
1	-0.681476070	4.220157870	8.157556660	1	-4.715240100	2.708969400	-2.264881580
1	-0.804292160	5.505456710	6.919817790	1	-5.571071700	4.270153890	-2.462618470
6	-3.164414110	4.070169560	6.901064500	1	-4.274461300	4.117821970	-1.257230890
1	-3.293033380	5.160388750	6.805246810	6	-3.533280760	-5.355342320	2.286374640
1	-3.266881020	3.803194770	7.965687880	6	-3.707411340	-5.930114690	0.876514410
1	-3.958012970	3.569919860	6.325817200	1	-4.052630900	-5.149355430	0.177816140
6	-1.587538980	2.137525950	6.567725100	1	-4.453848360	-6.741356170	0.872217800

1	-2.753934840	-6.343270110	0.506875680	8	4.415463130	-4.879239730	0.844625210
6	-4.863155570	-4.781046080	2.792944170	8	5.435943160	-2.542030930	1.488455070
1	-4.721650280	-4.336984870	3.788397040	6	3.222169820	1.641534680	-1.274358420
1	-5.627789950	-5.573212580	2.850965260	8	4.593144080	4.319520640	-1.214457760
1	-5.225941850	-3.996782410	2.109371770	8	2.004042200	4.190226600	-1.622231430
6	-3.020233760	-6.447723570	3.232079560	8	3.861745180	3.414171250	-3.587043260
1	-2.068810140	-6.863562730	2.864663920	6	-2.521450590	-1.903928680	1.679134370
1	-3.753777360	-7.268768170	3.292735770	8	-1.696826880	-4.580162930	2.027080200
1	-2.859773230	-6.041810290	4.240925320	8	-4.466344830	-4.192352590	1.957205580
6	-2.459673910	-3.278823830	6.115280330	6	-1.154095720	2.381208450	2.727860890
6	-3.803022420	-2.849686600	6.720607280	8	0.205630720	2.096727540	5.346034290
1	-4.154840210	-1.922434890	6.241093320	8	-0.665908830	4.518421760	4.811089370
1	-3.706658410	-2.674886760	7.804151090	8	1.304887870	3.656032330	3.273535100
1	-4.560158330	-3.633104330	6.557595570	6	-3.655794340	1.134952120	-0.189326670
6	-1.980499060	-4.594241470	6.747267180	8	-5.789263900	2.954632020	-1.375596330
1	-2.747069320	-5.376623740	6.626336690	8	-3.554216300	4.054387380	-0.407855780
1	-1.787375170	-4.462701010	7.824616340	8	-3.366292180	2.528928160	-2.623933270
1	-1.055525980	-4.927956310	6.253510000	7	-0.001909330	0.181855070	-0.096334890
6	-1.412119590	-2.176518710	6.329754980	6	-2.840494100	-1.762902270	-5.288172090
1	-0.453383830	-2.458137730	5.865112510	6	-2.819814470	-0.780879610	-6.466548650
1	-1.240237670	-2.021397450	7.407402680	1	-3.703036150	-0.926439750	-7.110279470
1	-1.754142980	-1.224047700	5.895119220	1	-2.830214950	0.260344890	-6.103605850
6	0.873194270	-4.721388770	3.278260000	1	-1.906152290	-0.932539840	-7.059249900
6	0.936031980	-6.234670730	3.535473210	6	-4.060387520	-1.501853140	-4.394069010
1	0.848498260	-6.441093330	4.613656830	1	-4.995845920	-1.674799850	-4.951028000
1	1.890273570	-6.652831230	3.174091210	1	-4.050842010	-2.172923450	-3.518892520
1	0.113451920	-6.751374640	3.016251440	1	-4.079282430	-0.457188110	-4.039375660
6	2.028286000	-4.025063980	4.008410460	6	-2.875932770	-3.209446750	-5.797078070
1	1.980687500	-2.934148110	3.865884100	1	-3.790024810	-3.372109030	-6.391876740
1	3.005945740	-4.377210450	3.639143920	1	-2.002875550	-3.424853870	-6.429703240
1	1.969295500	-4.235291320	5.087962920	1	-2.878896360	-3.918636520	-4.954886870
6	0.938485730	-4.446137880	1.770566530	6	0.095943510	-4.630115460	-3.363374210
1	0.128846540	-4.989587440	1.252986630	6	-0.711294200	-4.085765600	-2.180284110
1	1.896419440	-4.806095810	1.359173140	1	-0.688629830	-4.791461950	-1.333588400
1	0.846486290	-3.368715360	1.552613450	1	-0.305368550	-3.116743700	-1.839653080
19	-1.563207330	3.658262730	-0.191099490	1	-1.763581880	-3.932352770	-2.470135110
19	-1.730752870	-3.007801520	-0.192251770	6	-0.515536310	-5.948951760	-3.858065610
1	1.405600130	-1.972987270	-3.229180820	1	-0.476183180	-6.717217100	-3.068622030
1	-2.366375990	-0.168952650	-3.360790750	1	-1.567550680	-5.801386370	-4.149211700
1	1.104813000	2.036981260	-3.666481790	1	0.038571170	-6.318929730	-4.735087360
1	1.848406210	-1.166641800	2.875842080	6	1.564251630	-4.850279980	-2.975916440
1	-1.146387610	-1.132398130	3.555826660	1	1.651086750	-5.565692660	-2.141118120
1	0.039516720	2.405208370	2.991513770	1	2.125973200	-5.248062490	-3.836167790
1	1.521886030	-0.431358300	-4.135721800	1	2.029525630	-3.902202160	-2.663087140
1	-1.082070860	-1.123397840	-4.161873770	6	1.203834640	-2.326596770	-7.185356550
1	-0.335093720	1.368909770	-4.500416500	6	0.727495970	-3.671990790	-7.753010400
1	1.391639390	0.412870220	3.532832580	1	1.468817010	-4.084159340	-8.457233920
1	-0.912771610	1.202465880	3.883212310	1	0.573992680	-4.388563120	-6.932144790
1	-2.486988160	-1.357161150	2.434869170	1	-0.225522500	-3.541648440	-8.290866680

Uranium-CH₂ Species

Reactant -LS

92	1.737476810	-0.438083730	-1.119860440
92	-1.644675390	0.404330060	1.198545810
19	0.455442280	-2.709504390	1.900084750
19	1.091051350	2.890965000	0.646357170
19	-1.657734500	0.387346340	-2.527477500
14	-0.067233110	-2.061233510	-4.646479550
14	3.966815050	-3.294972110	1.193295120
14	3.442753610	3.341629200	-1.964124030
14	-0.114522260	3.122419920	4.054204150
14	-4.148034020	2.652509820	-1.111926130
6	0.949179100	-1.063976080	-3.472041450
8	-1.673065710	-1.517507990	-4.444966060
8	0.056291860	-3.727403120	-4.491111440
8	0.188253260	-1.814187700	-6.291319370
6	2.871100760	-2.442969910	-0.025708000
8	3.039749250	-3.491338330	2.614801770

8	4.415463130	-4.879239730	0.844625210
8	5.435943160	-2.542030930	1.488455070
6	3.222169820	1.641534680	-1.274358420
8	4.593144080	4.319520640	-1.214457760
8	2.004042200	4.190226600	-1.622231430
8	3.861745180	3.414171250	-3.587043260
6	-2.521450590	-1.903928680	1.679134370
8	-1.696826880	-4.580162930	2.027080200
8	-4.466344830	-4.192352590	1.957205580
6	-1.154095720	2.381208450	2.727860890
8	0.205630720	2.096727540	5.346034290
8	-0.665908830	4.518421760	4.811089370
8	1.304887870	3.656032330	3.273535100
6	-3.655794340	1.134952120	-0.189326670
8	-5.789263900	2.954632020	-1.375596330
8	-3.554216300	4.054387380	-0.407855780
8	-3.366292180	2.528928160	-2.623933270
7	-0.001909330	0.181855070	-0.096334890
6	-2.840494100	-1.762902270	-5.288172090
6	-2.819814470	-0.780879610	-6.466548650
1	-3.703036150	-0.926439750	-7.110279470
1	-2.830214950	0.260344890	-6.103605850
1	-1.906152290	-0.932539840	-7.059249900
6	-4.060387520	-1.501853140	-4.394069010
1	-4.995845920	-1.674799850	-4.951028000
1	-4.050842010	-2.172923450	-3.518892520
1	-4.079282430	-0.457188110	-4.039375660
6	-2.875932770	-3.209446750	-5.797078070
1	-3.790024810	-3.372109030	-6.391876740
1	-2.002875550	-3.424853870	-6.429703240
1	-2.878896360	-3.918636520	-4.954886870
6	0.095943510	-4.630115460	-3.363374210
6	-0.711294200	-4.085765600	-2.180284110
1	-0.688629830	-4.791461950	-1.333588400
1	-0.305368550	-3.116743700	-1.839653080
1	-1.763581880	-3.932352770	-2.470135110
6	-0.515536310	-5.948951760	-3.858065610
1	-0.476183180	-6.717217100	-3.068622030
1	-1.567550680	-5.801386370	-4.149211700
1	0.038571170	-6.318929730	-4.735087360
6	1.564251630	-4.850279980	-2.975916440
1	1.651086750	-5.565692660	-2.141118120
1	2.125973200	-5.248062490	-3.836167790
1	2.029525630	-3.902202160	-2.663087140
6	1.203834640	-2.326596770	-7.185356550
6	0.727495970	-3.671990790	-7.753010400
1	1.468817010	-4.084159340	-8.457233920
1	0.573992680	-4.388563120	-6.932144790
1	-0.225522500	-3.541648440	-8.290866680
6	2.554636900	-2.497136690	-6.476341000
1	3.315317710	-2.854830790	-7.189353720
1	2.896881740	-1.539539310	-6.053572140
1	2.475103520	-3.233246540	-5.660630100
6	1.327731410	-1.286323430	-8.306698060
1	2.068892160	-1.603610000	-9.057653900
1	0.356255310	-1.149123920	-8.808106150
1	1.639695060	-0.314692730	-7.890245720
6	3.376863780	-4.265659320	3.811300620
6	2.470009480	-3.725978090	4.924545170
1	2.634861820	-4.279493090	5.863311690
1	2.680095660	-2.660495170	5.111021330
1	1.404138240	-3.834542240	4.660652250
6	3.090176780	-5.750610180	3.557328800
1	3.322370490	-6.346409440	4.455544290
1	2.029033790	-5.907651660	3.310373540
1	3.698311940	-6.106873660	2.714003760
6	4.844312600	-4.073658800	4.215767270
1	5.045245990	-4.627815640	5.147672810
1	5.523870280	-4.443909320	3.434765730
1	5.063828160	-3.009330630	4.392122100

6	5.434194740	-5.416519220	-0.030945060	6	-5.955493620	-2.826728930	0.599256600
6	4.955894700	-6.826771610	-0.401553530	1	-6.577374380	-2.804922220	-0.311136690
1	5.688364670	-7.331642470	-1.051556330	1	-6.611053010	-2.668538000	1.470263970
1	4.816561550	-7.433387810	0.507650570	1	-5.235381820	-1.994738710	0.548851600
1	3.991067040	-6.773440380	-0.931636340	6	-4.318235820	-4.401692910	-0.495173190
6	6.760997380	-5.485449560	0.739726680	1	-4.919109120	-4.432654570	-1.419390360
1	7.556249330	-5.919541030	0.111620560	1	-3.575906840	-3.594219600	-0.593605640
1	7.061804620	-4.475064150	1.054548160	1	-3.776066580	-5.355983100	-0.403855960
1	6.645991800	-6.114593570	1.637216040	6	-1.484494960	-5.973228890	2.411558000
6	5.597783730	-4.569793950	-1.300965480	6	-0.414527440	-6.505196880	1.449760620
1	6.354166390	-5.021469490	-1.963509510	1	-0.780204640	-6.460086060	0.411308900
1	4.645840590	-4.508202680	-1.851534160	1	0.515149600	-5.916355630	1.516628790
1	5.927425600	-3.549256540	-1.049340450	1	-0.164114980	-7.552831340	1.683663210
6	5.859789530	-1.173385750	1.669985910	6	-2.760691510	-6.813464520	2.269273590
6	7.117846010	-1.234143490	2.548840840	1	-3.132328890	-6.785656800	1.233580290
1	7.531774440	-0.224794440	2.705055120	1	-2.539902460	-7.861938770	2.529125390
1	6.881584010	-1.670698680	3.531720500	1	-3.558081370	-6.447536880	2.932099980
1	7.887229290	-1.858130430	2.067552150	6	-0.989365920	-6.023835780	3.862637920
6	6.213980640	-0.591499240	0.296555240	1	-0.782507880	-7.063001280	4.167372580
1	6.605540910	0.433636710	0.394754070	1	-0.059229240	-5.445733660	3.980474860
1	6.982099140	-1.211955120	-0.191965880	1	-1.744899370	-5.590783830	4.534142160
1	5.324465420	-0.558158590	-0.353001020	6	-4.088055110	-3.232265550	5.028123160
6	4.774614120	-0.336342920	2.355519860	6	-5.032840400	-4.437435730	5.141194510
1	5.113115580	0.705962600	2.482225320	1	-5.829984800	-4.238394720	5.876193320
1	3.847418510	-0.334968910	1.757256010	1	-5.487313090	-4.650376220	4.162618270
1	4.539789430	-0.746045790	3.351320150	1	-4.473053120	-5.327892600	5.471062380
6	6.033096460	4.374038130	-1.357270340	6	-3.382539580	-2.980523010	6.366167340
6	6.626529910	3.001286150	-1.699705470	1	-4.115299850	-2.758200800	7.158357600
1	7.725285810	3.066267990	-1.759561870	1	-2.803110610	-3.869229200	6.664392670
1	6.362342660	2.261327020	-0.928783950	1	-2.688384680	-2.130136190	6.277077920
1	6.246505640	2.645757210	-2.670483370	6	-4.859433910	-1.978634270	4.595552580
6	6.565159720	4.854167370	-0.000591180	1	-5.624783550	-1.719557930	5.345280500
1	6.119114210	5.827770670	0.259529890	1	-4.174307630	-1.121275020	4.489590590
1	6.301378060	4.132014340	0.789236380	1	-5.365308170	-2.147098220	3.631645470
1	7.661272820	4.966252820	-0.024850900	6	0.638453800	0.722074830	5.431140410
6	6.376396700	5.388686590	-2.458024270	6	-0.593200380	-0.190480060	5.371727380
1	5.976701480	6.382785470	-2.199201920	1	-0.312136490	-1.247133340	5.518785470
1	7.468435340	5.477460570	-2.581213710	1	-1.310174840	0.090676810	6.159657400
1	5.933894180	5.067264310	-3.413274030	1	-1.101000440	-0.106365580	4.395169740
6	1.712851680	5.616097850	-1.764410830	6	1.625240230	0.371618370	4.312622730
6	2.076610880	6.320898270	-0.452023390	1	2.505460230	1.033233180	4.345709750
1	1.872142630	7.402780670	-0.517325610	1	1.975856840	-0.668186830	4.420743400
1	1.478991940	5.924590610	0.386485880	1	1.150775370	0.476043390	3.320105960
1	3.145313200	6.173782210	-0.231847940	6	1.321236260	0.587421110	6.800385950
6	2.478454990	6.255816480	-2.929278960	1	2.195577670	1.254794910	6.859202210
1	2.193432420	7.317333910	-3.017730110	1	0.619250970	0.863721810	7.602936330
1	3.563961820	6.197121500	-2.765624470	1	1.658308300	-0.448199180	6.971192330
1	2.241028030	5.753503580	-3.878854560	6	-1.644384590	4.719178830	5.857292730
6	0.204891730	5.706545250	-2.023045640	6	-2.791515720	3.703225000	5.766628740
1	-0.112403620	6.758407650	-2.114115000	1	-2.411931540	2.676493320	5.892635140
1	-0.052450230	5.185122850	-2.959068430	1	-3.532757560	3.895372450	6.559539580
1	-0.373038460	5.244689740	-1.204921160	1	-3.299310700	3.775583540	4.791909100
6	3.359718480	2.787895560	-4.787865220	6	-0.940291890	4.607271900	7.217649380
6	3.865030140	3.656988350	-5.948548830	1	-0.136826260	5.357742850	7.292110250
1	3.530544130	3.249032530	-6.915988200	1	-1.651989410	4.778932100	8.041931710
1	3.483910830	4.685720020	-5.850704500	1	-0.498112080	3.605537410	7.327059730
1	4.965735460	3.692978630	-5.944570610	6	-2.185036550	6.139907510	5.647149000
6	1.826899550	2.749254280	-4.785684880	1	-1.362694000	6.871209730	5.699009860
1	1.447113350	2.239274170	-5.686682900	1	-2.656819470	6.221796330	6.454599610
1	1.459193140	2.209667070	-3.896953860	1	-2.930900500	6.394656910	6.417103430
1	1.413808420	3.770268350	-4.761933060	6	2.357555240	4.531926120	3.789378380
6	3.941486430	1.373184350	-4.906353100	6	2.680865780	4.220329840	5.256705090
1	3.641186740	0.909510160	-5.860181970	1	3.501037400	4.871759310	5.601098200
1	5.041917510	1.411393670	-4.868384040	1	1.804176340	4.391808310	5.897670860
1	3.584995280	0.728979810	-4.087070230	1	2.999663030	3.172900040	5.373271390
6	-5.221342210	-4.170110850	0.723538090	6	1.909360850	5.991274800	3.641713720
6	-6.240389680	-5.312710030	0.845244710	1	2.694805600	6.675484450	4.002913550
1	-6.887694080	-5.354284470	-0.045400970	1	1.709400720	6.229882630	2.584763490
1	-5.723126560	-6.278997150	0.949512190	1	0.987551270	6.156451540	4.217720630
1	-6.874758810	-5.160717170	1.732519740	6	3.591937700	4.256174440	2.920954670

1	4.445140090	4.867885580	3.256717160	8	0.035228400	-3.733581940	-4.460535670
1	3.881815940	3.193940300	2.988045100	8	0.299246580	-1.833426870	-6.263937060
1	3.407381780	4.506853640	1.862891330	6	2.775039940	-2.525614520	-0.029191110
6	-6.964735790	2.108842940	-1.411148510	8	3.027770480	-3.480350830	2.639606300
6	-6.734042360	0.848440160	-2.256370150	8	4.315537250	-4.952960270	0.871391260
1	-7.662992460	0.258037560	-2.323601590	8	5.397657000	-2.614982800	1.394073110
1	-6.419697540	1.114828080	-3.277028980	6	3.179024730	1.703755000	-1.222342560
1	-5.958194790	0.211102850	-1.803772360	8	4.557580230	4.382883660	-1.186151760
6	-7.366972830	1.718410550	0.018407910	8	1.972774620	4.252645240	-1.614939490
1	-8.289582140	1.115339990	0.009357360	8	3.846645080	3.442760220	-3.550702380
1	-6.570498870	1.125170050	0.494641390	6	-2.519450880	-1.912642210	1.659815820
1	-7.549159020	2.618925040	0.625784300	8	-1.667183890	-4.574144450	2.026489480
6	-8.066224940	2.970085950	-2.045791050	8	-4.443157740	-4.216643150	1.986558010
1	-9.017425760	2.415991990	-2.090935570	6	-1.185570060	2.374752020	2.740295190
1	-8.220888140	3.886063340	-1.454372980	8	0.238398650	2.076246330	5.322847130
1	-7.784547820	3.263051980	-3.069964250	8	-0.703461680	4.486207680	4.850486890
6	-4.127027710	4.997567610	0.533584670	8	1.253739820	3.695924930	3.257236050
6	-2.958285890	5.872956870	1.004120570	6	-3.651552420	1.129149420	-0.230635020
1	-3.313237760	6.656792390	1.692872810	8	-5.792432560	2.945544420	-1.409040870
1	-2.205443390	5.267833130	1.534850050	8	-3.578881630	4.052153880	-0.398777020
1	-2.477152880	6.359375300	0.140943700	8	-3.352073180	2.566764470	-2.638046950
6	-4.747284270	4.259833400	1.727239250	7	0.005102230	0.244270330	-0.088424100
1	-5.127639670	4.979358340	2.470506930	6	-2.747382910	-1.652578340	-5.347326730
1	-5.587305190	3.627871490	1.399854520	6	-2.658431940	-0.663162680	-6.516234530
1	-3.993733430	3.621588530	2.216368720	1	-3.527717670	-0.771732250	-7.185724340
6	-5.180907350	5.870854470	-0.164533870	1	-2.641545250	0.375136040	-6.145229270
1	-5.625007220	6.579018210	0.553940240	1	-1.734633310	-0.843766290	-7.084721730
1	-4.719433210	6.451974330	-0.978565450	6	-3.982921990	-1.357694800	-4.486060220
1	-5.975122880	5.238477570	-0.587146400	1	-4.907161820	-1.494489530	-5.071160960
6	-3.437081020	3.386540920	-3.803329120	1	-4.021525060	-2.036679900	-3.617790940
6	-3.546054230	4.868457870	-3.427679400	1	-3.977965440	-0.316483740	-4.121281900
1	-3.520390050	5.484155660	-4.342475780	6	-2.818211670	-3.092783100	-5.870318360
1	-4.491617380	5.069054750	-2.903151760	1	-3.719767590	-3.217692090	-6.492710220
1	-2.714944190	5.169411330	-2.773180280	1	-1.935253920	-3.333329940	-6.479630430
6	-2.132093510	3.142815760	-4.573009660	1	-2.870568570	-3.808604240	-5.035601420
1	-2.085306320	3.776086470	-5.473769550	6	-0.002354310	-4.626191270	-3.324085480
1	-1.261761710	3.382110760	-3.940463070	6	-0.794752620	-4.020306540	-2.160888780
1	-2.055928030	2.093891090	-4.908983770	1	-0.824421510	-4.712795360	-1.303714360
6	-4.639887580	2.974023350	-4.660112410	1	-0.341203170	-3.070014790	-1.829054640
1	-4.665655390	3.558399430	-5.594931820	1	-1.832136640	-3.812629500	-2.469851700
1	-4.584268390	1.905451470	-4.925444510	6	-0.685896880	-5.909602010	-3.817357840
1	-5.575669900	3.154752880	-4.110637260	1	-0.705518990	-6.671414100	-3.020999660
14	-2.981730870	-3.533325460	2.410971890	1	-1.722501850	-5.701379760	-4.126079290
8	-3.030889820	-3.542449200	4.086341580	1	-0.142171010	-6.320687580	-4.682455050
1	2.145359230	-3.215111040	-0.388857600	6	1.442407800	-4.932379840	-2.908415170
1	-2.609926860	-2.005120490	0.564759090	1	1.470408350	-5.648923660	-2.070467660
1	-4.064485570	0.230673080	-0.691181320	1	1.994733290	-5.366227640	-3.757168230
1	1.040054670	-0.052154650	-3.937915490	1	1.956576930	-4.012633760	-2.588221750
1	3.557096260	1.670619150	-0.206410820	6	1.326568220	-2.380427200	-7.123962420
1	-1.502184190	3.211587380	2.067258000	6	0.826183610	-3.712499940	-7.702204050
1	-4.212522390	1.188728140	0.781276310	1	1.576713470	-4.151487470	-8.379969280
1	1.982675370	-1.486781150	-3.587021790	1	0.622799820	-4.419923570	-6.884188920
1	3.552511760	-2.305759970	-0.911928500	1	-0.103922260	-3.554468100	-8.271747940
1	-3.392479970	-1.258957880	1.984201880	6	2.648326010	-2.590273250	-6.372131850
1	4.015529130	1.030528840	-1.770968590	1	3.419987790	-2.971824010	-7.060577570
1	-2.088487500	2.052860450	3.257115700	1	3.005741920	-1.642751140	-5.939131310
Reactant -HS				1	2.521181500	-3.322564460	-5.559004980
92	1.743320800	-0.416090790	-1.091007690	6	1.517984600	-1.348730750	-8.243639990
92	-1.661097260	0.411529320	1.191142920	1	2.271594650	-1.692027580	-8.970345500
19	0.450585340	-2.680413150	1.961497440	1	0.567297430	-1.182834990	-8.775261580
19	1.017437820	2.945288830	0.626856150	1	1.847861450	-0.385979330	-7.820421600
19	-1.591674300	0.459555720	-2.550439960	6	3.395499240	-4.212141770	3.853795210
14	-0.010517120	-2.064641230	-4.626659100	6	2.509642040	-3.639495250	4.967508790
14	3.905542820	-3.349515270	1.178570700	1	2.699273630	-4.158570000	5.921114560
14	3.412502200	3.393614000	-1.930239180	1	2.715465600	-2.566707470	5.112127580
14	-0.136168090	3.117022280	4.057432840	1	1.439093060	-3.765629290	4.730765010
14	-4.151253510	2.656037230	-1.132176170	6	3.112036100	-5.707064570	3.661698060
6	1.021640270	-1.112910560	-3.428511670	1	3.371136240	-6.266993960	4.575506230
8	-1.596310300	-1.452565440	-4.469374280	1	2.045838500	-5.878685900	3.448523600
				1	3.699860160	-6.091734310	2.816678310

6	4.870557620	-3.996787080	4.216571750	6	-6.229593180	-5.356159140	0.914724480
1	5.097433910	-4.513908040	5.163699800	1	-6.895696400	-5.405446550	0.038474330
1	5.534196720	-4.391731800	3.433914930	1	-5.699677450	-6.316678040	1.008259260
1	5.086958520	-2.925027550	4.347156190	1	-6.846042540	-5.210112810	1.815527130
6	5.299435450	-5.539234760	-0.012368230	6	-5.975754060	-2.867263130	0.660177810
6	4.790595140	-6.955858610	-0.311564500	1	-6.618027370	-2.853726480	-0.236029120
1	5.492859580	-7.495067090	-0.967282100	1	-6.613100440	-2.713894190	1.545450470
1	4.677150060	-7.525376800	0.624859160	1	-5.265235670	-2.028336990	0.591270890
1	3.807877770	-6.909390170	-0.808318630	6	-4.347209730	-4.425829380	-0.468179710
6	6.648752970	-5.598062750	0.718995510	1	-4.967680030	-4.462736060	-1.379081170
1	7.417079090	-6.070421480	0.085001450	1	-3.616152860	-3.610366750	-0.582274630
1	6.974463950	-4.580802930	0.982518090	1	-3.793714410	-5.374516260	-0.388568340
1	6.552878660	-6.188172070	1.644840210	6	-1.434274370	-5.964388630	2.408450210
6	5.434584230	-4.745523180	-1.319404960	6	-0.333316120	-6.468425570	1.466693040
1	6.164379220	-5.233207400	-1.986172610	1	-0.676217740	-6.420062820	0.420585760
1	4.467041170	-4.692647720	-1.842842610	1	0.584856360	-5.865195060	1.559533600
1	5.784709070	-3.720575440	-1.118612660	1	-0.070214680	-7.513741690	1.696764250
6	5.857043400	-1.249485270	1.494083030	6	-2.691298530	-6.826828080	2.232918090
6	7.156796810	-1.301261240	2.310822710	1	-3.040635550	-6.797205860	1.189389520
1	7.597438570	-0.295494840	2.404126080	1	-2.457187490	-7.873159030	2.489283830
1	6.961822990	-1.692741550	3.321395380	1	-3.509343760	-6.479964730	2.880753160
1	7.888817070	-1.960463900	1.818321040	6	-0.968376540	-6.015900570	3.869256710
6	6.152783770	-0.735109340	0.080417990	1	-0.740731000	-7.052311280	4.168409280
1	6.556175390	0.289467820	0.109618760	1	-0.056349540	-5.414552680	4.011785930
1	6.891588890	-1.386507520	-0.412887510	1	-1.747402580	-5.608643710	4.529763170
1	5.235945960	-0.724442760	-0.532256570	6	-4.032636380	-3.213681390	5.041496600
6	4.826091360	-0.361664600	2.198857860	6	-4.969717050	-4.422196780	5.179816030
1	5.193996880	0.675634410	2.272920300	1	-5.758041580	-4.219206880	5.923215190
1	3.870157690	-0.356482030	1.646587540	1	-5.435857530	-4.648088950	4.209685370
1	4.630121640	-0.731229040	3.218686510	1	-4.401181480	-5.306499220	5.511415170
6	5.998548480	4.431886910	-1.314993870	6	-3.310875250	-2.944393780	6.367351920
6	6.593043690	3.044677190	-1.590230350	1	-4.034032790	-2.715322730	7.166461080
1	7.692727910	3.103841640	-1.638969040	1	-2.724342550	-3.827507950	6.668267570
1	6.315928560	2.341351110	-0.789912840	1	-2.620896900	-2.092759280	6.259384990
1	6.224029260	2.646129790	-2.548603000	6	-4.815642100	-1.968328600	4.605993110
6	6.515535660	4.968082780	0.026458590	1	-5.570145160	-1.702846710	5.364451200
1	6.067102310	5.951655660	0.240913420	1	-4.135681560	-1.109663900	4.478546440
1	6.242864800	4.279226430	0.842496570	1	-5.335975120	-2.150173320	3.652297650
1	7.611868030	5.079268740	0.009564480	6	0.719649350	0.716125800	5.368548520
6	6.357350300	5.398528130	-2.453355580	6	-0.484626350	-0.233744330	5.338440500
1	5.958327220	6.403699140	-2.240262990	1	-0.167285680	-1.283429590	5.461720180
1	7.450987300	5.478717010	-2.567889160	1	-1.180847160	0.014160060	6.155549770
1	5.923390780	5.039213740	-3.398809730	1	-1.029433510	-0.150873130	4.381662910
6	1.692866460	5.678927510	-1.773815290	6	1.675145770	0.414326660	4.208789330
6	2.079161720	6.401441820	-0.477720230	1	2.536117160	1.101648110	4.220671680
1	1.881061340	7.483548870	-0.557139830	1	2.061628950	-0.615452000	4.286454500
1	1.490028670	6.020727760	0.373789600	1	1.161440030	0.520254920	3.236112330
1	3.149145140	6.248413910	-0.269152960	6	1.455887000	0.580579590	6.709690030
6	2.448227210	6.291761850	-2.959619800	1	2.311222800	1.273487530	6.749647870
1	2.172896670	7.354630060	-3.061863670	1	0.775411390	0.821606360	7.541587920
1	3.535423280	6.224599820	-2.810776390	1	1.830567670	-0.446669700	6.850158610
1	2.191746120	5.776369150	-3.897361530	6	-1.671070910	4.644999320	5.913753270
6	0.182574650	5.779498030	-2.014151820	6	-2.792623370	3.600642420	5.824695010
1	-0.125852910	6.832492510	-2.120620440	1	-2.384540260	2.582298310	5.928145610
1	-0.092757340	5.243520760	-2.936680920	1	-3.525599600	3.760758750	6.632330310
1	-0.388688810	5.339569130	-1.179377080	1	-3.317941450	3.674676830	4.859397290
6	3.358821640	2.790801830	-4.743482050	6	-0.943307840	4.530896810	7.261472160
6	3.844845900	3.655316830	-5.915822460	1	-0.162182430	5.304425850	7.338290820
1	3.521542540	3.225938100	-6.877828960	1	-1.647425860	4.665645940	8.098975380
1	3.439632190	4.676128440	-5.833225980	1	-0.468847430	3.541524670	7.346268900
1	4.944402940	3.717092840	-5.911090390	6	-2.251869870	6.054002070	5.734205710
6	1.827041510	2.718816480	-4.741020130	1	-1.447586690	6.805316330	5.783047540
1	1.458473480	2.190491820	-5.636155530	1	-2.742728750	6.138053810	4.751110580
1	1.470876790	2.182074290	-3.845487190	1	-2.990658800	6.278159160	6.520360710
1	1.392656310	3.731136680	-4.728648990	6	2.295038410	4.589640080	3.765210790
6	3.973056580	1.388326930	-4.843415870	6	2.633098960	4.289495460	5.231541830
1	3.677369020	0.901249170	-5.787050390	1	3.467037460	4.933082940	5.557154620
1	5.072497420	1.453695460	-4.814218520	1	1.767034480	4.484381870	5.880491960
1	3.639184460	0.749202180	-4.010425030	1	2.934706890	3.238807780	5.358600640
6	-5.225601460	-4.203049540	0.769726120	6	1.818063700	6.039840500	3.617796410

1	2.592955130	6.740567060	3.970130890	6	2.017064210	-0.087815350	2.731378350
1	1.602974030	6.272039950	2.562365710	8	4.788145360	-0.398461810	2.229085350
1	0.898795570	6.188402290	4.202633060	8	4.137943290	-0.468936190	4.809211320
6	3.528247780	4.333672570	2.889298530	8	4.042393680	1.893785750	3.653690660
1	4.370868140	4.965357460	3.214541870	6	-5.071020780	-1.894066520	-1.700740600
1	3.840976960	3.278194100	2.961111120	6	-5.289104920	-1.987124020	-0.186395010
1	3.331155550	4.572558190	1.830960840	1	-5.325074750	-3.041060630	0.131025010
6	-6.959688620	2.089449450	-1.464734270	1	-6.239889350	-1.509332740	0.100642990
6	-6.707949740	0.839263150	-2.319010520	1	-4.474726450	-1.482158120	0.359632020
1	-7.629910950	0.239812450	-2.400367880	6	-4.968480530	-0.419840600	-2.112919760
1	-6.386802480	1.118350120	-3.334162690	1	-4.116464060	0.065725080	-1.610676480
1	-5.929224020	0.206665150	-1.864849190	1	-5.891367200	0.115793420	-1.833490270
6	-7.373443840	1.682437830	-0.043144450	1	-4.838645250	-0.319232390	-3.201408140
1	-8.291183500	1.072425970	-0.067493920	6	-6.215762620	-2.598491650	-2.440774080
1	-6.577565910	1.090765030	0.435991770	1	-6.026343160	-2.601359690	-3.524120200
1	-7.568944220	2.575833940	0.570554880	1	-7.176773350	-2.095982240	-2.242327560
6	-8.062415800	2.946424000	-2.103007330	1	-6.294507670	-3.646389770	-2.106763320
1	-9.007556440	2.383583980	-2.164467620	6	-3.892404840	-2.412639010	-5.997371130
1	-8.232721950	3.854864140	-1.504324480	6	-4.531114020	-1.017820760	-5.940375050
1	-7.772196260	3.252355550	-3.120946690	1	-5.506805980	-1.058097450	-5.431142850
6	-4.169241030	4.975469330	0.551618990	1	-4.689573640	-0.626257690	-6.958502150
6	-3.014173390	5.859945400	1.038756790	1	-3.874112460	-0.317237560	-5.400777770
1	-3.381357080	6.630362930	1.736269220	6	-2.540244960	-2.333940370	-6.719647390
1	-2.255669040	5.257862610	1.564898680	1	-1.859658920	-1.646485090	-6.194661160
1	-2.536078940	6.363860100	0.183915870	1	-2.682557770	-1.963134410	-7.747677940
6	-4.785214960	4.213892670	1.732507320	1	-2.063197470	-3.324210080	-6.774085530
1	-5.179996430	4.918565590	2.482537000	6	-4.823935160	-3.387623260	-6.731142630
1	-5.614355060	3.574130470	1.392604890	1	-4.373259650	-4.392009300	-6.770564550
1	-4.025686040	3.580358210	2.218542480	1	-5.011369080	-3.047001830	-7.761893040
6	-5.231507720	5.843970850	-0.139762890	1	-5.788243390	-3.462703490	-6.204135320
1	-5.688693740	6.535716750	0.586405780	6	-1.883720780	-5.302824340	-3.316820350
1	-4.774146230	6.442839070	-0.943199000	6	-3.314144280	-5.840107170	-3.182703050
1	-6.014659610	5.206829720	-0.575495110	1	-3.685993050	-5.708497120	-2.154475960
6	-3.425348240	3.443486860	-3.803454960	1	-3.342288720	-6.915212490	-3.426654730
6	-3.559394380	4.917169570	-3.404074540	1	-3.989949030	-5.305068690	-3.867355640
1	-3.532432950	5.548761830	-4.307960200	6	-1.372692220	-5.481168890	-4.752154060
1	-4.513558810	5.095357600	-2.887076500	1	-2.048881060	-4.979335900	-5.458581270
1	-2.740149400	5.218728040	-2.735120510	1	-1.319625310	-6.549831500	-5.018247690
6	-2.110473320	3.231424700	-4.565141770	1	-0.365890380	-5.043401720	-4.853452280
1	-2.064961370	3.879335280	-5.455479800	6	-0.944379710	-6.031621350	-2.346002350
1	-1.249172870	3.473098440	-3.921329480	1	0.067946370	-5.598267120	-2.396671540
1	-2.016491340	2.189026380	-4.916479280	1	-0.878878010	-7.103282850	-2.595100210
6	-4.614243420	3.028651840	-4.678357970	1	-1.312663110	-5.954747450	-1.309050870
1	-4.640926690	3.630264590	-5.602159010	6	6.156373320	-0.870968520	2.436191600
1	-4.540038070	1.966327380	-4.963405370	6	6.798831410	-0.919545110	1.046032680
1	-5.575240660	3.184707380	-4.133789110	1	6.230533450	-1.579139770	0.368650950
14	-2.959991950	-3.537603990	2.412894300	1	7.828433030	-1.309066660	1.106457390
8	-2.986329430	-3.528636100	4.089217620	1	6.841519240	0.089071680	0.604439210
1	2.027428450	-3.299942890	-0.330129060	6	6.100629750	-2.276866770	3.047405550
1	-2.602924230	-2.026596030	0.546937070	1	5.588417310	-2.239031160	4.020051950
1	-4.029660950	0.227432270	-0.760377220	1	7.116983620	-2.680731750	3.188670770
1	1.203801900	-0.117571950	-3.903649260	1	5.546145650	-2.960953510	2.383194910
1	3.494583280	1.744222640	-0.148803080	6	6.951601150	0.086405080	3.332669050
1	-1.558152390	3.207981970	2.097102700	1	6.959099050	1.101646590	2.905050820
1	-4.230235220	1.151038550	0.728365270	1	7.994502950	-0.260929440	3.419601740
1	2.025424280	-1.610844280	-3.482026270	1	6.509043700	0.133421790	4.337189110
1	3.424080100	-2.442911520	-0.944710770	6	3.822961870	-0.141844680	6.184191490
1	-3.398038980	-1.273791110	1.954891120	6	3.951684150	-1.460160770	6.958565200
1	3.982151660	1.088572170	-1.699943400	1	3.237346740	-2.201977400	6.567427430
1	-2.105672090	2.021743330	3.278622260	1	3.750613690	-1.305540270	8.030715390
				1	4.969469280	-1.867261430	6.848298520
				6	4.841984940	0.885505710	6.699144550
				1	5.861928310	0.471235510	6.648948790
				1	4.629320990	1.152387180	7.747354420
				1	4.800835310	1.793725050	6.079482790
				6	2.397187410	0.410770630	6.324795930
				1	2.284903030	1.349973150	5.759043940
				1	2.176457910	0.620482650	7.384185760
				1	1.658461820	-0.318312680	5.955356640
				6	3.892009970	3.125512680	2.912127670
Product -LS							
92	0.018028490	0.058281640	-1.914882520				
92	-0.131479620	0.034736460	1.366848110				
14	-2.801187080	-2.574740930	-3.324626700				
14	3.709460690	0.277325230	3.364454510				
6	-1.723371930	-1.102914630	-3.348296850				
8	-3.828949410	-2.602099850	-1.964375390				
8	-3.756134190	-2.955369260	-4.659660270				
8	-1.805457840	-3.897758790	-2.956349510				

6	5.210986700	3.892832130	3.086133820	1	-0.958287330	6.053136400	4.209183490
1	5.428729860	4.037089090	4.155932070	1	-1.316492070	7.581969900	3.335471560
1	5.156271920	4.881358540	2.601266670	1	-0.254186390	6.349123400	2.592999710
1	6.045212320	3.331099400	2.635479360	6	-3.625712630	6.033563120	3.428919790
6	2.737618250	3.911083790	3.546672200	1	-4.495081020	5.540497950	2.965281690
1	1.791023320	3.355386800	3.452863730	1	-3.844006530	7.111006670	3.516268330
1	2.609135770	4.890760350	3.056898850	1	-3.485156350	5.618562140	4.436054830
1	2.935901920	4.081413760	4.616607760	6	-1.850927410	3.536799680	6.364734710
6	3.622217330	2.879476560	1.423552560	6	-0.726121100	4.264721750	7.113356710
1	4.445808220	2.296144300	0.979570680	1	0.254927450	3.948009560	6.724647670
1	3.561324910	3.839314500	0.884799100	1	-0.767127340	4.045503120	8.192414800
1	2.672195400	2.340341060	1.274228980	1	-0.819375400	5.353474100	6.973258240
7	0.401794040	-1.166302180	-0.253418520	6	-3.223955300	3.994916570	6.880021350
7	0.230833730	1.486571280	-0.220189670	1	-3.315954830	5.090214820	6.801158570
7	-1.174720230	0.957342320	-0.334706280	1	-3.358650270	3.712636890	7.937127170
14	3.721626370	-1.122381340	-3.383899990	1	-4.020038530	3.530579640	6.278594890
14	-2.145558100	3.151384070	3.550650380	6	-1.701258110	2.019123460	6.545545300
6	1.910126730	-0.911802160	-3.330884260	1	-2.490911250	1.483635960	5.994347960
8	4.257748320	-2.233837860	-2.201502670	1	-1.787363800	1.755912370	7.612476120
8	4.504028740	-1.517976030	-4.822536650	1	-0.719068020	1.678617290	6.181858610
8	4.383833590	0.309524810	-2.769458280	6	-4.722690140	1.956175360	3.089184860
6	-1.003848090	1.811245590	3.006138700	6	-6.075780500	2.609629560	3.407204820
8	-2.074173600	4.404310730	2.390010840	1	-6.255286760	2.602213120	4.493739470
8	-1.717609860	3.933153410	4.980587690	1	-6.898330200	2.069421710	2.910576490
8	-3.737306020	2.697383830	3.840248850	1	-6.087790680	3.656048150	3.061909810
6	4.319845150	-3.684852490	-2.204997130	6	-4.710930430	0.506164010	3.589703930
6	4.569978960	-4.094302560	-0.747524260	1	-3.729277310	0.042218800	3.404500400
1	5.495023780	-3.629021280	-0.371168460	1	-5.479941520	-0.099206150	3.081855370
1	4.676065990	-5.188245810	-0.662209670	1	-4.906554950	0.479579670	4.673312780
1	3.726837770	-3.786532010	-0.105297320	6	-4.453567780	2.012975920	1.580434410
6	2.994765750	-4.291380330	-2.684014400	1	-4.473979210	3.059532470	1.232543900
1	2.159503810	-3.914224340	-2.071506410	1	-5.229448660	1.457108800	1.028855530
1	3.025202650	-5.390665800	-2.599584900	1	-3.471328810	1.574311490	1.333295200
1	2.797063810	-4.037378360	-3.737042440	19	3.316925670	-0.626702640	-0.097707670
6	5.490724810	-4.143343190	-3.084207000	14	-0.789849850	3.641206650	-3.602088630
1	5.354006400	-3.791759000	-4.117187960	14	-1.707594980	-3.492589460	3.398805220
1	5.571723750	-5.242889950	-3.083219770	6	-0.038629390	1.973027280	-3.618394620
1	6.436616900	-3.723168930	-2.704361920	8	-0.151977630	4.663359300	-2.394583450
6	4.060423360	-1.654268120	-6.196949280	8	-0.808982980	4.555433110	-5.023113940
6	3.066489270	-2.816969500	-6.324062300	8	-2.380328350	3.500192550	-3.037819140
1	3.526754840	-3.758623300	-5.984622680	6	-1.310511440	-1.808684110	2.758662830
1	2.757349000	-2.945293390	-7.374322270	8	-2.585777530	-4.278433260	2.166548670
1	2.167470970	-2.620324680	-5.718323430	8	-2.740969570	-3.559986690	4.723463280
6	3.417706630	-0.356843090	-6.708141270	8	-0.400922090	-4.420274330	3.900736700
1	2.513501290	-0.113798430	-6.129210200	6	1.092735860	5.402468530	-2.311464690
1	3.128974300	-0.468420240	-7.765921960	6	1.250715280	5.784322980	-0.833168280
1	4.119103000	0.487215190	-6.628841370	1	0.389887060	6.387027350	-0.497902690
6	5.332874900	-1.958241660	-6.999833410	1	2.162939280	6.383698750	-0.678169120
1	6.054185790	-1.131598930	-6.901303500	1	1.326511540	4.878920580	-0.206739110
1	5.097021290	-2.092939720	-8.067452370	6	2.282770950	4.534652080	-2.740469050
1	5.809714420	-2.878310300	-6.626421630	1	2.311675100	3.609782350	-2.142342740
6	5.682917600	0.931046760	-2.972188990	1	3.228283210	5.082163030	-2.590217580
6	6.815793810	-0.101797660	-2.919847980	1	2.213492390	4.263277100	-3.805167080
1	6.809436180	-0.640866630	-1.959923990	6	0.989597310	6.667782220	-3.173394650
1	7.792139380	0.398572760	-3.032198440	1	0.803720160	6.400483240	-4.223928620
1	6.703675790	-0.836120400	-3.732767620	1	1.916381770	7.261729100	-3.109263410
6	5.683940060	1.660865600	-4.321411250	1	0.149520980	7.293944760	-2.829622500
1	5.607113730	0.934906650	-5.143097630	6	-0.414440460	4.298892140	-6.392442610
1	6.613735830	2.239086650	-4.450434820	6	1.099497130	4.057448860	-6.479218630
1	4.828303070	2.353554650	-4.377045690	1	1.652329600	4.921478240	-6.077564340
6	5.830939560	1.950799120	-1.836963740	1	1.406186790	3.910301480	-7.527735360
1	4.992123900	2.664953810	-1.855504360	1	1.376608240	3.158652050	-5.906075940
1	6.773709620	2.513600110	-1.934659300	6	-1.168692390	3.096210480	-6.978633310
1	5.838366820	1.444171940	-0.858481050	1	-0.927983980	2.177896190	-6.421541690
6	-2.366372290	5.823444420	2.577847390	1	-0.882992710	2.946062620	-8.032521290
6	-2.605617730	6.405357110	1.177342460	1	-2.256710480	3.255155030	-6.935244710
1	-1.700406750	6.326852700	0.550275100	6	-0.786879310	5.573825860	-7.162927690
1	-2.860338700	7.475376960	1.243776650	1	-1.870842830	5.758576340	-7.096172290
1	-3.444796010	5.891625650	0.676562460	1	-0.511217480	5.482708490	-8.225673770
6	-1.148086650	6.497982220	3.221957430	1	-0.262691550	6.443969330	-6.736753330

6	-3.560050530	4.310984370	-3.276505820
6	-3.245938380	5.810247990	-3.179964920
1	-2.831139530	6.064318760	-2.190813750
1	-4.163856320	6.402716510	-3.331320950
1	-2.510582720	6.099646240	-3.946967880
6	-4.134188220	3.972900190	-4.658783410
1	-3.426204320	4.276236400	-5.442514350
1	-5.089541730	4.497624920	-4.824900080
1	-4.310404700	2.887701280	-4.738755570
6	-4.568540050	3.906320130	-2.192556580
1	-4.718384490	2.814665940	-2.201581140
1	-5.540618280	4.398655790	-2.358232000
1	-4.216493260	4.199429450	-1.188819810
6	-3.538091790	-5.380674730	2.279352210
6	-3.711604740	-5.921427030	0.855870640
1	-4.068864370	-5.127571020	0.178243650
1	-4.448410690	-6.740984650	0.833812040
1	-2.755187010	-6.315581310	0.472327010
6	-4.874076090	-4.842722000	2.808532410
1	-4.732272870	-4.19423250	3.812773640
1	-5.624215960	-5.649467840	2.852471780
1	-5.255978160	-4.048333430	2.147281230
6	-3.002092960	-6.490129260	3.192323780
1	-2.038995630	-6.871230400	2.817442200
1	-3.717023150	-7.329108790	3.223605380
1	-2.854379780	-6.114815720	4.214912480
6	-2.505070070	-3.342080700	6.134068980
6	-3.842714490	-2.852395750	6.705151300
1	-4.139785350	-1.909939520	6.218203710
1	-3.766445360	-2.682008710	7.791001090
1	-4.630453270	-3.600363000	6.522020990
6	-2.102570300	-4.678311700	6.775684680
1	-2.900315190	-5.424996530	6.632955120
1	-1.931676470	-4.556914980	7.857989330
1	-1.180841660	-5.053748810	6.306001070
6	-1.414941980	-2.288448810	6.377633050
1	-0.453541860	-2.619771330	5.953022420
1	-1.276908000	-2.131005460	7.459857480
1	-1.693714640	-1.326060020	5.920571000
6	0.867574080	-4.820040600	3.342112600
6	1.016358570	-6.321365810	3.631213350
1	0.920064780	-6.510878070	4.711775790
1	2.000210680	-6.689153010	3.295931850
1	0.234645970	-6.895764750	3.108781510
6	1.964524890	-4.037998320	4.075772460
1	1.851402170	-2.955112370	3.908836540
1	2.968655810	-4.333795330	3.728324930
1	1.901909280	-4.230884730	5.158369350
6	0.941020540	-4.569784990	1.830290120
1	0.156189970	-5.150134900	1.314247490
1	1.915729000	-4.901708050	1.435439500
1	0.816167460	-3.499173810	1.593912970
19	-1.475507020	3.581421860	-0.184276360
19	-1.679189760	-3.106924090	-0.176476060
1	1.413076460	-1.904371350	-3.377486200
1	-2.331714770	-0.182933080	-3.480723670
1	1.062512120	2.061071690	-3.722021400
1	1.916394350	-1.198225420	2.813033800
1	-0.720394290	-1.369313030	3.599474700
1	0.012042000	2.265549960	3.086304660
1	1.583254820	-0.332052650	-4.219509910
1	-1.048772050	-1.177947480	-4.228365850
1	-0.410651380	1.402945830	-4.493873830
1	1.373985670	0.313494940	3.551179170
1	-1.057037630	1.068295780	3.834689170
1	-2.285112830	-1.265248990	2.795944890

Product –HS

92	0.014974010	0.055594700	-1.912978000
92	-0.129081870	0.027590350	1.365763420

14	-2.814526910	-2.553669980	-3.328489280
14	3.708111950	0.293638910	3.362253990
6	-1.742629870	-1.077345360	-3.342490460
8	-3.833179600	-2.598931440	-1.961799300
8	-3.776802520	-2.921144230	-4.662162040
8	-1.812762310	-3.877736800	-2.982489000
6	2.021990040	-0.094232420	2.725571680
8	4.794116930	-0.368536430	2.225573470
8	4.141778470	-0.447271710	4.807999080
8	4.014945890	1.914378170	3.655304890
6	-5.078339550	-1.901104730	-1.684830140
6	-5.291402740	-2.016683750	-0.171455950
1	-5.321739870	-3.075184600	0.130881970
1	-6.243445410	-1.547408380	0.125302910
1	-4.477650720	-1.516147090	0.379496640
6	-4.983341960	-0.420705640	-2.076328100
1	-4.130260510	0.060154850	-1.571356680
1	-5.906471980	0.107833080	-1.784391640
1	-4.859096940	-0.303984110	-3.163844970
6	-6.222147960	-2.600039130	-2.431412960
1	-6.036014480	-2.586499170	-3.515191300
1	-7.184508420	-2.104347640	-2.222679770
1	-6.295395060	-3.652924720	-2.112174490
6	-3.923218450	-2.361469110	-5.991809080
6	-4.549192450	-0.961966240	-5.912699880
1	-5.520442430	-0.999938860	-5.394808400
1	-4.714096930	-0.557532850	-6.924750270
1	-3.881093480	-0.273545940	-5.371146220
6	-2.577778100	-2.286328290	-6.727069190
1	-1.883844910	-1.615509080	-6.197971610
1	-2.726140730	-1.896802230	-7.747282820
1	-2.112808880	-3.280899970	-6.802733040
6	-4.870358010	-3.320181470	-6.726910240
1	-4.429583020	-4.328345960	-6.779693380
1	-5.063277800	-2.967797600	-7.752672890
1	-5.830834820	-3.391430230	-6.192439520
6	-1.891185760	-5.279477910	-3.355228290
6	-3.318805310	-5.821542590	-3.210680280
1	-3.679032610	-5.702845930	-2.176749350
1	-3.347680290	-6.893817340	-3.466752880
1	-4.003739740	-5.280199020	-3.881215810
6	-1.395895810	-5.443460680	-4.797786940
1	-2.082125470	-4.938202190	-5.491901710
1	-1.341699360	-6.509625140	-5.073482570
1	-0.392045730	-5.000825270	-4.906817630
6	-0.939523040	-6.014801220	-2.401573230
1	0.071314380	-5.579049340	-2.460205230
1	-0.875136860	-7.084189490	-2.660416070
1	-1.295731220	-5.946988850	-1.359737120
6	6.164733970	-0.834959760	2.431962660
6	6.806915830	-0.877942480	1.041474220
1	6.241591180	-1.540544600	0.364525020
1	7.838733030	-1.262140630	1.100002760
1	6.842646090	0.131418510	0.601123730
6	6.114800540	-2.242205820	3.040754330
1	5.602293410	-2.208015980	4.013420100
1	7.132669610	-2.642460230	3.181192590
1	5.562614970	-2.926815480	2.375188780
6	6.954885520	0.124782210	3.329991740
1	6.961357070	1.139919250	2.902002230
1	7.998521950	-0.219461680	3.420339590
1	6.509370750	0.171098060	4.333197810
6	3.830570730	-0.116847740	6.183199470
6	3.959380150	-1.433503440	6.960300750
1	3.242668400	-2.175067850	6.573072310
1	3.762158270	-1.275846080	8.032718240
1	4.976101210	-1.842486700	6.847269980
6	4.852331580	0.910169030	6.693457570
1	5.871526730	0.494280550	6.642083350
1	4.642269450	1.179781960	7.741487290

1	4.810742440	1.817090720	6.071928660	6	-2.381053990	5.809073430	2.574498150
6	2.406151860	0.438934940	6.324514250	6	-2.634688100	6.384533360	1.173862510
1	2.294648580	1.373164330	5.750430040	1	-1.734015470	6.310296970	0.539767050
1	2.187746380	0.657911750	7.382456190	1	-2.895844750	7.453119510	1.238615120
1	1.665463940	-0.292206970	5.962926830	1	-3.474518650	5.864010040	0.681197820
6	3.881398610	3.142476900	2.904177760	6	-1.161490820	6.492815820	3.206618580
6	5.201901300	3.904161380	3.091066910	1	-0.961740820	6.052770740	4.194065370
1	5.407743550	4.048250550	4.163313840	1	-1.334774430	7.576334860	3.317135750
1	5.157007030	4.892647810	2.605179610	1	-0.271746430	6.346170820	2.571291110
1	6.039159240	3.338642790	2.650930250	6	-3.634696130	6.015777620	3.434708900
6	2.723226960	3.938291060	3.519277780	1	-4.505304950	5.516797570	2.979911240
1	1.774997410	3.387159140	3.416478000	1	-3.857639490	7.092473230	3.519845070
1	2.607482750	4.915931100	3.022400600	1	-3.484135240	5.605231420	4.442211630
1	2.908338370	4.113648850	4.590754400	6	-1.830592540	3.537986000	6.365981030
6	3.627796660	2.888180250	1.414131320	6	-0.701055430	4.266859470	7.106464540
1	4.452796300	2.297179950	0.983197800	1	0.277529370	3.946667540	6.714403470
1	3.578061090	3.844876000	0.868730080	1	-0.737317340	4.051525760	8.186483670
1	2.676087040	2.353600970	1.257731690	1	-0.792977520	5.355241650	6.962738220
7	0.405072680	-1.172890890	-0.257521280	6	-3.200495280	3.999487540	6.886495830
7	0.232952950	1.479541150	-0.221067780	1	-3.291717900	5.094576300	6.803962260
7	-1.177184800	0.947410410	-0.329865650	1	-3.330093280	3.721504610	7.945379010
14	3.702858970	-1.141857320	-3.385315980	1	-4.000099950	3.533702540	6.290881080
14	-2.139071010	3.141522890	3.555203030	6	-1.681907260	2.020674100	6.551231930
6	1.890746440	-0.937645890	-3.331783970	1	-2.475422930	1.484872660	6.005979590
8	4.246348480	-2.240607980	-2.194694440	1	-1.762738220	1.761133670	7.619472170
8	4.485567200	-1.542181640	-4.822679010	1	-0.702223840	1.677696610	6.183117020
8	4.361638510	0.297752810	-2.784122890	6	-4.715464850	1.937073010	3.113967120
6	-0.994812170	1.805404420	3.006045400	6	-6.067660290	2.591870220	3.432827830
8	-2.082031110	4.391023990	2.389950860	1	-6.242478290	2.592682230	4.520154080
8	-1.703730300	3.929258630	4.979701610	1	-6.891889340	2.047245870	2.943869060
8	-3.727338880	2.683112280	3.856845020	1	-6.082230930	3.635654740	3.079706330
6	4.316887170	-3.690998510	-2.184320820	6	-4.701158600	0.490343090	3.624015260
6	4.575735700	-4.084468300	-0.724042480	1	-3.720002410	0.025317460	3.438936640
1	5.498732260	-3.608849430	-0.355566130	1	-5.471294330	-0.118769170	3.122277180
1	4.690306870	-5.176687990	-0.628306380	1	-4.894052370	0.470770250	4.708260980
1	3.732741200	-3.777034690	-0.081451610	6	-4.452058470	1.984124220	1.603892630
6	2.993021530	-4.309032380	-2.651583820	1	-4.477500150	3.028109090	1.248266560
1	2.158657230	-3.930260220	-2.038825930	1	-5.227880030	1.421834750	1.058814560
1	3.029042630	-5.407357790	-2.557763710	1	-3.468885980	1.548107980	1.355971160
1	2.789096320	-4.064623650	-3.705752250	19	3.318320080	-0.619456410	-0.097986960
6	5.486267770	-4.151840420	-3.064300930	14	-0.765258750	3.634332400	-3.597590660
1	5.343022740	-3.811884150	-4.100290720	14	-1.717185550	-3.498562190	3.389241510
1	5.573068930	-5.250908900	-3.052237200	6	-0.008801720	1.968466020	-3.610779870
1	6.431783560	-3.723138000	-2.693199540	8	-0.141335570	4.657269080	-2.383541950
6	4.038487930	-1.694473590	-6.194211570	8	-0.777885180	4.547732570	-5.018903120
6	3.047902390	-2.861572000	-6.306852720	8	-2.359471050	3.488005030	-3.044757770
1	3.511953650	-3.797860090	-5.957770610	6	-1.328577630	-1.814663540	2.743791720
1	2.737764160	-3.002727240	-7.355166570	8	-2.581489580	-4.291370430	2.151088670
1	2.149330600	-2.661205690	-5.701681120	8	-2.760426220	-3.569427260	4.706000690
6	3.390293700	-0.404109800	-6.716475590	8	-0.411208920	-4.420231520	3.903560220
1	2.489541800	-0.155715040	-6.134468600	6	1.101358030	5.398288880	-2.287290060
1	3.094735810	-0.528612000	-7.770934140	6	1.233109520	5.798727510	-0.811532050
1	4.090686230	0.442022250	-6.651685050	1	0.363327460	6.401129600	-0.499365930
6	5.309511600	-2.002436780	-6.997830020	1	2.138026810	6.407193100	-0.649407810
1	6.028843380	-1.173030320	-6.908463650	1	1.302736510	4.904516210	-0.168450300
1	5.071157570	-2.147168620	-8.063571130	6	2.298581550	4.526153850	-2.686086780
1	5.789961470	-2.917832200	-6.617575270	1	2.313616720	3.605758880	-2.080617000
6	5.659291090	0.919937940	-2.994463290	1	3.241509430	5.073796320	-2.521025570
6	6.794870960	-0.109181690	-2.929607520	1	2.250100820	4.246637250	-3.749929800
1	6.790147890	-0.636677610	-1.963290470	6	1.013142750	6.654550230	-3.164228860
1	7.769877940	0.392472750	-3.047897250	1	0.844777920	6.376768300	-4.214897750
1	6.684913230	-0.853512410	-3.733666560	1	1.938948060	7.248900570	-3.090614620
6	5.658897420	1.633368240	-4.352509290	1	0.167576960	7.284287080	-2.841184890
1	5.583774200	0.897053110	-5.165044320	6	-0.364272550	4.294344790	-6.383255470
1	6.587347380	2.212180680	-4.488384580	6	1.150375250	4.051149930	-6.450062550
1	4.801523400	2.323144200	-4.416728310	1	1.699046380	4.914180270	-6.040555250
6	5.804594460	1.953824370	-1.871689350	1	1.470654920	3.904431470	-7.494561240
1	4.962539720	2.663914000	-1.897674980	1	1.418679700	3.151783970	-5.873630290
1	6.744670080	2.519616070	-1.977706700	6	-1.112586030	3.094102840	-6.982178610
1	5.815718050	1.459383940	-0.887004790	1	-0.880939190	2.174382090	-6.423550360

1	-0.814026910	2.945442510	-8.032632560
1	-2.200702780	3.255211440	-6.951181790
6	-0.725305500	5.571448190	-7.155564680
1	-1.809957930	5.756806810	-7.103136270
1	-0.434994690	5.482933160	-8.214609890
1	-0.206577580	6.440219990	-6.720000420
6	-3.541031130	4.292518960	-3.294093350
6	-3.235605930	5.793185520	-3.191468800
1	-2.831182370	6.047171590	-2.197972670
1	-4.154967680	6.381486020	-3.350004120
1	-2.494580780	6.087913750	-3.951028650
6	-4.099533030	3.955114060	-4.683054270
1	-3.384697750	4.263303520	-5.458599960
1	-5.055338000	4.476219200	-4.857641660
1	-4.270447670	2.869404700	-4.767435440
6	-4.559007610	3.880088590	-2.221919300
1	-4.704384800	2.787862070	-2.236080110
1	-5.531286790	4.368835400	-2.396580200
1	-4.219482820	4.170819480	-1.213155140
6	-3.515359570	-5.409957580	2.258352060
6	-3.674838920	-5.950404210	0.833167360
1	-4.042865490	-5.160767490	0.156335110
1	-4.398187570	-6.781789910	0.806642830
1	-2.710755790	-6.328145290	0.452098410
6	-4.861963170	-4.895508990	2.784027880
1	-4.729578460	-4.469442430	3.788377120
1	-5.597816620	-5.715362350	2.826869620
1	-5.255978480	-4.108225550	2.121528560
6	-2.964667880	-6.512394700	3.171109820
1	-1.994028050	-6.876873590	2.799343320
1	-3.666122830	-7.362828330	3.197526890
1	-2.827303950	-6.137330050	4.195261530
6	-2.536634190	-3.352193150	6.118509410
6	-3.883216220	-2.877568820	6.681310330
1	-4.186521500	-1.937151420	6.194348050
1	-3.816022390	-2.708969800	7.768033160
1	-4.661827220	-3.633296980	6.491211540
6	-2.124122840	-4.684889750	6.761176270
1	-2.913146110	-5.439673240	6.612514000
1	-1.961590230	-4.562833120	7.844679170
1	-1.195694440	-5.050075220	6.296729930
6	-1.459552860	-2.287196480	6.370807880
1	-0.491620370	-2.607629770	5.952635100
1	-1.330386590	-2.129222420	7.454042640
1	-1.745492680	-1.327346290	5.912834520
6	0.870884190	-4.801703040	3.363596320
6	1.037973940	-6.299728940	3.659940870
1	0.934262510	-6.486948160	4.740253170
1	2.030096550	-6.654695700	3.335460340
1	0.269489430	-6.887131150	3.132370670
6	1.946279430	-4.001459320	4.109261450
1	1.818979790	-2.920759730	3.938635340
1	2.959039870	-4.282593160	3.774795090
1	1.873215950	-4.193741350	5.191315650
6	0.960116420	-4.555805070	1.851901840
1	0.190060930	-5.148393080	1.327365920
1	1.944363710	-4.875040540	1.470591930
1	0.823084990	-3.488000430	1.609753590
19	-1.484798020	3.569351190	-0.185227220
19	-1.672538320	-3.115427040	-0.186582600
1	1.394745020	-1.931524180	-3.358342010
1	-2.354597550	-0.156166180	-3.447906030

Neptunium-CH₂ Species

Reactant -LS

93	1.75016825	-0.39583208	-1.11697611
93	-1.67139490	0.41831462	1.14506117
19	0.45084245	-2.67599057	1.88756588
19	0.98862197	2.92941730	0.65136786
19	-1.54925377	0.50233039	-2.58387258

14	-0.04178289	-2.04560341	-4.63956835
14	3.92651844	-3.34685833	1.11116542
14	3.43776405	3.41313009	-1.85320180
14	-0.15779504	3.05927909	4.08355216
14	-4.12403349	2.66211244	-1.21954328
6	1.00546111	-1.05349503	-3.48947068
8	-1.62902195	-1.44265626	-4.46073622
8	0.01601982	-3.71219132	-4.44288991
8	0.22427853	-1.85501925	-6.29126783
6	2.79094162	-2.52419451	-0.09001254
8	3.06102770	-3.44536092	2.58308881
8	4.31154932	-4.96083867	0.82411375
8	5.43212426	-2.63192443	1.30943197
6	3.22070185	1.72814515	-1.13294851
8	4.53831580	4.44490836	-1.09695593
8	1.96947803	4.24181500	-1.58936484
8	3.91644467	3.45035226	-3.46307824
6	-2.52670826	-1.91284826	1.65840243
8	-1.67625361	-4.55091676	2.13260644
8	-4.45373266	-4.20001630	2.04098517
6	-1.21132067	2.31397801	2.77493677
8	0.28422068	1.98697402	5.30207582
8	-0.74157715	4.38421545	4.93880605
8	1.19763450	3.70586361	3.27561199
6	-3.63121231	1.12711151	-0.33162010
8	-5.76209769	2.97945477	-1.49117358
8	-3.53154139	4.04568692	-0.47400401
8	-3.32690728	2.58090216	-2.72716172
7	0.00750638	0.21795652	-0.10742077
6	-2.79776560	-1.66182266	-5.30890063
6	-2.73251229	-0.70517059	-6.50644334
1	-3.61611660	-0.83077495	-7.15382610
1	-2.70689744	0.34271547	-6.16405239
1	-1.82099087	-0.90230217	-7.08884110
6	-4.01356425	-1.33905937	-4.42987700
1	-4.95068722	-1.48192547	-4.99260837
1	-4.03878112	-1.99806020	-3.54579610
1	-3.99203765	-0.29024990	-4.08858177
6	-2.88234181	-3.11588194	-5.79013169
1	-3.79629155	-3.25644434	-6.39068479
1	-2.01172769	-3.37587380	-6.40930974
1	-2.91926299	-3.80748598	-4.93430044
6	0.01454041	-4.58838107	-3.29486110
6	-0.73896546	-3.96710745	-2.11354365
1	-0.74063515	-4.65088319	-1.24827496
1	-0.27544292	-3.01240899	-1.80985203
1	-1.78602767	-3.76312669	-2.39082481
6	-0.68596003	-5.87819151	-3.74663879
1	-0.67995186	-6.62868831	-2.93928870
1	-1.73194619	-5.67289686	-4.02399003
1	-0.17156889	-6.30234096	-4.62324798
6	1.47237907	-4.89052817	-2.92461783
1	1.52988020	-5.59240829	-2.07580543
1	1.99307579	-5.34032049	-3.78499649
1	1.99817499	-3.96610137	-2.63953586
6	1.23751048	-2.40855820	-7.16194949
6	0.74671438	-3.76507257	-7.68972028
1	1.48697664	-4.20999450	-8.37486877
1	0.57705205	-4.45207469	-6.84706974
1	-0.20095170	-3.63890598	-8.23789382
6	2.58201707	-2.57452686	-6.43974277
1	3.34265314	-2.96302760	-7.13658137
1	2.93333055	-1.60887858	-6.04308321
1	2.48872443	-3.28521708	-5.60299463
6	1.38215317	-1.40606249	-8.31488610
1	2.12419528	-1.75581766	-9.05046131
1	0.41571734	-1.27321749	-8.82706520
1	1.70338515	-0.42553988	-7.92722270
6	3.43902634	-4.16274186	3.80309824
6	2.57510257	-3.56484549	4.92038069

1 2.76523584 -4.07826784 5.87700286
1 2.80008687 -2.49458371 5.05254959
1 1.50055756 -3.67529432 4.69476482
6 3.13751269 -5.65731596 3.63795211
1 3.40396607 -6.20644146 4.55618743
1 2.06683827 -5.82134501 3.44223449
1 3.70937751 -6.06062022 2.79067019
6 4.92087191 -3.95718802 4.14362536
1 5.15190343 -4.45759387 5.09870696
1 5.57128829 -4.37644582 3.36266142
1 5.15111041 -2.88565882 4.24968497
6 5.28331872 -5.57387848 -0.05461181
6 4.75159891 -6.98600209 -0.33453676
1 5.44528724 -7.54593361 -0.98201479
1 4.62752973 -7.54076086 0.60932714
1 3.77011775 -6.93047223 -0.83290747
6 6.63375897 -5.64456273 0.67369645
1 7.39316310 -6.13564109 0.04313313
1 6.97563685 -4.62941654 0.92470900
1 6.53184866 -6.22278395 1.60634809
6 5.42705255 -4.79959999 -1.37246486
1 6.14701620 -5.30754394 -2.03481471
1 4.45883183 -4.73910890 -1.89379395
1 5.79396618 -3.77796210 -1.18574696
6 5.90808364 -1.26935644 1.34569196
6 7.23046705 -1.30630050 2.12574009
1 7.68120892 -0.30185555 2.17456930
1 7.06107727 -1.66415839 3.15321301
1 7.94302022 -1.98677082 1.63365790
6 6.16633234 -0.80714238 -0.09341796
1 6.57034686 0.21715824 -0.11717320
1 6.88783377 -1.47979135 -0.58362701
1 5.23069015 -0.81685179 -0.67610016
6 4.90564196 -0.34861287 2.05055681
1 5.27625842 0.69015920 2.06779646
1 3.93223610 -0.36560455 1.53161731
1 4.74530223 -0.67663475 3.09053727
6 5.98170172 4.51318408 -1.17514285
6 6.60640501 3.12586395 -1.37289880
1 7.70630440 3.19973166 -1.38187626
1 6.30734764 2.45112243 -0.55566706
1 6.28049440 2.68460591 -2.32833094
6 6.44174083 5.10911050 0.16180750
1 5.96987266 6.09206474 0.32177071
1 6.15258522 4.44739760 0.99434406
1 7.53591565 5.23984217 0.17788252
6 6.36936574 5.44015806 -2.33692488
1 5.95293989 6.44789891 -2.17564303
1 7.46534122 5.52907536 -2.41736930
1 5.97074314 5.04099788 -3.28189774
6 1.66423804 5.66089664 -1.76481846
6 1.96334511 6.39157351 -0.45021996
1 1.74362260 7.46871507 -0.54056057
1 1.33926184 5.99744575 0.36998092
1 3.02471024 6.26609069 -0.18608123
6 2.46730046 6.29380521 -2.90821631
1 2.17011158 7.34900561 -3.02687218
1 3.54570342 6.25428190 -2.69866922
1 2.27736174 5.77174885 -3.85795443
6 0.16722834 5.72471503 -2.08589715
1 -0.16191839 6.77012124 -2.20539678
1 -0.04290346 5.18738864 -3.02463502
1 -0.43683636 5.26464628 -1.28591645
6 3.45727158 2.77481317 -4.65406640
6 4.00246073 3.59670221 -5.83089051
1 3.70225735 3.14970558 -6.79236471
1 3.61759454 4.62781066 -5.78783100
1 5.10234120 3.63492502 -5.78983551
6 1.92486533 2.73500535 -4.70438372
1 1.57713936 2.18969864 -5.59763887

1 1.52562183 2.23181317 -3.80772510
1 1.51264688 3.75611859 -4.73607173
6 4.04328107 1.35736973 -4.69438743
1 3.77186837 0.84977416 -5.63450145
1 5.14205449 1.40004793 -4.62475537
1 3.66325181 0.75054166 -3.85730681
6 -5.20959445 -4.24108794 0.80879719
6 -6.22074018 -5.38363354 0.98541663
1 -6.86563576 -5.47455394 0.09671143
1 -5.69641981 -6.33947611 1.13902766
1 -6.85832323 -5.19247862 1.86276479
6 -5.95383535 -2.91054212 0.62047339
1 -6.58251106 -2.94046222 -0.28489829
1 -6.60450885 -2.71218343 1.48697244
1 -5.24006786 -2.07761005 0.52066570
6 -4.30624831 -4.52298145 -0.39886041
1 -4.90714970 -4.59834571 -1.32038109
1 -3.56907781 -3.71627891 -0.53351909
1 -3.75858787 -5.46915666 -0.26509194
6 -1.44518517 -5.92411786 2.57129034
6 -0.38296733 -6.48541485 1.61741375
1 -0.76223543 -6.48370180 0.58267524
1 0.54332778 -5.88822510 1.64917632
1 -0.12104230 -7.52126641 1.88826347
6 -2.71479044 -6.78125592 2.48264477
1 -3.10168512 -6.79964836 1.45246078
1 -2.48004442 -7.81592712 2.78255834
1 -3.50605149 -6.39560300 3.14173364
6 -0.93119391 -5.90618146 4.01667025
1 -0.70884152 -6.92826762 4.36503986
1 -0.00665969 -5.31264278 4.09720447
1 -1.68425663 -5.45192671 4.67715540
6 -4.09672207 -3.10212290 5.06403420
6 -5.05178239 -4.29494626 5.21656774
1 -5.85423716 -4.06094985 5.93530779
1 -5.49813688 -4.54400667 4.24288181
1 -4.50121783 -5.17517975 5.58675123
6 -3.40168604 -2.80364415 6.39793531
1 -4.13933019 -2.54311011 7.17374489
1 -2.83368375 -3.68517391 6.73656653
1 -2.69739087 -1.96495701 6.28192452
6 -4.85512891 -1.86059341 4.57603650
1 -5.62511296 -1.56613705 5.30766488
1 -4.16148060 -1.01378400 4.44441352
1 -5.35339871 -2.06244038 3.61449600
6 0.79300065 0.63691168 5.26979455
6 -0.39253299 -0.33575131 5.23178273
1 -0.05427618 -1.38379674 5.29992285
1 -1.06743336 -0.13927313 6.08005121
1 -0.97090453 -0.21723819 4.29933759
6 1.71742114 0.40796553 4.06830450
1 2.56179248 1.11565558 4.08368875
1 2.13161027 -0.61365756 4.08703959
1 1.16910970 0.54593966 3.11896936
6 1.57376347 0.45712387 6.58015775
1 2.41754610 1.16385344 6.62333256
1 0.91612352 0.64990285 7.44242327
1 1.97065681 -0.56784671 6.66520803
6 -1.70681465 4.47931413 6.01132001
6 -2.81580858 3.42646532 5.87550372
1 -2.39558965 2.40932404 5.93507690
1 -3.55056996 3.54187573 6.68914671
1 -3.34120512 3.53659929 4.91363608
6 -0.97429663 4.30948553 7.35056201
1 -0.20378174 5.08899989 7.46389748
1 -1.67819442 4.39303045 8.19492372
1 -0.48554114 3.32408574 7.38552605
6 -2.30608848 5.88778705 5.90089185
1 -1.51132508 6.64609997 5.98442840
1 -2.80062478 6.01258493 4.92392867

1	-3.04562344	6.06477058	6.69832101
6	2.21058628	4.62797555	3.79069661
6	2.56791198	4.31970030	5.25090199
1	3.36217880	5.00561062	5.58894064
1	1.69265123	4.44602416	5.90374798
1	2.93499288	3.28691966	5.35453618
6	1.67977619	6.06130914	3.66337228
1	2.42967679	6.78647281	4.02031459
1	1.45095118	6.29718909	2.61149496
1	0.75896159	6.16875099	4.25489169
6	3.44733251	4.42753111	2.90560971
1	4.26678941	5.08799880	3.23290824
1	3.80111007	3.38439790	2.96619848
1	3.23522531	4.66838878	1.85083063
6	-6.94214341	2.14025550	-1.53818215
6	-6.71492664	0.88576168	-2.39269975
1	-7.64579819	0.29910343	-2.46544056
1	-6.39817117	1.15866658	-3.41084282
1	-5.94100638	0.24344260	-1.94399726
6	-7.35204160	1.73915671	-0.11370144
1	-8.27719359	1.14016916	-0.13201504
1	-6.56006579	1.13764535	0.35971327
1	-7.53315607	2.63476581	0.50114290
6	-8.03694876	3.01313340	-2.16846118
1	-8.99089450	2.46456243	-2.22198290
1	-8.18888754	3.92440884	-1.56911593
1	-7.75038263	3.31410620	-3.18889703
6	-4.10848909	4.97414557	0.47855186
6	-2.93899745	5.83420307	0.97547965
1	-3.29332984	6.60855321	1.67527334
1	-2.19479561	5.21454692	1.50182711
1	-2.44776599	6.33086758	0.12393412
6	-4.74572551	4.21995078	1.65311576
1	-5.13126486	4.92964034	2.40334188
1	-5.58464458	3.59764545	1.30564344
1	-4.00131519	3.57123290	2.14254367
6	-5.15073506	5.86652144	-0.21311485
1	-5.59730435	6.56467760	0.51350620
1	-4.67834970	6.45852039	-1.01291214
1	-5.94433049	5.24618682	-0.65427600
6	-3.40745664	3.45259617	-3.89480084
6	-3.52678496	4.92798259	-3.49675587
1	-3.50150318	5.55916418	-4.40101733
1	-4.47568375	5.11401538	-2.97272225
1	-2.69977193	5.22341536	-2.83461545
6	-2.10231759	3.22842175	-4.67013281
1	-2.06743555	3.86402780	-5.56974969
1	-1.23215805	3.47713495	-4.04098969
1	-2.01555362	2.18084888	-5.00770966
6	-4.60832098	3.04400889	-4.75605454
1	-4.64153501	3.64534193	-5.67986239
1	-4.54285846	1.98120384	-5.04129944
1	-5.54398277	3.20607760	-4.20095602
14	-2.97689410	-3.50521497	2.46893440
8	-3.03453710	-3.45491233	4.14458111
1	2.02616314	-3.29421122	-0.35369788
1	-2.55813415	-2.09905761	0.55482787
1	-4.02493847	0.23094490	-0.86019647
1	1.12856707	-0.06322692	-3.98972700
1	3.46362659	1.80600065	-0.04490305
1	-1.64156205	3.14750951	2.16776700
1	-4.20628595	1.15796018	0.62891819
1	2.02029129	-1.51625428	-3.58410950
1	3.41323690	-2.47287400	-1.02295852
1	-3.43251826	-1.28001340	1.86426955
1	4.07734932	1.13906185	-1.53863268
1	-2.09344122	1.90608175	3.33377345

Reactant -HS

93	1.74129509	-0.40403873	-1.11949956
----	------------	-------------	-------------

93	-1.63787086	0.43414453	1.16010134
19	0.44972460	-2.73140381	1.84585693
19	1.07056121	2.90680297	0.63193911
19	-1.56744678	0.49804340	-2.57383778
14	-0.03957848	-2.06114947	-4.62404511
14	3.95881916	-3.29289575	1.20085338
14	3.44955513	3.38541471	-1.94150766
14	-0.11381767	3.09886383	4.05073066
14	-4.14835781	2.63660108	-1.17974570
6	1.00875228	-1.07217802	-3.47380440
8	-1.63172901	-1.47820688	-4.42577452
8	0.04040658	-3.72819689	-4.43509047
8	0.20824368	-1.85475484	-6.27636680
6	2.87007004	-2.45447945	-0.03126539
8	3.03121941	-3.46472013	2.62688299
8	4.40047970	-4.88635607	0.88190663
8	5.43265865	-2.54246533	1.48486907
6	3.24071911	1.68888008	-1.24325912
8	4.60801901	4.37510913	-1.21910210
8	2.01447066	4.23922581	-1.59029627
8	3.84717307	3.44869241	-3.57218504
6	-2.50484702	-1.90465511	1.66726619
8	-1.69849819	-4.57678051	2.05762948
8	-4.46714974	-4.17735763	1.97669162
6	-1.17496171	2.39429163	2.72633589
8	0.23929004	2.01913704	5.29246955
8	-0.63552753	4.46586576	4.87954143
8	1.29124241	3.65861590	3.26113929
6	-3.63079220	1.10466707	-0.30009957
8	-5.79226119	2.92610769	-1.44993413
8	-3.58054814	4.02977486	-0.43458811
8	-3.35508613	2.57061156	-2.69086765
7	-0.00328495	0.27158039	-0.15247230
6	-2.80600715	-1.70669771	-5.26425067
6	-2.76645232	-0.73631853	-6.45189763
1	-3.65512778	-0.86683424	-7.09140847
1	-2.75181495	0.30814590	-6.09817564
1	-1.85880549	-0.91472750	-7.04630998
6	-4.01768697	-1.41059350	-4.37043069
1	-4.95795107	-1.56702830	-4.92422540
1	-4.02177233	-2.07460582	-3.48981476
1	-4.01197165	-0.36325384	-4.02403996
6	-2.87350685	-3.15684992	-5.75961845
1	-3.79204870	-3.30528114	-6.35121228
1	-2.00631574	-3.39650704	-6.39156685
1	-2.88988843	-3.85780620	-4.91078308
6	0.07680683	-4.60268460	-3.28658588
6	-0.67416566	-3.99736719	-2.09526155
1	-0.65137449	-4.68052041	-1.22999000
1	-0.22687652	-3.03237671	-1.79926214
1	-1.72854666	-3.81455107	-2.35875414
6	-0.60062610	-5.90849413	-3.72715603
1	-0.56765321	-6.65748200	-2.91905284
1	-1.65431279	-5.72650130	-3.99145292
1	-0.08812412	-6.32239835	-4.60972992
6	1.54620393	-4.87227322	-2.93548676
1	1.63001533	-5.57286701	-2.08777212
1	2.06613713	-5.31049918	-3.80229581
1	2.05631222	-3.93650843	-2.65783795
6	1.21753151	-2.39378451	-7.16108128
6	0.72962483	-3.74781509	-7.69783861
1	1.46601390	-4.18134471	-8.39437451
1	0.57210357	-4.44455989	-6.86079832
1	-0.22371937	-3.62190496	-8.23608273
6	2.56930314	-2.55933081	-6.45243478
1	3.32563773	-2.93542783	-7.16062062
1	2.91842914	-1.59576170	-6.04903471
1	2.48770551	-3.27924432	-5.62252488
6	1.34656207	-1.37943062	-8.30540798
1	2.08294485	-1.71890664	-9.05138482

1 0.37470443 -1.24556676 -8.80692802
1 1.66763363 -0.40139529 -7.91135183
6 3.36664805 -4.22377416 3.83386967
6 2.45939231 -3.66908844 4.93934474
1 2.61781558 -4.21562514 5.88333811
1 2.67544802 -2.60356346 5.11817591
1 1.39385610 -3.77380193 4.67234757
6 3.07891979 -5.71192509 3.60043644
1 3.31006527 -6.29513489 4.50713134
1 2.01763273 -5.87164343 3.35562362
1 3.68693852 -6.08056858 2.76249636
6 4.83397983 -4.02673000 4.23631115
1 5.03402565 -4.56607740 5.17703270
1 5.51378607 -4.40972189 3.46169985
1 5.05411007 -2.95977311 4.39574702
6 5.41365998 -5.44288791 0.01227627
6 4.93050066 -6.85892767 -0.32891597
1 5.65836154 -7.37792775 -0.97299218
1 4.79466689 -7.44779877 0.59239682
1 3.96292332 -6.81385358 -0.85484687
6 6.74426090 -5.50034543 0.77739666
1 7.53558450 -5.94719732 0.15330560
1 7.04827688 -4.48500621 1.07259033
1 6.63271465 -6.11292071 1.68669743
6 5.57331024 -4.62148732 -1.27497251
1 6.32404021 -5.08905373 -1.93290362
1 4.61817772 -4.56697843 -1.82078554
1 5.90867650 -3.59781927 -1.04464522
6 5.86591878 -1.17248602 1.62583594
6 7.13331101 -1.21805713 2.49202836
1 7.55217475 -0.20705844 2.62219016
1 6.90568320 -1.63277004 3.48633232
1 7.89564674 -1.85494522 2.01648689
6 6.20767230 -0.62453407 0.23497641
1 6.61015162 0.39870247 0.30422532
1 6.96321722 -1.26330476 -0.24934539
1 5.31047366 -0.59540373 -0.40369031
6 4.79239300 -0.31441481 2.30324379
1 5.13250735 0.73098324 2.39520298
1 3.85677034 -0.33141569 1.71872202
1 4.57265199 -0.69656015 3.31333392
6 6.04546791 4.42880286 -1.37762608
6 6.63797322 3.04941168 -1.69488872
1 7.73601708 3.11441660 -1.76725945
1 6.38210075 2.32713926 -0.90443612
1 6.24877365 2.67105486 -2.65338301
6 6.59042430 4.93953571 -0.03721137
1 6.14556074 5.91803612 0.20594856
1 6.33522680 4.23463027 0.77084160
1 7.68607083 5.05239177 -0.07462229
6 6.37605775 5.41928936 -2.50409608
1 5.97567919 6.41765014 -2.26344631
1 7.46661213 5.50799664 -2.63992423
1 5.92471915 5.07549563 -3.44729757
6 1.72745789 5.66575422 -1.73407812
6 2.16610674 6.38823243 -0.45457434
1 1.95913328 7.46937012 -0.52443439
1 1.61675598 6.00343187 0.42127370
1 3.24459003 6.23930716 -0.29273282
6 2.43328811 6.27998125 -2.94950718
1 2.15801407 7.34422015 -3.03626079
1 3.52569443 6.20829931 -2.84845939
1 2.13405501 5.76928235 -3.87713490
6 0.20823405 5.76453207 -1.91150855
1 -0.10246144 6.81546247 -2.03102409
1 -0.10851189 5.20578474 -2.80691765
1 -0.32707682 5.35053138 -1.04063284
6 3.33384069 2.80545693 -4.75786838
6 3.80766180 3.66931643 -5.93578770
1 3.46173028 3.24794472 -6.89349547

1 3.41544830 4.69408571 -5.84088241
1 4.90774831 3.71900837 -5.95140217
6 1.80160244 2.74752636 -4.73019680
1 1.41354529 2.22178479 -5.61852336
1 1.45538608 2.21592802 -3.82787533
1 1.37699003 3.76376763 -4.71196633
6 3.93236618 1.39719746 -4.87421163
1 3.62086576 0.91953220 -5.81759229
1 5.03264774 1.45131260 -4.85711664
1 3.60002339 0.75678393 -4.04230505
6 -5.22483861 -4.16180945 0.74491738
6 -6.25947118 -5.28825991 0.88524445
1 -6.90691172 -5.33625076 -0.00497056
1 -5.75520391 -6.25945098 1.00636596
1 -6.89217371 -5.11282976 1.76939454
6 -5.94092604 -2.81053406 0.60059071
1 -6.56886578 -2.79723603 -0.30572673
1 -6.58825979 -2.62716883 1.47287418
1 -5.20972233 -1.98998603 0.52886914
6 -4.32796254 -4.42387379 -0.47221103
1 -4.93060468 -4.45477486 -1.39523726
1 -3.57223634 -3.63033771 -0.58078107
1 -3.80231016 -5.38635851 -0.37045300
6 -1.49598106 -5.96660274 2.45795788
6 -0.43216278 -6.51861482 1.50036839
1 -0.79951356 -6.48332878 0.46197159
1 0.50302076 -5.93739492 1.55926182
1 -0.18954399 -7.56535587 1.74616527
6 -2.77853780 -6.79909781 2.32863117
1 -3.15409506 -6.77804226 1.29425018
1 -2.56409435 -7.84657811 2.59764128
1 -3.57064822 -6.42113490 2.99096455
6 -0.99795371 -6.00248329 3.90849864
1 -0.80109995 -7.03924101 4.22767053
1 -0.06188287 -5.43200169 4.01638610
1 -1.74809621 -5.55222468 4.57480782
6 -4.09389498 -3.18571574 5.03388000
6 -5.05980828 -4.37449965 5.14357772
1 -5.85880009 -4.15950247 5.87202748
1 -5.50982110 -4.58384532 4.16234443
1 -4.51721033 -5.27277574 5.48082407
6 -3.39612582 -2.94322634 6.37786097
1 -4.13209522 -2.70824718 7.16335806
1 -2.83386368 -3.84092474 6.68190042
1 -2.68716195 -2.10472018 6.29440932
6 -4.84133871 -1.92023831 4.59279056
1 -5.60981309 -1.64757778 5.33442079
1 -4.14074714 -1.07484602 4.49372988
1 -5.34021822 -2.08160460 3.62398091
6 0.65032315 0.63627672 5.28939903
6 -0.59870248 -0.25271894 5.23952674
1 -0.33372094 -1.32082389 5.31672125
1 -1.27257336 -0.00364085 6.07480512
1 -1.15338050 -0.10405788 4.29685335
6 1.58033218 0.32614312 4.11127314
1 2.46979538 0.97556501 4.13507212
1 1.92428376 -0.72061857 4.15382027
1 1.06399609 0.48964151 3.14757090
6 1.39085752 0.42062341 6.61764116
1 2.28204396 1.06610192 6.66794066
1 0.73202531 0.67358469 7.46323547
1 1.71104007 -0.62879324 6.72524254
6 -1.60642296 4.62797999 5.93877812
6 -2.76537954 3.62973389 5.80769252
1 -2.39708699 2.59412754 5.88707550
1 -3.50150579 3.79480804 6.61142543
1 -3.27515774 3.75085350 4.83880649
6 -0.89668598 4.44479707 7.28848460
1 -0.08628540 5.18385491 7.39457975
1 -1.60255973 4.58226464 8.12412030

1	-0.46209413	3.43540812	7.34668374
6	-2.13324093	6.06248935	5.79842236
1	-1.30285125	6.78194946	5.87918579
1	-2.60982205	6.19540280	4.81365590
1	-2.87200148	6.28894813	6.58393355
6	2.35112551	4.52068939	3.78373700
6	2.69568597	4.17171114	5.23792441
1	3.52086939	4.81414231	5.58718260
1	1.82788720	4.32658170	5.89490082
1	3.01539146	3.12145104	5.32323737
6	1.89984703	5.98283652	3.67915826
1	2.69171188	6.65972174	4.04016142
1	1.67841718	6.24516766	2.63198118
1	0.98937202	6.13351169	4.27677431
6	3.57348674	4.26822741	2.89142068
1	4.43002015	4.87423792	3.22905202
1	3.86751755	3.20565065	2.93045806
1	3.37388262	4.54281009	1.84216894
6	-6.95866886	2.06944028	-1.49909020
6	-6.71700965	0.82986280	-2.37135742
1	-7.63843592	0.22861048	-2.44563209
1	-6.41188525	1.12151987	-3.38790989
1	-5.92940262	0.19476985	-1.93627852
6	-7.35325269	1.64351589	-0.07733413
1	-8.27311345	1.03660368	-0.09697286
1	-6.55171074	1.04317629	0.38111196
1	-7.53706621	2.52862323	0.55183525
6	-8.07143551	2.93229001	-2.11178224
1	-9.01611982	2.36822291	-2.16915276
1	-8.23631147	3.83216695	-1.49875733
1	-7.79440540	3.25274230	-3.12894040
6	-4.17409373	4.94591203	0.51968848
6	-3.02353484	5.83553200	1.00844913
1	-3.39367371	6.59842282	1.71269620
1	-2.25895867	5.23485167	1.52716975
1	-2.55243926	6.34842423	0.15513840
6	-4.78316221	4.17607684	1.69902760
1	-5.18124398	4.87493359	2.45277798
1	-5.60850843	3.53239353	1.35760388
1	-4.01798727	3.54595451	2.18057306
6	-5.24283624	5.81212912	-0.16476759
1	-5.70237897	6.49745379	0.56600726
1	-4.79025005	6.41801984	-0.96559988
1	-6.02311823	5.17306343	-0.60268957
6	-3.43946192	3.45307905	-3.84938256
6	-3.57128292	4.92402901	-3.43907833
1	-3.55050854	5.56264372	-4.33820793
1	-4.52160563	5.09796834	-2.91372701
1	-2.74736318	5.22058372	-2.77320075
6	-2.13066306	3.24780279	-4.62370750
1	-2.09687509	3.89525551	-5.51489249
1	-1.26450848	3.49501525	-3.98820447
1	-2.03480170	2.20511949	-4.97395397
6	-4.63507529	3.04164765	-4.71685476
1	-4.67121888	3.64846471	-5.63697606
1	-4.56074379	1.98096601	-5.00814917
1	-5.57326673	3.19233072	-4.16262854
14	-2.98027162	-3.51619483	2.42427073
8	-3.03484138	-3.51313607	4.10115876
1	2.18181972	-3.24457482	-0.42189007
1	-2.58468475	-2.04003727	0.55834061
1	-4.01293374	0.20817215	-0.83597492
1	1.14662228	-0.08026377	-3.96874923
1	3.59387602	1.72419249	-0.18310247
1	-1.53935318	3.23662805	2.09071943
1	-4.20418377	1.11942606	0.66121891
1	2.02053449	-1.54570509	-3.55912367
1	3.57280398	-2.29800574	-0.89291863
1	-3.38073392	-1.25473994	1.93805953
1	4.03173576	1.08821692	-1.75368465

1	-2.09350518	2.04423360	3.26484674
---	-------------	------------	------------

Product -LS

93	0.02207007	0.07879661	-1.90005650
93	-0.11090357	0.06838940	1.38758565
14	-2.83056091	-2.52790209	-3.32524705
14	3.71695801	0.28273992	3.39503208
6	-1.75595077	-1.05564110	-3.29065769
8	-3.88391224	-2.58739426	-1.98478847
8	-3.76146153	-2.88251780	-4.68561006
8	-1.83771505	-3.85685022	-2.97014899
6	2.02744838	-0.09323170	2.76389186
8	4.80136772	-0.35527692	2.24205942
8	4.16588584	-0.48387831	4.82381307
8	4.03138682	1.89831297	3.71655241
6	-5.14216938	-1.90730057	-1.73072513
6	-5.39531441	-2.05325427	-0.22570393
1	-5.42257961	-3.11763132	0.05563367
1	-6.35970726	-1.59896022	0.05435018
1	-4.60130195	-1.55477355	0.35542442
6	-5.05202149	-0.41865497	-2.09108958
1	-4.21592430	0.05924639	-1.55547434
1	-5.98732173	0.09525613	-1.81189215
1	-4.90081056	-0.27911480	-3.17261947
6	-6.25837644	-2.60284323	-2.52121208
1	-6.04562302	-2.56212911	-3.59941744
1	-7.23261256	-2.12525762	-2.32545698
1	-6.32460890	-3.66366703	-2.22793873
6	-3.86473686	-2.30368170	-6.01100167
6	-4.43938482	-0.88235940	-5.92805135
1	-5.42310120	-0.89040465	-5.43260411
1	-4.56618389	-0.45968806	-6.93821838
1	-3.75814926	-0.22760601	-5.36176531
6	-2.50390643	-2.27270688	-6.72072816
1	-1.79345112	-1.63841219	-6.16875142
1	-2.61698278	-1.86225442	-7.73730099
1	-2.07803598	-3.28415646	-6.80289887
6	-4.83362434	-3.21877738	-6.77272187
1	-4.43152794	-4.24296144	-6.82567236
1	-4.99268838	-2.85075884	-7.79882894
1	-5.80653259	-3.25655558	-6.25762818
6	-1.94136283	-5.26213179	-3.32435439
6	-3.38106370	-5.77350088	-3.18604305
1	-3.74985531	-5.63144268	-2.15826313
1	-3.42929103	-6.84864009	-3.42696241
1	-4.04737016	-5.22888368	-3.87267669
6	-1.43850289	-5.45656595	-4.76046265
1	-2.10787768	-4.94554621	-5.46688985
1	-1.40722879	-6.52768044	-5.02020625
1	-0.42385446	-5.03901968	-4.86821026
6	-1.01275002	-6.00192500	-2.35184247
1	0.00910572	-5.59319908	-2.41501916
1	-0.97451819	-7.07798467	-2.58737797
1	-1.37119425	-5.90109099	-1.31373918
6	6.17440494	-0.81900575	2.43324392
6	6.80681898	-0.84211089	1.03761499
1	6.23737273	-1.49567678	0.35539493
1	7.83959913	-1.22521467	1.08352657
1	6.83859221	0.17345277	0.61088381
6	6.13569230	-2.23380319	3.02546512
1	5.63136621	-2.21315473	4.00269158
1	7.15655017	-2.63100003	3.15249835
1	5.58081153	-2.91346592	2.35725424
6	6.96841893	0.13183258	3.33756047
1	6.96927565	1.15220297	2.92216246
1	8.01342200	-0.21123914	3.41608425
1	6.52986999	0.16437934	4.34433248
6	3.86430586	-0.17983676	6.20652681
6	3.97715560	-1.51405617	6.95583962
1	3.24292222	-2.23479129	6.56206204

1 3.79401233 -1.37438624 8.03328922
1 4.98491526 -1.93926608 6.82372995
6 4.90441026 0.82072790 6.73265991
1 5.91686072 0.39119439 6.66318894
1 4.70705162 1.06940450 7.78835010
1 4.87137003 1.74232487 6.13241113
6 2.44884752 0.39339810 6.36859736
1 2.34789465 1.34116355 5.81537963
1 2.24085599 0.59219342 7.43265195
1 1.69556825 -0.31882334 5.99568121
6 3.87935882 3.14170381 2.99686860
6 5.19611844 3.91064486 3.18093595
1 5.41890735 4.03307821 4.25250393
1 5.13413608 4.90902712 2.71759144
1 6.03071507 3.36279504 2.71416449
6 2.72424696 3.91300608 3.64870277
1 1.77988570 3.35488983 3.54827711
1 2.58972328 4.90139894 3.17843153
1 2.92609216 4.06304633 4.72096673
6 3.60701707 2.92198087 1.50443158
1 4.43741441 2.36080406 1.04453194
1 3.52742374 3.89154206 0.98586062
1 2.66592892 2.36886910 1.34816827
7 0.42629340 -1.11017974 -0.22467763
7 0.18615006 1.51337682 -0.21390171
7 -1.17715667 0.96977970 -0.32567797
14 3.65835818 -1.16187249 -3.35783409
14 -2.14113137 3.14893515 3.55109003
6 1.84261903 -0.99208189 -3.30918660
8 4.22894640 -2.23641409 -2.15857288
8 4.44270884 -1.56152390 -4.79535078
8 4.29133016 0.29686534 -2.77331875
6 -0.95950281 1.83375904 3.02640427
8 -2.09739626 4.39507220 2.38118527
8 -1.72734092 3.94678217 4.97588608
8 -3.72227676 2.66568480 3.84499949
6 4.31598745 -3.68622275 -2.13502887
6 4.60460923 -4.06168644 -0.67581916
1 5.53374258 -3.57994287 -0.33195018
1 4.72365506 -5.15248900 -0.56963753
1 3.77481613 -3.74731512 -0.01987179
6 2.99123256 -4.32289979 -2.57436291
1 2.16315555 -3.94830807 -1.95076619
1 3.04082055 -5.41990785 -2.47150332
1 2.76704879 -4.08997821 -3.62704445
6 5.47509453 -4.14495729 -3.02976884
1 5.31263445 -3.81618702 -4.06645580
1 5.57094603 -5.24312030 -3.00852021
1 6.42302830 -3.70503863 -2.67839934
6 3.98588004 -1.73439683 -6.16143324
6 2.99279488 -2.90153582 -6.25137577
1 3.45954185 -3.83437987 -5.89664137
1 2.67278990 -3.05368911 -7.29518360
1 2.10049072 -2.69415828 -5.63953517
6 3.33758914 -0.44961397 -6.69700736
1 2.44484408 -0.18771387 -6.10860061
1 3.02951155 -0.58831420 -7.74609834
1 4.04296005 0.39376072 -6.65287937
6 5.25033668 -2.05710372 -6.96958452
1 5.97381746 -1.22972291 -6.89629338
1 5.00354790 -2.21477660 -8.03159604
1 5.72948305 -2.96971941 -6.58111916
6 5.57675804 0.94255813 -2.98817287
6 6.73231829 -0.06494863 -2.93708150
1 6.74535786 -0.59837536 -1.97409311
1 7.69599590 0.45728426 -3.05910593
1 6.63164976 -0.80657518 -3.74487815
6 5.55396290 1.66240742 -4.34245698
1 5.48672180 0.92822292 -5.15771496
1 6.47074568 2.25862657 -4.48229677

1 4.68391342 2.33684967 -4.39852117
6 5.71075922 1.97160450 -1.85926506
1 4.85305459 2.66315763 -1.87119922
1 6.63678310 2.55937141 -1.96958980
1 5.74381994 1.47003669 -0.87853229
6 -2.41570700 5.80985396 2.56384456
6 -2.66769270 6.38305569 1.16174338
1 -1.76092559 6.32308992 0.53487996
1 -2.94481900 7.44754453 1.22607258
1 -3.49742070 5.85214888 0.66259309
6 -1.20877051 6.50954936 3.20245656
1 -1.01079329 6.07533753 4.19274473
1 -1.39545941 7.59133073 3.30789413
1 -0.31289630 6.37082211 2.57398767
6 -3.67737812 6.00058344 3.41574828
1 -4.53869932 5.49068666 2.95538205
1 -3.91451387 7.07434186 3.49940335
1 -3.52811228 5.59202676 4.42421512
6 -1.85467593 3.55828910 6.36336822
6 -0.74598573 4.31516114 7.10716900
1 0.24185398 4.01705186 6.72119031
1 -0.78300867 4.10262519 8.18768113
1 -0.86287407 5.40063309 6.95961329
6 -3.23715343 3.99239454 6.87395896
1 -3.35102361 5.08510227 6.78796977
1 -3.36662653 3.71465580 7.93289583
1 -4.02346762 3.50806199 6.27555254
6 -1.67504628 2.04531714 6.55563135
1 -2.45162062 1.49036117 6.00513073
1 -1.76089177 1.78806812 7.62400930
1 -0.68443333 1.72192042 6.19923016
6 -4.70173356 1.90642898 3.10417517
6 -6.06066614 2.55407931 3.40939944
1 -6.24332615 2.56202519 4.49537023
1 -6.87700069 1.99875353 2.91923712
1 -6.08139986 3.59475761 3.04754843
6 -4.67969857 0.46544540 3.62913343
1 -3.69362739 0.00541718 3.45926064
1 -5.44099075 -0.15532434 3.12804543
1 -4.88273424 0.45658174 4.71169042
6 -4.43247537 1.94326740 1.59477945
1 -4.46819679 2.98428710 1.23092402
1 -5.20093925 1.36890860 1.05191312
1 -3.44470161 1.51543847 1.35154767
19 3.31308347 -0.57449858 -0.06917270
14 -0.74114049 3.60944677 -3.61714887
14 -1.66992166 -3.46212907 3.37084882
6 0.03377564 1.95071776 -3.62047723
8 -0.14463274 4.64326703 -2.39898891
8 -0.74296647 4.51594354 -5.04188755
8 -2.33984394 3.44666899 -3.08272156
6 -1.34450883 -1.76931316 2.71454906
8 -2.55812024 -4.26394116 2.15565770
8 -2.66537176 -3.54681796 4.72445072
8 -0.33015082 -4.35496861 3.84708526
6 1.08957524 5.39733305 -2.28947866
6 1.20344967 5.79495813 -0.81138215
1 0.32840579 6.39322202 -0.50615592
1 2.10539181 6.40460427 -0.63789240
1 1.27072734 4.89679913 -0.17363767
6 2.29937190 4.53796800 -2.67742604
1 2.32054688 3.61958827 -2.06931701
1 3.23486691 5.09658547 -2.50716776
1 2.26167600 4.25540553 -3.74083693
6 0.99676916 6.65298056 -3.16635243
1 0.84489311 6.37419209 -4.21924842
1 1.91444792 7.25816745 -3.08082366
1 0.13985405 7.27245453 -2.8533419
6 -0.30790188 4.26516521 -6.40055627
6 1.21082565 4.04365689 -6.44531011

1	1.74210676	4.91392557	-6.02843750
1	1.54834698	3.90047820	-7.48485880
1	1.48252400	3.14774249	-5.86505841
6	-1.02773373	3.05194277	-7.00775171
1	-0.78674896	2.13628464	-6.44657205
1	-0.71132280	2.90924320	-8.05382093
1	-2.11901834	3.19265422	-6.99355376
6	-0.67814884	5.53522710	-7.17975056
1	-1.76604344	5.70410405	-7.14061817
1	-0.37409874	5.44929116	-8.23511043
1	-0.17787199	6.41248278	-6.73965062
6	-3.53035731	4.23043989	-3.35799546
6	-3.24825570	5.73675522	-3.27474737
1	-2.86453761	6.01308600	-2.27880010
1	-4.17330185	6.30870825	-3.45786466
1	-2.49884320	6.03044085	-4.02637885
6	-4.06613198	3.86161995	-4.74777719
1	-3.34715233	4.16853492	-5.52004020
1	-5.02792420	4.36413259	-4.94268457
1	-4.21810867	2.77205421	-4.81621481
6	-4.55563393	3.81995481	-2.29183647
1	-4.68275323	2.72542970	-2.28765875
1	-5.53321805	4.28907752	-2.48886311
1	-4.23608787	4.13573057	-1.28394082
6	-3.52540850	-5.35061702	2.28635083
6	-3.72498643	-5.89610964	0.86828854
1	-4.08282497	-5.10130401	0.19223011
1	-4.47115441	-6.70754830	0.86055827
1	-2.77833519	-6.30136172	0.47301364
6	-4.84577305	-4.78894277	2.83030550
1	-4.68390255	-4.36345966	3.83071024
1	-5.60783912	-5.58350715	2.88905594
1	-5.22384994	-3.99218346	2.16977094
6	-2.99411918	-6.46263947	3.19880937
1	-2.04595037	-6.86550340	2.80906982
1	-3.72387639	-7.28766339	3.25040028
1	-2.82099519	-6.08085373	4.21498954
6	-2.39158256	-3.33743419	6.12938383
6	-3.71969566	-2.87336140	6.74246823
1	-4.04604050	-1.93343907	6.26955972
1	-3.61535152	-2.70766493	7.82672182
1	-4.49970855	-3.63351611	6.57730583
6	-1.94834361	-4.67061128	6.75036883
1	-2.73780940	-5.42983380	6.62937055
1	-1.74584873	-4.55052522	7.82734910
1	-1.03569152	-5.02839891	6.25038305
6	-1.31063441	-2.26884494	6.34880233
1	-0.36026543	-2.57965139	5.88548924
1	-1.13632321	-2.12265963	7.42733595
1	-1.62101620	-1.30505509	5.91540091
6	0.89896450	-4.80069932	3.23672109
6	0.99910794	-6.31176689	3.49528478
1	0.93860873	-6.51790509	4.57546828
1	1.95412578	-6.71037806	3.11458493
1	0.17650770	-6.84625893	2.99408704
6	2.05019448	-4.07635713	3.94562115
1	1.97245047	-2.98674329	3.80514571
1	3.02910505	-4.40356219	3.55700935
1	2.01804652	-4.28869989	5.02590900
6	0.93191870	-4.52826304	1.72747709
1	0.11296056	-5.07535716	1.22875178
1	1.88208190	-4.88550667	1.29676480
1	0.83430423	-3.45095757	1.51013314
19	-1.52956476	3.59889019	-0.21126867
19	-1.71444715	-3.01549704	-0.19143029
1	1.35575208	-1.98930515	-3.29912847
1	-2.36714073	-0.13049816	-3.36081408
1	1.13690740	2.04047933	-3.69142474
1	1.93509572	-1.20356633	2.83918657
1	-0.87151593	-1.26117748	3.58879005

1	0.04106929	2.32093107	3.08157011
1	1.49924007	-0.45945818	-4.21999183
1	-1.10100877	-1.08575149	-4.18791140
1	-0.31457420	1.37730925	-4.50258728
1	1.38014245	0.29766535	3.58506044
1	-0.98202032	1.10916432	3.87121093
1	-2.35744508	-1.30766084	2.64134623

Product –HS

93	0.02428246	0.07245082	-1.90019186
93	-0.10321505	0.07598644	1.38103802
14	-2.82397065	-2.56311102	-3.33173793
14	3.72343654	0.25116315	3.39821180
6	-1.75750609	-1.08483699	-3.27190712
8	-3.90596693	-2.62680141	-2.01395217
8	-3.71864305	-2.92732343	-4.71294108
8	-1.83025543	-3.88401940	-2.95289281
6	2.03453169	-0.10613345	2.75439716
8	4.80779144	-0.39166804	2.24762423
8	4.16126313	-0.52784994	4.82407981
8	4.04776856	1.86154411	3.73290227
6	-5.16726176	-1.94183831	-1.78789017
6	-5.46533587	-2.10294704	-0.29279414
1	-5.51533909	-3.17039434	-0.02711023
1	-6.43125911	-1.63862105	-0.03517554
1	-4.68234572	-1.62312693	0.31834029
6	-5.05696721	-0.45030866	-2.13063695
1	-4.23228993	0.01667347	-1.56826435
1	-5.99558738	0.06848722	-1.87255078
1	-4.87470830	-0.30191739	-3.20624557
6	-6.26692216	-2.62078180	-2.61530791
1	-6.02439327	-2.57405574	-3.68684918
1	-7.24132963	-2.13479106	-2.44258299
1	-6.35147918	-3.68307659	-2.33231377
6	-3.80211318	-2.34736139	-6.03913820
6	-4.39511648	-0.93315326	-5.96650524
1	-5.38862753	-0.95255529	-5.49135846
1	-4.50529567	-0.51048020	-6.97858544
1	-3.73317038	-0.27120247	-5.38572702
6	-2.42697281	-2.29977016	-6.72021478
1	-1.73684499	-1.65424226	-6.15565591
1	-2.52356113	-1.89482159	-7.74065447
1	-1.98632938	-3.30589080	-6.78856316
6	-4.74303082	-3.27341167	-6.82239293
1	-4.32432589	-4.29106759	-6.87248900
1	-4.88826442	-2.90306822	-7.84971567
1	-5.72475824	-3.32847092	-6.32595373
6	-1.90453889	-5.28909878	-3.31306312
6	-3.33721334	-5.82483443	-3.19678577
1	-3.72348087	-5.68826243	-2.17465059
1	-3.36274368	-6.90093383	-3.43680299
1	-4.00295994	-5.29288239	-3.89390087
6	-1.37724602	-5.46948255	-4.74219673
1	-2.04667082	-4.96992284	-5.45666817
1	-1.31897654	-6.53869925	-5.00504488
1	-0.37015860	-5.03003590	-4.83315311
6	-0.97830693	-6.01582679	-2.32844580
1	0.03731126	-5.58985103	-2.37519892
1	-0.91841288	-7.09035129	-2.56651463
1	-1.35439851	-5.92300956	-1.29588541
6	6.17814419	-0.86181331	2.44275718
6	6.81965429	-0.87697792	1.05102465
1	6.25554642	-1.52692551	0.36081469
1	7.85200588	-1.26047669	1.10242243
1	6.85434145	0.14080402	0.62994407
6	6.13050758	-2.28086564	3.02384541
1	5.61881914	-2.26605531	3.99740876
1	7.14898922	-2.68254162	3.15569395
1	5.57851563	-2.95372289	2.34625318
6	6.97045020	0.07945963	3.35873306

1 6.97581303 1.10282883 2.95102524
1 8.01419299 -0.26679115 3.43969430
1 6.52676125 0.10560399 4.36346594
6 3.84399551 -0.23789782 6.20632959
6 3.95318906 -1.57885954 6.94398293
1 3.22949584 -2.29961582 6.53145741
1 3.75264526 -1.45140439 8.01983115
1 4.96539685 -1.99689727 6.82332865
6 4.87443725 0.76132679 6.75337332
1 5.88942541 0.33641221 6.69270189
1 4.66300226 1.00029375 7.80858418
1 4.84518669 1.68794258 6.16067916
6 2.42551670 0.33032494 6.35894466
1 2.32947111 1.28517434 5.81709138
1 2.20490082 0.51461457 7.42304718
1 1.67774880 -0.37790968 5.96785171
6 3.91317930 3.11283317 3.02272339
6 5.24812850 3.85244372 3.19656582
1 5.48498521 3.96286455 4.26639113
1 5.20309821 4.85497517 2.74024413
1 6.06546644 3.28972098 2.71722849
6 2.78284021 3.90431185 3.69335581
1 1.82487438 3.36803532 3.60187365
1 2.66472280 4.89771663 3.22939418
1 3.00150146 4.04454900 4.76362328
6 3.61866938 2.90795859 1.53257796
1 4.43169202 2.33243092 1.05977222
1 3.55289576 3.88188175 1.02018137
1 2.66601838 2.37351660 1.38350295
7 0.43817642 -1.11154018 -0.22889082
7 0.18856350 1.51016393 -0.21310387
7 -1.17817037 0.95972004 -0.33455581
14 3.65887128 -1.14359123 -3.36860006
14 -2.10209054 3.17634039 3.55770080
6 1.84286110 -0.98685815 -3.32540029
8 4.22961226 -2.23874491 -2.18760177
8 4.45516273 -1.50607756 -4.80928847
8 4.28673442 0.30432584 -2.75121483
6 -0.92559584 1.86295605 3.01561689
8 -2.10294321 4.40509016 2.36844665
8 -1.65186953 3.99920038 4.95692404
8 -3.67141222 2.68932782 3.90301777
6 4.32620022 -3.68753810 -2.18390953
6 4.61104943 -4.08137613 -0.72863736
1 5.53141444 -3.59248723 -0.37132554
1 4.74337708 -5.17196612 -0.63770341
1 3.77249713 -3.78825665 -0.07366408
6 3.00826042 -4.32848994 -2.63705060
1 2.17503782 -3.96930562 -2.01121547
1 3.06661973 -5.42629015 -2.54852536
1 2.78526033 -4.08314584 -3.68708506
6 5.49278947 -4.12433283 -3.07995292
1 5.32963338 -3.78653968 -4.11363476
1 5.60197926 -5.22140051 -3.07018796
1 6.43415302 -3.67637906 -2.72123559
6 4.01087590 -1.67130966 -6.18000173
6 3.04004684 -2.85517093 -6.29042953
1 3.52037353 -3.78315002 -5.94124717
1 2.73116297 -3.00244242 -7.33828540
1 2.13925699 -2.66973910 -5.68387886
6 3.34218455 -0.39278262 -6.70548181
1 2.43724245 -0.15721179 -6.12462299
1 3.04952876 -0.52355068 -7.76001936
1 4.02944057 0.46426216 -6.64171812
6 5.28731361 -1.95945845 -6.98255064
1 5.99192775 -1.11724977 -6.89544755
1 5.05181377 -2.11171688 -8.04790220
1 5.78360030 -2.86512440 -6.59937153
6 5.56872526 0.95948769 -2.95897484
6 6.72750735 -0.04528639 -2.93279796

1 6.74527147 -0.59653828 -1.97980046
1 7.68972144 0.48102324 -3.04848344
1 6.62461535 -0.77187045 -3.75372775
6 5.53566069 1.70745040 -4.29775132
1 5.46076428 0.99098333 -5.12790784
1 6.45174783 2.30591814 -4.43256722
1 4.66573185 2.38352729 -4.33171967
6 5.70592142 1.96632690 -1.81070710
1 4.84764439 2.65725396 -1.80525344
1 6.63089591 2.55695566 -1.91443529
1 5.74434720 1.44622254 -0.83989405
6 -2.43570795 5.81808186 2.53775862
6 -2.73574044 6.36569830 1.13484846
1 -1.84702625 6.31149113 0.48189005
1 -3.02762297 7.42665661 1.19164782
1 -3.57051046 5.81446421 0.66730380
6 -1.22146673 6.54394700 3.13173515
1 -0.98961298 6.12677507 4.12202285
1 -1.42068133 7.62438843 3.22729269
1 -0.34144657 6.40899755 2.48044055
6 -3.67570627 6.00552434 3.42180409
1 -4.54252740 5.47740071 2.99360589
1 -3.92437054 7.07737067 3.49575746
1 -3.49326376 5.61484163 4.43188102
6 -1.73672507 3.63396454 6.35384849
6 -0.60797010 4.40473305 7.05175872
1 0.36824521 4.10264489 6.64019186
1 -0.61146554 4.20856350 8.13598806
1 -0.73185081 5.48757816 6.89120011
6 -3.10474383 4.07422732 6.89711149
1 -3.22461406 5.16467847 6.79278235
1 -3.20197768 3.81745712 7.96475357
1 -3.90695906 3.57611327 6.33198339
6 -1.54831537 2.12482721 6.56644115
1 -2.33887523 1.55913527 6.04773366
1 -1.60325449 1.88557094 7.64101374
1 -0.56756907 1.79666434 6.18798738
6 -4.65919141 1.89623063 3.20926379
6 -6.01648089 2.54475586 3.51923108
1 -6.17492263 2.59221608 4.60802216
1 -6.83905845 1.96567999 3.06860052
1 -6.05362300 3.57093832 3.11937766
6 -4.61466473 0.47533276 3.78550563
1 -3.63024965 0.01392678 3.60991641
1 -5.38274198 -0.16747571 3.32379502
1 -4.79582666 0.50558351 4.87160804
6 -4.41961630 1.88070156 1.69438249
1 -4.47393959 2.90707327 1.29272739
1 -5.19144725 1.27849668 1.18751284
1 -3.43087983 1.45767414 1.44802147
19 3.32448738 -0.62709359 -0.06353928
14 -0.77659660 3.59651358 -3.61635199
14 -1.71510105 -3.42058874 3.35905134
6 0.00437277 1.94071310 -3.62821962
8 -0.17668162 4.63013378 -2.39977204
8 -0.78918375 4.50836803 -5.03789892
8 -2.37198536 3.42800397 -3.07386057
6 -1.40073784 -1.73466631 2.67484615
8 -2.58288177 -4.24009312 2.14137947
8 -2.72303587 -3.48604378 4.70414997
8 -0.37851119 -4.30120890 3.86340105
6 1.05796475 5.38340524 -2.29180737
6 1.18284900 5.76612569 -0.81055323
1 0.30952829 6.36026367 -0.49236343
1 2.08543472 6.37502563 -0.63769418
1 1.25633178 4.86148750 -0.18268807
6 2.26579234 4.52942548 -2.69756214
1 2.29331300 3.60536822 -2.09839463
1 3.20170588 5.08784531 -2.52894489
1 2.22036714 4.25749643 -3.76340841

6	0.95658968	6.64737952	-3.15566052
1	0.79477457	6.37822676	-4.20969837
1	1.87459061	7.25250052	-3.07323968
1	0.10232061	7.26323554	-2.82858099
6	-0.36506503	4.26283497	-6.40081814
6	1.15394932	4.04700144	-6.45993952
1	1.68495765	4.91832147	-6.04486752
1	1.48249364	3.90928587	-7.50309574
1	1.43536224	3.15025388	-5.88571295
6	-1.08775968	3.04928693	-7.00387147
1	-0.84240016	2.13373583	-6.44436815
1	-0.77906822	2.90672585	-8.05227660
1	-2.17892993	3.18977569	-6.98159107
6	-0.74500523	5.53373713	-7.17405589
1	-1.83305630	5.69959013	-7.12692320
1	-0.44824729	5.45081194	-8.23173248
1	-0.24401548	6.41136879	-6.73552926
6	-3.56575408	4.20997645	-3.33910802
6	-3.28694627	5.71630904	-3.24481362
1	-2.89981191	5.98559042	-2.24833544
1	-4.21371075	6.28797218	-3.41994255
1	-2.54076883	6.01732570	-3.99681154
6	-4.10627304	3.85222281	-4.72992849
1	-3.39177706	4.16943600	-5.50211366
1	-5.07062266	4.35341034	-4.91554699
1	-4.25524147	2.76289811	-4.80838869
6	-4.58578820	3.78792414	-2.27242343
1	-4.71171604	2.69329760	-2.27803702
1	-5.56472603	4.25791188	-2.46037899
1	-4.26172618	4.09413892	-1.26298559
6	-3.55148030	-5.32577167	2.26927422
6	-3.72770490	-5.88759528	0.85454991
1	-4.07274290	-5.10054875	0.16296793
1	-4.47449283	-6.69843114	0.84388487
1	-2.77488279	-6.29828088	0.48033403
6	-4.88065974	-4.75913506	2.78586186
1	-4.73587362	-4.32410900	3.78489791
1	-5.64372489	-5.55311051	2.83962932
1	-5.24733194	-3.96883111	2.11149025
6	-3.03341961	-6.42560911	3.20363341
1	-2.07772534	-6.83057816	2.83530503
1	-3.76234247	-7.25146190	3.25356640
1	-2.87801788	-6.03116228	4.21787249
6	-2.45829499	-3.28200685	6.11170069
6	-3.79084827	-2.82358801	6.71937335
1	-4.11676430	-1.88192678	6.24985723
1	-3.69199068	-2.66367634	7.80498776
1	-4.56849220	-3.58445923	6.54647398
6	-2.01581654	-4.61603865	6.73124977
1	-2.80373516	-5.37574140	6.60316499
1	-1.81992096	-4.49963128	7.80984574
1	-1.10002824	-4.97079108	6.23509213
6	-1.38255910	-2.20982101	6.33931858
1	-0.42949731	-2.51353863	5.87688031
1	-1.21141060	-2.06726270	7.41881658
1	-1.69703913	-1.24540981	5.91010190
6	0.85649383	-4.76339348	3.27720932
6	0.93808400	-6.27331947	3.54881792
1	0.84825779	-6.47052059	4.62854998
1	1.89931158	-6.68223126	3.19577920
1	0.12441078	-6.80587499	3.03130162
6	2.00147657	-4.04532334	4.00223718
1	1.93526315	-2.95583396	3.85564892
1	2.98401874	-4.38225847	3.63138295
1	1.94930416	-4.25321625	5.08259904
6	0.91812186	-4.50141127	1.76714904
1	0.10388948	-5.04471894	1.25679055
1	1.87325253	-4.86860402	1.35591182
1	0.83212291	-3.42516967	1.54042944
19	-1.54466093	3.58343982	-0.20627840

19	-1.72896994	-2.98864215	-0.20264546
1	1.36359587	-1.98760204	-3.31852363
1	-2.37267760	-0.16269788	-3.34674158
1	1.10549577	2.03651200	-3.71839304
1	1.93201478	-1.21642902	2.81869829
1	-1.02817248	-1.17183727	3.56406546
1	0.07055622	2.36262287	3.02507176
1	1.49566164	-0.45232942	-4.23341439
1	-1.09332955	-1.10802443	-4.16292134
1	-0.35548255	1.36453886	-4.50394117
1	1.38580580	0.28312260	3.57507469
1	-0.90866474	1.15936775	3.87837881
1	-2.42185270	-1.32044505	2.49824206

Uranium-NH Species

Reactant -LS

92	1.68131526	-0.49613371	-1.19708214
92	-1.71495933	0.46065475	1.14840030
19	0.53456507	-2.46274315	1.85756400
19	1.40998566	2.69091744	0.86195976
19	-1.66381112	0.38365790	-2.72408171
14	0.18059635	-1.99398779	-4.61037190
14	3.78152722	-3.34452546	0.71424793
14	3.27840635	3.09323062	-1.86887594
14	-0.30972076	2.94334946	3.93686027
14	-4.05279559	2.48742206	-1.20131444
7	0.84895381	-1.05050185	-3.33516331
8	-1.32707197	-1.28376475	-4.96816303
8	-0.01085694	-3.62640800	-4.31599812
8	1.02873379	-1.90930871	-6.05080943
7	2.63398210	-2.43594746	-0.18942132
8	3.15978711	-3.39464014	2.30055542
8	3.88646190	-4.95142869	0.25202329
8	5.37279707	-2.81642071	0.74543571
7	3.00147545	1.48757371	-1.32166818
8	4.20135638	4.05179851	-0.82797453
8	1.75398835	3.81298745	-1.77293421
8	4.03101150	3.29245903	-3.35434104
7	-2.25666562	-1.39002755	2.53177209
8	-1.68463920	-4.03398906	2.34239640
8	-4.37457894	-3.39561247	2.58754550
7	-0.98171325	2.22381272	2.52687651
8	0.23088756	1.87060250	5.09588748
8	-1.30738782	3.99859513	4.76606305
8	0.96175135	3.92296288	3.36503152
7	-3.40761389	1.09674467	-0.43058235
8	-5.71896763	2.71278438	-1.22447911
8	-3.40398747	3.90806403	-0.59746234
8	-3.49114221	2.42630095	-2.81248339
7	0.03972680	0.03531477	0.02687666
6	-2.15084751	-1.41931459	-6.16492413
6	-1.65435758	-0.40852791	-7.20695925
1	-2.27053339	-0.45154399	-8.12015644
1	-1.70322338	0.61673728	-6.80507688
1	-0.60804834	-0.62959687	-7.46688467
6	-3.58176069	-1.08807391	-5.72339529
1	-4.27706525	-1.13530456	-6.57751262
1	-3.92486933	-1.80386375	-4.95795303
1	-3.63657432	-0.07122089	-5.30050240
6	-2.10655080	-2.83991208	-6.74063181
1	-2.76352981	-2.90337053	-7.62370188
1	-1.08427644	-3.10655626	-7.04437633
1	-2.45178943	-3.57469486	-5.99821597
6	-0.58015648	-4.42450483	-3.25543575
6	-1.45186297	-3.58835427	-2.31419151
1	-1.88359817	-4.22208216	-1.52314539
1	-0.86398011	-2.79172039	-1.82249377

1 -2.28437099 -3.12263183 -2.86832987
6 -1.42383247 -5.51748560 -3.92773984
1 -1.81258471 -6.22406051 -3.17623932
1 -2.28058885 -5.07675013 -4.46119435
1 -0.81289418 -6.07707801 -4.65335077
6 0.58324060 -5.06857514 -2.49185362
1 0.21938759 -5.74064114 -1.69781965
1 1.21105982 -5.65035444 -3.18472409
1 1.20686032 -4.29163360 -2.02214496
6 2.20882326 -2.62691519 -6.49604151
6 1.76184523 -3.93460391 -7.16559075
1 2.63292121 -4.50202970 -7.53205511
1 1.21012758 -4.55419271 -6.44233234
1 1.10342037 -3.71980168 -8.02266617
6 3.16420616 -2.92429050 -5.33357583
1 4.06529646 -3.43879960 -5.70585293
1 3.47551552 -1.99561238 -4.82957319
1 2.67654136 -3.57299696 -4.58961115
6 2.88554629 -1.70643728 -7.51933808
1 3.77897938 -2.18753941 -7.94825378
1 2.18673939 -1.46819472 -8.33706065
1 3.19016822 -0.76288167 -7.03882142
6 3.64810156 -4.14305039 3.45625220
6 2.92794581 -3.54003566 4.66836774
1 3.22041893 -4.05875818 5.59592165
1 3.18163670 -2.47267574 4.77354381
1 1.83394788 -3.63488704 4.56381323
6 3.27653032 -5.62346813 3.30110681
1 3.61288236 -6.19913258 4.17910839
1 2.18516716 -5.74242451 3.21087566
1 3.73918990 -6.03691153 2.39378020
6 5.16403135 -3.99270117 3.63807789
1 5.48074704 -4.52435687 4.55067936
1 5.71437628 -4.40616801 2.78094216
1 5.43884700 -2.93134585 3.74397938
6 4.72513213 -5.63198549 -0.71395654
6 4.02491420 -6.96986707 -0.98542311
1 4.59881726 -7.57273029 -1.70726251
1 3.92401977 -7.54326476 -0.04999429
1 3.01593773 -6.79489294 -1.39197226
6 6.11271321 -5.86951891 -0.10110569
1 6.75812465 -6.42191208 -0.80358635
1 6.58523756 -4.90645734 0.14171985
1 6.02242283 -6.46148156 0.82422163
6 4.84093746 -4.82375870 -2.01289816
1 5.46385375 -5.36275216 -2.74528559
1 3.84754770 -4.66311628 -2.46065369
1 5.30159071 -3.84214160 -1.82189241
6 5.98774921 -1.51082053 0.69145283
6 7.38911525 -1.68132798 1.29644980
1 7.94687669 -0.73169578 1.25568556
1 7.32017174 -2.00214469 2.34759671
1 7.95373734 -2.44330216 0.73644011
6 6.10230073 -1.08503196 -0.77813047
1 6.58111608 -0.09693161 -0.87011133
1 6.70766739 -1.81617324 -1.33743847
1 5.10166937 -1.04243689 -1.24409144
6 5.18625695 -0.48916850 1.50700796
1 5.68843055 0.49308864 1.50306842
1 4.17101807 -0.35636231 1.09243952
1 5.09193886 -0.82273904 2.55331596
6 5.63534773 4.23911380 -0.72700788
6 6.37880252 2.91417054 -0.93659462
1 7.46546504 3.05485246 -0.81403124
1 6.04177897 2.17023629 -0.19651194
1 6.19340967 2.52146651 -1.94934123
6 5.88836044 4.76206704 0.69208394
1 5.32732679 5.69511321 0.86086799
1 5.56089363 4.02064797 1.43894955
1 6.96020830 4.96650968 0.84841089

6 6.08336339 5.27758049 -1.76544383
1 5.56929968 6.23686515 -1.58985359
1 7.16979649 5.45241428 -1.69684582
1 5.83798764 4.92536610 -2.77854265
6 1.36938563 5.20802043 -1.95338727
6 1.40138439 5.90074829 -0.58347621
1 1.12940391 6.96519626 -0.67683869
1 0.67875802 5.43766182 0.10966811
1 2.41484027 5.83649553 -0.15594163
6 2.29059975 5.94918362 -2.93009763
1 1.92751802 6.98112000 -3.06712343
1 3.32172435 5.99051756 -2.54894425
1 2.30372978 5.45276673 -3.91175837
6 -0.05988098 5.17366685 -2.50173490
1 -0.45784577 6.19588735 -2.61446114
1 -0.07146419 4.68832722 -3.49084682
1 -0.72667989 4.60936409 -1.82911807
6 3.85048740 2.59912367 -4.61519066
6 4.51611271 3.49385533 -5.66969492
1 4.43413045 3.04230994 -6.67136342
1 4.03473654 4.48441964 -5.69047472
1 5.58302429 3.63145332 -5.43309016
6 2.36077498 2.42365263 -4.93505176
1 2.22537325 1.88722900 -5.88912735
1 1.85947751 1.84766789 -4.13921198
1 1.86209941 3.40280232 -5.01360498
6 4.55918226 1.23996680 -4.55448699
1 4.49084708 0.72161738 -5.52474354
1 5.62490384 1.37715861 -4.30929360
1 4.10196808 0.59918074 -3.78216596
6 -5.18012154 -3.14066552 1.41582359
6 -6.25918357 -4.23310218 1.40496966
1 -6.94384124 -4.09442388 0.55263135
1 -5.79826791 -5.22997665 1.32577136
1 -6.84689854 -4.19475767 2.33566790
6 -5.83187793 -1.76074953 1.55622813
1 -6.48148859 -1.54459306 0.69309655
1 -6.44523152 -1.71816967 2.47079226
1 -5.05474924 -0.98056528 1.62226324
6 -4.34042969 -3.21530396 0.13535890
1 -4.97100484 -3.04767981 -0.75428347
1 -3.54045224 -2.45453159 0.14570798
1 -3.86888742 -4.20655608 0.04048530
6 -1.55371826 -5.47150083 2.56329099
6 -0.67956986 -5.98609044 1.41272703
1 -1.16285310 -5.77465983 0.44547106
1 0.31533213 -5.51023340 1.41520649
1 -0.52663172 -7.07450552 1.49601960
6 -2.91191994 -6.18425450 2.53411683
1 -3.41892444 -6.01708727 1.57136084
1 -2.76102664 -7.26878285 2.66283905
1 -3.57032149 -5.82415683 3.33788691
6 -0.86436944 -5.70852841 3.91325295
1 -0.71597574 -6.78664448 4.09020073
1 0.12431018 -5.22227066 3.93575067
1 -1.47190588 -5.28505834 4.72613728
6 -3.70244921 -2.97167198 5.71530306
6 -4.75192123 -4.09224851 5.74205606
1 -5.47134879 -3.93284360 6.56199829
1 -5.29415320 -4.11964115 4.78543528
1 -4.26073704 -5.06659793 5.89739096
6 -2.88195577 -2.97579356 7.01121822
1 -3.52732972 -2.79099862 7.88484544
1 -2.38251347 -3.94907164 7.14325967
1 -2.10570399 -2.19460841 6.97205896
6 -4.37815456 -1.60678743 5.52419889
1 -5.08498614 -1.40976469 6.34668908
1 -3.62902404 -0.79810978 5.51957486
1 -4.93746848 -1.57849553 4.57560659
6 1.12202111 0.73555174 5.12778642

6	0.26313272	-0.51684046	5.33894823
1	0.89241164	-1.41444057	5.45375460
1	-0.34247752	-0.40586449	6.25283214
1	-0.42358969	-0.67328857	4.48987905
6	1.94563040	0.61637976	3.84040694
1	2.56466604	1.51708289	3.69044059
1	2.61957606	-0.25464517	3.89097690
1	1.28537225	0.48576273	2.96260373
6	2.05237719	0.94121413	6.33194238
1	2.67320090	1.84054311	6.19446437
1	1.45997942	1.06675599	7.25188036
1	2.72115448	0.07428182	6.46110212
6	-2.34553626	3.74069955	5.74727017
6	-3.08201365	2.42659042	5.45736330
1	-2.38581593	1.57547021	5.52271529
1	-3.88969476	2.27385696	6.19217201
1	-3.52273087	2.43766475	4.44781341
6	-1.70105515	3.69453134	7.14015422
1	-1.20334962	4.65194200	7.36369982
1	-2.46326289	3.51179422	7.91530934
1	-0.95182809	2.88919223	7.17890481
6	-3.31192189	4.92690768	5.64408805
1	-2.77390398	5.87147387	5.82306956
1	-3.75823235	4.96636481	4.63812534
1	-4.12102942	4.83682474	6.38641561
6	1.60793877	5.07626078	3.98393425
6	1.81468082	4.86995395	5.48901481
1	2.33264619	5.74279918	5.91966081
1	0.84974382	4.74631457	6.00115207
1	2.42890666	3.97623009	5.67977752
6	0.74230777	6.31535745	3.72171540
1	1.21261768	7.21760197	4.14665980
1	0.61397942	6.46982309	2.63739052
1	-0.25085508	6.17889600	4.17575745
6	2.96531535	5.21214689	3.28536263
1	3.52191197	6.08000219	3.67582081
1	3.57724180	4.30940254	3.45004602
1	2.83384601	5.35524754	2.20004423
6	-6.86980959	1.84310484	-1.13694302
6	-6.65242580	0.53344620	-1.90848291
1	-7.57424424	-0.07118412	-1.90426814
1	-6.37941850	0.74098343	-2.95497066
1	-5.85033180	-0.07173977	-1.45663812
6	-7.17374709	1.56074751	0.34118552
1	-8.04514766	0.89322783	0.44003936
1	-6.31106776	1.08483290	0.83213533
1	-7.39906217	2.50096405	0.86867824
6	-8.03405908	2.62586067	-1.76204221
1	-8.97477331	2.05898336	-1.67566996
1	-8.15724117	3.59165859	-1.24780658
1	-7.84409192	2.82296207	-2.82907435
6	-3.87735706	4.81966333	0.42819782
6	-2.65156472	5.64196868	0.84325540
1	-2.92279329	6.39778347	1.59842811
1	-1.87516235	4.99219291	1.28010699
1	-2.22370112	6.15519671	-0.03204973
6	-4.44834623	4.06500683	1.63376710
1	-4.74176926	4.77721984	2.42214548
1	-5.33509712	3.48324786	1.34305816
1	-3.70519322	3.36775334	2.05406616
6	-4.94987433	5.74746898	-0.16423795
1	-5.31598870	6.44721375	0.60482897
1	-4.53416828	6.33631964	-0.99663651
1	-5.79718049	5.15210014	-0.53634594
6	-3.76741742	3.28309801	-3.95989419
6	-3.88859424	4.75851268	-3.56641701
1	-4.01923696	5.37351751	-4.47272964
1	-4.75825966	4.91824963	-2.91284923
1	-2.98677469	5.09617986	-3.03513593
6	-2.57772608	3.09606619	-4.91003043

1	-2.70051964	3.70776407	-5.81877308
1	-1.64080379	3.39842174	-4.41546539
1	-2.48986038	2.04361663	-5.22792037
6	-5.06137900	2.81401109	-4.63649835
1	-5.25076495	3.39401940	-5.55516445
1	-4.99450954	1.74842932	-4.91104822
1	-5.91477201	2.95132860	-3.95624576
14	-2.81016384	-2.95032896	3.00523977
8	-2.75071801	-3.23677767	4.65641046
1	1.38593066	-0.30470628	-3.82640967
1	3.93250195	1.03269864	-1.25556384
1	-4.08295489	0.31541093	-0.43851926
1	2.40075800	-3.04004992	-1.00247862
1	-2.55818974	-0.76155121	3.30669791
1	-1.50306851	2.99140740	2.05601854

Reactant -HS

92	1.68893050	-0.49741363	-1.20084785
92	-1.72278689	0.46120766	1.14366804
19	0.53418872	-2.45499809	1.85824700
19	1.40520406	2.69316105	0.85719141
19	-1.65841890	0.38985347	-2.72930621
14	0.17523351	-1.98728737	-4.60981365
14	3.77958707	-3.34379244	0.72370991
14	3.27152104	3.10025146	-1.86725162
14	-0.30381763	2.93670376	3.93000609
14	-4.04736659	2.48910206	-1.21606694
7	0.84756307	-1.04142810	-3.33919939
8	-1.33079143	-1.27416241	-4.97021917
8	-0.02510150	-3.61657173	-4.30271349
8	1.02056119	-1.91636223	-6.05232730
7	2.63302767	-2.43607230	-0.18144927
8	3.16174146	-3.38801069	2.31215607
8	3.87997782	-4.95311889	0.26820726
8	5.37210631	-2.81922412	0.74965581
7	2.99455106	1.49376813	-1.32416738
8	4.19524537	4.05483601	-0.82329273
8	1.74656462	3.81986155	-1.76786581
8	4.01922867	3.30828910	-3.35392162
7	-2.25934072	-1.39051762	2.52798493
8	-1.68137739	-4.03230004	2.34354200
8	-4.37351126	-3.39925906	2.59032483
7	-0.98073880	2.22325788	2.51974742
8	0.24422853	1.85857394	5.08041434
8	-1.30178573	3.98442968	4.76831050
8	0.96254614	3.92321692	3.35950991
7	-3.40265128	1.09607311	-0.44984192
8	-5.71380857	2.71304997	-1.24538896
8	-3.40230530	3.90862962	-0.60529730
8	-3.47996281	2.43318397	-2.82575036
7	0.03908152	0.03256242	0.02290511
6	-2.15386810	-1.41226282	-6.16744149
6	-1.65753455	-0.40245779	-7.21032341
1	-2.27335950	-0.44683702	-8.12368682
1	-1.70684722	0.62332164	-6.80981062
1	-0.61107277	-0.62342395	-7.46991272
6	-3.58521641	-1.08187044	-5.72656927
1	-4.27984446	-1.12641581	-6.58139051
1	-3.92879280	-1.80048024	-4.96413069
1	-3.64014115	-0.06649475	-5.30019661
6	-2.10832997	-2.83371448	-6.74113282
1	-2.76491948	-2.89849854	-7.62437995
1	-1.08577248	-3.09983004	-7.04429141
1	-2.45333972	-3.56784613	-5.99797734
6	-0.59028384	-4.39910393	-3.22849015
6	-1.42696954	-3.54311854	-2.27343087
1	-1.85527034	-4.16595830	-1.47208581
1	-0.81563896	-2.75505639	-1.79663509
1	-2.26179979	-3.06510092	-2.81358682
6	-1.46903428	-5.47717816	-3.87969518

1 -1.85658256 -6.17386112 -3.11838144
1 -2.32767201 -5.02071358 -4.39684698
1 -0.88432306 -6.05057747 -4.61601754
6 0.57541571 -5.06363175 -2.48610735
1 0.21531081 -5.72033277 -1.67757428
1 1.17396508 -5.66517847 -3.18787054
1 1.22696737 -4.29663437 -2.03828204
6 2.20216273 -2.63663304 -6.49033689
6 1.75659424 -3.94973631 -7.14995659
1 2.62870616 -4.52137484 -7.50731263
1 1.20139965 -4.56230065 -6.42332212
1 1.10207907 -3.74248246 -8.01183942
6 3.15611566 -2.92430175 -5.32439199
1 4.06002510 -3.43724015 -5.69209018
1 3.46291933 -1.99205005 -4.82414403
1 2.66970462 -3.57113512 -4.57791560
6 2.87923936 -1.72338112 -7.51977087
1 3.77430926 -2.20629916 -7.94317919
1 2.18151507 -1.49300404 -8.34069418
1 3.18125999 -0.77547342 -7.04624079
6 3.65283597 -4.13646031 3.46708319
6 2.93691530 -3.53203443 4.68090179
1 3.23132648 -4.05110374 5.60764954
1 3.19256676 -2.46509818 4.78571576
1 1.84253522 -3.62539119 4.57948551
6 3.27978355 -5.61681935 3.31518684
1 3.61812121 -6.19112131 4.19329217
1 2.18812207 -5.73507321 3.22827641
1 3.73933116 -6.03220972 2.40727630
6 5.16938079 -3.98698971 3.64441411
1 5.48864912 -4.51857062 4.55613079
1 5.71687003 -4.40073593 2.78561973
1 5.44504996 -2.92569530 3.74872278
6 4.71275066 -5.63831662 -0.69968084
6 4.00589351 -6.97312607 -0.96847925
1 4.57449415 -7.57848038 -1.69241937
1 3.90597977 -7.54638153 -0.03281872
1 2.99612625 -6.79384261 -1.37119311
6 6.10078745 -5.88112909 -0.08984107
1 6.74243623 -6.43691425 -0.79310107
1 6.57768607 -4.91974067 0.15116772
1 6.01010802 -6.47203308 0.83612895
6 4.82960757 -4.83167596 -1.99955122
1 5.44918901 -5.37379418 -2.73248296
1 3.83629566 -4.66789314 -2.44646195
1 5.29417377 -3.85154112 -1.81061398
6 5.99251749 -1.51657389 0.69065544
6 7.39374671 -1.69095944 1.29506784
1 7.95666892 -0.74468736 1.24803242
1 7.32472663 -2.00542793 2.34812520
1 7.95354925 -2.45900685 0.73849679
6 6.10762181 -1.09539701 -0.78018965
1 6.59010322 -0.10928833 -0.87485788
1 6.70999796 -1.83009703 -1.33813266
1 5.10665598 -1.04960694 -1.24557763
6 5.19615948 -0.48866256 1.50350000
1 5.70259029 0.49137718 1.49606918
1 4.18124905 -0.35338786 1.08885746
1 5.10134690 -0.81848756 2.55098603
6 5.63004736 4.23897295 -0.72413973
6 6.37105787 2.91449094 -0.94533946
1 7.45801610 3.05254539 -0.82268796
1 6.03335011 2.16501905 -0.21123013
1 6.18422949 2.53049847 -1.96113342
6 5.88723660 4.75083685 0.69823131
1 5.32848672 5.68371157 0.87524059
1 5.55987963 4.00448528 1.44025198
1 6.95985078 4.95191747 0.85363183
6 6.07690921 5.28442368 -1.75595638
1 5.56751005 6.24427417 -1.57016975

1 7.16433733 5.45469854 -1.69129418
1 5.82578920 4.94144117 -2.77085233
6 1.36370156 5.21650511 -1.94165098
6 1.39941387 5.90377669 -0.56911319
1 1.12976805 6.96930088 -0.65771287
1 0.67673155 5.44023756 0.12373046
1 2.41332040 5.83559349 -0.14348543
6 2.28396683 5.96052204 -2.91711588
1 1.92125967 6.99306951 -3.05027743
1 3.31572180 5.99973023 -2.53742542
1 2.29560596 5.46720119 -3.90032222
6 -0.06669956 5.18681060 -2.48682733
1 -0.46304948 6.21020855 -2.59432451
1 -0.08122272 4.70627894 -3.47818871
1 -0.73326017 4.62067024 -1.81552935
6 3.83803912 2.61805137 -4.61650478
6 4.49964255 3.51753380 -5.66949248
1 4.41854308 3.06779932 -6.67201614
1 4.01497184 4.50652645 -5.68787359
1 5.56624473 3.65819894 -5.43323722
6 2.34807942 2.44018935 -4.93416712
1 2.21244161 1.91011134 -5.89176550
1 1.85046656 1.85694245 -4.14128447
1 1.84639380 3.41843721 -5.00476888
6 4.54968443 1.26023320 -4.56133383
1 4.47792089 0.74356041 -5.53228256
1 5.61623570 1.39883339 -4.32074169
1 4.09702896 0.61685579 -3.78831409
6 -5.17995485 -3.15045180 1.41781138
6 -6.26236528 -4.23972568 1.41757885
1 -6.94960342 -4.10471361 0.56678043
1 -5.80447664 -5.23842769 1.34324645
1 -6.84626441 -4.19379235 2.35028263
6 -5.82655832 -1.76695316 1.54721227
1 -6.47719192 -1.55662224 0.68339896
1 -6.43766218 -1.71380126 2.46271312
1 -5.04645348 -0.98895797 1.60469018
6 -4.34181132 -3.23782175 0.13720002
1 -4.97348981 -3.07773353 -0.75304279
1 -3.54237987 -2.47639887 0.14018550
1 -3.87067781 -4.23006984 0.05110657
6 -1.54562632 -5.46844608 2.57223789
6 -0.67484385 -5.98779531 1.42136064
1 -1.16424061 -5.78788861 0.45471250
1 0.31760184 -5.50692797 1.41450874
1 -0.51602757 -7.07474124 1.51291832
6 -2.90199113 -6.18501922 2.55340031
1 -3.41377059 -6.02519947 1.59193030
1 -2.74771490 -7.26829233 2.68842266
1 -3.55769690 -5.82145112 3.35778903
6 -0.84965886 -5.69513499 3.92060484
1 -0.69605895 -6.77155160 4.10322339
1 0.13702009 -5.20459918 3.93588797
1 -1.45541789 -5.26912976 4.73346884
6 -3.69854632 -2.96955728 5.71703407
6 -4.75102586 -4.08728509 5.74308011
1 -5.47000447 -3.92587529 6.56301321
1 -5.29306180 -4.11310472 4.78638228
1 -4.26290230 -5.06316640 5.89863387
6 -2.87738475 -2.97775724 7.01251314
1 -3.52223361 -2.79512748 7.88696732
1 -2.37867751 -3.95185300 7.14137943
1 -2.10036353 -2.19721462 6.97532738
6 -4.37066969 -1.60265547 5.52786611
1 -5.07546836 -1.40361519 6.35163420
1 -3.61906780 -0.79638323 5.52170491
1 -4.93190870 -1.57248736 4.58036023
6 1.13105734 0.72017712 5.09866629
6 0.26977610 -0.52782559 5.32582730
1 0.89657250 -1.42812883 5.43223368

1	-0.32042211	-0.41275623	6.24920598
1	-0.43109264	-0.68245519	4.48792871
6	1.93228824	0.59583898	3.79759269
1	2.55620527	1.49197054	3.63981458
1	2.60149103	-0.27945598	3.83695895
1	1.25725018	0.47241907	2.92992542
6	2.08307891	0.92249643	6.28631367
1	2.70765976	1.81722061	6.13604333
1	1.50717655	1.05442664	7.21576389
1	2.74819617	0.05144059	6.40657739
6	-2.33947612	3.71843765	5.74769348
6	-3.06937107	2.40176972	5.45299765
1	-2.36967529	1.55353327	5.51789556
1	-3.87828385	2.24397294	6.18540228
1	-3.50763483	2.41302547	4.44231194
6	-1.69618447	3.67100917	7.14096610
1	-1.20115099	4.62917523	7.36717608
1	-2.45858560	3.48450750	7.91506149
1	-0.94484504	2.86752744	7.17891198
6	-3.31148206	4.90034932	5.64705309
1	-2.77864681	5.84681053	5.83148572
1	-3.75505750	4.94171831	4.63994420
1	-4.12230394	4.80321085	6.38661949
6	1.60712022	5.07478214	3.98365304
6	1.81246270	4.86277225	5.48810471
1	2.32964693	5.73416446	5.92252868
1	0.84698285	4.73661689	5.99857977
1	2.42661225	3.96835394	5.67563721
6	0.74021810	6.31362536	3.72487220
1	1.20769941	7.21476204	4.15524993
1	0.61485915	6.47292832	2.64091726
1	-0.25404925	6.17348752	4.17545627
6	2.96509768	5.21437441	3.28714203
1	3.52008328	6.08209806	3.68017369
1	3.57793767	4.31204517	3.45039359
1	2.83480405	5.35977977	2.20202759
6	-6.86142833	1.83781422	-1.16617107
6	-6.63694103	0.53342045	-1.94456742
1	-7.55603023	-0.07537458	-1.94502074
1	-6.36319396	0.74758362	-2.98946183
1	-5.83288455	-0.07074007	-1.49468814
6	-7.16797598	1.54530706	0.30939849
1	-8.03825319	0.87537078	0.40213055
1	-6.30542995	1.06819946	0.79943574
1	-7.39645832	2.48161845	0.84249181
6	-8.02708855	2.61963069	-1.78968068
1	-8.96510927	2.04707572	-1.71187480
1	-8.15777079	3.58063520	-1.26841065
1	-7.83371510	2.82620035	-2.85433879
6	-3.88279879	4.81610366	0.42138011
6	-2.66125280	5.64096836	0.84378347
1	-2.93872304	6.39597418	1.59743257
1	-1.88578734	4.99306912	1.28511898
1	-2.22947901	6.15542795	-0.02892220
6	-4.45615523	4.05617108	1.62247003
1	-4.75455474	4.76511517	2.41198574
1	-5.34030556	3.47301285	1.32668416
1	-3.71297678	3.35916672	2.04338706
6	-4.95567722	5.74200364	-0.17304524
1	-5.32204514	6.44339467	0.59433702
1	-4.54032856	6.32860251	-1.00720500
1	-5.80253985	5.14541425	-0.54423213
6	-3.75214968	3.29321453	-3.97184528
6	-3.87659954	4.76726457	-3.57435430
1	-4.00230431	5.38526300	-4.47930059
1	-4.75021934	4.92406763	-2.92535133
1	-2.97832185	5.10380510	-3.03651123
6	-2.55846612	3.10940997	-4.91749855
1	-2.67663875	3.72507720	-5.82415822
1	-1.62360144	3.40904425	-4.41753524

1	-2.46954223	2.05817134	-5.23922839
6	-5.04294751	2.82541582	-4.65533219
1	-5.22991058	3.40994104	-5.57165228
1	-4.97399289	1.76140022	-4.93516367
1	-5.89902159	2.95859441	-3.97762014
14	-2.80951989	-2.95033232	3.00586586
8	-2.74767815	-3.23489403	4.65729371
1	1.38849948	-0.29900620	-3.83087917
1	3.92494928	1.03633997	-1.26127074
1	-4.07723458	0.31411422	-0.46115318
1	2.40215408	-3.04104789	-0.99471458
1	-2.56385843	-0.75959630	3.29995842
1	-1.50607778	2.99117000	2.05401666

Product –LS

Product –HS

92	0.01454439	0.02382840	-1.70119397
92	-0.09908154	0.04260084	1.61208644
14	-2.90261550	-2.21639777	-3.10397723
14	3.49847423	0.44599883	3.34574109
7	-1.98899775	-0.86987855	-2.59421470
8	-4.21514531	-2.56641094	-2.07117996
8	-3.55584674	-2.25378176	-4.64517724
8	-1.89376060	-3.53092824	-2.78786937
7	1.99866572	-0.09015285	2.70384946
8	4.69567773	-0.24214649	2.33936495
8	3.86984667	-0.13841589	4.86937811
8	3.68067206	2.09895634	3.46105985
6	-5.55202453	-2.00455484	-2.03887182
6	-6.10895029	-2.33607188	-0.64855596
1	-6.09288897	-3.42532479	-0.48139110
1	-7.14973954	-1.98698098	-0.54898795
1	-5.50927551	-1.84965895	0.13978887
6	-5.51517069	-0.48254250	-2.23421031
1	-4.86187113	-0.01222462	-1.48070982
1	-6.52658371	-0.05464812	-2.13139783
1	-5.13981998	-0.22508237	-3.23745656
6	-6.40906946	-2.67385062	-3.12229155
1	-5.96634669	-2.49840950	-4.11407475
1	-7.43747797	-2.27656599	-3.10801456
1	-6.45415283	-3.76194136	-2.95086875
6	-3.19747601	-1.54978860	-5.86645063
6	-3.76954062	-0.12776366	-5.80573573
1	-4.85852465	-0.15822268	-5.63875655
1	-3.57910845	0.40586081	-6.75090444
1	-3.29423383	0.44088153	-4.99064794
6	-1.67824338	-1.50491779	-6.06073133
1	-1.20019189	-0.99164284	-5.21080456
1	-1.42929892	-0.96038450	-6.98595060
1	-1.26437750	-2.52155609	-6.13402261
6	-3.86532274	-2.33857785	-6.99995943
1	-3.47614137	-3.36863397	-7.03391585
1	-3.66999275	-1.85945425	-7.97252205
1	-4.95482912	-2.38637508	-6.84400076
6	-1.98595016	-4.91736452	-3.21547443
6	-3.42590100	-5.44256361	-3.15031015
1	-3.83636883	-5.34655207	-2.13324413
1	-3.44951406	-6.50631741	-3.44014787
1	-4.07803110	-4.88192668	-3.83851115
6	-1.44323955	-5.04244998	-4.64468916
1	-2.09204371	-4.49723403	-5.34587433
1	-1.40777554	-6.10018049	-4.95365541
1	-0.42493057	-4.62637434	-4.70524029
6	-1.09162380	-5.70405635	-2.24980433
1	-0.06630299	-5.30075201	-2.26310562
1	-1.05323427	-6.76908630	-2.53120790
1	-1.47797538	-5.63814993	-1.21970747
6	6.09551156	-0.53685486	2.62443991
6	6.77421748	-0.69900511	1.25868565

1 6.30221289 -1.51031946 0.67863298
1 7.84091148 -0.94958355 1.37946840
1 6.70544620 0.23569432 0.67814677
6 6.16783874 -1.85072608 3.41346618
1 5.62619718 -1.74380512 4.36500091
1 7.21542564 -2.12533443 3.62091109
1 5.70362772 -2.66893198 2.83738803
6 6.76273486 0.60369281 3.40252508
1 6.69885026 1.54734618 2.83815245
1 7.82754333 0.37320946 3.57225793
1 6.27428617 0.74601356 4.37708142
6 3.46437784 0.32682239 6.18178302
6 3.51835093 -0.90797886 7.09000360
1 2.80943148 -1.67294385 6.73506654
1 3.25889917 -0.64113139 8.12698397
1 4.53086910 -1.34228866 7.08245742
6 4.46592701 1.38901964 6.65699768
1 5.48024996 0.96187152 6.71185418
1 4.19285353 1.76018073 7.65844209
1 4.47504465 2.23484292 5.95291199
6 2.04386459 0.90457778 6.15879156
1 1.99720339 1.79141155 5.50655309
1 1.74076170 1.20283118 7.17566403
1 1.32977965 0.15497547 5.78472877
6 3.57687837 3.22620511 2.56175201
6 4.76939768 4.13756520 2.88591368
1 4.76063577 4.40882610 3.95334609
1 4.72761958 5.06308935 2.28870134
1 5.71920426 3.62442120 2.66637708
6 2.26011585 3.95313565 2.86327676
1 1.39558669 3.30211277 2.65401850
1 2.17143466 4.86341908 2.24585036
1 2.22209961 4.25412882 3.92271253
6 3.62408023 2.78964807 1.09427058
1 4.52795523 2.18941843 0.90302257
1 3.66175010 3.67428728 0.43705356
1 2.72215762 2.21376582 0.82326895
7 0.25171888 -1.22736537 -0.01931109
7 0.43560380 1.42868991 -0.00594188
7 -1.02554534 1.09850679 -0.11154223
14 3.41897338 -1.32441189 -3.20041019
14 -2.05470040 2.86159383 3.62263628
7 1.77376572 -1.17673509 -2.77801820
8 4.28181658 -2.36035277 -2.14914456
8 3.83358602 -1.82526794 -4.74565997
8 4.08240526 0.17314360 -2.81509388
7 -0.93647970 1.66666748 3.11429145
8 -1.85719029 4.25531215 2.64825078
8 -1.80152021 3.43227084 5.17957173
8 -3.66337716 2.39742259 3.61342000
6 4.45337794 -3.80118307 -2.17403093
6 4.98768809 -4.17976701 -0.78629220
1 5.91666796 -3.62717225 -0.57094551
1 5.20679462 -5.25865377 -0.73159552
1 4.24722790 -3.94682837 -0.00133953
6 3.11294671 -4.50570849 -2.42319788
1 2.36996297 -4.19834609 -1.66788231
1 3.23191162 -5.60056923 -2.36306785
1 2.72061076 -4.26256463 -3.42336158
6 5.48109209 -4.17840588 -3.24976745
1 5.13559628 -3.83853290 -4.23710538
1 5.63650394 -5.26969694 -3.27434972
1 6.44777693 -3.69372531 -3.03634027
6 3.06979299 -1.85624661 -5.98295709
6 2.09080525 -3.03624007 -5.94136044
1 2.63145001 -3.98219700 -5.77507809
1 1.54002623 -3.11647272 -6.89272133
1 1.35938319 -2.88909591 -5.13106018
6 2.30484061 -0.54589795 -6.19798967
1 1.60310117 -0.37790887 -5.36521328

1 1.73031864 -0.59070886 -7.13762125
1 2.99942606 0.30518859 -6.25769540
6 4.10729132 -2.06408514 -7.09331128
1 4.82528005 -1.22878340 -7.10851744
1 3.61547881 -2.12085321 -8.07743042
1 4.66689321 -2.99809312 -6.92586976
6 5.35754837 0.76309182 -3.19258448
6 6.48163492 -0.27968267 -3.23353700
1 6.58939328 -0.77722630 -2.25723018
1 7.43723236 0.20951405 -3.48573091
1 6.27372100 -1.04825055 -3.99452487
6 5.20600185 1.43499859 -4.56341574
1 5.01206629 0.67812551 -5.33785420
1 6.12540257 1.98052682 -4.83226196
1 4.36793983 2.14997891 -4.54560309
6 5.65458241 1.81891911 -2.12241320
1 4.83088496 2.54699843 -2.06464232
1 6.58723285 2.35902806 -2.35357162
1 5.76980699 1.34257599 -1.13562168
6 -2.22594782 5.63342539 2.95355286
6 -2.22346062 6.38580555 1.61456746
1 -1.21575879 6.38320642 1.16264860
1 -2.51048007 7.43945704 1.76193300
1 -2.94584008 5.93838245 0.90885476
6 -1.16731413 6.23710634 3.88622485
1 -1.14153849 5.67485550 4.83040966
1 -1.39014234 7.29660621 4.09612526
1 -0.17038239 6.17633041 3.41864516
6 -3.62269858 5.72247884 3.58169785
1 -4.38157884 5.29455576 2.90747903
1 -3.88387903 6.77698530 3.77152316
1 -3.65589402 5.17567402 4.53405237
6 -2.18191975 2.88591246 6.46589841
6 -1.17514674 3.46192687 7.47039743
1 -0.15367940 3.14349922 7.20871775
1 -1.40266113 3.11917238 8.49242324
1 -1.20950886 4.56299809 7.45429443
6 -3.60462286 3.35408748 6.80553152
1 -3.64572119 4.45455558 6.84662699
1 -3.91882074 2.96108695 7.78633256
1 -4.30746353 3.00164426 6.03580930
6 -2.11138443 1.35426588 6.46751868
1 -2.81086187 0.93465905 5.72716155
1 -2.37618234 0.96229021 7.46308802
1 -1.09419030 1.01662202 6.21756930
6 -4.58408958 1.82557016 2.66365339
6 -5.97463066 2.33356190 3.07407001
1 -6.19578807 2.03829479 4.11182179
1 -6.75396882 1.91445890 2.41694102
1 -6.01659466 3.43256253 3.00986380
6 -4.53445313 0.29628037 2.77695051
1 -3.53804497 -0.08557314 2.50454489
1 -5.27981920 -0.16767312 2.10892100
1 -4.75353445 -0.02106221 3.80920740
6 -4.26264515 2.26430306 1.23133391
1 -4.27180590 3.36473405 1.16343675
1 -5.02061971 1.87373314 0.53186962
1 -3.27574992 1.88699354 0.90663684
19 3.21614261 -0.90020554 0.08378760
14 -0.47810018 3.38453035 -3.46924662
14 -1.47859426 -3.27417358 3.40308317
7 0.14072716 1.80849062 -3.25304724
8 0.07101412 4.59274293 -2.38895856
8 -0.26400397 4.10516922 -4.97411626
8 -2.09350986 3.28620276 -3.00641140
7 -1.22977702 -1.68321531 2.80080712
8 -2.59362108 -4.02013264 2.34731303
8 -2.20669395 -3.33329418 4.90869697
8 -0.11772977 -4.23729994 3.55347282
6 1.30723639 5.35146566 -2.41417204

6 1.50208268 5.88838941 -0.98925012
1 0.62559239 6.48339027 -0.67988968
1 2.38860825 6.54141588 -0.93505778
1 1.65363272 5.05922007 -0.27679602
6 2.49424185 4.45494687 -2.78929989
1 2.52687332 3.57593990 -2.12552132
1 3.44254106 5.01037534 -2.69443703
1 2.40754878 4.10769874 -3.83057967
6 1.16485203 6.52234990 -3.39637708
1 0.93362250 6.14083911 -4.40152982
1 2.09378852 7.11539954 -3.43512854
1 0.34292529 7.18653554 -3.08050887
6 0.00115371 3.57406054 -6.29771710
6 1.50785504 3.31564181 -6.44021942
1 2.07737162 4.23612345 -6.23502816
1 1.74824597 2.98078891 -7.46240937
1 1.83552106 2.52998915 -5.74189182
6 -0.78711968 2.28560294 -6.55491006
1 -0.54204345 1.53313958 -5.78887648
1 -0.54288106 1.88104776 -7.55087748
1 -1.86937453 2.47992876 -6.51348666
6 -0.42749800 4.67414872 -7.27871450
1 -1.50517183 4.87975967 -7.18235865
1 -0.22344196 4.36806834 -8.31719683
1 0.12189028 5.60659637 -7.07282106
6 -3.22043461 4.15776412 -3.26611643
6 -2.88847541 5.62645254 -2.96715805
1 -2.58745300 5.76247133 -1.91551721
1 -3.77258675 6.25841348 -3.15437988
1 -2.06434930 5.98219961 -3.60509982
6 -3.66456085 4.01119986 -4.72828761
1 -2.87590897 4.37525973 -5.40238521
1 -4.58242614 4.59301104 -4.91389195
1 -3.86919031 2.95325460 -4.95717067
6 -4.33806495 3.66947046 -2.33680770
1 -4.57139633 2.61272833 -2.54233857
1 -5.25400617 4.26628371 -2.47739276
1 -4.03244208 3.74850861 -1.28125976
6 -3.54920732 -5.09203368 2.59261510
6 -3.95987172 -5.60986972 1.20816698
1 -4.41368168 -4.80409238 0.60637842
1 -4.70200240 -6.42004912 1.29790747
1 -3.08447413 -6.00837666 0.66799976
6 -4.76493892 -4.50523671 3.32240750
1 -4.45128647 -4.08608867 4.29006678
1 -5.53009927 -5.28054106 3.49380676
1 -5.21682606 -3.69761009 2.72264450
6 -2.92456446 -6.23161168 3.40592624
1 -2.05513298 -6.65442893 2.87813294
1 -3.66201626 -7.03777887 3.55491270
1 -2.59466342 -5.87052016 4.39008520
6 -1.64406171 -3.27026253 6.24378014
6 -2.76734923 -2.72799257 7.13654413
1 -3.06037737 -1.71819725 6.80863818
1 -2.44019705 -2.67716360 8.18737013
1 -3.65086833 -3.38331791 7.07521761
6 -1.24636370 -4.68662973 6.68293271
1 -2.12697264 -5.34911342 6.68730278
1 -0.82158672 -4.67177048 7.70002920
1 -0.49693252 -5.09681748 5.98921918
6 -0.42905847 -2.33641963 6.29245033
1 0.37124438 -2.71119318 5.63491154
1 -0.03805975 -2.27302147 7.32103456
1 -0.70859152 -1.32424728 5.96298421
6 0.90549946 -4.78254650 2.69627984
6 1.08848612 -6.24774872 3.11910884
1 1.33609468 -6.30645579 4.19076165
1 1.90151398 -6.72200149 2.54524572
1 0.16237880 -6.81829104 2.94659184
6 2.20454976 -4.00531484 2.94736157

1 2.08600093 -2.95476940 2.63962211
1 3.03962768 -4.44329919 2.37478168
1 2.47035147 -4.02721174 4.01630939
6 0.52286899 -4.69689655 1.21508436
1 -0.42831711 -5.22348020 1.03538149
1 1.29747381 -5.17988323 0.59544811
1 0.43803745 -3.64311926 0.88899676
19 -0.96972923 3.71709314 0.05251111
19 -2.21299512 -2.63996920 0.02705430
1 1.37667982 -2.12126611 -2.62753758
1 -2.55140735 -0.00435508 -2.65776085
1 1.09372507 1.71514003 -3.63766750
1 1.86093193 -1.03606327 3.10843495
1 -1.76061766 -1.06173325 3.43732910
1 -0.10197460 1.75312254 3.72097970

Additional References

- (1) Hirshfeld, F. L. Bonded-atom fragments for describing molecular charge densities. *Theor. Chim. Acta* **1977**, *44*,
- (2) Marenich, A. V.; Jerome, S. V.; Cramer, C. J.; Truhlar, D. G. Charge Model 5: An Extension of Hirshfeld Population Analysis for the Accurate Description of Molecular Interactions in Gaseous and Condensed Phases. *Journal of Chemical Theory and Computation* **2012**, *8*,
- (3) Aquilante, F.; Autschbach, J.; Carlson, R. K.; Chibotaru, L. F.; Delcey, M. G.; De Vico, L.; Galvan, I. F.; Ferre, N.; Frutos, L. M.; Gagliardi, L.; Garavelli, M.; Giussani, A.; Hoyer, C. E.; Li Manni, G.; Lischka, H.; Ma, D. X.; Malmqvist, P. A.; Muller, T.; Nenov, A.; Olivucci, M.; Pedersen, T. B.; Peng, D. L.; Plasser, F.; Pritchard, B.; Reiher, M.; Rivalta, I.; Schapiro, I.; Segarra-Marti, J.; Stenrup, M.; Truhlar, D. G.; Ungur, L.; Valentini, A.; Vancoillie, S.; Veryazov, V.; Vysotskiy, V. P.; Weingart, O.; Zapata, F.; Lindh, R. MOLCAS 8: New capabilities for multiconfigurational quantum chemical calculations across the periodic table. *J. Comput. Chem.* **2016**, *37*, 506.
- (4) Kállay, M.; Rolik, Z.; Ladjánszki, I.; Szegedy, L.; Ladończki, B.; Csontos, J.; Kornis, B. MRCC, A quantum chemical program suite. *J. Chem. Phys.* **2013**, *139*, 094105.
- (5) Zobel, J. P.; Nogueira, J. J.; González, L. The IPEA dilemma in CASPT2. *Chemical Science* **2017**, *8*,
- (6) Li Manni, G.; Carlson, R. K.; Luo, S. J.; Ma, D. X.; Olsen, J.; Truhlar, D. G.; Gagliardi, L. Multiconfiguration pair-density functional theory. *J. Chem. Theory Comput.* **2014**, *10*, 3669.

UN MRCC input file

unit=angs
 basis=atomtype
 N:cc-pVTZ
 U:RSCBASIS
 ecp=atomtype
 U:RSCECP-60
 calc=CCSDT
 mem=110GB
 core=10
 ccprog=mrcc
 charge=0
 verbosity=3
 scftype=uhf
 mult=4
 geom=xyz
 2

U -0.61364756 0.60687310 -0.17857393
 N 0.61364756 -0.60687310 0.17857393

UN CASSCF/CASPT2 input file

&GATEWAY
 Title= UN in C2V symmetry
 Coord
 2
 Angstrom
 U -0.61364756 0.60687310 -0.17857393
 N 0.61364756 -0.60687310 0.17857393
 Group = NoSym
 Basis = ANO-RCC-VTZP
 End of Input

&SEWARD

>>COPY /\$CurrDir/\$Project.RasOrb.1 INPORB

&RASSCF &END

CHARge
 0
 LumOrb
 NACTEL
 9 0 0
 Inactive
 45
 RAS2
 12
 Spin
 4
 orblisting
 all
 ITERation
 300 150
 CIMX
 200
 CIROOT
 1 1 1
 Sdav
 500
 PRWF
 0.01
 LEVShift
 1.5
 SYMMetry
 1
 End of Input

&CASPT2 &END

IMAG
 0.1

PROP
 IPEAshift
 0.0

UN3 CASSCF/CASPT2 input file

&GATEWAY
 Title= UN3 in C2V symmetry
 Coord
 4
 Angstrom
 U 0.000000000 0.000000000 -0.077545149
 N 0.000000000 0.000000000 -1.848654245
 N 0.842600214 0.000000000 1.583457043
 N -0.842600214 0.000000000 1.583457043
 Group = X XY
 Basis = ANO-RCC-VTZP
 End of Input

&SEWARD

>>COPY /\$CurrDir/\$ProjectRasOrb.1 INPORB

&RASSCF &END

CHARge
 0
 LumOrb
 NACTEL
 13 0 0
 Inactive
 23 4 11 12
 RAS2
 6 2 2 4
 Spin
 2
 orblisting
 all
 ITERation
 200 100
 CIMX
 200
 CIROOT
 1 1 1
 Sdav
 500
 PRWF
 0.01
 LEVShift
 1.5
 SYMMetry
 1
 End of Input

&CASPT2 &END

IMAG
 0.1
 PROP
 IPEAshift
 0.0

UN2 MRCC input file

unit=angs
 basis=atomtype
 N:cc-pVTZ
 U:RSCBASIS
 ecp=atomtype
 U:RSCECP-60
 calc=CCSDT
 mem=110GB
 core=11

```
ccprog=mrcc
charge=0
verbosity=3
scftype=rhf
scfiguess=restart
mult=1
ccmaxit=1000
geom=xyz
3
```

```
U   0.000000  0.000000  0.000000
N  -1.741365499  0.000000  0.000000
N   1.741365499  0.000000  0.000000
```

Priroda Sample Input file

```
$system mem=112000 disk=10 $end
$control
task=optimize
theory=DFT
four=1 a137=new
basis=/home/sodoh/bin/PRIRODA/basis4.in
print=charges+bonds
$end
$optimize
tol=1e-5
steps=2000
$end
$dft
functional=PBE
$end
$guess
mix=1
$end
$scf
restrict=0
iterations=300
d1small=1
$end
$molecule
charge=0
multip=1
cartesian
$end
```