

Supplementary Information

General scaling relations and prediction of transition state energies in CHA/AIPO-34-structured zeolite catalysis related to the methanol-to-olefins conversion

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Table S1. Adsorption enthalpies of NH₃ and NH₂CH₃ in Me-CHA and Me-AlPO-34. The adsorption enthalpies of NH₃ calculated using hybrid functional with dispersion correction HSE06-D3 were included for comparison. The unit is kJ/mol.

XC functional	ΔH_{NH_3}		$\Delta H_{\text{NH}_2\text{CH}_3}$
	BEEF-vdW	HSE06-D3	BEEF-vdW
Si-AlPO-34	-104	-120	-145
Ge-AlPO-34	-94	-109	-134
Ti-AlPO-34	-78	-98	-119
Mg-AlPO-34	-142	-159	-184
Zn-AlPO-34	-127	-149	-169
Al-CHA	-125	-140	-167
Ga-CHA	-114	-131	-155

Note. The adsorption enthalpy differences between NH₃ and NH₂CH₃ in Me-CHA/AlPO-34 are 40 ~ 42 kJ/mol, agreeing well with the experimental results in H-ZSM-5 and H-MOR (40 kJ/mol, *J. Am. Chem. Soc.* 1996, 118, 3262-3268).

Table S2. Definition of the relative TS enthalpies for each elementary step.

Elementary step	Calculation of the relative TS enthalpies
Concerted methylation of X	$\Delta H^\ddagger = H(TS) - H(HZ) - H(CH_3OH) - H(X)$
Stepwise methylation of X	$\Delta H^\ddagger = H(TS) + H(H_2O) - H(HZ) - H(CH_3OH) - H(X)$
Cyclization of diene	$\Delta H^\ddagger = H(TS) - H(HZ) - H(Diene)$
Hydride transfer to produce CH ₄	$\Delta H^\ddagger = H(TS) + H(H_2O) - H(HZ) - H(CH_3OH) - H(Olefin2)$
Hydride transfer to produce ethane or propane	$\Delta H^\ddagger = H(TS) - H(HZ) - H(Olefin1) - H(Olefin2)$
Ethylation of X	$\Delta H^\ddagger = H(TS) - H(HZ) - H(C_2H_4) - H(X)$
Elimination of propene in TME-cycle	$\Delta H^\ddagger = H(TS) + 2 * H(H_2O) - H(HZ) - 3 * H(CH_3OH) - H(TME)$
Elimination of propene in TMB-cycle	$\Delta H^\ddagger = H(TS) + 2 * H(H_2O) - H(HZ) - 3 * H(CH_3OH) - H(TMB)$

Note. HZ is zeolite; olefin1 is ethene or propene acting as hydride acceptor; olefin2 is hydride donor.

Table S3. The slopes in five representative scaling relations fitted using DFT calculated enthalpies with BEEF-vdW and HSE06-D3, respectively. The geometries of TS structures were optimized using BEEF-vdW functional.

Elementary reaction	BEEF-vdW	HSE06-D3
Concerted methylation ($\text{CH}_3\text{OH} + \text{C3}$)	1.07 ± 0.06	1.05 ± 0.05
Stepwise methylation ($\text{CH}_3\text{Z} + \text{C3}$)	0.74 ± 0.06	0.78 ± 0.06
Cyclization (C_6H_{10})	0.82 ± 0.06	0.85 ± 0.06
Hydride transfer ($\text{CH}_3\text{Z} + \text{C5-iso}$)	0.73 ± 0.05	0.77 ± 0.05
Ethylation ($\text{C}_2\text{H}_5\text{Z} + \text{C3}$)	0.85 ± 0.04	0.88 ± 0.04

Table S4. TS enthalpies in Al-CHA and Ga-CHA zeolites calculated and predicted using CHA or AlPO-34 optimized cell size.

	CHA cell size	AlPO-34 cell size	Predicted data using scaling relations	
			fitted in 5 Me-AlPO-34 zeotypes	deduced from Bader charge and TS enthalpy in Si-AlPO-34
Stepwise methylation of TMB				
Al-CHA	-26	-28	-33	-28
Ga-CHA	-17	-21	-23	-20
Elimination of propene from TME-cycle				
Al-CHA	-188	-196	-192	-194
Ga-CHA	-174	-184	-181	-184
Elimination of propene from TMB-cycle				
Al-CHA	-221	-233	-226	-228
Ga-CHA	-207	-221	-215	-218

Note. i) The calculated ΔH_{NH_3} in Al-CHA and Ga-CHA using AlPO-34 cell size are -120 and -111 kJ/mol, respectively. ii) Cell parameter: CHA: 13.72, 13.72, and 14.86 Å; AlPO-34: 13.89, 13.89, and 15.09 Å.

Table S5. Bader charge variation of framework calculated in three systems for elementary steps or adsorption states of NH₂R.

		Si-ALPO-34	Mg-ALPO-34	Al-CHA
NH₂R adsorption				
1	NH ₃	0.130	0.115	0.121
2	NH ₂ CH ₃	0.115	0.104	0.110
Concerted methylation by CH₃OH				
3	C ₂ H ₄	0.079	0.069	0.080
4	C ₃ H ₆	0.083	0.072	0.082
5	C ₄ H ₈ -iso	0.091	0.083	0.091
6	TME	0.096	0.088	0.096
7	Toluene	0.086	0.076	0.084
8	TMB	0.092	0.079	0.091
9	CO	0.104	0.083	0.099
10	NH ₃	0.098	0.092	0.098
Stepwise methylation by CH₃Z				
11	C ₂ H ₄	0.205	0.203	0.214
12	C ₃ H ₆	0.229	0.229	0.237
13	C ₄ H ₈ -iso	0.259	0.256	0.264
14	TME	0.266	0.267	0.277
15	Toluene	0.227	0.225	0.228
16	TMB	0.236	0.242	0.243
17	CO	0.261	0.247	0.248
18	H ₂ O	0.245	0.248	0.254
19	CH ₃ OH	0.259	0.265	0.267
20	NH ₃	0.289	0.292	0.293
Cyclization				
21	C ₆ H ₁₀	0.221	0.219	0.236
22	C ₇ H ₁₂	0.245	0.241	0.258
Hydride Transfer				
23	CH ₃ Z + C4-1	0.245	0.240	0.251
24	CH ₃ Z + C5-iso	0.262	0.255	0.266
25	C ₂ H ₅ Z + C4-1	0.187	0.180	0.191
26	C ₃ H ₇ Z + C5-iso	0.108	0.112	0.125

Ethylation				
27	C ₂ H ₅ Z + C3	0.189	0.191	0.197
28	C ₂ H ₅ Z + C4-iso	0.218	0.217	0.225
29	C ₂ H ₅ Z + TME	0.236	0.227	0.240
C3 Elimination				
30	C3+TME	0.119	0.105	0.118
31	C3+TMB	0.119	0.103	0.113

Table S6. Calculated entropy contribution at 673 K of the three elementary steps Me-CHA and Me-AlPO-34. The unit is kJ/mol.

	Concerted methylation (CH ₃ OH + C ₃)	Hydride transfer (CH ₃ Z + C ₅ -iso)	Cyclization (C ₆ H ₁₀)
Si-AlPO-34	244	250	202
Ge-AlPO-34	242 ^[a]	247	203
Ti-AlPO-34	244	247	200
Mg-AlPO-34	246	261 ^[b]	203
Zn-AlPO-34	247	251	203
Al-CHA	243	247	202
Ga-CHA	243	246	202

Note. [a] There is one additional low imaginary frequency in the C₃ methylation via concerted pathway in all other systems except Ge-AlPO-34. This imaginary frequency was substituted by 12 cm⁻¹ to calculate thermochemistry. [b] There is one low imaginary frequency in the hydride transfer between CH₃Z and C₅-iso in Mg-AlPO-34.

Equation S1. The relationship between the variation of Bader charge of framework and the Bader charge of organic species in ion pair TS structure.

For any ion-pair structure, including TS and intermediate,

$$Q_{Framework} = -Q_{Organic\ species}$$

For pure zeolite with acid site,

$$Q_{Framework}^{HZ} = -Q_{Proton}^{HZ} = -1$$

The variation of Bader charge of framework in TS of an elementary reaction,

$$\begin{aligned}\Delta Q_{Framework} &= Q_{Framework}^{TS} - Q_{Framework}^{HZ} \\ &= 1 + Q_{Framework}^{TS} \\ &= 1 - Q_{Organic\ species}^{TS}\end{aligned}$$

Note. Q is the calculated Bader charge data, and the Bader charge of the acidic proton is +1 in Me-CHA/AlPO-34 systems. The pure zeotypes (HZ) and gaseous reactants were employed as the reference for the analysis of Bader charge with consistency to the calculation of relative TS energies.

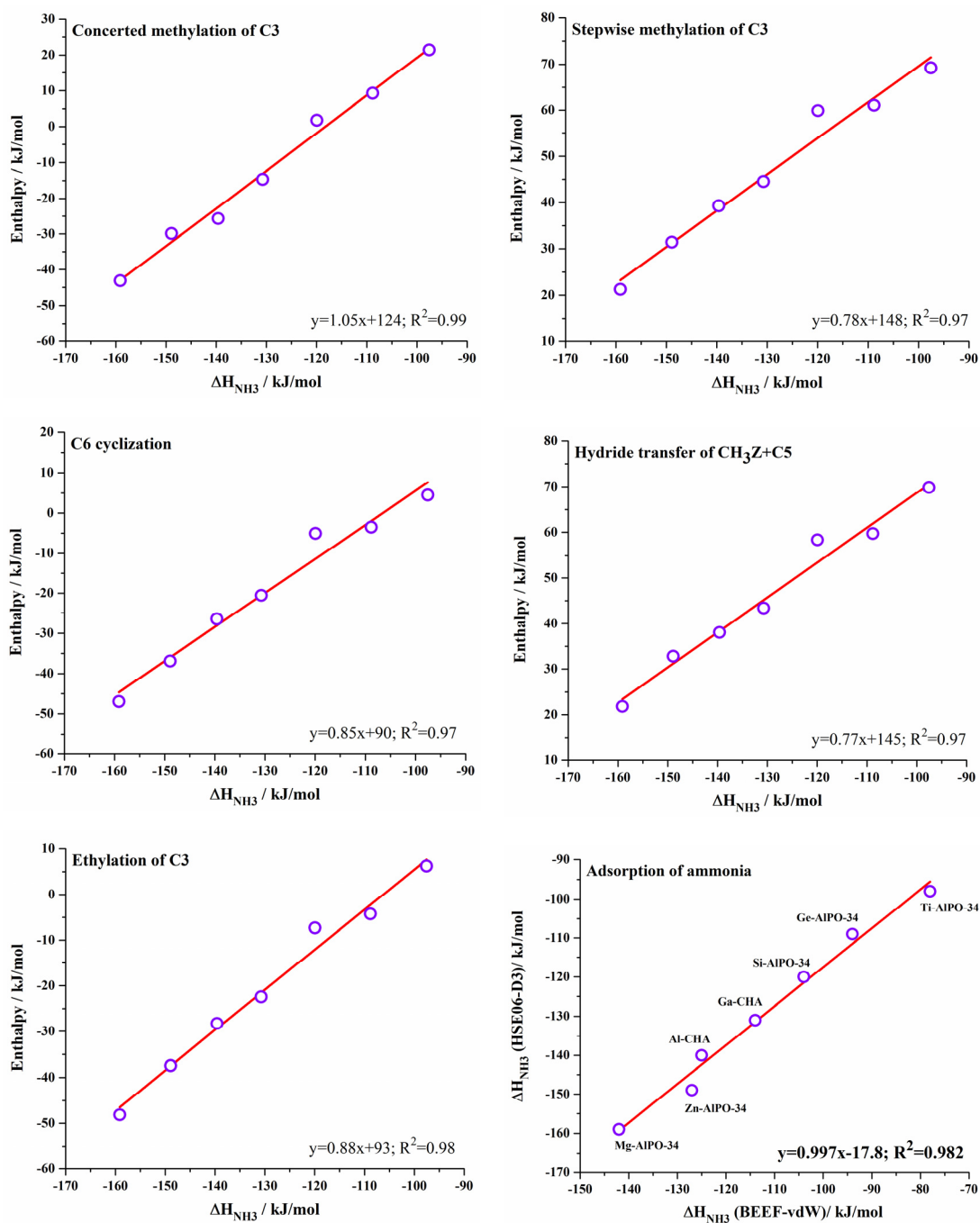


Figure S1. Scaling relations between the TS enthalpies and ΔH_{NH_3} for five representative elementary reactions in Me-CHA/AlPO-34 calculated using HSE06-D3 functional. The agreement of the calculated adsorption enthalpies of NH_3 using BEEF-vdW and HSE06-D3 were included (See also Table S1).

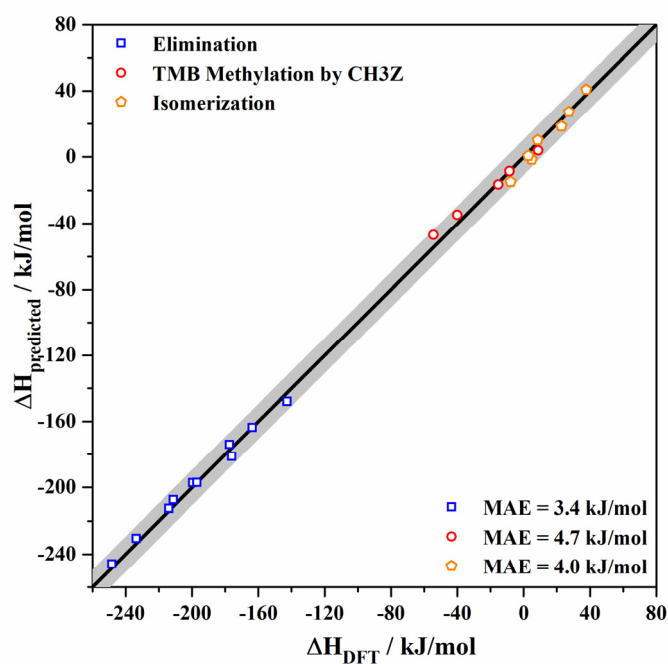
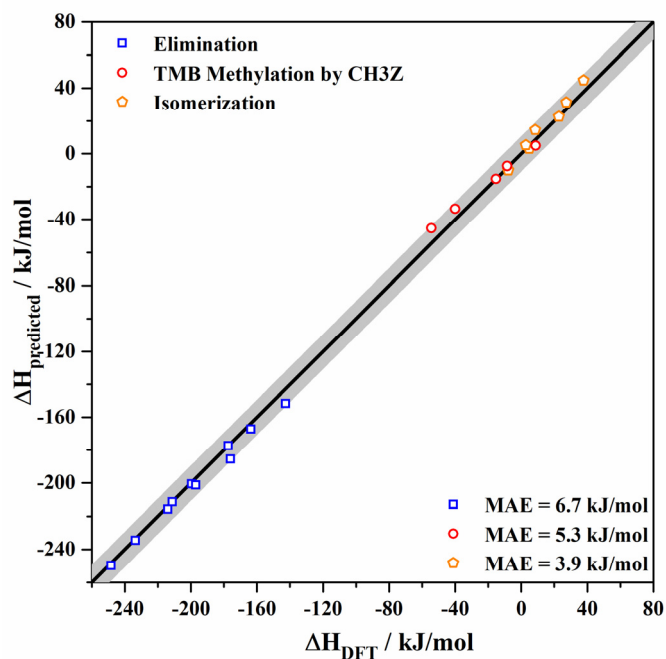


Figure S2. Using established Equation (2) and (3) to estimate the TS enthalpies for propene elimination and TMB stepwise methylation in Me-ALPO-34 and pentene isomerization in Me-CHA/ALPO-34 as testing elementary steps. The slope and intercept in the scaling relations were estimated using DFT calculated TS enthalpy and Bader charge in Si-ALPO-34 (top) or Ge-ALPO-34 (bottom) reference system. An interval of ± 10 kJ/mol is shaded in grey around the diagonal line ($y=x$).

Optimized structures in Si-AlPO-34 in cif format

Ads-NH3-Si-AlPO-34

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  H    H3            0.825275            0.628768            0.640996
  H    H4            0.816349            0.743359            0.620451
  N    N5            0.802066            0.668380            0.596077
  O    O6            0.073723            0.290514            0.502239
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  O    O8            0.823634            0.437045            0.618277
  O    O9            0.486675            0.153742            0.459870
  O    O10           0.728368            0.619463            0.824581
  O    O11           0.965566            0.729413            0.165403
  O    O12           0.491403            0.762721            0.955742
  O    O13           0.145508            0.476866            0.800630
  O    O14           0.402799            0.954474            0.163038
  O    O15           0.620324            0.059738            0.515696
  O    O16           0.157955            0.099064            0.286206
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  O    O18           0.714510            0.292371            0.502513
  O    O19           0.599370            0.415150            0.839509
  O    O20           0.562083            0.900105            0.621800
  O    O21           0.847934            0.854411            0.467501
  O    O22           0.374489            0.632068            0.833861
  O    O23           0.268392            0.750766            0.174146
  O    O24           0.239810            0.247717            0.954557
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Al	Al80	0.268469	0.275792	0.068084
Al	Al81	0.387967	0.844173	0.400430
Al	Al82	0.055414	0.174441	0.732395
Al	Al83	0.725366	0.508583	0.063432
Al	Al84	0.154915	0.061095	0.398761
Al	Al85	0.822559	0.398444	0.730270
Al	Al86	0.492220	0.731168	0.068656
Al	Al87	0.058860	0.404169	0.529235
Al	Al88	0.715459	0.733661	0.858845
Al	Al89	0.388091	0.068294	0.192722
Al	Al90	0.593496	0.168951	0.528597
Al	Al91	0.262227	0.502064	0.862287
Al	Al92	0.930908	0.833094	0.193080
Al	Al93	0.828842	0.948513	0.525448
Al	Al94	0.492824	0.277179	0.859934
Al	Al95	0.164620	0.612322	0.194465
Si	Si96	0.928346	0.831052	0.404294
P	P97	0.057772	0.175863	0.524939
P	P98	0.719982	0.509071	0.852588
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O	O74	0.068202	0.637132	0.415291
O	O75	0.558038	0.172216	0.639788
O	O76	0.505418	0.830986	0.801099
O	O77	0.620617	0.745545	0.096345
O	O78	0.734619	0.973135	0.752564
O	O79	0.232553	0.500508	0.974748
O	O80	0.176064	0.159953	0.128941
Al	Al81	0.930618	0.606493	0.396053
Al	Al82	0.596371	0.940553	0.732910
Al	Al83	0.268097	0.275574	0.067803
Al	Al84	0.388116	0.844012	0.400151
Al	Al85	0.055477	0.174421	0.732257
Al	Al86	0.725148	0.508678	0.063554
Al	Al87	0.154846	0.060881	0.398671
Al	Al88	0.822897	0.398735	0.730085
Al	Al89	0.492191	0.731120	0.068445
Al	Al90	0.058740	0.403924	0.529026
Al	Al91	0.715829	0.733920	0.858802
Al	Al92	0.387939	0.068351	0.192577
Al	Al93	0.593581	0.168526	0.528450
Al	Al94	0.262392	0.502098	0.862026
Al	Al95	0.930712	0.833291	0.193214
Al	Al96	0.829063	0.948331	0.525430
Al	Al97	0.493190	0.277525	0.859845
Al	Al98	0.164460	0.612258	0.194257
Si	Si99	0.928034	0.830669	0.404192
P	P100	0.057679	0.175714	0.524622
P	P101	0.720029	0.509069	0.852542
P	P102	0.389718	0.842486	0.189853
P	P103	0.825526	0.395998	0.522790
P	P104	0.487629	0.731700	0.857173
P	P105	0.157120	0.063554	0.189778
P	P106	0.596014	0.939578	0.525362
P	P107	0.266862	0.277021	0.856332
P	P108	0.935228	0.609345	0.185596
P	P109	0.594688	0.169398	0.735286
P	P110	0.265776	0.501266	0.072006
P	P111	0.163678	0.612955	0.402999
P	P112	0.826973	0.944948	0.736110

P	P113	0.497149	0.279677	0.069603
P	P114	0.388208	0.072512	0.402208
P	P115	0.052534	0.401618	0.736963
P	P116	0.720547	0.734006	0.069239

TS-Methylation-MeOH-C2-Si-AIPO-34

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_audit_creation_method 'Materials Studio'

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_cell_length_b 13.885913

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loop_

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_atom_site_fract_x

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H	H2	0.612130	0.535641	0.651991
H	H3	0.647292	0.489202	0.548178
H	H4	0.605993	0.598501	0.545186
H	H5	0.802752	0.732441	0.619535
H	H6	0.452369	0.346369	0.647071
H	H7	0.412110	0.454863	0.647618
H	H8	0.468368	0.357722	0.483360
H	H9	0.427744	0.466242	0.482760
C	C10	0.612815	0.534517	0.580373
C	C11	0.439911	0.406398	0.610240
C	C12	0.448071	0.412222	0.520444
O	O13	0.079577	0.293551	0.503780
O	O14	0.298960	0.400572	0.839450
O	O15	0.821002	0.428568	0.619092
O	O16	0.486409	0.158312	0.463419
O	O17	0.729092	0.619499	0.828533
O	O18	0.966405	0.730427	0.169348
O	O19	0.492910	0.760863	0.957479
O	O20	0.147328	0.478371	0.802034
O	O21	0.404225	0.955872	0.166815

0	022	0.611950	0.055780	0.521890
0	023	0.160268	0.101535	0.288435
0	024	0.824243	0.816621	0.122498
0	025	0.715863	0.288832	0.500028
0	026	0.599565	0.415803	0.838388
0	027	0.565017	0.895716	0.624574
0	028	0.848222	0.858610	0.467701
0	029	0.375994	0.633310	0.834082
0	030	0.269010	0.752352	0.177899
0	031	0.243231	0.251762	0.956367
0	032	0.518562	0.186014	0.801537
0	033	0.047267	0.963311	0.168377
0	034	0.937015	0.092265	0.518329
0	035	0.900982	0.578943	0.285882
0	036	0.189944	0.524061	0.132285
0	037	0.702755	0.942560	0.500618
0	038	0.579619	0.703015	0.836480
0	039	0.098836	0.179320	0.624142
0	040	0.150392	0.519317	0.465820
0	041	0.368381	0.266580	0.829793
0	042	0.251553	0.036697	0.177554
0	043	0.752371	0.509836	0.952103
0	044	0.809717	0.849498	0.796546
0	045	0.035890	0.595872	0.167530
0	046	0.920923	0.367864	0.513060
0	047	0.422683	0.844739	0.290467
0	048	0.480680	0.183364	0.130693
0	049	0.905639	0.709019	0.439842
0	050	0.692319	0.614455	0.086681
0	051	0.168066	0.581762	0.309036
0	052	0.500825	0.858945	0.467597
0	053	0.582758	0.057720	0.751312
0	054	0.365310	0.955556	0.424389
0	055	0.821935	0.912192	0.641213
0	056	0.168120	0.198834	0.803279
0	057	0.253766	0.390085	0.100533
0	058	0.023148	0.280662	0.751374
0	059	0.494129	0.249314	0.975424
0	060	0.839482	0.529891	0.128794
0	061	0.272567	0.718866	0.430610
0	062	0.389338	0.593229	0.089200
0	063	0.423615	0.103886	0.307688
0	064	0.133509	0.153549	0.466054
0	065	0.940712	0.047498	0.760216

O	O66	0.056497	0.923468	0.417465
O	O67	0.093067	0.439809	0.643140
O	O68	0.799878	0.490701	0.796092
O	O69	0.611438	0.381455	0.095546
O	O70	0.717812	0.261826	0.753555
O	O71	0.744872	0.763582	0.971597
O	O72	0.468311	0.821798	0.134752
O	O73	0.288973	0.085980	0.427752
O	O74	0.407290	0.311411	0.091822
O	O75	0.889290	0.821985	0.302976
O	O76	0.839800	0.484944	0.459978
O	O77	0.951995	0.413543	0.759925
O	O78	0.067060	0.636200	0.419133
O	O79	0.561882	0.184043	0.642105
O	O80	0.507133	0.833496	0.804595
O	O81	0.622518	0.747954	0.099699
O	O82	0.736430	0.977690	0.757015
O	O83	0.235236	0.501234	0.976953
O	O84	0.176599	0.160341	0.130594
O	O85	0.794650	0.661371	0.602318
Al	Al86	0.929302	0.606755	0.399911
Al	Al87	0.597776	0.941567	0.734822
Al	Al88	0.268980	0.276977	0.070615
Al	Al89	0.389820	0.845015	0.402810
Al	Al90	0.057019	0.175569	0.734570
Al	Al91	0.725499	0.509888	0.066451
Al	Al92	0.153920	0.059582	0.400464
Al	Al93	0.823772	0.399699	0.732196
Al	Al94	0.493742	0.732026	0.070970
Al	Al95	0.060493	0.405144	0.530497
Al	Al96	0.717088	0.734701	0.859563
Al	Al97	0.389194	0.069651	0.195559
Al	Al98	0.593485	0.170043	0.531255
Al	Al99	0.263786	0.503778	0.863925
Al	Al100	0.931051	0.834014	0.195437
Al	Al101	0.830224	0.951517	0.527479
Al	Al102	0.494957	0.278614	0.863067
Al	Al103	0.164812	0.613543	0.196742
Si	Si104	0.925873	0.830286	0.405653
P	P105	0.061381	0.178114	0.527465
P	P106	0.720706	0.508967	0.854765
P	P107	0.390668	0.843337	0.192747
P	P108	0.825733	0.393209	0.523079
P	P109	0.489160	0.732798	0.858912

P	P110	0.158172	0.064665	0.192254
P	P111	0.595485	0.938283	0.528625
P	P112	0.269154	0.279380	0.858065
P	P113	0.935779	0.610068	0.188777
P	P114	0.595878	0.172401	0.737095
P	P115	0.267416	0.502608	0.074652
P	P116	0.163626	0.614269	0.405683
P	P117	0.827174	0.947343	0.738335
P	P118	0.498168	0.281478	0.073490
P	P119	0.389574	0.074559	0.405137
P	P120	0.053815	0.402702	0.738758
P	P121	0.721670	0.735777	0.070689

TS-Methylation-MeOH-C3-Si-AlPO-34

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H	H2	0.620254	0.543523	0.656537
H	H3	0.649214	0.493760	0.550926
H	H4	0.608873	0.603406	0.548891
H	H5	0.802745	0.735046	0.617186
H	H6	0.461948	0.357493	0.639834
H	H7	0.419523	0.464373	0.641393
H	H8	0.455934	0.351611	0.479071
H	H9	0.320618	0.411235	0.424055
H	H10	0.458067	0.515603	0.403941
H	H11	0.382919	0.529357	0.494922
C	C12	0.620985	0.543280	0.585067
C	C13	0.446778	0.415900	0.603265

C	C14	0.435810	0.408510	0.513301
C	C15	0.398256	0.471223	0.457169
O	O16	0.079920	0.293753	0.504422
O	O17	0.299013	0.400456	0.840446
O	O18	0.821166	0.427667	0.619484
O	O19	0.486100	0.157516	0.463791
O	O20	0.728435	0.618981	0.828305
O	O21	0.966940	0.729998	0.169828
O	O22	0.493170	0.761848	0.958003
O	O23	0.147075	0.477616	0.802466
O	O24	0.404544	0.955354	0.167051
O	O25	0.612469	0.055933	0.521104
O	O26	0.159674	0.100873	0.288669
O	O27	0.824468	0.815773	0.122738
O	O28	0.715664	0.288959	0.499769
O	O29	0.599463	0.415374	0.840160
O	O30	0.564476	0.896189	0.624616
O	O31	0.847643	0.858025	0.467796
O	O32	0.375443	0.633284	0.835391
O	O33	0.269298	0.751760	0.177627
O	O34	0.242899	0.251114	0.956766
O	O35	0.518031	0.185643	0.801275
O	O36	0.047907	0.962950	0.168087
O	O37	0.937021	0.092148	0.517293
O	O38	0.900953	0.578495	0.286289
O	O39	0.190420	0.523222	0.133394
O	O40	0.702494	0.941924	0.501029
O	O41	0.579130	0.702607	0.837478
O	O42	0.097613	0.177864	0.624242
O	O43	0.150150	0.518846	0.466247
O	O44	0.367844	0.265985	0.830170
O	O45	0.252105	0.036483	0.178373
O	O46	0.754270	0.511169	0.952024
O	O47	0.809072	0.848881	0.796482
O	O48	0.036076	0.595099	0.168249
O	O49	0.920542	0.367257	0.512674
O	O50	0.421929	0.843868	0.290990
O	O51	0.481237	0.183009	0.130951
O	O52	0.905539	0.708976	0.440063
O	O53	0.692374	0.613606	0.087081
O	O54	0.168944	0.581940	0.309637
O	O55	0.500780	0.858739	0.467643
O	O56	0.582527	0.057196	0.752457
O	O57	0.364325	0.954854	0.424645

O	058	0.822598	0.912198	0.641169
O	059	0.167657	0.198923	0.803750
O	060	0.254856	0.389955	0.101084
O	061	0.022541	0.280164	0.751108
O	062	0.493051	0.247194	0.975286
O	063	0.839843	0.529485	0.129092
O	064	0.272734	0.718372	0.431738
O	065	0.389613	0.593167	0.089173
O	066	0.424318	0.103406	0.307947
O	067	0.134128	0.154414	0.465942
O	068	0.940392	0.047111	0.760707
O	069	0.056417	0.923722	0.418697
O	070	0.092177	0.439963	0.643602
O	071	0.799120	0.490338	0.795618
O	072	0.612210	0.380501	0.094200
O	073	0.717619	0.261234	0.754441
O	074	0.745365	0.762697	0.971780
O	075	0.469072	0.821427	0.135747
O	076	0.289151	0.086220	0.427302
O	077	0.408122	0.311222	0.091834
O	078	0.890365	0.822595	0.303100
O	079	0.840182	0.485387	0.460773
O	080	0.951641	0.413182	0.760953
O	081	0.067293	0.636247	0.419301
O	082	0.562588	0.183088	0.642280
O	083	0.506813	0.832939	0.804612
O	084	0.622811	0.747334	0.099669
O	085	0.736128	0.977189	0.756592
O	086	0.234589	0.500426	0.977685
O	087	0.177495	0.160282	0.131027
O	088	0.795452	0.663778	0.601479
Al	Al89	0.929392	0.606655	0.400251
Al	Al90	0.597383	0.941198	0.735021
Al	Al91	0.269720	0.276721	0.070734
Al	Al92	0.389471	0.844734	0.403305
Al	Al93	0.056746	0.175204	0.734830
Al	Al94	0.726160	0.509514	0.066247
Al	Al95	0.153961	0.059600	0.400815
Al	Al96	0.823369	0.398945	0.732678
Al	Al97	0.494166	0.731981	0.071215
Al	Al98	0.059926	0.404861	0.531076
Al	Al99	0.716685	0.734165	0.859764
Al	Al100	0.389824	0.069332	0.195841
Al	Al101	0.593613	0.169991	0.531278

Al	Al102	0.263505	0.503311	0.864577
Al	Al103	0.931664	0.833777	0.195450
Al	Al104	0.830235	0.951504	0.527432
Al	Al105	0.494352	0.277934	0.863035
Al	Al106	0.165203	0.613103	0.197194
Si	Si107	0.926029	0.830467	0.405936
P	P108	0.061280	0.177933	0.527522
P	P109	0.720667	0.508829	0.855001
P	P110	0.390824	0.842796	0.193087
P	P111	0.825574	0.392917	0.523252
P	P112	0.488860	0.732732	0.859578
P	P113	0.158582	0.064339	0.192501
P	P114	0.595407	0.938305	0.528624
P	P115	0.268959	0.279143	0.858449
P	P116	0.936023	0.609536	0.189196
P	P117	0.595757	0.171819	0.737531
P	P118	0.267711	0.502152	0.075144
P	P119	0.163780	0.614110	0.406271
P	P120	0.827031	0.946983	0.738394
P	P121	0.498477	0.280588	0.073119
P	P122	0.389550	0.074193	0.405292
P	P123	0.053333	0.402332	0.739246
P	P124	0.721920	0.734961	0.070850

TS-Methylation-MeOH-C4-iso-Si-ALPO-34

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H	H2	0.615938	0.570957	0.640682

H	H3	0.658134	0.515530	0.545022
H	H4	0.652289	0.646308	0.532322
H	H5	0.818347	0.736231	0.632360
H	H6	0.397552	0.550510	0.368344
H	H7	0.541706	0.638155	0.380499
H	H8	0.449941	0.633140	0.465482
H	H9	0.507831	0.356946	0.434268
H	H10	0.563533	0.466890	0.354455
H	H11	0.420440	0.370167	0.355588
H	H12	0.450929	0.395211	0.576706
H	H13	0.431037	0.516692	0.589537
C	C14	0.639562	0.576275	0.571937
C	C15	0.458387	0.470623	0.548514
C	C16	0.471364	0.489255	0.458989
C	C17	0.465164	0.583767	0.417290
C	C18	0.493214	0.416783	0.398647
O	O19	0.069023	0.284479	0.509307
O	O20	0.291544	0.392570	0.846261
O	O21	0.814902	0.423226	0.624834
O	O22	0.479223	0.147414	0.468699
O	O23	0.724169	0.613488	0.834725
O	O24	0.958949	0.723099	0.174255
O	O25	0.486054	0.751968	0.963079
O	O26	0.140507	0.471089	0.807347
O	O27	0.396862	0.948381	0.173788
O	O28	0.609927	0.050140	0.524586
O	O29	0.156450	0.096710	0.294098
O	O30	0.816784	0.809853	0.128615
O	O31	0.708072	0.282734	0.506363
O	O32	0.592776	0.409944	0.845624
O	O33	0.554835	0.890758	0.630489
O	O34	0.838950	0.848054	0.473551
O	O35	0.369217	0.625638	0.839163
O	O36	0.261754	0.744614	0.183067
O	O37	0.233852	0.242381	0.961775
O	O38	0.512951	0.180327	0.806859
O	O39	0.039190	0.956234	0.176823
O	O40	0.927899	0.082718	0.521842
O	O41	0.893068	0.572943	0.291884
O	O42	0.181538	0.515805	0.137235
O	O43	0.692984	0.928977	0.508627
O	O44	0.573070	0.695591	0.841525
O	O45	0.088008	0.169184	0.629079
O	O46	0.143375	0.510545	0.470663

0	047	0.360375	0.257999	0.836281
0	048	0.243589	0.028741	0.181945
0	049	0.746205	0.503640	0.958497
0	050	0.803476	0.842458	0.803300
0	051	0.028332	0.588442	0.174329
0	052	0.913301	0.361376	0.518348
0	053	0.415760	0.835061	0.295608
0	054	0.473042	0.175723	0.135770
0	055	0.902216	0.703149	0.447381
0	056	0.685451	0.607242	0.093928
0	057	0.162663	0.573652	0.313991
0	058	0.493040	0.852396	0.473132
0	059	0.577487	0.050835	0.761447
0	060	0.355330	0.946202	0.427036
0	061	0.818577	0.904000	0.647403
0	062	0.160692	0.191462	0.808165
0	063	0.246246	0.382414	0.105681
0	064	0.015791	0.273669	0.756250
0	065	0.487313	0.242699	0.980639
0	066	0.831826	0.521964	0.135128
0	067	0.266203	0.710077	0.436039
0	068	0.381614	0.585740	0.096384
0	069	0.414976	0.097871	0.312962
0	070	0.125280	0.146572	0.470964
0	071	0.933306	0.040704	0.767041
0	072	0.048174	0.917769	0.421516
0	073	0.085714	0.433191	0.648395
0	074	0.792858	0.483101	0.802634
0	075	0.603318	0.374321	0.101648
0	076	0.711627	0.254827	0.758038
0	077	0.736064	0.755462	0.978156
0	078	0.461037	0.814989	0.139219
0	079	0.281449	0.078102	0.434516
0	080	0.399034	0.303272	0.097290
0	081	0.879263	0.810212	0.308988
0	082	0.832404	0.478470	0.465509
0	083	0.945263	0.407059	0.765568
0	084	0.060724	0.627886	0.423410
0	085	0.554432	0.171061	0.647847
0	086	0.500225	0.825832	0.810626
0	087	0.614592	0.739834	0.106984
0	088	0.728866	0.968550	0.760334
0	089	0.229359	0.495126	0.982277
0	090	0.168209	0.152423	0.135954

O	O91	0.805913	0.664185	0.612594
Al	Al92	0.923188	0.599594	0.405677
Al	Al93	0.590236	0.934272	0.741054
Al	Al94	0.260697	0.268752	0.075511
Al	Al95	0.382092	0.837136	0.407598
Al	Al96	0.049574	0.168447	0.739943
Al	Al97	0.718048	0.502351	0.072460
Al	Al98	0.147495	0.053674	0.406088
Al	Al99	0.816885	0.393023	0.737803
Al	Al100	0.486245	0.724142	0.076636
Al	Al101	0.052515	0.397417	0.536090
Al	Al102	0.710124	0.727250	0.865771
Al	Al103	0.381391	0.062365	0.200895
Al	Al104	0.587056	0.161897	0.536694
Al	Al105	0.257040	0.496158	0.869004
Al	Al106	0.923153	0.826067	0.201555
Al	Al107	0.822658	0.942179	0.533660
Al	Al108	0.488055	0.272283	0.867892
Al	Al109	0.157535	0.605787	0.201970
Si	Si110	0.918466	0.822399	0.411226
P	P111	0.052032	0.169474	0.532376
P	P112	0.714116	0.502259	0.861055
P	P113	0.383440	0.835517	0.198124
P	P114	0.818238	0.386861	0.528966
P	P115	0.482299	0.724728	0.864272
P	P116	0.151149	0.057721	0.198143
P	P117	0.588055	0.930966	0.534323
P	P118	0.261389	0.271219	0.863611
P	P119	0.928185	0.602873	0.194644
P	P120	0.589604	0.164516	0.743388
P	P121	0.259964	0.495085	0.080082
P	P122	0.157245	0.605709	0.410638
P	P123	0.820967	0.939658	0.744266
P	P124	0.490441	0.274000	0.078670
P	P125	0.381469	0.066392	0.410332
P	P126	0.046790	0.395859	0.744069
P	P127	0.713940	0.728210	0.077328

TS-Methylation-MeOH-C6-Si-ALPO-34

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H	H1	0.845529	0.679216	0.552269
H	H2	0.613645	0.573210	0.629697
H	H3	0.657800	0.515842	0.536785
H	H4	0.655953	0.648598	0.521589
H	H5	0.815436	0.733898	0.629411
H	H6	0.399703	0.551255	0.374256
H	H7	0.545067	0.636224	0.380153
H	H8	0.459652	0.641834	0.465231
H	H9	0.526266	0.369859	0.433747
H	H10	0.559394	0.474079	0.352504
H	H11	0.421045	0.366199	0.366184
H	H12	0.467410	0.373567	0.659620
H	H13	0.458472	0.313116	0.554003
H	H14	0.339099	0.301800	0.604583
H	H15	0.317046	0.493382	0.601643
H	H16	0.447729	0.615828	0.598754
H	H17	0.418305	0.514404	0.681458
C	C18	0.428515	0.357790	0.594071
C	C19	0.406430	0.526599	0.611604
C	C20	0.640845	0.578392	0.562115
C	C21	0.445717	0.464405	0.553107
C	C22	0.474727	0.492102	0.465301
C	C23	0.470494	0.586750	0.420394
C	C24	0.497982	0.421853	0.402262
O	O25	0.069481	0.284660	0.509442
O	O26	0.291944	0.392904	0.846472
O	O27	0.815359	0.422954	0.624894
O	O28	0.479930	0.145946	0.468535
O	O29	0.723536	0.612988	0.835220
O	O30	0.959262	0.723158	0.174608
O	O31	0.485962	0.752478	0.963267
O	O32	0.140624	0.470853	0.806959

0	033	0.396709	0.948257	0.173004
0	034	0.612569	0.050871	0.525286
0	035	0.157249	0.097425	0.294086
0	036	0.816828	0.809597	0.128744
0	037	0.707723	0.283296	0.506137
0	038	0.592534	0.409323	0.846010
0	039	0.555241	0.890304	0.630409
0	040	0.840940	0.848851	0.473893
0	041	0.368808	0.625647	0.839654
0	042	0.261607	0.744560	0.182994
0	043	0.232905	0.242243	0.961817
0	044	0.512345	0.179857	0.806461
0	045	0.039258	0.956427	0.177210
0	046	0.928131	0.082956	0.522167
0	047	0.893470	0.572659	0.291977
0	048	0.181614	0.515702	0.137543
0	049	0.693062	0.927668	0.508365
0	050	0.572529	0.695036	0.842040
0	051	0.088571	0.169691	0.629284
0	052	0.143460	0.509973	0.470802
0	053	0.360507	0.258065	0.837047
0	054	0.243614	0.028761	0.181843
0	055	0.746455	0.503122	0.958511
0	056	0.803112	0.842083	0.803242
0	057	0.028409	0.588266	0.174251
0	058	0.912716	0.360747	0.517730
0	059	0.415245	0.835755	0.295716
0	060	0.473184	0.176082	0.136502
0	061	0.904126	0.704022	0.447026
0	062	0.685413	0.607259	0.093224
0	063	0.163034	0.573684	0.314146
0	064	0.493493	0.853639	0.473043
0	065	0.577399	0.050506	0.761556
0	066	0.353554	0.945047	0.427675
0	067	0.818711	0.904092	0.647455
0	068	0.161269	0.192040	0.807713
0	069	0.246283	0.382378	0.105789
0	070	0.015371	0.273346	0.756321
0	071	0.487589	0.241584	0.980938
0	072	0.831853	0.522165	0.135247
0	073	0.266798	0.709439	0.436599
0	074	0.381538	0.585677	0.095946
0	075	0.414609	0.096337	0.313103
0	076	0.125744	0.146731	0.471379

O	077	0.933450	0.040383	0.767220
O	078	0.049672	0.918415	0.420887
O	079	0.084937	0.432601	0.648253
O	080	0.792515	0.483017	0.802400
O	081	0.603261	0.374391	0.101465
O	082	0.711289	0.254631	0.758205
O	083	0.736508	0.756255	0.978088
O	084	0.461039	0.814707	0.139719
O	085	0.282609	0.079488	0.435000
O	086	0.398963	0.303074	0.096523
O	087	0.879686	0.810612	0.309131
O	088	0.832873	0.479054	0.465773
O	089	0.945070	0.406915	0.765899
O	090	0.061304	0.627718	0.423743
O	091	0.554498	0.170442	0.647671
O	092	0.500189	0.825526	0.810453
O	093	0.614711	0.739931	0.106840
O	094	0.729069	0.968663	0.760414
O	095	0.228541	0.494620	0.982484
O	096	0.168112	0.152356	0.135864
O	097	0.803407	0.662208	0.609101
Al	Al98	0.923958	0.599718	0.405612
Al	Al99	0.590359	0.934065	0.741030
Al	Al100	0.260587	0.268721	0.075544
Al	Al101	0.381814	0.836992	0.407812
Al	Al102	0.049394	0.168284	0.740143
Al	Al103	0.718110	0.502345	0.072429
Al	Al104	0.148574	0.054500	0.406008
Al	Al105	0.816632	0.392809	0.737894
Al	Al106	0.486263	0.724153	0.076792
Al	Al107	0.051694	0.396948	0.535857
Al	Al108	0.709814	0.727013	0.865874
Al	Al109	0.381298	0.062084	0.200895
Al	Al110	0.587909	0.161516	0.536695
Al	Al111	0.256698	0.496059	0.869384
Al	Al112	0.923303	0.826091	0.201667
Al	Al113	0.823186	0.942122	0.533733
Al	Al114	0.488022	0.271602	0.868403
Al	Al115	0.157617	0.605731	0.202144
Si	Si116	0.919921	0.823098	0.411056
P	P117	0.052244	0.169578	0.532546
P	P118	0.713883	0.501867	0.861220
P	P119	0.383245	0.835562	0.198075
P	P120	0.818165	0.386983	0.528862

P	P121	0.482057	0.724677	0.864586
P	P122	0.151330	0.057908	0.198202
P	P123	0.588902	0.930997	0.534337
P	P124	0.261431	0.271403	0.863869
P	P125	0.928370	0.602835	0.194735
P	P126	0.589384	0.164114	0.743325
P	P127	0.259831	0.494943	0.080208
P	P128	0.157713	0.605401	0.410878
P	P129	0.820971	0.939462	0.744331
P	P130	0.490506	0.273813	0.078771
P	P131	0.381403	0.065709	0.410561
P	P132	0.046402	0.395552	0.744083
P	P133	0.714078	0.728361	0.077173

TS-Methylation-MeOH-CO-Si-AlPO-34

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H	H1	0.847274	0.687245	0.546075
H	H2	0.645694	0.566157	0.670943
H	H3	0.684184	0.497490	0.582956
H	H4	0.630731	0.592308	0.551271
H	H5	0.819015	0.747378	0.620109
C	C6	0.648113	0.547706	0.601661
C	C7	0.498630	0.422382	0.604538
O	O8	0.076286	0.292086	0.502458
O	O9	0.297030	0.399565	0.839510
O	O10	0.816301	0.426819	0.618612
O	O11	0.483646	0.155256	0.462749
O	O12	0.726035	0.618355	0.827671

0	013	0.963654	0.729621	0.168318
0	014	0.490608	0.759734	0.956414
0	015	0.145236	0.477303	0.801155
0	016	0.401035	0.954982	0.165634
0	017	0.611588	0.055591	0.521618
0	018	0.158127	0.101095	0.287573
0	019	0.821214	0.815740	0.122280
0	020	0.713541	0.288274	0.498297
0	021	0.596834	0.414659	0.836947
0	022	0.561657	0.894221	0.623448
0	023	0.846732	0.857680	0.467553
0	024	0.374041	0.632511	0.832746
0	025	0.266207	0.751342	0.176598
0	026	0.239420	0.249400	0.955363
0	027	0.516399	0.185058	0.800344
0	028	0.044121	0.962548	0.168153
0	029	0.933160	0.091344	0.517450
0	030	0.898093	0.578474	0.285133
0	031	0.186759	0.522964	0.130783
0	032	0.699705	0.939977	0.500029
0	033	0.577767	0.702619	0.835359
0	034	0.095071	0.177706	0.623007
0	035	0.146346	0.518068	0.464471
0	036	0.365513	0.264910	0.829348
0	037	0.248464	0.035701	0.176267
0	038	0.749291	0.508570	0.951362
0	039	0.807732	0.848486	0.795833
0	040	0.032983	0.594951	0.166781
0	041	0.918187	0.366192	0.514180
0	042	0.420163	0.843792	0.288944
0	043	0.477553	0.182373	0.129711
0	044	0.903939	0.708381	0.440087
0	045	0.689572	0.613623	0.085817
0	046	0.165231	0.580448	0.307637
0	047	0.498601	0.859270	0.466102
0	048	0.580747	0.056908	0.749964
0	049	0.361238	0.953328	0.422686
0	050	0.820690	0.910501	0.640385
0	051	0.165643	0.198282	0.801940
0	052	0.250787	0.389162	0.098742
0	053	0.020157	0.279733	0.750361
0	054	0.492471	0.248595	0.974368
0	055	0.836625	0.529007	0.128061
0	056	0.270600	0.717204	0.429220

O	O57	0.386466	0.592424	0.088479
O	O58	0.420395	0.102650	0.306835
O	O59	0.129054	0.151082	0.465018
O	O60	0.938195	0.046681	0.759517
O	O61	0.054381	0.922331	0.415482
O	O62	0.091423	0.439132	0.642204
O	O63	0.797032	0.489951	0.794906
O	O64	0.608394	0.380544	0.094883
O	O65	0.716064	0.260880	0.753897
O	O66	0.742845	0.763090	0.971144
O	O67	0.465483	0.821387	0.133027
O	O68	0.286170	0.084507	0.427378
O	O69	0.404246	0.310285	0.089969
O	O70	0.885770	0.819469	0.302412
O	O71	0.839155	0.484873	0.460100
O	O72	0.950436	0.413789	0.758646
O	O73	0.065531	0.636862	0.417282
O	O74	0.561772	0.184847	0.641107
O	O75	0.504930	0.832869	0.803763
O	O76	0.619670	0.747088	0.098776
O	O77	0.733832	0.975993	0.755174
O	O78	0.233136	0.501373	0.975597
O	O79	0.173419	0.159400	0.129707
O	O80	0.814742	0.676806	0.606704
O	O81	0.411912	0.348017	0.612258
Al	Al82	0.927440	0.606205	0.398962
Al	Al83	0.595142	0.940373	0.733484
Al	Al84	0.265759	0.275757	0.069428
Al	Al85	0.387127	0.843797	0.401291
Al	Al86	0.054472	0.174894	0.733490
Al	Al87	0.722445	0.508824	0.065984
Al	Al88	0.151757	0.058884	0.399471
Al	Al89	0.821654	0.398489	0.731874
Al	Al90	0.490840	0.731083	0.070016
Al	Al91	0.058453	0.404109	0.529713
Al	Al92	0.714914	0.734276	0.859327
Al	Al93	0.386098	0.068745	0.194742
Al	Al94	0.591524	0.168978	0.530027
Al	Al95	0.261978	0.502966	0.862728
Al	Al96	0.928248	0.833035	0.194886
Al	Al97	0.827665	0.950471	0.526625
Al	Al98	0.492116	0.277122	0.862008
Al	Al99	0.162089	0.612541	0.195480
Si	Si100	0.923781	0.829401	0.404712

P	P101	0.057844	0.176690	0.526362
P	P102	0.717836	0.507727	0.854124
P	P103	0.387823	0.842546	0.191363
P	P104	0.823319	0.391910	0.522525
P	P105	0.486929	0.731997	0.857826
P	P106	0.155364	0.063941	0.191456
P	P107	0.593032	0.937221	0.527665
P	P108	0.266415	0.278054	0.857280
P	P109	0.933006	0.609304	0.187949
P	P110	0.594200	0.171764	0.736247
P	P111	0.264631	0.501870	0.073340
P	P112	0.161194	0.613350	0.404202
P	P113	0.825092	0.946223	0.737422
P	P114	0.495303	0.280459	0.072419
P	P115	0.386469	0.072876	0.404285
P	P116	0.051920	0.402070	0.737697
P	P117	0.718927	0.734987	0.070210

TS-Methylation-MeOH-NH3-Si-AlPO-34

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H	H2	0.656939	0.600934	0.667690
H	H3	0.669342	0.522039	0.573220
H	H4	0.658697	0.648493	0.551200
H	H5	0.840454	0.753721	0.624357
H	H6	0.460333	0.432398	0.641881
H	H7	0.457837	0.457148	0.535208
H	H8	0.453394	0.542054	0.609402

C	C9	0.662997	0.591626	0.597527
N	N10	0.487188	0.493495	0.595231
O	O11	0.075837	0.292056	0.502386
O	O12	0.296793	0.399799	0.839106
O	O13	0.817654	0.428772	0.618394
O	O14	0.483837	0.154091	0.462484
O	O15	0.728399	0.619885	0.829019
O	O16	0.964101	0.730074	0.167910
O	O17	0.490298	0.758270	0.956319
O	O18	0.145448	0.478150	0.801046
O	O19	0.401142	0.954909	0.166041
O	O20	0.612668	0.055876	0.520745
O	O21	0.158783	0.101733	0.287559
O	O22	0.821173	0.815963	0.122912
O	O23	0.713612	0.288457	0.499147
O	O24	0.597638	0.416178	0.838168
O	O25	0.561266	0.895120	0.624028
O	O26	0.846074	0.856453	0.467985
O	O27	0.374837	0.632005	0.831696
O	O28	0.266458	0.751274	0.177143
O	O29	0.240459	0.249802	0.955005
O	O30	0.517585	0.186022	0.800824
O	O31	0.044196	0.962873	0.168576
O	O32	0.933315	0.090898	0.516186
O	O33	0.899077	0.579765	0.285260
O	O34	0.186665	0.522888	0.130741
O	O35	0.699321	0.938462	0.501196
O	O36	0.578670	0.702841	0.835007
O	O37	0.093874	0.177337	0.623031
O	O38	0.147211	0.517884	0.464656
O	O39	0.366366	0.266127	0.828466
O	O40	0.248562	0.035819	0.176104
O	O41	0.750680	0.508927	0.951870
O	O42	0.808813	0.848601	0.795912
O	O43	0.033263	0.595248	0.166718
O	O44	0.918191	0.367032	0.513935
O	O45	0.421212	0.843521	0.288855
O	O46	0.477590	0.182292	0.129213
O	O47	0.905889	0.709266	0.440805
O	O48	0.689989	0.614009	0.085567
O	O49	0.165035	0.579871	0.307702
O	O50	0.498523	0.858867	0.466708
O	O51	0.582231	0.057386	0.752701
O	O52	0.360787	0.952590	0.421730

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0	059	0.271268	0.716775	0.428977
0	060	0.386497	0.592182	0.089118
0	061	0.420451	0.102861	0.306578
0	062	0.130102	0.152132	0.465242
0	063	0.938677	0.047299	0.760732
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0	065	0.092001	0.439127	0.642122
0	066	0.797812	0.490433	0.795467
0	067	0.608423	0.380690	0.094788
0	068	0.716691	0.261499	0.752980
0	069	0.742900	0.764491	0.971685
0	070	0.465400	0.821433	0.132507
0	071	0.286344	0.084150	0.427301
0	072	0.404298	0.310491	0.090522
0	073	0.886082	0.818997	0.302696
0	074	0.838821	0.484820	0.459266
0	075	0.950581	0.414342	0.758123
0	076	0.066002	0.636528	0.417807
0	077	0.560690	0.181212	0.641586
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0	080	0.734167	0.975361	0.754933
0	081	0.233891	0.502439	0.975535
0	082	0.173466	0.159485	0.129512
0	083	0.824830	0.679779	0.606935
Al	Al84	0.927979	0.606173	0.399098
Al	Al85	0.595623	0.940819	0.734180
Al	Al86	0.265985	0.275815	0.069219
Al	Al87	0.387619	0.843653	0.401095
Al	Al88	0.054575	0.175386	0.733800
Al	Al89	0.722739	0.508955	0.066064
Al	Al90	0.152423	0.059710	0.399530
Al	Al91	0.821666	0.399463	0.731301
Al	Al92	0.490835	0.730734	0.070148
Al	Al93	0.057855	0.404064	0.529698
Al	Al94	0.715812	0.734834	0.859888
Al	Al95	0.386287	0.068912	0.194539
Al	Al96	0.591672	0.169029	0.530325

Al	Al97	0.261980	0.503256	0.862656
Al	Al98	0.928518	0.833173	0.195041
Al	Al99	0.828023	0.950205	0.526841
Al	Al100	0.493029	0.278412	0.861612
Al	Al101	0.162156	0.612468	0.195595
Si	Si102	0.924133	0.829673	0.404947
P	P103	0.057718	0.176762	0.526120
P	P104	0.718921	0.508537	0.854660
P	P105	0.388169	0.842507	0.191456
P	P106	0.823089	0.392726	0.522643
P	P107	0.487426	0.731578	0.857620
P	P108	0.155648	0.064262	0.191454
P	P109	0.593152	0.937367	0.528031
P	P110	0.266984	0.278473	0.856870
P	P111	0.933422	0.609807	0.187931
P	P112	0.594765	0.171644	0.736797
P	P113	0.264692	0.501966	0.073365
P	P114	0.161586	0.612990	0.404307
P	P115	0.826140	0.946563	0.737794
P	P116	0.495280	0.280678	0.072265
P	P117	0.386629	0.072518	0.403984
P	P118	0.052022	0.402571	0.737675
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TS-Methylation-MeOH-Toluene-Si-AIPO-34

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H	H2	0.661284	0.662276	0.636441

H	H3	0.668203	0.532639	0.631130
H	H4	0.686922	0.614852	0.528017
H	H5	0.862211	0.765851	0.634454
H	H6	0.514094	0.363643	0.400333
H	H7	0.484299	0.351284	0.562355
H	H8	0.479473	0.660333	0.556747
H	H9	0.509436	0.671621	0.394924
H	H10	0.556326	0.466266	0.264584
H	H11	0.612614	0.612330	0.274352
H	H12	0.470062	0.525758	0.251713
H	H13	0.464572	0.498480	0.641591
C	C14	0.665997	0.599810	0.597260
C	C15	0.491375	0.421891	0.525715
C	C16	0.489115	0.509668	0.572239
C	C17	0.488228	0.596324	0.522548
C	C18	0.504230	0.602043	0.431795
C	C19	0.516660	0.519846	0.386637
C	C20	0.540282	0.530908	0.289029
C	C21	0.507417	0.428659	0.434750
O	O22	0.073904	0.293569	0.499439
O	O23	0.296940	0.402205	0.836058
O	O24	0.145301	0.481055	0.798480
O	O25	0.162553	0.107183	0.284637
O	O26	0.090632	0.177496	0.619713
O	O27	0.365354	0.267274	0.826760
O	O28	0.247480	0.037111	0.172261
O	O29	0.476627	0.184995	0.126152
O	O30	0.165963	0.201235	0.797921
O	O31	0.249321	0.391003	0.095803
O	O32	0.020607	0.283749	0.747469
O	O33	0.419144	0.107332	0.303569
O	O34	0.130067	0.155041	0.462246
O	O35	0.093181	0.442850	0.639020
O	O36	0.285130	0.084935	0.425615
O	O37	0.402703	0.312604	0.087491
O	O38	0.172021	0.160597	0.125903
O	O39	0.730845	0.623790	0.828719
O	O40	0.963241	0.732394	0.164890
O	O41	0.821080	0.818938	0.119811
O	O42	0.559574	0.897470	0.621493
O	O43	0.844130	0.857121	0.465054
O	O44	0.897700	0.582336	0.282614
O	O45	0.698009	0.939240	0.499194
O	O46	0.578973	0.705431	0.830682

0	047	0.808875	0.851921	0.793025
0	048	0.908164	0.712566	0.438914
0	049	0.690894	0.617271	0.081210
0	050	0.497770	0.860417	0.463928
0	051	0.825111	0.916772	0.638344
0	052	0.835894	0.531222	0.126156
0	053	0.880913	0.816433	0.300102
0	054	0.838513	0.486561	0.455349
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0	056	0.618802	0.748345	0.098314
0	057	0.733369	0.978046	0.752036
0	058	0.815979	0.431559	0.615059
0	059	0.483413	0.156109	0.459369
0	060	0.612123	0.057747	0.517205
0	061	0.713284	0.290543	0.495817
0	062	0.597112	0.420384	0.835187
0	063	0.518918	0.190547	0.797811
0	064	0.932220	0.092052	0.510882
0	065	0.917958	0.369906	0.512257
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0	073	0.490204	0.758126	0.953424
0	074	0.749956	0.508350	0.949298
0	075	0.741132	0.769083	0.968789
0	076	0.401755	0.957754	0.164881
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0	078	0.266256	0.754008	0.173911
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0	080	0.185605	0.525493	0.126575
0	081	0.146821	0.519409	0.460843
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0	083	0.421447	0.843617	0.285695
0	084	0.166684	0.582300	0.304035
0	085	0.361169	0.954972	0.416843
0	086	0.271351	0.718558	0.425971
0	087	0.386289	0.594142	0.088693
0	088	0.052031	0.926858	0.410060
0	089	0.465003	0.824055	0.128600
0	090	0.066223	0.638310	0.413294

O	O91	0.238294	0.251972	0.951809
O	O92	0.493444	0.254041	0.971373
O	O93	0.236643	0.506176	0.972355
O	O94	0.847851	0.692231	0.617931
Al	Al95	0.264141	0.277455	0.065823
Al	Al96	0.054036	0.178353	0.730685
Al	Al97	0.152103	0.062805	0.396452
Al	Al98	0.057832	0.406551	0.526900
Al	Al99	0.385449	0.071423	0.191533
Al	Al100	0.493321	0.282357	0.858483
Al	Al101	0.928079	0.608826	0.396479
Al	Al102	0.594888	0.943525	0.731719
Al	Al103	0.490472	0.732422	0.067382
Al	Al104	0.715982	0.737885	0.856778
Al	Al105	0.927092	0.834820	0.193175
Al	Al106	0.827392	0.951527	0.523994
Al	Al107	0.722502	0.511087	0.062974
Al	Al108	0.821753	0.402470	0.727783
Al	Al109	0.591600	0.171152	0.527230
Al	Al110	0.387250	0.845437	0.397725
Al	Al111	0.262551	0.505903	0.858946
Al	Al112	0.161821	0.614995	0.192284
Si	Si113	0.922263	0.830547	0.402053
P	P114	0.056247	0.178374	0.522554
P	P115	0.155564	0.066789	0.188988
P	P116	0.266331	0.280726	0.853707
P	P117	0.264612	0.504405	0.070591
P	P118	0.385837	0.074793	0.400886
P	P119	0.052483	0.406078	0.734374
P	P120	0.718932	0.511040	0.852200
P	P121	0.592328	0.939262	0.525438
P	P122	0.932604	0.612226	0.185433
P	P123	0.826227	0.950367	0.735440
P	P124	0.718854	0.738538	0.067457
P	P125	0.822499	0.395278	0.519630
P	P126	0.594988	0.174698	0.733632
P	P127	0.494591	0.283872	0.069574
P	P128	0.388142	0.844601	0.188512
P	P129	0.487563	0.733526	0.854220
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TS-Methylation-MeOH-TMB-Si-ALPO-34


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  H      H4              0.675221          0.626280          0.521482
  H      H5              0.838677          0.759163          0.630942
  H      H6              0.521474          0.406431          0.260942
  H      H7              0.585020          0.360652          0.339226
  H      H8              0.659535          0.496323          0.294492
  H      H9              0.453835          0.441638          0.691145
  H      H10             0.474000          0.339682          0.637016
  H      H11             0.346875          0.338004          0.625829
  H      H12             0.398131          0.660097          0.582758
  H      H13             0.462573          0.618972          0.663930
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  H      H15             0.637380          0.668919          0.280656
  H      H16             0.523455          0.691234          0.292719
  H      H17             0.506871          0.570733          0.237337
  H      H18             0.525774          0.354394          0.485341
  H      H19             0.465545          0.671252          0.438630
  C      C20             0.658107          0.581032          0.582868
  C      C21             0.577732          0.431835          0.317877
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  C      C24             0.437238          0.392935          0.630545
  C      C25             0.456433          0.552793          0.533199
  C      C26             0.409110          0.591549          0.605152
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O	033	0.143289	0.481354	0.800493
O	034	0.161276	0.108507	0.287126
O	035	0.089781	0.178107	0.623008
O	036	0.362177	0.266755	0.832280
O	037	0.247004	0.038958	0.174828
O	038	0.477751	0.187582	0.131234
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O	041	0.018175	0.283947	0.749660
O	042	0.417422	0.105594	0.306453
O	043	0.124399	0.152350	0.465080
O	044	0.089588	0.443305	0.641471
O	045	0.286871	0.092193	0.428611
O	046	0.404132	0.313743	0.087163
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O	050	0.819738	0.818867	0.122303
O	051	0.558869	0.902589	0.622294
O	052	0.849721	0.862818	0.467231
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O	057	0.907597	0.714133	0.440774
O	058	0.688080	0.616912	0.085577
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O	060	0.821978	0.915661	0.640709
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O	085	0.400398	0.958928	0.165347
O	086	0.371329	0.635453	0.835458
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O	088	0.042673	0.967619	0.170370
O	089	0.186662	0.526327	0.131421
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O	091	0.032419	0.598895	0.165852
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O	096	0.385728	0.598145	0.085556
O	097	0.055818	0.926712	0.410449
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O	099	0.067225	0.641592	0.417129
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O	0101	0.488908	0.245246	0.973614
O	0102	0.228890	0.501235	0.976046
O	0103	0.831494	0.687884	0.615504
Al	Al104	0.265207	0.279817	0.068846
Al	Al105	0.051489	0.178231	0.733801
Al	Al106	0.151980	0.064399	0.398797
Al	Al107	0.055452	0.406496	0.529247
Al	Al108	0.384646	0.072376	0.194143
Al	Al109	0.489979	0.279944	0.861983
Al	Al110	0.929193	0.611376	0.398909
Al	Al111	0.592627	0.944243	0.733271
Al	Al112	0.490489	0.736899	0.068131
Al	Al113	0.712794	0.736950	0.858522
Al	Al114	0.927332	0.836758	0.194777
Al	Al115	0.826254	0.952252	0.526627
Al	Al116	0.722873	0.513361	0.064053
Al	Al117	0.819205	0.402450	0.730084

Al	Al118	0.593260	0.171197	0.528356
Al	Al119	0.383527	0.847541	0.400646
Al	Al120	0.258857	0.505264	0.863113
Al	Al121	0.161517	0.616421	0.194818
Si	Si122	0.924944	0.833174	0.403660
P	P123	0.053528	0.178537	0.526285
P	P124	0.155153	0.068771	0.191400
P	P125	0.263318	0.281063	0.857700
P	P126	0.264069	0.505529	0.073168
P	P127	0.383341	0.074913	0.403786
P	P128	0.049708	0.406243	0.737015
P	P129	0.716501	0.512027	0.854213
P	P130	0.593496	0.942023	0.526165
P	P131	0.932959	0.614085	0.187423
P	P132	0.823291	0.949916	0.737685
P	P133	0.718396	0.738539	0.068896
P	P134	0.821768	0.396374	0.521205
P	P135	0.592853	0.174246	0.735533
P	P136	0.494579	0.282580	0.070309
P	P137	0.387075	0.846403	0.190837
P	P138	0.484528	0.735972	0.857839
P	P139	0.161369	0.615981	0.403944

TS-Methylation-ZCH3-C2-Si-AIPO-34

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H	H3	0.733263	0.693332	0.501688

H	H4	0.610492	0.474621	0.642833
H	H5	0.625221	0.613666	0.656501
H	H6	0.510100	0.449598	0.501123
H	H7	0.524798	0.588994	0.514115
C	C8	0.732016	0.615433	0.508368
C	C9	0.597970	0.540011	0.615976
C	C10	0.542948	0.526303	0.538706
O	O11	0.081894	0.293310	0.500770
O	O12	0.298272	0.399019	0.843288
O	O13	0.822988	0.434126	0.616962
O	O14	0.486501	0.155113	0.461398
O	O15	0.732400	0.620964	0.828362
O	O16	0.966533	0.730399	0.166480
O	O17	0.494720	0.761210	0.955611
O	O18	0.148345	0.478641	0.800885
O	O19	0.404547	0.955418	0.165688
O	O20	0.617033	0.057878	0.516706
O	O21	0.157673	0.094788	0.288968
O	O22	0.823227	0.815982	0.122481
O	O23	0.714912	0.291468	0.500047
O	O24	0.600634	0.417468	0.839728
O	O25	0.566377	0.900344	0.623516
O	O26	0.848795	0.860437	0.465112
O	O27	0.377326	0.632033	0.833312
O	O28	0.269798	0.751817	0.176590
O	O29	0.239563	0.245440	0.956058
O	O30	0.522088	0.189146	0.799619
O	O31	0.047162	0.963143	0.165190
O	O32	0.935284	0.093571	0.515720
O	O33	0.904416	0.581135	0.284273
O	O34	0.190350	0.522658	0.132734
O	O35	0.702108	0.938807	0.499538
O	O36	0.581446	0.703199	0.834853
O	O37	0.095915	0.177417	0.622594
O	O38	0.142189	0.518631	0.464307
O	O39	0.368301	0.265705	0.830812
O	O40	0.251280	0.035757	0.175272
O	O41	0.756384	0.510410	0.950938
O	O42	0.811635	0.849618	0.795249
O	O43	0.036693	0.596413	0.164033
O	O44	0.917862	0.359699	0.518184
O	O45	0.424057	0.843791	0.288648
O	O46	0.480858	0.183217	0.129714
O	O47	0.896033	0.702827	0.438214

0	048	0.693209	0.614121	0.084503
0	049	0.164457	0.581641	0.307785
0	050	0.501494	0.859015	0.466972
0	051	0.585008	0.058317	0.754481
0	052	0.364471	0.952691	0.421908
0	053	0.824343	0.915469	0.640481
0	054	0.168882	0.198937	0.801455
0	055	0.254164	0.389775	0.097003
0	056	0.023401	0.280888	0.750598
0	057	0.495397	0.247910	0.973843
0	058	0.839062	0.528956	0.128537
0	059	0.275880	0.715861	0.429179
0	060	0.389236	0.593129	0.087574
0	061	0.421667	0.102218	0.306322
0	062	0.129867	0.147749	0.465159
0	063	0.941397	0.048356	0.761125
0	064	0.056748	0.917065	0.418855
0	065	0.095974	0.439467	0.641686
0	066	0.799464	0.490507	0.793361
0	067	0.611607	0.381140	0.093569
0	068	0.720087	0.262212	0.749189
0	069	0.745952	0.764779	0.970822
0	070	0.468940	0.821928	0.132494
0	071	0.288024	0.082177	0.428043
0	072	0.407404	0.310655	0.089008
0	073	0.891676	0.821721	0.301624
0	074	0.849323	0.483370	0.456058
0	075	0.953994	0.415438	0.756738
0	076	0.073086	0.647947	0.417332
0	077	0.561555	0.178243	0.640594
0	078	0.507063	0.831868	0.802156
0	079	0.621892	0.746280	0.098613
0	080	0.736764	0.976652	0.757350
0	081	0.234031	0.503480	0.976104
0	082	0.177638	0.162071	0.133344
Al	Al83	0.932927	0.607884	0.397920
Al	Al84	0.598879	0.942098	0.734618
Al	Al85	0.268505	0.275532	0.069404
Al	Al86	0.391090	0.843727	0.401056
Al	Al87	0.057425	0.175772	0.733611
Al	Al88	0.726079	0.509242	0.064809
Al	Al89	0.153058	0.054762	0.401184
Al	Al90	0.825242	0.400358	0.729849
Al	Al91	0.493858	0.731598	0.068998

Al	Al92	0.060234	0.402711	0.529851
Al	Al93	0.718938	0.735705	0.858694
Al	Al94	0.388981	0.069033	0.194040
Al	Al95	0.593978	0.169305	0.529324
Al	Al96	0.264187	0.503370	0.863451
Al	Al97	0.931745	0.834104	0.193271
Al	Al98	0.831183	0.952620	0.527266
Al	Al99	0.495786	0.279330	0.861692
Al	Al100	0.164955	0.613324	0.195028
Si	Si101	0.925524	0.829557	0.404718
P	P102	0.060417	0.176858	0.525630
P	P103	0.722285	0.509541	0.854240
P	P104	0.391511	0.842988	0.191122
P	P105	0.827383	0.392231	0.522748
P	P106	0.490279	0.732093	0.857154
P	P107	0.157955	0.063351	0.191645
P	P108	0.597010	0.939335	0.526881
P	P109	0.268422	0.277399	0.858434
P	P110	0.936894	0.610491	0.186420
P	P111	0.597516	0.171964	0.735876
P	P112	0.267264	0.502533	0.073126
P	P113	0.163403	0.616094	0.404296
P	P114	0.828592	0.947999	0.737934
P	P115	0.498430	0.280692	0.071545
P	P116	0.388918	0.072074	0.403868
P	P117	0.055499	0.403141	0.737180
P	P118	0.721648	0.735339	0.069534

TS-Methylation-ZCH3-C3-Si-ALPO-34

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H	H3	0.737689	0.695739	0.506245
H	H4	0.616275	0.477240	0.634508
H	H5	0.624127	0.612592	0.653561
H	H6	0.503538	0.445605	0.502595
H	H7	0.400803	0.552805	0.507653
H	H8	0.518180	0.624663	0.440099
H	H9	0.520842	0.671413	0.550620
C	C10	0.740736	0.619964	0.511256
C	C11	0.599022	0.540869	0.611009
C	C12	0.531840	0.522400	0.539919
C	C13	0.492101	0.598105	0.508651
O	O14	0.083646	0.294244	0.501213
O	O15	0.298224	0.398903	0.842898
O	O16	0.824475	0.434379	0.616883
O	O17	0.486897	0.155350	0.461129
O	O18	0.732570	0.620842	0.828422
O	O19	0.966980	0.730309	0.165566
O	O20	0.494073	0.761663	0.955558
O	O21	0.148232	0.478331	0.801021
O	O22	0.404430	0.955280	0.165227
O	O23	0.617958	0.058851	0.516801
O	O24	0.157599	0.095184	0.288709
O	O25	0.823148	0.815735	0.122403
O	O26	0.715344	0.291906	0.500138
O	O27	0.600845	0.417386	0.840863
O	O28	0.566047	0.900326	0.623028
O	O29	0.851103	0.863473	0.464064
O	O30	0.377045	0.631984	0.833422
O	O31	0.269792	0.751600	0.176141
O	O32	0.240184	0.245976	0.956071
O	O33	0.522188	0.189090	0.799638
O	O34	0.047199	0.963086	0.165181
O	O35	0.935115	0.095226	0.516426
O	O36	0.904887	0.582689	0.284686
O	O37	0.190366	0.522388	0.132907
O	O38	0.702154	0.938948	0.499328
O	O39	0.581184	0.703091	0.835491
O	O40	0.096456	0.177193	0.622667
O	O41	0.143472	0.518969	0.464603
O	O42	0.368303	0.265594	0.830518

0	043	0.251346	0.035704	0.175459
0	044	0.757770	0.511008	0.950897
0	045	0.811228	0.849370	0.794840
0	046	0.036467	0.595703	0.164719
0	047	0.918336	0.359621	0.517339
0	048	0.423399	0.843930	0.288645
0	049	0.481187	0.183296	0.129816
0	050	0.896225	0.703421	0.439399
0	051	0.693304	0.613892	0.084354
0	052	0.165412	0.582218	0.308083
0	053	0.501908	0.860332	0.466340
0	054	0.584856	0.058148	0.754245
0	055	0.363645	0.952943	0.422110
0	056	0.824633	0.915536	0.640005
0	057	0.168676	0.198581	0.801778
0	058	0.254598	0.389805	0.097444
0	059	0.023522	0.280693	0.750280
0	060	0.494147	0.246765	0.973744
0	061	0.838775	0.528508	0.129268
0	062	0.276459	0.716199	0.429705
0	063	0.389287	0.593248	0.087626
0	064	0.422039	0.102087	0.306118
0	065	0.128724	0.146793	0.464988
0	066	0.941251	0.048161	0.760889
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0	071	0.720037	0.261995	0.748835
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0	076	0.892042	0.820451	0.301331
0	077	0.849923	0.483622	0.455970
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0	081	0.506944	0.831578	0.801690
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0	084	0.234027	0.502914	0.976264
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Al	Al86	0.933294	0.608344	0.398345

Al	Al87	0.598728	0.941975	0.734266
Al	Al88	0.268928	0.275657	0.069419
Al	Al89	0.390885	0.844500	0.401027
Al	Al90	0.057526	0.175509	0.733624
Al	Al91	0.726493	0.509180	0.064600
Al	Al92	0.153318	0.054950	0.400816
Al	Al93	0.825243	0.400183	0.729812
Al	Al94	0.493878	0.731710	0.068815
Al	Al95	0.060565	0.402881	0.529931
Al	Al96	0.718786	0.735361	0.858392
Al	Al97	0.389125	0.068999	0.193866
Al	Al98	0.594267	0.169958	0.529324
Al	Al99	0.264152	0.503132	0.863525
Al	Al100	0.931950	0.833750	0.192799
Al	Al101	0.831690	0.953802	0.527077
Al	Al102	0.495729	0.279224	0.861633
Al	Al103	0.165116	0.613177	0.195165
Si	Si104	0.926398	0.830341	0.404377
P	P105	0.060652	0.177172	0.525893
P	P106	0.722578	0.509534	0.854352
P	P107	0.391390	0.842941	0.190937
P	P108	0.828021	0.392425	0.522594
P	P109	0.490025	0.732085	0.857198
P	P110	0.158020	0.063379	0.191491
P	P111	0.597335	0.940130	0.526569
P	P112	0.268582	0.277397	0.858314
P	P113	0.936987	0.610530	0.186593
P	P114	0.597401	0.171858	0.735730
P	P115	0.267393	0.502367	0.073303
P	P116	0.164054	0.616358	0.404632
P	P117	0.828493	0.947808	0.737512
P	P118	0.498419	0.280415	0.071323
P	P119	0.389124	0.072645	0.403695
P	P120	0.055349	0.402926	0.737321
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TS-Methylation-ZCH3-MeOH-Si-AlPO-34

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  H      H4          0.808683      0.728816      0.563455
  H      H5          0.511098      0.572262      0.670181
  H      H6          0.536309      0.578271      0.553690
  H      H7          0.610514      0.701067      0.619437
  C      C8          0.573731      0.610695      0.618200
  C      C9          0.780979      0.645039      0.542386
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  O      O11         0.299583      0.399823      0.842897
  O      O12         0.829666      0.436488      0.617813
  O      O13         0.489595      0.155866      0.460645
  O      O14         0.728169      0.619573      0.821688
  O      O15         0.967832      0.732051      0.164196
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  O      O17         0.148755      0.478290      0.801901
  O      O18         0.404958      0.956810      0.164583
  O      O19         0.621396      0.060622      0.516891
  O      O20         0.160786      0.098274      0.289304
  O      O21         0.823643      0.818078      0.124748
  O      O22         0.716996      0.293276      0.502344
  O      O23         0.600921      0.416827      0.844100
  O      O24         0.568879      0.902396      0.623452
  O      O25         0.857572      0.868687      0.464865
  O      O26         0.378846      0.632079      0.832146
  O      O27         0.270941      0.753135      0.177236
  O      O28         0.240158      0.247360      0.956697
  O      O29         0.522196      0.189104      0.799654
  O      O30         0.047945      0.965345      0.166952
  O      O31         0.935123      0.098634      0.517298
  O      O32         0.904155      0.586129      0.284927
  O      O33         0.191435      0.524741      0.132320
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0	039	0.252223	0.037439	0.174895
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0	041	0.811455	0.848081	0.793390
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0	044	0.424718	0.847552	0.289416
0	045	0.482694	0.186093	0.131592
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0	053	0.168982	0.199399	0.802458
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0	062	0.942294	0.047805	0.761919
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0	064	0.094086	0.440770	0.643062
0	065	0.799120	0.490581	0.794319
0	066	0.613387	0.382113	0.089538
0	067	0.719990	0.262959	0.748774
0	068	0.753897	0.762678	0.971208
0	069	0.470695	0.823698	0.134295
0	070	0.291478	0.087330	0.429197
0	071	0.409177	0.312765	0.088419
0	072	0.894716	0.818926	0.302923
0	073	0.851007	0.485005	0.456863
0	074	0.953645	0.414817	0.760446
0	075	0.073604	0.648359	0.416232
0	076	0.560738	0.175387	0.640902
0	077	0.508077	0.831915	0.801225
0	078	0.624416	0.750534	0.092954

O	O79	0.737763	0.976554	0.757824
O	O80	0.237103	0.505645	0.976363
O	O81	0.178662	0.163808	0.133377
O	O82	0.658205	0.579097	0.630985
Al	Al83	0.933362	0.609533	0.398738
Al	Al84	0.600187	0.943177	0.734685
Al	Al85	0.269985	0.277565	0.069945
Al	Al86	0.391284	0.845988	0.401863
Al	Al87	0.057911	0.175937	0.734167
Al	Al88	0.727366	0.512147	0.065376
Al	Al89	0.156260	0.057821	0.401417
Al	Al90	0.825933	0.400670	0.730633
Al	Al91	0.494174	0.733896	0.069001
Al	Al92	0.062017	0.404604	0.530611
Al	Al93	0.720509	0.736623	0.859829
Al	Al94	0.389816	0.070416	0.194253
Al	Al95	0.595938	0.170749	0.529719
Al	Al96	0.265420	0.503976	0.863608
Al	Al97	0.933466	0.835260	0.194017
Al	Al98	0.833260	0.956604	0.526384
Al	Al99	0.495127	0.277950	0.862421
Al	Al100	0.166172	0.614608	0.195969
Si	Si101	0.930773	0.832771	0.405651
P	P102	0.061241	0.178705	0.526639
P	P103	0.721973	0.510679	0.854232
P	P104	0.392426	0.845040	0.191706
P	P105	0.830074	0.393616	0.523068
P	P106	0.489844	0.733367	0.858394
P	P107	0.159462	0.065608	0.192153
P	P108	0.598873	0.941235	0.526602
P	P109	0.268948	0.278091	0.858930
P	P110	0.937570	0.612544	0.186888
P	P111	0.597657	0.171757	0.736125
P	P112	0.269157	0.504606	0.073729
P	P113	0.164686	0.617334	0.404609
P	P114	0.829539	0.948264	0.737536
P	P115	0.499119	0.281228	0.071085
P	P116	0.390287	0.073843	0.404510
P	P117	0.055091	0.403208	0.738599
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TS-Methylation-ZCH3-C4-iso-Si-AlPO-34

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  H      H4          0.402954      0.559805      0.385738
  H      H5          0.537365      0.620473      0.340691
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  H      H8          0.502298      0.418140      0.333607
  H      H9          0.380471      0.357724      0.397786
  H      H10         0.558280      0.463050      0.568213
  H      H11         0.569326      0.601418      0.571129
  C      C12         0.728811      0.614363      0.471728
  C      C13         0.553950      0.528882      0.532854
  C      C14         0.508053      0.510607      0.450187
  C      C15         0.491054      0.596137      0.403428
  C      C16         0.471695      0.403408      0.402087
  O      O17         0.086579      0.293686      0.504885
  O      O18         0.302179      0.400190      0.848070
  O      O19         0.828425      0.435190      0.621247
  O      O20         0.490551      0.152610      0.466064
  O      O21         0.736598      0.621720      0.831825
  O      O22         0.969509      0.731292      0.171556
  O      O23         0.498812      0.762202      0.959968
  O      O24         0.151731      0.478939      0.805018
  O      O25         0.409201      0.956612      0.172295
  O      O26         0.626827      0.060813      0.519138
  O      O27         0.164405      0.097964      0.293429
  O      O28         0.827727      0.817913      0.124564
  O      O29         0.718174      0.293668      0.504215

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0	034	0.274162	0.752912	0.180823
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0	036	0.525262	0.190392	0.802965
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0	038	0.937210	0.095001	0.521024
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0	042	0.583655	0.703022	0.838699
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0	044	0.144867	0.518262	0.468054
0	045	0.371794	0.266442	0.835588
0	046	0.255216	0.036572	0.179057
0	047	0.759892	0.512565	0.955592
0	048	0.815147	0.851070	0.801241
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0	069	0.945270	0.049449	0.767003
0	070	0.062815	0.915313	0.418133
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0	072	0.803891	0.490811	0.799103
0	073	0.615367	0.382082	0.098408

O	O74	0.723495	0.263246	0.753017
O	O75	0.745788	0.761711	0.974657
O	O76	0.473349	0.823558	0.136506
O	O77	0.292475	0.083914	0.433770
O	O78	0.411221	0.311437	0.093941
O	O79	0.892090	0.823150	0.304709
O	O80	0.855223	0.484770	0.460447
O	O81	0.957337	0.415781	0.761287
O	O82	0.078400	0.650098	0.421067
O	O83	0.564989	0.174883	0.644671
O	O84	0.510473	0.832728	0.806539
O	O85	0.625331	0.746674	0.104225
O	O86	0.740674	0.977731	0.761455
O	O87	0.237737	0.503964	0.980745
O	O88	0.181496	0.163081	0.137562
Al	Al89	0.937931	0.608375	0.401854
Al	Al90	0.602796	0.943442	0.739730
Al	Al91	0.272442	0.276596	0.073636
Al	Al92	0.394586	0.844035	0.405284
Al	Al93	0.060945	0.176326	0.738201
Al	Al94	0.729841	0.510245	0.069185
Al	Al95	0.157324	0.054801	0.405078
Al	Al96	0.828804	0.401476	0.734200
Al	Al97	0.497889	0.732761	0.073155
Al	Al98	0.063238	0.402274	0.534074
Al	Al99	0.720964	0.734878	0.861733
Al	Al100	0.392944	0.070270	0.198615
Al	Al101	0.599499	0.169472	0.533569
Al	Al102	0.267525	0.504137	0.867800
Al	Al103	0.934712	0.835415	0.196816
Al	Al104	0.835357	0.952817	0.532944
Al	Al105	0.499676	0.280586	0.865635
Al	Al106	0.169033	0.614539	0.199167
Si	Si107	0.930418	0.831763	0.406724
P	P108	0.062855	0.176467	0.530245
P	P109	0.726111	0.510575	0.858449
P	P110	0.395942	0.843638	0.195913
P	P111	0.831605	0.393141	0.527178
P	P112	0.493424	0.732772	0.861377
P	P113	0.162501	0.064877	0.196154
P	P114	0.601949	0.940764	0.531366
P	P115	0.272182	0.278535	0.862904
P	P116	0.940647	0.611422	0.190651
P	P117	0.601200	0.172188	0.740564

P	P118	0.271079	0.503452	0.077705
P	P119	0.167684	0.616585	0.408540
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P	P121	0.502328	0.281602	0.075851
P	P122	0.392222	0.072285	0.408115
P	P123	0.058703	0.403577	0.741363
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TS-Methylation-ZCH3-TME-Si-ALPO-34

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H	H3	0.720946	0.688216	0.461039
H	H4	0.411744	0.565687	0.389218
H	H5	0.541278	0.613749	0.337495
H	H6	0.531961	0.679534	0.435020
H	H7	0.522615	0.364049	0.424425
H	H8	0.493308	0.424650	0.332601
H	H9	0.390756	0.351724	0.413666
H	H10	0.603705	0.464877	0.647661
H	H11	0.547276	0.371122	0.557175
H	H12	0.459059	0.387657	0.631869
H	H13	0.493703	0.592237	0.650586
H	H14	0.558270	0.689413	0.564101
H	H15	0.638135	0.656349	0.636475
C	C16	0.724879	0.612898	0.464251
C	C17	0.538945	0.432055	0.596683
C	C18	0.559390	0.622224	0.600127

C	C19	0.541999	0.525500	0.543260
C	C20	0.515217	0.514945	0.454474
C	C21	0.500833	0.599596	0.402376
C	C22	0.480254	0.408498	0.403807
O	O23	0.086332	0.293296	0.504257
O	O24	0.302063	0.400230	0.847744
O	O25	0.829520	0.435743	0.621194
O	O26	0.489673	0.153105	0.466838
O	O27	0.736592	0.621646	0.830604
O	O28	0.969263	0.731296	0.171801
O	O29	0.498152	0.762358	0.959781
O	O30	0.152512	0.479653	0.804249
O	O31	0.409945	0.957021	0.172963
O	O32	0.626244	0.060582	0.516345
O	O33	0.162711	0.095509	0.293489
O	O34	0.827737	0.818108	0.124464
O	O35	0.717525	0.293409	0.505187
O	O36	0.605140	0.418610	0.845844
O	O37	0.570193	0.906989	0.628410
O	O38	0.857280	0.865237	0.469132
O	O39	0.380453	0.633096	0.837628
O	O40	0.274522	0.753322	0.181050
O	O41	0.244016	0.246818	0.960539
O	O42	0.525627	0.191191	0.802490
O	O43	0.051617	0.964507	0.169397
O	O44	0.936861	0.094956	0.522091
O	O45	0.908345	0.580412	0.288072
O	O46	0.194377	0.523777	0.137363
O	O47	0.703862	0.934188	0.505371
O	O48	0.584226	0.703153	0.839403
O	O49	0.099855	0.177889	0.626856
O	O50	0.144020	0.518403	0.467999
O	O51	0.372695	0.267505	0.835053
O	O52	0.255623	0.036563	0.179071
O	O53	0.761507	0.514812	0.955515
O	O54	0.815647	0.851235	0.801387
O	O55	0.041516	0.599108	0.167475
O	O56	0.920257	0.358115	0.521263
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O	O58	0.485223	0.184361	0.134354
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0	067	0.258619	0.391171	0.101622
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0	078	0.804016	0.490610	0.799085
0	079	0.615970	0.381926	0.097215
0	080	0.723685	0.263506	0.752316
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0	085	0.892563	0.824735	0.304220
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0	087	0.957687	0.415541	0.761283
0	088	0.076920	0.650036	0.421873
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0	091	0.625614	0.747143	0.103308
0	092	0.741254	0.977896	0.761472
0	093	0.237823	0.504454	0.980596
0	094	0.182378	0.163611	0.138166
Al	Al95	0.936385	0.607667	0.401680
Al	Al96	0.603468	0.944200	0.740199
Al	Al97	0.272980	0.276902	0.073834
Al	Al98	0.394389	0.843634	0.405593
Al	Al99	0.061604	0.176446	0.738105
Al	Al100	0.730166	0.510666	0.069064
Al	Al101	0.156070	0.053027	0.405286
Al	Al102	0.829369	0.401648	0.734030
Al	Al103	0.497920	0.732999	0.073026
Al	Al104	0.062783	0.401815	0.533478
Al	Al105	0.721614	0.734915	0.861780
Al	Al106	0.393367	0.070581	0.199066

Al	Al107	0.598933	0.168739	0.533414
Al	Al108	0.267644	0.504351	0.867725
Al	Al109	0.935005	0.835899	0.196401
Al	Al110	0.834983	0.952673	0.533137
Al	Al111	0.500010	0.280693	0.865942
Al	Al112	0.169132	0.614968	0.199115
Si	Si113	0.929024	0.831214	0.406500
P	P114	0.062698	0.176267	0.530217
P	P115	0.726773	0.511089	0.858486
P	P116	0.396352	0.843826	0.196299
P	P117	0.831322	0.392909	0.527160
P	P118	0.493751	0.732776	0.861340
P	P119	0.162570	0.064435	0.195930
P	P120	0.601570	0.941037	0.531094
P	P121	0.272690	0.278756	0.862825
P	P122	0.940840	0.611469	0.190371
P	P123	0.601479	0.171852	0.740903
P	P124	0.271287	0.503757	0.077578
P	P125	0.166408	0.616816	0.408733
P	P126	0.833128	0.948976	0.743210
P	P127	0.502493	0.281482	0.075769
P	P128	0.391941	0.072285	0.408540
P	P129	0.059104	0.403506	0.741134
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TS-Methylation-ZCH3-CO-Si-AIPO-34

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H	H3	0.770472	0.712997	0.532148
C	C4	0.770963	0.635441	0.536774
C	C5	0.643732	0.573783	0.621331
O	O6	0.079384	0.291866	0.499174
O	O7	0.296194	0.397499	0.841942
O	O8	0.823204	0.433982	0.615858
O	O9	0.484331	0.151793	0.459644
O	O10	0.730579	0.619790	0.826881
O	O11	0.964493	0.729259	0.163183
O	O12	0.491394	0.760352	0.954121
O	O13	0.146581	0.477187	0.798910
O	O14	0.401582	0.953906	0.164132
O	O15	0.618054	0.058259	0.514138
O	O16	0.156017	0.094014	0.287592
O	O17	0.819958	0.814429	0.122602
O	O18	0.712119	0.291312	0.499671
O	O19	0.598854	0.416254	0.839117
O	O20	0.564081	0.900975	0.621870
O	O21	0.847994	0.859719	0.463970
O	O22	0.375539	0.630553	0.831622
O	O23	0.267143	0.750259	0.175122
O	O24	0.236507	0.243600	0.954511
O	O25	0.519876	0.187945	0.797827
O	O26	0.044028	0.962085	0.164628
O	O27	0.932319	0.092540	0.514281
O	O28	0.902202	0.582502	0.282942
O	O29	0.187532	0.521217	0.130681
O	O30	0.699236	0.935832	0.498211
O	O31	0.579700	0.702078	0.835037
O	O32	0.093005	0.175710	0.621022
O	O33	0.138948	0.517123	0.462883
O	O34	0.366012	0.264088	0.829736
O	O35	0.248216	0.033998	0.173351
O	O36	0.755186	0.509856	0.949748
O	O37	0.809548	0.847445	0.793299
O	O38	0.033877	0.594598	0.163216
O	O39	0.914951	0.357444	0.515824
O	O40	0.421783	0.842345	0.286855
O	O41	0.478083	0.181826	0.128291
O	O42	0.896247	0.702488	0.440524
O	O43	0.690891	0.612872	0.082973
O	O44	0.161875	0.579524	0.306135
O	O45	0.499216	0.859329	0.465377

O	046	0.583892	0.057186	0.755084
O	047	0.360143	0.949996	0.419400
O	048	0.822957	0.913048	0.638534
O	049	0.166784	0.197513	0.799718
O	050	0.251605	0.388440	0.095229
O	051	0.020933	0.279181	0.749327
O	052	0.493093	0.245935	0.972236
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O	054	0.273704	0.713953	0.427349
O	055	0.386634	0.591845	0.086000
O	056	0.418382	0.100603	0.304691
O	057	0.126521	0.145765	0.463618
O	058	0.939387	0.046328	0.759350
O	059	0.055642	0.916287	0.417308
O	060	0.092104	0.437461	0.640154
O	061	0.797480	0.489509	0.791807
O	062	0.609012	0.379645	0.091657
O	063	0.717728	0.261008	0.747257
O	064	0.745834	0.764404	0.969854
O	065	0.466298	0.820795	0.130639
O	066	0.286081	0.081236	0.427263
O	067	0.404800	0.309154	0.086830
O	068	0.890374	0.816933	0.300866
O	069	0.847531	0.482654	0.454993
O	070	0.951699	0.413811	0.756503
O	071	0.071195	0.647082	0.415165
O	072	0.558699	0.173902	0.639214
O	073	0.505315	0.830228	0.800260
O	074	0.619318	0.744987	0.096161
O	075	0.734858	0.974583	0.754898
O	076	0.231804	0.502254	0.974243
O	077	0.174903	0.160713	0.131848
O	078	0.558417	0.542555	0.651912
Al	Al79	0.931009	0.606591	0.396404
Al	Al80	0.596939	0.940900	0.733137
Al	Al81	0.265845	0.274107	0.067776
Al	Al82	0.388518	0.842093	0.399191
Al	Al83	0.055179	0.174256	0.732134
Al	Al84	0.723592	0.507828	0.063583
Al	Al85	0.151694	0.054282	0.399776
Al	Al86	0.823232	0.398851	0.728781
Al	Al87	0.491086	0.730318	0.067320
Al	Al88	0.057521	0.401018	0.528187
Al	Al89	0.717165	0.734563	0.857952

Al	Al90	0.386046	0.067543	0.192455
Al	Al91	0.591994	0.167684	0.527757
Al	Al92	0.262310	0.501994	0.861690
Al	Al93	0.929490	0.832238	0.191940
Al	Al94	0.828864	0.951676	0.525571
Al	Al95	0.493634	0.277911	0.860177
Al	Al96	0.162510	0.611708	0.193497
Si	Si97	0.924684	0.828678	0.403775
P	P98	0.057685	0.175464	0.524110
P	P99	0.720448	0.508314	0.853174
P	P100	0.388885	0.841598	0.189482
P	P101	0.825389	0.391063	0.521487
P	P102	0.488113	0.730799	0.855886
P	P103	0.155418	0.062182	0.190272
P	P104	0.595178	0.938774	0.525072
P	P105	0.266097	0.275839	0.856999
P	P106	0.934507	0.609606	0.184753
P	P107	0.595271	0.169999	0.734655
P	P108	0.264745	0.501200	0.071331
P	P109	0.161153	0.614485	0.402520
P	P110	0.826706	0.945949	0.736004
P	P111	0.495819	0.279088	0.069800
P	P112	0.386143	0.070058	0.402251
P	P113	0.052978	0.401440	0.735908
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TS-Methylation-ZCH3-H2O-Si-AlPO-34

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H	H4	0.816447	0.732163	0.569275
H	H5	0.618042	0.620025	0.630980
C	C6	0.781363	0.647053	0.548642
O	O7	0.083934	0.294746	0.502376
O	O8	0.298337	0.399004	0.842224
O	O9	0.827283	0.434294	0.617431
O	O10	0.488071	0.155000	0.460788
O	O11	0.727968	0.618758	0.820888
O	O12	0.966961	0.729699	0.163745
O	O13	0.494195	0.762190	0.955759
O	O14	0.148137	0.478117	0.801079
O	O15	0.404119	0.955199	0.164219
O	O16	0.619245	0.058736	0.517273
O	O17	0.157986	0.097141	0.288027
O	O18	0.823704	0.815955	0.122864
O	O19	0.716379	0.291172	0.501277
O	O20	0.600606	0.415900	0.844057
O	O21	0.565497	0.899479	0.622898
O	O22	0.855239	0.866380	0.463792
O	O23	0.377306	0.631798	0.833715
O	O24	0.269432	0.751497	0.175543
O	O25	0.241160	0.246853	0.955902
O	O26	0.521331	0.187920	0.799164
O	O27	0.047701	0.963123	0.165406
O	O28	0.934354	0.096309	0.517296
O	O29	0.902642	0.583694	0.284442
O	O30	0.190793	0.522788	0.132555
O	O31	0.701470	0.937267	0.499373
O	O32	0.581491	0.703508	0.836086
O	O33	0.096018	0.176212	0.622896
O	O34	0.144700	0.519899	0.465046
O	O35	0.367788	0.265386	0.829492
O	O36	0.251881	0.036147	0.176010
O	O37	0.760023	0.521481	0.950175
O	O38	0.811024	0.847689	0.794035
O	O39	0.035897	0.594581	0.166488
O	O40	0.919685	0.361296	0.514815
O	O41	0.422466	0.844450	0.288521
O	O42	0.481817	0.183859	0.129947
O	O43	0.901610	0.706638	0.442908
O	O44	0.692196	0.613073	0.088667

O	045	0.167188	0.582106	0.308139
O	046	0.501400	0.860831	0.466028
O	047	0.585421	0.057668	0.755180
O	048	0.362765	0.953200	0.422120
O	049	0.825049	0.914068	0.639337
O	050	0.167787	0.198305	0.802303
O	051	0.255109	0.390041	0.097534
O	052	0.023134	0.280362	0.750262
O	053	0.490502	0.242566	0.973063
O	054	0.839080	0.527731	0.128438
O	055	0.274669	0.717720	0.429818
O	056	0.389823	0.593358	0.087195
O	057	0.423694	0.102059	0.305767
O	058	0.127483	0.146625	0.464833
O	059	0.940865	0.047107	0.760699
O	060	0.061180	0.918775	0.416690
O	061	0.093095	0.439917	0.642364
O	062	0.798435	0.489630	0.793514
O	063	0.613041	0.379733	0.087923
O	064	0.719359	0.261542	0.749272
O	065	0.747870	0.759191	0.970987
O	066	0.469225	0.821807	0.133214
O	067	0.290611	0.086488	0.426424
O	068	0.409040	0.311775	0.088728
O	069	0.894084	0.818205	0.301780
O	070	0.847725	0.484134	0.456938
O	071	0.952891	0.413990	0.759857
O	072	0.071182	0.644817	0.416138
O	073	0.560967	0.175995	0.640481
O	074	0.506805	0.831357	0.801703
O	075	0.623114	0.747672	0.096337
O	076	0.736140	0.974608	0.755966
O	077	0.234300	0.502686	0.976160
O	078	0.178193	0.161497	0.131588
O	079	0.664616	0.586636	0.637634
Al	Al80	0.931542	0.608051	0.398294
Al	Al81	0.598332	0.941345	0.733796
Al	Al82	0.269857	0.276224	0.069309
Al	Al83	0.390081	0.844792	0.401035
Al	Al84	0.057137	0.175182	0.733566
Al	Al85	0.726757	0.510206	0.064915
Al	Al86	0.155063	0.057320	0.400162
Al	Al87	0.824956	0.399075	0.730185
Al	Al88	0.493967	0.731993	0.069115

Al	Al89	0.061388	0.403889	0.529874
Al	Al90	0.718643	0.735320	0.859114
Al	Al91	0.389692	0.069214	0.193864
Al	Al92	0.594788	0.169536	0.529233
Al	Al93	0.264021	0.502872	0.863458
Al	Al94	0.933013	0.833392	0.193010
Al	Al95	0.831951	0.954426	0.526059
Al	Al96	0.493930	0.276934	0.861335
Al	Al97	0.165376	0.612991	0.195580
Si	Si98	0.929581	0.831490	0.404720
P	P99	0.060321	0.177421	0.526224
P	P100	0.721633	0.509583	0.853897
P	P101	0.390913	0.843000	0.190745
P	P102	0.828546	0.392578	0.522325
P	P103	0.489779	0.732266	0.857590
P	P104	0.158500	0.063899	0.191300
P	P105	0.597008	0.939384	0.526377
P	P106	0.268432	0.277489	0.857982
P	P107	0.936494	0.610166	0.186546
P	P108	0.596988	0.170803	0.735661
P	P109	0.267793	0.502499	0.073251
P	P110	0.163842	0.616155	0.404433
P	P111	0.828461	0.946780	0.736818
P	P112	0.498162	0.279460	0.070104
P	P113	0.390032	0.073385	0.403337
P	P114	0.054483	0.402602	0.737948
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TS-Methylation-ZCH3-NH3-Si-ALPO-34

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H	H3	0.802436	0.588880	0.559407
H	H4	0.810563	0.726246	0.563510
H	H5	0.596290	0.620772	0.616218
H	H6	0.666567	0.590880	0.688252
C	C7	0.781699	0.647394	0.531632
N	N8	0.639758	0.580271	0.624398
O	O9	0.086043	0.295324	0.501353
O	O10	0.299777	0.399128	0.845206
O	O11	0.828138	0.434939	0.618473
O	O12	0.489748	0.153524	0.461733
O	O13	0.733800	0.621036	0.831178
O	O14	0.968103	0.730410	0.164103
O	O15	0.494321	0.761435	0.957083
O	O16	0.150462	0.478819	0.801648
O	O17	0.403635	0.954777	0.165502
O	O18	0.623324	0.060550	0.519490
O	O19	0.160028	0.097706	0.290041
O	O20	0.823017	0.816018	0.126671
O	O21	0.716838	0.293056	0.501913
O	O22	0.603047	0.417493	0.842115
O	O23	0.568013	0.900520	0.624484
O	O24	0.860020	0.870918	0.463924
O	O25	0.379801	0.632082	0.833892
O	O26	0.269807	0.751190	0.178435
O	O27	0.240618	0.244426	0.956855
O	O28	0.523480	0.188792	0.801034
O	O29	0.047516	0.963634	0.168188
O	O30	0.934951	0.098080	0.519471
O	O31	0.906263	0.587520	0.287030
O	O32	0.190715	0.522567	0.133669
O	O33	0.702756	0.936803	0.500142
O	O34	0.583966	0.703922	0.838489
O	O35	0.097928	0.178841	0.623817
O	O36	0.143235	0.520290	0.466875
O	O37	0.370274	0.266390	0.831723
O	O38	0.251848	0.036510	0.176405
O	O39	0.759110	0.510690	0.953348
O	O40	0.813187	0.848418	0.795132
O	O41	0.036119	0.594611	0.167550
O	O42	0.919349	0.358384	0.517888

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0	044	0.481619	0.183324	0.130857
0	045	0.901798	0.706787	0.446649
0	046	0.694794	0.614959	0.085060
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0	050	0.362115	0.952067	0.422716
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0	053	0.254062	0.389537	0.096870
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0	055	0.495994	0.247797	0.975109
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0	071	0.895318	0.815659	0.303721
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Al	Al83	0.268848	0.275352	0.070144
Al	Al84	0.391825	0.845091	0.402013
Al	Al85	0.058984	0.175885	0.734806
Al	Al86	0.727004	0.509307	0.067123

Al	Al87	0.156812	0.057034	0.401888
Al	Al88	0.827299	0.400911	0.731614
Al	Al89	0.494111	0.731488	0.070361
Al	Al90	0.061929	0.402985	0.530989
Al	Al91	0.721699	0.737049	0.861520
Al	Al92	0.389435	0.068969	0.194849
Al	Al93	0.596797	0.170000	0.530784
Al	Al94	0.266104	0.503886	0.864493
Al	Al95	0.933537	0.833200	0.194604
Al	Al96	0.833644	0.955667	0.527769
Al	Al97	0.497297	0.279214	0.862924
Al	Al98	0.165371	0.612562	0.196996
Si	Si99	0.932276	0.833135	0.406071
P	P100	0.061221	0.178068	0.527211
P	P101	0.724524	0.509511	0.856824
P	P102	0.391481	0.843034	0.192131
P	P103	0.830168	0.392517	0.523925
P	P104	0.492046	0.732448	0.858837
P	P105	0.158797	0.064381	0.193039
P	P106	0.599347	0.940455	0.528042
P	P107	0.270047	0.277431	0.859481
P	P108	0.937568	0.611250	0.188414
P	P109	0.599158	0.172053	0.737186
P	P110	0.267860	0.502812	0.073986
P	P111	0.165126	0.616967	0.405844
P	P112	0.830688	0.947323	0.738051
P	P113	0.498811	0.280675	0.072756
P	P114	0.390691	0.072806	0.404701
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TS-Methylation-ZCH3-Toluene-Si-ALPO-34

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H	H4		0.412452	0.447900	0.291301
H	H5		0.327194	0.495816	0.337770
H	H6		0.295311	0.356388	0.354899
H	H7		0.548756	0.377017	0.579710
H	H8		0.458138	0.643477	0.435285
H	H9		0.424872	0.318457	0.449552
H	H10		0.621778	0.567396	0.642767
H	H11		0.579970	0.702030	0.566500
C	C12		0.743500	0.623200	0.505472
C	C13		0.530759	0.435846	0.546924
C	C14		0.579122	0.546199	0.579312
C	C15		0.547957	0.619044	0.539752
C	C16		0.478886	0.585639	0.466016
C	C17		0.434961	0.477684	0.431260
C	C18		0.362918	0.442569	0.349797
C	C19		0.460919	0.402989	0.473852
O	O20		0.091769	0.296902	0.493631
O	O21		0.304801	0.401301	0.835436
O	O22		0.828587	0.434328	0.608958
O	O23		0.493267	0.156025	0.453820
O	O24		0.737688	0.622611	0.819991
O	O25		0.973095	0.733249	0.159280
O	O26		0.499430	0.763332	0.948442
O	O27		0.153821	0.480292	0.794708
O	O28		0.410347	0.957536	0.158866
O	O29		0.624154	0.059963	0.510483
O	O30		0.166576	0.100110	0.282232
O	O31		0.829557	0.818131	0.114736
O	O32		0.722797	0.292312	0.491010
O	O33		0.606441	0.419162	0.832629
O	O34		0.573563	0.901184	0.615893
O	O35		0.860604	0.866963	0.458922
O	O36		0.382855	0.634471	0.825909
O	O37		0.276187	0.753775	0.168949
O	O38		0.245593	0.248731	0.949041
O	O39		0.527850	0.191124	0.791572

0	040	0.052357	0.966053	0.160783
0	041	0.941296	0.098425	0.508512
0	042	0.909760	0.584092	0.277240
0	043	0.195966	0.524515	0.125266
0	044	0.708237	0.940207	0.490926
0	045	0.587100	0.705973	0.828070
0	046	0.101677	0.178679	0.615655
0	047	0.148199	0.520700	0.456684
0	048	0.373608	0.266810	0.823843
0	049	0.256600	0.037443	0.168085
0	050	0.762487	0.513418	0.943243
0	051	0.817244	0.851641	0.787331
0	052	0.042580	0.598700	0.157736
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0	054	0.430020	0.845481	0.281419
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0	056	0.902824	0.704923	0.432950
0	057	0.698898	0.616132	0.077414
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0	060	0.590168	0.060181	0.745286
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0	071	0.134842	0.147869	0.458255
0	072	0.947040	0.050760	0.754537
0	073	0.064873	0.917428	0.408044
0	074	0.103997	0.442586	0.634831
0	075	0.805363	0.492223	0.785986
0	076	0.617903	0.383097	0.085798
0	077	0.726324	0.263996	0.742255
0	078	0.752289	0.766106	0.962899
0	079	0.475719	0.824886	0.125310
0	080	0.295214	0.086071	0.421619
0	081	0.413707	0.313026	0.081969
0	082	0.895269	0.820868	0.295013
0	083	0.858261	0.484448	0.448397

O	O84	0.960384	0.418184	0.748596
O	O85	0.079957	0.650730	0.408492
O	O86	0.568993	0.182519	0.632478
O	O87	0.512501	0.834367	0.794950
O	O88	0.628404	0.749036	0.090518
O	O89	0.742388	0.979053	0.750886
O	O90	0.241660	0.504960	0.969269
O	O91	0.183558	0.164178	0.125955
Al	Al92	0.938830	0.609744	0.390978
Al	Al93	0.604647	0.944040	0.727137
Al	Al94	0.274782	0.277964	0.062291
Al	Al95	0.396825	0.846144	0.393639
Al	Al96	0.063184	0.177908	0.726657
Al	Al97	0.732246	0.511612	0.057125
Al	Al98	0.159448	0.056152	0.393735
Al	Al99	0.831088	0.402341	0.722194
Al	Al100	0.500139	0.734227	0.061662
Al	Al101	0.068036	0.405102	0.523152
Al	Al102	0.724457	0.737339	0.850511
Al	Al103	0.394557	0.071136	0.186604
Al	Al104	0.601471	0.171682	0.521582
Al	Al105	0.270600	0.505416	0.856172
Al	Al106	0.936942	0.835833	0.186788
Al	Al107	0.838331	0.956755	0.519755
Al	Al108	0.501612	0.281203	0.854009
Al	Al109	0.171009	0.615486	0.187619
Si	Si110	0.932432	0.831327	0.397542
P	P111	0.066994	0.179293	0.518686
P	P112	0.728001	0.511556	0.846386
P	P113	0.397723	0.845163	0.183824
P	P114	0.834773	0.392944	0.515042
P	P115	0.495738	0.734511	0.849917
P	P116	0.164156	0.066190	0.185087
P	P117	0.603718	0.941298	0.519410
P	P118	0.274392	0.279663	0.851182
P	P119	0.942789	0.613166	0.179465
P	P120	0.603727	0.174514	0.727900
P	P121	0.273955	0.504776	0.066586
P	P122	0.169849	0.618255	0.396636
P	P123	0.834269	0.950621	0.730865
P	P124	0.504528	0.282771	0.064007
P	P125	0.394936	0.074110	0.396518
P	P126	0.061906	0.405647	0.729984
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TS-Methylation-ZCH3-TMB-Si-AIPO-34

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  H      H4          0.404309      0.337667      0.279174
  H      H5          0.526042      0.335471      0.310986
  H      H6          0.535371      0.445304      0.245131
  H      H7          0.628927      0.524609      0.669701
  H      H8          0.609026      0.402859      0.615531
  H      H9          0.494863      0.407119      0.662692
  H      H10         0.482934      0.690439      0.610880
  H      H11         0.601077      0.685506      0.648887
  H      H12         0.467441      0.576185      0.674331
  H      H13         0.482087      0.580473      0.244205
  H      H14         0.407360      0.628338      0.308234
  H      H15         0.345496      0.486195      0.278030
  H      H16         0.561521      0.370778      0.462405
  H      H17         0.449778      0.656322      0.459123
  C      C18         0.732179      0.619648      0.492686
  C      C19         0.490970      0.389427      0.300308
  C      C20         0.537591      0.434083      0.461272
  C      C21         0.551012      0.495692      0.539933
  C      C22         0.573249      0.456082      0.626611
  C      C23         0.515697      0.576116      0.539011
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C	C26	0.466741	0.535956	0.382030
C	C27	0.423143	0.559626	0.298887
C	C28	0.498496	0.453676	0.382643
O	O29	0.086820	0.296314	0.500847
O	O30	0.302776	0.404730	0.842601
O	O31	0.834048	0.440082	0.617474
O	O32	0.492179	0.155595	0.461008
O	O33	0.736086	0.624591	0.829784
O	O34	0.968849	0.734669	0.166636
O	O35	0.501001	0.775728	0.956516
O	O36	0.154163	0.485067	0.798855
O	O37	0.407986	0.959059	0.164733
O	O38	0.633034	0.066833	0.507748
O	O39	0.165716	0.102648	0.289516
O	O40	0.823802	0.818676	0.126243
O	O41	0.718221	0.298922	0.502254
O	O42	0.606824	0.421720	0.849874
O	O43	0.571967	0.917653	0.624261
O	O44	0.861998	0.870425	0.468189
O	O45	0.380643	0.637757	0.839858
O	O46	0.273706	0.755666	0.178269
O	O47	0.240262	0.250802	0.955560
O	O48	0.525347	0.197179	0.794589
O	O49	0.049074	0.968420	0.168758
O	O50	0.935232	0.098809	0.519185
O	O51	0.912690	0.589068	0.286840
O	O52	0.194780	0.526965	0.133900
O	O53	0.702851	0.933562	0.502301
O	O54	0.584336	0.706707	0.841609
O	O55	0.098453	0.179672	0.623250
O	O56	0.145188	0.520959	0.464198
O	O57	0.374024	0.272507	0.833645
O	O58	0.253166	0.037777	0.174942
O	O59	0.769074	0.521881	0.953576
O	O60	0.814522	0.854375	0.799031
O	O61	0.040355	0.601671	0.163589
O	O62	0.920282	0.358523	0.516464
O	O63	0.427254	0.850798	0.290644
O	O64	0.483551	0.188259	0.132876
O	O65	0.901956	0.708162	0.441880
O	O66	0.695330	0.615950	0.088625
O	O67	0.166174	0.585218	0.308263
O	O68	0.504309	0.866079	0.469273
O	O69	0.590833	0.064235	0.764575

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O	071	0.829545	0.919445	0.643644
O	072	0.175442	0.204292	0.799874
O	073	0.260645	0.395401	0.098633
O	074	0.029098	0.285706	0.751899
O	075	0.496472	0.242139	0.973849
O	076	0.840705	0.531464	0.133519
O	077	0.282204	0.717174	0.429408
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O	079	0.422381	0.101456	0.307284
O	080	0.127076	0.145575	0.465693
O	081	0.946016	0.052769	0.764238
O	082	0.065481	0.919119	0.414100
O	083	0.096636	0.442114	0.641297
O	084	0.802972	0.493607	0.795419
O	085	0.615419	0.382977	0.088683
O	086	0.723823	0.267385	0.747090
O	087	0.750954	0.766020	0.973640
O	088	0.473237	0.825017	0.136273
O	089	0.294259	0.090864	0.430326
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O	091	0.892993	0.822826	0.304011
O	092	0.857917	0.487547	0.456247
O	093	0.957816	0.418564	0.759571
O	094	0.080407	0.654996	0.420168
O	095	0.565540	0.169976	0.639454
O	096	0.511172	0.833776	0.799054
O	097	0.622767	0.747143	0.098640
O	098	0.741579	0.982151	0.758746
O	099	0.229213	0.500133	0.976193
O	0100	0.182303	0.166344	0.133177
Al	Al101	0.939972	0.614201	0.400675
Al	Al102	0.604240	0.949424	0.736809
Al	Al103	0.272097	0.279788	0.068444
Al	Al104	0.393384	0.848612	0.403074
Al	Al105	0.061627	0.179633	0.734444
Al	Al106	0.730927	0.513239	0.066127
Al	Al107	0.158086	0.058853	0.401287
Al	Al108	0.830329	0.405613	0.730688
Al	Al109	0.497250	0.737810	0.068137
Al	Al110	0.063327	0.404556	0.529442
Al	Al111	0.722460	0.738789	0.861244
Al	Al112	0.390936	0.071408	0.194508
Al	Al113	0.601409	0.171503	0.527804

Al	Al114	0.266791	0.507412	0.864356
Al	Al115	0.933975	0.837920	0.195662
Al	Al116	0.835316	0.955745	0.530326
Al	Al117	0.500433	0.282904	0.863288
Al	Al118	0.167851	0.617323	0.195459
Si	Si119	0.932506	0.834569	0.406092
P	P120	0.061498	0.178855	0.526732
P	P121	0.728781	0.515033	0.857809
P	P122	0.395135	0.847427	0.192701
P	P123	0.833803	0.396208	0.523390
P	P124	0.494625	0.738551	0.859791
P	P125	0.161771	0.067969	0.192475
P	P126	0.603585	0.946346	0.526235
P	P127	0.272861	0.283155	0.858397
P	P128	0.940860	0.615555	0.188205
P	P129	0.601868	0.174935	0.736322
P	P130	0.269069	0.505667	0.072011
P	P131	0.167732	0.619595	0.405223
P	P132	0.833044	0.952534	0.740784
P	P133	0.501458	0.281833	0.069772
P	P134	0.391344	0.074547	0.405464
P	P135	0.059312	0.407279	0.737547
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TS-Ethylation-C3-C2H5Z-Si-AIPO-34

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H	H4	0.533105	0.602289	0.348672
H	H5	0.500993	0.664100	0.439333
H	H6	0.740278	0.696473	0.637346
H	H7	0.847526	0.672091	0.604469
H	H8	0.723689	0.559368	0.643437
H	H9	0.520092	0.465434	0.598555
H	H10	0.529290	0.602781	0.588424
H	H11	0.478598	0.429926	0.441463
C	C12	0.756790	0.636006	0.605329
C	C13	0.719678	0.615675	0.512272
C	C14	0.519589	0.528379	0.556284
C	C15	0.492964	0.508515	0.469361
C	C16	0.480869	0.585529	0.407692
O	O17	0.082957	0.291975	0.509538
O	O18	0.296450	0.396096	0.850549
O	O19	0.823315	0.427046	0.624856
O	O20	0.485180	0.152691	0.468377
O	O21	0.731270	0.618053	0.836926
O	O22	0.963864	0.727579	0.175634
O	O23	0.492044	0.757560	0.962954
O	O24	0.146478	0.475054	0.807843
O	O25	0.403047	0.952898	0.174024
O	O26	0.614575	0.054513	0.525165
O	O27	0.157455	0.093725	0.295728
O	O28	0.821655	0.813325	0.128336
O	O29	0.713976	0.287387	0.506413
O	O30	0.598276	0.414519	0.846942
O	O31	0.565668	0.896294	0.630838
O	O32	0.850368	0.860621	0.473255
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O	O34	0.268272	0.749166	0.183927
O	O35	0.236752	0.242537	0.963206
O	O36	0.518772	0.185339	0.806790
O	O37	0.045096	0.960287	0.173271
O	O38	0.932419	0.093294	0.521096
O	O39	0.901370	0.576271	0.291755
O	O40	0.187969	0.519795	0.140023
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O	O42	0.578431	0.699604	0.841915
O	O43	0.091308	0.170800	0.629711
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O	O45	0.365739	0.262157	0.838355
O	O46	0.249304	0.032927	0.181818

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0	051	0.422612	0.840175	0.296105
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0	073	0.609295	0.378856	0.101194
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0	079	0.886777	0.820153	0.308539
0	080	0.845108	0.481360	0.465278
0	081	0.951177	0.411028	0.767040
0	082	0.069093	0.642072	0.425294
0	083	0.560292	0.176567	0.647810
0	084	0.504435	0.828750	0.809685
0	085	0.619831	0.743012	0.106093
0	086	0.734208	0.974302	0.766300
0	087	0.232734	0.500800	0.983588
0	088	0.175084	0.158805	0.139793
Al	Al89	0.929358	0.604289	0.405411
Al	Al90	0.596321	0.938713	0.742076

Al	Al91	0.266195	0.272670	0.076392
Al	Al92	0.388671	0.841697	0.408136
Al	Al93	0.054845	0.172005	0.740906
Al	Al94	0.724268	0.506245	0.071414
Al	Al95	0.151476	0.052279	0.407695
Al	Al96	0.822647	0.395309	0.738217
Al	Al97	0.491913	0.728743	0.076301
Al	Al98	0.059282	0.400652	0.536731
Al	Al99	0.716008	0.732207	0.864899
Al	Al100	0.387065	0.066643	0.201112
Al	Al101	0.592336	0.166723	0.536678
Al	Al102	0.262121	0.500180	0.870719
Al	Al103	0.928870	0.831561	0.200706
Al	Al104	0.829491	0.951831	0.533589
Al	Al105	0.493601	0.276470	0.868645
Al	Al106	0.162936	0.610801	0.202310
Si	Si107	0.923888	0.827697	0.410921
P	P108	0.057988	0.173879	0.532668
P	P109	0.720114	0.505892	0.861360
P	P110	0.389988	0.840248	0.198629
P	P111	0.826072	0.388505	0.529380
P	P112	0.487606	0.728746	0.864373
P	P113	0.156189	0.060763	0.198596
P	P114	0.594766	0.936014	0.534228
P	P115	0.266149	0.274368	0.865596
P	P116	0.934452	0.607464	0.194230
P	P117	0.594524	0.168395	0.743251
P	P118	0.265291	0.499776	0.080762
P	P119	0.161321	0.613113	0.411691
P	P120	0.826153	0.946227	0.745627
P	P121	0.496445	0.278167	0.078667
P	P122	0.387266	0.070555	0.410791
P	P123	0.052685	0.399861	0.744760
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TS-Ethylation-C4-iso-C2H5Z-Si-ALPO-34

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  H      H4      0.526186      0.604199      0.350059
  H      H5      0.506597      0.668869      0.444992
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  H      H7      0.500464      0.405650      0.366584
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  H      H12     0.523571      0.466892      0.596670
  H      H13     0.539172      0.606832      0.585511
  C      C14     0.762801      0.638324      0.603929
  C      C15     0.725681      0.617605      0.510571
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  C      C19     0.453870      0.395730      0.427935
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  O      O21     0.296514      0.395784      0.851162
  O      O22     0.823496      0.426384      0.624682
  O      O23     0.484381      0.150402      0.468948
  O      O24     0.731215      0.617764      0.836924
  O      O25     0.963857      0.727622      0.175237
  O      O26     0.491646      0.757228      0.962753
  O      O27     0.146523      0.474599      0.807618
  O      O28     0.403100      0.952855      0.174786
  O      O29     0.615664      0.054839      0.525958
  O      O30     0.157534      0.093273      0.296257
  O      O31     0.821668      0.813434      0.128010
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  O      O33     0.598083      0.414229      0.846938
  O      O34     0.565984      0.895859      0.630846
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0	037	0.268076	0.749124	0.183858
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0	042	0.901374	0.576623	0.291607
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0	045	0.578304	0.699423	0.841855
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0	047	0.141421	0.515949	0.471319
0	048	0.365470	0.261564	0.838602
0	049	0.249247	0.032901	0.181879
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0	053	0.916690	0.355583	0.520716
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0	069	0.387082	0.590369	0.095967
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0	072	0.938858	0.045299	0.771167
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O	O80	0.286119	0.079655	0.436229
O	O81	0.404799	0.307485	0.096613
O	O82	0.886458	0.819411	0.308309
O	O83	0.846557	0.480760	0.465032
O	O84	0.951183	0.410904	0.767140
O	O85	0.069448	0.643499	0.424946
O	O86	0.560270	0.176794	0.647994
O	O87	0.504251	0.828533	0.809569
O	O88	0.619890	0.743223	0.105665
O	O89	0.734202	0.974184	0.766471
O	O90	0.232692	0.500930	0.983521
O	O91	0.175081	0.159070	0.140562
Al	Al92	0.929205	0.603935	0.405270
Al	Al93	0.596310	0.938450	0.742055
Al	Al94	0.265998	0.272523	0.076615
Al	Al95	0.388517	0.840685	0.407888
Al	Al96	0.054745	0.171752	0.741040
Al	Al97	0.724051	0.506210	0.071258
Al	Al98	0.151021	0.050904	0.408028
Al	Al99	0.822595	0.395023	0.738173
Al	Al100	0.491784	0.728637	0.076072
Al	Al101	0.058746	0.399781	0.536648
Al	Al102	0.715883	0.731951	0.864511
Al	Al103	0.387016	0.066636	0.201387
Al	Al104	0.592378	0.166322	0.537007
Al	Al105	0.262121	0.499947	0.870658
Al	Al106	0.928712	0.831438	0.200423
Al	Al107	0.829607	0.952192	0.533440
Al	Al108	0.493509	0.276243	0.868795
Al	Al109	0.162703	0.610744	0.202132
Si	Si110	0.923355	0.827294	0.410691
P	P111	0.058236	0.173664	0.532685
P	P112	0.719943	0.505560	0.861258
P	P113	0.389907	0.839930	0.198625
P	P114	0.826010	0.387565	0.529294
P	P115	0.487407	0.728468	0.864176
P	P116	0.156176	0.060717	0.198955
P	P117	0.595040	0.935980	0.534358
P	P118	0.266022	0.273977	0.865912
P	P119	0.934326	0.607505	0.193987
P	P120	0.594505	0.168233	0.743377
P	P121	0.265218	0.499777	0.080682
P	P122	0.160721	0.613029	0.411551
P	P123	0.826177	0.946217	0.745603

P	P124	0.496314	0.278183	0.078959
P	P125	0.386596	0.069286	0.410857
P	P126	0.052528	0.399538	0.744658
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TS-Ethylation-TME-C2H5Z-Si-ALPO-34

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H	H5	0.524251	0.676897	0.413749
H	H6	0.514311	0.358651	0.416338
H	H7	0.574124	0.456951	0.329263
H	H8	0.429125	0.377319	0.339666
H	H9	0.710638	0.684039	0.620662
H	H10	0.823823	0.661801	0.608322
H	H11	0.692143	0.546146	0.626246
H	H12	0.369181	0.343227	0.579594
H	H13	0.489134	0.422202	0.643595
H	H14	0.494906	0.351669	0.547433
H	H15	0.488443	0.660866	0.541459
H	H16	0.505581	0.599927	0.639127
H	H17	0.374253	0.544108	0.589683
C	C18	0.459576	0.399553	0.575281
C	C19	0.463497	0.582397	0.574740
C	C20	0.735237	0.626922	0.593239
C	C21	0.720304	0.615566	0.496293

C	C22	0.483040	0.501267	0.522257
C	C23	0.504598	0.510987	0.432862
C	C24	0.512141	0.604507	0.376566
C	C25	0.506627	0.420923	0.378118
O	O26	0.086461	0.293942	0.515220
O	O27	0.300672	0.399083	0.856276
O	O28	0.826549	0.431557	0.631394
O	O29	0.488452	0.153262	0.475550
O	O30	0.734238	0.620277	0.841317
O	O31	0.967641	0.730522	0.182166
O	O32	0.495681	0.759700	0.969536
O	O33	0.150071	0.477764	0.814755
O	O34	0.407077	0.955726	0.181583
O	O35	0.620770	0.058329	0.531538
O	O36	0.162520	0.097001	0.302849
O	O37	0.825742	0.816532	0.134235
O	O38	0.716701	0.291222	0.513466
O	O39	0.602396	0.416777	0.853821
O	O40	0.569055	0.899967	0.637687
O	O41	0.855990	0.865131	0.479557
O	O42	0.378044	0.631996	0.846723
O	O43	0.271969	0.752006	0.190687
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O	O46	0.048574	0.963432	0.180964
O	O47	0.935846	0.095733	0.531009
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O	O49	0.191707	0.522875	0.146310
O	O50	0.703087	0.936821	0.512544
O	O51	0.581958	0.702226	0.848062
O	O52	0.097988	0.176156	0.636722
O	O53	0.144001	0.518544	0.478334
O	O54	0.369878	0.264975	0.844826
O	O55	0.252787	0.035180	0.188318
O	O56	0.757752	0.510866	0.964869
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0	087	0.409218	0.310815	0.104087
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0	089	0.851372	0.483634	0.471209
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0	091	0.074234	0.647608	0.431098
0	092	0.563380	0.177923	0.654739
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Al	Al98	0.933714	0.607221	0.412097
Al	Al99	0.600623	0.941687	0.748972
Al	Al100	0.270471	0.275860	0.083599
Al	Al101	0.392390	0.843448	0.414916
Al	Al102	0.059246	0.174991	0.747795
Al	Al103	0.727747	0.509344	0.078593
Al	Al104	0.154884	0.053675	0.414512
Al	Al105	0.826648	0.399023	0.744486
Al	Al106	0.495680	0.731522	0.083000
Al	Al107	0.062009	0.402039	0.543518
Al	Al108	0.719271	0.734025	0.871140
Al	Al109	0.390576	0.069198	0.208260

Al	Al110	0.596434	0.169046	0.543735
Al	Al111	0.266092	0.502905	0.877222
Al	Al112	0.932254	0.834234	0.207174
Al	Al113	0.833215	0.953663	0.541583
Al	Al114	0.497555	0.279020	0.875595
Al	Al115	0.166727	0.613604	0.209055
Si	Si116	0.927197	0.830197	0.416978
P	P117	0.061723	0.176265	0.540026
P	P118	0.723911	0.509058	0.867803
P	P119	0.393779	0.842800	0.205538
P	P120	0.829589	0.391268	0.536672
P	P121	0.491295	0.731435	0.870818
P	P122	0.160194	0.063633	0.205624
P	P123	0.599227	0.939217	0.541122
P	P124	0.270557	0.277546	0.872268
P	P125	0.938163	0.610403	0.200932
P	P126	0.598686	0.171178	0.750155
P	P127	0.269347	0.502506	0.087714
P	P128	0.164858	0.615961	0.418385
P	P129	0.830177	0.948187	0.752525
P	P130	0.500213	0.280874	0.085928
P	P131	0.390124	0.071899	0.417967
P	P132	0.056926	0.402368	0.751207
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TS-HT-ZCH3-C4-1-Si-AIPO-34

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H	H5	0.594942	0.573231	0.687287
H	H6	0.544814	0.655142	0.635711
H	H7	0.514830	0.432221	0.564487
H	H8	0.442988	0.592520	0.484291
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H	H11	0.614160	0.566763	0.525994
C	C12	0.727831	0.624456	0.492283
C	C13	0.529907	0.570596	0.645069
C	C14	0.522846	0.514422	0.557181
C	C15	0.445336	0.515500	0.490524
C	C16	0.377384	0.426490	0.441561
O	O17	0.085585	0.306604	0.501353
O	O18	0.301299	0.413553	0.844596
O	O19	0.150961	0.492508	0.802129
O	O20	0.161277	0.108828	0.290822
O	O21	0.097156	0.189983	0.623785
O	O22	0.371458	0.280317	0.832600
O	O23	0.253908	0.049089	0.176786
O	O24	0.483370	0.197761	0.131461
O	O25	0.172347	0.213703	0.802071
O	O26	0.256899	0.403762	0.098653
O	O27	0.026039	0.294877	0.751597
O	O28	0.423993	0.116399	0.308001
O	O29	0.131475	0.159375	0.466741
O	O30	0.100416	0.453340	0.642576
O	O31	0.291149	0.096444	0.430230
O	O32	0.410425	0.325203	0.089425
O	O33	0.181351	0.176462	0.135274
O	O34	0.735502	0.634890	0.830870
O	O35	0.969528	0.744909	0.167871
O	O36	0.825647	0.829987	0.124414
O	O37	0.569553	0.912425	0.625487
O	O38	0.853475	0.875030	0.467128
O	O39	0.908639	0.595581	0.285439
O	O40	0.704227	0.951371	0.500501
O	O41	0.584052	0.717723	0.839141
O	O42	0.814086	0.863398	0.796290
O	O43	0.897886	0.715345	0.438947
O	O44	0.696653	0.628414	0.084707
O	O45	0.503178	0.871001	0.469256

0	046	0.828000	0.931497	0.642124
0	047	0.842031	0.543335	0.130065
0	048	0.893904	0.835470	0.303137
0	049	0.851634	0.495190	0.456037
0	050	0.509841	0.846001	0.803991
0	051	0.624670	0.759961	0.098944
0	052	0.739696	0.991097	0.759494
0	053	0.825444	0.446668	0.617111
0	054	0.489614	0.168919	0.462962
0	055	0.618288	0.069727	0.518944
0	056	0.718982	0.302892	0.500385
0	057	0.603962	0.431368	0.841830
0	058	0.524732	0.202923	0.800733
0	059	0.937114	0.107494	0.516078
0	060	0.922178	0.373721	0.519026
0	061	0.587588	0.072190	0.755085
0	062	0.944241	0.062513	0.763841
0	063	0.802591	0.504633	0.794163
0	064	0.614550	0.395335	0.094453
0	065	0.723028	0.276174	0.750687
0	066	0.957148	0.429929	0.756356
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0	068	0.494929	0.775722	0.957787
0	069	0.760599	0.523747	0.952134
0	070	0.750804	0.780516	0.972051
0	071	0.408405	0.970026	0.167837
0	072	0.380011	0.646142	0.834811
0	073	0.273379	0.766373	0.177618
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0	077	0.040129	0.611371	0.164484
0	078	0.426668	0.857355	0.290601
0	079	0.167346	0.596421	0.308828
0	080	0.367260	0.966528	0.423387
0	081	0.278577	0.729423	0.430969
0	082	0.391878	0.607237	0.089489
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0	084	0.472916	0.836526	0.134793
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0	088	0.236780	0.517573	0.977778
Al	Al89	0.271314	0.289633	0.070527

Al	Al90	0.059839	0.189530	0.735055
Al	Al91	0.155634	0.067078	0.402716
Al	Al92	0.064222	0.416208	0.530856
Al	Al93	0.391939	0.083256	0.195596
Al	Al94	0.498976	0.293382	0.862994
Al	Al95	0.935705	0.620330	0.399293
Al	Al96	0.601802	0.955974	0.736359
Al	Al97	0.496540	0.745726	0.070698
Al	Al98	0.721917	0.749738	0.860098
Al	Al99	0.934390	0.848295	0.194781
Al	Al100	0.833660	0.966210	0.528737
Al	Al101	0.729373	0.523301	0.065614
Al	Al102	0.827783	0.414408	0.730274
Al	Al103	0.597109	0.182474	0.530734
Al	Al104	0.393770	0.857361	0.402927
Al	Al105	0.266723	0.517628	0.865041
Al	Al106	0.168119	0.628072	0.195996
Si	Si107	0.928500	0.843062	0.405961
P	P108	0.062329	0.189638	0.526680
P	P109	0.161107	0.077373	0.193342
P	P110	0.271332	0.291821	0.859690
P	P111	0.270020	0.516577	0.074799
P	P112	0.391876	0.086011	0.405578
P	P113	0.058586	0.417229	0.737917
P	P114	0.725737	0.523400	0.855618
P	P115	0.599172	0.951500	0.528787
P	P116	0.940224	0.625037	0.187467
P	P117	0.831479	0.962433	0.739801
P	P118	0.724990	0.749713	0.070349
P	P119	0.830550	0.404749	0.523236
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P	P121	0.501335	0.294859	0.072578
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P	P123	0.492555	0.746470	0.859563
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TS-HT-ZCH3-C5-Si-AIPO-34

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  H      H4          0.453749      0.552733      0.670130
  H      H5          0.596925      0.597462      0.679001
  H      H6          0.552041      0.677172      0.617012
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  H      H8          0.361397      0.362017      0.438769
  H      H9          0.322272      0.457509      0.386339
  H      H10         0.613106      0.572722      0.520087
  H      H11         0.568742      0.416572      0.620285
  H      H12         0.509229      0.366184      0.514328
  H      H13         0.423969      0.358172      0.604439
  C      C14         0.505486      0.409520      0.573407
  C      C15         0.730041      0.628233      0.487263
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0	044	0.584434	0.715241	0.840950
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0	046	0.898089	0.713873	0.439621
0	047	0.696311	0.625555	0.089010
0	048	0.502765	0.869576	0.470522
0	049	0.827925	0.926132	0.644040
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0	070	0.564009	0.182902	0.641868
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O	O80	0.040161	0.609459	0.165851
O	O81	0.427601	0.856068	0.291520
O	O82	0.166685	0.592113	0.309508
O	O83	0.364547	0.962765	0.423583
O	O84	0.278799	0.726112	0.430831
O	O85	0.391372	0.604891	0.089807
O	O86	0.063349	0.926070	0.417950
O	O87	0.472817	0.833919	0.135768
O	O88	0.076079	0.658874	0.419582
O	O89	0.241992	0.258262	0.957524
O	O90	0.498498	0.258418	0.975207
O	O91	0.236521	0.513903	0.978057
Al	Al92	0.271505	0.287348	0.070916
Al	Al93	0.060590	0.187607	0.735634
Al	Al94	0.156619	0.065486	0.402915
Al	Al95	0.063075	0.413332	0.531577
Al	Al96	0.391652	0.080421	0.195942
Al	Al97	0.499327	0.291590	0.863216
Al	Al98	0.935996	0.618597	0.399982
Al	Al99	0.602450	0.954714	0.737969
Al	Al100	0.496134	0.743340	0.071204
Al	Al101	0.722227	0.747055	0.861488
Al	Al102	0.934171	0.846099	0.195432
Al	Al103	0.834107	0.963296	0.531185
Al	Al104	0.728979	0.520900	0.067180
Al	Al105	0.828212	0.412791	0.731461
Al	Al106	0.598663	0.178890	0.530562
Al	Al107	0.393298	0.854922	0.403660
Al	Al108	0.266782	0.515158	0.865276
Al	Al109	0.167798	0.624910	0.196854
Si	Si110	0.930974	0.842378	0.406153
P	P111	0.061428	0.187230	0.527848
P	P112	0.161190	0.075287	0.193738
P	P113	0.271530	0.289645	0.859856
P	P114	0.269699	0.513776	0.075197
P	P115	0.391691	0.083153	0.406028
P	P116	0.058644	0.414825	0.738872
P	P117	0.725914	0.521897	0.856535
P	P118	0.600166	0.949999	0.528974
P	P119	0.939792	0.622544	0.188300
P	P120	0.832016	0.959747	0.741146
P	P121	0.724458	0.746402	0.072283
P	P122	0.830473	0.403911	0.524887

P	P123	0.600591	0.182732	0.737994
P	P124	0.501339	0.291815	0.072742
P	P125	0.394996	0.854774	0.193948
P	P126	0.492822	0.744055	0.860384
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TS-HT-ZC2H5-C4-1-Si-ALPO-34

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H	H6	0.359909	0.356375	0.418876
H	H7	0.300800	0.437413	0.369253
H	H8	0.580901	0.562357	0.511169
H	H9	0.713488	0.693271	0.472497
H	H10	0.568980	0.537537	0.362276
H	H11	0.664751	0.487662	0.357338
H	H12	0.700457	0.624510	0.318523
H	H13	0.723482	0.570618	0.506664
C	C14	0.498996	0.571054	0.629410
C	C15	0.492064	0.513949	0.541543
C	C16	0.416372	0.516733	0.473843
C	C17	0.356890	0.433072	0.417068
C	C18	0.657345	0.561101	0.369585
C	C19	0.697635	0.610064	0.457644
O	O20	0.082294	0.301289	0.503135

0	021	0.301718	0.410570	0.844437
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0	024	0.098477	0.187460	0.625604
0	025	0.371618	0.276855	0.834456
0	026	0.255359	0.046390	0.178356
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0	029	0.258846	0.401136	0.102362
0	030	0.027036	0.291839	0.753661
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0	035	0.411594	0.322119	0.091971
0	036	0.181873	0.172578	0.135391
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0	045	0.815029	0.861688	0.801126
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0	048	0.503196	0.867919	0.471506
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O	090	0.499321	0.258862	0.976979
O	091	0.237495	0.512154	0.979712
Al	Al92	0.272677	0.287096	0.072355
Al	Al93	0.060503	0.186345	0.736835
Al	Al94	0.155325	0.064397	0.403377
Al	Al95	0.062547	0.411957	0.532491
Al	Al96	0.393200	0.080406	0.197758
Al	Al97	0.499277	0.290282	0.864570
Al	Al98	0.936053	0.617002	0.400281
Al	Al99	0.602100	0.953154	0.738806
Al	Al100	0.498198	0.743004	0.072428
Al	Al101	0.720544	0.744477	0.860336
Al	Al102	0.934172	0.845926	0.196130
Al	Al103	0.833072	0.959821	0.531898
Al	Al104	0.729921	0.520760	0.067977
Al	Al105	0.827972	0.411119	0.732887
Al	Al106	0.597447	0.178792	0.532432
Al	Al107	0.393872	0.853505	0.404676
Al	Al108	0.266884	0.514076	0.866619

Al	Al109	0.169317	0.625376	0.197558
Si	Si110	0.926629	0.839190	0.405318
P	P111	0.061535	0.185258	0.528828
P	P112	0.162642	0.074854	0.194759
P	P113	0.271910	0.289160	0.861079
P	P114	0.271417	0.513324	0.076804
P	P115	0.391228	0.082029	0.407463
P	P116	0.058837	0.413909	0.739682
P	P117	0.725415	0.520804	0.856577
P	P118	0.599655	0.948845	0.530623
P	P119	0.940977	0.620929	0.189185
P	P120	0.831791	0.958794	0.742423
P	P121	0.724890	0.745089	0.072889
P	P122	0.829712	0.402399	0.525727
P	P123	0.600722	0.182235	0.739599
P	P124	0.502499	0.291839	0.074589
P	P125	0.396526	0.854361	0.195118
P	P126	0.492986	0.743131	0.860842
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TS-HT-ZC3H7-C5-Si-AIPO-34

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H	H3	0.450291	0.598585	0.665121
H	H4	0.424096	0.665937	0.576099
H	H5	0.406886	0.597079	0.421873
H	H6	0.335825	0.348951	0.408426

H	H7	0.323582	0.438230	0.323848
H	H8	0.530874	0.575609	0.530096
H	H9	0.454168	0.421630	0.640687
H	H10	0.445973	0.366718	0.533017
H	H11	0.326011	0.353976	0.584067
H	H12	0.800272	0.624272	0.580945
H	H13	0.669937	0.501870	0.596304
H	H14	0.693022	0.637581	0.628511
H	H15	0.646891	0.454460	0.429339
H	H16	0.693173	0.572444	0.355349
H	H17	0.560957	0.511844	0.399601
C	C18	0.709411	0.589767	0.579266
C	C19	0.647293	0.531734	0.415958
C	C20	0.415401	0.409659	0.575400
C	C21	0.685534	0.610415	0.489022
C	C22	0.405607	0.585247	0.602535
C	C23	0.438220	0.521299	0.537185
C	C24	0.396112	0.517966	0.445148
C	C25	0.350845	0.430690	0.389639
O	O26	0.086676	0.299901	0.508980
O	O27	0.304702	0.406773	0.847149
O	O28	0.155501	0.486474	0.805402
O	O29	0.166695	0.107736	0.294753
O	O30	0.099646	0.182257	0.629586
O	O31	0.373391	0.272224	0.837452
O	O32	0.256884	0.043166	0.182355
O	O33	0.486580	0.190267	0.136761
O	O34	0.174292	0.205782	0.808243
O	O35	0.260967	0.397436	0.106701
O	O36	0.029603	0.287868	0.757363
O	O37	0.427471	0.109886	0.313472
O	O38	0.136267	0.156496	0.471998
O	O39	0.094535	0.445284	0.648075
O	O40	0.293675	0.091464	0.434460
O	O41	0.412704	0.317393	0.096470
O	O42	0.181956	0.167498	0.137436
O	O43	0.736784	0.627369	0.833189
O	O44	0.970643	0.736471	0.177079
O	O45	0.829578	0.823299	0.127652
O	O46	0.572876	0.911539	0.630039
O	O47	0.854197	0.865237	0.473827
O	O48	0.904533	0.582577	0.291605
O	O49	0.707070	0.944164	0.506088
O	O50	0.585390	0.709645	0.842119

0	051	0.816307	0.856360	0.802634
0	052	0.906588	0.712755	0.441970
0	053	0.698295	0.620635	0.093626
0	054	0.507037	0.869145	0.474061
0	055	0.829990	0.924005	0.648203
0	056	0.845432	0.536260	0.134071
0	057	0.891302	0.828895	0.308569
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0	059	0.511236	0.837996	0.807778
0	060	0.627384	0.753244	0.105677
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0	062	0.833299	0.438334	0.625627
0	063	0.491014	0.160520	0.469085
0	064	0.627446	0.068565	0.521555
0	065	0.717558	0.303038	0.506779
0	066	0.605539	0.423979	0.846723
0	067	0.525803	0.195405	0.806111
0	068	0.940236	0.099305	0.521341
0	069	0.918697	0.359782	0.521321
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0	071	0.946283	0.055318	0.769775
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0	077	0.502121	0.771917	0.962624
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0	080	0.410041	0.962394	0.173318
0	081	0.381624	0.639875	0.842970
0	082	0.274795	0.758838	0.183698
0	083	0.052528	0.969904	0.174966
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0	085	0.143764	0.524788	0.471765
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0	087	0.428570	0.850034	0.296208
0	088	0.175133	0.587165	0.314574
0	089	0.366523	0.958723	0.428171
0	090	0.282778	0.721004	0.437238
0	091	0.394293	0.600663	0.092011
0	092	0.061727	0.927171	0.421426
0	093	0.474100	0.828463	0.140280
0	094	0.081478	0.657200	0.418288

O	O95	0.245889	0.256136	0.962426
O	O96	0.500315	0.254827	0.980802
O	O97	0.237070	0.505069	0.982620
Al	Al98	0.274144	0.283071	0.076016
Al	Al99	0.062297	0.181888	0.740837
Al	Al100	0.158780	0.064148	0.406504
Al	Al101	0.061536	0.407455	0.536011
Al	Al102	0.394508	0.076203	0.201166
Al	Al103	0.500879	0.286166	0.868444
Al	Al104	0.939962	0.616297	0.404401
Al	Al105	0.604191	0.949511	0.741886
Al	Al106	0.499754	0.739518	0.075550
Al	Al107	0.722831	0.741297	0.864612
Al	Al108	0.935641	0.840894	0.201427
Al	Al109	0.836350	0.958065	0.534431
Al	Al110	0.731588	0.516442	0.071350
Al	Al111	0.830696	0.405980	0.738891
Al	Al112	0.600221	0.177308	0.536198
Al	Al113	0.395348	0.850986	0.408439
Al	Al114	0.269341	0.509668	0.869907
Al	Al115	0.170762	0.620032	0.202490
Si	Si116	0.930644	0.836212	0.410773
P	P117	0.064857	0.183001	0.532545
P	P118	0.163810	0.071278	0.198302
P	P119	0.274275	0.285333	0.864348
P	P120	0.272362	0.508794	0.079641
P	P121	0.393450	0.079128	0.410814
P	P122	0.059530	0.409525	0.744638
P	P123	0.726979	0.516555	0.860374
P	P124	0.604067	0.948872	0.533178
P	P125	0.940848	0.616005	0.194833
P	P126	0.833575	0.955159	0.745809
P	P127	0.726785	0.741566	0.076351
P	P128	0.833364	0.398971	0.529996
P	P129	0.602263	0.178006	0.743764
P	P130	0.503861	0.287635	0.078521
P	P131	0.396540	0.849723	0.198570
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TS-C6-Cyclization-Si-ALPO-34

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  H    H4           0.748641           0.561255           0.528466
  H    H5           0.597704           0.402812           0.428151
  H    H6           0.567805           0.423239           0.612825
  H    H7           0.432235           0.478740           0.481858
  H    H8           0.417662           0.345891           0.500543
  H    H9           0.705340           0.589918           0.359377
  H    H10          0.618161           0.633758           0.405458
  H    H11          0.751339           0.695254           0.526739
  C    C12          0.574092           0.577739           0.615864
  C    C13          0.541508           0.476593           0.580520
  C    C14          0.560170           0.455284           0.419520
  C    C15          0.477912           0.435052           0.496045
  C    C16          0.652121           0.578587           0.416840
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  O    O18          0.087969           0.293997           0.504813
  O    O19          0.302087           0.399142           0.847805
  O    O20          0.826804           0.432324           0.620649
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  O    O22          0.734832           0.620681           0.830737
  O    O23          0.969143           0.731445           0.171588
  O    O24          0.495984           0.760370           0.959596
  O    O25          0.151690           0.478246           0.805013
  O    O26          0.408387           0.956485           0.171394
  O    O27          0.619912           0.056668           0.521931
  O    O28          0.163689           0.097125           0.293617
  O    O29          0.827039           0.817908           0.125563
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0	042	0.705180	0.937804	0.502816
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0	046	0.371243	0.264993	0.835417
0	047	0.254510	0.036208	0.178909
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0	053	0.484185	0.184128	0.133947
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0	059	0.368543	0.953306	0.424575
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O	O75	0.723267	0.262480	0.753959
O	O76	0.748802	0.762734	0.974514
O	O77	0.472394	0.823278	0.135910
O	O78	0.291689	0.082428	0.433813
O	O79	0.410844	0.311653	0.093332
O	O80	0.891254	0.821386	0.305471
O	O81	0.852568	0.482341	0.459997
O	O82	0.957433	0.415473	0.760777
O	O83	0.075514	0.647293	0.420885
O	O84	0.565517	0.179615	0.644597
O	O85	0.509976	0.832553	0.806577
O	O86	0.625487	0.747625	0.102034
O	O87	0.740134	0.976948	0.762454
O	O88	0.239226	0.505205	0.980007
O	O89	0.181133	0.163045	0.137856
Al	Al90	0.935319	0.607164	0.402104
Al	Al91	0.602392	0.942001	0.738768
Al	Al92	0.271837	0.276407	0.073683
Al	Al93	0.394634	0.843730	0.404909
Al	Al94	0.060821	0.175824	0.737995
Al	Al95	0.729176	0.510310	0.068748
Al	Al96	0.156570	0.053670	0.405135
Al	Al97	0.828596	0.400557	0.734015
Al	Al98	0.496976	0.732278	0.072929
Al	Al99	0.064787	0.402718	0.533722
Al	Al100	0.722001	0.735417	0.862067
Al	Al101	0.392307	0.070089	0.198418
Al	Al102	0.597893	0.168782	0.533722
Al	Al103	0.268065	0.503664	0.867146
Al	Al104	0.934262	0.835321	0.197610
Al	Al105	0.834977	0.953879	0.531878
Al	Al106	0.499235	0.279332	0.865526
Al	Al107	0.168316	0.614212	0.199085
Si	Si108	0.928977	0.829883	0.407793
P	P109	0.063644	0.176647	0.530261
P	P110	0.725180	0.509737	0.857451
P	P111	0.395375	0.843715	0.195547
P	P112	0.831458	0.391032	0.526467
P	P113	0.493088	0.732339	0.861007
P	P114	0.161896	0.064592	0.196270
P	P115	0.600227	0.938129	0.531232
P	P116	0.271793	0.277420	0.862884
P	P117	0.939732	0.611415	0.190703
P	P118	0.600907	0.172239	0.739924

P	P119	0.270912	0.503608	0.077320
P	P120	0.166402	0.616107	0.408085
P	P121	0.831964	0.948410	0.742562
P	P122	0.501993	0.281789	0.075841
P	P123	0.392583	0.072791	0.408164
P	P124	0.058828	0.403087	0.741169
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TS-C7-Cyclization-Si-ALPO-34

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H	H4	0.534533	0.548059	0.320716
H	H5	0.732814	0.552299	0.497230
H	H6	0.593949	0.470992	0.361278
H	H7	0.401274	0.345692	0.552332
H	H8	0.512958	0.351446	0.495593
H	H9	0.431809	0.518452	0.465915
H	H10	0.393736	0.398793	0.403209
H	H11	0.717615	0.677896	0.362411
H	H12	0.632613	0.694764	0.437127
H	H13	0.764830	0.689068	0.540558
C	C14	0.557657	0.476973	0.593328
C	C15	0.577208	0.578620	0.617739
C	C16	0.481271	0.404166	0.521148
C	C17	0.562596	0.526375	0.381515
C	C18	0.461676	0.462956	0.442906

C	C19	0.659802	0.636068	0.417763
C	C20	0.727656	0.626919	0.489461
O	O21	0.093360	0.298765	0.507650
O	O22	0.306805	0.403999	0.851458
O	O23	0.833236	0.437165	0.624236
O	O24	0.496795	0.157283	0.468484
O	O25	0.741611	0.626257	0.834576
O	O26	0.974458	0.736559	0.176035
O	O27	0.503315	0.766435	0.963032
O	O28	0.157719	0.483966	0.807425
O	O29	0.414373	0.961266	0.174782
O	O30	0.629274	0.062331	0.524119
O	O31	0.169711	0.101903	0.296734
O	O32	0.832542	0.822616	0.128824
O	O33	0.724210	0.295413	0.506974
O	O34	0.609839	0.422668	0.846737
O	O35	0.576673	0.904941	0.631240
O	O36	0.867551	0.872570	0.474406
O	O37	0.386130	0.637285	0.840685
O	O38	0.279898	0.757494	0.184170
O	O39	0.248555	0.250247	0.963800
O	O40	0.530243	0.194023	0.806266
O	O41	0.056600	0.969929	0.173697
O	O42	0.942592	0.101213	0.526008
O	O43	0.912842	0.584402	0.291134
O	O44	0.198847	0.528062	0.140161
O	O45	0.709915	0.939102	0.505949
O	O46	0.590291	0.708719	0.842471
O	O47	0.106173	0.182836	0.630152
O	O48	0.151281	0.523647	0.471160
O	O49	0.377249	0.270978	0.838385
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O	O57	0.899665	0.706462	0.440684
O	O58	0.702459	0.619752	0.094128
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O	O61	0.593538	0.062979	0.762324
O	O62	0.371575	0.956475	0.426943

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O	O71	0.429747	0.108994	0.313668
O	O72	0.134377	0.147620	0.472822
O	O73	0.950680	0.053856	0.768793
O	O74	0.069617	0.918585	0.420523
O	O75	0.103510	0.443667	0.648501
O	O76	0.809018	0.495324	0.801371
O	O77	0.621024	0.386928	0.101265
O	O78	0.728523	0.266983	0.756779
O	O79	0.753321	0.767629	0.978118
O	O80	0.479045	0.828597	0.139508
O	O81	0.298463	0.088756	0.437301
O	O82	0.416898	0.316573	0.096599
O	O83	0.897537	0.830210	0.308444
O	O84	0.856665	0.487971	0.463829
O	O85	0.962729	0.419849	0.764784
O	O86	0.080118	0.652083	0.425590
O	O87	0.570643	0.181869	0.647504
O	O88	0.515614	0.837072	0.809655
O	O89	0.630720	0.751591	0.106516
O	O90	0.745977	0.982447	0.766108
O	O91	0.243348	0.509773	0.983508
O	O92	0.187221	0.168647	0.141323
Al	Al93	0.939950	0.611649	0.404966
Al	Al94	0.608105	0.947180	0.742461
Al	Al95	0.278011	0.281574	0.076815
Al	Al96	0.399657	0.848113	0.408234
Al	Al97	0.066831	0.180963	0.741140
Al	Al98	0.735150	0.515098	0.071900
Al	Al99	0.163043	0.058705	0.408275
Al	Al100	0.834108	0.405121	0.737448
Al	Al101	0.502959	0.737389	0.076259
Al	Al102	0.069524	0.407253	0.536423
Al	Al103	0.727469	0.740231	0.865545
Al	Al104	0.398235	0.074946	0.201325
Al	Al105	0.604422	0.172694	0.536731
Al	Al106	0.273057	0.508686	0.870693

Al	Al107	0.940345	0.841194	0.200524
Al	Al108	0.841006	0.958760	0.536011
Al	Al109	0.505014	0.284890	0.868573
Al	Al110	0.173964	0.619372	0.202135
Si	Si111	0.936665	0.836781	0.410338
P	P112	0.068776	0.181467	0.533629
P	P113	0.731276	0.514957	0.860970
P	P114	0.401557	0.848589	0.198925
P	P115	0.836577	0.396380	0.529729
P	P116	0.499033	0.737298	0.864526
P	P117	0.168059	0.069884	0.199249
P	P118	0.606558	0.942782	0.534365
P	P119	0.277402	0.282511	0.866165
P	P120	0.945931	0.616473	0.193682
P	P121	0.606139	0.176587	0.743198
P	P122	0.276201	0.508483	0.080555
P	P123	0.171005	0.621017	0.411649
P	P124	0.837560	0.953521	0.746333
P	P125	0.507886	0.286551	0.078803
P	P126	0.397946	0.076810	0.411091
P	P127	0.064227	0.407974	0.744341
P	P128	0.730325	0.740474	0.077074

TS-Elimination-C6-C3-H2O-Si-AIPO-34

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_cell_length_c		15.094859		
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H	H1	0.902800	0.726369	0.549552
H	H2	0.651436	0.444506	0.646113
H	H3	0.509624	0.378222	0.620874

H	H4	0.610315	0.426131	0.533620
H	H5	0.565309	0.572876	0.661399
H	H6	0.492440	0.707655	0.598708
H	H7	0.373933	0.595622	0.648050
H	H8	0.359831	0.672473	0.561205
H	H9	0.313664	0.313117	0.622922
H	H10	0.383521	0.443183	0.676642
H	H11	0.251433	0.396037	0.631824
H	H12	0.768620	0.674706	0.593166
H	H13	0.696164	0.625671	0.486546
H	H14	0.667575	0.719118	0.553130
H	H15	0.895434	0.791344	0.634219
H	H16	0.316103	0.358422	0.411433
H	H17	0.392948	0.602381	0.383680
H	H18	0.368477	0.299514	0.487257
H	H19	0.460481	0.416090	0.423487
H	H20	0.504422	0.577293	0.393729
H	H21	0.518008	0.703241	0.433352
C	C22	0.591028	0.444267	0.599372
C	C23	0.381976	0.377958	0.460226
C	C24	0.380359	0.452607	0.532277
C	C25	0.601222	0.555584	0.603619
C	C26	0.415663	0.561560	0.516766
C	C27	0.409529	0.636833	0.585356
C	C28	0.460940	0.613908	0.427678
C	C29	0.330282	0.398608	0.620367
C	C30	0.671661	0.643205	0.550340
O	O31	0.082678	0.305082	0.504975
O	O32	0.301286	0.411408	0.846162
O	O33	0.154567	0.491631	0.796479
O	O34	0.169121	0.120882	0.287216
O	O35	0.082695	0.175186	0.621791
O	O36	0.370476	0.277803	0.830730
O	O37	0.253118	0.049963	0.174536
O	O38	0.483089	0.196540	0.129095
O	O39	0.172824	0.213546	0.797255
O	O40	0.257349	0.403079	0.093491
O	O41	0.026464	0.293974	0.747786
O	O42	0.424431	0.117900	0.305664
O	O43	0.124795	0.157113	0.464657
O	O44	0.088592	0.452934	0.640327
O	O45	0.294068	0.102243	0.428803
O	O46	0.408472	0.322068	0.085194
O	O47	0.177270	0.173482	0.129133

0	048	0.736447	0.633830	0.829006
0	049	0.970279	0.744311	0.166137
0	050	0.826510	0.829594	0.122028
0	051	0.564466	0.924788	0.622321
0	052	0.863600	0.878841	0.467143
0	053	0.905969	0.596206	0.285325
0	054	0.698154	0.937263	0.504670
0	055	0.583963	0.714773	0.834622
0	056	0.813437	0.859498	0.792428
0	057	0.918820	0.727206	0.442476
0	058	0.695916	0.628061	0.083004
0	059	0.503751	0.880374	0.465125
0	060	0.840079	0.933881	0.640056
0	061	0.841033	0.542651	0.129681
0	062	0.888949	0.827536	0.302198
0	063	0.845976	0.501598	0.459754
0	064	0.509134	0.842347	0.799314
0	065	0.624861	0.760477	0.097585
0	066	0.737296	0.985024	0.751407
0	067	0.837668	0.446689	0.618354
0	068	0.490886	0.163222	0.461394
0	069	0.636767	0.078143	0.508769
0	070	0.718413	0.307770	0.502673
0	071	0.602700	0.431276	0.841806
0	072	0.524347	0.204726	0.794783
0	073	0.928942	0.107765	0.509535
0	074	0.922921	0.378272	0.505091
0	075	0.590202	0.072074	0.764060
0	076	0.941492	0.061220	0.768413
0	077	0.800566	0.501187	0.793694
0	078	0.612923	0.394510	0.092158
0	079	0.722814	0.275057	0.747260
0	080	0.956611	0.426938	0.764952
0	081	0.564536	0.178184	0.639275
0	082	0.498335	0.775681	0.954221
0	083	0.760451	0.523321	0.951465
0	084	0.749566	0.779813	0.970067
0	085	0.405220	0.968430	0.165302
0	086	0.380239	0.643799	0.833356
0	087	0.271529	0.764247	0.174826
0	088	0.048668	0.977918	0.172198
0	089	0.192444	0.534565	0.132378
0	090	0.153377	0.530703	0.463393
0	091	0.038259	0.608320	0.166366

O	O92	0.425598	0.856271	0.287149
O	O93	0.171605	0.594011	0.306852
O	O94	0.359718	0.964155	0.417960
O	O95	0.277885	0.730077	0.428421
O	O96	0.391211	0.606998	0.085455
O	O97	0.066416	0.935900	0.407112
O	O98	0.470902	0.835976	0.130700
O	O99	0.073034	0.650297	0.417625
O	O100	0.237410	0.252925	0.954021
O	O101	0.499035	0.258967	0.972548
O	O102	0.234328	0.517601	0.975097
O	O103	0.873010	0.717004	0.612513
Al	Al104	0.269602	0.287389	0.066557
Al	Al105	0.056626	0.186147	0.733858
Al	Al106	0.159567	0.074652	0.398036
Al	Al107	0.061896	0.416546	0.527444
Al	Al108	0.390754	0.082833	0.193616
Al	Al109	0.498649	0.292282	0.860879
Al	Al110	0.935953	0.621578	0.398864
Al	Al111	0.600022	0.955814	0.734401
Al	Al112	0.496622	0.745588	0.067817
Al	Al113	0.721356	0.747494	0.858371
Al	Al114	0.933407	0.846309	0.194593
Al	Al115	0.833987	0.964698	0.525754
Al	Al116	0.728586	0.522639	0.064980
Al	Al117	0.830144	0.413035	0.731439
Al	Al118	0.601419	0.181033	0.527367
Al	Al119	0.391358	0.858424	0.398890
Al	Al120	0.266645	0.515740	0.863363
Al	Al121	0.167485	0.625635	0.194700
Si	Si122	0.934857	0.845405	0.402539
P	P123	0.054449	0.185438	0.524638
P	P124	0.161314	0.079608	0.191698
P	P125	0.270090	0.288954	0.857601
P	P126	0.269270	0.515866	0.071571
P	P127	0.391269	0.086258	0.403017
P	P128	0.056634	0.416000	0.736964
P	P129	0.725146	0.521982	0.855034
P	P130	0.601070	0.955626	0.525256
P	P131	0.939100	0.624154	0.187502
P	P132	0.832625	0.960581	0.737717
P	P133	0.724827	0.749520	0.068782
P	P134	0.832160	0.408730	0.521540
P	P135	0.600890	0.182787	0.736101

P	P136	0.500601	0.293077	0.069811
P	P137	0.392962	0.856007	0.189674
P	P138	0.493125	0.744272	0.856257
P	P139	0.168103	0.626321	0.403608

TS-Elimination-TMB-C3-H2O-Si-ALPO-34

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loop_

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H	H2	0.649111	0.440098	0.665183
H	H3	0.506111	0.377696	0.646416
H	H4	0.598485	0.402851	0.555561
H	H5	0.525966	0.622051	0.238380
H	H6	0.650850	0.676720	0.298513
H	H7	0.570494	0.742572	0.304751
H	H8	0.599717	0.469660	0.300996
H	H9	0.473796	0.430532	0.246189
H	H10	0.481744	0.338662	0.323360
H	H11	0.572144	0.578555	0.660001
H	H12	0.433552	0.630052	0.659004
H	H13	0.299664	0.579989	0.616210
H	H14	0.408476	0.710723	0.582244
H	H15	0.315094	0.306218	0.601943
H	H16	0.374277	0.426674	0.669709
H	H17	0.248384	0.384887	0.615893
H	H18	0.766818	0.661629	0.590133
H	H19	0.696099	0.591329	0.487471
H	H20	0.672752	0.699642	0.534673
H	H21	0.892295	0.787705	0.635024

H	H22	0.397005	0.328342	0.461468
H	H23	0.492688	0.719690	0.444547
C	C24	0.587027	0.434986	0.617952
C	C25	0.565410	0.661550	0.301089
C	C26	0.475580	0.476815	0.383114
C	C27	0.509063	0.425768	0.309842
C	C28	0.418386	0.414891	0.457489
C	C29	0.389323	0.460543	0.528686
C	C30	0.604342	0.548419	0.607621
C	C31	0.415192	0.572393	0.523673
C	C32	0.387765	0.626213	0.598697
C	C33	0.470465	0.633326	0.448369
C	C34	0.502467	0.589252	0.378622
C	C35	0.329135	0.390624	0.608006
C	C36	0.674643	0.623370	0.545382
O	O37	0.076436	0.303729	0.504401
O	O38	0.300925	0.411848	0.840240
O	O39	0.153132	0.491542	0.794080
O	O40	0.168392	0.121525	0.283970
O	O41	0.079613	0.173604	0.619288
O	O42	0.369878	0.277593	0.829905
O	O43	0.252760	0.049798	0.172409
O	O44	0.483276	0.198241	0.130272
O	O45	0.172459	0.212793	0.794343
O	O46	0.258748	0.403945	0.094191
O	O47	0.025804	0.293165	0.746519
O	O48	0.422912	0.114325	0.304321
O	O49	0.129543	0.165073	0.462247
O	O50	0.083137	0.451392	0.638941
O	O51	0.295328	0.108210	0.426222
O	O52	0.407790	0.321676	0.081844
O	O53	0.176714	0.172547	0.125392
O	O54	0.732635	0.631732	0.826134
O	O55	0.969522	0.743289	0.164602
O	O56	0.825224	0.828967	0.121590
O	O57	0.566136	0.924552	0.620091
O	O58	0.857549	0.873222	0.465383
O	O59	0.903348	0.595647	0.284524
O	O60	0.696614	0.937637	0.499259
O	O61	0.582382	0.715187	0.837162
O	O62	0.810796	0.857814	0.789259
O	O63	0.923821	0.730568	0.440811
O	O64	0.694316	0.627700	0.082651
O	O65	0.503291	0.890066	0.463343

0	066	0.835773	0.933926	0.637594
0	067	0.839907	0.541606	0.128929
0	068	0.890605	0.828526	0.300777
0	069	0.845942	0.505036	0.459904
0	070	0.507614	0.841296	0.796068
0	071	0.625141	0.762143	0.091699
0	072	0.736630	0.985927	0.751741
0	073	0.836248	0.446700	0.617843
0	074	0.489036	0.158234	0.459823
0	075	0.643075	0.083702	0.511351
0	076	0.714275	0.311494	0.501008
0	077	0.601609	0.429787	0.845994
0	078	0.523034	0.204244	0.793623
0	079	0.929361	0.103997	0.503978
0	080	0.918186	0.377238	0.502755
0	081	0.587477	0.070764	0.761676
0	082	0.940645	0.059518	0.766105
0	083	0.797689	0.499179	0.793006
0	084	0.612263	0.394212	0.087734
0	085	0.721024	0.273626	0.745422
0	086	0.953869	0.424421	0.765476
0	087	0.562035	0.178263	0.637884
0	088	0.496415	0.780957	0.952885
0	089	0.763822	0.528286	0.950632
0	090	0.753645	0.778938	0.968031
0	091	0.404668	0.968073	0.161875
0	092	0.378666	0.644472	0.834467
0	093	0.270301	0.764166	0.173318
0	094	0.048398	0.977406	0.169327
0	095	0.192787	0.535717	0.129602
0	096	0.150454	0.529025	0.462473
0	097	0.037069	0.606770	0.167222
0	098	0.422523	0.858280	0.286936
0	099	0.174676	0.593971	0.305612
0	0100	0.349286	0.960794	0.417159
0	0101	0.278376	0.728516	0.428990
0	0102	0.391017	0.607604	0.080759
0	0103	0.064684	0.941896	0.408331
0	0104	0.470583	0.834528	0.132386
0	0105	0.074120	0.650542	0.413673
0	0106	0.235970	0.256475	0.951320
0	0107	0.495854	0.253021	0.971915
0	0108	0.231691	0.512393	0.972924
0	0109	0.877417	0.715553	0.613324

Al	Al110	0.268944	0.287833	0.064141
Al	Al111	0.055410	0.184966	0.731609
Al	Al112	0.160025	0.079448	0.395948
Al	Al113	0.056946	0.415529	0.525902
Al	Al114	0.389976	0.081894	0.191921
Al	Al115	0.497017	0.290273	0.861089
Al	Al116	0.937301	0.623174	0.397472
Al	Al117	0.599404	0.955595	0.732461
Al	Al118	0.495906	0.747048	0.065402
Al	Al119	0.720347	0.746854	0.856787
Al	Al120	0.933505	0.846060	0.192909
Al	Al121	0.831320	0.962392	0.522598
Al	Al122	0.728430	0.523267	0.063672
Al	Al123	0.828370	0.411842	0.730692
Al	Al124	0.600919	0.182144	0.526432
Al	Al125	0.387185	0.859212	0.398581
Al	Al126	0.265194	0.514908	0.860893
Al	Al127	0.167353	0.625094	0.193855
Si	Si128	0.934880	0.846595	0.401751
P	P129	0.053275	0.185548	0.521932
P	P130	0.160810	0.079436	0.188824
P	P131	0.269352	0.289637	0.854525
P	P132	0.268923	0.515346	0.069374
P	P133	0.388025	0.084628	0.401620
P	P134	0.054111	0.414654	0.735883
P	P135	0.724134	0.521858	0.854971
P	P136	0.602670	0.959341	0.523531
P	P137	0.937893	0.623168	0.186908
P	P138	0.830652	0.960027	0.735691
P	P139	0.725142	0.749551	0.066493
P	P140	0.829529	0.410260	0.520462
P	P141	0.598850	0.181936	0.734428
P	P142	0.499581	0.291852	0.068031
P	P143	0.391558	0.855932	0.188792
P	P144	0.491533	0.745597	0.855971
P	P145	0.168871	0.625421	0.402256