

Formamide decomposition catalyzed by amorphous silica. A quantum mechanical study of dehydration vs decarbonylation processes

Electronic Supplementary Information

Stefano Pantaleone,^{a,§,*} Clara Salvini,^{b,c,§} Lorenzo Zamirri,^b Matteo Signorile,^b Francesca Bonino,^b and Piero Ugliengo^{b,*}

^a Univ. Grenoble Alpes, CNRS, Institut de Planétologie et d'Astrophysique de Grenoble (IPAG), 38000 Grenoble, France

^b Dipartimento di Chimica and Nanostructured Interfaces and Surfaces (NIS) Centre, Università degli Studi di Torino, via P. Giuria 7, IT-10125, Torino, Italy.

^c Now at: Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino, Corso Duca degli Abruzzi 24, Torino 10129, Italy.

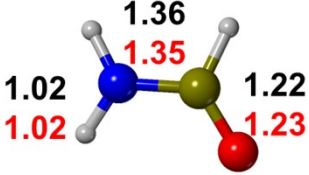
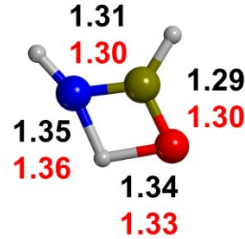
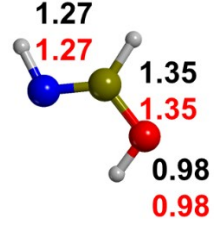
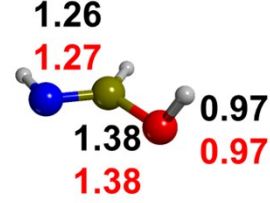
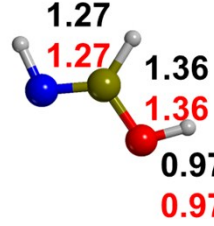
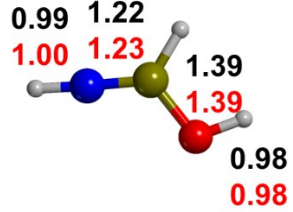
[§] Authors contributed equally to this work.

* Corresponding authors: piero.ugliengo@unito.it, stefano.pantaleone@unito.it

In this document we provide the following supplementary information:

- 1) Structures and cartesian coordinates of all the optimized steps of the reactions considered in the present work (Figures S1-S10),
- 2) Energetic values of all the reactions considered in the present work, also including different starting points as reference state (Table S1-S4),
- 3) Basis sets

Formamide dehydration reaction

Structures (Gas phase, PCM (F))	Gas phase coordinates	PCM (F) coordinates
	6 F_M1_G C -0.161405 0.388237 0.000001 H -0.123992 1.504500 -0.000002 O -1.204573 -0.245520 0.000003 N 1.088652 -0.160090 -0.000022 H 1.918652 0.422350 0.000077 H 1.189792 -1.171476 0.000044	6 F_M1_F C -0.150179 0.387795 0.000000 H -0.116027 1.499664 -0.000002 O -1.210206 -0.242679 -0.000008 N 1.083922 -0.162187 -0.000004 H 1.913120 0.423472 0.000059 H 1.198176 -1.173168 0.000039
	6 F_TS1_G C -0.033977 0.510798 0.000100 H -0.074321 1.607427 -0.000060 O -1.096575 -0.222848 -0.000043 N 1.018032 -0.266205 -0.000195 H 1.988728 0.048633 0.000538 H -0.064171 -1.074631 0.000629	6 F_TS1_F C -0.024627 0.513989 -0.000094 H -0.055961 1.609306 -0.000266 O -1.099825 -0.219221 -0.000031 N 1.014150 -0.272809 0.000086 H 1.985309 0.043233 0.000256 H -0.082035 -1.073045 0.000214
	6 F_M2_G C -0.092409 0.409577 -0.000091 H -0.057027 1.509587 0.000126 O 1.166226 -0.087766 0.000031 N -1.116374 -0.344129 -0.000019 H -1.978950 0.208499 0.000264 H 1.075237 -1.064518 0.000041	6 F_M2_F C -0.093679 0.405776 0.000327 H -0.072090 1.504501 -0.000471 O 1.168054 -0.083148 -0.000112 N -1.120479 -0.347703 0.000010 H -1.972785 0.222390 -0.000654 H 1.105874 -1.062444 -0.000008
	6 F_TS2_G C -0.110769 0.385386 0.007629 H -0.103780 1.491712 0.040243 O 1.148504 -0.160331 -0.115000 N -1.139376 -0.352181 0.003797 H -1.981032 0.238354 0.041171 H 1.537024 -0.294467 0.766232	6 F_TS2_F C -0.111660 0.388352 0.012317 H -0.116190 1.490211 0.063725 O 1.152342 -0.149170 -0.115600 N -1.137644 -0.355523 -0.003923 H -1.979523 0.233190 0.051681 H 1.510447 -0.371490 0.762958
	6 F_M3_G C 0.094555 0.367859 0.000010 H 0.015378 1.472128 -0.000185 O -1.109283 -0.273288 -0.000101 N 1.162005 -0.313982 0.000071 H 1.974042 0.310731 -0.000182 H -1.816525 0.394170 0.000618	6 F_M3_F C 0.091610 0.370546 0.000162 H 0.020611 1.470153 -0.000189 O -1.106606 -0.273340 0.000047 N 1.162349 -0.315971 -0.000106 H 1.968576 0.317081 -0.000508 H -1.822443 0.388013 0.000094
	6 F_TS3_G C 0.080322 0.390908 0.000011 H -0.113568 1.490013 0.000035 O -1.110919 -0.325436 0.000013 N 1.181783 -0.144002 -0.000027 H 2.092519 -0.541730 0.000076 H -1.846013 0.317766 -0.000094	6 F_TS3_F C 0.079496 0.395567 0.000005 H -0.118380 1.489017 0.000003 O -1.110285 -0.327211 -0.000042 N 1.184048 -0.141769 0.000048 H 2.088340 -0.561064 0.000029 H -1.852988 0.308724 -0.000063

	6 F_M4_G C 0.092930 0.409586 0.000037 H -0.028965 1.502966 -0.000234 O -1.080550 -0.304510 0.000018 N 1.249873 -0.101121 0.000039 H 1.199968 -1.130607 -0.000318 H -1.833288 0.314048 -0.000092	6 F_M4_F C -0.086124 0.413308 0.000211 H 0.043249 1.503859 -0.000142 O 1.071991 -0.306788 -0.000033 N -1.249227 -0.100314 -0.000084 H -1.192087 -1.129950 -0.000074 H 1.834250 0.302749 -0.000197
	6 F_TS4_G C 0.458145 0.561574 0.007153 H 0.377148 1.647228 -0.031064 O -1.161276 -0.123848 -0.109099 N 1.138795 -0.440024 0.023133 H -0.133635 -0.903005 -0.023343 H -1.673734 -0.042712 0.722353	6 F_TS4_F C 0.423852 0.556889 0.001392 H 0.335978 1.643909 -0.021305 O -1.138623 -0.134972 -0.109824 N 1.145201 -0.422131 0.024448 H -0.146350 -0.919184 -0.007466 H -1.640165 -0.031368 0.727880
	6 F_M5_G C 1.016091 0.000385 -0.019147 H -0.074741 0.000589 -0.051094 O -2.024233 0.000034 -0.060114 N 2.176135 -0.000254 0.023564 H -2.531358 0.771161 0.241273 H -2.529532 -0.772551 0.240668	6 F_M5_F C -0.965377 -0.000489 -0.006241 H 0.139781 -0.001009 -0.022964 O 1.974944 -0.000128 -0.093864 N -2.126285 0.000286 0.014986 H 2.370712 -0.767898 0.353998 H 2.366216 0.770872 0.352415

Figure S1: PBE-D2/TZVP optimized geometries for the non-catalysed (intramolecular) formamide dehydration reaction. In the first column the optimized structures with the most representative bond lengths (in Å) in gas phase (black), and in PCM (F) (red) are shown. In the second and third columns the cartesian coordinates of the optimized structures in gas phase, and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue.

Formamide decarbonylation reaction

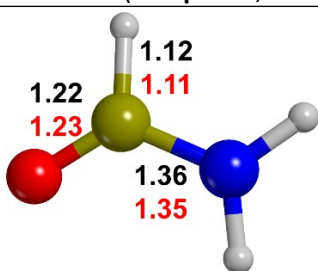
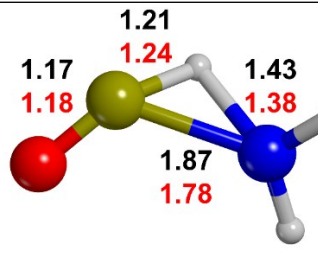
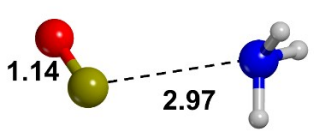
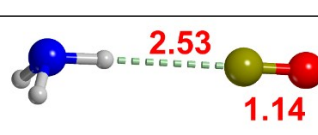
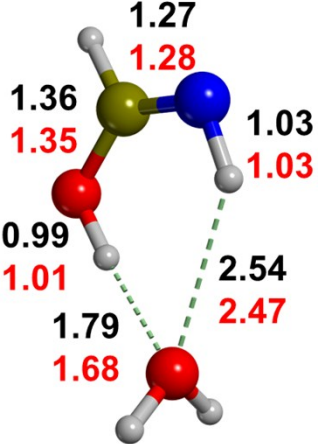
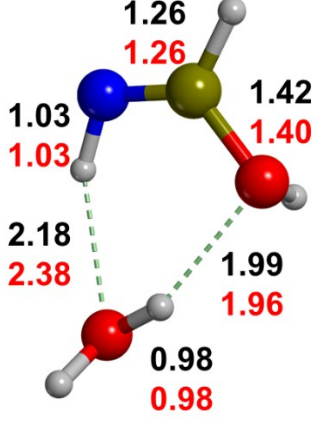
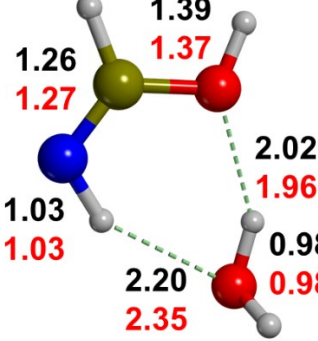
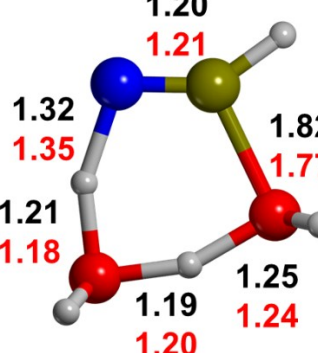
Structures (Gas phase, PCM (F))	Gas phase coordinates	PCM (F) coordinates
	6 F_R_G C -0.095794 0.404515 0.000119 H -0.058229 1.520816 0.000066 O -1.139189 -0.228834 0.000100 N 1.154382 -0.143443 -0.000409 H 1.984304 0.439134 0.001516 H 1.256311 -1.154644 0.001092	6 F_R_F C -0.084324 0.404209 0.000043 H -0.050690 1.516095 0.000014 O -1.144542 -0.226284 0.000044 N 1.149891 -0.145613 -0.000165 H 1.979793 0.439102 0.000638 H 1.263982 -1.156563 0.000421
	6 F_TS_G C -0.359603 0.483937 -0.002796 H 0.617264 0.957542 -0.531184 O -1.246850 -0.277664 0.028911 N 1.414296 -0.114568 -0.014320 H 2.060108 0.296433 0.667882 H 1.745657 -1.021204 -0.363273	6 F_TS_F C -0.319781 0.496189 0.007432 H 0.678376 0.932875 -0.582440 O -1.217770 -0.272378 0.021996 N 1.351980 -0.128117 -0.010333 H 2.020031 0.310805 0.632844 H 1.654483 -1.052538 -0.344525
	6 F_P_G C -0.912735 -0.599852 0.004821 H 2.001837 -0.859322 -0.387160 O -1.485890 0.385230 -0.003176 N 1.979139 0.087704 -0.005204 H 2.668571 0.644063 -0.514160 H 2.288903 0.029666 0.966622	
		6 F_P_F C 0.930493 0.027109 -0.004518 H -1.599805 0.017944 -0.083278 O 2.066424 -0.016039 0.038103 N -2.623518 -0.003577 -0.097621 H -2.933350 0.798391 0.457143 H -2.898280 -0.835052 0.431664

Figure S2: PBE-D2/TZVP optimized geometries for the non-catalysed (intramolecular) formamide decarbonylation reaction. In the first column the optimized structures with the most representative bond lengths (in Å) in gas phase (black), and in PCM (F) (red) are shown. In the second and third columns the cartesian coordinates of the optimized structures in gas phase, and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue.

Formamide + H₂O dehydration reaction

Structures (Gas phase, PCM (F))	Gas phase coordinates	PCM (F) coordinates
	9 FW_M1_G C -1.191359 -0.185463 0.007696 H -2.302316 -0.245160 0.011911 O -0.490184 -1.201650 0.000307 N -0.717425 1.080695 0.011883 H 0.303384 1.217293 0.006437 H -1.353159 1.870046 0.001795 O 1.949590 0.124436 -0.089449 H 1.284631 -0.609521 -0.074074 H 2.562348 -0.067039 0.637719	9 FW_M1_F C -1.192454 -0.229437 0.016432 H -2.290339 -0.374987 0.054626 O -0.410954 -1.197493 -0.006767 N -0.815580 1.059578 -0.004070 H 0.183876 1.286474 -0.032729 H -1.508059 1.801350 0.022381 O 2.009456 0.151904 -0.098643 H 1.277238 -0.517261 -0.056207 H 2.413050 0.128709 0.785106
	9 FW_TS1_G C -1.101260 -0.104734 0.013471 N -0.549343 1.085252 0.003427 O -0.395052 -1.186902 0.001542 O 1.659629 0.085013 -0.099567 H -2.195718 -0.234311 0.033426 H 0.757261 0.879435 -0.026119 H -1.182297 1.881568 0.002255 H 0.740226 -0.780710 -0.027057 H 2.216881 0.100767 0.696877	9 FW_TS1_F C -1.108737 -0.095081 0.017613 N -0.544345 1.082058 -0.005816 O -0.398638 -1.188365 -0.002693 O 1.672060 0.082044 -0.098912 H -2.200043 -0.220971 0.054802 H 0.747733 0.872034 -0.028288 H -1.166282 1.887756 0.018561 H 0.706094 -0.797100 -0.023739 H 2.187957 0.104932 0.726539
	9 FW_M2_G C -1.179565 -0.051314 0.010278 H -2.264509 -0.237159 0.021319 N -0.625812 1.108861 0.003720 O -0.492339 -1.192248 0.005151 H -1.320072 1.858961 0.001798 H 0.493926 -0.958033 -0.014398 O 1.862981 0.058828 -0.097260 H 2.399962 0.154580 0.705873 H 1.183635 0.794869 -0.065419	9 FW_M2_F C -1.185640 -0.048804 0.013848 H -2.269360 -0.229268 0.040065 N -0.624998 1.106238 -0.002479 O -0.492751 -1.194358 -0.000014 H -1.319203 1.857274 0.011963 H 0.491506 -0.954425 -0.018393 O 1.873872 0.067345 -0.099965 H 2.361008 0.105690 0.741086 H 1.175908 0.785987 -0.040633
	9 FW_TS2_G C -1.205713 -0.048592 0.049994 N -0.787826 1.138708 0.039400 O -0.495340 -1.193373 -0.053310 O 1.910289 0.062666 -0.074923 H -2.259352 -0.319337 0.252623 H 0.472170 -0.958198 -0.177746 H -0.454359 1.923732 -0.485421 H 1.228292 0.751287 0.128030 H 2.442720 -0.031228 0.732614	9 FW_TS2_F C -1.236232 -0.095562 0.017823 N -0.902710 1.103498 0.025484 O -0.425548 -1.194003 -0.016585 O 1.954759 0.097417 -0.094913 H -2.282603 -0.451990 0.080248 H 0.528666 -0.878464 -0.056041 H -0.590351 2.032039 -0.169962 H 1.364136 0.872420 0.030962 H 2.482829 0.047565 0.721457

	9 FW_M3_G C -1.338780 -0.142641 0.000300 N -1.200464 1.124195 -0.000150 H -0.203591 1.389983 -0.000770 H -2.342601 -0.585168 0.000599 O -0.396709 -1.125026 -0.000185 H 0.501370 -0.703097 -0.000655 O 2.049759 0.207187 -0.000076 H 2.626688 0.114135 0.776061 H 2.629656 0.113345 -0.773898	9 FW_M3_F C -1.307953 -0.165551 0.001421 N -1.195686 1.109396 -0.002471 H -0.201980 1.386959 -0.007478 H -2.303998 -0.627129 0.006444 O -0.344778 -1.112833 0.000393 H 0.559797 -0.668561 -0.002357 O 1.978034 0.234229 -0.003031 H 2.529020 0.108340 0.789333 H 2.568628 0.056749 -0.756072
	9 FW_TS3_G C 1.280936 -0.047217 -0.088815 O 0.509604 1.141736 -0.041165 N 0.850635 -1.220153 0.059638 O -2.035169 -0.113187 0.071087 H 2.330327 0.154552 -0.341543 H -0.166676 -1.228290 0.257159 H 0.413340 1.412213 0.889972 H -2.649172 -0.259126 -0.665964 H -1.363358 0.516635 -0.263578	9 FW_TS3_F C 1.274883 -0.027064 -0.152545 O 0.495850 1.130357 -0.004843 N 0.905899 -1.207106 0.107875 O -2.124432 -0.104098 0.040721 H 2.258730 0.181379 -0.591835 H -0.060337 -1.216033 0.477229 H 0.507622 1.411498 0.930033 H -2.316548 -0.459033 -0.843536 H -1.351399 0.484242 -0.098768
	9 FW_M4_G C -1.284104 -0.093070 0.019678 H -2.370143 0.074258 0.064905 N -0.795793 -1.252797 -0.003009 O -0.537693 1.082138 -0.004291 H 0.237778 -1.235852 -0.053452 H -1.134810 1.851345 -0.016296 O 2.112792 -0.077761 -0.092960 H 2.513092 -0.016176 0.789203 H 1.428465 0.619409 -0.103362	9 FW_M4_F C -1.306081 -0.029455 0.018497 H -2.373935 0.220351 0.064485 N -0.905457 -1.232238 -0.007503 O -0.468724 1.058868 -0.008357 H 0.126788 -1.273355 -0.051516 H -0.983676 1.887102 0.016827 O 2.161854 -0.107030 -0.097228 H 2.442342 -0.175734 0.830946 H 1.418120 0.529327 -0.074530
	9 FW_TS4_G C -1.236618 -0.235307 0.016672 H -2.244569 0.171880 0.006442 N -0.616810 -1.263943 0.015138 O -0.263332 1.296448 -0.100799 H 0.664590 -0.953458 -0.022025 H -0.461825 1.848578 0.677631 O 1.608956 -0.201888 -0.091022 H 2.169255 -0.278314 0.700128 H 0.844940 0.714273 -0.033602	9 FW_TS4_F C -1.222779 -0.230118 0.026991 H -2.239116 0.159111 0.072915 N -0.605930 -1.266651 -0.000370 O -0.290908 1.265445 -0.112446 H 0.703037 -0.922373 -0.028324 H -0.498657 1.815916 0.666969 O 1.622875 -0.177079 -0.085404 H 2.133167 -0.235555 0.743019 H 0.824017 0.723231 -0.031127

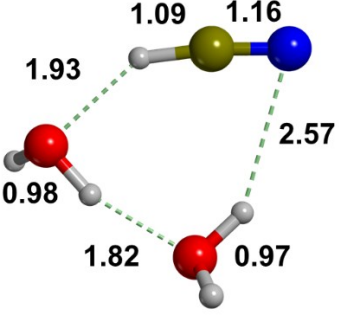
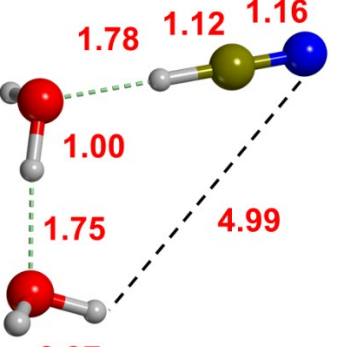
	9 FW_M5_G C -1.326161 -0.677828 0.026302 O 1.518862 -1.172576 0.085794 N -2.209746 0.075264 -0.019875 O 0.890196 1.536344 -0.084132 H -0.411492 -1.282610 0.053589 H 2.145768 -1.469564 -0.591952 H 1.487436 -0.186623 0.011805 H -0.075047 1.489058 -0.217955 H 1.006060 2.079707 0.712533	
		9 FW_M5_F C -1.887455 0.051252 0.018811 O 0.683484 -1.276547 0.094510 N -2.920268 0.583821 -0.012137 O 2.513184 0.768125 -0.080905 H -0.896379 -0.460973 0.047756 H 0.823088 -1.838514 -0.684623 H 1.402938 -0.576904 0.044901 H 1.968605 1.532983 -0.324073 H 2.895014 1.016531 0.779299

Figure S3: PBE-D2/TZVP optimized geometries for the H₂O assisted formamide dehydration reaction. In the first column the optimized structures with the most representative bond lengths (in Å) in gas phase (black), and in PCM (F) (red) are shown. In the second and third columns the cartesian coordinates of the optimized structures in gas phase, and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue.

Formamide + H₂O decarbonylation reaction

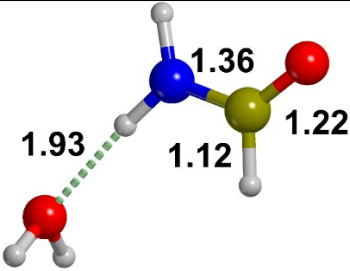
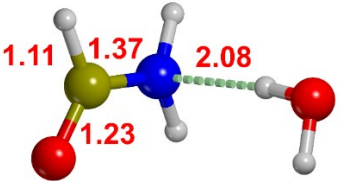
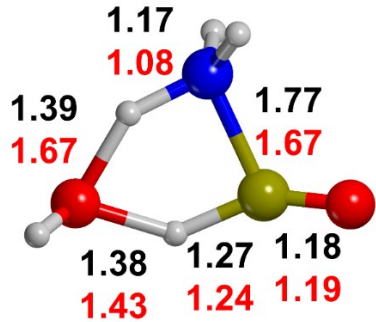
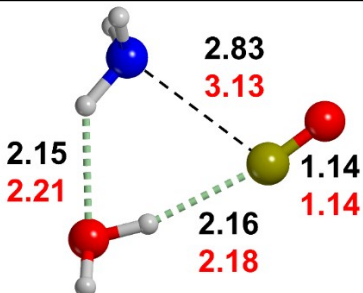
Structures (Gas phase, PCM (F))	Gas phase coordinates	PCM (F) coordinates
	9 FW_R_G 6 1.120983 -0.334431 -0.000253 1 0.630009 -1.339402 -0.000910 8 2.337524 -0.194568 0.000176 7 0.201841 0.666102 -0.000072 1 0.528717 1.628449 0.000565 1 -0.801942 0.461608 -0.000161 8 -2.647918 -0.091570 0.000176 1 -3.005214 -0.560128 0.771953 1 -3.007207 -0.557547 -0.772236	
		9 FW_R_F 6 1.281914 -0.579637 -0.052204 1 -0.785441 -1.273164 -0.103812 8 2.308453 -0.100310 0.050219 7 -0.822875 1.735584 0.040201 1 -1.374427 2.395094 0.594759 1 -0.786519 2.116717 -0.908432 8 -1.763123 -1.307329 -0.095821 1 -1.363042 0.864329 -0.014191 1 -1.984568 -1.513137 0.828303
	9 FW_TS_G 6 0.670208 -0.401112 -0.176021 1 -0.495201 -0.906635 -0.234261 8 1.809884 -0.525479 0.093976 7 -0.068848 1.197004 0.019646 1 0.330738 1.720245 0.804359 1 0.009811 1.749782 -0.838913 8 -1.805737 -0.509899 -0.047910 1 -1.107328 0.675993 0.151885 1 -2.310506 -0.928718 0.667007	9 FW_TS_F 6 0.620045 -0.383612 -0.193811 1 -0.534803 -0.837003 -0.290156 8 1.742102 -0.634921 0.098894 7 0.074209 1.199011 0.022522 1 0.487253 1.665269 0.837860 1 0.229466 1.770084 -0.815743 8 -1.894494 -0.458945 -0.053229 1 -0.961869 0.914306 0.142673 1 -2.240643 -0.853133 0.765261
	9 FW_P_G 6 1.140070 -0.693605 -0.013736 1 -0.992491 -1.012335 -0.080545 8 2.220696 -0.331070 0.008154 7 -0.473043 1.635252 0.011402 1 -0.403403 2.290999 0.791525 1 -0.535431 2.186413 -0.846490 8 -1.969031 -0.943891 -0.069326 1 -1.346843 1.107682 0.110916 1 -2.264263 -1.658202 0.516577	9 FW_P_F 6 -1.093093 0.050227 0.376307 1 -1.225649 0.215340 1.467266 8 -1.542651 -0.931368 -0.208233 7 -0.340041 1.027365 -0.210640 1 -0.305537 1.068016 -1.228927 1 -0.189189 1.900289 0.290709 8 2.396549 -0.297063 0.103206 1 1.549772 0.191743 0.038780 1 2.278266 -1.040860 -0.510975

Figure S4: PBE-D2/TZVP optimized geometries for the H₂O assisted formamide decarbonylation reaction. In the first column the optimized structures with the most representative bond lengths (in Å) in gas phase (black), and in PCM (F) (red) are shown. In the second and third columns the cartesian coordinates of the optimized structures in gas phase, and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue.

Formamide + 2H₂O dehydration reaction

Structures (Gas phase, PCM (F))	Gas phase coordinates	PCM (F) coordinates
	12 F2W_M1_G C -1.718822 -0.102301 0.001318 H -2.830281 -0.088169 0.044230 O -1.111849 -1.178497 -0.091506 N -1.163317 1.120406 0.057330 N -1.772517 1.926507 0.151606 N -0.127361 1.266891 0.033602 O 1.637557 1.348194 0.047520 H 1.792554 0.356492 0.067709 O 1.585981 -1.311884 -0.030774 H 0.586378 -1.348582 -0.082099 H 1.829579 -1.861477 0.730254 H 2.084289 1.656803 -0.756449	12 F2W_M1_F 6 1.728160 -0.073592 0.004106 1 2.835972 -0.042237 -0.022317 8 1.132978 -1.165521 0.104534 7 1.150680 1.130270 -0.080124 1 1.744015 1.951238 -0.158520 1 0.115818 1.256694 -0.056181 8 -1.695174 1.330191 -0.040743 1 -1.806838 0.333784 -0.017861 8 -1.556656 -1.351621 0.027879 1 -0.553238 -1.334732 0.050303 1 -1.787614 -1.781082 -0.812778 1 -2.021015 1.641604 0.820218
	12 F2W_TS1_G C 1.598440 0.065354 -0.001347 H 2.702047 0.124142 -0.018833 O 1.123827 -1.124941 0.073926 N 0.900037 1.173805 -0.056342 H 1.479729 2.009835 -0.126421 H -0.428184 1.239453 -0.033594 O -1.607014 1.116105 -0.053081 H -1.601438 -0.160602 -0.005355 O -1.308419 -1.283589 0.045024 H -0.084299 -1.227782 0.051368 H -1.629731 -1.753146 -0.741973 H -1.996173 1.498740 0.750328	12 F2W_TS1_F 6 1.601324 0.074303 0.002883 1 2.701658 0.139776 0.003103 8 1.126918 -1.125371 0.083073 7 0.893625 1.169935 -0.075231 1 1.463909 2.014309 -0.132064 1 -0.416982 1.228703 -0.038705 8 -1.614247 1.118823 -0.043229 1 -1.597253 -0.177298 0.001297 8 -1.308913 -1.290997 0.038058 1 -0.062584 -1.218884 0.042533 1 -1.615608 -1.724906 -0.777130 1 -1.966520 1.483301 0.787062
	12 F2W_M2_G C 1.668764 0.205542 -0.005012 H 2.766142 0.305796 -0.018985 O 1.304088 -1.058228 0.068013 N 0.867912 1.215744 -0.053608 H 1.394118 2.090442 -0.116075 H -0.820344 1.253952 -0.054819 O -1.829422 1.097116 -0.057797 H -1.662704 -0.517358 0.016482 O -1.260990 -1.448528 0.051988 H 0.276229 -1.186530 0.059806 H -1.583654 -1.916225 -0.734711 H -2.167163 1.503582 0.756006	12 F2W_M2_F 6 -1.672656 -0.202836 0.002529 1 -2.767972 -0.303768 0.018109 8 -1.296789 1.065264 0.076116 7 -0.870726 -1.207267 -0.076754 1 -1.395957 -2.084143 -0.123100 1 0.803088 -1.250164 -0.046541 8 1.819165 -1.118022 -0.048591 1 1.661817 0.515486 0.011315 8 1.277666 1.453005 0.046590 1 -0.268845 1.181219 0.047328 1 1.564261 1.890940 -0.773021 1 2.134295 -1.483664 0.795090

	12 F2W_TS2_G C -1.646362 -0.123199 0.079261 H -2.681673 -0.176530 0.473249 O -1.153512 1.076563 0.369471 N -1.053468 -1.131600 -0.431560 H -0.802253 -1.432870 -1.358835 H 0.653158 -1.272887 0.110137 O 1.648216 -1.214528 0.250750 H 1.710324 0.444170 -0.018753 O 1.387536 1.375928 -0.211447 H -0.182300 1.188970 0.049476 H 1.675651 1.582142 -1.114652 H 1.821624 -1.576303 1.134544	12 F2W_TS2_F 6 1.650859 -0.115322 -0.076625 1 2.695272 -0.146617 -0.447311 8 1.131361 1.070286 -0.392415 7 1.063942 -1.124860 0.436922 1 0.826574 -1.427652 1.369555 1 -0.663329 -1.269175 -0.091713 8 -1.654666 -1.227516 -0.258438 1 -1.705148 0.432023 0.053954 8 -1.391689 1.372389 0.227650 1 0.154393 1.167739 -0.068842 1 -1.569877 1.540852 1.168802 1 -1.770682 -1.452485 -1.197529
	12 F2W_M3_G C -1.415737 -0.582589 -0.150770 H -2.057549 -1.202167 -0.790052 O -1.563362 0.723363 -0.420807 N -0.645892 -1.145817 0.712044 H -0.177217 -0.428940 1.286915 H 1.078295 -1.335811 -0.165881 O 1.892004 -0.847705 -0.450990 H 1.396878 0.768332 0.010856 O 0.875894 1.556809 0.335366 H -0.762024 1.205801 -0.043104 H 1.269423 2.338224 -0.083762 H 2.631576 -1.288926 -0.003209	12 F2W_M3_F 6 -1.498660 -0.472481 -0.153748 1 -2.247013 -0.995476 -0.763250 8 -1.414355 0.824570 -0.485357 7 -0.838743 -1.125950 0.736837 1 -0.227709 -0.491301 1.272720 1 1.045008 -1.438509 -0.213386 8 1.852685 -0.943429 -0.473403 1 1.469231 0.671897 0.056506 8 0.986601 1.479100 0.397602 1 -0.559687 1.211121 -0.085158 1 1.405205 2.246787 -0.027436 1 2.578670 -1.369909 0.013905
	12 F2W_M4_G C -1.809770 -0.103595 -0.020197 O -1.078846 1.097682 0.009520 N -1.321773 -1.255033 0.037413 H -2.893881 0.070408 -0.096146 H -0.282048 -1.302183 0.098237 H -1.691974 1.848104 -0.091464 O 1.734391 1.324061 -0.094680 H 2.011426 1.705548 0.753868 H 0.749765 1.336211 -0.073573 O 1.637536 -1.412573 0.084219 H 2.005041 -1.868645 -0.688940 H 1.868059 -0.456005 -0.035171	12 F2W_M4_F 6 1.801027 -0.153562 -0.068295 8 1.132656 1.001946 0.292714 7 1.250706 -1.276604 -0.246514 1 2.883858 -0.012102 -0.186086 1 0.220739 -1.262062 -0.098962 1 1.762677 1.744383 0.358709 8 -1.629716 1.376648 -0.111297 1 -1.790112 1.712346 -1.009502 1 -0.649596 1.375436 -0.009785 8 -1.772561 -1.352436 0.077335 1 -1.971808 -1.545738 1.008559 1 -1.859889 -0.363932 0.002419

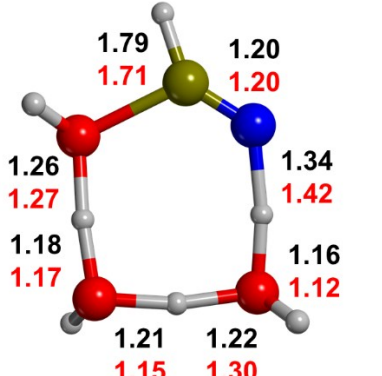
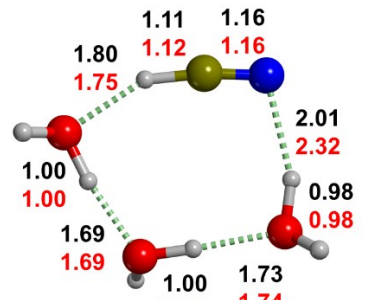
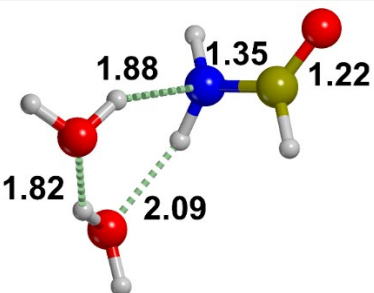
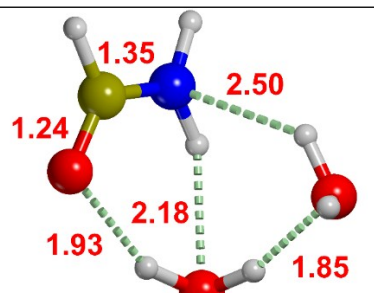
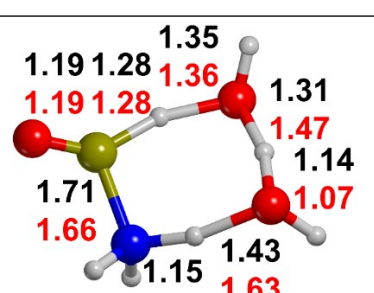
	12 F2W_TS4_G C 1.662325 -0.474134 0.019470 O 1.085874 1.221215 -0.092222 N 0.904197 -1.397497 -0.026989 H 2.730845 -0.268001 0.064124 H -0.436232 -1.349910 -0.061768 H 1.554703 1.751393 0.578096 O -1.341358 1.272483 0.102360 H -1.724028 1.738063 -0.659493 H -0.165238 1.307467 0.024521 O -1.579881 -1.128218 -0.082114 H -2.002777 -1.565474 0.675641 H -1.577682 0.089906 0.026793	12 F2W_TS4_F 6 1.659996 -0.411844 0.071778 8 1.060873 1.165081 -0.184339 7 0.944394 -1.380319 0.020500 1 2.721636 -0.191536 0.215317 1 -0.470254 -1.328388 -0.085068 1 1.601900 1.788533 0.337653 8 -1.347119 1.259511 0.186521 1 -1.780497 1.775606 -0.516342 1 -0.189874 1.286576 0.026333 8 -1.572991 -1.140436 -0.149486 1 -1.997888 -1.615790 0.586194 1 -1.581864 0.145047 0.040171
	12 F2W_M5_G C -0.289685 -1.733415 -0.048411 O 2.284773 -0.551172 0.010398 N -1.451289 -1.727354 -0.063196 H 0.809403 -1.583031 -0.013939 H -1.971621 0.211568 -0.066489 H 2.903045 -0.514214 0.756646 H 0.817629 1.717667 -0.029984 H 0.926061 2.271998 -0.818686 H 1.816183 0.333452 0.000619 O -1.858367 1.183330 0.023970 H -2.375718 1.429905 0.807267 H -0.162493 1.543690 0.032352	12 F2W_M5_F 6 -1.386885 -1.159165 -0.048939 8 1.399606 -1.758293 0.027213 7 -2.430751 -0.649494 -0.093786 1 -0.343397 -1.561303 0.002142 1 -1.317387 1.383612 -0.009919 1 1.728275 -2.088785 0.880046 8 1.859417 0.891574 -0.059656 1 2.251484 1.181152 -0.900419 1 1.653185 -0.786453 0.002304 8 -0.613071 2.057651 0.045599 1 -0.769369 2.511366 0.891817 1 0.966164 1.334410 -0.021080

Figure S5: PBE-D2/TZVP optimized geometries for the 2H₂O assisted formamide dehydration reaction. In the first column the optimized structures with the most representative bond lengths (in Å) in gas phase (black), in PCM (W) (blue), and in PCM (F) (red) are shown, in the second, third, and fourth columns the cartesian coordinates of the optimized structures in gas phase, in PCM (W) and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue.

Formamide + 2H₂O decarbonylation reaction

Structures (Gas phase, PCM (F))	Gas phase coordinates	PCM (F) coordinates
	12 F2W_R_G 6 1.551184 0.191290 -0.344265 1 1.153821 0.392818 -1.367531 8 2.697470 -0.172377 -0.136936 7 0.581577 0.353529 0.617396 1 0.904890 0.361429 1.584121 1 -0.266804 0.900516 0.387995 8 -2.075031 1.201352 -0.052548 1 -2.219931 0.228670 -0.160078 1 -2.413334 1.615165 -0.861712 8 -1.606948 -1.489465 -0.125196 1 -0.731328 -1.227737 0.238657 1 -1.929383 -2.209372 0.439799	
		12 F2W_R_F 6 -1.560836 0.369182 0.213868 1 -2.341635 1.093125 0.523701 8 -1.342425 -0.669611 0.854150 7 -0.881936 0.746657 -0.890629 1 -0.200106 0.096877 -1.296270 1 -1.173903 1.564620 -1.417302 8 1.011014 -1.534010 -0.507214 1 1.542429 -0.774299 -0.165755 1 0.206377 -1.501233 0.061373 8 2.084884 0.913597 0.368456 1 1.270969 1.421137 0.190813 1 2.206651 0.978265 1.331489
	12 F2W_TS_G 6 -1.161250 0.353362 -0.103270 1 -0.126370 1.092266 -0.269377 8 -2.241704 0.385795 0.383762 7 -0.537857 -1.216341 -0.352499 1 -1.126511 -1.904750 0.131391 1 -0.557816 -1.410816 -1.359925 8 1.176029 1.443999 -0.289644 1 1.692921 0.315546 0.139009 1 1.376396 2.209112 0.273927 8 1.852922 -0.778368 0.433568 1 0.555686 -1.191275 -0.002960 1 2.620212 -1.127278 -0.046438	12 F2W_TS_F 6 1.142718 0.318289 0.107073 1 0.103311 1.050982 0.267884 8 2.244427 0.433133 -0.335022 7 0.614953 -1.242668 0.279540 1 1.186895 -1.894402 -0.272679 1 0.680713 -1.506949 1.270760 8 -1.177711 1.505090 0.272200 1 -1.759319 0.221380 -0.132285 1 -1.282360 2.184664 -0.415849 8 -1.949658 -0.798840 -0.383742 1 -0.429946 -1.254176 -0.006668 1 -2.596727 -1.127616 0.262125

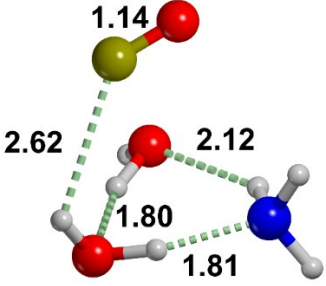
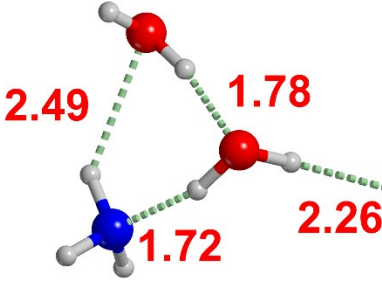
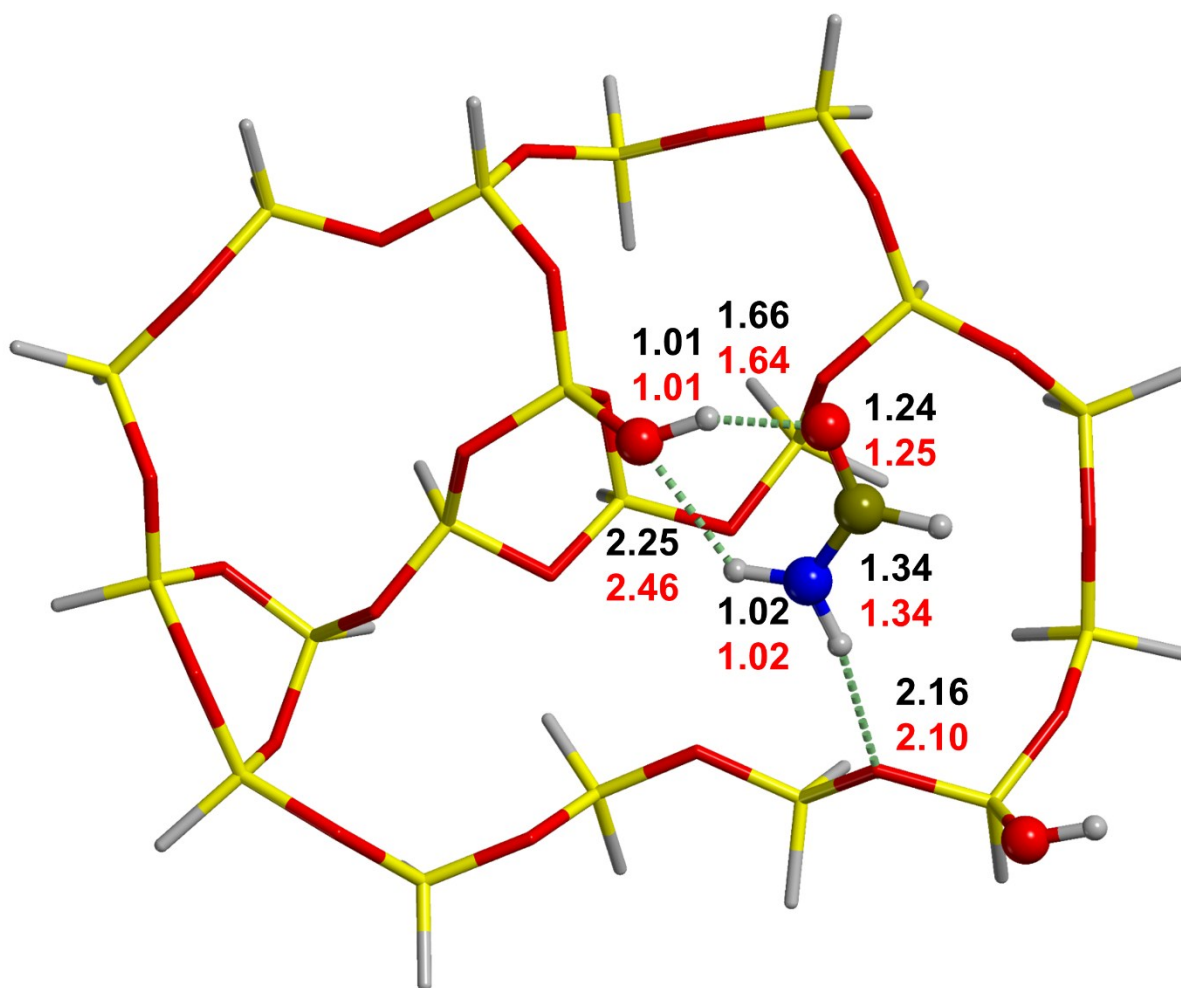
	<pre> 12 F2W_P_G 6 -1.767280 -0.384181 0.646307 1 1.172942 0.394847 0.959282 8 -2.209658 0.276525 -0.168372 7 0.910972 1.645539 -0.319399 1 0.071433 2.226749 -0.347878 1 1.710735 2.247817 -0.522057 8 1.310077 -0.525887 1.341420 1 0.945417 -1.164201 -0.299329 1 0.519646 -0.693970 1.881025 8 0.632537 -1.161104 -1.243469 1 0.835816 0.942633 -1.068230 1 1.107243 -1.883838 -1.681492 </pre>	
		<pre> 12 F2W_P_F 6 -2.597139 -0.068408 0.044007 1 0.878012 0.649501 0.705301 8 -3.636919 0.013592 -0.407193 7 1.894774 1.634717 -0.278811 1 1.436817 2.217940 -0.982651 1 2.609059 2.210630 0.172071 8 0.445003 -0.154345 1.153806 1 1.445236 -1.187745 0.097815 1 -0.483677 -0.147993 0.856186 8 2.090468 -1.591223 -0.544701 1 2.375218 0.875308 -0.773778 1 2.870330 -1.794403 -0.002609 </pre>

Figure S6: PBE-D2/TZVP optimized geometries for the 2H₂O assisted formamide decarbonylation reaction. In the first column the optimized structures with the most representative bond lengths (in Å) in gas phase (black), in PCM (W) (blue), and in PCM (F) (red) are shown, in the second, third, and fourth columns the cartesian coordinates of the optimized structures in gas phase, in PCM (W) and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue.

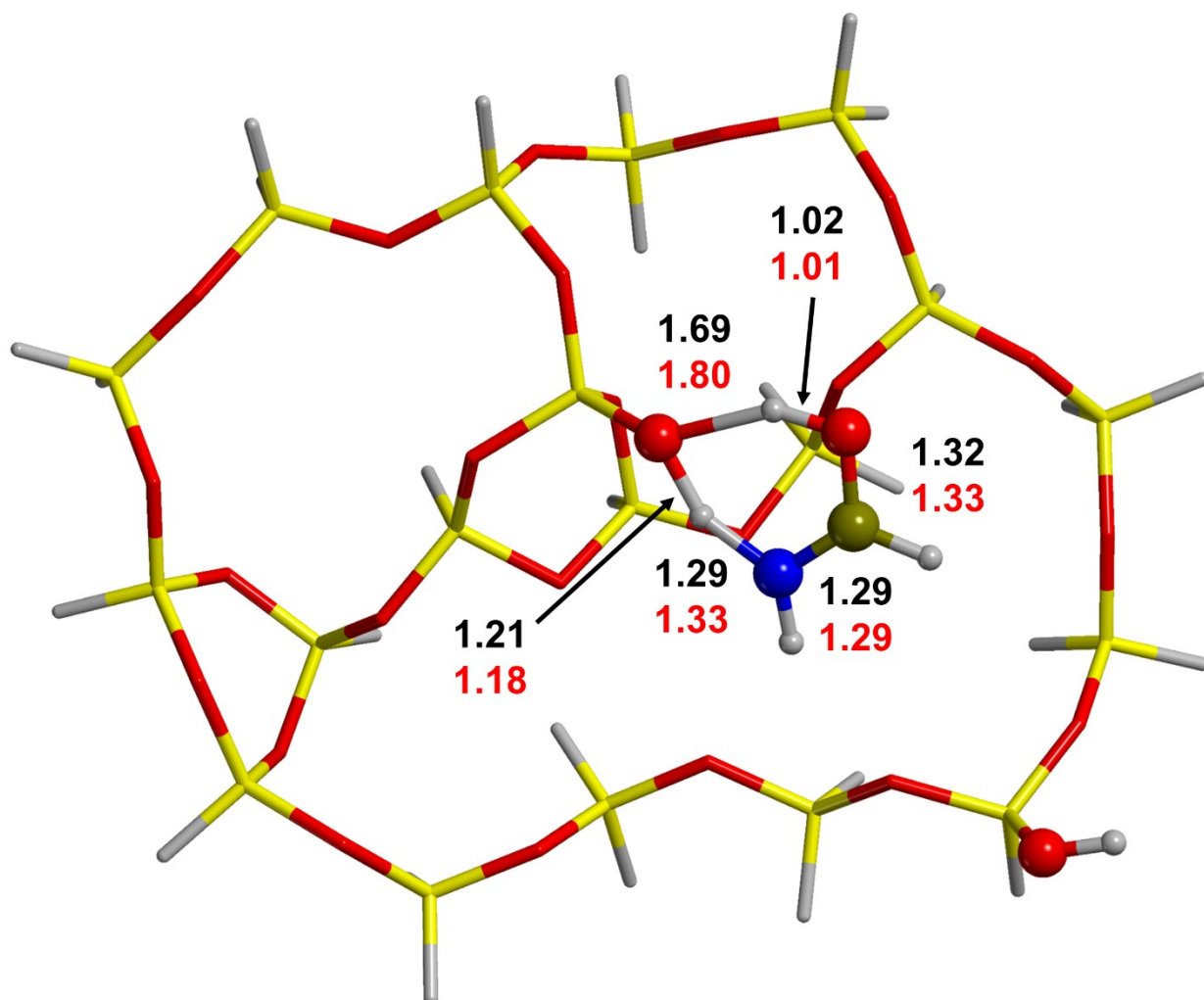
Formamide + Silica 1.5 dehydration reaction



Gas phase coordinates	PCM coordinates
80	80
SiL_M1_G	SiL_M1_F
Si 5.372309 -4.185243 0.744808	Si 5.376296 -4.179908 0.743769
O 5.640466 -4.557088 2.342675	O 5.594981 -4.543118 2.355736
H 6.530458 -4.360668 2.673857	H 6.520304 -4.630810 2.640186
O 6.390676 -2.954255 0.313246	O 6.393587 -2.948001 0.312295
C 3.375475 -0.054921 2.537463	C 3.386847 -0.083155 2.596997
H 4.436243 -0.294653 2.756931	H 4.375137 -0.352908 3.015094
N 2.712688 -1.046165 1.918161	N 2.880662 -0.996719 1.761835
H 1.735364 -0.906563 1.656849	H 1.999596 -0.819903 1.279491
H 3.165841 -1.926057 1.675386	H 3.377830 -1.859978 1.538333
O 2.895094 1.046626 2.848566	O 2.833431 0.991576 2.909192
Si -2.311954 -0.259588 -0.294708	Si -2.315627 -0.264790 -0.303260
O -0.091551 1.550262 -0.631550	O -0.109354 1.554183 -0.627674
H -2.773403 0.554885 -1.459464	H -2.773562 0.553363 -1.459913
Si -4.805334 4.191442 0.427527	Si -4.808600 4.187993 0.427443
O -3.223817 3.741868 0.471749	O -3.226694 3.739784 0.471592
Si -1.769996 4.463301 0.750364	Si -1.773493 4.462450 0.750241
H -5.112790 4.709234 -0.943620	H -5.116532 4.705640 -0.943652
O -2.041810 0.737222 1.008293	O -2.062615 0.732892 1.014987
Si -0.598805 1.628619 0.991123	Si -0.615934 1.624863 0.985345

O -1.217891 5.121595 -0.654812	O -1.221987 5.121346 -0.654889
O -0.789897 3.237502 1.316422	O -0.795898 3.232865 1.330722
H 3.467480 -3.881297 -1.854260	H 3.471150 -3.877381 -1.855232
Si 2.768391 -4.242326 -0.578731	Si 2.772400 -4.239128 -0.579720
O 0.406286 0.866047 2.024904	O 0.366312 0.858009 2.044645
O 1.763223 -0.360962 -1.116022	O 1.758363 -0.340412 -1.078287
Si 0.181584 0.071979 -1.381783	Si 0.179918 0.074762 -1.384651
O -0.853519 -1.014649 -0.677531	O -0.846546 -1.008089 -0.655358
H -0.100954 0.147576 -2.823668	H -0.100791 0.148488 -2.824209
O 3.759615 -3.738845 0.662329	O 3.763214 -3.734899 0.661363
H 1.324606 1.172264 2.318298	H 1.314472 1.110249 2.298177
O 1.261168 -3.566579 -0.626192	O 1.264592 -3.564681 -0.627090
O -5.782459 -2.360597 1.013265	O -5.780042 -2.364941 1.012621
H 0.292971 3.898884 -2.363561	H 0.289898 3.900095 -2.363777
H 0.005629 6.347081 -2.494671	H 0.000433 6.348054 -2.494665
Si 0.143150 5.165519 -1.591161	Si 0.138997 5.166532 -1.591263
O -5.661563 -0.925938 -1.331429	O -5.657216 -0.928535 -1.330301
O -6.422452 0.382535 0.906163	O -6.422412 0.377645 0.905775
H -7.409510 1.845559 -1.002256	H -7.410775 1.839984 -1.002493
Si -7.043705 1.865927 0.447840	Si -7.044958 1.860541 0.447597
O -5.853980 2.971345 0.743441	O -5.856183 2.966961 0.743272
Si -6.461871 -1.084800 0.145644	Si -6.460576 -1.089655 0.145128
Si -5.200549 -3.821209 0.422981	Si -5.196881 -3.824996 0.422196
H 6.064397 -1.932503 -2.025751	H 6.066375 -1.926323 -2.026605
O -4.882234 -3.489331 -1.209550	O -4.881437 -3.492364 -1.209065
H 4.029429 0.354575 -1.878541	H 4.029432 0.358980 -1.879149
Si 2.777381 0.940639 -1.406103	Si 2.783734 0.952152 -1.407569
H 2.138128 1.808424 -2.450976	H 2.136861 1.811240 -2.451417
O 3.038561 1.796316 0.005935	O 3.030140 1.804446 0.017794
O -3.802144 -4.597973 0.913273	O -3.797793 -4.600593 0.912389
Si -0.187124 -4.218220 -1.165869	Si -0.183148 -4.217528 -1.166794
Si -2.657873 -5.382269 -0.054457	Si -2.652865 -5.383813 -0.055434
H -3.045101 -5.330409 -1.495540	H -3.040168 -5.332161 -1.496504
Si -4.341874 -1.936016 -1.469635	Si -4.338382 -1.940744 -1.476223
H 0.155948 -5.402758 -2.020226	H 0.160932 -5.401693 -2.021264
O -1.127905 -4.751977 0.113301	O -1.123439 -4.752212 0.112348
H -3.622379 -1.847236 -2.747190	H -3.620486 -1.849378 -2.747834
O -3.353181 -1.536197 -0.158239	O -3.354575 -1.540652 -0.151729
H -0.906123 -3.191360 -1.963534	H -0.903051 -3.191220 -1.964354
O 3.714091 4.354084 0.557402	O 3.710684 4.357996 0.557154
O 1.452877 5.368818 -0.607876	O 1.448567 5.370877 -0.607987
Si 3.034719 5.629903 -0.310210	Si 3.030189 5.633304 -0.310330
Si 4.296006 2.893453 -0.032903	Si 4.293850 2.897923 -0.033292
H 4.586230 3.205708 -1.476897	H 4.583773 3.210557 -1.477264
Si 6.922364 -1.849960 -0.802547	Si 6.924296 -1.843147 -0.803411
O 5.694420 2.116747 0.457397	O 5.692947 2.122383 0.456910
Si 6.838643 1.332407 -0.510301	Si 6.837827 1.339120 -0.510882
H 6.516519 1.563016 -1.951382	H 6.515474 1.569577 -1.951935
O 6.853021 -0.303056 -0.186802	O 6.853627 -0.296359 -0.187528
H 8.169861 1.878278 -0.123339	H 8.168581 1.886109 -0.123900
H 3.773807 5.787420 -1.603182	H 3.769114 5.791576 -1.603304
H 3.168906 6.824310 0.568813	H 3.163360 6.827750 0.568796

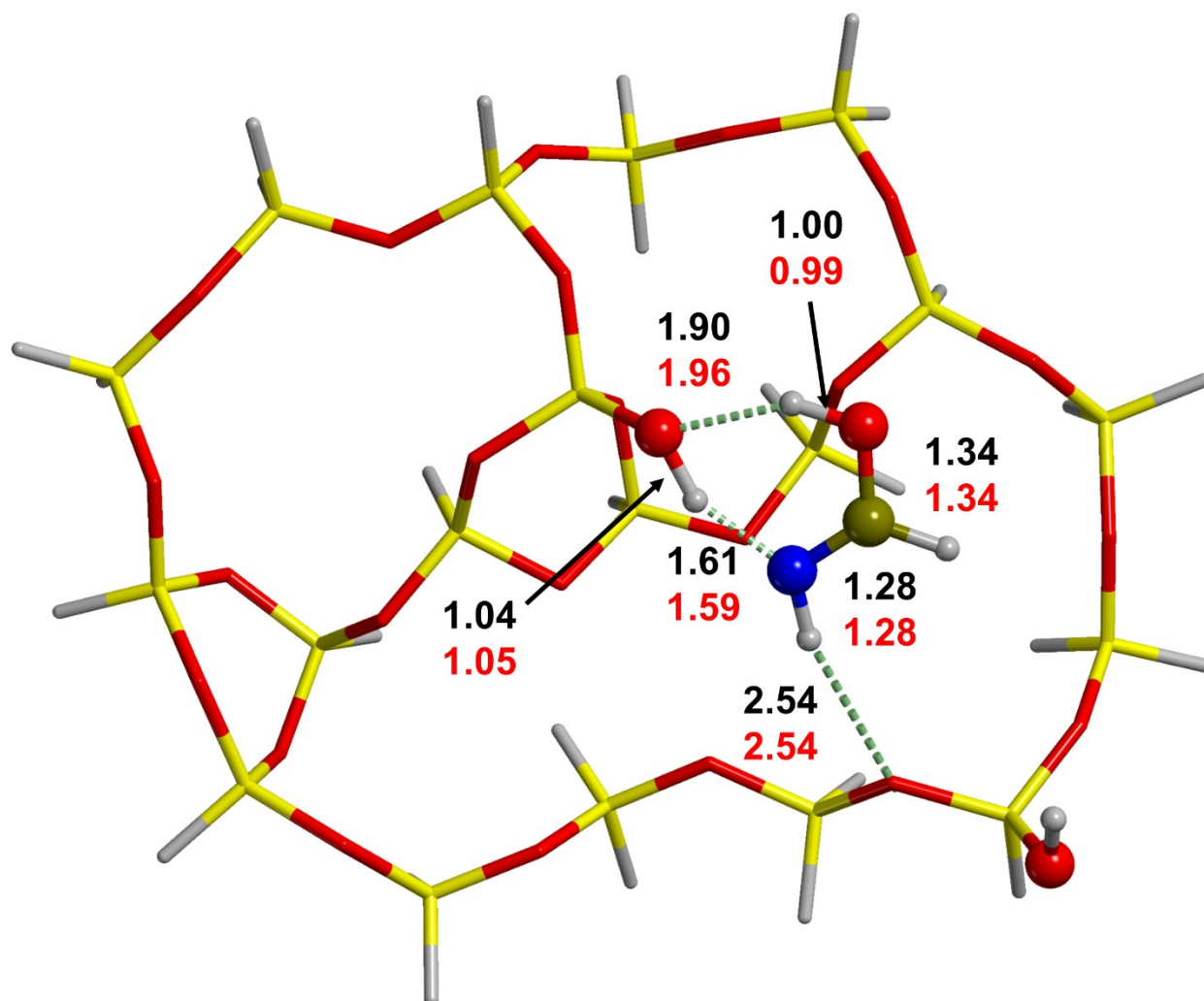
H -5.021068 5.245099 1.468032	H -5.025224 5.241371 1.468047
H -8.214244 2.186425 1.313748	H -8.215756 2.179947 1.313558
H -1.867011 5.519928 1.784930	H -1.871400 5.518902 1.784901
H -6.304366 -4.798783 0.576877	H -6.299847 -4.803539 0.576029
H -2.609670 -6.781222 0.459687	H -2.603439 -6.782769 0.458585
H 2.612329 -5.727508 -0.462105	H 2.617626 -5.724454 -0.463223
H 8.349912 -2.174268 -1.093358	H 8.352118 -2.166195 -1.094280
H -7.878460 -1.436161 -0.136129	H -7.876868 -1.442217 -0.136647
H 5.602112 -5.322508 -0.168833	H 5.607064 -5.316894 -0.169978



Gas phase coordinates	PCM coordinates
80	80
SiL_TS1_G	SiL_TS1_F
Si 5.368792 -4.203046 0.753449	Si 5.359582 -4.214068 0.752725
O 5.640765 -4.576352 2.351595	O 5.584443 -4.580904 2.364139
H 6.541382 -4.408028 2.669274	H 6.510935 -4.676307 2.641942
O 6.390914 -2.975234 0.321710	O 6.383481 -2.988255 0.319521
C 3.109488 -0.201932 2.486721	C 3.185442 -0.139446 2.482590
H 4.111067 -0.623724 2.632354	H 4.190683 -0.553625 2.614262
N 2.133735 -0.844804 1.938201	N 2.203731 -0.776824 1.946969
H 1.105081 -0.072694 1.854602	H 1.131591 0.005737 1.872661
H 2.328252 -1.786751 1.597148	H 2.416196 -1.714790 1.601998

O 2.979764 1.036727 2.918734	O 3.057521 1.103932 2.928324
Si -2.298426 -0.251261 -0.294234	Si -2.299081 -0.256136 -0.303769
O -0.072576 1.538970 -0.636176	O -0.079727 1.530826 -0.631800
H -2.761803 0.556297 -1.465187	H -2.764364 0.556654 -1.465832
Si -4.786199 4.200282 0.415562	Si -4.781964 4.205407 0.412975
O -3.205935 3.746558 0.462064	O -3.202414 3.749163 0.459086
Si -1.750518 4.464433 0.741545	Si -1.745705 4.464904 0.737303
H -5.090728 4.717399 -0.956492	H -5.086311 4.721923 -0.959345
O -2.017679 0.737653 1.009166	O -2.025528 0.728963 1.017073
Si -0.557840 1.624510 1.001105	Si -0.562107 1.617489 0.993874
O -1.195077 5.119731 -0.663717	O -1.189876 5.118184 -0.668745
O -0.777986 3.237601 1.308281	O -0.778544 3.230687 1.316346
H 3.467718 -3.896865 -1.848105	H 3.457764 -3.906883 -1.848166
Si 2.766230 -4.254652 -0.572978	Si 2.756306 -4.262519 -0.572421
O 0.521739 0.979144 2.024461	O 0.502882 0.988656 2.052207
O 1.776435 -0.377473 -1.131557	O 1.774067 -0.377469 -1.117427
Si 0.192284 0.062949 -1.385265	Si 0.195965 0.053243 -1.391575
O -0.844095 -1.020035 -0.677202	O -0.840017 -1.020234 -0.660360
H -0.088904 0.140411 -2.825918	H -0.092790 0.135362 -2.827505
O 3.757386 -3.752457 0.668658	O 3.748866 -3.760940 0.668343
H 2.036502 1.340497 2.670958	H 2.126348 1.411509 2.697234
O 1.260862 -3.574957 -0.622879	O 1.252016 -3.580430 -0.622148
O -5.781385 -2.348500 1.007285	O -5.787459 -2.341284 1.010391
H 0.314463 3.891158 -2.369427	H 0.316861 3.885814 -2.374194
H 0.033773 6.339967 -2.503513	H 0.040068 6.334967 -2.510098
Si 0.167133 5.159026 -1.598569	Si 0.171950 5.154532 -1.604277
O -5.653280 -0.916673 -1.337909	O -5.653379 -0.908967 -1.333563
O -6.413968 0.396203 0.896487	O -6.415655 0.404350 0.897707
H -7.394979 1.859771 -1.014631	H -7.395209 1.867981 -1.014110
Si -7.030762 1.880742 0.435856	Si -7.030265 1.889518 0.436185
O -5.838439 2.983318 0.731609	O -5.836021 2.990399 0.730492
Si -6.456426 -1.071847 0.137515	Si -6.460849 -1.064233 0.139924
Si -5.202691 -3.811291 0.419245	Si -5.211412 -3.805477 0.423240
H 6.069993 -1.955159 -2.018762	H 6.063094 -1.969526 -2.021609
O -4.878248 -3.479708 -1.211567	O -4.888545 -3.474090 -1.206381
H 4.040941 0.337473 -1.876334	H 4.037821 0.326497 -1.880043
Si 2.788341 0.925965 -1.406228	Si 2.793364 0.922611 -1.412228
H 2.154159 1.795715 -2.452485	H 2.153125 1.787332 -2.456459
O 3.061826 1.772005 0.015706	O 3.050886 1.773261 0.015294
O -3.806908 -4.591233 0.911960	O -3.816658 -4.587283 0.915913
Si -0.188545 -4.223337 -1.163491	Si -0.198696 -4.226895 -1.161554
Si -2.663632 -5.379614 -0.053622	Si -2.675120 -5.378282 -0.049585
H -3.049090 -5.328292 -1.495199	H -3.061182 -5.327484 -1.491018
Si -4.332538 -1.926999 -1.471296	Si -4.335941 -1.924876 -1.473867
H 0.152346 -5.409708 -2.016177	H 0.139868 -5.414494 -2.013454
O -1.132186 -4.753205 0.115188	O -1.142582 -4.754216 0.117997
H -3.615699 -1.844958 -2.751273	H -3.622756 -1.844240 -2.749598
O -3.345220 -1.526870 -0.160438	O -3.351042 -1.525079 -0.151689
H -0.903910 -3.195437 -1.963083	H -0.912779 -3.198476 -1.961622
O 3.733476 4.340447 0.554919	O 3.737991 4.331898 0.548164
O 1.476284 5.359914 -0.614020	O 1.481894 5.354085 -0.620512
Si 3.058476 5.617122 -0.314843	Si 3.064643 5.608971 -0.322292

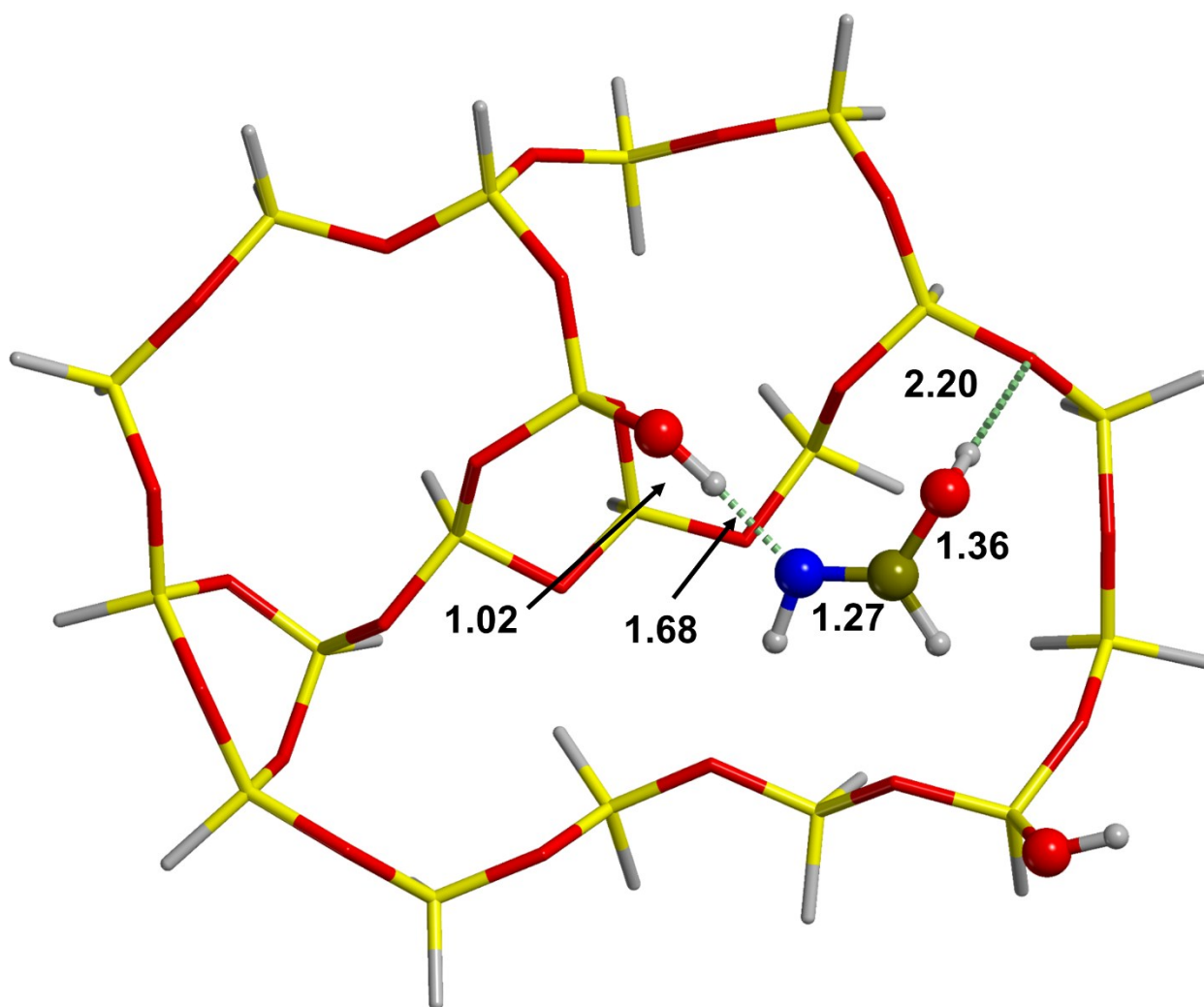
Si 4.312177 2.877635 -0.033145	Si 4.314045 2.867685 -0.039008
H 4.604861 3.187551 -1.477145	H 4.606541 3.175976 -1.483395
Si 6.926793 -1.873566 -0.794675	Si 6.920609 -1.888345 -0.797996
O 5.707967 2.097752 0.459581	O 5.708806 2.085937 0.453674
Si 6.851195 1.309325 -0.505970	Si 6.850298 1.294894 -0.511792
H 6.531315 1.539226 -1.947665	H 6.530102 1.524163 -1.953517
O 6.860864 -0.325817 -0.180684	O 6.857476 -0.340003 -0.185208
H 8.183421 1.852083 -0.118090	H 8.183583 1.835803 -0.124978
H 3.799442 5.771272 -1.607148	H 3.805240 5.760893 -1.615073
H 3.194841 6.812123 0.563037	H 3.203359 6.804448 0.554570
H -5.000310 5.255637 1.454682	H -4.993872 5.261933 1.451355
H -8.201423 2.205287 1.300089	H -8.199989 2.216644 1.300716
H -1.845895 5.522435 1.774856	H -1.838878 5.523883 1.769815
H -6.309274 -4.785764 0.572947	H -6.319497 -4.778036 0.578247
H -2.619725 -6.778131 0.462091	H -2.633229 -6.776457 0.467221
H 2.606093 -5.739286 -0.454921	H 2.593824 -5.746798 -0.453105
H 8.353803 -2.201980 -1.083517	H 8.346948 -2.219297 -1.087255
H -7.873624 -1.419750 -0.145485	H -7.878743 -1.410069 -0.142124
H 5.596607 -5.341908 -0.158699	H 5.585118 -5.354022 -0.158623



Gas phase coordinates	PCM coordinates
-----------------------	-----------------

80	80
SiL_M2_G	SiL_M2_F
Si 5.356459 -4.209089 0.756170	Si 5.359341 -4.205738 0.746996
O 5.716756 -4.715974 2.295661	O 5.585964 -4.573395 2.357959
H 5.677385 -4.057813 3.006706	H 6.512954 -4.661849 2.636359
O 6.379426 -2.982801 0.322113	O 6.381743 -2.978644 0.313893
C 3.291810 -0.134211 2.407828	C 3.273854 -0.228995 2.449157
H 4.326630 -0.499602 2.466706	H 4.281218 -0.654165 2.539575
N 2.294522 -0.796767 1.951448	N 2.253526 -0.838653 1.971033
H 0.992666 0.148049 1.925565	H 1.000323 0.142285 1.917699
H 2.539480 -1.730618 1.612888	H 2.474261 -1.782900 1.642494
O 3.188098 1.115797 2.867438	O 3.218912 1.030503 2.901824
Si -2.305507 -0.261999 -0.297526	Si -2.303133 -0.262367 -0.307281
O -0.055929 1.516288 -0.617691	O -0.069159 1.523069 -0.620187
H -2.771273 0.555362 -1.461992	H -2.770770 0.558383 -1.463145
Si -4.790675 4.203627 0.415829	Si -4.790718 4.203952 0.419317
O -3.210813 3.748433 0.461656	O -3.210688 3.749237 0.464090
Si -1.754486 4.465245 0.739111	Si -1.754500 4.466235 0.741796
H -5.095779 4.719341 -0.956625	H -5.096483 4.721040 -0.952474
O -2.012752 0.721999 1.013235	O -2.022458 0.719647 1.018914
Si -0.575341 1.628655 0.994094	Si -0.579798 1.625709 0.986271
O -1.199513 5.118268 -0.667395	O -1.200247 5.120955 -0.664204
O -0.785511 3.234844 1.306389	O -0.786291 3.230946 1.319766
H 3.453643 -3.904290 -1.844272	H 3.455496 -3.898779 -1.852438
Si 2.752809 -4.259820 -0.568156	Si 2.755235 -4.255915 -0.576454
O 0.502851 1.052430 2.085030	O 0.490734 1.041193 2.086470
O 1.775428 -0.392690 -1.143433	O 1.774779 -0.377735 -1.127328
Si 0.193550 0.041716 -1.386820	Si 0.196820 0.047165 -1.394092
O -0.853289 -1.029781 -0.679409	O -0.842399 -1.021808 -0.662577
H -0.099845 0.135212 -2.824298	H -0.099688 0.140587 -2.826854
O 3.745422 -3.757048 0.672083	O 3.748122 -3.754145 0.663970
H 2.254012 1.425543 2.711090	H 2.310314 1.386745 2.716074
O 1.248059 -3.578733 -0.617721	O 1.250241 -3.575276 -0.624751
O -5.791721 -2.343455 1.016434	O -5.789367 -2.344104 1.013239
H 0.307504 3.886128 -2.372764	H 0.306571 3.891153 -2.371434
H 0.029073 6.335039 -2.509661	H 0.027276 6.340116 -2.505598
Si 0.162002 5.155089 -1.603361	Si 0.160921 5.159237 -1.600615
O -5.662857 -0.913150 -1.330359	O -5.657904 -0.910146 -1.329856
O -6.421741 0.401719 0.902735	O -6.420342 0.400980 0.902716
H -7.402834 1.863871 -1.009425	H -7.402605 1.864859 -1.007521
Si -7.037458 1.886282 0.440750	Si -7.036720 1.885833 0.442545
O -5.843841 2.988071 0.734205	O -5.843365 2.987704 0.736760
Si -6.466208 -1.067226 0.145613	Si -6.464591 -1.067165 0.144031
Si -5.214900 -3.807529 0.429751	Si -5.212268 -3.807355 0.424777
H 6.057658 -1.965311 -2.019367	H 6.058801 -1.958745 -2.026376
O -4.894913 -3.479658 -1.203219	O -4.892829 -3.476235 -1.205778
H 4.030934 0.329455 -1.878189	H 4.031362 0.335192 -1.882009
Si 2.781404 0.918944 -1.410946	Si 2.787924 0.929960 -1.413683
H 2.145109 1.788805 -2.454670	H 2.144847 1.794532 -2.456249
O 3.045052 1.777250 0.003155	O 3.041019 1.782611 0.012493
O -3.819486 -4.588210 0.922341	O -3.816418 -4.588100 0.916029
Si -0.202396 -4.226379 -1.156396	Si -0.200191 -4.222828 -1.163606

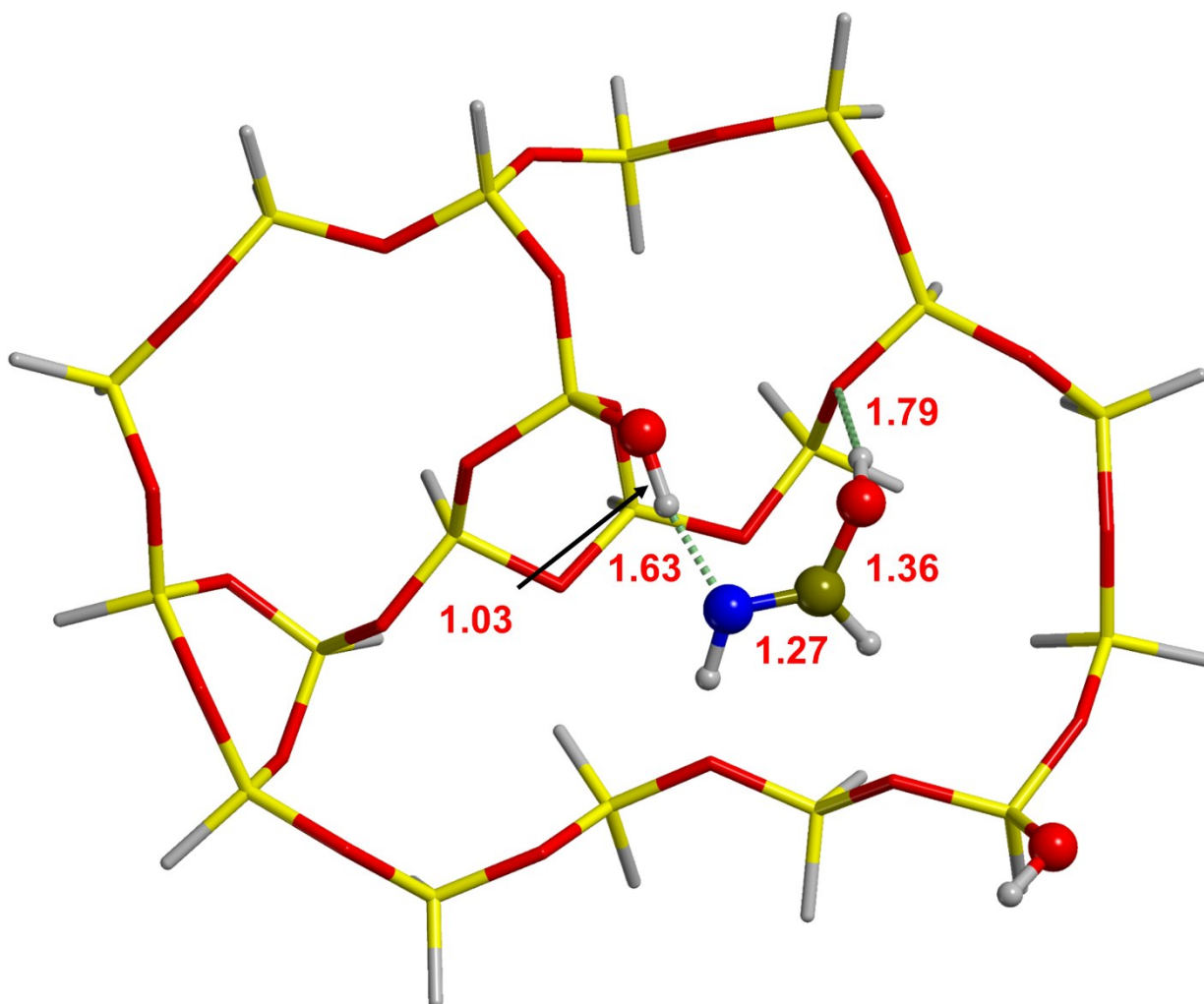
Si -2.677728 -5.378891 -0.043159	Si -2.674741 -5.377361 -0.050727
H -3.064267 -5.328979 -1.484497	H -3.061811 -5.326028 -1.491872
Si -4.348009 -1.929788 -1.466651	Si -4.342494 -1.927159 -1.473921
H 0.136681 -5.414134 -2.007878	H 0.138978 -5.409553 -2.016485
O -1.145546 -4.753752 0.123676	O -1.142708 -4.751891 0.116235
H -3.628495 -1.846655 -2.744436	H -3.627649 -1.842541 -2.747866
O -3.355978 -1.530013 -0.156919	O -3.354374 -1.528819 -0.152079
H -0.917395 -3.198780 -1.956698	H -0.915817 -3.194606 -1.962548
O 3.729237 4.335726 0.548348	O 3.729197 4.338752 0.548941
O 1.472116 5.355929 -0.620085	O 1.471320 5.359458 -0.617591
Si 3.054789 5.611977 -0.322465	Si 3.054014 5.615714 -0.320260
Si 4.306065 2.871632 -0.038358	Si 4.306303 2.875481 -0.039545
H 4.597917 3.179478 -1.482969	H 4.597537 3.184977 -1.483928
Si 6.915495 -1.883034 -0.796054	Si 6.917047 -1.877497 -0.803281
O 5.701487 2.091009 0.454241	O 5.702161 2.094795 0.451717
Si 6.843197 1.300285 -0.511228	Si 6.843790 1.305490 -0.515008
H 6.522409 1.528710 -1.952955	H 6.522412 1.535357 -1.956374
O 6.851541 -0.334463 -0.183927	O 6.852795 -0.329606 -0.189467
H 8.176249 1.842231 -0.125063	H 8.176799 1.847467 -0.128735
H 3.794892 5.763814 -1.615539	H 3.793604 5.769187 -1.613433
H 3.192996 6.807931 0.553829	H 3.192135 6.810770 0.557270
H -5.002953 5.260471 1.453809	H -5.002977 5.259610 1.458507
H -8.207130 2.213028 1.305496	H -8.206192 2.211258 1.308060
H -1.848032 5.524616 1.771186	H -1.848031 5.524465 1.775043
H -6.322302 -4.780742 0.585525	H -6.319291 -4.781104 0.579899
H -2.634768 -6.776810 0.474248	H -2.631131 -6.775822 0.465162
H 2.591330 -5.744152 -0.448137	H 2.594294 -5.740428 -0.457974
H 8.341959 -2.213184 -1.085604	H 8.343518 -2.206858 -1.093695
H -7.883963 -1.414110 -0.135847	H -7.882331 -1.414218 -0.137296
H 5.582458 -5.349298 -0.154746	H 5.585394 -5.344892 -0.165225



Gas phase coordinates	PCM coordinates
80	
SiL_TS2_G	
Si 5.370420 -4.136053 0.726745	
O 5.655490 -4.505833 2.322416	
H 6.530500 -4.258738 2.659487	
O 6.379724 -2.896585 0.298097	
C 3.613942 -0.799602 2.152156	
H 4.221893 -1.717698 2.121806	
N 2.379953 -0.775305 1.847891	
H 1.217245 0.427100 1.981775	
H 2.062464 -1.705934 1.549497	
O 4.270854 0.299807 2.614932	
Si -2.326628 -0.247957 -0.276706	
O -0.059232 1.536166 -0.587475	
H -2.810803 0.558288 -1.443985	
Si -4.863451 4.173715 0.461110	
O -3.278895 3.734554 0.500667	
Si -1.829367 4.464457 0.779527	
H -5.176884 4.694854 -0.907407	
O -2.024134 0.731400 1.028378	
Si -0.576705 1.639257 1.034908	

O -1.284290 5.132093 -0.624053	
O -0.844251 3.245080 1.321093	
H 3.458810 -3.834546 -1.867691	
Si 2.764455 -4.205271 -0.592326	
O 0.475999 1.105460 2.142754	
O 1.752724 -0.360640 -1.157170	
Si 0.162038 0.073356 -1.376994	
O -0.874257 -1.012391 -0.679704	
H -0.138208 0.174241 -2.814643	
O 3.754674 -3.699903 0.648724	
H 4.644021 0.823674 1.877557	
O 1.252722 -3.539389 -0.634407	
O -5.795767 -2.386968 1.022642	
H 0.231534 3.926236 -2.340384	
H -0.072370 6.372960 -2.461266	
Si 0.074693 5.188784 -1.562700	
O -5.686225 -0.941083 -1.314612	
O -6.454240 0.352230 0.927583	
H -7.454555 1.816164 -0.973220	
Si -7.086217 1.833241 0.476278	
O -5.903350 2.945402 0.774097	
Si -6.485275 -1.112319 0.161321	
Si -5.205218 -3.841320 0.425504	
H 6.042333 -1.867771 -2.036192	
O -4.883835 -3.495513 -1.202818	
H 3.992432 0.405064 -1.876220	
Si 2.735398 0.970684 -1.399416	
H 2.090426 1.848503 -2.439437	
O 3.033539 1.796509 0.035605	
O -3.800762 -4.610660 0.910175	
Si -0.192202 -4.198571 -1.174018	
Si -2.653079 -5.383471 -0.062736	
H -3.043301 -5.328497 -1.502897	
Si -4.354775 -1.935866 -1.455098	
H 0.157185 -5.377396 -2.033699	
O -1.127040 -4.743651 0.104733	
H -3.646109 -1.844338 -2.739666	
O -3.368054 -1.528148 -0.144633	
H -0.919501 -3.173380 -1.966286	
O 3.654929 4.392719 0.576132	
O 1.384848 5.396933 -0.580999	
Si 2.965461 5.667394 -0.285178	
Si 4.245481 2.938344 -0.021021	
H 4.530952 3.258245 -1.464288	
Si 6.901996 -1.784352 -0.814240	
O 5.649949 2.169070 0.463651	
Si 6.797586 1.396217 -0.509229	
H 6.471272 1.630364 -1.948797	
O 6.823471 -0.240377 -0.192238	
H 8.125848 1.949429 -0.122531	
H 3.701096 5.834952 -1.578858	
H 3.093300 6.859187 0.598330	

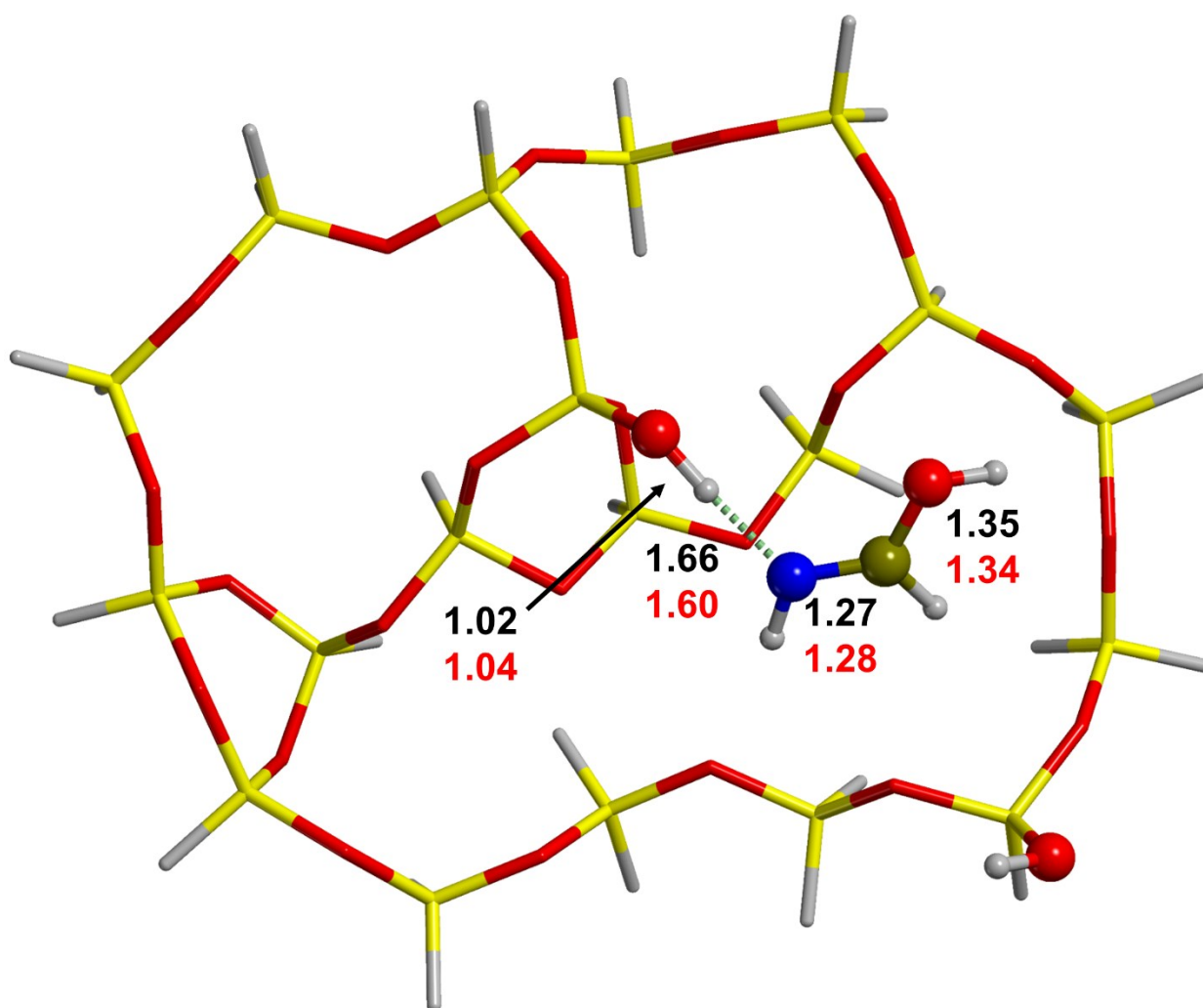
H	-5.084285	5.221783	1.506180
H	-8.257269	2.142490	1.345578
H	-1.931559	5.516428	1.818421
H	-6.302209	-4.826838	0.577541
H	-2.594594	-6.784089	0.445765
H	2.618532	-5.691919	-0.481339
H	8.331125	-2.097954	-1.108933
H	-7.900006	-1.472012	-0.119262
H	5.606098	-5.268134	-0.191911



Gas phase coordinates	PCM coordinates
	80
	SiL_TS2_F
	Si 5.429915 -4.111902 0.760133
	O 5.812113 -4.433514 2.351327
	H 5.185925 -5.015476 2.814073
	O 6.440558 -2.869550 0.343147
	C 2.719706 -1.016762 1.946778
	H 3.413351 -1.736793 1.492064
	N 1.485292 -1.256546 2.154985
	H 0.655495 0.139233 2.278190
	H 1.221879 -2.192559 1.826362

	O 3.254118 0.173057 2.328501
	Si -2.291011 -0.259248 -0.316231
	O -0.045086 1.535310 -0.525850
	H -2.741315 0.574282 -1.465174
	Si -4.815830 4.181013 0.432707
	O -3.230893 3.744460 0.484115
	Si -1.784976 4.476087 0.776859
	H -5.118903 4.705319 -0.936934
	O -2.069378 0.719208 1.017699
	Si -0.633915 1.635610 1.061773
	O -1.229536 5.148456 -0.620385
	O -0.819556 3.251961 1.352373
	H 3.539183 -3.806641 -1.849121
	Si 2.835008 -4.182010 -0.580516
	O 0.321056 1.109407 2.274064
	O 1.807551 -0.314920 -1.096243
	Si 0.217661 0.095553 -1.362684
	O -0.815967 -0.997824 -0.662490
	H -0.056878 0.198530 -2.814827
	O 3.814110 -3.678312 0.669996
	H 3.300104 0.772419 1.538967
	O 1.322520 -3.518607 -0.633239
	O -5.741346 -2.382756 0.968861
	H 0.302442 3.949854 -2.327429
	H -0.004704 6.396371 -2.444212
	Si 0.137020 5.210019 -1.547662
	O -5.618543 -0.932763 -1.366596
	O -6.403768 0.355558 0.875772
	H -7.390957 1.822921 -1.029244
	Si -7.034581 1.836701 0.423277
	O -5.856135 2.950075 0.733814
	Si -6.425960 -1.106960 0.105335
	Si -5.143384 -3.834471 0.372684
	H 6.120588 -1.834994 -1.991057
	O -4.827582 -3.494028 -1.257357
	H 4.065499 0.433885 -1.841831
	Si 2.806693 0.996375 -1.388427
	H 2.165688 1.875584 -2.416785
	O 3.074981 1.804836 0.087614
	O -3.741629 -4.602714 0.866818
	Si -0.116773 -4.178799 -1.186495
	Si -2.584644 -5.370919 -0.098696
	H -2.963105 -5.312712 -1.541865
	Si -4.294257 -1.937514 -1.513573
	H 0.241717 -5.354689 -2.046446
	O -1.061147 -4.728942 0.083048
	H -3.561769 -1.826250 -2.774156
	O -3.321115 -1.543111 -0.181490
	H -0.839310 -3.152711 -1.981954
	O 3.700923 4.414295 0.618401
	O 1.438694 5.417751 -0.554656
	Si 3.016351 5.690116 -0.245112

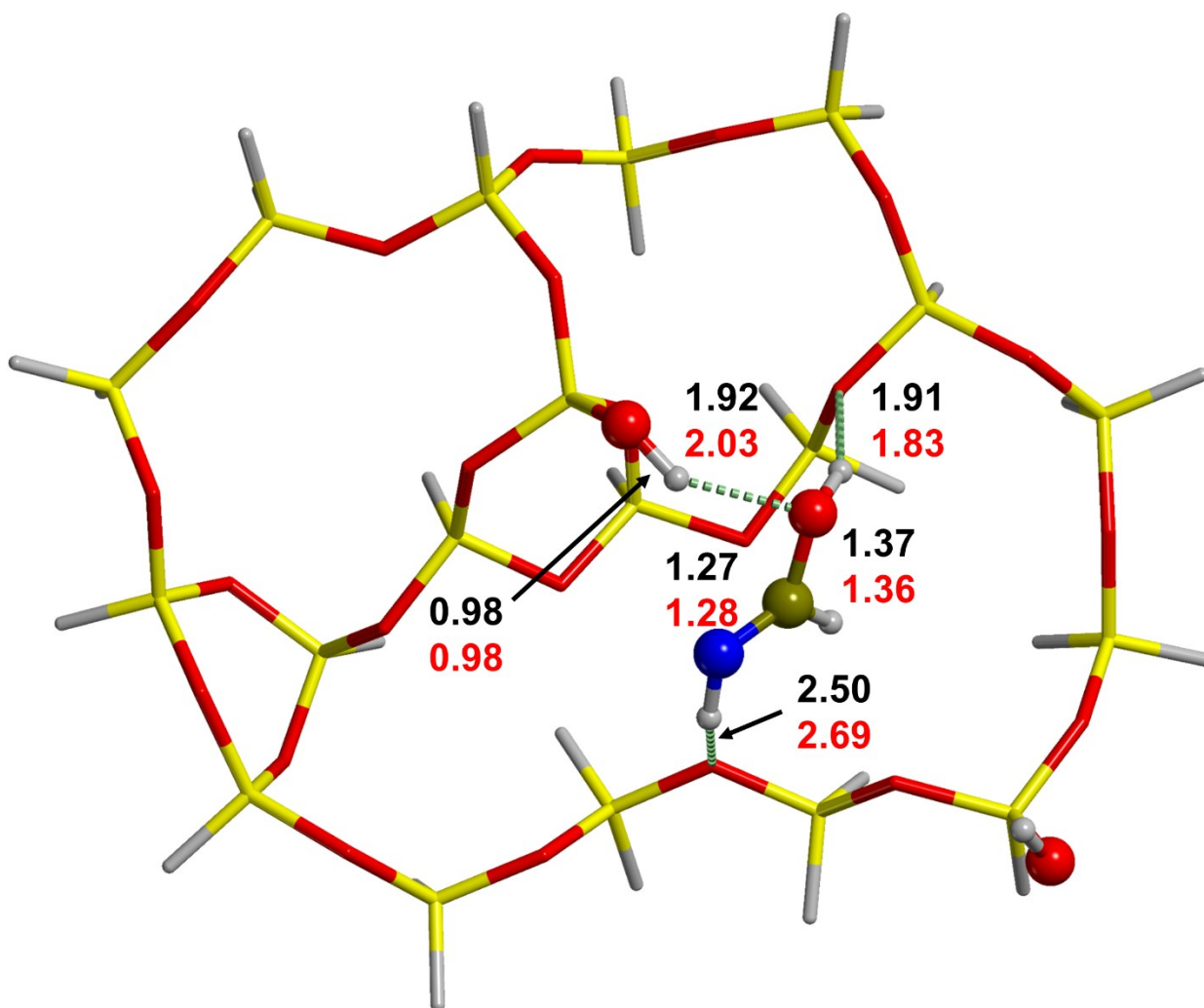
	Si 4.298887 2.962557 0.022210
	H 4.595662 3.286857 -1.417792
	Si 6.970026 -1.753414 -0.761853
	O 5.700656 2.194379 0.516346
	Si 6.857594 1.426134 -0.449139
	H 6.542723 1.663621 -1.890707
	O 6.883710 -0.211267 -0.136359
	H 8.181669 1.980570 -0.050035
	H 3.762306 5.862440 -1.532240
	H 3.134852 6.879728 0.642626
	H -5.047069 5.225864 1.478745
	H -8.213277 2.141587 1.283742
	H -1.897533 5.525062 1.817708
	H -6.239876 -4.822275 0.513033
	H -2.527913 -6.772808 0.406491
	H 2.690757 -5.669201 -0.474741
	H 8.402074 -2.063768 -1.045622
	H -7.837709 -1.468315 -0.187847
	H 5.675102 -5.241084 -0.159600



Gas phase coordinates	PCM coordinates
80	80

SiL_M3_G	SiL_M3_F
Si 5.361270 -4.159811 0.753959	Si 5.371521 -4.151068 0.752164
O 5.702978 -4.544044 2.334591	O 5.598102 -4.519320 2.362437
H 4.929534 -4.604363 2.916745	H 6.524997 -4.610130 2.640733
O 6.376594 -2.924994 0.326038	O 6.385204 -2.914690 0.324931
C 3.532735 -0.600337 1.849337	C 3.453485 -0.629668 1.863594
H 4.258402 -1.237928 1.319148	H 4.174686 -1.269451 1.336345
N 2.277574 -0.812876 1.871483	N 2.193136 -0.832805 1.871218
H 1.121564 0.354577 2.094908	H 1.092243 0.312294 2.061776
H 2.037906 -1.649359 1.331341	H 1.955909 -1.656649 1.310548
O 4.053631 0.450144 2.513317	O 3.966898 0.413445 2.539500
Si -2.319900 -0.247082 -0.279207	Si -2.316618 -0.256505 -0.291864
O -0.041378 1.520624 -0.563151	O -0.067720 1.527125 -0.565729
H -2.795483 0.562799 -1.447282	H -2.791424 0.561153 -1.448426
Si -4.839276 4.189379 0.446109	Si -4.840511 4.184138 0.446119
O -3.256563 3.744106 0.490795	O -3.257192 3.741032 0.490873
Si -1.804974 4.468809 0.772473	Si -1.806649 4.467626 0.773073
H -5.146873 4.709453 -0.924134	H -5.148614 4.704344 -0.923963
O -2.028032 0.730231 1.027930	O -2.046252 0.719746 1.036613
Si -0.577285 1.633361 1.054506	Si -0.597705 1.627724 1.039370
O -1.253402 5.131976 -0.630686	O -1.255776 5.132121 -0.629734
O -0.831312 3.244624 1.321166	O -0.835637 3.238809 1.343083
H 3.458073 -3.855156 -1.846290	H 3.468291 -3.848004 -1.848244
Si 2.758741 -4.221040 -0.572250	Si 2.769267 -4.215374 -0.574461
O 0.441625 1.108026 2.196340	O 0.422609 1.093334 2.192421
O 1.765443 -0.374482 -1.150727	O 1.766646 -0.354248 -1.126950
Si 0.174850 0.066654 -1.367812	Si 0.182273 0.068974 -1.373630
O -0.868181 -1.017953 -0.676504	O -0.853711 -1.011131 -0.654688
H -0.120623 0.166048 -2.809867	H -0.115802 0.168648 -2.810755
O 3.747475 -3.717475 0.670724	O 3.757117 -3.710946 0.668857
H 4.972807 0.588332 2.215541	H 4.905988 0.525206 2.293749
O 1.249742 -3.549340 -0.619634	O 1.259351 -3.545735 -0.621810
O -5.798759 -2.366674 1.015909	O -5.791032 -2.373464 1.013110
H 0.262454 3.917357 -2.340799	H 0.262023 3.920290 -2.340102
H -0.031555 6.365043 -2.466575	H -0.035346 6.367620 -2.464932
Si 0.108389 5.181801 -1.565646	Si 0.106092 5.184206 -1.564460
O -5.677891 -0.926323 -1.324052	O -5.668046 -0.929596 -1.324246
O -6.446265 0.374908 0.914484	O -6.442305 0.367264 0.912696
H -7.435578 1.839567 -0.991512	H -7.433344 1.831326 -0.992861
Si -7.071197 1.857621 0.458974	Si -7.069215 1.849296 0.457689
O -5.884827 2.965653 0.758237	O -5.884421 2.958843 0.757587
Si -6.480893 -1.090782 0.150565	Si -6.474792 -1.098164 0.148177
Si -5.212242 -3.824310 0.422821	Si -5.202411 -3.830049 0.419524
H 6.049716 -1.898759 -2.010867	H 6.057256 -1.887963 -2.011621
O -4.887002 -3.484756 -1.206102	O -4.881766 -3.488916 -1.208555
H 4.008269 0.382322 -1.860358	H 4.012640 0.390234 -1.860506
Si 2.751051 0.958465 -1.394335	Si 2.762961 0.971828 -1.396287
H 2.113486 1.832228 -2.431243	H 2.115945 1.837755 -2.431104
O 3.029553 1.801482 0.025733	O 3.014080 1.819241 0.033812
O -3.812153 -4.598316 0.912666	O -3.801329 -4.602319 0.909275
Si -0.196243 -4.203781 -1.162166	Si -0.185646 -4.201951 -1.164833
Si -2.664801 -5.377217 -0.055768	Si -2.652753 -5.379243 -0.059299

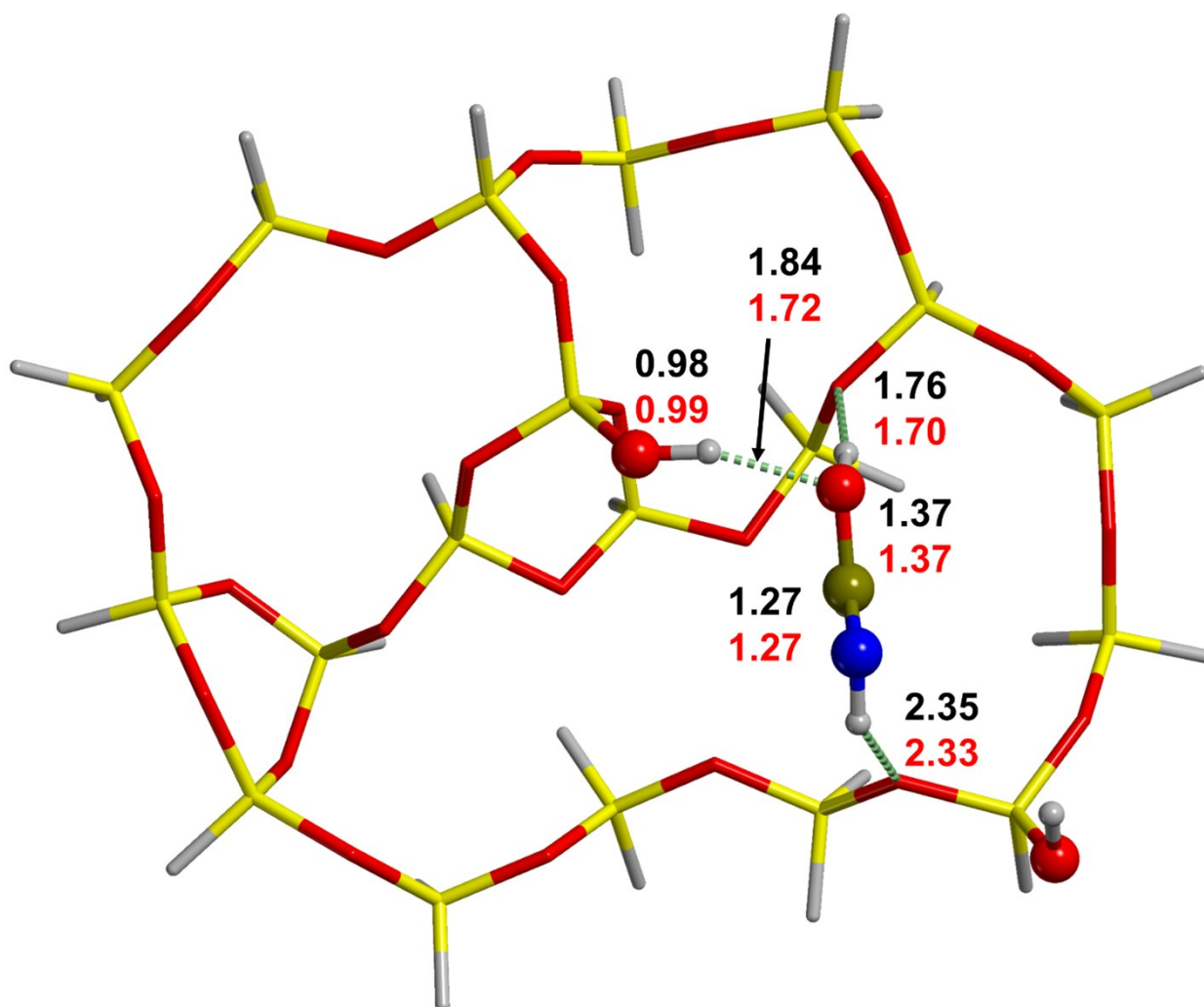
H -3.050810 -5.323122 -1.497098	H -3.038612 -5.325096 -1.500666
Si -4.351091 -1.927549 -1.460345	Si -4.342633 -1.934056 -1.469178
H 0.150920 -5.385390 -2.018921	H 0.163282 -5.382732 -2.022012
O -1.136745 -4.743077 0.114881	O -1.125601 -4.743064 0.111850
H -3.636578 -1.838703 -2.741305	H -3.628993 -1.840985 -2.743551
O -3.364639 -1.524977 -0.149298	O -3.360872 -1.531539 -0.144965
H -0.917333 -3.177081 -1.958149	H -0.908028 -3.175925 -1.960512
O 3.679545 4.375338 0.584444	O 3.678021 4.381804 0.585861
O 1.416620 5.386473 -0.580652	O 1.413885 5.390285 -0.579179
Si 2.997452 5.651258 -0.280885	Si 2.994302 5.657130 -0.279059
Si 4.266062 2.917679 -0.008656	Si 4.266646 2.925195 -0.007737
H 4.556785 3.234060 -1.451651	H 4.557154 3.242563 -1.450561
Si 6.906304 -1.816661 -0.786671	Si 6.913541 -1.805175 -0.787257
O 5.666168 2.143741 0.481190	O 5.667741 2.152992 0.482014
Si 6.813473 1.364798 -0.487214	Si 6.816270 1.376028 -0.486528
H 6.492070 1.597817 -1.928070	H 6.494769 1.609187 -1.927339
O 6.832085 -0.271356 -0.167446	O 6.837092 -0.260228 -0.167419
H 8.142806 1.913467 -0.097741	H 8.144784 1.926374 -0.096625
H 3.737318 5.813791 -1.572792	H 3.734145 5.821209 -1.570784
H 3.127494 6.844015 0.600997	H 3.122561 6.849707 0.603329
H -5.058911 5.240039 1.488825	H -5.061760 5.234071 1.489225
H -8.243439 2.172885 1.324501	H -8.242025 2.162590 1.323162
H -1.905935 5.522901 1.809339	H -1.909229 5.521157 1.810348
H -6.313490 -4.805288 0.573440	H -6.302327 -4.812607 0.569573
H -2.613197 -6.777205 0.455209	H -2.599296 -6.779364 0.451121
H 2.606705 -5.706922 -0.459206	H 2.619267 -5.701509 -0.462044
H 8.335011 -2.136325 -1.076869	H 8.342732 -2.122751 -1.077363
H -7.896233 -1.445421 -0.133354	H -7.889599 -1.454641 -0.136107
H 5.595123 -5.294305 -0.162184	H 5.607032 -5.284894 -0.164380



Gas phase coordinates	PCM coordinates
80	80
SiL_TS3_G	SiL_TS3_F
Si 5.456655 -4.087672 0.772331	Si 5.450013 -4.085839 0.760835
O 5.781755 -4.586743 2.321381	O 5.795556 -4.605584 2.293199
H 5.331167 -4.105434 3.033473	H 5.462494 -4.043136 3.016023
O 6.465258 -2.842356 0.359389	O 6.455833 -2.838631 0.346818
C 2.309369 -1.148179 1.724640	C 2.660873 -1.054246 1.832477
H 2.936957 -1.434010 0.870529	H 3.411964 -1.385443 1.097644
N 1.359848 -1.815741 2.232700	N 1.694185 -1.751015 2.298871
H 0.787658 0.524156 2.662294	H 0.785036 0.393709 2.429030
H 1.244068 -2.699526 1.726797	H 1.739115 -2.692478 1.888599
O 2.615302 0.062364 2.278494	O 2.801683 0.217719 2.286768
Si -2.268331 -0.247589 -0.328156	Si -2.268643 -0.260701 -0.342315
O 0.171602 1.495171 -0.242605	O 0.050825 1.547091 -0.369670
H -2.719440 0.572739 -1.488708	H -2.738115 0.564874 -1.476503
Si -4.813023 4.173601 0.399341	Si -4.832573 4.160755 0.420048
O -3.226982 3.741918 0.457573	O -3.245771 3.731337 0.474163
Si -1.784609 4.478178 0.756175	Si -1.803787 4.469407 0.770164
H -5.111916 4.696599 -0.971720	H -5.135412 4.684700 -0.949785
O -2.035913 0.707089 1.008613	O -2.063382 0.693519 1.009087
Si -0.637536 1.641793 1.232403	Si -0.662455 1.636339 1.141398

O -1.225305 5.151741 -0.638882	O -1.248709 5.145198 -0.625503
O -0.851118 3.269277 1.371924	O -0.872881 3.250856 1.394076
H 3.576020 -3.788965 -1.844900	H 3.562873 -3.787242 -1.851721
Si 2.867695 -4.166150 -0.579179	Si 2.858041 -4.166743 -0.584744
O 0.120169 1.238763 2.615315	O 0.192015 1.175454 2.452858
O 1.837212 -0.319161 -1.208910	O 1.809595 -0.294182 -1.152445
Si 0.257341 0.204414 -1.297512	Si 0.236453 0.199669 -1.343710
O -0.799727 -0.949044 -0.774058	O -0.796635 -0.948088 -0.753080
H -0.053527 0.654346 -2.679819	H -0.055978 0.554029 -2.749323
O 3.839876 -3.659288 0.675492	O 3.832389 -3.659726 0.668182
H 3.028488 0.639290 1.596780	H 3.190082 0.771850 1.567037
O 1.353364 -3.507438 -0.638435	O 1.342614 -3.510191 -0.639819
O -5.720644 -2.392829 0.933487	O -5.729348 -2.407533 0.949639
H 0.317542 3.957401 -2.339096	H 0.291932 3.954838 -2.330501
H 0.003381 6.402931 -2.457880	H -0.026079 6.400024 -2.446076
Si 0.144963 5.217263 -1.560397	Si 0.119319 5.213658 -1.550127
O -5.585808 -0.941177 -1.397973	O -5.593347 -0.952453 -1.371529
O -6.391069 0.343412 0.836806	O -6.403996 0.327819 0.857288
H -7.374704 1.807210 -1.072787	H -7.394201 1.792104 -1.048532
Si -7.024509 1.822488 0.381222	Si -7.040654 1.806425 0.404675
O -5.850808 2.939560 0.696408	O -5.867860 2.924896 0.718270
Si -6.405517 -1.119379 0.066712	Si -6.418093 -1.134213 0.085747
Si -5.115716 -3.842865 0.340270	Si -5.123679 -3.856082 0.353550
H 6.151953 -1.809461 -1.976493	H 6.135596 -1.803835 -1.987282
O -4.788959 -3.501274 -1.289279	O -4.792411 -3.507162 -1.267298
H 4.089304 0.453139 -1.836596	H 4.069971 0.455598 -1.840306
Si 2.831793 1.012507 -1.396001	Si 2.814671 1.021045 -1.392221
H 2.187515 1.888838 -2.419988	H 2.164735 1.889099 -2.417829
O 3.109159 1.801500 0.079166	O 3.073682 1.825769 0.077619
O -3.713707 -4.606662 0.840533	O -3.719397 -4.618329 0.849785
Si -0.081529 -4.172176 -1.197580	Si -0.092599 -4.176464 -1.196307
Si -2.550299 -5.371574 -0.119866	Si -2.557104 -5.380566 -0.114086
H -2.922841 -5.314934 -1.564638	H -2.933081 -5.323011 -1.557932
Si -4.260956 -1.943147 -1.535532	Si -4.266899 -1.950250 -1.512385
H 0.284199 -5.347207 -2.055659	H 0.272854 -5.350090 -2.056424
O -1.029559 -4.724863 0.068124	O -1.036879 -4.731818 0.071031
H -3.526991 -1.830666 -2.800462	H -3.545193 -1.838384 -2.788817
O -3.276226 -1.549405 -0.218460	O -3.282417 -1.553383 -0.195174
H -0.803849 -3.148544 -1.996392	H -0.818268 -3.153084 -1.992403
O 3.702113 4.433092 0.620923	O 3.682666 4.432494 0.622139
O 1.441788 5.429269 -0.561966	O 1.418147 5.426554 -0.554493
Si 3.017279 5.706567 -0.245842	Si 2.993960 5.705840 -0.241743
Si 4.307045 2.983041 0.027683	Si 4.288339 2.983931 0.026027
H 4.608897 3.307841 -1.411147	H 4.586375 3.310627 -1.413169
Si 6.995931 -1.724914 -0.743729	Si 6.982309 -1.719298 -0.756394
O 5.709063 2.219301 0.527957	O 5.692630 2.221740 0.522273
Si 6.872422 1.454342 -0.432413	Si 6.854874 1.459457 -0.441569
H 6.562914 1.690465 -1.875365	H 6.541672 1.696585 -1.883559
O 6.902246 -0.182883 -0.119056	O 6.887819 -0.178038 -0.129942
H 8.193091 2.012957 -0.027881	H 8.175660 2.019597 -0.039535
H 3.768129 5.880823 -1.529859	H 3.741572 5.882493 -1.527321
H 3.128379 6.896781 0.642042	H 3.105380 6.895318 0.647087

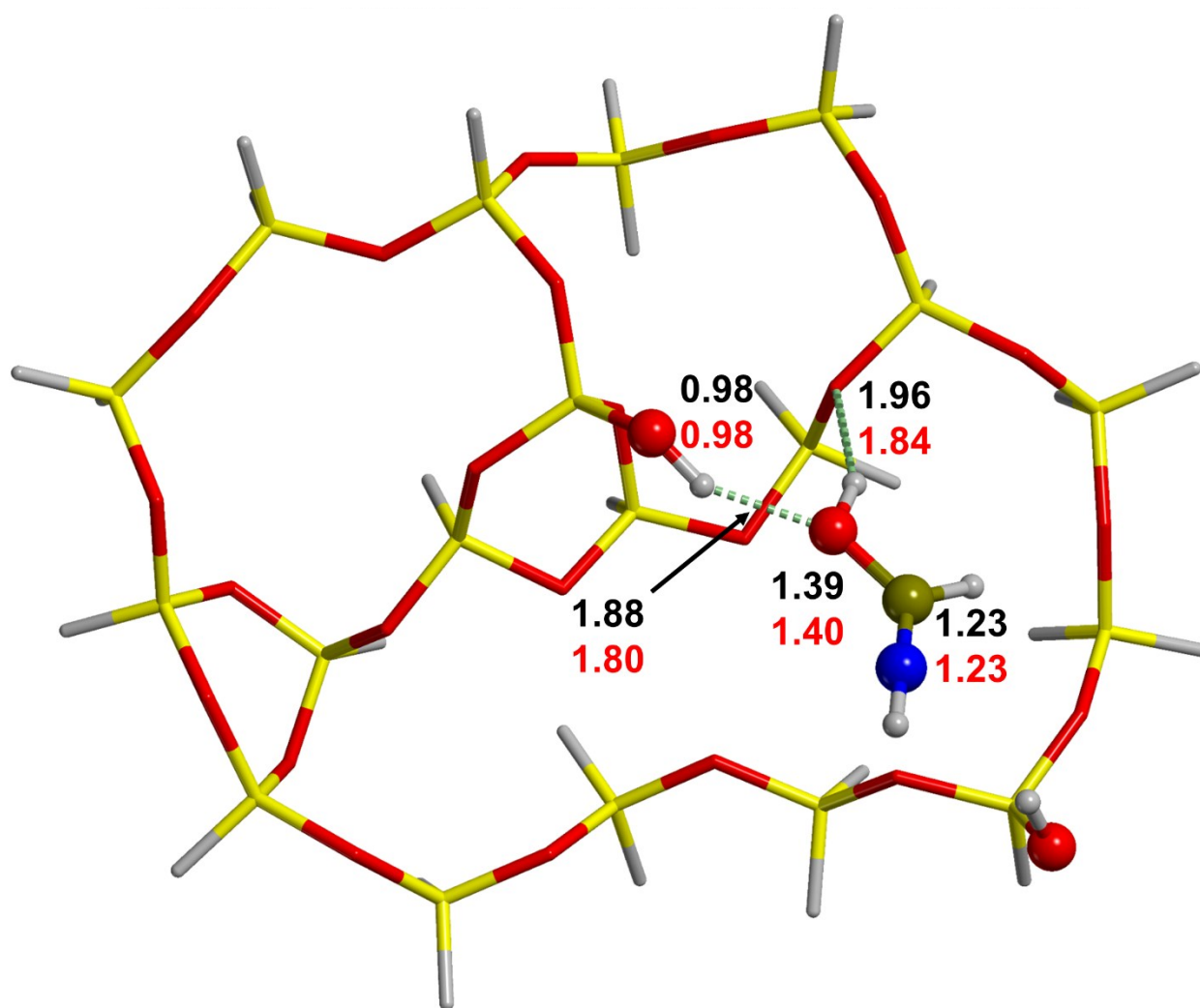
H -5.051884 5.218031 1.444090	H -5.070535 5.203778 1.466407
H -8.207758 2.123991 1.236615	H -8.222354 2.105330 1.263116
H -1.904737 5.526978 1.796264	H -1.923034 5.516978 1.811592
H -6.209749 -4.833996 0.476264	H -6.215943 -4.848951 0.491077
H -2.491399 -6.773145 0.385965	H -2.494981 -6.782559 0.390185
H 2.727552 -5.653738 -0.473549	H 2.720319 -5.654641 -0.480298
H 8.430120 -2.030965 -1.021360	H 8.416296 -2.022968 -1.037662
H -7.814900 -1.485150 -0.232328	H -7.827630 -1.501745 -0.210394
H 5.709175 -5.216374 -0.145923	H 5.702051 -5.213242 -0.159146



Gas phase coordinates	PCM coordinates
80	80
SiL_M4_G	SiL_M4_F
Si 5.447819 -4.063492 0.694811	Si 5.454088 -4.062669 0.710158
O 5.798202 -4.559048 2.238967	O 5.814523 -4.574443 2.253127
H 5.668104 -3.905660 2.946263	H 5.819747 -3.893413 2.947023
O 6.445405 -2.810917 0.277095	O 6.452836 -2.810398 0.294323
C 3.048263 -0.939029 2.113057	C 3.043152 -0.950237 2.071691
H 3.080929 -1.184797 1.037719	H 3.561692 -1.166072 1.125224
N 3.092380 -1.770166 3.067162	N 2.675848 -1.809444 2.930651
H 1.158247 0.895772 2.380227	H 1.133143 0.811670 2.298904
H 3.139135 -2.710097 2.655773	H 2.944178 -2.736989 2.580415

O 2.924801 0.403181 2.367870	O 2.799004 0.375581 2.290395
Si -2.325722 -0.265840 -0.307941	Si -2.317370 -0.269221 -0.321502
O -0.046981 1.548109 -0.535274	O -0.053662 1.542977 -0.515087
H -2.776006 0.562713 -1.460592	H -2.764051 0.564564 -1.464674
Si -4.869324 4.143785 0.465141	Si -4.860930 4.146549 0.455498
O -3.280463 3.720396 0.505068	O -3.272239 3.722868 0.499031
Si -1.838551 4.462967 0.792119	Si -1.830819 4.465236 0.789072
H -5.185155 4.671249 -0.900360	H -5.173628 4.673719 -0.910841
O -2.112393 0.749416 0.987339	O -2.132496 0.739276 0.995527
Si -0.668675 1.623279 1.049957	Si -0.686452 1.620578 1.050912
O -1.297842 5.145887 -0.605667	O -1.286900 5.147688 -0.607675
O -0.844636 3.241379 1.341354	O -0.854004 3.236205 1.362157
H 3.538623 -3.763283 -1.901495	H 3.550705 -3.762766 -1.890455
Si 2.845466 -4.149932 -0.630245	Si 2.854658 -4.148952 -0.620647
O 0.191168 0.865828 2.208368	O 0.148573 0.899700 2.264538
O 1.783355 -0.301867 -1.140697	O 1.791116 -0.291635 -1.111602
Si 0.179922 0.105192 -1.370039	Si 0.195422 0.107195 -1.370510
O -0.849511 -0.991362 -0.689188	O -0.830404 -0.986639 -0.661597
H -0.096888 0.215336 -2.828227	H -0.081977 0.216302 -2.826320
O 3.827852 -3.643421 0.616600	O 3.834378 -3.642305 0.628243
H 3.051777 0.883238 1.513403	H 3.046565 0.891600 1.475430
O 1.327093 -3.499149 -0.670886	O 1.336503 -3.497884 -0.664820
O -5.736132 -2.429800 0.978988	O -5.730148 -2.426732 0.969125
H 0.233751 3.967492 -2.327040	H 0.248289 3.968541 -2.325330
H -0.094697 6.411795 -2.431532	H -0.079449 6.412879 -2.431186
Si 0.062494 5.222948 -1.540903	Si 0.075533 5.224235 -1.539904
O -5.645328 -0.969059 -1.354813	O -5.631428 -0.967739 -1.363086
O -6.422163 0.303177 0.901605	O -6.415478 0.306356 0.889507
H -7.433342 1.770153 -0.991102	H -7.422173 1.773037 -1.005816
Si -7.068206 1.780830 0.459270	Si -7.060248 1.784021 0.445360
O -5.897326 2.902823 0.767364	O -5.889839 2.905864 0.755758
Si -6.436769 -1.156202 0.125098	Si -6.428644 -1.153218 0.113356
Si -5.129635 -3.873889 0.373025	Si -5.122589 -3.871099 0.364881
H 6.102414 -1.769323 -2.050737	H 6.115209 -1.769343 -2.034533
O -4.827728 -3.525043 -1.260644	O -4.819234 -3.524036 -1.266504
H 4.029151 0.481464 -1.879243	H 4.042009 0.481914 -1.868217
Si 2.758906 1.022494 -1.420365	Si 2.777467 1.026969 -1.417317
H 2.113848 1.909506 -2.436579	H 2.128216 1.910169 -2.430179
O 3.029961 1.844470 0.042874	O 3.040806 1.841525 0.059409
O -3.718440 -4.632315 0.855336	O -3.712618 -4.629672 0.850511
Si -0.109926 -4.169130 -1.218184	Si -0.099426 -4.167726 -1.215128
Si -2.560955 -5.386644 -0.120459	Si -2.553122 -5.384481 -0.122519
H -2.948726 -5.325575 -1.561041	H -2.937686 -5.323710 -1.563973
Si -4.315739 -1.962453 -1.507715	Si -4.301415 -1.962663 -1.520544
H 0.253189 -5.338332 -2.085289	H 0.265379 -5.337223 -2.081121
O -1.041834 -4.732567 0.054730	O -1.034264 -4.730651 0.055862
H -3.584295 -1.839154 -2.774850	H -3.569872 -1.837470 -2.780082
O -3.335900 -1.562291 -0.188617	O -3.328706 -1.565196 -0.187819
H -0.845947 -3.145863 -2.004866	H -0.833503 -3.144523 -2.003704
O 3.646245 4.448256 0.599947	O 3.654394 4.449390 0.609113
O 1.368441 5.437467 -0.554962	O 1.379333 5.438754 -0.551123
Si 2.945690 5.721848 -0.253877	Si 2.955972 5.722905 -0.246610

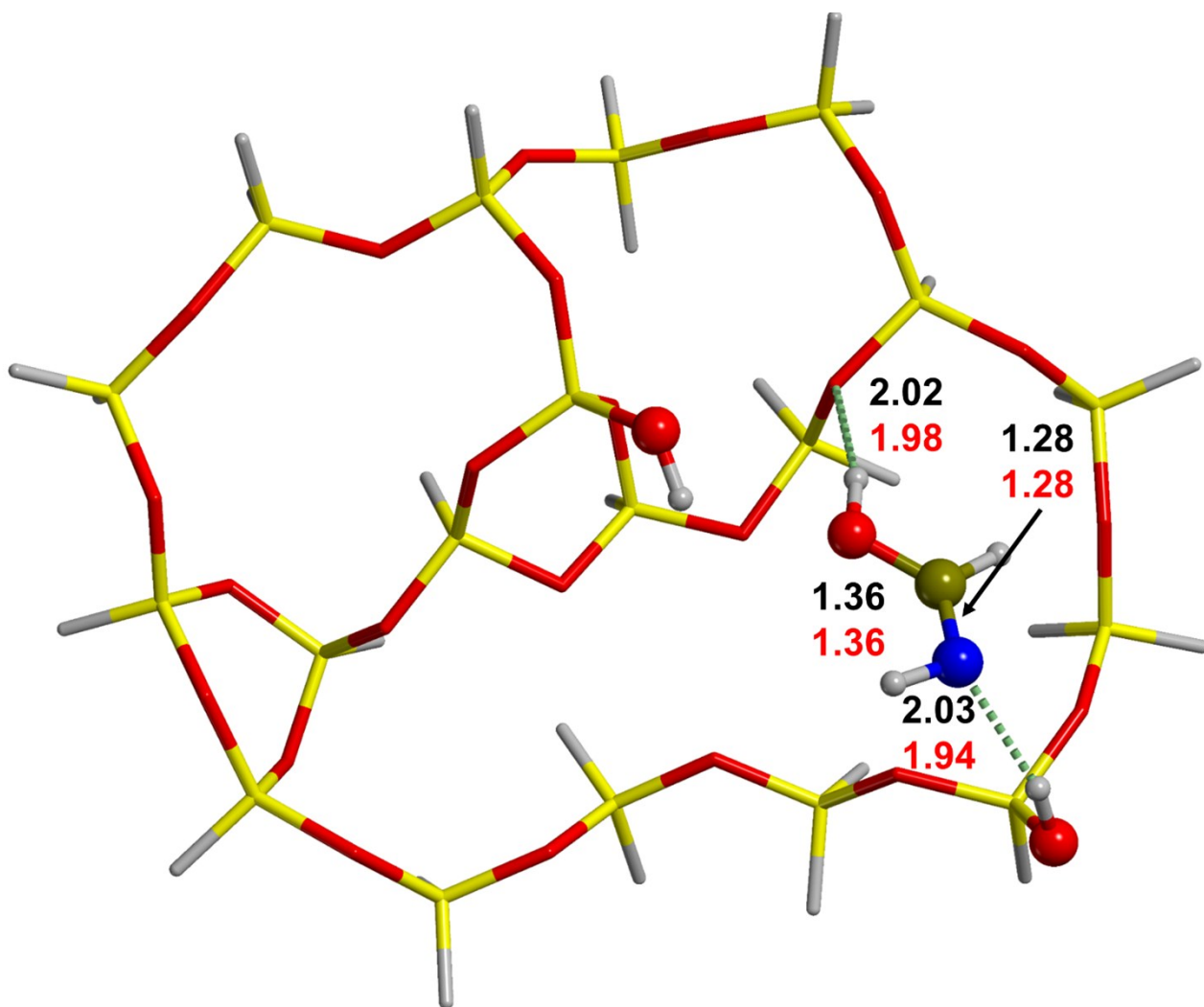
Si 4.252224 3.004330 -0.006050	Si 4.261422 3.005185 0.004836
H 4.538029 3.336924 -1.446401	H 4.550457 3.337375 -1.434977
Si 6.958641 -1.685721 -0.826383	Si 6.968736 -1.685589 -0.808308
O 5.663974 2.245774 0.476351	O 5.671954 2.246490 0.490522
Si 6.821396 1.491367 -0.499495	Si 6.831388 1.491607 -0.482550
H 6.495665 1.732282 -1.938076	H 6.508891 1.732214 -1.921911
O 6.863202 -0.147023 -0.193833	O 6.872197 -0.146707 -0.176371
H 8.143144 2.055334 -0.106088	H 8.152367 2.055424 -0.086363
H 3.682175 5.905889 -1.544798	H 3.695347 5.906467 -1.535949
H 3.059507 6.908680 0.638155	H 3.068041 6.909950 0.645354
H -5.102913 5.182221 1.517035	H -5.096643 5.185302 1.506598
H -8.244133 2.072124 1.328186	H -8.238044 2.075767 1.311589
H -1.954120 5.506639 1.838081	H -1.948491 5.509190 1.834528
H -6.216869 -4.871512 0.515855	H -6.210334 -4.868469 0.505557
H -2.489313 -6.790115 0.378401	H -2.482858 -6.787835 0.376861
H 2.716391 -5.638724 -0.529881	H 2.725070 -5.637689 -0.520182
H 8.391496 -1.982778 -1.120188	H 8.402181 -1.983000 -1.098858
H -7.847186 -1.528250 -0.161017	H -7.838493 -1.525069 -0.175794
H 5.696839 -5.188699 -0.229085	H 5.704932 -5.188166 -0.212896



Gas phase coordinates	PCM coordinates
-----------------------	-----------------

80	80
SiL_TS4_G	SiL_TS4_F
Si 5.454794 -4.012158 0.640023	Si 5.445768 -4.033723 0.649171
O 5.784330 -4.426811 2.215718	O 5.788258 -4.479920 2.219730
H 5.392166 -3.770810 2.827213	H 5.426973 -3.847457 2.870412
O 6.439867 -2.749414 0.223221	O 6.434802 -2.774841 0.230073
C 3.832981 -1.088793 2.418923	C 3.791943 -0.963254 2.373362
H 4.747292 -0.919763 1.813346	H 4.623571 -0.888755 1.644619
N 3.674635 -1.964076 3.265648	N 3.677844 -1.778246 3.285328
H 1.074477 0.453358 2.155180	H 1.122062 0.546346 2.156729
H 3.546392 -2.672958 3.951396	H 3.623103 -2.484180 3.987528
O 2.848644 -0.159968 2.095134	O 2.844881 0.034664 2.134637
Si -2.325432 -0.269690 -0.301948	Si -2.327337 -0.274368 -0.313683
O -0.065702 1.549621 -0.552663	O -0.066395 1.538070 -0.535801
H -2.817977 0.556411 -1.450356	H -2.812394 0.555319 -1.454095
Si -4.930432 4.110805 0.503575	Si -4.914863 4.120205 0.491474
O -3.337973 3.700360 0.533197	O -3.323661 3.705024 0.522583
Si -1.901222 4.453531 0.816330	Si -1.884753 4.454459 0.804674
H -5.257744 4.642212 -0.857727	H -5.240053 4.649706 -0.871079
O -2.043287 0.696245 1.022436	O -2.076705 0.700222 1.021783
Si -0.631755 1.640136 1.046168	Si -0.653253 1.628490 1.042465
O -1.372933 5.147455 -0.580837	O -1.353843 5.143820 -0.593756
O -0.899191 3.239567 1.342153	O -0.893522 3.232102 1.356331
H 3.529670 -3.715239 -1.944864	H 3.522532 -3.736487 -1.937085
Si 2.846357 -4.113679 -0.671924	Si 2.837537 -4.130162 -0.663568
O 0.393654 1.156639 2.220263	O 0.306739 1.089997 2.261232
O 1.765812 -0.282687 -1.175875	O 1.766325 -0.290751 -1.158560
Si 0.164092 0.109907 -1.392344	Si 0.169595 0.102020 -1.395354
O -0.858342 -0.995565 -0.713514	O -0.850590 -0.995662 -0.687216
H -0.143218 0.237689 -2.833466	H -0.138081 0.225601 -2.835492
O 3.831045 -3.605081 0.572248	O 3.823279 -3.621896 0.579903
H 3.179150 0.478839 1.422772	H 3.129402 0.612923 1.383252
O 1.322502 -3.475245 -0.701552	O 1.315624 -3.487202 -0.695139
O -5.740563 -2.472059 0.990074	O -5.745028 -2.459140 0.991620
H 0.159231 3.989993 -2.315860	H 0.175485 3.978066 -2.325729
H -0.189847 6.431980 -2.406818	H -0.166193 6.420896 -2.421999
Si -0.018227 5.240179 -1.522797	Si 0.001496 5.230462 -1.535386
O -5.667635 -0.996717 -1.332370	O -5.664305 -0.989641 -1.332591
O -6.449424 0.255518 0.929459	O -6.445637 0.270427 0.924946
H -7.482481 1.723162 -0.950861	H -7.473547 1.737185 -0.958882
Si -7.109877 1.729897 0.497632	Si -7.101476 1.745871 0.489737
O -5.946640 2.859998 0.805079	O -5.934954 2.873111 0.795237
Si -6.456070 -1.200210 0.145991	Si -6.456374 -1.186934 0.144564
Si -5.125379 -3.908176 0.373985	Si -5.133941 -3.898409 0.378817
H 6.076182 -1.699528 -2.097737	H 6.075168 -1.728791 -2.093247
O -4.825682 -3.541966 -1.254992	O -4.834204 -3.538061 -1.249549
H 3.985503 0.533242 -1.904707	H 3.991159 0.510676 -1.905762
Si 2.719735 1.064739 -1.430570	Si 2.732136 1.051330 -1.441675
H 2.055567 1.948057 -2.445093	H 2.065704 1.930152 -2.449895
O 3.007111 1.860519 0.037813	O 3.002495 1.852719 0.034692
O -3.705514 -4.657260 0.845297	O -3.716521 -4.650769 0.852266
Si -0.111805 -4.154412 -1.244631	Si -0.120517 -4.163193 -1.237332

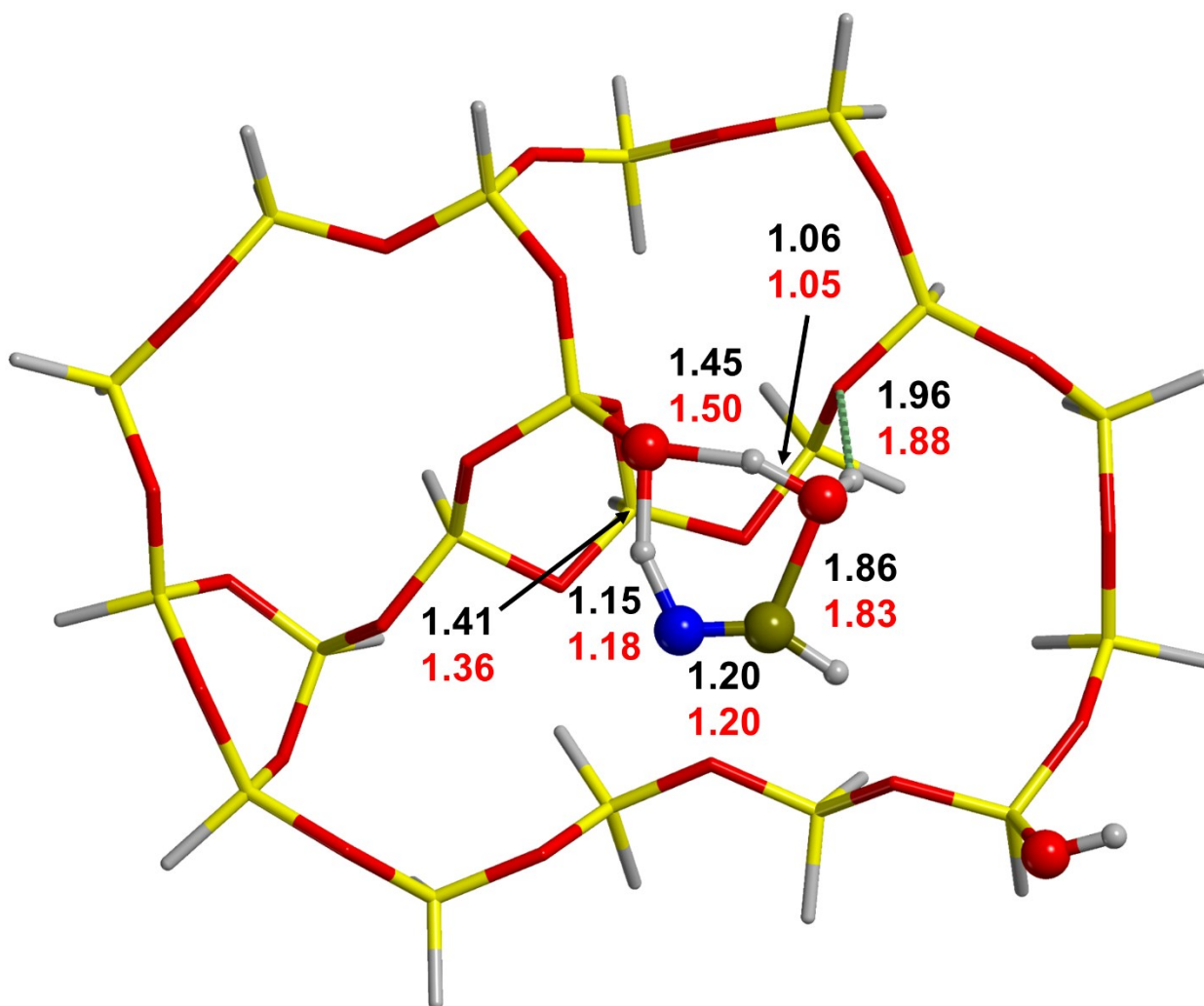
Si -2.546980 -5.397333 -0.140130	Si -2.559851 -5.396420 -0.131140
H -2.942757 -5.332551 -1.578367	H -2.954882 -5.333498 -1.569664
Si -4.325809 -1.973234 -1.493707	Si -4.325940 -1.972173 -1.498878
H 0.256372 -5.316408 -2.119254	H 0.244486 -5.328147 -2.109347
O -1.032393 -4.731613 0.030356	O -1.043327 -4.734908 0.038519
H -3.613268 -1.845695 -2.771945	H -3.614420 -1.847177 -2.770894
O -3.341450 -1.564770 -0.179345	O -3.344306 -1.567803 -0.173431
H -0.860304 -3.133483 -2.022526	H -0.865638 -3.141665 -2.017679
O 3.582827 4.484814 0.595745	O 3.599449 4.468743 0.586146
O 1.291031 5.460756 -0.542615	O 1.311040 5.449171 -0.555167
Si 2.867362 5.756689 -0.248329	Si 2.888144 5.740974 -0.260900
Si 4.198017 3.048684 -0.020367	Si 4.210540 3.029459 -0.026680
H 4.472951 3.390767 -1.460586	H 4.487052 3.367656 -1.467515
Si 6.938072 -1.614743 -0.877446	Si 6.936846 -1.644016 -0.872805
O 5.617890 2.299655 0.450957	O 5.627968 2.277155 0.446782
Si 6.776378 1.559537 -0.534441	Si 6.784594 1.531458 -0.536596
H 6.441218 1.804622 -1.970150	H 6.450721 1.774505 -1.972952
O 6.833264 -0.079933 -0.236959	O 6.836422 -0.107541 -0.235615
H 8.095509 2.132447 -0.145177	H 8.105298 2.101213 -0.148037
H 3.595653 5.952978 -1.542124	H 3.617517 5.932320 -1.554827
H 2.976169 6.940121 0.648858	H 3.000178 6.925974 0.633816
H -5.167087 5.142242 1.561649	H -5.148811 5.154593 1.547266
H -8.283608 2.007314 1.374030	H -8.274699 2.028684 1.365091
H -2.019301 5.491006 1.867948	H -2.000105 5.494515 1.854043
H -6.203629 -4.915399 0.517594	H -6.215279 -4.902070 0.524144
H -2.461212 -6.802546 0.351556	H -2.478507 -6.800839 0.363559
H 2.728046 -5.603952 -0.578100	H 2.714695 -5.619870 -0.566629
H 8.371768 -1.898569 -1.180104	H 8.369794 -1.932804 -1.174305
H -7.864864 -1.582486 -0.134616	H -7.866207 -1.565555 -0.135776
H 5.708220 -5.128828 -0.292578	H 5.696180 -5.153129 -0.280962



Gas phase coordinates	PCM coordinates
80	80
SiL_M5_G	SiL_M5_F
Si 5.444844 -4.004816 0.638979	Si 5.436446 -4.014555 0.636792
O 5.794029 -4.396138 2.209054	O 5.763572 -4.350163 2.235549
H 5.512593 -3.628262 2.770634	H 5.453225 -3.544677 2.742948
O 6.426575 -2.740815 0.218118	O 6.419680 -2.752224 0.214436
C 4.263065 -0.918942 2.301202	C 4.329466 -0.925076 2.251337
H 5.106883 -0.524668 1.718337	H 5.118272 -0.649061 1.539925
N 4.420771 -1.935209 3.050322	N 4.509037 -1.885977 3.073619
H 0.777100 0.235779 2.102798	H 0.758847 0.242872 2.100781
H 3.536702 -2.194990 3.509899	H 3.677278 -2.031605 3.663125
O 3.084868 -0.253677 2.146993	O 3.192734 -0.190106 2.178016
Si -2.348526 -0.284307 -0.292493	Si -2.349449 -0.287252 -0.302066
O -0.148482 1.573875 -0.594290	O -0.151660 1.564437 -0.582513
H -2.841386 0.545803 -1.437195	H -2.844687 0.546075 -1.437755
Si -4.955603 4.098883 0.517222	Si -4.952804 4.103499 0.515347
O -3.362325 3.691401 0.543497	O -3.360079 3.693822 0.540971
Si -1.926275 4.447579 0.822134	Si -1.922814 4.448206 0.818211
H -5.287209 4.627896 -0.843973	H -5.284484 4.631989 -0.846033
O -2.063106 0.679426 1.039901	O -2.079158 0.676678 1.043760
Si -0.673096 1.647999 1.014908	Si -0.686254 1.643158 1.012655

O -1.402672 5.140632 -0.577226	O -1.399081 5.139519 -0.581960
O -0.915368 3.237508 1.355459	O -0.916577 3.233592 1.368189
H 3.512882 -3.714834 -1.941591	H 3.503355 -3.723751 -1.942840
Si 2.833410 -4.112851 -0.666465	Si 2.824087 -4.119904 -0.667024
O 0.444947 1.149353 2.115878	O 0.410816 1.149909 2.149493
O 1.730137 -0.261621 -1.140158	O 1.727914 -0.265707 -1.131271
Si 0.132995 0.117404 -1.390649	Si 0.134233 0.112338 -1.397078
O -0.870922 -0.993913 -0.690343	O -0.868537 -0.995722 -0.678443
H -0.169424 0.230174 -2.826409	H -0.173991 0.225730 -2.828326
O 3.820190 -3.600809 0.574631	O 3.812315 -3.608338 0.573116
H 3.183270 0.503778 1.525936	H 3.263429 0.503762 1.478150
O 1.308315 -3.477256 -0.693211	O 1.299862 -3.482209 -0.693325
O -5.752439 -2.484813 1.014328	O -5.758491 -2.478722 1.017683
H 0.127385 3.983703 -2.314464	H 0.128336 3.979212 -2.319269
H -0.226404 6.424924 -2.407771	H -0.222118 6.420854 -2.414130
Si -0.050438 5.234604 -1.522610	Si -0.047280 5.230931 -1.528214
O -5.685329 -1.010543 -1.309044	O -5.688609 -1.008105 -1.305399
O -6.466459 0.241376 0.951867	O -6.468760 0.248410 0.953675
H -7.506795 1.704646 -0.927849	H -7.508178 1.711766 -0.926481
Si -7.130674 1.713971 0.519720	Si -7.131184 1.721615 0.520858
O -5.968771 2.846609 0.822845	O -5.967530 2.852856 0.822476
Si -6.472338 -1.215391 0.170326	Si -6.477127 -1.208911 0.173192
Si -5.136118 -3.920607 0.398625	Si -5.144531 -3.915816 0.402652
H 6.055304 -1.694653 -2.103319	H 6.048483 -1.707223 -2.107537
O -4.844949 -3.557894 -1.233154	O -4.852308 -3.555012 -1.227029
H 3.960999 0.534526 -1.908116	H 3.957394 0.525005 -1.912703
Si 2.698546 1.069496 -1.422779	Si 2.701130 1.067607 -1.430749
H 2.027152 1.945084 -2.445646	H 2.025189 1.937860 -2.450104
O 2.986016 1.862025 0.046979	O 2.982542 1.852379 0.050486
O -3.713733 -4.666462 0.867452	O -3.722906 -4.663308 0.871175
Si -0.126060 -4.159770 -1.231898	Si -0.135780 -4.163117 -1.230668
Si -2.556247 -5.405703 -0.119828	Si -2.567034 -5.404869 -0.116256
H -2.955647 -5.343540 -1.557178	H -2.967200 -5.343189 -1.553415
Si -4.347877 -1.990850 -1.476566	Si -4.349723 -1.988129 -1.478177
H 0.242120 -5.322237 -2.105892	H 0.230265 -5.326726 -2.104040
O -1.042475 -4.736980 0.046087	O -1.052236 -4.738132 0.048277
H -3.635476 -1.859495 -2.753689	H -3.642900 -1.859068 -2.752039
O -3.356186 -1.582000 -0.164988	O -3.361302 -1.582732 -0.156681
H -0.878330 -3.141240 -2.009301	H -0.887096 -3.144105 -2.008360
O 3.557153 4.488640 0.588127	O 3.560526 4.481476 0.580922
O 1.260799 5.458875 -0.545915	O 1.264848 5.454083 -0.552460
Si 2.837294 5.758087 -0.255866	Si 2.841929 5.751313 -0.263561
Si 4.173478 3.052832 -0.027601	Si 4.174490 3.044369 -0.034134
H 4.444271 3.393524 -1.468936	H 4.444899 3.383645 -1.475874
Si 6.920008 -1.606681 -0.885248	Si 6.914033 -1.619573 -0.890042
O 5.595872 2.307032 0.441239	O 5.596124 2.296931 0.434401
Si 6.753314 1.567745 -0.546011	Si 6.751951 1.555326 -0.553001
H 6.414204 1.810326 -1.981219	H 6.412326 1.797341 -1.988182
O 6.813940 -0.071224 -0.246520	O 6.810477 -0.083511 -0.252361
H 8.072334 2.143587 -0.160720	H 8.071998 2.129612 -0.168908
H 3.562068 5.954009 -1.551691	H 3.566205 5.945293 -1.559958
H 2.946112 6.942897 0.639501	H 2.952925 6.936616 0.630884

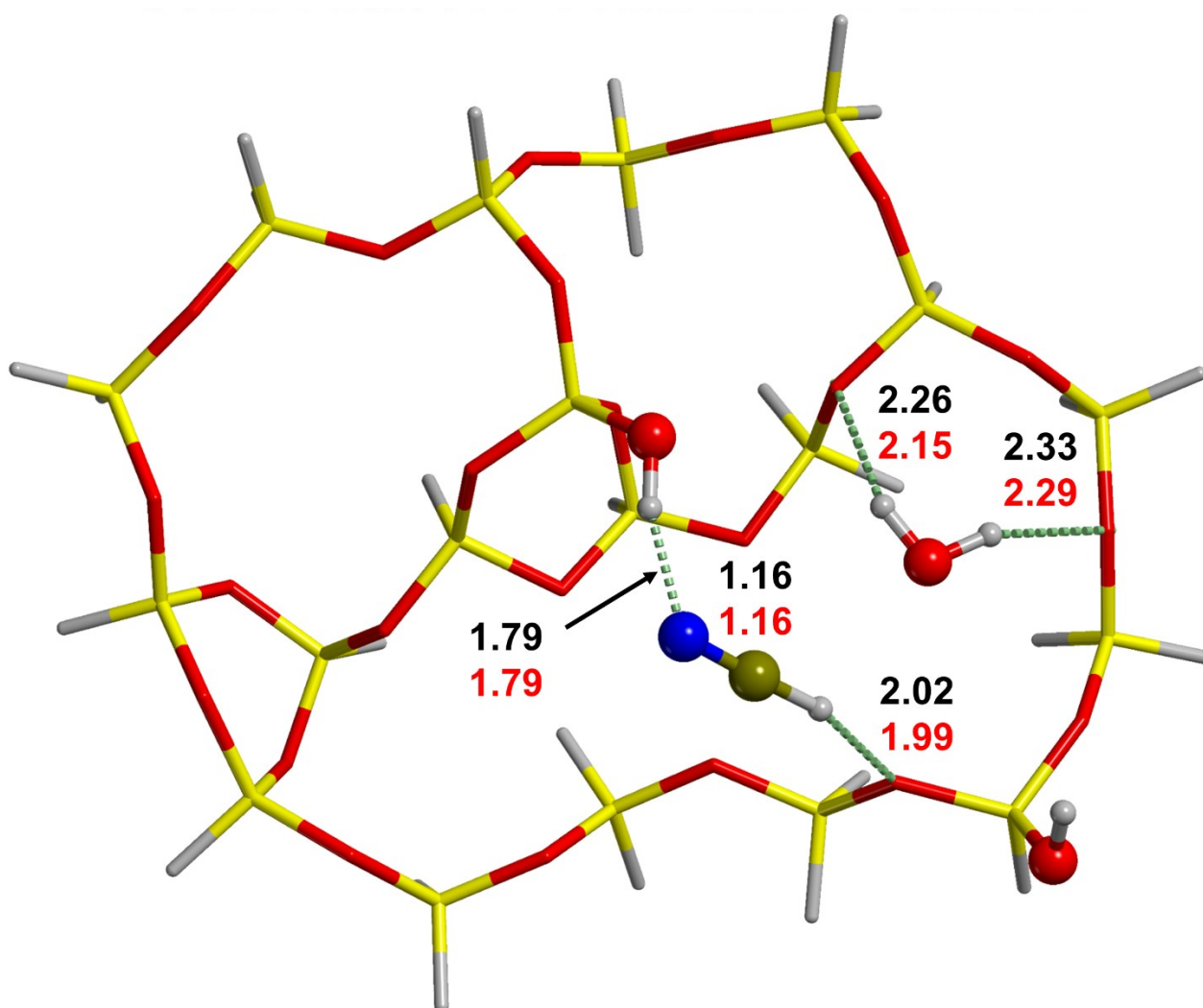
H -5.191575 5.131274 1.574517	H -5.186714 5.136979 1.572036
H -8.302773 1.990387 1.398615	H -8.302377 2.000293 1.400249
H -2.043698 5.486219 1.872676	H -2.038171 5.487764 1.868070
H -6.212160 -4.929619 0.546184	H -6.221887 -4.923224 0.551578
H -2.466696 -6.810109 0.373490	H -2.479141 -6.809042 0.378022
H 2.716068 -5.603220 -0.570391	H 2.704732 -5.610039 -0.569803
H 8.353481 -1.888272 -1.191031	H 8.346932 -1.903377 -1.196472
H -7.881107 -1.600621 -0.106340	H -7.886593 -1.592383 -0.102360
H 5.698037 -5.120245 -0.294774	H 5.687534 -5.131010 -0.296305



Gas phase coordinates	PCM coordinates
80	80
SiL_TS5_G	SiL_TS5_F
Si 5.447377 -4.117799 0.752792	Si 5.442842 -4.125015 0.754006
O 5.719619 -4.506391 2.346733	O 5.657002 -4.504915 2.363743
H 6.579138 -4.229254 2.699805	H 6.581826 -4.587194 2.651131
O 6.460707 -2.875687 0.341771	O 6.457166 -2.884179 0.341584
C 2.033377 -1.477591 2.269473	C 2.119807 -1.382346 2.260781
H 2.933109 -2.082191 2.203833	H 3.037866 -1.955857 2.157634
N 0.837329 -1.515196 2.313136	N 0.924356 -1.461874 2.331841
H 1.810340 0.743436 2.317811	H 1.840537 0.814509 2.326889
H 0.349090 -0.468477 2.277896	H 0.407890 -0.402930 2.300755

O	2.743626	0.234336	2.384523
Si	-2.273205	-0.235277	-0.311990
O	-0.026421	1.573061	-0.566078
H	-2.712399	0.586765	-1.475519
Si	-4.785713	4.190806	0.428763
O	-3.201516	3.751796	0.482195
Si	-1.755207	4.480572	0.780121
H	-5.085154	4.719638	-0.939938
O	-2.047933	0.757919	0.994720
Si	-0.585944	1.636229	1.057932
O	-1.195832	5.156181	-0.613917
O	-0.780492	3.257527	1.341861
H	3.562559	-3.802046	-1.859425
Si	2.855227	-4.180189	-0.593432
O	0.380196	0.931050	2.146008
O	1.825999	-0.307658	-1.101453
Si	0.230516	0.120590	-1.361275
O	-0.803759	-0.979387	-0.686047
H	-0.025696	0.211153	-2.820681
O	3.832344	-3.681826	0.660810
H	3.183251	0.501243	1.546065
O	1.343760	-3.514474	-0.647300
O	-5.721799	-2.373190	0.943369
H	0.338003	3.960490	-2.321321
H	0.034621	6.407788	-2.431436
Si	0.172759	5.218557	-1.538137
O	-5.597863	-0.917651	-1.390737
O	-6.380082	0.366345	0.857069
H	-7.361158	1.840813	-1.045619
Si	-7.007812	1.849743	0.407679
O	-5.828419	2.960481	0.724010
Si	-6.402760	-1.093833	0.082229
Si	-5.124676	-3.823980	0.344122
H	6.147107	-1.833739	-1.990044
O	-4.802135	-3.477537	-1.285217
H	4.094981	0.437654	-1.838343
Si	2.826301	0.996051	-1.384011
H	2.198454	1.883808	-2.412972
O	3.112551	1.803025	0.076262
O	-3.725067	-4.595719	0.838889
Si	-0.095297	-4.170907	-1.205549
Si	-2.567161	-5.362707	-0.126491
H	-2.942507	-5.299651	-1.570271
Si	-4.270467	-1.918513	-1.527638
H	0.263305	-5.344753	-2.068247
O	-1.043124	-4.723469	0.060364
H	-3.533561	-1.808664	-2.793398
O	-3.300114	-1.525152	-0.203197
H	-0.814689	-3.141419	-1.999464
O	3.730956	4.411227	0.633002
O	1.472642	5.421446	-0.541792
Si	3.050034	5.690608	-0.228130
O	2.769001	0.328939	2.377495
Si	-2.271976	-0.243662	-0.323284
O	-0.043803	1.560454	-0.552269
H	-2.713278	0.584346	-1.477554
Si	-4.783173	4.192043	0.423523
O	-3.199344	3.751726	0.477118
Si	-1.752359	4.479556	0.774077
H	-5.082395	4.719779	-0.945648
O	-2.061242	0.738946	1.006723
Si	-0.601190	1.627207	1.057278
O	-1.192644	5.153308	-0.620723
O	-0.788214	3.249334	1.356280
H	3.557847	-3.810225	-1.858199
Si	2.850410	-4.186510	-0.591713
O	0.349058	0.956364	2.192418
O	1.821947	-0.303541	-1.086779
Si	0.234851	0.113887	-1.367943
O	-0.797520	-0.982537	-0.669201
H	-0.027129	0.205101	-2.822804
O	3.828168	-3.687747	0.661869
H	3.190275	0.603647	1.525716
O	1.339504	-3.519551	-0.645980
O	-5.724799	-2.370637	0.944771
H	0.339870	3.954616	-2.327209
H	0.038569	6.402063	-2.439687
Si	0.175841	5.213596	-1.545238
O	-5.595274	-0.916336	-1.388112
O	-6.380748	0.369374	0.855878
H	-7.360886	1.842805	-1.048097
Si	-7.007283	1.852867	0.405132
O	-5.826883	2.962905	0.720163
Si	-6.404812	-1.091547	0.082485
Si	-5.129024	-3.822530	0.346855
H	6.144060	-1.844264	-1.991204
O	-4.807739	-3.478003	-1.281160
H	4.093909	0.429037	-1.841395
Si	2.834268	0.994053	-1.392366
H	2.198525	1.876249	-2.417127
O	3.102328	1.802803	0.077370
O	-3.729992	-4.594980	0.842143
Si	-0.100211	-4.175301	-1.203333
Si	-2.572910	-5.363914	-0.122676
H	-2.948451	-5.301962	-1.566454
Si	-4.270237	-1.921450	-1.532189
H	0.257235	-5.350306	-2.064934
O	-1.048294	-4.725800	0.063286
H	-3.536721	-1.811678	-2.792926
O	-3.302600	-1.529803	-0.196470
H	-0.818856	-3.145980	-1.998142
O	3.733718	4.405359	0.626087
O	1.476069	5.416355	-0.549317
Si	3.053744	5.684473	-0.236191

Si 4.328083 2.960422 0.033731	Si 4.329497 2.953451 0.028147
H 4.628344 3.288577 -1.404672	H 4.629792 3.279928 -1.410631
Si 6.994071 -1.757037 -0.758817	Si 6.991300 -1.767073 -0.760199
O 5.727702 2.188739 0.528508	O 5.728538 2.181057 0.523447
Si 6.885561 1.421707 -0.436842	Si 6.885573 1.412078 -0.441344
H 6.574059 1.663952 -1.878350	H 6.574031 1.653167 -1.883037
O 6.908665 -0.216657 -0.128906	O 6.907326 -0.225999 -0.131794
H 8.209590 1.973039 -0.033307	H 8.210143 1.962673 -0.038580
H 3.798937 5.865694 -1.513172	H 3.802577 5.857647 -1.521533
H 3.168384 6.877394 0.663402	H 3.173266 6.872036 0.654149
H -5.017646 5.232867 1.477430	H -5.014031 5.235336 1.471201
H -8.187872 2.153764 1.266580	H -8.186934 2.158748 1.263934
H -1.868397 5.526484 1.823888	H -1.864472 5.526594 1.816830
H -6.222877 -4.810618 0.479212	H -6.228047 -4.808092 0.483107
H -2.513508 -6.766181 0.374626	H -2.520376 -6.766938 0.379817
H 2.708602 -5.667469 -0.492369	H 2.702525 -5.673563 -0.489156
H 8.426273 -2.068628 -1.040510	H 8.423186 -2.080171 -1.041828
H -7.814409 -1.452271 -0.214994	H -7.816819 -1.449067 -0.214143
H 5.692857 -5.244610 -0.169685	H 5.687196 -5.252945 -0.167399



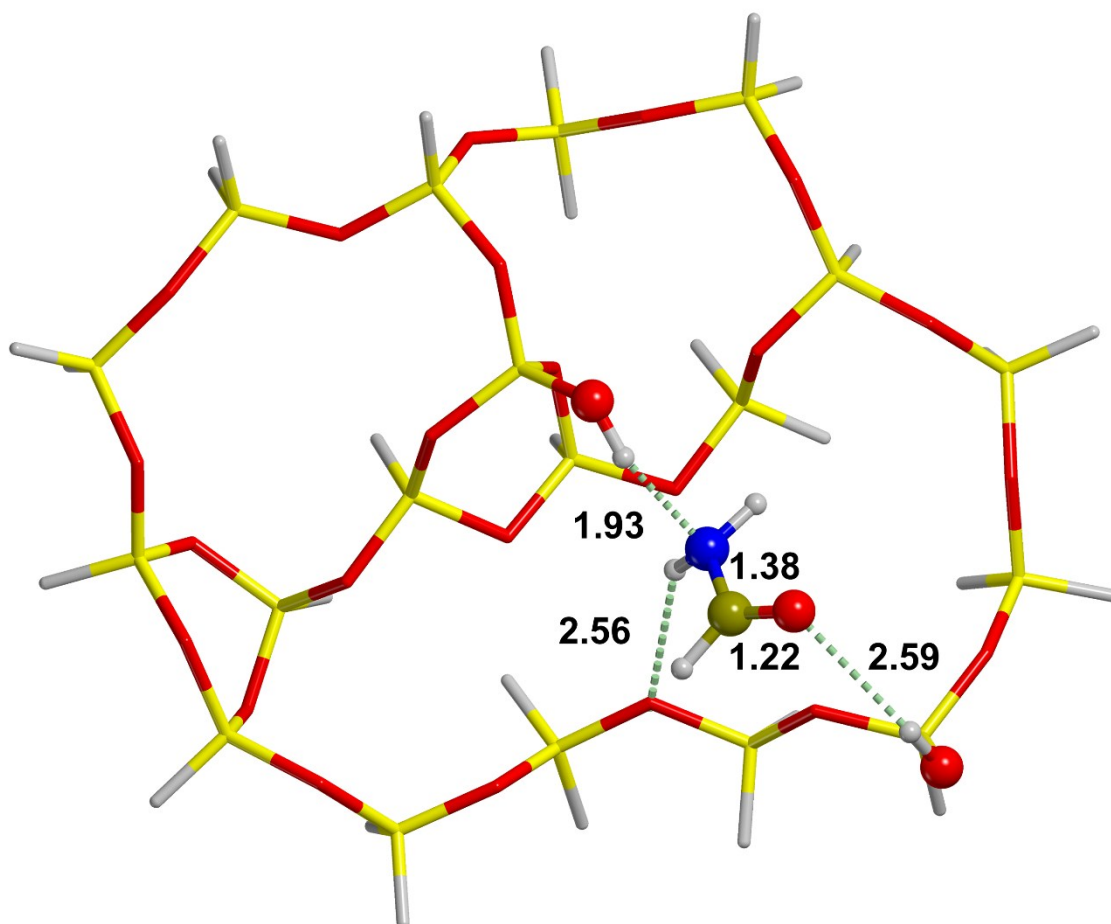
Gas phase coordinates	PCM coordinates
-----------------------	-----------------

80	80
SiL_M6_G	SiL_M6_F
Si 5.457918 -4.043780 0.739347	Si 5.454372 -4.046907 0.727005
O 5.811258 -4.548096 2.281140	O 5.804494 -4.566597 2.268261
H 5.861345 -3.855468 2.959295	H 5.748742 -3.900773 2.974653
O 6.458199 -2.789251 0.334119	O 6.454247 -2.792793 0.319983
C 1.811036 -2.072566 2.320432	C 1.910321 -2.071723 2.352695
H 2.713628 -2.535422 1.932528	H 2.797476 -2.579335 1.979454
N 0.855028 -1.535712 2.693678	N 0.958202 -1.512641 2.703798
H 3.588093 0.201725 1.513657	H 3.791669 0.341296 1.414659
H 0.408457 0.177993 2.432610	H 0.454542 0.178391 2.396156
O 4.197788 -0.556461 1.578198	O 4.285814 -0.412929 1.789591
Si -2.285195 -0.246777 -0.308233	Si -2.289360 -0.254080 -0.321736
O -0.068705 1.587551 -0.555292	O -0.077517 1.577204 -0.545734
H -2.751027 0.587974 -1.460743	H -2.756259 0.586923 -1.462548
Si -4.860154 4.160800 0.462931	Si -4.861521 4.160923 0.463198
O -3.271500 3.737821 0.513299	O -3.272930 3.737456 0.511420
Si -1.832581 4.479888 0.814175	Si -1.833337 4.479085 0.810045
H -5.160795 4.693518 -0.902913	H -5.163928 4.693379 -0.902339
O -2.030734 0.713149 1.028736	O -2.048328 0.702596 1.032128
Si -0.623284 1.662611 1.049903	Si -0.643638 1.656727 1.043419
O -1.280974 5.168291 -0.576698	O -1.283490 5.167000 -0.581777
O -0.840903 3.266345 1.355705	O -0.846512 3.260220 1.368080
H 3.568455 -3.734137 -1.870246	H 3.561225 -3.737312 -1.879980
Si 2.865773 -4.125955 -0.605826	Si 2.860237 -4.128596 -0.614476
O 0.435334 1.134330 2.178779	O 0.387673 1.149897 2.218745
O 1.802944 -0.268222 -1.105530	O 1.799716 -0.264375 -1.094979
Si 0.213927 0.141291 -1.363248	Si 0.212964 0.134802 -1.372934
O -0.815466 -0.972417 -0.699891	O -0.810810 -0.973774 -0.682071
H -0.066465 0.256772 -2.809139	H -0.073713 0.254485 -2.814705
O 3.838439 -3.623959 0.650427	O 3.834888 -3.626595 0.640288
H 5.065581 -0.182343 1.346666	H 5.158720 -0.350780 1.359947
O 1.347515 -3.475536 -0.655514	O 1.342102 -3.477700 -0.662144
O -5.728476 -2.414997 0.944629	O -5.731257 -2.414473 0.947812
H 0.259080 3.997067 -2.290957	H 0.253733 3.994841 -2.297935
H -0.069485 6.441646 -2.388462	H -0.074179 6.439496 -2.395594
Si 0.086373 5.249417 -1.501305	Si 0.082560 5.247447 -1.508369
O -5.615850 -0.944255 -1.379044	O -5.617611 -0.944004 -1.374205
O -6.414911 0.318033 0.872607	O -6.416925 0.318741 0.876069
H -7.412171 1.791994 -1.022043	H -7.416409 1.792553 -1.017523
Si -7.058101 1.797168 0.431097	Si -7.060255 1.797989 0.435110
O -5.889996 2.918343 0.752459	O -5.891345 2.918860 0.754518
Si -6.423037 -1.138344 0.090361	Si -6.426625 -1.137824 0.094217
Si -5.116828 -3.856512 0.337695	Si -5.120937 -3.856351 0.340360
H 6.132576 -1.738744 -1.992200	H 6.125960 -1.742716 -2.006145
O -4.797497 -3.497741 -1.289526	O -4.805215 -3.498740 -1.285828
H 4.057316 0.510648 -1.827874	H 4.051605 0.507410 -1.839455
Si 2.790769 1.056153 -1.354189	Si 2.791274 1.060334 -1.371356
H 2.145751 1.935144 -2.394179	H 2.139479 1.932180 -2.403184
O 3.048021 1.880763 0.093084	O 3.048555 1.864166 0.096261
O -3.709084 -4.616335 0.827799	O -3.712742 -4.616485 0.828655
Si -0.085043 -4.143875 -1.216345	Si -0.091458 -4.145716 -1.220773

Si -2.543917 -5.366475 -0.142073	Si -2.549202 -5.367265 -0.142670
H -2.920719 -5.299941 -1.585317	H -2.928036 -5.300965 -1.585403
Si -4.281098 -1.933180 -1.523865	Si -4.284966 -1.935978 -1.528877
H 0.285101 -5.309576 -2.085191	H 0.277061 -5.311757 -2.089847
O -1.026418 -4.712570 0.047234	O -1.031219 -4.713785 0.044285
H -3.548297 -1.809038 -2.790361	H -3.556237 -1.810166 -2.790447
O -3.308421 -1.537996 -0.199237	O -3.313130 -1.542909 -0.193595
H -0.815427 -3.117809 -2.004637	H -0.822645 -3.119623 -2.008279
O 3.653921 4.467661 0.663841	O 3.652920 4.465106 0.651810
O 1.384675 5.460584 -0.504620	O 1.382346 5.458442 -0.513576
Si 2.959402 5.744340 -0.190415	Si 2.957617 5.741773 -0.201690
Si 4.265571 3.026132 0.056883	Si 4.263105 3.023322 0.044493
H 4.566578 3.369704 -1.379964	H 4.562370 3.366217 -1.392910
Si 6.979414 -1.659601 -0.761041	Si 6.974135 -1.663665 -0.776102
O 5.673326 2.266366 0.547001	O 5.671416 2.263180 0.532785
Si 6.838448 1.516182 -0.422843	Si 6.835353 1.512280 -0.438556
H 6.523646 1.762537 -1.862938	H 6.518149 1.758365 -1.878269
O 6.878555 -0.123400 -0.123258	O 6.874926 -0.127180 -0.139051
H 8.156976 2.079030 -0.017201	H 8.154186 2.074857 -0.034938
H 3.705727 5.933638 -1.474941	H 3.702167 5.930497 -1.487323
H 3.066065 6.927733 0.707081	H 3.065942 6.925349 0.695352
H -5.097172 5.195122 1.517000	H -5.096690 5.195574 1.517347
H -8.240728 2.084682 1.292151	H -8.241567 2.086094 1.297772
H -1.950856 5.514286 1.868276	H -1.949778 5.513834 1.864050
H -6.204760 -4.855055 0.468338	H -6.208996 -4.854499 0.472819
H -2.475563 -6.771851 0.351869	H -2.480591 -6.772526 0.351515
H 2.734487 -5.615156 -0.512252	H 2.728596 -5.617715 -0.520327
H 8.414580 -1.955027 -1.045064	H 8.409138 -1.959600 -1.062023
H -7.831100 -1.509752 -0.207942	H -7.835230 -1.508849 -0.201991
H 5.714427 -5.163306 -0.188978	H 5.709152 -5.166744 -0.201445

Figure S7: PBE-D2/TZVP optimized geometries for the formamide dehydration reaction catalysed by hydrophobic silica. In the figures the most representative bond lengths (in Å) in gas phase (black) and in PCM (F) (red) are reported. In the left and the right columns the cartesian coordinates of the optimized structures in gas phase and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue, silicons in yellow.

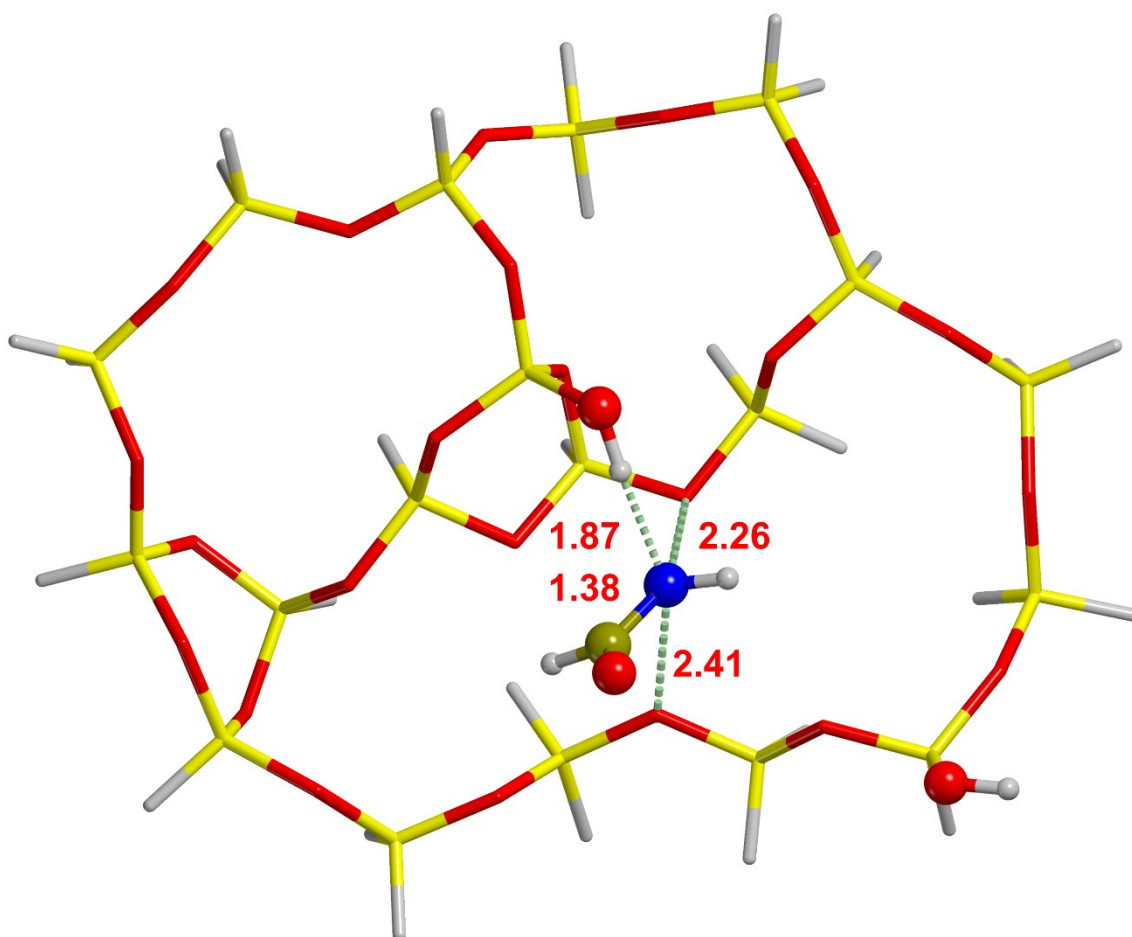
Formamide + Silica 1.5 decarbonylation reaction



Gas phase coordinates	PCM (F) coordinates
80	
SiL_R_G	
Si 5.5267219651 -3.9530057229 0.6375801124	
O 5.8263359651 -4.4169637229 2.2012601124	
H 5.3438109651 -3.8815427229 2.8596271124	
O 6.5050779651 -2.6798777229 0.2368111124	
C 2.6080699651 -2.0771407229 2.5405851124	
H 1.8742419651 -2.9135497229 2.5455871124	
N 2.2577559651 -1.0869557229 1.6372511124	
H 2.9955499651 -0.4048777229 1.4434881124	
H 1.7687499651 -1.4090937229 0.7973791124	
O 3.5775449651 -2.0373257229 3.2800301124	
Si -2.2454370349 -0.2668767229 -0.3554938876	
O -0.0726420349 1.6669222771 -0.5888758876	
H -2.7665930349 0.5742372771 -1.4610298876	
Si -4.9151490349 4.0971582771 0.5105441124	
O -3.3199960349 3.6977622771 0.5456621124	
Si -1.8902650349 4.4586452771 0.8430001124	
H -5.2386820349 4.6376062771 -0.8481118876	
O -1.9412010349 0.6398592771 1.0043571124	
Si -0.5860860349 1.6670212771 1.0283291124	
O -1.3591310349 5.1680702771 -0.5452028876	

O	-0.8957140349	3.2423082771	1.3895521124
H	3.6139069651	-3.6480967229	-1.9555028876
Si	2.9264009651	-4.0619857229	-0.6897728876
O	0.5107749651	1.1672622771	2.1342751124
O	1.7755989651	-0.1816147229	-1.2087618876
Si	0.2015739651	0.2882032771	-1.5024298876
O	-0.7817650349	-0.9028117229	-0.9007248876
H	-0.0427000349	0.5739272771	-2.9371248876
O	3.9005219651	-3.5568597229	0.5640961124
H	0.9835569651	0.3054812771	2.0396771124
O	1.3982249651	-3.4341257229	-0.7226258876
O	-5.6810720349	-2.4951017229	0.9376841124
H	0.1907999651	4.0359352771	-2.2812418876
H	-0.1751460349	6.4760662771	-2.3538268876
Si	0.0000379651	5.2781252771	-1.4788308876
O	-5.5798450349	-0.9955647229	-1.3557758876
O	-6.4089900349	0.2278012771	0.8957991124
H	-7.4420280349	1.7037722771	-0.9780008876
Si	-7.0775210349	1.7010302771	0.4725631124
O	-5.9240810349	2.8367212771	0.7959161124
Si	-6.4009260349	-1.2213357229	0.1002161124
Si	-5.0522750349	-3.9216307229	0.3131201124
H	6.1468109651	-1.6132157229	-2.0773228876
O	-4.7435720349	-3.5417117229	-1.3101408876
H	4.0392199651	0.6030302771	-1.8775098876
Si	2.7812929651	1.1495432771	-1.4014998876
H	2.1022599651	2.0086442771	-2.4167578876
O	3.0236029651	1.9284572771	0.0627801124
O	-3.6297450349	-4.6645657229	0.7861321124
Si	-0.0281750349	-4.1188567229	-1.2793678876
Si	-2.4605270349	-5.3881627229	-0.1989148876
H	-2.8487740349	-5.3141567229	-1.6387558876
Si	-4.2406190349	-1.9719957229	-1.5300328876
H	0.3531089651	-5.2708637229	-2.1615558876
O	-0.9516880349	-4.7131957229	-0.0144078876
H	-3.5374660349	-1.8222677229	-2.8070158876
O	-3.2255690349	-1.5899837229	-0.2283598876
H	-0.7796020349	-3.0967777229	-2.0529198876
O	3.5945779651	4.5306172771	0.6534671124
O	1.3022499651	5.4997882771	-0.4895028876
Si	2.8747679651	5.8043862771	-0.1839348876
Si	4.2234719651	3.1040052771	0.0289821124
H	4.5038599651	3.4601022771	-1.4068288876
Si	7.0012949651	-1.5325467229	-0.8515598876
O	5.6459159651	2.3611682771	0.5019961124
Si	6.8151079651	1.6375412771	-0.4830578876
H	6.4861749651	1.8922392771	-1.9185328876
O	6.8820109651	-0.0039227229	-0.1989158876
H	8.1279439651	2.2164852771	-0.0816518876
H	3.6088149651	6.0166382771	-1.4719488876
H	2.9701799651	6.9810202771	0.7236651124
H	-5.1650050349	5.1180142771	1.5758111124

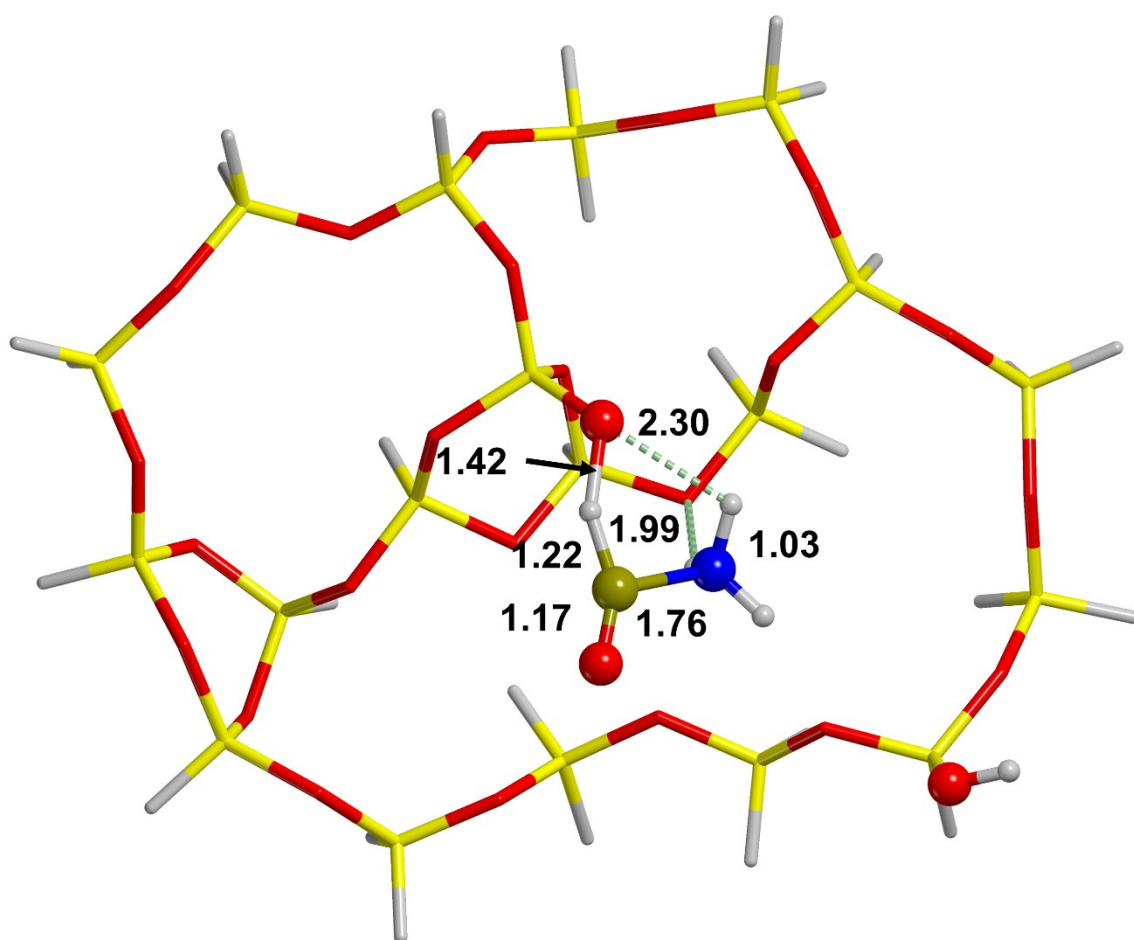
H	-8.2580380349	1.9628002771	1.3446481124
H	-2.0215260349	5.4864512771	1.9026511124
H	-6.1241060349	-4.9376227229	0.4422951124
H	-2.3674840349	-6.7967967229	0.2815341124
H	2.8181839651	-5.5537937229	-0.6090198876
H	8.4386319651	-1.8036807229	-1.1485268876
H	-7.8053860349	-1.6112057229	-0.1914518876
H	5.7932909651	-5.0599967229	-0.3028628876



Gas phase coordinates	PCM (F) coordinates
	80
	SiL_R_F
	Si 5.5202775242 -4.0462535027 0.6927651803
	O 5.7306165242 -4.4618385027 2.2944431803
	H 6.6551195242 -4.5501265027 2.5810331803
	O 6.5294265242 -2.7907635027 0.3132651803
	C 0.6911995242 -2.4013305027 2.2783011803
	H -0.1435384758 -2.6809885027 1.6019581803
	N 1.5604235242 -1.5032245027 1.7023201803
	H 2.4714995242 -1.4044805027 2.1540491803
	H 1.5867505242 -1.4825445027 0.6789501803
	O 0.7824145242 -2.8187955027 3.4272391803
	Si -2.1680714758 -0.2053655027 -0.3946418197
	O 0.0115325242 1.6968044973 -0.5959878197

	H -2.6506314758	0.6585124973	-1.4940068197
	Si -4.7557074758	4.2125454973	0.4685101803
	O -3.1695084758	3.7810064973	0.5234281803
	Si -1.7291274758	4.5113324973	0.8452871803
	H -5.0492674758	4.7671094973	-0.8912618197
	O -1.8936444758	0.6995514973	0.9849971803
	Si -0.5147174758	1.6935204973	1.0060531803
	O -1.1645474758	5.2177594973	-0.5312718197
	O -0.7643014758	3.2716074973	1.4116721803
	H 3.6505245242	-3.6882365027	-1.9248208197
	Si 2.9371835242	-4.0954395027	-0.6712768197
	O 0.5611025242	1.1405504973	2.1220671803
	O 1.8599635242	-0.1817525027	-1.1525928197
	Si 0.3055525242	0.3081274973	-1.5032258197
	O -0.6984074758	-0.8626255027	-0.8814528197
	H 0.0821585242	0.5854784973	-2.9390388197
	O 3.9035165242	-3.6171225027	0.5990241803
	H 0.8735545242	0.2045074973	2.0064761803
	O 1.4224805242	-3.4368445027	-0.7216438197
	O -5.6592294758	-2.3653315027	0.8455581803
	H 0.3866745242	4.0647094973	-2.2522548197
	H 0.0706525242	6.5120704973	-2.3153458197
	Si 0.2095615242	5.3059244973	-1.4451458197
	O -5.4968964758	-0.8554065027	-1.4378518197
	O -6.3318894758	0.3718334973	0.8098111803
	H -7.3088034758	1.8788954973	-1.0693278197
	Si -6.9648174758	1.8605734973	0.3861241803
	O -5.7935494758	2.9710164973	0.7322811803
	Si -6.3416354758	-1.0726195027	0.0057771803
	Si -5.0503694758	-3.8006145027	0.2212961803
	H 6.2250745242	-1.7039655027	-1.9992168197
	O -4.7146764758	-3.4181795027	-1.3943048197
	H 4.1596255242	0.5529554973	-1.8154218197
	Si 2.9065815242	1.1222264973	-1.3494868197
	H 2.2589695242	2.0002244973	-2.3733608197
	O 3.1296525242	1.9081114973	0.1187971803
	O -3.6497734758	-4.5746545027	0.7096131803
	Si -0.0093744758	-4.0896145027	-1.3022648197
	Si -2.4815454758	-5.3159555027	-0.2633728197
	H -2.8479904758	-5.2259715027	-1.7080108197
	Si -4.1742814758	-1.8582385027	-1.6050558197
	H 0.3611405242	-5.2440025027	-2.1859278197
	O -0.9622494758	-4.6724835027	-0.0538538197
	H -3.4502374758	-1.7143595027	-2.8648508197
	O -3.1790694758	-1.5058635027	-0.2728228197
	H -0.7292814758	-3.0482655027	-2.0800798197
	O 3.7581495242	4.4742074973	0.7324981803
	O 1.5019195242	5.4957234973	-0.4365078197
	Si 3.0757825242	5.7669464973	-0.1072688197
	Si 4.3670085242	3.0389114973	0.1082121803
	H 4.6746705242	3.3974234973	-1.3213518197
	Si 7.0637145242	-1.6474505027	-0.7612198197

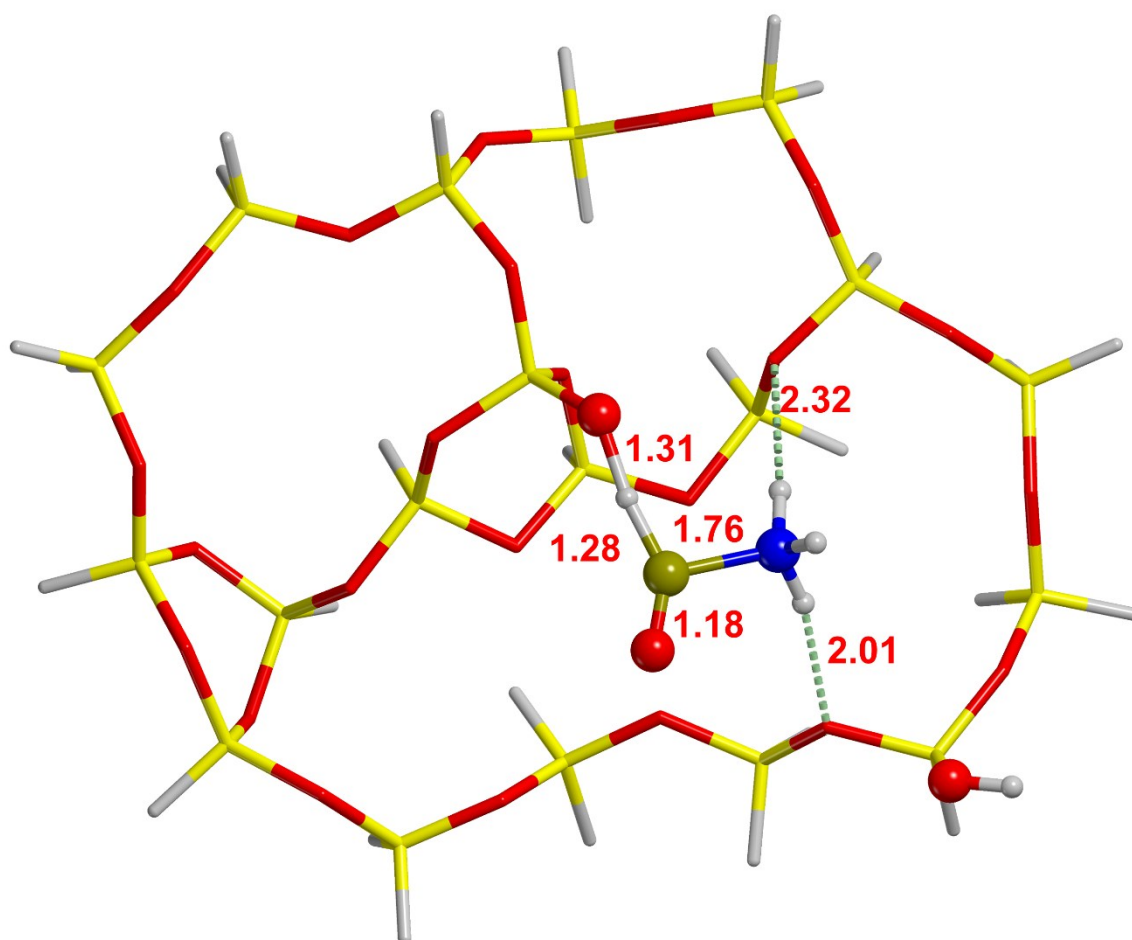
	O	5.7676225242	2.2649264973	0.5965431803
	Si	6.9358015242	1.5235804973	-0.3764098197
	H	6.6322105242	1.7930074973	-1.8147788197
	O	6.9658755242	-0.1204815027	-0.1011778197
	H	8.2541925242	2.0737594973	0.0466791803
	H	3.8319215242	5.9717414973	-1.3836498197
	H	3.1819465242	6.9362324973	0.8085851803
	H	-5.0000254758	5.2321294973	1.5362811803
	H	-8.1519884758	2.1410264973	1.2432441803
	H	-1.8547074758	5.5355104973	1.9090291803
	H	-6.1440194758	-4.7956055027	0.3294641803
	H	-2.4234424758	-6.7288875027	0.2098991803
	H	2.7980325242	-5.5852095027	-0.6009518197
	H	8.4993685242	-1.9456955027	-1.0397688197
	H	-7.7493824758	-1.4325515027	-0.3077308197
	H	5.7778295242	-5.1530005027	-0.2504738197



Gas phase coordinates	PCM (F) coordinates
80	
SiL_TS_G	
Si 5.5114635538 -4.0582333045 0.7280123591	
O 5.7551645538 -4.4634123045 2.3210433591	
H 6.6372365538 -4.2677253045 2.6732833591	
O 6.5200895538 -2.8049553045 0.3399153591	

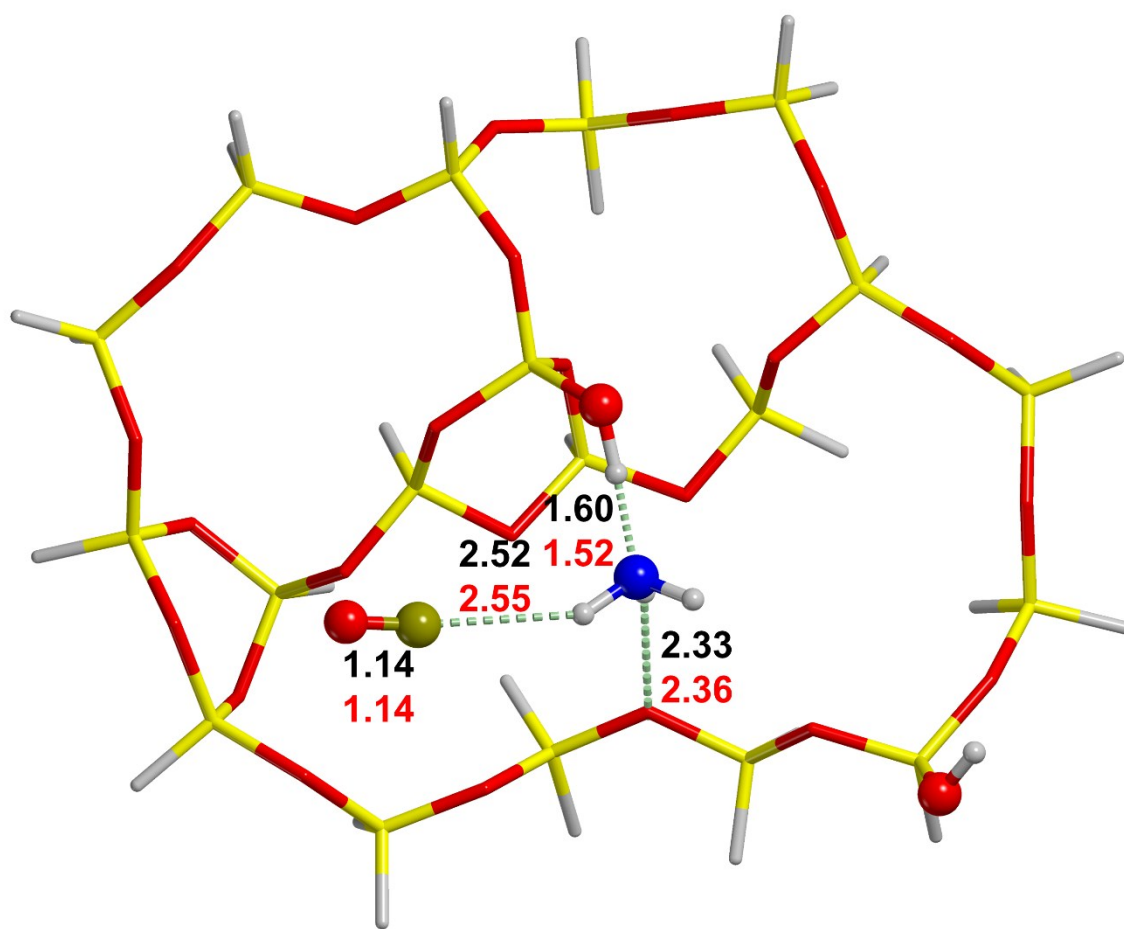
C	0.7666835538	-1.5509123045	2.4735253591
H	0.3940945538	-0.3863223045	2.4466703591
N	2.2295855538	-1.2529783045	1.5442263591
H	2.9715265538	-1.9495523045	1.6923183591
H	1.9642135538	-1.2411923045	0.5431483591
O	0.5528455538	-2.6662913045	2.7663793591
Si	-2.1899504462	-0.1920383045	-0.3488206409
O	-0.0098554462	1.7104486955	-0.6051206409
H	-2.6615464462	0.6288936955	-1.4885176409
Si	-4.7674984462	4.1952456955	0.4505853591
O	-3.1811374462	3.7646406955	0.5080863591
Si	-1.7409544462	4.4976386955	0.8247493591
H	-5.0615304462	4.7405916955	-0.9128006409
O	-1.9370954462	0.7439186955	0.9845213591
Si	-0.4778714462	1.6700566955	1.0637723591
O	-1.1769014462	5.1950026955	-0.5566346409
O	-0.7684324462	3.2768876955	1.3867373591
H	3.6410565538	-3.7184023045	-1.8915296409
Si	2.9281125538	-4.1174593045	-0.6351436409
O	0.5687145538	0.9563346955	2.0331973591
O	1.8431085538	-0.2057733045	-1.1574006409
Si	0.2667415538	0.3113216955	-1.4583076409
O	-0.7212284462	-0.8746663045	-0.8470746409
H	0.0750445538	0.5369676955	-2.9136536409
O	3.8945315538	-3.6303123045	0.6317313591
H	2.4944575538	-0.2848073045	1.7788493591
O	1.4131655538	-3.4597523045	-0.6896076409
O	-5.6686104462	-2.3802863045	0.8718283591
H	0.3743875538	4.0310246955	-2.2701706409
H	0.0574845538	6.4777966955	-2.3495726409
Si	0.1969965538	5.2775506955	-1.4713486409
O	-5.5146274462	-0.8893523045	-1.4255066409
O	-6.3422464462	0.3563426955	0.8179103591
H	-7.3200764462	1.8504516955	-1.0710776409
Si	-6.9757904462	1.8419926955	0.3843953591
O	-5.8048474462	2.9551406955	0.7228743591
Si	-6.3516484462	-1.0934603045	0.0235573591
Si	-5.0593744462	-3.8194993045	0.2570613591
H	6.2148875538	-1.7337613045	-1.9797256409
O	-4.7157344462	-3.4442083045	-1.3595586409
H	4.1486985538	0.5236186955	-1.8106366409
Si	2.8862105538	1.0953336955	-1.3479586409
H	2.2473955538	1.9664376955	-2.3778236409
O	3.1417325538	1.8699056955	0.1152803591
O	-3.6583954462	-4.5897553045	0.7502603591
Si	-0.0185734462	-4.1168993045	-1.2655566409
Si	-2.4901004462	-5.3371363045	-0.2179786409
H	-2.8568674462	-5.2569513045	-1.6631106409
Si	-4.1798564462	-1.8798813045	-1.5708026409
H	0.3521725538	-5.2770443045	-2.1415506409
O	-0.9709914462	-4.6917393045	-0.0130796409
H	-3.4606084462	-1.7533803045	-2.8433066409

O	-3.1897024462	-1.5126193045	-0.2534766409
H	-0.7390064462	-3.0810333045	-2.0501756409
O	3.7463185538	4.4616786955	0.7110903591
O	1.4894895538	5.4745516955	-0.4642656409
Si	3.0633205538	5.7485266955	-0.1371706409
Si	4.3555595538	3.0224466955	0.0963013591
H	4.6628055538	3.3715006955	-1.3356956409
Si	7.0537555538	-1.6686673045	-0.7423056409
O	5.7565485538	2.2522486955	0.5895103591
Si	6.9247945538	1.5048226955	-0.3786976409
H	6.6208175538	1.7645116955	-1.8187736409
O	6.9555065538	-0.1373503045	-0.0924756409
H	8.2430755538	2.0582856955	0.0404323591
H	3.8191305538	5.9450446955	-1.4150476409
H	3.1692555538	6.9239546955	0.7708173591
H	-5.0119644462	5.2218636955	1.5115643591
H	-8.1628874462	2.1277526955	1.2398603591
H	-1.8666754462	5.5288516955	1.8816283591
H	-6.1526414462	-4.8141253045	0.3721113591
H	-2.4314014462	-6.7468493045	0.2647263591
H	2.7895045538	-5.6067743045	-0.5548236409
H	8.4894595538	-1.9682613045	-1.0191436409
H	-7.7593264462	-1.4559743045	-0.2872506409
H	5.7692185538	-5.1711763045	-0.2078516409



Gas phase coordinates	PCM (F) coordinates
	80
	SiL_TS_F
	Si 5.5077757684 -4.0272873159 0.7053454477
	O 5.7145507684 -4.4155663159 2.3125284477
	H 6.6377417684 -4.5039203159 2.6038014477
	O 6.5056847684 -2.7688563159 0.3063734477
	C 1.4845747684 -1.3201713159 2.2983164477
	H 0.8967857684 -0.1845383159 2.2423964477
	N 3.1497797684 -0.9666353159 1.8518224477
	H 3.5286147684 -1.7577803159 1.3036514477
	H 3.1802427684 -0.0843913159 1.3223104477
	O 1.2810377684 -2.4631083159 2.4986124477
	Si -2.2244622316 -0.2254993159 -0.3475885523
	O -0.0528012316 1.6597906841 -0.5603225523
	H -2.7092872316 0.5960266841 -1.4821425523
	Si -4.8278642316 4.1559756841 0.4549714477
	O -3.2383382316 3.7362406841 0.5049334477
	Si -1.8012992316 4.4801376841 0.8102614477
	H -5.1334682316 4.6938436841 -0.9088405523
	O -1.9903852316 0.7099556841 1.0066024477
	Si -0.5439392316 1.6510506841 1.0793294477
	O -1.2499782316 5.1756936841 -0.5771605523
	O -0.8298512316 3.2662106841 1.3938124477
	H 3.6199447684 -3.7105473159 -1.9045735523
	Si 2.9170077684 -4.1093053159 -0.6424675523
	O 0.4796127684 1.0547866841 2.1577694477
	O 1.8255207684 -0.2096863159 -1.1138385523
	Si 0.2526907684 0.2583806841 -1.4255925523
	O -0.7569492316 -0.9087083159 -0.8102675523
	H 0.0317077684 0.5010146841 -2.8719315523
	O 3.8874717684 -3.6105973159 0.6167944477
	H 3.7069967684 -0.8562753159 2.7071284477
	O 1.3973837684 -3.4619853159 -0.6907145523
	O -5.6823002316 -2.4236933159 0.9076944477
	H 0.2991217684 4.0152386841 -2.2950615523
	H -0.0346752316 6.4594936841 -2.3823735523
	Si 0.1179987684 5.2637566841 -1.5001975523
	O -5.5528752316 -0.9390793159 -1.3976045523
	O -6.3746152316 0.3081236841 0.8467904477
	H -7.3734192316 1.7880286841 -1.0424055523
	Si -7.0206372316 1.7877386841 0.4110554477
	O -5.8552562316 2.9100576841 0.7382534477
	Si -6.3788862316 -1.1448983159 0.0582954477
	Si -5.0669852316 -3.8612583159 0.2951294477
	H 6.1798227684 -1.7090843159 -2.0157015523
	O -4.7387392316 -3.4886573159 -1.3239455523
	H 4.0995257684 0.5350706841 -1.8435675523
	Si 2.8410157684 1.0962086841 -1.3815085523
	H 2.1853067684 1.9628256841 -2.4054035523
	O 3.0909577684 1.8793346841 0.0933014477
	O -3.6580202316 -4.6201213159 0.7832154477

	Si -0.0332272316	-4.1310213159	-1.2556745523
	Si -2.4903722316	-5.3635543159	-0.1888345523
	H -2.8660562316	-5.2916503159	-1.6321105523
	Si -4.2117552316	-1.9233343159	-1.5512545523
	H 0.3402137684	-5.2921763159	-2.1291815523
	O -0.9744702316	-4.7071773159	0.0046214477
	H -3.5001742316	-1.7969843159	-2.8227315523
	O -3.2311482316	-1.5383143159	-0.2243505523
	H -0.7651502316	-3.1031733159	-2.0402025523
	O 3.6853387684	4.4804736841	0.6647334477
	O 1.4149657684	5.4734646841	-0.5014665523
	Si 2.9887927684	5.7592906841	-0.1846545523
	Si 4.3006587684	3.0428896841	0.0521474477
	H 4.5972297684	3.3882216841	-1.3829995523
	Si 7.0254067684	-1.6333883159	-0.7834665523
	O 5.7096327684	2.2840856841	0.5402424477
	Si 6.8772337684	1.5406056841	-0.4317755523
	H 6.5631597684	1.7924486841	-1.8710785523
	O 6.9206437684	-0.1001593159	-0.1391885523
	H 8.1941767684	2.1045696841	-0.0225555523
	H 3.7358307684	5.9557166841	-1.4676935523
	H 3.0920977684	6.9390496841	0.7180034477
	H -5.0730592316	5.1851996841	1.5132554477
	H -8.2046402316	2.0689856841	1.2722854477
	H -1.9278082316	5.5147346841	1.8637344477
	H -6.1528562316	-4.8627123159	0.4205234477
	H -2.4193972316	-6.7708873159	0.2991394477
	H 2.7888807684	-5.5991803159	-0.5553995523
	H 8.4614607684	-1.9244733159	-1.0674795523
	H -7.7858772316	-1.5180813159	-0.2428455523
	H 5.7675637684	-5.1422403159	-0.2275585523



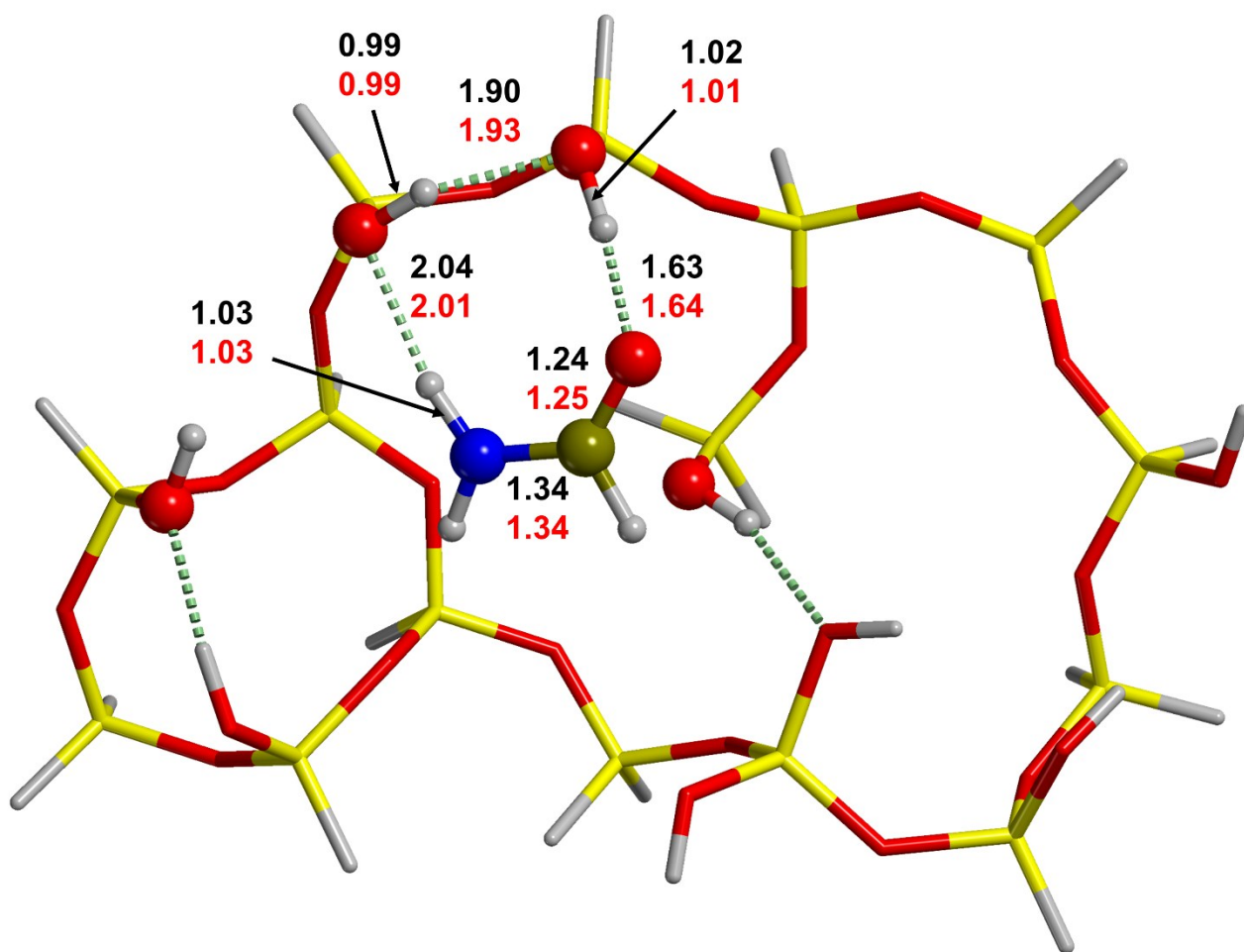
80							80						
SiL_P_G							SiL_P_F						
Si 5.4603383962	-4.2412272776	0.8049511552					Si 5.4625128931	-4.2441935117	0.8010656059				
O 5.7551003962	-4.7319292776	2.3658821552					O 5.6327258931	-4.6607115117	2.4074346059				
H 6.2717473962	-4.1117282776	2.9034761552					H 6.5494018931	-4.7756285117	2.7093156059				
O 6.5177263962	-3.0221172776	0.4383941552					O 6.5204838931	-3.0254165117	0.4350966059				
C -2.0255956038	-2.2033702776	2.6682851552					C -2.0088111069	-2.2067915117	2.6867056059				
H 0.9303523962	0.0637487224	2.0086471552					H 0.9112068931	0.0218954883	1.9998866059				
N 1.2309583962	-1.4909702776	1.8108311552					N 1.2480698931	-1.4541895117	1.8159846059				
H 0.4368043962	-2.0416392776	2.1501341552					H 1.3578058931	-1.6864815117	0.8229946059				
H 1.3442173962	-1.7118332776	0.8166271552					H 2.1070038931	-1.7472005117	2.2886466059				
O -3.0987786038	-2.1596822776	3.0409611552					O -3.0754801069	-2.1641285117	3.0790796059				
Si -2.0622676038	-0.1336352776	-0.4210878448					Si -2.0693031069	-0.1388025117	-0.4280803941				
O 0.1699663962	1.6824337224	-0.6091518448					O 0.1653618931	1.6807984883	-0.5994083941				
H -2.5078896038	0.7272227224	-1.5407458448					H -2.5032981069	0.7282744883	-1.5441373941				
Si -4.5250656038	4.3586877224	0.3719421552					Si -4.5193421069	4.3598814883	0.3693046059				
O -2.9555396038	3.8740997224	0.4559181552					O -2.9500531069	3.8746274883	0.4534976059				
Si -1.4970356038	4.5567167224	0.8000781552					Si -1.4913171069	4.5566284883	0.7980386059				
H -4.7762336038	4.9170417224	-0.9947808448					H -4.7700711069	4.9187834883	-0.9972303941				
O -1.7722126038	0.7517977224	0.9497481552					O -1.8039031069	0.7646844883	0.9484306059				
Si -0.3407846038	1.6947877224	1.0197681552					Si -0.3622921069	1.6869744883	1.0129626059				
O -0.8852606038	5.2378787224	-0.5690528448					O -0.8790631069	5.2378414883	-0.5708173941				
O -0.5851256038	3.2907727224	1.3707371552					O -0.5807351069	3.2874894883	1.3861516059				
H 3.6489653962	-3.8311582776	-1.8460138448					H 3.6518928931	-3.8328305117	-1.8500373941				

Si 2.9008483962	-4.2090942776	-0.6034678448	Si 2.9033508931	-4.2104825117	-0.6078203941
O 0.7003823962	1.0784837224	2.0955001552	O 0.6571828931	1.0571294883	2.1121796059
O 1.9704943962	-0.2720112776	-1.1461658448	O 1.9704038931	-0.2649445117	-1.1275223941
Si 0.4373953962	0.2860007224	-1.4907548448	Si 0.4372798931	0.2788104883	-1.4866913941
O -0.6284416038	-0.8586502776	-0.9277628448	O -0.6214271069	-0.8565965117	-0.8896903941
H 0.2565243962	0.5631137224	-2.9377938448	H 0.2450408931	0.5547224883	-2.9291643941
O 3.8606173962	-3.7583192776	0.6814341552	O 3.8632598931	-3.7604565117	0.6775986059
H 2.0738513962	-1.8222142776	2.2856151552	H 0.4829108931	-2.0338555117	2.1738726059
O 1.4103283962	-3.5001262776	-0.6824518448	O 1.4131798931	-3.5007325117	-0.6868993941
O -5.6569156038	-2.1832702776	0.7574461552	O -5.6538811069	-2.1817615117	0.7524786059
H 0.6554783962	4.0257597224	-2.2586128448	H 0.6614848931	4.0257384883	-2.2604863941
H 0.4235473962	6.4821017224	-2.3361928448	H 0.4305538931	6.4821994883	-2.3372833941
Si 0.5065643962	5.2756597224	-1.4592888448	Si 0.5129508931	5.2754484883	-1.4607583941
O -5.4050286038	-0.6915342776	-1.5281628448	O -5.4022691069	-0.6869005117	-1.5339073941
O -6.2359006038	0.5748617224	0.6999521552	O -6.2317411069	0.5766244883	0.6958176059
H -7.1287596038	2.1060077224	-1.2014068448	H -7.1236951069	2.1087654883	-1.2051723941
Si -6.8107056038	2.0822997224	0.2598541552	Si -6.8058901069	2.0844394883	0.2561326059
O -5.6086906038	3.1540407224	0.6222001552	O -5.6034981069	3.1555764883	0.6190276059
Si -6.2806306038	-0.8718452776	-0.0987978448	Si -6.2769441069	-0.8698125117	-0.1034423941
Si -5.0862666038	-3.6409282776	0.1491311552	Si -5.0837501069	-3.6394585117	0.1437716059
H 6.2902043962	-1.9355612776	-1.8830178448	H 6.2937508931	-1.9379745117	-1.8859803941
O -4.7015366038	-3.2753092776	-1.4597218448	O -4.7056301069	-3.2724965117	-1.4659143941
H 4.2995683962	0.3906237224	-1.7432568448	H 4.3038818931	0.3889174883	-1.7459603941
Si 3.0524913962	0.9997487224	-1.2971158448	Si 3.0596478931	0.9999324883	-1.3045733941
H 2.4587623962	1.8986377224	-2.3396158448	H 2.4638278931	1.8980494883	-2.3418363941
O 3.2888573962	1.7902517224	0.1565331552	O 3.2887268931	1.7875204883	0.1631046059
O -3.7212806038	-4.4597192776	0.6645411552	O -3.7191561069	-4.4589575117	0.6591226059
Si -0.0324446038	-4.1064212776	-1.2856138448	Si -0.0298671069	-4.1064895117	-1.2903163941
Si -2.5622046038	-5.2441702776	-0.2852828448	Si -2.5602481069	-5.2435605117	-0.2907713941
H -2.9004616038	-5.1480402776	-1.7363838448	H -2.8982291069	-5.1468045117	-1.7418953941
Si -4.1083656038	-1.7316822776	-1.6585568448	Si -4.1076321069	-1.7317305117	-1.6706203941
H 0.3139783962	-5.2764192776	-2.1584528448	H 0.3162268931	-5.2763345117	-2.1634913941
O -1.0258516038	-4.6514622776	-0.0517928448	O -1.0236911069	-4.6515445117	-0.0568373941
H -3.3635756038	-1.6230502776	-2.9163898448	H -3.3597551069	-1.6212735117	-2.9208563941
O -3.1197696038	-1.4077662776	-0.3244308448	O -3.1287961069	-1.4062655117	-0.3228643941
H -0.7032146038	-3.0446952776	-2.0796378448	H -0.7000811069	-3.0442295117	-2.0840923941
O 3.9870423962	4.3340277224	0.7825961552	O 3.9926068931	4.3315804883	0.7814556059
O 1.7870443962	5.4260517224	-0.4290608448	O 1.7933198931	5.4249624883	-0.4302853941
Si 3.3632523962	5.6453877224	-0.0735518448	Si 3.3695788931	5.6435554883	-0.0744513941
Si 4.5575553962	2.8764667224	0.1743601552	Si 4.5627358931	2.8738494883	0.1727366059
H 4.9017803962	3.2181587224	-1.2509478448	H 4.9072938931	3.2160334883	-1.2524253941
Si 7.1088353962	-1.9021132776	-0.6308718448	Si 7.1121858931	-1.9052635117	-0.6336863941
O 5.9226773962	2.0576307224	0.6897191552	O 5.9273488931	2.0544244883	0.6880826059
Si 7.0816013962	1.2730047224	-0.2600148448	Si 7.0862068931	1.2697774883	-0.2617803941
H 6.8121443962	1.5464317224	-1.7044208448	H 6.8170628931	1.5437484883	-1.7061353941
O 7.0513333962	-0.3698992776	0.0217491552	O 7.0552048931	-0.3732555117	0.0194326059
H 8.4103923962	1.7802167224	0.1838641552	H 8.4151008931	1.7762594883	0.1824846059
H 4.1477803962	5.8191047224	-1.3373618448	H 4.1543598931	5.8173704883	-1.3380763941
H 3.4931363962	6.8143327224	0.8396931552	H 3.4997658931	6.8121344883	0.8392066059
H -4.7531116038	5.3904917224	1.4315201552	H -4.7471491069	5.3914134883	1.4292326059
H -8.0023026038	2.4063157224	1.0952001552	H -7.9974871069	2.4086574883	1.0913936059
H -1.6062136038	5.5891277224	1.8576861552	H -1.6002121069	5.5886654883	1.8559496059

H -6.2146556038 -4.5979752776 0.2419681552	H -6.2125221069 -4.5960625117 0.2361126059
H -2.5600876038 -6.6562302776 0.1941291552	H -2.5587721069 -6.6557765117 0.1881676059
H 2.7105493962 -5.6929622776 -0.5303588448	H 2.7120928931 -5.6943415117 -0.5349623941
H 8.5381563962 -2.2498222776 -0.8833508448	H 8.5414168931 -2.2534745117 -0.8860573941
H -7.6941436038 -1.1853932776 -0.4353698448	H -7.6905221069 -1.1826645117 -0.4403413941
H 5.6964903962 -5.3600652776 -0.1295858448	H 5.6983928931 -5.3628015117 -0.1338133941

Figure S8: PBE-D2/TZVP optimized geometries for the formamide decarbonylation reaction catalysed by hydrophobic silica. In the figures the most representative bond lengths (in Å) in gas phase (black) and in PCM (F) (red) are reported. In the left and the right columns the cartesian coordinates of the optimized structures in gas phase and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue, silicons in yellow.

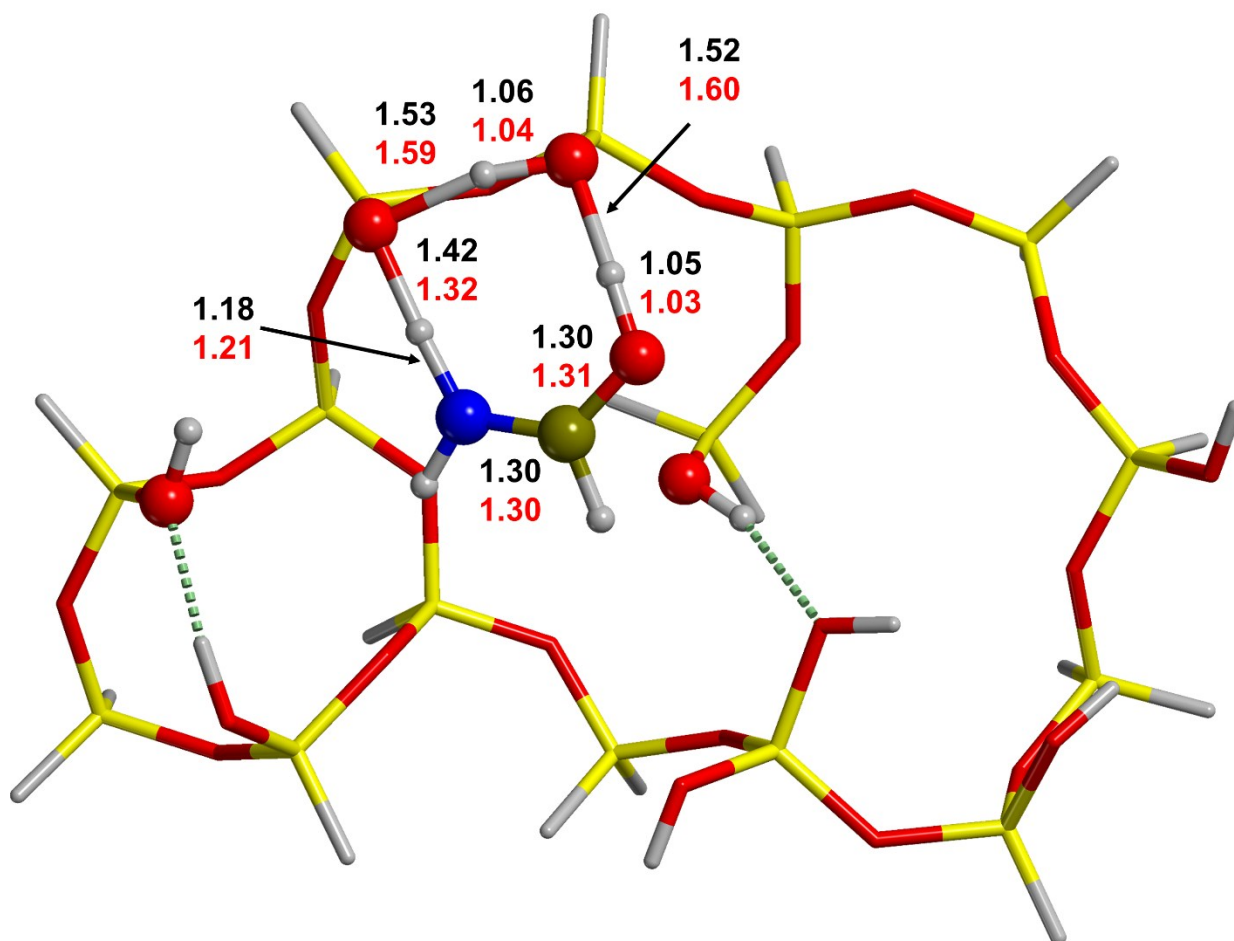
Formamide + Silica 4.5 dehydration reaction



Gas phase coordinates	PCM coordinates
74	74
SiH_M1_G	SiH_M1_F
C -0.496409 0.770518 2.460437	C -0.542043 0.753982 2.467273
H 0.051063 -0.190840 2.418941	H -0.020194 -0.219803 2.418599
N -1.781261 0.677055 2.073703	N -1.829250 0.699671 2.105786
H -2.362448 1.521011 2.026341	H -2.400824 1.553402 2.075320
H -2.118305 -0.181205 1.640830	H -2.211618 -0.161578 1.717280
O 0.064265 1.802217 2.864498	O 0.061403 1.777017 2.853937
O -3.193808 3.379256 1.985742	O -3.179051 3.401524 1.989825
O -0.585968 4.286824 2.239738	O -0.545595 4.287565 2.246402
H -2.408325 3.790638 2.428293	H -2.411438 3.836900 2.433829
H -0.285631 3.360621 2.529098	H -0.299329 3.338737 2.510171
O 2.425643 -1.448314 1.221845	O 2.435781 -1.454540 1.237061
O 5.192685 -2.828538 2.011118	O 5.135526 -2.825606 2.025412
H 5.875407 -2.170668 1.792039	H 6.001964 -2.386423 1.978423
O 7.199072 0.405662 1.276548	O 7.205667 0.420364 1.278997
H 7.394069 1.205267 1.789410	H 7.545755 1.231350 1.692787
H 3.201209 -1.391799 1.808197	H 3.298963 -1.413212 1.691671
O 0.701787 -3.378156 2.005856	O 0.698265 -3.341849 2.016117
H 0.543238 -4.321244 2.165359	H 0.297934 -4.226210 1.967084
O -4.757237 -2.577810 2.009861	O -4.759672 -2.558149 2.009609

H -5.065230 -1.643466 2.049536	H -5.058069 -1.614141 2.017845
O -5.567408 0.077703 1.522407	O -5.593979 0.040439 1.525469
H -5.216661 0.899135 1.907290	H -5.307785 0.853170 1.976015
O 0.767809 0.362237 -0.204987	O 0.794287 0.370954 -0.194958
H 1.483359 -0.124338 0.260149	H 1.493563 -0.163704 0.245506
O 3.691272 3.956187 -0.398278	O 3.697004 3.952094 -0.399403
H 5.353293 3.356622 -2.284911	H 5.359316 3.350451 -2.285118
Si -0.357815 4.618672 0.621958	Si -0.351920 4.618671 0.618813
H 1.965948 4.685334 -2.125399	H 1.973152 4.682398 -2.127506
Si 2.189309 3.693529 -1.035092	Si 2.195083 3.690679 -1.036829
Si -3.221878 3.818302 0.364311	Si -3.216619 3.820931 0.360081
O -1.694411 4.060670 -0.205048	O -1.688666 4.061705 -0.208649
O 1.001646 3.884197 0.086311	O 1.007091 3.882770 0.083983
O 5.068716 -3.383614 -0.675061	O 5.067655 -3.389077 -0.673571
O 5.742621 -0.788686 -0.501240	O 5.743926 -0.794738 -0.500147
O 3.111589 -4.102452 0.981888	O 3.109099 -4.105620 0.982683
Si 6.098735 -2.236629 -1.238071	Si 6.099010 -2.243216 -1.236424
H 5.901241 -2.132508 -2.712970	H 5.902284 -2.139309 -2.711440
Si 5.192327 3.414446 -0.796635	Si 5.197728 3.408830 -0.796931
Si 4.740419 -3.955049 0.848434	Si 4.738127 -3.959789 0.849929
O 5.455733 1.900303 -0.171625	O 5.459423 1.894610 -0.171391
Si 6.490554 0.639123 -0.226963	Si 6.493080 0.632440 -0.225917
Si -2.470344 -1.269435 -1.349769	Si -2.469102 -1.267977 -1.352278
Si 1.887998 -2.999343 0.904436	Si 1.886583 -3.001380 0.904376
O -7.081332 -1.215866 -0.253816	O -7.080535 -1.209765 -0.258436
O -0.941268 -1.780576 -1.642258	O -0.940376 -1.780638 -1.643934
Si -6.725384 -2.663907 -0.990613	Si -6.725617 -2.658341 -0.994678
H -6.831961 -2.507406 -2.472845	H -6.831373 -2.502142 -2.477001
O -2.985089 -1.866514 0.109469	O -2.985072 -1.864175 0.106887
H -3.361161 -1.713901 -2.454232	H -3.359836 -1.711903 -2.457026
O -5.175649 -3.132722 -0.660686	O -5.176475 -3.128527 -0.663920
O -3.915912 2.549128 -0.405300	O -3.911499 2.552203 -0.409501
Si -4.078475 -3.016625 0.563090	Si -4.079748 -3.013132 0.560323
O -5.214370 0.386102 -1.175923	O -5.211645 0.390192 -1.180128
H -0.150569 1.431848 -2.326551	H -0.146339 1.430853 -2.328738
O -2.508792 0.372261 -1.201849	O -2.506070 0.373794 -1.204821
Si -6.333522 0.211956 0.020409	Si -6.331504 0.217426 0.015742
H -3.882469 1.770606 -2.843377	H -3.877683 1.772988 -2.847352
Si -3.856140 1.290188 -1.439125	Si -3.852444 1.292926 -1.442958
Si 1.122414 0.927387 -1.734548	Si 1.125899 0.925353 -1.736020
H 1.789750 -0.108434 -2.586018	H 1.792645 -0.111327 -2.586906
O 1.299824 -2.936684 -0.633134	O 1.299167 -2.938584 -0.633478
H 0.220352 -3.750681 -2.760144	H 0.219894 -3.752141 -2.760758
O 2.225420 2.177723 -1.651014	O 2.230045 2.174672 -1.652323
Si -0.112173 -3.191592 -1.418428	Si -0.112713 -3.192374 -1.419345
H 6.172751 4.352526 -0.167439	H 6.178750 4.346157 -0.167544
H 7.491383 0.872577 -1.313379	H 7.494622 0.864656 -1.311941
H 7.509806 -2.609842 -0.883222	H 7.509567 -2.617662 -0.880832
H 5.355805 -5.297403 1.016209	H 5.352172 -5.302676 1.018348
H -0.964061 -4.131439 -0.611584	H -0.965853 -4.131199 -0.612633
H -3.417208 -4.331477 0.757795	H -3.419809 -4.328553 0.755685
H -7.698814 -3.659821 -0.452807	H -7.700230 -3.653191 -0.457045

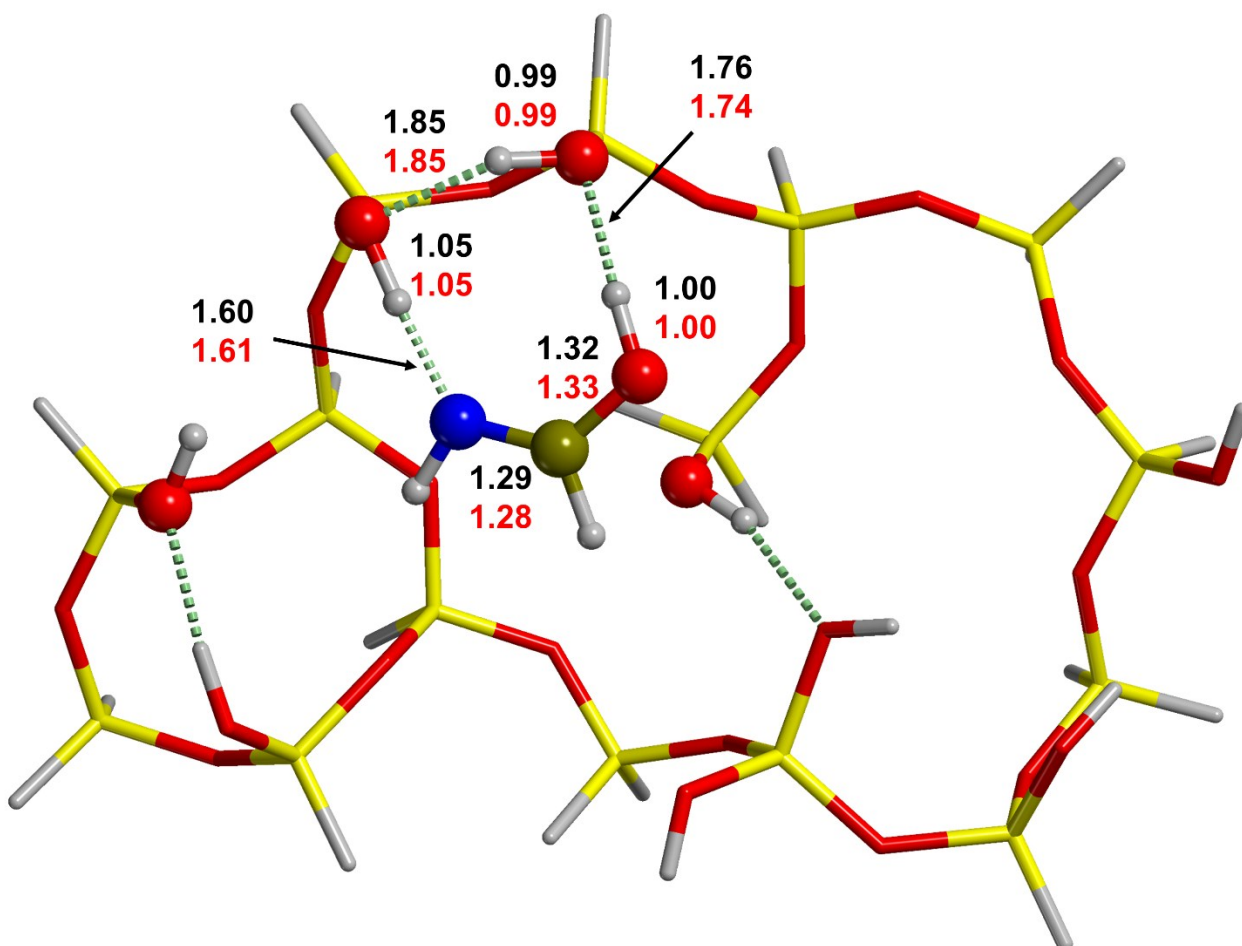
H -7.295845 1.342834 0.047514	H -7.292773 1.349217 0.042103
H -4.072590 5.011171 0.109104	H -4.066090 5.014532 0.104164
H -0.269164 6.085188 0.382238	H -0.261778 6.085038 0.378736



Gas phase coordinates	PCM coordinates
74	74
SiH_TS1_G	SiH_TS1_F
C -0.674340 0.876043 2.334449	C -0.860504 0.833988 2.459056
H -0.267354 -0.140384 2.296078	H -0.521744 -0.207216 2.482122
N -1.917855 1.085378 2.008086	N -2.091233 1.122953 2.173057
H -2.449431 2.113478 2.004980	H -2.580237 2.228646 2.096294
H -2.410959 0.267195 1.644237	H -2.670201 0.313986 1.935509
O 0.169178 1.772566 2.742501	O 0.077650 1.694925 2.756808
O -3.040212 3.401576 1.957015	O -3.062805 3.453223 1.961723
O -0.622579 4.161600 2.228104	O -0.597623 4.175099 2.226130
H -1.667599 3.977314 2.297818	H -1.623784 4.026711 2.315278
H -0.147368 2.760948 2.599068	H -0.190575 2.676634 2.603177
O 2.433456 -1.460248 1.249183	O 2.444988 -1.454305 1.240035
O 5.180978 -2.820468 2.014645	O 5.147026 -2.818672 2.037135
H 5.906024 -2.201256 1.820859	H 6.013315 -2.379096 1.991452
O 7.199978 0.401163 1.279392	O 7.210160 0.430658 1.287738
H 7.412947 1.201193 1.784384	H 7.555188 1.241678 1.697370
H 3.260217 -1.422246 1.764222	H 3.305909 -1.410149 1.698540
O 0.698547 -3.358165 2.017900	O 0.710919 -3.347188 2.022751

H 0.349793 -4.263087 2.017852	H 0.325592 -4.238659 1.982638
O -4.753387 -2.584661 2.021810	O -4.755687 -2.576016 2.007569
H -5.066218 -1.651660 2.058670	H -5.056129 -1.633866 2.020375
O -5.557339 0.078175 1.529084	O -5.558399 0.042625 1.509048
H -5.246274 0.917093 1.912953	H -5.476590 0.852580 2.040674
O 0.777825 0.356018 -0.190975	O 0.789157 0.375612 -0.190428
H 1.498029 -0.136758 0.261340	H 1.483570 -0.157970 0.259043
O 3.689450 3.949467 -0.397783	O 3.696037 3.952177 -0.400863
H 5.351079 3.348612 -2.284351	H 5.361980 3.351149 -2.283567
Si -0.359589 4.611115 0.623185	Si -0.355599 4.611383 0.611343
H 1.963145 4.675851 -2.125088	H 1.972664 4.675788 -2.132255
Si 2.187384 3.685369 -1.033760	Si 2.195480 3.686361 -1.039679
Si -3.223355 3.809065 0.367468	Si -3.218194 3.806823 0.350450
O -1.696213 4.051542 -0.202715	O -1.690092 4.050073 -0.216822
O 1.000035 3.876706 0.087862	O 1.005700 3.877640 0.079374
O 5.070370 -3.389966 -0.666898	O 5.083397 -3.386355 -0.661283
O 5.743074 -0.794518 -0.496209	O 5.753667 -0.790231 -0.491309
O 3.114194 -4.107912 0.991560	O 3.124431 -4.104548 0.993772
Si 6.099626 -2.243107 -1.231557	Si 6.112877 -2.239121 -1.224769
H 5.901547 -2.140723 -2.706500	H 5.917715 -2.138077 -2.700193
Si 5.190624 3.408014 -0.796082	Si 5.198452 3.411614 -0.795676
Si 4.742904 -3.959864 0.857351	Si 4.753291 -3.955296 0.862754
O 5.454995 1.894696 -0.169483	O 5.462764 1.899011 -0.167327
Si 6.490410 0.633959 -0.223793	Si 6.499300 0.639065 -0.218521
Si -2.469963 -1.280211 -1.341222	Si -2.457242 -1.283211 -1.352622
Si 1.890038 -3.005486 0.913325	Si 1.899551 -3.003170 0.912165
O -7.080580 -1.227667 -0.243656	O -7.070122 -1.233500 -0.264471
O -0.940744 -1.790933 -1.633697	O -0.927022 -1.792936 -1.641579
Si -6.724192 -2.676354 -0.978970	Si -6.711076 -2.682487 -0.997897
H -6.831383 -2.521555 -2.461336	H -6.815377 -2.528962 -2.480601
O -2.983888 -1.875916 0.118867	O -2.973656 -1.878160 0.106897
H -3.360964 -1.726339 -2.444866	H -3.345639 -1.730939 -2.457716
O -5.174110 -3.144046 -0.649084	O -5.161293 -3.148667 -0.664486
O -3.917050 2.538697 -0.400478	O -3.909306 2.535283 -0.417885
Si -4.076549 -3.026053 0.574164	Si -4.066316 -3.028812 0.560895
O -5.214732 0.374182 -1.168222	O -5.203685 0.369110 -1.186528
H -0.151859 1.421112 -2.321852	H -0.139320 1.419191 -2.330706
O -2.509157 0.361630 -1.195115	O -2.498052 0.358714 -1.207912
Si -6.333366 0.200824 0.028709	Si -6.324611 0.195810 0.008266
H -3.884111 1.757478 -2.837700	H -3.870785 1.752140 -2.854407
Si -3.857039 1.278637 -1.432923	Si -3.846184 1.274446 -1.449194
Si 1.121584 0.917931 -1.729749	Si 1.133320 0.917510 -1.735612
H 1.789117 -0.118512 -2.580309	H 1.803413 -0.119076 -2.583982
O 1.301276 -2.944825 -0.624100	O 1.313867 -2.944214 -0.626502
H 0.221430 -3.761714 -2.749812	H 0.239001 -3.763674 -2.753748
O 2.224011 2.168896 -1.648007	O 2.234574 2.169427 -1.652634
Si -0.110880 -3.201294 -1.408598	Si -0.096485 -3.202448 -1.413662
H 6.170819 4.347271 -0.168287	H 6.176614 4.352162 -0.166644
H 7.490732 0.866691 -1.310832	H 7.501643 0.871732 -1.303711
H 7.511007 -2.615237 -0.876806	H 7.523832 -2.609830 -0.866852
H 5.359004 -5.301732 1.026397	H 5.370123 -5.296532 1.034128
H -0.962018 -4.140657 -0.600399	H -0.948509 -4.141848 -0.606441

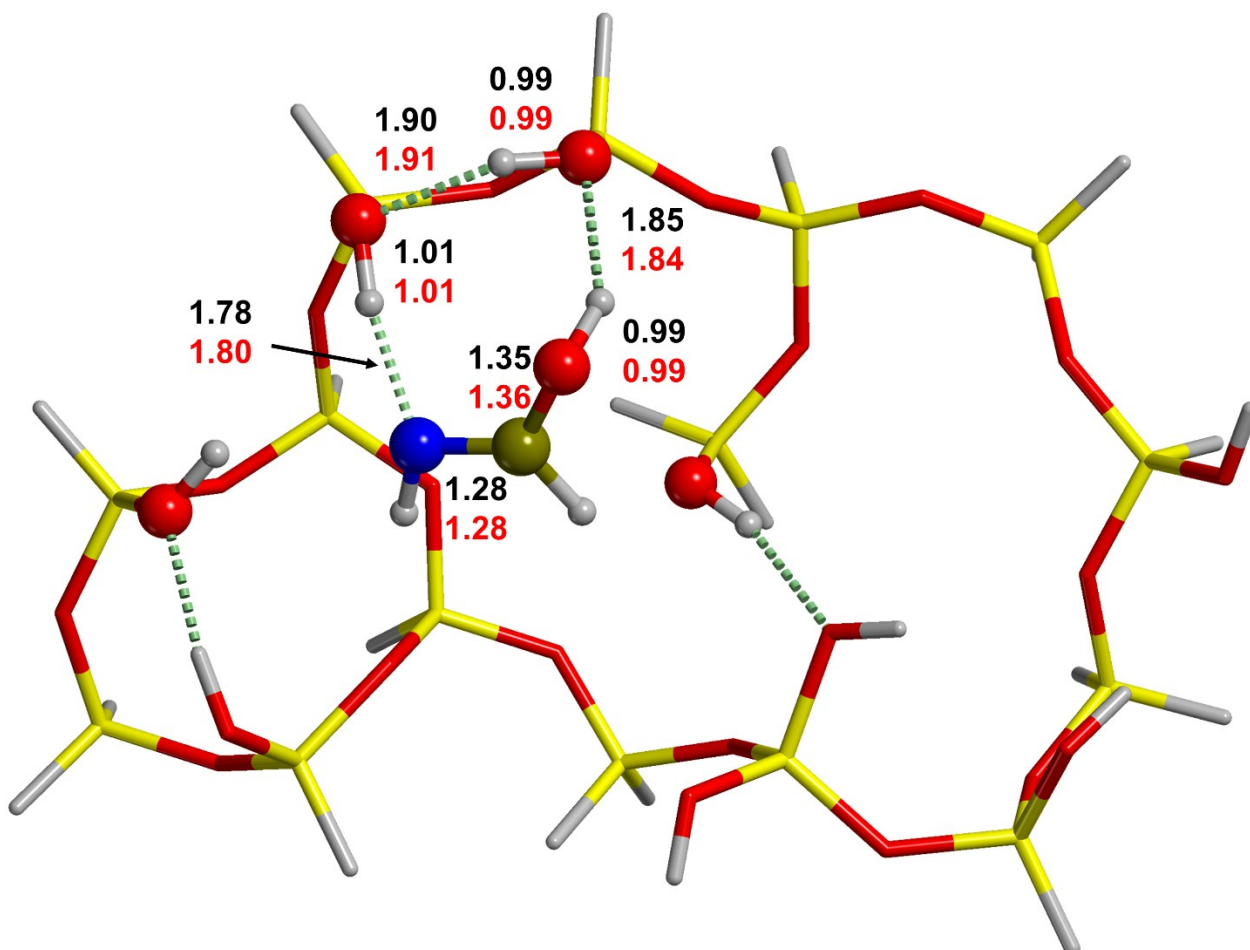
H -3.414571 -4.340365 0.770091	H -3.403682 -4.342433 0.759221
H -7.696942 -3.672143 -0.439703	H -7.684120 -3.678627 -0.459809
H -7.296230 1.331262 0.054904	H -7.288434 1.325493 0.031597
H -4.074741 5.001234 0.111242	H -4.070015 4.998101 0.091538
H -0.271741 6.077407 0.381800	H -0.268439 6.077551 0.368961



Gas phase coordinates	PCM coordinates
74	74
SiH_M2_G	SiH_M2_F
C -0.779718 0.744909 2.365047	C -0.816922 0.748857 2.467532
H -0.404371 -0.285554 2.317686	H -0.455760 -0.287824 2.471949
N -1.995401 1.068680 2.089831	N -2.025004 1.083048 2.183411
H -2.720736 2.496751 2.101582	H -2.738436 2.525349 2.127237
H -2.516136 0.245399 1.771043	H -2.579768 0.261329 1.924192
O 0.165797 1.587808 2.753755	O 0.145847 1.602834 2.802632
O -3.146749 3.451789 1.992305	O -3.138639 3.482935 1.988872
O -0.529244 4.209333 2.248916	O -0.514353 4.202088 2.240489
H -1.496818 4.151381 2.472046	H -1.482712 4.165980 2.468075
H -0.113506 2.544466 2.644151	H -0.135211 2.557336 2.658899
O 2.431707 -1.448826 1.220439	O 2.443108 -1.454423 1.237011
O 5.209469 -2.830735 2.017917	O 5.142434 -2.819653 2.032366
H 5.864617 -2.150996 1.781906	H 6.009011 -2.380683 1.986081
O 7.200613 0.411078 1.282393	O 7.207594 0.428232 1.282458
H 7.405316 1.211064 1.790761	H 7.551697 1.239409 1.692569

H 3.181201 -1.384931 1.838265	H 3.305011 -1.412481 1.693951
O 0.712602 -3.372665 2.017330	O 0.705676 -3.342941 2.020337
H 0.504540 -4.312442 2.134372	H 0.311259 -4.230177 1.975130
O -4.756456 -2.591091 2.010976	O -4.758934 -2.571907 2.007841
H -5.067487 -1.657810 2.048310	H -5.057195 -1.628543 2.017433
O -5.562498 0.068870 1.521433	O -5.581465 0.034817 1.516370
H -5.178850 0.886932 1.882297	H -5.320363 0.853569 1.971447
O 0.767815 0.369656 -0.200128	O 0.788197 0.373775 -0.196176
H 1.476098 -0.116718 0.276095	H 1.482805 -0.156870 0.255879
O 3.690231 3.956125 -0.396374	O 3.695170 3.952155 -0.404423
H 5.353941 3.357599 -2.281848	H 5.359910 3.350111 -2.287868
Si -0.360178 4.614208 0.621458	Si -0.355582 4.614114 0.609521
H 1.964898 4.682264 -2.124753	H 1.971583 4.677107 -2.135041
Si 2.188913 3.691303 -1.033813	Si 2.194162 3.687438 -1.042635
Si -3.223132 3.810213 0.362776	Si -3.218847 3.811576 0.349757
O -1.695673 4.054145 -0.205934	O -1.690811 4.053803 -0.218132
O 1.000449 3.881111 0.086887	O 1.004982 3.879463 0.076928
O 5.076760 -3.382135 -0.668610	O 5.077291 -3.387324 -0.665995
O 5.747413 -0.786297 -0.495807	O 5.749446 -0.791683 -0.496098
O 3.119668 -4.102491 0.987722	O 3.118513 -4.104278 0.989819
Si 6.105666 -2.234190 -1.231698	Si 6.107338 -2.240765 -1.229821
H 5.908795 -2.131083 -2.706751	H 5.911632 -2.139471 -2.705154
Si 5.192148 3.416006 -0.793684	Si 5.197044 3.410573 -0.799903
Si 4.748385 -3.953172 0.855018	Si 4.747422 -3.956155 0.858135
O 5.457081 1.902512 -0.167747	O 5.460559 1.897736 -0.171783
Si 6.493466 0.642566 -0.221898	Si 6.496192 0.637070 -0.223507
Si -2.464527 -1.277501 -1.348255	Si -2.462163 -1.278854 -1.354031
Si 1.894773 -3.000915 0.909070	Si 1.894369 -3.002038 0.908807
O -7.076134 -1.228979 -0.254672	O -7.074553 -1.226004 -0.263955
O -0.934681 -1.786931 -1.639699	O -0.932420 -1.789626 -1.643664
Si -6.718047 -2.676970 -0.990529	Si -6.716827 -2.675184 -0.997644
H -6.824061 -2.521375 -2.472896	H -6.821638 -2.521468 -2.480293
O -2.979286 -1.874443 0.111035	O -2.978385 -1.873557 0.105657
H -3.354240 -1.723631 -2.452937	H -3.351332 -1.725875 -2.458790
O -5.167910 -3.143723 -0.659569	O -5.167231 -3.142474 -0.664915
O -3.915228 2.539791 -0.406522	O -3.911167 2.540580 -0.418390
Si -4.071500 -3.025648 0.564703	Si -4.071660 -3.023480 0.560019
O -5.210657 0.374781 -1.176670	O -5.207381 0.375374 -1.186664
H -0.147550 1.426096 -2.325274	H -0.142760 1.422004 -2.332866
O -2.505051 0.364224 -1.201215	O -2.501765 0.363088 -1.209175
Si -6.330204 0.199897 0.019185	Si -6.327930 0.202762 0.008584
H -3.879596 1.760034 -2.844173	H -3.874207 1.757602 -2.854989
Si -3.853396 1.280384 -1.439656	Si -3.849356 1.279779 -1.449824
Si 1.125746 0.923497 -1.732360	Si 1.129778 0.919385 -1.738343
H 1.794777 -0.111955 -2.582948	H 1.798792 -0.117602 -2.587072
O 1.307305 -2.939778 -0.628831	O 1.308087 -2.942551 -0.629611
H 0.229907 -3.756203 -2.755962	H 0.231762 -3.761091 -2.756472
O 2.227185 2.175220 -1.648922	O 2.231940 2.170526 -1.655725
Si -0.103981 -3.196818 -1.414708	Si -0.102774 -3.199737 -1.416203
H 6.171108 4.355609 -0.164482	H 6.176124 4.350387 -0.171204
H 7.494562 0.876671 -1.307928	H 7.498245 0.869121 -1.309096
H 7.517010 -2.605497 -0.875936	H 7.518183 -2.612490 -0.872519

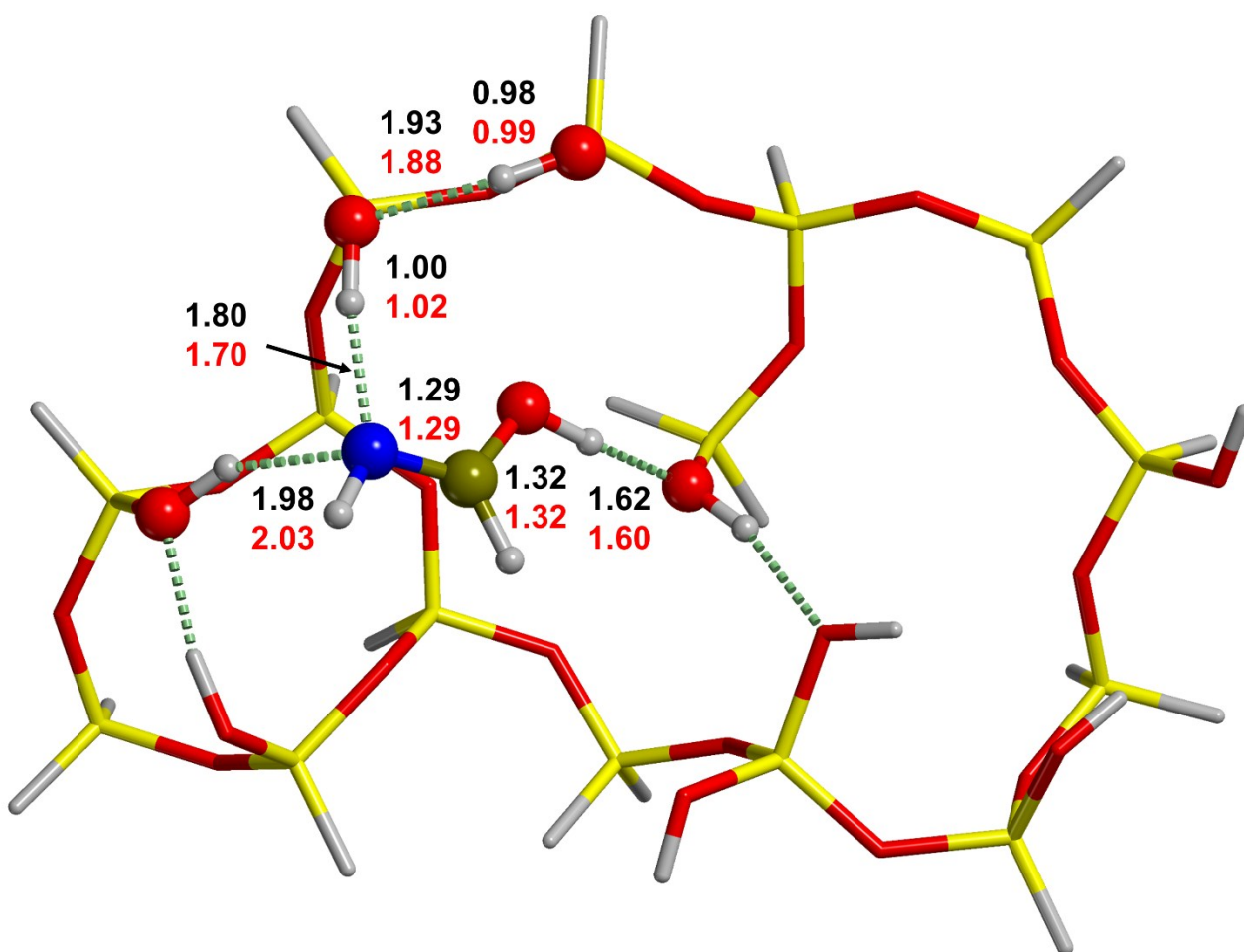
H 5.365321 -5.294687 1.023809	H 5.363389 -5.297834 1.029146
H -0.955133 -4.137280 -0.607805	H -0.955118 -4.138605 -0.608702
H -3.408731 -4.339591 0.760433	H -3.409863 -4.337581 0.757968
H -7.690536 -3.673788 -0.452695	H -7.690343 -3.670685 -0.459229
H -7.293918 1.329615 0.045208	H -7.290953 1.333118 0.032405
H -4.075168 5.001910 0.106512	H -4.069943 5.003470 0.091293
H -0.273193 6.080705 0.381015	H -0.267497 6.080239 0.367219



Gas phase coordinates	PCM coordinates
74	74
SiH_TS2_G	SiH_TS2_F
C -1.233540 0.787401 2.377929	C -1.237464 0.779190 2.375007
H -0.523173 0.025513 2.020606	H -0.524872 0.049151 1.961724
N -2.467555 0.807976 2.044137	N -2.484973 0.789396 2.102321
H -3.034050 2.497080 2.145892	H -3.044342 2.495008 2.149380
H -2.667739 0.013158 1.422167	H -2.709693 0.008992 1.469826
O -0.740377 1.692152 3.252502	O -0.723230 1.679596 3.250789
O -3.177048 3.484046 1.970455	O -3.170930 3.482264 1.974002
O -0.499836 4.208816 2.221828	O -0.487698 4.195500 2.223719
H -1.455448 4.125385 2.471620	H -1.445411 4.123881 2.469304
H -0.300358 2.462695 2.808776	H -0.294863 2.450644 2.792094
O 2.467335 -1.436247 1.221813	O 2.468997 -1.441472 1.242176
O 5.222318 -2.799482 2.042930	O 5.168649 -2.800051 2.056009

H 5.922543 -2.156267 1.836633	H 6.035224 -2.360508 2.016057
O 7.223152 0.436776 1.311553	O 7.229015 0.452454 1.312848
H 7.438806 1.238032 1.813384	H 7.574188 1.263740 1.721836
H 3.245937 -1.379476 1.804340	H 3.326827 -1.394288 1.706194
O 0.741949 -3.364758 2.017301	O 0.734791 -3.338546 2.022095
H 0.570970 -4.306397 2.172214	H 0.361243 -4.235300 1.988678
O -4.727626 -2.602770 1.983038	O -4.729181 -2.582346 1.984374
H -5.068462 -1.677136 2.004693	H -5.057124 -1.647704 1.979943
O -5.535975 0.028225 1.475469	O -5.551396 0.008289 1.481175
H -4.902376 0.714428 1.757317	H -5.010667 0.742835 1.824694
O 0.808829 0.383722 -0.193202	O 0.823232 0.384534 -0.189373
H 1.511340 -0.133478 0.261048	H 1.518566 -0.155068 0.252788
O 3.711000 3.968451 -0.393904	O 3.715383 3.965696 -0.394167
H 5.386448 3.370446 -2.269122	H 5.390801 3.366467 -2.269021
Si -0.346682 4.616858 0.600911	Si -0.341990 4.617547 0.599658
H 1.992705 4.685373 -2.133108	H 1.998183 4.684368 -2.133730
Si 2.213874 3.697656 -1.038652	Si 2.218190 3.696309 -1.039349
Si -3.205826 3.803728 0.328986	Si -3.201777 3.806976 0.326863
O -1.676105 4.050870 -0.232208	O -1.671690 4.052845 -0.233891
O 1.018929 3.886561 0.075289	O 1.023116 3.886117 0.074300
O 5.120721 -3.366265 -0.641398	O 5.118700 -3.370227 -0.642279
O 5.782743 -0.768040 -0.471203	O 5.782968 -0.772610 -0.471556
O 3.157024 -4.088547 1.006255	O 3.153929 -4.090999 1.004755
Si 6.149186 -2.216589 -1.201753	Si 6.148328 -2.221383 -1.202205
H 5.959831 -2.117543 -2.678067	H 5.959452 -2.121971 -2.678556
Si 5.216597 3.431876 -0.781977	Si 5.220609 3.427846 -0.781913
Si 4.785971 -3.934687 0.881820	Si 4.783044 -3.938559 0.880773
O 5.482699 1.920657 -0.151060	O 5.485211 1.916307 -0.151129
Si 6.523090 0.663681 -0.196738	Si 6.524505 0.658420 -0.196701
Si -2.423069 -1.285719 -1.365938	Si -2.423059 -1.282930 -1.368542
Si 1.929300 -2.990814 0.918510	Si 1.927197 -2.992172 0.916832
O -7.040531 -1.248363 -0.296897	O -7.040770 -1.241646 -0.300722
O -0.890196 -1.791273 -1.648071	O -0.890558 -1.789798 -1.650336
Si -6.674255 -2.697011 -1.027413	Si -6.675578 -2.690518 -1.031337
H -6.772871 -2.545224 -2.510686	H -6.773666 -2.538444 -2.514616
O -2.943783 -1.880753 0.092019	O -2.944685 -1.877702 0.089197
H -3.305588 -1.737098 -2.474252	H -3.305681 -1.733381 -2.477151
O -5.124516 -3.158361 -0.687147	O -5.126337 -3.153281 -0.690722
O -3.890063 2.529440 -0.440950	O -3.886933 2.533396 -0.443427
Si -4.034965 -3.034136 0.542627	Si -4.037004 -3.030183 0.539359
O -5.174962 0.358772 -1.212808	O -5.173541 0.363967 -1.215920
H -0.108979 1.422462 -2.337086	H -0.106323 1.423340 -2.338708
O -2.469244 0.356220 -1.223007	O -2.467824 0.359029 -1.225401
Si -6.300307 0.183370 -0.022485	Si -6.299357 0.189396 -0.025920
H -3.839197 1.744054 -2.876523	H -3.836113 1.748295 -2.879093
Si -3.819019 1.267794 -1.470753	Si -3.816728 1.271827 -1.473382
Si 1.162642 0.925057 -1.736251	Si 1.164699 0.924732 -1.737603
H 1.839240 -0.110397 -2.580829	H 1.840608 -0.111204 -2.582141
O 1.349812 -2.935050 -0.622620	O 1.348168 -2.935689 -0.624444
H 0.286130 -3.759689 -2.753482	H 0.284326 -3.759101 -2.755701
O 2.259904 2.180250 -1.649953	O 2.263044 2.178945 -1.650843
Si -0.056520 -3.198145 -1.415345	Si -0.058185 -3.197436 -1.417579

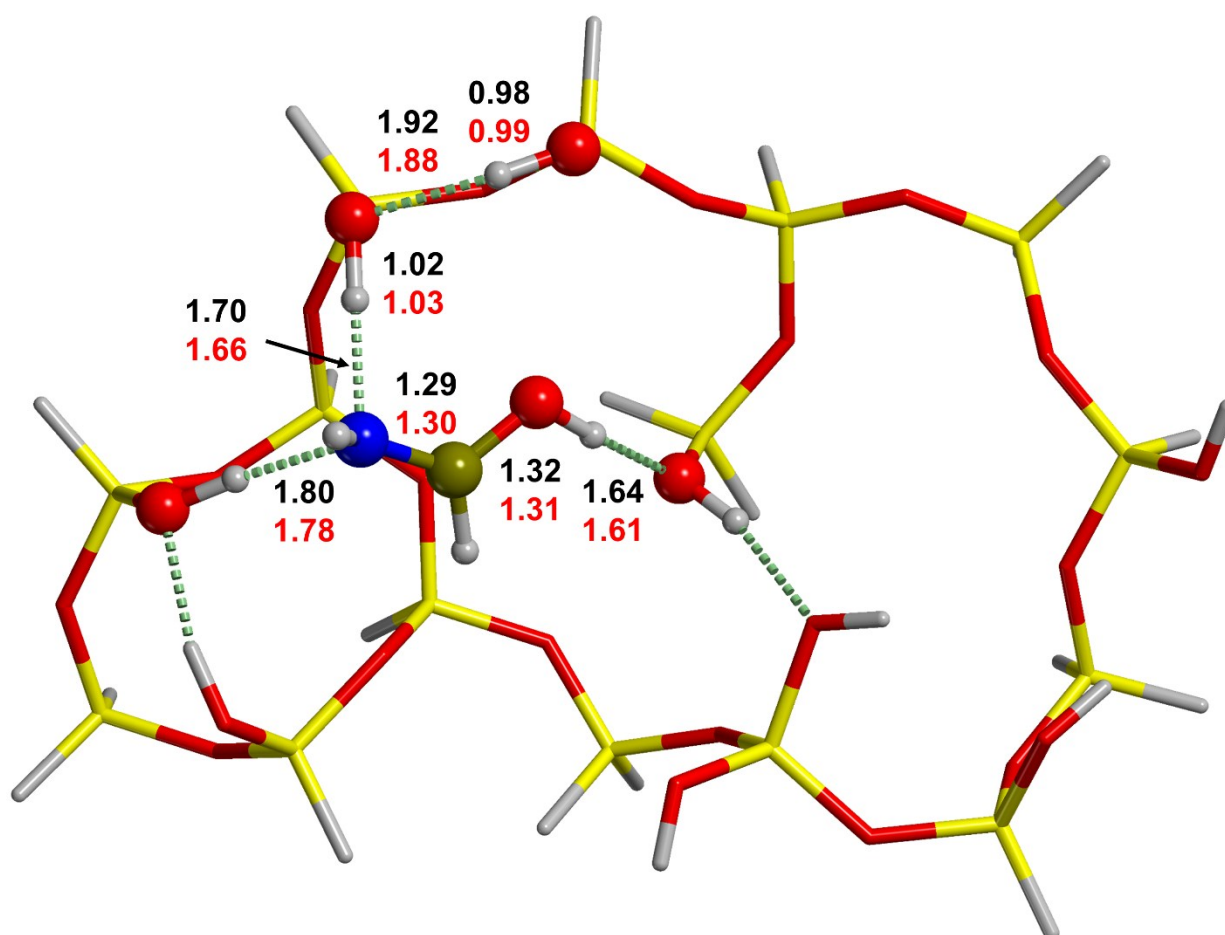
H 6.189416 4.375872 -0.149833	H 6.194093 4.370898 -0.149382
H 7.529230 0.898209 -1.278006	H 7.531139 0.892207 -1.277670
H 7.559720 -2.582849 -0.837645	H 7.558441 -2.588936 -0.837772
H 5.405982 -5.273957 1.057055	H 5.401827 -5.278399 1.055992
H -0.909142 -4.139236 -0.610730	H -0.911850 -4.137884 -0.613318
H -3.369346 -4.345634 0.744977	H -3.372596 -4.342295 0.741708
H -7.646618 -3.695452 -0.492372	H -7.648963 -3.688173 -0.496689
H -7.267493 1.310270 -0.004242	H -7.265553 1.317147 -0.007781
H -4.060024 4.992274 0.065391	H -4.054857 4.996311 0.063202
H -0.262775 6.083037 0.357455	H -0.256725 6.083684 0.356422



Gas phase coordinates	PCM coordinates
74	74
SiH_M3_G	SiH_M3_F
C -1.797950 0.438611 2.025970	C -1.803585 0.472728 2.057125
H -1.302571 -0.531954 2.193338	H -1.348241 -0.510968 2.246167
N -2.938071 0.756799 2.539575	N -2.919443 0.857531 2.582745
H -3.192734 2.522894 2.298714	H -3.169603 2.517768 2.302489
H -3.261649 0.016024 3.167658	H -3.258234 0.164569 3.255234
O -1.162907 1.305441 1.261495	O -1.150127 1.291416 1.256960
O -3.187358 3.496832 2.049581	O -3.177774 3.506624 2.048743
O -0.484114 4.300989 2.320272	O -0.496461 4.292915 2.320539
H -1.385048 3.969749 2.539946	H -1.407264 3.955766 2.507191

H -0.363872 0.902822 0.792119	H -0.365468 0.854163 0.783839
O 2.485156 -1.431584 1.236684	O 2.480325 -1.429541 1.237253
O 5.225701 -2.800150 2.050159	O 5.193778 -2.807553 2.068825
H 5.966823 -2.191050 1.887968	H 6.059004 -2.364732 2.036330
O 7.243573 0.433622 1.373568	O 7.249797 0.460770 1.373742
H 7.467377 1.226890 1.884646	H 7.590711 1.268158 1.793951
H 3.295807 -1.372703 1.774801	H 3.319482 -1.358193 1.730435
O 0.763444 -3.352590 2.012765	O 0.767154 -3.346019 2.021221
H 0.505322 -4.284116 2.091268	H 0.431457 -4.258295 2.015559
O -4.701093 -2.602544 1.965335	O -4.719177 -2.602348 1.963308
H -5.082741 -1.688156 1.947380	H -5.061457 -1.670967 1.943325
O -5.511686 0.020192 1.486938	O -5.512674 0.015564 1.490092
H -4.711268 0.567659 1.675056	H -4.716004 0.567399 1.674524
O 0.856500 0.371320 -0.135018	O 0.859402 0.379109 -0.132886
H 1.558122 -0.156074 0.321829	H 1.547079 -0.173599 0.319904
O 3.734567 3.989742 -0.292353	O 3.733723 3.987784 -0.297852
H 5.416226 3.419949 -2.170793	H 5.415847 3.416452 -2.175408
Si -0.326719 4.620176 0.699302	Si -0.327883 4.618303 0.692435
H 2.020802 4.729631 -2.026400	H 2.020097 4.725503 -2.032960
Si 2.239651 3.726708 -0.945388	Si 2.238984 3.723739 -0.950882
Si -3.184234 3.808299 0.407255	Si -3.185160 3.805472 0.400713
O -1.653078 4.064806 -0.145761	O -1.653965 4.061763 -0.152293
O 1.041181 3.898684 0.167507	O 1.040276 3.896580 0.161623
O 5.152220 -3.339403 -0.639508	O 5.153117 -3.341387 -0.637243
O 5.811178 -0.743231 -0.430514	O 5.811443 -0.744851 -0.430793
O 3.184292 -4.086809 0.991811	O 3.185070 -4.087572 0.994492
Si 6.181235 -2.180936 -1.180409	Si 6.181963 -2.183239 -1.179148
H 5.996218 -2.061152 -2.655736	H 5.997181 -2.065010 -2.654630
Si 5.241849 3.460135 -0.683446	Si 5.241196 3.458122 -0.688134
Si 4.813453 -3.929672 0.874484	Si 4.814216 -3.930182 0.877293
O 5.507537 1.940375 -0.073208	O 5.507124 1.939050 -0.076292
Si 6.549293 0.685150 -0.133555	Si 6.549178 0.684002 -0.135167
Si -2.391397 -1.255876 -1.357252	Si -2.390849 -1.260327 -1.358462
Si 1.955761 -2.989095 0.915926	Si 1.956301 -2.990218 0.917263
O -7.012084 -1.238009 -0.301727	O -7.011728 -1.242437 -0.303776
O -0.857188 -1.755941 -1.641894	O -0.856475 -1.760331 -1.642318
Si -6.642194 -2.675812 -1.051590	Si -6.641375 -2.680923 -1.052099
H -6.736503 -2.503109 -2.532854	H -6.735460 -2.509760 -2.533556
O -2.915904 -1.872003 0.090549	O -2.915473 -1.875090 0.089877
H -3.270140 -1.692328 -2.474509	H -3.269294 -1.698125 -2.475427
O -5.093033 -3.140485 -0.713221	O -5.092168 -3.144894 -0.712979
O -3.864905 2.544411 -0.382722	O -3.865401 2.540619 -0.388089
Si -4.007303 -3.032681 0.521472	Si -4.006682 -3.035576 0.521796
O -5.145350 0.383697 -1.189137	O -5.145208 0.378786 -1.192516
H -0.077058 1.467968 -2.282937	H -0.076970 1.463098 -2.286527
O -2.439612 0.383828 -1.191207	O -2.439470 0.379536 -1.194106
Si -6.274092 0.190385 -0.004821	Si -6.274116 0.186429 -0.008203
H -3.805953 1.793674 -2.829016	H -3.805842 1.787389 -2.833601
Si -3.789530 1.297555 -1.430082	Si -3.789554 1.292708 -1.434157
Si 1.193240 0.963291 -1.685377	Si 1.193337 0.959325 -1.688224
H 1.873387 -0.059453 -2.542498	H 1.873871 -0.064141 -2.544176
O 1.380850 -2.912036 -0.626000	O 1.381647 -2.914871 -0.624843

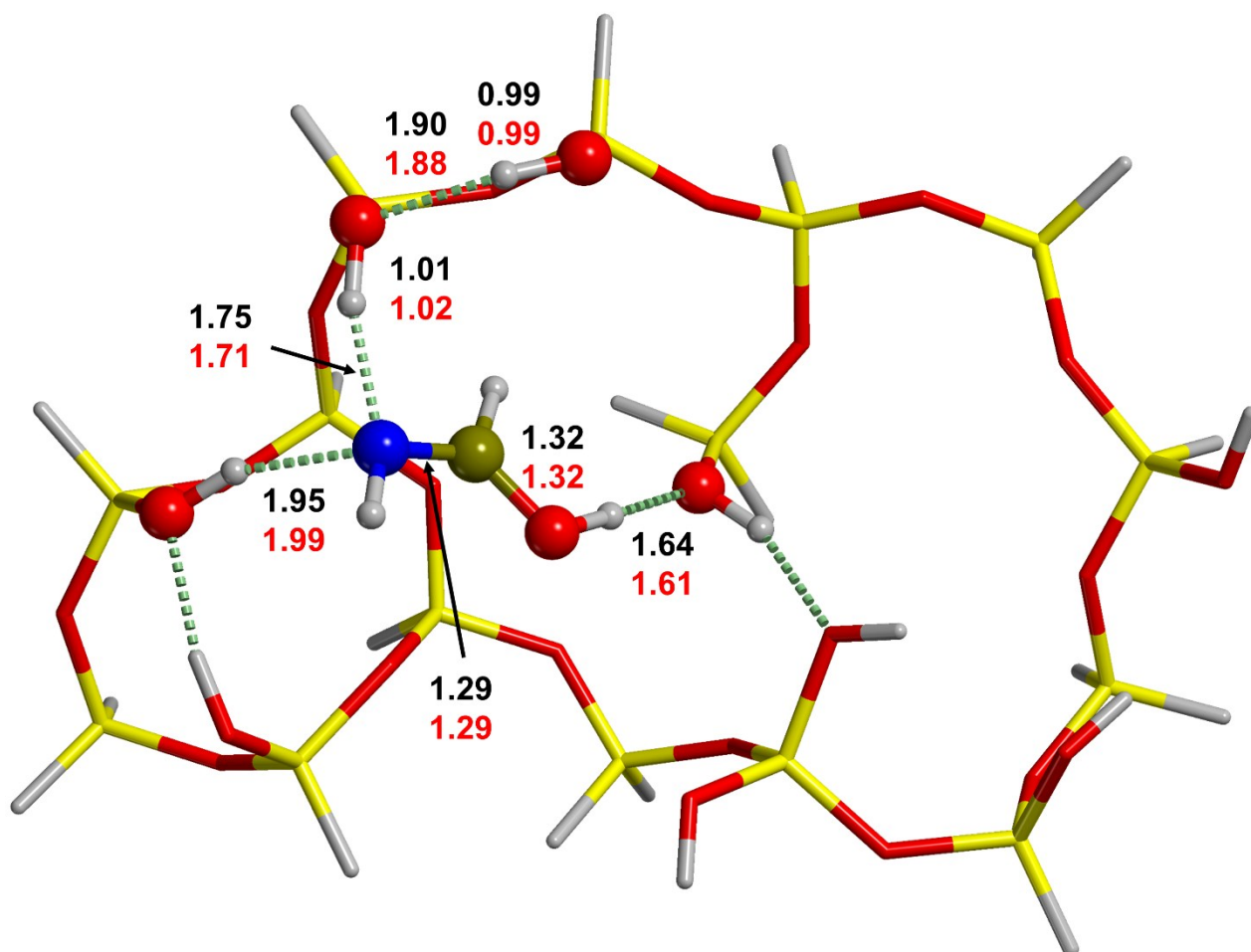
H 0.324383 -3.707387 -2.771534	H 0.325744 -3.712663 -2.769748
O 2.289006 2.218163 -1.577990	O 2.288797 2.214557 -1.581929
Si -0.022835 -3.165188 -1.426614	Si -0.021838 -3.169166 -1.425446
H 6.211838 4.395988 -0.035055	H 6.210855 4.394862 -0.040530
H 7.558446 0.935924 -1.208350	H 7.558465 0.933906 -1.210039
H 7.591028 -2.550996 -0.817273	H 7.591776 -2.552604 -0.815383
H 5.434249 -5.270709 1.032593	H 5.435291 -5.270914 1.036886
H -0.876947 -4.118389 -0.637992	H -0.875872 -4.121754 -0.635999
H -3.341009 -4.346290 0.707224	H -3.340120 -4.348841 0.709012
H -7.615180 -3.682649 -0.533688	H -7.614223 -3.687452 -0.533338
H -7.242434 1.316005 0.026471	H -7.242721 1.311859 0.021763
H -4.038802 4.999660 0.157954	H -4.039957 4.996381 0.150040
H -0.243519 6.089736 0.476902	H -0.244980 6.087654 0.468544



Gas phase coordinates	PCM coordinates
74	74
SiH_TS3_G	SiH_TS3_F
C -1.931897 0.463811 1.838188	C -1.933433 0.464000 1.816433
H -1.818299 -0.528121 1.371014	H -1.830706 -0.531740 1.358504
N -3.027689 0.822409 2.428064	N -3.032046 0.841949 2.401853
H -3.106285 2.515912 2.244968	H -3.096853 2.495990 2.237346
H -3.236049 0.847182 3.419046	H -3.203139 0.864090 3.403358
O -0.933624 1.294278 1.624312	O -0.924295 1.276733 1.604004
O -3.159227 3.510397 2.037098	O -3.147515 3.504971 2.041603

O -0.475249 4.328461 2.312272	O -0.485253 4.320675 2.320332
H -1.372173 3.991859 2.538656	H -1.387462 3.967808 2.516264
H -0.250700 0.907486 0.973391	H -0.236357 0.876312 0.954078
O 2.482421 -1.427349 1.221814	O 2.477184 -1.428270 1.232657
O 5.226977 -2.802558 2.055870	O 5.192925 -2.810614 2.071099
H 5.961683 -2.187461 1.887389	H 6.057914 -2.367533 2.036363
O 7.243078 0.431845 1.369711	O 7.250598 0.455570 1.370153
H 7.469462 1.226052 1.878170	H 7.593663 1.262810 1.788852
H 3.274056 -1.356396 1.785534	H 3.311686 -1.351861 1.732649
O 0.765080 -3.356269 2.018723	O 0.765391 -3.343901 2.026617
H 0.572686 -4.295608 2.163218	H 0.441607 -4.260429 2.034733
O -4.711029 -2.620634 1.968750	O -4.725094 -2.601888 1.968107
H -5.114987 -1.714626 1.961932	H -5.108386 -1.683992 1.935986
O -5.519809 -0.003584 1.481259	O -5.519887 0.001955 1.490275
H -4.607241 0.354440 1.707764	H -4.600216 0.362689 1.714323
O 0.844454 0.379544 -0.129564	O 0.850757 0.388982 -0.122757
H 1.544857 -0.163953 0.312945	H 1.539777 -0.175509 0.315803
O 3.735626 3.985305 -0.304140	O 3.736859 3.983779 -0.304030
H 5.416634 3.410205 -2.181545	H 5.417362 3.408436 -2.181812
Si -0.325147 4.619965 0.686828	Si -0.323573 4.619290 0.687793
H 2.021829 4.721762 -2.039614	H 2.022884 4.720755 -2.039109
Si 2.240453 3.721361 -0.956220	Si 2.241496 3.720224 -0.955832
Si -3.183121 3.808670 0.397350	Si -3.181789 3.808667 0.398823
O -1.651959 4.063146 -0.156602	O -1.650679 4.062835 -0.155414
O 1.042299 3.896569 0.156518	O 1.043603 3.895622 0.157157
O 5.149912 -3.345299 -0.633836	O 5.149411 -3.347122 -0.634550
O 5.810081 -0.748925 -0.431270	O 5.810211 -0.750913 -0.431923
O 3.181993 -4.087864 0.999702	O 3.181648 -4.089360 0.999325
Si 6.179333 -2.188607 -1.177757	Si 6.178987 -2.190624 -1.178590
H 5.994058 -2.072316 -2.653331	H 5.993445 -2.074181 -2.654118
Si 5.242588 3.454072 -0.694266	Si 5.243622 3.452233 -0.694495
Si 4.811199 -3.931746 0.881653	Si 4.810866 -3.933604 0.880963
O 5.507720 1.935676 -0.080404	O 5.508531 1.933731 -0.080798
Si 6.548900 0.679840 -0.137926	Si 6.549414 0.677662 -0.138620
Si -2.392920 -1.260119 -1.355042	Si -2.393089 -1.260172 -1.354101
Si 1.953938 -2.989783 0.921415	Si 1.953828 -2.990994 0.921363
O -7.013376 -1.237618 -0.298593	O -7.013330 -1.236698 -0.296731
O -0.858997 -1.761565 -1.638793	O -0.859337 -1.761946 -1.638194
Si -6.644290 -2.677399 -1.045048	Si -6.644720 -2.676508 -1.043366
H -6.738836 -2.508242 -2.526706	H -6.739522 -2.507220 -2.524993
O -2.917398 -1.872503 0.094356	O -2.917418 -1.872544 0.095356
H -3.272093 -1.698884 -2.471054	H -3.272584 -1.698655 -2.469971
O -5.095265 -3.141947 -0.705881	O -5.095733 -3.141434 -0.704542
O -3.864506 2.543183 -0.389424	O -3.863618 2.543393 -0.387909
Si -4.009226 -3.031643 0.528320	Si -4.009424 -3.031468 0.529451
O -5.146098 0.381094 -1.190321	O -5.145861 0.381655 -1.188711
H -0.077554 1.460427 -2.287811	H -0.077290 1.459916 -2.287129
O -2.440362 0.380002 -1.192959	O -2.440126 0.379947 -1.191887
Si -6.274679 0.191157 -0.005303	Si -6.274250 0.191887 -0.003482
H -3.806416 1.786491 -2.833891	H -3.806186 1.786869 -2.832443
Si -3.789917 1.293749 -1.433757	Si -3.789521 1.294019 -1.432349
Si 1.192647 0.956637 -1.689294	Si 1.192915 0.955793 -1.688902

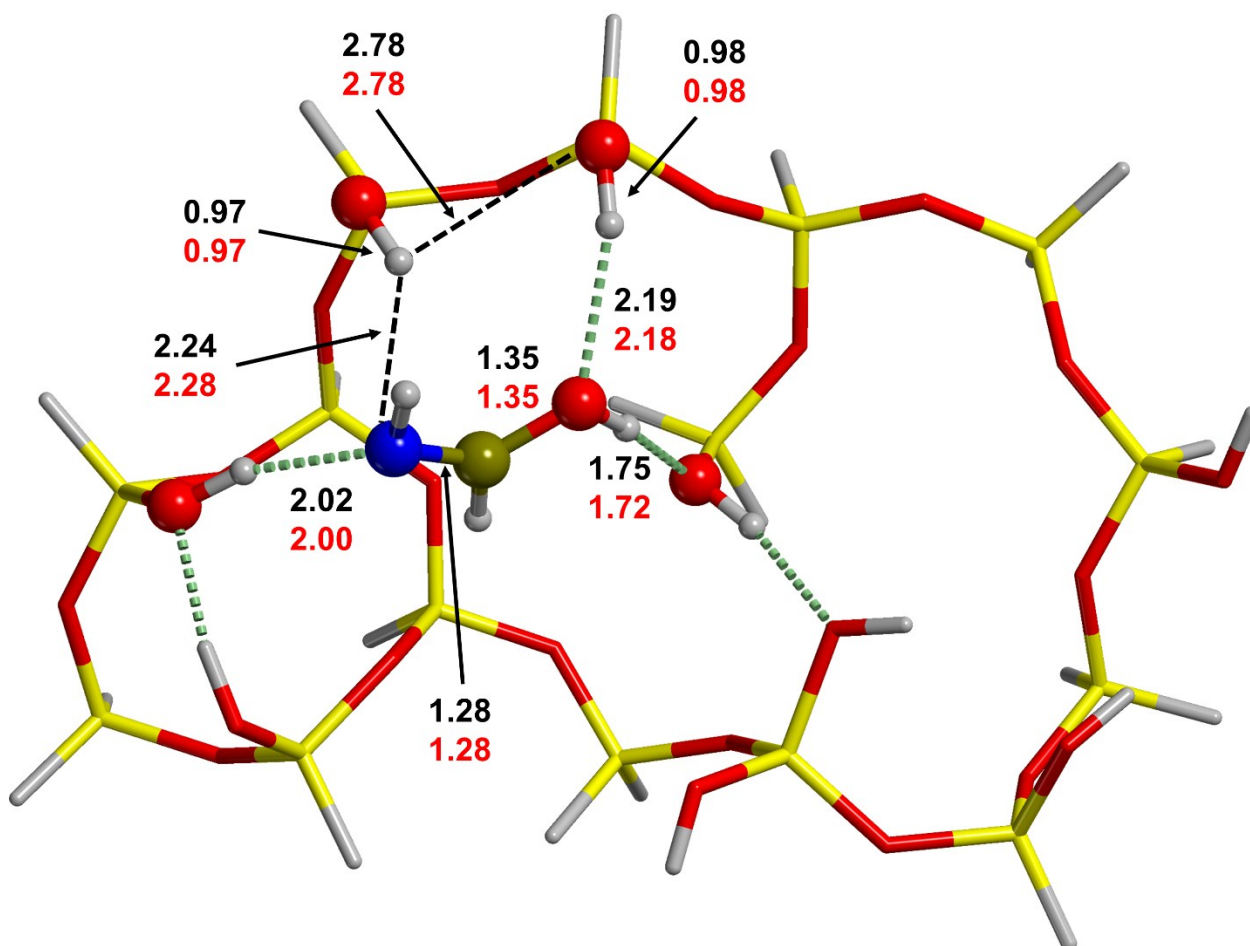
H 1.872152 -0.068493 -2.544080	H 1.872017 -0.069429 -2.543899
O 1.378737 -2.916203 -0.620572	O 1.378337 -2.917169 -0.620504
H 0.321460 -3.716273 -2.763951	H 0.320451 -3.716839 -2.763732
O 2.289000 2.211264 -1.585176	O 2.289574 2.210162 -1.584909
Si -0.025232 -3.170661 -1.420275	Si -0.025849 -3.171248 -1.419946
H 6.213135 4.391057 -0.048346	H 6.214511 4.388949 -0.048699
H 7.557937 0.927554 -1.213537	H 7.558293 0.925226 -1.214414
H 7.589036 -2.558422 -0.814024	H 7.588678 -2.560786 -0.815165
H 5.431425 -5.272676 1.042879	H 5.430819 -5.274687 1.041967
H -0.879604 -4.121563 -0.629168	H -0.880280 -4.122014 -0.628740
H -3.343484 -4.345097 0.717114	H -3.343943 -4.345087 0.718016
H -7.617620 -3.682540 -0.524506	H -7.618175 -3.681466 -0.522705
H -7.242508 1.317288 0.023465	H -7.241817 1.318236 0.025561
H -4.037185 4.999816 0.145367	H -4.035632 5.000025 0.147098
H -0.241369 6.088947 0.460861	H -0.239505 6.088270 0.461918



Gas phase coordinates	PCM coordinates
74	74
SiH_M4_G	SiH_M4_F
C -1.792155 0.761655 1.668779	C -1.776922 0.777954 1.654340
H -1.589074 1.559936 0.944438	H -1.604470 1.539377 0.884841
N -2.875118 0.818206 2.364756	N -2.841810 0.855735 2.375842
H -3.224572 2.533158 2.323824	H -3.198000 2.526340 2.314802

H -2.944929 0.030334 3.021618	H -2.889543 0.111835 3.083128
O -0.871289 -0.181149 1.743719	O -0.837934 -0.146287 1.747451
O -3.171720 3.511192 2.074311	O -3.168990 3.514759 2.076743
O -0.482710 4.251724 2.334646	O -0.483785 4.242747 2.337257
H -1.410319 4.027202 2.580555	H -1.418014 4.009972 2.560107
H -0.181333 0.017813 1.035980	H -0.158764 0.037384 1.015573
O 2.504273 -1.421184 1.192077	O 2.493474 -1.428319 1.230612
O 5.227624 -2.805826 2.032399	O 5.179318 -2.804569 2.043862
H 5.951190 -2.179263 1.858404	H 6.047489 -2.367109 2.016276
O 7.237118 0.440237 1.364991	O 7.242930 0.459997 1.364469
H 7.460626 1.230626 1.880542	H 7.586740 1.264480 1.787911
H 3.266522 -1.363390 1.796092	H 3.344384 -1.383542 1.708082
O 0.768854 -3.371139 1.996264	O 0.759187 -3.338736 2.007356
H 0.706286 -4.307177 2.240666	H 0.422749 -4.250675 1.995965
O -4.725930 -2.594079 1.956911	O -4.733307 -2.583978 1.961377
H -5.097139 -1.676507 1.955427	H -5.077038 -1.652692 1.946677
O -5.510413 0.050747 1.494712	O -5.509584 0.043652 1.500937
H -4.674453 0.553357 1.671823	H -4.674826 0.548979 1.672909
O 0.918936 0.371644 -0.128005	O 0.930454 0.367462 -0.122985
H 1.674293 -0.146169 0.255488	H 1.684730 -0.162410 0.249655
O 3.729096 4.007177 -0.275563	O 3.730371 4.002973 -0.279929
H 5.406597 3.445260 -2.160083	H 5.407334 3.438848 -2.164268
Si -0.329568 4.637275 0.726903	Si -0.327840 4.635830 0.722631
H 2.013073 4.758341 -2.002514	H 2.014489 4.753740 -2.007192
Si 2.232645 3.749429 -0.927240	Si 2.233703 3.745500 -0.931215
Si -3.188532 3.830693 0.435808	Si -3.187247 3.830467 0.432512
O -1.658214 4.088218 -0.118709	O -1.656876 4.086823 -0.122401
O 1.036476 3.917032 0.188805	O 1.037770 3.914513 0.184871
O 5.137009 -3.321769 -0.664083	O 5.134565 -3.326957 -0.663314
O 5.799572 -0.727551 -0.442583	O 5.798456 -0.732910 -0.443790
O 3.171151 -4.075371 0.966880	O 3.168553 -4.078390 0.968463
Si 6.166469 -2.161726 -1.200741	Si 6.164532 -2.167819 -1.200955
H 5.978894 -2.033909 -2.675072	H 5.976820 -2.040980 -2.675353
Si 5.235000 3.477792 -0.672224	Si 5.235956 3.472547 -0.676410
Si 4.800288 -3.919622 0.847388	Si 4.797752 -3.923543 0.848637
O 5.499918 1.954497 -0.070529	O 5.500194 1.949557 -0.073644
Si 6.540008 0.698327 -0.139411	Si 6.539646 0.692817 -0.141755
Si -2.405319 -1.225184 -1.356909	Si -2.406808 -1.227103 -1.356637
Si 1.943846 -2.975758 0.899064	Si 1.941789 -2.978213 0.900015
O -7.024068 -1.207180 -0.292866	O -7.025402 -1.206015 -0.291979
O -0.872257 -1.725625 -1.647016	O -0.874036 -1.728521 -1.646589
Si -6.657298 -2.641491 -1.050911	Si -6.659453 -2.641060 -1.049032
H -6.754120 -2.460826 -2.531089	H -6.756386 -2.461422 -2.529327
O -2.927934 -1.848314 0.088580	O -2.929537 -1.848921 0.089375
H -3.286652 -1.654635 -2.474839	H -3.288508 -1.656925 -2.474135
O -5.108109 -3.109844 -0.717879	O -5.110453 -3.109946 -0.715870
O -3.872281 2.571603 -0.359453	O -3.871734 2.571141 -0.361741
Si -4.019977 -3.009913 0.515354	Si -4.022103 -3.009663 0.517142
O -5.156866 0.416804 -1.175014	O -5.157508 0.416393 -1.175561
H -0.089291 1.500741 -2.272396	H -0.089541 1.496997 -2.274420
O -2.451194 0.413677 -1.182106	O -2.451839 0.411908 -1.183019
Si -6.283792 0.218632 0.010325	Si -6.284371 0.219646 0.010075

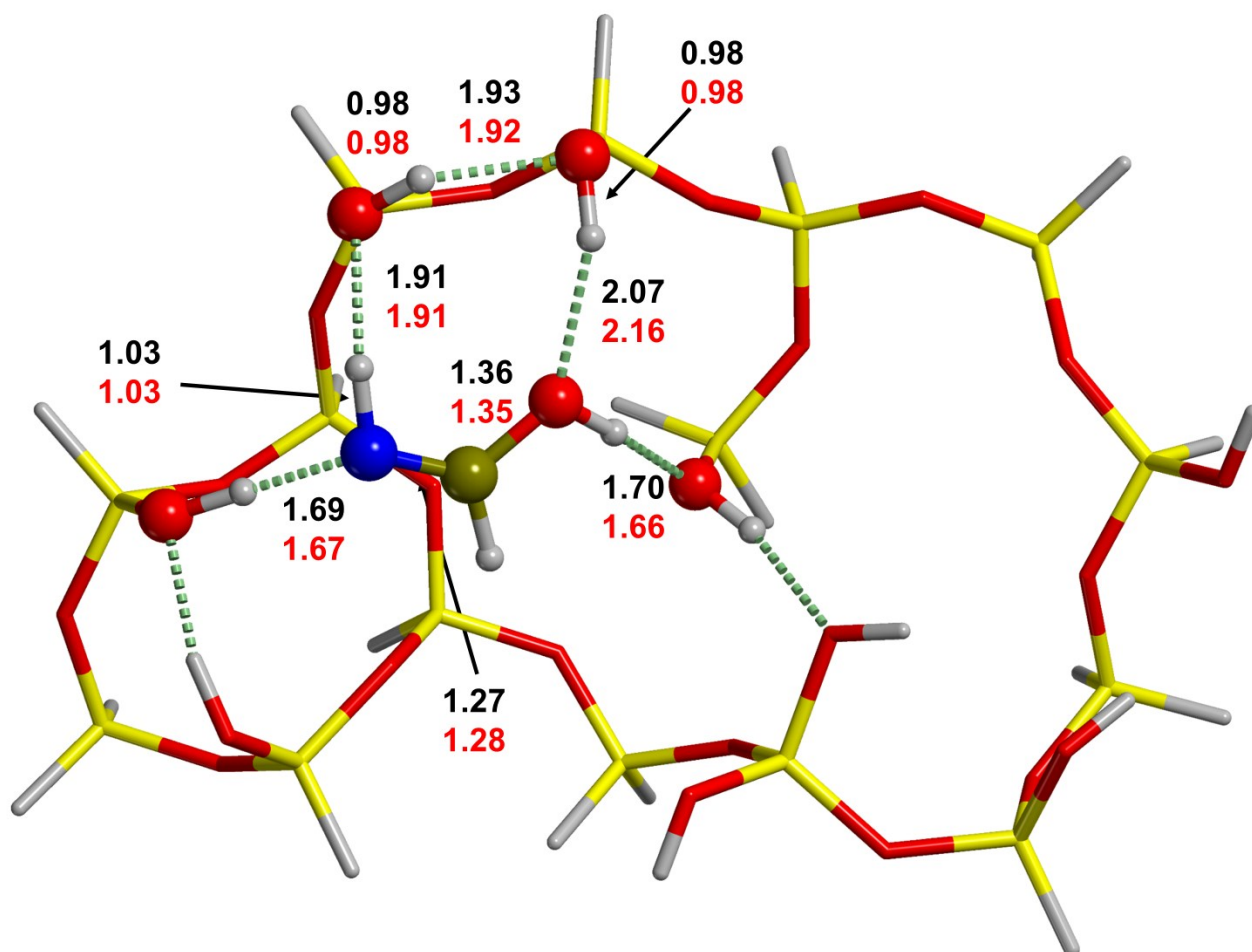
H -3.818786 1.833850 -2.809918	H -3.818943 1.831581 -2.811677
Si -3.800459 1.330396 -1.413730	Si -3.800677 1.329133 -1.415126
Si 1.181396 0.991083 -1.679980	Si 1.180971 0.987134 -1.681807
H 1.858848 -0.027713 -2.543652	H 1.857796 -0.032628 -2.544831
O 1.366204 -2.889834 -0.641372	O 1.363980 -2.893119 -0.640404
H 0.304817 -3.672521 -2.789133	H 0.301909 -3.676835 -2.787451
O 2.278943 2.244237 -1.567856	O 2.279160 2.239820 -1.570743
Si -0.039261 -3.137018 -1.440728	Si -0.041718 -3.140181 -1.439389
H 6.207337 4.409005 -0.020681	H 6.208848 4.403746 -0.025676
H 7.547489 0.953540 -1.214740	H 7.547108 0.946745 -1.217406
H 7.576465 -2.535437 -0.842165	H 7.574390 -2.541975 -0.842300
H 5.419707 -5.262240 0.997259	H 5.416519 -5.266361 0.999399
H -0.893107 -4.093325 -0.655587	H -0.895935 -4.095490 -0.653437
H -3.354979 -4.325305 0.692942	H -3.357738 -4.325258 0.695595
H -7.630591 -3.649844 -0.536575	H -7.633180 -3.648552 -0.533830
H -7.250590 1.345334 0.049310	H -7.250600 1.346860 0.048373
H -4.042230 5.024229 0.194366	H -4.040381 5.024254 0.190318
H -0.244971 6.107967 0.512086	H -0.242537 6.106323 0.506734



Gas phase coordinates	PCM coordinates
74	74
SiH_TS4_G	SiH_TS4_F
C -1.835824 0.576039 1.875590	C -1.807529 0.558776 1.845073
H -1.874117 -0.113437 1.034227	H -1.815924 -0.141585 1.012619

N -2.866762 0.679414 2.624810	N -2.848293 0.638078 2.588777
H -2.831937 2.907203 2.423659	H -2.830480 2.911303 2.436728
H -2.713256 1.276012 3.451112	H -2.715491 1.247983 3.408852
O -0.674184 1.260611 1.999113	O -0.672548 1.277364 1.966429
O -3.325453 3.637815 2.021670	O -3.328210 3.638907 2.031329
O -0.431006 4.310826 2.293929	O -0.436250 4.317416 2.303473
H -0.344057 3.362237 2.509043	H -0.371430 3.366769 2.523722
H -0.076551 1.000555 1.231500	H -0.060855 1.021819 1.202058
O 2.478449 -1.430859 1.211366	O 2.467809 -1.432101 1.228217
O 5.214499 -2.801930 2.048373	O 5.179360 -2.811701 2.063618
H 5.958110 -2.197169 1.882300	H 6.045746 -2.371369 2.028668
O 7.233306 0.427846 1.353530	O 7.240212 0.449869 1.353815
H 7.473730 1.222707 1.854379	H 7.584976 1.257656 1.770047
H 3.278839 -1.365947 1.763425	H 3.308563 -1.360974 1.718630
O 0.755919 -3.342994 2.021157	O 0.750730 -3.342704 2.022102
H 0.494832 -4.271747 2.117797	H 0.418583 -4.256250 2.024368
O -4.731208 -2.628610 1.965375	O -4.741808 -2.604203 1.967523
H -5.100500 -1.709926 1.981595	H -5.111592 -1.682167 1.944396
O -5.530160 -0.002850 1.475455	O -5.528517 0.006253 1.488209
H -4.682867 0.417853 1.772926	H -4.646453 0.391551 1.741951
O 0.846983 0.405518 -0.128334	O 0.846496 0.411970 -0.124444
H 1.536243 -0.173364 0.285239	H 1.530012 -0.173602 0.291550
O 3.727907 3.978971 -0.328197	O 3.729172 3.977509 -0.327119
H 5.407514 3.397202 -2.204799	H 5.407993 3.395810 -2.204446
Si -0.331798 4.619858 0.662933	Si -0.330008 4.619400 0.665510
H 2.013980 4.712254 -2.064888	H 2.014935 4.711929 -2.063024
Si 2.232185 3.714611 -0.978872	Si 2.233157 3.713855 -0.977407
Si -3.190538 3.810645 0.377004	Si -3.189104 3.811219 0.380220
O -1.659627 4.062457 -0.178481	O -1.658287 4.062713 -0.175667
O 1.034734 3.893992 0.133966	O 1.036118 3.893261 0.135870
O 5.135321 -3.353799 -0.638504	O 5.134082 -3.355619 -0.640297
O 5.797963 -0.757486 -0.443348	O 5.797637 -0.759588 -0.444493
O 3.167480 -4.090092 0.997964	O 3.166518 -4.091808 0.996551
Si 6.165551 -2.199545 -1.186058	Si 6.164517 -2.201522 -1.187796
H 5.979699 -2.087115 -2.661860	H 5.978234 -2.088543 -2.663502
Si 5.234200 3.445295 -0.717561	Si 5.235166 3.443468 -0.717137
Si 4.796775 -3.935789 0.878739	Si 4.795826 -3.938000 0.876861
O 5.498224 1.928337 -0.099679	O 5.498888 1.926219 -0.099841
Si 6.538231 0.671395 -0.154230	Si 6.538466 0.668954 -0.155137
Si -2.405928 -1.263685 -1.361932	Si -2.406710 -1.262793 -1.360643
Si 1.940396 -2.991104 0.917243	Si 1.939769 -2.992391 0.916583
O -7.025923 -1.233978 -0.303667	O -7.026360 -1.231920 -0.300903
O -0.872597 -1.767307 -1.645018	O -0.873634 -1.766824 -1.644381
Si -6.658417 -2.676258 -1.046004	Si -6.659562 -2.674075 -1.043834
H -6.753528 -2.511015 -2.528177	H -6.755089 -2.508311 -2.525922
O -2.930297 -1.871618 0.089378	O -2.930819 -1.871034 0.090632
H -3.286023 -1.704686 -2.476334	H -3.287303 -1.703136 -2.474911
O -5.109693 -3.141230 -0.706388	O -5.110883 -3.139667 -0.704862
O -3.873567 2.543503 -0.405906	O -3.872797 2.544560 -0.402893
Si -4.022985 -3.028573 0.527004	Si -4.023747 -3.027775 0.528222
O -5.157404 0.380289 -1.200345	O -5.157595 0.382030 -1.197640
H -0.088490 1.452259 -2.303163	H -0.088680 1.452702 -2.301710

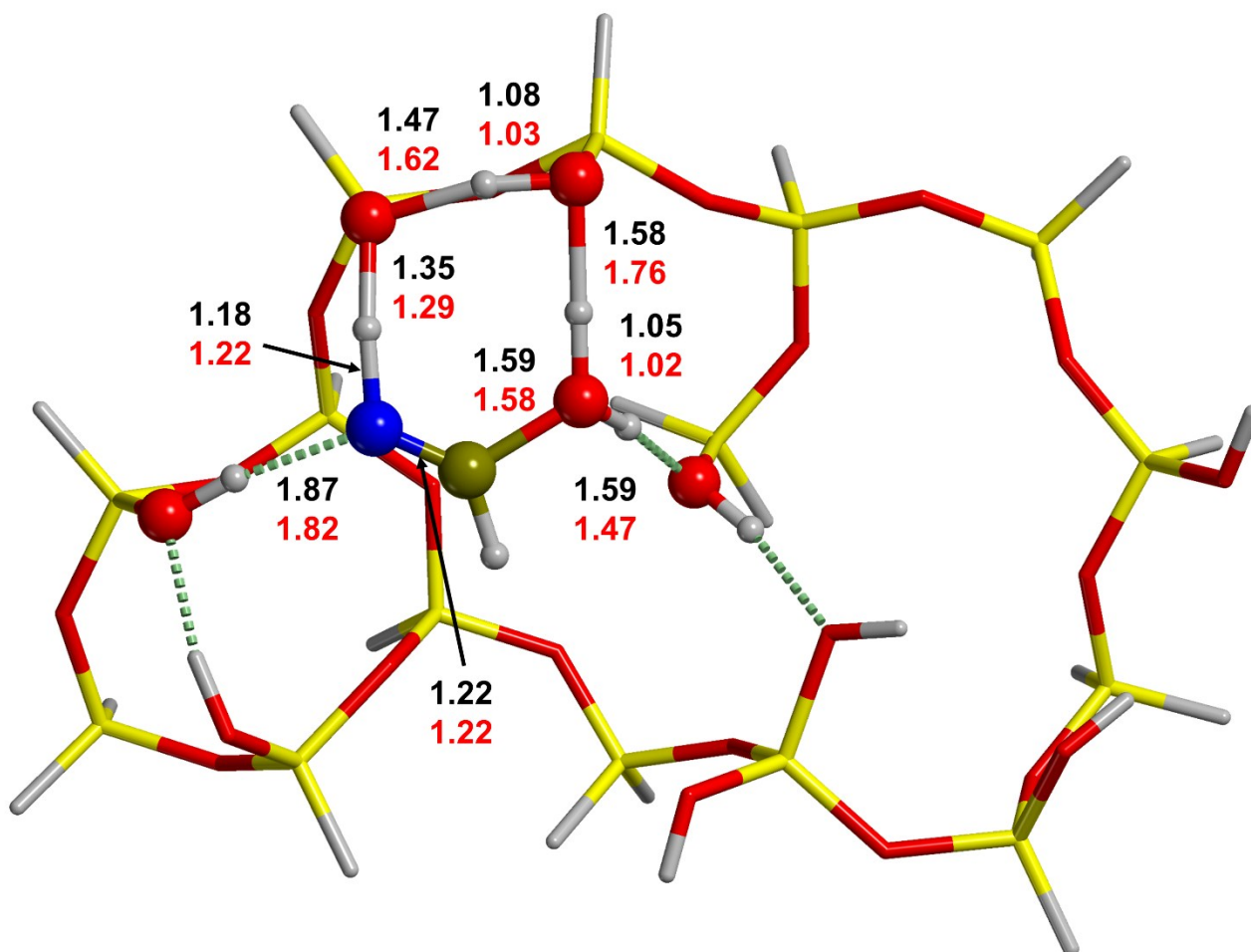
O -2.451795 0.376920 -1.204311	O -2.451989 0.377775 -1.202465
Si -6.285786 0.194916 -0.014256	Si -6.285662 0.196635 -0.011254
H -3.817319 1.780170 -2.848454	H -3.817574 1.782017 -2.845711
Si -3.800719 1.291383 -1.447089	Si -3.800690 1.292761 -1.444513
Si 1.181444 0.948667 -1.703978	Si 1.181279 0.948496 -1.703095
H 1.859762 -0.079175 -2.556178	H 1.858989 -0.079287 -2.555849
O 1.364548 -2.921209 -0.624675	O 1.363455 -2.921797 -0.625129
H 0.305547 -3.726165 -2.765371	H 0.303512 -3.725697 -2.765756
O 2.279019 2.202800 -1.603687	O 2.279297 2.202235 -1.602737
Si -0.040022 -3.176566 -1.423034	Si -0.041451 -3.176429 -1.423127
H 6.205902 4.383150 -0.074656	H 6.207380 4.380791 -0.074230
H 7.546989 0.915243 -1.231000	H 7.546962 0.912827 -1.232146
H 7.575083 -2.569655 -0.821963	H 7.574042 -2.572215 -0.824270
H 5.415846 -5.276841 1.043344	H 5.414509 -5.279309 1.040826
H -0.894900 -4.124518 -0.628935	H -0.896389 -4.124363 -0.629071
H -3.358364 -4.342111 0.719094	H -3.359497 -4.341594 0.719667
H -7.632461 -3.679029 -0.522369	H -7.633769 -3.676700 -0.520221
H -7.252527 1.321921 0.011765	H -7.252025 1.323948 0.015446
H -4.043821 5.001785 0.122055	H -4.042077 5.002723 0.125935
H -0.246810 6.088341 0.432861	H -0.244611 6.087931 0.435897



Gas phase coordinates	PCM coordinates
74	74
SiH_M5_G	SiH_M5_F

C -1.866329 0.486341 1.778215	C -1.867548 0.460370 1.753811
H -1.632107 -0.507307 1.385040	H -1.636583 -0.538897 1.373822
N -3.029174 0.743657 2.223622	N -3.028725 0.717914 2.221597
H -2.405264 3.956378 2.486625	H -2.388281 3.908829 2.488354
H -3.123561 1.729393 2.514719	H -3.110317 1.712424 2.489379
O -0.829279 1.373206 1.734046	O -0.851932 1.350045 1.676897
O -3.206817 3.580019 2.060483	O -3.210583 3.568608 2.066732
O -0.504763 4.244324 2.312564	O -0.506189 4.248864 2.322094
H -0.403960 3.273401 2.438923	H -0.345339 3.292778 2.476259
H -0.135133 1.010403 1.104141	H -0.145156 0.982765 1.052848
O 2.495455 -1.436640 1.228169	O 2.481384 -1.434569 1.240136
O 5.220825 -2.798775 2.052232	O 5.188612 -2.809938 2.067572
H 5.978453 -2.208828 1.897319	H 6.055475 -2.370411 2.033963
O 7.239694 0.431340 1.359424	O 7.246903 0.453569 1.361464
H 7.489903 1.225308 1.856824	H 7.589164 1.261503 1.779477
H 3.311769 -1.382252 1.758172	H 3.328432 -1.368093 1.720628
O 0.763127 -3.333099 2.032375	O 0.761132 -3.341968 2.031642
H 0.423550 -4.240725 2.067450	H 0.419667 -4.252084 2.027222
O -4.725507 -2.636347 1.981121	O -4.739072 -2.609482 1.979217
H -5.124615 -1.728115 1.986770	H -5.130844 -1.694845 1.943337
O -5.526676 -0.002919 1.487208	O -5.523509 0.004353 1.498806
H -4.574807 0.283378 1.717900	H -4.553961 0.279888 1.705655
O 0.873226 0.390026 -0.119974	O 0.868278 0.389854 -0.118969
H 1.568566 -0.179720 0.296005	H 1.560638 -0.181430 0.302887
O 3.728393 3.980391 -0.313501	O 3.730884 3.980348 -0.310123
H 5.406168 3.402265 -2.192866	H 5.408201 3.403116 -2.190170
Si -0.330638 4.616516 0.683439	Si -0.327795 4.617046 0.687884
H 2.011639 4.714122 -2.047207	H 2.014127 4.715981 -2.043019
Si 2.232094 3.715436 -0.962605	Si 2.234406 3.716387 -0.959218
Si -3.189010 3.805074 0.400162	Si -3.186475 3.806767 0.404390
O -1.659021 4.058889 -0.156949	O -1.656482 4.060505 -0.152744
O 1.035878 3.892476 0.151934	O 1.038406 3.892965 0.155628
O 5.141963 -3.350759 -0.633943	O 5.141986 -3.351020 -0.636410
O 5.802531 -0.754079 -0.436651	O 5.803440 -0.754710 -0.437213
O 3.176830 -4.090678 1.004143	O 3.176842 -4.091550 1.001386
Si 6.170476 -2.194961 -1.181467	Si 6.170804 -2.195139 -1.183190
H 5.982676 -2.081013 -2.656906	H 5.982831 -2.079993 -2.658514
Si 5.234673 3.448506 -0.705358	Si 5.236933 3.448268 -0.702603
Si 4.805836 -3.934783 0.883056	Si 4.805882 -3.936099 0.880187
O 5.500825 1.931081 -0.089540	O 5.502671 1.930281 -0.087992
Si 6.541884 0.675132 -0.146828	Si 6.543307 0.674033 -0.146394
Si -2.402049 -1.266564 -1.345549	Si -2.401437 -1.263786 -1.345337
Si 1.948666 -2.992696 0.926213	Si 1.949030 -2.993103 0.924475
O -7.020740 -1.242196 -0.281471	O -7.019969 -1.238711 -0.280584
O -0.868625 -1.768492 -1.631128	O -0.868219 -1.766000 -1.631520
Si -6.652876 -2.683299 -1.025915	Si -6.652687 -2.679362 -1.026189
H -6.749990 -2.516449 -2.507778	H -6.749956 -2.511340 -2.507909
O -2.924057 -1.876622 0.105721	O -2.923441 -1.874788 0.105536
H -3.283144 -1.707080 -2.459352	H -3.282836 -1.703154 -2.459354
O -5.103314 -3.147273 -0.688768	O -5.103230 -3.144108 -0.689620
O -3.871888 2.538216 -0.383339	O -3.869883 2.540738 -0.379989
Si -4.015163 -3.035052 0.543392	Si -4.014868 -3.033195 0.542471

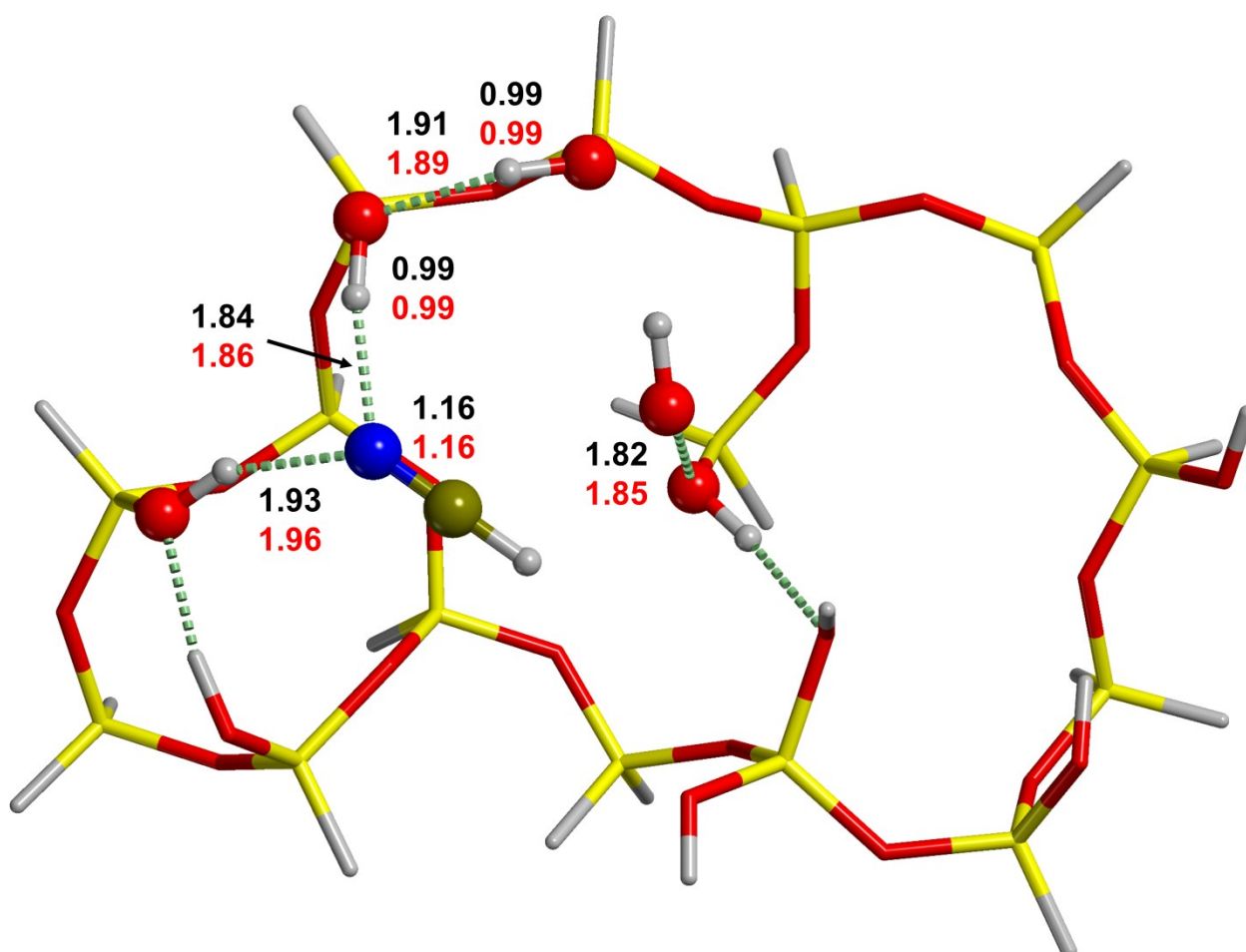
O -5.154787	0.374763	-1.178642	O -5.153610	0.378322	-1.176775
H -0.088216	1.452523	-2.286575	H -0.086841	1.455260	-2.284599
O -2.449183	0.373818	-1.185997	O -2.448007	0.376488	-1.184516
Si -6.281517	0.187028	0.008645	Si -6.280233	0.190044	0.010527
H -3.818016	1.777722	-2.826826	H -3.816609	1.782107	-2.824069
Si -3.799226	1.287351	-1.426042	Si -3.797782	1.290652	-1.423666
Si 1.182916	0.949383	-1.689555	Si 1.184210	0.951242	-1.688147
H 1.861084	-0.076879	-2.543776	H 1.861917	-0.074587	-2.543256
O 1.370825	-2.921557	-0.614903	O 1.370994	-2.920586	-0.616503
H 0.309864	-3.725016	-2.755190	H 0.309463	-3.722047	-2.757257
O 2.279496	2.204381	-1.589205	O 2.281218	2.205801	-1.586988
Si -0.034515	-3.177258	-1.411795	Si -0.034544	-3.175210	-1.413391
H 6.206342	4.386495	-0.062598	H 6.209003	4.385441	-0.059260
H 7.549075	0.921111	-1.224579	H 7.550426	0.920509	-1.224099
H 7.580792	-2.564225	-0.819559	H 7.581050	-2.565148	-0.821767
H 5.426310	-5.275468	1.045355	H 5.425937	-5.277113	1.041365
H -0.887551	-4.126880	-0.617711	H -0.887781	-4.125161	-0.619917
H -3.349130	-4.348213	0.733150	H -3.349241	-4.346722	0.731123
H -7.625368	-3.687537	-0.502207	H -7.625436	-3.683682	-0.503117
H -7.249230	1.313138	0.037163	H -7.247570	1.316451	0.040049
H -4.043675	4.995741	0.147642	H -4.040783	4.997910	0.152907
H -0.247249	6.085336	0.454938	H -0.243953	6.086014	0.460502



Gas phase coordinates	PCM coordinates
-----------------------	-----------------

74	74
SiH_TS5_G	SiH_TS5_F
C -1.880730 0.533678 1.947690	C -1.919405 0.474876 1.915591
H -1.560799 -0.486081 1.724336	H -1.633090 -0.554413 1.691587
N -2.964953 1.028143 2.209316	N -2.981723 1.012933 2.186493
H -1.656978 3.901630 2.335991	H -1.575370 3.925212 2.401524
H -3.049370 2.199892 2.253449	H -3.050867 2.229304 2.216955
O -0.527971 1.363559 1.888292	O -0.540490 1.248146 1.835232
O -3.048761 3.526814 2.029723	O -3.099561 3.503459 2.041628
O -0.585526 3.972199 2.231448	O -0.557119 3.995746 2.257379
H -0.551043 2.408804 2.025795	H -0.555099 2.254259 1.988665
H 0.032001 1.072683 1.072985	H 0.031373 0.961360 0.985755
O 2.473411 -1.430994 1.205416	O 2.445023 -1.402890 1.163783
O 5.208383 -2.807036 2.040022	O 5.433272 -2.911549 2.029259
H 5.964349 -2.214253 1.887383	H 5.454265 -1.964254 1.799902
O 7.230522 0.423697 1.350533	O 7.227134 0.455542 1.356056
H 7.476847 1.216043 1.852513	H 7.548245 1.263591 1.790292
H 3.273724 -1.359401 1.756994	H 2.650075 -1.152530 2.081484
O 0.754095 -3.338957 2.023020	O 0.779118 -3.352270 2.038747
H 0.495495 -4.267165 2.132074	H 0.743736 -4.277194 2.334965
O -4.721021 -2.623843 1.983003	O -4.733413 -2.605046 1.978910
H -5.103495 -1.708271 1.986659	H -5.100498 -1.680401 1.950304
O -5.529810 -0.008206 1.498741	O -5.528989 0.000572 1.510693
H -4.670204 0.437657 1.734538	H -4.640646 0.423419 1.711888
O 0.861118 0.408677 -0.105814	O 0.846563 0.405927 -0.106532
H 1.548049 -0.178754 0.307507	H 1.503106 -0.230376 0.299828
O 3.720432 3.979451 -0.310858	O 3.715553 3.987590 -0.304159
H 5.395689 3.404467 -2.193431	H 5.391074 3.417456 -2.187971
Si -0.337078 4.615660 0.692202	Si -0.342482 4.617509 0.700746
H 2.002061 4.717882 -2.040964	H 1.995945 4.726661 -2.032761
Si 2.223228 3.716729 -0.958784	Si 2.218517 3.724109 -0.952166
Si -3.196229 3.806413 0.410513	Si -3.200744 3.805349 0.418430
O -1.666751 4.060588 -0.147836	O -1.671686 4.062170 -0.139857
O 1.028414 3.892017 0.157534	O 1.023741 3.896286 0.164676
O 5.129556 -3.351768 -0.648816	O 5.133183 -3.341447 -0.653665
O 5.791795 -0.755887 -0.446678	O 5.792427 -0.745106 -0.447688
O 3.165927 -4.094145 0.989962	O 3.170779 -4.088635 0.984393
Si 6.158070 -2.195356 -1.195040	Si 6.160225 -2.182996 -1.198335
H 5.968610 -2.078111 -2.670008	H 5.970309 -2.063710 -2.673081
Si 5.225957 3.447583 -0.705627	Si 5.221614 3.458091 -0.700067
Si 4.794877 -3.938888 0.867308	Si 4.799520 -3.931284 0.861628
O 5.491986 1.928682 -0.093405	O 5.489553 1.938565 -0.090232
Si 6.532280 0.672285 -0.154628	Si 6.531303 0.683482 -0.153606
Si -2.414124 -1.261869 -1.347087	Si -2.413089 -1.259313 -1.347111
Si 1.938283 -2.995318 0.915845	Si 1.941834 -2.991134 0.912225
O -7.031554 -1.237251 -0.277558	O -7.030313 -1.241741 -0.276555
O -0.881314 -1.764025 -1.635545	O -0.879754 -1.759231 -1.636668
Si -6.665361 -2.676943 -1.025549	Si -6.662597 -2.679854 -1.026832
H -6.764113 -2.506832 -2.506932	H -6.761868 -2.507587 -2.507931
O -2.934775 -1.874778 0.103469	O -2.932708 -1.875055 0.102615
H -3.296764 -1.699486 -2.460810	H -3.295457 -1.696254 -2.461314
O -5.115664 -3.142502 -0.691219	O -5.112284 -3.144111 -0.693549

O -3.880725	2.541632	-0.374928	O -3.883930	2.540973	-0.368804
Si -4.026012	-3.033549	0.539908	Si -4.022494	-3.035771	0.537510
O -5.165753	0.380614	-1.173410	O -5.166600	0.379680	-1.170324
H -0.099883	1.457970	-2.284933	H -0.102235	1.464669	-2.281280
O -2.460161	0.378190	-1.183931	O -2.461010	0.380439	-1.181429
Si -6.291200	0.190933	0.014785	Si -6.291567	0.186859	0.017820
H -3.830130	1.786399	-2.820116	H -3.832980	1.789551	-2.815158
Si -3.809976	1.292986	-1.420420	Si -3.811946	1.294016	-1.416225
Si 1.171666	0.952836	-1.690490	Si 1.170033	0.960113	-1.687885
H 1.848266	-0.071949	-2.547722	H 1.847646	-0.062563	-2.546834
O 1.358682	-2.920524	-0.624437	O 1.361812	-2.914656	-0.627816
H 0.294775	-3.718762	-2.765215	H 0.298377	-3.710855	-2.769587
O 2.269059	2.207008	-1.588707	O 2.265979	2.215411	-1.584414
Si -0.047730	-3.173723	-1.420236	Si -0.044474	-3.168281	-1.423700
H 6.198897	4.383642	-0.061975	H 6.193597	4.394300	-0.055188
H 7.538348	0.920039	-1.233021	H 7.536847	0.934068	-1.231833
H 7.568603	-2.566182	-0.835582	H 7.571269	-2.552721	-0.839749
H 5.414796	-5.280264	1.025980	H 5.421042	-5.272175	1.018109
H -0.900365	-4.124590	-0.627212	H -0.895824	-4.121360	-0.631953
H -3.360487	-4.347486	0.726045	H -3.355391	-4.349212	0.721488
H -7.637798	-3.681774	-0.502878	H -7.633744	-3.686623	-0.505494
H -7.258253	1.317513	0.046871	H -7.259931	1.312255	0.051842
H -4.050527	4.998096	0.161570	H -4.056490	4.996411	0.171499
H -0.253141	6.084925	0.466783	H -0.260313	6.087215	0.477564

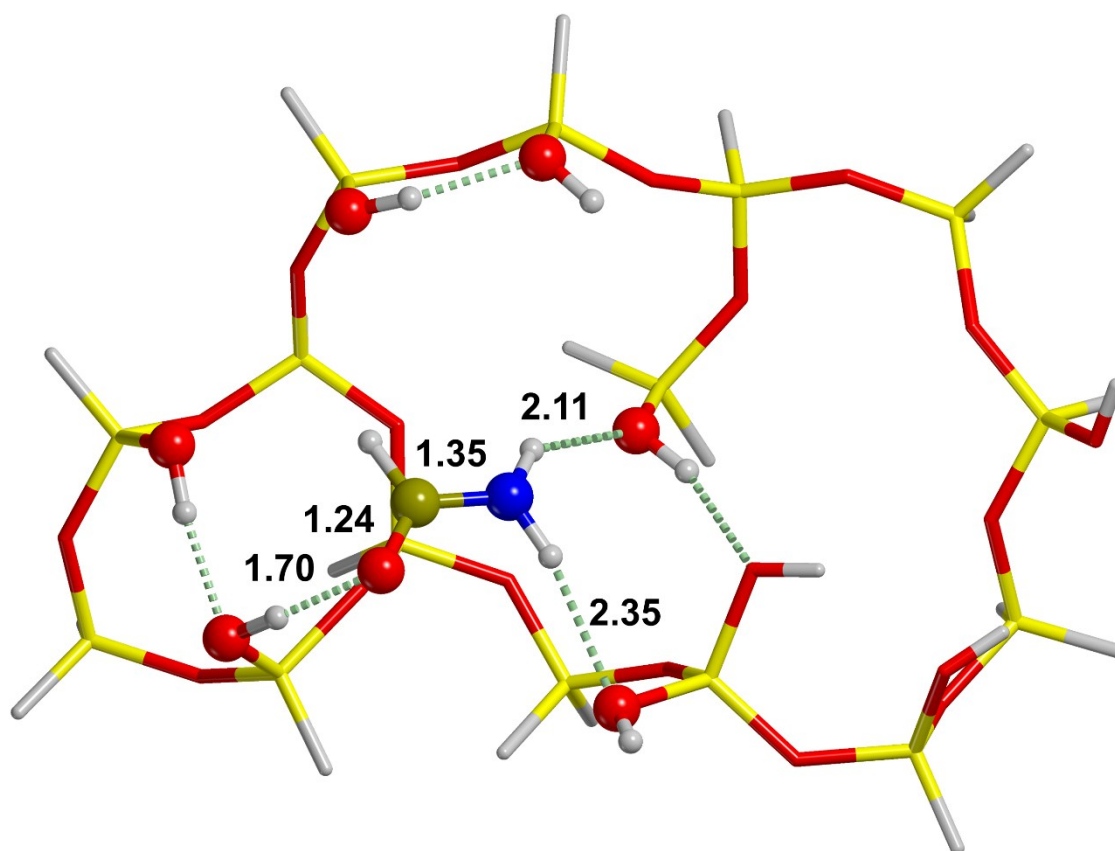


Gas phase coordinates	PCM coordinates
74	74
SiH_M6_G	SiH_M6_F
C -2.054692 0.096371 2.407970	C -1.966930 0.130967 2.282247
H -1.178281 -0.529209 2.427263	H -1.054160 -0.439775 2.221462
N -2.993929 0.773538 2.392678	N -2.942000 0.752236 2.349483
H -1.396342 4.056053 2.538230	H -1.407405 4.049345 2.527537
H -3.207346 2.599027 2.289696	H -3.185548 2.593967 2.284599
O 0.467829 1.282677 2.398442	O 0.585706 1.475384 2.410345
O -3.165728 3.552922 2.035881	O -3.166729 3.550681 2.039971
O -0.457923 4.200595 2.272784	O -0.464691 4.204930 2.274988
H 0.356222 2.243193 2.546430	H 0.294888 2.411835 2.451250
H 0.555724 1.194886 1.421097	H 0.647212 1.282872 1.446326
O 2.416974 -1.419132 1.188848	O 2.431821 -1.423501 1.160214
O 5.380845 -2.929585 2.010064	O 5.404034 -2.936860 2.010027
H 5.479273 -1.992315 1.763590	H 5.382527 -1.985911 1.796250
O 7.214404 0.432067 1.319959	O 7.209531 0.424554 1.317456
H 7.408321 1.237619 1.823551	H 7.532223 1.234878 1.746224
H 2.369840 -1.108487 2.109487	H 2.550870 -1.154889 2.087675
O 0.731709 -3.355597 2.012861	O 0.733336 -3.347810 2.025046
H 0.727398 -4.262052 2.357679	H 0.687564 -4.272230 2.321061
O -4.746728 -2.592702 1.969441	O -4.767174 -2.579904 1.980361
H -5.135876 -1.683573 1.975734	H -5.126889 -1.655073 1.962408
O -5.592459 0.027946 1.500347	O -5.594011 0.020803 1.514869
H -4.797817 0.543734 1.756345	H -4.796897 0.542412 1.754082
O 0.829833 0.367699 -0.181690	O 0.824969 0.385262 -0.167898
H 1.497888 -0.264231 0.184521	H 1.471835 -0.265849 0.205737
O 3.717713 3.972048 -0.345386	O 3.713236 3.965454 -0.353820
H 5.389023 3.387437 -2.228503	H 5.382350 3.376628 -2.237571
Si -0.336311 4.626585 0.660054	Si -0.339496 4.623330 0.654643
H 2.001009 4.715165 -2.075140	H 1.994956 4.705817 -2.083190
Si 2.218898 3.714634 -0.991722	Si 2.213649 3.707307 -0.998071
Si -3.198885 3.828984 0.381822	Si -3.202636 3.826179 0.380983
O -1.668935 4.075705 -0.178105	O -1.673196 4.071290 -0.181039
O 1.025740 3.896475 0.125315	O 1.021737 3.891718 0.119875
O 5.096077 -3.365439 -0.674078	O 5.088739 -3.373129 -0.669783
O 5.769265 -0.772049 -0.476166	O 5.763024 -0.779593 -0.477599
O 3.130723 -4.097321 0.967358	O 3.124874 -4.101160 0.975144
Si 6.128939 -2.214086 -1.222779	Si 6.121413 -2.223195 -1.221802
H 5.938761 -2.098145 -2.697758	H 5.929713 -2.110040 -2.696801
Si 5.220690 3.433366 -0.740624	Si 5.215609 3.425491 -0.749607
Si 4.760203 -3.949012 0.843151	Si 4.754272 -3.953652 0.848926
O 5.480906 1.914242 -0.126460	O 5.475955 1.907468 -0.132782
Si 6.515918 0.653445 -0.186747	Si 6.510471 0.646200 -0.191727
Si -2.439420 -1.245186 -1.369178	Si -2.446764 -1.251628 -1.361005
Si 1.907599 -2.993512 0.892663	Si 1.902049 -2.997076 0.899610
O -7.055822 -1.199847 -0.295996	O -7.062011 -1.202624 -0.283027
O -0.908949 -1.754118 -1.658170	O -0.916774 -1.761645 -1.650632
Si -6.696231 -2.642130 -1.042149	Si -6.703704 -2.646471 -1.026770
H -6.795496 -2.473695 -2.523715	H -6.804481 -2.480866 -2.508554
O -2.961428 -1.853868 0.082668	O -2.967442 -1.857323 0.092567
H -3.324785 -1.680707 -2.481561	H -3.333456 -1.688994 -2.471606

O -5.148214 -3.113631 -0.708445	O -5.155496 -3.117859 -0.693794
O -3.889379 2.565643 -0.401074	O -3.894392 2.561564 -0.398737
Si -4.057112 -3.007478 0.521642	Si -4.063056 -3.009704 0.534930
O -5.184028 0.408974 -1.195568	O -5.190620 0.403810 -1.187689
H -0.114666 1.463677 -2.312767	H -0.122083 1.454605 -2.312290
O -2.478508 0.395280 -1.208315	O -2.485120 0.389159 -1.203273
Si -6.309440 0.225586 -0.006225	Si -6.314834 0.223109 0.003197
H -3.843953 1.806853 -2.845383	H -3.851814 1.798035 -2.841621
Si -3.824731 1.315407 -1.445081	Si -3.831278 1.309290 -1.440393
Si 1.155259 0.954104 -1.718645	Si 1.148296 0.945744 -1.718528
H 1.826893 -0.074699 -2.574969	H 1.818670 -0.084944 -2.573572
O 1.327045 -2.918480 -0.647241	O 1.319890 -2.924821 -0.639821
H 0.258079 -3.715326 -2.786019	H 0.248387 -3.725432 -2.775922
O 2.257941 2.203845 -1.619534	O 2.251510 2.195294 -1.623001
Si -0.081054 -3.166964 -1.441538	Si -0.089134 -3.174355 -1.432145
H 6.198039 4.366284 -0.099093	H 6.193956 4.359311 -0.110915
H 7.522123 0.895485 -1.266307	H 7.515615 0.885806 -1.272817
H 7.538214 -2.590264 -0.863943	H 7.530938 -2.599164 -0.863731
H 5.374671 -5.292728 1.003223	H 5.368449 -5.297268 1.010945
H -0.936985 -4.113153 -0.646471	H -0.944546 -4.118710 -0.634345
H -3.396903 -4.323902 0.709105	H -3.403099 -4.325991 0.724239
H -7.672414 -3.642154 -0.517285	H -7.679673 -3.645142 -0.498941
H -7.271619 1.356307 0.025064	H -7.276592 1.354220 0.033318
H -4.048624 5.023607 0.131900	H -4.052231 5.020609 0.129652
H -0.246434 6.095125 0.432508	H -0.249358 6.091396 0.424163

Figure S9: PBE-D2/TZVP optimized geometries for the formamide dehydration reaction catalysed by hydrophilic silica. In the figures the most representative bond lengths (in Å) in gas phase (black) and in PCM (F) (red) are reported. In the left and the right columns the cartesian coordinates of the optimized structures in gas phase and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue, silicons in yellow.

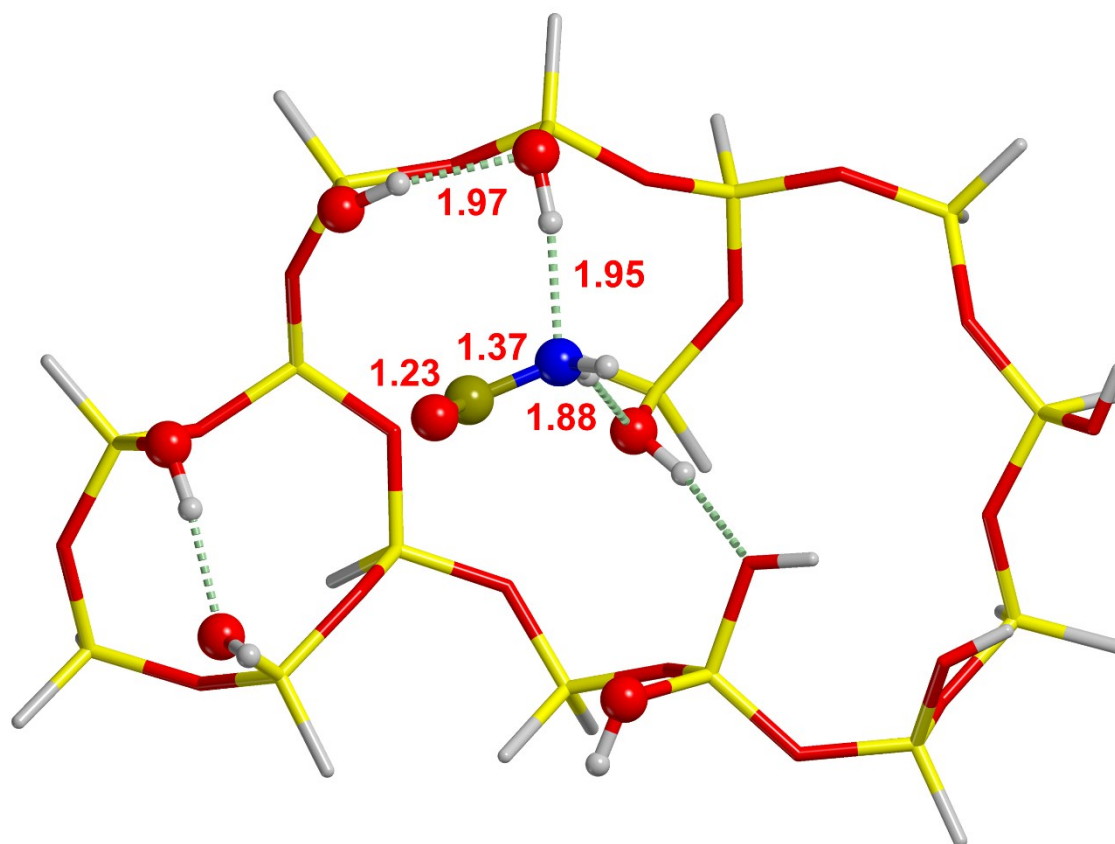
Formamide + Silica 4.5 decarbonylation reaction



Gas phase coordinates	PCM (F) coordinates
74	
SiH_R_G	
C -2.1782691305 -0.5279780878 2.4298038227	
H -2.8028971305 0.3192259122 2.0800648227	
N -0.8771701305 -0.4408710878 2.0909488227	
H -0.3033561305 -1.2711490878 2.2464358227	
H -0.5617991305 0.2054679122 1.3636178227	
O -2.6512601305 -1.4665280878 3.0929918227	
O -3.1019031305 3.5194139122 2.1054548227	
O -0.4156461305 4.2643239122 2.4384388227	
H -2.2548491305 3.6980369122 2.5614168227	
H 0.2686198695 3.6619239122 2.7731528227	
O 2.4992818695 -1.4553660878 1.2016058227	
O 5.1547828695 -2.8666130878 1.9337558227	
H 5.9594028695 -2.3284440878 1.8380228227	
O 7.2495318695 0.3351399122 1.3690508227	
H 7.5318088695 1.1052149122 1.8865208227	
H 3.4025748695 -1.4623040878 1.5723938227	
O 0.6168668695 -3.3794150878 1.7654958227	
H 0.8054758695 -3.8400340878 2.5975868227	
O -4.7951571305 -2.4081580878 1.8078458227	
H -4.1002161305 -2.1224250878 2.4772578227	

O	-5.5535701305	0.2742719122	1.4557918227
H	-5.3728541305	-0.6638620878	1.7050038227
O	0.8821698695	0.4737879122	-0.1497911773
H	1.5856118695	-0.0850730878	0.2529458227
O	3.8110168695	4.0086909122	-0.1873121773
H	5.4863478695	3.4683829122	-2.0800631773
Si	-0.2401891305	4.6829819122	0.8166468227
H	2.1156988695	4.8363089122	-1.8997051773
Si	2.3130558695	3.7950439122	-0.8513001773
Si	-3.1116781305	3.9348229122	0.4931588227
O	-1.5746231305	4.1802399122	-0.0484141773
O	1.1152678695	3.9534649122	0.2643388227
O	5.0920178695	-3.3307620878	-0.7687661773
O	5.7989618695	-0.7555470878	-0.4746571773
O	3.1064128695	-4.0933670878	0.8338428227
Si	6.1438818695	-2.1749700878	-1.2699821773
H	5.9647868695	-2.0041190878	-2.7410061773
Si	5.3090768695	3.4637569122	-0.5925231773
Si	4.7385158695	-3.9631740878	0.7247008227
O	5.5447498695	1.9203469122	-0.0312801773
Si	6.5629608695	0.6483659122	-0.1302651773
Si	-2.4094611305	-1.0836970878	-1.4327881773
Si	1.8988448695	-2.9708730878	0.7912228227
O	-7.0315971305	-1.0130920878	-0.3858571773
O	-0.8841861305	-1.6030540878	-1.7306011773
Si	-6.6868451305	-2.4326120878	-1.1811551773
H	-6.7742431305	-2.2103940878	-2.6562301773
O	-2.9489891305	-1.7363180878	-0.0066621773
H	-3.2934581305	-1.4672240878	-2.5652201773
O	-5.1474981305	-2.9370150878	-0.8551101773
O	-3.8139421305	2.7101429122	-0.3385661773
Si	-4.0629951305	-2.8895930878	0.3844478227
O	-5.1326311305	0.6010639122	-1.2168531773
H	-0.0422361305	1.6246509122	-2.2655471773
O	-2.4273681305	0.5504009122	-1.2138711773
Si	-6.2677191305	0.3908359122	-0.0415171773
H	-3.7630161305	2.0378679122	-2.8077521773
Si	-3.7593451305	1.4965839122	-1.4255751773
Si	1.2169068695	1.0771379122	-1.6822611773
H	1.8798998695	0.0700189122	-2.5707521773
O	1.3292908695	-2.8332370878	-0.7484721773
H	0.2634208695	-3.5388460878	-2.9205811773
O	2.3357128695	2.3070659122	-1.5322861773
Si	-0.0769071305	-3.0339560878	-1.5594721773
H	6.2948178695	4.3597699122	0.0876148227
H	7.5792858695	0.9147259122	-1.1944981773
H	7.5455948695	-2.5830070878	-0.9163851773
H	5.3336948695	-5.3200510878	0.8404958227
H	-0.9506661305	-3.9959180878	-0.8036981773
H	-3.4218801305	-4.2208100878	0.5288448227
H	-7.6797941305	-3.4371920878	-0.6979151773
H	-7.2148871305	1.5328619122	0.0243708227

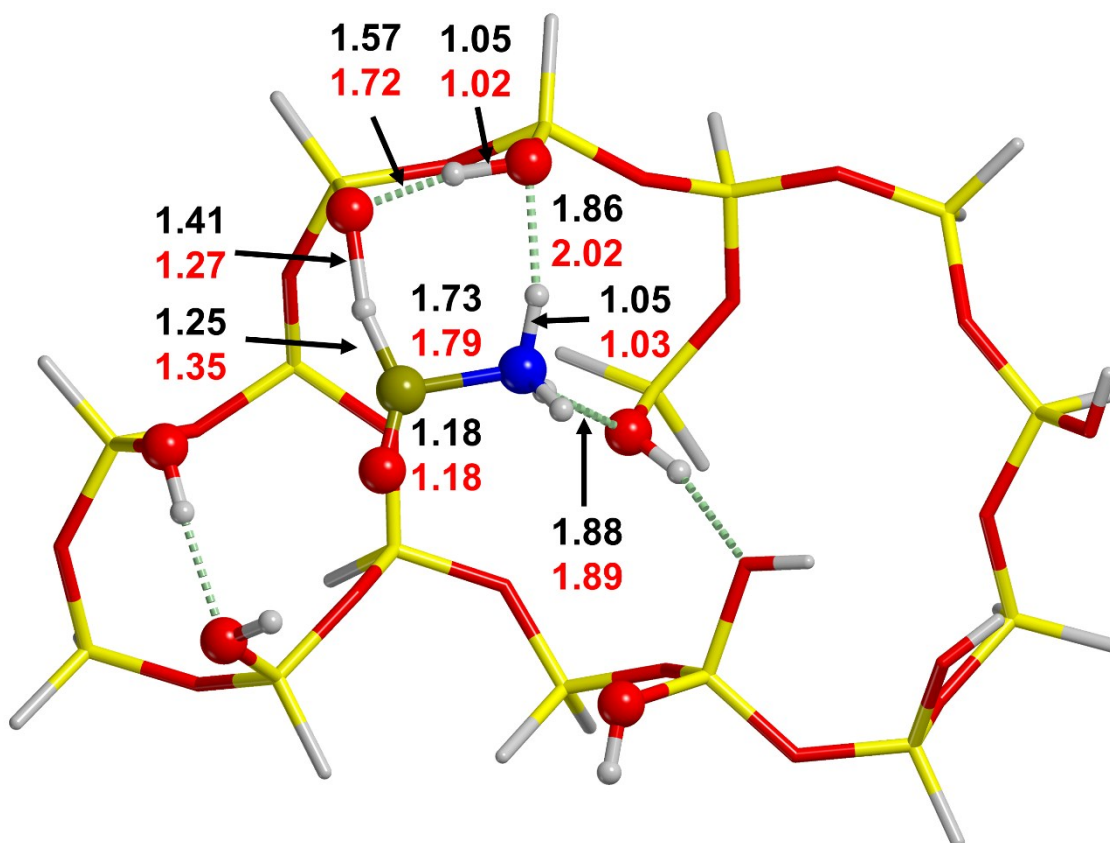
H -3.9431661305	5.1494719122	0.2809388227	
H -0.1289331305	6.1571379122	0.6420648227	



Gas phase coordinates	PCM (F) coordinates
	74
	SiH_R_F
	C -1.4337937753 0.8152652286 2.5601016185
	H -2.0015817753 0.6615502286 1.6182286185
	N -0.1837187753 1.3423812286 2.3380466185
	H 0.4736102247 1.2732132286 3.1174106185
	H 0.2150442247 1.1717782286 1.3983446185
	O -1.9075337753 0.5713902286 3.6661466185
	O -3.2069197753 3.4638172286 1.9654416185
	O -0.5048877753 4.2496752286 2.2385246185
	H -2.4150237753 3.8199072286 2.4242066185
	H -0.3046717753 3.2867632286 2.3901436185
	O 2.4530702247 -1.4469267714 1.2086756185
	O 5.1469572247 -2.8224517714 2.0270196185
	H 6.0174252247 -2.3900667714 1.9932856185
	O 7.2217222247 0.4248952286 1.3044016185
	H 7.5700542247 1.2328892286 1.7172426185
	H 3.3159222247 -1.3948817714 1.6626686185
	O 0.7150412247 -3.3383577714 1.9924256185
	H 0.3517402247 -4.2397277714 1.9728786185

	O -4.8651767753	-2.4689957714	1.8798646185
	H -4.4869287753	-2.7348847714	2.7354326185
	O -5.6035307753	0.1996872286	1.4728256185
	H -5.2944887753	-0.6953237714	1.7536516185
	O 0.8504562247	0.3849082286	-0.1874903815
	H 1.5358522247	-0.2031587714	0.2147076185
	O 3.7226782247	3.9601882286	-0.3852743815
	H 5.3967992247	3.3648612286	-2.2625273815
	Si -0.3327067753	4.6220922286	0.6100236185
	H 2.0091732247	4.6949722286	-2.1217473815
	Si 2.2248102247	3.7000822286	-1.0327043815
	Si -3.1954297753	3.8240212286	0.3312406185
	O -1.6641027753	4.0670552286	-0.2272933815
	O 1.0298742247	3.8883382286	0.0813566185
	O 5.0980662247	-3.3795777714	-0.6729783815
	O 5.7721702247	-0.7854997714	-0.4876383815
	O 3.1296692247	-4.1018657714	0.9690526185
	Si 6.1323802247	-2.2316237714	-1.2260493815
	H 5.9446782247	-2.1233777714	-2.7019303815
	Si 5.2260442247	3.4187192286	-0.7751943815
	Si 4.7594212247	-3.9549827714	0.8467526185
	O 5.4845262247	1.9027362286	-0.1525913815
	Si 6.5190262247	0.6411502286	-0.2045393815
	Si -2.4352647753	-1.2594787714	-1.3916493815
	Si 1.9071962247	-2.9978847714	0.8865366185
	O -7.0533577753	-1.2063927714	-0.3259963815
	O -0.9045607753	-1.7706497714	-1.6754363815
	Si -6.6933157753	-2.6526117714	-1.0643853815
	H -6.7900247753	-2.4920187714	-2.5468553815
	O -2.9599437753	-1.8602507714	0.0625256185
	H -3.3190077753	-1.7004497714	-2.5031753815
	O -5.1460377753	-3.1231677714	-0.7255173815
	O -3.8850057753	2.5572082286	-0.4462323815
	Si -4.0569027753	-3.0109987714	0.5057836185
	O -5.1795117753	0.3970752286	-1.2314003815
	H -0.1076777753	1.4431882286	-2.3457393815
	O -2.4738267753	0.3818282286	-1.2395103815
	Si -6.3066237753	0.2202622286	-0.0429703815
	H -3.8359067753	1.7853852286	-2.8862463815
	Si -3.8191157753	1.3011682286	-1.4832163815
	Si 1.1610862247	0.9364542286	-1.7467133815
	H 1.8335032247	-0.0974277714	-2.5965923815
	O 1.3292142247	-2.9307187714	-0.6547033815
	H 0.2633772247	-3.7383347714	-2.7910013815
	O 2.2642062247	2.1859262286	-1.6524903815
	Si -0.0777037753	-3.1827217714	-1.4499893815
	H 6.2027862247	4.3545482286	-0.1369863815
	H 7.5271262247	0.8770202286	-1.2836853815
	H 7.5408832247	-2.6065677714	-0.8629173815
	H 5.3729822247	-5.2981227714	1.0149236185
	H -0.9353907753	-4.1242997714	-0.6513513815
	H -3.3976257753	-4.3267347714	0.7012606185

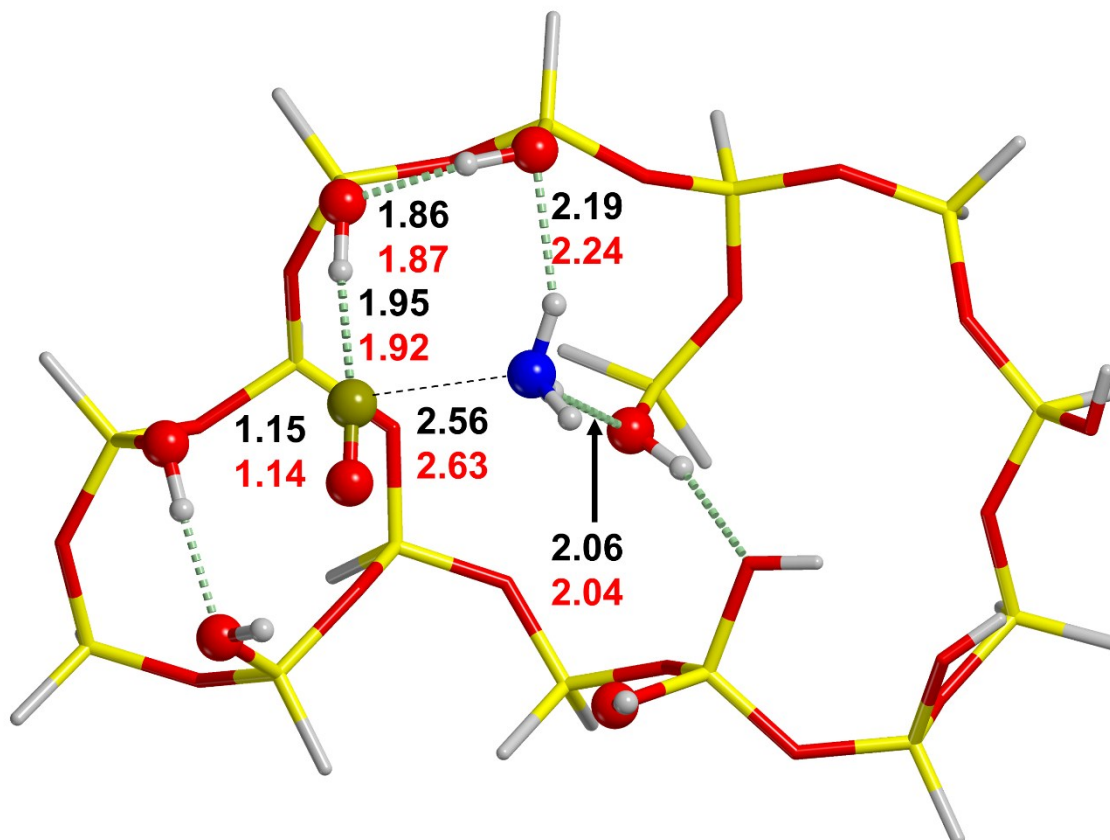
	H -7.6707957753	-3.6494617714	-0.5357303815
	H -7.2685107753	1.3515952286	-0.0191213815
	H -4.0438117753	5.0179972286	0.0737396185
	H -0.2417057753	6.0892032286	0.3748946185



Gas phase coordinates	PCM (F) coordinates
74	74
SiH_TS_G	SiH_TS_F
C -2.3050944319 0.9717098544 2.4402496427	C -2.2069128592 1.0748314422 2.5298791773
H -2.8202494319 2.0922338544 2.2359416427	H -2.7240428592 2.2876284422 2.2357641773
N -0.6242914319 1.2554598544 2.1629046427	N -0.4365908592 1.2308774422 2.2909211773
H -0.0813984319 0.7031008544 2.8364166427	H 0.0517191408 0.6419084422 2.9745521773
H -0.3178904319 0.9609058544 1.2058436427	H -0.1403488592 0.9391044422 1.3332781773
O -2.5640234319 -0.1372991456 2.7555066427	O -2.5258938592 -0.0023155578 2.8854411773
O -3.0160134319 3.4618648544 1.9806066427	O -3.0687358592 3.4796694422 1.9780481773
O -0.5438934319 4.1365988544 2.2612996427	O -0.5102258592 4.2128114422 2.2664381773
H -1.5768094319 3.9727758544 2.3432066427	H -1.4987558592 4.0356604422 2.3984051773
H -0.4236834319 2.2812208544 2.2733306427	H -0.1820908592 2.2256104422 2.4248621773
O 2.4723455681 -1.4409041456 1.2348976427	O 2.4735291408 -1.4438035578 1.2226271773
O 5.2004525681 -2.8105221456 2.0180376427	O 5.1697271408 -2.8253505578 2.0397661773
H 5.9620175681 -2.2233381456 1.8700196427	H 6.0387761408 -2.3898825578 2.0090141773
O 7.2396795681 0.4053698544 1.3509556427	O 7.2437321408 0.4288854422 1.3425391773
H 7.4928755681 1.1958258544 1.8526206427	H 7.5906861408 1.2345594422 1.7610591773
H 3.3242525681 -1.4081221456 1.7093406427	H 3.3292621408 -1.3934955578 1.6899371773

O 0.7452535681	-3.3823121456	1.9734366427	O 0.7375791408	-3.3451825578	1.9892231773
H 0.5784515681	-4.3292421456	2.0994056427	H 0.3840851408	-4.2504225578	1.9680701773
O -4.7588494319	-2.5021181456	1.9157386427	O -4.8427408592	-2.4788075578	1.8691441773
H -4.1157504319	-2.2421461456	2.6013106427	H -4.3980618592	-2.6598965578	2.7153801773
O -5.5793074319	0.1880408544	1.4740736427	O -5.5959578592	0.2036234422	1.4796171773
H -5.3361184319	-0.7193191456	1.7552546427	H -5.2425158592	-0.6784495578	1.7457951773
O 0.8443775681	0.3909818544	-0.1636143573	O 0.8543571408	0.3865684422	-0.1723388227
H 1.5443405681	-0.1585261456	0.2616736427	H 1.5485101408	-0.1781075578	0.2474091773
O 3.7483805681	3.9823218544	-0.3113753573	O 3.7471501408	3.9727664422	-0.3341238227
H 5.4284175681	3.4080668544	-2.1899073573	H 5.4266121408	3.3902254422	-2.2106178227
Si -0.3105424319	4.6292998544	0.6792966427	Si -0.3112468592	4.6261634422	0.6544891773
H 2.0388115681	4.7326858544	-2.0450623573	H 2.0378781408	4.7175824422	-2.0704948227
Si 2.2526315681	3.7270388544	-0.9655753573	Si 2.2511651408	3.7159434422	-0.9871818227
Si -3.1715144319	3.8306868544	0.3845156427	Si -3.1727658592	3.8282764422	0.3630751773
O -1.6389474319	4.0812428544	-0.1673263573	O -1.6400978592	4.0757234422	-0.1898858227
O 1.0543825681	3.9025618544	0.1470036427	O 1.0531501408	3.8965064422	0.1248421773
O 5.1334185681	-3.3525171456	-0.6697603573	O 5.1274071408	-3.3642875578	-0.6645278227
O 5.8038745681	-0.7596631456	-0.4562133573	O 5.7995621408	-0.7710675578	-0.4609958227
O 3.1613495681	-4.0937651456	0.9593646427	O 3.1550361408	-4.0980075578	0.9676361773
Si 6.1678755681	-2.1977861456	-1.2082643573	Si 6.1625521408	-2.2122995578	-1.2075648227
H 5.9841355681	-2.0747771456	-2.6834873573	H 5.9787321408	-2.0948285578	-2.6832298227
Si 5.2534745681	3.4466138544	-0.7025843573	Si 5.2518551408	3.4345884422	-0.7234358227
Si 4.7912555681	-3.9437271456	0.8431006427	Si 4.7850261408	-3.9494705578	0.8506251773
O 5.5120585681	1.9246908544	-0.0946893573	O 5.5095211408	1.9148404422	-0.1097368227
Si 6.5482205681	0.6649178544	-0.1565653573	Si 6.5448621408	0.6541694422	-0.1668908227
Si -2.4004454319	-1.2341071456	-1.3878413573	Si -2.4051628592	-1.2437745578	-1.3899288227
Si 1.9377775681	-2.9904441456	0.8846596427	Si 1.9321701408	-2.9941905578	0.8888301773
O -7.0215354319	-1.1972891456	-0.3345753573	O -7.0261138592	-1.1999285578	-0.3363228227
O -0.8683444319	-1.7405651456	-1.6725403573	O -0.8734208592	-1.7523105578	-1.6728458227
Si -6.6577014319	-2.6355111456	-1.0865953573	Si -6.6632918592	-2.6412585578	-1.0828608227
H -6.7504944319	-2.4599811456	-2.5676233573	H -6.7561318592	-2.4713485578	-2.5645418227
O -2.9284274319	-1.8502361456	0.0586926427	O -2.9333868592	-1.8540105578	0.0590121773
H -3.2805694319	-1.6648071456	-2.5062443573	H -3.2856868592	-1.6781895578	-2.5065788227
O -5.1108024319	-3.1076581456	-0.7482183573	O -5.1166618592	-3.1131055578	-0.7428398227
O -3.8574314319	2.5711438544	-0.4078563573	O -3.8595828592	2.5661484422	-0.4243888227
Si -4.0252224319	-3.0067191456	0.4871866427	Si -4.0308828592	-3.0081325578	0.4920541773
O -5.1471214319	0.4174908544	-1.2184223573	O -5.1507528592	0.4102374422	-1.2265538227
H -0.0734844319	1.4808598544	-2.3079483573	H -0.0765478592	1.4661394422	-2.3206858227
O -2.4414094319	0.4055238544	-1.2191523573	O -2.4450488592	0.3965174422	-1.2275238227
Si -6.2773114319	0.2273038544	-0.0349793573	Si -6.2809368592	0.2253204422	-0.0422708227
H -3.8006114319	1.8241278544	-2.8553383573	H -3.8035108592	1.8097164422	-2.8689938227
Si -3.7871094319	1.3256668544	-1.4572073573	Si -3.7901798592	1.3166114422	-1.4689638227
Si 1.1942435681	0.9695348544	-1.7105823573	Si 1.1909141408	0.9562884422	-1.7214978227
H 1.8702425681	-0.0548471456	-2.5690293573	H 1.8661581408	-0.0718145578	-2.5760828227
O 1.3639905681	-2.9083081456	-0.6574233573	O 1.3582691408	-2.9175965578	-0.6534948227
H 0.3050555681	-3.6954391456	-2.8047713573	H 0.2985931408	-3.7122705578	-2.7976968227
O 2.2955565681	2.2193178544	-1.6006093573	O 2.2930471408	2.2057714422	-1.6164348227
Si -0.0404114319	-3.1538781456	-1.4591413573	Si -0.0463788592	-3.1653305578	-1.4541168227
H 6.2273145681	4.3770628544	-0.0521903573	H 6.2263661408	4.3668944422	-0.0767168227
H 7.5590235681	0.9129238544	-1.2304493573	H 7.5557081408	0.8974024422	-1.2418248227
H 7.5758165681	-2.5747391456	-0.8450373573	H 7.5702891408	-2.5887675578	-0.8430448227
H 5.4059685681	-5.2877821456	0.9993326427	H 5.3988871408	-5.2933145578	1.0119451773

H -0.8991724319	-4.1045301456	-0.6724963573	H -0.9056688592	-4.1124035578	-0.6637418227
H -3.3649024319	-4.3235951456	0.6711296427	H -3.3713938592	-4.3247195578	0.6809751773
H -7.6354404319	-3.6388281456	-0.5708153573	H -7.6416228592	-3.6419585578	-0.5631338227
H -7.2406264319	1.3571928544	-0.0023343573	H -7.2435178592	1.3559494422	-0.0138568227
H -4.0206204319	5.0262628544	0.1367306427	H -4.0211258592	5.0234424422	0.1107981773
H -0.2206604319	6.0988328544	0.4593306427	H -0.2204388592	6.0947834422	0.4288801773



Gas phase coordinates	PCM (F) coordinates		
74	74		
SiH_P_G	SiH_P_F		
C -2.9815384710 0.7500816642 2.8863458689	C -3.1095213435	0.8417247077	3.0414208273
H -3.1443514710 2.5961816642 2.2736848689	H -3.1383873435	2.6081727077	2.2796898273
N -0.4953074710 1.1617466642 2.4174828689	N -0.5779073435	1.1071227077	2.3826798273
H 0.0340525290 0.5492376642 3.0421898689	H -0.1414023435	0.4801177077	3.0627618273
H -0.2189114710 0.9184936642 1.4571828689	H -0.2120953435	0.8536237077	1.4556798273
O -3.0170944710 -0.3486403358 3.2143198689	O -3.1504453435	-0.2172802923	3.4714428273
O -3.1143024710 3.5472286642 1.9890228689	O -3.1254513435	3.5545017077	1.9740098273
O -0.4549644710 4.2739506642 2.2708058689	O -0.4540833435	4.2690307077	2.2609848273
H -1.3992524710 4.0818706642 2.4916448689	H -1.3985563435	4.0718587077	2.4770468273
H -0.1822474710 2.1243896642 2.5821418689	H -0.2499153435	2.0572227077	2.5805918273
O 2.5187175290 -1.4645053358 1.2950828689	O 2.4959726565	-1.4433032923	1.2287088273
O 5.2019765290 -2.8039993358 2.0256878689	O 5.1789706565	-2.8212622923	2.0583198273
H 5.9904935290 -2.2481133358 1.9006148689	H 6.0486566565	-2.3864982923	2.0368778273
O 7.2528715290 0.4045546642 1.3712068689	O 7.2591566565	0.4339527077	1.3833838273
H 7.4760525290 1.1984956642 1.8815038689	H 7.6030106565	1.2389757077	1.8057048273
H 3.4460405290 -1.4529033358 1.6021248689	H 3.3514676565	-1.4041762923	1.6978428273

O 0.6589805290	-3.4366353358	1.8296318689	O 0.7457116565	-3.3436332923	1.9667338273
H 0.8100215290	-3.3981393358	2.7866048689	H 0.3784226565	-4.2426222923	1.9247768273
O -4.8130054710	-2.4967683358	1.8452818689	O -4.8372223435	-2.4761572923	1.8005938273
H -4.2344774710	-2.3922293358	2.6213178689	H -4.4144063435	-2.6710002923	2.6549948273
O -5.5689124710	0.1951396642	1.4211748689	O -5.5786923435	0.1925007077	1.4087288273
H -5.3443894710	-0.7226193358	1.6949768689	H -5.2839333435	-0.7112852923	1.6778538273
O 0.8744985290	0.3782246642	-0.1989261311	O 0.8843206565	0.3867037077	-0.1990871727
H 1.5805105290	-0.1401903358	0.2465908689	H 1.5785506565	-0.1609732923	0.2374178273
O 3.7739545290	3.9816706642	-0.3146141311	O 3.7770296565	3.9806217077	-0.3179181727
H 5.4640415290	3.4025286642	-2.1826001311	H 5.4725536565	3.4007007077	-2.1807291727
Si -0.2895874710	4.6368046642	0.6514298689	Si -0.2896813435	4.6329447077	0.6366498273
H 2.0759855290	4.7332636642	-2.0591351311	H 2.0828506565	4.7281797077	-2.0678501727
Si 2.2816505290	3.7283676642	-0.9773871311	Si 2.2866946565	3.7249277077	-0.9842611727
Si -3.1501394710	3.8428956642	0.3405398689	Si -3.1486253435	3.8357857077	0.3193618273
O -1.6139764710	4.0902866642	-0.2025331311	O -1.6112543435	4.0839147077	-0.2199621727
O 1.0771415290	3.9071016642	0.1279098689	O 1.0791676565	3.9039447077	0.1176978273
O 5.1481195290	-3.3559603358	-0.6573501311	O 5.1594586565	-3.3560682923	-0.6473011727
O 5.8218835290	-0.7640733358	-0.4424821311	O 5.8300556565	-0.7632192923	-0.4341351727
O 3.1651555290	-4.0920593358	0.9608418689	O 3.1730306565	-4.0920162923	0.9667108273
Si 6.1877795290	-2.2036073358	-1.1909061311	Si 6.1993446565	-2.2033782923	-1.1796851727
H 6.0129745290	-2.0817903358	-2.6673131311	H 6.0282606565	-2.0837002923	-2.6567041727
Si 5.2803835290	3.4429116642	-0.6963771311	Si 5.2849886565	3.4428747077	-0.6950451727
Si 4.7959815290	-3.9450123358	0.8540638689	Si 4.8039816565	-3.9434652923	0.8639748273
O 5.5326815290	1.9211606642	-0.0854181311	O 5.5372256565	1.9221927077	-0.0814031727
Si 6.5669635290	0.6595016642	-0.1398891311	Si 6.5729136565	0.6615067077	-0.1315021727
Si -2.3776154710	-1.2250233358	-1.4220911311	Si -2.3663983435	-1.2337452923	-1.4344531727
Si 1.9439965290	-2.9866623358	0.8777908689	Si 1.9509826565	-2.9879632923	0.8790068273
O -7.0047744710	-1.1789843358	-0.3961881311	O -6.9962563435	-1.1910092923	-0.4206521727
O -0.8447564710	-1.7344713358	-1.6972171311	O -0.8323173435	-1.7420112923	-1.7049111727
Si -6.6390464710	-2.6186163358	-1.1445831311	Si -6.6271343435	-2.6312662923	-1.1661731727
H -6.7227784710	-2.4444443358	-2.6263111311	H -6.7071853435	-2.4591502923	-2.6483451727
O -2.9152204710	-1.8387353358	0.0219228689	O -2.9071433435	-1.8460782923	0.0089738273
H -3.2518764710	-1.6553203358	-2.5452371311	H -3.2373013435	-1.6664172923	-2.5592941727
O -5.0950104710	-3.0931403358	-0.7965911311	O -5.0835333435	-3.1037682923	-0.8135341727
O -3.8336584710	2.5838036642	-0.4546021311	O -3.8287473435	2.5748407077	-0.4757771727
Si -4.0165714710	-2.9928433358	0.4451038689	Si -4.0084293435	-3.0007332923	0.4308268273
O -5.1223194710	0.4315816642	-1.2705841311	O -5.1131513435	0.4202887077	-1.2922931727
H -0.0404694710	1.4848866642	-2.3311891311	H -0.0296213435	1.4772997077	-2.3410861727
O -2.4166774710	0.4148496642	-1.2553141311	O -2.4075433435	0.4063077077	-1.2699641727
Si -6.2598174710	0.2446026642	-0.0936491311	Si -6.2535193435	0.2337287077	-0.1180731727
H -3.7636804710	1.8341646642	-2.9009451311	H -3.7516853435	1.8220727077	-2.9209831727
Si -3.7593164710	1.3371096642	-1.5022441311	Si -3.7504753435	1.3269157077	-1.5216521727
Si 1.2227665290	0.9719666642	-1.7258421311	Si 1.2325066565	0.9664937077	-1.7317871727
H 1.9020745290	-0.0544893358	-2.5792181311	H 1.9151216565	-0.0604312923	-2.5819971727
O 1.3794755290	-2.9051043358	-0.6677401311	O 1.3904036565	-2.9090262923	-0.6680931727
H 0.3318545290	-3.6925703358	-2.8205061311	H 0.3491816565	-3.7004152923	-2.8225261727
O 2.3256755290	2.2198876642	-1.6105941311	O 2.3339316565	2.2156247077	-1.6152731727
Si -0.0205984710	-3.1490173358	-1.4774921311	Si -0.0073123435	-3.1554342923	-1.4811591727
H 6.2520075290	4.3723106642	-0.0411861311	H 6.2539686565	4.3741257077	-0.0385671727
H 7.5845295290	0.9046236642	-1.2080331311	H 7.5930086565	0.9062347077	-1.1973211727
H 7.5928815290	-2.5826663358	-0.8189821311	H 7.6038546565	-2.5805242923	-0.8036041727
H 5.4073845290	-5.2899873358	1.0152908689	H 5.4163146565	-5.2876062923	1.0285858273

H -0.8856694710 -4.0973493358 -0.6949701311	H -0.8734633435 -4.1035952923 -0.6996261727
H -3.3596764710 -4.3106913358 0.6342848689	H -3.3507053435 -4.3176642923 0.6234718273
H -7.6215874710 -3.6196793358 -0.6335701311	H -7.6099943435 -3.6326402923 -0.6563831727
H -7.2213094710 1.3762196642 -0.0678451311	H -7.2162133435 1.3644087077 -0.0962791727
H -3.9956984710 5.0397536642 0.0865028689	H -3.9947153435 5.0313887077 0.0615898273
H -0.1958244710 6.1059576642 0.4304618689	H -0.1968083435 6.1018927077 0.4140038273

Figure S10: PBE-D2/TZVP optimized geometries for the formamide decarbonylation reaction catalysed by hydrophilic silica. In the figures the most representative bond lengths (in Å) in gas phase (black) and in PCM (F) (red) are reported. In the left and the right columns the cartesian coordinates of the optimized structures in gas phase and in PCM (F), respectively, are reported. Hydrogens in white, oxygens in red, carbons in ochre, nitrogens in blue, silicons in yellow.

Table S1: CCSD(T) energies with thermodynamic corrections computed at PBE level for the formamide dehydration in gas phase.

	NC		1H ₂ O				2H ₂ O				SiL				SiH			
	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0
M1	0.0	0.0	-33.8	22.9	0.0	0.0	-90.4	27.7	0.0	0.0	-45.6	44.4	0.0	0.0	-108.8	-7.5	0.0	0.0
TS1	180.1	184.1	38.6	110.6	72.3	87.7	-27.7	107.2	62.7	79.5	13.4	109.8	58.9	65.3	-41.5	69.7	67.3	77.2
M2	43.2	46.2	2.0	64.4	35.8	41.5	-55.5	68.5	34.8	40.7	-5.3	91.1	40.3	46.7	-66.3	39.3	42.5	46.8
TS2	81.4	85.9	122.6	181.0	156.4	158.1	69.9	191.6	160.2	163.9	41.1	130.7	86.6	86.2	-40.5	64.0	68.3	71.5
M3	65.4	67.4	30.5	80.1	64.3	57.1	-28.6	90.6	61.7	62.8	25.8	114.6	71.4	70.2	-82.4	18.9	26.4	26.4
TS3	159.9	160.5	62.2	116.9	96.0	93.9					43.0	133.4	88.6	89.0	34.9	138.8	143.7	146.3
M4	57.7	59.5	46.0	95.4	79.8	72.4	4.1	113.4	94.4	85.7	40.6	129.0	86.1	84.5	-75.7	27.0	33.1	34.5
TS4	304.2	303.8	196.0	262.0	229.7	239.0	134.2	261.2	224.6	233.5	133.9	226.4	179.5	181.9	-49.2	53.9	59.7	61.4
M5	59.2	37.6	35.3	69.9	69.0	47.0	-20.9	76.7	69.4	48.9	20.5	112.2	66.1	67.8	-65.4	36.3	43.4	43.8
TS5											180.5	272.9	226.1	228.5	90.0	200.3	198.8	207.8
M6											31.9	106.8	77.5	62.3	-45.8	46.1	63.0	53.6
Prods	81.3	21.6	81.3	21.6	115.1	-1.3	81.3	21.6	171.7	-6.1	81.3	21.6	126.9	-22.8	81.3	21.6	190.2	29.1

NC stands for the non-catalysed reaction, 1H₂O and 2H₂O for the 1H₂O- and 2H₂O-mediated reaction, respectively, while SiL and SiH for the Silica 1.5- and Silica 4.5-mediated reactions, respectively.

Mn and TS_n correspond to the structures shown in the previous Figures.

ΔH and ΔG energies are referred to non-interacting reactants, while for ΔH^0 and ΔG^0 the reference minimum is M1.

Prods are the energies of non-interacting products.

Table S2: CCSD(T) energies with thermodynamic corrections computed at PBE level for the formamide dehydration in PCM (F).

	NC		1H ₂ O				2H ₂ O				SiL				SiH			
	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0
M1	0.0	0.0	-16.6	-39.1	0.0	0.0	-39.2	-76.3	0.0	0.0	-14.9	-35.8	0.0	0.0	-61.3	-76.3	0.0	0.0
TS1	189.9	193.0	61.2	52.7	77.9	91.8	25.3	1.8	64.6	78.1	46.1	30.8	61.0	66.6	4.4	-0.8	65.7	75.4
M2	53.3	55.4	27.9	10.4	44.5	49.5	0.4	-31.9	39.7	44.4	39.4	20.4	54.3	56.2	-13.5	-24.3	47.8	52.0
TS2	84.0	87.7	144.6	120.1	161.2	159.2	125.6	90.1	164.9	166.4	61.6	42.3	76.5	78.1	14.6	2.4	76.0	78.7
M3	61.6	63.0	40.7	20.1	57.3	59.2	24.7	-13.4	63.9	62.9	49.6	29.2	64.6	65.0	-27.0	-39.6	34.4	36.6
TS3	166.5	165.8	78.0	56.9	94.7	96.0					65.9	44.2	80.8	80.0	86.9	77.0	148.3	153.2
M4	60.8	62.1	57.3	34.5	73.9	73.6	42.3	0.8	81.5	77.1	57.0	35.1	71.9	70.9	-20.6	-32.0	40.7	44.3
TS4	306.6	306.4	208.5	195.3	225.1	234.3	180.3	151.0	219.5	227.3	167.9	145.7	182.9	181.5	3.0	-8.1	64.3	68.2
M5	57.2	41.0	49.0	15.0	65.6	54.1	31.7	-19.4	70.9	57.0	50.2	30.0	65.2	65.8	-10.6	-23.8	50.7	52.4
TS5											203.4	183.5	218.3	219.3	133.9	128.6	195.2	204.9
M6											59.8	21.9	74.7	57.7	6.6	-16.5	67.9	59.8
Prods	64.9	71.1	64.9	71.1	81.5	110.1	64.9	71.1	104.1	147.4	64.9	71.1	79.8	106.9	64.9	71.1	126.2	147.3

NC stands for the non-catalysed reaction, 1H₂O and 2H₂O for the 1H₂O- and 2H₂O-mediated reaction, respectively, while SiL and SiH for the Silica 1.5- and Silica 4.5-mediated reactions, respectively.

Mn and TS_n correspond to the structures shown in the previous Figures.

ΔH and ΔG energies are referred to non-interacting reactants, while for ΔH^0 and ΔG^0 the reference minimum is M1.

Prods are the energies of non-interacting products.

Table S3: CCSD(T) energies with thermodynamic corrections computed at PBE level for the formamide decarbonylation in gas phase.

	NC		1H ₂ O				2H ₂ O				SiL				SiH			
	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0
M1	0.0	0.0	-36.9	22.3	0.0	0.0	-79.0	44.0	0.0	0.0	-20.6	69.4	0.0	0.0	-78.0	23.3	0.0	0.0
R	0.0	0.0	-17.6	29.2	19.3	7.0	-49.2	61.1	29.9	17.1	-3.3	89.1	17.3	19.7	-61.8	35.8	16.2	12.5
TS	337.9	332.2	212.2	276.0	249.1	253.7	141.2	270.2	220.3	226.1	172.4	260.9	193.0	191.5	111.7	215.8	189.6	192.4
P	27.2	-3.4	13.4	42.2	50.3	20.0	-34.8	52.5	44.3	8.5	5.1	87.6	25.7	18.1	-4.7	81.8	73.3	58.4
Prods	25.8	-33.0	25.8	-33.0	62.7	-55.3	25.8	-33.0	104.8	-77.1	25.8	-33.0	46.3	-102.4	25.8	-33.0	103.7	-56.4

NC stands for the non-catalysed reaction, 1H₂O and 2H₂O for the 1H₂O- and 2H₂O-mediated reaction, respectively, while SiL and SiH for the Silica 1.5- and Silica 4.5-mediated reactions, respectively.

Mn and TS_n correspond to the structures shown in the previous Figures.

ΔH and ΔG energies are referred to non-interacting reactants, while for ΔH^0 and ΔG^0 the reference minimum is M1.

Prods are the energies of non-interacting products.

Table S4: CCSD(T) energies with thermodynamic corrections computed at PBE level for the formamide decarbonylation in PCM (F).

	NC		1H ₂ O				2H ₂ O				SiL				SiH			
	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0	ΔH	ΔG	ΔH^0	ΔG^0
M1	0.0	0.0	-10.3	-32.7	0.0	0.0	-27.8	-64.9	0.0	0.0	10.7	-10.2	0.0	0.0	-31.5	-46.4	0.0	0.0
R	0.0	0.0	5.4	-30.9	15.7	1.8	-14.9	-61.3	13.0	3.6	20.0	-9.2	9.3	1.0	-10.8	-38.9	20.7	7.5
TS	354.1	348.3	231.5	213.1	241.7	245.8	198.2	156.6	226.0	221.6	195.7	176.5	185.0	186.6	153.5	139.3	185.0	185.7
P	41.5	29.8	50.0	28.3	60.3	61.0	5.7	-26.4	33.6	38.5	34.2	11.4	23.5	21.6	35.1	20.9	66.6	67.3
Prods	32.3	39.4	32.3	39.4	42.6	72.1	32.3	39.4	60.1	104.3	32.3	39.4	21.6	49.6	32.3	39.4	63.8	85.8

NC stands for the non-catalysed reaction, 1H₂O and 2H₂O for the 1H₂O- and 2H₂O-mediated reaction, respectively, while SiL and SiH for the Silica 1.5- and Silica 4.5-mediated reactions, respectively.

Mn and TS_n correspond to the structures shown in the previous Figures.

ΔH and ΔG energies are referred to non-interacting reactants, while for ΔH^0 and ΔG^0 the reference minimum is M1.

Prods are the energies of non-interacting products.

Basis sets

TZVP

C 0

S 5 1.

0.8506038400000E+04 0.5337366400000E-03
0.1275732900000E+04 0.4125023200000E-02
0.2903118700000E+03 0.2117133700000E-01
0.8205620000000E+02 0.8241786000000E-01
0.2647964100000E+02 0.2401285800000E+00

S 1 1.

0.9241458500000E+01 0.1000000000000E+01

S 1 1.

0.3364353000000E+01 0.1000000000000E+01

S 1 1.

0.8717416400000E+00 0.1000000000000E+01

S 1 1.

0.3635235200000E+00 0.1000000000000E+01

S 1 1.

0.1287313500000E+00 0.1000000000000E+01

P 4 1.

0.3470949600000E+02 0.5330097400000E-02

0.7959088300000E+01 0.3586581400000E-01

0.2378697200000E+01 0.1420029900000E+00

0.8154006500000E+00 0.3420310500000E+00

P 1 1.

0.2895378500000E+00 0.1000000000000E+01

P 1 1.

0.1008475400000E+00 0.1000000000000E+01

D 1 1.

0.8000000000000E+00 0.1000000000000E+01

N 0

S 5 1.

0.1191341675600E+05 -0.5229701736500E-03
0.1786721383400E+04 -0.4042840403600E-02
0.4065901283400E+03 -0.2077271512500E-01
0.1149252506500E+03 -0.8118313784900E-01
0.3710588342200E+02 -0.2387149739500E+00

S 1 1.

0.1297167619800E+02 0.1000000000000E+01

S 1 1.

0.4730229116400E+01 0.1000000000000E+01

S 1 1.

0.1252518425800E+01 0.1000000000000E+01

S 1 1.

0.5126007123100E+00 0.1000000000000E+01

S 1 1.

0.1793971400200E+00 0.1000000000000E+01

P 4 1.

0.4921875839200E+02 0.5552695347600E-02

0.1134893530400E+02 0.3805461795700E-01

0.3428508824600E+01 0.1494141224200E+00
 0.1179951255900E+01 0.3489818736800E+00
 P 1 1.
 0.4172612257700E+00 0.1000000000000E+01
 P 1 1.
 0.1429513128000E+00 0.1000000000000E+01
 D 1 1.
 0.1000000000000E+01 0.1000000000000E+01

 O 0
 S 5 1.
 0.1590264745900E+05 0.5149980370300E-03
 0.2384953782900E+04 0.3981976442800E-02
 0.5427195718200E+03 0.2047697192200E-01
 0.1534040787400E+03 0.8026236791500E-01
 0.4954571614000E+02 0.2376683994700E+00
 S 1 1.
 0.1733964989700E+02 0.1000000000000E+01
 S 1 1.
 0.6330335527200E+01 0.1000000000000E+01
 S 1 1.
 0.1699588220100E+01 0.1000000000000E+01
 S 1 1.
 0.6895449127100E+00 0.1000000000000E+01
 S 1 1.
 0.2393602818100E+00 0.1000000000000E+01
 P 4 1.
 0.6327052401100E+02 0.6070920596000E-02
 0.1462331229500E+02 0.4194768872300E-01
 0.4448951800300E+01 0.1615688398800E+00
 0.1528151318000E+01 0.3568277929200E+00
 P 1 1.
 0.5299731587000E+00 0.1000000000000E+01
 P 1 1.
 0.1750944599800E+00 0.1000000000000E+01
 D 1 1.
 0.1200000000000E+01 0.1000000000000E+01

 H 0
 S 3 1.
 0.3406134100000E+02 0.6025197800000E-02
 0.5123574600000E+01 0.4502109400000E-01
 0.1164662600000E+01 0.2018972600000E+00
 S 1 1.
 0.3272304100000E+00 0.1000000000000E+01
 S 1 1.
 0.1030724100000E+00 0.1000000000000E+01
 P 1 1.
 0.8000000000000E+00 0.1000000000000E+01

 Si 0
 S 5 1.00

79079.4340000	0.26431386E-03
11855.0100000	0.20485143E-02
2697.7051000	0.10637241E-01
762.8722700	0.43082477E-01
247.2845500	0.13898279
S 1 1.00	
87.9312400	1.00000000
S 2 1.00	
33.8232840	0.44071543
13.8681080	0.20091165
S 1 1.00	
3.9920017	1.00000000
S 1 1.00	
1.4659925	1.00000000
S 1 1.00	
0.25271086	1.00000000
S 1 1.00	
0.92491673E-01	1.00000000
P 5 1.00	
483.0235200	0.19161547E-02
114.2508100	0.15309765E-01
36.3877860	0.71094358E-01
13.4117040	0.21243244
5.2884033	0.38976302
P 1 1.00	
2.1374219	1.00000000
P 1 1.00	
0.86468463	1.00000000
P 1 1.00	
0.25489855	1.00000000
P 1 1.00	
0.79397031E-01	1.00000000
D 1 1.00	
0.3500000	1.00000000

cc-pVTZ

C 0	
S 8 1.00	
8236.0000000	0.0005310
1235.0000000	0.0041080
280.8000000	0.0210870
79.2700000	0.0818530
25.5900000	0.2348170
8.9970000	0.4344010
3.3190000	0.3461290
0.3643000	-0.0089830
S 8 1.00	
8236.0000000	-0.0001130
1235.0000000	-0.0008780
280.8000000	-0.0045400
79.2700000	-0.0181330

	25.5900000	-0.0557600
	8.9970000	-0.1268950
	3.3190000	-0.1703520
	0.3643000	0.5986840
S 1	1.00	
	0.9059000	1.0000000
S 1	1.00	
	0.1285000	1.0000000
P 3	1.00	
	18.7100000	0.0140310
	4.1330000	0.0868660
	1.2000000	0.2902160
P 1	1.00	
	0.3827000	1.0000000
P 1	1.00	
	0.1209000	1.0000000
D 1	1.00	
	1.0970000	1.0000000
D 1	1.00	
	0.3180000	1.0000000
F 1	1.00	
	0.7610000	1.0000000

N	0	
S 8	1.00	
	11420.0000000	0.0005230
	1712.0000000	0.0040450
	389.3000000	0.0207750
	110.0000000	0.0807270
	35.5700000	0.2330740
	12.5400000	0.4335010
	4.6440000	0.3474720
	0.5118000	-0.0085080
S 8	1.00	
	11420.0000000	-0.0001150
	1712.0000000	-0.0008950
	389.3000000	-0.0046240
	110.0000000	-0.0185280
	35.5700000	-0.0573390
	12.5400000	-0.1320760
	4.6440000	-0.1725100
	0.5118000	0.5999440
S 1	1.00	
	1.2930000	1.0000000
S 1	1.00	
	0.1787000	1.0000000
P 3	1.00	
	26.6300000	0.0146700
	5.9480000	0.0917640
	1.7420000	0.2986830
P 1	1.00	
	0.5550000	1.0000000

P 1	1.00	
	0.1725000	1.0000000
D 1	1.00	
	1.6540000	1.0000000
D 1	1.00	
	0.4690000	1.0000000
F 1	1.00	
	1.0930000	1.0000000

O	0	
S 8	1.00	
	15330.0000000	0.0005080
	2299.0000000	0.0039290
	522.4000000	0.0202430
	147.3000000	0.0791810
	47.5500000	0.2306870
	16.7600000	0.4331180
	6.2070000	0.3502600
	0.6882000	-0.0081540
S 8	1.00	
	15330.0000000	-0.0001150
	2299.0000000	-0.0008950
	522.4000000	-0.0046360
	147.3000000	-0.0187240
	47.5500000	-0.0584630
	16.7600000	-0.1364630
	6.2070000	-0.1757400
	0.6882000	0.6034180
S 1	1.00	
	1.7520000	1.0000000
S 1	1.00	
	0.2384000	1.0000000
P 3	1.00	
	34.4600000	0.0159280
	7.7490000	0.0997400
	2.2800000	0.3104920
P 1	1.00	
	0.7156000	1.0000000
P 1	1.00	
	0.2140000	1.0000000
D 1	1.00	
	2.3140000	1.0000000
D 1	1.00	
	0.6450000	1.0000000
F 1	1.00	
	1.4280000	1.0000000

H	0	
S 3	1.00	
	33.8700000	0.0060680
	5.0950000	0.0453080
	1.1590000	0.2028220

S	1	1.00	
		0.3258000	1.0000000
S	1	1.00	
		0.1027000	1.0000000
P	1	1.00	
		1.4070000	1.0000000
P	1	1.00	
		0.3880000	1.0000000
D	1	1.00	
		1.0570000	1.0000000
