TMS

Si	0.00000000	0.00000000	0.00000000
C	1.09182800	1.09182800	1.09182800
H	0.48848000	1.73755100	1.73755100
H	1.73755100	1.73755100	0.48848000
H	1.73755100	0.48848000	1.73755100
C	-1.09182800	-1.09182800	1.09182800
H	-0.48848000	-1.73755100	1.73755100
H	-1.73755100	-1.73755100	0.48848000
H	-1.73755100	-0.48848000	1.73755100
C	-1.09182800	1.09182800	-1.09182800
H	-1.73755100	0.48848000	-1.73755100
H	-0.48848000	1.73755100	-1.73755100
H	-1.73755100	1.73755100	-0.48848000
C	1.09182800	-1.09182800	-1.09182800
H	0.48848000	-1.73755100	-1.73755100
H	1.73755100	-0.48848000	-1.73755100
H	1.73755100	-1.73755100	-0.48848000

$Me_3Si\cdot$

Si	0.00000000	0.00000000	0.42339700
C	0.00000000	1.79771500	-0.17647700
H	0.00000000	1.83912300	-1.27320000
H	-0.88353300	2.33499500	0.17810400
H	0.88353300	2.33499500	0.17810400
C	1.55686700	-0.89885800	-0.17647700
H	1.58039800	-1.93266000	0.17810400
H	1.59272700	-0.91956100	-1.27320000
H	2.46393100	-0.40233500	0.17810400
C	-1.55686700	-0.89885800	-0.17647700
H	-1.59272700	-0.91956100	-1.27320000
H	-1.58039800	-1.93266000	0.17810400
H	-2.46393100	-0.40233500	0.17810400

$Me_2Si{=}CH_2$

Si	0.00704800	0.11786500	-0.00001600
C	0.12359600	1.82213200	-0.00027500
H	-0.74644900	2.46968200	-0.00026100
H	1.07965800	2.33413100	-0.00046500
C	-1.63897200	-0.79651500	0.00029800
H	-1.48757700	-1.87873400	0.00066900
H	-2.23091600	-0.53793300	0.88195400
H	-2.23092100	-0.53854500	-0.88153400
C	1.51846600	-0.99512800	-0.00003000
H	1.53401800	-1.64289500	0.88168400

H	1.53375100	-1.64324200	-0.88149300
H	2.43122400	-0.39551300	-0.00028400

Me_2Si:

Si	0.00000000	0.75548600	0.00000000
C	1.44610800	-0.49820200	-0.01010900
H	1.54378600	-0.87849600	1.01941200
H	1.26738700	-1.37280000	-0.64654900
H	2.40495400	-0.04789000	-0.27718300
C	-1.44610800	-0.49820200	0.01010900
H	-1.54378200	-0.87849800	-1.01941200
H	-1.26738800	-1.37279800	0.64655200
H	-2.40495500	-0.04789000	0.27717900

TS (TMS→ $Me_2Si{=}CH_2$)

Si	-0.17507100	0.08455200	0.26844100
C	0.69464700	-0.52077700	1.67187500
H	0.40487000	-1.44808800	2.15568000
H	1.33971700	0.12605700	2.25776600
H	1.26684100	-0.75164500	0.09493300
C	1.31226000	-0.67046200	-1.29015400
H	2.27135600	-0.15537300	-1.38346200
H	0.64589300	-0.28729100	-2.06999100
H	1.44047600	-1.74213100	-1.46394900
C	-1.68353300	-0.82534500	-0.36806900
H	-1.91579100	-0.59670400	-1.41087800
H	-2.54613000	-0.54277700	0.24473100
H	-1.55174500	-1.90560800	-0.26847700
C	-0.09722100	1.89729700	-0.19673400
H	-0.33502900	2.07848400	-1.24745600
H	-0.81878800	2.44681700	0.41718600
H	0.89240000	2.31024400	0.01423200

FS (TMS→ $Me_2Si{=}CH_2$)

Si	-1.02447900	-0.00007500	0.19434900
C	0.14875300	-0.00184800	1.43615300
H	0.54609200	-0.91801900	1.85932500
H	0.54755200	0.91319500	1.86041200
H	3.40320900	0.00475700	-0.05145600
C	4.42501800	-0.00002500	-0.43347300
H	4.67346500	0.98795000	-0.82455500
H	4.51294800	-0.73853200	-1.23203600
H	5.11501300	-0.25441200	0.37263600
C	-1.72440100	-1.57640600	-0.54522100
H	-1.53432800	-1.62802500	-1.62145300
H	-2.80771000	-1.63381500	-0.40269000
H	-1.27103800	-2.45185900	-0.07550300

C	-1.72224000	1.57819500	-0.54308500
H	-1.53480200	1.62957100	-1.61978200
H	-2.80502000	1.63835600	-0.39771300
H	-1.26545500	2.45238100	-0.07431000

TS (TMS→ Me_2Si:)

Si	0.39405200	0.00001100	-0.67634800
C	-1.10961600	-0.00003800	1.24571400
H	-1.65249400	0.90480000	1.49761700
H	-0.13145600	-0.00003400	1.71681700
H	-1.65247200	-0.90490300	1.49756300
C	-1.86096600	0.00002000	-0.67983000
H	-2.75763100	0.00001200	-0.05836500
H	-1.88285600	-0.89322200	-1.29836200
H	-1.88284400	0.89329100	-1.29832000
C	1.17734700	1.53358300	0.17466900
H	2.11636200	1.75125400	-0.34661300
H	1.40563800	1.39832400	1.23968900
H	0.54714500	2.42178200	0.06743800
C	1.17735400	-1.53358200	0.17462400
H	2.11635900	-1.75125200	-0.34667600
H	1.40566500	-1.39833800	1.23964100
H	0.54714300	-2.42177400	0.06739100

FS (TMS→ Me_2Si:)

Si	-1.02447900	-0.00007500	0.19434900
C	0.14875300	-0.00184800	1.43615300
H	0.54609200	-0.91801900	1.85932500
H	0.54755200	0.91319500	1.86041200
H	3.40320900	0.00475700	-0.05145600
C	4.42501800	-0.00002500	-0.43347300
H	4.67346500	0.98795000	-0.82455500
H	4.51294800	-0.73853200	-1.23203600
H	5.11501300	-0.25441200	0.37263600
C	-1.72440100	-1.57640600	-0.54522100
H	-1.53432800	-1.62802500	-1.62145300
H	-2.80771000	-1.63381500	-0.40269000
H	-1.27103800	-2.45185900	-0.07550300
C	-1.72224000	1.57819500	-0.54308500
H	-1.53480200	1.62957100	-1.61978200
H	-2.80502000	1.63835600	-0.39771300
H	-1.26545500	2.45238100	-0.07431000

TS5a ($Me_2Si=CH_2$→:Si(Me)Et)

Si	-0.20702700	0.08305700	-0.69648500
C	0.77341900	1.22030500	0.29291900
H	1.77529800	1.48107200	-0.04335100

H	0.51090200	1.70136100	1.24101200
C	1.35489900	-0.96424000	0.24441000
H	0.78065800	-1.88739200	0.35785700
H	2.16134000	-1.08878900	-0.47265400
H	1.75107000	-0.70686400	1.22706500
C	-1.76062900	-0.22784000	0.39946500
H	-2.46336900	0.59949700	0.24713000
H	-2.28276900	-1.14209400	0.10249400
H	-1.54088600	-0.28893700	1.47047200

FS5a ($Me_2Si=CH_2 \rightarrow$:Si(Me)Et)

Si	0.68234700	-0.77961200	-0.25565700
C	-0.95296100	-0.28674500	0.63649400
H	-1.48817400	-1.18696900	0.95594600
H	-0.75993900	0.31736500	1.53142900
C	-1.85231500	0.51107500	-0.34083300
H	-1.38746600	1.45328600	-0.64670500
H	-2.07269000	-0.05858600	-1.25001000
H	-2.81178300	0.75892300	0.12182700
C	1.68333500	0.81576700	0.08212600
H	2.04610100	0.73236600	1.11987900
H	2.56329000	0.92179200	-0.55642500
H	1.08945200	1.73581700	0.03653400

TS5b ($Me_2Si=CH_2 \rightarrow H_2\underline{C(H)Si(Me)C}H_2$)

Si	-0.05087600	0.03387200	0.14171700
C	-0.88914100	1.57837000	-0.09303800
H	-1.91315200	1.68279400	0.25119400
H	-0.47800500	2.46336800	-0.56818000
C	-0.93494500	-1.54885500	-0.24286200
H	-0.80498200	-2.38034700	0.44870200
H	-0.63460300	-0.35814100	1.50671600
H	-1.92150900	-1.53984800	-0.70541000
C	1.80686400	-0.05071800	-0.08309500
H	2.28787900	0.84651000	0.31457700
H	2.22276900	-0.92346400	0.42666000
H	2.05720400	-0.13786000	-1.14432900

FS5b ($Me_2Si=CH_2 \rightarrow H_2\underline{C(H)Si(Me)C}H_2$)

Si	0.23727700	-0.00101100	0.49970000
C	-1.26994500	0.78103600	-0.25816300
H	-2.01062200	1.25799000	0.37689800
H	-1.19721400	1.25655600	-1.23247600
C	-1.27010300	-0.77995500	-0.26109400
H	-2.01086000	-1.25916900	0.37216900
H	0.33746700	-0.00378200	1.97649100
H	-1.19741300	-1.25183100	-1.23717800

C	1.88600400	0.00076900	-0.39655800
H	2.47360100	0.88672900	-0.14101200
H	2.47730400	-0.88170600	-0.13750000
H	1.73012000	-0.00173200	-1.47830300

TS5c (:Si(Me)Et→H_2C=Si(H)Et)

Si	0.77518500	-0.67983500	-0.19968500
C	-1.00132200	-0.44640900	0.50034500
H	-1.49936900	-1.42155800	0.51125200
H	-0.90659000	-0.14125200	1.55044200
C	-1.86675600	0.56397100	-0.27560100
H	-1.45583600	1.57497500	-0.21255000
H	-1.93431800	0.30556600	-1.33703500
H	-2.88877400	0.59517000	0.11570700
C	1.66008900	0.81997900	0.24122000
H	2.65473300	0.96946900	-0.17680800
H	1.07379600	0.36562300	-1.34422600
H	1.35170600	1.64444800	0.89303000

FS5c (:Si(Me)Et→H_2C=Si(H)Et)

Si	-0.67206800	0.39964000	0.13914400
C	0.97222000	-0.45506100	0.46622600
H	1.22220000	-0.32155000	1.52522300
H	0.81738000	-1.52928300	0.32287400
C	2.14044600	0.04461500	-0.40701200
H	1.95195300	-0.13395000	-1.46884500
H	2.30993100	1.11743200	-0.27770100
H	3.07048700	-0.46738300	-0.14425500
C	-2.12684000	-0.39307000	-0.28000600
H	-3.04603700	0.15472500	-0.45556600
H	-0.62988900	1.87626300	0.25702500
H	-2.20202600	-1.47012500	-0.38202500

TS5d (:Si(Me)Et→MeH_2C=Si(H)Me)

Si	0.55667800	-0.67306200	-0.08491400
C	-0.83795800	0.49002000	-0.04268400
H	-0.23011100	-0.54929300	1.26917300
H	-0.70029900	1.57855400	-0.06688300
C	-2.27849600	0.08780900	-0.00074300
H	-2.74726900	0.36357300	-0.95445300
H	-2.40471200	-0.98991100	0.13451900
H	-2.83352000	0.62104700	0.77890500
C	2.09691300	0.46987900	0.02686700
H	2.13360100	1.01303500	0.97643600
H	3.02146600	-0.10528400	-0.06382400
H	2.08460500	1.20490500	-0.78571500

FS5d (:Si(Me)Et→MeH_2C=Si(H)Me)

Si	-0.50988700	0.41415600	-0.00006900
C	0.93479300	-0.51098500	-0.00003300
H	-0.45496500	1.89480600	0.00011400
H	0.82794300	-1.59492600	-0.00018300
C	2.35352900	-0.00296600	0.00005400
H	2.90450000	-0.35712000	-0.87976000
H	2.40417600	1.08935500	0.00012500
H	2.90439400	-0.35721500	0.87989900
C	-2.23409100	-0.32487300	0.00006300
H	-2.79826400	-0.01364200	0.88343700
H	-2.79958300	-0.01087700	-0.88148500
H	-2.17517100	-1.41562500	-0.00168000

TS5e (:Si(Me)Et→H_2C(H)Si(Me)CH_2)

Si	0.38066100	-0.78626400	-0.19820300
C	-1.20675900	-0.04948100	0.77523400
H	-1.95171000	-0.79309700	1.03360500
H	-0.84747900	0.52746400	1.62122000
C	-1.34974400	0.63723300	-0.47675500
H	-0.96028900	1.63961300	-0.60226100
H	-0.31225900	-0.22864700	-1.49070100
H	-2.14824300	0.36265500	-1.15567800
C	1.70455300	0.57714400	0.14947100
H	2.28196500	0.29037600	1.03549200
H	2.41288200	0.63855600	-0.68298700
H	1.30758100	1.58140600	0.32845400

FS5e (:Si(Me)Et→H_2C(H)Si(Me)CH_2)

Si	0.23738500	-0.00147900	0.49920500
C	-1.27026600	0.78123400	-0.25721300
H	-2.01044800	1.25781700	0.37869500
H	-1.19805100	1.25751700	-1.23119300
C	-1.27035000	-0.77965500	-0.26173100
H	-1.19876900	-1.25047900	-1.23839500
H	0.33616000	-0.00603100	1.97609500
H	-2.01033300	-1.25961800	0.37187600
C	1.88648200	0.00117900	-0.39616300
H	2.47536100	0.88530800	-0.13726500
H	2.47638200	-0.88309900	-0.14005100
H	1.73111100	0.00273900	-1.47799400

TS5f (H_2C=Si(H)Et→:Si(H)Pr)

Si	-1.30517400	-0.44767100	0.08247200
C	0.77076100	-0.51644200	-0.51348500
H	0.74729600	-1.60299600	-0.39249600
H	0.83921800	-0.30212000	-1.57764000
C	1.91497800	0.05983700	0.31621300

H	2.83763900	-0.49765800	0.11529500
H	2.10419400	1.11233400	0.09690000
H	1.70885800	-0.02848600	1.38594300
C	-0.67383900	1.22343300	-0.11899700
H	-0.41995300	1.95549500	0.65014300
H	-1.12737300	-0.56933600	1.58897000
H	-0.48884000	1.59919800	-1.12410700

FS5f (H_2C=Si(H)Et→:Si(H)Pr)

Si	1.57008300	-0.32553000	0.03150200
C	-0.76057500	0.11536600	0.56029600
H	-0.23201700	-0.80765800	0.96105400
H	-1.04662600	0.62148100	1.48528200
C	-1.97966700	-0.37789100	-0.21791500
H	-2.57904200	-1.07692300	0.37159100
H	-2.61499800	0.46812800	-0.49462300
H	-1.67173700	-0.88446000	-1.13578900
C	0.21619100	0.99405900	-0.25905600
H	-0.13576100	1.14408400	-1.27859600
H	1.03854000	-1.25330000	-1.06318000
H	0.40478100	1.95686900	0.21328600

TS5g (H_2C(H)Si(Me)CH_2→:Si(H)Pr)

Si	0.24191300	-1.09200900	-0.05773800
C	1.35014100	0.51500000	-0.14235000
H	2.09092900	0.53559900	0.65098300
H	1.76835100	0.71117000	-1.12546900
C	0.09677300	1.19807800	0.16161400
H	-0.28048200	1.90587700	-0.56604800
H	0.23241200	-1.15300800	1.46811200
H	-0.06315500	1.49666900	1.18963700
C	-1.62707600	0.16731100	-0.09473900
H	-2.08193500	-0.70690300	0.37711600
H	-2.07342400	1.02140100	0.41486000
H	-1.89851400	0.19498400	-1.14801200

FS5g (H_2C(H)Si(Me)CH_2→:Si(H)Pr)

Si	1.68653000	-0.33552400	-0.02513900
C	0.19829900	0.83877900	-0.27661200
H	0.62489100	1.77022100	0.15073500
H	0.07823500	1.06423300	-1.34378200
C	-1.16092000	0.54365200	0.37741300
H	-1.83694500	1.39621800	0.23676800
H	1.24935700	-0.81935900	1.36330600
H	-1.02368400	0.42916100	1.45761300
C	-1.82417300	-0.71694100	-0.18667100
H	-1.20992200	-1.60505200	0.00194700

H	-2.80204800	-0.89415500	0.26920700
H	-1.97054400	-0.63686200	-1.26862100

TS (:Si(Me)Et→:Si(Me)CH=CH_2+H_2)

Si	0.40993100	-0.83808200	-0.10949600
C	-1.26994400	-0.03320000	0.53480900
H	-2.08664000	-0.71740900	0.74473600
H	-1.05089500	0.63157700	1.60206900
C	-1.11978300	0.50751700	-0.77815600
H	-0.52657900	1.39933500	-0.92819100
H	-1.90923000	0.35971300	-1.50792200
H	-1.85309900	1.00931200	1.66004000
C	1.68337500	0.59932900	0.14274100
H	2.38428200	0.31016400	0.93406100
H	2.27991500	0.72182900	-0.76869800
H	1.26132900	1.57674600	0.40048000

FS (:Si(Me)Et→:Si(Me)CH=CH_2+H_2)

Si	-1.00653700	-0.17629900	-0.72061500
C	0.76006000	-0.78355400	-0.36434400
H	1.31332900	-1.19384200	-1.21135100
H	4.26190800	2.74849800	-0.76783500
C	1.30793900	-0.96498600	0.84847800
H	0.82588400	-0.62282400	1.76023200
H	2.25508800	-1.48216600	0.98865900
H	4.74797100	3.28028500	-0.95418600
C	-1.28445300	1.03738300	0.73093800
H	-0.91223500	2.01135300	0.37510200
H	-2.34793600	1.17270700	0.94472900
H	-0.75377100	0.82111200	1.66283200

TS (H_2C=Si(H)Et→H_2C=Si(H)CH=CH_2+H_2)

Si	0.73509400	-0.42992900	0.02125400
C	-0.86954100	0.39066000	-0.04854300
H	-2.70702100	2.01573200	0.31383200
H	-0.87556400	1.47541600	-0.14629100
C	-2.19409400	-0.22907900	-0.03815400
H	-2.24415700	-1.18781800	-0.56911600
H	-2.61139400	-0.38624600	0.95976800
H	-2.89499400	0.62672500	-0.35351600
C	2.21091300	0.47434400	-0.01213300
H	3.18663600	0.00660300	0.05508200
H	0.75288100	-1.90471700	0.09606600
H	2.21862000	1.55776300	-0.06040000

FS (H_2C=Si(H)Et→H_2C=Si(H)CH=CH_2+H_2)

Si	-0.96155300	-0.11023300	0.20009400
C	0.77506300	-0.40065500	-0.35137200

H	6.37396300	3.21477000	0.23126800
H	1.25849400	0.38022800	-0.93567500
C	1.46680800	-1.51335600	-0.07267500
H	1.04066900	-2.32871300	0.50567800
H	2.48883900	-1.65524500	-0.41139600
H	5.86851700	3.26422300	0.77519600
C	-1.85949800	1.30291900	-0.14710100
H	-2.87944700	1.43337300	0.19601300
H	-1.52871500	-1.22698500	0.98688600
H	-1.45481600	2.12816200	-0.72239400

TS (:Si(H)Pr→:Si=CHEt+H_2)

Si	1.76706400	-0.31302100	-0.16048100
C	0.17596600	0.51005100	0.10629900
H	1.57519100	1.15013600	0.58101700
H	-0.02629600	1.56805500	-0.07425700
C	-1.05905300	-0.23886700	0.55357000
H	-1.34483800	0.08669200	1.56240700
H	2.35129900	1.22366300	-0.14629900
H	-0.84219200	-1.31113200	0.63636100
C	-2.24927000	-0.01519700	-0.39425200
H	-2.01594500	-0.35870500	-1.40559100
H	-3.13246100	-0.55820400	-0.04634000
H	-2.50951000	1.04586700	-0.45425900

FS (:Si(H)Pr→:Si=CHEt+H_2)

Si	-0.07472100	-1.93475600	-0.19132600
C	-0.00464100	-0.29462500	0.32106400
H	6.86454700	1.11165900	0.43346900
H	1.02188900	-0.04389200	0.63770900
C	-0.96969100	0.86327200	0.43423000
H	-1.04567600	1.16587600	1.48664200
H	6.67254800	1.21921700	-0.27735900
H	-1.97543900	0.54818700	0.13713700
C	-0.55217800	2.08287400	-0.40375700
H	-0.50303900	1.82715900	-1.46524700
H	-1.26493400	2.90402200	-0.28001000
H	0.43525800	2.44522500	-0.10299600

TS6a (:Si=CHEt→:Si(H)CH=CHMe)

Si	1.49440900	-0.31580900	-0.13282500
C	0.31200300	0.98860300	0.04380800
H	0.14570800	1.88620700	-0.53585000
C	-0.69874300	0.09339000	0.50329500
H	-0.80673500	-0.06796300	1.57435700
H	0.41484600	-1.17830700	0.68606000
C	-1.93023500	-0.27460300	-0.28690900

H	-1.76120700	-0.18306600	-1.36064500
H	-2.27026100	-1.28876500	-0.06006200
H	-2.74223200	0.40888300	-0.00546400

FS6a (:Si=CHEt□:Si(H)CH=CHMe)

Si	1.91832500	-0.00190000	0.00000600
C	0.10764000	-0.50380100	-0.00000800
H	-0.13602600	-1.56877900	-0.00002200
C	-0.93723100	0.35282600	-0.00001400
H	-0.72768400	1.42234200	-0.00000300
H	1.61457500	1.50040800	-0.00002100
C	-2.38628200	-0.02076800	0.00000100
H	-2.53126600	-1.10248500	-0.00027900
H	-2.89036000	0.40252900	0.87679600
H	-2.89055500	0.40304200	-0.87642700

TS6b (:Si(H)CH=CHMe→:Si(H)CH_2CH=CH_2)

Si	-1.81403800	-0.21176900	0.01276400
C	-0.12972800	0.52322900	-0.05735700
H	0.08716300	1.59094800	-0.01225700
C	1.05220500	-0.33186200	-0.06874300
H	0.85297700	-1.40011900	-0.16584000
H	-2.53846800	1.13035000	-0.09409600
C	2.41515500	0.03557000	-0.04390000
H	2.71267700	1.07362300	0.04692200
H	1.07219300	-0.06728800	1.07487400
H	3.18420000	-0.72436900	-0.00829700

FS6b (:Si(H)CH=CHMe→:Si(H)CH_2CH=CH_2)

Si	-1.68475500	-0.35018300	-0.10815100
C	-0.08015800	0.68105800	0.18206800
H	0.05483700	1.38565500	-0.64842300
C	1.16120200	-0.10920100	0.44445800
H	1.16306900	-0.70590100	1.35580600
H	-2.50922800	0.88127700	-0.49602000
C	2.22772200	-0.16873000	-0.35378000
H	2.28489200	0.40510700	-1.27434600
H	-0.34082700	1.30923400	1.05309300
H	3.08123200	-0.79156600	-0.11247100

TS6c (:Si(H)CH_2CH=CH_2→:Si=CHCH=CH_2+H_2)

Si	1.74041200	-0.26017600	-0.03901400
C	0.05476400	0.44512200	-0.09245300
H	-0.18073200	1.49515600	-0.27424900
C	-1.12829600	-0.38888100	0.04956600
H	-0.96320300	-1.45675400	0.19126400
H	1.24908100	1.11527100	0.73142000
C	-2.39376800	0.05992300	-0.00069200

H	-2.61559900	1.11632300	-0.11560700
H	2.18711900	1.29063600	0.20557000
H	-3.23863200	-0.61514700	0.06927100

FS6c (:Si(H)$CH_2CH=CH_2$→:Si=CHCH=CH_2+H_2)

Si	1.58862000	-0.67608700	0.00009000
C	0.04733100	0.11609100	-0.00051200
H	0.18806900	1.20897300	-0.00180400
C	-1.33556200	-0.31267100	0.00037400
H	-1.51571900	-1.38617400	0.00168700
H	3.49297300	3.06468100	0.37334600
C	-2.40669900	0.50044200	-0.00028400
H	-2.30052200	1.58048000	-0.00157000
H	3.47899800	3.07031400	-0.37086800
H	-3.41489400	0.10376900	0.00047300

TS7a (:$SiMe_2$→Me(H)Si=CH_2)

Si	0.09092800	-0.63229900	-0.09280000
C	1.43095000	0.56149800	-0.04572000
H	1.39320700	1.65530900	-0.08320200
H	0.94565000	-0.54396500	1.22844600
H	2.44894900	0.18024300	0.02225600
C	-1.51850300	0.39492600	0.03528200
H	-1.50082400	1.23265400	-0.66971000
H	-2.40019800	-0.21206000	-0.18147300
H	-1.63445700	0.80145800	1.04550400

FS7a (:$SiMe_2$→Me(H)Si=CH_2)

Si	-0.11460600	0.42199700	-0.00000600
C	-1.58320600	-0.44951300	0.00000400
H	-1.62536100	-1.53313100	-0.00001900
H	-0.11903800	1.90214900	0.00001800
H	-2.54425200	0.05248700	0.00002700
C	1.59206700	-0.35043800	0.00000300
H	1.51612600	-1.43992200	-0.00054000
H	2.16212400	-0.04448900	-0.88169900
H	2.16172800	-0.04535100	0.88226000

TS7b (Me(H)Si=CH_2→:Si(H)Et)

Si	0.63982400	-0.61041900	-0.13412300
C	0.47252300	1.17783500	0.00409400
H	0.04476700	1.72815400	-0.83252200
H	0.98491900	-0.92317700	1.31146300
H	0.72181500	1.82651000	0.84734900
C	-1.38730800	-0.12145500	0.04113700
H	-1.83515400	-0.18397200	-0.94690500
H	-1.62816100	-0.99447400	0.65373400
H	-1.75702100	0.75454000	0.57321600

FS7b (Me(H)Si=CH_2→:Si(H)Et)

Si	1.32536300	-0.08070700	-0.06892800
C	-0.44956500	0.61438900	0.07827900
H	-0.55918900	1.49255100	-0.56796700
H	0.99935400	-1.42472000	0.59308600
H	-0.41977900	1.02974700	1.10588300
C	-1.66007600	-0.32456700	-0.05762000
H	-1.72077600	-0.75150800	-1.06313500
H	-1.59426800	-1.15667000	0.64755400
H	-2.60258100	0.20156600	0.12561600

TS7c (:Si(H)Et→:Si=CHMe)

Si	-1.33842400	0.00682500	-0.06501500
C	0.39591100	-0.49278800	0.08167500
H	0.50184700	-1.55983500	0.30477100
H	-0.72251000	1.53278000	0.15066100
H	-0.19239300	0.83375900	0.74665600
C	1.74366700	0.17392900	-0.06838700
H	2.26006100	-0.23957300	-0.94253600
H	1.65837200	1.25429700	-0.22464100
H	2.39508900	-0.00381900	0.79558000

FS7c (:Si(H)Et→:Si=CHMe)

Si	1.29787700	-0.15616600	0.00002100
C	-0.38090200	-0.52155900	-0.00004100
H	-0.41658900	-1.62839100	-0.00020000
H	0.64667500	2.67454500	0.37305400
H	0.64638800	2.67455500	-0.37321800
C	-1.74042200	0.12233800	0.00003000
H	-2.32233400	-0.17568500	0.87988400
H	-1.67409600	1.21219100	0.00010400
H	-2.32237100	-0.17556300	-0.87984300

TS7d (:Si=CHMe→:Si(H)CH=CH_2)

Si	1.03152500	-0.10694000	0.03032400
C	-0.47799200	0.80752600	-0.14160400
H	-0.73229300	1.79404600	0.21944000
C	-1.25532700	-0.36902700	0.03225600
H	-1.83354800	-0.56253700	0.94136100
H	-1.58361500	-0.95684000	-0.81933900
H	0.10801400	-1.40850900	-0.10990400

FS7d (:Si=CHMe→:Si(H)CH=CH_2)

Si	1.15891600	-0.21978700	-0.00002200
C	-0.56762200	0.54495100	-0.00014900
H	-0.75492800	1.61813300	-0.00005500
C	-1.63484900	-0.27494700	0.00004300
H	-2.66057100	0.08823600	0.00030200

H	-1.51457000	-1.35679900	0.00008700
H	1.92007100	1.10743200	0.00060500

TS7e (:Si(H)CH=CH_2→:Si=C=CH_2)

Si	1.23866900	-0.16350200	0.04298600
C	-0.51705800	-0.00480100	-0.05823600
H	0.36884400	1.26422800	0.09407600
C	-1.83169500	-0.03859800	0.01654700
H	-2.38321500	0.38714500	0.85248900
H	-2.42800600	-0.49171200	-0.77376100
H	1.19353200	1.38976100	-0.52447000

FS7e (:Si(H)CH=CH_2→:Si=C=CH_2)

Si	-0.05259600	-1.30552000	-0.00312000
C	-0.51792600	0.33161200	0.00031400
H	5.36191600	1.32966500	-0.22654900
C	-0.88055500	1.60316900	0.00326100
H	-1.12801800	2.13701600	0.92272400
H	-0.95302700	2.19125800	-0.91355500
H	5.84636200	1.01065000	0.23961200

:Si=CH_2

Si	-0.67787200	-0.00001400	0.00000500
C	1.03543000	-0.00003100	-0.00004700
H	1.63850200	0.90911700	0.00010400
H	1.63912400	-0.90873600	0.00010400

TS (:Si=CH_2→HSi≡CH)

Si	-0.57748800	-0.10751000	0.00000400
C	1.09167600	0.02887100	-0.00002800
H	2.16799000	-0.07672000	0.00010100
H	-0.63322100	1.40864000	0.00001300

FS (:Si=CH_2→HSi≡CH)

Si	-0.52174500	-0.12262900	-0.00004700
C	1.10582700	0.14402300	0.00008100
H	2.13900500	-0.16580000	0.00012900
H	-1.46953400	1.01846700	0.00004700

TS (:Si=CH_2→SiC+H_2)

Si	0.14511800	-0.41776900	-0.00002200
C	-1.20376300	0.62260400	0.00004600
H	2.34489800	1.33395600	-0.00058000
H	2.84602800	0.77918100	0.00061000

FS (:Si=CH_2→SiC+H_2)

Si	-0.11330100	-0.19864100	-0.00003200
C	-1.66017700	0.36585000	0.00006000
H	5.70033600	0.65774300	-0.00029500
H	5.84694900	-0.07186500	0.00038200

TS (:Si(H)Pr→Si+Propane)

Si	-2.09294700	-0.29381200	-0.05894000
C	1.38631300	0.55681600	-0.30417700
H	1.32894600	0.62294100	-1.39685700
H	2.01633000	1.39084100	0.02538600
C	2.02429400	-0.77264600	0.10402300
H	3.01620800	-0.88725700	-0.33986900
H	2.13493300	-0.83865800	1.19107500
H	1.41391200	-1.61953900	-0.22479200
C	-0.01917100	0.76181100	0.29625200
H	-0.01910500	0.62098400	1.37727600
H	-0.51745600	-0.20260700	-0.45381000
H	-0.42112000	1.75077600	0.07015600

FS (:Si(H)Pr→Si+Propane)

Si	-2.46795800	-0.25615200	-0.05522700
C	1.62969400	0.53396600	-0.27814300
H	1.62939000	0.66236700	-1.36564300
H	2.29191300	1.30942000	0.12387700
C	2.17444500	-0.85065600	0.07939900
H	3.18206000	-0.99473900	-0.31904500
H	2.22274600	-0.98848300	1.16418500
H	1.53848200	-1.64171300	-0.32975500
C	0.21623600	0.78250300	0.26108400
H	0.16037900	0.66631700	1.34528600
H	-0.43463500	0.00376300	-0.22617200
H	-0.16117200	1.77432800	0.00640900

Propane

C	0.00000000	0.58579800	-0.00000100
H	-0.00000300	1.24498500	0.87556500
H	0.00000800	1.24474200	-0.87574200
C	-1.27711800	-0.25968300	0.00000400
H	-2.17360700	0.36674800	-0.00027600
H	-1.32231900	-0.90569000	-0.88273500
H	-1.32253600	-0.90521600	0.88307200
C	1.27711700	-0.25968300	0.00000500
H	1.32231000	-0.90570700	-0.88272600
H	1.32254300	-0.90519900	0.88308400
H	2.17360900	0.36674500	-0.00029300

TS (Propane→Propene+H_2)

C	0.00267400	0.41778700	-0.08018000
H	-0.15776600	1.46288700	-0.30877500
H	-1.89163600	1.56352700	0.36384900
C	1.38917400	-0.08987300	0.04454400
H	2.12827800	0.55747000	-0.43269200
H	1.67292500	-0.19432800	1.10230400

H	1.45472700	-1.10335200	-0.37150300
C	-1.16079800	-0.43366700	-0.03910900
H	-1.60302500	-0.66684000	0.93001900
H	-1.00243600	-1.39306900	-0.56210400
H	-1.98737100	0.40822200	-0.27262300

FS (Propane→Propene+H_2)

C	0.15055200	-0.11965300	-0.22143900
H	-0.54782300	-0.80886400	-0.69360800
H	-6.59083800	-1.04640400	-0.03343300
C	1.49923700	-0.68152100	0.11932400
H	1.40899000	-1.52953200	0.80725700
H	2.00605800	-1.05698000	-0.77654200
H	2.14096200	0.06998200	0.58542200
C	-0.24174900	1.13167400	0.00762900
H	-1.23350000	1.47531700	-0.26403200
H	0.41674600	1.85772000	0.47572700
H	-6.04883100	-0.94424400	0.46612800

Propene

C	0.13366700	-0.45370600	-0.00008100
H	0.16620300	-1.54213100	0.00003400
C	-1.23399100	0.16269700	0.00000300
H	-1.80799900	-0.15468400	-0.87768400
H	-1.80661800	-0.15207300	0.87956800
H	-1.18247900	1.25411300	-0.00158400
C	1.28162800	0.22039200	-0.00000300
H	2.23925600	-0.28791400	0.00024100
H	1.30381600	1.30638600	-0.00008900

TS (Propene→Allene+H_2)

C	-0.03731200	0.27297500	-0.11777200
H	0.22852700	1.43455300	-0.09057700
C	1.18748600	-0.33916300	-0.02842900
H	2.08530500	0.24465600	-0.17609100
H	1.12480700	1.53159500	0.76443300
H	1.28930200	-1.42178600	0.01199900
C	-1.31921500	-0.14020000	0.01998600
H	-2.13441000	0.41335800	-0.42851800
H	-1.57928400	-0.96405000	0.67604000

FS (Propene→Allene+H_2)

C	-0.01472800	-0.31293300	0.00004200
H	-0.01886800	3.11530300	-0.00417300
C	1.28744700	-0.36648000	0.00004700
H	1.88863900	0.53578800	0.05418300
H	0.34562500	3.76446700	0.00339900
H	1.81273100	-1.31486000	-0.05458600

C	-1.31717000	-0.25868000	0.00008400
H	-1.87851100	-0.18193400	-0.92589400
H	-1.88291300	-0.29020300	0.92603000

TS (propene→Me_2C:)

C	-0.08178200	-0.59434700	-0.11764200
H	-0.87812300	-0.51278000	0.95435600
C	1.21928600	0.14016900	0.01610900
H	1.88555500	-0.34600300	0.73345300
H	1.71968700	0.03830900	-0.95472600
H	1.14830700	1.21694300	0.24808300
C	-1.21702700	0.20746300	-0.03759600
H	-2.20678400	-0.22460000	-0.18466800
H	-1.19149800	1.30841800	0.03827200

FS (propene→Me_2C:)

C	-0.02985500	-0.58980200	-0.24063200
C	1.21336000	0.15382500	0.01343600
H	1.40859800	-0.16600900	1.05761500
H	2.07389500	-0.20670700	-0.55482700
H	1.16450200	1.25668300	0.02363000
C	-1.23245000	0.23136400	-0.03365000
H	-2.11593800	-0.33801400	0.26428000
H	-1.13003200	1.16129300	0.55231700
H	-1.43119000	0.53487000	-1.08196300

TS (Me_2C:→propyne+H_2)

C	0.05177700	-0.45715000	-0.00001400
C	1.13849300	0.24383400	-0.00000500
H	2.23822400	-0.50625300	0.42678000
H	2.23825500	-0.50624400	-0.42673700
H	1.58583200	1.22848400	0.00000600
C	-1.33668500	0.08508400	0.00000100
H	-1.87284200	-0.31336600	0.86788200
H	-1.43801800	1.18032100	-0.00010200
H	-1.87296500	-0.31354600	-0.86772100

FS (Me_2C:→propyne+H_2)

C	-0.60608400	0.58564100	-0.00347100
C	0.49471500	1.06893800	-0.00493700
H	4.81637600	-2.70606600	0.38022400
H	4.77751300	-2.73293400	-0.36249600
H	1.46705700	1.49669900	-0.00689200
C	-1.93934200	-0.00173700	-0.00107100
H	-2.08435800	-0.63856100	0.87599000
H	-2.70878600	0.77511300	0.01535300
H	-2.09797600	-0.61462900	-0.89269900