

Kinetic Modeling of Ethane Pyrolysis at High Conversion

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Supporting Information

1. Thermodynamic data for species in the reduced mechanism.
2. Reduced mechanism in Chebyshev format (suitable for variable pressure)
3. Reduced mechanism in modified Arrhenius format (for $P=0.8$ atm)

1. Thermodynamic properties in CHEMKIN format:

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THERMO ALL
300.000 1000.000 5000.000
N2 J-9-65N 2 G 300.0 5000.0 1651.0 1
2.99595345E0 1.23650803E-3 -3.70307884E-7 5.05346607E-11 -2.62980289E-15 2
-9.13275934E2 5.68044098E0 3.26021756E0 5.91317648E-4 2.24046943E-7 3
-1.95572836E-10 3.61873219E-14 -9.99926012E2 4.27471787E0 4
H2 J-3-61H 2 G 300.0 5000.0 1372.0 1
2.80745773E0 1.05566826E-3 -2.75154709E-7 3.13764993E-11 -1.31833174E-15 2
-7.56604815E2 -3.36900751E-1 3.5370809E0 -3.54734803E-4 6.80901911E-7 3
-2.27080447E-10 1.93615941E-14 -1.04438982E3 -4.368296E0 4
H J-6-74H 1 G 300.0 5000.0 1000.0 1
2.50104422E0 0.0E0 0.0E0 0.0E0 0.0E0 2
2.54747466E4 -4.65341317E-1 2.50104422E0 0.0E0 0.0E0 3
0.0E0 0.0E0 2.54747466E4 -4.65341317E-1 4
CH2 J12-72H 2C 1 G 300.0 5000.0 1358.0 1
3.42504406E0 3.00835428E-3 -1.03082425E-6 1.60128149E-10 -9.29054353E-15 2
4.52226365E4 2.77263987E0 4.11616695E0 -7.72574732E-4 4.5194931E-6 3
-3.01358785E-9 6.24607712E-13 4.52499362E4 -8.58779324E-2 4
CH2S J12-72H 2C 1 G 300.0 5000.0 1993.0 1
3.44498208E0 3.14193588E-3 -1.11876327E-6 1.78884595E-10 -1.06027384E-14 2
4.982338E4 1.55704872E0 3.71072329E0 1.05249922E-3 2.28817331E-6 3
-1.84118043E-9 3.92349813E-13 4.98869752E4 6.77208108E-1 4
CH3 J-6-69H 3C 1 G 300.0 5000.0 1389.0 1
3.51281373E0 5.11412616E-3 -1.67632051E-6 2.52495177E-10 -1.43302925E-14 2
1.61238028E4 1.62436127E0 3.43858162E0 4.07752666E-3 3.19830965E-7 3
-9.47669373E-10 2.21828163E-13 1.63164018E4 2.52807406E0 4
CH4 J-6-69H 4C 1 G 300.0 5000.0 1369.0 1
2.71850414E0 8.46951151E-3 -2.86170881E-6 4.40328507E-10 -2.53773215E-14 2
-1.05576197E4 3.79320756E0 2.91521312E0 3.23795334E-3 6.91220825E-6 3
-5.84273795E-9 1.33208116E-12 -1.00717942E4 4.55719556E0 4
C2H2 H 2C 2 G 300.0 5000.0 1407.0 1
4.98265164E0 4.2599293E-3 -1.37483523E-6 2.04717964E-10 -1.1519174E-14 2
2.52697118E4 -5.81321385E0 2.06742667E0 1.46568506E-2 -1.52947063E-5 3
8.30965761E-9 -1.72932175E-12 2.59578589E4 8.62758672E0 4
C2H3 H 3C 2 G 300.0 5000.0 1395.0 1
5.07331248E0 6.58316278E-3 -2.23762924E-6 3.45803379E-10 -1.9994049E-14 2
3.37134093E4 -3.39792712E0 1.25329724E0 1.5625837E-2 -1.07803879E-5 3
4.18054634E-9 -7.01360362E-13 3.50634118E4 1.71341661E1 4
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C2H4	H	4C	2	G	300.0	5000.0	1395.0	1
5.22176372E0	8.96137303E-3	-3.04868886E-6	4.71465524E-10	-2.72739592E-14				2
3.59383137E3	-7.47789234E0	2.33879687E-1	1.96334647E-2	-1.16833214E-5				3
3.64246453E-9	-4.77442715E-13	5.45482795E3	1.97084228E1					4
C2H5	---HHCH	5C	2	G	300.0	5000.0	1386.0	1
5.66493785E0	1.05521743E-2	-3.56342205E-6	5.48309761E-10	-3.16078826E-14				2
1.18038472E4	-7.0538228E0	1.40260633E0	1.83031419E-2	-8.31872369E-6				3
1.58802205E-9	-6.24798169E-14	1.35593673E4	1.67109914E1					4
C2H6	H	6C	2	G	300.0	5000.0	1384.0	1
6.10683384E0	1.29236361E-2	-4.42527196E-6	6.87391726E-10	-3.98901732E-14				2
-1.37500014E4	-1.3008125E1	-2.52854362E-2	2.40764754E-2	-1.11893472E-5				3
2.08340901E-9	-5.29868617E-14	-1.12345534E4	2.1164875E1					4
C*C*C	H	4C	3	G	300.0	5000.0	1395.0	1
7.7265683E0	9.36653958E-3	-3.18633443E-6	4.92833501E-10	-2.85166316E-14				2
1.9886347E4	-1.91891052E1	9.04627493E-1	2.5493588E-2	-1.80277971E-5				3
6.8316481E-9	-1.08512767E-12	2.22562951E4	1.74142208E1					4
C#CC	H	4C	3	G	300.0	5000.0	1361.0	1
7.82375971E0	9.40009504E-3	-3.31992737E-6	5.26581431E-10	-3.10092843E-14				2
1.83958734E4	-1.97410978E1	2.36172918E0	1.71141946E-2	-4.77661324E-6				3
-1.33111337E-9	6.52367983E-13	2.08645538E4	1.1497919E1					4
C*CC	H	6C	3	G	300.0	5000.0	1388.0	1
8.01595958E0	1.37023634E-2	-4.66249733E-6	7.21254402E-10	-4.17370126E-14				2
-1.87821271E3	-2.00160668E1	3.94615444E-1	2.89107662E-2	-1.54886808E-5				3
3.88814209E-9	-3.37890352E-13	1.06688164E3	2.19003736E1					4
CCC	H	8C	3	G	300.0	5000.0	1387.0	1
9.30903615E0	1.73199401E-2	-5.92006308E-6	9.18549779E-10	-5.32650089E-14				2
-1.78511121E4	-2.87649046E1	-2.9354676E-1	3.63870253E-2	-1.95049623E-5				3
4.95900425E-9	-4.55919788E-13	-1.41148884E4	2.4108738E1					4
C#CC.	H	3C	3	G	300.0	5000.0	1380.0	1
7.88591315E0	6.65864168E-3	-2.34157567E-6	3.70338401E-10	-2.17650188E-14				2
3.75766518E4	-1.85822699E1	2.07875733E0	2.00336132E-2	-1.4570334E-5				3
5.70232469E-9	-9.5228527E-13	3.96645659E4	1.27620341E1					4
C*C.C	H	5C	3	G	300.0	5000.0	1382.0	1
7.37492443E0	1.17510061E-2	-4.00021283E-6	6.18947395E-10	-3.58215018E-14				2
2.72874911E4	-1.43478655E1	2.17916644E0	2.03826623E-2	-7.91413834E-6				3
4.76906187E-10	2.70398536E-13	2.94895338E4	1.48785684E1					4
C*CC.	H	5C	3	G	300.0	5000.0	1386.0	1
8.86768772E0	1.09012389E-2	-3.80094606E-6	5.97727066E-10	-3.49892618E-14				2
1.61006315E4	-2.50850368E1	-3.34024311E-1	3.22991878E-2	-2.33490952E-5				3
8.99835085E-9	-1.46327673E-12	1.93614921E4	2.44623002E1					4
CCC.	H	7C	3	G	300.0	5000.0	1386.0	1

8.87891888E0	1.51926066E-2	-5.198217E-6	8.07099695E-10	-4.68244711E-14	2			
7.21999864E3	-2.29020523E1	4.89680103E-1	3.17745383E-2	-1.69420751E-5	3			
4.27222899E-9	-3.88106071E-13	1.04955773E4	2.3324131E1		4			
CC.C	H	7C	3	G	300.0	5000.0	1999.0	1
7.09059577E0	1.70219362E-2	-5.94894999E-6	9.40795995E-10	-5.5382683E-14	2			
6.75883699E3	-1.26909429E1	6.38704055E-1	2.84865544E-2	-1.14329581E-5	3			
8.81112868E-10	3.15683673E-13	9.22131415E3	2.30629265E1		4			
CC#CC	H	6C	4	G	300.0	5000.0	2002.0	1
8.60406095E0	1.71534809E-2	-6.32700416E-6	1.03618677E-9	-6.24642424E-14	2			
1.29670725E4	-2.23443927E1	2.65416244E0	2.37241191E-2	-3.54896794E-6	3			
-3.98445583E-9	1.30374564E-12	1.56563258E4	1.21063985E1		4			
C*CC*C	H	6C	4	G	300.0	5000.0	1398.0	1
1.11633789E1	1.37163965E-2	-4.69715783E-6	7.29693836E-10	-4.23486203E-14	2			
7.7903977E3	-3.69847949E1	-1.43095121E0	4.78706062E-2	-4.154468E-5	3			
1.91549552E-8	-3.57158507E-12	1.17551314E4	2.90825833E1		4			
C*C*CC	H	6C	4	G	300.0	5000.0	1390.0	1
1.0503968E1	1.41242631E-2	-4.80637221E-6	7.43634992E-10	-4.30400365E-14	2			
1.44239603E4	-3.16247069E1	1.13142053E0	3.44939157E-2	-2.1441829E-5	3			
6.84195879E-9	-8.94244064E-13	1.7857948E4	1.92969683E1		4			
C*CCC	H	8C	4	G	300.0	5000.0	1392.0	1
1.13508668E1	1.80617877E-2	-6.16093029E-6	9.54652959E-10	-5.53089641E-14	2			
-5.97871038E3	-3.64369438E1	-8.31372089E-1	4.52580978E-2	-2.93658559E-5	3			
1.00220436E-8	-1.4319168E-12	-1.57875035E3	2.95084236E1		4			
CC*CC	H	8C	4	G	300.0	5000.0	1384.0	1
1.07864376E1	1.84629194E-2	-6.2828949E-6	9.72052191E-10	-5.62579166E-14	2			
-7.33793717E3	-3.44892763E1	6.69213599E-1	3.76839941E-2	-1.85689683E-5	3			
3.69571062E-9	-1.03095209E-13	-3.33819338E3	2.14868169E1		4			
CCCC	H	10C	4	G	300.0	5000.0	1389.0	1
1.25055526E1	2.17524393E-2	-7.43384946E-6	1.15331684E-9	-6.68749762E-14	2			
-2.19479302E4	-4.44902356E1	-5.95684476E-1	4.89605743E-2	-2.82670269E-5	3			
8.1359806E-9	-9.29098102E-13	-1.69934308E4	2.71845212E1		4			
C*C.CC	H	7C	4	G	300.0	5000.0	1389.0	1
1.07092407E1	1.61102825E-2	-5.49846133E-6	8.52304018E-10	-4.93905022E-14	2			
2.31874323E4	-3.07648054E1	9.6412437E-1	3.66781354E-2	-2.17105448E-5	3			
6.55880219E-9	-8.11791145E-13	2.6842327E4	2.24365633E1		4			
CC*CC.	H	7C	4	G	300.0	5000.0	1385.0	1
1.16018486E1	1.57505666E-2	-5.46376126E-6	8.56295369E-10	-5.00066835E-14	2			
1.06487145E4	-3.86778976E1	-1.15881716E-1	4.13379755E-2	-2.68395034E-5	3			
9.08882895E-9	-1.29712052E-12	1.49645427E4	2.5001607E1		4			
CCCC.	H	9C	4	G	300.0	5000.0	1389.0	1
1.20744111E1	1.96194736E-2	-6.70869362E-6	1.04121341E-9	-6.03910407E-14	2			

	3.12417345E3	-3.86189978E1	2.15101842E-1	4.42132965E-2	-2.55006473E-5	3
	7.3208077E-9	-8.32495567E-13	7.6132514E3	2.62751123E1		4
CCC.C		H 9C	4	G	300.0 5000.0 1373.0	1
	1.18293992E1	1.94203812E-2	-6.55835141E-6	1.00989031E-9	-5.82693176E-14	2
	1.79315973E3	-3.68210535E1	7.7028014E-1	3.86280904E-2	-1.5710026E-5	3
	7.1686011E-10	7.00801289E-13	6.28812837E3	2.4910649E1		4
CY13PD		H 6C	5	G	300.0 5000.0 1387.0	1
	1.36543234E1	1.52623059E-2	-5.3899964E-6	8.55032202E-10	-5.03603129E-14	2
	8.91096357E3	-5.54058745E1	-5.12257957E0	5.97969364E-2	-4.59592394E-5	3
	1.77718567E-8	-2.77548707E-12	1.53464279E4	4.51716467E1		4
CYC5H8		H 8C	5	G	300.0 5000.0 1398.0	1
	1.27525879E1	2.01602949E-2	-6.86564327E-6	1.06303695E-9	-6.15663048E-14	2
	-3.09810152E3	-4.85501459E1	-5.44615258E0	6.3315462E-2	-4.59351514E-5	3
	1.71229729E-8	-2.58907474E-12	3.11839629E3	4.88944865E1		4
C*CC.C*C		H 7C	5	G	300.0 5000.0 1390.0	1
	1.3966627E1	1.73382242E-2	-6.05769915E-6	9.54008293E-10	-5.59044772E-14	2
	1.75830681E4	-5.22086625E1	-3.69004112E0	5.97581971E-2	-4.57690635E-5	3
	1.82005947E-8	-2.97538155E-12	2.36302311E4	4.22584443E1		4
CY13PD5.		H 5C	5	G	300.0 5000.0 1380.0	1
	1.06503882E1	1.49464087E-2	-5.20404629E-6	8.17478318E-10	-4.78123546E-14	2
	2.62331598E4	-3.58023979E1	2.0889492E0	3.37631637E-2	-2.23117862E-5	3
	8.63437149E-9	-1.52814693E-12	2.95117492E4	1.09127048E1		4
CYPENE3.		H 7C	5	G	300.0 5000.0 1393.0	1
	1.26277707E1	1.83191561E-2	-6.3619804E-6	9.97993461E-10	-5.83248243E-14	2
	1.37991416E4	-4.86756039E1	-5.60258714E0	6.08014232E-2	-4.41262848E-5	3
	1.62584973E-8	-2.42658937E-12	2.01220162E4	4.92393171E1		4
CYC5H9.		H 9C	5	G	300.0 5000.0 1378.0	1
	1.24946381E1	2.23549938E-2	-7.51362241E-6	1.15415415E-9	-6.65065318E-14	2
	6.4539004E3	-4.65796398E1	-5.78089755E0	5.92878731E-2	-3.26281412E-5	3
	7.06409844E-9	-1.75407888E-13	1.32581249E4	5.34176945E1		4
C*CCCC*C		H 10C	6	G	300.0 5000.0 1395.0	1
	1.67186191E1	2.30179407E-2	-7.81866308E-6	1.20831815E-9	-6.98826125E-14	2
	1.74306625E3	-6.19565928E1	-1.80013527E0	6.71111879E-2	-4.8405449E-5	3
	1.84055726E-8	-2.89367813E-12	8.10249521E3	3.72242052E1		4
BENZENE		H 6C	6	G	300.0 5000.0 1391.0	1
	1.37969112E1	1.7546397E-2	-6.14454458E-6	9.6919996E-10	-5.68574315E-14	2
	2.61691889E3	-5.64845457E1	-5.47111685E0	6.4419523E-2	-5.05526465E-5	3
	2.04451595E-8	-3.37591343E-12	9.14055839E3	4.63686277E1		4
CHD14		H 8C	6	G	300.0 5000.0 1369.0	1
	1.76883674E1	2.00067698E-2	-7.1499688E-6	1.14314548E-9	-6.76953796E-14	2
	3.45242039E3	-8.02538079E1	-5.49947822E0	6.82134483E-2	-4.29985903E-5	3

1.21493314E-8-1.16666693E-12	1.20744433E4	4.63551821E1	4
CHD13 H 8C 6 G	300.0	5000.0 1396.0	1
1.53625259E1 2.08675112E-2 -7.19203048E-6	1.12251633E-9	-6.5373338E-14	2
4.62118283E3 -6.26703913E1 -5.81337476E0	7.22248431E-2	-5.52161741E-5	3
2.16975324E-8-3.46304555E-12	1.17578006E4	5.03398935E1	4
CYC6H10 H 10C 6 G	300.0	5000.0 1392.0	1
1.6081195E1 2.53669984E-2 -8.74760281E-6	1.36572651E-9	-7.95518468E-14	2
-9.52829324E3 -6.79771626E1 -6.42702467E0	7.6972174E-2	-5.3739277E-5	3
1.91548574E-8-2.77729519E-12	-1.6203119E3	5.32418985E1	4
C*CCC.C*C H 9C 6 G	300.0	5000.0 1395.0	1
1.63325383E1 2.13113595E-2 -7.25043627E-6	1.12181536E-9	-6.49365392E-14	2
1.88315603E4 -6.04214178E1 -2.15219686E0	6.55925871E-2	-4.81557025E-5	3
1.8458147E-8 -2.9030178E-12	2.51322407E4	3.84483853E1	4
C*CC*CC.C H 9C 6 G	300.0	5000.0 995.0	1
1.36288339E1 2.45055787E-2 -8.07546311E-6	1.23042786E-9	-7.08589527E-14	2
1.27234636E4 -4.5465381E1 2.56830777E0	2.90638735E-2	4.52075606E-5	3
-7.47713655E-8 2.91501468E-11	1.69000816E4	1.77668995E1	4
MECYPE2. 041206H 11C 6 G	300.0	2500.0 1000.0	1
3.4370406E0 5.2542955E-2 -2.7411374E-5	7.0018107E-9	-7.102191E-13	2
7.0372891E3 4.9289722E0 -2.5263505E0	5.8807749E-2	-4.78416E-6	3
-3.492498E-8 1.8292673E-11	9.0069961E3	3.7769089E1	4
MECY3PE2. -THERMH 9C 6 G	300.0	5000.0 1399.0	1
1.60019772E1 2.2376773E-2 -7.69541E-6	1.19917356E-9	-6.9755491E-14	2
8.00888196E3 -6.43262066E1 -6.26683807E0	7.81434505E-2	-6.2092038E-5	3
2.56610022E-8-4.31523883E-12	1.53621677E4	5.39324477E1	4
CYC6H5. H 5C 6 G	300.0	5000.0 1393.0	1
1.26714475E1 1.57716661E-2 -5.48965219E-6	8.623451E-10	-5.0442428E-14	2
3.41167244E4 -4.61178992E1 -4.21717254E0	5.9143468E-2	-4.95004867E-5	3
2.16411668E-8-3.84655064E-12	3.9638982E4	4.32773003E1	4
CYC6H7 H 7C 6 G	300.0	5000.0 1399.0	1
1.4895223E1 1.86446019E-2 -6.4088088E-6	9.98505156E-10	-5.80800835E-14	2
1.74517869E4 -5.85128201E1 -5.53952555E0	7.0435103E-2	-5.73920116E-5	3
2.40513712E-8-4.06716243E-12	2.41107691E4	4.97426193E1	4
CYC6H9 H 9C 6 G	300.0	5000.0 1396.0	1
1.57757308E1 2.29119263E-2 -7.86274116E-6	1.22355692E-9	-7.11069741E-14	2
1.41828333E4 -6.30151719E1 -5.51570747E0	7.45070998E-2	-5.62467883E-5	3
2.20897753E-8-3.54975415E-12	2.13847403E4	5.06632363E1	4
END			

2. Reduced Chebyshev version of mechanism (variable pressure) in CHEMKIN format:

Species /Molecular Weight/ Element Count: C H O N

1. N2	2.8013E+01	0	0	0	2
2. H2	2.0159E+00	0	2	0	0
3. H	1.0080E+00	0	1	0	0
4. CH2	1.4027E+01	1	2	0	0
5. CH2S	1.4027E+01	1	2	0	0
6. CH3	1.5035E+01	1	3	0	0
7. CH4	1.6043E+01	1	4	0	0
8. C2H2	2.6038E+01	2	2	0	0
9. C2H3	2.7046E+01	2	3	0	0
10. C2H4	2.8054E+01	2	4	0	0
11. C2H5	2.9062E+01	2	5	0	0
12. C2H6	3.0070E+01	2	6	0	0
13. C*C*C	4.0065E+01	3	4	0	0
14. C#CC	4.0065E+01	3	4	0	0
15. C*CC	4.2081E+01	3	6	0	0
16. CCC	4.4097E+01	3	8	0	0
17. C#CC.	3.9057E+01	3	3	0	0
18. C*C.C	4.1073E+01	3	5	0	0
19. C*CC.	4.1073E+01	3	5	0	0
20. CCC.	4.3089E+01	3	7	0	0
21. CC.C	4.3089E+01	3	7	0	0
22. CC#CC	5.4092E+01	4	6	0	0
23. C*CC*C	5.4092E+01	4	6	0	0
24. C*C*CC	5.4092E+01	4	6	0	0
25. C*CCC	5.6108E+01	4	8	0	0
26. CC*CC	5.6108E+01	4	8	0	0
27. CCCC	5.8124E+01	4	10	0	0
28. C*C.CC	5.5100E+01	4	7	0	0
29. CC*CC.	5.5100E+01	4	7	0	0
30. CCCC.	5.7116E+01	4	9	0	0

31.	CCC.C	5.7116E+01	4	9	0	0
32.	CY13PD	6.6104E+01	5	6	0	0
33.	CYC5H8	6.8120E+01	5	8	0	0
34.	C*CC.C*C	6.7112E+01	5	7	0	0
35.	CY13PD5.	6.5096E+01	5	5	0	0
36.	CYPENE3.	6.7112E+01	5	7	0	0
37.	CYC5H9.	6.9127E+01	5	9	0	0
38.	C*CCCC*C	8.2147E+01	6	10	0	0
39.	BENZENE	7.8115E+01	6	6	0	0
40.	CHD14	8.0131E+01	6	8	0	0
41.	CHD13	8.0131E+01	6	8	0	0
42.	CYC6H10	8.2147E+01	6	10	0	0
43.	C*CCC.C*C	8.1139E+01	6	9	0	0
44.	C*CC*CC.C	8.1139E+01	6	9	0	0
45.	MECYPE2.	8.3155E+01	6	11	0	0
46.	MECY3PE2.	8.1139E+01	6	9	0	0
47.	CYC6H5.	7.7107E+01	6	5	0	0
48.	CYC6H7	7.9123E+01	6	7	0	0
49.	CYC6H9	8.1139E+01	6	9	0	0

(k = A T**b exp(-E/RT))

UNITS (unless otherwise noted):

A units mole-cm-sec, E units cal/mole

REACTIONS CONSIDERED				A	b	E
1.	2H+M=H2+M			1.00E+18	-1.0	0.0
	H2	Enhanced by	0.000E+00			
	CH4	Enhanced by	2.000E+00			
	C2H6	Enhanced by	3.000E+00			
2.	2H+H2=2H2			9.00E+16	-0.6	0.0
3.	CC.C+H=C*CC+H2			1.44E+09	1.5	-894.0
4.	CH4+H=CH3+H2			3.00E+07	2.1	11200.0
5.	C2H6+H=C2H5+H2			1.07E+08	1.9	8170.0
6.	CCC+H=CCC.+H2			1.01E+08	2.0	8130.0
7.	CCC+H=CC.C+H2			1.05E+08	1.8	5780.0
8.	CCCC+H=CCCC.+H2			1.09E+08	1.9	8300.0
9.	CCCC+H=CCC.C+H2			2.11E+08	1.8	5710.0
10.	C*CC+H=C*C.C+H2			2.40E+08	1.5	10572.0
11.	C*CCC+H=C*C.CC+H2			2.40E+08	1.5	10576.0
12.	C2H4+H=C2H3+H2			8.30E+07	2.0	12800.0
13.	BENZENE+H=CYC6H5.+H2			1.44E+09	1.5	12172.0
14.	C*CC+H=C*CC.+H2			1.92E+06	2.3	4670.0
15.	C*C*C+H=C#CC.+H2			4.80E+07	2.2	3100.0
16.	C#CC+H=C#CC.+H2			1.62E+06	2.3	4300.0
17.	C*CCC+H=CC*CC.+H2			8.04E+06	2.1	3380.0
18.	CC*CC+H=CC*CC.+H2			4.86E+06	2.3	4320.0
19.	C*CCCC*C+H=C*CCC.C*C+H2			4.80E+07	2.2	3100.0
20.	CYC5H8+H=CYPENE3.+H2			6.16E+06	2.2	3338.0
21.	CY13PD+H=CY13PD5.+H2			3.08E+06	2.2	2386.0
22.	CHD14+H=CYC6H7+H2			6.16E+06	2.2	-729.0
23.	CHD13+H=CYC6H7+H2			6.16E+06	2.2	-460.0
24.	CC.C+CH3=C*CC+CH4			4.89E+06	1.9	-1113.0
25.	CHD14+CH3=CYC6H7+CH4			1.60E+02	3.2	1161.0

26.	CHD13+CH3=CYC6H7+CH4	1.60E+02	3.2	1476.0
27.	CY13PD+CH3=CY13PD5.+CH4	7.99E+01	3.2	4788.0
28.	C*CCCC*C+CH3=C*CCC.C*C+CH4	1.60E+02	3.2	5897.0
29.	CYC5H8+CH3=CYPENE3.+CH4	1.60E+02	3.2	5897.0
30.	C*CCC+CH3=CC*CC.+CH4	1.00E+02	3.2	5800.0
31.	CC*CC+CH3=CC*CC.+CH4	1.32E+02	3.2	7423.0
32.	C*CC+CH3=C*CC.+CH4	6.50E+01	3.2	7200.0
33.	C*C*C+CH3=C#CC.+CH4	8.77E+01	3.2	6564.0
34.	C#CC+CH3=C#CC.+CH4	6.58E+01	3.2	7761.0
35.	C2H6+CH3=C2H5+CH4	1.90E+03	3.0	10800.0
36.	CCC+CH3=CCC.+CH4	1.20E+03	3.0	10900.0
37.	CCC+CH3=CC.C+CH4	2.20E+03	2.9	8900.0
38.	CCCC+CH3=CCCC.+CH4	1.90E+03	3.0	10900.0
39.	CCCC+CH3=CCC.C+CH4	3.30E+03	2.8	8600.0
40.	C*CC+CH3=C*C.C+CH4	8.15E+05	1.9	13790.0
41.	C*CCC+CH3=C*C.CC+CH4	8.15E+05	1.9	13794.0
42.	C2H4+CH3=C2H3+CH4	1.60E+03	3.0	13500.0
43.	BENZENE+CH3=CYC6H5.+CH4	4.89E+06	1.9	15390.0
44.	CC.C+C2H5=C*CC+C2H6	3.96E+04	2.5	-1502.0
45.	CHD14+C2H5=CYC6H7+C2H6	1.60E+02	3.2	2516.0
46.	CHD13+C2H5=CYC6H7+C2H6	1.60E+02	3.2	2831.0
47.	CY13PD+C2H5=CY13PD5.+C2H6	7.99E+01	3.2	6143.0
48.	C*CCCC*C+C2H5=C*CCC.C*C+C2H6	1.60E+02	3.2	7252.0
49.	CYC5H8+C2H5=CYPENE3.+C2H6	1.60E+02	3.2	7252.0
50.	C*CCC+C2H5=CC*CC.+C2H6	7.99E+01	3.2	7252.0
51.	CC*CC+C2H5=CC*CC.+C2H6	1.32E+02	3.2	8778.0
52.	C*CC+C2H5=C*CC.+C2H6	6.58E+01	3.2	8537.0
53.	C*C*C+C2H5=C#CC.+C2H6	8.77E+01	3.2	7919.0
54.	C#CC+C2H5=C#CC.+C2H6	6.58E+01	3.2	9116.0
55.	CCCC+C2H5=CCCC.+C2H6	1.58E+02	3.2	12281.0
56.	CCCC+C2H5=CCC.C+C2H6	1.05E+02	3.2	10086.0
57.	CCC+C2H5=CC.C+C2H6	2.84E+02	3.0	10066.0
58.	CCC+C2H5=CCC.+C2H6	1.58E+02	3.2	12307.0
59.	C*CC+C2H5=C*C.C+C2H6	6.60E+03	2.5	14792.0

60.	C*CCC+C2H5=C*C.CC+C2H6	6.60E+03	2.5	14796.0
61.	C2H4+C2H5=C2H3+C2H6	2.64E+04	2.5	15672.0
62.	BENZENE+C2H5=CYC6H5.+C2H6	3.96E+04	2.5	16392.0
63.	CC.C+C2H3=C*CC+C2H4	1.93E+04	2.8	-1651.0
64.	CHD14+C2H3=CYC6H7+C2H4	4.11E+03	2.8	-740.0
65.	CHD13+C2H3=CYC6H7+C2H4	4.11E+03	2.8	-612.0
66.	CY13PD+C2H3=CY13PD5.+C2H4	2.05E+03	2.8	590.0
67.	C*CCCC*C+C2H3=C*CCC.C*C+C2H4	4.11E+03	2.8	1190.0
68.	CYC5H8+C2H3=CYPENE3.+C2H4	4.11E+03	2.8	1190.0
69.	C*CCC+C2H3=CC*CC.+C2H4	2.05E+03	2.8	1190.0
70.	CC*CC+C2H3=CC*CC.+C2H4	6.16E+03	2.8	3004.0
71.	C*CC+C2H3=C*CC.+C2H4	3.08E+03	2.8	2884.0
72.	C*C*C+C2H3=C#CC.+C2H4	4.11E+03	2.8	2654.0
73.	C#CC+C2H3=C#CC.+C2H4	3.08E+03	2.8	3142.0
74.	CCCC+C2H3=CCC.C+C2H4	1.28E+04	2.8	3760.0
75.	CCC+C2H3=CC.C+C2H4	6.42E+03	2.8	3760.0
76.	CCCC+C2H3=CCCC.+C2H4	1.93E+04	2.8	5482.0
77.	CCC+C2H3=CCC.+C2H4	1.93E+04	2.8	5482.0
78.	C*CC+C2H3=C*C.C+C2H4	3.21E+03	2.8	8642.0
79.	C*CCC+C2H3=C*C.CC+C2H4	3.21E+03	2.8	8646.0
80.	BENZENE+C2H3=CYC6H5.+C2H4	1.93E+04	2.8	10242.0
81.	C2H5+CCC.=C2H4+CCC	1.97E+04	2.5	-1502.0
82.	C2H3+CCC.=C2H2+CCC	1.31E+04	2.5	-1502.0
83.	CC.C+CCC.=C*CC+CCC	3.93E+04	2.5	-1502.0
84.	C*CC.+CCC.=C*C*C+CCC	6.55E+03	2.5	-1502.0
85.	CHD14+CCC.=CYC6H7+CCC	1.60E+02	3.2	2294.0
86.	CHD13+CCC.=CYC6H7+CCC	1.60E+02	3.2	2609.0
87.	CY13PD+CCC.=CY13PD5.+CCC	7.99E+01	3.2	5921.0
88.	C*CCCC*C+CCC.=C*CCC.C*C+CCC	1.60E+02	3.2	7030.0
89.	CYC5H8+CCC.=CYPENE3.+CCC	1.60E+02	3.2	7030.0
90.	C*CCC+CCC.=CC*CC.+CCC	7.99E+01	3.2	7030.0
91.	CC*CC+CCC.=CC*CC.+CCC	1.32E+02	3.2	8556.0
92.	C*CC+CCC.=C*CC.+CCC	6.58E+01	3.2	8315.0
93.	C*C*C+CCC.=C#CC.+CCC	8.77E+01	3.2	7697.0

94.	C#CC+CCC.=C#CC.+CCC	6.58E+01	3.2	8894.0
95.	CCCC+CCC.=CCC.C+CCC	1.05E+02	3.2	9864.0
96.	CCC+CCC.=CC.C+CCC	5.26E+01	3.2	9864.0
97.	CCCC+CCC.=CCCC.+CCC	1.58E+02	3.2	12059.0
98.	C*CC+CCC.=C*C.C+CCC	6.55E+03	2.5	14872.0
99.	C*CCC+CCC.=C*C.CC+CCC	6.55E+03	2.5	14876.0
100.	BENZENE+CCC.=CYC6H5.+CCC	3.93E+04	2.5	16472.0
101.	C*CC.+CC.C=C*C*C+CCC	1.38E+02	2.9	-1729.0
102.	C2H3+CC.C=C2H2+CCC	2.75E+02	2.9	-1729.0
103.	C2H5+CC.C=C2H4+CCC	4.13E+02	2.9	-1729.0
104.	2CC.C=C*CC+CCC	8.25E+02	2.9	-1729.0
105.	CHD14+CC.C=CYC6H7+CCC	1.60E+02	3.2	3170.0
106.	CHD13+CC.C=CYC6H7+CCC	1.60E+02	3.2	3485.0
107.	CY13PD+CC.C=CY13PD5.+CCC	7.99E+01	3.2	6797.0
108.	C*CCCC*C+CC.C=C*CCC.C*C+CCC	1.60E+02	3.2	7906.0
109.	CYC5H8+CC.C=CYPENE3.+CCC	1.60E+02	3.2	7906.0
110.	C*CCC+CC.C=CC*CC.+CCC	7.99E+01	3.2	7906.0
111.	CC*CC+CC.C=CC*CC.+CCC	1.32E+02	3.2	9432.0
112.	C*CC+CC.C=C*CC.+CCC	6.58E+01	3.2	9191.0
113.	C*C*C+CC.C=C#CC.+CCC	8.77E+01	3.2	8573.0
114.	C#CC+CC.C=C#CC.+CCC	6.58E+01	3.2	9770.0
115.	CCCC+CC.C=CCC.C+CCC	6.08E+00	3.6	10740.0
116.	CCCC+CC.C=CCCC.+CCC	9.12E+00	3.6	12935.0
117.	C*CC+CC.C=C*C.C+CCC	1.38E+02	2.9	15592.0
118.	C*CCC+CC.C=C*C.CC+CCC	1.38E+02	2.9	15596.0
119.	BENZENE+CC.C=CYC6H5.+CCC	8.25E+02	2.9	17192.0
120.	CHD14+CCCC.=CYC6H7+CCCC	1.60E+02	3.2	2486.0
121.	CHD13+CCCC.=CYC6H7+CCCC	1.60E+02	3.2	2801.0
122.	CY13PD+CCCC.=CY13PD5.+CCCC	7.99E+01	3.2	6113.0
123.	C*CCCC*C+CCCC.=C*CCC.C*C+CCCC	1.60E+02	3.2	7222.0
124.	CYC5H8+CCCC.=CYPENE3.+CCCC	1.60E+02	3.2	7222.0
125.	C*CCC+CCCC.=CC*CC.+CCCC	7.99E+01	3.2	7222.0
126.	CC*CC+CCCC.=CC*CC.+CCCC	1.32E+02	3.2	8748.0
127.	C*CC+CCCC.=C*CC.+CCCC	6.58E+01	3.2	8507.0

128.	C*C*C+CCCC.=C#CC.+CCCC	8.77E+01	3.2	7889.0
129.	C#CC+CCCC.=C#CC.+CCCC	6.58E+01	3.2	9086.0
130.	CCCC+CCCC.=CCC.C+CCCC	1.05E+02	3.2	10056.0
131.	C*CC+CCCC.=C*C.C+CCCC	9.15E+03	2.5	15292.0
132.	C*CCC+CCCC.=C*C.CC+CCCC	9.15E+03	2.5	15296.0
133.	BENZENE+CCCC.=CYC6H5.+CCCC	5.49E+04	2.5	16892.0
134.	CHD14+CCC.C=CYC6H7+CCCC	1.60E+02	3.2	2739.0
135.	CHD13+CCC.C=CYC6H7+CCCC	1.60E+02	3.2	3054.0
136.	CY13PD+CCC.C=CY13PD5.+CCCC	7.99E+01	3.2	6366.0
137.	C*CCCC*C+CCC.C=C*CCC.C*C+CCCC	1.60E+02	3.2	7475.0
138.	CYC5H8+CCC.C=CYPENE3.+CCCC	1.60E+02	3.2	7475.0
139.	C*CCC+CCC.C=CC*CC.+CCCC	7.99E+01	3.2	7475.0
140.	CC*CC+CCC.C=CC*CC.+CCCC	1.32E+02	3.2	9001.0
141.	C*CC+CCC.C=C*CC.+CCCC	6.58E+01	3.2	8760.0
142.	C*C*C+CCC.C=C#CC.+CCCC	8.77E+01	3.2	8142.0
143.	C#CC+CCC.C=C#CC.+CCCC	6.58E+01	3.2	9339.0
144.	C*CC+CCC.C=C*C.C+CCCC	1.19E+02	2.9	15742.0
145.	C*CCC+CCC.C=C*C.CC+CCCC	1.19E+02	2.9	15746.0
146.	BENZENE+CCC.C=CYC6H5.+CCCC	7.14E+02	2.9	17342.0
147.	CH2+H2=H+CH3	5.00E+05	2.0	7230.0
148.	CH2+CH3=H+C2H4	4.00E+13	0.0	0.0
149.	CH2S+CH3=H+C2H4	1.20E+13	0.0	-570.0
150.	H+CC*CC.=C*CC*C+H2	7.20E+08	1.5	-894.0
151.	CH3+CC*CC.=CH4+C*CC*C	2.45E+06	1.9	-1113.0
152.	C2H5+CC*CC.=C2H4+C*CCC	2.00E+04	2.5	-1500.0
153.	C2H5+CC*CC.=C2H6+C*CC*C	2.00E+04	2.5	-1500.0
154.	C*CC.+CY13PD5.=C*C*C+CY13PD	8.40E+10	0.0	-260.0
155.	C2H3+H=C2H2+H2	1.21E+13	0.0	0.0
156.	C2H3+CH3=C2H2+CH4	1.63E+06	1.9	-1113.0
157.	C2H3+C2H5=C2H2+C2H6	1.32E+04	2.5	-1500.0
158.	2C2H3=C2H2+C2H4	2.00E+12	0.0	0.0
159.	C2H3+C*CC.=C2H2+C*CC	2.00E+12	0.0	0.0
160.	C2H5+H=C2H4+H2	1.81E+12	0.0	0.0
161.	C2H5+CH3=C2H4+CH4	1.15E+12	0.0	0.0

162.	$2\text{C}_2\text{H}_5=\text{C}_2\text{H}_4+\text{C}_2\text{H}_6$	$6.00\text{E}+13$	-0.6	0.0
163.	$\text{C}_2\text{H}_5+\text{C}_2\text{H}_3=2\text{C}_2\text{H}_4$	$9.63\text{E}+03$	2.8	-1650.0
164.	$\text{C}_2\text{H}_5+\text{C}^*\text{CC}.=\text{C}_2\text{H}_4+\text{C}^*\text{CC}$	$3.00\text{E}+12$	0.0	0.0
165.	$\text{C}_2\text{H}_5+\text{C}^\#\text{CC}.=\text{C}_2\text{H}_4+\text{C}^*\text{C}^*\text{C}$	$3.00\text{E}+12$	0.0	0.0
166.	$\text{C}_2\text{H}_5+\text{C}^\#\text{CC}.=\text{C}_2\text{H}_4+\text{C}^\#\text{CC}$	$3.00\text{E}+12$	0.0	0.0
167.	$\text{CCC}..+\text{H}=\text{C}^*\text{CC}+\text{H}_2$	$2.00\text{E}+12$	0.0	0.0
168.	$\text{CCC}..+\text{CH}_3=\text{C}^*\text{CC}+\text{CH}_4$	$2.00\text{E}+12$	0.0	0.0
169.	$\text{CCC}..+\text{C}_2\text{H}_5=\text{C}^*\text{CC}+\text{C}_2\text{H}_6$	$2.00\text{E}+12$	0.0	0.0
170.	$\text{CCC}..+\text{C}_2\text{H}_3=\text{C}^*\text{CC}+\text{C}_2\text{H}_4$	$2.00\text{E}+12$	0.0	0.0
171.	$\text{CCC}..+\text{C}^\#\text{CC}.=\text{C}^*\text{CC}+\text{C}^\#\text{CC}$	$2.00\text{E}+12$	0.0	0.0
172.	$2\text{CCC}..=\text{C}^*\text{CC}+\text{CCC}$	$1.31\text{E}+04$	2.5	-1502.0
173.	$\text{C}^*\text{CC}..+\text{H}=\text{C}^*\text{C}^*\text{C}+\text{H}_2$	$1.00\text{E}+12$	0.0	0.0
174.	$\text{C}^*\text{CC}..+\text{CH}_3=\text{C}^*\text{C}^*\text{C}+\text{CH}_4$	$1.00\text{E}+12$	0.0	0.0
175.	$\text{C}^*\text{CC}..+\text{C}_2\text{H}_5=\text{C}^*\text{C}^*\text{C}+\text{C}_2\text{H}_6$	$1.00\text{E}+12$	0.0	0.0
176.	$\text{C}^*\text{CC}..+\text{C}_2\text{H}_3=\text{C}^*\text{C}^*\text{C}+\text{C}_2\text{H}_4$	$1.00\text{E}+12$	0.0	0.0
177.	$2\text{C}^*\text{CC}..=\text{C}^*\text{C}^*\text{C}+\text{C}^*\text{CC}$	$1.00\text{E}+12$	0.0	0.0
178.	$\text{C}^*\text{CC}..+\text{C}^\#\text{CC}.=\text{C}^*\text{C}^*\text{C}+\text{C}^\#\text{CC}$	$1.00\text{E}+12$	0.0	0.0
179.	$\text{C}^*\text{CC}..+\text{C}^\#\text{CC}.=2\text{C}^*\text{C}^*\text{C}$	$1.00\text{E}+12$	0.0	0.0
180.	$\text{C}^*\text{C}..+\text{H}=\text{C}^\#\text{CC}+\text{H}_2$	$2.00\text{E}+12$	0.0	0.0
181.	$\text{C}^*\text{C}..+\text{H}=\text{C}^*\text{C}^*\text{C}+\text{H}_2$	$3.00\text{E}+12$	0.0	0.0
182.	$\text{C}^*\text{C}..+\text{CH}_3=\text{C}^*\text{C}^*\text{C}+\text{CH}_4$	$3.00\text{E}+12$	0.0	0.0
183.	$\text{C}^*\text{C}..+\text{CH}_3=\text{C}^\#\text{CC}+\text{CH}_4$	$2.00\text{E}+12$	0.0	0.0
184.	$\text{C}^*\text{C}..+\text{C}_2\text{H}_5=\text{C}^\#\text{CC}+\text{C}_2\text{H}_6$	$2.00\text{E}+12$	0.0	0.0
185.	$\text{C}^*\text{C}..+\text{C}_2\text{H}_5=\text{C}^*\text{C}^*\text{C}+\text{C}_2\text{H}_6$	$3.00\text{E}+12$	0.0	0.0
186.	$\text{C}^*\text{C}..+\text{C}_2\text{H}_3=\text{C}^\#\text{CC}+\text{C}_2\text{H}_4$	$2.00\text{E}+12$	0.0	0.0
187.	$\text{C}^*\text{C}..+\text{C}_2\text{H}_3=\text{C}^*\text{C}^*\text{C}+\text{C}_2\text{H}_4$	$3.00\text{E}+12$	0.0	0.0
188.	$\text{C}^*\text{C}..+\text{C}^*\text{CC}..=\text{C}^\#\text{CC}+\text{C}^*\text{CC}$	$2.00\text{E}+12$	0.0	0.0
189.	$2\text{C}^*\text{C}..=\text{C}^\#\text{CC}+\text{C}^*\text{CC}$	$2.00\text{E}+12$	0.0	0.0
190.	$2\text{C}^*\text{C}..=\text{C}^*\text{C}^*\text{C}+\text{C}^*\text{CC}$	$3.00\text{E}+12$	0.0	0.0
191.	$2\text{CH}_2=\text{C}_2\text{H}_2+2\text{H}$	$1.20\text{E}+14$	0.0	800.0
192.	$\text{CH}_2\text{S}+\text{M}=\text{CH}_2+\text{M}$	$1.00\text{E}+13$	0.0	0.0
	N2	Enhanced by	$0.000\text{E}+00$	
193.	$\text{CH}_2\text{S}+\text{N}_2=\text{CH}_2+\text{N}_2$	$1.50\text{E}+13$	0.0	600.0
194.	$\text{H}+\text{CH}_3(+\text{M})=\text{CH}_4(+\text{M})$	$3.48\text{E}+15$	-0.5	536.0

	H2	Enhanced by	2.000E+00			
	CH4	Enhanced by	3.000E+00			
	C2H6	Enhanced by	3.000E+00			
	Low pressure limit:	0.26200E+34	-0.47600E+01	0.24400E+04		
	TROE centering:	0.78300E+00	0.74000E+02	0.29410E+04	0.69640E+04	
195.	H+CH2 (+M)=CH3 (+M)			6.00E+14	0.0	0.0
	H2	Enhanced by	2.000E+00			
	CH4	Enhanced by	2.000E+00			
	C2H6	Enhanced by	3.000E+00			
	Low pressure limit:	0.10400E+27	-0.27600E+01	0.16000E+04		
	TROE centering:	0.56200E+00	0.91000E+02	0.58360E+04	0.85520E+04	
196.	CH2S+H2=CH3+H			7.00E+13	0.0	0.0
197.	2CH3 (+M)=C2H6 (+M)			1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04					
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03					
	Chebychev coefficient	1:	0.125E+02			
	Chebychev coefficient	2:	0.707E+00			
	Chebychev coefficient	3:	-0.156E+00			
	Chebychev coefficient	4:	0.327E-01			
	Chebychev coefficient	5:	-0.140E+01			
	Chebychev coefficient	6:	0.951E+00			
	Chebychev coefficient	7:	-0.853E-01			
	Chebychev coefficient	8:	-0.172E-01			
	Chebychev coefficient	9:	-0.805E+00			
	Chebychev coefficient	10:	0.443E+00			
	Chebychev coefficient	11:	0.484E-01			
	Chebychev coefficient	12:	-0.286E-01			
	Chebychev coefficient	13:	-0.457E+00			
	Chebychev coefficient	14:	0.145E+00			
	Chebychev coefficient	15:	0.594E-01			
	Chebychev coefficient	16:	-0.735E-02			
	Chebychev coefficient	17:	-0.236E+00			
	Chebychev coefficient	18:	0.215E-01			
	Chebychev coefficient	19:	0.297E-01			

	Chebychev coefficient	20:	0.464E-02			
	Chebychev coefficient	21:	-0.109E+00			
	Chebychev coefficient	22:	-0.129E-01			
	Chebychev coefficient	23:	0.600E-02			
	Chebychev coefficient	24:	0.477E-02			
	Chebychev coefficient	25:	-0.437E-01			
	Chebychev coefficient	26:	-0.172E-01			
	Chebychev coefficient	27:	-0.402E-02			
	Chebychev coefficient	28:	0.126E-02			
198.	2CH3 (+M)=C2H5+H (+M)			1.00E+00	0.0	0.0
	Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebychev coefficient	1:	0.689E+01			
	Chebychev coefficient	2:	-0.784E+00			
	Chebychev coefficient	3:	-0.298E+00			
	Chebychev coefficient	4:	-0.137E-01			
	Chebychev coefficient	5:	0.452E+01			
	Chebychev coefficient	6:	0.781E+00			
	Chebychev coefficient	7:	0.246E+00			
	Chebychev coefficient	8:	-0.285E-01			
	Chebychev coefficient	9:	0.497E-01			
	Chebychev coefficient	10:	0.117E+00			
	Chebychev coefficient	11:	0.975E-01			
	Chebychev coefficient	12:	0.364E-01			
	Chebychev coefficient	13:	-0.456E-01			
	Chebychev coefficient	14:	-0.562E-01			
	Chebychev coefficient	15:	-0.738E-02			
	Chebychev coefficient	16:	0.178E-01			
	Chebychev coefficient	17:	-0.348E-01			
	Chebychev coefficient	18:	-0.528E-01			
	Chebychev coefficient	19:	-0.275E-01			
	Chebychev coefficient	20:	-0.207E-02			
	Chebychev coefficient	21:	-0.118E-01			
	Chebychev coefficient	22:	-0.190E-01			

	Chebychev coefficient	23:-0.144E-01			
	Chebychev coefficient	24:-0.578E-02			
	Chebychev coefficient	25:-0.866E-03			
	Chebychev coefficient	26:-0.150E-02			
	Chebychev coefficient	27:-0.273E-02			
	Chebychev coefficient	28:-0.237E-02			
199.	C2H6 (+M)=C2H5+H(+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebychev coefficient	1:-0.272E+02			
	Chebychev coefficient	2: 0.163E+01			
	Chebychev coefficient	3:-0.331E+00			
	Chebychev coefficient	4:-0.155E-01			
	Chebychev coefficient	5: 0.310E+02			
	Chebychev coefficient	6: 0.731E+00			
	Chebychev coefficient	7: 0.209E+00			
	Chebychev coefficient	8:-0.426E-01			
	Chebychev coefficient	9:-0.850E+00			
	Chebychev coefficient	10: 0.171E+00			
	Chebychev coefficient	11: 0.113E+00			
	Chebychev coefficient	12: 0.285E-01			
	Chebychev coefficient	13:-0.437E+00			
	Chebychev coefficient	14: 0.709E-02			
	Chebychev coefficient	15: 0.246E-01			
	Chebychev coefficient	16: 0.229E-01			
	Chebychev coefficient	17:-0.203E+00			
	Chebychev coefficient	18:-0.250E-01			
	Chebychev coefficient	19:-0.831E-02			
	Chebychev coefficient	20: 0.677E-02			
	Chebychev coefficient	21:-0.799E-01			
	Chebychev coefficient	22:-0.182E-01			
	Chebychev coefficient	23:-0.108E-01			
	Chebychev coefficient	24:-0.114E-02			
	Chebychev coefficient	25:-0.230E-01			

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Chebychev coefficient 26:-0.781E-02
Chebychev coefficient 27:-0.518E-02
Chebychev coefficient 28:-0.198E-02
200. H+C2H4 (+M)=C2H5 (+M)          1.37E+09    1.5    1355.0
    H2          Enhanced by    2.000E+00
    CH4          Enhanced by    2.000E+00
    C2H6         Enhanced by    3.000E+00
    Low pressure limit: 0.28900E+40 -0.66420E+01 0.57700E+04
    TROE centering:    0.15690E+01 -0.91470E+04 0.29900E+03 0.15240E+03
201. H+C2H3 (+M)=C2H4 (+M)          6.08E+12    0.3    280.0
    H2          Enhanced by    2.000E+00
    CH4          Enhanced by    2.000E+00
    C2H6         Enhanced by    3.000E+00
    Low pressure limit: 0.14000E+31 -0.38600E+01 0.33200E+04
    TROE centering:    0.78200E+00 0.20750E+03 0.26630E+04 0.60950E+04
202. C2H4 (+M)=H2+C2H2 (+M)          8.00E+12    0.4    86770.0
    H2          Enhanced by    2.000E+00
    CH4          Enhanced by    2.000E+00
    C2H6         Enhanced by    3.000E+00
    Low pressure limit: 0.15800E+52 -0.93000E+01 0.97800E+05
    TROE centering:    0.73450E+00 0.18000E+03 0.10350E+04 0.54170E+04
203. H+C2H2=C2H3                    1.00E+30    -5.7    6831.0
204. CH2+CH4=2CH3                    2.46E+06    2.0    8270.0
205. CH2S+CH4=2CH3                    1.60E+13    0.0    -570.0
206. CH3+C2H5 (+M)=CCC (+M)          1.00E+00    0.0     0.0
    Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
    Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
    Chebychev coefficient 1: 0.127E+02
    Chebychev coefficient 2: 0.481E+00
    Chebychev coefficient 3:-0.565E-01
    Chebychev coefficient 4: 0.178E-02
    Chebychev coefficient 5:-0.126E+01
    Chebychev coefficient 6: 0.842E+00
    Chebychev coefficient 7:-0.799E-01

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Chebychev coefficient	8:-0.176E-02			
Chebychev coefficient	9:-0.846E+00			
Chebychev coefficient	10: 0.559E+00			
Chebychev coefficient	11:-0.142E-01			
Chebychev coefficient	12:-0.901E-02			
Chebychev coefficient	13:-0.543E+00			
Chebychev coefficient	14: 0.271E+00			
Chebychev coefficient	15: 0.313E-01			
Chebychev coefficient	16:-0.814E-02			
Chebychev coefficient	17:-0.297E+00			
Chebychev coefficient	18: 0.782E-01			
Chebychev coefficient	19: 0.373E-01			
Chebychev coefficient	20:-0.654E-03			
Chebychev coefficient	21:-0.138E+00			
Chebychev coefficient	22:-0.616E-02			
Chebychev coefficient	23: 0.201E-01			
Chebychev coefficient	24: 0.508E-02			
Chebychev coefficient	25:-0.506E-01			
Chebychev coefficient	26:-0.343E-01			
Chebychev coefficient	27: 0.253E-02			
Chebychev coefficient	28: 0.686E-02			
207. CH3+C2H5(+M)=CCC.+H(+M)		1.00E+00	0.0	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1: 0.580E+01			
Chebychev coefficient	2:-0.138E+01			
Chebychev coefficient	3:-0.185E+00			
Chebychev coefficient	4: 0.366E-01			
Chebychev coefficient	5: 0.576E+01			
Chebychev coefficient	6: 0.126E+01			
Chebychev coefficient	7: 0.374E-01			
Chebychev coefficient	8:-0.604E-01			
Chebychev coefficient	9: 0.116E+00			
Chebychev coefficient	10: 0.328E+00			

	Chebyshev coefficient	11:	0.150E+00		
	Chebyshev coefficient	12:	-0.112E-01		
	Chebyshev coefficient	13:	-0.119E+00		
	Chebyshev coefficient	14:	-0.690E-01		
	Chebyshev coefficient	15:	0.594E-01		
	Chebyshev coefficient	16:	0.320E-01		
	Chebyshev coefficient	17:	-0.973E-01		
	Chebyshev coefficient	18:	-0.111E+00		
	Chebyshev coefficient	19:	-0.208E-01		
	Chebyshev coefficient	20:	0.197E-01		
	Chebyshev coefficient	21:	-0.380E-01		
	Chebyshev coefficient	22:	-0.486E-01		
	Chebyshev coefficient	23:	-0.340E-01		
	Chebyshev coefficient	24:	-0.347E-02		
	Chebyshev coefficient	25:	-0.651E-02		
	Chebyshev coefficient	26:	-0.526E-02		
	Chebyshev coefficient	27:	-0.151E-01		
	Chebyshev coefficient	28:	-0.863E-02		
208.	CH3+C2H5(+M)=CC.C+H(+M)		1.00E+00	0.0	0.0
	Chebyshev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebyshev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebyshev coefficient	1:	0.594E+01		
	Chebyshev coefficient	2:	-0.147E+01		
	Chebyshev coefficient	3:	-0.147E+00		
	Chebyshev coefficient	4:	0.255E-01		
	Chebyshev coefficient	5:	0.494E+01		
	Chebyshev coefficient	6:	0.130E+01		
	Chebyshev coefficient	7:	-0.929E-02		
	Chebyshev coefficient	8:	-0.405E-01		
	Chebyshev coefficient	9:	0.164E+00		
	Chebyshev coefficient	10:	0.389E+00		
	Chebyshev coefficient	11:	0.136E+00		
	Chebyshev coefficient	12:	-0.192E-01		
	Chebyshev coefficient	13:	-0.130E+00		

	Chebyshev coefficient	14:-0.562E-01			
	Chebyshev coefficient	15: 0.764E-01			
	Chebyshev coefficient	16: 0.237E-01			
	Chebyshev coefficient	17:-0.101E+00			
	Chebyshev coefficient	18:-0.119E+00			
	Chebyshev coefficient	19:-0.961E-02			
	Chebyshev coefficient	20: 0.223E-01			
	Chebyshev coefficient	21:-0.362E-01			
	Chebyshev coefficient	22:-0.573E-01			
	Chebyshev coefficient	23:-0.339E-01			
	Chebyshev coefficient	24: 0.213E-02			
	Chebyshev coefficient	25:-0.458E-02			
	Chebyshev coefficient	26:-0.801E-02			
	Chebyshev coefficient	27:-0.186E-01			
	Chebyshev coefficient	28:-0.771E-02			
209.	CCC (+M)=CCC.+H (+M)		1.00E+00	0.0	0.0
	Chebyshev temperature limits, tmin=	0.300E+03, tmax=	0.250E+04		
	Chebyshev pressure limits, pmin=	0.100E-02, pmax=	0.100E+03		
	Chebyshev coefficient	1:-0.257E+02			
	Chebyshev coefficient	2: 0.952E+00			
	Chebyshev coefficient	3:-0.199E+00			
	Chebyshev coefficient	4: 0.427E-01			
	Chebyshev coefficient	5: 0.307E+02			
	Chebyshev coefficient	6: 0.112E+01			
	Chebyshev coefficient	7:-0.152E-01			
	Chebyshev coefficient	8:-0.549E-01			
	Chebyshev coefficient	9:-0.102E+01			
	Chebyshev coefficient	10: 0.440E+00			
	Chebyshev coefficient	11: 0.118E+00			
	Chebyshev coefficient	12:-0.336E-01			
	Chebyshev coefficient	13:-0.544E+00			
	Chebyshev coefficient	14: 0.829E-01			
	Chebyshev coefficient	15: 0.869E-01			
	Chebyshev coefficient	16: 0.991E-02			

	Chebyshev coefficient	17:-0.253E+00			
	Chebyshev coefficient	18:-0.398E-01			
	Chebyshev coefficient	19: 0.248E-01			
	Chebyshev coefficient	20: 0.219E-01			
	Chebyshev coefficient	21:-0.963E-01			
	Chebyshev coefficient	22:-0.518E-01			
	Chebyshev coefficient	23:-0.103E-01			
	Chebyshev coefficient	24: 0.117E-01			
	Chebyshev coefficient	25:-0.232E-01			
	Chebyshev coefficient	26:-0.313E-01			
	Chebyshev coefficient	27:-0.180E-01			
	Chebyshev coefficient	28:-0.138E-02			
210.	CCC(+M)=CC.C+H(+M)		1.00E+00	0.0	0.0
	Chebyshev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
	Chebyshev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
	Chebyshev coefficient	1:-0.252E+02			
	Chebyshev coefficient	2: 0.810E+00			
	Chebyshev coefficient	3:-0.150E+00			
	Chebyshev coefficient	4: 0.285E-01			
	Chebyshev coefficient	5: 0.297E+02			
	Chebyshev coefficient	6: 0.112E+01			
	Chebyshev coefficient	7:-0.658E-01			
	Chebyshev coefficient	8:-0.288E-01			
	Chebyshev coefficient	9:-0.101E+01			
	Chebyshev coefficient	10: 0.510E+00			
	Chebyshev coefficient	11: 0.832E-01			
	Chebyshev coefficient	12:-0.359E-01			
	Chebyshev coefficient	13:-0.554E+00			
	Chebyshev coefficient	14: 0.128E+00			
	Chebyshev coefficient	15: 0.884E-01			
	Chebyshev coefficient	16:-0.285E-02			
	Chebyshev coefficient	17:-0.262E+00			
	Chebyshev coefficient	18:-0.249E-01			
	Chebyshev coefficient	19: 0.385E-01			

	Chebychev coefficient	20:	0.156E-01		
	Chebychev coefficient	21:	-0.103E+00		
	Chebychev coefficient	22:	-0.515E-01		
	Chebychev coefficient	23:	0.298E-03		
	Chebychev coefficient	24:	0.130E-01		
	Chebychev coefficient	25:	-0.271E-01		
	Chebychev coefficient	26:	-0.375E-01		
	Chebychev coefficient	27:	-0.162E-01		
	Chebychev coefficient	28:	0.327E-02		
211.	C2H4+CH3(+M)=>CCC.(+M)			1.00E+00	0.0
	Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
	Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
	Chebychev coefficient	1:	0.759E+01		
	Chebychev coefficient	2:	0.110E+01		
	Chebychev coefficient	3:	-0.197E+00		
	Chebychev coefficient	4:	0.355E-01		
	Chebychev coefficient	5:	0.119E+01		
	Chebychev coefficient	6:	0.116E+01		
	Chebychev coefficient	7:	0.360E-01		
	Chebychev coefficient	8:	-0.538E-01		
	Chebychev coefficient	9:	-0.958E+00		
	Chebychev coefficient	10:	0.332E+00		
	Chebychev coefficient	11:	0.127E+00		
	Chebychev coefficient	12:	-0.129E-01		
	Chebychev coefficient	13:	-0.381E+00		
	Chebychev coefficient	14:	-0.424E-02		
	Chebychev coefficient	15:	0.527E-01		
	Chebychev coefficient	16:	0.179E-01		
	Chebychev coefficient	17:	-0.884E-01		
	Chebychev coefficient	18:	-0.674E-01		
	Chebychev coefficient	19:	-0.542E-02		
	Chebychev coefficient	20:	0.121E-01		
	Chebychev coefficient	21:	0.250E-01		
	Chebychev coefficient	22:	-0.427E-01		

	Chebychev coefficient	23:-0.180E-01			
	Chebychev coefficient	24: 0.962E-03			
	Chebychev coefficient	25: 0.464E-01			
	Chebychev coefficient	26:-0.843E-02			
	Chebychev coefficient	27:-0.922E-02			
	Chebychev coefficient	28:-0.391E-02			
212.	C2H4+CH3(+M)=>C*CC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.570E+01			
	Chebychev coefficient	2:-0.782E+00			
	Chebychev coefficient	3:-0.272E+00			
	Chebychev coefficient	4:-0.453E-02			
	Chebychev coefficient	5: 0.544E+01			
	Chebychev coefficient	6: 0.866E+00			
	Chebychev coefficient	7: 0.249E+00			
	Chebychev coefficient	8:-0.347E-01			
	Chebychev coefficient	9:-0.168E-01			
	Chebychev coefficient	10: 0.467E-01			
	Chebychev coefficient	11: 0.826E-01			
	Chebychev coefficient	12: 0.405E-01			
	Chebychev coefficient	13:-0.805E-01			
	Chebychev coefficient	14:-0.102E+00			
	Chebychev coefficient	15:-0.306E-01			
	Chebychev coefficient	16: 0.138E-01			
	Chebychev coefficient	17:-0.334E-01			
	Chebychev coefficient	18:-0.503E-01			
	Chebychev coefficient	19:-0.334E-01			
	Chebychev coefficient	20:-0.758E-02			
	Chebychev coefficient	21:-0.139E-02			
	Chebychev coefficient	22:-0.196E-02			
	Chebychev coefficient	23:-0.843E-02			
	Chebychev coefficient	24:-0.676E-02			

	Chebychev coefficient	25:	0.498E-02			
	Chebychev coefficient	26:	0.888E-02			
	Chebychev coefficient	27:	0.313E-02			
	Chebychev coefficient	28:	-0.927E-03			
213.	C2H4+CH3(+M)=>CC.C(+M)			1.00E+00	0.0	0.0
	Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebychev coefficient	1:	0.335E+01			
	Chebychev coefficient	2:	0.458E+00			
	Chebychev coefficient	3:	-0.504E+00			
	Chebychev coefficient	4:	0.312E-01			
	Chebychev coefficient	5:	0.380E+01			
	Chebychev coefficient	6:	0.190E+01			
	Chebychev coefficient	7:	0.329E+00			
	Chebychev coefficient	8:	-0.914E-01			
	Chebychev coefficient	9:	-0.102E+01			
	Chebychev coefficient	10:	0.335E+00			
	Chebychev coefficient	11:	0.200E+00			
	Chebychev coefficient	12:	0.340E-01			
	Chebychev coefficient	13:	-0.504E+00			
	Chebychev coefficient	14:	-0.875E-01			
	Chebychev coefficient	15:	0.145E-01			
	Chebychev coefficient	16:	0.265E-01			
	Chebychev coefficient	17:	-0.160E+00			
	Chebychev coefficient	18:	-0.932E-01			
	Chebychev coefficient	19:	-0.328E-01			
	Chebychev coefficient	20:	0.659E-03			
	Chebychev coefficient	21:	-0.111E-01			
	Chebychev coefficient	22:	-0.360E-01			
	Chebychev coefficient	23:	-0.202E-01			
	Chebychev coefficient	24:	-0.546E-02			
	Chebychev coefficient	25:	0.277E-01			
	Chebychev coefficient	26:	0.952E-03			
	Chebychev coefficient	27:	-0.222E-02			

	Chebychev coefficient 28:-0.150E-02			
214.	C2H4+CH3(+M)=>C*CC+H(+M)	1.00E+00	0.0	0.0
	Declared duplicate reaction...			
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04			
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03			
	Chebychev coefficient 1: 0.406E+01			
	Chebychev coefficient 2:-0.162E+01			
	Chebychev coefficient 3:-0.457E+00			
	Chebychev coefficient 4:-0.405E-02			
	Chebychev coefficient 5: 0.653E+01			
	Chebychev coefficient 6: 0.184E+01			
	Chebychev coefficient 7: 0.415E+00			
	Chebychev coefficient 8:-0.581E-01			
	Chebychev coefficient 9:-0.106E+00			
	Chebychev coefficient 10: 0.190E-01			
	Chebychev coefficient 11: 0.139E+00			
	Chebychev coefficient 12: 0.649E-01			
	Chebychev coefficient 13:-0.160E+00			
	Chebychev coefficient 14:-0.204E+00			
	Chebychev coefficient 15:-0.539E-01			
	Chebychev coefficient 16: 0.181E-01			
	Chebychev coefficient 17:-0.428E-01			
	Chebychev coefficient 18:-0.708E-01			
	Chebychev coefficient 19:-0.475E-01			
	Chebychev coefficient 20:-0.119E-01			
	Chebychev coefficient 21: 0.491E-02			
	Chebychev coefficient 22: 0.453E-02			
	Chebychev coefficient 23:-0.926E-02			
	Chebychev coefficient 24:-0.817E-02			
	Chebychev coefficient 25: 0.751E-02			
	Chebychev coefficient 26: 0.122E-01			
	Chebychev coefficient 27: 0.358E-02			
	Chebychev coefficient 28:-0.103E-02			
215.	C*CC+H(+M)=>CCC.(+M)	1.00E+00	0.0	0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.101E+02

Chebychev coefficient 2: 0.161E+01

Chebychev coefficient 3:-0.298E+00

Chebychev coefficient 4: 0.136E-02

Chebychev coefficient 5:-0.324E+00

Chebychev coefficient 6: 0.859E+00

Chebychev coefficient 7: 0.222E+00

Chebychev coefficient 8:-0.505E-01

Chebychev coefficient 9:-0.854E+00

Chebychev coefficient 10: 0.140E+00

Chebychev coefficient 11: 0.112E+00

Chebychev coefficient 12: 0.346E-01

Chebychev coefficient 13:-0.301E+00

Chebychev coefficient 14:-0.519E-01

Chebychev coefficient 15: 0.136E-02

Chebychev coefficient 16: 0.232E-01

Chebychev coefficient 17:-0.392E-01

Chebychev coefficient 18:-0.557E-01

Chebychev coefficient 19:-0.259E-01

Chebychev coefficient 20: 0.563E-03

Chebychev coefficient 21: 0.410E-01

Chebychev coefficient 22:-0.234E-01

Chebychev coefficient 23:-0.158E-01

Chebychev coefficient 24:-0.739E-02

Chebychev coefficient 25: 0.407E-01

Chebychev coefficient 26: 0.433E-02

Chebychev coefficient 27:-0.108E-02

Chebychev coefficient 28:-0.451E-02

216. C*CC+H(+M)=>C2H4+CH3(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

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Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.113E+02
Chebychev coefficient    2:-0.781E+00
Chebychev coefficient    3:-0.272E+00
Chebychev coefficient    4:-0.465E-02
Chebychev coefficient    5: 0.208E+01
Chebychev coefficient    6: 0.865E+00
Chebychev coefficient    7: 0.249E+00
Chebychev coefficient    8:-0.347E-01
Chebychev coefficient    9:-0.137E-01
Chebychev coefficient   10: 0.471E-01
Chebychev coefficient   11: 0.824E-01
Chebychev coefficient   12: 0.404E-01
Chebychev coefficient   13:-0.770E-01
Chebychev coefficient   14:-0.102E+00
Chebychev coefficient   15:-0.306E-01
Chebychev coefficient   16: 0.137E-01
Chebychev coefficient   17:-0.305E-01
Chebychev coefficient   18:-0.498E-01
Chebychev coefficient   19:-0.332E-01
Chebychev coefficient   20:-0.744E-02
Chebychev coefficient   21: 0.633E-03
Chebychev coefficient   22:-0.141E-02
Chebychev coefficient   23:-0.821E-02
Chebychev coefficient   24:-0.656E-02
Chebychev coefficient   25: 0.608E-02
Chebychev coefficient   26: 0.950E-02
Chebychev coefficient   27: 0.344E-02
Chebychev coefficient   28:-0.720E-03
217. C*CC+H(+M)=>CC.C(+M)                    1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.716E+01

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Chebychev coefficient 2: 0.629E+00
Chebychev coefficient 3:-0.493E+00
Chebychev coefficient 4: 0.167E-01
Chebychev coefficient 5: 0.934E+00
Chebychev coefficient 6: 0.188E+01
Chebychev coefficient 7: 0.369E+00
Chebychev coefficient 8:-0.810E-01
Chebychev coefficient 9:-0.860E+00
Chebychev coefficient 10: 0.227E+00
Chebychev coefficient 11: 0.188E+00
Chebychev coefficient 12: 0.482E-01
Chebychev coefficient 13:-0.419E+00
Chebychev coefficient 14:-0.136E+00
Chebychev coefficient 15:-0.949E-02
Chebychev coefficient 16: 0.261E-01
Chebychev coefficient 17:-0.110E+00
Chebychev coefficient 18:-0.967E-01
Chebychev coefficient 19:-0.430E-01
Chebychev coefficient 20:-0.357E-02
Chebychev coefficient 21: 0.109E-01
Chebychev coefficient 22:-0.283E-01
Chebychev coefficient 23:-0.205E-01
Chebychev coefficient 24:-0.771E-02
Chebychev coefficient 25: 0.312E-01
Chebychev coefficient 26: 0.662E-02
Chebychev coefficient 27: 0.907E-04
Chebychev coefficient 28:-0.178E-02
218. C*CC+H(+M)=>CCC.(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.828E+01
Chebychev coefficient 2: 0.644E+00
Chebychev coefficient 3:-0.507E+00

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Chebychev coefficient	4:	0.540E-02			
Chebychev coefficient	5:	0.104E+01			
Chebychev coefficient	6:	0.184E+01			
Chebychev coefficient	7:	0.359E+00			
Chebychev coefficient	8:	-0.845E-01			
Chebychev coefficient	9:	-0.706E+00			
Chebychev coefficient	10:	0.205E+00			
Chebychev coefficient	11:	0.186E+00			
Chebychev coefficient	12:	0.512E-01			
Chebychev coefficient	13:	-0.294E+00			
Chebychev coefficient	14:	-0.120E+00			
Chebychev coefficient	15:	-0.286E-02			
Chebychev coefficient	16:	0.296E-01			
Chebychev coefficient	17:	-0.440E-01			
Chebychev coefficient	18:	-0.802E-01			
Chebychev coefficient	19:	-0.364E-01			
Chebychev coefficient	20:	-0.167E-02			
Chebychev coefficient	21:	0.329E-01			
Chebychev coefficient	22:	-0.230E-01			
Chebychev coefficient	23:	-0.180E-01			
Chebychev coefficient	24:	-0.731E-02			
Chebychev coefficient	25:	0.305E-01			
Chebychev coefficient	26:	0.272E-02			
Chebychev coefficient	27:	-0.186E-02			
Chebychev coefficient	28:	-0.273E-02			
219. C*CC+H(+M)=>C2H4+CH3(+M)			1.00E+00	0.0	0.0
Declared duplicate reaction...					
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:	0.968E+01			
Chebychev coefficient	2:	-0.161E+01			
Chebychev coefficient	3:	-0.473E+00			
Chebychev coefficient	4:	-0.112E-01			
Chebychev coefficient	5:	0.313E+01			

Chebychev coefficient	6:	0.179E+01			
Chebychev coefficient	7:	0.414E+00			
Chebychev coefficient	8:	-0.586E-01			
Chebychev coefficient	9:	-0.865E-01			
Chebychev coefficient	10:	0.321E-01			
Chebychev coefficient	11:	0.146E+00			
Chebychev coefficient	12:	0.669E-01			
Chebychev coefficient	13:	-0.133E+00			
Chebychev coefficient	14:	-0.175E+00			
Chebychev coefficient	15:	-0.436E-01			
Chebychev coefficient	16:	0.205E-01			
Chebychev coefficient	17:	-0.366E-01			
Chebychev coefficient	18:	-0.648E-01			
Chebychev coefficient	19:	-0.440E-01			
Chebychev coefficient	20:	-0.105E-01			
Chebychev coefficient	21:	0.167E-02			
Chebychev coefficient	22:	-0.193E-02			
Chebychev coefficient	23:	-0.112E-01			
Chebychev coefficient	24:	-0.818E-02			
Chebychev coefficient	25:	0.492E-02			
Chebychev coefficient	26:	0.727E-02			
Chebychev coefficient	27:	0.145E-02			
Chebychev coefficient	28:	-0.149E-02			
220. C*CC+H(+M)=>CC.C(+M)			1.00E+00	0.0	0.0
Declared duplicate reaction...					
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04					
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03					
Chebychev coefficient	1:	0.113E+02			
Chebychev coefficient	2:	0.934E+00			
Chebychev coefficient	3:	-0.155E+00			
Chebychev coefficient	4:	0.235E-01			
Chebychev coefficient	5:	-0.624E+00			
Chebychev coefficient	6:	0.113E+01			
Chebychev coefficient	7:	-0.252E-01			

Chebyshev coefficient	8:-0.341E-01			
Chebyshev coefficient	9:-0.887E+00			
Chebyshev coefficient	10: 0.378E+00			
Chebyshev coefficient	11: 0.928E-01			
Chebyshev coefficient	12:-0.151E-01			
Chebyshev coefficient	13:-0.390E+00			
Chebyshev coefficient	14: 0.395E-01			
Chebyshev coefficient	15: 0.538E-01			
Chebyshev coefficient	16: 0.100E-01			
Chebyshev coefficient	17:-0.135E+00			
Chebyshev coefficient	18:-0.405E-01			
Chebyshev coefficient	19: 0.680E-02			
Chebyshev coefficient	20: 0.835E-02			
Chebyshev coefficient	21:-0.256E-01			
Chebyshev coefficient	22:-0.329E-01			
Chebyshev coefficient	23:-0.820E-02			
Chebyshev coefficient	24: 0.804E-03			
Chebyshev coefficient	25: 0.105E-01			
Chebyshev coefficient	26:-0.122E-01			
Chebyshev coefficient	27:-0.660E-02			
Chebyshev coefficient	28:-0.185E-02			
221. CCC.(+M)=>C2H4+CH3(+M)		1.00E+00	0.0	0.0
Chebyshev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
Chebyshev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
Chebyshev coefficient	1: 0.252E+00			
Chebyshev coefficient	2: 0.110E+01			
Chebyshev coefficient	3:-0.197E+00			
Chebyshev coefficient	4: 0.355E-01			
Chebyshev coefficient	5: 0.797E+01			
Chebyshev coefficient	6: 0.116E+01			
Chebyshev coefficient	7: 0.360E-01			
Chebyshev coefficient	8:-0.538E-01			
Chebyshev coefficient	9:-0.959E+00			
Chebyshev coefficient	10: 0.332E+00			

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Chebychev coefficient 11: 0.127E+00
Chebychev coefficient 12:-0.129E-01
Chebychev coefficient 13:-0.381E+00
Chebychev coefficient 14:-0.424E-02
Chebychev coefficient 15: 0.527E-01
Chebychev coefficient 16: 0.179E-01
Chebychev coefficient 17:-0.882E-01
Chebychev coefficient 18:-0.674E-01
Chebychev coefficient 19:-0.542E-02
Chebychev coefficient 20: 0.121E-01
Chebychev coefficient 21: 0.252E-01
Chebychev coefficient 22:-0.427E-01
Chebychev coefficient 23:-0.180E-01
Chebychev coefficient 24: 0.962E-03
Chebychev coefficient 25: 0.465E-01
Chebychev coefficient 26:-0.843E-02
Chebychev coefficient 27:-0.922E-02
Chebychev coefficient 28:-0.391E-02
222. CCC.(+M)=>C*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.287E+01
Chebychev coefficient 2: 0.161E+01
Chebychev coefficient 3:-0.298E+00
Chebychev coefficient 4: 0.153E-02
Chebychev coefficient 5: 0.982E+01
Chebychev coefficient 6: 0.860E+00
Chebychev coefficient 7: 0.221E+00
Chebychev coefficient 8:-0.507E-01
Chebychev coefficient 9:-0.855E+00
Chebychev coefficient 10: 0.140E+00
Chebychev coefficient 11: 0.112E+00
Chebychev coefficient 12: 0.345E-01

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Chebychev coefficient 13:-0.302E+00
Chebychev coefficient 14:-0.520E-01
Chebychev coefficient 15: 0.139E-02
Chebychev coefficient 16: 0.232E-01
Chebychev coefficient 17:-0.396E-01
Chebychev coefficient 18:-0.558E-01
Chebychev coefficient 19:-0.259E-01
Chebychev coefficient 20: 0.574E-03
Chebychev coefficient 21: 0.406E-01
Chebychev coefficient 22:-0.234E-01
Chebychev coefficient 23:-0.159E-01
Chebychev coefficient 24:-0.739E-02
Chebychev coefficient 25: 0.404E-01
Chebychev coefficient 26: 0.428E-02
Chebychev coefficient 27:-0.113E-02
Chebychev coefficient 28:-0.453E-02
223. CCC. (+M)=>CC.C (+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.491E+01
Chebychev coefficient 2: 0.268E+01
Chebychev coefficient 3:-0.572E+00
Chebychev coefficient 4: 0.376E-01
Chebychev coefficient 5: 0.883E+01
Chebychev coefficient 6: 0.171E+01
Chebychev coefficient 7: 0.217E+00
Chebychev coefficient 8:-0.112E+00
Chebychev coefficient 9:-0.156E+01
Chebychev coefficient 10: 0.405E+00
Chebychev coefficient 11: 0.188E+00
Chebychev coefficient 12: 0.110E-01
Chebychev coefficient 13:-0.646E+00
Chebychev coefficient 14:-0.499E-03
Chebychev coefficient 15: 0.463E-01

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Chebychev coefficient 16: 0.246E-01
Chebychev coefficient 17:-0.193E+00
Chebychev coefficient 18:-0.615E-01
Chebychev coefficient 19:-0.107E-01
Chebychev coefficient 20: 0.799E-02
Chebychev coefficient 21:-0.201E-01
Chebychev coefficient 22:-0.377E-01
Chebychev coefficient 23:-0.154E-01
Chebychev coefficient 24:-0.106E-02
Chebychev coefficient 25: 0.254E-01
Chebychev coefficient 26:-0.634E-02
Chebychev coefficient 27:-0.414E-02
Chebychev coefficient 28:-0.994E-03
224. CCC.(+M)=>C*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.476E+01
Chebychev coefficient 2: 0.621E+00
Chebychev coefficient 3:-0.492E+00
Chebychev coefficient 4: 0.153E-01
Chebychev coefficient 5: 0.110E+02
Chebychev coefficient 6: 0.189E+01
Chebychev coefficient 7: 0.364E+00
Chebychev coefficient 8:-0.826E-01
Chebychev coefficient 9:-0.835E+00
Chebychev coefficient 10: 0.222E+00
Chebychev coefficient 11: 0.188E+00
Chebychev coefficient 12: 0.497E-01
Chebychev coefficient 13:-0.369E+00
Chebychev coefficient 14:-0.136E+00
Chebychev coefficient 15:-0.788E-02
Chebychev coefficient 16: 0.273E-01
Chebychev coefficient 17:-0.625E-01

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	Chebyshev coefficient	18:-0.930E-01		
	Chebyshev coefficient	19:-0.413E-01		
	Chebyshev coefficient	20:-0.349E-02		
	Chebyshev coefficient	21: 0.406E-01		
	Chebyshev coefficient	22:-0.263E-01		
	Chebyshev coefficient	23:-0.198E-01		
	Chebyshev coefficient	24:-0.793E-02		
	Chebyshev coefficient	25: 0.419E-01		
	Chebyshev coefficient	26: 0.568E-02		
	Chebyshev coefficient	27:-0.669E-03		
	Chebyshev coefficient	28:-0.216E-02		
225.	CC.C(+M)=>CCC.(+M)		1.00E+00	0.0
	Chebyshev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04	0.0
	Chebyshev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03	
	Chebyshev coefficient	1:-0.579E+01		
	Chebyshev coefficient	2: 0.272E+01		
	Chebyshev coefficient	3:-0.578E+00		
	Chebyshev coefficient	4: 0.277E-01		
	Chebyshev coefficient	5: 0.102E+02		
	Chebyshev coefficient	6: 0.170E+01		
	Chebyshev coefficient	7: 0.218E+00		
	Chebyshev coefficient	8:-0.118E+00		
	Chebyshev coefficient	9:-0.130E+01		
	Chebyshev coefficient	10: 0.375E+00		
	Chebyshev coefficient	11: 0.183E+00		
	Chebyshev coefficient	12: 0.117E-01		
	Chebyshev coefficient	13:-0.488E+00		
	Chebyshev coefficient	14:-0.155E-01		
	Chebyshev coefficient	15: 0.408E-01		
	Chebyshev coefficient	16: 0.250E-01		
	Chebyshev coefficient	17:-0.118E+00		
	Chebyshev coefficient	18:-0.660E-01		
	Chebyshev coefficient	19:-0.139E-01		
	Chebyshev coefficient	20: 0.754E-02		

	Chebychev coefficient	21: 0.625E-02			
	Chebychev coefficient	22:-0.395E-01			
	Chebychev coefficient	23:-0.172E-01			
	Chebychev coefficient	24:-0.190E-02			
	Chebychev coefficient	25: 0.304E-01			
	Chebychev coefficient	26:-0.900E-02			
	Chebychev coefficient	27:-0.600E-02			
	Chebychev coefficient	28:-0.208E-02			
226.	CC.C(+M)=>C2H4+CH3(+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
	Chebychev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
	Chebychev coefficient	1:-0.490E+01			
	Chebychev coefficient	2: 0.483E+00			
	Chebychev coefficient	3:-0.519E+00			
	Chebychev coefficient	4: 0.200E-01			
	Chebychev coefficient	5: 0.119E+02			
	Chebychev coefficient	6: 0.185E+01			
	Chebychev coefficient	7: 0.322E+00			
	Chebychev coefficient	8:-0.953E-01			
	Chebychev coefficient	9:-0.855E+00			
	Chebychev coefficient	10: 0.300E+00			
	Chebychev coefficient	11: 0.195E+00			
	Chebychev coefficient	12: 0.357E-01			
	Chebychev coefficient	13:-0.406E+00			
	Chebychev coefficient	14:-0.876E-01			
	Chebychev coefficient	15: 0.147E-01			
	Chebychev coefficient	16: 0.284E-01			
	Chebychev coefficient	17:-0.131E+00			
	Chebychev coefficient	18:-0.838E-01			
	Chebychev coefficient	19:-0.299E-01			
	Chebychev coefficient	20: 0.212E-02			
	Chebychev coefficient	21:-0.169E-01			
	Chebychev coefficient	22:-0.298E-01			
	Chebychev coefficient	23:-0.180E-01			

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Chebychev coefficient 24:-0.471E-02
Chebychev coefficient 25: 0.119E-01
Chebychev coefficient 26:-0.894E-04
Chebychev coefficient 27:-0.271E-02
Chebychev coefficient 28:-0.177E-02
227. CC.C(+M)=>C*CC+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.670E+01
Chebychev coefficient 2: 0.646E+00
Chebychev coefficient 3:-0.509E+00
Chebychev coefficient 4: 0.658E-02
Chebychev coefficient 5: 0.123E+02
Chebychev coefficient 6: 0.184E+01
Chebychev coefficient 7: 0.364E+00
Chebychev coefficient 8:-0.832E-01
Chebychev coefficient 9:-0.743E+00
Chebychev coefficient 10: 0.211E+00
Chebychev coefficient 11: 0.188E+00
Chebychev coefficient 12: 0.507E-01
Chebychev coefficient 13:-0.351E+00
Chebychev coefficient 14:-0.120E+00
Chebychev coefficient 15:-0.418E-02
Chebychev coefficient 16: 0.286E-01
Chebychev coefficient 17:-0.963E-01
Chebychev coefficient 18:-0.830E-01
Chebychev coefficient 19:-0.379E-01
Chebychev coefficient 20:-0.210E-02
Chebychev coefficient 21: 0.991E-03
Chebychev coefficient 22:-0.239E-01
Chebychev coefficient 23:-0.181E-01
Chebychev coefficient 24:-0.698E-02
Chebychev coefficient 25: 0.180E-01

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Chebychev coefficient 26: 0.291E-02
Chebychev coefficient 27:-0.139E-02
Chebychev coefficient 28:-0.228E-02
228. CC.C(+M)=>C*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.269E+01
Chebychev coefficient 2: 0.934E+00
Chebychev coefficient 3:-0.155E+00
Chebychev coefficient 4: 0.235E-01
Chebychev coefficient 5: 0.106E+02
Chebychev coefficient 6: 0.113E+01
Chebychev coefficient 7:-0.252E-01
Chebychev coefficient 8:-0.341E-01
Chebychev coefficient 9:-0.888E+00
Chebychev coefficient 10: 0.378E+00
Chebychev coefficient 11: 0.928E-01
Chebychev coefficient 12:-0.151E-01
Chebychev coefficient 13:-0.390E+00
Chebychev coefficient 14: 0.395E-01
Chebychev coefficient 15: 0.538E-01
Chebychev coefficient 16: 0.100E-01
Chebychev coefficient 17:-0.135E+00
Chebychev coefficient 18:-0.405E-01
Chebychev coefficient 19: 0.680E-02
Chebychev coefficient 20: 0.835E-02
Chebychev coefficient 21:-0.255E-01
Chebychev coefficient 22:-0.329E-01
Chebychev coefficient 23:-0.819E-02
Chebychev coefficient 24: 0.806E-03
Chebychev coefficient 25: 0.105E-01
Chebychev coefficient 26:-0.122E-01
Chebychev coefficient 27:-0.660E-02

```


	Chebychev coefficient	28:-0.185E-02			
229.	C2H3+CH3(+M)=C*CC(+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.127E+02			
	Chebychev coefficient	2: 0.745E+00			
	Chebychev coefficient	3:-0.167E+00			
	Chebychev coefficient	4: 0.331E-01			
	Chebychev coefficient	5:-0.129E+01			
	Chebychev coefficient	6: 0.100E+01			
	Chebychev coefficient	7:-0.860E-01			
	Chebychev coefficient	8:-0.267E-01			
	Chebychev coefficient	9:-0.841E+00			
	Chebychev coefficient	10: 0.479E+00			
	Chebychev coefficient	11: 0.579E-01			
	Chebychev coefficient	12:-0.383E-01			
	Chebychev coefficient	13:-0.483E+00			
	Chebychev coefficient	14: 0.152E+00			
	Chebychev coefficient	15: 0.744E-01			
	Chebychev coefficient	16:-0.111E-01			
	Chebychev coefficient	17:-0.251E+00			
	Chebychev coefficient	18: 0.117E-01			
	Chebychev coefficient	19: 0.404E-01			
	Chebychev coefficient	20: 0.728E-02			
	Chebychev coefficient	21:-0.118E+00			
	Chebychev coefficient	22:-0.249E-01			
	Chebychev coefficient	23: 0.886E-02			
	Chebychev coefficient	24: 0.936E-02			
	Chebychev coefficient	25:-0.505E-01			
	Chebychev coefficient	26:-0.263E-01			
	Chebychev coefficient	27:-0.601E-02			
	Chebychev coefficient	28: 0.437E-02			
230.	C2H3+CH3(+M)=C*CC.+H(+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				

```

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.119E+02
Chebychev coefficient    2:-0.154E+01
Chebychev coefficient    3:-0.156E+00
Chebychev coefficient    4: 0.296E-01
Chebychev coefficient    5: 0.108E+01
Chebychev coefficient    6: 0.123E+01
Chebychev coefficient    7:-0.247E-01
Chebychev coefficient    8:-0.408E-01
Chebychev coefficient    9: 0.503E-01
Chebychev coefficient   10: 0.440E+00
Chebychev coefficient   11: 0.120E+00
Chebychev coefficient   12:-0.261E-01
Chebychev coefficient   13:-0.175E+00
Chebychev coefficient   14: 0.190E-01
Chebychev coefficient   15: 0.863E-01
Chebychev coefficient   16: 0.139E-01
Chebychev coefficient   17:-0.131E+00
Chebychev coefficient   18:-0.836E-01
Chebychev coefficient   19: 0.125E-01
Chebychev coefficient   20: 0.205E-01
Chebychev coefficient   21:-0.538E-01
Chebychev coefficient   22:-0.572E-01
Chebychev coefficient   23:-0.201E-01
Chebychev coefficient   24: 0.755E-02
Chebychev coefficient   25:-0.123E-01
Chebychev coefficient   26:-0.198E-01
Chebychev coefficient   27:-0.171E-01
Chebychev coefficient   28:-0.258E-02
231. C2H3+CH3(+M)=C*C.C+H(+M)                1.00E+00    0.0    0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.730E+01
Chebychev coefficient    2:-0.118E+01

```

Chebychev coefficient	3:-0.252E+00			
Chebychev coefficient	4: 0.374E-01			
Chebychev coefficient	5: 0.391E+01			
Chebychev coefficient	6: 0.111E+01			
Chebychev coefficient	7: 0.129E+00			
Chebychev coefficient	8:-0.796E-01			
Chebychev coefficient	9: 0.159E+00			
Chebychev coefficient	10: 0.241E+00			
Chebychev coefficient	11: 0.146E+00			
Chebychev coefficient	12: 0.120E-01			
Chebychev coefficient	13:-0.106E+00			
Chebychev coefficient	14:-0.642E-01			
Chebychev coefficient	15: 0.329E-01			
Chebychev coefficient	16: 0.341E-01			
Chebychev coefficient	17:-0.888E-01			
Chebychev coefficient	18:-0.843E-01			
Chebychev coefficient	19:-0.258E-01			
Chebychev coefficient	20: 0.103E-01			
Chebychev coefficient	21:-0.318E-01			
Chebychev coefficient	22:-0.351E-01			
Chebychev coefficient	23:-0.264E-01			
Chebychev coefficient	24:-0.410E-02			
Chebychev coefficient	25:-0.297E-02			
Chebychev coefficient	26:-0.344E-02			
Chebychev coefficient	27:-0.980E-02			
Chebychev coefficient	28:-0.591E-02			
232. C*CC(+M)=C*CC.+H(+M)		1.00E+00	0.0	0.0
Chebychev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
Chebychev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
Chebychev coefficient	1:-0.211E+02			
Chebychev coefficient	2: 0.383E+00			
Chebychev coefficient	3:-0.617E-01			
Chebychev coefficient	4: 0.469E-02			
Chebychev coefficient	5: 0.275E+02			

Chebychev coefficient	6:	0.674E+00		
Chebychev coefficient	7:	-0.938E-01		
Chebychev coefficient	8:	0.335E-02		
Chebychev coefficient	9:	-0.655E+00		
Chebychev coefficient	10:	0.461E+00		
Chebychev coefficient	11:	-0.335E-01		
Chebychev coefficient	12:	-0.613E-02		
Chebychev coefficient	13:	-0.426E+00		
Chebychev coefficient	14:	0.240E+00		
Chebychev coefficient	15:	0.131E-01		
Chebychev coefficient	16:	-0.880E-02		
Chebychev coefficient	17:	-0.246E+00		
Chebychev coefficient	18:	0.860E-01		
Chebychev coefficient	19:	0.273E-01		
Chebychev coefficient	20:	-0.435E-02		
Chebychev coefficient	21:	-0.127E+00		
Chebychev coefficient	22:	0.105E-01		
Chebychev coefficient	23:	0.190E-01		
Chebychev coefficient	24:	0.107E-02		
Chebychev coefficient	25:	-0.638E-01		
Chebychev coefficient	26:	-0.161E-01		
Chebychev coefficient	27:	0.453E-02		
Chebychev coefficient	28:	0.357E-02		
233. C*CC(+M)=C*C.C+H(+M)			1.00E+00	0.0
				0.0
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebychev coefficient	1:	-0.298E+02		
Chebychev coefficient	2:	0.114E+01		
Chebychev coefficient	3:	-0.278E+00		
Chebychev coefficient	4:	0.467E-01		
Chebychev coefficient	5:	0.333E+02		
Chebychev coefficient	6:	0.989E+00		
Chebychev coefficient	7:	0.621E-01		
Chebychev coefficient	8:	-0.821E-01		

Chebyshev coefficient	9:-0.919E+00			
Chebyshev coefficient	10: 0.347E+00			
Chebyshev coefficient	11: 0.130E+00			
Chebyshev coefficient	12:-0.186E-01			
Chebyshev coefficient	13:-0.496E+00			
Chebyshev coefficient	14: 0.667E-01			
Chebyshev coefficient	15: 0.685E-01			
Chebyshev coefficient	16: 0.192E-01			
Chebyshev coefficient	17:-0.241E+00			
Chebyshev coefficient	18:-0.242E-01			
Chebyshev coefficient	19: 0.150E-01			
Chebyshev coefficient	20: 0.179E-01			
Chebyshev coefficient	21:-0.106E+00			
Chebyshev coefficient	22:-0.355E-01			
Chebyshev coefficient	23:-0.782E-02			
Chebyshev coefficient	24: 0.648E-02			
Chebyshev coefficient	25:-0.426E-01			
Chebyshev coefficient	26:-0.206E-01			
Chebyshev coefficient	27:-0.122E-01			
Chebyshev coefficient	28: 0.245E-03			
234. C2H2+CH3(+M)=C#CC+H(+M)		1.00E+00	0.0	0.0
Chebyshev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
Chebyshev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
Chebyshev coefficient	1: 0.565E+01			
Chebyshev coefficient	2:-0.106E+01			
Chebyshev coefficient	3:-0.243E+00			
Chebyshev coefficient	4: 0.849E-02			
Chebyshev coefficient	5: 0.423E+01			
Chebyshev coefficient	6: 0.964E+00			
Chebyshev coefficient	7: 0.170E+00			
Chebyshev coefficient	8:-0.502E-01			
Chebyshev coefficient	9: 0.278E-01			
Chebyshev coefficient	10: 0.174E+00			
Chebyshev coefficient	11: 0.768E-01			

```

Chebychev coefficient 12: 0.323E-01
Chebychev coefficient 13:-0.916E-01
Chebychev coefficient 14:-0.366E-01
Chebychev coefficient 15:-0.774E-02
Chebychev coefficient 16: 0.101E-01
Chebychev coefficient 17:-0.485E-01
Chebychev coefficient 18:-0.412E-01
Chebychev coefficient 19:-0.112E-01
Chebychev coefficient 20:-0.919E-02
Chebychev coefficient 21:-0.988E-02
Chebychev coefficient 22:-0.136E-01
Chebychev coefficient 23: 0.461E-03
Chebychev coefficient 24:-0.644E-02
Chebychev coefficient 25: 0.167E-02
Chebychev coefficient 26: 0.859E-04
Chebychev coefficient 27: 0.369E-02
Chebychev coefficient 28: 0.965E-04
235. C*C*C+H(+M)=C*CC.(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.113E+02
Chebychev coefficient 2: 0.770E+00
Chebychev coefficient 3:-0.160E+00
Chebychev coefficient 4: 0.249E-01
Chebychev coefficient 5:-0.214E+00
Chebychev coefficient 6: 0.105E+01
Chebychev coefficient 7:-0.928E-01
Chebychev coefficient 8:-0.293E-01
Chebychev coefficient 9:-0.728E+00
Chebychev coefficient 10: 0.475E+00
Chebychev coefficient 11: 0.648E-01
Chebychev coefficient 12:-0.395E-01
Chebychev coefficient 13:-0.386E+00

```

Chebyshev coefficient	14:	0.131E+00			
Chebyshev coefficient	15:	0.812E-01			
Chebyshev coefficient	16:	-0.759E-02			
Chebyshev coefficient	17:	-0.178E+00			
Chebyshev coefficient	18:	-0.463E-02			
Chebyshev coefficient	19:	0.410E-01			
Chebyshev coefficient	20:	0.124E-01			
Chebyshev coefficient	21:	-0.690E-01			
Chebyshev coefficient	22:	-0.326E-01			
Chebyshev coefficient	23:	0.750E-02			
Chebyshev coefficient	24:	0.126E-01			
Chebyshev coefficient	25:	-0.195E-01			
Chebyshev coefficient	26:	-0.274E-01			
Chebyshev coefficient	27:	-0.789E-02			
Chebyshev coefficient	28:	0.604E-02			
236. C*C*C+H(+M)=C*C.C(+M)			1.00E+00	0.0	0.0
Declared duplicate reaction...					
Chebyshev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04					
Chebyshev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03					
Chebyshev coefficient	1:	0.923E+01			
Chebyshev coefficient	2:	-0.464E-01			
Chebyshev coefficient	3:	-0.439E+00			
Chebyshev coefficient	4:	0.240E-01			
Chebyshev coefficient	5:	0.747E+00			
Chebyshev coefficient	6:	0.198E+01			
Chebyshev coefficient	7:	0.145E+00			
Chebyshev coefficient	8:	-0.776E-01			
Chebyshev coefficient	9:	-0.559E+00			
Chebyshev coefficient	10:	0.556E+00			
Chebyshev coefficient	11:	0.174E+00			
Chebyshev coefficient	12:	0.453E-02			
Chebyshev coefficient	13:	-0.359E+00			
Chebyshev coefficient	14:	0.380E-01			
Chebyshev coefficient	15:	0.721E-01			

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Chebychev coefficient 16: 0.164E-01
Chebychev coefficient 17:-0.146E+00
Chebychev coefficient 18:-0.611E-01
Chebychev coefficient 19: 0.105E-01
Chebychev coefficient 20: 0.787E-02
Chebychev coefficient 21:-0.332E-01
Chebychev coefficient 22:-0.450E-01
Chebychev coefficient 23:-0.739E-02
Chebychev coefficient 24: 0.298E-02
Chebychev coefficient 25: 0.340E-02
Chebychev coefficient 26:-0.197E-01
Chebychev coefficient 27:-0.747E-02
Chebychev coefficient 28: 0.147E-02
237. C*C*C+H(+M)=C#CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.925E+01
Chebychev coefficient 2:-0.226E+01
Chebychev coefficient 3:-0.419E+00
Chebychev coefficient 4: 0.119E-01
Chebychev coefficient 5: 0.293E+01
Chebychev coefficient 6: 0.208E+01
Chebychev coefficient 7: 0.216E+00
Chebychev coefficient 8:-0.702E-01
Chebychev coefficient 9: 0.136E+00
Chebychev coefficient 10: 0.396E+00
Chebychev coefficient 11: 0.196E+00
Chebychev coefficient 12: 0.205E-01
Chebychev coefficient 13:-0.131E+00
Chebychev coefficient 14:-0.849E-01
Chebychev coefficient 15: 0.518E-01
Chebychev coefficient 16: 0.246E-01
Chebychev coefficient 17:-0.740E-01

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	Chebyshev coefficient	18:-0.102E+00		
	Chebyshev coefficient	19:-0.154E-01		
	Chebyshev coefficient	20: 0.999E-02		
	Chebyshev coefficient	21:-0.225E-01		
	Chebyshev coefficient	22:-0.458E-01		
	Chebyshev coefficient	23:-0.224E-01		
	Chebyshev coefficient	24: 0.151E-02		
	Chebyshev coefficient	25:-0.414E-02		
	Chebyshev coefficient	26:-0.126E-01		
	Chebyshev coefficient	27:-0.112E-01		
	Chebyshev coefficient	28:-0.121E-02		
238.	C*C*C+H(+M)=C2H2+CH3(+M)		1.00E+00	0.0
	Chebyshev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04
	Chebyshev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03
	Chebyshev coefficient	1: 0.983E+01		
	Chebyshev coefficient	2:-0.218E+01		
	Chebyshev coefficient	3:-0.412E+00		
	Chebyshev coefficient	4: 0.260E-02		
	Chebyshev coefficient	5: 0.286E+01		
	Chebyshev coefficient	6: 0.201E+01		
	Chebyshev coefficient	7: 0.225E+00		
	Chebyshev coefficient	8:-0.539E-01		
	Chebyshev coefficient	9: 0.118E+00		
	Chebyshev coefficient	10: 0.373E+00		
	Chebyshev coefficient	11: 0.174E+00		
	Chebyshev coefficient	12: 0.180E-01		
	Chebyshev coefficient	13:-0.126E+00		
	Chebyshev coefficient	14:-0.743E-01		
	Chebyshev coefficient	15: 0.487E-01		
	Chebyshev coefficient	16: 0.177E-01		
	Chebyshev coefficient	17:-0.680E-01		
	Chebyshev coefficient	18:-0.903E-01		
	Chebyshev coefficient	19:-0.877E-02		
	Chebyshev coefficient	20: 0.987E-02		

	Chebychev coefficient	21:-0.208E-01			
	Chebychev coefficient	22:-0.439E-01			
	Chebychev coefficient	23:-0.192E-01			
	Chebychev coefficient	24: 0.403E-02			
	Chebychev coefficient	25:-0.442E-02			
	Chebychev coefficient	26:-0.137E-01			
	Chebychev coefficient	27:-0.107E-01			
	Chebychev coefficient	28:-0.803E-06			
239.	C*C*C+H(+M)=C#CC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.907E+01			
	Chebychev coefficient	2:-0.213E+01			
	Chebychev coefficient	3:-0.411E+00			
	Chebychev coefficient	4: 0.160E-03			
	Chebychev coefficient	5: 0.298E+01			
	Chebychev coefficient	6: 0.200E+01			
	Chebychev coefficient	7: 0.233E+00			
	Chebychev coefficient	8:-0.527E-01			
	Chebychev coefficient	9: 0.150E+00			
	Chebychev coefficient	10: 0.338E+00			
	Chebychev coefficient	11: 0.175E+00			
	Chebychev coefficient	12: 0.204E-01			
	Chebychev coefficient	13:-0.118E+00			
	Chebychev coefficient	14:-0.896E-01			
	Chebychev coefficient	15: 0.451E-01			
	Chebychev coefficient	16: 0.190E-01			
	Chebychev coefficient	17:-0.649E-01			
	Chebychev coefficient	18:-0.899E-01			
	Chebychev coefficient	19:-0.124E-01			
	Chebychev coefficient	20: 0.100E-01			
	Chebychev coefficient	21:-0.204E-01			
	Chebychev coefficient	22:-0.406E-01			

	Chebyshev coefficient	23:-0.208E-01			
	Chebyshev coefficient	24: 0.326E-02			
	Chebyshev coefficient	25:-0.458E-02			
	Chebyshev coefficient	26:-0.119E-01			
	Chebyshev coefficient	27:-0.108E-01			
	Chebyshev coefficient	28:-0.629E-03			
240.	C*CC.(+M)=C*C.C(+M)		1.00E+00	0.0	0.0
	Chebyshev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
	Chebyshev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
	Chebyshev coefficient	1:-0.982E+01			
	Chebyshev coefficient	2: 0.124E+01			
	Chebyshev coefficient	3:-0.268E+00			
	Chebyshev coefficient	4: 0.551E-01			
	Chebyshev coefficient	5: 0.158E+02			
	Chebyshev coefficient	6: 0.144E+01			
	Chebyshev coefficient	7:-0.835E-01			
	Chebyshev coefficient	8:-0.328E-01			
	Chebyshev coefficient	9:-0.109E+01			
	Chebyshev coefficient	10: 0.584E+00			
	Chebyshev coefficient	11: 0.652E-01			
	Chebyshev coefficient	12:-0.786E-02			
	Chebyshev coefficient	13:-0.549E+00			
	Chebyshev coefficient	14: 0.163E+00			
	Chebyshev coefficient	15: 0.444E-01			
	Chebyshev coefficient	16: 0.168E-01			
	Chebyshev coefficient	17:-0.239E+00			
	Chebyshev coefficient	18: 0.124E-01			
	Chebyshev coefficient	19: 0.828E-02			
	Chebyshev coefficient	20: 0.124E-01			
	Chebyshev coefficient	21:-0.812E-01			
	Chebyshev coefficient	22:-0.216E-01			
	Chebyshev coefficient	23:-0.506E-02			
	Chebyshev coefficient	24: 0.141E-02			
	Chebyshev coefficient	25:-0.144E-01			

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Chebychev coefficient 26:-0.168E-01
Chebychev coefficient 27:-0.327E-02
Chebychev coefficient 28:-0.305E-02
241. C*CC.(+M)=C*C*C+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.118E+02
Chebychev coefficient 2:-0.105E+00
Chebychev coefficient 3:-0.453E+00
Chebychev coefficient 4: 0.296E-01
Chebychev coefficient 5: 0.186E+02
Chebychev coefficient 6: 0.191E+01
Chebychev coefficient 7: 0.131E+00
Chebychev coefficient 8:-0.778E-01
Chebychev coefficient 9:-0.795E+00
Chebychev coefficient 10: 0.578E+00
Chebychev coefficient 11: 0.167E+00
Chebychev coefficient 12:-0.219E-02
Chebychev coefficient 13:-0.469E+00
Chebychev coefficient 14: 0.692E-01
Chebychev coefficient 15: 0.721E-01
Chebychev coefficient 16: 0.123E-01
Chebychev coefficient 17:-0.216E+00
Chebychev coefficient 18:-0.493E-01
Chebychev coefficient 19: 0.119E-01
Chebychev coefficient 20: 0.702E-02
Chebychev coefficient 21:-0.766E-01
Chebychev coefficient 22:-0.435E-01
Chebychev coefficient 23:-0.569E-02
Chebychev coefficient 24: 0.268E-02
Chebychev coefficient 25:-0.172E-01
Chebychev coefficient 26:-0.208E-01
Chebychev coefficient 27:-0.610E-02

```

	Chebychev coefficient	28: 0.995E-03			
242.	C*CC.(+M)=C#CC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1:-0.112E+02			
	Chebychev coefficient	2:-0.589E+00			
	Chebychev coefficient	3:-0.327E+00			
	Chebychev coefficient	4: 0.345E-01			
	Chebychev coefficient	5: 0.179E+02			
	Chebychev coefficient	6: 0.202E+01			
	Chebychev coefficient	7: 0.108E-01			
	Chebychev coefficient	8:-0.691E-01			
	Chebychev coefficient	9:-0.678E+00			
	Chebychev coefficient	10: 0.678E+00			
	Chebychev coefficient	11: 0.131E+00			
	Chebychev coefficient	12:-0.999E-03			
	Chebychev coefficient	13:-0.485E+00			
	Chebychev coefficient	14: 0.122E+00			
	Chebychev coefficient	15: 0.595E-01			
	Chebychev coefficient	16: 0.170E-01			
	Chebychev coefficient	17:-0.238E+00			
	Chebychev coefficient	18:-0.238E-01			
	Chebychev coefficient	19: 0.107E-01			
	Chebychev coefficient	20: 0.369E-02			
	Chebychev coefficient	21:-0.919E-01			
	Chebychev coefficient	22:-0.343E-01			
	Chebychev coefficient	23:-0.349E-02			
	Chebychev coefficient	24:-0.239E-02			
	Chebychev coefficient	25:-0.233E-01			
	Chebychev coefficient	26:-0.219E-01			
	Chebychev coefficient	27:-0.172E-02			
	Chebychev coefficient	28:-0.193E-02			
243.	C*CC.(+M)=C2H2+CH3(+M)		1.00E+00	0.0	0.0

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1:-0.105E+02
 Chebychev coefficient 2:-0.577E+00
 Chebychev coefficient 3:-0.311E+00
 Chebychev coefficient 4: 0.289E-01
 Chebychev coefficient 5: 0.177E+02
 Chebychev coefficient 6: 0.198E+01
 Chebychev coefficient 7: 0.313E-01
 Chebychev coefficient 8:-0.657E-01
 Chebychev coefficient 9:-0.670E+00
 Chebychev coefficient 10: 0.638E+00
 Chebychev coefficient 11: 0.118E+00
 Chebychev coefficient 12: 0.706E-02
 Chebychev coefficient 13:-0.489E+00
 Chebychev coefficient 14: 0.111E+00
 Chebychev coefficient 15: 0.408E-01
 Chebychev coefficient 16: 0.166E-01
 Chebychev coefficient 17:-0.239E+00
 Chebychev coefficient 18:-0.155E-01
 Chebychev coefficient 19: 0.423E-02
 Chebychev coefficient 20: 0.141E-03
 Chebychev coefficient 21:-0.898E-01
 Chebychev coefficient 22:-0.222E-01
 Chebychev coefficient 23:-0.528E-03
 Chebychev coefficient 24:-0.277E-02
 Chebychev coefficient 25:-0.231E-01
 Chebychev coefficient 26:-0.148E-01
 Chebychev coefficient 27: 0.170E-02
 Chebychev coefficient 28:-0.554E-03

244. C*CC.(+M)=C#CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient	1:-0.116E+02			
Chebychev coefficient	2:-0.344E+00			
Chebychev coefficient	3:-0.372E+00			
Chebychev coefficient	4: 0.283E-01			
Chebychev coefficient	5: 0.180E+02			
Chebychev coefficient	6: 0.196E+01			
Chebychev coefficient	7: 0.844E-01			
Chebychev coefficient	8:-0.678E-01			
Chebychev coefficient	9:-0.714E+00			
Chebychev coefficient	10: 0.618E+00			
Chebychev coefficient	11: 0.124E+00			
Chebychev coefficient	12: 0.919E-02			
Chebychev coefficient	13:-0.479E+00			
Chebychev coefficient	14: 0.945E-01			
Chebychev coefficient	15: 0.463E-01			
Chebychev coefficient	16: 0.874E-02			
Chebychev coefficient	17:-0.227E+00			
Chebychev coefficient	18:-0.321E-01			
Chebychev coefficient	19: 0.964E-02			
Chebychev coefficient	20:-0.103E-02			
Chebychev coefficient	21:-0.797E-01			
Chebychev coefficient	22:-0.326E-01			
Chebychev coefficient	23: 0.238E-02			
Chebychev coefficient	24:-0.163E-02			
Chebychev coefficient	25:-0.186E-01			
Chebychev coefficient	26:-0.178E-01			
Chebychev coefficient	27: 0.291E-03			
Chebychev coefficient	28: 0.760E-03			
245. C*C.C(+M)=C*C*C+H(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1:-0.407E+01			
Chebychev coefficient	2: 0.138E+01			

Chebychev coefficient	3:-0.274E+00			
Chebychev coefficient	4:-0.635E-02			
Chebychev coefficient	5: 0.113E+02			
Chebychev coefficient	6: 0.809E+00			
Chebychev coefficient	7: 0.143E+00			
Chebychev coefficient	8:-0.345E-01			
Chebychev coefficient	9:-0.831E+00			
Chebychev coefficient	10: 0.242E+00			
Chebychev coefficient	11: 0.736E-01			
Chebychev coefficient	12: 0.227E-01			
Chebychev coefficient	13:-0.362E+00			
Chebychev coefficient	14: 0.376E-01			
Chebychev coefficient	15: 0.157E-01			
Chebychev coefficient	16: 0.833E-02			
Chebychev coefficient	17:-0.122E+00			
Chebychev coefficient	18:-0.175E-01			
Chebychev coefficient	19:-0.732E-03			
Chebychev coefficient	20:-0.387E-02			
Chebychev coefficient	21:-0.199E-01			
Chebychev coefficient	22:-0.185E-01			
Chebychev coefficient	23:-0.345E-03			
Chebychev coefficient	24:-0.446E-02			
Chebychev coefficient	25: 0.806E-02			
Chebychev coefficient	26:-0.671E-02			
Chebychev coefficient	27: 0.121E-02			
Chebychev coefficient	28:-0.797E-03			
246. C*C.C(+M)=C#CC+H(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1:-0.301E+01			
Chebychev coefficient	2: 0.102E+01			
Chebychev coefficient	3:-0.219E+00			
Chebychev coefficient	4: 0.358E-01			

Chebychev coefficient	5:	0.100E+02		
Chebychev coefficient	6:	0.954E+00		
Chebychev coefficient	7:	0.396E-01		
Chebychev coefficient	8:	-0.657E-01		
Chebychev coefficient	9:	-0.784E+00		
Chebychev coefficient	10:	0.321E+00		
Chebychev coefficient	11:	0.919E-01		
Chebychev coefficient	12:	-0.369E-02		
Chebychev coefficient	13:	-0.368E+00		
Chebychev coefficient	14:	0.687E-01		
Chebychev coefficient	15:	0.307E-01		
Chebychev coefficient	16:	0.209E-01		
Chebychev coefficient	17:	-0.143E+00		
Chebychev coefficient	18:	-0.575E-02		
Chebychev coefficient	19:	-0.355E-02		
Chebychev coefficient	20:	0.787E-02		
Chebychev coefficient	21:	-0.351E-01		
Chebychev coefficient	22:	-0.132E-01		
Chebychev coefficient	23:	-0.831E-02		
Chebychev coefficient	24:	-0.350E-02		
Chebychev coefficient	25:	0.795E-02		
Chebychev coefficient	26:	-0.927E-02		
Chebychev coefficient	27:	-0.972E-04		
Chebychev coefficient	28:	-0.582E-02		
247. C*C.C(+M)=C2H2+CH3(+M)			1.00E+00	0.0
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebychev coefficient	1:	-0.472E+01		
Chebychev coefficient	2:	-0.867E+00		
Chebychev coefficient	3:	-0.216E+00		
Chebychev coefficient	4:	0.825E-01		
Chebychev coefficient	5:	0.121E+02		
Chebychev coefficient	6:	0.259E+01		
Chebychev coefficient	7:	-0.363E-01		

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Chebychev coefficient      8:-0.126E+00
Chebychev coefficient      9:-0.718E+00
Chebychev coefficient     10: 0.466E+00
Chebychev coefficient     11: 0.113E+00
Chebychev coefficient     12: 0.195E-01
Chebychev coefficient     13:-0.437E+00
Chebychev coefficient     14: 0.847E-01
Chebychev coefficient     15: 0.416E-01
Chebychev coefficient     16: 0.813E-02
Chebychev coefficient     17:-0.179E+00
Chebychev coefficient     18:-0.116E-01
Chebychev coefficient     19: 0.199E-02
Chebychev coefficient     20:-0.228E-02
Chebychev coefficient     21:-0.466E-01
Chebychev coefficient     22:-0.229E-01
Chebychev coefficient     23: 0.360E-02
Chebychev coefficient     24:-0.220E-03
Chebychev coefficient     25:-0.157E-02
Chebychev coefficient     26:-0.140E-01
Chebychev coefficient     27: 0.407E-02
Chebychev coefficient     28: 0.106E-02
248. C*C.C(+M)=C#CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient      1:-0.572E+01
Chebychev coefficient      2:-0.569E+00
Chebychev coefficient      3:-0.289E+00
Chebychev coefficient      4: 0.844E-01
Chebychev coefficient      5: 0.123E+02
Chebychev coefficient      6: 0.245E+01
Chebychev coefficient      7: 0.316E-01
Chebychev coefficient      8:-0.131E+00
Chebychev coefficient      9:-0.709E+00

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Chebychev coefficient	10:	0.467E+00		
Chebychev coefficient	11:	0.124E+00		
Chebychev coefficient	12:	0.202E-01		
Chebychev coefficient	13:	-0.419E+00		
Chebychev coefficient	14:	0.610E-01		
Chebychev coefficient	15:	0.432E-01		
Chebychev coefficient	16:	0.386E-02		
Chebychev coefficient	17:	-0.165E+00		
Chebychev coefficient	18:	-0.308E-01		
Chebychev coefficient	19:	0.754E-02		
Chebychev coefficient	20:	-0.323E-02		
Chebychev coefficient	21:	-0.359E-01		
Chebychev coefficient	22:	-0.329E-01		
Chebychev coefficient	23:	0.498E-02		
Chebychev coefficient	24:	0.196E-02		
Chebychev coefficient	25:	0.355E-02		
Chebychev coefficient	26:	-0.181E-01		
Chebychev coefficient	27:	0.370E-02		
Chebychev coefficient	28:	0.284E-02		
249.	C#CC.+H=CH2+C2H2	2.19E+15	-0.6	13465.8
250.	C*C*C=C#CC.+H	1.74E+45	-9.1	97273.7
	Declared duplicate reaction...			
251.	C*C*C=CH2+C2H2	5.79E+45	-10.0	107474.5
252.	C*C*C=C#CC	1.02E+35	-6.5	72704.5
253.	C*C*C=C#CC.+H	4.82E+46	-9.6	99363.2
	Declared duplicate reaction...			
254.	C#CC=C#CC.+H	2.04E+49	-10.2	103640.2
	Declared duplicate reaction...			
255.	C#CC=CH2+C2H2	3.97E+49	-11.1	112701.6
256.	C#CC=C#CC.+H	1.49E+44	-8.9	100081.3
	Declared duplicate reaction...			
257.	CH2S+C2H2=C#CC.+H	1.80E+14	0.0	0.0
258.	CH2S+C2H4=C*CC.+H	1.80E+14	0.0	0.0
259.	CH2S+C2H6=CH3+C2H5	4.00E+13	0.0	-550.0

260.	2C2H5(+M)=CCCC(+M)	1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04			
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03			
	Chebychev coefficient	1:	0.124E+02	
	Chebychev coefficient	2:	0.448E+00	
	Chebychev coefficient	3:	-0.466E-01	
	Chebychev coefficient	4:	-0.154E-02	
	Chebychev coefficient	5:	-0.123E+01	
	Chebychev coefficient	6:	0.807E+00	
	Chebychev coefficient	7:	-0.731E-01	
	Chebychev coefficient	8:	-0.525E-02	
	Chebychev coefficient	9:	-0.838E+00	
	Chebychev coefficient	10:	0.583E+00	
	Chebychev coefficient	11:	-0.268E-01	
	Chebychev coefficient	12:	-0.854E-02	
	Chebychev coefficient	13:	-0.534E+00	
	Chebychev coefficient	14:	0.323E+00	
	Chebychev coefficient	15:	0.157E-01	
	Chebychev coefficient	16:	-0.764E-02	
	Chebychev coefficient	17:	-0.285E+00	
	Chebychev coefficient	18:	0.116E+00	
	Chebychev coefficient	19:	0.338E-01	
	Chebychev coefficient	20:	-0.219E-02	
	Chebychev coefficient	21:	-0.115E+00	
	Chebychev coefficient	22:	-0.348E-02	
	Chebychev coefficient	23:	0.285E-01	
	Chebychev coefficient	24:	0.505E-02	
	Chebychev coefficient	25:	0.894E-03	
	Chebychev coefficient	26:	-0.594E-01	
	Chebychev coefficient	27:	0.728E-03	
	Chebychev coefficient	28:	0.460E-02	
261.	2C2H5(+M)=CH3+CCC.(+M)	1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04			
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03			

Chebychev coefficient	1:	0.884E+01			
Chebychev coefficient	2:	-0.175E+01			
Chebychev coefficient	3:	-0.695E-01			
Chebychev coefficient	4:	0.431E-03			
Chebychev coefficient	5:	0.378E+01			
Chebychev coefficient	6:	0.123E+01			
Chebychev coefficient	7:	-0.737E-01			
Chebychev coefficient	8:	-0.712E-02			
Chebychev coefficient	9:	0.340E+00			
Chebychev coefficient	10:	0.634E+00			
Chebychev coefficient	11:	0.444E-01			
Chebychev coefficient	12:	-0.150E-01			
Chebychev coefficient	13:	-0.313E+00			
Chebychev coefficient	14:	0.118E+00			
Chebychev coefficient	15:	0.928E-01			
Chebychev coefficient	16:	-0.513E-02			
Chebychev coefficient	17:	-0.196E+00			
Chebychev coefficient	18:	-0.107E+00			
Chebychev coefficient	19:	0.525E-01			
Chebychev coefficient	20:	0.116E-01			
Chebychev coefficient	21:	-0.493E-01			
Chebychev coefficient	22:	-0.112E+00			
Chebychev coefficient	23:	-0.615E-02			
Chebychev coefficient	24:	0.150E-01			
Chebychev coefficient	25:	0.728E-02			
Chebychev coefficient	26:	-0.528E-01			
Chebychev coefficient	27:	-0.335E-01			
Chebychev coefficient	28:	-0.497E-03			
262. 2C2H5 (+M)=CCCC.+H (+M)			1.00E+00	0.0	0.0
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:	0.414E+01			
Chebychev coefficient	2:	-0.161E+01			
Chebychev coefficient	3:	-0.100E+00			

Chebychev coefficient	4:	0.802E-02		
Chebychev coefficient	5:	0.672E+01		
Chebychev coefficient	6:	0.133E+01		
Chebychev coefficient	7:	-0.628E-01		
Chebychev coefficient	8:	-0.159E-01		
Chebychev coefficient	9:	0.119E+00		
Chebychev coefficient	10:	0.510E+00		
Chebychev coefficient	11:	0.102E+00		
Chebychev coefficient	12:	-0.238E-01		
Chebychev coefficient	13:	-0.248E+00		
Chebychev coefficient	14:	-0.185E-01		
Chebychev coefficient	15:	0.102E+00		
Chebychev coefficient	16:	0.908E-02		
Chebychev coefficient	17:	-0.167E+00		
Chebychev coefficient	18:	-0.143E+00		
Chebychev coefficient	19:	0.155E-01		
Chebychev coefficient	20:	0.254E-01		
Chebychev coefficient	21:	-0.631E-01		
Chebychev coefficient	22:	-0.866E-01		
Chebychev coefficient	23:	-0.337E-01		
Chebychev coefficient	24:	0.115E-01		
Chebychev coefficient	25:	-0.183E-01		
Chebychev coefficient	26:	-0.148E-01		
Chebychev coefficient	27:	-0.326E-01		
Chebychev coefficient	28:	-0.963E-02		
263. 2C2H5 (+M)=CCC.C+H (+M)			1.00E+00	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	0.0
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:	0.453E+01		
Chebychev coefficient	2:	-0.165E+01		
Chebychev coefficient	3:	-0.896E-01		
Chebychev coefficient	4:	0.464E-02		
Chebychev coefficient	5:	0.598E+01		
Chebychev coefficient	6:	0.131E+01		

Chebychev coefficient	7:-0.690E-01			
Chebychev coefficient	8:-0.117E-01			
Chebychev coefficient	9: 0.187E+00			
Chebychev coefficient	10: 0.548E+00			
Chebychev coefficient	11: 0.848E-01			
Chebychev coefficient	12:-0.209E-01			
Chebychev coefficient	13:-0.261E+00			
Chebychev coefficient	14: 0.121E-01			
Chebychev coefficient	15: 0.103E+00			
Chebychev coefficient	16: 0.381E-02			
Chebychev coefficient	17:-0.171E+00			
Chebychev coefficient	18:-0.142E+00			
Chebychev coefficient	19: 0.276E-01			
Chebychev coefficient	20: 0.219E-01			
Chebychev coefficient	21:-0.561E-01			
Chebychev coefficient	22:-0.960E-01			
Chebychev coefficient	23:-0.279E-01			
Chebychev coefficient	24: 0.141E-01			
Chebychev coefficient	25:-0.114E-01			
Chebychev coefficient	26:-0.221E-01			
Chebychev coefficient	27:-0.353E-01			
Chebychev coefficient	28:-0.673E-02			
264. CCCC(+M)=CH3+CCC.(+M)		1.00E+00	0.0	0.0
Chebychev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
Chebychev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
Chebychev coefficient	1:-0.188E+02			
Chebychev coefficient	2: 0.455E+00			
Chebychev coefficient	3:-0.475E-01			
Chebychev coefficient	4:-0.137E-02			
Chebychev coefficient	5: 0.266E+02			
Chebychev coefficient	6: 0.819E+00			
Chebychev coefficient	7:-0.740E-01			
Chebychev coefficient	8:-0.508E-02			
Chebychev coefficient	9:-0.795E+00			

Chebyshev coefficient	10:	0.589E+00		
Chebyshev coefficient	11:	-0.262E-01		
Chebyshev coefficient	12:	-0.862E-02		
Chebyshev coefficient	13:	-0.521E+00		
Chebyshev coefficient	14:	0.323E+00		
Chebyshev coefficient	15:	0.172E-01		
Chebyshev coefficient	16:	-0.771E-02		
Chebyshev coefficient	17:	-0.279E+00		
Chebyshev coefficient	18:	0.113E+00		
Chebyshev coefficient	19:	0.350E-01		
Chebyshev coefficient	20:	-0.197E-02		
Chebyshev coefficient	21:	-0.111E+00		
Chebyshev coefficient	22:	-0.656E-02		
Chebyshev coefficient	23:	0.286E-01		
Chebyshev coefficient	24:	0.526E-02		
Chebyshev coefficient	25:	0.460E-02		
Chebyshev coefficient	26:	-0.610E-01		
Chebyshev coefficient	27:	-0.150E-03		
Chebyshev coefficient	28:	0.414E-02		
265. CCCC (+M)=CCCC.+H (+M)			1.00E+00	0.0
Chebyshev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebyshev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebyshev coefficient	1:	-0.254E+02		
Chebyshev coefficient	2:	0.686E+00		
Chebyshev coefficient	3:	-0.848E-01		
Chebyshev coefficient	4:	0.856E-02		
Chebyshev coefficient	5:	0.308E+02		
Chebyshev coefficient	6:	0.112E+01		
Chebyshev coefficient	7:	-0.904E-01		
Chebyshev coefficient	8:	-0.974E-02		
Chebyshev coefficient	9:	-0.102E+01		
Chebyshev coefficient	10:	0.621E+00		
Chebyshev coefficient	11:	0.325E-01		
Chebyshev coefficient	12:	-0.259E-01		

Chebyshev coefficient	13:-0.559E+00			
Chebyshev coefficient	14: 0.198E+00			
Chebyshev coefficient	15: 0.850E-01			
Chebyshev coefficient	16:-0.106E-01			
Chebyshev coefficient	17:-0.237E+00			
Chebyshev coefficient	18:-0.214E-01			
Chebyshev coefficient	19: 0.634E-01			
Chebyshev coefficient	20: 0.119E-01			
Chebyshev coefficient	21:-0.603E-01			
Chebyshev coefficient	22:-0.819E-01			
Chebyshev coefficient	23: 0.164E-01			
Chebyshev coefficient	24: 0.173E-01			
Chebyshev coefficient	25: 0.444E-01			
Chebyshev coefficient	26:-0.677E-01			
Chebyshev coefficient	27:-0.265E-01			
Chebyshev coefficient	28: 0.171E-02			
266. CCCC(+M)=CCC.C+H(+M)		1.00E+00	0.0	0.0
Chebyshev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
Chebyshev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
Chebyshev coefficient	1:-0.247E+02			
Chebyshev coefficient	2: 0.628E+00			
Chebyshev coefficient	3:-0.724E-01			
Chebyshev coefficient	4: 0.379E-02			
Chebyshev coefficient	5: 0.299E+02			
Chebyshev coefficient	6: 0.106E+01			
Chebyshev coefficient	7:-0.905E-01			
Chebyshev coefficient	8:-0.680E-02			
Chebyshev coefficient	9:-0.983E+00			
Chebyshev coefficient	10: 0.639E+00			
Chebyshev coefficient	11: 0.879E-02			
Chebyshev coefficient	12:-0.192E-01			
Chebyshev coefficient	13:-0.563E+00			
Chebyshev coefficient	14: 0.244E+00			
Chebyshev coefficient	15: 0.666E-01			

Chebyshev coefficient	16:-0.116E-01			
Chebyshev coefficient	17:-0.251E+00			
Chebyshev coefficient	18: 0.122E-01			
Chebyshev coefficient	19: 0.632E-01			
Chebyshev coefficient	20: 0.445E-02			
Chebyshev coefficient	21:-0.711E-01			
Chebyshev coefficient	22:-0.705E-01			
Chebyshev coefficient	23: 0.266E-01			
Chebyshev coefficient	24: 0.110E-01			
Chebyshev coefficient	25: 0.414E-01			
Chebyshev coefficient	26:-0.751E-01			
Chebyshev coefficient	27:-0.188E-01			
Chebyshev coefficient	28: 0.318E-02			
267. C2H4+C2H5 (+M)=>CCCC. (+M)		1.00E+00	0.0	0.0
Chebyshev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebyshev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebyshev coefficient	1: 0.753E+01			
Chebyshev coefficient	2: 0.980E+00			
Chebyshev coefficient	3:-0.116E+00			
Chebyshev coefficient	4: 0.101E-01			
Chebyshev coefficient	5: 0.107E+01			
Chebyshev coefficient	6: 0.129E+01			
Chebyshev coefficient	7:-0.218E-01			
Chebyshev coefficient	8:-0.266E-01			
Chebyshev coefficient	9:-0.958E+00			
Chebyshev coefficient	10: 0.403E+00			
Chebyshev coefficient	11: 0.106E+00			
Chebyshev coefficient	12:-0.133E-01			
Chebyshev coefficient	13:-0.304E+00			
Chebyshev coefficient	14:-0.352E-01			
Chebyshev coefficient	15: 0.593E-01			
Chebyshev coefficient	16: 0.157E-01			
Chebyshev coefficient	17:-0.200E-02			
Chebyshev coefficient	18:-0.108E+00			

	Chebychev coefficient	19:-0.552E-02			
	Chebychev coefficient	20: 0.139E-01			
	Chebychev coefficient	21: 0.767E-01			
	Chebychev coefficient	22:-0.573E-01			
	Chebychev coefficient	23:-0.220E-01			
	Chebychev coefficient	24: 0.571E-03			
	Chebychev coefficient	25: 0.660E-01			
	Chebychev coefficient	26:-0.392E-02			
	Chebychev coefficient	27:-0.102E-01			
	Chebychev coefficient	28:-0.440E-02			
268.	C2H4+C2H5(+M)=>C*CCC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
	Chebychev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
	Chebychev coefficient	1: 0.463E+01			
	Chebychev coefficient	2:-0.852E+00			
	Chebychev coefficient	3:-0.259E+00			
	Chebychev coefficient	4: 0.623E-02			
	Chebychev coefficient	5: 0.620E+01			
	Chebychev coefficient	6: 0.971E+00			
	Chebychev coefficient	7: 0.228E+00			
	Chebychev coefficient	8:-0.501E-01			
	Chebychev coefficient	9:-0.622E-01			
	Chebychev coefficient	10: 0.218E-01			
	Chebychev coefficient	11: 0.963E-01			
	Chebychev coefficient	12: 0.449E-01			
	Chebychev coefficient	13:-0.107E+00			
	Chebychev coefficient	14:-0.123E+00			
	Chebychev coefficient	15:-0.365E-01			
	Chebychev coefficient	16: 0.164E-01			
	Chebychev coefficient	17:-0.419E-01			
	Chebychev coefficient	18:-0.491E-01			
	Chebychev coefficient	19:-0.392E-01			
	Chebychev coefficient	20:-0.113E-01			

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Chebychev coefficient 21:-0.685E-02
Chebychev coefficient 22: 0.251E-02
Chebychev coefficient 23:-0.942E-02
Chebychev coefficient 24:-0.112E-01
Chebychev coefficient 25: 0.322E-02
Chebychev coefficient 26: 0.143E-01
Chebychev coefficient 27: 0.679E-02
Chebychev coefficient 28:-0.139E-02
269. C2H4+C2H5 (+M)=>CCC.C (+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.170E+01
Chebychev coefficient 2: 0.578E+00
Chebychev coefficient 3:-0.520E+00
Chebychev coefficient 4: 0.333E-01
Chebychev coefficient 5: 0.451E+01
Chebychev coefficient 6: 0.200E+01
Chebychev coefficient 7: 0.383E+00
Chebychev coefficient 8:-0.125E+00
Chebychev coefficient 9:-0.836E+00
Chebychev coefficient 10: 0.199E+00
Chebychev coefficient 11: 0.224E+00
Chebychev coefficient 12: 0.629E-01
Chebychev coefficient 13:-0.308E+00
Chebychev coefficient 14:-0.189E+00
Chebychev coefficient 15:-0.177E-01
Chebychev coefficient 16: 0.443E-01
Chebychev coefficient 17:-0.116E-01
Chebychev coefficient 18:-0.121E+00
Chebychev coefficient 19:-0.655E-01
Chebychev coefficient 20:-0.491E-02
Chebychev coefficient 21: 0.665E-01
Chebychev coefficient 22:-0.253E-01
Chebychev coefficient 23:-0.285E-01

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Chebychev coefficient 24:-0.126E-01
Chebychev coefficient 25: 0.582E-01
Chebychev coefficient 26: 0.251E-01
Chebychev coefficient 27: 0.450E-02
Chebychev coefficient 28:-0.545E-02
270. C2H4+C2H5(+M)=>CC*CC+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.735E+00
Chebychev coefficient 2:-0.159E+01
Chebychev coefficient 3:-0.494E+00
Chebychev coefficient 4:-0.148E-02
Chebychev coefficient 5: 0.768E+01
Chebychev coefficient 6: 0.187E+01
Chebychev coefficient 7: 0.460E+00
Chebychev coefficient 8:-0.764E-01
Chebychev coefficient 9: 0.107E-02
Chebychev coefficient 10:-0.409E-01
Chebychev coefficient 11: 0.156E+00
Chebychev coefficient 12: 0.886E-01
Chebychev coefficient 13:-0.167E+00
Chebychev coefficient 14:-0.224E+00
Chebychev coefficient 15:-0.826E-01
Chebychev coefficient 16: 0.187E-01
Chebychev coefficient 17:-0.638E-01
Chebychev coefficient 18:-0.691E-01
Chebychev coefficient 19:-0.636E-01
Chebychev coefficient 20:-0.245E-01
Chebychev coefficient 21:-0.109E-01
Chebychev coefficient 22: 0.134E-01
Chebychev coefficient 23:-0.643E-02
Chebychev coefficient 24:-0.154E-01
Chebychev coefficient 25: 0.187E-02

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Chebychev coefficient 26: 0.211E-01
Chebychev coefficient 27: 0.112E-01
Chebychev coefficient 28:-0.758E-03
271. C2H4+C2H5(+M)=>CC*CC+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.105E+01
Chebychev coefficient 2:-0.161E+01
Chebychev coefficient 3:-0.494E+00
Chebychev coefficient 4: 0.703E-03
Chebychev coefficient 5: 0.757E+01
Chebychev coefficient 6: 0.188E+01
Chebychev coefficient 7: 0.456E+00
Chebychev coefficient 8:-0.792E-01
Chebychev coefficient 9:-0.179E-01
Chebychev coefficient 10:-0.304E-01
Chebychev coefficient 11: 0.160E+00
Chebychev coefficient 12: 0.877E-01
Chebychev coefficient 13:-0.170E+00
Chebychev coefficient 14:-0.226E+00
Chebychev coefficient 15:-0.806E-01
Chebychev coefficient 16: 0.203E-01
Chebychev coefficient 17:-0.634E-01
Chebychev coefficient 18:-0.723E-01
Chebychev coefficient 19:-0.646E-01
Chebychev coefficient 20:-0.236E-01
Chebychev coefficient 21:-0.955E-02
Chebychev coefficient 22: 0.121E-01
Chebychev coefficient 23:-0.779E-02
Chebychev coefficient 24:-0.156E-01
Chebychev coefficient 25: 0.304E-02
Chebychev coefficient 26: 0.215E-01
Chebychev coefficient 27: 0.111E-01

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	Chebychev coefficient	28:-0.918E-03			
272.	C2H4+C2H5(+M)=>C*CCC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.684E+00			
	Chebychev coefficient	2:-0.156E+01			
	Chebychev coefficient	3:-0.494E+00			
	Chebychev coefficient	4:-0.491E-02			
	Chebychev coefficient	5: 0.785E+01			
	Chebychev coefficient	6: 0.185E+01			
	Chebychev coefficient	7: 0.467E+00			
	Chebychev coefficient	8:-0.720E-01			
	Chebychev coefficient	9: 0.265E-01			
	Chebychev coefficient	10:-0.546E-01			
	Chebychev coefficient	11: 0.149E+00			
	Chebychev coefficient	12: 0.898E-01			
	Chebychev coefficient	13:-0.163E+00			
	Chebychev coefficient	14:-0.221E+00			
	Chebychev coefficient	15:-0.854E-01			
	Chebychev coefficient	16: 0.162E-01			
	Chebychev coefficient	17:-0.646E-01			
	Chebychev coefficient	18:-0.645E-01			
	Chebychev coefficient	19:-0.618E-01			
	Chebychev coefficient	20:-0.258E-01			
	Chebychev coefficient	21:-0.129E-01			
	Chebychev coefficient	22: 0.152E-01			
	Chebychev coefficient	23:-0.446E-02			
	Chebychev coefficient	24:-0.150E-01			
	Chebychev coefficient	25: 0.180E-03			
	Chebychev coefficient	26: 0.205E-01			
	Chebychev coefficient	27: 0.113E-01			
	Chebychev coefficient	28:-0.436E-03			
273.	C2H4+C2H5(+M)=>C*CC+CH3(+M)		1.00E+00	0.0	0.0

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1: 0.258E+01
 Chebychev coefficient 2:-0.171E+01
 Chebychev coefficient 3:-0.497E+00
 Chebychev coefficient 4: 0.119E-01
 Chebychev coefficient 5: 0.702E+01
 Chebychev coefficient 6: 0.194E+01
 Chebychev coefficient 7: 0.437E+00
 Chebychev coefficient 8:-0.936E-01
 Chebychev coefficient 9:-0.136E+00
 Chebychev coefficient 10: 0.287E-01
 Chebychev coefficient 11: 0.180E+00
 Chebychev coefficient 12: 0.823E-01
 Chebychev coefficient 13:-0.196E+00
 Chebychev coefficient 14:-0.234E+00
 Chebychev coefficient 15:-0.676E-01
 Chebychev coefficient 16: 0.281E-01
 Chebychev coefficient 17:-0.650E-01
 Chebychev coefficient 18:-0.885E-01
 Chebychev coefficient 19:-0.683E-01
 Chebychev coefficient 20:-0.177E-01
 Chebychev coefficient 21:-0.330E-02
 Chebychev coefficient 22: 0.379E-02
 Chebychev coefficient 23:-0.153E-01
 Chebychev coefficient 24:-0.154E-01
 Chebychev coefficient 25: 0.985E-02
 Chebychev coefficient 26: 0.230E-01
 Chebychev coefficient 27: 0.104E-01
 Chebychev coefficient 28:-0.764E-03

274. CCCC.(+M)=>C2H4+C2H5(+M) 1.00E+00 0.0 0.0
 Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1: 0.123E+01


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Chebychev coefficient 2: 0.980E+00
Chebychev coefficient 3:-0.116E+00
Chebychev coefficient 4: 0.101E-01
Chebychev coefficient 5: 0.726E+01
Chebychev coefficient 6: 0.129E+01
Chebychev coefficient 7:-0.218E-01
Chebychev coefficient 8:-0.266E-01
Chebychev coefficient 9:-0.959E+00
Chebychev coefficient 10: 0.403E+00
Chebychev coefficient 11: 0.106E+00
Chebychev coefficient 12:-0.133E-01
Chebychev coefficient 13:-0.303E+00
Chebychev coefficient 14:-0.352E-01
Chebychev coefficient 15: 0.593E-01
Chebychev coefficient 16: 0.157E-01
Chebychev coefficient 17:-0.168E-02
Chebychev coefficient 18:-0.108E+00
Chebychev coefficient 19:-0.552E-02
Chebychev coefficient 20: 0.139E-01
Chebychev coefficient 21: 0.769E-01
Chebychev coefficient 22:-0.573E-01
Chebychev coefficient 23:-0.220E-01
Chebychev coefficient 24: 0.569E-03
Chebychev coefficient 25: 0.661E-01
Chebychev coefficient 26:-0.390E-02
Chebychev coefficient 27:-0.102E-01
Chebychev coefficient 28:-0.440E-02
275. CCCC.(+M)=>C*CCC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.275E+01
Chebychev coefficient 2: 0.153E+01
Chebychev coefficient 3:-0.272E+00

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Chebyshev coefficient	4:	0.175E-01		
Chebyshev coefficient	5:	0.981E+01		
Chebyshev coefficient	6:	0.997E+00		
Chebyshev coefficient	7:	0.197E+00		
Chebyshev coefficient	8:	-0.673E-01		
Chebyshev coefficient	9:	-0.790E+00		
Chebyshev coefficient	10:	0.115E+00		
Chebyshev coefficient	11:	0.121E+00		
Chebyshev coefficient	12:	0.355E-01		
Chebyshev coefficient	13:	-0.196E+00		
Chebyshev coefficient	14:	-0.951E-01		
Chebyshev coefficient	15:	-0.659E-02		
Chebyshev coefficient	16:	0.282E-01		
Chebyshev coefficient	17:	0.356E-01		
Chebyshev coefficient	18:	-0.684E-01		
Chebyshev coefficient	19:	-0.372E-01		
Chebyshev coefficient	20:	-0.182E-02		
Chebyshev coefficient	21:	0.726E-01		
Chebyshev coefficient	22:	-0.165E-01		
Chebyshev coefficient	23:	-0.183E-01		
Chebyshev coefficient	24:	-0.953E-02		
Chebyshev coefficient	25:	0.486E-01		
Chebyshev coefficient	26:	0.135E-01		
Chebyshev coefficient	27:	0.602E-03		
Chebyshev coefficient	28:	-0.588E-02		
276. CCCC. (+M)=>CCC.C (+M)			1.00E+00	0.0
Chebyshev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebyshev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebyshev coefficient	1:	-0.546E+01		
Chebyshev coefficient	2:	0.284E+01		
Chebyshev coefficient	3:	-0.563E+00		
Chebyshev coefficient	4:	0.467E-01		
Chebyshev coefficient	5:	0.848E+01		
Chebyshev coefficient	6:	0.196E+01		

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Chebychev coefficient      7: 0.303E+00
Chebychev coefficient      8:-0.151E+00
Chebychev coefficient      9:-0.146E+01
Chebychev coefficient     10: 0.341E+00
Chebychev coefficient     11: 0.243E+00
Chebychev coefficient     12: 0.383E-01
Chebychev coefficient     13:-0.434E+00
Chebychev coefficient     14:-0.108E+00
Chebychev coefficient     15: 0.324E-01
Chebychev coefficient     16: 0.507E-01
Chebychev coefficient     17:-0.120E-01
Chebychev coefficient     18:-0.121E+00
Chebychev coefficient     19:-0.431E-01
Chebychev coefficient     20: 0.111E-01
Chebychev coefficient     21: 0.804E-01
Chebychev coefficient     22:-0.482E-01
Chebychev coefficient     23:-0.313E-01
Chebychev coefficient     24:-0.352E-02
Chebychev coefficient     25: 0.689E-01
Chebychev coefficient     26: 0.992E-02
Chebychev coefficient     27:-0.565E-02
Chebychev coefficient     28:-0.477E-02
277. CCCC.(+M)=>CC*CC+H(+M)                1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient      1:-0.692E+01
Chebychev coefficient      2: 0.695E+00
Chebychev coefficient      3:-0.512E+00
Chebychev coefficient      4: 0.192E-01
Chebychev coefficient      5: 0.114E+02
Chebychev coefficient      6: 0.197E+01
Chebychev coefficient      7: 0.410E+00
Chebychev coefficient      8:-0.108E+00

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Chebychev coefficient 9:-0.616E+00
 Chebychev coefficient 10: 0.104E+00
 Chebychev coefficient 11: 0.204E+00
 Chebychev coefficient 12: 0.775E-01
 Chebychev coefficient 13:-0.223E+00
 Chebychev coefficient 14:-0.209E+00
 Chebychev coefficient 15:-0.426E-01
 Chebychev coefficient 16: 0.370E-01
 Chebychev coefficient 17: 0.246E-01
 Chebychev coefficient 18:-0.102E+00
 Chebychev coefficient 19:-0.679E-01
 Chebychev coefficient 20:-0.130E-01
 Chebychev coefficient 21: 0.724E-01
 Chebychev coefficient 22:-0.130E-01
 Chebychev coefficient 23:-0.239E-01
 Chebychev coefficient 24:-0.171E-01
 Chebychev coefficient 25: 0.464E-01
 Chebychev coefficient 26: 0.211E-01
 Chebychev coefficient 27: 0.610E-02
 Chebychev coefficient 28:-0.476E-02

278. CCCC.(+M)=>CC*CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1:-0.659E+01
 Chebychev coefficient 2: 0.675E+00
 Chebychev coefficient 3:-0.513E+00
 Chebychev coefficient 4: 0.215E-01
 Chebychev coefficient 5: 0.113E+02
 Chebychev coefficient 6: 0.198E+01
 Chebychev coefficient 7: 0.406E+00
 Chebychev coefficient 8:-0.111E+00
 Chebychev coefficient 9:-0.643E+00
 Chebychev coefficient 10: 0.119E+00

Chebychev coefficient	11:	0.208E+00		
Chebychev coefficient	12:	0.757E-01		
Chebychev coefficient	13:	-0.230E+00		
Chebychev coefficient	14:	-0.208E+00		
Chebychev coefficient	15:	-0.389E-01		
Chebychev coefficient	16:	0.386E-01		
Chebychev coefficient	17:	0.218E-01		
Chebychev coefficient	18:	-0.105E+00		
Chebychev coefficient	19:	-0.679E-01		
Chebychev coefficient	20:	-0.115E-01		
Chebychev coefficient	21:	0.720E-01		
Chebychev coefficient	22:	-0.150E-01		
Chebychev coefficient	23:	-0.251E-01		
Chebychev coefficient	24:	-0.165E-01		
Chebychev coefficient	25:	0.474E-01		
Chebychev coefficient	26:	0.211E-01		
Chebychev coefficient	27:	0.551E-02		
Chebychev coefficient	28:	-0.489E-02		
279. CCCC.(+M)=>C*CCC+H(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1:	-0.701E+01		
Chebychev coefficient	2:	0.730E+00		
Chebychev coefficient	3:	-0.512E+00		
Chebychev coefficient	4:	0.151E-01		
Chebychev coefficient	5:	0.115E+02		
Chebychev coefficient	6:	0.195E+01		
Chebychev coefficient	7:	0.419E+00		
Chebychev coefficient	8:	-0.103E+00		
Chebychev coefficient	9:	-0.580E+00		
Chebychev coefficient	10:	0.842E-01		
Chebychev coefficient	11:	0.198E+00		
Chebychev coefficient	12:	0.801E-01		

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Chebychev coefficient 13:-0.212E+00
Chebychev coefficient 14:-0.210E+00
Chebychev coefficient 15:-0.484E-01
Chebychev coefficient 16: 0.344E-01
Chebychev coefficient 17: 0.284E-01
Chebychev coefficient 18:-0.968E-01
Chebychev coefficient 19:-0.675E-01
Chebychev coefficient 20:-0.150E-01
Chebychev coefficient 21: 0.727E-01
Chebychev coefficient 22:-0.100E-01
Chebychev coefficient 23:-0.221E-01
Chebychev coefficient 24:-0.177E-01
Chebychev coefficient 25: 0.447E-01
Chebychev coefficient 26: 0.211E-01
Chebychev coefficient 27: 0.694E-02
Chebychev coefficient 28:-0.443E-02
280. CCCC.(+M)=>C*CC+CH3(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.493E+01
Chebychev coefficient 2: 0.575E+00
Chebychev coefficient 3:-0.520E+00
Chebychev coefficient 4: 0.324E-01
Chebychev coefficient 5: 0.107E+02
Chebychev coefficient 6: 0.201E+01
Chebychev coefficient 7: 0.383E+00
Chebychev coefficient 8:-0.124E+00
Chebychev coefficient 9:-0.798E+00
Chebychev coefficient 10: 0.198E+00
Chebychev coefficient 11: 0.223E+00
Chebychev coefficient 12: 0.646E-01
Chebychev coefficient 13:-0.283E+00
Chebychev coefficient 14:-0.191E+00
Chebychev coefficient 15:-0.182E-01

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Chebychev coefficient 16: 0.451E-01
Chebychev coefficient 17:-0.188E-02
Chebychev coefficient 18:-0.119E+00
Chebychev coefficient 19:-0.649E-01
Chebychev coefficient 20:-0.431E-02
Chebychev coefficient 21: 0.653E-01
Chebychev coefficient 22:-0.239E-01
Chebychev coefficient 23:-0.293E-01
Chebychev coefficient 24:-0.135E-01
Chebychev coefficient 25: 0.504E-01
Chebychev coefficient 26: 0.212E-01
Chebychev coefficient 27: 0.269E-02
Chebychev coefficient 28:-0.530E-02
281. CCC.C(+M)=>CCCC.(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.668E+01
Chebychev coefficient 2: 0.281E+01
Chebychev coefficient 3:-0.567E+00
Chebychev coefficient 4: 0.528E-01
Chebychev coefficient 5: 0.953E+01
Chebychev coefficient 6: 0.195E+01
Chebychev coefficient 7: 0.297E+00
Chebychev coefficient 8:-0.150E+00
Chebychev coefficient 9:-0.148E+01
Chebychev coefficient 10: 0.375E+00
Chebychev coefficient 11: 0.246E+00
Chebychev coefficient 12: 0.324E-01
Chebychev coefficient 13:-0.446E+00
Chebychev coefficient 14:-0.923E-01
Chebychev coefficient 15: 0.379E-01
Chebychev coefficient 16: 0.479E-01
Chebychev coefficient 17:-0.879E-02
Chebychev coefficient 18:-0.125E+00

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Chebychev coefficient 19:-0.419E-01
Chebychev coefficient 20: 0.113E-01
Chebychev coefficient 21: 0.853E-01
Chebychev coefficient 22:-0.548E-01
Chebychev coefficient 23:-0.327E-01
Chebychev coefficient 24:-0.280E-02
Chebychev coefficient 25: 0.700E-01
Chebychev coefficient 26: 0.670E-02
Chebychev coefficient 27:-0.698E-02
Chebychev coefficient 28:-0.374E-02
282. CCC.C(+M)=>C2H4+C2H5(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.586E+01
Chebychev coefficient 2: 0.543E+00
Chebychev coefficient 3:-0.520E+00
Chebychev coefficient 4: 0.394E-01
Chebychev coefficient 5: 0.117E+02
Chebychev coefficient 6: 0.202E+01
Chebychev coefficient 7: 0.380E+00
Chebychev coefficient 8:-0.128E+00
Chebychev coefficient 9:-0.839E+00
Chebychev coefficient 10: 0.229E+00
Chebychev coefficient 11: 0.225E+00
Chebychev coefficient 12: 0.569E-01
Chebychev coefficient 13:-0.317E+00
Chebychev coefficient 14:-0.195E+00
Chebychev coefficient 15:-0.167E-01
Chebychev coefficient 16: 0.450E-01
Chebychev coefficient 17:-0.949E-02
Chebychev coefficient 18:-0.132E+00
Chebychev coefficient 19:-0.662E-01
Chebychev coefficient 20:-0.244E-02
Chebychev coefficient 21: 0.714E-01

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Chebychev coefficient 22:-0.254E-01
Chebychev coefficient 23:-0.289E-01
Chebychev coefficient 24:-0.117E-01
Chebychev coefficient 25: 0.576E-01
Chebychev coefficient 26: 0.266E-01
Chebychev coefficient 27: 0.419E-02
Chebychev coefficient 28:-0.519E-02
283. CCC.C(+M)=>C*CCC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.829E+01
Chebychev coefficient 2: 0.768E+00
Chebychev coefficient 3:-0.516E+00
Chebychev coefficient 4: 0.106E-01
Chebychev coefficient 5: 0.128E+02
Chebychev coefficient 6: 0.191E+01
Chebychev coefficient 7: 0.431E+00
Chebychev coefficient 8:-0.991E-01
Chebychev coefficient 9:-0.625E+00
Chebychev coefficient 10: 0.778E-01
Chebychev coefficient 11: 0.192E+00
Chebychev coefficient 12: 0.814E-01
Chebychev coefficient 13:-0.257E+00
Chebychev coefficient 14:-0.207E+00
Chebychev coefficient 15:-0.518E-01
Chebychev coefficient 16: 0.339E-01
Chebychev coefficient 17: 0.214E-01
Chebychev coefficient 18:-0.948E-01
Chebychev coefficient 19:-0.658E-01
Chebychev coefficient 20:-0.153E-01
Chebychev coefficient 21: 0.808E-01
Chebychev coefficient 22:-0.885E-02
Chebychev coefficient 23:-0.201E-01

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Chebychev coefficient 24:-0.174E-01
Chebychev coefficient 25: 0.502E-01
Chebychev coefficient 26: 0.213E-01
Chebychev coefficient 27: 0.809E-02
Chebychev coefficient 28:-0.278E-02
284. CCC.C(+M)=>CC*CC+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.298E+01
Chebychev coefficient 2: 0.122E+01
Chebychev coefficient 3:-0.221E+00
Chebychev coefficient 4: 0.361E-01
Chebychev coefficient 5: 0.100E+02
Chebychev coefficient 6: 0.118E+01
Chebychev coefficient 7: 0.807E-01
Chebychev coefficient 8:-0.706E-01
Chebychev coefficient 9:-0.859E+00
Chebychev coefficient 10: 0.271E+00
Chebychev coefficient 11: 0.146E+00
Chebychev coefficient 12:-0.666E-02
Chebychev coefficient 13:-0.259E+00
Chebychev coefficient 14:-0.698E-01
Chebychev coefficient 15: 0.413E-01
Chebychev coefficient 16: 0.309E-01
Chebychev coefficient 17: 0.437E-02
Chebychev coefficient 18:-0.998E-01
Chebychev coefficient 19:-0.251E-01
Chebychev coefficient 20: 0.176E-01
Chebychev coefficient 21: 0.709E-01
Chebychev coefficient 22:-0.421E-01
Chebychev coefficient 23:-0.295E-01
Chebychev coefficient 24:-0.284E-02
Chebychev coefficient 25: 0.562E-01

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Chebychev coefficient 26: 0.554E-02
Chebychev coefficient 27:-0.812E-02
Chebychev coefficient 28:-0.808E-02
285. CCC.C(+M)=>CC*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.247E+01
Chebychev coefficient 2: 0.117E+01
Chebychev coefficient 3:-0.205E+00
Chebychev coefficient 4: 0.349E-01
Chebychev coefficient 5: 0.973E+01
Chebychev coefficient 6: 0.121E+01
Chebychev coefficient 7: 0.576E-01
Chebychev coefficient 8:-0.648E-01
Chebychev coefficient 9:-0.872E+00
Chebychev coefficient 10: 0.298E+00
Chebychev coefficient 11: 0.145E+00
Chebychev coefficient 12:-0.125E-01
Chebychev coefficient 13:-0.269E+00
Chebychev coefficient 14:-0.627E-01
Chebychev coefficient 15: 0.488E-01
Chebychev coefficient 16: 0.280E-01
Chebychev coefficient 17: 0.845E-03
Chebychev coefficient 18:-0.103E+00
Chebychev coefficient 19:-0.216E-01
Chebychev coefficient 20: 0.193E-01
Chebychev coefficient 21: 0.713E-01
Chebychev coefficient 22:-0.469E-01
Chebychev coefficient 23:-0.297E-01
Chebychev coefficient 24:-0.671E-03
Chebychev coefficient 25: 0.568E-01
Chebychev coefficient 26: 0.451E-02
Chebychev coefficient 27:-0.958E-02

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	Chebychev coefficient	28:-0.788E-02			
286.	CCC.C(+M)=>C*CCC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1:-0.331E+01			
	Chebychev coefficient	2: 0.130E+01			
	Chebychev coefficient	3:-0.241E+00			
	Chebychev coefficient	4: 0.362E-01			
	Chebychev coefficient	5: 0.104E+02			
	Chebychev coefficient	6: 0.114E+01			
	Chebychev coefficient	7: 0.115E+00			
	Chebychev coefficient	8:-0.768E-01			
	Chebychev coefficient	9:-0.841E+00			
	Chebychev coefficient	10: 0.237E+00			
	Chebychev coefficient	11: 0.145E+00			
	Chebychev coefficient	12: 0.266E-02			
	Chebychev coefficient	13:-0.246E+00			
	Chebychev coefficient	14:-0.767E-01			
	Chebychev coefficient	15: 0.299E-01			
	Chebychev coefficient	16: 0.341E-01			
	Chebychev coefficient	17: 0.964E-02			
	Chebychev coefficient	18:-0.957E-01			
	Chebychev coefficient	19:-0.290E-01			
	Chebychev coefficient	20: 0.139E-01			
	Chebychev coefficient	21: 0.699E-01			
	Chebychev coefficient	22:-0.356E-01			
	Chebychev coefficient	23:-0.288E-01			
	Chebychev coefficient	24:-0.525E-02			
	Chebychev coefficient	25: 0.557E-01			
	Chebychev coefficient	26: 0.643E-02			
	Chebychev coefficient	27:-0.591E-02			
	Chebychev coefficient	28:-0.802E-02			
287.	CCC.C(+M)=>C*CC+CH3(+M)		1.00E+00	0.0	0.0

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1: 0.353E+00
 Chebychev coefficient 2: 0.872E+00
 Chebychev coefficient 3:-0.103E+00
 Chebychev coefficient 4: 0.957E-02
 Chebychev coefficient 5: 0.807E+01
 Chebychev coefficient 6: 0.126E+01
 Chebychev coefficient 7:-0.498E-01
 Chebychev coefficient 8:-0.200E-01
 Chebychev coefficient 9:-0.957E+00
 Chebychev coefficient 10: 0.493E+00
 Chebychev coefficient 11: 0.853E-01
 Chebychev coefficient 12:-0.208E-01
 Chebychev coefficient 13:-0.353E+00
 Chebychev coefficient 14: 0.286E-01
 Chebychev coefficient 15: 0.730E-01
 Chebychev coefficient 16: 0.710E-02
 Chebychev coefficient 17:-0.378E-01
 Chebychev coefficient 18:-0.102E+00
 Chebychev coefficient 19: 0.122E-01
 Chebychev coefficient 20: 0.158E-01
 Chebychev coefficient 21: 0.626E-01
 Chebychev coefficient 22:-0.730E-01
 Chebychev coefficient 23:-0.179E-01
 Chebychev coefficient 24: 0.588E-02
 Chebychev coefficient 25: 0.683E-01
 Chebychev coefficient 26:-0.153E-01
 Chebychev coefficient 27:-0.145E-01
 Chebychev coefficient 28:-0.304E-02

288. C*CCC+H(+M)=>CCCC.(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.102E+02
 Chebychev coefficient 2: 0.153E+01
 Chebychev coefficient 3:-0.271E+00
 Chebychev coefficient 4: 0.174E-01
 Chebychev coefficient 5:-0.408E+00
 Chebychev coefficient 6: 0.998E+00
 Chebychev coefficient 7: 0.198E+00
 Chebychev coefficient 8:-0.678E-01
 Chebychev coefficient 9:-0.783E+00
 Chebychev coefficient 10: 0.116E+00
 Chebychev coefficient 11: 0.122E+00
 Chebychev coefficient 12: 0.351E-01
 Chebychev coefficient 13:-0.191E+00
 Chebychev coefficient 14:-0.940E-01
 Chebychev coefficient 15:-0.577E-02
 Chebychev coefficient 16: 0.281E-01
 Chebychev coefficient 17: 0.403E-01
 Chebychev coefficient 18:-0.676E-01
 Chebychev coefficient 19:-0.365E-01
 Chebychev coefficient 20:-0.186E-02
 Chebychev coefficient 21: 0.760E-01
 Chebychev coefficient 22:-0.157E-01
 Chebychev coefficient 23:-0.175E-01
 Chebychev coefficient 24:-0.939E-02
 Chebychev coefficient 25: 0.509E-01
 Chebychev coefficient 26: 0.145E-01
 Chebychev coefficient 27: 0.127E-02
 Chebychev coefficient 28:-0.571E-02

289. C*CCC+H(+M)=>C2H4+C2H5(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.113E+02

Chebychev coefficient 2:-0.852E+00

Chebychev coefficient	3:-0.258E+00			
Chebychev coefficient	4: 0.635E-02			
Chebychev coefficient	5: 0.218E+01			
Chebychev coefficient	6: 0.971E+00			
Chebychev coefficient	7: 0.228E+00			
Chebychev coefficient	8:-0.507E-01			
Chebychev coefficient	9:-0.409E-01			
Chebychev coefficient	10: 0.224E-01			
Chebychev coefficient	11: 0.965E-01			
Chebychev coefficient	12: 0.449E-01			
Chebychev coefficient	13:-0.880E-01			
Chebychev coefficient	14:-0.123E+00			
Chebychev coefficient	15:-0.363E-01			
Chebychev coefficient	16: 0.173E-01			
Chebychev coefficient	17:-0.263E-01			
Chebychev coefficient	18:-0.490E-01			
Chebychev coefficient	19:-0.394E-01			
Chebychev coefficient	20:-0.976E-02			
Chebychev coefficient	21: 0.402E-02			
Chebychev coefficient	22: 0.254E-02			
Chebychev coefficient	23:-0.950E-02			
Chebychev coefficient	24:-0.952E-02			
Chebychev coefficient	25: 0.950E-02			
Chebychev coefficient	26: 0.158E-01			
Chebychev coefficient	27: 0.734E-02			
Chebychev coefficient	28:-0.145E-03			
290. C*CCC+H(+M)=>CCC.C(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1: 0.599E+01			
Chebychev coefficient	2: 0.803E+00			
Chebychev coefficient	3:-0.518E+00			
Chebychev coefficient	4: 0.589E-02			

Chebychev coefficient	5:	0.149E+01		
Chebychev coefficient	6:	0.187E+01		
Chebychev coefficient	7:	0.436E+00		
Chebychev coefficient	8:	-0.939E-01		
Chebychev coefficient	9:	-0.627E+00		
Chebychev coefficient	10:	0.708E-01		
Chebychev coefficient	11:	0.191E+00		
Chebychev coefficient	12:	0.822E-01		
Chebychev coefficient	13:	-0.233E+00		
Chebychev coefficient	14:	-0.191E+00		
Chebychev coefficient	15:	-0.507E-01		
Chebychev coefficient	16:	0.329E-01		
Chebychev coefficient	17:	0.320E-01		
Chebychev coefficient	18:	-0.922E-01		
Chebychev coefficient	19:	-0.640E-01		
Chebychev coefficient	20:	-0.150E-01		
Chebychev coefficient	21:	0.812E-01		
Chebychev coefficient	22:	-0.129E-01		
Chebychev coefficient	23:	-0.203E-01		
Chebychev coefficient	24:	-0.178E-01		
Chebychev coefficient	25:	0.511E-01		
Chebychev coefficient	26:	0.216E-01		
Chebychev coefficient	27:	0.968E-02		
Chebychev coefficient	28:	-0.116E-02		
291. C*CCC+H(+M)=>CC*CC+H(+M)			1.00E+00	0.0
Declared duplicate reaction...				
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebychev coefficient	1:	0.539E+01		
Chebychev coefficient	2:	-0.141E+01		
Chebychev coefficient	3:	-0.494E+00		
Chebychev coefficient	4:	-0.241E-01		
Chebychev coefficient	5:	0.460E+01		
Chebychev coefficient	6:	0.170E+01		

Chebychev coefficient	7:	0.496E+00			
Chebychev coefficient	8:	-0.450E-01			
Chebychev coefficient	9:	0.150E+00			
Chebychev coefficient	10:	-0.870E-01			
Chebychev coefficient	11:	0.118E+00			
Chebychev coefficient	12:	0.896E-01			
Chebychev coefficient	13:	-0.106E+00			
Chebychev coefficient	14:	-0.200E+00			
Chebychev coefficient	15:	-0.940E-01			
Chebychev coefficient	16:	0.563E-02			
Chebychev coefficient	17:	-0.406E-01			
Chebychev coefficient	18:	-0.559E-01			
Chebychev coefficient	19:	-0.535E-01			
Chebychev coefficient	20:	-0.259E-01			
Chebychev coefficient	21:	-0.954E-02			
Chebychev coefficient	22:	0.202E-01			
Chebychev coefficient	23:	0.187E-02			
Chebychev coefficient	24:	-0.122E-01			
Chebychev coefficient	25:	-0.133E-02			
Chebychev coefficient	26:	0.192E-01			
Chebychev coefficient	27:	0.114E-01			
Chebychev coefficient	28:	0.171E-02			
292. C*CCC+H(+M)=>CC*CC+H(+M)			1.00E+00	0.0	0.0
Declared duplicate reaction...					
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04					
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03					
Chebychev coefficient	1:	0.568E+01			
Chebychev coefficient	2:	-0.143E+01			
Chebychev coefficient	3:	-0.495E+00			
Chebychev coefficient	4:	-0.219E-01			
Chebychev coefficient	5:	0.450E+01			
Chebychev coefficient	6:	0.171E+01			
Chebychev coefficient	7:	0.493E+00			
Chebychev coefficient	8:	-0.483E-01			

Chebychev coefficient 9: 0.134E+00
 Chebychev coefficient 10:-0.815E-01
 Chebychev coefficient 11: 0.121E+00
 Chebychev coefficient 12: 0.896E-01
 Chebychev coefficient 13:-0.109E+00
 Chebychev coefficient 14:-0.202E+00
 Chebychev coefficient 15:-0.929E-01
 Chebychev coefficient 16: 0.723E-02
 Chebychev coefficient 17:-0.403E-01
 Chebychev coefficient 18:-0.576E-01
 Chebychev coefficient 19:-0.547E-01
 Chebychev coefficient 20:-0.260E-01
 Chebychev coefficient 21:-0.774E-02
 Chebychev coefficient 22: 0.185E-01
 Chebychev coefficient 23: 0.785E-03
 Chebychev coefficient 24:-0.117E-01
 Chebychev coefficient 25:-0.104E-02
 Chebychev coefficient 26: 0.201E-01
 Chebychev coefficient 27: 0.115E-01
 Chebychev coefficient 28: 0.591E-03

293. C*CCC+H(+M)=>C*CC+CH3(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.712E+01
 Chebychev coefficient 2:-0.150E+01
 Chebychev coefficient 3:-0.499E+00
 Chebychev coefficient 4:-0.131E-01
 Chebychev coefficient 5: 0.399E+01
 Chebychev coefficient 6: 0.178E+01
 Chebychev coefficient 7: 0.479E+00
 Chebychev coefficient 8:-0.613E-01
 Chebychev coefficient 9: 0.302E-01
 Chebychev coefficient 10:-0.502E-01

Chebychev coefficient	11:	0.142E+00		
Chebychev coefficient	12:	0.892E-01		
Chebychev coefficient	13:	-0.135E+00		
Chebychev coefficient	14:	-0.207E+00		
Chebychev coefficient	15:	-0.852E-01		
Chebychev coefficient	16:	0.142E-01		
Chebychev coefficient	17:	-0.406E-01		
Chebychev coefficient	18:	-0.685E-01		
Chebychev coefficient	19:	-0.602E-01		
Chebychev coefficient	20:	-0.234E-01		
Chebychev coefficient	21:	-0.243E-03		
Chebychev coefficient	22:	0.112E-01		
Chebychev coefficient	23:	-0.463E-02		
Chebychev coefficient	24:	-0.125E-01		
Chebychev coefficient	25:	0.463E-02		
Chebychev coefficient	26:	0.202E-01		
Chebychev coefficient	27:	0.111E-01		
Chebychev coefficient	28:	0.211E-03		
294. CC*CC+H(+M)=>CCCC.(+M)			1.00E+00	0.0
Declared duplicate reaction...				0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1:	0.592E+01		
Chebychev coefficient	2:	0.662E+00		
Chebychev coefficient	3:	-0.508E+00		
Chebychev coefficient	4:	0.256E-01		
Chebychev coefficient	5:	0.181E+01		
Chebychev coefficient	6:	0.200E+01		
Chebychev coefficient	7:	0.406E+00		
Chebychev coefficient	8:	-0.113E+00		
Chebychev coefficient	9:	-0.601E+00		
Chebychev coefficient	10:	0.125E+00		
Chebychev coefficient	11:	0.204E+00		
Chebychev coefficient	12:	0.730E-01		

Chebychev coefficient	13:-0.227E+00			
Chebychev coefficient	14:-0.222E+00			
Chebychev coefficient	15:-0.409E-01			
Chebychev coefficient	16: 0.396E-01			
Chebychev coefficient	17: 0.293E-01			
Chebychev coefficient	18:-0.108E+00			
Chebychev coefficient	19:-0.676E-01			
Chebychev coefficient	20:-0.109E-01			
Chebychev coefficient	21: 0.801E-01			
Chebychev coefficient	22:-0.880E-02			
Chebychev coefficient	23:-0.240E-01			
Chebychev coefficient	24:-0.167E-01			
Chebychev coefficient	25: 0.489E-01			
Chebychev coefficient	26: 0.239E-01			
Chebychev coefficient	27: 0.600E-02			
Chebychev coefficient	28:-0.491E-02			
295. CC*CC+H(+M)=>C2H4+C2H5(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1: 0.726E+01			
Chebychev coefficient	2:-0.162E+01			
Chebychev coefficient	3:-0.487E+00			
Chebychev coefficient	4: 0.352E-02			
Chebychev coefficient	5: 0.435E+01			
Chebychev coefficient	6: 0.190E+01			
Chebychev coefficient	7: 0.452E+00			
Chebychev coefficient	8:-0.824E-01			
Chebychev coefficient	9: 0.313E-01			
Chebychev coefficient	10:-0.403E-01			
Chebychev coefficient	11: 0.156E+00			
Chebychev coefficient	12: 0.873E-01			
Chebychev coefficient	13:-0.170E+00			
Chebychev coefficient	14:-0.236E+00			

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Chebychev coefficient 15:-0.802E-01
Chebychev coefficient 16: 0.216E-01
Chebychev coefficient 17:-0.516E-01
Chebychev coefficient 18:-0.653E-01
Chebychev coefficient 19:-0.629E-01
Chebychev coefficient 20:-0.234E-01
Chebychev coefficient 21: 0.464E-02
Chebychev coefficient 22: 0.165E-01
Chebychev coefficient 23:-0.705E-02
Chebychev coefficient 24:-0.156E-01
Chebychev coefficient 25: 0.890E-02
Chebychev coefficient 26: 0.207E-01
Chebychev coefficient 27: 0.110E-01
Chebychev coefficient 28:-0.822E-03
296. CC*CC+H(+M)=>C*CCC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.518E+01
Chebychev coefficient 2:-0.143E+01
Chebychev coefficient 3:-0.489E+00
Chebychev coefficient 4:-0.199E-01
Chebychev coefficient 5: 0.531E+01
Chebychev coefficient 6: 0.173E+01
Chebychev coefficient 7: 0.489E+00
Chebychev coefficient 8:-0.497E-01
Chebychev coefficient 9: 0.146E+00
Chebychev coefficient 10:-0.991E-01
Chebychev coefficient 11: 0.119E+00
Chebychev coefficient 12: 0.907E-01
Chebychev coefficient 13:-0.138E+00
Chebychev coefficient 14:-0.201E+00
Chebychev coefficient 15:-0.930E-01
Chebychev coefficient 16: 0.570E-02

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Chebychev coefficient 17:-0.476E-01
Chebychev coefficient 18:-0.491E-01
Chebychev coefficient 19:-0.525E-01
Chebychev coefficient 20:-0.276E-01
Chebychev coefficient 21:-0.605E-02
Chebychev coefficient 22: 0.202E-01
Chebychev coefficient 23: 0.221E-02
Chebychev coefficient 24:-0.119E-01
Chebychev coefficient 25:-0.467E-03
Chebychev coefficient 26: 0.189E-01
Chebychev coefficient 27: 0.114E-01
Chebychev coefficient 28: 0.105E-02
297. CC*CC+H(+M)=>CCC.C(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.111E+02
Chebychev coefficient 2: 0.122E+01
Chebychev coefficient 3:-0.221E+00
Chebychev coefficient 4: 0.360E-01
Chebychev coefficient 5:-0.596E+00
Chebychev coefficient 6: 0.118E+01
Chebychev coefficient 7: 0.809E-01
Chebychev coefficient 8:-0.706E-01
Chebychev coefficient 9:-0.854E+00
Chebychev coefficient 10: 0.271E+00
Chebychev coefficient 11: 0.146E+00
Chebychev coefficient 12:-0.700E-02
Chebychev coefficient 13:-0.255E+00
Chebychev coefficient 14:-0.696E-01
Chebychev coefficient 15: 0.414E-01
Chebychev coefficient 16: 0.307E-01
Chebychev coefficient 17: 0.776E-02
Chebychev coefficient 18:-0.994E-01

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	Chebychev coefficient	19:-0.249E-01			
	Chebychev coefficient	20: 0.175E-01			
	Chebychev coefficient	21: 0.735E-01			
	Chebychev coefficient	22:-0.416E-01			
	Chebychev coefficient	23:-0.294E-01			
	Chebychev coefficient	24:-0.276E-02			
	Chebychev coefficient	25: 0.584E-01			
	Chebychev coefficient	26: 0.638E-02			
	Chebychev coefficient	27:-0.773E-02			
	Chebychev coefficient	28:-0.811E-02			
298.	CC*CC+H(+M)=>C*CCC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.940E+01			
	Chebychev coefficient	2:-0.983E+00			
	Chebychev coefficient	3:-0.239E+00			
	Chebychev coefficient	4: 0.195E-01			
	Chebychev coefficient	5: 0.333E+01			
	Chebychev coefficient	6: 0.111E+01			
	Chebychev coefficient	7: 0.180E+00			
	Chebychev coefficient	8:-0.662E-01			
	Chebychev coefficient	9: 0.127E+00			
	Chebychev coefficient	10: 0.414E-01			
	Chebychev coefficient	11: 0.123E+00			
	Chebychev coefficient	12: 0.387E-01			
	Chebychev coefficient	13:-0.111E+00			
	Chebychev coefficient	14:-0.138E+00			
	Chebychev coefficient	15:-0.246E-01			
	Chebychev coefficient	16: 0.271E-01			
	Chebychev coefficient	17:-0.488E-01			
	Chebychev coefficient	18:-0.583E-01			
	Chebychev coefficient	19:-0.464E-01			
	Chebychev coefficient	20:-0.909E-02			

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Chebychev coefficient 21:-0.222E-02
Chebychev coefficient 22: 0.784E-04
Chebychev coefficient 23:-0.153E-01
Chebychev coefficient 24:-0.128E-01
Chebychev coefficient 25: 0.680E-02
Chebychev coefficient 26: 0.163E-01
Chebychev coefficient 27: 0.733E-02
Chebychev coefficient 28:-0.310E-02
299. CC*CC+H(+M)=>C*CC+CH3(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.116E+02
Chebychev coefficient 2:-0.112E+01
Chebychev coefficient 3:-0.218E+00
Chebychev coefficient 4: 0.264E-01
Chebychev coefficient 5: 0.220E+01
Chebychev coefficient 6: 0.119E+01
Chebychev coefficient 7: 0.130E+00
Chebychev coefficient 8:-0.670E-01
Chebychev coefficient 9:-0.299E-01
Chebychev coefficient 10: 0.121E+00
Chebychev coefficient 11: 0.141E+00
Chebychev coefficient 12: 0.191E-01
Chebychev coefficient 13:-0.130E+00
Chebychev coefficient 14:-0.143E+00
Chebychev coefficient 15:-0.183E-02
Chebychev coefficient 16: 0.337E-01
Chebychev coefficient 17:-0.500E-01
Chebychev coefficient 18:-0.846E-01
Chebychev coefficient 19:-0.475E-01
Chebychev coefficient 20: 0.239E-02
Chebychev coefficient 21: 0.219E-02
Chebychev coefficient 22:-0.877E-02

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Chebychev coefficient 23:-0.244E-01
Chebychev coefficient 24:-0.115E-01
Chebychev coefficient 25: 0.145E-01
Chebychev coefficient 26: 0.206E-01
Chebychev coefficient 27: 0.329E-02
Chebychev coefficient 28:-0.402E-02
300. CC*CC+H(+M)=>CCCC.(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.586E+01
Chebychev coefficient 2: 0.641E+00
Chebychev coefficient 3:-0.510E+00
Chebychev coefficient 4: 0.280E-01
Chebychev coefficient 5: 0.196E+01
Chebychev coefficient 6: 0.200E+01
Chebychev coefficient 7: 0.402E+00
Chebychev coefficient 8:-0.115E+00
Chebychev coefficient 9:-0.630E+00
Chebychev coefficient 10: 0.142E+00
Chebychev coefficient 11: 0.208E+00
Chebychev coefficient 12: 0.708E-01
Chebychev coefficient 13:-0.235E+00
Chebychev coefficient 14:-0.220E+00
Chebychev coefficient 15:-0.373E-01
Chebychev coefficient 16: 0.409E-01
Chebychev coefficient 17: 0.258E-01
Chebychev coefficient 18:-0.113E+00
Chebychev coefficient 19:-0.678E-01
Chebychev coefficient 20:-0.940E-02
Chebychev coefficient 21: 0.789E-01
Chebychev coefficient 22:-0.113E-01
Chebychev coefficient 23:-0.251E-01
Chebychev coefficient 24:-0.161E-01

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	Chebychev coefficient	25:	0.492E-01			
	Chebychev coefficient	26:	0.240E-01			
	Chebychev coefficient	27:	0.544E-02			
	Chebychev coefficient	28:	-0.509E-02			
301.	CC*CC+H(+M)=>C2H4+C2H5(+M)			1.00E+00	0.0	0.0
	Declared duplicate reaction...					
	Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebychev coefficient	1:	0.717E+01			
	Chebychev coefficient	2:	-0.164E+01			
	Chebychev coefficient	3:	-0.488E+00			
	Chebychev coefficient	4:	0.589E-02			
	Chebychev coefficient	5:	0.449E+01			
	Chebychev coefficient	6:	0.192E+01			
	Chebychev coefficient	7:	0.449E+00			
	Chebychev coefficient	8:	-0.853E-01			
	Chebychev coefficient	9:	0.918E-02			
	Chebychev coefficient	10:	-0.280E-01			
	Chebychev coefficient	11:	0.160E+00			
	Chebychev coefficient	12:	0.862E-01			
	Chebychev coefficient	13:	-0.175E+00			
	Chebychev coefficient	14:	-0.239E+00			
	Chebychev coefficient	15:	-0.783E-01			
	Chebychev coefficient	16:	0.231E-01			
	Chebychev coefficient	17:	-0.537E-01			
	Chebychev coefficient	18:	-0.691E-01			
	Chebychev coefficient	19:	-0.639E-01			
	Chebychev coefficient	20:	-0.225E-01			
	Chebychev coefficient	21:	0.405E-02			
	Chebychev coefficient	22:	0.159E-01			
	Chebychev coefficient	23:	-0.829E-02			
	Chebychev coefficient	24:	-0.159E-01			
	Chebychev coefficient	25:	0.911E-02			
	Chebychev coefficient	26:	0.214E-01			

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Chebychev coefficient 27: 0.109E-01
Chebychev coefficient 28:-0.103E-02
302. CC*CC+H(+M)=>C*CCC+H(+M)          1.00E+00    0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.508E+01
Chebychev coefficient 2:-0.145E+01
Chebychev coefficient 3:-0.490E+00
Chebychev coefficient 4:-0.180E-01
Chebychev coefficient 5: 0.546E+01
Chebychev coefficient 6: 0.174E+01
Chebychev coefficient 7: 0.486E+00
Chebychev coefficient 8:-0.525E-01
Chebychev coefficient 9: 0.127E+00
Chebychev coefficient 10:-0.930E-01
Chebychev coefficient 11: 0.123E+00
Chebychev coefficient 12: 0.906E-01
Chebychev coefficient 13:-0.144E+00
Chebychev coefficient 14:-0.204E+00
Chebychev coefficient 15:-0.920E-01
Chebychev coefficient 16: 0.703E-02
Chebychev coefficient 17:-0.498E-01
Chebychev coefficient 18:-0.510E-01
Chebychev coefficient 19:-0.537E-01
Chebychev coefficient 20:-0.275E-01
Chebychev coefficient 21:-0.649E-02
Chebychev coefficient 22: 0.196E-01
Chebychev coefficient 23: 0.133E-02
Chebychev coefficient 24:-0.123E-01
Chebychev coefficient 25:-0.438E-03
Chebychev coefficient 26: 0.191E-01
Chebychev coefficient 27: 0.114E-01
Chebychev coefficient 28: 0.848E-03

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303.	CC*CC+H(+M)=>CCC.C(+M)	1.00E+00	0.0	0.0
	Declared duplicate reaction...			
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04			
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03			
	Chebychev coefficient 1:	0.113E+02		
	Chebychev coefficient 2:	0.117E+01		
	Chebychev coefficient 3:	-0.205E+00		
	Chebychev coefficient 4:	0.348E-01		
	Chebychev coefficient 5:	-0.624E+00		
	Chebychev coefficient 6:	0.121E+01		
	Chebychev coefficient 7:	0.577E-01		
	Chebychev coefficient 8:	-0.647E-01		
	Chebychev coefficient 9:	-0.868E+00		
	Chebychev coefficient 10:	0.298E+00		
	Chebychev coefficient 11:	0.145E+00		
	Chebychev coefficient 12:	-0.127E-01		
	Chebychev coefficient 13:	-0.266E+00		
	Chebychev coefficient 14:	-0.625E-01		
	Chebychev coefficient 15:	0.489E-01		
	Chebychev coefficient 16:	0.278E-01		
	Chebychev coefficient 17:	0.362E-02		
	Chebychev coefficient 18:	-0.102E+00		
	Chebychev coefficient 19:	-0.214E-01		
	Chebychev coefficient 20:	0.193E-01		
	Chebychev coefficient 21:	0.735E-01		
	Chebychev coefficient 22:	-0.465E-01		
	Chebychev coefficient 23:	-0.296E-01		
	Chebychev coefficient 24:	-0.626E-03		
	Chebychev coefficient 25:	0.586E-01		
	Chebychev coefficient 26:	0.524E-02		
	Chebychev coefficient 27:	-0.930E-02		
	Chebychev coefficient 28:	-0.791E-02		
304.	CC*CC+H(+M)=>C*CCC+H(+M)	1.00E+00	0.0	0.0
	Declared duplicate reaction...			

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1: 0.934E+01
 Chebychev coefficient 2:-0.998E+00
 Chebychev coefficient 3:-0.237E+00
 Chebychev coefficient 4: 0.208E-01
 Chebychev coefficient 5: 0.345E+01
 Chebychev coefficient 6: 0.112E+01
 Chebychev coefficient 7: 0.176E+00
 Chebychev coefficient 8:-0.671E-01
 Chebychev coefficient 9: 0.107E+00
 Chebychev coefficient 10: 0.501E-01
 Chebychev coefficient 11: 0.125E+00
 Chebychev coefficient 12: 0.369E-01
 Chebychev coefficient 13:-0.114E+00
 Chebychev coefficient 14:-0.139E+00
 Chebychev coefficient 15:-0.221E-01
 Chebychev coefficient 16: 0.282E-01
 Chebychev coefficient 17:-0.505E-01
 Chebychev coefficient 18:-0.614E-01
 Chebychev coefficient 19:-0.469E-01
 Chebychev coefficient 20:-0.823E-02
 Chebychev coefficient 21:-0.292E-02
 Chebychev coefficient 22:-0.822E-03
 Chebychev coefficient 23:-0.165E-01
 Chebychev coefficient 24:-0.127E-01
 Chebychev coefficient 25: 0.689E-02
 Chebychev coefficient 26: 0.168E-01
 Chebychev coefficient 27: 0.707E-02
 Chebychev coefficient 28:-0.343E-02

305. CC*CC+H(+M)=>C*CC+CH3(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.116E+02
 Chebychev coefficient 2:-0.116E+01
 Chebychev coefficient 3:-0.207E+00
 Chebychev coefficient 4: 0.259E-01
 Chebychev coefficient 5: 0.223E+01
 Chebychev coefficient 6: 0.123E+01
 Chebychev coefficient 7: 0.112E+00
 Chebychev coefficient 8:-0.640E-01
 Chebychev coefficient 9:-0.317E-01
 Chebychev coefficient 10: 0.134E+00
 Chebychev coefficient 11: 0.144E+00
 Chebychev coefficient 12: 0.144E-01
 Chebychev coefficient 13:-0.136E+00
 Chebychev coefficient 14:-0.147E+00
 Chebychev coefficient 15: 0.384E-02
 Chebychev coefficient 16: 0.340E-01
 Chebychev coefficient 17:-0.519E-01
 Chebychev coefficient 18:-0.885E-01
 Chebychev coefficient 19:-0.478E-01
 Chebychev coefficient 20: 0.500E-02
 Chebychev coefficient 21: 0.249E-02
 Chebychev coefficient 22:-0.972E-02
 Chebychev coefficient 23:-0.262E-01
 Chebychev coefficient 24:-0.118E-01
 Chebychev coefficient 25: 0.150E-01
 Chebychev coefficient 26: 0.207E-01
 Chebychev coefficient 27: 0.272E-02
 Chebychev coefficient 28:-0.482E-02

306. C*CCC+H(+M)=>CCCC.(+M)

1.00E+00

0.0

0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.595E+01

Chebychev coefficient 2: 0.698E+00

Chebychev coefficient	3:-0.507E+00			
Chebychev coefficient	4: 0.214E-01			
Chebychev coefficient	5: 0.135E+01			
Chebychev coefficient	6: 0.198E+01			
Chebychev coefficient	7: 0.414E+00			
Chebychev coefficient	8:-0.109E+00			
Chebychev coefficient	9:-0.561E+00			
Chebychev coefficient	10: 0.101E+00			
Chebychev coefficient	11: 0.198E+00			
Chebychev coefficient	12: 0.762E-01			
Chebychev coefficient	13:-0.216E+00			
Chebychev coefficient	14:-0.224E+00			
Chebychev coefficient	15:-0.466E-01			
Chebychev coefficient	16: 0.373E-01			
Chebychev coefficient	17: 0.342E-01			
Chebychev coefficient	18:-0.101E+00			
Chebychev coefficient	19:-0.670E-01			
Chebychev coefficient	20:-0.130E-01			
Chebychev coefficient	21: 0.816E-01			
Chebychev coefficient	22:-0.551E-02			
Chebychev coefficient	23:-0.220E-01			
Chebychev coefficient	24:-0.174E-01			
Chebychev coefficient	25: 0.481E-01			
Chebychev coefficient	26: 0.234E-01			
Chebychev coefficient	27: 0.679E-02			
Chebychev coefficient	28:-0.453E-02			
307. C*CCC+H(+M)=>C2H4+C2H5(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1: 0.732E+01			
Chebychev coefficient	2:-0.159E+01			
Chebychev coefficient	3:-0.487E+00			
Chebychev coefficient	4:-0.315E-03			

Chebychev coefficient 5: 0.388E+01
 Chebychev coefficient 6: 0.188E+01
 Chebychev coefficient 7: 0.459E+00
 Chebychev coefficient 8: -0.777E-01
 Chebychev coefficient 9: 0.610E-01
 Chebychev coefficient 10: -0.568E-01
 Chebychev coefficient 11: 0.149E+00
 Chebychev coefficient 12: 0.888E-01
 Chebychev coefficient 13: -0.163E+00
 Chebychev coefficient 14: -0.231E+00
 Chebychev coefficient 15: -0.828E-01
 Chebychev coefficient 16: 0.191E-01
 Chebychev coefficient 17: -0.487E-01
 Chebychev coefficient 18: -0.599E-01
 Chebychev coefficient 19: -0.612E-01
 Chebychev coefficient 20: -0.245E-01
 Chebychev coefficient 21: 0.549E-02
 Chebychev coefficient 22: 0.172E-01
 Chebychev coefficient 23: -0.524E-02
 Chebychev coefficient 24: -0.150E-01
 Chebychev coefficient 25: 0.856E-02
 Chebychev coefficient 26: 0.195E-01
 Chebychev coefficient 27: 0.109E-01
 Chebychev coefficient 28: -0.525E-03

308. C*CCC+H(+M)=>CCC.C(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.109E+02
 Chebychev coefficient 2: 0.130E+01
 Chebychev coefficient 3: -0.241E+00
 Chebychev coefficient 4: 0.361E-01
 Chebychev coefficient 5: -0.821E+00
 Chebychev coefficient 6: 0.114E+01

Chebychev coefficient 7: 0.115E+00
 Chebychev coefficient 8:-0.770E-01
 Chebychev coefficient 9:-0.835E+00
 Chebychev coefficient 10: 0.237E+00
 Chebychev coefficient 11: 0.145E+00
 Chebychev coefficient 12: 0.206E-02
 Chebychev coefficient 13:-0.241E+00
 Chebychev coefficient 14:-0.763E-01
 Chebychev coefficient 15: 0.301E-01
 Chebychev coefficient 16: 0.338E-01
 Chebychev coefficient 17: 0.139E-01
 Chebychev coefficient 18:-0.951E-01
 Chebychev coefficient 19:-0.286E-01
 Chebychev coefficient 20: 0.138E-01
 Chebychev coefficient 21: 0.731E-01
 Chebychev coefficient 22:-0.349E-01
 Chebychev coefficient 23:-0.286E-01
 Chebychev coefficient 24:-0.520E-02
 Chebychev coefficient 25: 0.583E-01
 Chebychev coefficient 26: 0.747E-02
 Chebychev coefficient 27:-0.538E-02
 Chebychev coefficient 28:-0.804E-02

309. C*CCC+H(+M)=>CC*CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.952E+01
 Chebychev coefficient 2:-0.983E+00
 Chebychev coefficient 3:-0.239E+00
 Chebychev coefficient 4: 0.195E-01
 Chebychev coefficient 5: 0.269E+01
 Chebychev coefficient 6: 0.111E+01
 Chebychev coefficient 7: 0.180E+00
 Chebychev coefficient 8:-0.662E-01

Chebychev coefficient 9: 0.131E+00
 Chebychev coefficient 10: 0.414E-01
 Chebychev coefficient 11: 0.123E+00
 Chebychev coefficient 12: 0.386E-01
 Chebychev coefficient 13:-0.108E+00
 Chebychev coefficient 14:-0.138E+00
 Chebychev coefficient 15:-0.245E-01
 Chebychev coefficient 16: 0.273E-01
 Chebychev coefficient 17:-0.461E-01
 Chebychev coefficient 18:-0.584E-01
 Chebychev coefficient 19:-0.465E-01
 Chebychev coefficient 20:-0.883E-02
 Chebychev coefficient 21:-0.382E-03
 Chebychev coefficient 22:-0.464E-06
 Chebychev coefficient 23:-0.153E-01
 Chebychev coefficient 24:-0.124E-01
 Chebychev coefficient 25: 0.812E-02
 Chebychev coefficient 26: 0.164E-01
 Chebychev coefficient 27: 0.729E-02
 Chebychev coefficient 28:-0.283E-02

310. C*CCC+H(+M)=>CC*CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.986E+01
 Chebychev coefficient 2:-0.998E+00
 Chebychev coefficient 3:-0.237E+00
 Chebychev coefficient 4: 0.207E-01
 Chebychev coefficient 5: 0.256E+01
 Chebychev coefficient 6: 0.112E+01
 Chebychev coefficient 7: 0.176E+00
 Chebychev coefficient 8:-0.671E-01
 Chebychev coefficient 9: 0.112E+00
 Chebychev coefficient 10: 0.502E-01

Chebychev coefficient	11:	0.125E+00		
Chebychev coefficient	12:	0.366E-01		
Chebychev coefficient	13:	-0.109E+00		
Chebychev coefficient	14:	-0.139E+00		
Chebychev coefficient	15:	-0.220E-01		
Chebychev coefficient	16:	0.286E-01		
Chebychev coefficient	17:	-0.461E-01		
Chebychev coefficient	18:	-0.616E-01		
Chebychev coefficient	19:	-0.469E-01		
Chebychev coefficient	20:	-0.779E-02		
Chebychev coefficient	21:	0.626E-04		
Chebychev coefficient	22:	-0.891E-03		
Chebychev coefficient	23:	-0.165E-01		
Chebychev coefficient	24:	-0.121E-01		
Chebychev coefficient	25:	0.908E-02		
Chebychev coefficient	26:	0.169E-01		
Chebychev coefficient	27:	0.704E-02		
Chebychev coefficient	28:	-0.297E-02		
311. C*CCC+H(+M)=>C*CC+CH3(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1:	0.115E+02		
Chebychev coefficient	2:	-0.106E+01		
Chebychev coefficient	3:	-0.234E+00		
Chebychev coefficient	4:	0.261E-01		
Chebychev coefficient	5:	0.189E+01		
Chebychev coefficient	6:	0.114E+01		
Chebychev coefficient	7:	0.157E+00		
Chebychev coefficient	8:	-0.701E-01		
Chebychev coefficient	9:	-0.278E-01		
Chebychev coefficient	10:	0.105E+00		
Chebychev coefficient	11:	0.133E+00		
Chebychev coefficient	12:	0.261E-01		

Chebyshev coefficient	13:-0.121E+00			
Chebyshev coefficient	14:-0.137E+00			
Chebyshev coefficient	15:-0.920E-02			
Chebyshev coefficient	16: 0.326E-01			
Chebyshev coefficient	17:-0.470E-01			
Chebyshev coefficient	18:-0.795E-01			
Chebyshev coefficient	19:-0.464E-01			
Chebyshev coefficient	20:-0.137E-02			
Chebyshev coefficient	21: 0.169E-02			
Chebyshev coefficient	22:-0.714E-02			
Chebyshev coefficient	23:-0.222E-01			
Chebyshev coefficient	24:-0.106E-01			
Chebyshev coefficient	25: 0.141E-01			
Chebyshev coefficient	26: 0.200E-01			
Chebyshev coefficient	27: 0.462E-02			
Chebyshev coefficient	28:-0.352E-02			
312. C*CC+CH3 (+M)=>CCCC. (+M)		1.00E+00	0.0	0.0
Chebyshev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
Chebyshev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
Chebyshev coefficient	1: 0.901E+00			
Chebyshev coefficient	2: 0.539E+00			
Chebyshev coefficient	3:-0.519E+00			
Chebyshev coefficient	4: 0.390E-01			
Chebyshev coefficient	5: 0.487E+01			
Chebyshev coefficient	6: 0.202E+01			
Chebyshev coefficient	7: 0.379E+00			
Chebyshev coefficient	8:-0.127E+00			
Chebyshev coefficient	9:-0.799E+00			
Chebyshev coefficient	10: 0.228E+00			
Chebyshev coefficient	11: 0.224E+00			
Chebyshev coefficient	12: 0.586E-01			
Chebyshev coefficient	13:-0.291E+00			
Chebyshev coefficient	14:-0.198E+00			
Chebyshev coefficient	15:-0.169E-01			

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Chebychev coefficient 16: 0.459E-01
Chebychev coefficient 17: 0.170E-03
Chebychev coefficient 18:-0.132E+00
Chebychev coefficient 19:-0.656E-01
Chebychev coefficient 20:-0.177E-02
Chebychev coefficient 21: 0.700E-01
Chebychev coefficient 22:-0.257E-01
Chebychev coefficient 23:-0.300E-01
Chebychev coefficient 24:-0.126E-01
Chebychev coefficient 25: 0.503E-01
Chebychev coefficient 26: 0.225E-01
Chebychev coefficient 27: 0.237E-02
Chebychev coefficient 28:-0.536E-02
313. C*CC+CH3(+M)=>C2H4+C2H5(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.208E+01
Chebychev coefficient 2:-0.174E+01
Chebychev coefficient 3:-0.493E+00
Chebychev coefficient 4: 0.177E-01
Chebychev coefficient 5: 0.737E+01
Chebychev coefficient 6: 0.198E+01
Chebychev coefficient 7: 0.432E+00
Chebychev coefficient 8:-0.992E-01
Chebychev coefficient 9:-0.128E+00
Chebychev coefficient 10: 0.413E-01
Chebychev coefficient 11: 0.179E+00
Chebychev coefficient 12: 0.795E-01
Chebychev coefficient 13:-0.212E+00
Chebychev coefficient 14:-0.250E+00
Chebychev coefficient 15:-0.662E-01
Chebychev coefficient 16: 0.307E-01
Chebychev coefficient 17:-0.681E-01
Chebychev coefficient 18:-0.903E-01

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	Chebychev coefficient	19:-0.678E-01			
	Chebychev coefficient	20:-0.174E-01			
	Chebychev coefficient	21: 0.185E-03			
	Chebychev coefficient	22: 0.955E-02			
	Chebychev coefficient	23:-0.153E-01			
	Chebychev coefficient	24:-0.169E-01			
	Chebychev coefficient	25: 0.102E-01			
	Chebychev coefficient	26: 0.243E-01			
	Chebychev coefficient	27: 0.991E-02			
	Chebychev coefficient	28:-0.199E-02			
314.	C*CC+CH3(+M)=>C*CCC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1:-0.111E+00			
	Chebychev coefficient	2:-0.153E+01			
	Chebychev coefficient	3:-0.495E+00			
	Chebychev coefficient	4:-0.844E-02			
	Chebychev coefficient	5: 0.839E+01			
	Chebychev coefficient	6: 0.181E+01			
	Chebychev coefficient	7: 0.472E+00			
	Chebychev coefficient	8:-0.666E-01			
	Chebychev coefficient	9: 0.103E-01			
	Chebychev coefficient	10:-0.577E-01			
	Chebychev coefficient	11: 0.142E+00			
	Chebychev coefficient	12: 0.896E-01			
	Chebychev coefficient	13:-0.184E+00			
	Chebychev coefficient	14:-0.214E+00			
	Chebychev coefficient	15:-0.847E-01			
	Chebychev coefficient	16: 0.140E-01			
	Chebychev coefficient	17:-0.645E-01			
	Chebychev coefficient	18:-0.616E-01			
	Chebychev coefficient	19:-0.599E-01			
	Chebychev coefficient	20:-0.265E-01			

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Chebychev coefficient 21:-0.977E-02
Chebychev coefficient 22: 0.148E-01
Chebychev coefficient 23:-0.401E-02
Chebychev coefficient 24:-0.148E-01
Chebychev coefficient 25:-0.546E-03
Chebychev coefficient 26: 0.193E-01
Chebychev coefficient 27: 0.109E-01
Chebychev coefficient 28:-0.320E-03
315. C*CC+CH3(+M)=>CCC.C(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.745E+01
Chebychev coefficient 2: 0.872E+00
Chebychev coefficient 3:-0.103E+00
Chebychev coefficient 4: 0.957E-02
Chebychev coefficient 5: 0.118E+01
Chebychev coefficient 6: 0.126E+01
Chebychev coefficient 7:-0.498E-01
Chebychev coefficient 8:-0.200E-01
Chebychev coefficient 9:-0.957E+00
Chebychev coefficient 10: 0.493E+00
Chebychev coefficient 11: 0.853E-01
Chebychev coefficient 12:-0.208E-01
Chebychev coefficient 13:-0.354E+00
Chebychev coefficient 14: 0.286E-01
Chebychev coefficient 15: 0.730E-01
Chebychev coefficient 16: 0.710E-02
Chebychev coefficient 17:-0.381E-01
Chebychev coefficient 18:-0.102E+00
Chebychev coefficient 19: 0.122E-01
Chebychev coefficient 20: 0.158E-01
Chebychev coefficient 21: 0.624E-01
Chebychev coefficient 22:-0.730E-01
Chebychev coefficient 23:-0.179E-01

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Chebychev coefficient 24: 0.588E-02
Chebychev coefficient 25: 0.682E-01
Chebychev coefficient 26:-0.153E-01
Chebychev coefficient 27:-0.145E-01
Chebychev coefficient 28:-0.304E-02
316. C*CC+CH3(+M)=>CC*CC+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.455E+01
Chebychev coefficient 2:-0.112E+01
Chebychev coefficient 3:-0.218E+00
Chebychev coefficient 4: 0.267E-01
Chebychev coefficient 5: 0.590E+01
Chebychev coefficient 6: 0.119E+01
Chebychev coefficient 7: 0.131E+00
Chebychev coefficient 8:-0.672E-01
Chebychev coefficient 9:-0.453E-01
Chebychev coefficient 10: 0.120E+00
Chebychev coefficient 11: 0.141E+00
Chebychev coefficient 12: 0.200E-01
Chebychev coefficient 13:-0.143E+00
Chebychev coefficient 14:-0.143E+00
Chebychev coefficient 15:-0.184E-02
Chebychev coefficient 16: 0.333E-01
Chebychev coefficient 17:-0.609E-01
Chebychev coefficient 18:-0.850E-01
Chebychev coefficient 19:-0.476E-01
Chebychev coefficient 20: 0.144E-02
Chebychev coefficient 21:-0.573E-02
Chebychev coefficient 22:-0.960E-02
Chebychev coefficient 23:-0.244E-01
Chebychev coefficient 24:-0.121E-01
Chebychev coefficient 25: 0.886E-02

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Chebychev coefficient 26: 0.191E-01
Chebychev coefficient 27: 0.286E-02
Chebychev coefficient 28:-0.471E-02
317. C*CC+CH3(+M)=>CC*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.496E+01
Chebychev coefficient 2:-0.116E+01
Chebychev coefficient 3:-0.207E+00
Chebychev coefficient 4: 0.261E-01
Chebychev coefficient 5: 0.568E+01
Chebychev coefficient 6: 0.123E+01
Chebychev coefficient 7: 0.112E+00
Chebychev coefficient 8:-0.642E-01
Chebychev coefficient 9:-0.448E-01
Chebychev coefficient 10: 0.133E+00
Chebychev coefficient 11: 0.145E+00
Chebychev coefficient 12: 0.151E-01
Chebychev coefficient 13:-0.148E+00
Chebychev coefficient 14:-0.147E+00
Chebychev coefficient 15: 0.383E-02
Chebychev coefficient 16: 0.337E-01
Chebychev coefficient 17:-0.609E-01
Chebychev coefficient 18:-0.889E-01
Chebychev coefficient 19:-0.478E-01
Chebychev coefficient 20: 0.414E-02
Chebychev coefficient 21:-0.427E-02
Chebychev coefficient 22:-0.105E-01
Chebychev coefficient 23:-0.261E-01
Chebychev coefficient 24:-0.122E-01
Chebychev coefficient 25: 0.101E-01
Chebychev coefficient 26: 0.193E-01
Chebychev coefficient 27: 0.228E-02

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	Chebychev coefficient 28:-0.520E-02			
318.	C*CC+CH3(+M)=>C*CCC+H(+M)	1.00E+00	0.0	0.0
	Declared duplicate reaction...			
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04			
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03			
	Chebychev coefficient 1: 0.436E+01			
	Chebychev coefficient 2:-0.106E+01			
	Chebychev coefficient 3:-0.234E+00			
	Chebychev coefficient 4: 0.265E-01			
	Chebychev coefficient 5: 0.622E+01			
	Chebychev coefficient 6: 0.114E+01			
	Chebychev coefficient 7: 0.157E+00			
	Chebychev coefficient 8:-0.702E-01			
	Chebychev coefficient 9:-0.469E-01			
	Chebychev coefficient 10: 0.105E+00			
	Chebychev coefficient 11: 0.134E+00			
	Chebychev coefficient 12: 0.271E-01			
	Chebychev coefficient 13:-0.138E+00			
	Chebychev coefficient 14:-0.138E+00			
	Chebychev coefficient 15:-0.912E-02			
	Chebychev coefficient 16: 0.320E-01			
	Chebychev coefficient 17:-0.608E-01			
	Chebychev coefficient 18:-0.798E-01			
	Chebychev coefficient 19:-0.466E-01			
	Chebychev coefficient 20:-0.246E-02			
	Chebychev coefficient 21:-0.776E-02			
	Chebychev coefficient 22:-0.810E-02			
	Chebychev coefficient 23:-0.223E-01			
	Chebychev coefficient 24:-0.117E-01			
	Chebychev coefficient 25: 0.735E-02			
	Chebychev coefficient 26: 0.185E-01			
	Chebychev coefficient 27: 0.417E-02			
	Chebychev coefficient 28:-0.470E-02			
319.	C*CC.+CH3(+M)=C*CCC(+M)	1.00E+00	0.0	0.0

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Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.131E+02
Chebychev coefficient    2: 0.483E+00
Chebychev coefficient    3:-0.554E-01
Chebychev coefficient    4:-0.826E-04
Chebychev coefficient    5:-0.121E+01
Chebychev coefficient    6: 0.855E+00
Chebychev coefficient    7:-0.821E-01
Chebychev coefficient    8:-0.423E-02
Chebychev coefficient    9:-0.807E+00
Chebychev coefficient   10: 0.586E+00
Chebychev coefficient   11:-0.206E-01
Chebychev coefficient   12:-0.101E-01
Chebychev coefficient   13:-0.516E+00
Chebychev coefficient   14: 0.295E+00
Chebychev coefficient   15: 0.280E-01
Chebychev coefficient   16:-0.875E-02
Chebychev coefficient   17:-0.271E+00
Chebychev coefficient   18: 0.877E-01
Chebychev coefficient   19: 0.400E-01
Chebychev coefficient   20:-0.134E-02
Chebychev coefficient   21:-0.112E+00
Chebychev coefficient   22:-0.139E-01
Chebychev coefficient   23: 0.265E-01
Chebychev coefficient   24: 0.635E-02
Chebychev coefficient   25:-0.151E-01
Chebychev coefficient   26:-0.506E-01
Chebychev coefficient   27:-0.135E-02
Chebychev coefficient   28: 0.543E-02
320. C*CC.+CH3(+M)=C2H3+C2H5(+M)                    1.00E+00    0.0    0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.380E+01

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Chebychev coefficient	2:-0.125E+01			
Chebychev coefficient	3:-0.232E+00			
Chebychev coefficient	4: 0.402E-01			
Chebychev coefficient	5: 0.831E+01			
Chebychev coefficient	6: 0.117E+01			
Chebychev coefficient	7: 0.974E-01			
Chebychev coefficient	8:-0.766E-01			
Chebychev coefficient	9:-0.528E-02			
Chebychev coefficient	10: 0.262E+00			
Chebychev coefficient	11: 0.155E+00			
Chebychev coefficient	12: 0.469E-02			
Chebychev coefficient	13:-0.165E+00			
Chebychev coefficient	14:-0.716E-01			
Chebychev coefficient	15: 0.415E-01			
Chebychev coefficient	16: 0.373E-01			
Chebychev coefficient	17:-0.122E+00			
Chebychev coefficient	18:-0.966E-01			
Chebychev coefficient	19:-0.287E-01			
Chebychev coefficient	20: 0.131E-01			
Chebychev coefficient	21:-0.582E-01			
Chebychev coefficient	22:-0.426E-01			
Chebychev coefficient	23:-0.337E-01			
Chebychev coefficient	24:-0.869E-02			
Chebychev coefficient	25:-0.240E-01			
Chebychev coefficient	26:-0.129E-02			
Chebychev coefficient	27:-0.147E-01			
Chebychev coefficient	28:-0.114E-01			
321. C*CC.+CH3(+M)=CC*CC.+H(+M)		1.00E+00	0.0	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1: 0.581E+01			
Chebychev coefficient	2:-0.157E+01			
Chebychev coefficient	3:-0.118E+00			
Chebychev coefficient	4: 0.135E-01			

Chebychev coefficient	5:	0.535E+01		
Chebychev coefficient	6:	0.132E+01		
Chebychev coefficient	7:	-0.511E-01		
Chebychev coefficient	8:	-0.225E-01		
Chebychev coefficient	9:	0.169E+00		
Chebychev coefficient	10:	0.463E+00		
Chebychev coefficient	11:	0.118E+00		
Chebychev coefficient	12:	-0.250E-01		
Chebychev coefficient	13:	-0.169E+00		
Chebychev coefficient	14:	-0.262E-01		
Chebychev coefficient	15:	0.971E-01		
Chebychev coefficient	16:	0.133E-01		
Chebychev coefficient	17:	-0.116E+00		
Chebychev coefficient	18:	-0.124E+00		
Chebychev coefficient	19:	0.834E-02		
Chebychev coefficient	20:	0.257E-01		
Chebychev coefficient	21:	-0.426E-01		
Chebychev coefficient	22:	-0.722E-01		
Chebychev coefficient	23:	-0.327E-01		
Chebychev coefficient	24:	0.101E-01		
Chebychev coefficient	25:	-0.127E-01		
Chebychev coefficient	26:	-0.175E-01		
Chebychev coefficient	27:	-0.284E-01		
Chebychev coefficient	28:	-0.847E-02		
322. C*CC.+CH3(+M)=C*C.CC+H(+M)			1.00E+00	0.0
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebychev coefficient	1:	-0.140E+01		
Chebychev coefficient	2:	-0.915E+00		
Chebychev coefficient	3:	-0.295E+00		
Chebychev coefficient	4:	0.684E-02		
Chebychev coefficient	5:	0.115E+02		
Chebychev coefficient	6:	0.920E+00		
Chebychev coefficient	7:	0.225E+00		

Chebychev coefficient 8:-0.543E-01
 Chebychev coefficient 9:-0.825E-01
 Chebychev coefficient 10: 0.143E+00
 Chebychev coefficient 11: 0.121E+00
 Chebychev coefficient 12: 0.382E-01
 Chebychev coefficient 13:-0.181E+00
 Chebychev coefficient 14:-0.786E-01
 Chebychev coefficient 15:-0.199E-02
 Chebychev coefficient 16: 0.280E-01
 Chebychev coefficient 17:-0.137E+00
 Chebychev coefficient 18:-0.698E-01
 Chebychev coefficient 19:-0.361E-01
 Chebychev coefficient 20:-0.296E-02
 Chebychev coefficient 21:-0.737E-01
 Chebychev coefficient 22:-0.195E-01
 Chebychev coefficient 23:-0.220E-01
 Chebychev coefficient 24:-0.141E-01
 Chebychev coefficient 25:-0.323E-01
 Chebychev coefficient 26: 0.359E-02
 Chebychev coefficient 27:-0.377E-02
 Chebychev coefficient 28:-0.760E-02

323. C*CCC(+M)=C2H3+C2H5(+M) 1.00E+00 0.0 0.0
 Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1:-0.242E+02
 Chebychev coefficient 2: 0.114E+01
 Chebychev coefficient 3:-0.241E+00
 Chebychev coefficient 4: 0.459E-01
 Chebychev coefficient 5: 0.295E+02
 Chebychev coefficient 6: 0.111E+01
 Chebychev coefficient 7: 0.568E-01
 Chebychev coefficient 8:-0.785E-01
 Chebychev coefficient 9:-0.103E+01
 Chebychev coefficient 10: 0.355E+00

Chebyshev coefficient	11:	0.148E+00		
Chebyshev coefficient	12:	-0.160E-01		
Chebyshev coefficient	13:	-0.490E+00		
Chebyshev coefficient	14:	0.187E-01		
Chebyshev coefficient	15:	0.743E-01		
Chebyshev coefficient	16:	0.297E-01		
Chebyshev coefficient	17:	-0.197E+00		
Chebyshev coefficient	18:	-0.697E-01		
Chebyshev coefficient	19:	0.259E-02		
Chebyshev coefficient	20:	0.253E-01		
Chebyshev coefficient	21:	-0.530E-01		
Chebyshev coefficient	22:	-0.543E-01		
Chebyshev coefficient	23:	-0.250E-01		
Chebyshev coefficient	24:	0.587E-02		
Chebyshev coefficient	25:	0.182E-01		
Chebyshev coefficient	26:	-0.208E-01		
Chebyshev coefficient	27:	-0.218E-01		
Chebyshev coefficient	28:	-0.107E-01		
324. C*CCC(+M)=CC*CC.+H(+M)			1.00E+00	0.0
Chebyshev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebyshev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebyshev coefficient	1:	-0.210E+02		
Chebyshev coefficient	2:	0.723E+00		
Chebyshev coefficient	3:	-0.105E+00		
Chebyshev coefficient	4:	0.124E-01		
Chebyshev coefficient	5:	0.259E+02		
Chebyshev coefficient	6:	0.113E+01		
Chebyshev coefficient	7:	-0.924E-01		
Chebyshev coefficient	8:	-0.154E-01		
Chebyshev coefficient	9:	-0.975E+00		
Chebyshev coefficient	10:	0.579E+00		
Chebyshev coefficient	11:	0.507E-01		
Chebyshev coefficient	12:	-0.308E-01		
Chebyshev coefficient	13:	-0.521E+00		

	Chebyshev coefficient	14:	0.162E+00			
	Chebyshev coefficient	15:	0.911E-01			
	Chebyshev coefficient	16:	-0.875E-02			
	Chebyshev coefficient	17:	-0.224E+00			
	Chebyshev coefficient	18:	-0.275E-01			
	Chebyshev coefficient	19:	0.546E-01			
	Chebyshev coefficient	20:	0.129E-01			
	Chebyshev coefficient	21:	-0.685E-01			
	Chebyshev coefficient	22:	-0.668E-01			
	Chebyshev coefficient	23:	0.767E-02			
	Chebyshev coefficient	24:	0.163E-01			
	Chebyshev coefficient	25:	0.164E-01			
	Chebyshev coefficient	26:	-0.519E-01			
	Chebyshev coefficient	27:	-0.245E-01			
	Chebyshev coefficient	28:	0.303E-02			
325.	C*CCC(+M)=C*C.CC+H(+M)			1.00E+00	0.0	0.0
	Chebyshev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebyshev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebyshev coefficient	1:	-0.301E+02			
	Chebyshev coefficient	2:	0.152E+01			
	Chebyshev coefficient	3:	-0.310E+00			
	Chebyshev coefficient	4:	0.104E-01			
	Chebyshev coefficient	5:	0.330E+02			
	Chebyshev coefficient	6:	0.895E+00			
	Chebyshev coefficient	7:	0.203E+00			
	Chebyshev coefficient	8:	-0.642E-01			
	Chebyshev coefficient	9:	-0.985E+00			
	Chebyshev coefficient	10:	0.199E+00			
	Chebyshev coefficient	11:	0.133E+00			
	Chebyshev coefficient	12:	0.287E-01			
	Chebyshev coefficient	13:	-0.465E+00			
	Chebyshev coefficient	14:	-0.302E-01			
	Chebyshev coefficient	15:	0.209E-01			
	Chebyshev coefficient	16:	0.306E-01			


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Chebychev coefficient 17:-0.179E+00
Chebychev coefficient 18:-0.618E-01
Chebychev coefficient 19:-0.232E-01
Chebychev coefficient 20: 0.799E-02
Chebychev coefficient 21:-0.477E-01
Chebychev coefficient 22:-0.379E-01
Chebychev coefficient 23:-0.227E-01
Chebychev coefficient 24:-0.576E-02
Chebychev coefficient 25: 0.681E-02
Chebychev coefficient 26:-0.386E-02
Chebychev coefficient 27:-0.695E-02
Chebychev coefficient 28:-0.785E-02
326. CC*CC=CC*CC.+H 5.94E+70 -16.0 123442.0
327. C2H3+C2H4(+M)=>C*CC*C+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.881E+01
Chebychev coefficient 2:-0.109E+01
Chebychev coefficient 3:-0.228E+00
Chebychev coefficient 4: 0.136E-01
Chebychev coefficient 5: 0.300E+01
Chebychev coefficient 6: 0.111E+01
Chebychev coefficient 7: 0.130E+00
Chebychev coefficient 8:-0.634E-01
Chebychev coefficient 9:-0.466E-01
Chebychev coefficient 10: 0.112E+00
Chebychev coefficient 11: 0.123E+00
Chebychev coefficient 12: 0.287E-01
Chebychev coefficient 13:-0.116E+00
Chebychev coefficient 14:-0.926E-01
Chebychev coefficient 15: 0.108E-02
Chebychev coefficient 16: 0.235E-01
Chebychev coefficient 17:-0.309E-01

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Chebychev coefficient 18:-0.511E-01
Chebychev coefficient 19:-0.261E-01
Chebychev coefficient 20:-0.206E-02
Chebychev coefficient 21: 0.175E-02
Chebychev coefficient 22:-0.855E-02
Chebychev coefficient 23:-0.112E-01
Chebychev coefficient 24:-0.640E-02
Chebychev coefficient 25: 0.501E-02
Chebychev coefficient 26: 0.558E-02
Chebychev coefficient 27: 0.129E-02
Chebychev coefficient 28:-0.177E-02
328. C2H3+C2H4(+M)=>CC*CC.(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.859E+01
Chebychev coefficient 2:-0.397E+00
Chebychev coefficient 3:-0.363E+00
Chebychev coefficient 4: 0.409E-01
Chebychev coefficient 5: 0.112E+01
Chebychev coefficient 6: 0.221E+01
Chebychev coefficient 7: 0.178E-01
Chebychev coefficient 8:-0.890E-01
Chebychev coefficient 9:-0.100E+01
Chebychev coefficient 10: 0.629E+00
Chebychev coefficient 11: 0.187E+00
Chebychev coefficient 12:-0.940E-02
Chebychev coefficient 13:-0.570E+00
Chebychev coefficient 14: 0.300E-01
Chebychev coefficient 15: 0.853E-01
Chebychev coefficient 16: 0.219E-01
Chebychev coefficient 17:-0.211E+00
Chebychev coefficient 18:-0.731E-01
Chebychev coefficient 19: 0.104E-01
Chebychev coefficient 20: 0.894E-02

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Chebychev coefficient 21:-0.332E-01
Chebychev coefficient 22:-0.452E-01
Chebychev coefficient 23:-0.736E-02
Chebychev coefficient 24: 0.968E-03
Chebychev coefficient 25: 0.384E-01
Chebychev coefficient 26:-0.178E-01
Chebychev coefficient 27:-0.677E-02
Chebychev coefficient 28: 0.348E-03
329. C2H3+C2H4 (+M)=>C*CC*C+H (+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.781E+01
Chebychev coefficient 2:-0.247E+01
Chebychev coefficient 3:-0.360E+00
Chebychev coefficient 4: 0.277E-01
Chebychev coefficient 5: 0.401E+01
Chebychev coefficient 6: 0.238E+01
Chebychev coefficient 7: 0.143E+00
Chebychev coefficient 8:-0.881E-01
Chebychev coefficient 9:-0.848E-01
Chebychev coefficient 10: 0.402E+00
Chebychev coefficient 11: 0.230E+00
Chebychev coefficient 12: 0.135E-01
Chebychev coefficient 13:-0.243E+00
Chebychev coefficient 14:-0.157E+00
Chebychev coefficient 15: 0.450E-01
Chebychev coefficient 16: 0.339E-01
Chebychev coefficient 17:-0.981E-01
Chebychev coefficient 18:-0.142E+00
Chebychev coefficient 19:-0.341E-01
Chebychev coefficient 20: 0.927E-02
Chebychev coefficient 21:-0.181E-01
Chebychev coefficient 22:-0.489E-01

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Chebychev coefficient 23:-0.285E-01
Chebychev coefficient 24: 0.793E-04
Chebychev coefficient 25: 0.933E-02
Chebychev coefficient 26: 0.158E-02
Chebychev coefficient 27:-0.990E-02
Chebychev coefficient 28:-0.282E-02
330. C2H3+C2H4(+M)=>C*C*CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.451E+01
Chebychev coefficient 2:-0.191E+01
Chebychev coefficient 3:-0.470E+00
Chebychev coefficient 4: 0.165E-01
Chebychev coefficient 5: 0.612E+01
Chebychev coefficient 6: 0.199E+01
Chebychev coefficient 7: 0.347E+00
Chebychev coefficient 8:-0.861E-01
Chebychev coefficient 9: 0.685E-01
Chebychev coefficient 10: 0.190E+00
Chebychev coefficient 11: 0.194E+00
Chebychev coefficient 12: 0.486E-01
Chebychev coefficient 13:-0.135E+00
Chebychev coefficient 14:-0.185E+00
Chebychev coefficient 15:-0.110E-01
Chebychev coefficient 16: 0.336E-01
Chebychev coefficient 17:-0.674E-01
Chebychev coefficient 18:-0.105E+00
Chebychev coefficient 19:-0.498E-01
Chebychev coefficient 20:-0.167E-02
Chebychev coefficient 21:-0.184E-01
Chebychev coefficient 22:-0.209E-01
Chebychev coefficient 23:-0.242E-01
Chebychev coefficient 24:-0.941E-02

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	Chebychev coefficient	25:-0.354E-02			
	Chebychev coefficient	26: 0.483E-02			
	Chebychev coefficient	27:-0.403E-02			
	Chebychev coefficient	28:-0.462E-02			
331.	C2H3+C2H4 (+M)=>C2H5+C2H2 (+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebychev coefficient	1: 0.674E+01			
	Chebychev coefficient	2:-0.136E+01			
	Chebychev coefficient	3:-0.488E+00			
	Chebychev coefficient	4:-0.501E-01			
	Chebychev coefficient	5: 0.442E+01			
	Chebychev coefficient	6: 0.150E+01			
	Chebychev coefficient	7: 0.452E+00			
	Chebychev coefficient	8:-0.142E-01			
	Chebychev coefficient	9:-0.289E+00			
	Chebychev coefficient	10: 0.131E-01			
	Chebychev coefficient	11: 0.977E-01			
	Chebychev coefficient	12: 0.671E-01			
	Chebychev coefficient	13:-0.253E+00			
	Chebychev coefficient	14:-0.154E+00			
	Chebychev coefficient	15:-0.538E-01			
	Chebychev coefficient	16: 0.709E-02			
	Chebychev coefficient	17:-0.913E-01			
	Chebychev coefficient	18:-0.377E-01			
	Chebychev coefficient	19:-0.302E-01			
	Chebychev coefficient	20:-0.156E-01			
	Chebychev coefficient	21:-0.134E-01			
	Chebychev coefficient	22: 0.159E-01			
	Chebychev coefficient	23: 0.407E-02			
	Chebychev coefficient	24:-0.388E-02			
	Chebychev coefficient	25: 0.248E-02			
	Chebychev coefficient	26: 0.117E-01			
	Chebychev coefficient	27: 0.697E-02			

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Chebychev coefficient 28: 0.139E-02
332. C2H3+C2H4(+M)=>C*C.CC(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.350E+01
Chebychev coefficient 2: 0.530E+00
Chebychev coefficient 3:-0.505E+00
Chebychev coefficient 4: 0.166E-01
Chebychev coefficient 5: 0.316E+01
Chebychev coefficient 6: 0.194E+01
Chebychev coefficient 7: 0.335E+00
Chebychev coefficient 8:-0.104E+00
Chebychev coefficient 9:-0.849E+00
Chebychev coefficient 10: 0.233E+00
Chebychev coefficient 11: 0.202E+00
Chebychev coefficient 12: 0.493E-01
Chebychev coefficient 13:-0.348E+00
Chebychev coefficient 14:-0.142E+00
Chebychev coefficient 15:-0.728E-03
Chebychev coefficient 16: 0.348E-01
Chebychev coefficient 17:-0.452E-01
Chebychev coefficient 18:-0.909E-01
Chebychev coefficient 19:-0.407E-01
Chebychev coefficient 20:-0.104E-02
Chebychev coefficient 21: 0.465E-01
Chebychev coefficient 22:-0.196E-01
Chebychev coefficient 23:-0.180E-01
Chebychev coefficient 24:-0.822E-02
Chebychev coefficient 25: 0.442E-01
Chebychev coefficient 26: 0.127E-01
Chebychev coefficient 27: 0.263E-02
Chebychev coefficient 28:-0.202E-02
333. C2H3+C2H4(+M)=>C*C*C+CH3(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

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Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.434E+01

Chebychev coefficient 2:-0.168E+01

Chebychev coefficient 3:-0.477E+00

Chebychev coefficient 4:-0.509E-02

Chebychev coefficient 5: 0.581E+01

Chebychev coefficient 6: 0.188E+01

Chebychev coefficient 7: 0.406E+00

Chebychev coefficient 8:-0.707E-01

Chebychev coefficient 9:-0.818E-01

Chebychev coefficient 10: 0.291E-01

Chebychev coefficient 11: 0.161E+00

Chebychev coefficient 12: 0.716E-01

Chebychev coefficient 13:-0.161E+00

Chebychev coefficient 14:-0.197E+00

Chebychev coefficient 15:-0.498E-01

Chebychev coefficient 16: 0.235E-01

Chebychev coefficient 17:-0.494E-01

Chebychev coefficient 18:-0.684E-01

Chebychev coefficient 19:-0.506E-01

Chebychev coefficient 20:-0.136E-01

Chebychev coefficient 21:-0.361E-02

Chebychev coefficient 22: 0.345E-02

Chebychev coefficient 23:-0.101E-01

Chebychev coefficient 24:-0.105E-01

Chebychev coefficient 25: 0.284E-02

Chebychev coefficient 26: 0.113E-01

Chebychev coefficient 27: 0.410E-02

Chebychev coefficient 28:-0.151E-02

334. C2H3+C2H4(+M)=>C*C*CC+H(+M)

1.00E+00

0.0

0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.250E+01

Chebychev coefficient	2:-0.150E+01			
Chebychev coefficient	3:-0.480E+00			
Chebychev coefficient	4:-0.212E-01			
Chebychev coefficient	5: 0.659E+01			
Chebychev coefficient	6: 0.173E+01			
Chebychev coefficient	7: 0.446E+00			
Chebychev coefficient	8:-0.496E-01			
Chebychev coefficient	9: 0.294E-01			
Chebychev coefficient	10:-0.396E-01			
Chebychev coefficient	11: 0.128E+00			
Chebychev coefficient	12: 0.774E-01			
Chebychev coefficient	13:-0.135E+00			
Chebychev coefficient	14:-0.186E+00			
Chebychev coefficient	15:-0.664E-01			
Chebychev coefficient	16: 0.132E-01			
Chebychev coefficient	17:-0.490E-01			
Chebychev coefficient	18:-0.496E-01			
Chebychev coefficient	19:-0.447E-01			
Chebychev coefficient	20:-0.182E-01			
Chebychev coefficient	21:-0.858E-02			
Chebychev coefficient	22: 0.121E-01			
Chebychev coefficient	23:-0.289E-02			
Chebychev coefficient	24:-0.953E-02			
Chebychev coefficient	25:-0.292E-03			
Chebychev coefficient	26: 0.117E-01			
Chebychev coefficient	27: 0.559E-02			
Chebychev coefficient	28:-0.548E-03			
335. C2H3+C2H4 (+M)=>C#CC+CH3 (+M)		1.00E+00	0.0	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1: 0.170E+01			
Chebychev coefficient	2:-0.218E+01			
Chebychev coefficient	3:-0.688E+00			
Chebychev coefficient	4:-0.275E-01			

Chebychev coefficient	5:	0.718E+01		
Chebychev coefficient	6:	0.243E+01		
Chebychev coefficient	7:	0.642E+00		
Chebychev coefficient	8:	-0.489E-01		
Chebychev coefficient	9:	-0.394E-01		
Chebychev coefficient	10:	0.351E-01		
Chebychev coefficient	11:	0.154E+00		
Chebychev coefficient	12:	0.808E-01		
Chebychev coefficient	13:	-0.153E+00		
Chebychev coefficient	14:	-0.230E+00		
Chebychev coefficient	15:	-0.608E-01		
Chebychev coefficient	16:	0.153E-01		
Chebychev coefficient	17:	-0.564E-01		
Chebychev coefficient	18:	-0.825E-01		
Chebychev coefficient	19:	-0.488E-01		
Chebychev coefficient	20:	-0.125E-01		
Chebychev coefficient	21:	-0.155E-01		
Chebychev coefficient	22:	-0.538E-02		
Chebychev coefficient	23:	-0.145E-01		
Chebychev coefficient	24:	-0.888E-02		
Chebychev coefficient	25:	-0.483E-02		
Chebychev coefficient	26:	0.502E-02		
Chebychev coefficient	27:	-0.172E-02		
Chebychev coefficient	28:	-0.296E-02		
336. C2H3+C2H4 (+M)=>CC#CC+H (+M)		1.00E+00	0.0	0.0
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebychev coefficient	1:	0.601E+00		
Chebychev coefficient	2:	-0.213E+01		
Chebychev coefficient	3:	-0.679E+00		
Chebychev coefficient	4:	-0.322E-01		
Chebychev coefficient	5:	0.740E+01		
Chebychev coefficient	6:	0.239E+01		
Chebychev coefficient	7:	0.643E+00		

Chebychev coefficient 8:-0.423E-01
 Chebychev coefficient 9: 0.892E-02
 Chebychev coefficient 10: 0.317E-02
 Chebychev coefficient 11: 0.145E+00
 Chebychev coefficient 12: 0.822E-01
 Chebychev coefficient 13:-0.142E+00
 Chebychev coefficient 14:-0.227E+00
 Chebychev coefficient 15:-0.643E-01
 Chebychev coefficient 16: 0.125E-01
 Chebychev coefficient 17:-0.551E-01
 Chebychev coefficient 18:-0.758E-01
 Chebychev coefficient 19:-0.487E-01
 Chebychev coefficient 20:-0.141E-01
 Chebychev coefficient 21:-0.180E-01
 Chebychev coefficient 22:-0.327E-02
 Chebychev coefficient 23:-0.135E-01
 Chebychev coefficient 24:-0.924E-02
 Chebychev coefficient 25:-0.664E-02
 Chebychev coefficient 26: 0.555E-02
 Chebychev coefficient 27:-0.982E-03
 Chebychev coefficient 28:-0.298E-02

337. C2H3+C2H4(+M)=>C*C*CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1:-0.898E-01
 Chebychev coefficient 2:-0.204E+01
 Chebychev coefficient 3:-0.667E+00
 Chebychev coefficient 4:-0.393E-01
 Chebychev coefficient 5: 0.774E+01
 Chebychev coefficient 6: 0.234E+01
 Chebychev coefficient 7: 0.644E+00
 Chebychev coefficient 8:-0.324E-01
 Chebychev coefficient 9: 0.716E-01

Chebychev coefficient	10:-0.424E-01			
Chebychev coefficient	11: 0.132E+00			
Chebychev coefficient	12: 0.839E-01			
Chebychev coefficient	13:-0.130E+00			
Chebychev coefficient	14:-0.219E+00			
Chebychev coefficient	15:-0.683E-01			
Chebychev coefficient	16: 0.860E-02			
Chebychev coefficient	17:-0.551E-01			
Chebychev coefficient	18:-0.656E-01			
Chebychev coefficient	19:-0.477E-01			
Chebychev coefficient	20:-0.158E-01			
Chebychev coefficient	21:-0.219E-01			
Chebychev coefficient	22:-0.107E-02			
Chebychev coefficient	23:-0.116E-01			
Chebychev coefficient	24:-0.918E-02			
Chebychev coefficient	25:-0.925E-02			
Chebychev coefficient	26: 0.597E-02			
Chebychev coefficient	27: 0.166E-03			
Chebychev coefficient	28:-0.273E-02			
338. CC*CC.(+M)=>C2H3+C2H4(+M)		1.00E+00	0.0	0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1:-0.923E+01			
Chebychev coefficient	2:-0.387E+00			
Chebychev coefficient	3:-0.357E+00			
Chebychev coefficient	4: 0.404E-01			
Chebychev coefficient	5: 0.169E+02			
Chebychev coefficient	6: 0.223E+01			
Chebychev coefficient	7: 0.228E-01			
Chebychev coefficient	8:-0.887E-01			
Chebychev coefficient	9:-0.102E+01			
Chebychev coefficient	10: 0.633E+00			
Chebychev coefficient	11: 0.188E+00			
Chebychev coefficient	12:-0.809E-02			

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Chebychev coefficient 13:-0.594E+00
Chebychev coefficient 14: 0.229E-01
Chebychev coefficient 15: 0.845E-01
Chebychev coefficient 16: 0.222E-01
Chebychev coefficient 17:-0.212E+00
Chebychev coefficient 18:-0.791E-01
Chebychev coefficient 19: 0.807E-02
Chebychev coefficient 20: 0.819E-02
Chebychev coefficient 21:-0.230E-01
Chebychev coefficient 22:-0.486E-01
Chebychev coefficient 23:-0.931E-02
Chebychev coefficient 24: 0.282E-03
Chebychev coefficient 25: 0.478E-01
Chebychev coefficient 26:-0.199E-01
Chebychev coefficient 27:-0.796E-02
Chebychev coefficient 28: 0.228E-03
339. CC*CC.(+M)=>C*CC*C+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.904E+01
Chebychev coefficient 2:-0.587E+00
Chebychev coefficient 3:-0.298E+00
Chebychev coefficient 4: 0.323E-01
Chebychev coefficient 5: 0.164E+02
Chebychev coefficient 6: 0.225E+01
Chebychev coefficient 7:-0.373E-01
Chebychev coefficient 8:-0.688E-01
Chebychev coefficient 9:-0.102E+01
Chebychev coefficient 10: 0.703E+00
Chebychev coefficient 11: 0.167E+00
Chebychev coefficient 12:-0.134E-01
Chebychev coefficient 13:-0.625E+00
Chebychev coefficient 14: 0.623E-01

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Chebychev coefficient 15: 0.848E-01
Chebychev coefficient 16: 0.202E-01
Chebychev coefficient 17:-0.232E+00
Chebychev coefficient 18:-0.627E-01
Chebychev coefficient 19: 0.103E-01
Chebychev coefficient 20: 0.735E-02
Chebychev coefficient 21:-0.331E-01
Chebychev coefficient 22:-0.456E-01
Chebychev coefficient 23:-0.661E-02
Chebychev coefficient 24:-0.204E-02
Chebychev coefficient 25: 0.437E-01
Chebychev coefficient 26:-0.211E-01
Chebychev coefficient 27:-0.514E-02
Chebychev coefficient 28:-0.680E-03
340. CC*CC.(+M)=>C*CC*C+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.643E+01
Chebychev coefficient 2: 0.592E+00
Chebychev coefficient 3:-0.662E-01
Chebychev coefficient 4: 0.334E-02
Chebychev coefficient 5: 0.144E+02
Chebychev coefficient 6: 0.997E+00
Chebychev coefficient 7:-0.813E-01
Chebychev coefficient 8:-0.499E-02
Chebychev coefficient 9:-0.890E+00
Chebychev coefficient 10: 0.597E+00
Chebychev coefficient 11: 0.782E-02
Chebychev coefficient 12:-0.150E-01
Chebychev coefficient 13:-0.497E+00
Chebychev coefficient 14: 0.232E+00
Chebychev coefficient 15: 0.528E-01
Chebychev coefficient 16:-0.780E-02

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Chebychev coefficient 17:-0.212E+00
Chebychev coefficient 18: 0.246E-01
Chebychev coefficient 19: 0.425E-01
Chebychev coefficient 20: 0.478E-02
Chebychev coefficient 21:-0.540E-01
Chebychev coefficient 22:-0.463E-01
Chebychev coefficient 23: 0.115E-01
Chebychev coefficient 24: 0.810E-02
Chebychev coefficient 25: 0.319E-01
Chebychev coefficient 26:-0.451E-01
Chebychev coefficient 27:-0.106E-01
Chebychev coefficient 28: 0.180E-02
341. CC*CC.(+M)=>C*C*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.123E+02
Chebychev coefficient 2: 0.110E+01
Chebychev coefficient 3:-0.224E+00
Chebychev coefficient 4: 0.438E-01
Chebychev coefficient 5: 0.185E+02
Chebychev coefficient 6: 0.113E+01
Chebychev coefficient 7: 0.346E-01
Chebychev coefficient 8:-0.703E-01
Chebychev coefficient 9:-0.907E+00
Chebychev coefficient 10: 0.361E+00
Chebychev coefficient 11: 0.146E+00
Chebychev coefficient 12:-0.205E-01
Chebychev coefficient 13:-0.401E+00
Chebychev coefficient 14: 0.176E-01
Chebychev coefficient 15: 0.749E-01
Chebychev coefficient 16: 0.249E-01
Chebychev coefficient 17:-0.127E+00
Chebychev coefficient 18:-0.696E-01

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Chebychev coefficient 19: 0.191E-02
Chebychev coefficient 20: 0.231E-01
Chebychev coefficient 21:-0.550E-03
Chebychev coefficient 22:-0.560E-01
Chebychev coefficient 23:-0.237E-01
Chebychev coefficient 24: 0.720E-02
Chebychev coefficient 25: 0.514E-01
Chebychev coefficient 26:-0.209E-01
Chebychev coefficient 27:-0.200E-01
Chebychev coefficient 28:-0.857E-02
342. CC*CC.(+M)=>C2H5+C2H2(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.117E+02
Chebychev coefficient 2:-0.463E+00
Chebychev coefficient 3:-0.726E+00
Chebychev coefficient 4:-0.920E-02
Chebychev coefficient 5: 0.184E+02
Chebychev coefficient 6: 0.259E+01
Chebychev coefficient 7: 0.413E+00
Chebychev coefficient 8:-0.935E-01
Chebychev coefficient 9:-0.118E+01
Chebychev coefficient 10: 0.421E+00
Chebychev coefficient 11: 0.214E+00
Chebychev coefficient 12: 0.326E-01
Chebychev coefficient 13:-0.655E+00
Chebychev coefficient 14:-0.108E+00
Chebychev coefficient 15: 0.214E-01
Chebychev coefficient 16: 0.190E-01
Chebychev coefficient 17:-0.227E+00
Chebychev coefficient 18:-0.916E-01
Chebychev coefficient 19:-0.164E-01
Chebychev coefficient 20: 0.235E-02
Chebychev coefficient 21:-0.227E-01

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	Chebyshev coefficient	22:-0.252E-01			
	Chebyshev coefficient	23:-0.606E-02			
	Chebyshev coefficient	24: 0.431E-02			
	Chebyshev coefficient	25: 0.272E-01			
	Chebyshev coefficient	26:-0.229E-02			
	Chebyshev coefficient	27:-0.133E-02			
	Chebyshev coefficient	28: 0.413E-02			
343.	CC*CC.(+M)=>C*C.CC(+M)		1.00E+00	0.0	0.0
	Chebyshev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
	Chebyshev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
	Chebyshev coefficient	1:-0.148E+02			
	Chebyshev coefficient	2: 0.149E+01			
	Chebyshev coefficient	3:-0.690E+00			
	Chebyshev coefficient	4: 0.121E+00			
	Chebyshev coefficient	5: 0.175E+02			
	Chebyshev coefficient	6: 0.274E+01			
	Chebyshev coefficient	7: 0.205E+00			
	Chebyshev coefficient	8:-0.210E+00			
	Chebyshev coefficient	9:-0.161E+01			
	Chebyshev coefficient	10: 0.560E+00			
	Chebyshev coefficient	11: 0.258E+00			
	Chebyshev coefficient	12:-0.518E-02			
	Chebyshev coefficient	13:-0.703E+00			
	Chebyshev coefficient	14:-0.232E-01			
	Chebyshev coefficient	15: 0.900E-01			
	Chebyshev coefficient	16: 0.470E-01			
	Chebyshev coefficient	17:-0.188E+00			
	Chebyshev coefficient	18:-0.954E-01			
	Chebyshev coefficient	19:-0.111E-01			
	Chebyshev coefficient	20: 0.140E-01			
	Chebyshev coefficient	21:-0.975E-03			
	Chebyshev coefficient	22:-0.519E-01			
	Chebyshev coefficient	23:-0.207E-01			
	Chebyshev coefficient	24:-0.787E-03			


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Chebychev coefficient 25: 0.605E-01
Chebychev coefficient 26:-0.357E-02
Chebychev coefficient 27:-0.710E-02
Chebychev coefficient 28: 0.201E-03
344. CC*CC.(+M)=>C*C*C+CH3(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.143E+02
Chebychev coefficient 2:-0.480E+00
Chebychev coefficient 3:-0.604E+00
Chebychev coefficient 4: 0.961E-01
Chebychev coefficient 5: 0.196E+02
Chebychev coefficient 6: 0.283E+01
Chebychev coefficient 7: 0.308E+00
Chebychev coefficient 8:-0.207E+00
Chebychev coefficient 9:-0.103E+01
Chebychev coefficient 10: 0.396E+00
Chebychev coefficient 11: 0.297E+00
Chebychev coefficient 12: 0.458E-01
Chebychev coefficient 13:-0.567E+00
Chebychev coefficient 14:-0.141E+00
Chebychev coefficient 15: 0.445E-01
Chebychev coefficient 16: 0.543E-01
Chebychev coefficient 17:-0.169E+00
Chebychev coefficient 18:-0.128E+00
Chebychev coefficient 19:-0.457E-01
Chebychev coefficient 20: 0.652E-02
Chebychev coefficient 21:-0.194E-03
Chebychev coefficient 22:-0.441E-01
Chebychev coefficient 23:-0.275E-01
Chebychev coefficient 24:-0.766E-02
Chebychev coefficient 25: 0.491E-01
Chebychev coefficient 26: 0.498E-02
Chebychev coefficient 27:-0.585E-02

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	Chebychev coefficient	28:-0.343E-02			
345.	CC*CC.(+M)=>C*C*CC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1:-0.163E+02			
	Chebychev coefficient	2:-0.159E+00			
	Chebychev coefficient	3:-0.613E+00			
	Chebychev coefficient	4: 0.725E-01			
	Chebychev coefficient	5: 0.203E+02			
	Chebychev coefficient	6: 0.265E+01			
	Chebychev coefficient	7: 0.372E+00			
	Chebychev coefficient	8:-0.194E+00			
	Chebychev coefficient	9:-0.882E+00			
	Chebychev coefficient	10: 0.293E+00			
	Chebychev coefficient	11: 0.292E+00			
	Chebychev coefficient	12: 0.685E-01			
	Chebychev coefficient	13:-0.515E+00			
	Chebychev coefficient	14:-0.184E+00			
	Chebychev coefficient	15: 0.636E-02			
	Chebychev coefficient	16: 0.533E-01			
	Chebychev coefficient	17:-0.146E+00			
	Chebychev coefficient	18:-0.129E+00			
	Chebychev coefficient	19:-0.585E-01			
	Chebychev coefficient	20: 0.921E-03			
	Chebychev coefficient	21: 0.162E-01			
	Chebychev coefficient	22:-0.265E-01			
	Chebychev coefficient	23:-0.254E-01			
	Chebychev coefficient	24:-0.117E-01			
	Chebychev coefficient	25: 0.418E-01			
	Chebychev coefficient	26: 0.112E-01			
	Chebychev coefficient	27:-0.893E-04			
	Chebychev coefficient	28:-0.373E-02			
346.	CC*CC.(+M)=>C#CC+CH3(+M)		1.00E+00	0.0	0.0

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1:-0.155E+02
 Chebychev coefficient 2: 0.635E+00
 Chebychev coefficient 3:-0.510E+00
 Chebychev coefficient 4: 0.132E-01
 Chebychev coefficient 5: 0.199E+02
 Chebychev coefficient 6: 0.179E+01
 Chebychev coefficient 7: 0.358E+00
 Chebychev coefficient 8:-0.799E-01
 Chebychev coefficient 9:-0.940E+00
 Chebychev coefficient 10: 0.279E+00
 Chebychev coefficient 11: 0.187E+00
 Chebychev coefficient 12: 0.370E-01
 Chebychev coefficient 13:-0.450E+00
 Chebychev coefficient 14:-0.948E-01
 Chebychev coefficient 15: 0.125E-01
 Chebychev coefficient 16: 0.279E-01
 Chebychev coefficient 17:-0.126E+00
 Chebychev coefficient 18:-0.923E-01
 Chebychev coefficient 19:-0.294E-01
 Chebychev coefficient 20: 0.630E-02
 Chebychev coefficient 21: 0.161E-01
 Chebychev coefficient 22:-0.367E-01
 Chebychev coefficient 23:-0.209E-01
 Chebychev coefficient 24:-0.274E-02
 Chebychev coefficient 25: 0.526E-01
 Chebychev coefficient 26:-0.340E-02
 Chebychev coefficient 27:-0.953E-02
 Chebychev coefficient 28:-0.545E-02

347. CC*CC.(+M)=>CC#CC+H(+M) 1.00E+00 0.0 0.0
 Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1:-0.167E+02

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Chebychev coefficient 2: 0.675E+00
Chebychev coefficient 3:-0.504E+00
Chebychev coefficient 4: 0.996E-02
Chebychev coefficient 5: 0.201E+02
Chebychev coefficient 6: 0.179E+01
Chebychev coefficient 7: 0.364E+00
Chebychev coefficient 8:-0.766E-01
Chebychev coefficient 9:-0.876E+00
Chebychev coefficient 10: 0.250E+00
Chebychev coefficient 11: 0.182E+00
Chebychev coefficient 12: 0.403E-01
Chebychev coefficient 13:-0.431E+00
Chebychev coefficient 14:-0.107E+00
Chebychev coefficient 15: 0.655E-02
Chebychev coefficient 16: 0.277E-01
Chebychev coefficient 17:-0.118E+00
Chebychev coefficient 18:-0.914E-01
Chebychev coefficient 19:-0.317E-01
Chebychev coefficient 20: 0.516E-02
Chebychev coefficient 21: 0.199E-01
Chebychev coefficient 22:-0.326E-01
Chebychev coefficient 23:-0.207E-01
Chebychev coefficient 24:-0.371E-02
Chebychev coefficient 25: 0.521E-01
Chebychev coefficient 26:-0.175E-02
Chebychev coefficient 27:-0.875E-02
Chebychev coefficient 28:-0.590E-02
348. CC*CC.(+M)=>C*C*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.175E+02
Chebychev coefficient 2: 0.733E+00
Chebychev coefficient 3:-0.495E+00

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Chebychev coefficient	4:	0.472E-02		
Chebychev coefficient	5:	0.205E+02		
Chebychev coefficient	6:	0.178E+01		
Chebychev coefficient	7:	0.374E+00		
Chebychev coefficient	8:	-0.715E-01		
Chebychev coefficient	9:	-0.784E+00		
Chebychev coefficient	10:	0.207E+00		
Chebychev coefficient	11:	0.175E+00		
Chebychev coefficient	12:	0.449E-01		
Chebychev coefficient	13:	-0.411E+00		
Chebychev coefficient	14:	-0.124E+00		
Chebychev coefficient	15:	-0.210E-02		
Chebychev coefficient	16:	0.271E-01		
Chebychev coefficient	17:	-0.111E+00		
Chebychev coefficient	18:	-0.879E-01		
Chebychev coefficient	19:	-0.347E-01		
Chebychev coefficient	20:	0.329E-02		
Chebychev coefficient	21:	0.240E-01		
Chebychev coefficient	22:	-0.252E-01		
Chebychev coefficient	23:	-0.198E-01		
Chebychev coefficient	24:	-0.521E-02		
Chebychev coefficient	25:	0.504E-01		
Chebychev coefficient	26:	0.233E-03		
Chebychev coefficient	27:	-0.734E-02		
Chebychev coefficient	28:	-0.633E-02		
349. C*C.CC(+M)=>C2H3+C2H4(+M)			1.00E+00	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	0.0
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:	-0.517E+01		
Chebychev coefficient	2:	0.524E+00		
Chebychev coefficient	3:	-0.503E+00		
Chebychev coefficient	4:	0.179E-01		
Chebychev coefficient	5:	0.113E+02		
Chebychev coefficient	6:	0.195E+01		

Chebychev coefficient 7: 0.335E+00
 Chebychev coefficient 8:-0.105E+00
 Chebychev coefficient 9:-0.848E+00
 Chebychev coefficient 10: 0.235E+00
 Chebychev coefficient 11: 0.199E+00
 Chebychev coefficient 12: 0.469E-01
 Chebychev coefficient 13:-0.347E+00
 Chebychev coefficient 14:-0.149E+00
 Chebychev coefficient 15:-0.327E-02
 Chebychev coefficient 16: 0.343E-01
 Chebychev coefficient 17:-0.433E-01
 Chebychev coefficient 18:-0.946E-01
 Chebychev coefficient 19:-0.412E-01
 Chebychev coefficient 20:-0.302E-06
 Chebychev coefficient 21: 0.459E-01
 Chebychev coefficient 22:-0.173E-01
 Chebychev coefficient 23:-0.168E-01
 Chebychev coefficient 24:-0.700E-02
 Chebychev coefficient 25: 0.407E-01
 Chebychev coefficient 26: 0.149E-01
 Chebychev coefficient 27: 0.381E-02
 Chebychev coefficient 28:-0.131E-02

350. C*C.CC(+M)=>C*CC*C+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1:-0.536E+01
 Chebychev coefficient 2: 0.480E+00
 Chebychev coefficient 3:-0.506E+00
 Chebychev coefficient 4: 0.216E-01
 Chebychev coefficient 5: 0.111E+02
 Chebychev coefficient 6: 0.195E+01
 Chebychev coefficient 7: 0.323E+00
 Chebychev coefficient 8:-0.108E+00

Chebychev coefficient 9:-0.902E+00
 Chebychev coefficient 10: 0.264E+00
 Chebychev coefficient 11: 0.202E+00
 Chebychev coefficient 12: 0.424E-01
 Chebychev coefficient 13:-0.369E+00
 Chebychev coefficient 14:-0.139E+00
 Chebychev coefficient 15: 0.337E-02
 Chebychev coefficient 16: 0.347E-01
 Chebychev coefficient 17:-0.548E-01
 Chebychev coefficient 18:-0.964E-01
 Chebychev coefficient 19:-0.389E-01
 Chebychev coefficient 20: 0.154E-02
 Chebychev coefficient 21: 0.414E-01
 Chebychev coefficient 22:-0.200E-01
 Chebychev coefficient 23:-0.171E-01
 Chebychev coefficient 24:-0.618E-02
 Chebychev coefficient 25: 0.403E-01
 Chebychev coefficient 26: 0.143E-01
 Chebychev coefficient 27: 0.327E-02
 Chebychev coefficient 28:-0.133E-02

351. C*C.CC(+M)=>CC*CC.(+M) 1.00E+00 0.0 0.0
 Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
 Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
 Chebychev coefficient 1:-0.565E+01
 Chebychev coefficient 2: 0.145E+01
 Chebychev coefficient 3:-0.698E+00
 Chebychev coefficient 4: 0.118E+00
 Chebychev coefficient 5: 0.980E+01
 Chebychev coefficient 6: 0.276E+01
 Chebychev coefficient 7: 0.215E+00
 Chebychev coefficient 8:-0.203E+00
 Chebychev coefficient 9:-0.158E+01
 Chebychev coefficient 10: 0.569E+00
 Chebychev coefficient 11: 0.250E+00

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Chebychev coefficient 12:-0.968E-02
Chebychev coefficient 13:-0.670E+00
Chebychev coefficient 14:-0.278E-01
Chebychev coefficient 15: 0.831E-01
Chebychev coefficient 16: 0.430E-01
Chebychev coefficient 17:-0.180E+00
Chebychev coefficient 18:-0.963E-01
Chebychev coefficient 19:-0.972E-02
Chebychev coefficient 20: 0.138E-01
Chebychev coefficient 21:-0.237E-02
Chebychev coefficient 22:-0.514E-01
Chebychev coefficient 23:-0.195E-01
Chebychev coefficient 24:-0.141E-02
Chebychev coefficient 25: 0.491E-01
Chebychev coefficient 26:-0.630E-02
Chebychev coefficient 27:-0.759E-02
Chebychev coefficient 28:-0.111E-02
352. C*C.CC(+M)=>C*CC*C+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.603E+01
Chebychev coefficient 2:-0.597E+00
Chebychev coefficient 3:-0.597E+00
Chebychev coefficient 4: 0.105E+00
Chebychev coefficient 5: 0.119E+02
Chebychev coefficient 6: 0.294E+01
Chebychev coefficient 7: 0.320E+00
Chebychev coefficient 8:-0.201E+00
Chebychev coefficient 9:-0.869E+00
Chebychev coefficient 10: 0.437E+00
Chebychev coefficient 11: 0.275E+00
Chebychev coefficient 12: 0.297E-01
Chebychev coefficient 13:-0.413E+00

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Chebychev coefficient 14:-0.147E+00
Chebychev coefficient 15: 0.470E-01
Chebychev coefficient 16: 0.527E-01
Chebychev coefficient 17:-0.888E-01
Chebychev coefficient 18:-0.138E+00
Chebychev coefficient 19:-0.404E-01
Chebychev coefficient 20: 0.748E-02
Chebychev coefficient 21: 0.243E-01
Chebychev coefficient 22:-0.489E-01
Chebychev coefficient 23:-0.293E-01
Chebychev coefficient 24:-0.639E-02
Chebychev coefficient 25: 0.343E-01
Chebychev coefficient 26:-0.386E-03
Chebychev coefficient 27:-0.640E-02
Chebychev coefficient 28:-0.228E-02
353. C*C.CC(+M)=>C*C*CC+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.887E+01
Chebychev coefficient 2:-0.772E-01
Chebychev coefficient 3:-0.591E+00
Chebychev coefficient 4: 0.711E-01
Chebychev coefficient 5: 0.131E+02
Chebychev coefficient 6: 0.268E+01
Chebychev coefficient 7: 0.400E+00
Chebychev coefficient 8:-0.185E+00
Chebychev coefficient 9:-0.558E+00
Chebychev coefficient 10: 0.215E+00
Chebychev coefficient 11: 0.271E+00
Chebychev coefficient 12: 0.762E-01
Chebychev coefficient 13:-0.281E+00
Chebychev coefficient 14:-0.209E+00
Chebychev coefficient 15:-0.485E-02

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Chebychev coefficient 16: 0.519E-01
Chebychev coefficient 17:-0.214E-01
Chebychev coefficient 18:-0.121E+00
Chebychev coefficient 19:-0.612E-01
Chebychev coefficient 20:-0.508E-02
Chebychev coefficient 21: 0.483E-01
Chebychev coefficient 22:-0.269E-01
Chebychev coefficient 23:-0.281E-01
Chebychev coefficient 24:-0.119E-01
Chebychev coefficient 25: 0.319E-01
Chebychev coefficient 26: 0.626E-02
Chebychev coefficient 27:-0.213E-02
Chebychev coefficient 28:-0.231E-02
354. C*C.CC(+M)=>C2H5+C2H2(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.654E+01
Chebychev coefficient 2: 0.388E+00
Chebychev coefficient 3:-0.597E+00
Chebychev coefficient 4: 0.145E-01
Chebychev coefficient 5: 0.123E+02
Chebychev coefficient 6: 0.242E+01
Chebychev coefficient 7: 0.590E+00
Chebychev coefficient 8:-0.682E-01
Chebychev coefficient 9:-0.676E+00
Chebychev coefficient 10:-0.440E-01
Chebychev coefficient 11: 0.964E-01
Chebychev coefficient 12: 0.390E-01
Chebychev coefficient 13:-0.259E+00
Chebychev coefficient 14:-0.239E+00
Chebychev coefficient 15:-0.574E-01
Chebychev coefficient 16: 0.264E-01
Chebychev coefficient 17: 0.120E-01
Chebychev coefficient 18:-0.653E-01

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Chebychev coefficient 19:-0.360E-01
Chebychev coefficient 20:-0.642E-02
Chebychev coefficient 21: 0.506E-01
Chebychev coefficient 22: 0.383E-02
Chebychev coefficient 23:-0.741E-02
Chebychev coefficient 24:-0.782E-02
Chebychev coefficient 25: 0.240E-01
Chebychev coefficient 26: 0.113E-01
Chebychev coefficient 27: 0.190E-02
Chebychev coefficient 28: 0.116E-02
355. C*C.CC(+M)=>C*C*C+CH3(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.519E+00
Chebychev coefficient 2: 0.914E+00
Chebychev coefficient 3:-0.118E+00
Chebychev coefficient 4: 0.138E-01
Chebychev coefficient 5: 0.881E+01
Chebychev coefficient 6: 0.124E+01
Chebychev coefficient 7:-0.353E-01
Chebychev coefficient 8:-0.247E-01
Chebychev coefficient 9:-0.999E+00
Chebychev coefficient 10: 0.441E+00
Chebychev coefficient 11: 0.944E-01
Chebychev coefficient 12:-0.176E-01
Chebychev coefficient 13:-0.400E+00
Chebychev coefficient 14: 0.198E-01
Chebychev coefficient 15: 0.637E-01
Chebychev coefficient 16: 0.103E-01
Chebychev coefficient 17:-0.897E-01
Chebychev coefficient 18:-0.824E-01
Chebychev coefficient 19: 0.533E-02
Chebychev coefficient 20: 0.127E-01
Chebychev coefficient 21: 0.238E-01

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Chebychev coefficient 22:-0.576E-01
Chebychev coefficient 23:-0.161E-01
Chebychev coefficient 24: 0.237E-02
Chebychev coefficient 25: 0.484E-01
Chebychev coefficient 26:-0.127E-01
Chebychev coefficient 27:-0.109E-01
Chebychev coefficient 28:-0.306E-02
356. C*C.CC(+M)=>C*C*CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.373E+01
Chebychev coefficient 2: 0.136E+01
Chebychev coefficient 3:-0.256E+00
Chebychev coefficient 4: 0.327E-01
Chebychev coefficient 5: 0.107E+02
Chebychev coefficient 6: 0.108E+01
Chebychev coefficient 7: 0.138E+00
Chebychev coefficient 8:-0.765E-01
Chebychev coefficient 9:-0.891E+00
Chebychev coefficient 10: 0.205E+00
Chebychev coefficient 11: 0.138E+00
Chebychev coefficient 12: 0.115E-01
Chebychev coefficient 13:-0.306E+00
Chebychev coefficient 14:-0.671E-01
Chebychev coefficient 15: 0.211E-01
Chebychev coefficient 16: 0.312E-01
Chebychev coefficient 17:-0.437E-01
Chebychev coefficient 18:-0.799E-01
Chebychev coefficient 19:-0.267E-01
Chebychev coefficient 20: 0.845E-02
Chebychev coefficient 21: 0.339E-01
Chebychev coefficient 22:-0.293E-01
Chebychev coefficient 23:-0.230E-01

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	Chebychev coefficient	24:-0.503E-02			
	Chebychev coefficient	25: 0.416E-01			
	Chebychev coefficient	26: 0.612E-02			
	Chebychev coefficient	27:-0.365E-02			
	Chebychev coefficient	28:-0.627E-02			
357.	C*C.CC (+M)=>C#CC+CH3 (+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1:-0.116E+02			
	Chebychev coefficient	2:-0.213E+00			
	Chebychev coefficient	3:-0.807E+00			
	Chebychev coefficient	4: 0.103E-01			
	Chebychev coefficient	5: 0.140E+02			
	Chebychev coefficient	6: 0.296E+01			
	Chebychev coefficient	7: 0.701E+00			
	Chebychev coefficient	8:-0.128E+00			
	Chebychev coefficient	9:-0.621E+00			
	Chebychev coefficient	10: 0.876E-01			
	Chebychev coefficient	11: 0.224E+00			
	Chebychev coefficient	12: 0.107E+00			
	Chebychev coefficient	13:-0.283E+00			
	Chebychev coefficient	14:-0.247E+00			
	Chebychev coefficient	15:-0.550E-01			
	Chebychev coefficient	16: 0.307E-01			
	Chebychev coefficient	17:-0.607E-02			
	Chebychev coefficient	18:-0.102E+00			
	Chebychev coefficient	19:-0.577E-01			
	Chebychev coefficient	20:-0.122E-01			
	Chebychev coefficient	21: 0.564E-01			
	Chebychev coefficient	22:-0.131E-01			
	Chebychev coefficient	23:-0.179E-01			
	Chebychev coefficient	24:-0.950E-02			
	Chebychev coefficient	25: 0.244E-01			
	Chebychev coefficient	26: 0.288E-02			

	Chebychev coefficient	27:-0.303E-02			
	Chebychev coefficient	28:-0.275E-02			
358.	C*C.CC(+M)=>CC#CC+H(+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits,	tmin= 0.300E+03, tmax= 0.250E+04			
	Chebychev pressure limits,	pmin= 0.100E-02, pmax= 0.100E+03			
	Chebychev coefficient	1:-0.127E+02			
	Chebychev coefficient	2:-0.144E+00			
	Chebychev coefficient	3:-0.798E+00			
	Chebychev coefficient	4: 0.295E-02			
	Chebychev coefficient	5: 0.142E+02			
	Chebychev coefficient	6: 0.291E+01			
	Chebychev coefficient	7: 0.705E+00			
	Chebychev coefficient	8:-0.120E+00			
	Chebychev coefficient	9:-0.572E+00			
	Chebychev coefficient	10: 0.535E-01			
	Chebychev coefficient	11: 0.215E+00			
	Chebychev coefficient	12: 0.110E+00			
	Chebychev coefficient	13:-0.266E+00			
	Chebychev coefficient	14:-0.246E+00			
	Chebychev coefficient	15:-0.595E-01			
	Chebychev coefficient	16: 0.288E-01			
	Chebychev coefficient	17: 0.737E-03			
	Chebychev coefficient	18:-0.975E-01			
	Chebychev coefficient	19:-0.587E-01			
	Chebychev coefficient	20:-0.149E-01			
	Chebychev coefficient	21: 0.574E-01			
	Chebychev coefficient	22:-0.103E-01			
	Chebychev coefficient	23:-0.174E-01			
	Chebychev coefficient	24:-0.101E-01			
	Chebychev coefficient	25: 0.235E-01			
	Chebychev coefficient	26: 0.447E-02			
	Chebychev coefficient	27:-0.200E-02			
	Chebychev coefficient	28:-0.213E-02			
359.	C*C.CC(+M)=>C*C*CC+H(+M)		1.00E+00	0.0	0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1:-0.134E+02

Chebychev coefficient 2:-0.405E-01

Chebychev coefficient 3:-0.785E+00

Chebychev coefficient 4:-0.865E-02

Chebychev coefficient 5: 0.145E+02

Chebychev coefficient 6: 0.285E+01

Chebychev coefficient 7: 0.710E+00

Chebychev coefficient 8:-0.106E+00

Chebychev coefficient 9:-0.504E+00

Chebychev coefficient 10: 0.246E-02

Chebychev coefficient 11: 0.203E+00

Chebychev coefficient 12: 0.115E+00

Chebychev coefficient 13:-0.245E+00

Chebychev coefficient 14:-0.242E+00

Chebychev coefficient 15:-0.662E-01

Chebychev coefficient 16: 0.251E-01

Chebychev coefficient 17: 0.718E-02

Chebychev coefficient 18:-0.877E-01

Chebychev coefficient 19:-0.597E-01

Chebychev coefficient 20:-0.175E-01

Chebychev coefficient 21: 0.586E-01

Chebychev coefficient 22:-0.748E-02

Chebychev coefficient 23:-0.156E-01

Chebychev coefficient 24:-0.107E-01

Chebychev coefficient 25: 0.232E-01

Chebychev coefficient 26: 0.417E-02

Chebychev coefficient 27:-0.152E-03

Chebychev coefficient 28:-0.180E-02

360. C*CC*C+H(+M)=>C2H3+C2H4(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.983E+01

Chebychev coefficient 2:-0.110E+01

Chebychev coefficient 3:-0.228E+00

Chebychev coefficient 4: 0.138E-01

Chebychev coefficient 5: 0.373E+01

Chebychev coefficient 6: 0.111E+01

Chebychev coefficient 7: 0.130E+00

Chebychev coefficient 8:-0.630E-01

Chebychev coefficient 9:-0.493E-01

Chebychev coefficient 10: 0.111E+00

Chebychev coefficient 11: 0.122E+00

Chebychev coefficient 12: 0.291E-01

Chebychev coefficient 13:-0.119E+00

Chebychev coefficient 14:-0.930E-01

Chebychev coefficient 15: 0.728E-03

Chebychev coefficient 16: 0.237E-01

Chebychev coefficient 17:-0.328E-01

Chebychev coefficient 18:-0.514E-01

Chebychev coefficient 19:-0.263E-01

Chebychev coefficient 20:-0.197E-02

Chebychev coefficient 21: 0.479E-03

Chebychev coefficient 22:-0.888E-02

Chebychev coefficient 23:-0.115E-01

Chebychev coefficient 24:-0.649E-02

Chebychev coefficient 25: 0.417E-02

Chebychev coefficient 26: 0.525E-02

Chebychev coefficient 27: 0.102E-02

Chebychev coefficient 28:-0.189E-02

361. C*CC*C+H(+M)=>CC*CC.(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.980E+01


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Chebychev coefficient 2:-0.593E+00
Chebychev coefficient 3:-0.308E+00
Chebychev coefficient 4: 0.335E-01
Chebychev coefficient 5: 0.137E+01
Chebychev coefficient 6: 0.222E+01
Chebychev coefficient 7:-0.419E-01
Chebychev coefficient 8:-0.691E-01
Chebychev coefficient 9:-0.999E+00
Chebychev coefficient 10: 0.691E+00
Chebychev coefficient 11: 0.167E+00
Chebychev coefficient 12:-0.146E-01
Chebychev coefficient 13:-0.600E+00
Chebychev coefficient 14: 0.670E-01
Chebychev coefficient 15: 0.857E-01
Chebychev coefficient 16: 0.196E-01
Chebychev coefficient 17:-0.231E+00
Chebychev coefficient 18:-0.566E-01
Chebychev coefficient 19: 0.124E-01
Chebychev coefficient 20: 0.790E-02
Chebychev coefficient 21:-0.436E-01
Chebychev coefficient 22:-0.423E-01
Chebychev coefficient 23:-0.483E-02
Chebychev coefficient 24:-0.125E-02
Chebychev coefficient 25: 0.332E-01
Chebychev coefficient 26:-0.187E-01
Chebychev coefficient 27:-0.412E-02
Chebychev coefficient 28:-0.422E-03
362. C*CC*C+H(+M)=>C*C*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.528E+01
Chebychev coefficient 2:-0.194E+01
Chebychev coefficient 3:-0.471E+00

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Chebychev coefficient 4: 0.189E-01
 Chebychev coefficient 5: 0.666E+01
 Chebychev coefficient 6: 0.200E+01
 Chebychev coefficient 7: 0.339E+00
 Chebychev coefficient 8:-0.886E-01
 Chebychev coefficient 9: 0.186E-01
 Chebychev coefficient 10: 0.213E+00
 Chebychev coefficient 11: 0.197E+00
 Chebychev coefficient 12: 0.461E-01
 Chebychev coefficient 13:-0.151E+00
 Chebychev coefficient 14:-0.180E+00
 Chebychev coefficient 15:-0.546E-02
 Chebychev coefficient 16: 0.345E-01
 Chebychev coefficient 17:-0.739E-01
 Chebychev coefficient 18:-0.108E+00
 Chebychev coefficient 19:-0.484E-01
 Chebychev coefficient 20:-0.361E-03
 Chebychev coefficient 21:-0.197E-01
 Chebychev coefficient 22:-0.238E-01
 Chebychev coefficient 23:-0.252E-01
 Chebychev coefficient 24:-0.889E-02
 Chebychev coefficient 25:-0.341E-02
 Chebychev coefficient 26: 0.324E-02
 Chebychev coefficient 27:-0.515E-02
 Chebychev coefficient 28:-0.461E-02

363. C*CC*C+H(+M)=>C2H5+C2H2(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.758E+01
 Chebychev coefficient 2:-0.140E+01
 Chebychev coefficient 3:-0.494E+00
 Chebychev coefficient 4:-0.482E-01
 Chebychev coefficient 5: 0.493E+01

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Chebychev coefficient    6: 0.151E+01
Chebychev coefficient    7: 0.449E+00
Chebychev coefficient    8:-0.187E-01
Chebychev coefficient    9:-0.339E+00
Chebychev coefficient   10: 0.357E-01
Chebychev coefficient   11: 0.104E+00
Chebychev coefficient   12: 0.657E-01
Chebychev coefficient   13:-0.268E+00
Chebychev coefficient   14:-0.155E+00
Chebychev coefficient   15:-0.507E-01
Chebychev coefficient   16: 0.946E-02
Chebychev coefficient   17:-0.100E+00
Chebychev coefficient   18:-0.428E-01
Chebychev coefficient   19:-0.310E-01
Chebychev coefficient   20:-0.143E-01
Chebychev coefficient   21:-0.174E-01
Chebychev coefficient   22: 0.157E-01
Chebychev coefficient   23: 0.329E-02
Chebychev coefficient   24:-0.467E-02
Chebychev coefficient   25: 0.167E-02
Chebychev coefficient   26: 0.113E-01
Chebychev coefficient   27: 0.704E-02
Chebychev coefficient   28: 0.254E-02
364. C*CC*C+H(+M)=>C*C.CC(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.434E+01
Chebychev coefficient    2: 0.486E+00
Chebychev coefficient    3:-0.508E+00
Chebychev coefficient    4: 0.202E-01
Chebychev coefficient    5: 0.372E+01
Chebychev coefficient    6: 0.194E+01
Chebychev coefficient    7: 0.323E+00

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Chebychev coefficient 8:-0.107E+00
 Chebychev coefficient 9:-0.903E+00
 Chebychev coefficient 10: 0.261E+00
 Chebychev coefficient 11: 0.204E+00
 Chebychev coefficient 12: 0.450E-01
 Chebychev coefficient 13:-0.372E+00
 Chebychev coefficient 14:-0.132E+00
 Chebychev coefficient 15: 0.594E-02
 Chebychev coefficient 16: 0.355E-01
 Chebychev coefficient 17:-0.577E-01
 Chebychev coefficient 18:-0.920E-01
 Chebychev coefficient 19:-0.381E-01
 Chebychev coefficient 20: 0.627E-03
 Chebychev coefficient 21: 0.415E-01
 Chebychev coefficient 22:-0.214E-01
 Chebychev coefficient 23:-0.181E-01
 Chebychev coefficient 24:-0.745E-02
 Chebychev coefficient 25: 0.437E-01
 Chebychev coefficient 26: 0.123E-01
 Chebychev coefficient 27: 0.201E-02
 Chebychev coefficient 28:-0.221E-02

365. C*CC*C+H(+M)=>C*C*C+CH3(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.511E+01
 Chebychev coefficient 2:-0.172E+01
 Chebychev coefficient 3:-0.478E+00
 Chebychev coefficient 4:-0.194E-02
 Chebychev coefficient 5: 0.635E+01
 Chebychev coefficient 6: 0.190E+01
 Chebychev coefficient 7: 0.397E+00
 Chebychev coefficient 8:-0.756E-01
 Chebychev coefficient 9:-0.132E+00

Chebychev coefficient	10:	0.495E-01		
Chebychev coefficient	11:	0.167E+00		
Chebychev coefficient	12:	0.697E-01		
Chebychev coefficient	13:	-0.181E+00		
Chebychev coefficient	14:	-0.197E+00		
Chebychev coefficient	15:	-0.444E-01		
Chebychev coefficient	16:	0.258E-01		
Chebychev coefficient	17:	-0.568E-01		
Chebychev coefficient	18:	-0.717E-01		
Chebychev coefficient	19:	-0.505E-01		
Chebychev coefficient	20:	-0.122E-01		
Chebychev coefficient	21:	-0.497E-02		
Chebychev coefficient	22:	0.161E-02		
Chebychev coefficient	23:	-0.117E-01		
Chebychev coefficient	24:	-0.105E-01		
Chebychev coefficient	25:	0.309E-02		
Chebychev coefficient	26:	0.108E-01		
Chebychev coefficient	27:	0.343E-02		
Chebychev coefficient	28:	-0.168E-02		
366. C*CC*C+H(+M)=>C*C*CC+H(+M)			1.00E+00	0.0
				0.0
Declared duplicate reaction...				
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebychev coefficient	1:	0.324E+01		
Chebychev coefficient	2:	-0.153E+01		
Chebychev coefficient	3:	-0.481E+00		
Chebychev coefficient	4:	-0.187E-01		
Chebychev coefficient	5:	0.715E+01		
Chebychev coefficient	6:	0.176E+01		
Chebychev coefficient	7:	0.440E+00		
Chebychev coefficient	8:	-0.539E-01		
Chebychev coefficient	9:	-0.182E-01		
Chebychev coefficient	10:	-0.267E-01		
Chebychev coefficient	11:	0.134E+00		

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Chebychev coefficient 12: 0.769E-01
Chebychev coefficient 13:-0.154E+00
Chebychev coefficient 14:-0.186E+00
Chebychev coefficient 15:-0.629E-01
Chebychev coefficient 16: 0.154E-01
Chebychev coefficient 17:-0.555E-01
Chebychev coefficient 18:-0.523E-01
Chebychev coefficient 19:-0.457E-01
Chebychev coefficient 20:-0.175E-01
Chebychev coefficient 21:-0.102E-01
Chebychev coefficient 22: 0.102E-01
Chebychev coefficient 23:-0.439E-02
Chebychev coefficient 24:-0.991E-02
Chebychev coefficient 25:-0.503E-03
Chebychev coefficient 26: 0.112E-01
Chebychev coefficient 27: 0.517E-02
Chebychev coefficient 28:-0.830E-03
367. C*CC*C+H(+M)=>C#CC+CH3(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.242E+01
Chebychev coefficient 2:-0.221E+01
Chebychev coefficient 3:-0.693E+00
Chebychev coefficient 4:-0.254E-01
Chebychev coefficient 5: 0.776E+01
Chebychev coefficient 6: 0.244E+01
Chebychev coefficient 7: 0.639E+00
Chebychev coefficient 8:-0.526E-01
Chebychev coefficient 9:-0.906E-01
Chebychev coefficient 10: 0.554E-01
Chebychev coefficient 11: 0.160E+00
Chebychev coefficient 12: 0.803E-01
Chebychev coefficient 13:-0.172E+00

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Chebychev coefficient 14:-0.227E+00
Chebychev coefficient 15:-0.571E-01
Chebychev coefficient 16: 0.166E-01
Chebychev coefficient 17:-0.625E-01
Chebychev coefficient 18:-0.856E-01
Chebychev coefficient 19:-0.489E-01
Chebychev coefficient 20:-0.119E-01
Chebychev coefficient 21:-0.165E-01
Chebychev coefficient 22:-0.812E-02
Chebychev coefficient 23:-0.156E-01
Chebychev coefficient 24:-0.877E-02
Chebychev coefficient 25:-0.467E-02
Chebychev coefficient 26: 0.397E-02
Chebychev coefficient 27:-0.232E-02
Chebychev coefficient 28:-0.295E-02
368. C*CC*C+H(+M)=>CC#CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.132E+01
Chebychev coefficient 2:-0.216E+01
Chebychev coefficient 3:-0.685E+00
Chebychev coefficient 4:-0.300E-01
Chebychev coefficient 5: 0.798E+01
Chebychev coefficient 6: 0.241E+01
Chebychev coefficient 7: 0.641E+00
Chebychev coefficient 8:-0.460E-01
Chebychev coefficient 9:-0.409E-01
Chebychev coefficient 10: 0.217E-01
Chebychev coefficient 11: 0.152E+00
Chebychev coefficient 12: 0.820E-01
Chebychev coefficient 13:-0.160E+00
Chebychev coefficient 14:-0.225E+00
Chebychev coefficient 15:-0.608E-01

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Chebychev coefficient 16: 0.140E-01
Chebychev coefficient 17:-0.609E-01
Chebychev coefficient 18:-0.788E-01
Chebychev coefficient 19:-0.489E-01
Chebychev coefficient 20:-0.136E-01
Chebychev coefficient 21:-0.190E-01
Chebychev coefficient 22:-0.576E-02
Chebychev coefficient 23:-0.147E-01
Chebychev coefficient 24:-0.929E-02
Chebychev coefficient 25:-0.655E-02
Chebychev coefficient 26: 0.463E-02
Chebychev coefficient 27:-0.160E-02
Chebychev coefficient 28:-0.304E-02
369. C*CC*C+H(+M)=>C*C*CC+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.620E+00
Chebychev coefficient 2:-0.207E+01
Chebychev coefficient 3:-0.672E+00
Chebychev coefficient 4:-0.372E-01
Chebychev coefficient 5: 0.832E+01
Chebychev coefficient 6: 0.236E+01
Chebychev coefficient 7: 0.642E+00
Chebychev coefficient 8:-0.361E-01
Chebychev coefficient 9: 0.240E-01
Chebychev coefficient 10:-0.263E-01
Chebychev coefficient 11: 0.138E+00
Chebychev coefficient 12: 0.840E-01
Chebychev coefficient 13:-0.148E+00
Chebychev coefficient 14:-0.218E+00
Chebychev coefficient 15:-0.652E-01
Chebychev coefficient 16: 0.100E-01
Chebychev coefficient 17:-0.608E-01

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	Chebychev coefficient	18:-0.683E-01			
	Chebychev coefficient	19:-0.482E-01			
	Chebychev coefficient	20:-0.154E-01			
	Chebychev coefficient	21:-0.231E-01			
	Chebychev coefficient	22:-0.318E-02			
	Chebychev coefficient	23:-0.128E-01			
	Chebychev coefficient	24:-0.930E-02			
	Chebychev coefficient	25:-0.934E-02			
	Chebychev coefficient	26: 0.521E-02			
	Chebychev coefficient	27:-0.375E-03			
	Chebychev coefficient	28:-0.283E-02			
370.	C*CC*C+H(+M)=>C2H3+C2H4(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.876E+01			
	Chebychev coefficient	2:-0.246E+01			
	Chebychev coefficient	3:-0.356E+00			
	Chebychev coefficient	4: 0.265E-01			
	Chebychev coefficient	5: 0.484E+01			
	Chebychev coefficient	6: 0.239E+01			
	Chebychev coefficient	7: 0.145E+00			
	Chebychev coefficient	8:-0.874E-01			
	Chebychev coefficient	9:-0.106E+00			
	Chebychev coefficient	10: 0.389E+00			
	Chebychev coefficient	11: 0.229E+00			
	Chebychev coefficient	12: 0.139E-01			
	Chebychev coefficient	13:-0.275E+00			
	Chebychev coefficient	14:-0.169E+00			
	Chebychev coefficient	15: 0.415E-01			
	Chebychev coefficient	16: 0.338E-01			
	Chebychev coefficient	17:-0.109E+00			
	Chebychev coefficient	18:-0.145E+00			
	Chebychev coefficient	19:-0.366E-01			

	Chebychev coefficient	20:	0.895E-02			
	Chebychev coefficient	21:	-0.179E-01			
	Chebychev coefficient	22:	-0.482E-01			
	Chebychev coefficient	23:	-0.284E-01			
	Chebychev coefficient	24:	-0.150E-03			
	Chebychev coefficient	25:	0.104E-01			
	Chebychev coefficient	26:	0.396E-02			
	Chebychev coefficient	27:	-0.856E-02			
	Chebychev coefficient	28:	-0.296E-02			
371.	C*CC*C+H(+M)=>CC*CC.(+M)			1.00E+00	0.0	0.0
	Declared duplicate reaction...					
	Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebychev coefficient	1:	0.123E+02			
	Chebychev coefficient	2:	0.592E+00			
	Chebychev coefficient	3:	-0.662E-01			
	Chebychev coefficient	4:	0.334E-02			
	Chebychev coefficient	5:	-0.589E+00			
	Chebychev coefficient	6:	0.997E+00			
	Chebychev coefficient	7:	-0.813E-01			
	Chebychev coefficient	8:	-0.499E-02			
	Chebychev coefficient	9:	-0.889E+00			
	Chebychev coefficient	10:	0.597E+00			
	Chebychev coefficient	11:	0.782E-02			
	Chebychev coefficient	12:	-0.150E-01			
	Chebychev coefficient	13:	-0.498E+00			
	Chebychev coefficient	14:	0.232E+00			
	Chebychev coefficient	15:	0.528E-01			
	Chebychev coefficient	16:	-0.780E-02			
	Chebychev coefficient	17:	-0.212E+00			
	Chebychev coefficient	18:	0.246E-01			
	Chebychev coefficient	19:	0.425E-01			
	Chebychev coefficient	20:	0.478E-02			
	Chebychev coefficient	21:	-0.541E-01			

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Chebychev coefficient 22:-0.463E-01
Chebychev coefficient 23: 0.116E-01
Chebychev coefficient 24: 0.810E-02
Chebychev coefficient 25: 0.318E-01
Chebychev coefficient 26:-0.451E-01
Chebychev coefficient 27:-0.106E-01
Chebychev coefficient 28: 0.180E-02
372. C*CC*C+H(+M)=>C*C*CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.649E+01
Chebychev coefficient 2:-0.127E+01
Chebychev coefficient 3:-0.216E+00
Chebychev coefficient 4: 0.370E-01
Chebychev coefficient 5: 0.620E+01
Chebychev coefficient 6: 0.120E+01
Chebychev coefficient 7: 0.815E-01
Chebychev coefficient 8:-0.706E-01
Chebychev coefficient 9: 0.615E-01
Chebychev coefficient 10: 0.259E+00
Chebychev coefficient 11: 0.155E+00
Chebychev coefficient 12:-0.829E-03
Chebychev coefficient 13:-0.118E+00
Chebychev coefficient 14:-0.826E-01
Chebychev coefficient 15: 0.401E-01
Chebychev coefficient 16: 0.350E-01
Chebychev coefficient 17:-0.865E-01
Chebychev coefficient 18:-0.103E+00
Chebychev coefficient 19:-0.314E-01
Chebychev coefficient 20: 0.153E-01
Chebychev coefficient 21:-0.331E-01
Chebychev coefficient 22:-0.431E-01
Chebychev coefficient 23:-0.333E-01

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Chebychev coefficient 24:-0.606E-02
Chebychev coefficient 25:-0.546E-02
Chebychev coefficient 26:-0.720E-03
Chebychev coefficient 27:-0.116E-01
Chebychev coefficient 28:-0.780E-02
373. C*CC*C+H(+M)=>C2H5+C2H2(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.669E+01
Chebychev coefficient 2:-0.261E+01
Chebychev coefficient 3:-0.660E+00
Chebychev coefficient 4:-0.176E-01
Chebychev coefficient 5: 0.585E+01
Chebychev coefficient 6: 0.268E+01
Chebychev coefficient 7: 0.504E+00
Chebychev coefficient 8:-0.694E-01
Chebychev coefficient 9:-0.392E+00
Chebychev coefficient 10: 0.225E+00
Chebychev coefficient 11: 0.203E+00
Chebychev coefficient 12: 0.530E-01
Chebychev coefficient 13:-0.398E+00
Chebychev coefficient 14:-0.214E+00
Chebychev coefficient 15:-0.136E-01
Chebychev coefficient 16: 0.240E-01
Chebychev coefficient 17:-0.154E+00
Chebychev coefficient 18:-0.998E-01
Chebychev coefficient 19:-0.359E-01
Chebychev coefficient 20: 0.202E-02
Chebychev coefficient 21:-0.296E-01
Chebychev coefficient 22:-0.125E-01
Chebychev coefficient 23:-0.146E-01
Chebychev coefficient 24:-0.514E-03
Chebychev coefficient 25: 0.121E-02

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Chebychev coefficient 26: 0.301E-02
Chebychev coefficient 27:-0.387E-02
Chebychev coefficient 28:-0.847E-03
374. C*CC*C+H(+M)=>C*C.CC(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.361E+01
Chebychev coefficient 2:-0.561E+00
Chebychev coefficient 3:-0.591E+00
Chebychev coefficient 4: 0.105E+00
Chebychev coefficient 5: 0.459E+01
Chebychev coefficient 6: 0.291E+01
Chebychev coefficient 7: 0.312E+00
Chebychev coefficient 8:-0.203E+00
Chebychev coefficient 9:-0.891E+00
Chebychev coefficient 10: 0.439E+00
Chebychev coefficient 11: 0.285E+00
Chebychev coefficient 12: 0.350E-01
Chebychev coefficient 13:-0.438E+00
Chebychev coefficient 14:-0.142E+00
Chebychev coefficient 15: 0.473E-01
Chebychev coefficient 16: 0.517E-01
Chebychev coefficient 17:-0.961E-01
Chebychev coefficient 18:-0.141E+00
Chebychev coefficient 19:-0.449E-01
Chebychev coefficient 20: 0.559E-02
Chebychev coefficient 21: 0.301E-01
Chebychev coefficient 22:-0.532E-01
Chebychev coefficient 23:-0.324E-01
Chebychev coefficient 24:-0.736E-02
Chebychev coefficient 25: 0.442E-01
Chebychev coefficient 26:-0.983E-03
Chebychev coefficient 27:-0.656E-02

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	Chebychev coefficient	28:-0.213E-02			
375.	C*CC*C+H(+M)=>C*C*C+CH3(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.452E+01			
	Chebychev coefficient	2:-0.259E+01			
	Chebychev coefficient	3:-0.554E+00			
	Chebychev coefficient	4: 0.706E-01			
	Chebychev coefficient	5: 0.713E+01			
	Chebychev coefficient	6: 0.277E+01			
	Chebychev coefficient	7: 0.382E+00			
	Chebychev coefficient	8:-0.178E+00			
	Chebychev coefficient	9:-0.162E+00			
	Chebychev coefficient	10: 0.169E+00			
	Chebychev coefficient	11: 0.270E+00			
	Chebychev coefficient	12: 0.781E-01			
	Chebychev coefficient	13:-0.259E+00			
	Chebychev coefficient	14:-0.245E+00			
	Chebychev coefficient	15:-0.180E-01			
	Chebychev coefficient	16: 0.482E-01			
	Chebychev coefficient	17:-0.980E-01			
	Chebychev coefficient	18:-0.131E+00			
	Chebychev coefficient	19:-0.699E-01			
	Chebychev coefficient	20:-0.619E-02			
	Chebychev coefficient	21:-0.139E-01			
	Chebychev coefficient	22:-0.230E-01			
	Chebychev coefficient	23:-0.274E-01			
	Chebychev coefficient	24:-0.112E-01			
	Chebychev coefficient	25: 0.500E-02			
	Chebychev coefficient	26: 0.796E-02			
	Chebychev coefficient	27:-0.106E-02			
	Chebychev coefficient	28:-0.247E-02			
376.	C*CC*C+H(+M)=>C*C*CC+H(+M)		1.00E+00	0.0	0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.272E+01

Chebychev coefficient 2:-0.232E+01

Chebychev coefficient 3:-0.572E+00

Chebychev coefficient 4: 0.492E-01

Chebychev coefficient 5: 0.786E+01

Chebychev coefficient 6: 0.256E+01

Chebychev coefficient 7: 0.441E+00

Chebychev coefficient 8:-0.160E+00

Chebychev coefficient 9:-0.515E-01

Chebychev coefficient 10: 0.781E-01

Chebychev coefficient 11: 0.246E+00

Chebychev coefficient 12: 0.944E-01

Chebychev coefficient 13:-0.239E+00

Chebychev coefficient 14:-0.246E+00

Chebychev coefficient 15:-0.453E-01

Chebychev coefficient 16: 0.430E-01

Chebychev coefficient 17:-0.940E-01

Chebychev coefficient 18:-0.106E+00

Chebychev coefficient 19:-0.678E-01

Chebychev coefficient 20:-0.130E-01

Chebychev coefficient 21:-0.177E-01

Chebychev coefficient 22:-0.894E-02

Chebychev coefficient 23:-0.208E-01

Chebychev coefficient 24:-0.126E-01

Chebychev coefficient 25:-0.142E-02

Chebychev coefficient 26: 0.859E-02

Chebychev coefficient 27:-0.454E-03

Chebychev coefficient 28:-0.148E-02

377. C*CC*C+H(+M)=>C#CC+CH3(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.353E+01

Chebychev coefficient 2:-0.168E+01

Chebychev coefficient 3:-0.468E+00

Chebychev coefficient 4: 0.370E-02

Chebychev coefficient 5: 0.743E+01

Chebychev coefficient 6: 0.179E+01

Chebychev coefficient 7: 0.393E+00

Chebychev coefficient 8:-0.608E-01

Chebychev coefficient 9:-0.471E-01

Chebychev coefficient 10: 0.126E+00

Chebychev coefficient 11: 0.152E+00

Chebychev coefficient 12: 0.486E-01

Chebychev coefficient 13:-0.167E+00

Chebychev coefficient 14:-0.166E+00

Chebychev coefficient 15:-0.229E-01

Chebychev coefficient 16: 0.227E-01

Chebychev coefficient 17:-0.797E-01

Chebychev coefficient 18:-0.889E-01

Chebychev coefficient 19:-0.434E-01

Chebychev coefficient 20:-0.296E-02

Chebychev coefficient 21:-0.243E-01

Chebychev coefficient 22:-0.180E-01

Chebychev coefficient 23:-0.205E-01

Chebychev coefficient 24:-0.749E-02

Chebychev coefficient 25:-0.562E-02

Chebychev coefficient 26: 0.351E-02

Chebychev coefficient 27:-0.393E-02

Chebychev coefficient 28:-0.456E-02

378. C*CC*C+H(+M)=>CC#CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.242E+01


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Chebychev coefficient 2:-0.164E+01
Chebychev coefficient 3:-0.463E+00
Chebychev coefficient 4:-0.670E-04
Chebychev coefficient 5: 0.766E+01
Chebychev coefficient 6: 0.178E+01
Chebychev coefficient 7: 0.396E+00
Chebychev coefficient 8:-0.569E-01
Chebychev coefficient 9: 0.334E-02
Chebychev coefficient 10: 0.959E-01
Chebychev coefficient 11: 0.146E+00
Chebychev coefficient 12: 0.514E-01
Chebychev coefficient 13:-0.159E+00
Chebychev coefficient 14:-0.167E+00
Chebychev coefficient 15:-0.267E-01
Chebychev coefficient 16: 0.215E-01
Chebychev coefficient 17:-0.792E-01
Chebychev coefficient 18:-0.819E-01
Chebychev coefficient 19:-0.438E-01
Chebychev coefficient 20:-0.488E-02
Chebychev coefficient 21:-0.265E-01
Chebychev coefficient 22:-0.146E-01
Chebychev coefficient 23:-0.197E-01
Chebychev coefficient 24:-0.882E-02
Chebychev coefficient 25:-0.768E-02
Chebychev coefficient 26: 0.433E-02
Chebychev coefficient 27:-0.316E-02
Chebychev coefficient 28:-0.511E-02
379. C*CC*C+H(+M)=>C*C*CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.171E+01
Chebychev coefficient 2:-0.158E+01
Chebychev coefficient 3:-0.457E+00

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Chebychev coefficient	4:-0.574E-02			
Chebychev coefficient	5: 0.802E+01			
Chebychev coefficient	6: 0.174E+01			
Chebychev coefficient	7: 0.401E+00			
Chebychev coefficient	8:-0.509E-01			
Chebychev coefficient	9: 0.687E-01			
Chebychev coefficient	10: 0.525E-01			
Chebychev coefficient	11: 0.136E+00			
Chebychev coefficient	12: 0.550E-01			
Chebychev coefficient	13:-0.154E+00			
Chebychev coefficient	14:-0.165E+00			
Chebychev coefficient	15:-0.319E-01			
Chebychev coefficient	16: 0.193E-01			
Chebychev coefficient	17:-0.805E-01			
Chebychev coefficient	18:-0.709E-01			
Chebychev coefficient	19:-0.437E-01			
Chebychev coefficient	20:-0.746E-02			
Chebychev coefficient	21:-0.297E-01			
Chebychev coefficient	22:-0.107E-01			
Chebychev coefficient	23:-0.181E-01			
Chebychev coefficient	24:-0.101E-01			
Chebychev coefficient	25:-0.104E-01			
Chebychev coefficient	26: 0.485E-02			
Chebychev coefficient	27:-0.186E-02			
Chebychev coefficient	28:-0.534E-02			
380. C*C*CC+H(+M)=>C2H3+C2H4(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
Chebychev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
Chebychev coefficient	1: 0.977E+01			
Chebychev coefficient	2:-0.190E+01			
Chebychev coefficient	3:-0.467E+00			
Chebychev coefficient	4: 0.155E-01			
Chebychev coefficient	5: 0.333E+01			

Chebychev coefficient	6:	0.199E+01			
Chebychev coefficient	7:	0.350E+00			
Chebychev coefficient	8:	-0.885E-01			
Chebychev coefficient	9:	0.559E-01			
Chebychev coefficient	10:	0.181E+00			
Chebychev coefficient	11:	0.192E+00			
Chebychev coefficient	12:	0.478E-01			
Chebychev coefficient	13:	-0.158E+00			
Chebychev coefficient	14:	-0.192E+00			
Chebychev coefficient	15:	-0.141E-01			
Chebychev coefficient	16:	0.335E-01			
Chebychev coefficient	17:	-0.680E-01			
Chebychev coefficient	18:	-0.105E+00			
Chebychev coefficient	19:	-0.493E-01			
Chebychev coefficient	20:	0.138E-03			
Chebychev coefficient	21:	-0.804E-02			
Chebychev coefficient	22:	-0.176E-01			
Chebychev coefficient	23:	-0.225E-01			
Chebychev coefficient	24:	-0.754E-02			
Chebychev coefficient	25:	0.654E-02			
Chebychev coefficient	26:	0.936E-02			
Chebychev coefficient	27:	-0.164E-02			
Chebychev coefficient	28:	-0.315E-02			
381. C*C*CC+H(+M)=>C*CC*C+H(+M)			1.00E+00	0.0	0.0
Declared duplicate reaction...					
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:	0.951E+01			
Chebychev coefficient	2:	-0.193E+01			
Chebychev coefficient	3:	-0.468E+00			
Chebychev coefficient	4:	0.178E-01			
Chebychev coefficient	5:	0.313E+01			
Chebychev coefficient	6:	0.200E+01			
Chebychev coefficient	7:	0.343E+00			

Chebychev coefficient 8:-0.914E-01
 Chebychev coefficient 9: 0.922E-02
 Chebychev coefficient 10: 0.205E+00
 Chebychev coefficient 11: 0.196E+00
 Chebychev coefficient 12: 0.452E-01
 Chebychev coefficient 13:-0.171E+00
 Chebychev coefficient 14:-0.187E+00
 Chebychev coefficient 15:-0.878E-02
 Chebychev coefficient 16: 0.342E-01
 Chebychev coefficient 17:-0.719E-01
 Chebychev coefficient 18:-0.108E+00
 Chebychev coefficient 19:-0.480E-01
 Chebychev coefficient 20: 0.132E-02
 Chebychev coefficient 21:-0.809E-02
 Chebychev coefficient 22:-0.204E-01
 Chebychev coefficient 23:-0.237E-01
 Chebychev coefficient 24:-0.727E-02
 Chebychev coefficient 25: 0.759E-02
 Chebychev coefficient 26: 0.879E-02
 Chebychev coefficient 27:-0.241E-02
 Chebychev coefficient 28:-0.330E-02

382. C*C*CC+H(+M)=>CC*CC.(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.108E+02
 Chebychev coefficient 2: 0.110E+01
 Chebychev coefficient 3:-0.224E+00
 Chebychev coefficient 4: 0.437E-01
 Chebychev coefficient 5:-0.118E+00
 Chebychev coefficient 6: 0.113E+01
 Chebychev coefficient 7: 0.348E-01
 Chebychev coefficient 8:-0.697E-01
 Chebychev coefficient 9:-0.902E+00

Chebychev coefficient 10: 0.360E+00
 Chebychev coefficient 11: 0.146E+00
 Chebychev coefficient 12:-0.215E-01
 Chebychev coefficient 13:-0.397E+00
 Chebychev coefficient 14: 0.178E-01
 Chebychev coefficient 15: 0.747E-01
 Chebychev coefficient 16: 0.239E-01
 Chebychev coefficient 17:-0.124E+00
 Chebychev coefficient 18:-0.694E-01
 Chebychev coefficient 19: 0.210E-02
 Chebychev coefficient 20: 0.233E-01
 Chebychev coefficient 21: 0.807E-03
 Chebychev coefficient 22:-0.565E-01
 Chebychev coefficient 23:-0.236E-01
 Chebychev coefficient 24: 0.816E-02
 Chebychev coefficient 25: 0.553E-01
 Chebychev coefficient 26:-0.191E-01
 Chebychev coefficient 27:-0.195E-01
 Chebychev coefficient 28:-0.791E-02

383. C*C*CC+H(+M)=>C*CC*C+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.108E+02
 Chebychev coefficient 2:-0.127E+01
 Chebychev coefficient 3:-0.215E+00
 Chebychev coefficient 4: 0.360E-01
 Chebychev coefficient 5: 0.257E+01
 Chebychev coefficient 6: 0.121E+01
 Chebychev coefficient 7: 0.827E-01
 Chebychev coefficient 8:-0.703E-01
 Chebychev coefficient 9: 0.847E-01
 Chebychev coefficient 10: 0.260E+00
 Chebychev coefficient 11: 0.154E+00

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Chebychev coefficient 12:-0.279E-02
Chebychev coefficient 13:-0.967E-01
Chebychev coefficient 14:-0.841E-01
Chebychev coefficient 15: 0.411E-01
Chebychev coefficient 16: 0.337E-01
Chebychev coefficient 17:-0.696E-01
Chebychev coefficient 18:-0.104E+00
Chebychev coefficient 19:-0.306E-01
Chebychev coefficient 20: 0.169E-01
Chebychev coefficient 21:-0.198E-01
Chebychev coefficient 22:-0.425E-01
Chebychev coefficient 23:-0.331E-01
Chebychev coefficient 24:-0.526E-02
Chebychev coefficient 25: 0.562E-02
Chebychev coefficient 26: 0.248E-02
Chebychev coefficient 27:-0.997E-02
Chebychev coefficient 28:-0.772E-02
384. C*C*CC+H(+M)=>C2H5+C2H2(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.814E+01
Chebychev coefficient 2:-0.218E+01
Chebychev coefficient 3:-0.660E+00
Chebychev coefficient 4:-0.418E-01
Chebychev coefficient 5: 0.369E+01
Chebychev coefficient 6: 0.239E+01
Chebychev coefficient 7: 0.583E+00
Chebychev coefficient 8:-0.380E-01
Chebychev coefficient 9:-0.178E+00
Chebychev coefficient 10: 0.532E-01
Chebychev coefficient 11: 0.165E+00
Chebychev coefficient 12: 0.682E-01
Chebychev coefficient 13:-0.286E+00

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Chebychev coefficient 14:-0.207E+00
Chebychev coefficient 15:-0.428E-01
Chebychev coefficient 16: 0.187E-01
Chebychev coefficient 17:-0.954E-01
Chebychev coefficient 18:-0.719E-01
Chebychev coefficient 19:-0.416E-01
Chebychev coefficient 20:-0.480E-02
Chebychev coefficient 21:-0.756E-02
Chebychev coefficient 22:-0.652E-02
Chebychev coefficient 23:-0.137E-01
Chebychev coefficient 24:-0.466E-02
Chebychev coefficient 25: 0.634E-02
Chebychev coefficient 26: 0.290E-02
Chebychev coefficient 27:-0.227E-02
Chebychev coefficient 28:-0.220E-02
385. C*C*CC+H(+M)=>C*C.CC(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.507E+01
Chebychev coefficient 2:-0.563E-01
Chebychev coefficient 3:-0.588E+00
Chebychev coefficient 4: 0.712E-01
Chebychev coefficient 5: 0.218E+01
Chebychev coefficient 6: 0.266E+01
Chebychev coefficient 7: 0.400E+00
Chebychev coefficient 8:-0.182E+00
Chebychev coefficient 9:-0.567E+00
Chebychev coefficient 10: 0.225E+00
Chebychev coefficient 11: 0.277E+00
Chebychev coefficient 12: 0.771E-01
Chebychev coefficient 13:-0.300E+00
Chebychev coefficient 14:-0.211E+00
Chebychev coefficient 15:-0.106E-01

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Chebychev coefficient 16: 0.485E-01
Chebychev coefficient 17:-0.257E-01
Chebychev coefficient 18:-0.129E+00
Chebychev coefficient 19:-0.647E-01
Chebychev coefficient 20:-0.480E-02
Chebychev coefficient 21: 0.555E-01
Chebychev coefficient 22:-0.289E-01
Chebychev coefficient 23:-0.284E-01
Chebychev coefficient 24:-0.124E-01
Chebychev coefficient 25: 0.411E-01
Chebychev coefficient 26: 0.103E-01
Chebychev coefficient 27:-0.823E-04
Chebychev coefficient 28:-0.270E-02
386. C*C*CC+H(+M)=>C*C*C+CH3(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.636E+01
Chebychev coefficient 2:-0.220E+01
Chebychev coefficient 3:-0.570E+00
Chebychev coefficient 4: 0.390E-01
Chebychev coefficient 5: 0.476E+01
Chebychev coefficient 6: 0.248E+01
Chebychev coefficient 7: 0.467E+00
Chebychev coefficient 8:-0.143E+00
Chebychev coefficient 9: 0.132E+00
Chebychev coefficient 10: 0.307E-01
Chebychev coefficient 11: 0.230E+00
Chebychev coefficient 12: 0.981E-01
Chebychev coefficient 13:-0.152E+00
Chebychev coefficient 14:-0.248E+00
Chebychev coefficient 15:-0.623E-01
Chebychev coefficient 16: 0.341E-01
Chebychev coefficient 17:-0.552E-01

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	Chebychev coefficient	18:-0.102E+00			
	Chebychev coefficient	19:-0.699E-01			
	Chebychev coefficient	20:-0.162E-01			
	Chebychev coefficient	21:-0.690E-02			
	Chebychev coefficient	22:-0.400E-02			
	Chebychev coefficient	23:-0.165E-01			
	Chebychev coefficient	24:-0.127E-01			
	Chebychev coefficient	25: 0.126E-02			
	Chebychev coefficient	26: 0.103E-01			
	Chebychev coefficient	27: 0.387E-02			
	Chebychev coefficient	28: 0.440E-03			
387.	C*C*CC+H(+M)=>C#CC+CH3(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.554E+01			
	Chebychev coefficient	2:-0.150E+01			
	Chebychev coefficient	3:-0.448E+00			
	Chebychev coefficient	4:-0.115E-01			
	Chebychev coefficient	5: 0.495E+01			
	Chebychev coefficient	6: 0.170E+01			
	Chebychev coefficient	7: 0.411E+00			
	Chebychev coefficient	8:-0.424E-01			
	Chebychev coefficient	9: 0.268E+00			
	Chebychev coefficient	10: 0.144E-01			
	Chebychev coefficient	11: 0.123E+00			
	Chebychev coefficient	12: 0.555E-01			
	Chebychev coefficient	13:-0.706E-01			
	Chebychev coefficient	14:-0.170E+00			
	Chebychev coefficient	15:-0.424E-01			
	Chebychev coefficient	16: 0.161E-01			
	Chebychev coefficient	17:-0.506E-01			
	Chebychev coefficient	18:-0.682E-01			
	Chebychev coefficient	19:-0.442E-01			

	Chebychev coefficient	20:-0.788E-02			
	Chebychev coefficient	21:-0.216E-01			
	Chebychev coefficient	22:-0.541E-02			
	Chebychev coefficient	23:-0.140E-01			
	Chebychev coefficient	24:-0.855E-02			
	Chebychev coefficient	25:-0.761E-02			
	Chebychev coefficient	26: 0.853E-02			
	Chebychev coefficient	27: 0.111E-02			
	Chebychev coefficient	28:-0.374E-02			
388.	C*C*CC+H(+M)=>CC#CC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
	Chebychev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
	Chebychev coefficient	1: 0.447E+01			
	Chebychev coefficient	2:-0.146E+01			
	Chebychev coefficient	3:-0.444E+00			
	Chebychev coefficient	4:-0.149E-01			
	Chebychev coefficient	5: 0.518E+01			
	Chebychev coefficient	6: 0.167E+01			
	Chebychev coefficient	7: 0.413E+00			
	Chebychev coefficient	8:-0.381E-01			
	Chebychev coefficient	9: 0.307E+00			
	Chebychev coefficient	10:-0.382E-02			
	Chebychev coefficient	11: 0.118E+00			
	Chebychev coefficient	12: 0.566E-01			
	Chebychev coefficient	13:-0.642E-01			
	Chebychev coefficient	14:-0.166E+00			
	Chebychev coefficient	15:-0.451E-01			
	Chebychev coefficient	16: 0.145E-01			
	Chebychev coefficient	17:-0.506E-01			
	Chebychev coefficient	18:-0.640E-01			
	Chebychev coefficient	19:-0.436E-01			
	Chebychev coefficient	20:-0.892E-02			
	Chebychev coefficient	21:-0.238E-01			

	Chebyshev coefficient	22:-0.388E-02			
	Chebyshev coefficient	23:-0.128E-01			
	Chebyshev coefficient	24:-0.883E-02			
	Chebyshev coefficient	25:-0.906E-02			
	Chebyshev coefficient	26: 0.899E-02			
	Chebyshev coefficient	27: 0.173E-02			
	Chebyshev coefficient	28:-0.369E-02			
389.	C2H5+C2H2 (+M)=>C2H3+C2H4 (+M)		1.00E+00	0.0	0.0
	Chebyshev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebyshev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebyshev coefficient	1: 0.673E+01			
	Chebyshev coefficient	2:-0.135E+01			
	Chebyshev coefficient	3:-0.488E+00			
	Chebyshev coefficient	4:-0.516E-01			
	Chebyshev coefficient	5: 0.415E+01			
	Chebyshev coefficient	6: 0.149E+01			
	Chebyshev coefficient	7: 0.452E+00			
	Chebyshev coefficient	8:-0.134E-01			
	Chebyshev coefficient	9:-0.336E+00			
	Chebyshev coefficient	10: 0.128E-01			
	Chebyshev coefficient	11: 0.977E-01			
	Chebyshev coefficient	12: 0.678E-01			
	Chebyshev coefficient	13:-0.266E+00			
	Chebyshev coefficient	14:-0.150E+00			
	Chebyshev coefficient	15:-0.525E-01			
	Chebyshev coefficient	16: 0.746E-02			
	Chebyshev coefficient	17:-0.760E-01			
	Chebyshev coefficient	18:-0.376E-01			
	Chebyshev coefficient	19:-0.295E-01			
	Chebyshev coefficient	20:-0.150E-01			
	Chebyshev coefficient	21: 0.251E-02			
	Chebyshev coefficient	22: 0.149E-01			
	Chebyshev coefficient	23: 0.392E-02			
	Chebyshev coefficient	24:-0.416E-02			

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Chebychev coefficient 25: 0.715E-02
Chebychev coefficient 26: 0.115E-01
Chebychev coefficient 27: 0.688E-02
Chebychev coefficient 28: 0.121E-02
390. C2H5+C2H2(+M)=>C*CC*C+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.654E+01
Chebychev coefficient 2:-0.139E+01
Chebychev coefficient 3:-0.494E+00
Chebychev coefficient 4:-0.495E-01
Chebychev coefficient 5: 0.392E+01
Chebychev coefficient 6: 0.151E+01
Chebychev coefficient 7: 0.448E+00
Chebychev coefficient 8:-0.181E-01
Chebychev coefficient 9:-0.384E+00
Chebychev coefficient 10: 0.342E-01
Chebychev coefficient 11: 0.104E+00
Chebychev coefficient 12: 0.666E-01
Chebychev coefficient 13:-0.281E+00
Chebychev coefficient 14:-0.151E+00
Chebychev coefficient 15:-0.495E-01
Chebychev coefficient 16: 0.991E-02
Chebychev coefficient 17:-0.844E-01
Chebychev coefficient 18:-0.417E-01
Chebychev coefficient 19:-0.303E-01
Chebychev coefficient 20:-0.141E-01
Chebychev coefficient 21:-0.396E-03
Chebychev coefficient 22: 0.144E-01
Chebychev coefficient 23: 0.316E-02
Chebychev coefficient 24:-0.443E-02
Chebychev coefficient 25: 0.741E-02
Chebychev coefficient 26: 0.114E-01

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	Chebychev coefficient	27:	0.687E-02			
	Chebychev coefficient	28:	0.168E-02			
391.	C2H5+C2H2 (+M)=>CC*CC. (+M)			1.00E+00	0.0	0.0
	Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebychev coefficient	1:	0.605E+01			
	Chebychev coefficient	2:	-0.468E+00			
	Chebychev coefficient	3:	-0.733E+00			
	Chebychev coefficient	4:	-0.108E-01			
	Chebychev coefficient	5:	0.230E+01			
	Chebychev coefficient	6:	0.256E+01			
	Chebychev coefficient	7:	0.405E+00			
	Chebychev coefficient	8:	-0.956E-01			
	Chebychev coefficient	9:	-0.120E+01			
	Chebychev coefficient	10:	0.414E+00			
	Chebychev coefficient	11:	0.213E+00			
	Chebychev coefficient	12:	0.312E-01			
	Chebychev coefficient	13:	-0.645E+00			
	Chebychev coefficient	14:	-0.103E+00			
	Chebychev coefficient	15:	0.238E-01			
	Chebychev coefficient	16:	0.202E-01			
	Chebychev coefficient	17:	-0.214E+00			
	Chebychev coefficient	18:	-0.863E-01			
	Chebychev coefficient	19:	-0.142E-01			
	Chebychev coefficient	20:	0.397E-02			
	Chebychev coefficient	21:	-0.213E-01			
	Chebychev coefficient	22:	-0.228E-01			
	Chebychev coefficient	23:	-0.525E-02			
	Chebychev coefficient	24:	0.409E-02			
	Chebychev coefficient	25:	0.198E-01			
	Chebychev coefficient	26:	-0.143E-02			
	Chebychev coefficient	27:	-0.789E-03			
	Chebychev coefficient	28:	0.362E-02			
392.	C2H5+C2H2 (+M)=>C*CC*C+H (+M)			1.00E+00	0.0	0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.570E+01

Chebychev coefficient 2:-0.262E+01

Chebychev coefficient 3:-0.667E+00

Chebychev coefficient 4:-0.187E-01

Chebychev coefficient 5: 0.474E+01

Chebychev coefficient 6: 0.266E+01

Chebychev coefficient 7: 0.501E+00

Chebychev coefficient 8:-0.694E-01

Chebychev coefficient 9:-0.409E+00

Chebychev coefficient 10: 0.234E+00

Chebychev coefficient 11: 0.208E+00

Chebychev coefficient 12: 0.540E-01

Chebychev coefficient 13:-0.381E+00

Chebychev coefficient 14:-0.200E+00

Chebychev coefficient 15:-0.882E-02

Chebychev coefficient 16: 0.250E-01

Chebychev coefficient 17:-0.133E+00

Chebychev coefficient 18:-0.957E-01

Chebychev coefficient 19:-0.344E-01

Chebychev coefficient 20: 0.211E-02

Chebychev coefficient 21:-0.185E-01

Chebychev coefficient 22:-0.143E-01

Chebychev coefficient 23:-0.148E-01

Chebychev coefficient 24:-0.751E-03

Chebychev coefficient 25: 0.328E-02

Chebychev coefficient 26: 0.128E-02

Chebychev coefficient 27:-0.404E-02

Chebychev coefficient 28:-0.727E-03

393. C2H5+C2H2(+M)=>C*C*CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

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Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.287E+01
Chebychev coefficient    2:-0.219E+01
Chebychev coefficient    3:-0.665E+00
Chebychev coefficient    4:-0.420E-01
Chebychev coefficient    5: 0.621E+01
Chebychev coefficient    6: 0.238E+01
Chebychev coefficient    7: 0.582E+00
Chebychev coefficient    8:-0.379E-01
Chebychev coefficient    9:-0.194E+00
Chebychev coefficient   10: 0.660E-01
Chebychev coefficient   11: 0.169E+00
Chebychev coefficient   12: 0.692E-01
Chebychev coefficient   13:-0.266E+00
Chebychev coefficient   14:-0.200E+00
Chebychev coefficient   15:-0.401E-01
Chebychev coefficient   16: 0.189E-01
Chebychev coefficient   17:-0.754E-01
Chebychev coefficient   18:-0.742E-01
Chebychev coefficient   19:-0.422E-01
Chebychev coefficient   20:-0.572E-02
Chebychev coefficient   21:-0.158E-02
Chebychev coefficient   22:-0.111E-01
Chebychev coefficient   23:-0.150E-01
Chebychev coefficient   24:-0.493E-02
Chebychev coefficient   25: 0.439E-02
Chebychev coefficient   26:-0.195E-04
Chebychev coefficient   27:-0.305E-02
Chebychev coefficient   28:-0.167E-02
394. C2H5+C2H2 (+M)=>C*C.CC (+M)                1.00E+00    0.0    0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.212E+01
Chebychev coefficient    2: 0.389E+00

```

Chebychev coefficient	3:-0.608E+00			
Chebychev coefficient	4: 0.105E-01			
Chebychev coefficient	5: 0.392E+01			
Chebychev coefficient	6: 0.240E+01			
Chebychev coefficient	7: 0.592E+00			
Chebychev coefficient	8:-0.650E-01			
Chebychev coefficient	9:-0.707E+00			
Chebychev coefficient	10:-0.235E-01			
Chebychev coefficient	11: 0.110E+00			
Chebychev coefficient	12: 0.430E-01			
Chebychev coefficient	13:-0.266E+00			
Chebychev coefficient	14:-0.226E+00			
Chebychev coefficient	15:-0.559E-01			
Chebychev coefficient	16: 0.245E-01			
Chebychev coefficient	17: 0.238E-01			
Chebychev coefficient	18:-0.711E-01			
Chebychev coefficient	19:-0.401E-01			
Chebychev coefficient	20:-0.835E-02			
Chebychev coefficient	21: 0.654E-01			
Chebychev coefficient	22:-0.193E-02			
Chebychev coefficient	23:-0.961E-02			
Chebychev coefficient	24:-0.763E-02			
Chebychev coefficient	25: 0.295E-01			
Chebychev coefficient	26: 0.804E-02			
Chebychev coefficient	27: 0.185E-02			
Chebychev coefficient	28: 0.445E-03			
395. C2H5+C2H2 (+M)=>C*C*C+CH3 (+M)		1.00E+00	0.0	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1: 0.325E+01			
Chebychev coefficient	2:-0.171E+01			
Chebychev coefficient	3:-0.524E+00			
Chebychev coefficient	4: 0.350E-02			
Chebychev coefficient	5: 0.655E+01			

Chebychev coefficient	6:	0.213E+01			
Chebychev coefficient	7:	0.566E+00			
Chebychev coefficient	8:	-0.596E-01			
Chebychev coefficient	9:	0.277E-01			
Chebychev coefficient	10:	-0.223E+00			
Chebychev coefficient	11:	0.508E-01			
Chebychev coefficient	12:	0.670E-01			
Chebychev coefficient	13:	-0.974E-01			
Chebychev coefficient	14:	-0.206E+00			
Chebychev coefficient	15:	-0.733E-01			
Chebychev coefficient	16:	0.973E-02			
Chebychev coefficient	17:	-0.189E-01			
Chebychev coefficient	18:	-0.291E-01			
Chebychev coefficient	19:	-0.361E-01			
Chebychev coefficient	20:	-0.191E-01			
Chebychev coefficient	21:	-0.251E-02			
Chebychev coefficient	22:	0.183E-01			
Chebychev coefficient	23:	-0.284E-02			
Chebychev coefficient	24:	-0.851E-02			
Chebychev coefficient	25:	-0.118E-02			
Chebychev coefficient	26:	0.850E-02			
Chebychev coefficient	27:	0.256E-02			
Chebychev coefficient	28:	-0.762E-03			
396. C2H5+C2H2 (+M)=>C*C*CC+H (+M)			1.00E+00	0.0	0.0
Declared duplicate reaction...					
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:	0.156E+01			
Chebychev coefficient	2:	-0.149E+01			
Chebychev coefficient	3:	-0.494E+00			
Chebychev coefficient	4:	-0.938E-02			
Chebychev coefficient	5:	0.725E+01			
Chebychev coefficient	6:	0.189E+01			
Chebychev coefficient	7:	0.555E+00			

Chebychev coefficient	8:-0.451E-01			
Chebychev coefficient	9: 0.127E+00			
Chebychev coefficient	10:-0.258E+00			
Chebychev coefficient	11: 0.253E-01			
Chebychev coefficient	12: 0.717E-01			
Chebychev coefficient	13:-0.809E-01			
Chebychev coefficient	14:-0.175E+00			
Chebychev coefficient	15:-0.775E-01			
Chebychev coefficient	16: 0.980E-03			
Chebychev coefficient	17:-0.243E-01			
Chebychev coefficient	18:-0.124E-01			
Chebychev coefficient	19:-0.254E-01			
Chebychev coefficient	20:-0.193E-01			
Chebychev coefficient	21:-0.574E-02			
Chebychev coefficient	22: 0.230E-01			
Chebychev coefficient	23: 0.284E-02			
Chebychev coefficient	24:-0.564E-02			
Chebychev coefficient	25:-0.168E-02			
Chebychev coefficient	26: 0.769E-02			
Chebychev coefficient	27: 0.282E-02			
Chebychev coefficient	28:-0.243E-02			
397. C2H5+C2H2 (+M)=>C#CC+CH3 (+M)		1.00E+00	0.0	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:-0.307E-02			
Chebychev coefficient	2:-0.219E+01			
Chebychev coefficient	3:-0.869E+00			
Chebychev coefficient	4:-0.112E+00			
Chebychev coefficient	5: 0.738E+01			
Chebychev coefficient	6: 0.242E+01			
Chebychev coefficient	7: 0.867E+00			
Chebychev coefficient	8: 0.423E-01			
Chebychev coefficient	9:-0.399E+00			
Chebychev coefficient	10: 0.358E-01			

Chebyshev coefficient	11:	0.111E+00		
Chebyshev coefficient	12:	0.797E-01		
Chebyshev coefficient	13:	-0.246E+00		
Chebyshev coefficient	14:	-0.213E+00		
Chebyshev coefficient	15:	-0.719E-01		
Chebyshev coefficient	16:	-0.714E-04		
Chebyshev coefficient	17:	-0.562E-01		
Chebyshev coefficient	18:	-0.729E-01		
Chebyshev coefficient	19:	-0.401E-01		
Chebyshev coefficient	20:	-0.102E-01		
Chebyshev coefficient	21:	-0.167E-02		
Chebyshev coefficient	22:	-0.987E-02		
Chebyshev coefficient	23:	-0.114E-01		
Chebyshev coefficient	24:	-0.114E-02		
Chebyshev coefficient	25:	0.554E-03		
Chebyshev coefficient	26:	-0.236E-02		
Chebyshev coefficient	27:	-0.146E-02		
Chebyshev coefficient	28:	0.371E-03		
398. C2H5+C2H2 (+M)=>CC#CC+H (+M)		1.00E+00	0.0	0.0
Chebyshev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebyshev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebyshev coefficient	1:	-0.106E+01		
Chebyshev coefficient	2:	-0.216E+01		
Chebyshev coefficient	3:	-0.858E+00		
Chebyshev coefficient	4:	-0.112E+00		
Chebyshev coefficient	5:	0.754E+01		
Chebyshev coefficient	6:	0.241E+01		
Chebyshev coefficient	7:	0.865E+00		
Chebyshev coefficient	8:	0.460E-01		
Chebyshev coefficient	9:	-0.346E+00		
Chebyshev coefficient	10:	0.990E-02		
Chebyshev coefficient	11:	0.103E+00		
Chebyshev coefficient	12:	0.800E-01		
Chebyshev coefficient	13:	-0.228E+00		

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Chebychev coefficient 14:-0.215E+00
Chebychev coefficient 15:-0.752E-01
Chebychev coefficient 16:-0.143E-02
Chebychev coefficient 17:-0.514E-01
Chebychev coefficient 18:-0.671E-01
Chebychev coefficient 19:-0.403E-01
Chebychev coefficient 20:-0.101E-01
Chebychev coefficient 21:-0.118E-02
Chebychev coefficient 22:-0.965E-02
Chebychev coefficient 23:-0.963E-02
Chebychev coefficient 24:-0.297E-02
Chebychev coefficient 25: 0.138E-02
Chebychev coefficient 26:-0.539E-02
Chebychev coefficient 27: 0.211E-02
Chebychev coefficient 28:-0.250E-02
399. C2H5+C2H2(+M)=>C*C*CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.170E+01
Chebychev coefficient 2:-0.210E+01
Chebychev coefficient 3:-0.839E+00
Chebychev coefficient 4:-0.113E+00
Chebychev coefficient 5: 0.779E+01
Chebychev coefficient 6: 0.238E+01
Chebychev coefficient 7: 0.861E+00
Chebychev coefficient 8: 0.524E-01
Chebychev coefficient 9:-0.275E+00
Chebychev coefficient 10:-0.292E-01
Chebychev coefficient 11: 0.901E-01
Chebychev coefficient 12: 0.813E-01
Chebychev coefficient 13:-0.206E+00
Chebychev coefficient 14:-0.215E+00
Chebychev coefficient 15:-0.768E-01

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Chebychev	coefficient	16:-0.459E-02			
Chebychev	coefficient	17:-0.480E-01			
Chebychev	coefficient	18:-0.599E-01			
Chebychev	coefficient	19:-0.418E-01			
Chebychev	coefficient	20:-0.127E-01			
Chebychev	coefficient	21:-0.275E-02			
Chebychev	coefficient	22:-0.826E-02			
Chebychev	coefficient	23:-0.780E-02			
Chebychev	coefficient	24:-0.247E-02			
Chebychev	coefficient	25: 0.255E-02			
Chebychev	coefficient	26:-0.395E-02			
Chebychev	coefficient	27: 0.391E-02			
Chebychev	coefficient	28:-0.104E-02			
400.	C*C*C+CH3 (+M)=>C2H3+C2H4 (+M)		1.00E+00	0.0	0.0
Chebychev	temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
Chebychev	pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
Chebychev	coefficient	1: 0.374E+01			
Chebychev	coefficient	2:-0.169E+01			
Chebychev	coefficient	3:-0.475E+00			
Chebychev	coefficient	4:-0.417E-02			
Chebychev	coefficient	5: 0.653E+01			
Chebychev	coefficient	6: 0.189E+01			
Chebychev	coefficient	7: 0.404E+00			
Chebychev	coefficient	8:-0.720E-01			
Chebychev	coefficient	9:-0.821E-01			
Chebychev	coefficient	10: 0.233E-01			
Chebychev	coefficient	11: 0.159E+00			
Chebychev	coefficient	12: 0.717E-01			
Chebychev	coefficient	13:-0.165E+00			
Chebychev	coefficient	14:-0.202E+00			
Chebychev	coefficient	15:-0.503E-01			
Chebychev	coefficient	16: 0.242E-01			
Chebychev	coefficient	17:-0.453E-01			
Chebychev	coefficient	18:-0.643E-01			

	Chebychev coefficient	19:-0.489E-01			
	Chebychev coefficient	20:-0.137E-01			
	Chebychev coefficient	21: 0.196E-02			
	Chebychev coefficient	22: 0.819E-02			
	Chebychev coefficient	23:-0.887E-02			
	Chebychev coefficient	24:-0.109E-01			
	Chebychev coefficient	25: 0.486E-02			
	Chebychev coefficient	26: 0.120E-01			
	Chebychev coefficient	27: 0.397E-02			
	Chebychev coefficient	28:-0.186E-02			
401.	C*C*C+CH3(+M)=>C*CC*C+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.349E+01			
	Chebychev coefficient	2:-0.172E+01			
	Chebychev coefficient	3:-0.475E+00			
	Chebychev coefficient	4:-0.121E-02			
	Chebychev coefficient	5: 0.634E+01			
	Chebychev coefficient	6: 0.191E+01			
	Chebychev coefficient	7: 0.395E+00			
	Chebychev coefficient	8:-0.775E-01			
	Chebychev coefficient	9:-0.128E+00			
	Chebychev coefficient	10: 0.449E-01			
	Chebychev coefficient	11: 0.164E+00			
	Chebychev coefficient	12: 0.692E-01			
	Chebychev coefficient	13:-0.182E+00			
	Chebychev coefficient	14:-0.204E+00			
	Chebychev coefficient	15:-0.451E-01			
	Chebychev coefficient	16: 0.265E-01			
	Chebychev coefficient	17:-0.508E-01			
	Chebychev coefficient	18:-0.683E-01			
	Chebychev coefficient	19:-0.488E-01			
	Chebychev coefficient	20:-0.118E-01			

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Chebychev coefficient 21: 0.154E-02
Chebychev coefficient 22: 0.678E-02
Chebychev coefficient 23:-0.101E-01
Chebychev coefficient 24:-0.104E-01
Chebychev coefficient 25: 0.554E-02
Chebychev coefficient 26: 0.121E-01
Chebychev coefficient 27: 0.361E-02
Chebychev coefficient 28:-0.170E-02
402. C*C*C+CH3 (+M)=>CC*CC. (+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.286E+01
Chebychev coefficient 2:-0.508E+00
Chebychev coefficient 3:-0.605E+00
Chebychev coefficient 4: 0.975E-01
Chebychev coefficient 5: 0.452E+01
Chebychev coefficient 6: 0.286E+01
Chebychev coefficient 7: 0.311E+00
Chebychev coefficient 8:-0.207E+00
Chebychev coefficient 9:-0.101E+01
Chebychev coefficient 10: 0.385E+00
Chebychev coefficient 11: 0.281E+00
Chebychev coefficient 12: 0.393E-01
Chebychev coefficient 13:-0.541E+00
Chebychev coefficient 14:-0.143E+00
Chebychev coefficient 15: 0.476E-01
Chebychev coefficient 16: 0.559E-01
Chebychev coefficient 17:-0.162E+00
Chebychev coefficient 18:-0.123E+00
Chebychev coefficient 19:-0.387E-01
Chebychev coefficient 20: 0.869E-02
Chebychev coefficient 21:-0.498E-02
Chebychev coefficient 22:-0.442E-01
Chebychev coefficient 23:-0.291E-01

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Chebychev coefficient 24:-0.577E-02
Chebychev coefficient 25: 0.384E-01
Chebychev coefficient 26: 0.597E-02
Chebychev coefficient 27:-0.503E-02
Chebychev coefficient 28:-0.343E-02
403. C*C*C+CH3(+M)=>C*CC*C+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.294E+01
Chebychev coefficient 2:-0.261E+01
Chebychev coefficient 3:-0.554E+00
Chebychev coefficient 4: 0.709E-01
Chebychev coefficient 5: 0.704E+01
Chebychev coefficient 6: 0.280E+01
Chebychev coefficient 7: 0.381E+00
Chebychev coefficient 8:-0.181E+00
Chebychev coefficient 9:-0.137E+00
Chebychev coefficient 10: 0.158E+00
Chebychev coefficient 11: 0.264E+00
Chebychev coefficient 12: 0.768E-01
Chebychev coefficient 13:-0.224E+00
Chebychev coefficient 14:-0.242E+00
Chebychev coefficient 15:-0.108E-01
Chebychev coefficient 16: 0.500E-01
Chebychev coefficient 17:-0.781E-01
Chebychev coefficient 18:-0.123E+00
Chebychev coefficient 19:-0.649E-01
Chebychev coefficient 20:-0.562E-02
Chebychev coefficient 21:-0.826E-02
Chebychev coefficient 22:-0.203E-01
Chebychev coefficient 23:-0.271E-01
Chebychev coefficient 24:-0.115E-01
Chebychev coefficient 25: 0.481E-02

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Chebychev coefficient 26: 0.649E-02
Chebychev coefficient 27:-0.249E-02
Chebychev coefficient 28:-0.301E-02
404. C*C*C+CH3(+M)=>C*C*CC+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.488E+00
Chebychev coefficient 2:-0.221E+01
Chebychev coefficient 3:-0.569E+00
Chebychev coefficient 4: 0.403E-01
Chebychev coefficient 5: 0.829E+01
Chebychev coefficient 6: 0.249E+01
Chebychev coefficient 7: 0.463E+00
Chebychev coefficient 8:-0.142E+00
Chebychev coefficient 9: 0.133E+00
Chebychev coefficient 10: 0.198E-01
Chebychev coefficient 11: 0.230E+00
Chebychev coefficient 12: 0.101E+00
Chebychev coefficient 13:-0.133E+00
Chebychev coefficient 14:-0.237E+00
Chebychev coefficient 15:-0.570E-01
Chebychev coefficient 16: 0.340E-01
Chebychev coefficient 17:-0.498E-01
Chebychev coefficient 18:-0.923E-01
Chebychev coefficient 19:-0.687E-01
Chebychev coefficient 20:-0.224E-01
Chebychev coefficient 21:-0.130E-01
Chebychev coefficient 22:-0.809E-02
Chebychev coefficient 23:-0.208E-01
Chebychev coefficient 24:-0.154E-01
Chebychev coefficient 25:-0.328E-02
Chebychev coefficient 26: 0.668E-02
Chebychev coefficient 27:-0.947E-03

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Chebychev coefficient 28:-0.268E-02
405. C*C*C+CH3(+M)=>C2H5+C2H2(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.267E+01
Chebychev coefficient 2:-0.170E+01
Chebychev coefficient 3:-0.511E+00
Chebychev coefficient 4: 0.546E-02
Chebychev coefficient 5: 0.756E+01
Chebychev coefficient 6: 0.213E+01
Chebychev coefficient 7: 0.556E+00
Chebychev coefficient 8:-0.643E-01
Chebychev coefficient 9: 0.438E-01
Chebychev coefficient 10:-0.250E+00
Chebychev coefficient 11: 0.418E-01
Chebychev coefficient 12: 0.681E-01
Chebychev coefficient 13:-0.988E-01
Chebychev coefficient 14:-0.201E+00
Chebychev coefficient 15:-0.674E-01
Chebychev coefficient 16: 0.120E-01
Chebychev coefficient 17:-0.315E-01
Chebychev coefficient 18:-0.192E-01
Chebychev coefficient 19:-0.333E-01
Chebychev coefficient 20:-0.191E-01
Chebychev coefficient 21:-0.120E-01
Chebychev coefficient 22: 0.193E-01
Chebychev coefficient 23:-0.299E-02
Chebychev coefficient 24:-0.803E-02
Chebychev coefficient 25:-0.417E-02
Chebychev coefficient 26: 0.606E-02
Chebychev coefficient 27: 0.985E-03
Chebychev coefficient 28:-0.213E-02
406. C*C*C+CH3(+M)=>C*C.CC(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

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Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.756E+01
Chebychev coefficient    2: 0.914E+00
Chebychev coefficient    3:-0.118E+00
Chebychev coefficient    4: 0.138E-01
Chebychev coefficient    5: 0.141E+01
Chebychev coefficient    6: 0.124E+01
Chebychev coefficient    7:-0.353E-01
Chebychev coefficient    8:-0.247E-01
Chebychev coefficient    9:-0.999E+00
Chebychev coefficient   10: 0.441E+00
Chebychev coefficient   11: 0.944E-01
Chebychev coefficient   12:-0.176E-01
Chebychev coefficient   13:-0.400E+00
Chebychev coefficient   14: 0.198E-01
Chebychev coefficient   15: 0.637E-01
Chebychev coefficient   16: 0.103E-01
Chebychev coefficient   17:-0.900E-01
Chebychev coefficient   18:-0.824E-01
Chebychev coefficient   19: 0.533E-02
Chebychev coefficient   20: 0.127E-01
Chebychev coefficient   21: 0.237E-01
Chebychev coefficient   22:-0.576E-01
Chebychev coefficient   23:-0.161E-01
Chebychev coefficient   24: 0.237E-02
Chebychev coefficient   25: 0.483E-01
Chebychev coefficient   26:-0.127E-01
Chebychev coefficient   27:-0.109E-01
Chebychev coefficient   28:-0.306E-02
407. C*C*C+CH3(+M)=>C*C*CC+H(+M)                1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.510E+01

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Chebychev coefficient	2:-0.981E+00			
Chebychev coefficient	3:-0.245E+00			
Chebychev coefficient	4: 0.190E-01			
Chebychev coefficient	5: 0.589E+01			
Chebychev coefficient	6: 0.107E+01			
Chebychev coefficient	7: 0.184E+00			
Chebychev coefficient	8:-0.651E-01			
Chebychev coefficient	9:-0.709E-01			
Chebychev coefficient	10: 0.683E-01			
Chebychev coefficient	11: 0.119E+00			
Chebychev coefficient	12: 0.364E-01			
Chebychev coefficient	13:-0.121E+00			
Chebychev coefficient	14:-0.123E+00			
Chebychev coefficient	15:-0.170E-01			
Chebychev coefficient	16: 0.261E-01			
Chebychev coefficient	17:-0.453E-01			
Chebychev coefficient	18:-0.606E-01			
Chebychev coefficient	19:-0.400E-01			
Chebychev coefficient	20:-0.468E-02			
Chebychev coefficient	21:-0.440E-02			
Chebychev coefficient	22:-0.546E-02			
Chebychev coefficient	23:-0.159E-01			
Chebychev coefficient	24:-0.981E-02			
Chebychev coefficient	25: 0.611E-02			
Chebychev coefficient	26: 0.125E-01			
Chebychev coefficient	27: 0.328E-02			
Chebychev coefficient	28:-0.281E-02			
408. C*C*C+CH3 (+M)=>C#CC+CH3 (+M)		1.00E+00	0.0	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:-0.204E+01			
Chebychev coefficient	2:-0.236E+01			
Chebychev coefficient	3:-0.748E+00			
Chebychev coefficient	4:-0.158E-01			

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Chebychev coefficient      5: 0.902E+01
Chebychev coefficient      6: 0.276E+01
Chebychev coefficient      7: 0.726E+00
Chebychev coefficient      8:-0.784E-01
Chebychev coefficient      9: 0.630E-01
Chebychev coefficient     10:-0.976E-01
Chebychev coefficient     11: 0.163E+00
Chebychev coefficient     12: 0.114E+00
Chebychev coefficient     13:-0.129E+00
Chebychev coefficient     14:-0.257E+00
Chebychev coefficient     15:-0.890E-01
Chebychev coefficient     16: 0.109E-01
Chebychev coefficient     17:-0.429E-01
Chebychev coefficient     18:-0.753E-01
Chebychev coefficient     19:-0.597E-01
Chebychev coefficient     20:-0.261E-01
Chebychev coefficient     21:-0.139E-01
Chebychev coefficient     22: 0.336E-02
Chebychev coefficient     23:-0.141E-01
Chebychev coefficient     24:-0.115E-01
Chebychev coefficient     25:-0.481E-02
Chebychev coefficient     26: 0.685E-02
Chebychev coefficient     27: 0.433E-03
Chebychev coefficient     28:-0.136E-02
409. C*C*C+CH3(+M)=>CC#CC+H(+M)          1.00E+00      0.0      0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient      1:-0.309E+01
Chebychev coefficient      2:-0.230E+01
Chebychev coefficient      3:-0.743E+00
Chebychev coefficient      4:-0.215E-01
Chebychev coefficient      5: 0.922E+01
Chebychev coefficient      6: 0.270E+01
Chebychev coefficient      7: 0.729E+00

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Chebychev coefficient      8:-0.702E-01
Chebychev coefficient      9: 0.104E+00
Chebychev coefficient     10:-0.117E+00
Chebychev coefficient     11: 0.155E+00
Chebychev coefficient     12: 0.114E+00
Chebychev coefficient     13:-0.118E+00
Chebychev coefficient     14:-0.252E+00
Chebychev coefficient     15:-0.934E-01
Chebychev coefficient     16: 0.843E-02
Chebychev coefficient     17:-0.410E-01
Chebychev coefficient     18:-0.712E-01
Chebychev coefficient     19:-0.591E-01
Chebychev coefficient     20:-0.265E-01
Chebychev coefficient     21:-0.179E-01
Chebychev coefficient     22: 0.551E-02
Chebychev coefficient     23:-0.111E-01
Chebychev coefficient     24:-0.121E-01
Chebychev coefficient     25:-0.706E-02
Chebychev coefficient     26: 0.712E-02
Chebychev coefficient     27: 0.342E-02
Chebychev coefficient     28:-0.237E-02
410. C*C*C+CH3(+M)=>C*C*CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient      1:-0.372E+01
Chebychev coefficient      2:-0.221E+01
Chebychev coefficient      3:-0.732E+00
Chebychev coefficient      4:-0.312E-01
Chebychev coefficient      5: 0.952E+01
Chebychev coefficient      6: 0.262E+01
Chebychev coefficient      7: 0.732E+00
Chebychev coefficient      8:-0.564E-01
Chebychev coefficient      9: 0.157E+00

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Chebychev coefficient	10:-0.146E+00			
Chebychev coefficient	11: 0.143E+00			
Chebychev coefficient	12: 0.116E+00			
Chebychev coefficient	13:-0.107E+00			
Chebychev coefficient	14:-0.239E+00			
Chebychev coefficient	15:-0.991E-01			
Chebychev coefficient	16: 0.332E-02			
Chebychev coefficient	17:-0.436E-01			
Chebychev coefficient	18:-0.622E-01			
Chebychev coefficient	19:-0.551E-01			
Chebychev coefficient	20:-0.285E-01			
Chebychev coefficient	21:-0.178E-01			
Chebychev coefficient	22: 0.600E-02			
Chebychev coefficient	23:-0.723E-02			
Chebychev coefficient	24:-0.100E-01			
Chebychev coefficient	25:-0.503E-02			
Chebychev coefficient	26: 0.624E-02			
Chebychev coefficient	27: 0.546E-03			
Chebychev coefficient	28:-0.590E-03			
411. C*C*CC+H(+M)=>C2H3+C2H4(+M)		1.00E+00	0.0	0.0
Declared duplicate reaction...				
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
Chebychev coefficient	1: 0.784E+01			
Chebychev coefficient	2:-0.150E+01			
Chebychev coefficient	3:-0.477E+00			
Chebychev coefficient	4:-0.209E-01			
Chebychev coefficient	5: 0.368E+01			
Chebychev coefficient	6: 0.174E+01			
Chebychev coefficient	7: 0.445E+00			
Chebychev coefficient	8:-0.508E-01			
Chebychev coefficient	9: 0.336E-01			
Chebychev coefficient	10:-0.476E-01			
Chebychev coefficient	11: 0.126E+00			

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Chebychev coefficient 12: 0.782E-01
Chebychev coefficient 13:-0.132E+00
Chebychev coefficient 14:-0.186E+00
Chebychev coefficient 15:-0.656E-01
Chebychev coefficient 16: 0.138E-01
Chebychev coefficient 17:-0.340E-01
Chebychev coefficient 18:-0.435E-01
Chebychev coefficient 19:-0.427E-01
Chebychev coefficient 20:-0.185E-01
Chebychev coefficient 21: 0.569E-02
Chebychev coefficient 22: 0.143E-01
Chebychev coefficient 23:-0.245E-02
Chebychev coefficient 24:-0.989E-02
Chebychev coefficient 25: 0.550E-02
Chebychev coefficient 26: 0.108E-01
Chebychev coefficient 27: 0.497E-02
Chebychev coefficient 28:-0.784E-03
412. C*C*CC+H(+M)=>C*CC*C+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.755E+01
Chebychev coefficient 2:-0.153E+01
Chebychev coefficient 3:-0.479E+00
Chebychev coefficient 4:-0.185E-01
Chebychev coefficient 5: 0.351E+01
Chebychev coefficient 6: 0.176E+01
Chebychev coefficient 7: 0.439E+00
Chebychev coefficient 8:-0.556E-01
Chebychev coefficient 9:-0.944E-02
Chebychev coefficient 10:-0.339E-01
Chebychev coefficient 11: 0.132E+00
Chebychev coefficient 12: 0.774E-01
Chebychev coefficient 13:-0.148E+00

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Chebychev coefficient 14:-0.188E+00
Chebychev coefficient 15:-0.622E-01
Chebychev coefficient 16: 0.161E-01
Chebychev coefficient 17:-0.391E-01
Chebychev coefficient 18:-0.460E-01
Chebychev coefficient 19:-0.434E-01
Chebychev coefficient 20:-0.174E-01
Chebychev coefficient 21: 0.493E-02
Chebychev coefficient 22: 0.134E-01
Chebychev coefficient 23:-0.354E-02
Chebychev coefficient 24:-0.987E-02
Chebychev coefficient 25: 0.581E-02
Chebychev coefficient 26: 0.109E-01
Chebychev coefficient 27: 0.480E-02
Chebychev coefficient 28:-0.854E-03
413. C*C*CC+H(+M)=>CC*CC.(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.678E+01
Chebychev coefficient 2:-0.169E+00
Chebychev coefficient 3:-0.610E+00
Chebychev coefficient 4: 0.761E-01
Chebychev coefficient 5: 0.158E+01
Chebychev coefficient 6: 0.267E+01
Chebychev coefficient 7: 0.373E+00
Chebychev coefficient 8:-0.197E+00
Chebychev coefficient 9:-0.871E+00
Chebychev coefficient 10: 0.262E+00
Chebychev coefficient 11: 0.281E+00
Chebychev coefficient 12: 0.670E-01
Chebychev coefficient 13:-0.486E+00
Chebychev coefficient 14:-0.175E+00
Chebychev coefficient 15: 0.117E-01

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Chebychev coefficient 16: 0.527E-01
Chebychev coefficient 17:-0.130E+00
Chebychev coefficient 18:-0.114E+00
Chebychev coefficient 19:-0.518E-01
Chebychev coefficient 20: 0.450E-02
Chebychev coefficient 21: 0.811E-02
Chebychev coefficient 22:-0.316E-01
Chebychev coefficient 23:-0.265E-01
Chebychev coefficient 24:-0.103E-01
Chebychev coefficient 25: 0.358E-01
Chebychev coefficient 26: 0.112E-01
Chebychev coefficient 27:-0.287E-03
Chebychev coefficient 28:-0.277E-02
414. C*C*CC+H(+M)=>C*CC*C+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.708E+01
Chebychev coefficient 2:-0.233E+01
Chebychev coefficient 3:-0.570E+00
Chebychev coefficient 4: 0.494E-01
Chebychev coefficient 5: 0.413E+01
Chebychev coefficient 6: 0.258E+01
Chebychev coefficient 7: 0.438E+00
Chebychev coefficient 8:-0.162E+00
Chebychev coefficient 9:-0.151E-01
Chebychev coefficient 10: 0.673E-01
Chebychev coefficient 11: 0.243E+00
Chebychev coefficient 12: 0.938E-01
Chebychev coefficient 13:-0.190E+00
Chebychev coefficient 14:-0.237E+00
Chebychev coefficient 15:-0.379E-01
Chebychev coefficient 16: 0.439E-01
Chebychev coefficient 17:-0.627E-01

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	Chebychev coefficient	18:-0.971E-01			
	Chebychev coefficient	19:-0.647E-01			
	Chebychev coefficient	20:-0.122E-01			
	Chebychev coefficient	21:-0.309E-02			
	Chebychev coefficient	22:-0.814E-02			
	Chebychev coefficient	23:-0.211E-01			
	Chebychev coefficient	24:-0.127E-01			
	Chebychev coefficient	25: 0.357E-02			
	Chebychev coefficient	26: 0.695E-02			
	Chebychev coefficient	27:-0.634E-04			
	Chebychev coefficient	28:-0.192E-02			
415.	C*C*CC+H(+M)=>C2H5+C2H2(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.692E+01			
	Chebychev coefficient	2:-0.147E+01			
	Chebychev coefficient	3:-0.482E+00			
	Chebychev coefficient	4:-0.835E-02			
	Chebychev coefficient	5: 0.462E+01			
	Chebychev coefficient	6: 0.188E+01			
	Chebychev coefficient	7: 0.541E+00			
	Chebychev coefficient	8:-0.477E-01			
	Chebychev coefficient	9: 0.147E+00			
	Chebychev coefficient	10:-0.278E+00			
	Chebychev coefficient	11: 0.207E-01			
	Chebychev coefficient	12: 0.737E-01			
	Chebychev coefficient	13:-0.733E-01			
	Chebychev coefficient	14:-0.164E+00			
	Chebychev coefficient	15:-0.705E-01			
	Chebychev coefficient	16: 0.116E-02			
	Chebychev coefficient	17:-0.228E-01			
	Chebychev coefficient	18:-0.325E-02			
	Chebychev coefficient	19:-0.254E-01			

	Chebychev coefficient	20:-0.190E-01			
	Chebychev coefficient	21:-0.534E-02			
	Chebychev coefficient	22: 0.188E-01			
	Chebychev coefficient	23: 0.262E-02			
	Chebychev coefficient	24:-0.865E-02			
	Chebychev coefficient	25:-0.180E-02			
	Chebychev coefficient	26: 0.318E-02			
	Chebychev coefficient	27: 0.499E-02			
	Chebychev coefficient	28:-0.437E-02			
416.	C*C*CC+H(+M)=>C*C.CC(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.103E+02			
	Chebychev coefficient	2: 0.136E+01			
	Chebychev coefficient	3:-0.256E+00			
	Chebychev coefficient	4: 0.327E-01			
	Chebychev coefficient	5:-0.409E+00			
	Chebychev coefficient	6: 0.108E+01			
	Chebychev coefficient	7: 0.138E+00			
	Chebychev coefficient	8:-0.764E-01			
	Chebychev coefficient	9:-0.889E+00			
	Chebychev coefficient	10: 0.205E+00			
	Chebychev coefficient	11: 0.138E+00			
	Chebychev coefficient	12: 0.114E-01			
	Chebychev coefficient	13:-0.305E+00			
	Chebychev coefficient	14:-0.671E-01			
	Chebychev coefficient	15: 0.211E-01			
	Chebychev coefficient	16: 0.312E-01			
	Chebychev coefficient	17:-0.427E-01			
	Chebychev coefficient	18:-0.799E-01			
	Chebychev coefficient	19:-0.267E-01			
	Chebychev coefficient	20: 0.852E-02			
	Chebychev coefficient	21: 0.348E-01			

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Chebychev coefficient 22:-0.292E-01
Chebychev coefficient 23:-0.230E-01
Chebychev coefficient 24:-0.505E-02
Chebychev coefficient 25: 0.424E-01
Chebychev coefficient 26: 0.629E-02
Chebychev coefficient 27:-0.356E-02
Chebychev coefficient 28:-0.629E-02
417. C*C*CC+H(+M)=>C*C*C+CH3(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.110E+02
Chebychev coefficient 2:-0.981E+00
Chebychev coefficient 3:-0.245E+00
Chebychev coefficient 4: 0.190E-01
Chebychev coefficient 5: 0.224E+01
Chebychev coefficient 6: 0.107E+01
Chebychev coefficient 7: 0.184E+00
Chebychev coefficient 8:-0.653E-01
Chebychev coefficient 9:-0.639E-01
Chebychev coefficient 10: 0.684E-01
Chebychev coefficient 11: 0.119E+00
Chebychev coefficient 12: 0.361E-01
Chebychev coefficient 13:-0.114E+00
Chebychev coefficient 14:-0.122E+00
Chebychev coefficient 15:-0.169E-01
Chebychev coefficient 16: 0.264E-01
Chebychev coefficient 17:-0.400E-01
Chebychev coefficient 18:-0.602E-01
Chebychev coefficient 19:-0.401E-01
Chebychev coefficient 20:-0.455E-02
Chebychev coefficient 21:-0.751E-03
Chebychev coefficient 22:-0.485E-02
Chebychev coefficient 23:-0.156E-01

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Chebychev coefficient 24:-0.934E-02
Chebychev coefficient 25: 0.875E-02
Chebychev coefficient 26: 0.137E-01
Chebychev coefficient 27: 0.382E-02
Chebychev coefficient 28:-0.233E-02
418. C*C*CC+H(+M)=>C#CC+CH3(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.237E+01
Chebychev coefficient 2:-0.220E+01
Chebychev coefficient 3:-0.731E+00
Chebychev coefficient 4:-0.320E-01
Chebychev coefficient 5: 0.593E+01
Chebychev coefficient 6: 0.261E+01
Chebychev coefficient 7: 0.733E+00
Chebychev coefficient 8:-0.567E-01
Chebychev coefficient 9: 0.175E+00
Chebychev coefficient 10:-0.154E+00
Chebychev coefficient 11: 0.136E+00
Chebychev coefficient 12: 0.115E+00
Chebychev coefficient 13:-0.948E-01
Chebychev coefficient 14:-0.239E+00
Chebychev coefficient 15:-0.974E-01
Chebychev coefficient 16: 0.421E-02
Chebychev coefficient 17:-0.306E-01
Chebychev coefficient 18:-0.580E-01
Chebychev coefficient 19:-0.540E-01
Chebychev coefficient 20:-0.281E-01
Chebychev coefficient 21:-0.928E-02
Chebychev coefficient 22: 0.481E-02
Chebychev coefficient 23:-0.828E-02
Chebychev coefficient 24:-0.108E-01
Chebychev coefficient 25:-0.275E-02

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Chebychev coefficient 26: 0.413E-02
Chebychev coefficient 27: 0.104E-02
Chebychev coefficient 28:-0.138E-02
419. C*C*CC+H(+M)=>CC#CC+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.134E+01
Chebychev coefficient 2:-0.214E+01
Chebychev coefficient 3:-0.726E+00
Chebychev coefficient 4:-0.369E-01
Chebychev coefficient 5: 0.612E+01
Chebychev coefficient 6: 0.256E+01
Chebychev coefficient 7: 0.735E+00
Chebychev coefficient 8:-0.494E-01
Chebychev coefficient 9: 0.212E+00
Chebychev coefficient 10:-0.166E+00
Chebychev coefficient 11: 0.129E+00
Chebychev coefficient 12: 0.113E+00
Chebychev coefficient 13:-0.828E-01
Chebychev coefficient 14:-0.234E+00
Chebychev coefficient 15:-0.993E-01
Chebychev coefficient 16: 0.342E-02
Chebychev coefficient 17:-0.294E-01
Chebychev coefficient 18:-0.550E-01
Chebychev coefficient 19:-0.519E-01
Chebychev coefficient 20:-0.269E-01
Chebychev coefficient 21:-0.126E-01
Chebychev coefficient 22: 0.551E-02
Chebychev coefficient 23:-0.826E-02
Chebychev coefficient 24:-0.131E-01
Chebychev coefficient 25:-0.470E-02
Chebychev coefficient 26: 0.229E-02
Chebychev coefficient 27:-0.851E-03

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Chebychev coefficient 28:-0.427E-02
420. C#CC+CH3(+M)=>C2H3+C2H4(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.907E-01
Chebychev coefficient 2:-0.214E+01
Chebychev coefficient 3:-0.685E+00
Chebychev coefficient 4:-0.328E-01
Chebychev coefficient 5: 0.829E+01
Chebychev coefficient 6: 0.240E+01
Chebychev coefficient 7: 0.642E+00
Chebychev coefficient 8:-0.482E-01
Chebychev coefficient 9:-0.704E-01
Chebychev coefficient 10: 0.126E-01
Chebychev coefficient 11: 0.145E+00
Chebychev coefficient 12: 0.818E-01
Chebychev coefficient 13:-0.178E+00
Chebychev coefficient 14:-0.227E+00
Chebychev coefficient 15:-0.591E-01
Chebychev coefficient 16: 0.173E-01
Chebychev coefficient 17:-0.558E-01
Chebychev coefficient 18:-0.713E-01
Chebychev coefficient 19:-0.438E-01
Chebychev coefficient 20:-0.105E-01
Chebychev coefficient 21:-0.770E-02
Chebychev coefficient 22:-0.204E-02
Chebychev coefficient 23:-0.130E-01
Chebychev coefficient 24:-0.776E-02
Chebychev coefficient 25:-0.827E-03
Chebychev coefficient 26: 0.375E-02
Chebychev coefficient 27:-0.203E-02
Chebychev coefficient 28:-0.256E-02
421. C#CC+CH3(+M)=>C*CC*C+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...

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Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient      1:-0.211E+00
Chebychev coefficient      2:-0.217E+01
Chebychev coefficient      3:-0.691E+00
Chebychev coefficient      4:-0.310E-01
Chebychev coefficient      5: 0.814E+01
Chebychev coefficient      6: 0.242E+01
Chebychev coefficient      7: 0.639E+00
Chebychev coefficient      8:-0.525E-01
Chebychev coefficient      9:-0.115E+00
Chebychev coefficient     10: 0.323E-01
Chebychev coefficient     11: 0.151E+00
Chebychev coefficient     12: 0.807E-01
Chebychev coefficient     13:-0.193E+00
Chebychev coefficient     14:-0.225E+00
Chebychev coefficient     15:-0.560E-01
Chebychev coefficient     16: 0.185E-01
Chebychev coefficient     17:-0.597E-01
Chebychev coefficient     18:-0.747E-01
Chebychev coefficient     19:-0.437E-01
Chebychev coefficient     20:-0.936E-02
Chebychev coefficient     21:-0.744E-02
Chebychev coefficient     22:-0.414E-02
Chebychev coefficient     23:-0.137E-01
Chebychev coefficient     24:-0.697E-02
Chebychev coefficient     25:-0.187E-03
Chebychev coefficient     26: 0.318E-02
Chebychev coefficient     27:-0.236E-02
Chebychev coefficient     28:-0.220E-02
422. C#CC+CH3(+M)=>CC*CC.(+M)                1.00E+00    0.0    0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient      1: 0.640E+00

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Chebychev coefficient 2: 0.661E+00
Chebychev coefficient 3:-0.508E+00
Chebychev coefficient 4: 0.106E-01
Chebychev coefficient 5: 0.523E+01
Chebychev coefficient 6: 0.177E+01
Chebychev coefficient 7: 0.358E+00
Chebychev coefficient 8:-0.793E-01
Chebychev coefficient 9:-0.916E+00
Chebychev coefficient 10: 0.260E+00
Chebychev coefficient 11: 0.180E+00
Chebychev coefficient 12: 0.367E-01
Chebychev coefficient 13:-0.432E+00
Chebychev coefficient 14:-0.959E-01
Chebychev coefficient 15: 0.114E-01
Chebychev coefficient 16: 0.284E-01
Chebychev coefficient 17:-0.123E+00
Chebychev coefficient 18:-0.871E-01
Chebychev coefficient 19:-0.272E-01
Chebychev coefficient 20: 0.716E-02
Chebychev coefficient 21: 0.773E-02
Chebychev coefficient 22:-0.341E-01
Chebychev coefficient 23:-0.199E-01
Chebychev coefficient 24:-0.265E-02
Chebychev coefficient 25: 0.427E-01
Chebychev coefficient 26:-0.120E-02
Chebychev coefficient 27:-0.830E-02
Chebychev coefficient 28:-0.525E-02
423. C#CC+CH3(+M)=>C*CC*C+H(+M) 1.00E+00 0.0 0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.935E+00
Chebychev coefficient 2:-0.166E+01
Chebychev coefficient 3:-0.469E+00

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Chebychev coefficient	4:	0.326E-03			
Chebychev coefficient	5:	0.772E+01			
Chebychev coefficient	6:	0.178E+01			
Chebychev coefficient	7:	0.394E+00			
Chebychev coefficient	8:	-0.606E-01			
Chebychev coefficient	9:	-0.356E-01			
Chebychev coefficient	10:	0.116E+00			
Chebychev coefficient	11:	0.149E+00			
Chebychev coefficient	12:	0.491E-01			
Chebychev coefficient	13:	-0.148E+00			
Chebychev coefficient	14:	-0.162E+00			
Chebychev coefficient	15:	-0.211E-01			
Chebychev coefficient	16:	0.238E-01			
Chebychev coefficient	17:	-0.620E-01			
Chebychev coefficient	18:	-0.813E-01			
Chebychev coefficient	19:	-0.399E-01			
Chebychev coefficient	20:	-0.150E-02			
Chebychev coefficient	21:	-0.133E-01			
Chebychev coefficient	22:	-0.160E-01			
Chebychev coefficient	23:	-0.193E-01			
Chebychev coefficient	24:	-0.613E-02			
Chebychev coefficient	25:	-0.139E-02			
Chebychev coefficient	26:	0.139E-02			
Chebychev coefficient	27:	-0.448E-02			
Chebychev coefficient	28:	-0.359E-02			
424. C#CC+CH3(+M)=>C*C*CC+H(+M)			1.00E+00	0.0	0.0
Declared duplicate reaction...					
Chebychev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:	-0.134E+01			
Chebychev coefficient	2:	-0.148E+01			
Chebychev coefficient	3:	-0.449E+00			
Chebychev coefficient	4:	-0.134E-01			
Chebychev coefficient	5:	0.883E+01			

Chebychev coefficient	6:	0.168E+01		
Chebychev coefficient	7:	0.411E+00		
Chebychev coefficient	8:	-0.399E-01		
Chebychev coefficient	9:	0.240E+00		
Chebychev coefficient	10:	0.953E-02		
Chebychev coefficient	11:	0.122E+00		
Chebychev coefficient	12:	0.575E-01		
Chebychev coefficient	13:	-0.728E-01		
Chebychev coefficient	14:	-0.161E+00		
Chebychev coefficient	15:	-0.398E-01		
Chebychev coefficient	16:	0.153E-01		
Chebychev coefficient	17:	-0.459E-01		
Chebychev coefficient	18:	-0.612E-01		
Chebychev coefficient	19:	-0.431E-01		
Chebychev coefficient	20:	-0.106E-01		
Chebychev coefficient	21:	-0.240E-01		
Chebychev coefficient	22:	-0.590E-02		
Chebychev coefficient	23:	-0.150E-01		
Chebychev coefficient	24:	-0.107E-01		
Chebychev coefficient	25:	-0.147E-01		
Chebychev coefficient	26:	0.678E-02		
Chebychev coefficient	27:	0.569E-03		
Chebychev coefficient	28:	-0.462E-02		
425. C#CC+CH3(+M)=>C2H5+C2H2(+M)		1.00E+00	0.0	0.0
Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebychev coefficient	1:	-0.140E+01		
Chebychev coefficient	2:	-0.236E+01		
Chebychev coefficient	3:	-0.837E+00		
Chebychev coefficient	4:	-0.889E-01		
Chebychev coefficient	5:	0.848E+01		
Chebychev coefficient	6:	0.270E+01		
Chebychev coefficient	7:	0.828E+00		
Chebychev coefficient	8:	0.586E-02		

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Chebychev coefficient    9:-0.285E+00
Chebychev coefficient   10:-0.871E-01
Chebychev coefficient   11: 0.110E+00
Chebychev coefficient   12: 0.873E-01
Chebychev coefficient   13:-0.275E+00
Chebychev coefficient   14:-0.216E+00
Chebychev coefficient   15:-0.680E-01
Chebychev coefficient   16: 0.424E-02
Chebychev coefficient   17:-0.828E-01
Chebychev coefficient   18:-0.523E-01
Chebychev coefficient   19:-0.371E-01
Chebychev coefficient   20:-0.889E-02
Chebychev coefficient   21:-0.118E-01
Chebychev coefficient   22:-0.186E-02
Chebychev coefficient   23:-0.944E-02
Chebychev coefficient   24:-0.452E-02
Chebychev coefficient   25: 0.451E-03
Chebychev coefficient   26: 0.332E-02
Chebychev coefficient   27:-0.324E-02
Chebychev coefficient   28:-0.333E-02
426. C#CC+CH3(+M)=>C*C.CC(+M)          1.00E+00    0.0    0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1:-0.452E+01
Chebychev coefficient    2:-0.180E+00
Chebychev coefficient    3:-0.806E+00
Chebychev coefficient    4: 0.547E-02
Chebychev coefficient    5: 0.698E+01
Chebychev coefficient    6: 0.293E+01
Chebychev coefficient    7: 0.703E+00
Chebychev coefficient    8:-0.125E+00
Chebychev coefficient    9:-0.628E+00
Chebychev coefficient   10: 0.779E-01
Chebychev coefficient   11: 0.220E+00

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Chebychev coefficient 12: 0.107E+00
Chebychev coefficient 13:-0.297E+00
Chebychev coefficient 14:-0.247E+00
Chebychev coefficient 15:-0.574E-01
Chebychev coefficient 16: 0.304E-01
Chebychev coefficient 17:-0.122E-01
Chebychev coefficient 18:-0.986E-01
Chebychev coefficient 19:-0.563E-01
Chebychev coefficient 20:-0.121E-01
Chebychev coefficient 21: 0.543E-01
Chebychev coefficient 22:-0.109E-01
Chebychev coefficient 23:-0.167E-01
Chebychev coefficient 24:-0.930E-02
Chebychev coefficient 25: 0.239E-01
Chebychev coefficient 26: 0.347E-02
Chebychev coefficient 27:-0.262E-02
Chebychev coefficient 28:-0.268E-02
427. C#CC+CH3(+M)=>C*C*C+CH3(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.303E+01
Chebychev coefficient 2:-0.235E+01
Chebychev coefficient 3:-0.752E+00
Chebychev coefficient 4:-0.212E-01
Chebychev coefficient 5: 0.936E+01
Chebychev coefficient 6: 0.273E+01
Chebychev coefficient 7: 0.729E+00
Chebychev coefficient 8:-0.756E-01
Chebychev coefficient 9: 0.415E-01
Chebychev coefficient 10:-0.100E+00
Chebychev coefficient 11: 0.161E+00
Chebychev coefficient 12: 0.116E+00
Chebychev coefficient 13:-0.148E+00
Chebychev coefficient 14:-0.255E+00

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Chebychev coefficient 15:-0.892E-01
Chebychev coefficient 16: 0.114E-01
Chebychev coefficient 17:-0.467E-01
Chebychev coefficient 18:-0.718E-01
Chebychev coefficient 19:-0.582E-01
Chebychev coefficient 20:-0.257E-01
Chebychev coefficient 21:-0.110E-01
Chebychev coefficient 22: 0.272E-02
Chebychev coefficient 23:-0.135E-01
Chebychev coefficient 24:-0.104E-01
Chebychev coefficient 25:-0.383E-02
Chebychev coefficient 26: 0.644E-02
Chebychev coefficient 27:-0.812E-03
Chebychev coefficient 28: 0.598E-03
428. C#CC+CH3(+M)=>C*C*CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1:-0.455E+01
Chebychev coefficient 2:-0.218E+01
Chebychev coefficient 3:-0.734E+00
Chebychev coefficient 4:-0.363E-01
Chebychev coefficient 5: 0.989E+01
Chebychev coefficient 6: 0.259E+01
Chebychev coefficient 7: 0.735E+00
Chebychev coefficient 8:-0.549E-01
Chebychev coefficient 9: 0.135E+00
Chebychev coefficient 10:-0.154E+00
Chebychev coefficient 11: 0.135E+00
Chebychev coefficient 12: 0.116E+00
Chebychev coefficient 13:-0.127E+00
Chebychev coefficient 14:-0.238E+00
Chebychev coefficient 15:-0.962E-01
Chebychev coefficient 16: 0.487E-02

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	Chebychev coefficient	17:-0.442E-01			
	Chebychev coefficient	18:-0.549E-01			
	Chebychev coefficient	19:-0.518E-01			
	Chebychev coefficient	20:-0.270E-01			
	Chebychev coefficient	21:-0.152E-01			
	Chebychev coefficient	22: 0.702E-02			
	Chebychev coefficient	23:-0.895E-02			
	Chebychev coefficient	24:-0.109E-01			
	Chebychev coefficient	25:-0.595E-02			
	Chebychev coefficient	26: 0.278E-02			
	Chebychev coefficient	27:-0.211E-02			
	Chebychev coefficient	28:-0.355E-02			
429.	C#CC+CH3(+M)=>CC#CC+H(+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
	Chebychev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
	Chebychev coefficient	1: 0.590E+01			
	Chebychev coefficient	2:-0.952E+00			
	Chebychev coefficient	3:-0.217E+00			
	Chebychev coefficient	4: 0.163E-01			
	Chebychev coefficient	5: 0.503E+01			
	Chebychev coefficient	6: 0.110E+01			
	Chebychev coefficient	7: 0.178E+00			
	Chebychev coefficient	8:-0.546E-01			
	Chebychev coefficient	9:-0.852E-01			
	Chebychev coefficient	10: 0.430E-02			
	Chebychev coefficient	11: 0.100E+00			
	Chebychev coefficient	12: 0.359E-01			
	Chebychev coefficient	13:-0.108E+00			
	Chebychev coefficient	14:-0.142E+00			
	Chebychev coefficient	15:-0.311E-01			
	Chebychev coefficient	16: 0.188E-01			
	Chebychev coefficient	17:-0.216E-01			
	Chebychev coefficient	18:-0.432E-01			
	Chebychev coefficient	19:-0.365E-01			

	Chebychev coefficient	20:-0.939E-02			
	Chebychev coefficient	21: 0.881E-02			
	Chebychev coefficient	22: 0.955E-02			
	Chebychev coefficient	23:-0.763E-02			
	Chebychev coefficient	24:-0.908E-02			
	Chebychev coefficient	25: 0.765E-02			
	Chebychev coefficient	26: 0.137E-01			
	Chebychev coefficient	27: 0.590E-02			
	Chebychev coefficient	28:-0.996E-03			
430.	C#CC+CH3(+M)=>C*C*CC+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits,	tmin= 0.300E+03,	tmax= 0.250E+04		
	Chebychev pressure limits,	pmin= 0.100E-02,	pmax= 0.100E+03		
	Chebychev coefficient	1: 0.479E+01			
	Chebychev coefficient	2:-0.773E+00			
	Chebychev coefficient	3:-0.248E+00			
	Chebychev coefficient	4:-0.568E-03			
	Chebychev coefficient	5: 0.582E+01			
	Chebychev coefficient	6: 0.914E+00			
	Chebychev coefficient	7: 0.241E+00			
	Chebychev coefficient	8:-0.360E-01			
	Chebychev coefficient	9:-0.717E-01			
	Chebychev coefficient	10:-0.196E-01			
	Chebychev coefficient	11: 0.671E-01			
	Chebychev coefficient	12: 0.429E-01			
	Chebychev coefficient	13:-0.883E-01			
	Chebychev coefficient	14:-0.117E+00			
	Chebychev coefficient	15:-0.420E-01			
	Chebychev coefficient	16: 0.868E-02			
	Chebychev coefficient	17:-0.202E-01			
	Chebychev coefficient	18:-0.307E-01			
	Chebychev coefficient	19:-0.289E-01			
	Chebychev coefficient	20:-0.121E-01			
	Chebychev coefficient	21: 0.496E-02			

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Chebychev coefficient 22: 0.108E-01
Chebychev coefficient 23:-0.176E-02
Chebychev coefficient 24:-0.728E-02
Chebychev coefficient 25: 0.407E-02
Chebychev coefficient 26: 0.945E-02
Chebychev coefficient 27: 0.463E-02
Chebychev coefficient 28:-0.517E-03
431. CC#CC+H(+M)=>C2H3+C2H4(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.441E+01
Chebychev coefficient 2:-0.209E+01
Chebychev coefficient 3:-0.677E+00
Chebychev coefficient 4:-0.374E-01
Chebychev coefficient 5: 0.588E+01
Chebychev coefficient 6: 0.237E+01
Chebychev coefficient 7: 0.643E+00
Chebychev coefficient 8:-0.417E-01
Chebychev coefficient 9:-0.210E-01
Chebychev coefficient 10:-0.177E-01
Chebychev coefficient 11: 0.137E+00
Chebychev coefficient 12: 0.835E-01
Chebychev coefficient 13:-0.162E+00
Chebychev coefficient 14:-0.222E+00
Chebychev coefficient 15:-0.616E-01
Chebychev coefficient 16: 0.150E-01
Chebychev coefficient 17:-0.489E-01
Chebychev coefficient 18:-0.649E-01
Chebychev coefficient 19:-0.436E-01
Chebychev coefficient 20:-0.118E-01
Chebychev coefficient 21:-0.537E-02
Chebychev coefficient 22:-0.137E-02
Chebychev coefficient 23:-0.124E-01
Chebychev coefficient 24:-0.793E-02

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Chebychev coefficient 25:-0.255E-03
Chebychev coefficient 26: 0.353E-02
Chebychev coefficient 27:-0.146E-02
Chebychev coefficient 28:-0.248E-02
432. CC#CC+H(+M)=>C*CC*C+H(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.410E+01
Chebychev coefficient 2:-0.212E+01
Chebychev coefficient 3:-0.682E+00
Chebychev coefficient 4:-0.358E-01
Chebychev coefficient 5: 0.573E+01
Chebychev coefficient 6: 0.238E+01
Chebychev coefficient 7: 0.640E+00
Chebychev coefficient 8:-0.461E-01
Chebychev coefficient 9:-0.646E-01
Chebychev coefficient 10: 0.349E-03
Chebychev coefficient 11: 0.143E+00
Chebychev coefficient 12: 0.827E-01
Chebychev coefficient 13:-0.177E+00
Chebychev coefficient 14:-0.221E+00
Chebychev coefficient 15:-0.586E-01
Chebychev coefficient 16: 0.164E-01
Chebychev coefficient 17:-0.526E-01
Chebychev coefficient 18:-0.680E-01
Chebychev coefficient 19:-0.437E-01
Chebychev coefficient 20:-0.107E-01
Chebychev coefficient 21:-0.508E-02
Chebychev coefficient 22:-0.321E-02
Chebychev coefficient 23:-0.131E-01
Chebychev coefficient 24:-0.724E-02
Chebychev coefficient 25: 0.397E-03
Chebychev coefficient 26: 0.301E-02

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	Chebychev coefficient	27:-0.183E-02			
	Chebychev coefficient	28:-0.217E-02			
433.	CC#CC+H(+M)=>CC*CC.(+M)		1.00E+00	0.0	0.0
	Chebychev temperature limits,	tmin= 0.300E+03, tmax= 0.250E+04			
	Chebychev pressure limits,	pmin= 0.100E-02, pmax= 0.100E+03			
	Chebychev coefficient	1: 0.489E+01			
	Chebychev coefficient	2: 0.701E+00			
	Chebychev coefficient	3:-0.502E+00			
	Chebychev coefficient	4: 0.758E-02			
	Chebychev coefficient	5: 0.281E+01			
	Chebychev coefficient	6: 0.177E+01			
	Chebychev coefficient	7: 0.365E+00			
	Chebychev coefficient	8:-0.762E-01			
	Chebychev coefficient	9:-0.857E+00			
	Chebychev coefficient	10: 0.230E+00			
	Chebychev coefficient	11: 0.175E+00			
	Chebychev coefficient	12: 0.399E-01			
	Chebychev coefficient	13:-0.414E+00			
	Chebychev coefficient	14:-0.106E+00			
	Chebychev coefficient	15: 0.647E-02			
	Chebychev coefficient	16: 0.284E-01			
	Chebychev coefficient	17:-0.113E+00			
	Chebychev coefficient	18:-0.843E-01			
	Chebychev coefficient	19:-0.286E-01			
	Chebychev coefficient	20: 0.605E-02			
	Chebychev coefficient	21: 0.128E-01			
	Chebychev coefficient	22:-0.309E-01			
	Chebychev coefficient	23:-0.199E-01			
	Chebychev coefficient	24:-0.372E-02			
	Chebychev coefficient	25: 0.448E-01			
	Chebychev coefficient	26:-0.131E-03			
	Chebychev coefficient	27:-0.784E-02			
	Chebychev coefficient	28:-0.570E-02			
434.	CC#CC+H(+M)=>C*CC*C+H(+M)		1.00E+00	0.0	0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.523E+01

Chebychev coefficient 2:-0.162E+01

Chebychev coefficient 3:-0.465E+00

Chebychev coefficient 4:-0.329E-02

Chebychev coefficient 5: 0.532E+01

Chebychev coefficient 6: 0.176E+01

Chebychev coefficient 7: 0.397E+00

Chebychev coefficient 8:-0.568E-01

Chebychev coefficient 9: 0.181E-01

Chebychev coefficient 10: 0.879E-01

Chebychev coefficient 11: 0.143E+00

Chebychev coefficient 12: 0.516E-01

Chebychev coefficient 13:-0.134E+00

Chebychev coefficient 14:-0.161E+00

Chebychev coefficient 15:-0.243E-01

Chebychev coefficient 16: 0.227E-01

Chebychev coefficient 17:-0.550E-01

Chebychev coefficient 18:-0.747E-01

Chebychev coefficient 19:-0.402E-01

Chebychev coefficient 20:-0.280E-02

Chebychev coefficient 21:-0.105E-01

Chebychev coefficient 22:-0.140E-01

Chebychev coefficient 23:-0.188E-01

Chebychev coefficient 24:-0.669E-02

Chebychev coefficient 25:-0.869E-03

Chebychev coefficient 26: 0.147E-02

Chebychev coefficient 27:-0.388E-02

Chebychev coefficient 28:-0.369E-02

435. CC#CC+H(+M)=>C*C*CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

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Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.300E+01
Chebychev coefficient    2:-0.145E+01
Chebychev coefficient    3:-0.445E+00
Chebychev coefficient    4:-0.167E-01
Chebychev coefficient    5: 0.643E+01
Chebychev coefficient    6: 0.165E+01
Chebychev coefficient    7: 0.413E+00
Chebychev coefficient    8:-0.357E-01
Chebychev coefficient    9: 0.283E+00
Chebychev coefficient   10:-0.752E-02
Chebychev coefficient   11: 0.117E+00
Chebychev coefficient   12: 0.582E-01
Chebychev coefficient   13:-0.597E-01
Chebychev coefficient   14:-0.157E+00
Chebychev coefficient   15:-0.423E-01
Chebychev coefficient   16: 0.136E-01
Chebychev coefficient   17:-0.399E-01
Chebychev coefficient   18:-0.579E-01
Chebychev coefficient   19:-0.427E-01
Chebychev coefficient   20:-0.113E-01
Chebychev coefficient   21:-0.223E-01
Chebychev coefficient   22:-0.529E-02
Chebychev coefficient   23:-0.139E-01
Chebychev coefficient   24:-0.105E-01
Chebychev coefficient   25:-0.143E-01
Chebychev coefficient   26: 0.716E-02
Chebychev coefficient   27: 0.120E-02
Chebychev coefficient   28:-0.423E-02
436. CC#CC+H(+M)=>C2H5+C2H2(+M)          1.00E+00    0.0    0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient    1: 0.293E+01
Chebychev coefficient    2:-0.230E+01

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Chebyshev coefficient	3:-0.826E+00			
Chebyshev coefficient	4:-0.937E-01			
Chebyshev coefficient	5: 0.605E+01			
Chebyshev coefficient	6: 0.265E+01			
Chebyshev coefficient	7: 0.825E+00			
Chebyshev coefficient	8: 0.139E-01			
Chebyshev coefficient	9:-0.242E+00			
Chebyshev coefficient	10:-0.110E+00			
Chebyshev coefficient	11: 0.103E+00			
Chebyshev coefficient	12: 0.879E-01			
Chebyshev coefficient	13:-0.257E+00			
Chebyshev coefficient	14:-0.209E+00			
Chebyshev coefficient	15:-0.707E-01			
Chebyshev coefficient	16: 0.255E-02			
Chebyshev coefficient	17:-0.735E-01			
Chebyshev coefficient	18:-0.493E-01			
Chebyshev coefficient	19:-0.370E-01			
Chebyshev coefficient	20:-0.981E-02			
Chebyshev coefficient	21:-0.752E-02			
Chebyshev coefficient	22:-0.177E-02			
Chebyshev coefficient	23:-0.934E-02			
Chebyshev coefficient	24:-0.454E-02			
Chebyshev coefficient	25: 0.685E-03			
Chebyshev coefficient	26: 0.215E-02			
Chebyshev coefficient	27:-0.325E-02			
Chebyshev coefficient	28:-0.176E-02			
437. CC#CC+H(+M)=>C*C.CC(+M)		1.00E+00	0.0	0.0
Chebyshev temperature limits, tmin=	0.300E+03,	tmax=	0.250E+04	
Chebyshev pressure limits, pmin=	0.100E-02,	pmax=	0.100E+03	
Chebyshev coefficient	1:-0.217E+00			
Chebyshev coefficient	2:-0.112E+00			
Chebyshev coefficient	3:-0.798E+00			
Chebyshev coefficient	4:-0.138E-02			
Chebyshev coefficient	5: 0.454E+01			

Chebyshev coefficient	6:	0.288E+01		
Chebyshev coefficient	7:	0.707E+00		
Chebyshev coefficient	8:	-0.116E+00		
Chebyshev coefficient	9:	-0.579E+00		
Chebyshev coefficient	10:	0.445E-01		
Chebyshev coefficient	11:	0.211E+00		
Chebyshev coefficient	12:	0.110E+00		
Chebyshev coefficient	13:	-0.278E+00		
Chebyshev coefficient	14:	-0.245E+00		
Chebyshev coefficient	15:	-0.612E-01		
Chebyshev coefficient	16:	0.287E-01		
Chebyshev coefficient	17:	-0.352E-02		
Chebyshev coefficient	18:	-0.939E-01		
Chebyshev coefficient	19:	-0.571E-01		
Chebyshev coefficient	20:	-0.147E-01		
Chebyshev coefficient	21:	0.574E-01		
Chebyshev coefficient	22:	-0.795E-02		
Chebyshev coefficient	23:	-0.162E-01		
Chebyshev coefficient	24:	-0.993E-02		
Chebyshev coefficient	25:	0.239E-01		
Chebyshev coefficient	26:	0.528E-02		
Chebyshev coefficient	27:	-0.137E-02		
Chebyshev coefficient	28:	-0.193E-02		
438. CC#CC+H(+M)=>C*C*C+CH3(+M)			1.00E+00	0.0
				0.0
Chebyshev temperature limits,	tmin=	0.300E+03,	tmax=	0.250E+04
Chebyshev pressure limits,	pmin=	0.100E-02,	pmax=	0.100E+03
Chebyshev coefficient	1:	0.133E+01		
Chebyshev coefficient	2:	-0.228E+01		
Chebyshev coefficient	3:	-0.746E+00		
Chebyshev coefficient	4:	-0.267E-01		
Chebyshev coefficient	5:	0.694E+01		
Chebyshev coefficient	6:	0.268E+01		
Chebyshev coefficient	7:	0.732E+00		
Chebyshev coefficient	8:	-0.681E-01		

Chebychev coefficient 9: 0.876E-01
 Chebychev coefficient 10:-0.118E+00
 Chebychev coefficient 11: 0.153E+00
 Chebychev coefficient 12: 0.116E+00
 Chebychev coefficient 13:-0.131E+00
 Chebychev coefficient 14:-0.249E+00
 Chebychev coefficient 15:-0.930E-01
 Chebychev coefficient 16: 0.949E-02
 Chebychev coefficient 17:-0.393E-01
 Chebychev coefficient 18:-0.683E-01
 Chebychev coefficient 19:-0.568E-01
 Chebychev coefficient 20:-0.253E-01
 Chebychev coefficient 21:-0.101E-01
 Chebychev coefficient 22: 0.536E-02
 Chebychev coefficient 23:-0.113E-01
 Chebychev coefficient 24:-0.112E-01
 Chebychev coefficient 25:-0.437E-02
 Chebychev coefficient 26: 0.600E-02
 Chebychev coefficient 27: 0.117E-02
 Chebychev coefficient 28:-0.276E-02

439. CC#CC+H(+M)=>C*C*CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1:-0.181E+00
 Chebychev coefficient 2:-0.213E+01
 Chebychev coefficient 3:-0.730E+00
 Chebychev coefficient 4:-0.410E-01
 Chebychev coefficient 5: 0.746E+01
 Chebychev coefficient 6: 0.254E+01
 Chebychev coefficient 7: 0.738E+00
 Chebychev coefficient 8:-0.475E-01
 Chebychev coefficient 9: 0.177E+00
 Chebychev coefficient 10:-0.167E+00

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Chebychev coefficient 11: 0.127E+00
Chebychev coefficient 12: 0.115E+00
Chebychev coefficient 13:-0.110E+00
Chebychev coefficient 14:-0.231E+00
Chebychev coefficient 15:-0.984E-01
Chebychev coefficient 16: 0.303E-02
Chebychev coefficient 17:-0.372E-01
Chebychev coefficient 18:-0.527E-01
Chebychev coefficient 19:-0.508E-01
Chebychev coefficient 20:-0.273E-01
Chebychev coefficient 21:-0.135E-01
Chebychev coefficient 22: 0.660E-02
Chebychev coefficient 23:-0.774E-02
Chebychev coefficient 24:-0.111E-01
Chebychev coefficient 25:-0.526E-02
Chebychev coefficient 26: 0.197E-02
Chebychev coefficient 27:-0.251E-03
Chebychev coefficient 28:-0.407E-02
440. CC#CC+H(+M)=>C#CC+CH3(+M) 1.00E+00 0.0 0.0
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.113E+02
Chebychev coefficient 2:-0.952E+00
Chebychev coefficient 3:-0.217E+00
Chebychev coefficient 4: 0.164E-01
Chebychev coefficient 5: 0.241E+01
Chebychev coefficient 6: 0.110E+01
Chebychev coefficient 7: 0.178E+00
Chebychev coefficient 8:-0.545E-01
Chebychev coefficient 9:-0.824E-01
Chebychev coefficient 10: 0.433E-02
Chebychev coefficient 11: 0.100E+00
Chebychev coefficient 12: 0.360E-01
Chebychev coefficient 13:-0.106E+00

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Chebychev coefficient 14:-0.142E+00
Chebychev coefficient 15:-0.310E-01
Chebychev coefficient 16: 0.191E-01
Chebychev coefficient 17:-0.194E-01
Chebychev coefficient 18:-0.430E-01
Chebychev coefficient 19:-0.367E-01
Chebychev coefficient 20:-0.917E-02
Chebychev coefficient 21: 0.103E-01
Chebychev coefficient 22: 0.979E-02
Chebychev coefficient 23:-0.776E-02
Chebychev coefficient 24:-0.877E-02
Chebychev coefficient 25: 0.871E-02
Chebychev coefficient 26: 0.141E-01
Chebychev coefficient 27: 0.588E-02
Chebychev coefficient 28:-0.719E-03
441. CC#CC+H(+M)=>C*C*CC+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.900E+01
Chebychev coefficient 2:-0.741E+00
Chebychev coefficient 3:-0.243E+00
Chebychev coefficient 4:-0.400E-02
Chebychev coefficient 5: 0.350E+01
Chebychev coefficient 6: 0.894E+00
Chebychev coefficient 7: 0.244E+00
Chebychev coefficient 8:-0.313E-01
Chebychev coefficient 9: 0.224E-02
Chebychev coefficient 10:-0.443E-01
Chebychev coefficient 11: 0.579E-01
Chebychev coefficient 12: 0.444E-01
Chebychev coefficient 13:-0.768E-01
Chebychev coefficient 14:-0.114E+00
Chebychev coefficient 15:-0.450E-01

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Chebychev coefficient 16: 0.562E-02
Chebychev coefficient 17:-0.172E-01
Chebychev coefficient 18:-0.212E-01
Chebychev coefficient 19:-0.257E-01
Chebychev coefficient 20:-0.135E-01
Chebychev coefficient 21: 0.658E-02
Chebychev coefficient 22: 0.130E-01
Chebychev coefficient 23: 0.681E-03
Chebychev coefficient 24:-0.662E-02
Chebychev coefficient 25: 0.424E-02
Chebychev coefficient 26: 0.806E-02
Chebychev coefficient 27: 0.476E-02
Chebychev coefficient 28: 0.307E-04
442. C*C*CC+H(+M)=>C2H3+C2H4(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.522E+01
Chebychev coefficient 2:-0.201E+01
Chebychev coefficient 3:-0.664E+00
Chebychev coefficient 4:-0.445E-01
Chebychev coefficient 5: 0.490E+01
Chebychev coefficient 6: 0.231E+01
Chebychev coefficient 7: 0.643E+00
Chebychev coefficient 8:-0.319E-01
Chebychev coefficient 9: 0.431E-01
Chebychev coefficient 10:-0.610E-01
Chebychev coefficient 11: 0.125E+00
Chebychev coefficient 12: 0.855E-01
Chebychev coefficient 13:-0.145E+00
Chebychev coefficient 14:-0.211E+00
Chebychev coefficient 15:-0.645E-01
Chebychev coefficient 16: 0.113E-01
Chebychev coefficient 17:-0.408E-01

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	Chebychev coefficient	18:-0.555E-01			
	Chebychev coefficient	19:-0.430E-01			
	Chebychev coefficient	20:-0.134E-01			
	Chebychev coefficient	21:-0.243E-02			
	Chebychev coefficient	22:-0.130E-02			
	Chebychev coefficient	23:-0.112E-01			
	Chebychev coefficient	24:-0.798E-02			
	Chebychev coefficient	25: 0.428E-03			
	Chebychev coefficient	26: 0.298E-02			
	Chebychev coefficient	27:-0.630E-03			
	Chebychev coefficient	28:-0.231E-02			
443.	C*C*CC+H(+M)=>C*CC*C+H(+M)		1.00E+00	0.0	0.0
	Declared duplicate reaction...				
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04				
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03				
	Chebychev coefficient	1: 0.490E+01			
	Chebychev coefficient	2:-0.204E+01			
	Chebychev coefficient	3:-0.669E+00			
	Chebychev coefficient	4:-0.429E-01			
	Chebychev coefficient	5: 0.476E+01			
	Chebychev coefficient	6: 0.233E+01			
	Chebychev coefficient	7: 0.641E+00			
	Chebychev coefficient	8:-0.362E-01			
	Chebychev coefficient	9: 0.162E-02			
	Chebychev coefficient	10:-0.454E-01			
	Chebychev coefficient	11: 0.131E+00			
	Chebychev coefficient	12: 0.852E-01			
	Chebychev coefficient	13:-0.159E+00			
	Chebychev coefficient	14:-0.211E+00			
	Chebychev coefficient	15:-0.617E-01			
	Chebychev coefficient	16: 0.129E-01			
	Chebychev coefficient	17:-0.444E-01			
	Chebychev coefficient	18:-0.582E-01			
	Chebychev coefficient	19:-0.431E-01			

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Chebychev coefficient 20:-0.124E-01
Chebychev coefficient 21:-0.212E-02
Chebychev coefficient 22:-0.280E-02
Chebychev coefficient 23:-0.119E-01
Chebychev coefficient 24:-0.743E-02
Chebychev coefficient 25: 0.113E-02
Chebychev coefficient 26: 0.247E-02
Chebychev coefficient 27:-0.980E-03
Chebychev coefficient 28:-0.206E-02
444. C*C*CC+H(+M)=>CC*CC.(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.559E+01
Chebychev coefficient 2: 0.761E+00
Chebychev coefficient 3:-0.493E+00
Chebychev coefficient 4: 0.285E-02
Chebychev coefficient 5: 0.182E+01
Chebychev coefficient 6: 0.176E+01
Chebychev coefficient 7: 0.373E+00
Chebychev coefficient 8:-0.713E-01
Chebychev coefficient 9:-0.772E+00
Chebychev coefficient 10: 0.184E+00
Chebychev coefficient 11: 0.166E+00
Chebychev coefficient 12: 0.446E-01
Chebychev coefficient 13:-0.392E+00
Chebychev coefficient 14:-0.118E+00
Chebychev coefficient 15:-0.368E-03
Chebychev coefficient 16: 0.280E-01
Chebychev coefficient 17:-0.103E+00
Chebychev coefficient 18:-0.778E-01
Chebychev coefficient 19:-0.303E-01
Chebychev coefficient 20: 0.414E-02
Chebychev coefficient 21: 0.189E-01

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Chebychev coefficient 22:-0.260E-01
Chebychev coefficient 23:-0.198E-01
Chebychev coefficient 24:-0.525E-02
Chebychev coefficient 25: 0.471E-01
Chebychev coefficient 26: 0.938E-03
Chebychev coefficient 27:-0.694E-02
Chebychev coefficient 28:-0.607E-02
445. C*C*CC+H(+M)=>C*CC*C+H(+M)          1.00E+00      0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.602E+01
Chebychev coefficient 2:-0.156E+01
Chebychev coefficient 3:-0.458E+00
Chebychev coefficient 4:-0.881E-02
Chebychev coefficient 5: 0.436E+01
Chebychev coefficient 6: 0.172E+01
Chebychev coefficient 7: 0.401E+00
Chebychev coefficient 8:-0.510E-01
Chebychev coefficient 9: 0.883E-01
Chebychev coefficient 10: 0.465E-01
Chebychev coefficient 11: 0.134E+00
Chebychev coefficient 12: 0.552E-01
Chebychev coefficient 13:-0.120E+00
Chebychev coefficient 14:-0.158E+00
Chebychev coefficient 15:-0.286E-01
Chebychev coefficient 16: 0.208E-01
Chebychev coefficient 17:-0.469E-01
Chebychev coefficient 18:-0.646E-01
Chebychev coefficient 19:-0.401E-01
Chebychev coefficient 20:-0.471E-02
Chebychev coefficient 21:-0.710E-02
Chebychev coefficient 22:-0.120E-01
Chebychev coefficient 23:-0.176E-01

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Chebychev coefficient 24:-0.746E-02
Chebychev coefficient 25:-0.260E-03
Chebychev coefficient 26: 0.121E-02
Chebychev coefficient 27:-0.289E-02
Chebychev coefficient 28:-0.381E-02
446. C*C*CC+H(+M)=>C2H5+C2H2(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.375E+01
Chebychev coefficient 2:-0.221E+01
Chebychev coefficient 3:-0.809E+00
Chebychev coefficient 4:-0.100E+00
Chebychev coefficient 5: 0.503E+01
Chebychev coefficient 6: 0.258E+01
Chebychev coefficient 7: 0.820E+00
Chebychev coefficient 8: 0.248E-01
Chebychev coefficient 9:-0.184E+00
Chebychev coefficient 10:-0.143E+00
Chebychev coefficient 11: 0.943E-01
Chebychev coefficient 12: 0.886E-01
Chebychev coefficient 13:-0.235E+00
Chebychev coefficient 14:-0.198E+00
Chebychev coefficient 15:-0.731E-01
Chebychev coefficient 16:-0.589E-03
Chebychev coefficient 17:-0.611E-01
Chebychev coefficient 18:-0.454E-01
Chebychev coefficient 19:-0.369E-01
Chebychev coefficient 20:-0.110E-01
Chebychev coefficient 21:-0.346E-02
Chebychev coefficient 22:-0.269E-02
Chebychev coefficient 23:-0.833E-02
Chebychev coefficient 24:-0.451E-02
Chebychev coefficient 25: 0.105E-02

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Chebychev coefficient 26: 0.342E-03
Chebychev coefficient 27:-0.869E-03
Chebychev coefficient 28:-0.216E-03
447. C*C*CC+H(+M)=>C*C.CC(+M)          1.00E+00    0.0    0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.584E+00
Chebychev coefficient 2:-0.936E-02
Chebychev coefficient 3:-0.784E+00
Chebychev coefficient 4:-0.124E-01
Chebychev coefficient 5: 0.353E+01
Chebychev coefficient 6: 0.281E+01
Chebychev coefficient 7: 0.711E+00
Chebychev coefficient 8:-0.102E+00
Chebychev coefficient 9:-0.512E+00
Chebychev coefficient 10:-0.529E-02
Chebychev coefficient 11: 0.198E+00
Chebychev coefficient 12: 0.114E+00
Chebychev coefficient 13:-0.256E+00
Chebychev coefficient 14:-0.240E+00
Chebychev coefficient 15:-0.667E-01
Chebychev coefficient 16: 0.249E-01
Chebychev coefficient 17: 0.557E-02
Chebychev coefficient 18:-0.841E-01
Chebychev coefficient 19:-0.577E-01
Chebychev coefficient 20:-0.171E-01
Chebychev coefficient 21: 0.616E-01
Chebychev coefficient 22:-0.497E-02
Chebychev coefficient 23:-0.142E-01
Chebychev coefficient 24:-0.106E-01
Chebychev coefficient 25: 0.253E-01
Chebychev coefficient 26: 0.538E-02
Chebychev coefficient 27: 0.568E-03

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Chebychev coefficient 28:-0.175E-02
448. C*C*CC+H(+M)=>C*C*C+CH3(+M)          1.00E+00    0.0      0.0
Declared duplicate reaction...
Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04
Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03
Chebychev coefficient 1: 0.219E+01
Chebychev coefficient 2:-0.219E+01
Chebychev coefficient 3:-0.737E+00
Chebychev coefficient 4:-0.362E-01
Chebychev coefficient 5: 0.592E+01
Chebychev coefficient 6: 0.260E+01
Chebychev coefficient 7: 0.734E+00
Chebychev coefficient 8:-0.555E-01
Chebychev coefficient 9: 0.145E+00
Chebychev coefficient 10:-0.146E+00
Chebychev coefficient 11: 0.141E+00
Chebychev coefficient 12: 0.116E+00
Chebychev coefficient 13:-0.111E+00
Chebychev coefficient 14:-0.235E+00
Chebychev coefficient 15:-0.965E-01
Chebychev coefficient 16: 0.561E-02
Chebychev coefficient 17:-0.326E-01
Chebychev coefficient 18:-0.609E-01
Chebychev coefficient 19:-0.537E-01
Chebychev coefficient 20:-0.252E-01
Chebychev coefficient 21:-0.704E-02
Chebychev coefficient 22: 0.166E-02
Chebychev coefficient 23:-0.916E-02
Chebychev coefficient 24:-0.113E-01
Chebychev coefficient 25:-0.239E-02
Chebychev coefficient 26: 0.166E-02
Chebychev coefficient 27:-0.137E-02
Chebychev coefficient 28:-0.469E-02
449. C*C*CC+H(+M)=>C#CC+CH3(+M)          1.00E+00    0.0      0.0

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Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebychev coefficient 1: 0.117E+02

Chebychev coefficient 2:-0.773E+00

Chebychev coefficient 3:-0.248E+00

Chebychev coefficient 4:-0.418E-03

Chebychev coefficient 5: 0.188E+01

Chebychev coefficient 6: 0.914E+00

Chebychev coefficient 7: 0.241E+00

Chebychev coefficient 8:-0.358E-01

Chebychev coefficient 9:-0.646E-01

Chebychev coefficient 10:-0.195E-01

Chebychev coefficient 11: 0.673E-01

Chebychev coefficient 12: 0.432E-01

Chebychev coefficient 13:-0.820E-01

Chebychev coefficient 14:-0.117E+00

Chebychev coefficient 15:-0.421E-01

Chebychev coefficient 16: 0.913E-02

Chebychev coefficient 17:-0.146E-01

Chebychev coefficient 18:-0.304E-01

Chebychev coefficient 19:-0.291E-01

Chebychev coefficient 20:-0.115E-01

Chebychev coefficient 21: 0.900E-02

Chebychev coefficient 22: 0.112E-01

Chebychev coefficient 23:-0.203E-02

Chebychev coefficient 24:-0.676E-02

Chebychev coefficient 25: 0.612E-02

Chebychev coefficient 26: 0.100E-01

Chebychev coefficient 27: 0.460E-02

Chebychev coefficient 28:-0.224E-03

450. C*C*CC+H(+M)=>CC#CC+H(+M) 1.00E+00 0.0 0.0

Declared duplicate reaction...

Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04

Chebyshev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03

Chebyshev coefficient 1: 0.105E+02
Chebyshev coefficient 2:-0.741E+00
Chebyshev coefficient 3:-0.243E+00
Chebyshev coefficient 4:-0.400E-02
Chebyshev coefficient 5: 0.219E+01
Chebyshev coefficient 6: 0.895E+00
Chebyshev coefficient 7: 0.245E+00
Chebyshev coefficient 8:-0.313E-01
Chebyshev coefficient 9: 0.629E-02
Chebyshev coefficient 10:-0.442E-01
Chebyshev coefficient 11: 0.580E-01
Chebyshev coefficient 12: 0.445E-01
Chebyshev coefficient 13:-0.730E-01
Chebyshev coefficient 14:-0.114E+00
Chebyshev coefficient 15:-0.450E-01
Chebyshev coefficient 16: 0.576E-02
Chebyshev coefficient 17:-0.137E-01
Chebyshev coefficient 18:-0.212E-01
Chebyshev coefficient 19:-0.258E-01
Chebyshev coefficient 20:-0.135E-01
Chebyshev coefficient 21: 0.918E-02
Chebyshev coefficient 22: 0.130E-01
Chebyshev coefficient 23: 0.430E-03
Chebyshev coefficient 24:-0.665E-02
Chebyshev coefficient 25: 0.553E-02
Chebyshev coefficient 26: 0.821E-02
Chebyshev coefficient 27: 0.461E-02
Chebyshev coefficient 28:-0.454E-04

451.	C#CC.+CH3=C*C*CC	1.00E+37	-7.3	9487.5
452.	C#CC.+CH3=CC#CC	1.32E+40	-8.2	10604.7
453.	2C2H3=C*CC*C	9.80E+14	-0.5	0.0
454.	C*C*CC=C*CC*C	2.50E+13	0.0	63000.0
455.	CC#CC=C*C*CC	3.00E+13	0.0	67000.0

456.	C*CC*C=C2H4+C2H2	6.40E+13	0.0	77100.0
457.	CC#CC=C*CC*C	3.00E+13	0.0	65000.0
458.	C2H4+CCC.=C2H5+C*CC	1.73E+55	-12.8	38995.0
459.	C2H4+CCC.=CH3+C*CCC	7.23E+37	-7.4	39070.0
460.	C*CC.+C2H2=CY13PD+H	1.76E+33	-6.4	24524.7
461.	C#CC.+C2H2=CY13PD5.	4.70E+52	-12.2	26679.0
462.	CY13PD=CY13PD5.+H	4.00E+41	-7.5	97566.2
463.	C2H3+C*CC=CH3+C*CC*C	1.93E+24	-3.8	12307.0
464.	C*CC.+C2H4=CYC5H9.	4.76E+00	1.1	-16342.0
465.	C*CC.+C2H4=CYC5H8+H	4.44E+11	-0.4	12438.0
466.	CYC5H9.=CYC5H8+H	3.99E+10	-0.7	12696.0
467.	CYPENE3.=C*CC.C*C	1.11E+34	-6.8	20866.0
468.	CYPENE3.=CY13PD+H	1.00E+26	-4.7	50658.0
469.	CCCC.+C2H4=CCC.+C*CC	3.95E+48	-10.9	35376.0
470.	CCCC.+C2H4=C2H5+C*CCC	2.84E+45	-9.9	35698.0
471.	MECYPE2.=CYC6H10+H	5.96E+90	-24.0	84844.0
472.	MECYPE2.=C2H5+C*CC*C	3.47E+95	-24.9	83628.0
473.	MECYPE2.=CYC5H8+CH3	2.76E+64	-15.7	49118.0
474.	MECYPE2.=C2H4+CC*CC.	1.55E+91	-23.4	71179.0
	Declared duplicate reaction...			
475.	MECYPE2.=C2H4+CC*CC.	6.12E+88	-22.7	70347.0
	Declared duplicate reaction...			
476.	MECYPE2.=C*CC+C*CC.	2.02E+87	-22.6	80284.0
	Declared duplicate reaction...			
477.	MECYPE2.=C*CC+C*CC.	5.31E+85	-22.1	80409.0
	Declared duplicate reaction...			
478.	2C*CC.=C*CCCC*C	1.00E+13	0.0	0.0
479.	C2H4+C*CC*C(+M)=CYC6H10(+M)	1.00E+00	0.0	0.0
	Chebychev temperature limits, tmin= 0.300E+03, tmax= 0.250E+04			
	Chebychev pressure limits, pmin= 0.100E-02, pmax= 0.100E+03			
	Chebychev coefficient	1:-0.948E-01		
	Chebychev coefficient	2: 0.463E+00		
	Chebychev coefficient	3:-0.576E-01		
	Chebychev coefficient	4:-0.827E-02		

Chebychev coefficient 5: 0.687E+01
 Chebychev coefficient 6: 0.830E+00
 Chebychev coefficient 7:-0.864E-01
 Chebychev coefficient 8:-0.601E-02
 Chebychev coefficient 9:-0.368E+00
 Chebychev coefficient 10: 0.610E+00
 Chebychev coefficient 11:-0.483E-01
 Chebychev coefficient 12:-0.123E-01
 Chebychev coefficient 13:-0.314E+00
 Chebychev coefficient 14: 0.353E+00
 Chebychev coefficient 15: 0.966E-02
 Chebychev coefficient 16:-0.741E-02
 Chebychev coefficient 17:-0.159E+00
 Chebychev coefficient 18: 0.133E+00
 Chebychev coefficient 19: 0.426E-01
 Chebychev coefficient 20: 0.226E-02
 Chebychev coefficient 21:-0.371E-01
 Chebychev coefficient 22: 0.185E-02
 Chebychev coefficient 23: 0.396E-01
 Chebychev coefficient 24:-0.356E-02
 Chebychev coefficient 25: 0.838E-01
 Chebychev coefficient 26:-0.933E-01
 Chebychev coefficient 27: 0.313E-02
 Chebychev coefficient 28: 0.775E-02

480.	C2H3+C*CC*C=C*CCC.C*C	1.04E+45	-10.3	12135.0
481.	C2H3+C*CC*C=CYC6H9	2.54E+54	-13.4	16301.0
482.	C2H3+C*CC*C=CHD14+H	1.98E+45	-9.8	21041.0
483.	C2H3+C*CC*C=CHD13+H	5.65E+45	-9.9	21080.0
484.	C2H3+C*CC*C=C*CC*CC.C	2.09E+58	-13.8	27345.0
485.	C2H3+C*CC*C=MECY3PE2.	3.08E+44	-10.4	17288.0
486.	C2H3+C*CC*C=CY13PD+CH3	1.69E+43	-9.0	23841.0
487.	C*CCC.C*C=CYC6H9	1.62E+67	-17.3	41178.0
488.	C*CCC.C*C=CHD14+H	2.42E+62	-15.2	52081.0
489.	C*CCC.C*C=CHD13+H	5.91E+62	-15.3	52029.0

490.	C*CCC.C*C=C*CC*CC.C	1.64E+64	-15.8	55656.0
491.	C*CCC.C*C=MECY3PE2.	5.02E+59	-15.1	47185.0
492.	C*CCC.C*C=CY13PD+CH3	1.89E+60	-14.5	55403.0
493.	CYC6H9=CHD14+H	1.66E+53	-12.6	49116.0
494.	CYC6H9=CHD13+H	2.32E+53	-12.6	48798.0
495.	CYC6H9=C*CC*CC.C	3.71E+78	-19.7	71851.0
496.	CYC6H9=MECY3PE2.	6.98E+78	-20.3	66639.0
497.	CYC6H9=CY13PD+CH3	3.48E+77	-19.3	73185.0
498.	C*CC*CC.C=CHD14+H	4.04E+78	-19.5	88089.0
499.	C*CC*CC.C=CHD13+H	7.90E+78	-19.5	88034.0
500.	C*CC*CC.C=MECY3PE2.	1.34E+58	-14.1	53879.0
501.	C*CC*CC.C=CY13PD+CH3	3.98E+57	-13.2	63456.0
502.	MECY3PE2.=CHD14+H	8.12E+70	-17.3	85235.0
503.	MECY3PE2.=CHD13+H	2.07E+71	-17.3	85223.0
504.	MECY3PE2.=CY13PD+CH3	3.00E+45	-10.1	44093.0
505.	C*C.C+C*C*C=C*CC+C#CC.	4.11E+03	2.8	3054.0
506.	C*CC.+C*C*C=C*CC+C#CC.	2.64E+04	2.5	11632.0
507.	CYC6H7=BENZENE+H	4.92E+24	-4.3	22281.0
508.	C*C*C+C#CC.=BENZENE+H	1.40E+12	0.0	10000.0
509.	2C#CC.=BENZENE	4.96E+52	-11.7	35181.7
	Declared duplicate reaction...			
510.	2C#CC.=CYC6H5.+H	3.18E+37	-7.1	35015.0
	Declared duplicate reaction...			
511.	BENZENE=CYC6H5.+H	3.57E+17	-0.5	113407.5
512.	2C#CC.=BENZENE	1.63E+44	-9.2	27574.0
	Declared duplicate reaction...			
513.	2C#CC.=CYC6H5.+H	2.72E+29	-4.5	29299.1

3. Reduced version of mechanism in modified Arrhenius format ($P = 0.8 \text{ atm}$) in CHEMKIN format:

			ELEMENTS		ATOMIC							
			CONSIDERED		WEIGHT							

			1.	C	12.0112							
			2.	H	1.00797							
			3.	N	14.0067							
			4.	AR	39.9480							
			5.	HE	4.00260							

			C									
			P	H								
			H	A								
			A	R								
SPECIES			S	G	MOLECULAR	TEMPERATURE	ELEMENT	COUNT				
CONSIDERED			E	E	WEIGHT	LOW	HIGH	C	H	N	AR	HE

1.	N2		G	0	2.8013E+01	300	5000	0	0	2	0	0
2.	H2		G	0	2.0159E+00	300	5000	0	2	0	0	0
3.	H		G	0	1.0080E+00	300	5000	0	1	0	0	0
4.	CH2		G	0	1.4027E+01	300	5000	1	2	0	0	0
5.	CH2S		G	0	1.4027E+01	300	5000	1	2	0	0	0
6.	CH3		G	0	1.5035E+01	300	5000	1	3	0	0	0
7.	CH4		G	0	1.6043E+01	300	5000	1	4	0	0	0
8.	C2H2		G	0	2.6038E+01	300	5000	2	2	0	0	0
9.	C2H3		G	0	2.7046E+01	300	5000	2	3	0	0	0
10.	C2H4		G	0	2.8054E+01	300	5000	2	4	0	0	0
11.	C2H5		G	0	2.9062E+01	300	5000	2	5	0	0	0
12.	C2H6		G	0	3.0070E+01	300	5000	2	6	0	0	0
13.	C*C*C		G	0	4.0065E+01	300	5000	3	4	0	0	0
14.	C#CC		G	0	4.0065E+01	300	5000	3	4	0	0	0
15.	C*CC		G	0	4.2081E+01	300	5000	3	6	0	0	0
16.	CCC		G	0	4.4097E+01	300	5000	3	8	0	0	0
17.	C#CC.		G	0	3.9057E+01	300	5000	3	3	0	0	0
18.	C*C.C		G	0	4.1073E+01	300	5000	3	5	0	0	0
19.	C*CC.		G	0	4.1073E+01	300	5000	3	5	0	0	0

20. CCC.	G	0	4.3089E+01	300	5000	3	7	0	0	0
21. CC.C	G	0	4.3089E+01	300	5000	3	7	0	0	0
22. CC#CC	G	0	5.4092E+01	300	5000	4	6	0	0	0
23. C*CC*C	G	0	5.4092E+01	300	5000	4	6	0	0	0
24. C*C*CC	G	0	5.4092E+01	300	5000	4	6	0	0	0
25. C*CCC	G	0	5.6108E+01	300	5000	4	8	0	0	0
26. CC*CC	G	0	5.6108E+01	300	5000	4	8	0	0	0
27. CCCC	G	0	5.8124E+01	300	5000	4	10	0	0	0
28. C*C.CC	G	0	5.5100E+01	300	5000	4	7	0	0	0
29. CC*CC.	G	0	5.5100E+01	300	5000	4	7	0	0	0
30. CCCC.	G	0	5.7116E+01	300	5000	4	9	0	0	0
31. CCC.C	G	0	5.7116E+01	300	5000	4	9	0	0	0
32. CY13PD	G	0	6.6104E+01	300	5000	5	6	0	0	0
33. CYC5H8	G	0	6.8120E+01	300	5000	5	8	0	0	0
34. C*CC.C*C	G	0	6.7112E+01	300	5000	5	7	0	0	0
35. CY13PD5.	G	0	6.5096E+01	300	5000	5	5	0	0	0
36. CYPENE3.	G	0	6.7112E+01	300	5000	5	7	0	0	0
37. CYC5H9.	G	0	6.9127E+01	300	5000	5	9	0	0	0
38. C*CCCC*C	G	0	8.2147E+01	300	5000	6	10	0	0	0
39. BENZENE	G	0	7.8115E+01	300	5000	6	6	0	0	0
40. CHD14	G	0	8.0131E+01	300	5000	6	8	0	0	0
41. CHD13	G	0	8.0131E+01	300	5000	6	8	0	0	0
42. CYC6H10	G	0	8.2147E+01	300	5000	6	10	0	0	0
43. C*CCC.C*C	G	0	8.1139E+01	300	5000	6	9	0	0	0
44. C*CC*CC.C	G	0	8.1139E+01	300	5000	6	9	0	0	0
45. MECYPE2.	G	0	8.3155E+01	300	2500	6	11	0	0	0
46. MECY3PE2.	G	0	8.1139E+01	300	5000	6	9	0	0	0
47. CYC6H5.	G	0	7.7107E+01	300	5000	6	5	0	0	0
48. CYC6H7	G	0	7.9123E+01	300	5000	6	7	0	0	0
49. CYC6H9	G	0	8.1139E+01	300	5000	6	9	0	0	0

UNITS (unless otherwise noted):

A units mole-cm-sec, E units cal/mole

REACTIONS CONSIDERED				(k = A T**b exp(-E/RT))		
				A	b	E
1.	2H+M=H2+M			1.00E+18	-1.0	0.0
	H2	Enhanced by	0.000E+00			
	CH4	Enhanced by	2.000E+00			
	C2H6	Enhanced by	3.000E+00			
2.	2H+H2=2H2			9.00E+16	-0.6	0.0
3.	CC.C+H=C*CC+H2			1.44E+09	1.5	-894.0
4.	CH4+H=CH3+H2			3.00E+07	2.1	11200.0
5.	C2H6+H=C2H5+H2			1.07E+08	1.9	8170.0
6.	CCC+H=CCC.+H2			1.01E+08	2.0	8130.0
7.	CCC+H=CC.C+H2			1.05E+08	1.8	5780.0
8.	CCCC+H=CCCC.+H2			1.09E+08	1.9	8300.0
9.	CCCC+H=CCC.C+H2			2.11E+08	1.8	5710.0
10.	C*CC+H=C*C.C+H2			2.40E+08	1.5	10572.0
11.	C*CCC+H=C*C.CC+H2			2.40E+08	1.5	10576.0
12.	C2H4+H=C2H3+H2			8.30E+07	2.0	12800.0
13.	BENZENE+H=CYC6H5.+H2			1.44E+09	1.5	12172.0
14.	C*CC+H=C*CC.+H2			1.92E+06	2.3	4670.0
15.	C*C*C+H=C#CC.+H2			4.80E+07	2.2	3100.0
16.	C#CC+H=C#CC.+H2			1.62E+06	2.3	4300.0
17.	C*CCC+H=CC*CC.+H2			8.04E+06	2.1	3380.0
18.	CC*CC+H=CC*CC.+H2			4.86E+06	2.3	4320.0
19.	C*CCCC*C+H=C*CCC.C*C+H2			4.80E+07	2.2	3100.0
20.	CYC5H8+H=CYPENE3.+H2			6.16E+06	2.2	3338.0
21.	CY13PD+H=CY13PD5.+H2			3.08E+06	2.2	2386.0
22.	CHD14+H=CYC6H7+H2			6.16E+06	2.2	-729.0
23.	CHD13+H=CYC6H7+H2			6.16E+06	2.2	-460.0
24.	CC.C+CH3=C*CC+CH4			4.89E+06	1.9	-1113.0

25.	CHD14+CH3=CYC6H7+CH4	1.60E+02	3.2	1161.0
26.	CHD13+CH3=CYC6H7+CH4	1.60E+02	3.2	1476.0
27.	CY13PD+CH3=CY13PD5.+CH4	7.99E+01	3.2	4788.0
28.	C*CCCC*C+CH3=C*CCC.C*C+CH4	1.60E+02	3.2	5897.0
29.	CYC5H8+CH3=CYPENE3.+CH4	1.60E+02	3.2	5897.0
30.	C*CCC+CH3=CC*CC.+CH4	1.00E+02	3.2	5800.0
31.	CC*CC+CH3=CC*CC.+CH4	1.32E+02	3.2	7423.0
32.	C*CC+CH3=C*CC.+CH4	6.50E+01	3.2	7200.0
33.	C*C*C+CH3=C#CC.+CH4	8.77E+01	3.2	6564.0
34.	C#CC+CH3=C#CC.+CH4	6.58E+01	3.2	7761.0
35.	C2H6+CH3=C2H5+CH4	1.90E+03	3.0	10800.0
36.	CCC+CH3=CCC.+CH4	1.20E+03	3.0	10900.0
37.	CCC+CH3=CC.C+CH4	2.20E+03	2.9	8900.0
38.	CCCC+CH3=CCCC.+CH4	1.90E+03	3.0	10900.0
39.	CCCC+CH3=CCC.C+CH4	3.30E+03	2.8	8600.0
40.	C*CC+CH3=C*C.C+CH4	8.15E+05	1.9	13790.0
41.	C*CCC+CH3=C*C.CC+CH4	8.15E+05	1.9	13794.0
42.	C2H4+CH3=C2H3+CH4	1.60E+03	3.0	13500.0
43.	BENZENE+CH3=CYC6H5.+CH4	4.89E+06	1.9	15390.0
44.	CC.C+C2H5=C*CC+C2H6	3.96E+04	2.5	-1502.0
45.	CHD14+C2H5=CYC6H7+C2H6	1.60E+02	3.2	2516.0
46.	CHD13+C2H5=CYC6H7+C2H6	1.60E+02	3.2	2831.0
47.	CY13PD+C2H5=CY13PD5.+C2H6	7.99E+01	3.2	6143.0
48.	C*CCCC*C+C2H5=C*CCC.C*C+C2H6	1.60E+02	3.2	7252.0
49.	CYC5H8+C2H5=CYPENE3.+C2H6	1.60E+02	3.2	7252.0
50.	C*CCC+C2H5=CC*CC.+C2H6	7.99E+01	3.2	7252.0
51.	CC*CC+C2H5=CC*CC.+C2H6	1.32E+02	3.2	8778.0
52.	C*CC+C2H5=C*CC.+C2H6	6.58E+01	3.2	8537.0
53.	C*C*C+C2H5=C#CC.+C2H6	8.77E+01	3.2	7919.0
54.	C#CC+C2H5=C#CC.+C2H6	6.58E+01	3.2	9116.0
55.	CCCC+C2H5=CCCC.+C2H6	1.58E+02	3.2	12281.0
56.	CCCC+C2H5=CCC.C+C2H6	1.05E+02	3.2	10086.0
57.	CCC+C2H5=CC.C+C2H6	2.84E+02	3.0	10066.0
58.	CCC+C2H5=CCC.+C2H6	1.58E+02	3.2	12307.0

59.	C*CC+C2H5=C*C.C+C2H6	6.60E+03	2.5	14792.0
60.	C*CCC+C2H5=C*C.CC+C2H6	6.60E+03	2.5	14796.0
61.	C2H4+C2H5=C2H3+C2H6	2.64E+04	2.5	15672.0
62.	BENZENE+C2H5=CYC6H5.+C2H6	3.96E+04	2.5	16392.0
63.	CC.C+C2H3=C*CC+C2H4	1.93E+04	2.8	-1651.0
64.	CHD14+C2H3=CYC6H7+C2H4	4.11E+03	2.8	-740.0
65.	CHD13+C2H3=CYC6H7+C2H4	4.11E+03	2.8	-612.0
66.	CY13PD+C2H3=CY13PD5.+C2H4	2.05E+03	2.8	590.0
67.	C*CCCC*C+C2H3=C*CCC.C*C+C2H4	4.11E+03	2.8	1190.0
68.	CYC5H8+C2H3=CYPENE3.+C2H4	4.11E+03	2.8	1190.0
69.	C*CCC+C2H3=CC*CC.+C2H4	2.05E+03	2.8	1190.0
70.	CC*CC+C2H3=CC*CC.+C2H4	6.16E+03	2.8	3004.0
71.	C*CC+C2H3=C*CC.+C2H4	3.08E+03	2.8	2884.0
72.	C*C*C+C2H3=C#CC.+C2H4	4.11E+03	2.8	2654.0
73.	C#CC+C2H3=C#CC.+C2H4	3.08E+03	2.8	3142.0
74.	CCCC+C2H3=CCC.C+C2H4	1.28E+04	2.8	3760.0
75.	CCC+C2H3=CC.C+C2H4	6.42E+03	2.8	3760.0
76.	CCCC+C2H3=CCCC.+C2H4	1.93E+04	2.8	5482.0
77.	CCC+C2H3=CCC.+C2H4	1.93E+04	2.8	5482.0
78.	C*CC+C2H3=C*C.C+C2H4	3.21E+03	2.8	8642.0
79.	C*CCC+C2H3=C*C.CC+C2H4	3.21E+03	2.8	8646.0
80.	BENZENE+C2H3=CYC6H5.+C2H4	1.93E+04	2.8	10242.0
81.	C2H5+CCC.=C2H4+CCC	1.97E+04	2.5	-1502.0
82.	C2H3+CCC.=C2H2+CCC	1.31E+04	2.5	-1502.0
83.	CC.C+CCC.=C*CC+CCC	3.93E+04	2.5	-1502.0
84.	C*CC.+CCC.=C*C*C+CCC	6.55E+03	2.5	-1502.0
85.	CHD14+CCC.=CYC6H7+CCC	1.60E+02	3.2	2294.0
86.	CHD13+CCC.=CYC6H7+CCC	1.60E+02	3.2	2609.0
87.	CY13PD+CCC.=CY13PD5.+CCC	7.99E+01	3.2	5921.0
88.	C*CCCC*C+CCC.=C*CCC.C*C+CCC	1.60E+02	3.2	7030.0
89.	CYC5H8+CCC.=CYPENE3.+CCC	1.60E+02	3.2	7030.0
90.	C*CCC+CCC.=CC*CC.+CCC	7.99E+01	3.2	7030.0
91.	CC*CC+CCC.=CC*CC.+CCC	1.32E+02	3.2	8556.0
92.	C*CC+CCC.=C*CC.+CCC	6.58E+01	3.2	8315.0

93.	C*C*C+CCC.=C#CC.+CCC	8.77E+01	3.2	7697.0
94.	C#CC+CCC.=C#CC.+CCC	6.58E+01	3.2	8894.0
95.	CCCC+CCC.=CCC.C+CCC	1.05E+02	3.2	9864.0
96.	CCC+CCC.=CC.C+CCC	5.26E+01	3.2	9864.0
97.	CCCC+CCC.=CCCC.+CCC	1.58E+02	3.2	12059.0
98.	C*CC+CCC.=C*C.C+CCC	6.55E+03	2.5	14872.0
99.	C*CCC+CCC.=C*C.CC+CCC	6.55E+03	2.5	14876.0
100.	BENZENE+CCC.=CYC6H5.+CCC	3.93E+04	2.5	16472.0
101.	C*CC.+CC.C=C*C*C+CCC	1.38E+02	2.9	-1729.0
102.	C2H3+CC.C=C2H2+CCC	2.75E+02	2.9	-1729.0
103.	C2H5+CC.C=C2H4+CCC	4.13E+02	2.9	-1729.0
104.	2CC.C=C*CC+CCC	8.25E+02	2.9	-1729.0
105.	CHD14+CC.C=CYC6H7+CCC	1.60E+02	3.2	3170.0
106.	CHD13+CC.C=CYC6H7+CCC	1.60E+02	3.2	3485.0
107.	CY13PD+CC.C=CY13PD5.+CCC	7.99E+01	3.2	6797.0
108.	C*CCCC*C+CC.C=C*CCC.C*C+CCC	1.60E+02	3.2	7906.0
109.	CYC5H8+CC.C=CYPENE3.+CCC	1.60E+02	3.2	7906.0
110.	C*CCC+CC.C=CC*CC.+CCC	7.99E+01	3.2	7906.0
111.	CC*CC+CC.C=CC*CC.+CCC	1.32E+02	3.2	9432.0
112.	C*CC+CC.C=C*CC.+CCC	6.58E+01	3.2	9191.0
113.	C*C*C+CC.C=C#CC.+CCC	8.77E+01	3.2	8573.0
114.	C#CC+CC.C=C#CC.+CCC	6.58E+01	3.2	9770.0
115.	CCCC+CC.C=CCC.C+CCC	6.08E+00	3.6	10740.0
116.	CCCC+CC.C=CCCC.+CCC	9.12E+00	3.6	12935.0
117.	C*CC+CC.C=C*C.C+CCC	1.38E+02	2.9	15592.0
118.	C*CCC+CC.C=C*C.CC+CCC	1.38E+02	2.9	15596.0
119.	BENZENE+CC.C=CYC6H5.+CCC	8.25E+02	2.9	17192.0
120.	CHD14+CCCC.=CYC6H7+CCCC	1.60E+02	3.2	2486.0
121.	CHD13+CCCC.=CYC6H7+CCCC	1.60E+02	3.2	2801.0
122.	CY13PD+CCCC.=CY13PD5.+CCCC	7.99E+01	3.2	6113.0
123.	C*CCCC*C+CCCC.=C*CCC.C*C+CCCC	1.60E+02	3.2	7222.0
124.	CYC5H8+CCCC.=CYPENE3.+CCCC	1.60E+02	3.2	7222.0
125.	C*CCC+CCCC.=CC*CC.+CCCC	7.99E+01	3.2	7222.0
126.	CC*CC+CCCC.=CC*CC.+CCCC	1.32E+02	3.2	8748.0

127.	C*CC+CCCC.=C*CC.+CCCC	6.58E+01	3.2	8507.0
128.	C*C*C+CCCC.=C#CC.+CCCC	8.77E+01	3.2	7889.0
129.	C#CC+CCCC.=C#CC.+CCCC	6.58E+01	3.2	9086.0
130.	CCCC+CCCC.=CCC.C+CCCC	1.05E+02	3.2	10056.0
131.	C*CC+CCCC.=C*C.C+CCCC	9.15E+03	2.5	15292.0
132.	C*CCC+CCCC.=C*C.CC+CCCC	9.15E+03	2.5	15296.0
133.	BENZENE+CCCC.=CYC6H5.+CCCC	5.49E+04	2.5	16892.0
134.	CHD14+CCC.C=CYC6H7+CCCC	1.60E+02	3.2	2739.0
135.	CHD13+CCC.C=CYC6H7+CCCC	1.60E+02	3.2	3054.0
136.	CY13PD+CCC.C=CY13PD5.+CCCC	7.99E+01	3.2	6366.0
137.	C*CCCC*C+CCC.C=C*CCC.C*C+CCCC	1.60E+02	3.2	7475.0
138.	CYC5H8+CCC.C=CYPENE3.+CCCC	1.60E+02	3.2	7475.0
139.	C*CCC+CCC.C=CC*CC.+CCCC	7.99E+01	3.2	7475.0
140.	CC*CC+CCC.C=CC*CC.+CCCC	1.32E+02	3.2	9001.0
141.	C*CC+CCC.C=C*CC.+CCCC	6.58E+01	3.2	8760.0
142.	C*C*C+CCC.C=C#CC.+CCCC	8.77E+01	3.2	8142.0
143.	C#CC+CCC.C=C#CC.+CCCC	6.58E+01	3.2	9339.0
144.	C*CC+CCC.C=C*C.C+CCCC	1.19E+02	2.9	15742.0
145.	C*CCC+CCC.C=C*C.CC+CCCC	1.19E+02	2.9	15746.0
146.	BENZENE+CCC.C=CYC6H5.+CCCC	7.14E+02	2.9	17342.0
147.	CH2+H2=H+CH3	5.00E+05	2.0	7230.0
148.	CH2+CH3=H+C2H4	4.00E+13	0.0	0.0
149.	CH2S+CH3=H+C2H4	1.20E+13	0.0	-570.0
150.	H+CC*CC.=C*CC*C+H2	7.20E+08	1.5	-894.0
151.	CH3+CC*CC.=CH4+C*CC*C	2.45E+06	1.9	-1113.0
152.	C2H5+CC*CC.=C2H4+C*CCC	2.00E+04	2.5	-1500.0
153.	C2H5+CC*CC.=C2H6+C*CC*C	2.00E+04	2.5	-1500.0
154.	C*CC.+CY13PD5.=C*C*C+CY13PD	8.40E+10	0.0	-260.0
155.	C2H3+H=C2H2+H2	1.21E+13	0.0	0.0
156.	C2H3+CH3=C2H2+CH4	1.63E+06	1.9	-1113.0
157.	C2H3+C2H5=C2H2+C2H6	1.32E+04	2.5	-1500.0
158.	2C2H3=C2H2+C2H4	2.00E+12	0.0	0.0
159.	C2H3+C*CC.=C2H2+C*CC	2.00E+12	0.0	0.0
160.	C2H5+H=C2H4+H2	1.81E+12	0.0	0.0

161.	C2H5+CH3=C2H4+CH4	1.15E+12	0.0	0.0
162.	2C2H5=C2H4+C2H6	6.00E+13	-0.6	0.0
163.	C2H5+C2H3=2C2H4	9.63E+03	2.8	-1650.0
164.	C2H5+C*CC.=C2H4+C*CC	3.00E+12	0.0	0.0
165.	C2H5+C#CC.=C2H4+C*C*C	3.00E+12	0.0	0.0
166.	C2H5+C#CC.=C2H4+C#CC	3.00E+12	0.0	0.0
167.	CCC.+H=C*CC+H2	2.00E+12	0.0	0.0
168.	CCC.+CH3=C*CC+CH4	2.00E+12	0.0	0.0
169.	CCC.+C2H5=C*CC+C2H6	2.00E+12	0.0	0.0
170.	CCC.+C2H3=C*CC+C2H4	2.00E+12	0.0	0.0
171.	CCC.+C#CC.=C*CC+C#CC	2.00E+12	0.0	0.0
172.	2CCC.=C*CC+CCC	1.31E+04	2.5	-1502.0
173.	C*CC.+H=C*C*C+H2	1.00E+12	0.0	0.0
174.	C*CC.+CH3=C*C*C+CH4	1.00E+12	0.0	0.0
175.	C*CC.+C2H5=C*C*C+C2H6	1.00E+12	0.0	0.0
176.	C*CC.+C2H3=C*C*C+C2H4	1.00E+12	0.0	0.0
177.	2C*CC.=C*C*C+C*CC	1.00E+12	0.0	0.0
178.	C*CC.+C#CC.=C*C*C+C#CC	1.00E+12	0.0	0.0
179.	C*CC.+C#CC.=2C*C*C	1.00E+12	0.0	0.0
180.	C*C.C+H=C#CC+H2	2.00E+12	0.0	0.0
181.	C*C.C+H=C*C*C+H2	3.00E+12	0.0	0.0
182.	C*C.C+CH3=C*C*C+CH4	3.00E+12	0.0	0.0
183.	C*C.C+CH3=C#CC+CH4	2.00E+12	0.0	0.0
184.	C*C.C+C2H5=C#CC+C2H6	2.00E+12	0.0	0.0
185.	C*C.C+C2H5=C*C*C+C2H6	3.00E+12	0.0	0.0
186.	C*C.C+C2H3=C#CC+C2H4	2.00E+12	0.0	0.0
187.	C*C.C+C2H3=C*C*C+C2H4	3.00E+12	0.0	0.0
188.	C*C.C+C*CC.=C#CC+C*CC	2.00E+12	0.0	0.0
189.	2C*C.C=C#CC+C*CC	2.00E+12	0.0	0.0
190.	2C*C.C=C*C*C+C*CC	3.00E+12	0.0	0.0
191.	2CH2=C2H2+2H	1.20E+14	0.0	800.0
192.	CH2S+M=CH2+M	1.00E+13	0.0	0.0
	N2	Enhanced by	0.000E+00	
193.	CH2S+N2=CH2+N2	1.50E+13	0.0	600.0

194.	H+CH3 (+M)=CH4 (+M)		3.48E+15	-0.5	536.0
	H2	Enhanced by	2.000E+00		
	CH4	Enhanced by	3.000E+00		
	C2H6	Enhanced by	3.000E+00		
	Low pressure limit:	0.26200E+34 -0.47600E+01	0.24400E+04		
	TROE centering:	0.78300E+00 0.74000E+02	0.29410E+04	0.69640E+04	
195.	H+CH2 (+M)=CH3 (+M)		6.00E+14	0.0	0.0
	H2	Enhanced by	2.000E+00		
	CH4	Enhanced by	2.000E+00		
	C2H6	Enhanced by	3.000E+00		
	Low pressure limit:	0.10400E+27 -0.27600E+01	0.16000E+04		
	TROE centering:	0.56200E+00 0.91000E+02	0.58360E+04	0.85520E+04	
196.	CH2S+H2=CH3+H		7.00E+13	0.0	0.0
197.	2CH3=C2H6		1.00E+30	-5.4	4649.6
198.	2CH3=C2H5+H		1.49E+14	-0.4	14475.3
199.	C2H6=C2H5+H		1.65E-38	14.2	60262.9
200.	H+C2H4 (+M)=C2H5 (+M)		1.37E+09	1.5	1355.0
	H2	Enhanced by	2.000E+00		
	CH4	Enhanced by	2.000E+00		
	C2H6	Enhanced by	3.000E+00		
	Low pressure limit:	0.28900E+40 -0.66420E+01	0.57700E+04		
	TROE centering:	0.15690E+01 -0.91470E+04	0.29900E+03	0.15240E+03	
201.	H+C2H3 (+M)=C2H4 (+M)		6.08E+12	0.3	280.0
	H2	Enhanced by	2.000E+00		
	CH4	Enhanced by	2.000E+00		
	C2H6	Enhanced by	3.000E+00		
	Low pressure limit:	0.14000E+31 -0.38600E+01	0.33200E+04		
	TROE centering:	0.78200E+00 0.20750E+03	0.26630E+04	0.60950E+04	
202.	C2H4 (+M)=H2+C2H2 (+M)		8.00E+12	0.4	86770.0
	H2	Enhanced by	2.000E+00		
	CH4	Enhanced by	2.000E+00		
	C2H6	Enhanced by	3.000E+00		
	Low pressure limit:	0.15800E+52 -0.93000E+01	0.97800E+05		
	TROE centering:	0.73450E+00 0.18000E+03	0.10350E+04	0.54170E+04	

203.	H+C2H2=C2H3	1.00E+30	-5.7	6831.0
204.	CH2+CH4=2CH3	2.46E+06	2.0	8270.0
205.	CH2S+CH4=2CH3	1.60E+13	0.0	-570.0
206.	CH3+C2H5=CCC	1.54E+26	-4.1	3703.3
207.	CH3+C2H5=CCC.+H	2.68E+10	1.0	18080.3
208.	CH3+C2H5=CC.C+H	3.55E+06	1.9	14628.4
209.	CCC=CCC.+H	1.65E-38	14.8	61767.4
210.	CCC=CC.C+H	1.65E-38	14.7	60789.6
211.	C2H4+CH3=>CCC.	1.65E+38	-8.5	15522.3
212.	C2H4+CH3=>C*CC+H	1.50E+17	-1.3	18538.9
	Declared duplicate reaction...			
213.	C2H4+CH3=>CC.C	1.65E+38	-8.7	23772.9
214.	C2H4+CH3=>C*CC+H	3.45E+23	-3.3	24510.5
	Declared duplicate reaction...			
215.	C*CC+H=>CCC.	1.65E+38	-8.4	9563.9
	Declared duplicate reaction...			
216.	C*CC+H=>C2H4+CH3	3.14E+18	-1.3	8040.4
	Declared duplicate reaction...			
217.	C*CC+H=>CC.C	1.65E+38	-8.7	14422.1
	Declared duplicate reaction...			
218.	C*CC+H=>CCC.	1.65E+38	-8.4	13997.4
	Declared duplicate reaction...			
219.	C*CC+H=>C2H4+CH3	1.57E+24	-3.1	13596.3
	Declared duplicate reaction...			
220.	C*CC+H=>CC.C	1.65E+38	-8.0	9745.2
	Declared duplicate reaction...			
221.	CCC.=>C2H4+CH3	1.65E+38	-8.1	36162.9
222.	CCC.=>C*CC+H	1.65E+38	-8.4	41210.5
	Declared duplicate reaction...			
223.	CCC.=>CC.C	1.65E+38	-9.0	40303.8
224.	CCC.=>C*CC+H	1.65E+38	-8.4	45382.3
	Declared duplicate reaction...			
225.	CC.C=>CCC.	1.65E+38	-8.8	44034.5
226.	CC.C=>C2H4+CH3	1.65E+38	-8.1	48109.1

227.	CC.C=>C*CC+H	1.65E+38	-8.5	49627.2
	Declared duplicate reaction...			
228.	CC.C=>C*CC+H	1.65E+38	-7.9	44689.7
	Declared duplicate reaction...			
229.	C2H3+CH3=C*CC	2.78E+30	-5.4	5197.3
230.	C2H3+CH3=C*CC.+H	2.56E+08	1.7	3052.9
231.	C2H3+CH3=C*C.C+H	1.37E+09	1.1	11741.7
232.	C*CC=C*CC.+H	1.65E-38	15.5	60058.3
233.	C*CC=C*C.C+H	1.65E-38	13.9	61192.2
234.	C2H2+CH3=C#CC+H	2.79E+11	-0.1	13615.0
235.	C*C*C+H=C*CC.	7.59E+29	-5.3	8114.1
	Declared duplicate reaction...			
236.	C*C*C+H=C*C.C	4.44E+30	-5.8	11380.8
	Declared duplicate reaction...			
237.	C*C*C+H=C#CC+H	9.92E+11	0.5	9729.1
	Declared duplicate reaction...			
238.	C*C*C+H=C2H2+CH3	2.13E+12	0.5	9336.8
239.	C*C*C+H=C#CC+H	1.17E+11	0.7	9432.9
	Declared duplicate reaction...			
240.	C*CC.=C*C.C	1.65E+38	-7.9	61799.1
241.	C*CC.=C*C*C+H	1.70E+37	-7.2	69140.4
	Declared duplicate reaction...			
242.	C*CC.=C#CC+H	7.01E+29	-5.1	64761.6
	Declared duplicate reaction...			
243.	C*CC.=C2H2+CH3	1.45E+30	-5.0	63948.1
244.	C*CC.=C#CC+H	4.57E+31	-5.7	65582.7
	Declared duplicate reaction...			
245.	C*C.C=C*C*C+H	1.65E+38	-8.1	46182.9
	Declared duplicate reaction...			
246.	C*C.C=C#CC+H	1.89E+37	-8.0	42683.9
	Declared duplicate reaction...			
247.	C*C.C=C2H2+CH3	4.17E+34	-6.8	49172.3
248.	C*C.C=C#CC+H	1.73E+34	-6.9	49528.6
	Declared duplicate reaction...			

249.	C#CC.+H=CH2+C2H2	2.19E+15	-0.6	13465.8
250.	C*C*C=C#CC.+H	1.74E+45	-9.1	97273.7
	Declared duplicate reaction...			
251.	C*C*C=CH2+C2H2	5.79E+45	-10.0	107474.5
252.	C*C*C=C#CC	1.02E+35	-6.5	72704.5
253.	C*C*C=C#CC.+H	4.82E+46	-9.6	99363.2
	Declared duplicate reaction...			
254.	C#CC=C#CC.+H	2.04E+49	-10.2	103640.2
	Declared duplicate reaction...			
255.	C#CC=CH2+C2H2	3.97E+49	-11.1	112701.6
256.	C#CC=C#CC.+H	1.49E+44	-8.9	100081.3
	Declared duplicate reaction...			
257.	CH2S+C2H2=C#CC.+H	1.80E+14	0.0	0.0
258.	CH2S+C2H4=C*CC.+H	1.80E+14	0.0	0.0
259.	CH2S+C2H6=CH3+C2H5	4.00E+13	0.0	-550.0
260.	2C2H5=CCCC	2.99E+26	-4.3	3846.2
261.	2C2H5=CH3+CCC.	3.38E-08	6.7	6042.4
262.	2C2H5=CCCC.+H	4.96E+03	3.0	19526.8
263.	2C2H5=CCC.C+H	4.95E-01	4.0	15983.5
264.	CCCC=CH3+CCC.	3.28E-23	11.5	65611.2
265.	CCCC=CCCC.+H	1.65E-38	15.0	62369.1
266.	CCCC=CCC.C+H	1.65E-38	14.9	61526.4
267.	C2H4+C2H5=>CCCC.	1.65E+38	-8.6	15092.2
268.	C2H4+C2H5=>C*CCC+H	2.56E+19	-2.0	21927.0
	Declared duplicate reaction...			
269.	C2H4+C2H5=>CCC.C	1.65E+38	-9.0	25451.3
270.	C2H4+C2H5=>CC*CC+H	2.73E+18	-2.3	26779.9
	Declared duplicate reaction...			
271.	C2H4+C2H5=>CC*CC+H	3.27E+19	-2.6	26806.3
	Declared duplicate reaction...			
272.	C2H4+C2H5=>C*CCC+H	1.96E+17	-1.9	26773.5
	Declared duplicate reaction...			
273.	C2H4+C2H5=>C*CC+CH3	3.56E+25	-4.2	27175.2
274.	CCCC.=>C2H4+C2H5	1.65E+38	-8.1	33784.2

275.	CCCC.=>C*CCC+H Declared duplicate reaction...	1.65E+38	-8.4	40933.3
276.	CCCC.=>CCC.C	1.65E+38	-9.4	38596.6
277.	CCCC.=>CC*CC+H Declared duplicate reaction...	1.65E+38	-9.1	46547.6
278.	CCCC.=>CC*CC+H Declared duplicate reaction...	1.65E+38	-9.0	46168.3
279.	CCCC.=>C*CCC+H Declared duplicate reaction...	1.65E+38	-9.1	46977.2
280.	CCCC.=>C*CC+CH3	1.65E+38	-8.7	44312.5
281.	CCC.C=>CCCC.	1.65E+38	-9.4	41851.8
282.	CCC.C=>C2H4+C2H5	1.65E+38	-8.5	47418.6
283.	CCC.C=>C*CCC+H Declared duplicate reaction...	1.65E+38	-8.9	50753.4
284.	CCC.C=>CC*CC+H Declared duplicate reaction...	1.65E+38	-8.3	42234.6
285.	CCC.C=>CC*CC+H Declared duplicate reaction...	1.65E+38	-8.3	41403.0
286.	CCC.C=>C*CCC+H Declared duplicate reaction...	1.65E+38	-8.3	43286.1
287.	CCC.C=>C*CC+CH3	1.65E+38	-8.0	36562.7
288.	C*CCC+H=>CCCC. Declared duplicate reaction...	1.65E+38	-8.4	9043.9
289.	C*CCC+H=>C2H4+C2H5 Declared duplicate reaction...	8.96E+20	-2.0	9323.7
290.	C*CCC+H=>CCC.C Declared duplicate reaction...	1.65E+38	-9.0	15462.3
291.	C*CCC+H=>CC*CC+H Declared duplicate reaction...	2.25E+12	-0.3	14261.9
292.	C*CCC+H=>CC*CC+H Declared duplicate reaction...	2.36E+13	-0.6	14294.6
293.	C*CCC+H=>C*CC+CH3 Declared duplicate reaction...	1.52E+19	-2.1	14704.4
294.	CC*CC+H=>CCCC.	1.65E+38	-8.9	16536.5

	Declared duplicate reaction...			
295.	CC*CC+H=>C2H4+C2H5	4.79E+20	-2.3	16409.4
	Declared duplicate reaction...			
296.	CC*CC+H=>C*CCC+H	3.30E+13	-0.4	16764.4
	Declared duplicate reaction...			
297.	CC*CC+H=>CCC.C	1.65E+38	-8.2	8888.8
	Declared duplicate reaction...			
298.	CC*CC+H=>C*CCC+H	1.11E+15	-0.4	11233.5
	Declared duplicate reaction...			
299.	CC*CC+H=>C*CC+CH3	6.52E+21	-2.2	10178.7
	Declared duplicate reaction...			
300.	CC*CC+H=>CCCC.	1.65E+38	-8.8	16973.4
	Declared duplicate reaction...			
301.	CC*CC+H=>C2H4+C2H5	4.43E+21	-2.6	17213.2
	Declared duplicate reaction...			
302.	CC*CC+H=>C*CCC+H	2.61E+14	-0.7	17574.3
	Declared duplicate reaction...			
303.	CC*CC+H=>CCC.C	1.65E+38	-8.1	8884.3
	Declared duplicate reaction...			
304.	CC*CC+H=>C*CCC+H	7.58E+15	-0.6	11906.4
	Declared duplicate reaction...			
305.	CC*CC+H=>C*CC+CH3	1.01E+22	-2.2	10426.0
	Declared duplicate reaction...			
306.	C*CCC+H=>CCCC.	1.65E+38	-9.1	15254.1
	Declared duplicate reaction...			
307.	C*CCC+H=>C2H4+C2H5	8.39E+18	-2.0	14444.6
	Declared duplicate reaction...			
308.	C*CCC+H=>CCC.C	1.65E+38	-8.3	8210.8
	Declared duplicate reaction...			
309.	C*CCC+H=>CC*CC+H	2.28E+14	-0.4	9235.8
	Declared duplicate reaction...			
310.	C*CCC+H=>CC*CC+H	1.82E+15	-0.6	9107.6
	Declared duplicate reaction...			
311.	C*CCC+H=>C*CC+CH3	1.29E+21	-2.1	8989.6

Declared duplicate reaction...				
312.	$C*CC+CH3=>CCCC.$	1.65E+38	-9.2	26729.9
313.	$C*CC+CH3=>C2H4+C2H5$	2.10E+25	-4.1	28286.7
314.	$C*CC+CH3=>C*CCC+H$	5.43E+17	-2.1	28661.6
Declared duplicate reaction...				
315.	$C*CC+CH3=>CCC.C$	1.65E+38	-8.5	15708.2
316.	$C*CC+CH3=>CC*CC+H$	3.54E+19	-2.2	21792.2
Declared duplicate reaction...				
317.	$C*CC+CH3=>CC*CC+H$	6.38E+19	-2.2	21237.2
Declared duplicate reaction...				
318.	$C*CC+CH3=>C*CCC+H$	3.51E+19	-2.1	22606.4
Declared duplicate reaction...				
319.	$C*CC.+CH3=C*CCC$	2.03E+26	-4.0	3662.1
320.	$C*CC.+CH3=C2H3+C2H5$	8.03E+15	-0.3	27489.4
321.	$C*CC.+CH3=CC*CC.+H$	3.68E+04	2.7	15304.1
322.	$C*CC.+CH3=C*C.CC+H$	3.02E+16	-0.8	37589.5
323.	$C*CCC=C2H3+C2H5$	1.65E-38	15.0	60780.9
324.	$C*CCC=CC*CC.+H$	3.27E-30	12.6	60477.5
325.	$C*CCC=C*C.CC+H$	1.65E-38	13.6	59806.4
326.	$CC*CC=CC*CC.+H$	5.94E+70	-16.0	123442.0
327.	$C2H3+C2H4=>C*CC*C+H$	3.70E+19	-2.0	12400.1
Declared duplicate reaction...				
328.	$C2H3+C2H4=>CC*CC.$	1.65E+38	-8.0	16228.3
329.	$C2H3+C2H4=>C*CC*C+H$	7.28E+21	-2.5	17344.2
Declared duplicate reaction...				
330.	$C2H3+C2H4=>C*C*CC+H$	5.16E+16	-1.2	21128.4
Declared duplicate reaction...				
331.	$C2H3+C2H4=>C2H5+C2H2$	2.61E+26	-4.1	18906.6
332.	$C2H3+C2H4=>C*C.CC$	1.65E+38	-9.0	21538.2
333.	$C2H3+C2H4=>C*C*C+CH3$	3.37E+22	-3.2	22182.7
334.	$C2H3+C2H4=>C*C*CC+H$	1.80E+16	-1.6	22343.9
Declared duplicate reaction...				
335.	$C2H3+C2H4=>C\#CC+CH3$	1.37E+19	-2.4	25106.1
336.	$C2H3+C2H4=>CC\#CC+H$	2.18E+16	-1.8	25008.2

337.	$C_2H_3 + C_2H_4 \Rightarrow C^*C^*CC + H$	$2.29E+13$	-1.0	24984.2
	Declared duplicate reaction...			
338.	$CC^*CC. \Rightarrow C_2H_3 + C_2H_4$	$1.65E+38$	-7.3	64670.2
339.	$CC^*CC. \Rightarrow C^*CC^*C + H$	$1.65E+38$	-7.4	63553.9
	Declared duplicate reaction...			
340.	$CC^*CC. \Rightarrow C^*CC^*C + H$	$7.38E+34$	-6.5	55366.7
	Declared duplicate reaction...			
341.	$CC^*CC. \Rightarrow C^*C^*CC + H$	$1.65E+38$	-7.7	69012.7
	Declared duplicate reaction...			
342.	$CC^*CC. \Rightarrow C_2H_5 + C_2H_2$	$1.65E+38$	-7.5	68377.6
343.	$CC^*CC. \Rightarrow C^*C.CC$	$1.65E+38$	-8.6	67570.9
344.	$CC^*CC. \Rightarrow C^*C^*C + CH_3$	$1.65E+38$	-7.8	72909.8
345.	$CC^*CC. \Rightarrow C^*C^*CC + H$	$1.65E+38$	-8.2	75131.4
	Declared duplicate reaction...			
346.	$CC^*CC. \Rightarrow C\#CC + CH_3$	$1.65E+38$	-8.2	73162.4
347.	$CC^*CC. \Rightarrow CC\#CC + H$	$1.65E+38$	-8.5	74120.4
348.	$CC^*CC. \Rightarrow C^*C^*CC + H$	$1.65E+38$	-8.6	75248.2
	Declared duplicate reaction...			
349.	$C^*C.CC \Rightarrow C_2H_3 + C_2H_4$	$1.65E+38$	-8.5	46231.5
350.	$C^*C.CC \Rightarrow C^*CC^*C + H$	$1.65E+38$	-8.6	45920.5
	Declared duplicate reaction...			
351.	$C^*C.CC \Rightarrow CC^*CC.$	$1.65E+38$	-8.8	43795.2
352.	$C^*C.CC \Rightarrow C^*CC^*C + H$	$1.65E+38$	-8.4	49153.0
	Declared duplicate reaction...			
353.	$C^*C.CC \Rightarrow C^*C^*CC + H$	$1.65E+38$	-8.9	52770.4
	Declared duplicate reaction...			
354.	$C^*C.CC \Rightarrow C_2H_5 + C_2H_2$	$1.65E+38$	-8.6	48833.0
355.	$C^*C.CC \Rightarrow C^*C^*C + CH_3$	$1.65E+38$	-8.0	38975.8
356.	$C^*C.CC \Rightarrow C^*C^*CC + H$	$1.65E+38$	-8.3	44153.4
	Declared duplicate reaction...			
357.	$C^*C.CC \Rightarrow C\#CC + CH_3$	$1.65E+38$	-9.4	55224.9
358.	$C^*C.CC \Rightarrow CC\#CC + H$	$1.65E+38$	-9.7	56099.0
359.	$C^*C.CC \Rightarrow C^*C^*CC + H$	$1.65E+38$	-9.8	57073.5
	Declared duplicate reaction...			

360.	C*CC*C+H=>C2H3+C2H4	3.51E+21	-2.0	14705.2
	Declared duplicate reaction...			
361.	C*CC*C+H=>CC*CC.	1.65E+38	-7.5	16699.1
	Declared duplicate reaction...			
362.	C*CC*C+H=>C*C*CC+H	5.70E+19	-1.7	23480.6
	Declared duplicate reaction...			
363.	C*CC*C+H=>C2H5+C2H2	3.26E+29	-4.6	21158.3
	Declared duplicate reaction...			
364.	C*CC*C+H=>C*C.CC	1.65E+38	-8.5	22778.6
	Declared duplicate reaction...			
365.	C*CC*C+H=>C*C*C+CH3	6.22E+25	-3.7	24646.2
	Declared duplicate reaction...			
366.	C*CC*C+H=>C*C*CC+H	3.30E+19	-2.1	24841.3
	Declared duplicate reaction...			
367.	C*CC*C+H=>C#CC+CH3	3.01E+22	-3.0	27681.2
	Declared duplicate reaction...			
368.	C*CC*C+H=>CC#CC+H	4.52E+19	-2.4	27573.1
	Declared duplicate reaction...			
369.	C*CC*C+H=>C*C*CC+H	3.96E+16	-1.6	27521.5
	Declared duplicate reaction...			
370.	C*CC*C+H=>C2H3+C2H4	5.13E+24	-2.7	20334.8
	Declared duplicate reaction...			
371.	C*CC*C+H=>CC*CC.	3.11E+34	-6.5	8542.5
	Declared duplicate reaction...			
372.	C*CC*C+H=>C*C*CC+H	1.26E+15	-0.1	20506.8
	Declared duplicate reaction...			
373.	C*CC*C+H=>C2H5+C2H2	2.36E+33	-5.6	26256.8
	Declared duplicate reaction...			
374.	C*CC*C+H=>C*C.CC	1.65E+38	-8.3	26226.1
	Declared duplicate reaction...			
375.	C*CC*C+H=>C*C*C+CH3	2.42E+30	-4.9	29478.2
	Declared duplicate reaction...			
376.	C*CC*C+H=>C*C*CC+H	1.20E+25	-3.6	29738.6
	Declared duplicate reaction...			

377.	C*CC*C+H=>C#CC+CH3 Declared duplicate reaction...	4.73E+19	-1.9	25852.2
378.	C*CC*C+H=>CC#CC+H Declared duplicate reaction...	9.45E+16	-1.3	25838.7
379.	C*CC*C+H=>C*C*CC+H Declared duplicate reaction...	1.45E+14	-0.6	25947.6
380.	C*C*CC+H=>C2H3+C2H4 Declared duplicate reaction...	2.17E+19	-1.5	12787.5
381.	C*C*CC+H=>C*CC*C+H Declared duplicate reaction...	2.67E+20	-2.0	12837.0
382.	C*C*CC+H=>CC*CC. Declared duplicate reaction...	1.65E+38	-8.0	11069.1
383.	C*C*CC+H=>C*CC*C+H Declared duplicate reaction...	5.55E+14	-0.1	9100.3
384.	C*C*CC+H=>C2H5+C2H2 Declared duplicate reaction...	1.61E+26	-3.9	16569.6
385.	C*C*CC+H=>C*C.CC Declared duplicate reaction...	1.65E+38	-8.9	18574.7
386.	C*C*CC+H=>C*C*C+CH3 Declared duplicate reaction...	4.52E+18	-1.8	17397.5
387.	C*C*CC+H=>C#CC+CH3 Declared duplicate reaction...	1.31E+07	1.5	13540.5
388.	C*C*CC+H=>CC#CC+H Declared duplicate reaction...	5.07E+04	2.0	13598.8
389.	C2H5+C2H2=>C2H3+C2H4	7.00E+28	-5.0	19080.1
390.	C2H5+C2H2=>C*CC*C+H Declared duplicate reaction...	1.01E+30	-5.5	19050.8
391.	C2H5+C2H2=>CC*CC.	1.65E+38	-8.3	19184.5
392.	C2H5+C2H2=>C*CC*C+H Declared duplicate reaction...	3.97E+32	-6.1	23315.0
393.	C2H5+C2H2=>C*C*CC+H Declared duplicate reaction...	2.78E+25	-4.3	24816.7
394.	C2H5+C2H2=>C*C.CC	1.65E+38	-9.2	23273.5
395.	C2H5+C2H2=>C*C*C+CH3	7.79E+15	-1.3	21584.1

396.	C2H5+C2H2=>C*C*CC+H	1.16E+10	0.2	21785.7
	Declared duplicate reaction...			
397.	C2H5+C2H2=>C#CC+CH3	2.84E+29	-6.0	29429.9
398.	C2H5+C2H2=>CC#CC+H	3.48E+26	-5.4	29123.7
399.	C2H5+C2H2=>C*C*CC+H	2.51E+23	-4.6	28812.6
	Declared duplicate reaction...			
400.	C*C*C+CH3=>C2H3+C2H4	1.45E+23	-3.3	24570.2
401.	C*C*C+CH3=>C*CC*C+H	2.13E+24	-3.8	24680.3
	Declared duplicate reaction...			
402.	C*C*C+CH3=>CC*CC.	1.65E+38	-8.4	26611.1
403.	C*C*C+CH3=>C*CC*C+H	1.31E+28	-4.7	28914.5
	Declared duplicate reaction...			
404.	C*C*C+CH3=>C*C*CC+H	2.86E+17	-1.8	28458.2
	Declared duplicate reaction...			
405.	C*C*C+CH3=>C2H5+C2H2	1.63E+15	-0.9	24307.0
406.	C*C*C+CH3=>C*C.CC	1.65E+38	-8.4	16391.3
407.	C*C*C+CH3=>C*C*CC+H	3.71E+20	-2.3	21632.0
	Declared duplicate reaction...			
408.	C*C*C+CH3=>C#CC+CH3	2.18E+16	-2.0	30148.9
409.	C*C*C+CH3=>CC#CC+H	3.53E+13	-1.4	29959.3
410.	C*C*C+CH3=>C*C*CC+H	6.58E+10	-0.7	29888.7
	Declared duplicate reaction...			
411.	C*C*CC+H=>C2H3+C2H4	5.07E+18	-1.8	13544.3
	Declared duplicate reaction...			
412.	C*C*CC+H=>C*CC*C+H	7.37E+19	-2.3	13691.6
	Declared duplicate reaction...			
413.	C*C*CC+H=>CC*CC.	1.65E+38	-8.5	16896.5
	Declared duplicate reaction...			
414.	C*C*CC+H=>C*CC*C+H	2.85E+24	-3.5	17899.3
	Declared duplicate reaction...			
415.	C*C*CC+H=>C2H5+C2H2	2.79E+11	0.4	13387.0
	Declared duplicate reaction...			
416.	C*C*CC+H=>C*C.CC	1.65E+38	-8.3	9671.0
	Declared duplicate reaction...			

417.	C*C*CC+H=>C*C*C+CH3	6.93E+21	-2.3	10227.0
	Declared duplicate reaction...			
418.	C*C*CC+H=>C#CC+CH3	1.44E+12	-0.7	18556.9
	Declared duplicate reaction...			
419.	C*C*CC+H=>CC#CC+H	4.23E+09	-0.1	18448.1
	Declared duplicate reaction...			
420.	C#CC+CH3=>C2H3+C2H4	1.90E+20	-2.8	29093.0
421.	C#CC+CH3=>C*CC*C+H	2.90E+21	-3.3	29306.2
	Declared duplicate reaction...			
422.	C#CC+CH3=>CC*CC.	1.65E+38	-9.0	28289.6
423.	C#CC+CH3=>C*CC*C+H	4.83E+17	-2.0	26768.4
	Declared duplicate reaction...			
424.	C#CC+CH3=>C*C*CC+H	1.96E+06	1.1	26038.0
	Declared duplicate reaction...			
425.	C#CC+CH3=>C2H5+C2H2	3.01E+25	-4.8	31791.6
426.	C#CC+CH3=>C*C.CC	1.65E+38	-10.0	33967.2
427.	C#CC+CH3=>C*C*C+CH3	3.98E+16	-2.3	31525.3
428.	C#CC+CH3=>C*C*CC+H	2.02E+11	-1.0	31376.8
	Declared duplicate reaction...			
429.	C#CC+CH3=>CC#CC+H	1.77E+21	-2.6	19239.8
430.	C#CC+CH3=>C*C*CC+H	9.85E+18	-2.0	20553.3
	Declared duplicate reaction...			
431.	CC#CC+H=>C2H3+C2H4	7.15E+19	-2.3	20893.6
432.	CC#CC+H=>C*CC*C+H	1.03E+21	-2.8	21099.3
	Declared duplicate reaction...			
433.	CC#CC+H=>CC*CC.	1.65E+38	-8.7	20231.9
434.	CC#CC+H=>C*CC*C+H	1.80E+17	-1.5	18611.9
	Declared duplicate reaction...			
435.	CC#CC+H=>C*C*CC+H	1.11E+06	1.6	17914.3
	Declared duplicate reaction...			
436.	CC#CC+H=>C2H5+C2H2	2.17E+25	-4.4	23625.6
437.	CC#CC+H=>C*C.CC	1.65E+38	-9.7	25834.6
438.	CC#CC+H=>C*C*C+CH3	1.13E+16	-1.7	23193.0
439.	CC#CC+H=>C*C*CC+H	8.24E+10	-0.5	23085.4

440.	CC#CC+H=>C#CC+CH3	2.12E+23	-2.7	11045.4
441.	CC#CC+H=>C*C*CC+H	2.42E+17	-1.2	12198.3
442.	C*C*CC+H=>C2H3+C2H4	1.47E+17	-1.7	16914.6
443.	C*C*CC+H=>C*CC*C+H	1.88E+18	-2.2	17103.2
444.	C*C*CC+H=>CC*CC.	1.65E+38	-8.8	17290.5
445.	C*C*CC+H=>C*CC*C+H	3.72E+14	-0.8	14701.9
446.	C*C*CC+H=>C2H5+C2H2	8.76E+22	-3.8	19645.3
447.	C*C*CC+H=>C*C.CC	1.65E+38	-9.8	22762.4
448.	C*C*CC+H=>C*C*C+CH3	2.13E+13	-1.1	19073.5
449.	C*C*CC+H=>C#CC+CH3	8.44E+20	-2.0	8269.7
450.	C*C*CC+H=>CC#CC+H	1.84E+17	-1.2	8117.9
451.	C#CC.+CH3=C*C*CC	1.00E+37	-7.3	9487.5
452.	C#CC.+CH3=CC#CC	1.32E+40	-8.2	10604.7
453.	2C2H3=C*CC*C	9.80E+14	-0.5	0.0
454.	C*C*CC=C*CC*C	2.50E+13	0.0	63000.0
455.	CC#CC=C*C*CC	3.00E+13	0.0	67000.0
456.	C*CC*C=C2H4+C2H2	6.40E+13	0.0	77100.0
457.	CC#CC=C*CC*C	3.00E+13	0.0	65000.0
458.	C2H4+CCC.=C2H5+C*CC	1.73E+55	-12.8	38995.0
459.	C2H4+CCC.=CH3+C*CCC	7.23E+37	-7.4	39070.0
460.	C*CC.+C2H2=CY13PD+H	1.76E+33	-6.4	24524.7
461.	C#CC.+C2H2=CY13PD5.	4.70E+52	-12.2	26679.0
462.	CY13PD=CY13PD5.+H	4.00E+41	-7.5	97566.2

463.	$C_2H_3 + C^*CC = CH_3 + C^*CC^*C$	$1.93E+24$	-3.8	12307.0
464.	$C^*CC + C_2H_4 = CYC_5H_9$	$4.76E+00$	1.1	-16342.0
465.	$C^*CC + C_2H_4 = CYC_5H_8 + H$	$4.44E+11$	-0.4	12438.0
466.	$CYC_5H_9 = CYC_5H_8 + H$	$3.99E+10$	-0.7	12696.0
467.	$CYPENE3 = C^*CC.C^*C$	$1.11E+34$	-6.8	20866.0
468.	$CYPENE3 = CY13PD + H$	$1.00E+26$	-4.7	50658.0
469.	$CCCC + C_2H_4 = CCC + C^*CC$	$3.95E+48$	-10.9	35376.0
470.	$CCCC + C_2H_4 = C_2H_5 + C^*CCC$	$2.84E+45$	-9.9	35698.0
471.	$MECYPE2 = CYC_6H_{10} + H$	$5.96E+90$	-24.0	84844.0
472.	$MECYPE2 = C_2H_5 + C^*CC^*C$	$3.47E+95$	-24.9	83628.0
473.	$MECYPE2 = CYC_5H_8 + CH_3$	$2.76E+64$	-15.7	49118.0
474.	$MECYPE2 = C_2H_4 + CC^*CC$	$1.55E+91$	-23.4	71179.0
	Declared duplicate reaction...			
475.	$MECYPE2 = C_2H_4 + CC^*CC$	$6.12E+88$	-22.7	70347.0
	Declared duplicate reaction...			
476.	$MECYPE2 = C^*CC + C^*CC$	$2.02E+87$	-22.6	80284.0
	Declared duplicate reaction...			
477.	$MECYPE2 = C^*CC + C^*CC$	$5.31E+85$	-22.1	80409.0
	Declared duplicate reaction...			
478.	$2C^*CC = C^*CCCC^*C$	$1.00E+13$	0.0	0.0
479.	$C_2H_4 + C^*CC^*C = CYC_6H_{10}$	$5.49E+11$	-0.6	23883.6
480.	$C_2H_3 + C^*CC^*C = C^*CCC.C^*C$	$1.04E+45$	-10.2	12135.0
481.	$C_2H_3 + C^*CC^*C = CYC_6H_9$	$2.54E+54$	-13.4	16301.0
482.	$C_2H_3 + C^*CC^*C = CHD_{14} + H$	$1.98E+45$	-9.8	21041.0
483.	$C_2H_3 + C^*CC^*C = CHD_{13} + H$	$5.65E+45$	-9.9	21080.0
484.	$C_2H_3 + C^*CC^*C = C^*CC^*CC.C$	$2.09E+58$	-13.8	27345.0
485.	$C_2H_3 + C^*CC^*C = MECY3PE2$	$3.08E+44$	-10.4	17288.0
486.	$C_2H_3 + C^*CC^*C = CY13PD + CH_3$	$1.69E+43$	-9.0	23841.0
487.	$C^*CCC.C^*C = CYC_6H_9$	$1.62E+67$	-17.3	41178.0
488.	$C^*CCC.C^*C = CHD_{14} + H$	$2.42E+62$	-15.2	52081.0
489.	$C^*CCC.C^*C = CHD_{13} + H$	$5.91E+62$	-15.3	52029.0
490.	$C^*CCC.C^*C = C^*CC^*CC.C$	$1.64E+64$	-15.8	55656.0
491.	$C^*CCC.C^*C = MECY3PE2$	$5.02E+59$	-15.1	47185.0
492.	$C^*CCC.C^*C = CY13PD + CH_3$	$1.89E+60$	-14.5	55403.0

493.	CYC6H9=CHD14+H	1.66E+53	-12.6	49116.0
494.	CYC6H9=CHD13+H	2.32E+53	-12.6	48798.0
495.	CYC6H9=C*CC*CC.C	3.71E+78	-19.7	71851.0
496.	CYC6H9=MECY3PE2.	6.98E+78	-20.3	66639.0
497.	CYC6H9=CY13PD+CH3	3.48E+77	-19.3	73185.0
498.	C*CC*CC.C=CHD14+H	4.04E+78	-19.5	88089.0
499.	C*CC*CC.C=CHD13+H	7.90E+78	-19.5	88034.0
500.	C*CC*CC.C=MECY3PE2.	1.34E+58	-14.1	53879.0
501.	C*CC*CC.C=CY13PD+CH3	3.98E+57	-13.2	63456.0
502.	MECY3PE2.=CHD14+H	8.12E+70	-17.3	85235.0
503.	MECY3PE2.=CHD13+H	2.07E+71	-17.3	85223.0
504.	MECY3PE2.=CY13PD+CH3	3.00E+45	-10.1	44093.0
505.	C*C.C+C*C*C=C*CC+C#CC.	4.11E+03	2.8	3054.0
506.	C*CC.+C*C*C=C*CC+C#CC.	2.64E+04	2.5	11632.0
507.	CYC6H7=BENZENE+H	4.92E+24	-4.3	22281.0
508.	C*C*C+C#CC.=BENZENE+H	1.40E+12	0.0	10000.0
509.	2C#CC.=BENZENE	4.96E+52	-11.7	35181.7
	Declared duplicate reaction...			
510.	2C#CC.=CYC6H5.+H	3.18E+37	-7.1	35015.0
	Declared duplicate reaction...			
511.	BENZENE=CYC6H5.+H	3.57E+17	-0.5	113407.5
512.	2C#CC.=BENZENE	1.63E+44	-9.2	27574.0
	Declared duplicate reaction...			
513.	2C#CC.=CYC6H5.+H	2.72E+29	-4.5	29299.1
	Declared duplicate reaction...			

UNITS for the preceding reactions (unless otherwise noted):

A units mole-cm-sec-K, E units cal/mole