

Converged output for the present Earth with constant methane mixing ratio = 3.2e-6

SOLAR ZENITH ANGLE (deg) = 45.

FIXED SPECIES MIXING RATIOS: Next line contains the mixing ratios that were written in mixing_ratios.dat

O2 = 0.21 CO2 = 3.54999999999994E-4 CH4 = 3.19999999999996E-6

Sun UV flux The star will be stated here, so you can checked if you choose the right one

1.74E+11	2.10E+11	2.38E+11	3.04E+11	3.19E+11	2.93E+11	3.62E+11	4.73E+11
5.61E+11	6.63E+11	6.90E+11	9.56E+11	1.15E+12	1.27E+12	1.52E+12	1.78E+12
2.20E+12	2.69E+12	4.54E+12	7.14E+12	8.35E+12	8.39E+12	1.08E+13	1.18E+13
1.60E+13	1.34E+13	1.41E+13	1.57E+13	1.38E+13	1.60E+13	1.45E+13	2.20E+13
1.99E+13	1.97E+13	1.94E+13	2.91E+13	4.95E+13	4.53E+13	1.07E+14	1.20E+14
1.10E+14	1.04E+14	8.24E+13	1.52E+14	2.15E+14	3.48E+14	3.40E+14	3.22E+14
4.23E+14	4.95E+14	5.44E+14	5.93E+14	6.95E+14	8.15E+14	7.81E+14	8.35E+14
4.07E+14	1.72E+15	1.82E+15	2.11E+15	2.06E+15	2.04E+15	3.00E+15	3.63E+15
3.79E+15	3.57E+15	4.10E+15	4.61E+15	4.74E+15	4.80E+15	4.88E+15	4.78E+15
4.87E+15	4.88E+15	4.76E+15	5.02E+15	5.02E+15	5.07E+15	5.06E+15	5.20E+15
5.36E+15	5.32E+15	5.32E+15	5.29E+15	5.29E+15	5.24E+15	5.24E+15	5.09E+15
5.12E+15	5.23E+15	5.22E+15	5.11E+15	5.14E+15	5.01E+15	4.93E+15	4.91E+15
4.81E+15	4.81E+15	4.75E+15	4.64E+15	4.65E+15	4.61E+15	4.55E+15	4.44E+15
4.39E+15	4.31E+15	4.24E+15	4.10E+15				

Next two lines have the output for the lightning model

PO2= 1.516E-01 PNO= 3.564E-02 ZAPO2= 1.603E+04 ZAPNO= 3.767E+03

N= 3 X= 6.98916E-01 ERR= 1.04162E-06

Starting conditions:

TIME = 0.0000E+00 TIMEY = 0.000000 YEARS

Number of times that the subroutine PHOTO has been called

NPHOT = 0

MIXING RATIOS OF LONG-LIVED SPECIES Starting mixing ratios as a function of the altitude (Z is the altitude in cm)

Z	H2CO	O	H2O	OH	HO2	H2O2	O3	H	H2	CH4	CO	CH3OOH
5.00E+04	2.26E-10	9.70E-17	1.32E-02	8.19E-14	1.35E-11	1.29E-09	3.00E-08	7.87E-21	5.50E-07	3.20E-06	9.00E-08	6.75E-10
1.50E+05	2.64E-10	1.40E-16	9.55E-03	1.15E-13	1.44E-11	1.32E-09	3.59E-08	1.01E-20	5.50E-07	1.59E-06	7.94E-08	5.86E-10
2.50E+05	2.64E-10	2.04E-16	6.61E-03	1.45E-13	1.44E-11	1.25E-09	4.36E-08	1.19E-20	5.50E-07	1.59E-06	7.05E-08	4.77E-10
3.50E+05	2.44E-10	2.94E-16	4.36E-03	1.77E-13	1.38E-11	1.07E-09	5.27E-08	1.33E-20	5.51E-07	1.58E-06	6.31E-08	3.54E-10
7.50E+05	8.95E-11	9.30E-16	3.48E-04	1.81E-13	3.72E-12	1.82E-10	8.85E-08	1.09E-20	5.52E-07	1.57E-06	4.70E-08	2.71E-11
1.15E+06	5.19E-12	2.39E-15	7.69E-06	3.64E-14	9.09E-14	8.29E-12	1.22E-07	2.11E-21	5.52E-07	1.56E-06	4.25E-08	5.29E-13
1.55E+06	2.63E-12	3.24E-14	2.43E-06	3.94E-14	6.33E-14	1.95E-14	5.16E-07	2.63E-21	5.47E-07	1.51E-06	2.92E-08	3.57E-15
1.95E+06	5.68E-12	4.33E-13	2.38E-06	1.34E-13	3.49E-13	2.13E-13	1.82E-06	1.04E-20	5.30E-07	1.36E-06	1.57E-08	2.71E-14
2.35E+06	1.52E-11	4.17E-12	3.95E-06	6.28E-13	2.54E-12	4.31E-12	4.05E-06	8.74E-20	5.01E-07	1.16E-06	1.14E-08	2.60E-13
2.75E+06	3.84E-11	3.33E-11	4.35E-06	3.37E-12	1.54E-11	4.82E-11	6.86E-06	1.39E-18	4.60E-07	9.49E-07	1.12E-08	1.27E-12
3.15E+06	6.67E-11	2.03E-10	4.79E-06	1.53E-11	4.84E-11	1.34E-10	8.49E-06	3.20E-17	4.01E-07	7.25E-07	1.17E-08	1.93E-12
3.55E+06	8.16E-11	1.04E-09	5.36E-06	5.11E-11	8.96E-11	1.35E-10	7.99E-06	8.00E-16	3.29E-07	5.15E-07	1.22E-08	1.73E-12
3.95E+06	7.99E-11	5.12E-09	6.04E-06	1.44E-10	1.29E-10	9.17E-11	6.70E-06	1.88E-14	2.61E-07	3.52E-07	1.23E-08	1.38E-12

4.35E+06	6.50E-11	2.35E-08	6.49E-06	3.29E-10	1.81E-10	6.86E-11	4.99E-06	3.33E-13	2.12E-07	2.46E-07	1.29E-08	1.27E-12
4.75E+06	4.43E-11	7.43E-08	6.73E-06	5.22E-10	2.43E-10	6.35E-11	3.62E-06	2.70E-12	1.88E-07	1.90E-07	1.56E-08	1.32E-12
5.15E+06	3.07E-11	1.71E-07	6.81E-06	7.00E-10	3.09E-10	6.53E-11	2.68E-06	1.28E-11	1.83E-07	1.65E-07	2.50E-08	1.34E-12
5.55E+06	2.23E-11	3.22E-07	6.81E-06	9.49E-10	4.13E-10	7.74E-11	1.81E-06	5.20E-11	1.88E-07	1.55E-07	4.91E-08	1.27E-12
5.95E+06	1.64E-11	5.14E-07	6.80E-06	1.56E-09	6.86E-10	1.39E-10	1.06E-06	2.26E-10	1.96E-07	1.51E-07	9.90E-08	1.04E-12
6.35E+06	1.38E-11	1.25E-06	6.76E-06	3.50E-09	1.43E-09	3.52E-10	1.07E-06	1.81E-09	2.04E-07	1.50E-07	1.91E-07	7.79E-13

Z	CH3O2	N2O	NO	NO2	HNO2	HNO3	HO2NO2	NO3	N2O5	CL2O2	CH3CL	HOCL
5.00E+04	8.05E-12	3.00E-07	4.72E-12	1.72E-11	2.78E-14	2.81E-10	3.25E-13	1.69E-14	1.23E-16	2.73E-22	5.00E-10	3.84E-13
1.50E+05	7.31E-12	3.00E-07	9.41E-12	3.20E-11	6.80E-14	4.67E-10	1.18E-12	2.76E-14	5.37E-16	5.53E-22	4.81E-10	4.32E-13
2.50E+05	6.74E-12	3.00E-07	1.25E-11	3.99E-11	1.02E-13	7.14E-10	2.73E-12	3.59E-14	1.30E-15	1.73E-21	4.64E-10	5.36E-13
3.50E+05	5.83E-12	3.00E-07	1.63E-11	4.78E-11	1.42E-13	9.75E-10	6.26E-12	4.42E-14	3.02E-15	5.19E-21	4.49E-10	6.17E-13
7.50E+05	8.35E-13	3.00E-07	6.61E-11	9.33E-11	3.68E-13	1.66E-09	1.28E-10	3.56E-14	6.60E-14	8.18E-20	4.22E-10	1.21E-13
1.15E+06	9.17E-15	2.99E-07	3.89E-10	1.83E-10	2.69E-13	1.61E-09	4.85E-11	3.64E-15	2.68E-13	3.87E-20	4.16E-10	2.56E-16
1.55E+06	4.88E-15	2.87E-07	7.09E-10	5.95E-10	2.16E-13	2.38E-09	2.71E-11	1.12E-14	1.79E-12	3.63E-19	3.81E-10	3.93E-16
1.95E+06	1.61E-14	2.48E-07	9.26E-10	1.41E-09	3.25E-13	5.63E-09	9.61E-11	7.41E-14	1.31E-11	3.17E-17	2.96E-10	1.87E-14
2.35E+06	6.98E-14	1.95E-07	1.26E-09	2.58E-09	6.02E-13	9.21E-09	2.39E-10	3.08E-13	3.85E-11	5.55E-16	2.02E-10	5.41E-13
2.75E+06	2.56E-13	1.38E-07	2.16E-09	5.06E-09	1.45E-12	1.02E-08	3.68E-10	9.40E-13	6.60E-11	2.11E-15	1.20E-10	6.36E-12
3.15E+06	5.59E-13	8.30E-08	4.66E-09	8.78E-09	3.79E-12	7.07E-09	2.42E-10	1.59E-12	4.18E-11	3.42E-15	5.97E-11	2.66E-11
3.55E+06	9.91E-13	4.21E-08	8.54E-09	9.51E-09	6.21E-12	2.92E-09	6.84E-11	1.56E-12	8.49E-12	2.65E-15	2.43E-11	4.99E-11
3.95E+06	1.71E-12	1.98E-08	1.22E-08	5.92E-09	7.11E-12	8.36E-10	1.03E-11	9.63E-13	6.68E-13	8.89E-16	8.62E-12	4.85E-11
4.35E+06	2.81E-12	9.48E-09	1.36E-08	2.04E-09	5.55E-12	1.43E-10	1.03E-12	3.46E-13	1.87E-14	1.36E-16	3.01E-12	2.89E-11
4.75E+06	3.67E-12	4.91E-09	1.22E-08	5.12E-10	2.84E-12	1.69E-11	1.06E-13	7.73E-14	3.47E-16	2.14E-17	1.30E-12	1.29E-11
5.15E+06	3.91E-12	2.83E-09	9.77E-09	1.24E-10	1.28E-12	2.06E-12	1.30E-14	1.48E-14	7.00E-18	4.01E-18	7.61E-13	5.39E-12
5.55E+06	3.69E-12	1.88E-09	7.69E-09	3.40E-11	5.56E-13	2.90E-13	1.91E-15	2.83E-15	1.56E-19	3.99E-19	5.68E-13	2.14E-12
5.95E+06	2.75E-12	1.45E-09	6.20E-09	1.33E-11	2.88E-13	6.60E-14	4.70E-16	6.98E-16	6.08E-21	2.84E-20	4.89E-13	9.68E-13
6.35E+06	1.64E-12	1.30E-09	5.47E-09	7.34E-12	2.50E-13	3.29E-14	2.21E-16	3.11E-16	7.55E-22	2.25E-21	4.64E-13	6.15E-13

Z	CL	CLO	HCL	CLONO2	H2S	HS	SO	SO2	H2SO4	HSO
5.00E+04	1.49E-17	2.61E-14	1.26E-11	1.09E-12	1.51E-12	3.04E-18	4.14E-20	2.45E-11	2.42E-12	3.20E-14
1.50E+05	2.40E-17	3.01E-14	1.83E-11	1.84E-12	1.45E-12	3.70E-18	6.56E-20	4.10E-11	5.02E-12	3.38E-14
2.50E+05	3.54E-17	4.24E-14	2.47E-11	2.71E-12	1.42E-12	4.11E-18	9.54E-20	5.49E-11	7.95E-12	3.49E-14
3.50E+05	4.91E-17	5.68E-14	3.01E-11	3.66E-12	1.46E-12	4.56E-18	1.41E-19	6.83E-11	1.09E-11	3.71E-14
7.50E+05	9.20E-17	4.95E-14	4.08E-11	3.81E-12	3.56E-12	8.23E-18	8.98E-19	1.55E-10	1.59E-11	8.91E-14
1.15E+06	4.59E-17	4.72E-15	4.61E-11	5.01E-13	2.93E-12	1.14E-18	6.06E-19	1.62E-10	2.69E-12	6.27E-14
1.55E+06	8.70E-17	1.89E-14	7.92E-11	2.19E-12	1.29E-13	1.59E-20	5.91E-20	5.16E-11	3.60E-13	2.29E-15
1.95E+06	5.57E-16	3.25E-13	1.41E-10	2.52E-11	6.64E-16	8.58E-23	1.61E-19	7.03E-12	6.39E-14	6.77E-18
2.35E+06	2.75E-15	2.86E-12	1.62E-10	9.61E-11	8.50E-19	2.53E-25	3.15E-19	7.91E-13	1.17E-14	6.06E-21
2.75E+06	1.15E-14	1.32E-11	1.49E-10	1.74E-10	1.55E-22	1.72E-28	2.80E-19	8.58E-14	2.96E-14	1.05E-24
3.15E+06	5.78E-14	4.08E-11	1.74E-10	1.61E-10	2.49E-27	9.48E-30	2.20E-19	1.32E-14	1.02E-13	1.35E-26
3.55E+06	2.66E-13	9.51E-11	2.33E-10	6.01E-11	4.29E-28	7.06E-29	5.76E-19	1.19E-14	1.03E-13	2.14E-26
3.95E+06	8.99E-13	1.40E-10	2.56E-10	8.15E-12	1.65E-27	5.89E-28	2.09E-18	2.13E-14	9.41E-14	3.45E-26
4.35E+06	2.73E-12	1.24E-10	3.04E-10	3.97E-13	5.24E-27	3.33E-27	5.78E-18	3.50E-14	8.03E-14	3.79E-26
4.75E+06	5.91E-12	7.38E-11	3.69E-10	1.38E-14	1.13E-26	1.03E-26	1.58E-17	5.05E-14	6.48E-14	4.16E-26
5.15E+06	9.21E-12	3.74E-11	4.10E-10	5.96E-16	1.65E-26	1.94E-26	4.81E-17	6.47E-14	5.06E-14	8.37E-26
5.55E+06	1.19E-11	1.68E-11	4.31E-10	2.93E-17	2.32E-26	3.29E-26	1.36E-16	7.53E-14	3.99E-14	2.74E-25
5.95E+06	1.40E-11	6.92E-12	4.40E-10	2.02E-18	4.91E-26	6.97E-26	3.53E-16	8.18E-14	3.32E-14	1.16E-24

6.35E+06 1.51E-11 2.79E-12 4.44E-10 2.05E-19 9.10E-26 1.15E-25 1.08E-15 8.38E-14 3.05E-14 7.39E-24

MIXING RATIO OF AEROSOL

Z	SO4AER
5.00E+04	9.18E-11
1.50E+05	1.12E-10
2.50E+05	1.54E-10
3.50E+05	2.06E-10
7.50E+05	3.93E-10
1.15E+06	4.68E-10
1.55E+06	5.42E-10
1.95E+06	4.62E-10
2.35E+06	3.33E-10
2.75E+06	2.22E-10
3.15E+06	1.35E-10
3.55E+06	7.22E-11
3.95E+06	3.47E-11
4.35E+06	1.52E-11
4.75E+06	6.19E-12
5.15E+06	2.26E-12
5.55E+06	7.51E-13
5.95E+06	2.15E-13
6.35E+06	5.14E-14

PHOTOLYSIS RATES Starting conditions for photolysis rates as a function of the altitude

Z	PO2	PO2D	PCO2	PCO2D	PH2O	PO3	PO3D	PH2O2	PHCO	PH2	PHO2
5.00E+04	2.08E-33	0.00E+00	1.08E-39	0.00E+00	3.07E-38	2.40E-04	8.96E-06	3.32E-06	1.18E-05	2.18E-05	1.74E-27
3.50E+05	7.95E-28	0.00E+00	1.05E-32	0.00E+00	3.01E-31	2.50E-04	1.09E-05	4.04E-06	1.46E-05	2.60E-05	6.23E-22
6.50E+05	2.68E-23	0.00E+00	1.57E-27	0.00E+00	4.49E-26	2.56E-04	1.12E-05	4.53E-06	1.66E-05	2.88E-05	2.00E-17
9.50E+05	8.24E-20	0.00E+00	9.43E-24	0.00E+00	2.69E-22	2.61E-04	9.66E-06	4.85E-06	1.79E-05	3.05E-05	5.93E-14
1.25E+06	2.77E-17	0.00E+00	4.38E-21	0.00E+00	1.25E-19	2.64E-04	8.60E-06	5.07E-06	1.87E-05	3.16E-05	1.96E-11
1.55E+06	1.40E-15	0.00E+00	2.53E-19	0.00E+00	7.22E-18	2.66E-04	9.08E-06	5.22E-06	1.93E-05	3.23E-05	9.85E-10
1.85E+06	2.27E-14	7.64-1993	4.30E-18	3.67-1992	1.27E-16	2.69E-04	1.10E-05	5.38E-06	2.00E-05	3.28E-05	1.60E-08
2.15E+06	1.96E-13	1.29-1229	1.02E-16	6.17-1229	4.33E-15	2.72E-04	1.58E-05	5.61E-06	2.10E-05	3.32E-05	1.37E-07
2.45E+06	1.21E-12	3.88-765	3.92E-15	1.86-764	1.87E-13	2.77E-04	2.64E-05	6.01E-06	2.23E-05	3.38E-05	7.90E-07
2.75E+06	5.94E-12	7.34-485	6.02E-14	3.52-484	2.92E-12	2.82E-04	4.86E-05	6.75E-06	2.43E-05	3.45E-05	3.46E-06
3.05E+06	2.18E-11	2.15-313	4.36E-13	1.03-312	2.25E-11	2.90E-04	9.33E-05	8.16E-06	2.69E-05	3.54E-05	1.17E-05
3.35E+06	5.77E-11	1.13-206	1.87E-12	5.40-206	1.12E-10	3.01E-04	1.78E-04	1.06E-05	2.98E-05	3.63E-05	3.05E-05
3.65E+06	1.16E-10	2.13-139	5.41E-12	1.02-138	3.80E-10	3.18E-04	3.27E-04	1.43E-05	3.28E-05	3.74E-05	6.27E-05
3.95E+06	1.91E-10	3.30E-96	1.15E-11	1.58E-95	9.45E-10	3.50E-04	6.12E-04	1.94E-05	3.54E-05	3.83E-05	1.07E-04
4.25E+06	2.72E-10	4.95E-68	1.99E-11	2.38E-67	1.96E-09	4.09E-04	1.15E-03	2.60E-05	3.74E-05	3.92E-05	1.58E-04
4.55E+06	3.49E-10	2.46E-49	3.04E-11	1.18E-48	3.80E-09	4.87E-04	1.85E-03	3.30E-05	3.88E-05	3.99E-05	2.04E-04
4.85E+06	4.21E-10	1.23E-36	4.40E-11	5.92E-36	7.31E-09	5.59E-04	2.50E-03	3.89E-05	3.97E-05	4.04E-05	2.40E-04

5.15E+06	4.99E-10	7.73E-28	6.34E-11	3.71E-27	1.45E-08	6.15E-04	2.99E-03	4.34E-05	4.03E-05	4.07E-05	2.65E-04
5.45E+06	5.96E-10	9.71E-22	9.47E-11	4.66E-21	3.05E-08	6.52E-04	3.31E-03	4.63E-05	4.06E-05	4.09E-05	2.81E-04
5.75E+06	7.46E-10	1.47E-17	1.52E-10	7.04E-17	6.78E-08	6.72E-04	3.49E-03	4.80E-05	4.08E-05	4.10E-05	2.91E-04
6.05E+06	1.07E-09	9.92E-15	2.67E-10	4.76E-14	1.52E-07	6.82E-04	3.57E-03	4.89E-05	4.08E-05	4.11E-05	2.97E-04
6.35E+06	3.13E-09	8.23E-13	6.23E-10	3.95E-12	4.26E-07	6.87E-04	3.60E-03	4.97E-05	4.09E-05	4.11E-05	3.01E-04

Z	PCH4	PCH3OOH	PN2O	PHNO3	PNO	PNO2	PHNO4	PCCL3F	PCCL2F2	PCCL4	PCH3CL
5.00E+04	0.00E+00	3.14E-06	9.51E-31	1.93E-07	7.60-290	4.25E-03	3.17E-06	2.23E-29	8.32E-31	1.07E-28	8.30E-35
3.50E+05	0.00E+00	3.81E-06	5.59E-25	2.46E-07	2.01-180	4.76E-03	3.95E-06	1.25E-23	5.49E-25	4.74E-23	8.13E-28
6.50E+05	0.00E+00	4.27E-06	2.61E-20	2.86E-07	1.71-112	5.08E-03	4.51E-06	5.54E-19	2.81E-20	1.74E-18	1.21E-22
9.50E+05	0.00E+00	4.57E-06	9.62E-17	3.16E-07	8.50E-76	5.29E-03	4.91E-06	1.97E-15	1.09E-16	5.56E-15	7.27E-19
1.25E+06	0.00E+00	4.77E-06	3.56E-14	3.37E-07	4.45E-51	5.42E-03	5.18E-06	7.15E-13	4.10E-14	1.91E-12	3.38E-16
1.55E+06	0.00E+00	4.91E-06	1.87E-12	3.56E-07	5.08E-35	5.49E-03	5.39E-06	3.72E-11	2.17E-12	9.72E-11	1.95E-14
1.85E+06	1.37-1989	5.05E-06	3.02E-11	3.90E-07	7.02E-25	5.54E-03	5.67E-06	6.02E-10	3.51E-11	1.57E-09	3.18E-13
2.15E+06	2.31-1226	5.26E-06	2.52E-10	4.78E-07	1.82E-18	5.57E-03	6.18E-06	5.03E-09	2.93E-10	1.33E-08	2.59E-12
2.45E+06	6.98-762	5.62E-06	1.44E-09	7.58E-07	2.20E-14	5.59E-03	7.29E-06	2.87E-08	1.76E-09	7.56E-08	1.70E-11
2.75E+06	1.32-481	6.28E-06	6.51E-09	1.72E-06	9.11E-12	5.62E-03	9.98E-06	1.27E-07	8.86E-09	3.23E-07	1.05E-10
3.05E+06	3.88-310	7.57E-06	2.22E-08	4.45E-06	4.43E-10	5.64E-03	1.64E-05	4.25E-07	3.38E-08	1.05E-06	4.70E-10
3.35E+06	2.03-203	9.79E-06	5.44E-08	9.90E-06	5.25E-09	5.66E-03	2.88E-05	1.03E-06	9.17E-08	2.51E-06	1.43E-09
3.65E+06	3.83-136	1.30E-05	1.00E-07	1.76E-05	2.47E-08	5.68E-03	4.78E-05	1.87E-06	1.85E-07	4.61E-06	3.18E-09
3.95E+06	5.93E-93	1.73E-05	1.51E-07	2.65E-05	6.54E-08	5.69E-03	7.38E-05	2.79E-06	3.04E-07	6.96E-06	5.61E-09
4.25E+06	8.91E-65	2.26E-05	1.98E-07	3.53E-05	1.21E-07	5.69E-03	1.07E-04	3.63E-06	4.31E-07	9.10E-06	8.44E-09
4.55E+06	4.43E-46	2.80E-05	2.38E-07	4.33E-05	1.81E-07	5.70E-03	1.43E-04	4.35E-06	5.56E-07	1.08E-05	1.15E-08
4.85E+06	2.22E-33	3.25E-05	2.73E-07	5.02E-05	2.44E-07	5.70E-03	1.74E-04	4.95E-06	6.83E-07	1.21E-05	1.48E-08
5.15E+06	1.39E-24	3.58E-05	3.06E-07	5.61E-05	3.21E-07	5.70E-03	1.98E-04	5.50E-06	8.21E-07	1.30E-05	1.88E-08
5.45E+06	1.75E-18	3.79E-05	3.38E-07	6.13E-05	4.33E-07	5.70E-03	2.14E-04	6.03E-06	9.80E-07	1.39E-05	2.40E-08
5.75E+06	2.64E-14	3.92E-05	3.71E-07	6.62E-05	5.98E-07	5.70E-03	2.24E-04	6.58E-06	1.18E-06	1.47E-05	3.16E-08
6.05E+06	1.79E-11	3.98E-05	4.10E-07	7.13E-05	8.26E-07	5.70E-03	2.31E-04	7.24E-06	1.45E-06	1.57E-05	4.43E-08
6.35E+06	1.48E-09	4.04E-05	4.77E-07	7.94E-05	1.34E-06	5.70E-03	2.39E-04	8.44E-06	2.03E-06	1.80E-05	7.70E-08

Z	PMCCCL3	PCL2	PHOCL	PNOCL	PCLONO	PCLONO2	PCLO2	PHCL
5.00E+04	3.08E-29	1.18E-03	1.16E-04	9.37E-04	1.99E-03	2.60E-05	1.07E-25	4.95E-31
3.50E+05	1.72E-23	1.36E-03	1.37E-04	1.07E-03	2.36E-03	3.04E-05	6.03E-25	2.91E-25
6.50E+05	7.58E-19	1.48E-03	1.52E-04	1.16E-03	2.61E-03	3.33E-05	1.38E-23	1.33E-20
9.50E+05	2.69E-15	1.55E-03	1.61E-04	1.21E-03	2.77E-03	3.53E-05	2.84E-21	4.82E-17
1.25E+06	9.76E-13	1.60E-03	1.67E-04	1.24E-03	2.87E-03	3.65E-05	1.89E-19	1.77E-14
1.55E+06	5.07E-11	1.63E-03	1.71E-04	1.26E-03	2.94E-03	3.73E-05	6.92E-18	9.22E-13
1.85E+06	8.21E-10	1.64E-03	1.74E-04	1.28E-03	2.99E-03	3.82E-05	4.89E-16	1.49E-11
2.15E+06	6.86E-09	1.66E-03	1.78E-04	1.29E-03	3.06E-03	3.94E-05	6.97E-14	1.25E-10
2.45E+06	3.89E-08	1.68E-03	1.83E-04	1.31E-03	3.15E-03	4.15E-05	1.14E-11	7.34E-10
2.75E+06	1.70E-07	1.70E-03	1.90E-04	1.34E-03	3.27E-03	4.60E-05	1.31E-09	3.47E-09
3.05E+06	5.62E-07	1.72E-03	1.98E-04	1.41E-03	3.44E-03	5.60E-05	7.73E-08	1.24E-08
3.35E+06	1.35E-06	1.74E-03	2.08E-04	1.53E-03	3.64E-03	7.59E-05	1.97E-06	3.19E-08
3.65E+06	2.43E-06	1.76E-03	2.18E-04	1.70E-03	3.85E-03	1.09E-04	2.26E-05	6.13E-08
3.95E+06	3.60E-06	1.77E-03	2.28E-04	1.89E-03	4.06E-03	1.55E-04	1.45E-04	9.63E-08
4.25E+06	4.66E-06	1.78E-03	2.41E-04	2.07E-03	4.26E-03	2.12E-04	5.14E-04	1.32E-07
4.55E+06	5.54E-06	1.79E-03	2.53E-04	2.21E-03	4.43E-03	2.70E-04	1.09E-03	1.65E-07

4.85E+06	6.27E-06	1.79E-03	2.64E-04	2.32E-03	4.56E-03	3.18E-04	1.66E-03	1.98E-07
5.15E+06	6.91E-06	1.79E-03	2.72E-04	2.40E-03	4.65E-03	3.53E-04	2.11E-03	2.33E-07
5.45E+06	7.51E-06	1.79E-03	2.77E-04	2.45E-03	4.71E-03	3.75E-04	2.41E-03	2.74E-07
5.75E+06	8.12E-06	1.80E-03	2.80E-04	2.48E-03	4.74E-03	3.88E-04	2.57E-03	3.26E-07
6.05E+06	8.81E-06	1.80E-03	2.81E-04	2.51E-03	4.75E-03	3.95E-04	2.65E-03	4.02E-07
6.35E+06	9.98E-06	1.80E-03	2.82E-04	2.52E-03	4.76E-03	3.99E-04	2.70E-03	5.77E-07

Z	PNO3	PN2O5	PCL2O2
5.00E+04	1.99E-02	1.25E-05	5.59E-04
3.50E+05	2.08E-02	1.51E-05	6.69E-04
6.50E+05	2.14E-02	1.69E-05	7.43E-04
9.50E+05	2.18E-02	1.82E-05	7.92E-04
1.25E+06	2.21E-02	1.90E-05	8.23E-04
1.55E+06	2.23E-02	1.95E-05	8.44E-04
1.85E+06	2.23E-02	2.02E-05	8.64E-04
2.15E+06	2.24E-02	2.13E-05	8.91E-04
2.45E+06	2.24E-02	2.35E-05	9.32E-04
2.75E+06	2.25E-02	2.89E-05	9.94E-04
3.05E+06	2.25E-02	4.13E-05	1.09E-03
3.35E+06	2.25E-02	6.40E-05	1.22E-03
3.65E+06	2.25E-02	9.65E-05	1.38E-03
3.95E+06	2.25E-02	1.36E-04	1.60E-03
4.25E+06	2.25E-02	1.81E-04	1.92E-03
4.55E+06	2.25E-02	2.23E-04	2.29E-03
4.85E+06	2.25E-02	2.58E-04	2.62E-03
5.15E+06	2.25E-02	2.83E-04	2.88E-03
5.45E+06	2.25E-02	2.99E-04	3.04E-03
5.75E+06	2.25E-02	3.08E-04	3.13E-03
6.05E+06	2.25E-02	3.12E-04	3.17E-03
6.35E+06	2.25E-02	3.15E-04	3.20E-03

The next listing tells the steps as the time is advancing in the code.

THE PROGRAM WILL STOP IF ONE OF THE NEXT CONDITIONS IS ACCOMPLISHED:

A) IT REACHED NSTEPS (SET AT 400 NOW) WITHOUT CONVERGE

B) IT REACHED THE MAXIMUM TIME SET BY TSTEP

C) IT CONVERGED. This has to be checked with other convergence criteria explained ahead.

NOTE that in a converged run the time (in seconds) will advance fast from one step to the next

N =	1	EMAX = 3.26E-04 FOR CL	AT Z = 5.00E+04 U = 1.49E-17 RHS = -4.85E-21	DT = 1.00E-03	TIME = 1.00E-04
N =	4	EMAX = 1.19E-02 FOR CL	AT Z = 5.00E+04 U = 1.47E-17 RHS = -1.75E-19	DT = 6.00E-03	TIME = 7.10E-03
N =	7	EMAX = 2.82E-02 FOR CL	AT Z = 5.00E+04 U = 1.40E-17 RHS = -3.94E-19	DT = 2.02E-02	TIME = 3.56E-02
N =	10	EMAX = 2.87E-02 FOR CL	AT Z = 5.00E+04 U = 1.27E-17 RHS = -3.66E-19	DT = 5.13E-02	TIME = 1.16E-01
N =	13	EMAX = 1.53E-02 FOR OH	AT Z = 5.00E+04 U = 7.86E-14 RHS = -1.20E-15	DT = 1.73E-01	TIME = 3.60E-01
N =	16	EMAX = 2.76E-02 FOR HS	AT Z = 5.00E+04 U = 2.82E-18 RHS = -7.78E-20	DT = 5.85E-01	TIME = 1.18E+00
N =	19	EMAX = 1.07E-02 FOR HS	AT Z = 5.00E+04 U = 2.62E-18 RHS = -2.80E-20	DT = 1.97E+00	TIME = 3.96E+00
N =	22	EMAX = 1.09E-02 FOR OH	AT Z = 1.85E+06 U = 9.29E-14 RHS = -1.01E-15	DT = 1.18E+01	TIME = 1.78E+01

N = 25	EMAX = 2.53E-02	FOR CH3O2	AT Z = 5.00E+04	U = 8.49E-12	RHS = 2.15E-13	DT = 4.00E+01	TIME = 7.40E+01
N = 28	EMAX = 3.78E-02	FOR CLO	AT Z = 5.00E+04	U = 2.26E-14	RHS = -8.53E-16	DT = 8.78E+01	TIME = 2.33E+02
N = 31	EMAX = 3.21E-02	FOR CLO	AT Z = 5.00E+04	U = 2.01E-14	RHS = -6.45E-16	DT = 1.93E+02	TIME = 5.84E+02
N = 34	EMAX = 2.15E-02	FOR HNO2	AT Z = 5.00E+04	U = 2.36E-14	RHS = -5.09E-16	DT = 6.51E+02	TIME = 1.50E+03
N = 37	EMAX = 4.29E-02	FOR HOCL	AT Z = 5.00E+04	U = 3.42E-13	RHS = -1.47E-14	DT = 1.65E+03	TIME = 4.40E+03
N = 40	EMAX = 4.94E-02	FOR HOCL	AT Z = 5.00E+04	U = 2.95E-13	RHS = -1.46E-14	DT = 2.60E+03	TIME = 9.86E+03
N = 43	EMAX = 4.80E-02	FOR HOCL	AT Z = 5.00E+04	U = 2.51E-13	RHS = -1.21E-14	DT = 4.08E+03	TIME = 1.85E+04
N = 46	EMAX = 4.38E-02	FOR HOCL	AT Z = 5.00E+04	U = 2.17E-13	RHS = -9.52E-15	DT = 7.59E+03	TIME = 3.29E+04
N = 49	EMAX = 5.17E-02	FOR HOCL	AT Z = 1.50E+05	U = 3.34E-13	RHS = -1.73E-14	DT = 1.41E+04	TIME = 6.32E+04
N = 52	EMAX = 4.68E-02	FOR HOCL	AT Z = 1.50E+05	U = 2.86E-13	RHS = -1.34E-14	DT = 2.62E+04	TIME = 1.16E+05
N = 55	EMAX = 4.83E-02	FOR CLO	AT Z = 2.50E+05	U = 3.14E-14	RHS = -1.51E-15	DT = 4.88E+04	TIME = 2.14E+05
N = 58	EMAX = 5.09E-02	FOR CL	AT Z = 3.50E+05	U = 3.79E-17	RHS = -1.93E-18	DT = 7.67E+04	TIME = 3.86E+05
N = 61	EMAX = 4.89E-02	FOR CL	AT Z = 4.50E+05	U = 4.84E-17	RHS = -2.37E-18	DT = 1.43E+05	TIME = 6.72E+05
N = 64	EMAX = 6.11E-02	FOR CH3OOH	AT Z = 8.50E+05	U = 1.36E-11	RHS = 8.28E-13	DT = 1.90E+05	TIME = 1.14E+06
N = 67	EMAX = 6.33E-02	FOR CH3O2	AT Z = 9.50E+05	U = 8.61E-14	RHS = 5.45E-15	DT = 2.53E+05	TIME = 1.77E+06
N = 70	EMAX = 6.34E-02	FOR CH3O2	AT Z = 1.05E+06	U = 3.14E-14	RHS = 1.99E-15	DT = 3.36E+05	TIME = 2.61E+06
N = 73	EMAX = 6.04E-02	FOR CH3O2	AT Z = 1.15E+06	U = 1.45E-14	RHS = 8.77E-16	DT = 4.48E+05	TIME = 3.72E+06
N = 76	EMAX = 5.75E-02	FOR CH3O2	AT Z = 1.25E+06	U = 8.33E-15	RHS = 4.79E-16	DT = 5.96E+05	TIME = 5.20E+06
N = 79	EMAX = 6.21E-02	FOR CH3OOH	AT Z = 1.45E+06	U = 6.02E-15	RHS = 3.74E-16	DT = 7.93E+05	TIME = 7.17E+06
N = 82	EMAX = 8.29E-02	FOR CH3OOH	AT Z = 1.55E+06	U = 4.08E-15	RHS = 3.38E-16	DT = 1.06E+06	TIME = 9.80E+06
N = 85	EMAX = 9.49E-02	FOR CH3OOH	AT Z = 1.55E+06	U = 5.26E-15	RHS = 4.99E-16	DT = 1.40E+06	TIME = 1.33E+07
N = 88	EMAX = 9.36E-02	FOR CH3OOH	AT Z = 1.65E+06	U = 7.21E-15	RHS = 6.75E-16	DT = 1.87E+06	TIME = 1.79E+07
N = 91	EMAX = 8.68E-02	FOR CH3OOH	AT Z = 1.65E+06	U = 9.41E-15	RHS = 8.16E-16	DT = 2.49E+06	TIME = 2.41E+07
N = 94	EMAX = 7.83E-02	FOR CH3OOH	AT Z = 1.85E+06	U = 2.01E-14	RHS = 1.58E-15	DT = 3.31E+06	TIME = 3.24E+07
N = 97	EMAX = 7.10E-02	FOR CH3OOH	AT Z = 1.95E+06	U = 3.68E-14	RHS = 2.62E-15	DT = 4.41E+06	TIME = 4.33E+07
N = 100	EMAX = 6.41E-02	FOR CH3OOH	AT Z = 2.15E+06	U = 1.13E-13	RHS = 7.23E-15	DT = 5.87E+06	TIME = 5.79E+07
N = 103	EMAX = 5.98E-02	FOR CH3OOH	AT Z = 2.45E+06	U = 5.85E-13	RHS = 3.49E-14	DT = 7.81E+06	TIME = 7.73E+07
N = 106	EMAX = 6.73E-02	FOR N2O5	AT Z = 6.25E+06	U = 1.13E-21	RHS = 7.58E-23	DT = 1.04E+07	TIME = 1.03E+08
N = 109	EMAX = 5.99E-02	FOR H2SO4	AT Z = 2.75E+06	U = 3.18E-14	RHS = -1.91E-15	DT = 1.38E+07	TIME = 1.38E+08
N = 112	EMAX = 7.34E-02	FOR H2SO4	AT Z = 2.75E+06	U = 2.97E-14	RHS = -2.18E-15	DT = 1.84E+07	TIME = 1.83E+08
N = 115	EMAX = 8.26E-02	FOR H2SO4	AT Z = 2.75E+06	U = 2.74E-14	RHS = -2.26E-15	DT = 2.90E+07	TIME = 2.48E+08
N = 118	EMAX = 9.14E-02	FOR H2SO4	AT Z = 2.75E+06	U = 2.50E-14	RHS = -2.28E-15	DT = 4.56E+07	TIME = 3.51E+08
N = 121	EMAX = 8.10E-02	FOR H2SO4	AT Z = 2.75E+06	U = 2.26E-14	RHS = -1.83E-15	DT = 8.47E+07	TIME = 5.32E+08
N = 124	EMAX = 5.13E-02	FOR H2SO4	AT Z = 2.75E+06	U = 2.07E-14	RHS = -1.06E-15	DT = 2.10E+08	TIME = 9.35E+08
N = 127	EMAX = 1.74E-02	FOR H2SO4	AT Z = 2.75E+06	U = 1.96E-14	RHS = -3.42E-16	DT = 1.26E+09	TIME = 2.40E+09
N = 130	EMAX = 7.00E-03	FOR HSO	AT Z = 1.95E+06	U = 2.79E-18	RHS = -1.95E-20	DT = 1.01E+10	TIME = 1.12E+10
N = 133	EMAX = 2.94E-03	FOR SO2	AT Z = 3.05E+06	U = 6.74E-15	RHS = -1.98E-17	DT = 5.03E+11	TIME = 1.42E+11
N = 136	EMAX = 3.77E-03	FOR HSO	AT Z = 1.95E+06	U = 2.77E-18	RHS = 1.04E-20	DT = 1.01E+14	TIME = 5.60E+13
N = 139	EMAX = 2.41E-03	FOR HSO	AT Z = 1.95E+06	U = 2.78E-18	RHS = -6.68E-21	DT = 5.03E+16	TIME = 1.12E+16

ENERGY FLUXES IN W/m²/nm and photons/m²/s/nm (NOT DIURNALLY AVERAGED)

WAV is the wavelength in Angstroms

TAUR is the optical depth in that wavelength

EFLUX is the incident energy flux at the top of the atmosphere

GFLUX is the energy flux that reaches the surface of the planet

S(1) is the source function at the surface GFLUX=EFLUX*S

PhEFLUX is the incident photon flux at the top of the atmosphere

PhGFLUX is the photon flux that reaches the surface of the planet

L	WAV	TAUR	EFLUX	GFLUX	S(1)	PhEFLUX	PhGFLUX
1	1.762E+03	1.253E+01	3.242E-04	0.000E+00	0.000E+00	2.874E+14	0.000E+00
2	1.778E+03	1.200E+01	1.754E-04	0.000E+00	0.000E+00	1.569E+14	0.000E+00
3	1.794E+03	1.149E+01	1.449E-04	0.000E+00	0.000E+00	1.308E+14	0.000E+00
4	1.810E+03	1.101E+01	2.693E-04	0.000E+00	0.000E+00	2.452E+14	0.000E+00
5	1.827E+03	1.054E+01	3.702E-04	0.000E+00	0.000E+00	3.402E+14	0.000E+00
6	1.844E+03	1.008E+01	3.031E-04	0.000E+00	0.000E+00	2.811E+14	0.000E+00
7	1.861E+03	9.652E+00	1.374E-04	0.000E+00	0.000E+00	1.287E+14	0.000E+00
8	1.878E+03	9.232E+00	1.313E-04	0.000E+00	0.000E+00	1.241E+14	0.000E+00
9	1.896E+03	8.824E+00	9.014E-05	0.000E+00	0.000E+00	8.599E+13	0.000E+00
10	1.914E+03	8.439E+00	5.825E-05	0.000E+00	0.000E+00	5.610E+13	0.000E+00
11	1.933E+03	8.066E+00	5.892E-04	0.000E+00	0.000E+00	5.729E+14	0.000E+00
12	1.952E+03	7.704E+00	1.400E-03	1.154-822	8.244-820	1.375E+15	1.134-804
13	1.971E+03	7.362E+00	8.242E-04	4.231-445	5.133-442	8.172E+14	4.195-427
14	1.990E+03	7.032E+00	6.862E-05	3.118-163	4.544-159	6.871E+13	3.122-145
15	2.010E+03	6.712E+00	2.341E-03	1.811-100	7.736E-98	2.367E+15	1.831E-82
16	2.031E+03	6.403E+00	6.488E-03	7.808E-85	1.204E-82	6.628E+15	7.977E-67
17	2.052E+03	6.106E+00	1.015E-02	1.178E-79	1.161E-77	1.048E+16	1.216E-61
18	2.073E+03	5.826E+00	1.228E-02	2.059E-27	1.676E-25	1.281E+16	2.147E-09
19	2.094E+03	5.555E+00	1.959E-02	1.219E-26	6.222E-25	2.064E+16	1.284E-08
20	2.117E+03	5.290E+00	2.915E-02	8.184E-26	2.807E-24	3.104E+16	8.715E-08
21	2.140E+03	5.035E+00	3.373E-02	5.229E-25	1.551E-23	3.630E+16	5.629E-07
22	2.163E+03	4.795E+00	3.353E-02	3.768E-25	1.124E-23	3.648E+16	4.100E-07
23	2.187E+03	4.555E+00	3.775E-02	2.767E-25	7.330E-24	4.154E+16	3.045E-07
24	2.211E+03	4.336E+00	4.821E-02	9.472E-27	1.965E-25	5.364E+16	1.054E-08
25	2.235E+03	4.133E+00	5.693E-02	1.526E-28	2.680E-27	6.400E+16	1.715E-10
26	2.260E+03	3.927E+00	4.532E-02	8.944E-31	1.973E-29	5.154E+16	1.017E-12
27	2.286E+03	3.730E+00	4.715E-02	9.851E-34	2.089E-32	5.423E+16	1.133E-15
28	2.313E+03	3.542E+00	4.998E-02	5.865E-37	1.174E-35	5.815E+16	6.824E-19
29	2.340E+03	3.363E+00	4.342E-02	2.210E-41	5.090E-40	5.111E+16	2.601E-23
30	2.367E+03	3.192E+00	4.798E-02	2.929E-46	6.105E-45	5.714E+16	3.488E-28
31	2.396E+03	3.026E+00	4.148E-02	3.018E-51	7.275E-50	5.000E+16	3.638E-33
32	2.425E+03	2.869E+00	6.219E-02	1.585E-55	2.549E-54	7.586E+16	1.933E-37
33	2.454E+03	2.719E+00	5.372E-02	1.562E-58	2.907E-57	6.633E+16	1.928E-40
34	2.485E+03	2.575E+00	5.084E-02	5.052E-64	9.938E-63	6.355E+16	6.315E-46
35	2.516E+03	2.436E+00	4.789E-02	5.598E-64	1.169E-62	6.063E+16	7.087E-46
36	2.548E+03	2.304E+00	7.093E-02	2.835E-69	3.997E-68	9.094E+16	3.635E-51
37	2.581E+03	2.179E+00	1.155E-01	1.823E-63	1.578E-62	1.500E+17	2.367E-45

38	2.615E+03	2.058E+00	9.839E-02	1.790E-63	1.820E-62	1.294E+17	2.355E-45
39	2.650E+03	1.942E+00	2.293E-01	1.829E-55	7.975E-55	3.057E+17	2.438E-37
40	2.685E+03	1.833E+00	2.467E-01	5.128E-48	2.078E-47	3.333E+17	6.928E-30
41	2.722E+03	1.728E+00	2.171E-01	2.899E-40	1.335E-39	2.973E+17	3.969E-22
42	2.759E+03	1.629E+00	1.972E-01	6.138E-32	3.113E-31	2.737E+17	8.520E-14
43	2.798E+03	1.534E+00	1.501E-01	7.621E-24	5.077E-23	2.113E+17	1.073E-05
44	2.837E+03	1.444E+00	2.662E-01	7.143E-17	2.683E-16	3.800E+17	1.020E+02
45	2.878E+03	1.357E+00	3.535E-01	3.990E-11	1.129E-10	5.119E+17	5.778E+07
46	2.920E+03	1.275E+00	5.640E-01	5.821E-07	1.032E-06	8.286E+17	8.552E+11
47	2.963E+03	1.198E+00	5.183E-01	1.557E-04	3.004E-04	7.727E+17	2.321E+14
48	3.008E+03	1.124E+00	4.729E-01	5.386E-03	1.139E-02	7.156E+17	8.150E+15
49	3.054E+03	1.053E+00	5.858E-01	5.084E-02	8.678E-02	9.000E+17	7.810E+16
50	3.101E+03	9.862E-01	6.610E-01	1.874E-01	2.835E-01	1.031E+18	2.924E+17
51	3.150E+03	9.226E-01	6.865E-01	3.691E-01	5.376E-01	1.088E+18	5.849E+17
52	3.200E+03	8.630E-01	7.366E-01	5.535E-01	7.514E-01	1.186E+18	8.911E+17
53	3.250E+03	8.081E-01	8.500E-01	7.668E-01	9.021E-01	1.390E+18	1.254E+18
54	3.300E+03	7.576E-01	9.817E-01	9.637E-01	9.817E-01	1.630E+18	1.600E+18
55	3.350E+03	7.110E-01	9.267E-01	9.604E-01	1.036E+00	1.562E+18	1.619E+18
56	3.400E+03	6.679E-01	9.762E-01	1.043E+00	1.069E+00	1.670E+18	1.784E+18
57	3.438E+03	6.378E-01	9.413E-01	1.021E+00	1.085E+00	1.628E+18	1.766E+18
58	3.500E+03	5.913E-01	9.767E-01	1.079E+00	1.105E+00	1.720E+18	1.900E+18
59	3.600E+03	5.254E-01	1.005E+00	1.133E+00	1.127E+00	1.820E+18	2.051E+18
60	3.700E+03	4.685E-01	1.133E+00	1.300E+00	1.147E+00	2.110E+18	2.420E+18
61	3.800E+03	4.192E-01	1.077E+00	1.254E+00	1.164E+00	2.060E+18	2.398E+18
62	3.900E+03	3.762E-01	1.040E+00	1.226E+00	1.180E+00	2.040E+18	2.407E+18
63	4.000E+03	3.387E-01	1.491E+00	1.779E+00	1.193E+00	3.000E+18	3.580E+18
64	4.100E+03	3.057E-01	1.760E+00	2.121E+00	1.205E+00	3.630E+18	4.375E+18
65	4.200E+03	2.767E-01	1.793E+00	2.181E+00	1.216E+00	3.790E+18	4.608E+18
66	4.300E+03	2.510E-01	1.650E+00	2.021E+00	1.225E+00	3.570E+18	4.373E+18
67	4.400E+03	2.283E-01	1.852E+00	2.283E+00	1.233E+00	4.100E+18	5.054E+18
68	4.500E+03	2.081E-01	2.036E+00	2.524E+00	1.240E+00	4.610E+18	5.714E+18

PHOTOLYSIS RATES after the program stopped

Z	PO2	PO2D	PCO2	PCO2D	PH2O	PO3	PO3D	PH2O2	PHCO	PH2	PHO2
5.00E+04	8.88E-34	0.00E+00	7.89E-40	0.00E+00	2.25E-38	2.38E-04	7.89E-06	3.24E-06	1.14E-05	2.16E-05	7.33E-28
3.50E+05	4.57E-28	0.00E+00	7.97E-33	0.00E+00	2.28E-31	2.48E-04	9.63E-06	3.94E-06	1.42E-05	2.58E-05	3.54E-22
6.50E+05	1.85E-23	0.00E+00	1.24E-27	0.00E+00	3.54E-26	2.55E-04	9.93E-06	4.43E-06	1.61E-05	2.85E-05	1.37E-17
9.50E+05	6.34E-20	0.00E+00	7.75E-24	0.00E+00	2.21E-22	2.59E-04	8.61E-06	4.76E-06	1.74E-05	3.03E-05	4.55E-14
1.25E+06	2.29E-17	0.00E+00	3.75E-21	0.00E+00	1.07E-19	2.62E-04	7.74E-06	4.98E-06	1.83E-05	3.14E-05	1.61E-11
1.55E+06	1.21E-15	0.00E+00	2.24E-19	0.00E+00	6.41E-18	2.65E-04	8.31E-06	5.13E-06	1.89E-05	3.21E-05	8.52E-10
1.85E+06	2.06E-144.60-2040		3.97E-182.21-2039		1.17E-16	2.68E-04	1.03E-05	5.30E-06	1.96E-05	3.26E-05	1.44E-08
2.15E+06	1.84E-131.48-1257		9.79E-177.12-1257		4.14E-15	2.71E-04	1.51E-05	5.55E-06	2.06E-05	3.31E-05	1.28E-07
2.45E+06	1.17E-12 8.99-784		3.83E-15 4.32-783		1.83E-13	2.76E-04	2.57E-05	5.96E-06	2.21E-05	3.37E-05	7.62E-07
2.75E+06	5.88E-12 2.89-497		5.98E-14 1.39-496		2.90E-12	2.81E-04	4.81E-05	6.71E-06	2.41E-05	3.44E-05	3.43E-06
3.05E+06	2.20E-11 1.27-321		4.38E-13 6.11-321		2.26E-11	2.89E-04	9.40E-05	8.15E-06	2.67E-05	3.53E-05	1.19E-05

3.35E+06	5.90E-11	4.37-212	1.90E-12	2.10-211	1.13E-10	3.01E-04	1.83E-04	1.07E-05	2.98E-05	3.63E-05	3.14E-05
3.65E+06	1.19E-10	6.02-143	5.48E-12	2.89-142	3.84E-10	3.19E-04	3.42E-04	1.46E-05	3.28E-05	3.73E-05	6.51E-05
3.95E+06	1.97E-10	1.46E-98	1.16E-11	6.99E-98	9.53E-10	3.54E-04	6.56E-04	2.00E-05	3.55E-05	3.83E-05	1.12E-04
4.25E+06	2.79E-10	1.29E-69	2.00E-11	6.17E-69	1.96E-09	4.19E-04	1.24E-03	2.69E-05	3.75E-05	3.92E-05	1.64E-04
4.55E+06	3.55E-10	2.05E-50	3.05E-11	9.83E-50	3.79E-09	4.99E-04	1.96E-03	3.40E-05	3.88E-05	3.99E-05	2.10E-04
4.85E+06	4.26E-10	2.25E-37	4.40E-11	1.08E-36	7.25E-09	5.71E-04	2.60E-03	3.98E-05	3.97E-05	4.04E-05	2.45E-04
5.15E+06	5.01E-10	2.43E-28	6.33E-11	1.17E-27	1.43E-08	6.23E-04	3.07E-03	4.39E-05	4.02E-05	4.07E-05	2.68E-04
5.45E+06	5.97E-10	4.46E-22	9.42E-11	2.14E-21	3.01E-08	6.56E-04	3.36E-03	4.66E-05	4.05E-05	4.09E-05	2.83E-04
5.75E+06	7.46E-10	8.74E-18	1.51E-10	4.20E-17	6.70E-08	6.73E-04	3.51E-03	4.81E-05	4.06E-05	4.10E-05	2.92E-04
6.05E+06	1.06E-09	7.06E-15	2.65E-10	3.39E-14	1.51E-07	6.82E-04	3.58E-03	4.90E-05	4.07E-05	4.10E-05	2.97E-04
6.35E+06	3.13E-09	6.61E-13	6.23E-10	3.17E-12	4.25E-07	6.87E-04	3.60E-03	4.97E-05	4.08E-05	4.10E-05	3.01E-04

Z	PCH4	PCH3OOH	PN2O	PHNO3	PNO	PNO2	PHNO4	PCCL3F	PCCL2F2	PCCL4	PCH3CL
5.00E+04	0.00E+00	3.07E-06	4.42E-31	1.80E-07	2.28-312	4.25E-03	3.03E-06	1.03E-29	3.93E-31	4.74E-29	6.09E-35
3.50E+05	0.00E+00	3.73E-06	3.42E-25	2.30E-07	2.11-168	4.75E-03	3.79E-06	7.61E-24	3.41E-25	2.77E-23	6.15E-28
6.50E+05	0.00E+00	4.18E-06	1.87E-20	2.68E-07	1.32-112	5.07E-03	4.34E-06	3.95E-19	2.04E-20	1.21E-18	9.55E-23
9.50E+05	0.00E+00	4.49E-06	7.56E-17	2.98E-07	6.68E-76	5.28E-03	4.73E-06	1.54E-15	8.57E-17	4.30E-15	5.98E-19
1.25E+06	0.00E+00	4.69E-06	2.96E-14	3.21E-07	3.64E-51	5.41E-03	5.01E-06	5.95E-13	3.43E-14	1.58E-12	2.89E-16
1.55E+06	0.00E+00	4.83E-06	1.63E-12	3.41E-07	4.35E-35	5.48E-03	5.24E-06	3.24E-11	1.90E-12	8.44E-11	1.73E-14
1.85E+06	8.27-2037	4.98E-06	2.75E-11	3.76E-07	6.31E-25	5.53E-03	5.53E-06	5.48E-10	3.20E-11	1.43E-09	2.93E-13
2.15E+06	2.67-1254	5.20E-06	2.37E-10	4.63E-07	1.70E-18	5.56E-03	6.06E-06	4.74E-09	2.77E-10	1.25E-08	2.46E-12
2.45E+06	1.62-780	5.57E-06	1.40E-09	7.41E-07	2.12E-14	5.59E-03	7.18E-06	2.78E-08	1.71E-09	7.31E-08	1.66E-11
2.75E+06	5.20-494	6.24E-06	6.46E-09	1.70E-06	8.98E-12	5.62E-03	9.89E-06	1.26E-07	8.79E-09	3.20E-07	1.04E-10
3.05E+06	2.29-318	7.56E-06	2.24E-08	4.48E-06	4.44E-10	5.64E-03	1.64E-05	4.28E-07	3.40E-08	1.06E-06	4.72E-10
3.35E+06	7.86-209	9.87E-06	5.52E-08	1.01E-05	5.31E-09	5.66E-03	2.93E-05	1.04E-06	9.29E-08	2.57E-06	1.45E-09
3.65E+06	1.08-139	1.33E-05	1.02E-07	1.80E-05	2.50E-08	5.68E-03	4.91E-05	1.90E-06	1.88E-07	4.73E-06	3.22E-09
3.95E+06	2.62E-95	1.78E-05	1.53E-07	2.69E-05	6.61E-08	5.69E-03	7.65E-05	2.83E-06	3.07E-07	7.13E-06	5.67E-09
4.25E+06	2.31E-66	2.33E-05	2.00E-07	3.58E-05	1.22E-07	5.69E-03	1.12E-04	3.67E-06	4.34E-07	9.28E-06	8.49E-09
4.55E+06	3.69E-47	2.87E-05	2.40E-07	4.38E-05	1.82E-07	5.69E-03	1.48E-04	4.38E-06	5.59E-07	1.09E-05	1.15E-08
4.85E+06	4.06E-34	3.31E-05	2.74E-07	5.06E-05	2.44E-07	5.70E-03	1.78E-04	4.97E-06	6.85E-07	1.22E-05	1.48E-08
5.15E+06	4.38E-25	3.62E-05	3.07E-07	5.64E-05	3.20E-07	5.70E-03	2.01E-04	5.51E-06	8.21E-07	1.31E-05	1.88E-08
5.45E+06	8.03E-19	3.81E-05	3.38E-07	6.15E-05	4.32E-07	5.70E-03	2.16E-04	6.03E-06	9.80E-07	1.39E-05	2.40E-08
5.75E+06	1.57E-14	3.93E-05	3.71E-07	6.62E-05	5.96E-07	5.70E-03	2.25E-04	6.58E-06	1.18E-06	1.47E-05	3.16E-08
6.05E+06	1.27E-11	3.99E-05	4.10E-07	7.13E-05	8.24E-07	5.70E-03	2.32E-04	7.24E-06	1.45E-06	1.57E-05	4.41E-08
6.35E+06	1.19E-09	4.03E-05	4.77E-07	7.94E-05	1.33E-06	5.70E-03	2.39E-04	8.44E-06	2.03E-06	1.80E-05	7.69E-08

Z	PMCCl3	PCL2	PHOCL	PNOCCL	PCLONO	PCLONO2	PCLO2	PHCL
5.00E+04	1.42E-29	1.17E-03	1.14E-04	9.34E-04	1.97E-03	2.57E-05	4.81E-27	2.31E-31
3.50E+05	1.04E-23	1.35E-03	1.36E-04	1.07E-03	2.33E-03	3.00E-05	3.97E-26	1.77E-25
6.50E+05	5.40E-19	1.47E-03	1.50E-04	1.15E-03	2.58E-03	3.29E-05	2.49E-24	9.51E-21
9.50E+05	2.11E-15	1.55E-03	1.59E-04	1.21E-03	2.74E-03	3.48E-05	8.24E-22	3.78E-17
1.25E+06	8.11E-13	1.59E-03	1.65E-04	1.24E-03	2.84E-03	3.61E-05	7.09E-20	1.47E-14
1.55E+06	4.42E-11	1.62E-03	1.69E-04	1.26E-03	2.91E-03	3.70E-05	3.30E-18	8.05E-13
1.85E+06	7.47E-10	1.64E-03	1.73E-04	1.27E-03	2.97E-03	3.78E-05	2.94E-16	1.36E-11
2.15E+06	6.46E-09	1.66E-03	1.77E-04	1.29E-03	3.04E-03	3.91E-05	5.07E-14	1.18E-10
2.45E+06	3.77E-08	1.67E-03	1.82E-04	1.30E-03	3.13E-03	4.12E-05	9.65E-12	7.12E-10
2.75E+06	1.69E-07	1.69E-03	1.89E-04	1.33E-03	3.26E-03	4.58E-05	1.25E-09	3.44E-09

3.05E+06	5.67E-07	1.72E-03	1.97E-04	1.41E-03	3.43E-03	5.60E-05	8.15E-08	1.25E-08
3.35E+06	1.37E-06	1.74E-03	2.07E-04	1.54E-03	3.63E-03	7.67E-05	2.22E-06	3.23E-08
3.65E+06	2.48E-06	1.76E-03	2.18E-04	1.71E-03	3.85E-03	1.11E-04	2.64E-05	6.23E-08
3.95E+06	3.66E-06	1.77E-03	2.29E-04	1.91E-03	4.07E-03	1.60E-04	1.71E-04	9.75E-08
4.25E+06	4.72E-06	1.78E-03	2.42E-04	2.08E-03	4.27E-03	2.20E-04	5.86E-04	1.33E-07
4.55E+06	5.58E-06	1.78E-03	2.55E-04	2.23E-03	4.45E-03	2.78E-04	1.19E-03	1.66E-07
4.85E+06	6.30E-06	1.79E-03	2.65E-04	2.33E-03	4.57E-03	3.24E-04	1.75E-03	1.99E-07
5.15E+06	6.93E-06	1.79E-03	2.72E-04	2.40E-03	4.65E-03	3.57E-04	2.18E-03	2.33E-07
5.45E+06	7.52E-06	1.79E-03	2.77E-04	2.45E-03	4.70E-03	3.78E-04	2.45E-03	2.74E-07
5.75E+06	8.12E-06	1.79E-03	2.79E-04	2.48E-03	4.73E-03	3.89E-04	2.59E-03	3.26E-07
6.05E+06	8.81E-06	1.79E-03	2.80E-04	2.51E-03	4.74E-03	3.95E-04	2.66E-03	4.02E-07
6.35E+06	9.99E-06	1.79E-03	2.81E-04	2.52E-03	4.75E-03	3.99E-04	2.70E-03	5.77E-07

Z	PN03	PN205	PCL202
5.00E+04	1.99E-02	1.21E-05	5.49E-04
3.50E+05	2.08E-02	1.47E-05	6.58E-04
6.50E+05	2.14E-02	1.65E-05	7.31E-04
9.50E+05	2.18E-02	1.78E-05	7.81E-04
1.25E+06	2.21E-02	1.86E-05	8.13E-04
1.55E+06	2.23E-02	1.92E-05	8.34E-04
1.85E+06	2.23E-02	1.99E-05	8.55E-04
2.15E+06	2.24E-02	2.10E-05	8.84E-04
2.45E+06	2.24E-02	2.33E-05	9.25E-04
2.75E+06	2.25E-02	2.87E-05	9.89E-04
3.05E+06	2.25E-02	4.13E-05	1.08E-03
3.35E+06	2.25E-02	6.49E-05	1.22E-03
3.65E+06	2.25E-02	9.87E-05	1.39E-03
3.95E+06	2.25E-02	1.40E-04	1.63E-03
4.25E+06	2.25E-02	1.86E-04	1.96E-03
4.55E+06	2.25E-02	2.29E-04	2.35E-03
4.85E+06	2.25E-02	2.63E-04	2.67E-03
5.15E+06	2.25E-02	2.86E-04	2.91E-03
5.45E+06	2.25E-02	3.01E-04	3.06E-03
5.75E+06	2.25E-02	3.09E-04	3.14E-03
6.05E+06	2.25E-02	3.13E-04	3.17E-03
6.35E+06	2.25E-02	3.15E-04	3.19E-03

Information of the last step

N = 142 EMAX = 8.27E-04 FOR HSO AT Z = 1.95E+06 U = 2.77E-18 RHS = 2.29E-21 DT = 5.03E+19 TIME = 5.60E+18
BEFOREOUT=

Time in seconds and years that the system (the atmosphere) reached in the last step.

TIME = 0.5596E+19 TIMEY =***** YEARS

Number of times that the subroutine PHOTO was used

NPHOT = 35

MIXING RATIOS OF LONG-LIVED SPECIES after the program stopped.

First CONVERGENCE criteria, check that those species with constant surface mixing ratio actually have the surface mixing ratio that was set for them. On this case CH4 was set with a surface mixing ratio of 3.2e-6

Z	H2CO	O	H2O	OH	HO2	H2O2	O3	H	H2	CH4	CO	CH3OOH
5.00E+04	3.60E-10	1.21E-16	1.32E-02	5.97E-14	1.40E-11	1.58E-09	3.78E-08	9.02E-21	1.24E-06	3.20E-06	1.30E-07	1.16E-09
1.50E+05	4.18E-10	1.74E-16	9.55E-03	8.22E-14	1.52E-11	1.69E-09	4.50E-08	1.18E-20	1.24E-06	3.19E-06	1.19E-07	1.06E-09
2.50E+05	4.23E-10	2.52E-16	6.61E-03	1.04E-13	1.56E-11	1.68E-09	5.44E-08	1.42E-20	1.24E-06	3.18E-06	1.09E-07	9.14E-10
3.50E+05	3.98E-10	3.62E-16	4.36E-03	1.26E-13	1.52E-11	1.51E-09	6.56E-08	1.64E-20	1.24E-06	3.17E-06	1.01E-07	7.18E-10
5.50E+05	3.04E-10	6.96E-16	1.51E-03	1.68E-13	1.23E-11	9.24E-10	9.01E-08	1.98E-20	1.24E-06	3.16E-06	8.78E-08	3.22E-10
7.50E+05	1.58E-10	1.14E-15	3.48E-04	1.48E-13	6.02E-12	3.62E-10	1.11E-07	1.59E-20	1.24E-06	3.15E-06	7.97E-08	8.87E-11
9.50E+05	4.93E-11	1.68E-15	4.68E-05	7.98E-14	1.12E-12	1.05E-10	1.25E-07	7.92E-21	1.24E-06	3.15E-06	7.54E-08	1.62E-11
1.15E+06	1.26E-11	2.93E-15	6.71E-06	4.46E-14	2.28E-13	1.81E-11	1.52E-07	4.39E-21	1.24E-06	3.14E-06	7.10E-08	1.86E-12
1.35E+06	6.13E-12	8.83E-15	3.82E-06	3.55E-14	1.06E-13	6.49E-13	2.63E-07	3.77E-21	1.23E-06	3.12E-06	6.14E-08	6.05E-14
1.55E+06	6.19E-12	3.53E-14	3.81E-06	4.90E-14	1.30E-13	7.18E-14	5.70E-07	5.38E-21	1.22E-06	3.04E-06	4.68E-08	2.03E-14
1.75E+06	8.35E-12	1.33E-13	4.10E-06	8.53E-14	2.46E-13	1.59E-13	1.12E-06	9.67E-21	1.20E-06	2.90E-06	3.35E-08	4.10E-14
1.95E+06	1.25E-11	4.50E-13	4.49E-06	1.64E-13	5.51E-13	5.22E-13	1.90E-06	2.09E-20	1.17E-06	2.72E-06	2.48E-08	1.04E-13
2.15E+06	1.98E-11	1.41E-12	4.93E-06	3.45E-13	1.39E-12	2.10E-12	2.92E-06	5.60E-20	1.13E-06	2.52E-06	2.05E-08	2.95E-13
2.35E+06	3.26E-11	4.26E-12	5.41E-06	7.81E-13	3.74E-12	9.00E-12	4.18E-06	1.83E-19	1.09E-06	2.30E-06	1.89E-08	8.52E-13
2.55E+06	5.28E-11	1.24E-11	5.91E-06	1.81E-12	9.56E-12	3.26E-11	5.61E-06	6.71E-19	1.03E-06	2.08E-06	1.89E-08	2.05E-12
2.75E+06	7.97E-11	3.41E-11	6.42E-06	4.13E-12	2.11E-11	8.51E-11	7.04E-06	2.62E-18	9.74E-07	1.85E-06	1.95E-08	3.60E-12
2.95E+06	1.08E-10	8.67E-11	6.96E-06	9.02E-12	3.91E-11	1.53E-10	8.15E-06	1.07E-17	9.04E-07	1.62E-06	2.00E-08	4.58E-12
3.15E+06	1.32E-10	2.07E-10	7.50E-06	1.86E-11	6.20E-11	2.01E-10	8.64E-06	4.75E-17	8.25E-07	1.39E-06	2.02E-08	4.71E-12
3.35E+06	1.49E-10	4.73E-10	8.03E-06	3.54E-11	8.68E-11	2.08E-10	8.48E-06	2.22E-16	7.40E-07	1.16E-06	2.02E-08	4.31E-12
3.55E+06	1.55E-10	1.05E-09	8.53E-06	6.32E-11	1.11E-10	1.84E-10	7.96E-06	1.05E-15	6.52E-07	9.60E-07	1.98E-08	3.73E-12
3.75E+06	1.53E-10	2.33E-09	8.97E-06	1.09E-10	1.34E-10	1.51E-10	7.29E-06	5.04E-15	5.69E-07	7.82E-07	1.92E-08	3.17E-12
3.95E+06	1.46E-10	5.20E-09	9.34E-06	1.82E-10	1.58E-10	1.21E-10	6.47E-06	2.43E-14	4.95E-07	6.35E-07	1.85E-08	2.74E-12
4.15E+06	1.34E-10	1.14E-08	9.63E-06	2.87E-10	1.87E-10	1.01E-10	5.55E-06	1.10E-13	4.33E-07	5.18E-07	1.80E-08	2.48E-12
4.35E+06	1.16E-10	2.33E-08	9.86E-06	4.07E-10	2.21E-10	9.11E-11	4.67E-06	4.14E-13	3.86E-07	4.31E-07	1.77E-08	2.39E-12
4.55E+06	9.63E-11	4.27E-08	1.00E-05	5.21E-10	2.58E-10	8.66E-11	3.90E-06	1.25E-12	3.53E-07	3.70E-07	1.79E-08	2.38E-12
4.75E+06	7.85E-11	7.06E-08	1.01E-05	6.25E-10	2.94E-10	8.48E-11	3.29E-06	3.12E-12	3.33E-07	3.29E-07	1.87E-08	2.37E-12
4.95E+06	6.44E-11	1.08E-07	1.02E-05	7.22E-10	3.30E-10	8.54E-11	2.81E-06	6.84E-12	3.21E-07	3.02E-07	2.08E-08	2.34E-12
5.15E+06	5.37E-11	1.55E-07	1.02E-05	8.21E-10	3.69E-10	8.76E-11	2.39E-06	1.39E-11	3.17E-07	2.84E-07	2.51E-08	2.30E-12
5.35E+06	4.55E-11	2.14E-07	1.02E-05	9.39E-10	4.18E-10	9.30E-11	1.98E-06	2.76E-11	3.17E-07	2.73E-07	3.24E-08	2.23E-12
5.55E+06	3.88E-11	2.83E-07	1.03E-05	1.11E-09	4.94E-10	1.06E-10	1.57E-06	5.47E-11	3.20E-07	2.67E-07	4.41E-08	2.12E-12
5.75E+06	3.32E-11	3.56E-07	1.03E-05	1.39E-09	6.22E-10	1.36E-10	1.19E-06	1.11E-10	3.24E-07	2.63E-07	6.17E-08	1.94E-12
5.95E+06	2.85E-11	4.35E-07	1.03E-05	1.86E-09	8.36E-10	1.98E-10	8.95E-07	2.33E-10	3.29E-07	2.60E-07	8.71E-08	1.71E-12
6.15E+06	2.45E-11	5.62E-07	1.03E-05	2.62E-09	1.17E-09	3.21E-10	7.32E-07	5.36E-10	3.35E-07	2.59E-07	1.23E-07	1.45E-12
6.35E+06	2.26E-11	1.04E-06	1.02E-05	4.21E-09	1.78E-09	5.16E-10	8.90E-07	1.88E-09	3.39E-07	2.58E-07	1.73E-07	1.24E-12

TP, TL

3.06E+11	3.43E+15	8.80E+11	5.38E+12	4.98E+12	1.60E+11	3.42E+15	3.85E+12	1.28E+11	0.00E+00	3.29E+11	1.99E+11
3.04E+11	3.43E+15	3.15E+11	5.38E+12	4.98E+12	1.53E+11	3.42E+15	3.85E+12	1.26E+11	3.28E+11	6.40E+11	1.93E+11

Z	CH3O2	N2O	NO	NO2	HNO2	HNO3	HO2NO2	NO3	N2O5	CL2O2	CH3CL	HOCL
5.00E+04	1.08E-11	3.03E-07	4.88E-12	2.18E-11	2.10E-14	2.80E-10	4.26E-13	2.25E-14	2.08E-16	7.43E-23	6.63E-10	2.10E-13
1.50E+05	9.87E-12	3.03E-07	9.47E-12	3.95E-11	4.91E-14	4.65E-10	1.53E-12	3.46E-14	8.32E-16	1.43E-22	6.43E-10	2.36E-13

2.50E+05	9.25E-12	3.03E-07	1.26E-11	4.93E-11	7.29E-14	7.09E-10	3.61E-12	4.17E-14	1.87E-15	4.30E-22	6.26E-10	2.94E-13
3.50E+05	8.20E-12	3.03E-07	1.62E-11	5.88E-11	1.01E-13	9.67E-10	8.42E-12	4.80E-14	4.03E-15	1.30E-21	6.11E-10	3.48E-13
5.50E+05	4.94E-12	3.02E-07	2.95E-11	8.38E-11	1.91E-13	1.42E-09	4.98E-11	5.42E-14	1.98E-14	8.40E-21	5.90E-10	3.26E-13
7.50E+05	1.77E-12	3.02E-07	5.03E-11	9.11E-11	2.30E-13	1.61E-09	2.03E-10	3.71E-14	6.74E-14	4.26E-20	5.80E-10	1.37E-13
9.50E+05	2.07E-13	3.02E-07	1.31E-10	1.25E-10	2.62E-13	1.64E-09	2.25E-10	1.41E-14	2.33E-13	6.97E-20	5.76E-10	1.12E-14
1.15E+06	2.89E-14	3.01E-07	2.99E-10	1.76E-10	2.54E-13	1.66E-09	9.18E-11	5.44E-15	3.89E-13	4.19E-20	5.71E-10	6.71E-16
1.35E+06	1.25E-14	2.98E-07	4.68E-10	2.98E-10	2.07E-13	1.81E-09	3.87E-11	5.59E-15	6.19E-13	4.51E-20	5.56E-10	2.51E-16
1.55E+06	1.43E-14	2.89E-07	5.67E-10	5.27E-10	2.15E-13	2.59E-09	4.81E-11	1.37E-14	1.96E-12	4.22E-19	5.19E-10	8.71E-16
1.75E+06	2.32E-14	2.73E-07	6.64E-10	8.51E-10	2.60E-13	4.08E-09	7.90E-11	3.56E-14	5.71E-12	4.71E-18	4.61E-10	5.28E-15
1.95E+06	4.19E-14	2.51E-07	7.86E-10	1.25E-09	3.38E-13	6.01E-09	1.29E-10	8.13E-14	1.29E-11	3.66E-17	3.93E-10	3.19E-14
2.15E+06	8.33E-14	2.25E-07	9.22E-10	1.72E-09	4.60E-13	8.05E-09	1.99E-10	1.69E-13	2.34E-11	2.03E-16	3.23E-10	1.84E-13
2.35E+06	1.76E-13	1.97E-07	1.09E-09	2.31E-09	6.49E-13	9.84E-09	2.88E-10	3.34E-13	3.75E-11	7.82E-16	2.58E-10	9.46E-13
2.55E+06	3.55E-13	1.69E-07	1.38E-09	3.23E-09	9.78E-13	1.10E-08	3.74E-10	6.17E-13	5.38E-11	1.93E-15	1.99E-10	3.75E-12
2.75E+06	6.19E-13	1.39E-07	1.94E-09	4.68E-09	1.60E-12	1.12E-08	4.15E-10	1.01E-12	6.58E-11	3.16E-15	1.46E-10	1.07E-11
2.95E+06	9.21E-13	1.10E-07	2.92E-09	6.61E-09	2.71E-12	1.01E-08	3.73E-10	1.41E-12	6.19E-11	4.06E-15	1.02E-10	2.27E-11
3.15E+06	1.25E-12	8.35E-08	4.42E-09	8.52E-09	4.36E-12	8.01E-09	2.67E-10	1.68E-12	4.26E-11	4.49E-15	6.78E-11	3.90E-11
3.35E+06	1.63E-12	6.04E-08	6.36E-09	9.65E-09	6.17E-12	5.58E-09	1.54E-10	1.74E-12	2.16E-11	4.07E-15	4.23E-11	5.52E-11
3.55E+06	2.08E-12	4.21E-08	8.50E-09	9.47E-09	7.65E-12	3.46E-09	7.39E-11	1.60E-12	8.47E-12	3.03E-15	2.49E-11	6.58E-11
3.75E+06	2.65E-12	2.89E-08	1.06E-08	8.04E-09	8.67E-12	1.97E-09	3.06E-11	1.31E-12	2.64E-12	1.93E-15	1.42E-11	6.84E-11
3.95E+06	3.40E-12	1.97E-08	1.24E-08	5.87E-09	9.14E-12	1.01E-09	1.10E-11	9.49E-13	6.35E-13	1.00E-15	7.83E-12	6.28E-11
4.15E+06	4.31E-12	1.35E-08	1.36E-08	3.64E-09	8.62E-12	4.44E-10	3.53E-12	6.01E-13	1.16E-13	4.13E-16	4.29E-12	5.07E-11
4.35E+06	5.22E-12	9.40E-09	1.39E-08	1.98E-09	7.01E-12	1.67E-10	1.09E-12	3.29E-13	1.69E-14	1.47E-16	2.41E-12	3.66E-11
4.55E+06	5.94E-12	6.68E-09	1.33E-08	1.01E-09	5.06E-12	5.76E-11	3.47E-13	1.20E-13	2.28E-15	5.38E-17	1.45E-12	2.44E-11
4.75E+06	6.34E-12	4.87E-09	1.23E-08	5.04E-10	3.45E-12	1.96E-11	1.16E-13	7.33E-14	3.18E-16	2.28E-17	9.47E-13	1.60E-11
4.95E+06	6.44E-12	3.65E-09	1.11E-08	2.51E-10	2.31E-12	6.82E-12	4.10E-14	3.26E-14	4.63E-17	1.08E-17	6.76E-13	1.05E-11
5.15E+06	6.37E-12	2.81E-09	9.88E-09	1.27E-10	1.52E-12	2.43E-12	1.49E-14	1.44E-14	6.84E-18	4.55E-18	5.22E-13	6.86E-12
5.35E+06	6.17E-12	2.26E-09	8.77E-09	6.63E-11	9.91E-13	9.03E-13	5.71E-15	6.36E-15	1.04E-18	1.61E-18	4.32E-13	4.42E-12
5.55E+06	5.77E-12	1.87E-09	7.79E-09	3.68E-11	6.59E-13	3.62E-13	2.37E-15	2.89E-15	1.70E-19	5.03E-19	3.76E-13	2.89E-12
5.75E+06	5.12E-12	1.61E-09	6.96E-09	2.27E-11	4.59E-13	1.66E-13	1.13E-15	1.41E-15	3.25E-20	1.44E-19	3.39E-13	1.95E-12
5.95E+06	4.22E-12	1.44E-09	6.29E-09	1.62E-11	3.48E-13	9.44E-14	6.70E-16	7.94E-16	8.36E-21	4.07E-20	3.16E-13	1.41E-12
6.15E+06	3.24E-12	1.34E-09	5.81E-09	1.33E-11	2.94E-13	6.64E-14	4.81E-16	5.35E-16	3.06E-21	1.16E-20	3.03E-13	1.09E-12
6.35E+06	2.41E-12	1.30E-09	5.57E-09	1.01E-11	3.07E-13	5.35E-14	3.56E-16	4.04E-16	1.33E-21	3.53E-21	2.98E-13	9.56E-13

TP, TL

4.71E+11	3.95E+06	4.18E+13	4.22E+13	9.04E+09	6.43E+10	2.65E+11	7.04E+10	2.21E+09	2.98E+06	0.00E+00	3.51E+09
4.71E+11	1.11E+09	4.18E+13	4.22E+13	9.04E+09	4.82E+10	2.76E+11	7.04E+10	2.21E+09	2.98E+06	5.35E+08	3.51E+09

Z	CL	CLO	HCL	CLONO2	H2S	HS	SO	SO2	H2SO4	HSO
5.00E+04	6.68E-18	1.36E-14	1.25E-11	7.21E-13	2.07E-12	2.66E-18	4.09E-20	2.87E-11	2.09E-12	4.76E-14
1.50E+05	1.04E-17	1.53E-14	1.83E-11	1.18E-12	2.02E-12	3.21E-18	6.53E-20	4.95E-11	4.38E-12	5.10E-14
2.50E+05	1.52E-17	2.11E-14	2.50E-11	1.71E-12	2.00E-12	3.56E-18	9.55E-20	6.78E-11	7.04E-12	5.27E-14
3.50E+05	2.11E-17	2.84E-14	3.10E-11	2.32E-12	2.05E-12	3.93E-18	1.41E-19	8.53E-11	9.78E-12	5.55E-14
5.50E+05	3.51E-17	3.89E-14	3.94E-11	3.30E-12	2.50E-12	5.15E-18	3.40E-19	1.24E-10	1.48E-11	6.89E-14
7.50E+05	4.29E-17	3.57E-14	4.35E-11	2.72E-12	4.10E-12	6.56E-18	8.46E-19	1.75E-10	1.49E-11	1.07E-13
9.50E+05	3.92E-17	1.35E-14	4.59E-11	1.32E-12	5.95E-12	4.84E-18	1.36E-18	2.10E-10	9.14E-12	1.38E-13
1.15E+06	2.99E-17	4.89E-15	5.05E-11	5.00E-13	2.59E-12	1.04E-18	6.56E-19	1.64E-10	3.30E-12	5.77E-14
1.35E+06	3.08E-17	5.31E-15	6.58E-11	5.44E-13	6.52E-13	1.33E-19	1.68E-19	1.01E-10	9.94E-13	1.39E-14

1.55E+06	6.80E-17	2.02E-14	1.02E-10	2.10E-12	7.88E-14	1.11E-20	4.47E-20	4.44E-11	3.86E-13	1.45E-15
1.75E+06	1.83E-16	9.02E-14	1.53E-10	8.19E-12	5.41E-15	7.06E-22	5.29E-20	1.55E-11	1.47E-13	7.85E-17
1.95E+06	4.84E-16	3.48E-13	2.05E-10	2.42E-11	2.48E-16	3.74E-23	1.02E-19	4.82E-12	5.38E-14	2.77E-18
2.15E+06	1.20E-15	1.17E-12	2.42E-10	5.54E-11	8.18E-18	1.74E-24	1.47E-19	1.44E-12	2.02E-14	7.48E-20
2.35E+06	2.74E-15	3.39E-12	2.58E-10	1.02E-10	1.83E-19	6.42E-26	1.62E-19	4.24E-13	7.84E-15	1.48E-21
2.55E+06	5.86E-15	8.13E-12	2.56E-10	1.55E-10	2.53E-21	1.61E-27	1.46E-19	1.23E-13	3.87E-15	1.90E-23
2.75E+06	1.24E-14	1.61E-11	2.53E-10	1.96E-10	1.95E-23	2.58E-29	1.16E-19	3.58E-14	1.92E-14	1.53E-25
2.95E+06	2.72E-14	2.83E-11	2.62E-10	2.07E-10	8.09E-26	2.83E-30	8.78E-20	1.11E-14	4.39E-14	8.19E-27
3.15E+06	6.22E-14	4.67E-11	2.91E-10	1.78E-10	2.50E-28	4.24E-30	7.82E-20	4.63E-15	5.04E-14	5.86E-27
3.35E+06	1.39E-13	7.21E-11	3.33E-10	1.20E-10	1.08E-28	1.05E-29	1.12E-19	3.65E-15	5.14E-14	6.74E-27
3.55E+06	2.86E-13	1.02E-10	3.67E-10	6.26E-11	2.30E-28	3.42E-29	2.25E-19	4.55E-15	5.05E-14	9.98E-27
3.75E+06	5.46E-13	1.30E-10	3.83E-10	2.60E-11	4.79E-28	1.07E-28	4.58E-19	6.30E-15	4.87E-14	1.39E-26
3.95E+06	1.01E-12	1.49E-10	3.93E-10	8.33E-12	9.31E-28	3.05E-28	8.57E-19	8.61E-15	4.64E-14	1.69E-26
4.15E+06	1.82E-12	1.49E-10	4.14E-10	2.01E-12	1.77E-27	7.96E-28	1.49E-18	1.15E-14	4.36E-14	1.86E-26
4.35E+06	3.05E-12	1.30E-10	4.50E-10	3.95E-13	3.21E-27	1.84E-27	2.48E-18	1.49E-14	4.02E-14	1.96E-26
4.55E+06	4.65E-12	1.02E-10	4.89E-10	7.28E-14	5.22E-27	3.61E-27	4.13E-18	1.86E-14	3.64E-14	2.05E-26
4.75E+06	6.44E-12	7.65E-11	5.22E-10	1.42E-14	7.41E-27	5.97E-27	7.03E-18	2.24E-14	3.26E-14	2.28E-26
4.95E+06	8.29E-12	5.60E-11	5.47E-10	3.02E-15	9.46E-27	8.67E-27	1.24E-17	2.61E-14	2.89E-14	2.97E-26
5.15E+06	1.01E-11	4.00E-11	5.65E-10	6.76E-16	1.14E-26	1.17E-26	2.19E-17	2.94E-14	2.56E-14	4.62E-26
5.35E+06	1.19E-11	2.78E-11	5.78E-10	1.56E-16	1.35E-26	1.53E-26	3.77E-17	3.23E-14	2.27E-14	8.08E-26
5.55E+06	1.36E-11	1.89E-11	5.86E-10	3.79E-17	1.71E-26	2.07E-26	6.26E-17	3.47E-14	2.02E-14	1.52E-25
5.75E+06	1.53E-11	1.26E-11	5.92E-10	1.01E-17	2.44E-26	3.01E-26	1.00E-16	3.66E-14	1.83E-14	3.01E-25
5.95E+06	1.68E-11	8.29E-12	5.95E-10	3.18E-18	3.88E-26	4.66E-26	1.63E-16	3.80E-14	1.69E-14	6.51E-25
6.15E+06	1.79E-11	5.38E-12	5.97E-10	1.16E-18	6.11E-26	7.00E-26	2.76E-16	3.88E-14	1.59E-14	1.55E-24
6.35E+06	1.89E-11	3.50E-12	5.98E-10	3.84E-19	7.47E-26	7.95E-26	4.83E-16	3.90E-14	1.55E-14	4.10E-24

TP, TL

6.80E+13	9.70E+11	1.94E+09	7.53E+09	3.51E+08	3.50E+08	3.48E+08	2.10E+11	9.31E+10	2.57E+08
6.80E+13	9.70E+11	1.79E+09	7.53E+09	3.50E+08	3.50E+08	3.48E+08	2.09E+11	2.58E+09	2.55E+08

MIXING RATIO OF AEROSOL

Z	SO4AER
5.00E+04	8.45E-11
1.50E+05	1.03E-10
2.50E+05	1.42E-10
3.50E+05	1.92E-10
5.50E+05	2.97E-10
7.50E+05	3.79E-10
9.50E+05	4.25E-10
1.15E+06	4.72E-10
1.35E+06	5.29E-10
1.55E+06	5.54E-10
1.75E+06	5.27E-10
1.95E+06	4.67E-10
2.15E+06	4.00E-10

2.35E+06	3.35E-10
2.55E+06	2.77E-10
2.75E+06	2.24E-10
2.95E+06	1.77E-10
3.15E+06	1.36E-10
3.35E+06	1.01E-10
3.55E+06	7.31E-11
3.75E+06	5.14E-11
3.95E+06	3.52E-11
4.15E+06	2.36E-11
4.35E+06	1.54E-11
4.55E+06	9.94E-12
4.75E+06	6.27E-12
4.95E+06	3.86E-12
5.15E+06	2.30E-12
5.35E+06	1.35E-12
5.55E+06	7.61E-13
5.75E+06	4.17E-13
5.95E+06	2.18E-13
6.15E+06	1.09E-13
6.35E+06	5.24E-14

TP	2.48E+09
TL	2.46E+09

Column depths of ozone and sulfur

OZONE COLUMN DEPTH = 9.0251E+18

SULFUR COLUMN DEPTHS: H2S = 5.042E+13 SO2 = 2.081E+15

Water mixing ratio at the tropopause

15 FH2O AT COLD TRAP = 3.707E-06

NUMBER DENSITIES (molecules/cm³) OF LONG-LIVED SPECIES after the program has stopped

Z	H2CO	O	H2O	OH	HO2	H2O2	O3	H	H2	CH4	CO	CH3OOH
5.00E+04	8.65E+09	2.91E+03	3.18E+17	1.44E+06	3.36E+08	3.81E+10	9.07E+11	2.17E-01	2.97E+13	7.69E+13	3.12E+12	2.78E+10
2.50E+05	8.28E+09	4.93E+03	1.29E+17	2.03E+06	3.05E+08	3.28E+10	1.07E+12	2.78E-01	2.42E+13	6.22E+13	2.14E+12	1.79E+10
4.50E+05	5.67E+09	8.09E+03	4.25E+16	2.36E+06	2.25E+08	1.97E+10	1.23E+12	2.92E-01	1.96E+13	5.02E+13	1.49E+12	8.08E+09
6.50E+05	3.03E+09	1.17E+04	9.92E+15	2.21E+06	1.22E+08	7.90E+09	1.30E+12	2.48E-01	1.59E+13	4.06E+13	1.07E+12	2.32E+09
8.50E+05	9.70E+08	1.46E+04	1.43E+15	1.16E+06	2.98E+07	2.04E+09	1.23E+12	1.19E-01	1.29E+13	3.28E+13	8.05E+11	3.97E+08
1.05E+06	2.04E+08	1.75E+04	1.18E+14	4.89E+05	3.91E+06	4.24E+08	1.12E+12	4.74E-02	1.03E+13	2.62E+13	6.14E+11	5.28E+07
1.25E+06	4.93E+07	2.99E+04	2.77E+13	2.31E+05	8.50E+05	2.63E+07	1.19E+12	2.37E-02	7.80E+12	1.97E+13	4.23E+11	2.33E+06
1.45E+06	2.68E+07	8.14E+04	1.71E+13	1.83E+05	4.96E+05	5.31E+05	1.79E+12	1.99E-02	5.68E+12	1.42E+13	2.51E+11	9.50E+04
1.65E+06	2.36E+07	2.33E+05	1.32E+13	2.13E+05	5.80E+05	3.27E+05	2.72E+12	2.36E-02	4.06E+12	9.95E+12	1.33E+11	9.21E+04
1.85E+06	2.43E+07	5.95E+05	1.03E+13	2.81E+05	8.71E+05	6.72E+05	3.56E+12	3.33E-02	2.85E+12	6.77E+12	6.86E+10	1.54E+05
2.05E+06	2.68E+07	1.38E+06	8.09E+12	4.05E+05	1.49E+06	1.77E+06	4.10E+12	5.72E-02	1.98E+12	4.51E+12	3.82E+10	2.97E+05
2.25E+06	3.11E+07	3.02E+06	6.34E+12	6.32E+05	2.79E+06	5.36E+06	4.32E+12	1.22E-01	1.36E+12	2.95E+12	2.38E+10	6.21E+05

2.45E+06	3.64E+07	6.38E+06	4.93E+12	1.04E+06	5.29E+06	1.55E+07	4.26E+12	3.02E-01	9.26E+11	1.91E+12	1.64E+10	1.19E+06
2.65E+06	4.09E+07	1.29E+07	3.84E+12	1.71E+06	9.07E+06	3.45E+07	3.95E+12	8.22E-01	6.27E+11	1.23E+12	1.20E+10	1.77E+06
2.85E+06	4.23E+07	2.46E+07	3.01E+12	2.76E+06	1.32E+07	5.36E+07	3.44E+12	2.36E+00	4.23E+11	7.80E+11	8.89E+09	1.89E+06
3.05E+06	3.95E+07	4.41E+07	2.36E+12	4.26E+06	1.64E+07	5.95E+07	2.77E+12	7.31E+00	2.83E+11	4.90E+11	6.59E+09	1.55E+06
3.25E+06	3.38E+07	7.50E+07	1.85E+12	6.17E+06	1.77E+07	5.00E+07	2.06E+12	2.44E+01	1.87E+11	3.04E+11	4.83E+09	1.09E+06
3.45E+06	2.68E+07	1.24E+08	1.45E+12	8.34E+06	1.73E+07	3.47E+07	1.44E+12	8.46E+01	1.22E+11	1.85E+11	3.51E+09	7.04E+05
3.65E+06	2.01E+07	2.03E+08	1.14E+12	1.08E+07	1.59E+07	2.17E+07	9.91E+11	2.98E+02	7.90E+10	1.12E+11	2.53E+09	4.46E+05
3.85E+06	1.46E+07	3.36E+08	8.86E+11	1.37E+07	1.41E+07	1.30E+07	6.68E+11	1.07E+03	5.13E+10	6.82E+10	1.82E+09	2.84E+05
4.05E+06	1.02E+07	5.63E+08	6.90E+11	1.68E+07	1.25E+07	7.94E+06	4.37E+11	3.82E+03	3.36E+10	4.17E+10	1.32E+09	1.88E+05
4.25E+06	6.90E+06	9.10E+08	5.37E+11	1.91E+07	1.12E+07	5.24E+06	2.81E+11	1.21E+04	2.24E+10	2.59E+10	9.80E+08	1.33E+05
4.45E+06	4.48E+06	1.35E+09	4.19E+11	1.96E+07	1.01E+07	3.72E+06	1.79E+11	3.12E+04	1.55E+10	1.68E+10	7.48E+08	1.00E+05
4.65E+06	2.84E+06	1.81E+09	3.29E+11	1.88E+07	9.01E+06	2.79E+06	1.17E+11	6.58E+04	1.11E+10	1.13E+10	5.94E+08	7.75E+04
4.85E+06	1.81E+06	2.25E+09	2.60E+11	1.72E+07	7.96E+06	2.17E+06	7.79E+10	1.19E+05	8.34E+09	8.02E+09	5.00E+08	6.02E+04
5.05E+06	1.18E+06	2.61E+09	2.05E+11	1.55E+07	7.00E+06	1.73E+06	5.22E+10	1.97E+05	6.40E+09	5.87E+09	4.54E+08	4.66E+04
5.25E+06	7.78E+05	2.89E+09	1.61E+11	1.38E+07	6.16E+06	1.41E+06	3.43E+10	3.10E+05	4.98E+09	4.38E+09	4.45E+08	3.57E+04
5.45E+06	5.16E+05	3.04E+09	1.26E+11	1.25E+07	5.54E+06	1.20E+06	2.18E+10	4.76E+05	3.90E+09	3.31E+09	4.61E+08	2.68E+04
5.65E+06	3.41E+05	3.03E+09	9.74E+10	1.17E+07	5.22E+06	1.12E+06	1.31E+10	7.38E+05	3.05E+09	2.51E+09	4.94E+08	1.94E+04
5.85E+06	2.25E+05	2.89E+09	7.51E+10	1.17E+07	5.25E+06	1.18E+06	7.53E+09	1.18E+06	2.39E+09	1.91E+09	5.36E+08	1.34E+04
6.05E+06	1.50E+05	2.76E+09	5.81E+10	1.24E+07	5.58E+06	1.41E+06	4.50E+09	1.97E+06	1.88E+09	1.47E+09	5.87E+08	8.95E+03
6.25E+06	1.01E+05	3.05E+09	4.50E+10	1.41E+07	6.25E+06	1.82E+06	3.21E+09	3.94E+06	1.48E+09	1.14E+09	6.43E+08	5.83E+03

Z	CH3O2	N2O	NO	NO2	HNO2	HNO3	HO2NO2	NO3	N2O5	CL2O2	CH3CL	HOCL
5.00E+04	2.59E+08	7.27E+12	1.17E+08	5.25E+08	5.03E+05	6.74E+09	1.02E+07	5.41E+05	4.99E+03	1.79E-03	1.59E+10	5.05E+06
2.50E+05	1.81E+08	5.92E+12	2.46E+08	9.64E+08	1.43E+06	1.39E+10	7.06E+07	8.16E+05	3.66E+04	8.42E-03	1.22E+10	5.75E+06
4.50E+05	1.06E+08	4.80E+12	3.43E+08	1.12E+09	2.22E+06	1.92E+10	3.18E+08	8.42E+05	1.42E+05	5.49E-02	9.51E+09	5.76E+06
6.50E+05	4.17E+07	3.89E+12	5.04E+08	1.18E+09	2.97E+06	1.99E+10	1.48E+09	6.26E+05	5.02E+05	2.53E-01	7.50E+09	3.13E+06
8.50E+05	7.15E+06	3.15E+12	7.90E+08	1.05E+09	2.45E+06	1.70E+10	2.57E+09	2.53E+05	1.29E+06	6.56E-01	6.01E+09	4.90E+05
1.05E+06	5.66E+05	2.52E+12	1.75E+09	1.24E+09	2.30E+06	1.37E+10	1.42E+09	6.81E+04	2.98E+06	5.44E-01	4.78E+09	2.11E+04
1.25E+06	1.03E+05	1.89E+12	2.46E+09	1.40E+09	1.40E+06	1.06E+10	3.22E+08	2.94E+04	2.71E+06	1.91E-01	3.57E+09	1.79E+03
1.45E+06	5.72E+04	1.36E+12	2.42E+09	1.86E+09	9.47E+05	9.72E+09	1.85E+08	3.90E+04	5.02E+06	5.64E-01	2.49E+09	1.85E+03
1.65E+06	5.98E+04	9.43E+11	2.05E+09	2.27E+09	7.80E+05	1.09E+10	2.05E+08	7.49E+04	1.15E+07	4.92E+00	1.64E+09	7.10E+03
1.85E+06	7.40E+04	6.30E+11	1.74E+09	2.51E+09	7.08E+05	1.20E+10	2.44E+08	1.31E+05	2.13E+07	3.30E+01	1.03E+09	3.14E+04
2.05E+06	1.00E+05	4.09E+11	1.47E+09	2.54E+09	6.75E+05	1.21E+10	2.78E+08	2.03E+05	3.05E+07	1.54E+02	6.15E+08	1.33E+05
2.25E+06	1.48E+05	2.59E+11	1.22E+09	2.44E+09	6.66E+05	1.10E+10	2.97E+08	2.93E+05	3.68E+07	5.14E+02	3.55E+08	5.23E+05
2.45E+06	2.22E+05	1.60E+11	1.06E+09	2.37E+09	6.89E+05	9.19E+09	2.91E+08	4.01E+05	3.98E+07	1.14E+03	1.98E+08	1.71E+06
2.65E+06	2.99E+05	9.60E+10	1.01E+09	2.42E+09	7.72E+05	7.00E+09	2.51E+08	5.02E+05	3.81E+07	1.61E+03	1.07E+08	4.11E+06
2.85E+06	3.45E+05	5.60E+10	1.06E+09	2.52E+09	9.36E+05	4.84E+09	1.82E+08	5.49E+05	2.98E+07	1.64E+03	5.54E+07	7.20E+06
3.05E+06	3.53E+05	3.15E+10	1.18E+09	2.49E+09	1.14E+06	2.98E+09	1.06E+08	5.14E+05	1.74E+07	1.42E+03	2.74E+07	9.95E+06
3.25E+06	3.43E+05	1.70E+10	1.27E+09	2.20E+09	1.26E+06	1.62E+09	4.95E+07	4.16E+05	7.50E+06	1.05E+03	1.29E+07	1.13E+07
3.45E+06	3.23E+05	8.86E+09	1.30E+09	1.70E+09	1.22E+06	7.80E+08	1.90E+07	2.96E+05	2.44E+06	6.29E+02	5.72E+06	1.08E+07
3.65E+06	3.04E+05	4.52E+09	1.24E+09	1.15E+09	1.06E+06	3.42E+08	6.27E+06	1.90E+05	6.31E+05	3.20E+02	2.45E+06	8.83E+06
3.85E+06	2.90E+05	2.31E+09	1.12E+09	6.78E+08	8.70E+05	1.38E+08	1.80E+06	1.09E+05	1.30E+05	1.39E+02	1.02E+06	6.44E+06
4.05E+06	2.79E+05	1.19E+09	9.54E+08	3.43E+08	6.57E+05	4.97E+07	4.56E+05	5.59E+04	2.04E+04	4.83E+01	4.21E+05	4.17E+06
4.25E+06	2.63E+05	6.19E+08	7.64E+08	1.50E+08	4.36E+05	1.52E+07	1.08E+05	2.49E+04	2.48E+03	1.37E+01	1.76E+05	2.40E+06
4.45E+06	2.37E+05	3.33E+08	5.77E+08	6.00E+07	2.53E+05	4.15E+06	2.58E+04	9.78E+03	2.60E+02	3.61E+00	7.80E+04	1.26E+06
4.65E+06	2.02E+05	1.86E+08	4.20E+08	2.33E+07	1.37E+05	1.10E+06	6.52E+03	3.56E+03	2.76E+01	1.12E+00	3.78E+04	6.45E+05
4.85E+06	1.64E+05	1.07E+08	3.00E+08	9.08E+06	7.24E+04	2.95E+05	1.76E+03	1.25E+03	3.10E+00	4.06E-01	2.02E+04	3.32E+05

5.05E+06	1.29E+05	6.41E+07	2.11E+08	3.57E+06	3.77E+04	8.15E+04	4.95E+02	4.35E+02	3.57E-01	1.44E-01	1.18E+04	1.71E+05
5.25E+06	9.90E+04	3.95E+07	1.47E+08	1.43E+06	1.93E+04	2.32E+04	1.44E+02	1.50E+02	4.18E-02	4.35E-02	7.42E+03	8.67E+04
5.45E+06	7.36E+04	2.51E+07	1.01E+08	6.00E+05	9.88E+03	6.93E+03	4.45E+01	5.24E+01	5.11E-03	1.12E-02	4.92E+03	4.37E+04
5.65E+06	5.21E+04	1.64E+07	6.98E+07	2.70E+05	5.18E+03	2.28E+03	1.52E+01	1.89E+01	6.86E-04	2.57E-03	3.38E+03	2.24E+04
5.85E+06	3.45E+04	1.11E+07	4.84E+07	1.38E+05	2.89E+03	8.91E+02	6.19E+00	7.57E+00	1.15E-04	5.58E-04	2.39E+03	1.20E+04
6.05E+06	2.11E+04	7.85E+06	3.41E+07	8.21E+04	1.78E+03	4.38E+02	3.16E+00	3.61E+00	2.75E-05	1.22E-04	1.75E+03	6.97E+03
6.25E+06	1.22E+04	5.79E+06	2.48E+07	5.33E+04	1.26E+03	2.59E+02	1.85E+00	2.05E+00	8.93E-06	2.77E-05	1.32E+03	4.38E+03

Z	CL	CLO	HCL	CLONO2	H2S	HS	SO	SO2	H2SO4	HSO
5.00E+04	1.60E+02	3.27E+05	3.00E+08	1.73E+07	4.97E+07	6.39E+01	9.83E-01	6.90E+08	5.02E+07	1.14E+06
2.50E+05	2.97E+02	4.13E+05	4.90E+08	3.35E+07	3.91E+07	6.97E+01	1.87E+00	1.33E+09	1.38E+08	1.03E+06
4.50E+05	4.42E+02	5.54E+05	5.69E+08	4.61E+07	3.48E+07	7.01E+01	3.39E+00	1.64E+09	1.98E+08	9.59E+05
6.50E+05	5.28E+02	5.10E+05	5.38E+08	4.19E+07	3.98E+07	7.78E+01	7.11E+00	1.90E+09	2.05E+08	1.08E+06
8.50E+05	4.33E+02	2.54E+05	4.67E+08	2.06E+07	5.52E+07	6.42E+01	1.20E+01	2.07E+09	1.28E+08	1.37E+06
1.05E+06	2.95E+02	6.40E+04	3.95E+08	6.78E+06	3.40E+07	1.96E+01	8.71E+00	1.57E+09	4.92E+07	7.83E+05
1.25E+06	1.70E+02	2.58E+04	3.53E+08	2.57E+06	9.00E+06	2.50E+00	2.16E+00	8.47E+08	1.10E+07	1.97E+05
1.45E+06	2.00E+02	4.45E+04	3.75E+08	4.68E+06	1.13E+06	1.83E-01	3.70E-01	3.21E+08	2.82E+06	2.28E+04
1.65E+06	3.72E+02	1.45E+05	4.22E+08	1.43E+07	7.32E+04	9.61E-03	1.33E-01	8.96E+07	8.05E+05	1.21E+03
1.85E+06	7.20E+02	4.34E+05	4.32E+08	3.51E+07	2.91E+03	3.98E-04	1.82E-01	2.10E+07	2.14E+05	3.69E+01
2.05E+06	1.32E+03	1.11E+06	3.89E+08	6.48E+07	8.08E+01	1.42E-05	2.18E-01	4.55E+06	5.64E+04	8.10E-01
2.25E+06	2.25E+03	2.49E+06	3.10E+08	9.47E+07	1.58E+00	4.26E-07	1.95E-01	9.59E+05	1.54E+04	1.35E-02
2.45E+06	3.52E+03	4.70E+06	2.25E+08	1.13E+08	2.01E-02	9.40E-09	1.37E-01	2.00E+05	4.38E+03	1.55E-04
2.65E+06	5.29E+03	7.29E+06	1.58E+08	1.11E+08	1.49E-04	1.32E-10	8.19E-02	4.13E+04	3.90E+03	1.11E-06
2.85E+06	8.18E+03	9.70E+06	1.15E+08	9.27E+07	6.11E-07	2.05E-12	4.53E-02	8.82E+03	1.59E+04	8.51E-09
3.05E+06	1.34E+04	1.19E+07	8.94E+07	6.45E+07	1.37E-09	1.06E-12	2.59E-02	2.20E+03	1.58E+04	2.12E-09
3.25E+06	2.23E+04	1.40E+07	7.42E+07	3.59E+07	2.07E-11	1.50E-12	2.09E-02	9.02E+02	1.22E+04	1.42E-09
3.45E+06	3.53E+04	1.52E+07	6.16E+07	1.56E+07	2.72E-11	3.29E-12	2.73E-02	6.93E+02	8.94E+03	1.43E-09
3.65E+06	5.16E+04	1.51E+07	4.88E+07	5.38E+06	4.34E-11	7.95E-12	4.19E-02	6.93E+02	6.44E+03	1.55E-09
3.85E+06	7.20E+04	1.37E+07	3.75E+07	1.47E+06	6.50E-11	1.77E-11	6.13E-02	7.14E+02	4.61E+03	1.50E-09
4.05E+06	9.91E+04	1.11E+07	2.92E+07	3.08E+05	9.34E-11	3.62E-11	8.27E-02	7.24E+02	3.28E+03	1.30E-09
4.25E+06	1.31E+05	7.79E+06	2.37E+07	5.00E+04	1.32E-10	6.79E-11	1.06E-01	7.22E+02	2.31E+03	1.06E-09
4.45E+06	1.61E+05	4.89E+06	1.98E+07	7.09E+03	1.76E-10	1.11E-10	1.34E-01	7.04E+02	1.61E+03	8.43E-10
4.65E+06	1.80E+05	2.90E+06	1.66E+07	1.04E+03	2.07E-10	1.55E-10	1.75E-01	6.70E+02	1.13E+03	6.97E-10
4.85E+06	1.88E+05	1.68E+06	1.37E+07	1.66E+02	2.16E-10	1.86E-10	2.39E-01	6.21E+02	7.86E+02	6.50E-10
5.05E+06	1.85E+05	9.55E+05	1.12E+07	2.86E+01	2.09E-10	2.03E-10	3.33E-01	5.59E+02	5.47E+02	7.31E-10
5.25E+06	1.73E+05	5.26E+05	9.00E+06	5.09E+00	1.94E-10	2.11E-10	4.55E-01	4.88E+02	3.79E+02	9.52E-10
5.45E+06	1.56E+05	2.81E+05	7.15E+06	9.36E-01	1.84E-10	2.17E-10	5.99E-01	4.12E+02	2.62E+02	1.35E-09
5.65E+06	1.37E+05	1.47E+05	5.60E+06	1.82E-01	1.90E-10	2.35E-10	7.54E-01	3.40E+02	1.82E+02	2.01E-09
5.85E+06	1.18E+05	7.48E+04	4.35E+06	4.03E-02	2.23E-10	2.73E-10	9.27E-01	2.74E+02	1.28E+02	3.19E-09
6.05E+06	9.87E+04	3.79E+04	3.38E+06	1.07E-02	2.79E-10	3.27E-10	1.19E+00	2.18E+02	9.26E+01	5.62E-09
6.25E+06	8.06E+04	1.90E+04	2.63E+06	3.08E-03	3.15E-10	3.53E-10	1.61E+00	1.71E+02	6.88E+01	1.09E-08

FLUXES OF LONG-LIVED SPECIES after the program stopped.
CONVERGENCE criteria, check that those species with constant surface flux actually have the surface flux that was set for them. On this case CO was set with a surface flux of 3.11e11 and N2O with 1.11e9

Z	H2CO	O	H2O	OH	HO2	H2O2	O3	H	H2	CH4	CO	CH3OOH
0.00E+00	-4.87E+08	1.25E+09	1.94E+13	2.55E+06	-3.46E+08	-7.62E+09	-8.97E+10	-4.79E+06	-2.43E+09	3.28E+11	3.11E+11	-5.57E+09
1.00E+05	-5.07E+08	-1.20E+03	0.00E+00	-5.12E+05	-2.81E+07	-2.31E+09	-1.64E+11	-6.41E-02	-6.34E+09	2.70E+11	2.50E+11	2.22E+09
5.00E+05	-8.89E+08	-2.80E+03	0.00E+00	-2.90E+05	2.86E+07	4.80E+09	-1.85E+11	-2.04E-02	-5.52E+09	7.75E+10	9.01E+10	2.82E+09
9.00E+05	-2.95E+08	-2.67E+03	0.00E+00	2.95E+05	1.62E+07	8.52E+08	-6.51E+10	3.31E-02	3.24E+07	1.33E+10	1.67E+10	2.05E+08
1.30E+06	-3.58E+07	-2.12E+03	3.02E+11	6.15E+02	1.51E+04	1.83E+06	-3.85E+10	-4.96E-06	1.27E+09	9.55E+09	2.97E+09	1.61E+05
1.70E+06	-2.66E+06	-7.68E+03	-1.94E+10	-2.62E+03	-8.75E+03	-7.39E+03	-3.66E+10	-3.16E-04	1.46E+09	8.99E+09	7.43E+08	-1.63E+03
2.10E+06	-1.89E+05	-4.94E+04	-1.84E+10	-8.91E+03	-4.26E+04	-8.69E+04	-4.38E+10	-1.85E-03	1.63E+09	8.43E+09	1.40E+08	-9.91E+03
2.50E+06	-1.41E+04	-3.46E+05	-1.70E+10	-4.23E+04	-2.38E+05	-1.01E+06	-4.96E+10	-2.20E-02	1.84E+09	7.61E+09	-7.90E+06	-4.64E+04
2.90E+06	-9.69E-08	-1.73E+06	-1.46E+10	-1.56E+05	-5.28E+05	-1.84E+06	-2.68E+10	-2.97E-01	1.96E+09	6.32E+09	-1.23E+07	-2.07E+04
3.30E+06	-4.47E-08	-6.67E+06	-1.11E+10	-4.01E+05	-5.19E+05	8.61E+04	6.16E+09	-5.03E+00	1.83E+09	4.61E+09	2.79E+06	1.03E+04
3.70E+06	2.79E-08	-2.66E+07	-7.34E+09	-8.89E+05	-4.03E+05	5.88E+05	1.22E+10	-9.55E+01	1.41E+09	2.96E+09	1.17E+07	9.27E+03
4.10E+06	9.31E-10	-1.10E+08	-4.15E+09	-1.66E+06	-4.55E+05	2.50E+05	1.39E+10	-1.72E+03	8.78E+08	1.64E+09	7.06E+06	3.08E+03
4.50E+06	4.66E-10	-2.85E+08	-1.88E+09	-1.50E+06	-4.86E+05	4.54E+04	9.51E+09	-1.36E+04	3.93E+08	7.45E+08	-3.70E+06	1.99E+02
4.90E+06	-1.40E-09	-4.86E+08	-7.05E+08	-1.18E+06	-4.44E+05	-1.06E+04	5.68E+09	-5.31E+04	1.11E+08	2.97E+08	-3.07E+07	3.52E+02
5.30E+06	1.17E+01	-7.18E+08	-2.11E+08	-1.47E+06	-6.23E+05	-7.61E+04	4.75E+09	-1.85E+05	-8.60E+06	1.11E+08	-9.56E+07	8.65E+02
5.70E+06	2.19E+01	-7.82E+08	-2.21E+07	-3.37E+06	-1.54E+06	-3.77E+05	3.90E+09	-7.10E+05	-5.06E+07	3.79E+07	-2.04E+08	2.03E+03
6.10E+06	6.70E+00	-1.44E+09	4.02E+07	-8.25E+06	-3.62E+06	-1.36E+06	1.18E+09	-3.62E+06	-5.13E+07	1.01E+07	-3.75E+08	2.50E+03
6.40E+06	-7.28E+03	-5.72E+08	-5.46E+03	-3.55E+05	-3.34E+05	-4.63E+01	2.20E+06	-4.97E+04	-5.92E+01	1.13E+01	-5.74E+08	-4.35E-01

Z	CH3O2	N2O	NO	NO2	HNO2	HNO3	HO2NO2	NO3	N2O5	CL2O2	CH3CL	HOCL
0.00E+00	-2.63E+08	1.11E+09	-2.14E+07	-9.55E+07	-2.56E+05	-3.37E+09	-5.18E+06	-1.67E+05	1.74E+03	3.33E-01	5.35E+08	-2.52E+06
1.00E+05	2.06E+07	1.11E+09	-1.05E+08	-4.03E+08	-6.42E+05	-4.21E+09	-2.51E+07	-2.77E+05	-1.43E+04	-1.56E-03	4.47E+08	-5.89E+05
5.00E+05	2.63E+07	1.11E+09	-1.19E+08	-1.97E+08	-7.70E+05	-3.08E+09	-4.48E+08	-1.75E+04	-1.62E+05	-7.44E-02	1.37E+08	5.61E+05
9.00E+05	4.47E+06	1.10E+09	-5.12E+08	-2.24E+08	-2.55E+05	-9.83E+07	2.02E+08	9.50E+04	-1.02E+06	-6.22E-02	1.51E+07	3.34E+05
1.30E+06	1.96E+03	1.10E+09	-4.05E+07	-3.94E+07	8.11E+03	-6.30E+07	6.44E+06	-4.83E+02	-9.81E+04	-7.67E-03	5.18E+06	1.77E+01
1.70E+06	-6.42E+02	1.09E+09	-6.23E+06	-2.10E+07	-3.20E+03	-9.86E+07	-2.16E+06	-1.59E+03	-2.73E+05	-3.92E-01	3.71E+06	-3.82E+02
2.10E+06	-2.02E+03	1.06E+09	-5.63E+06	-1.94E+07	-5.44E+03	-8.19E+07	-3.05E+06	-4.12E+03	-4.62E+05	-9.17E+00	2.79E+06	-8.64E+03
2.50E+06	-6.89E+03	9.83E+08	-1.14E+07	-3.49E+07	-1.28E+04	-3.26E+07	-2.75E+06	-1.07E+04	-5.58E+05	-4.27E+01	1.96E+06	-1.22E+05
2.90E+06	-8.35E+03	7.77E+08	-3.00E+07	-5.44E+07	-3.41E+04	3.72E+07	1.71E+06	-1.05E+04	2.34E+05	-2.19E+01	1.13E+06	-3.61E+05
3.30E+06	-8.28E+03	4.62E+08	-4.27E+07	-1.77E+07	-3.74E+04	5.10E+07	2.27E+06	-1.49E+01	4.13E+05	1.33E+01	4.90E+05	-3.23E+05
3.70E+06	-1.06E+04	2.10E+08	-3.55E+07	2.93E+07	-1.56E+04	2.34E+07	6.22E+05	5.47E+03	7.76E+04	1.89E+01	1.64E+05	-9.25E+03
4.10E+06	-1.41E+04	8.35E+07	-1.51E+07	3.20E+07	1.27E+04	7.17E+06	8.22E+04	5.03E+03	4.93E+03	7.52E+00	4.51E+04	1.98E+05
4.50E+06	-8.07E+03	3.28E+07	9.70E+06	1.11E+07	2.51E+04	1.10E+06	7.08E+03	1.93E+03	1.04E+02	8.53E-01	1.08E+04	1.48E+05
4.90E+06	-6.94E+02	1.36E+07	1.51E+07	2.55E+06	1.28E+04	1.15E+05	6.81E+02	4.01E+02	1.83E+00	1.25E-01	2.83E+03	6.05E+04
5.30E+06	2.74E+03	5.85E+06	1.25E+07	5.77E+05	5.44E+03	1.32E+04	8.03E+01	7.39E+01	3.74E-02	2.67E-02	9.15E+02	2.52E+04
5.70E+06	7.64E+03	2.47E+06	8.35E+06	1.22E+05	1.83E+03	1.56E+03	9.91E+00	1.24E+01	8.44E-04	2.69E-03	3.41E+02	8.56E+03
6.10E+06	9.33E+03	8.02E+05	4.10E+06	2.35E+04	4.04E+02	2.10E+02	1.46E+00	1.96E+00	3.45E-05	1.93E-04	1.04E+02	2.68E+03
6.40E+06	-1.10E+01	-6.70E-03	-3.13E+02	-8.36E+02	-5.79E-01	-9.02E-03	-2.56E-04	-3.70E-02	-1.18E-09	-6.72E-07	1.08E-04	-8.41E+00

Z	CL	CLO	HCL	CLONO2	H2S	HS	SO	SO2	H2SO4	HSO	SO4AER
0.00E+00	-9.46E+07	-1.57E+05	-1.50E+08	-8.65E+06	-9.92E+05	-1.18E+03	-9.58E+01	-6.90E+08	-5.02E+07	-1.14E+06	-5.07E+08
1.00E+05	-8.59E+01	-3.86E+04	-1.34E+08	-1.05E+07	1.16E+06	-1.25E+01	-5.56E-01	-4.75E+08	-5.23E+07	-7.93E+04	-4.27E+08

5.00E+05-1.10E+02-5.96E+04-5.32E+07-5.92E+06-4.60E+06-1.10E+01-1.90E+00-3.08E+08-3.50E+07-1.27E+05-7.84E+08
9.00E+05 2.24E+01 1.01E+05-1.04E+07 6.16E+06-6.12E+06 1.24E+01-1.94E+00-1.06E+08 2.93E+07-5.93E+04-1.85E+08
1.30E+06-2.01E+00-6.31E+02-5.11E+06-7.06E+04 4.03E+05 1.38E-01 9.11E-02 1.74E+07 3.89E+05 9.01E+03-1.82E+07
1.70E+06-8.69E+00-5.67E+03-3.23E+06-4.73E+05 1.99E+03 2.62E-04-1.59E-03 1.36E+06 1.13E+04 3.41E+01-1.38E+06
2.10E+06-3.49E+01-4.21E+04-1.30E+06-1.44E+06 3.15E+00 5.27E-07-1.63E-03 9.75E+04 1.02E+03 3.21E-02-9.85E+04
2.50E+06-1.24E+02-1.87E+05 1.30E+05-1.78E+06 1.39E-03 6.22E-10 7.38E-04 7.16E+03 7.80E+01 1.08E-05-7.24E+03
2.90E+06-4.86E+02-3.64E+05-3.64E+05-3.99E+04 6.93E-08 9.38E-14 7.01E-04 4.62E+02-4.62E+02 5.82E-10-5.22E-08
3.30E+06-1.91E+03-5.67E+05-9.02E+05 1.30E+06-8.81E-13-1.77E-13-1.03E-03 5.62E+00-5.62E+00-3.33E-11-7.45E-08
3.70E+06-5.17E+03-4.77E+05-2.14E+05 5.42E+05-5.01E-12-1.60E-12-4.68E-03-3.31E+01 3.31E+01-6.68E-11-1.86E-09
4.10E+06-1.36E+04 8.43E+04-3.80E+05 6.66E+04-1.44E-11-8.90E-12-1.04E-02-4.51E+01 4.51E+01-2.26E-11 2.79E-09
4.50E+06-2.22E+04 3.71E+05-5.09E+05 2.56E+03-2.83E-11-2.60E-11-2.55E-02-5.09E+01 5.09E+01-1.41E-11 9.31E-10
4.90E+06-2.28E+04 2.37E+05-2.78E+05 8.54E+01-2.44E-11-3.40E-11-7.52E-02-4.43E+01 4.44E+01-1.04E-10-8.15E-10
5.30E+06-2.02E+04 1.31E+05-1.37E+05 3.88E+00-2.67E-11-4.52E-11-2.05E-01-3.20E+01 3.22E+01-4.72E-10 4.41E+01
5.70E+06-1.80E+04 6.05E+04-5.14E+04 1.94E-01-9.17E-11-1.15E-10-4.44E-01-1.86E+01 1.91E+01-1.89E-09 1.69E+01
6.10E+06-9.42E+03 2.51E+04-1.84E+04 1.42E-02-2.26E-10-2.33E-10-1.25E+00-6.51E+00 7.77E+00-1.06E-08 6.48E+00
6.40E+06-2.53E+04-1.77E+04-1.69E+02-8.36E-06-2.31E-12-7.30E-09-4.08E-01-5.62E+00 1.59E+06-1.73E-07 1.94E+00

ON THE NEXT LIST YOU CAN CHECK THE CONVERGENCE.

The compounds are listed in the same order they have in the program (CH₄ is the 10th, CO 11th, etc.)

All the quantities are in cgs

RAINOUT RATE, PHIDEP, TLOSS AND LOWER B.C.

FOLLOWED BY TP, TL, FUP, FLOW, CON

PHIDEP = Deposition flux

TLOSS: Total loss due to deposition on the surface

LOWER B.C. = Lower boundary condition (0 = CONSTANT DEPOSITION VELOCITY, 1 = CONSTANT MIXING RATIO, 2 = CONSTANT UPWARD FLUX)

TP = Total production (molecules/cm²/s)

TL = Total loss (molecules/cm²/s)

FUP = Flux at the top of the atmosphere (molecules/cm²/s)

FLOW = Surface flux (molecules/cm²/s)

CON = TP - TL + FLOW - FUP

CONVERGENCE CRITERIA:

1. TP almost equal to TL for the species that have LOWER B.C.= 0
2. FLOW should be the one set up in the program for those species with LOWER B.C.= 2
3. TL should be similar to FLOW for species with LOWER B.C.= 2 (CO and H₂ may never reach this criteria)
3. CON should be very small compared with TP

Z	H2CO	O	H2O	OH	HO2	H2O2	O3	H	H2	CH4	CO	CH3OOH
Rainout rate	5.43E+09	0.00E+00	0.00E+00	1.47E+06	1.14E+08	2.55E+10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E+10
PHIDEP	1.73E+09	2.91E+03	0.00E+00	1.44E+06	3.36E+08	7.62E+09	9.07E+10	2.17E-01	0.00E+00	0.00E+00	0.00E+00	5.57E+09
TLOSS	7.15E+09	2.91E+03	0.00E+00	2.91E+06	4.50E+08	3.32E+10	9.07E+10	2.17E-01	0.00E+00	0.00E+00	0.00E+00	2.10E+10
LOWER B.C.	0	0	1	0	0	0	0	0	2	1	2	0

TP	3.06E+11	3.43E+15	8.80E+11	5.38E+12	4.98E+12	1.60E+11	3.42E+15	3.85E+12	1.28E+11	0.00E+00	3.29E+11	1.99E+11
TL	3.04E+11	3.43E+15	3.15E+11	5.38E+12	4.98E+12	1.53E+11	3.42E+15	3.85E+12	1.26E+11	3.28E+11	6.40E+11	1.93E+11
FUP	-7.28E+03	-5.72E+08	-5.46E+03	-3.55E+05	-3.34E+05	-4.63E+01	2.20E+06	-4.97E+04	-5.92E+01	1.13E+01	-5.74E+08	-4.35E-01
FLOW	-4.87E+08	1.25E+09	1.94E+13	2.55E+06	-3.46E+08	-7.62E+09	-8.97E+10	-4.79E+06	-2.43E+09	3.28E+11	3.11E+11	-5.57E+09
CON	1.35E+06	-3.06E+10	2.00E+13	-8.25E+07	-1.34E+07	9.67E+04	3.28E+10	-7.54E+06	-5.49E+05	-1.82E+07	3.24E+05	-1.79E+06

Z	CH3O2	N2O	NO	NO2	HNO2	HNO3	HO2NO2	NO3	N2O5	CL2O2	CH3CL	HOCL
	1.25E+08	0.00E+00	3.63E+01	4.50E+02	1.21E+06	1.08E+10	3.00E+08	3.63E-01	1.70E+05	0.00E+00	0.00E+00	0.00E+00
	2.59E+08	0.00E+00	2.34E+07	1.05E+08	2.52E+05	3.37E+09	5.12E+06	2.70E+05	2.49E+03	8.93E-04	0.00E+00	2.52E+06
	3.83E+08	0.00E+00	2.34E+07	1.05E+08	1.46E+06	1.42E+10	3.06E+08	2.70E+05	1.73E+05	8.93E-04	0.00E+00	2.52E+06
	0	2	0	0	0	0	0	0	0	0	2	0

	4.71E+11	3.95E+06	4.18E+13	4.22E+13	9.04E+09	6.43E+10	2.65E+11	7.04E+10	2.21E+09	2.98E+06	0.00E+00	3.51E+09
	4.71E+11	1.11E+09	4.18E+13	4.22E+13	9.04E+09	4.82E+10	2.76E+11	7.04E+10	2.21E+09	2.98E+06	5.35E+08	3.51E+09
	-1.10E+01	-6.70E-03	-3.13E+02	-8.36E+02	-5.79E-01	-9.02E-03	-2.56E-04	-3.70E-02	-1.18E-09	-6.72E-07	1.08E-04	-8.41E+00
	-2.63E+08	1.11E+09	-2.14E+07	-9.55E+07	-2.56E+05	-3.37E+09	-5.18E+06	-1.67E+05	1.74E+03	3.33E-01	5.35E+08	-2.52E+06
	-4.69E+06	1.84E+04	-4.96E+07	5.96E+07	-4.71E+03	1.27E+10	-1.15E+10	3.33E+03	2.68E+04	1.57E+01	5.59E+03	2.61E+04

Z	CL	CLO	HCL	CLONO2	H2S	HS	SO	SO2	H2SO4	HSO	SO4AER
	0.00E+00	0.00E+00	3.74E+08	0.00E+00	4.34E+02	5.54E+01	3.43E-07	5.26E+08	1.00E+08	4.36E+05	2.46E+09

1.60E+02	1.63E+05	1.50E+08	8.66E+06	9.94E+05	6.39E+01	2.95E-04	6.90E+08	5.02E+07	1.14E+06	2.09E+07
1.60E+02	1.63E+05	5.24E+08	8.66E+06	9.94E+05	1.19E+02	2.95E-04	1.22E+09	1.50E+08	1.58E+06	2.48E+09
0	0	0	0	0	0	0	0	0	0	0

6.80E+13	9.70E+11	1.94E+09	7.53E+09	3.51E+08	3.50E+08	3.48E+08	2.10E+11	9.31E+10	2.57E+08	2.48E+09
6.80E+13	9.70E+11	1.79E+09	7.53E+09	3.50E+08	3.50E+08	3.48E+08	2.09E+11	2.58E+09	2.55E+08	2.46E+09
-2.53E+04	-1.77E+04	-1.69E+02	-8.36E-06	-2.31E-12	-7.30E-09	-4.08E-01	-5.62E+00	1.59E+06	-1.73E-07	1.94E+00
-9.46E+07	-1.57E+05	-1.50E+08	-8.65E+06	-9.92E+05	-1.18E+03	-9.58E+01	-6.90E+08	-5.02E+07	-1.14E+06	-5.07E+08
-9.47E+07	2.44E+04	1.45E+02	8.11E+04	2.01E+03	-1.11E+03	-1.57E+02	1.41E+05	9.05E+10	1.53E+03	-4.87E+08

CONSERVATION OF SULFUR:

SULLOS = 4.337E+09 SULPRO = 0.000E+00 SO4LOS = 2.633E+09

INTEGRATED REACTION RATES

This section is very important if you want to check the chemistry. The rates are listed from left to right (10 on each row). If you are looking for the rate of certain reaction, look its number in the program. For example, the reaction $H+H+M=H_2+M$ has number 43. Its integrated reaction rate is in the 5th row, 3rd column (marked in blue)

3.002E+11	1.637E+09	9.231E+06	1.239E+11	4.547E+11	3.393E+12	9.206E+07	2.301E+07	1.036E+09	3.001E+12
1.032E+11	7.625E+11	2.752E+12	4.278E+11	1.603E+11	5.755E+10	9.606E+08	3.416E+15	1.203E+12	1.114E+09
6.044E+14	2.427E+14	7.512E+07	8.196E+12	1.098E+10	8.473E+14	2.525E+15	6.961E+10	1.288E+09	6.403E+11
5.233E+05	1.141E+03	1.821E+00	0.000E+00	4.315E+01	8.068E+03	8.068E+03	1.276E+11	7.050E+10	6.555E+02
3.151E+04	6.096E+05	5.191E+02	1.714E+11	9.990E+10	2.285E+05	3.737E+07	7.000E+08	7.289E+06	5.083E+09
1.664E+05	3.394E+10	9.418E+08	9.035E+09	2.470E+10	1.636E+08	3.850E+13	3.221E+11	3.602E+09	3.602E+08
1.220E-02	1.566E+05	9.813E+03	5.268E-04	4.025E-04	9.813E+03	3.272E+11	2.993E+04	4.962E+06	7.048E+06
1.986E+11	9.102E+09	2.286E+11	3.057E+11	4.673E+03	2.526E+05	9.941E+07	7.270E+07	1.369E+08	2.320E+04
4.274E+06	2.238E+07	4.003E+13	8.125E+09	9.066E+11	9.036E+09	3.302E+12	4.929E+10	2.865E+08	1.270E+10
2.648E+11	1.368E+10	1.662E+05	2.532E+11	9.103E+09	1.436E+11	2.499E+10	4.160E+10	5.136E+05	5.361E+08
1.583E+04	3.696E+10	9.947E+07	5.338E+08	9.698E+11	7.557E+07	1.494E+09	1.138E+06	2.502E+08	2.120E+06
1.182E+08	2.328E+07	1.309E+07	2.510E+06	4.575E+07	4.613E+03	6.701E+13	5.893E+02	3.075E+01	3.637E+11
5.908E+11	7.534E+09	3.510E+09	4.289E+09	1.408E+09	4.925E+07	9.916E+07	1.472E+06	5.705E+06	2.605E+08
3.159E+02	1.056E+06	1.878E+04	8.173E+06	3.451E+09	2.505E+06	4.854E+07	7.153E+09	1.780E+13	5.862E+08
2.984E+06	1.848E+06	1.136E+06	4.921E+13	3.454E+05	1.051E+06	2.792E+06	2.022E+03	1.527E+03	7.588E+09
3.002E+10	2.214E+09	1.316E+09	5.639E+07	8.412E+08	0.000E+00	2.170E+05	1.066E+02	3.472E+08	1.633E+04
2.456E+01	2.555E+03	2.632E+09	1.021E+05	2.632E+09	2.632E+09	4.510E-02	6.911E-07	2.909E-03	3.497E+08
4.798E+00	3.394E+03	1.078E+02	9.243E+07	3.905E+05	5.680E-02	2.689E-05	1.579E-04	4.134E-14	9.301E+04
2.703E-03	9.301E+04	3.038E-04	3.038E-04	3.098E+05	2.041E+11	1.643E+09	7.014E+02	0.000E+00	1.855E+10
1.855E+11	2.778E+06	4.075E+07	3.895E+05	1.051E+01	2.018E+10	1.512E+07	1.331E+00	1.257E+05	3.541E+05
0.000E+00	2.511E+08	5.429E+06	7.028E+00	5.151E-07	5.530E-06	6.836E-07	0.000E+00	2.634E-07	1.369E-03
2.621E+00	2.540E+08	1.802E+01	1.602E+00	7.728E+01	9.794E+05	9.569E-10	3.948E+06	8.962E-18	2.434E-22

ATMOSPHERIC PARAMETERS AND PH EQ SPECIES

Z	SO4AER	CH21	CH23	O1D	CH3	H3CO	HCO	N	NOCL	CLONO	CLO2	CL2
5.00E+04	0.00E+00	0.00E+00	0.00E+00	9.23E-03	9.35E-02	4.99E+01	7.77E-03	9.49-307	3.95E+01	7.60E+02	1.89E+00	1.32E+00
4.50E+05	0.00E+00	0.00E+00	0.00E+00	2.50E-02	8.78E-02	8.45E+01	1.11E-02	5.56-140	2.07E+02	3.09E+03	7.20E+00	3.37E+00
8.50E+05	0.00E+00	0.00E+00	0.00E+00	3.44E-02	1.61E-02	2.85E+01	2.01E-03	1.91E-78	3.48E+02	2.30E+03	1.63E+01	2.51E-01

1.25E+06	0.00E+00	0.00E+00	0.00E+00	4.38E-02	1.25E-03	3.49E+00	1.13E-04	1.09E-41	3.01E+02	9.51E+02	1.49E+01	3.68E-03
1.65E+06	0.00E+00	0.00E+00	0.00E+00	2.11E-01	1.48E-03	3.56E+00	1.04E-04	2.17E-21	3.03E+02	2.03E+03	2.26E+01	1.03E-02
2.05E+06	0.00E+00	1.48-14671	1.86-1467	9.27E-01	4.88E-03	8.05E+00	2.64E-04	1.79E-10	3.93E+02	4.34E+03	3.79E+01	2.07E-01
2.45E+06	0.00E+00	5.30-775	6.64-775	3.80E+00	2.39E-02	2.15E+01	9.71E-04	1.25E-04	3.62E+02	5.38E+03	3.37E+01	5.97E+00
2.85E+06	0.00E+00	1.77-420	2.22-420	1.42E+01	1.26E-01	5.34E+01	3.69E-03	2.21E-01	3.94E+02	6.49E+03	2.33E+01	5.84E+01
3.25E+06	0.00E+00	1.46-234	1.83-234	4.00E+01	5.20E-01	1.00E+02	1.01E-02	1.59E+01	5.84E+02	7.08E+03	2.03E+01	2.53E+02
3.65E+06	0.00E+00	1.40-134	1.76-134	8.40E+01	1.62E+00	1.35E+02	1.85E-02	1.35E+02	5.75E+02	3.90E+03	1.51E+01	4.61E+02
4.05E+06	0.00E+00	2.39E-79	3.00E-79	1.61E+02	4.22E+00	1.58E+02	2.77E-02	3.54E+02	3.89E+02	1.06E+03	1.05E+01	4.24E+02
4.45E+06	0.00E+00	5.88E-48	7.37E-48	2.42E+02	7.97E+00	1.48E+02	3.04E-02	4.94E+02	1.90E+02	1.51E+02	7.26E+00	2.10E+02
4.85E+06	0.00E+00	1.90E-29	2.38E-29	2.61E+02	9.16E+00	1.12E+02	2.26E-02	7.24E+02	6.69E+01	1.58E+01	5.68E+00	6.47E+01
5.25E+06	0.00E+00	4.07E-18	5.11E-18	2.25E+02	8.43E+00	8.14E+01	1.42E-02	1.32E+03	1.89E+01	1.48E+00	4.65E+00	1.53E+01
5.65E+06	0.00E+00	3.49E-11	4.37E-11	1.53E+02	7.81E+00	5.77E+01	8.74E-03	2.44E+03	4.47E+00	1.41E-01	3.18E+00	3.11E+00
6.05E+06	0.00E+00	4.92E-07	6.17E-07	8.95E+01	7.31E+00	4.28E+01	5.46E-03	4.84E+03	9.89E-01	1.99E-02	2.12E+00	6.94E-01

Z	S	SO21	SO23	HSO3	SO3	S2	O2	CO2	N2
5.00E+04	4.23E-15	1.71E-04	1.27E-03	4.33E-04	4.74E-01	1.41E-04	5.05E+18	8.53E+15	1.90E+19
4.50E+05	7.72E-15	8.35E-04	6.09E-03	2.68E-03	1.32E+01	2.09E+02	3.33E+18	5.63E+15	1.25E+19
8.50E+05	3.52E-13	1.90E-03	1.37E-02	2.95E-03	2.43E+02	2.50E-01	2.19E+18	3.70E+15	8.23E+18
1.25E+06	1.03E-09	1.41E-03	1.02E-02	4.52E-04	9.76E+02	6.93E-01	1.32E+18	2.24E+15	4.98E+18
1.65E+06	3.15E-08	3.04E-04	2.18E-03	6.92E-05	1.62E+02	-2.27E-13	7.02E+17	1.19E+15	2.64E+18
2.05E+06	8.29E-08	3.38E-05	2.39E-04	9.32E-06	1.84E+01	2.18E-02	3.61E+17	6.10E+14	1.36E+18
2.45E+06	8.05E-08	3.55E-06	2.48E-05	1.31E-06	2.26E+00	1.27E-11	1.83E+17	3.10E+14	6.89E+17
2.85E+06	4.53E-08	4.05E-07	2.78E-06	1.70E-07	2.67E-01	2.12E+18	9.44E+16	1.60E+14	3.55E+17
3.25E+06	3.28E-08	1.12E-07	7.52E-07	3.87E-08	5.61E-02	1.57E+00	5.01E+16	8.46E+13	1.88E+17
3.65E+06	9.97E-08	2.29E-07	1.49E-06	4.71E-08	6.52E-02	1.83E-01	2.72E+16	4.60E+13	1.02E+17
4.05E+06	2.79E-07	5.70E-07	3.57E-06	6.79E-08	9.34E-02	7.54E-02	1.53E+16	2.58E+13	5.74E+16
4.45E+06	5.76E-07	1.14E-06	6.74E-06	6.98E-08	1.00E-01	-1.13E+00	8.85E+15	1.50E+13	3.33E+16
4.85E+06	9.39E-07	1.78E-06	9.84E-06	5.77E-08	8.48E-02	-1.54E+00	5.37E+15	9.08E+12	2.02E+16
5.25E+06	1.29E-06	2.29E-06	1.15E-05	4.34E-08	6.23E-02	-5.19E-01	3.31E+15	5.59E+12	1.24E+16
5.65E+06	1.56E-06	2.52E-06	1.10E-05	3.04E-08	4.15E-02	1.37E+00	1.99E+15	3.37E+12	7.50E+15
6.05E+06	1.74E-06	2.43E-06	8.90E-06	2.52E-08	3.10E-02	4.62E-01	1.19E+15	2.01E+12	4.47E+15

ATMOSPHERIC PARAMETERS Used for checking that is reading the temperature (T) you want and it gives you the total density (DEN) of the atmosphere in each layer. EDD is the Eddy diffusion coefficient in each layer.

Z	T	EDD	DEN
5.000E+04	2.879E+02	1.000E+05	2.402E+19
4.500E+05	2.664E+02	1.000E+05	1.587E+19
8.500E+05	2.362E+02	1.000E+05	1.042E+19
1.250E+06	2.105E+02	1.166E+04	6.301E+18
1.650E+06	2.060E+02	3.950E+03	3.345E+18
2.050E+06	2.074E+02	4.844E+03	1.720E+18
2.450E+06	2.146E+02	7.984E+03	8.723E+17
2.850E+06	2.247E+02	1.249E+04	4.494E+17
3.250E+06	2.350E+02	1.818E+04	2.384E+17
3.650E+06	2.466E+02	2.746E+04	1.296E+17
4.050E+06	2.573E+02	4.195E+04	7.269E+16

4.450E+06 2.652E+02 6.445E+04 4.212E+16
4.850E+06 2.627E+02 9.687E+04 2.557E+16
5.250E+06 2.534E+02 1.483E+05 1.575E+16
5.650E+06 2.449E+02 2.256E+05 9.498E+15
6.050E+06 2.351E+02 3.421E+05 5.662E+15

SULFATE AEROSOL PARAMETERS

Z	AEROSOL	RPAR	WFALL	FSULF	TAUSED	TAUEDD	TAUC	H2SO4S	H2SO4	CONSO4	CONVER
5.000E+04	1.918E+02	1.000E-05	2.697E-04	2.302E-01	0.000E+00	0.000E+00	1.005E+07	6.192E-19	2.091E-12	3.346E-17	1.059E+07
4.500E+05	1.927E+02	1.000E-05	4.163E-04	4.379E-01	0.000E+00	0.000E+00	8.181E+06	5.027E-18	1.246E-11	1.994E-16	2.015E+07
8.500E+05	1.693E+02	1.000E-05	6.600E-04	5.429E-01	0.000E+00	0.000E+00	7.333E+06	3.872E-19	1.228E-11	1.965E-16	2.498E+07
1.250E+06	1.112E+02	1.000E-05	1.152E-03	6.171E-01	0.000E+00	0.000E+00	8.091E+06	1.494E-20	1.742E-12	2.787E-17	2.838E+07
1.650E+06	6.362E+01	1.000E-05	2.082E-03	6.242E-01	0.000E+00	0.000E+00	9.360E+06	9.808E-21	2.406E-13	3.849E-18	2.871E+07
2.050E+06	2.435E+01	1.000E-05	3.966E-03	6.656E-01	0.000E+00	0.000E+00	1.694E+07	2.301E-19	3.280E-14	5.246E-19	3.062E+07
2.450E+06	7.878E+00	1.000E-05	7.692E-03	7.347E-01	0.000E+00	0.000E+00	4.039E+07	1.277E-16	5.019E-15	7.823E-20	3.380E+07
2.850E+06	2.460E+00	1.000E-05	1.458E-02	7.938E-01	0.000E+00	0.000E+00	1.124E+08	7.435E-14	3.540E-14	0.000E+00	3.651E+07
3.250E+06	7.319E-01	1.000E-05	2.680E-02	8.357E-01	0.000E+00	0.000E+00	3.537E+08	1.290E-11	5.125E-14	0.000E+00	3.844E+07
3.650E+06	1.968E-01	1.000E-05	4.813E-02	8.797E-01	0.000E+00	0.000E+00	1.266E+09	1.175E-09	4.968E-14	0.000E+00	4.047E+07
4.050E+06	4.989E-02	1.000E-05	8.408E-02	9.152E-01	0.000E+00	0.000E+00	4.867E+09	2.777E-08	4.507E-14	0.000E+00	4.210E+07
4.450E+06	1.244E-02	1.000E-05	1.415E-01	9.152E-01	0.000E+00	0.000E+00	1.920E+10	1.468E-07	3.832E-14	0.000E+00	4.210E+07
4.850E+06	2.999E-03	1.000E-05	2.347E-01	9.152E-01	0.000E+00	0.000E+00	7.996E+10	1.709E-07	3.075E-14	0.000E+00	4.210E+07
5.250E+06	6.593E-04	1.000E-05	3.926E-01	9.152E-01	0.000E+00	0.000E+00	3.703E+11	7.194E-08	2.404E-14	0.000E+00	4.210E+07
5.650E+06	1.276E-04	1.000E-05	6.701E-01	9.152E-01	0.000E+00	0.000E+00	1.945E+12	3.179E-08	1.921E-14	0.000E+00	4.210E+07
6.050E+06	2.108E-05	1.000E-05	1.161E+00	9.079E-01	0.000E+00	0.000E+00	1.202E+13	8.953E-09	1.635E-14	0.000E+00	4.176E+07