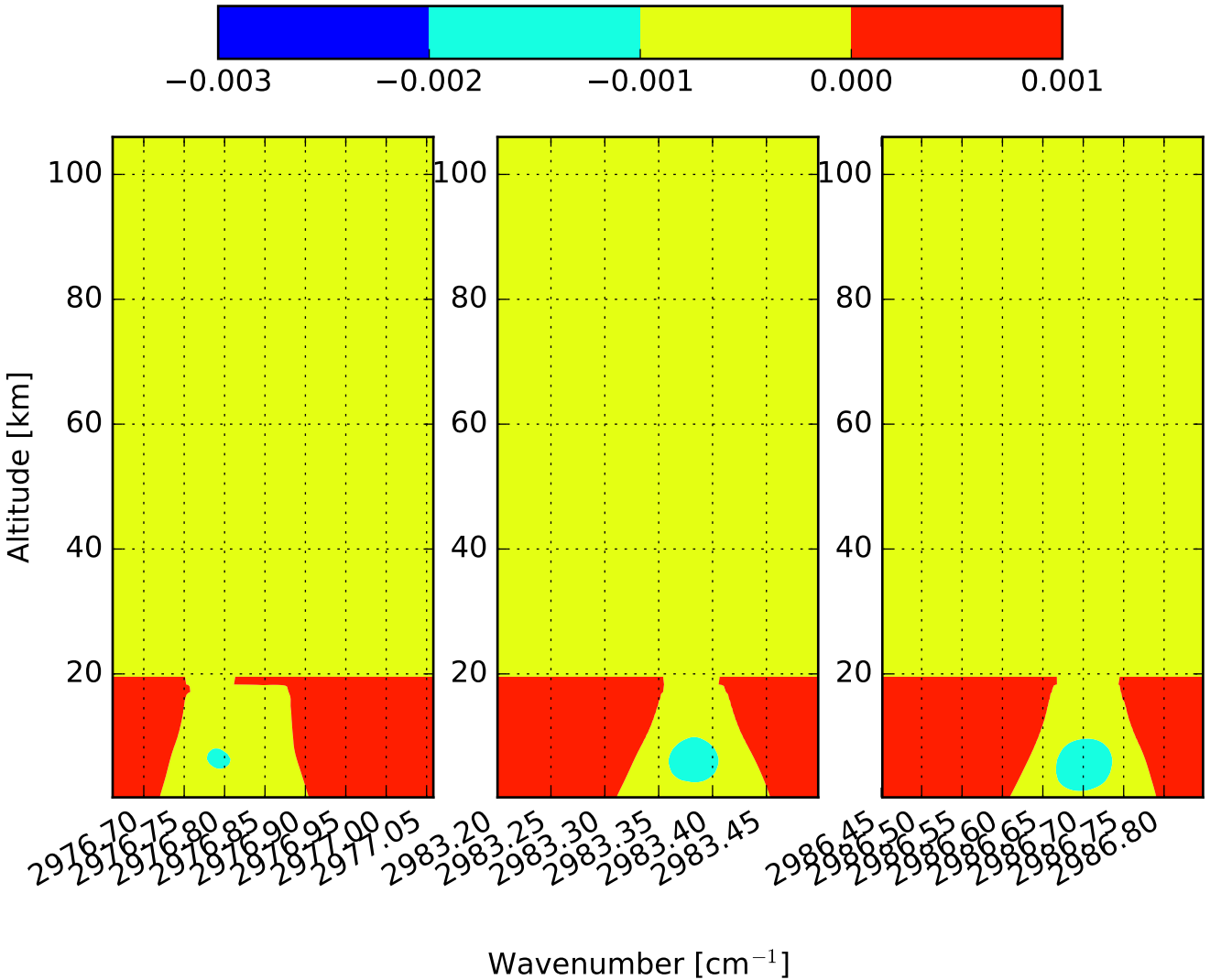
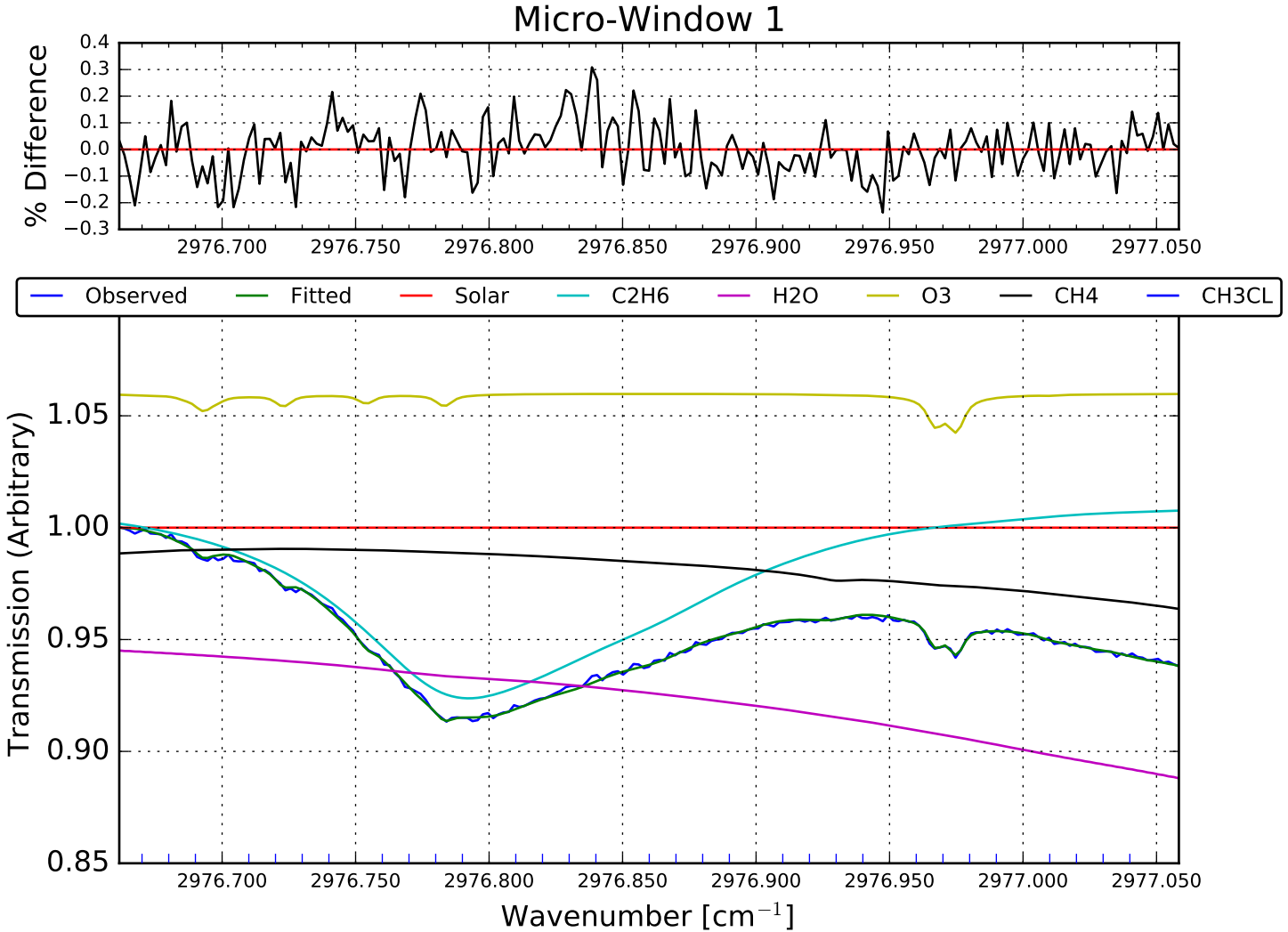
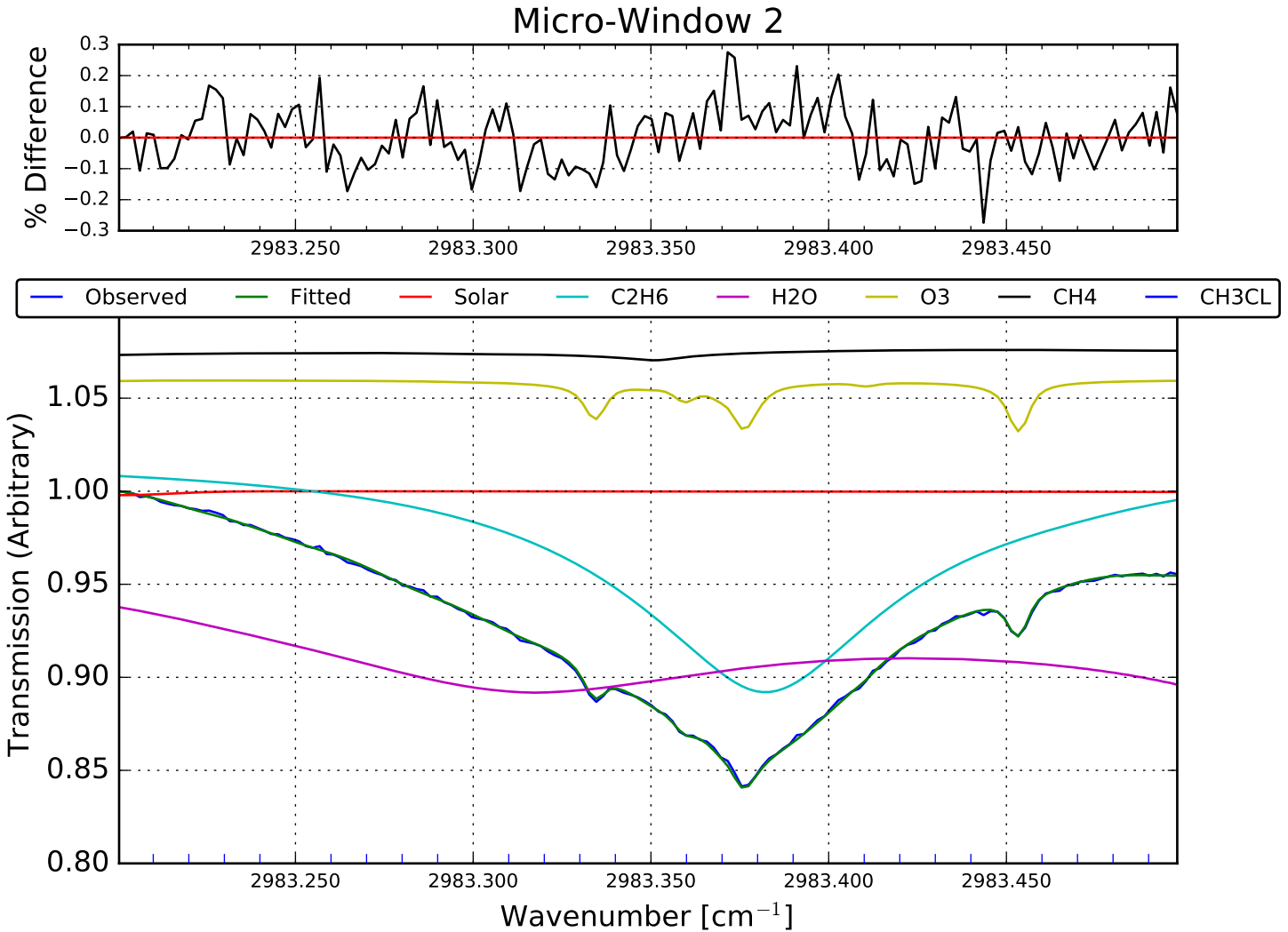
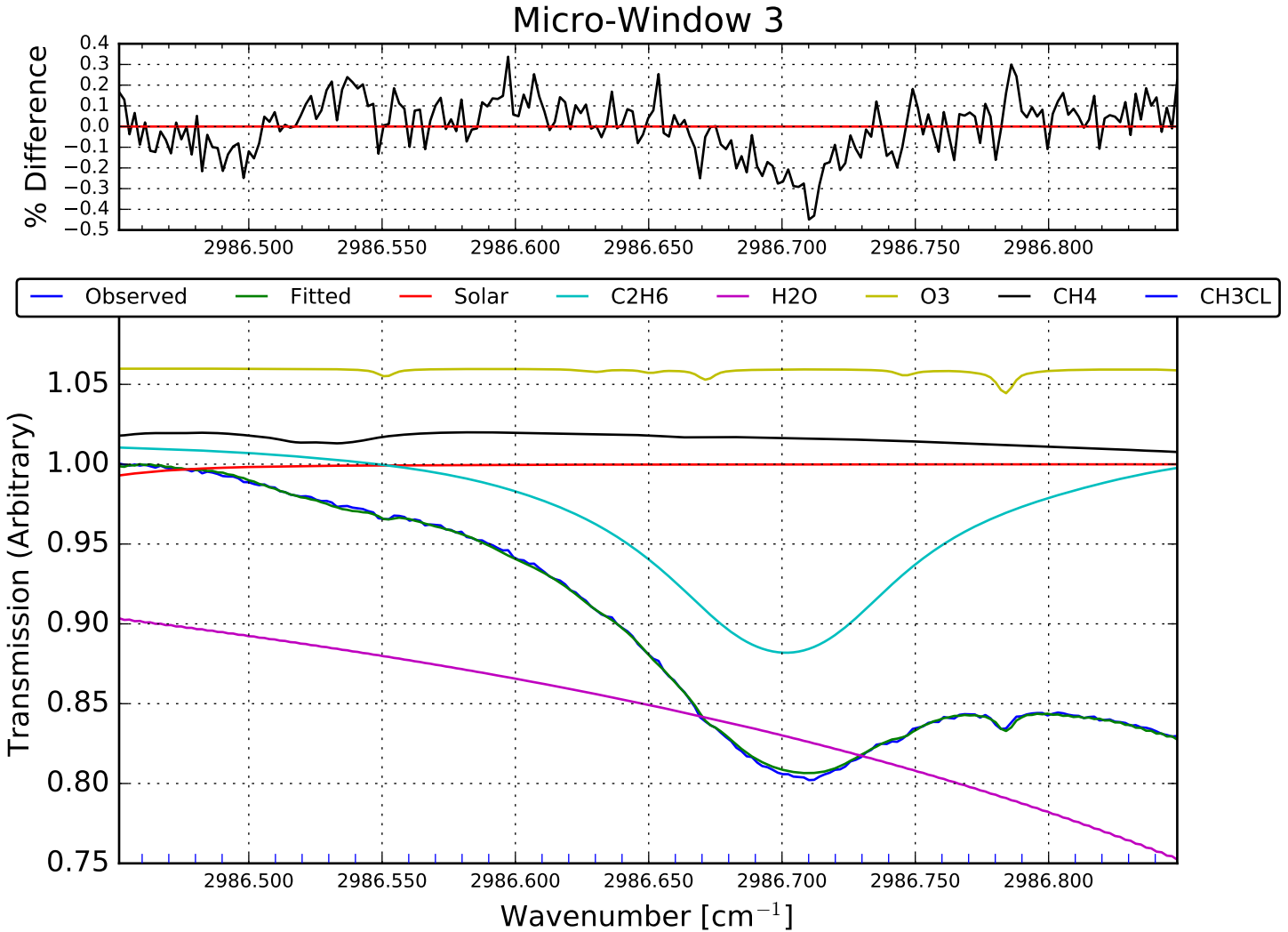

−0.003
−0.002
−0.001
0.000
0.001
Altitude [km]
100
80
60
40
20
2976.70
2976.75
2976.80
2976.85
2976.90
2976.95
2977.00
2977.05
2983.20
2983.25
2983.30
2983.35
2983.40
2983.45
2986.45
2986.50
2986.55
2986.60
2986.65
2986.70
2986.75
2986.80
Wavenumber [cm^{-1}]

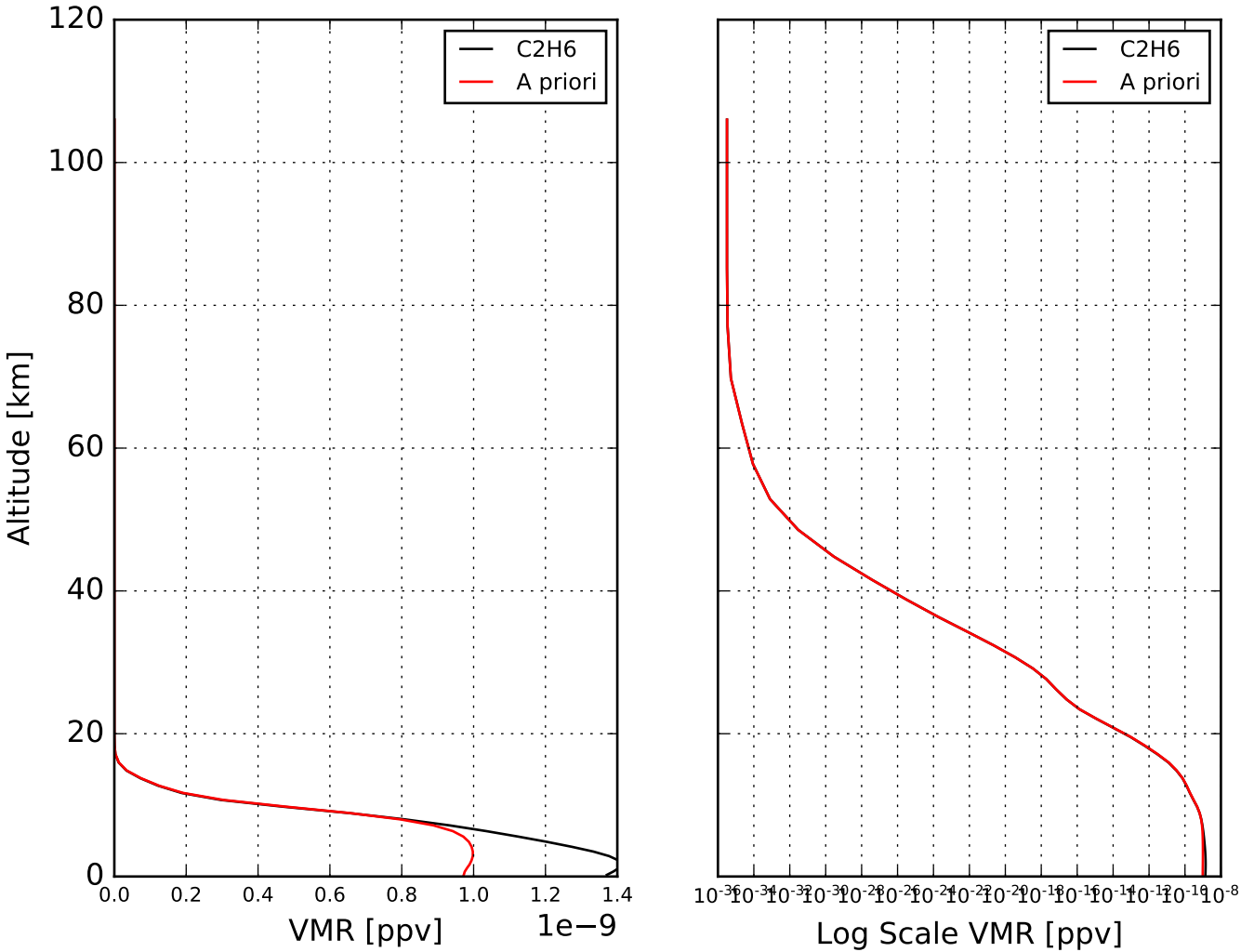

Micro-Window 1
% Difference
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2976.700
2976.750
2976.800
2976.850
2976.900
2976.950
2977.000
2977.050
Observed
Fitted
Solar
C2H6
H2O
O3
CH4
CH3CL
Transmission (Arbitrary)
1.05
1.00
0.95
0.90
0.85
Wavenumber [cm^{-1}]


Micro-Window 2
% Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2983.250
2983.300
2983.350
2983.400
2983.450
Observed
Fitted
Solar
C2H6
H2O
O3
CH4
CH3CL
Transmission (Arbitrary)
1.05
1.00
0.95
0.90
0.85
0.80
2983.250
2983.300
2983.350
2983.400
2983.450
Wavenumber [cm^{-1}]


Micro-Window 3
% Difference
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
2986.500
2986.550
2986.600
2986.650
2986.700
2986.750
2986.800
Observed
Fitted
Solar
C2H6
H2O
O3
CH4
CH3CL
Transmission (Arbitrary)
1.05
1.00
0.95
0.90
0.85
0.80
0.75
Wavenumber [cm^{-1}]

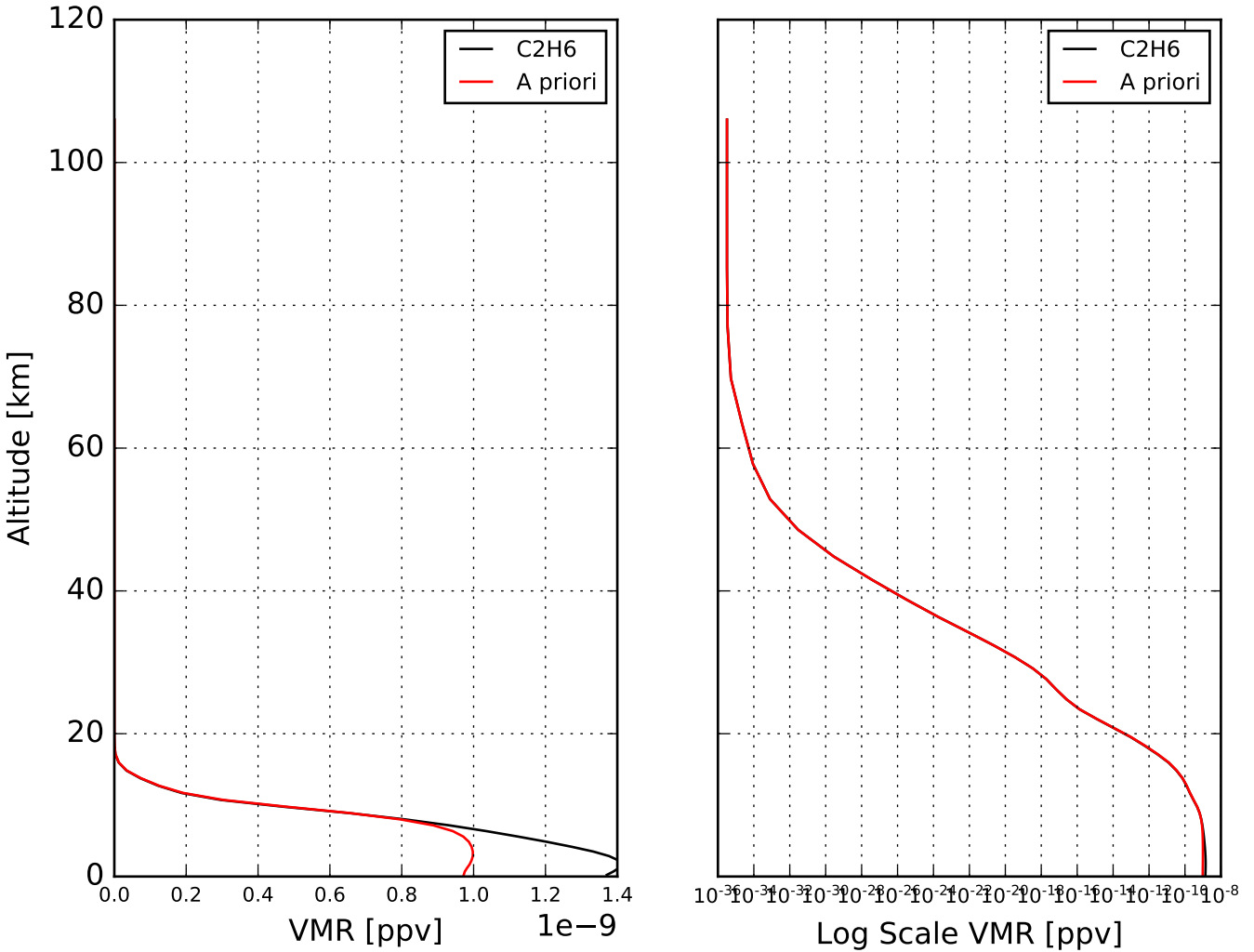
Number of Obs Filtered = 0

Number of Obs After Filtering = 1



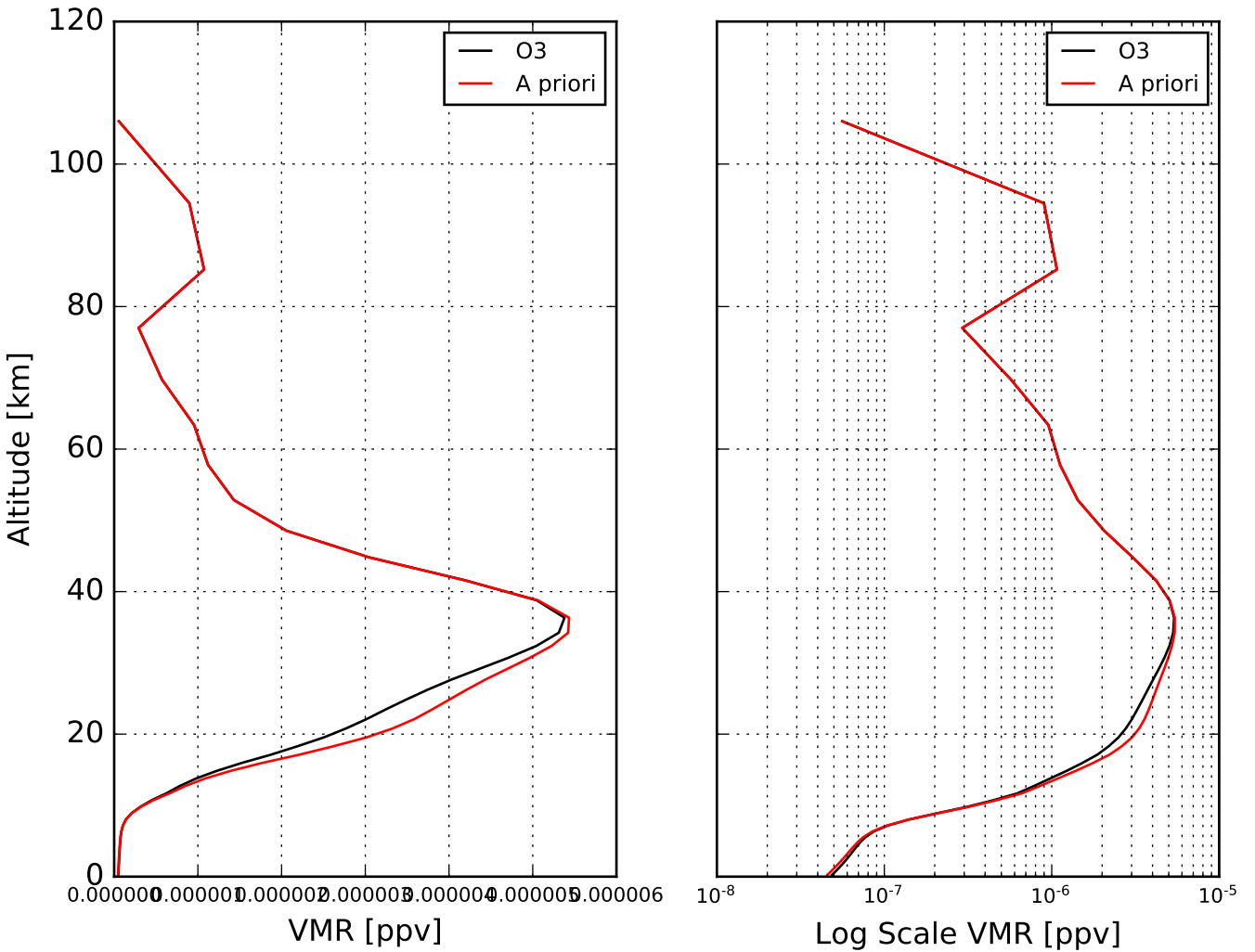
Number of Obs Filtered = 0

Number of Obs After Filtering = 1



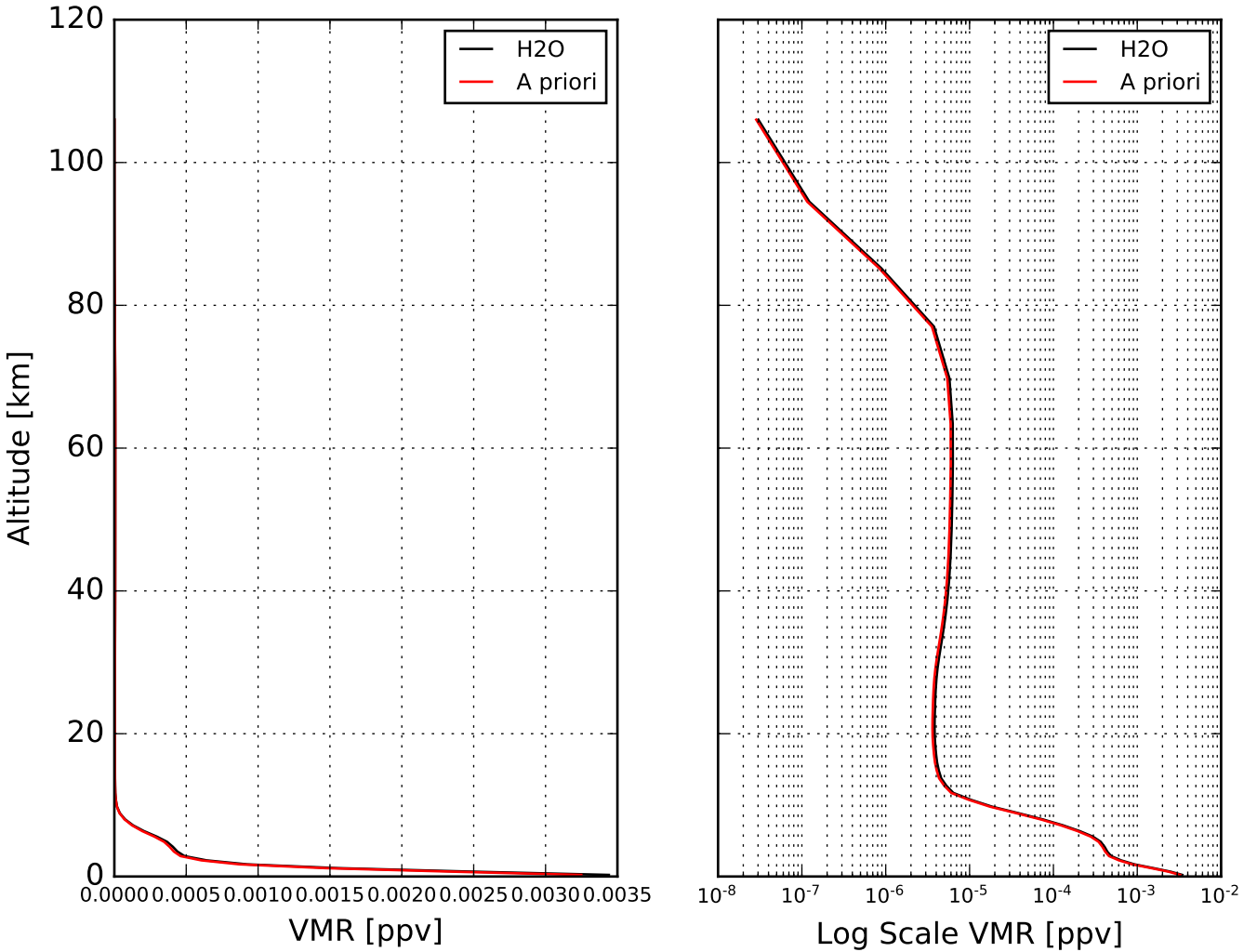
Number of Obs Filtered = 0

Number of Obs After Filtering = 1



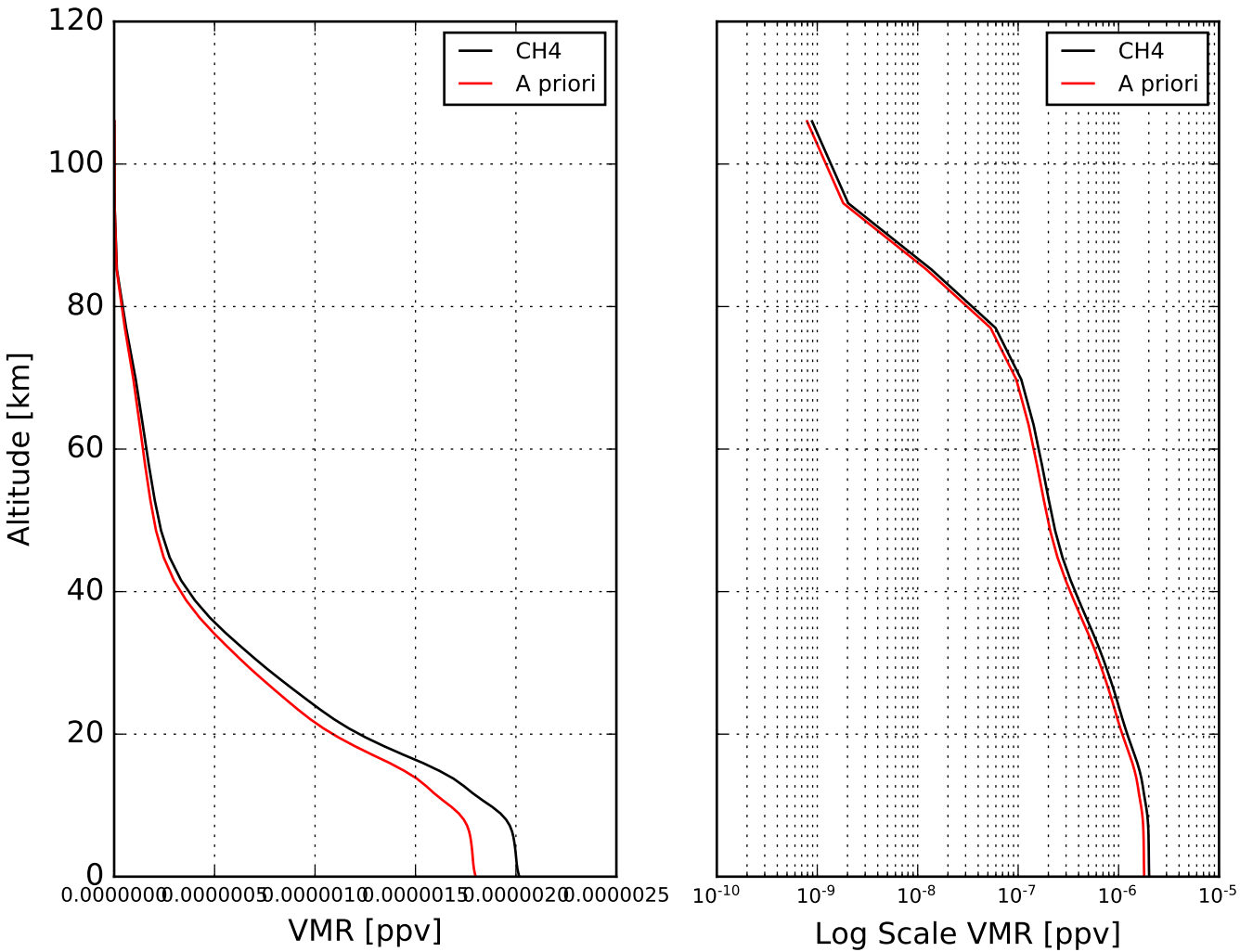
Number of Obs Filtered = 0

Number of Obs After Filtering = 1



Number of Obs Filtered = 0

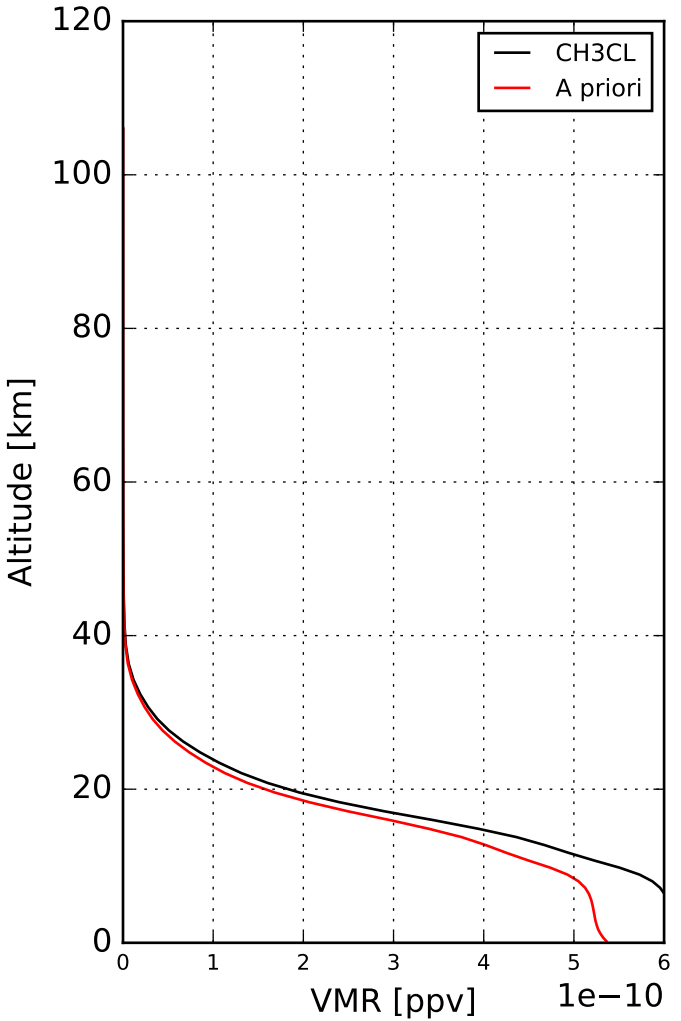
Number of Obs After Filtering = 1

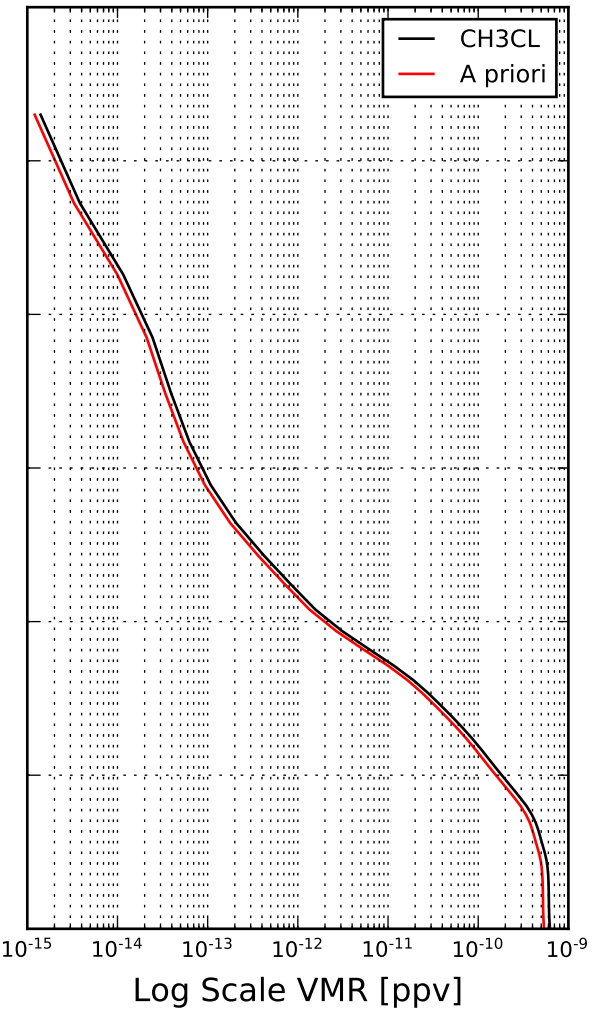


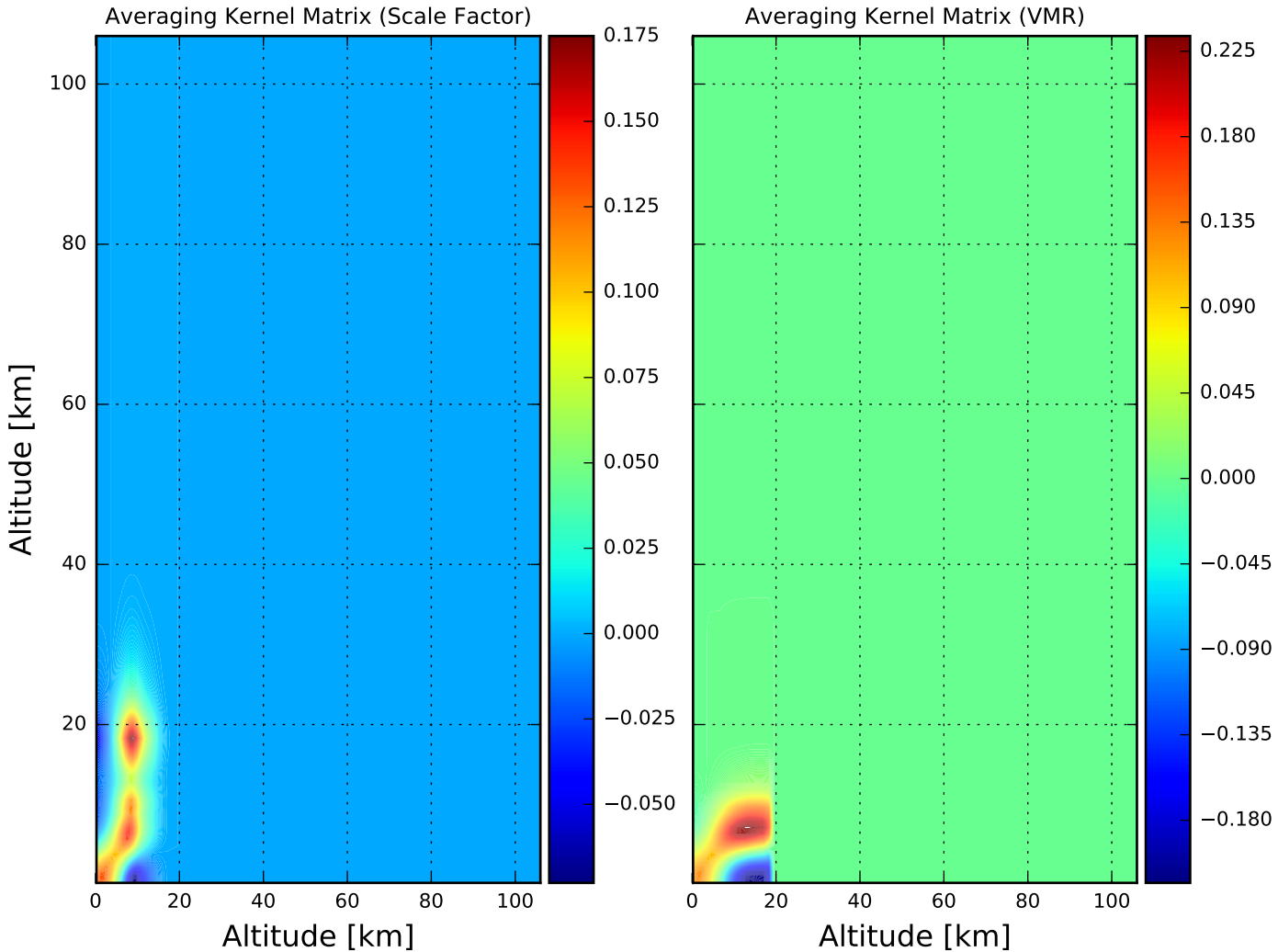
Number of Obs Filtered = 0

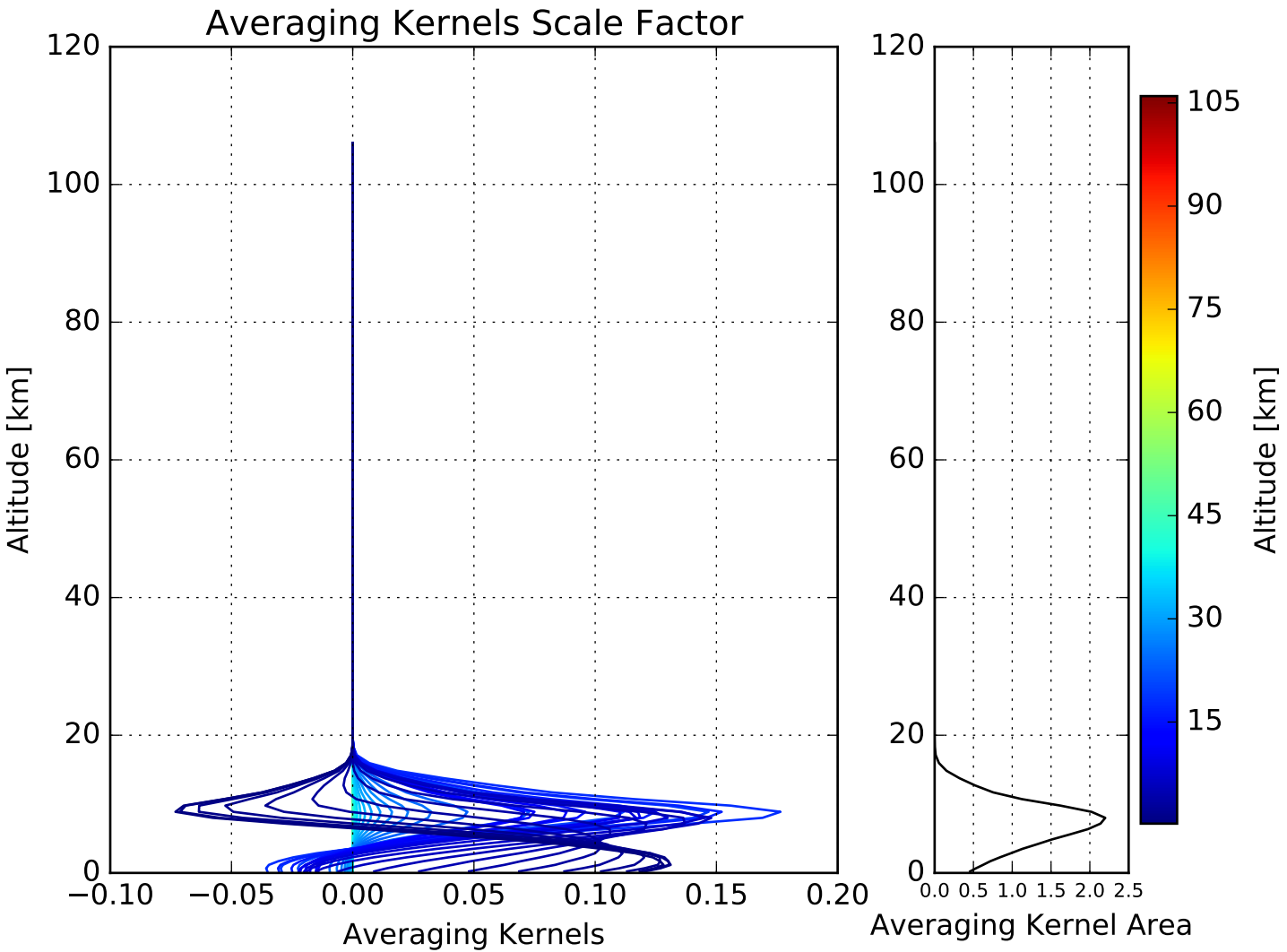
Number of Obs After Filtering = 1

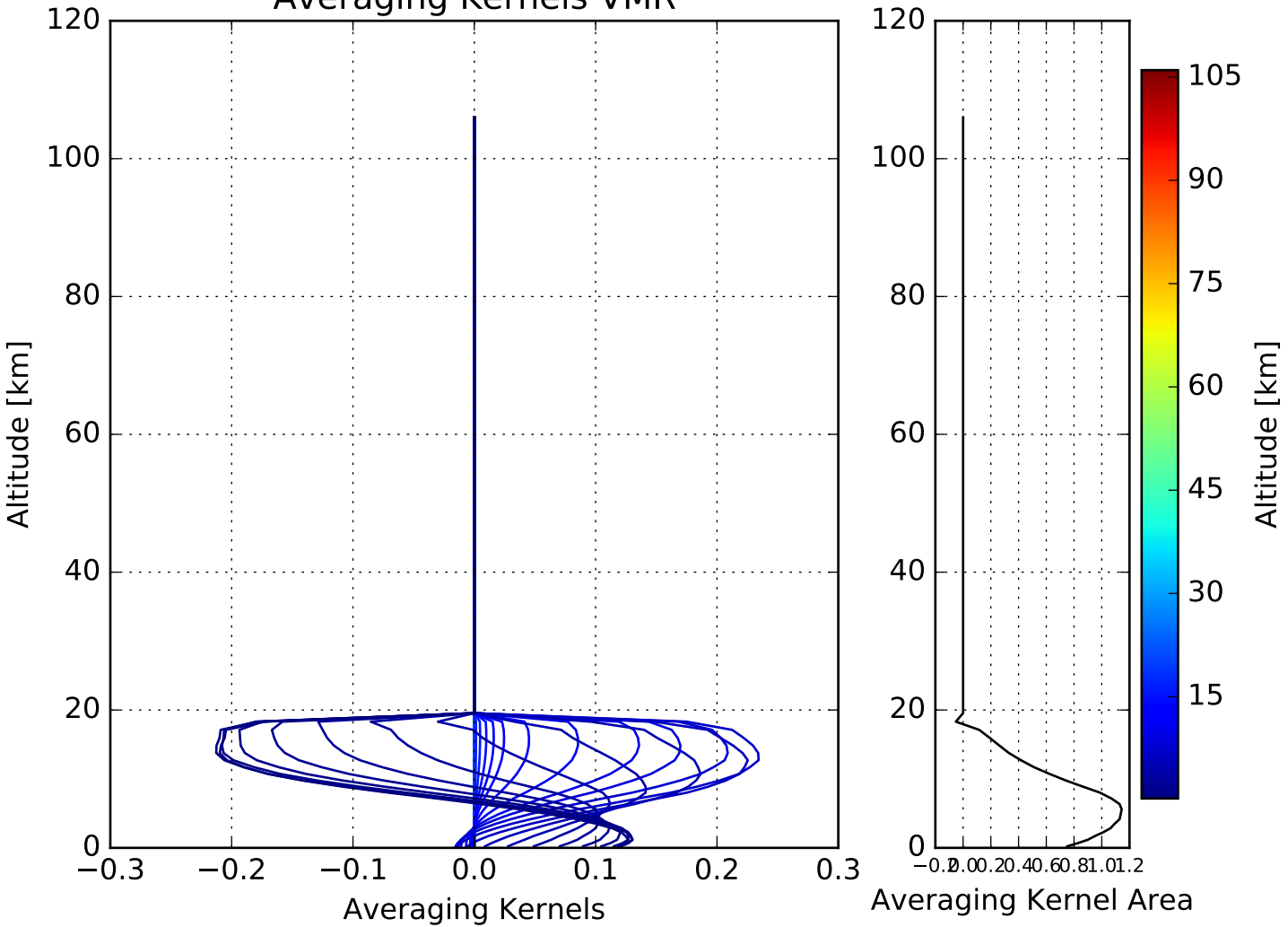
CH3CL

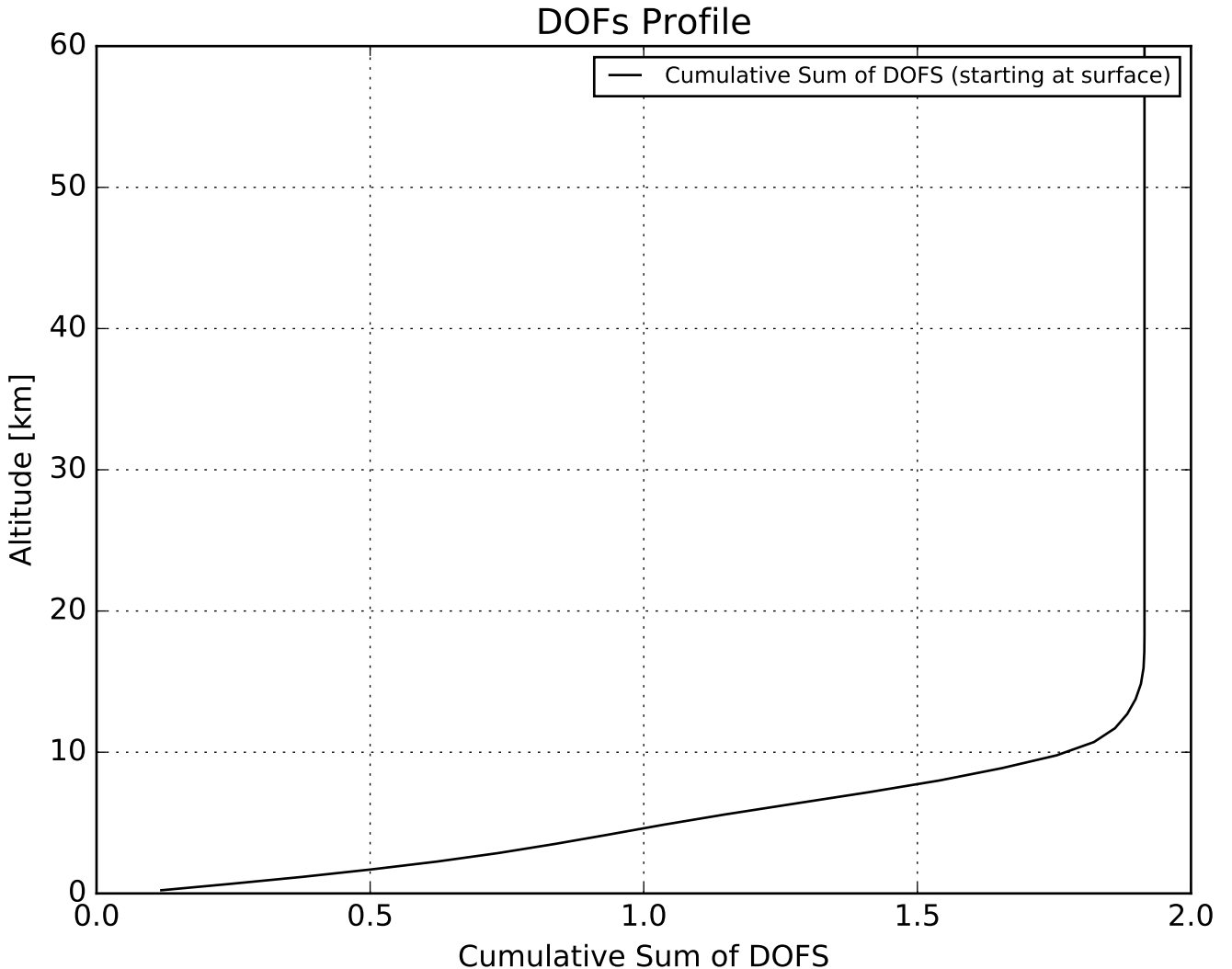





Averaging Kernel Matrix (Scale Factor)
Averaging Kernel Matrix (VMR)
Altitude [km]
Altitude [km]
Altitude [km]
Altitude [km]
0
20
40
60
80
100
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
−0.050
0.225
0.180
0.135
0.090
0.045
0.000
−0.045
−0.090
−0.135
−0.180


Averaging Kernels Scale Factor
Altitude [km]
Averaging Kernels
−0.10
−0.05
0.00
0.05
0.10
0.15
0.20
0
20
40
60
80
100
120
Averaging Kernel Area
0.0
0.5
1.0
1.5
2.0
2.5
Altitude [km]
105
90
75
60
45
30
15


Averaging Kernels VMR
Altitude [km]
Averaging Kernels
Averaging Kernel Area
Altitude [km]
120
100
80
60
40
20
0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
105
90
75
60
45
30
15


DOFs Profile
Cumulative Sum of DOFS (starting at surface)
Altitude [km]
0
10
20
30
40
50
60
0.0
0.5
1.0
1.5
2.0
Cumulative Sum of DOFS

SFIT4: Pre-Rele:Pre-Release -- Sept 9 2014 RUNTIME:20190116-14:31:56 RETRIEVAL SUMMARY

3
20170520 13:56:01UT Z:059.701 A:316.91 D:0204.7 R:0.0035 P:BX V:02.3923 E:6397□□
20170520 13:56:01UT Z:059.701 A:316.91 D:0204.7 R:0.0035 P:BX V:02.3923 E:6397□□
20170520 13:56:01UT Z:059.701 A:316.91 D:0204.7 R:0.0035 P:BX V:02.3923 E:6397□□

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IRET	GAS_NAME	IFPRF	APR_COLUMN	RET_COLUMN
1	C2H6	T	4.66631E+15	1.96177E+16
2	O3	T	1.03827E+19	9.37520E+18
3	H2O	F	1.29288E+22	1.36926E+22
4	CH4	F	3.48390E+19	3.90509E+19
5	CH3CL	F	9.76489E+15	1.13483E+16

3

IBAND	NUSTART	NUSTOP	SPACE	NPTSB	PMAX	FOVDIA	MEAN_FIT_SNR	NSCAN	JSCAN	INIT_SNR	FIT
1	2976.66000	2977.05900	0.001945525	205	257.00	2.392300	977.444062	1			
							1 1251.597	977.444			
2	2983.20000	2983.50000	0.001945525	154	257.00	2.392300	996.888659	1			
							1 1481.987	996.889			
3	2986.45000	2986.85000	0.001945525	205	257.00	2.392300	673.529970	1			
							1 1495.984	673.530			

FITRMS	CHI_2_Y	DOFS_ALL	DOFS_TRG	DOFS_TPR	ITER	MAX_ITER	CONVERGED	DIVWARN
0.120370	0.986385	15.676	1.915	0.000	5	25	T	F

Primary gas = C2H6
Total column amount = 1.96177E+16 [molecules cm^-2]
DOFs (total column) = 1.915
Smoothing error (Ss, using sa+sb.ctl) = 0.353 [%]
Measurement error (Sm) = 1.657 [%]
Interference error (retrieved params) = 0.316 [%]
Interference error (interfering spcs) = 0.132 [%]
Temperature (Random) = 1.063 [%]
Temperature (Systematic) = 3.261 [%]
Total random error = 2.490 [%]
Total systematic error = 14.430 [%]
Total random uncertainty = 4.885E+14 [molecules cm^-2]
Total systematic uncertainty = 2.831E+15 [molecules cm^-2]
Total random uncertainty retrieval_parameters = 6.192E+13 [molecules cm^-2] 0.316 [%]
Total random uncertainty temperature = 2.086E+14 [molecules cm^-2] 1.063 [%]
Total random uncertainty apod_fcn = 1.382E+12 [molecules cm^-2] 0.007 [%]
Total random uncertainty sza = 2.911E+14 [molecules cm^-2] 1.484 [%]
Total random uncertainty curvature = 1.616E+13 [molecules cm^-2] 0.082 [%]
Total random uncertainty smoothing = 6.927E+13 [molecules cm^-2] 0.353 [%]
Total random uncertainty measurement = 3.250E+14 [molecules cm^-2] 1.657 [%]
Total random uncertainty omega = 3.023E+10 [molecules cm^-2] 0.000 [%]
Total random uncertainty interfering_species = 2.593E+13 [molecules cm^-2] 0.132 [%]
Total systematic uncertainty linepair_ch3cl = 1.776E+13 [molecules cm^-2] 0.091 [%]
Total systematic uncertainty linetair_c2h6 = 2.223E+13 [molecules cm^-2] 0.113 [%]
Total systematic uncertainty linetair_ch3cl = 3.794E+12 [molecules cm^-2] 0.019 [%]
Total systematic uncertainty temperature = 6.398E+14 [molecules cm^-2] 3.261 [%]
Total systematic uncertainty linepair_h2o = 9.921E+14 [molecules cm^-2] 5.057 [%]
Total systematic uncertainty linepair_o3 = 2.168E+13 [molecules cm^-2] 0.111 [%]
Total systematic uncertainty omega = 3.023E+10 [molecules cm^-2] 0.000 [%]
Total systematic uncertainty sza = 2.911E+14 [molecules cm^-2] 1.484 [%]
Total systematic uncertainty linepair_ch4 = 1.977E+14 [molecules cm^-2] 1.008 [%]
Total systematic uncertainty lineint_c2h6 = 2.458E+15 [molecules cm^-2] 12.531 [%]
Total systematic uncertainty curvature = 1.616E+13 [molecules cm^-2] 0.082 [%]
Total systematic uncertainty smoothing = 2.714E+13 [molecules cm^-2] 0.138 [%]
Total systematic uncertainty lineint_ch4 = 1.390E+13 [molecules cm^-2] 0.071 [%]
Total systematic uncertainty linepair_c2h6 = 6.658E+14 [molecules cm^-2] 3.394 [%]
Total systematic uncertainty lineint_o3 = 1.677E+13 [molecules cm^-2] 0.086 [%]
Total systematic uncertainty linetair_ch4 = 2.411E+13 [molecules cm^-2] 0.123 [%]
Total systematic uncertainty linetair_h2o = 8.542E+13 [molecules cm^-2] 0.435 [%]
Total systematic uncertainty lineint_h2o = 7.713E+10 [molecules cm^-2] 0.000 [%]
Total systematic uncertainty linetair_o3 = 1.402E+13 [molecules cm^-2] 0.071 [%]
Total systematic uncertainty apod_fcn = 1.382E+12 [molecules cm^-2] 0.007 [%]