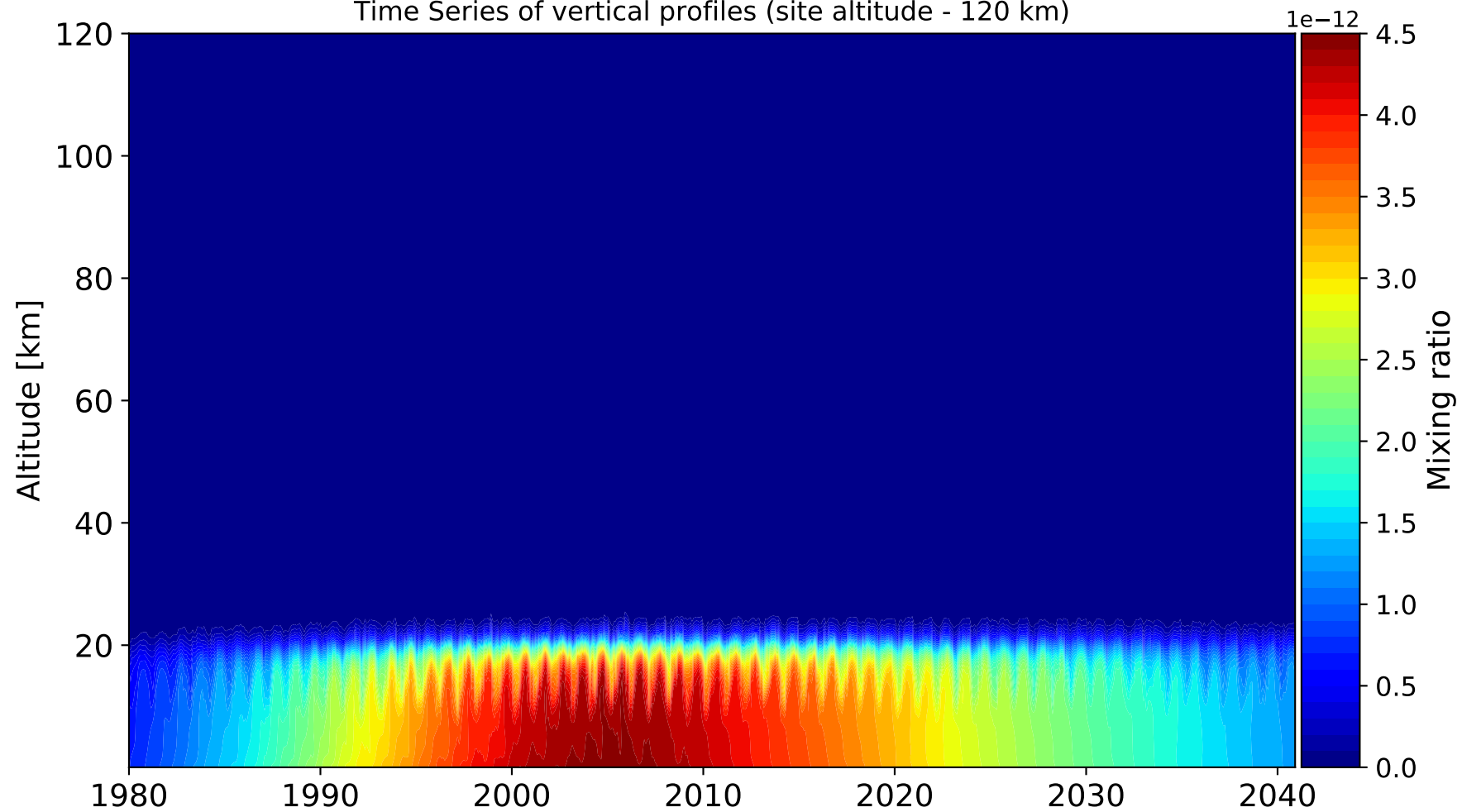
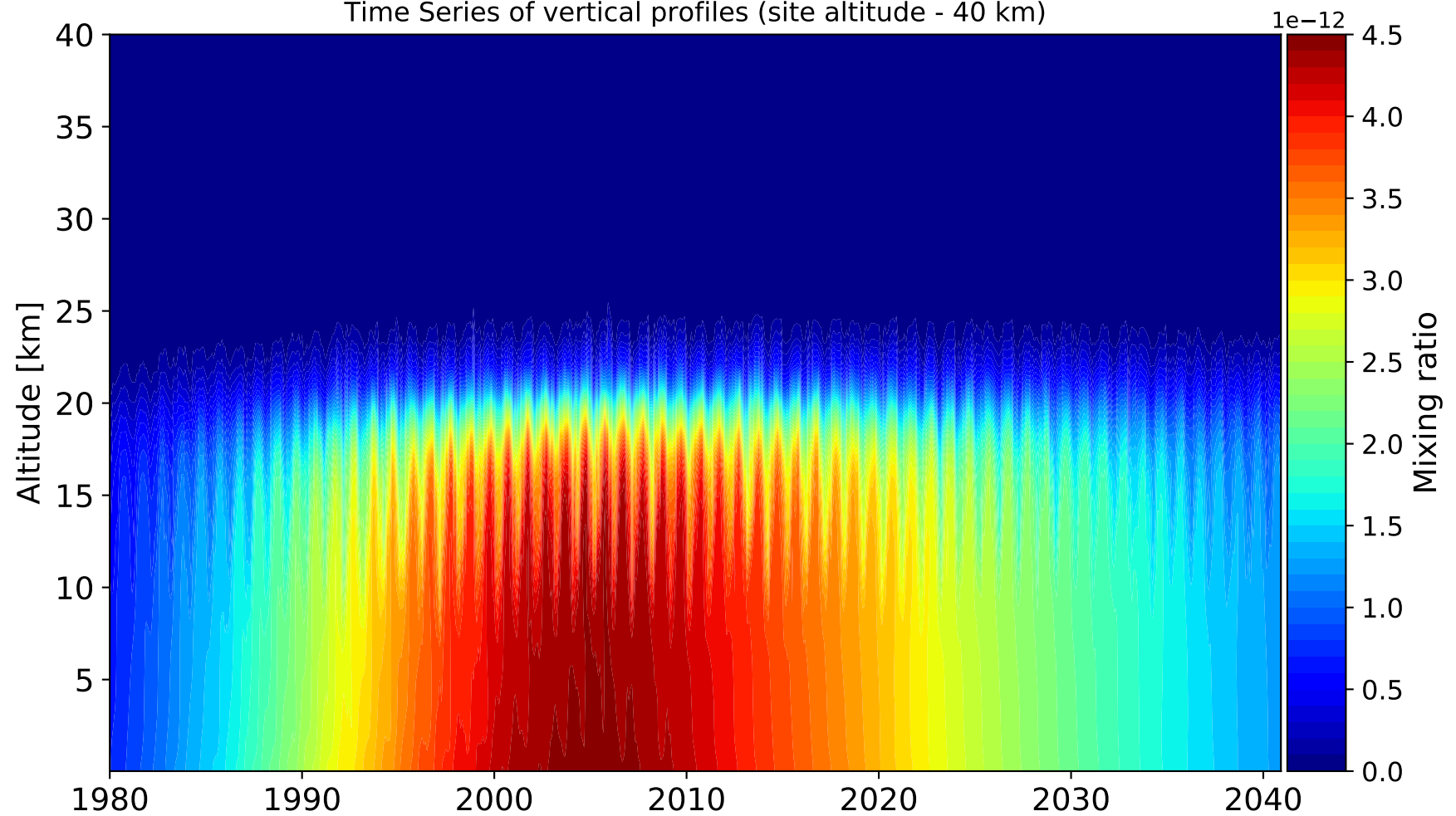


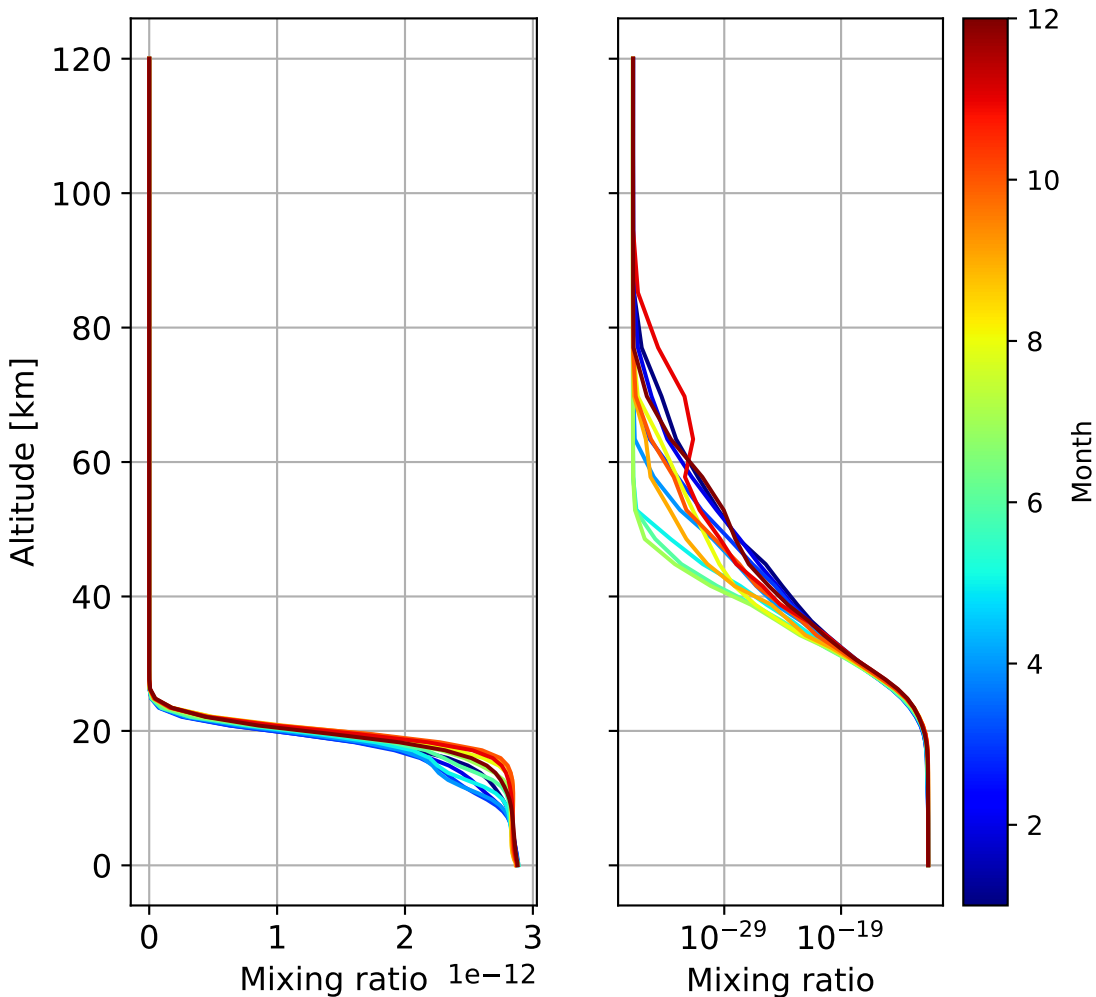
Time Series of vertical profiles (site altitude - 120 km)



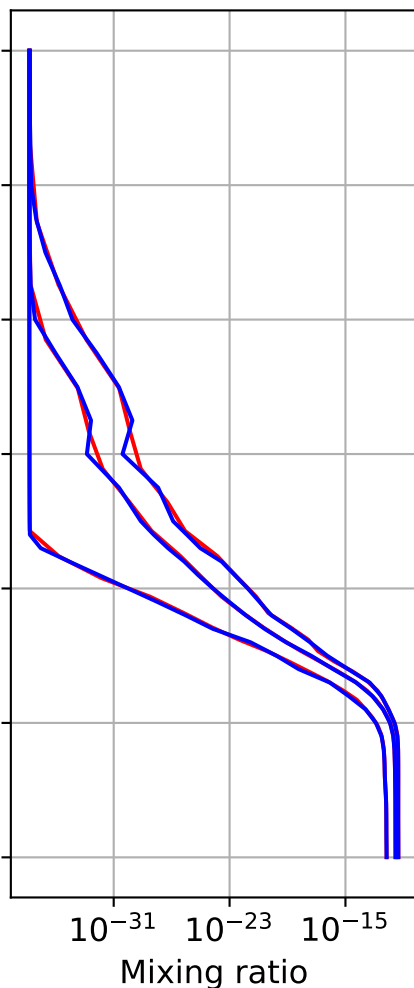
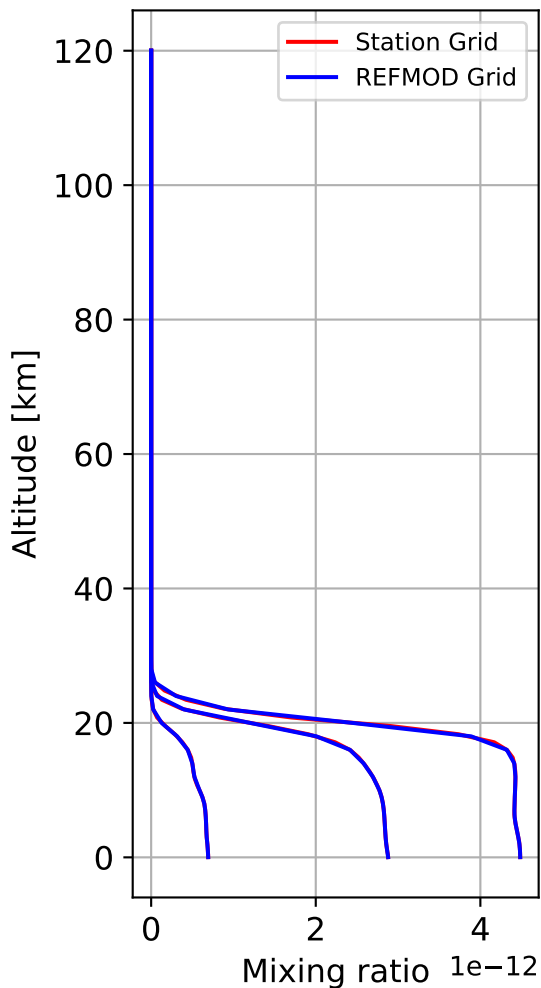
Time Series of vertical profiles (site altitude - 40 km)



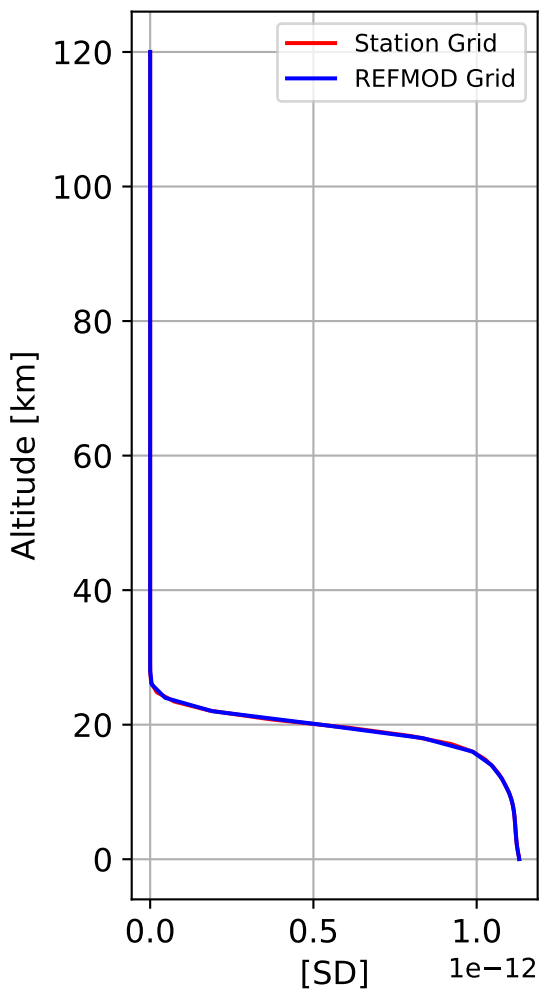
Monthly mean WACCM profile (interpolated to station grid) Tsukuba, 36.05N, 140.12E, 0.031kmasl



Min, Max, Mean of 732 profiles
Tsukuba, 36.05N, 140.12E, 0.031kmasl



Std. Deviation



Percent Deviation



Level covariance matrix

 $1e-24$

Altitude [km]

120

100

80

60

40

20

20

Altitude [km]

1.20

1.05

0.90

0.75

0.60

0.45

0.30

0.15

0.00

Mixing ratio[~ 2]