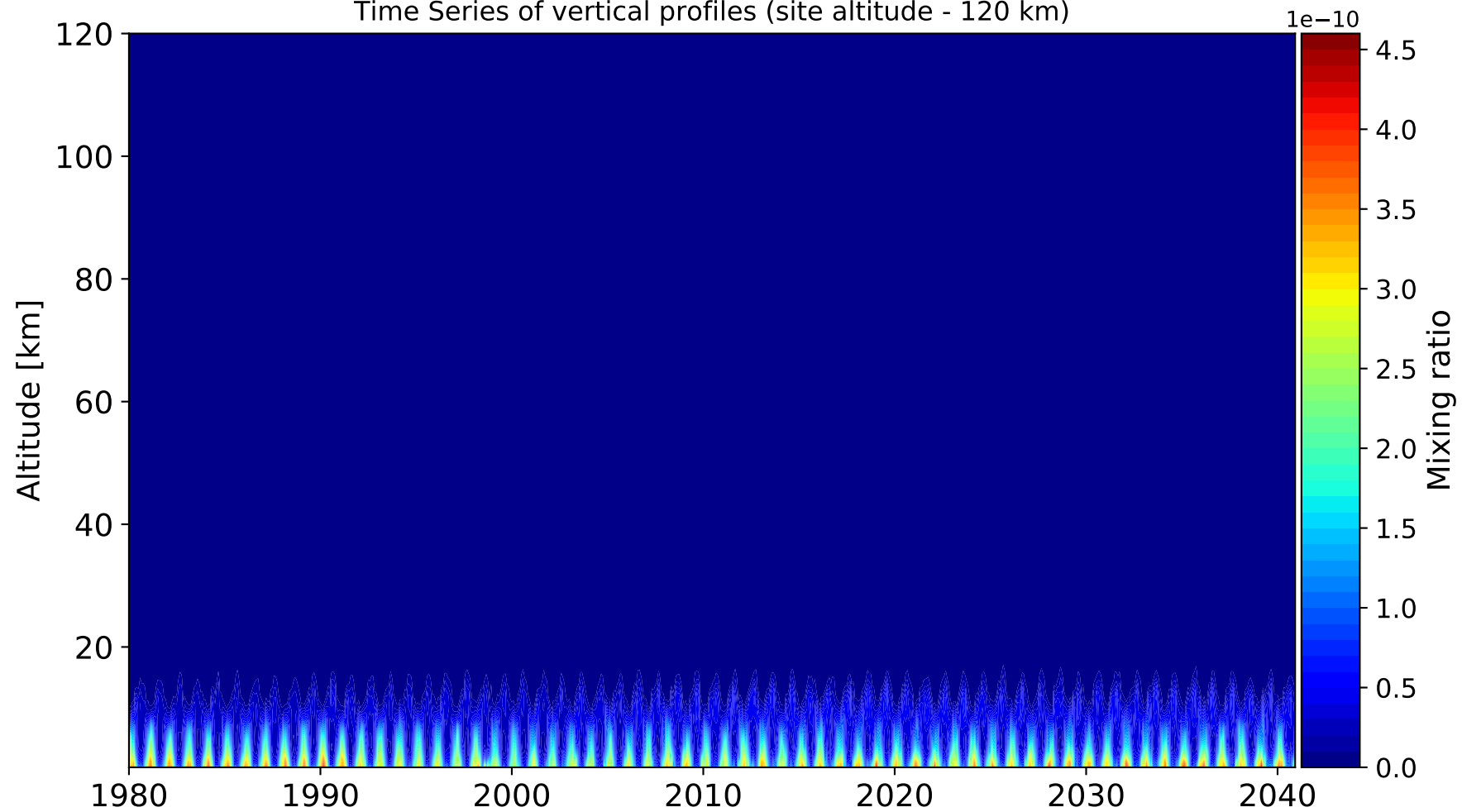
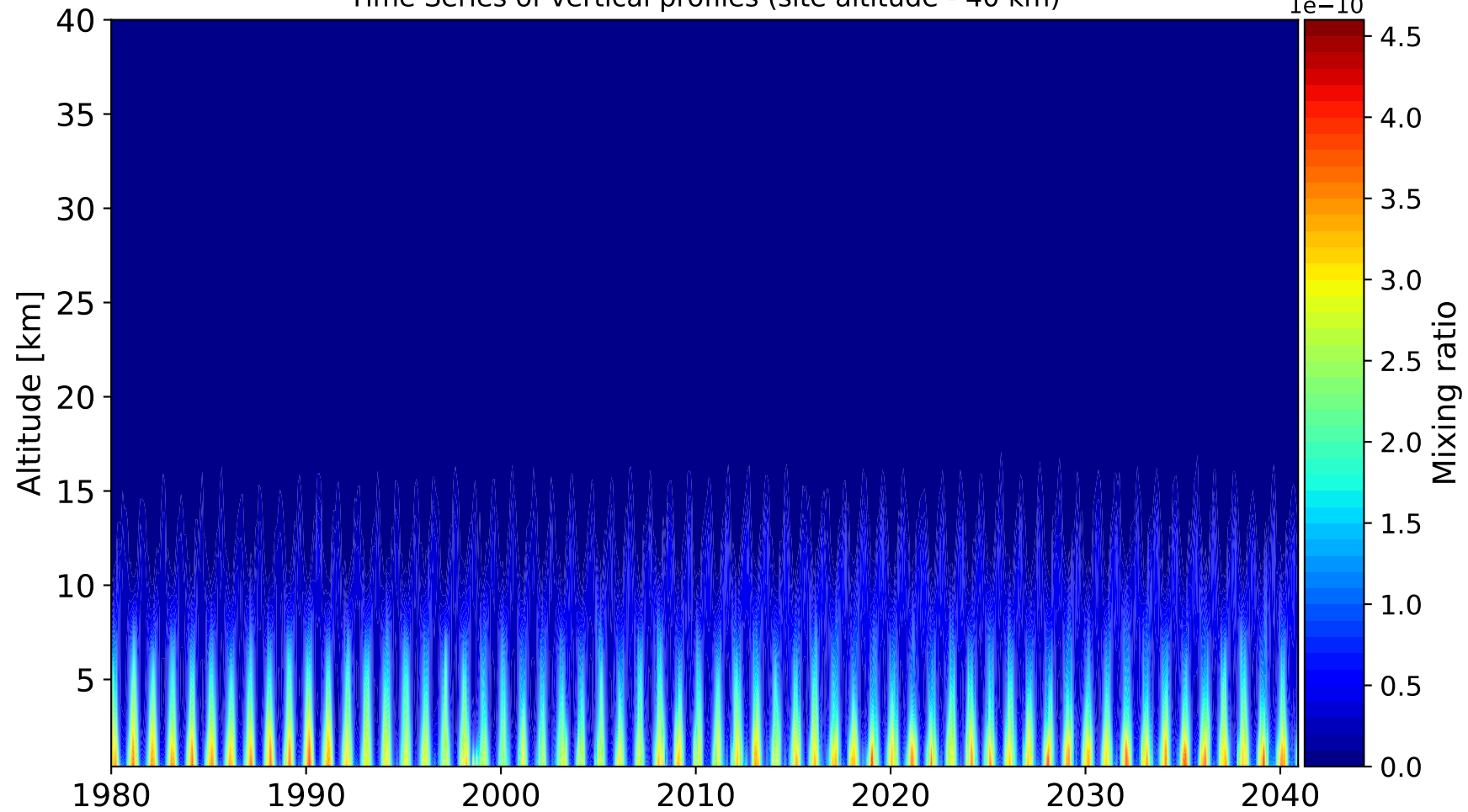


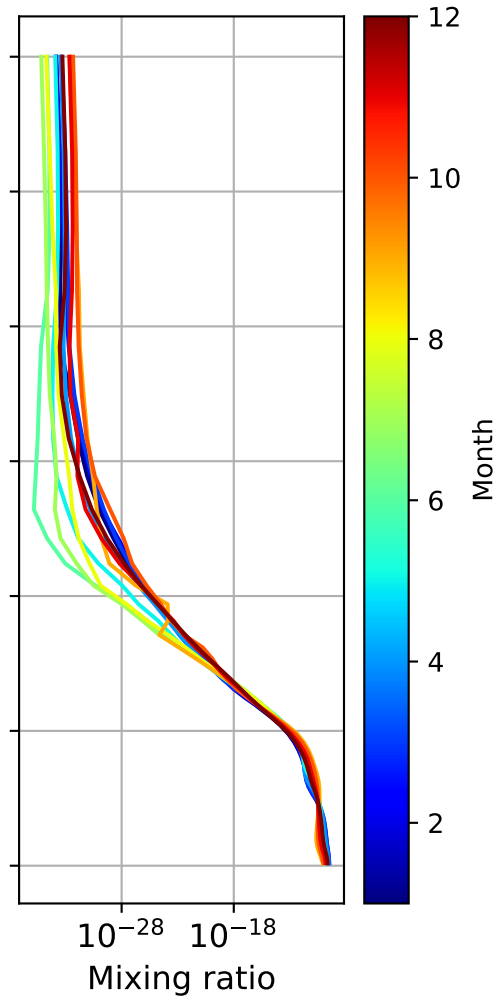
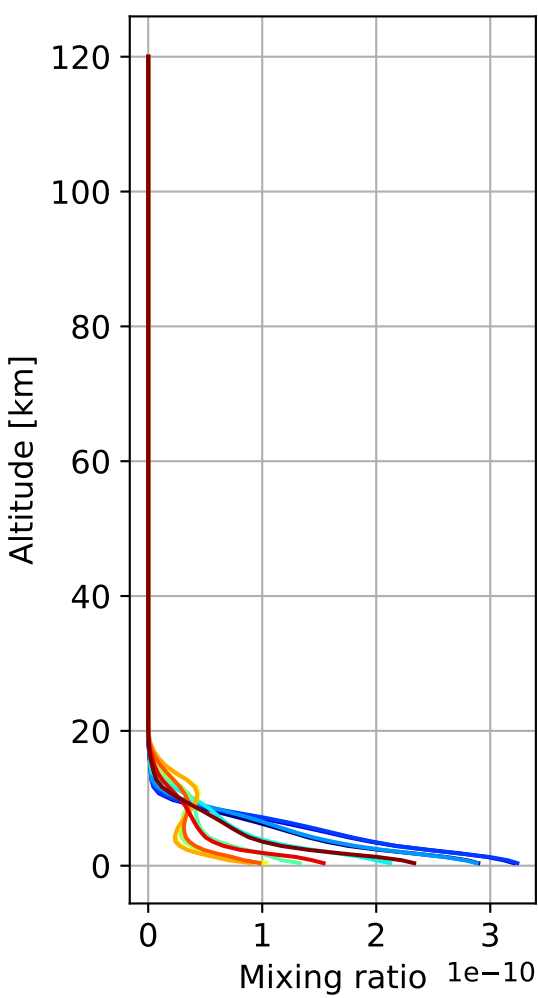
Time Series of vertical profiles (site altitude - 120 km)



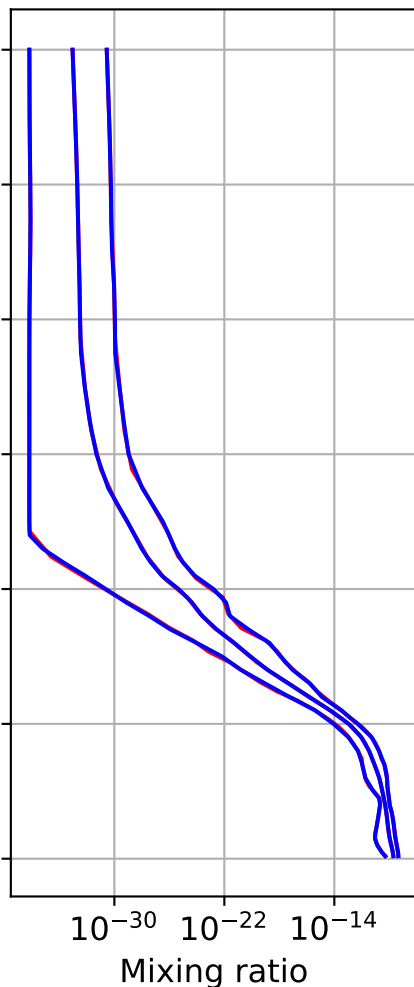
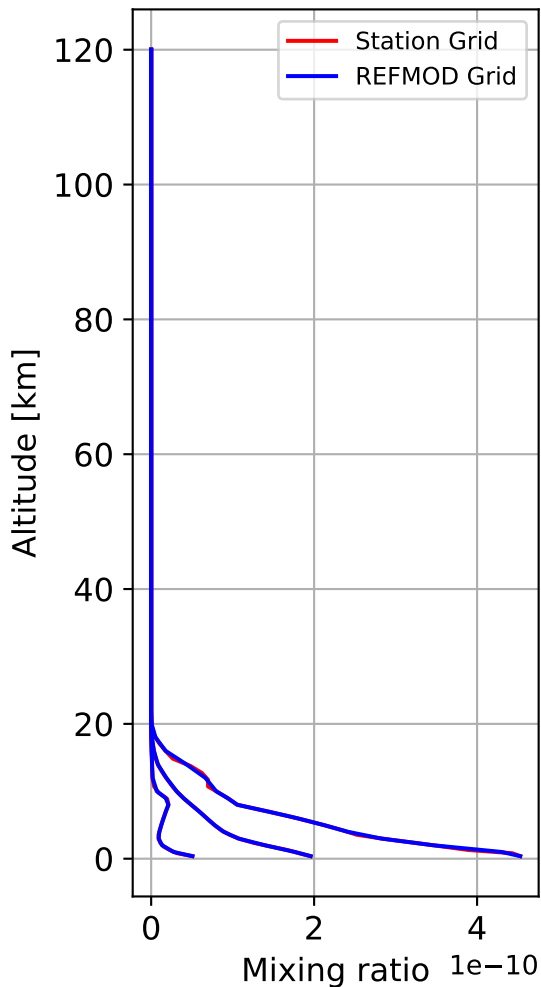
Time Series of vertical profiles (site altitude - 40 km)



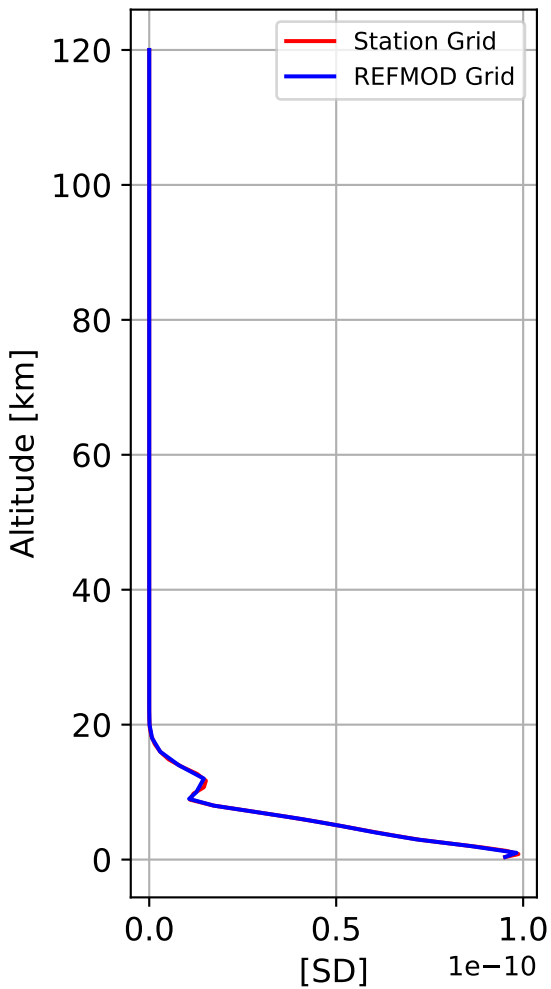
# Monthly mean WACCM profile (interpolated to station grid) Rikubetsu, 43.46N, 143.77E, 0.38kmasl



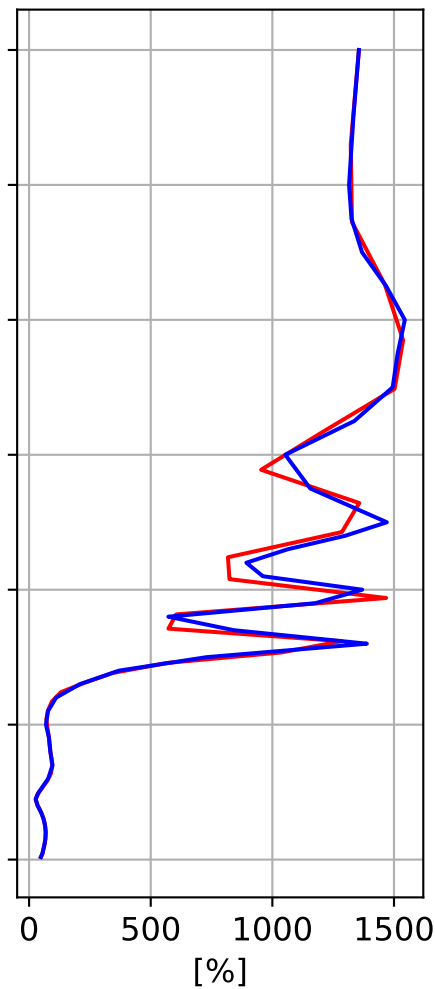
Min, Max, Mean of 732 profiles  
Rikubetsu, 43.46N, 143.77E, 0.38kmasl



Std. Deviation



Percent Deviation



# Level covariance matrix

$1e-20$

1.000

0.875

0.750

0.625

0.500

0.375

0.250

0.000

-0.125

Mixing ratio[ $\sim 2$ ]

Altitude [km]

120

100

80

60

40

20

20

40

60

80

100

120

Altitude [km]

