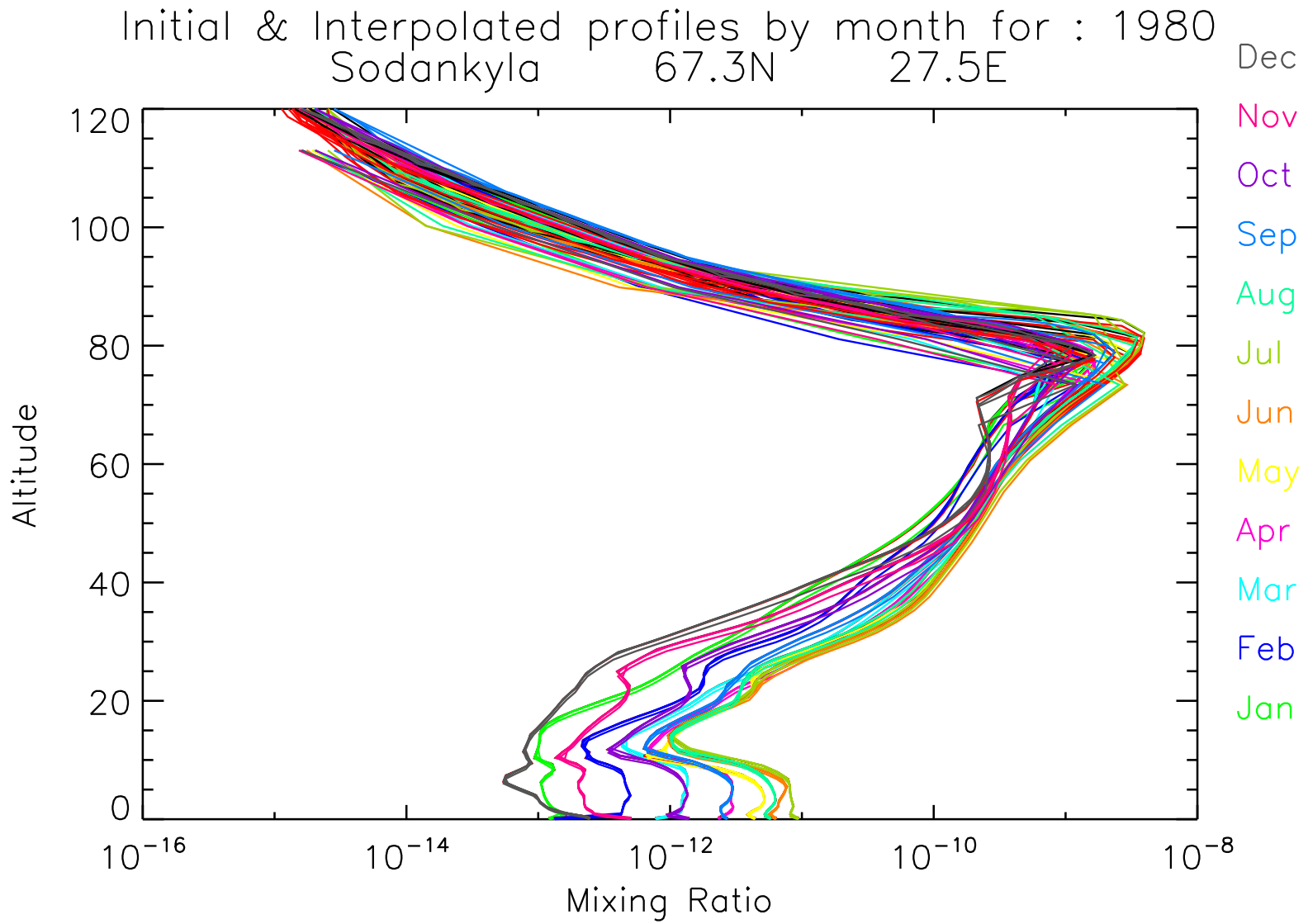
Initial & Interpolated profiles by month for : 1980
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
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Mixing Ratio
Dec
Nov
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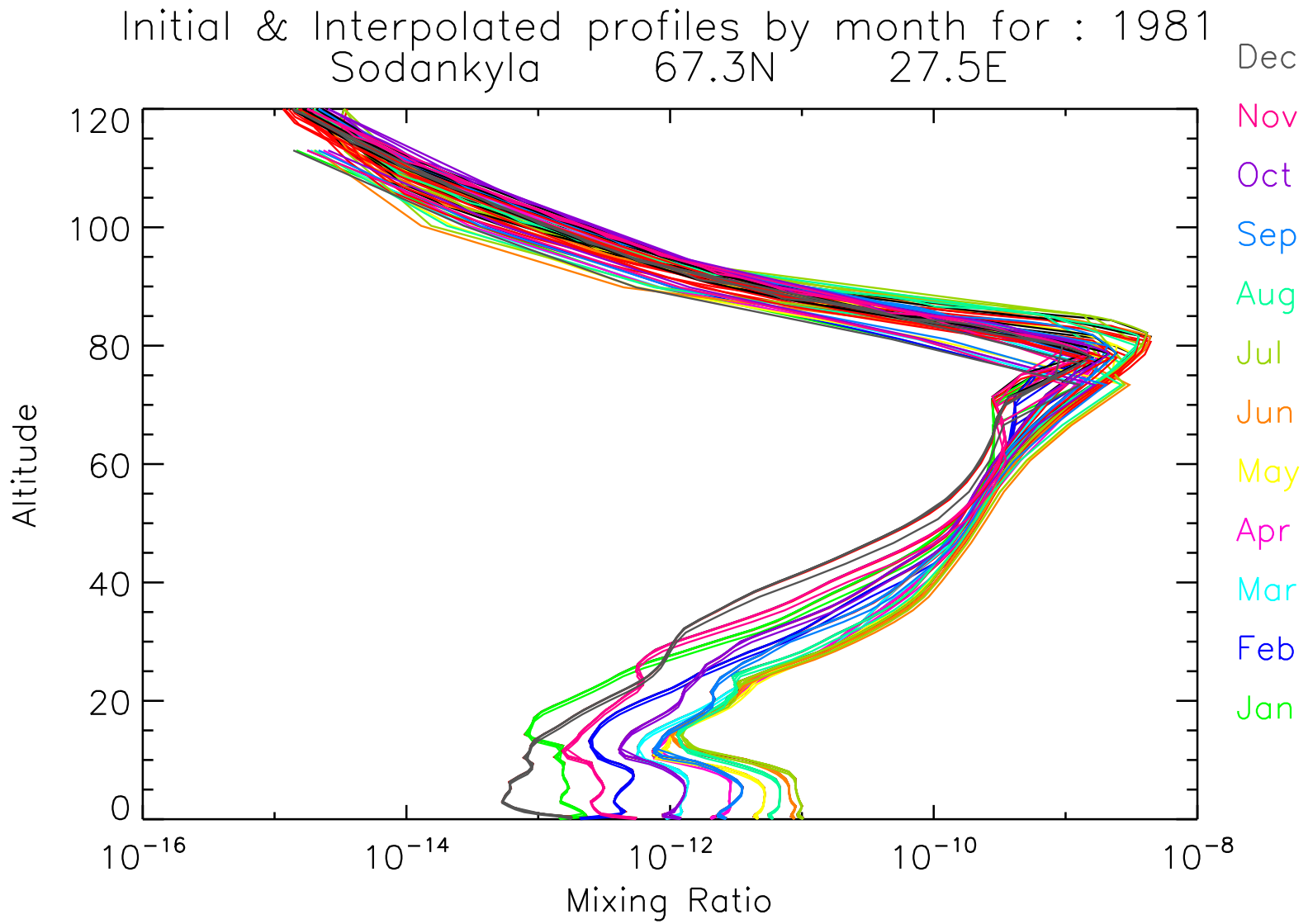
Initial & Interpolated profiles by month for : 1981
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
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10^{-8}
Mixing Ratio
Dec
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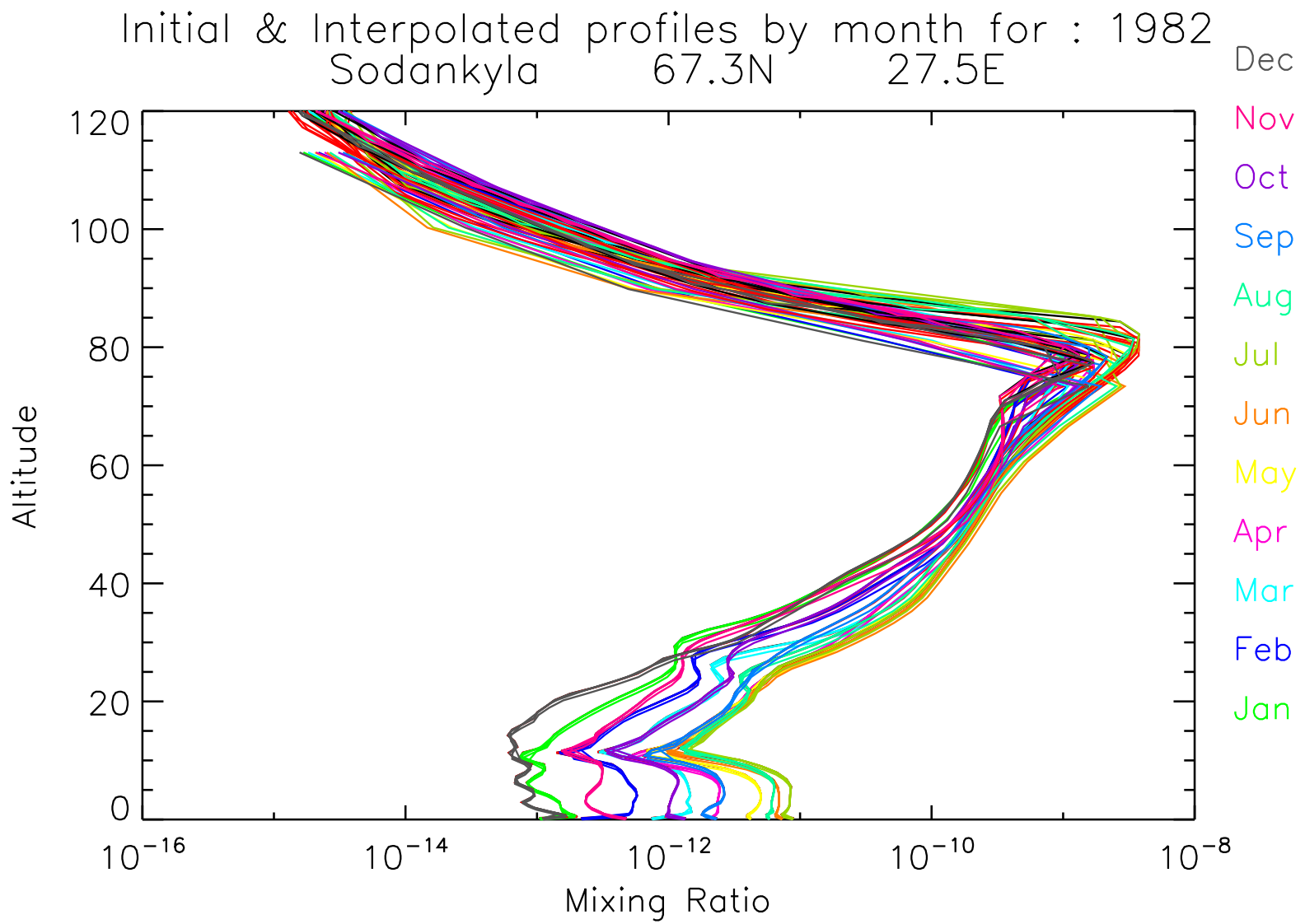
Initial & Interpolated profiles by month for : 1982
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
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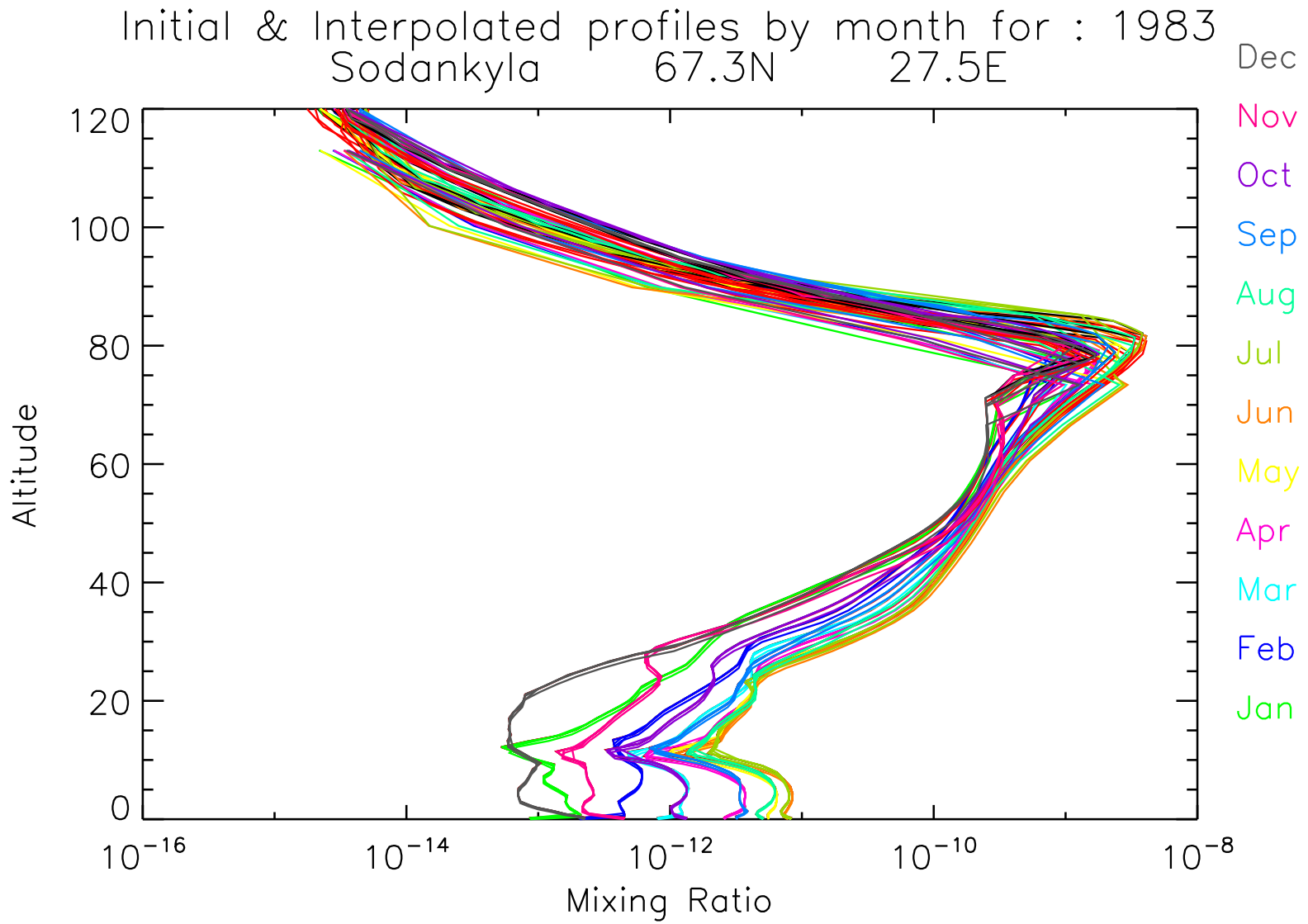
10^{-10}
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
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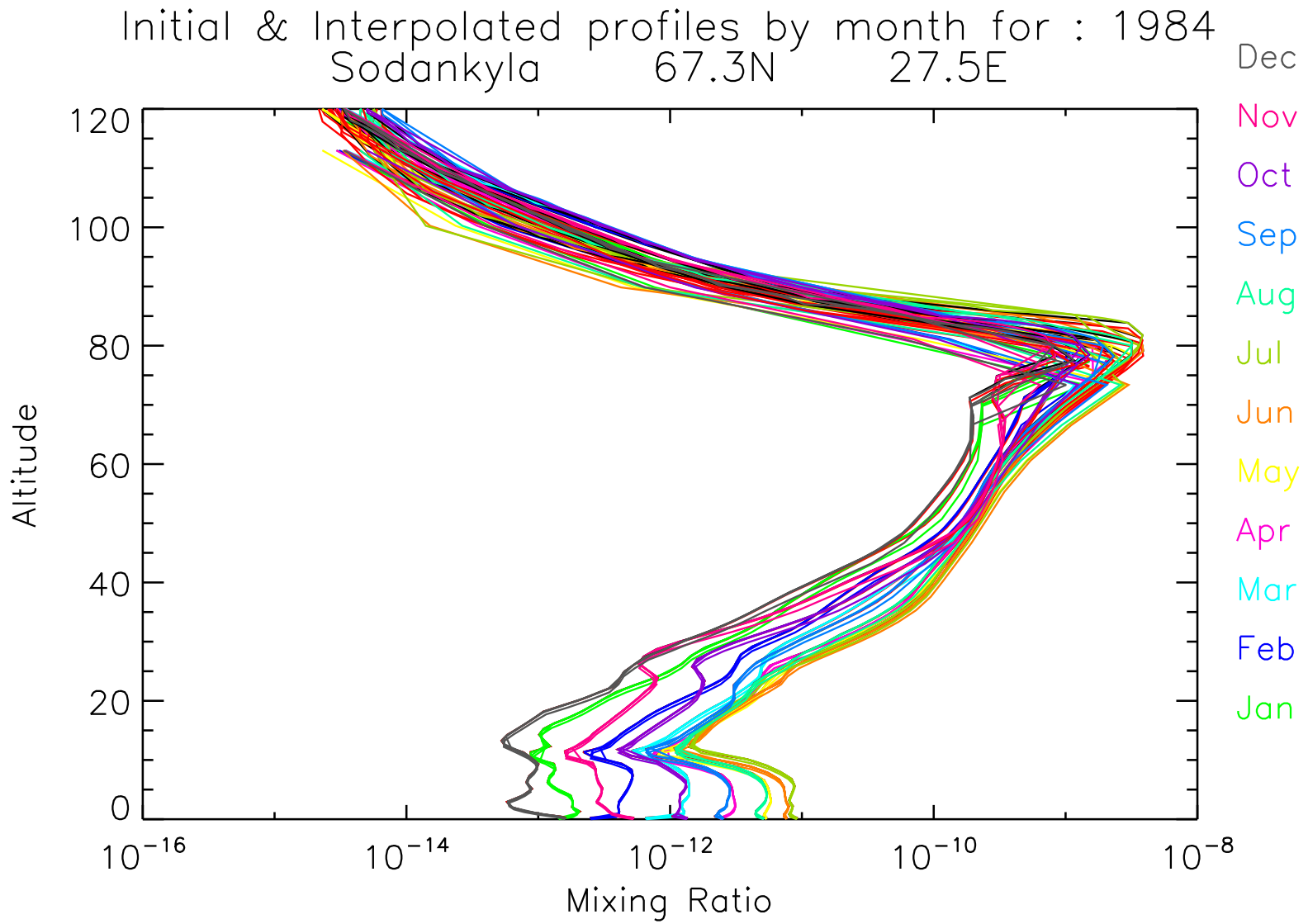
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
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Jan
120
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Altitude
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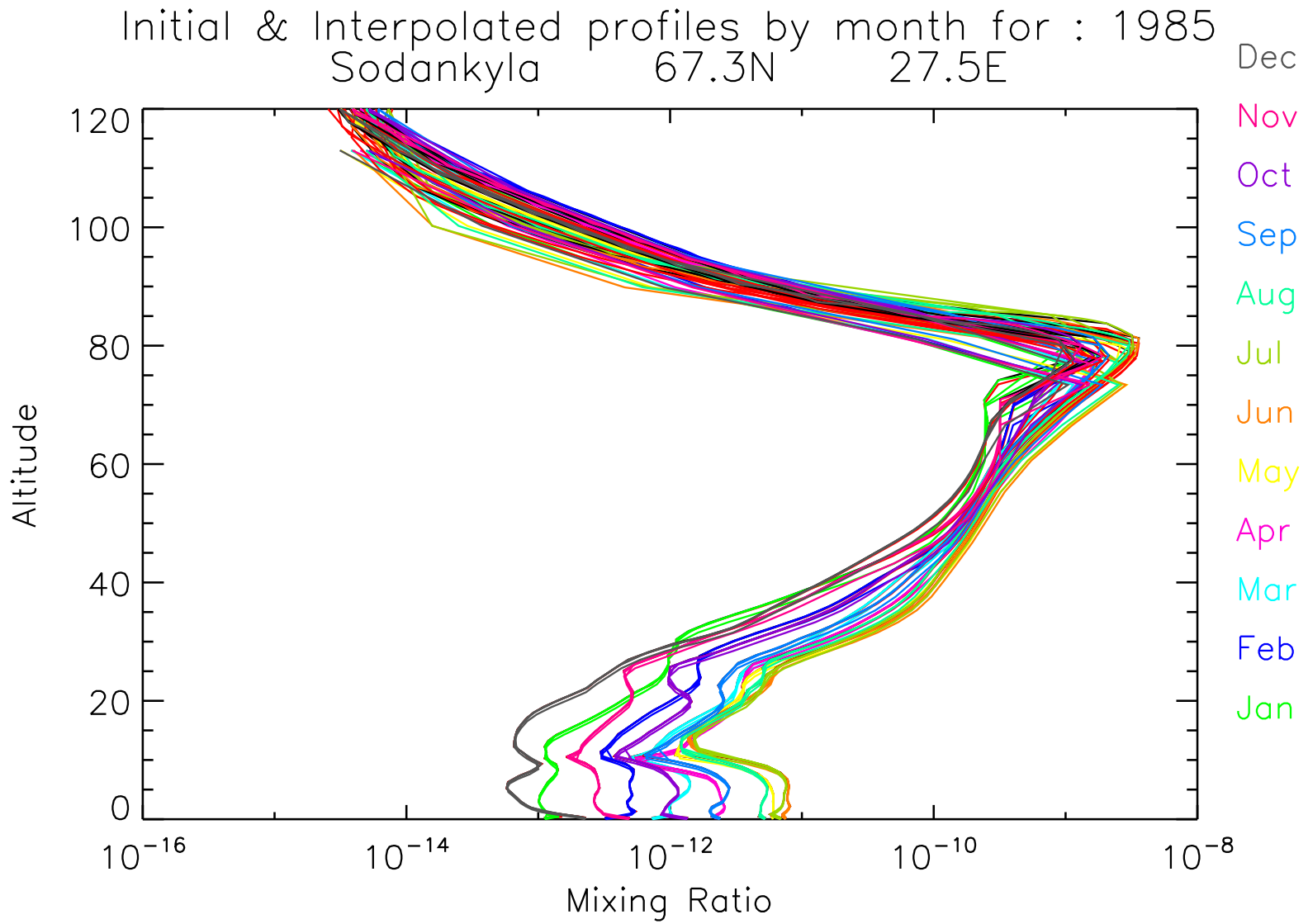
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Sodankyla 67.3N 27.5E
Dec
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120
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Altitude
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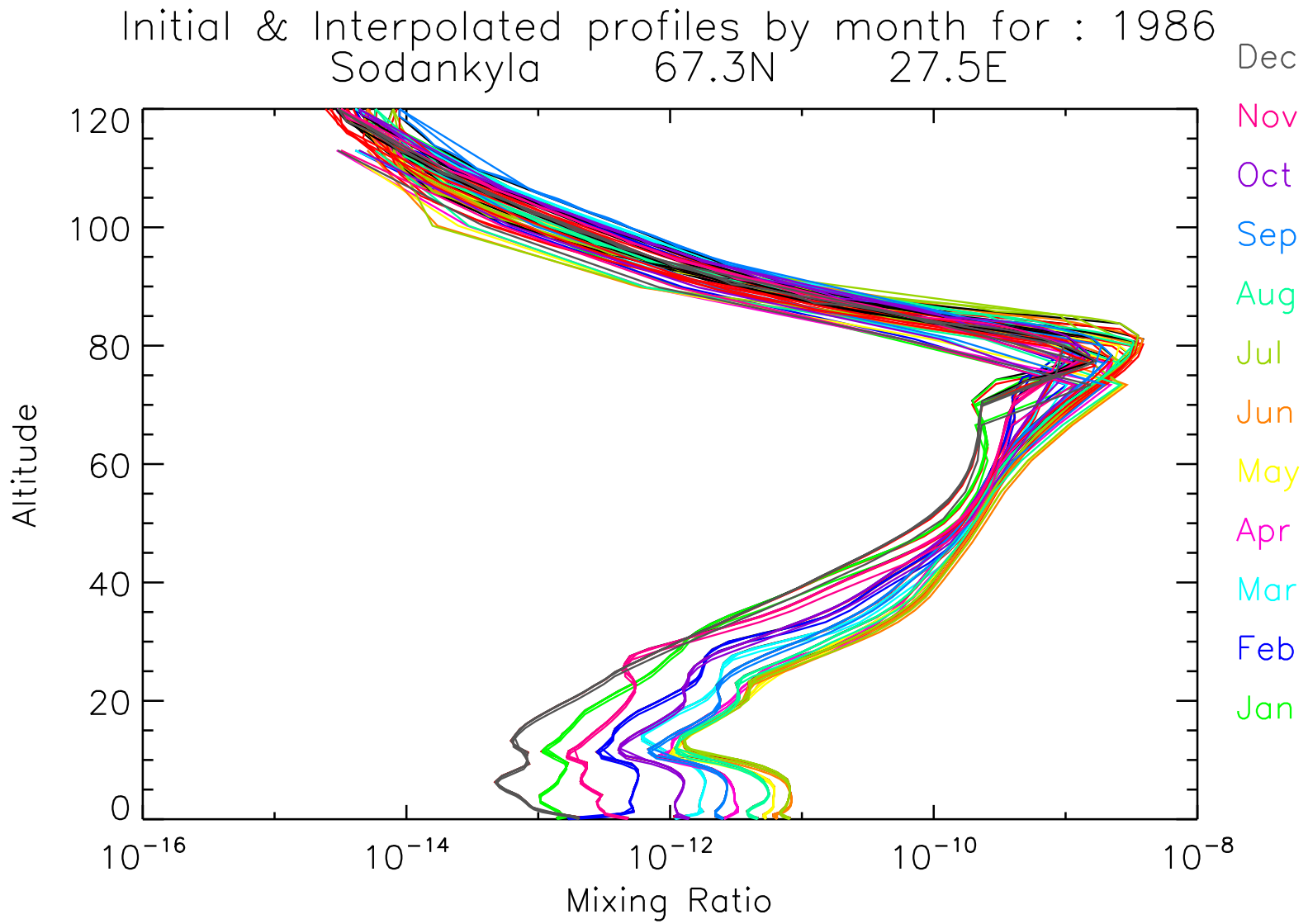
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
Sodankyla 67.3N 27.5E
Altitude
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100
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60
40
20
0
10^{-16}
10^{-14}
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10^{-8}
Mixing Ratio
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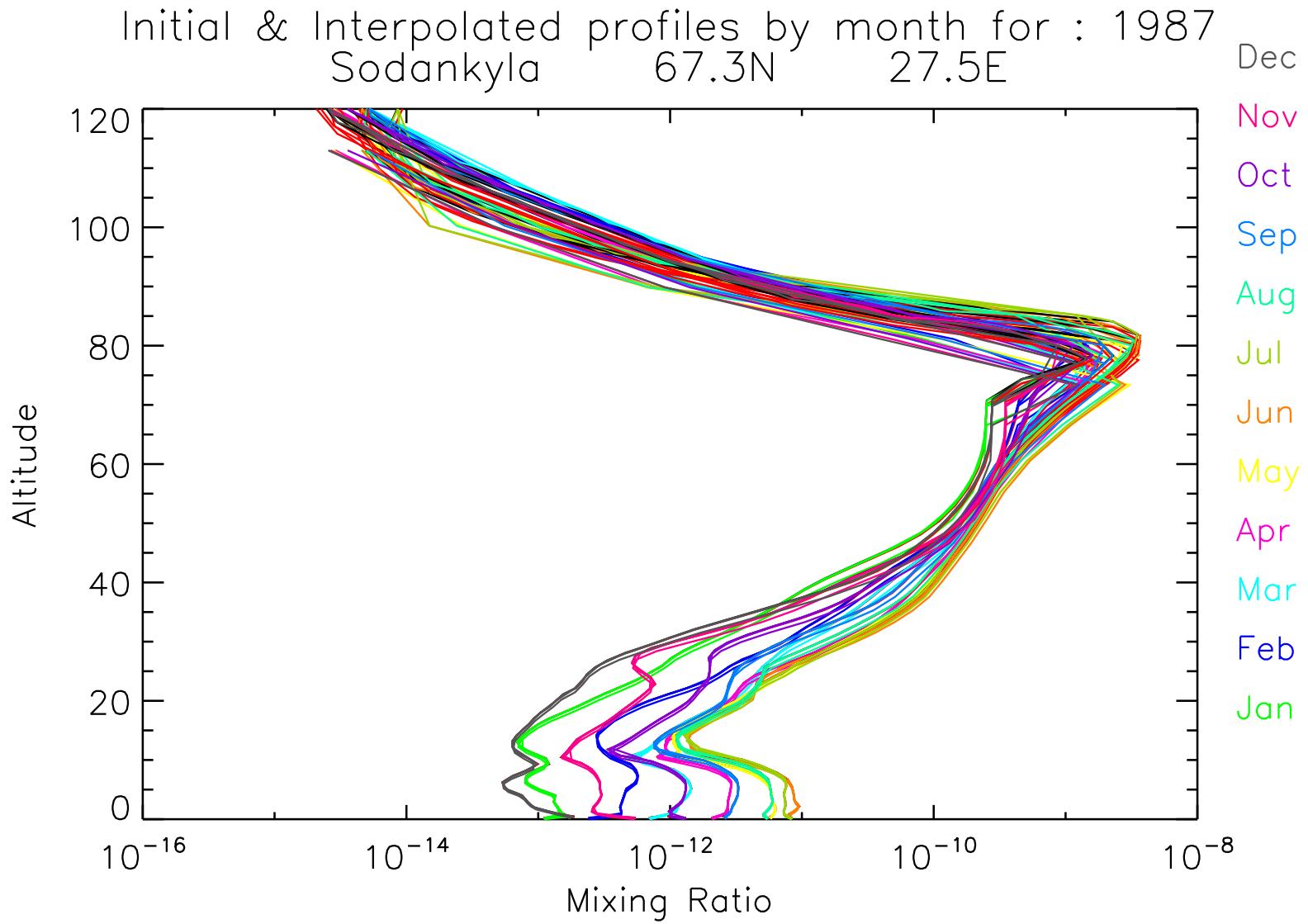
Initial & Interpolated profiles by month for : 1987
Sodankyla 67.3N 27.5E
Dec
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120
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Altitude
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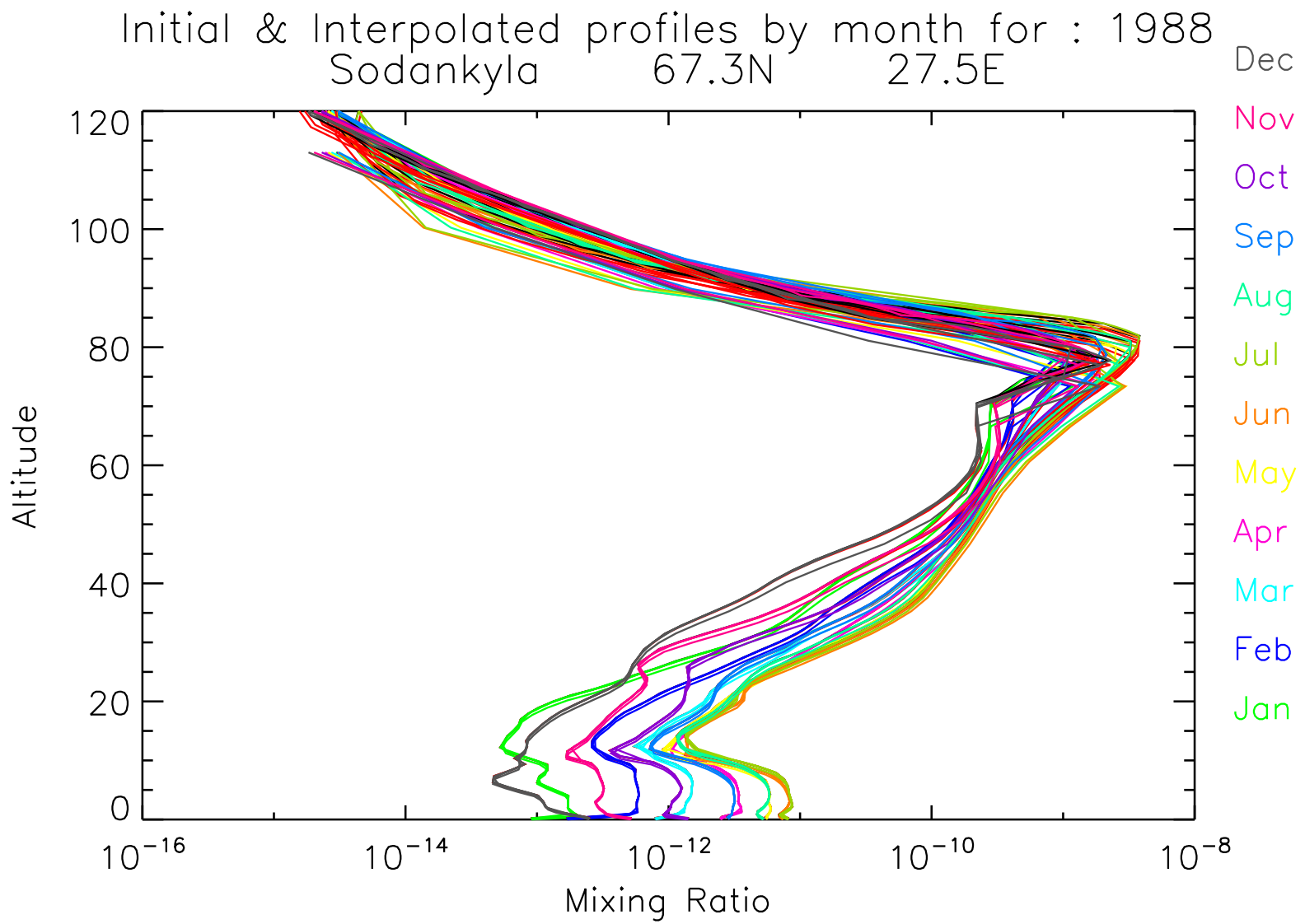
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 1988
Sodankyla 67.3N 27.5E
Dec
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Jan
120
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Altitude
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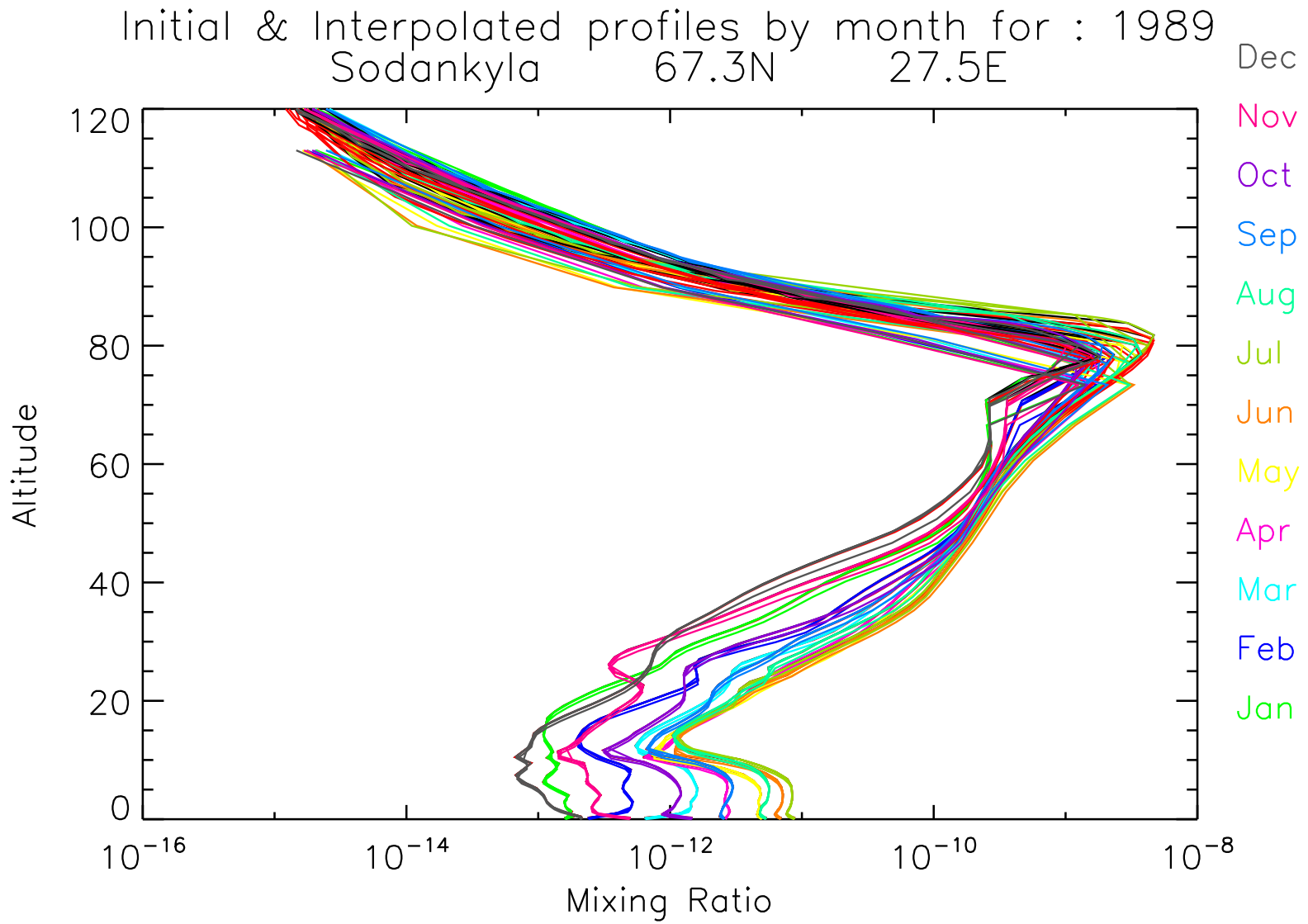
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
Sodankyla 67.3N 27.5E
Altitude
120
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10^{-16}
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10^{-8}
Mixing Ratio
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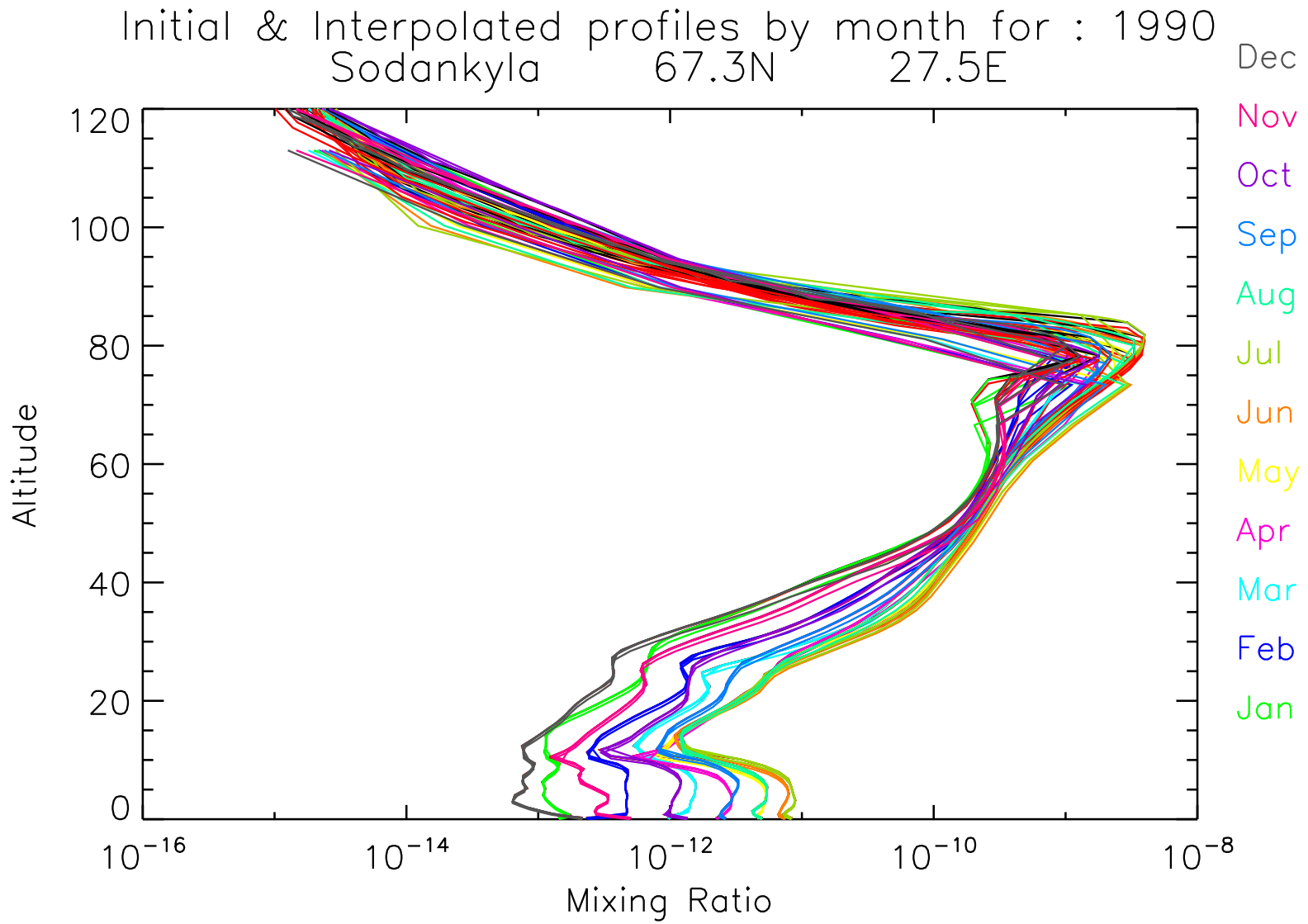
Initial & Interpolated profiles by month for : 1990
Sodankyla 67.3N 27.5E
Altitude
120
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10^{-16}
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Mixing Ratio
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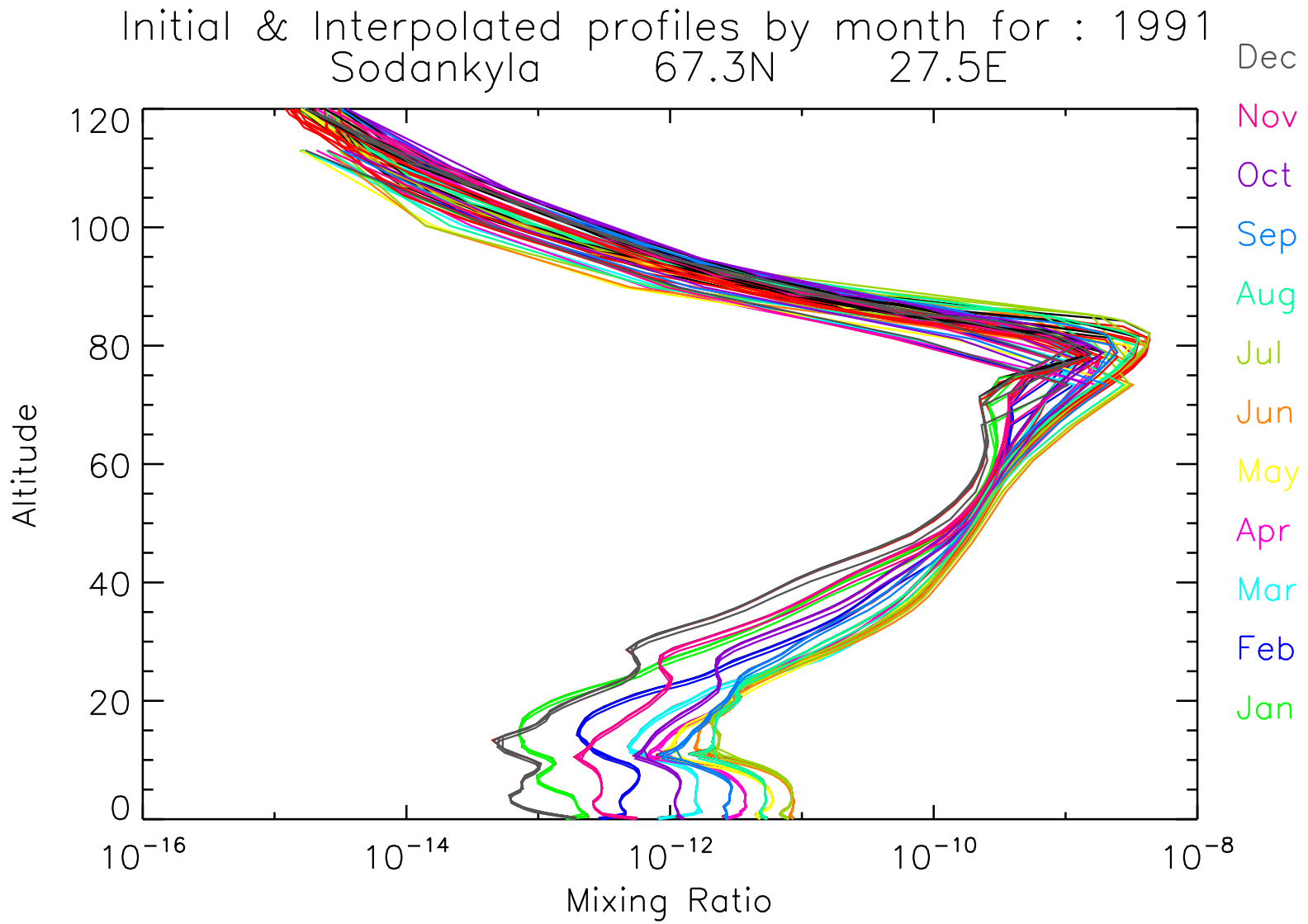
Initial & Interpolated profiles by month for : 1991
Sodankyla 67.3N 27.5E
Altitude
120
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10^{-16}
10^{-14}
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10^{-8}
Mixing Ratio
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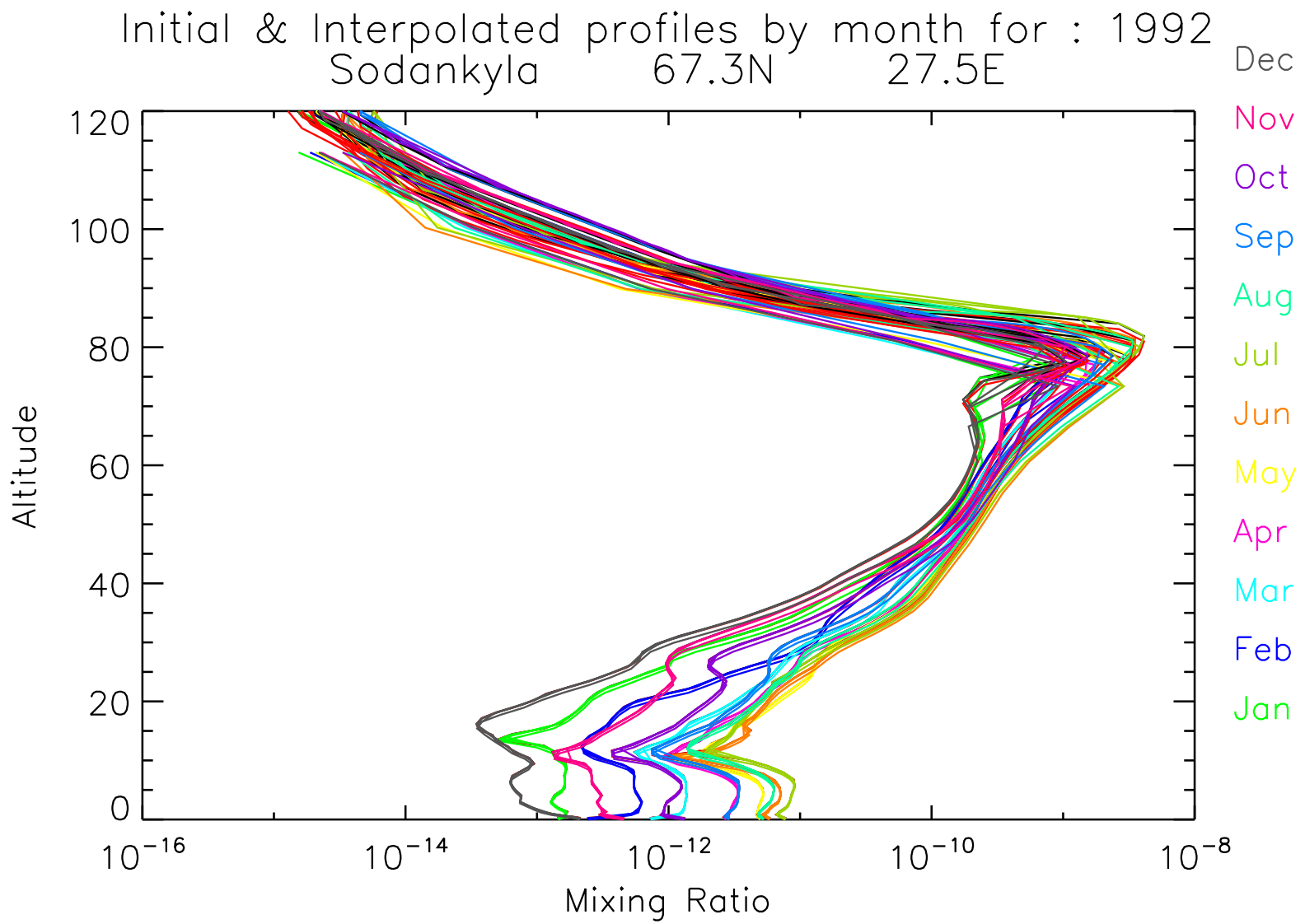
Initial & Interpolated profiles by month for : 1992
Sodankyla 67.3N 27.5E
Altitude
120
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10^{-16}
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Mixing Ratio
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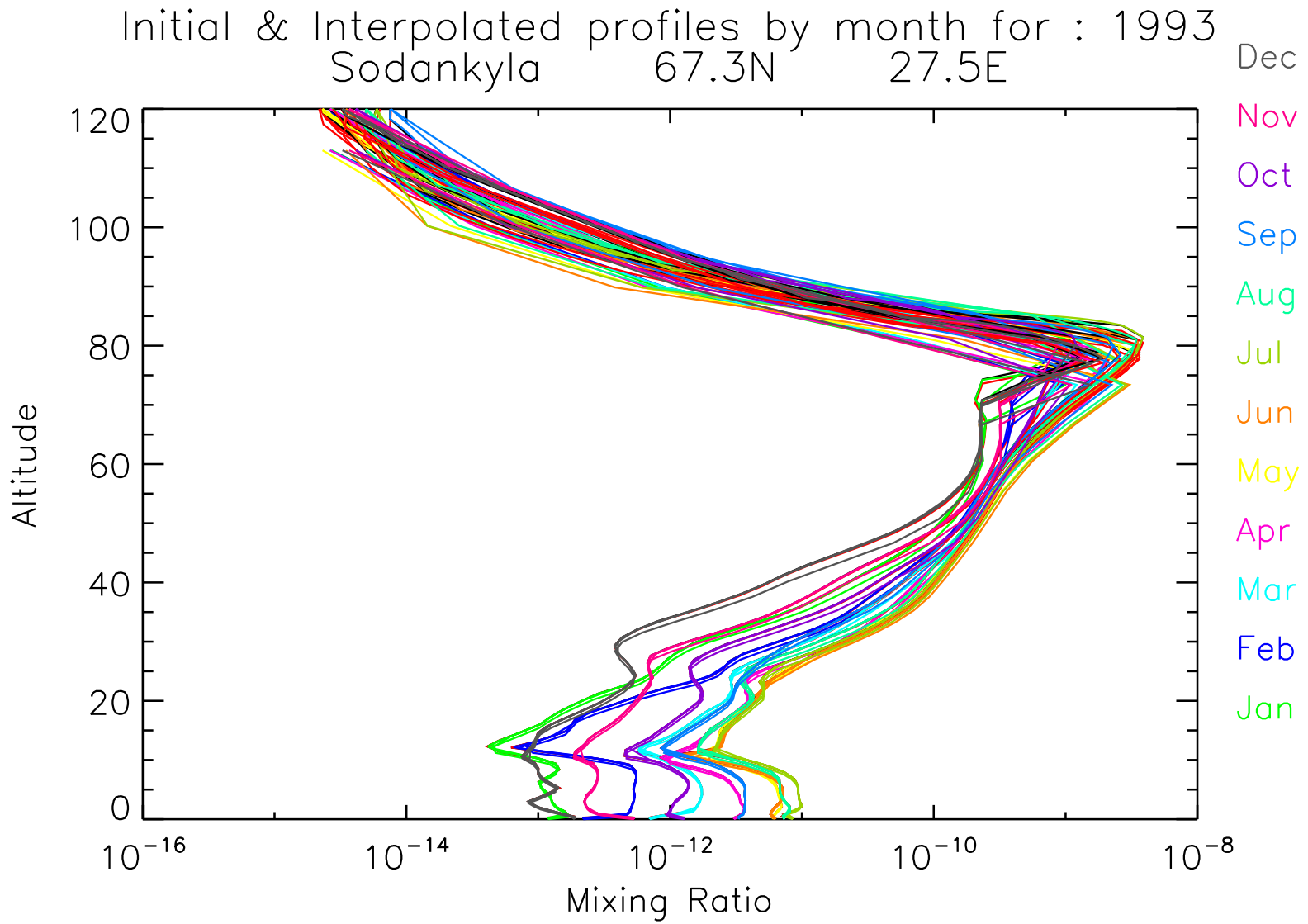
Initial & Interpolated profiles by month for : 1993
Sodankyla 67.3N 27.5E
Altitude
120
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Mixing Ratio
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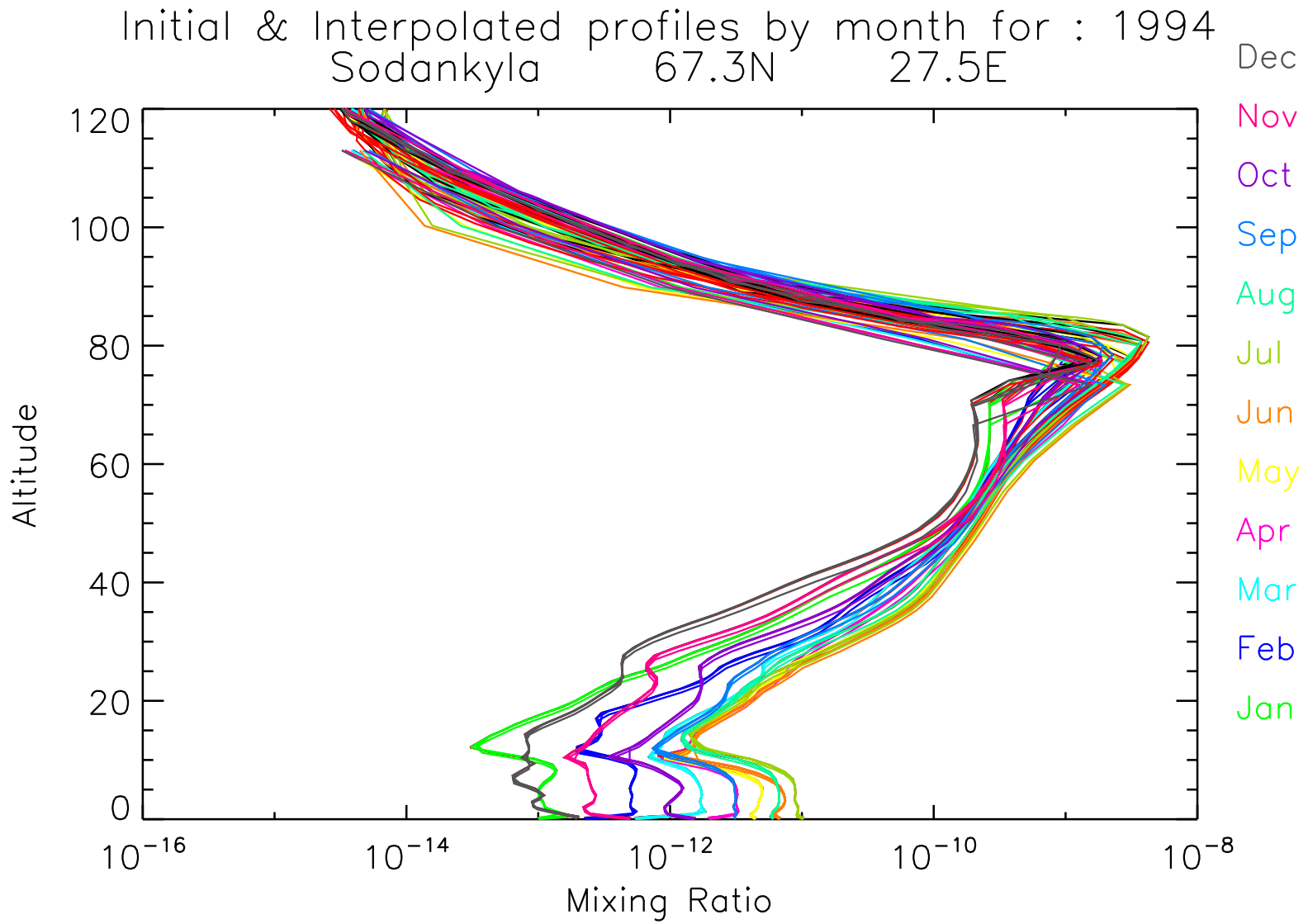
Initial & Interpolated profiles by month for : 1994
Sodankyla 67.3N 27.5E
Altitude
120
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10^{-16}
10^{-14}
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10^{-8}
Mixing Ratio
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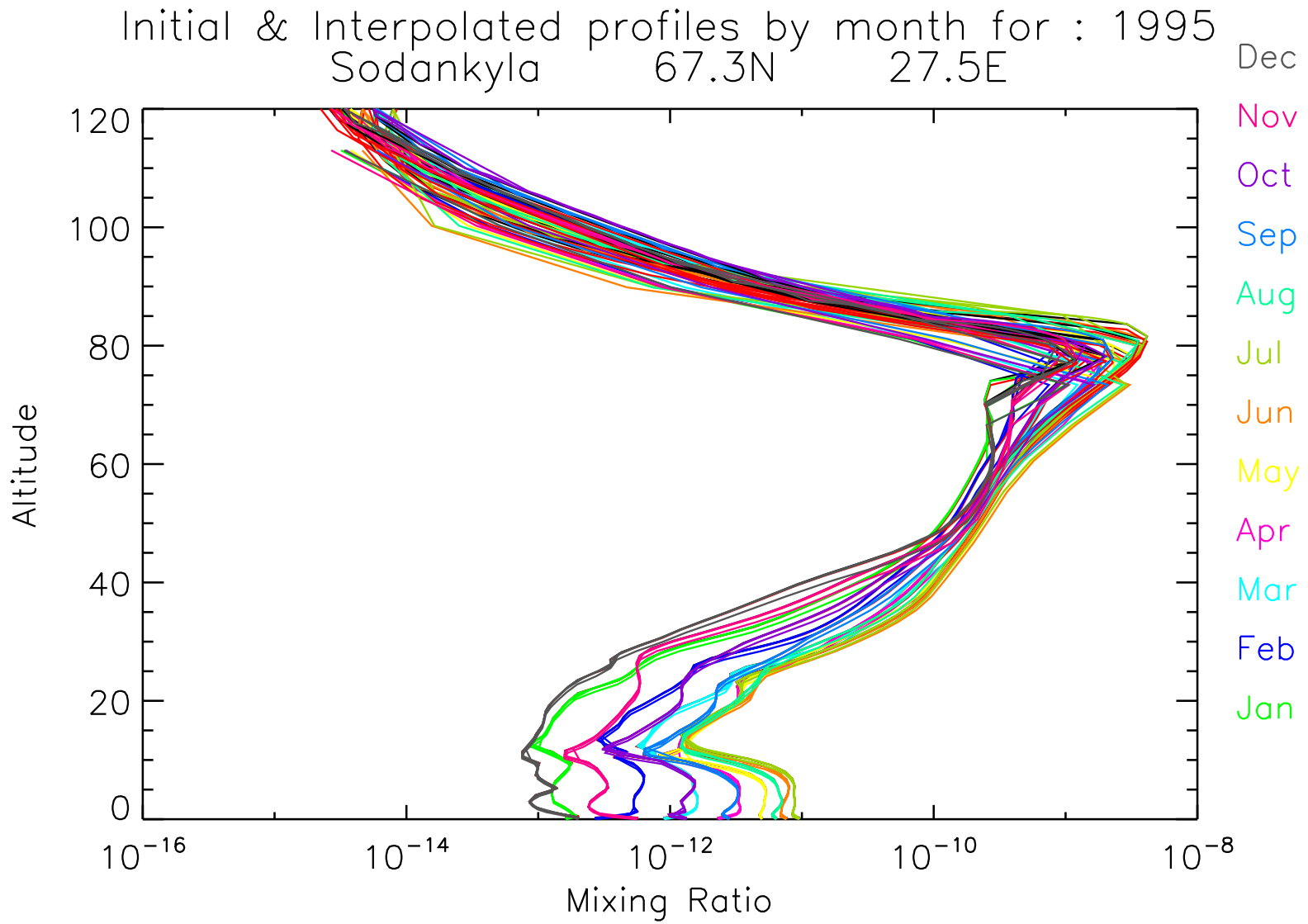
Jan


Initial & Interpolated profiles by month for : 1995
Sodankyla 67.3N 27.5E
Altitude
120
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10^{-16}
10^{-14}
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Mixing Ratio
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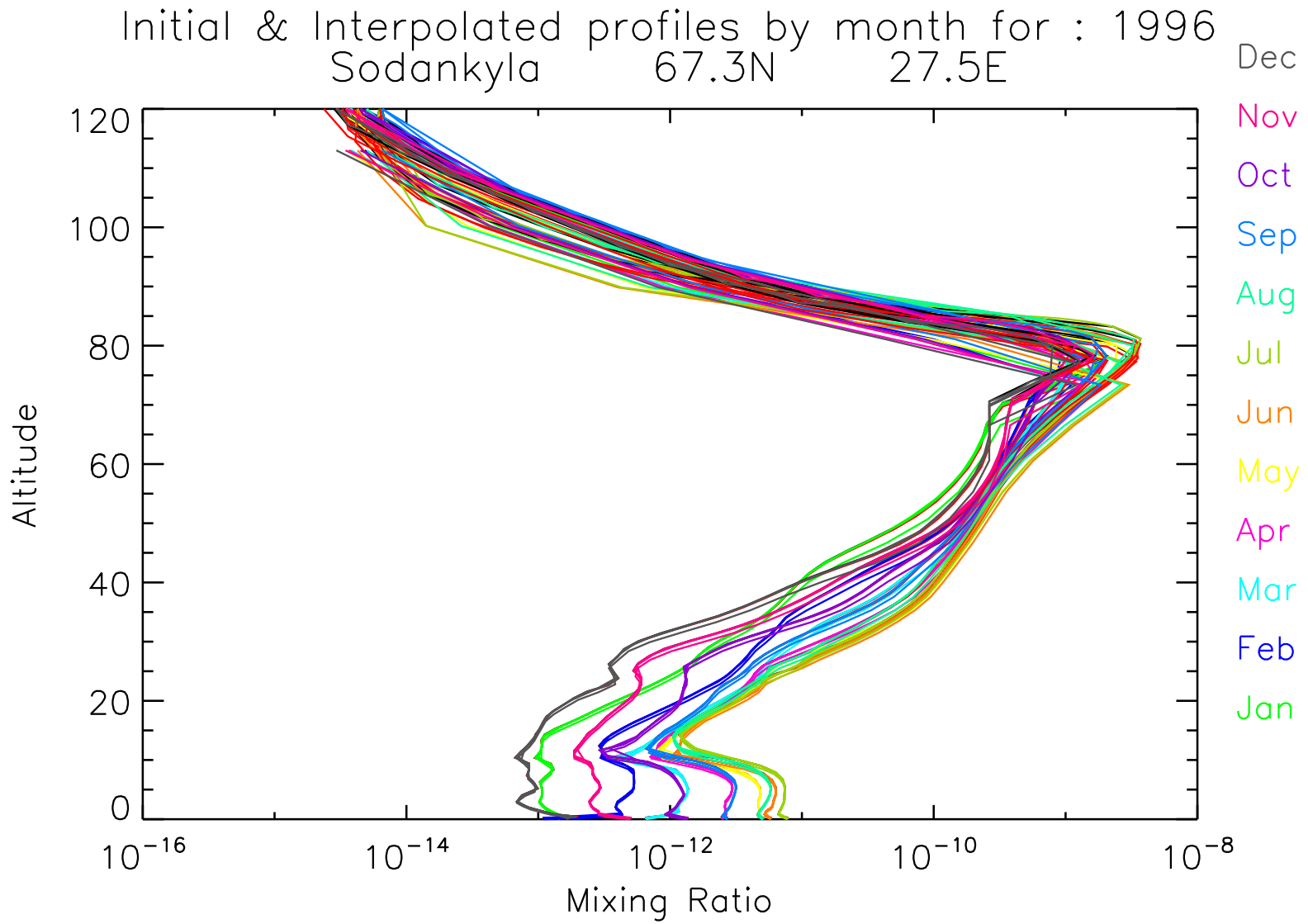
Initial & Interpolated profiles by month for : 1996
Sodankyla 67.3N 27.5E
Dec
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Jan
120
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Altitude
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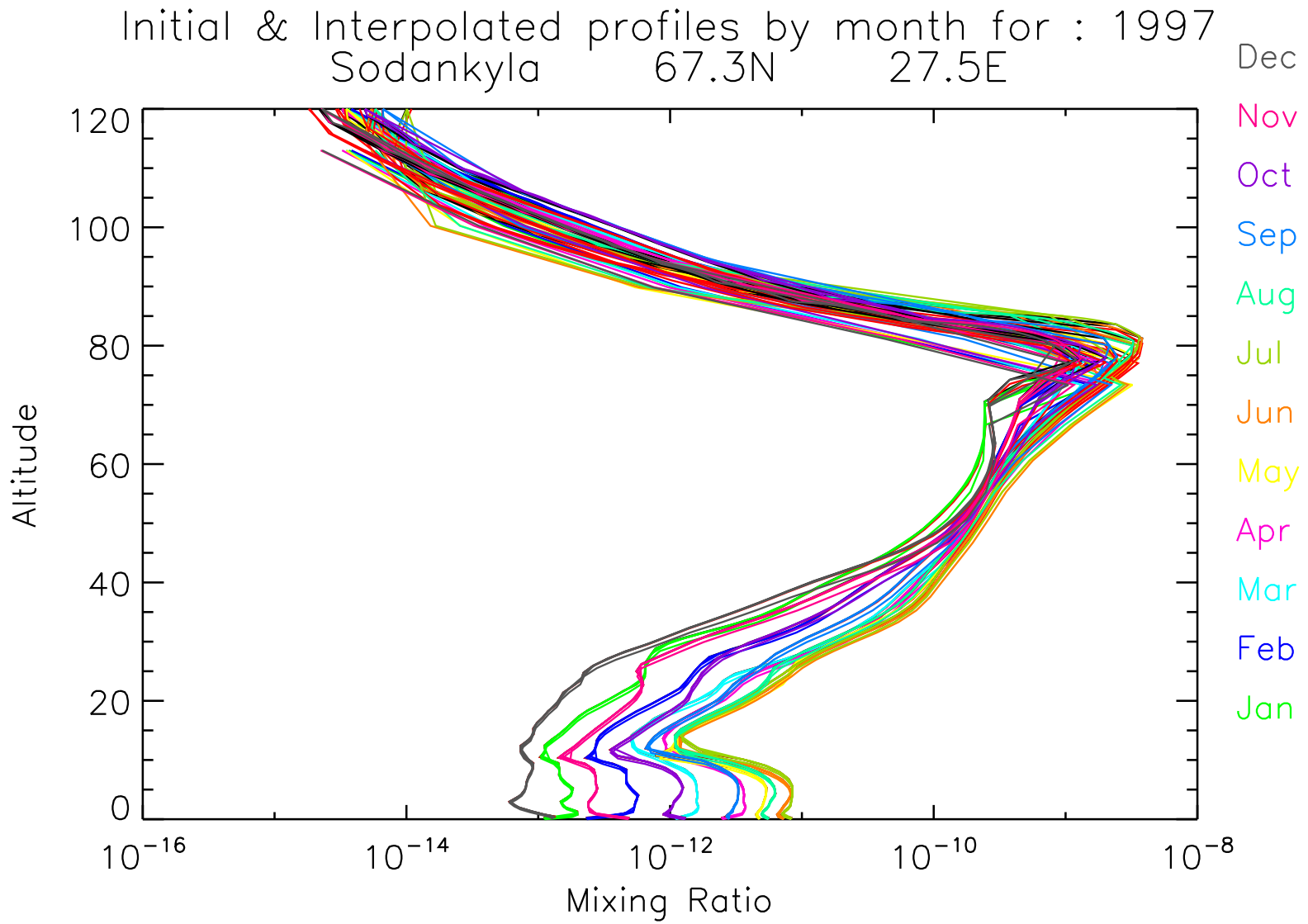
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
Sodankyla 67.3N 27.5E
Altitude
120
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10^{-14}
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Mixing Ratio
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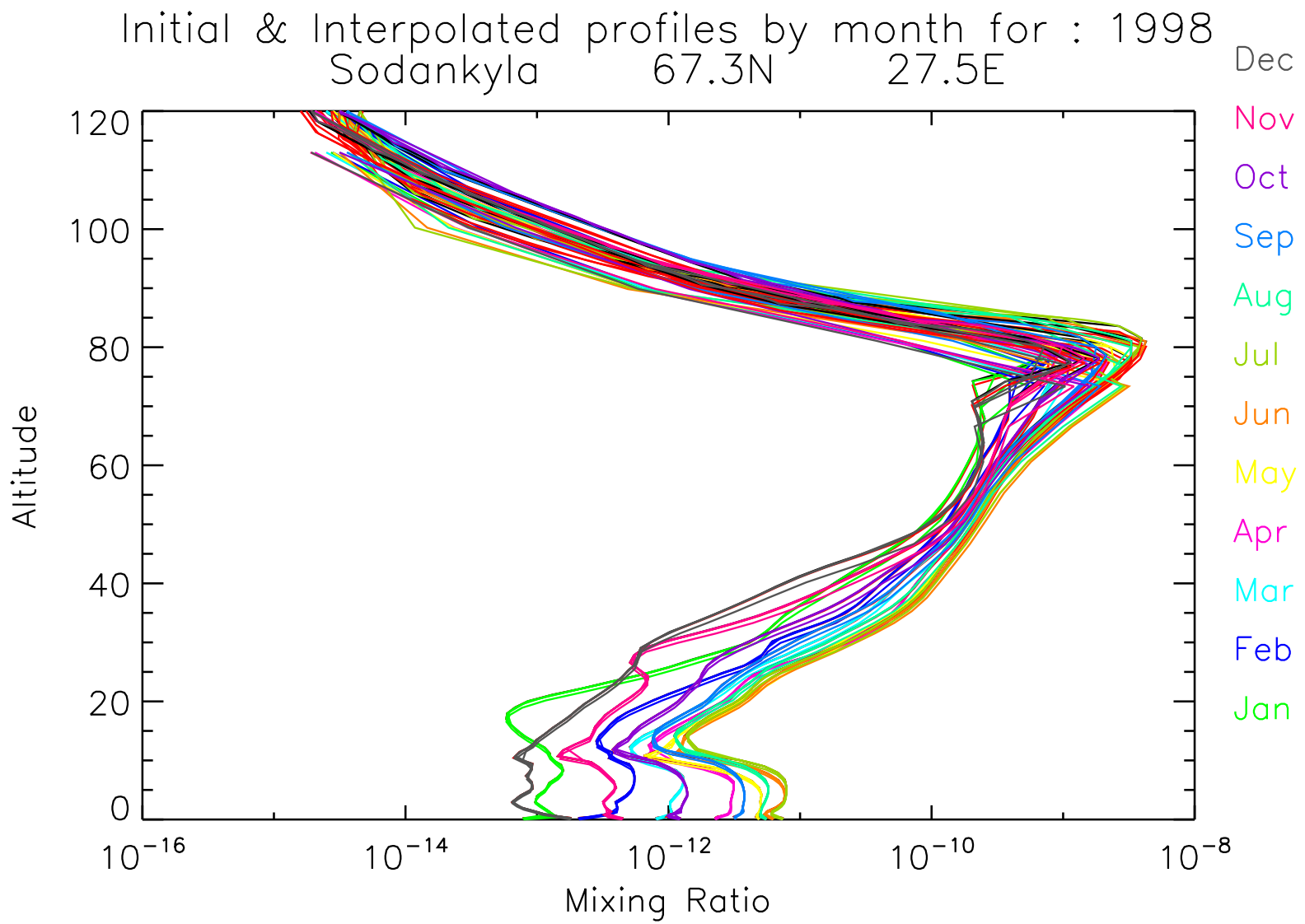
Initial & Interpolated profiles by month for : 1998
Sodankyla 67.3N 27.5E
Altitude
120
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Mixing Ratio
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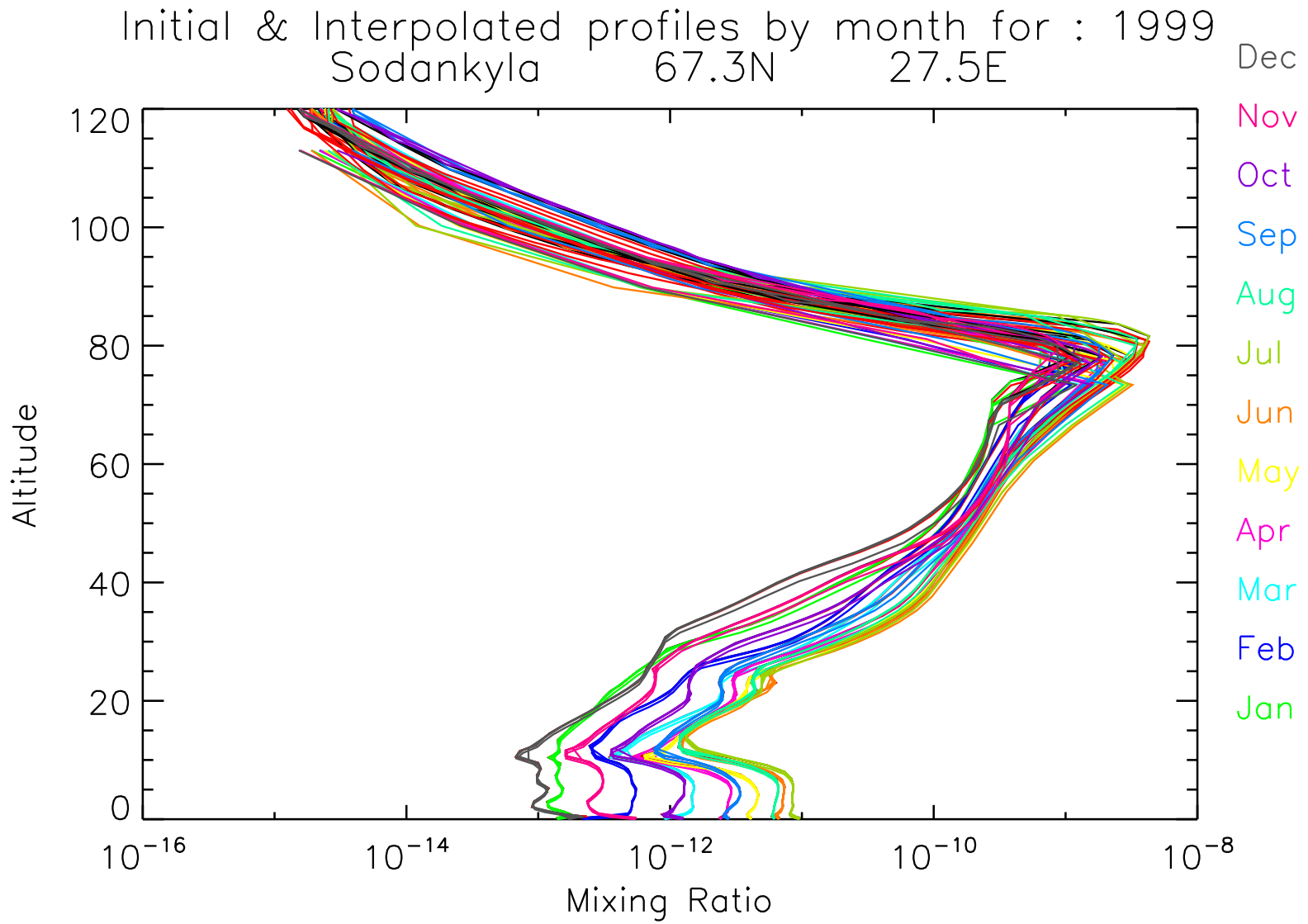
Initial & Interpolated profiles by month for : 1999
Sodankyla 67.3N 27.5E
Altitude
120
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Mixing Ratio
Dec
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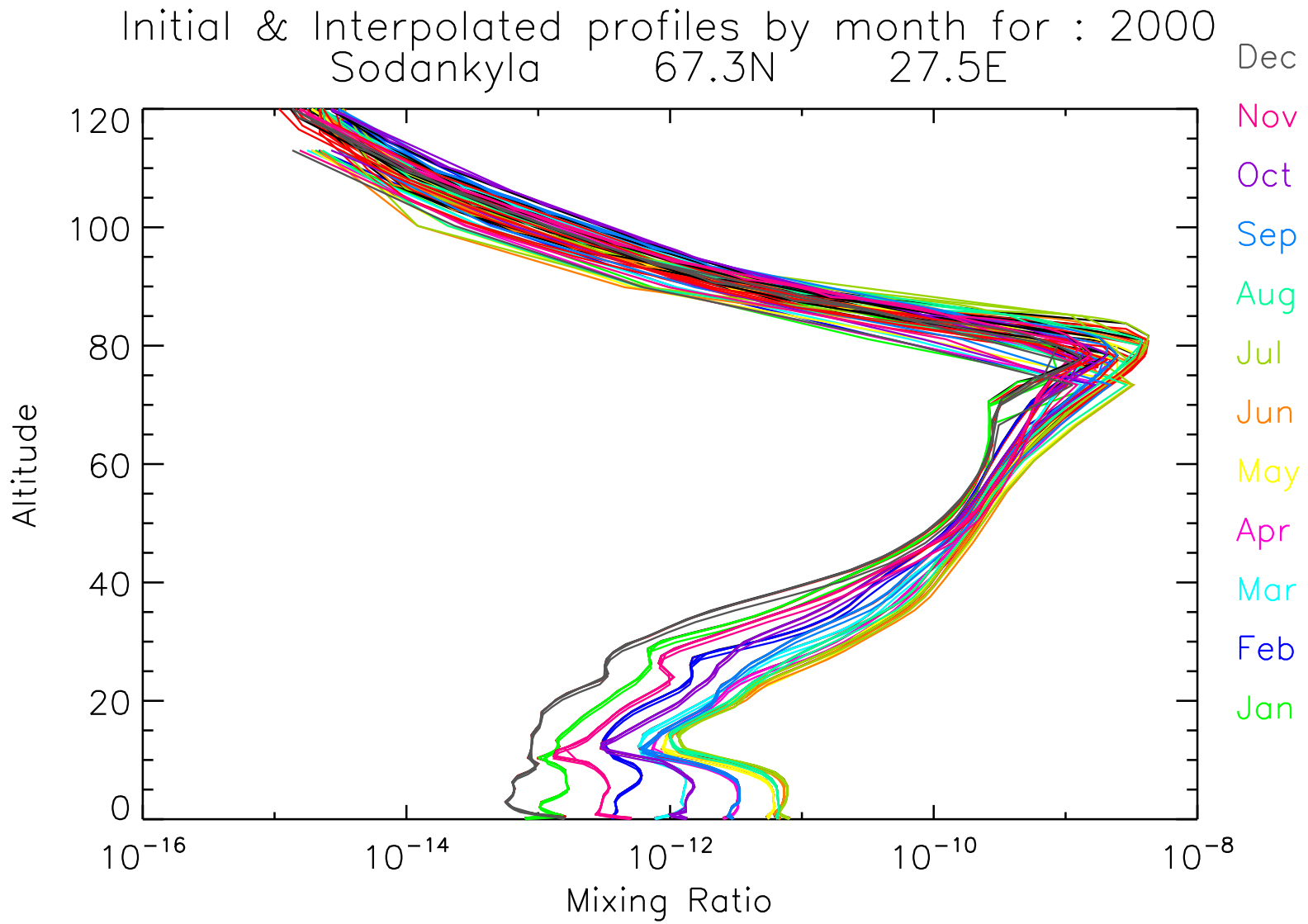
Initial & Interpolated profiles by month for : 2000
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
Dec
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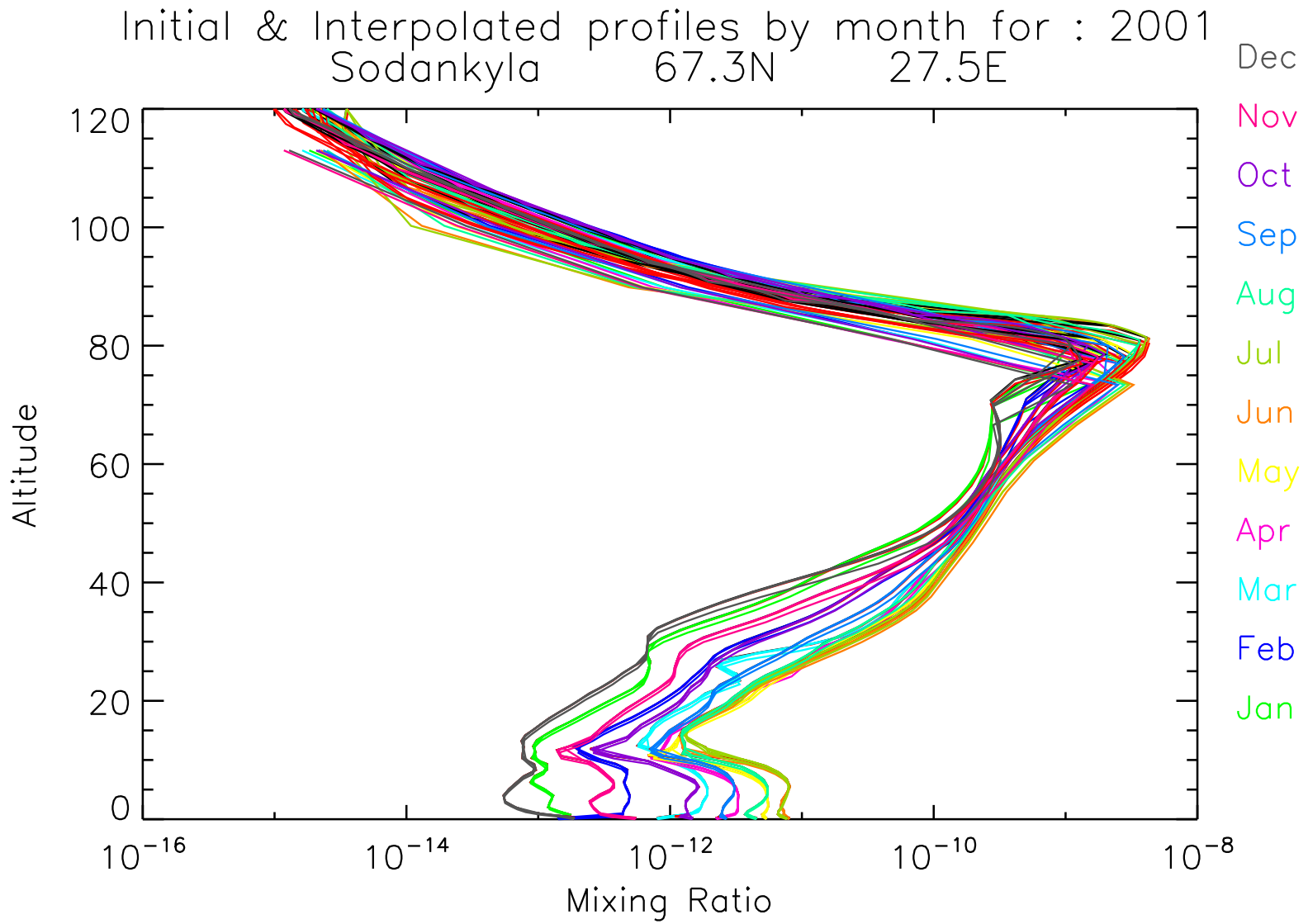
Initial & Interpolated profiles by month for : 2001
Sodankyla 67.3N 27.5E
Altitude
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100
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60
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20
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Mixing Ratio
Dec
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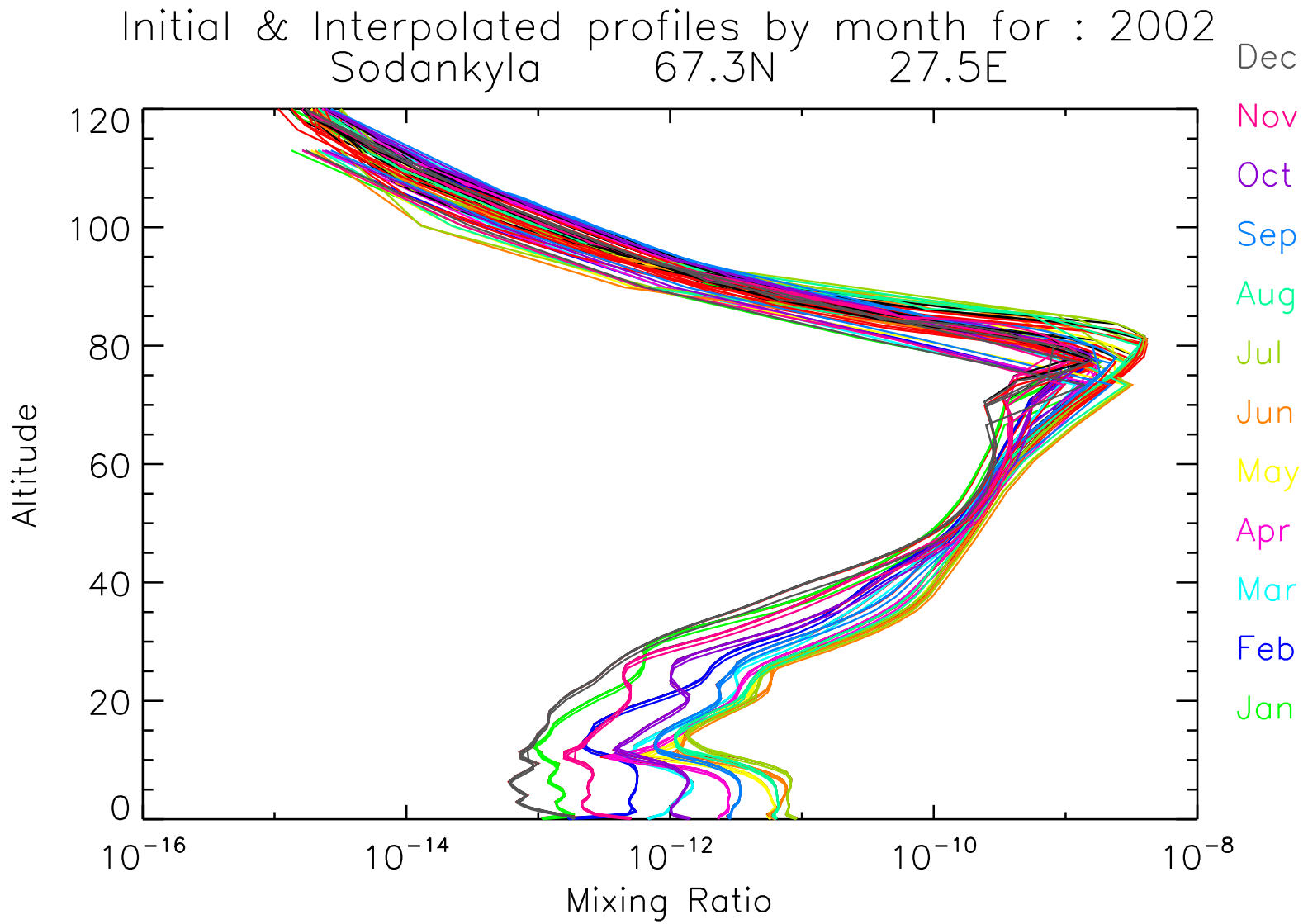
Initial & Interpolated profiles by month for : 2002
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
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10^{-8}
Mixing Ratio
Dec
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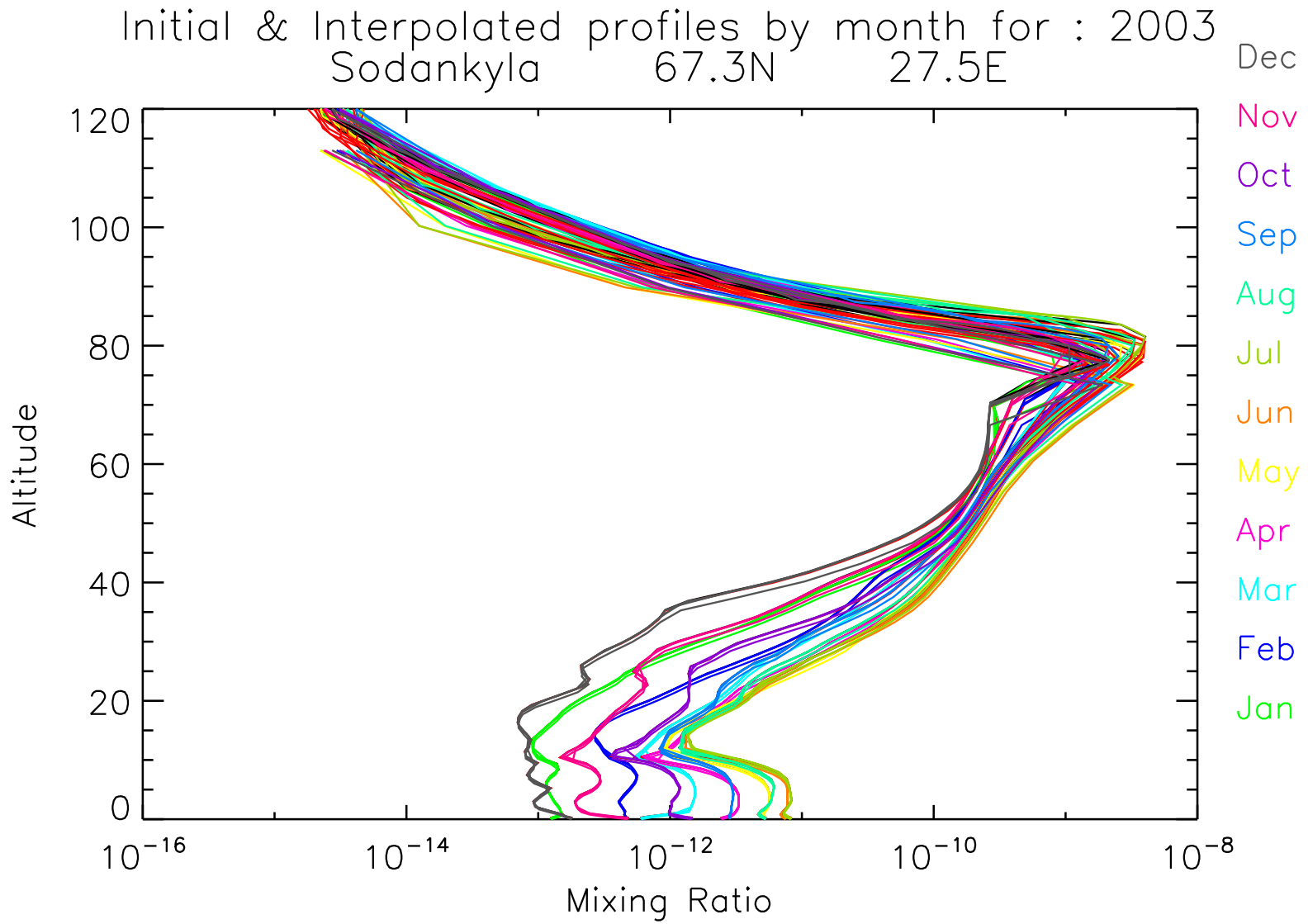
Initial & Interpolated profiles by month for : 2003
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
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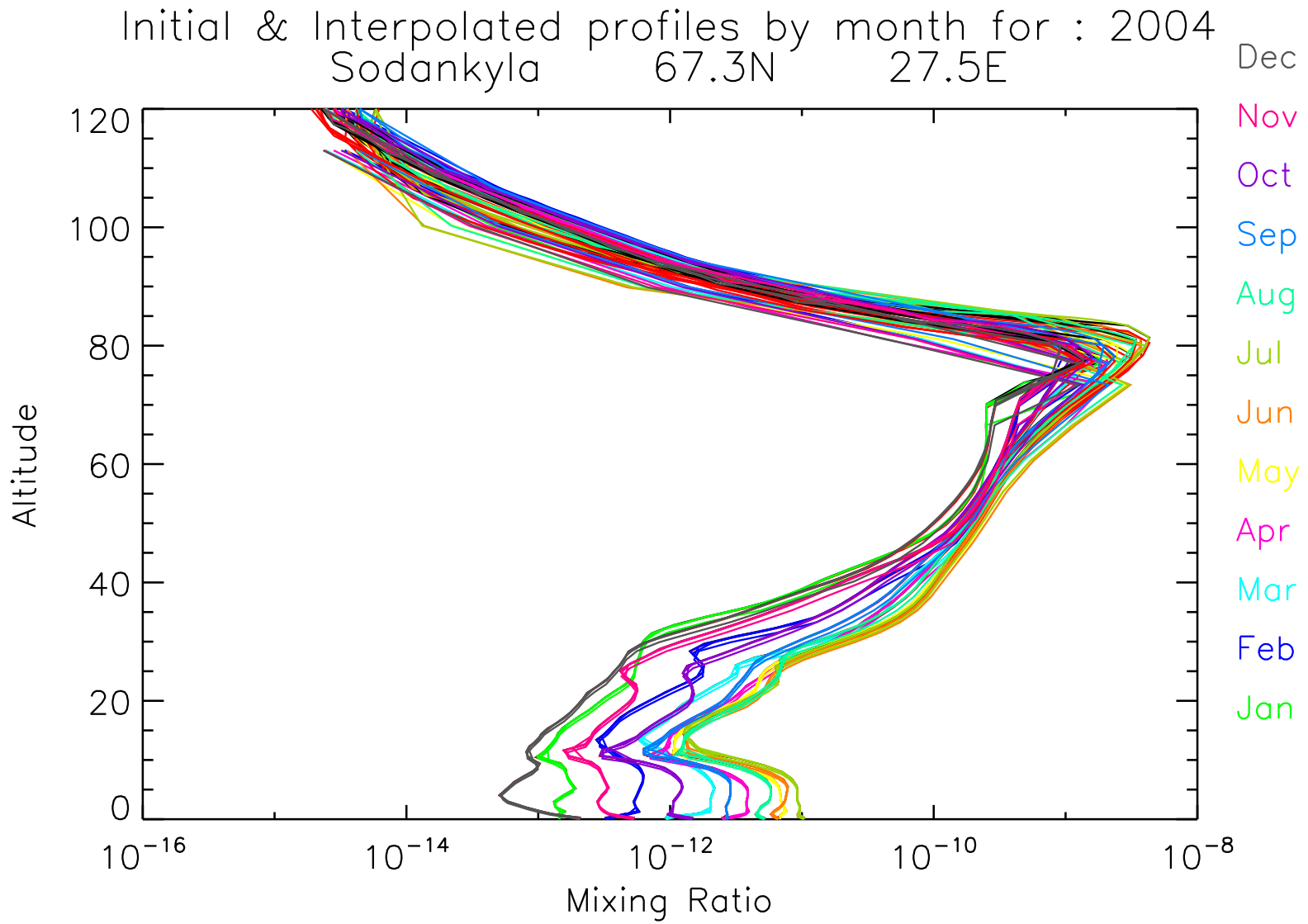
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
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10^{-8}
Mixing Ratio
Dec
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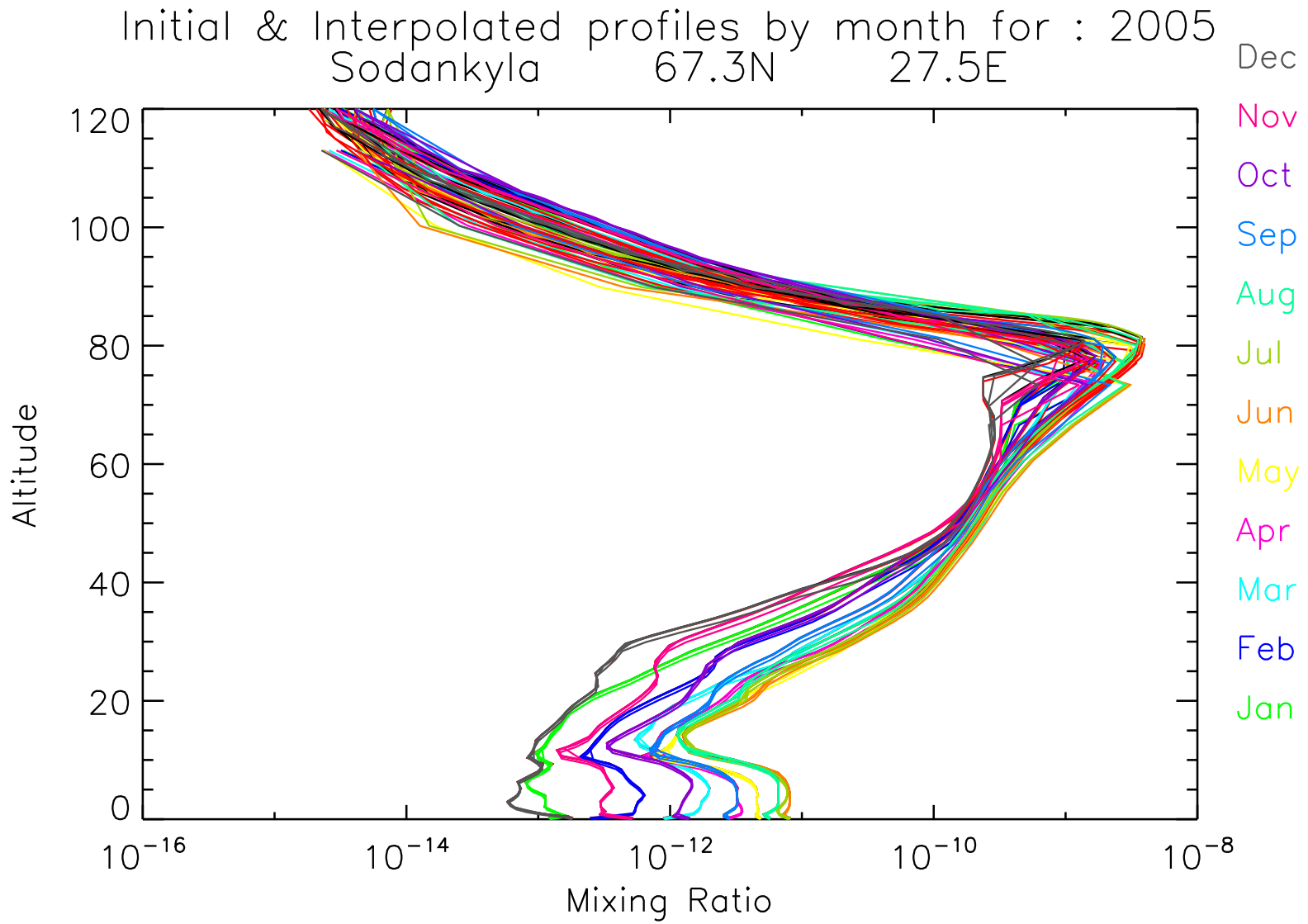
Initial & Interpolated profiles by month for : 2005
Sodankyla 67.3N 27.5E
Altitude
120
100
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40
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0
10^{-16}
10^{-14}
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10^{-8}
Mixing Ratio
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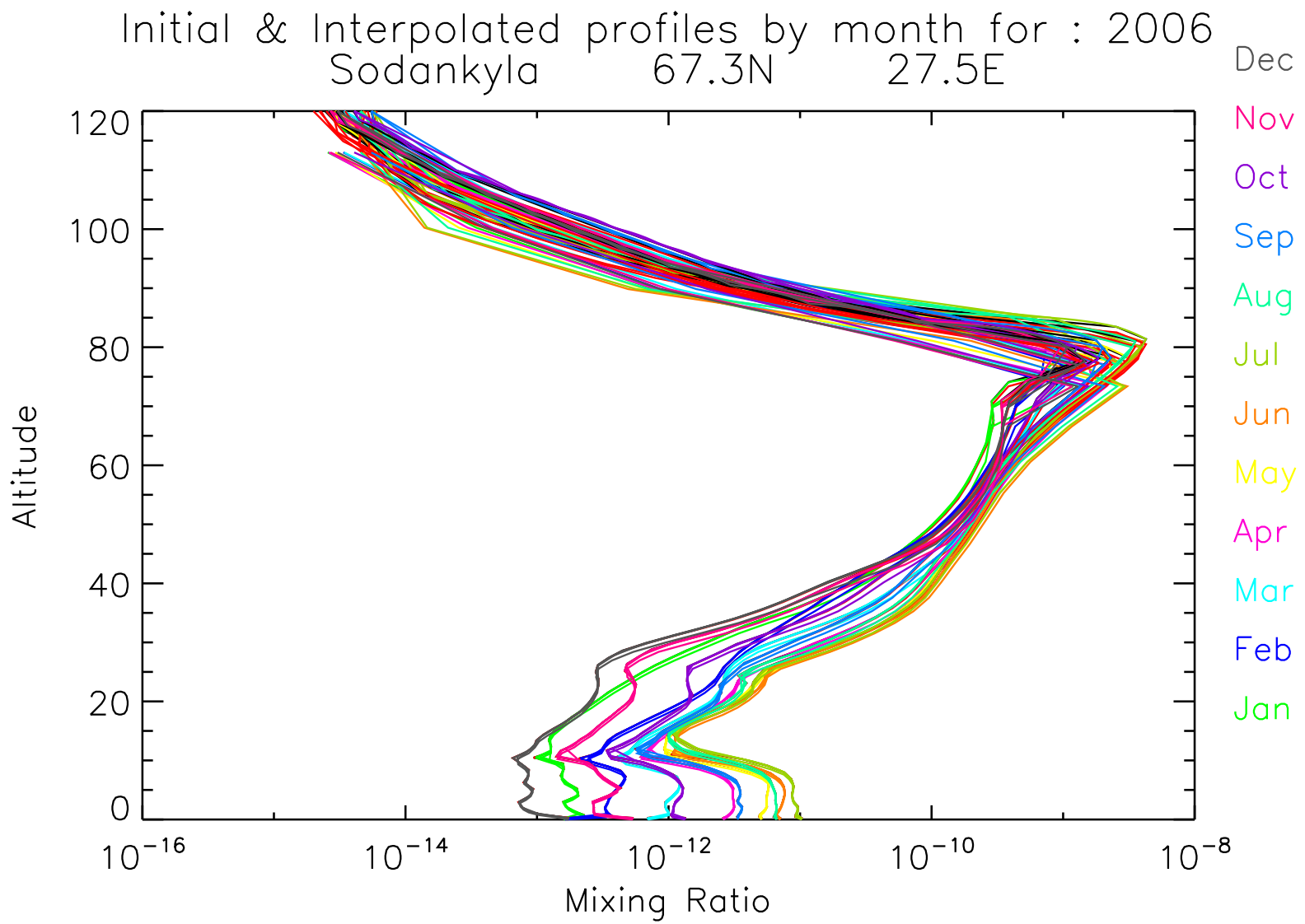
Initial & Interpolated profiles by month for : 2006
Sodankyla 67.3N 27.5E
Altitude
120
100
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10^{-16}
10^{-14}
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10^{-8}
Mixing Ratio
Dec
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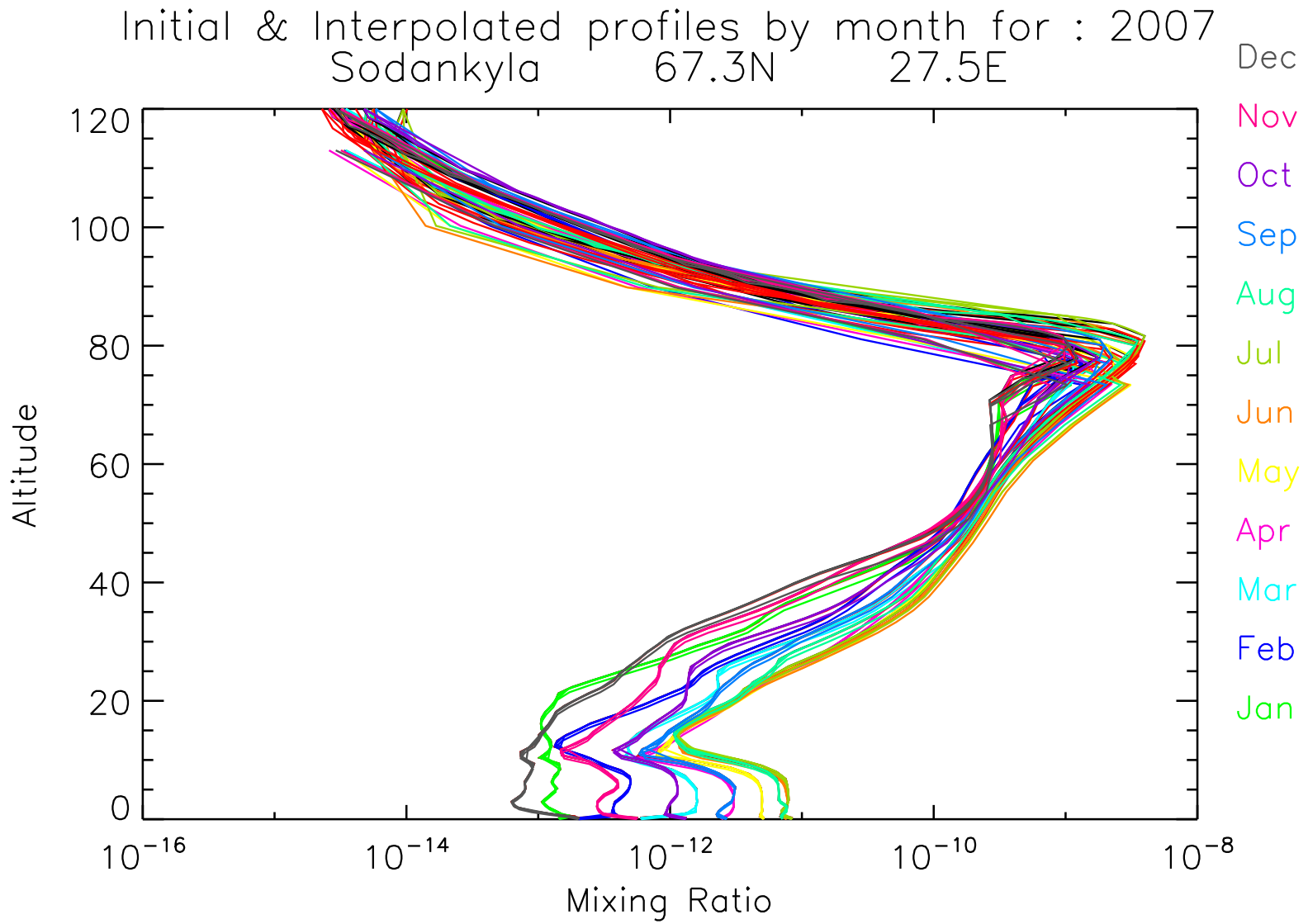
Initial & Interpolated profiles by month for : 2007
Sodankyla 67.3N 27.5E
Altitude
120
100
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10^{-16}
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10^{-8}
Mixing Ratio
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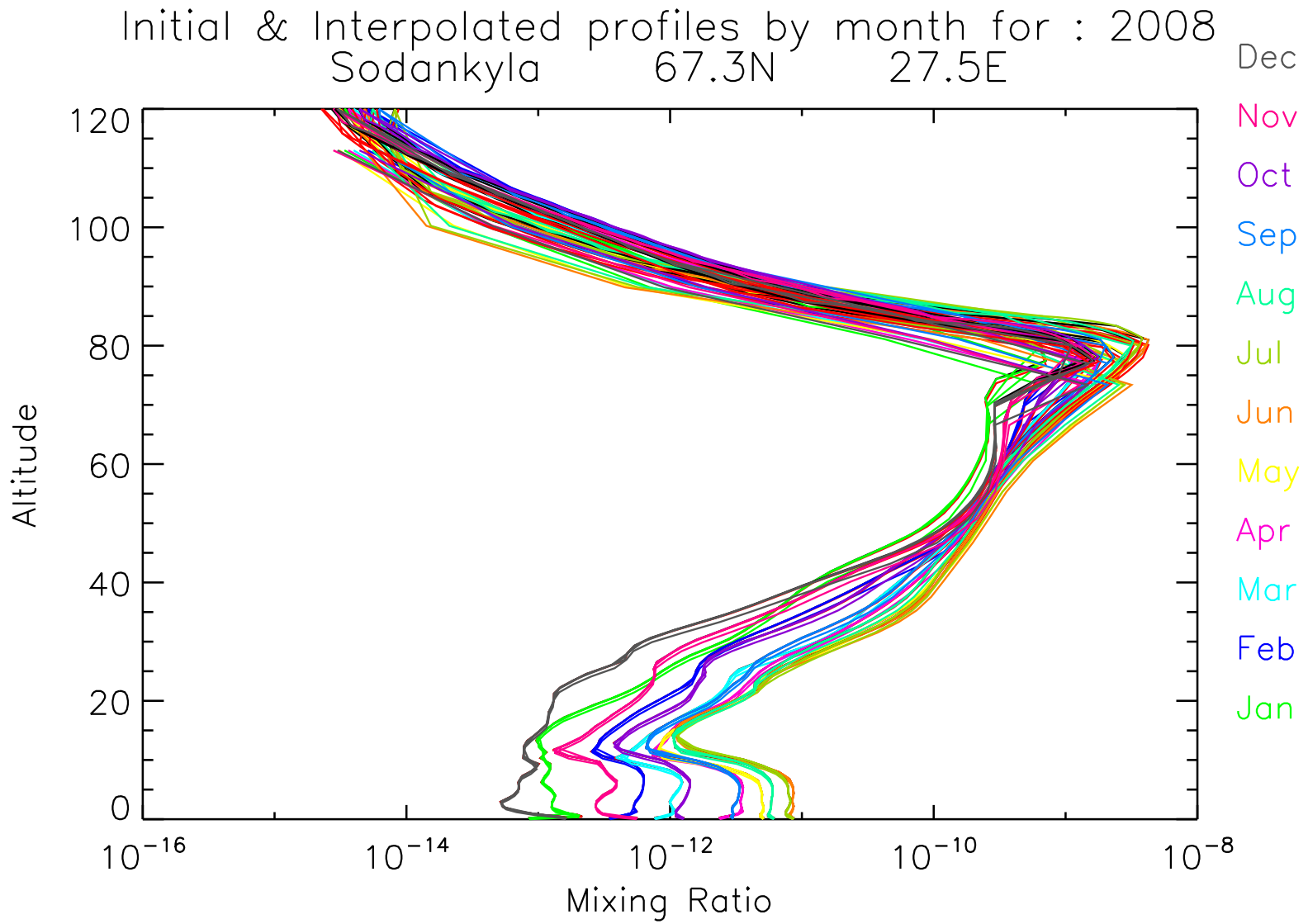
Initial & Interpolated profiles by month for : 2008
Sodankyla 67.3N 27.5E
Altitude
120
100
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10^{-16}
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10^{-8}
Mixing Ratio
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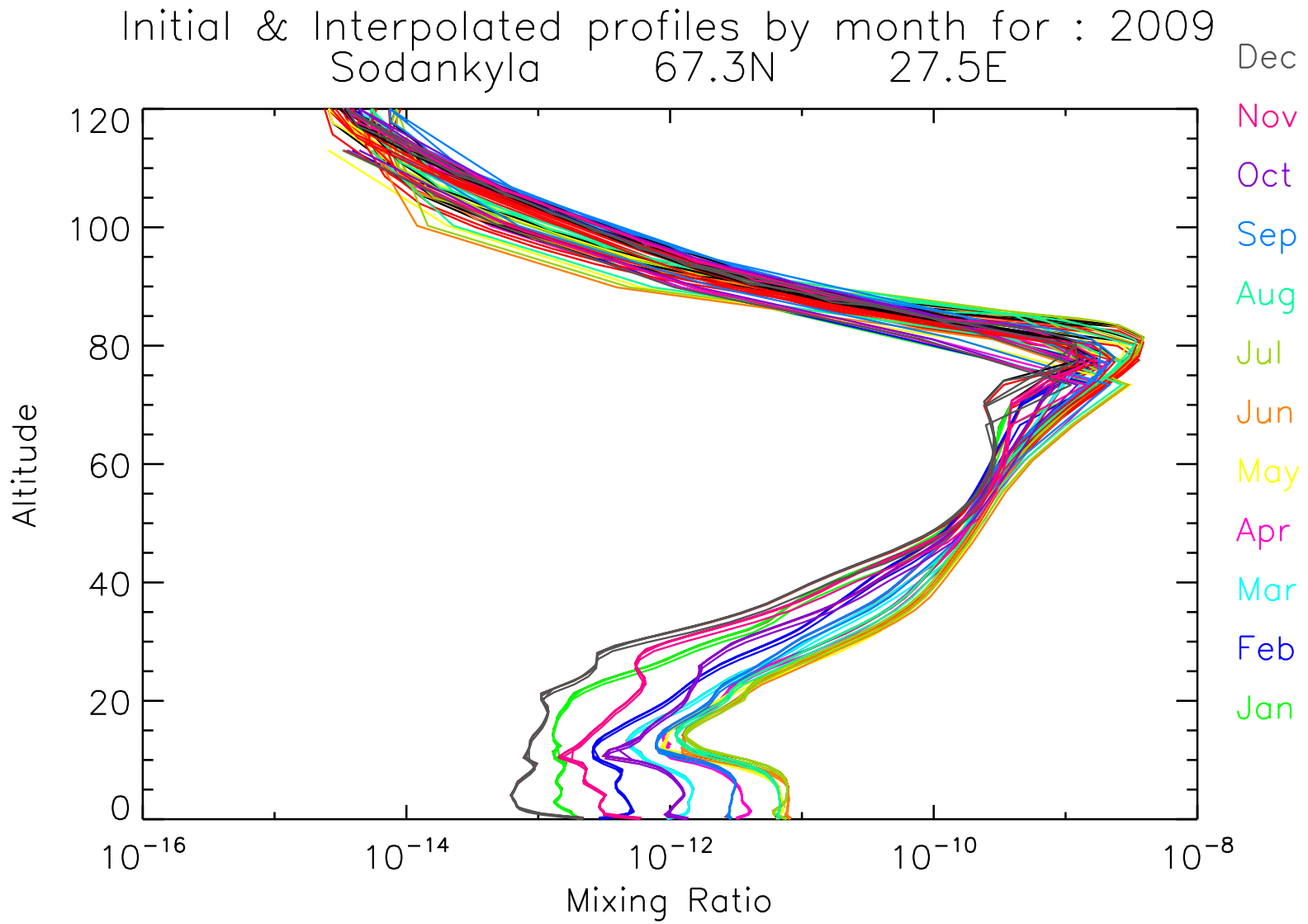
Initial & Interpolated profiles by month for : 2009
Sodankyla 67.3N 27.5E
Altitude
120
100
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10^{-8}
Mixing Ratio
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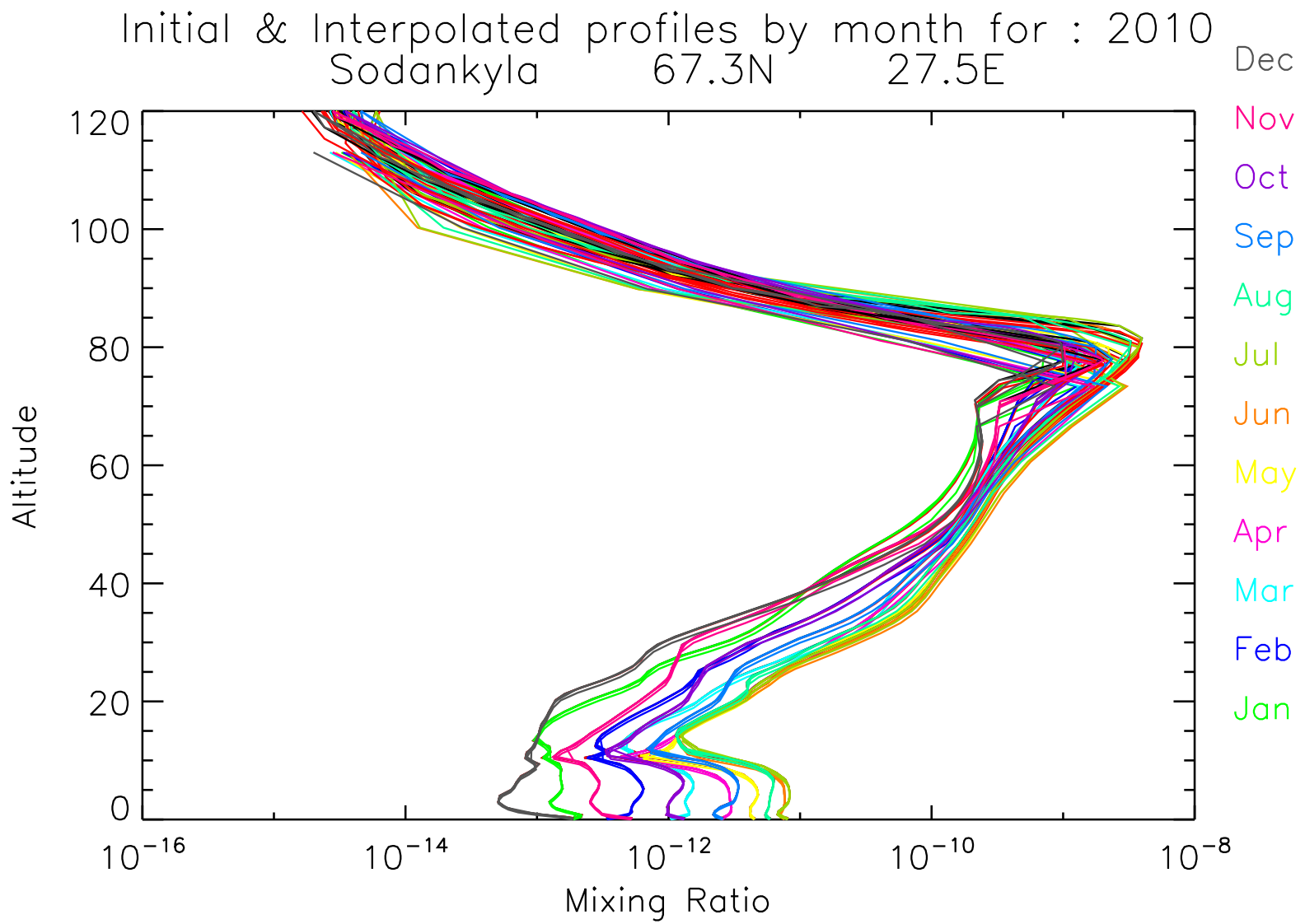
Initial & Interpolated profiles by month for : 2010
Sodankyla 67.3N 27.5E
Dec
Nov
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Feb
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Altitude
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10^{-12}
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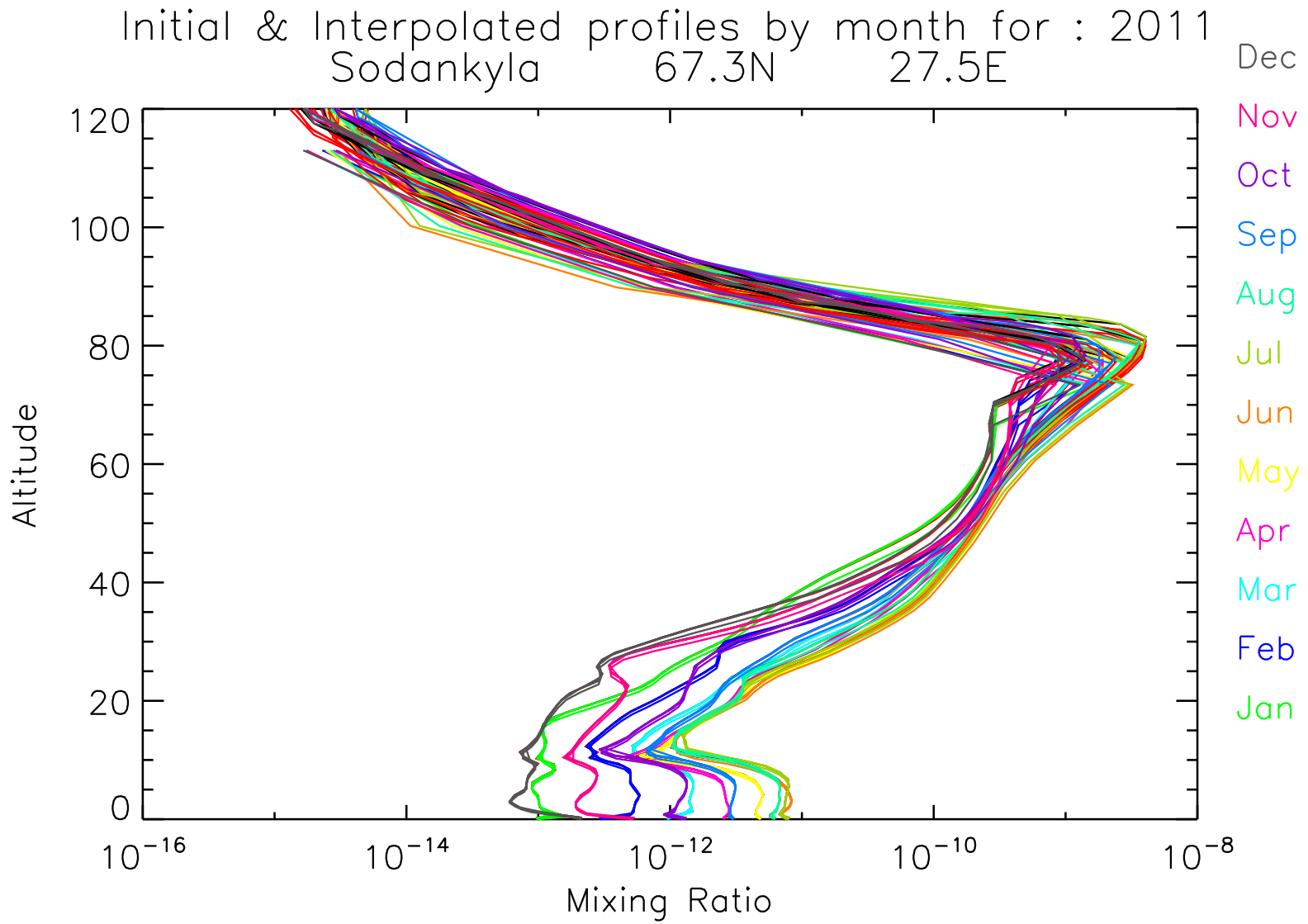
10^{-8}
Mixing Ratio


Initial & Interpolated profiles by month for : 2011
Sodankyla 67.3N 27.5E
Dec
Nov
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Feb
Jan
120
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Altitude
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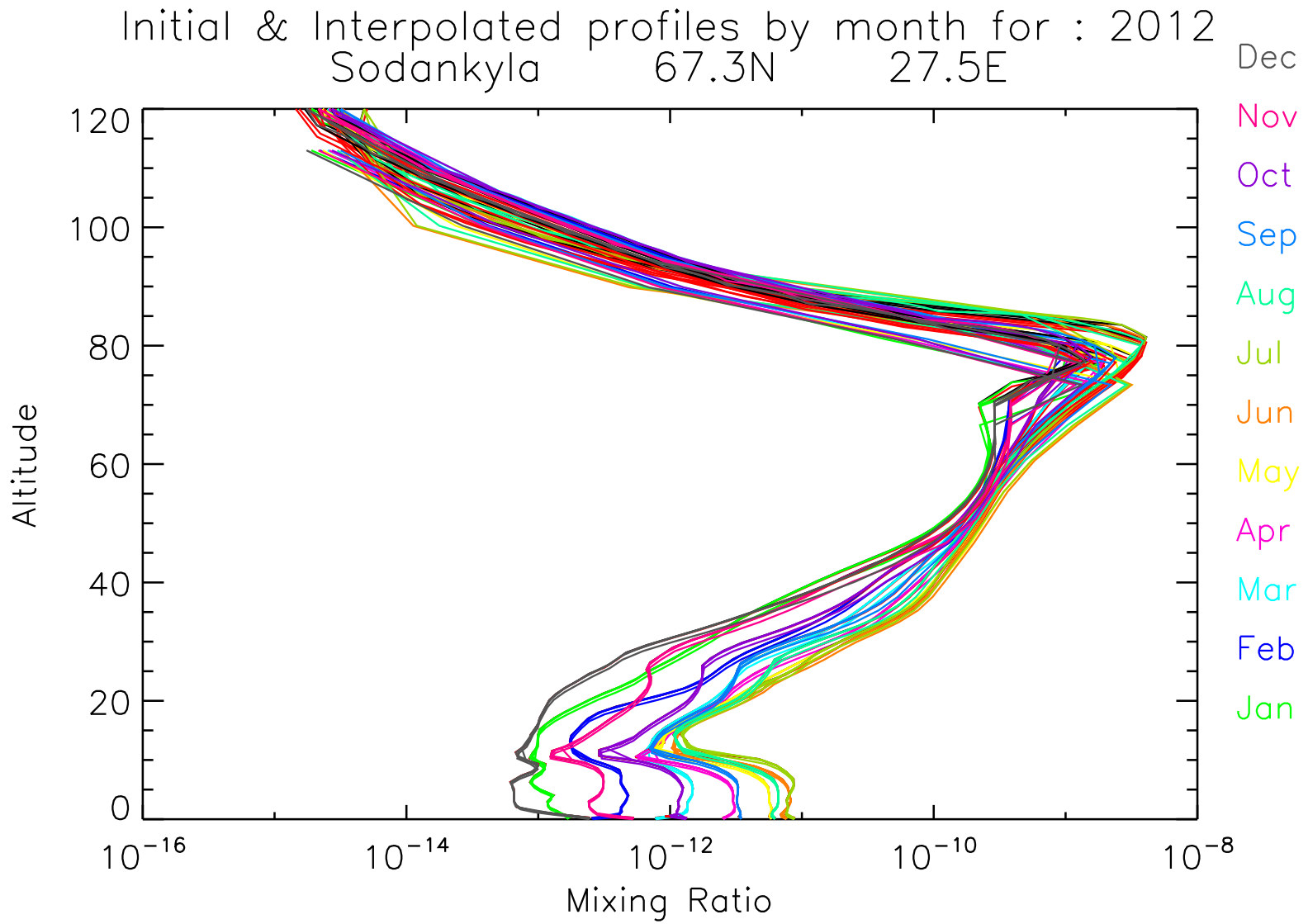
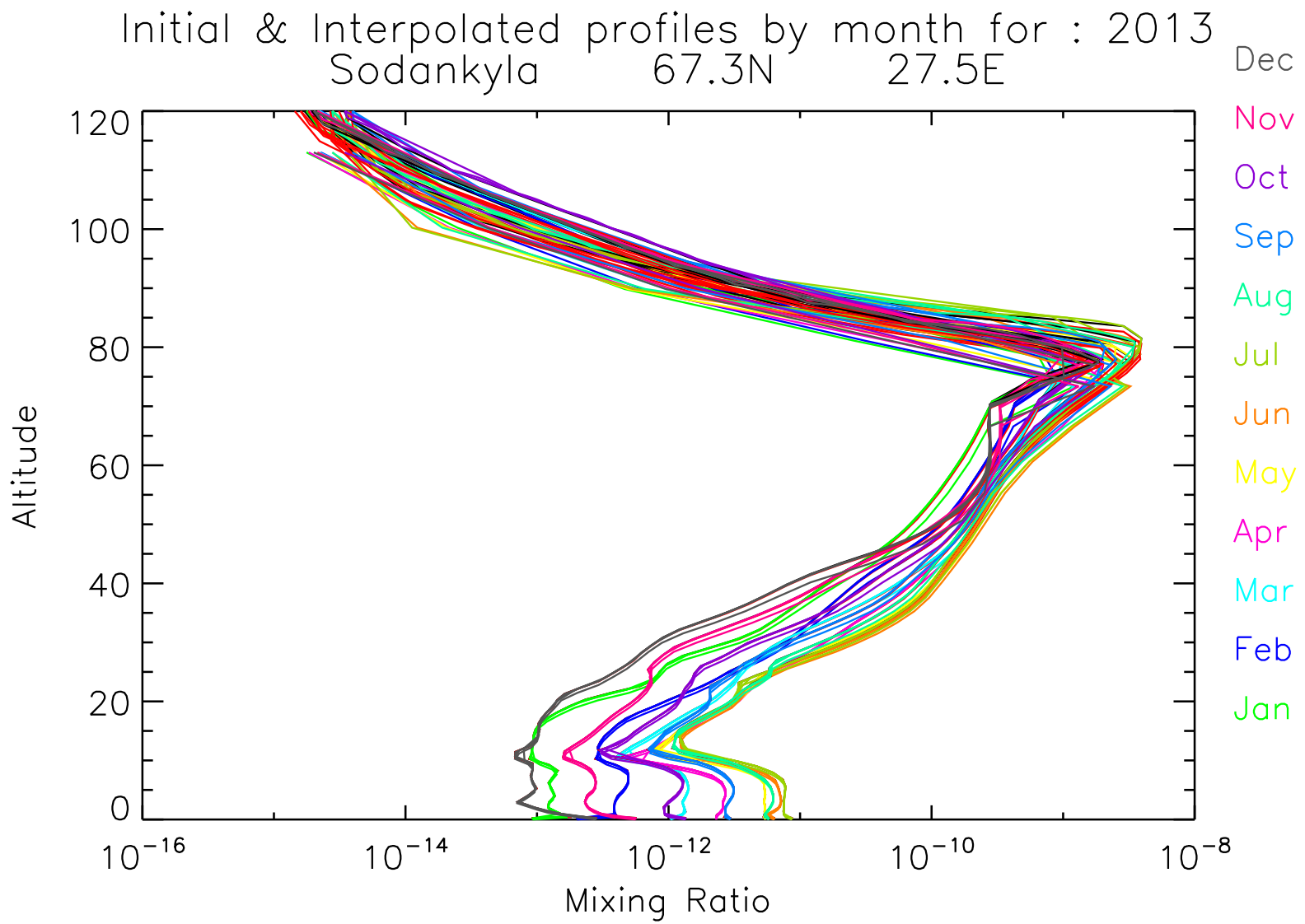
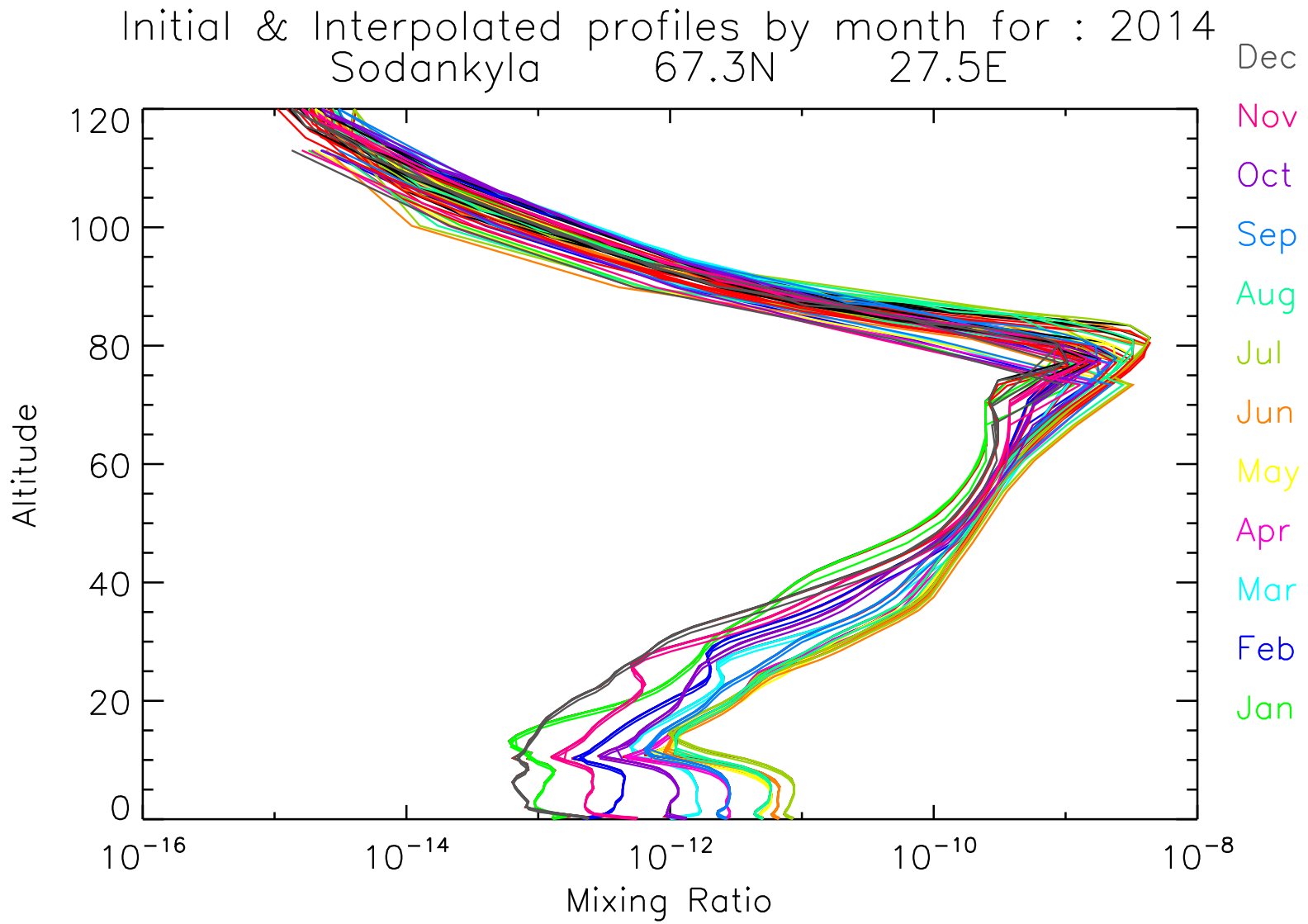
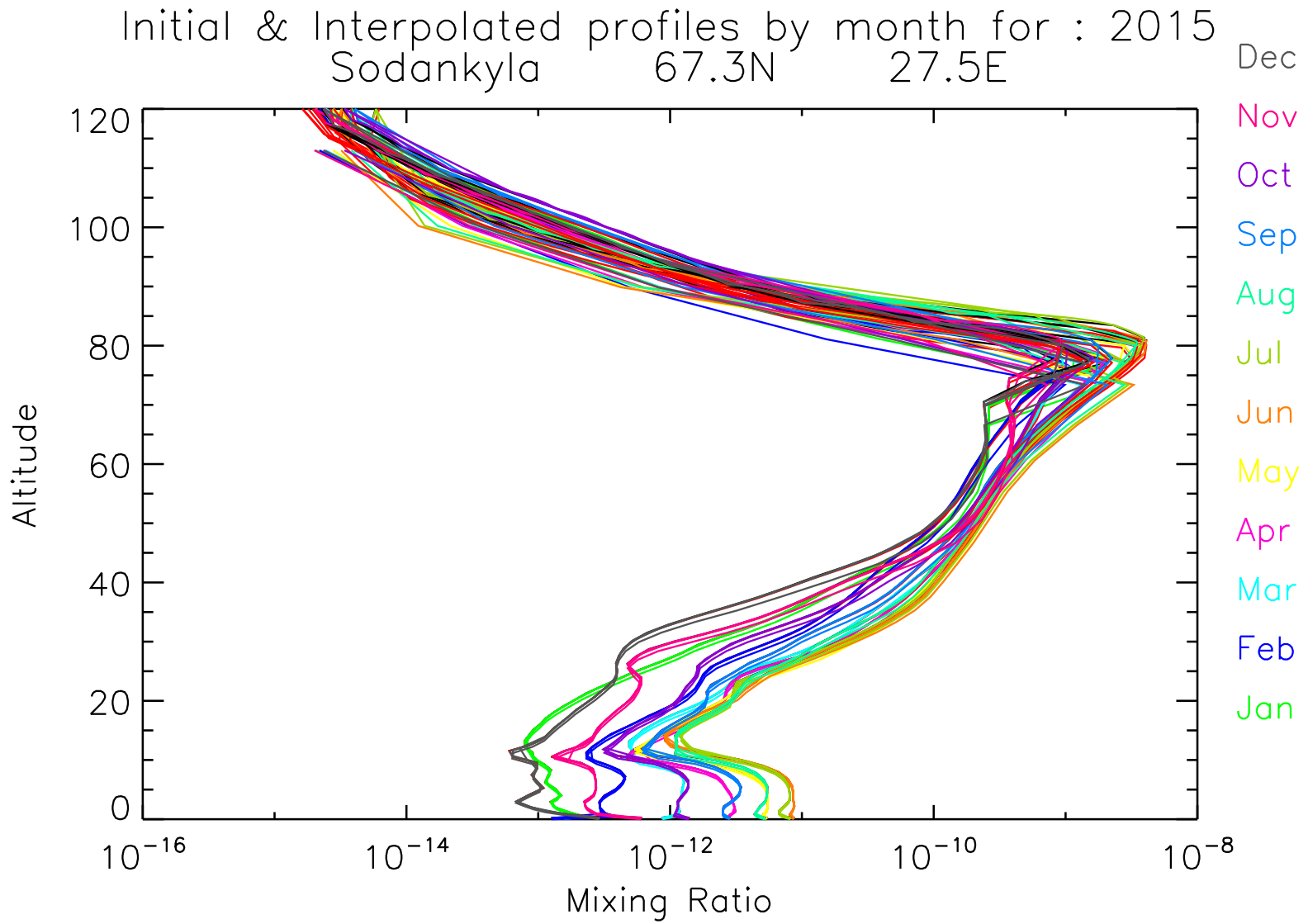
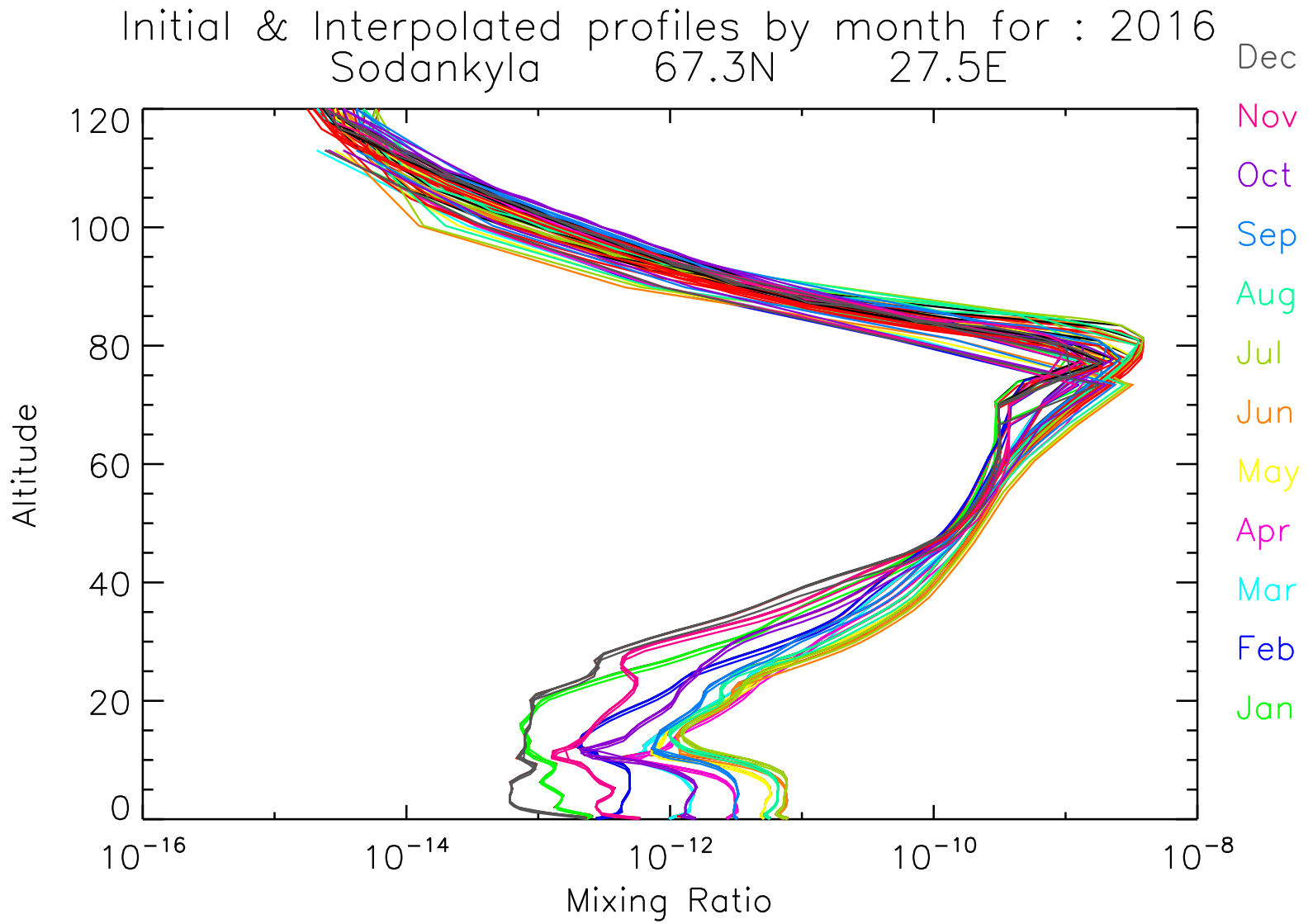
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio

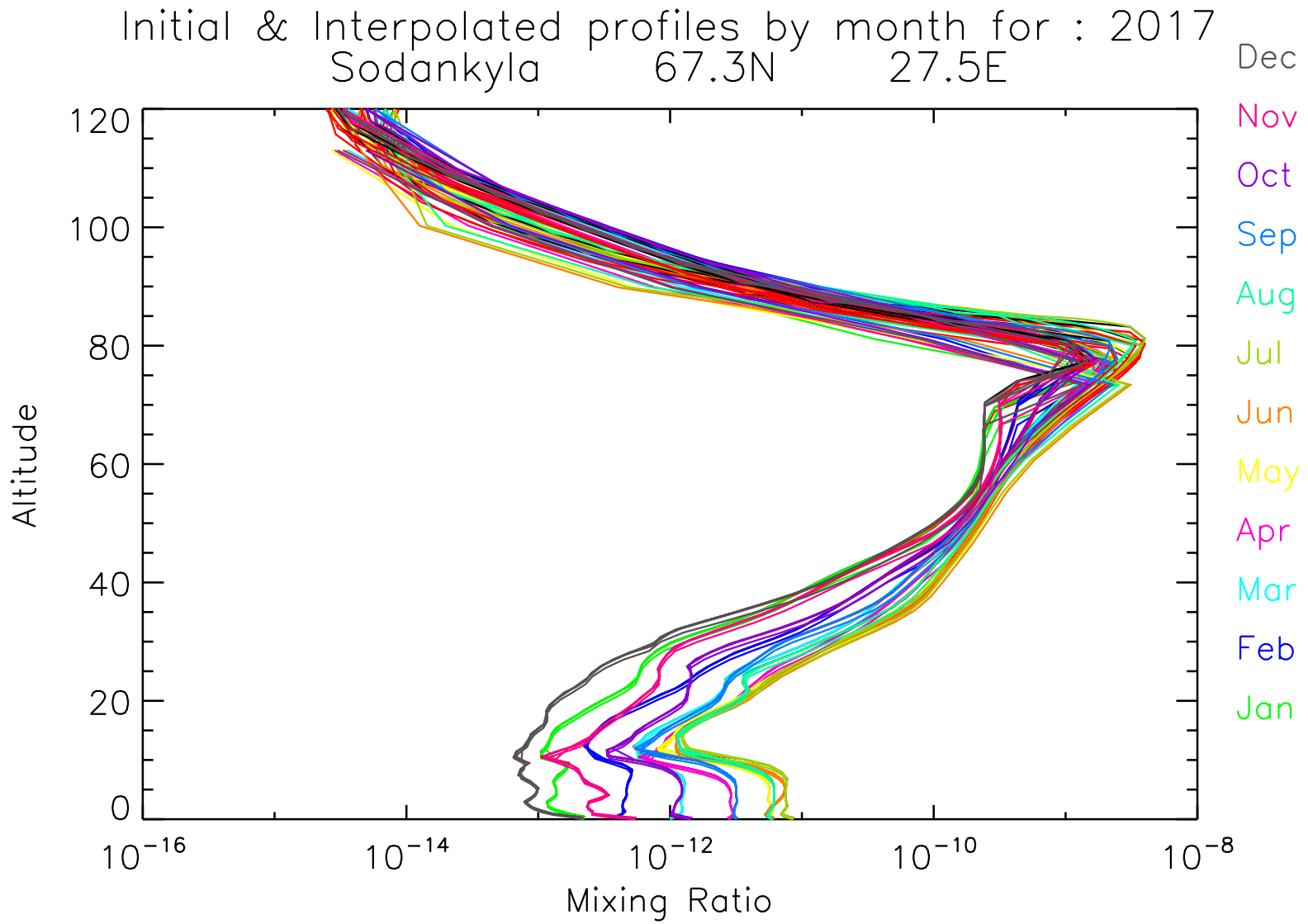

Initial & Interpolated profiles by month for : 2012
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

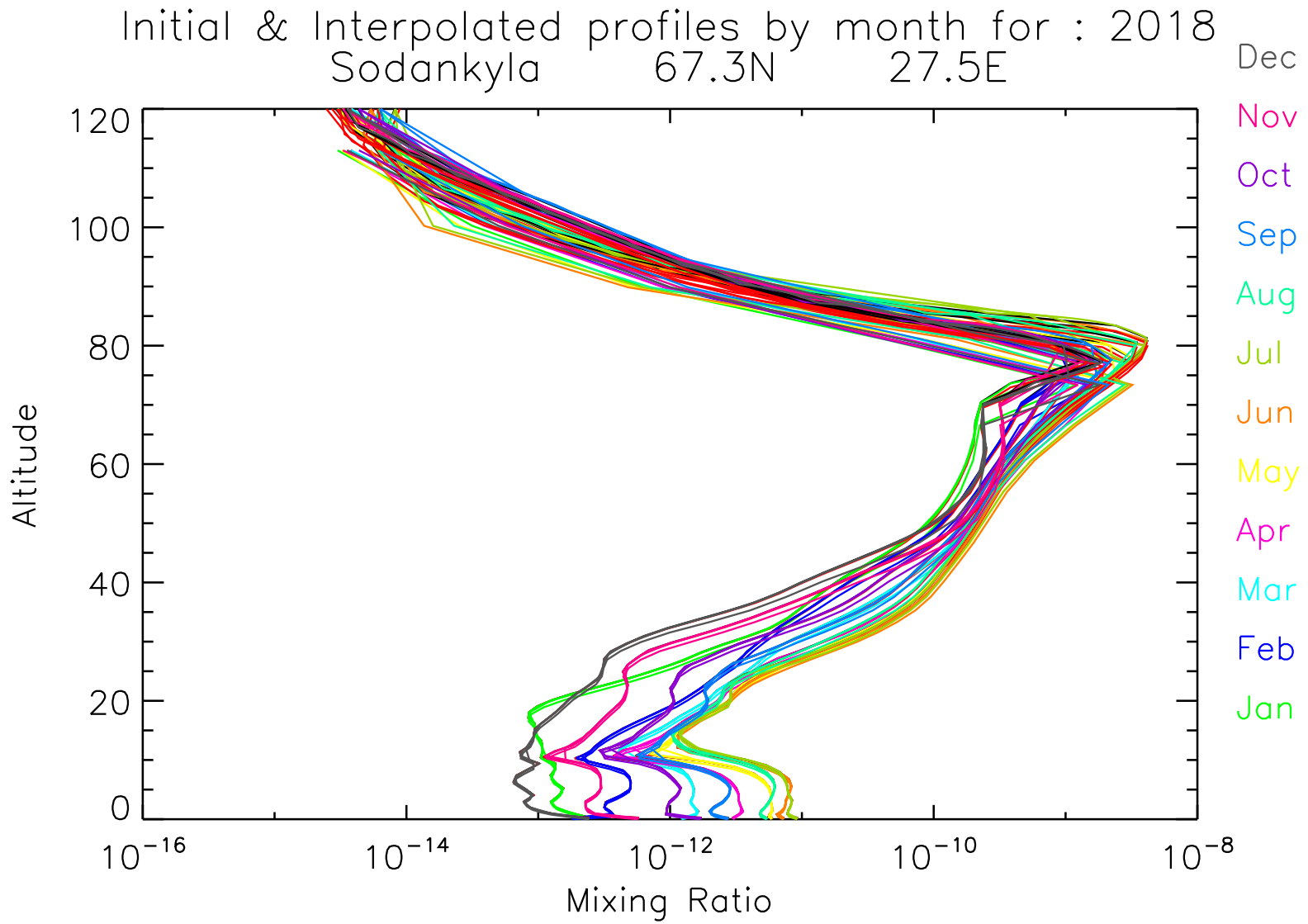

Initial & Interpolated profiles by month for : 2013
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio

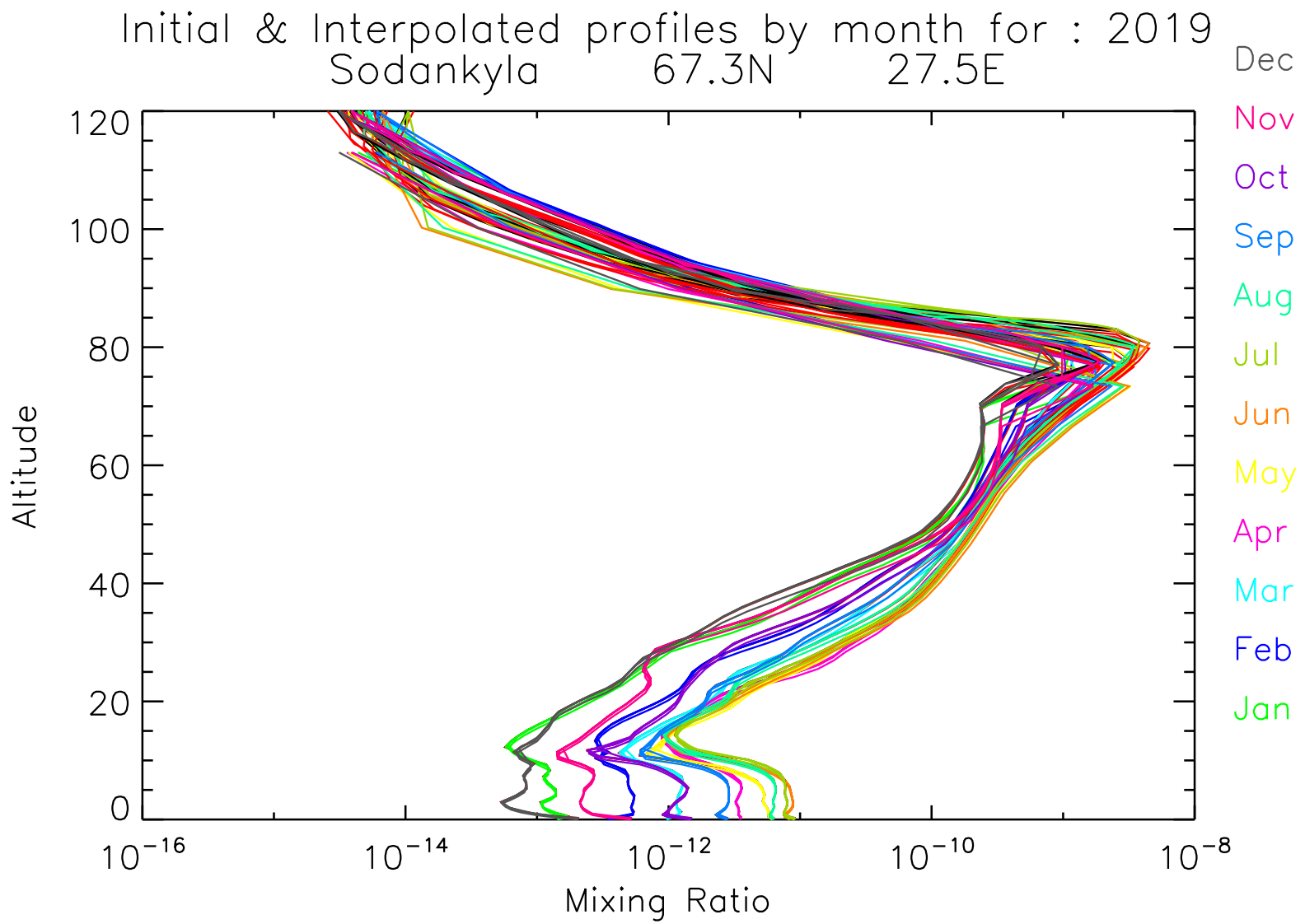

Initial & Interpolated profiles by month for : 2014
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio

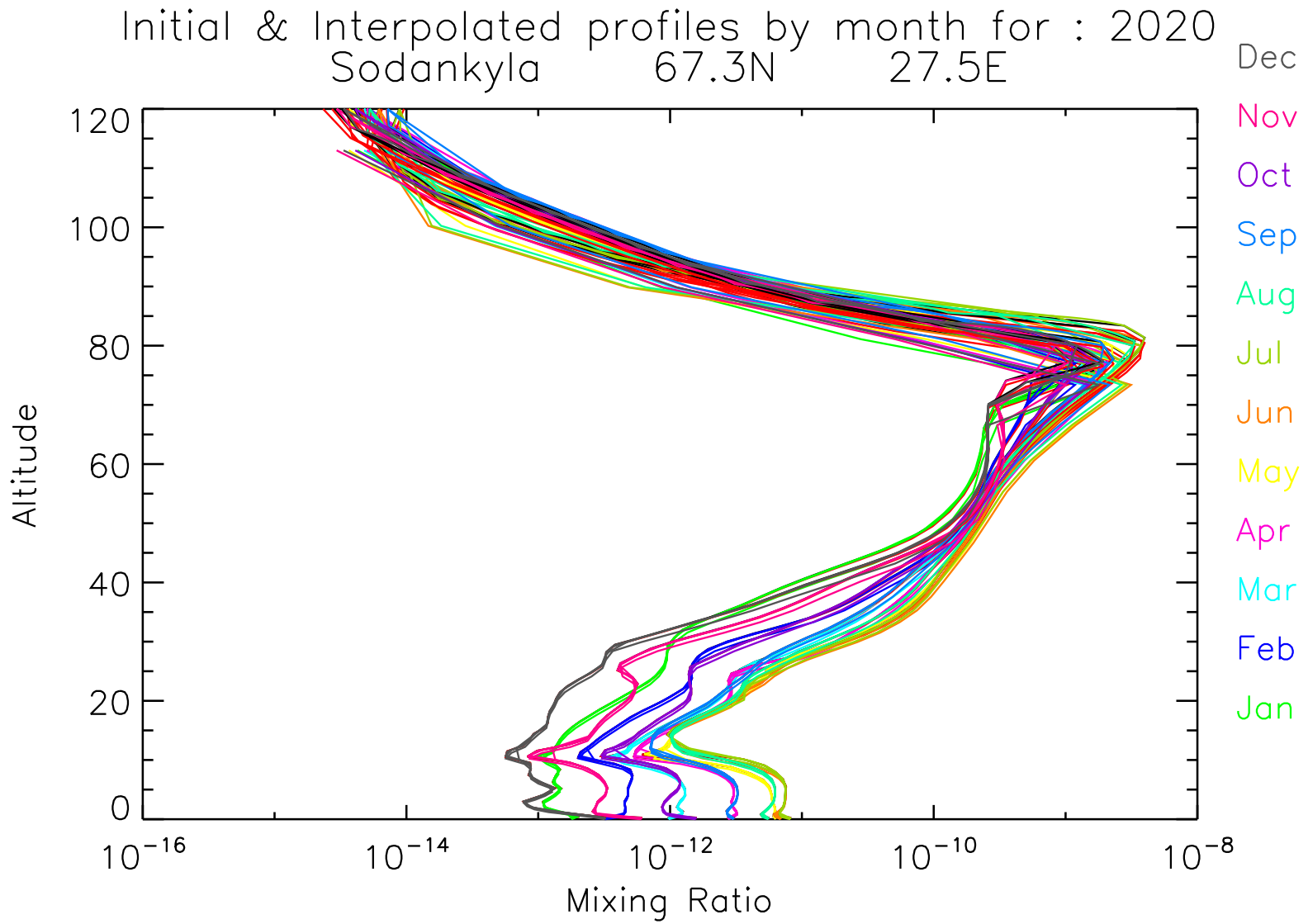

Initial & Interpolated profiles by month for : 2015
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

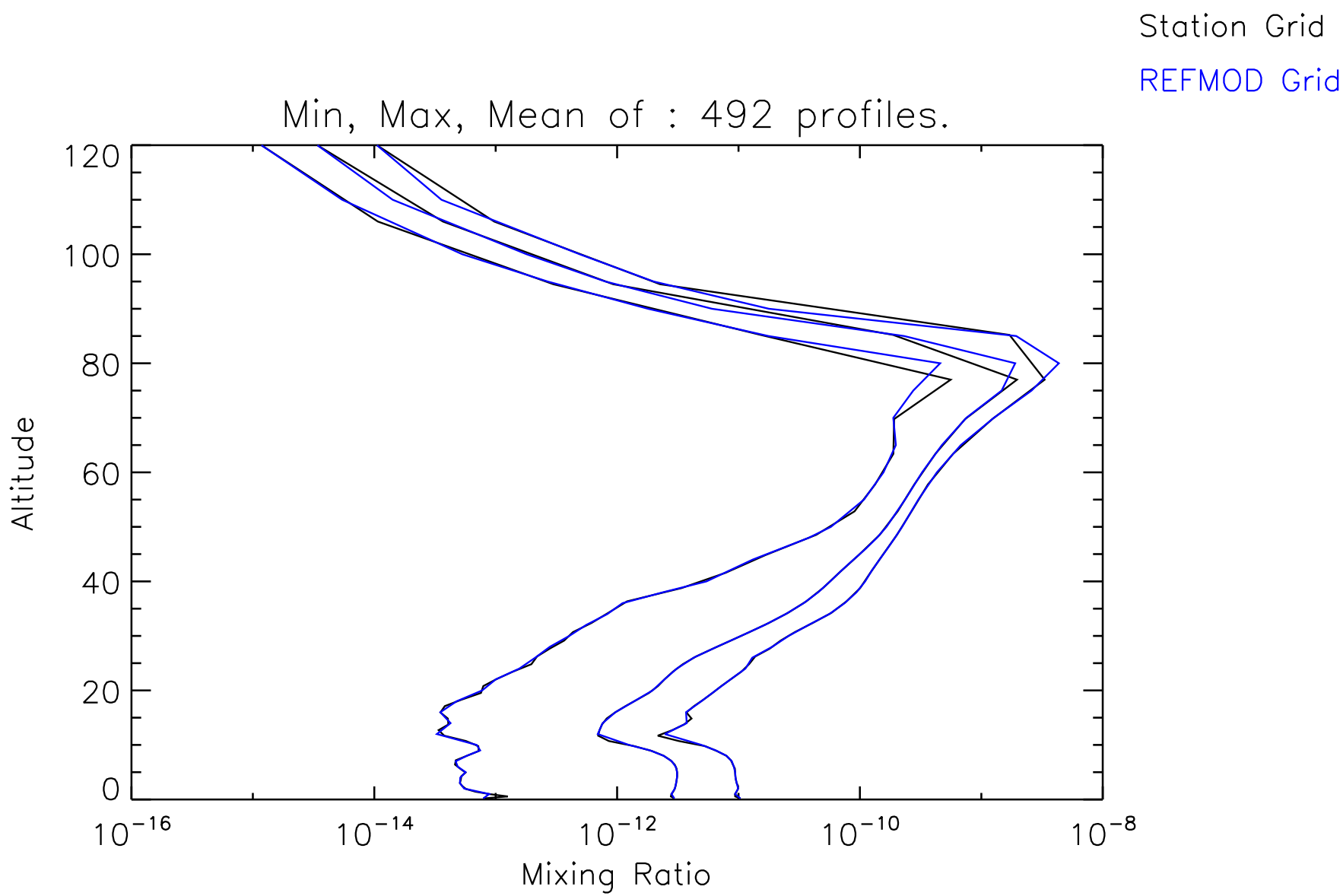

Initial & Interpolated profiles by month for : 2016
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

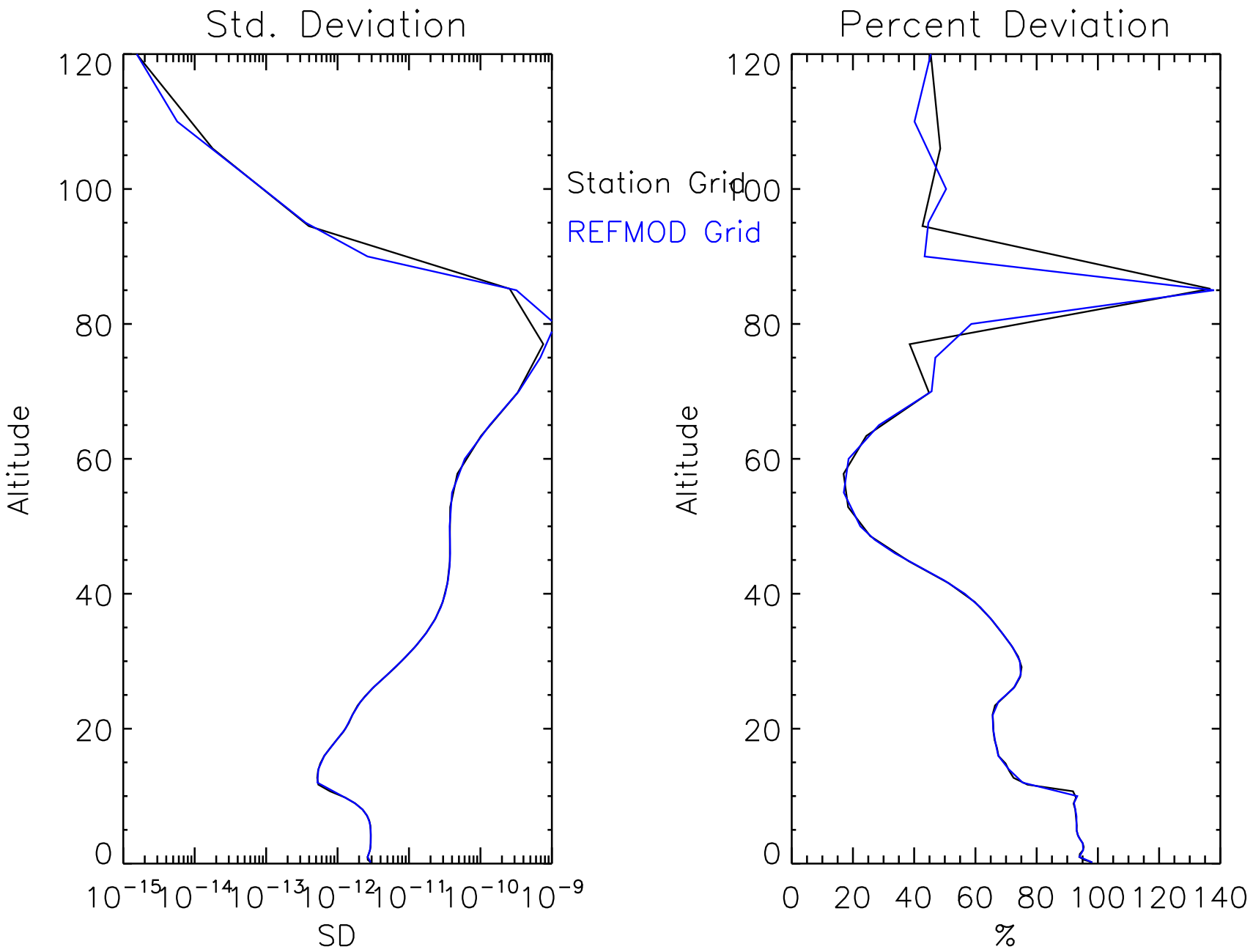

Initial & Interpolated profiles by month for : 2017
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio

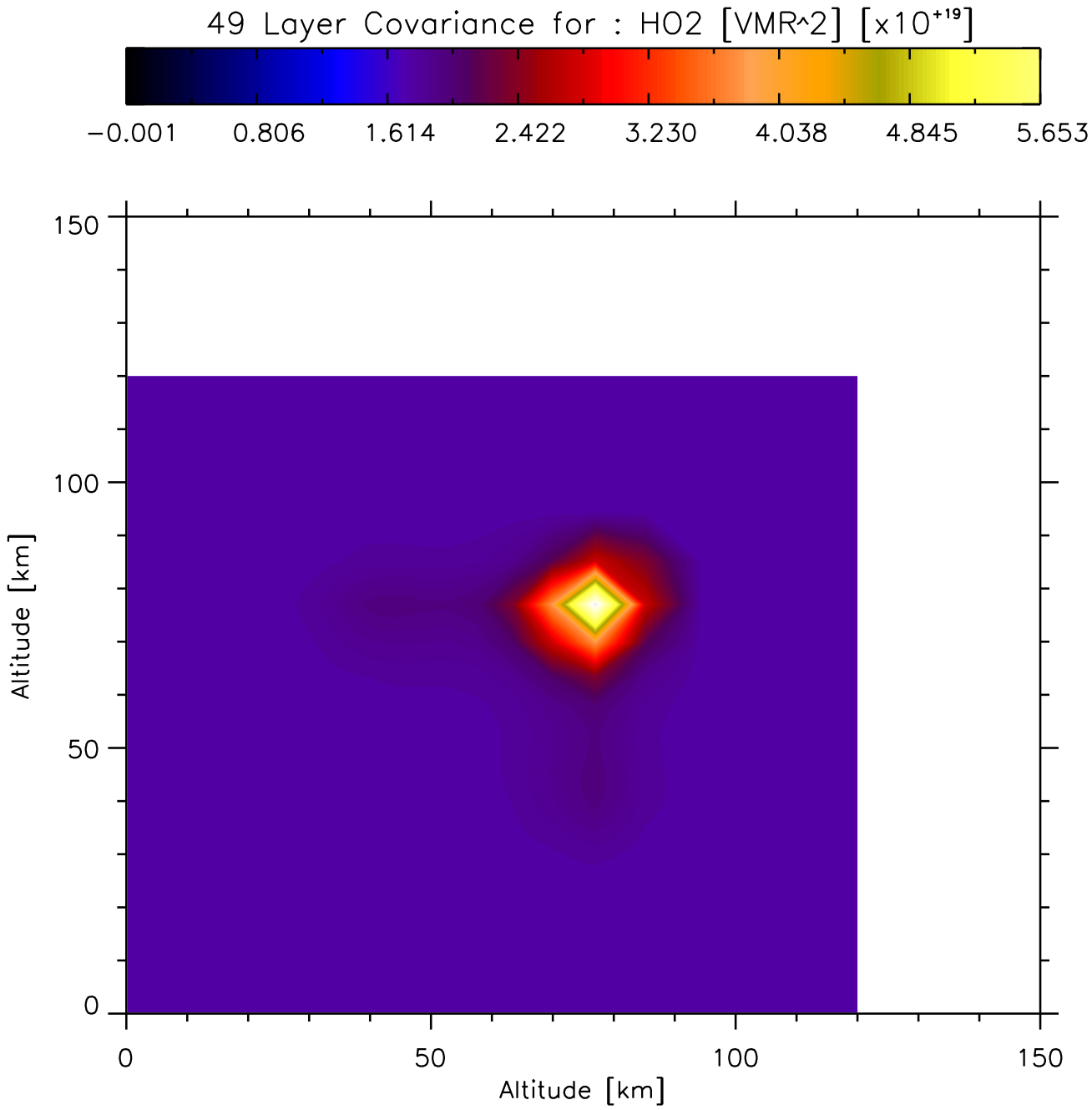

Initial & Interpolated profiles by month for : 2018
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

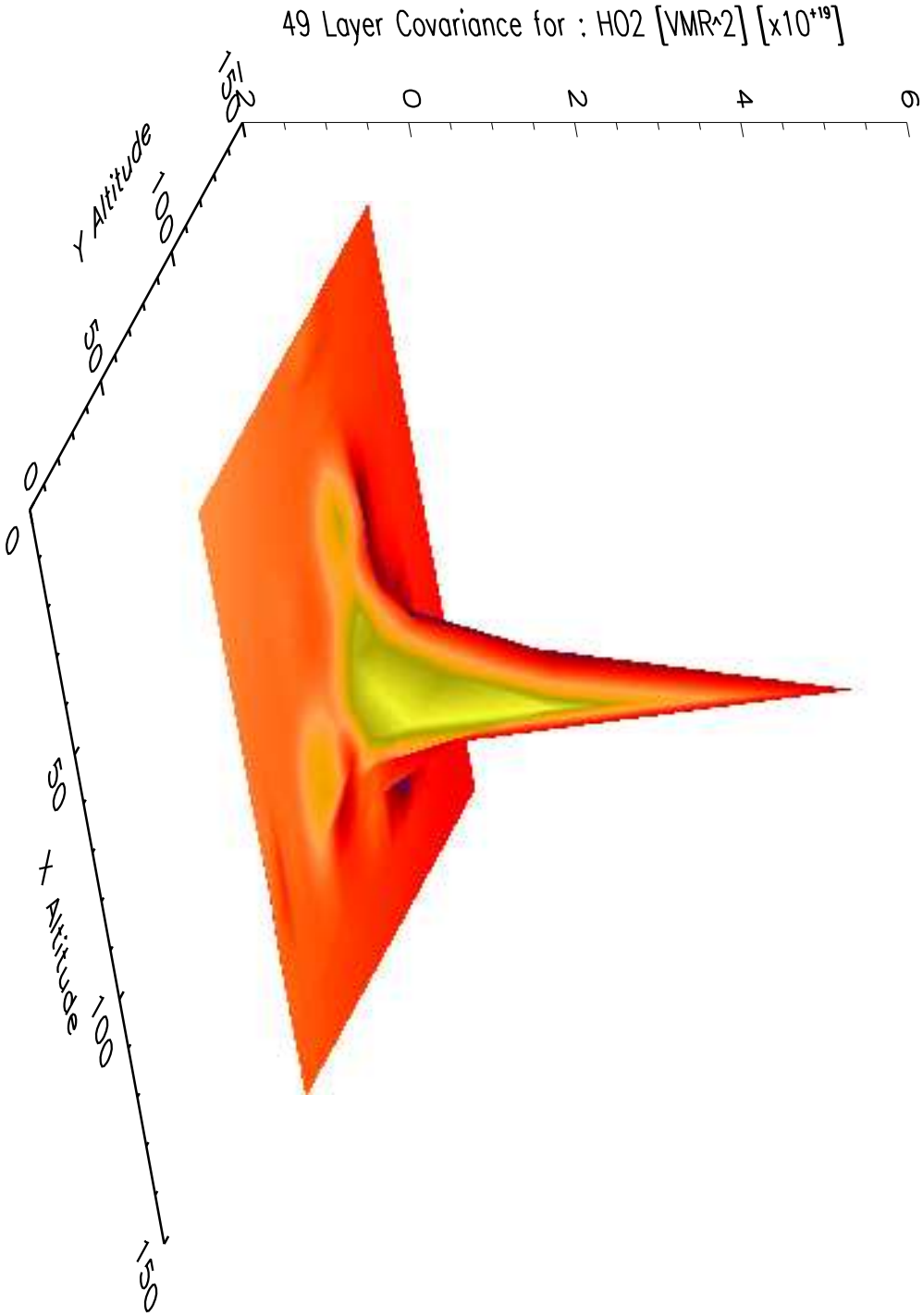

Initial & Interpolated profiles by month for : 2019
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

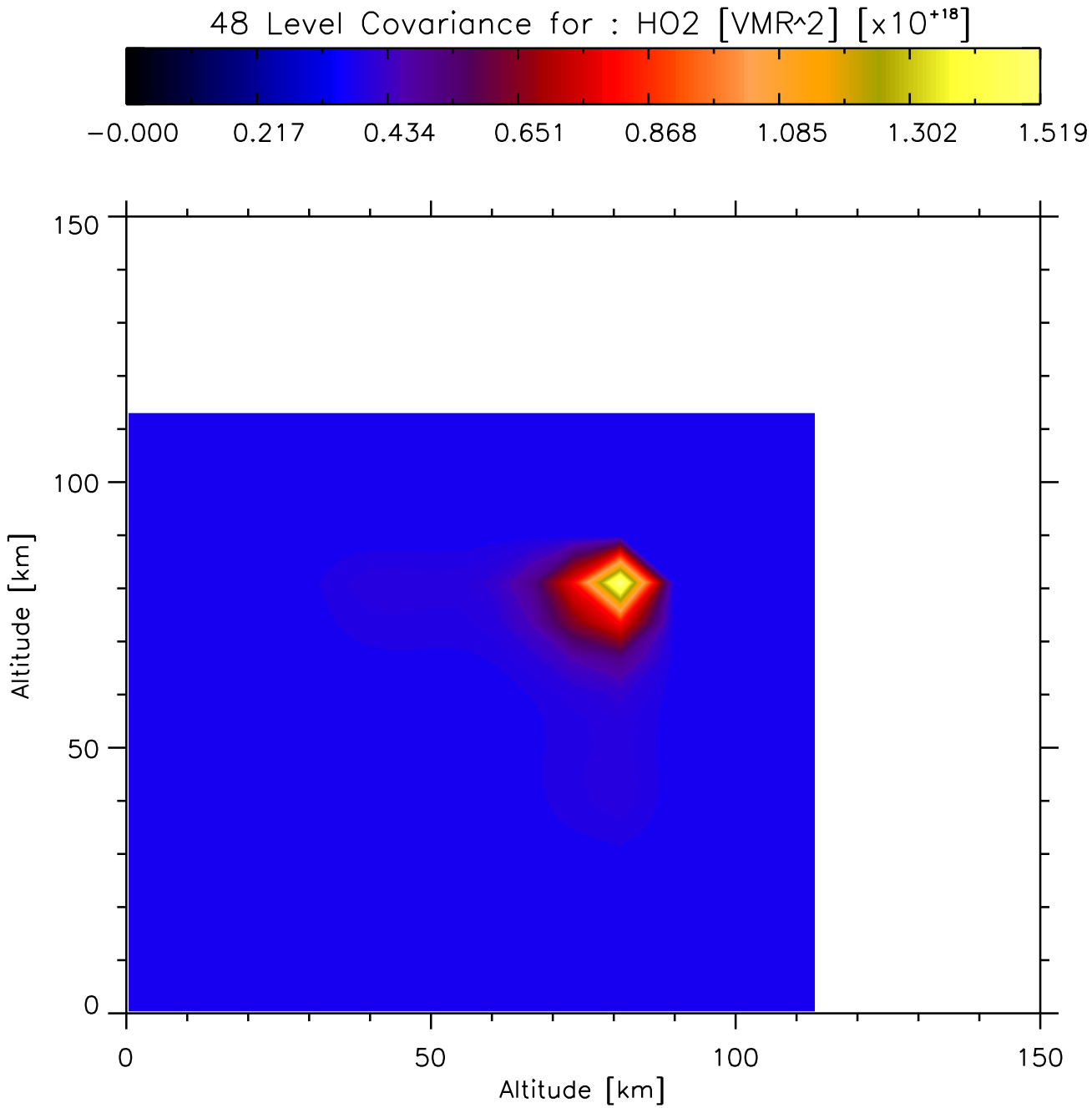

Initial & Interpolated profiles by month for : 2020
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
120
100
80
60
40
20
0
Altitude
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-15} 10^{-14} 10^{-13} 10^{-12} 10^{-11} 10^{-10} 10^{-9}
SD
0 20 40 60 80 100 120 140
%


49 Layer Covariance for : HO2 [VMR^2] [x10^+19]
−0.001
0.806
1.614
2.422
3.230
4.038
4.845
5.653
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


49 Layer Covariance for : HO2 [VMR^2] [x10^+19]
0
2
4
6
Y Altitude
0
50
100
150
X Altitude
0
50
100
150


48 Level Covariance for : HO2 [VMR^2] [x10^+18]
−0.000
0.217
0.434
0.651
0.868
1.085
1.302
1.519
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

48 Level Covariance for : HO2 [VMR^2] [x10^18]
2.0
1.5
1.0
0.5
0.0
Y Altitude
0
30
60
90
120
X Altitude
0
50
100
150