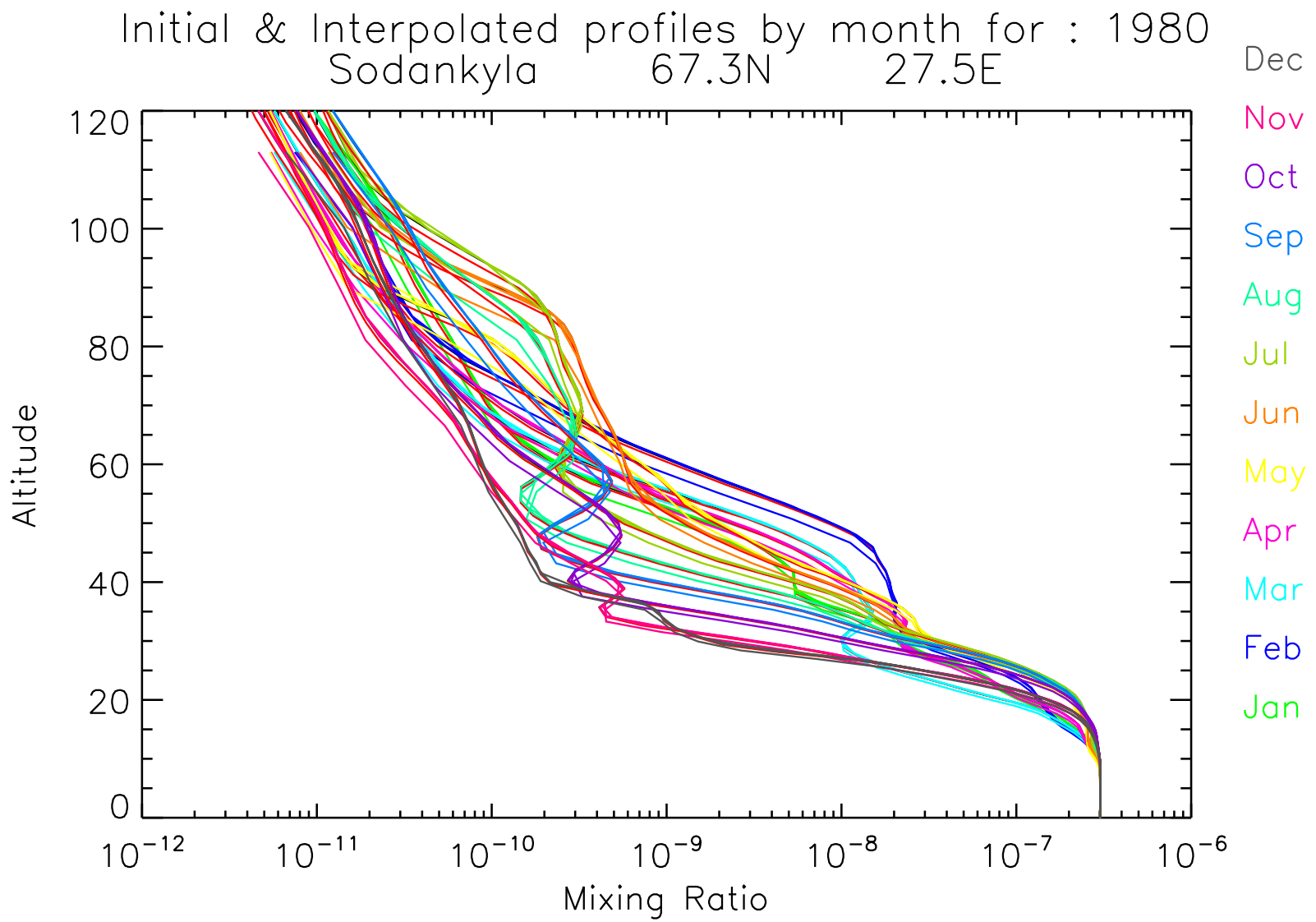
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Altitude
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Mixing Ratio
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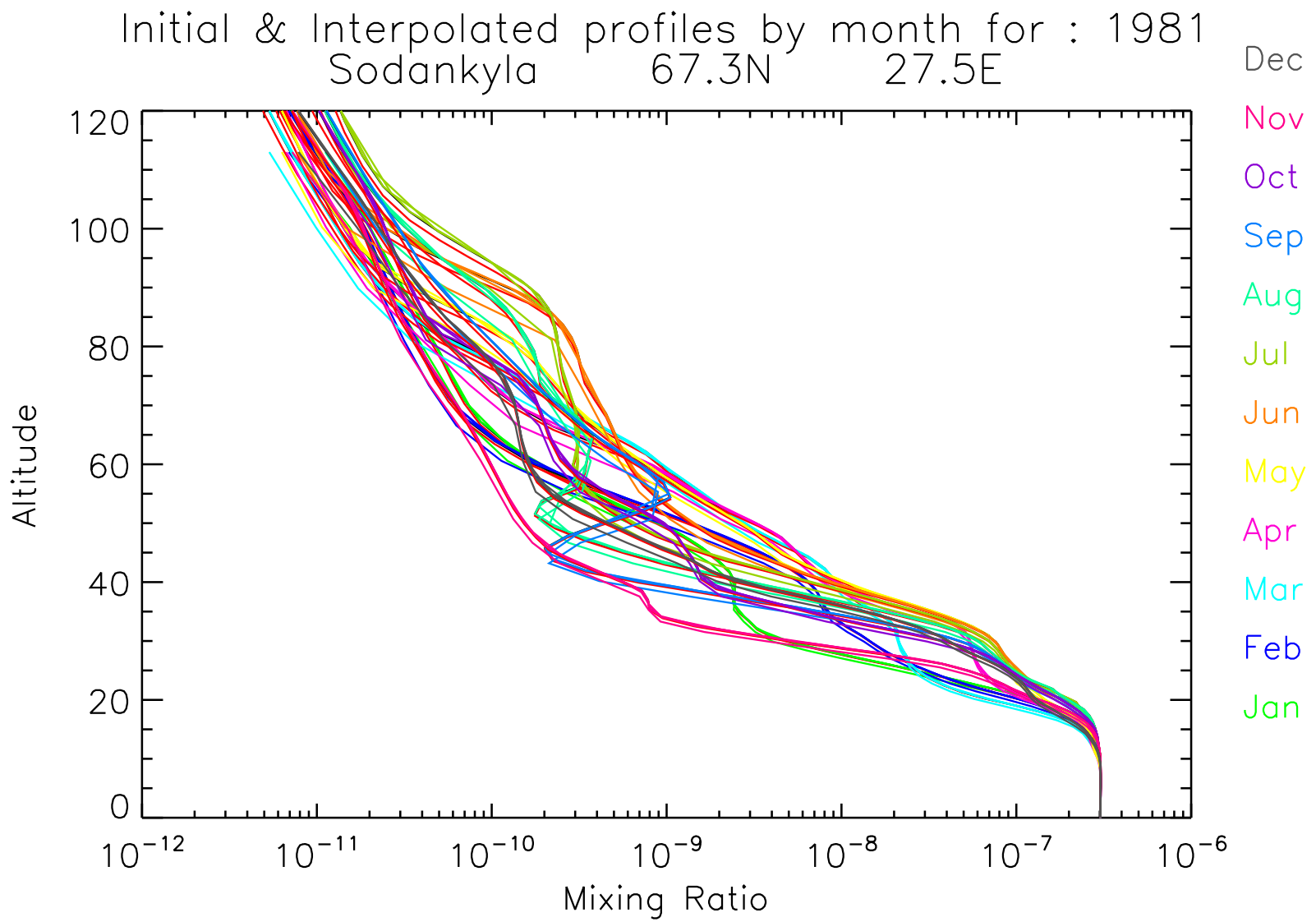
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Mixing Ratio
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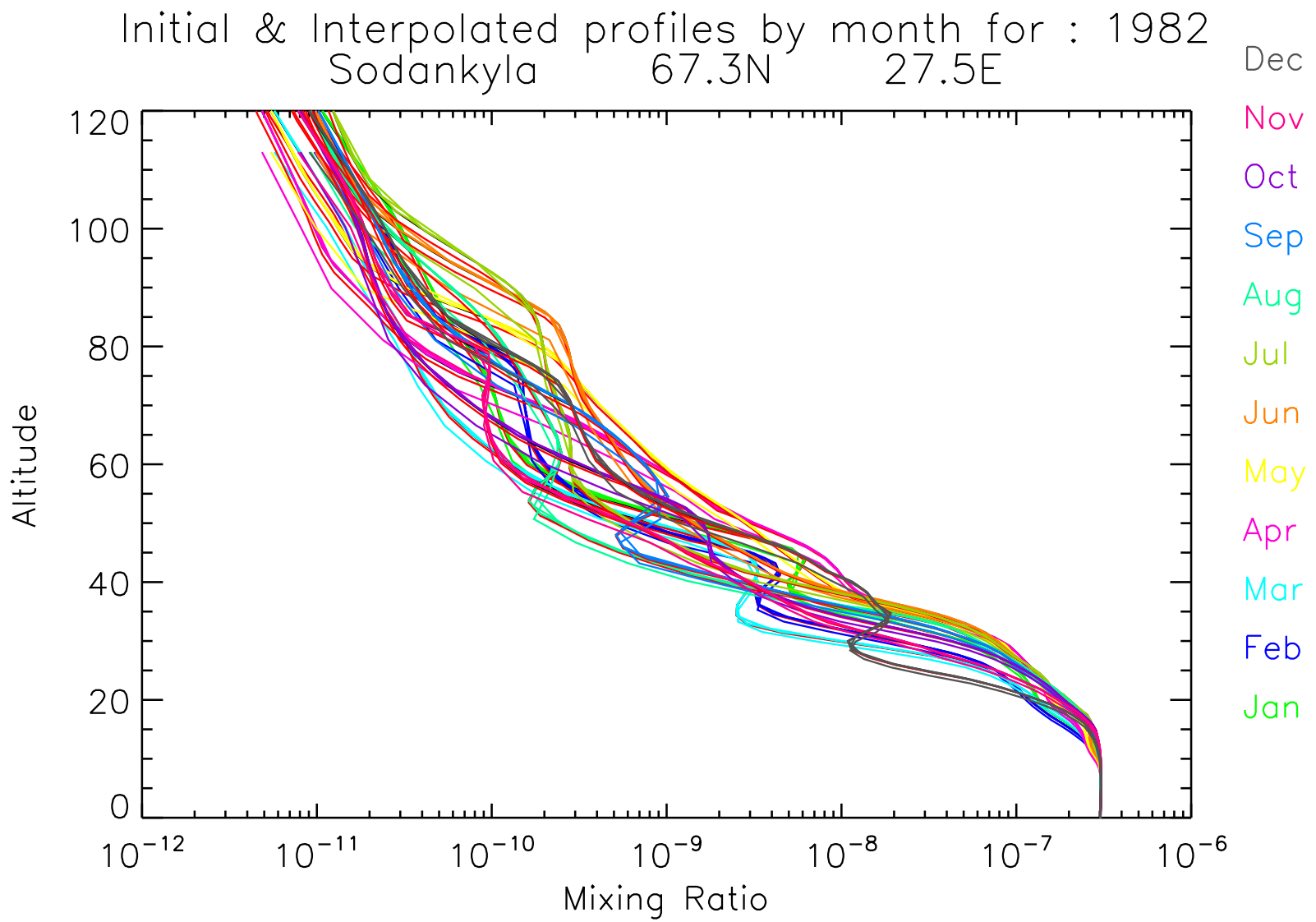
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Mixing Ratio
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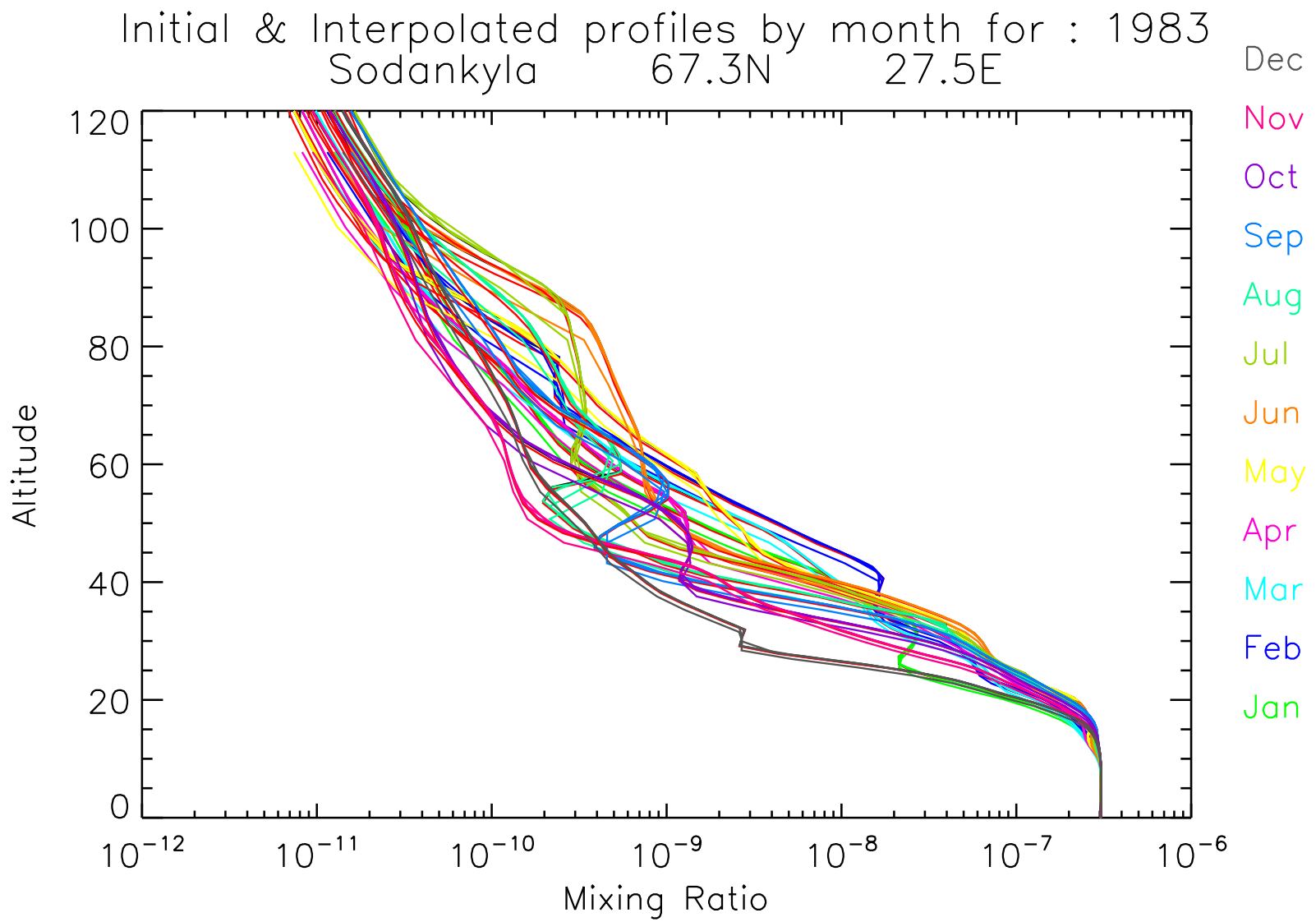
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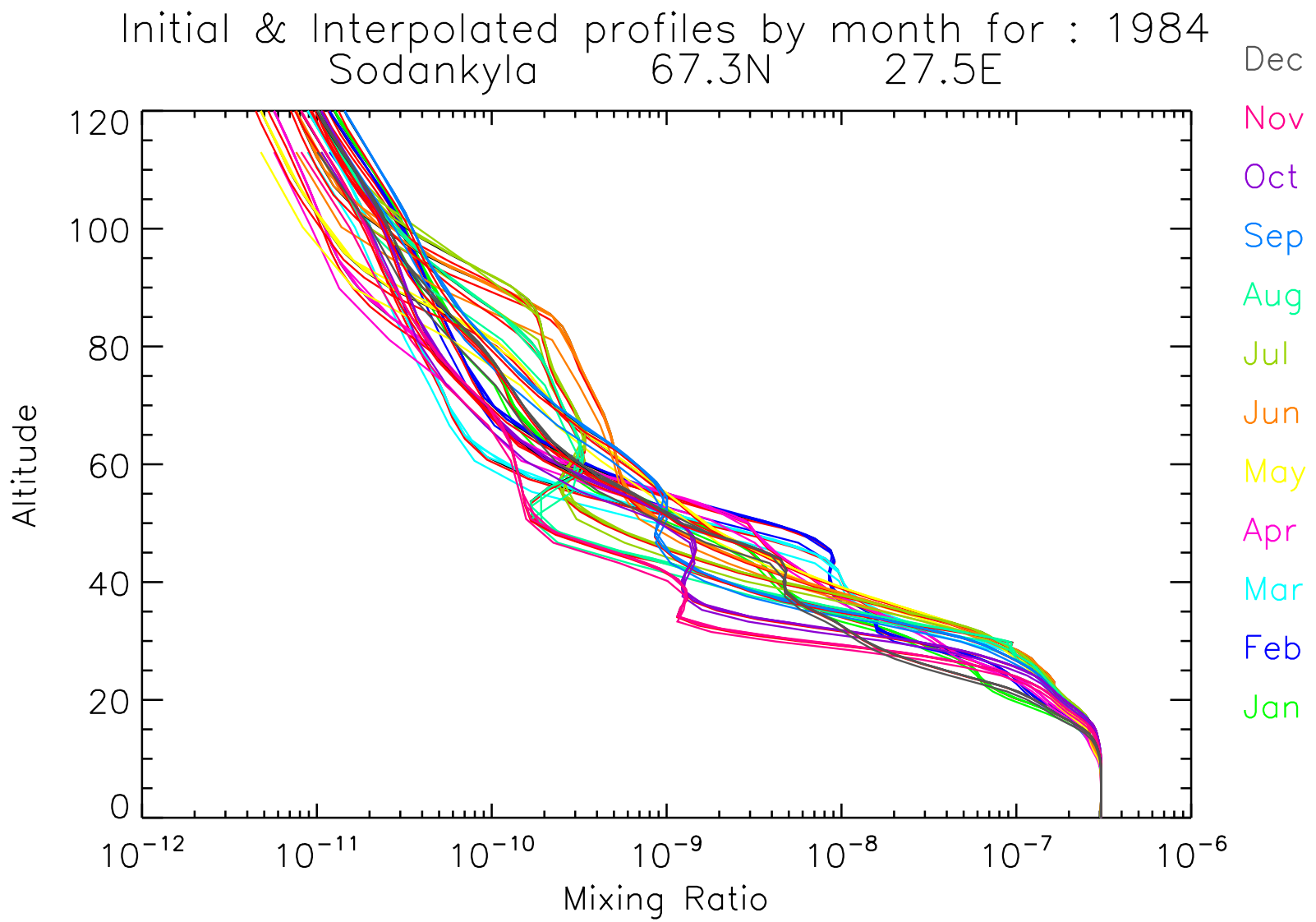
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Mixing Ratio
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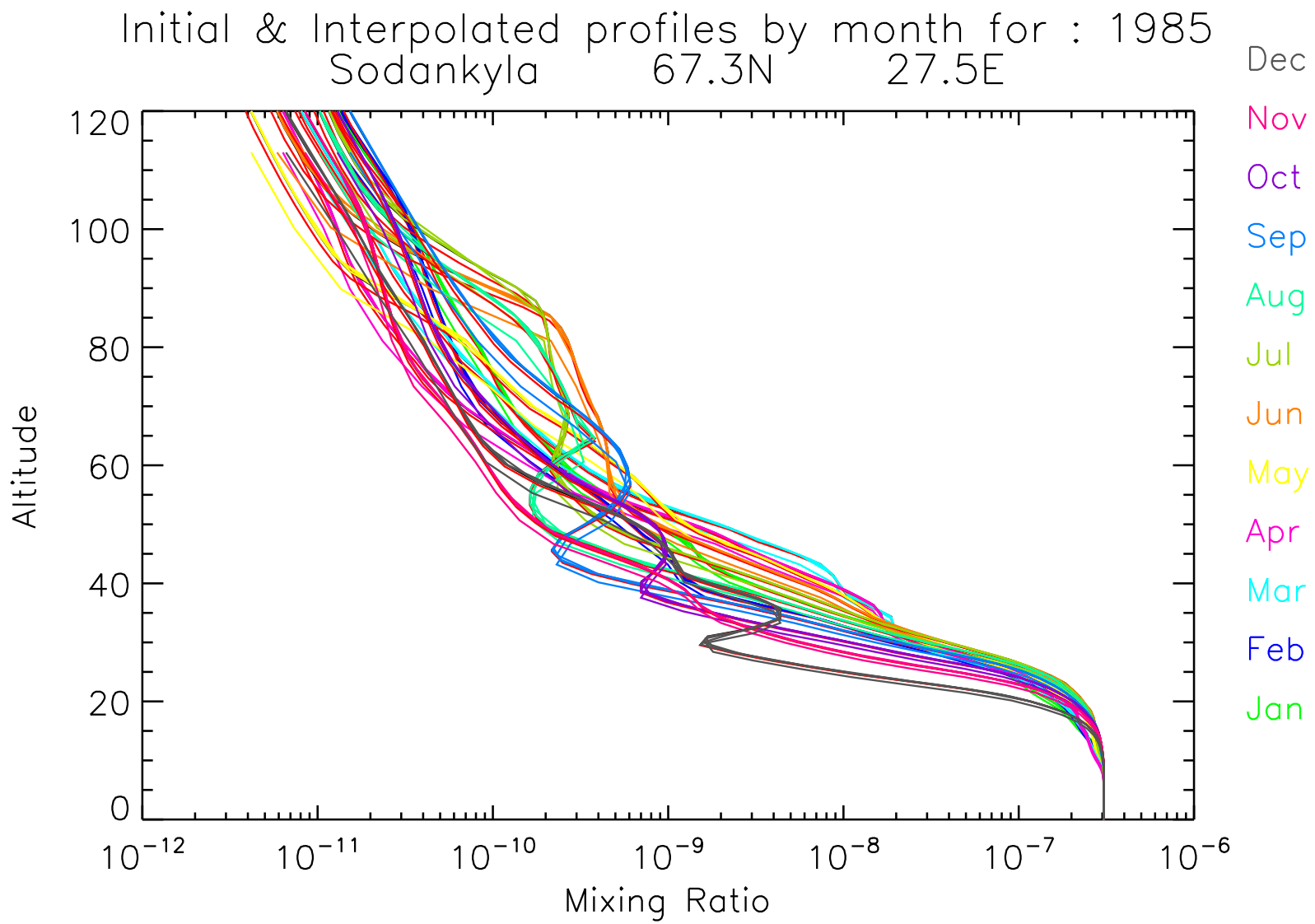
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Altitude
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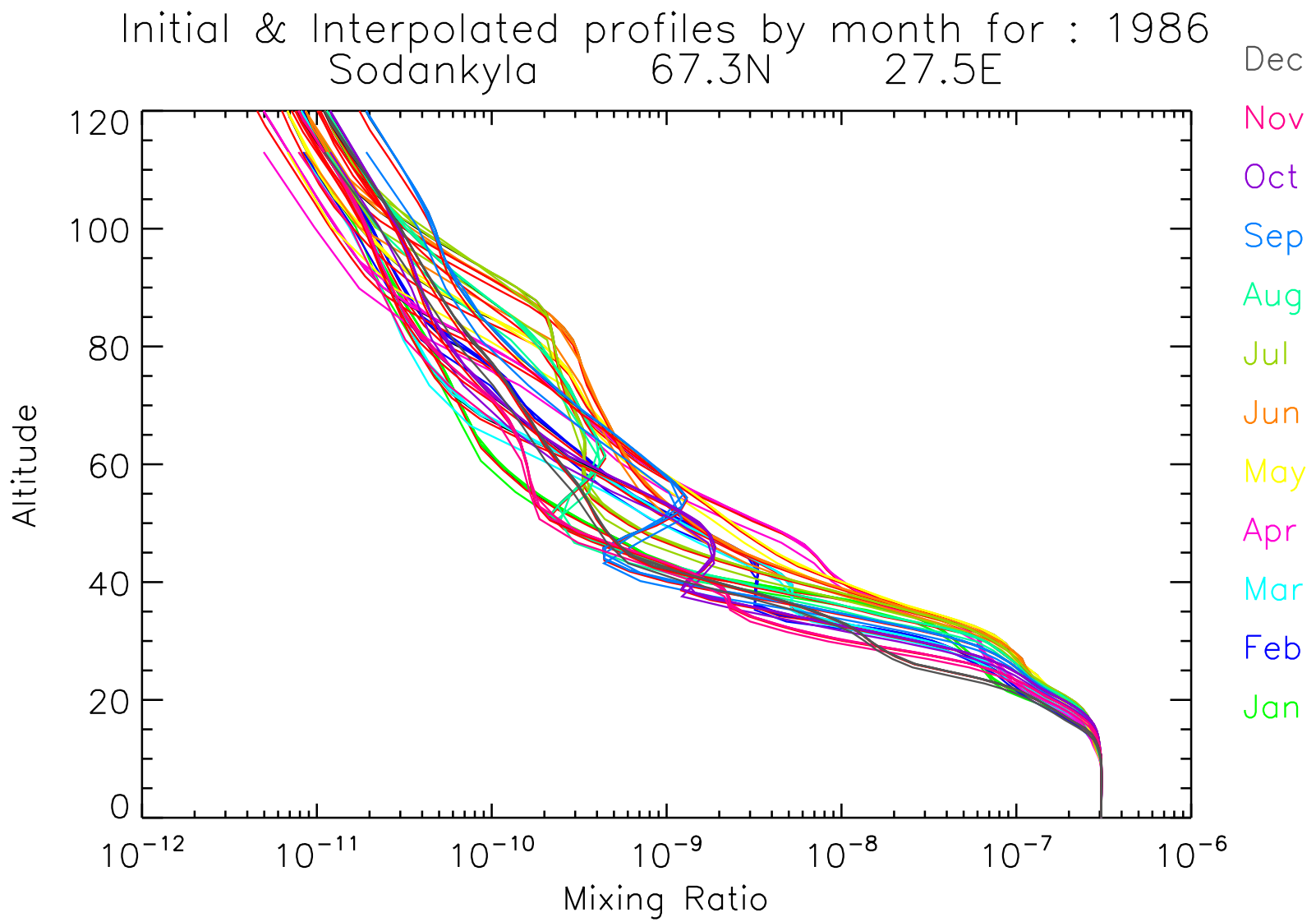
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Altitude
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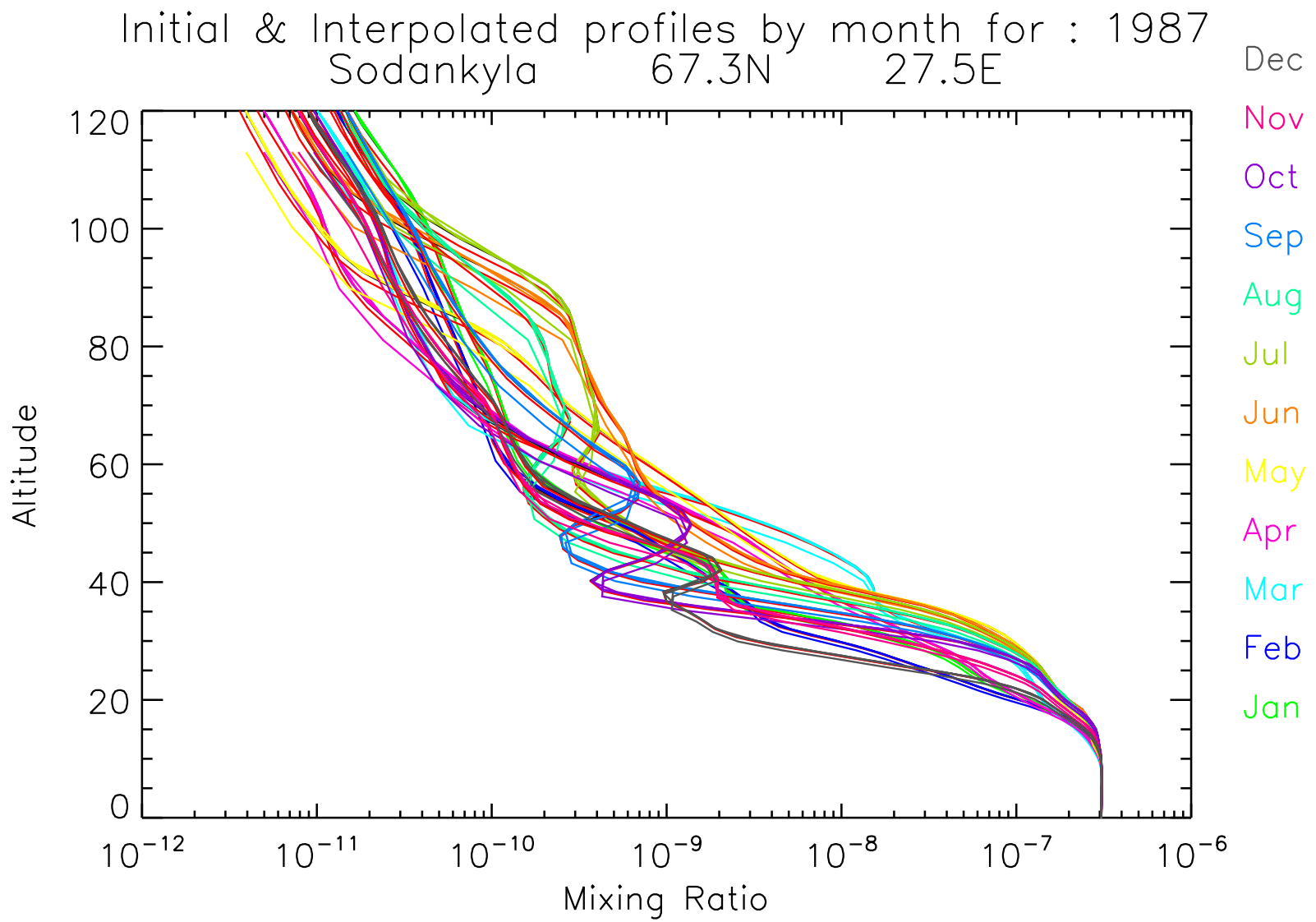
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Mixing Ratio
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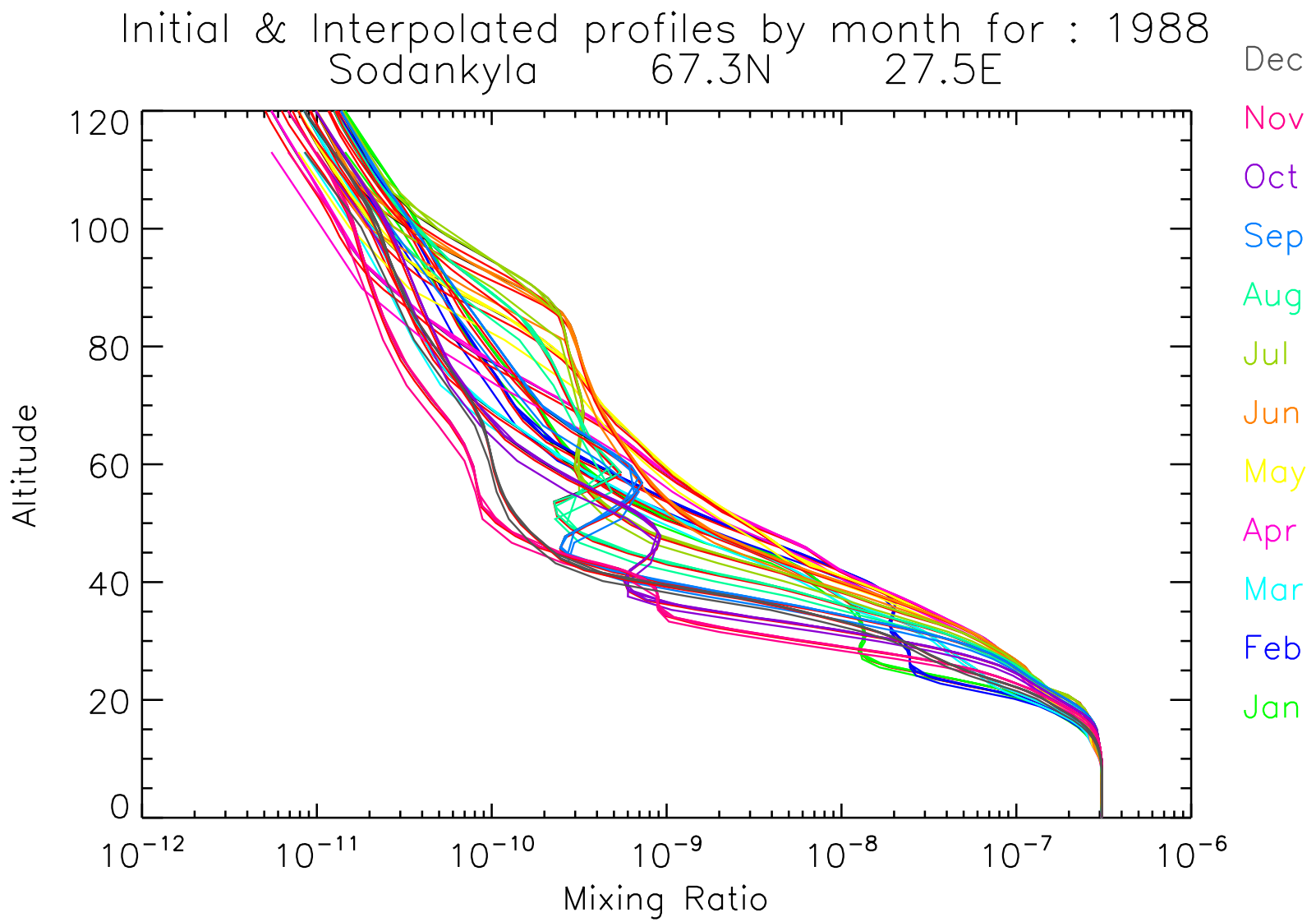
Initial & Interpolated profiles by month for : 1988
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Altitude
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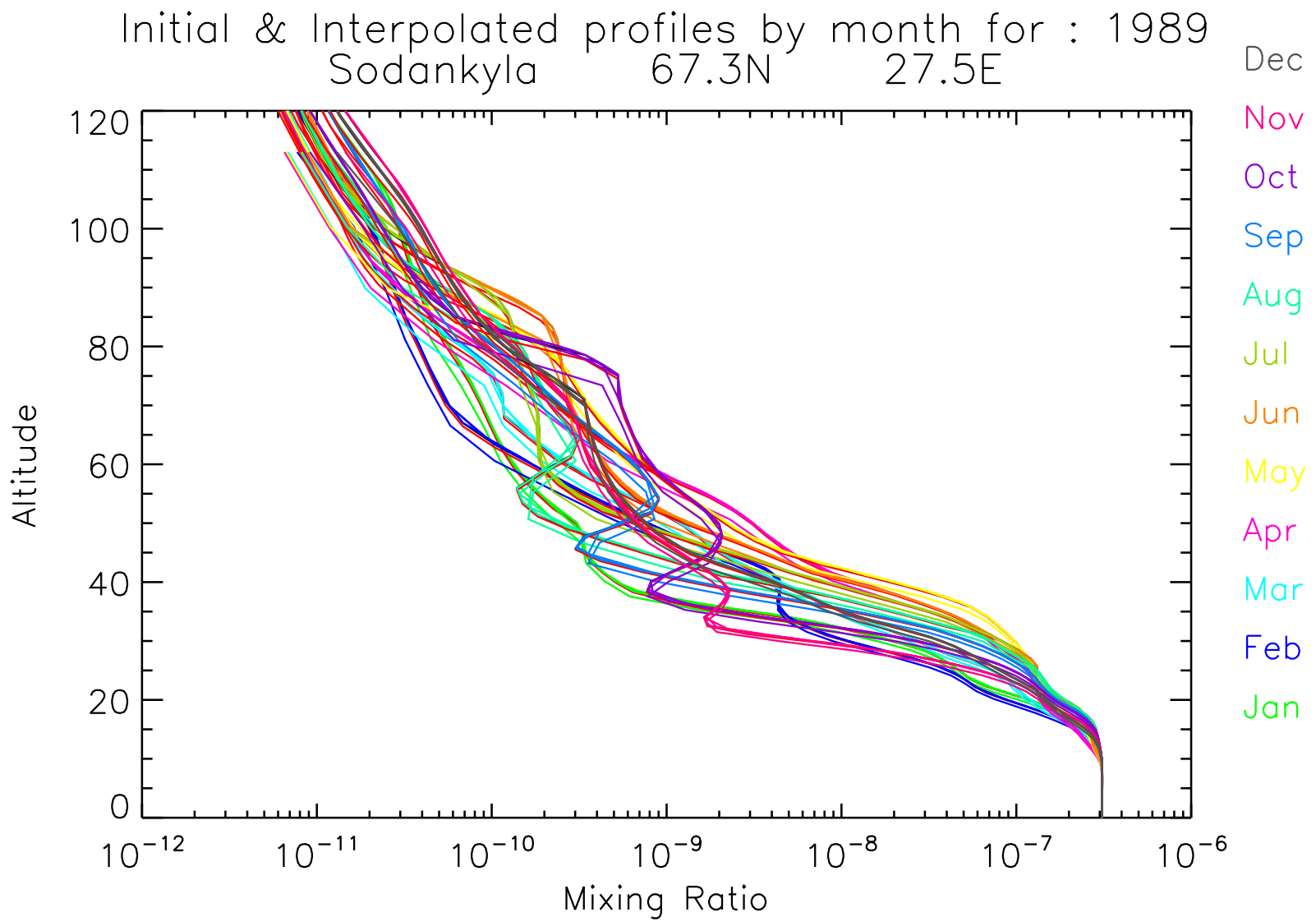
Initial & Interpolated profiles by month for : 1989
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Altitude
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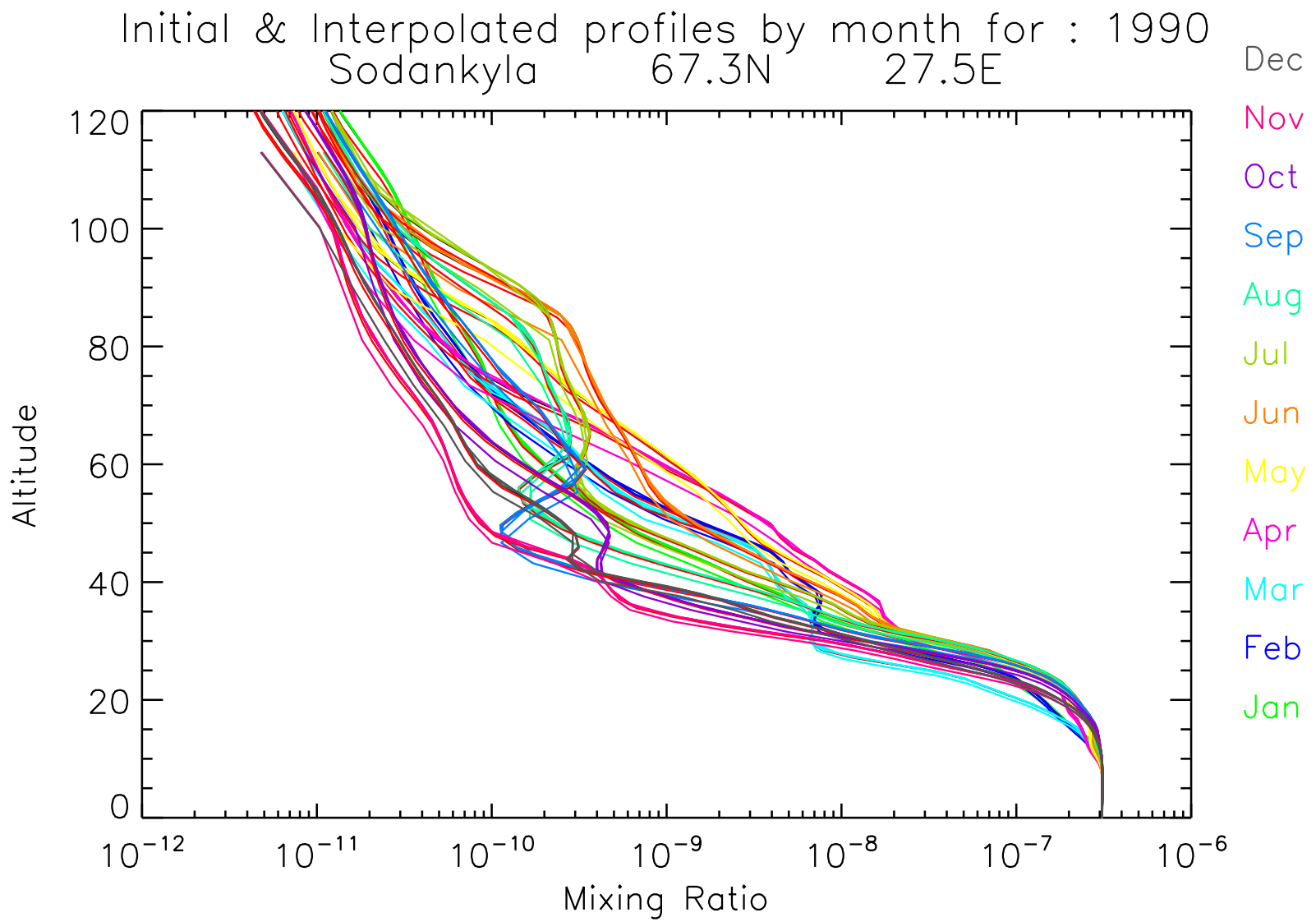
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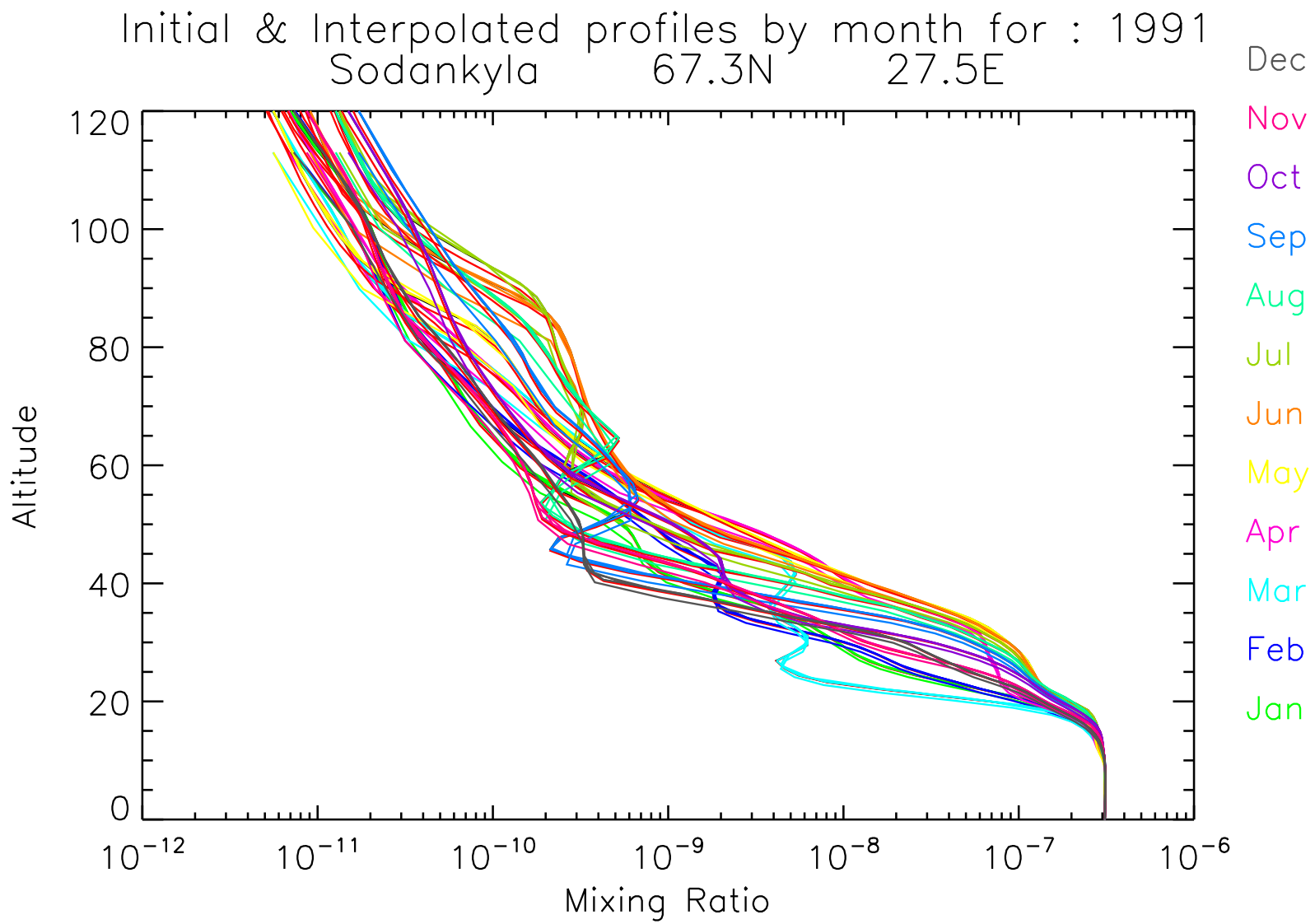
Initial & Interpolated profiles by month for : 1991
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Altitude
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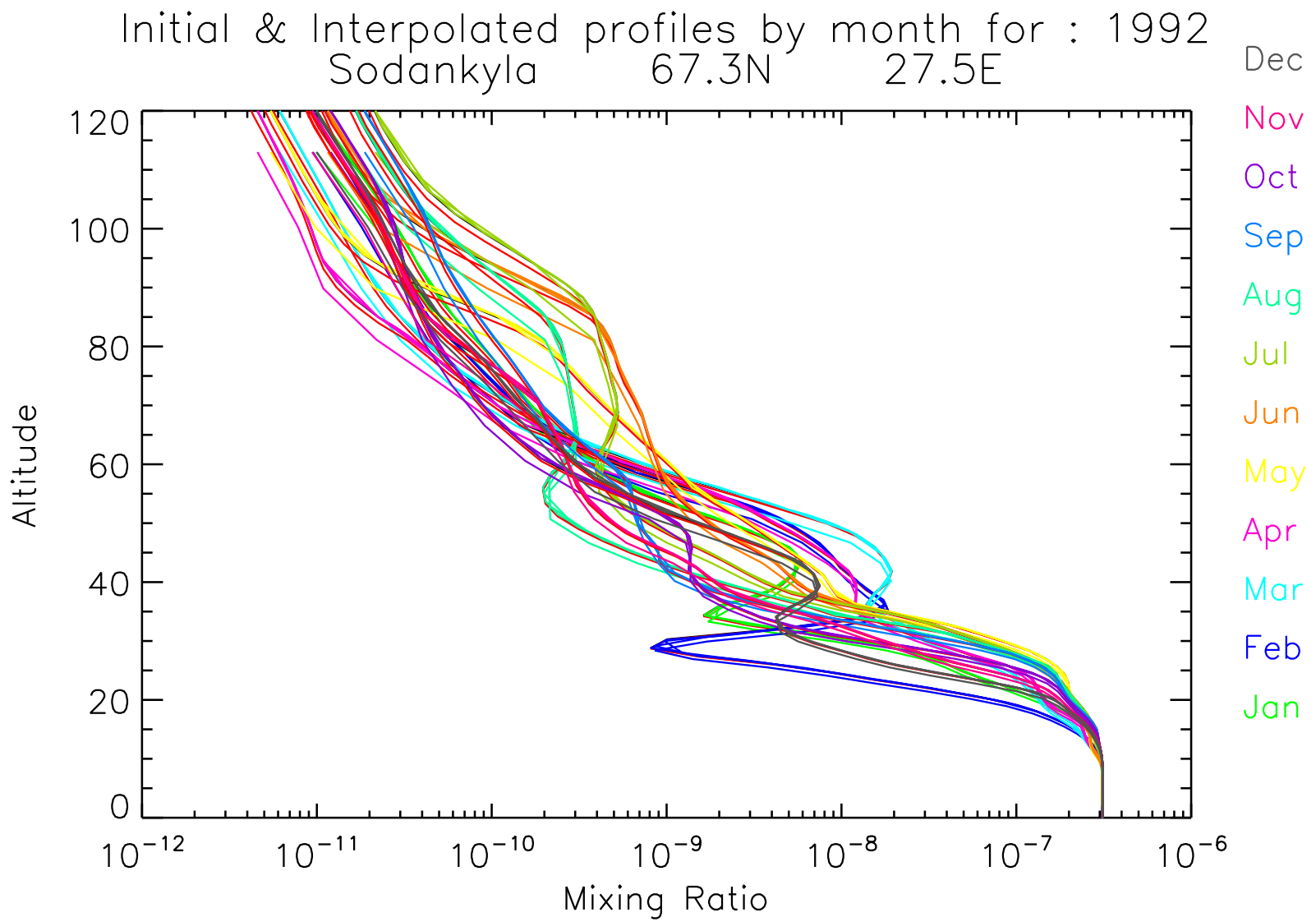
Initial & Interpolated profiles by month for : 1992
Sodankyla 67.3N 27.5E
Altitude
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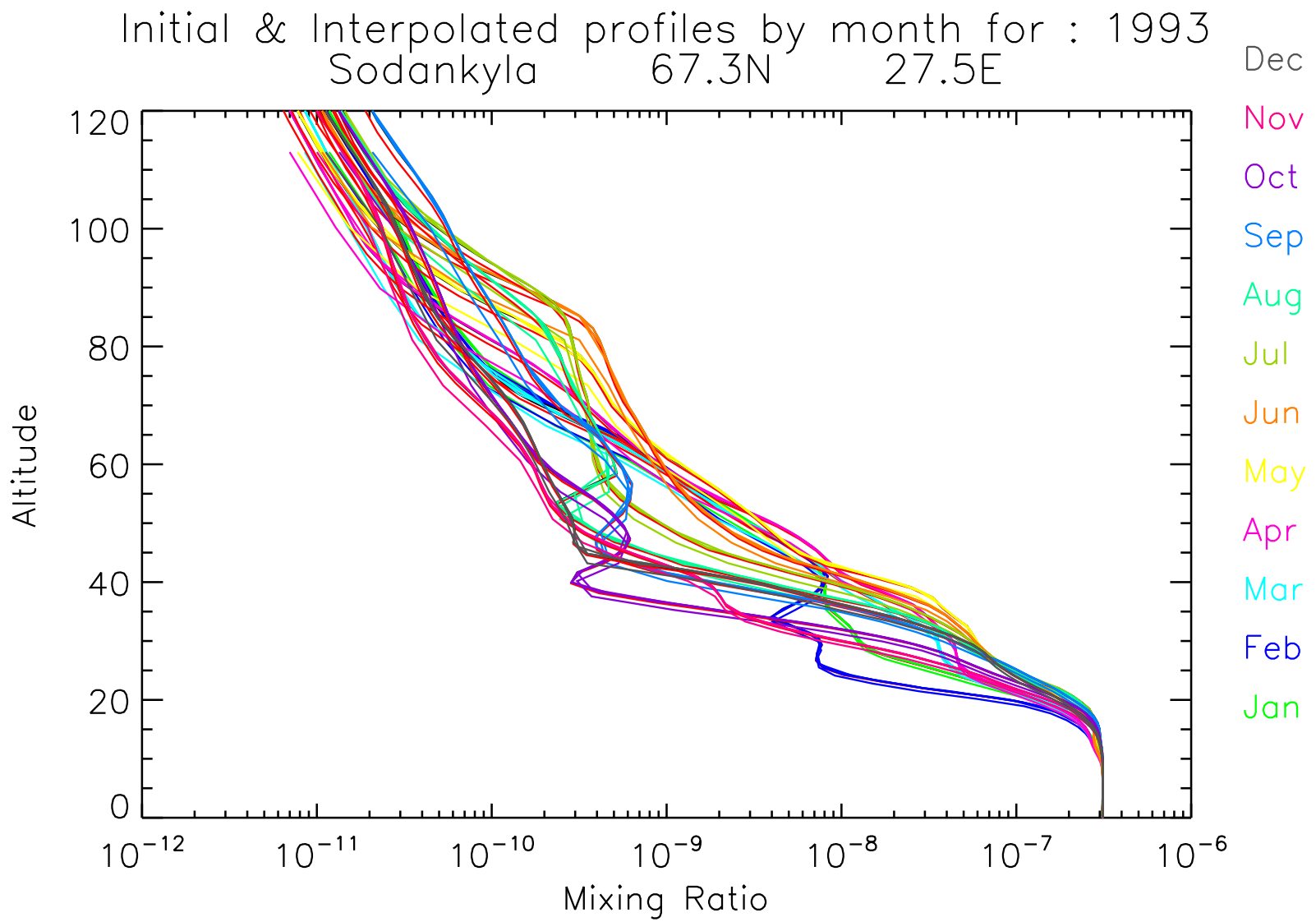
Initial & Interpolated profiles by month for : 1993
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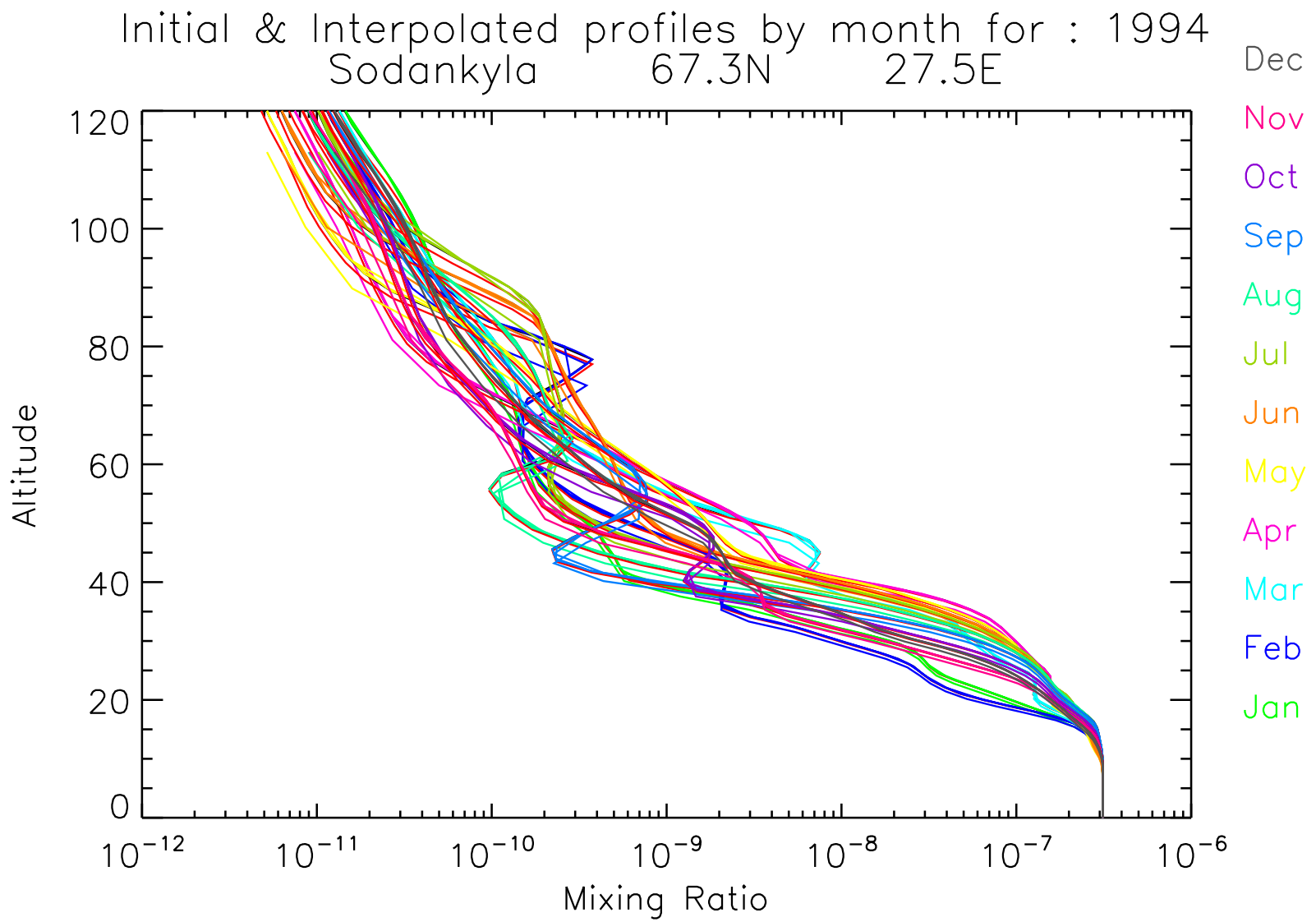
Initial & Interpolated profiles by month for : 1994
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Altitude
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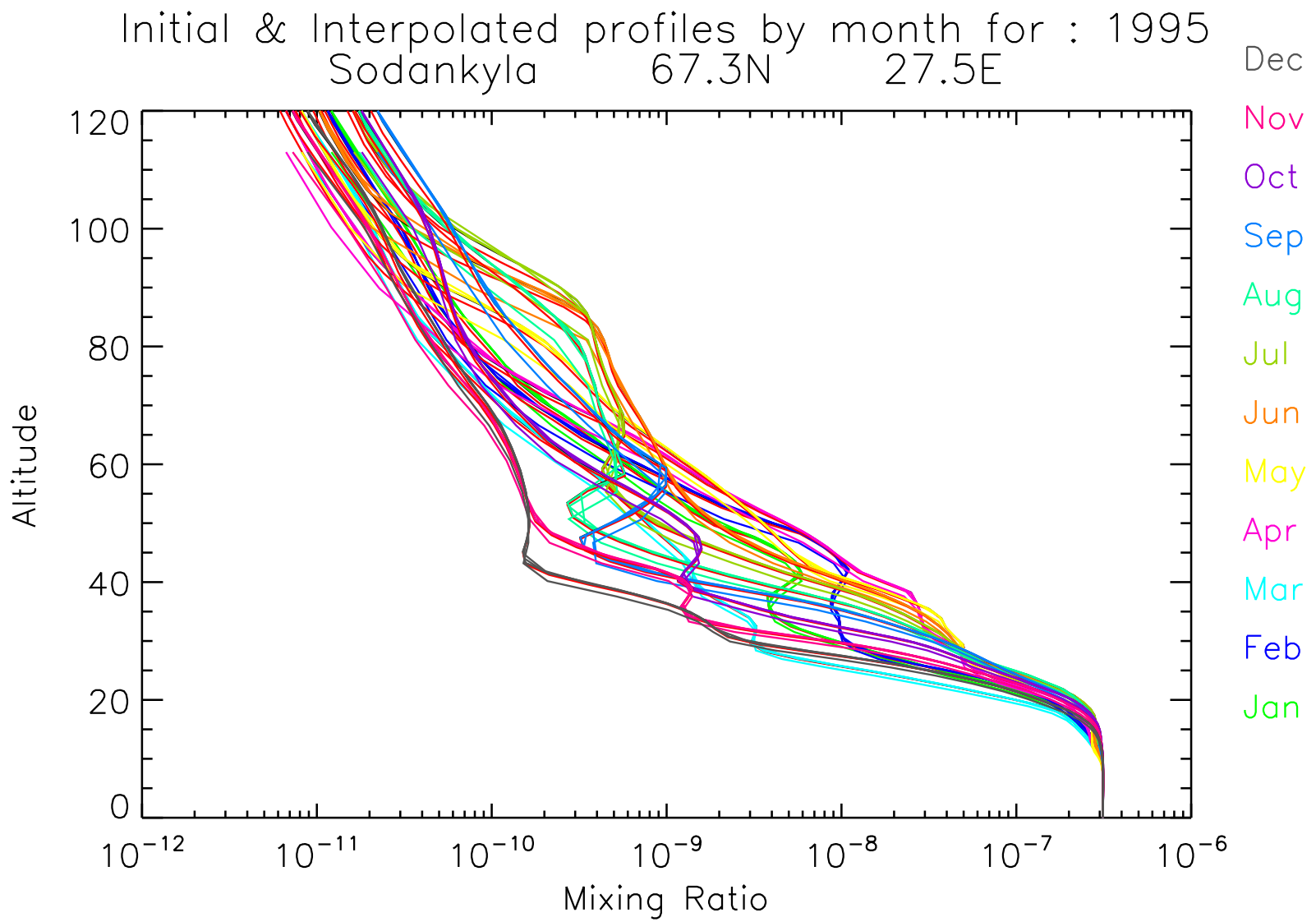
Initial & Interpolated profiles by month for : 1995
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Altitude
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Mixing Ratio
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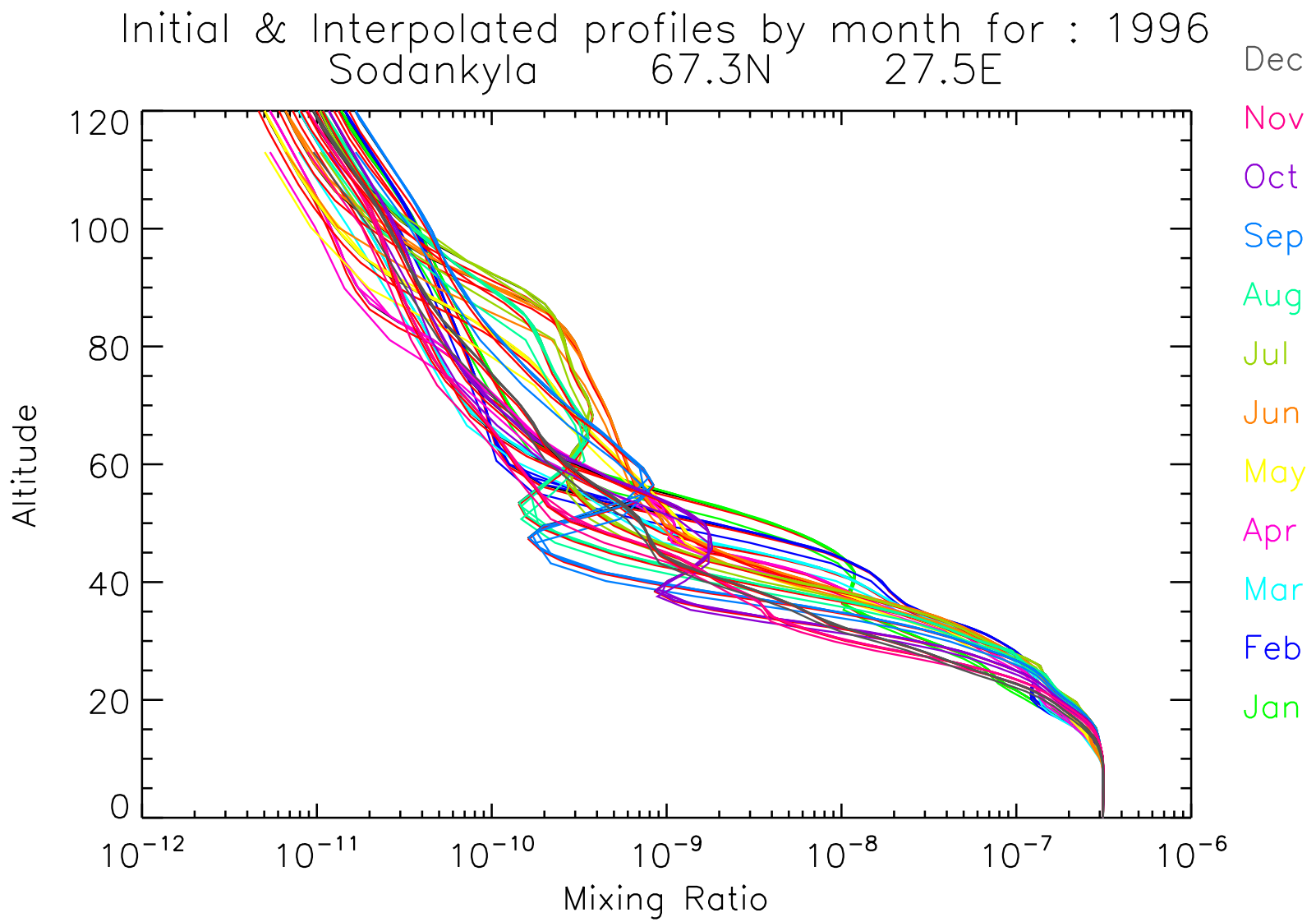
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Altitude
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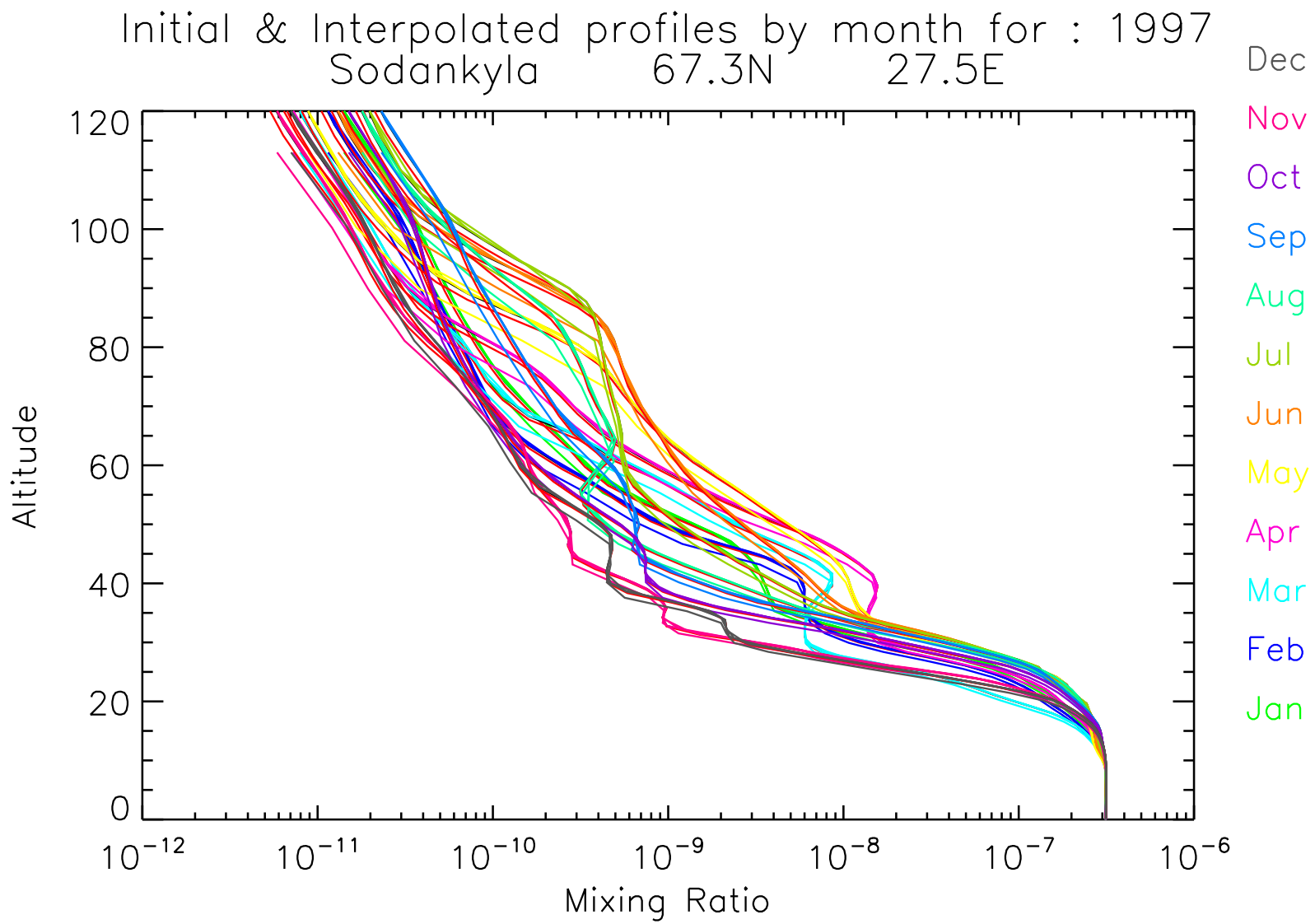
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Altitude
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Mixing Ratio
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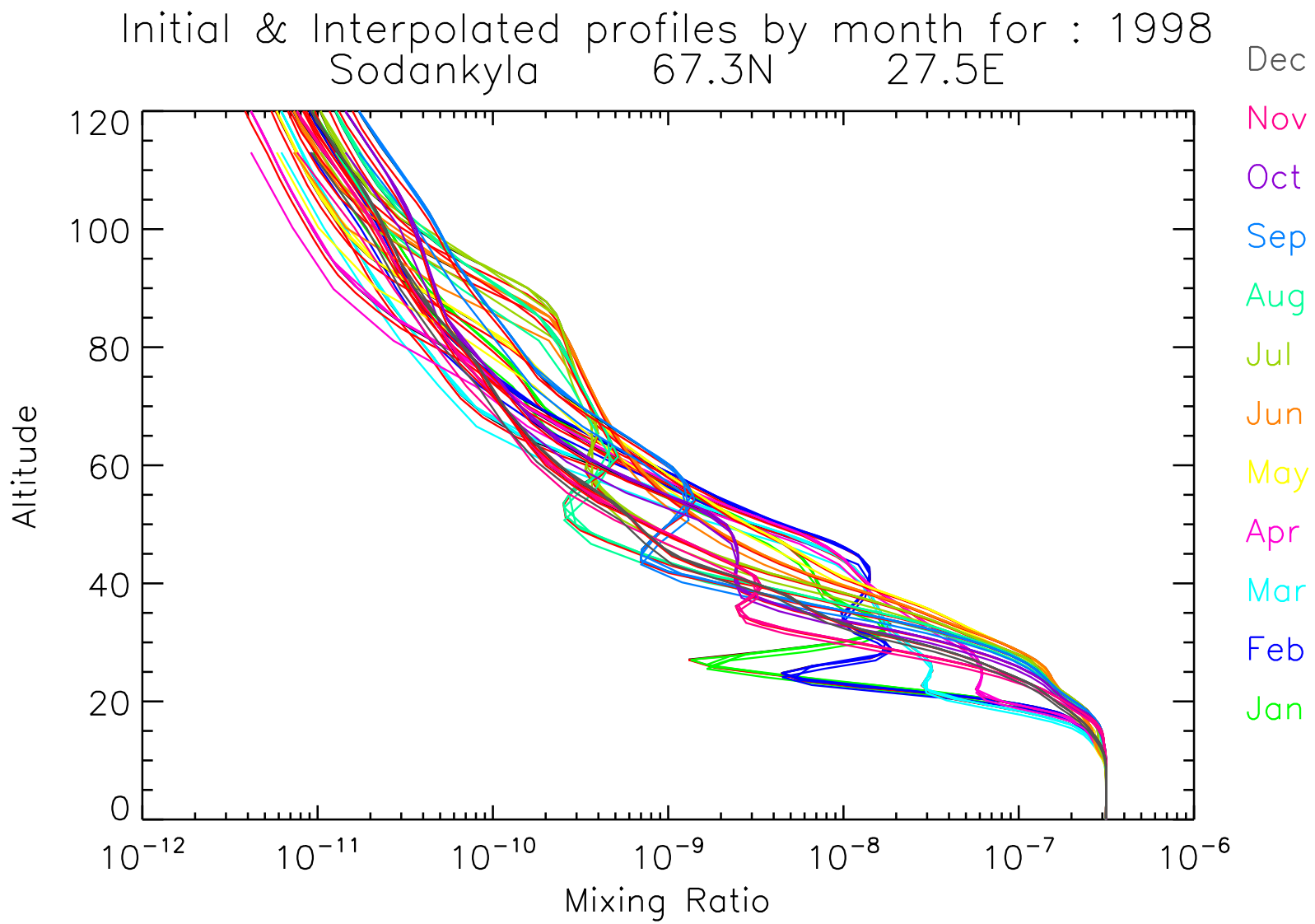
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Altitude
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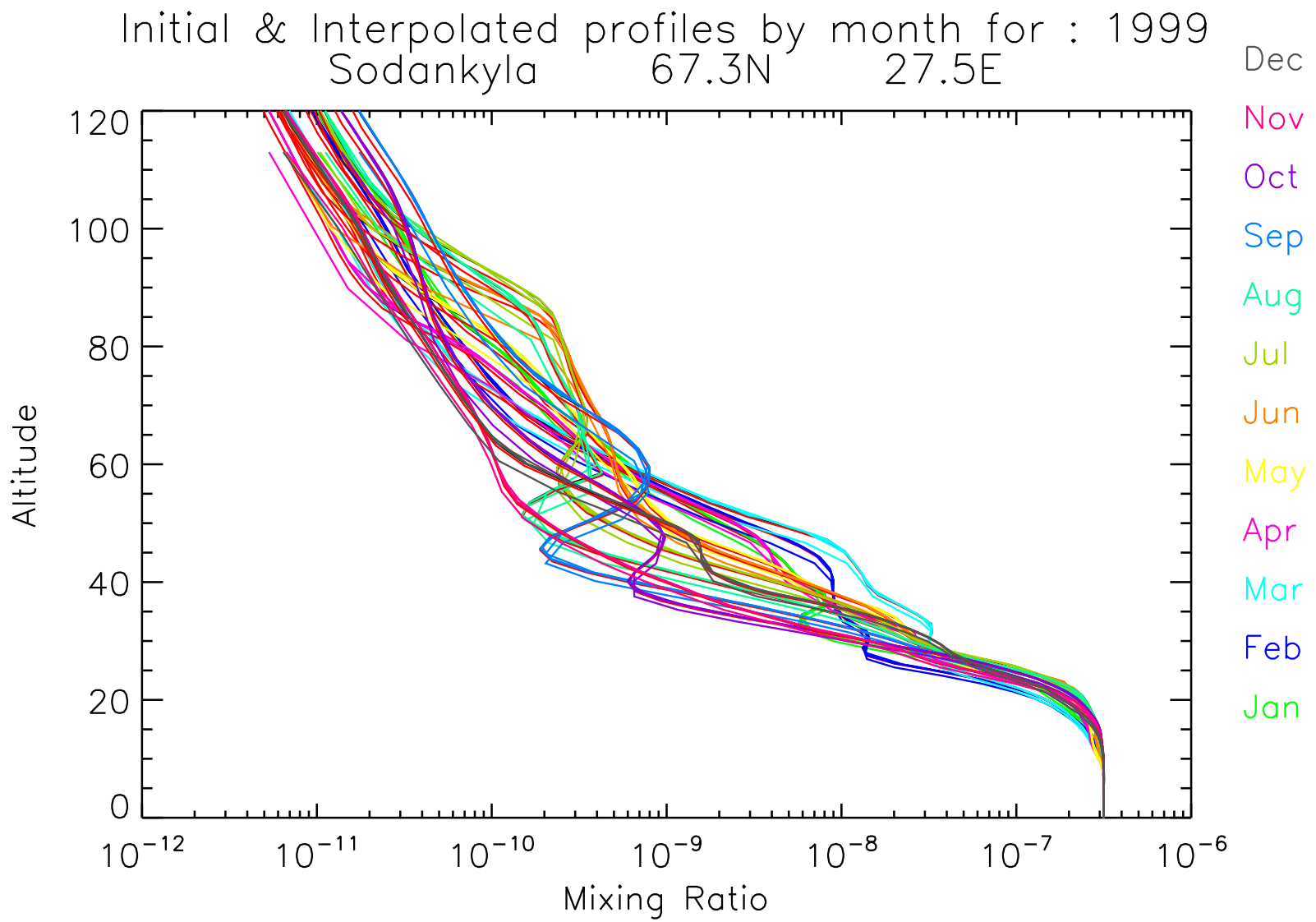
Initial & Interpolated profiles by month for : 1999
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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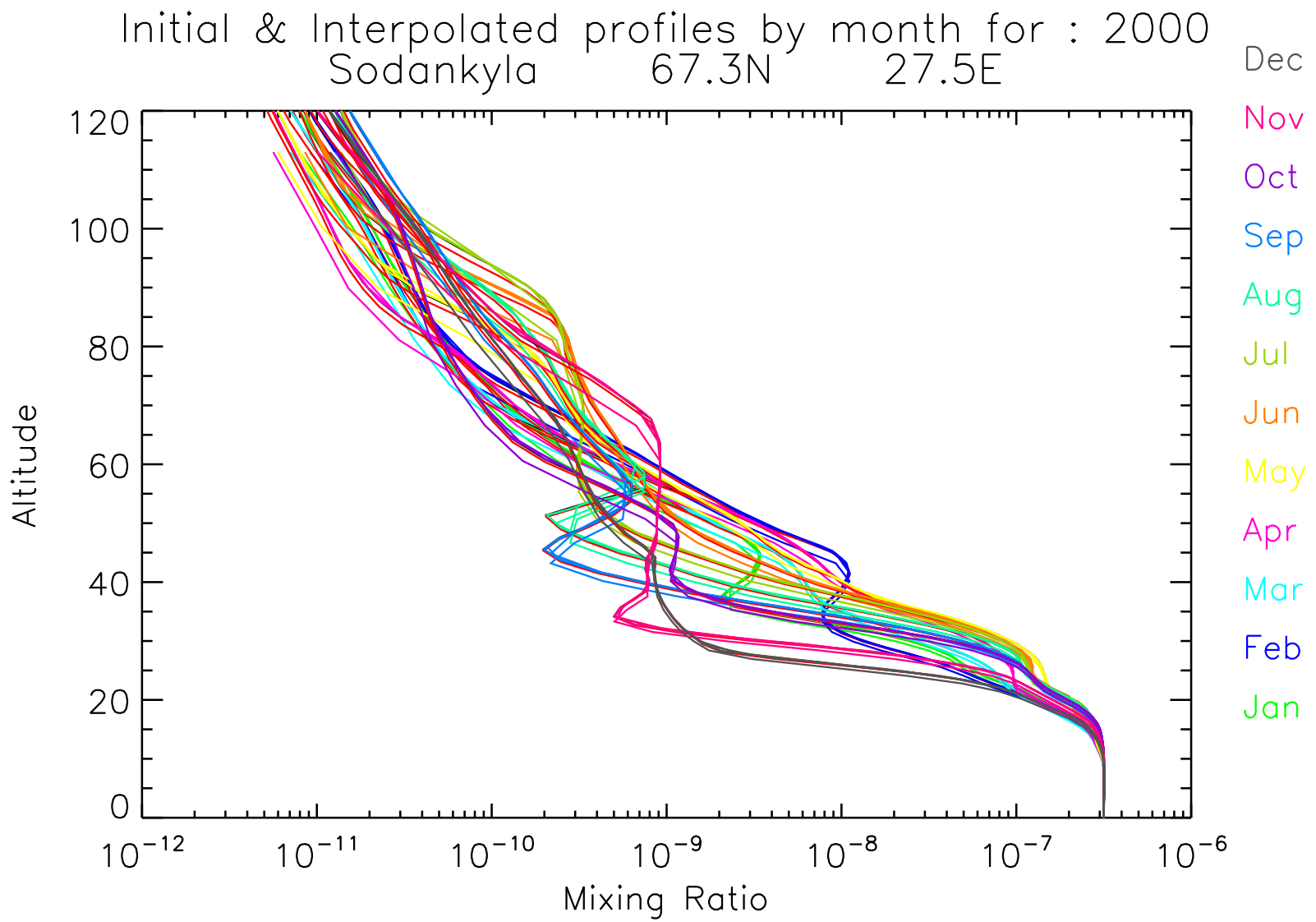
Initial & Interpolated profiles by month for : 2000
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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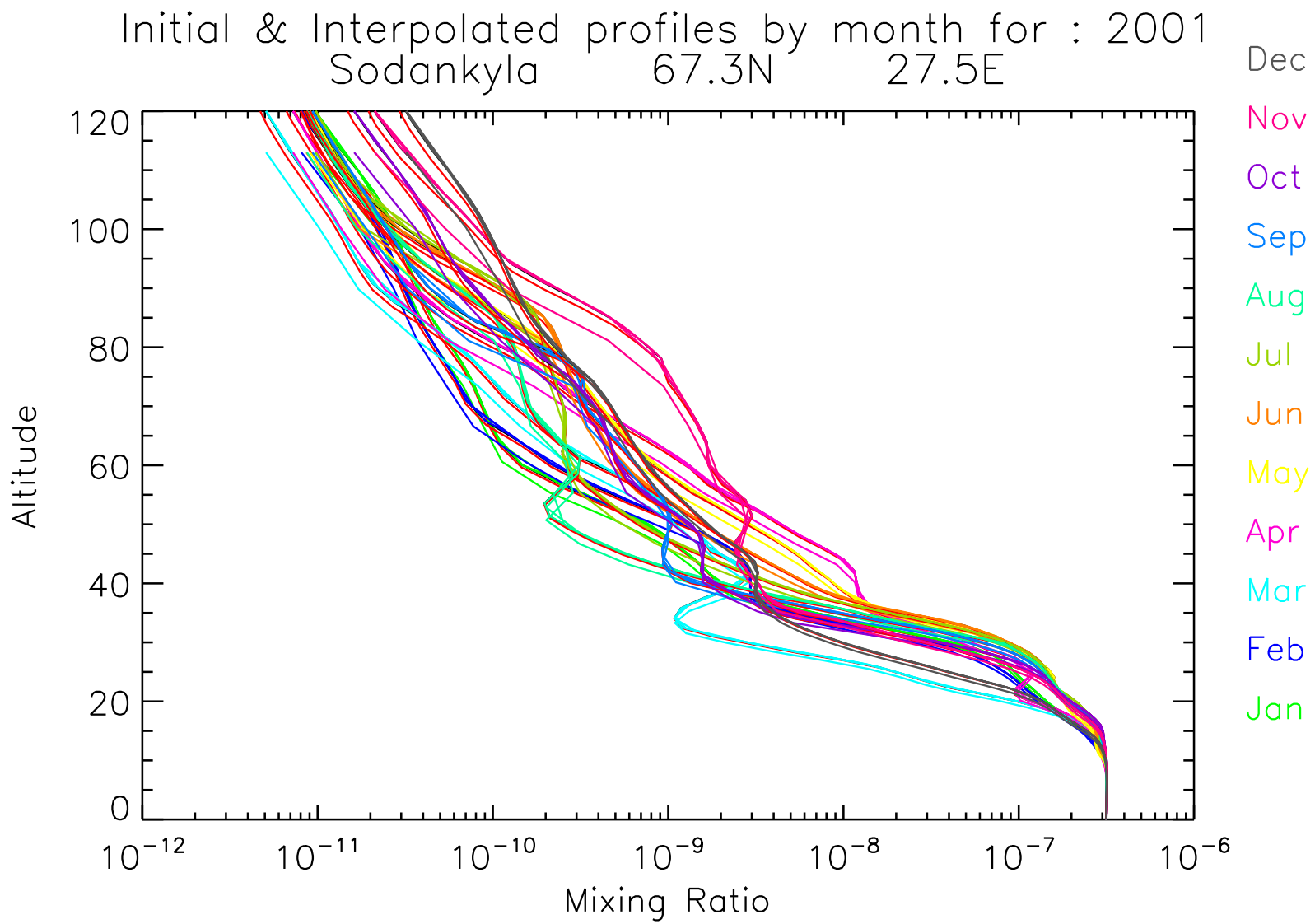
Initial & Interpolated profiles by month for : 2001
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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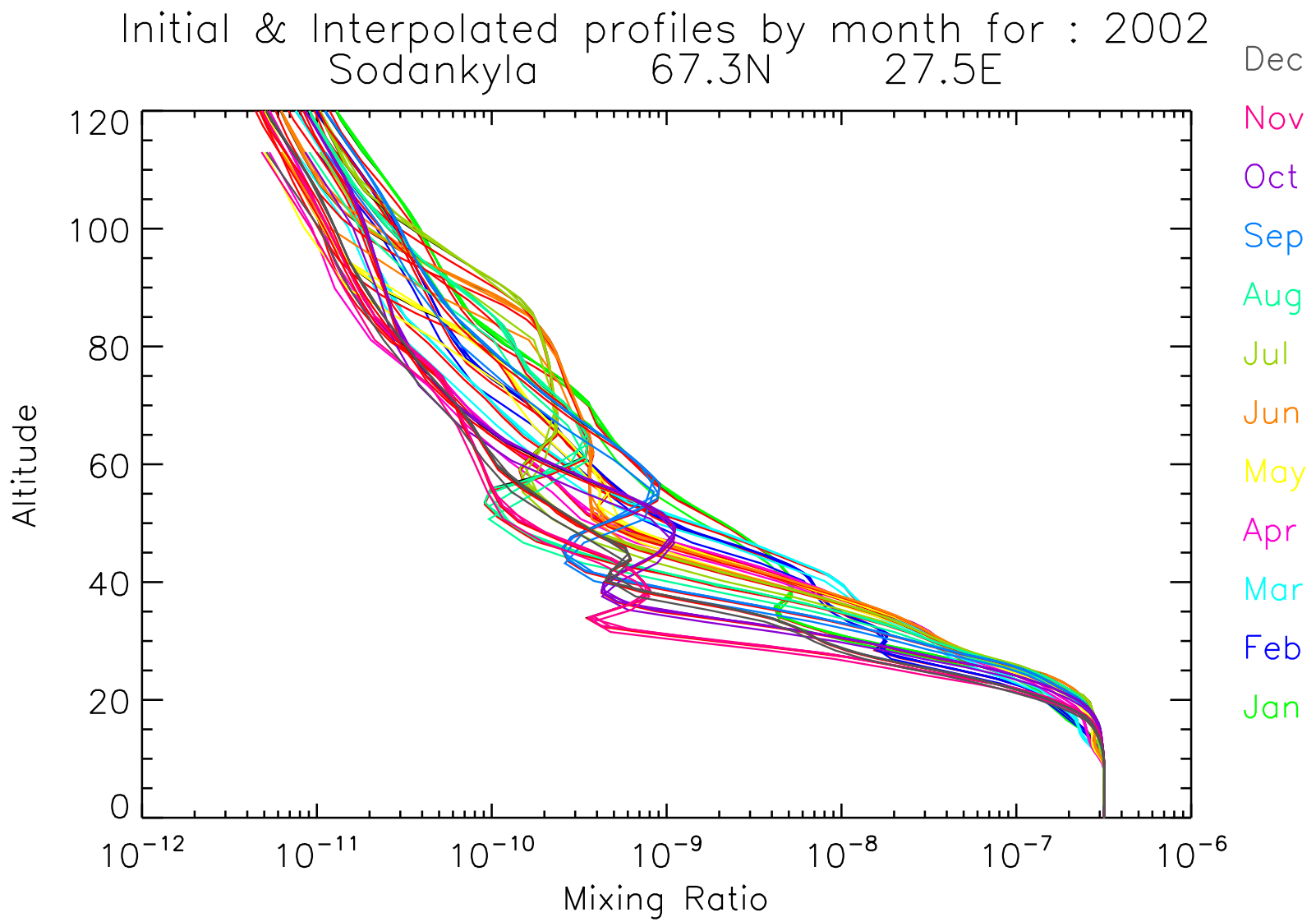
Initial & Interpolated profiles by month for : 2002
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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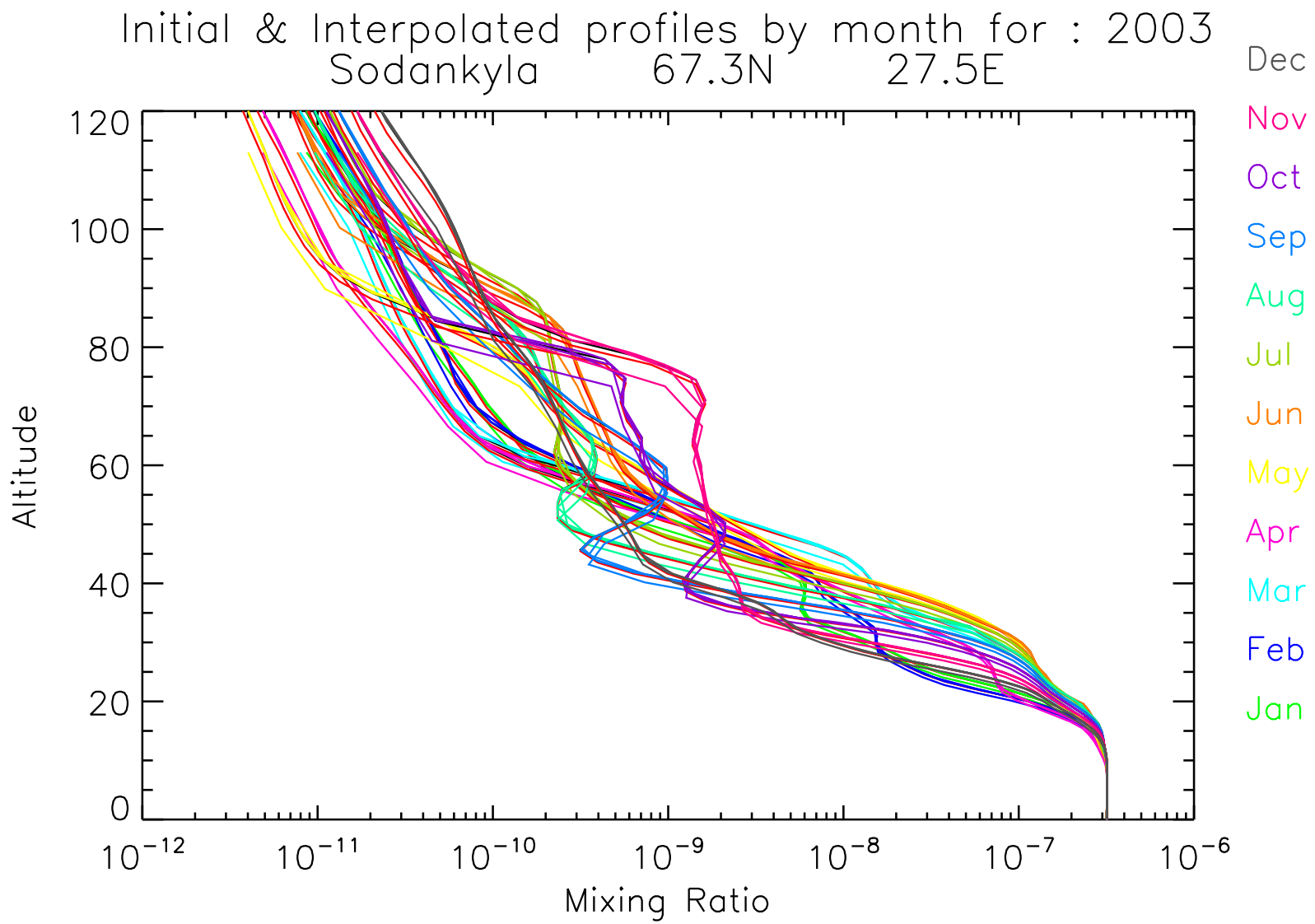
Initial & Interpolated profiles by month for : 2003
Sodankyla 67.3N 27.5E
Altitude
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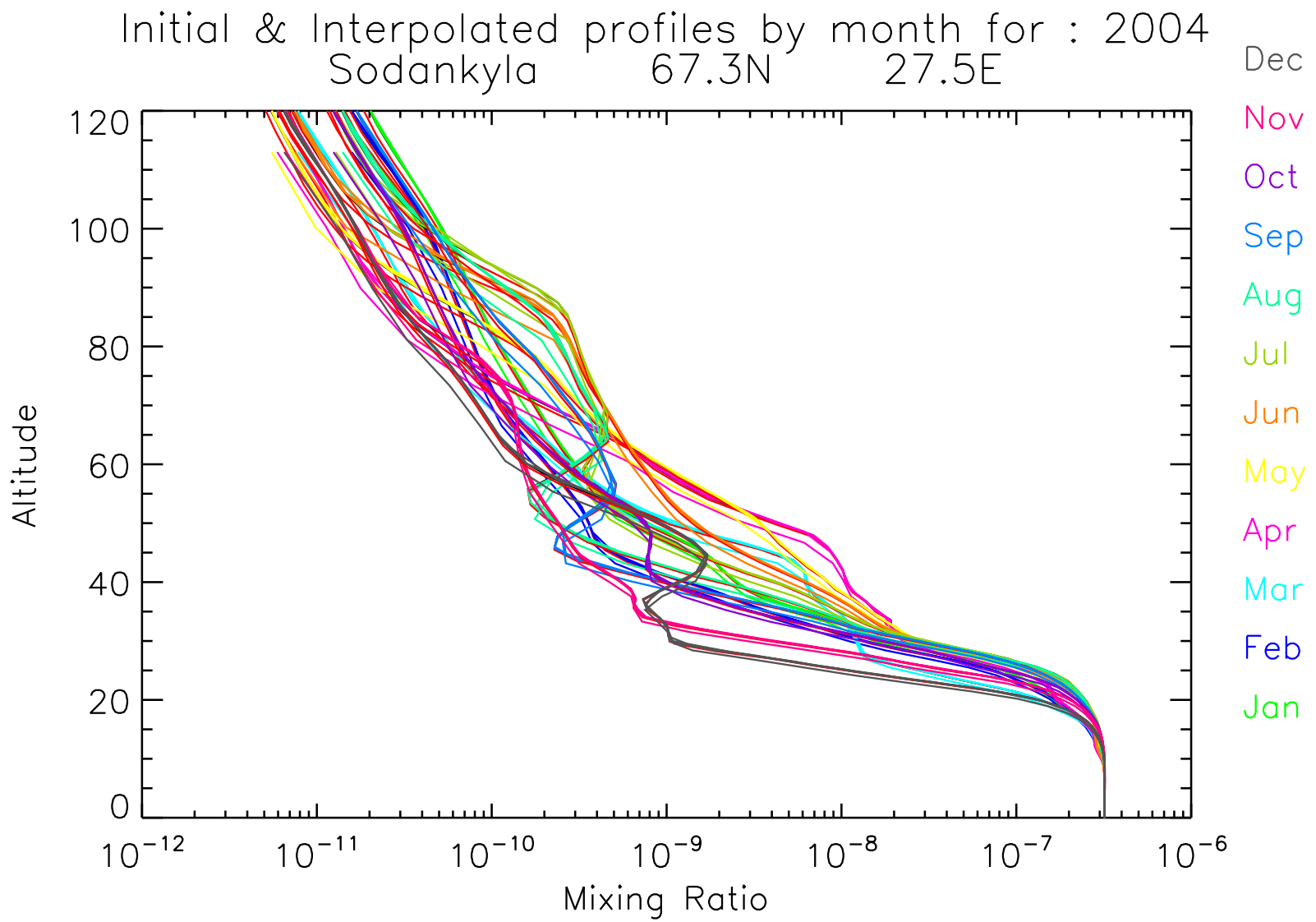
Initial & Interpolated profiles by month for : 2004
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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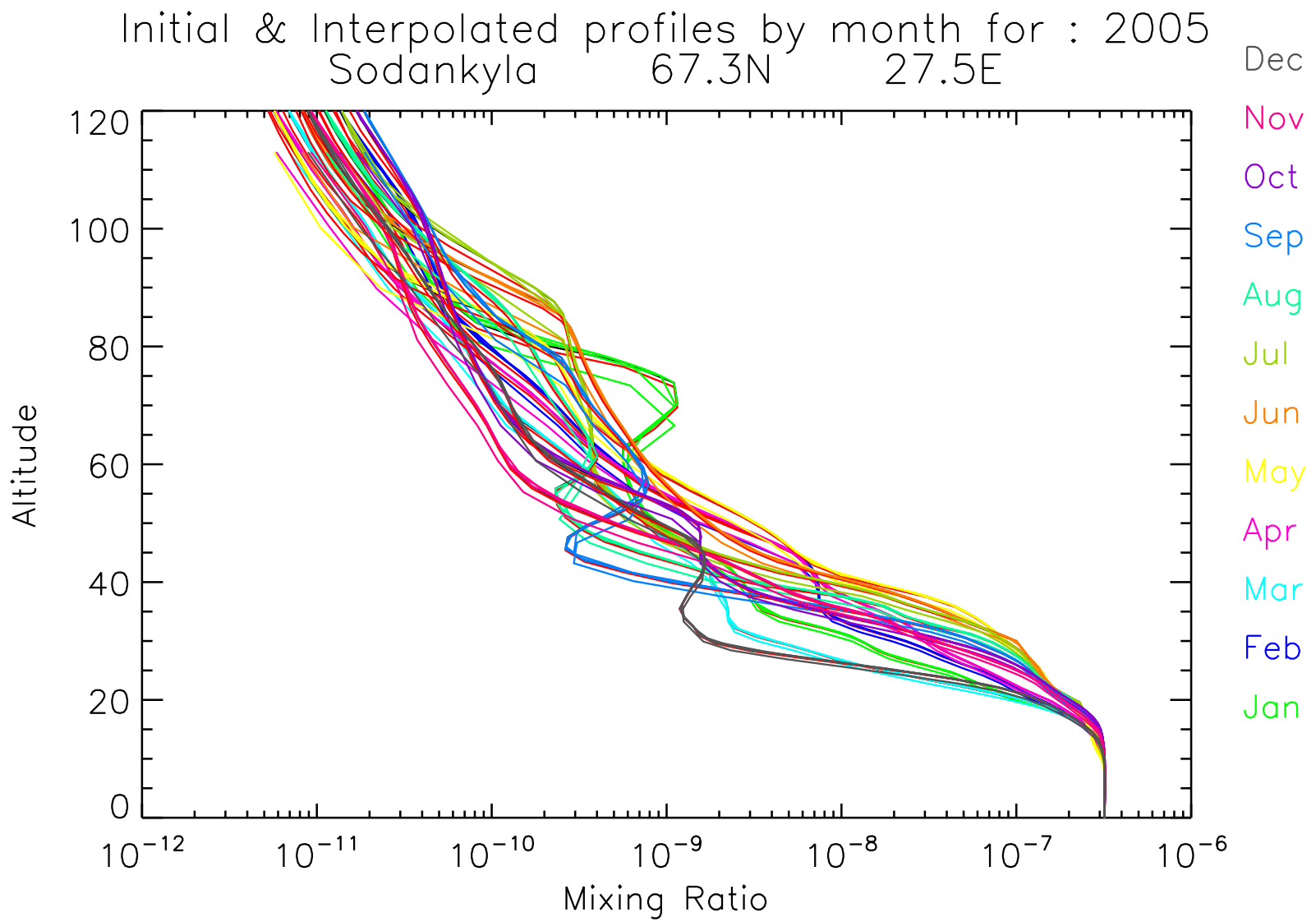
Initial & Interpolated profiles by month for : 2005
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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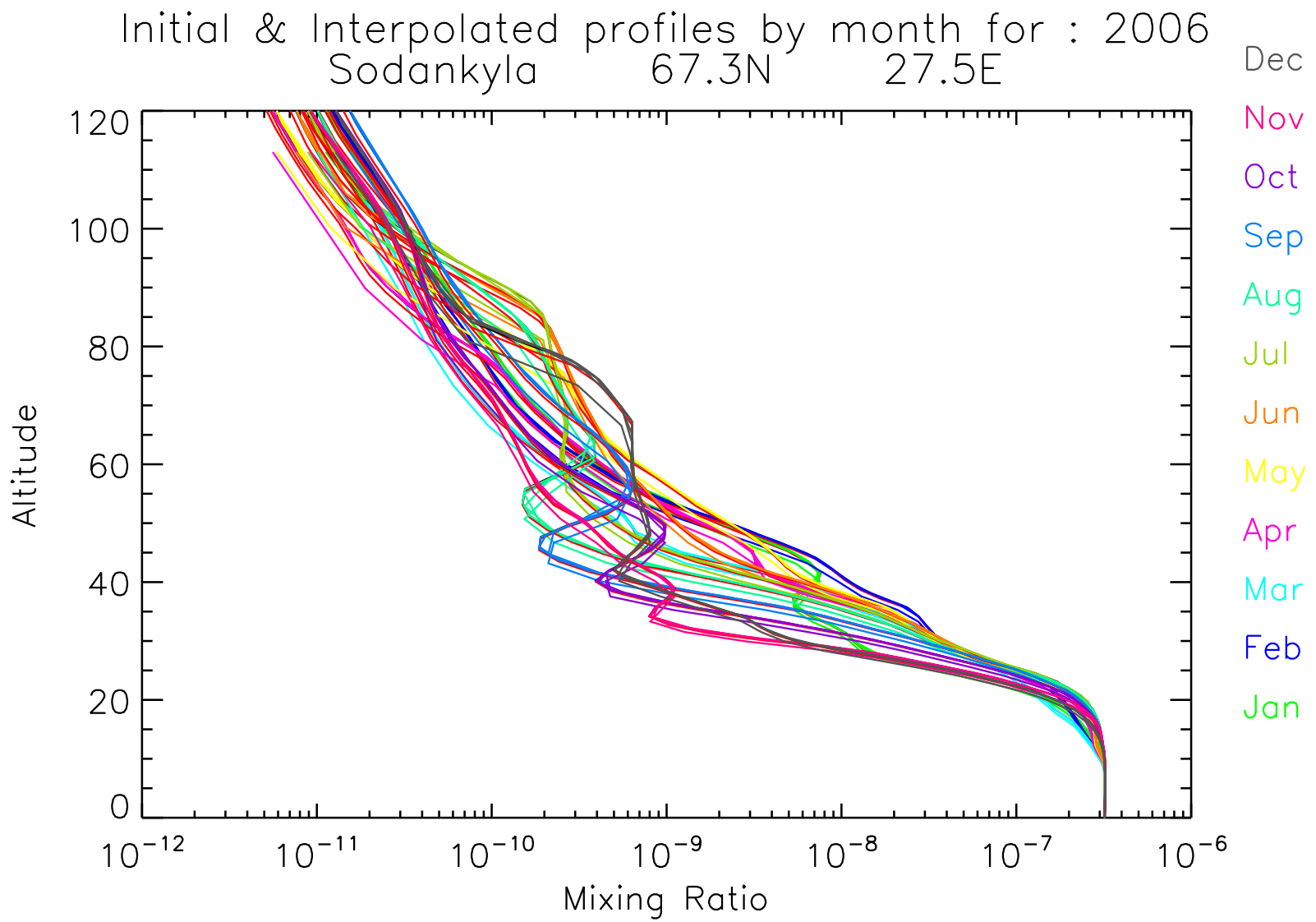
Initial & Interpolated profiles by month for : 2006
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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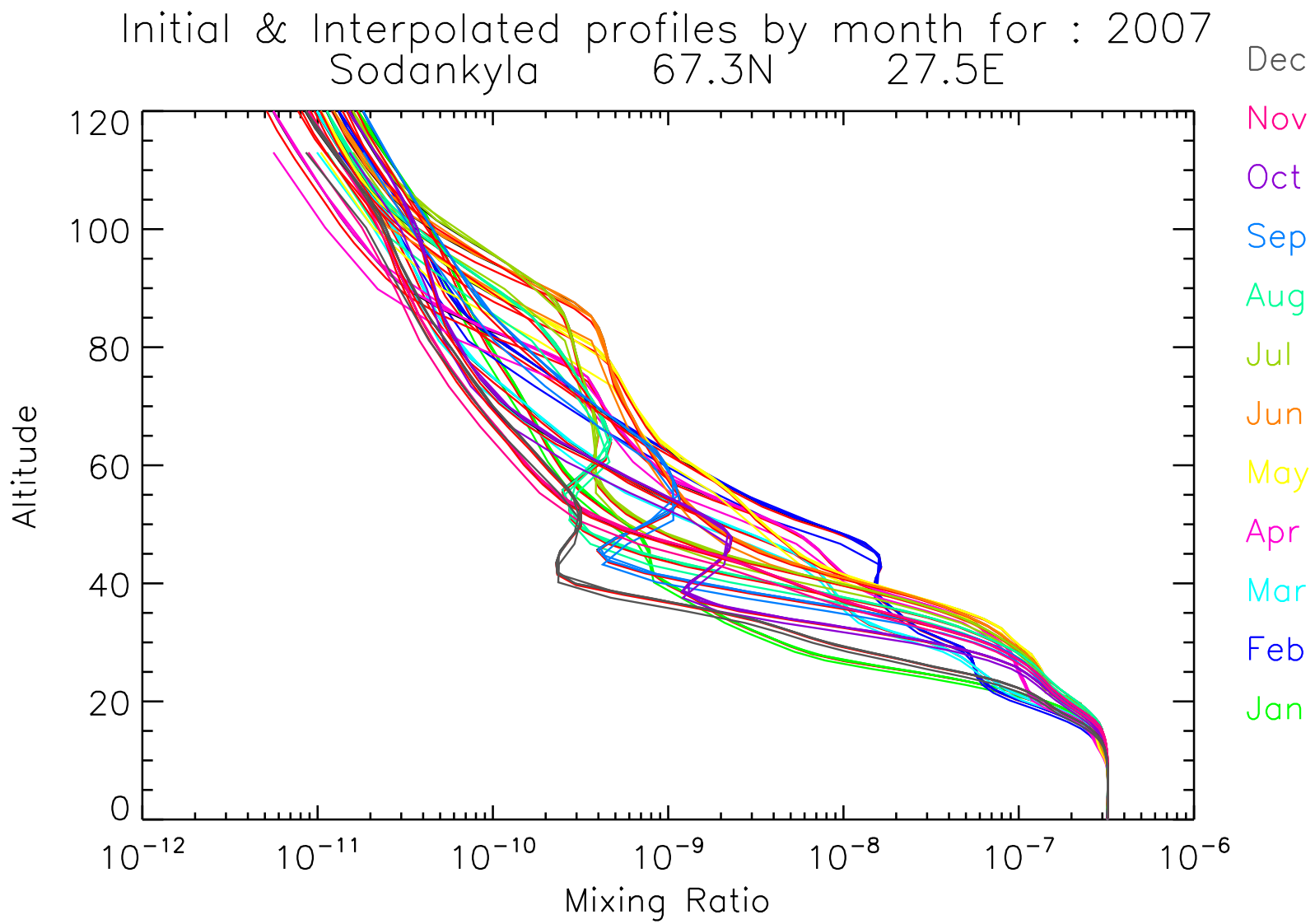
Initial & Interpolated profiles by month for : 2007
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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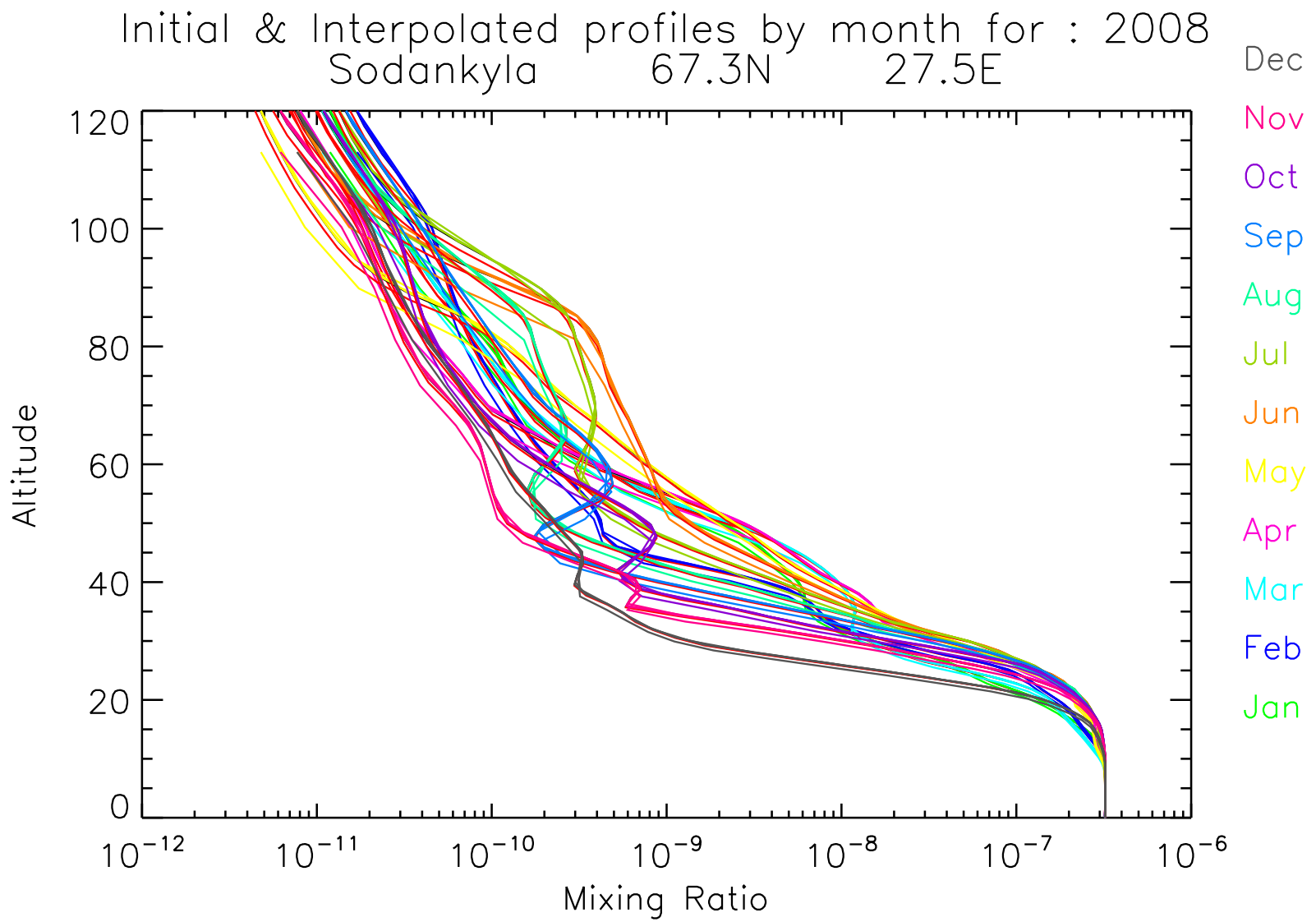
Initial & Interpolated profiles by month for : 2008
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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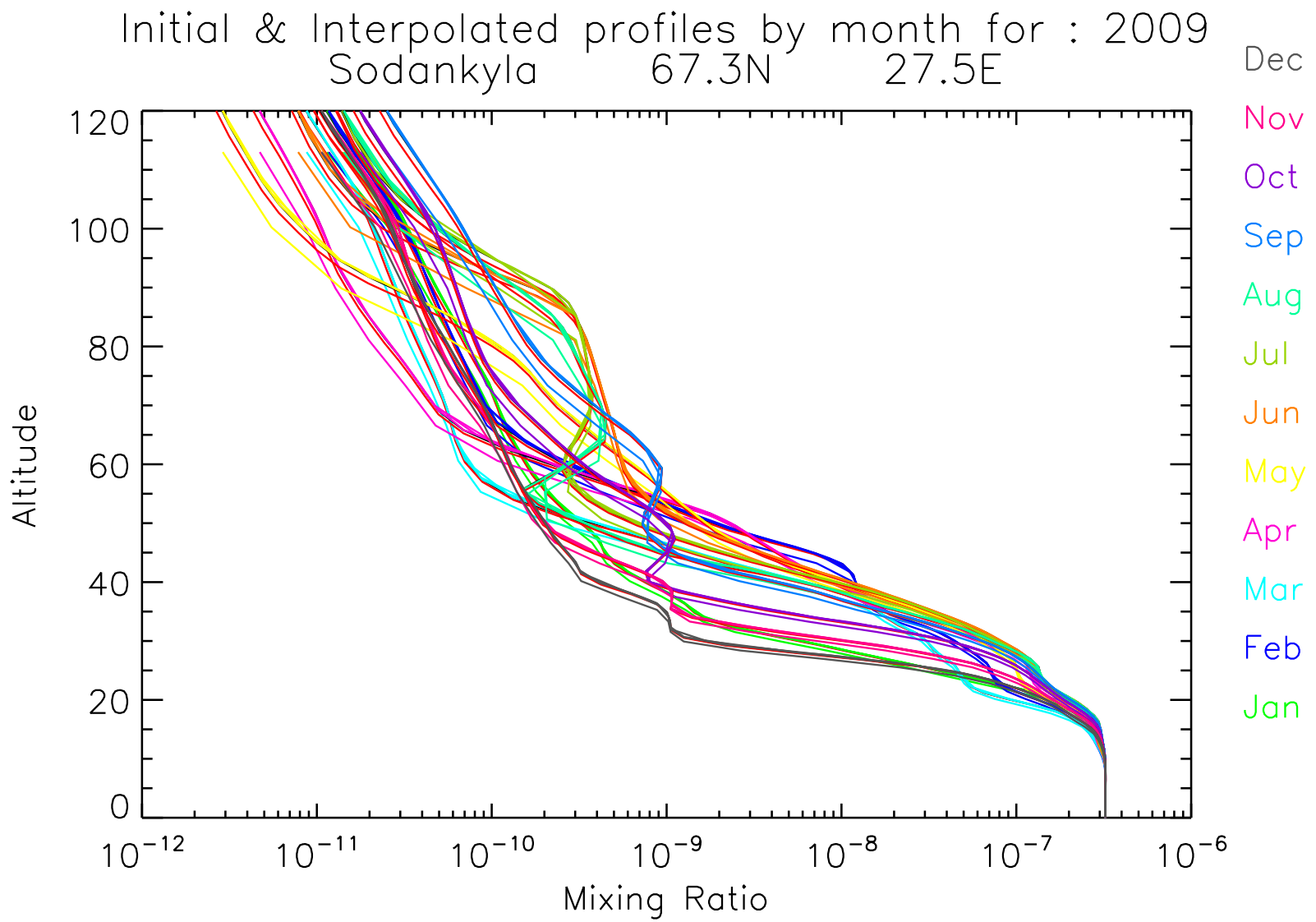
Initial & Interpolated profiles by month for : 2009
Sodankyla 67.3N 27.5E
Altitude
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Mixing Ratio
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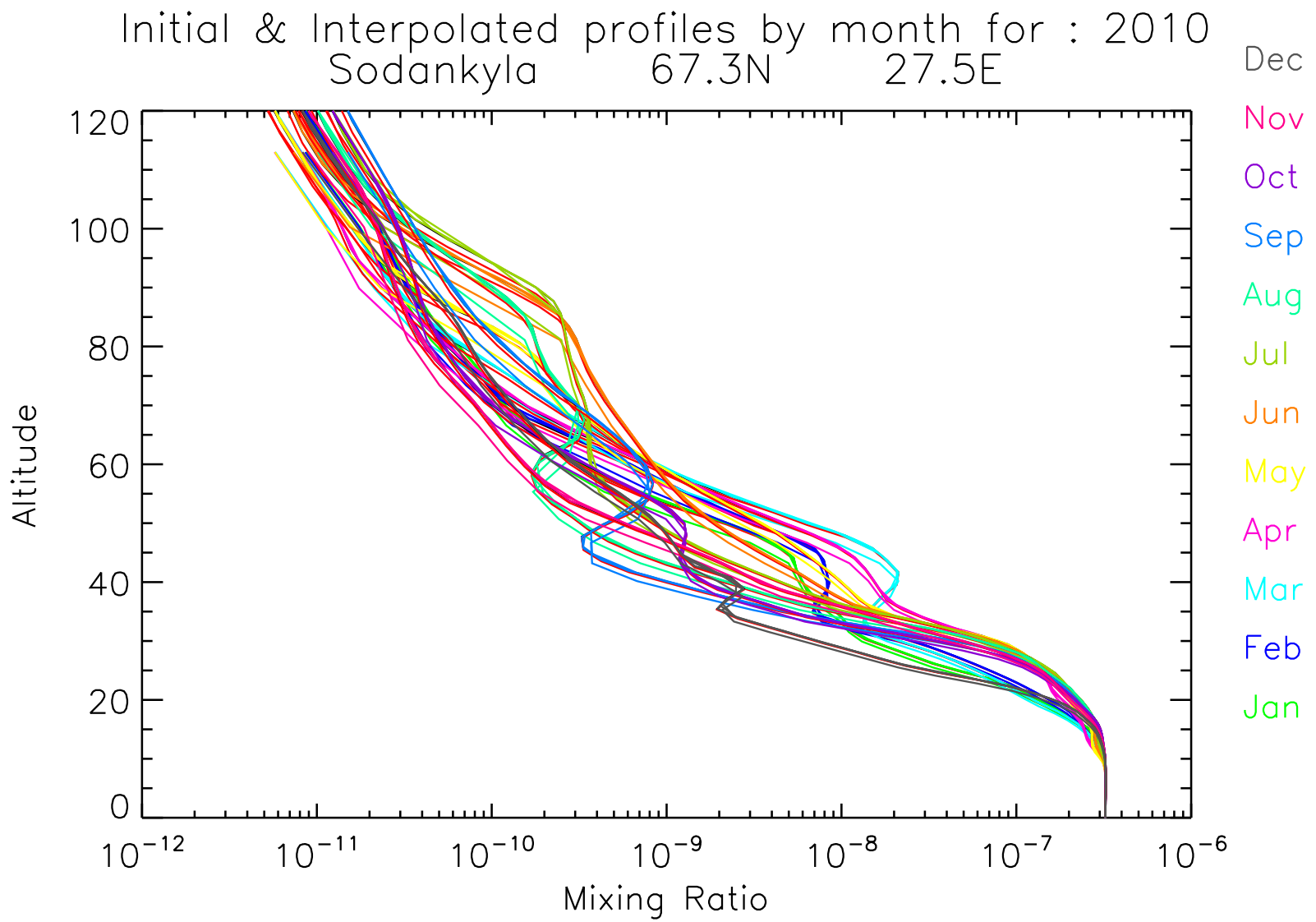
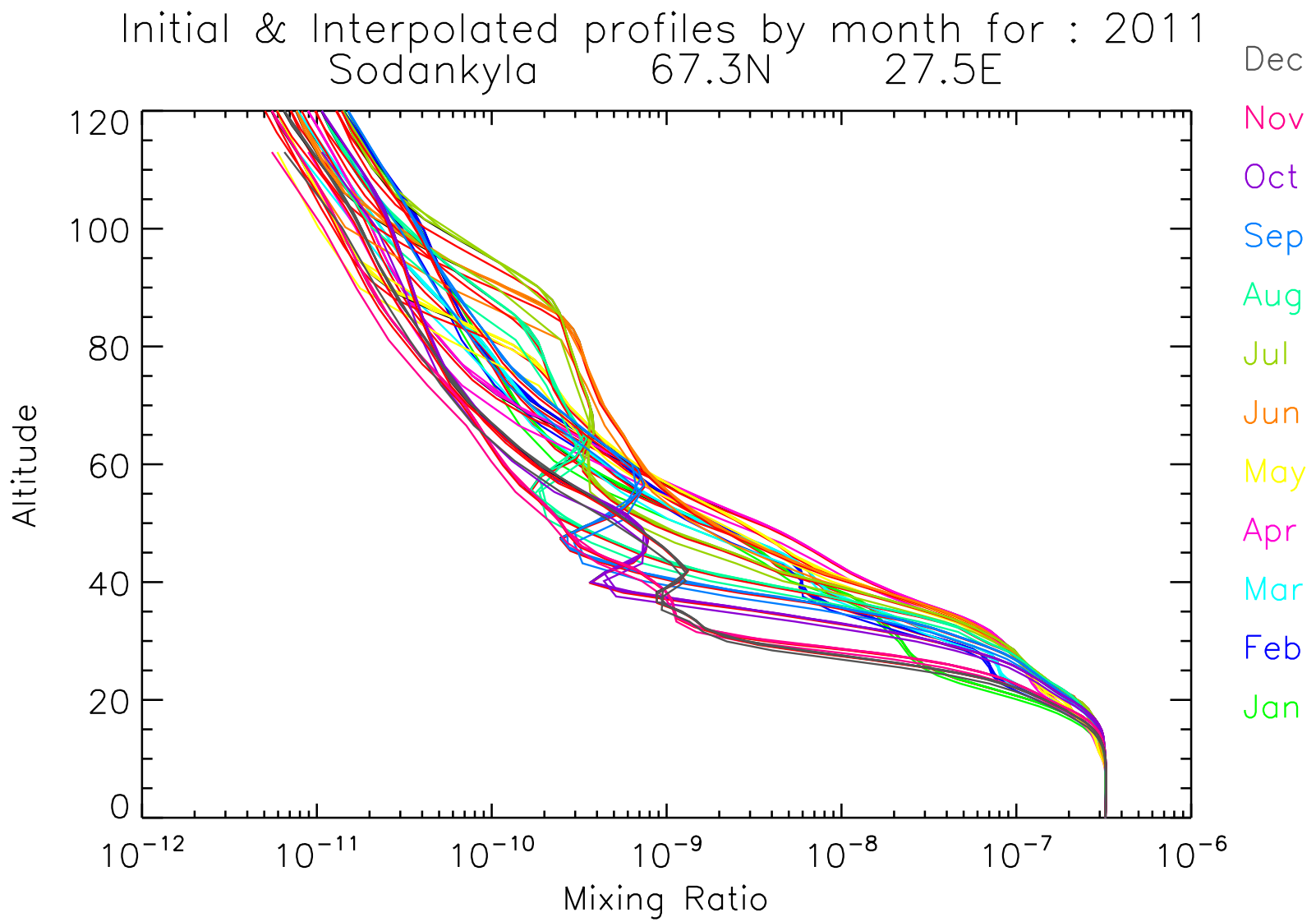
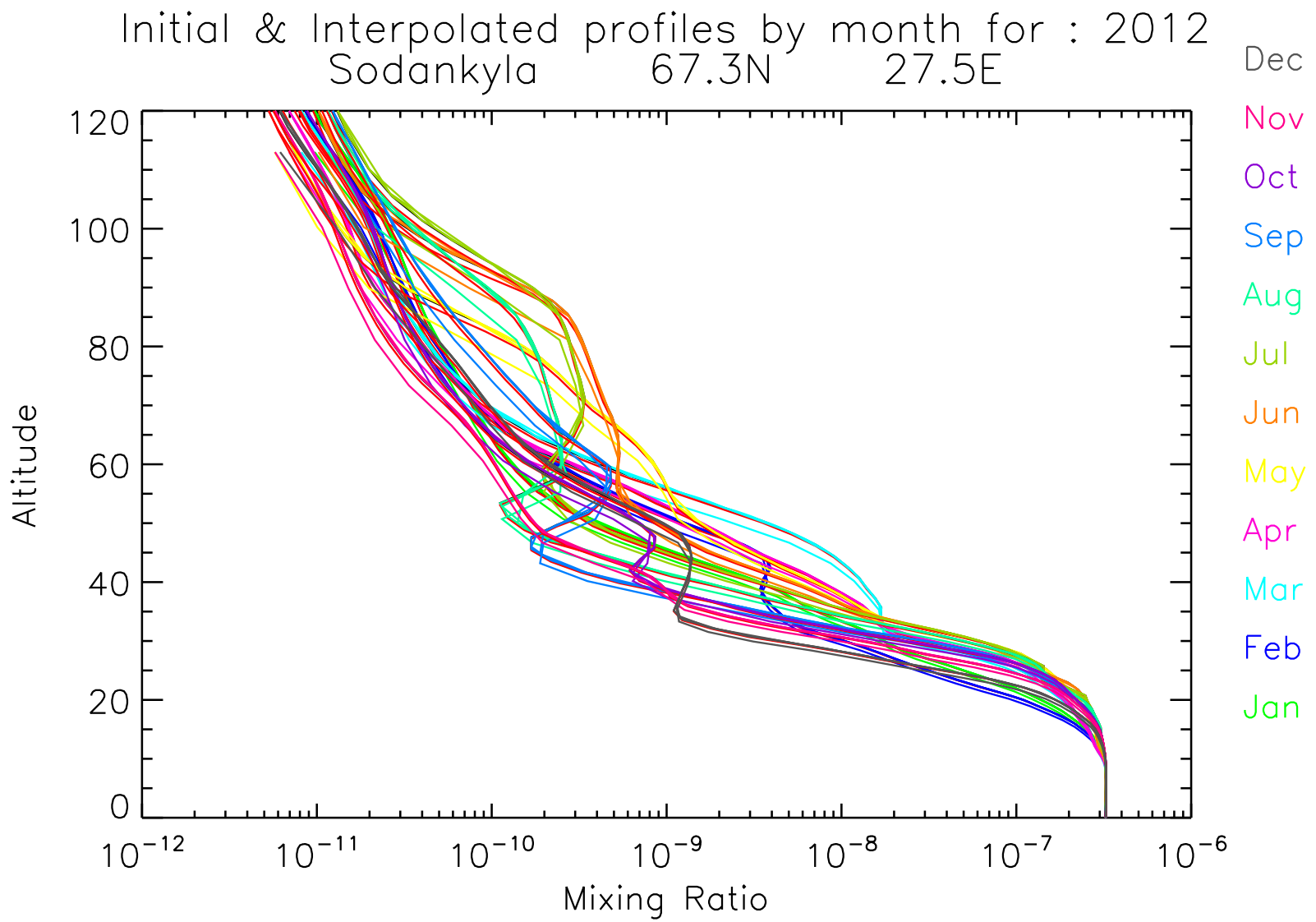
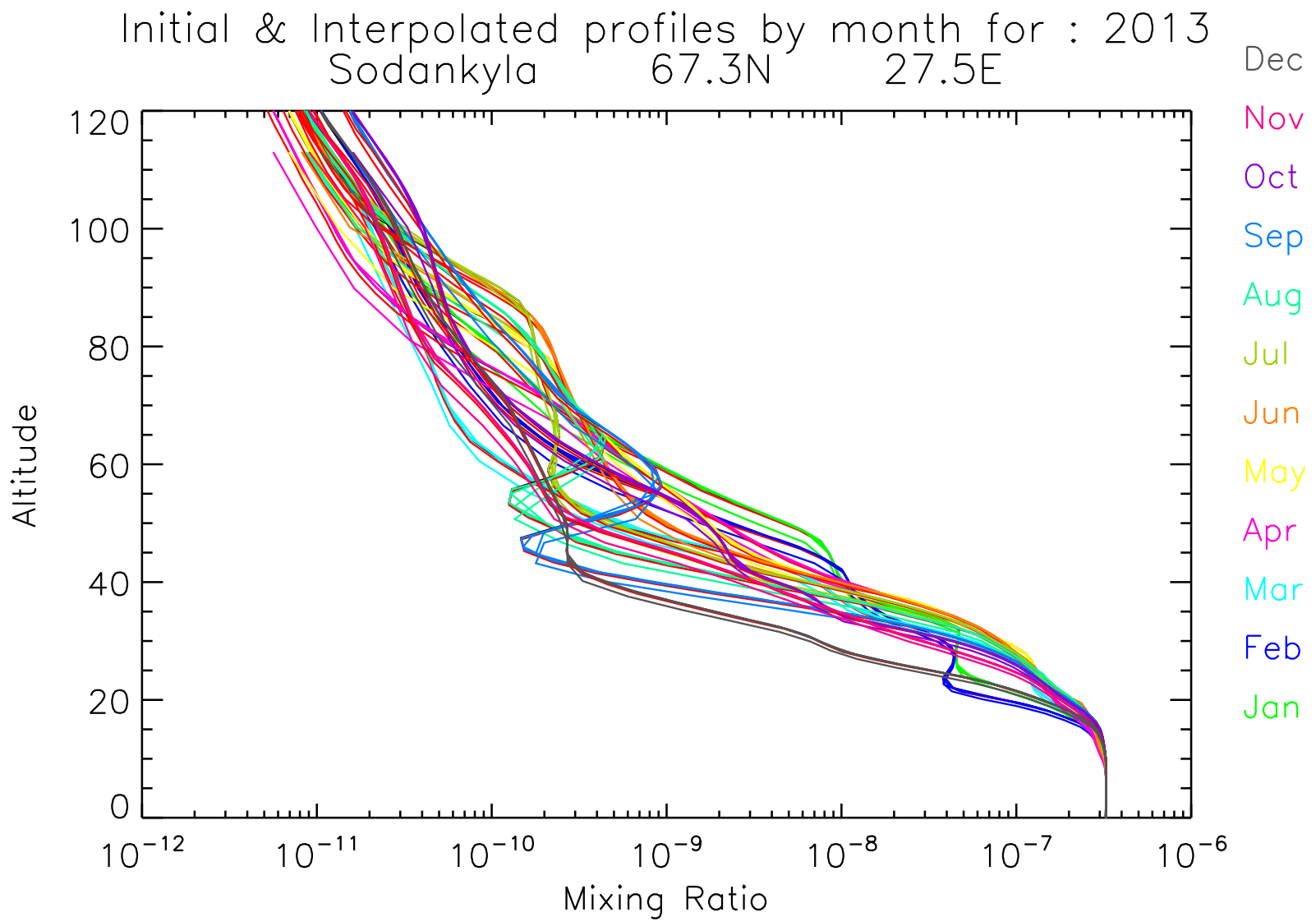
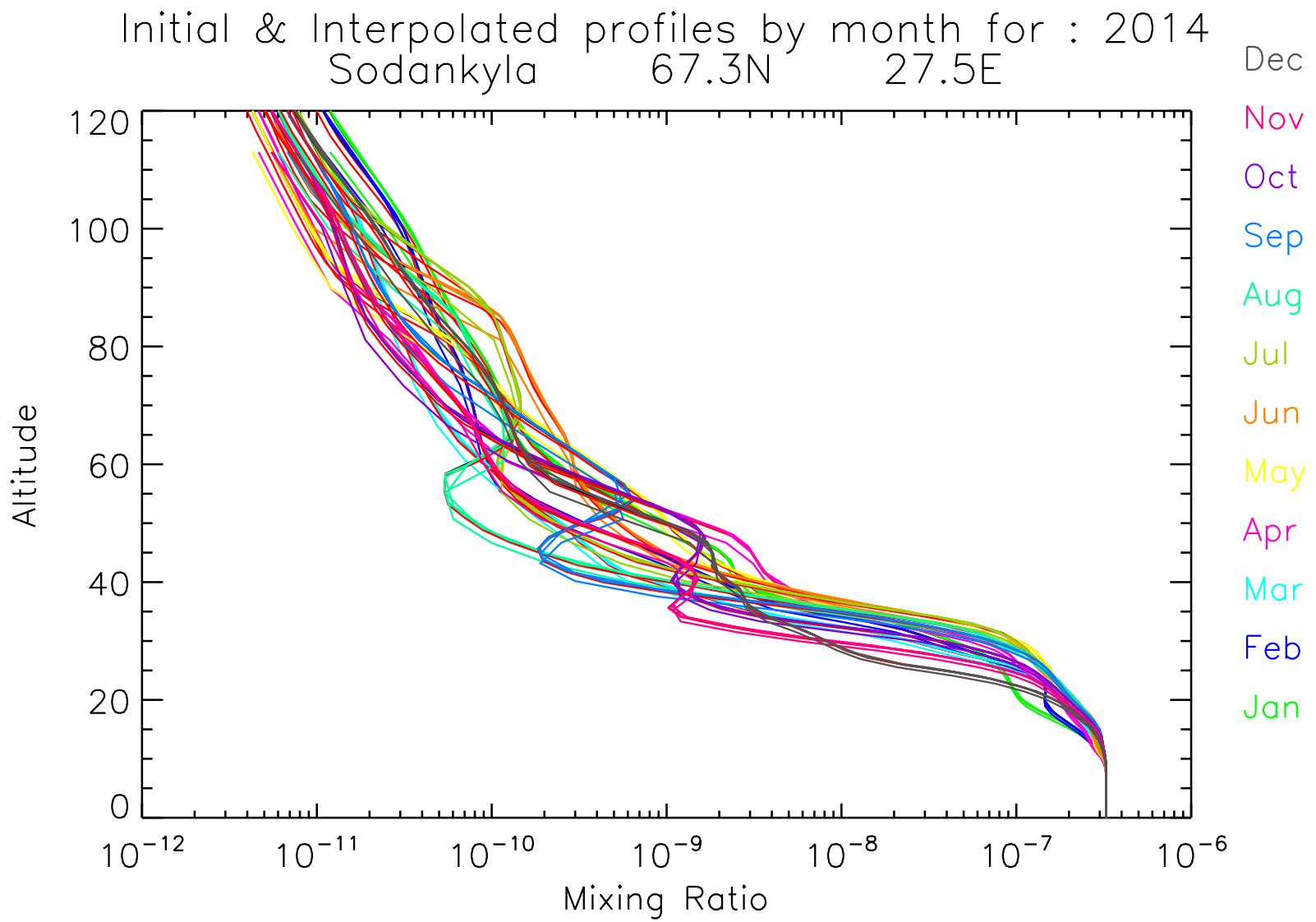
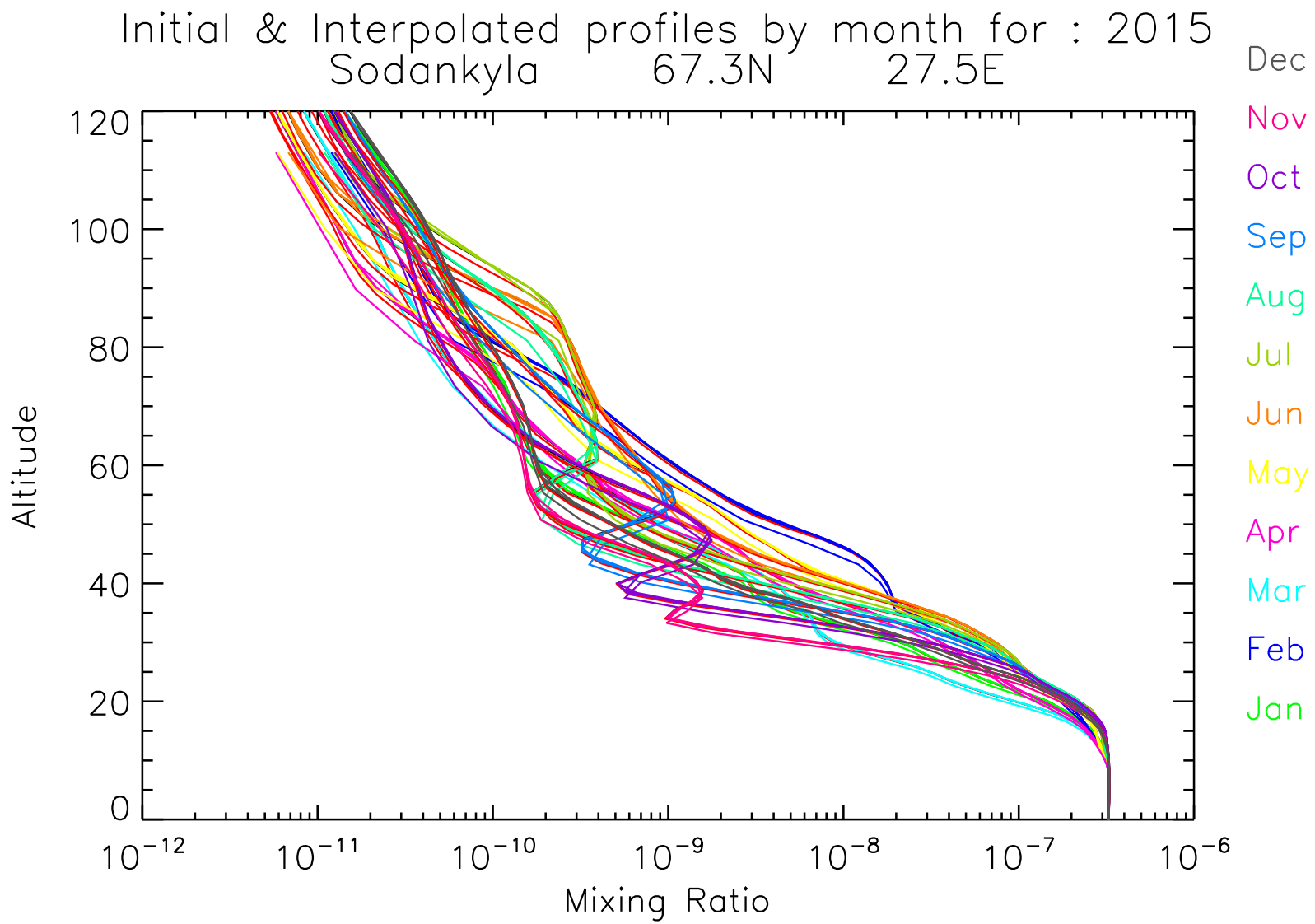

Initial & Interpolated profiles by month for : 2010
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

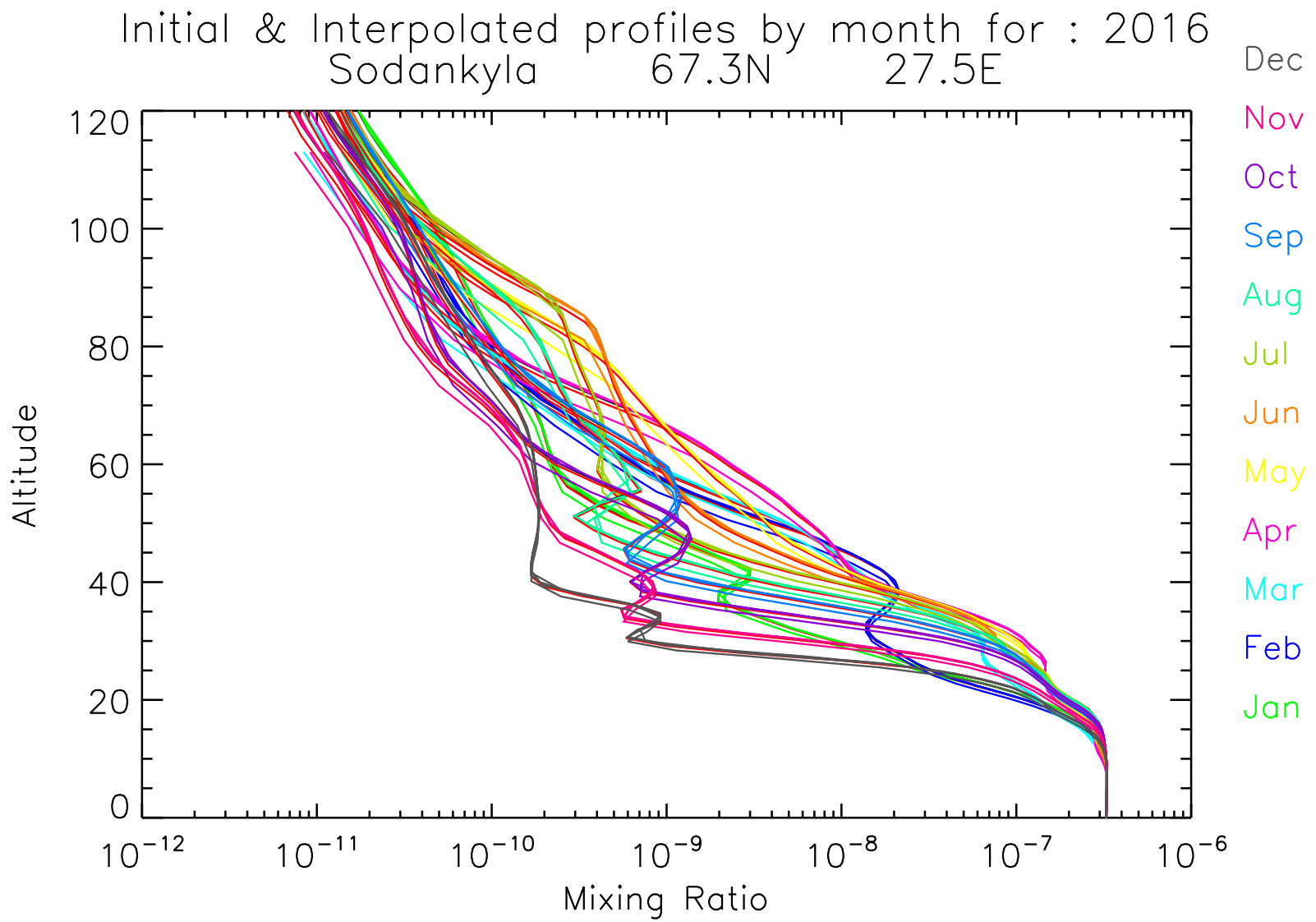

Initial & Interpolated profiles by month for : 2011
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

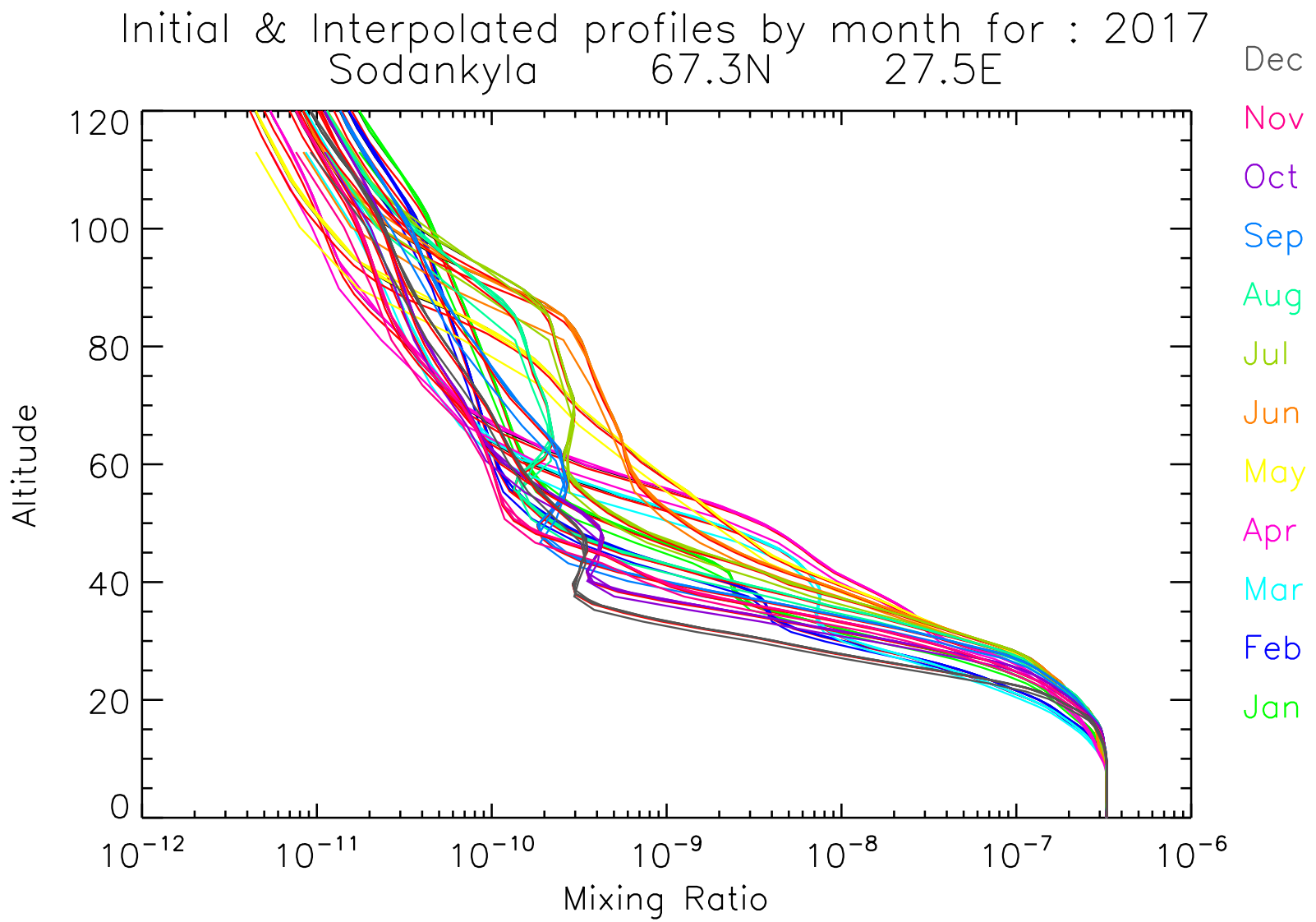

Initial & Interpolated profiles by month for : 2012
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

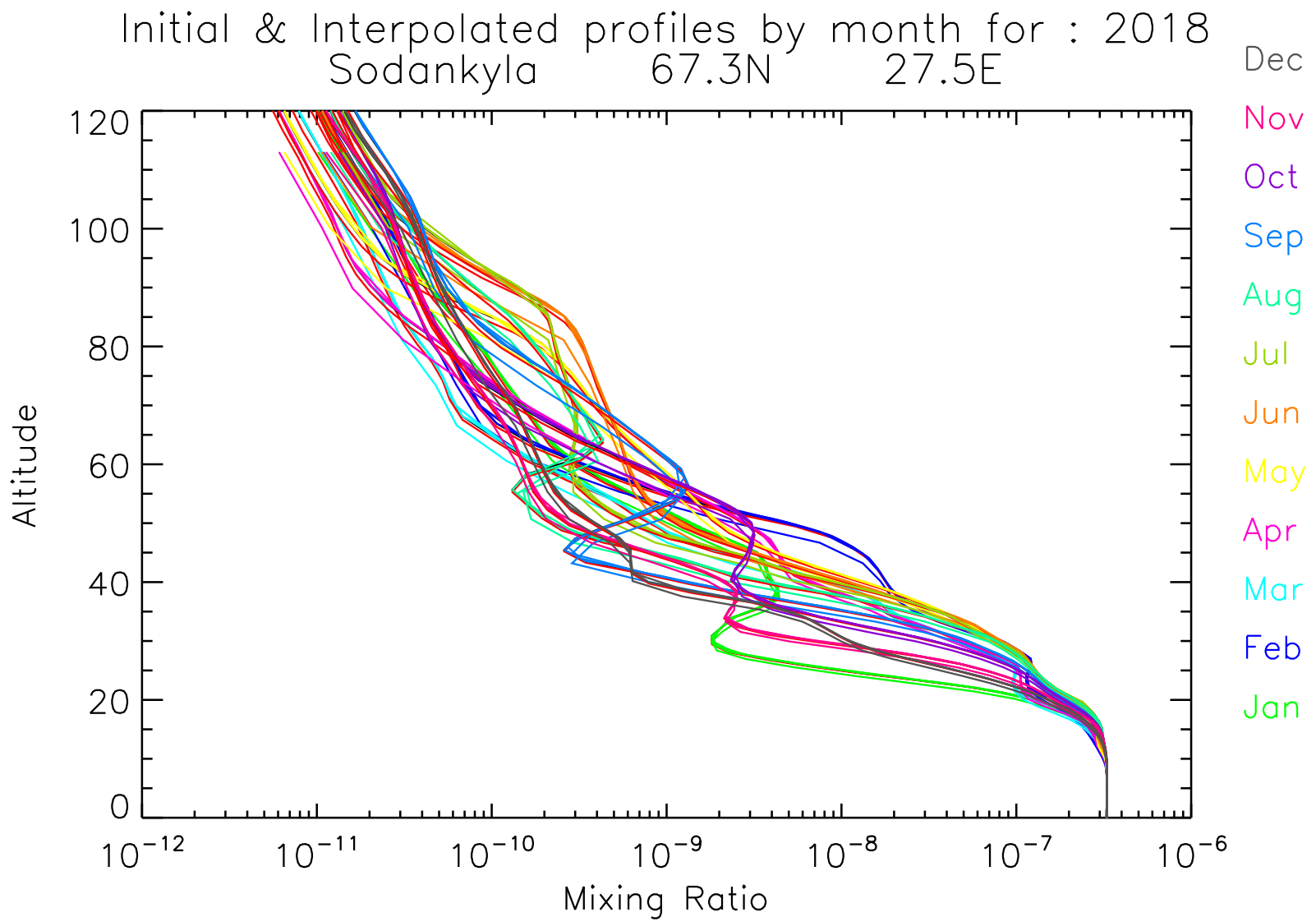

Initial & Interpolated profiles by month for : 2013
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

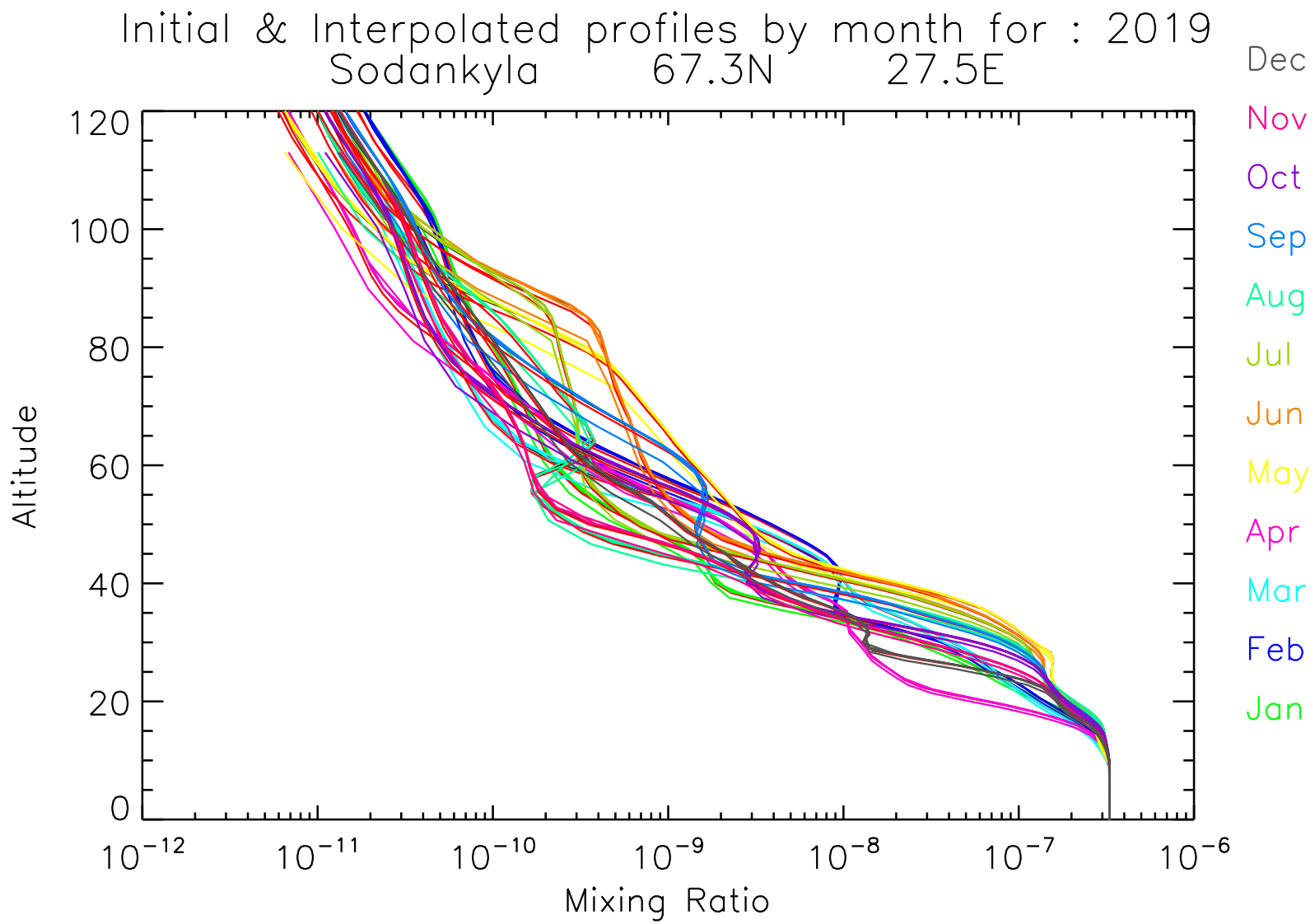

Initial & Interpolated profiles by month for : 2014
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

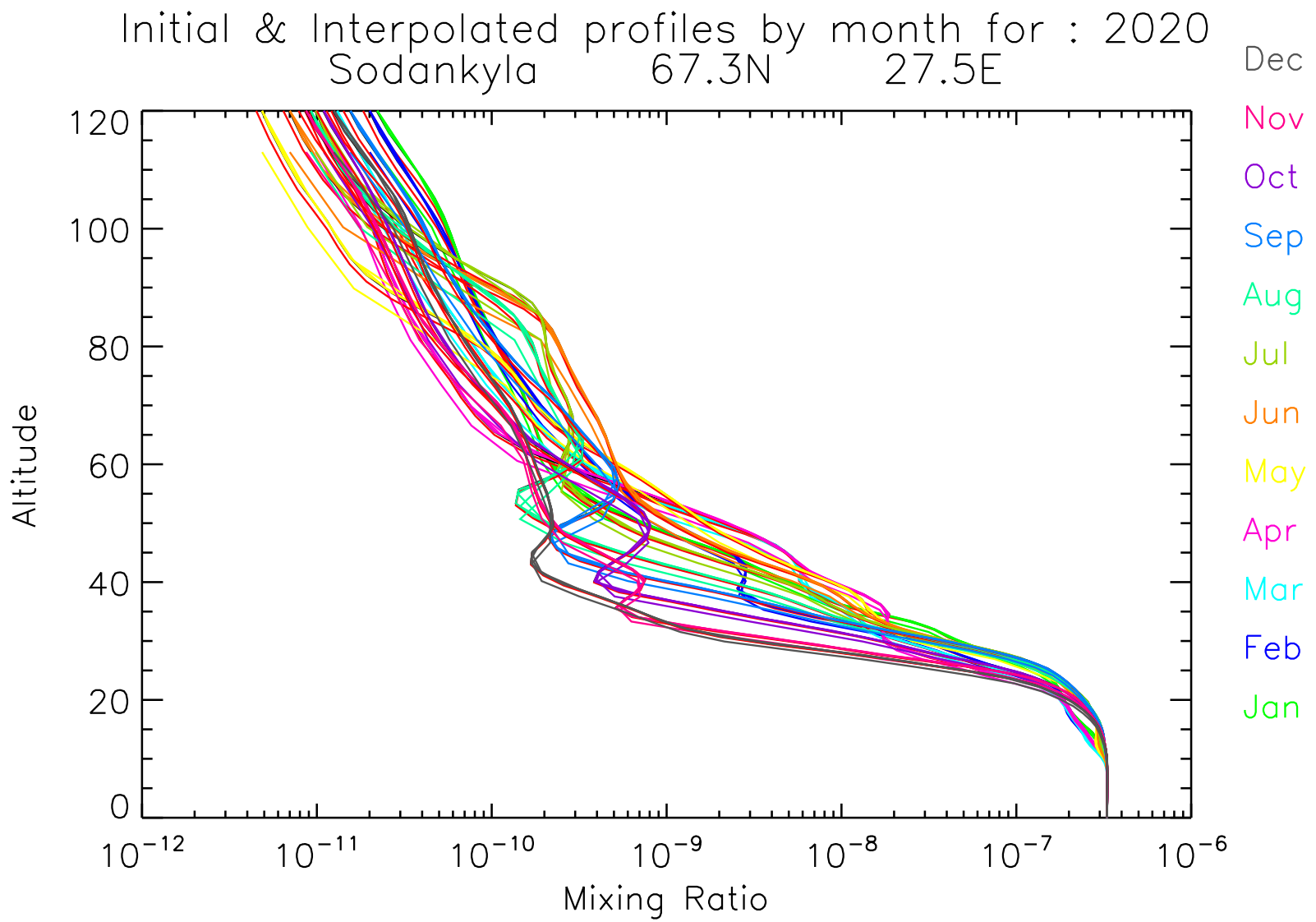

Initial & Interpolated profiles by month for : 2015
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

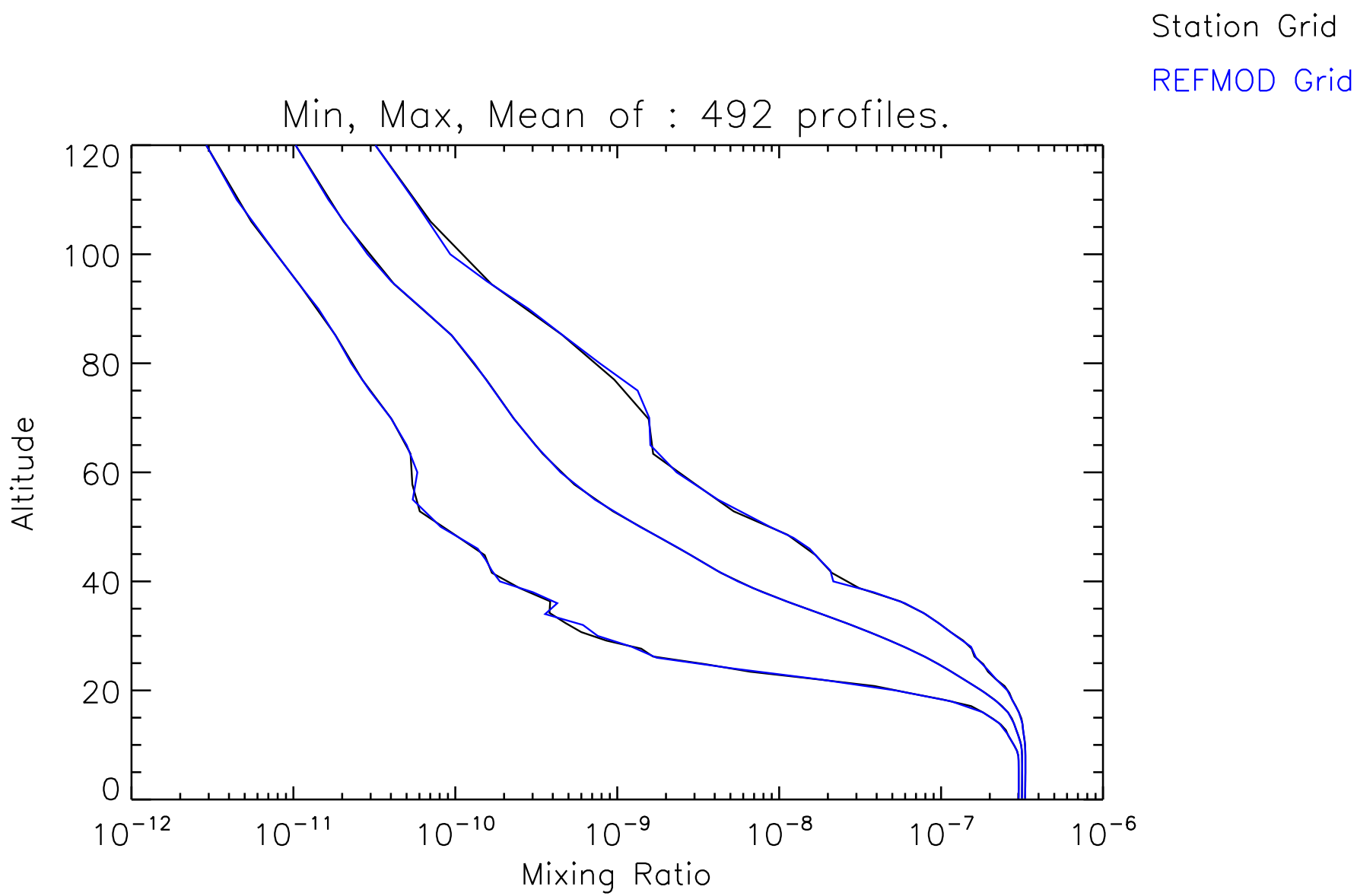

Initial & Interpolated profiles by month for : 2016
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

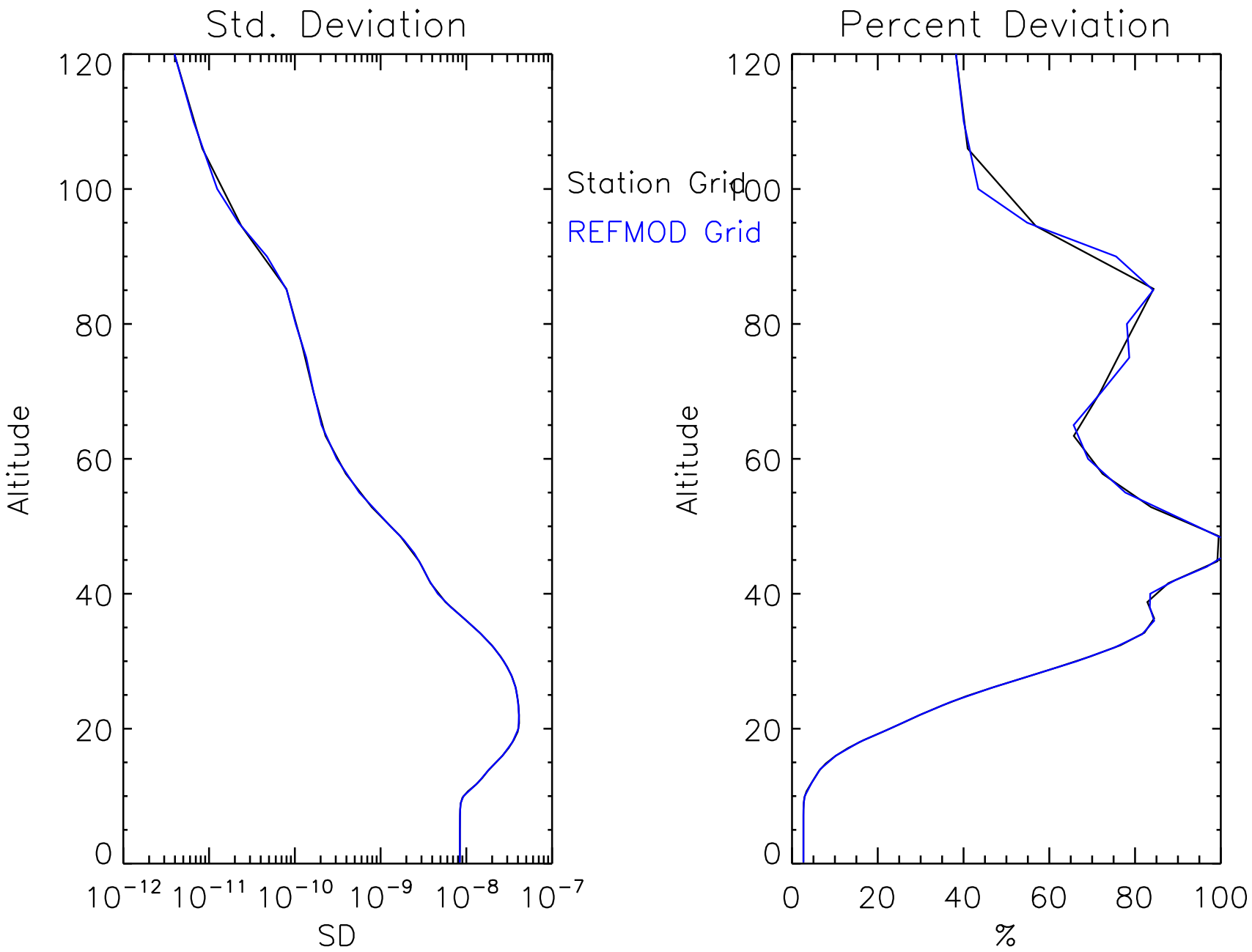

Initial & Interpolated profiles by month for : 2017
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

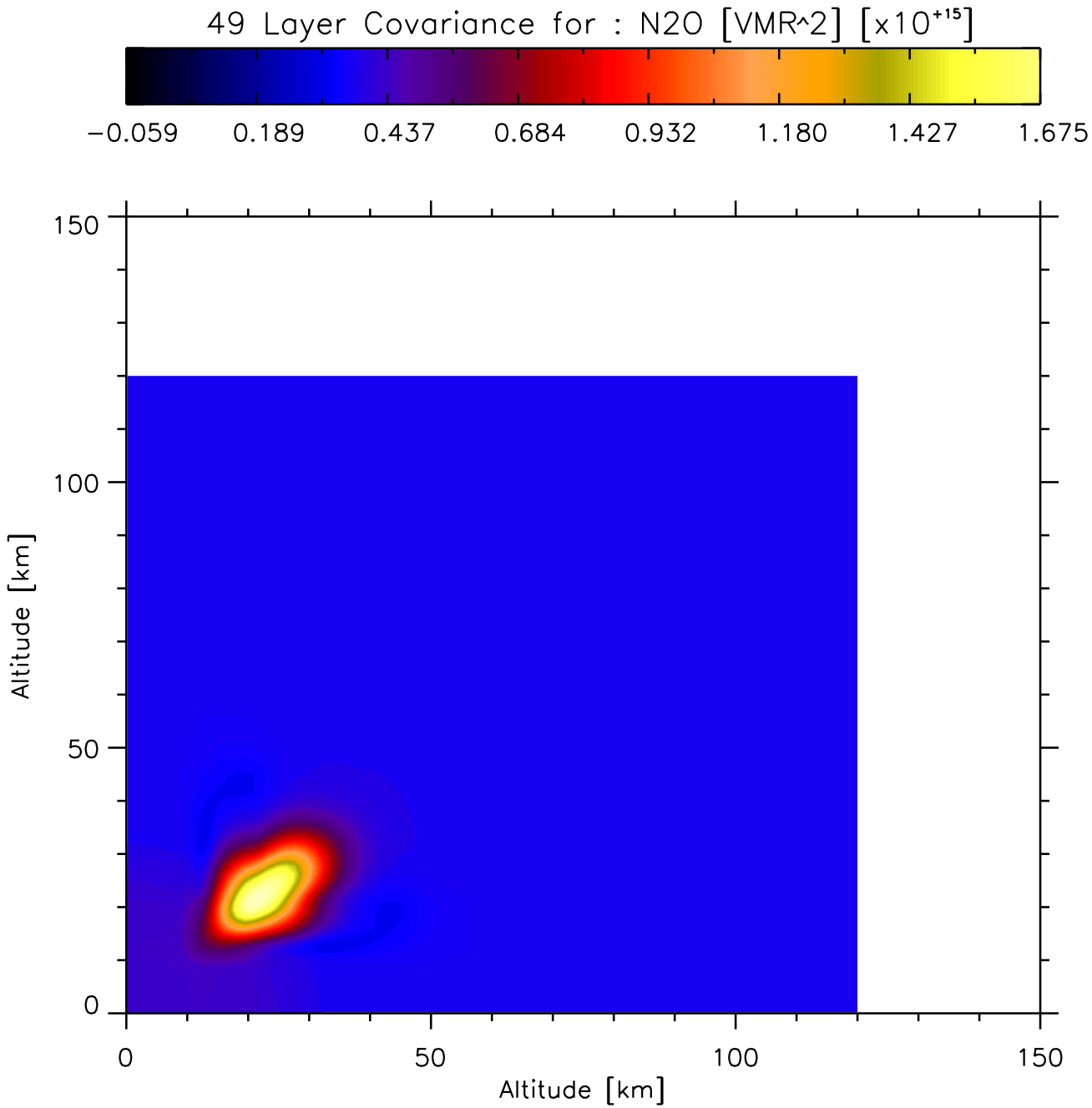

Initial & Interpolated profiles by month for : 2018
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio


Initial & Interpolated profiles by month for : 2019
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

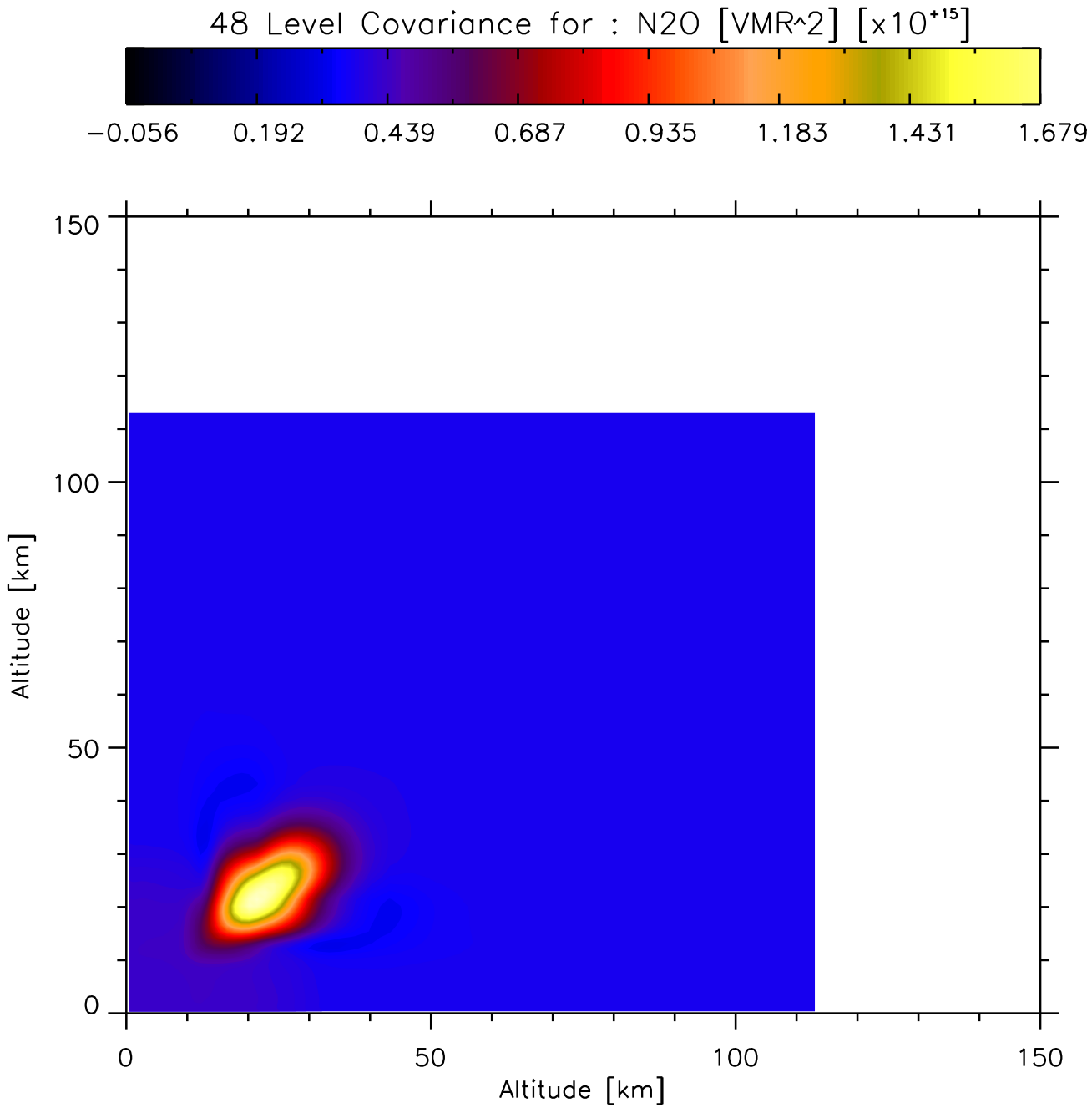

Initial & Interpolated profiles by month for : 2020
Sodankyla 67.3N 27.5E
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan


Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
Altitude
120
100
80
60
40
20
0
10^{-12}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-12} 10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7}
SD
0 20 40 60 80 100
%


49 Layer Covariance for : N2O [VMR^2] [x10^+15]
−0.059
0.189
0.437
0.684
0.932
1.180
1.427
1.675
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

49 Layer Covariance for : N2O [VMR^2] [x10^+15]
0.0
0.5
1.0
1.5
2.0
Y Altitude
0
20
40
60
80
X Altitude
0
50
100
150


48 Level Covariance for : N2O [VMR^2] [x10^+15]
−0.056
0.192
0.439
0.687
0.935
1.183
1.431
1.679
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

48 Level Covariance for : N2O [VMR^2] [x10^-15]
2.0
1.5
1.0
0.5
0.0
Y Altitude
0
30
60
90
120
X Altitude
0
50
100
150