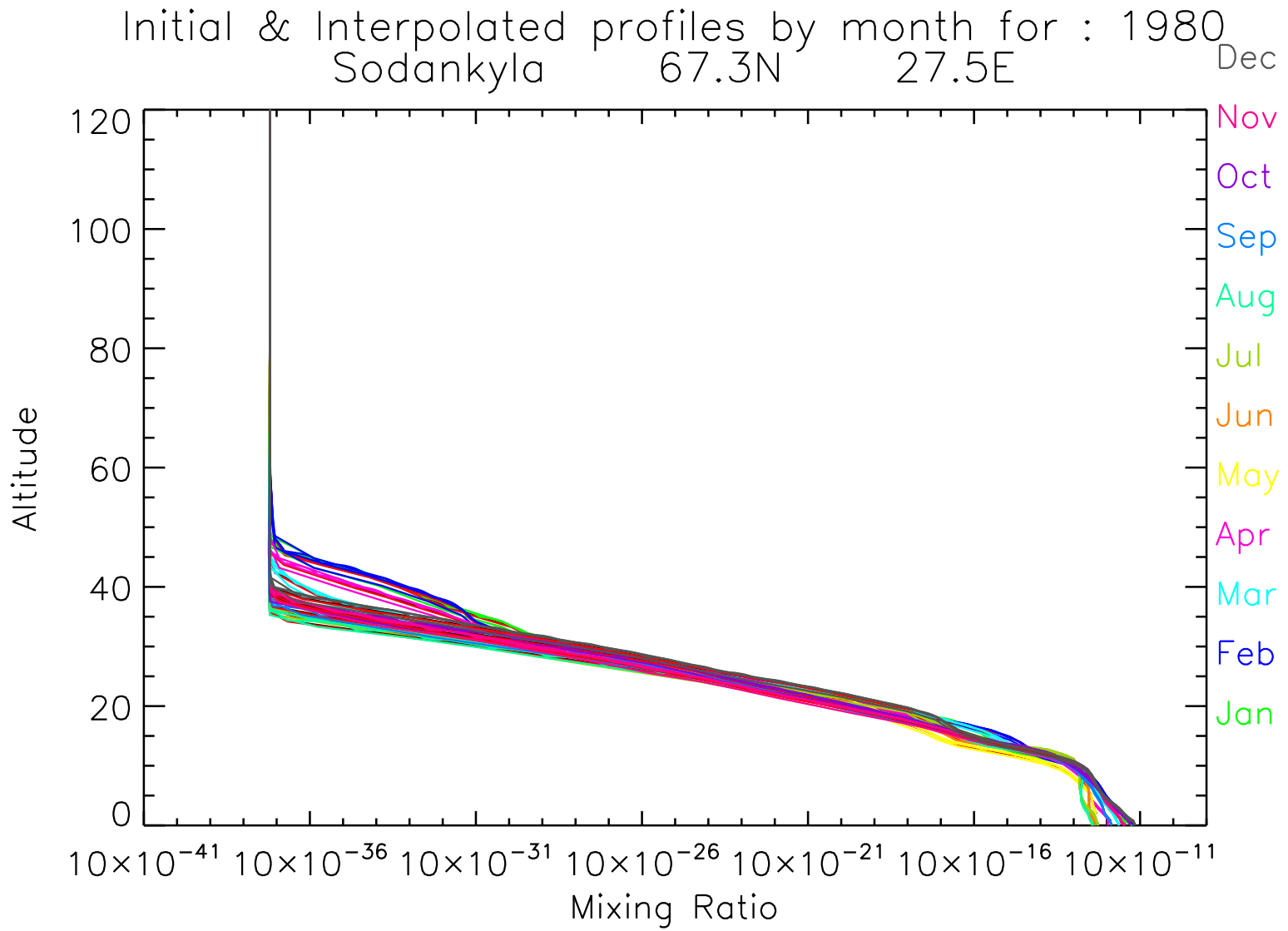
Initial & Interpolated profiles by month for : 1980
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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20
0
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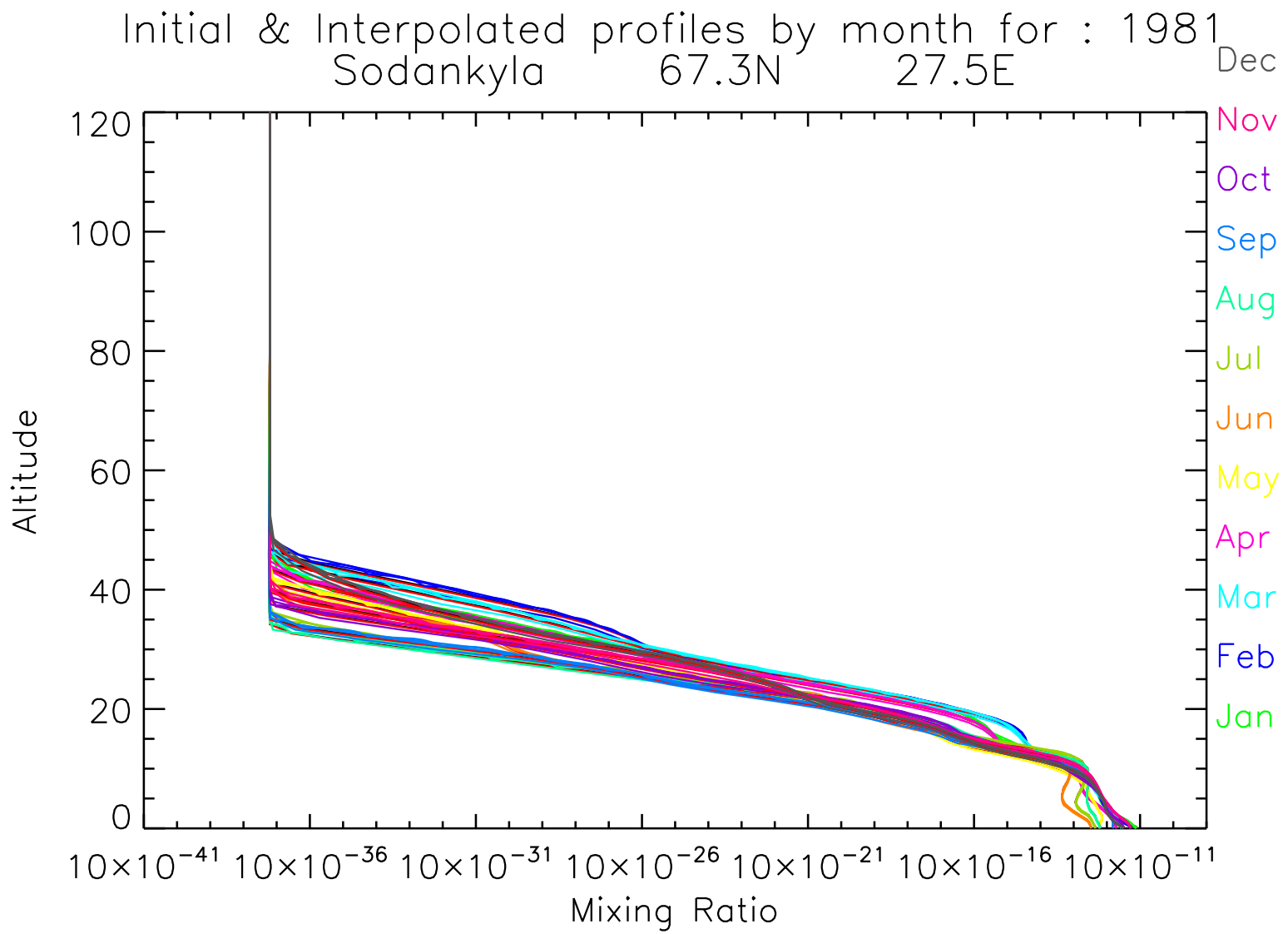
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
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20
0
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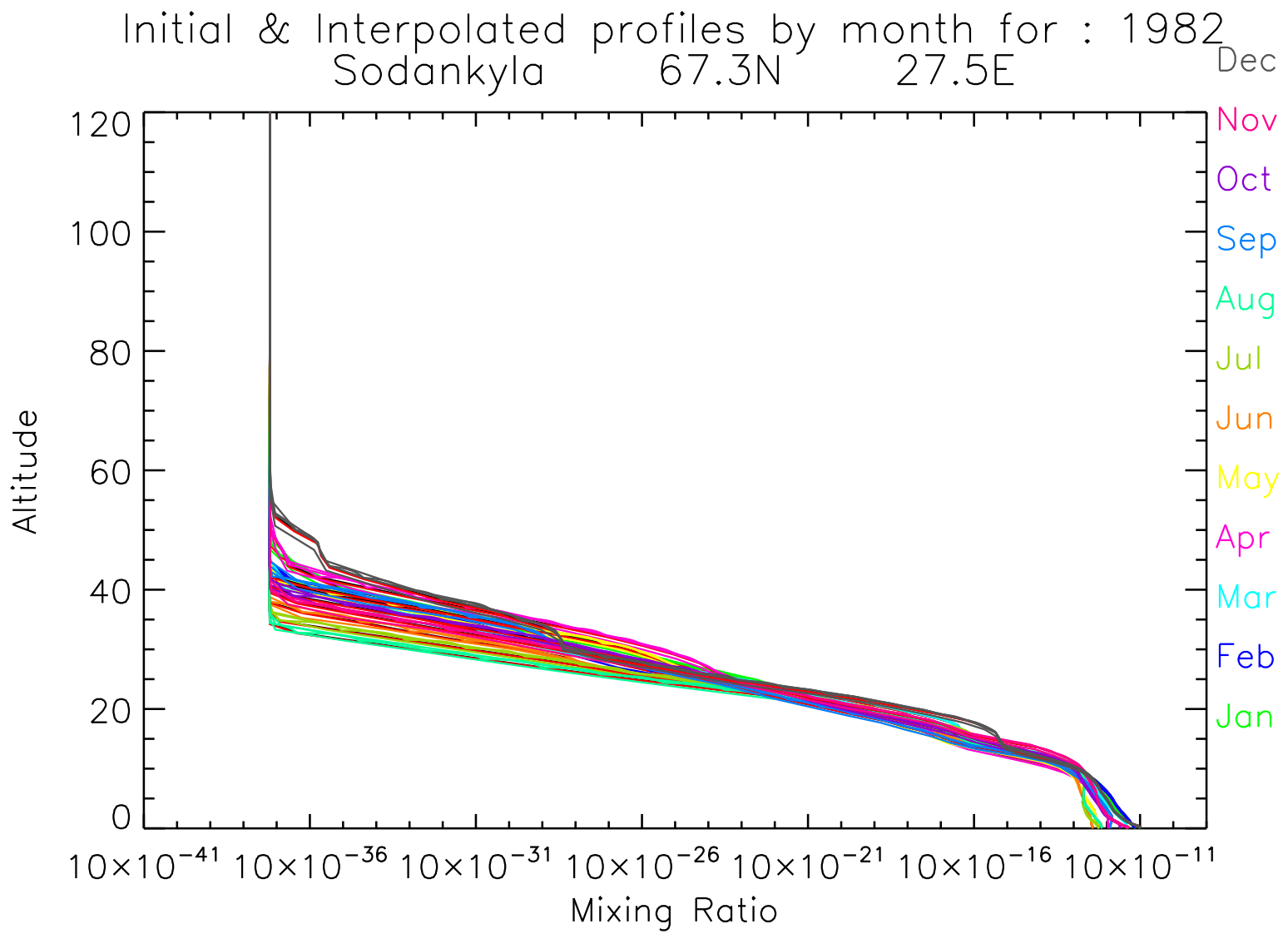
Mixing Ratio


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
120
100
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60
40
20
0
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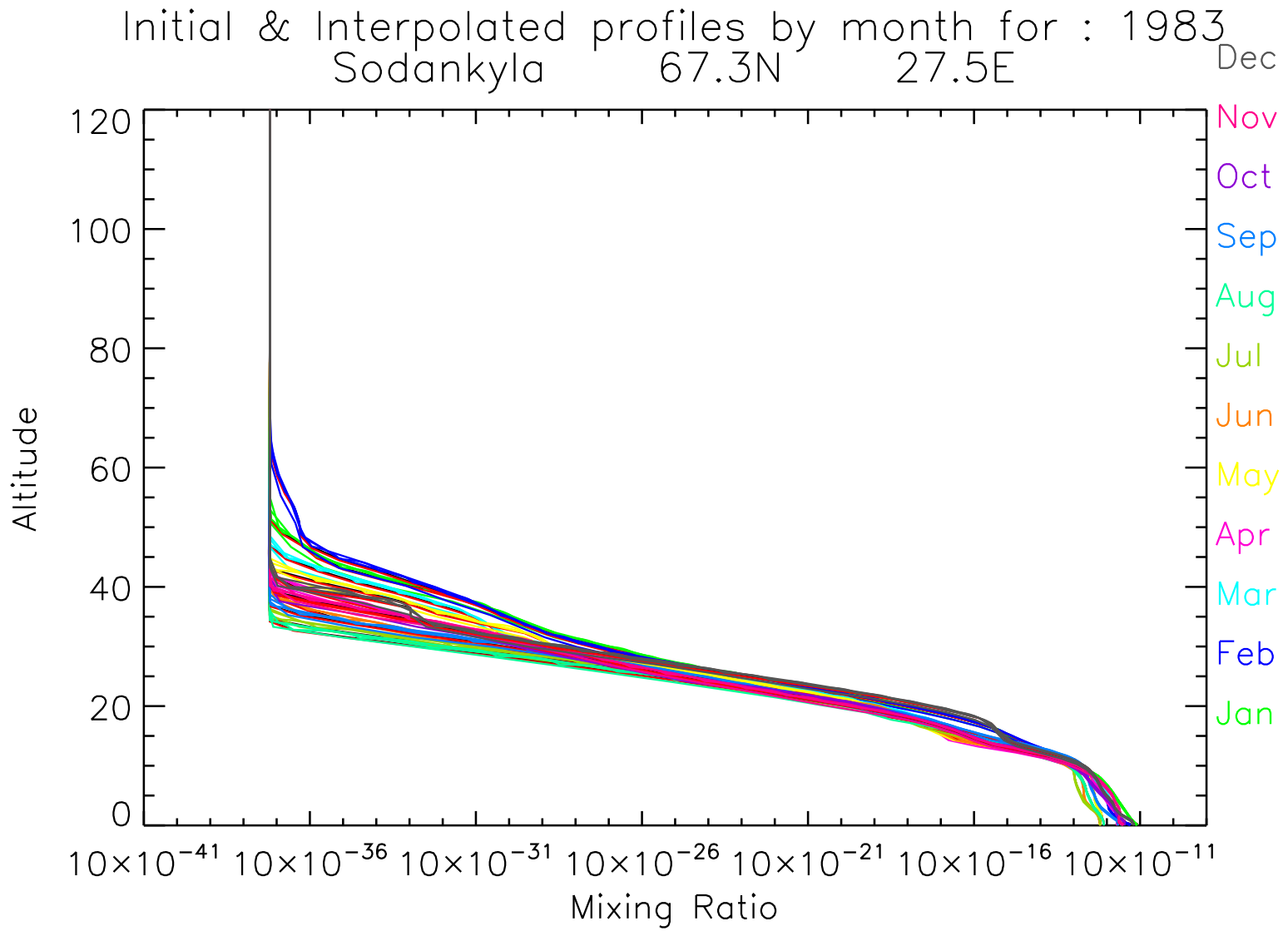
Mixing Ratio


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
120
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20
0
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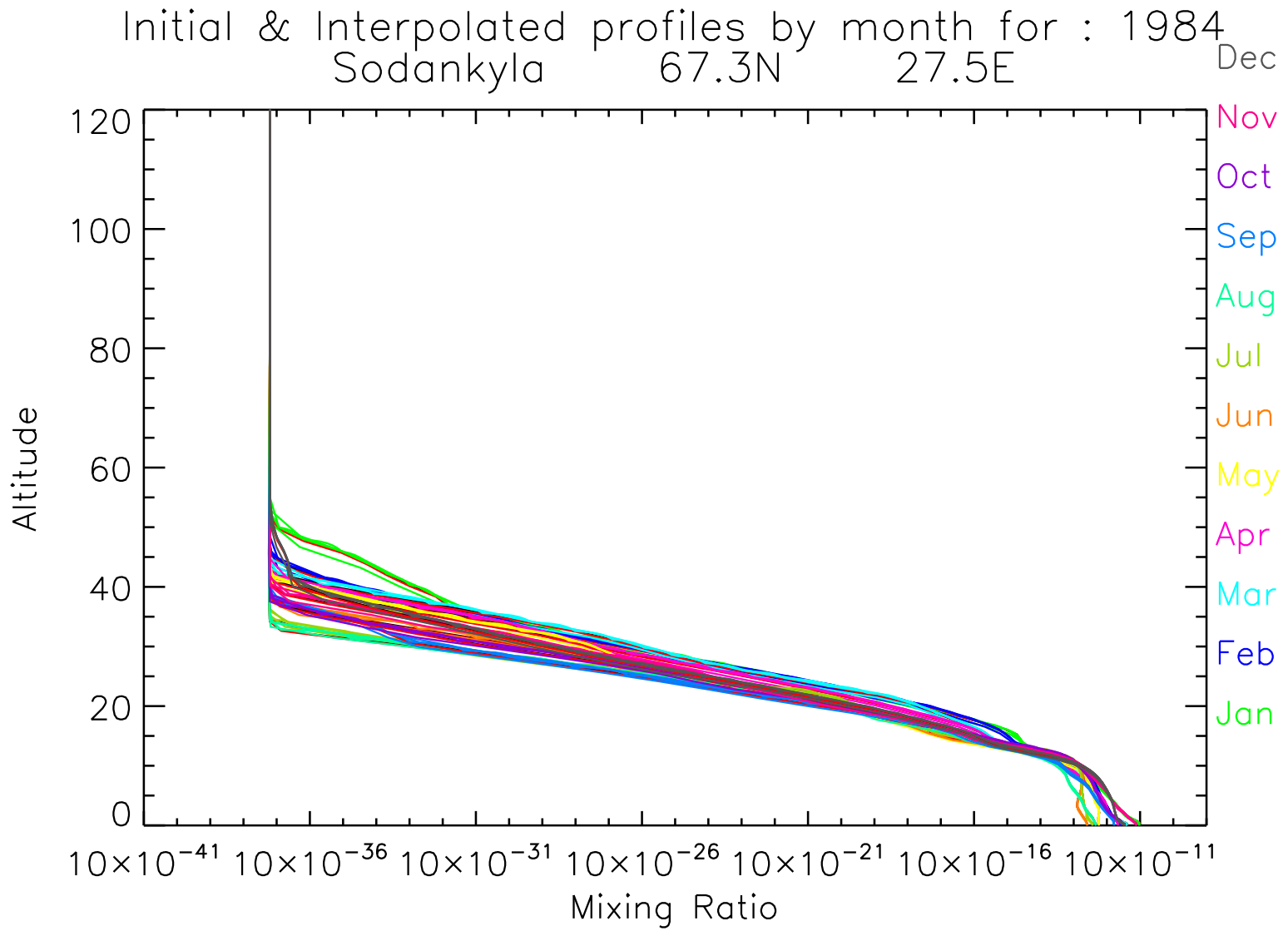
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
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Aug
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Jun
May
Apr
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Feb
Jan
Altitude
120
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20
0
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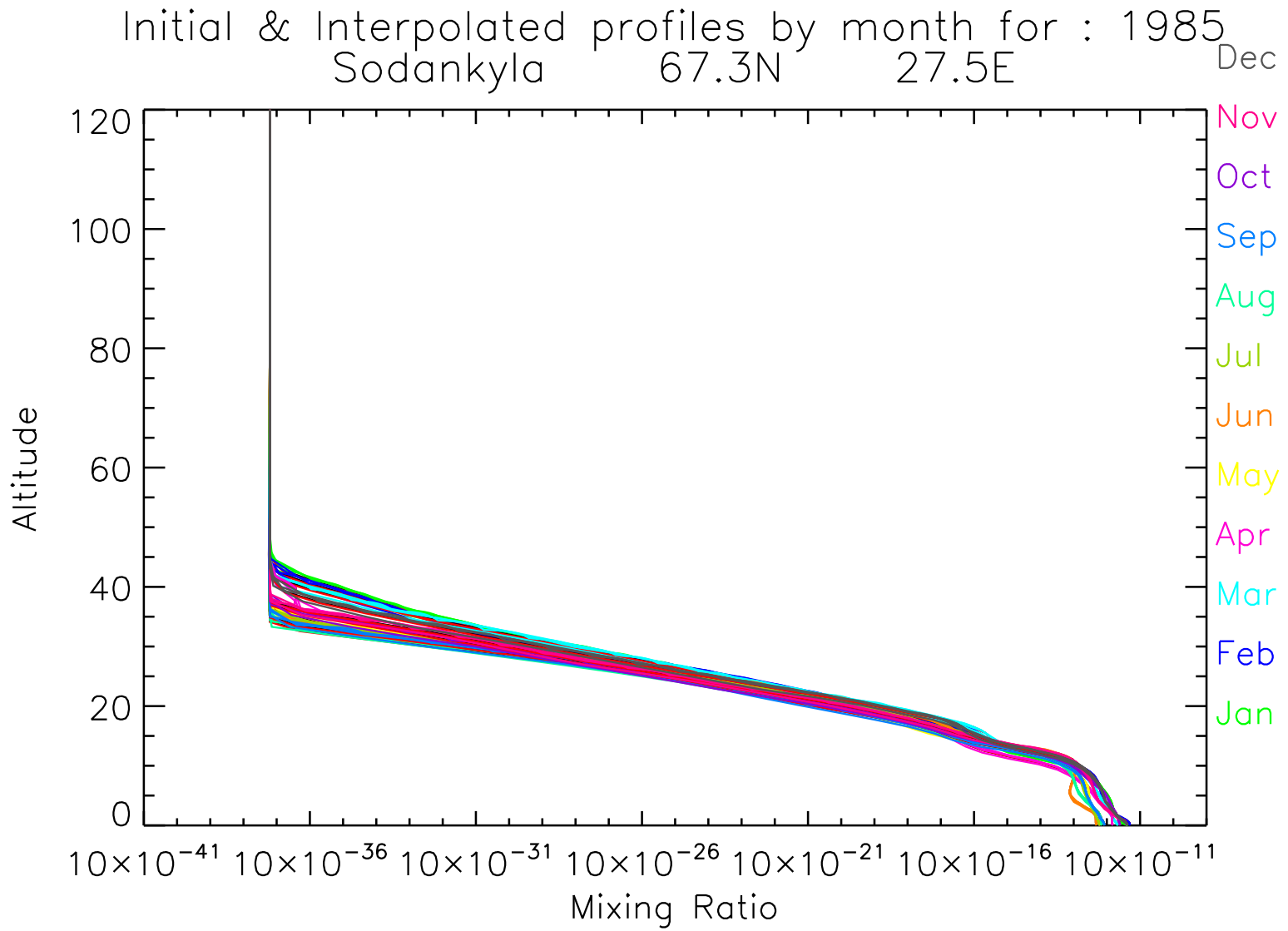
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Sodankyla 67.3N 27.5E
Dec
Nov
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Apr
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Feb
Jan
Altitude
120
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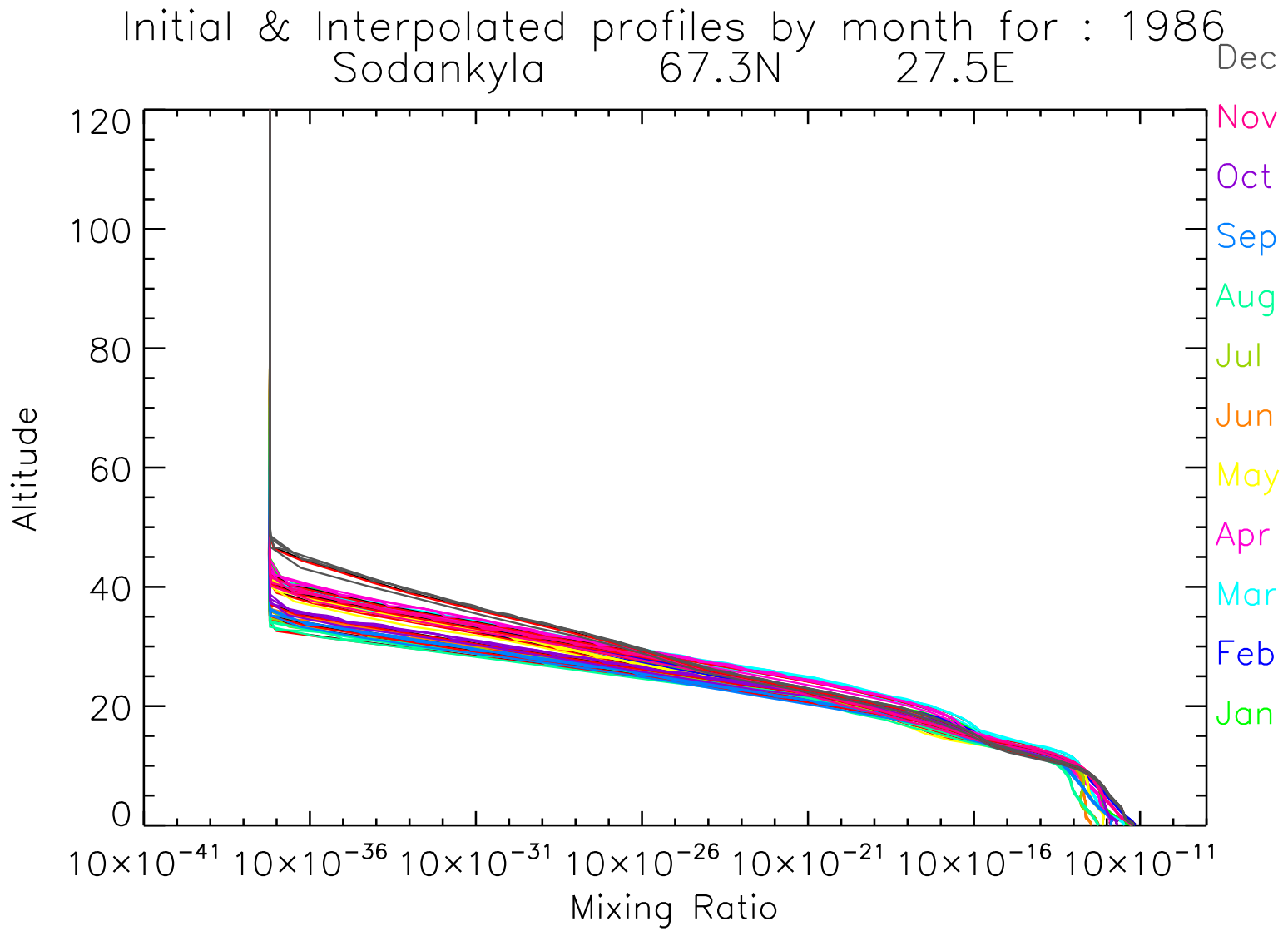
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
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Jun
May
Apr
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Feb
Jan
Altitude
120
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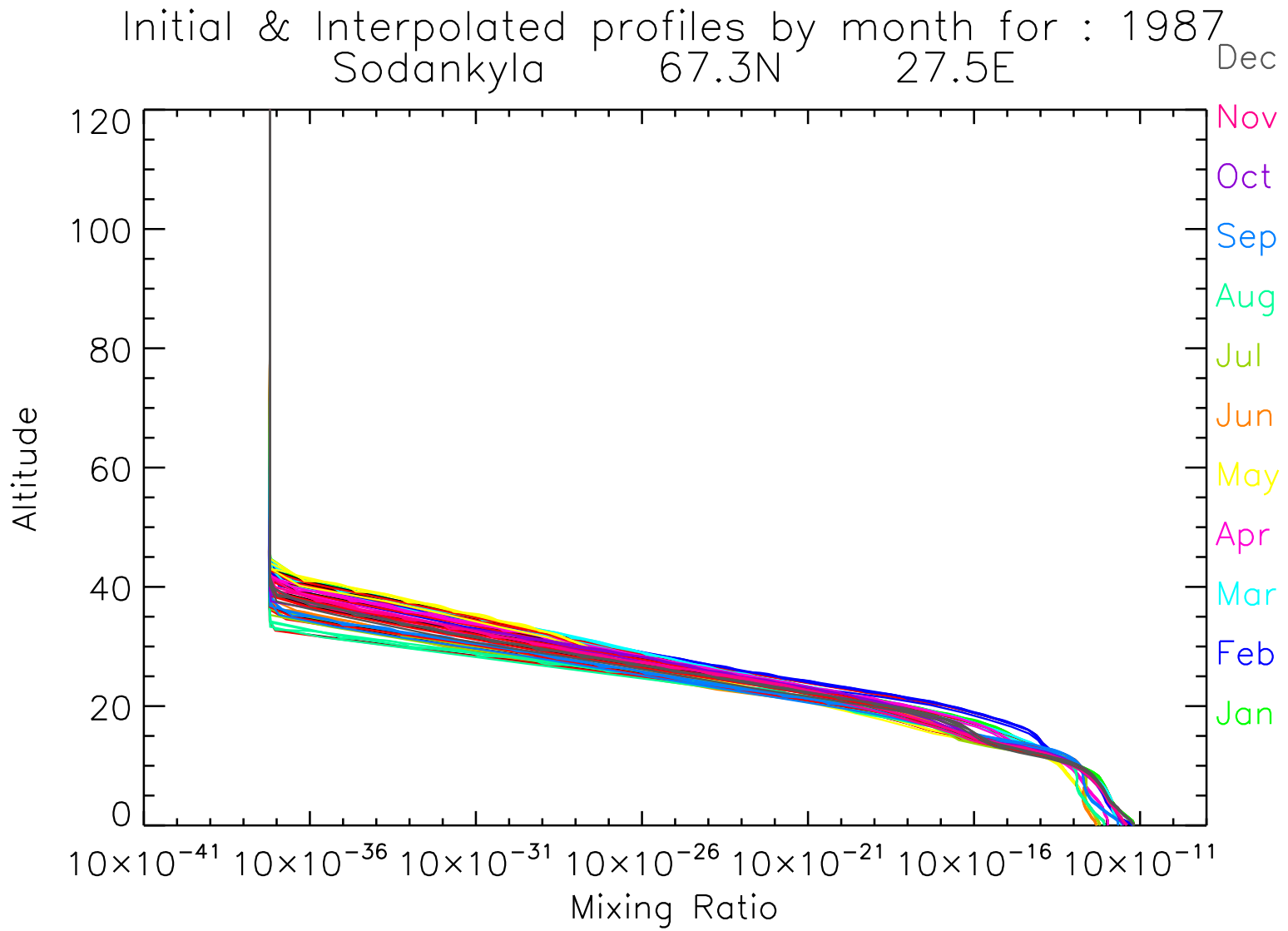
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
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Apr
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Feb
Jan
Altitude
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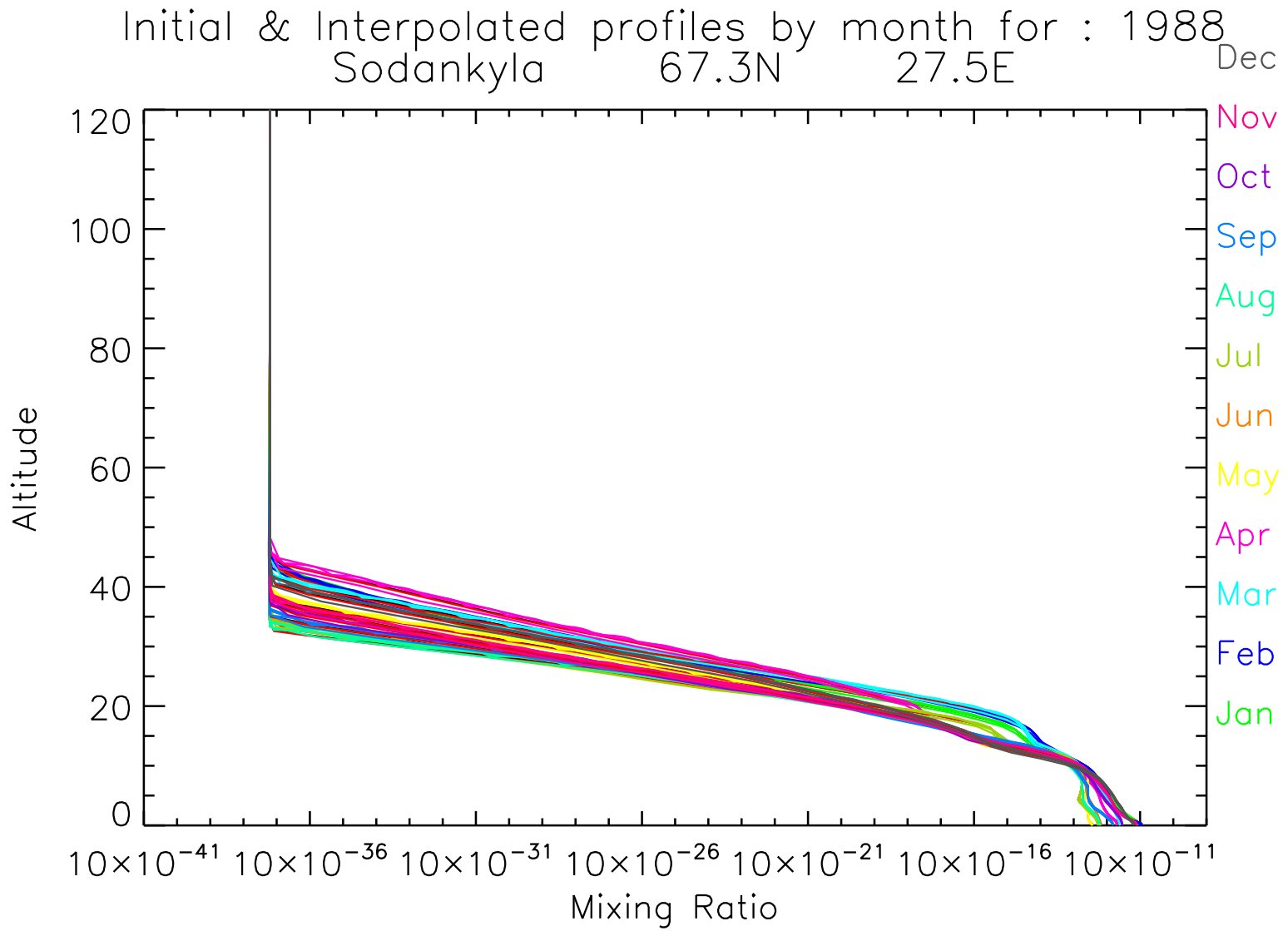
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1988
Sodankyla 67.3N 27.5E
Dec
Nov
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Altitude
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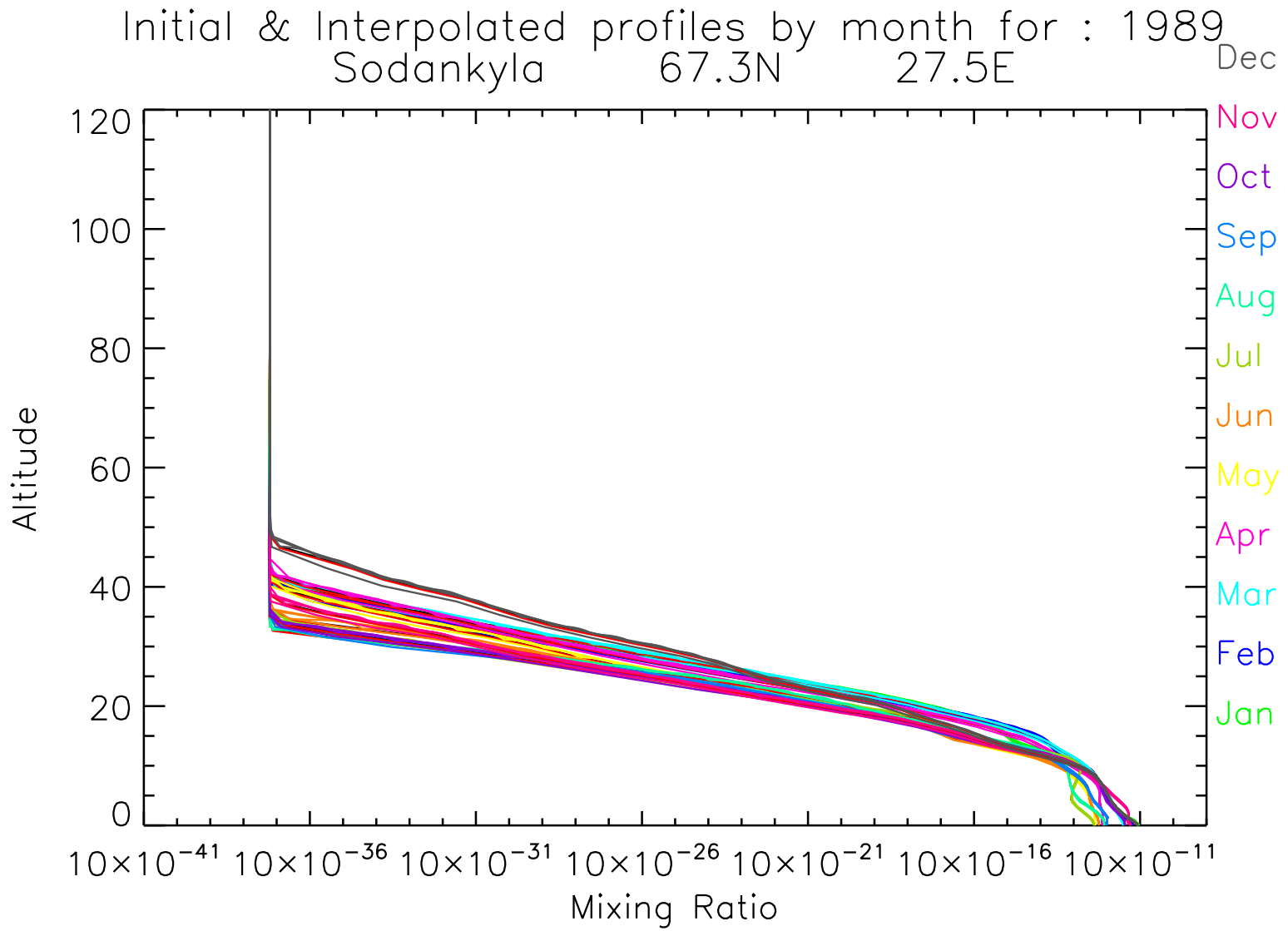
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
Sodankyla 67.3N 27.5E
Dec
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Altitude
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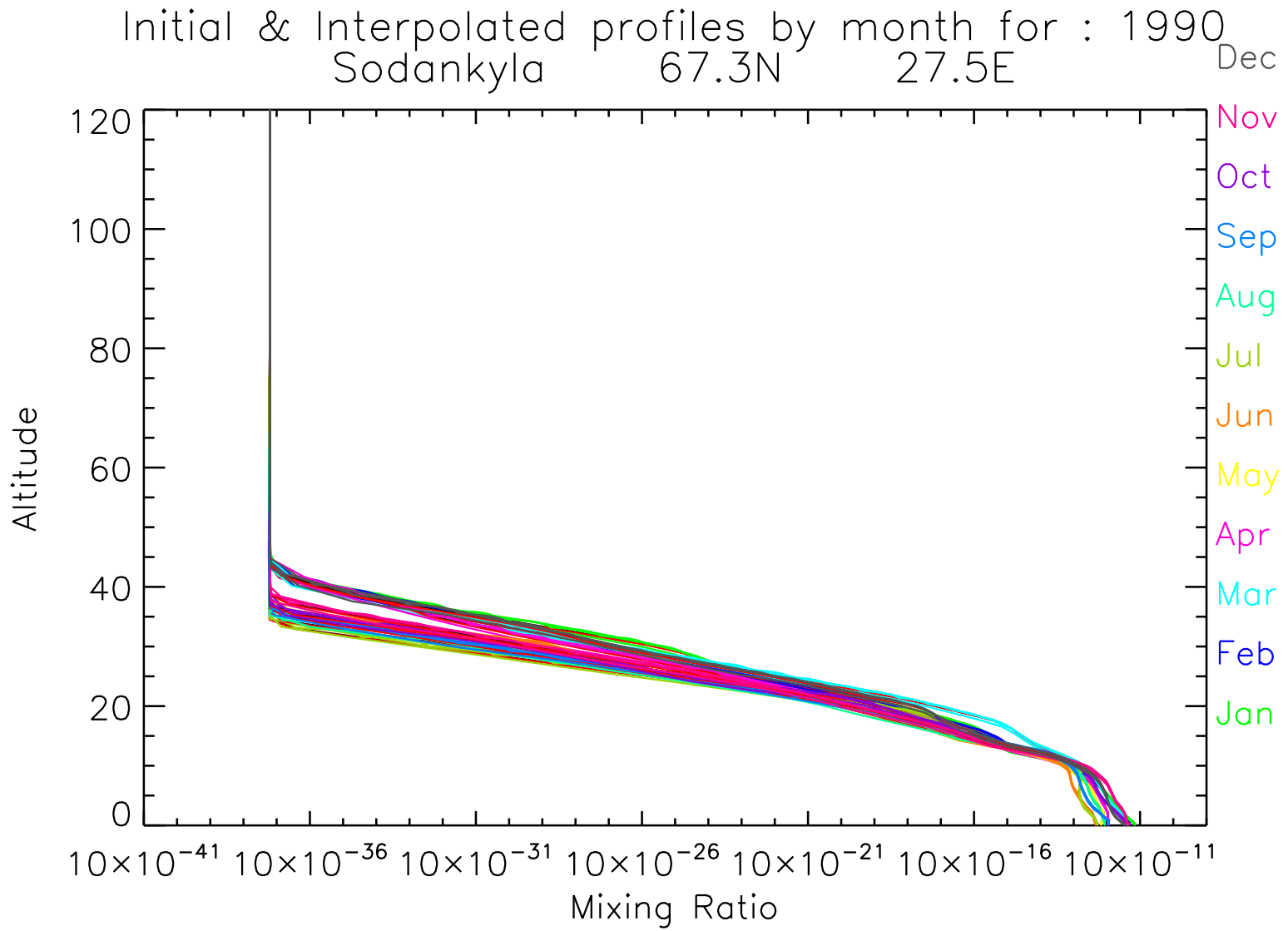
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
Sodankyla 67.3N 27.5E
Dec
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Altitude
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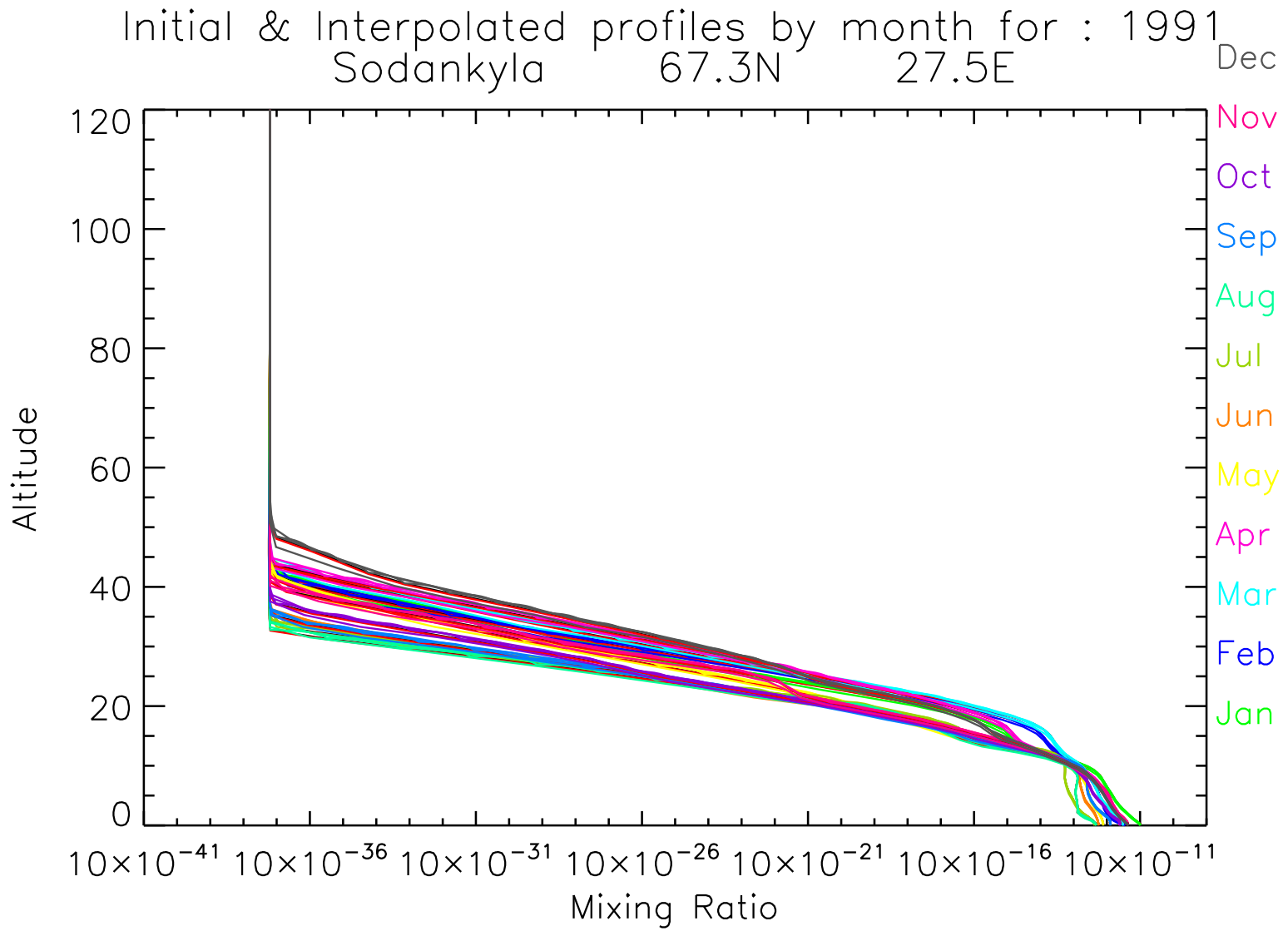
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
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May
Apr
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Feb
Jan
Altitude
120
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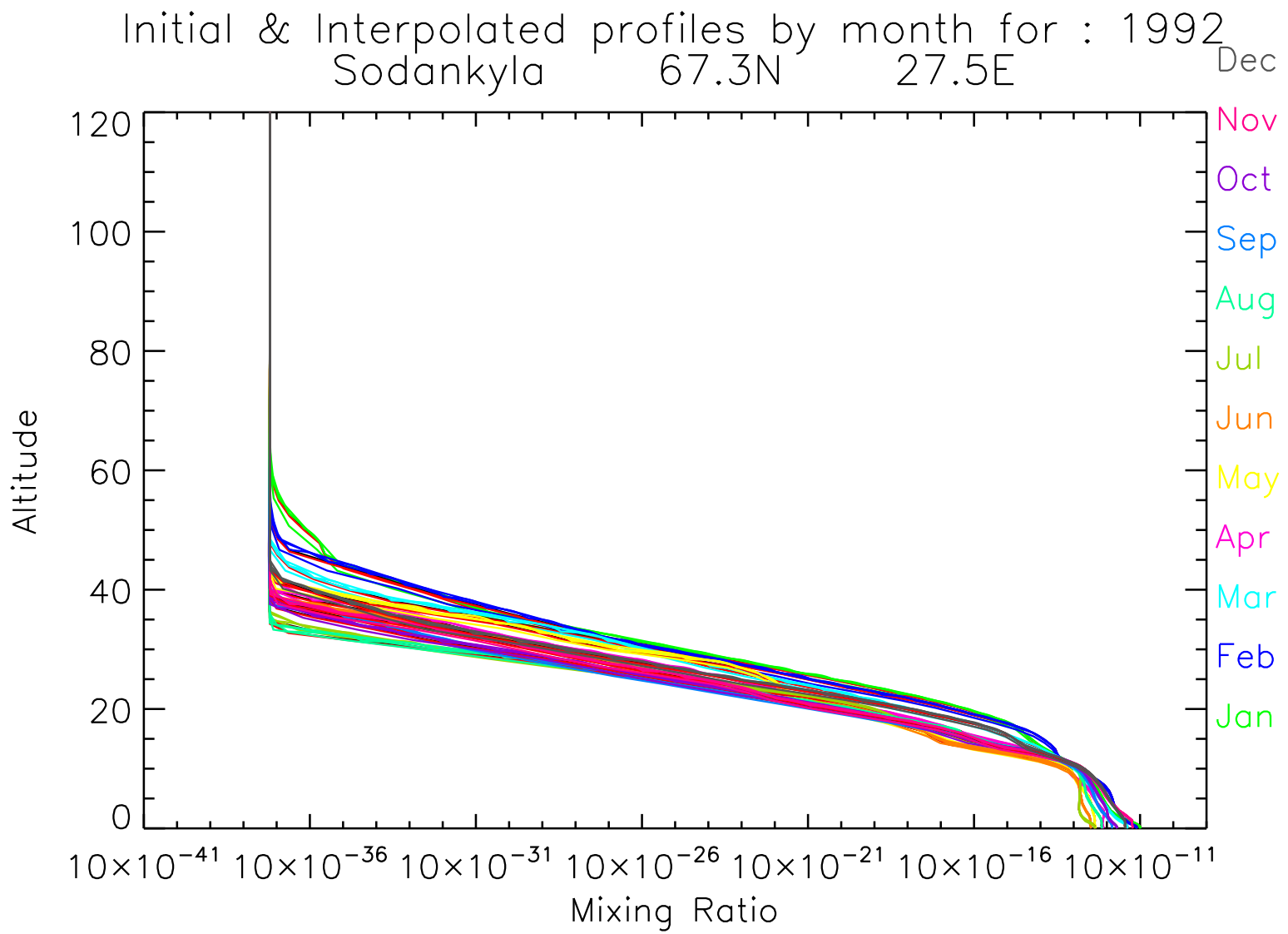
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
Sodankyla 67.3N 27.5E
Dec
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Altitude
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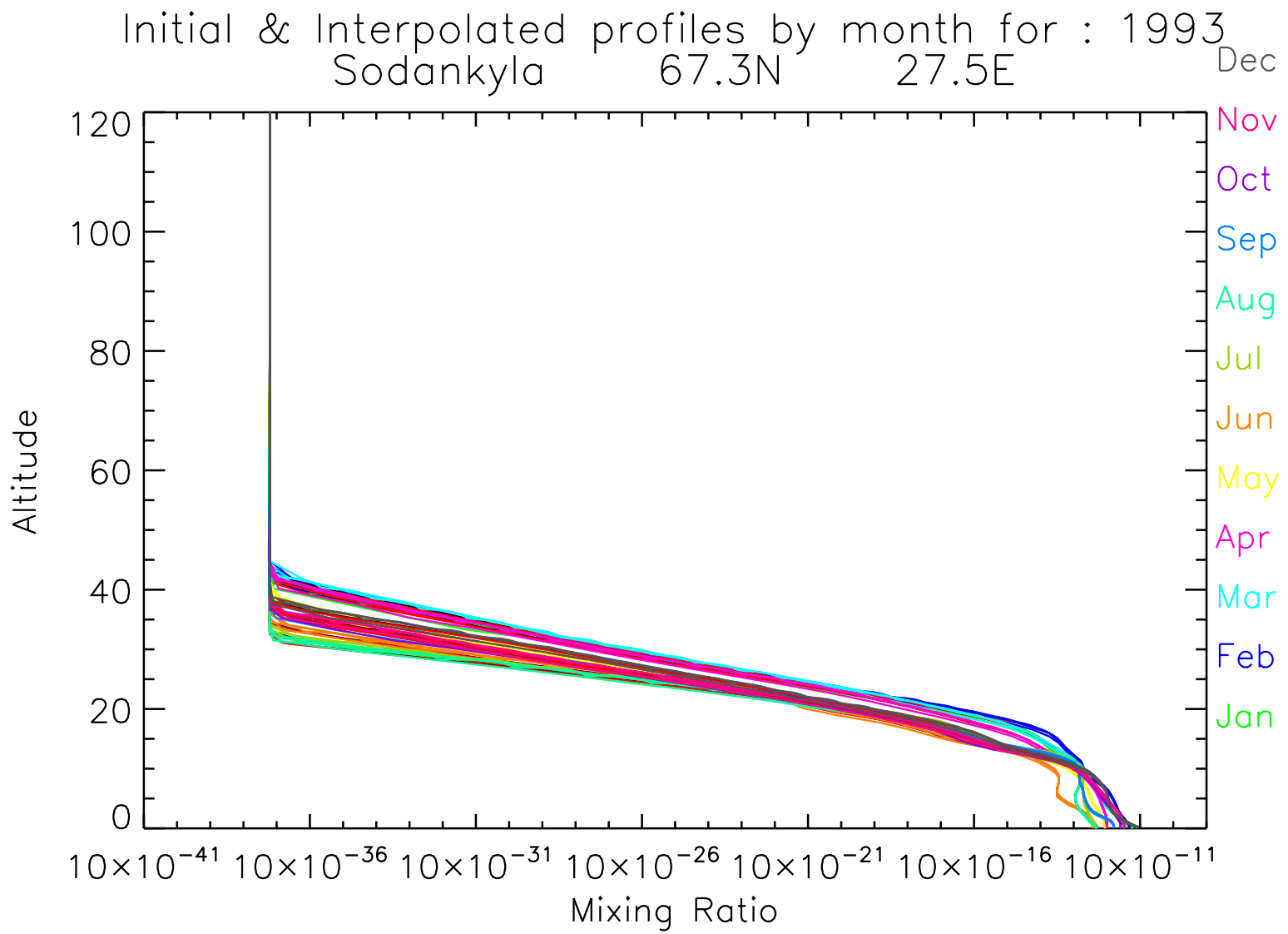
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
Sodankyla 67.3N 27.5E
Dec
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Apr
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Altitude
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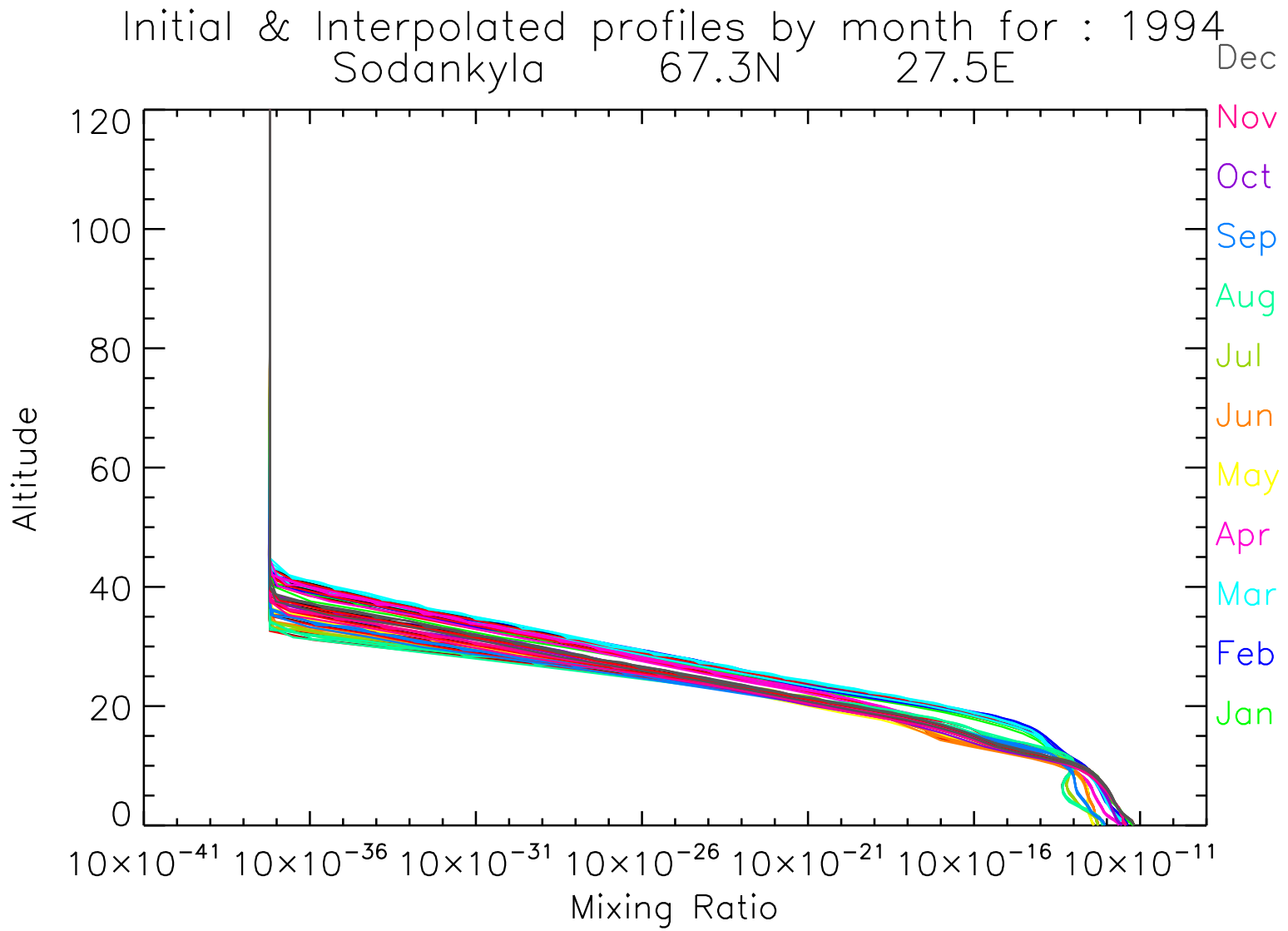
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1994
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
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Apr
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Feb
Jan
Altitude
120
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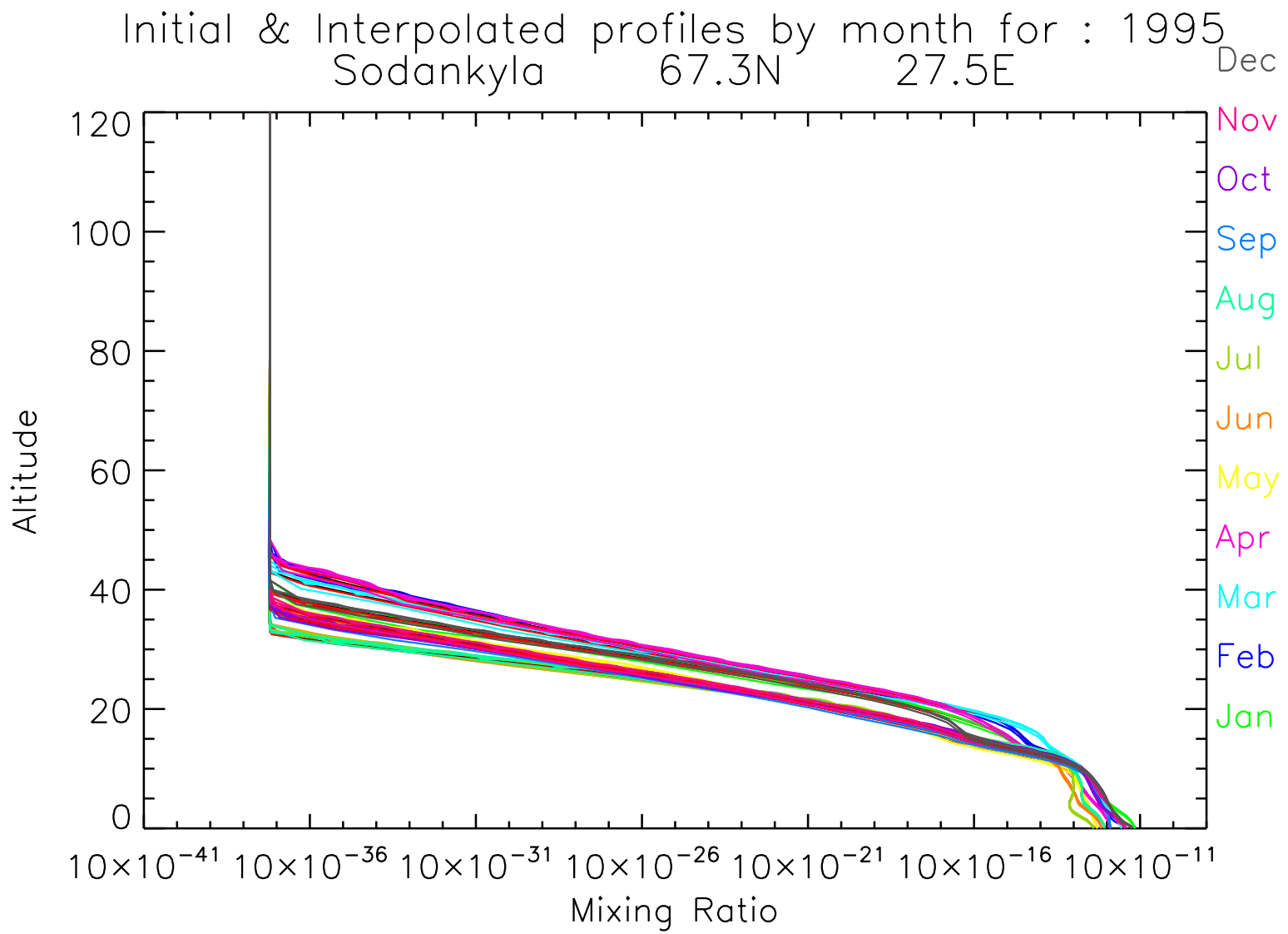
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
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Jun
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Apr
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Feb
Jan
Altitude
120
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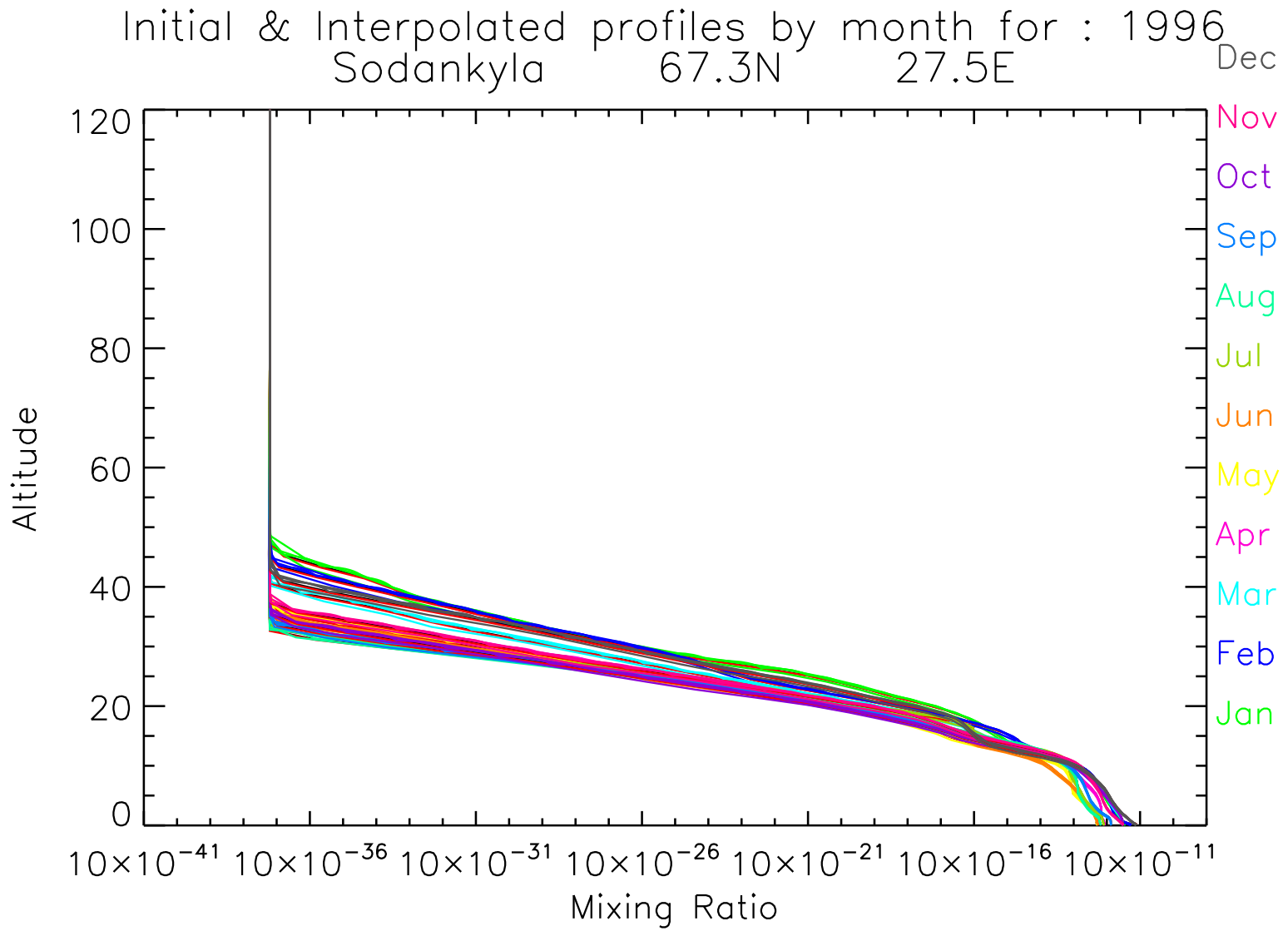
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
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Apr
Mar
Feb
Jan
Altitude
120
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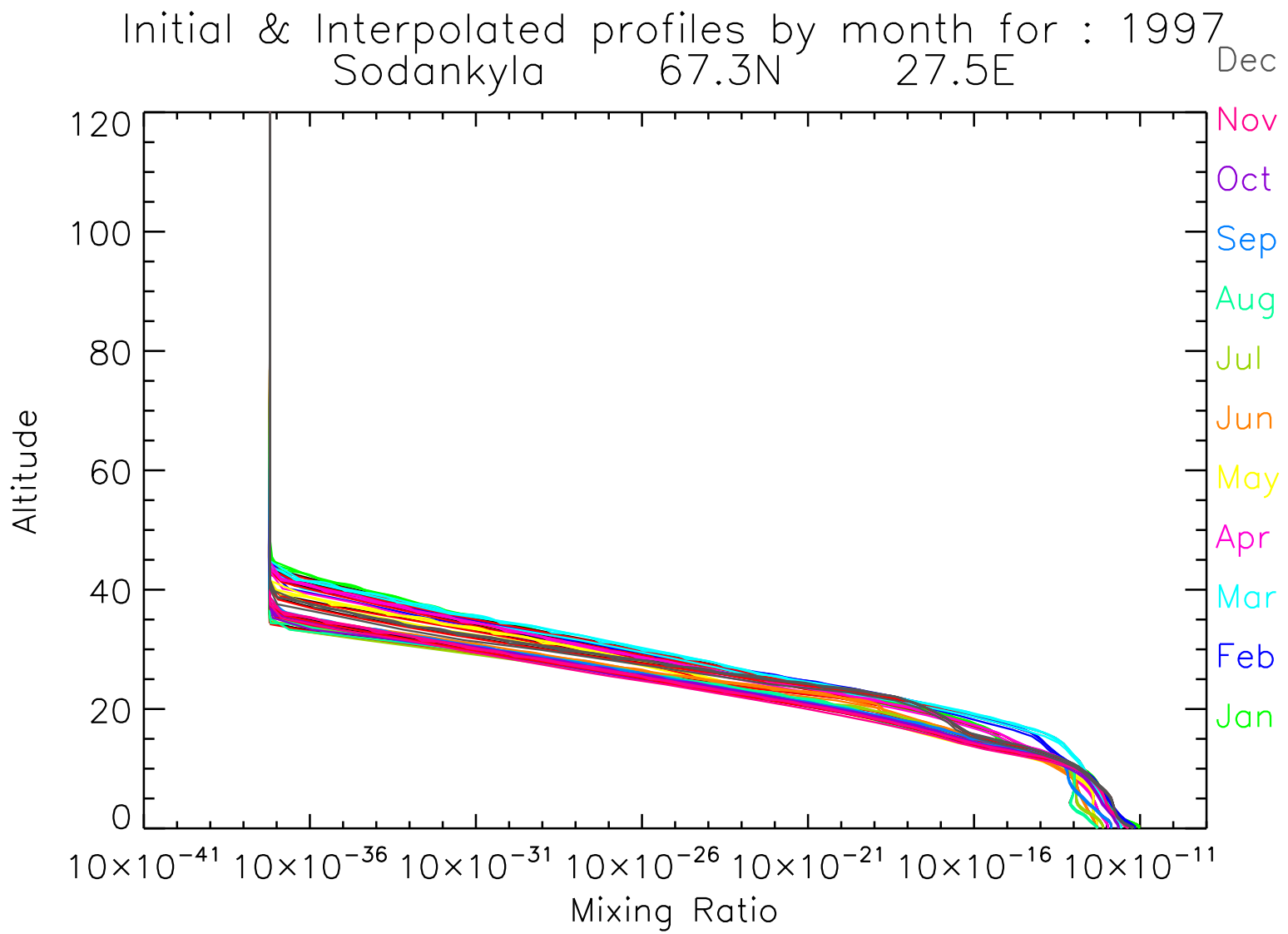
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
Sodankyla 67.3N 27.5E
Dec
Nov
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Jun
May
Apr
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Feb
Jan
Altitude
120
100
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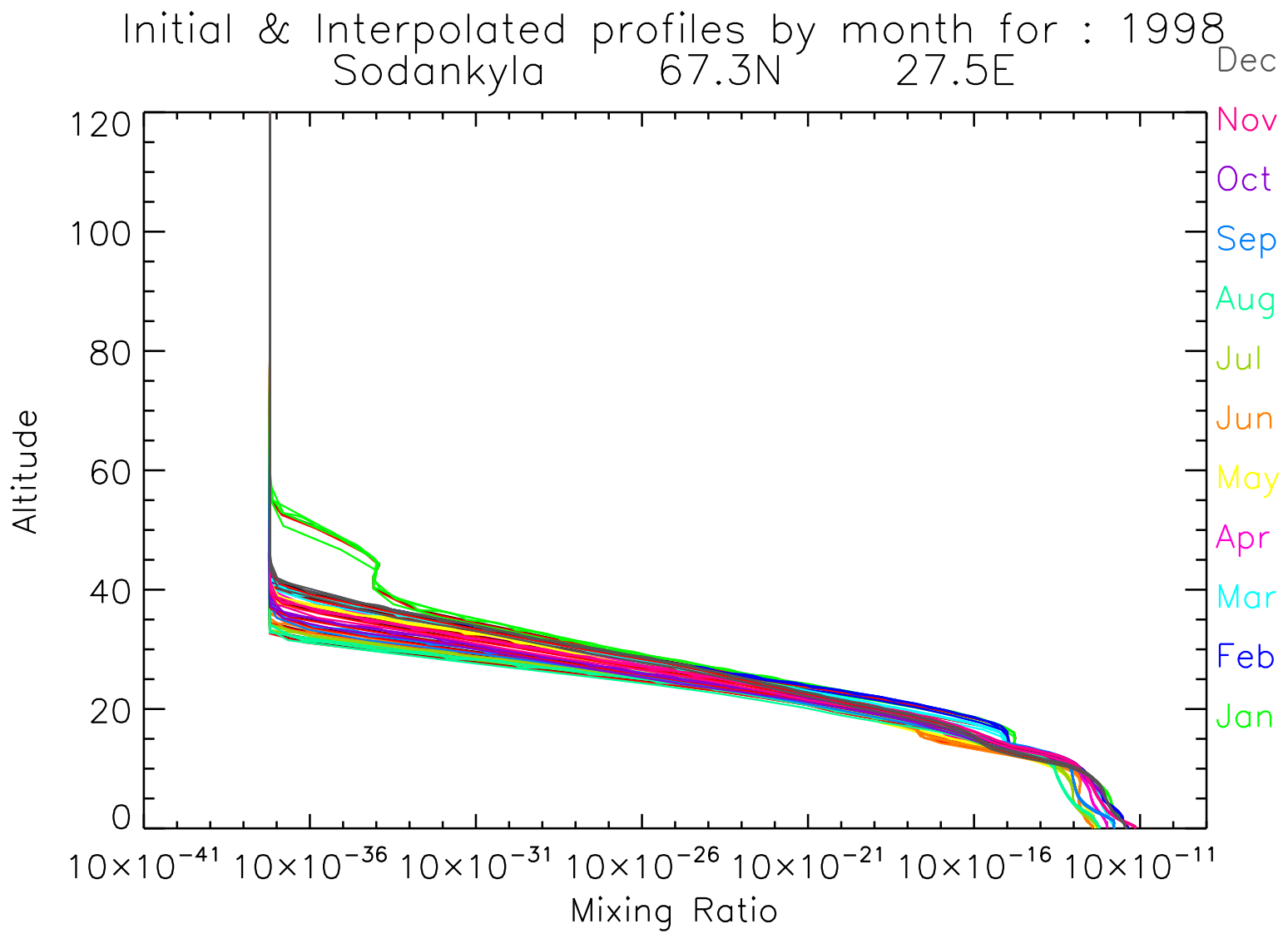
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
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Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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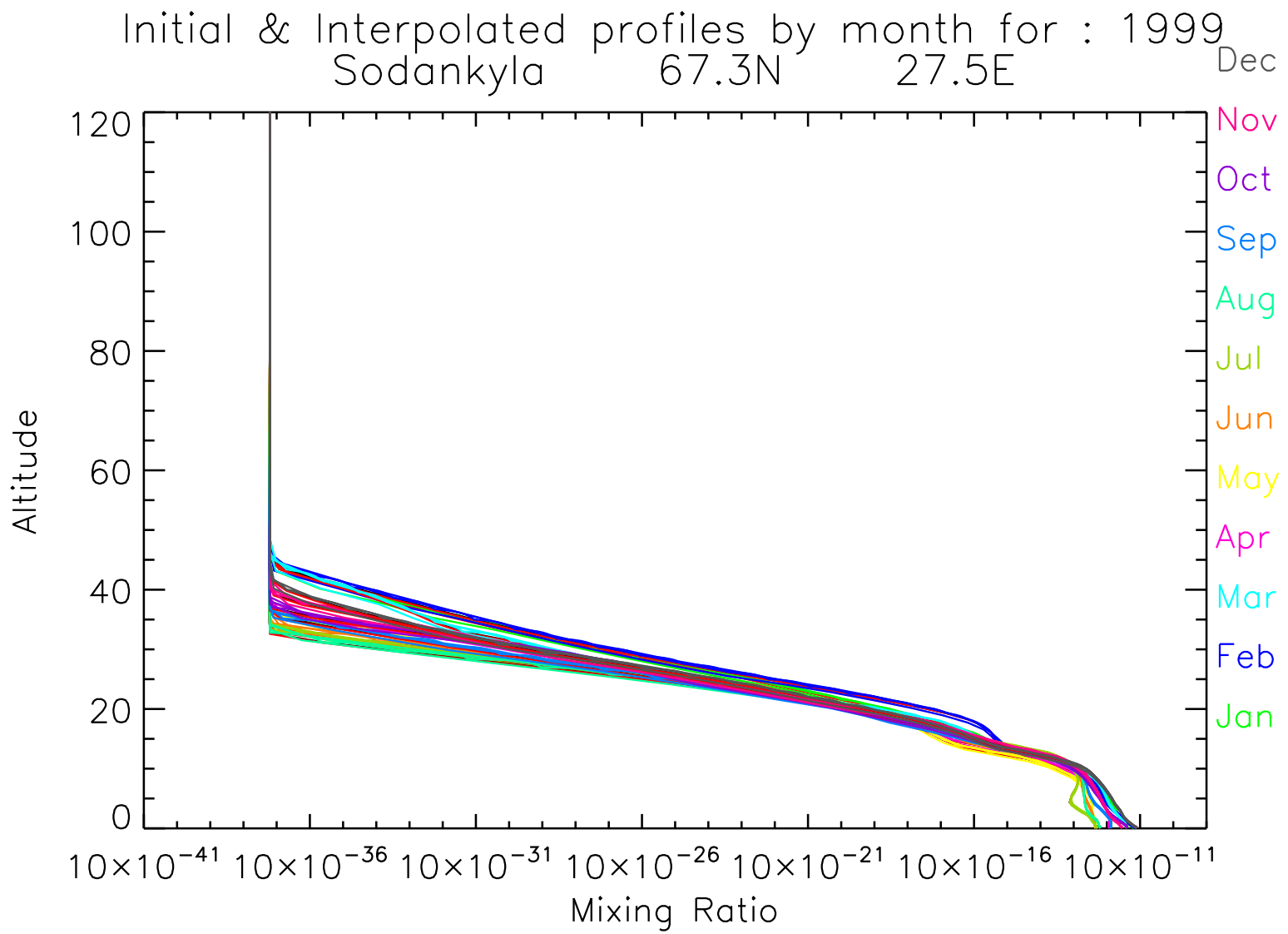
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1999
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
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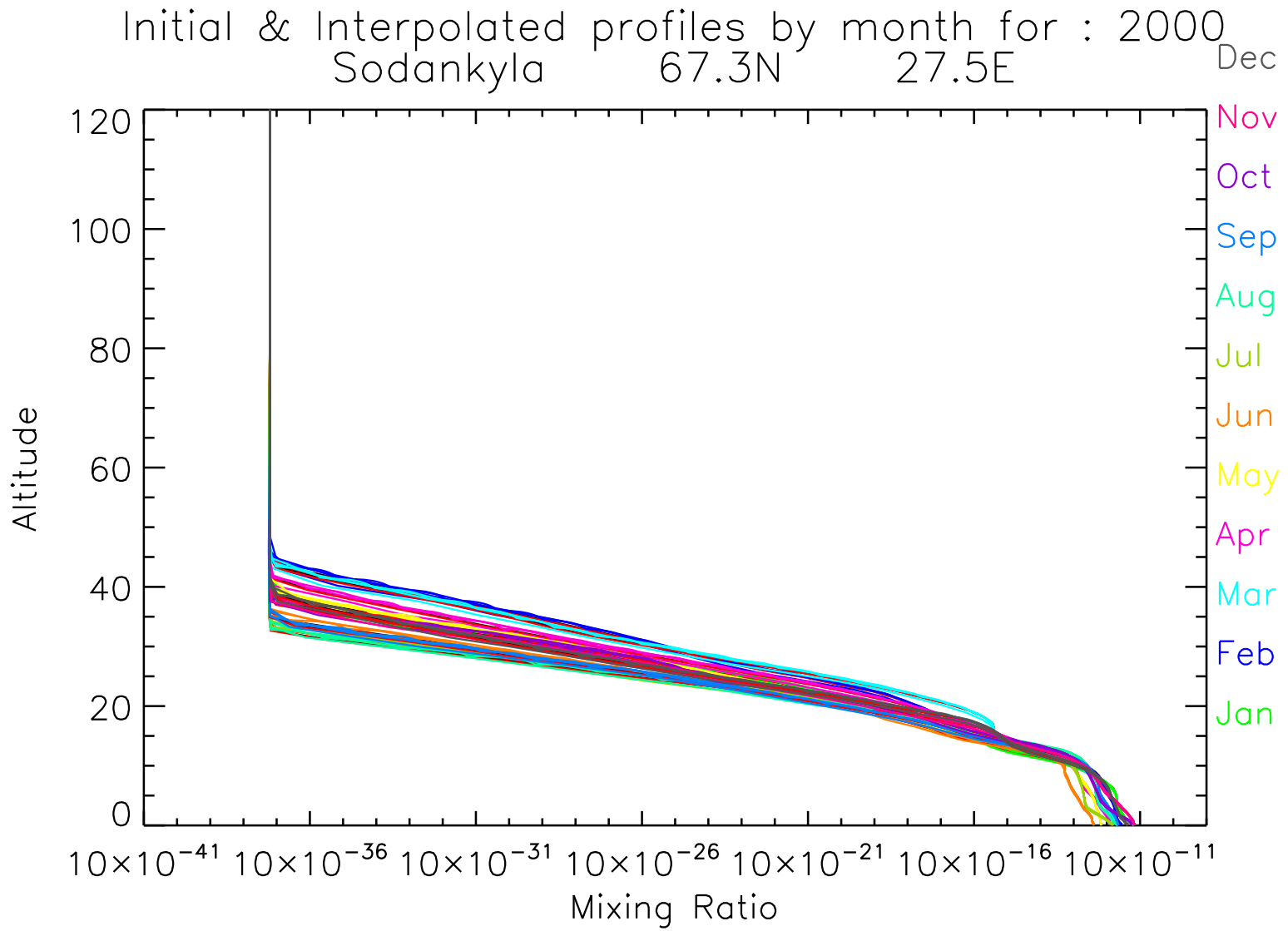
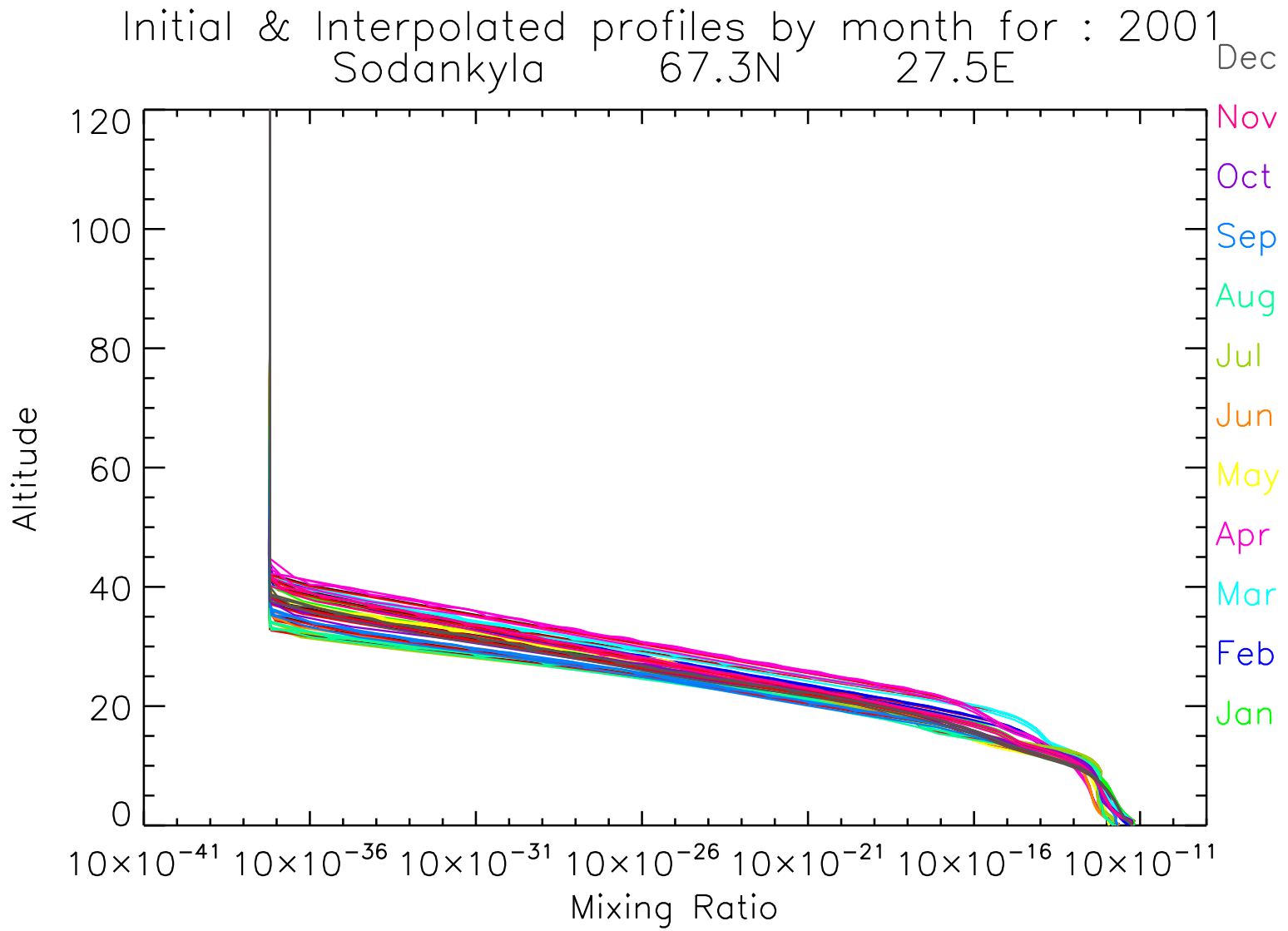
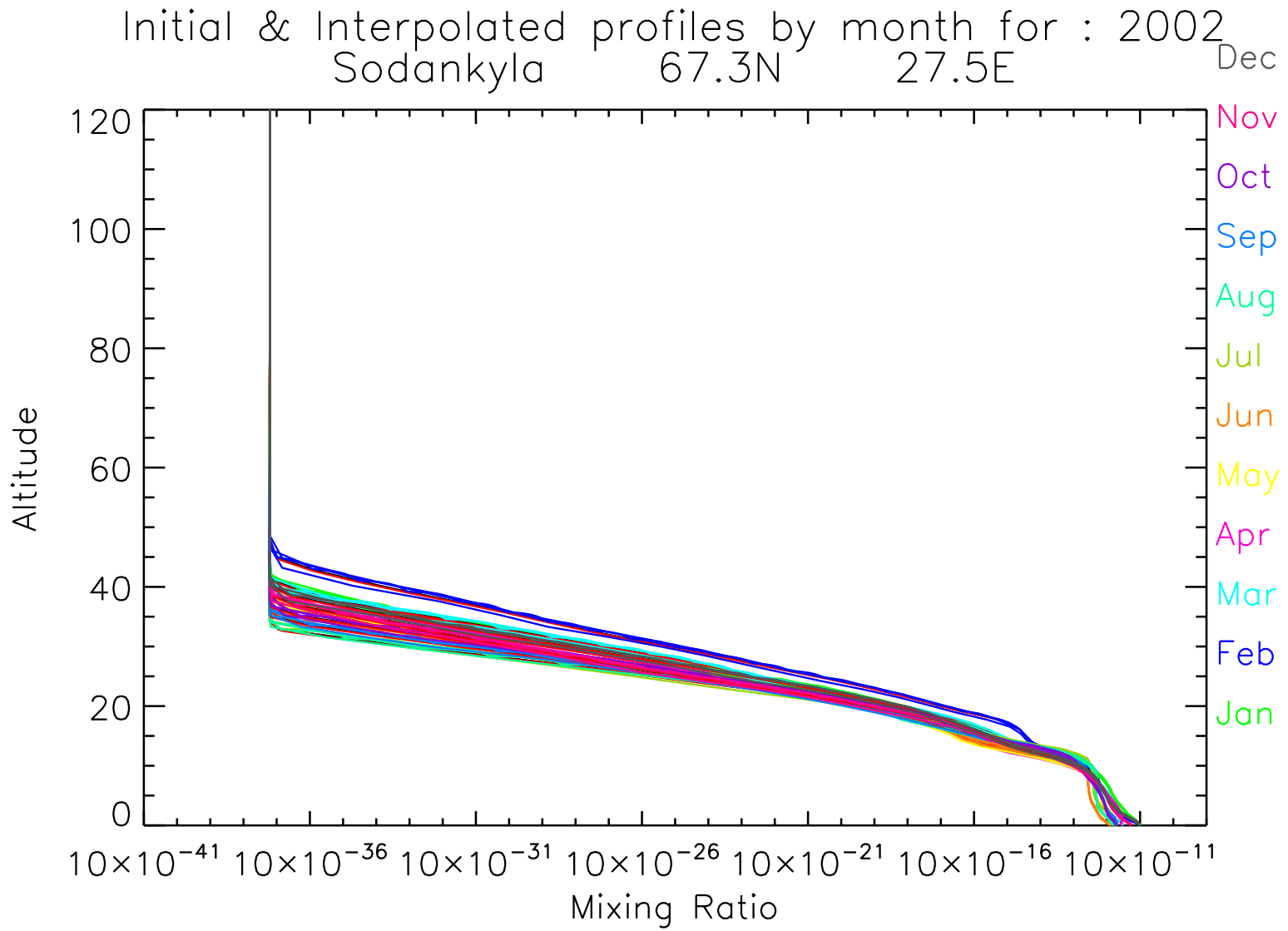
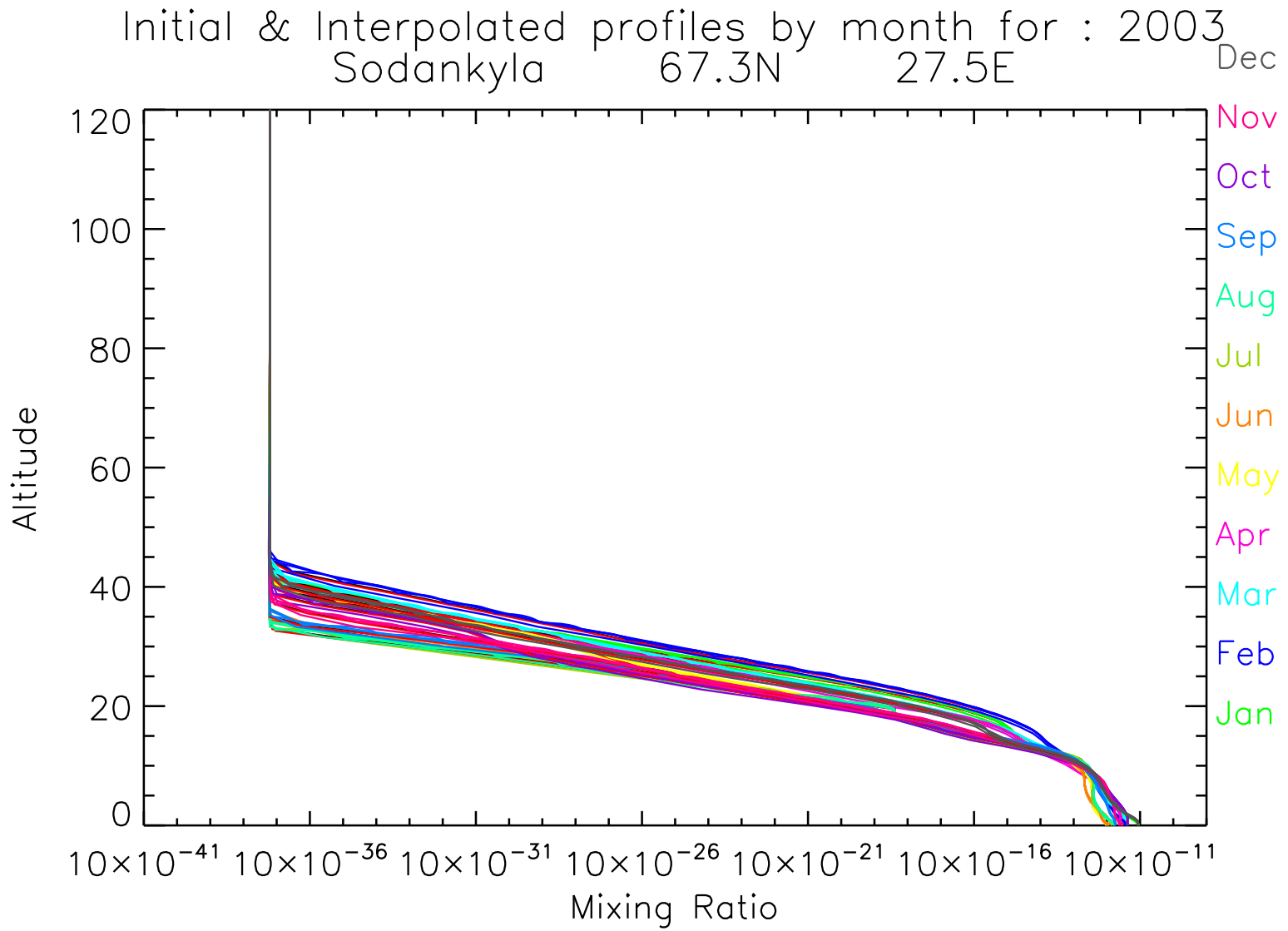
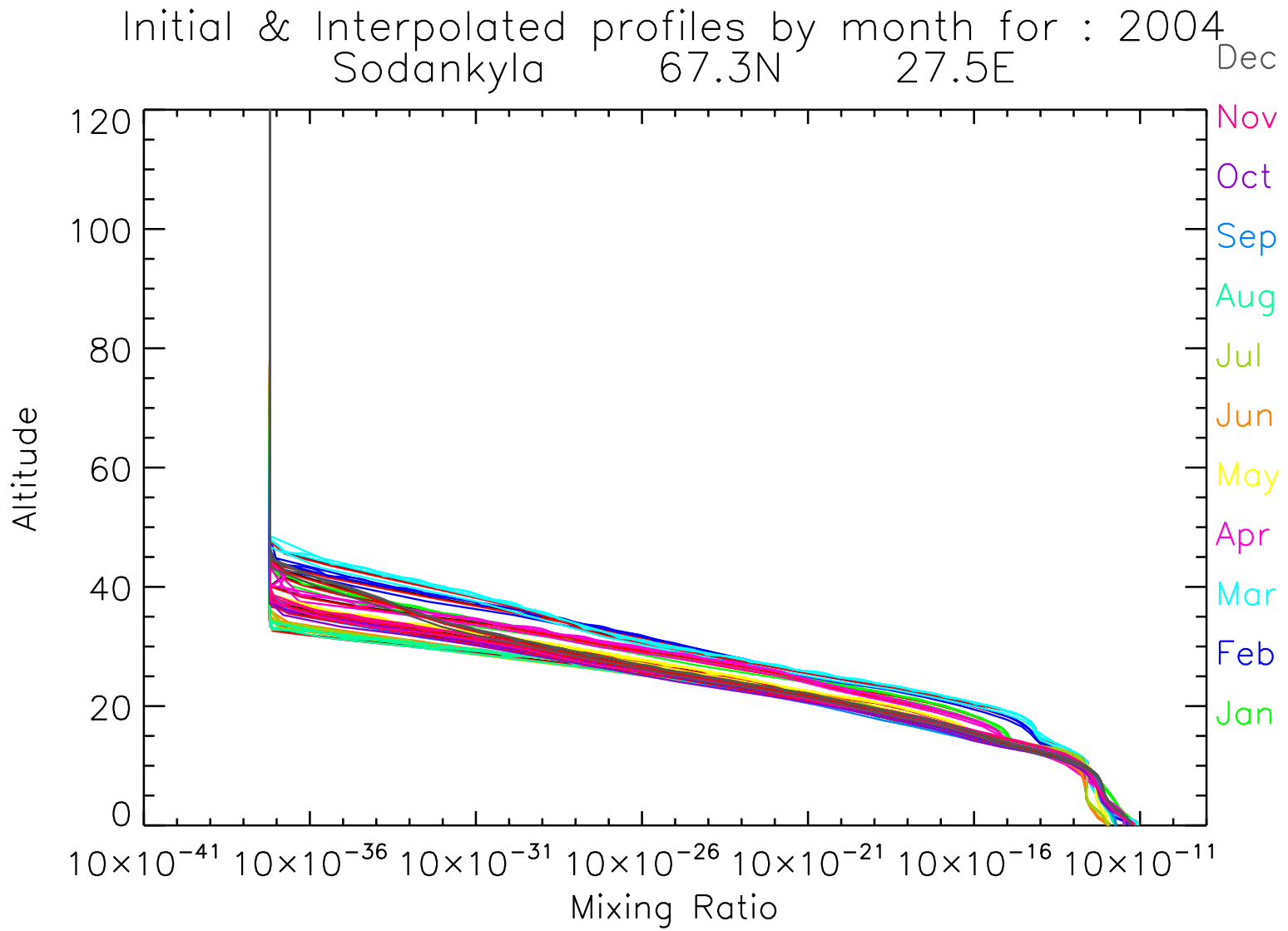
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

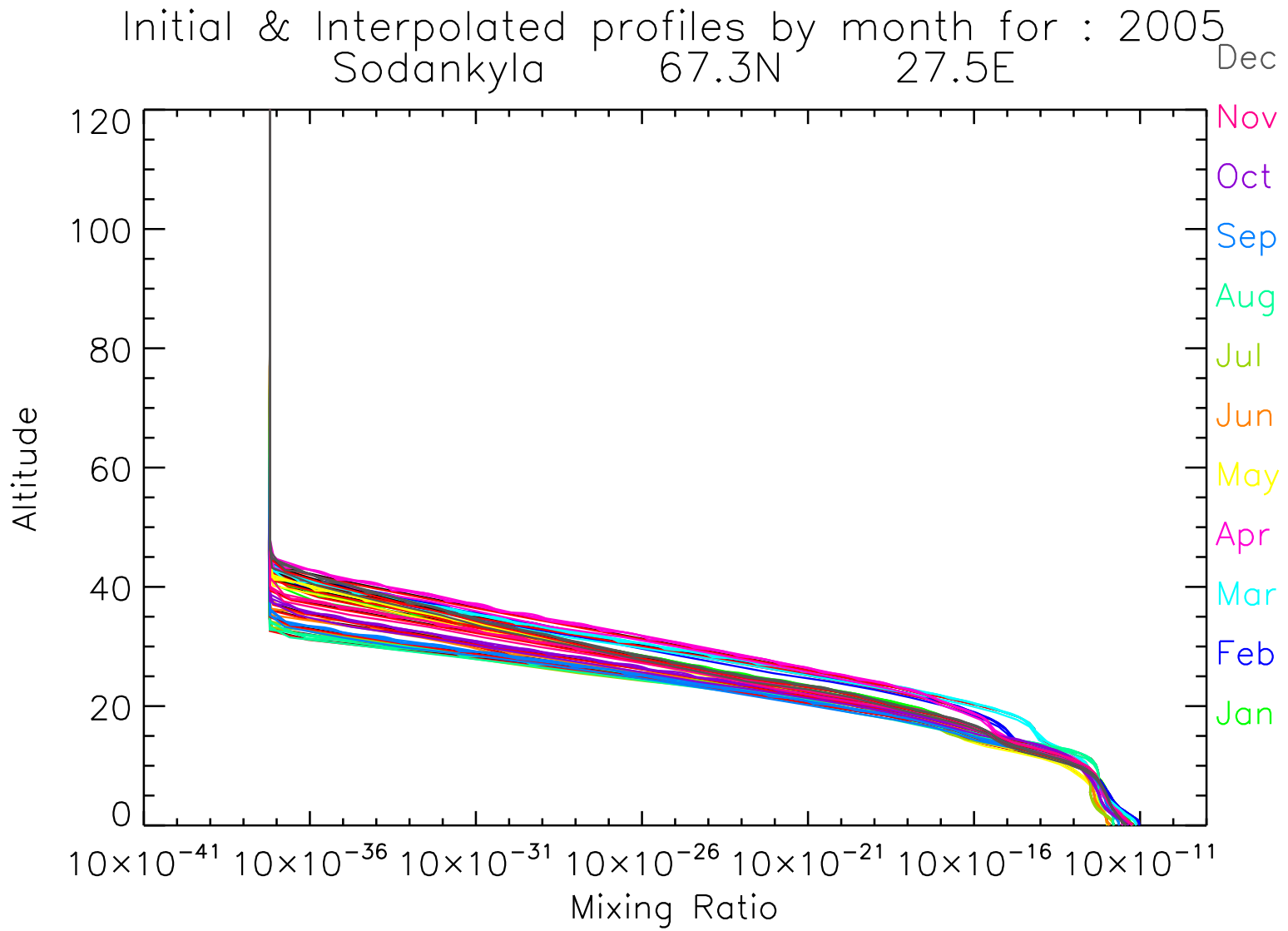

Initial & Interpolated profiles by month for : 2000
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2001
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


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
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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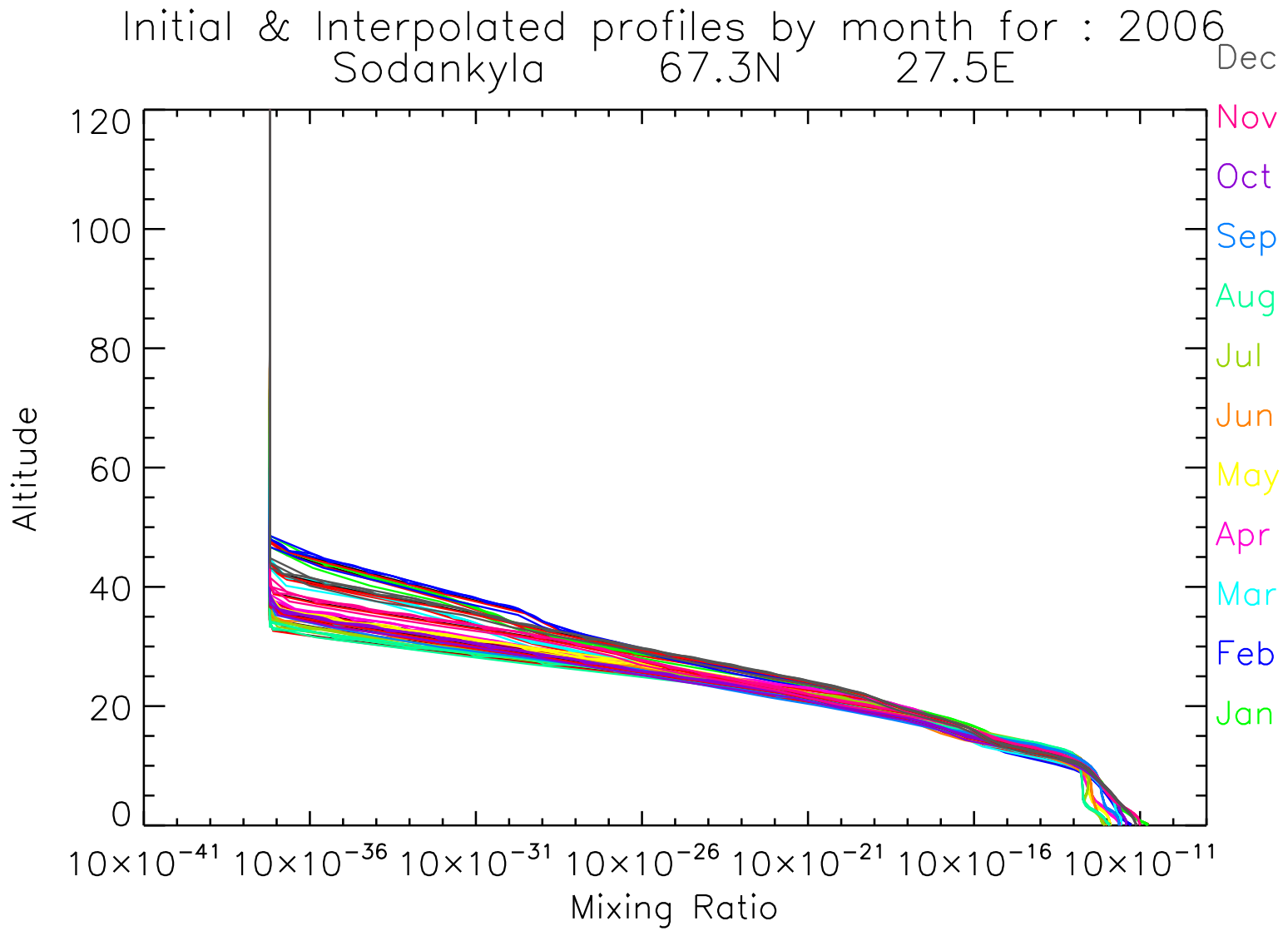
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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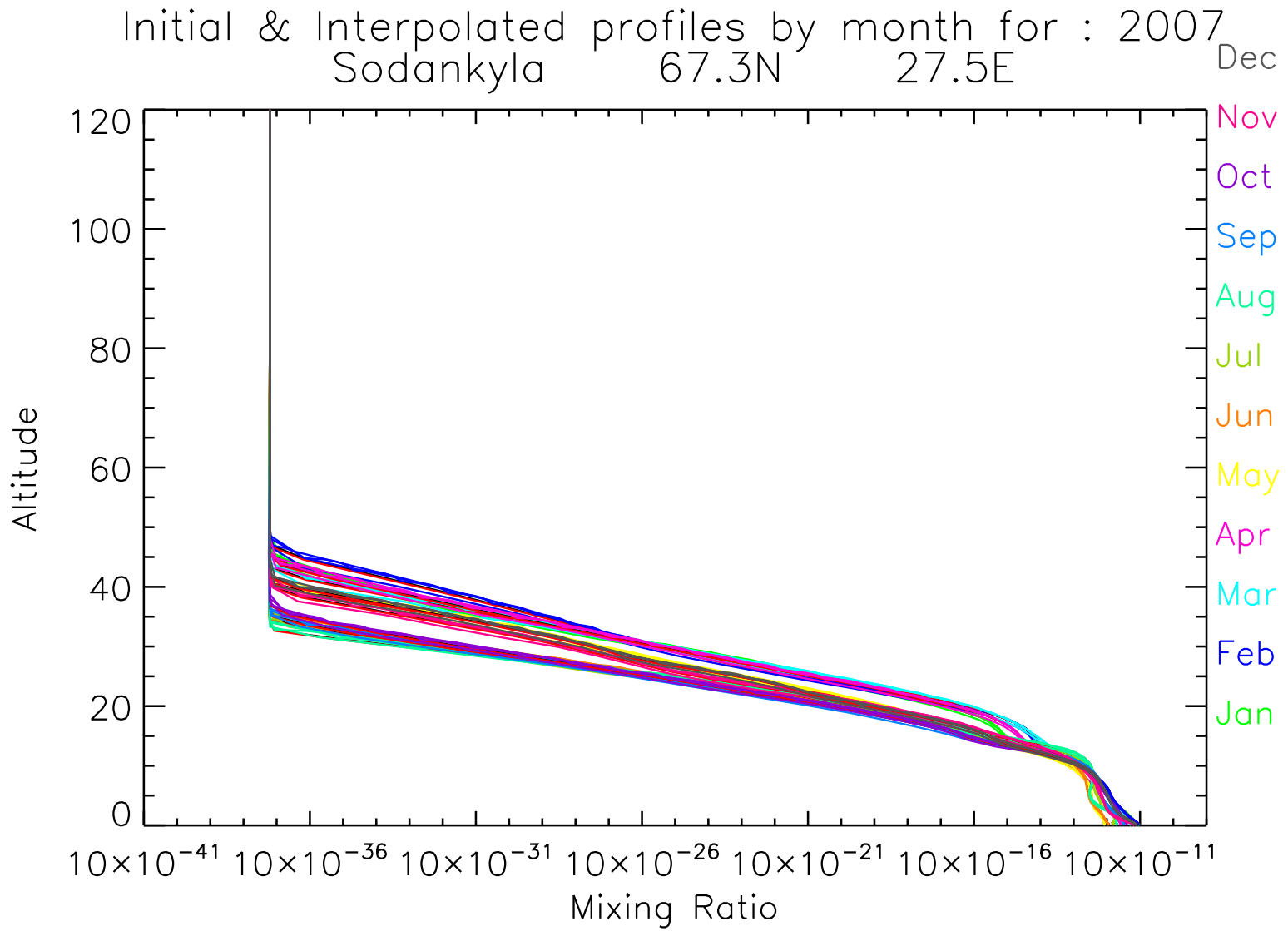
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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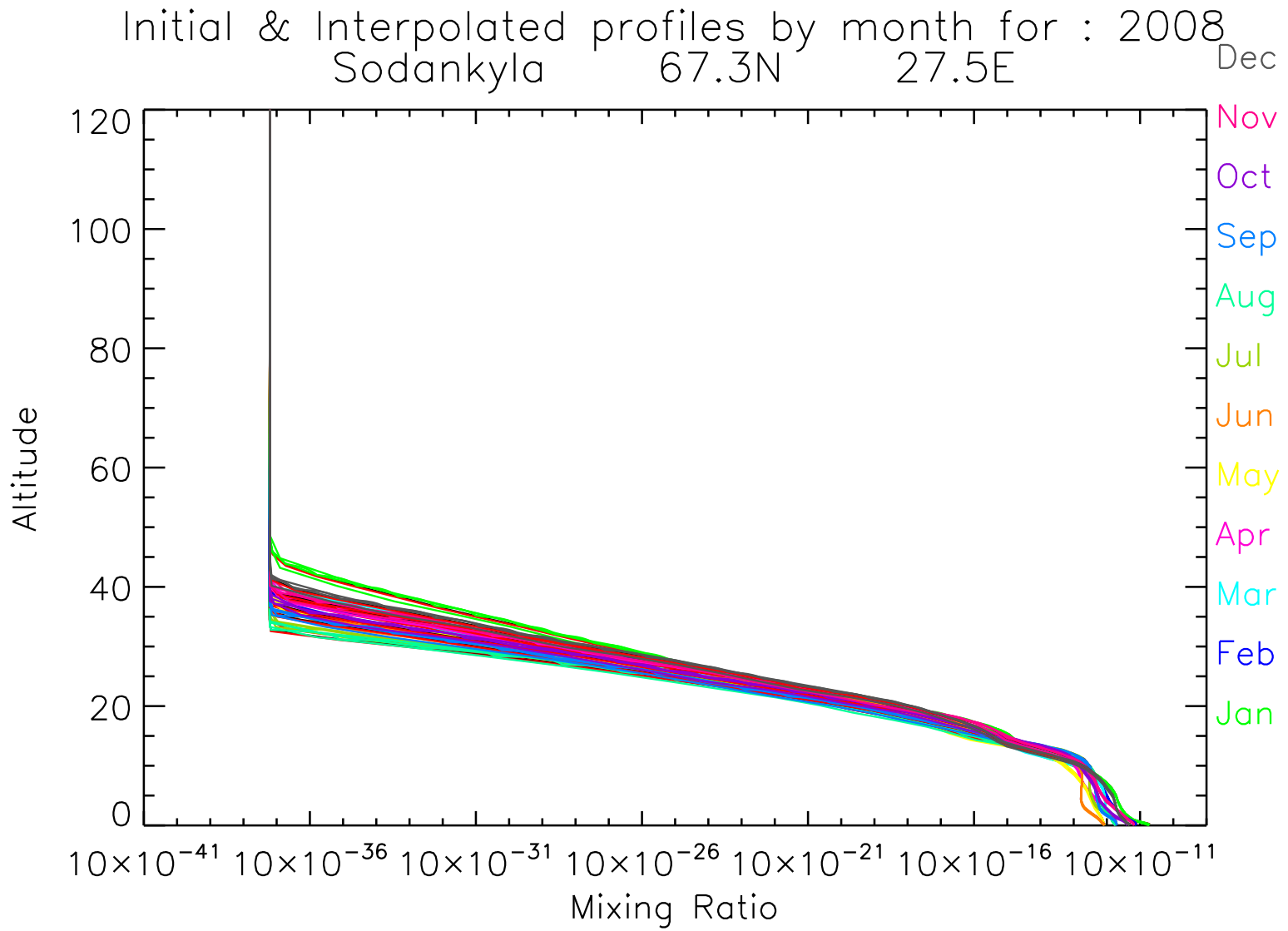
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
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Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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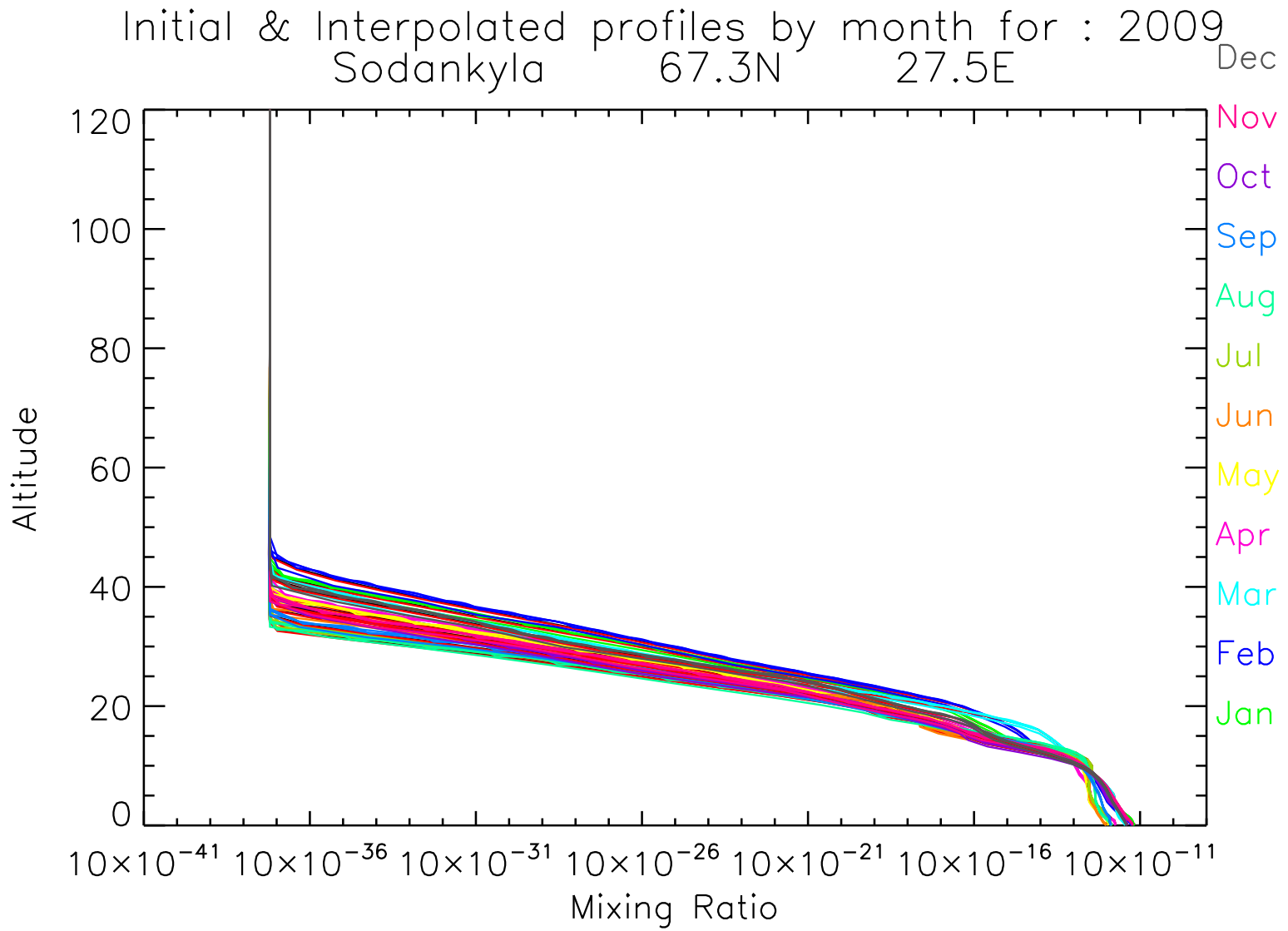
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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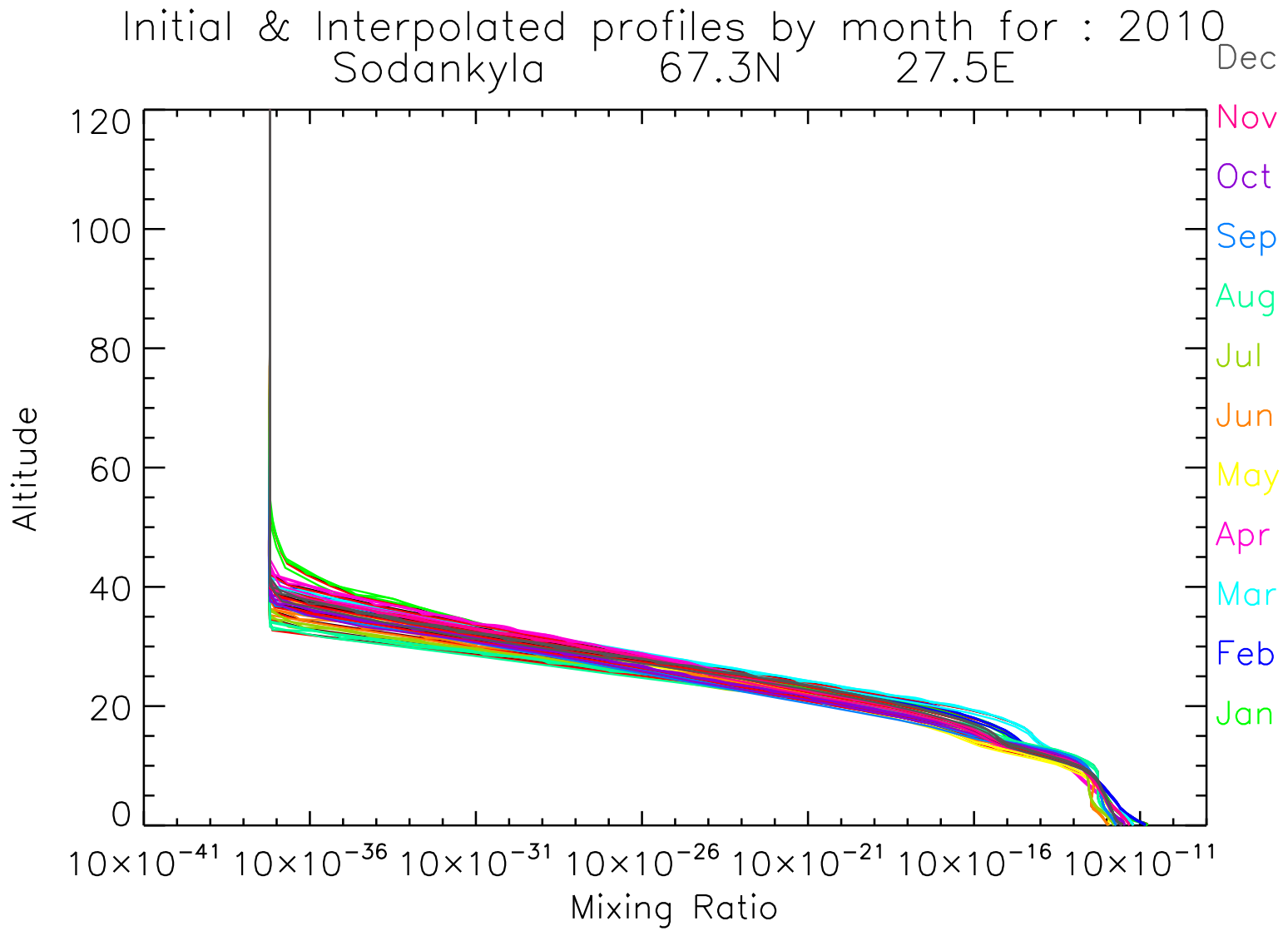
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2010
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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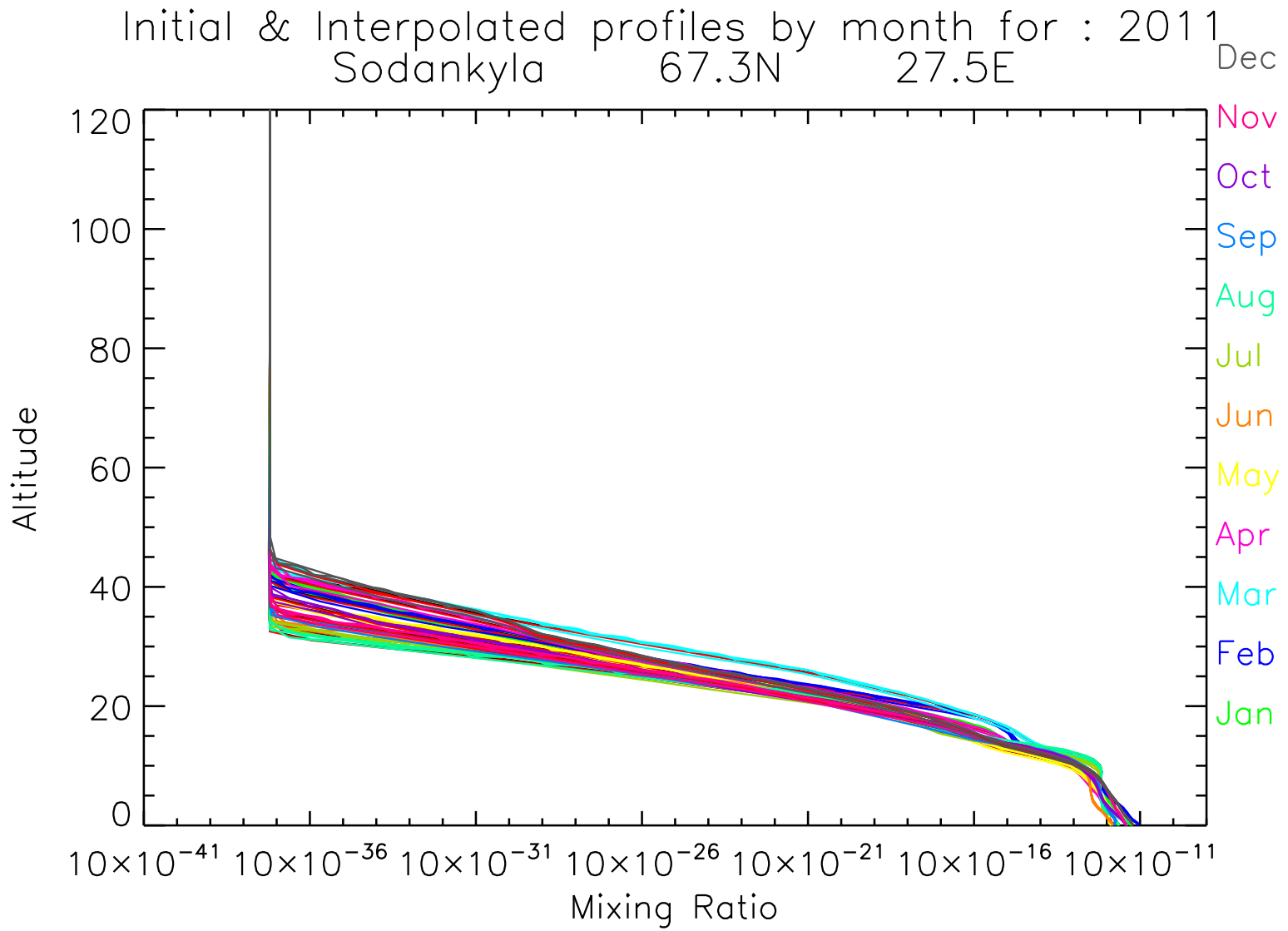
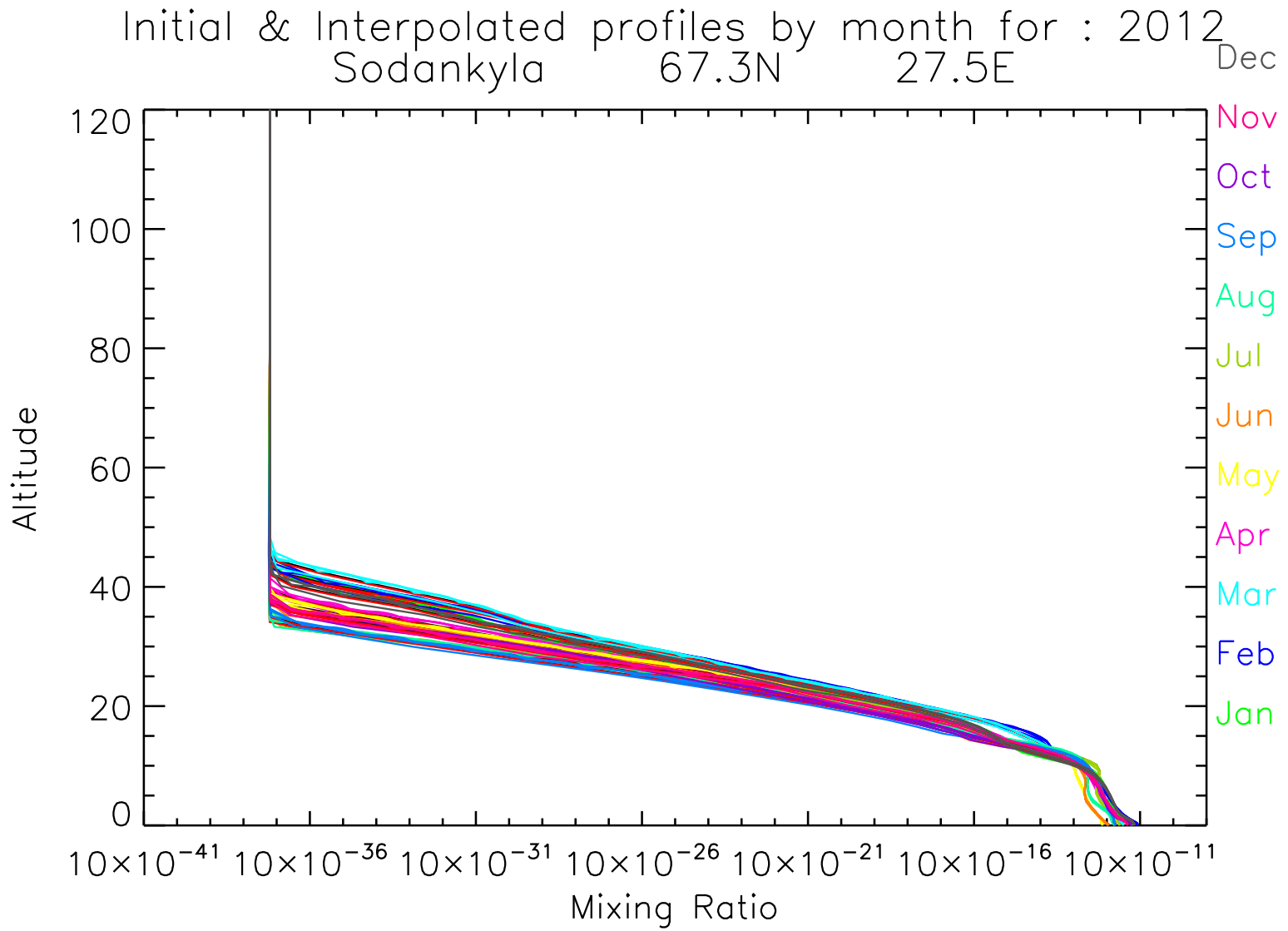
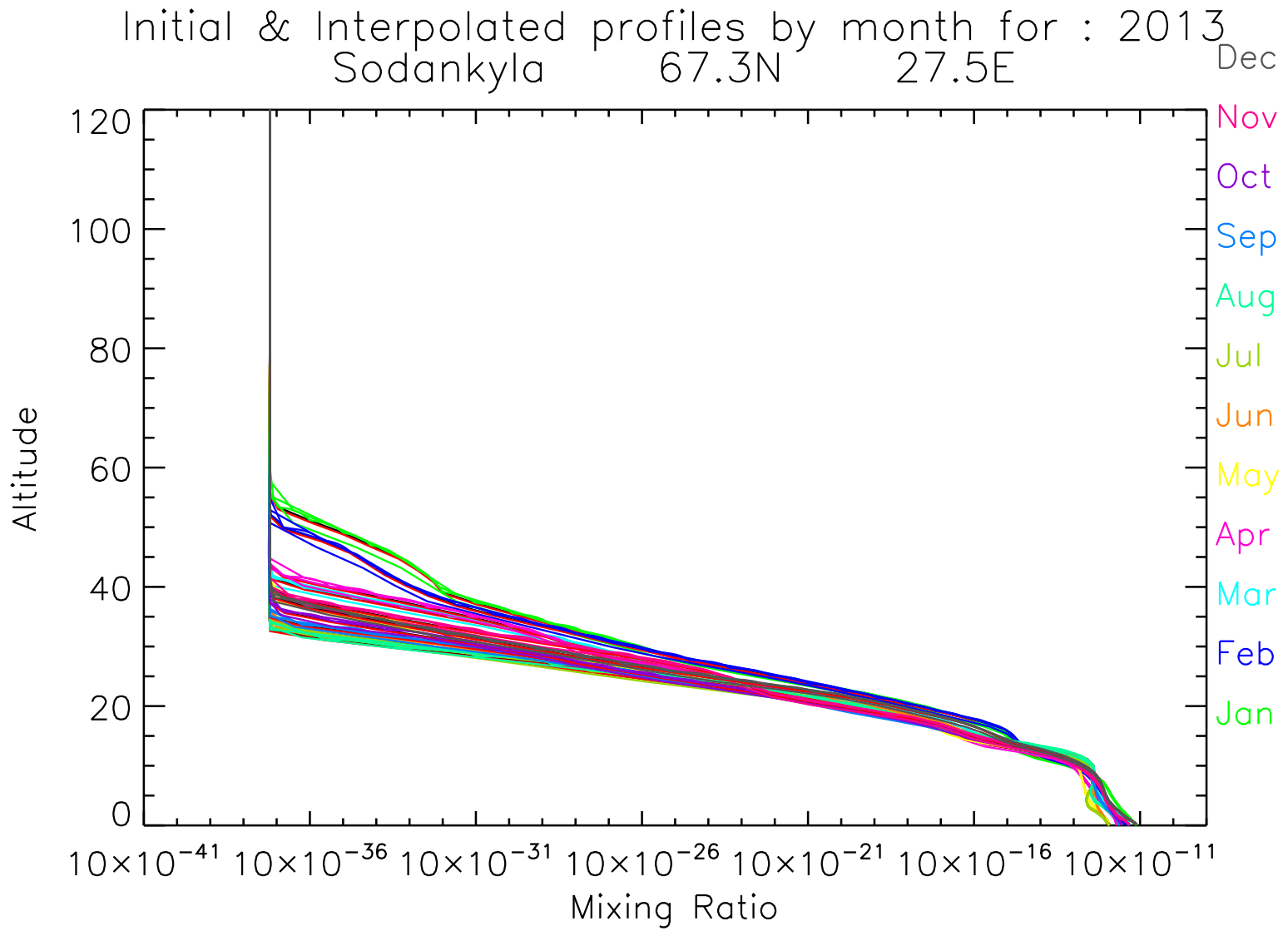
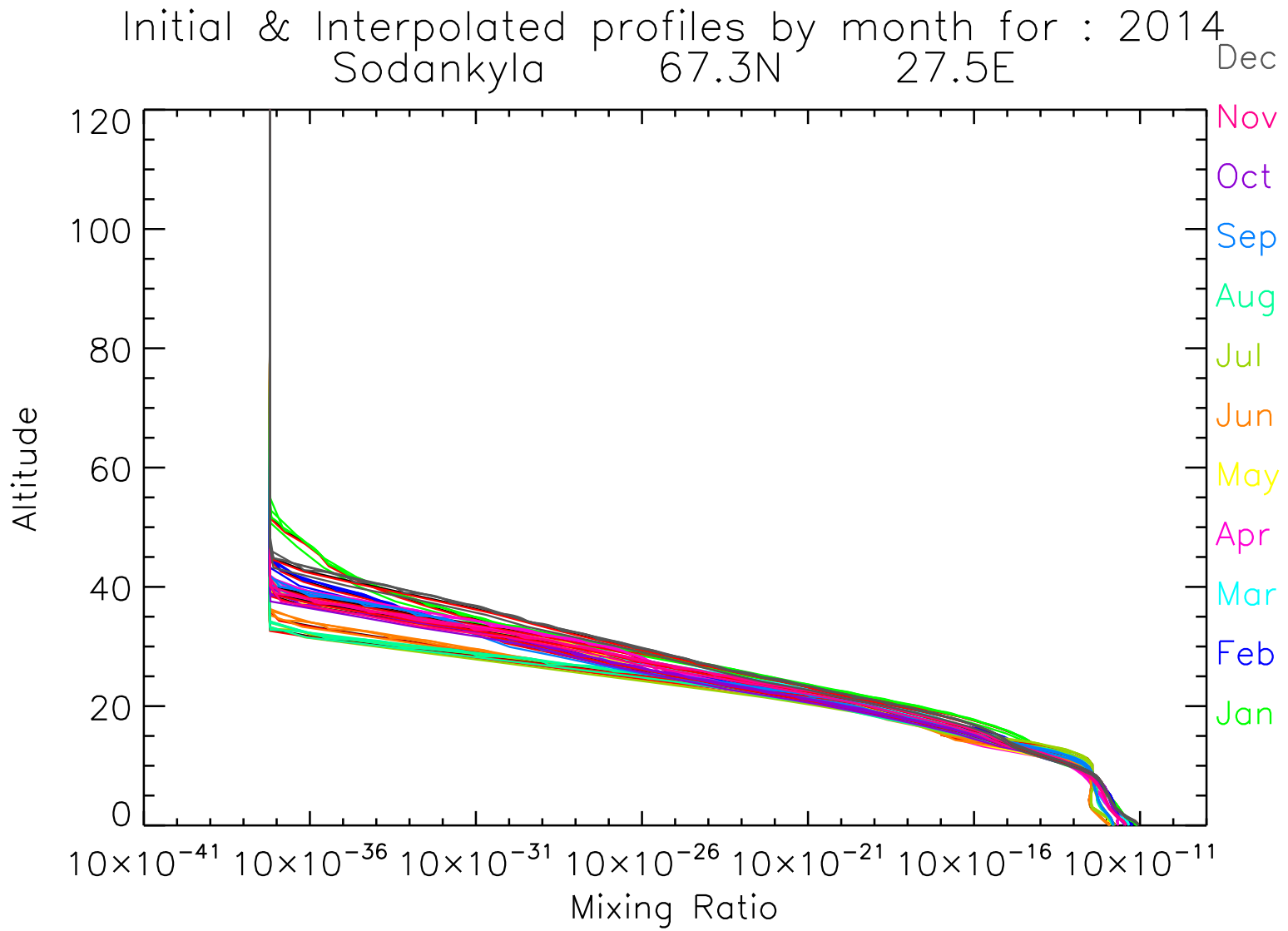
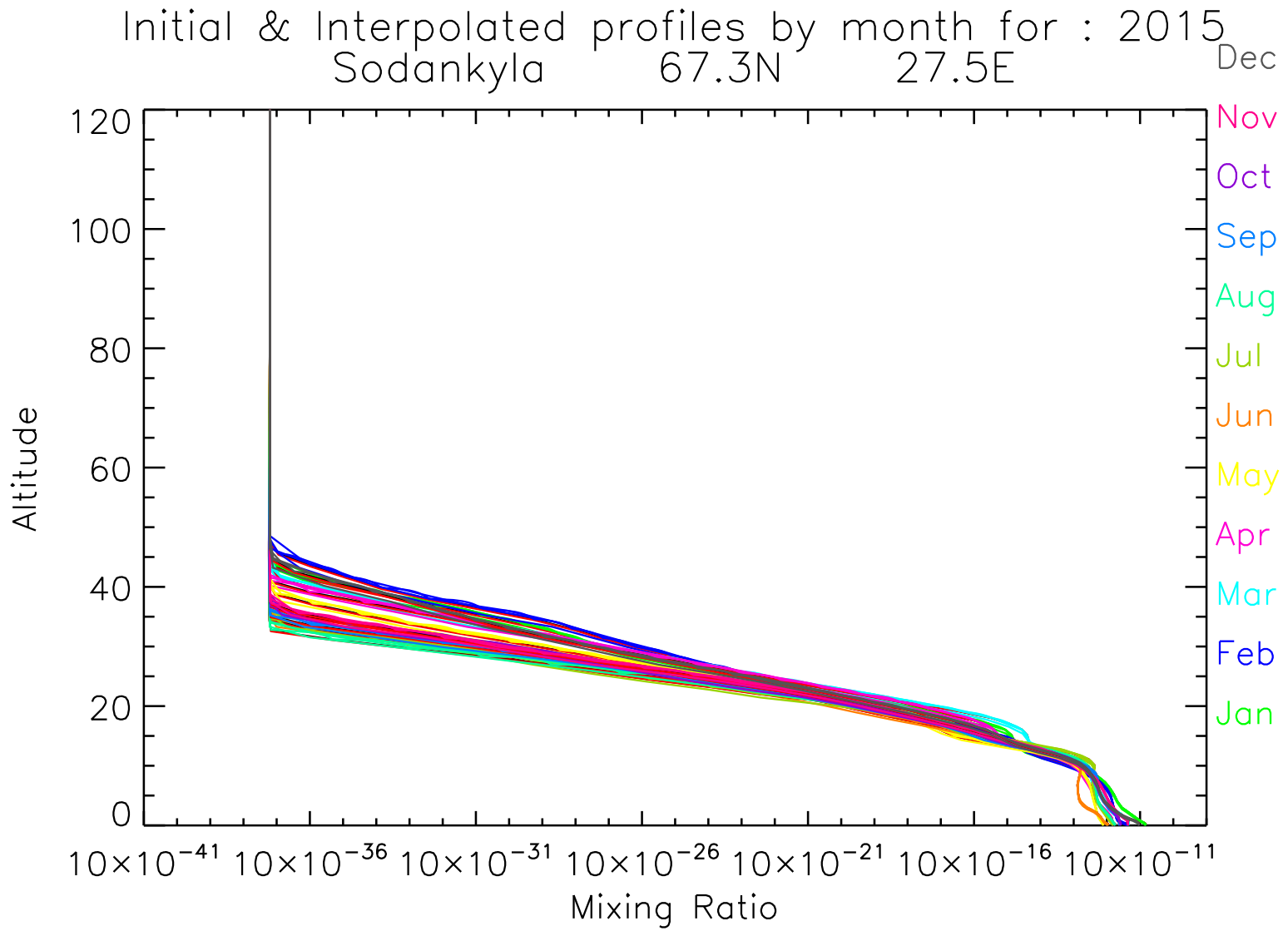
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

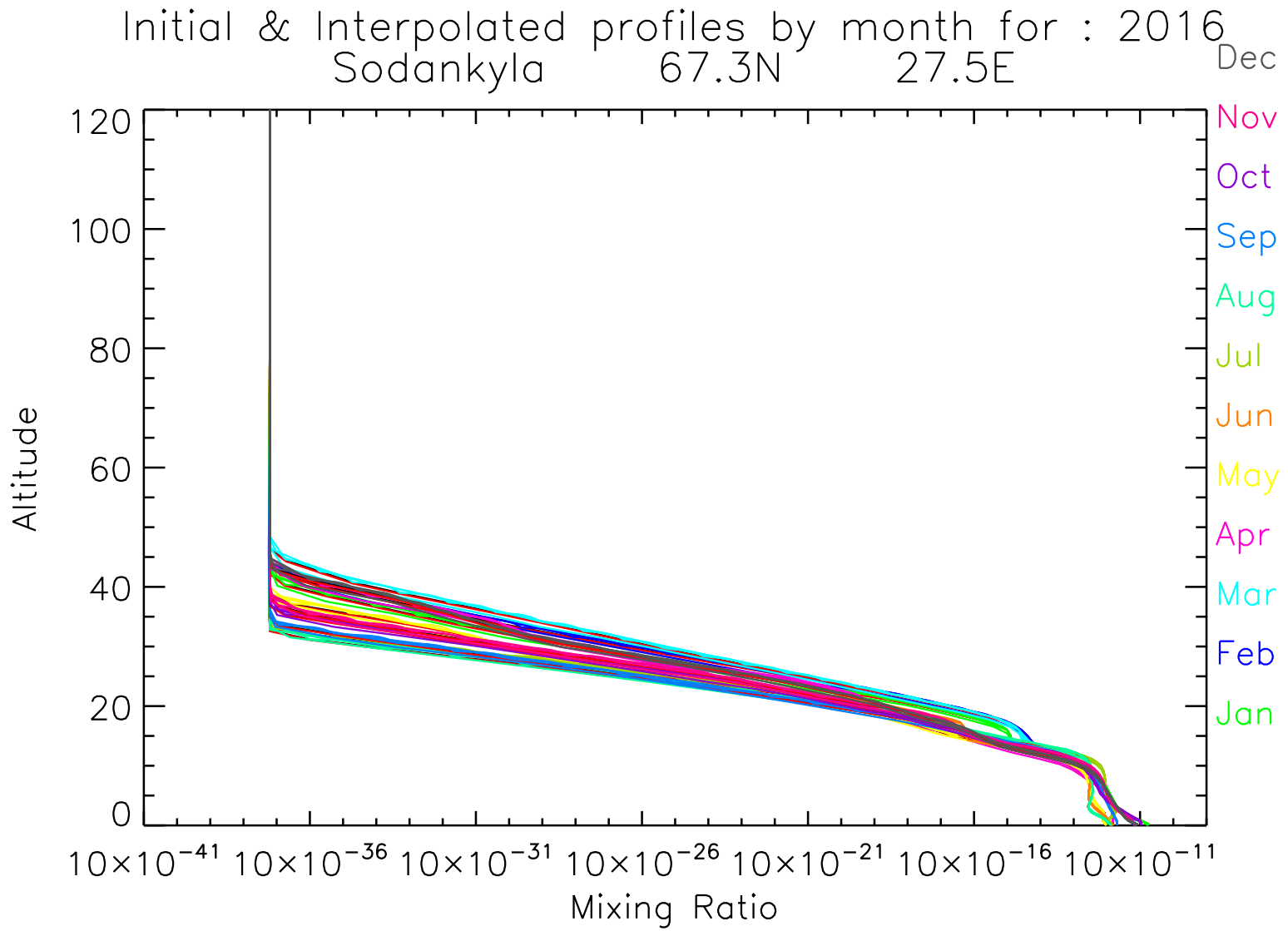

Initial & Interpolated profiles by month for : 2011
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

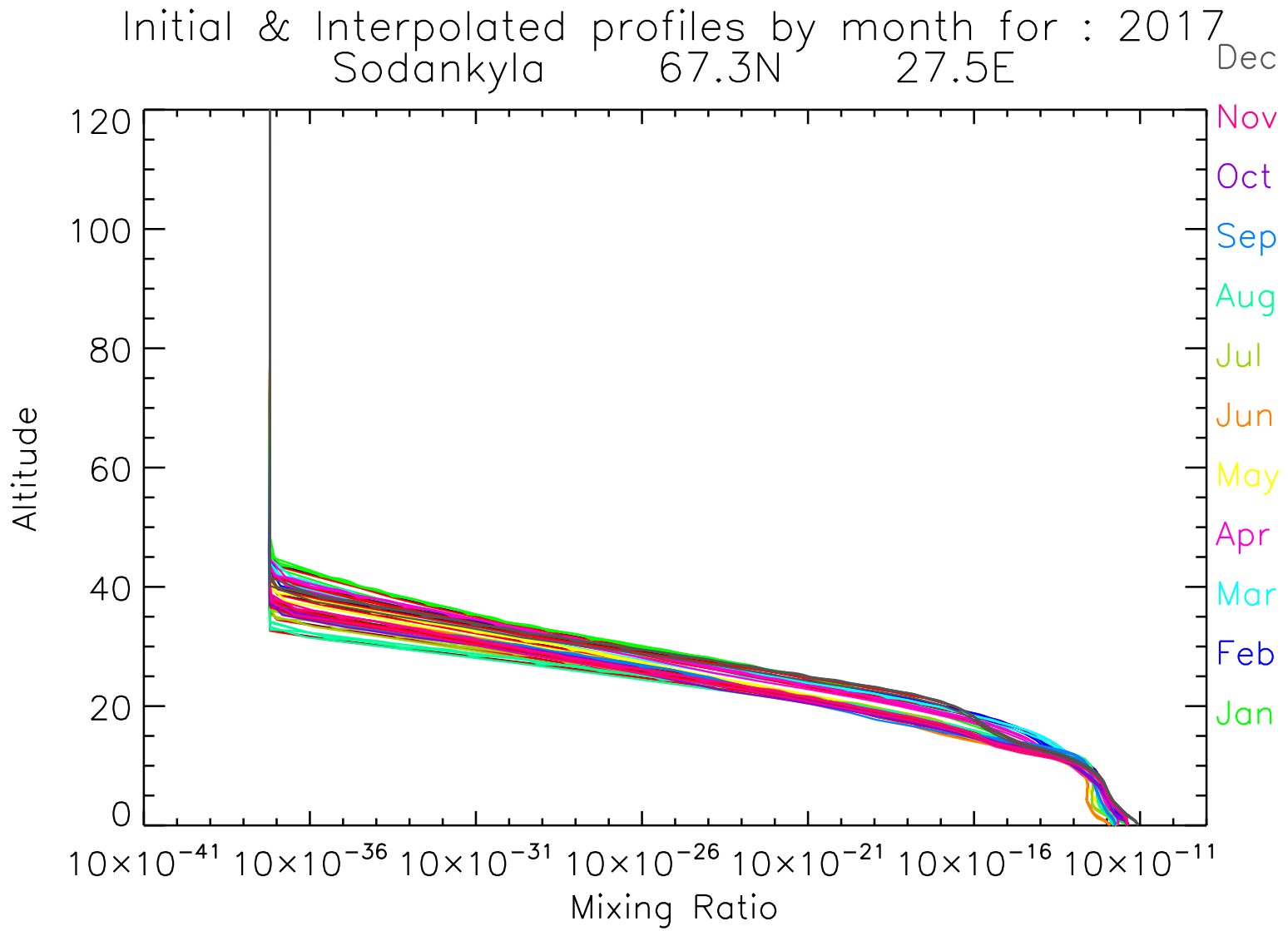

Initial & Interpolated profiles by month for : 2012
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

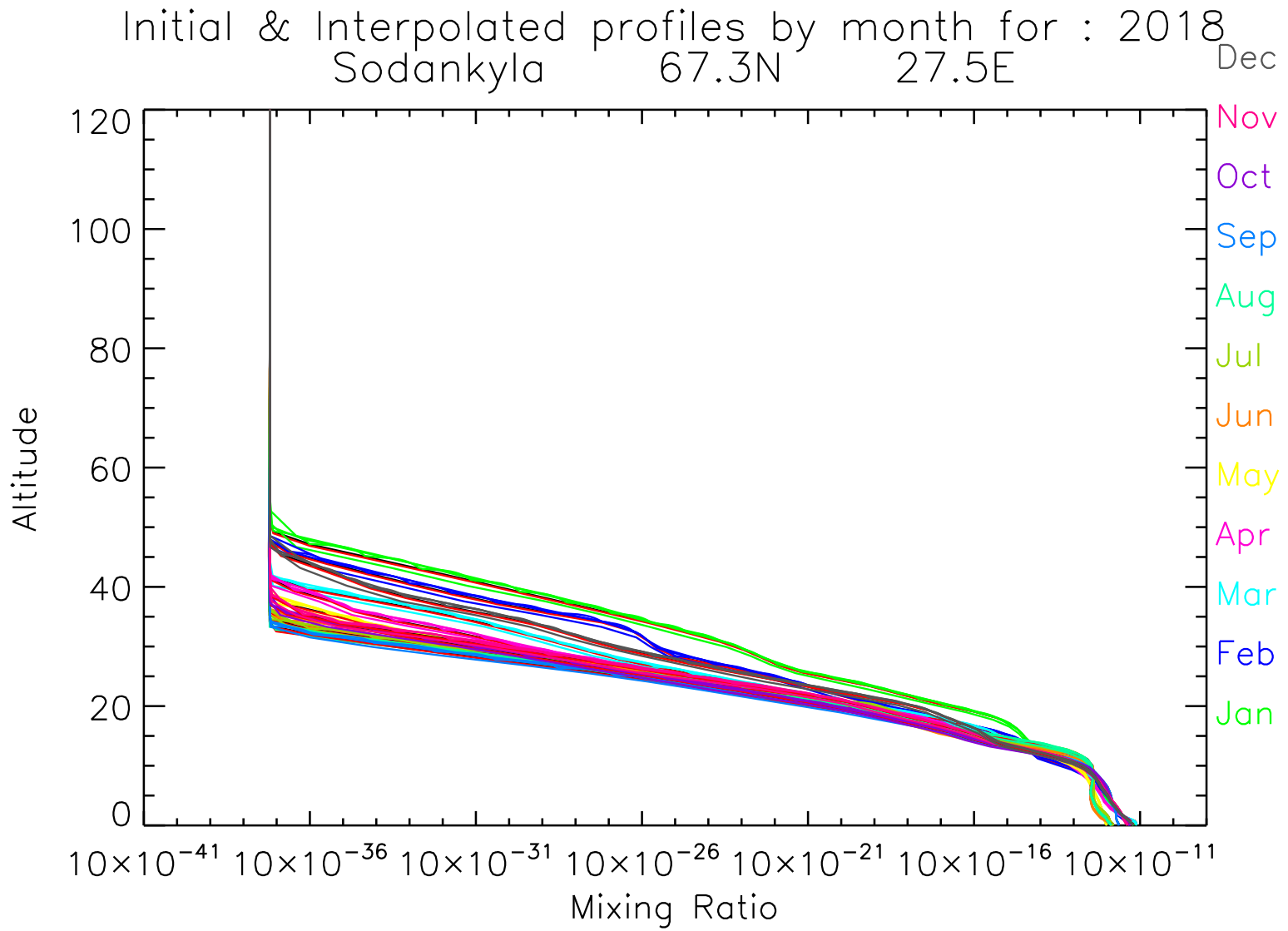

Initial & Interpolated profiles by month for : 2013
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

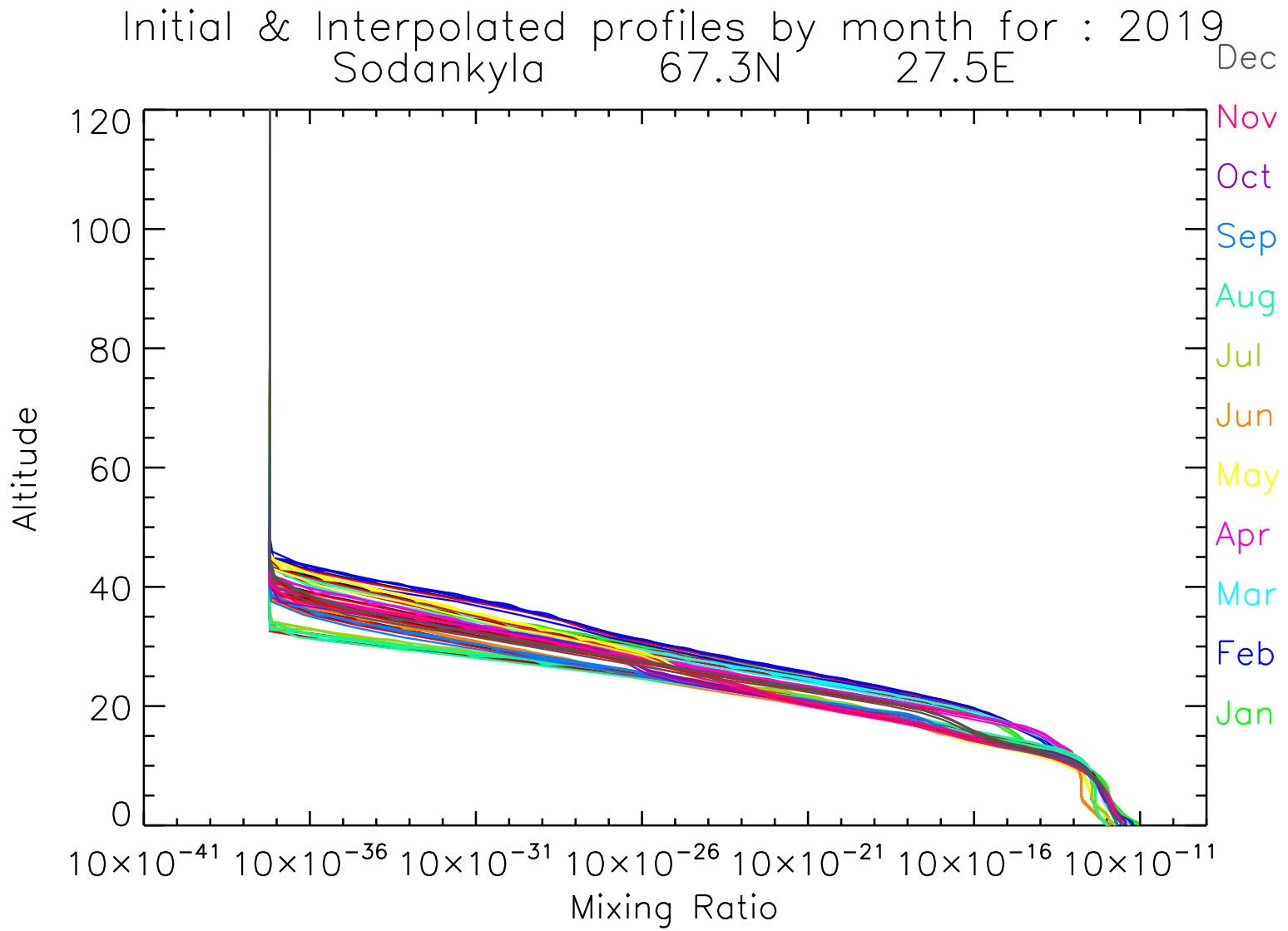

Initial & Interpolated profiles by month for : 2014
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

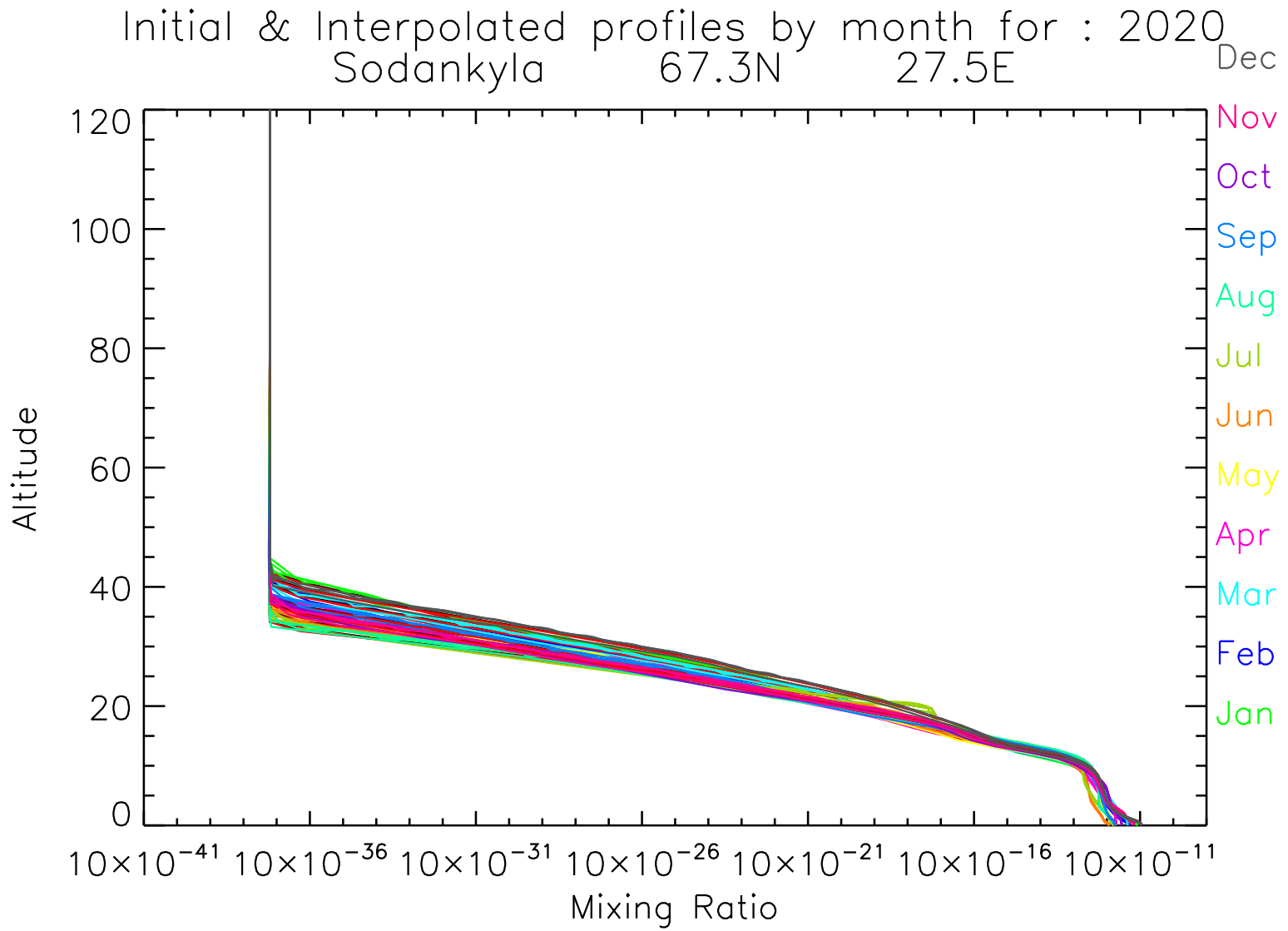

Initial & Interpolated profiles by month for : 2015
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

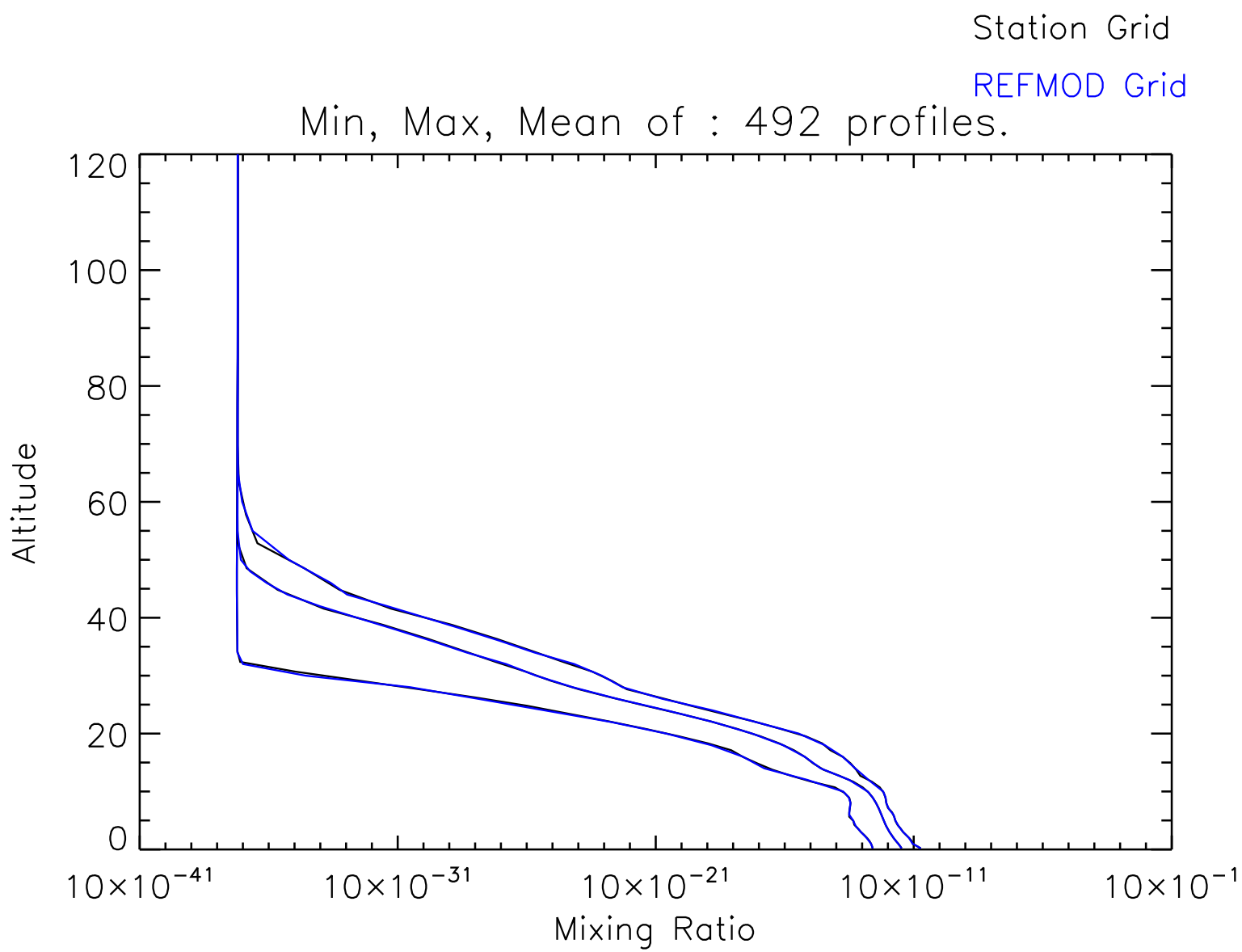

Initial & Interpolated profiles by month for : 2016
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

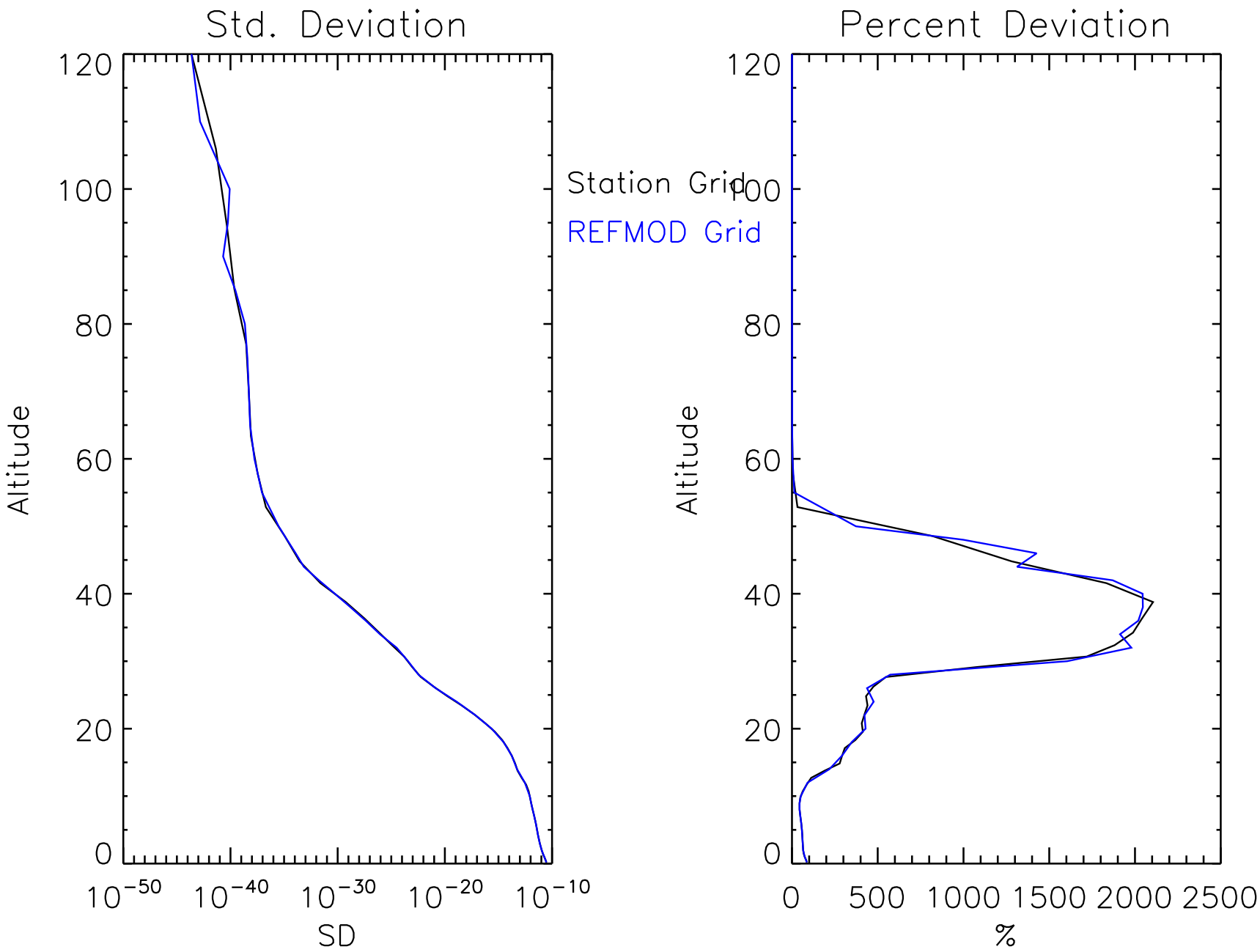

Initial & Interpolated profiles by month for : 2017
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

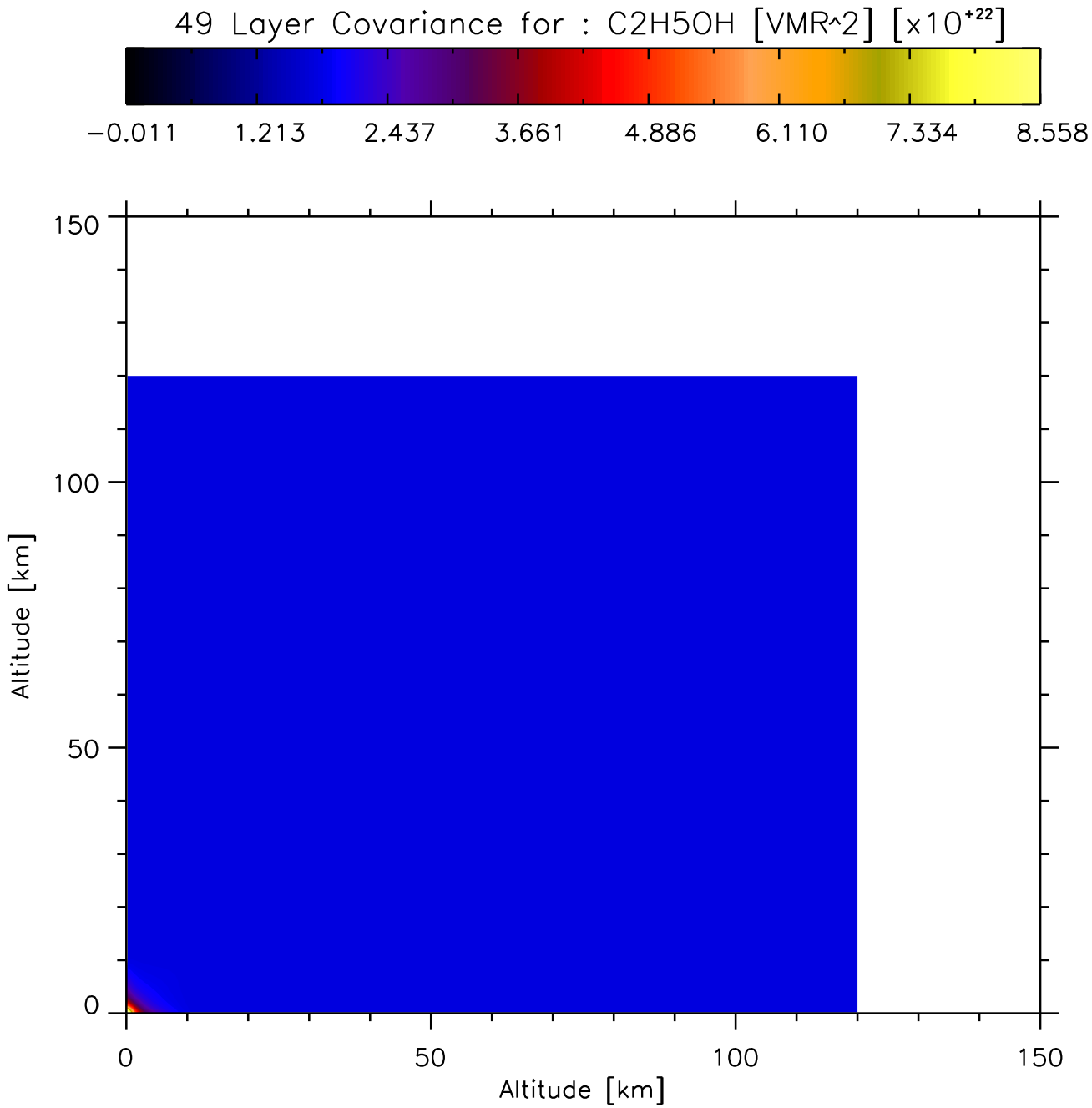

Initial & Interpolated profiles by month for : 2018
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

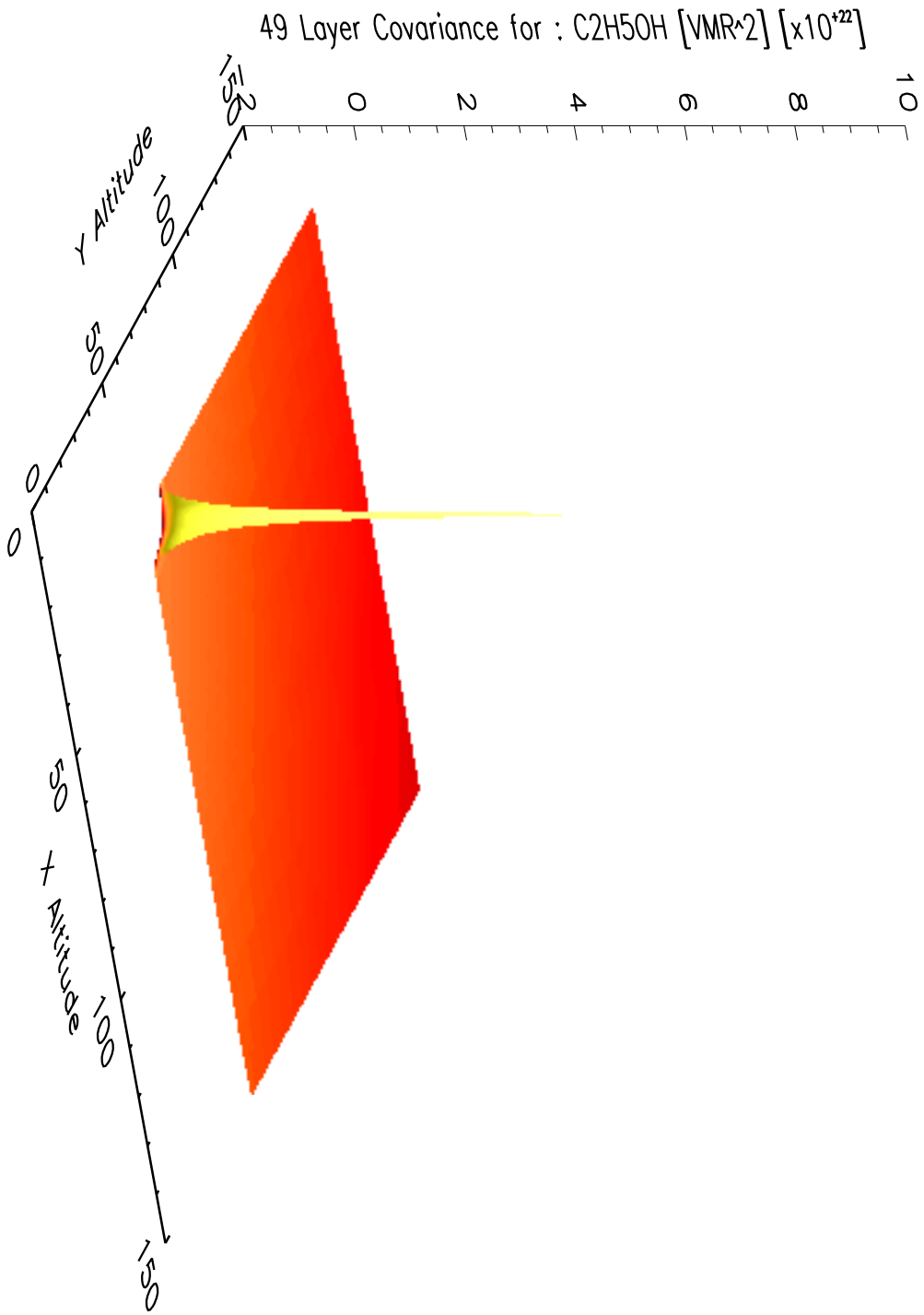

Initial & Interpolated profiles by month for : 2019
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

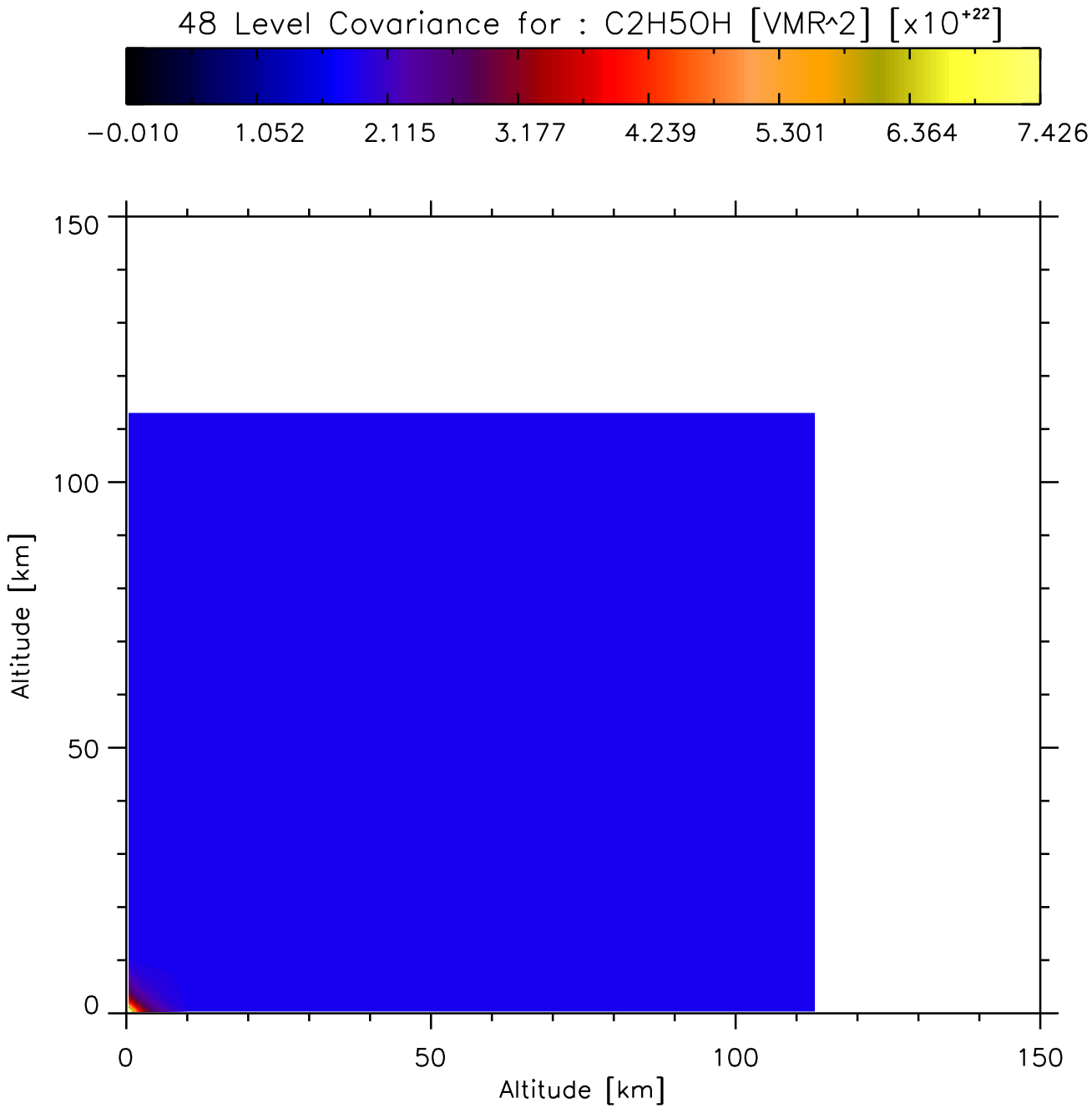

Initial & Interpolated profiles by month for : 2020
Sodankyla 67.3N 27.5E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

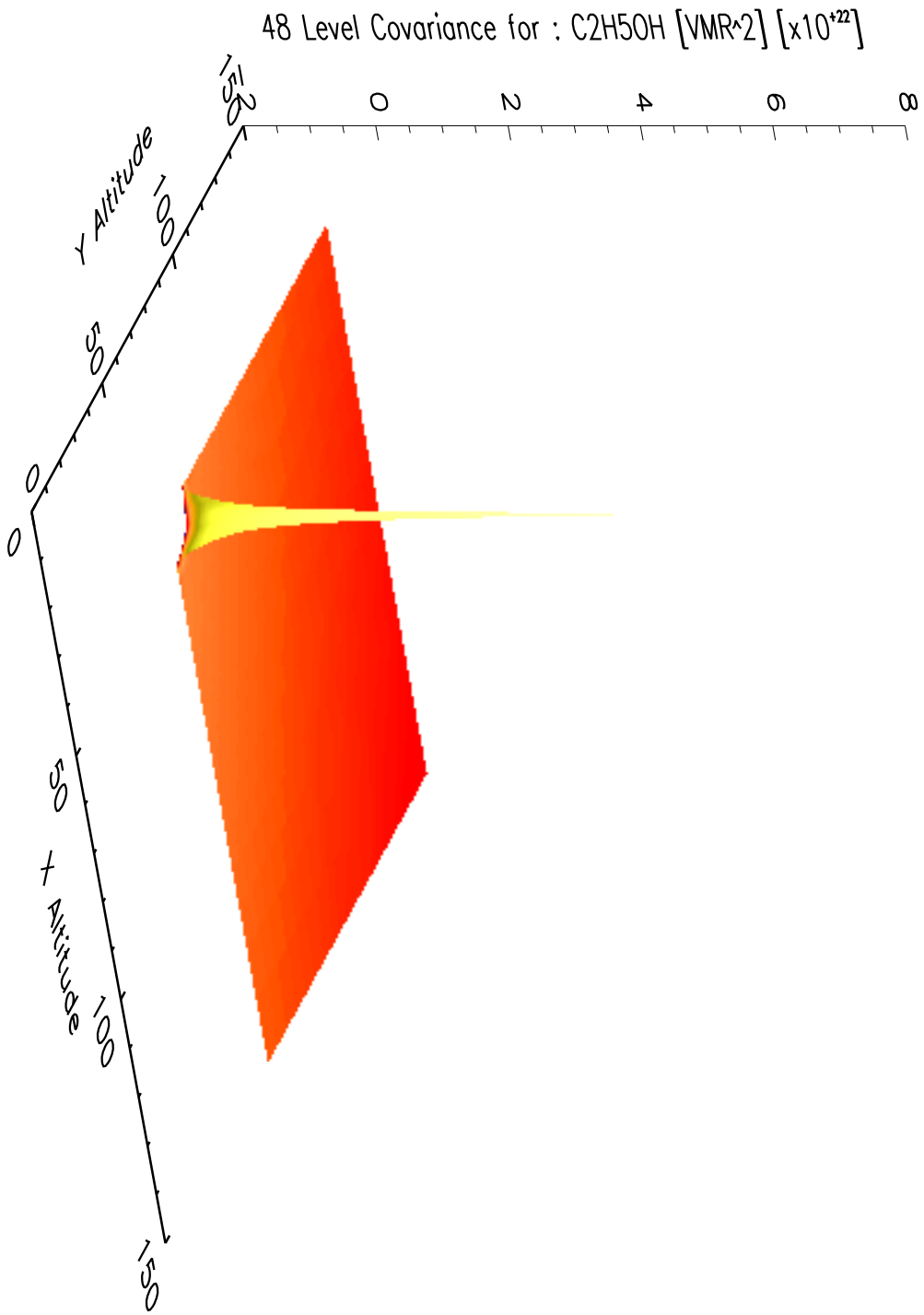

Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
120
100
80
60
40
20
0
Altitude
10×10^-41
10×10^-31
10×10^-21
10×10^-11
10×10^-1
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-50} 10^{-40} 10^{-30} 10^{-20} 10^{-10}
SD
0 500 1000 1500 2000 2500
%


49 Layer Covariance for : C2H5OH [VMR^2] [x10^+22]
-0.011
1.213
2.437
3.661
4.886
6.110
7.334
8.558
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


49 Layer Covariance for : C2H5OH [VMR^2] [x10^+22]
0
2
4
6
8
10
Y Altitude
0
50
100
150
X Altitude
0
50
100
150


48 Level Covariance for : C2H5OH [VMR^2] [x10^+22]
−0.010
1.052
2.115
3.177
4.239
5.301
6.364
7.426
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


48 Level Covariance for : C2H5OH [VMR^2] [x10^+22]
0
2
4
6
8
Y Altitude
0
50
100
150
X Altitude
0
50
100
150