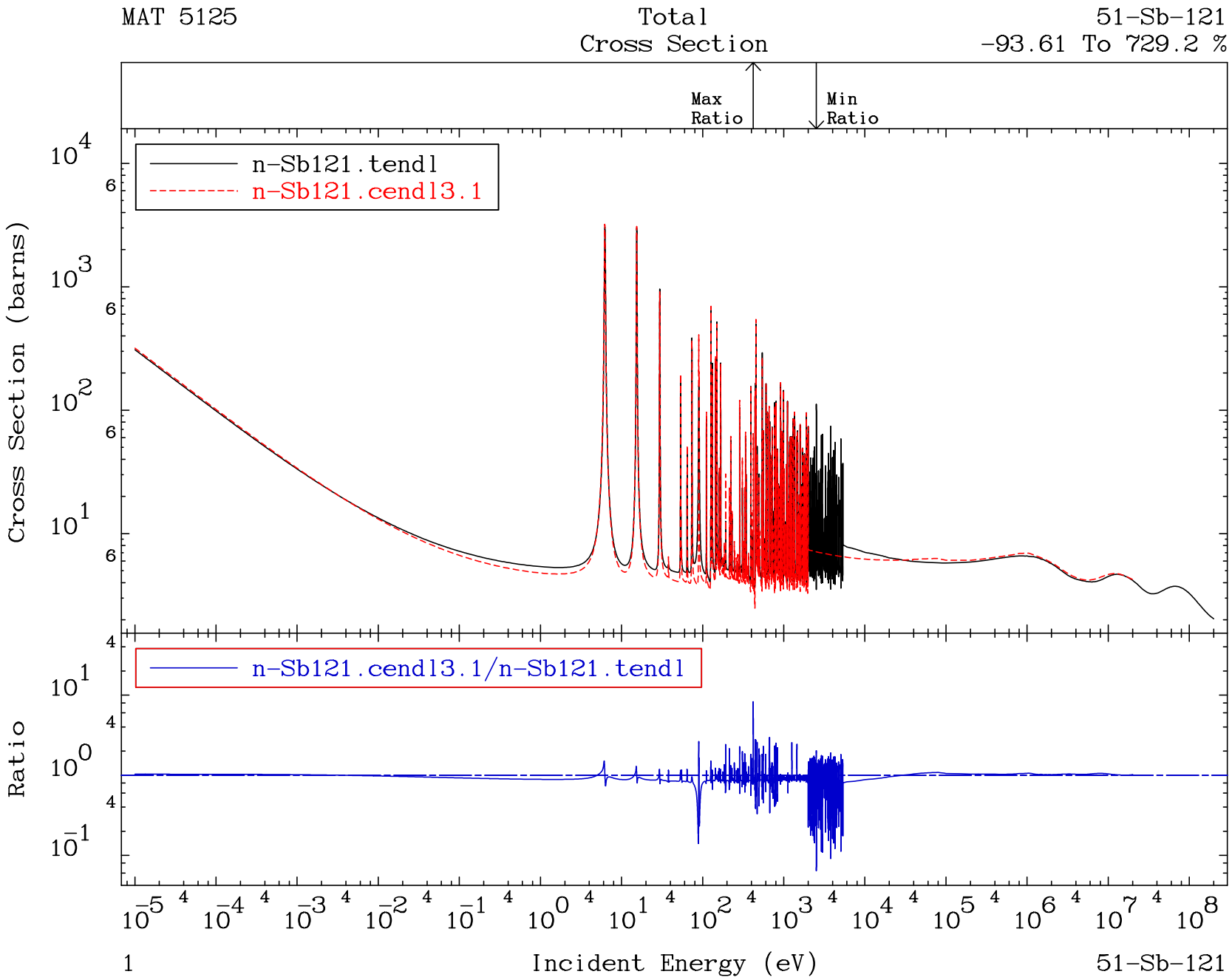
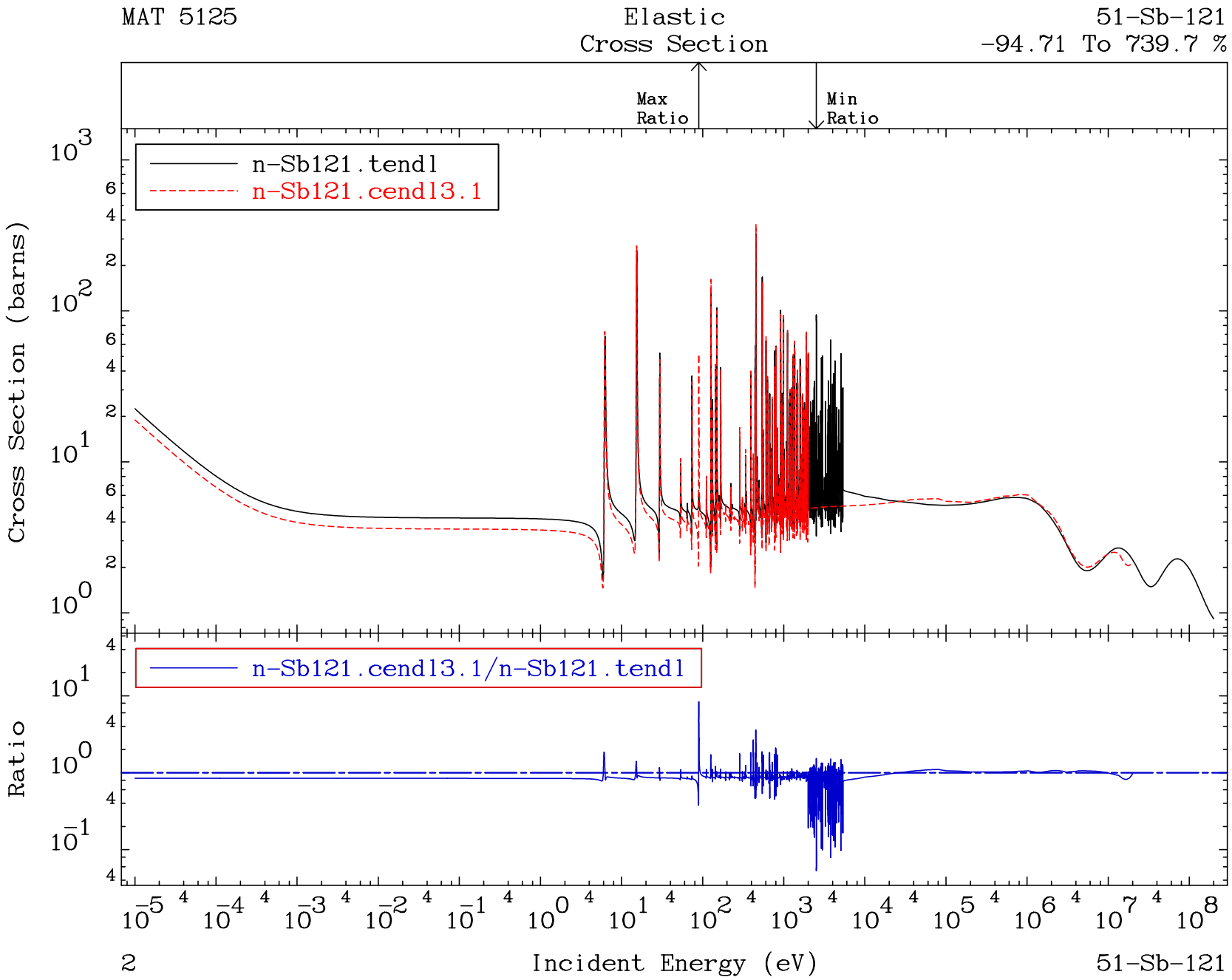
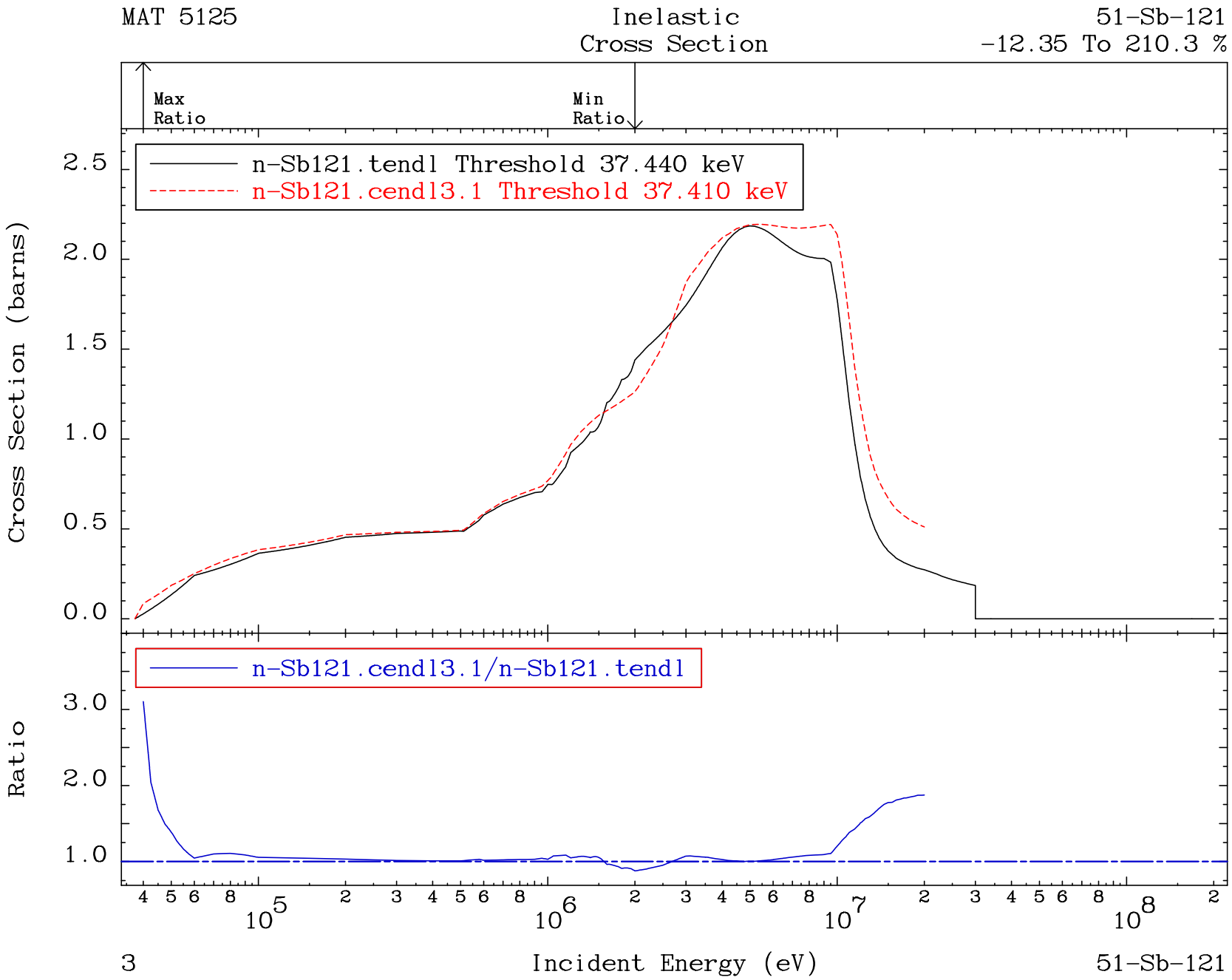
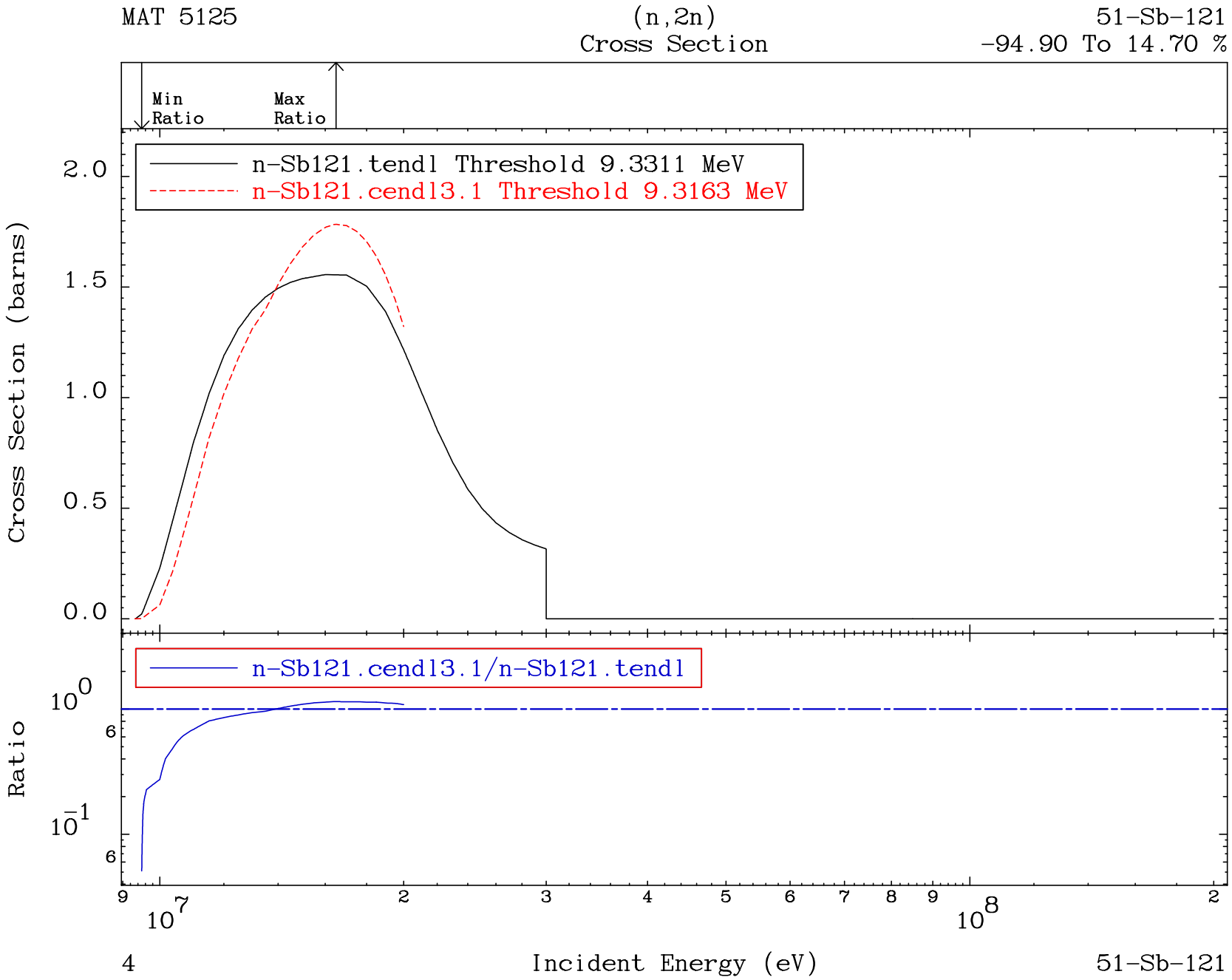
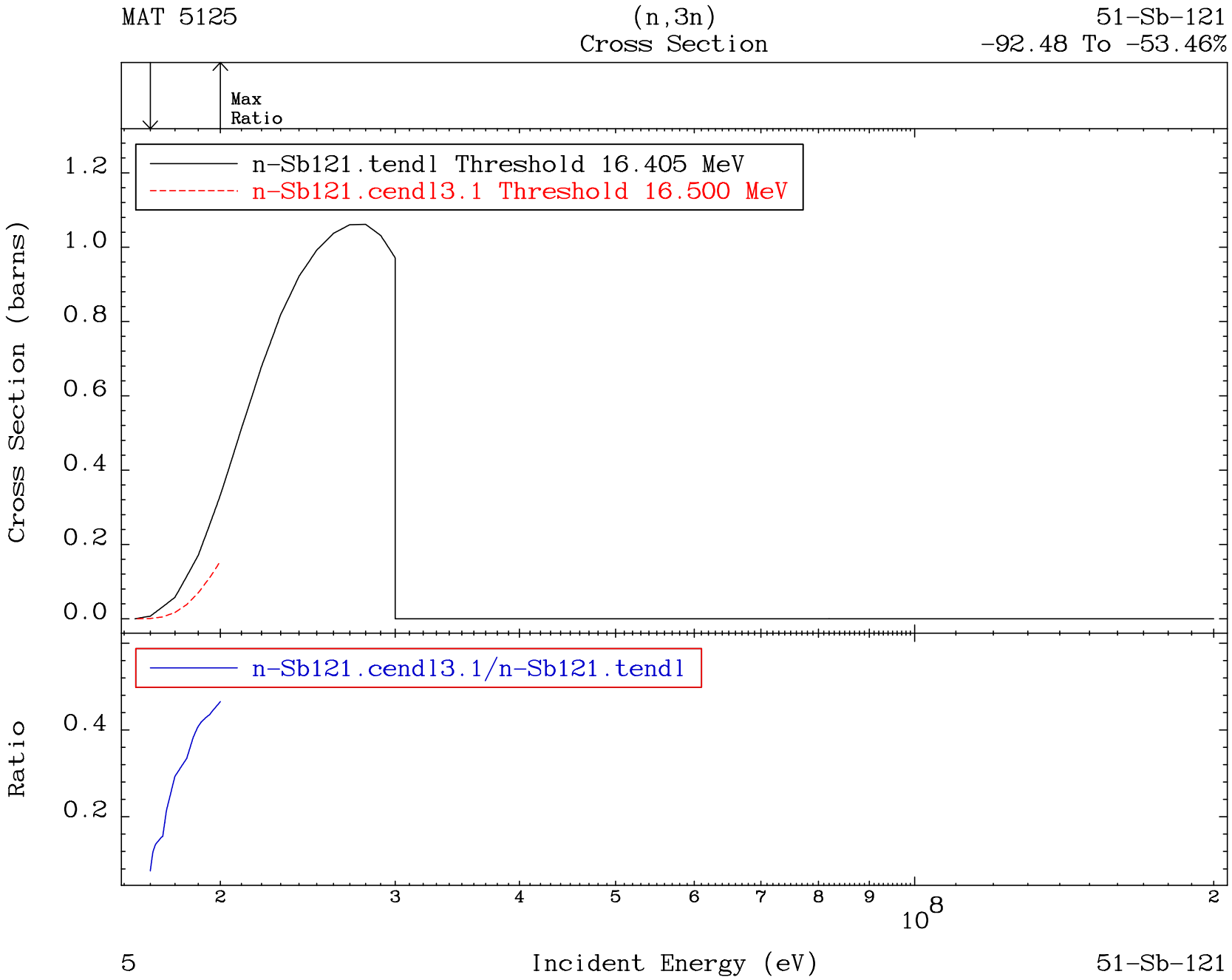
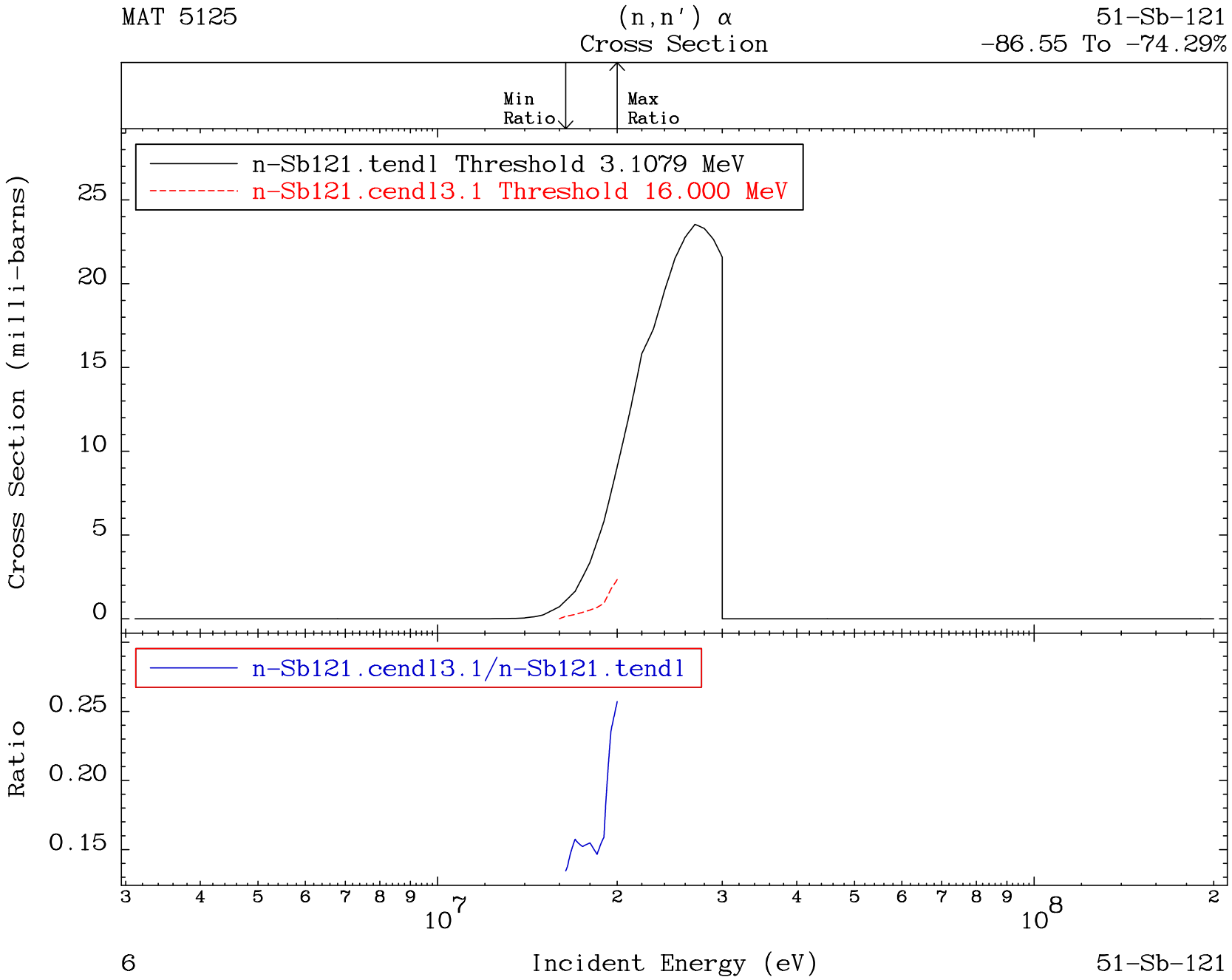

MAT 5125
Total
Cross Section
51-Sb-121
-93.61 To 729.2 %
Max
Ratio
Min
Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
1
51-Sb-121

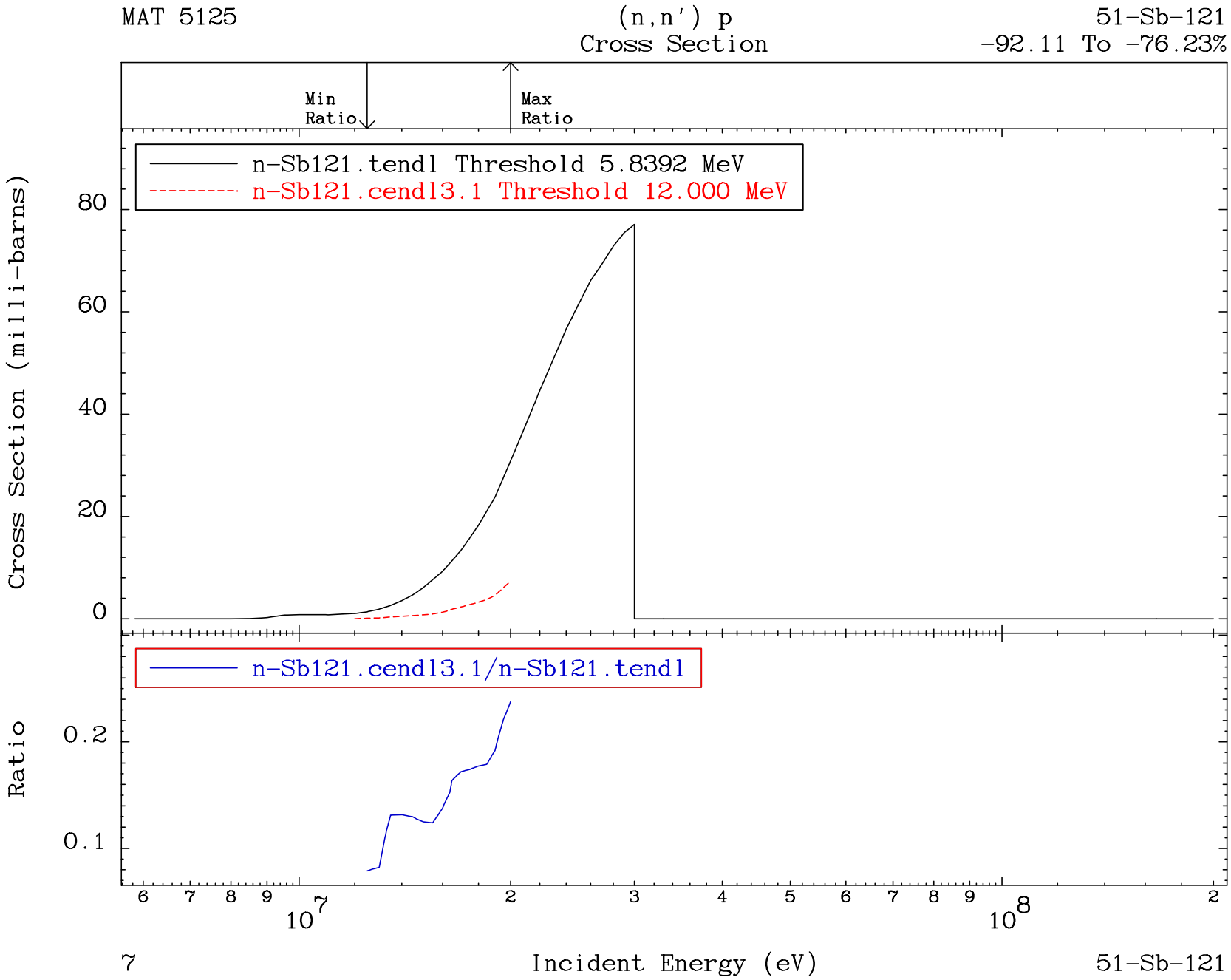

MAT 5125
Elastic
Cross Section
51-Sb-121
-94.71 To 739.7 %
Max
Ratio
Min
Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
2
51-Sb-121

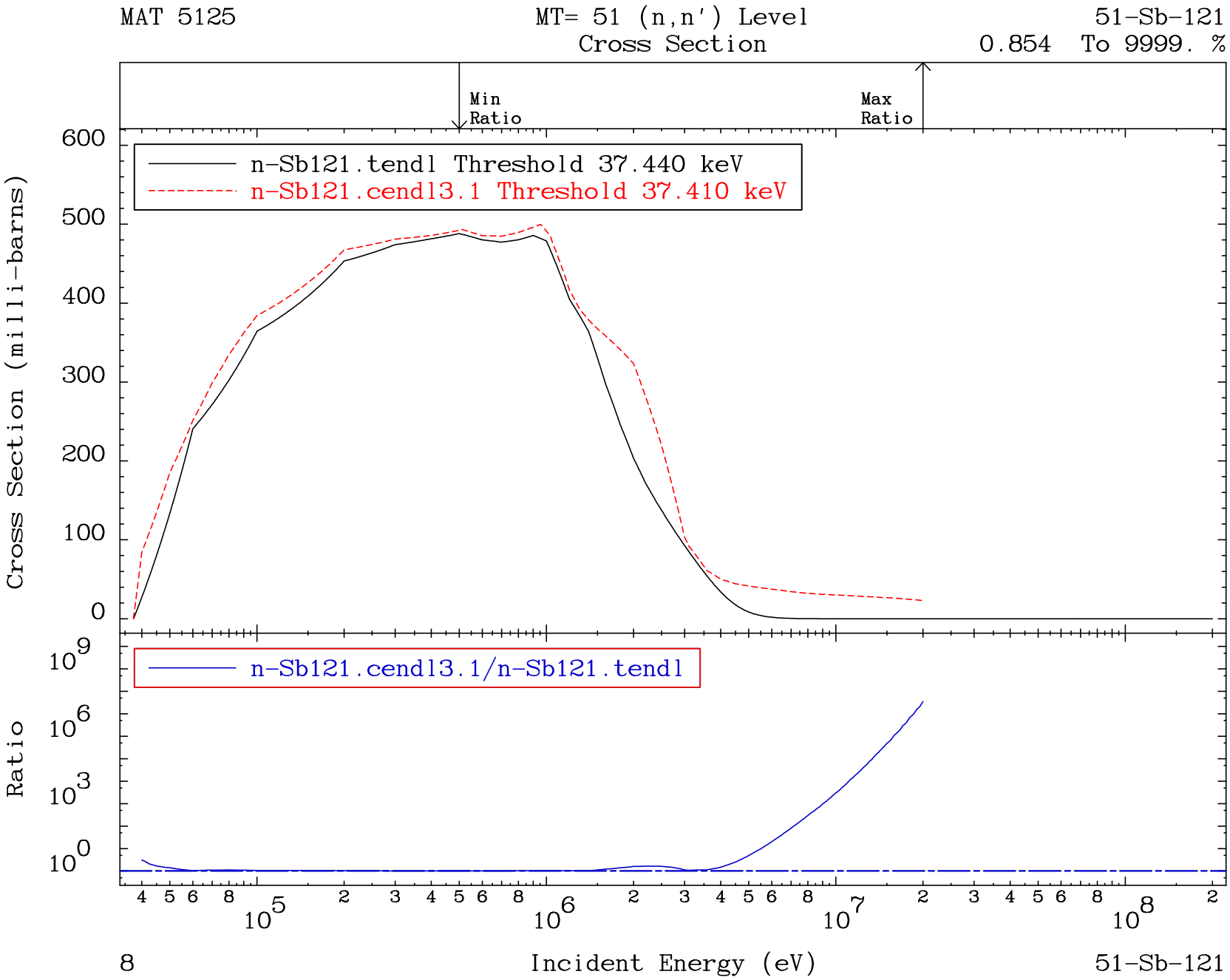

MAT 5125
Inelastic
Cross Section
51-Sb-121
-12.35 To 210.3 %
Max
Ratio
Min
Ratio
n-Sb121.tendl Threshold 37.440 keV
n-Sb121.cendl3.1 Threshold 37.410 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
3.0
2.0
1.0
4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
51-Sb-121

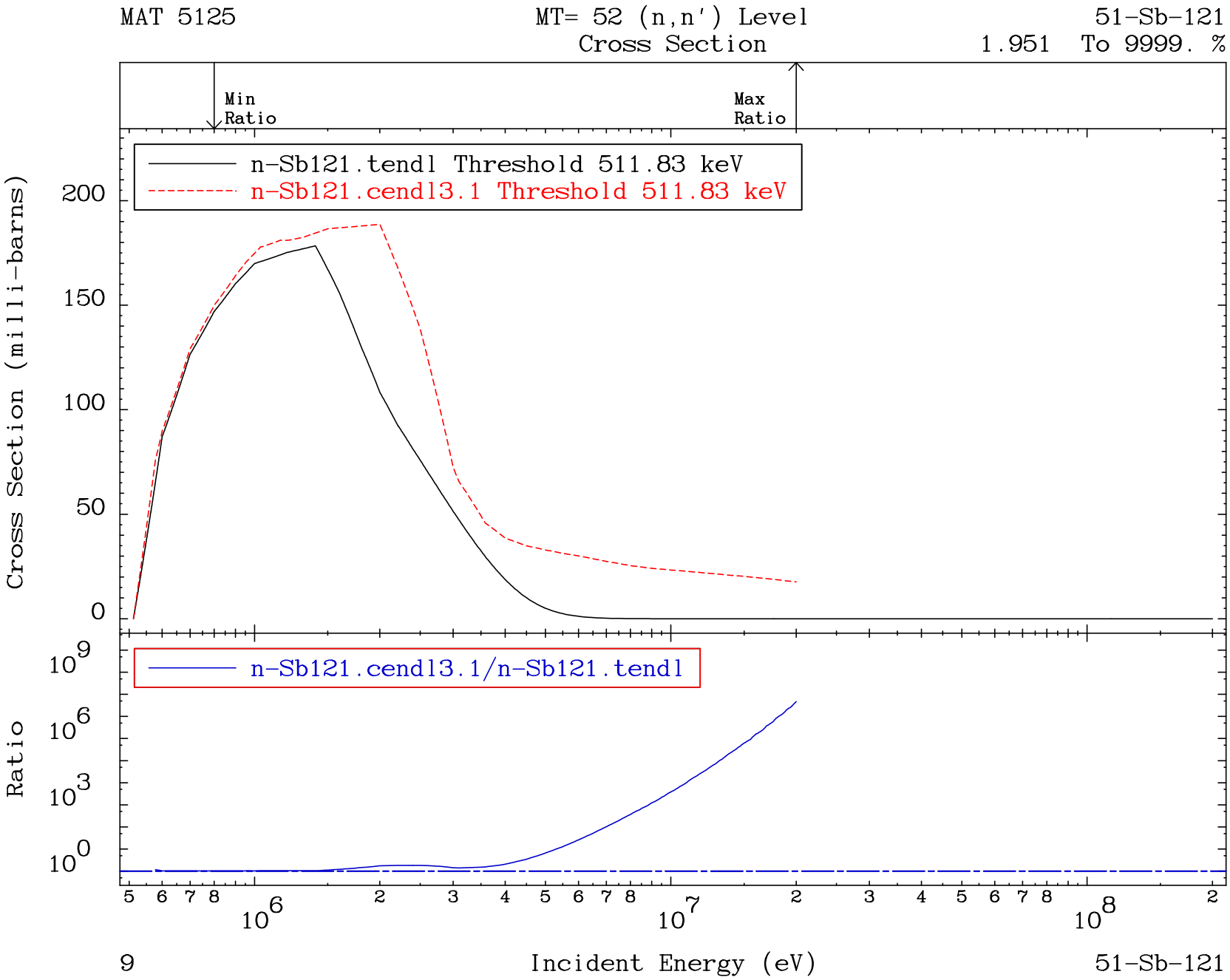

MAT 5125
(n,2n)
Cross Section
51-Sb-121
-94.90 To 14.70 %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 9.3311 MeV
n-Sb121.cendl3.1 Threshold 9.3163 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^0
10^-1
9 2 3 4 5 6 7 8 9 2
10^7
10^8
4
Incident Energy (eV)
51-Sb-121

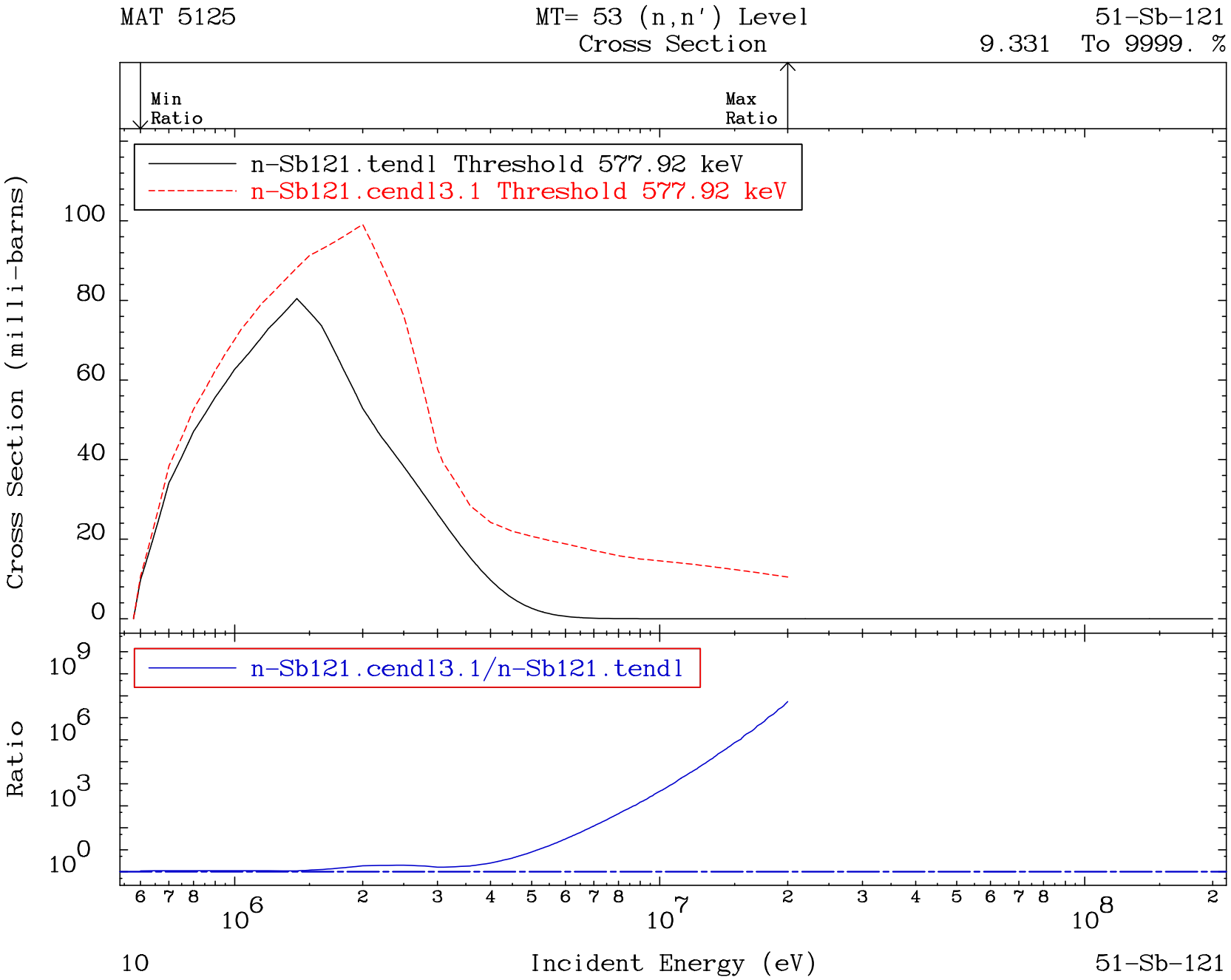

MAT 5125
(n,3n)
Cross Section
51-Sb-121
-92.48 To -53.46%
Max
Ratio
n-Sb121.tendl Threshold 16.405 MeV
n-Sb121.cendl3.1 Threshold 16.500 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
0.4
0.2
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
51-Sb-121

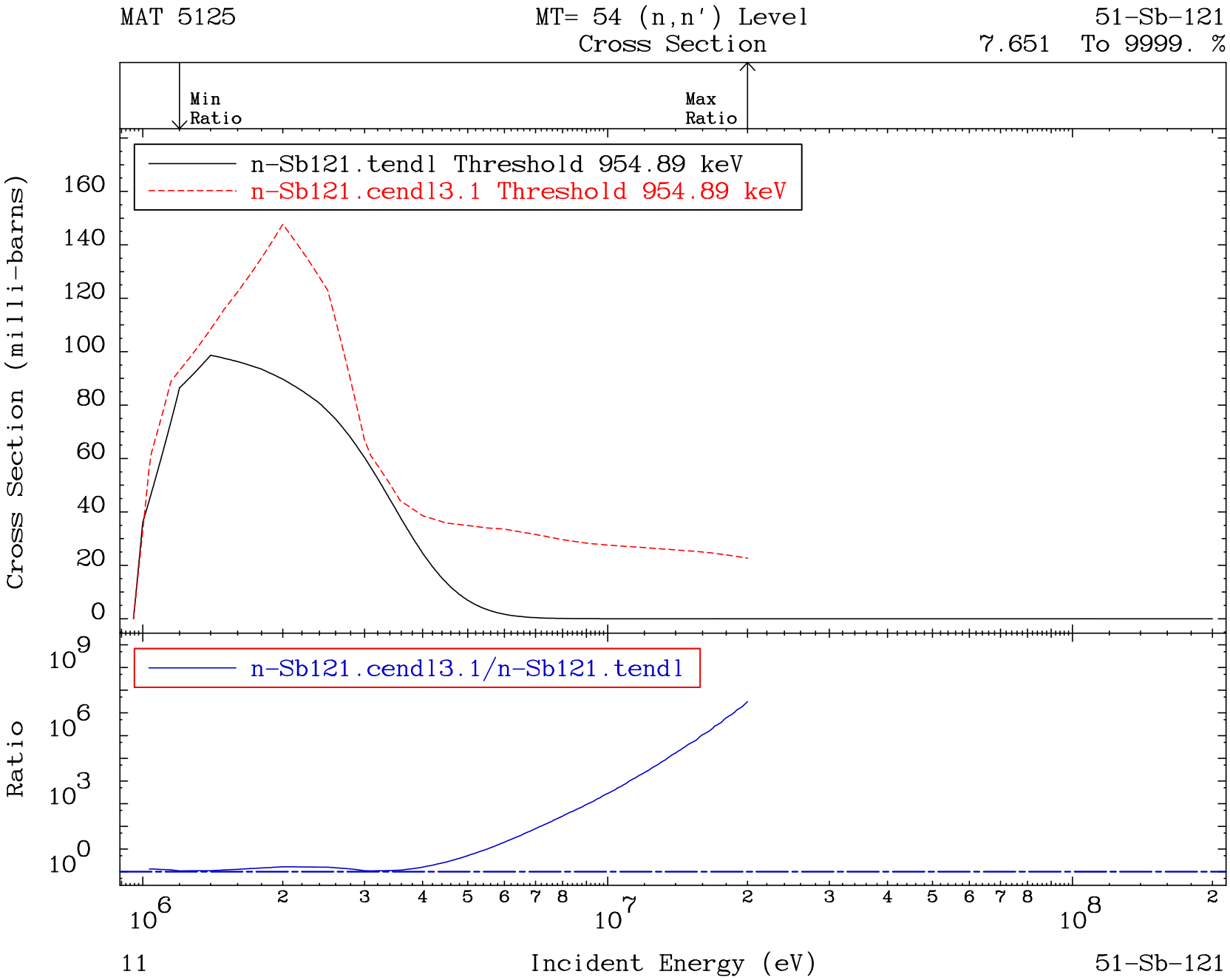

MAT 5125
(n,n') α
Cross Section
51-Sb-121
-86.55 To -74.29%
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 3.1079 MeV
n-Sb121.cendl3.1 Threshold 16.000 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
0.25
0.20
0.15
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
6
51-Sb-121

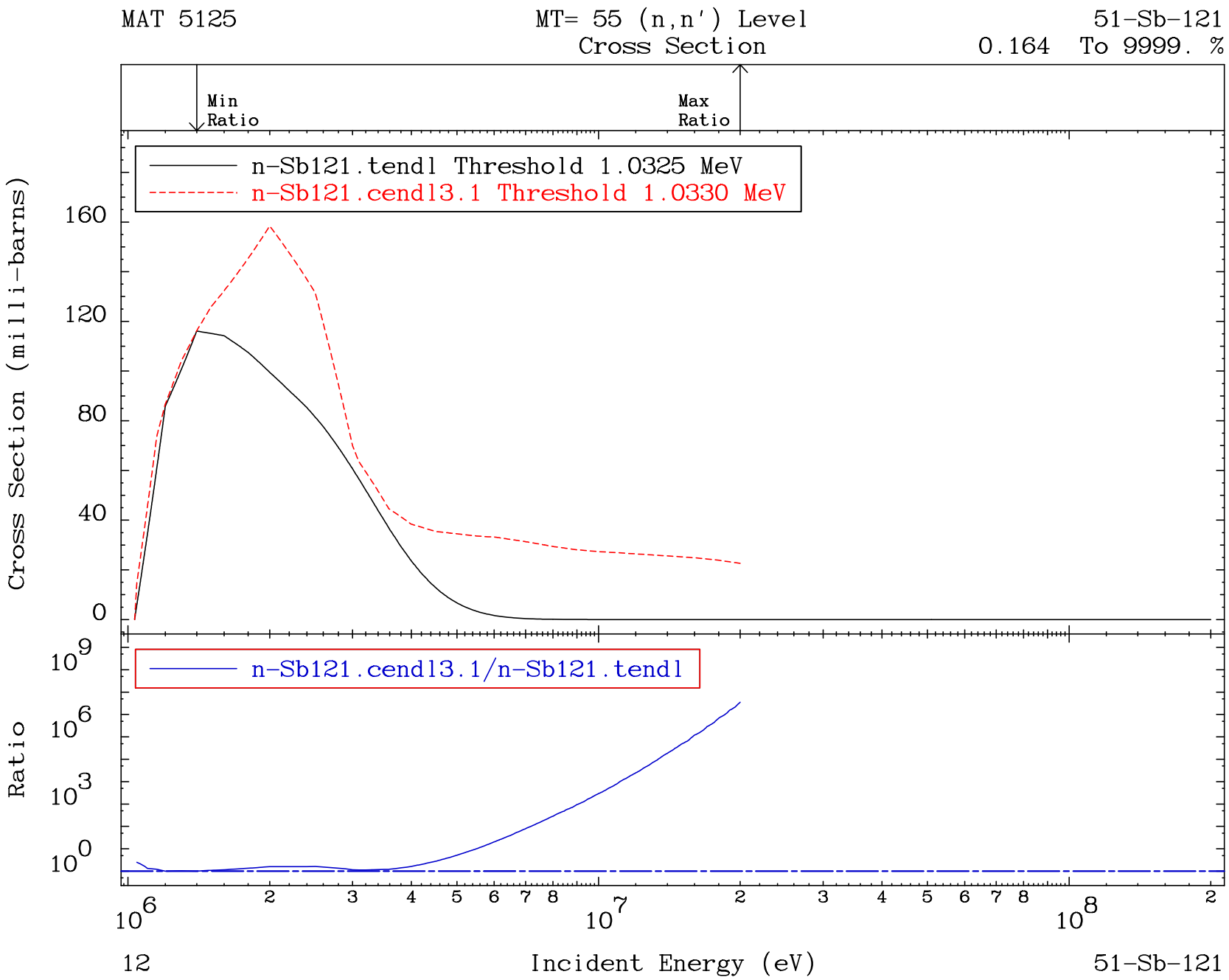

MAT 5125
(n,n') p
Cross Section
51-Sb-121
-92.11 To -76.23%
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 5.8392 MeV
n-Sb121.cendl3.1 Threshold 12.000 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
0.2
0.1
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
51-Sb-121

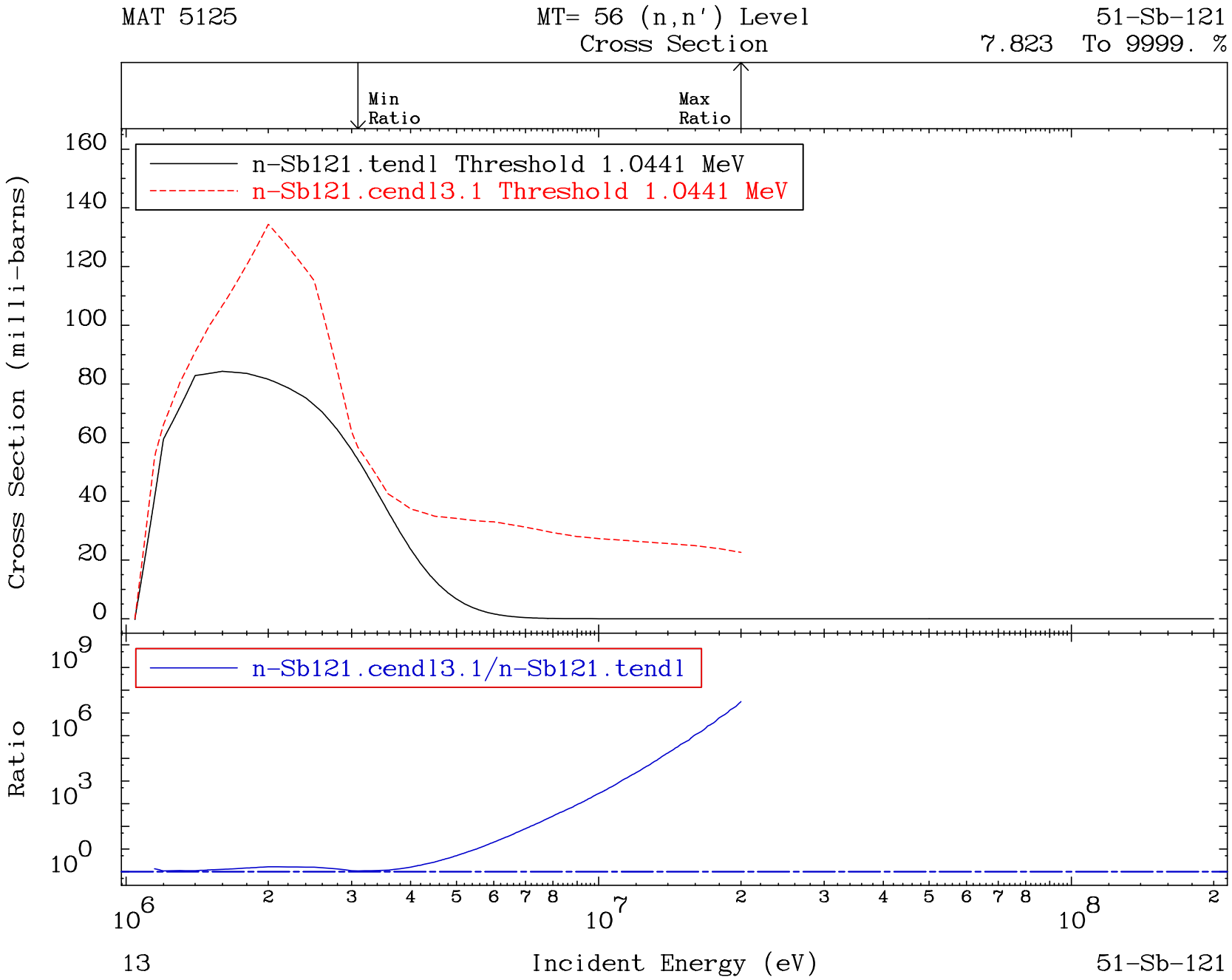

MAT 5125
MT= 51 (n,n') Level
Cross Section
51-Sb-121
0.854 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 37.440 keV
n-Sb121.cendl3.1 Threshold 37.410 keV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^9
10^6
10^3
10^0
4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
8
51-Sb-121

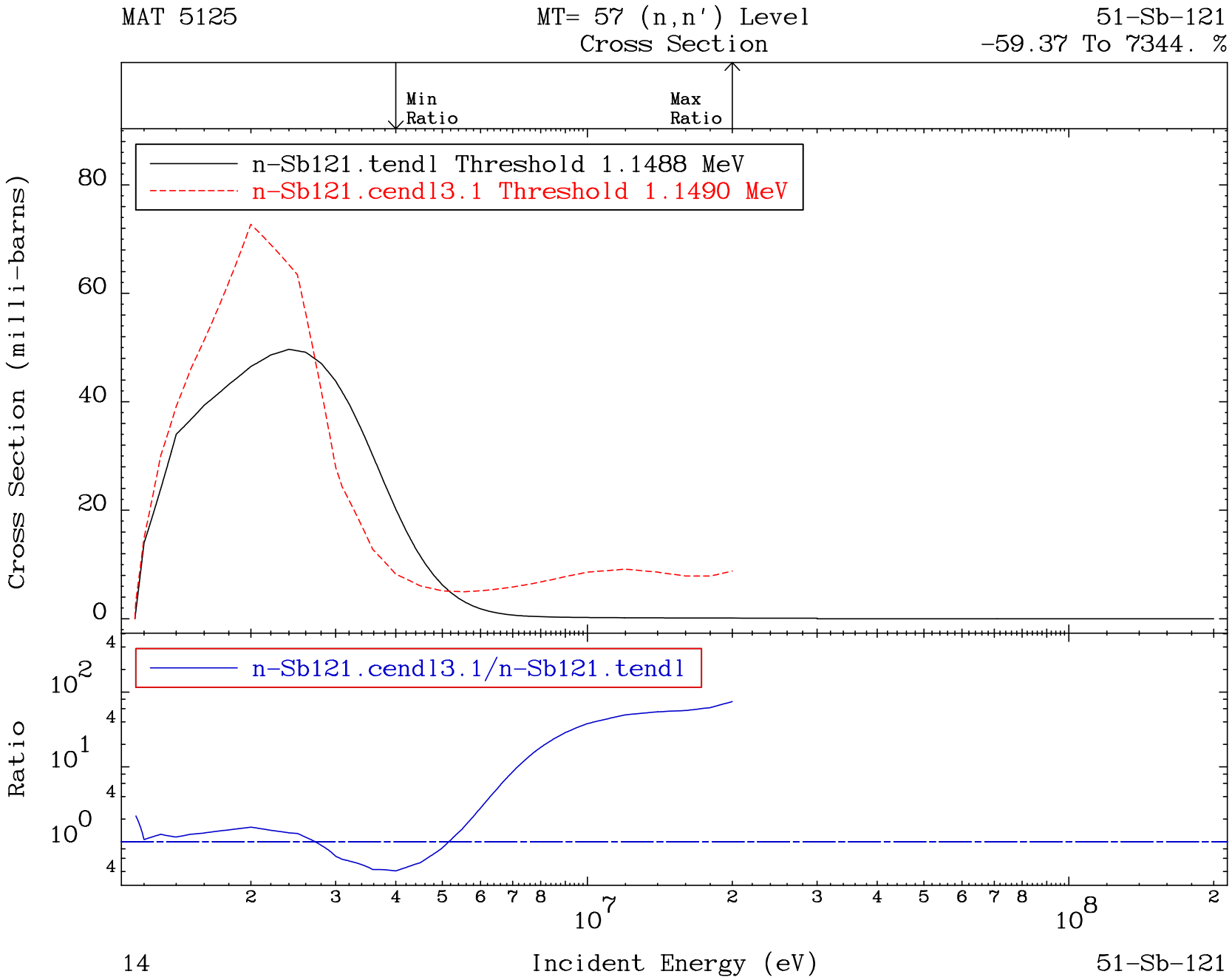

MAT 5125
MT= 52 (n,n') Level
Cross Section
51-Sb-121
1.951 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 511.83 keV
n-Sb121.cendl3.1 Threshold 511.83 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^9
10^6
10^3
10^0
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
9
Incident Energy (eV)
51-Sb-121

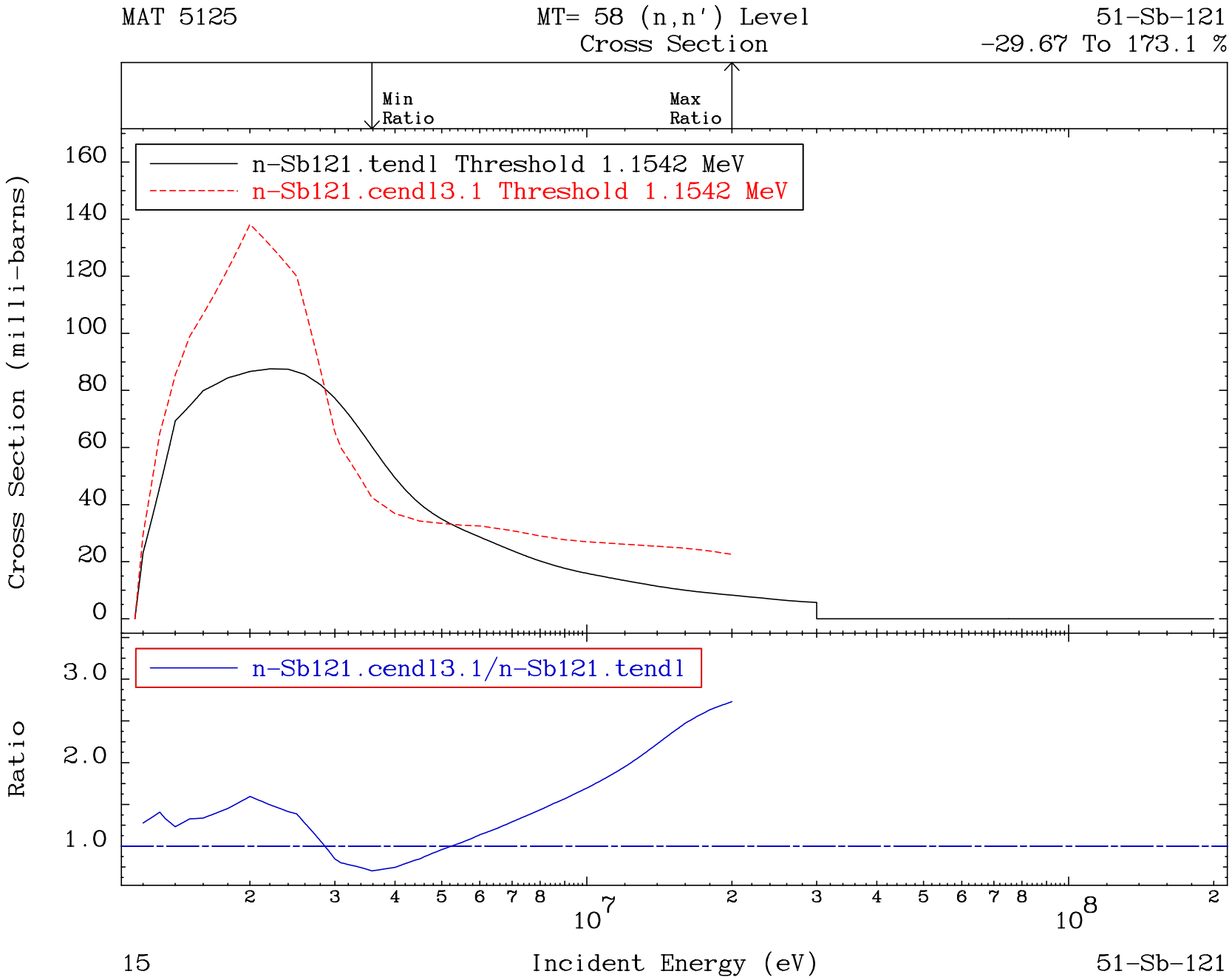

MAT 5125
MT= 53 (n,n') Level
Cross Section
51-Sb-121
9.331 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 577.92 keV
n-Sb121.cendl3.1 Threshold 577.92 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^9
10^6
10^3
10^0
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
10
Incident Energy (eV)
51-Sb-121

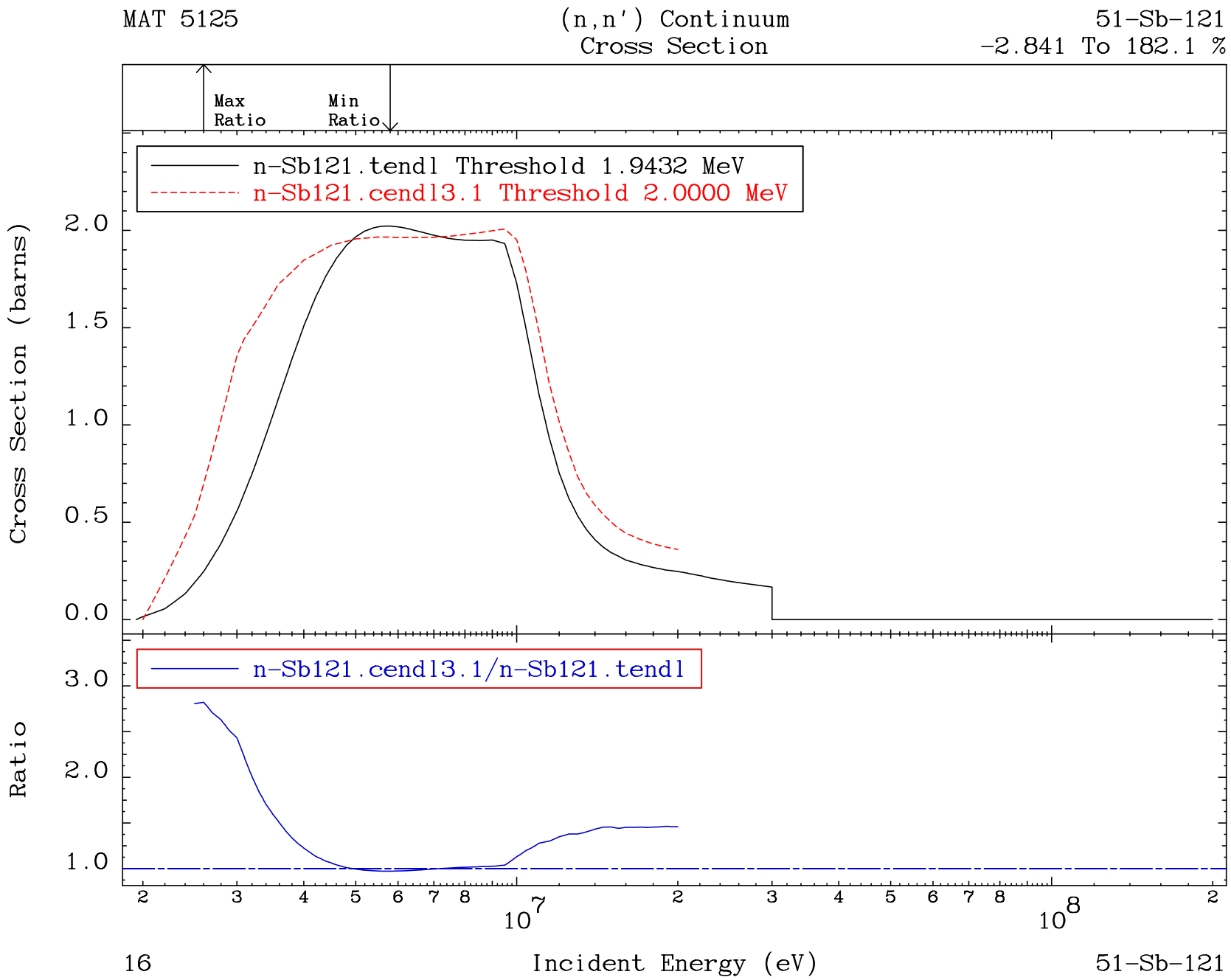

MAT 5125
MT= 54 (n,n') Level
Cross Section
51-Sb-121
7.651 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 954.89 keV
n-Sb121.cendl3.1 Threshold 954.89 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^9
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
11
Incident Energy (eV)
51-Sb-121

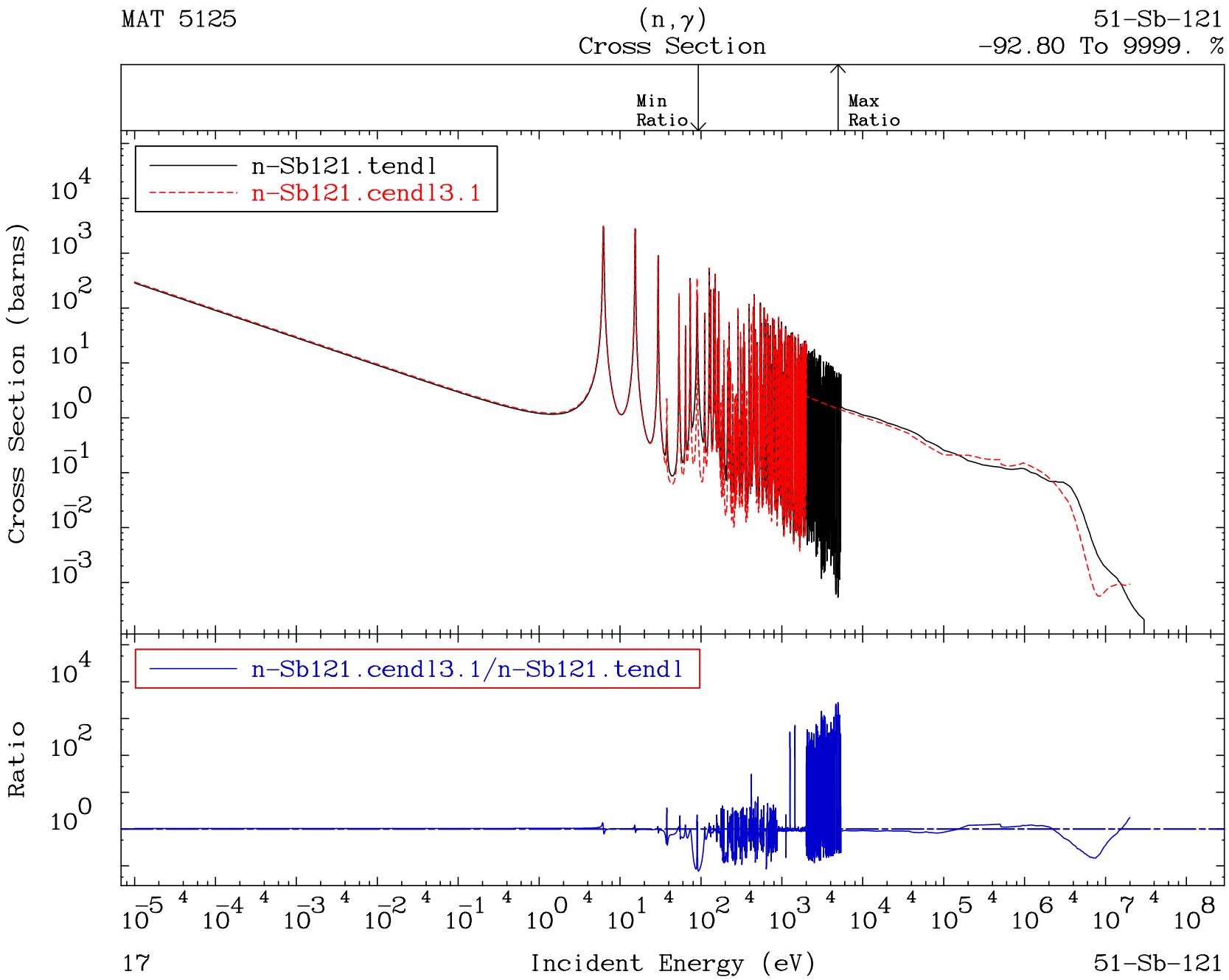

MAT 5125
MT= 55 (n,n') Level
Cross Section
51-Sb-121
0.164 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 1.0325 MeV
n-Sb121.cendl3.1 Threshold 1.0330 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^9
10^6
10^3
10^0
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
51-Sb-121

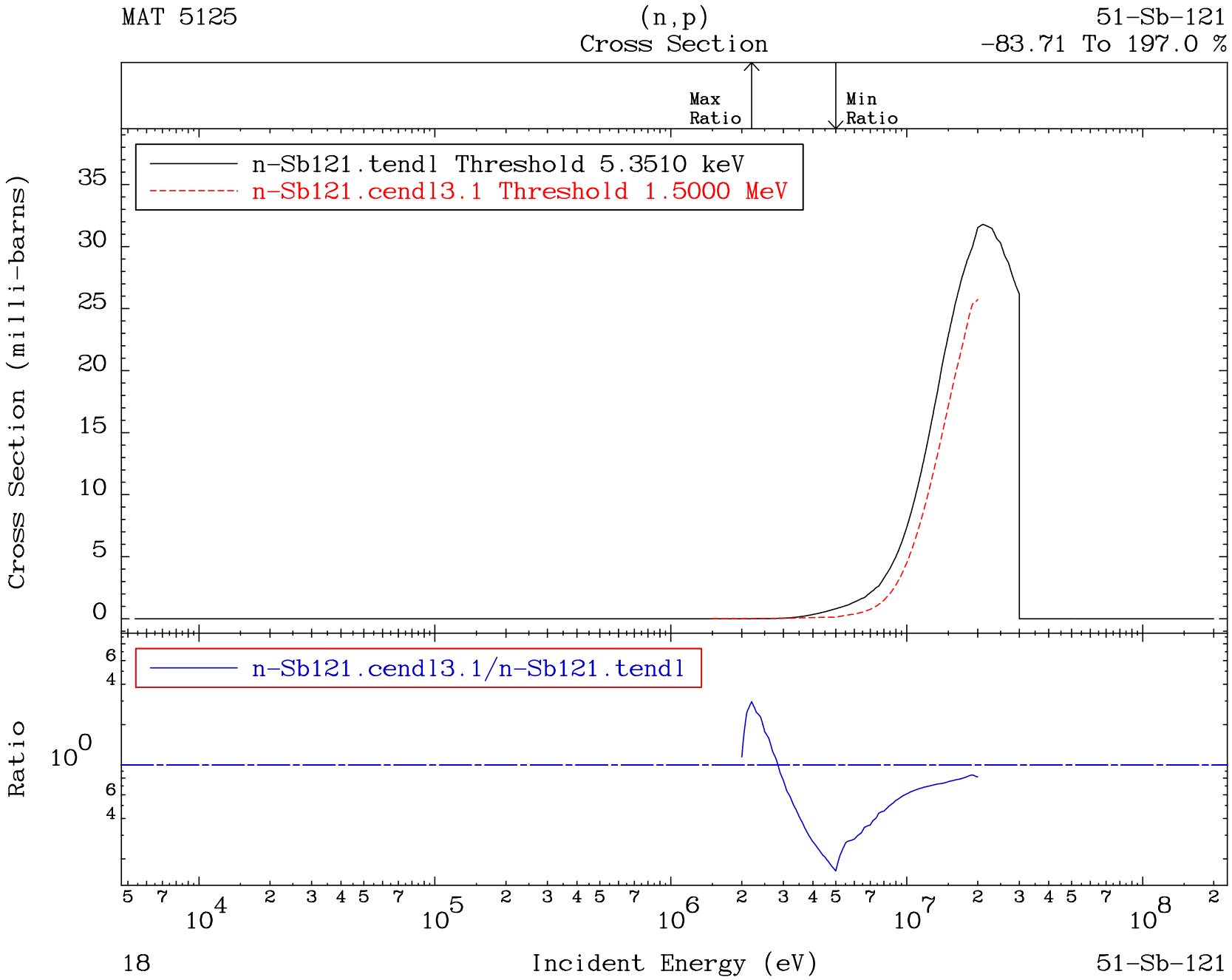

MAT 5125
MT= 56 (n,n') Level
Cross Section
51-Sb-121
7.823 To 9999. %
Min
Ratio
Max
Ratio
n-Sb121.tendl Threshold 1.0441 MeV
n-Sb121.cendl3.1 Threshold 1.0441 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^9
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
13
Incident Energy (eV)
51-Sb-121

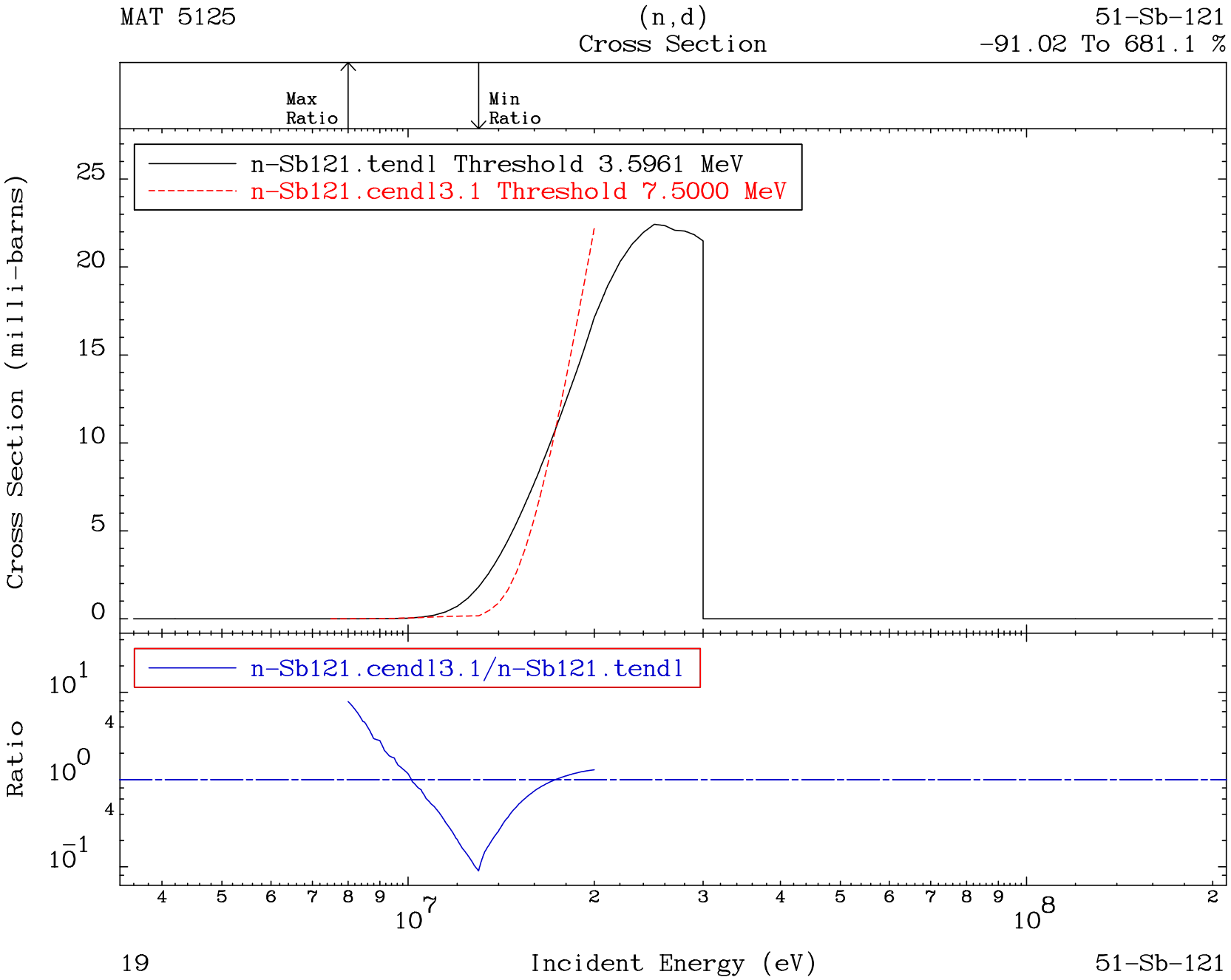

MAT 5125
MT= 57 (n,n') Level
Cross Section
51-Sb-121
-59.37 To 7344. %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 1.1488 MeV
n-Sb121.cendl3.1 Threshold 1.1490 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^2
10^1
10^0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
14
Incident Energy (eV)
51-Sb-121

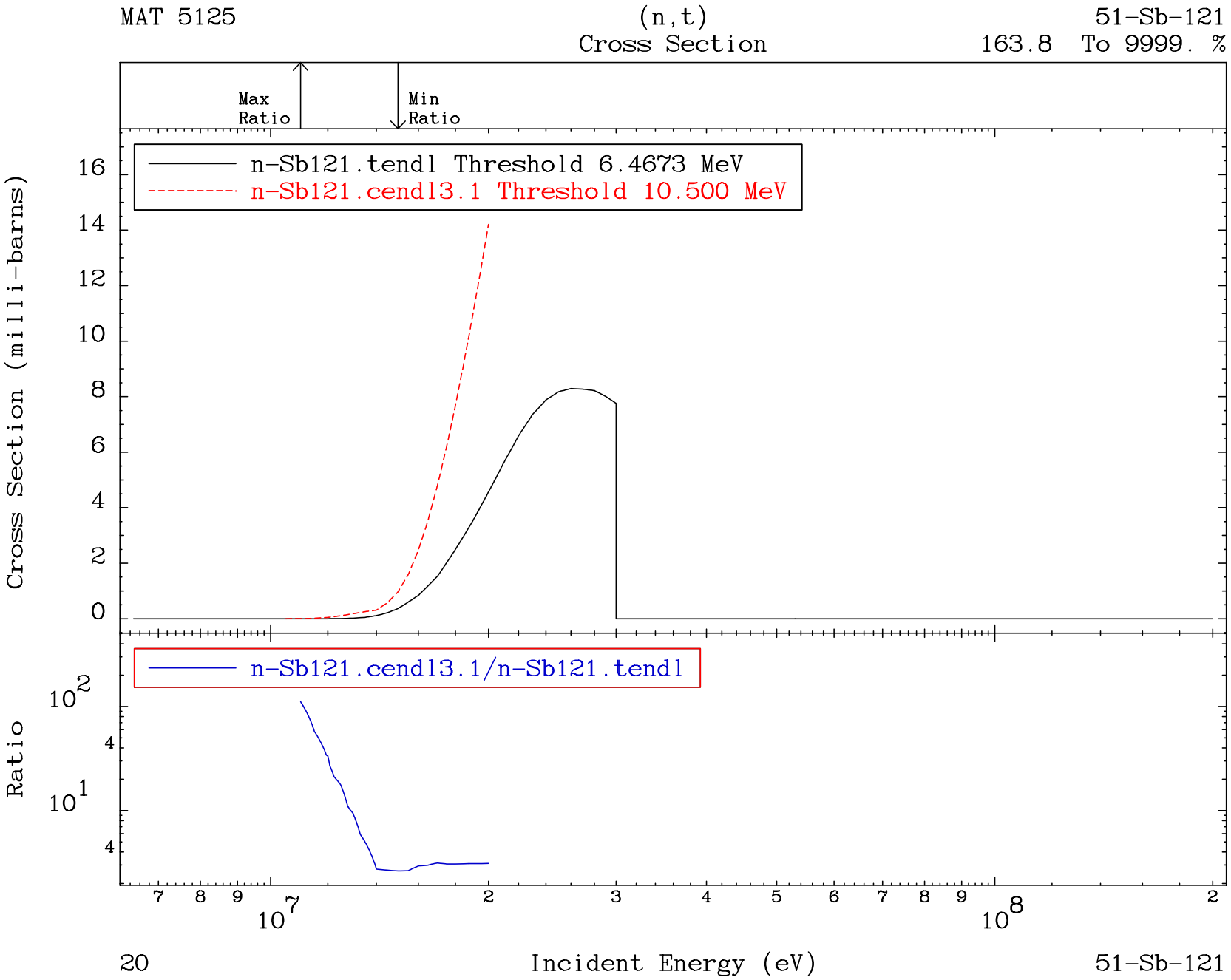

MAT 5125
MT= 58 (n,n') Level
Cross Section
51-Sb-121
-29.67 To 173.1 %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 1.1542 MeV
n-Sb121.cendl3.1 Threshold 1.1542 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
3.0
2.0
1.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
51-Sb-121

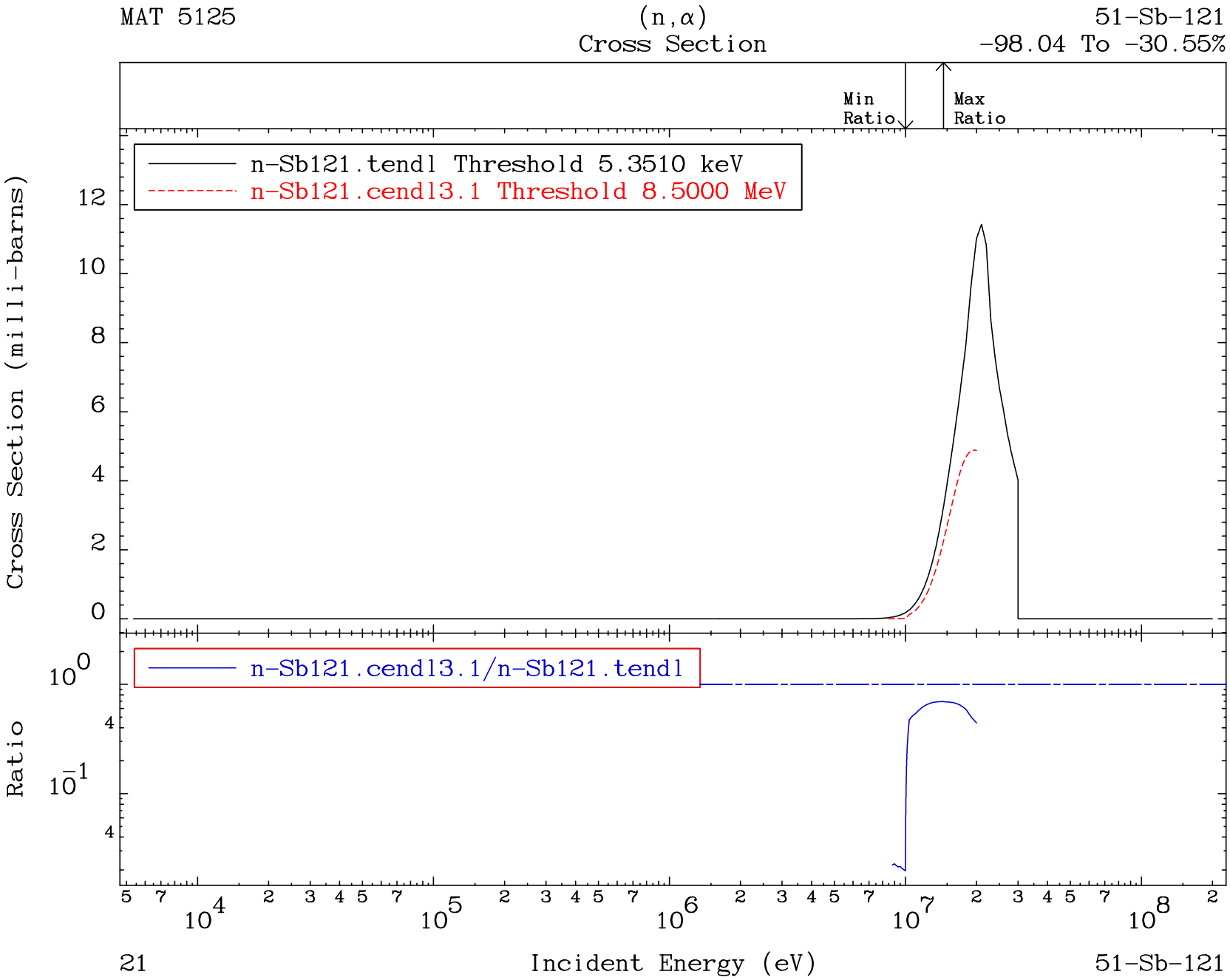

MAT 5125
(n,n') Continuum
Cross Section
51-Sb-121
-2.841 To 182.1 %
Max Ratio
Min Ratio
n-Sb121.tendl Threshold 1.9432 MeV
n-Sb121.cendl3.1 Threshold 2.0000 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
3.0
2.0
1.0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
16
Incident Energy (eV)
51-Sb-121

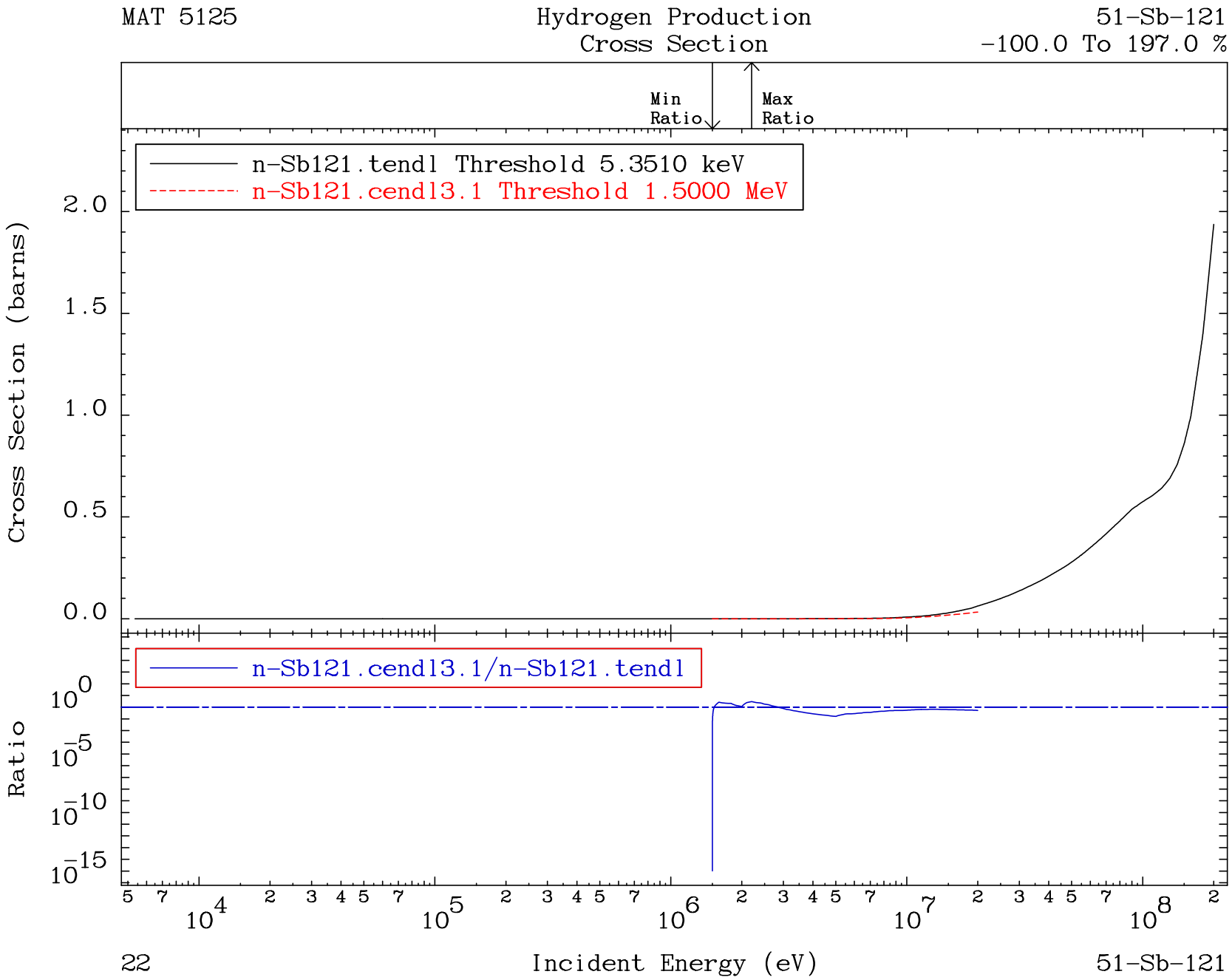

MAT 5125
(n,γ)
Cross Section
51-Sb-121
-92.80 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
17
51-Sb-121

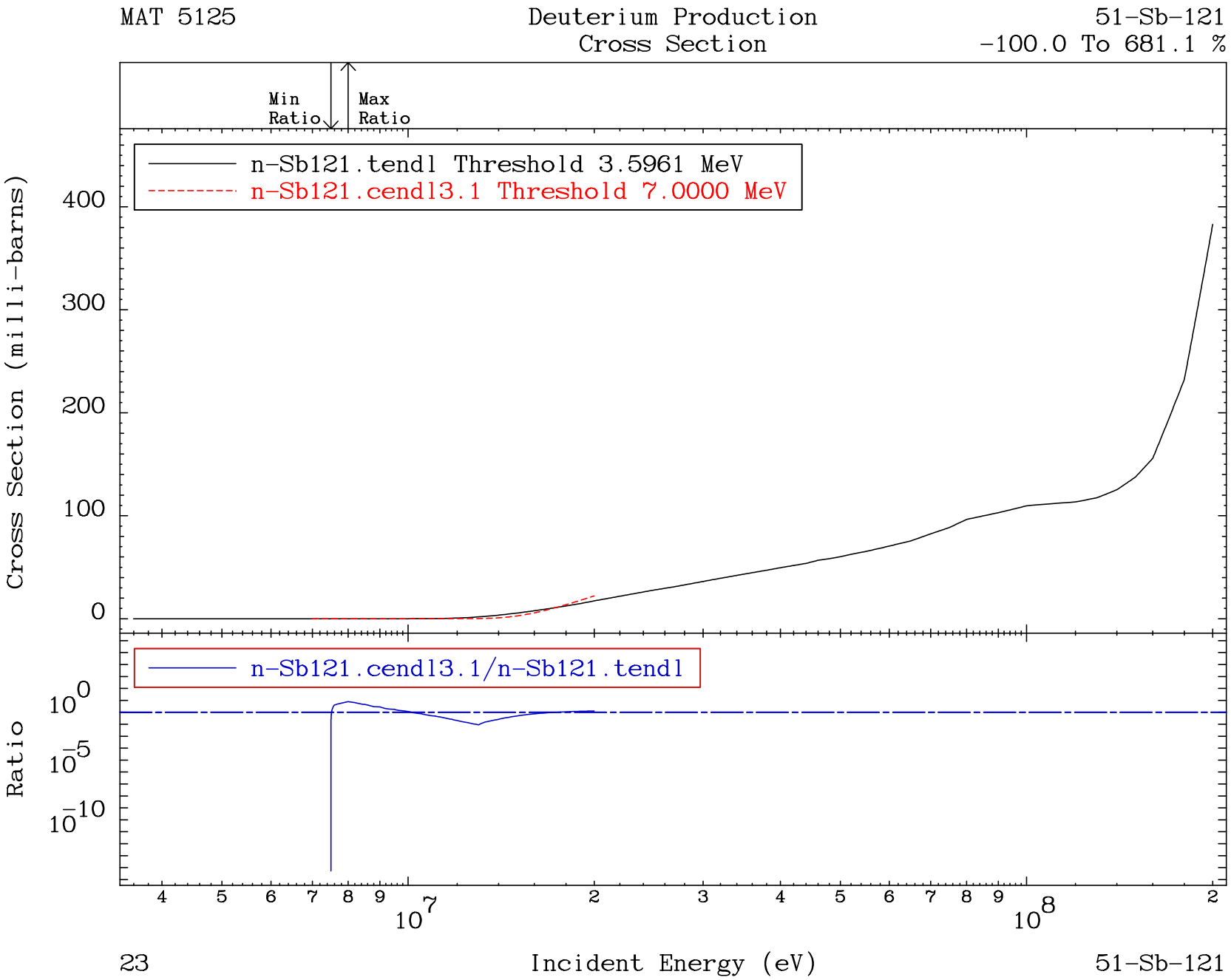

MAT 5125
(n,p)
Cross Section
51-Sb-121
-83.71 To 197.0 %
Max Ratio
Min Ratio
n-Sb121.tendl Threshold 5.3510 keV
n-Sb121.cendl3.1 Threshold 1.5000 MeV
Cross Section (milli-barns)
0
5
10
15
20
25
30
35
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^0
6
4
6
4
5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
18
Incident Energy (eV)
51-Sb-121

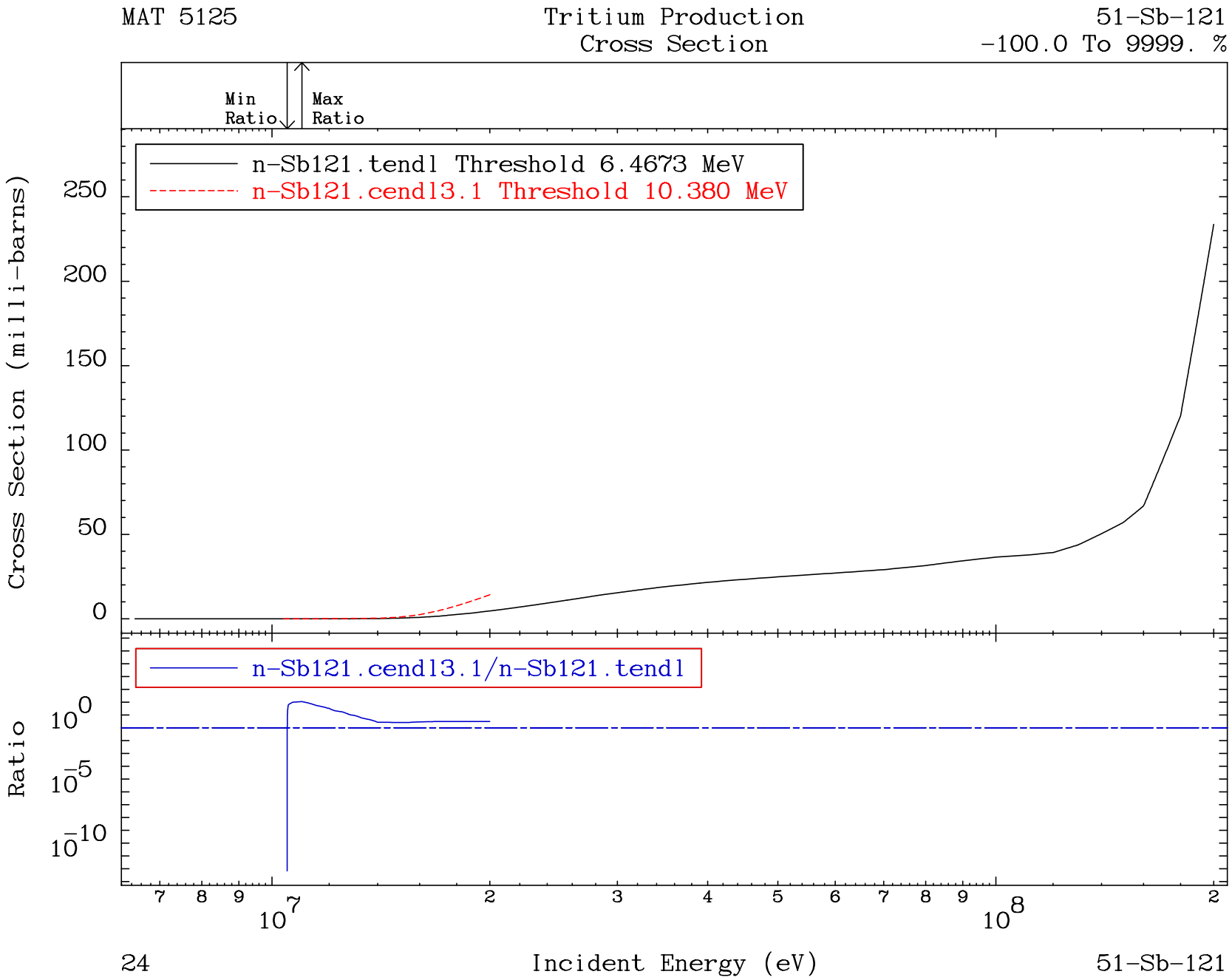

MAT 5125
(n,d)
Cross Section
51-Sb-121
-91.02 To 681.1 %
Max Ratio
Min Ratio
n-Sb121.tendl Threshold 3.5961 MeV
n-Sb121.cendl3.1 Threshold 7.5000 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^1
10^0
10^-1
4
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
51-Sb-121

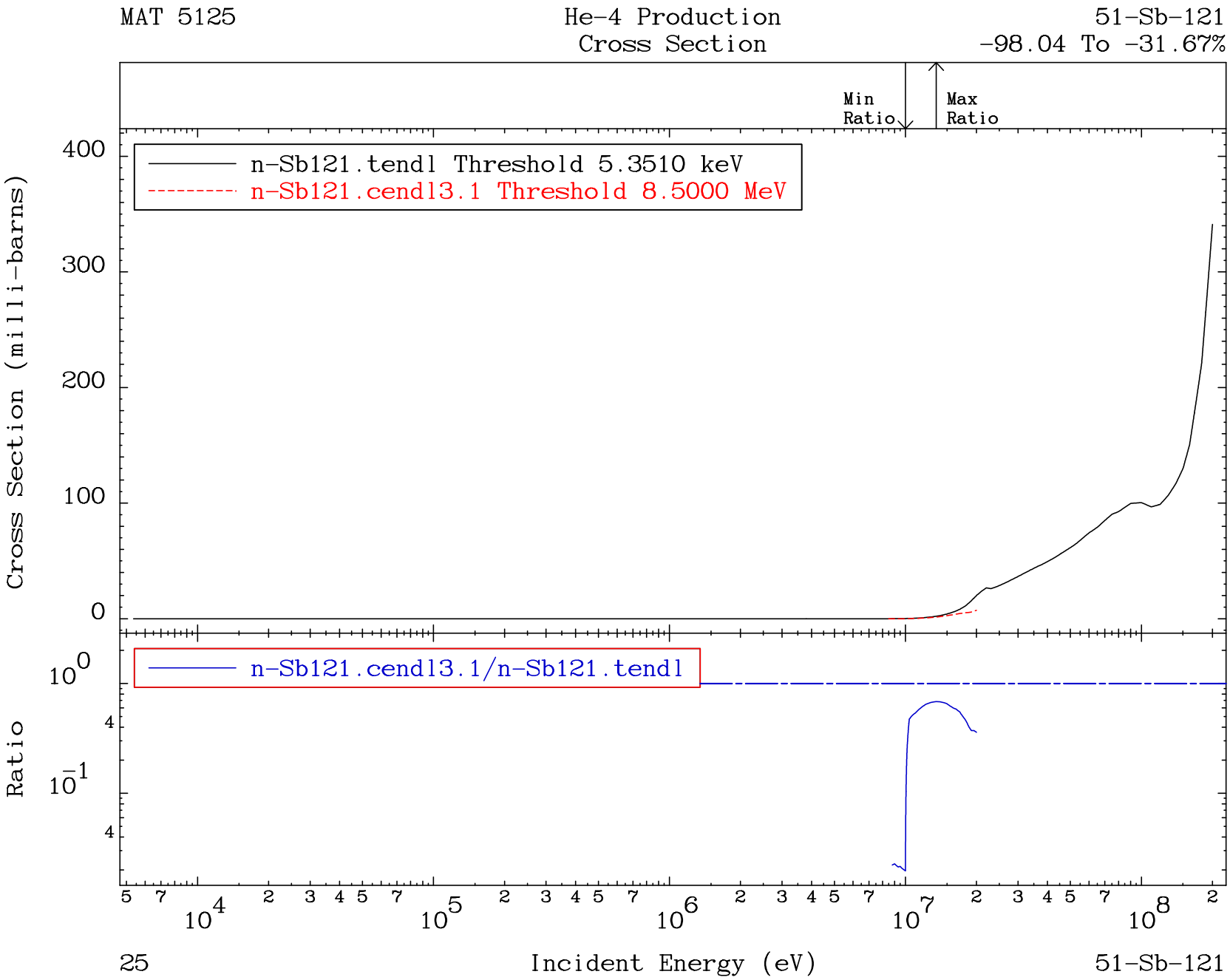

MAT 5125
(n,t)
Cross Section
51-Sb-121
163.8 To 9999. %
Max Ratio
Min Ratio
n-Sb121.tendl Threshold 6.4673 MeV
n-Sb121.cendl3.1 Threshold 10.500 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^2
4
10^1
4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
51-Sb-121

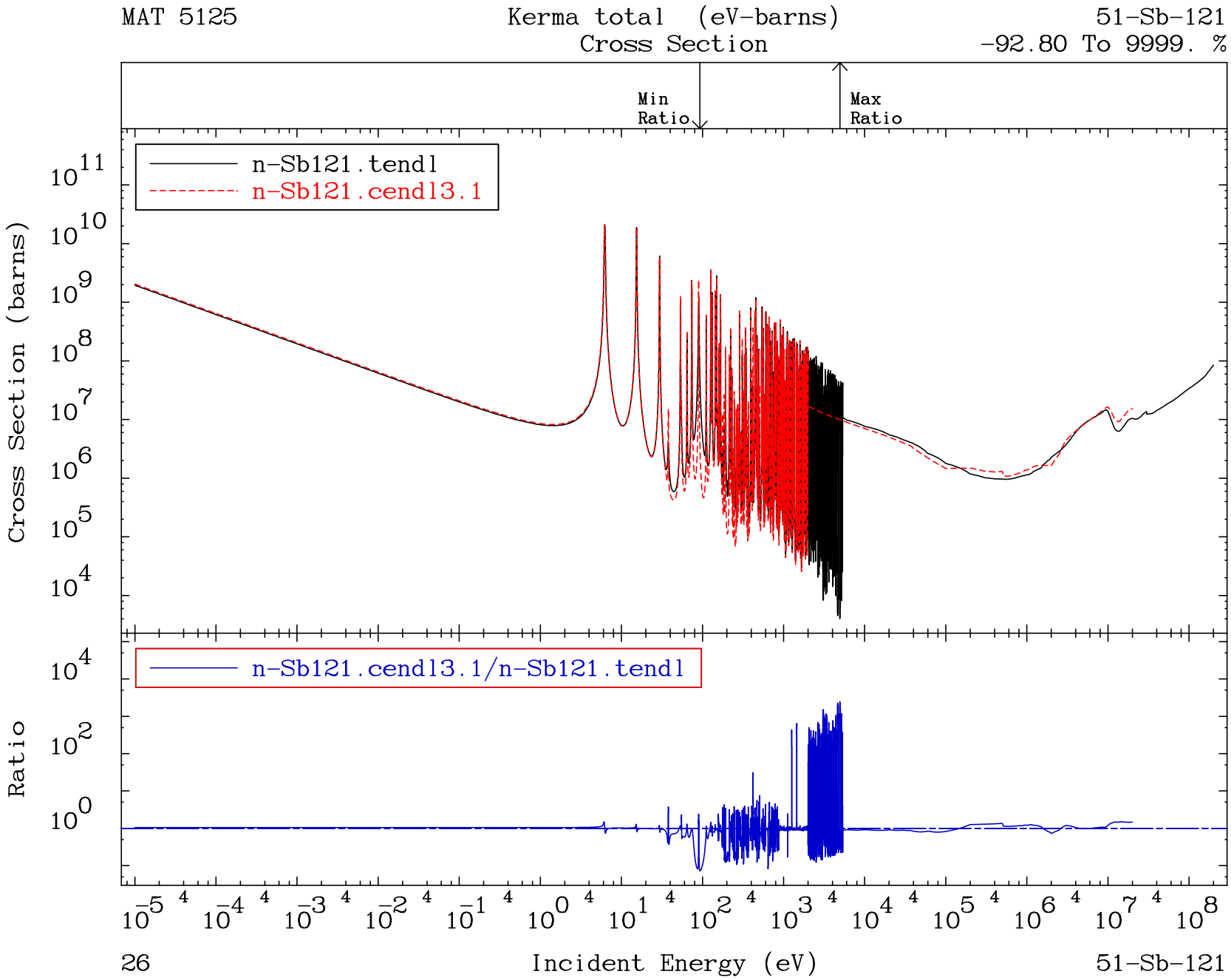

MAT 5125
(n,α)
Cross Section
51-Sb-121
-98.04 To -30.55%
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 5.3510 keV
n-Sb121.cendl3.1 Threshold 8.5000 MeV
Cross Section (milli-barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
21
51-Sb-121

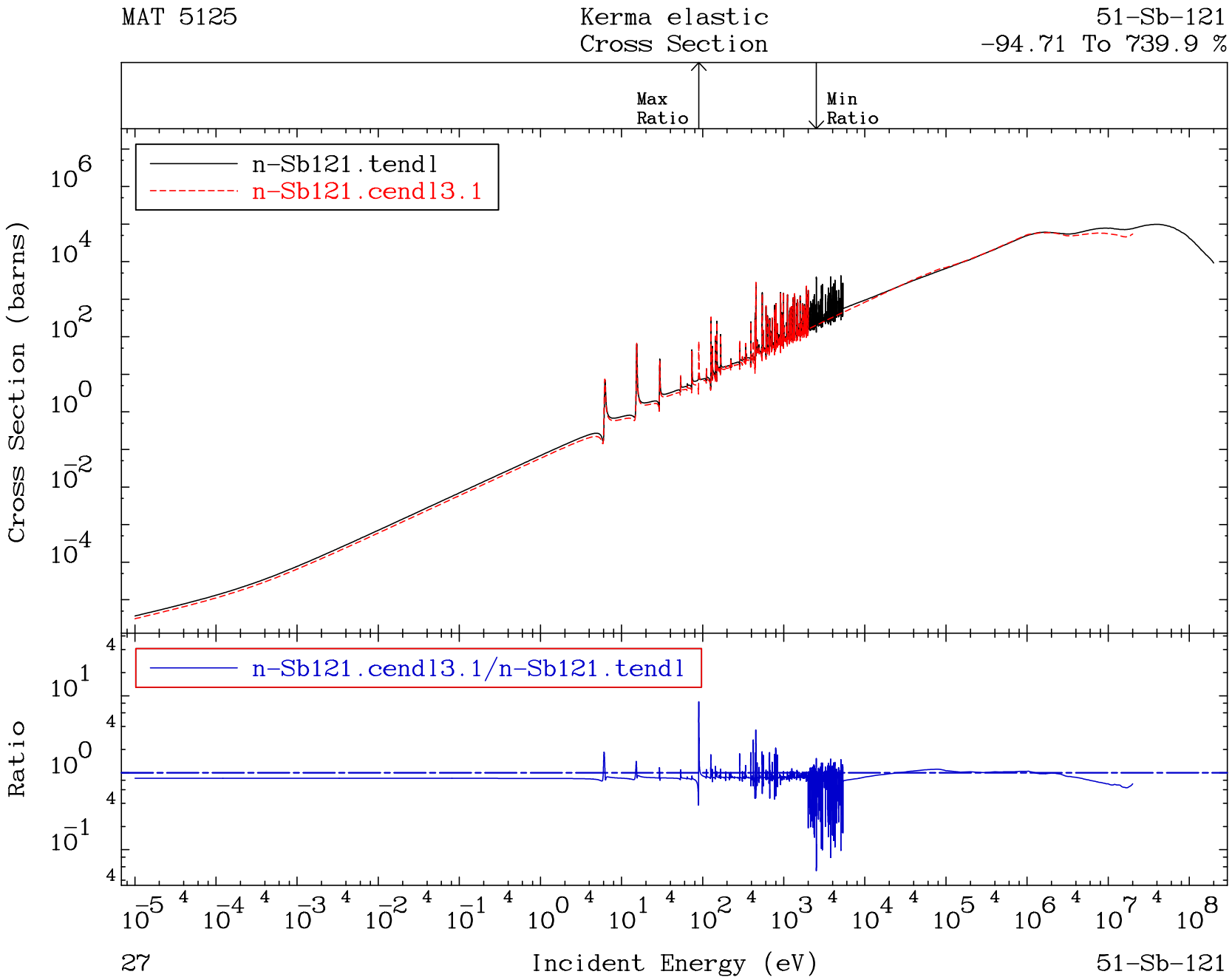

MAT 5125
Hydrogen Production
Cross Section
51-Sb-121
-100.0 To 197.0 %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 5.3510 keV
n-Sb121.cendl3.1 Threshold 1.5000 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^0
10^-5
10^-10
10^-15
5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
22
Incident Energy (eV)
51-Sb-121

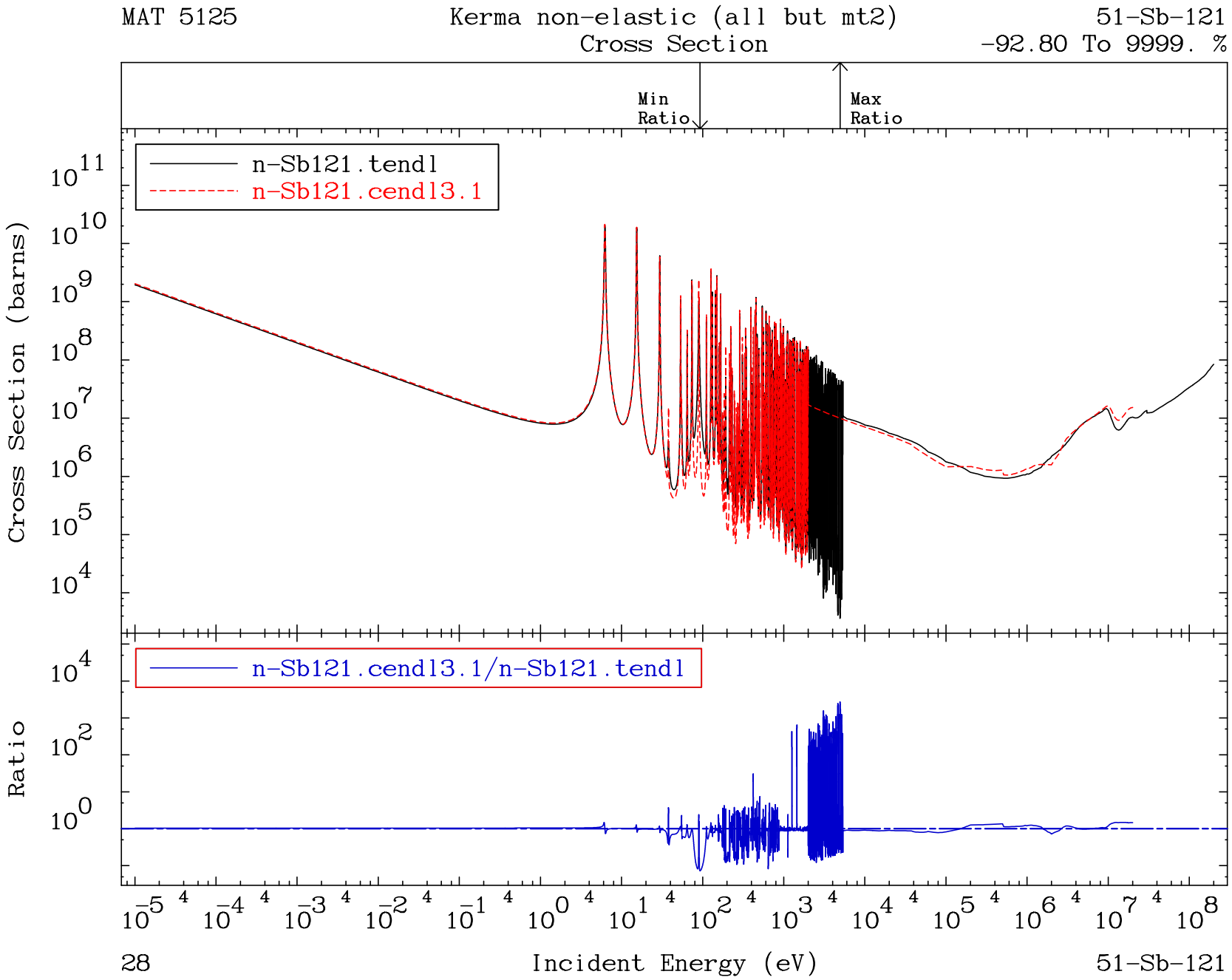

MAT 5125
Deuterium Production
Cross Section
51-Sb-121
-100.0 To 681.1 %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 3.5961 MeV
n-Sb121.cendl3.1 Threshold 7.0000 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^0
10^-5
10^-10
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
51-Sb-121

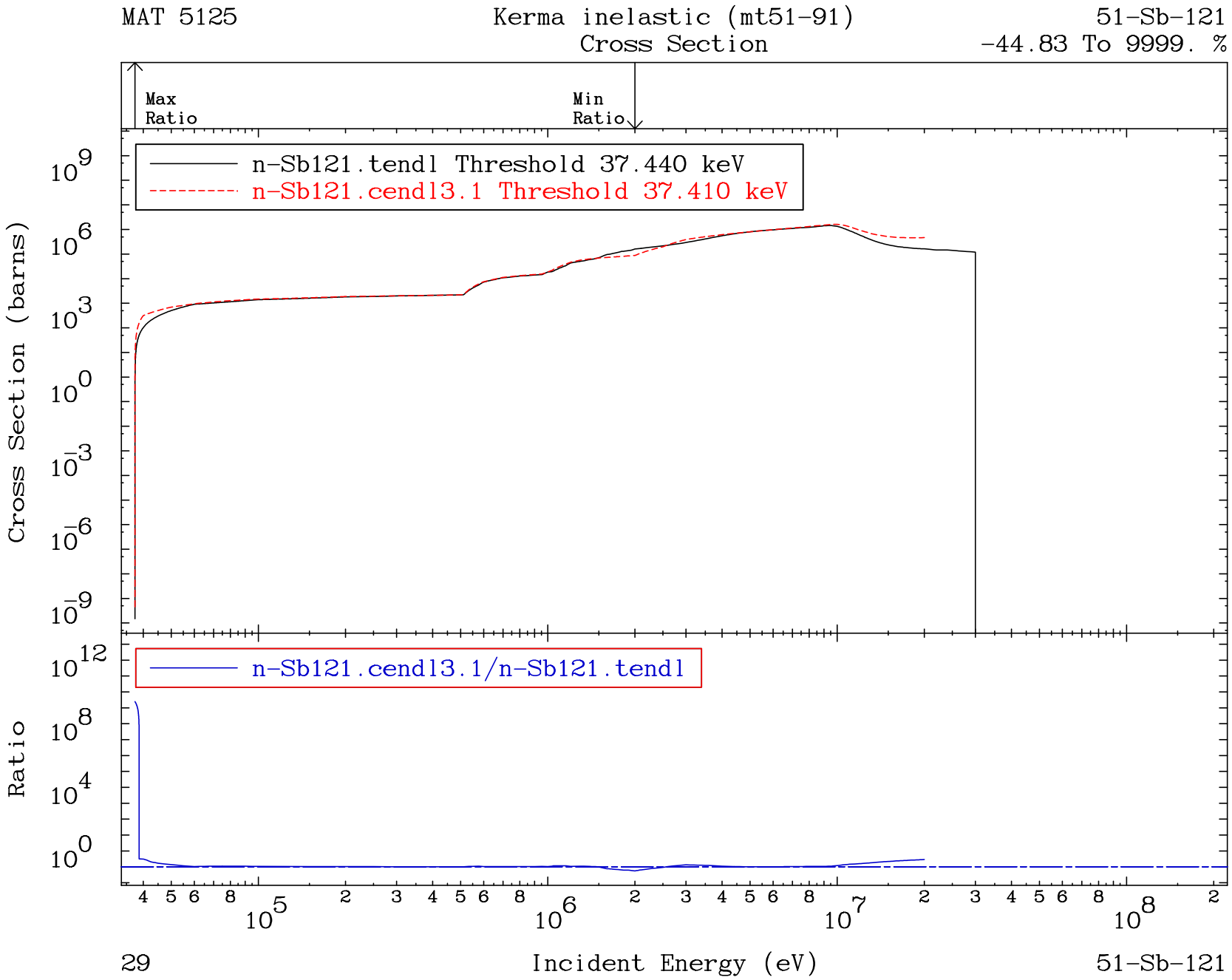

MAT 5125
Tritium Production
Cross Section
51-Sb-121
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 6.4673 MeV
n-Sb121.cendl3.1 Threshold 10.380 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^0
10^-5
10^-10
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
51-Sb-121

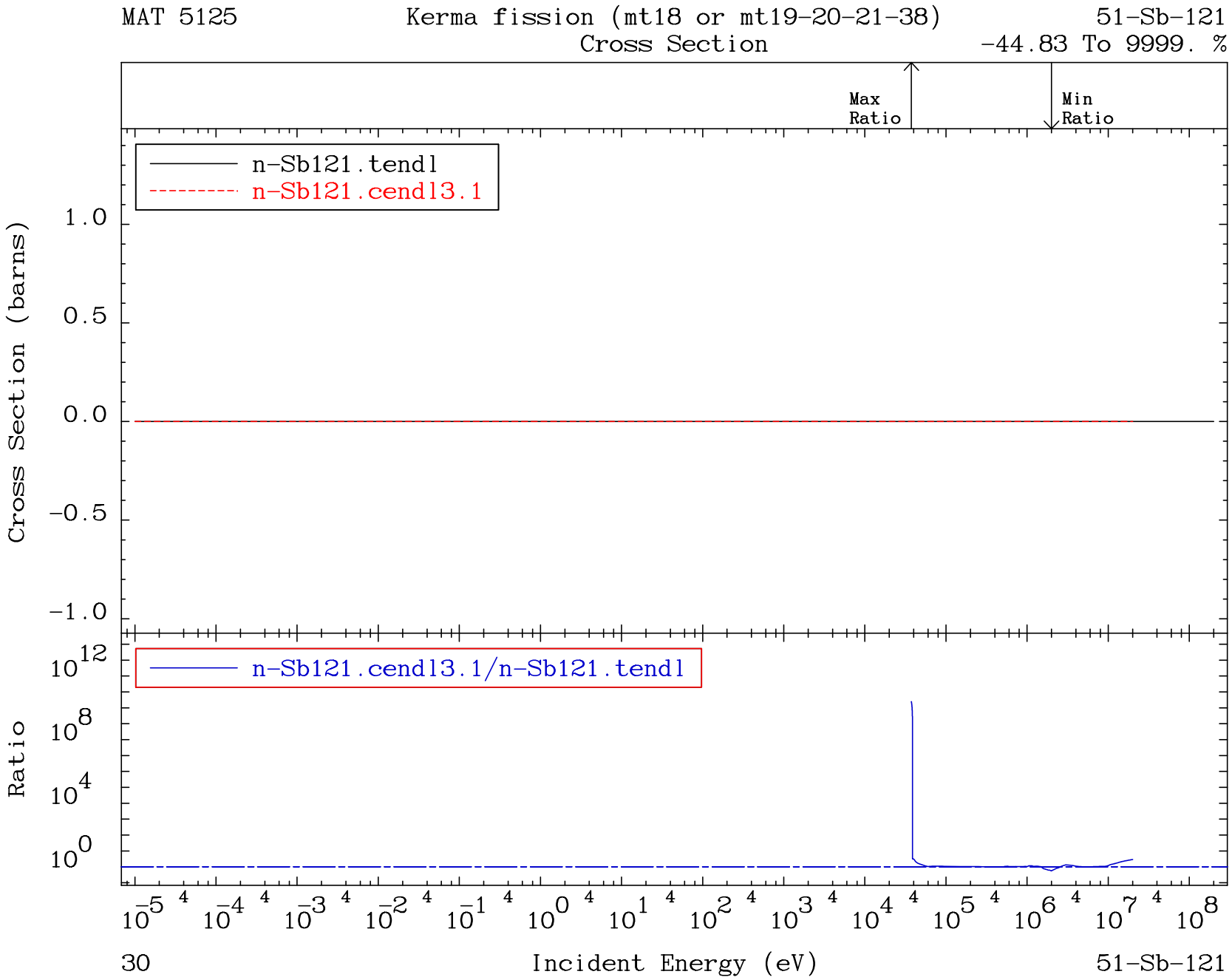

MAT 5125
He-4 Production
Cross Section
51-Sb-121
-98.04 To -31.67%
Min Ratio
Max Ratio
n-Sb121.tendl Threshold 5.3510 keV
n-Sb121.cendl3.1 Threshold 8.5000 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^0
10^-1
4
4
5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
25
Incident Energy (eV)
51-Sb-121

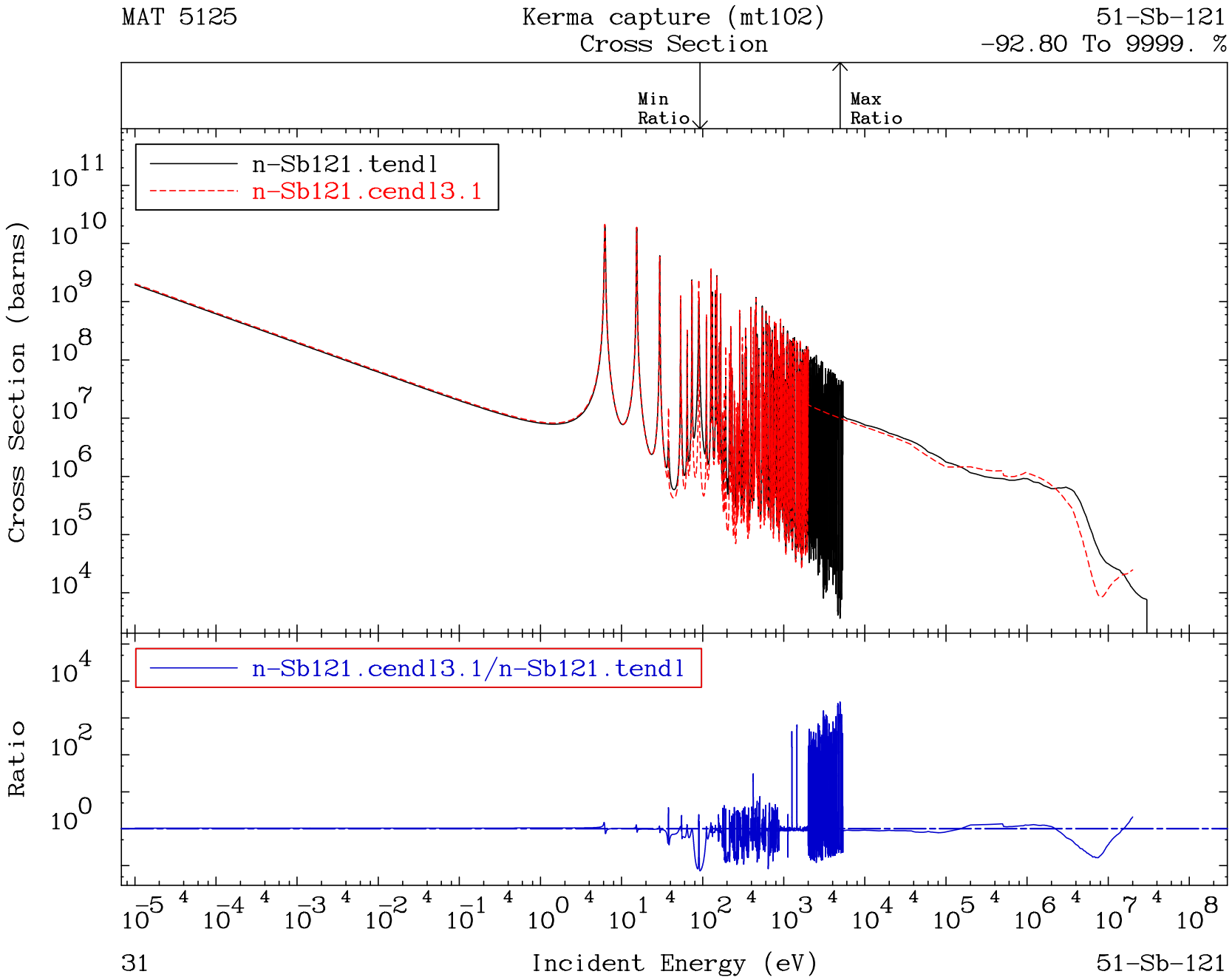

MAT 5125
Kerma total (eV-barns)
Cross Section
51-Sb-121
-92.80 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
26
51-Sb-121

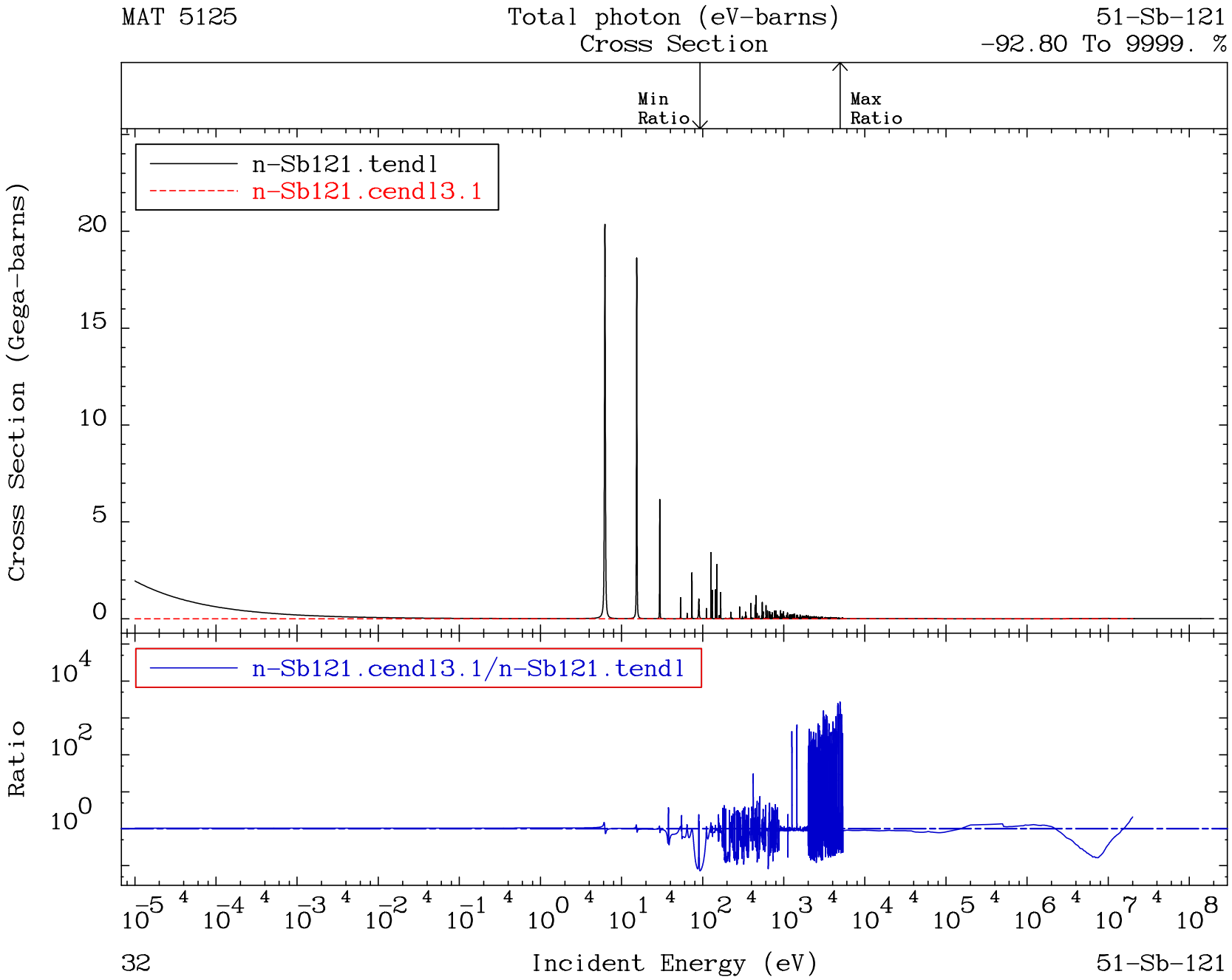

MAT 5125
Kerma elastic
Cross Section
51-Sb-121
-94.71 To 739.9 %
Max
Ratio
Min
Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
27
51-Sb-121

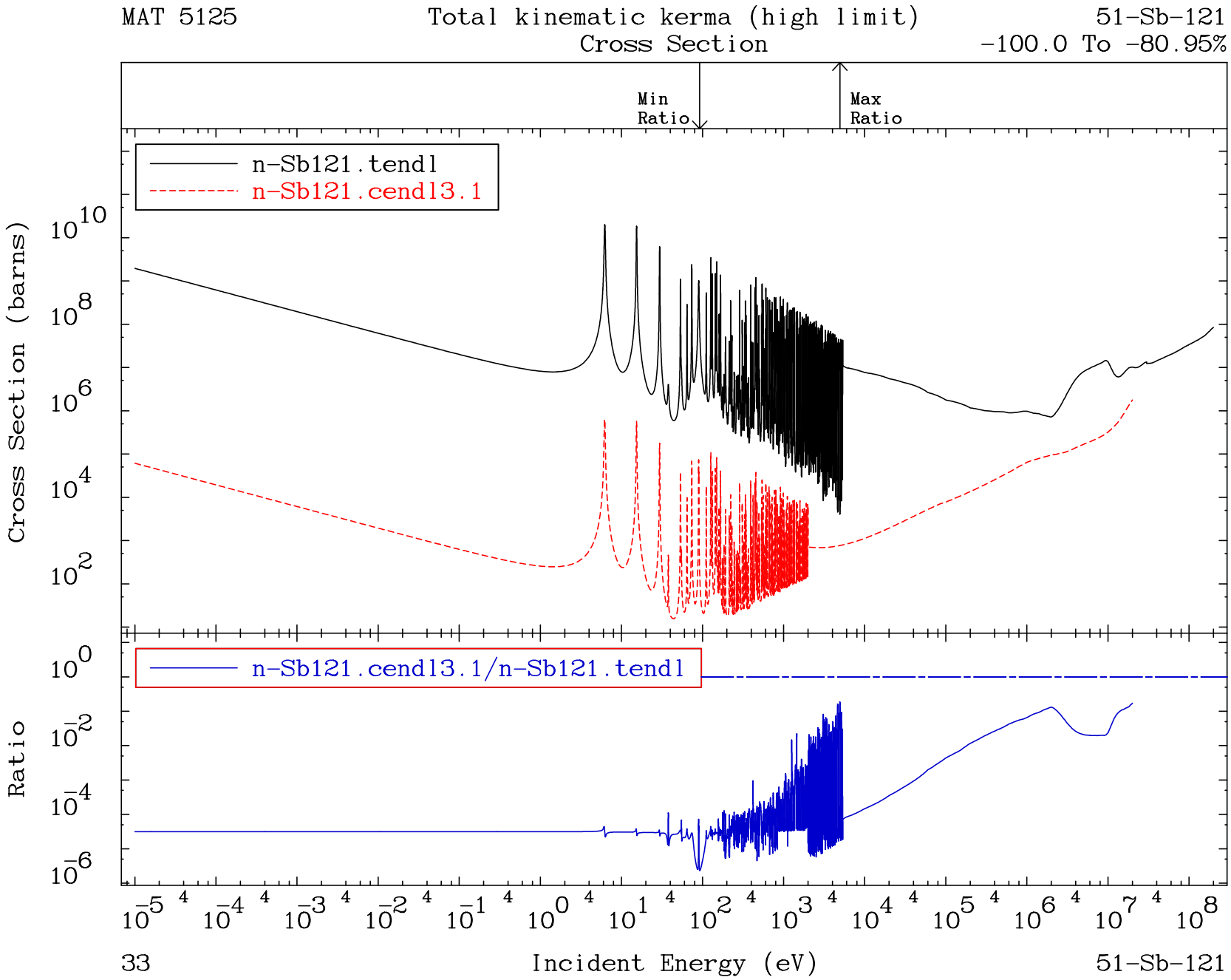

MAT 5125
Kerma non-elastic (all but mt2)
Cross Section
51-Sb-121
-92.80 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
28
51-Sb-121

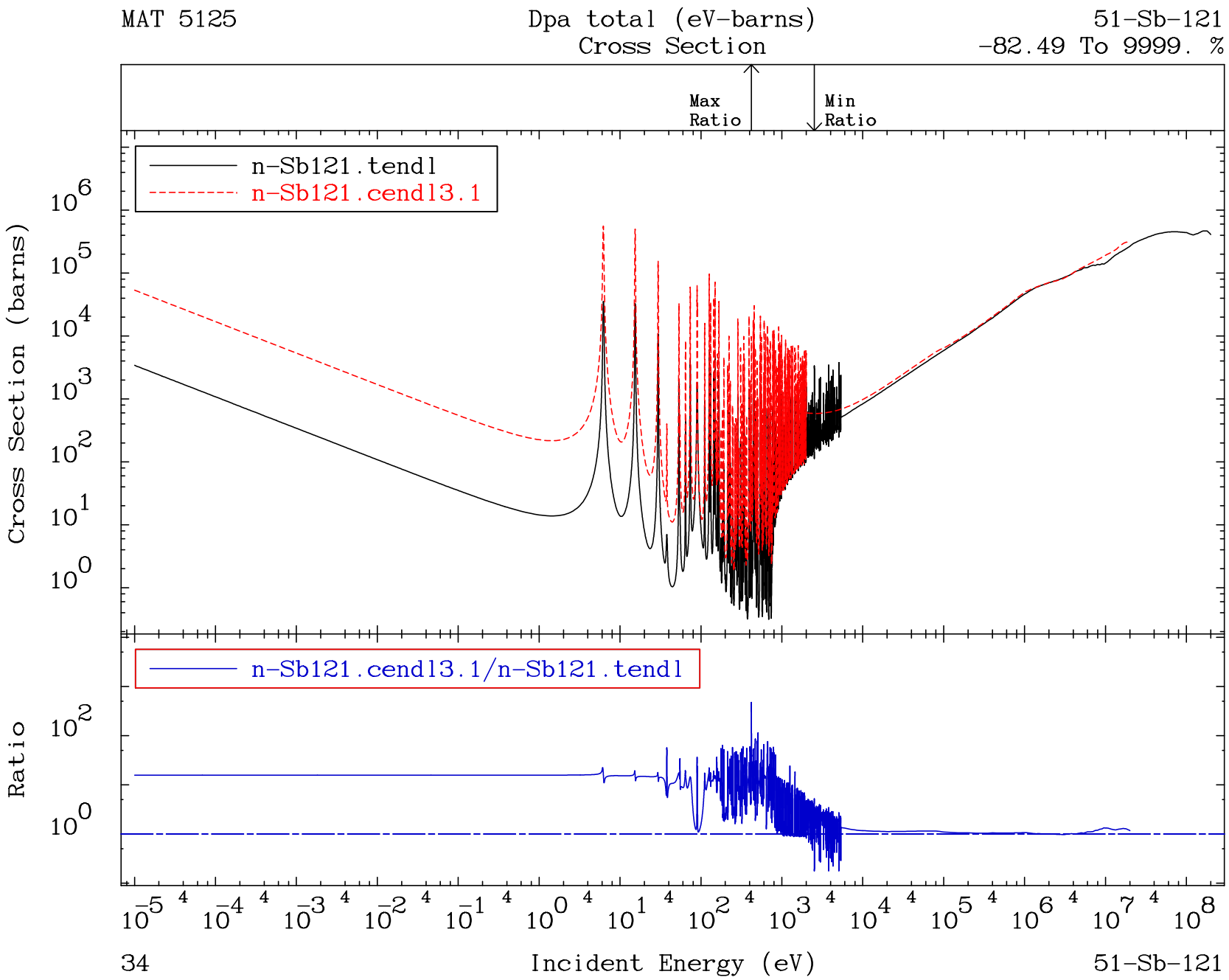

MAT 5125
Kerma inelastic (mt51-91)
Cross Section
51-Sb-121
-44.83 To 9999. %
Max Ratio
Min Ratio
n-Sb121.tendl Threshold 37.440 keV
n-Sb121.cendl3.1 Threshold 37.410 keV
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
29
51-Sb-121

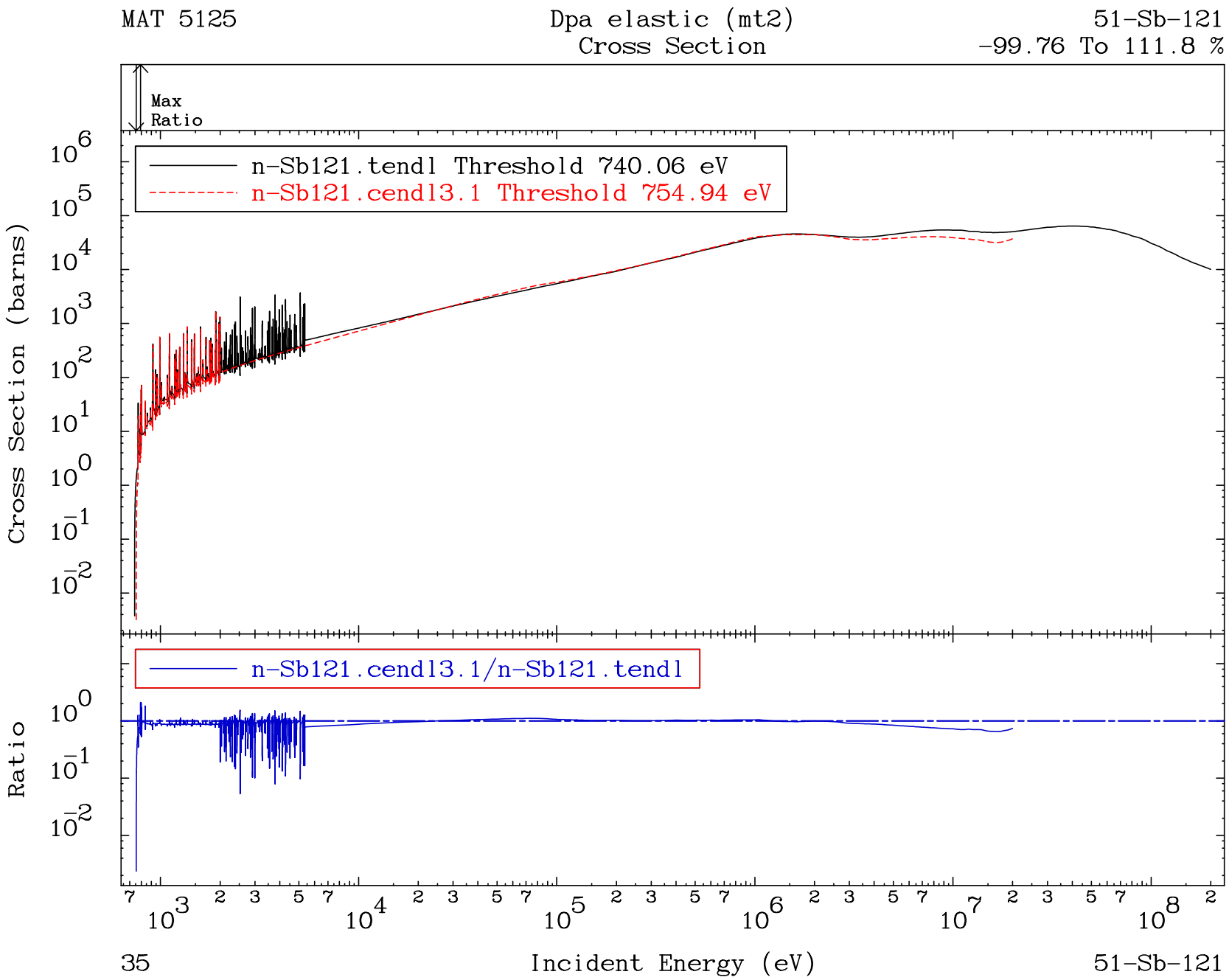

MAT 5125
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
51-Sb-121
-44.83 To 9999. %
Max Ratio
Min Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^12
10^8
10^4
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
30
Incident Energy (eV)
51-Sb-121

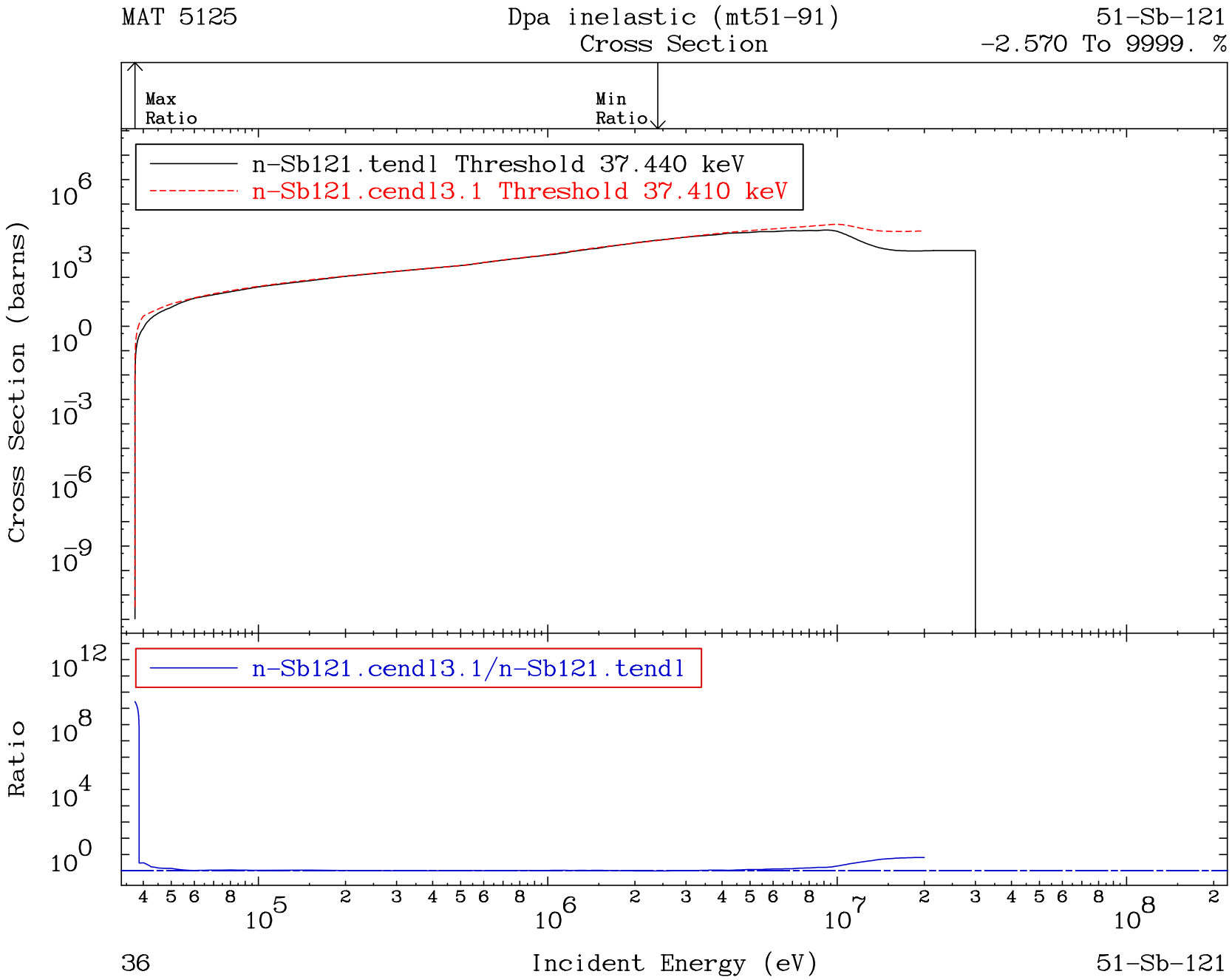

MAT 5125
Kerma capture (mt102)
Cross Section
51-Sb-121
-92.80 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
31
51-Sb-121

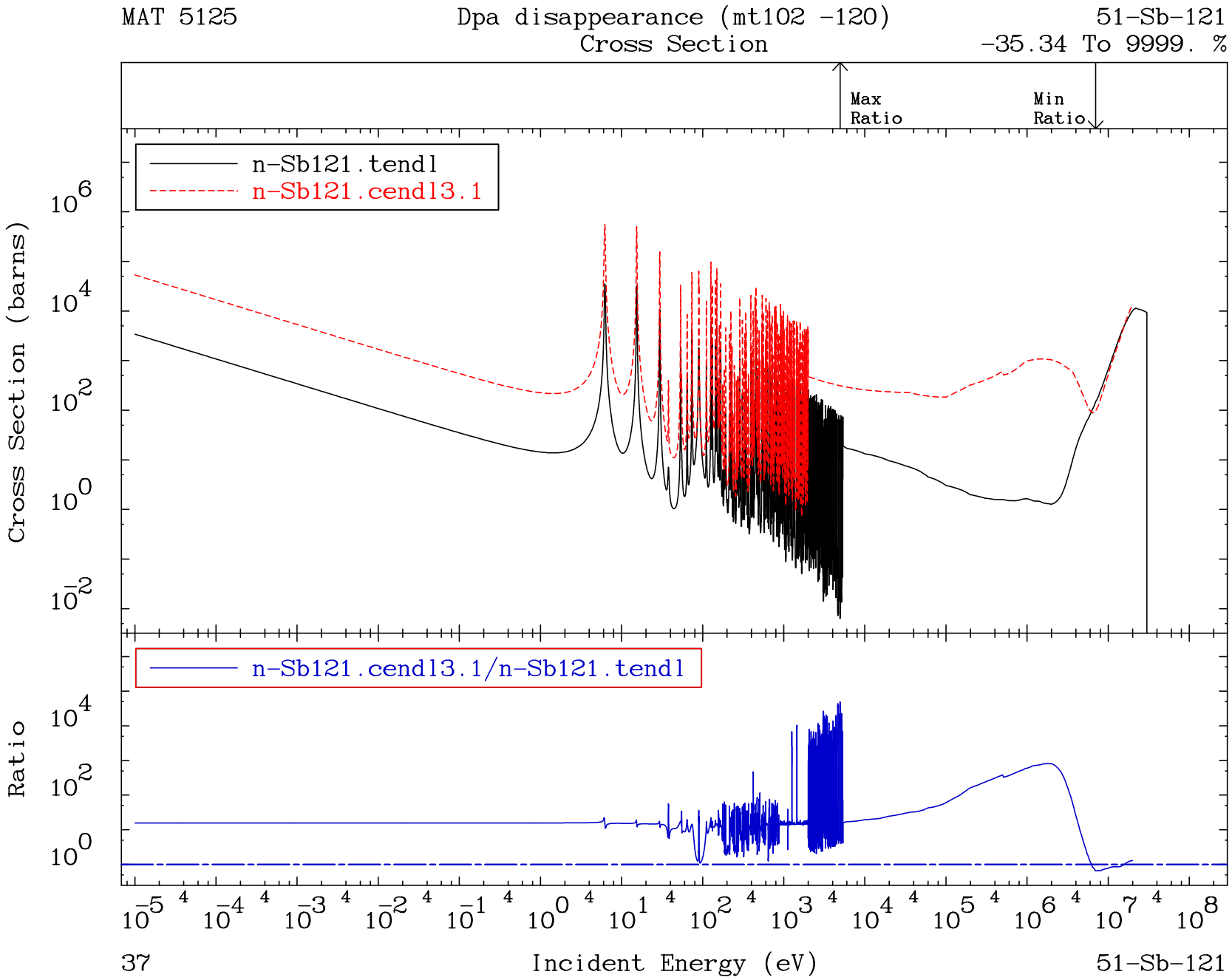

MAT 5125
Total photon (eV-barns)
Cross Section
51-Sb-121
-92.80 To 9999. %
Min Ratio
Max Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (Giga-barns)
20
15
10
5
0
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
10^4
10^2
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
32
Incident Energy (eV)
51-Sb-121


MAT 5125
Total kinematic kerma (high limit)
Cross Section
51-Sb-121
-100.0 To -80.95%
Min Ratio
Max Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
Ratio
n-Sb121.cendl3.1/n-Sb121.tendl
Incident Energy (eV)
33
51-Sb-121


MAT 5125
Dpa total (eV-barns)
Cross Section
51-Sb-121
-82.49 To 9999. %
Max Ratio
Min Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
34
51-Sb-121


MAT 5125
Dpa elastic (mt2)
Cross Section
51-Sb-121
-99.76 To 111.8 %
Max
Ratio
n-Sb121.tendl Threshold 740.06 eV
n-Sb121.cendl3.1 Threshold 754.94 eV
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
35
51-Sb-121


MAT 5125
Dpa inelastic (mt51-91)
Cross Section
51-Sb-121
-2.570 To 9999. %
Max Ratio
Min Ratio
n-Sb121.tendl Threshold 37.440 keV
n-Sb121.cendl3.1 Threshold 37.410 keV
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
36
51-Sb-121


MAT 5125
Dpa disappearance (mt102 -120)
Cross Section
51-Sb-121
-35.34 To 9999. %
Max Ratio
Min Ratio
n-Sb121.tendl
n-Sb121.cendl3.1
Cross Section (barns)
n-Sb121.cendl3.1/n-Sb121.tendl
Ratio
Incident Energy (eV)
37
51-Sb-121