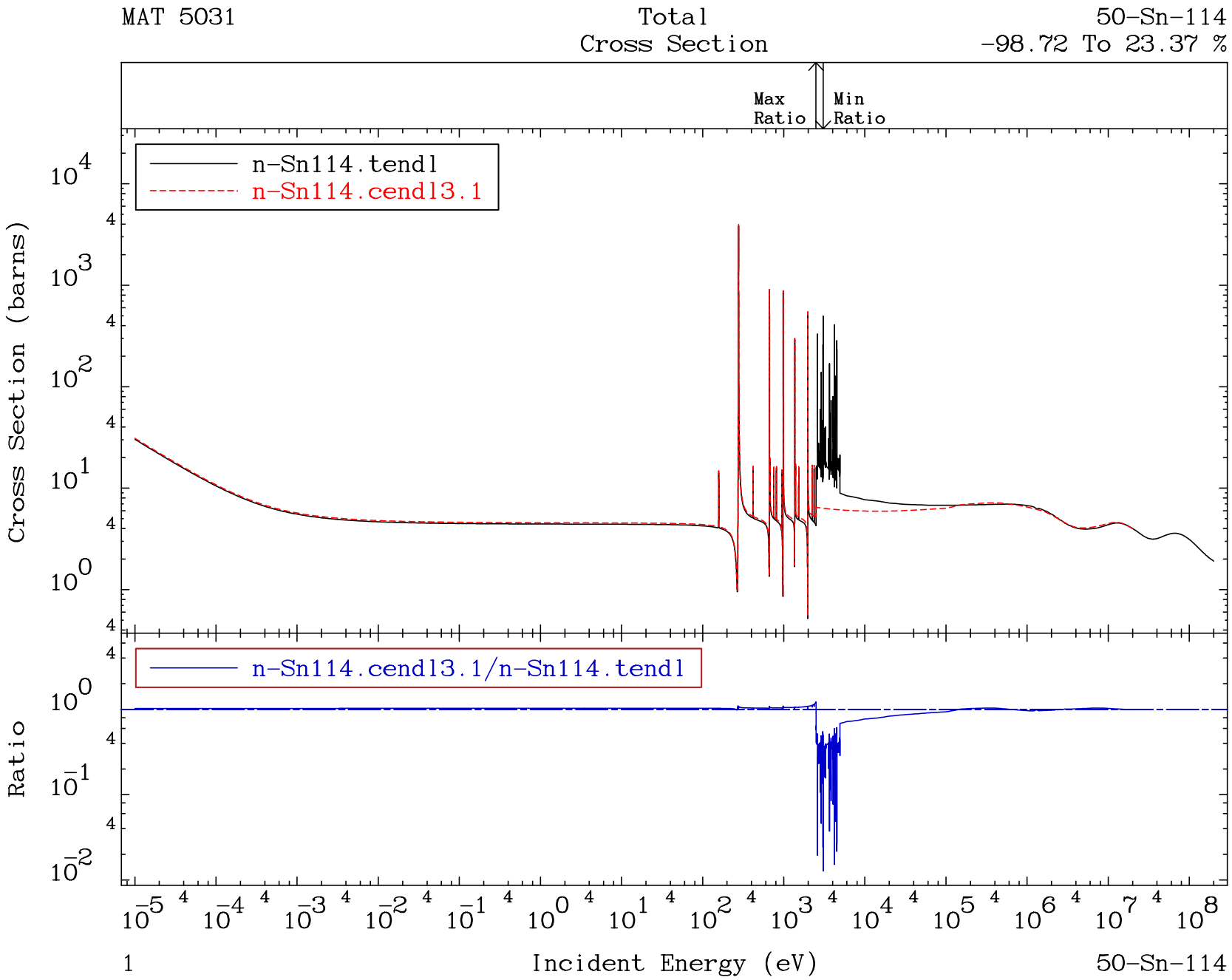
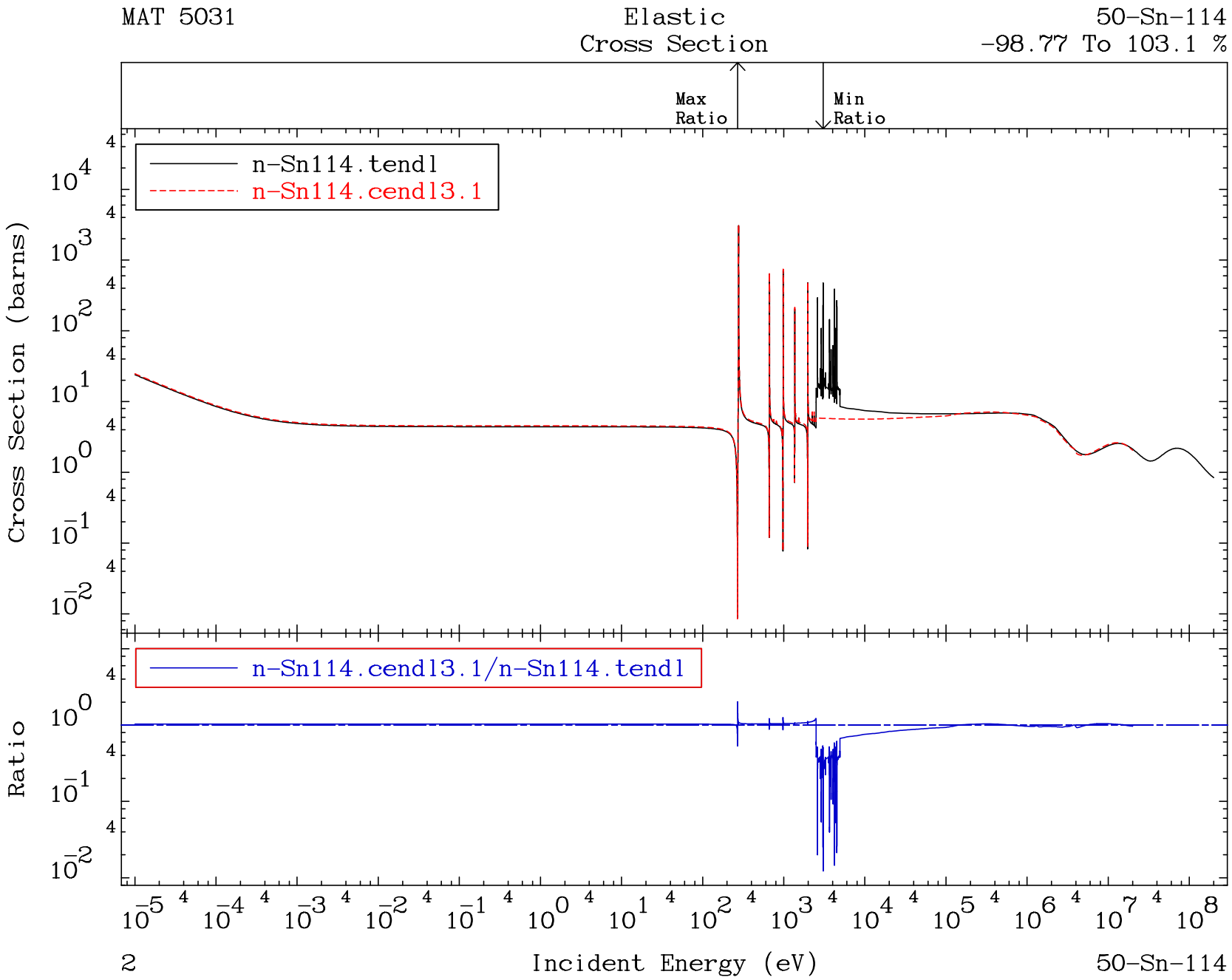
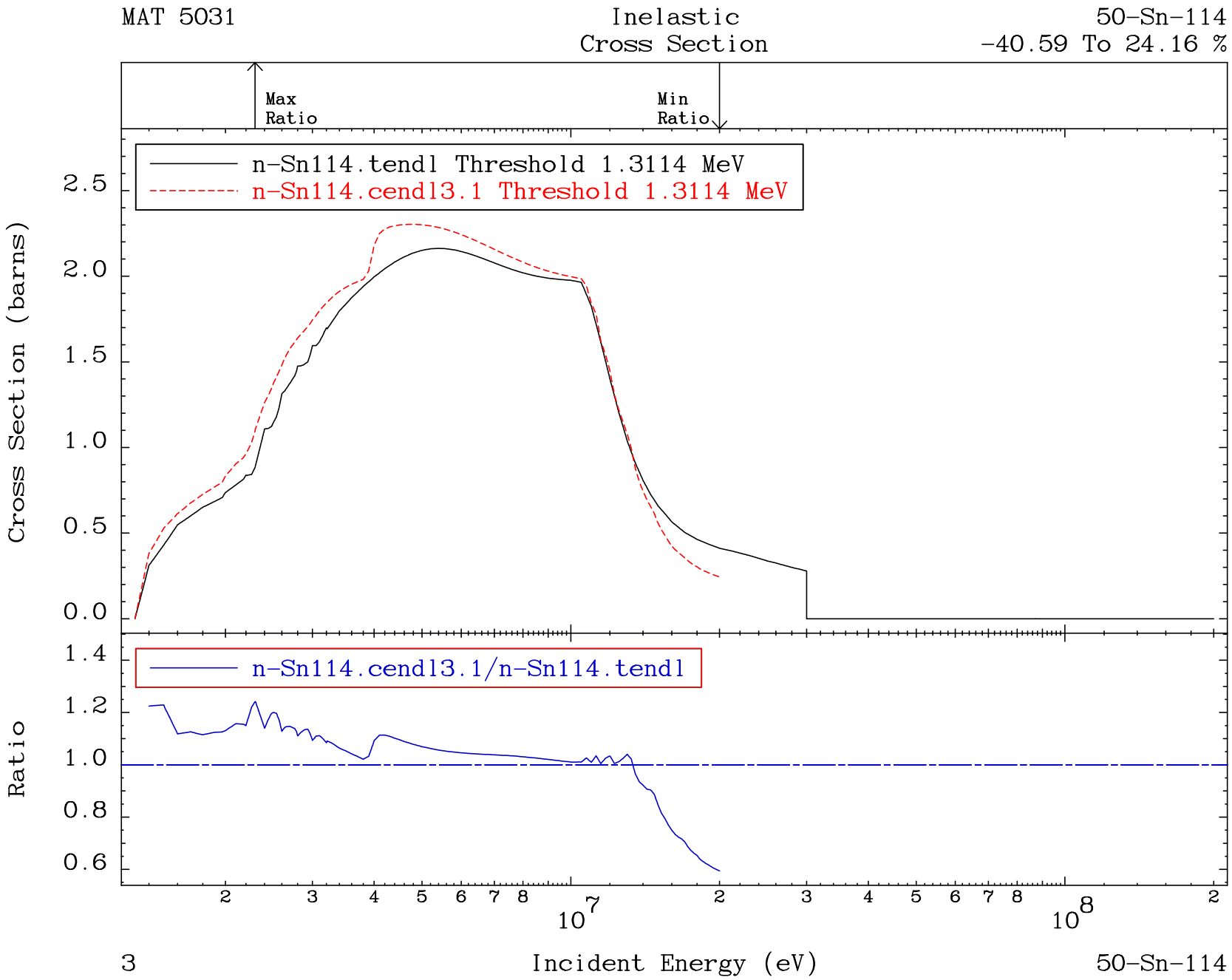
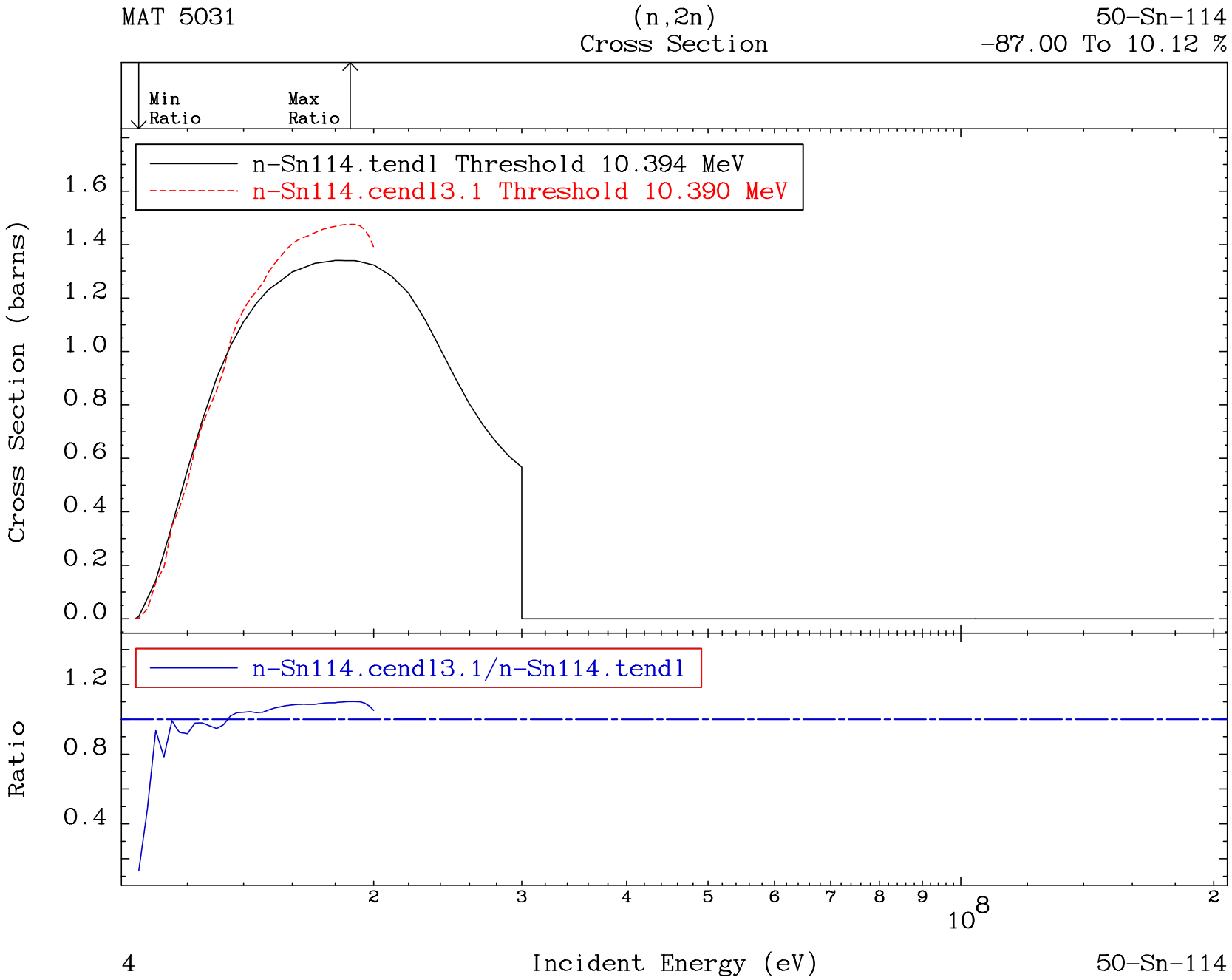
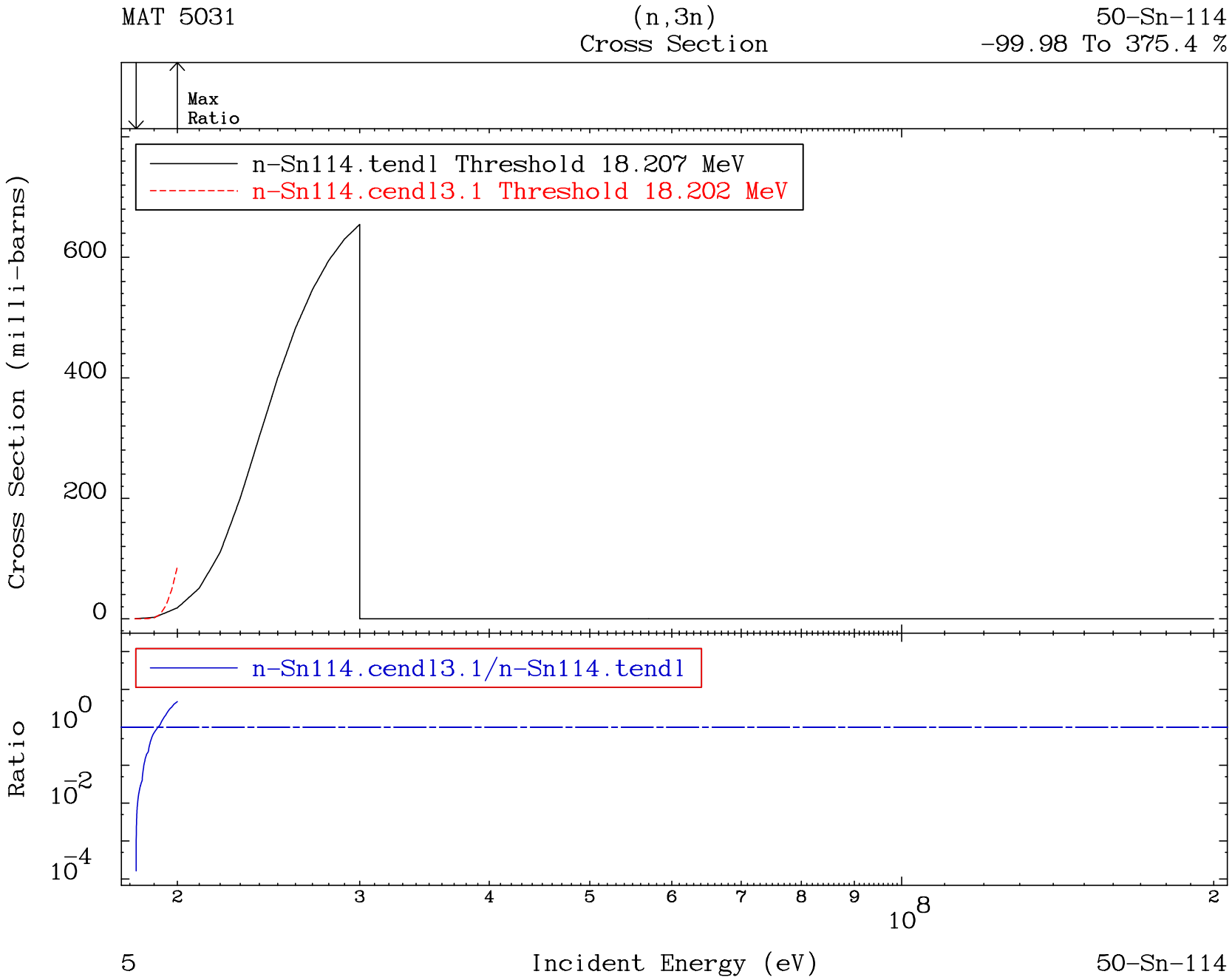
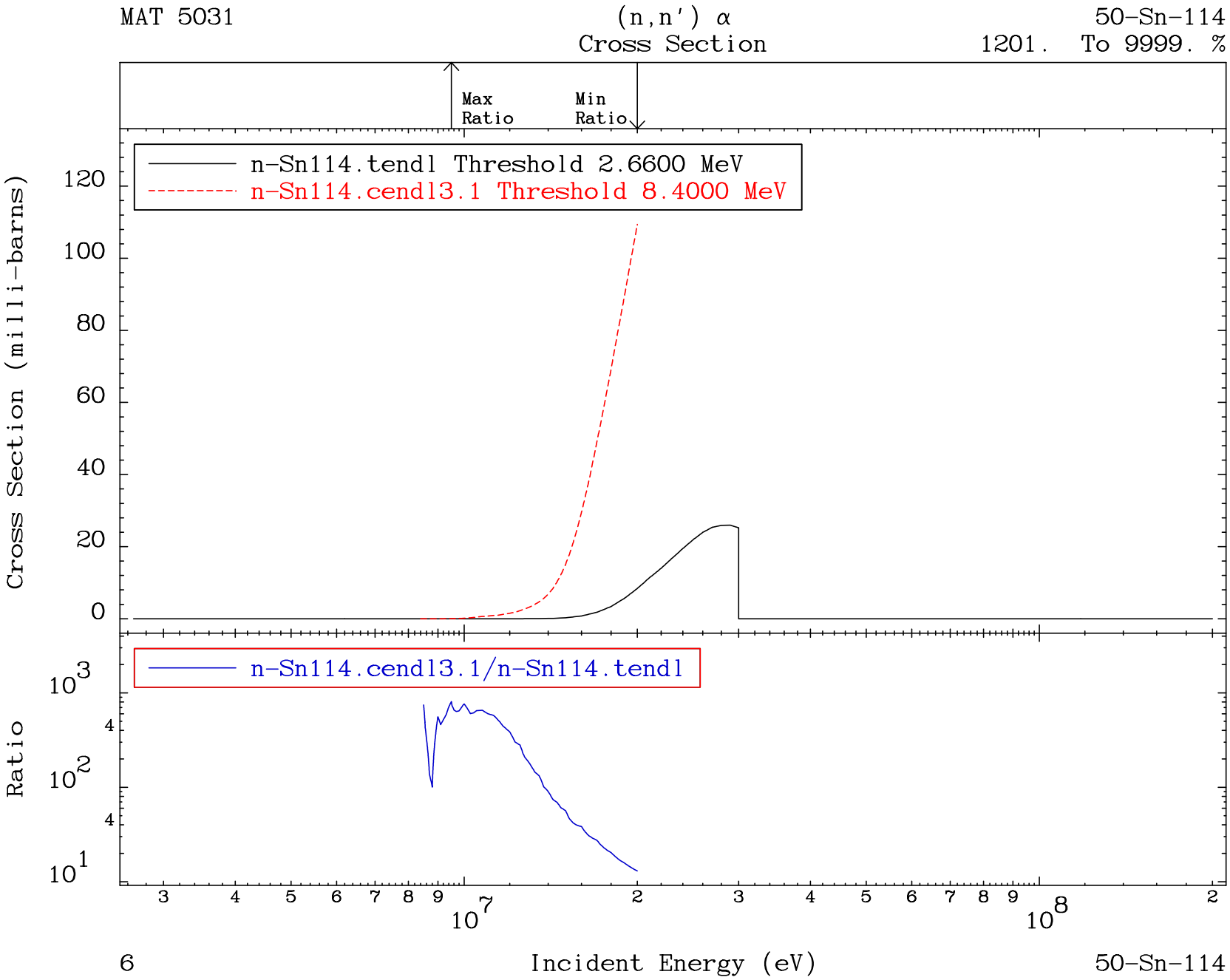

MAT 5031
Total
Cross Section
50-Sn-114
-98.72 To 23.37 %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
1
50-Sn-114

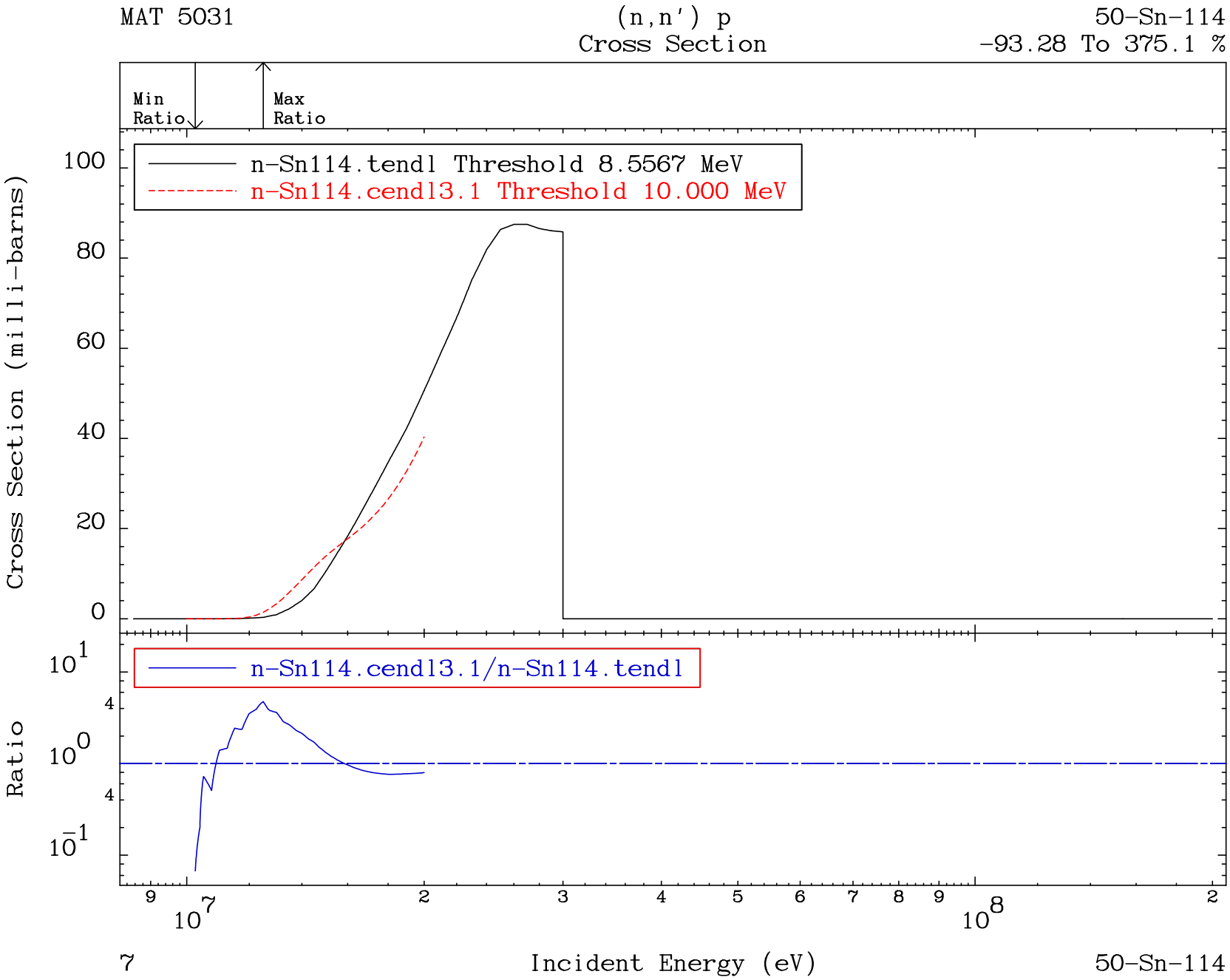

MAT 5031
Elastic
Cross Section
50-Sn-114
-98.77 To 103.1 %
Max
Ratio
Min
Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
2
50-Sn-114

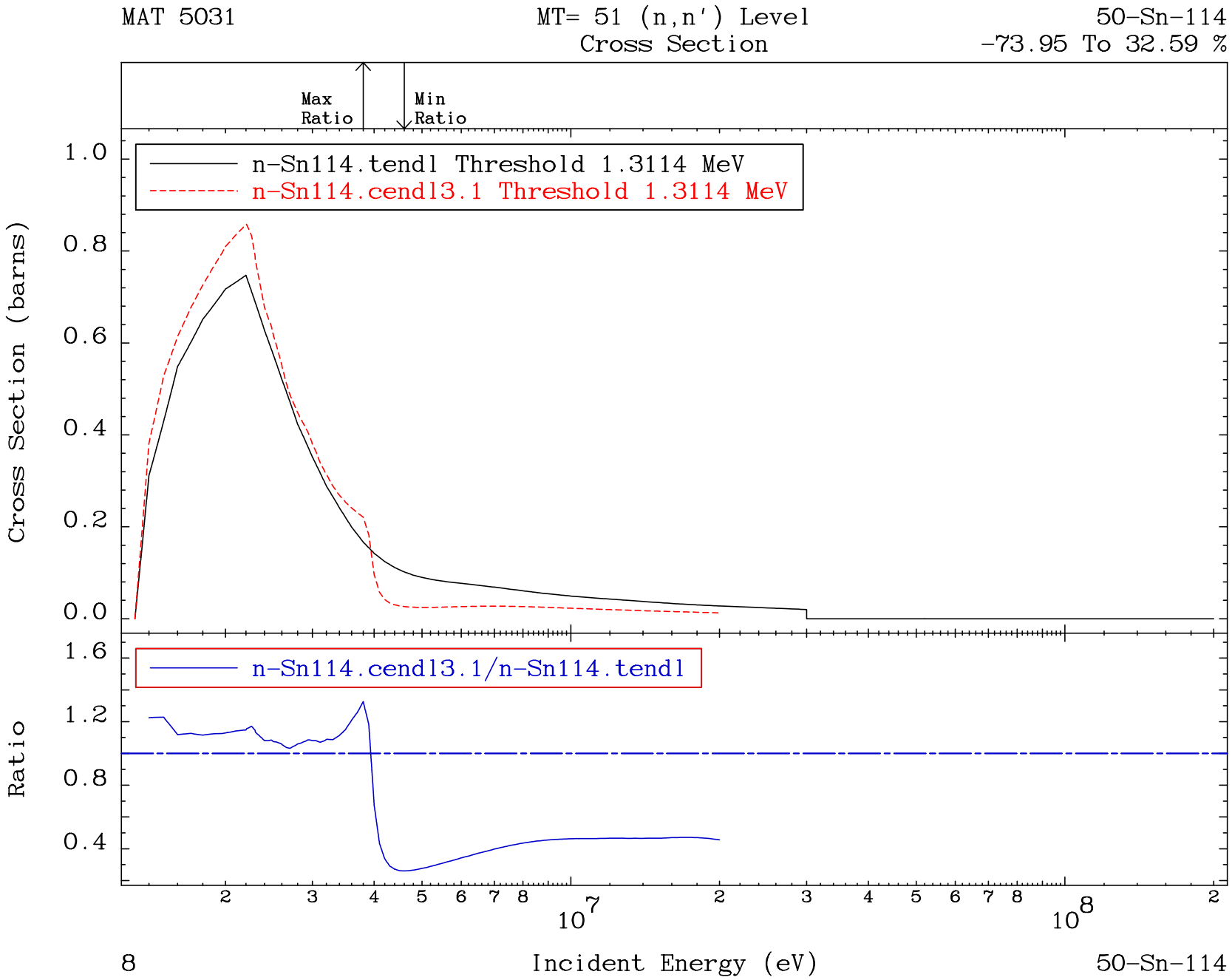

MAT 5031
Inelastic
Cross Section
50-Sn-114
-40.59 To 24.16 %
Max
Ratio
Min
Ratio
n-Sn114.tendl Threshold 1.3114 MeV
n-Sn114.cendl3.1 Threshold 1.3114 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
1.4
1.2
1.0
0.8
0.6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
3
Incident Energy (eV)
50-Sn-114

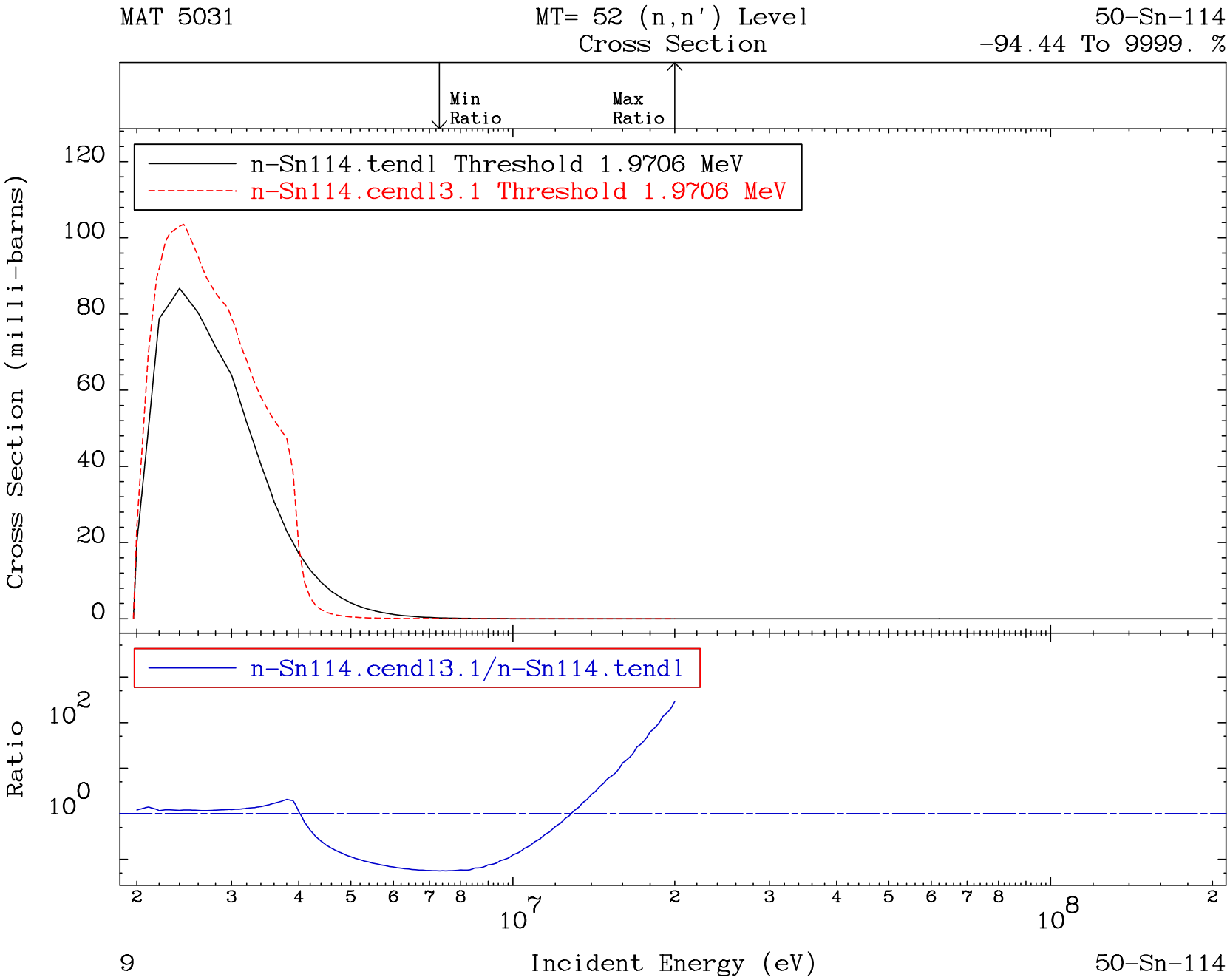

MAT 5031
(n,2n)
Cross Section
50-Sn-114
-87.00 To 10.12 %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 10.394 MeV
n-Sn114.cendl3.1 Threshold 10.390 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
50-Sn-114

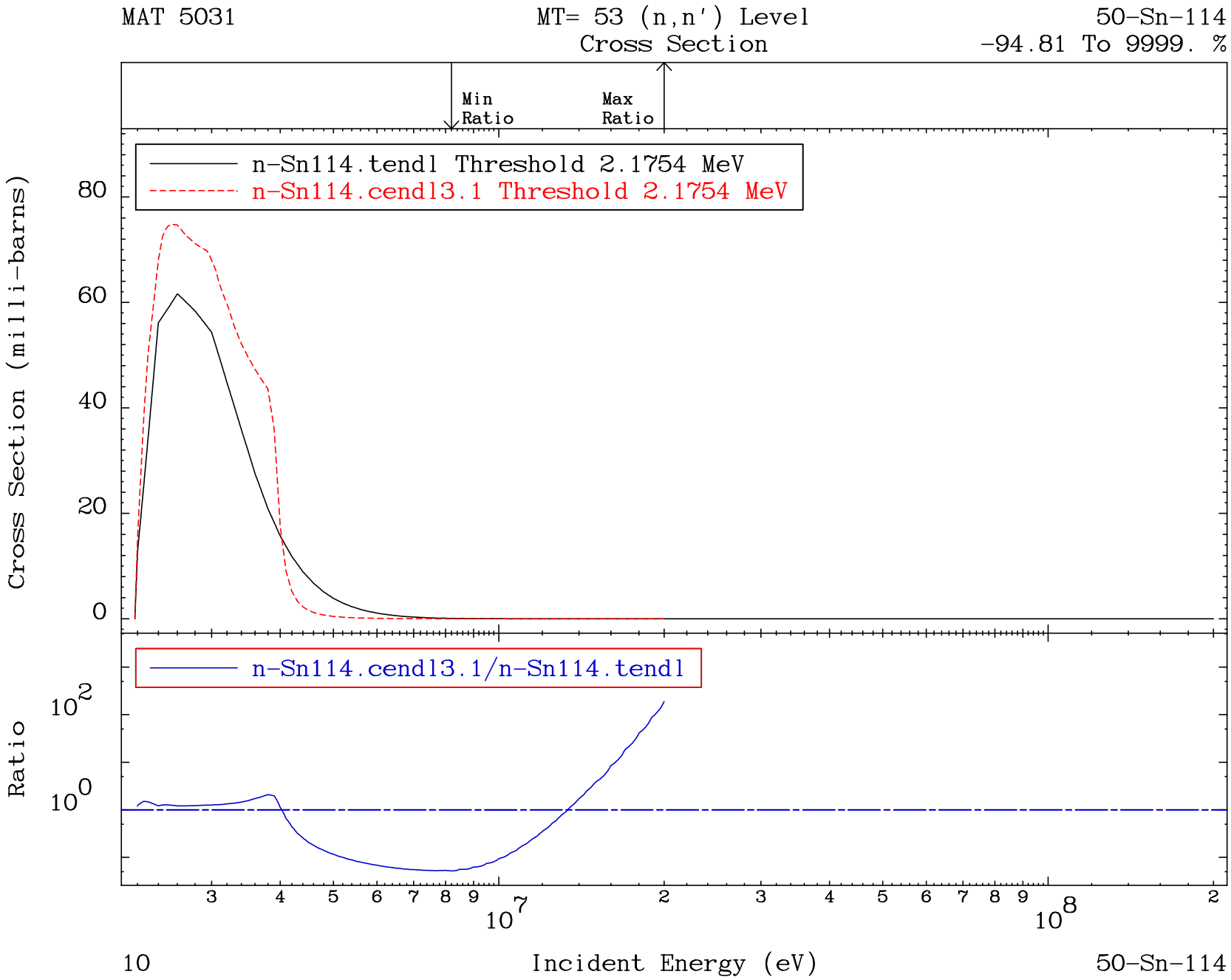

MAT 5031
(n,3n)
Cross Section
50-Sn-114
-99.98 To 375.4 %
Max
Ratio
n-Sn114.tendl Threshold 18.207 MeV
n-Sn114.cendl3.1 Threshold 18.202 MeV
Cross Section (milli-barns)
600
400
200
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
50-Sn-114

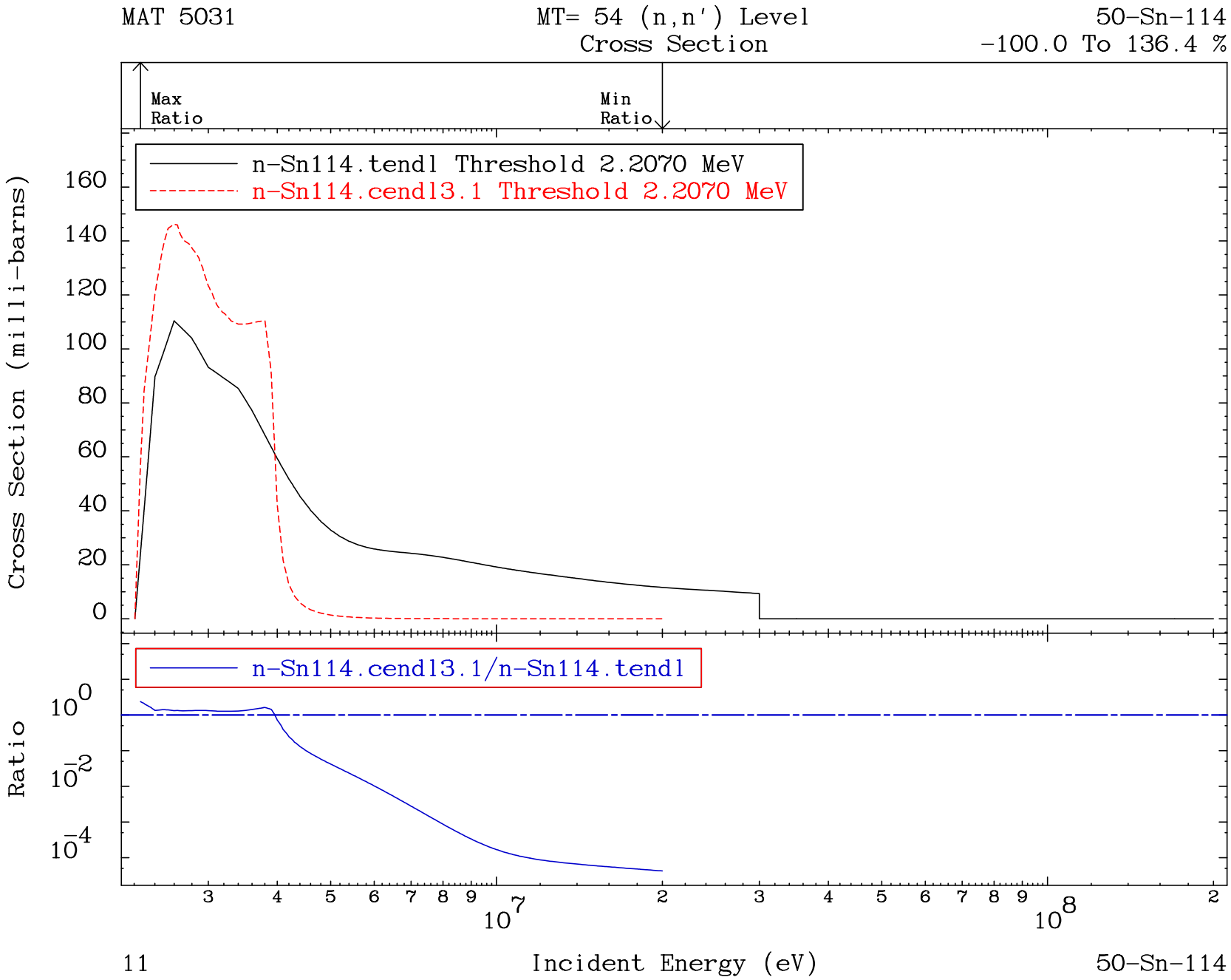

MAT 5031
(n,n') α
Cross Section
50-Sn-114
1201. To 9999. %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 2.6600 MeV
n-Sn114.cendl3.1 Threshold 8.4000 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^3
4
10^2
4
10^1
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
6
Incident Energy (eV)
50-Sn-114

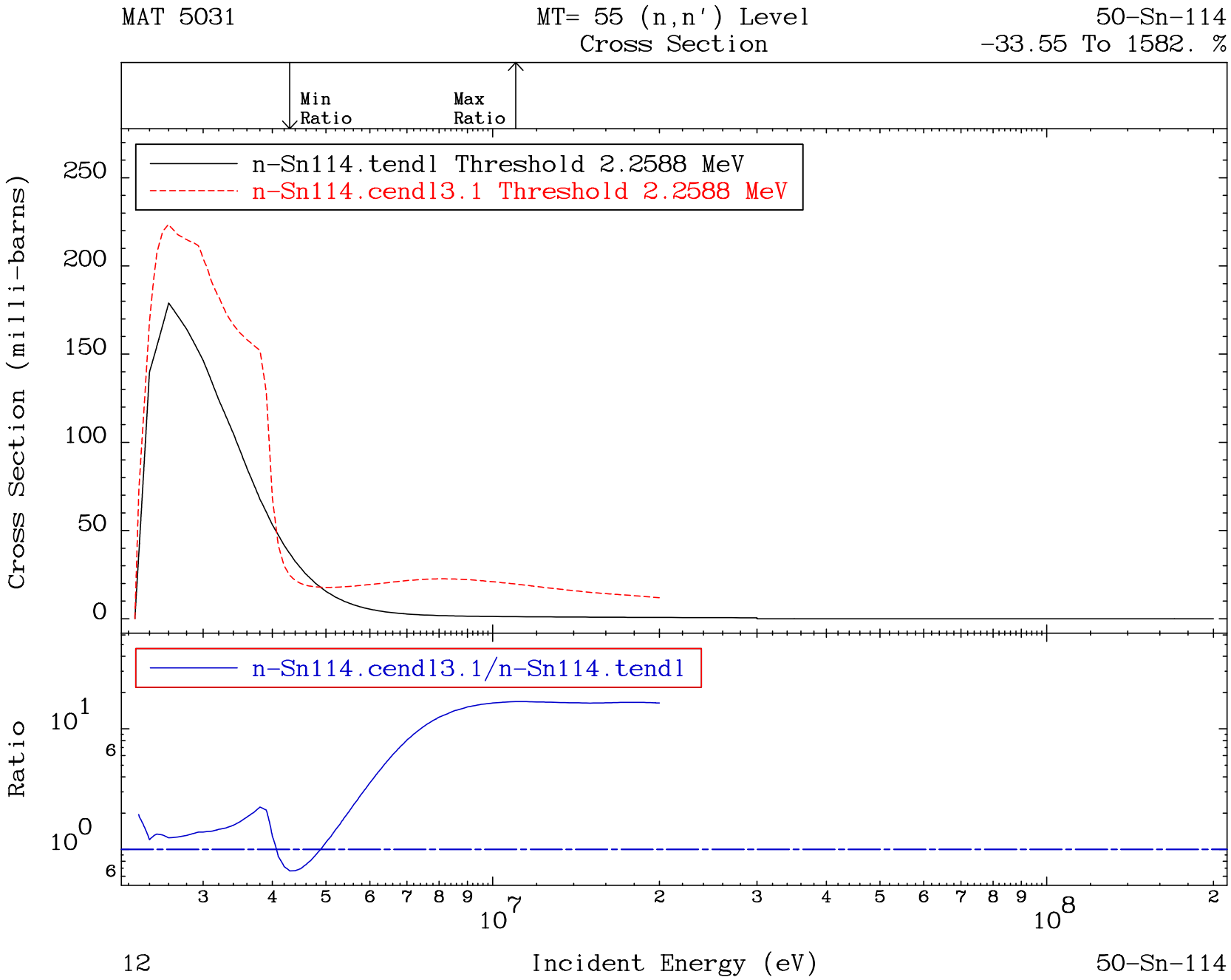

MAT 5031
(n,n') p
Cross Section
50-Sn-114
-93.28 To 375.1 %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 8.5567 MeV
n-Sn114.cendl3.1 Threshold 10.000 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^1
4
10^0
4
10^-1
9
10^7
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
50-Sn-114

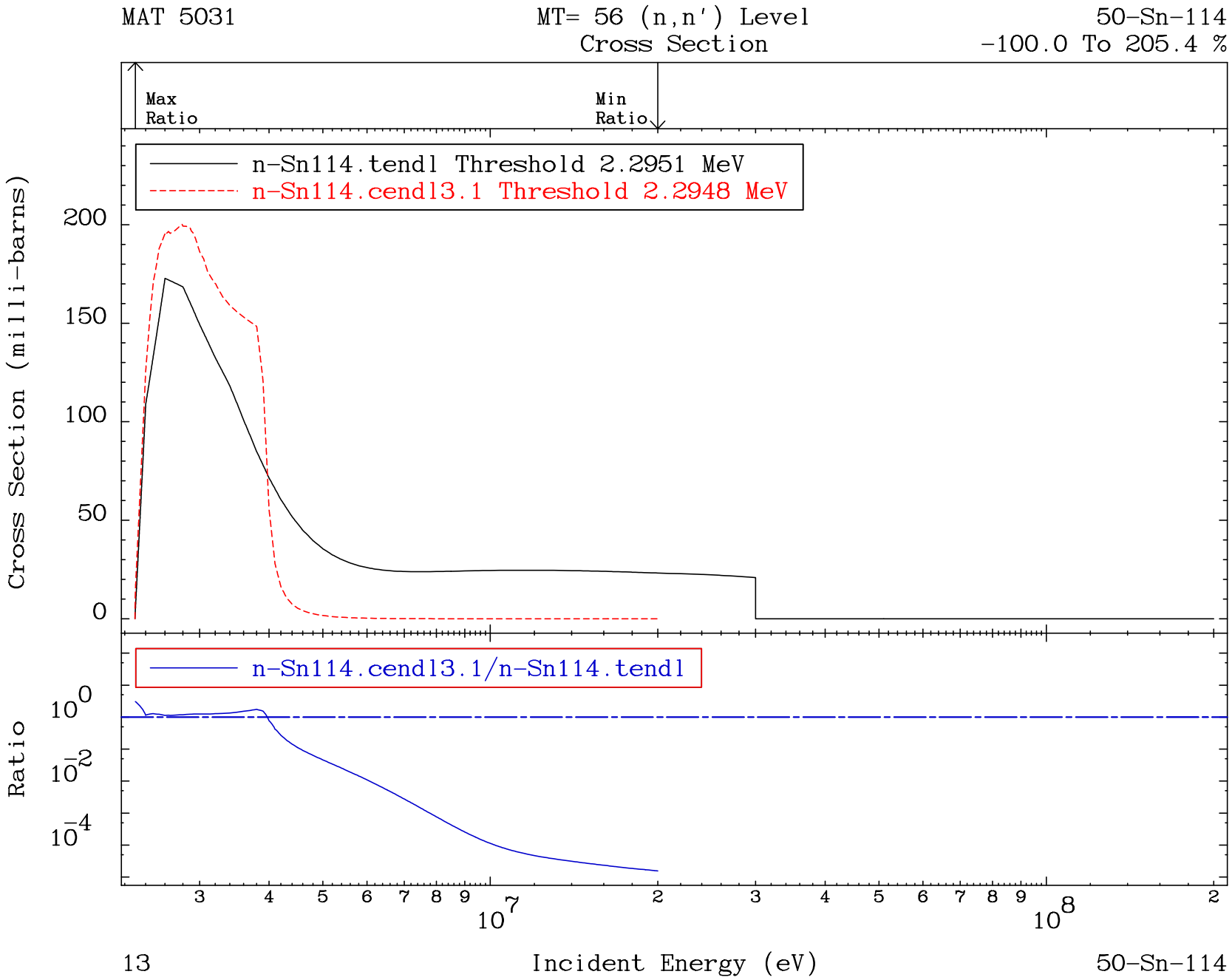

MAT 5031
MT= 51 (n,n') Level
Cross Section
50-Sn-114
-73.95 To 32.59 %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 1.3114 MeV
n-Sn114.cendl3.1 Threshold 1.3114 MeV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
1.6
1.2
0.8
0.4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
8
Incident Energy (eV)
50-Sn-114

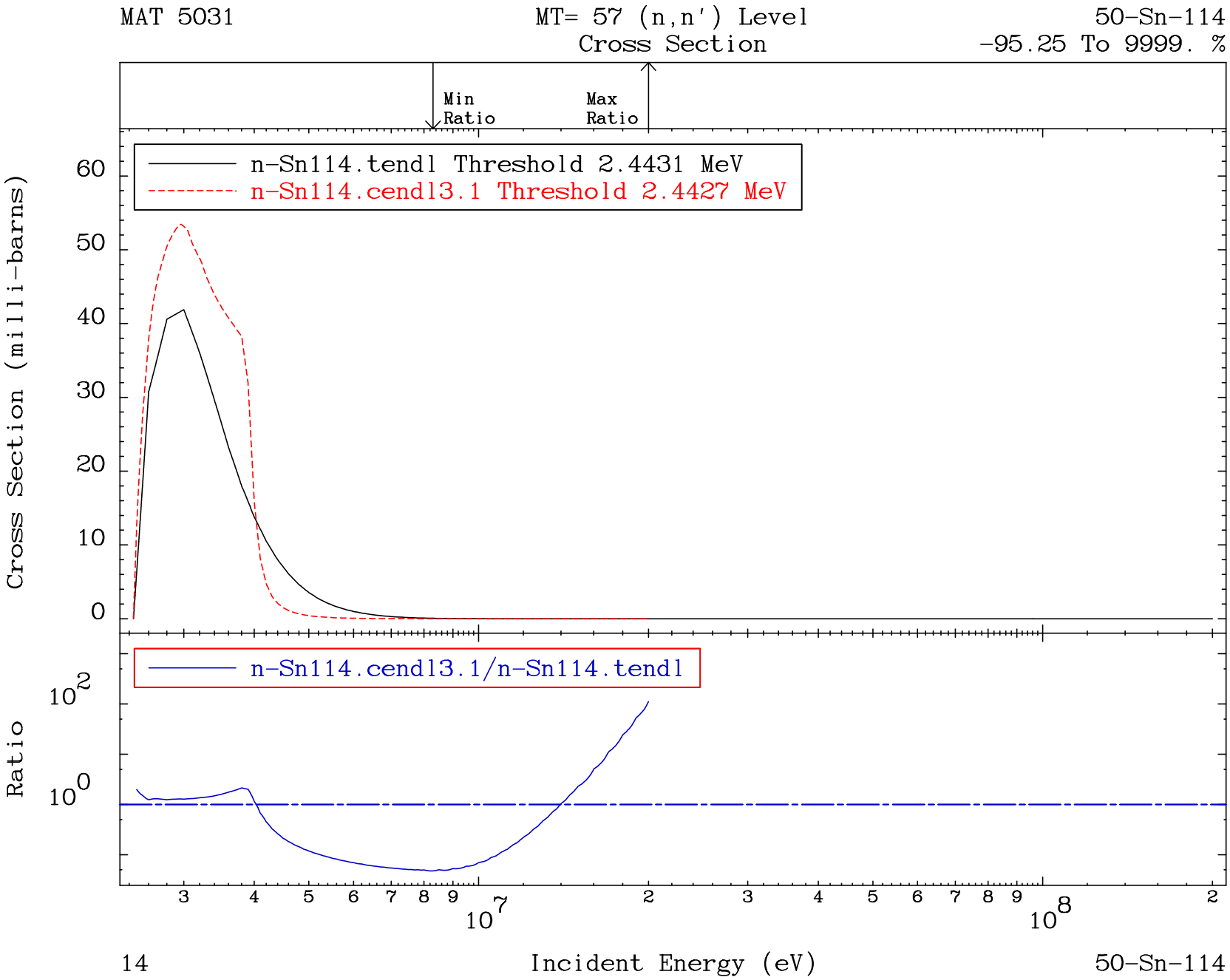

MAT 5031
MT= 52 (n,n') Level
Cross Section
50-Sn-114
-94.44 To 9999. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 1.9706 MeV
n-Sn114.cendl3.1 Threshold 1.9706 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
9
Incident Energy (eV)
50-Sn-114

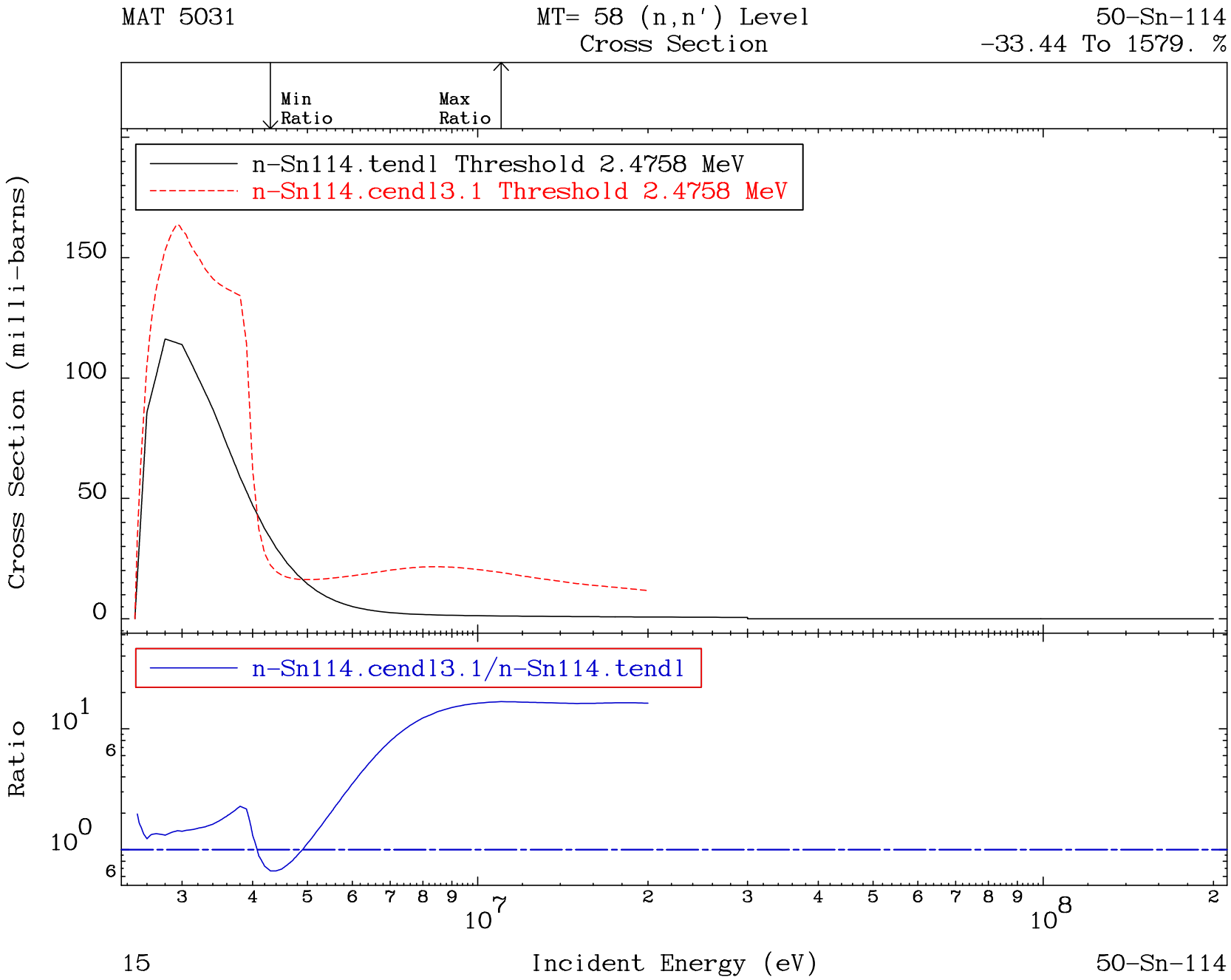

MAT 5031
MT= 53 (n,n') Level
Cross Section
50-Sn-114
-94.81 To 9999. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 2.1754 MeV
n-Sn114.cendl3.1 Threshold 2.1754 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^2
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
10
Incident Energy (eV)
50-Sn-114

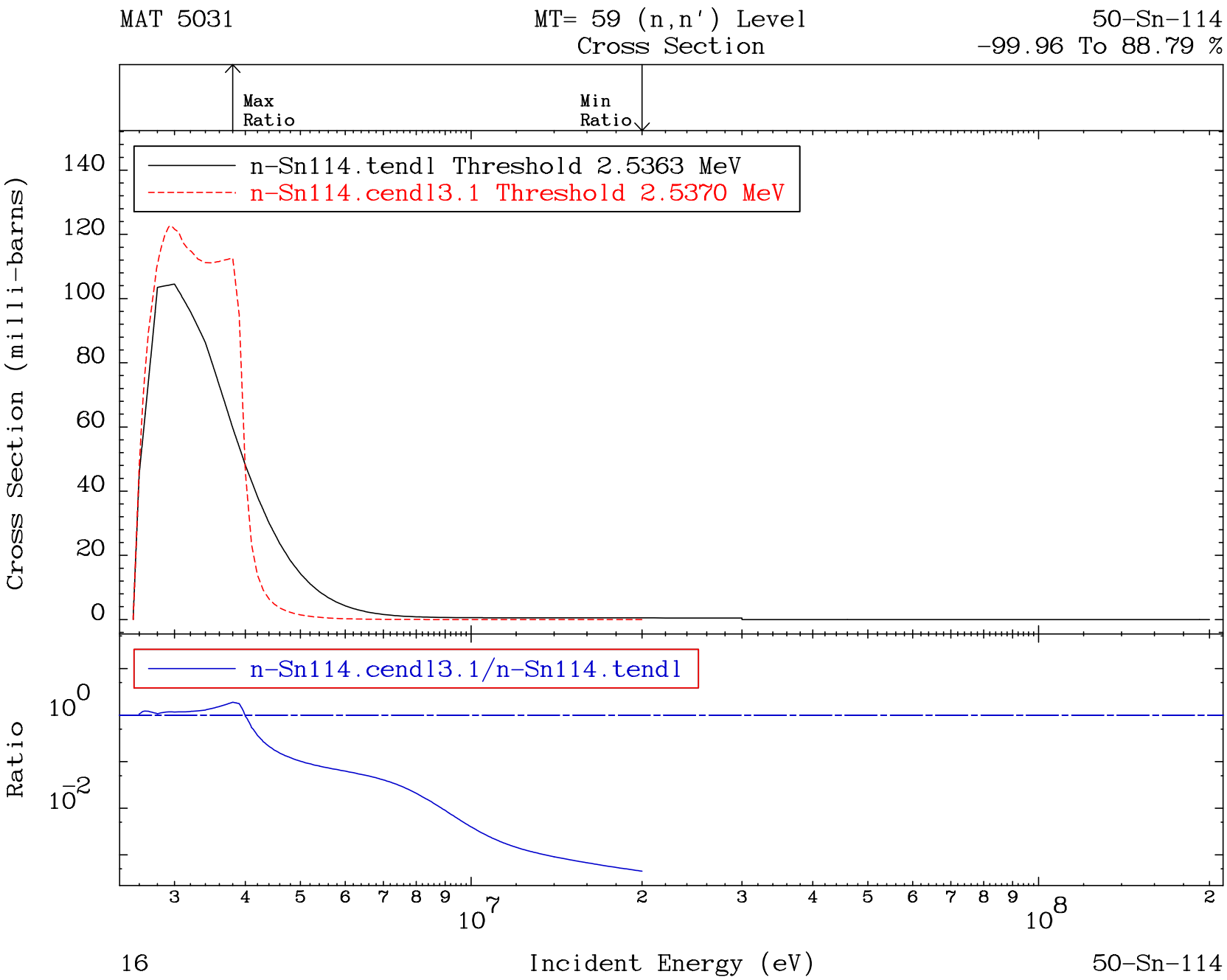

MAT 5031
MT= 54 (n,n') Level
Cross Section
50-Sn-114
-100.0 To 136.4 %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 2.2070 MeV
n-Sn114.cendl3.1 Threshold 2.2070 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
11
Incident Energy (eV)
50-Sn-114

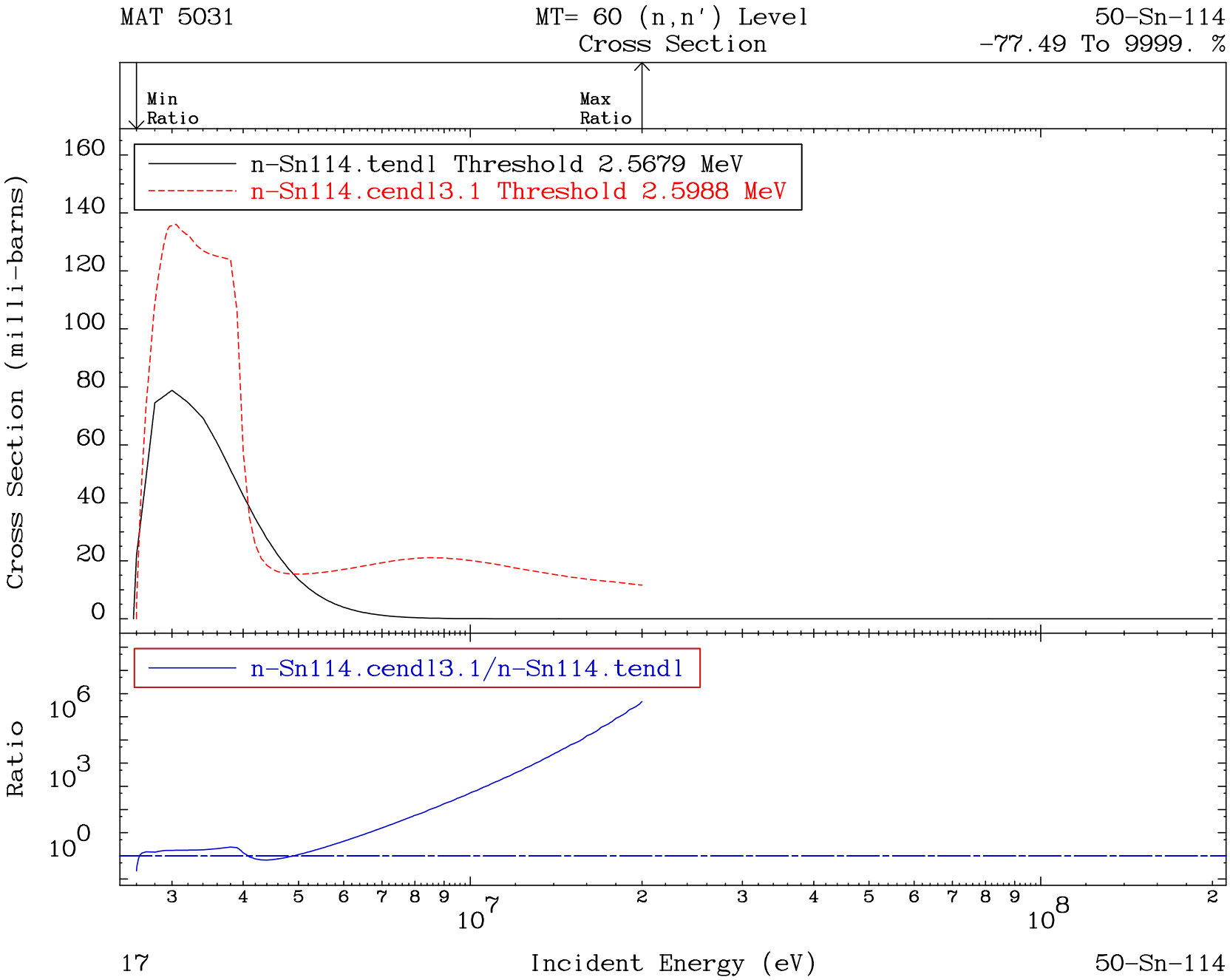

MAT 5031
MT= 55 (n,n') Level
Cross Section
50-Sn-114
-33.55 To 1582. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 2.2588 MeV
n-Sn114.cendl3.1 Threshold 2.2588 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^1
10^0
6
6
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
12
Incident Energy (eV)
50-Sn-114

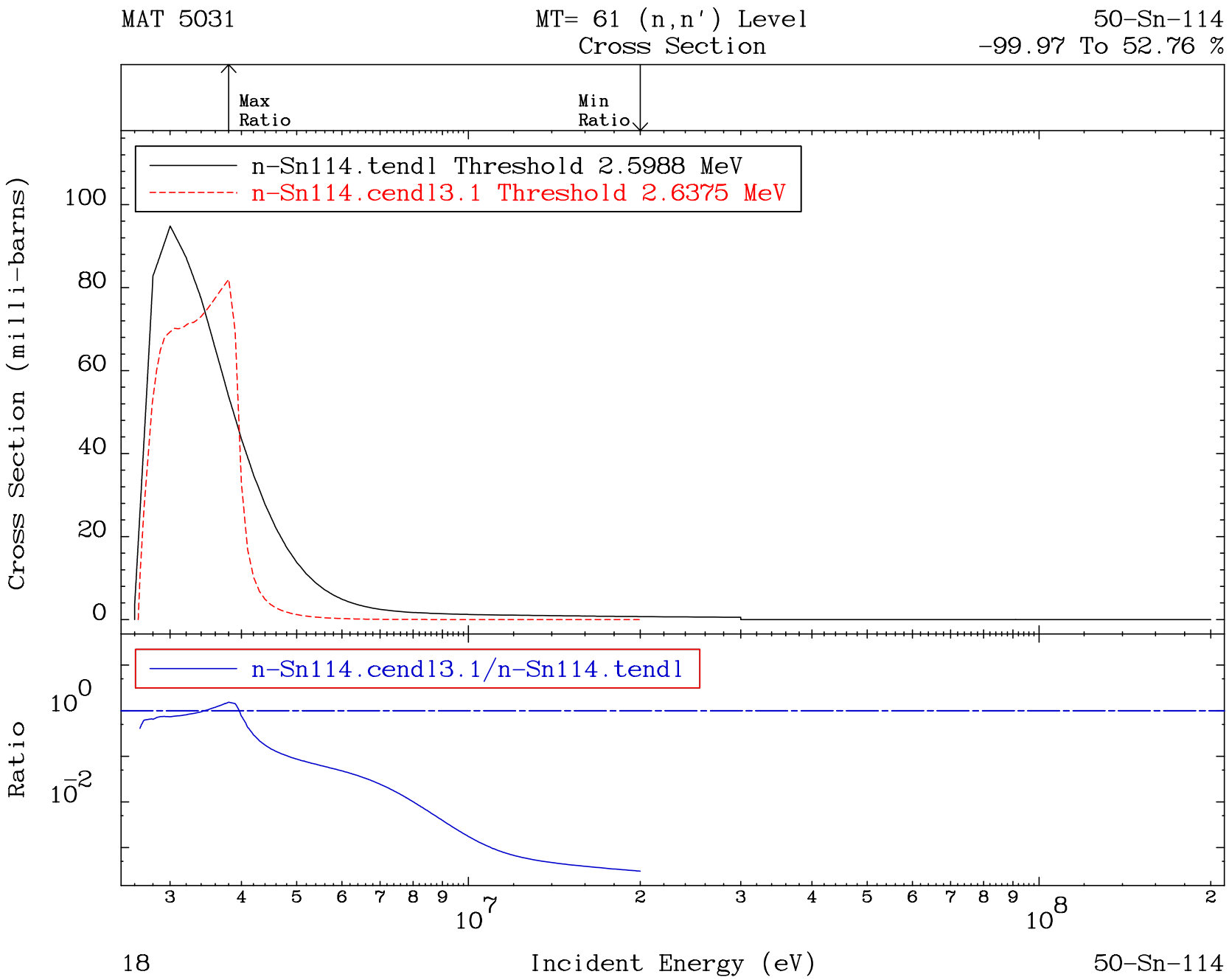

MAT 5031
MT= 56 (n,n') Level
Cross Section
50-Sn-114
-100.0 To 205.4 %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 2.2951 MeV
n-Sn114.cendl3.1 Threshold 2.2948 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
13
Incident Energy (eV)
50-Sn-114

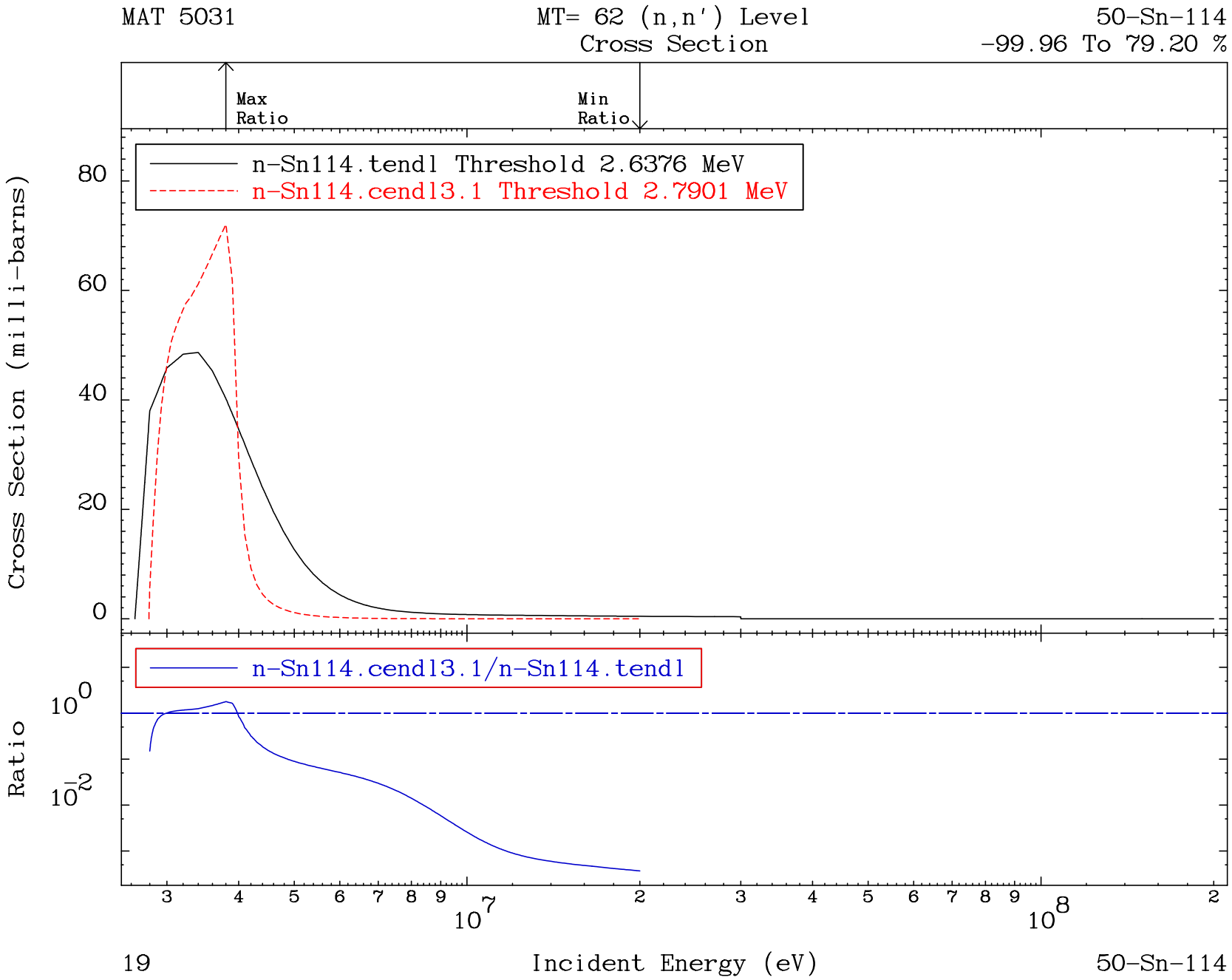

MAT 5031
MT= 57 (n,n') Level
Cross Section
50-Sn-114
-95.25 To 9999. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 2.4431 MeV
n-Sn114.cendl3.1 Threshold 2.4427 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^2
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
14
Incident Energy (eV)
50-Sn-114

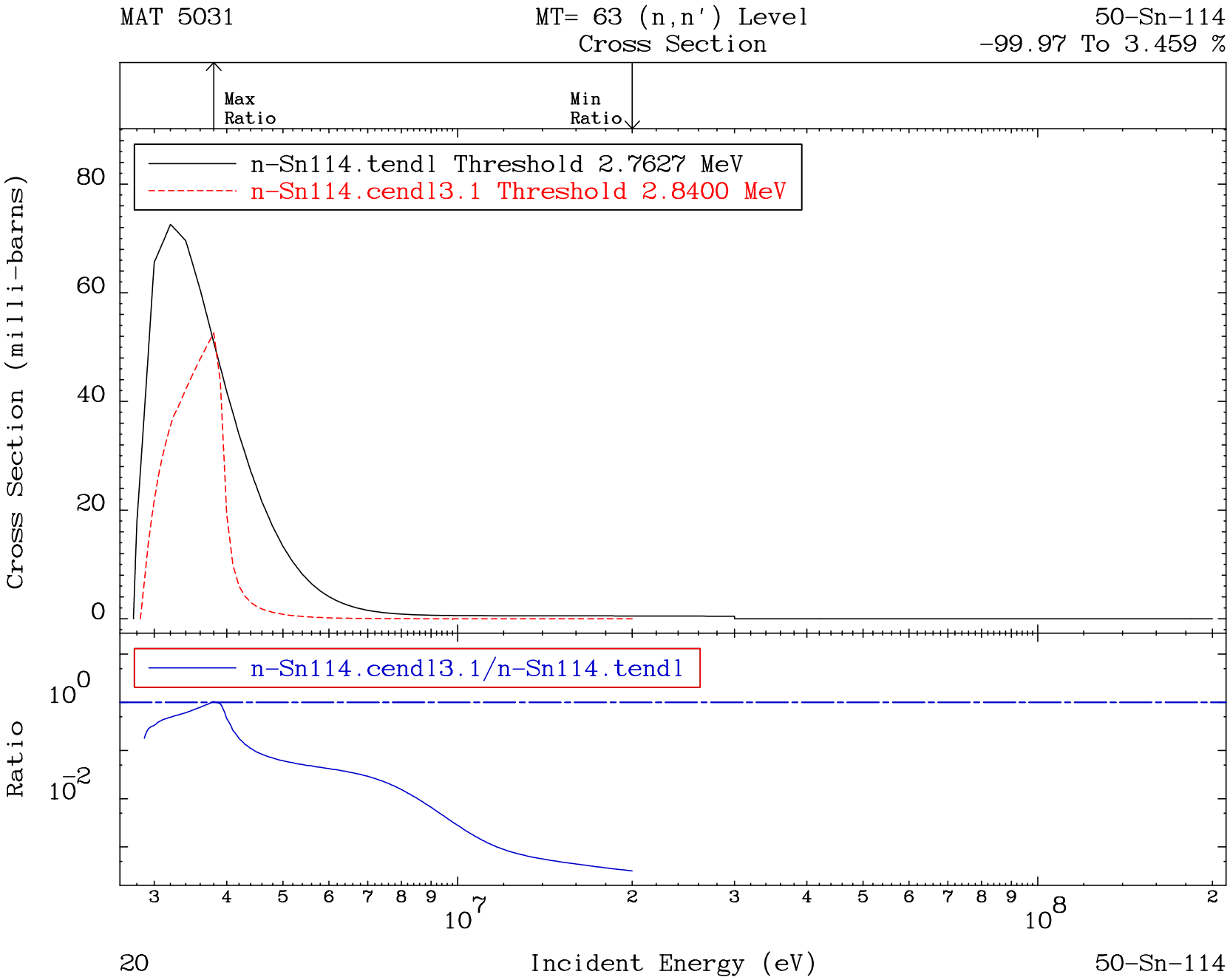

MAT 5031
MT= 58 (n,n') Level
Cross Section
50-Sn-114
-33.44 To 1579. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 2.4758 MeV
n-Sn114.cendl3.1 Threshold 2.4758 MeV
Cross Section (milli-barns)
150
100
50
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^1
10^0
6
6
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
15
Incident Energy (eV)
50-Sn-114

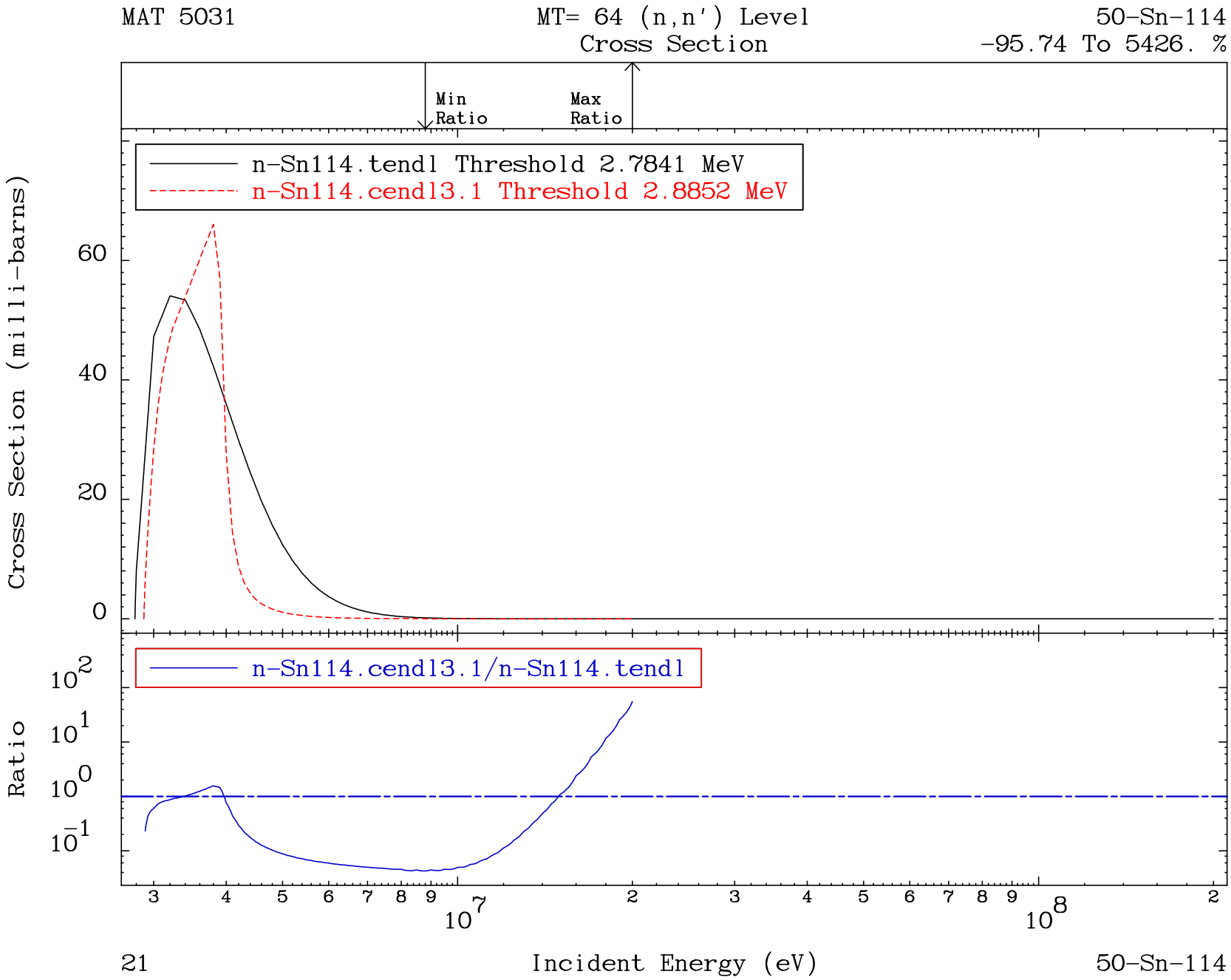

MAT 5031
MT= 59 (n,n') Level
Cross Section
50-Sn-114
-99.96 To 88.79 %
Max
Ratio
Min
Ratio
n-Sn114.tendl Threshold 2.5363 MeV
n-Sn114.cendl3.1 Threshold 2.5370 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
50-Sn-114

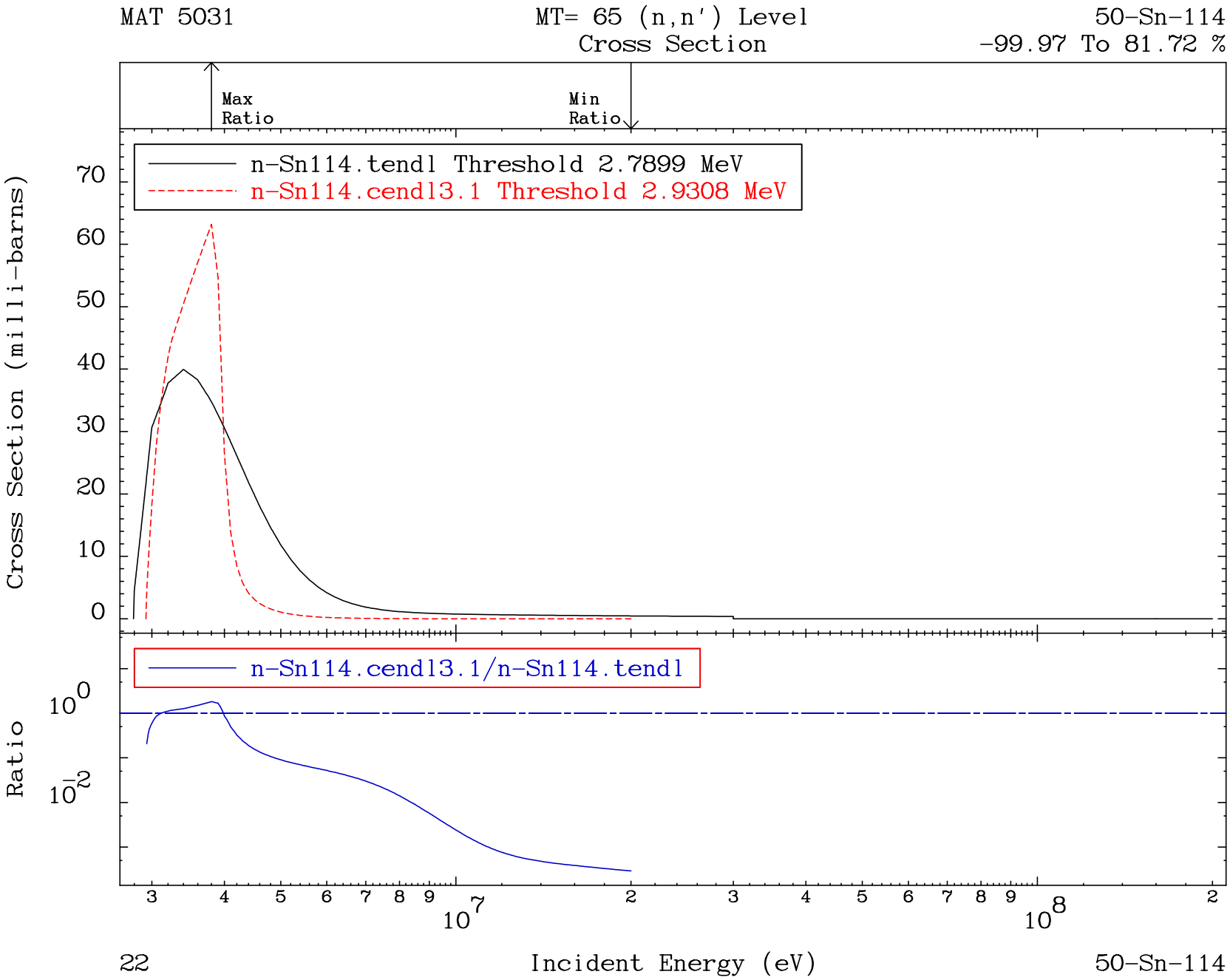

MAT 5031
MT= 60 (n,n') Level
Cross Section
50-Sn-114
-77.49 To 9999. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 2.5679 MeV
n-Sn114.cendl3.1 Threshold 2.5988 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^6
10^3
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
17
Incident Energy (eV)
50-Sn-114

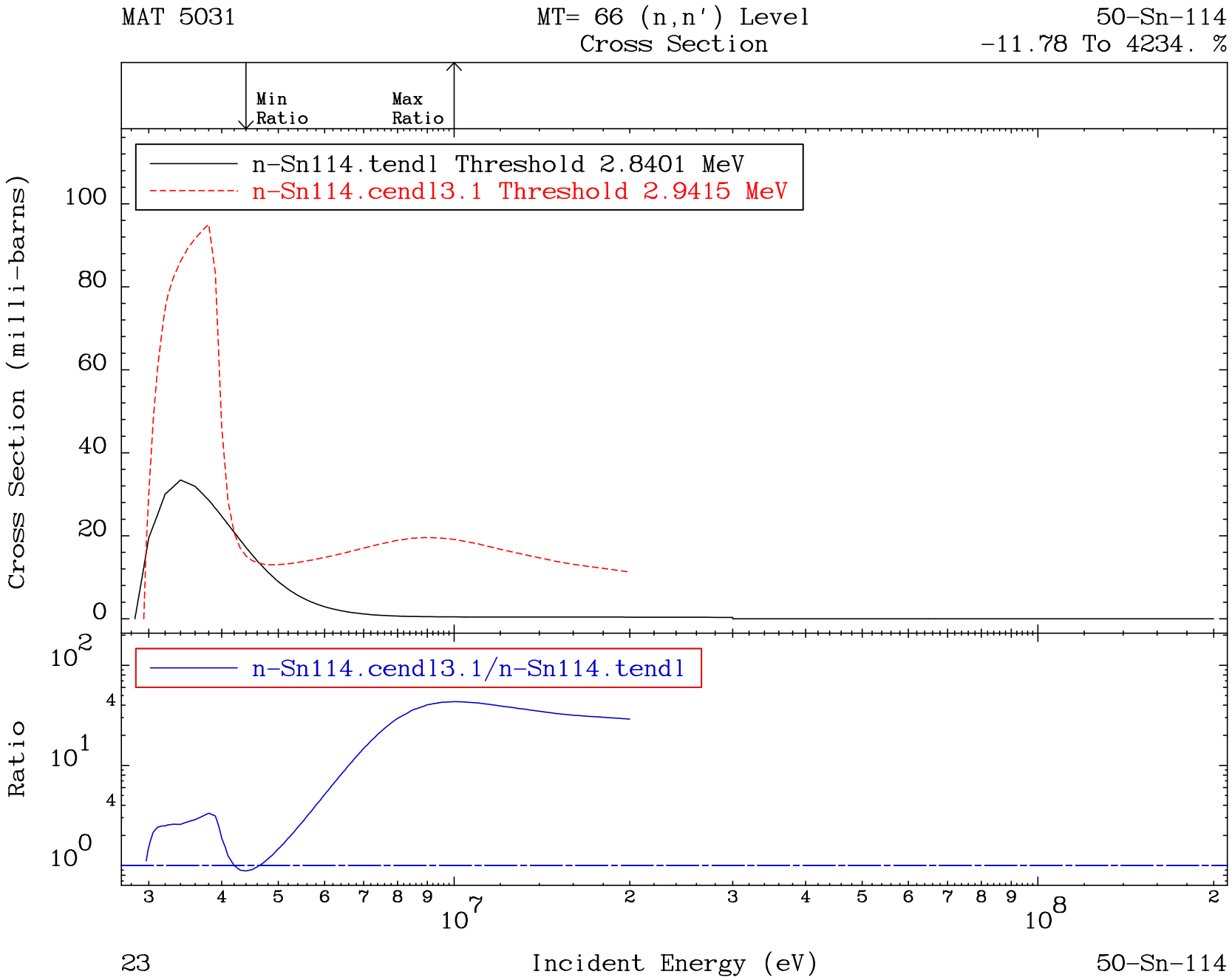

MAT 5031
MT= 61 (n,n') Level
Cross Section
50-Sn-114
-99.97 To 52.76 %
Max
Ratio
Min
Ratio
n-Sn114.tendl Threshold 2.5988 MeV
n-Sn114.cendl3.1 Threshold 2.6375 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
50-Sn-114

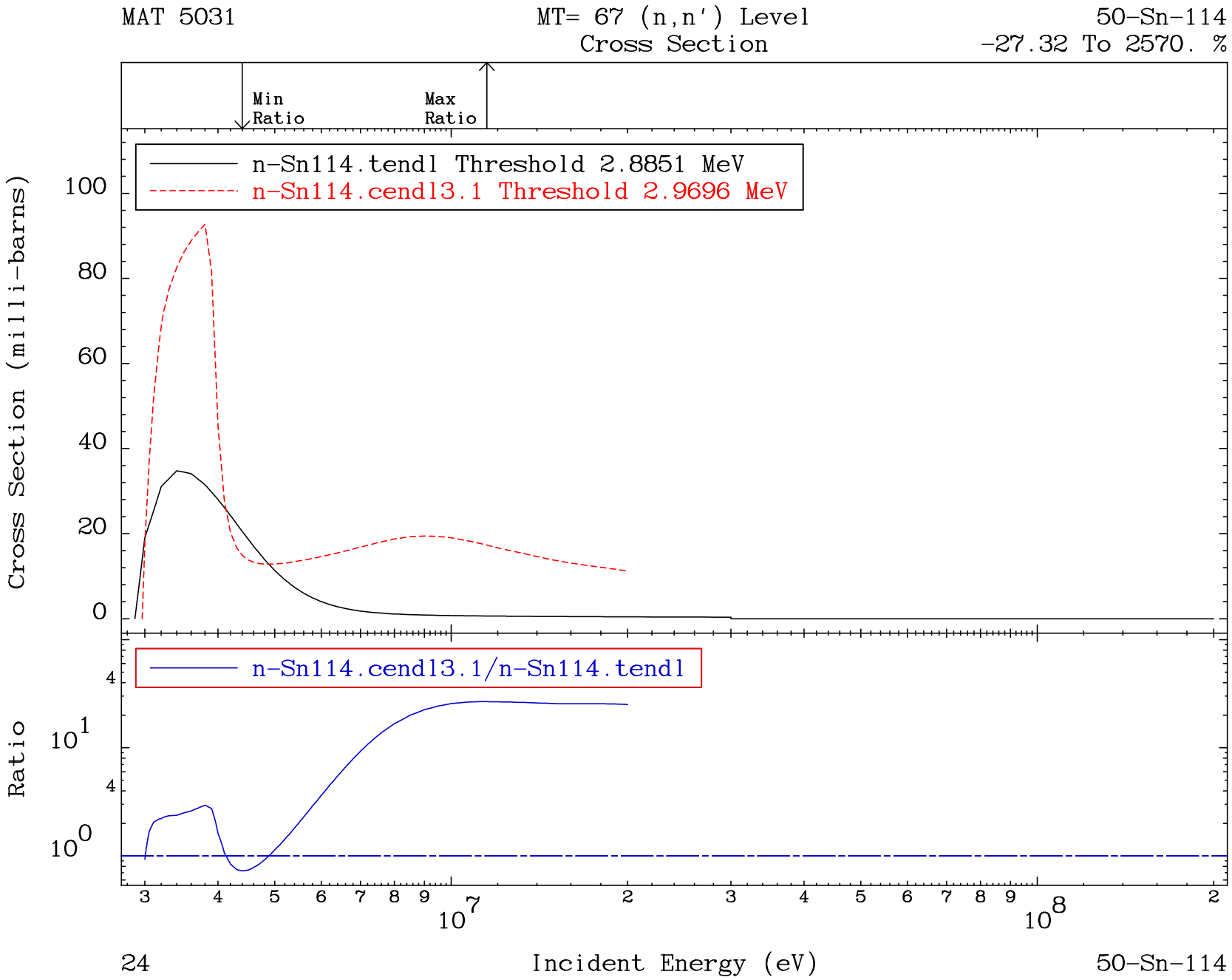

MAT 5031
MT= 62 (n,n') Level
Cross Section
50-Sn-114
-99.96 To 79.20 %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 2.6376 MeV
n-Sn114.cendl3.1 Threshold 2.7901 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
50-Sn-114

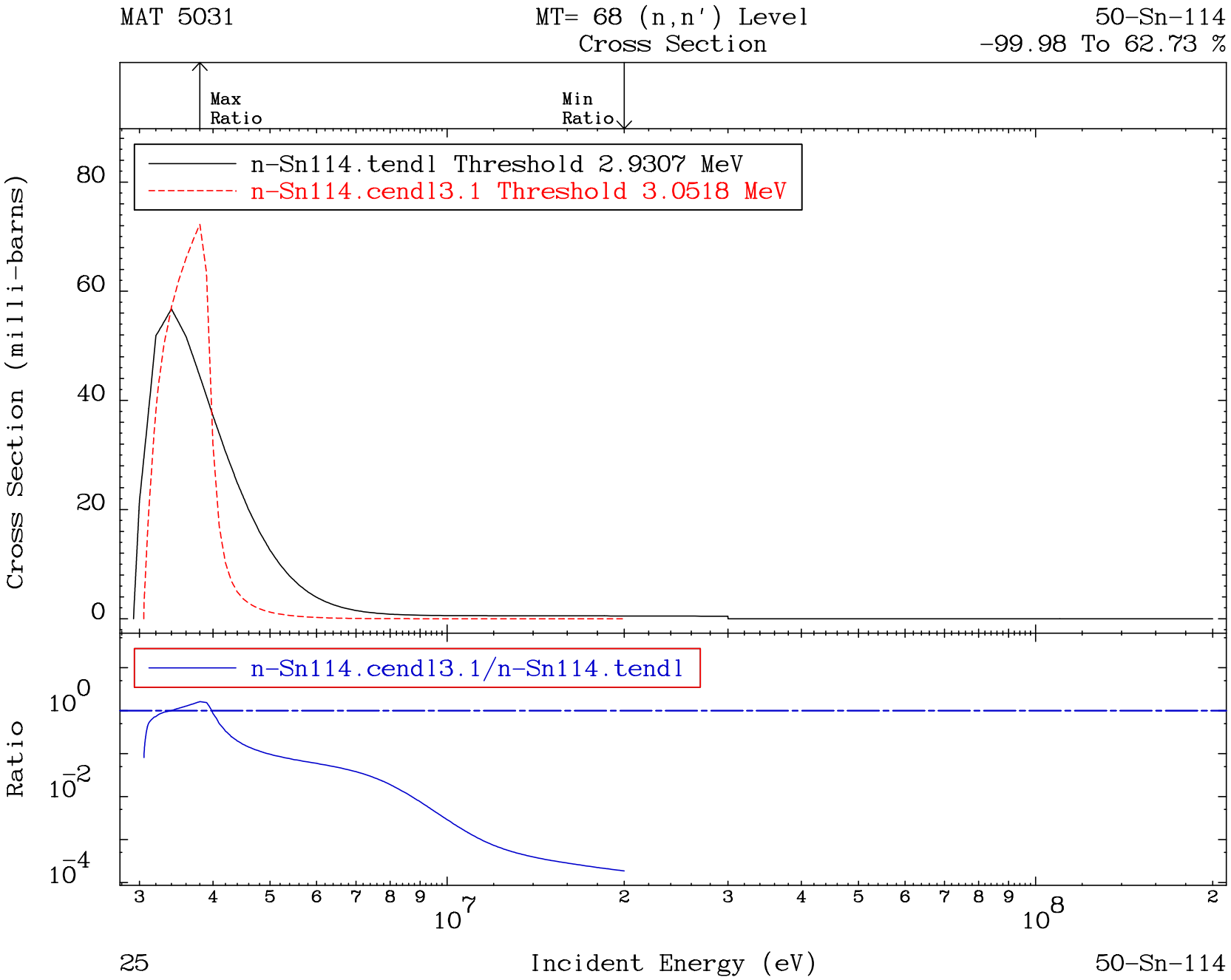

MAT 5031
MT= 63 (n,n') Level
Cross Section
50-Sn-114
-99.97 To 3.459 %
Max
Ratio
Min
Ratio
n-Sn114.tendl Threshold 2.7627 MeV
n-Sn114.cendl3.1 Threshold 2.8400 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
50-Sn-114

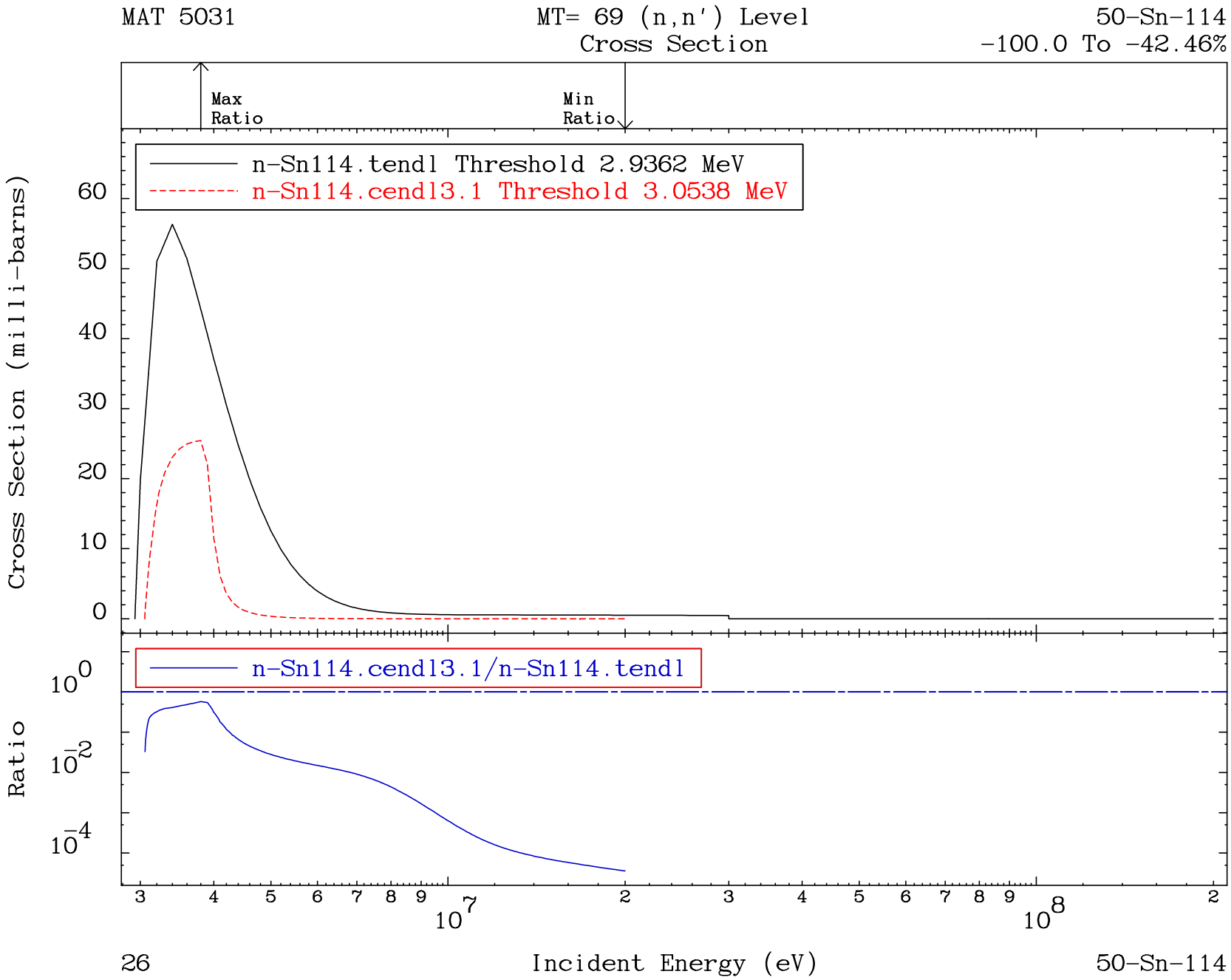

MAT 5031
MT= 64 (n,n') Level
Cross Section
50-Sn-114
-95.74 To 5426. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 2.7841 MeV
n-Sn114.cendl3.1 Threshold 2.8852 MeV
Cross Section (milli-barns)
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^2
10^1
10^0
10^-1
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
50-Sn-114

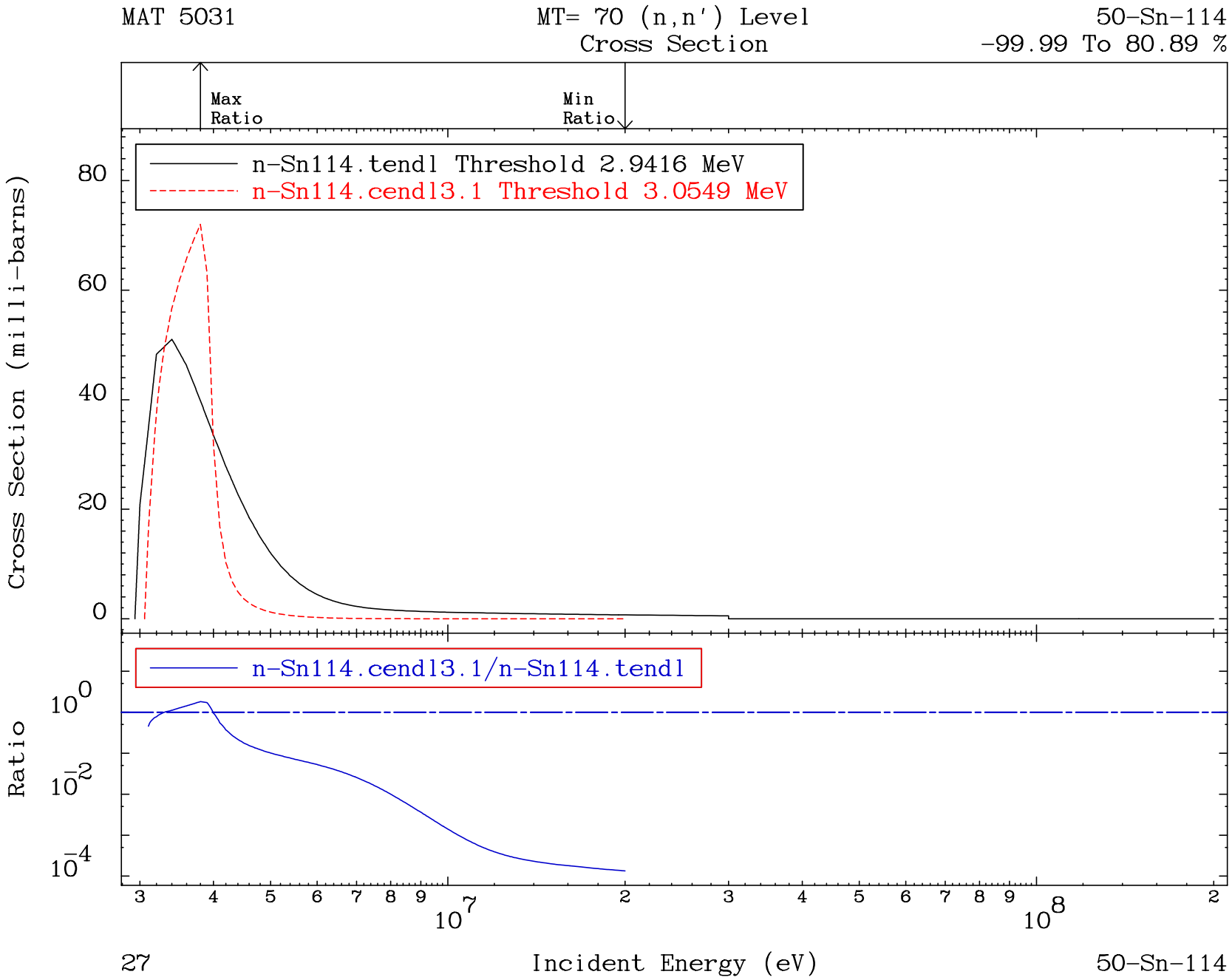

MAT 5031
MT= 65 (n,n') Level
Cross Section
50-Sn-114
-99.97 To 81.72 %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 2.7899 MeV
n-Sn114.cendl3.1 Threshold 2.9308 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
22
Incident Energy (eV)
50-Sn-114

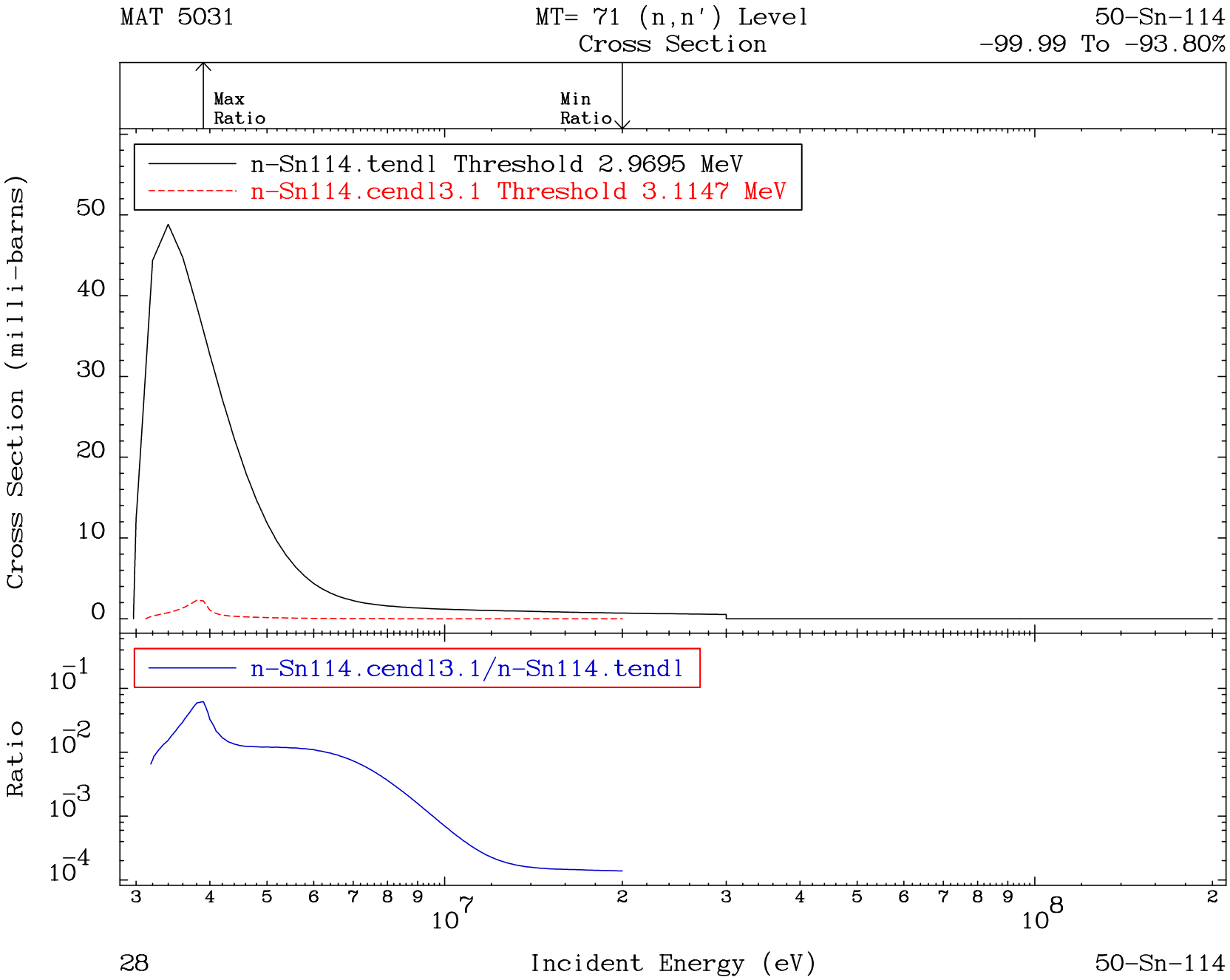

MAT 5031
MT= 66 (n,n') Level
Cross Section
50-Sn-114
-11.78 To 4234. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 2.8401 MeV
n-Sn114.cendl3.1 Threshold 2.9415 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^2
10^1
10^0
4
4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
50-Sn-114

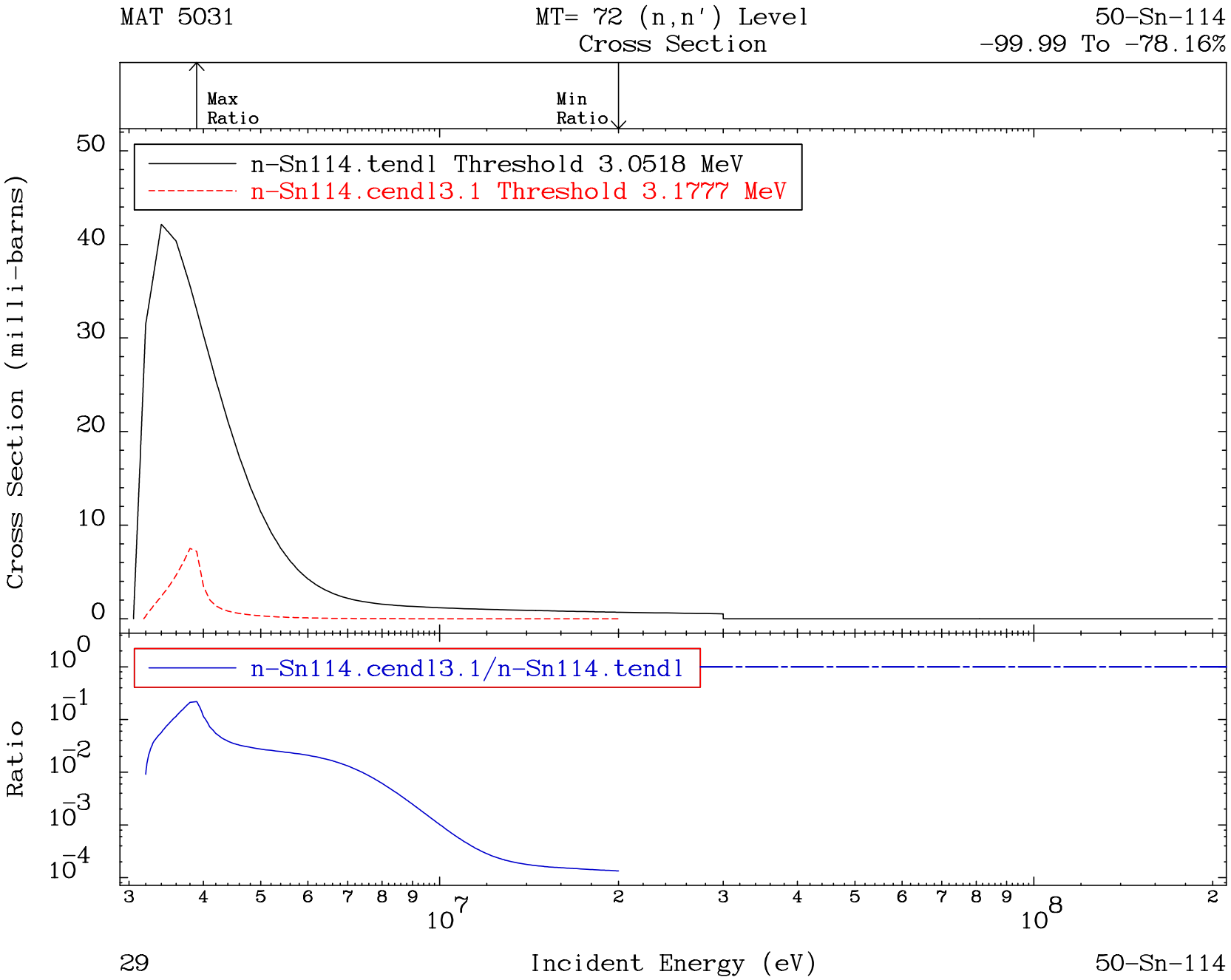

MAT 5031
MT= 67 (n,n') Level
Cross Section
50-Sn-114
-27.32 To 2570. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 2.8851 MeV
n-Sn114.cendl3.1 Threshold 2.9696 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^1
4
10^0
4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
50-Sn-114

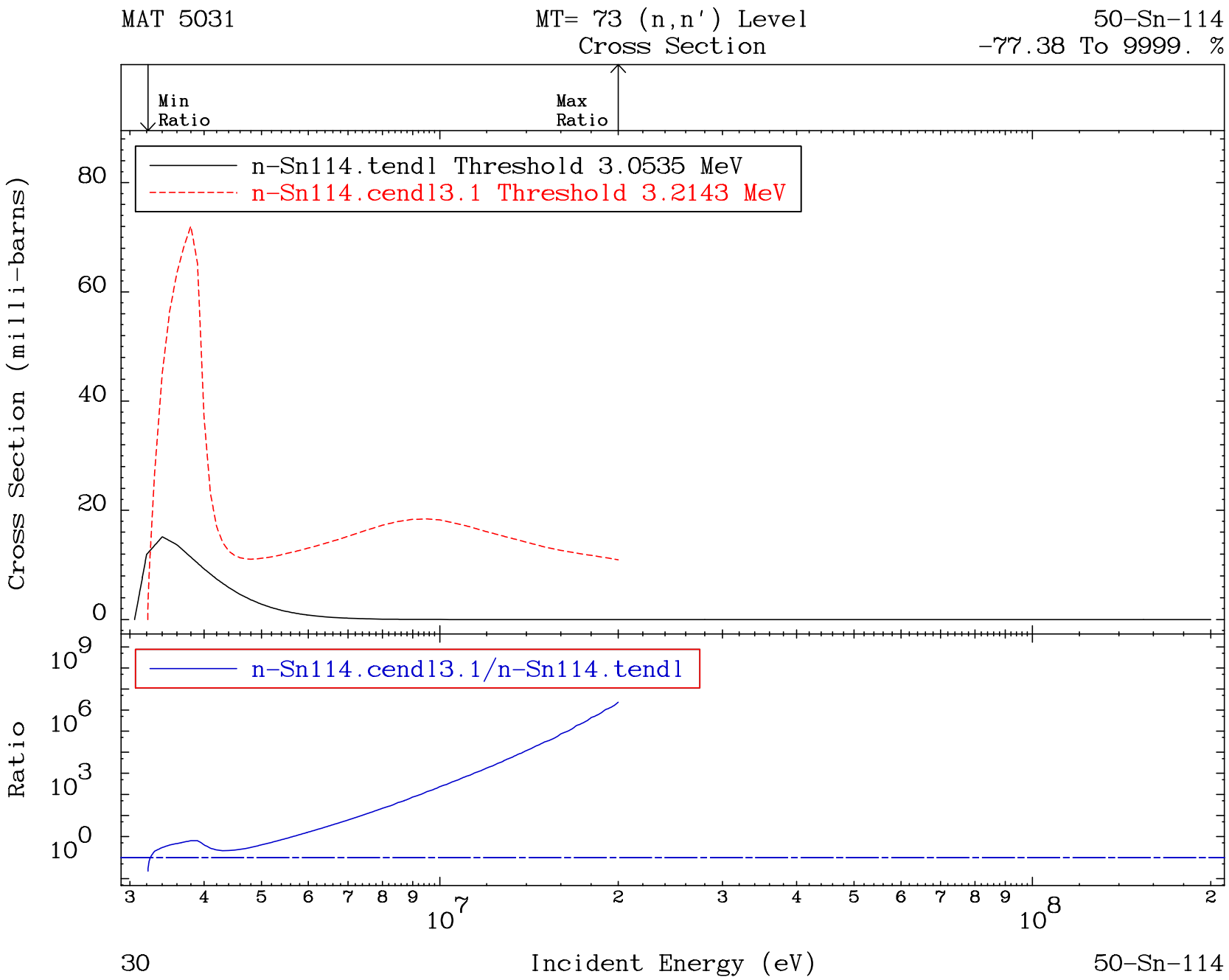

MAT 5031
MT= 68 (n,n') Level
Cross Section
50-Sn-114
-99.98 To 62.73 %
Max
Ratio
Min
Ratio
n-Sn114.tendl Threshold 2.9307 MeV
n-Sn114.cendl3.1 Threshold 3.0518 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
50-Sn-114

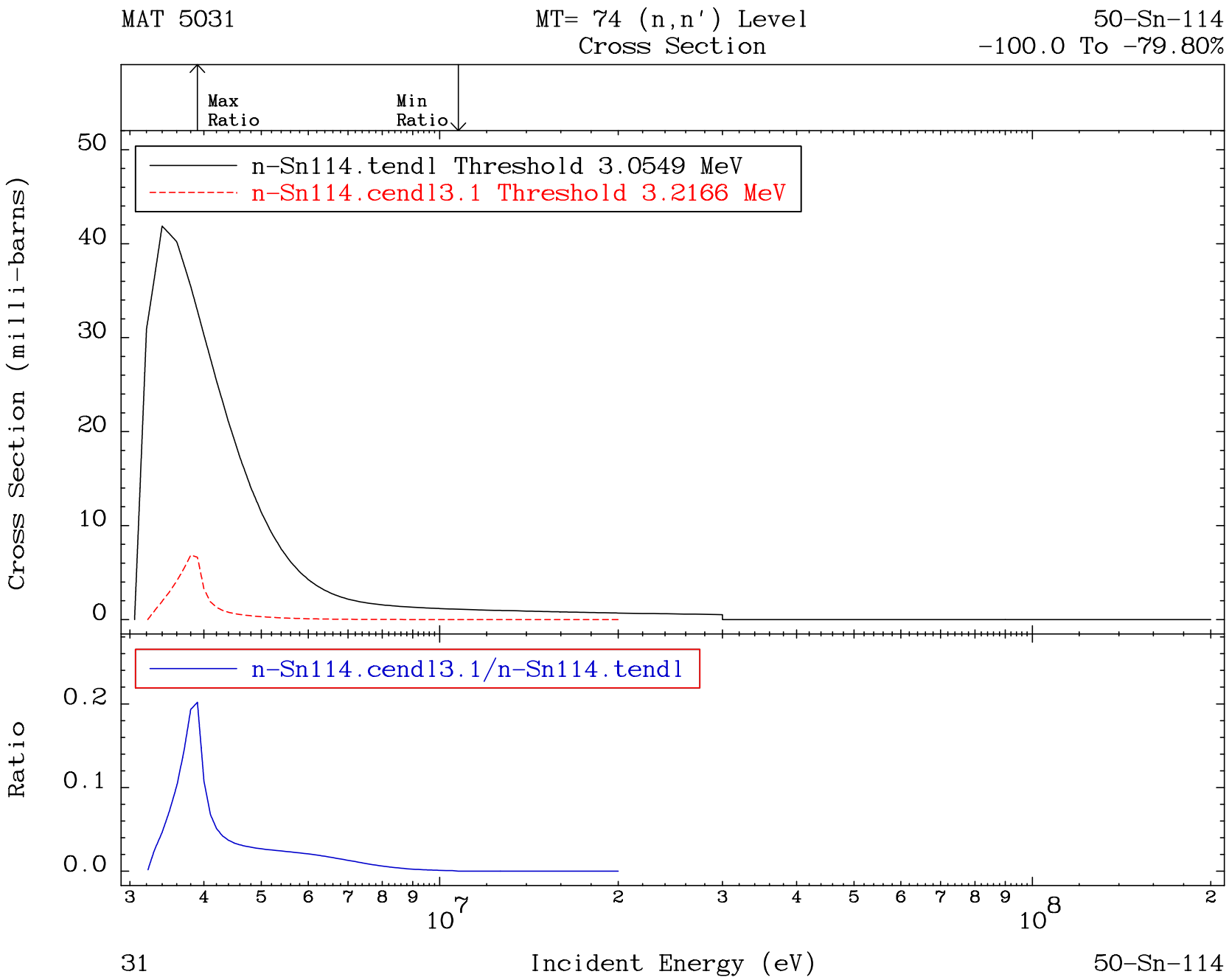

MAT 5031
MT= 69 (n,n') Level
Cross Section
50-Sn-114
-100.0 To -42.46%
Max
Ratio
Min
Ratio
n-Sn114.tendl Threshold 2.9362 MeV
n-Sn114.cendl3.1 Threshold 3.0538 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
26
Incident Energy (eV)
50-Sn-114

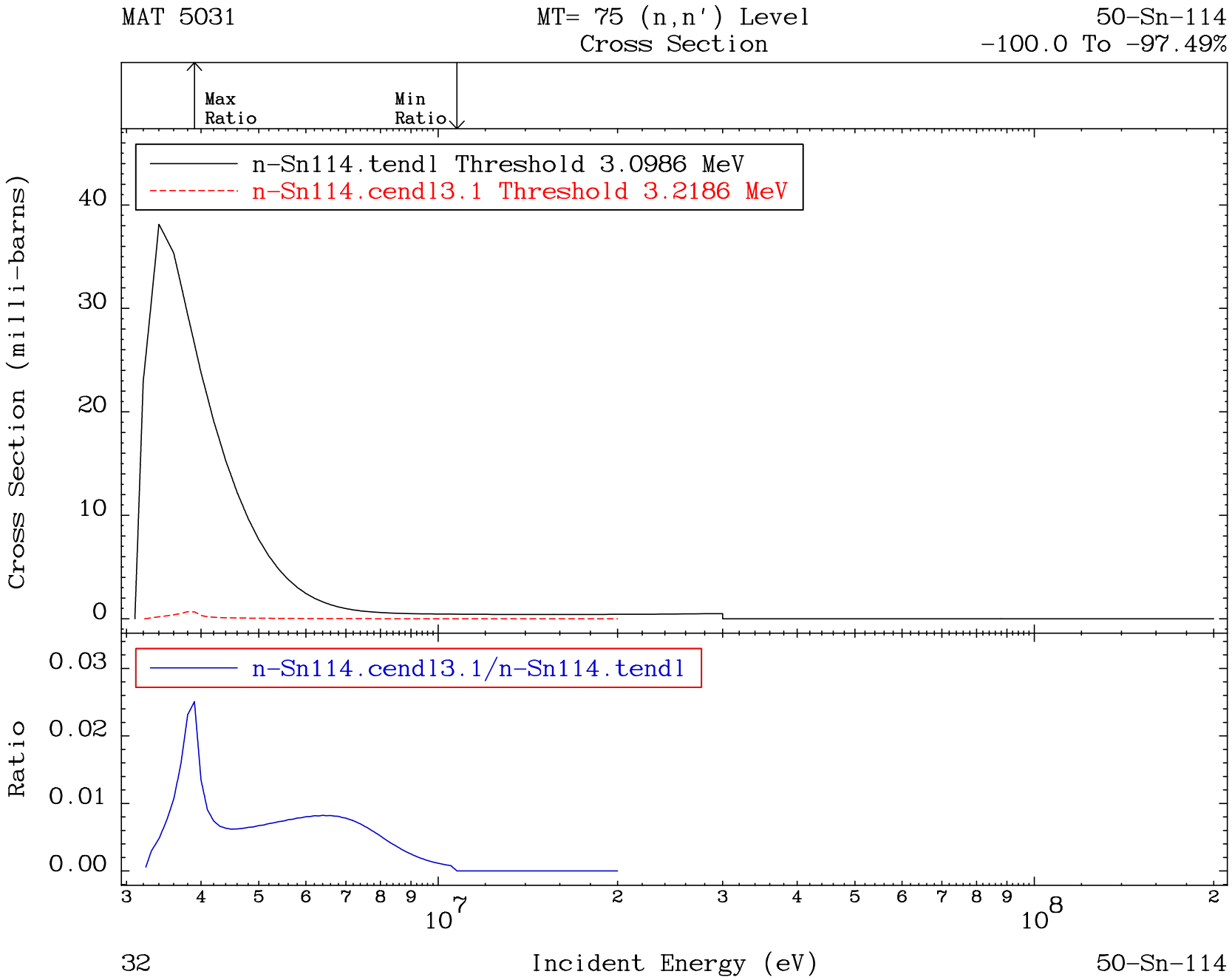

MAT 5031
MT= 70 (n,n') Level
Cross Section
50-Sn-114
-99.99 To 80.89 %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 2.9416 MeV
n-Sn114.cendl3.1 Threshold 3.0549 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
50-Sn-114

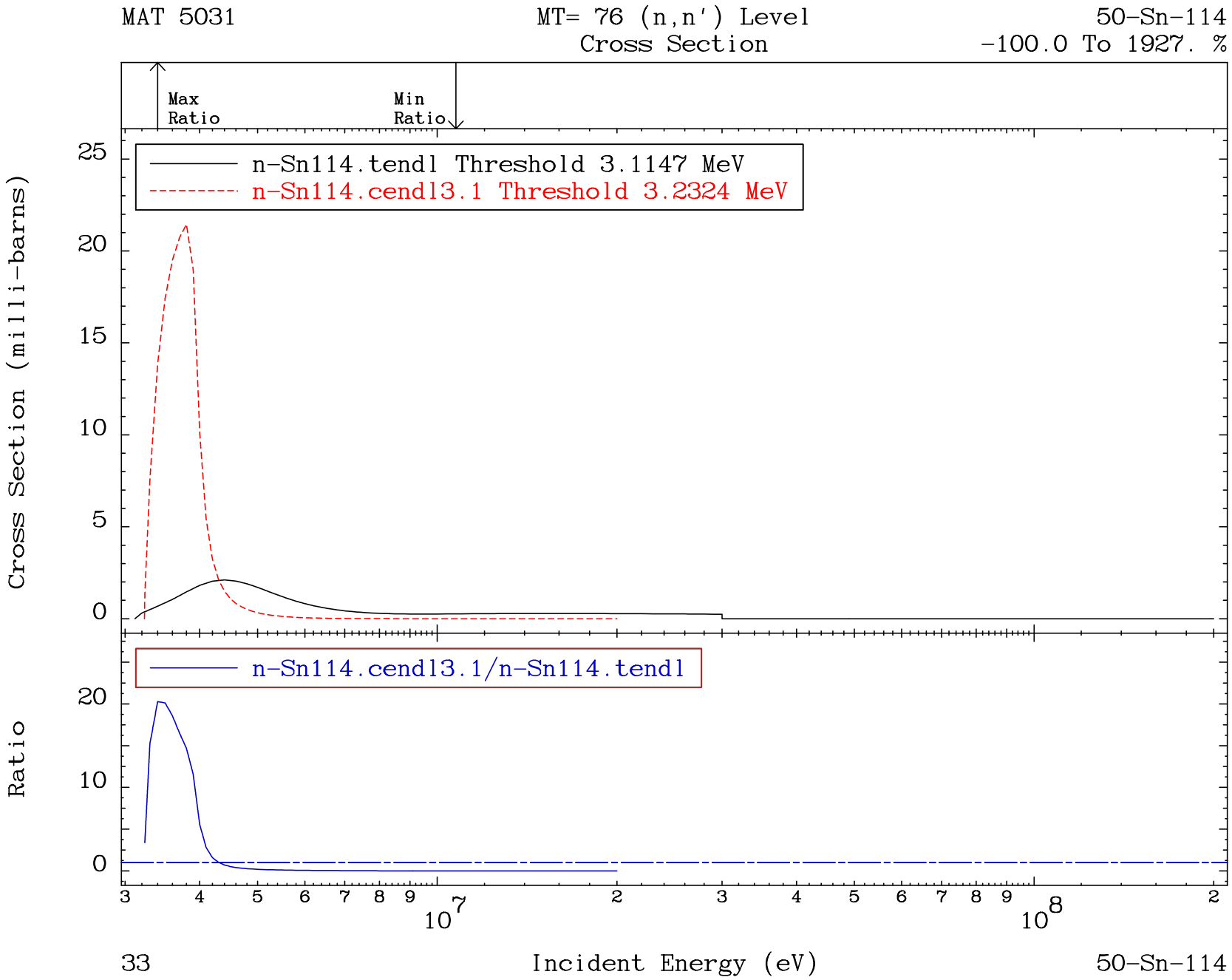

MAT 5031
MT= 71 (n,n') Level
Cross Section
50-Sn-114
-99.99 To -93.80%
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 2.9695 MeV
n-Sn114.cendl3.1 Threshold 3.1147 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^-1
10^-2
10^-3
10^-4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
28
Incident Energy (eV)
50-Sn-114

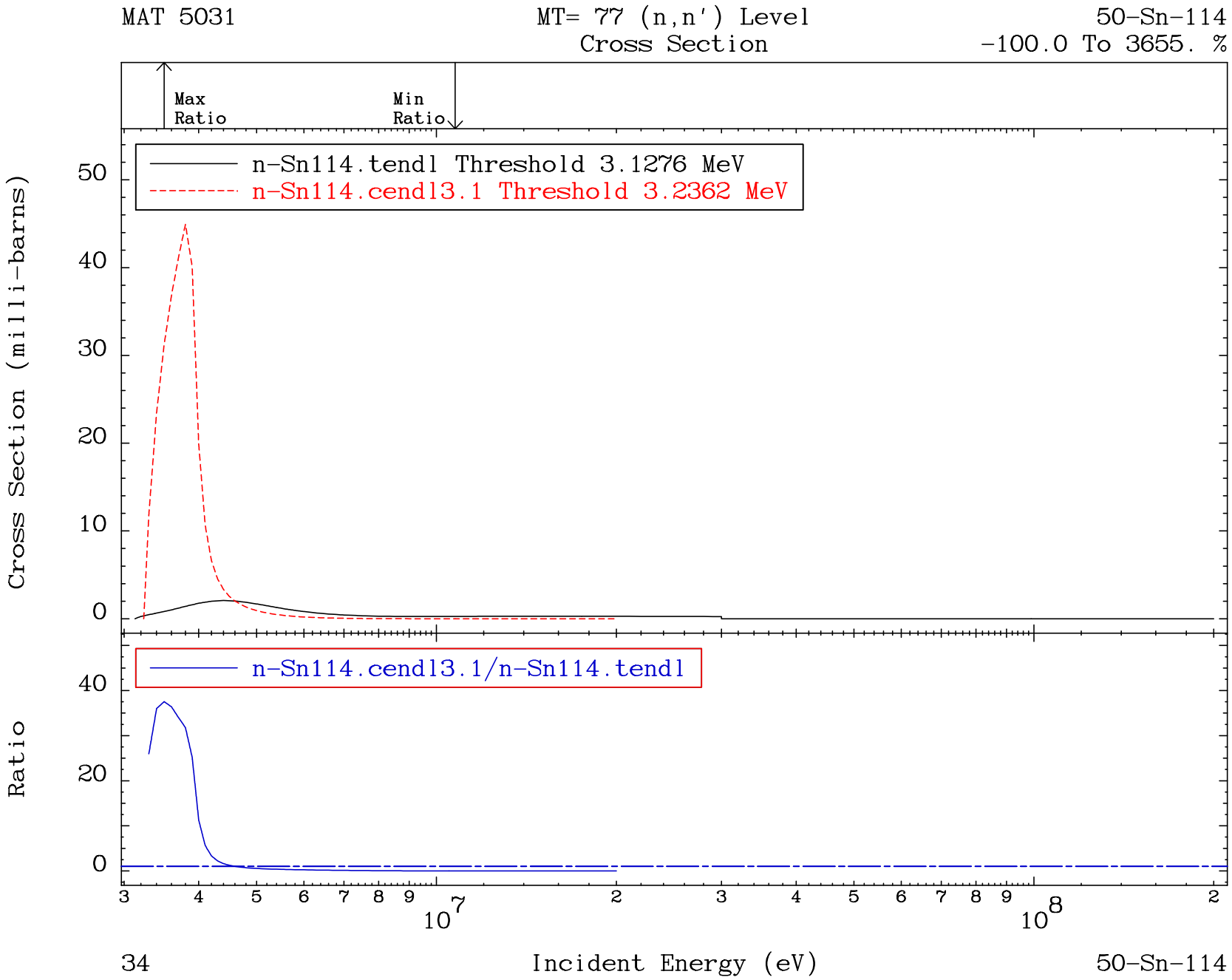

MAT 5031
MT= 72 (n,n') Level
Cross Section
50-Sn-114
-99.99 To -78.16%
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 3.0518 MeV
n-Sn114.cendl3.1 Threshold 3.1777 MeV
Cross Section (milli-barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
29
50-Sn-114

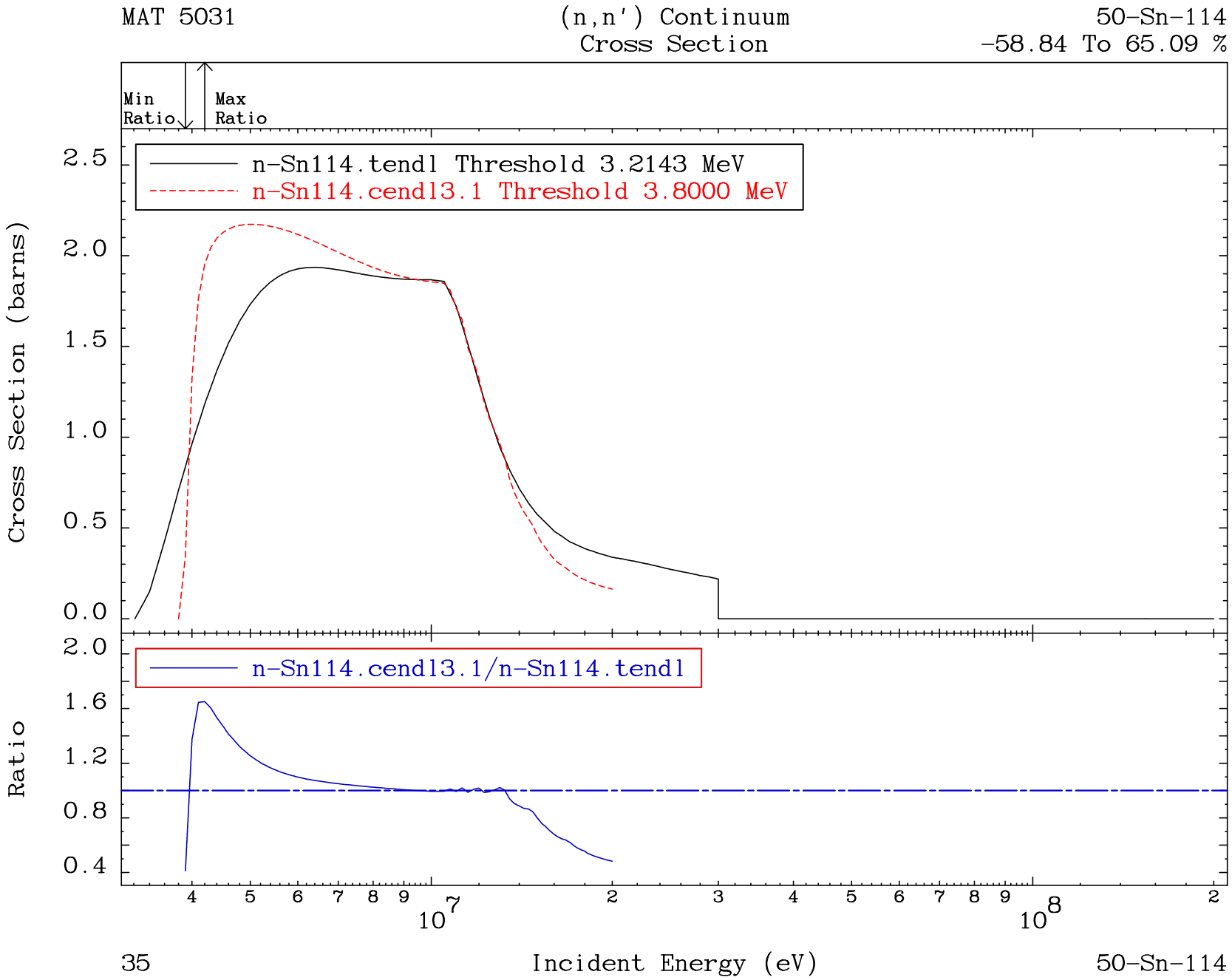

MAT 5031
MT= 73 (n,n') Level
Cross Section
50-Sn-114
-77.38 To 9999. %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 3.0535 MeV
n-Sn114.cendl3.1 Threshold 3.2143 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^9
10^6
10^3
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
30
Incident Energy (eV)
50-Sn-114

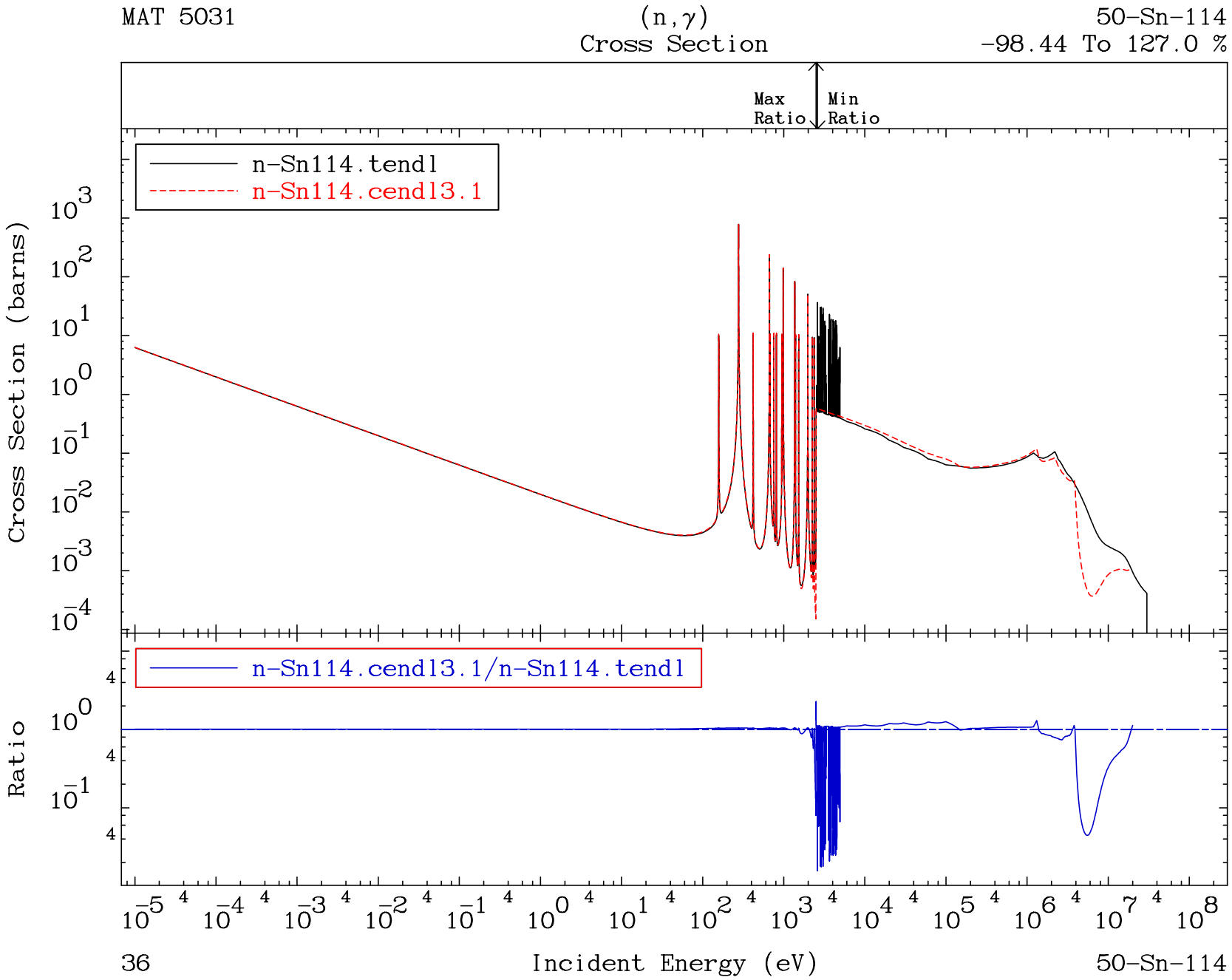

MAT 5031
MT= 74 (n,n') Level
Cross Section
50-Sn-114
-100.0 To -79.80%
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 3.0549 MeV
n-Sn114.cendl3.1 Threshold 3.2166 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
0.2
0.1
0.0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
50-Sn-114

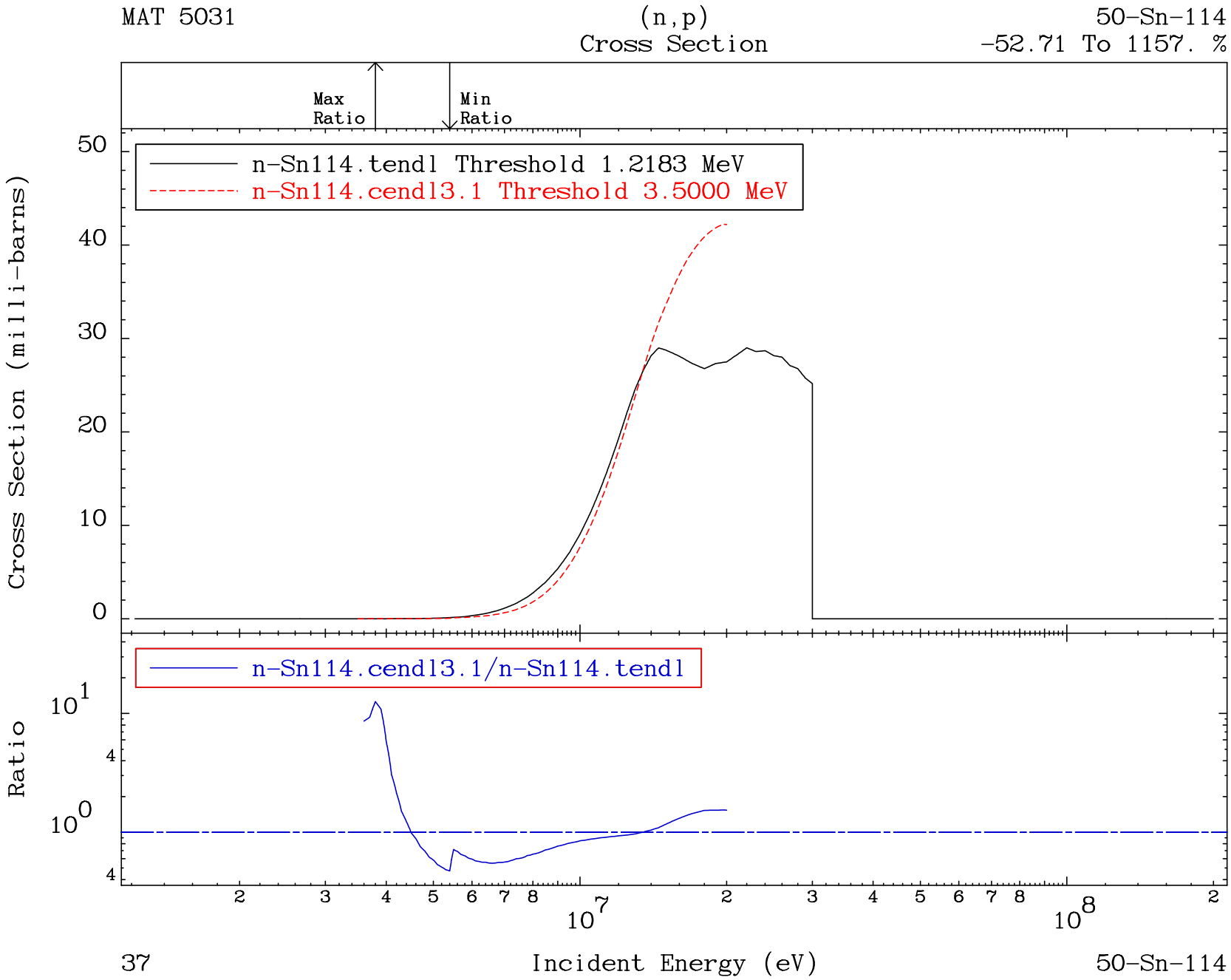

MAT 5031
MT= 75 (n,n') Level
Cross Section
50-Sn-114
-100.0 To -97.49%
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 3.0986 MeV
n-Sn114.cendl3.1 Threshold 3.2186 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
0.03
0.02
0.01
0.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
32
Incident Energy (eV)
50-Sn-114

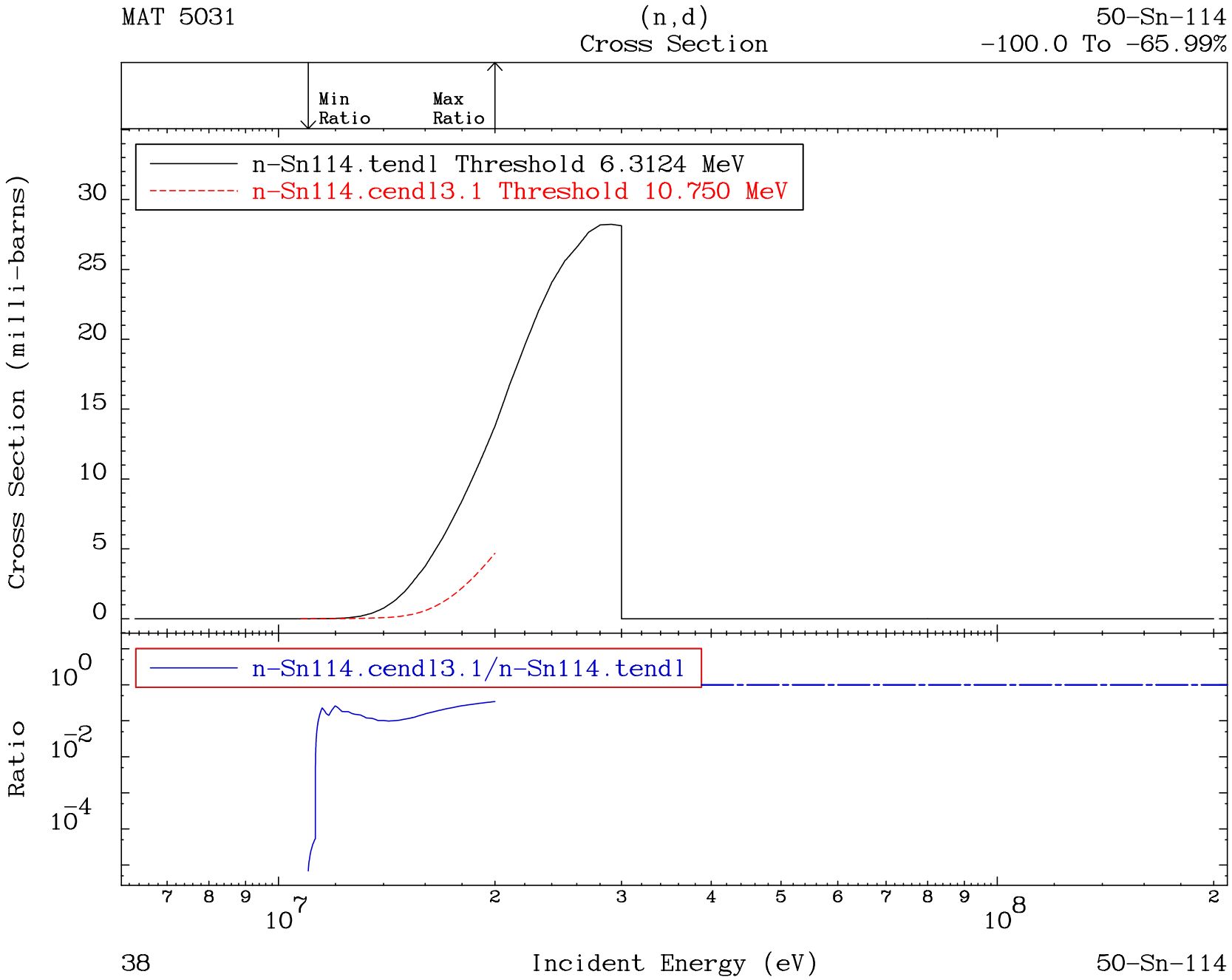

MAT 5031
MT= 76 (n,n') Level
Cross Section
50-Sn-114
-100.0 To 1927. %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 3.1147 MeV
n-Sn114.cendl3.1 Threshold 3.2324 MeV
Cross Section (milli-barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
33
50-Sn-114

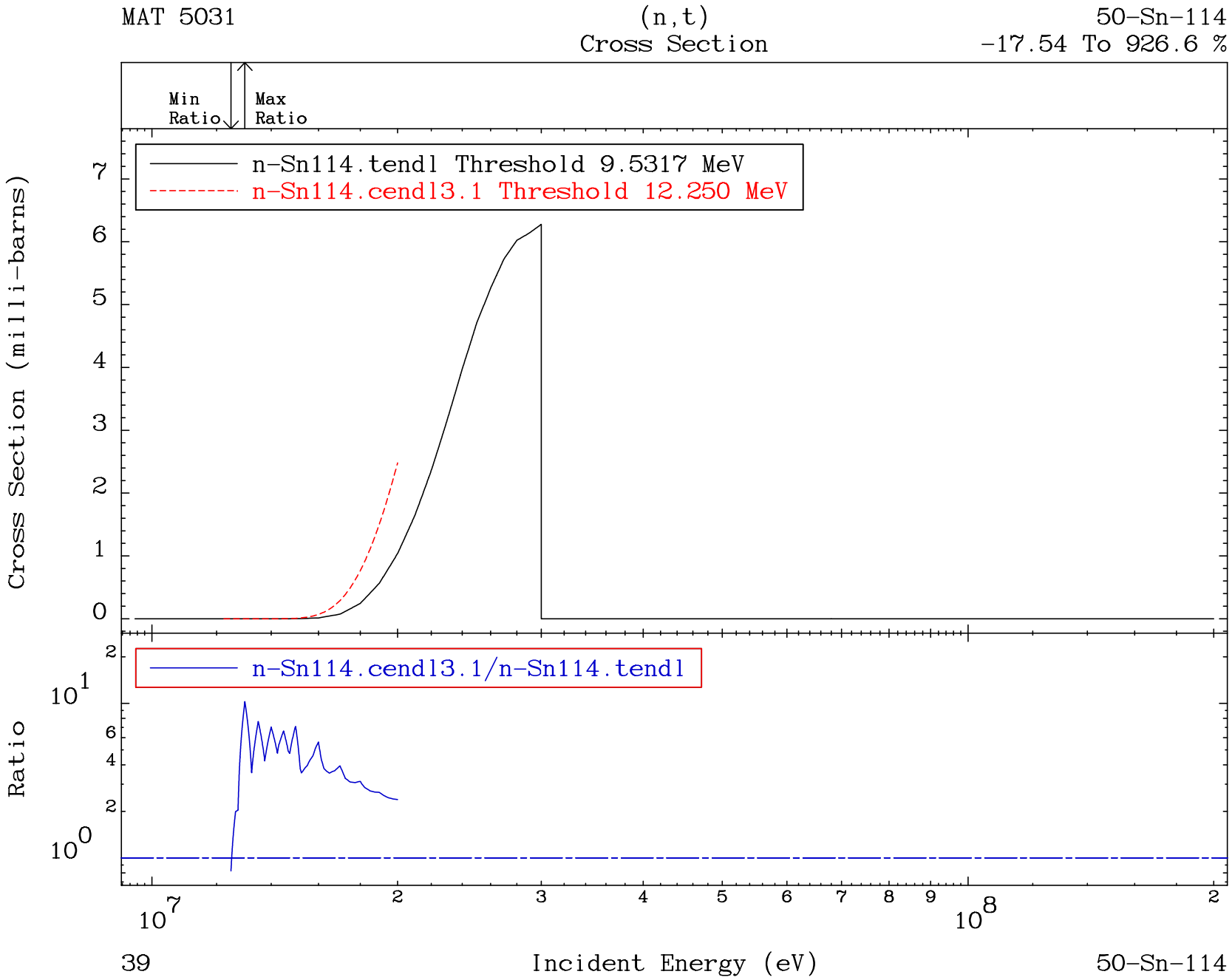

MAT 5031
MT= 77 (n,n') Level
Cross Section
50-Sn-114
-100.0 To 3655. %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 3.1276 MeV
n-Sn114.cendl3.1 Threshold 3.2362 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
40
20
0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
34
Incident Energy (eV)
50-Sn-114

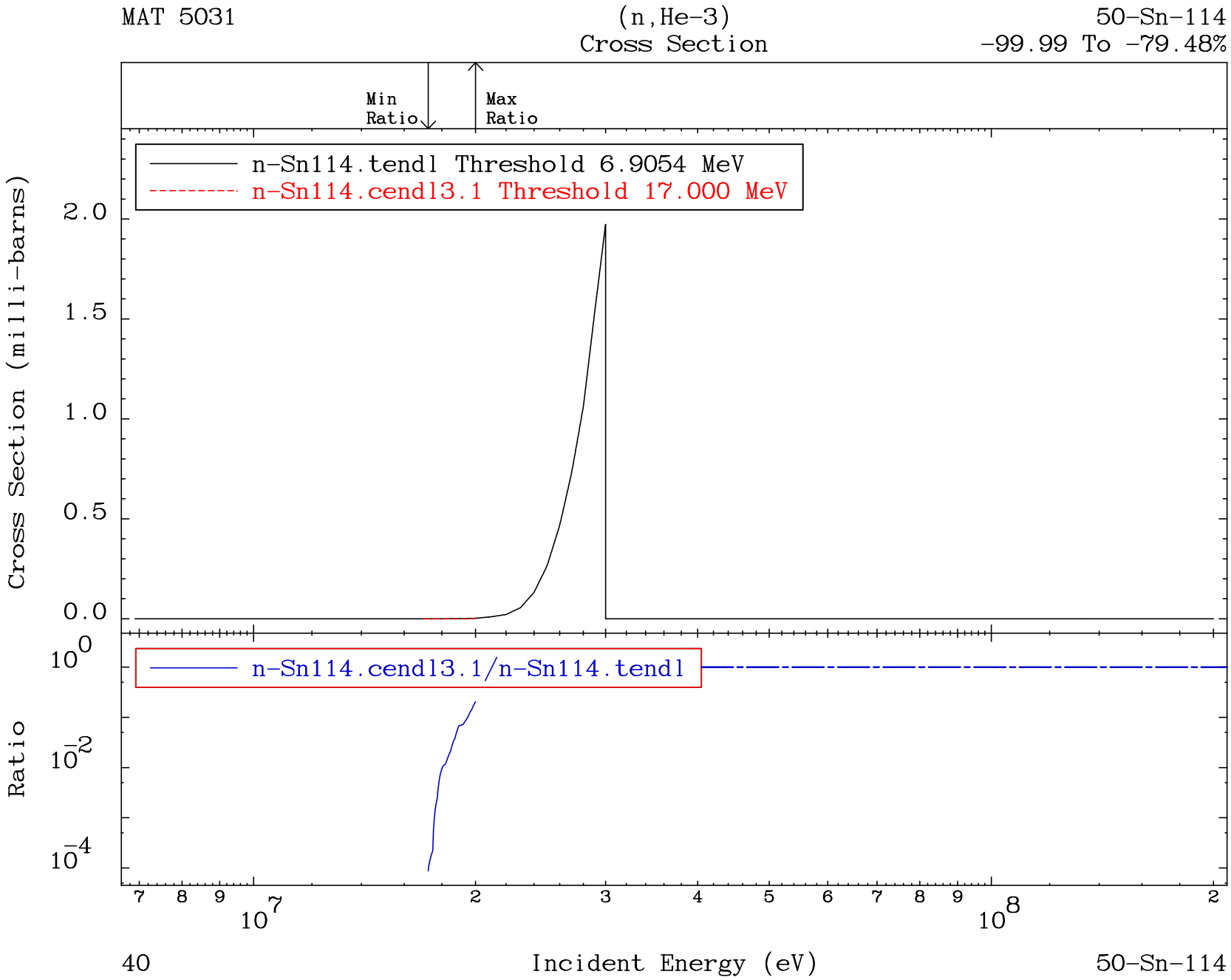

MAT 5031
(n,n') Continuum
Cross Section
50-Sn-114
-58.84 To 65.09 %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 3.2143 MeV
n-Sn114.cendl3.1 Threshold 3.8000 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
2.0
1.6
1.2
0.8
0.4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
35
Incident Energy (eV)
50-Sn-114

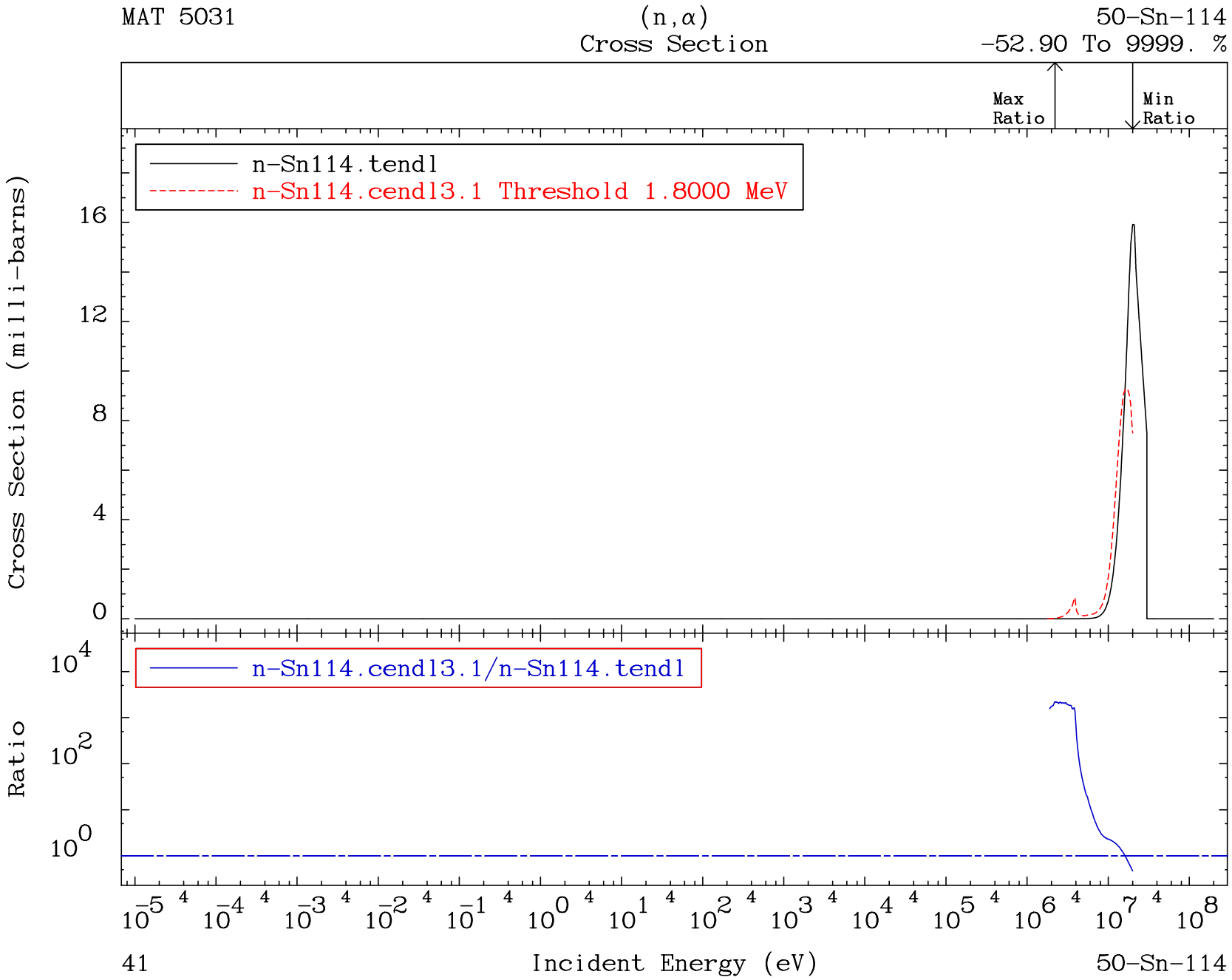

MAT 5031
(n,γ)
Cross Section
50-Sn-114
-98.44 To 127.0 %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
36
50-Sn-114

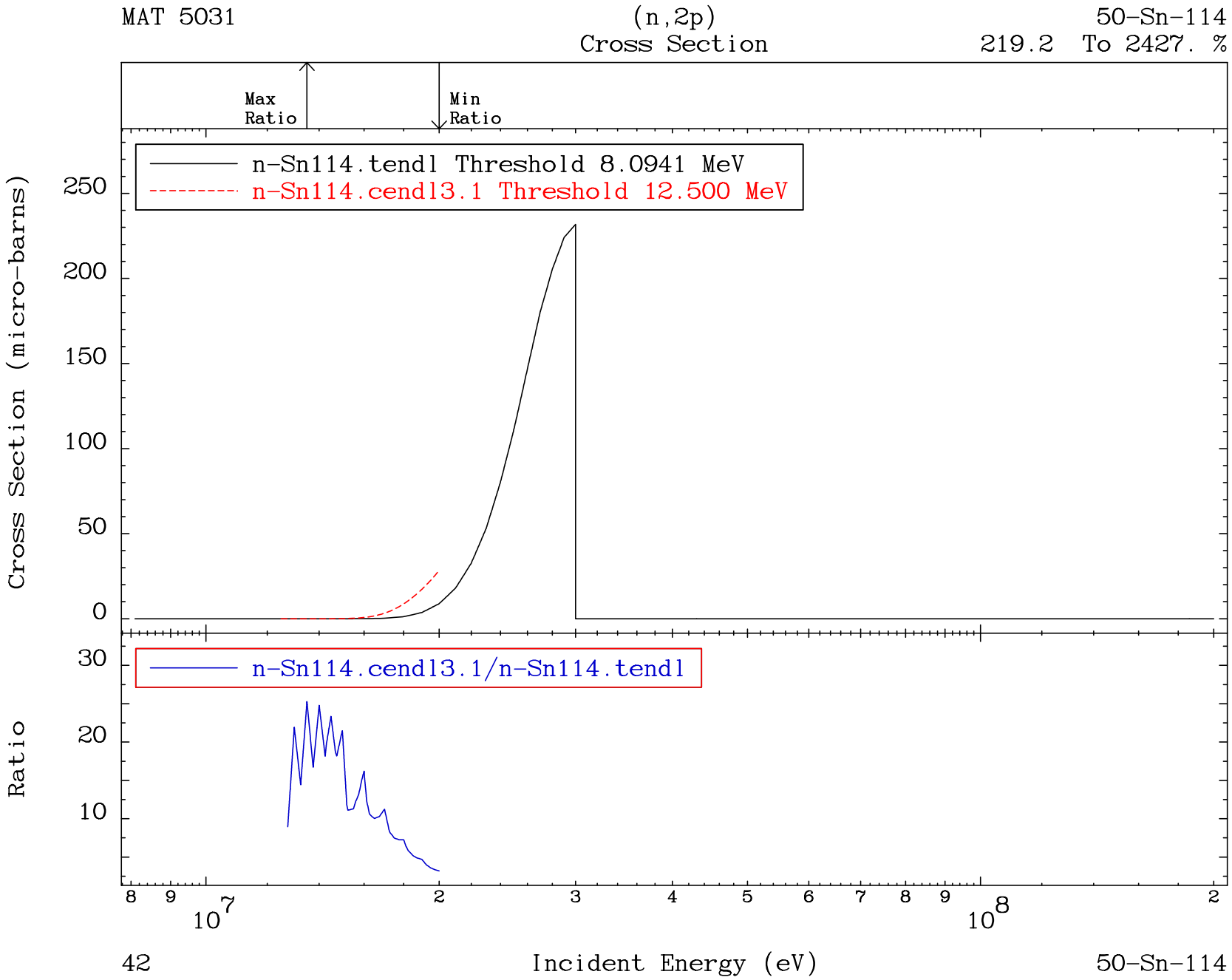

MAT 5031
(n,p)
Cross Section
50-Sn-114
-52.71 To 1157. %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 1.2183 MeV
n-Sn114.cendl3.1 Threshold 3.5000 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^1
10^0
4
4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
37
Incident Energy (eV)
50-Sn-114

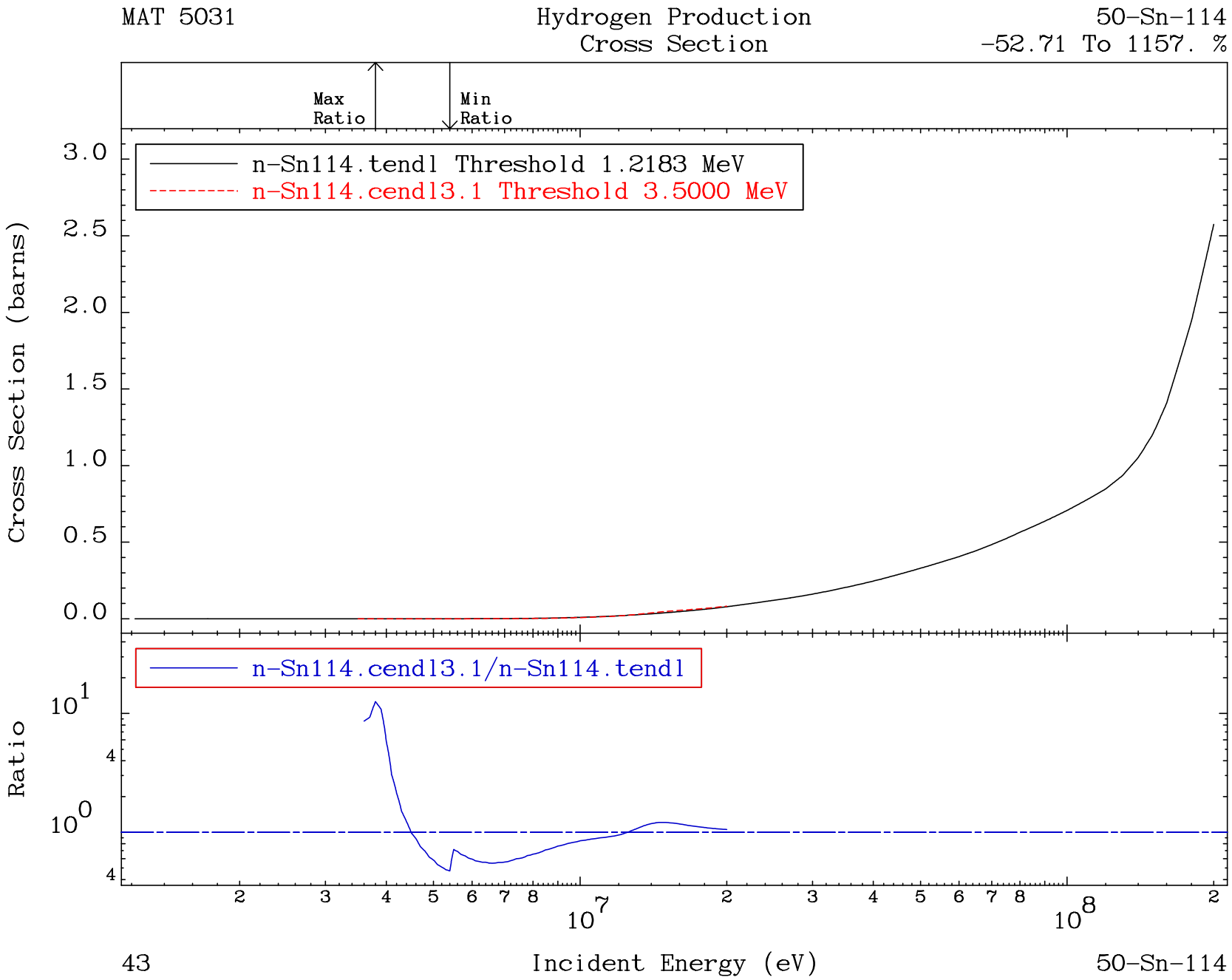

MAT 5031
(n,d)
Cross Section
50-Sn-114
-100.0 To -65.99%
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 6.3124 MeV
n-Sn114.cendl3.1 Threshold 10.750 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
38
Incident Energy (eV)
50-Sn-114

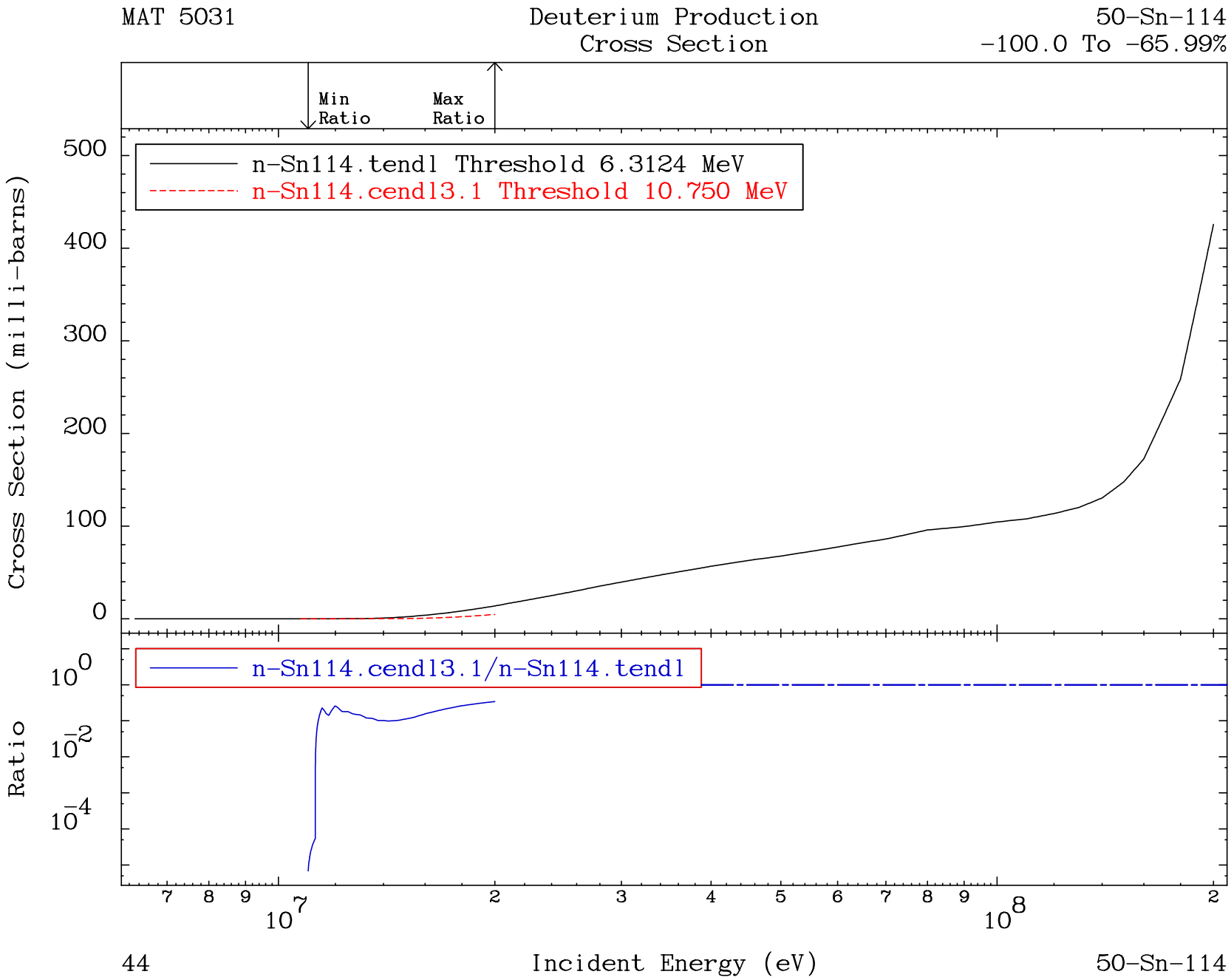

MAT 5031
(n,t)
Cross Section
50-Sn-114
-17.54 To 926.6 %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 9.5317 MeV
n-Sn114.cendl3.1 Threshold 12.250 MeV
Cross Section (milli-barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
39
50-Sn-114

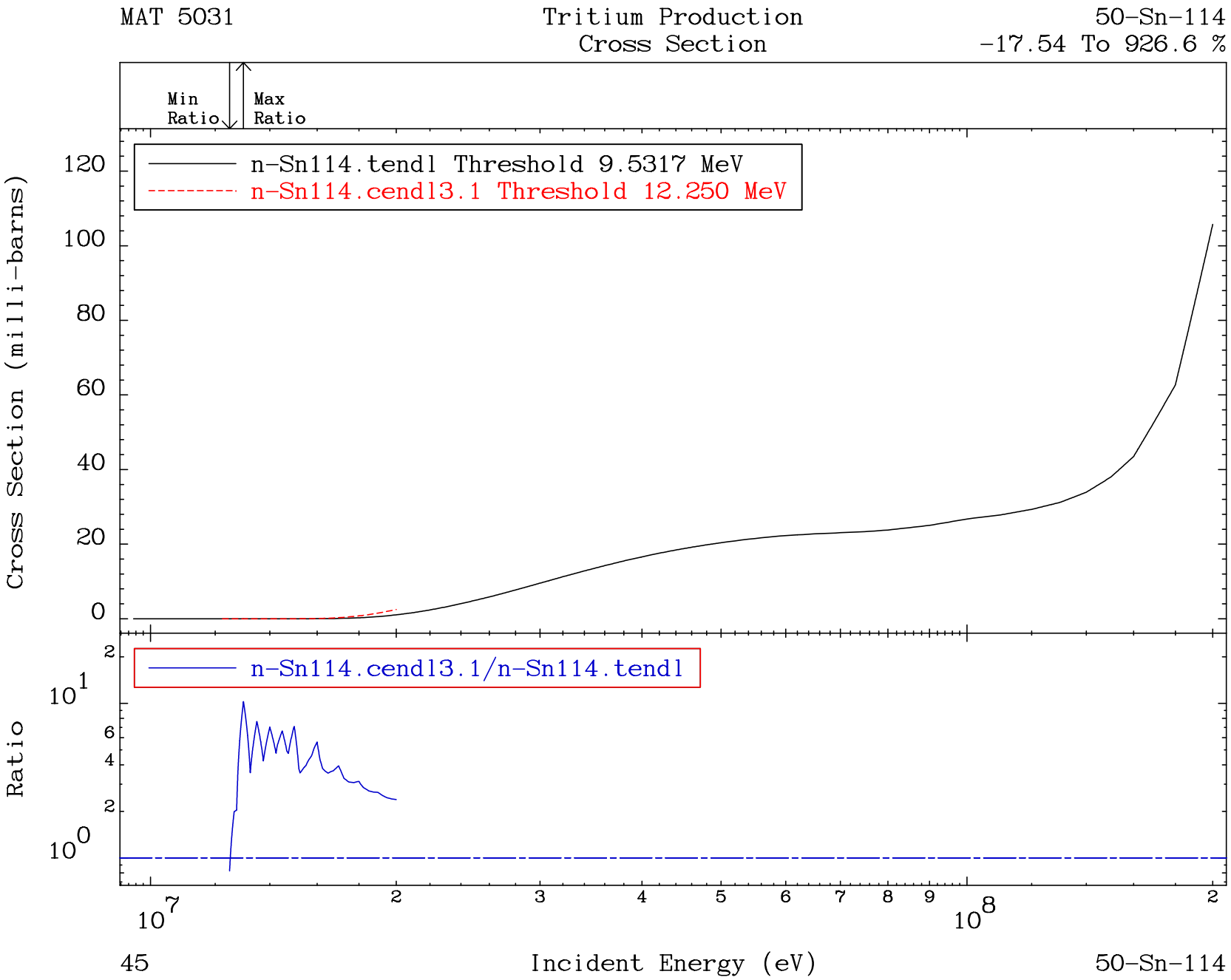

MAT 5031
(n,He-3)
Cross Section
50-Sn-114
-99.99 To -79.48%
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 6.9054 MeV
n-Sn114.cendl3.1 Threshold 17.000 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
50-Sn-114

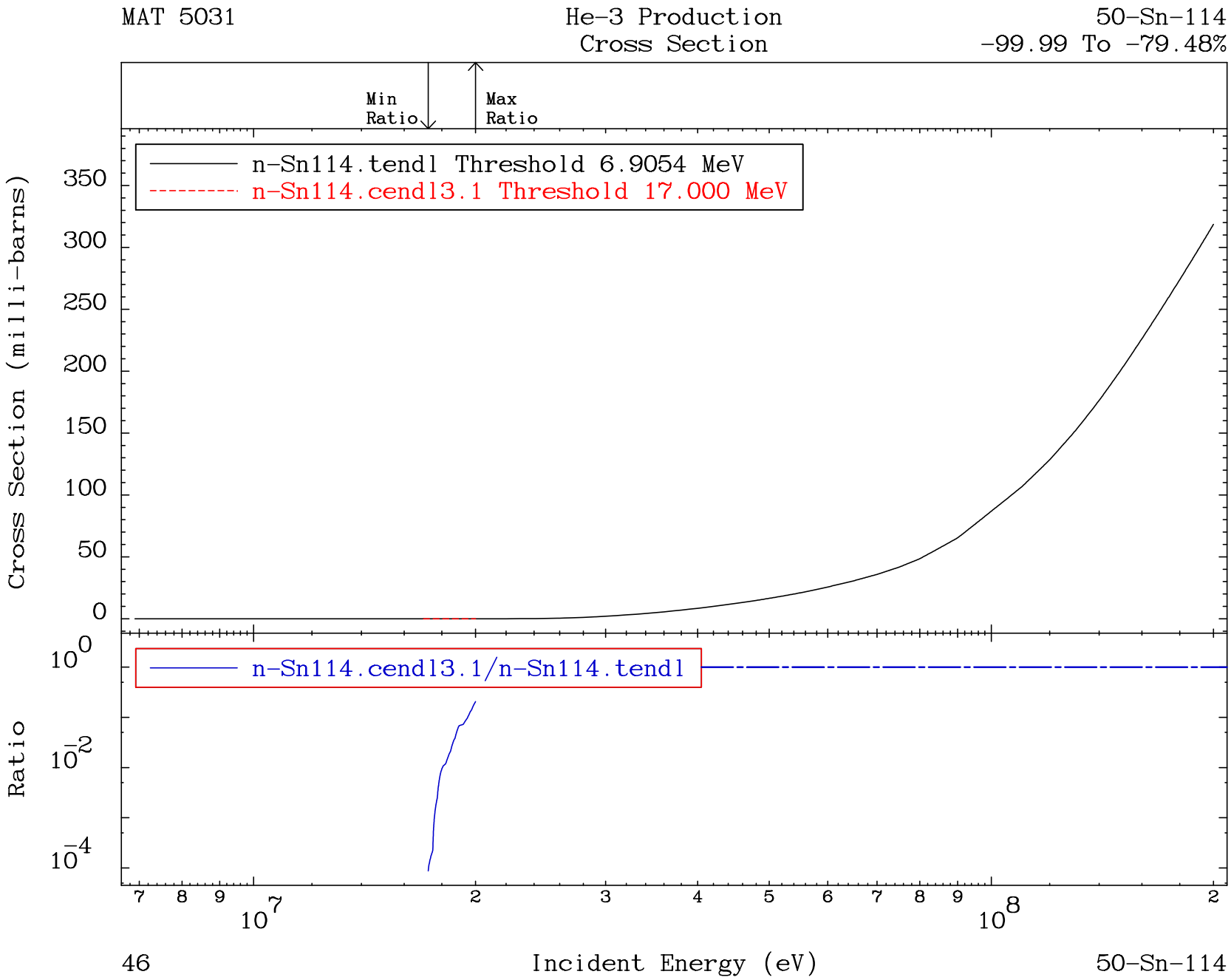

MAT 5031
(n,α)
Cross Section
50-Sn-114
-52.90 To 9999. %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1 Threshold 1.8000 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^4
10^2
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
41
Incident Energy (eV)
50-Sn-114

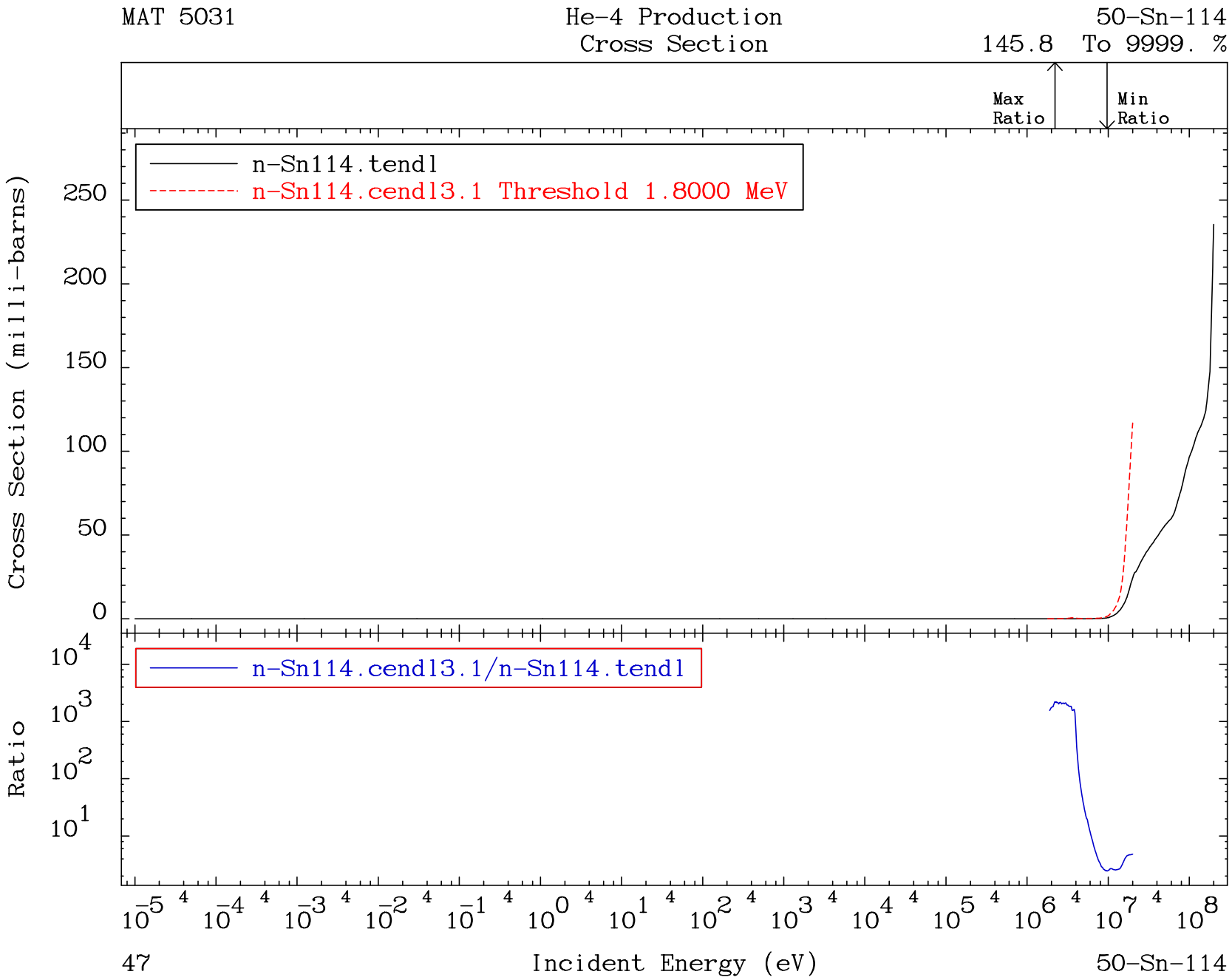

MAT 5031
(n,2p)
Cross Section
50-Sn-114
219.2 To 2427. %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 8.0941 MeV
n-Sn114.cendl3.1 Threshold 12.500 MeV
Cross Section (micro-barns)
250
200
150
100
50
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
30
20
10
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
42
Incident Energy (eV)
50-Sn-114

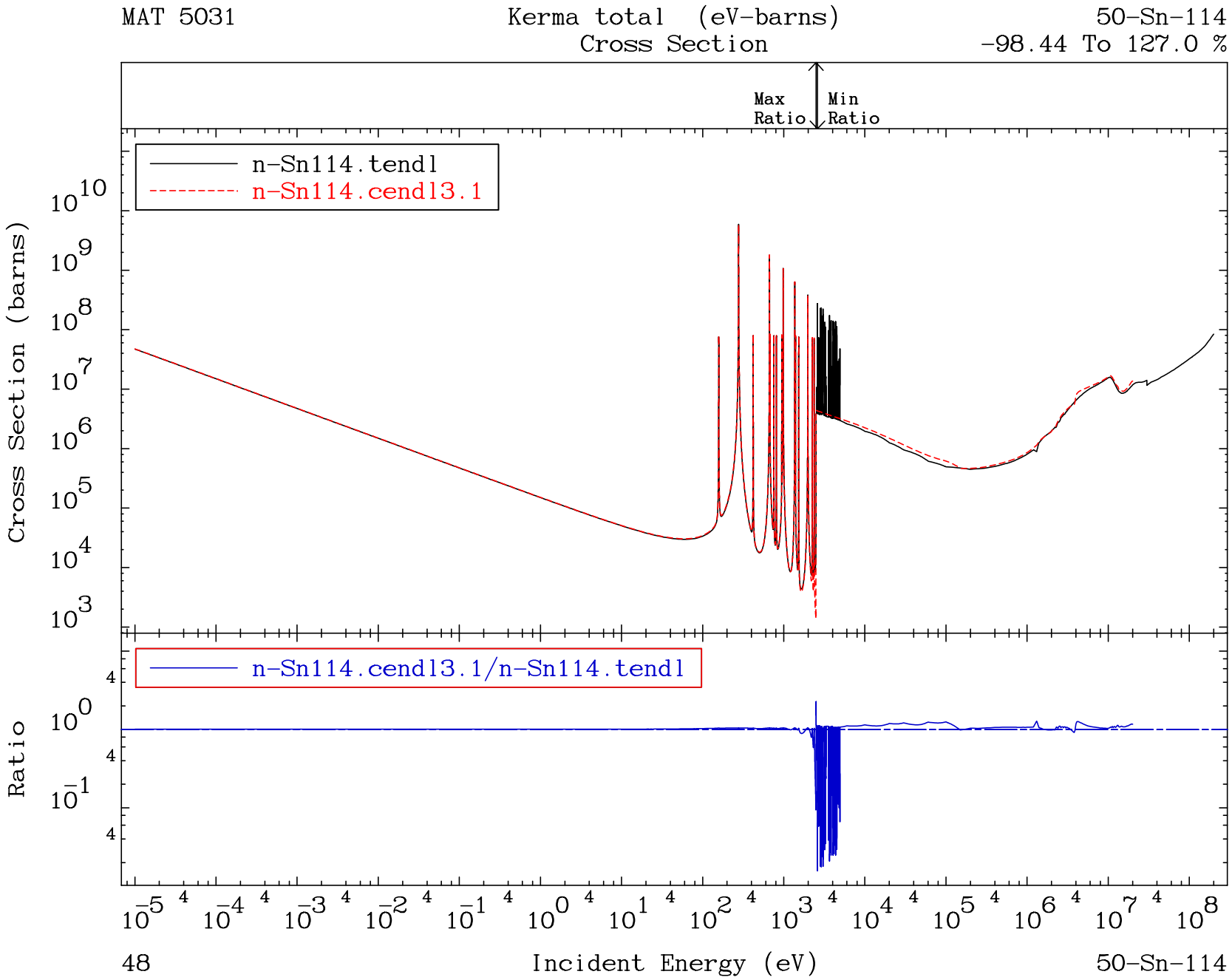

MAT 5031
Hydrogen Production
Cross Section
50-Sn-114
-52.71 To 1157. %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 1.2183 MeV
n-Sn114.cendl3.1 Threshold 3.5000 MeV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^1
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
43
Incident Energy (eV)
50-Sn-114

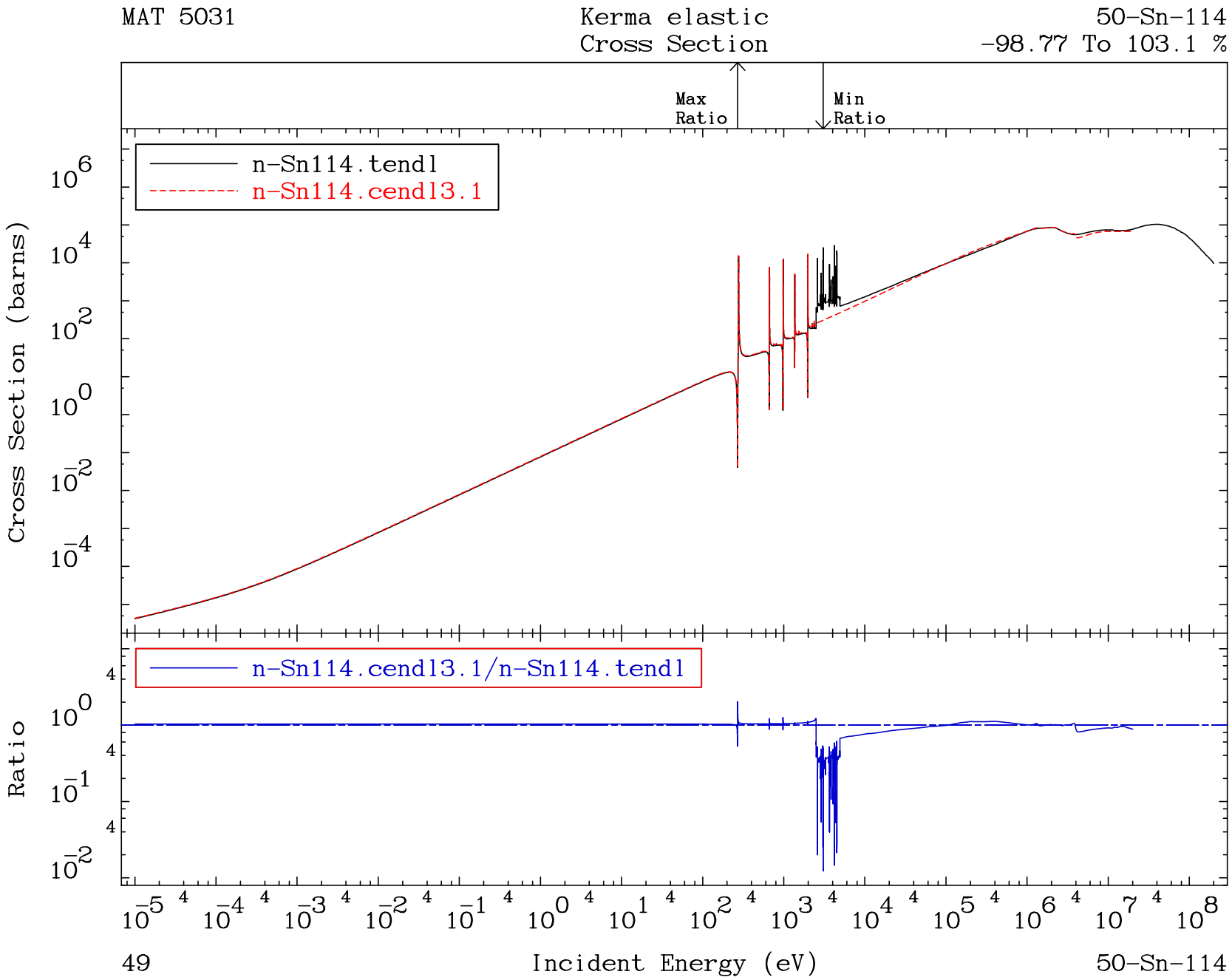

MAT 5031
Deuterium Production
Cross Section
50-Sn-114
-100.0 To -65.99%
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 6.3124 MeV
n-Sn114.cendl3.1 Threshold 10.750 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
50-Sn-114

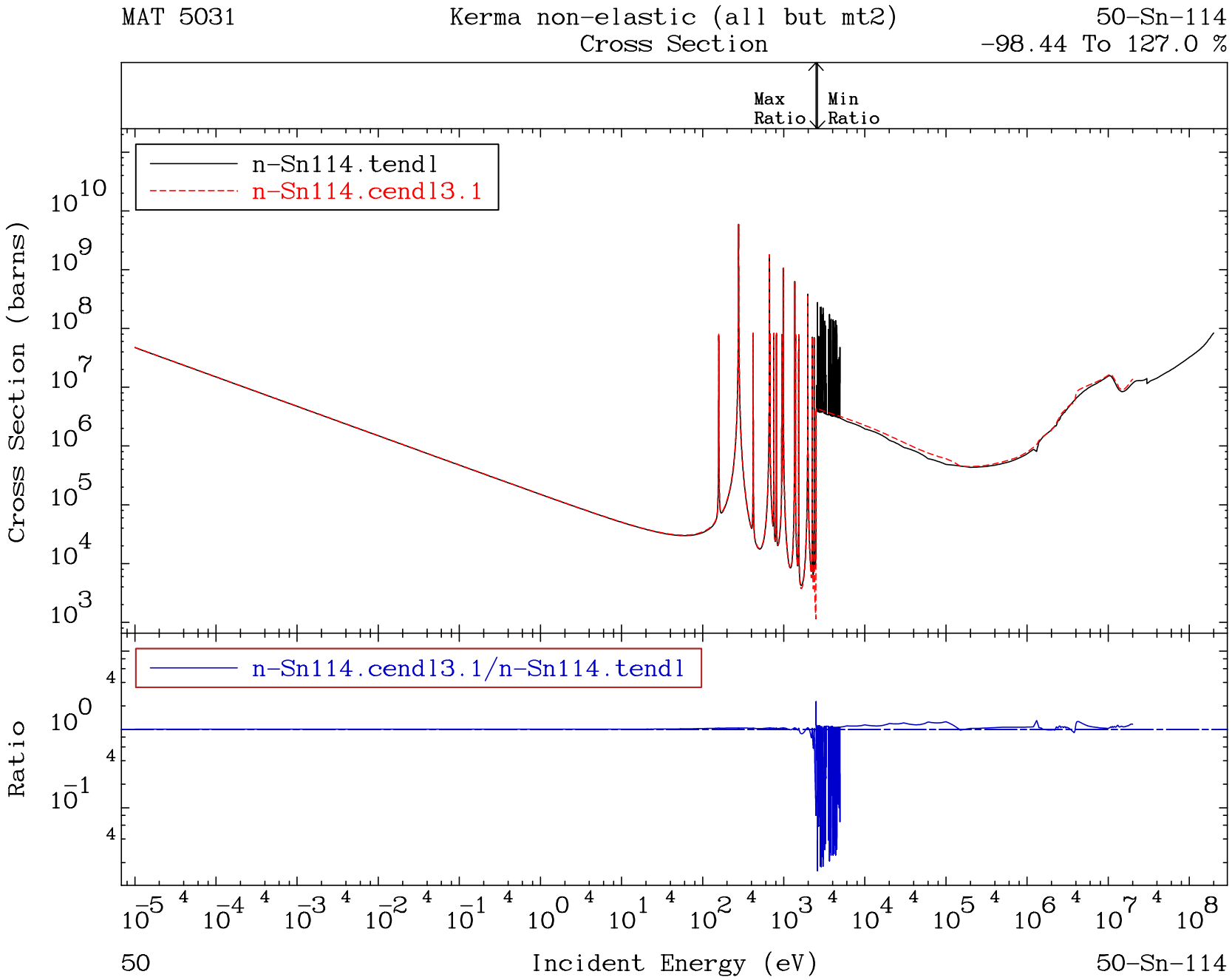

MAT 5031
Tritium Production
Cross Section
50-Sn-114
-17.54 To 926.6 %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 9.5317 MeV
n-Sn114.cendl3.1 Threshold 12.250 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
2
10^1
6
4
2
10^0
10^7
2
3
4
5
6
7
8
9
10^8
2
45
Incident Energy (eV)
50-Sn-114

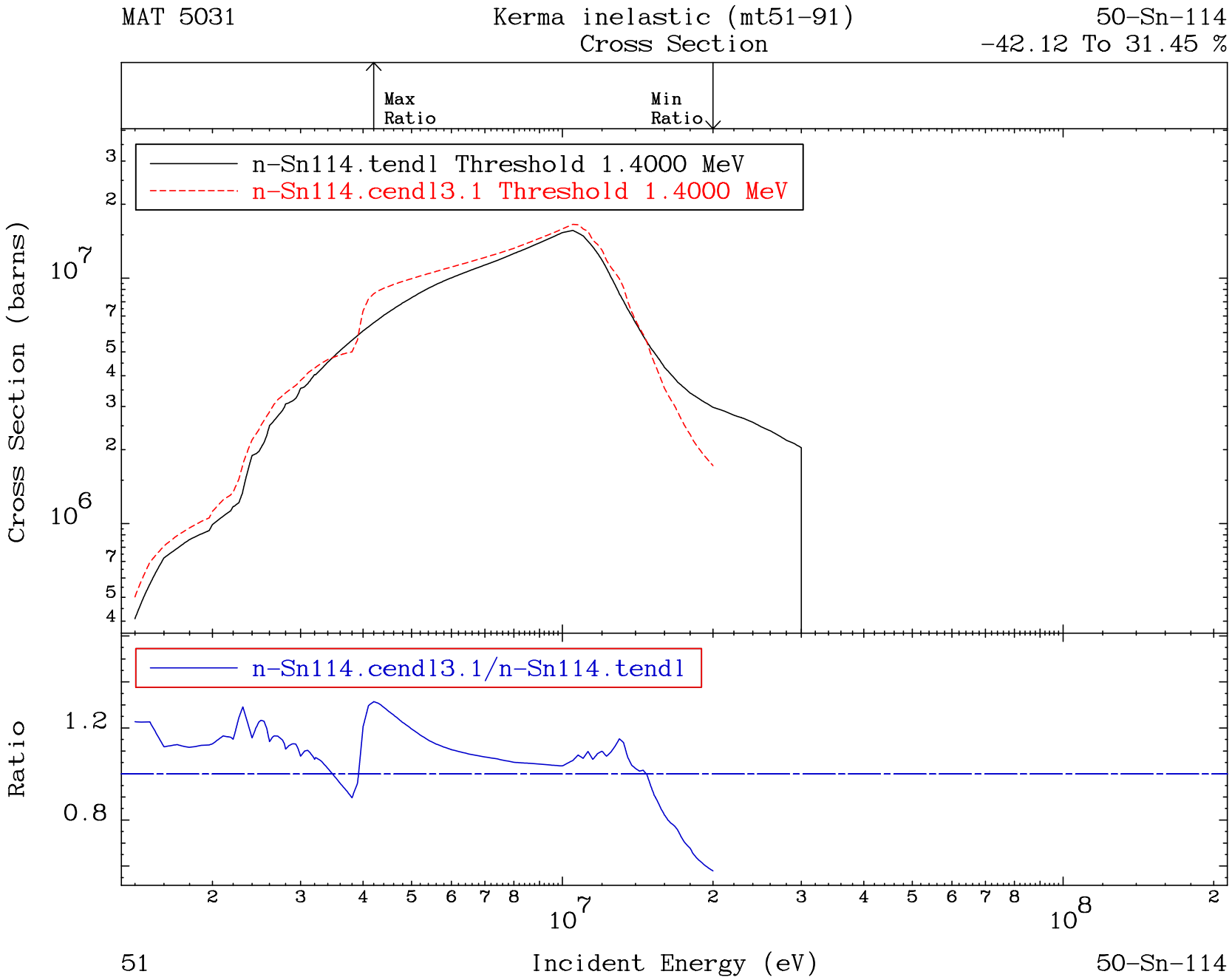

MAT 5031
He-3 Production
Cross Section
50-Sn-114
-99.99 To -79.48%
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 6.9054 MeV
n-Sn114.cendl3.1 Threshold 17.000 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^0
10^-2
10^-4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
50-Sn-114

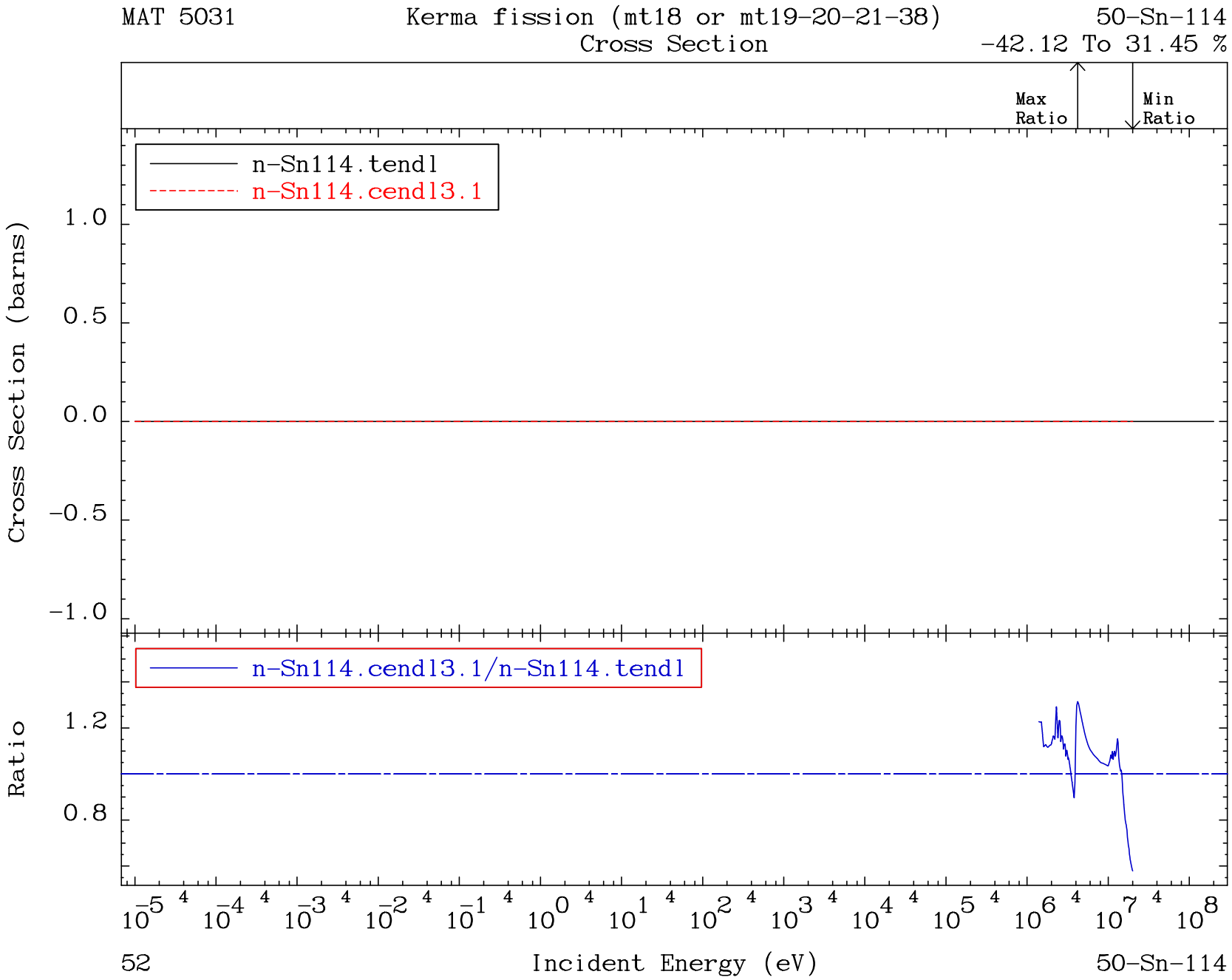

MAT 5031
He-4 Production
Cross Section
50-Sn-114
145.8 To 9999. %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1 Threshold 1.8000 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
10^4
10^3
10^2
10^1
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
47
Incident Energy (eV)
50-Sn-114

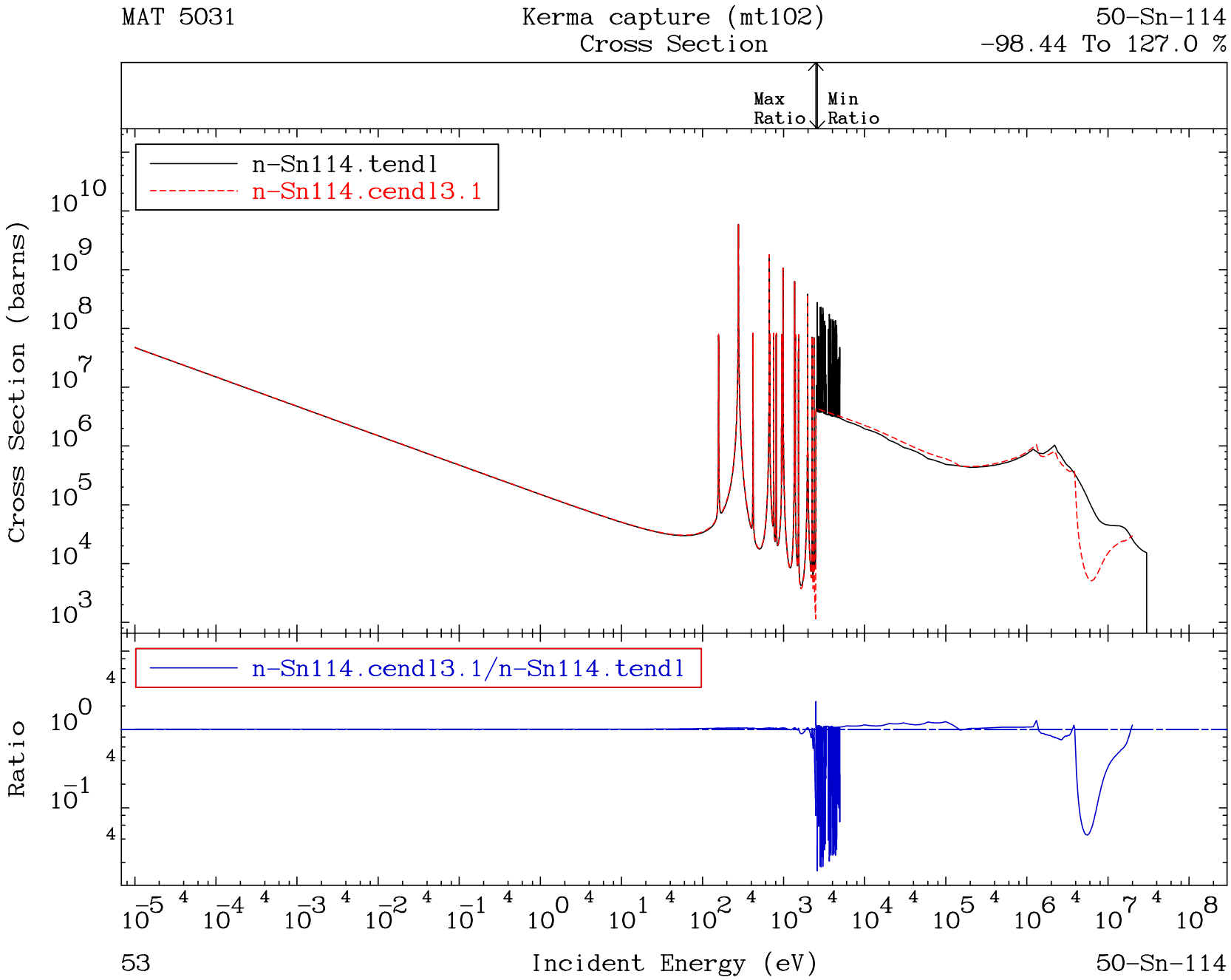

MAT 5031
Kerma total (eV-barns)
Cross Section
50-Sn-114
-98.44 To 127.0 %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
48
50-Sn-114

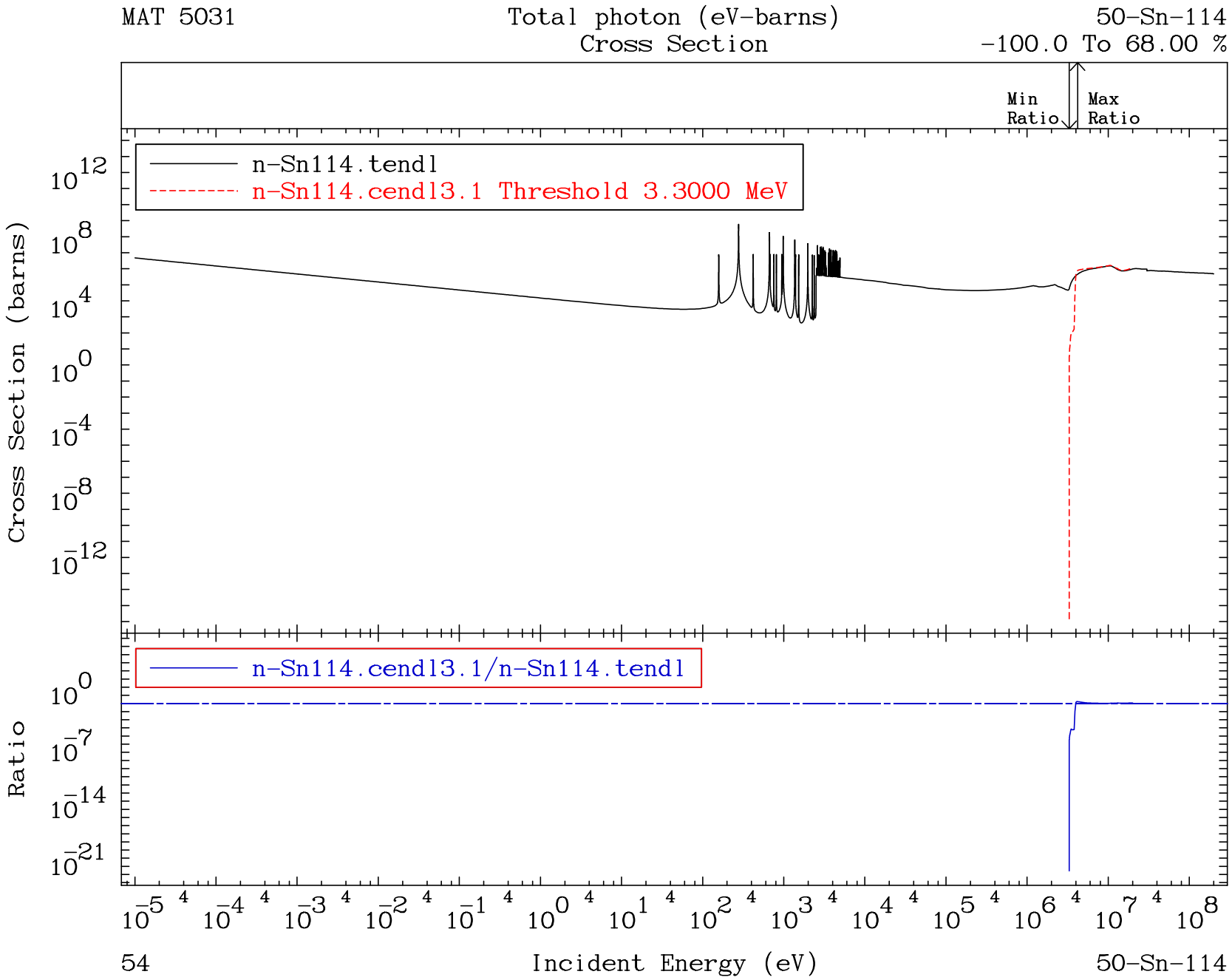

MAT 5031
Kerma elastic
Cross Section
50-Sn-114
-98.77 To 103.1 %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
49
50-Sn-114

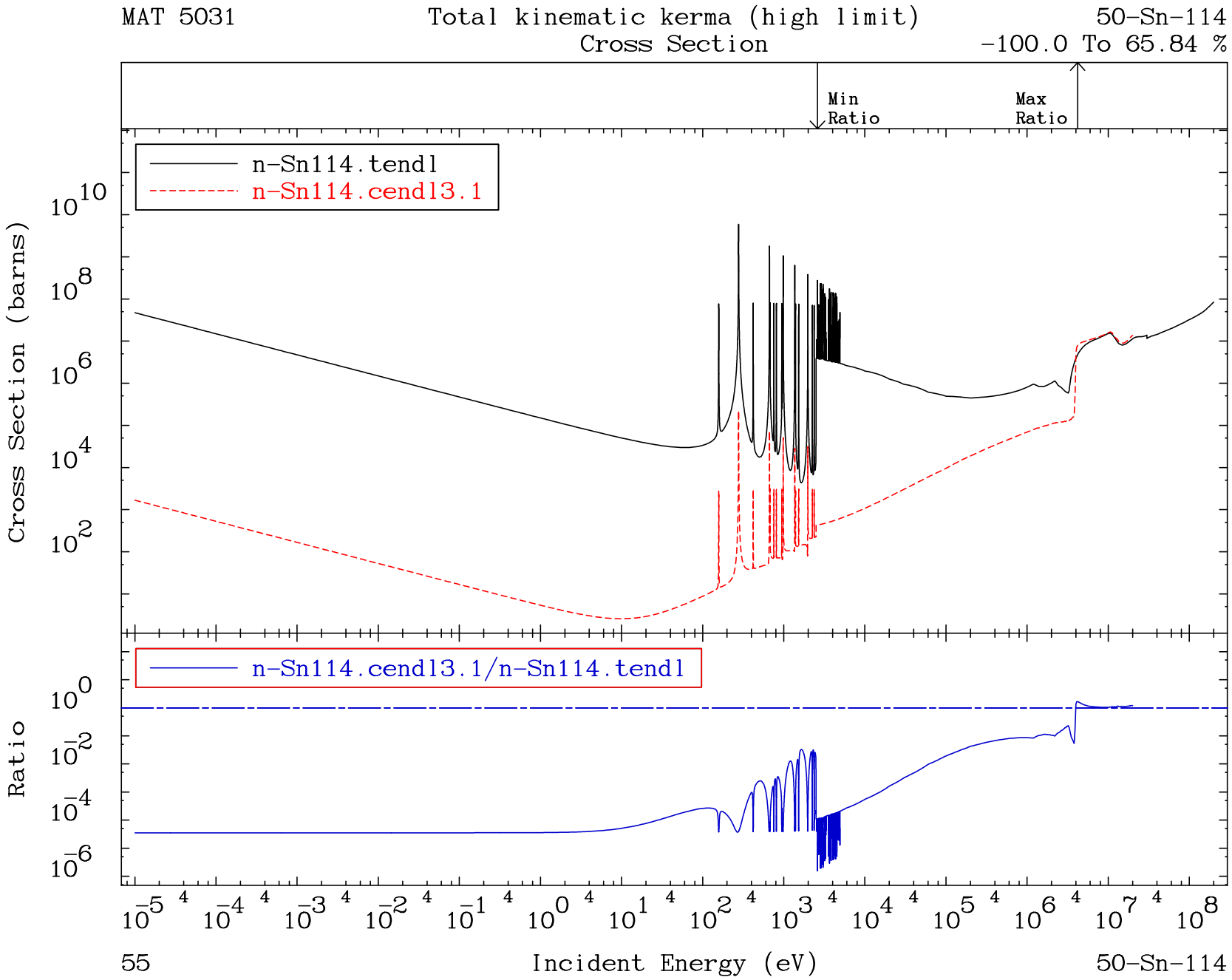

MAT 5031
Kerma non-elastic (all but mt2)
Cross Section
50-Sn-114
-98.44 To 127.0 %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
Ratio
n-Sn114.cendl3.1/n-Sn114.tendl
Incident Energy (eV)
50
50-Sn-114

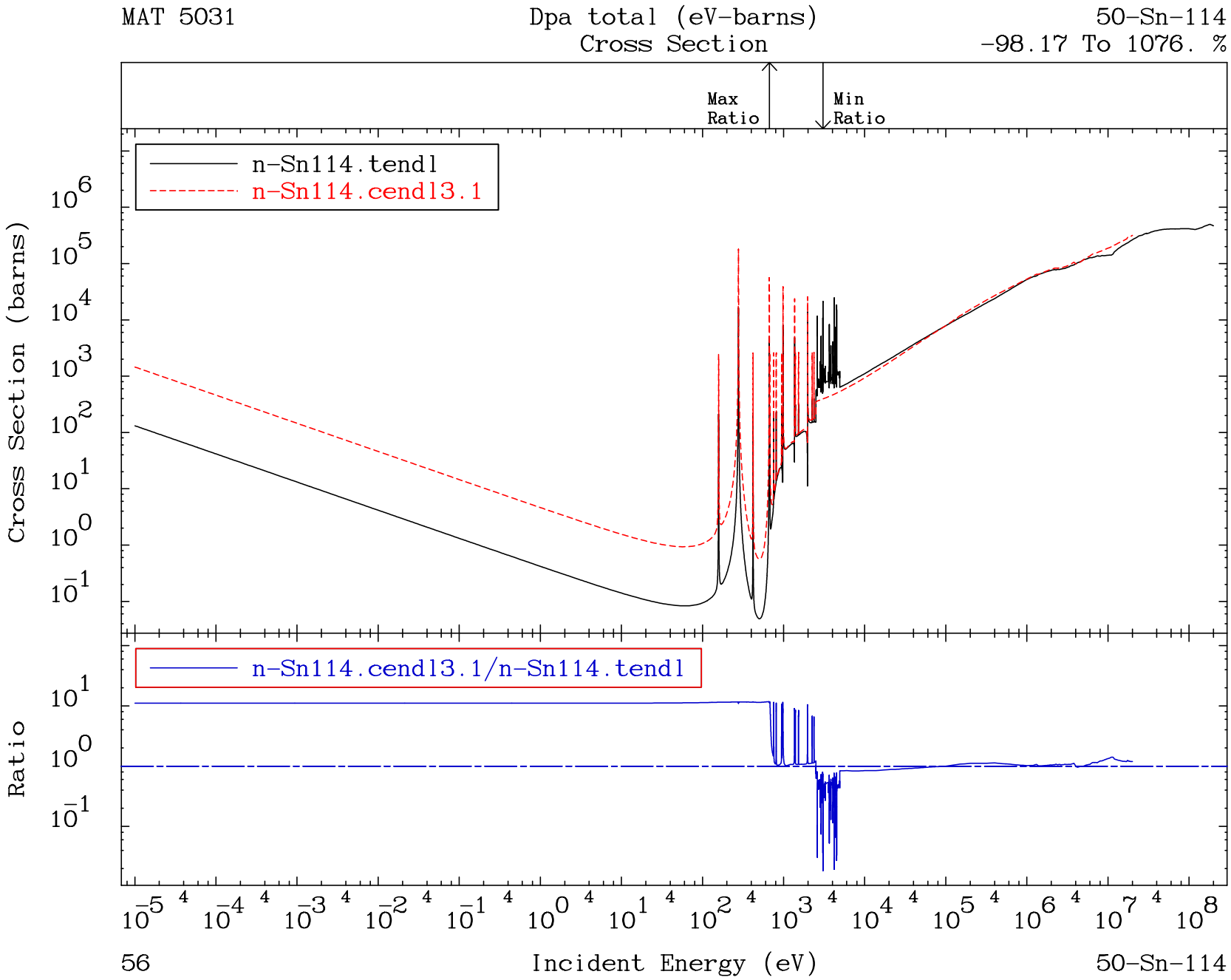

MAT 5031
Kerma inelastic (mt51-91)
Cross Section
50-Sn-114
-42.12 To 31.45 %
Max Ratio
Min Ratio
n-Sn114.tendl Threshold 1.4000 MeV
n-Sn114.cendl3.1 Threshold 1.4000 MeV
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
51
50-Sn-114

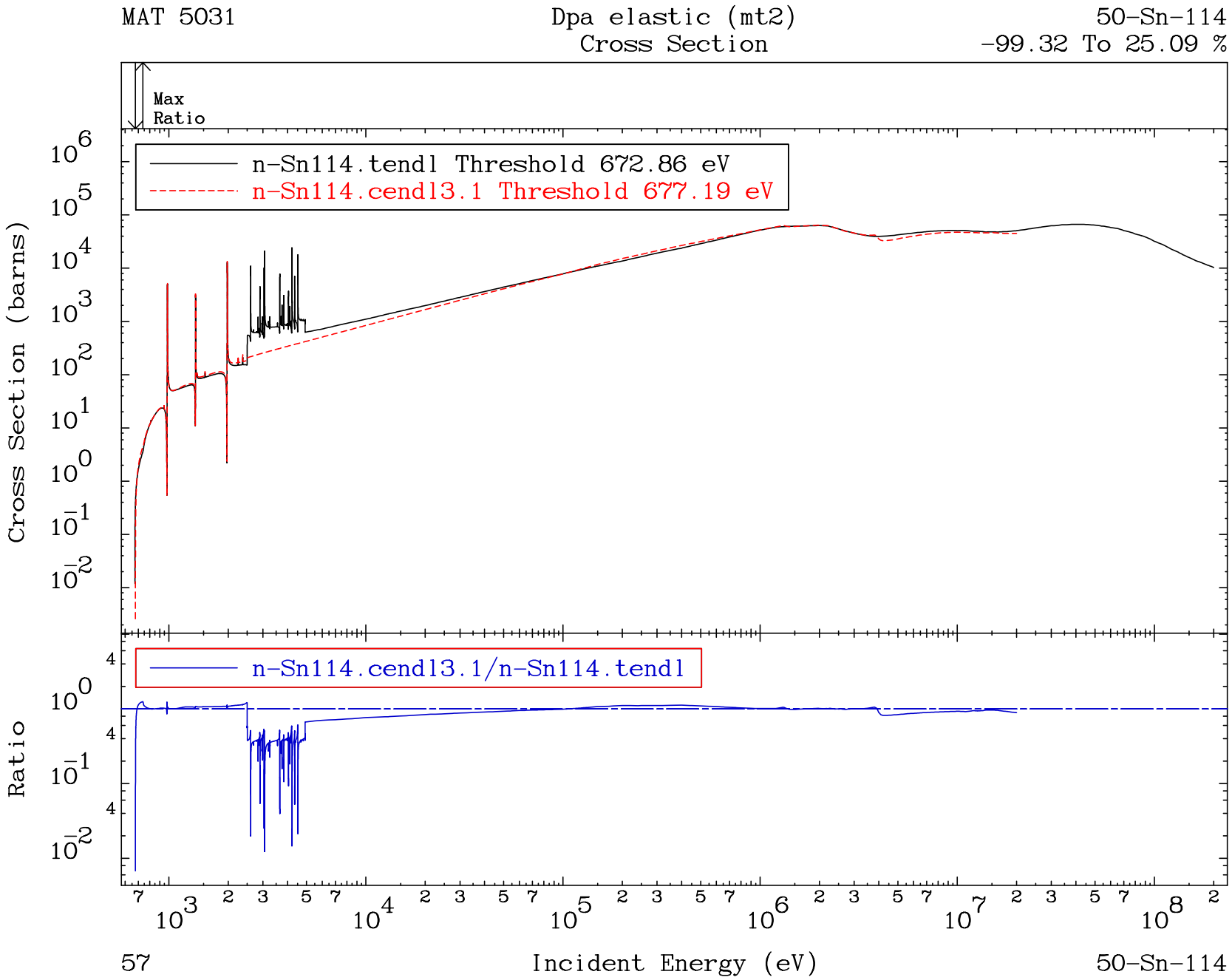

MAT 5031
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
50-Sn-114
-42.12 To 31.45 %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
1.2
0.8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
52
Incident Energy (eV)
50-Sn-114

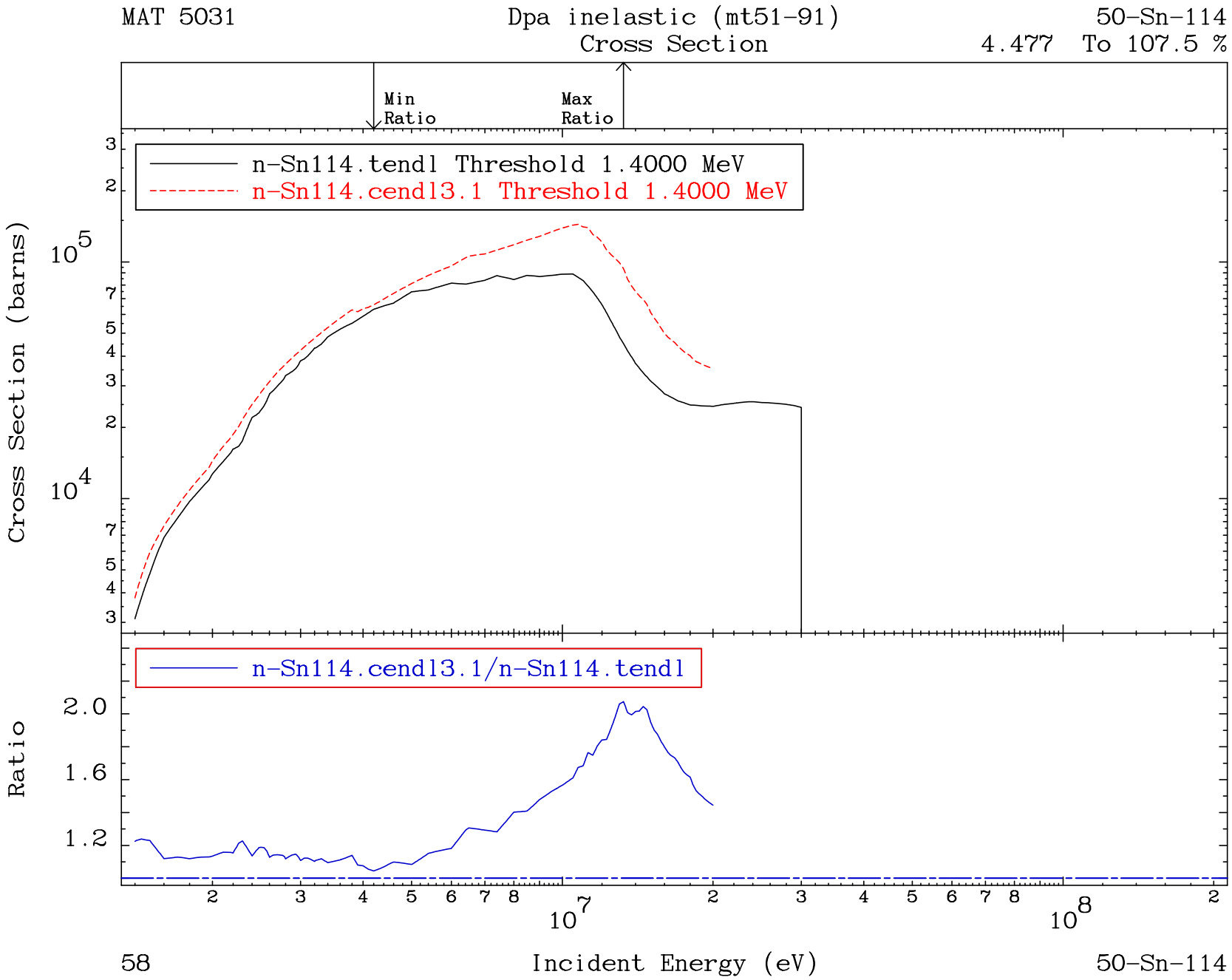

MAT 5031
Kerma capture (mt102)
Cross Section
50-Sn-114
-98.44 To 127.0 %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
53
50-Sn-114

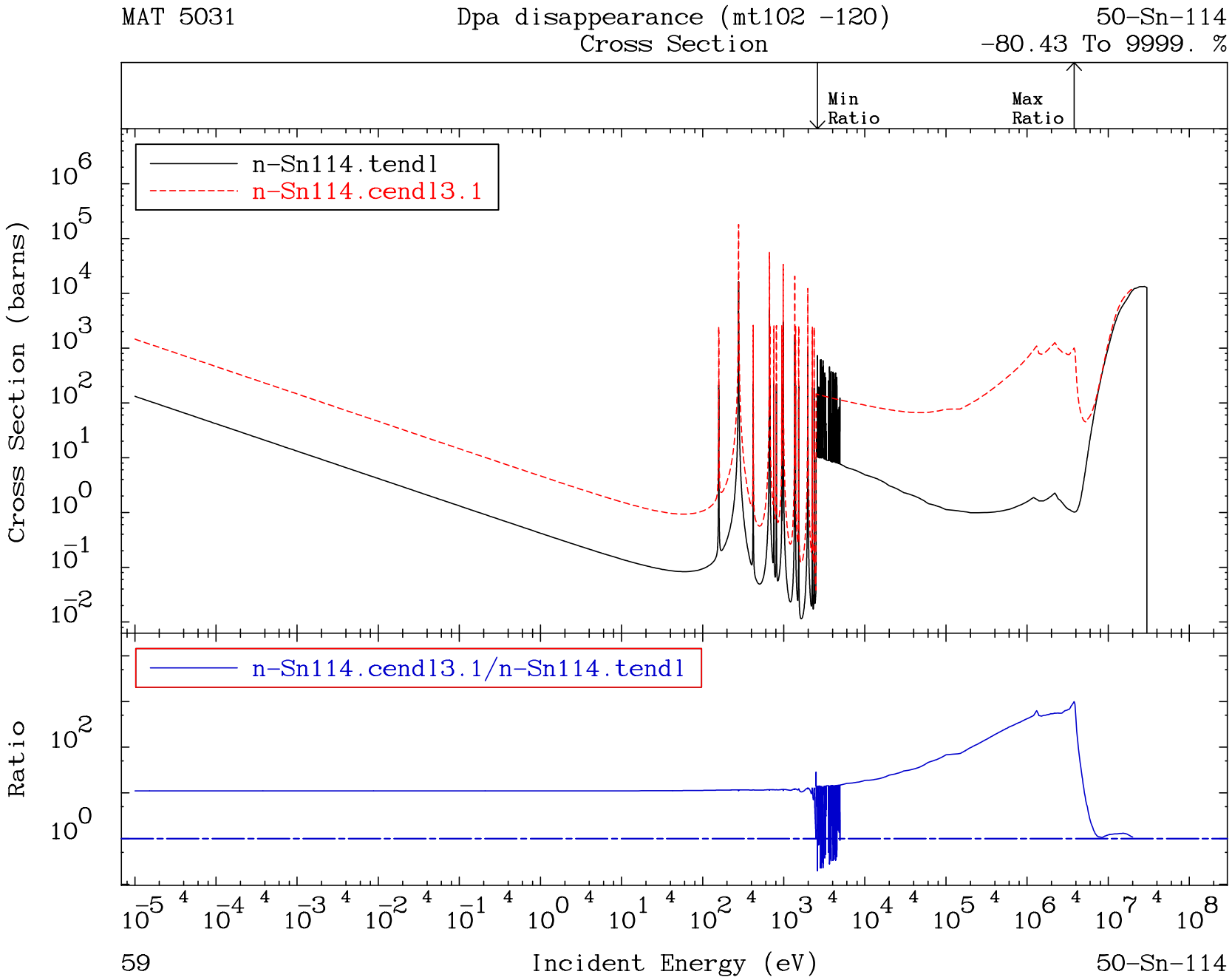

MAT 5031
Total photon (eV-barns)
Cross Section
50-Sn-114
-100.0 To 68.00 %
Min Ratio
Max Ratio
n-Sn114.tendl
n-Sn114.cendl3.1 Threshold 3.3000 MeV
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
54
Incident Energy (eV)
50-Sn-114


MAT 5031
Total kinematic kerma (high limit)
Cross Section
50-Sn-114
-100.0 To 65.84 %
Min Ratio
Max Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
55
50-Sn-114


MAT 5031
Dpa total (eV-barns)
Cross Section
50-Sn-114
-98.17 To 1076. %
Max Ratio
Min Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
56
50-Sn-114


MAT 5031
Dpa elastic (mt2)
Cross Section
50-Sn-114
-99.32 To 25.09 %
Max
Ratio
n-Sn114.tendl Threshold 672.86 eV
n-Sn114.cendl3.1 Threshold 677.19 eV
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
57
Incident Energy (eV)
50-Sn-114


MAT 5031
Dpa inelastic (mt51-91)
Cross Section
50-Sn-114
4.477 To 107.5 %
Min Ratio
Max Ratio
n-Sn114.tendl Threshold 1.4000 MeV
n-Sn114.cendl3.1 Threshold 1.4000 MeV
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
Incident Energy (eV)
58
50-Sn-114


MAT 5031
Dpa disappearance (mt102 -120)
Cross Section
50-Sn-114
-80.43 To 9999. %
Min Ratio
Max Ratio
n-Sn114.tendl
n-Sn114.cendl3.1
Cross Section (barns)
n-Sn114.cendl3.1/n-Sn114.tendl
Ratio
59
Incident Energy (eV)
50-Sn-114