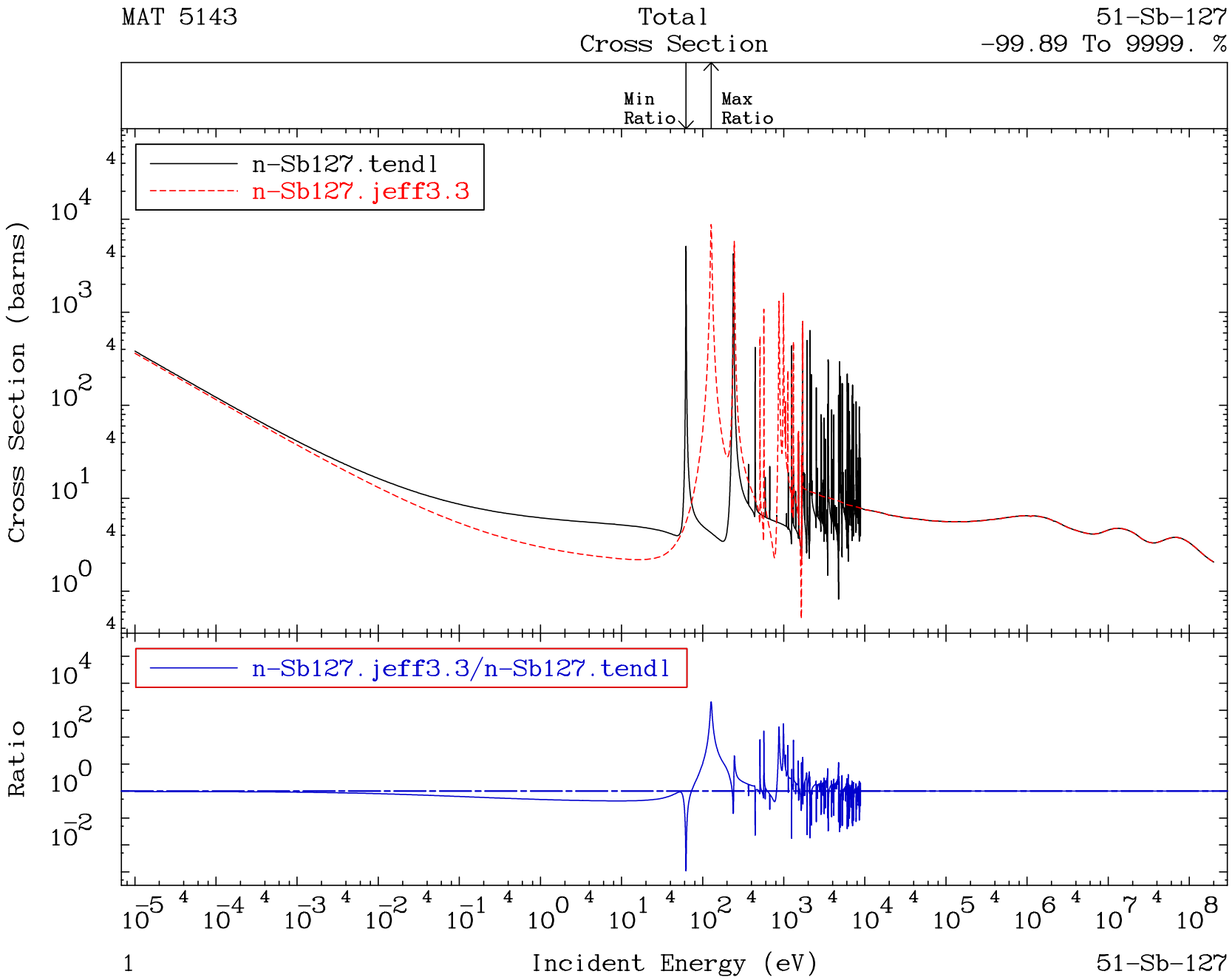
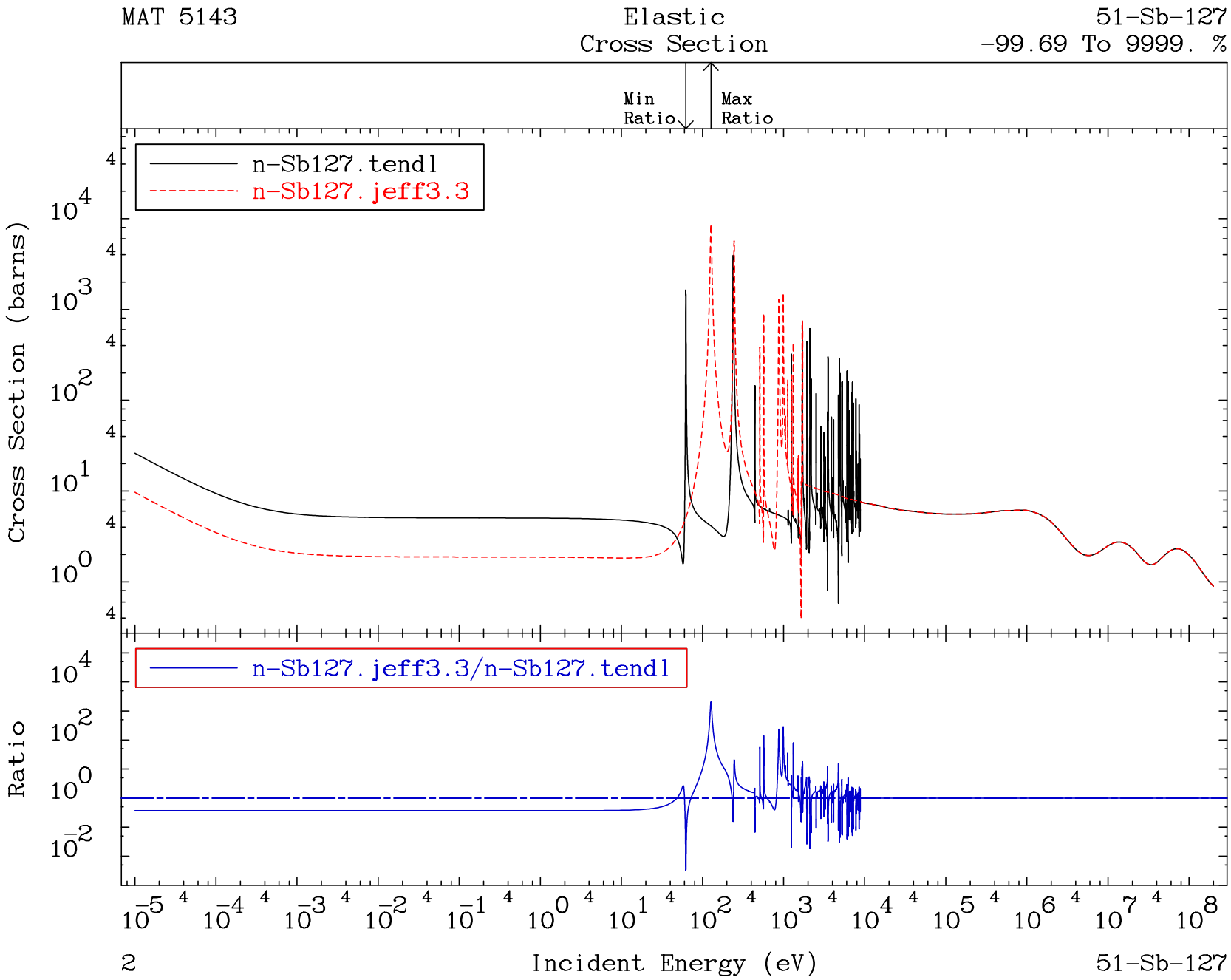
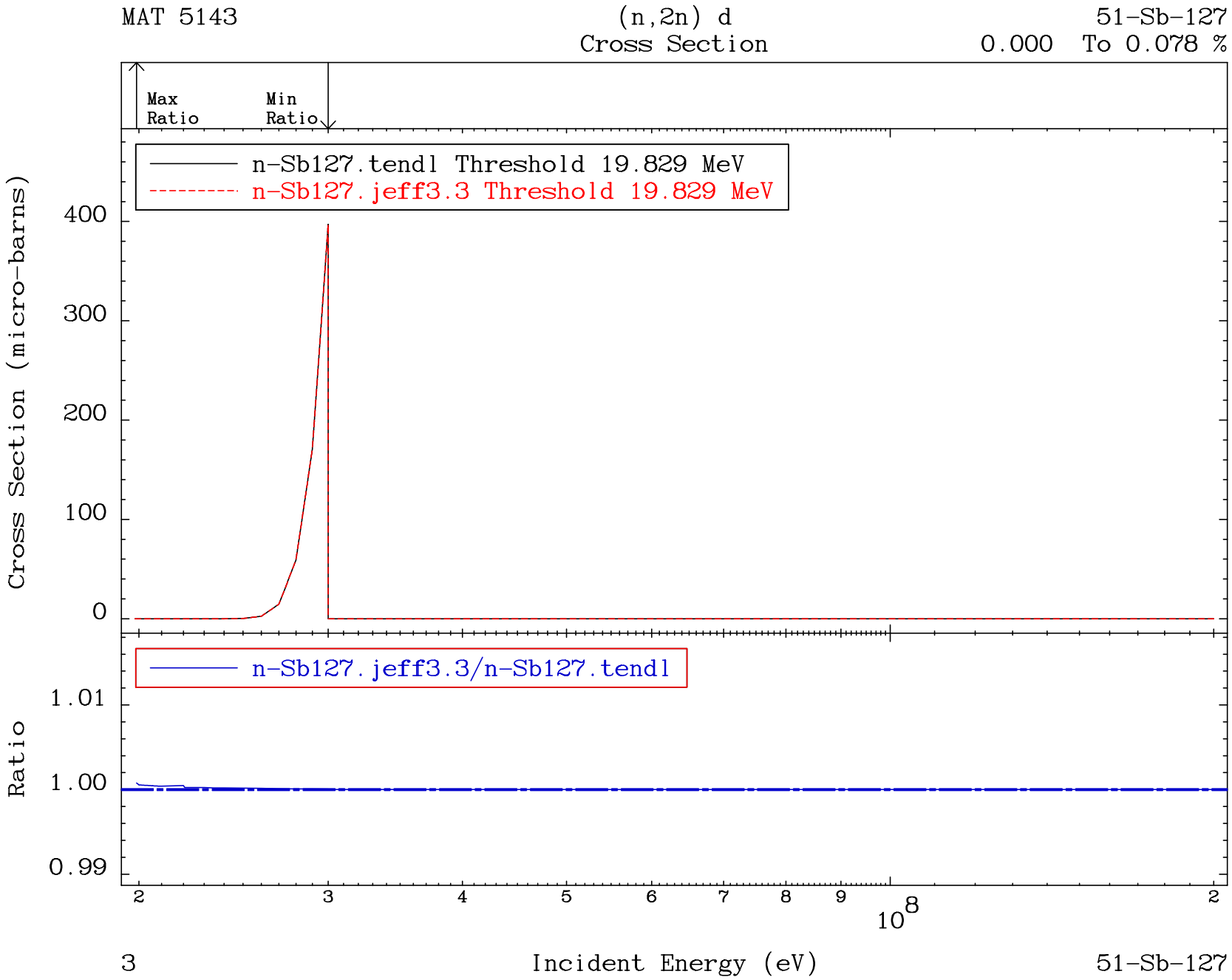
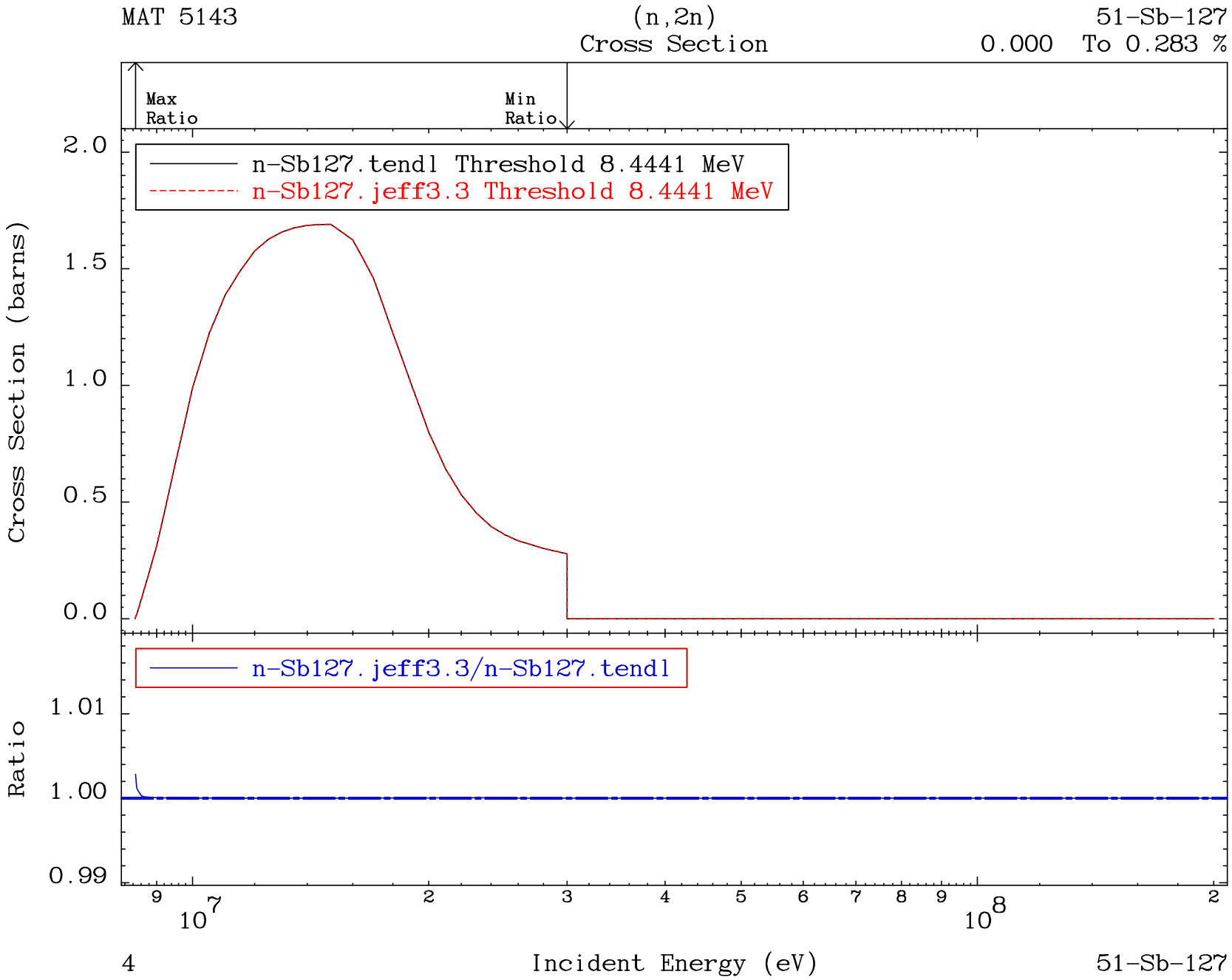
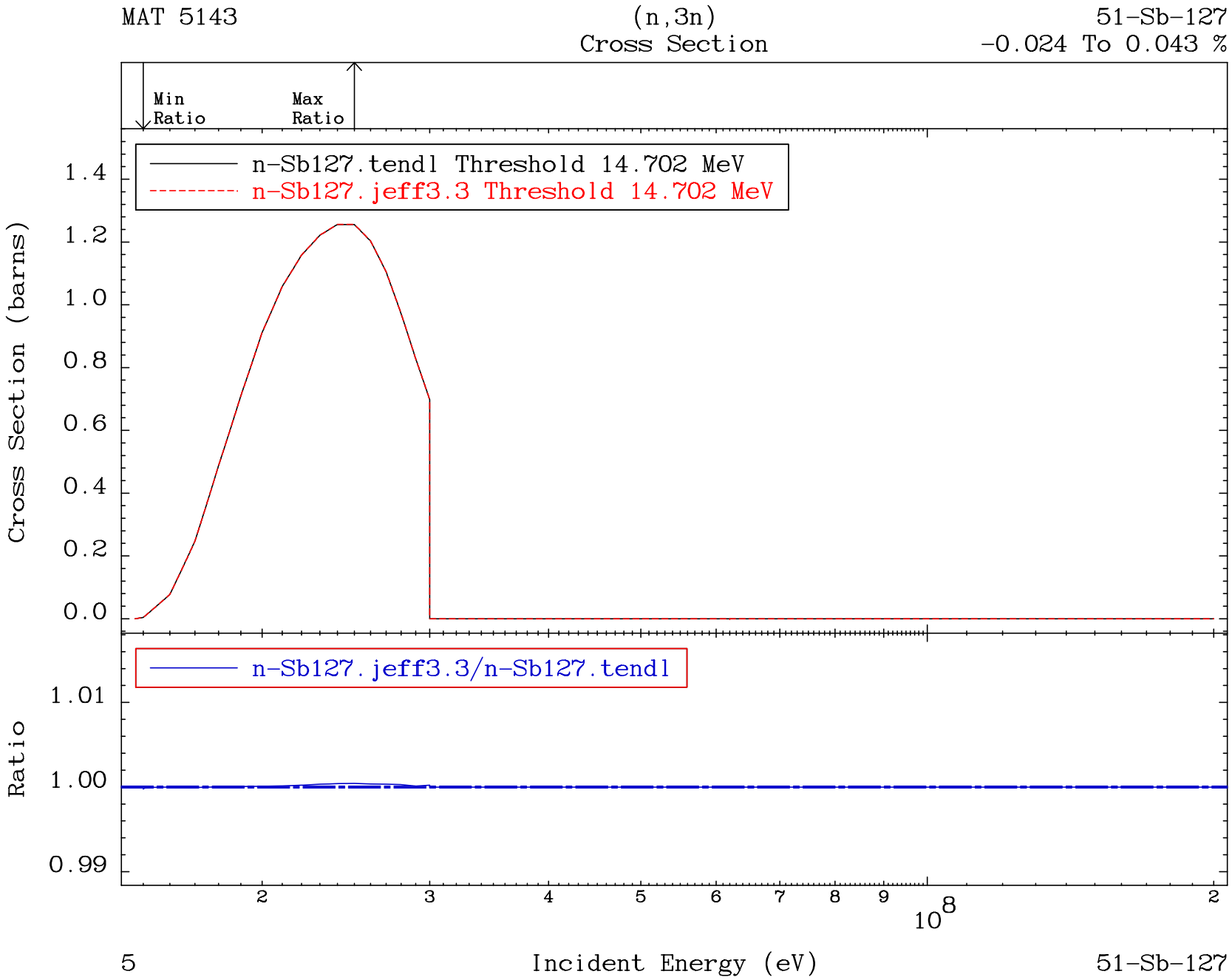
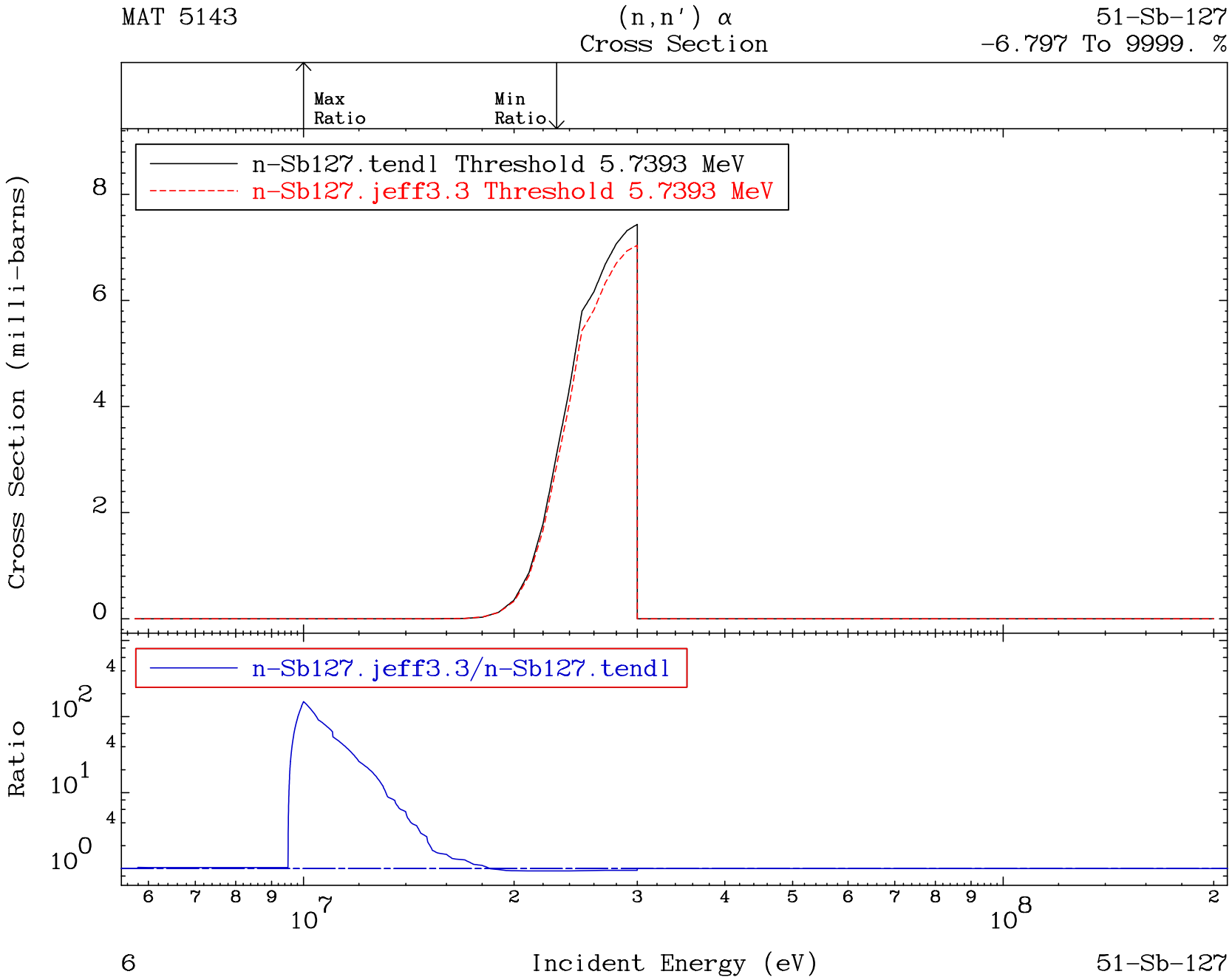

MAT 5143
Total
Cross Section
51-Sb-127
-99.89 To 9999. %
Min
Ratio
Max
Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
1
51-Sb-127

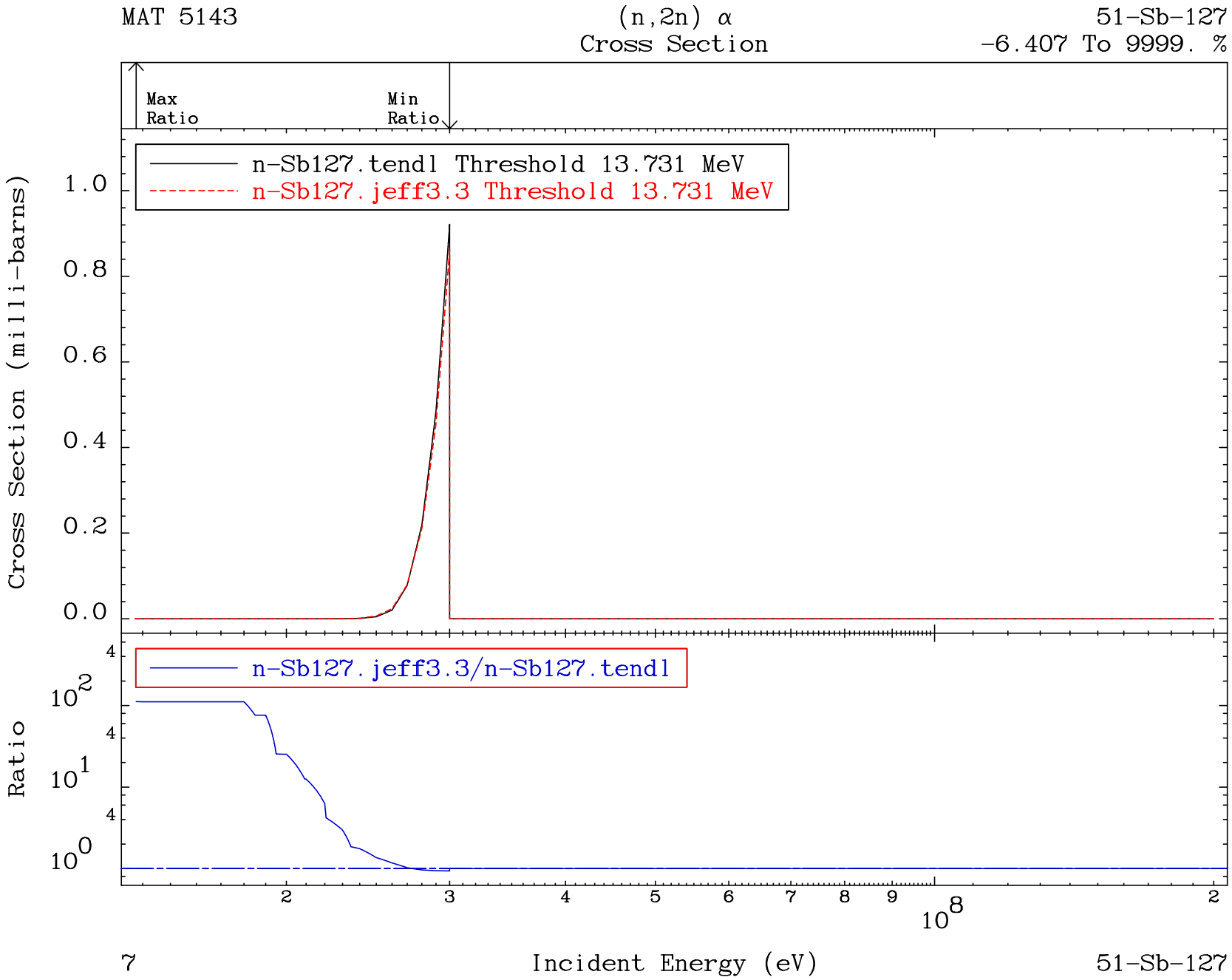

MAT 5143
Elastic
Cross Section
51-Sb-127
-99.69 To 9999. %
Min
Ratio
Max
Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
2
51-Sb-127

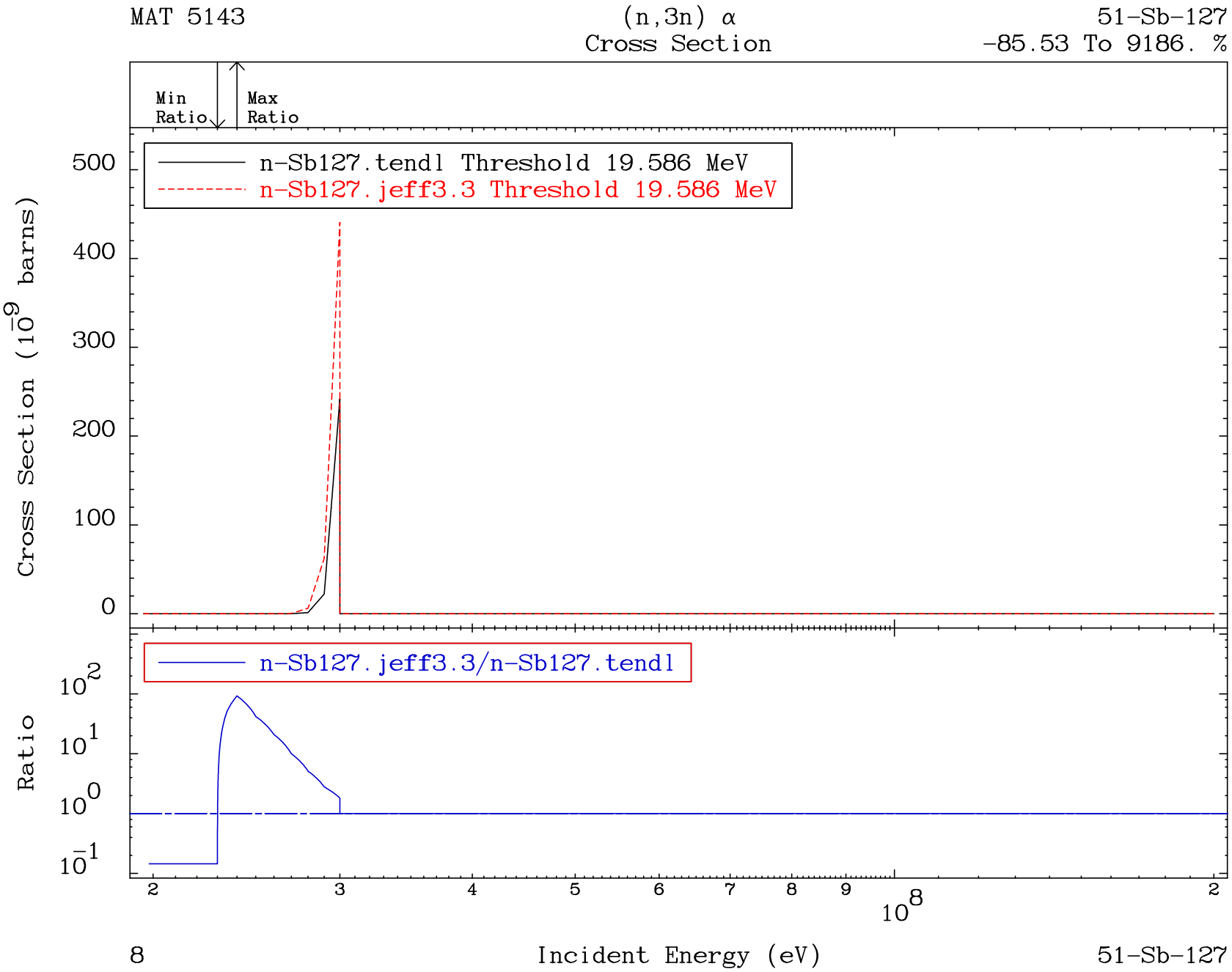

MAT 5143
(n,2n) d
Cross Section
51-Sb-127
0.000 To 0.078 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 19.829 MeV
n-Sb127.jeff3.3 Threshold 19.829 MeV
Cross Section (micro-barns)
400
300
200
100
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
3
Incident Energy (eV)
51-Sb-127

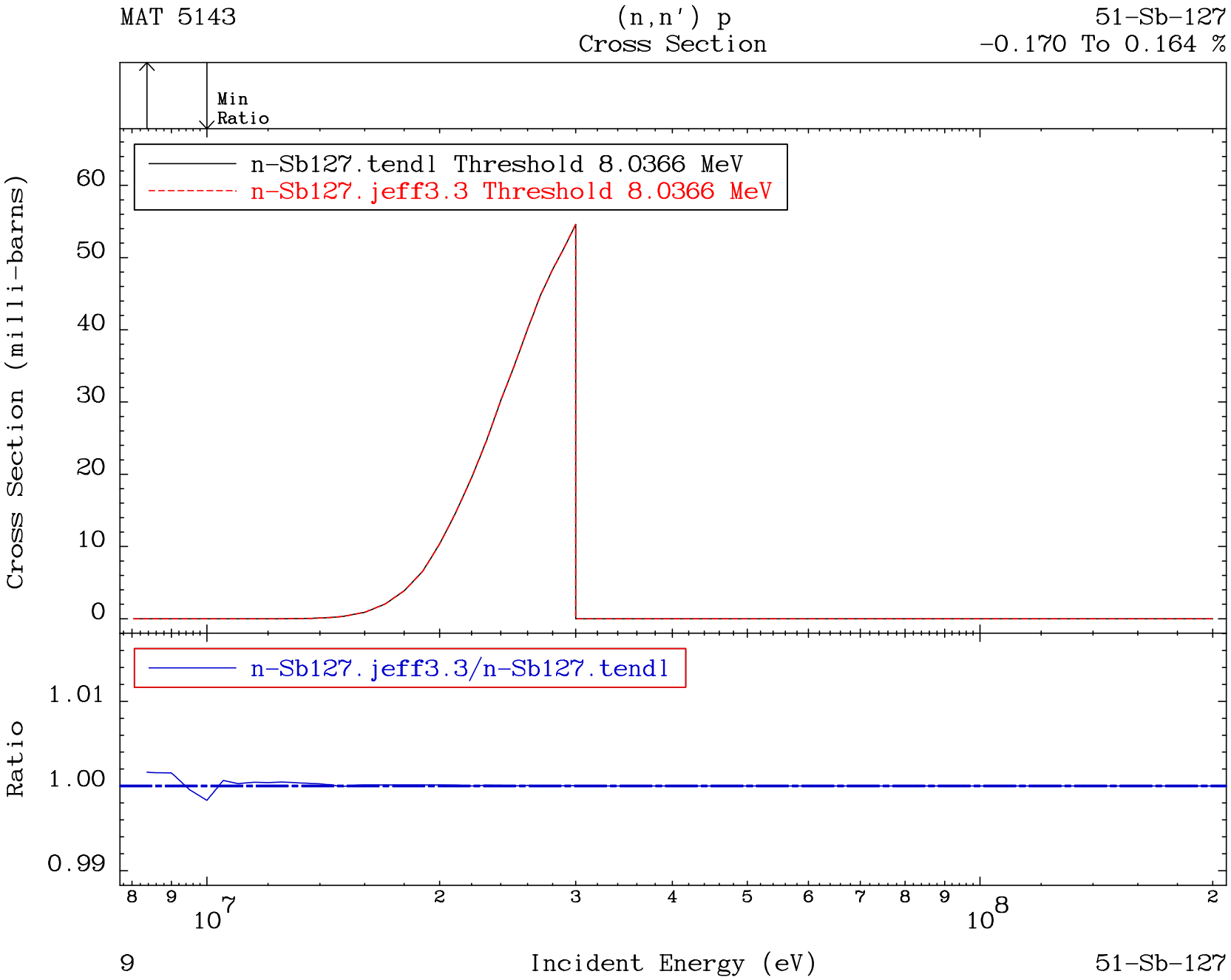

MAT 5143
(n,2n)
Cross Section
51-Sb-127
0.000 To 0.283 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 8.4441 MeV
n-Sb127.jeff3.3 Threshold 8.4441 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
51-Sb-127

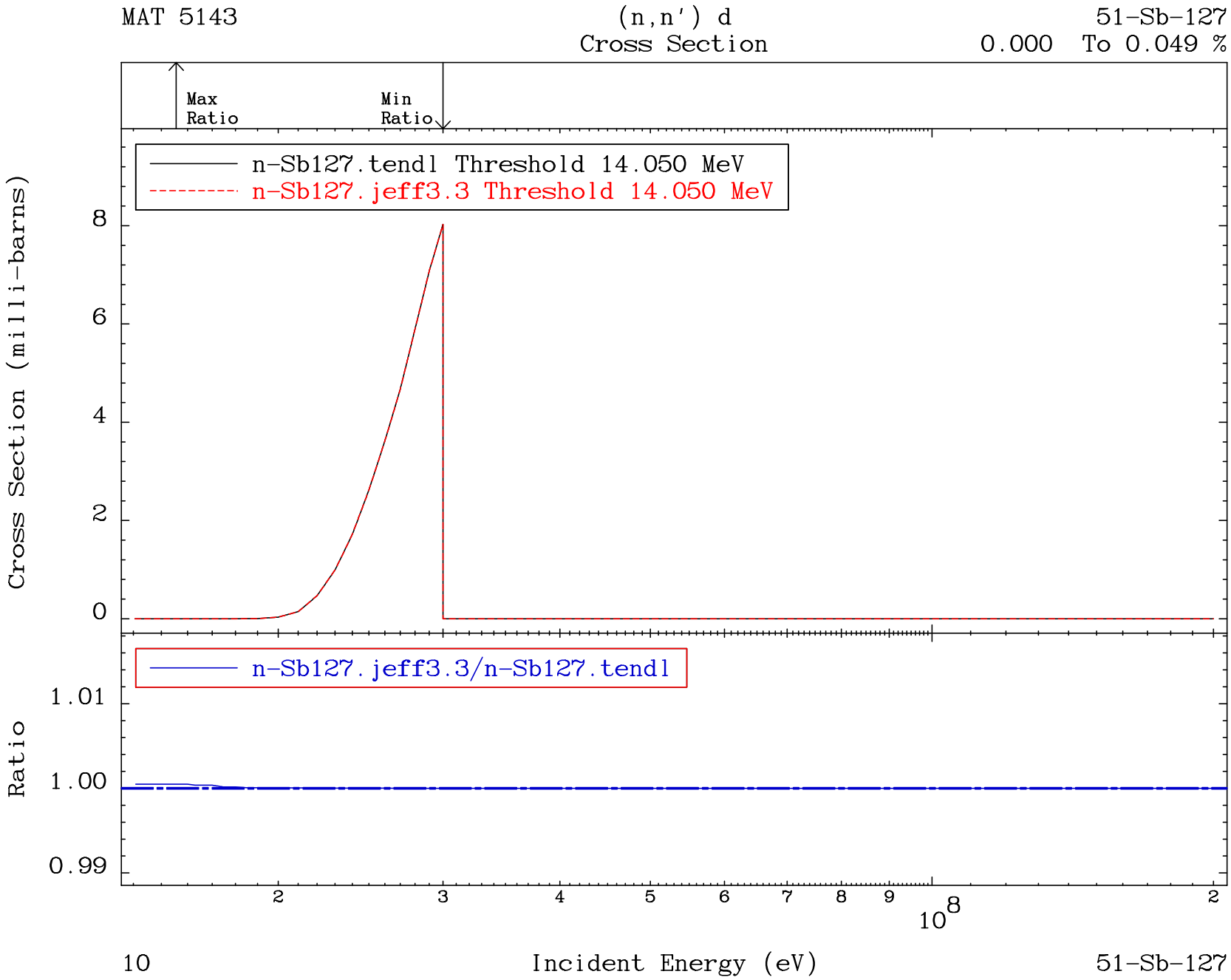

MAT 5143
(n,3n)
Cross Section
51-Sb-127
-0.024 To 0.043 %
Min Ratio
Max Ratio
n-Sb127.tendl Threshold 14.702 MeV
n-Sb127.jeff3.3 Threshold 14.702 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
51-Sb-127

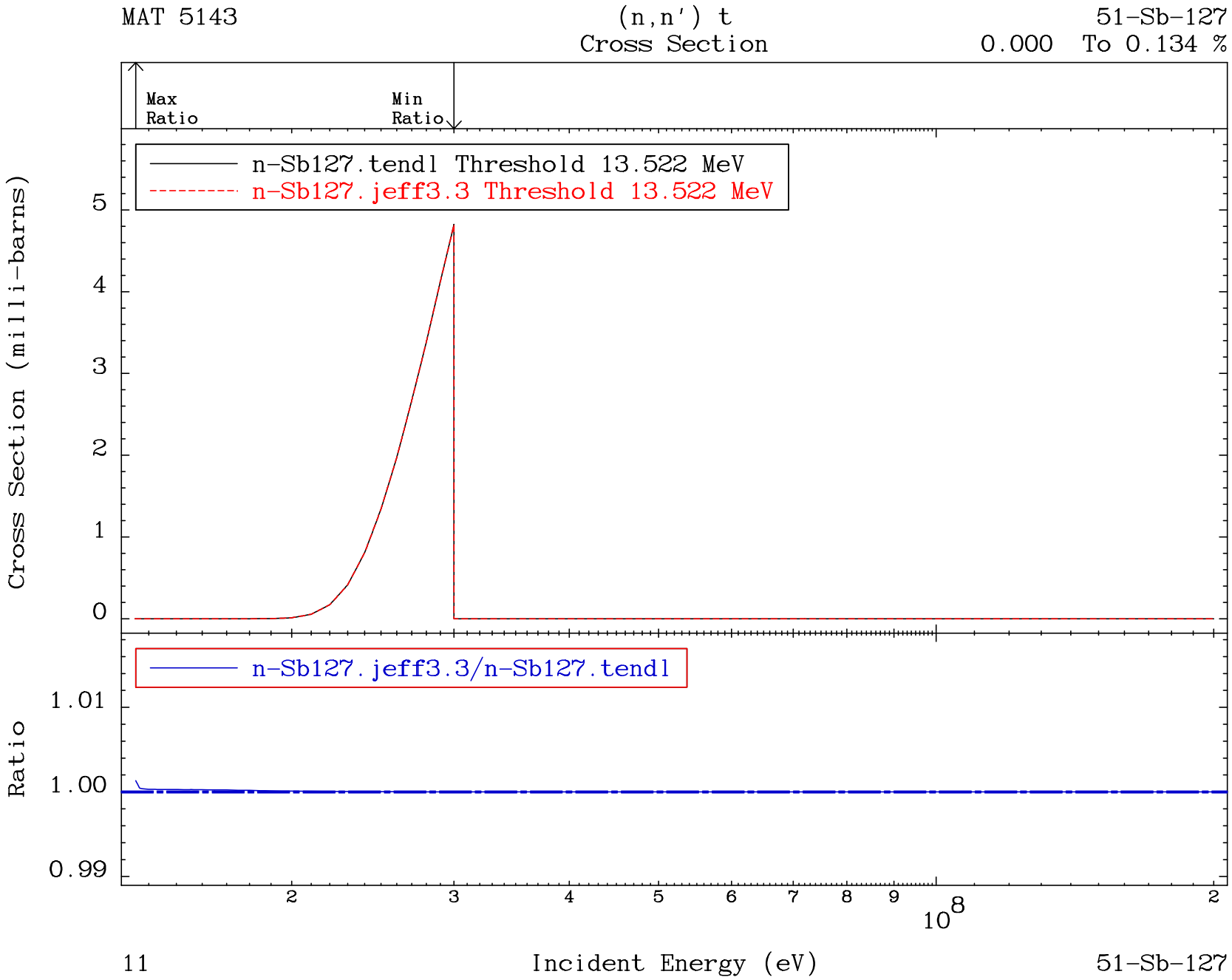

MAT 5143
(n,n') α
Cross Section
51-Sb-127
-6.797 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 5.7393 MeV
n-Sb127.jeff3.3 Threshold 5.7393 MeV
Cross Section (milli-barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
6
51-Sb-127

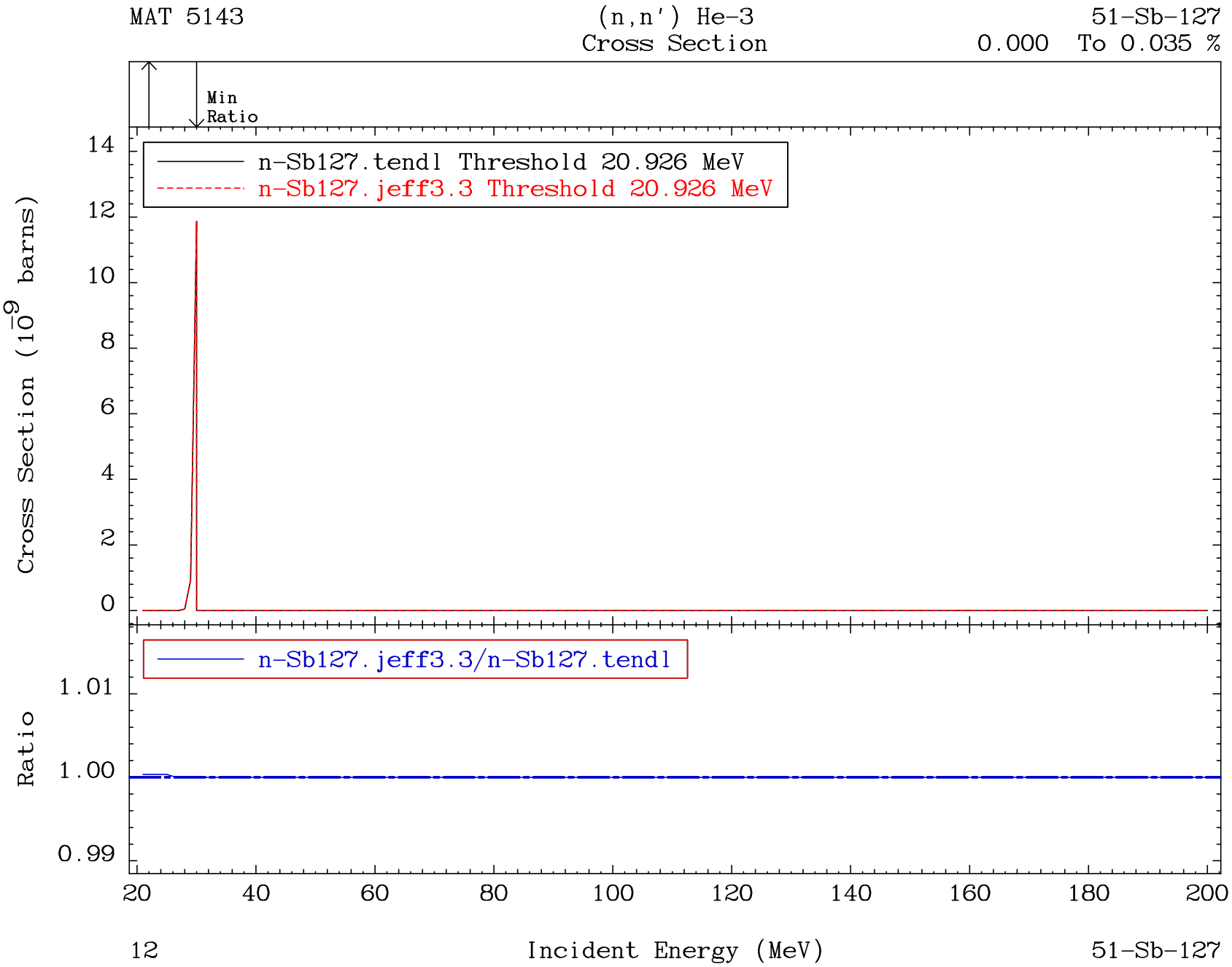

MAT 5143
(n,2n) α
Cross Section
51-Sb-127
-6.407 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 13.731 MeV
n-Sb127.jeff3.3 Threshold 13.731 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
51-Sb-127

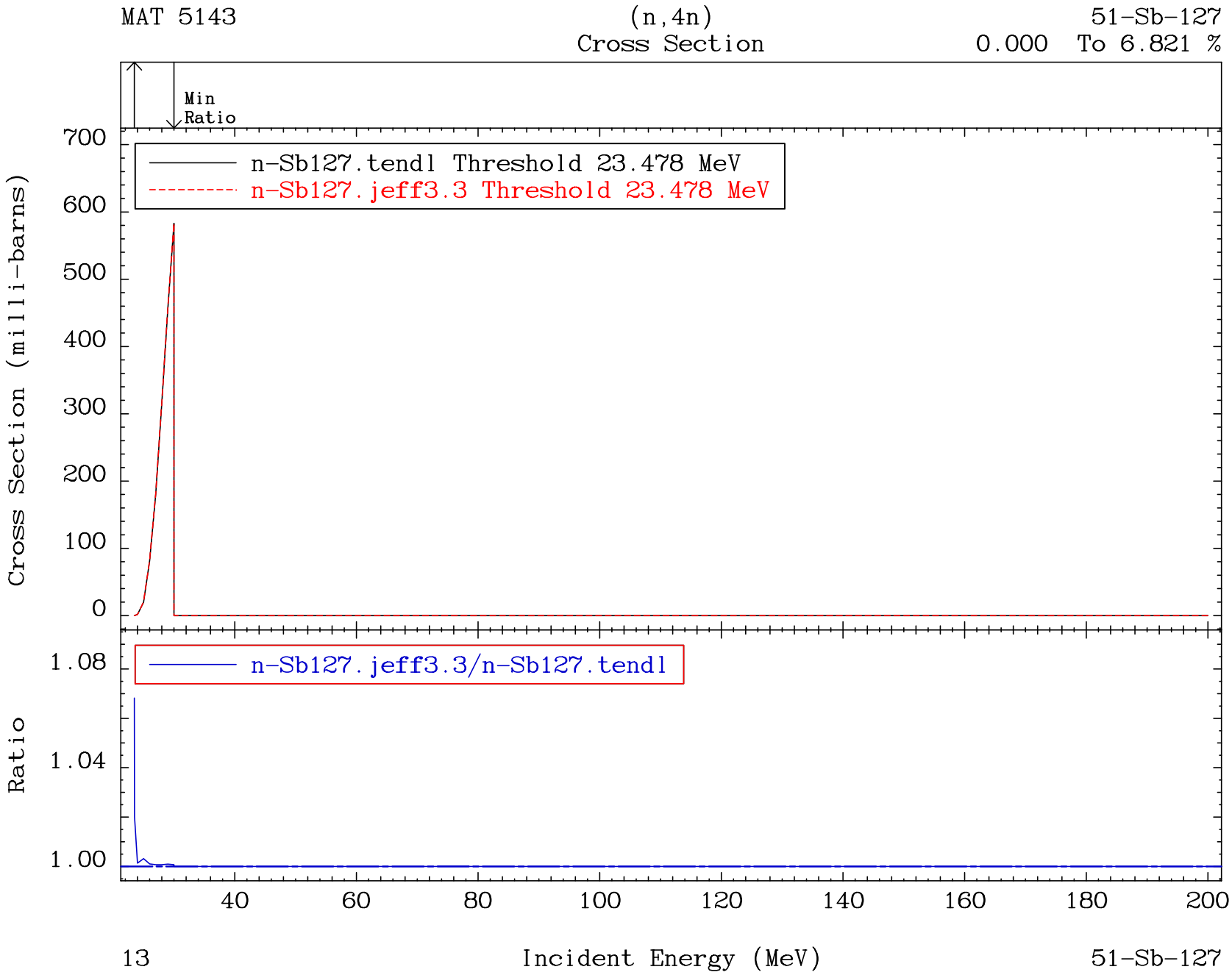

MAT 5143
(n,3n) α
Cross Section
51-Sb-127
-85.53 To 9186. %
Min Ratio
Max Ratio
n-Sb127.tendl Threshold 19.586 MeV
n-Sb127.jeff3.3 Threshold 19.586 MeV
Cross Section (10^{-9} barns)
500
400
300
200
100
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^{2}
10^{1}
10^{0}
10^{-1}
2
3
4
5
6
7
8
9
10^{8}
2
8
Incident Energy (eV)
51-Sb-127

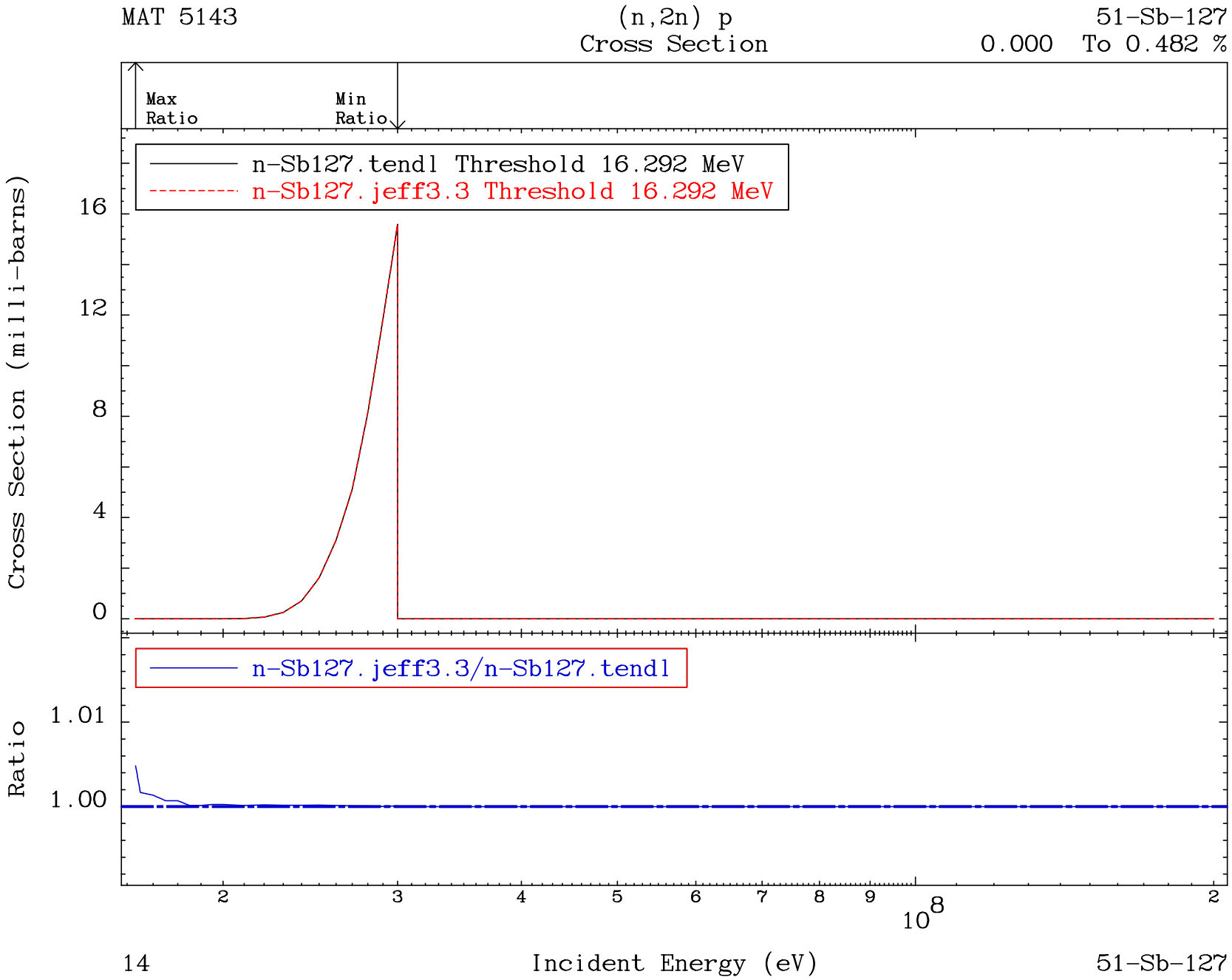

MAT 5143
(n,n') p
Cross Section
51-Sb-127
-0.170 To 0.164 %
Min
Ratio
n-Sb127.tendl Threshold 8.0366 MeV
n-Sb127.jeff3.3 Threshold 8.0366 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
9
Incident Energy (eV)
51-Sb-127

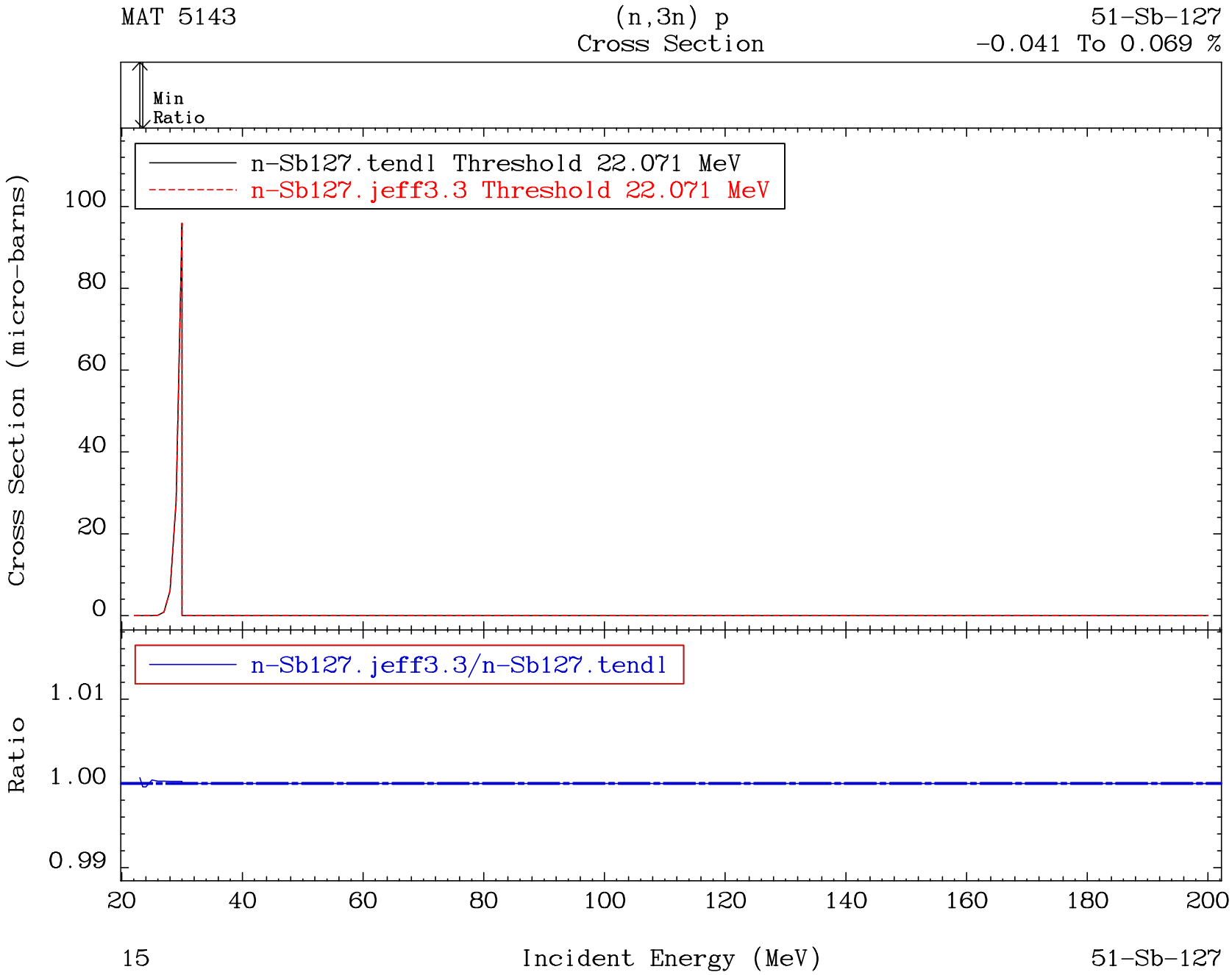

MAT 5143
(n,n') d
Cross Section
51-Sb-127
0.000 To 0.049 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 14.050 MeV
n-Sb127.jeff3.3 Threshold 14.050 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
51-Sb-127

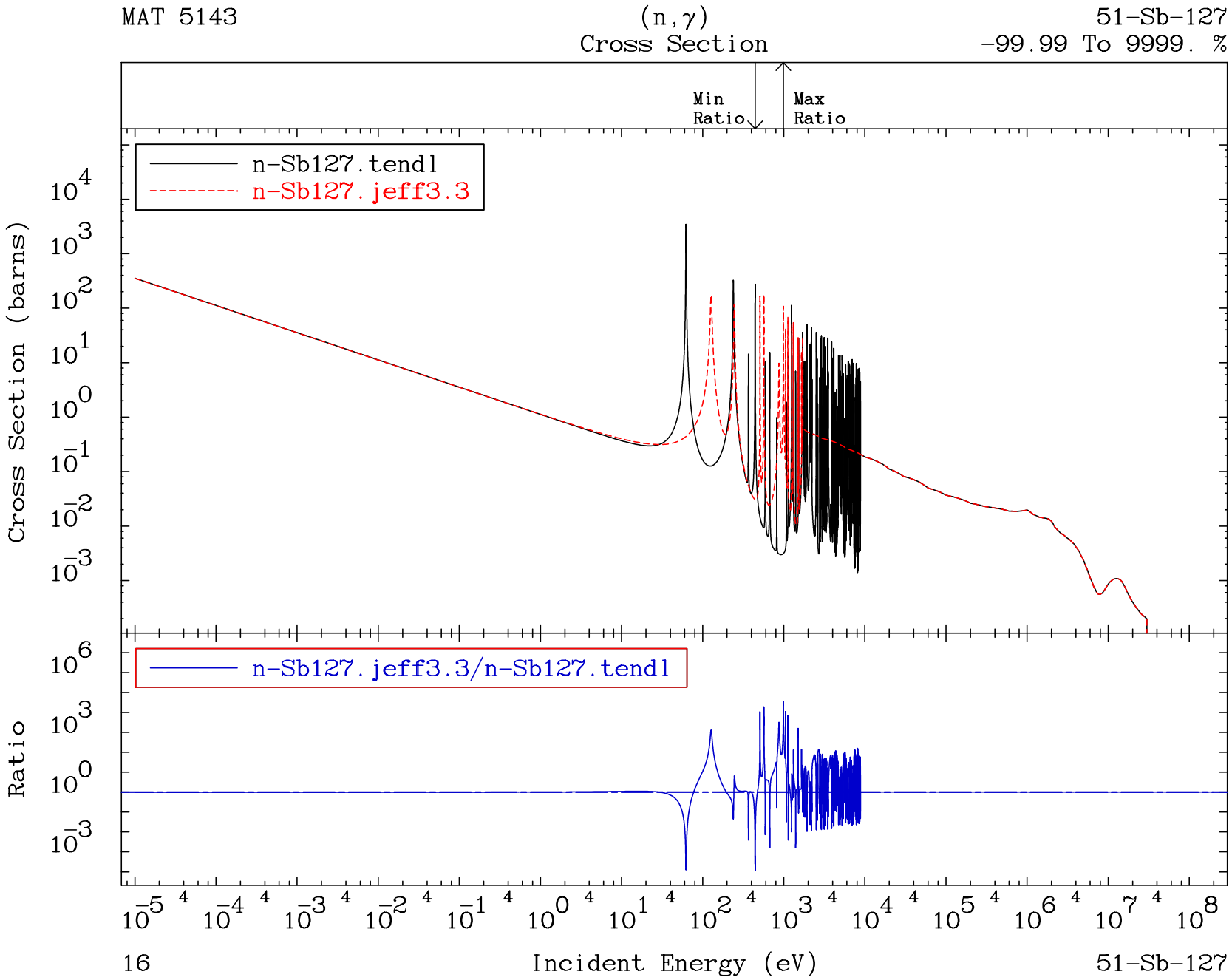

MAT 5143
(n,n') t
Cross Section
51-Sb-127
0.000 To 0.134 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 13.522 MeV
n-Sb127.jeff3.3 Threshold 13.522 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
51-Sb-127

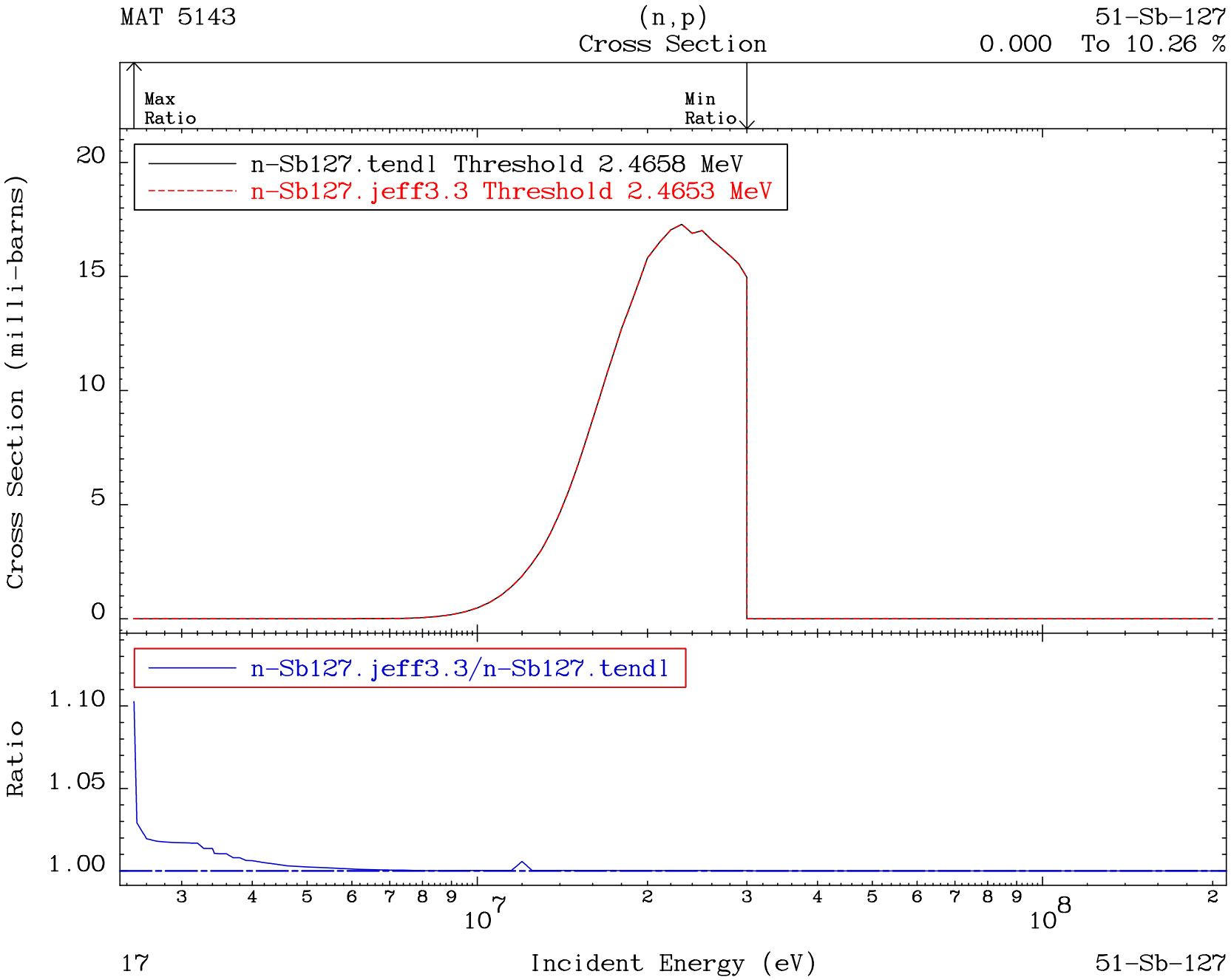

MAT 5143
(n,n') He-3
Cross Section
51-Sb-127
0.000 To 0.035 %
Min
Ratio
n-Sb127.tendl Threshold 20.926 MeV
n-Sb127.jeff3.3 Threshold 20.926 MeV
Cross Section (10^-9 barns)
14
12
10
8
6
4
2
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
12
Incident Energy (MeV)
51-Sb-127

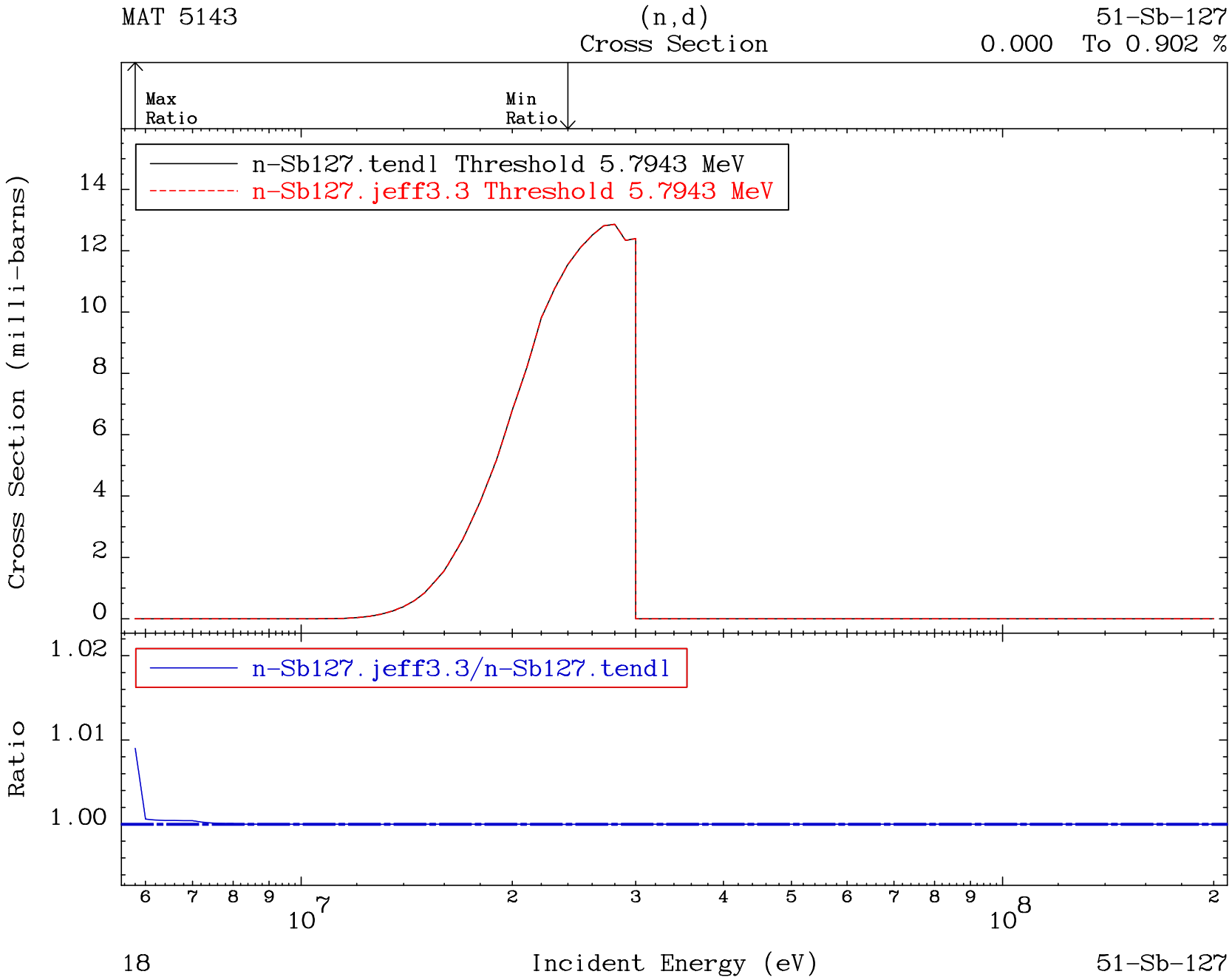

MAT 5143
(n,4n)
Cross Section
51-Sb-127
0.000 To 6.821 %
Min
Ratio
n-Sb127.tendl Threshold 23.478 MeV
n-Sb127.jeff3.3 Threshold 23.478 MeV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.08
1.04
1.00
40
60
80
100
120
140
160
180
200
13
Incident Energy (MeV)
51-Sb-127

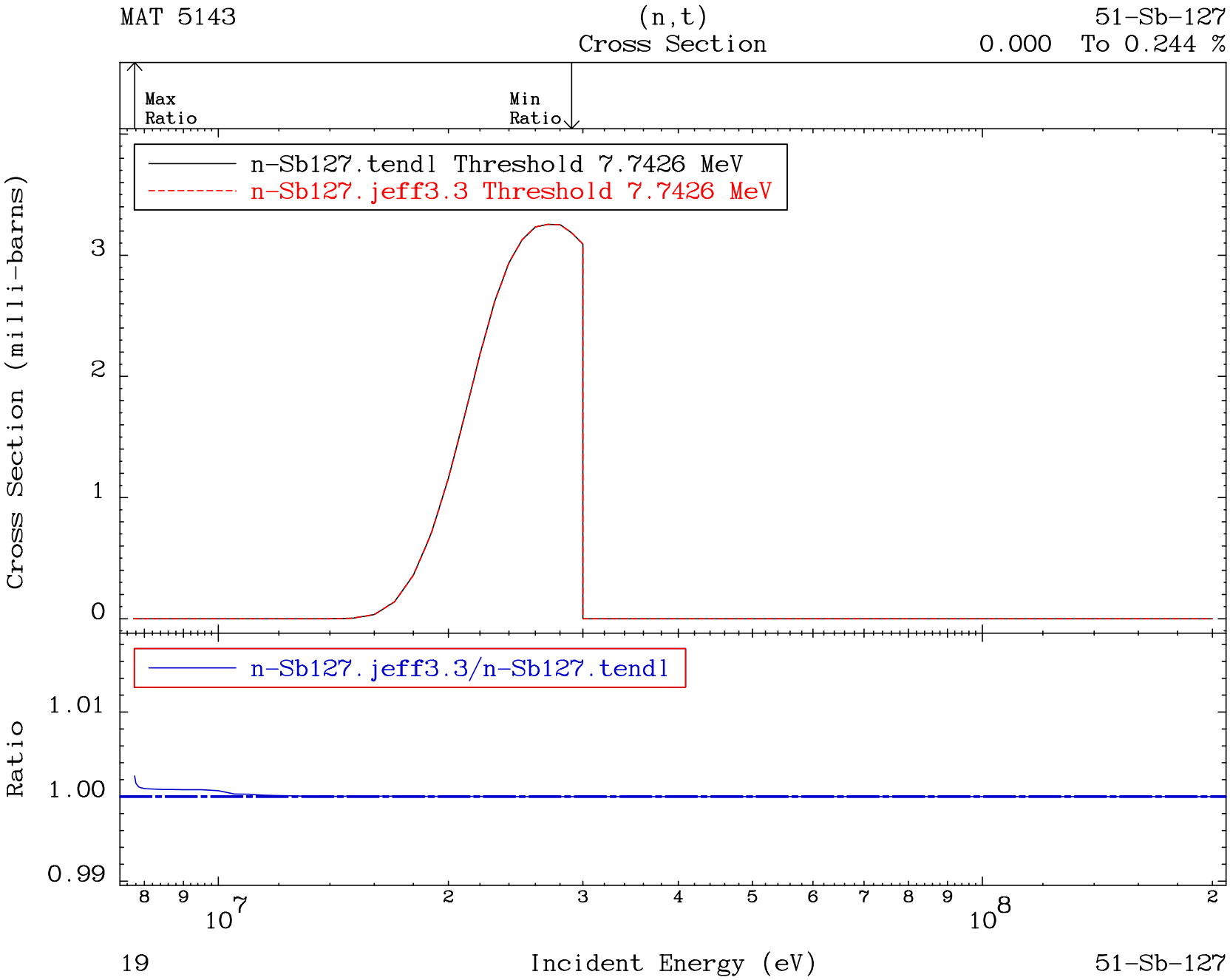

MAT 5143
(n,2n) p
Cross Section
51-Sb-127
0.000 To 0.482 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 16.292 MeV
n-Sb127.jeff3.3 Threshold 16.292 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
51-Sb-127

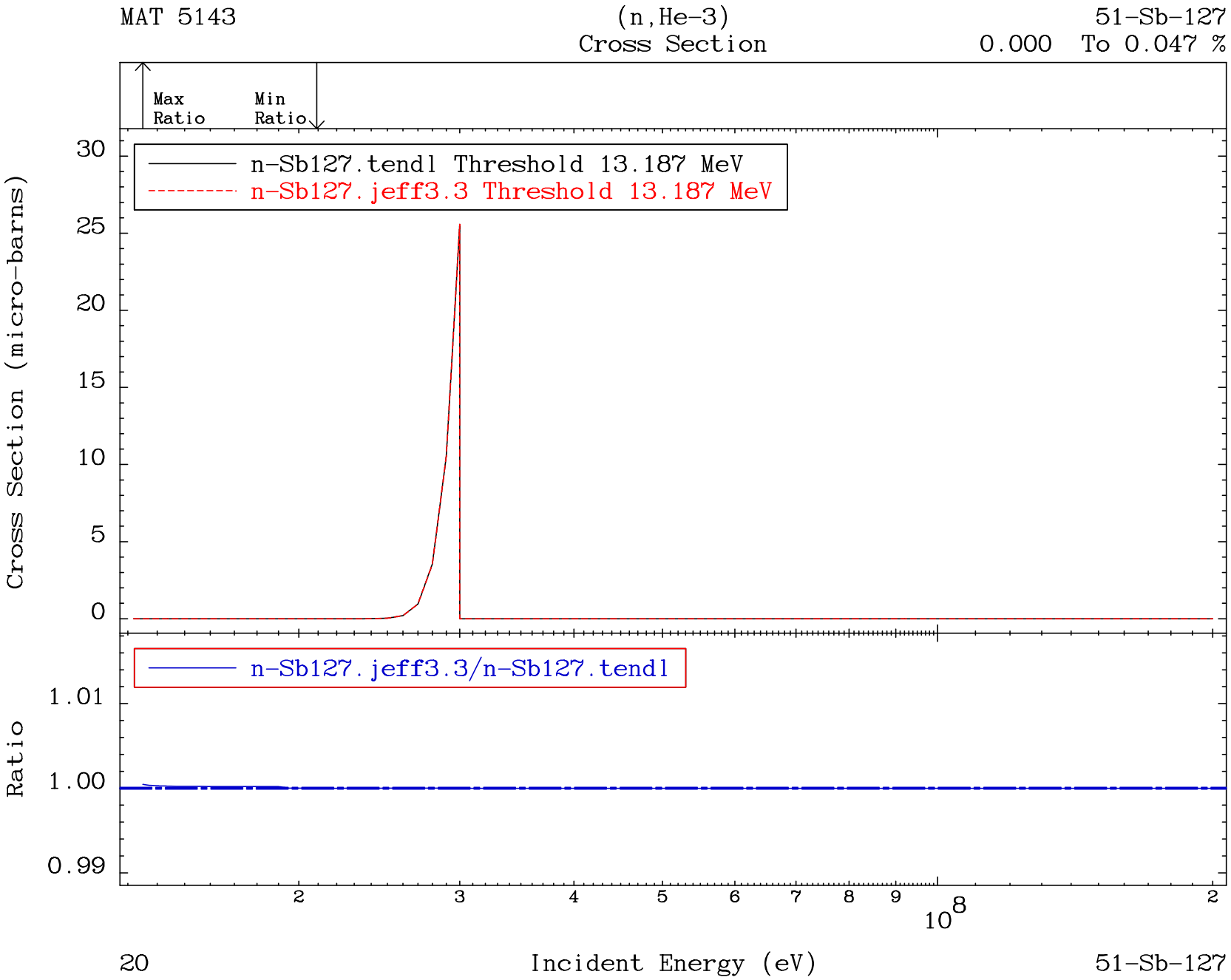

MAT 5143
(n,3n) p
Cross Section
51-Sb-127
-0.041 To 0.069 %
Min
Ratio
n-Sb127.tendl Threshold 22.071 MeV
n-Sb127.jeff3.3 Threshold 22.071 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
51-Sb-127

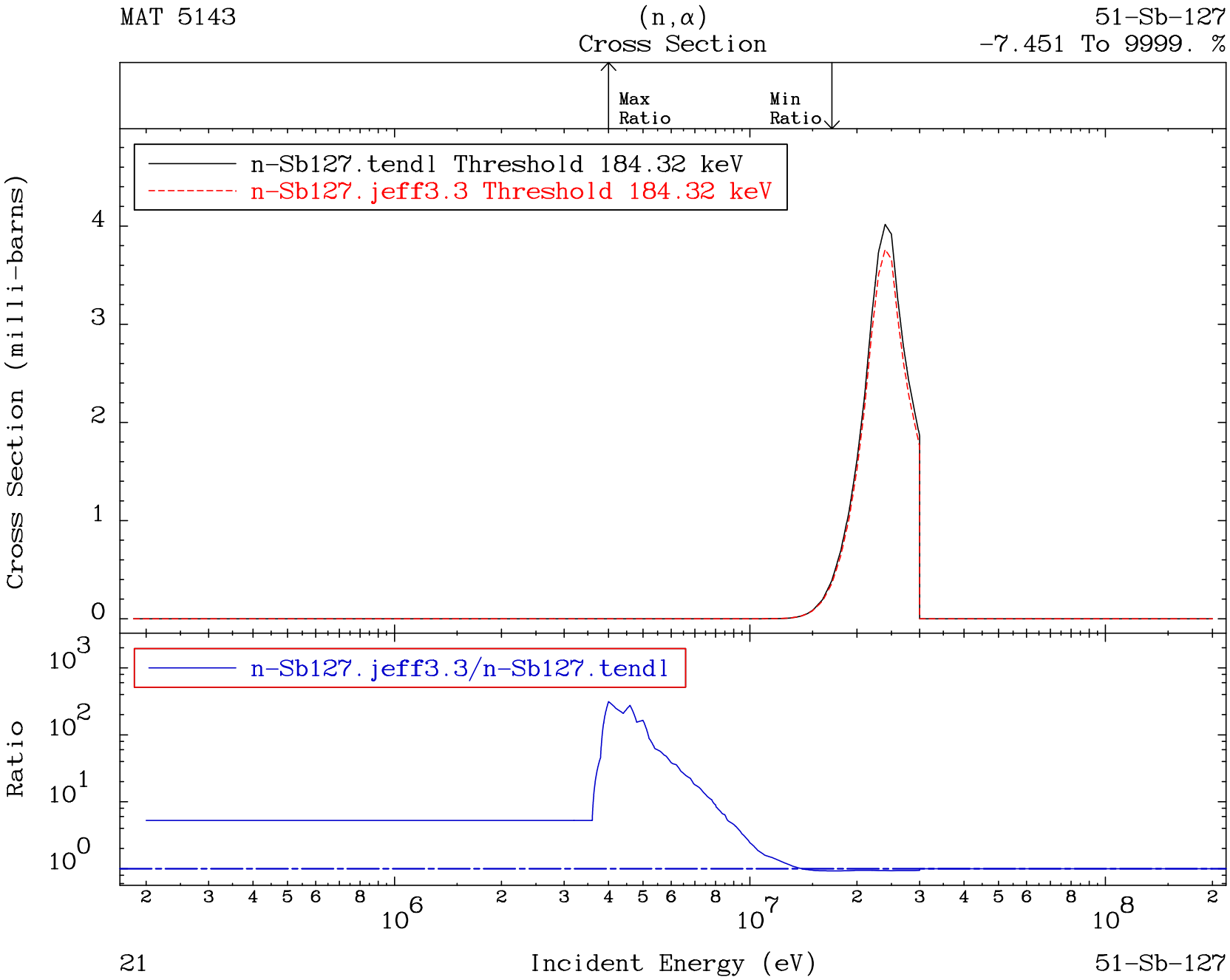

MAT 5143
(n,γ)
Cross Section
51-Sb-127
-99.99 To 9999. %
Min Ratio
Max Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
16
Incident Energy (eV)
51-Sb-127

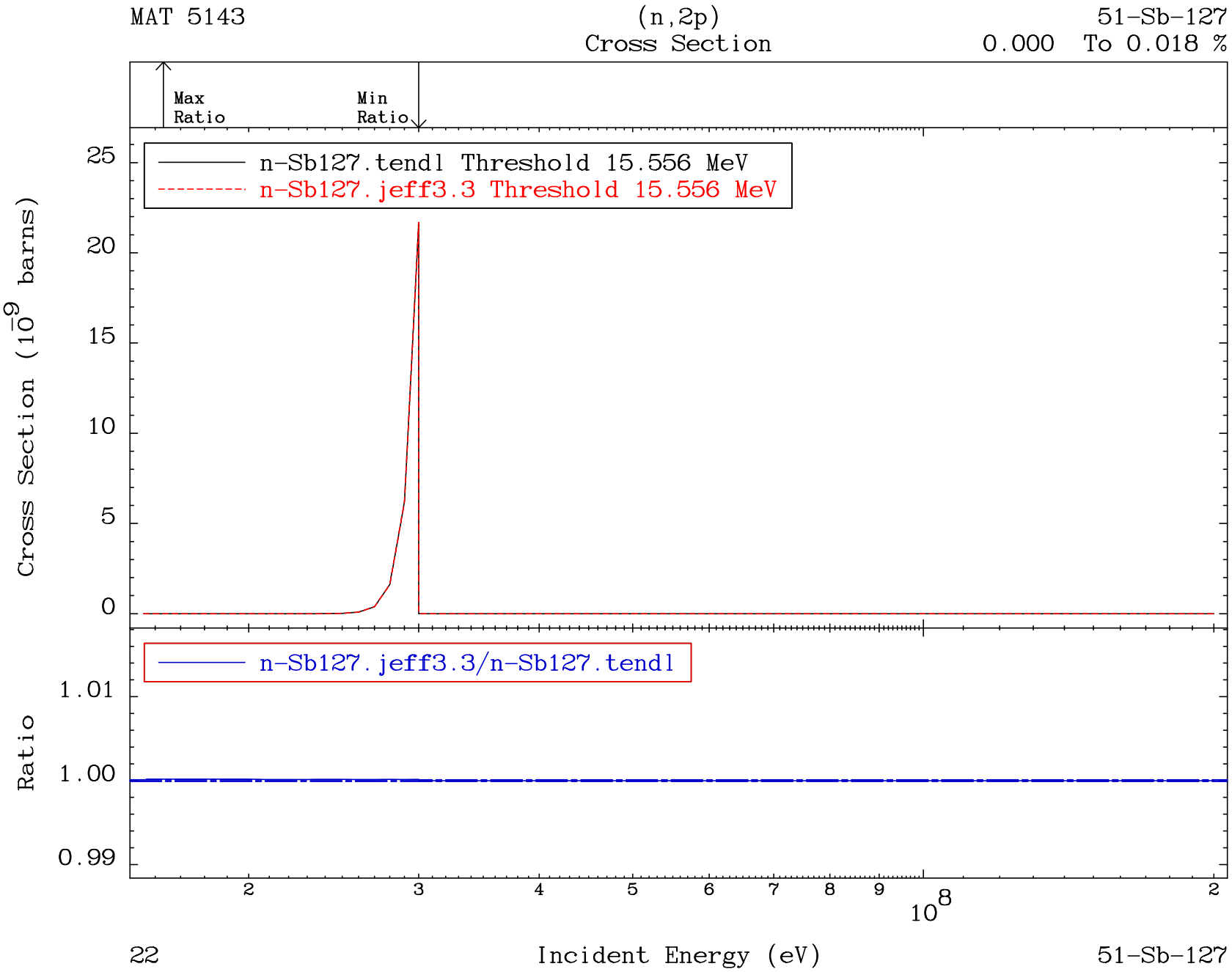

MAT 5143
(n,p)
Cross Section
51-Sb-127
0.000 To 10.26 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 2.4658 MeV
n-Sb127.jeff3.3 Threshold 2.4653 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
17
Incident Energy (eV)
51-Sb-127

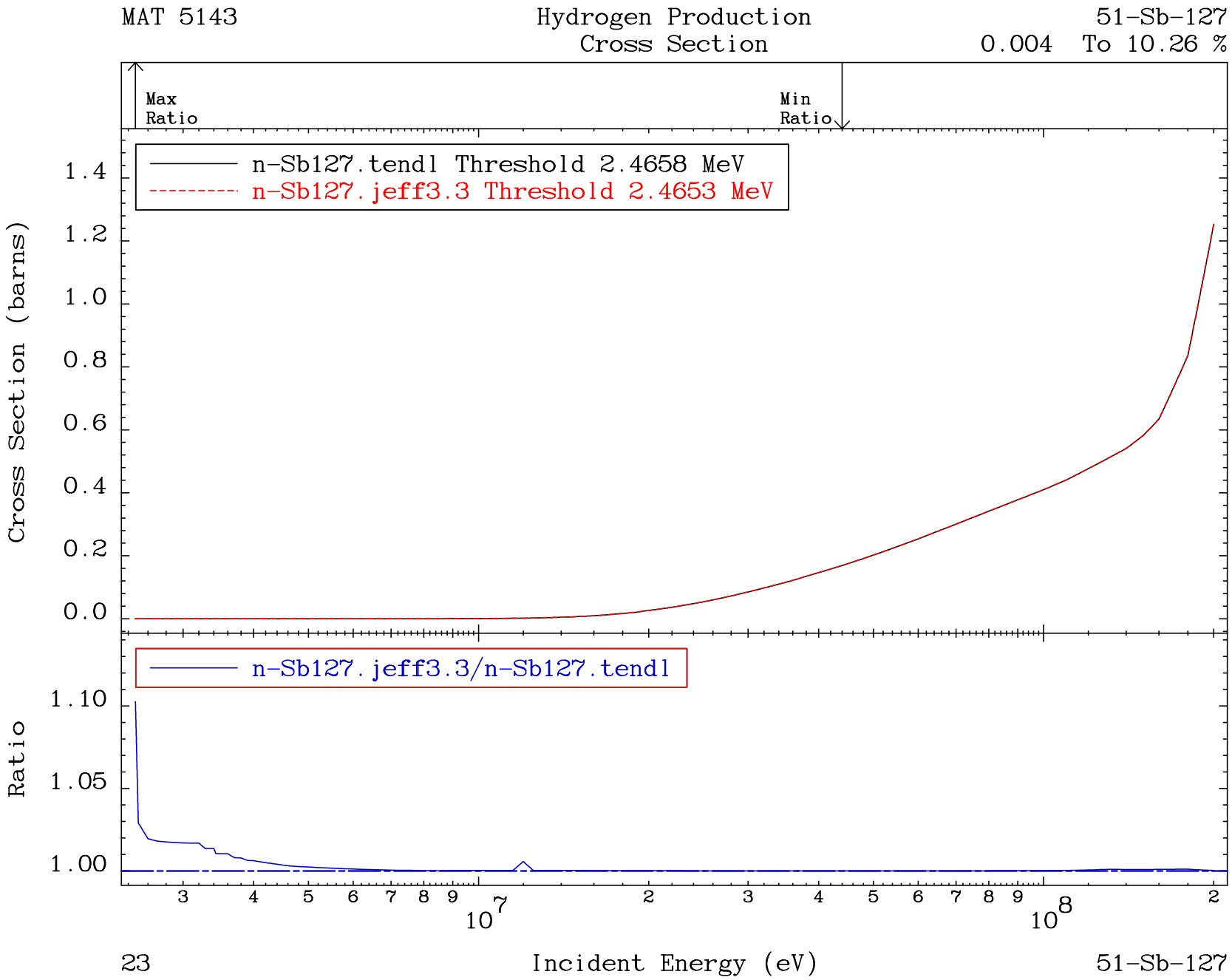

MAT 5143
(n,d)
Cross Section
51-Sb-127
0.000 To 0.902 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 5.7943 MeV
n-Sb127.jeff3.3 Threshold 5.7943 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.02
1.01
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
51-Sb-127

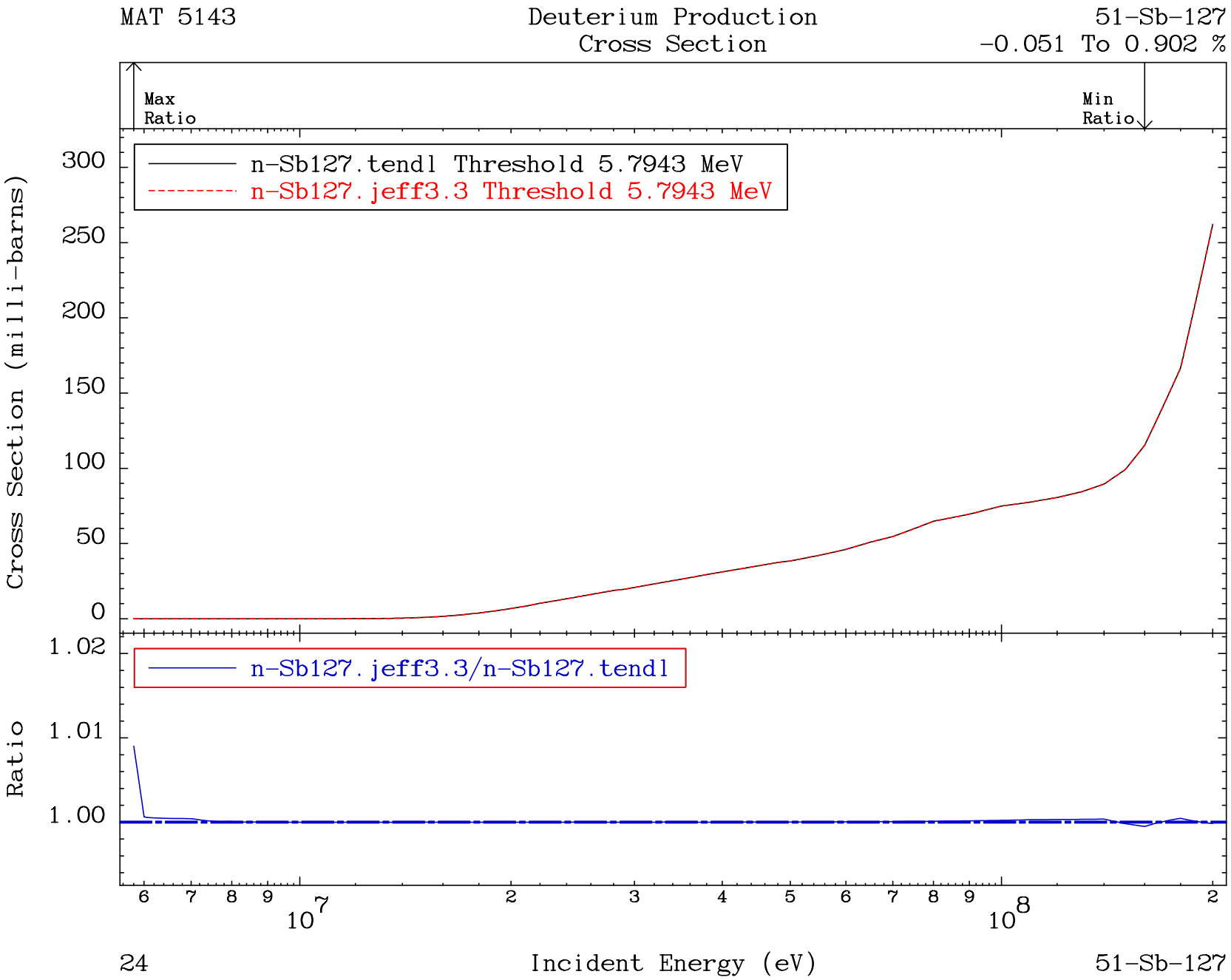

MAT 5143
(n,t)
Cross Section
51-Sb-127
0.000 To 0.244 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 7.7426 MeV
n-Sb127.jeff3.3 Threshold 7.7426 MeV
Cross Section (milli-barns)
0
1
2
3
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
0.99
1.00
1.01
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
51-Sb-127

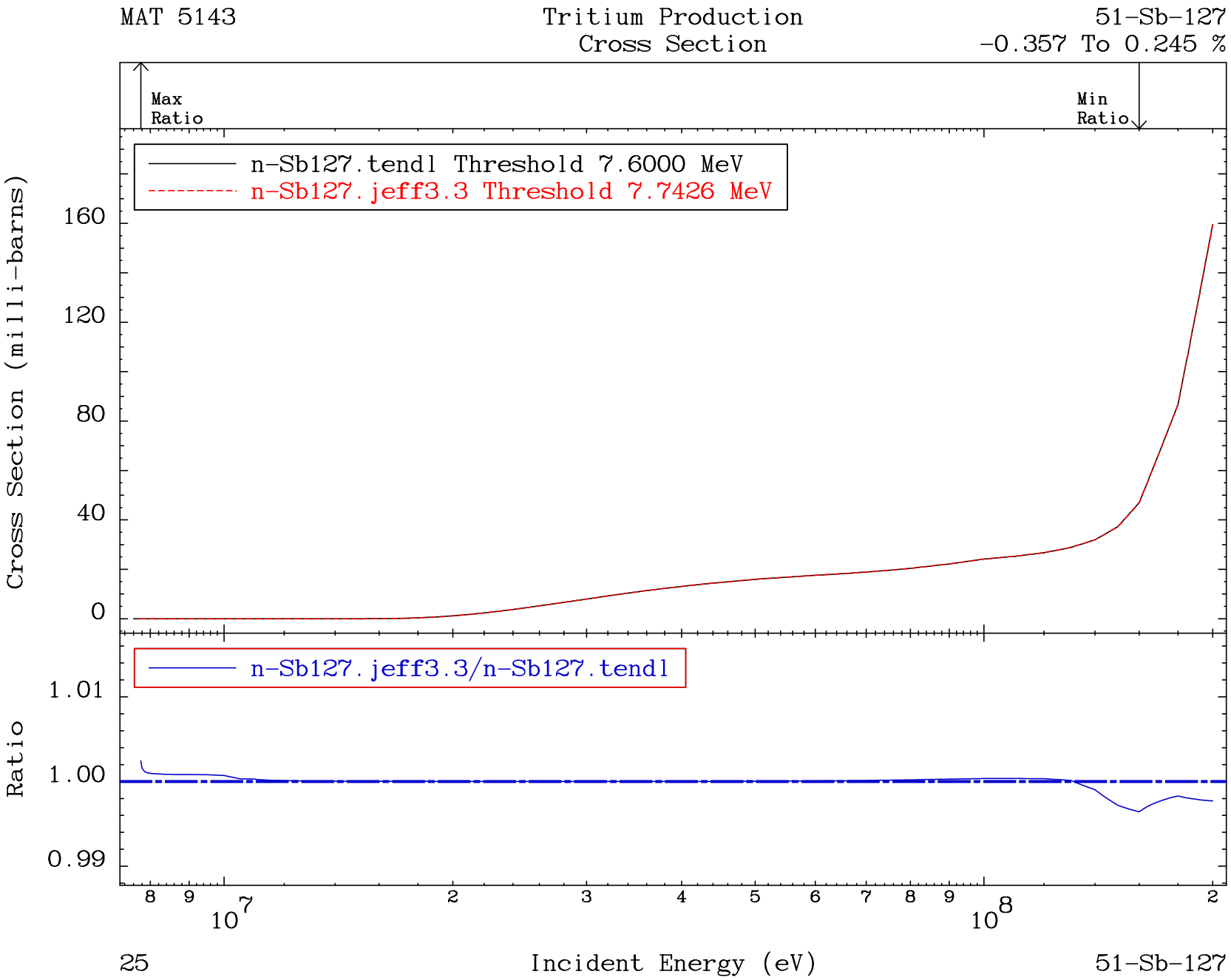

MAT 5143
(n,He-3)
Cross Section
51-Sb-127
0.000 To 0.047 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 13.187 MeV
n-Sb127.jeff3.3 Threshold 13.187 MeV
Cross Section (micro-barns)
30
25
20
15
10
5
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
20
Incident Energy (eV)
51-Sb-127

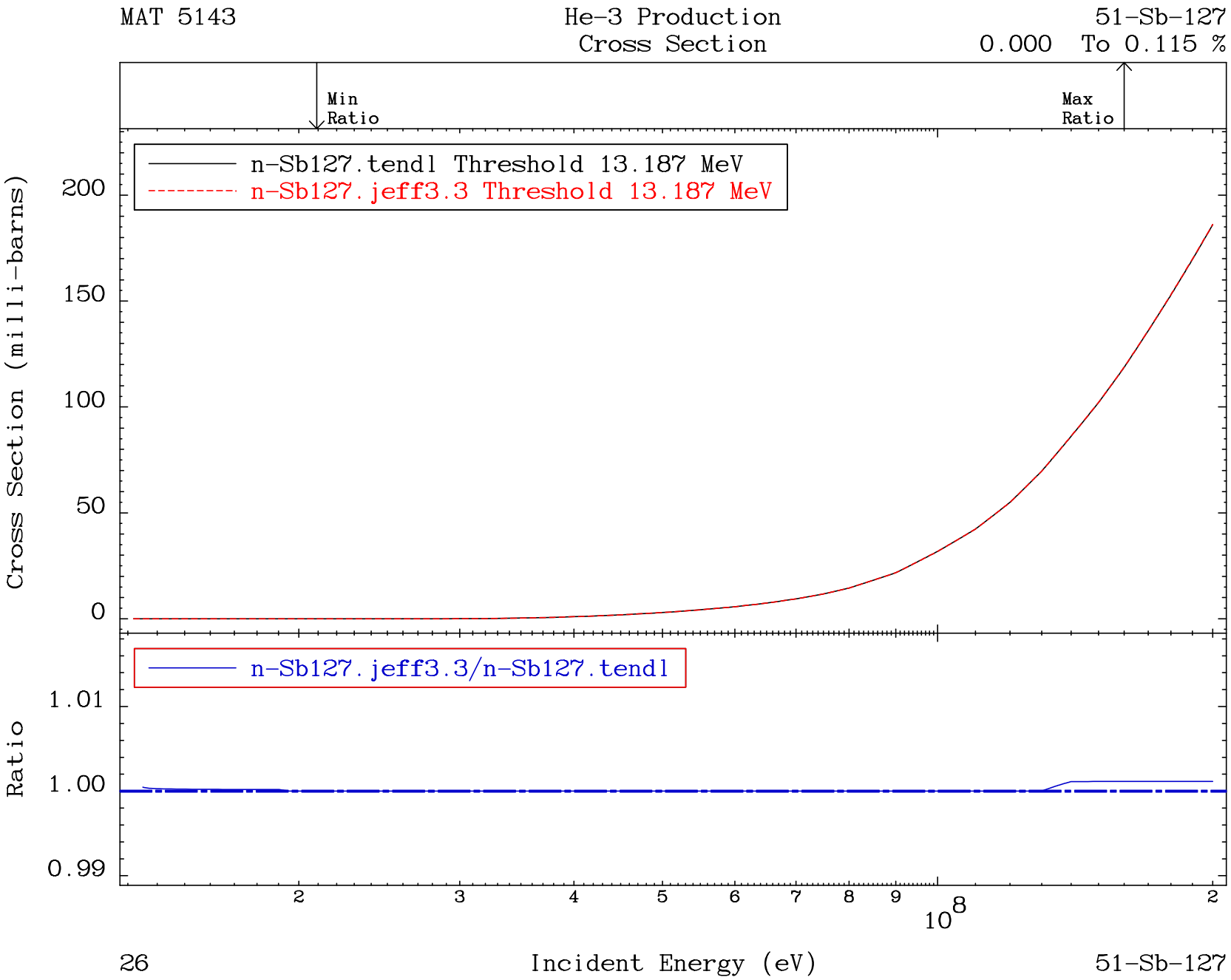

MAT 5143
(n,α)
Cross Section
51-Sb-127
-7.451 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 184.32 keV
n-Sb127.jeff3.3 Threshold 184.32 keV
Cross Section (milli-barns)
0
1
2
3
4
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^0
10^1
10^2
10^3
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
21
Incident Energy (eV)
51-Sb-127

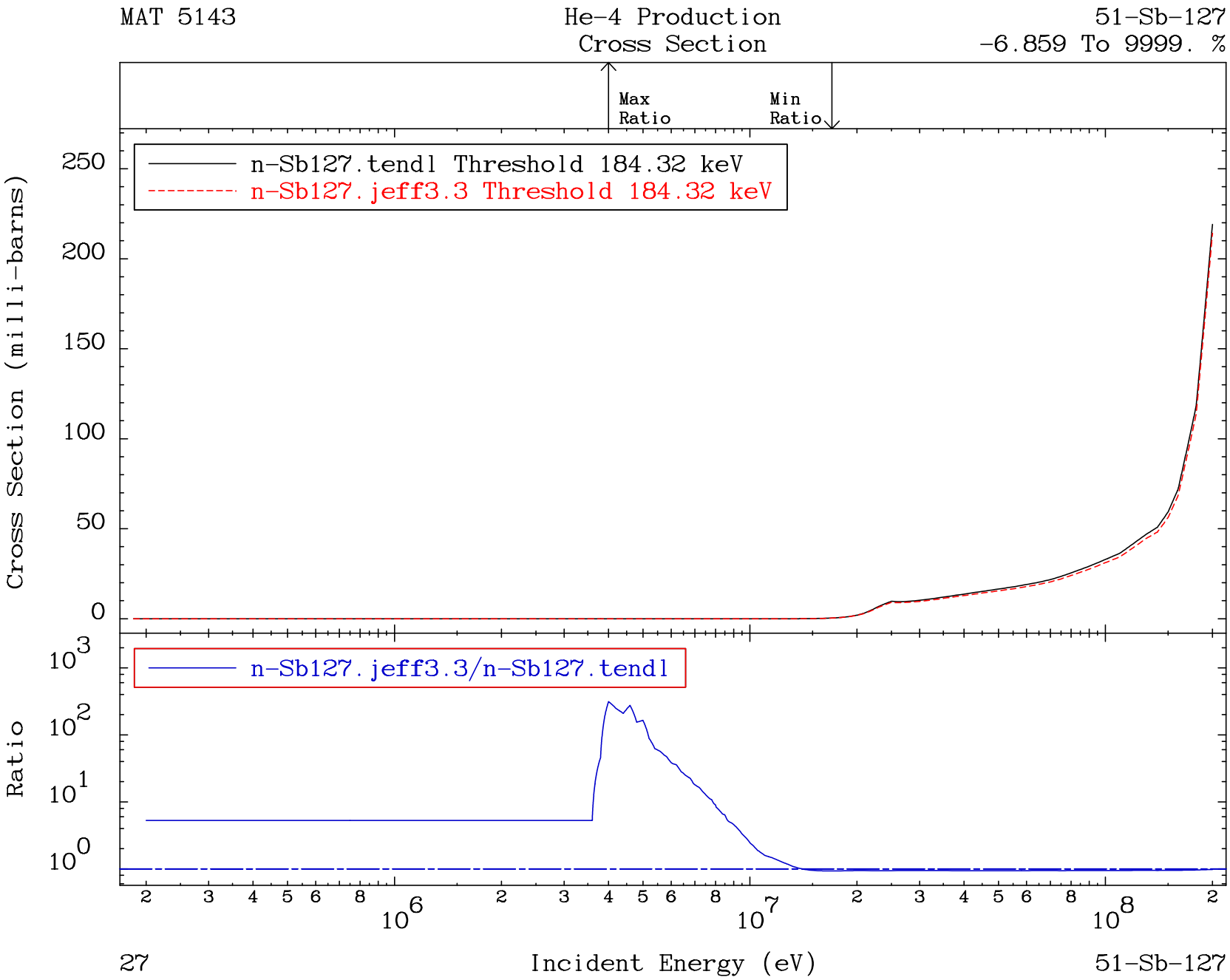

MAT 5143
(n,2p)
Cross Section
51-Sb-127
0.000 To 0.018 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 15.556 MeV
n-Sb127.jeff3.3 Threshold 15.556 MeV
Cross Section (10^{-9} barns)
25
20
15
10
5
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^{8}
2
22
Incident Energy (eV)
51-Sb-127

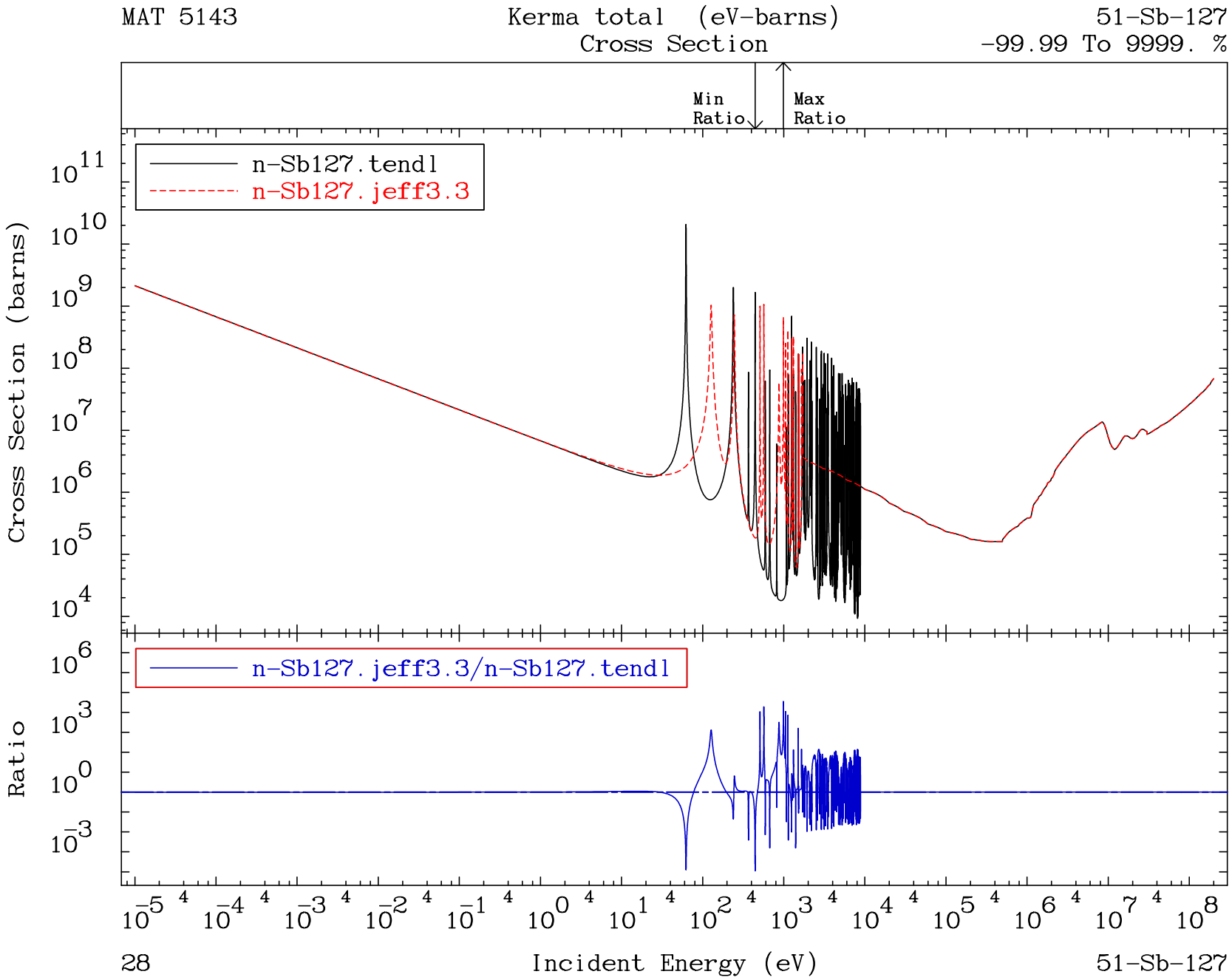

MAT 5143
Hydrogen Production
Cross Section
51-Sb-127
0.004 To 10.26 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 2.4658 MeV
n-Sb127.jeff3.3 Threshold 2.4653 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
51-Sb-127

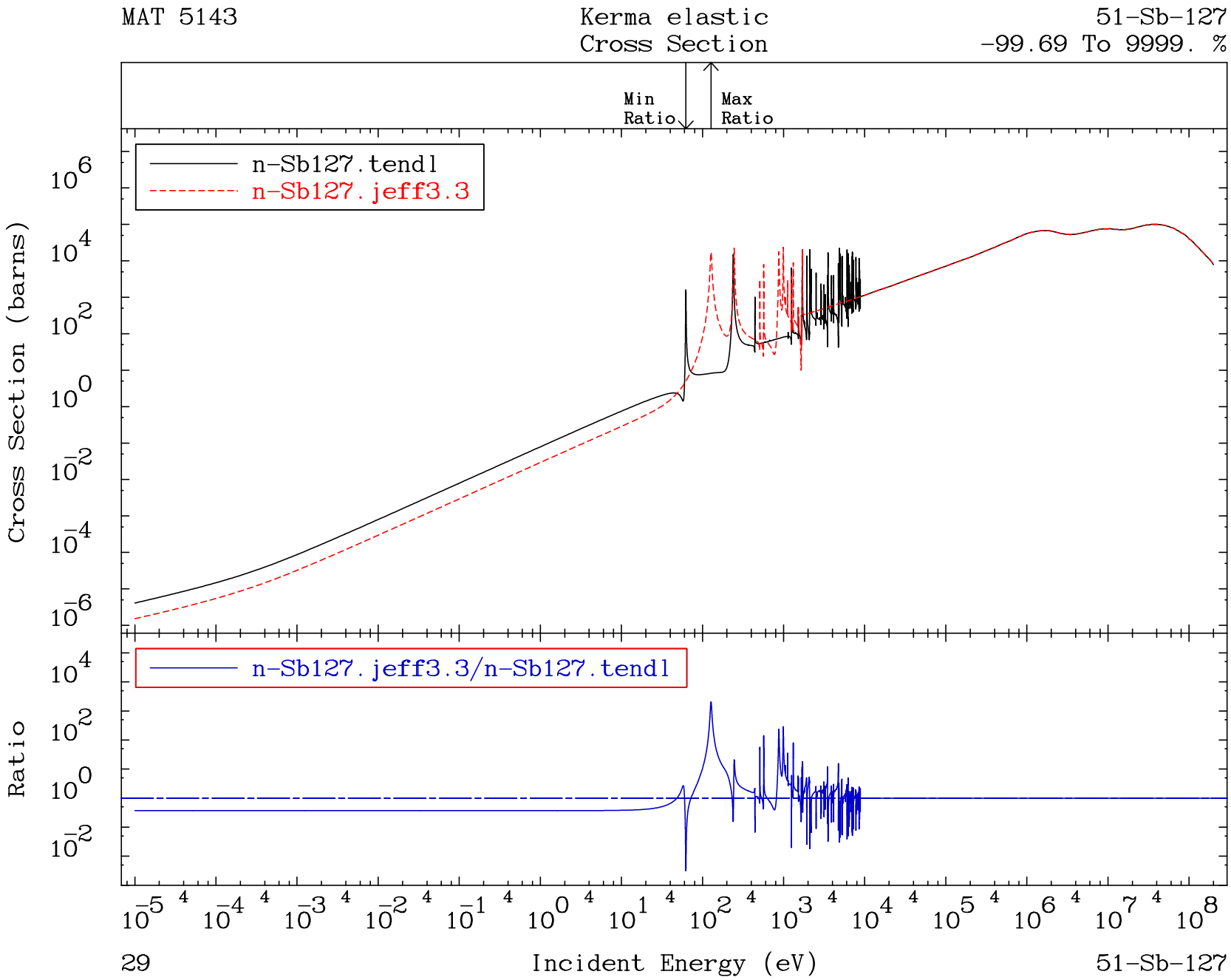

MAT 5143
Deuterium Production
Cross Section
51-Sb-127
-0.051 To 0.902 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 5.7943 MeV
n-Sb127.jeff3.3 Threshold 5.7943 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.02
1.01
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
51-Sb-127

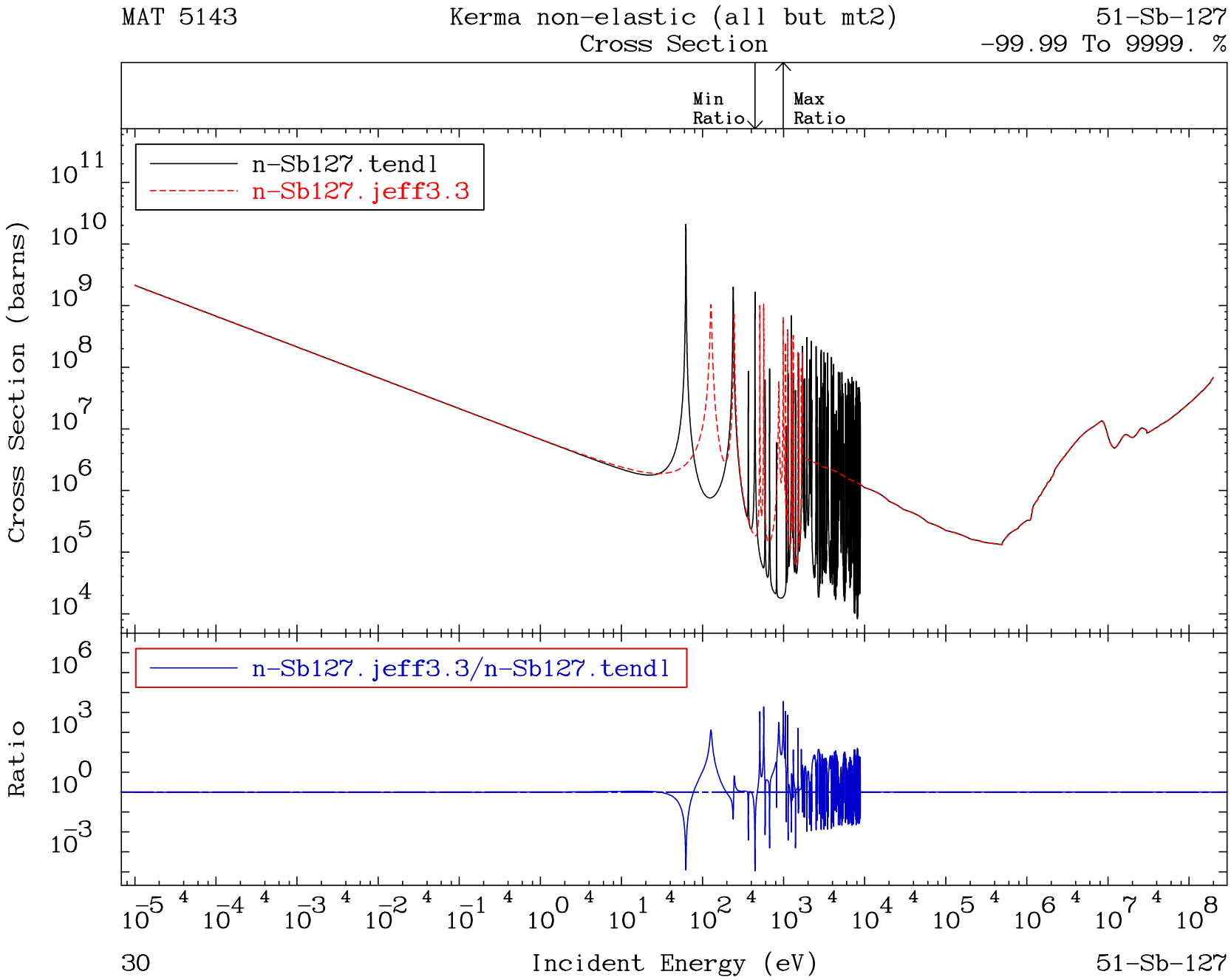

MAT 5143
Tritium Production
Cross Section
51-Sb-127
-0.357 To 0.245 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 7.6000 MeV
n-Sb127.jeff3.3 Threshold 7.7426 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
51-Sb-127

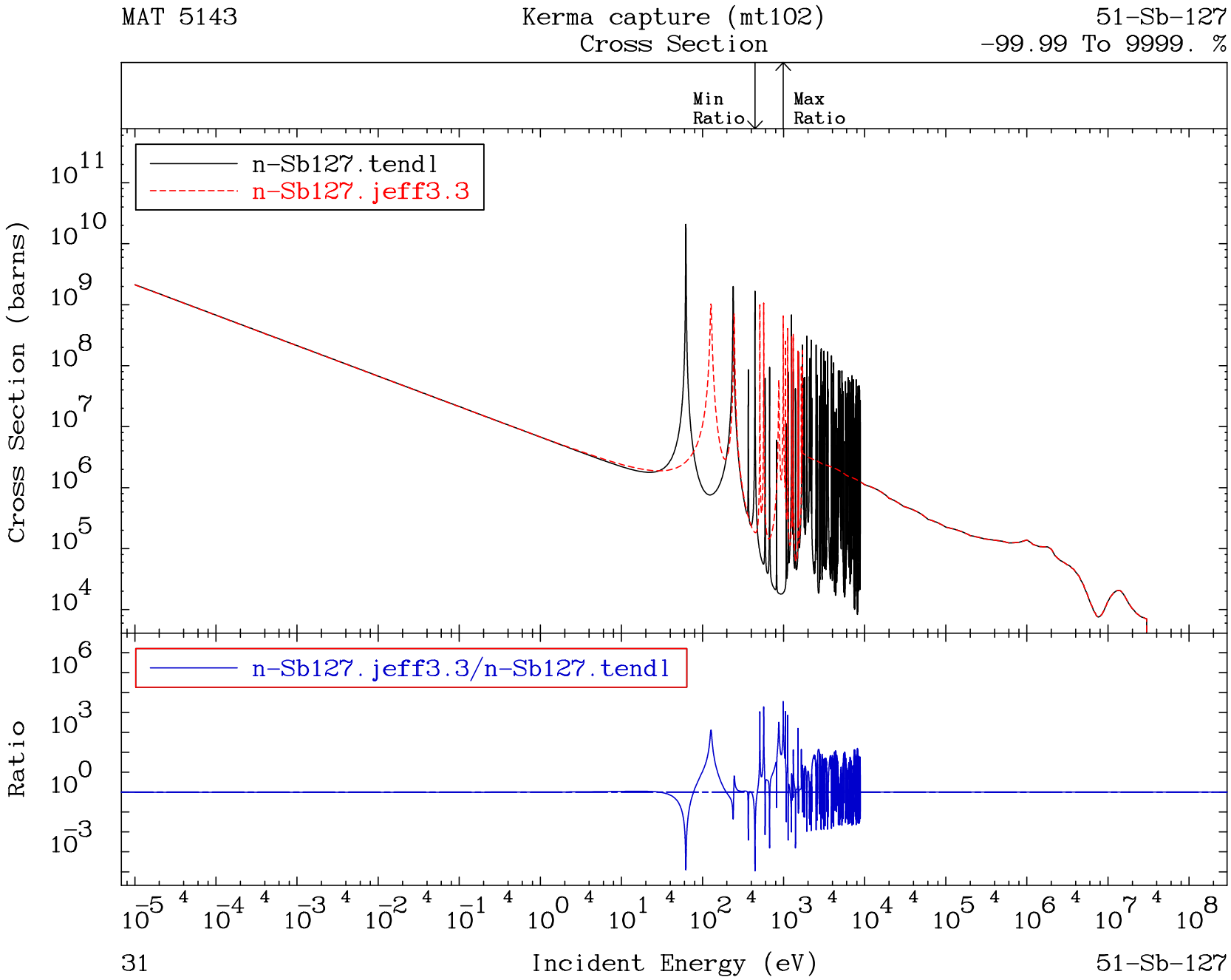

MAT 5143
He-3 Production
Cross Section
51-Sb-127
0.000 To 0.115 %
Min Ratio
Max Ratio
n-Sb127.tendl Threshold 13.187 MeV
n-Sb127.jeff3.3 Threshold 13.187 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
26
Incident Energy (eV)
51-Sb-127

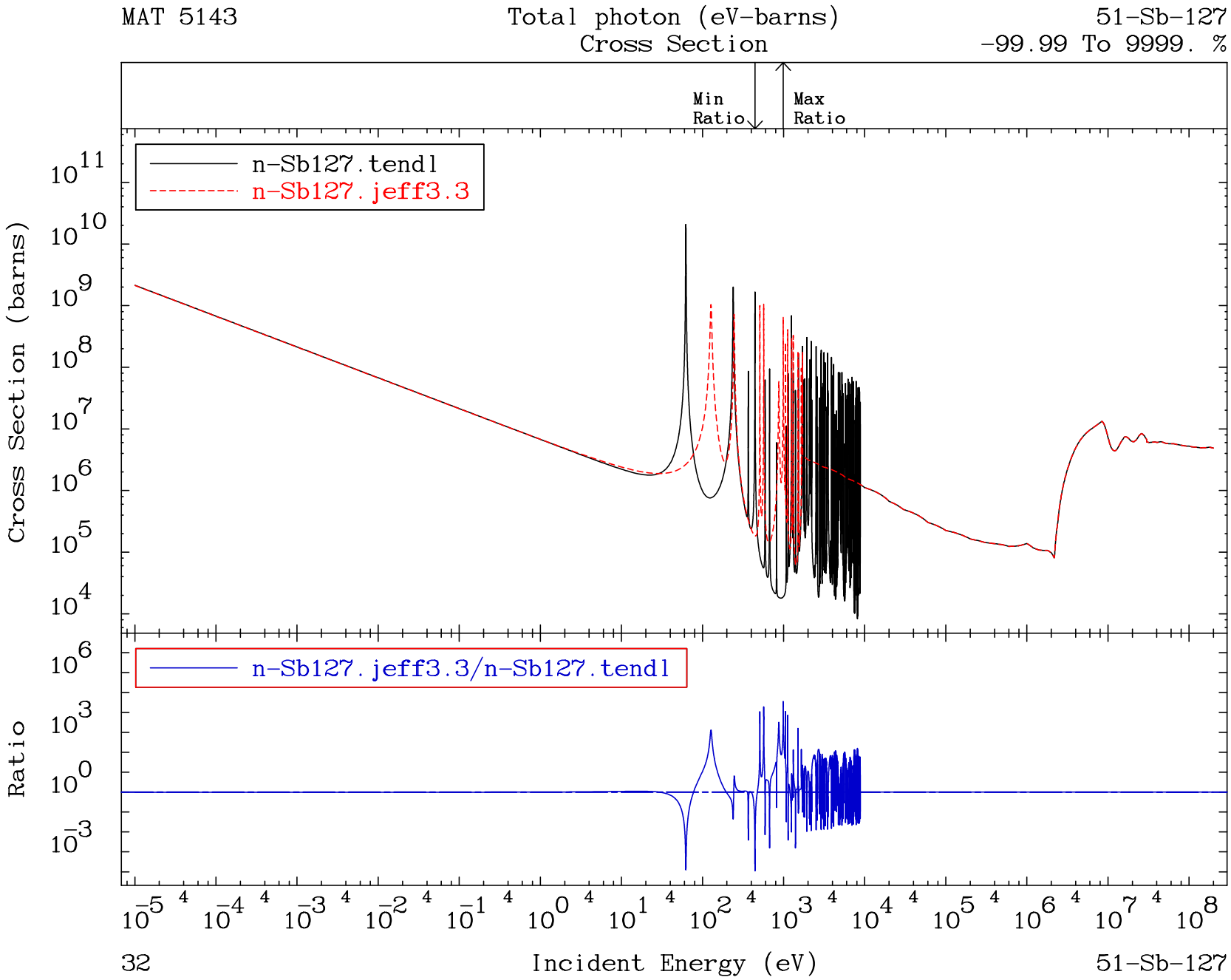

MAT 5143
He-4 Production
Cross Section
51-Sb-127
-6.859 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 184.32 keV
n-Sb127.jeff3.3 Threshold 184.32 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^3
10^2
10^1
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
27
Incident Energy (eV)
51-Sb-127

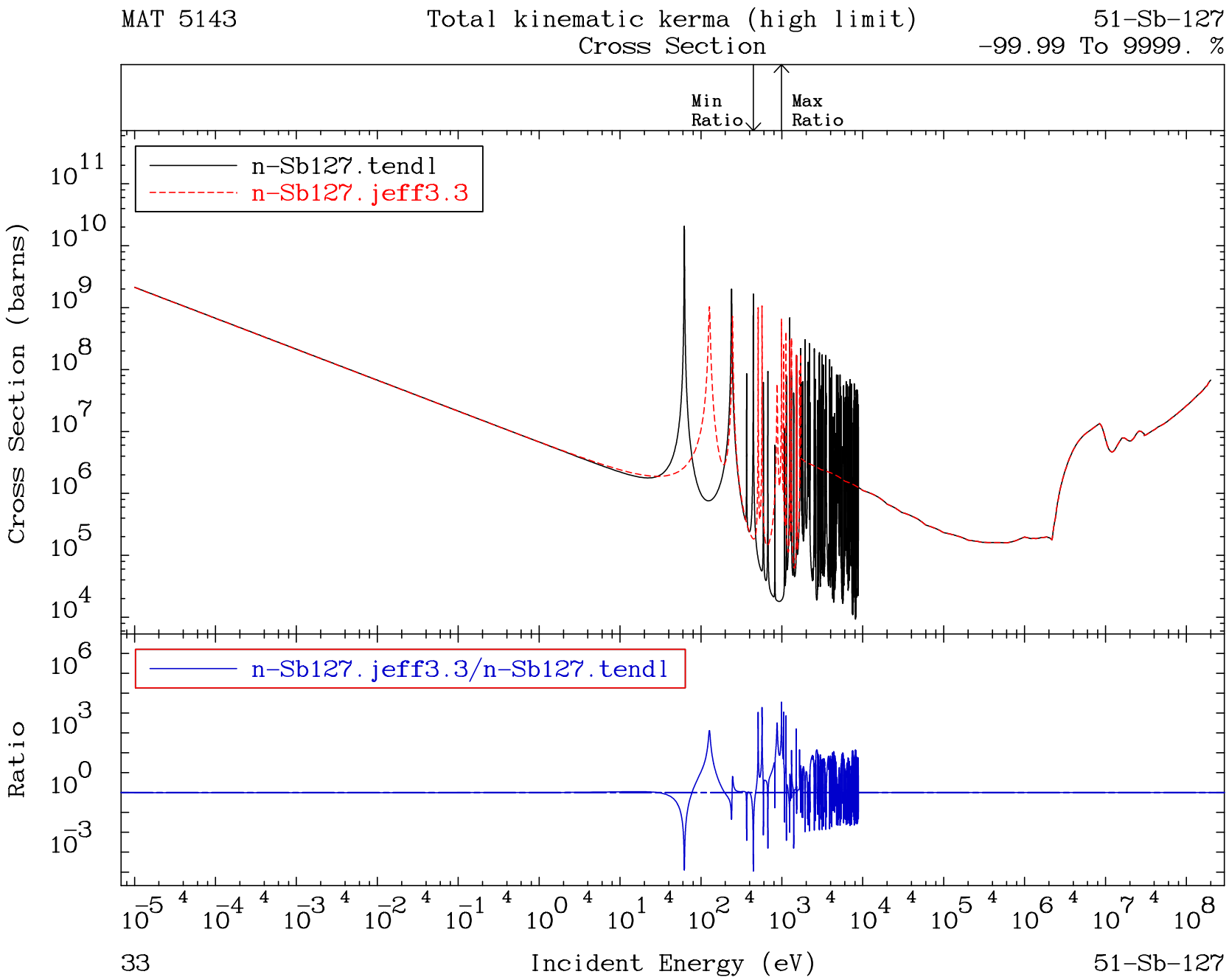

MAT 5143
Kerma total (eV-barns)
Cross Section
51-Sb-127
-99.99 To 9999. %
Min Ratio
Max Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
28
51-Sb-127

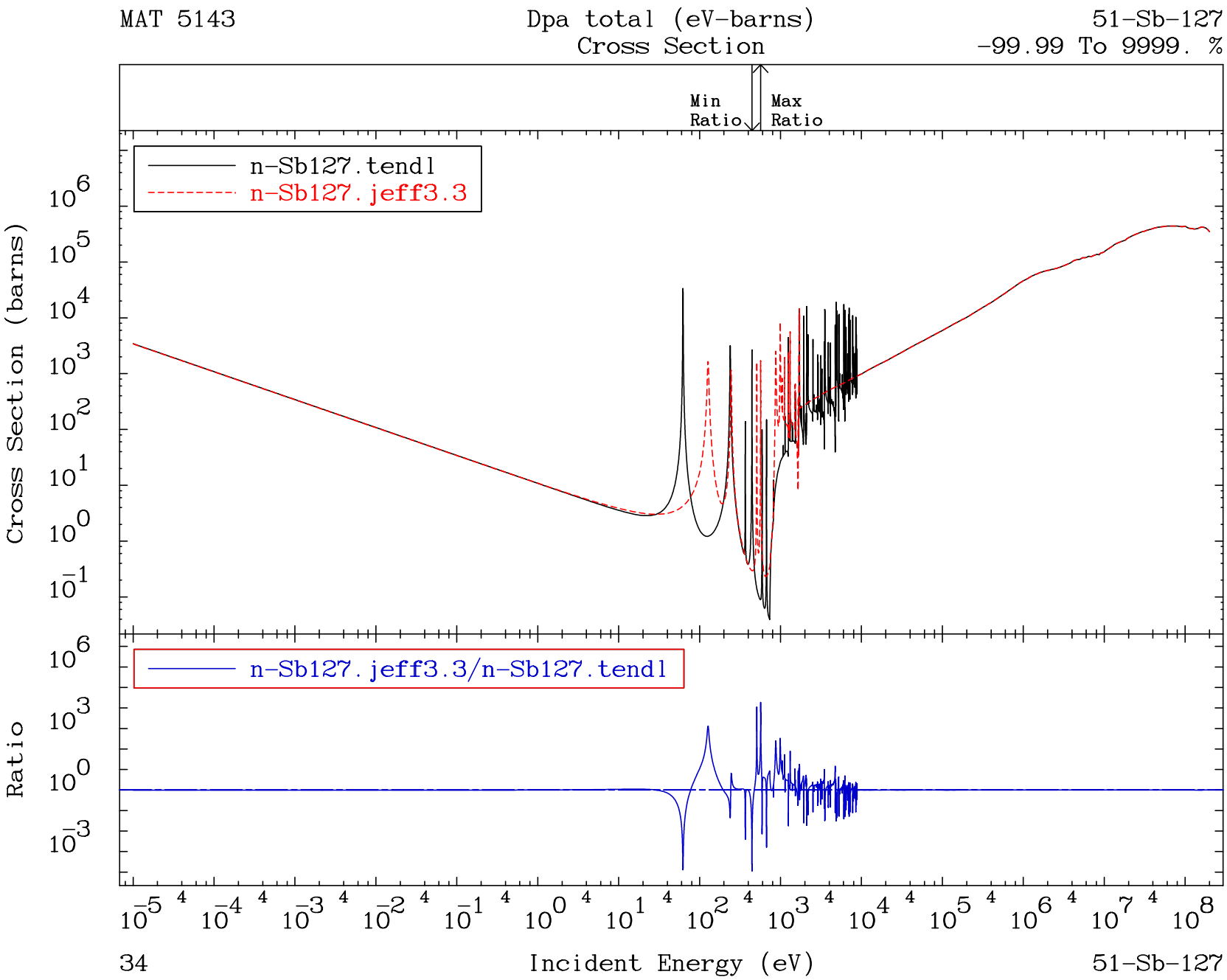

MAT 5143
Kerma elastic
Cross Section
51-Sb-127
-99.69 To 9999. %
Min
Ratio
Max
Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
29
51-Sb-127

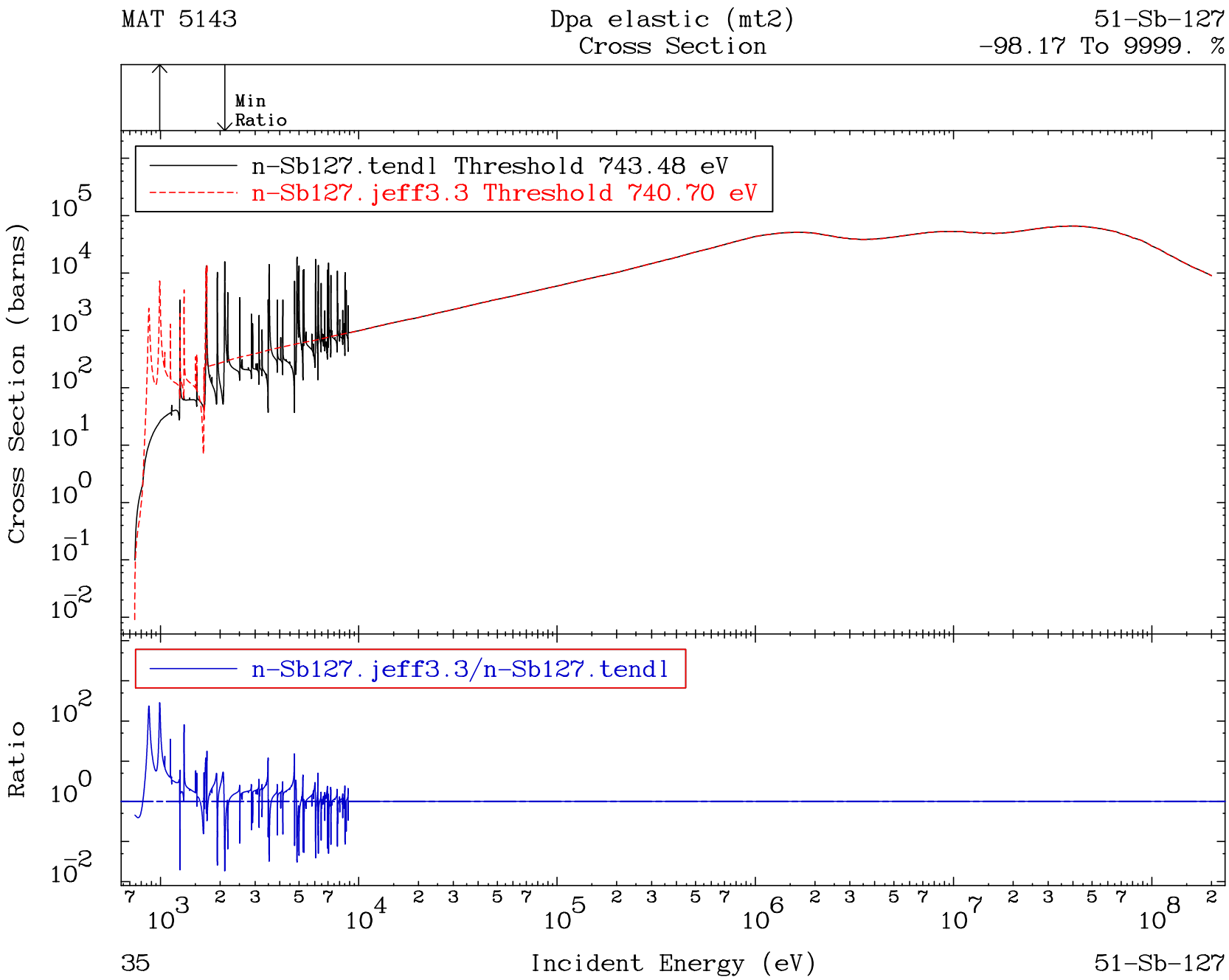

MAT 5143
Kerma non-elastic (all but mt2)
Cross Section
51-Sb-127
-99.99 To 9999. %
Min Ratio
Max Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
30
51-Sb-127

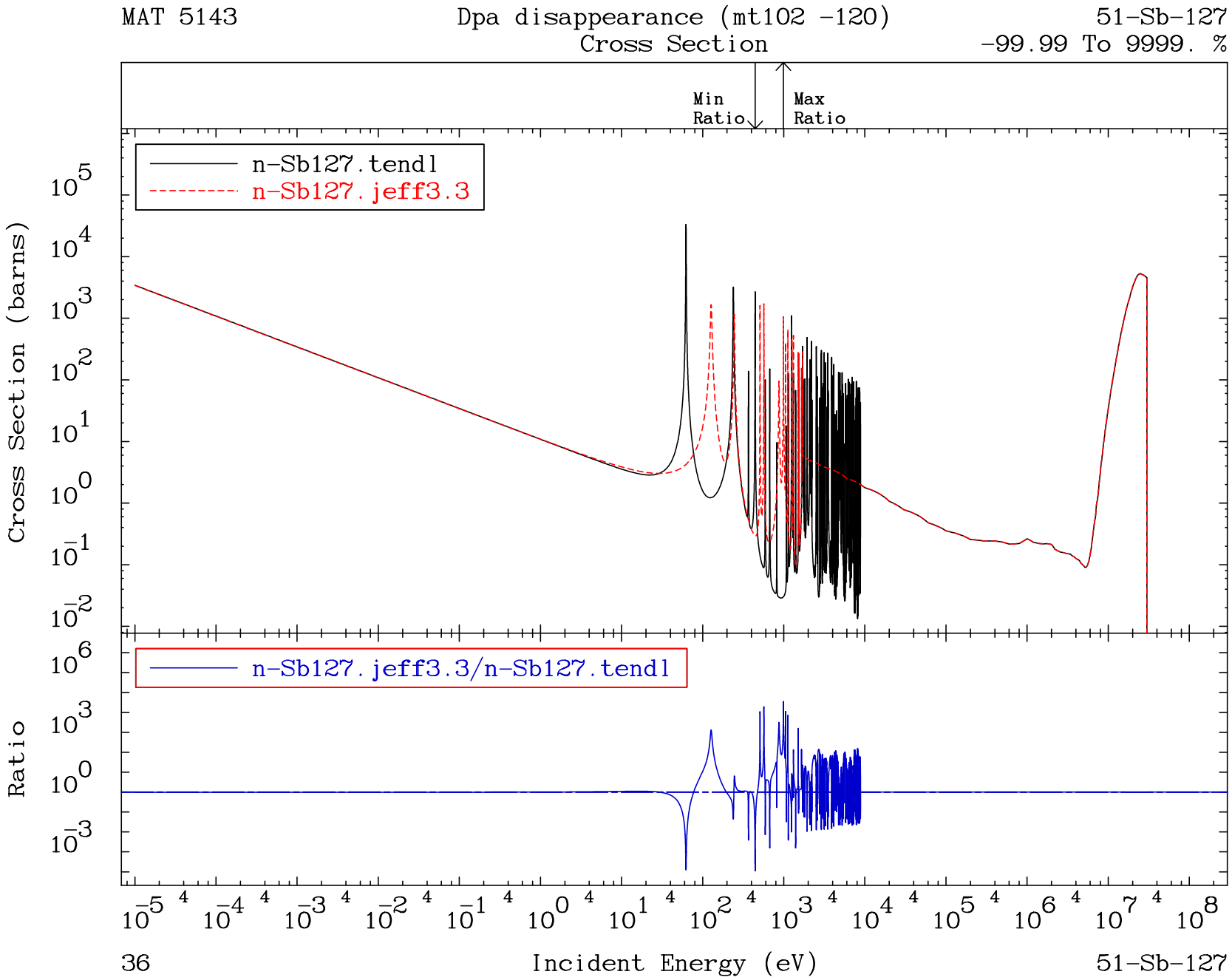

MAT 5143
Kerma capture (mt102)
Cross Section
51-Sb-127
-99.99 To 9999. %
Min Ratio
Max Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
31
Incident Energy (eV)
51-Sb-127

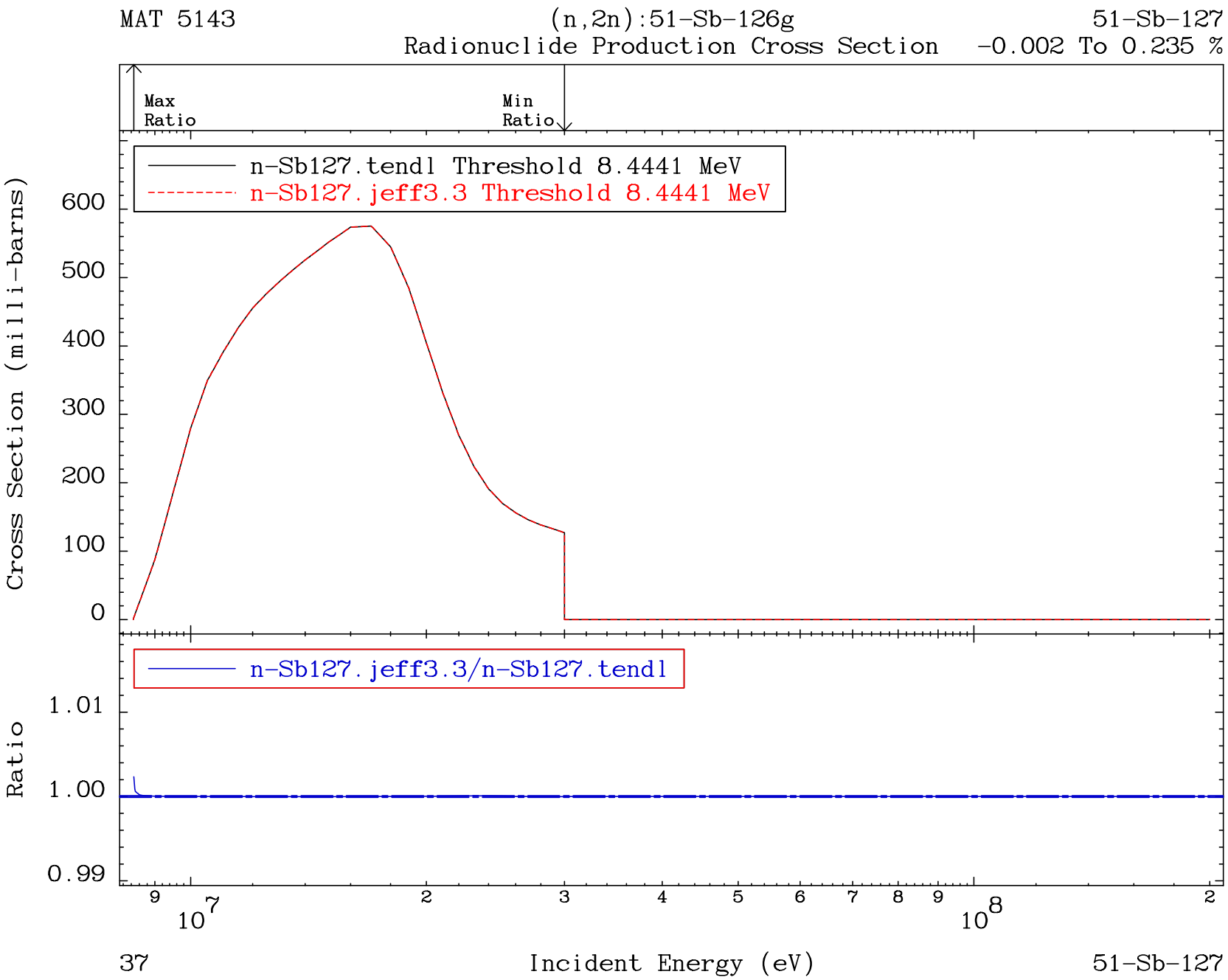

MAT 5143
Total photon (eV-barns)
Cross Section
51-Sb-127
-99.99 To 9999. %
Min Ratio
Max Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
32
51-Sb-127

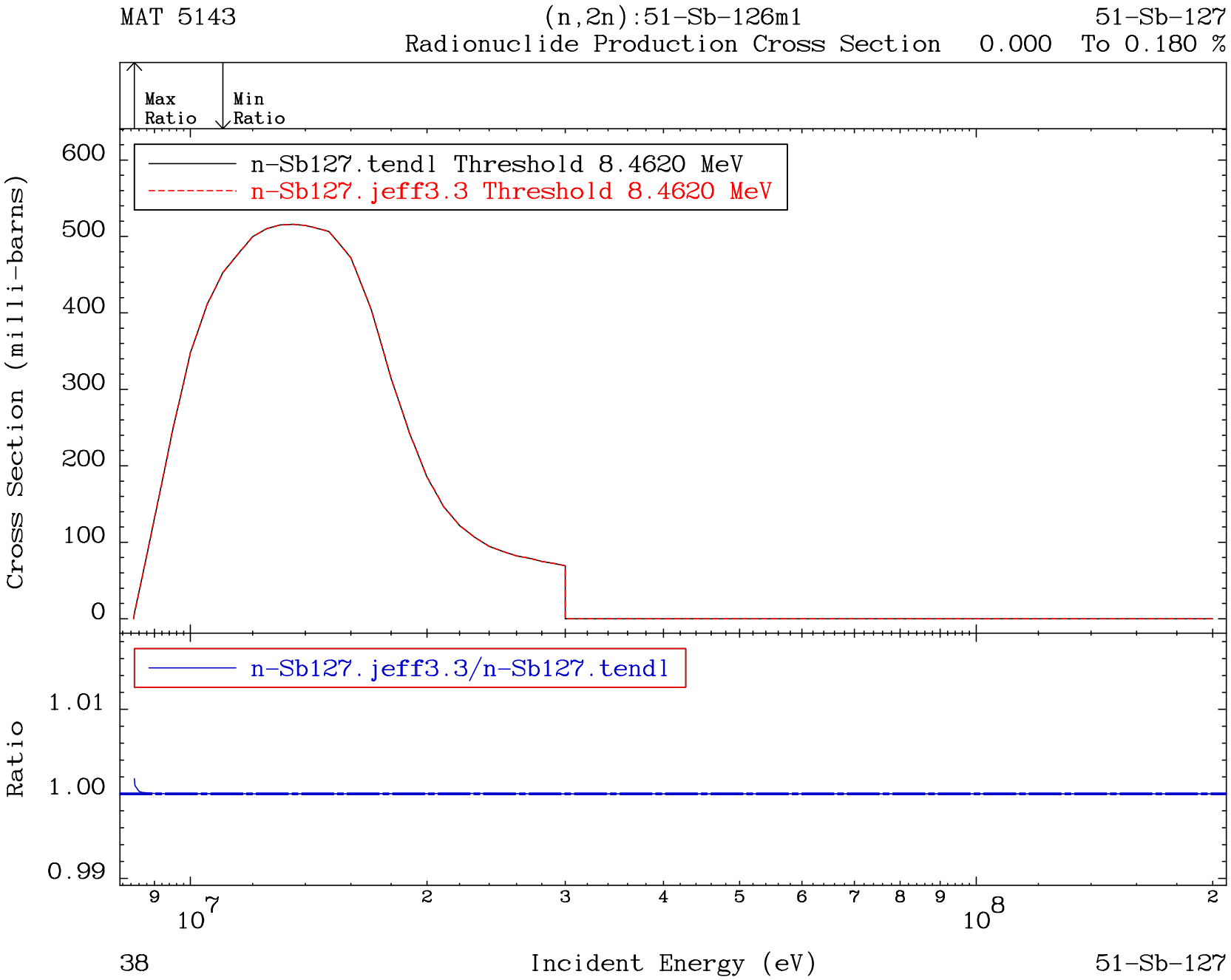

MAT 5143
Total kinematic kerma (high limit)
Cross Section
51-Sb-127
-99.99 To 9999. %
Min Ratio
Max Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
33
51-Sb-127

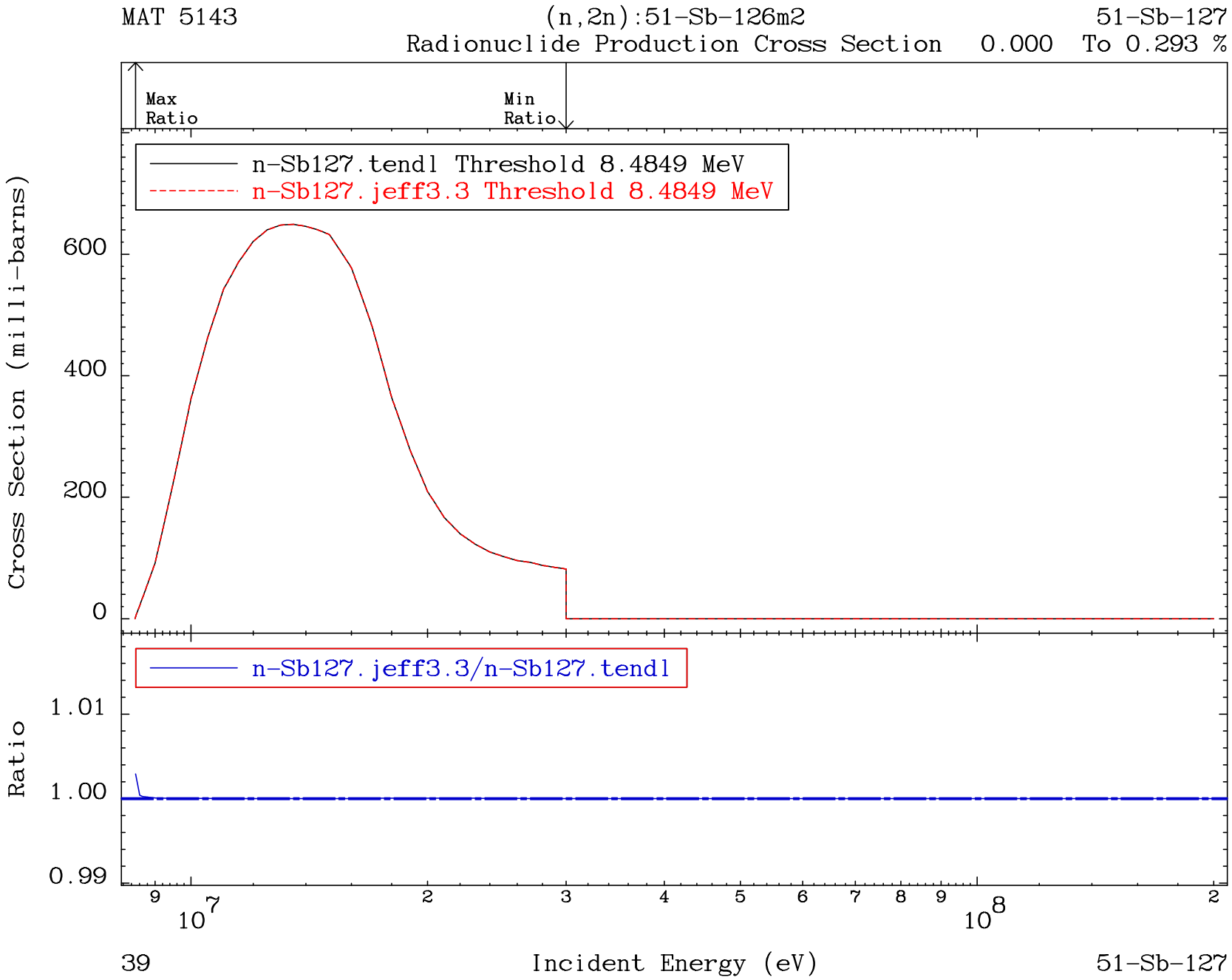

MAT 5143
Dpa total (eV-barns)
Cross Section
51-Sb-127
-99.99 To 9999. %
Min Ratio
Max Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
34
Incident Energy (eV)
51-Sb-127

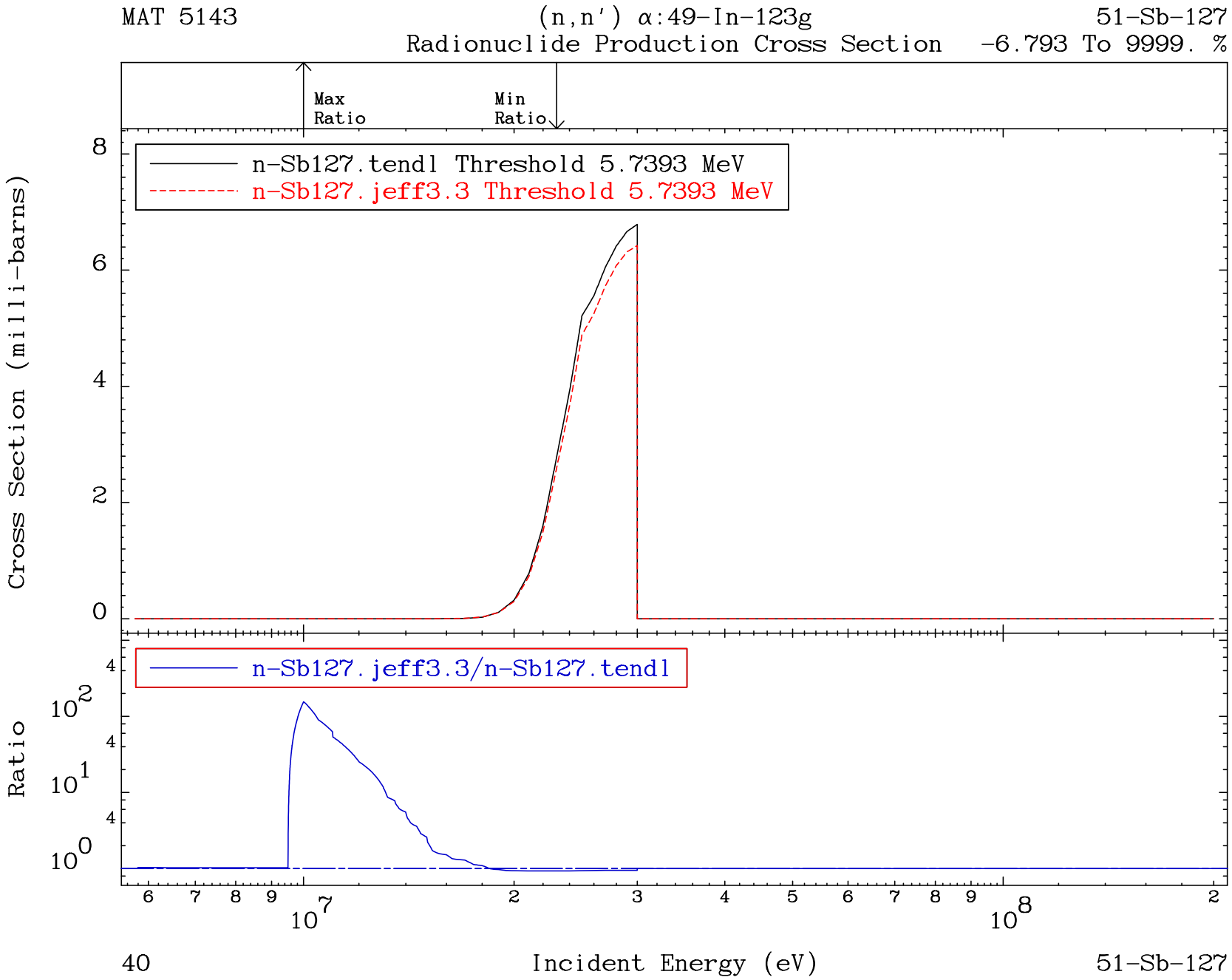

MAT 5143
Dpa elastic (mt2)
Cross Section
51-Sb-127
-98.17 To 9999. %
Min
Ratio
n-Sb127.tendl Threshold 743.48 eV
n-Sb127.jeff3.3 Threshold 740.70 eV
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
35
51-Sb-127

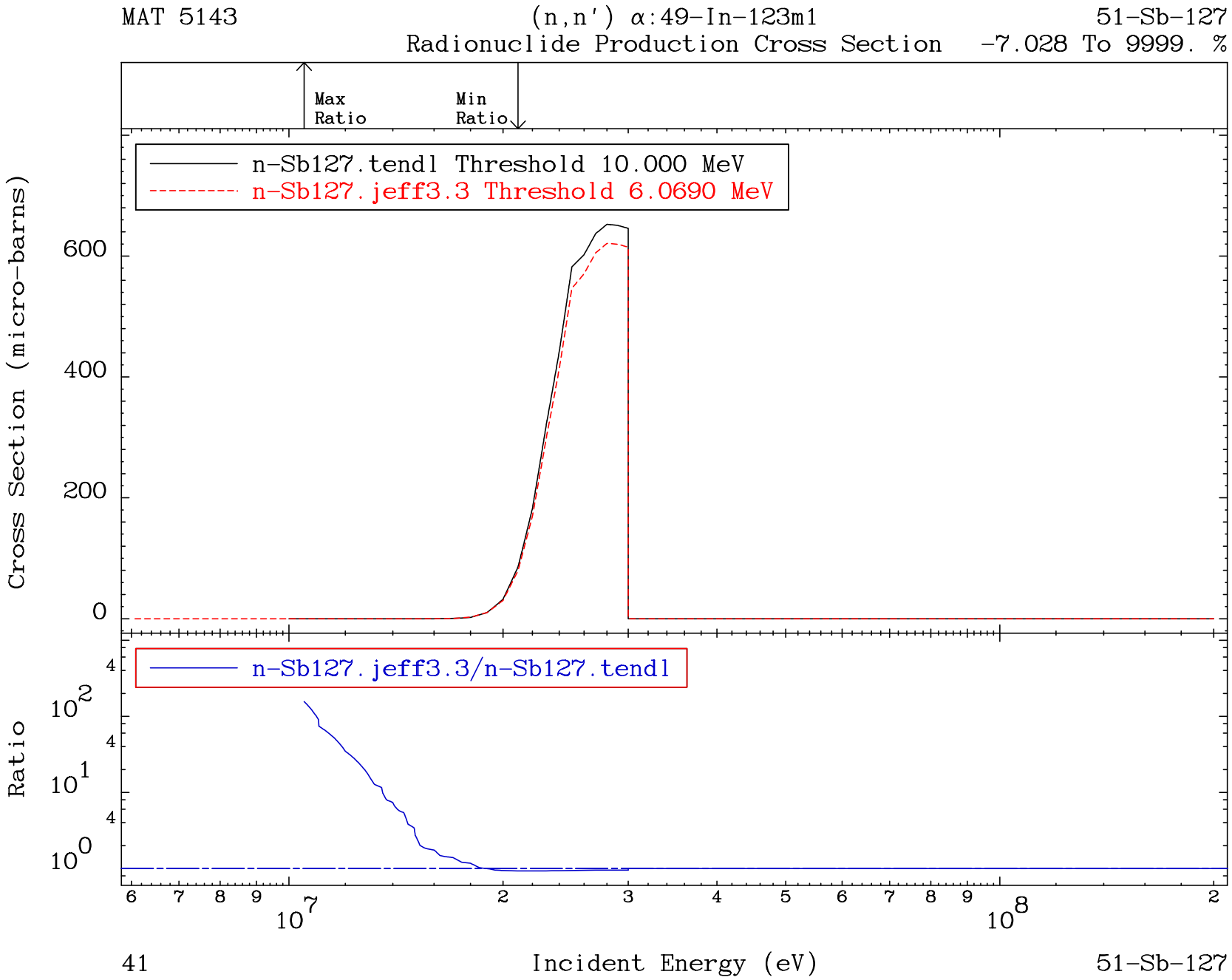

MAT 5143
Dpa disappearance (mt102 -120)
Cross Section
51-Sb-127
-99.99 To 9999. %
Min Ratio
Max Ratio
n-Sb127.tendl
n-Sb127.jeff3.3
Cross Section (barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
36
Incident Energy (eV)
51-Sb-127

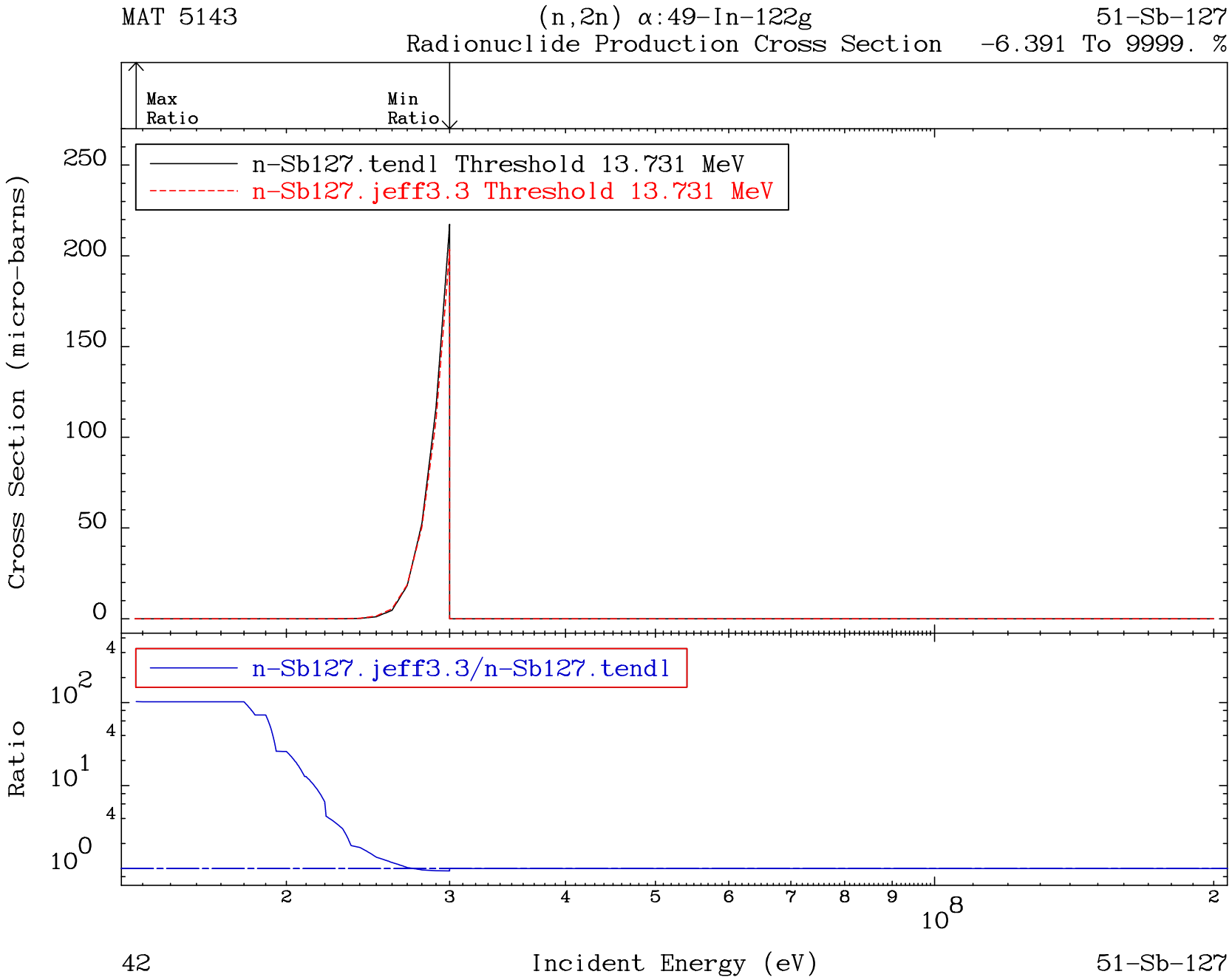

MAT 5143
(n,2n):51-Sb-126g
51-Sb-127
Radionuclide Production Cross Section
-0.002 To 0.235 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 8.4441 MeV
n-Sb127.jeff3.3 Threshold 8.4441 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
37
Incident Energy (eV)
51-Sb-127

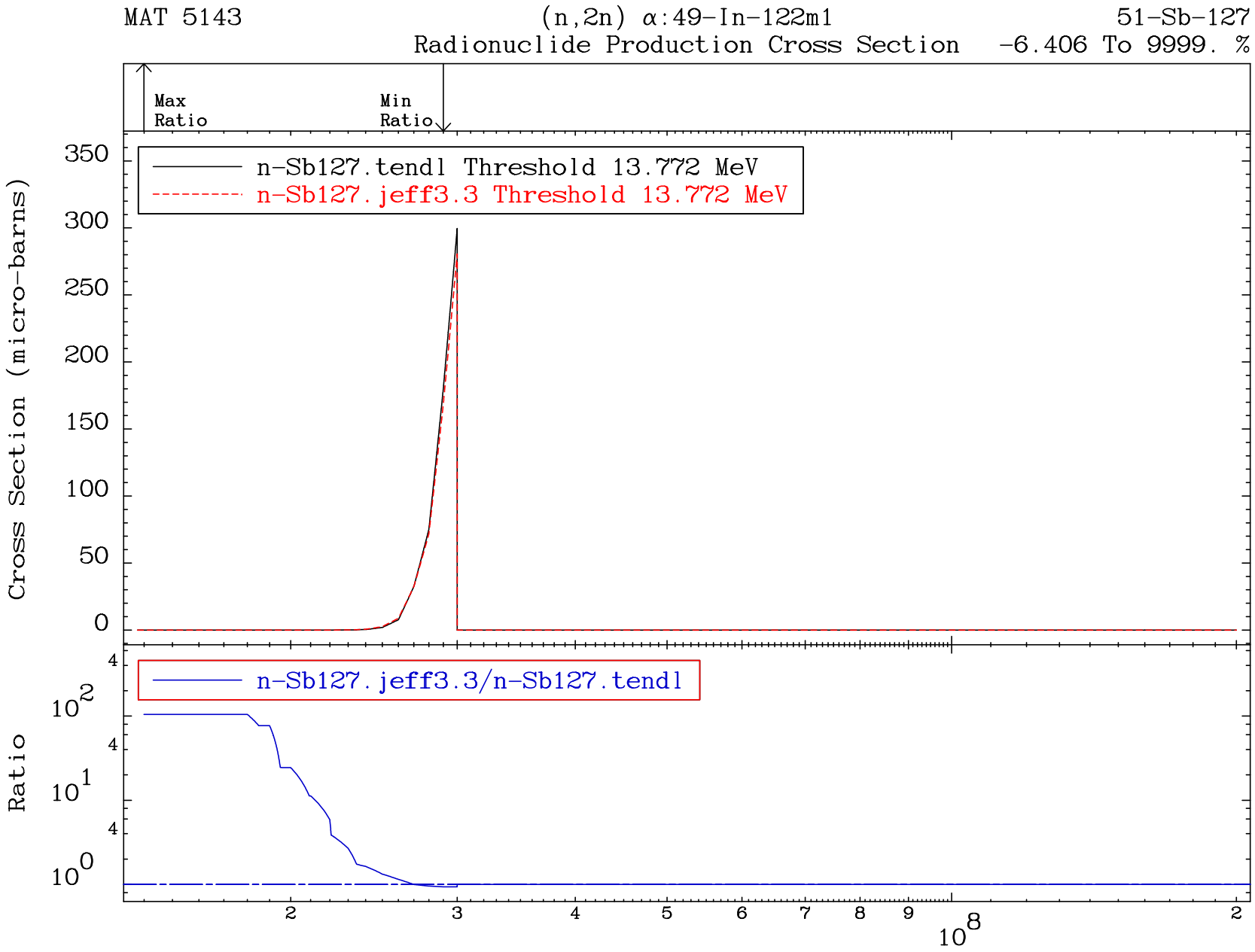

MAT 5143
(n,2n):51-Sb-126m1
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.180 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 8.4620 MeV
n-Sb127.jeff3.3 Threshold 8.4620 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
38
Incident Energy (eV)
51-Sb-127

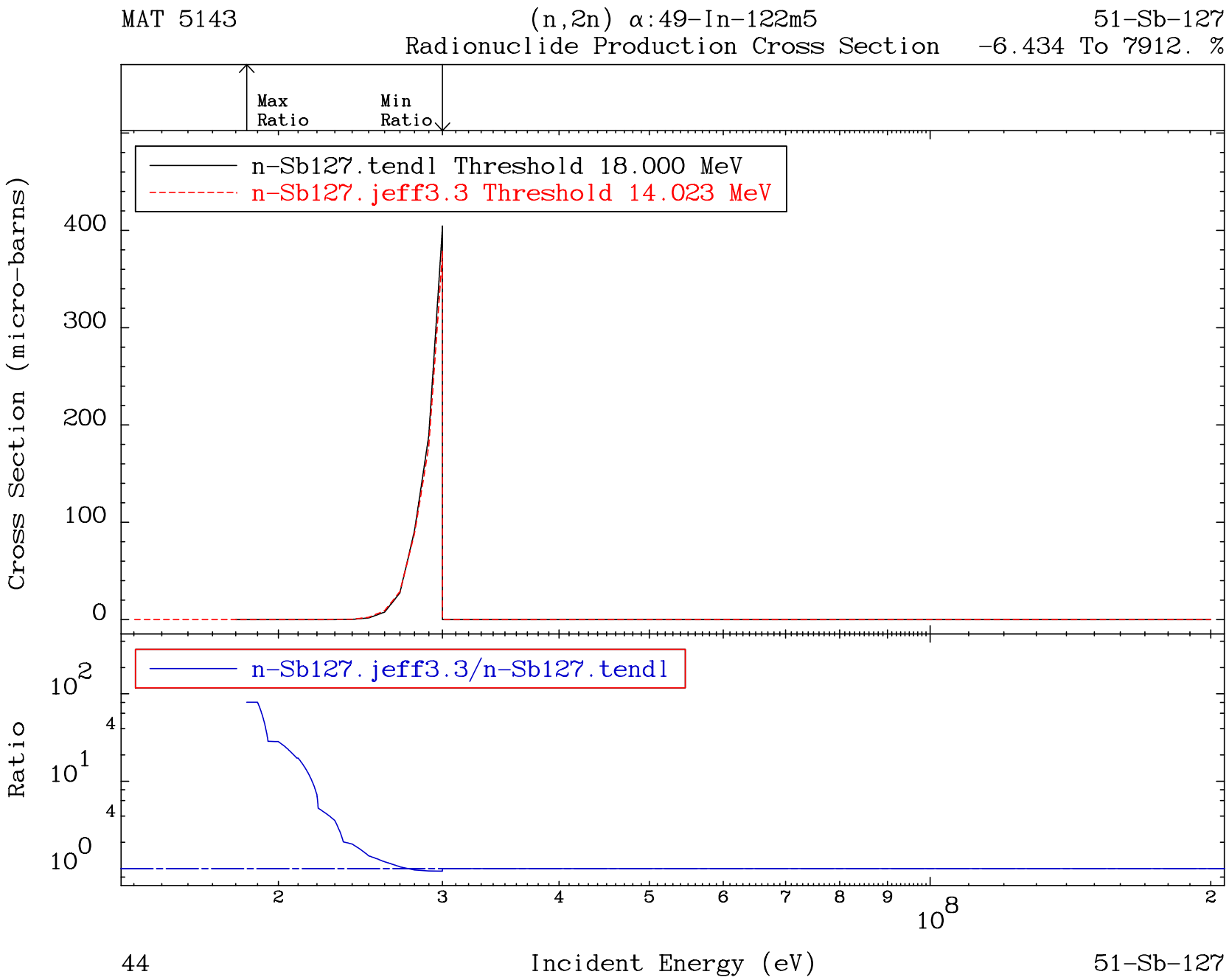

MAT 5143
(n,2n):51-Sb-126m2
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.293 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 8.4849 MeV
n-Sb127.jeff3.3 Threshold 8.4849 MeV
Cross Section (milli-barns)
600
400
200
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
39
Incident Energy (eV)
51-Sb-127

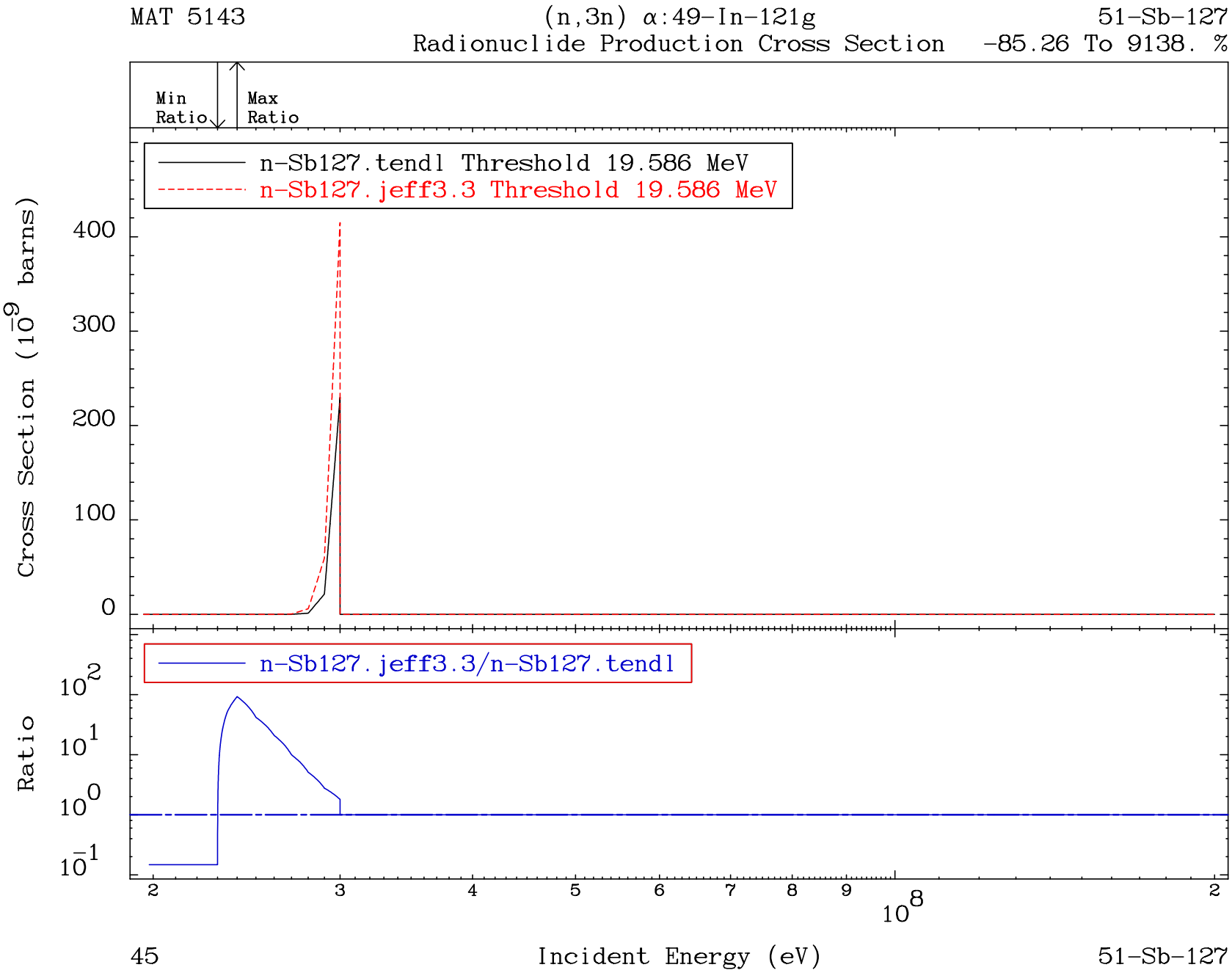

MAT 5143
(n,n') α:49-In-123g
51-Sb-127
Radionuclide Production Cross Section -6.793 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 5.7393 MeV
n-Sb127.jeff3.3 Threshold 5.7393 MeV
Cross Section (milli-barns)
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
Incident Energy (eV)
40
51-Sb-127

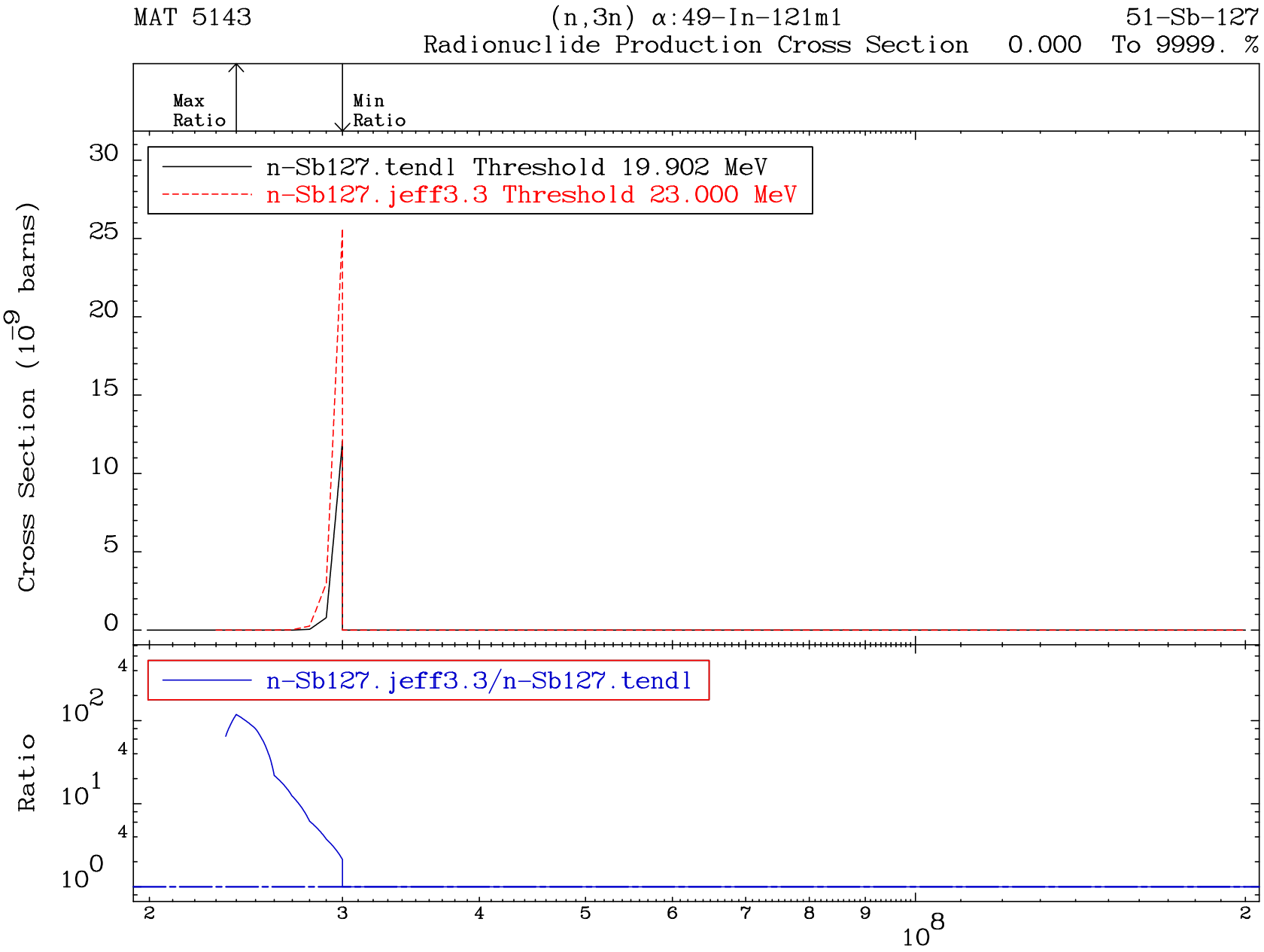

MAT 5143
(n,n') α:49-In-123m1
51-Sb-127
Radionuclide Production Cross Section -7.028 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 10.000 MeV
n-Sb127.jeff3.3 Threshold 6.0690 MeV
Cross Section (micro-barns)
600
400
200
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^2
10^1
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
41
Incident Energy (eV)
51-Sb-127

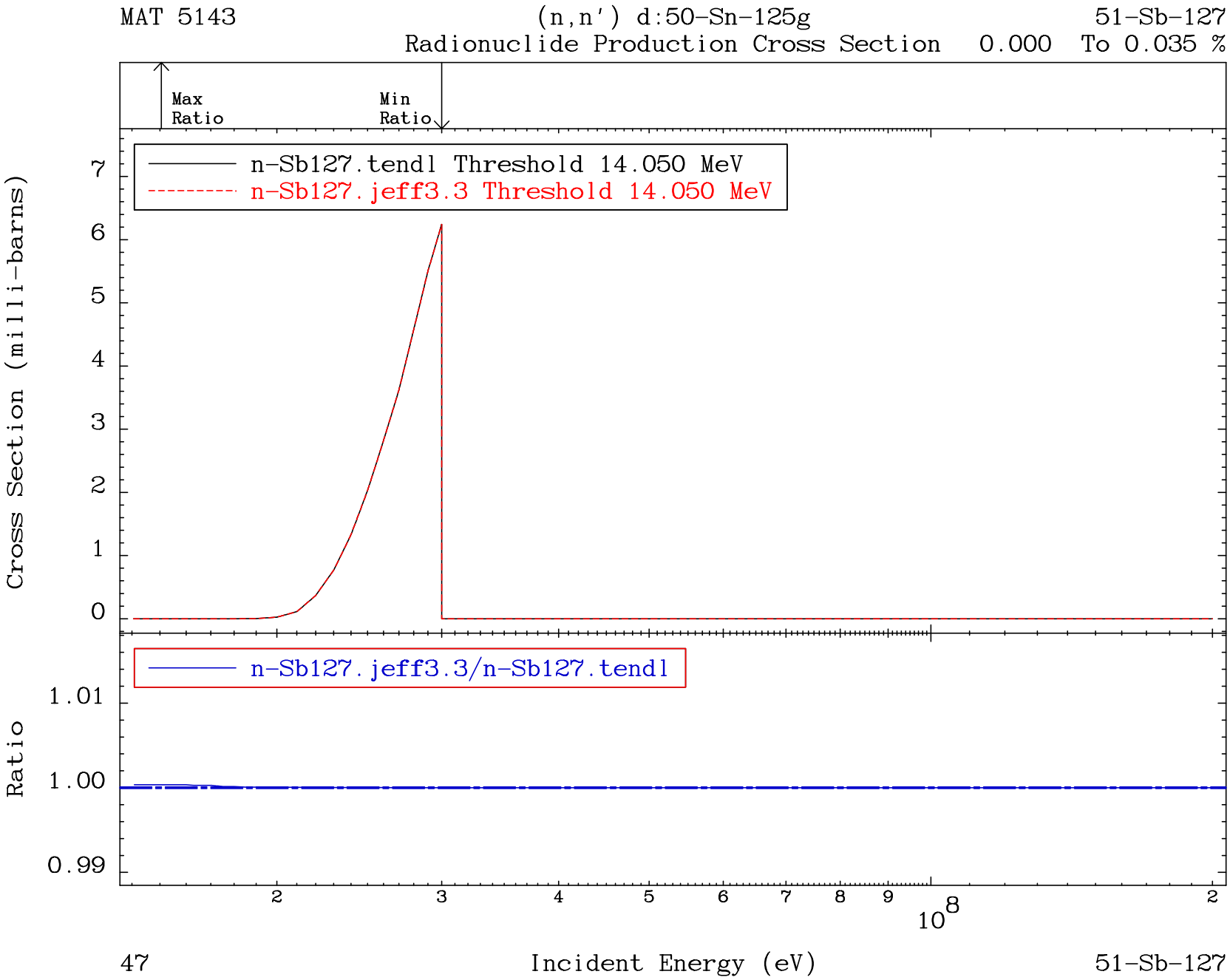

MAT 5143
(n,2n) α:49-In-122g
51-Sb-127
Radionuclide Production Cross Section -6.391 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 13.731 MeV
n-Sb127.jeff3.3 Threshold 13.731 MeV
Cross Section (micro-barns)
250
200
150
100
50
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
42
Incident Energy (eV)
51-Sb-127

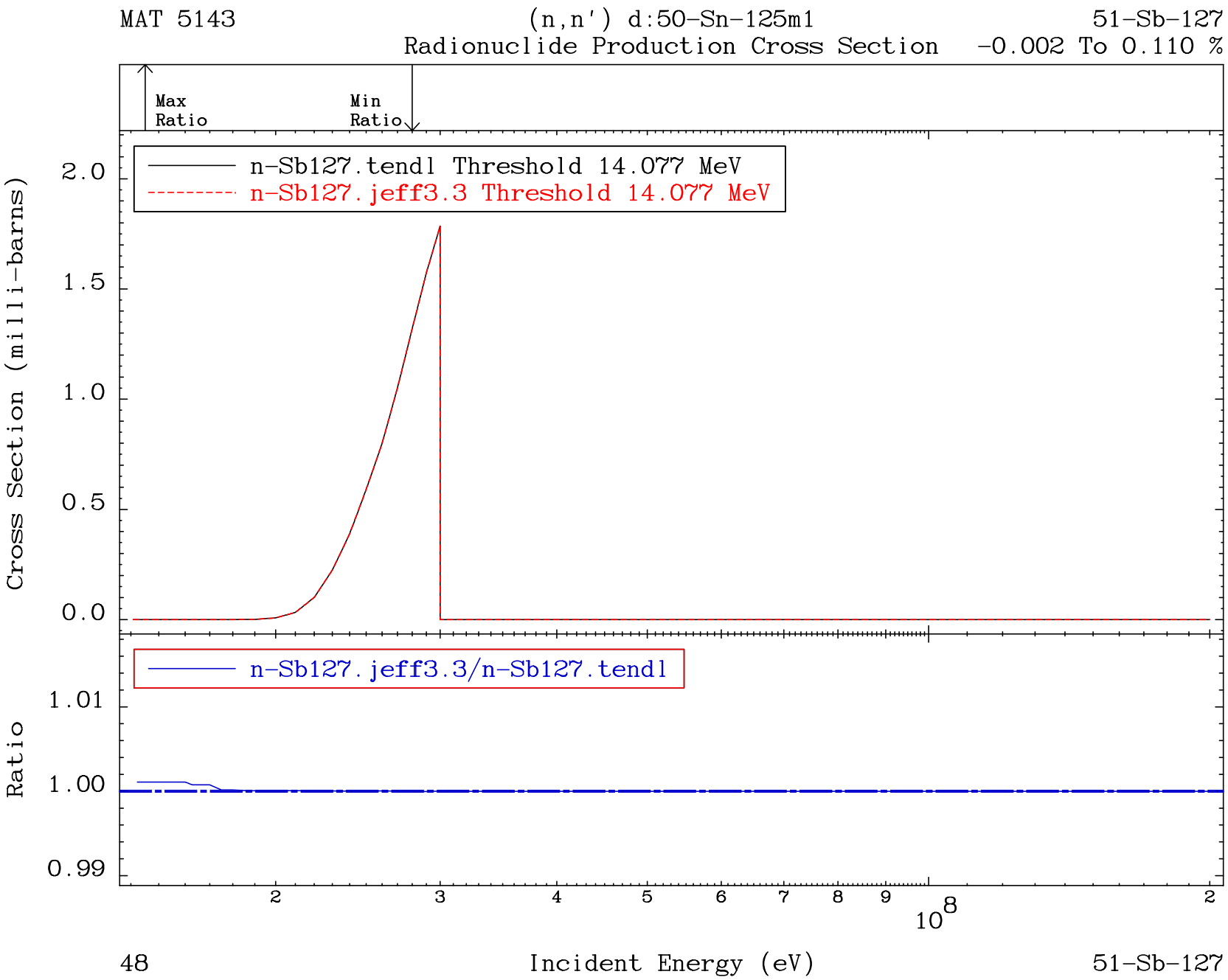

MAT 5143
(n,2n) α:49-In-122m1
51-Sb-127
Radionuclide Production Cross Section -6.406 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 13.772 MeV
n-Sb127.jeff3.3 Threshold 13.772 MeV
Cross Section (micro-barns)
350
300
250
200
150
100
50
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
43
Incident Energy (eV)
51-Sb-127

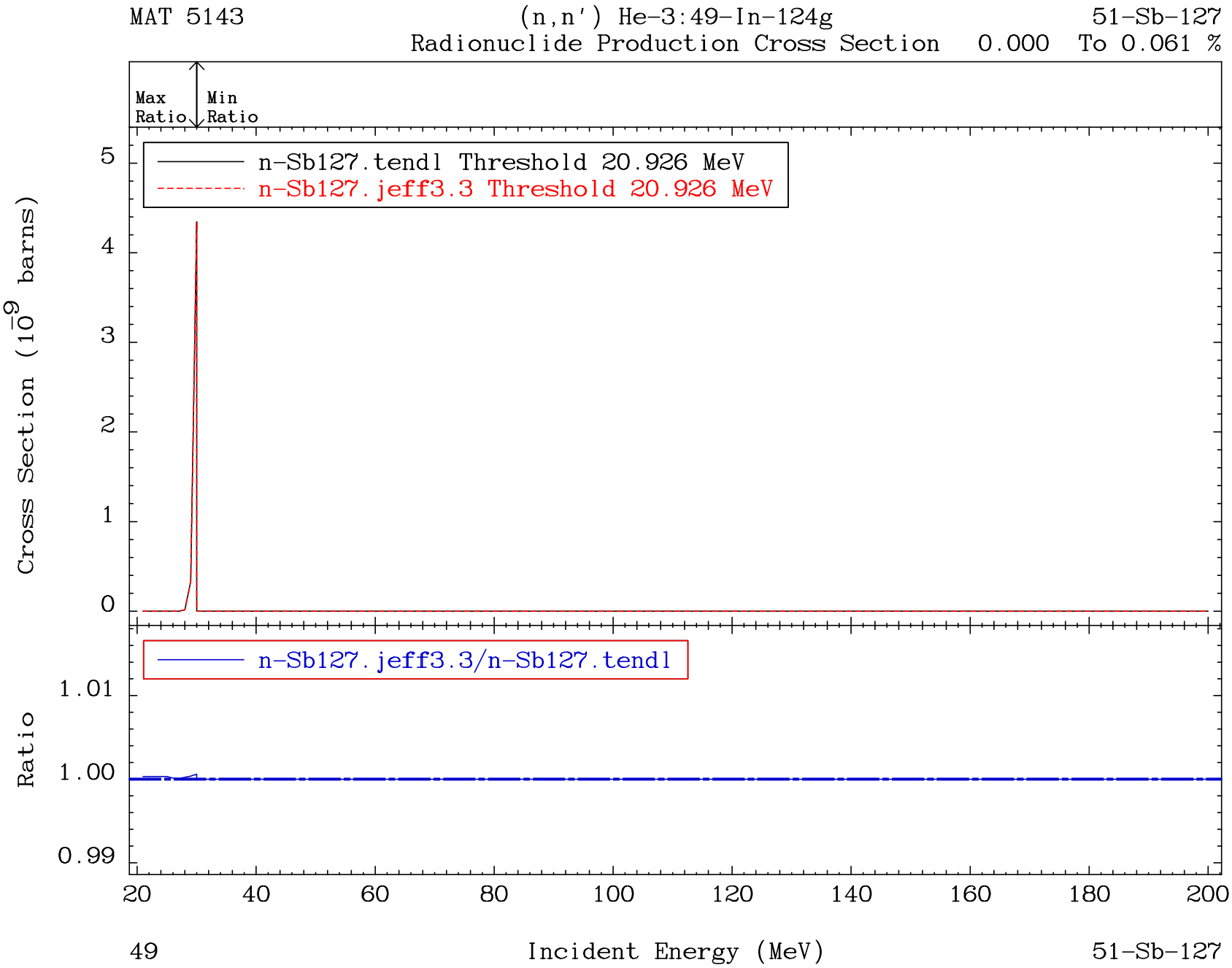

MAT 5143
(n,2n) α:49-In-122m5
51-Sb-127
Radionuclide Production Cross Section -6.434 To 7912. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 18.000 MeV
n-Sb127.jeff3.3 Threshold 14.023 MeV
Cross Section (micro-barns)
400
300
200
100
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
44
Incident Energy (eV)
51-Sb-127

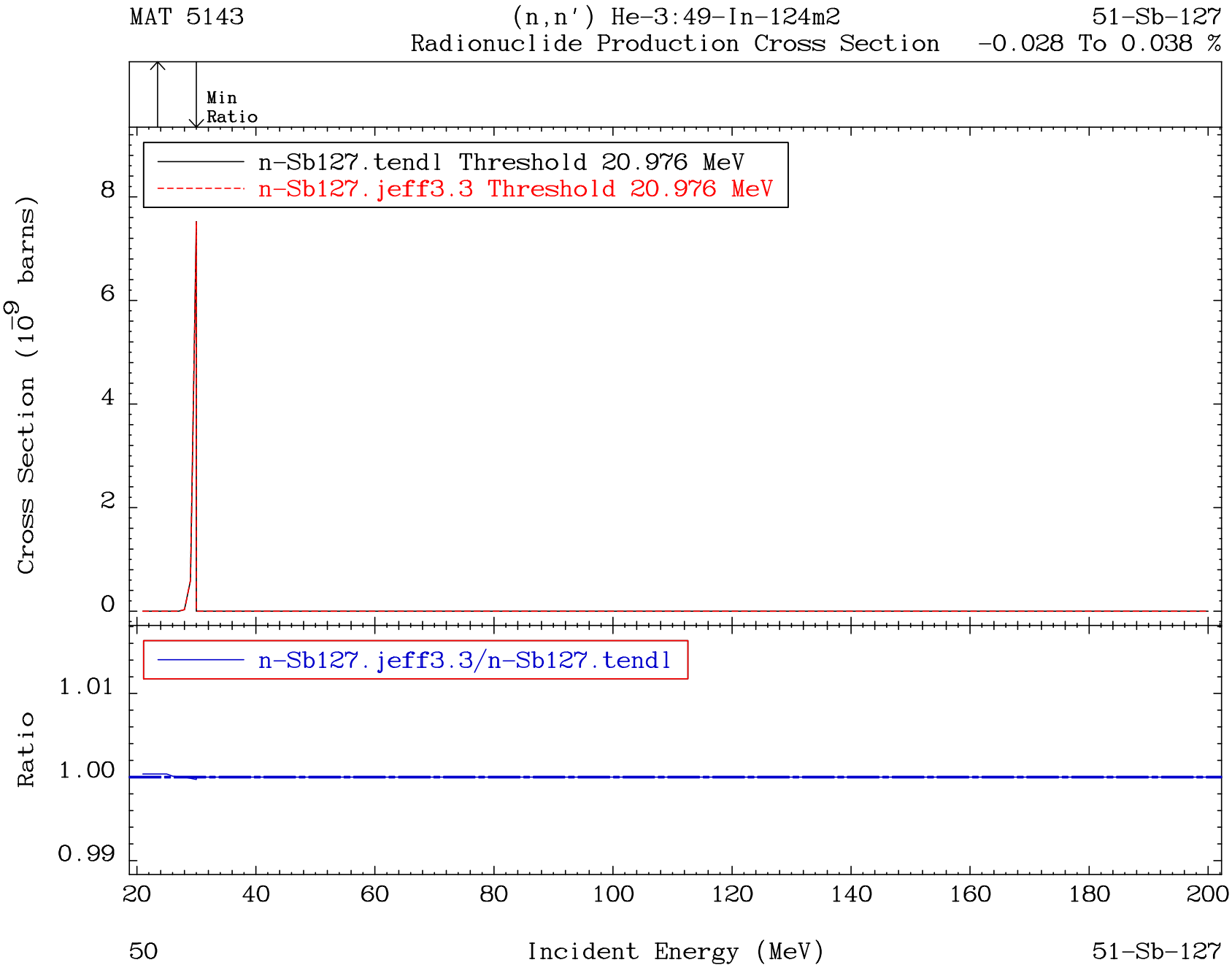

MAT 5143
(n,3n) α:49-In-121g
51-Sb-127
Radionuclide Production Cross Section
-85.26 To 9138. %
Min Ratio
Max Ratio
n-Sb127.tendl Threshold 19.586 MeV
n-Sb127.jeff3.3 Threshold 19.586 MeV
Cross Section (10^{-9} barns)
400
300
200
100
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^{2}
10^{1}
10^{0}
10^{-1}
2
3
4
5
6
7
8
9
10^{8}
2
45
Incident Energy (eV)
51-Sb-127

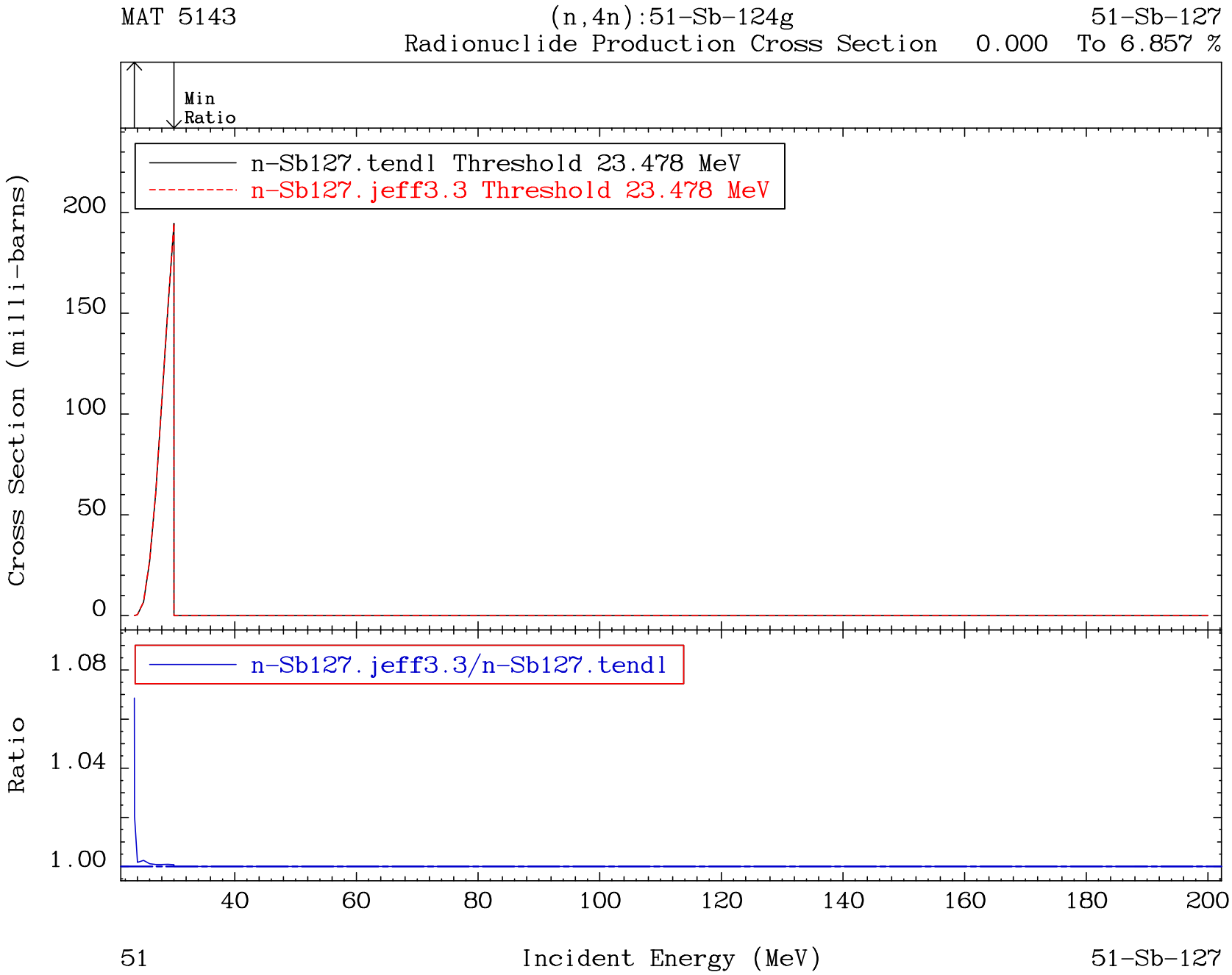

MAT 5143
(n,3n) α:49-In-121m1
51-Sb-127
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 19.902 MeV
n-Sb127.jeff3.3 Threshold 23.000 MeV
Cross Section (10^{-9} barns)
30
25
20
15
10
5
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^{2}
10^{1}
10^{0}
2
3
4
5
6
7
8
9
10^{8}
2
46
Incident Energy (eV)
51-Sb-127

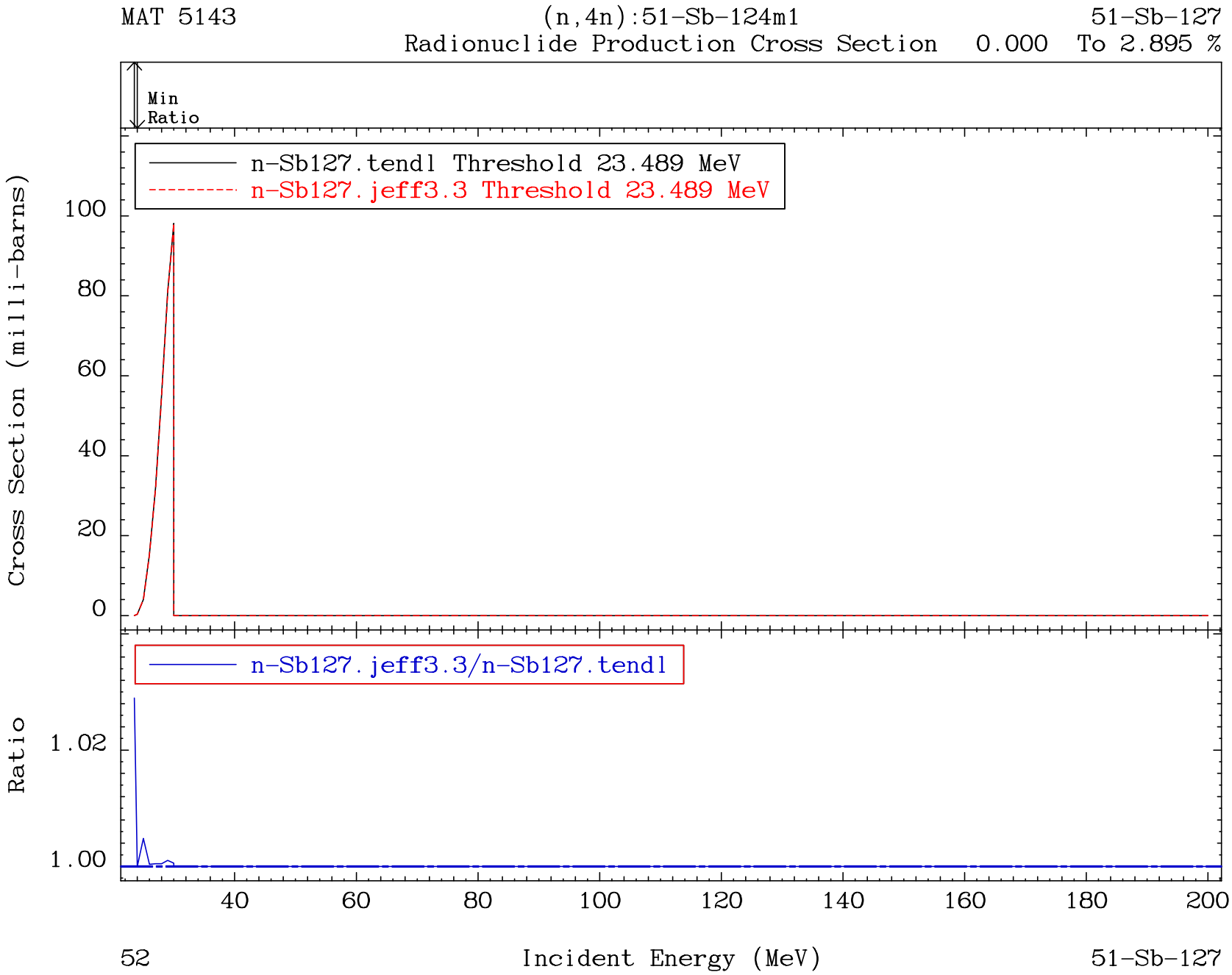

MAT 5143
(n,n') d:50-Sn-125g
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.035 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 14.050 MeV
n-Sb127.jeff3.3 Threshold 14.050 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
47
Incident Energy (eV)
51-Sb-127

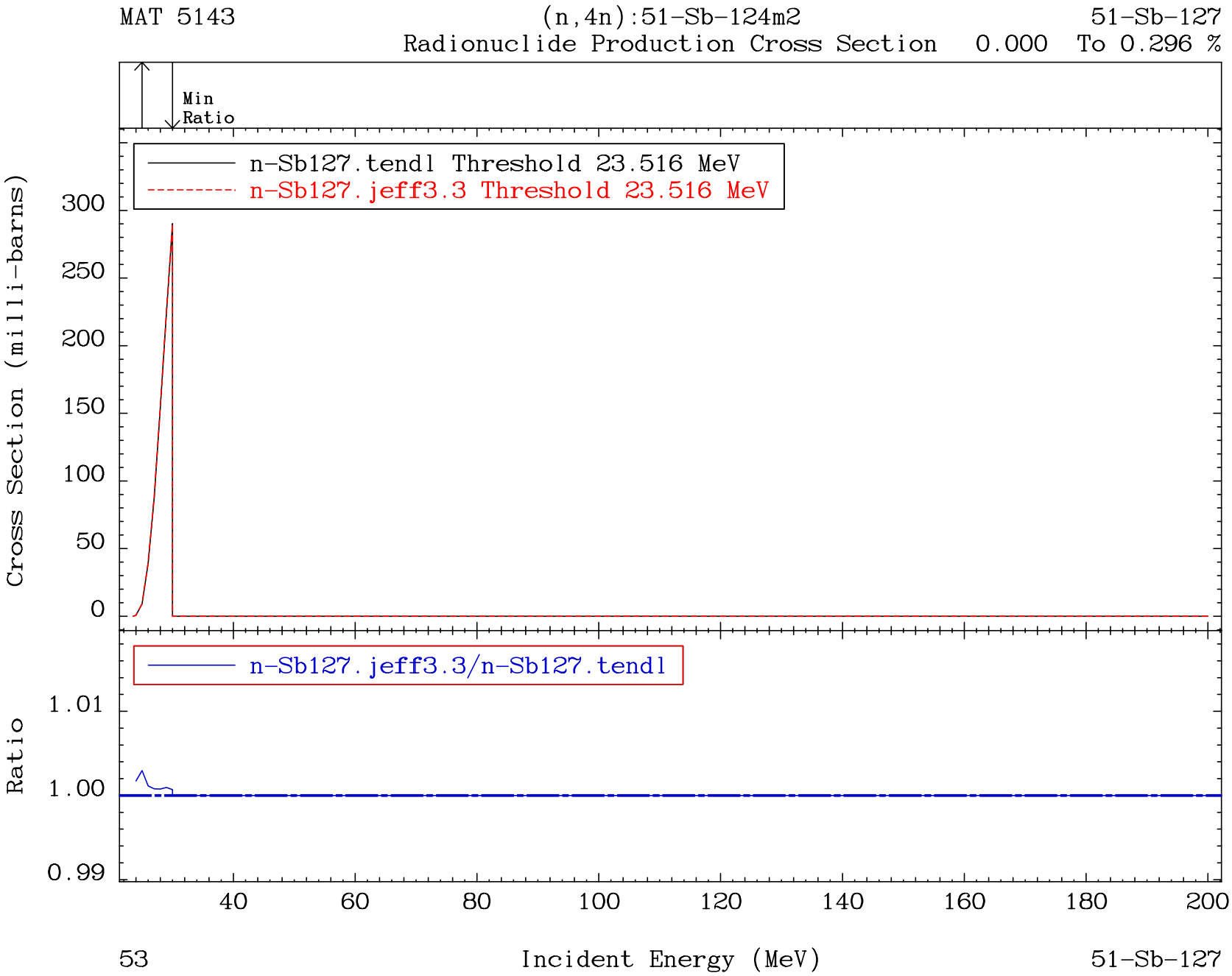

MAT 5143
(n,n') d:50-Sn-125m1
51-Sb-127
Radionuclide Production Cross Section -0.002 To 0.110 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 14.077 MeV
n-Sb127.jeff3.3 Threshold 14.077 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
48
Incident Energy (eV)
51-Sb-127

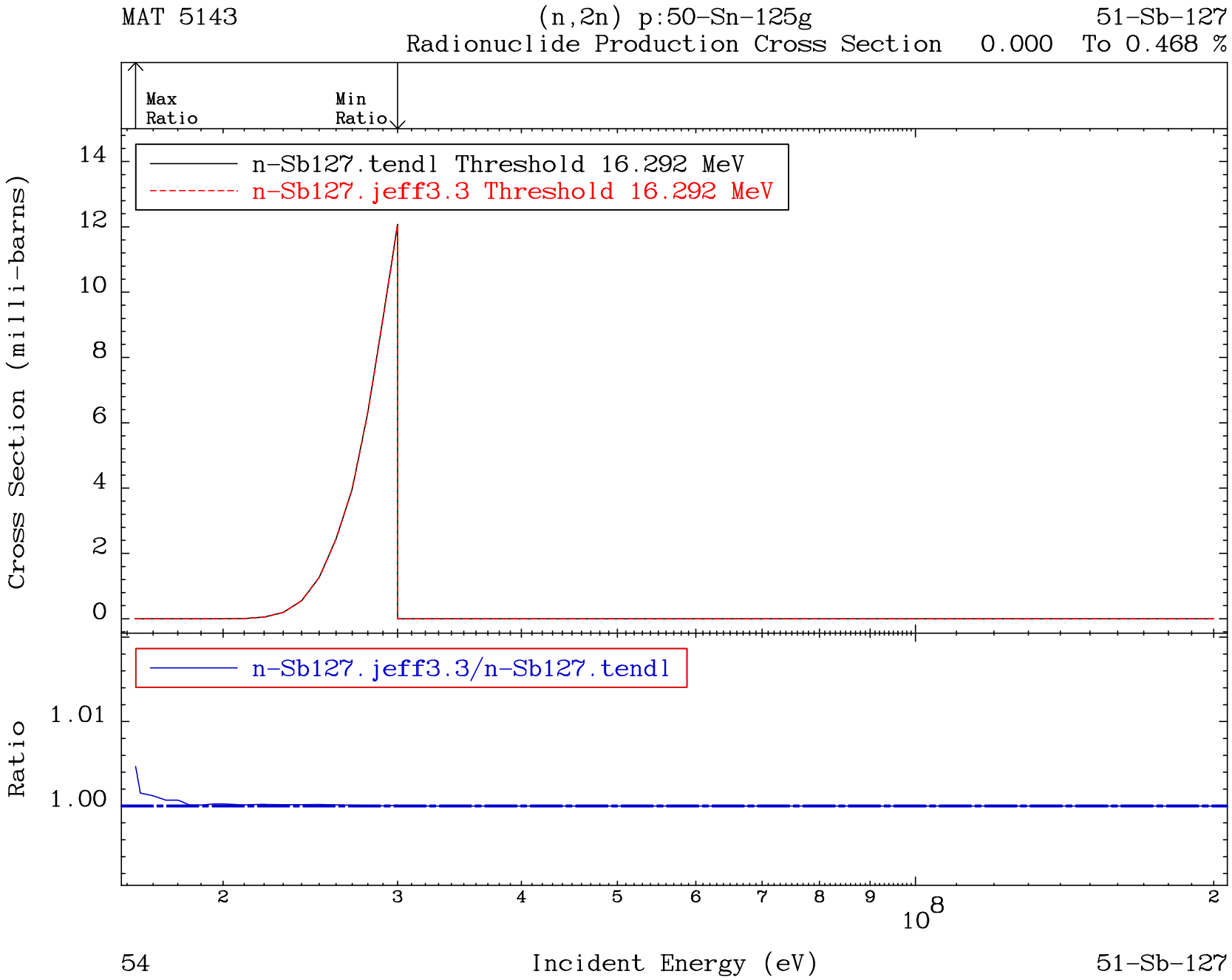

MAT 5143
(n,n') He-3:49-In-124g
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.061 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 20.926 MeV
n-Sb127.jeff3.3 Threshold 20.926 MeV
Cross Section (10^{-9} barns)
0
1
2
3
4
5
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
0.99
1.00
1.01
20
40
60
80
100
120
140
160
180
200
49
Incident Energy (MeV)
51-Sb-127

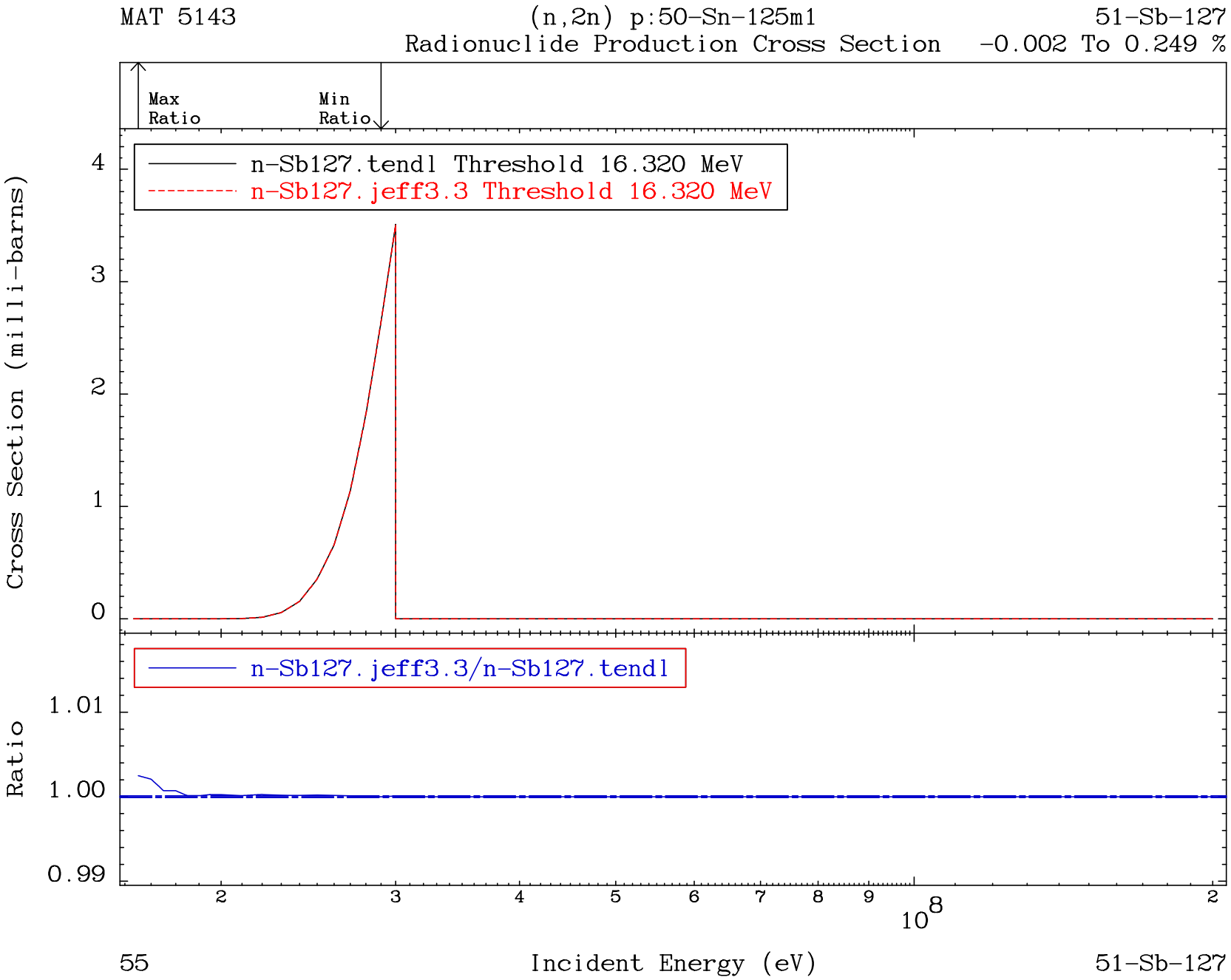

MAT 5143
(n,n') He-3:49-In-124m2
51-Sb-127
Radionuclide Production Cross Section
-0.028 To 0.038 %
Min
Ratio
n-Sb127.tendl Threshold 20.976 MeV
n-Sb127.jeff3.3 Threshold 20.976 MeV
Cross Section (10^{-9} barns)
8
6
4
2
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
50
Incident Energy (MeV)
51-Sb-127

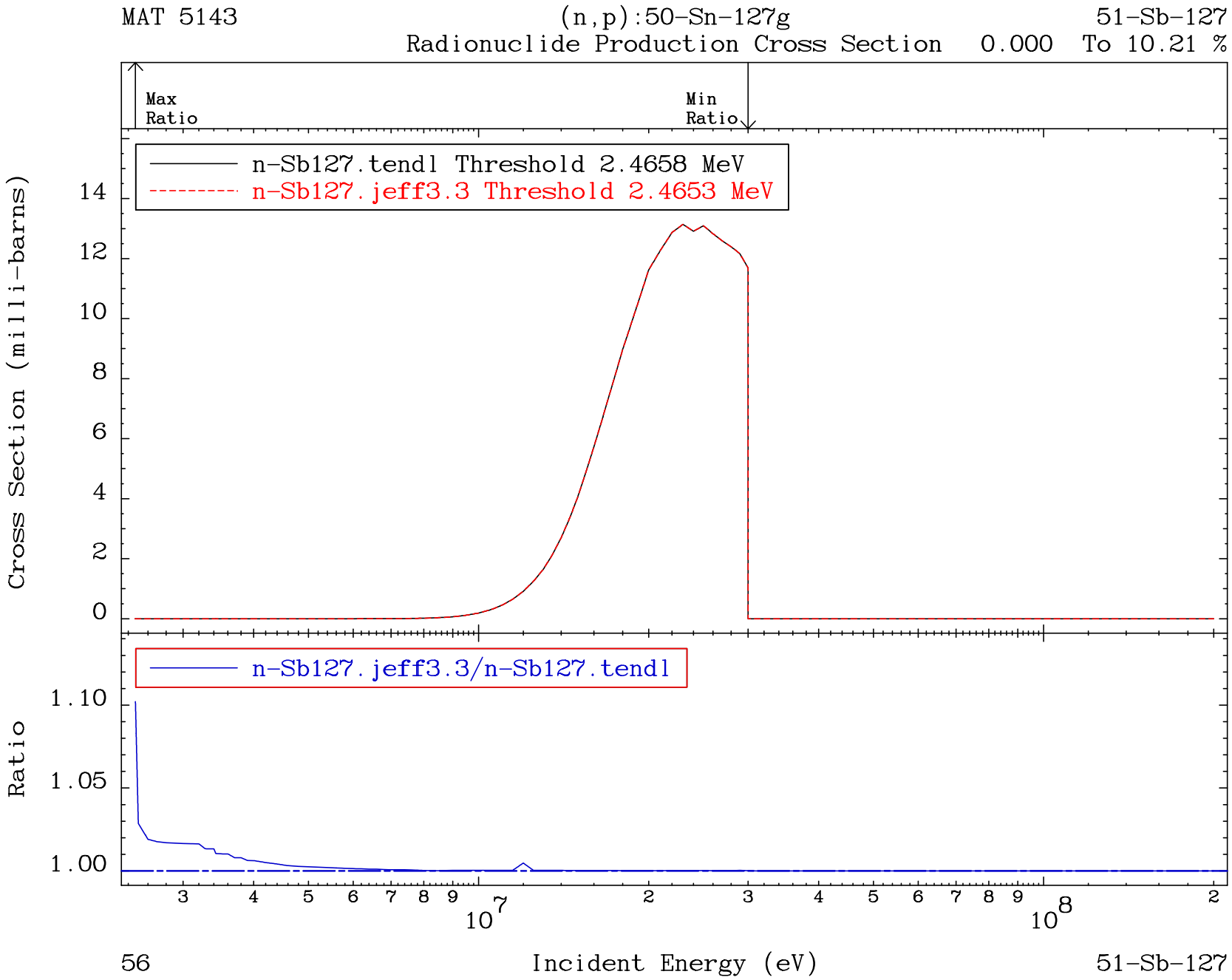

MAT 5143
(n,4n):51-Sb-124g
51-Sb-127
Radionuclide Production Cross Section 0.000 To 6.857 %
Min Ratio
n-Sb127.tendl Threshold 23.478 MeV
n-Sb127.jeff3.3 Threshold 23.478 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.08
1.04
1.00
40
60
80
100
120
140
160
180
200
51
Incident Energy (MeV)
51-Sb-127

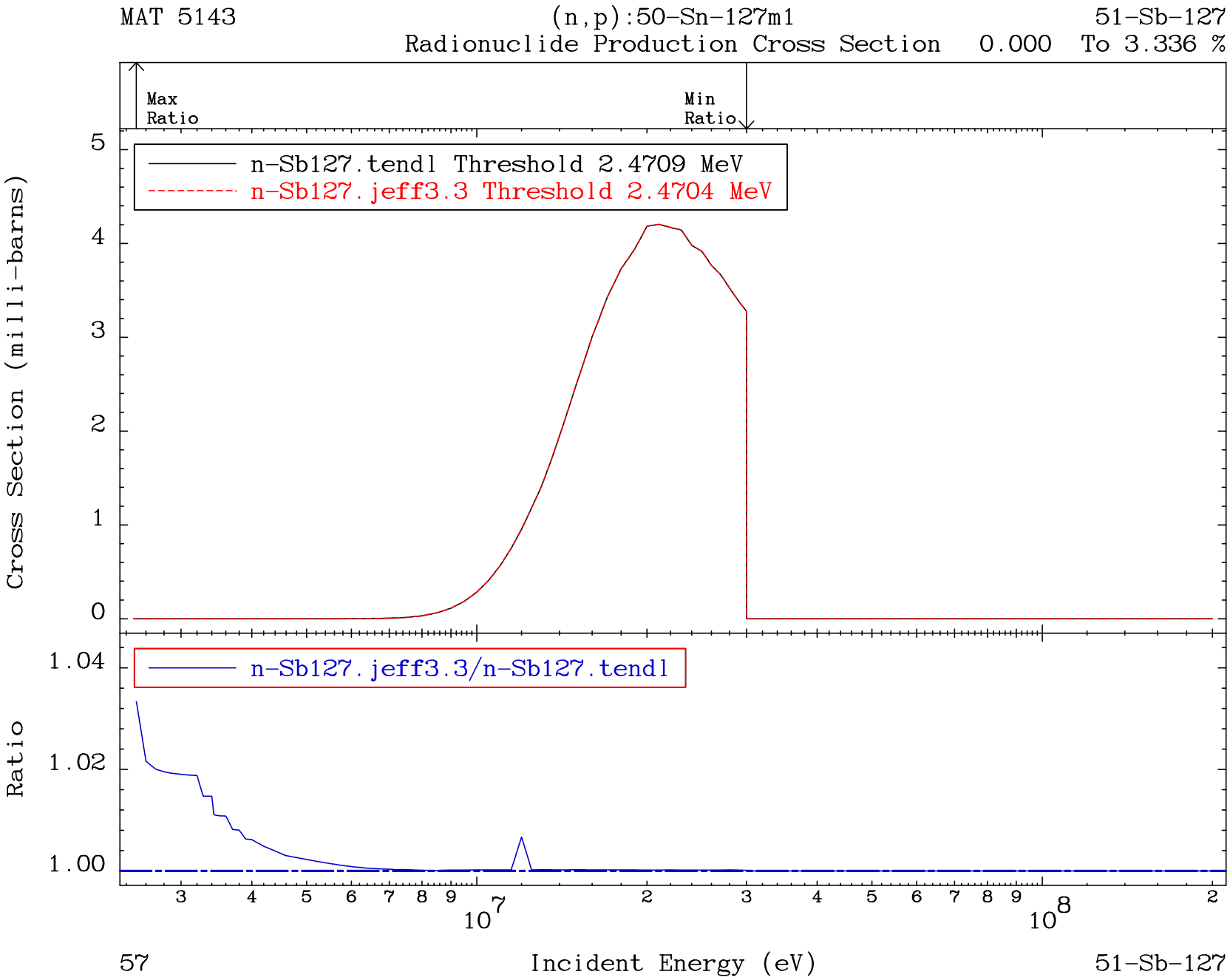

MAT 5143
(n,4n):51-Sb-124m1
51-Sb-127
Radionuclide Production Cross Section 0.000 To 2.895 %
Min Ratio
n-Sb127.tendl Threshold 23.489 MeV
n-Sb127.jeff3.3 Threshold 23.489 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.02
1.00
40
60
80
100
120
140
160
180
200
52
Incident Energy (MeV)
51-Sb-127

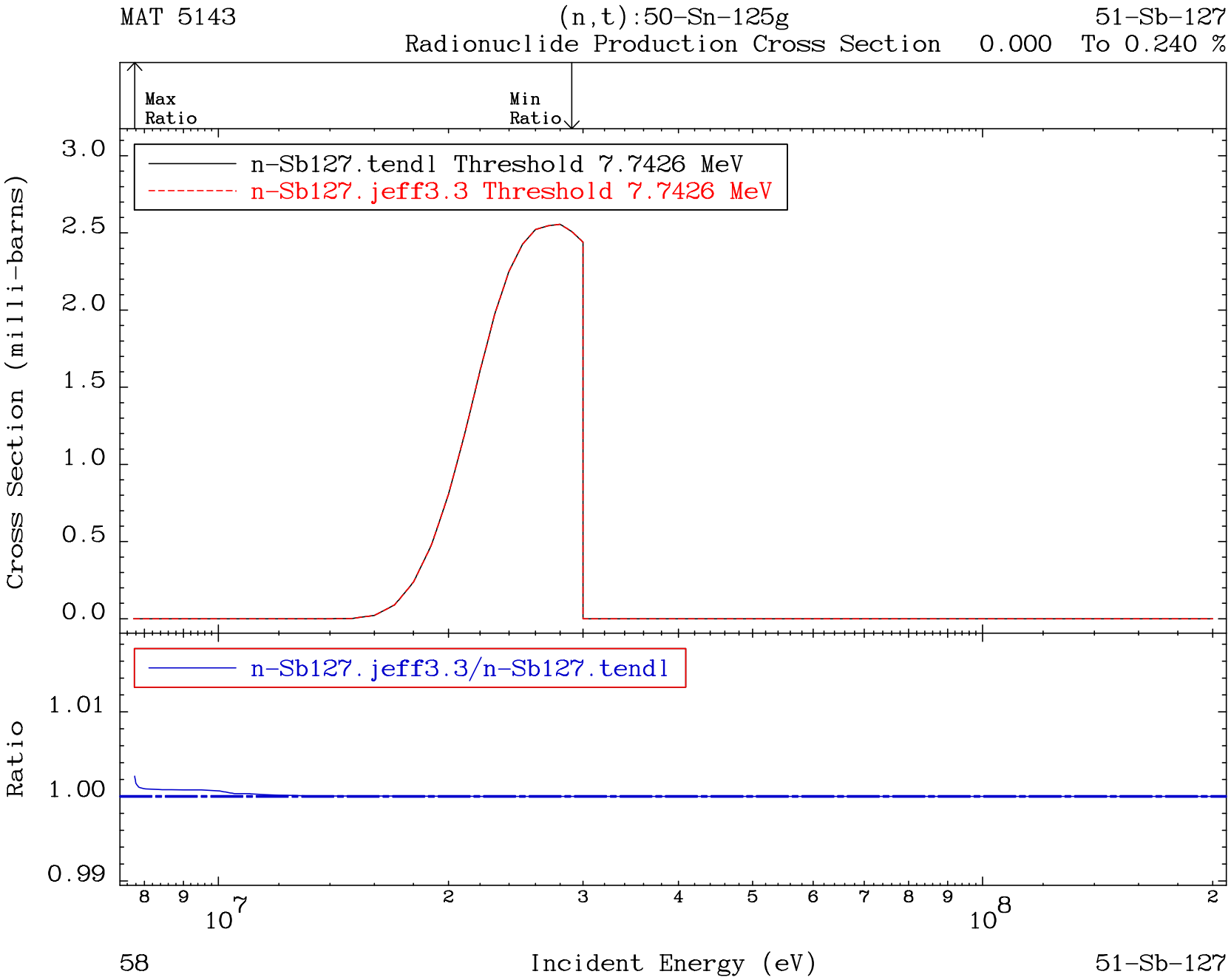

MAT 5143
(n,4n):51-Sb-124m2
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.296 %
Min Ratio
n-Sb127.tendl Threshold 23.516 MeV
n-Sb127.jeff3.3 Threshold 23.516 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
53
Incident Energy (MeV)
51-Sb-127

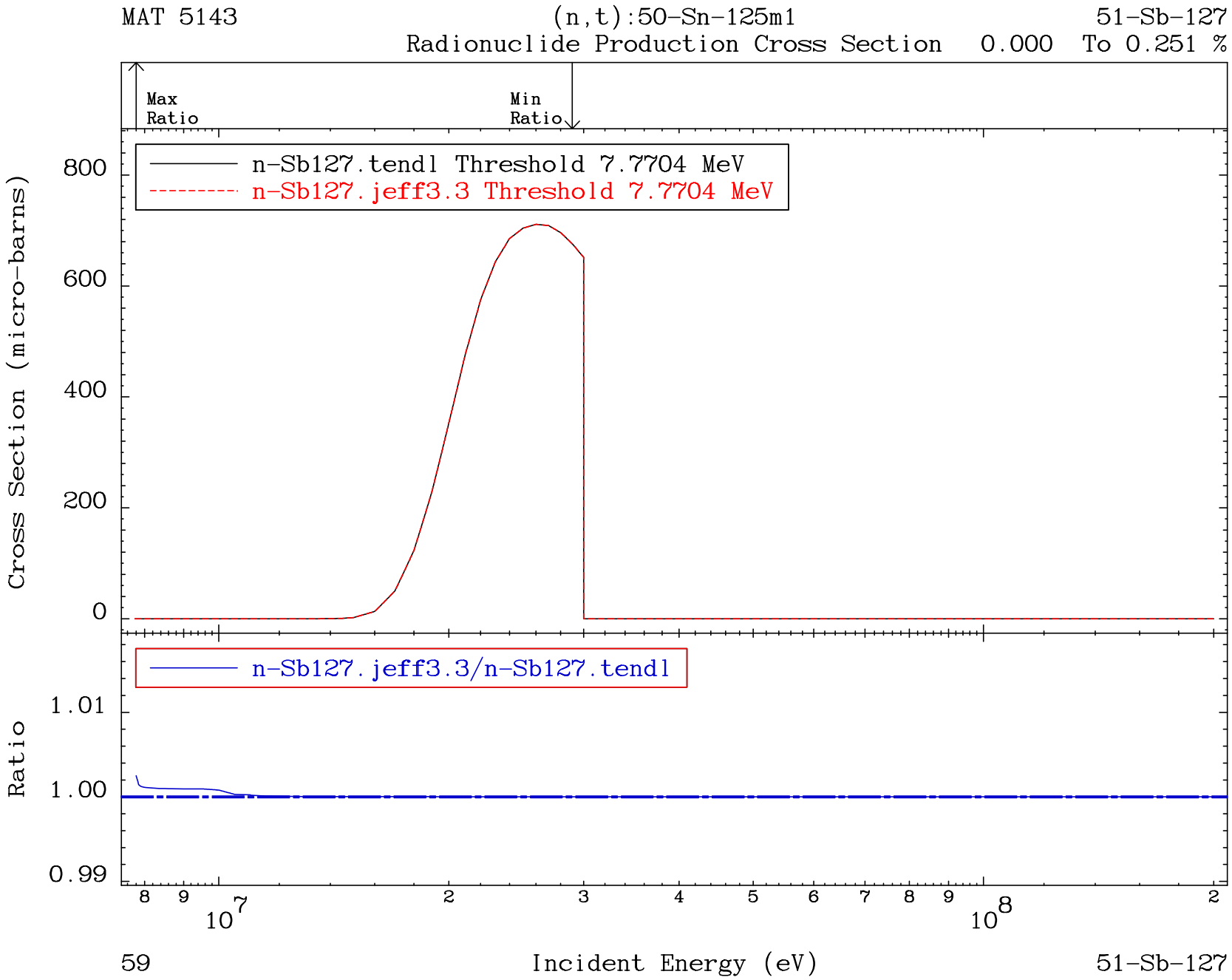

MAT 5143
(n,2n) p:50-Sn-125g
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.468 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 16.292 MeV
n-Sb127.jeff3.3 Threshold 16.292 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
51-Sb-127

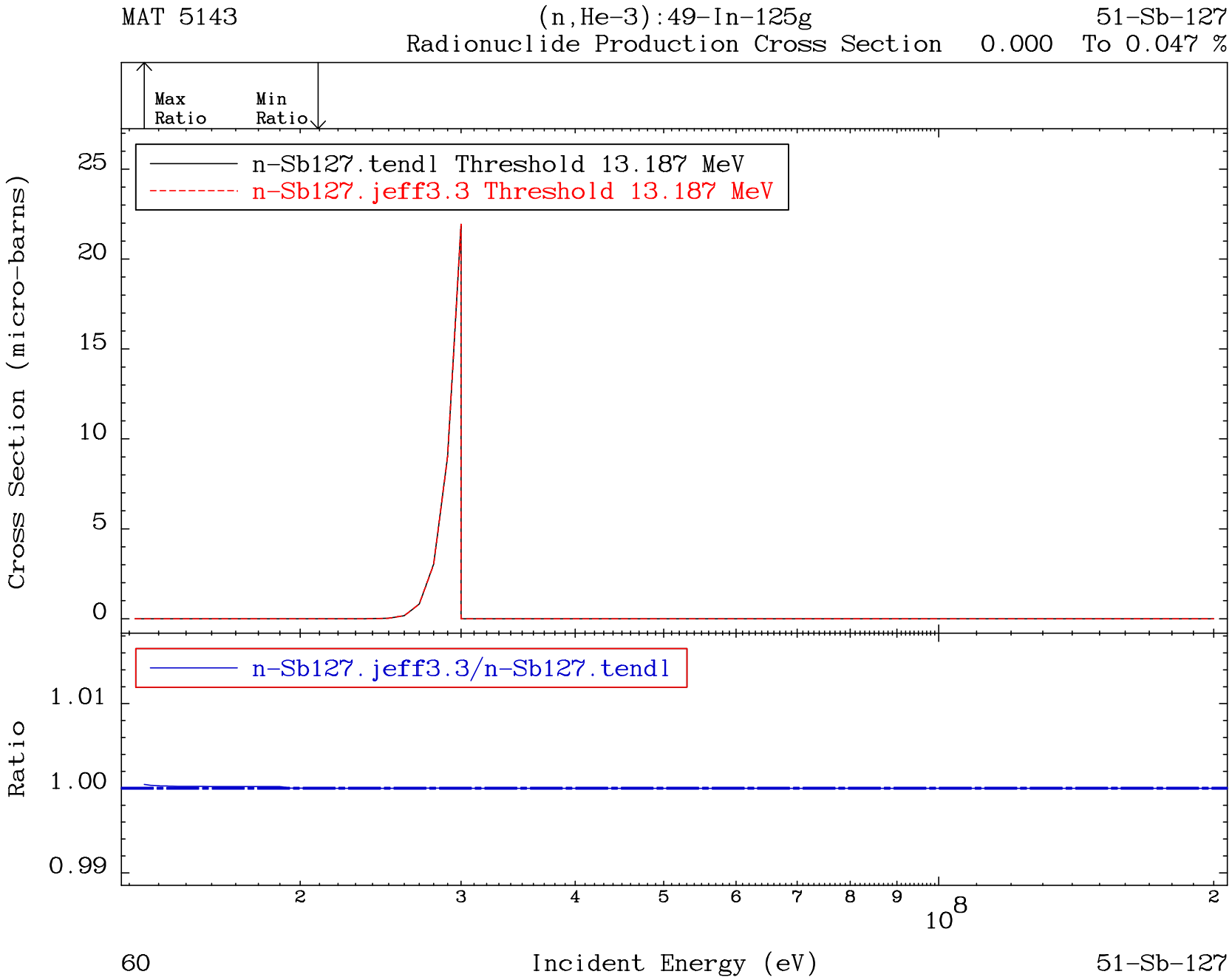

MAT 5143
(n,2n) p:50-Sn-125m1
51-Sb-127
Radionuclide Production Cross Section
-0.002 To 0.249 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 16.320 MeV
n-Sb127.jeff3.3 Threshold 16.320 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
55
Incident Energy (eV)
51-Sb-127

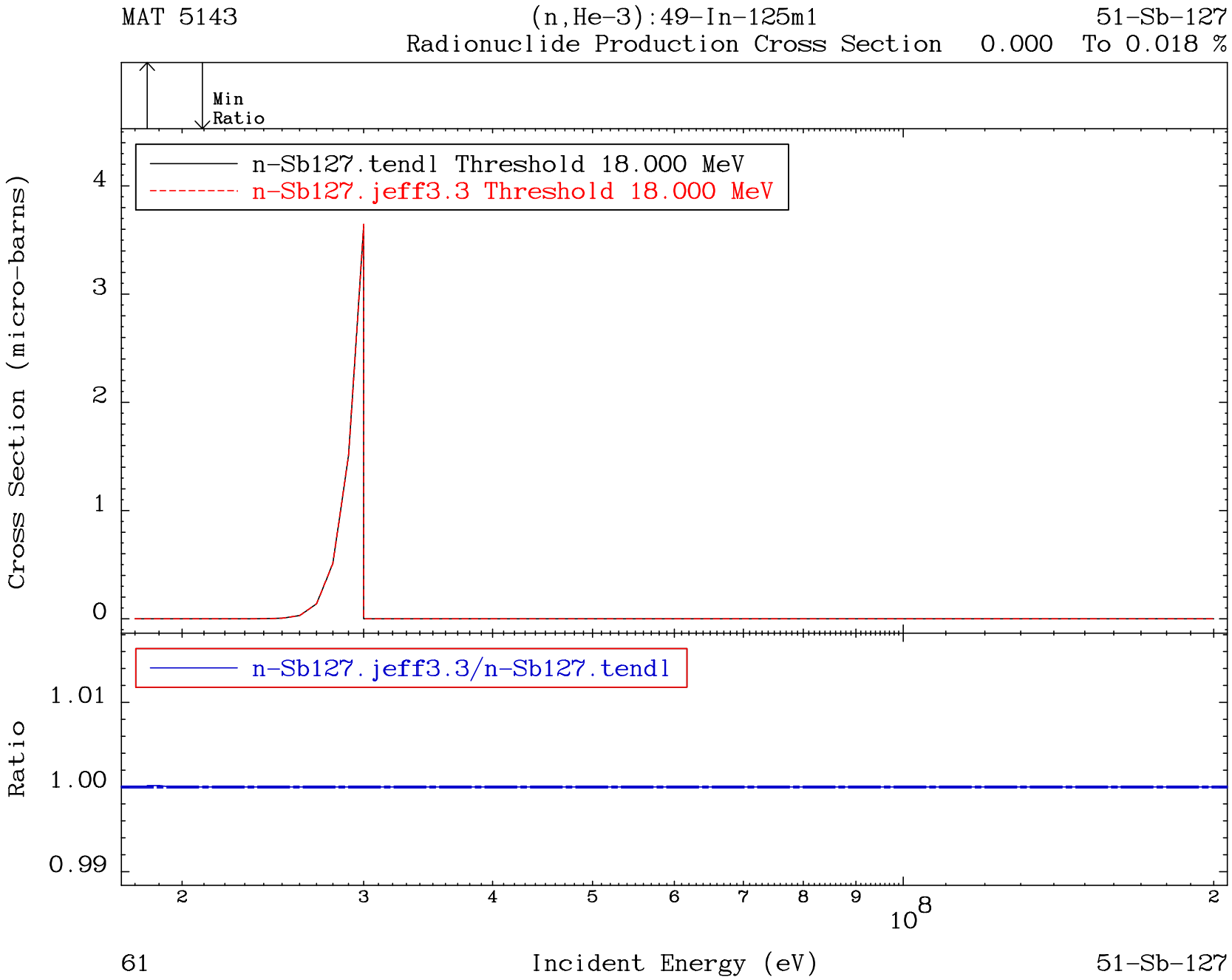

MAT 5143
(n,p):50-Sn-127g
51-Sb-127
Radionuclide Production Cross Section 0.000 To 10.21 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 2.4658 MeV
n-Sb127.jeff3.3 Threshold 2.4653 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.00
1.05
1.10
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
56
Incident Energy (eV)
51-Sb-127

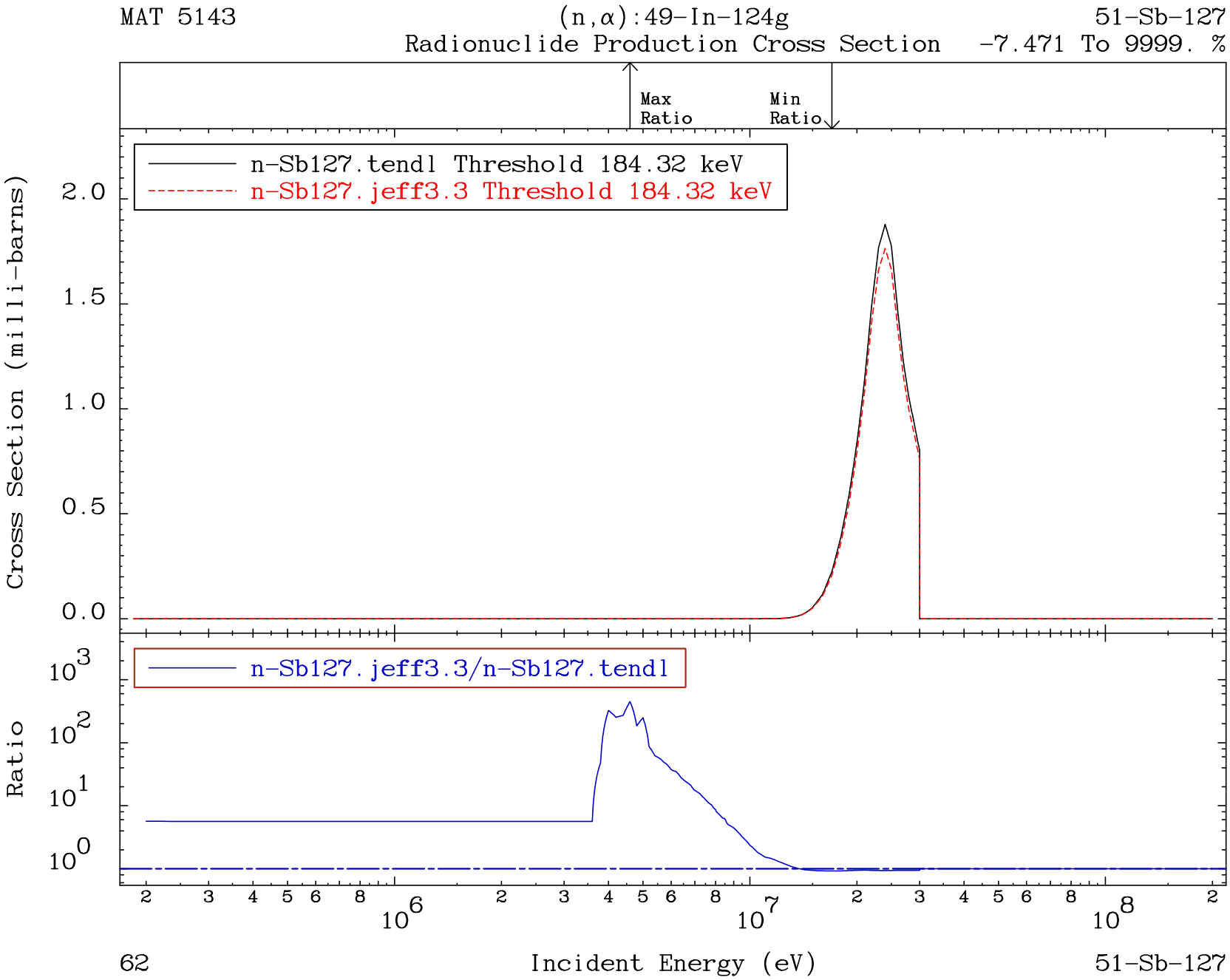

MAT 5143
(n,p):50-Sn-127m1
51-Sb-127
Radionuclide Production Cross Section 0.000 To 3.336 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 2.4709 MeV
n-Sb127.jeff3.3 Threshold 2.4704 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.00
1.02
1.04
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
57
Incident Energy (eV)
51-Sb-127

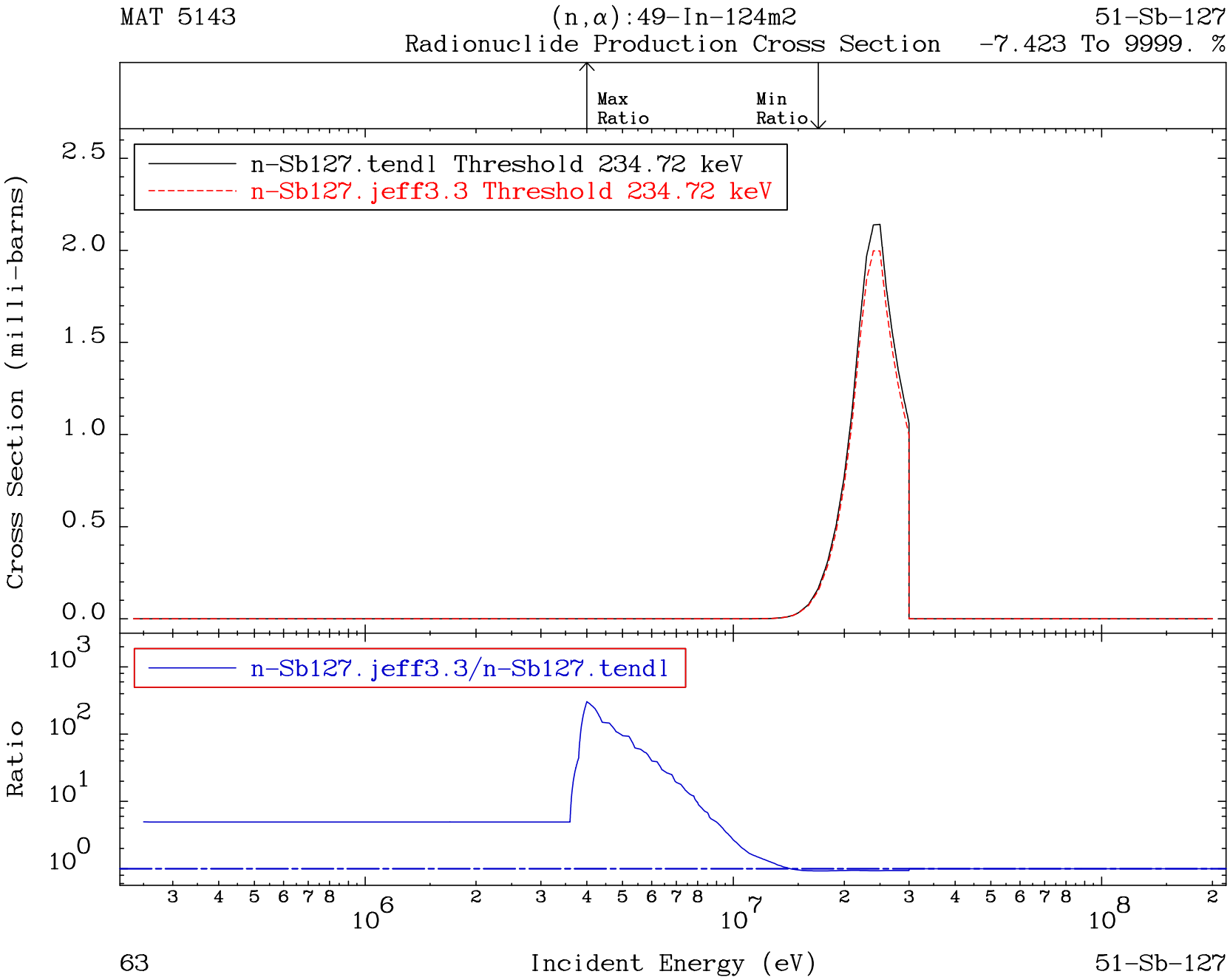

MAT 5143
(n,t):50-Sn-125g
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.240 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 7.7426 MeV
n-Sb127.jeff3.3 Threshold 7.7426 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
58
Incident Energy (eV)
51-Sb-127

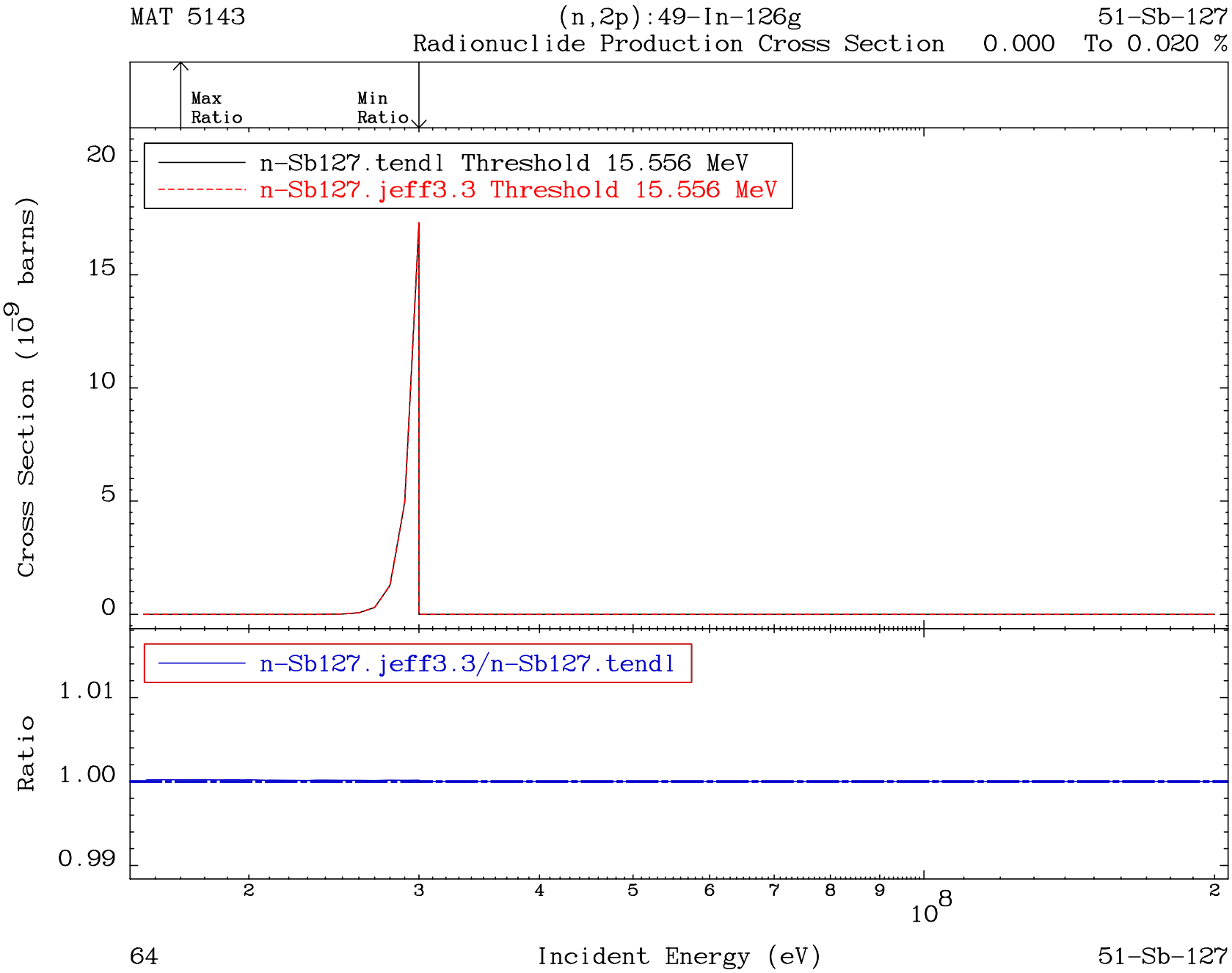

MAT 5143
(n,t):50-Sn-125m1
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.251 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 7.7704 MeV
n-Sb127.jeff3.3 Threshold 7.7704 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
59
Incident Energy (eV)
51-Sb-127

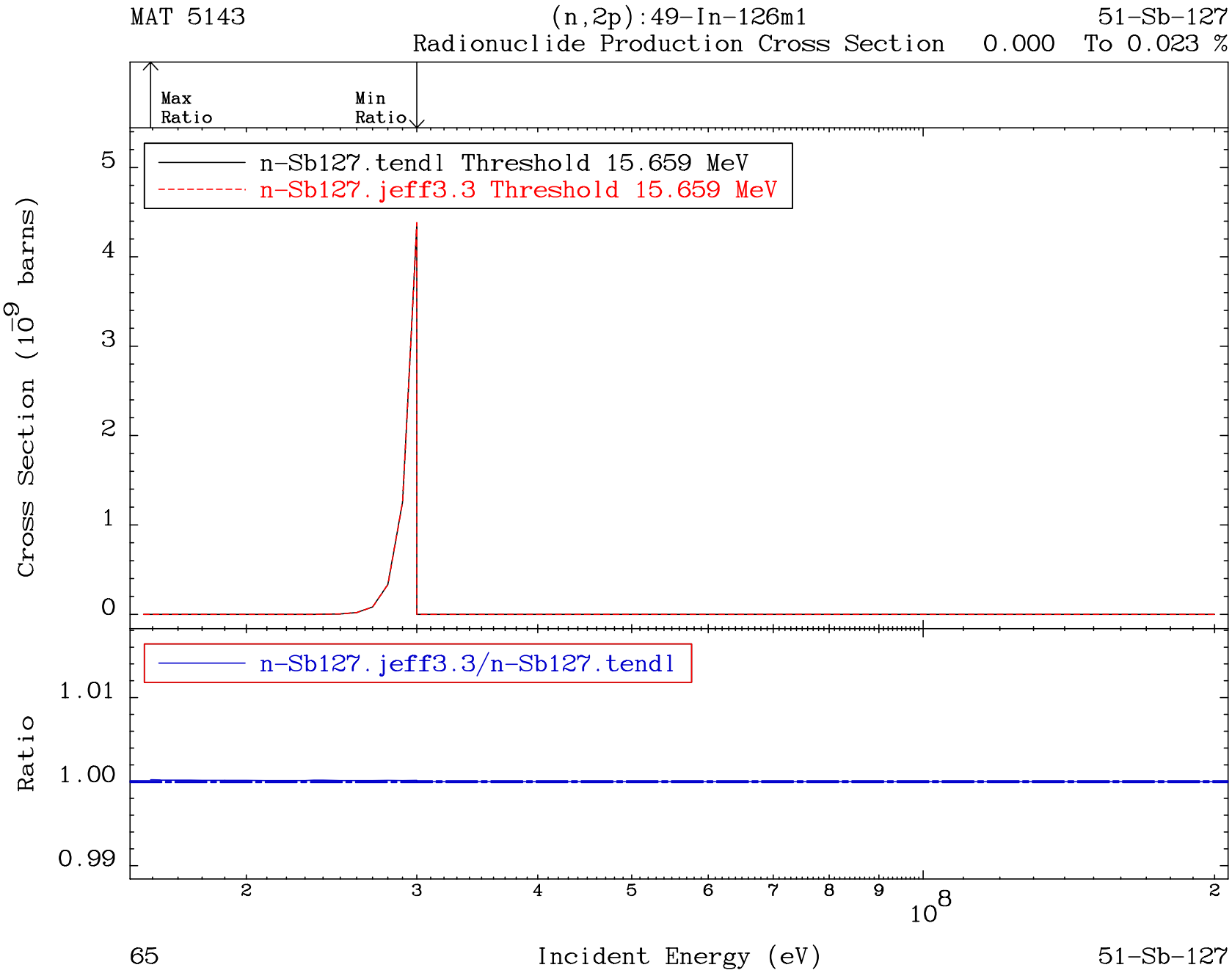

MAT 5143
(n,He-3):49-In-125g
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.047 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 13.187 MeV
n-Sb127.jeff3.3 Threshold 13.187 MeV
Cross Section (micro-barns)
25
20
15
10
5
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
60
Incident Energy (eV)
51-Sb-127


MAT 5143
(n,He-3):49-In-125m1
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.018 %
Min
Ratio
n-Sb127.tendl Threshold 18.000 MeV
n-Sb127.jeff3.3 Threshold 18.000 MeV
Cross Section (micro-barns)
0
1
2
3
4
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
61
Incident Energy (eV)
51-Sb-127


MAT 5143
(n,α):49-In-124g
51-Sb-127
Radionuclide Production Cross Section
-7.471 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 184.32 keV
n-Sb127.jeff3.3 Threshold 184.32 keV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^3
10^2
10^1
10^0
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
62
Incident Energy (eV)
51-Sb-127


MAT 5143
(n,α):49-In-124m2
51-Sb-127
Radionuclide Production Cross Section -7.423 To 9999. %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 234.72 keV
n-Sb127.jeff3.3 Threshold 234.72 keV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
10^3
10^2
10^1
10^0
3 4 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
63
Incident Energy (eV)
51-Sb-127


MAT 5143
(n,2p):49-In-126g
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.020 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 15.556 MeV
n-Sb127.jeff3.3 Threshold 15.556 MeV
Cross Section (10^{-9} barns)
20
15
10
5
0
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
51-Sb-127


MAT 5143
(n,2p):49-In-126m1
51-Sb-127
Radionuclide Production Cross Section 0.000 To 0.023 %
Max Ratio
Min Ratio
n-Sb127.tendl Threshold 15.659 MeV
n-Sb127.jeff3.3 Threshold 15.659 MeV
Cross Section (10^{-9} barns)
0
1
2
3
4
5
n-Sb127.jeff3.3/n-Sb127.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
65
Incident Energy (eV)
51-Sb-127