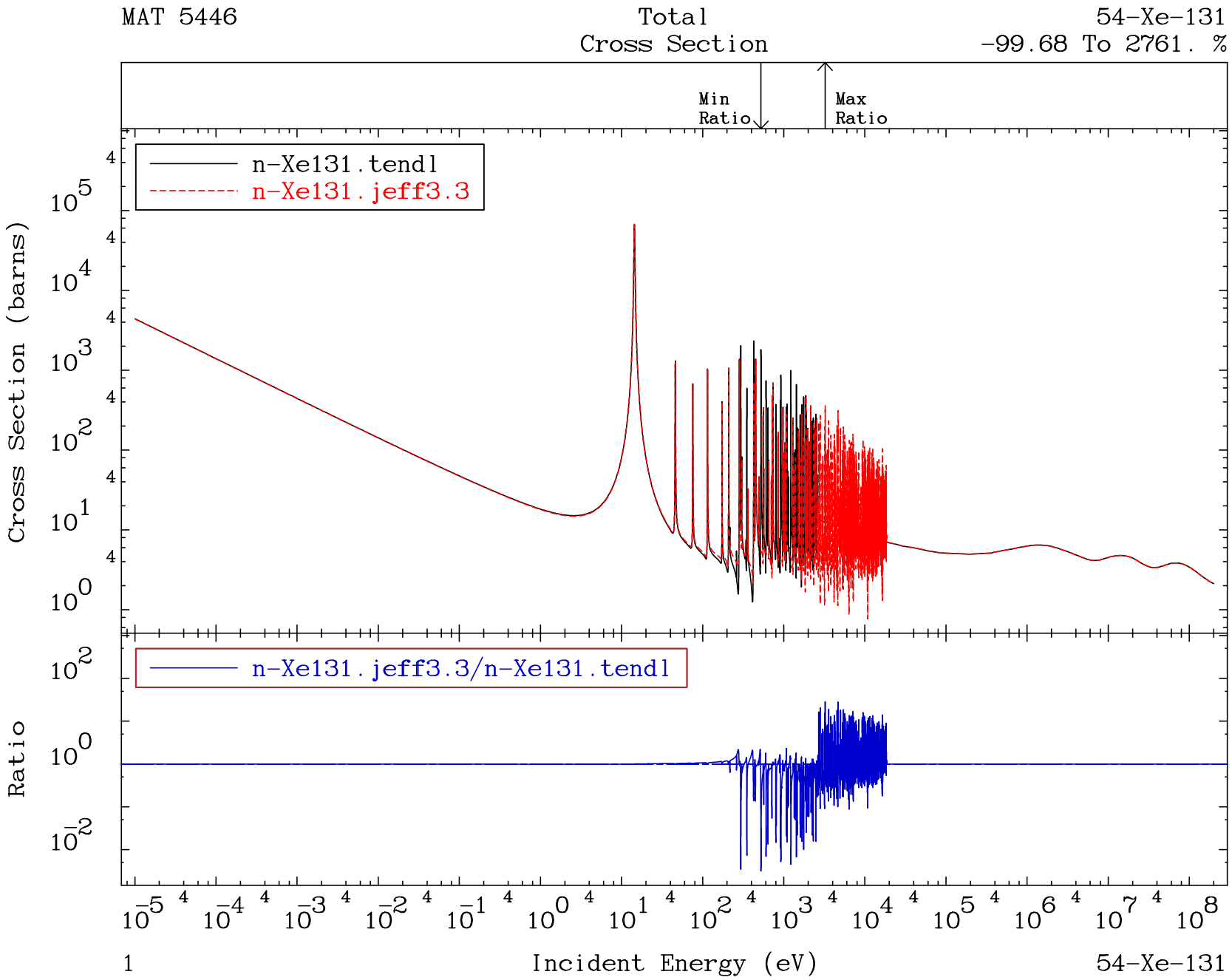
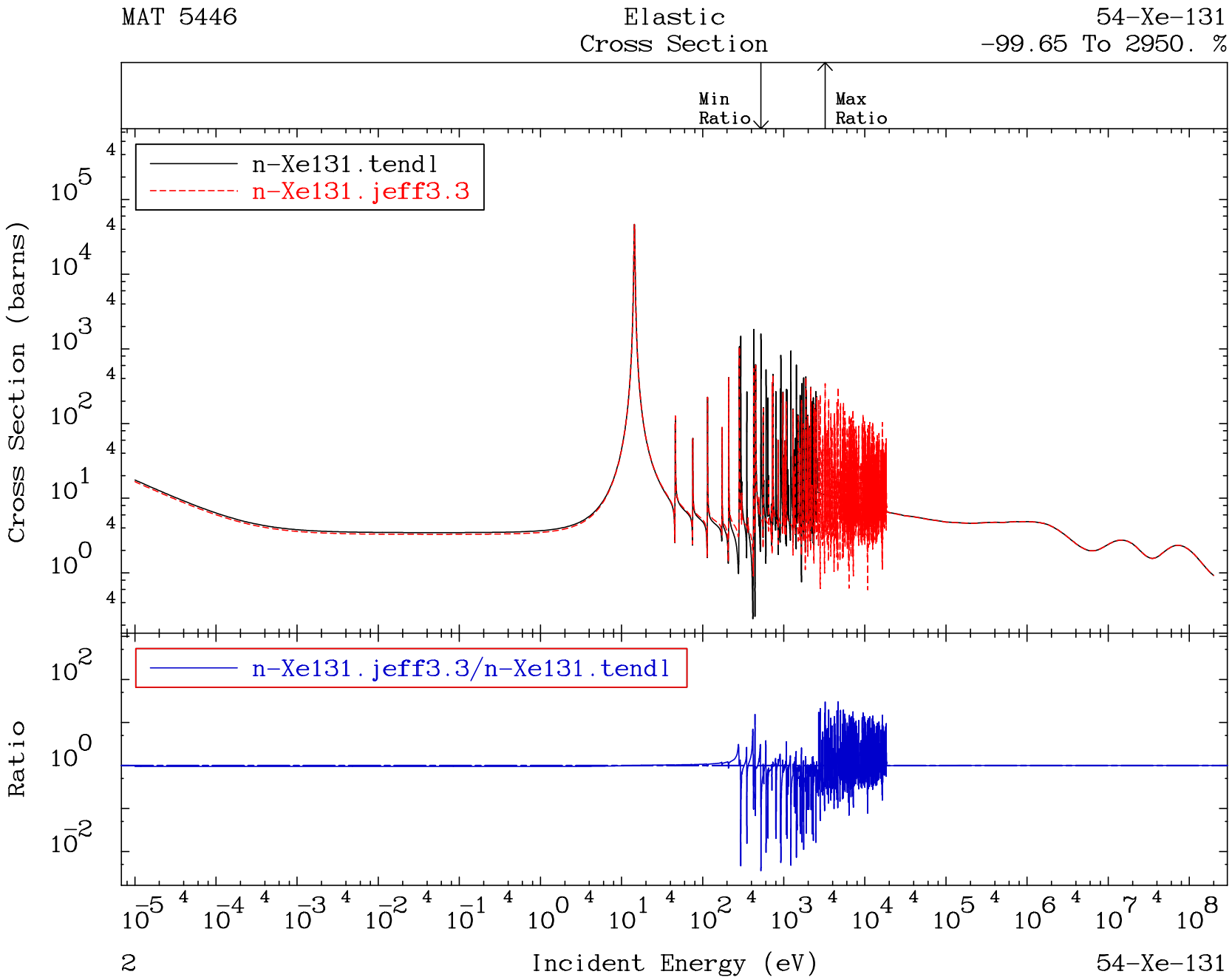
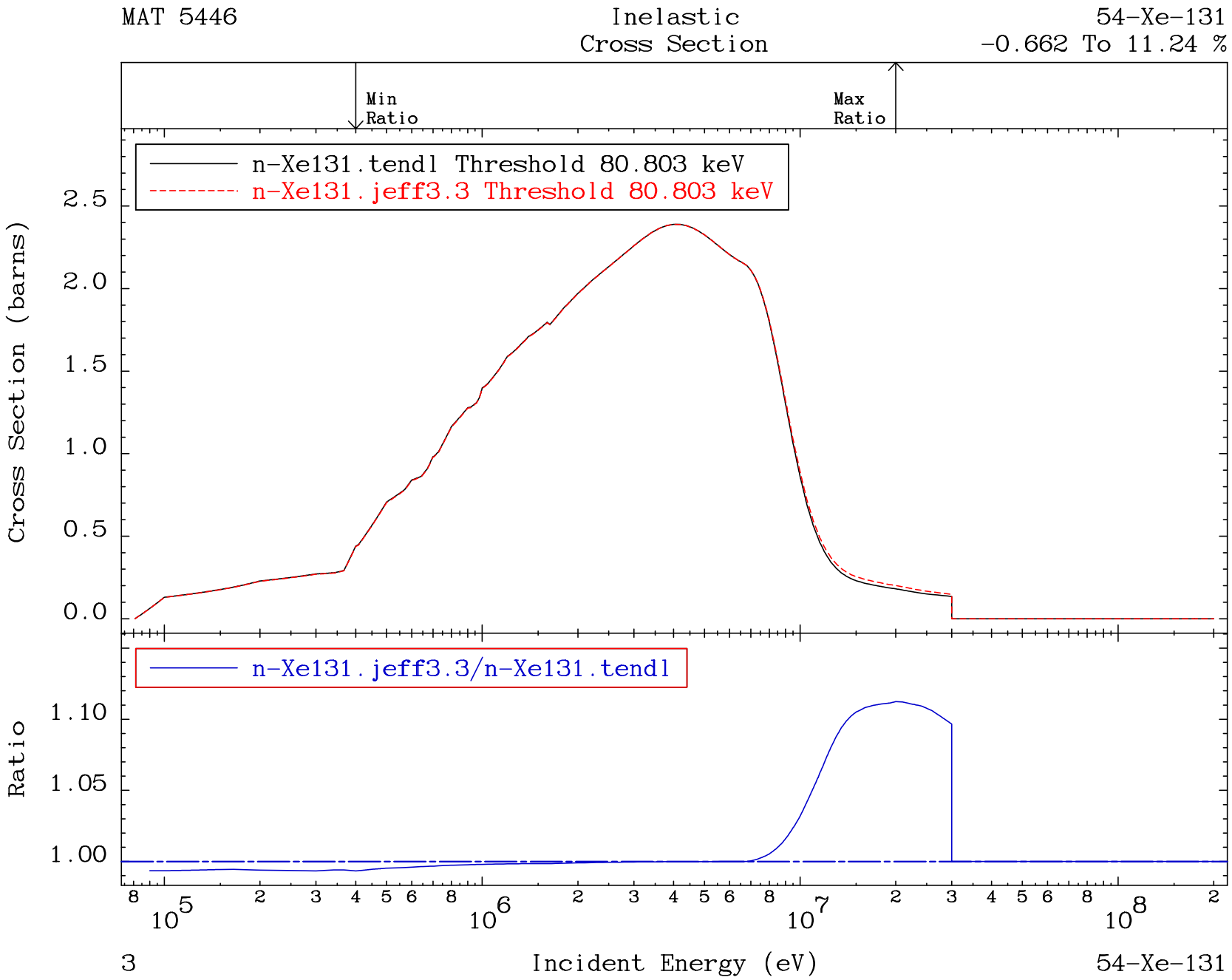
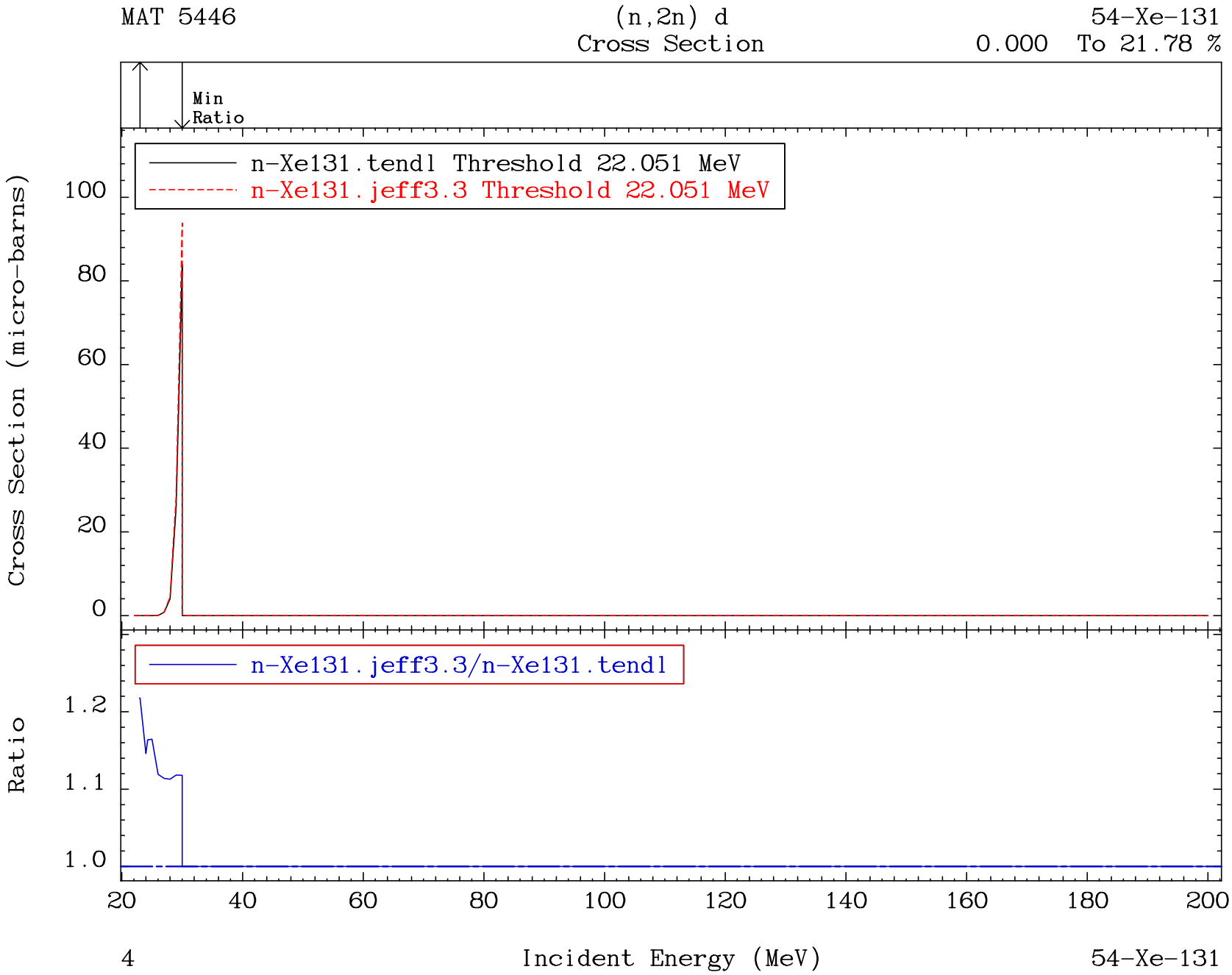
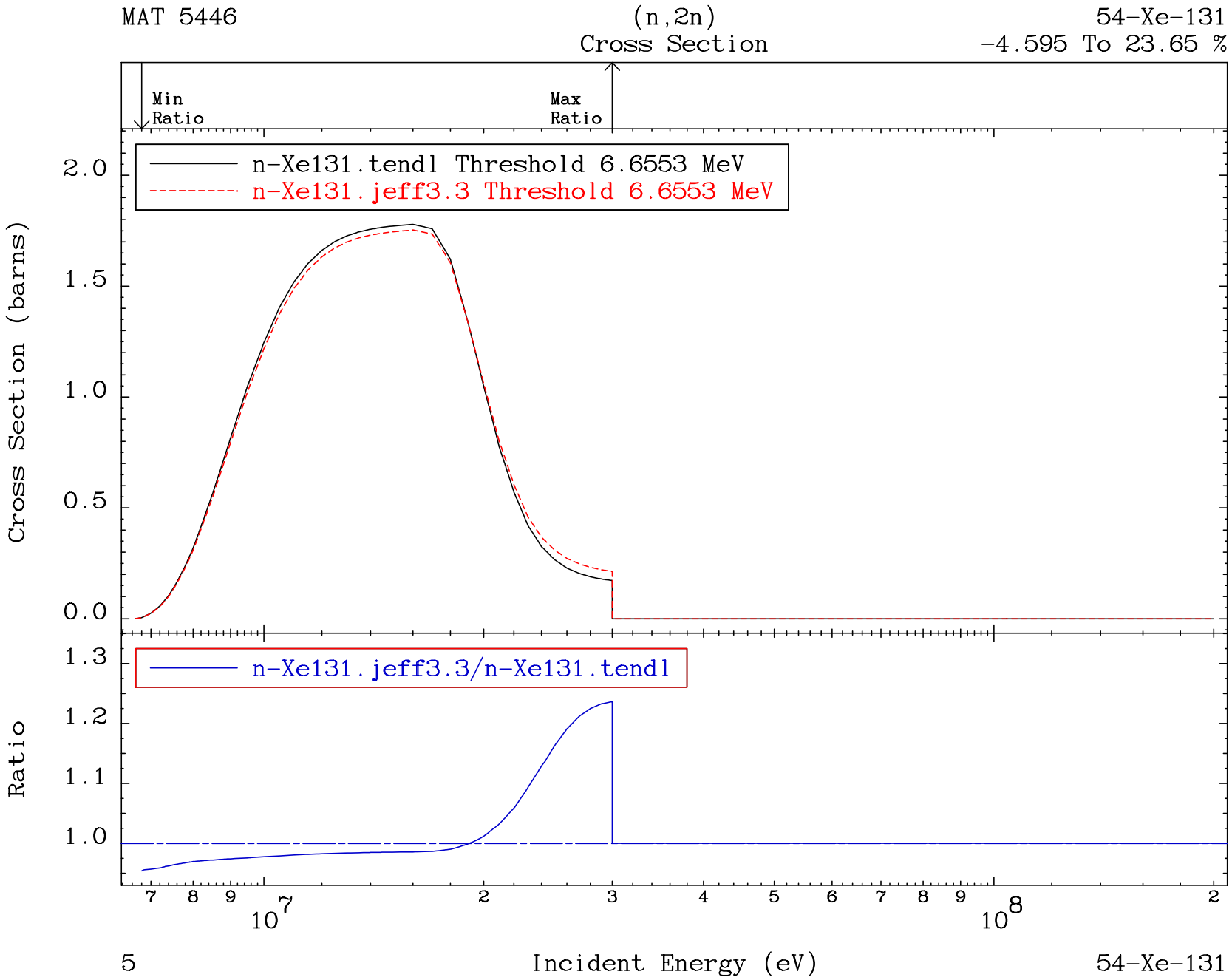
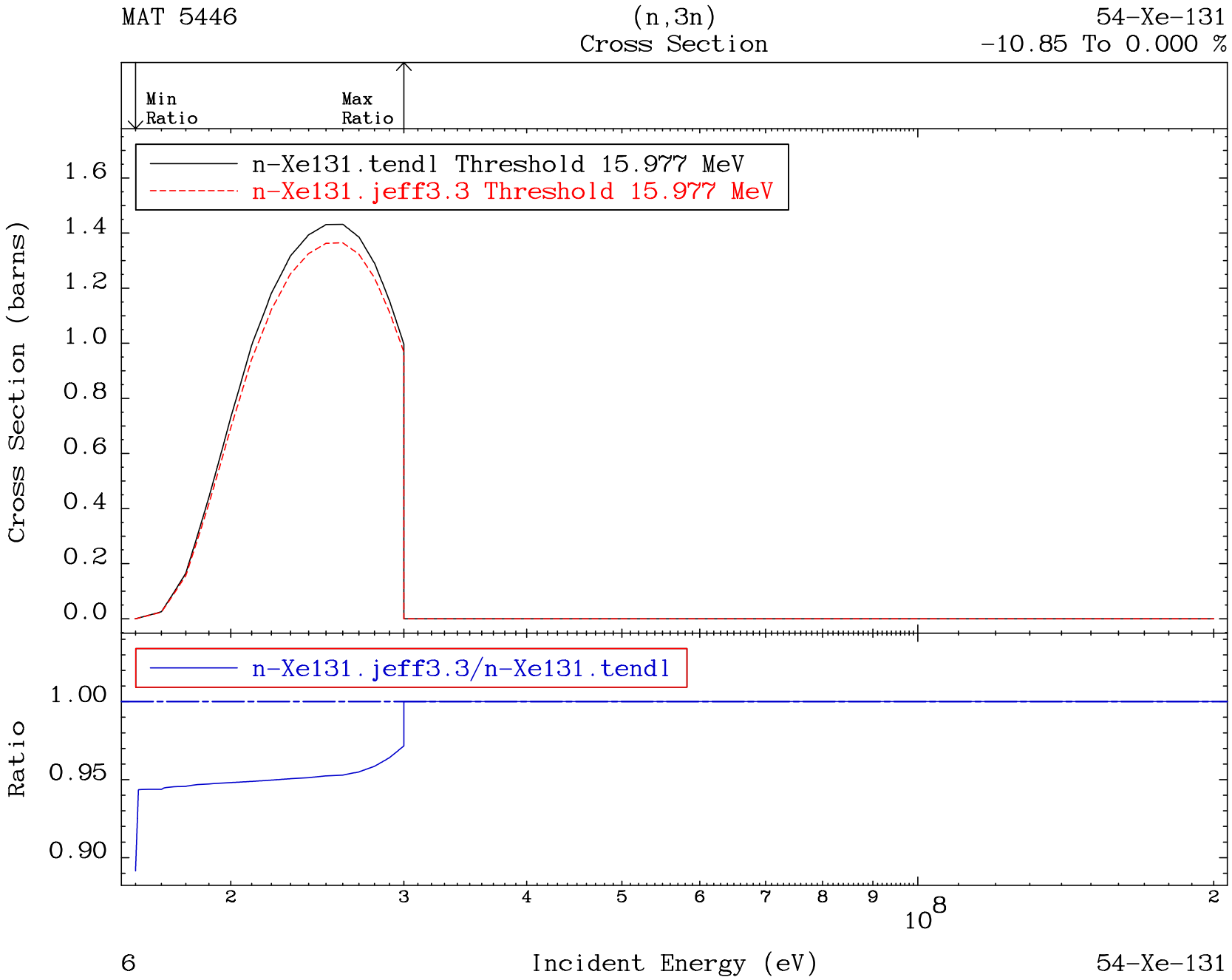

MAT 5446
Total
Cross Section
54-Xe-131
-99.68 To 2761. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
1
54-Xe-131

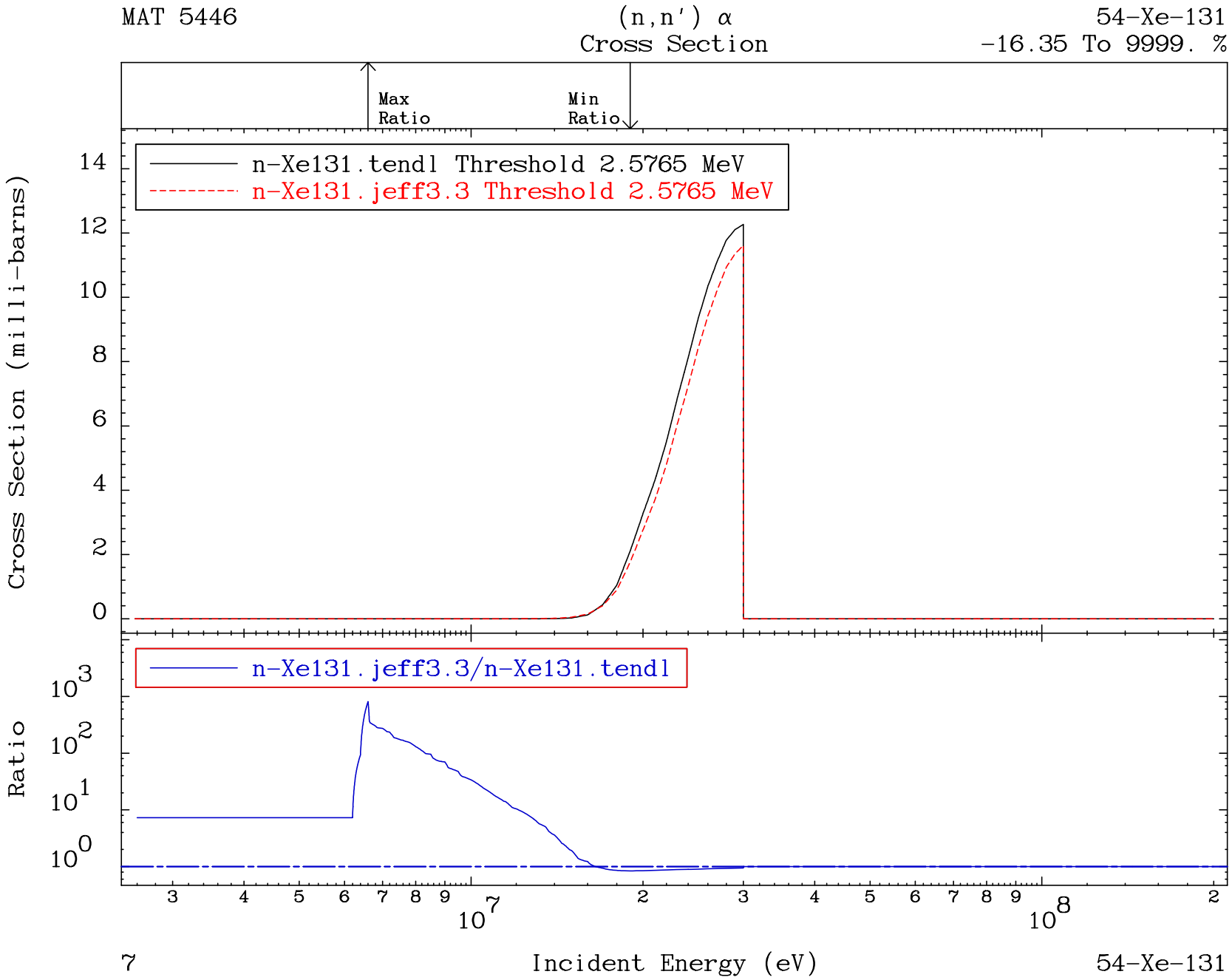

MAT 5446
Elastic
Cross Section
54-Xe-131
-99.65 To 2950. %
Min
Ratio
Max
Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
2
54-Xe-131

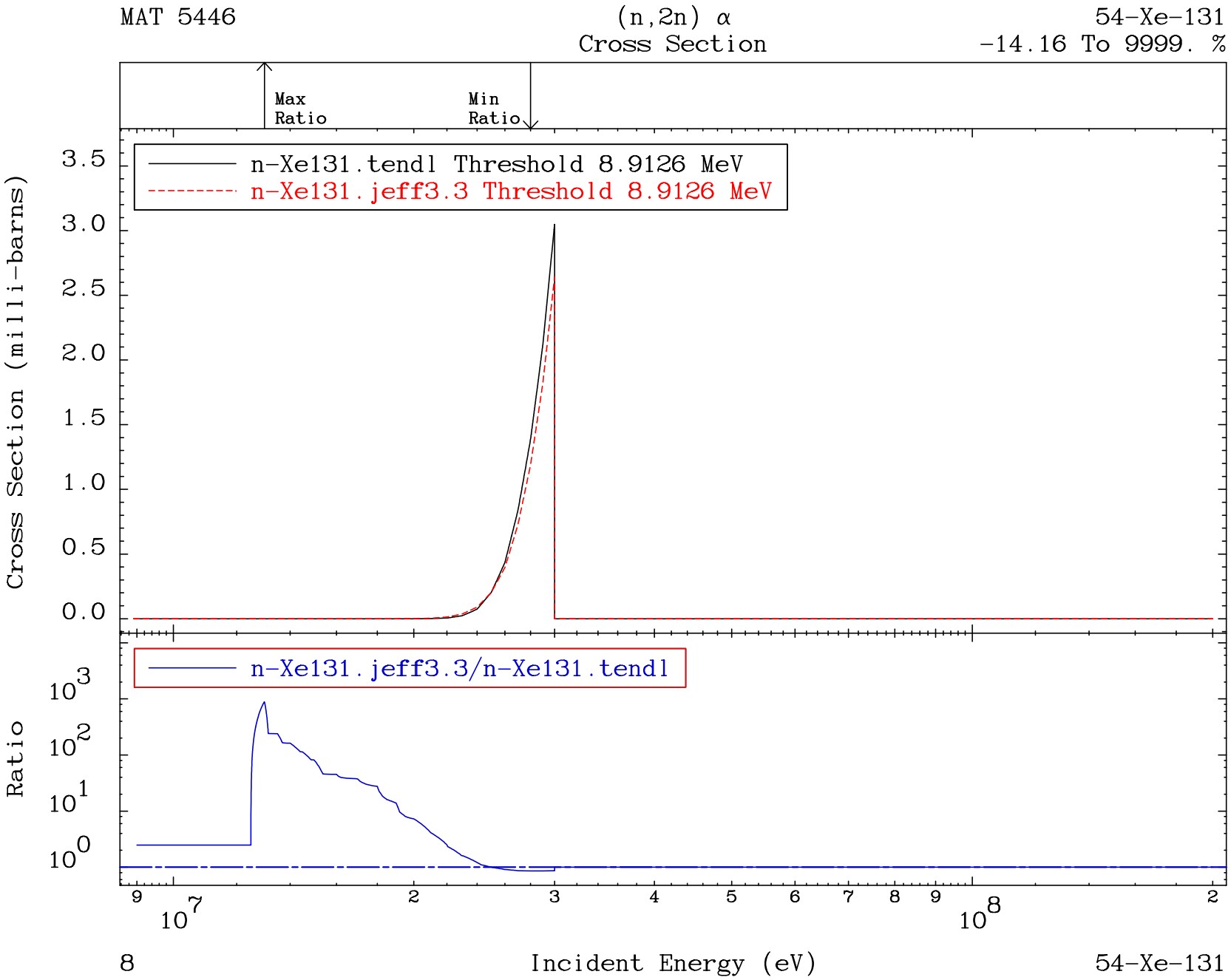

MAT 5446
Inelastic
Cross Section
54-Xe-131
-0.662 To 11.24 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.jeff3.3 Threshold 80.803 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.10
1.05
1.00
8
2
3
4
5
6
8
10^5
10^6
10^7
10^8
3
Incident Energy (eV)
54-Xe-131

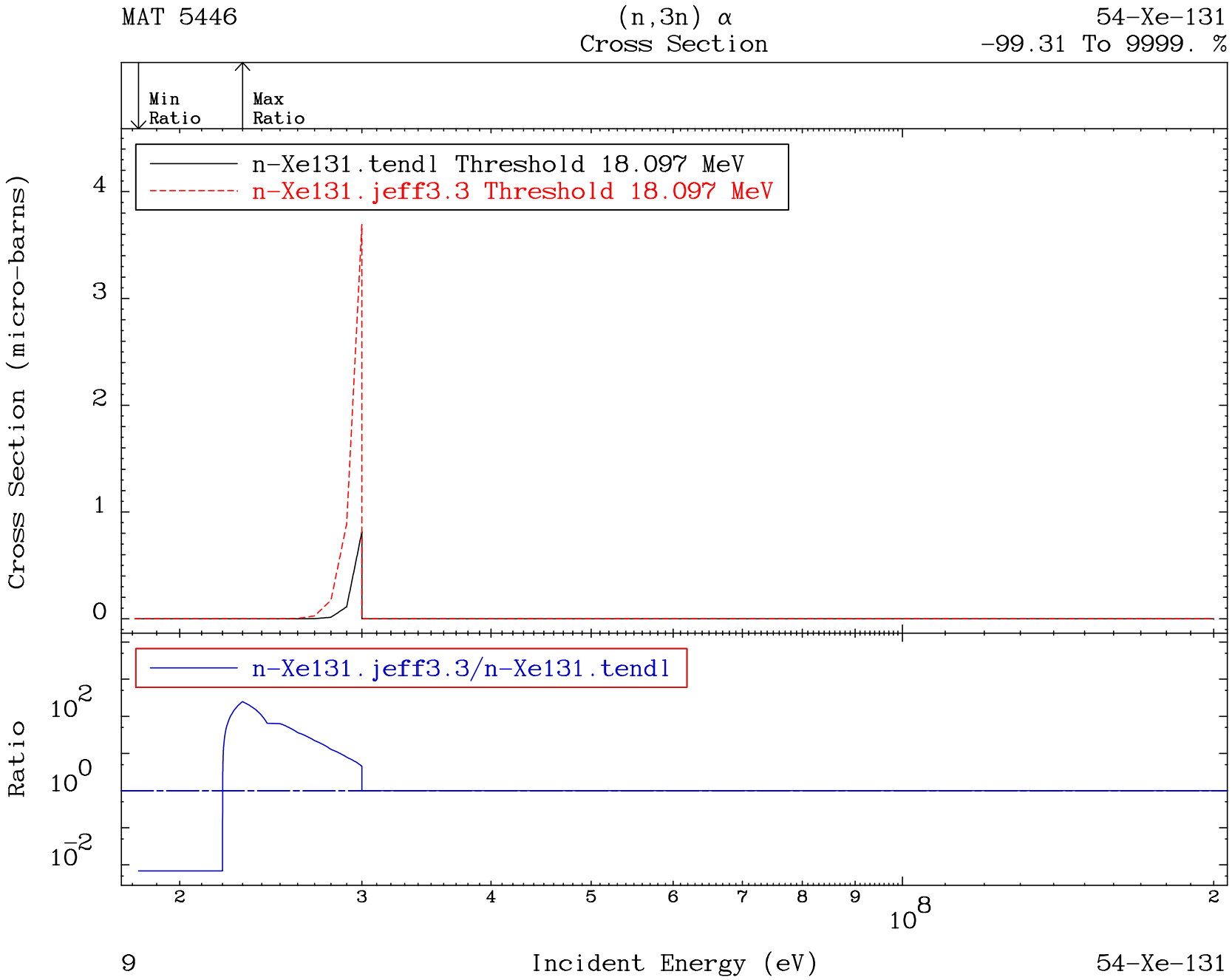

MAT 5446
(n,2n) d
Cross Section
54-Xe-131
0.000 To 21.78 %
Min
Ratio
n-Xe131.tendl Threshold 22.051 MeV
n-Xe131.jeff3.3 Threshold 22.051 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.2
1.1
1.0
20
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
54-Xe-131

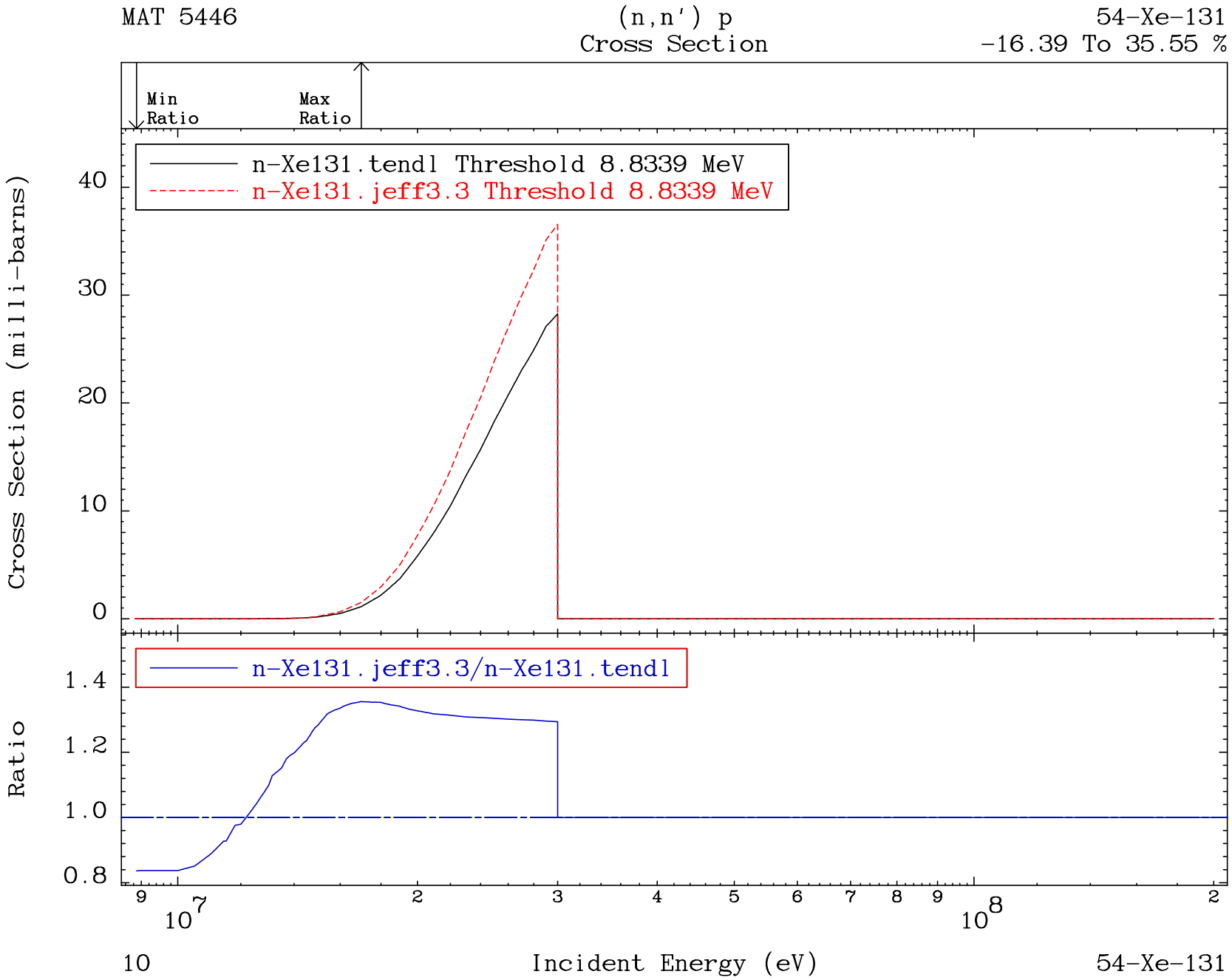

MAT 5446
(n,2n)
Cross Section
54-Xe-131
-4.595 To 23.65 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 6.6553 MeV
n-Xe131.jeff3.3 Threshold 6.6553 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.3
1.2
1.1
1.0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
54-Xe-131

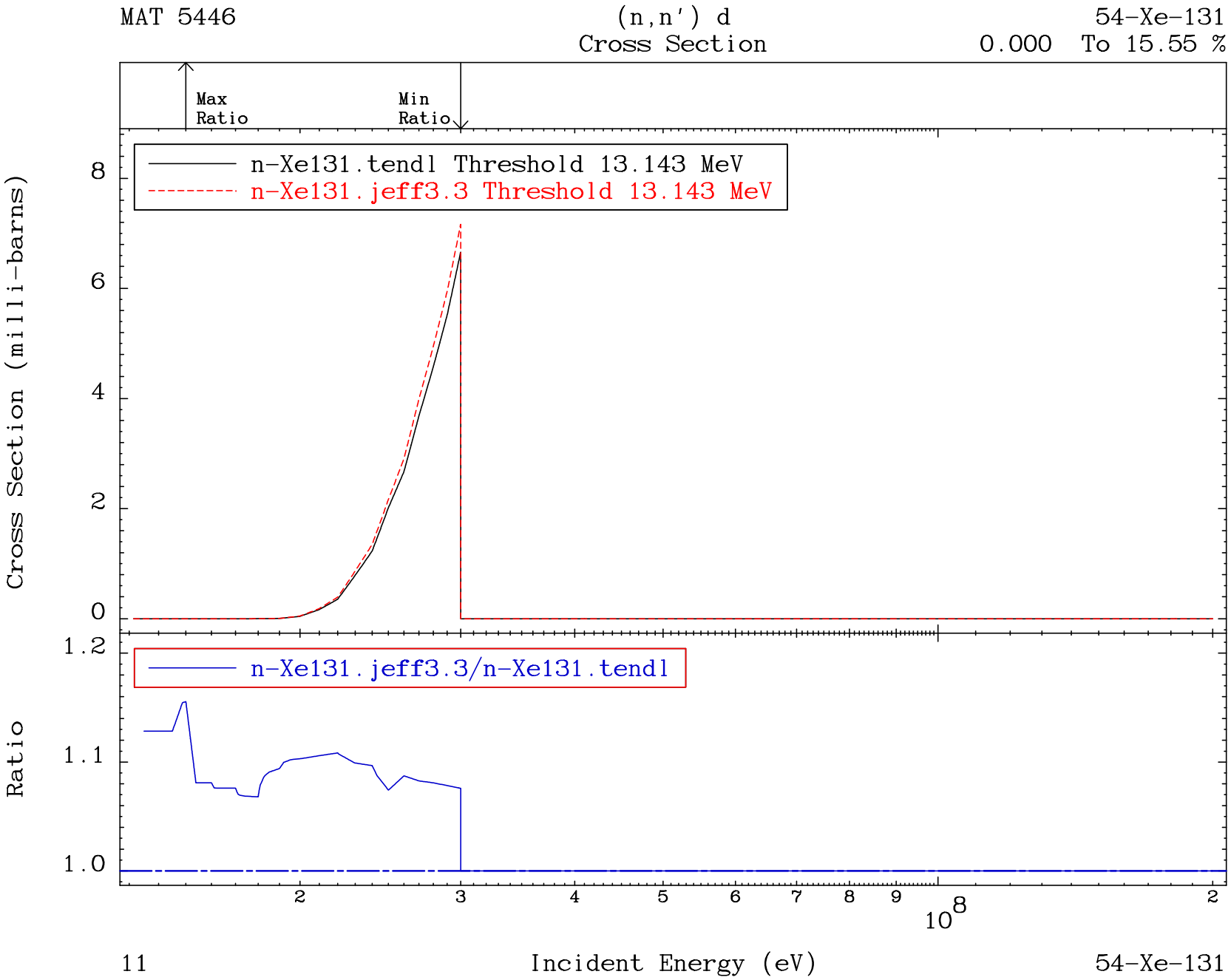

MAT 5446
(n,3n)
Cross Section
54-Xe-131
-10.85 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 15.977 MeV
n-Xe131.jeff3.3 Threshold 15.977 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
54-Xe-131

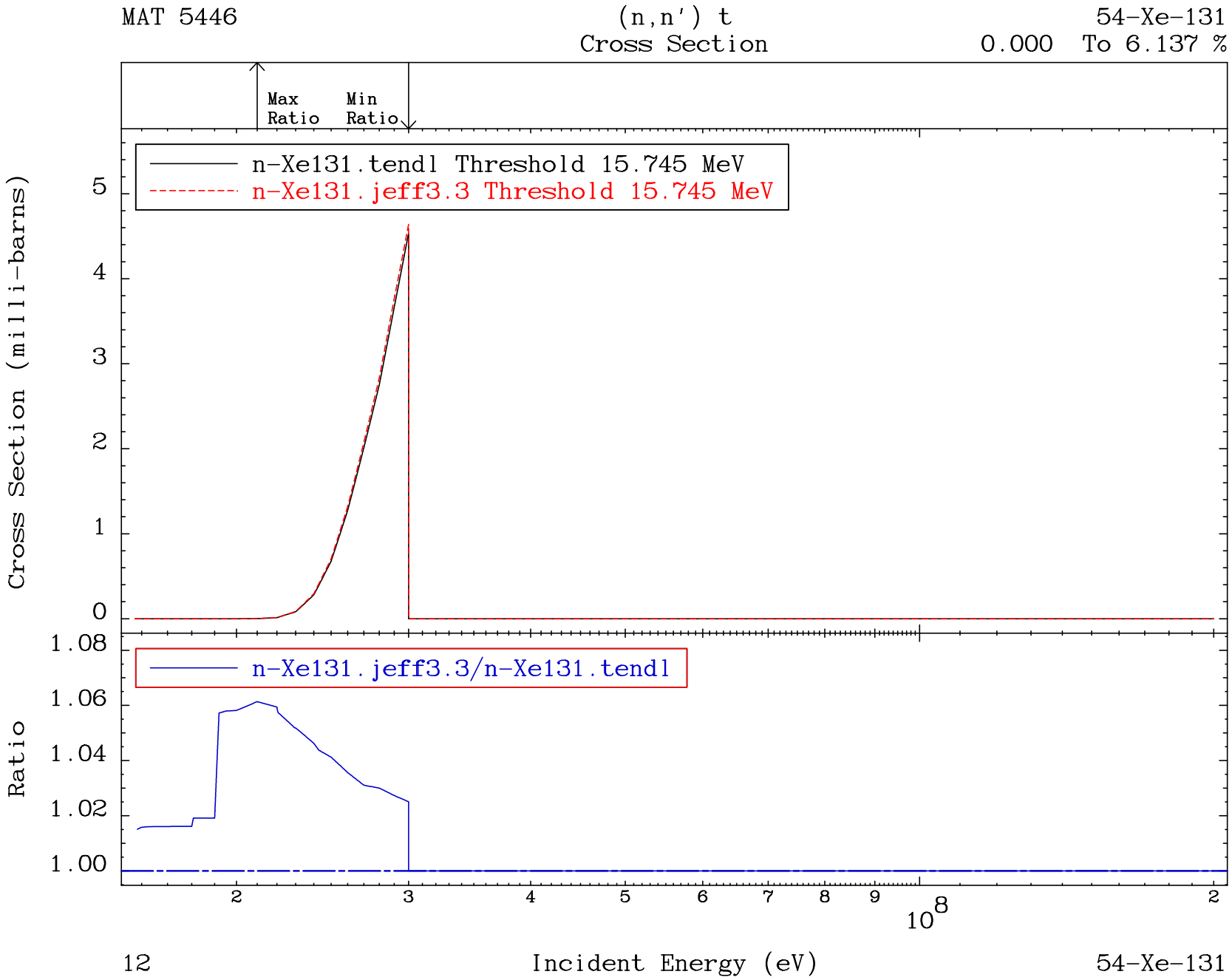

MAT 5446
(n,n') α
Cross Section
54-Xe-131
-16.35 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 2.5765 MeV
n-Xe131.jeff3.3 Threshold 2.5765 MeV
Cross Section (milli-barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
7
54-Xe-131

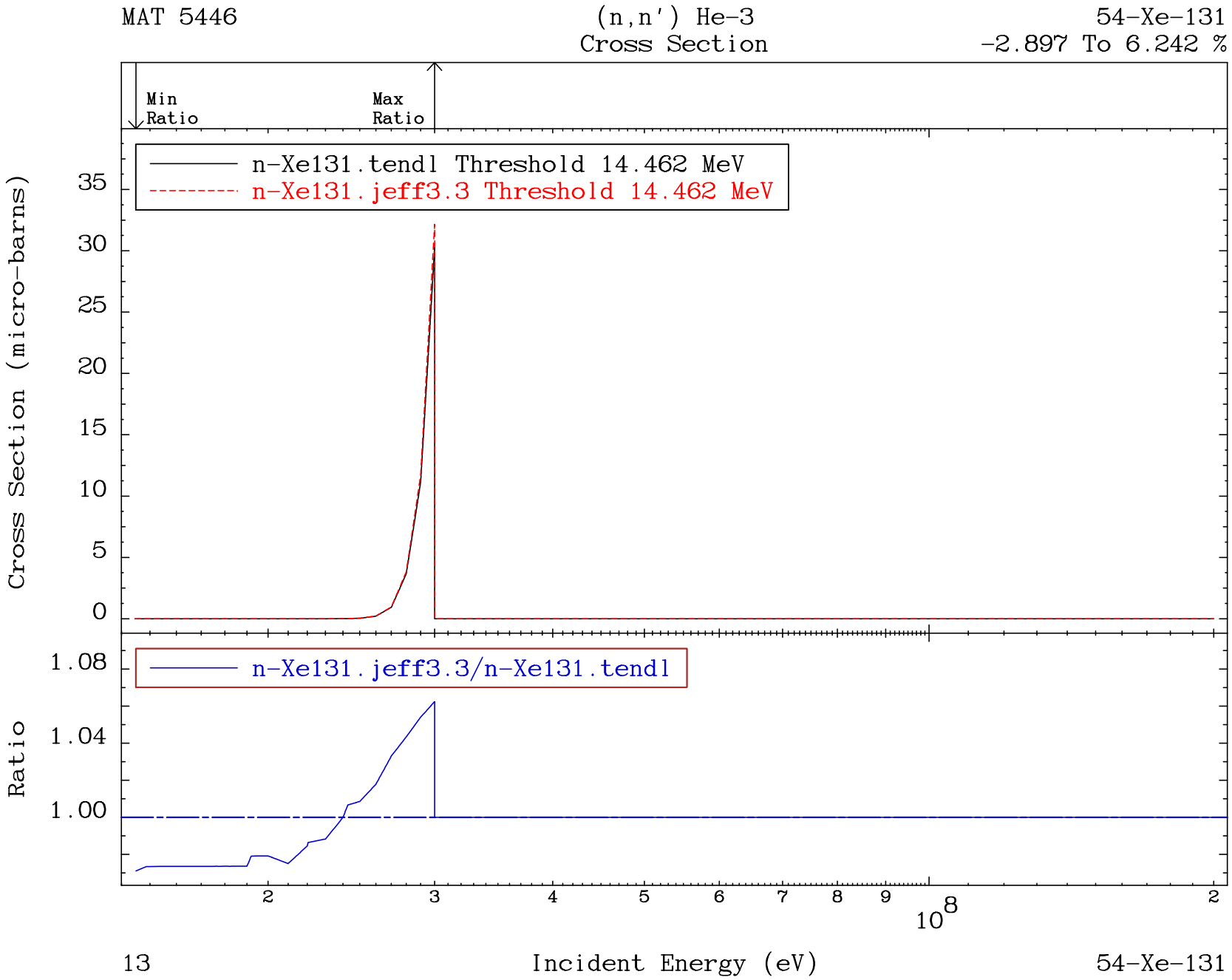

MAT 5446
(n,2n) α
Cross Section
54-Xe-131
-14.16 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 8.9126 MeV
n-Xe131.jeff3.3 Threshold 8.9126 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
10^3
10^2
10^1
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
54-Xe-131

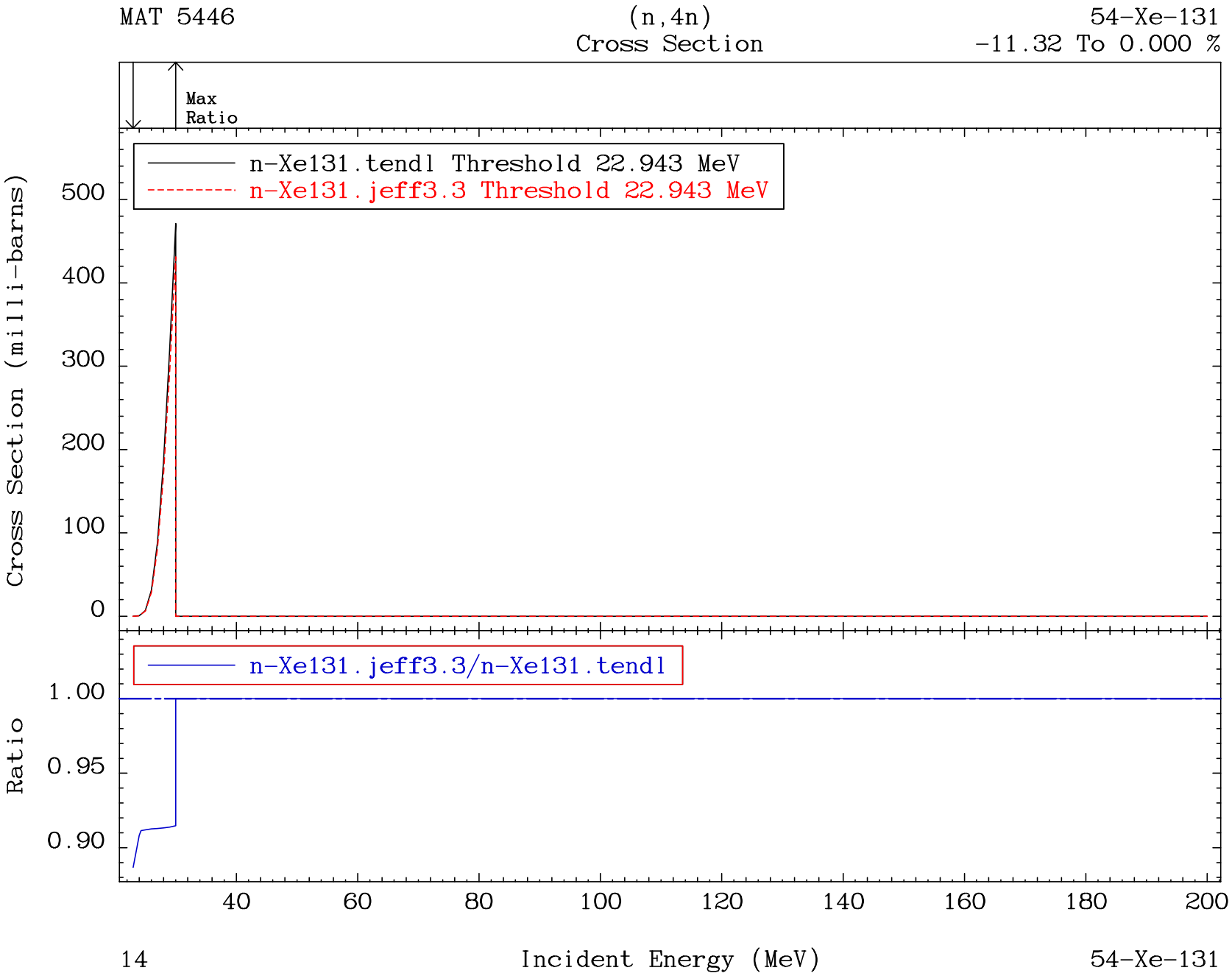

MAT 5446
(n,3n) α
Cross Section
54-Xe-131
-99.31 To 9999. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 18.097 MeV
n-Xe131.jeff3.3 Threshold 18.097 MeV
Cross Section (micro-barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
9
54-Xe-131

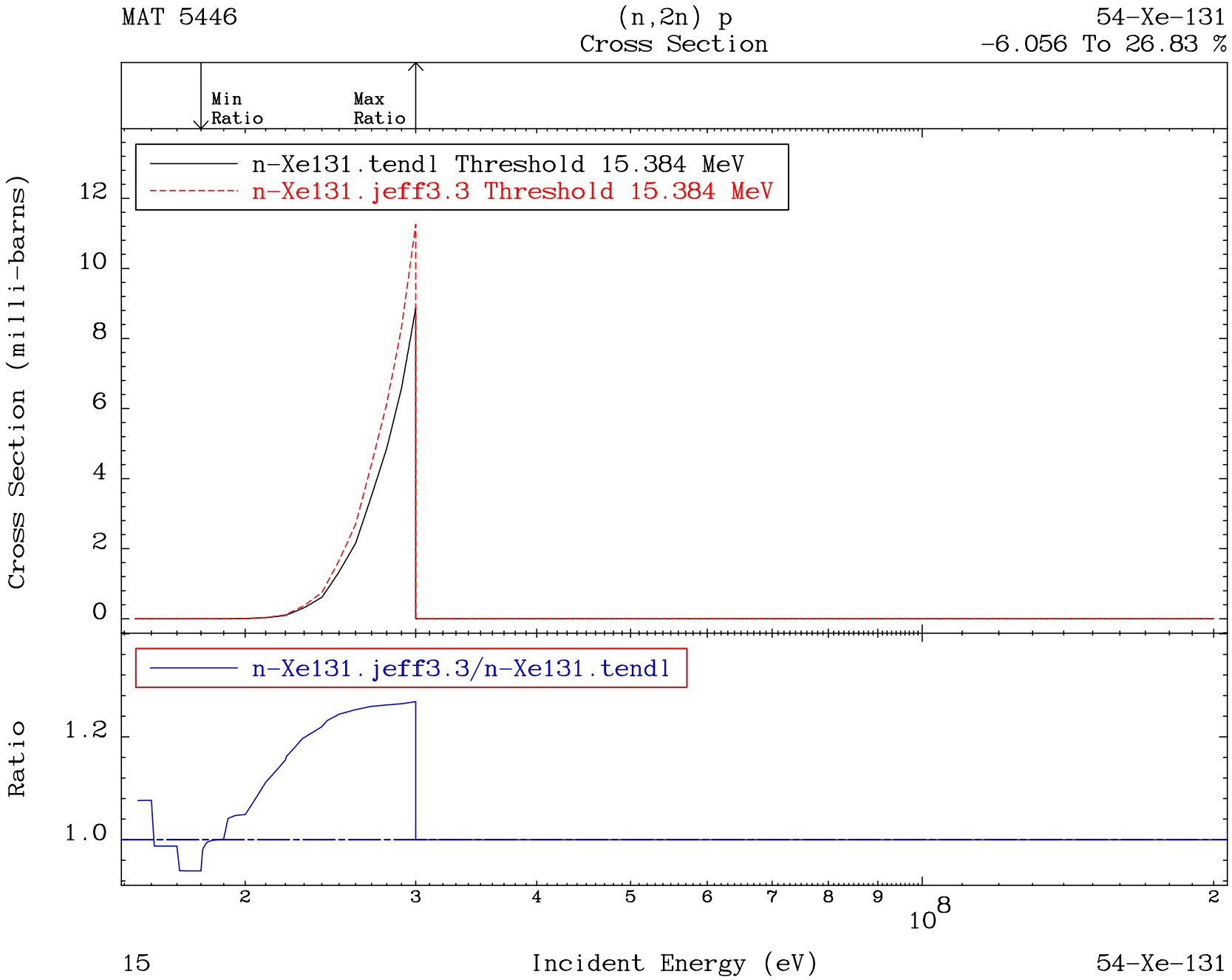

MAT 5446
(n,n') p
Cross Section
54-Xe-131
-16.39 To 35.55 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.8339 MeV
n-Xe131.jeff3.3 Threshold 8.8339 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.4
1.2
1.0
0.8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
54-Xe-131

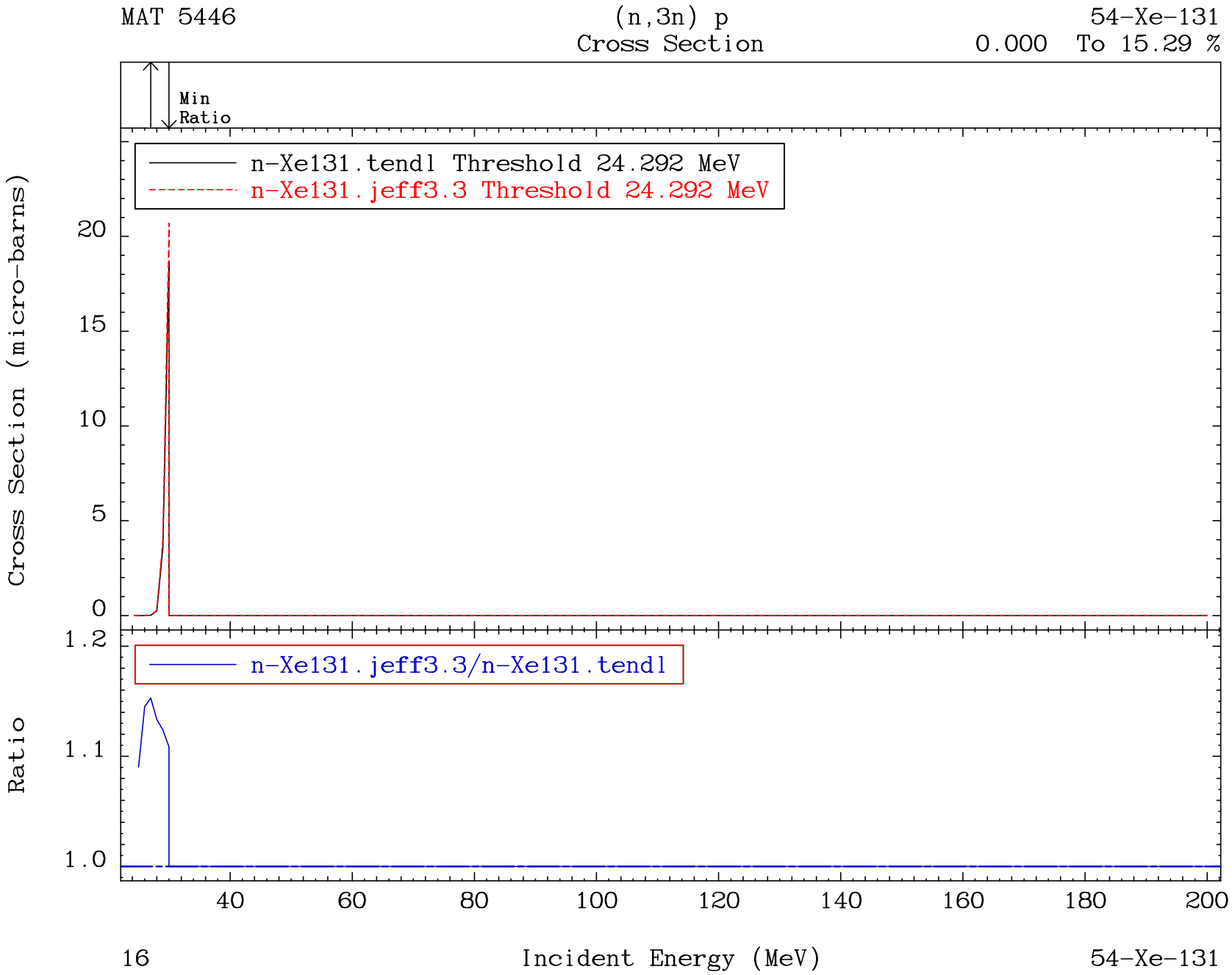

MAT 5446
(n,n') d
Cross Section
54-Xe-131
0.000 To 15.55 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 13.143 MeV
n-Xe131.jeff3.3 Threshold 13.143 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.0
1.1
1.2
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
54-Xe-131

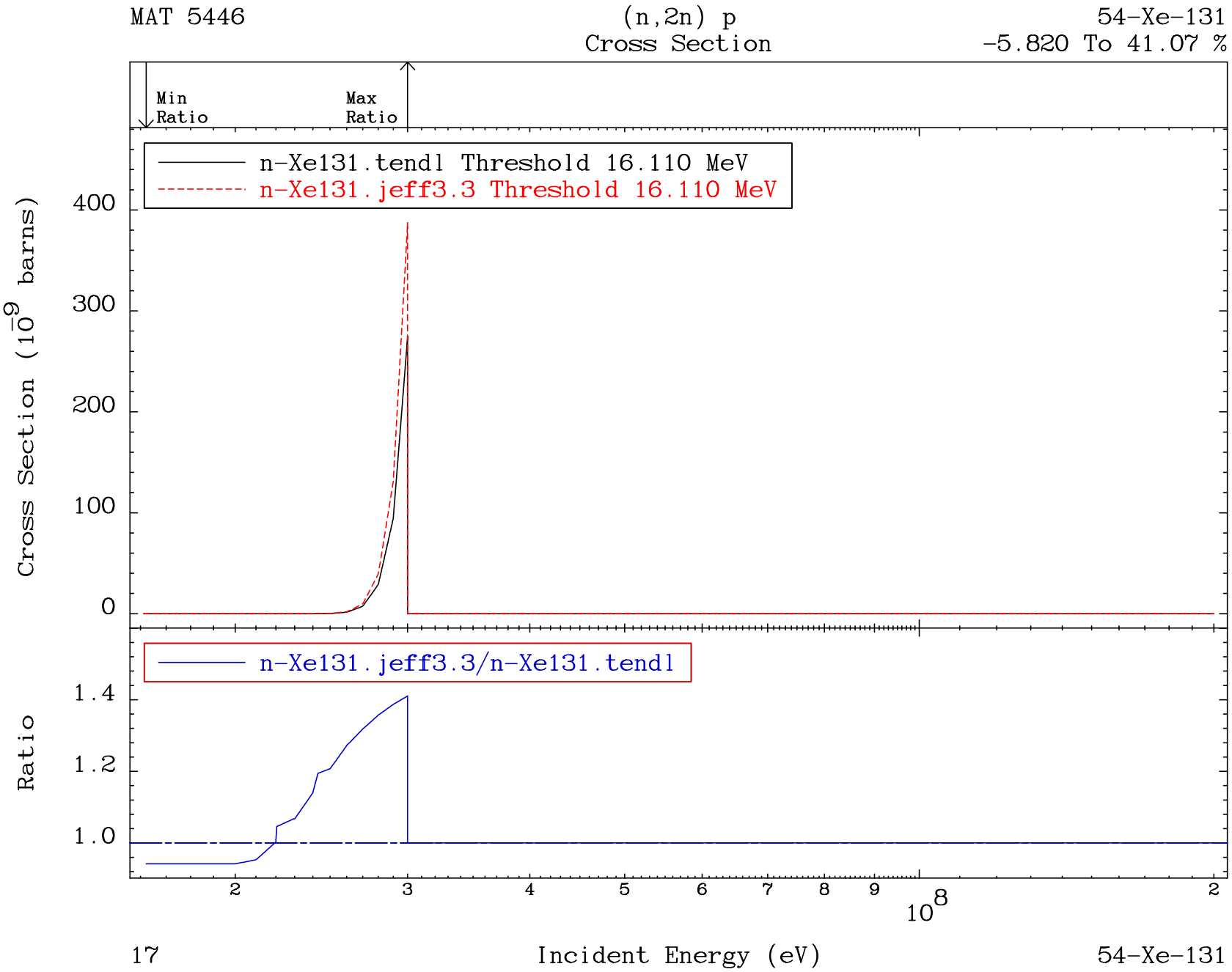

MAT 5446
(n,n') t
Cross Section
54-Xe-131
0.000 To 6.137 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 15.745 MeV
n-Xe131.jeff3.3 Threshold 15.745 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
1.02
1.04
1.06
1.08
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
54-Xe-131

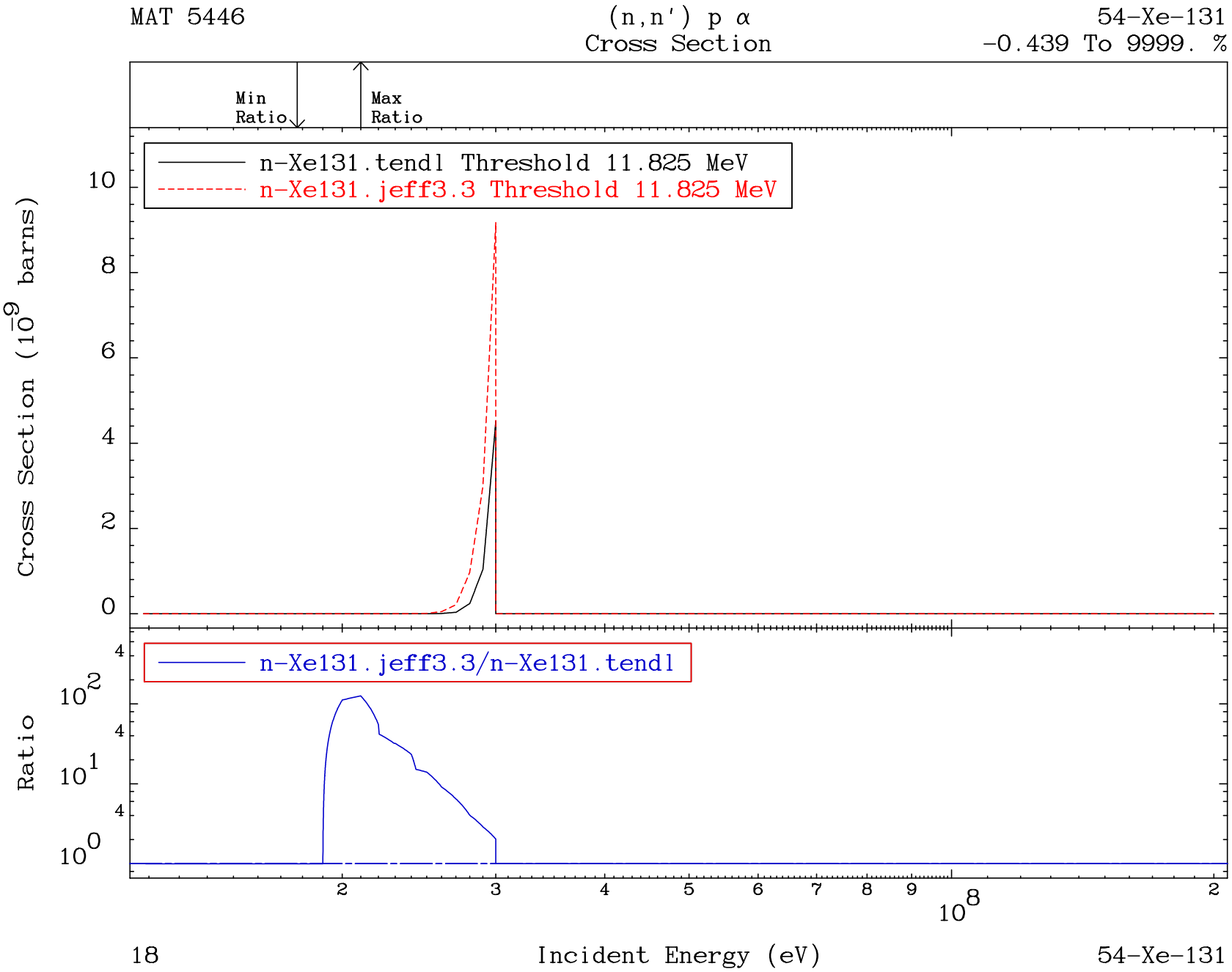

MAT 5446
(n,n') He-3
Cross Section
54-Xe-131
-2.897 To 6.242 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 14.462 MeV
n-Xe131.jeff3.3 Threshold 14.462 MeV
Cross Section (micro-barns)
35
30
25
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.08
1.04
1.00
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
54-Xe-131

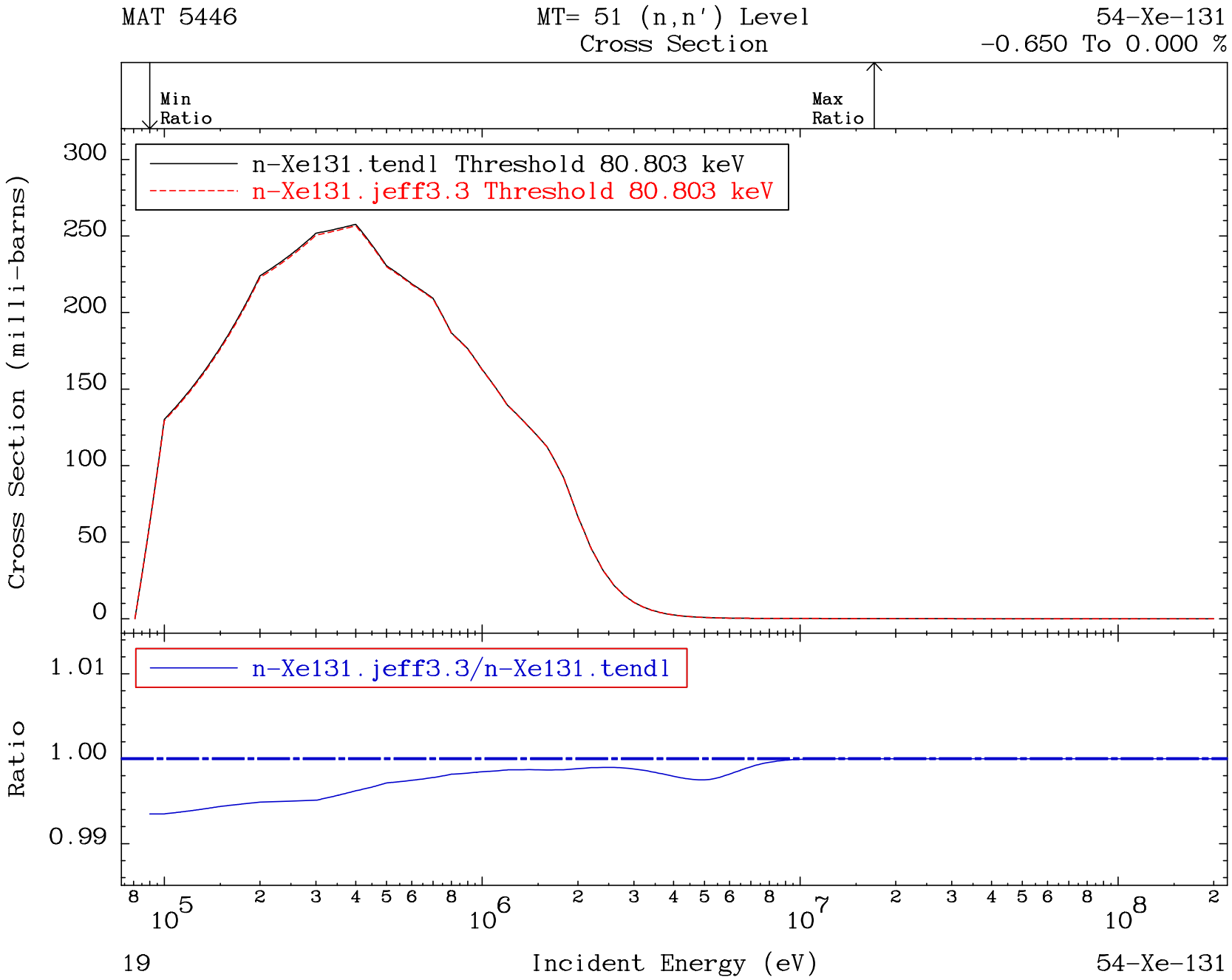

MAT 5446
(n,4n)
Cross Section
54-Xe-131
-11.32 To 0.000 %
Max
Ratio
n-Xe131.tendl Threshold 22.943 MeV
n-Xe131.jeff3.3 Threshold 22.943 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
0.95
0.90
40
60
80
100
120
140
160
180
200
14
Incident Energy (MeV)
54-Xe-131

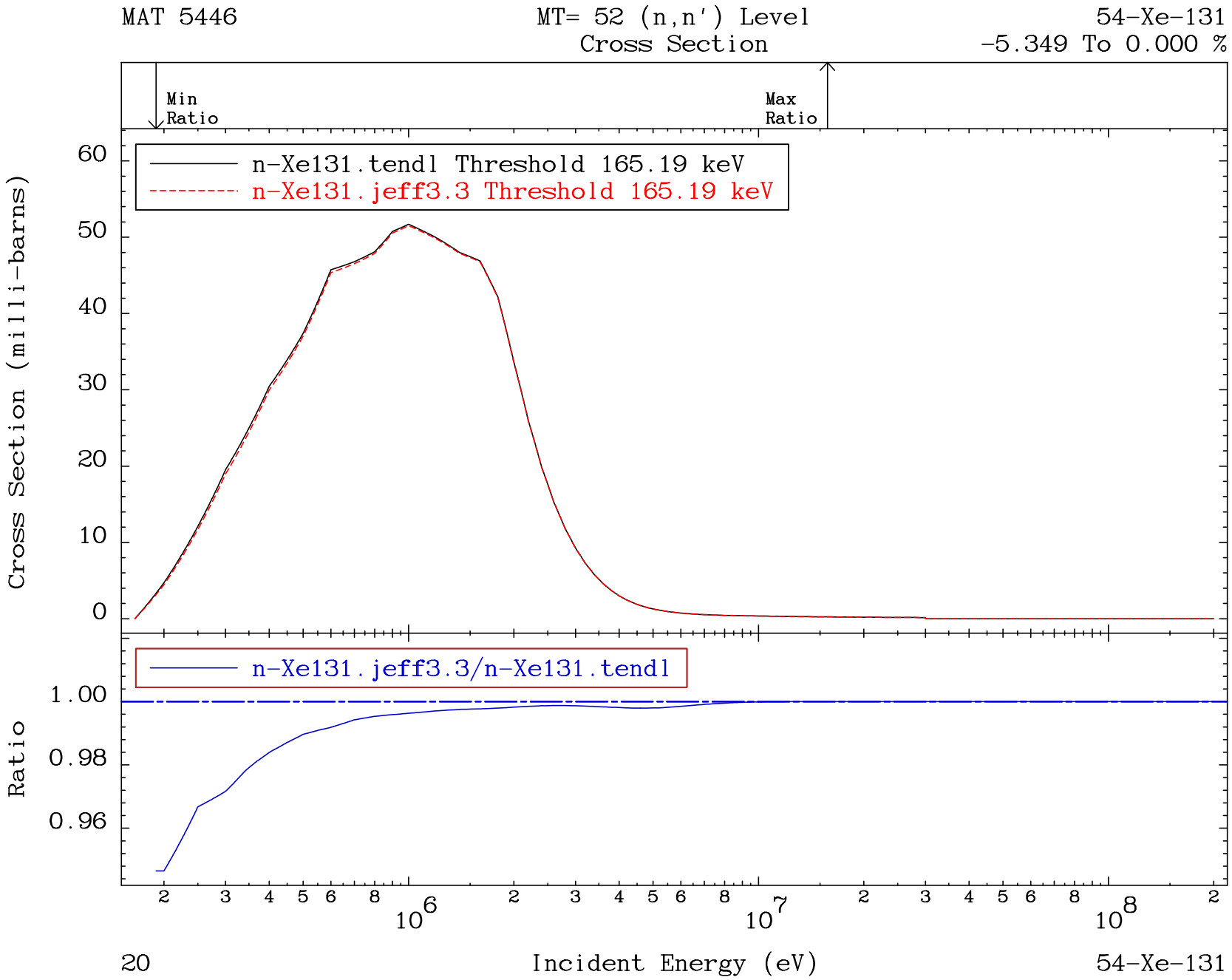

MAT 5446
(n,2n) p
Cross Section
54-Xe-131
-6.056 To 26.83 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 15.384 MeV
n-Xe131.jeff3.3 Threshold 15.384 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.0
1.2
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
54-Xe-131

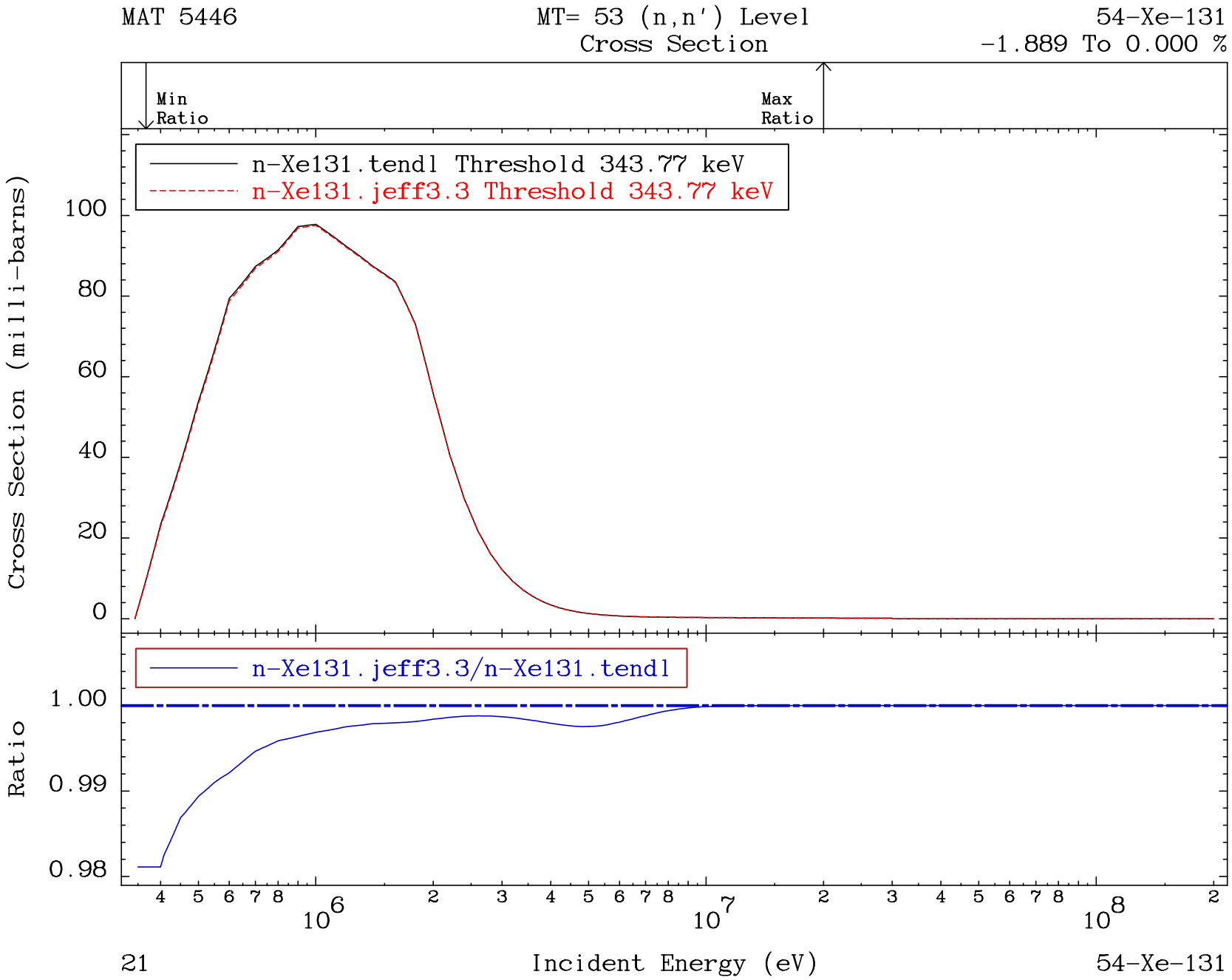

MAT 5446
(n,3n) p
Cross Section
54-Xe-131
0.000 To 15.29 %
Min
Ratio
n-Xe131.tendl Threshold 24.292 MeV
n-Xe131.jeff3.3 Threshold 24.292 MeV
Cross Section (micro-barns)
20
15
10
5
0
1.2
1.1
1.0
Ratio
n-Xe131.jeff3.3/n-Xe131.tendl
40
60
80
100
120
140
160
180
200
16
Incident Energy (MeV)
54-Xe-131

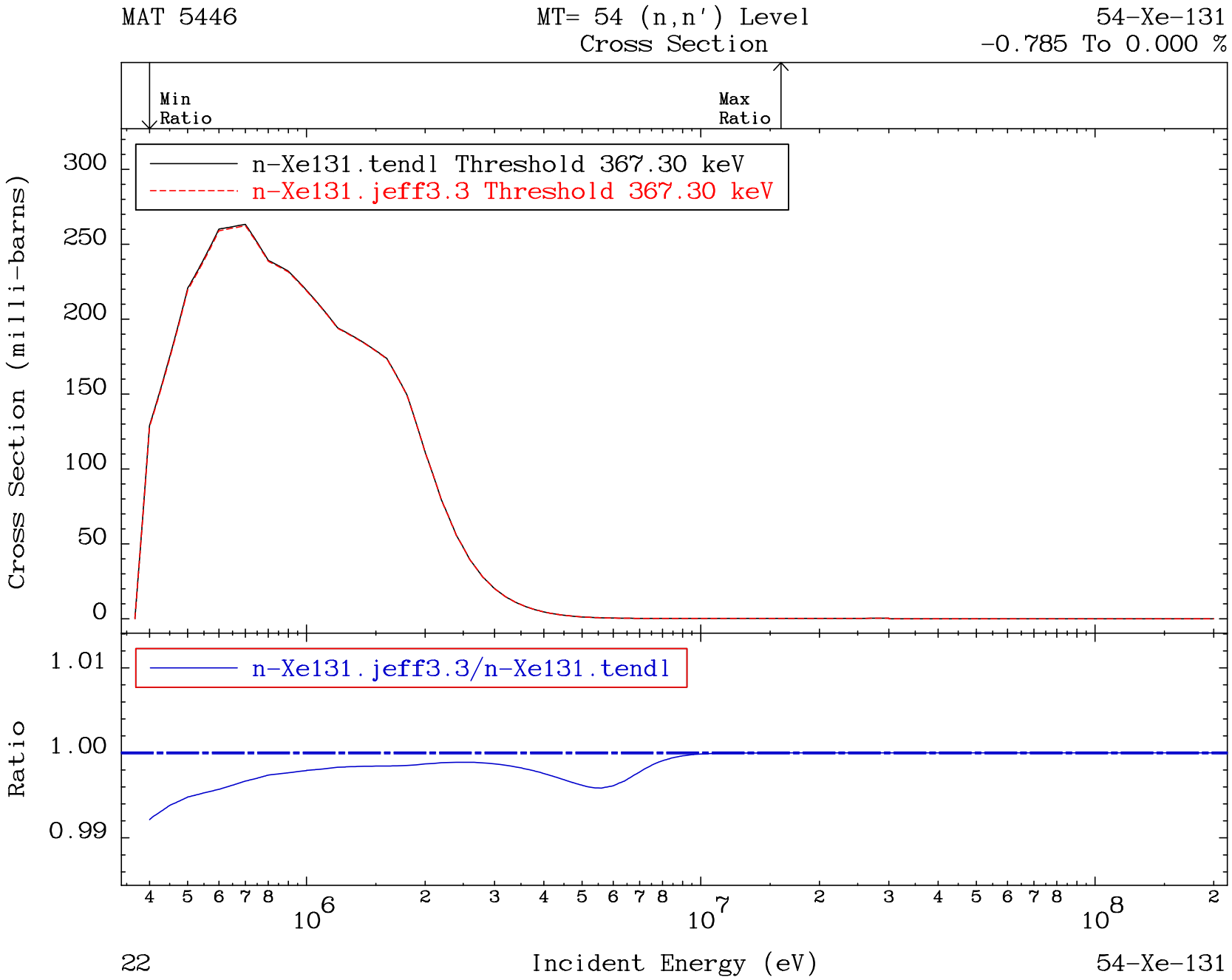

MAT 5446
(n,2n) p
Cross Section
54-Xe-131
-5.820 To 41.07 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 16.110 MeV
n-Xe131.jeff3.3 Threshold 16.110 MeV
Cross Section (10^{-9} barns)
400
300
200
100
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.4
1.2
1.0
2
3
4
5
6
7
8
9
10^{8}
2
17
Incident Energy (eV)
54-Xe-131

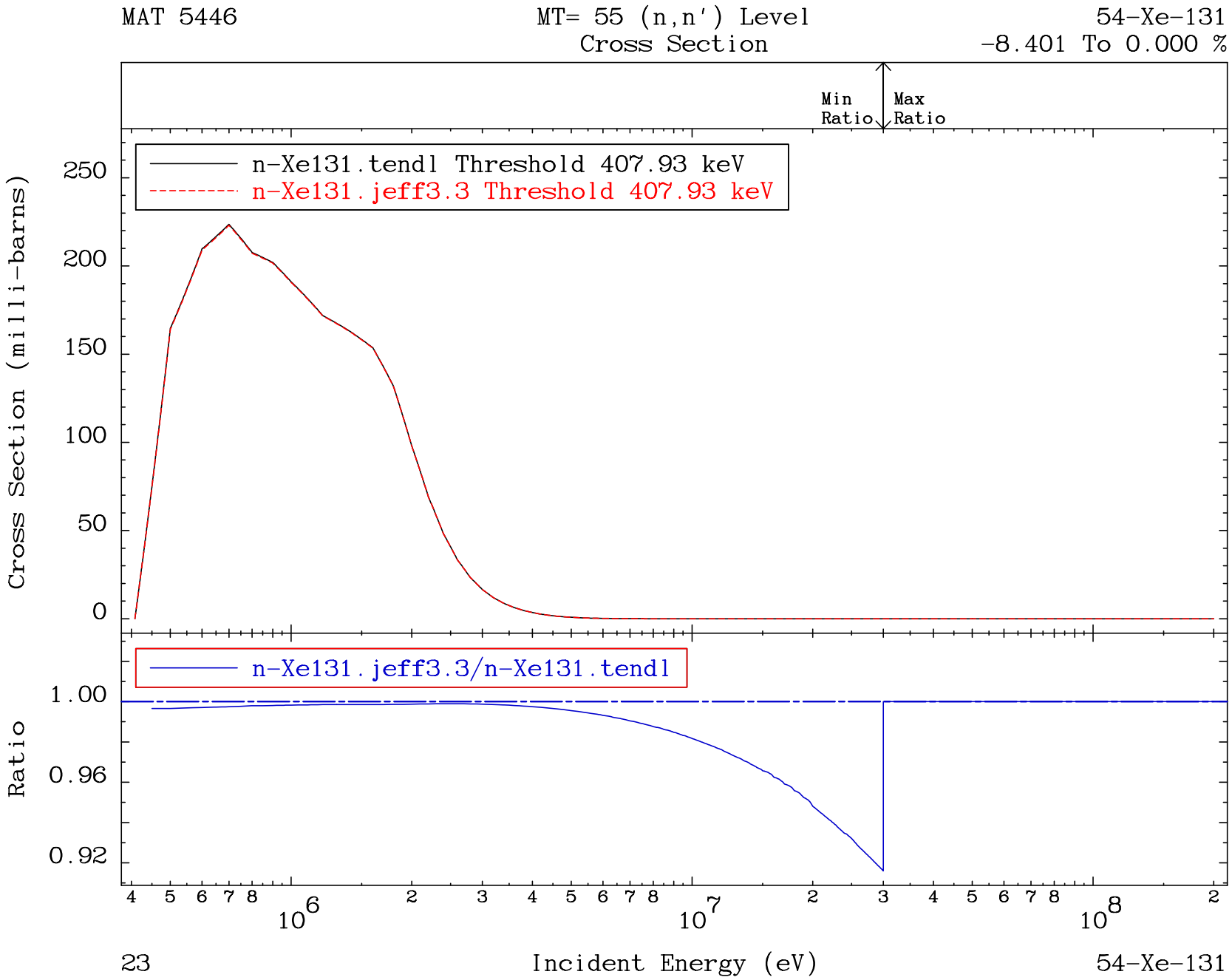

MAT 5446
(n,n') p α
Cross Section
54-Xe-131
-0.439 To 9999. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 11.825 MeV
n-Xe131.jeff3.3 Threshold 11.825 MeV
Cross Section (10^{-9} barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
18
54-Xe-131

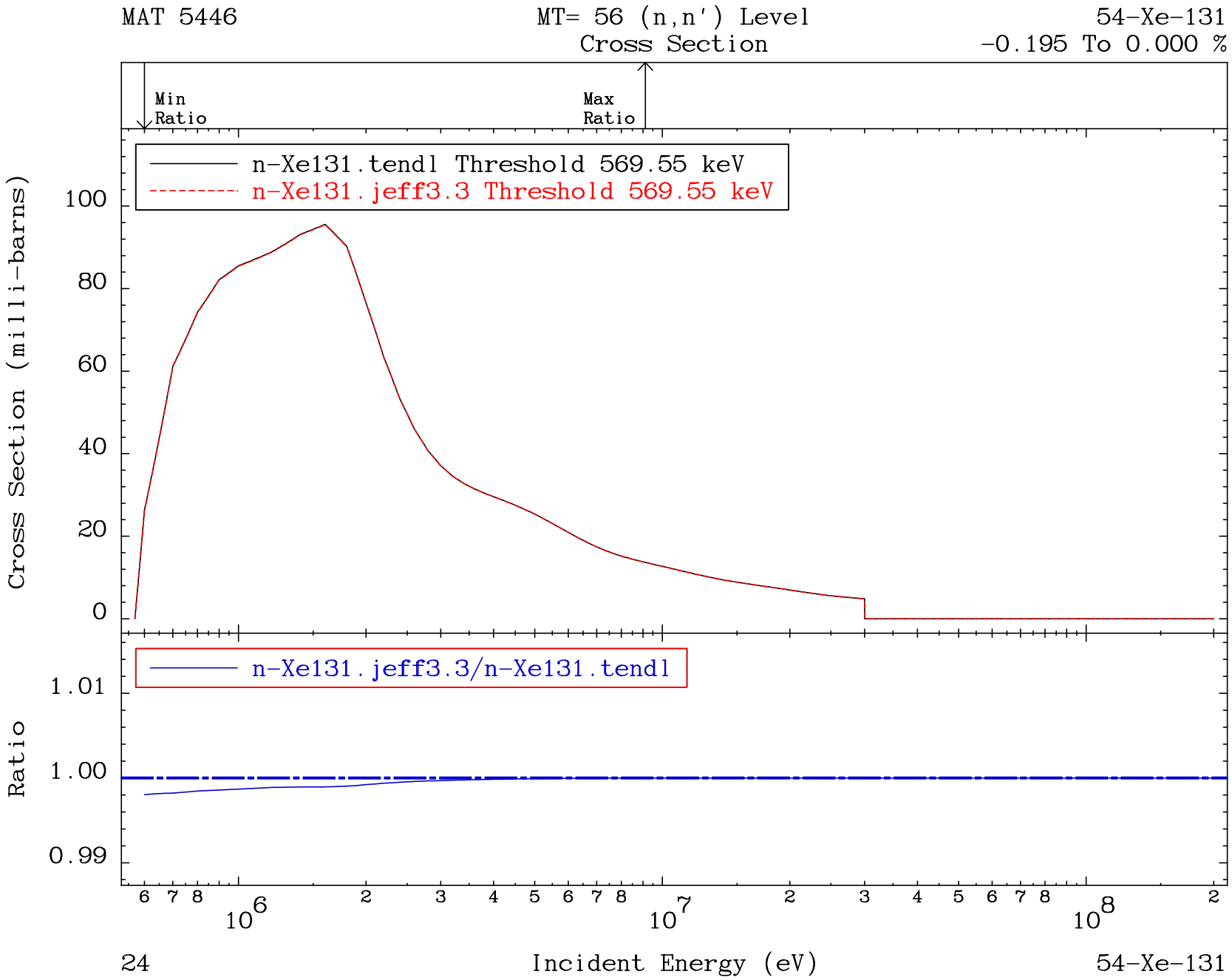

MAT 5446
MT= 51 (n,n') Level
Cross Section
54-Xe-131
-0.650 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.jeff3.3 Threshold 80.803 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
19
Incident Energy (eV)
54-Xe-131

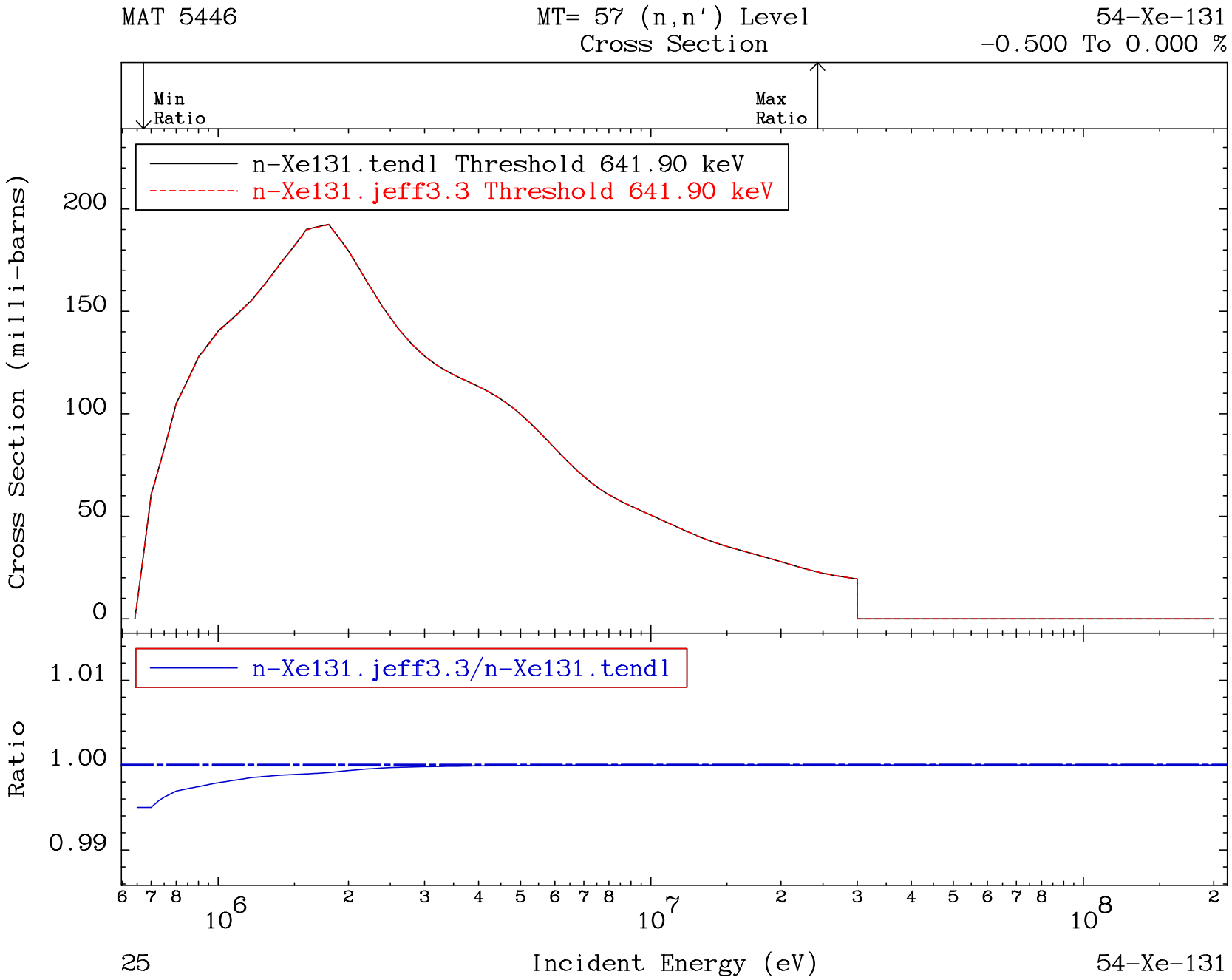

MAT 5446
MT= 52 (n,n') Level
Cross Section
54-Xe-131
-5.349 To 0.000 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 165.19 keV
n-Xe131.jeff3.3 Threshold 165.19 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
0.98
0.96
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
20
Incident Energy (eV)
54-Xe-131

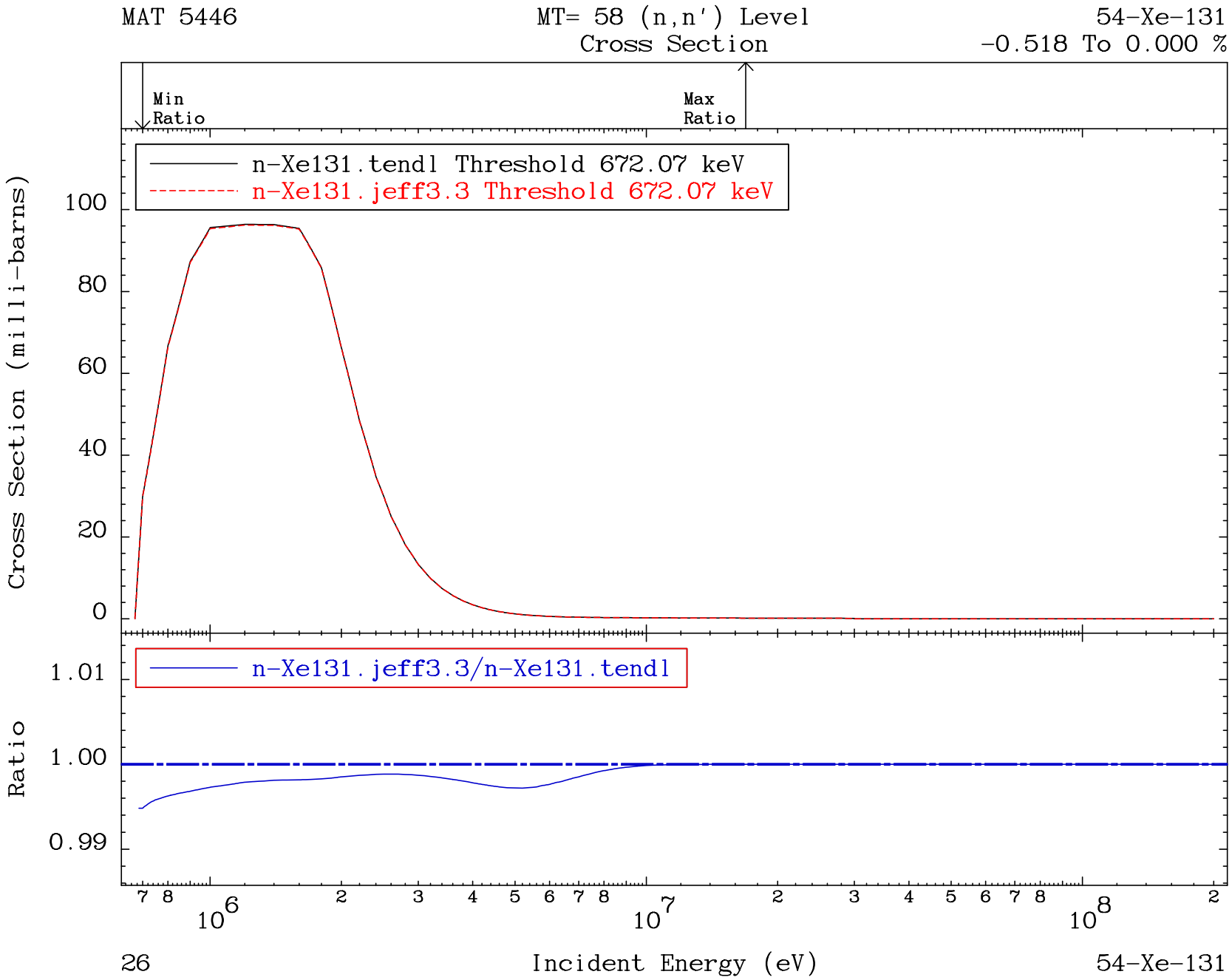

MAT 5446
MT= 53 (n,n') Level
Cross Section
54-Xe-131
-1.889 To 0.000 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 343.77 keV
n-Xe131.jeff3.3 Threshold 343.77 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
0.99
0.98
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
54-Xe-131

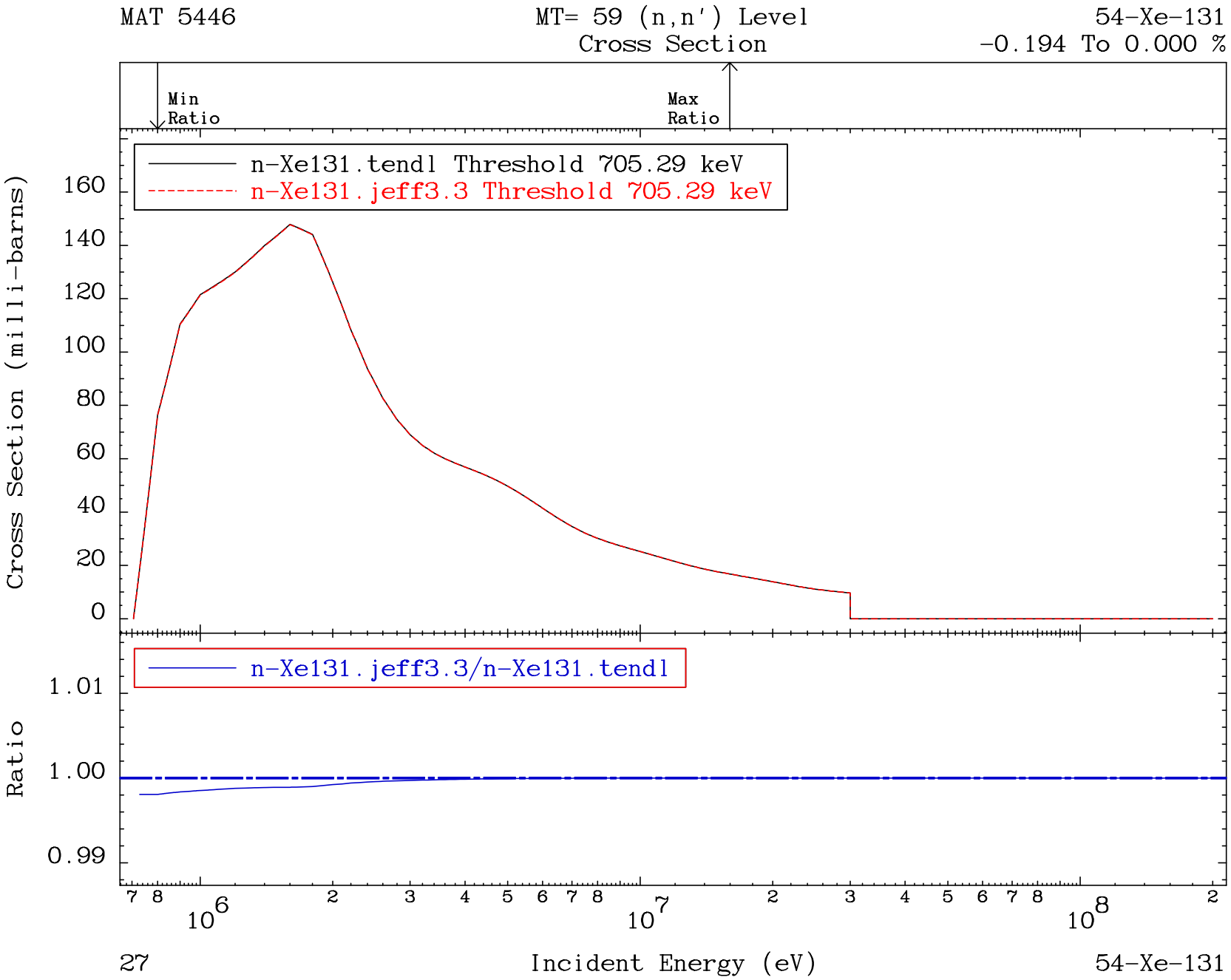

MAT 5446
MT= 54 (n,n') Level
Cross Section
54-Xe-131
-0.785 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 367.30 keV
n-Xe131.jeff3.3 Threshold 367.30 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
54-Xe-131

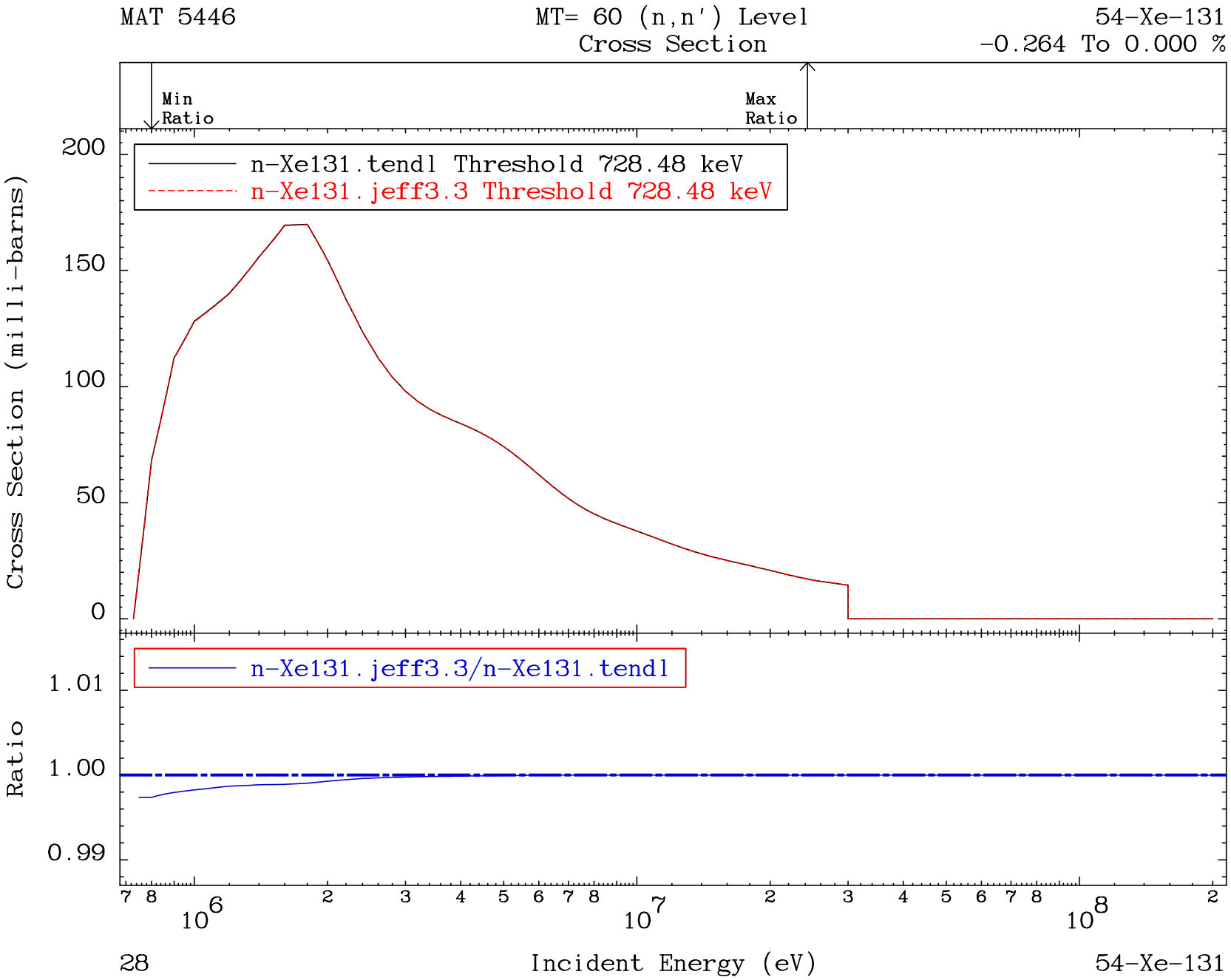

MAT 5446
MT= 55 (n,n') Level
Cross Section
54-Xe-131
-8.401 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 407.93 keV
n-Xe131.jeff3.3 Threshold 407.93 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
0.96
0.92
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
54-Xe-131

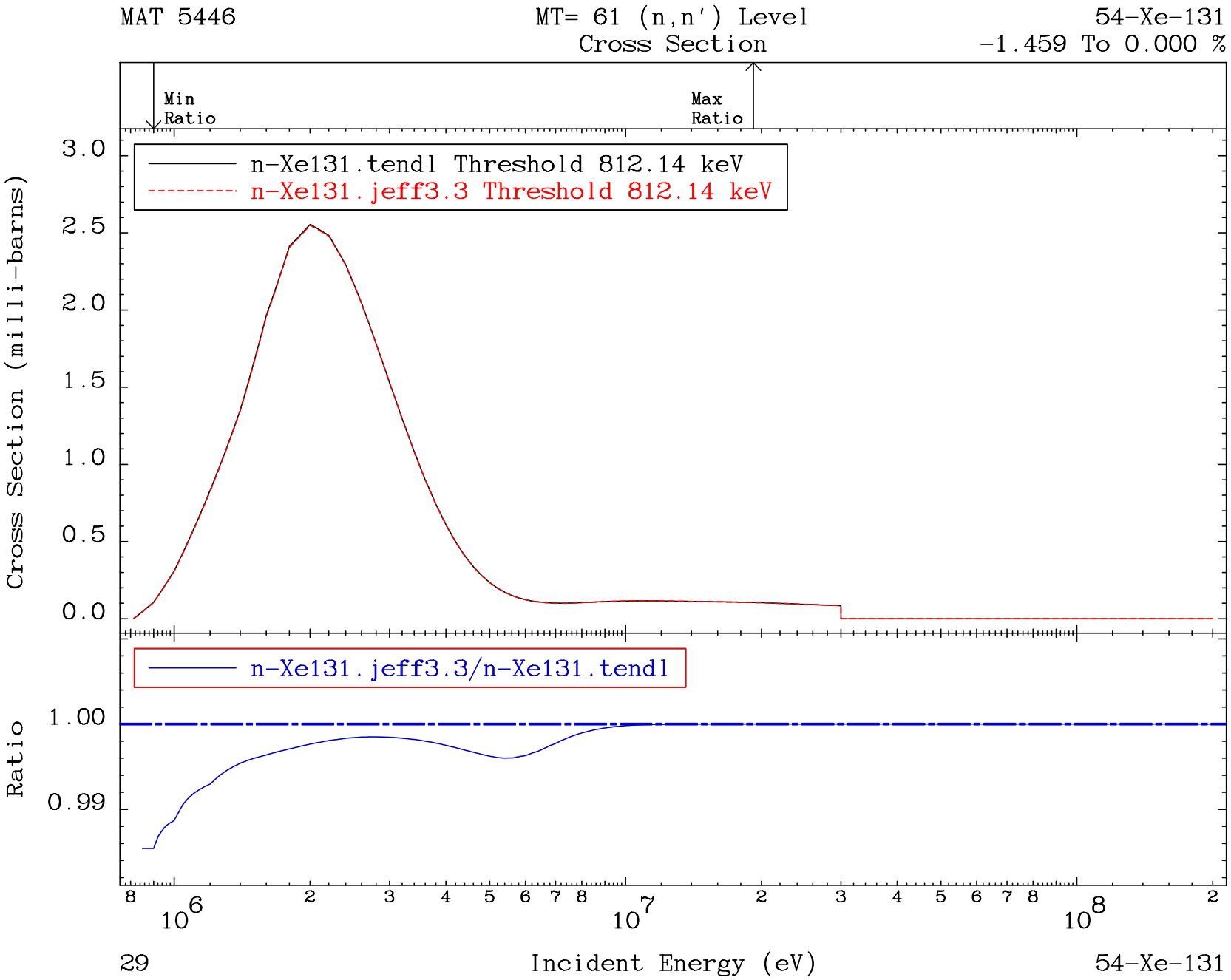

MAT 5446
MT= 56 (n,n') Level
Cross Section
54-Xe-131
-0.195 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 569.55 keV
n-Xe131.jeff3.3 Threshold 569.55 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
24
Incident Energy (eV)
54-Xe-131

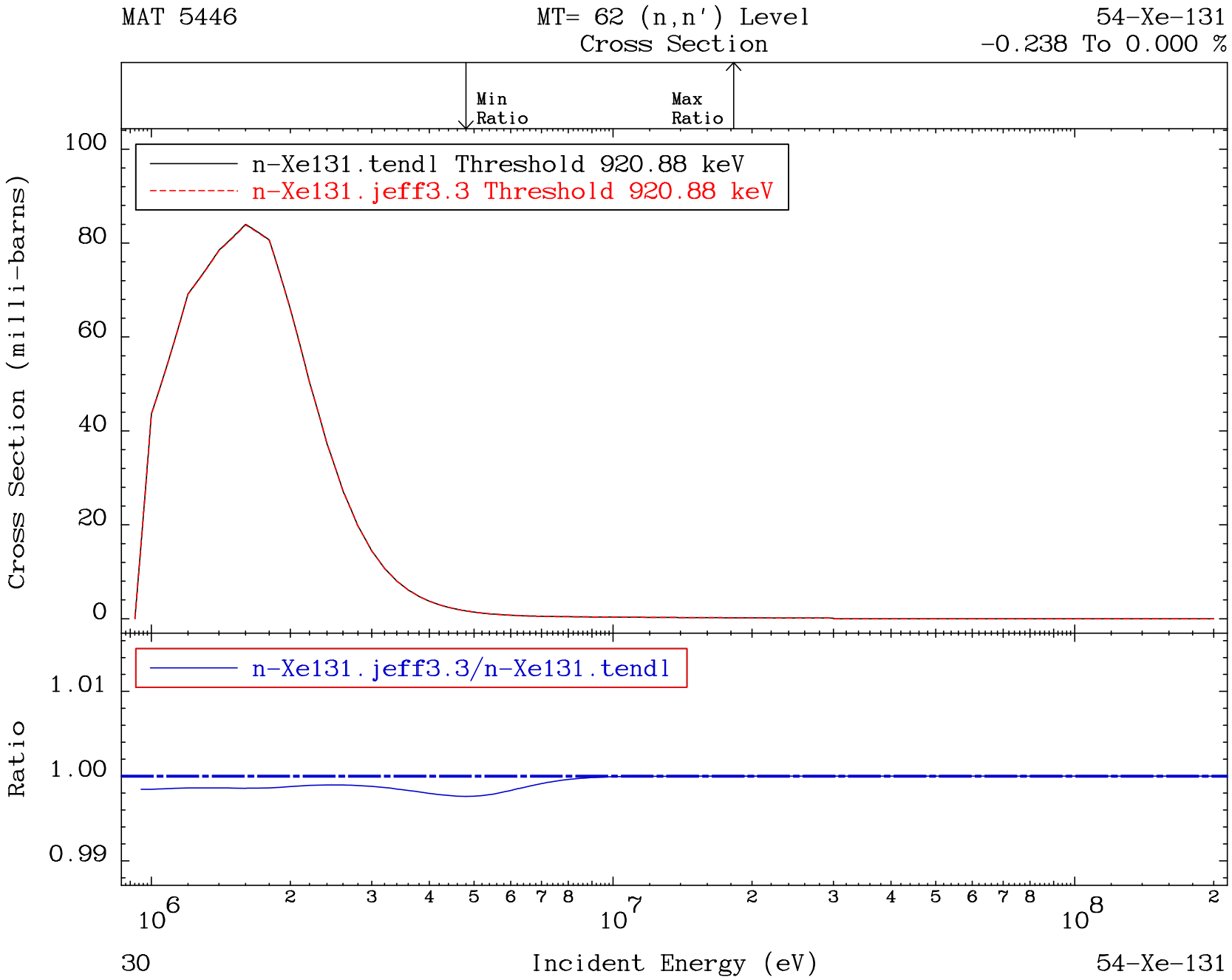

MAT 5446
MT= 57 (n,n') Level
Cross Section
54-Xe-131
-0.500 To 0.000 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 641.90 keV
n-Xe131.jeff3.3 Threshold 641.90 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
54-Xe-131

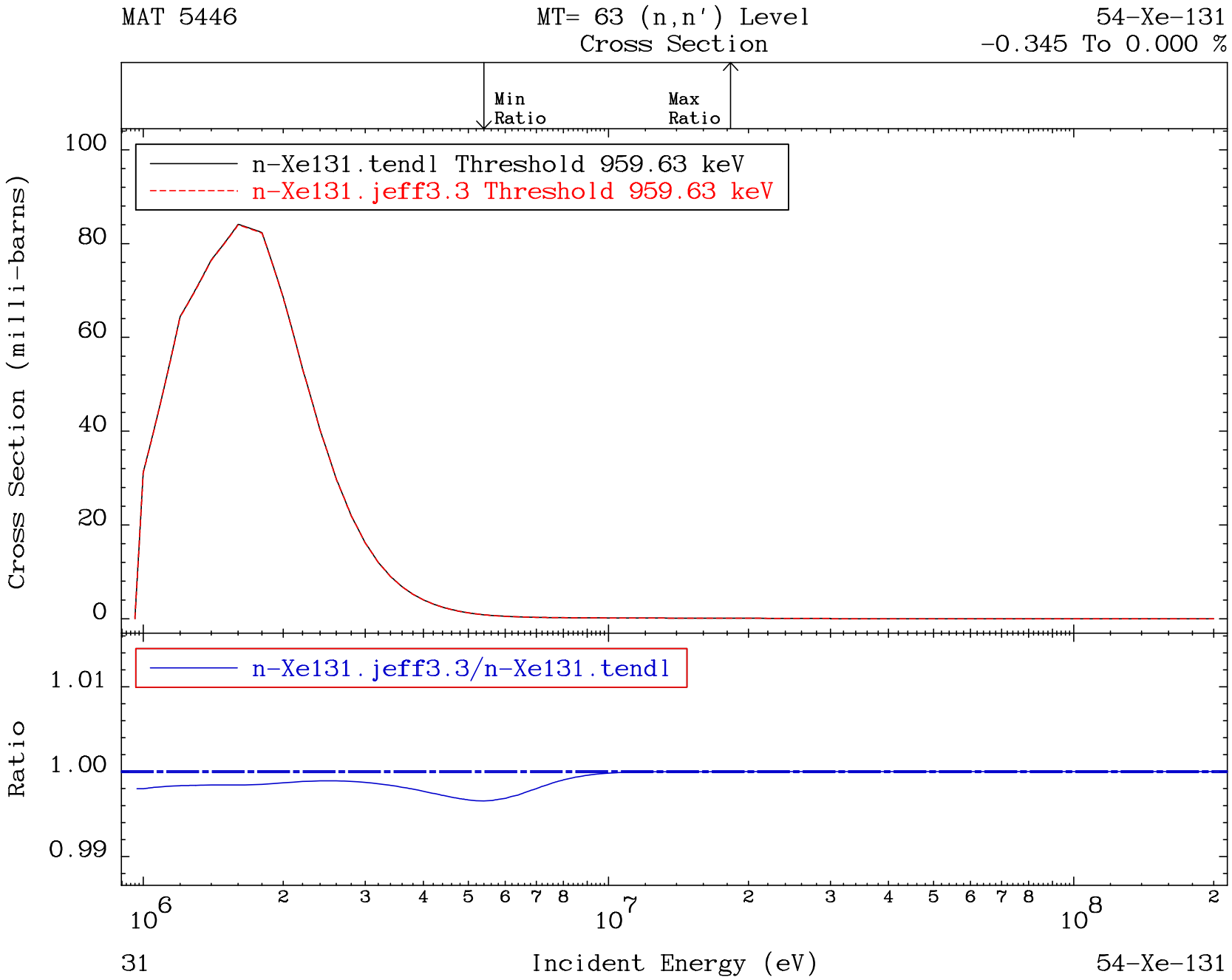

MAT 5446
MT= 58 (n,n') Level
Cross Section
54-Xe-131
-0.518 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 672.07 keV
n-Xe131.jeff3.3 Threshold 672.07 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
26
Incident Energy (eV)
54-Xe-131

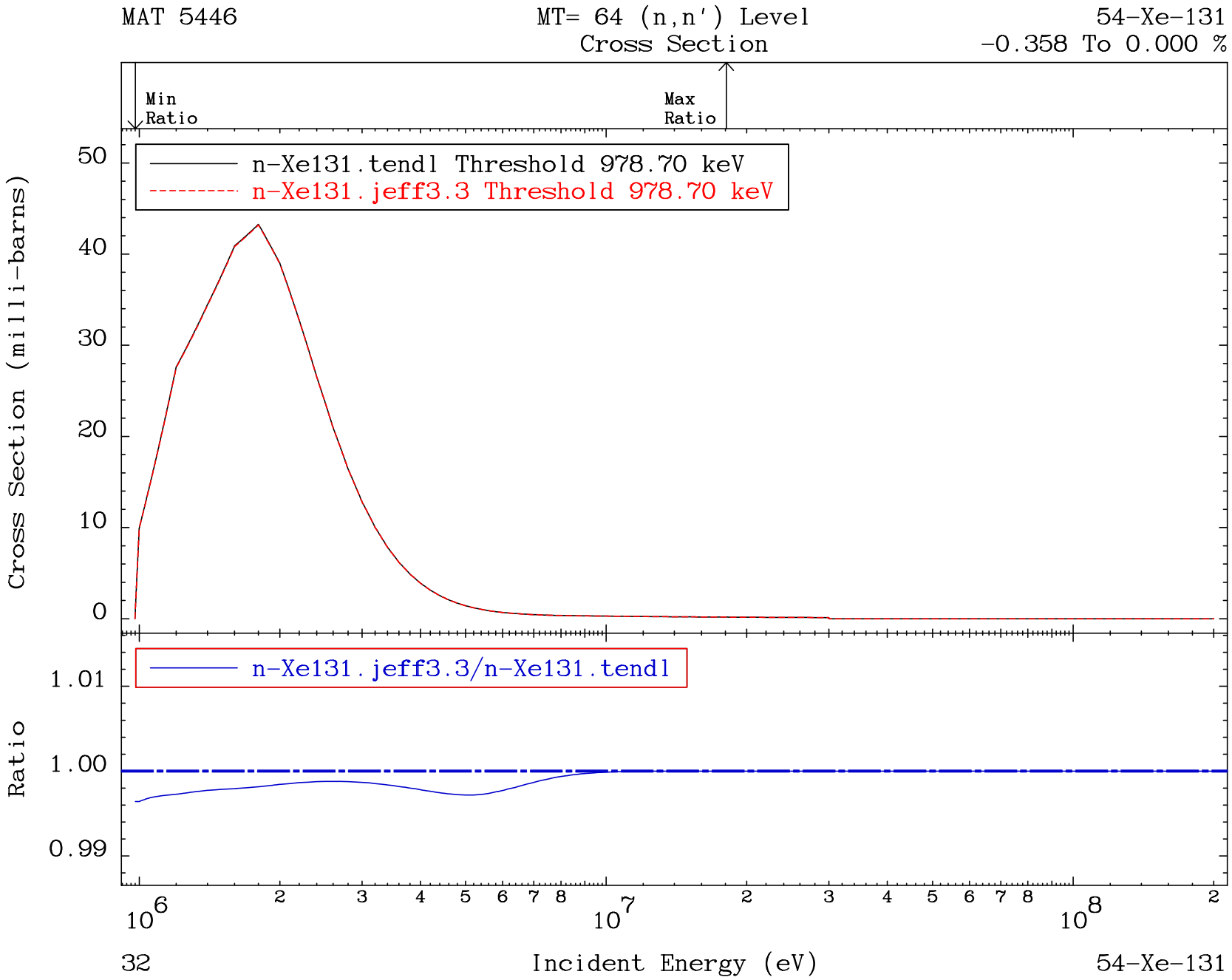

MAT 5446
MT= 59 (n,n') Level
Cross Section
54-Xe-131
-0.194 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 705.29 keV
n-Xe131.jeff3.3 Threshold 705.29 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
27
Incident Energy (eV)
54-Xe-131

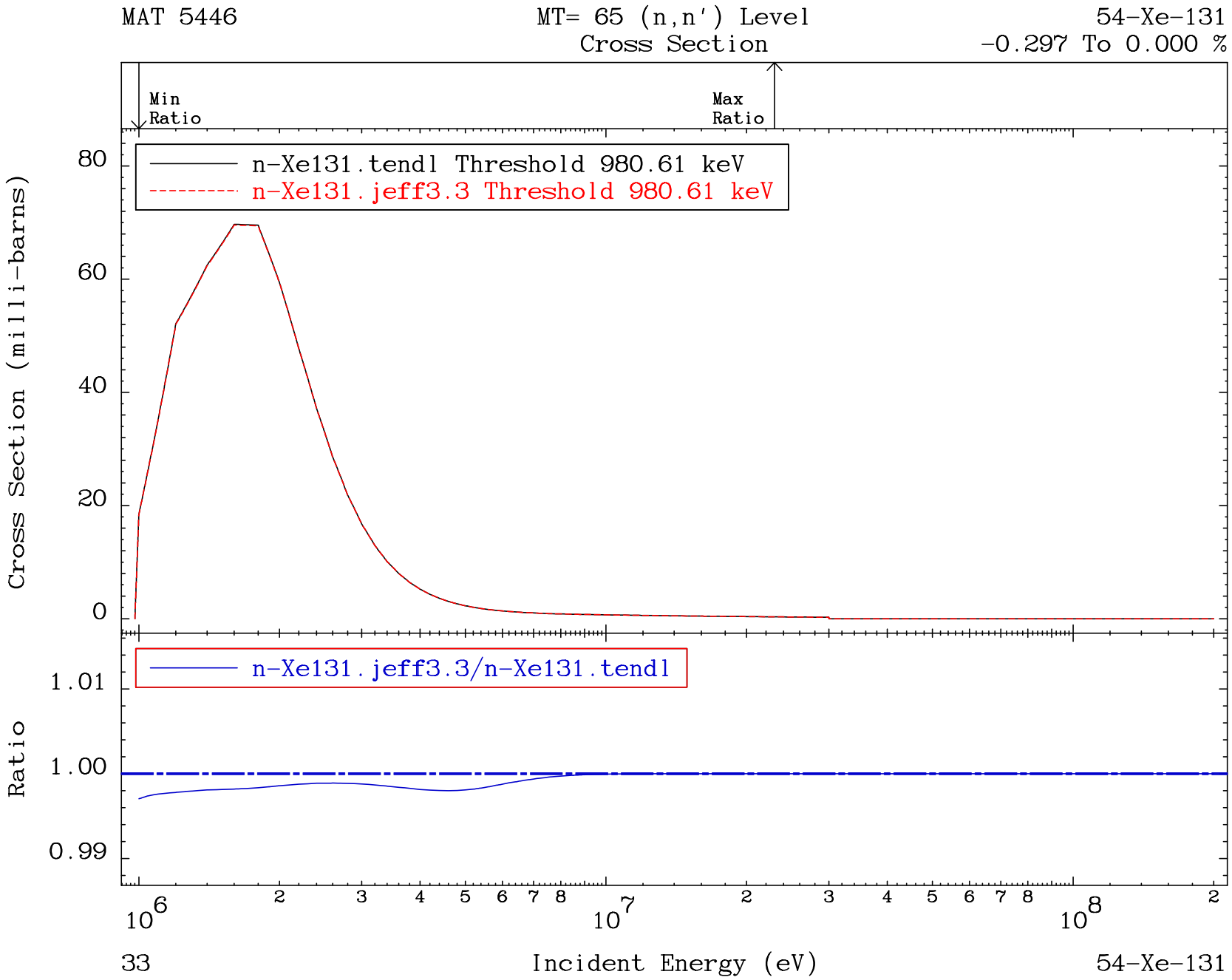

MAT 5446
MT= 60 (n,n') Level
Cross Section
54-Xe-131
-0.264 To 0.000 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 728.48 keV
n-Xe131.jeff3.3 Threshold 728.48 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
28
Incident Energy (eV)
54-Xe-131

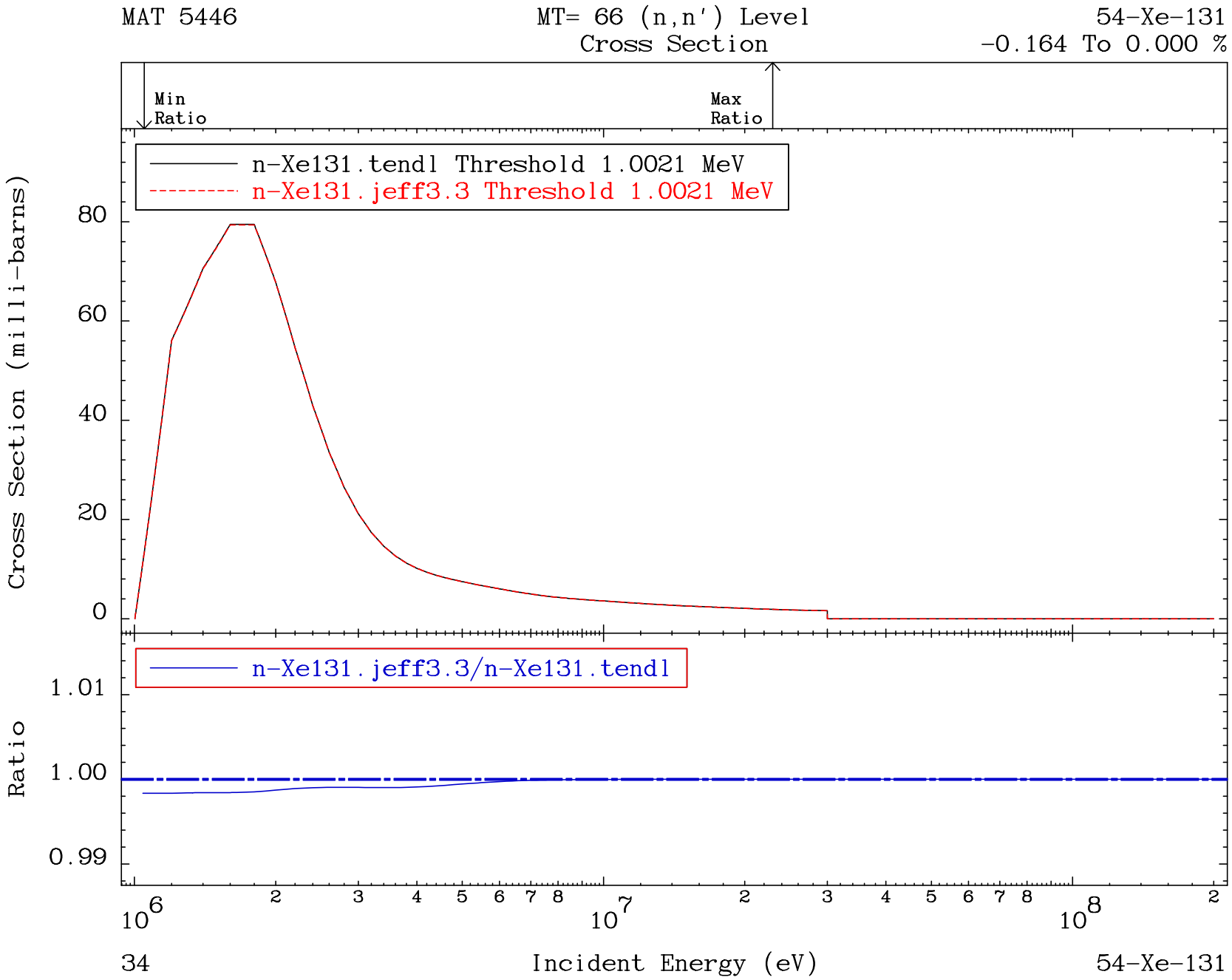

MAT 5446
MT= 61 (n,n') Level
Cross Section
54-Xe-131
-1.459 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 812.14 keV
n-Xe131.jeff3.3 Threshold 812.14 keV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
0.99
8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
29
Incident Energy (eV)
54-Xe-131

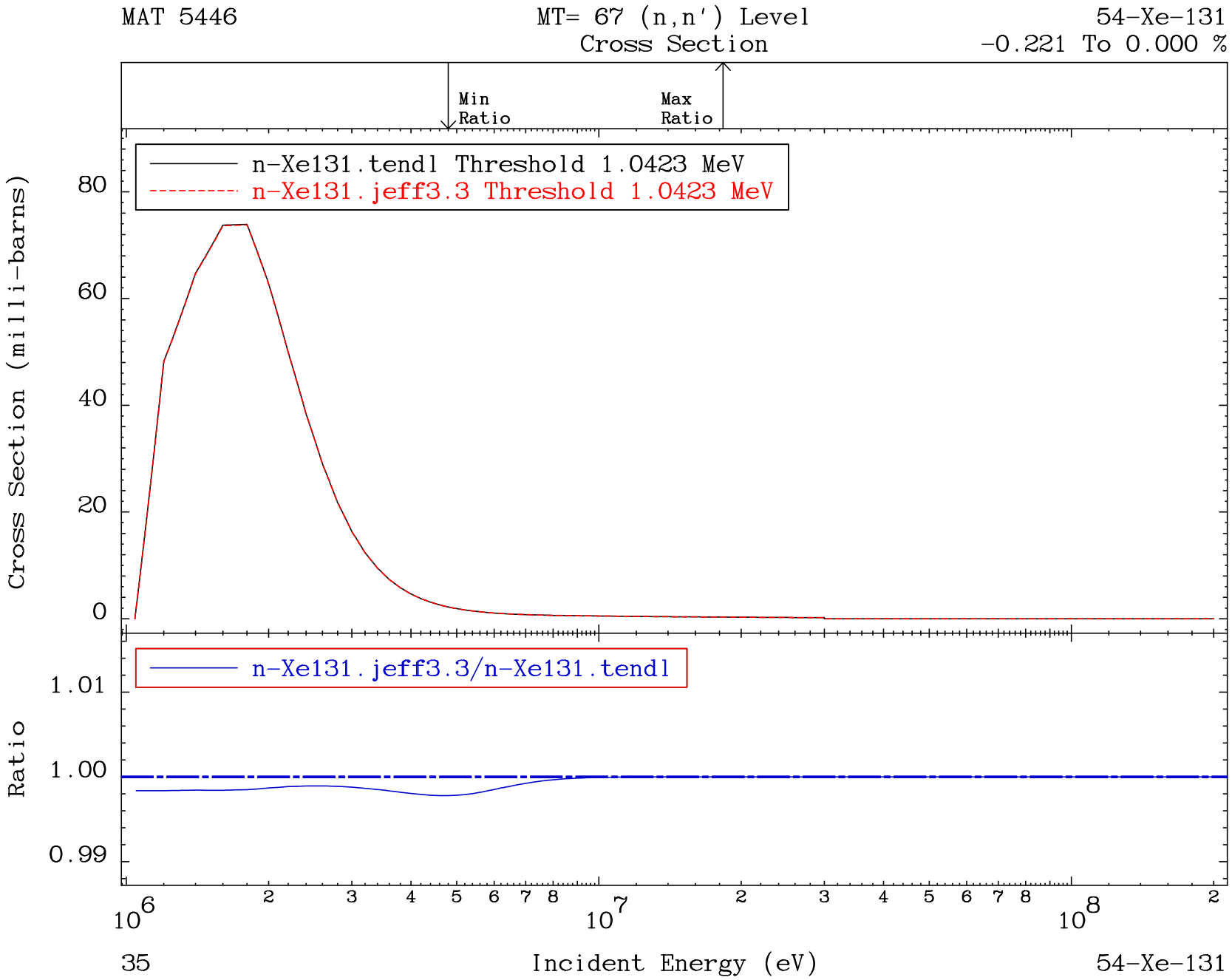

MAT 5446
MT= 62 (n,n') Level
Cross Section
54-Xe-131
-0.238 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 920.88 keV
n-Xe131.jeff3.3 Threshold 920.88 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
30
Incident Energy (eV)
54-Xe-131

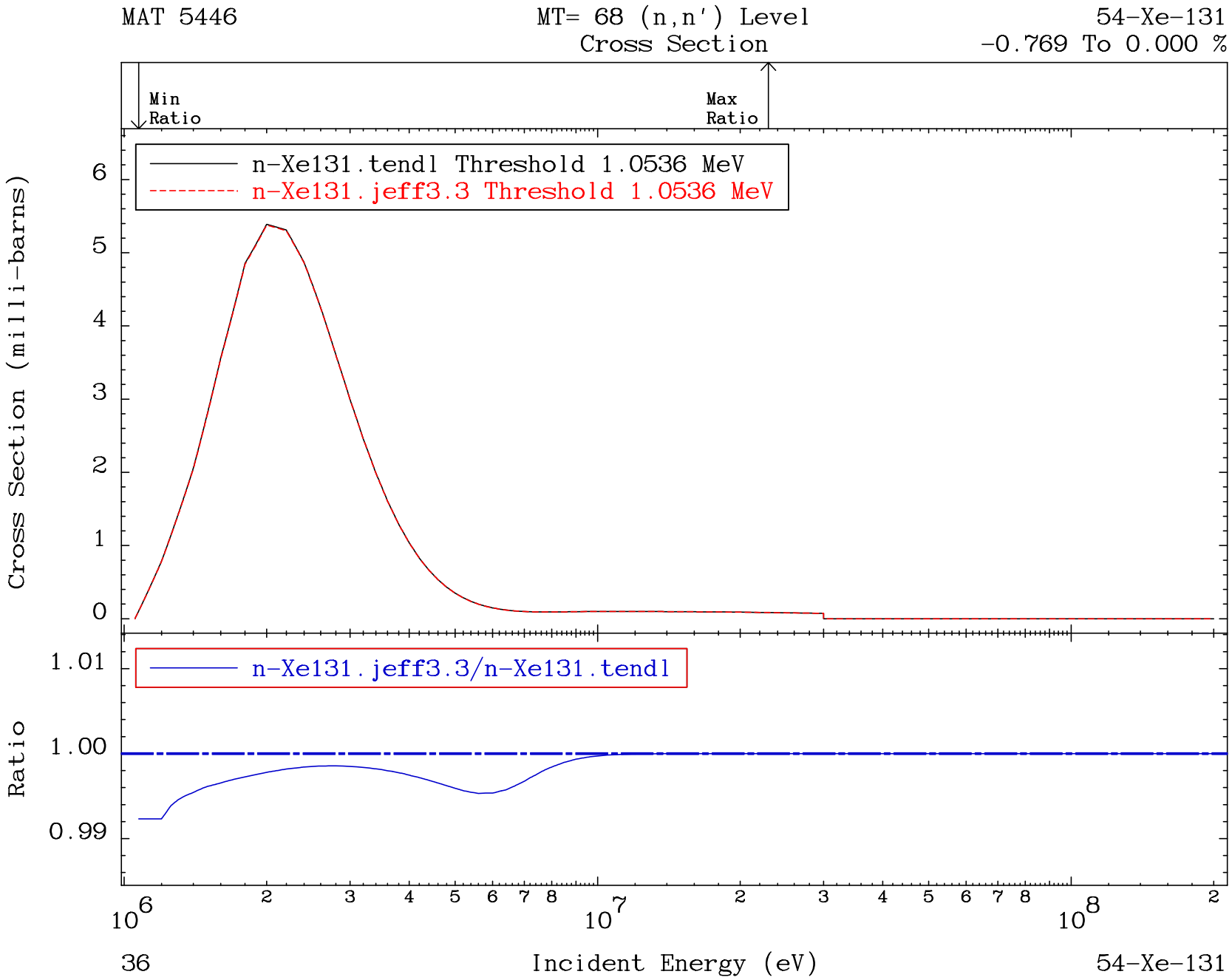

MAT 5446
MT= 63 (n,n') Level
Cross Section
54-Xe-131
-0.345 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 959.63 keV
n-Xe131.jeff3.3 Threshold 959.63 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
31
Incident Energy (eV)
54-Xe-131

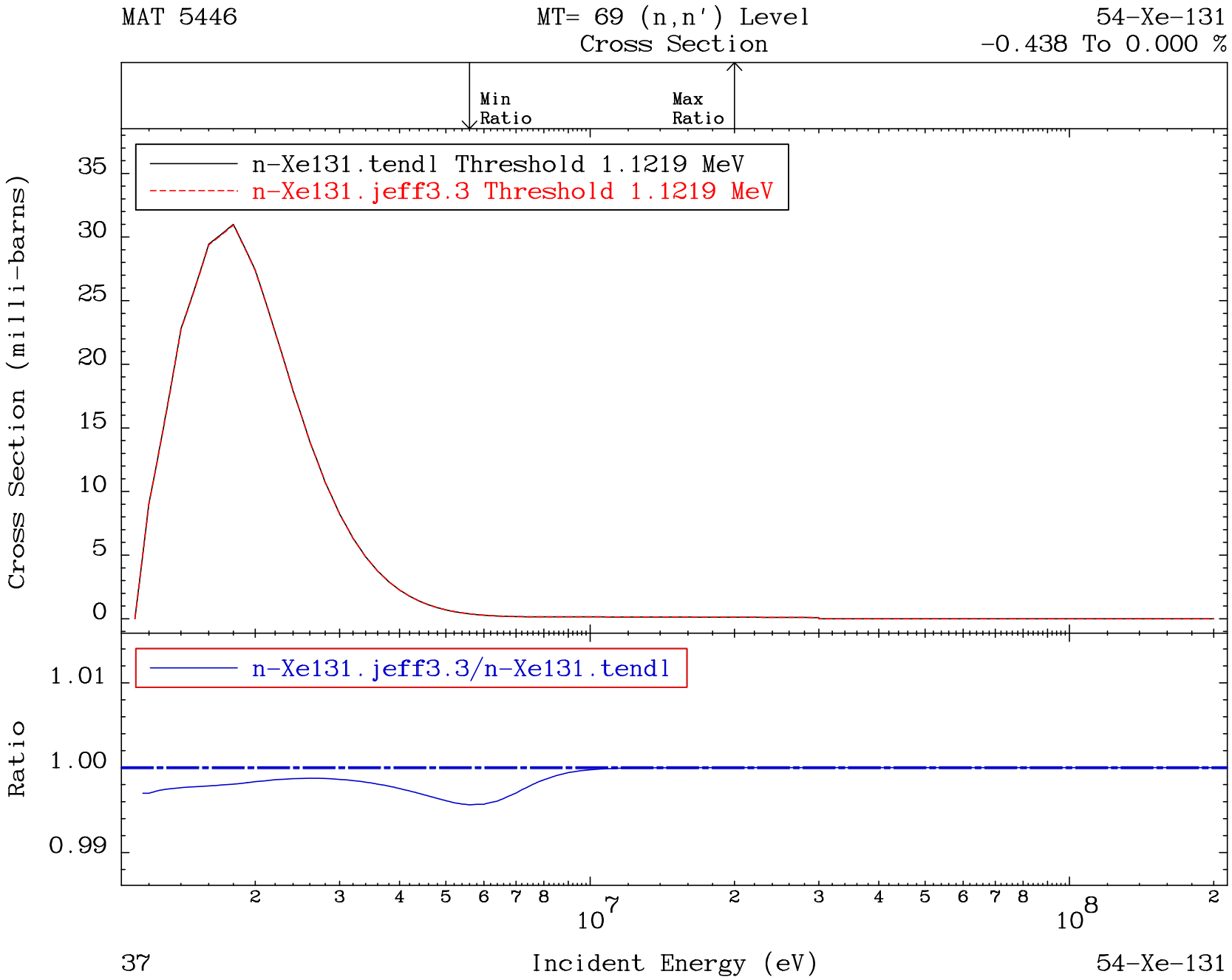

MAT 5446
MT= 64 (n,n') Level
Cross Section
54-Xe-131
-0.358 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 978.70 keV
n-Xe131.jeff3.3 Threshold 978.70 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
32
Incident Energy (eV)
54-Xe-131

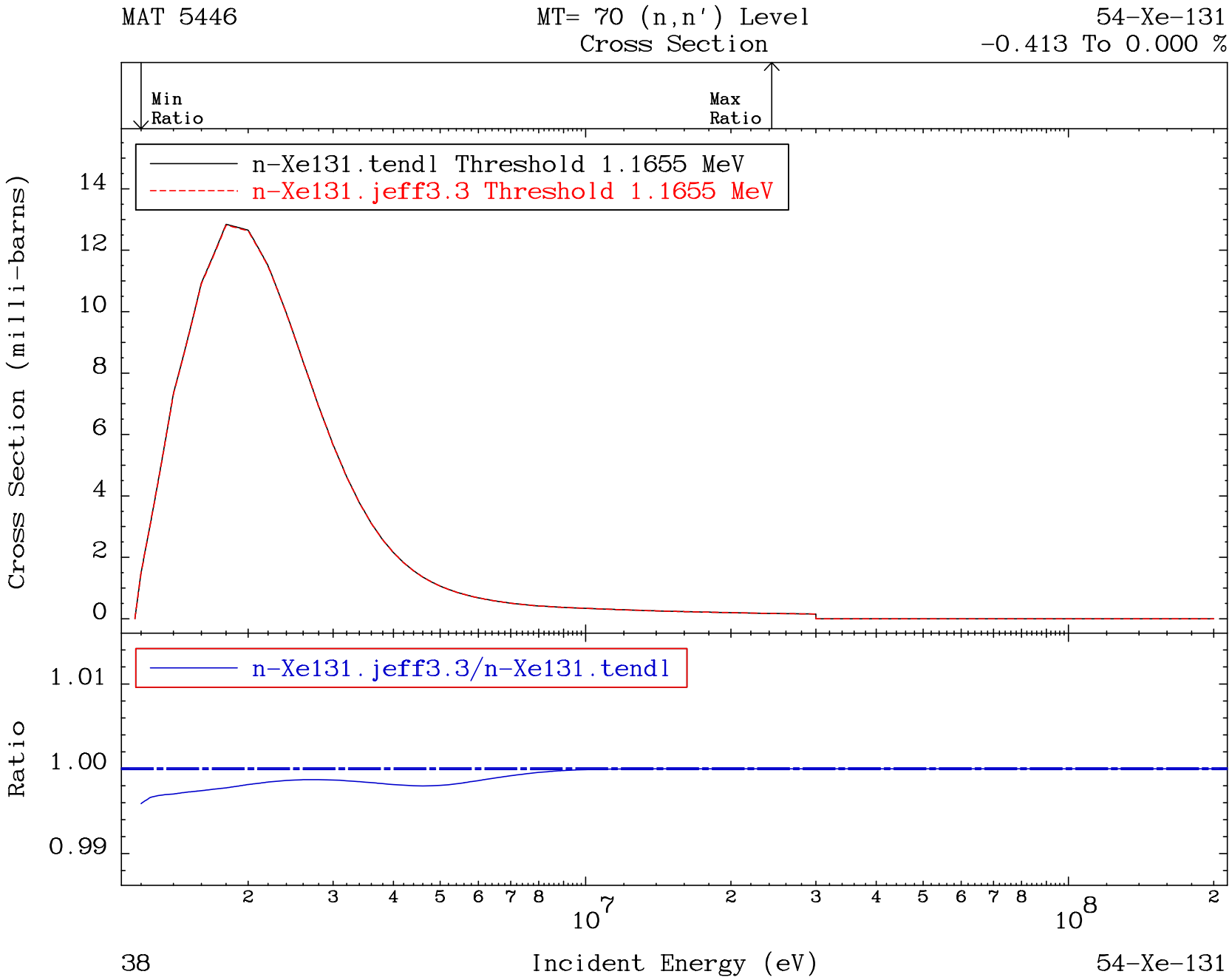

MAT 5446
MT= 65 (n,n') Level
Cross Section
54-Xe-131
-0.297 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 980.61 keV
n-Xe131.jeff3.3 Threshold 980.61 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
33
Incident Energy (eV)
54-Xe-131

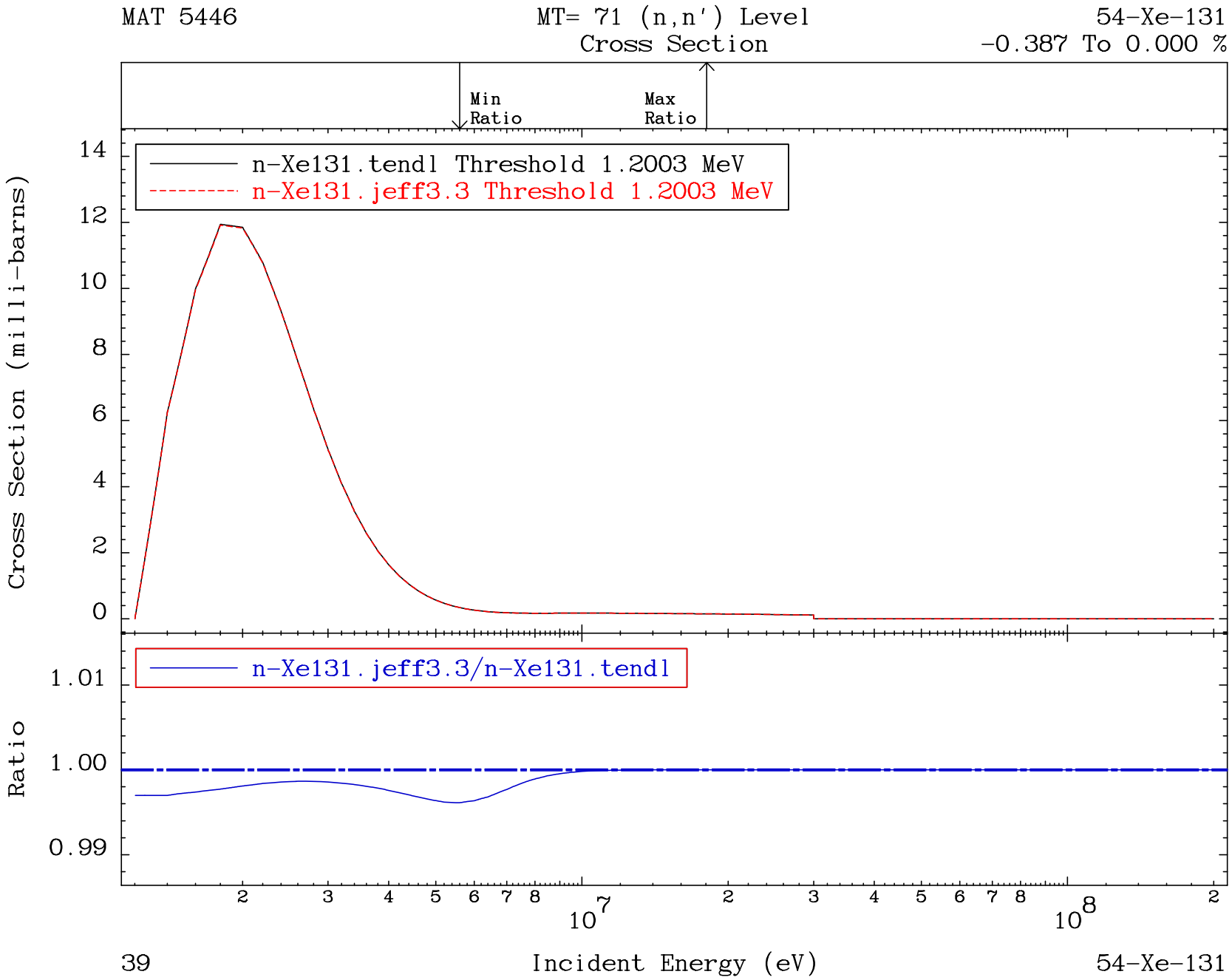

MAT 5446
MT= 66 (n,n') Level
Cross Section
54-Xe-131
-0.164 To 0.000 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 1.0021 MeV
n-Xe131.jeff3.3 Threshold 1.0021 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
34
Incident Energy (eV)
54-Xe-131

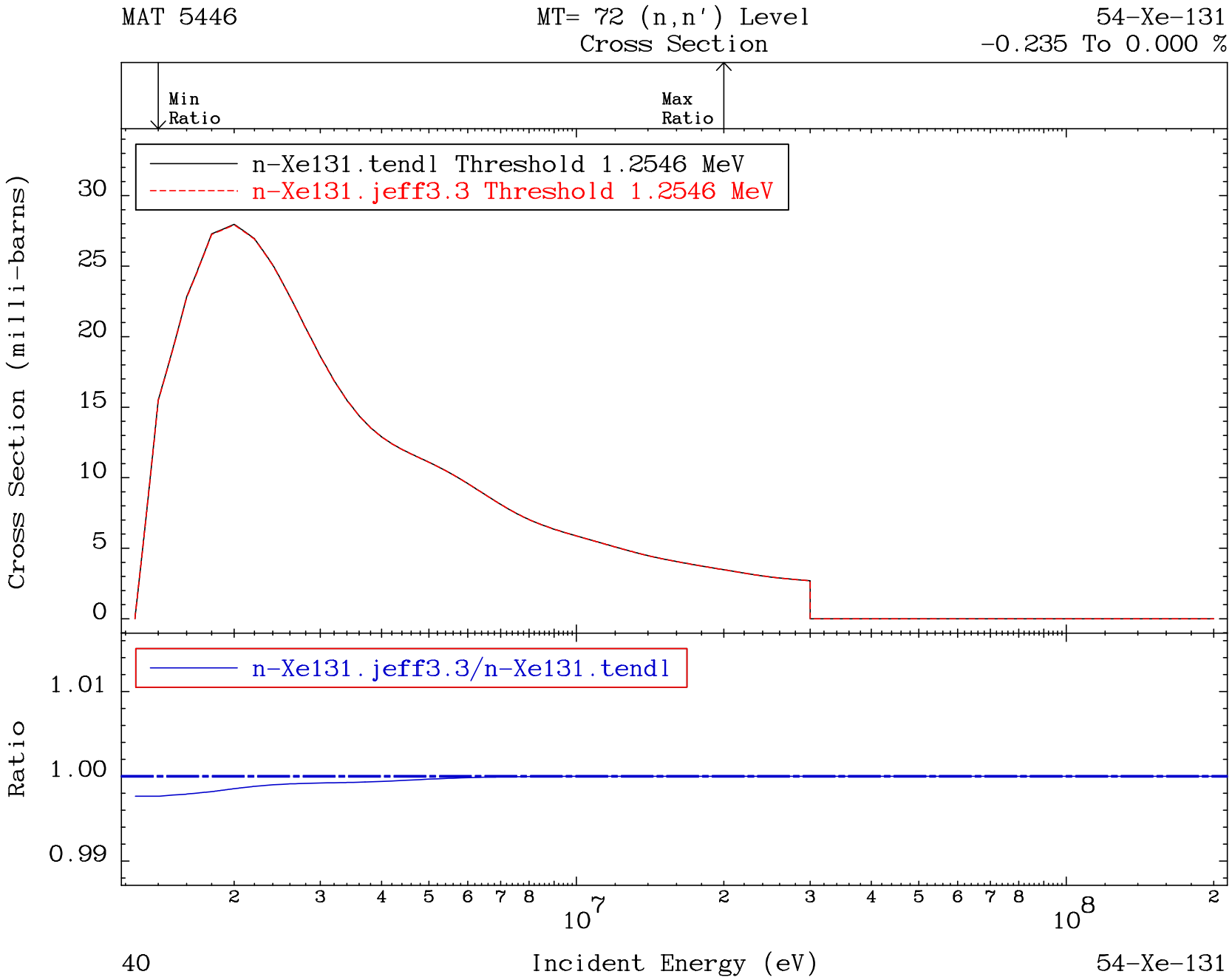

MAT 5446
MT= 67 (n,n') Level
Cross Section
54-Xe-131
-0.221 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.0423 MeV
n-Xe131.jeff3.3 Threshold 1.0423 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
35
Incident Energy (eV)
54-Xe-131

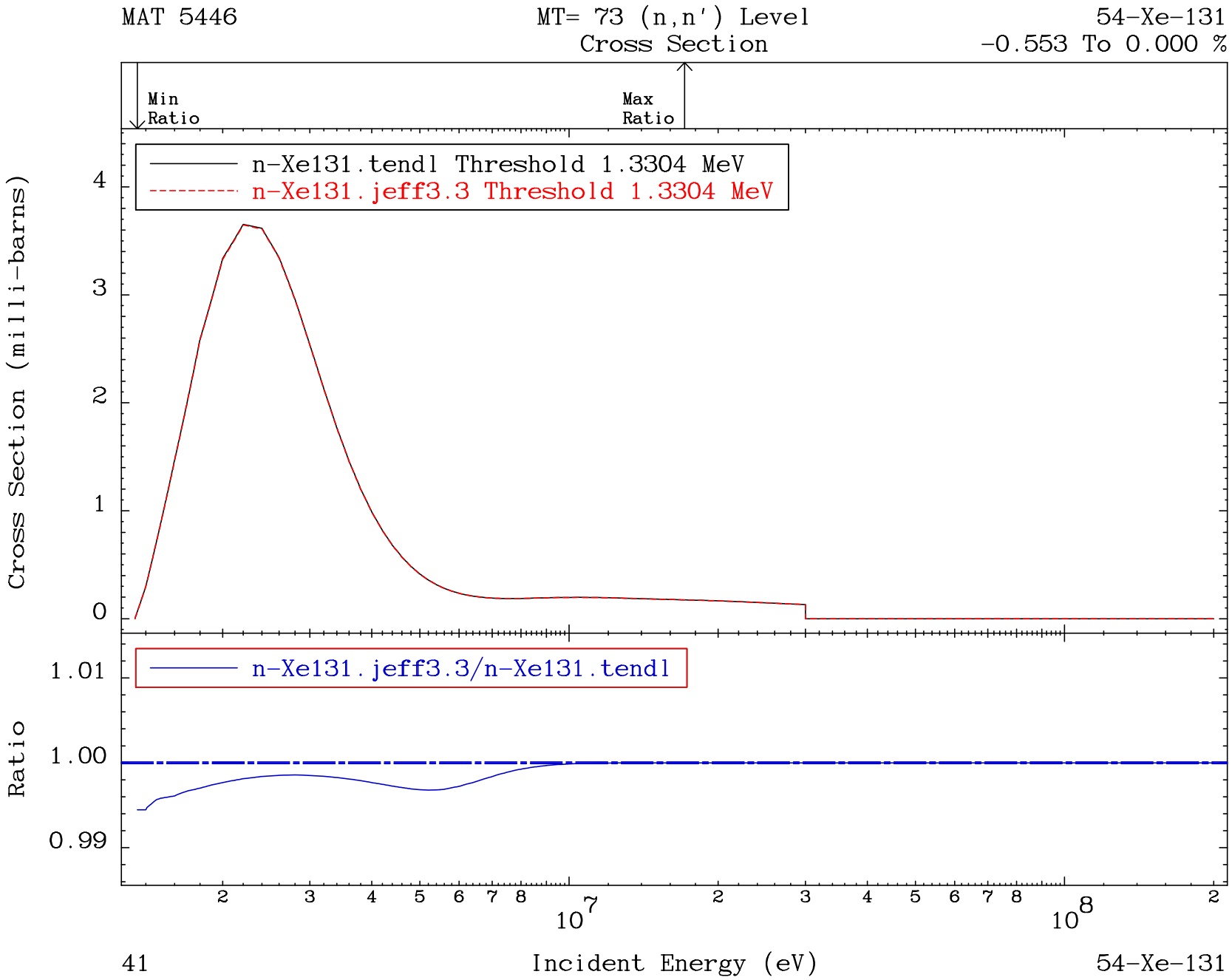

MAT 5446
MT= 68 (n,n') Level
Cross Section
54-Xe-131
-0.769 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.0536 MeV
n-Xe131.jeff3.3 Threshold 1.0536 MeV
Cross Section (milli-barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
36
54-Xe-131

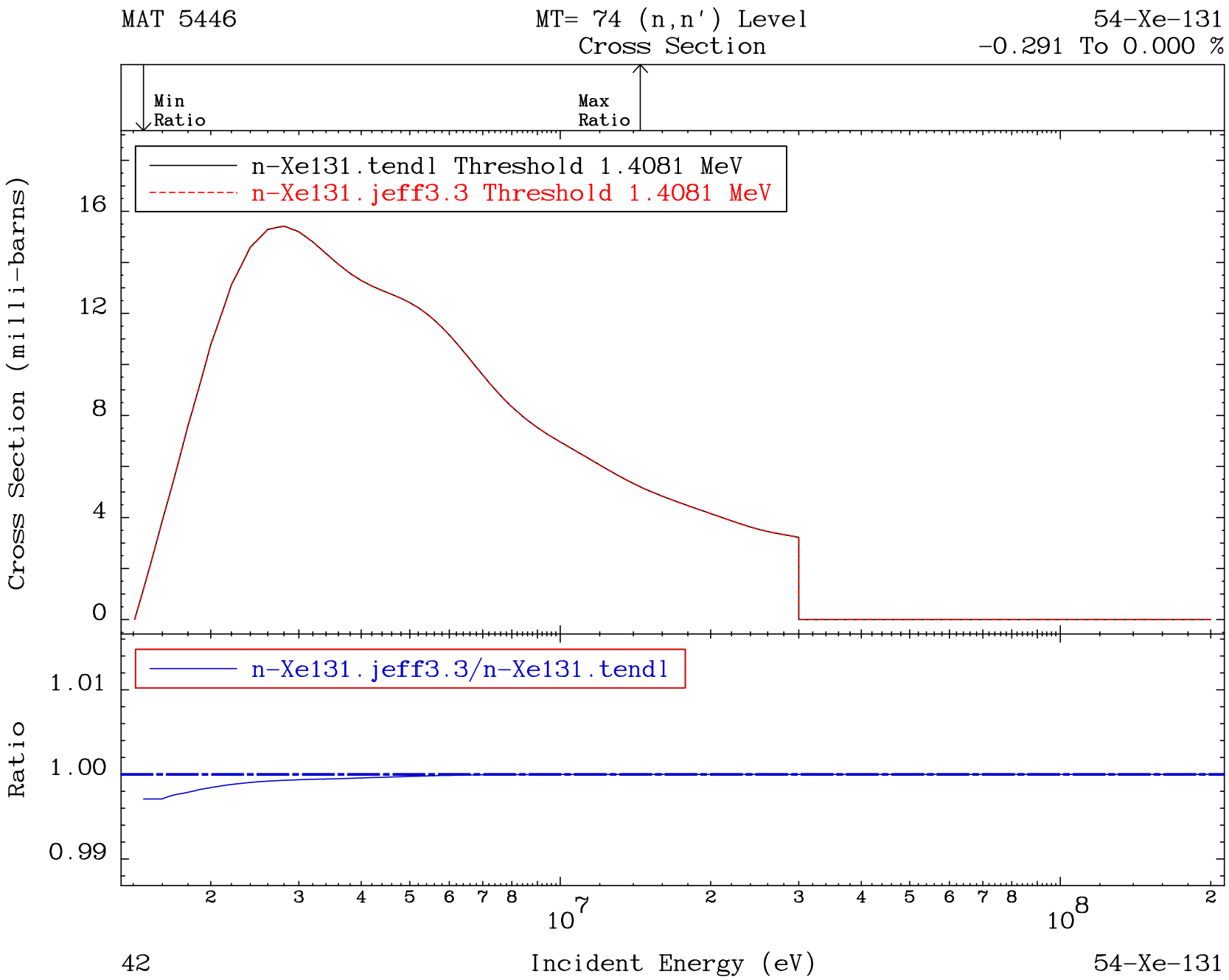

MAT 5446
MT= 69 (n,n') Level
Cross Section
54-Xe-131
-0.438 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.1219 MeV
n-Xe131.jeff3.3 Threshold 1.1219 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
37
Incident Energy (eV)
54-Xe-131

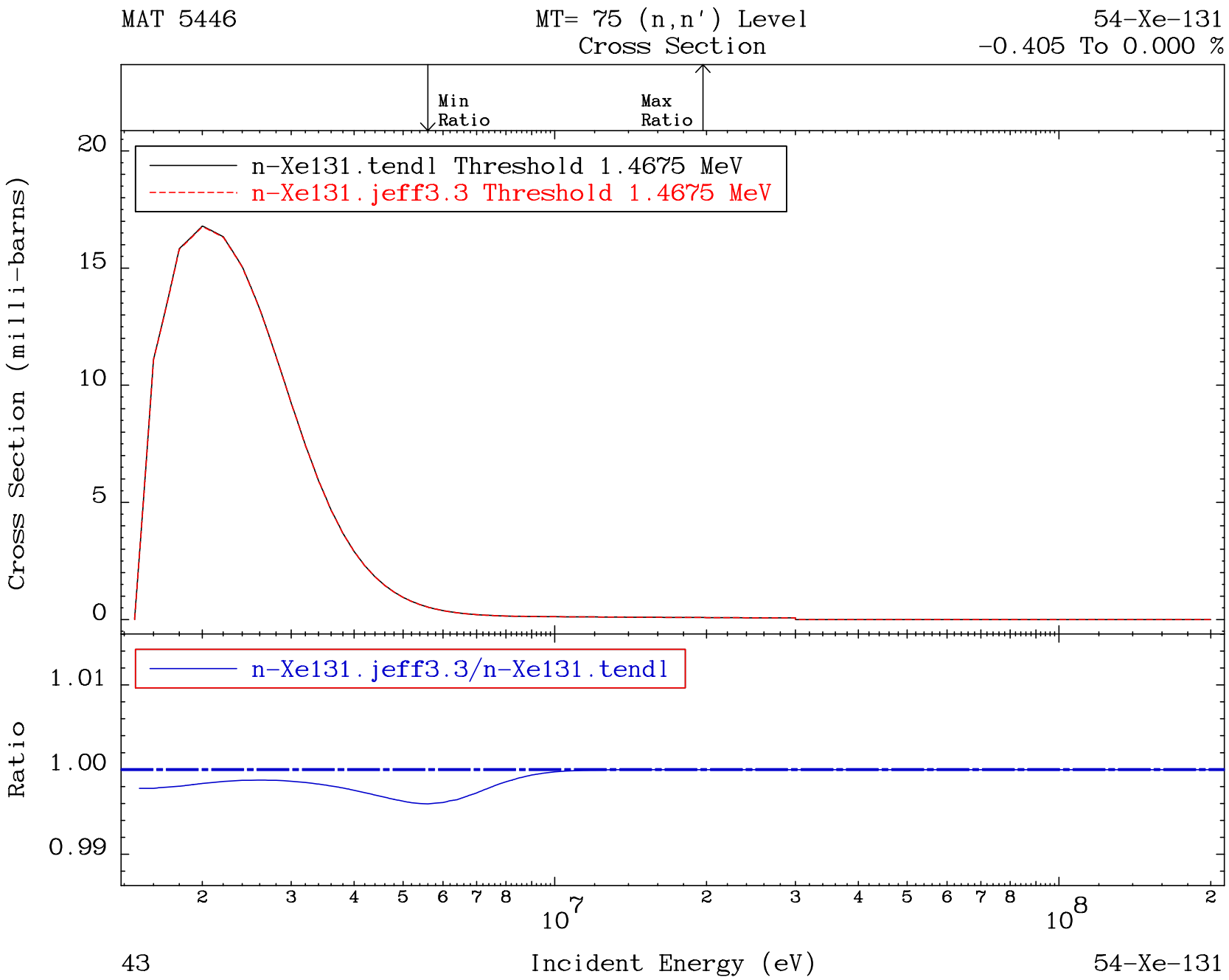

MAT 5446
MT= 70 (n,n') Level
Cross Section
54-Xe-131
-0.413 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.1655 MeV
n-Xe131.jeff3.3 Threshold 1.1655 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
38
Incident Energy (eV)
54-Xe-131

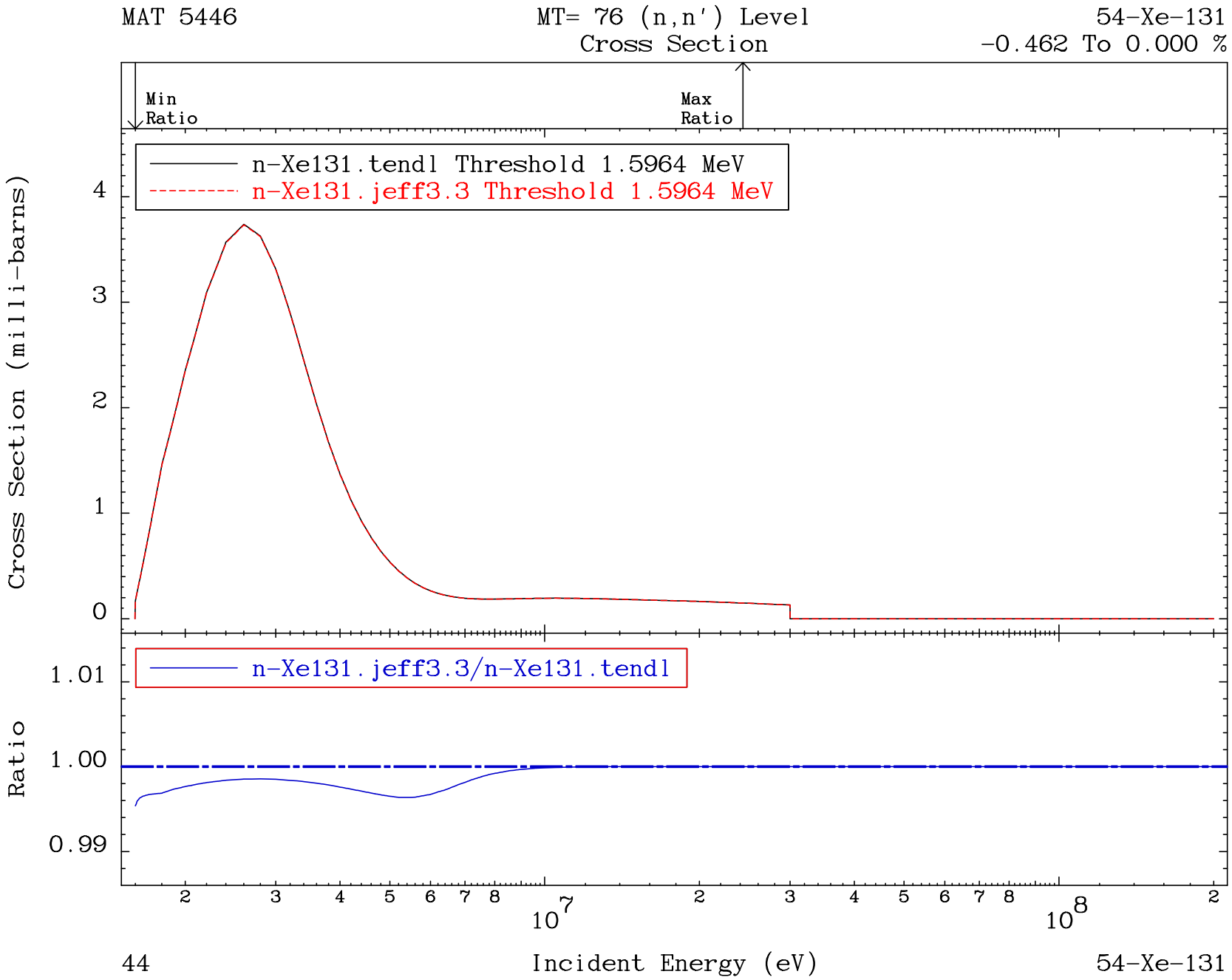

MAT 5446
MT= 71 (n,n') Level
Cross Section
54-Xe-131
-0.387 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.2003 MeV
n-Xe131.jeff3.3 Threshold 1.2003 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
39
Incident Energy (eV)
54-Xe-131

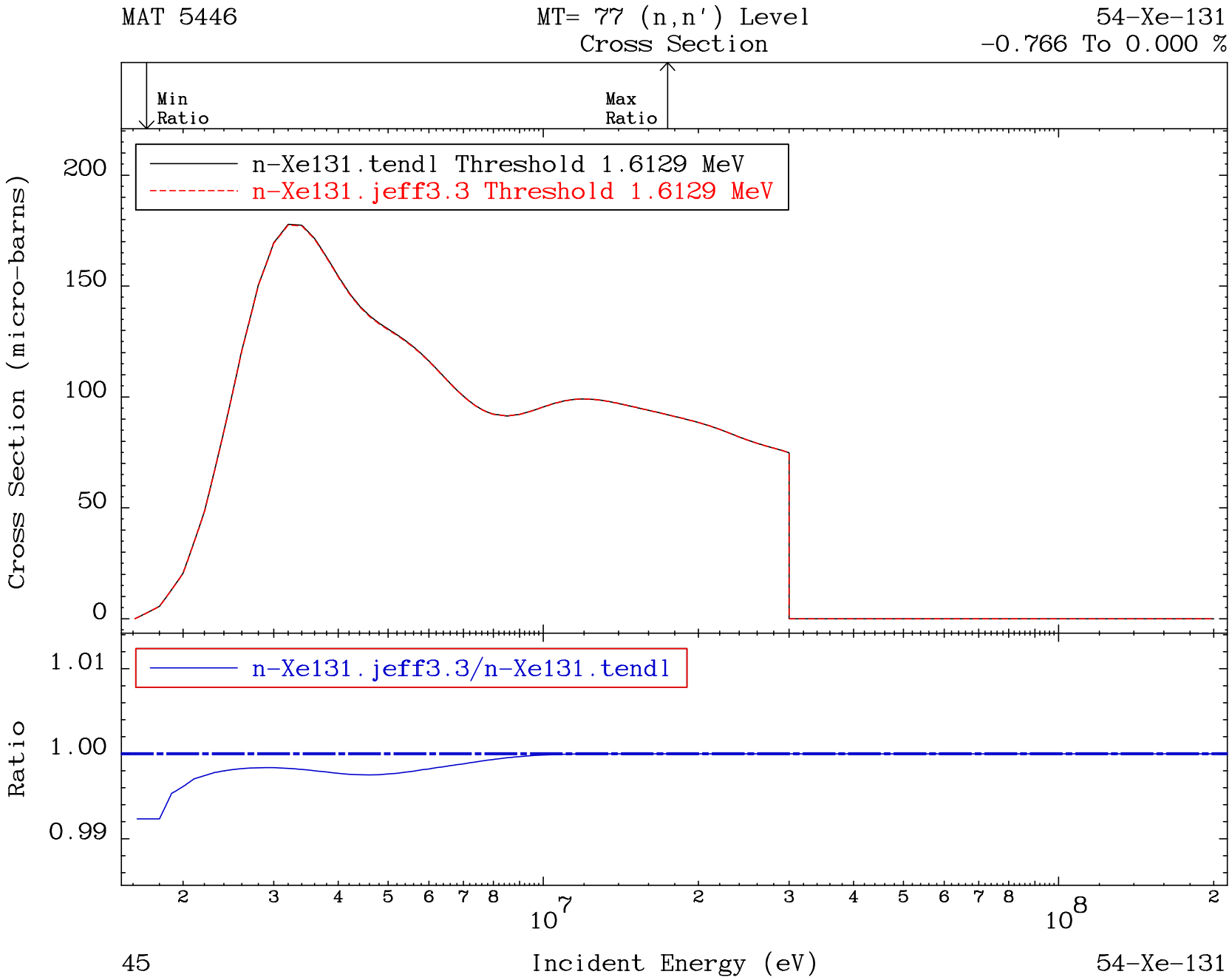

MAT 5446
MT= 72 (n,n') Level
Cross Section
54-Xe-131
-0.235 To 0.000 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 1.2546 MeV
n-Xe131.jeff3.3 Threshold 1.2546 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
40
Incident Energy (eV)
54-Xe-131

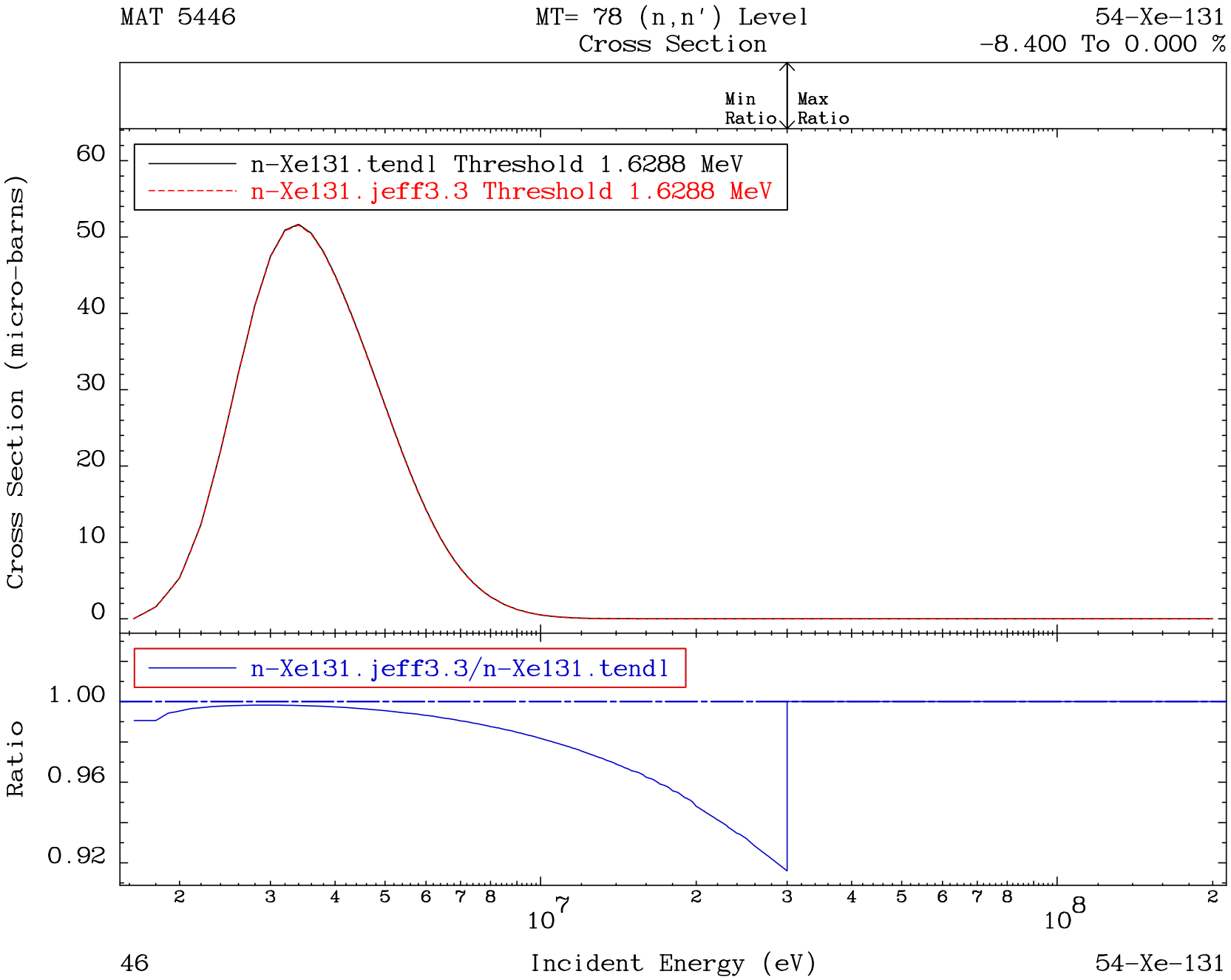

MAT 5446
MT= 73 (n,n') Level
Cross Section
54-Xe-131
-0.553 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.3304 MeV
n-Xe131.jeff3.3 Threshold 1.3304 MeV
Cross Section (milli-barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
41
54-Xe-131

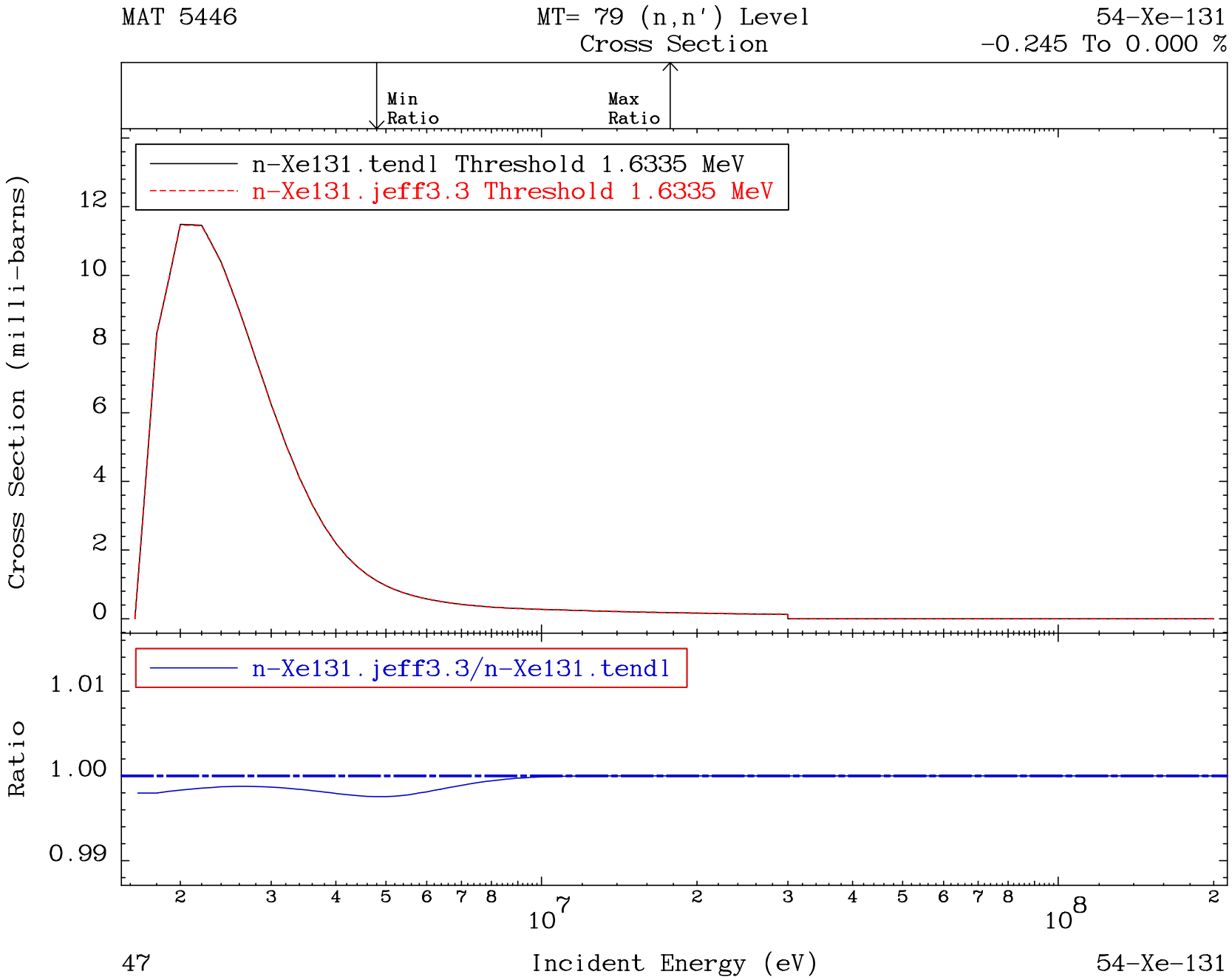

MAT 5446
MT= 74 (n,n') Level
Cross Section
54-Xe-131
-0.291 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.4081 MeV
n-Xe131.jeff3.3 Threshold 1.4081 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
42
Incident Energy (eV)
54-Xe-131

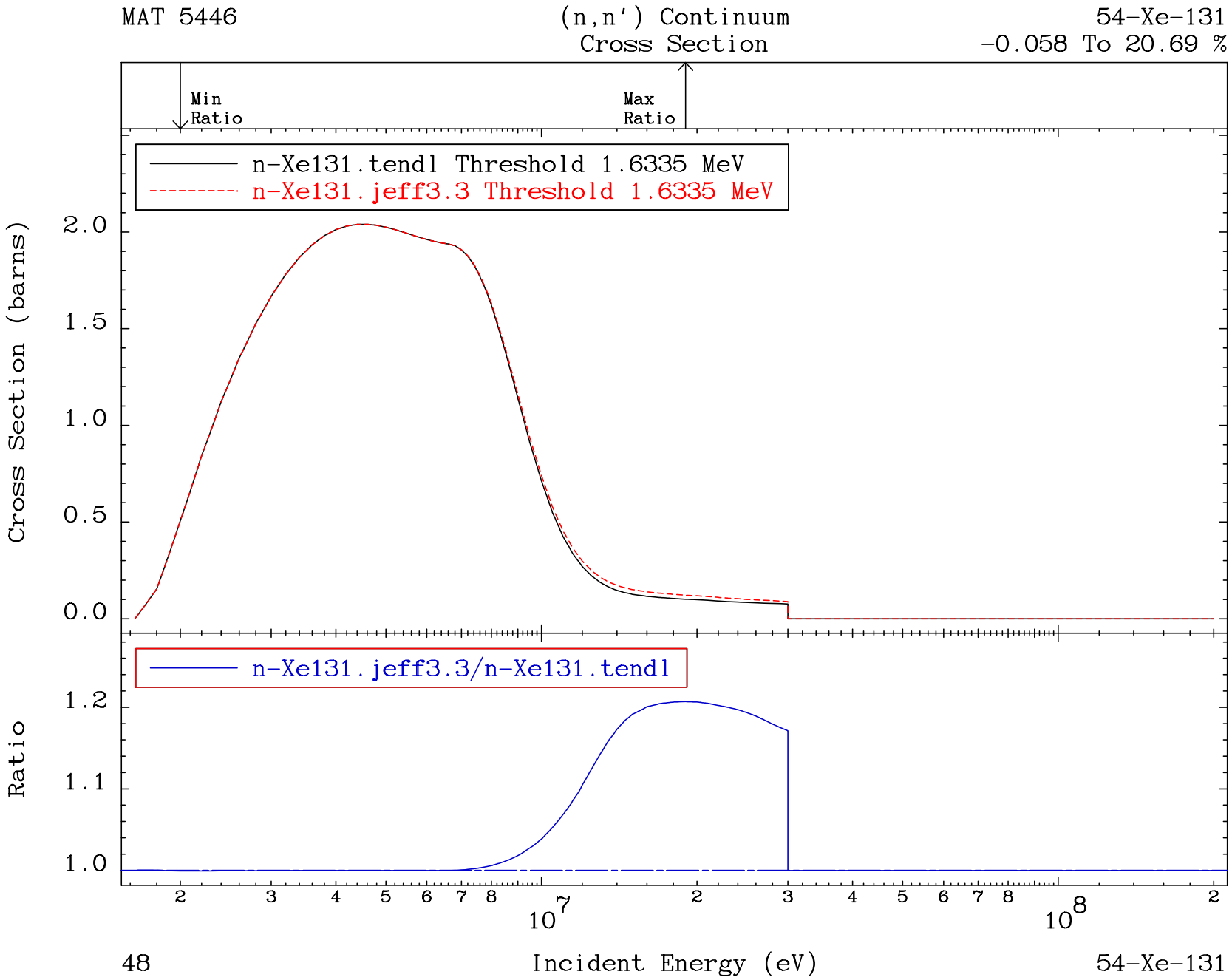

MAT 5446
MT= 75 (n,n') Level
Cross Section
54-Xe-131
-0.405 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.4675 MeV
n-Xe131.jeff3.3 Threshold 1.4675 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
43
Incident Energy (eV)
54-Xe-131

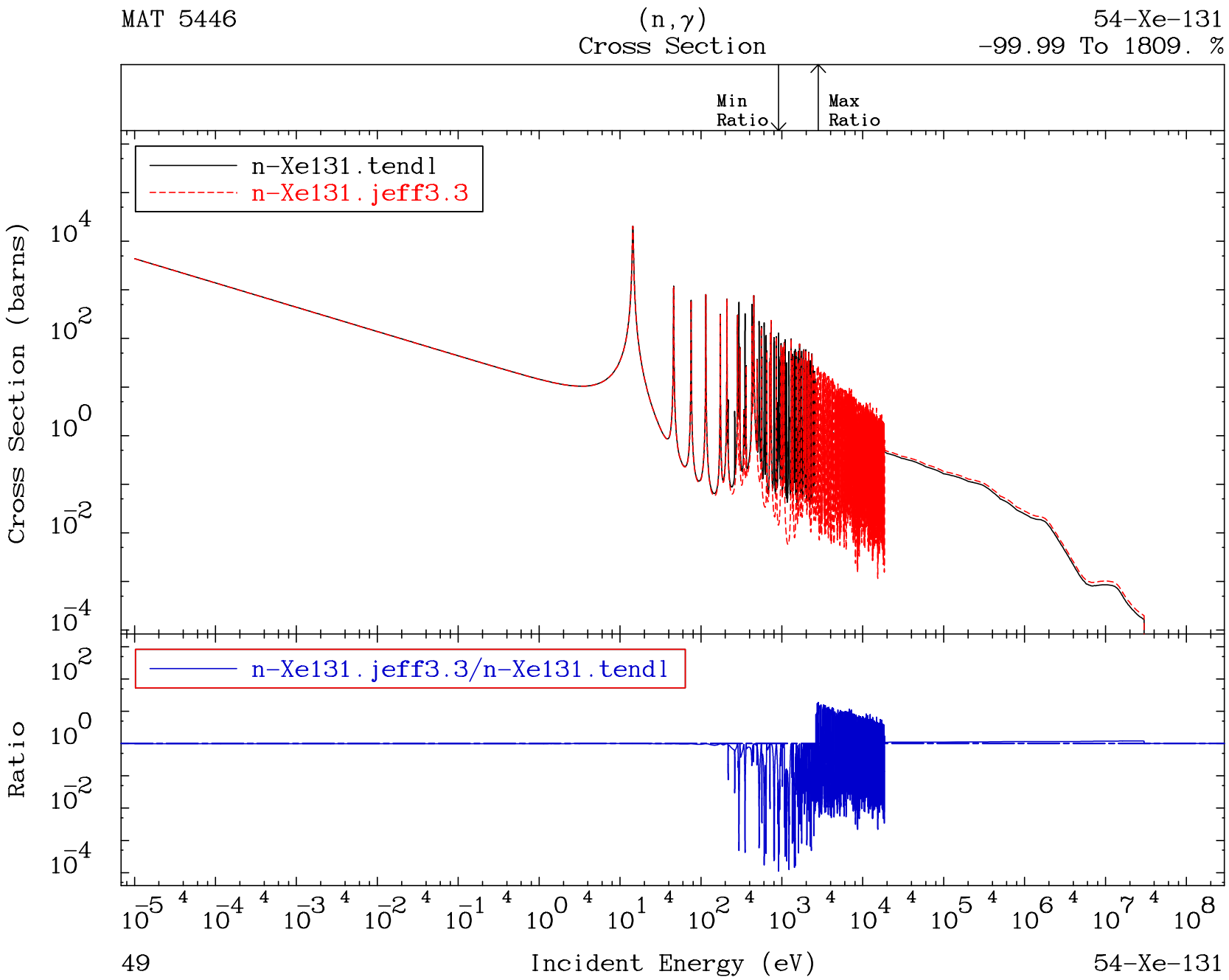

MAT 5446
MT= 76 (n,n') Level
Cross Section
54-Xe-131
-0.462 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.5964 MeV
n-Xe131.jeff3.3 Threshold 1.5964 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
0.99
1.00
1.01
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
44
54-Xe-131

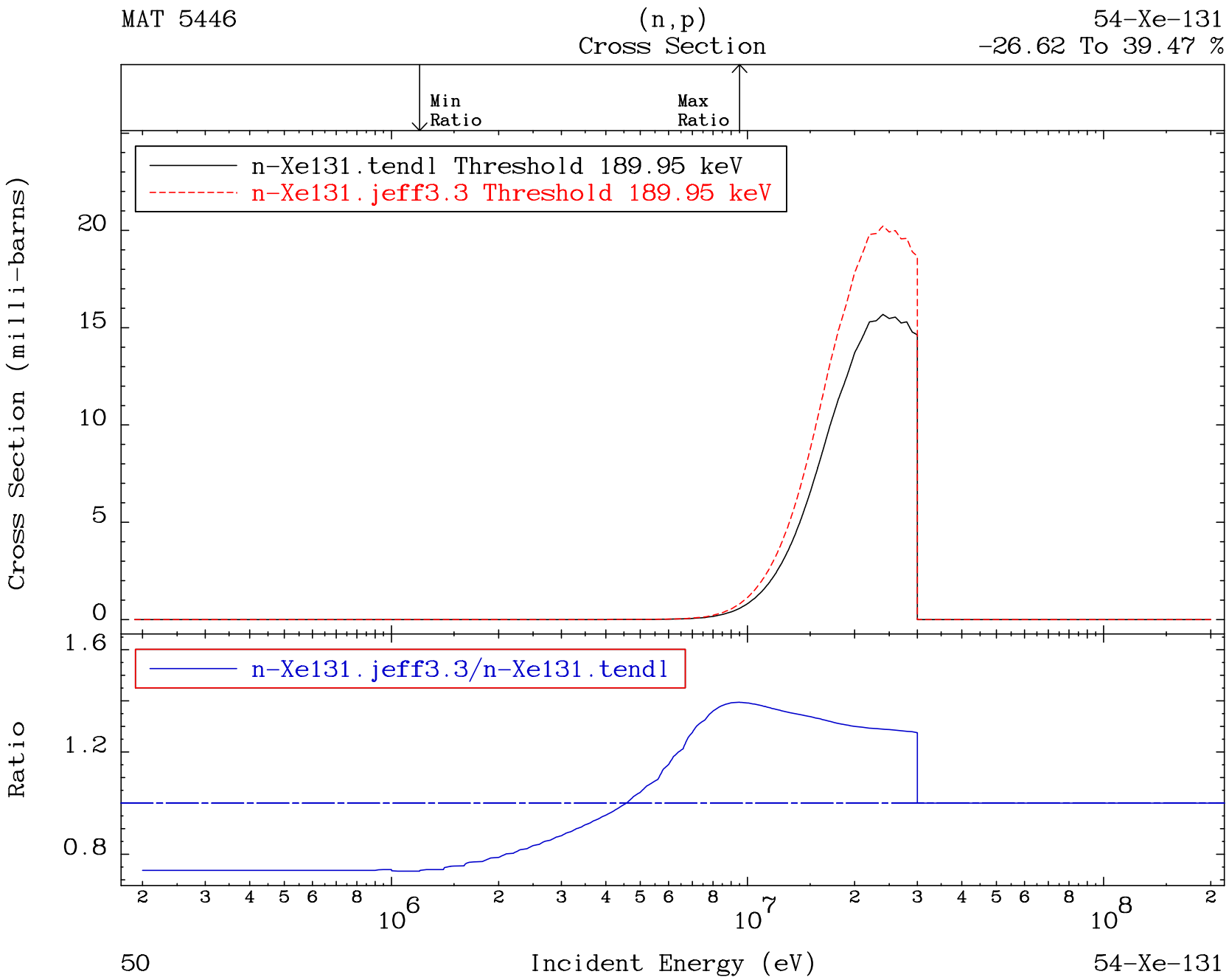

MAT 5446
MT= 77 (n,n') Level
Cross Section
54-Xe-131
-0.766 To 0.000 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 1.6129 MeV
n-Xe131.jeff3.3 Threshold 1.6129 MeV
Cross Section (micro-barns)
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
45
Incident Energy (eV)
54-Xe-131

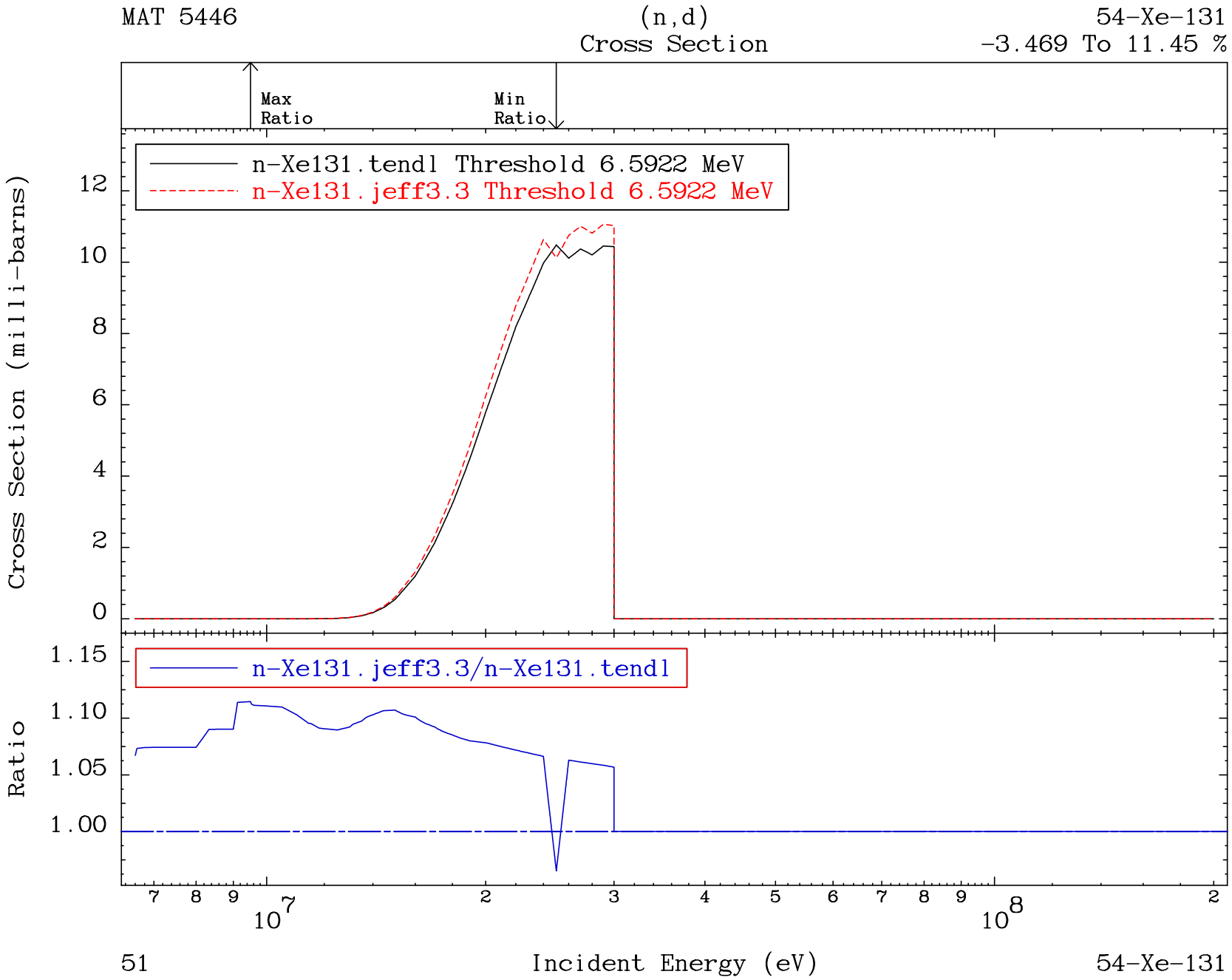

MAT 5446
MT= 78 (n,n') Level
Cross Section
54-Xe-131
-8.400 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.6288 MeV
n-Xe131.jeff3.3 Threshold 1.6288 MeV
Cross Section (micro-barns)
60
50
40
30
20
10
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
0.96
0.92
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
46
Incident Energy (eV)
54-Xe-131

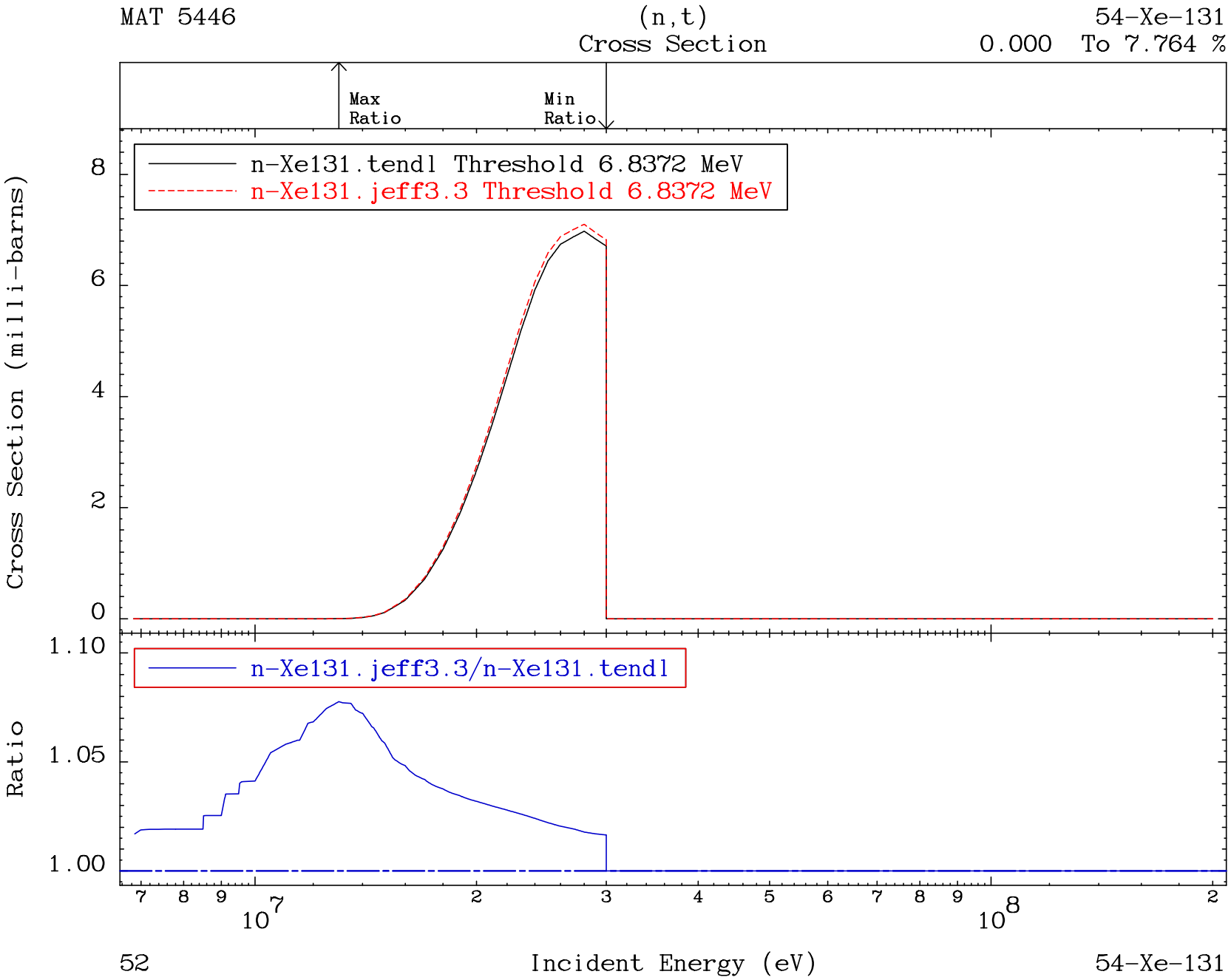

MAT 5446
MT= 79 (n,n') Level
Cross Section
54-Xe-131
-0.245 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.6335 MeV
n-Xe131.jeff3.3 Threshold 1.6335 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
47
Incident Energy (eV)
54-Xe-131

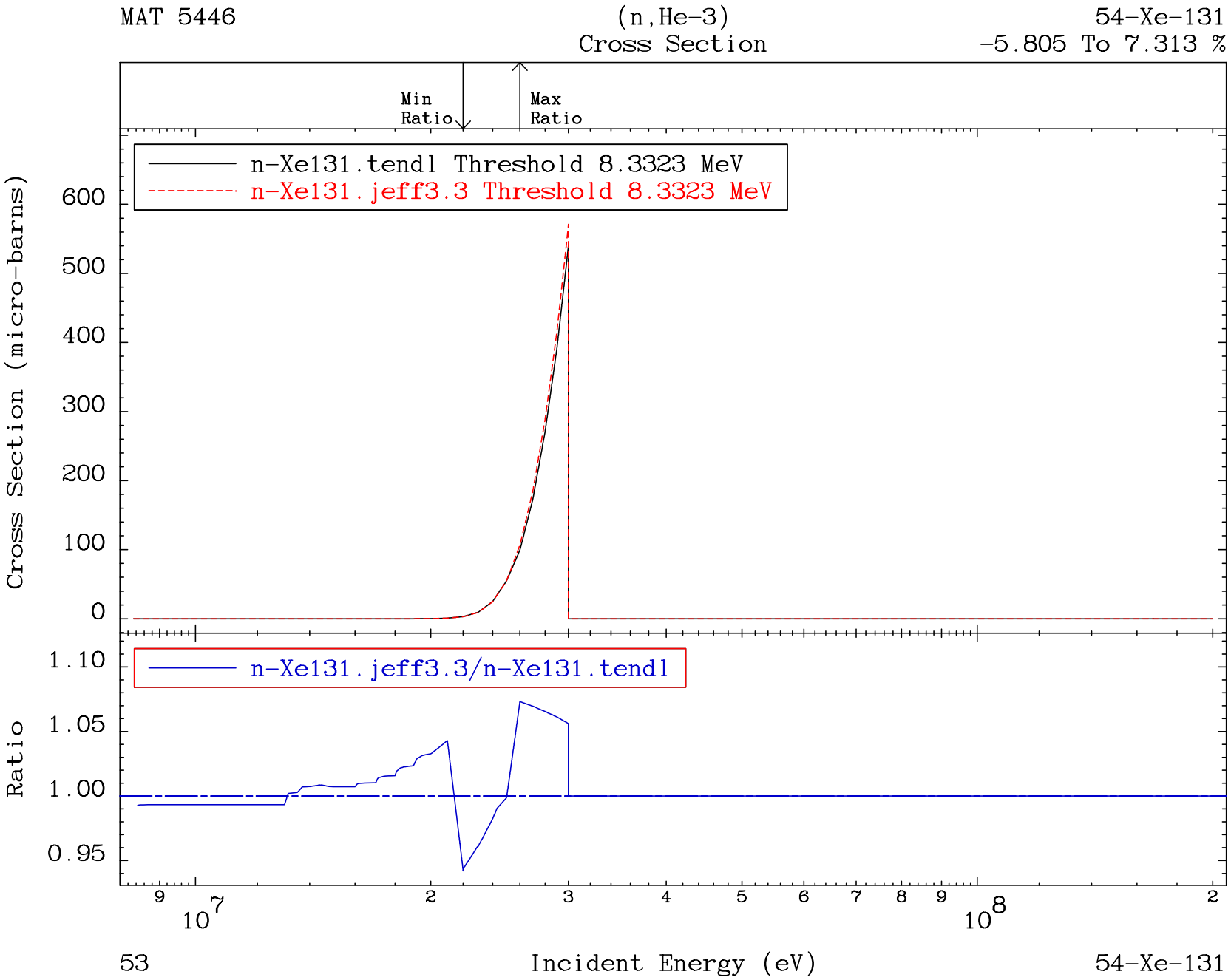

MAT 5446
(n,n') Continuum
Cross Section
54-Xe-131
-0.058 To 20.69 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 1.6335 MeV
n-Xe131.jeff3.3 Threshold 1.6335 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.2
1.1
1.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
48
Incident Energy (eV)
54-Xe-131

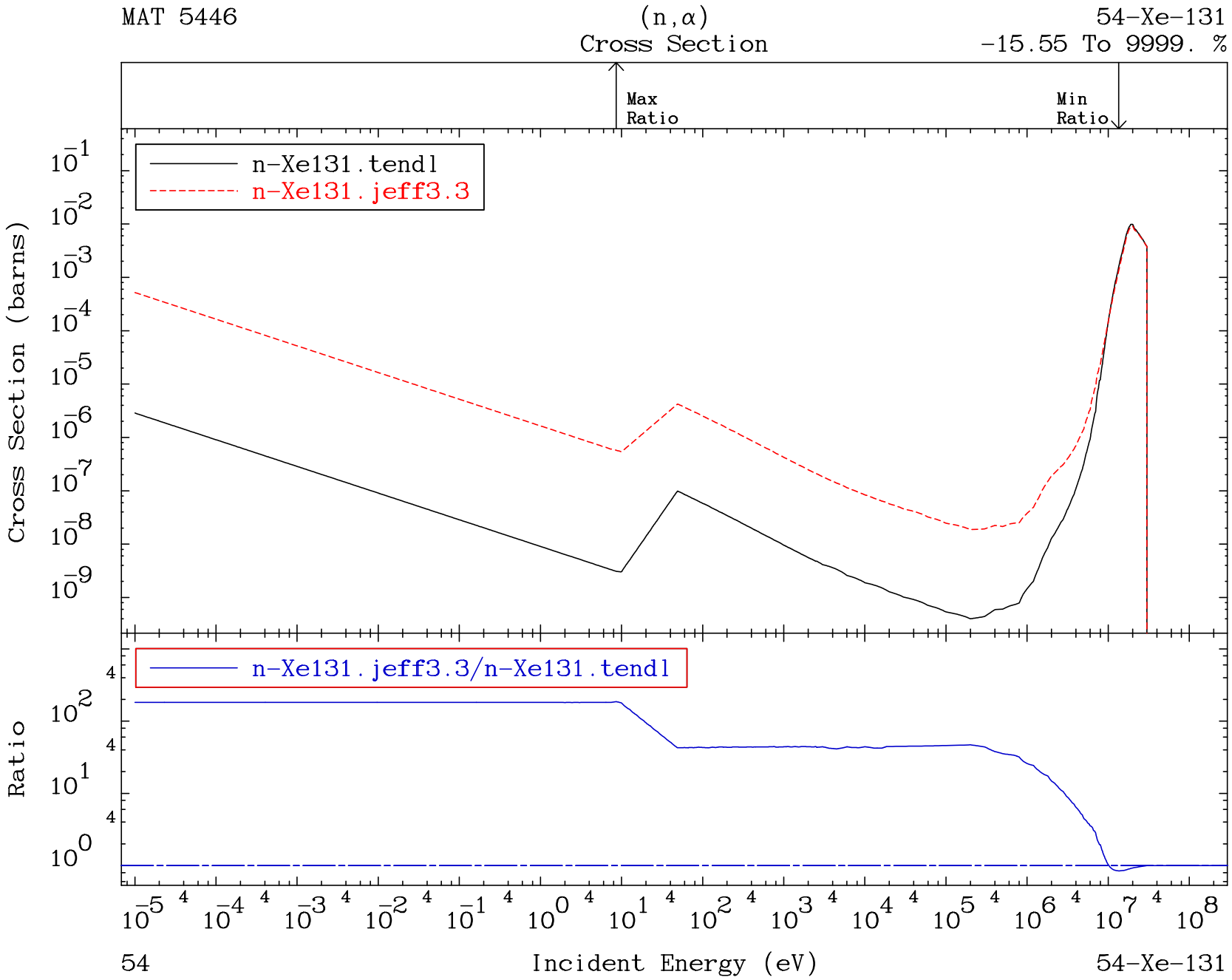

MAT 5446
(n,γ)
Cross Section
54-Xe-131
-99.99 To 1809. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
49
54-Xe-131

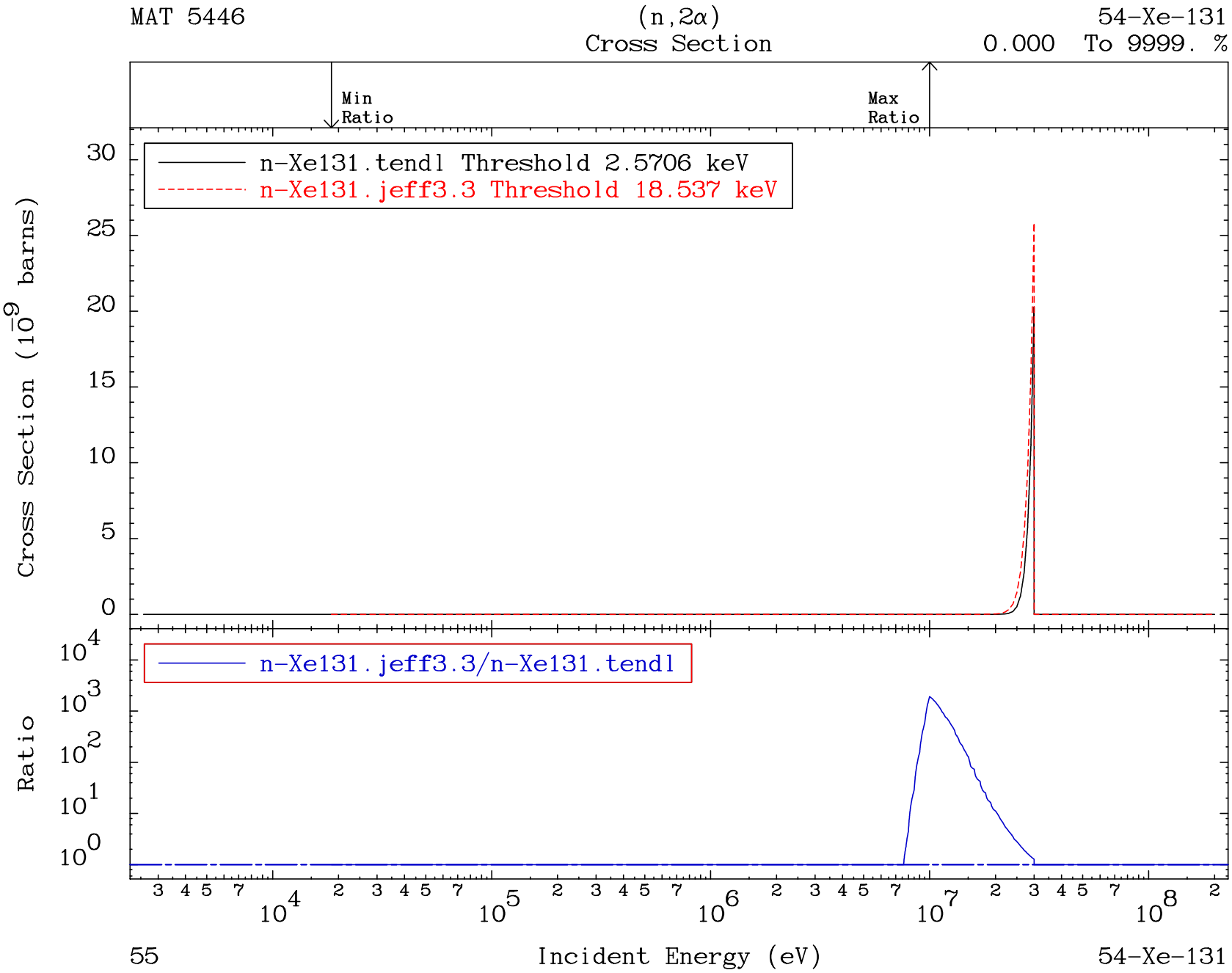

MAT 5446
(n,p)
Cross Section
54-Xe-131
-26.62 To 39.47 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 189.95 keV
n-Xe131.jeff3.3 Threshold 189.95 keV
Cross Section (milli-barns)
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.6
1.2
0.8
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
50
Incident Energy (eV)
54-Xe-131

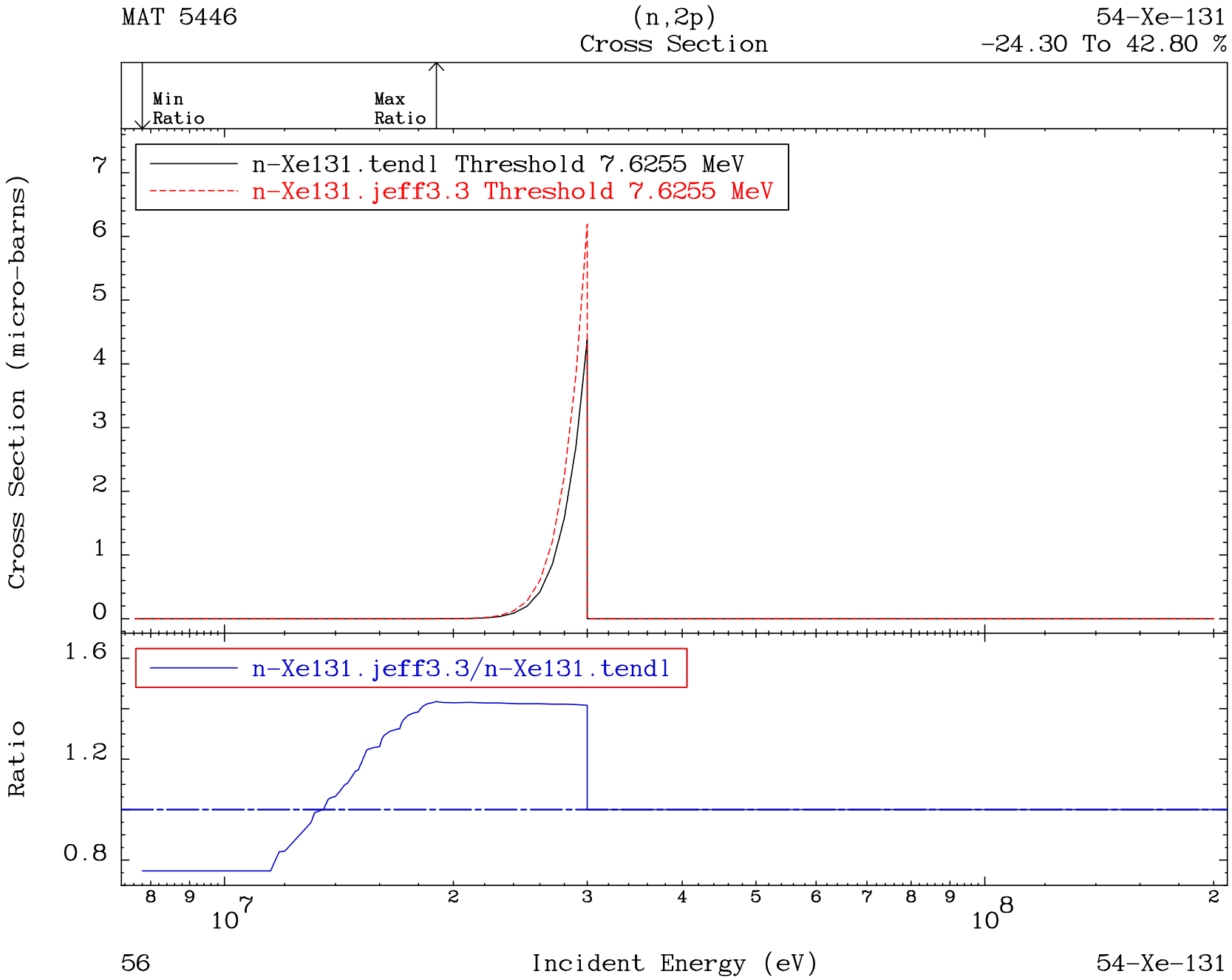

MAT 5446
(n,d)
Cross Section
54-Xe-131
-3.469 To 11.45 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 6.5922 MeV
n-Xe131.jeff3.3 Threshold 6.5922 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
1.05
1.10
1.15
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
51
Incident Energy (eV)
54-Xe-131

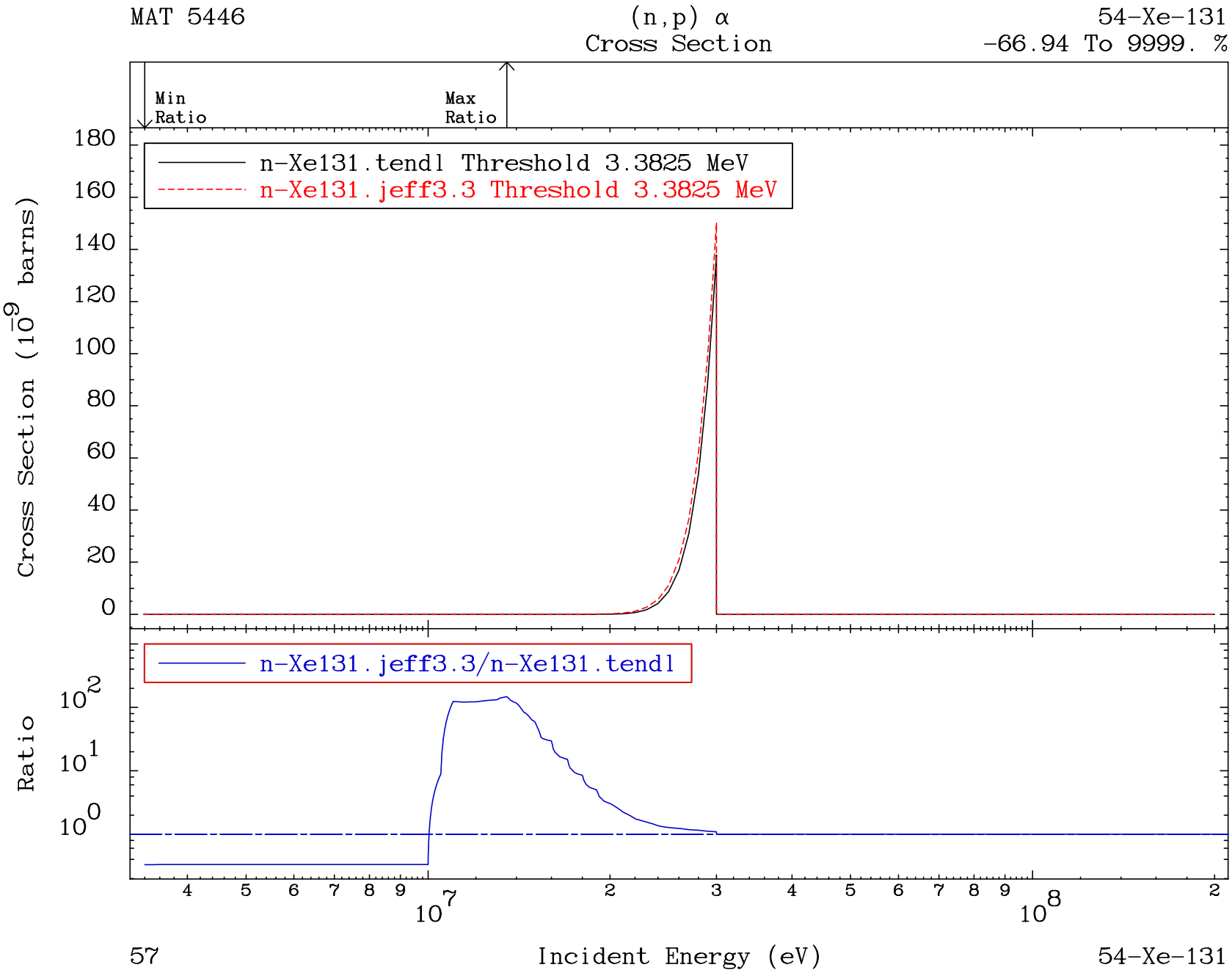

MAT 5446
(n,t)
Cross Section
54-Xe-131
0.000 To 7.764 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 6.8372 MeV
n-Xe131.jeff3.3 Threshold 6.8372 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
1.05
1.10
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
52
Incident Energy (eV)
54-Xe-131

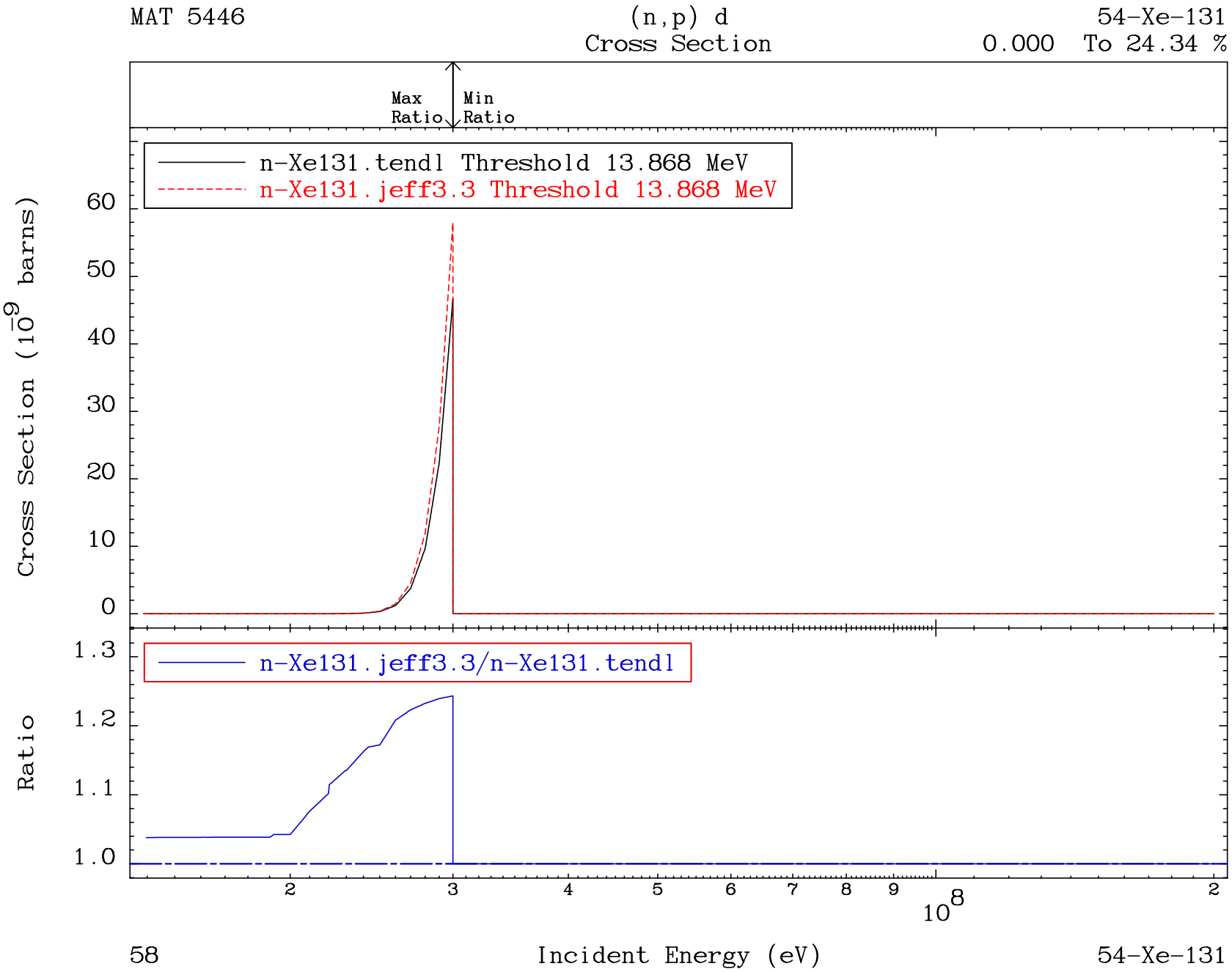

MAT 5446
(n,He-3)
Cross Section
54-Xe-131
-5.805 To 7.313 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.3323 MeV
n-Xe131.jeff3.3 Threshold 8.3323 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.10
1.05
1.00
0.95
9
10^7
2
3
4
5
6
7
8
9
10^8
2
53
Incident Energy (eV)
54-Xe-131

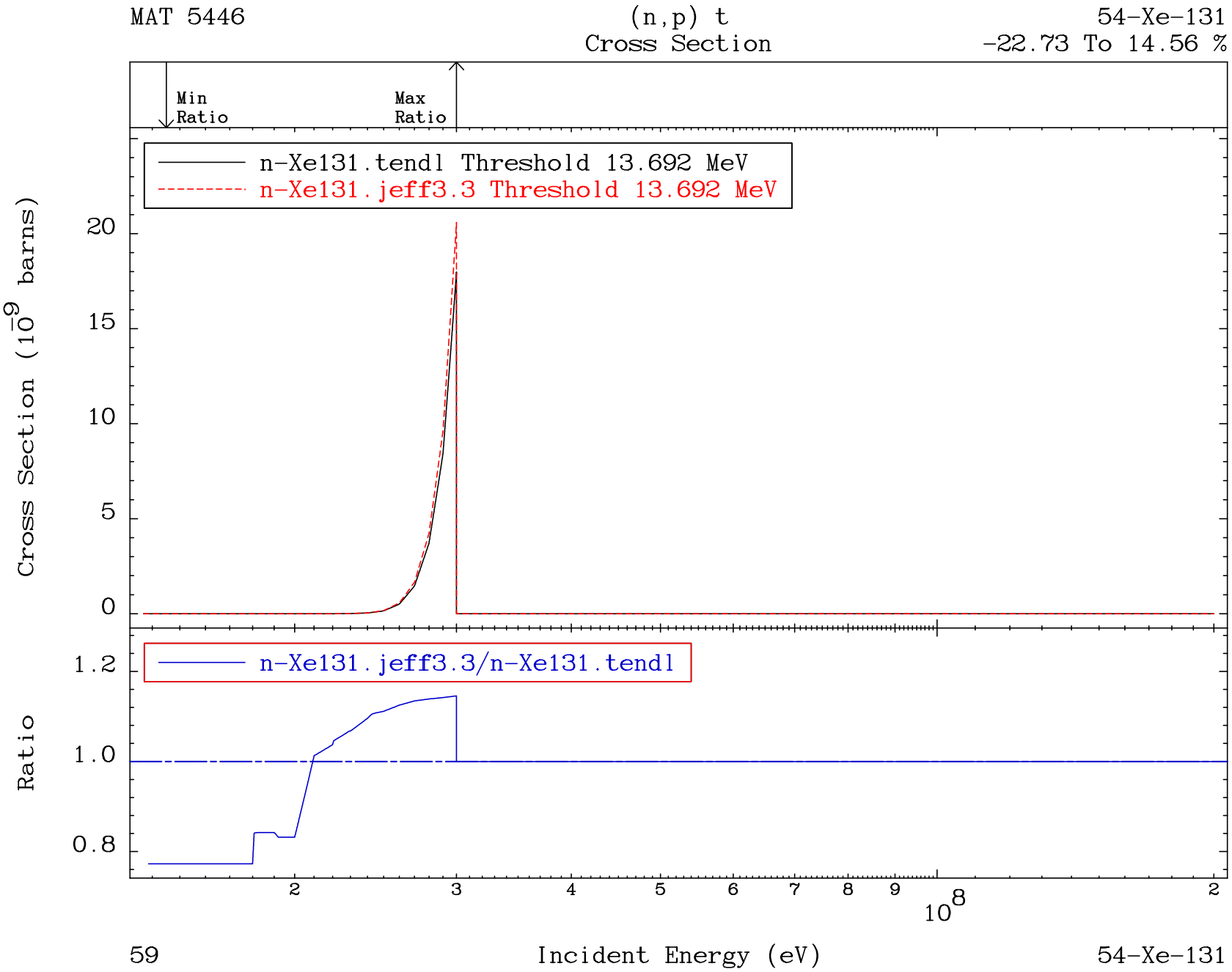

MAT 5446
(n,α)
Cross Section
54-Xe-131
-15.55 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
54
54-Xe-131

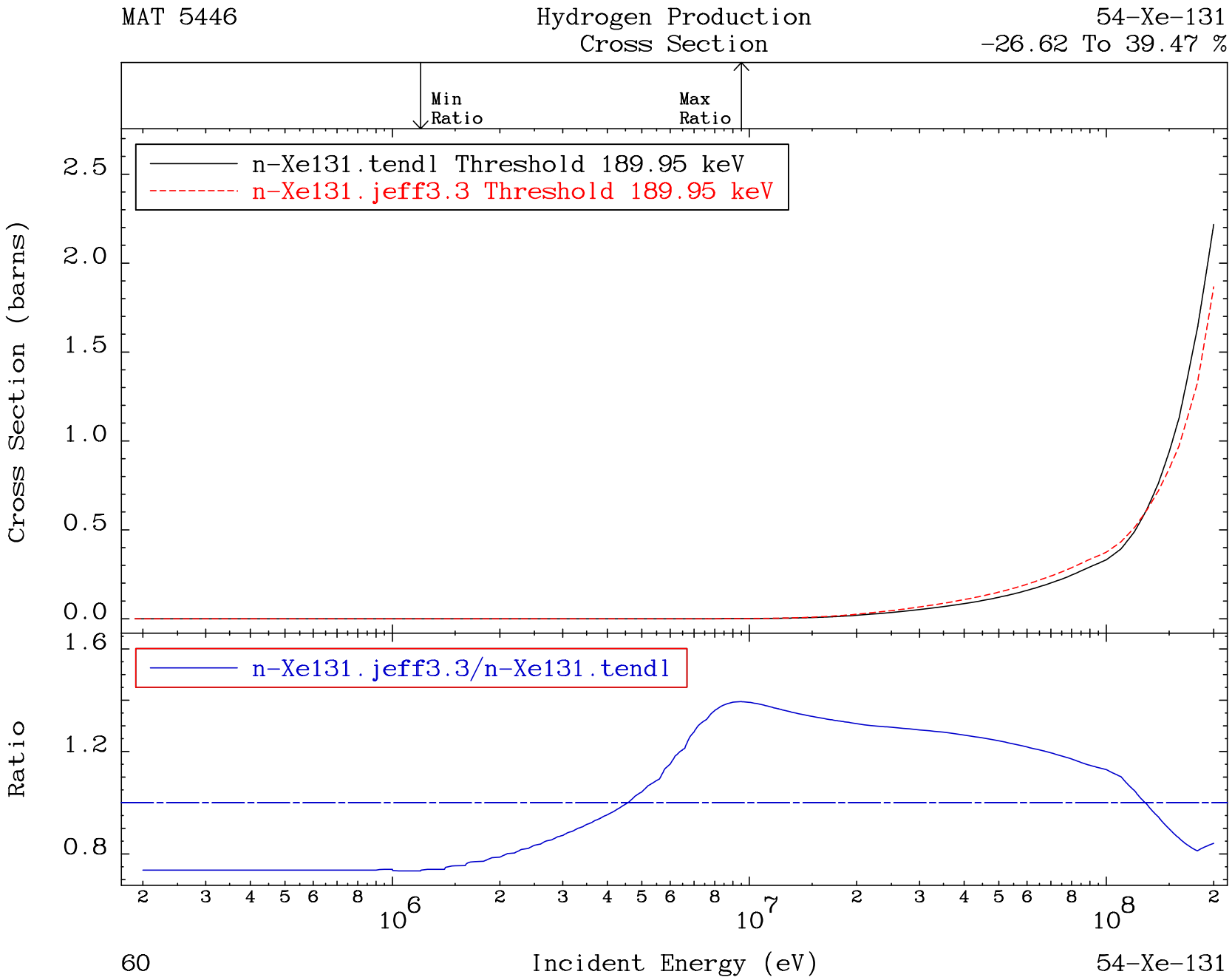

MAT 5446
(n,2α)
Cross Section
54-Xe-131
0.000 To 9999. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 2.5706 keV
n-Xe131.jeff3.3 Threshold 18.537 keV
Cross Section (10^-9 barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
55
54-Xe-131

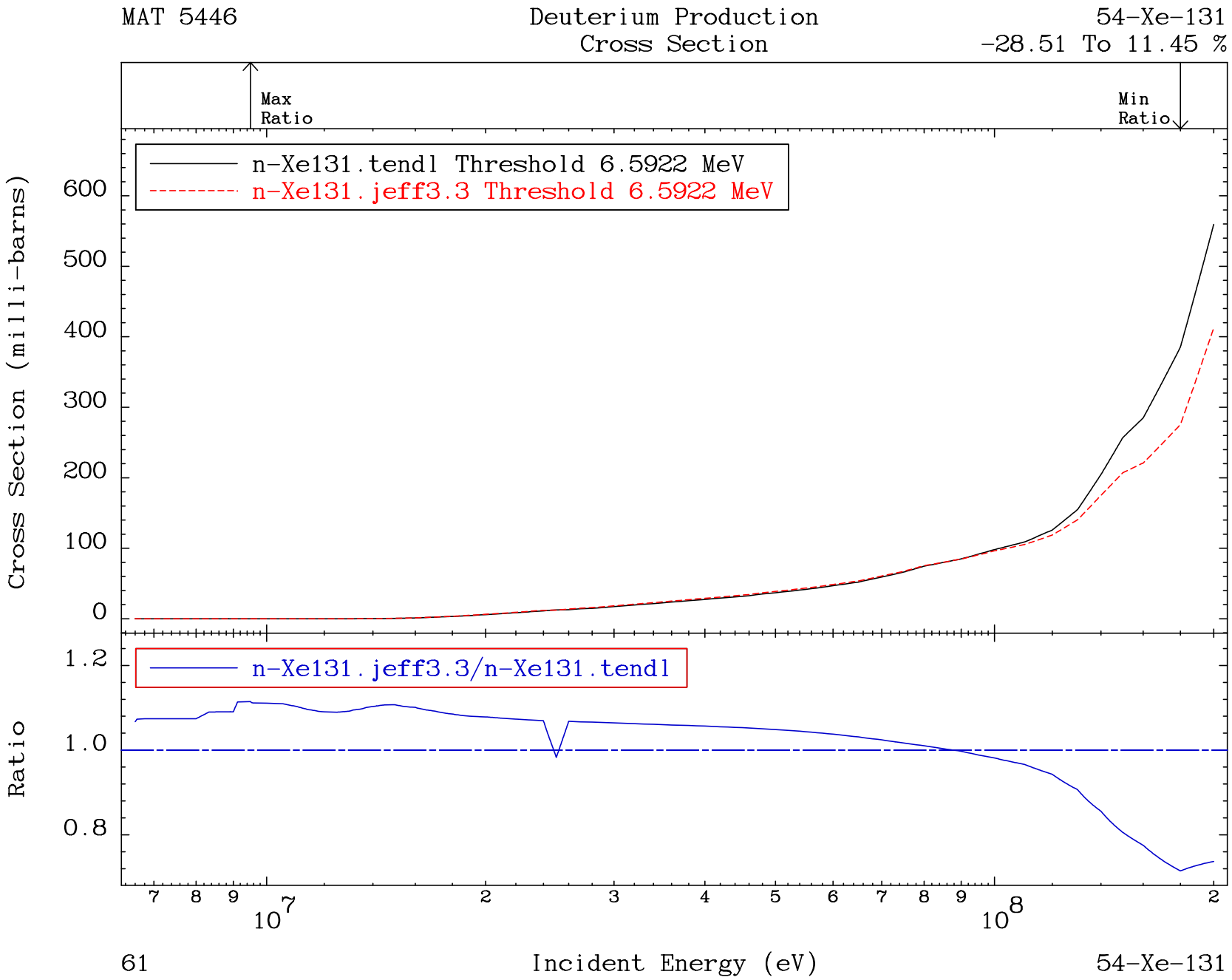

MAT 5446
(n,2p)
Cross Section
54-Xe-131
-24.30 To 42.80 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 7.6255 MeV
n-Xe131.jeff3.3 Threshold 7.6255 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
7
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
0.8
1.2
1.6
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
56
Incident Energy (eV)
54-Xe-131

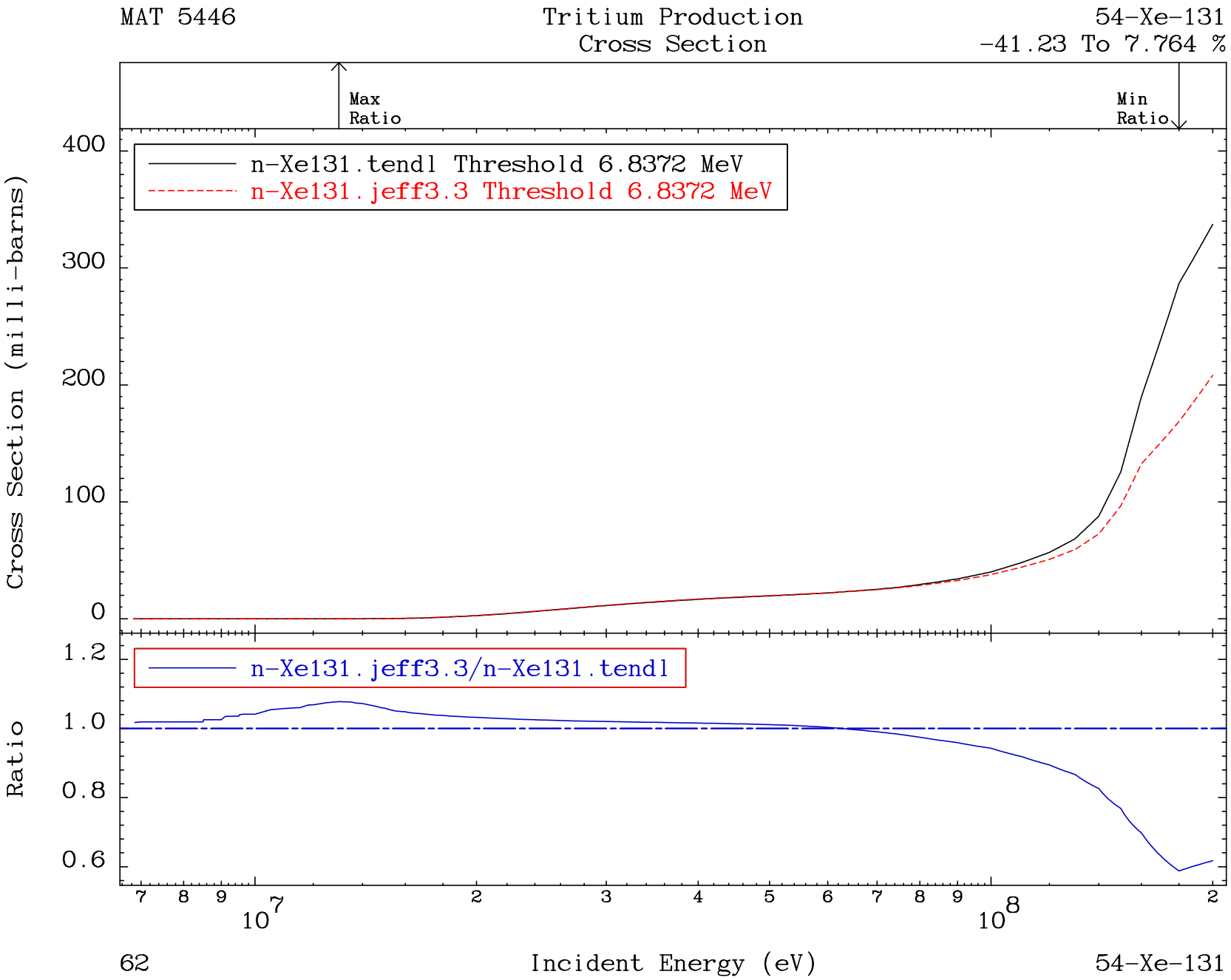

MAT 5446
(n,p) α
Cross Section
54-Xe-131
-66.94 To 9999. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 3.3825 MeV
n-Xe131.jeff3.3 Threshold 3.3825 MeV
Cross Section (10^{-9} barns)
180
160
140
120
100
80
60
40
20
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
10^2
10^1
10^0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
57
Incident Energy (eV)
54-Xe-131

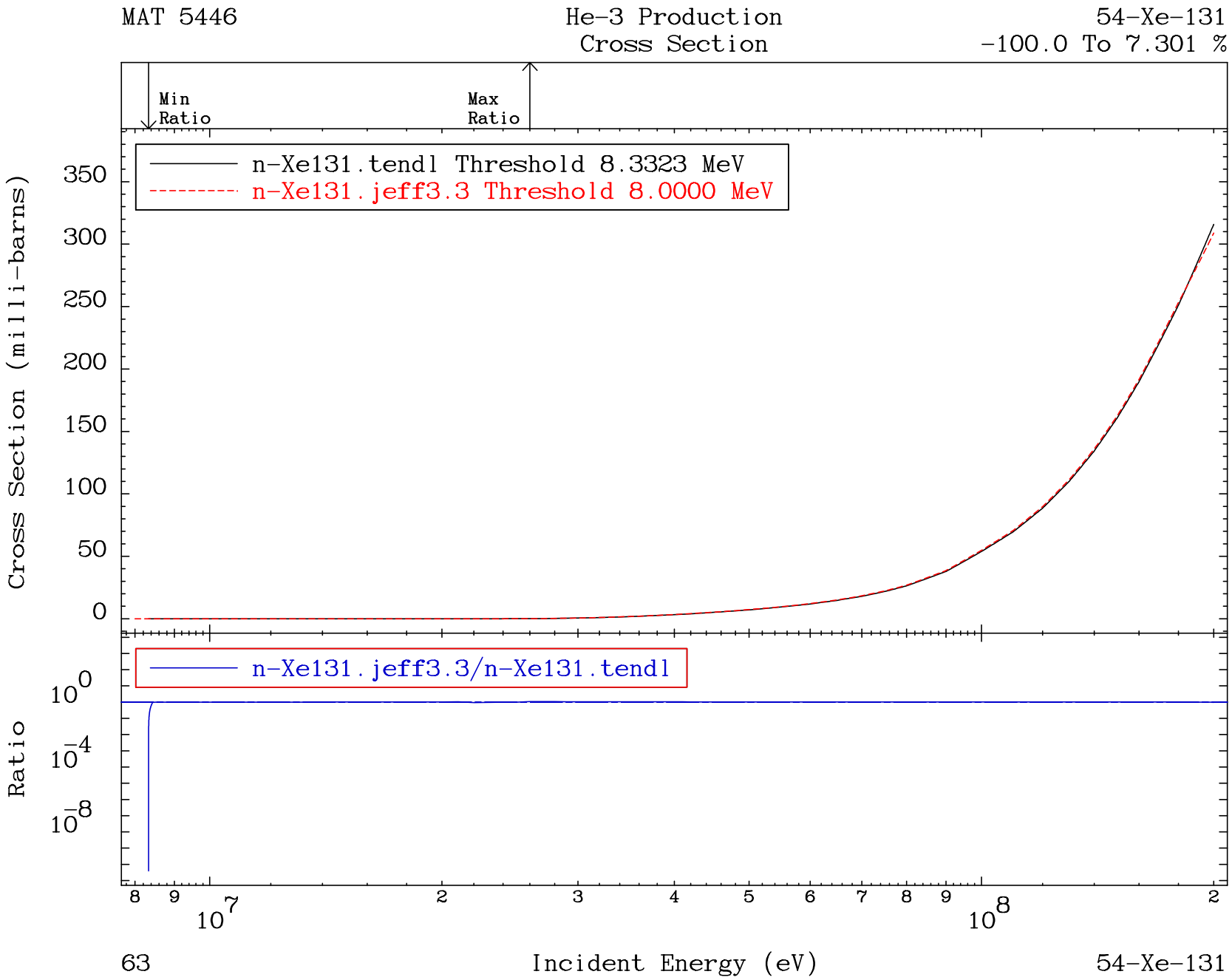

MAT 5446
(n,p) d
Cross Section
54-Xe-131
0.000 To 24.34 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 13.868 MeV
n-Xe131.jeff3.3 Threshold 13.868 MeV
Cross Section (10^{-9} barns)
60
50
40
30
20
10
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.3
1.2
1.1
1.0
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
54-Xe-131

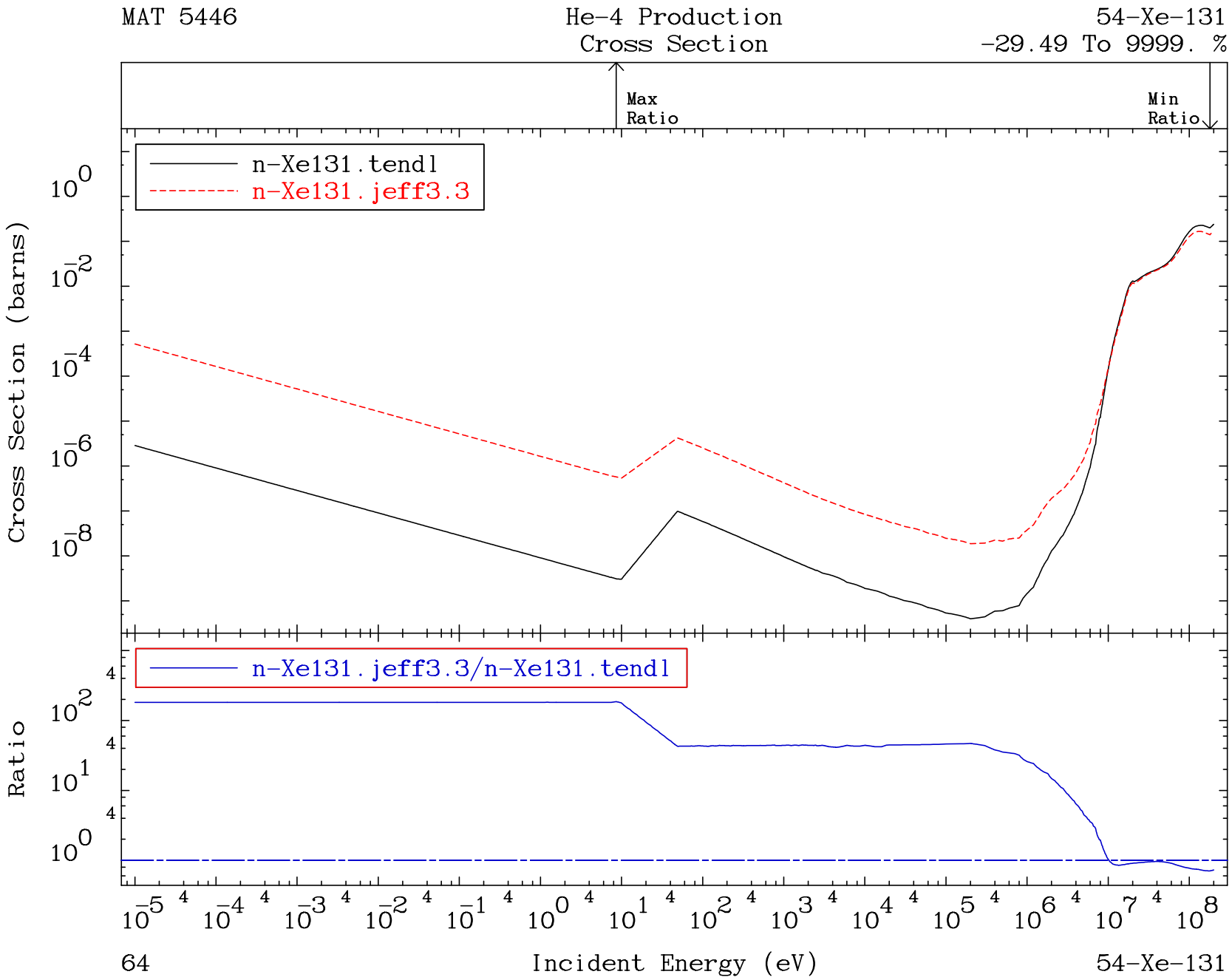

MAT 5446
(n,p) t
Cross Section
54-Xe-131
-22.73 To 14.56 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 13.692 MeV
n-Xe131.jeff3.3 Threshold 13.692 MeV
Cross Section (10^{-9} barns)
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.2
1.0
0.8
2
3
4
5
6
7
8
9
10^8
2
59
Incident Energy (eV)
54-Xe-131

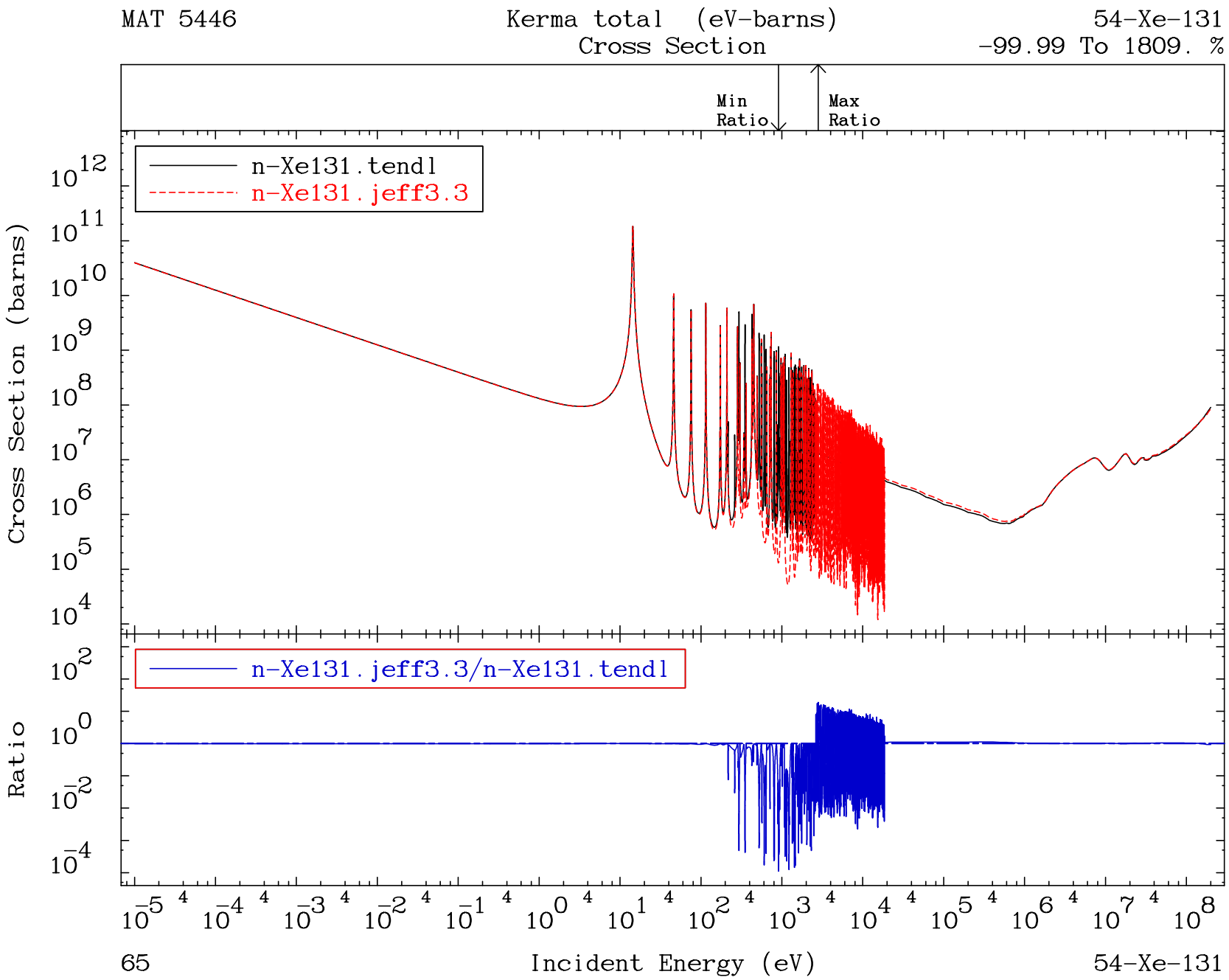

MAT 5446
Hydrogen Production
Cross Section
54-Xe-131
-26.62 To 39.47 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 189.95 keV
n-Xe131.jeff3.3 Threshold 189.95 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.6
1.2
0.8
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
60
Incident Energy (eV)
54-Xe-131

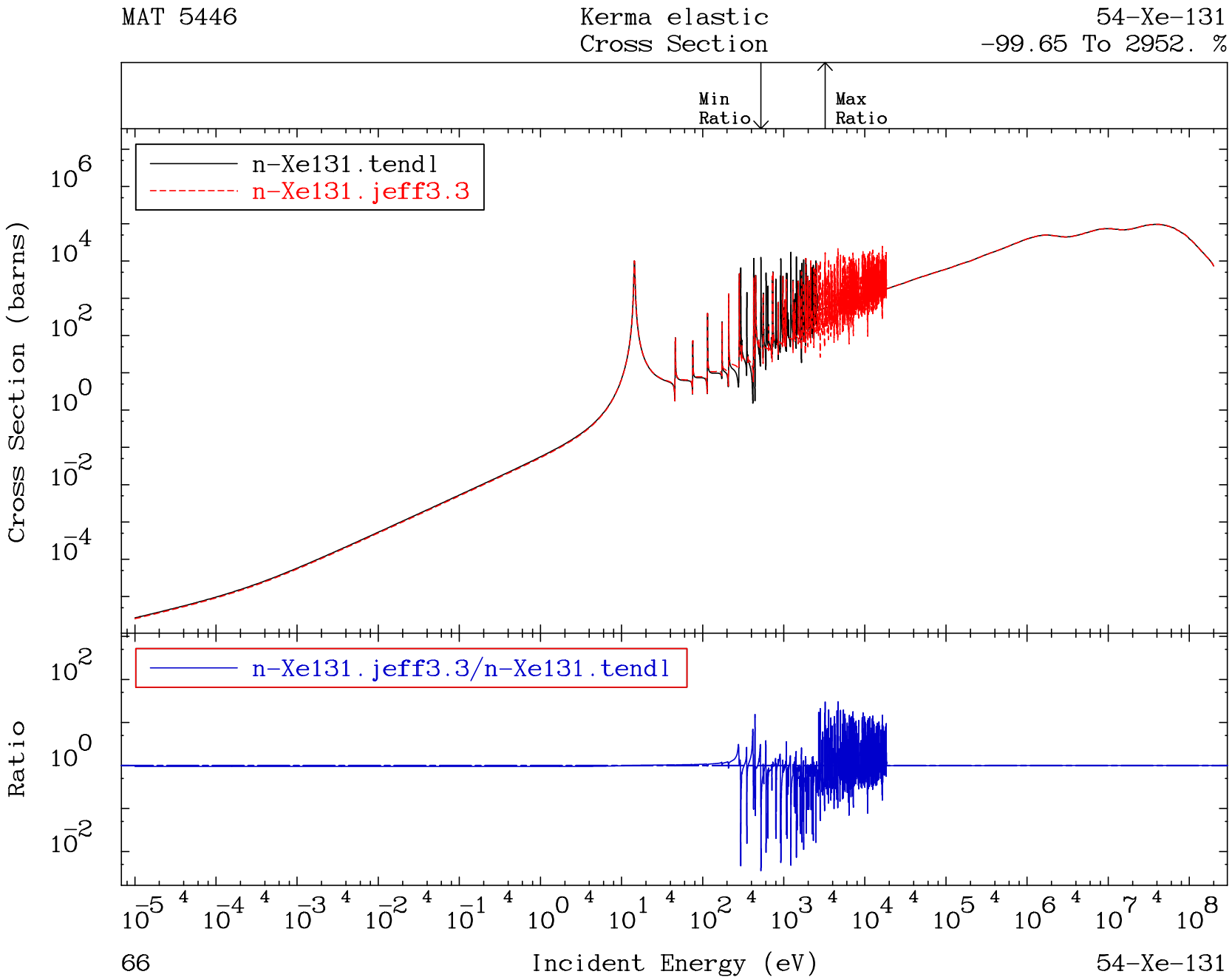

MAT 5446
Deuterium Production
Cross Section
54-Xe-131
-28.51 To 11.45 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 6.5922 MeV
n-Xe131.jeff3.3 Threshold 6.5922 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.2
1.0
0.8
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
61
Incident Energy (eV)
54-Xe-131

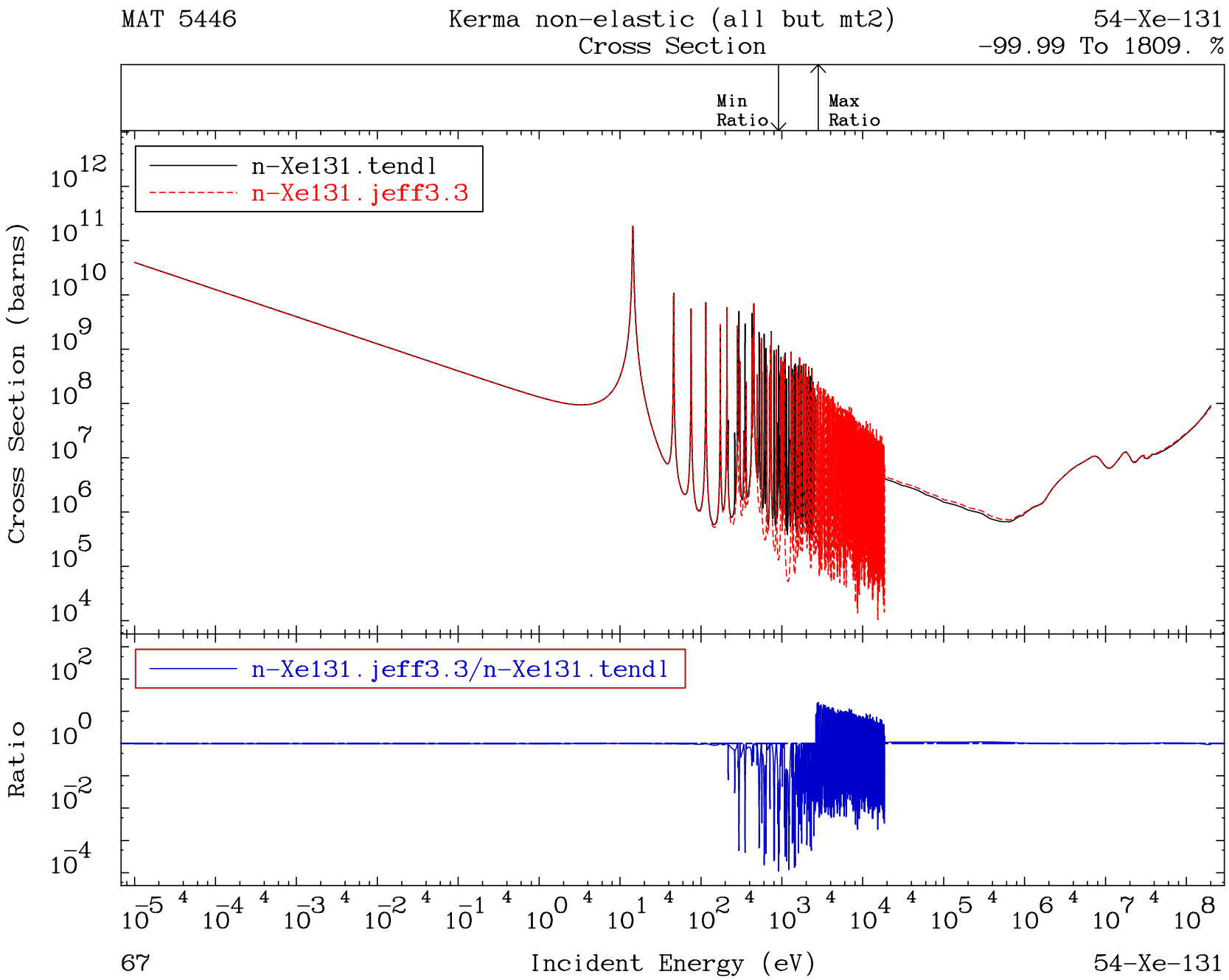

MAT 5446
Tritium Production
Cross Section
54-Xe-131
-41.23 To 7.764 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 6.8372 MeV
n-Xe131.jeff3.3 Threshold 6.8372 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.2
1.0
0.8
0.6
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
62
Incident Energy (eV)
54-Xe-131

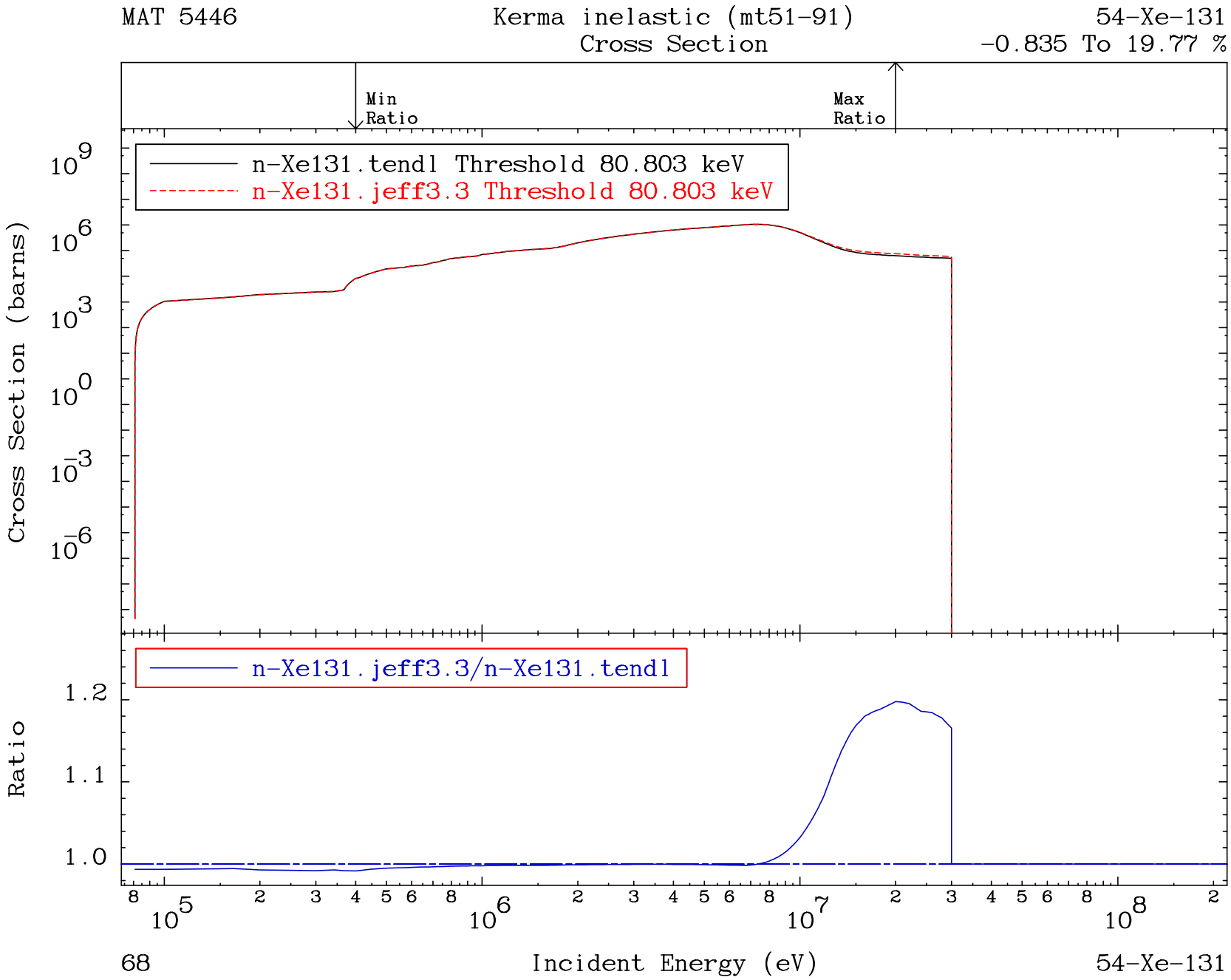

MAT 5446
He-3 Production
Cross Section
54-Xe-131
-100.0 To 7.301 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.3323 MeV
n-Xe131.jeff3.3 Threshold 8.0000 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
10^0
10^-4
10^-8
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
63
Incident Energy (eV)
54-Xe-131

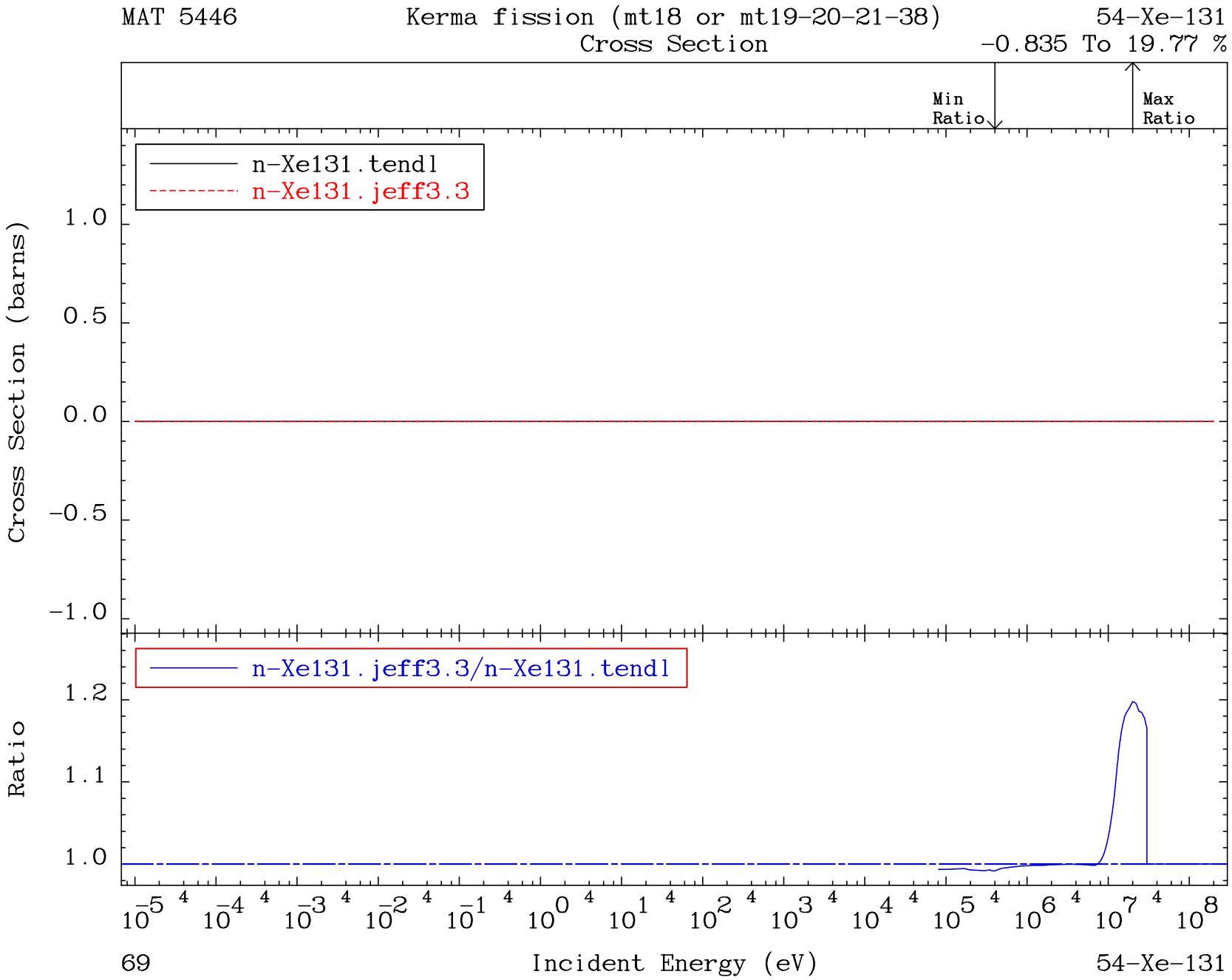

MAT 5446
He-4 Production
Cross Section
54-Xe-131
-29.49 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
64
Incident Energy (eV)
54-Xe-131

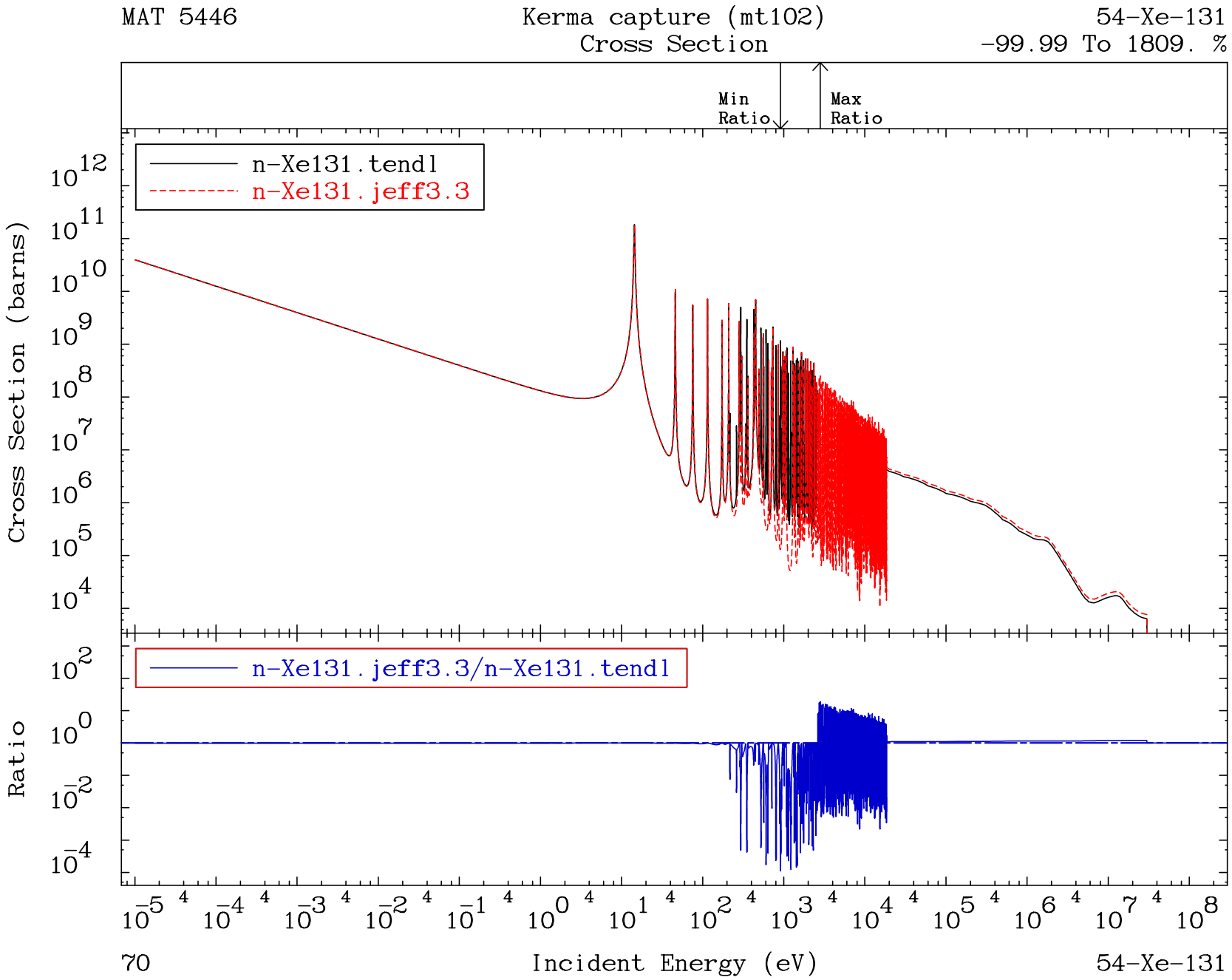

MAT 5446
Kerma total (eV-barns)
Cross Section
54-Xe-131
-99.99 To 1809. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
65
Incident Energy (eV)
54-Xe-131

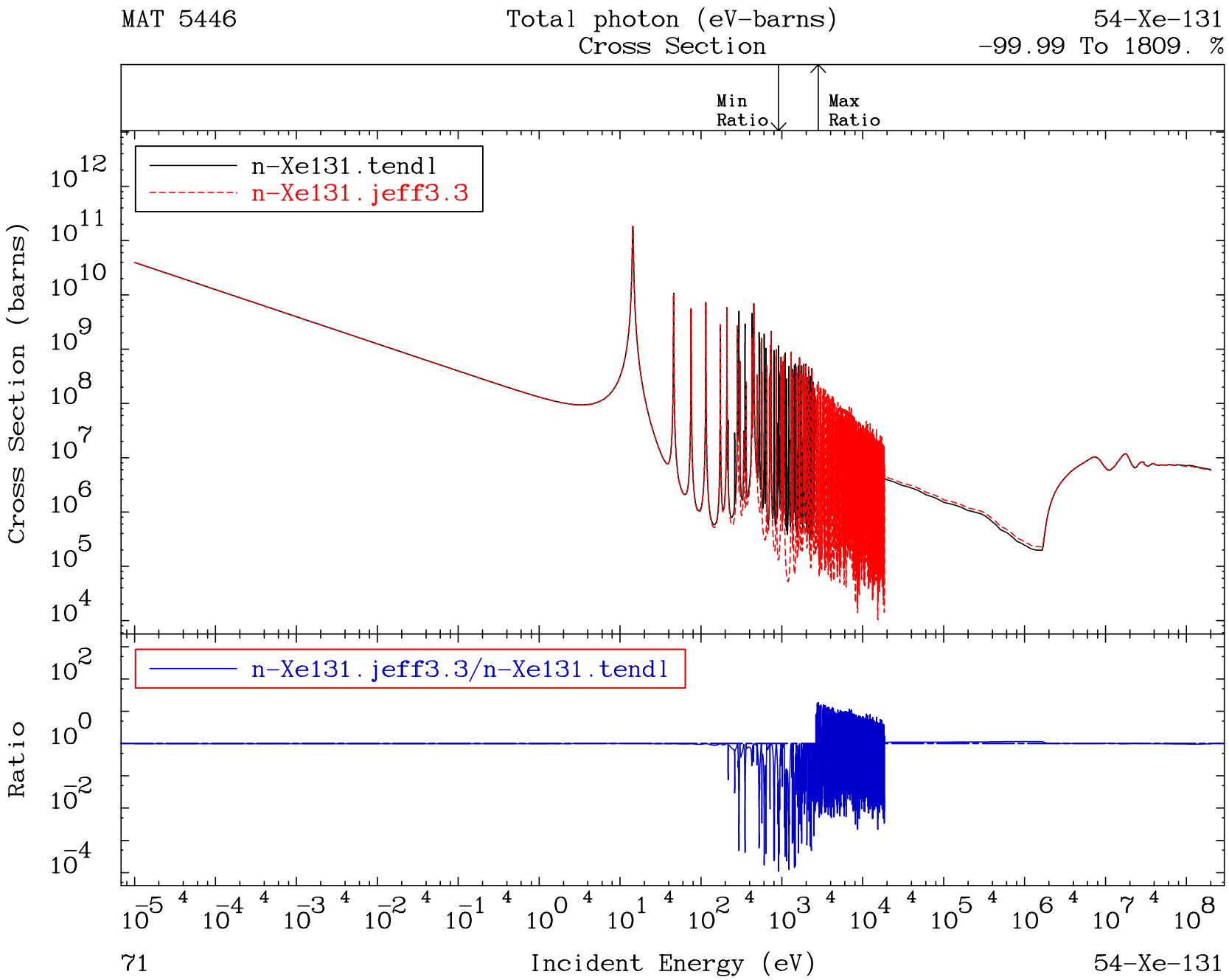

MAT 5446
Kerma elastic
Cross Section
54-Xe-131
-99.65 To 2952. %
Min
Ratio
Max
Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
66
Incident Energy (eV)
54-Xe-131

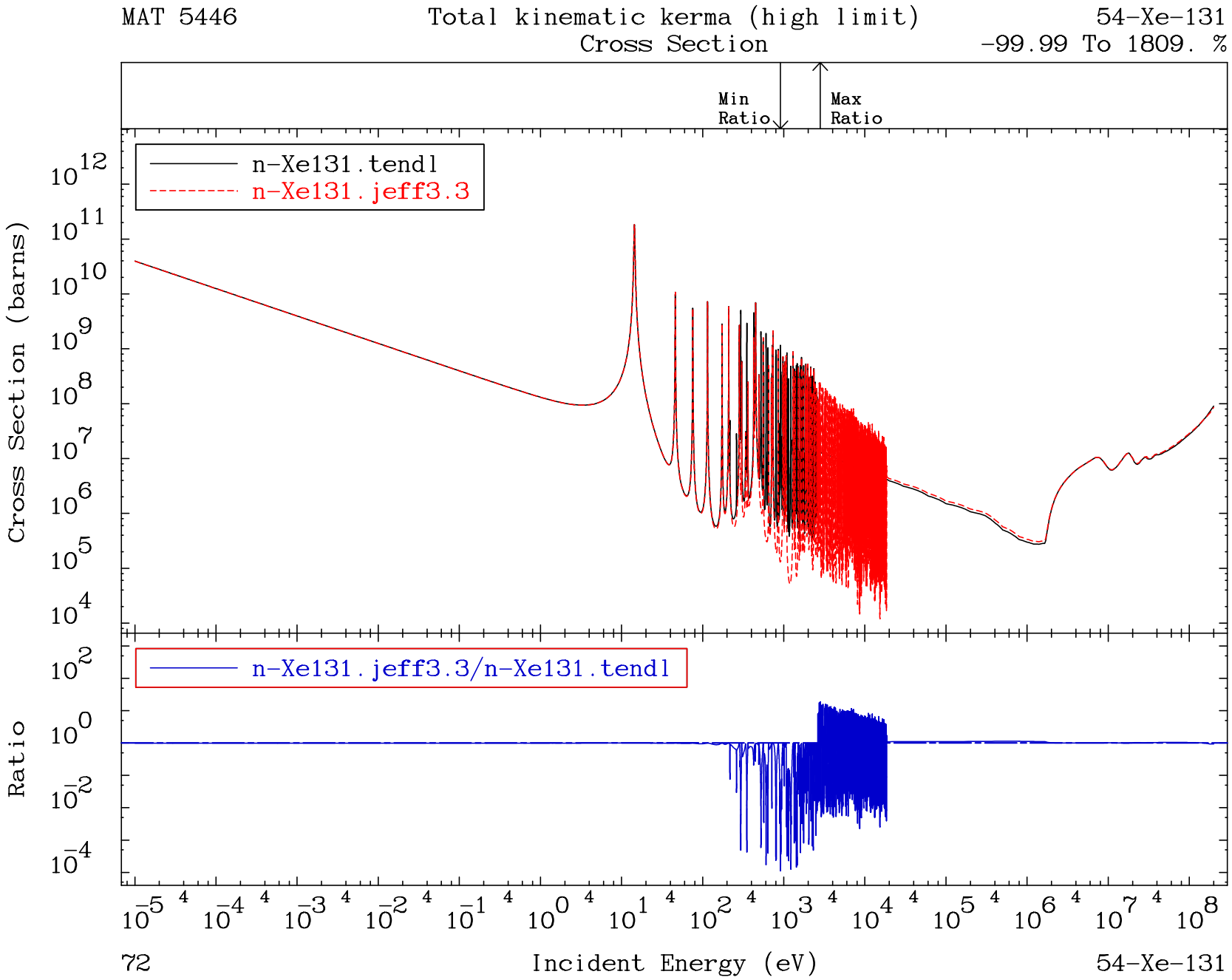

MAT 5446
Kerma non-elastic (all but mt2)
Cross Section
54-Xe-131
-99.99 To 1809. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
67
54-Xe-131

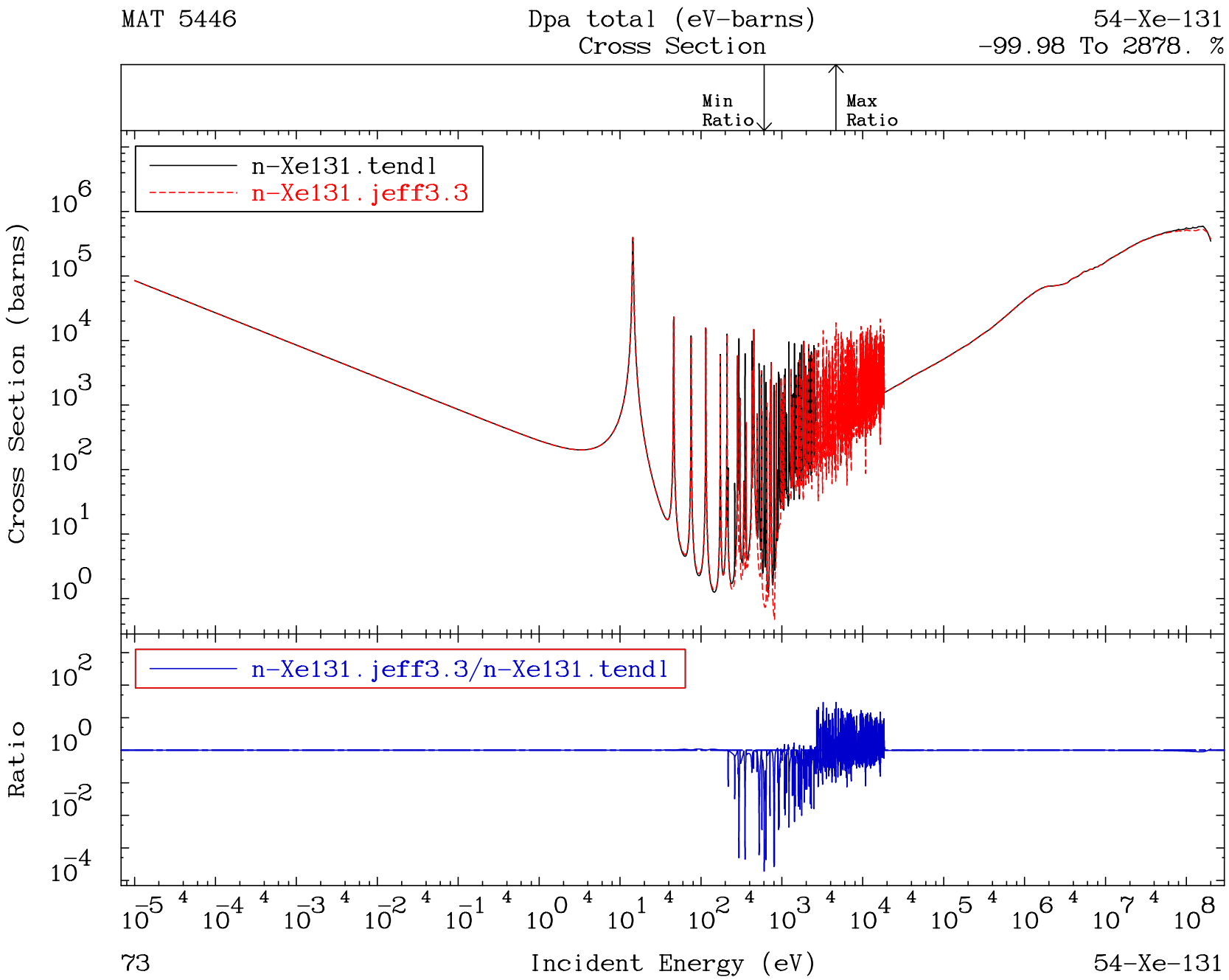

MAT 5446
Kerma inelastic (mt51-91)
Cross Section
54-Xe-131
-0.835 To 19.77 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.jeff3.3 Threshold 80.803 keV
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
68
54-Xe-131

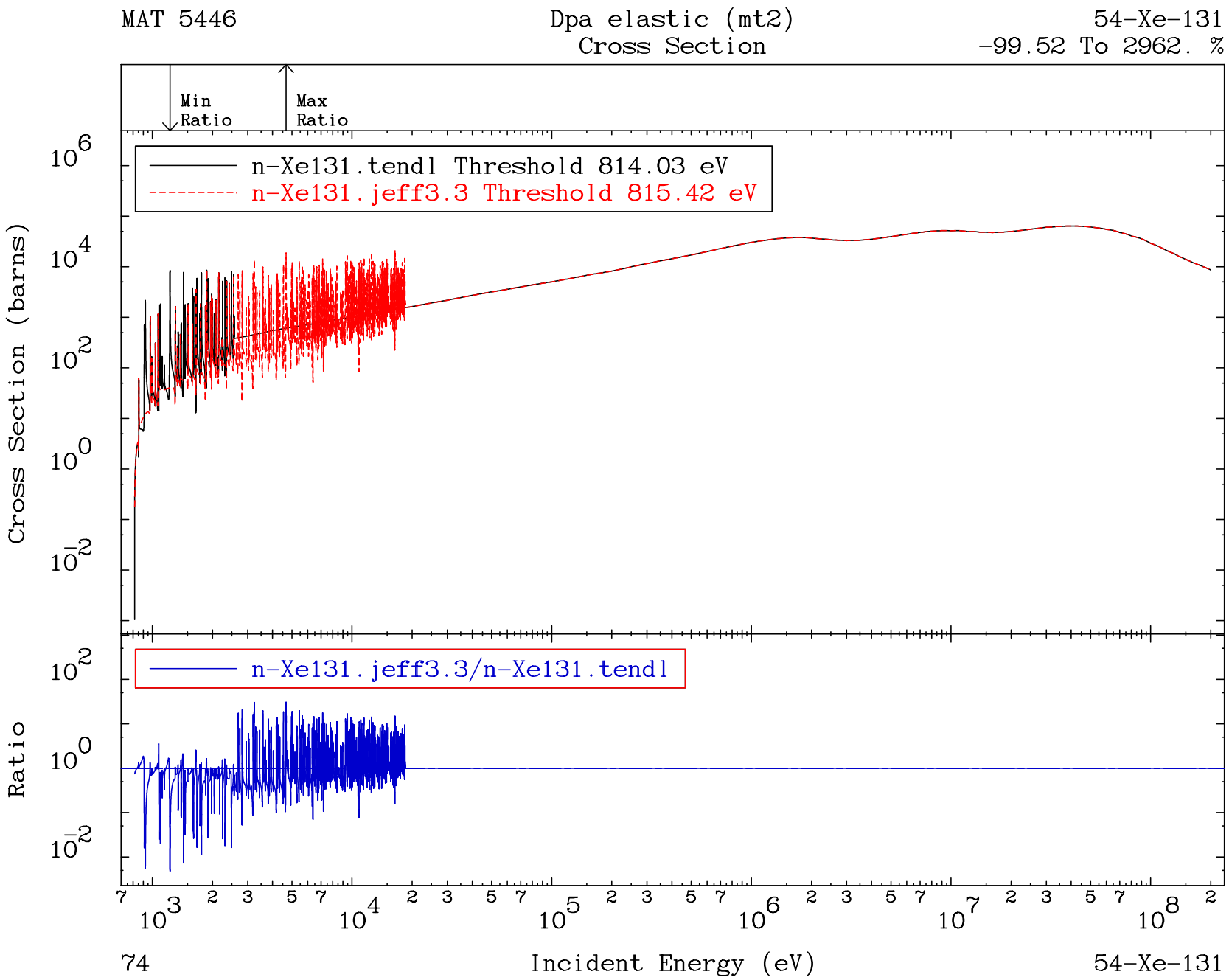

MAT 5446
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
54-Xe-131
-0.835 To 19.77 %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.2
1.1
1.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
69
Incident Energy (eV)
54-Xe-131

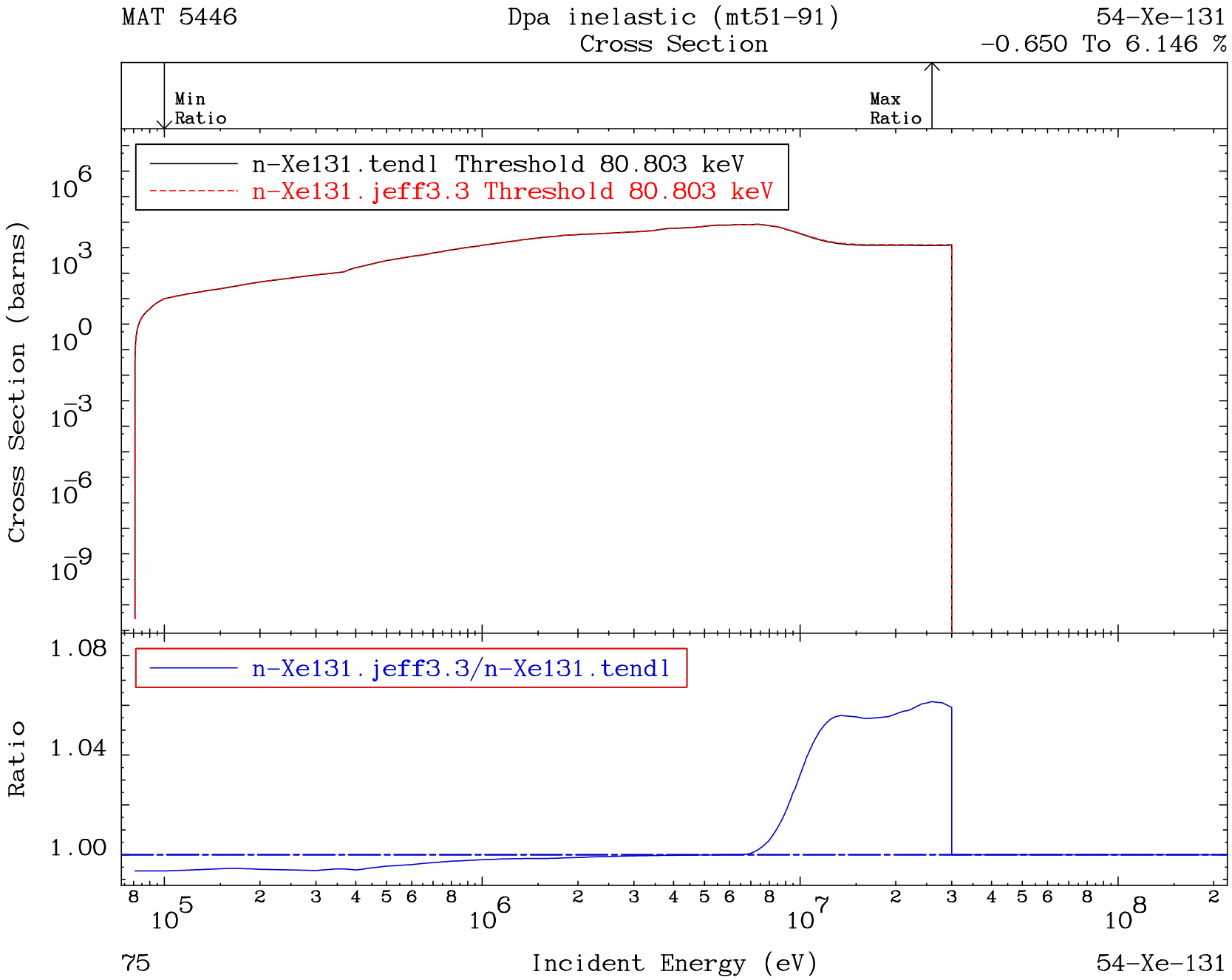

MAT 5446
Kerma capture (mt102)
Cross Section
54-Xe-131
-99.99 To 1809. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
70
54-Xe-131

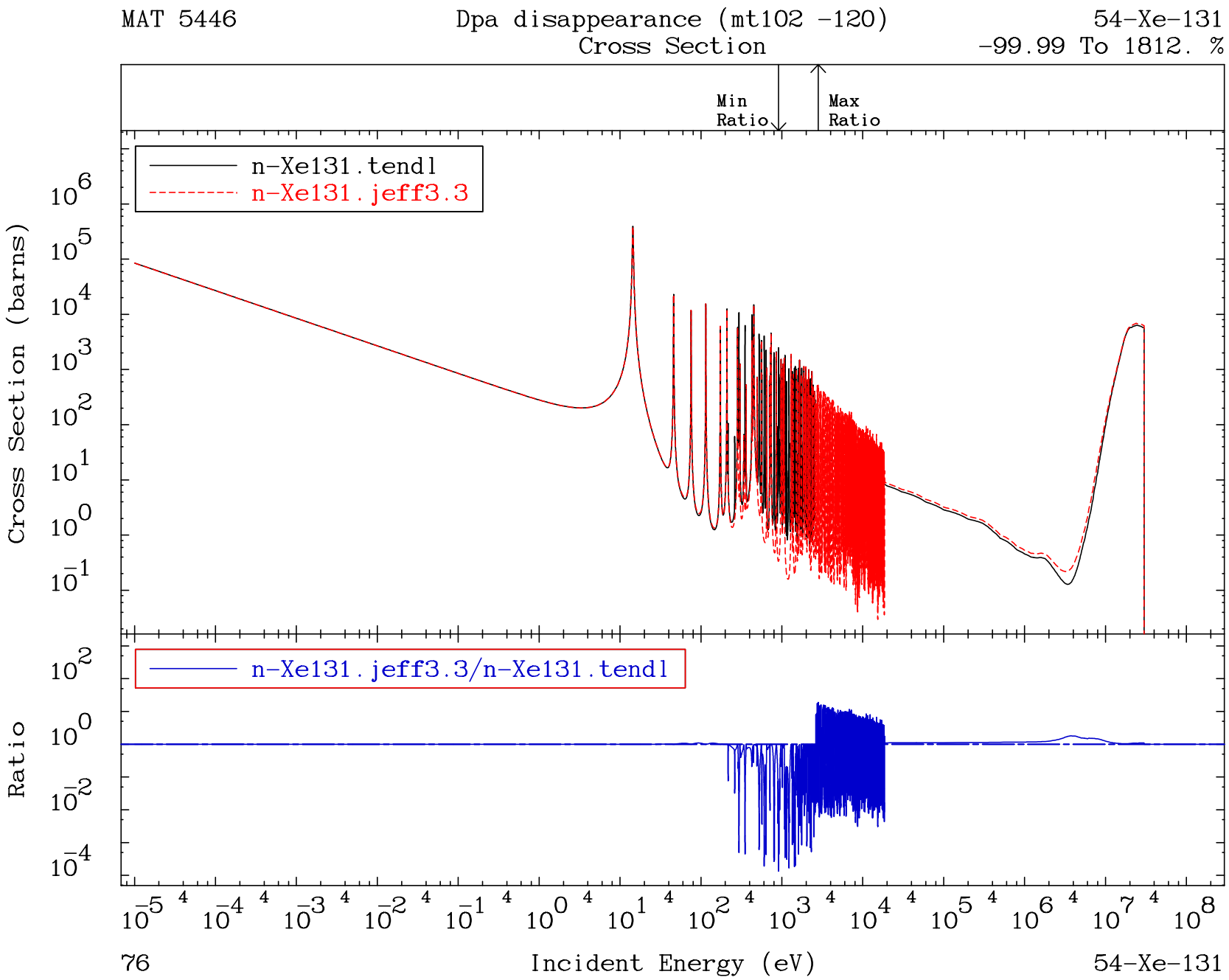

MAT 5446
Total photon (eV-barns)
Cross Section
54-Xe-131
-99.99 To 1809. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
71
54-Xe-131

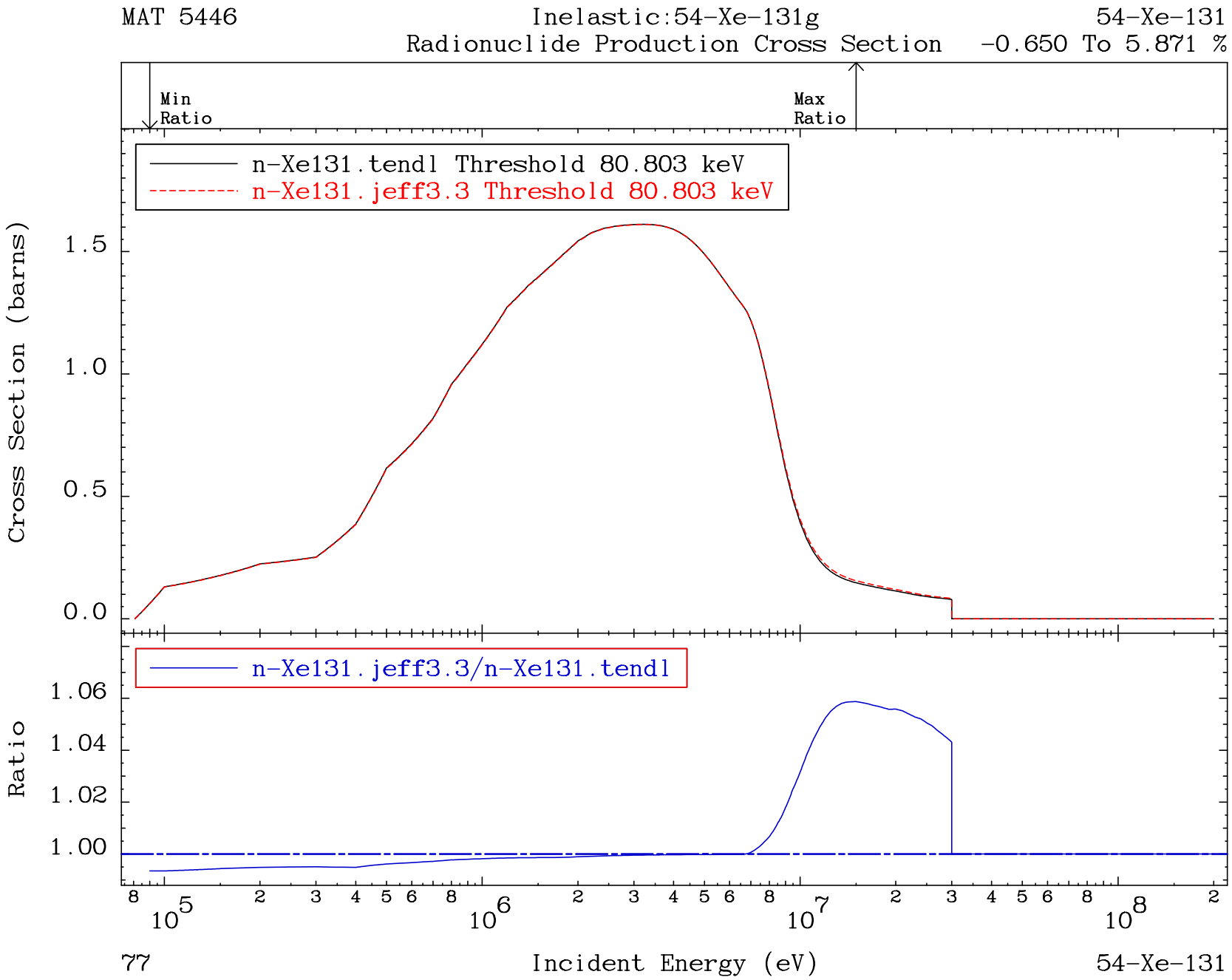

MAT 5446
Total kinematic kerma (high limit)
Cross Section
54-Xe-131
-99.99 To 1809. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
72
54-Xe-131

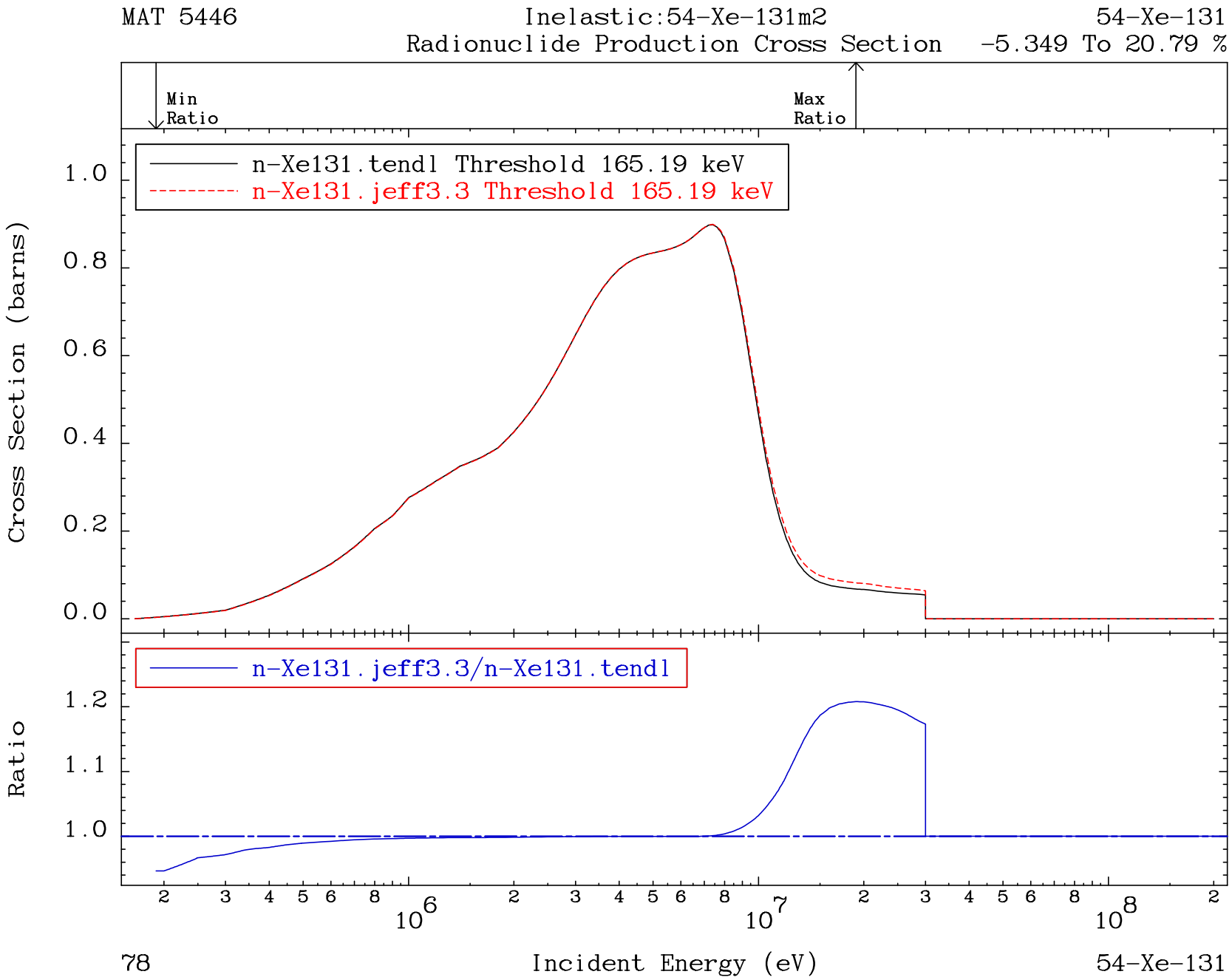

MAT 5446
Dpa total (eV-barns)
Cross Section
54-Xe-131
-99.98 To 2878. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
73
54-Xe-131

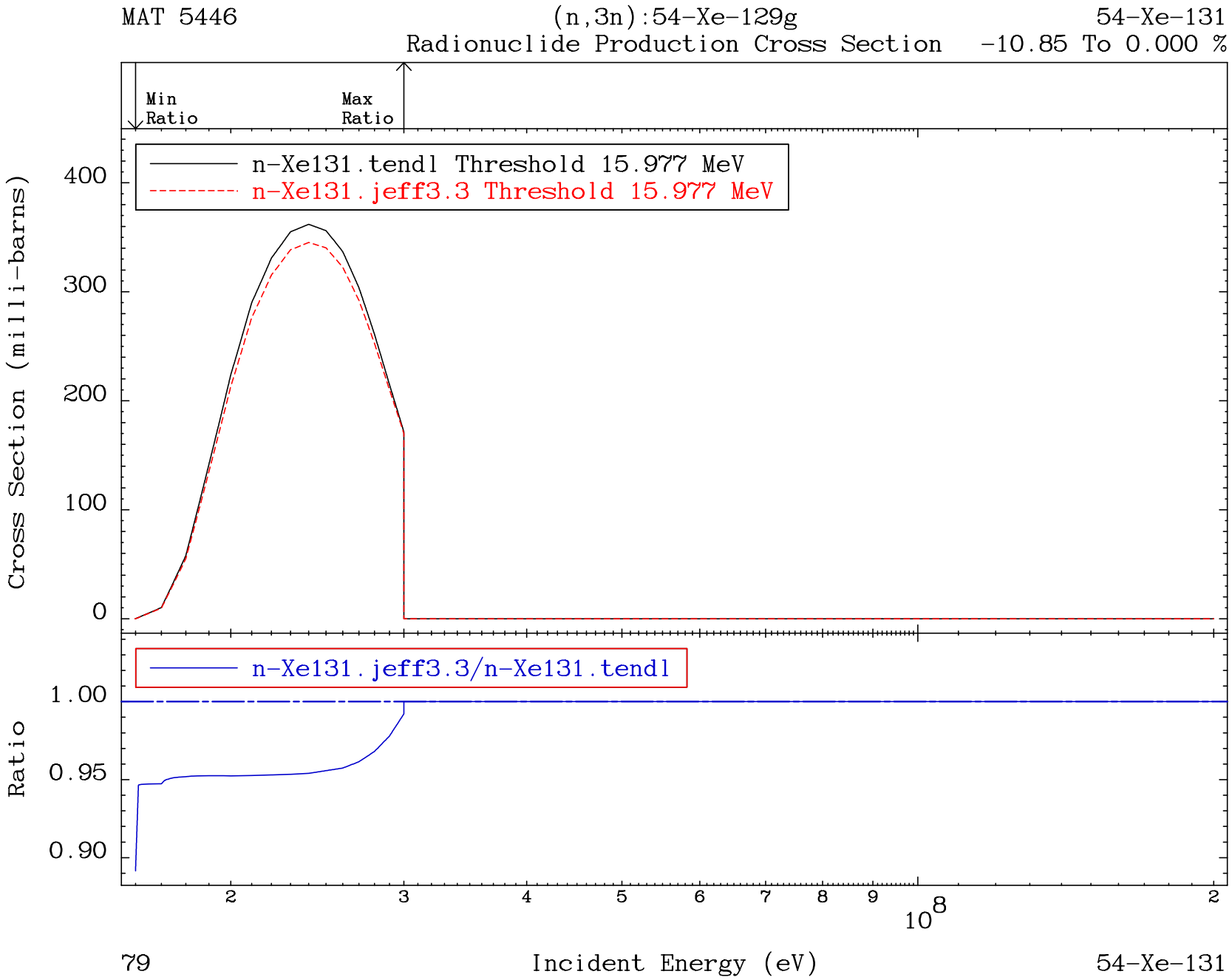

MAT 5446
Dpa elastic (mt2)
Cross Section
54-Xe-131
-99.52 To 2962. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 814.03 eV
n-Xe131.jeff3.3 Threshold 815.42 eV
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
74
54-Xe-131

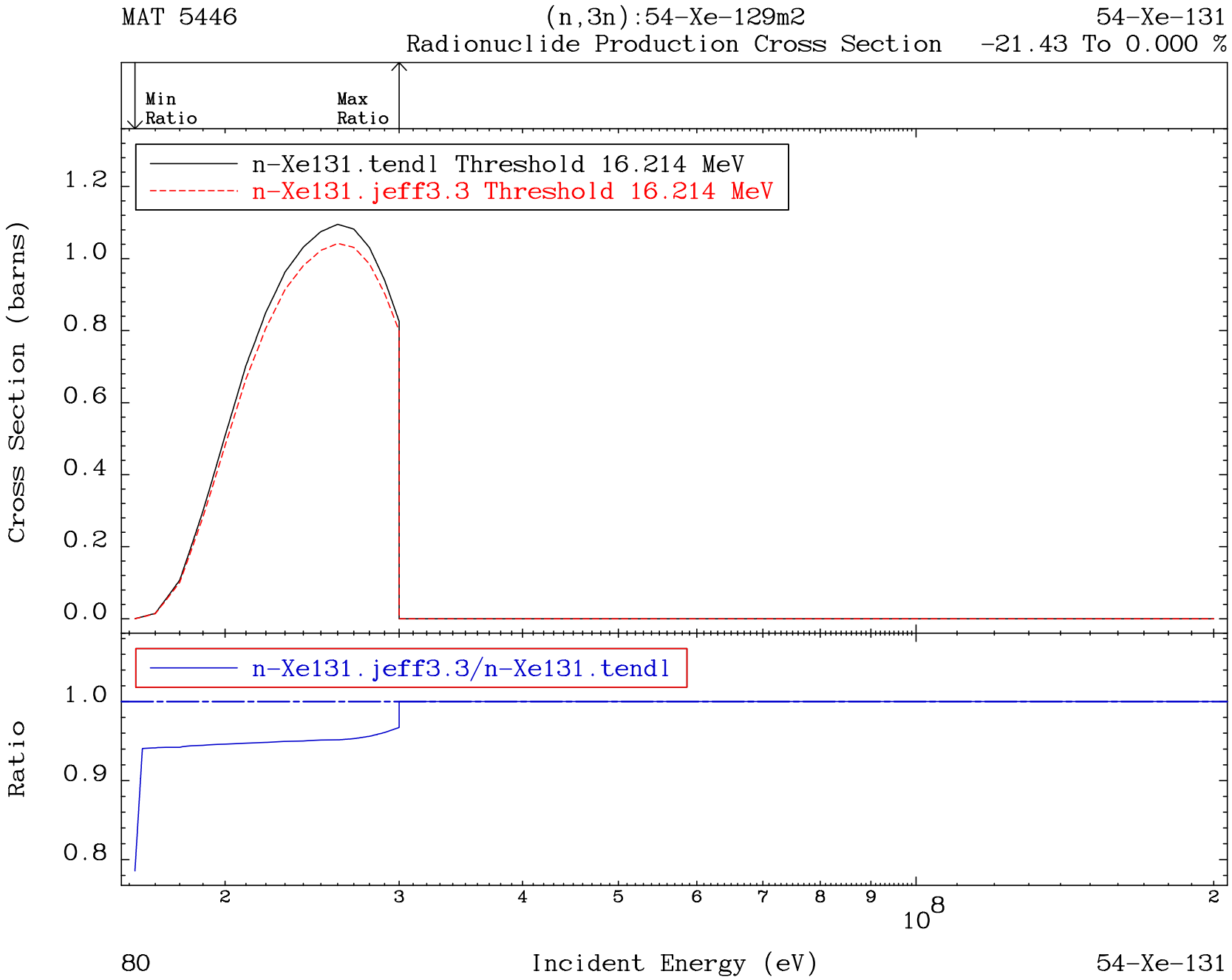

MAT 5446
Dpa inelastic (mt51-91)
Cross Section
54-Xe-131
-0.650 To 6.146 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.jeff3.3 Threshold 80.803 keV
Cross Section (barns)
10^6
10^3
10^0
10^-3
10^-6
10^-9
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.08
1.04
1.00
8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
75
Incident Energy (eV)
54-Xe-131

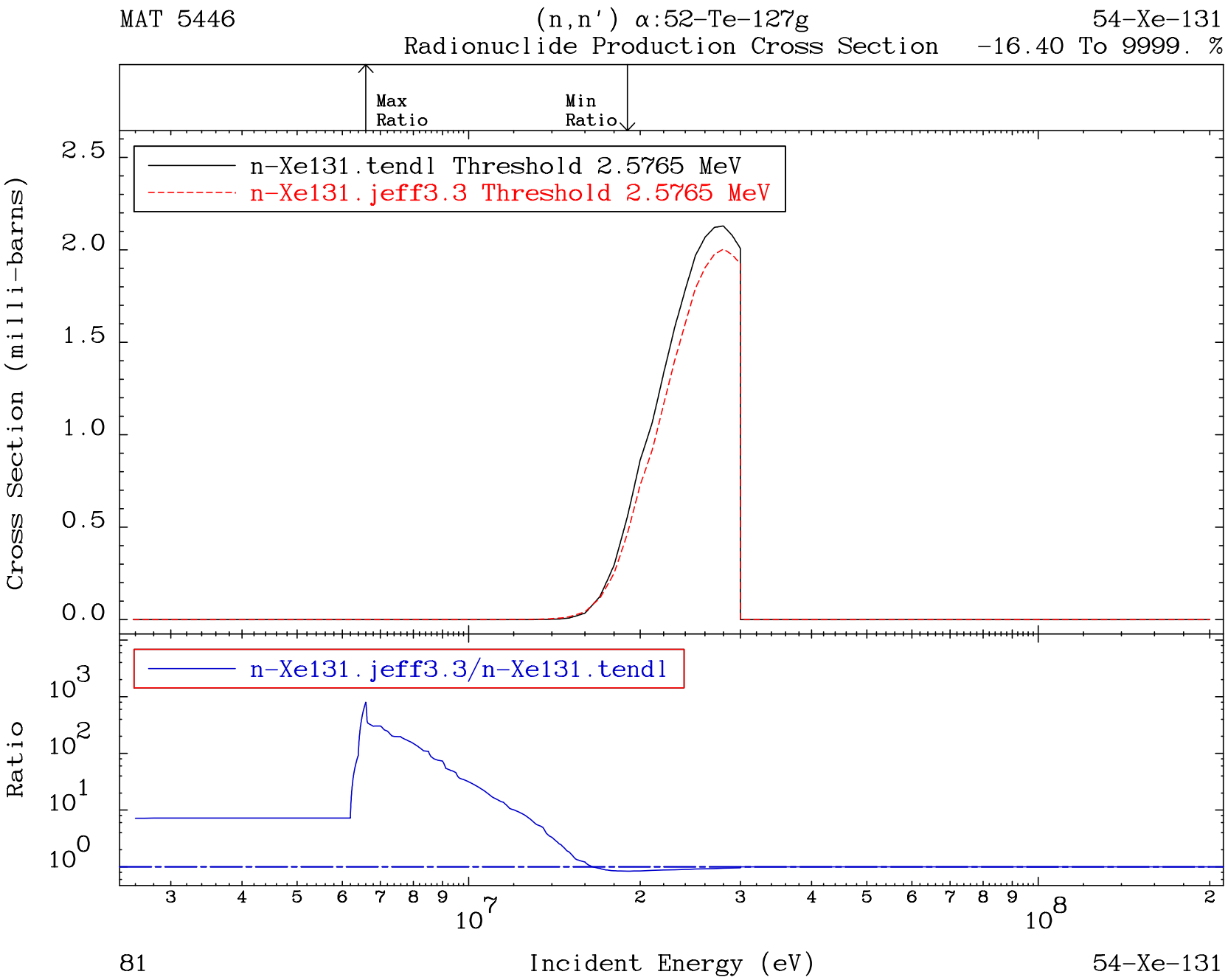

MAT 5446
Dpa disappearance (mt102 -120)
Cross Section
54-Xe-131
-99.99 To 1812. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.jeff3.3
Cross Section (barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
76
Incident Energy (eV)
54-Xe-131

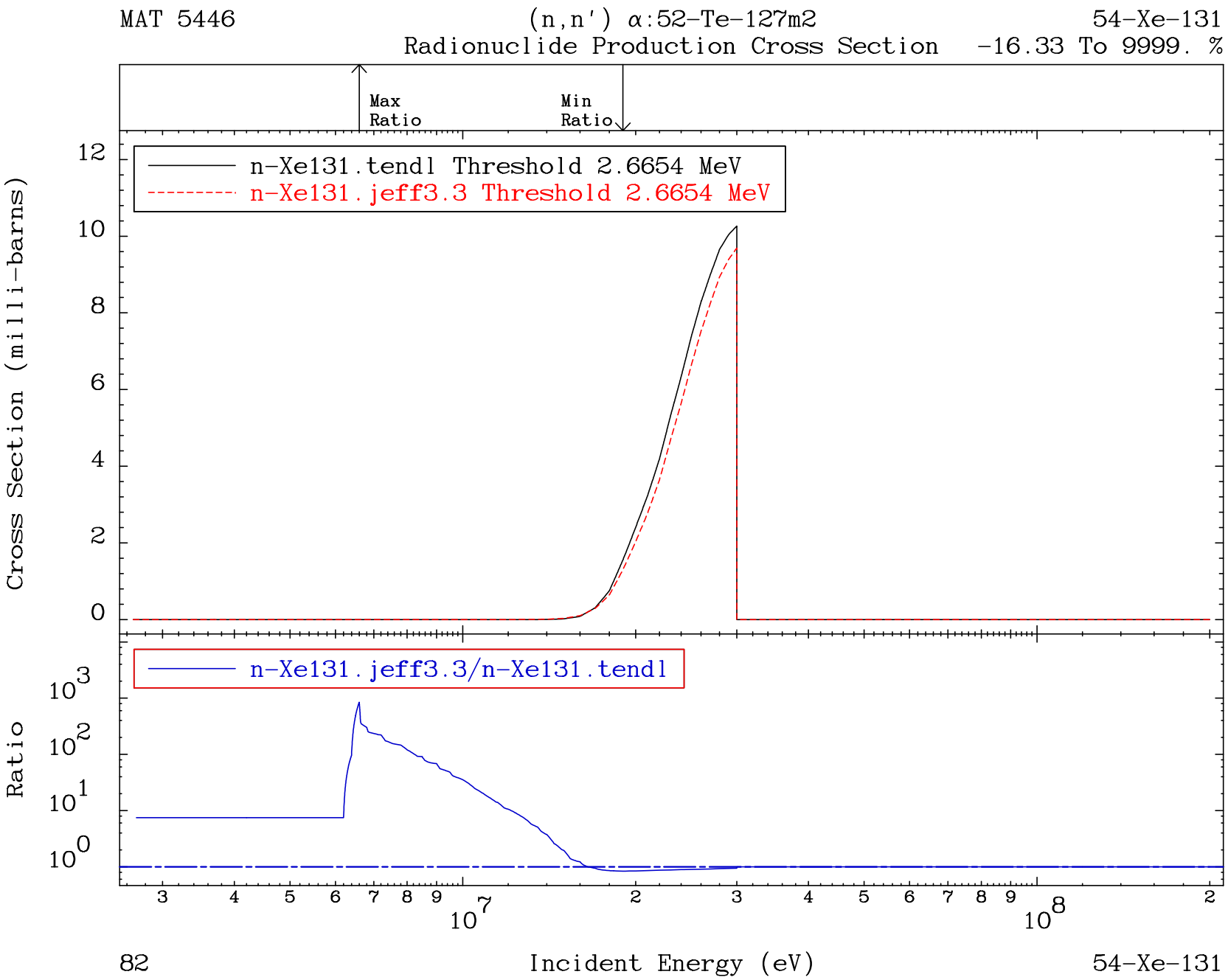

MAT 5446
Inelastic:54-Xe-131g
54-Xe-131
Radionuclide Production Cross Section
-0.650 To 5.871 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.jeff3.3 Threshold 80.803 keV
Cross Section (barns)
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.06
1.04
1.02
1.00
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
77
Incident Energy (eV)
54-Xe-131

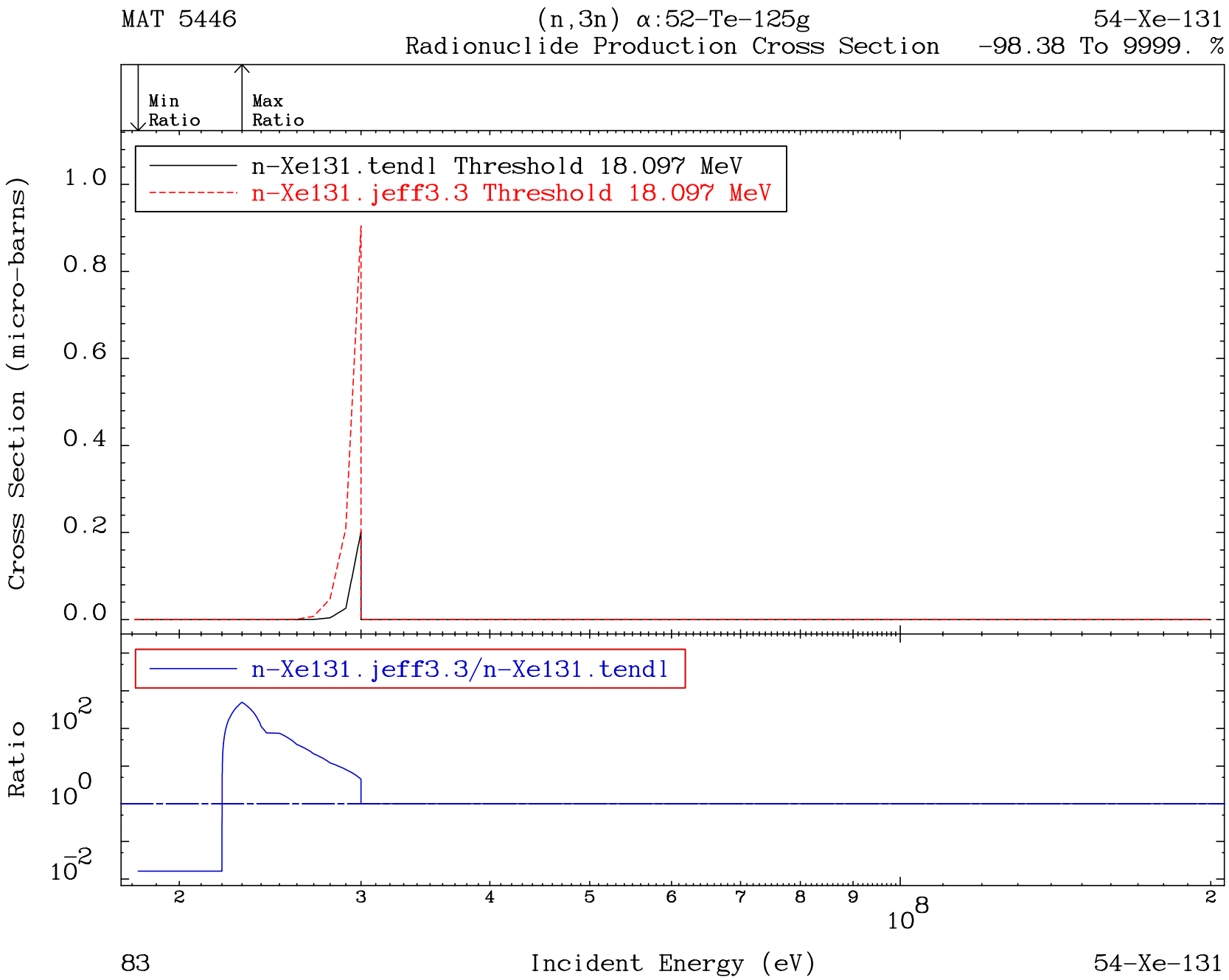

MAT 5446
Inelastic:54-Xe-131m2
54-Xe-131
Radionuclide Production Cross Section
-5.349 To 20.79 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 165.19 keV
n-Xe131.jeff3.3 Threshold 165.19 keV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.2
1.1
1.0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
78
Incident Energy (eV)
54-Xe-131

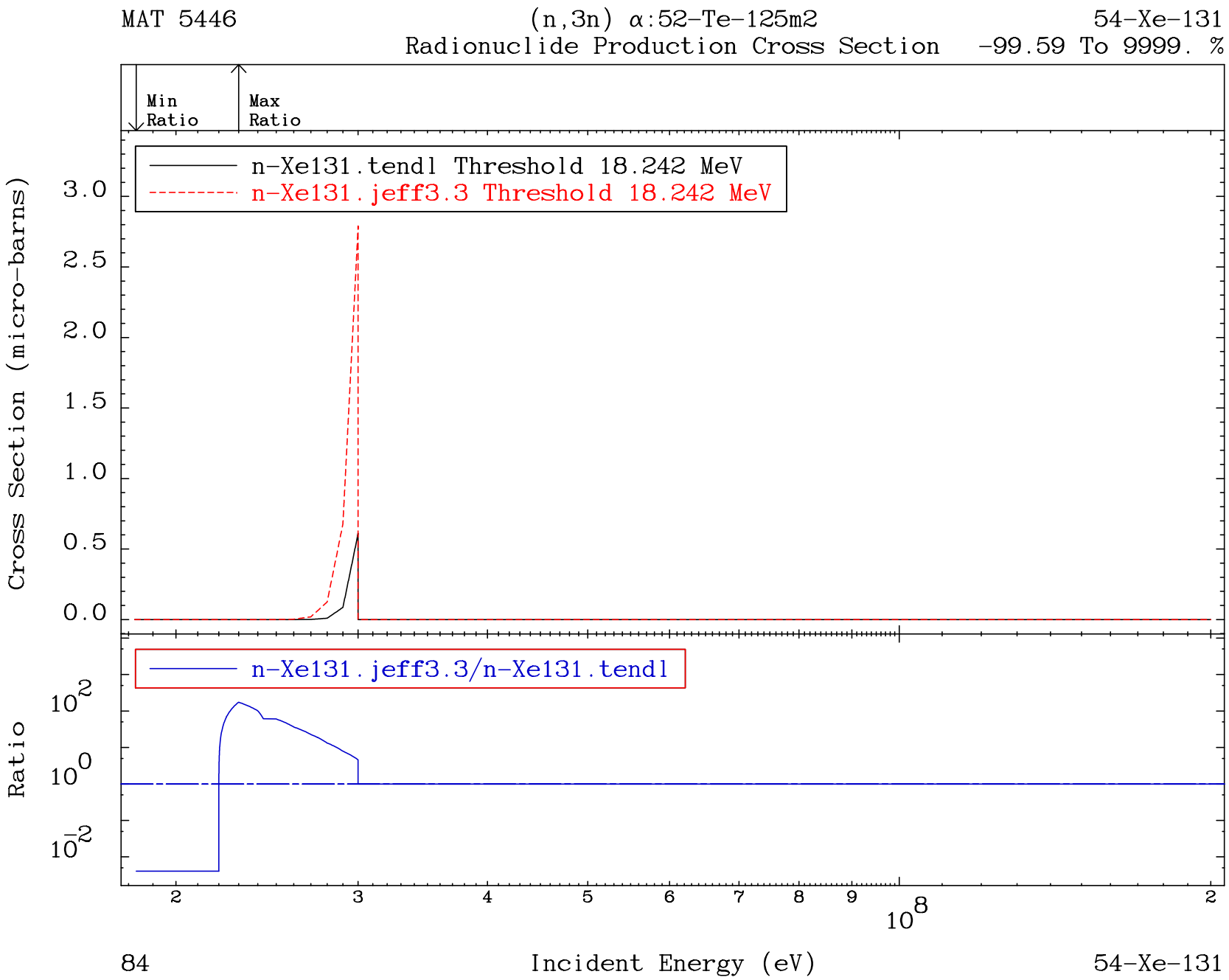

MAT 5446
(n,3n):54-Xe-129g
54-Xe-131
Radionuclide Production Cross Section -10.85 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 15.977 MeV
n-Xe131.jeff3.3 Threshold 15.977 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
54-Xe-131

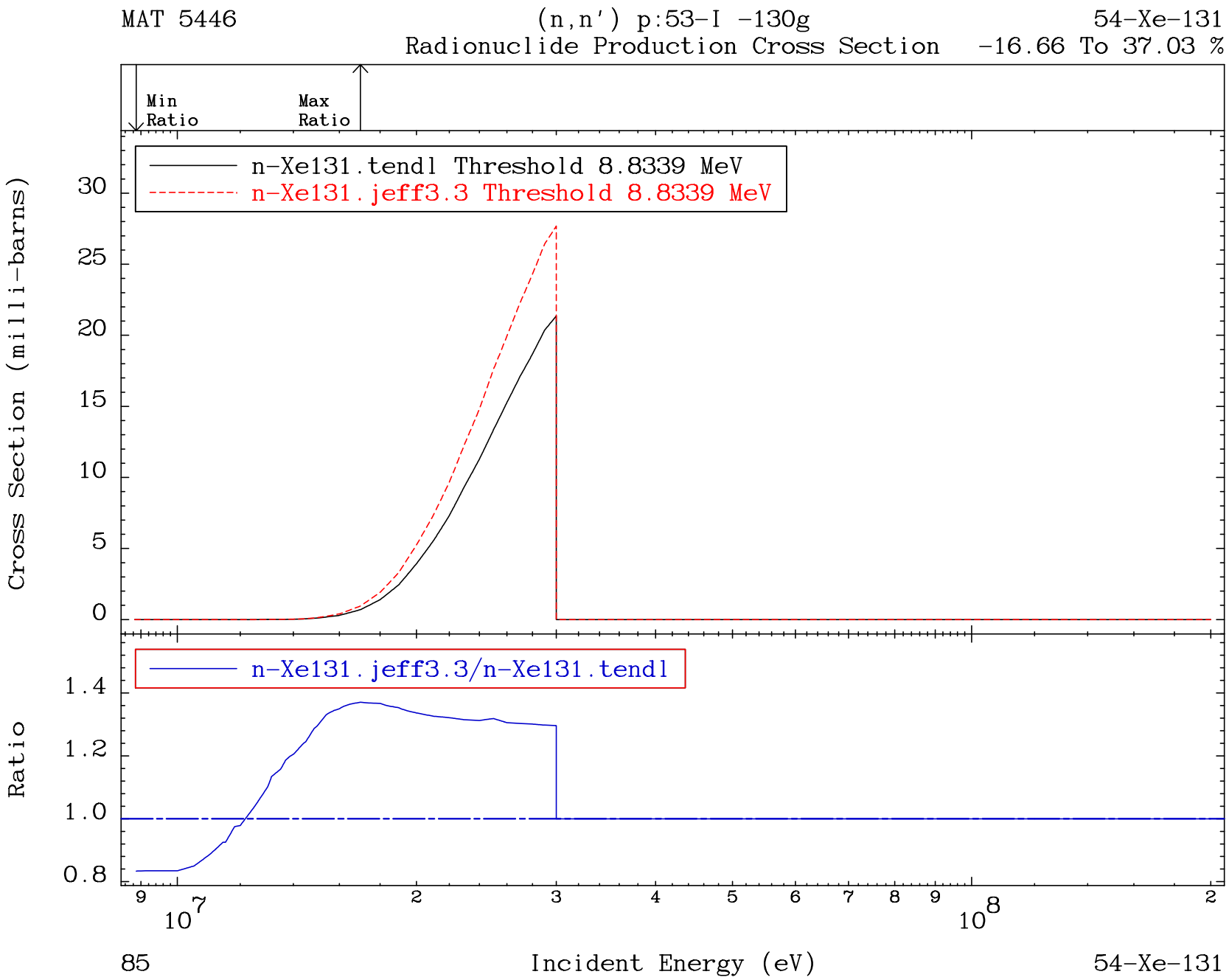

MAT 5446
(n,3n):54-Xe-129m2
54-Xe-131
Radionuclide Production Cross Section
-21.43 To 0.000 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 16.214 MeV
n-Xe131.jeff3.3 Threshold 16.214 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.0
0.9
0.8
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
54-Xe-131

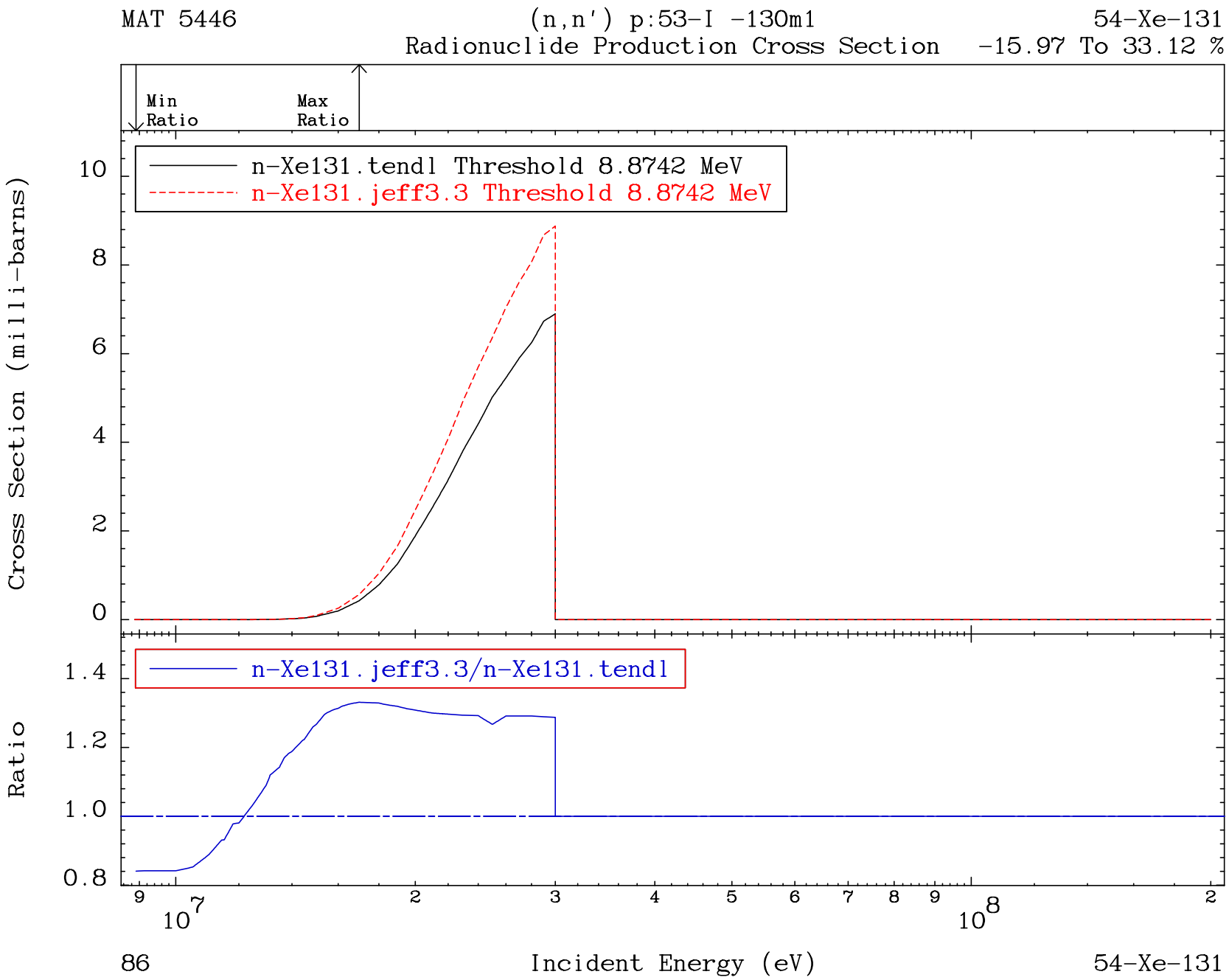

MAT 5446
(n,n') α:52-Te-127g
54-Xe-131
Radionuclide Production Cross Section -16.40 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 2.5765 MeV
n-Xe131.jeff3.3 Threshold 2.5765 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
81
Incident Energy (eV)
54-Xe-131

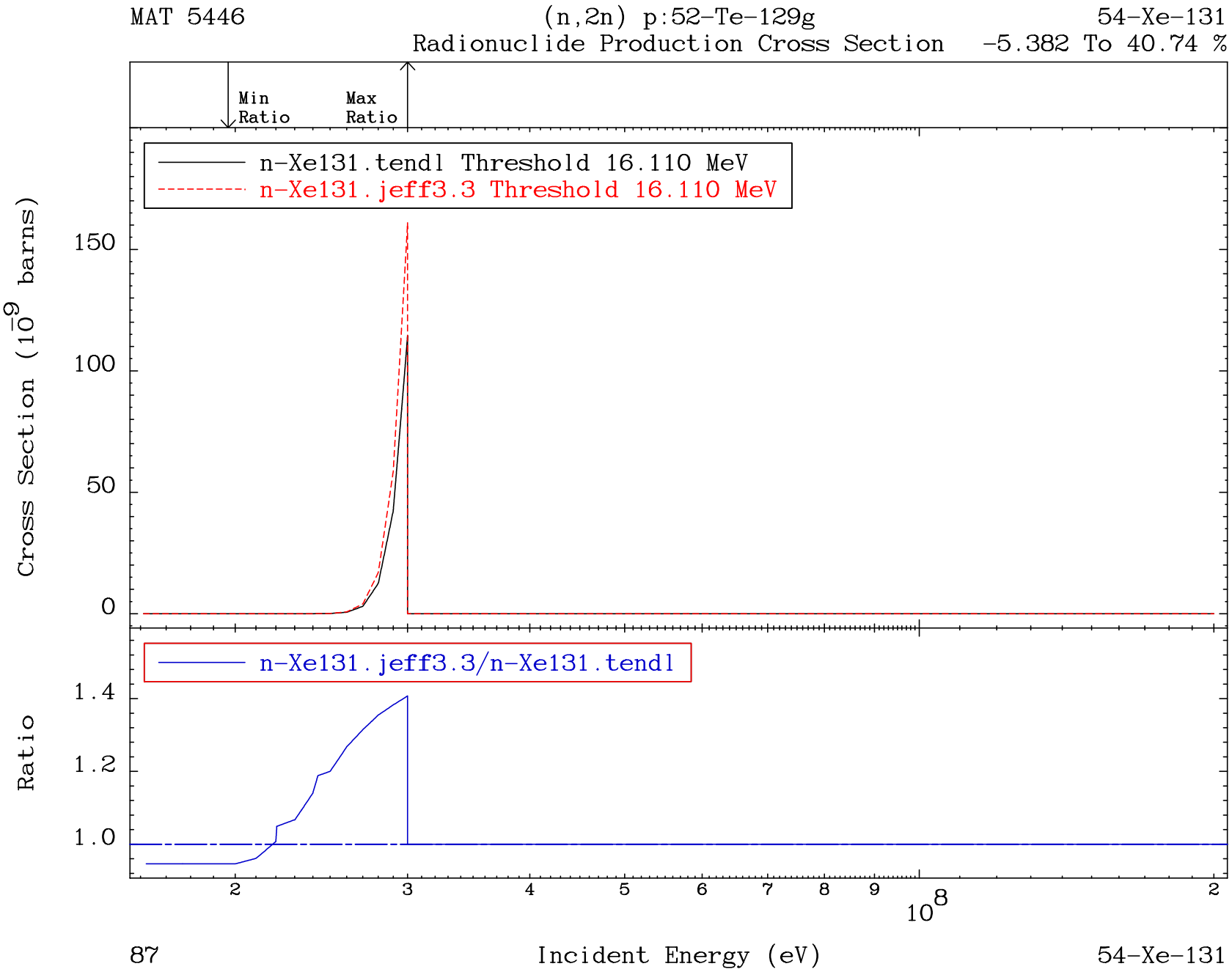

MAT 5446
(n,n') α:52-Te-127m2
54-Xe-131
Radionuclide Production Cross Section -16.33 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 2.6654 MeV
n-Xe131.jeff3.3 Threshold 2.6654 MeV
Cross Section (milli-barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
82
54-Xe-131

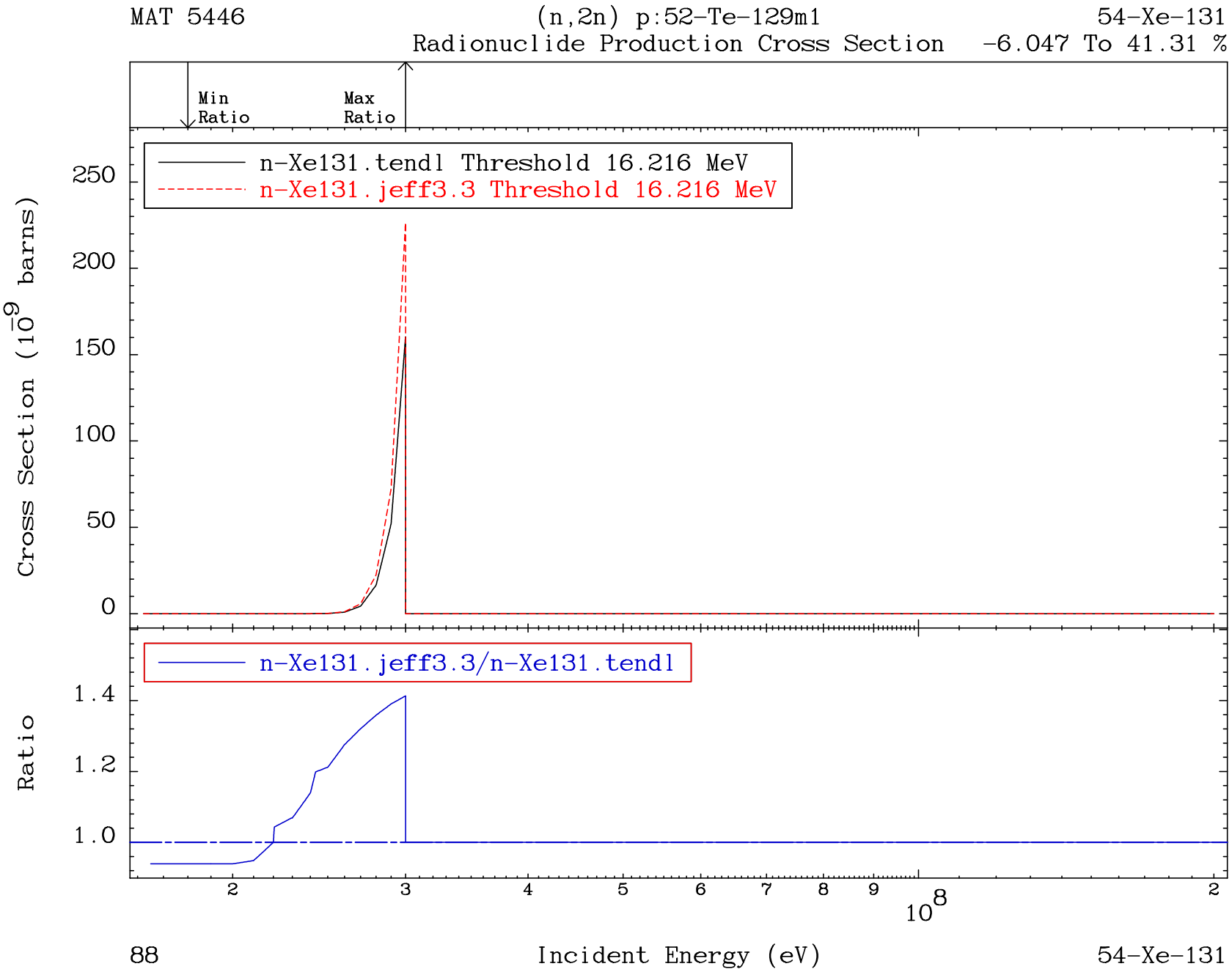

MAT 5446
(n,3n) α:52-Te-125g
54-Xe-131
Radionuclide Production Cross Section -98.38 To 9999. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 18.097 MeV
n-Xe131.jeff3.3 Threshold 18.097 MeV
Cross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
54-Xe-131

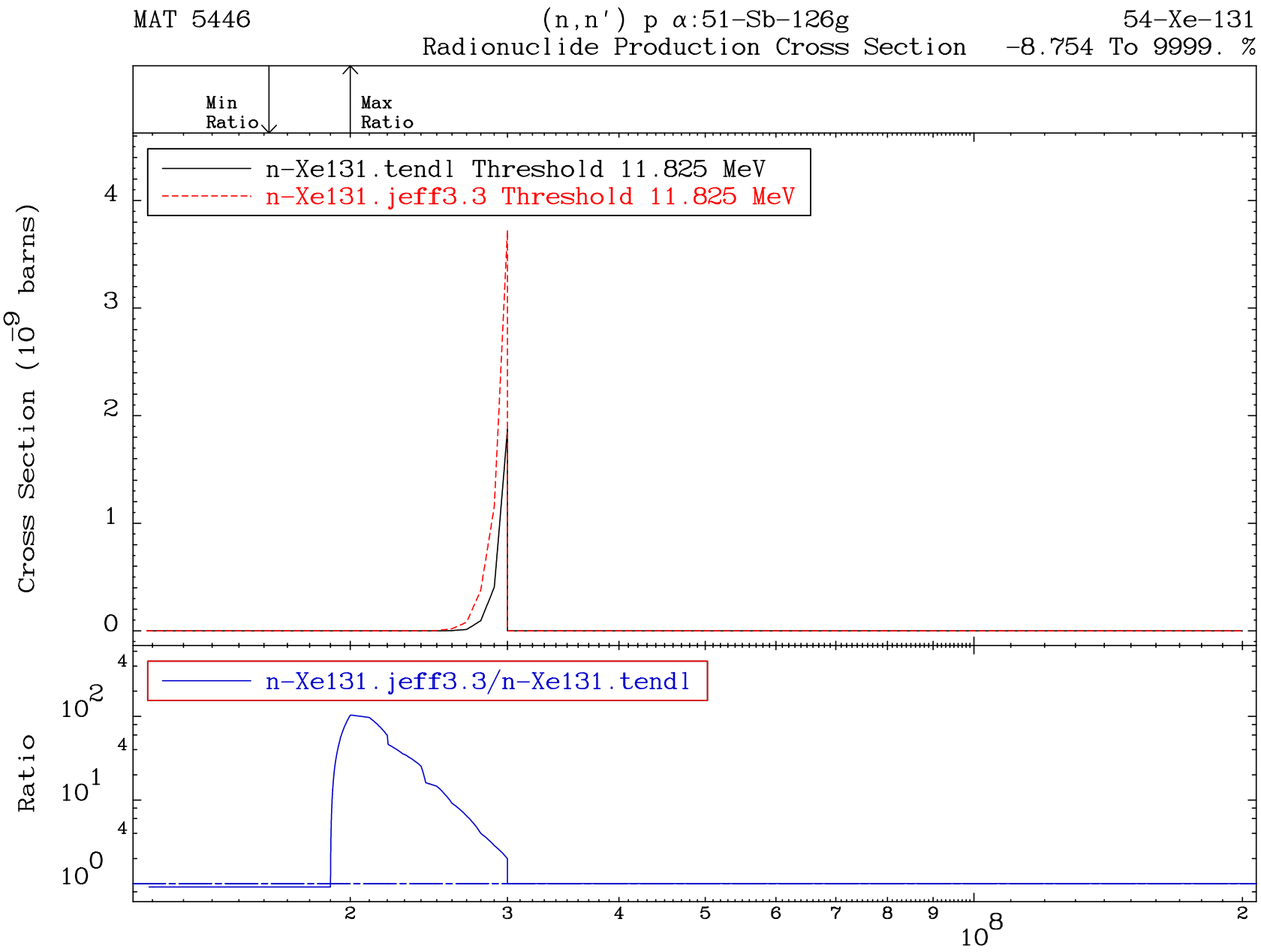

MAT 5446
(n,3n) α:52-Te-125m2
54-Xe-131
Radionuclide Production Cross Section -99.59 To 9999. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 18.242 MeV
n-Xe131.jeff3.3 Threshold 18.242 MeV
Cross Section (micro-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
84
Incident Energy (eV)
54-Xe-131

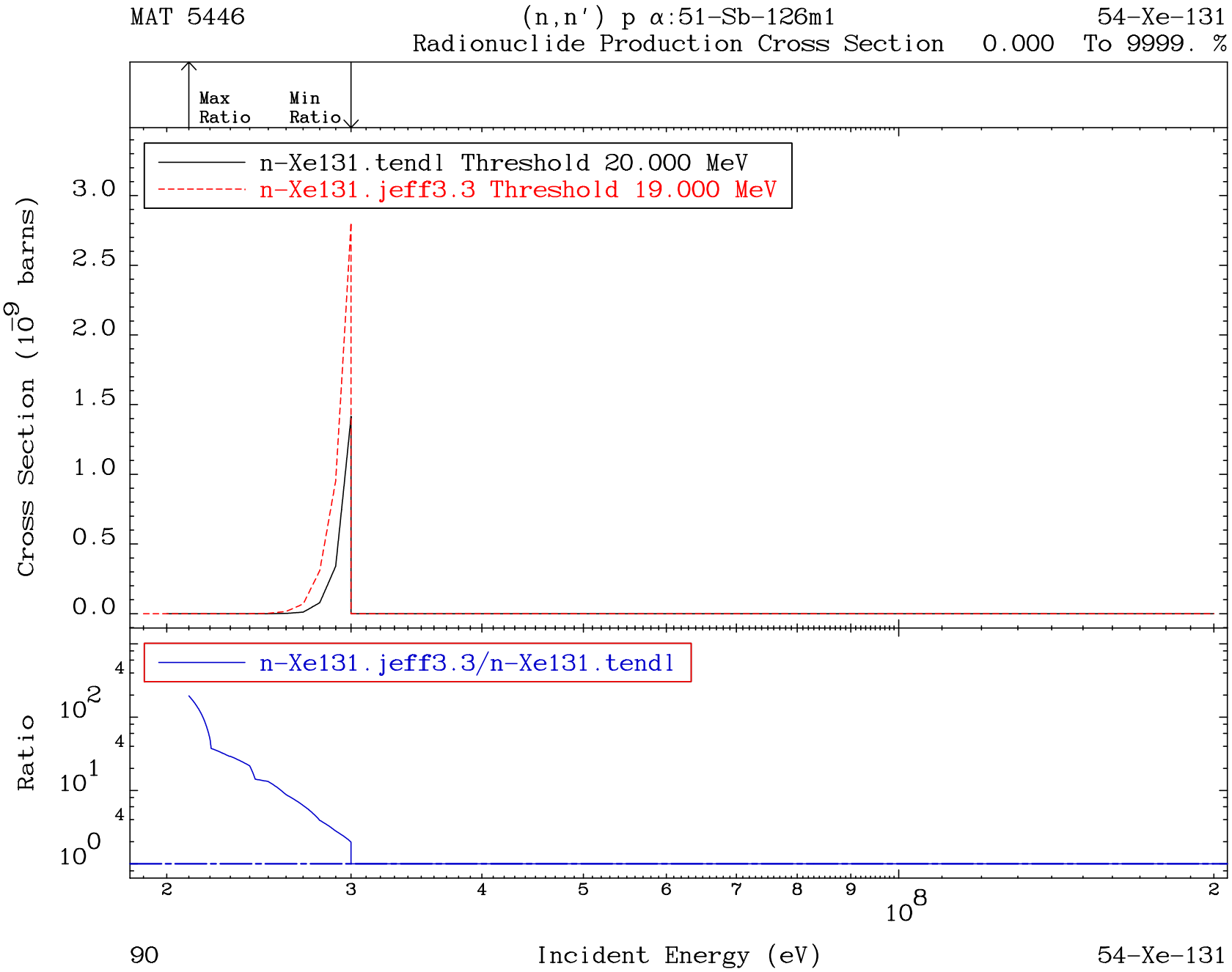

MAT 5446
(n,n') p:53-I -130g
54-Xe-131
Radionuclide Production Cross Section -16.66 To 37.03 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.8339 MeV
n-Xe131.jeff3.3 Threshold 8.8339 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.4
1.2
1.0
0.8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
85
Incident Energy (eV)
54-Xe-131

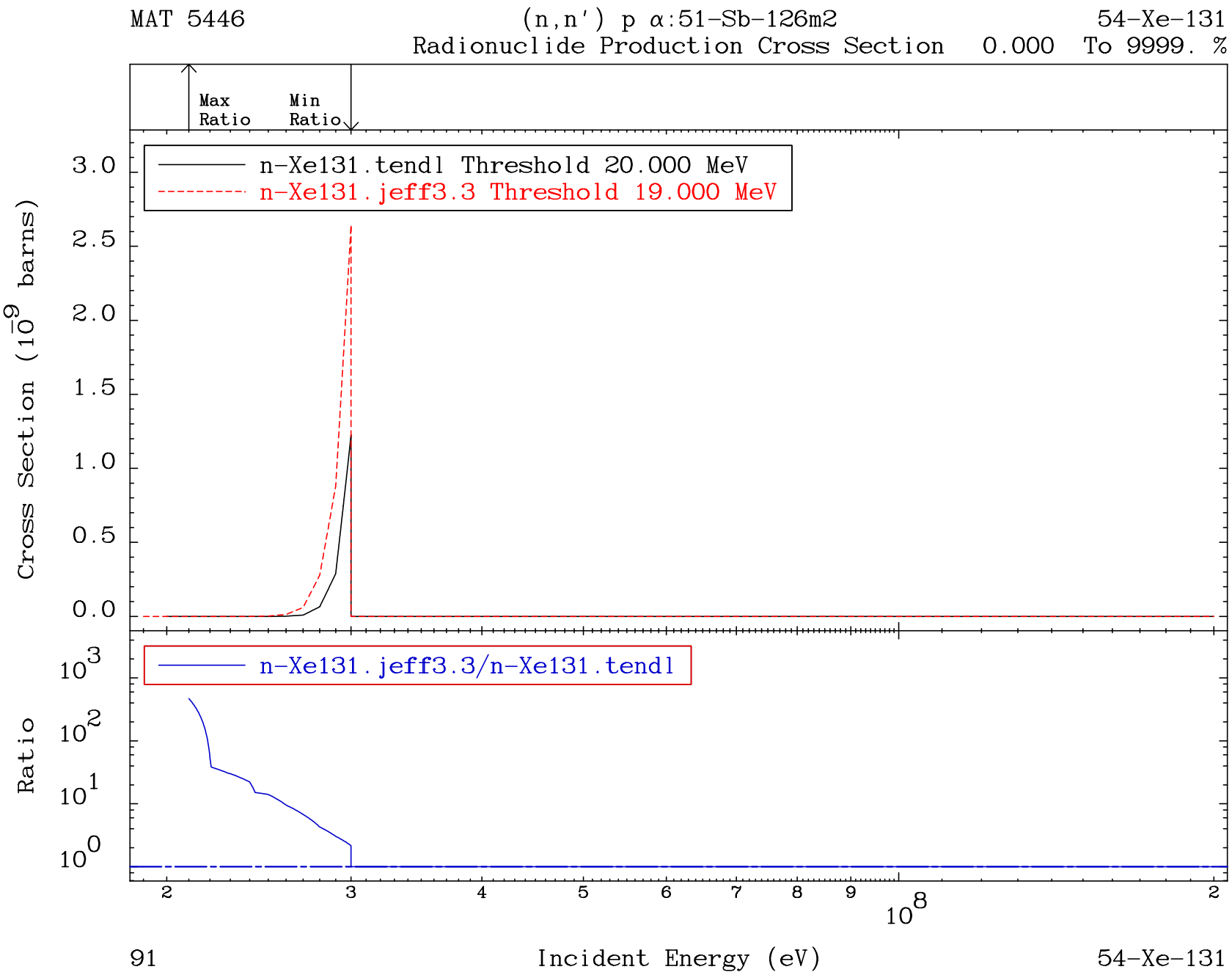

MAT 5446
(n,n') p:53-I -130m1
54-Xe-131
Radionuclide Production Cross Section -15.97 To 33.12 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.8742 MeV
n-Xe131.jeff3.3 Threshold 8.8742 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.4
1.2
1.0
0.8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
86
Incident Energy (eV)
54-Xe-131

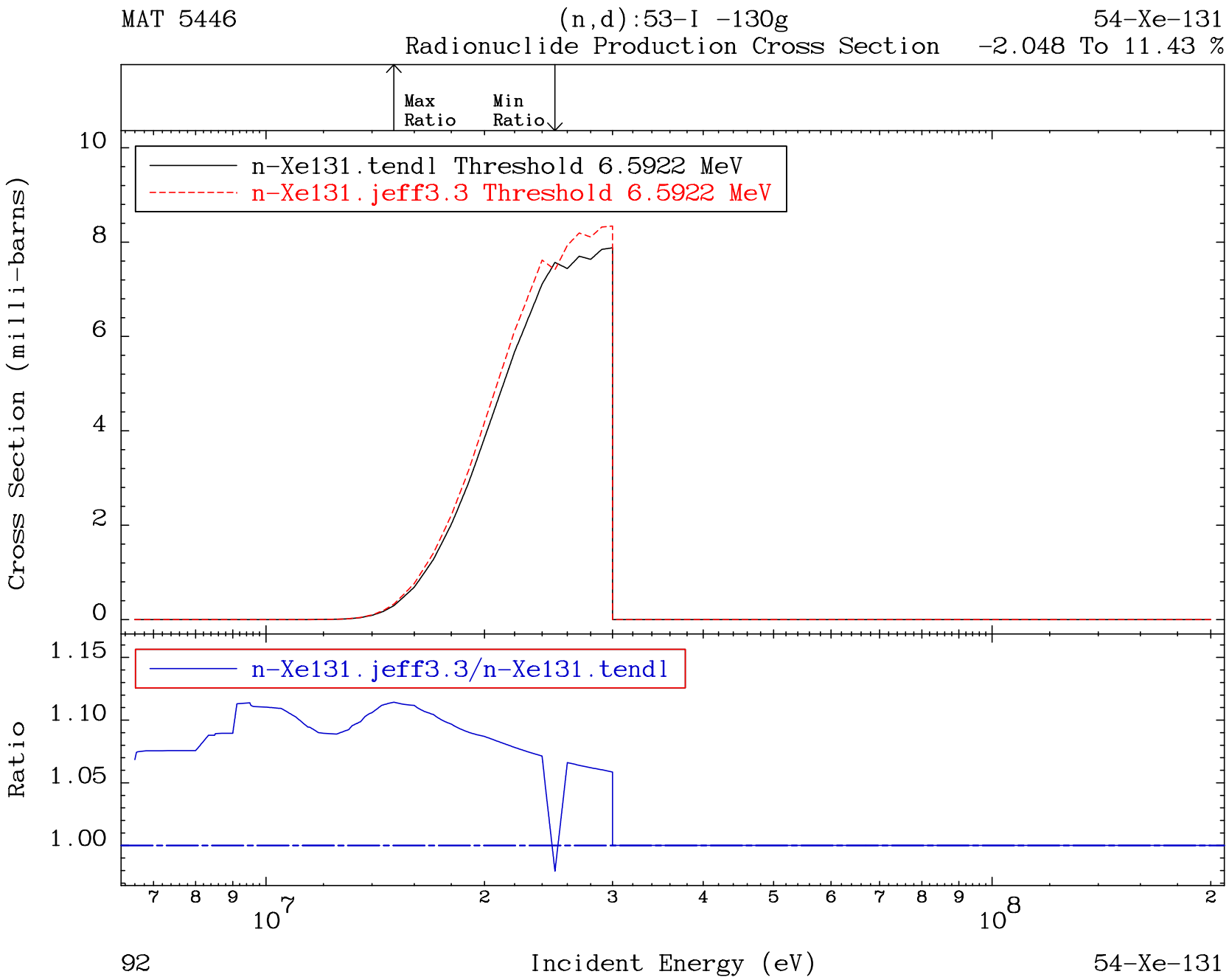

MAT 5446
(n,2n) p:52-Te-129g
54-Xe-131
Radionuclide Production Cross Section -5.382 To 40.74 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 16.110 MeV
n-Xe131.jeff3.3 Threshold 16.110 MeV
Cross Section (10^{-9} barns)
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.4
1.2
1.0
2
3
4
5
6
7
8
9
10^8
2
87
Incident Energy (eV)
54-Xe-131

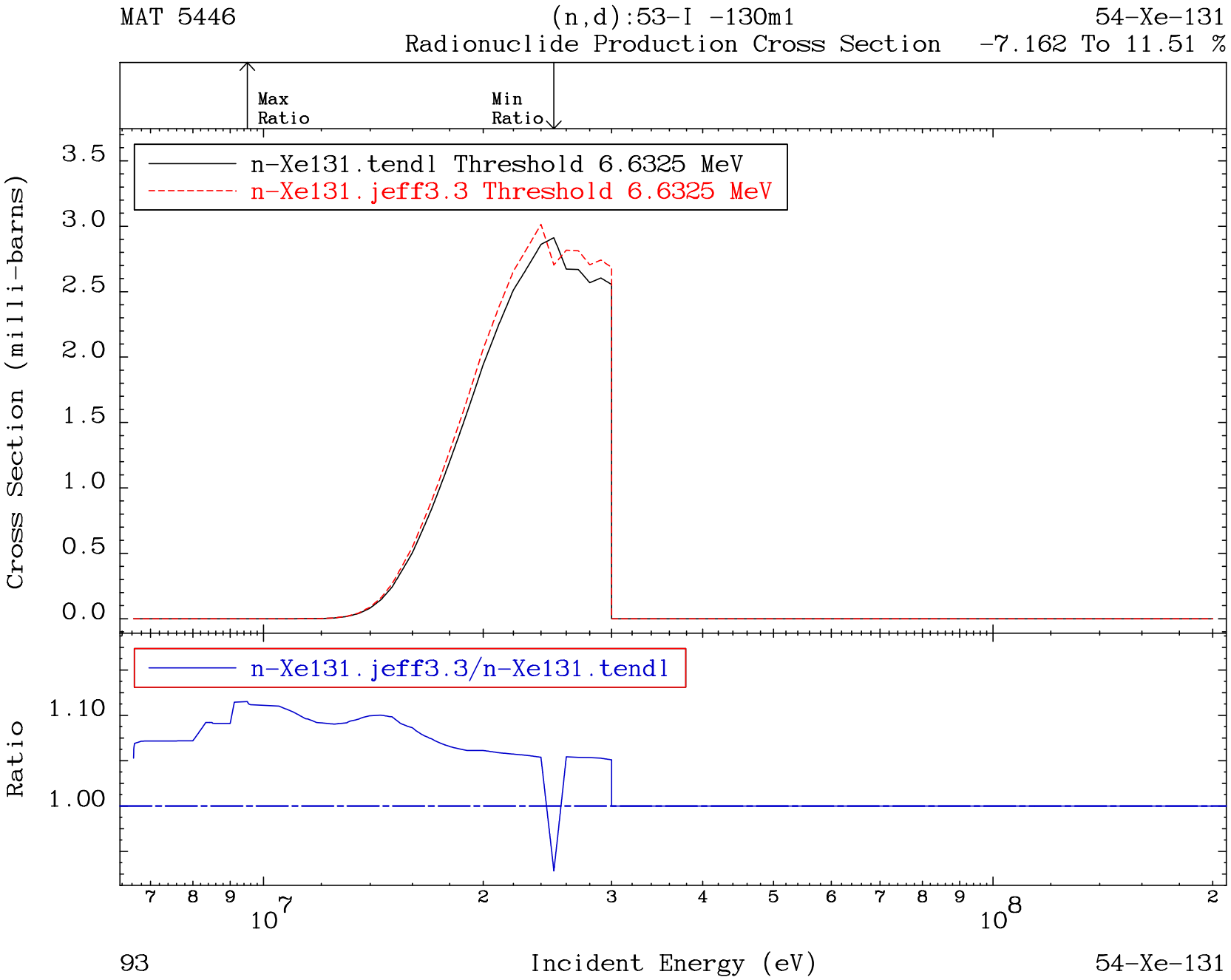

MAT 5446
(n,2n) p:52-Te-129m1
54-Xe-131
Radionuclide Production Cross Section -6.047 To 41.31 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 16.216 MeV
n-Xe131.jeff3.3 Threshold 16.216 MeV
Cross Section (10^{-9} barns)
250
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.4
1.2
1.0
2
3
4
5
6
7
8
9
10^8
2
88
Incident Energy (eV)
54-Xe-131

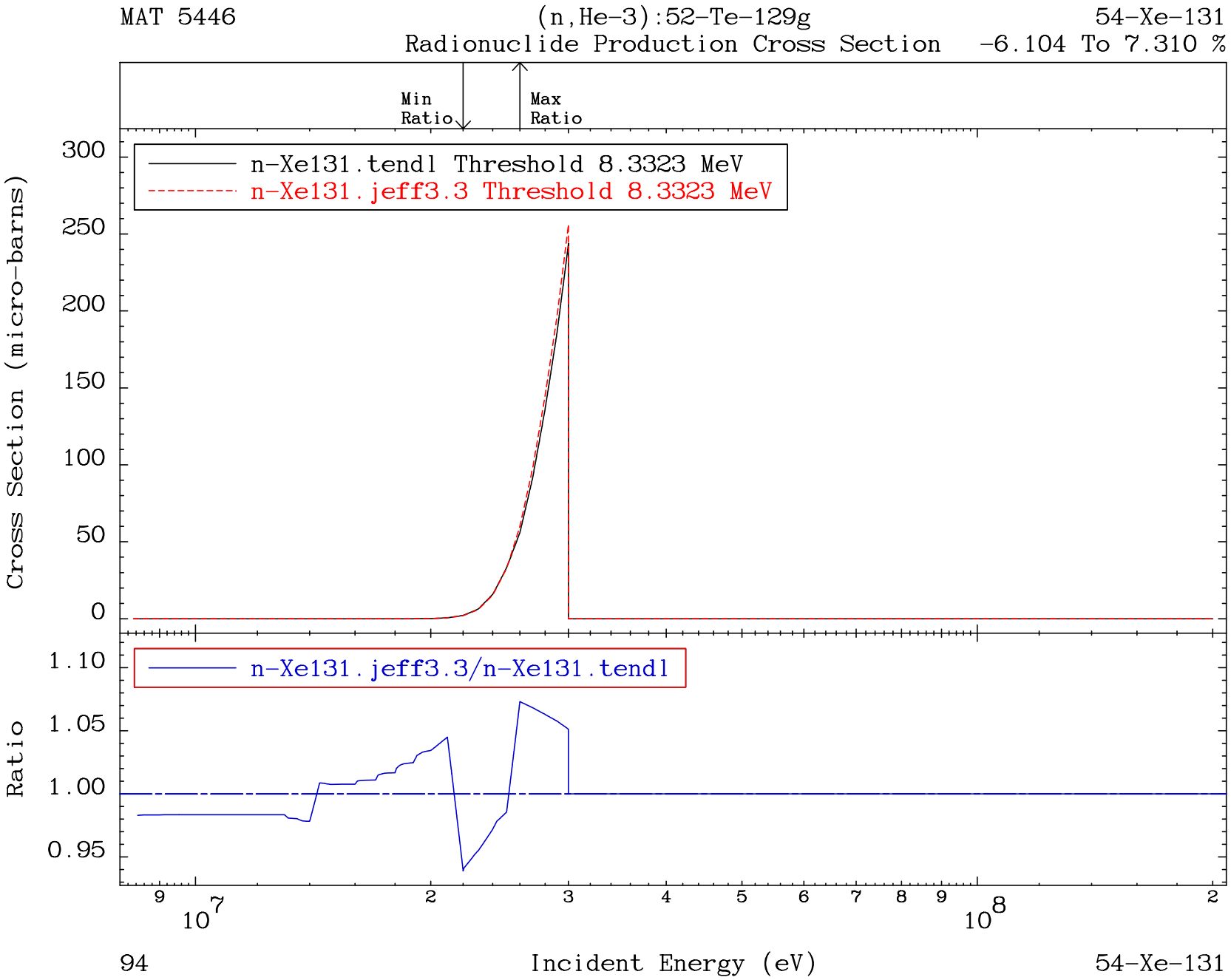

MAT 5446
(n,n') p α:51-Sb-126g
54-Xe-131
Radionuclide Production Cross Section -8.754 To 9999. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 11.825 MeV
n-Xe131.jeff3.3 Threshold 11.825 MeV
Cross Section (10^{-9} barns)
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
Incident Energy (eV)
89
54-Xe-131

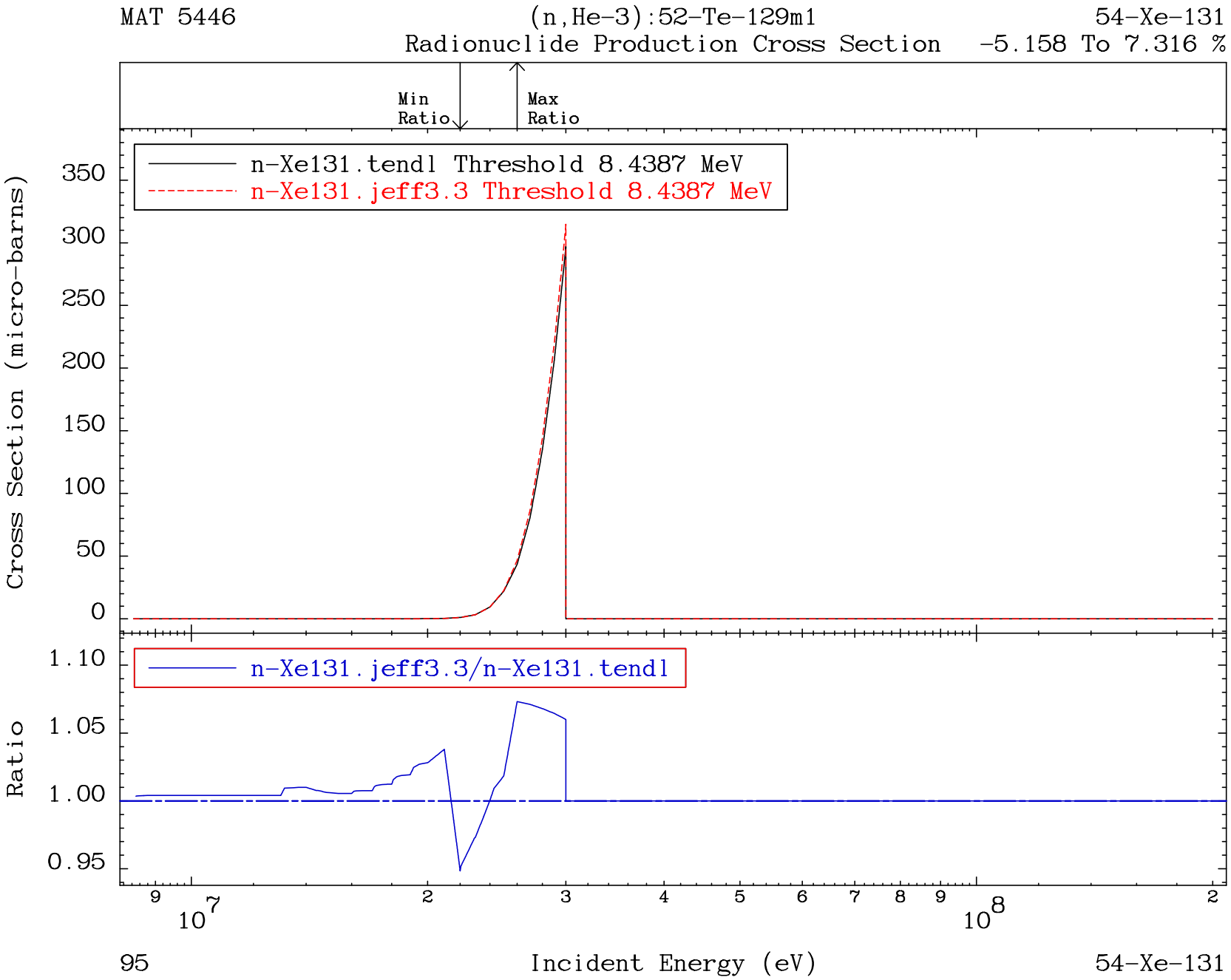

MAT 5446
(n,n') p α:51-Sb-126m1
54-Xe-131
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 20.000 MeV
n-Xe131.jeff3.3 Threshold 19.000 MeV
Cross Section (10^{-9} barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
10^{2}
10^{1}
10^{0}
2
3
4
5
6
7
8
9
10^{8}
2
90
Incident Energy (eV)
54-Xe-131

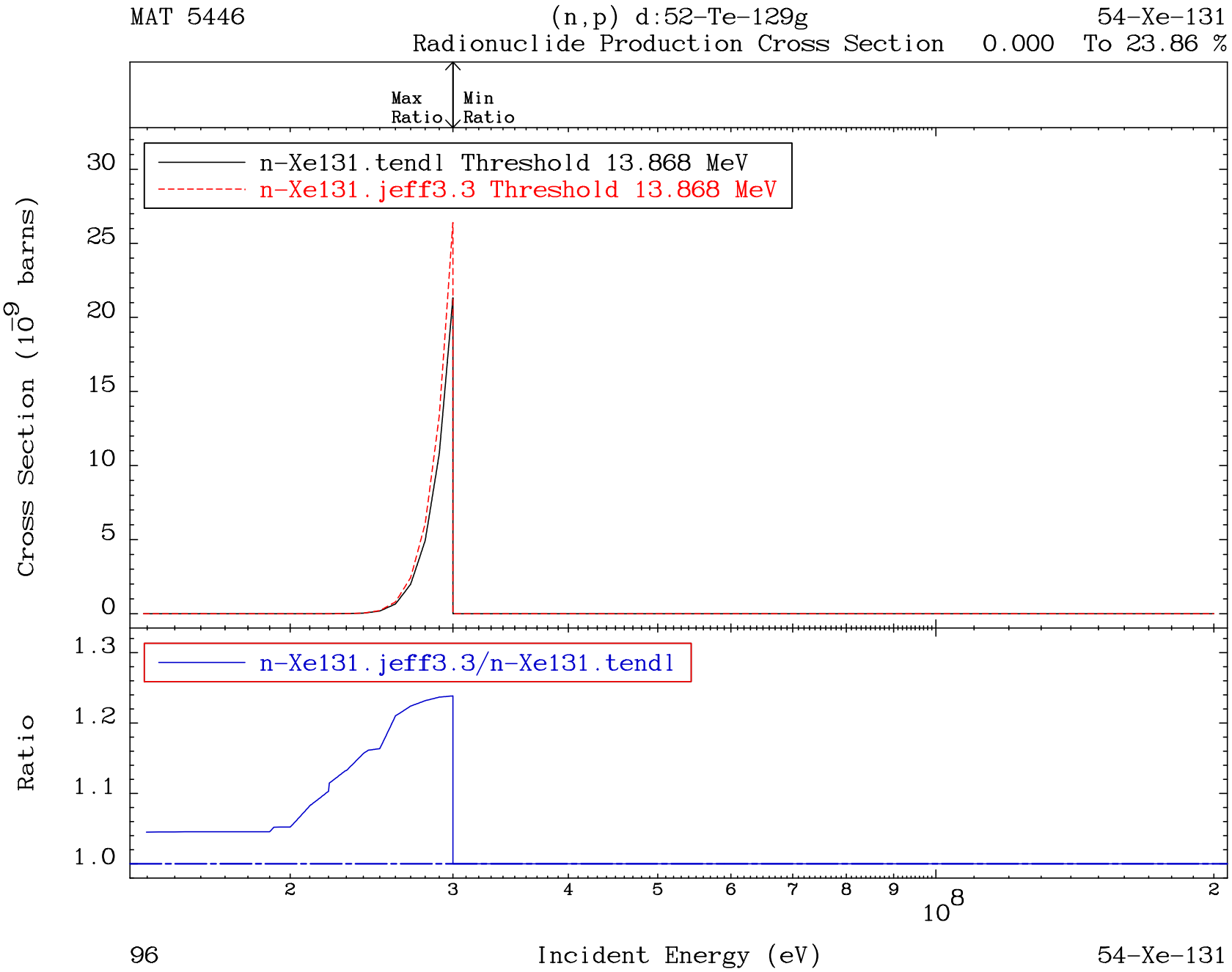

MAT 5446
(n,n') p α:51-Sb-126m2
54-Xe-131
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 20.000 MeV
n-Xe131.jeff3.3 Threshold 19.000 MeV
Cross Section (10^{-9} barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
10^3
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
54-Xe-131

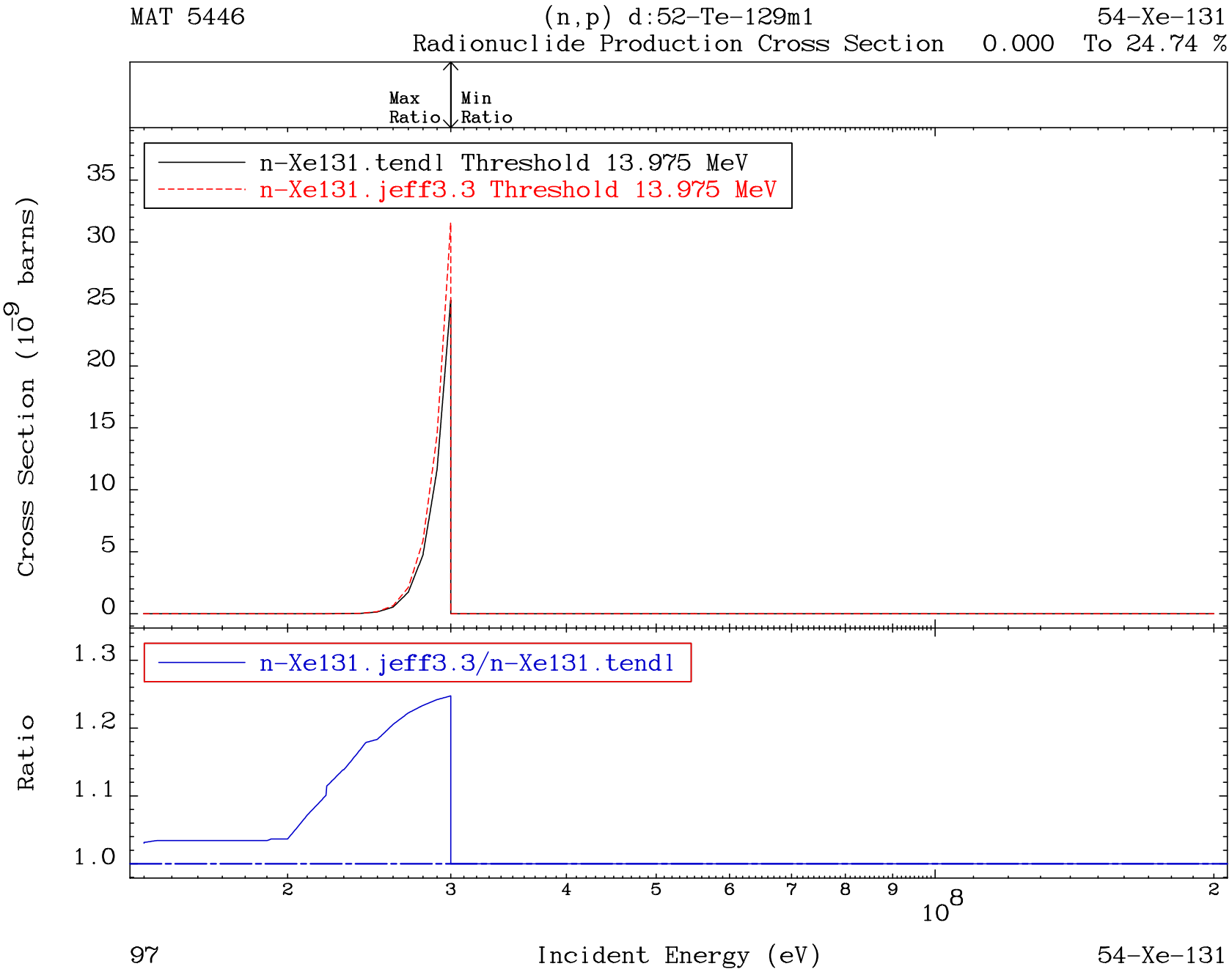

MAT 5446
(n,d):53-I -130g
54-Xe-131
Radionuclide Production Cross Section -2.048 To 11.43 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 6.5922 MeV
n-Xe131.jeff3.3 Threshold 6.5922 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.15
1.10
1.05
1.00
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
92
Incident Energy (eV)
54-Xe-131


MAT 5446
(n,d):53-I -130m1
54-Xe-131
Radionuclide Production Cross Section -7.162 To 11.51 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 6.6325 MeV
n-Xe131.jeff3.3 Threshold 6.6325 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.10
1.00
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
93
Incident Energy (eV)
54-Xe-131


MAT 5446
(n,He-3):52-Te-129g
54-Xe-131
Radionuclide Production Cross Section -6.104 To 7.310 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.3323 MeV
n-Xe131.jeff3.3 Threshold 8.3323 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.10
1.05
1.00
0.95
9
10^7
2
3
4
5
6
7
8
9
10^8
2
94
Incident Energy (eV)
54-Xe-131


MAT 5446
(n,He-3):52-Te-129m1
54-Xe-131
Radionuclide Production Cross Section -5.158 To 7.316 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.4387 MeV
n-Xe131.jeff3.3 Threshold 8.4387 MeV
Cross Section (micro-barns)
350
300
250
200
150
100
50
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.10
1.05
1.00
0.95
9
10^7
2
3
4
5
6
7
8
9
10^8
2
95
Incident Energy (eV)
54-Xe-131


MAT 5446
(n,p) d:52-Te-129g
54-Xe-131
Radionuclide Production Cross Section 0.000 To 23.86 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 13.868 MeV
n-Xe131.jeff3.3 Threshold 13.868 MeV
Cross Section (10^{-9} barns)
30
25
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.3
1.2
1.1
1.0
2
3
4
5
6
7
8
9
10^8
2
96
Incident Energy (eV)
54-Xe-131


MAT 5446
(n,p) d:52-Te-129m1
54-Xe-131
Radionuclide Production Cross Section 0.000 To 24.74 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 13.975 MeV
n-Xe131.jeff3.3 Threshold 13.975 MeV
Cross Section (10^{-9} barns)
35
30
25
20
15
10
5
0
n-Xe131.jeff3.3/n-Xe131.tendl
Ratio
1.3
1.2
1.1
1.0
2
3
4
5
6
7
8
9
2
10^8
97
Incident Energy (eV)
54-Xe-131