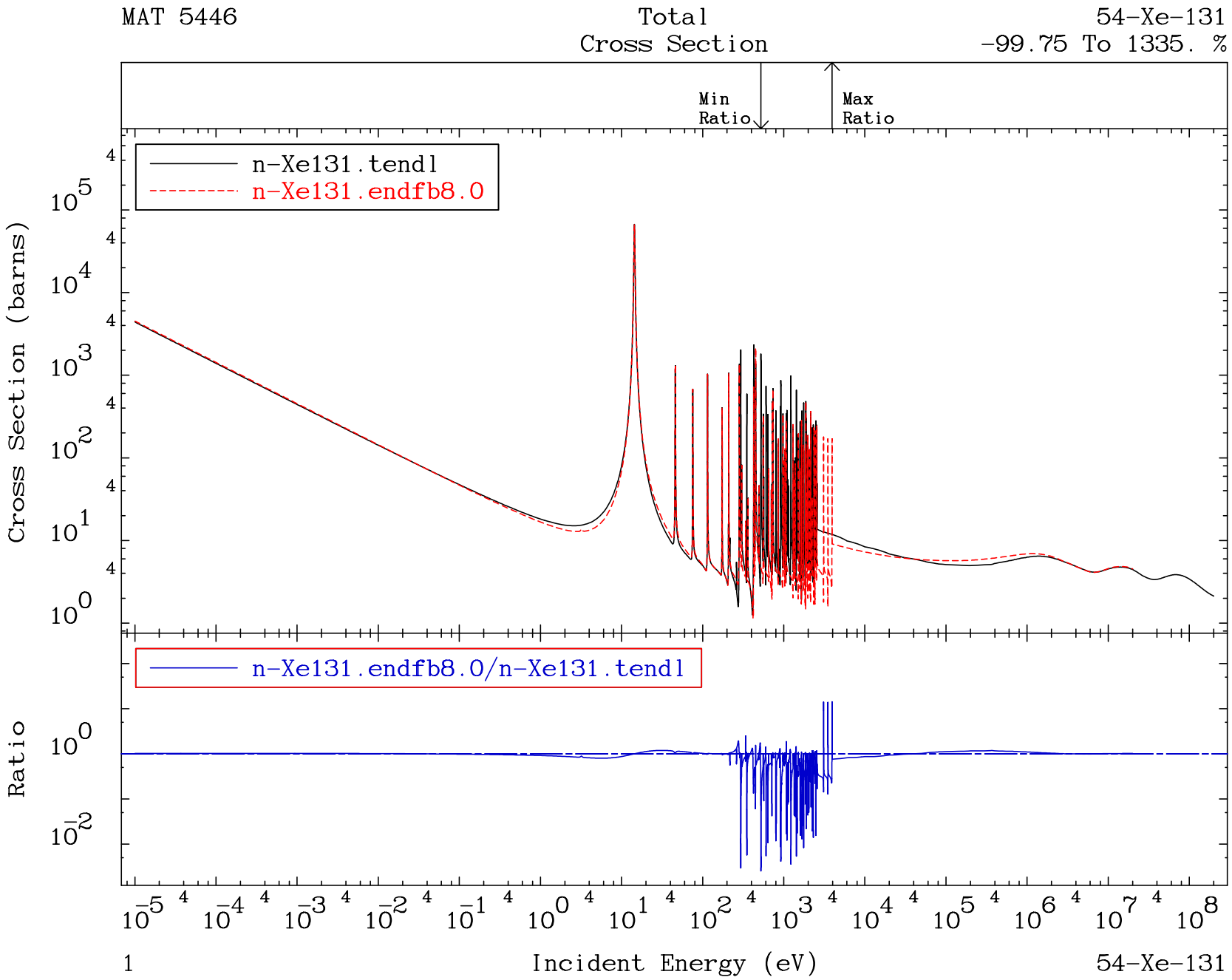
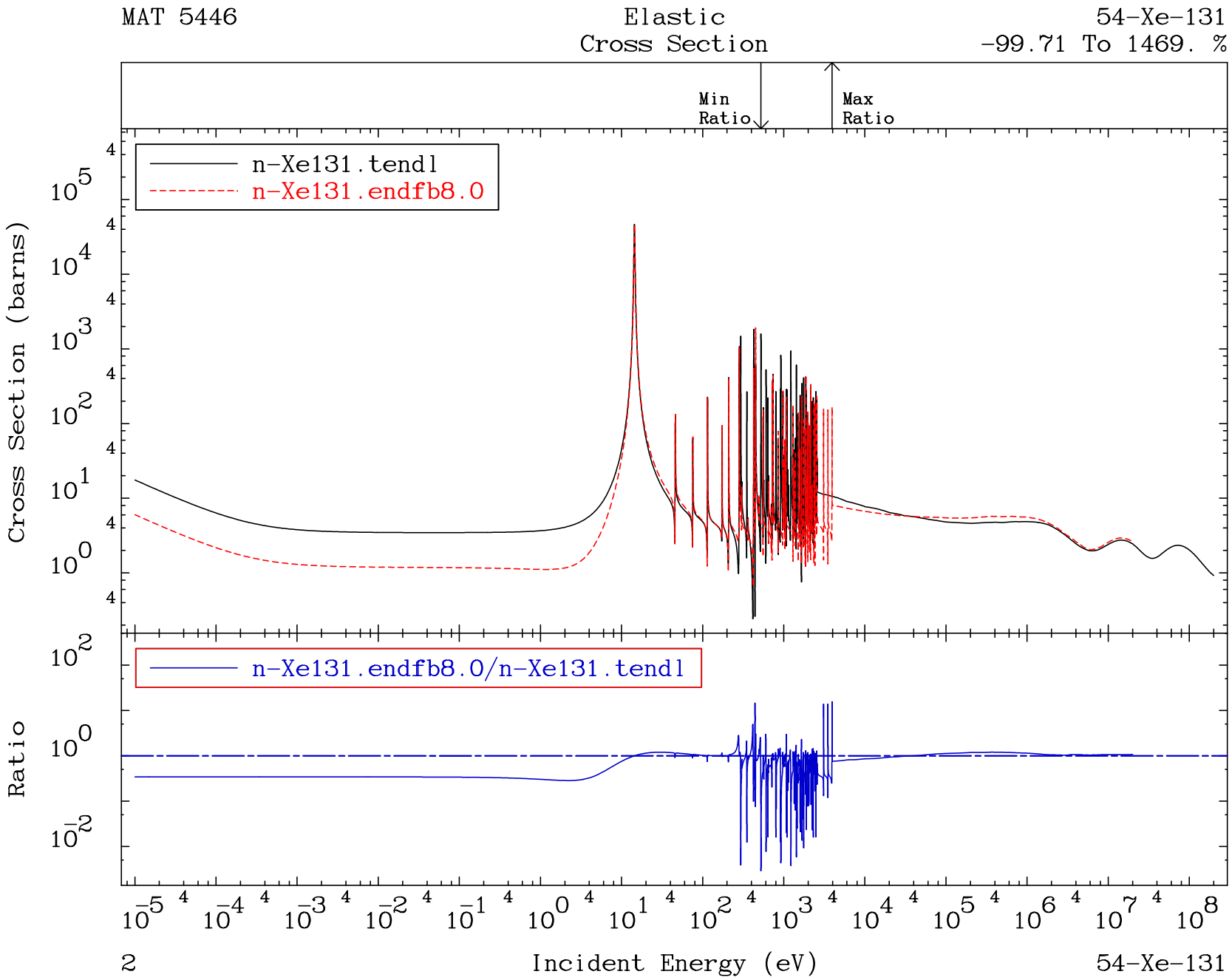
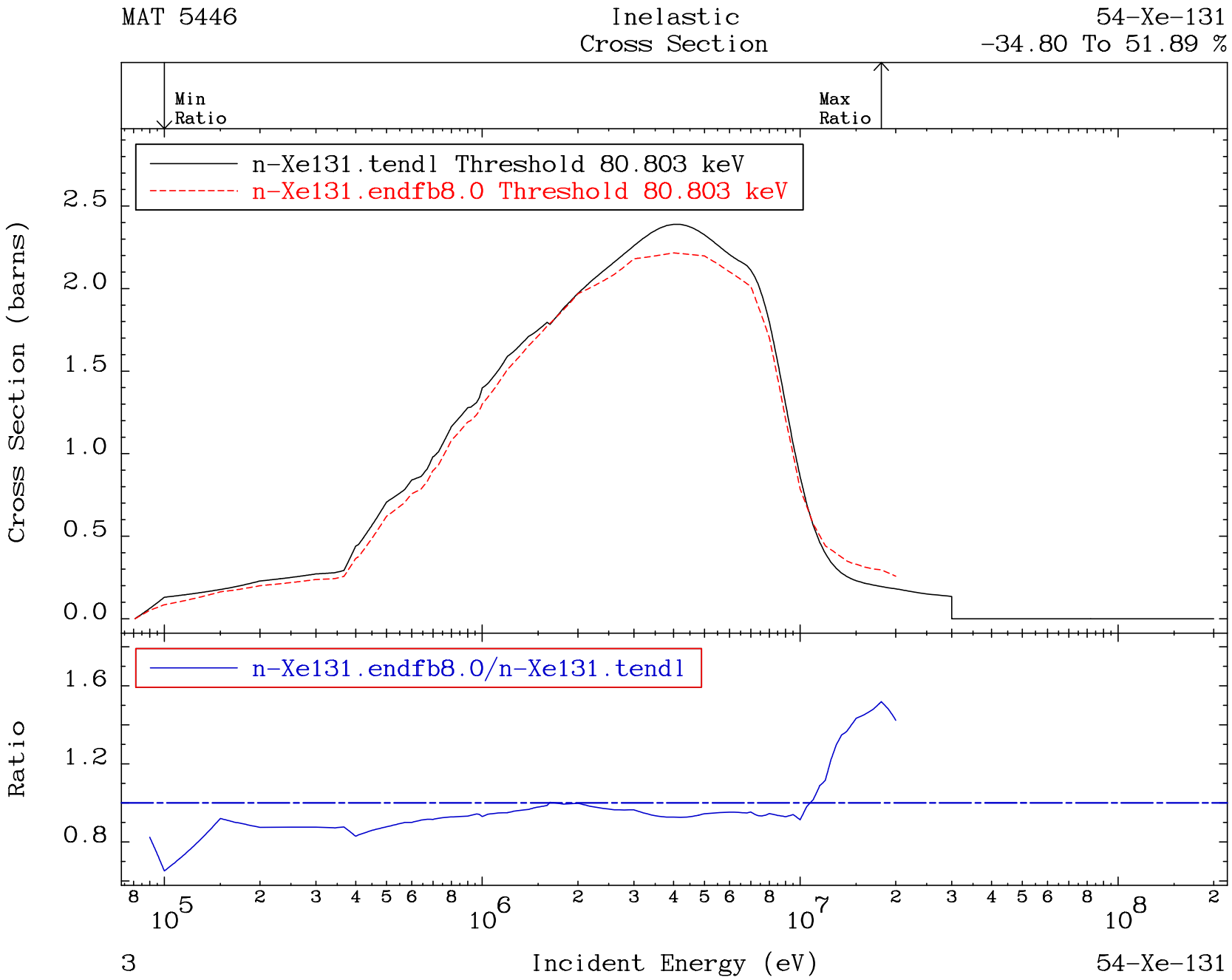
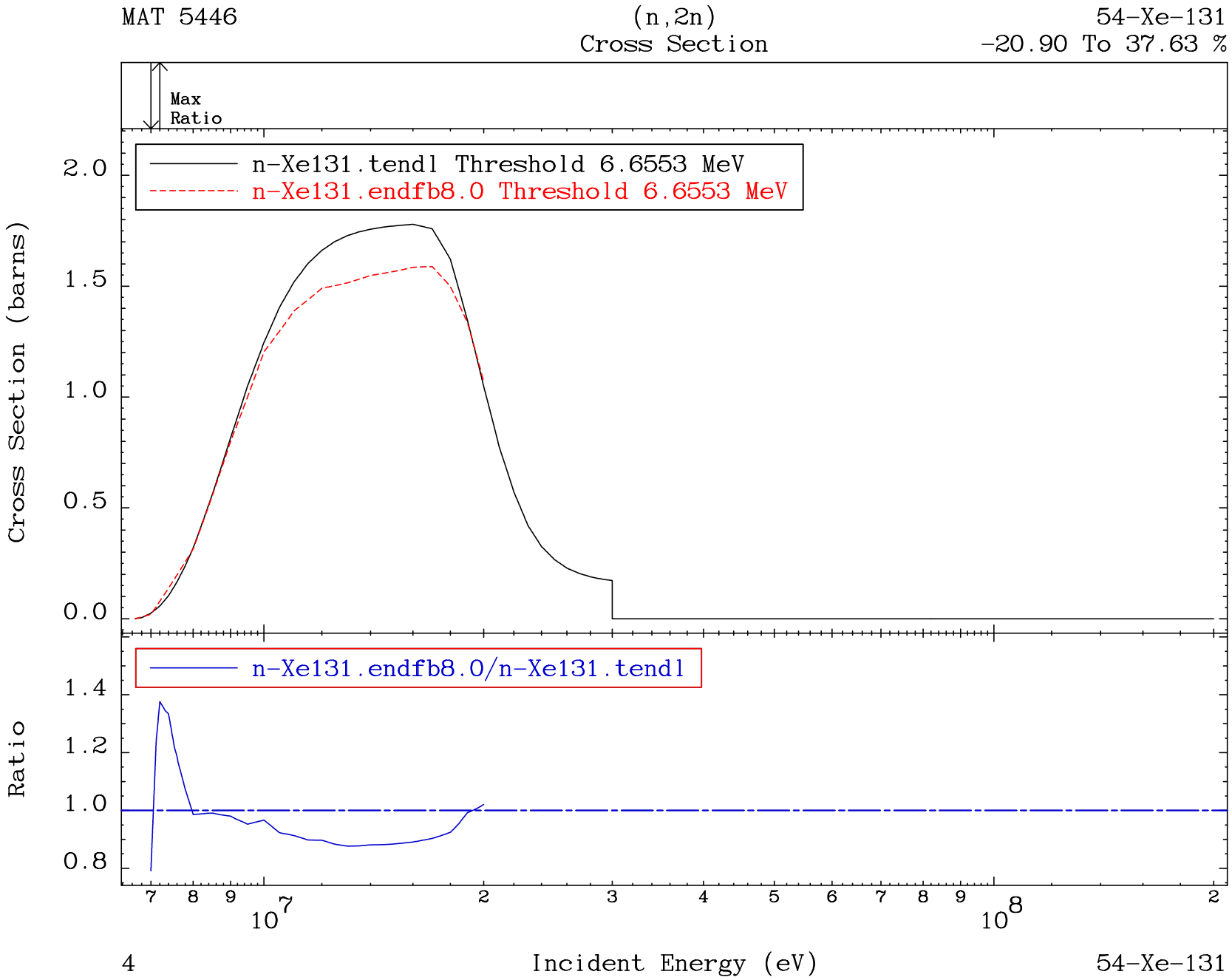
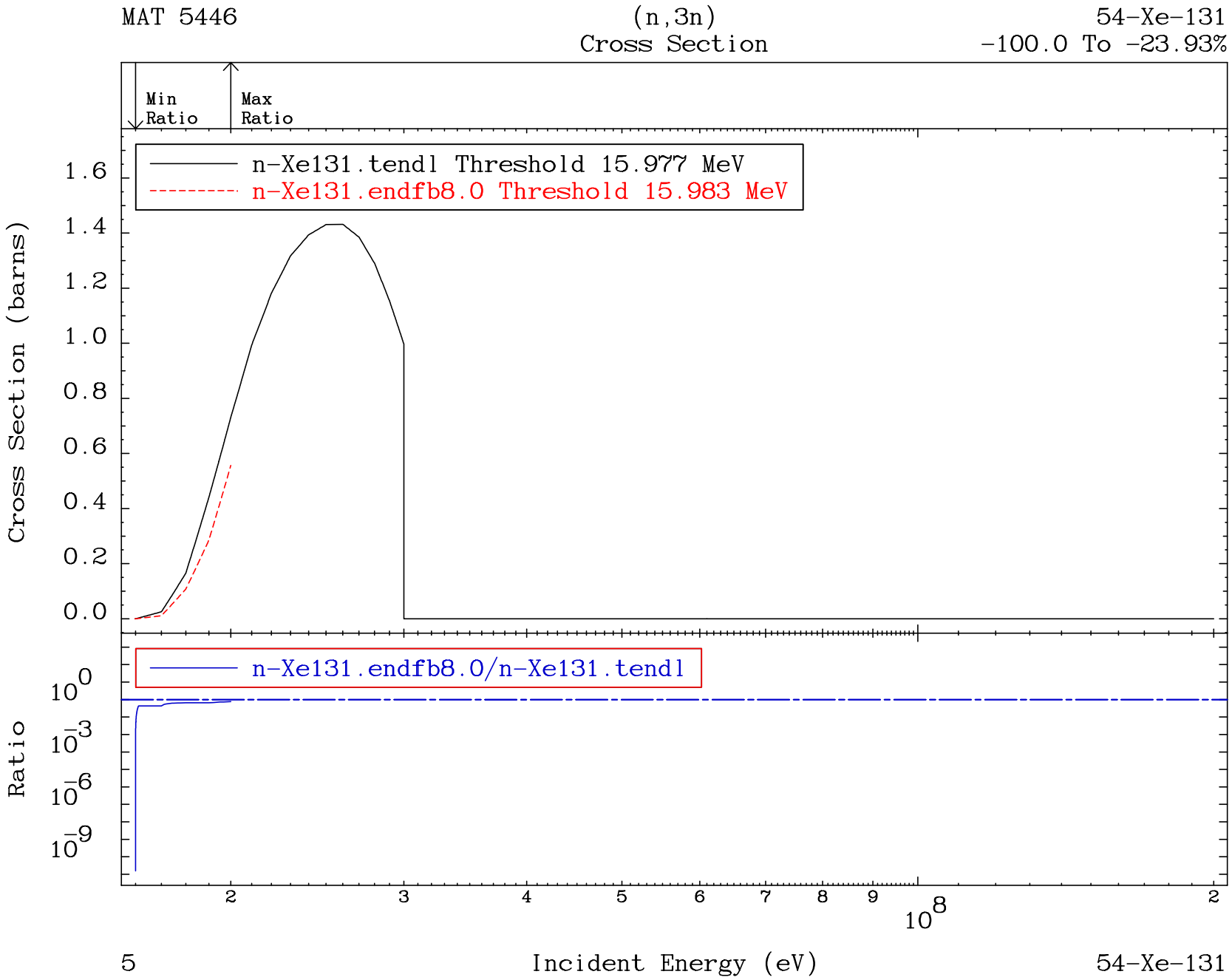
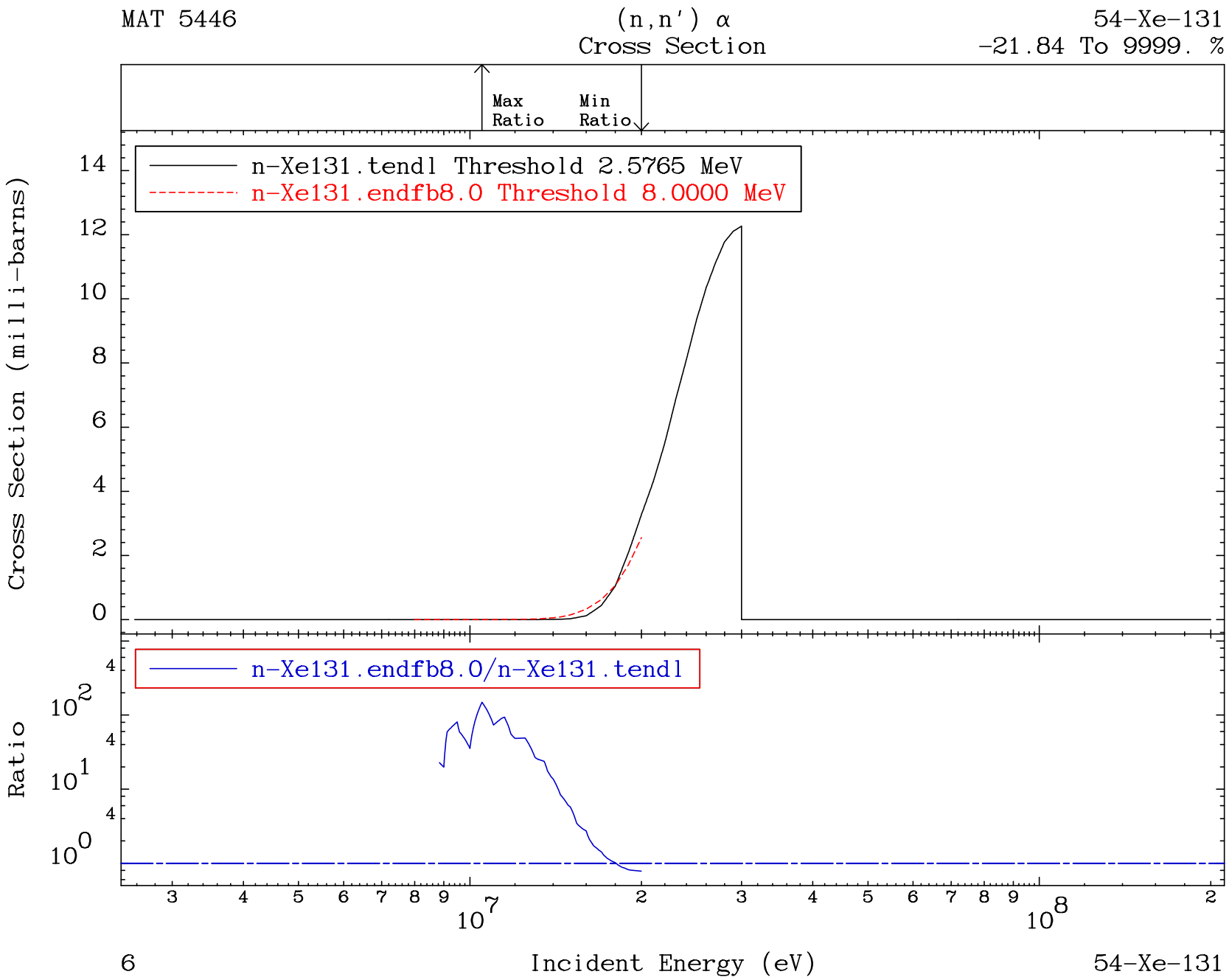

MAT 5446
Total
Cross Section
54-Xe-131
-99.75 To 1335. %
Min
Ratio
Max
Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
1
54-Xe-131

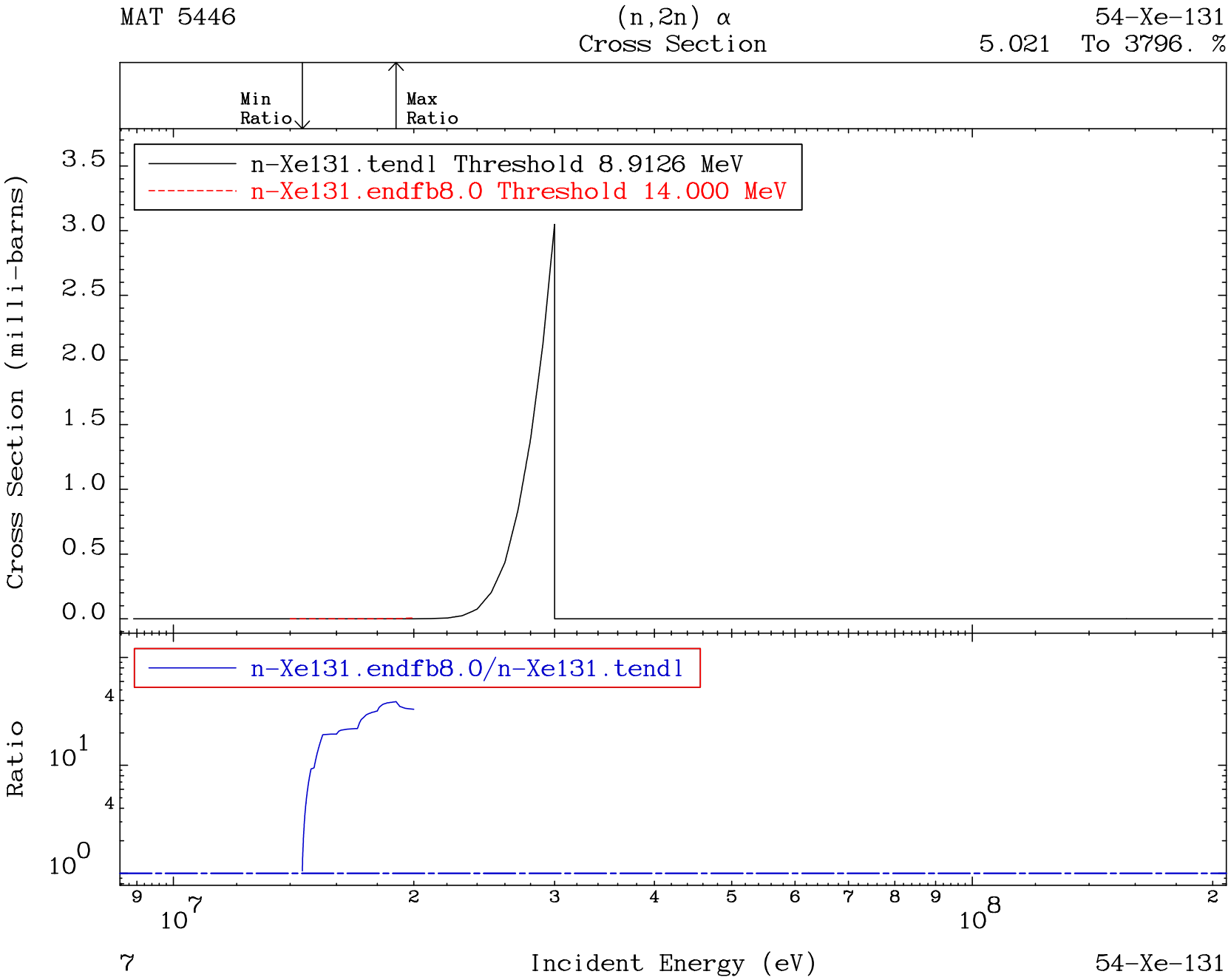

MAT 5446
Elastic
Cross Section
54-Xe-131
-99.71 To 1469. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
2
54-Xe-131

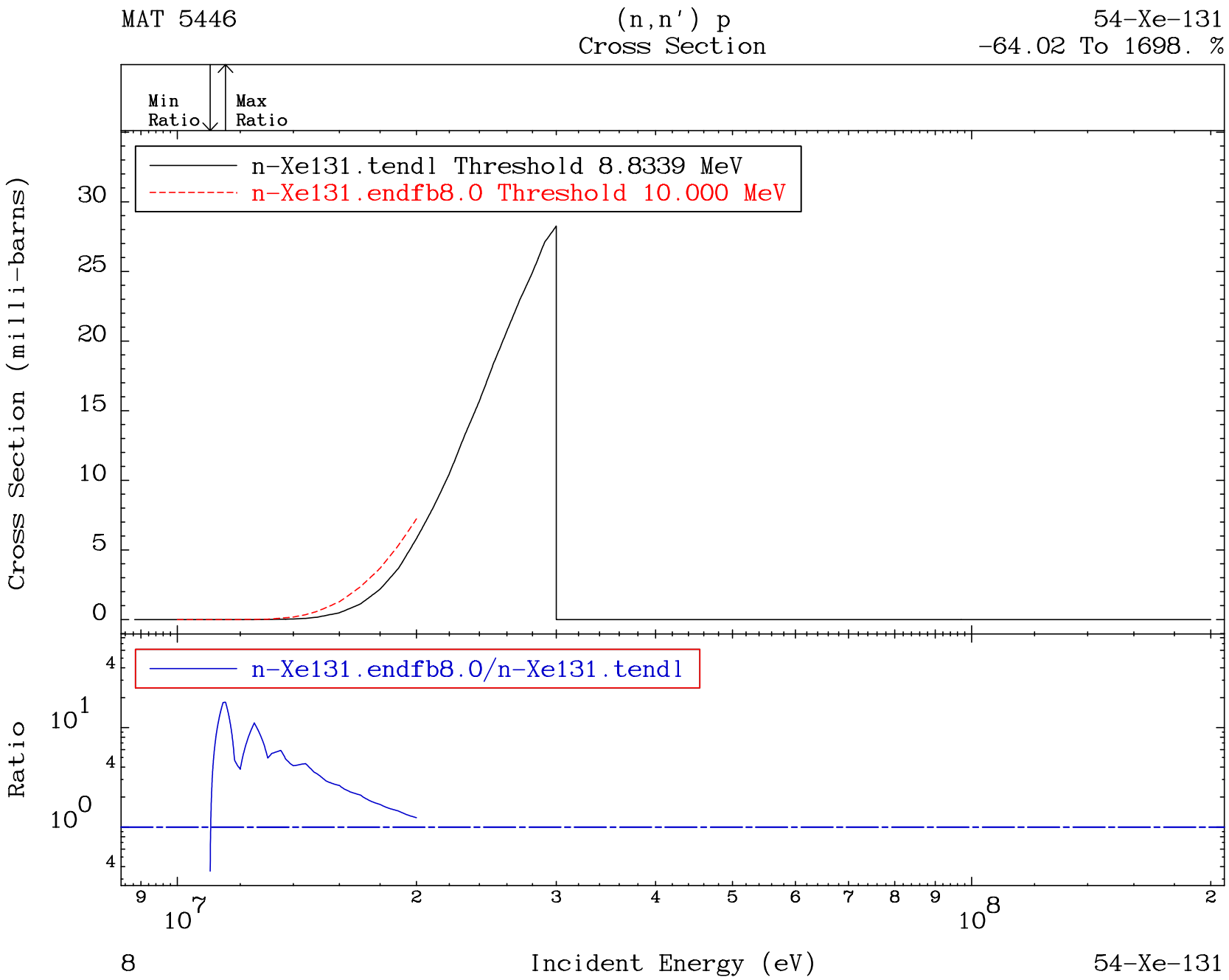

MAT 5446
Inelastic
Cross Section
54-Xe-131
-34.80 To 51.89 %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.endfb8.0 Threshold 80.803 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
1.6
1.2
0.8
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
3
Incident Energy (eV)
54-Xe-131

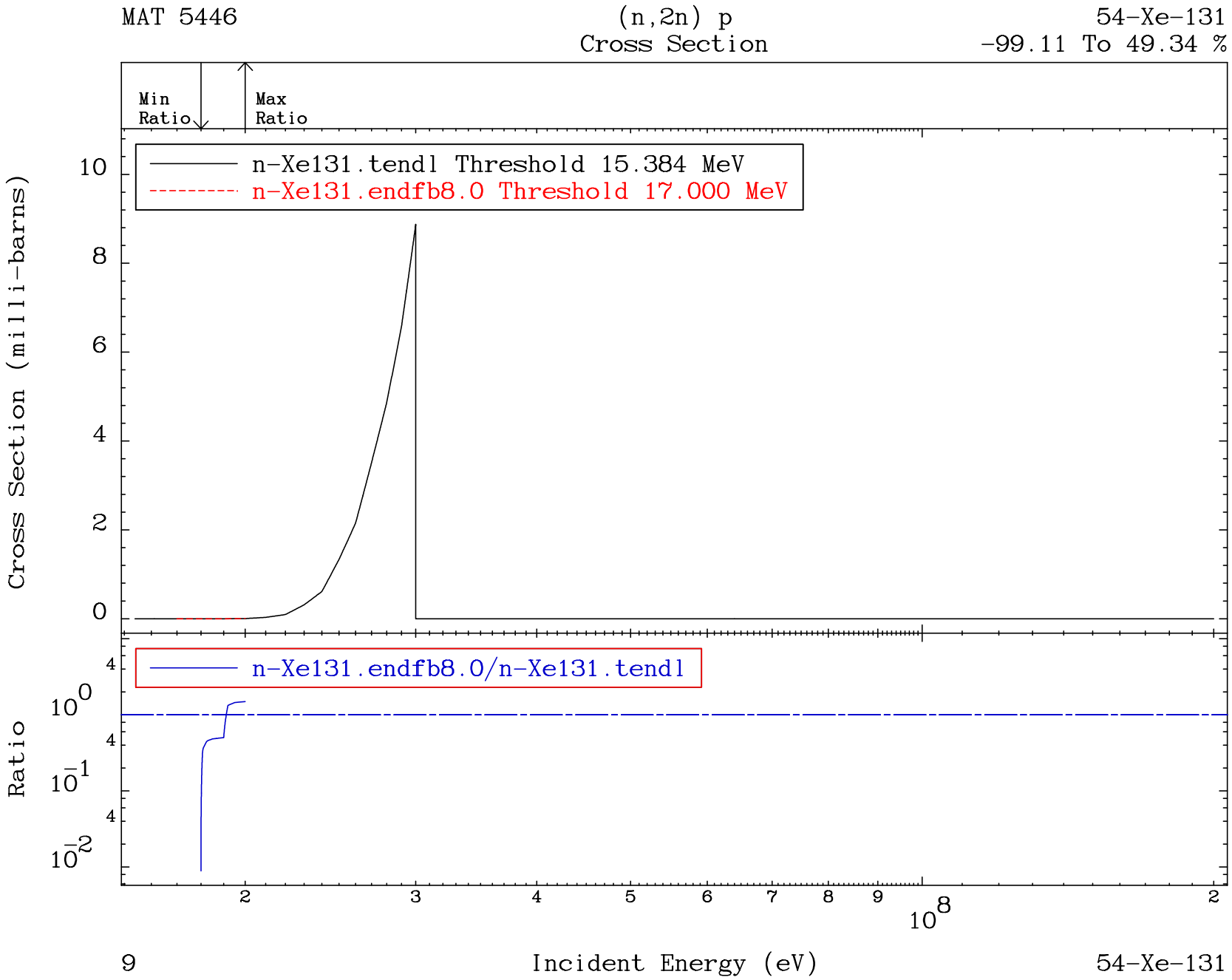

MAT 5446
(n,2n)
Cross Section
54-Xe-131
-20.90 To 37.63 %
Max
Ratio
n-Xe131.tendl Threshold 6.6553 MeV
n-Xe131.endfb8.0 Threshold 6.6553 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
1.4
1.2
1.0
0.8
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
54-Xe-131

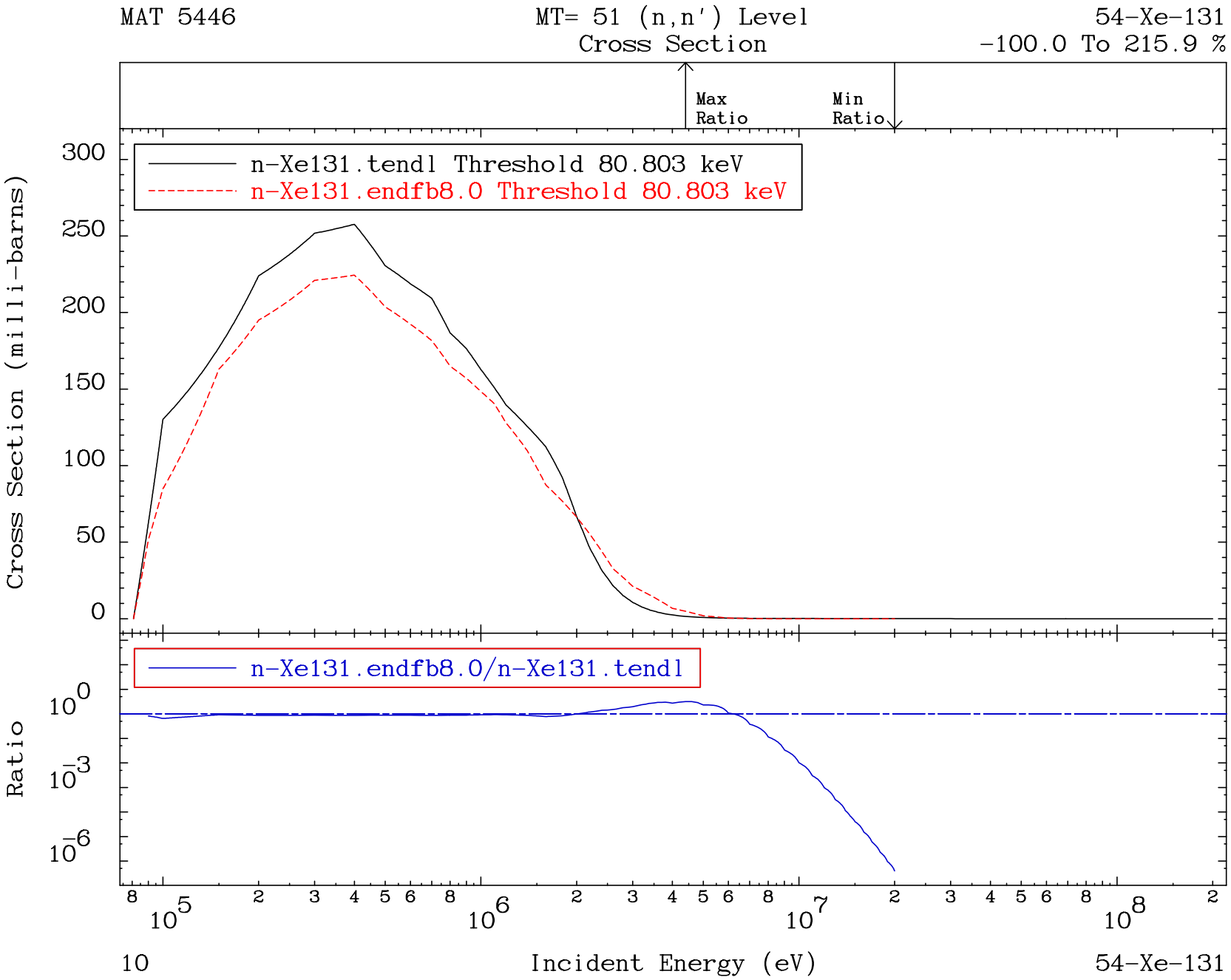

MAT 5446
(n,3n)
Cross Section
54-Xe-131
-100.0 To -23.93%
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 15.977 MeV
n-Xe131.endfb8.0 Threshold 15.983 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-3
10^-6
10^-9
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
54-Xe-131

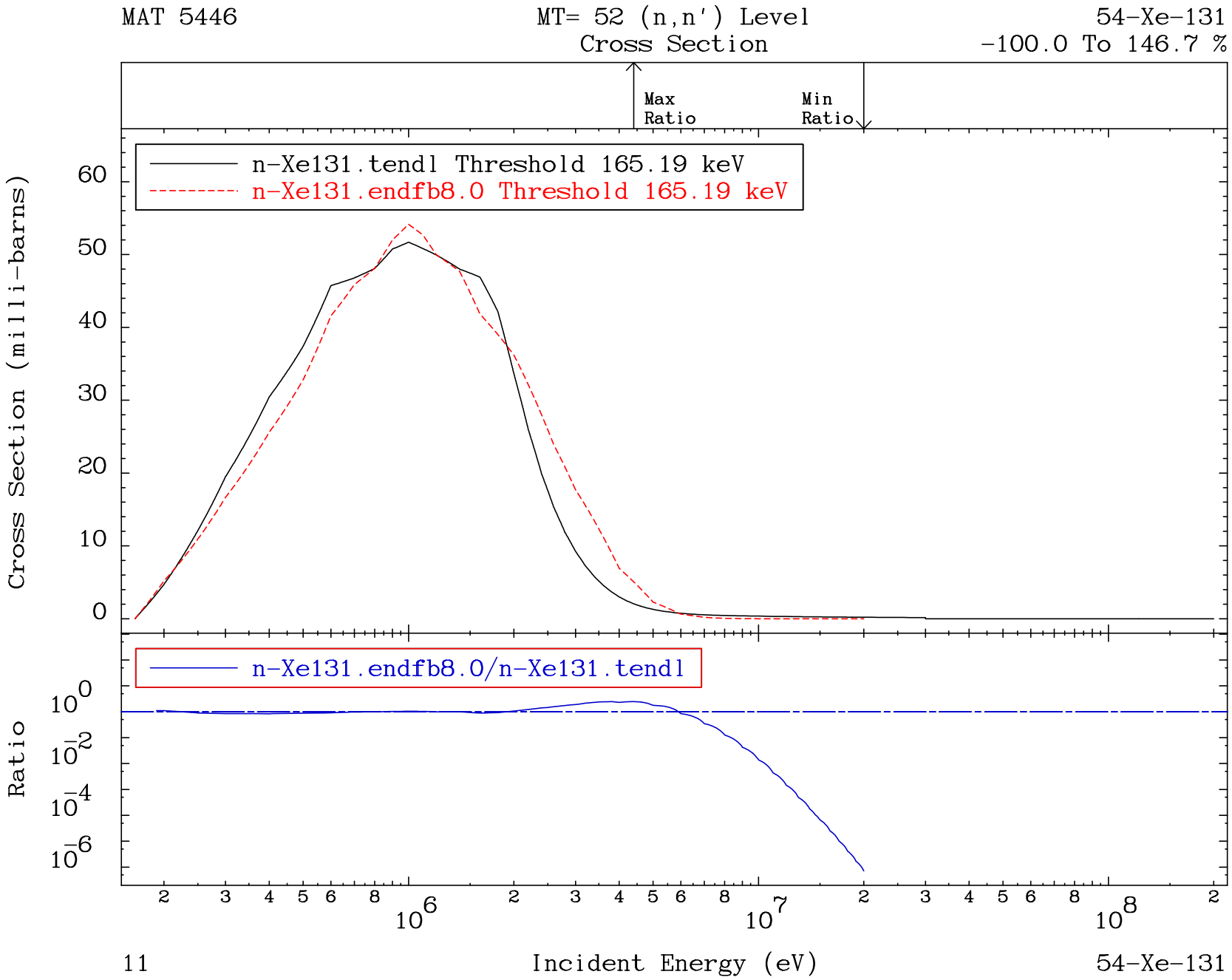

MAT 5446
(n,n') α
Cross Section
54-Xe-131
-21.84 To 9999. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 2.5765 MeV
n-Xe131.endfb8.0 Threshold 8.0000 MeV
Cross Section (milli-barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
6
54-Xe-131

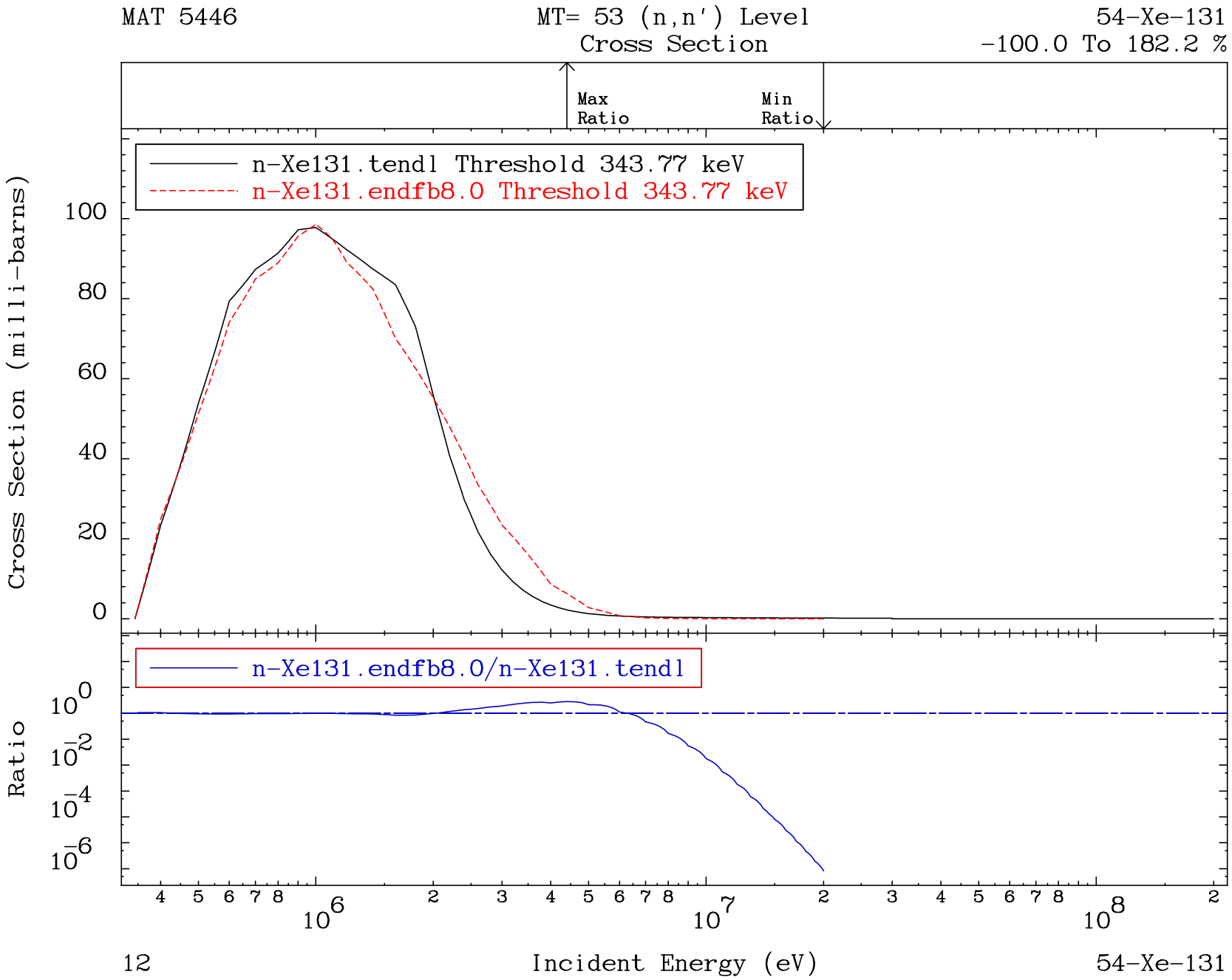

MAT 5446
(n,2n) α
Cross Section
54-Xe-131
5.021 To 3796. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.9126 MeV
n-Xe131.endfb8.0 Threshold 14.000 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^1
4
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
54-Xe-131

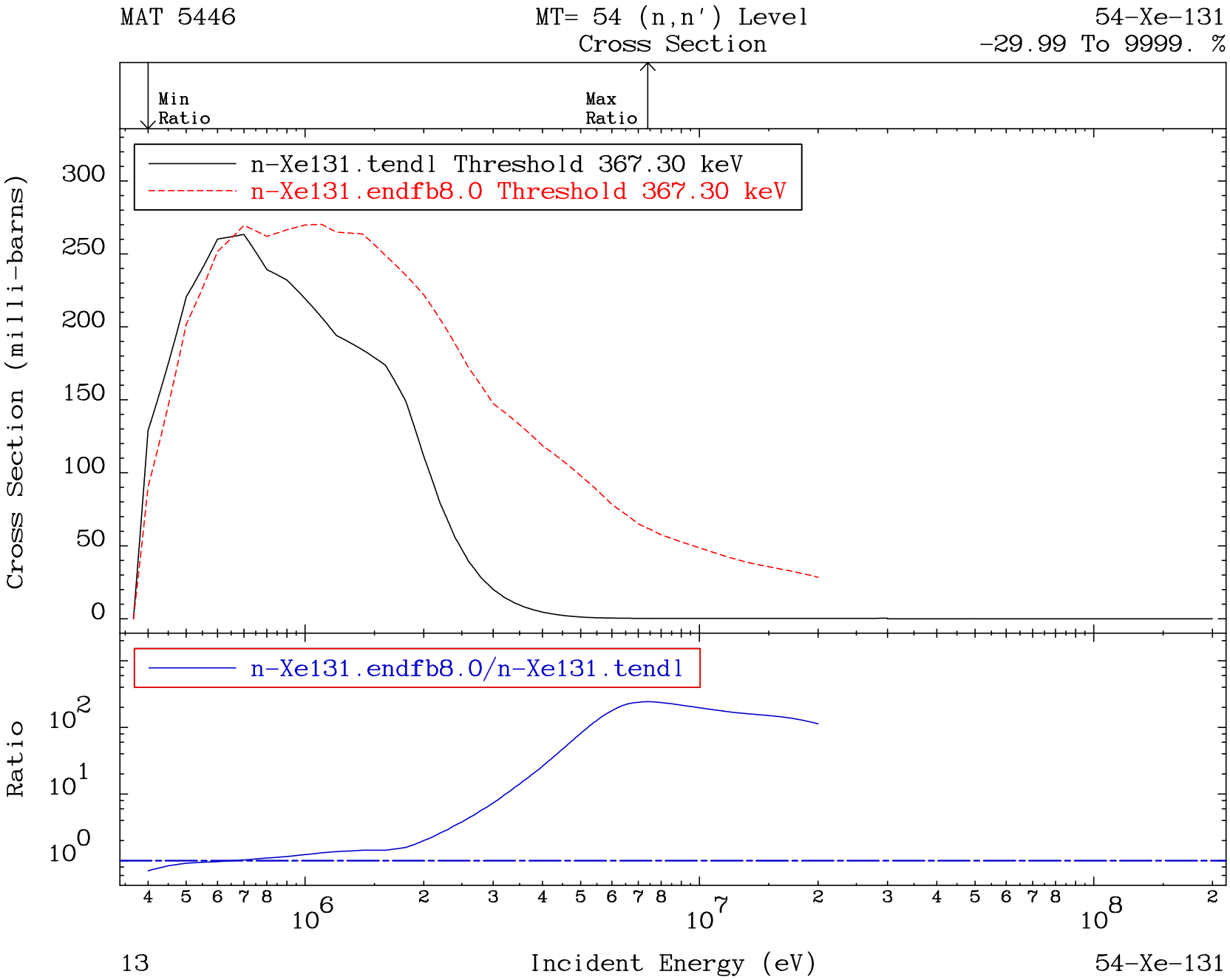

MAT 5446
(n,n') p
Cross Section
54-Xe-131
-64.02 To 1698. %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 8.8339 MeV
n-Xe131.endfb8.0 Threshold 10.000 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^1
4
10^0
4
4
9
10^7
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
54-Xe-131

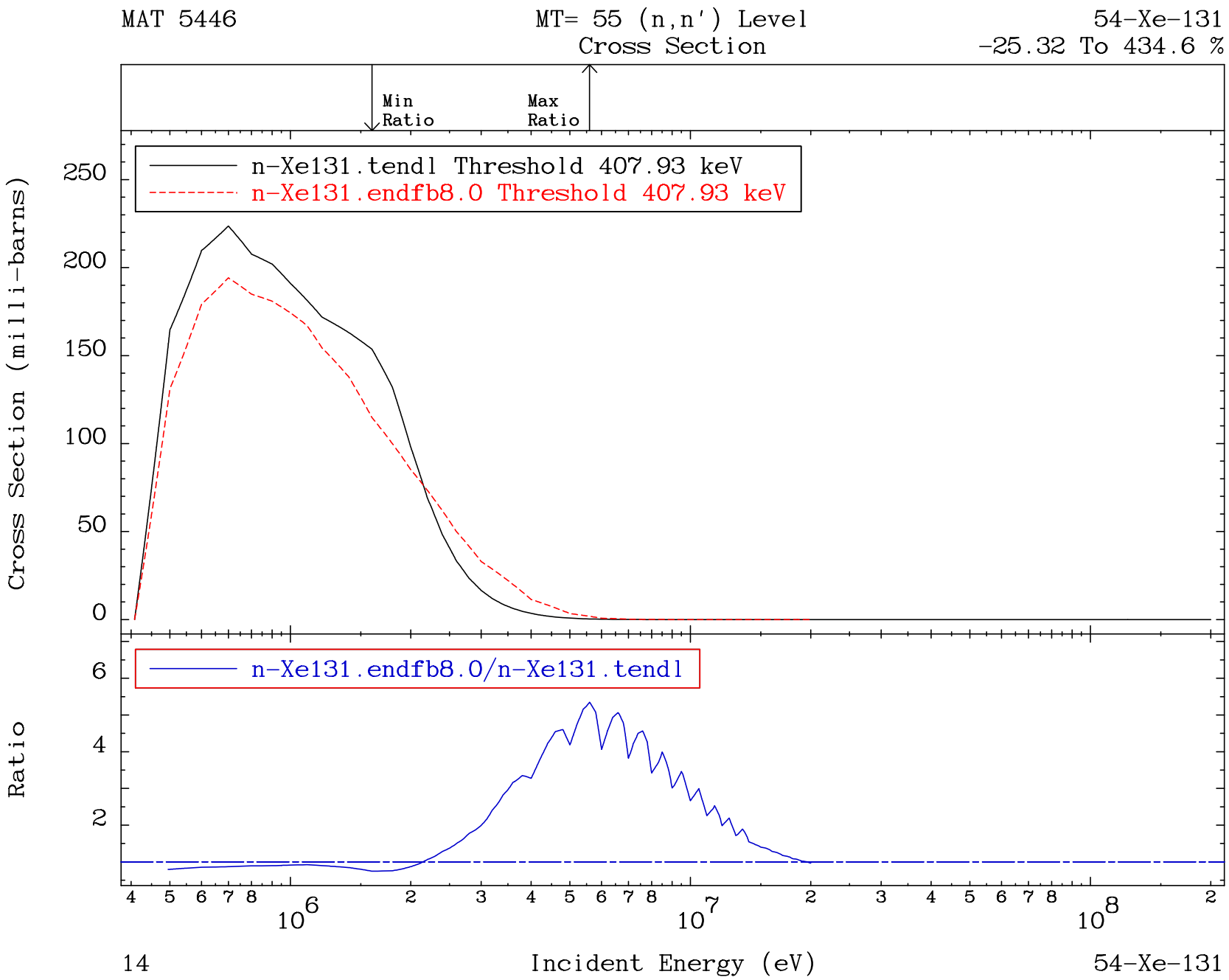

MAT 5446
(n,2n) p
Cross Section
54-Xe-131
-99.11 To 49.34 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 15.384 MeV
n-Xe131.endfb8.0 Threshold 17.000 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-1
10^-2
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
54-Xe-131

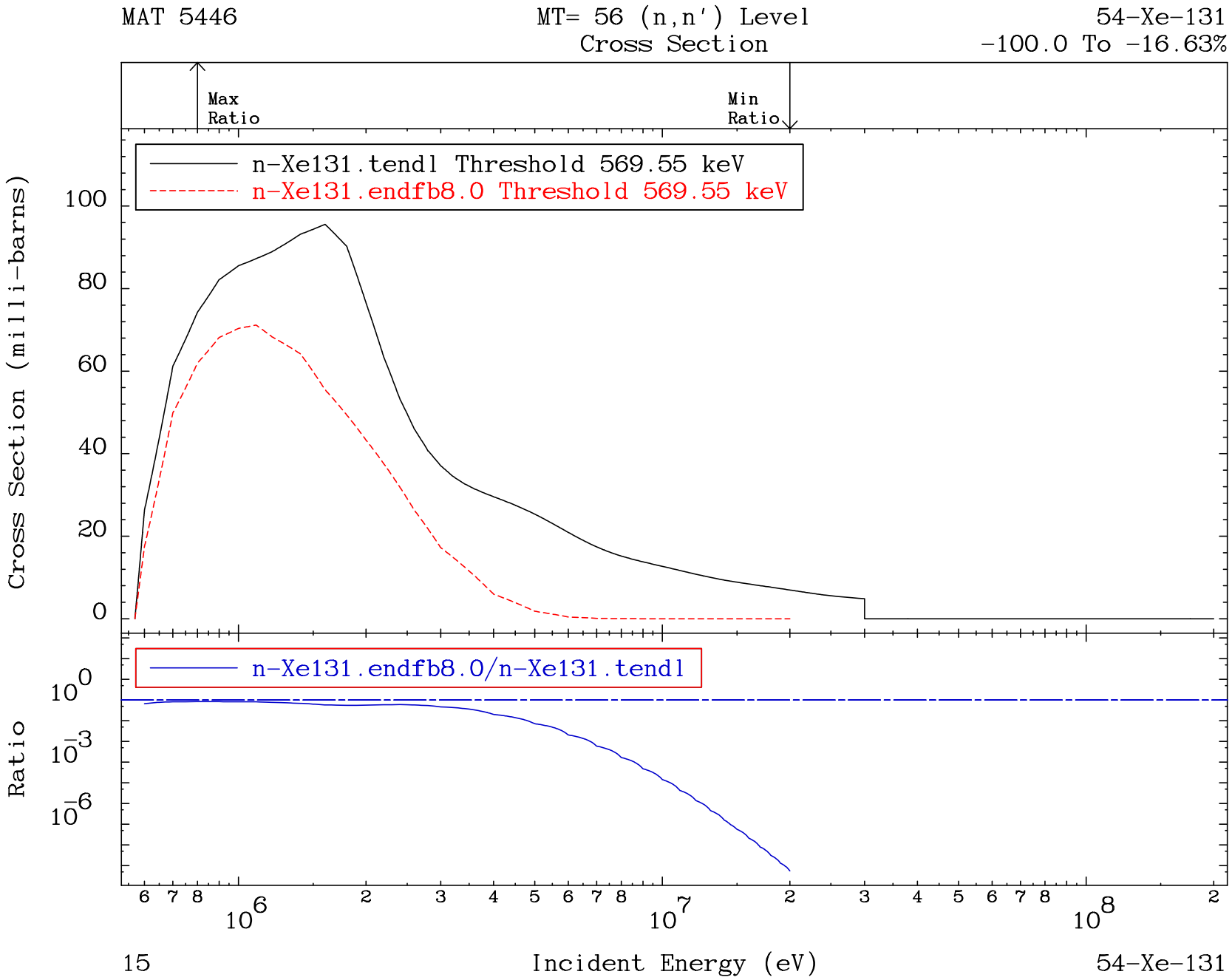

MAT 5446
MT= 51 (n,n') Level
Cross Section
54-Xe-131
-100.0 To 215.9 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.endfb8.0 Threshold 80.803 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-3
10^-6
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
10
Incident Energy (eV)
54-Xe-131

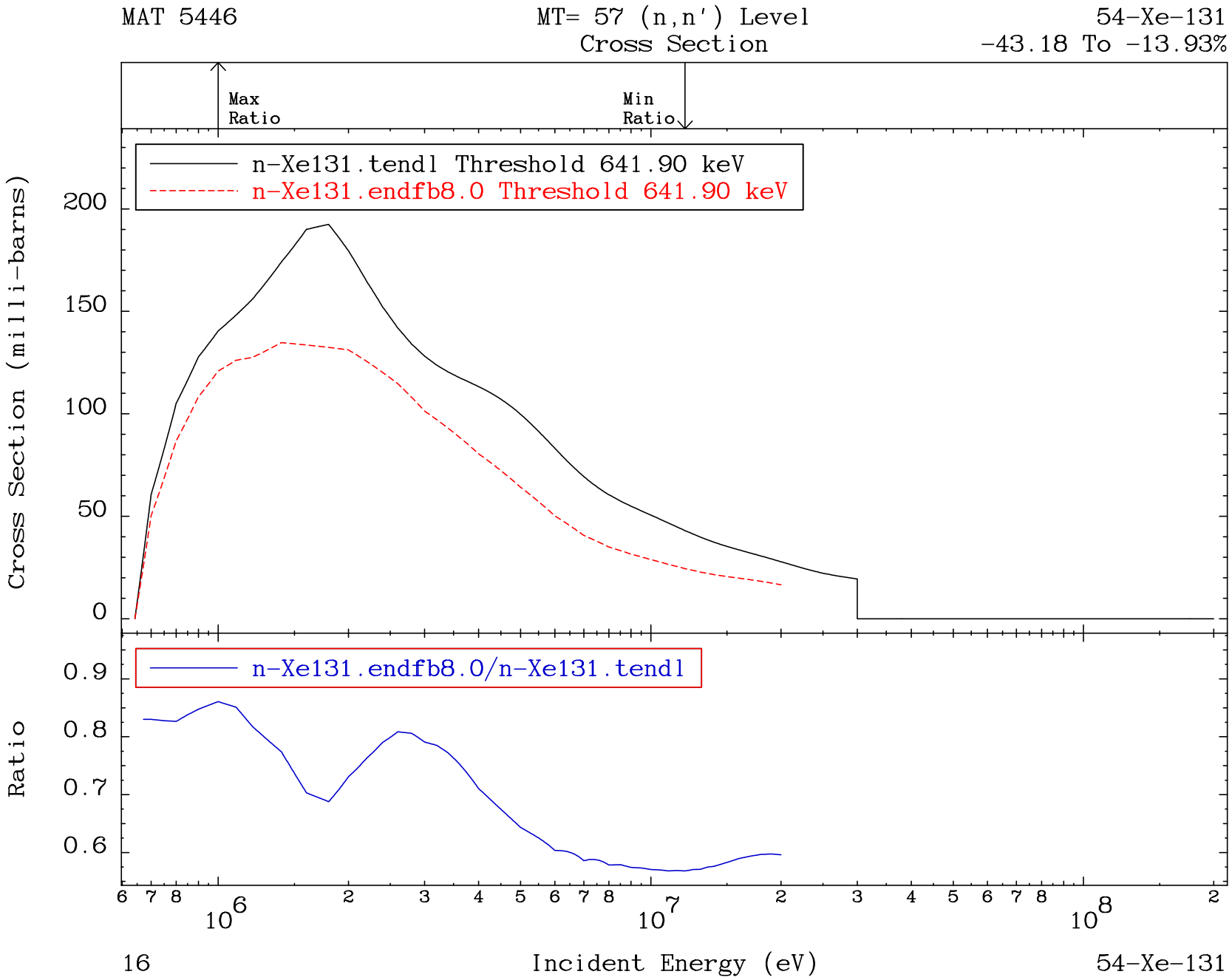

MAT 5446
MT= 52 (n,n') Level
Cross Section
54-Xe-131
-100.0 To 146.7 %
Max
Ratio
Min
Ratio
n-Xe131.tendl Threshold 165.19 keV
n-Xe131.endfb8.0 Threshold 165.19 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-2
10^-4
10^-6
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
11
Incident Energy (eV)
54-Xe-131

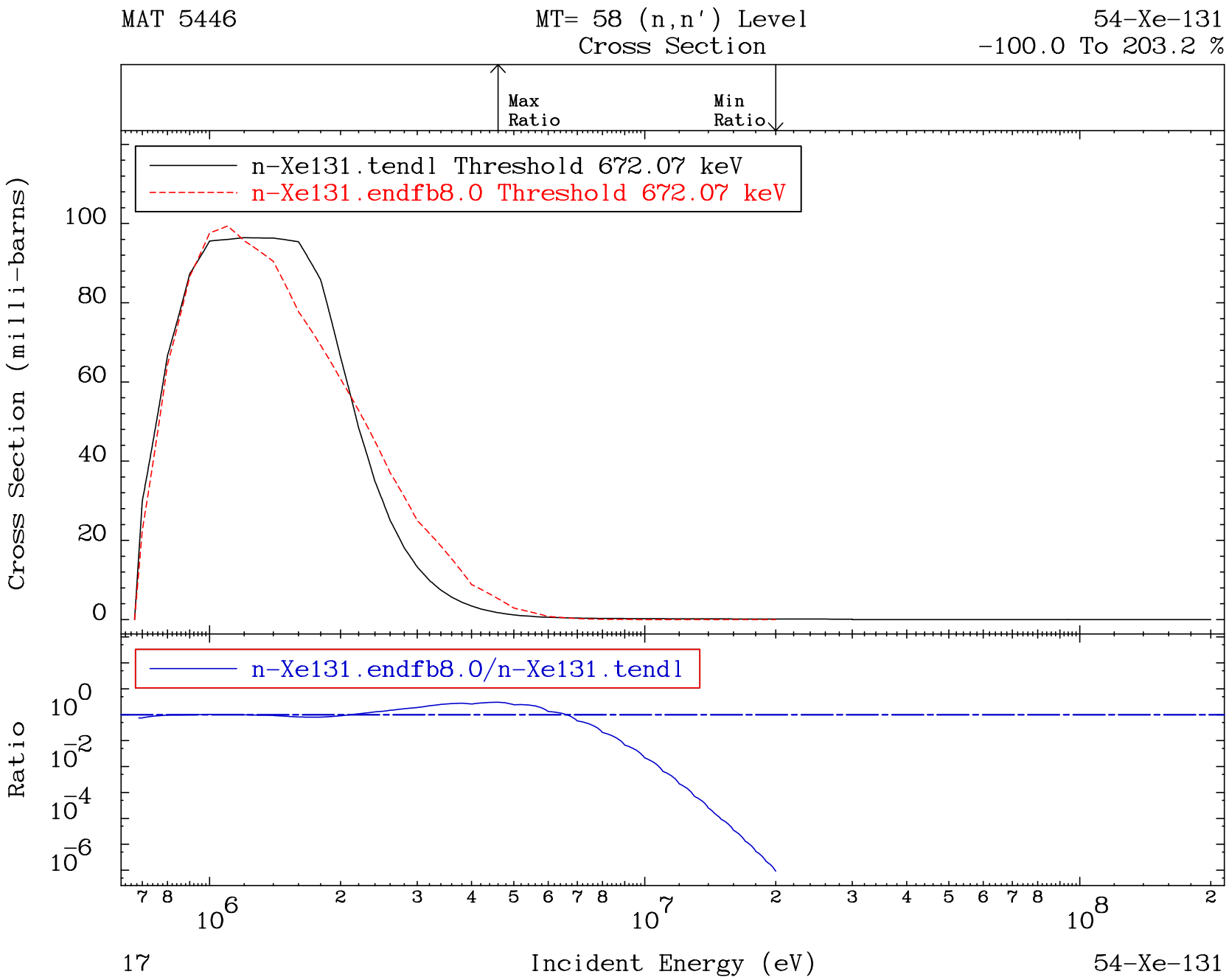

MAT 5446
MT= 53 (n,n') Level
Cross Section
54-Xe-131
-100.0 To 182.2 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 343.77 keV
n-Xe131.endfb8.0 Threshold 343.77 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-2
10^-4
10^-6
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
54-Xe-131

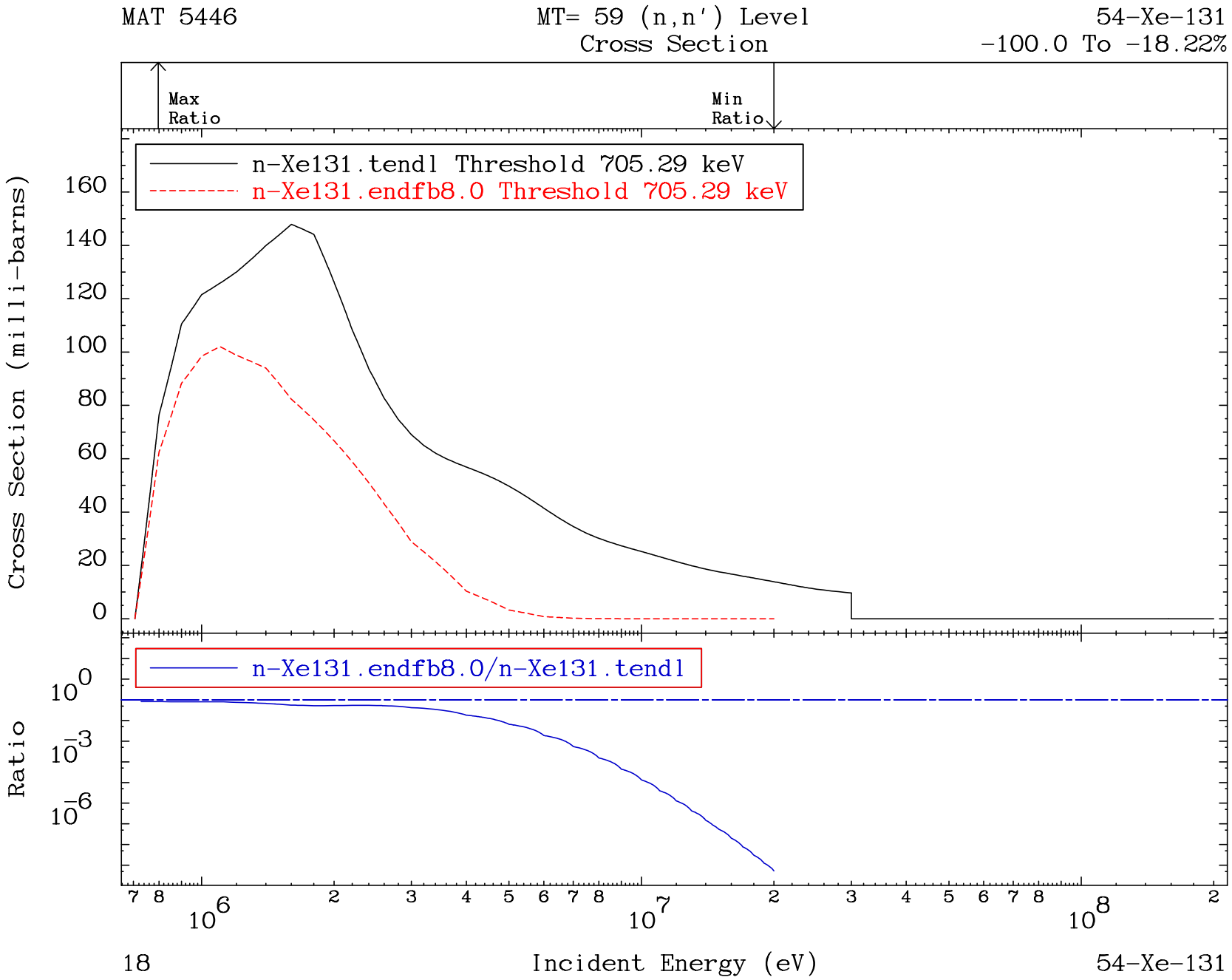

MAT 5446
MT= 54 (n,n') Level
Cross Section
54-Xe-131
-29.99 To 9999. %
Min
Ratio
Max
Ratio
n-Xe131.tendl Threshold 367.30 keV
n-Xe131.endfb8.0 Threshold 367.30 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^2
10^1
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
54-Xe-131

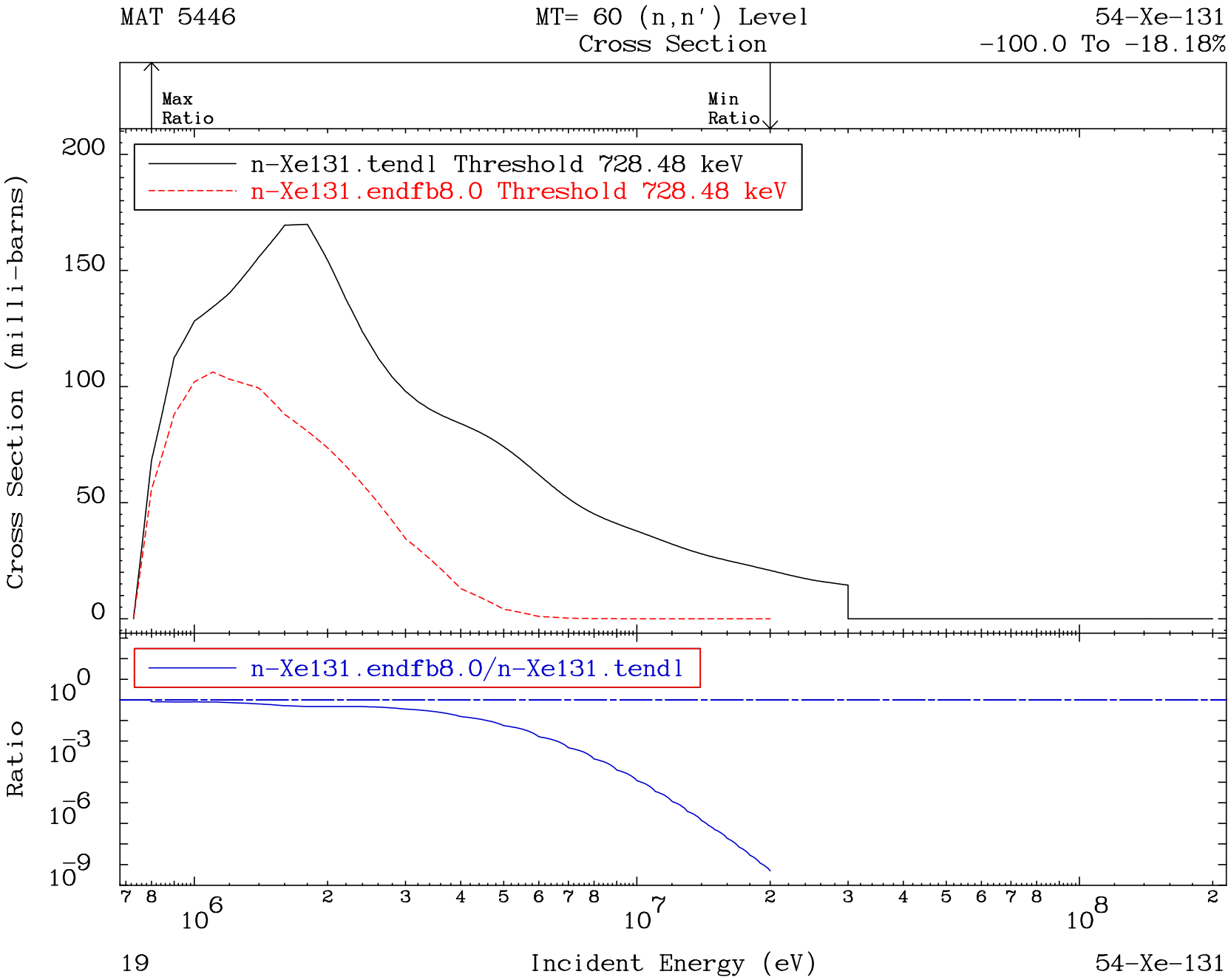

MAT 5446
MT= 55 (n,n') Level
Cross Section
54-Xe-131
-25.32 To 434.6 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 407.93 keV
n-Xe131.endfb8.0 Threshold 407.93 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
6
4
2
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
14
Incident Energy (eV)
54-Xe-131

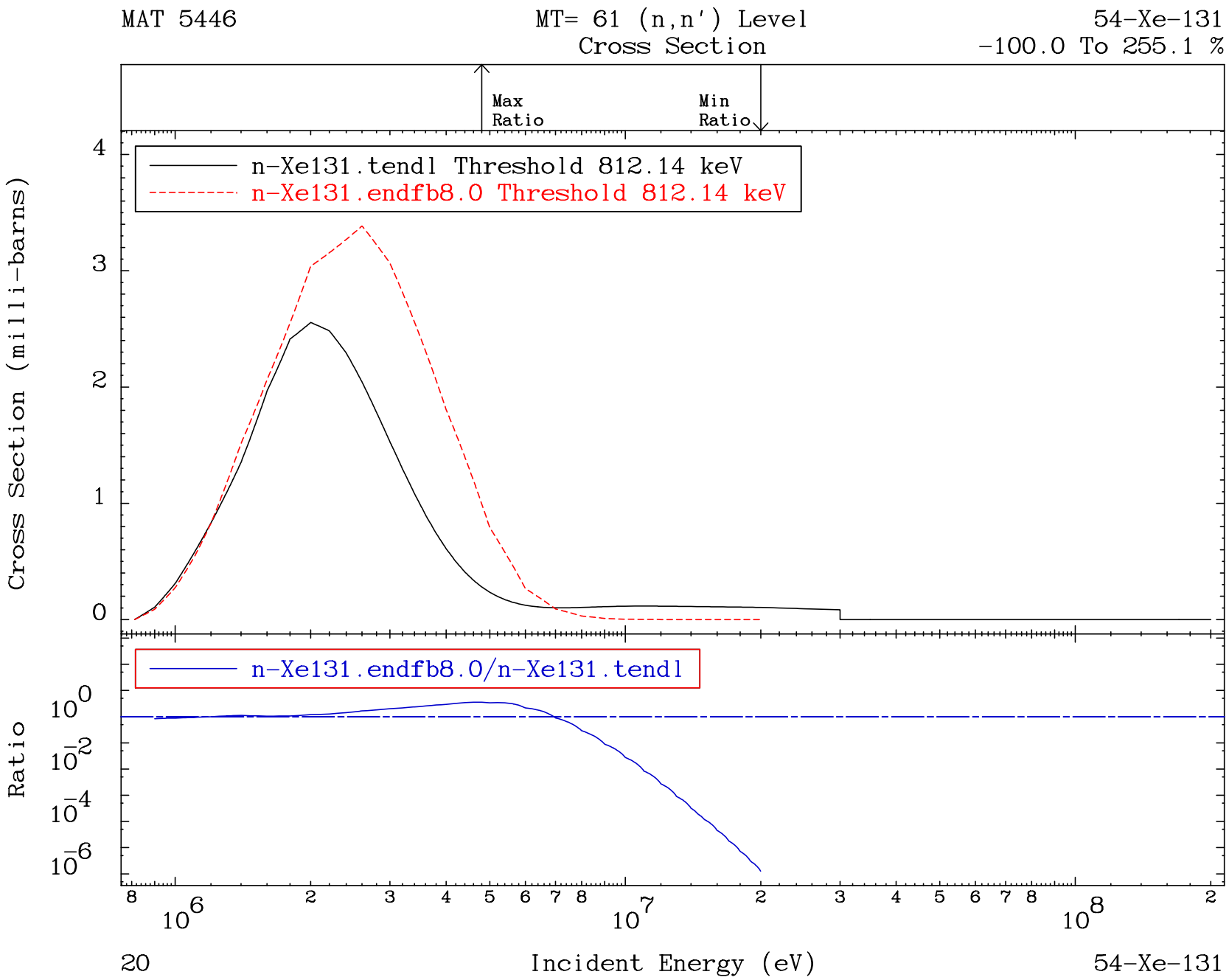

MAT 5446
MT= 56 (n,n') Level
Cross Section
54-Xe-131
-100.0 To -16.63%
Max
Ratio
Min
Ratio
n-Xe131.tendl Threshold 569.55 keV
n-Xe131.endfb8.0 Threshold 569.55 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-3
10^-6
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
54-Xe-131

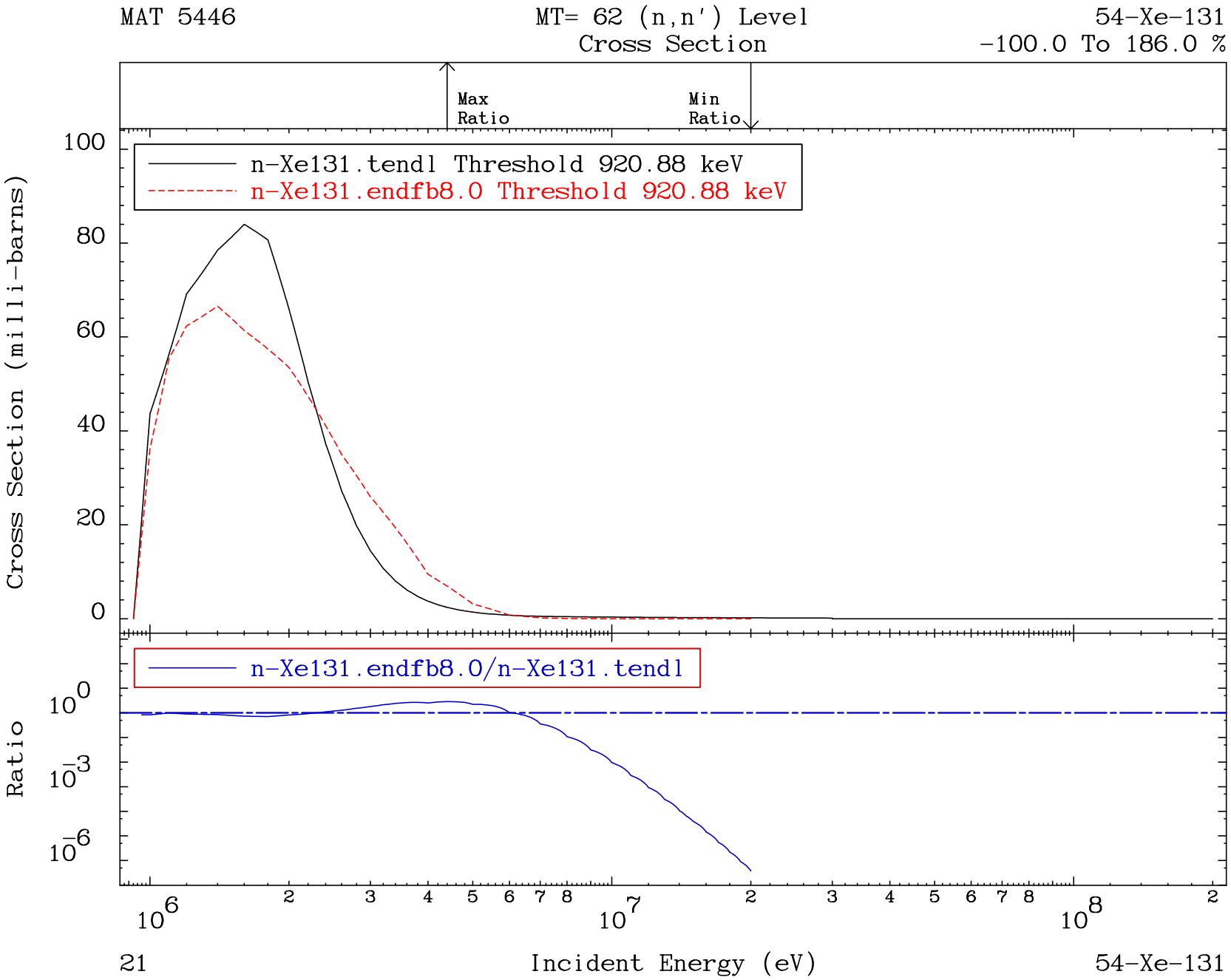

MAT 5446
MT= 57 (n,n') Level
Cross Section
54-Xe-131
-43.18 To -13.93%
Max
Ratio
Min
Ratio
n-Xe131.tendl Threshold 641.90 keV
n-Xe131.endfb8.0 Threshold 641.90 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
0.9
0.8
0.7
0.6
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
16
Incident Energy (eV)
54-Xe-131

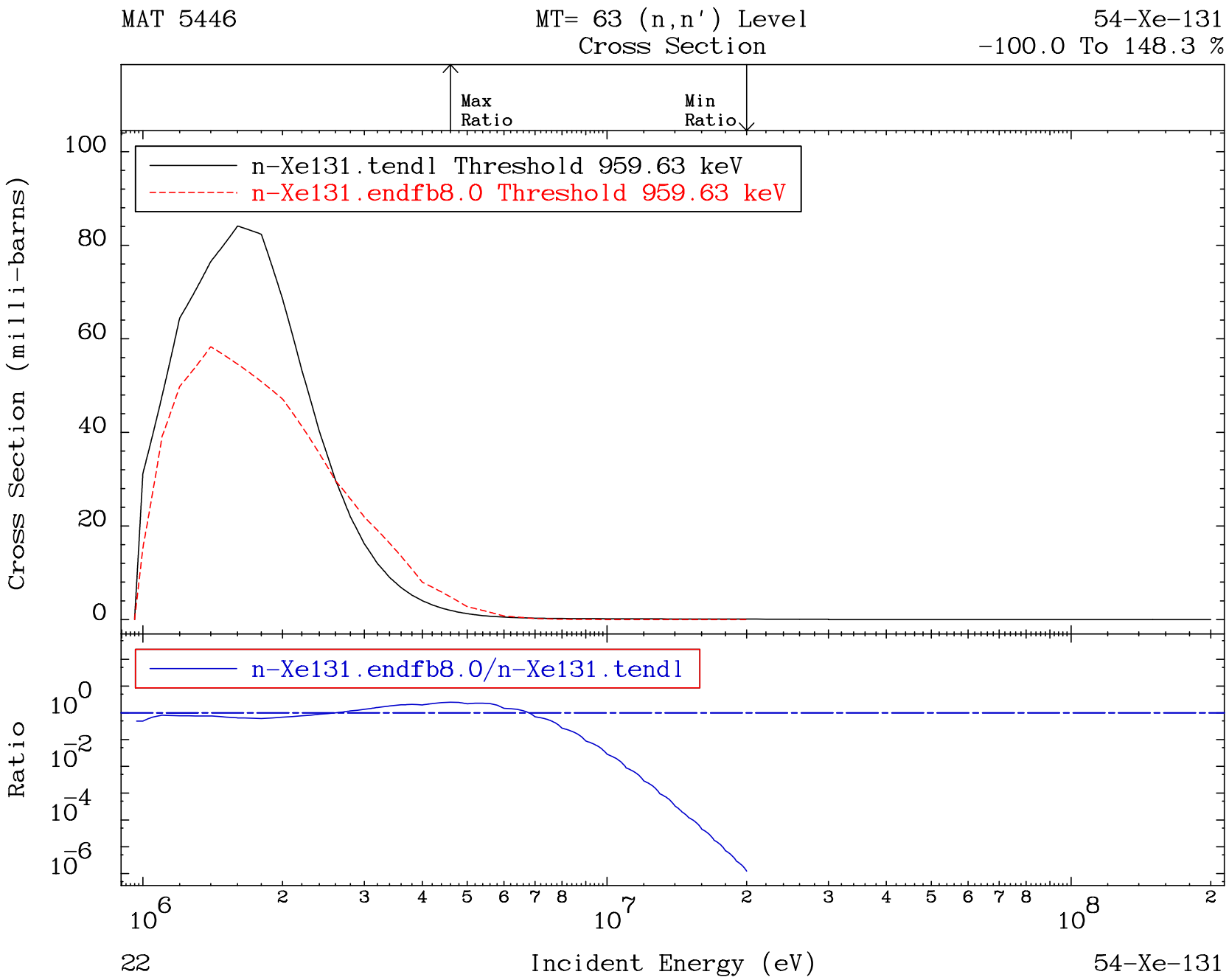

MAT 5446
MT= 58 (n,n') Level
Cross Section
54-Xe-131
-100.0 To 203.2 %
Max
Ratio
Min
Ratio
n-Xe131.tendl Threshold 672.07 keV
n-Xe131.endfb8.0 Threshold 672.07 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-2
10^-4
10^-6
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
17
Incident Energy (eV)
54-Xe-131

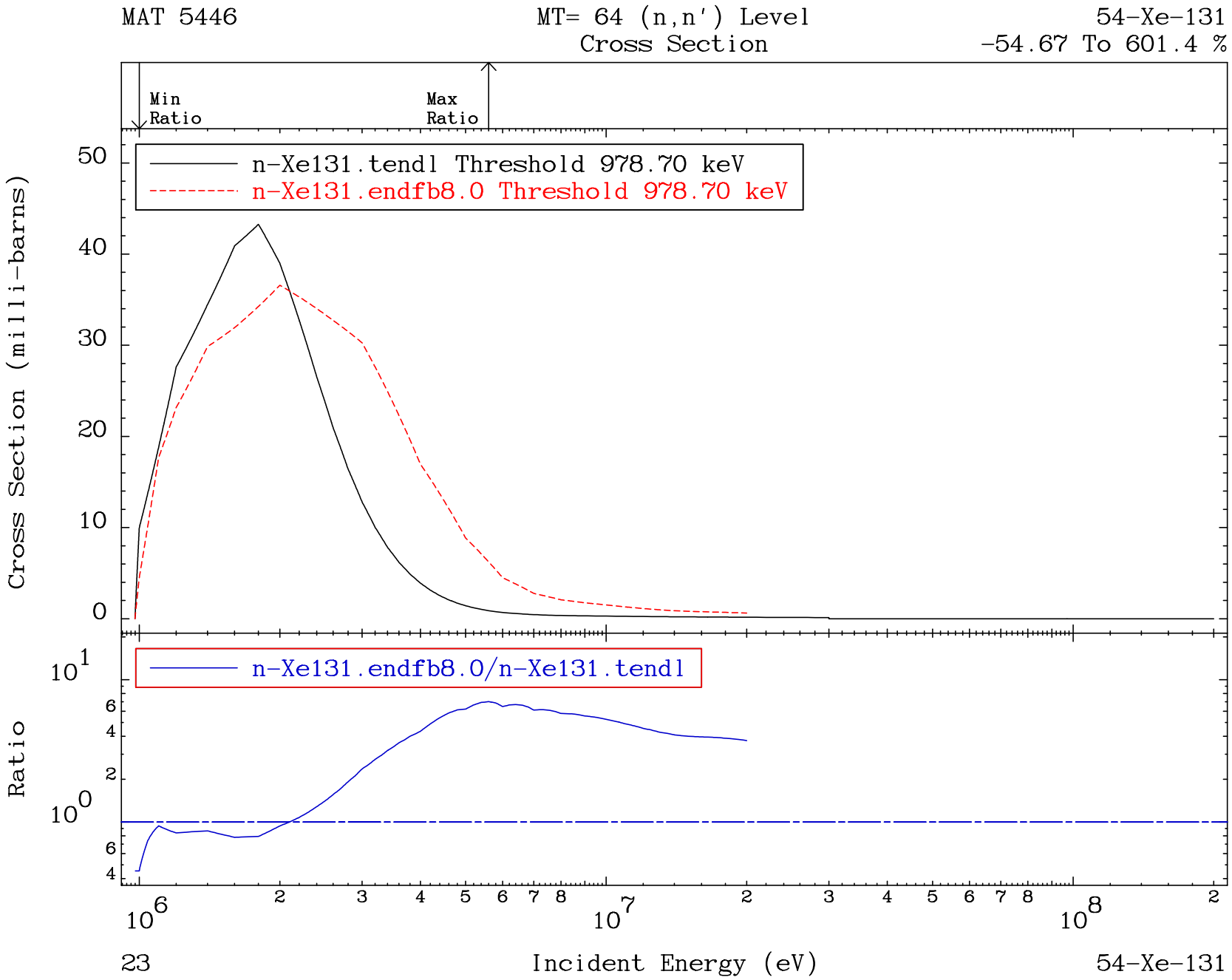

MAT 5446
MT= 59 (n,n') Level
Cross Section
54-Xe-131
-100.0 To -18.22%
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 705.29 keV
n-Xe131.endfb8.0 Threshold 705.29 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-3
10^-6
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
18
Incident Energy (eV)
54-Xe-131

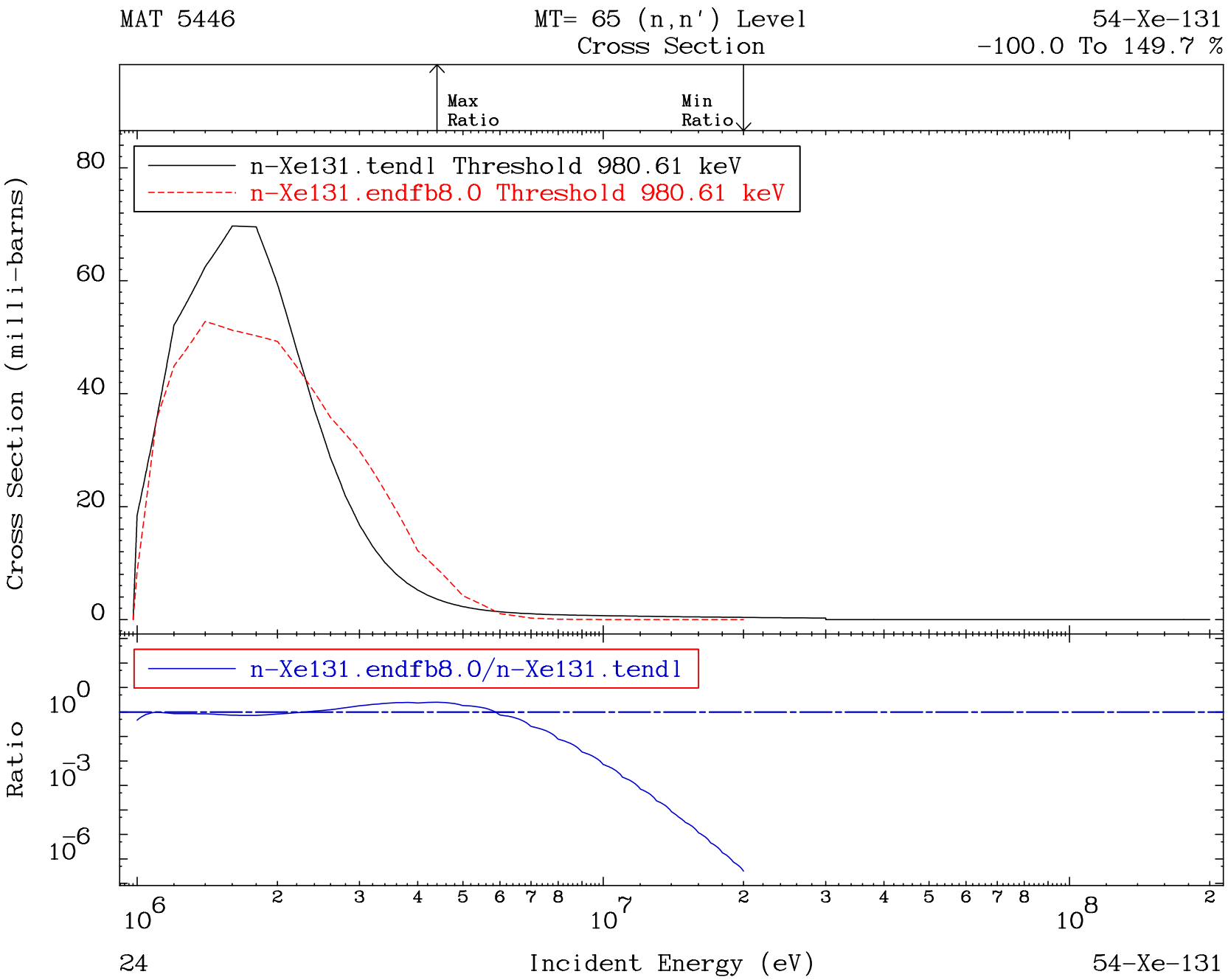

MAT 5446
MT= 60 (n,n') Level
Cross Section
54-Xe-131
-100.0 To -18.18%
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 728.48 keV
n-Xe131.endfb8.0 Threshold 728.48 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-3
10^-6
10^-9
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
19
Incident Energy (eV)
54-Xe-131

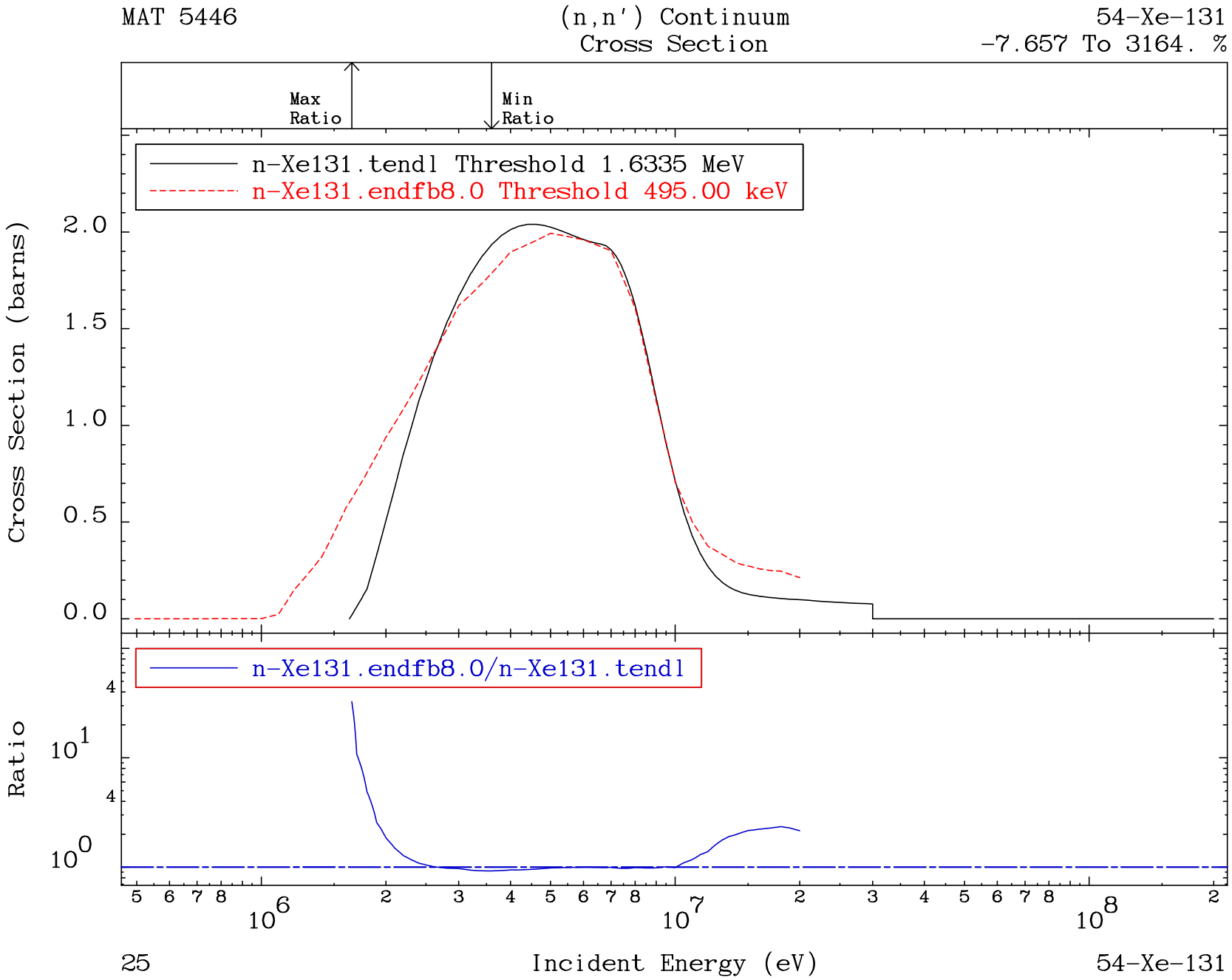

MAT 5446
MT= 61 (n,n') Level
Cross Section
54-Xe-131
-100.0 To 255.1 %
Max
Ratio
Min
Ratio
n-Xe131.tendl Threshold 812.14 keV
n-Xe131.endfb8.0 Threshold 812.14 keV
Cross Section (milli-barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
20
54-Xe-131

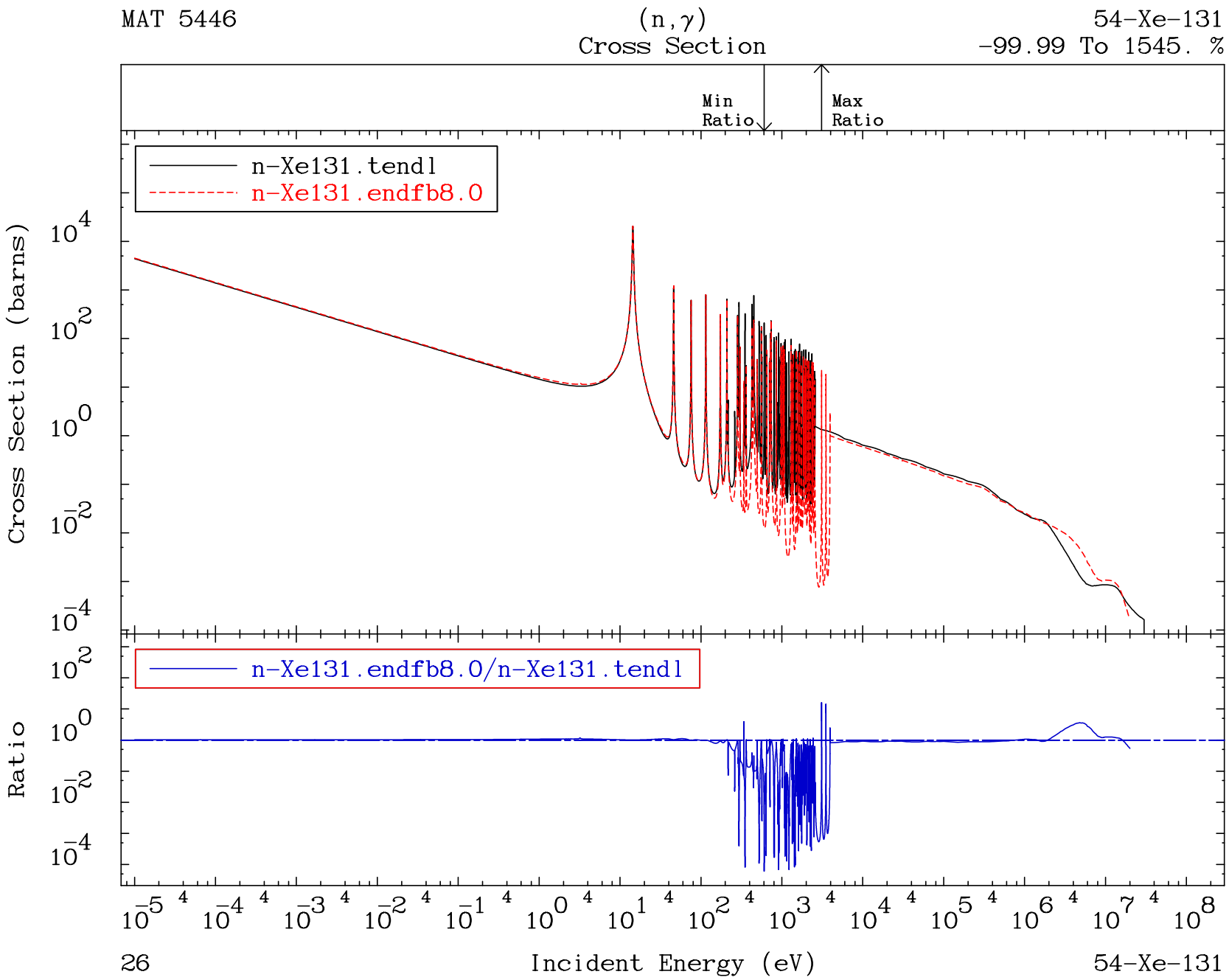

MAT 5446
MT= 62 (n,n') Level
Cross Section
54-Xe-131
-100.0 To 186.0 %
Max
Ratio
Min
Ratio
n-Xe131.tendl Threshold 920.88 keV
n-Xe131.endfb8.0 Threshold 920.88 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-3
10^-6
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
21
Incident Energy (eV)
54-Xe-131

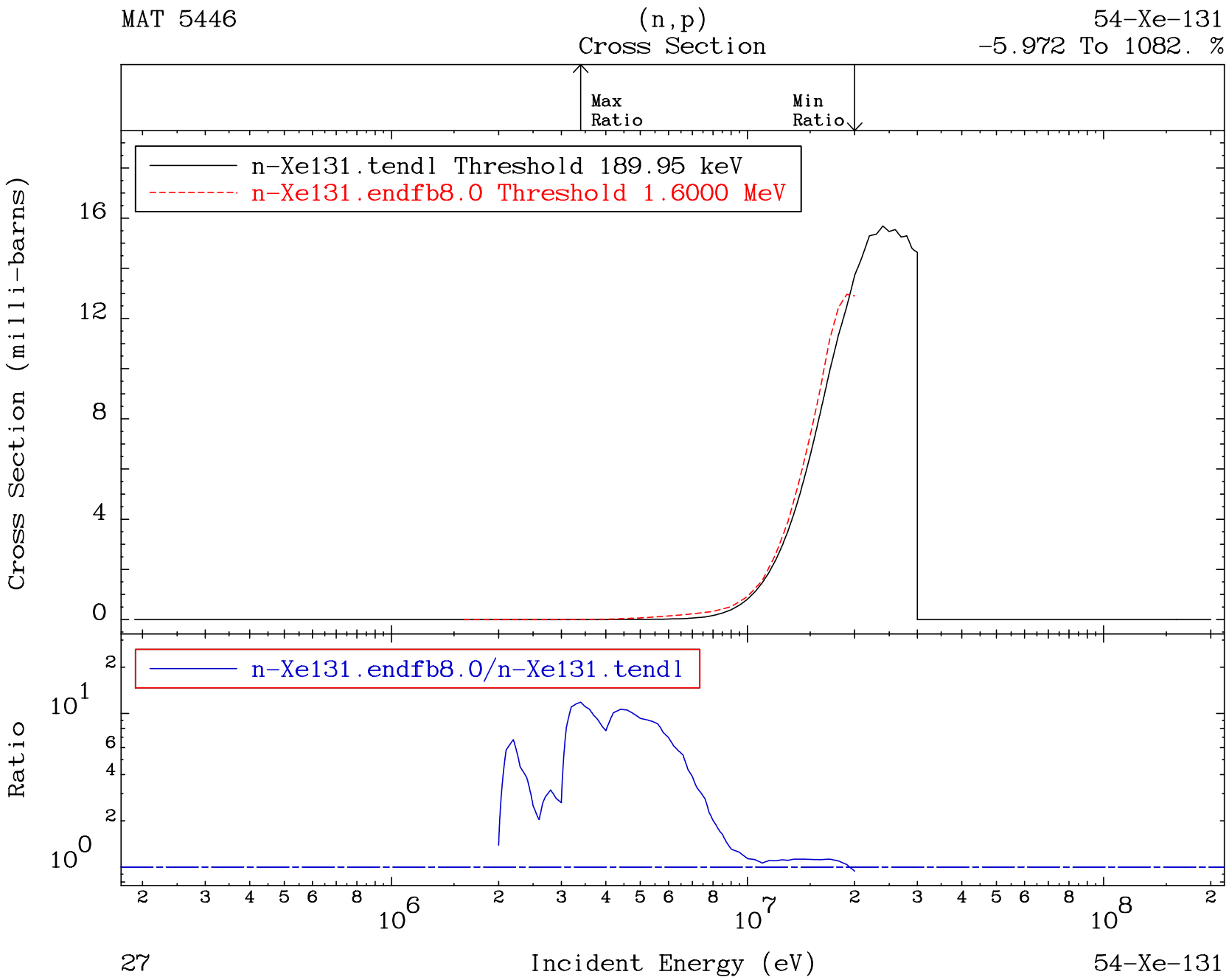

MAT 5446
MT= 63 (n,n') Level
Cross Section
54-Xe-131
-100.0 To 148.3 %
Max
Ratio
Min
Ratio
n-Xe131.tendl Threshold 959.63 keV
n-Xe131.endfb8.0 Threshold 959.63 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-2
10^-4
10^-6
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
22
Incident Energy (eV)
54-Xe-131

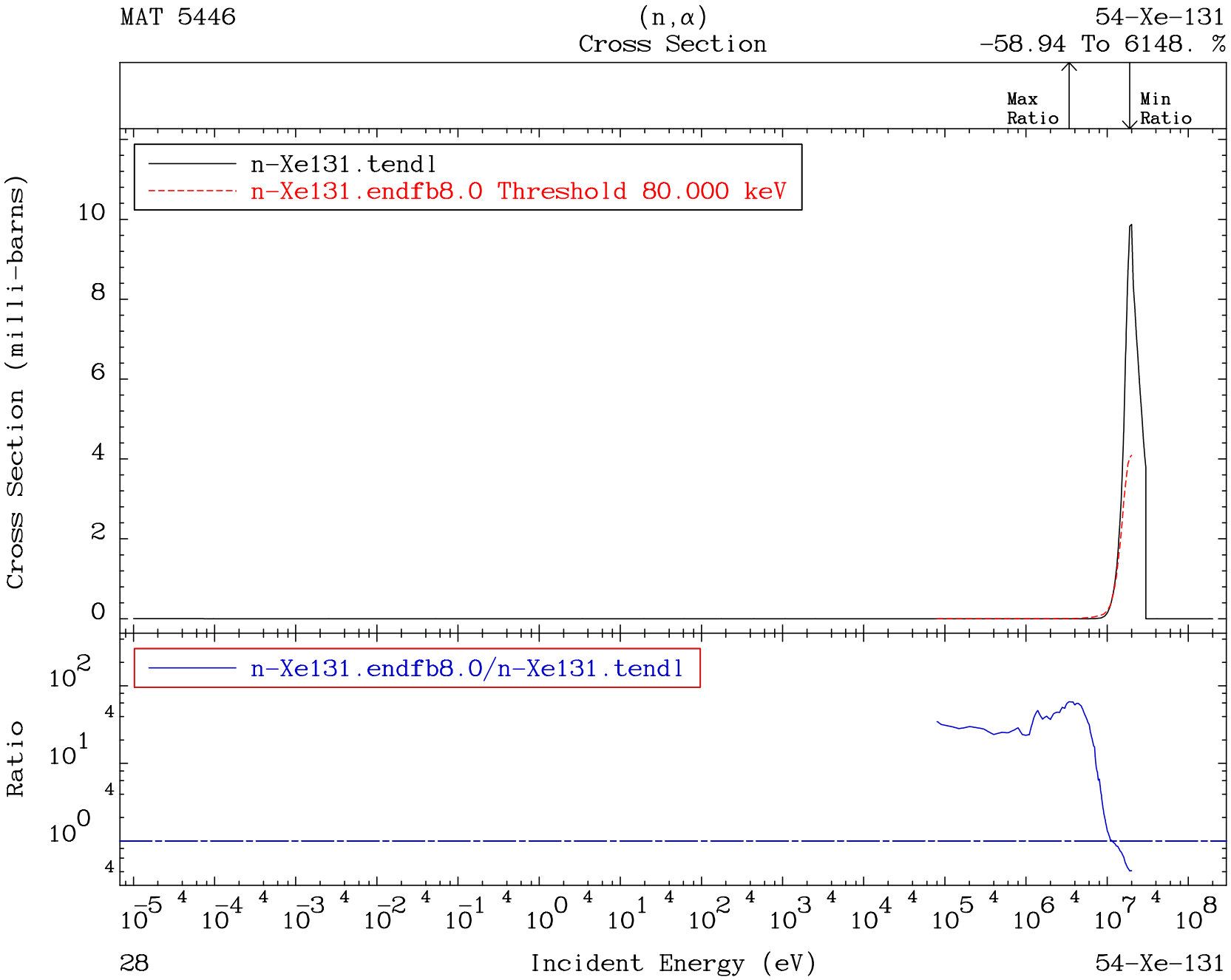

MAT 5446
MT= 64 (n,n') Level
Cross Section
54-Xe-131
-54.67 To 601.4 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 978.70 keV
n-Xe131.endfb8.0 Threshold 978.70 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^1
10^0
6
4
2
6
4
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
23
Incident Energy (eV)
54-Xe-131

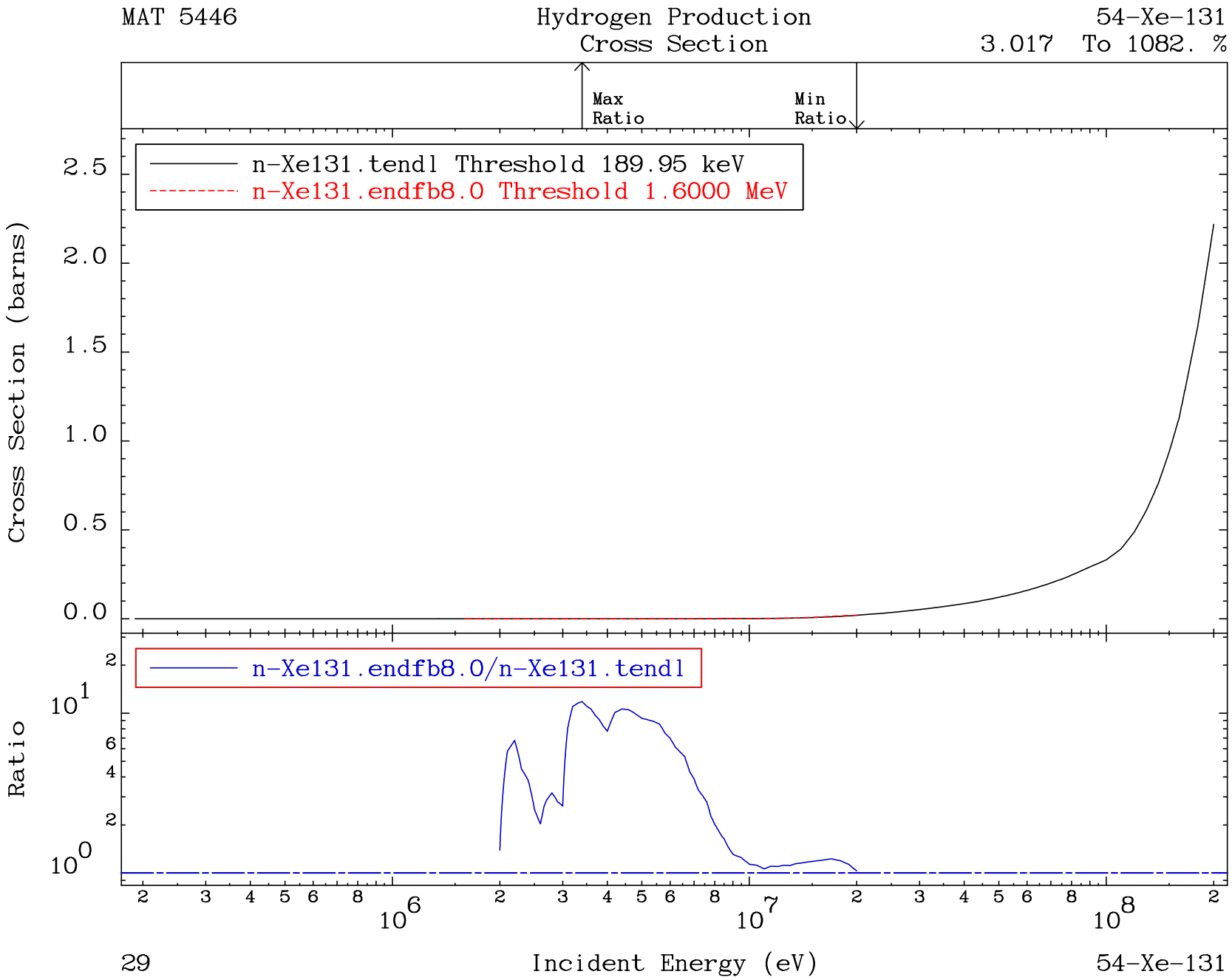

MAT 5446
MT= 65 (n,n') Level
Cross Section
54-Xe-131
-100.0 To 149.7 %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 980.61 keV
n-Xe131.endfb8.0 Threshold 980.61 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-3
10^-6
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
54-Xe-131

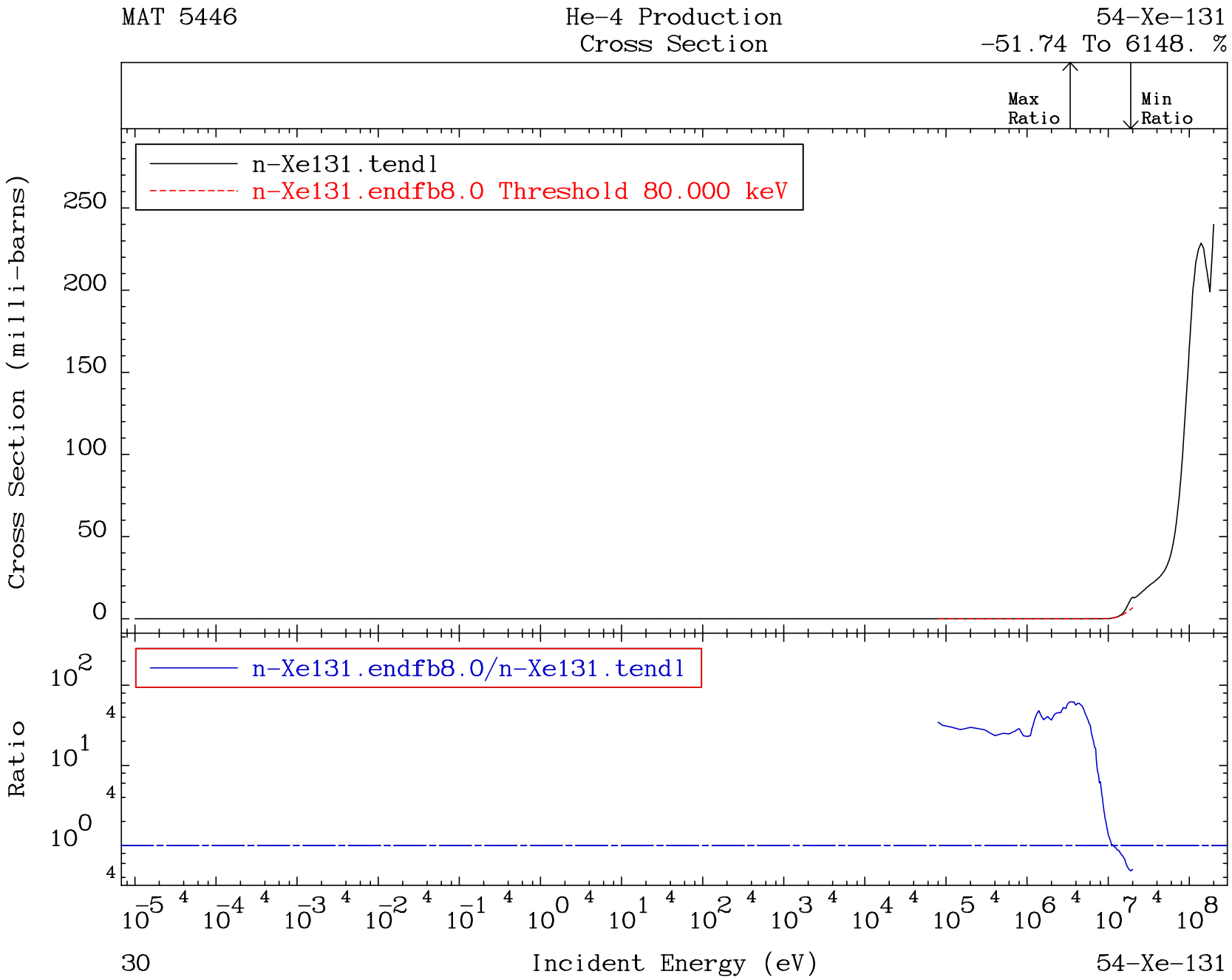

MAT 5446
(n,n') Continuum
Cross Section
54-Xe-131
-7.657 To 3164. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 1.6335 MeV
n-Xe131.endfb8.0 Threshold 495.00 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^1
10^0
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
54-Xe-131

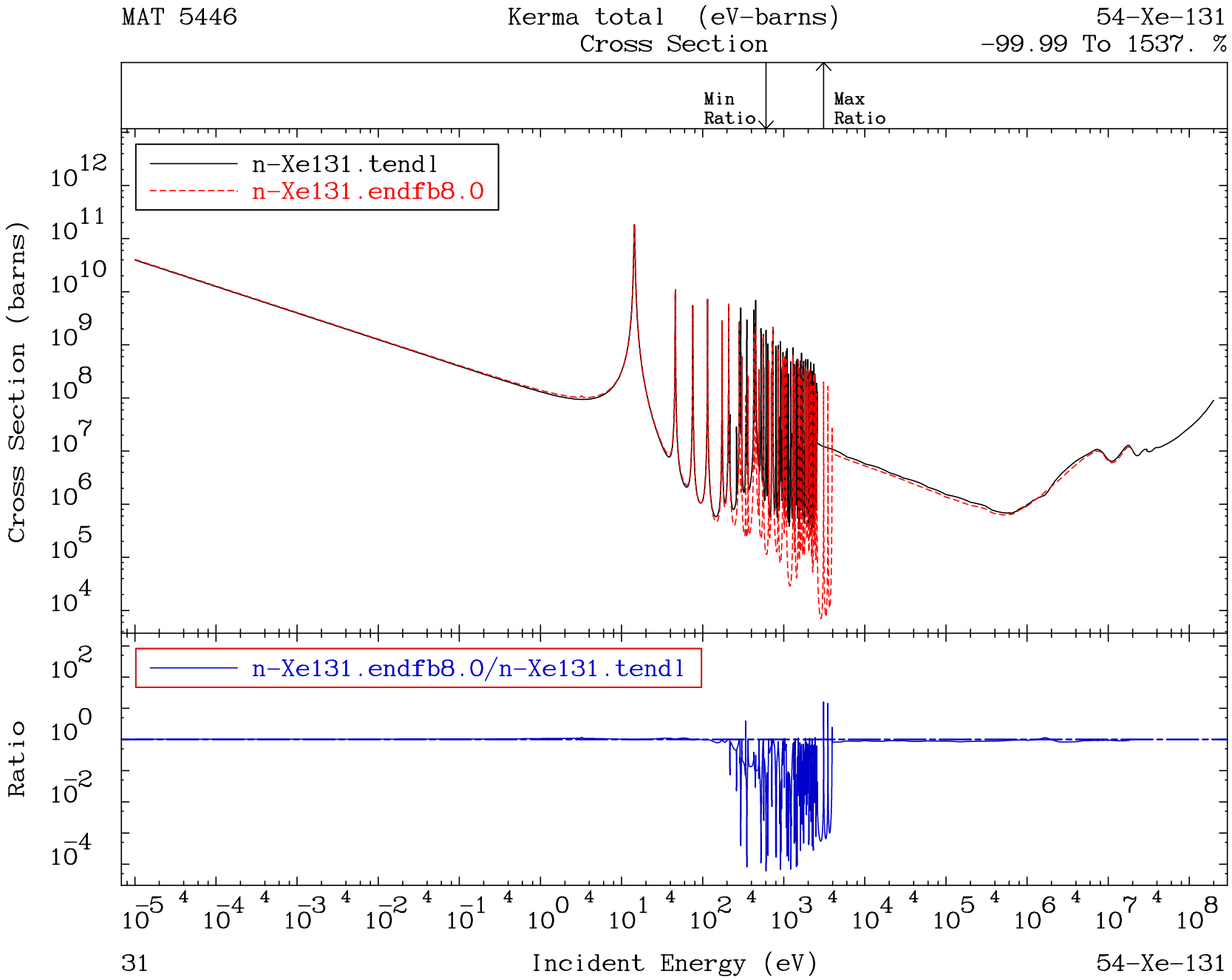

MAT 5446
(n,γ)
Cross Section
54-Xe-131
-99.99 To 1545. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
26
54-Xe-131

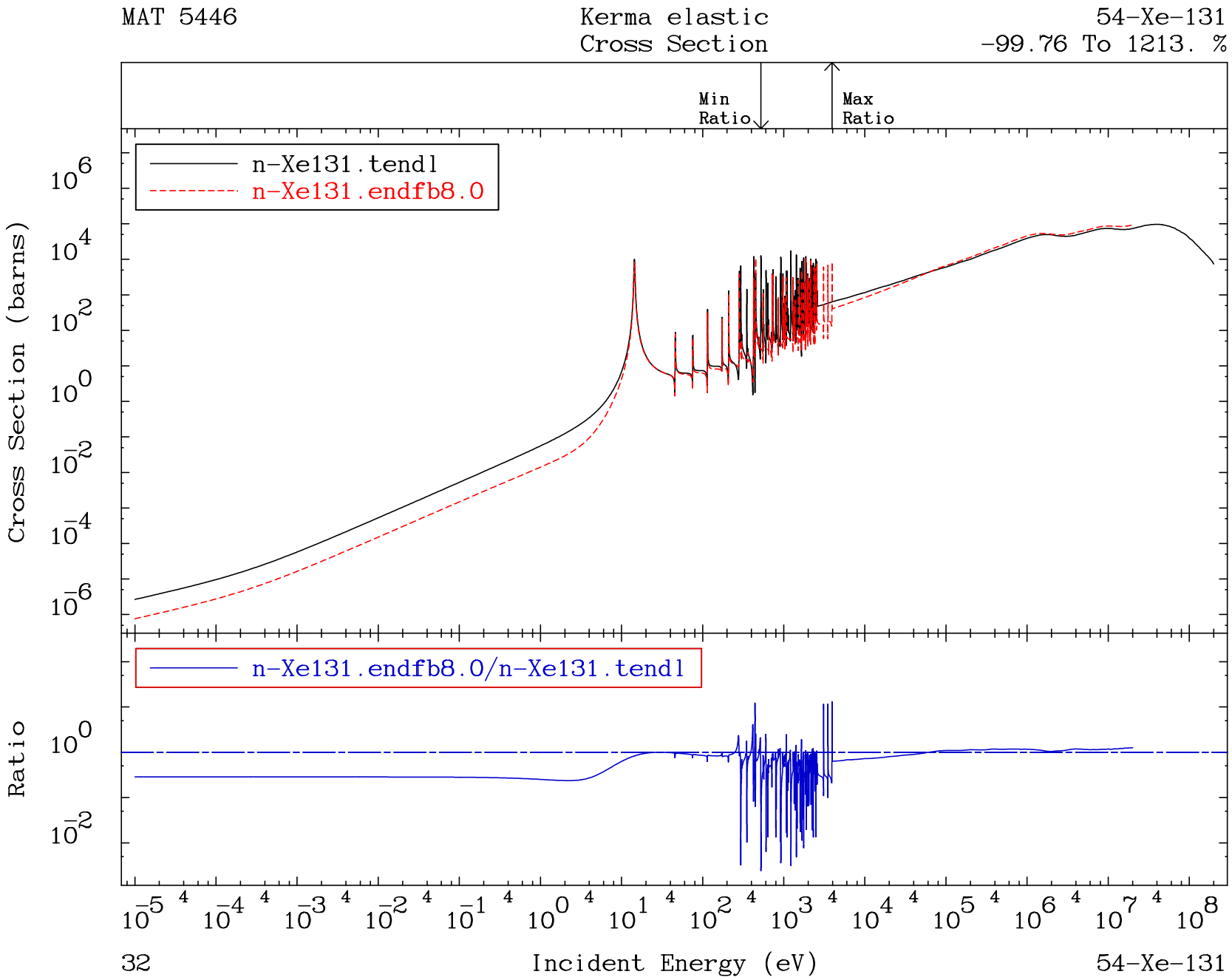

MAT 5446
(n,p)
Cross Section
54-Xe-131
-5.972 To 1082. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 189.95 keV
n-Xe131.endfb8.0 Threshold 1.6000 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^1
10^0
2
6
4
2
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
27
Incident Energy (eV)
54-Xe-131

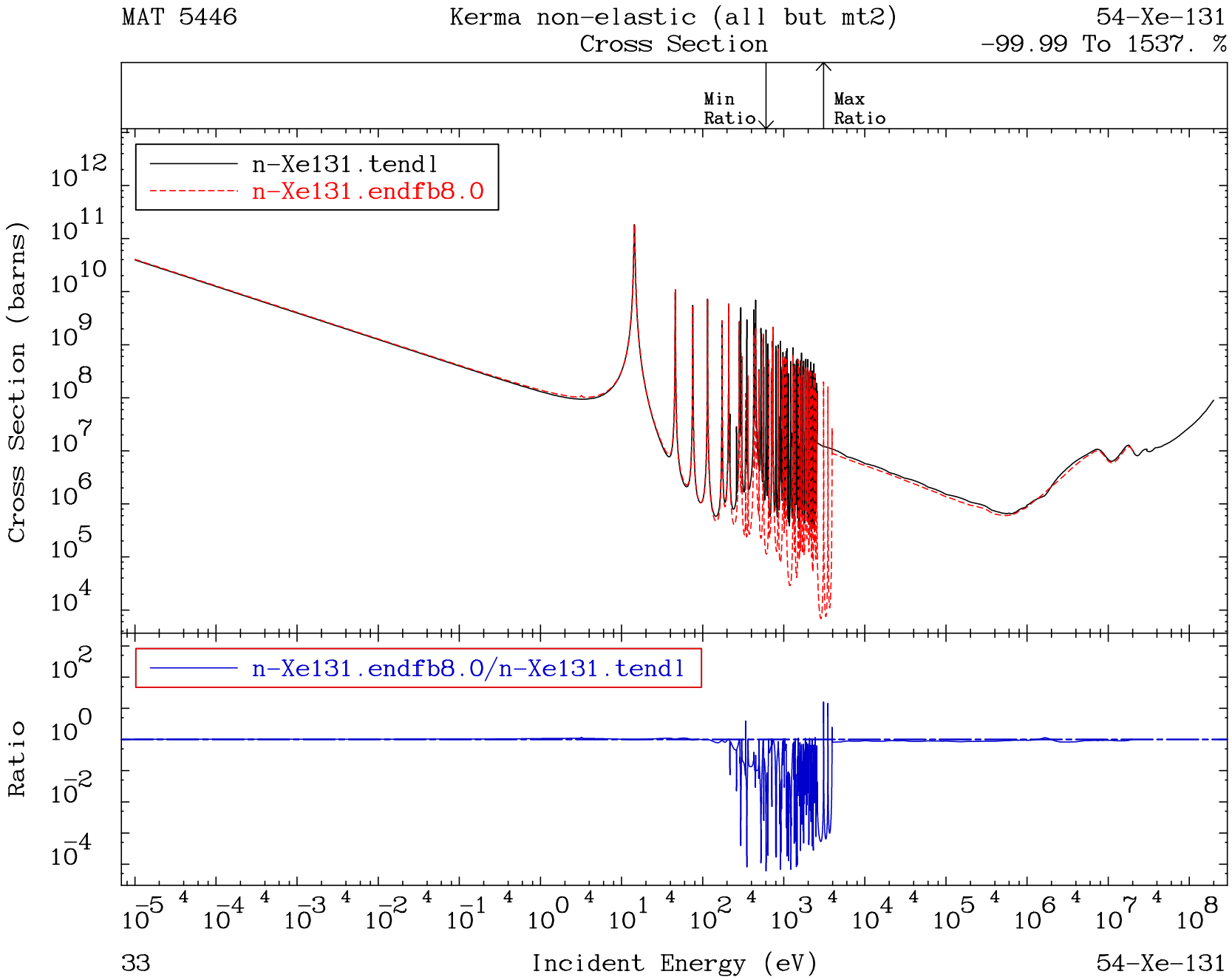

MAT 5446
(n,α)
Cross Section
54-Xe-131
-58.94 To 6148. %
Max Ratio
Min Ratio
n-Xe131.tendl
n-Xe131.endfb8.0 Threshold 80.000 keV
Cross Section (milli-barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
28
54-Xe-131

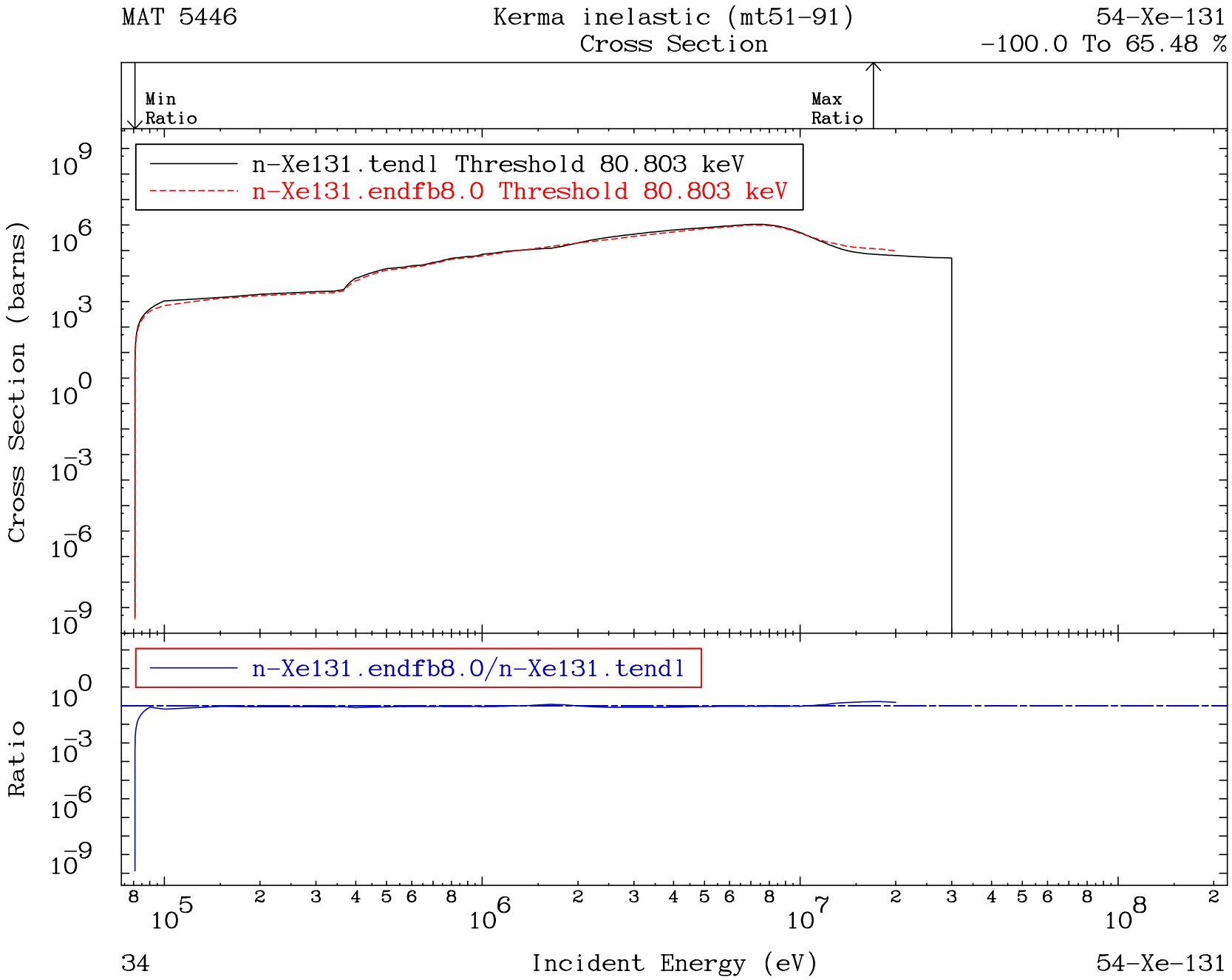

MAT 5446
Hydrogen Production
Cross Section
54-Xe-131
3.017 To 1082. %
Max Ratio
Min Ratio
n-Xe131.tendl Threshold 189.95 keV
n-Xe131.endfb8.0 Threshold 1.6000 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^1
10^0
2
6
4
2
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
29
Incident Energy (eV)
54-Xe-131

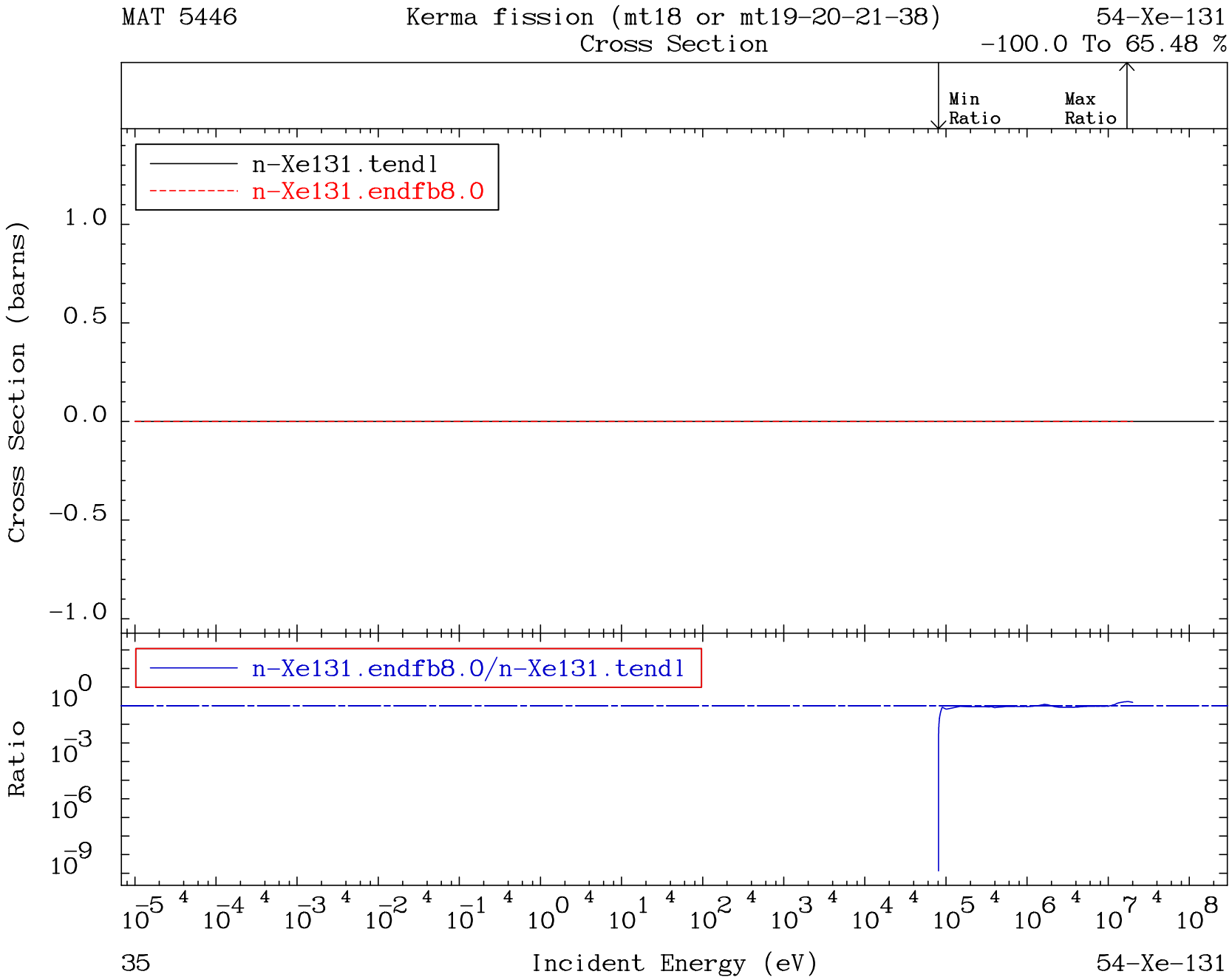

MAT 5446
He-4 Production
Cross Section
54-Xe-131
-51.74 To 6148. %
Max Ratio
Min Ratio
n-Xe131.tendl
n-Xe131.endfb8.0 Threshold 80.000 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^2
10^1
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
30
Incident Energy (eV)
54-Xe-131

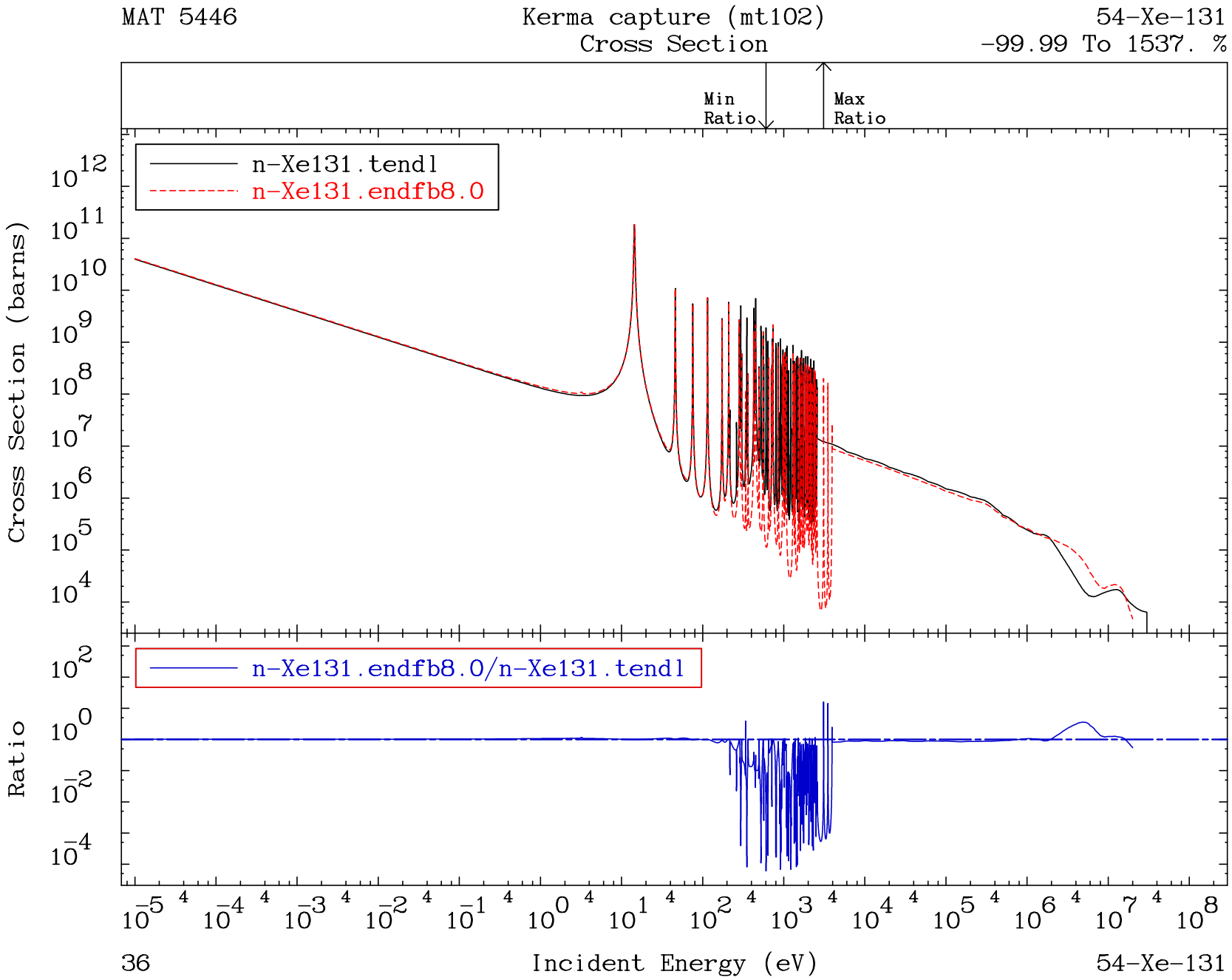

MAT 5446
Kerma total (eV-barns)
Cross Section
54-Xe-131
-99.99 To 1537. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
31
Incident Energy (eV)
54-Xe-131

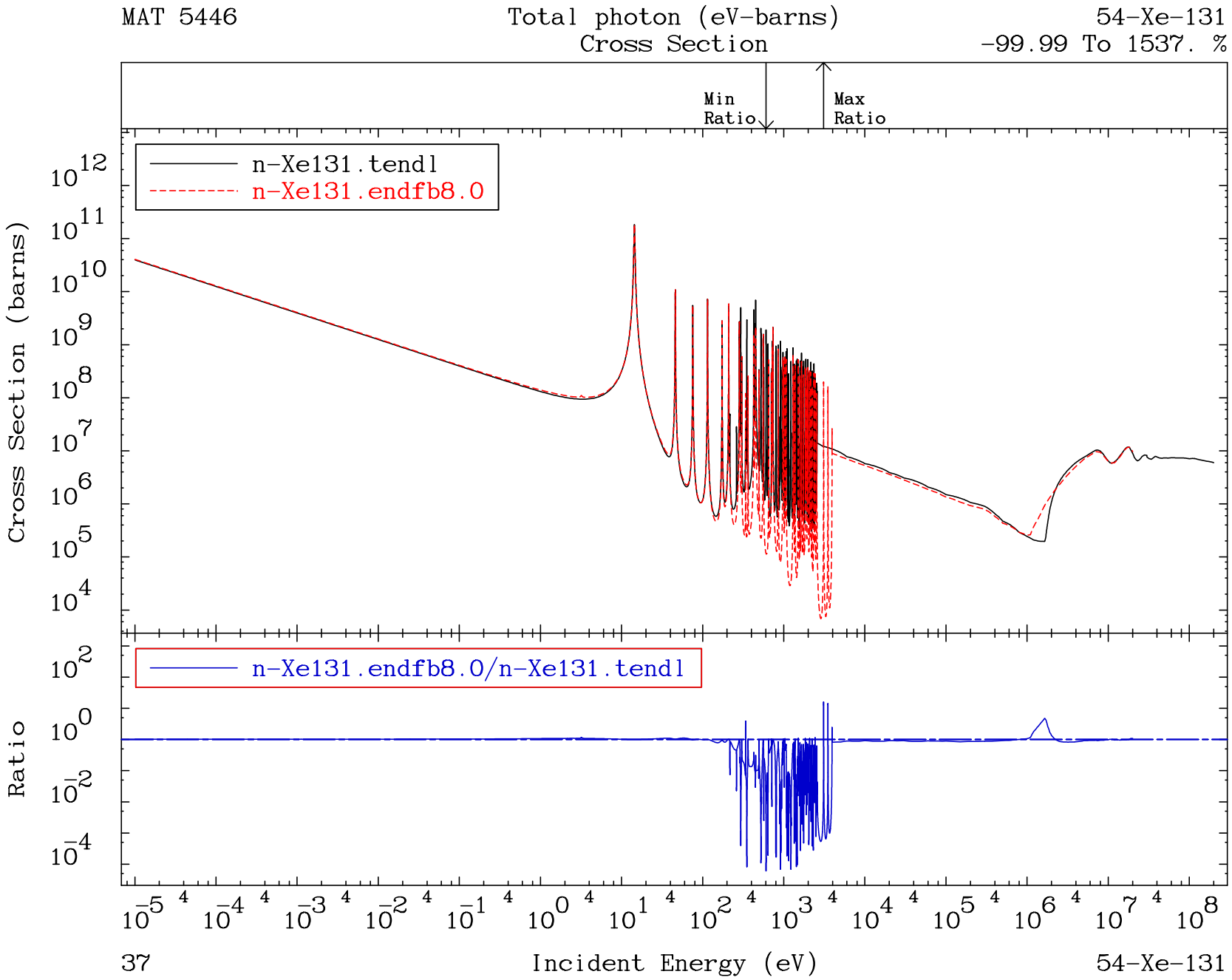

MAT 5446
Kerma elastic
Cross Section
54-Xe-131
-99.76 To 1213. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
32
54-Xe-131

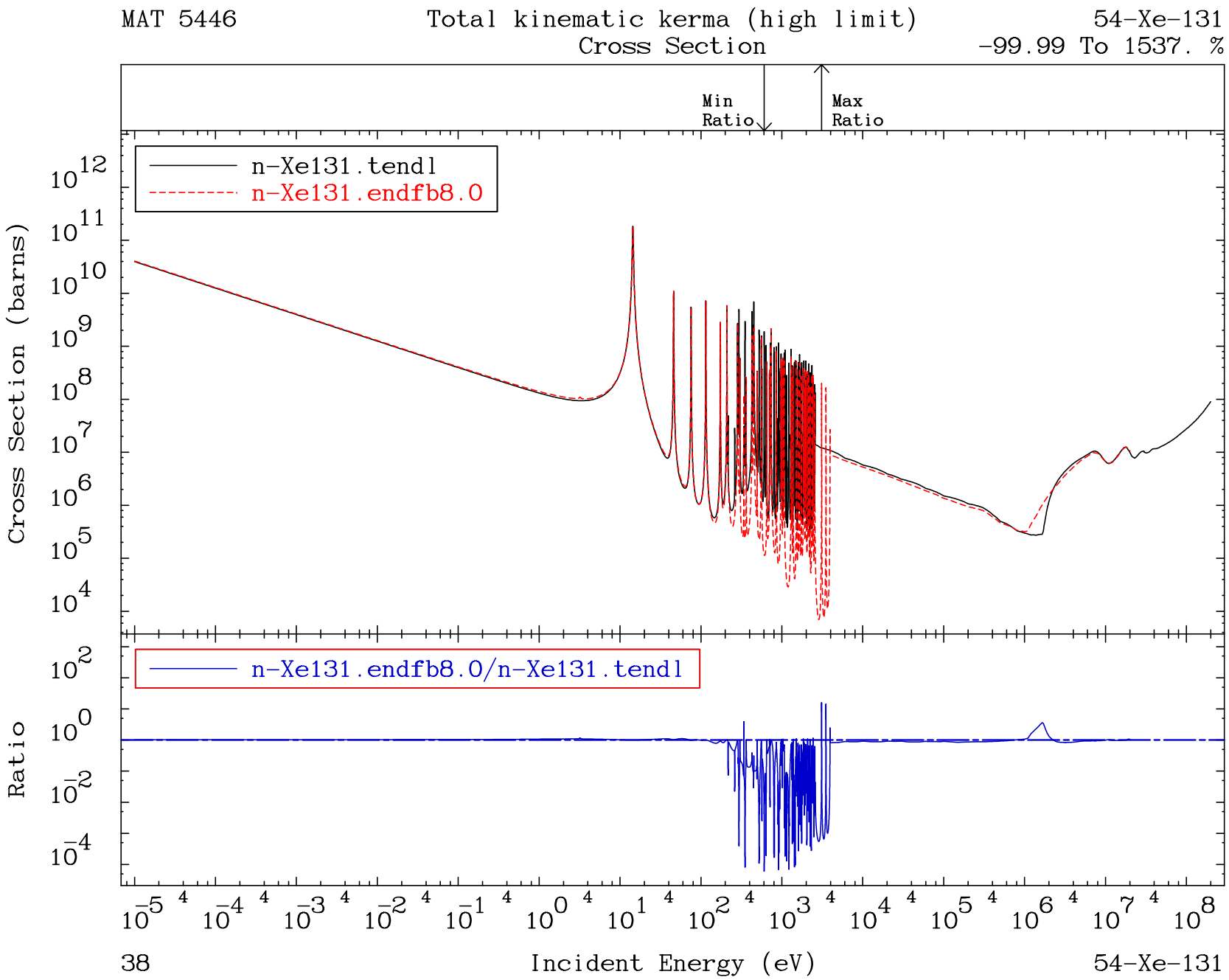

MAT 5446
Kerma non-elastic (all but mt2)
Cross Section
54-Xe-131
-99.99 To 1537. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
33
Incident Energy (eV)
54-Xe-131

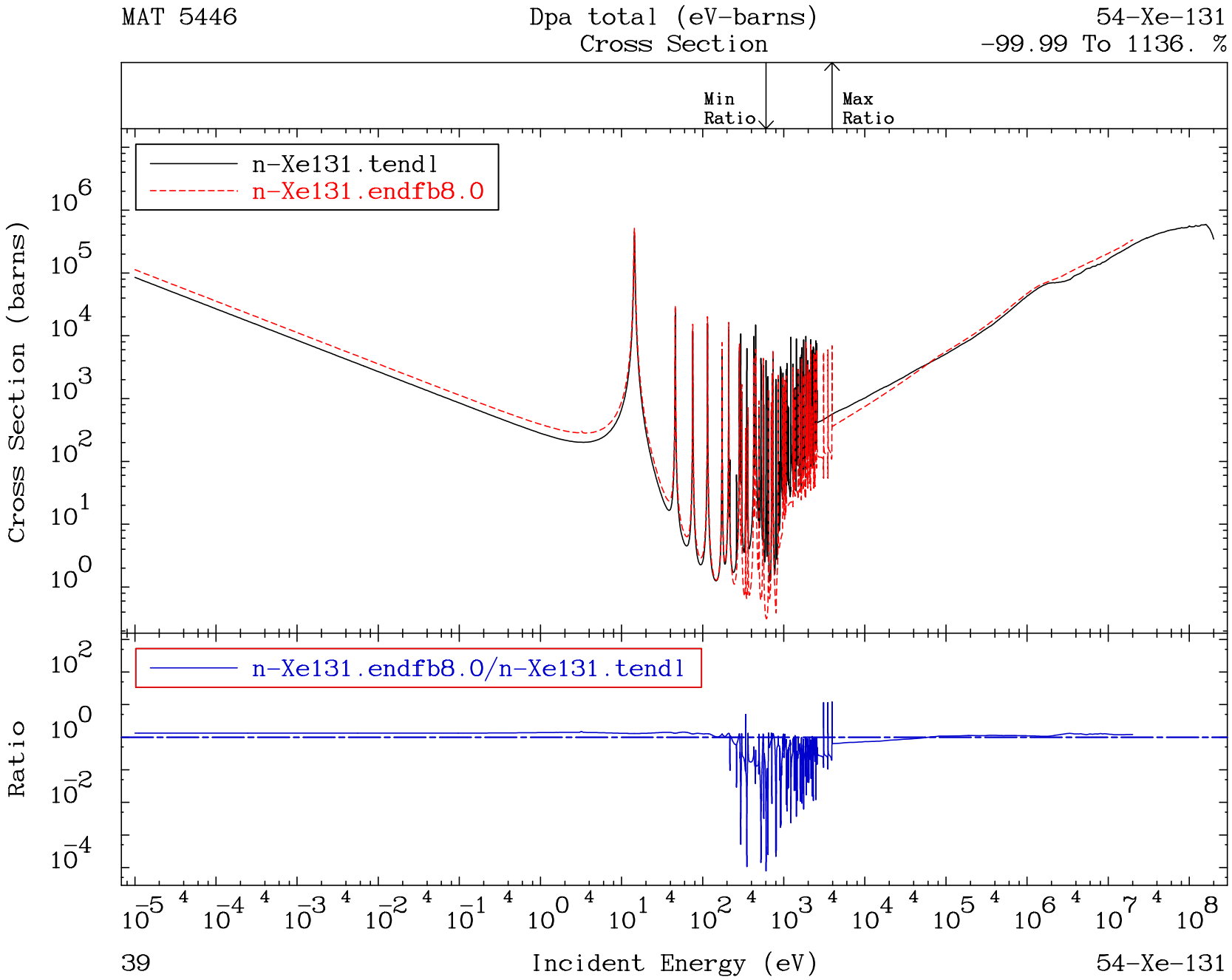

MAT 5446
Kerma inelastic (mt51-91)
Cross Section
54-Xe-131
-100.0 To 65.48 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.endfb8.0 Threshold 80.803 keV
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
34
54-Xe-131

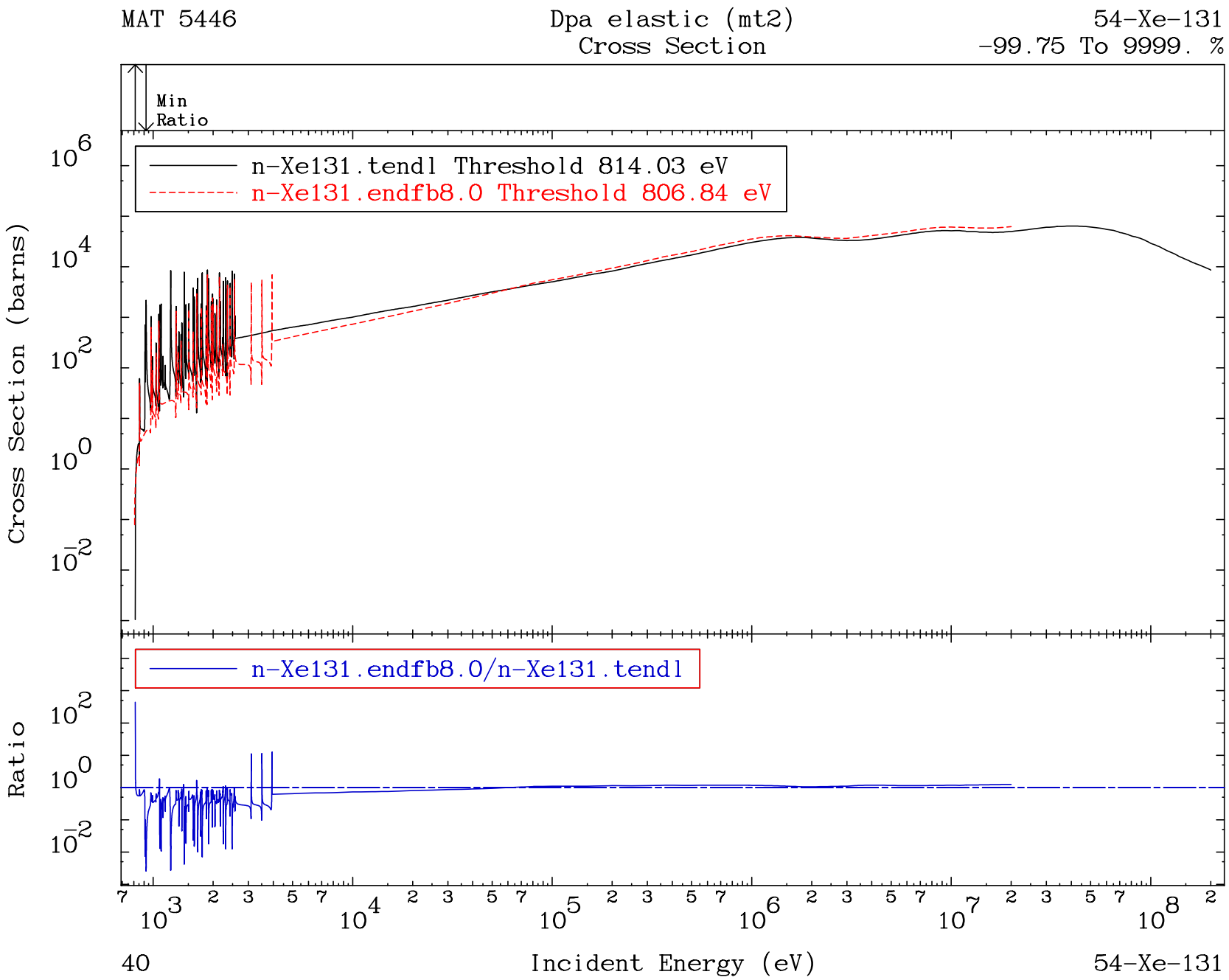

MAT 5446
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
54-Xe-131
-100.0 To 65.48 %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
10^0
10^-3
10^-6
10^-9
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
35
Incident Energy (eV)
54-Xe-131

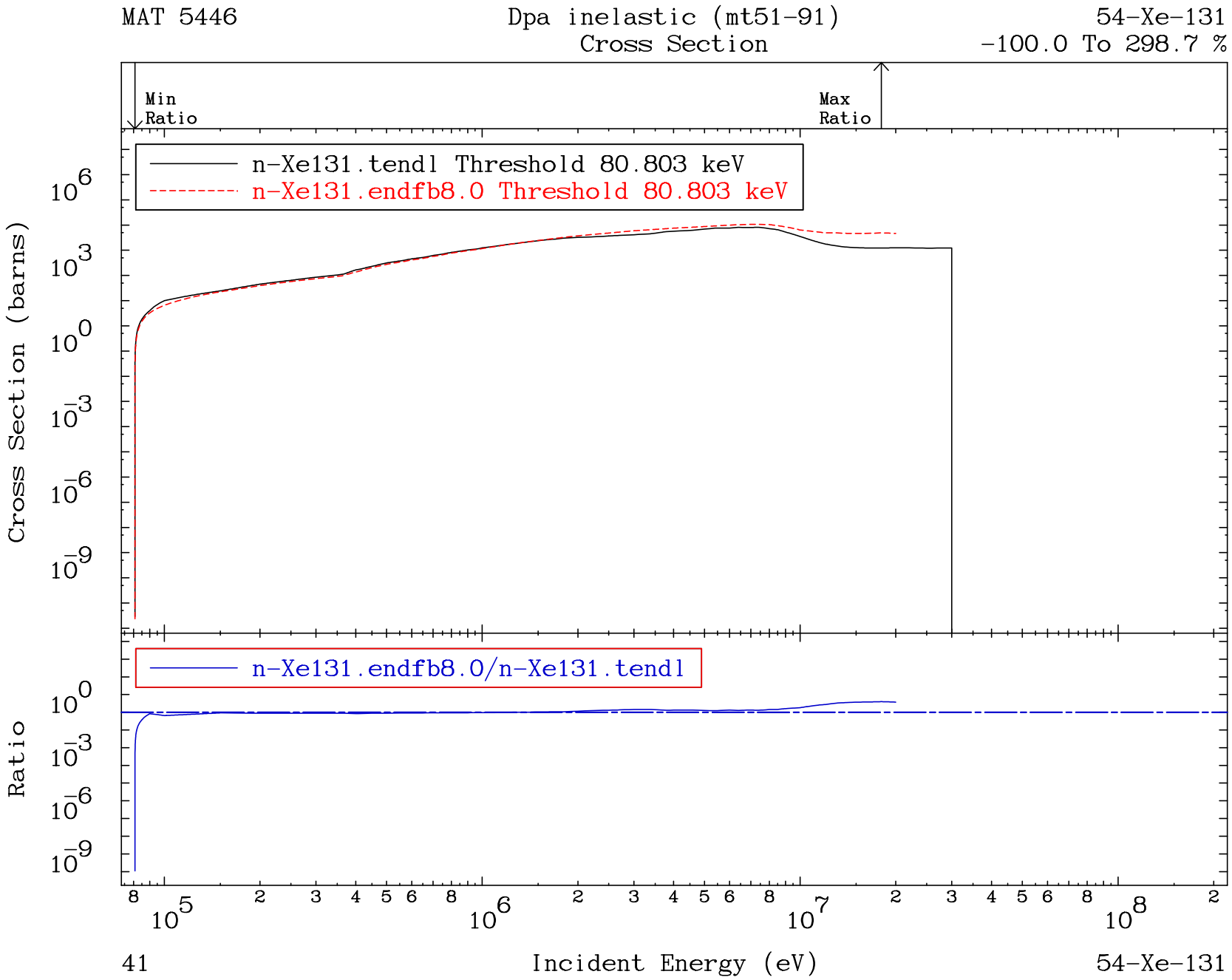

MAT 5446
Kerma capture (mt102)
Cross Section
54-Xe-131
-99.99 To 1537. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
36
54-Xe-131

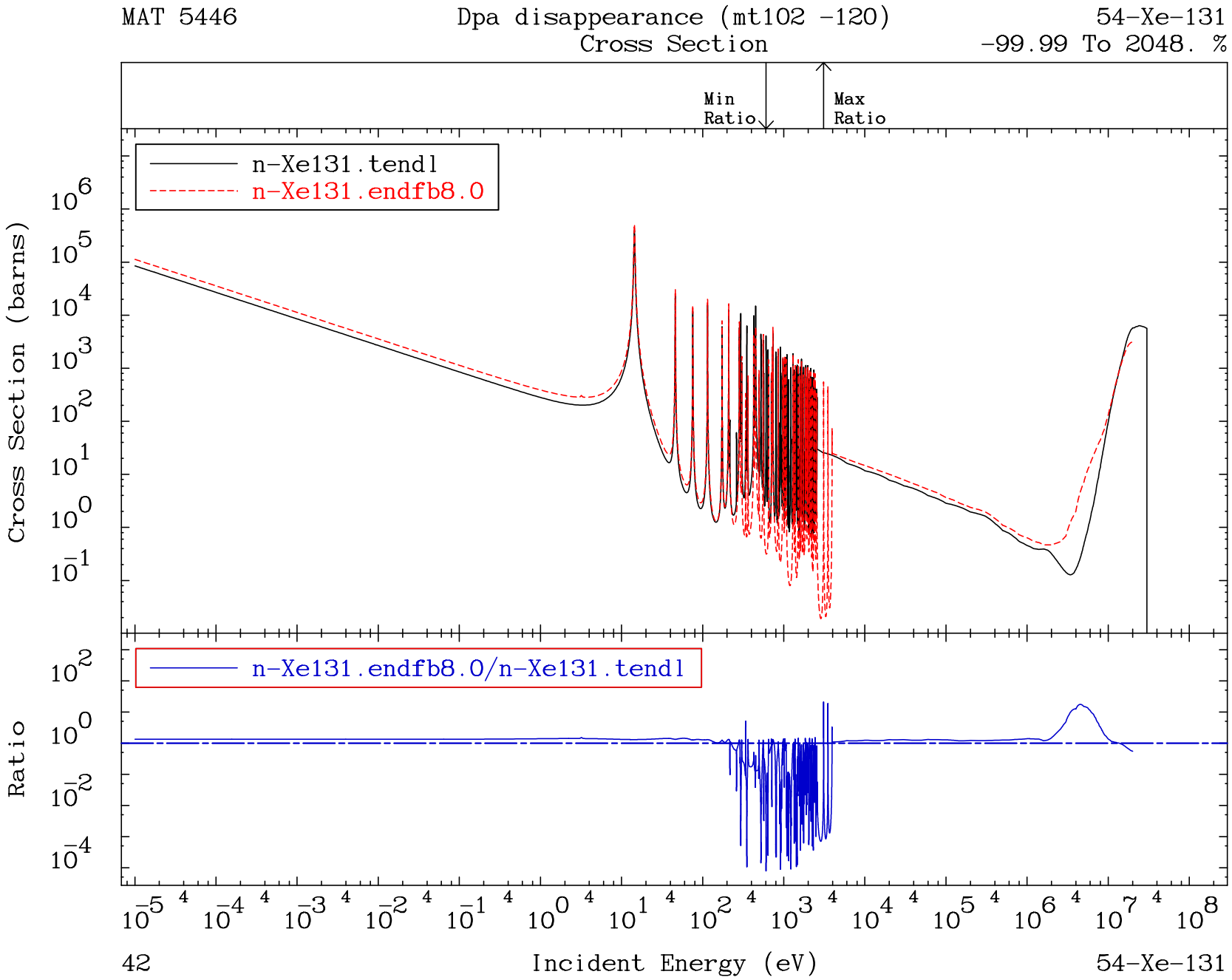

MAT 5446
Total photon (eV-barns)
Cross Section
54-Xe-131
-99.99 To 1537. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
37
Incident Energy (eV)
54-Xe-131


MAT 5446
Total kinematic kerma (high limit)
Cross Section
54-Xe-131
-99.99 To 1537. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
38
Incident Energy (eV)
54-Xe-131


MAT 5446
Dpa total (eV-barns)
Cross Section
54-Xe-131
-99.99 To 1136. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
39
54-Xe-131


MAT 5446
Dpa elastic (mt2)
Cross Section
54-Xe-131
-99.75 To 9999. %
Min
Ratio
n-Xe131.tendl Threshold 814.03 eV
n-Xe131.endfb8.0 Threshold 806.84 eV
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
40
54-Xe-131


MAT 5446
Dpa inelastic (mt51-91)
Cross Section
54-Xe-131
-100.0 To 298.7 %
Min Ratio
Max Ratio
n-Xe131.tendl Threshold 80.803 keV
n-Xe131.endfb8.0 Threshold 80.803 keV
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
Incident Energy (eV)
41
54-Xe-131


MAT 5446
Dpa disappearance (mt102 -120)
Cross Section
54-Xe-131
-99.99 To 2048. %
Min Ratio
Max Ratio
n-Xe131.tendl
n-Xe131.endfb8.0
Cross Section (barns)
n-Xe131.endfb8.0/n-Xe131.tendl
Ratio
42
Incident Energy (eV)
54-Xe-131