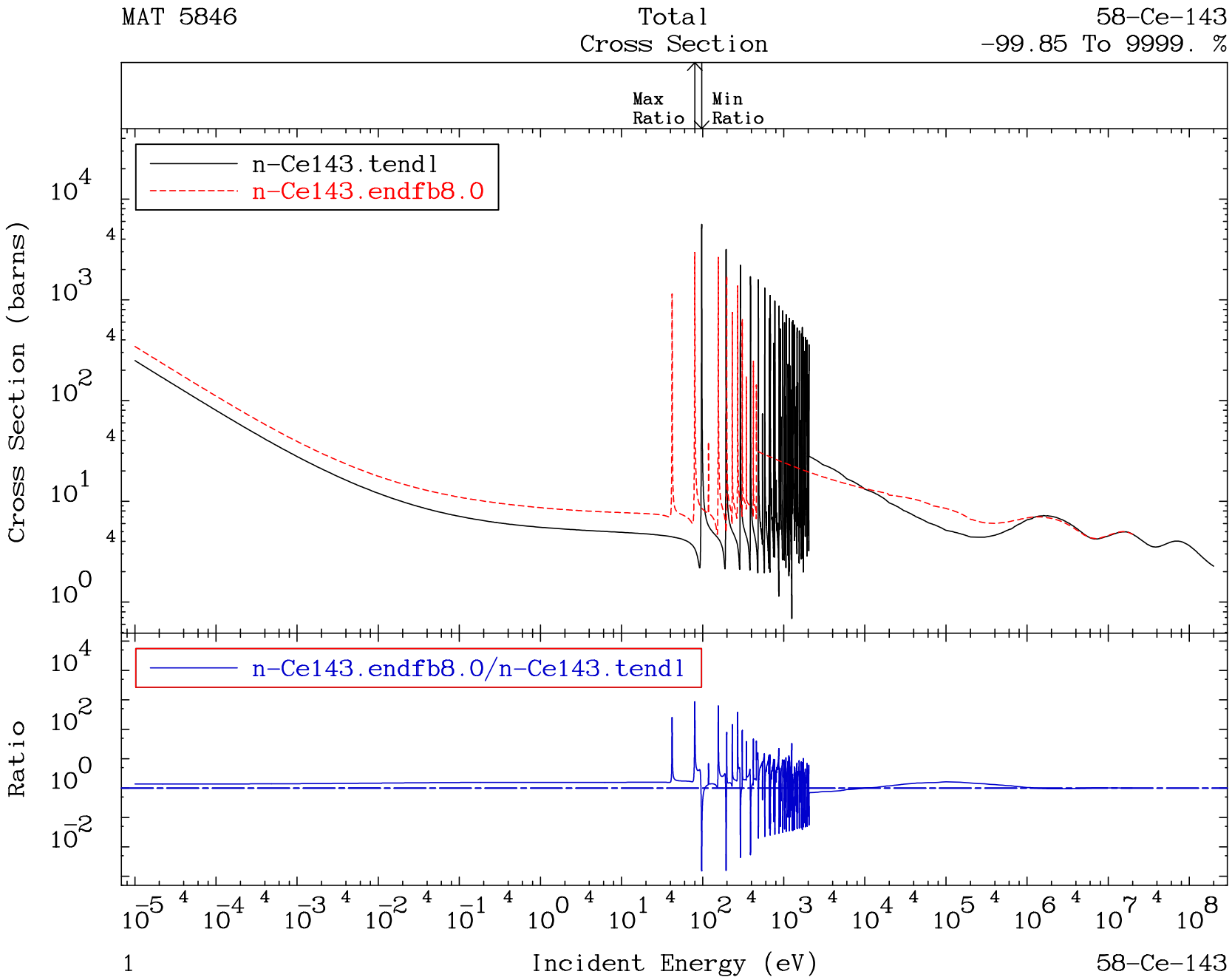
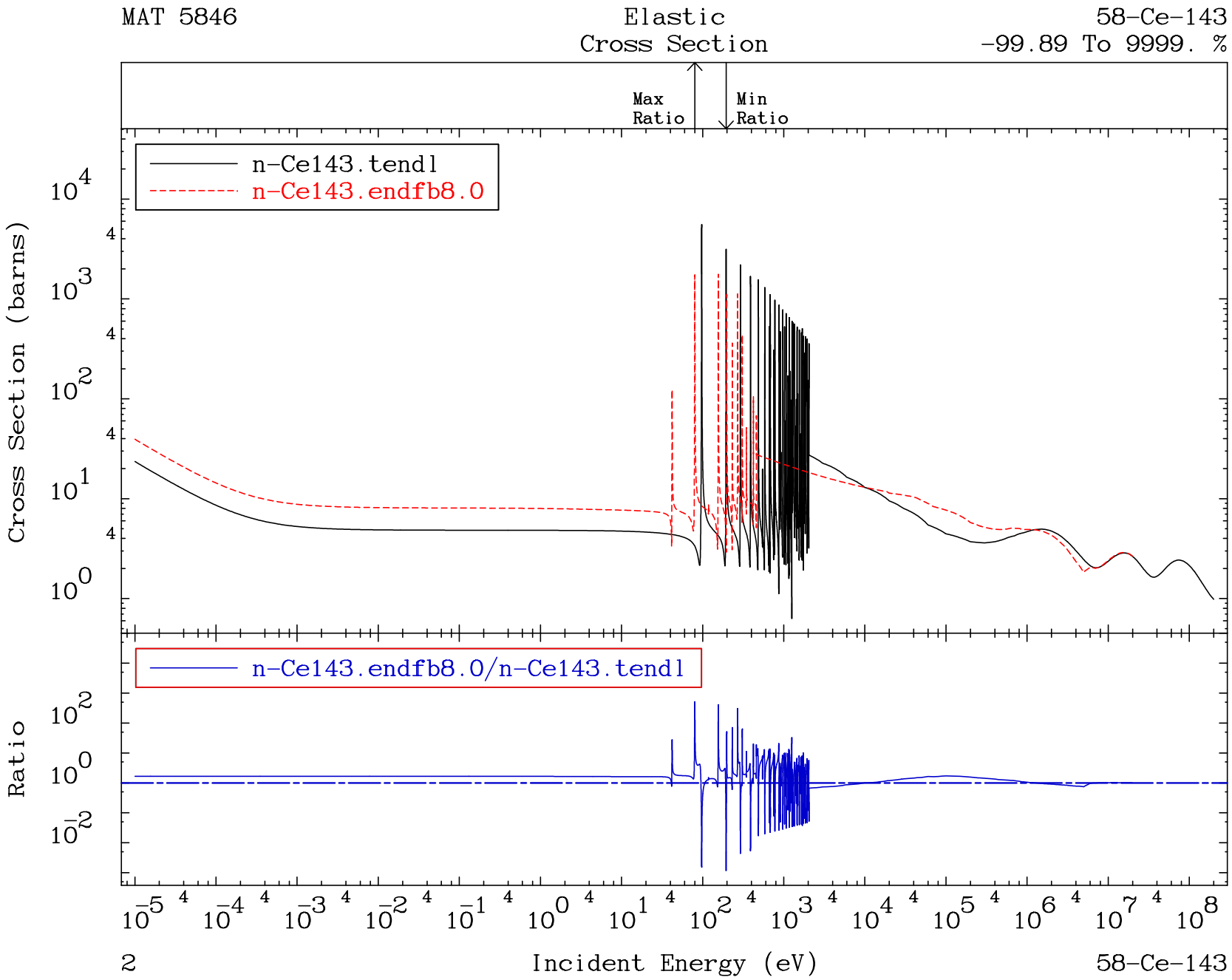
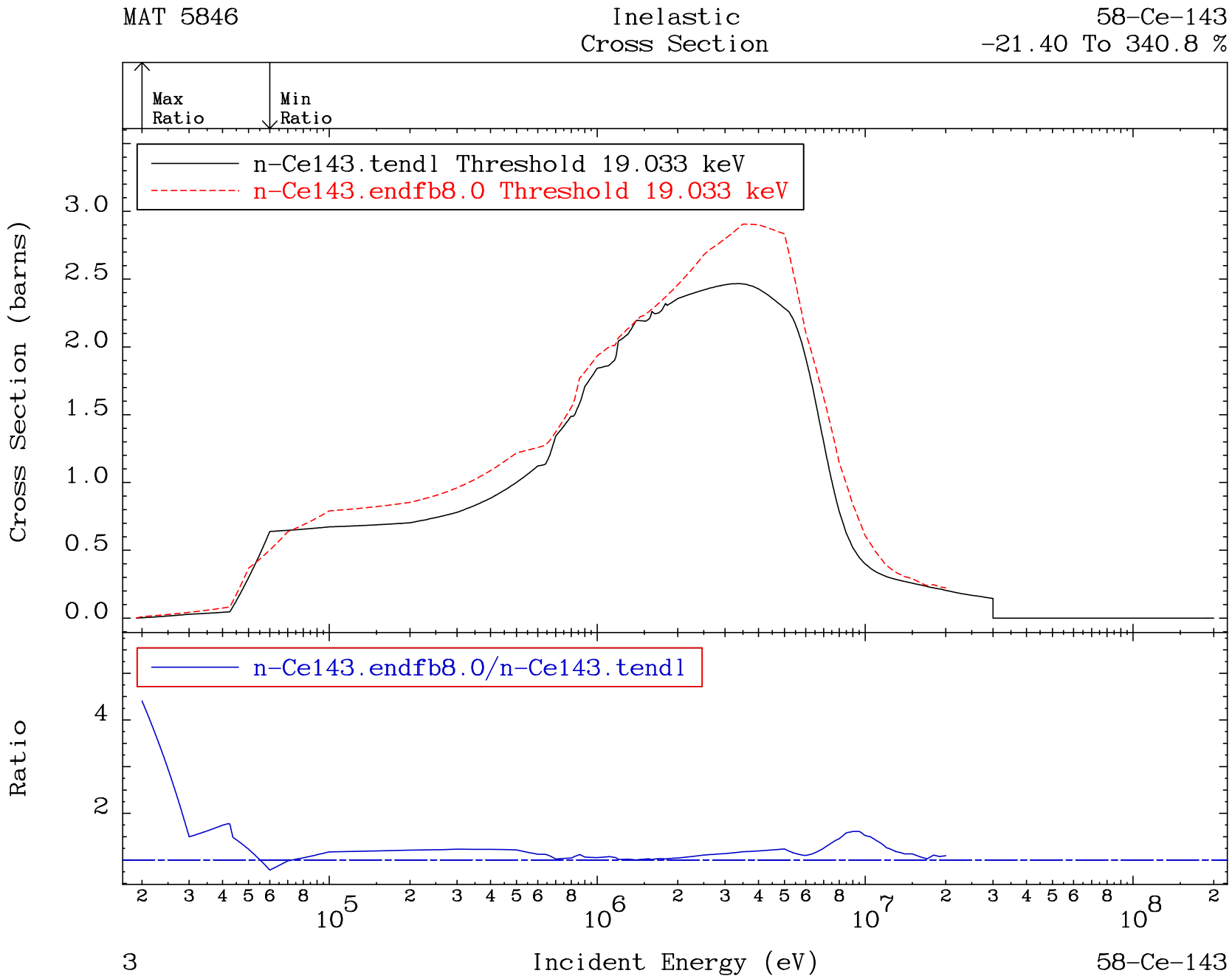
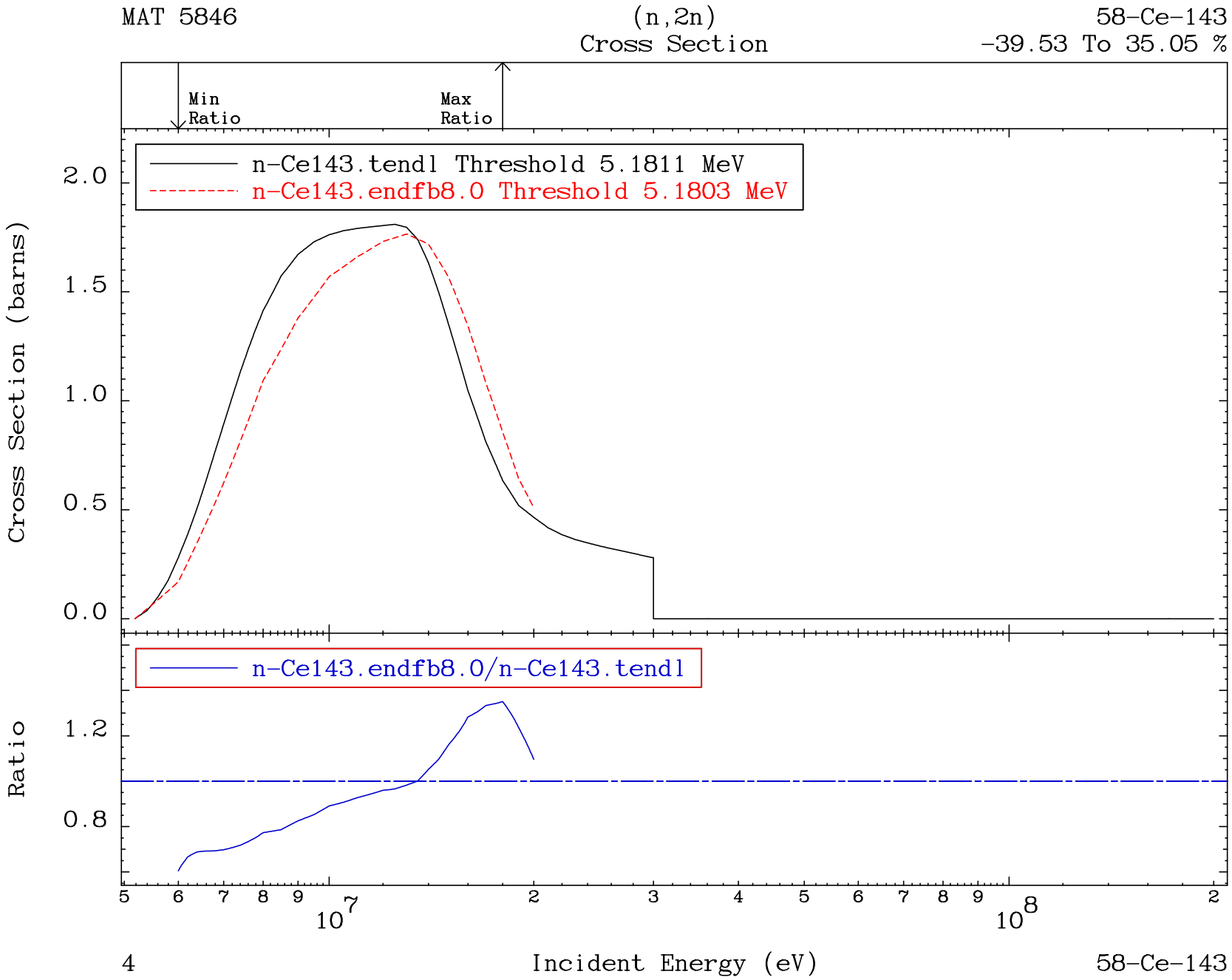
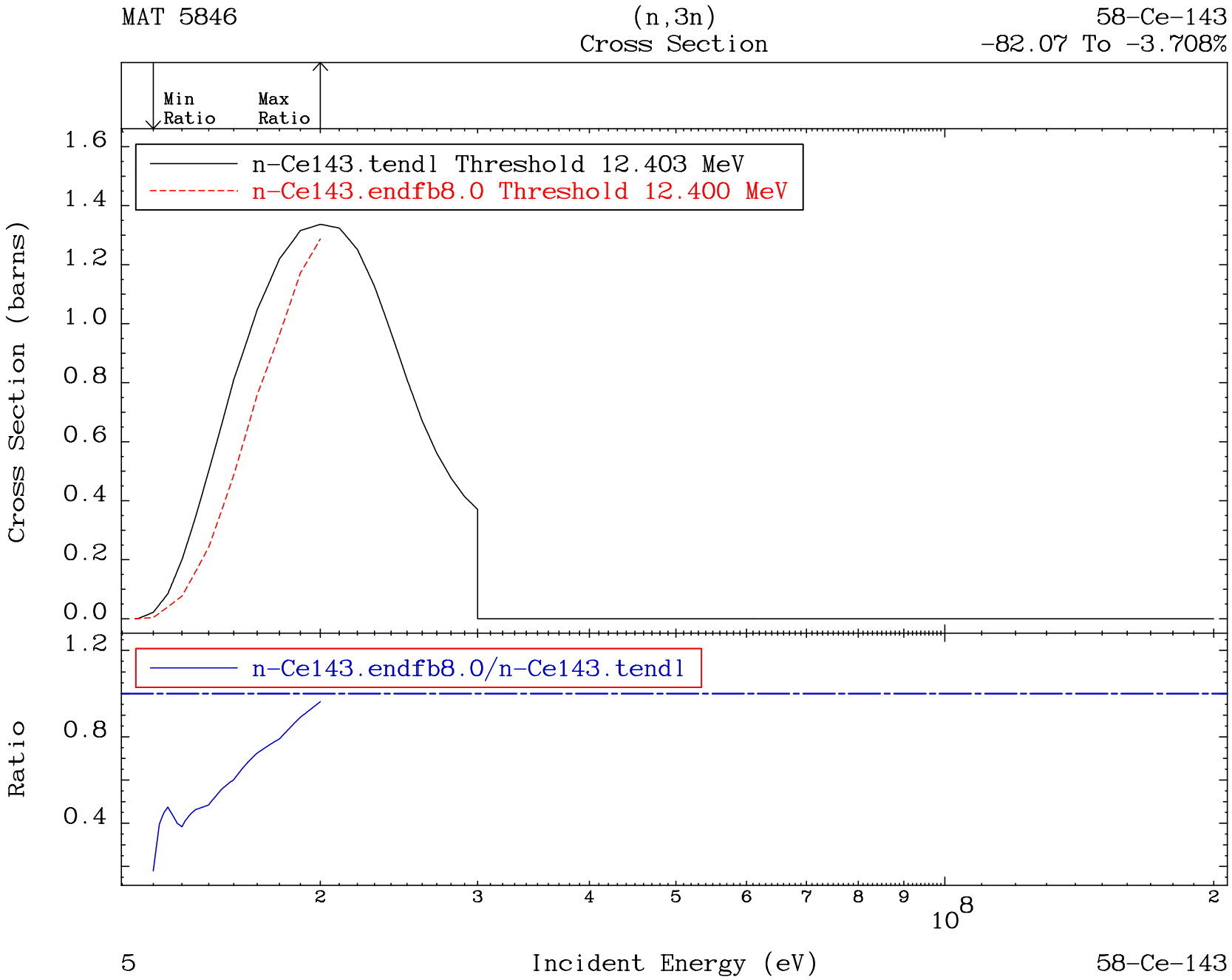
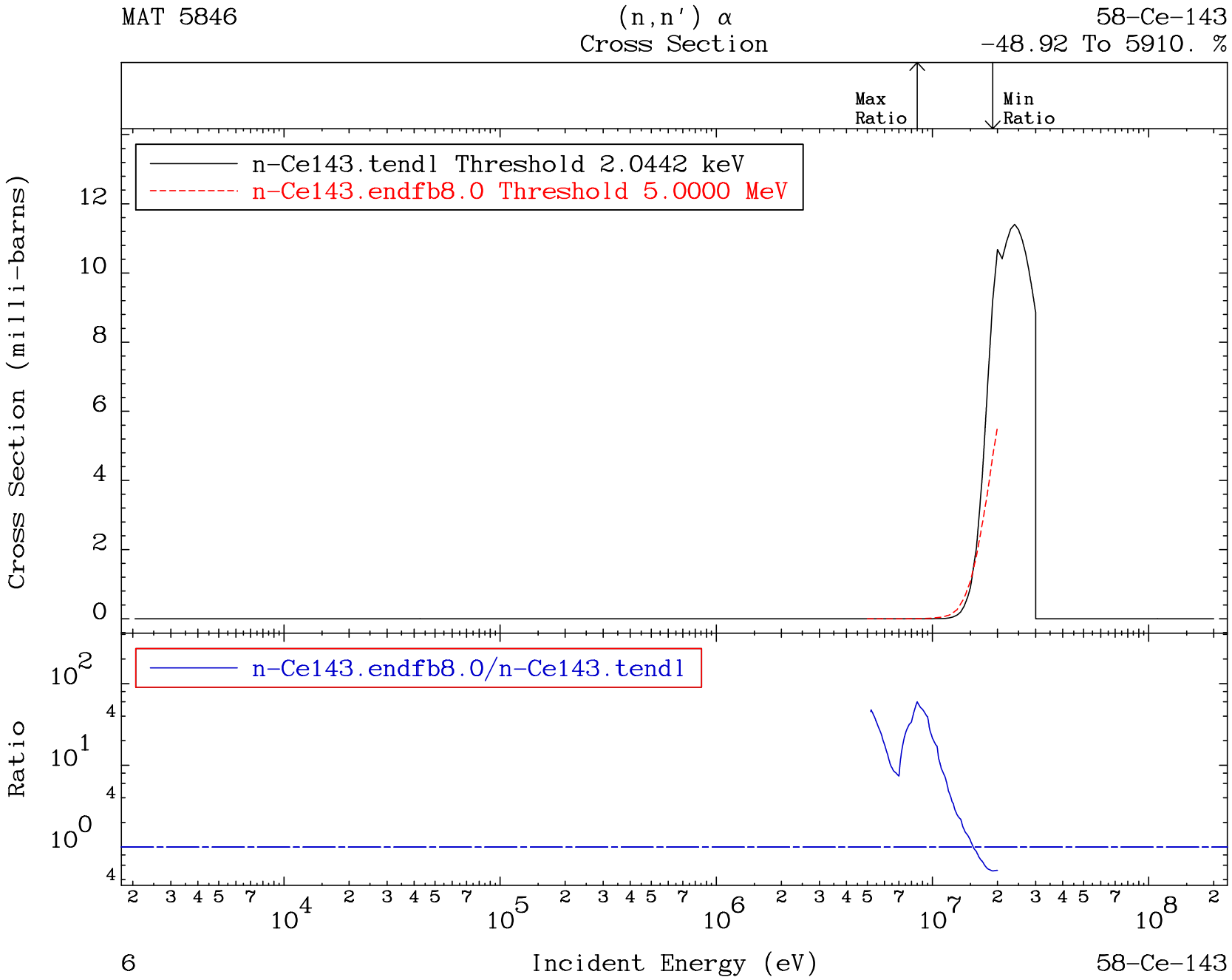

MAT 5846
Total
Cross Section
58-Ce-143
-99.85 To 9999. %
Max
Ratio
Min
Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
1
58-Ce-143

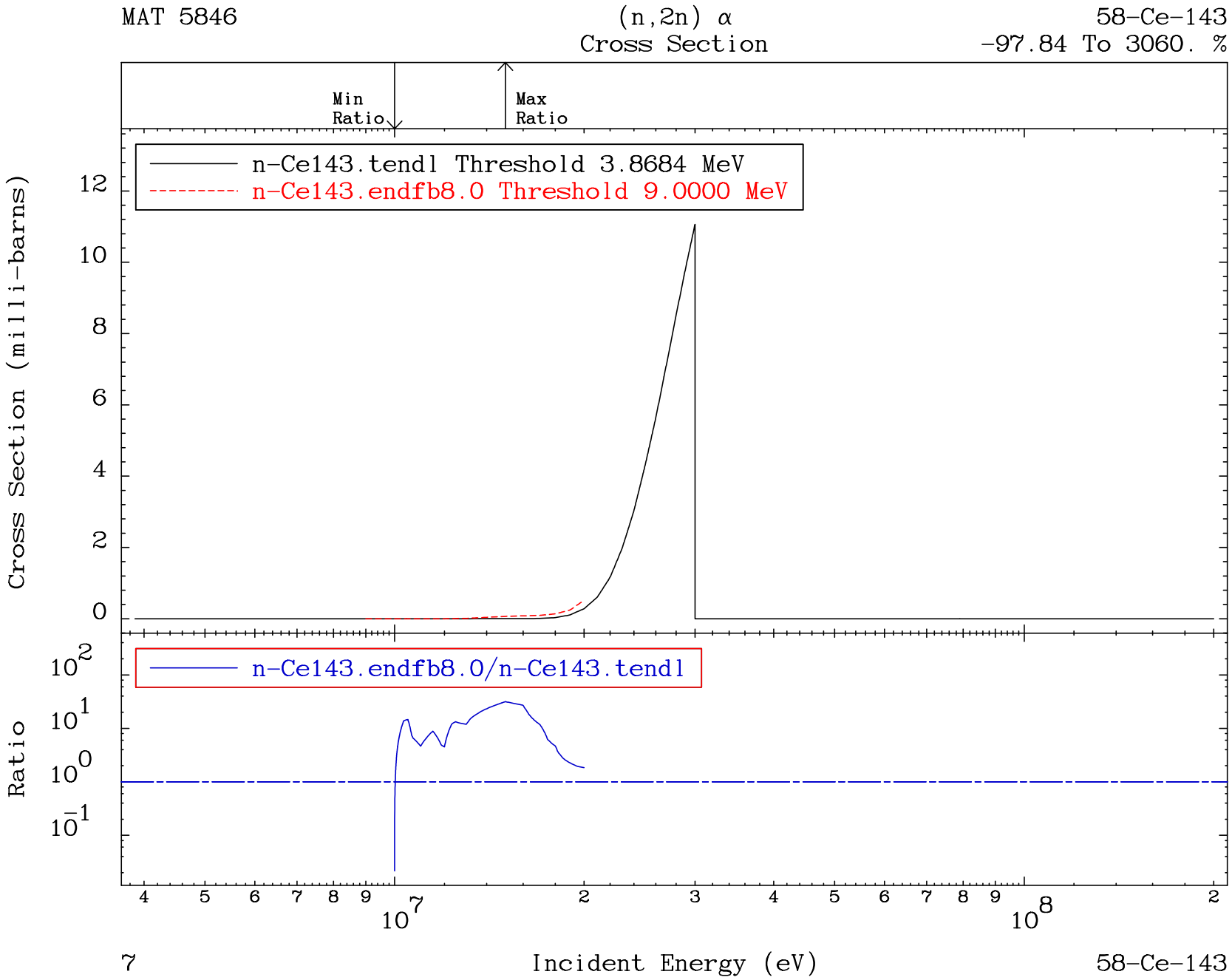

MAT 5846
Elastic
Cross Section
58-Ce-143
-99.89 To 9999. %
Max Ratio
Min Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
2
58-Ce-143

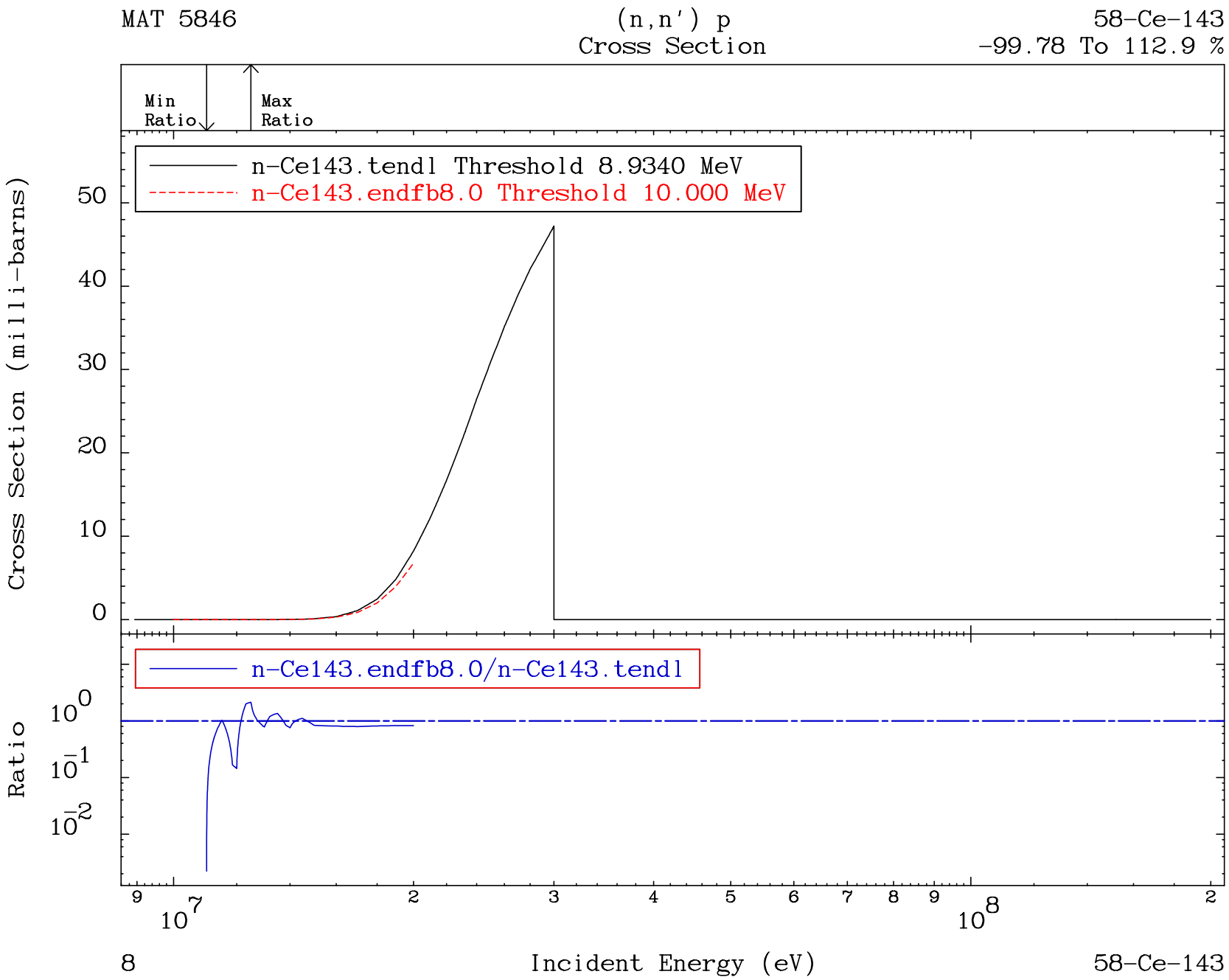

MAT 5846
Inelastic
Cross Section
58-Ce-143
-21.40 To 340.8 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 19.033 keV
n-Ce143.endfb8.0 Threshold 19.033 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
4
2
2 3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
58-Ce-143

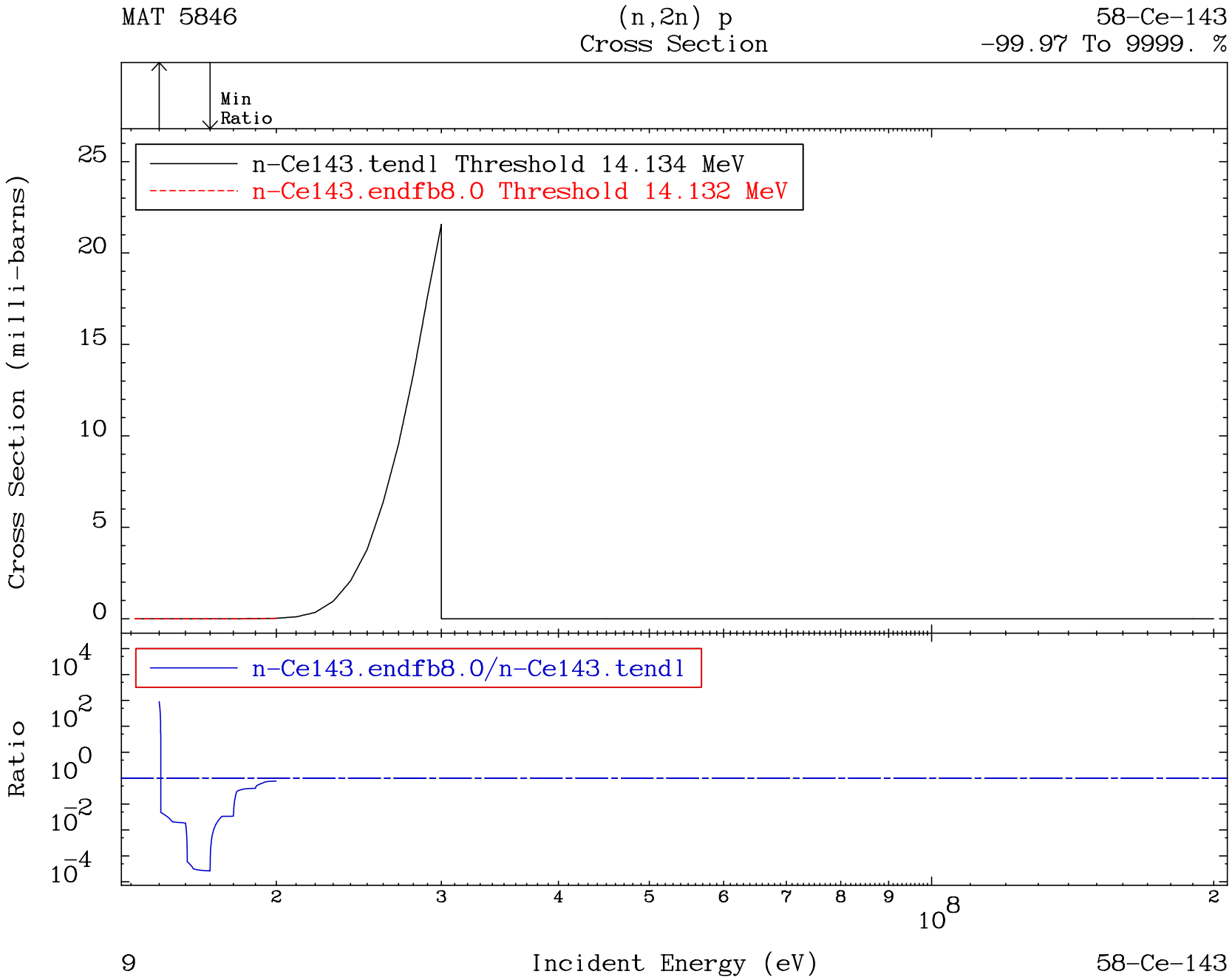

MAT 5846
(n,2n)
Cross Section
58-Ce-143
-39.53 To 35.05 %
Min Ratio
Max Ratio
n-Ce143.tendl Threshold 5.1811 MeV
n-Ce143.endfb8.0 Threshold 5.1803 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
1.2
0.8
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
58-Ce-143

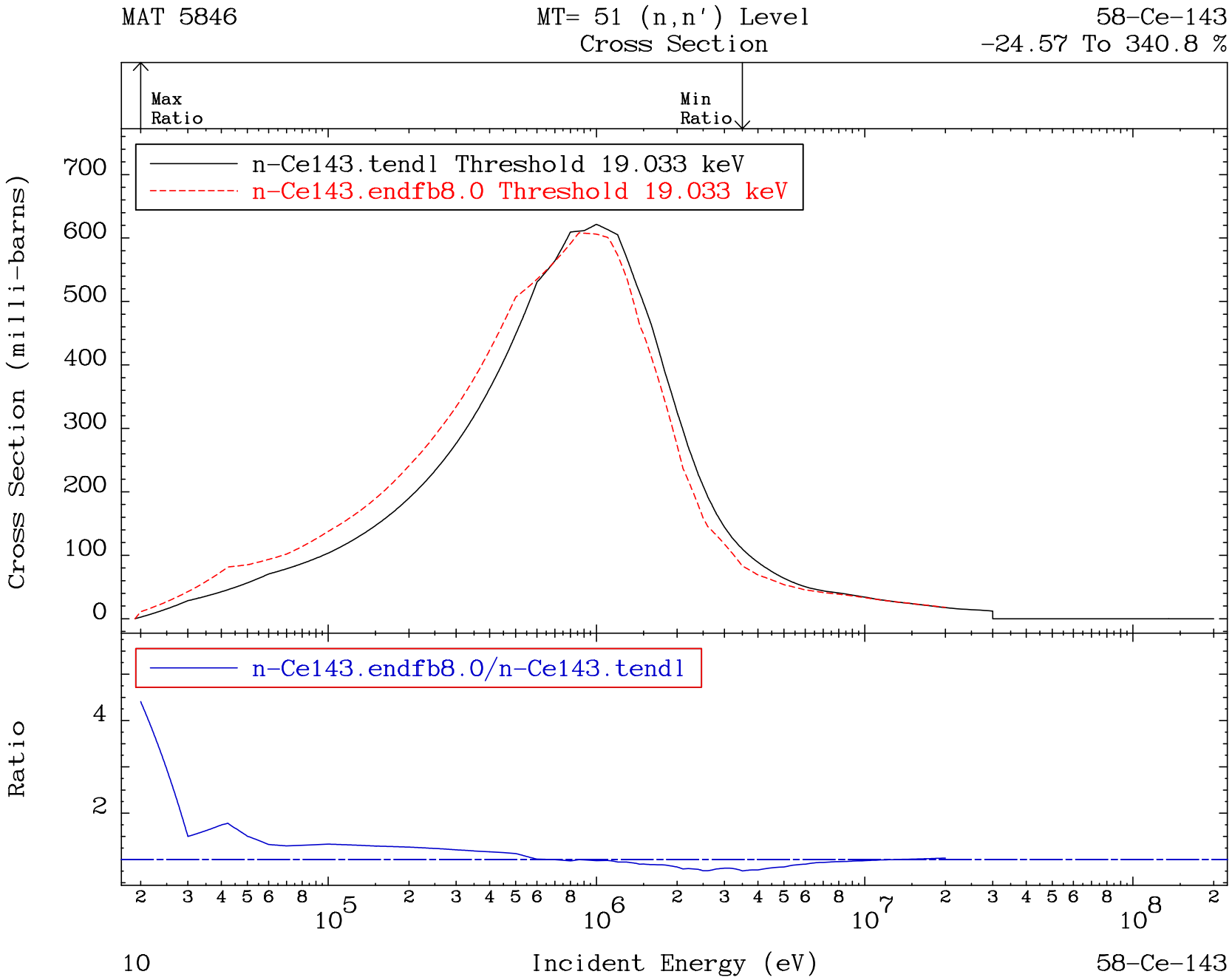

MAT 5846
(n,3n)
Cross Section
58-Ce-143
-82.07 To -3.708%
Min Ratio
Max Ratio
n-Ce143.tendl Threshold 12.403 MeV
n-Ce143.endfb8.0 Threshold 12.400 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
58-Ce-143

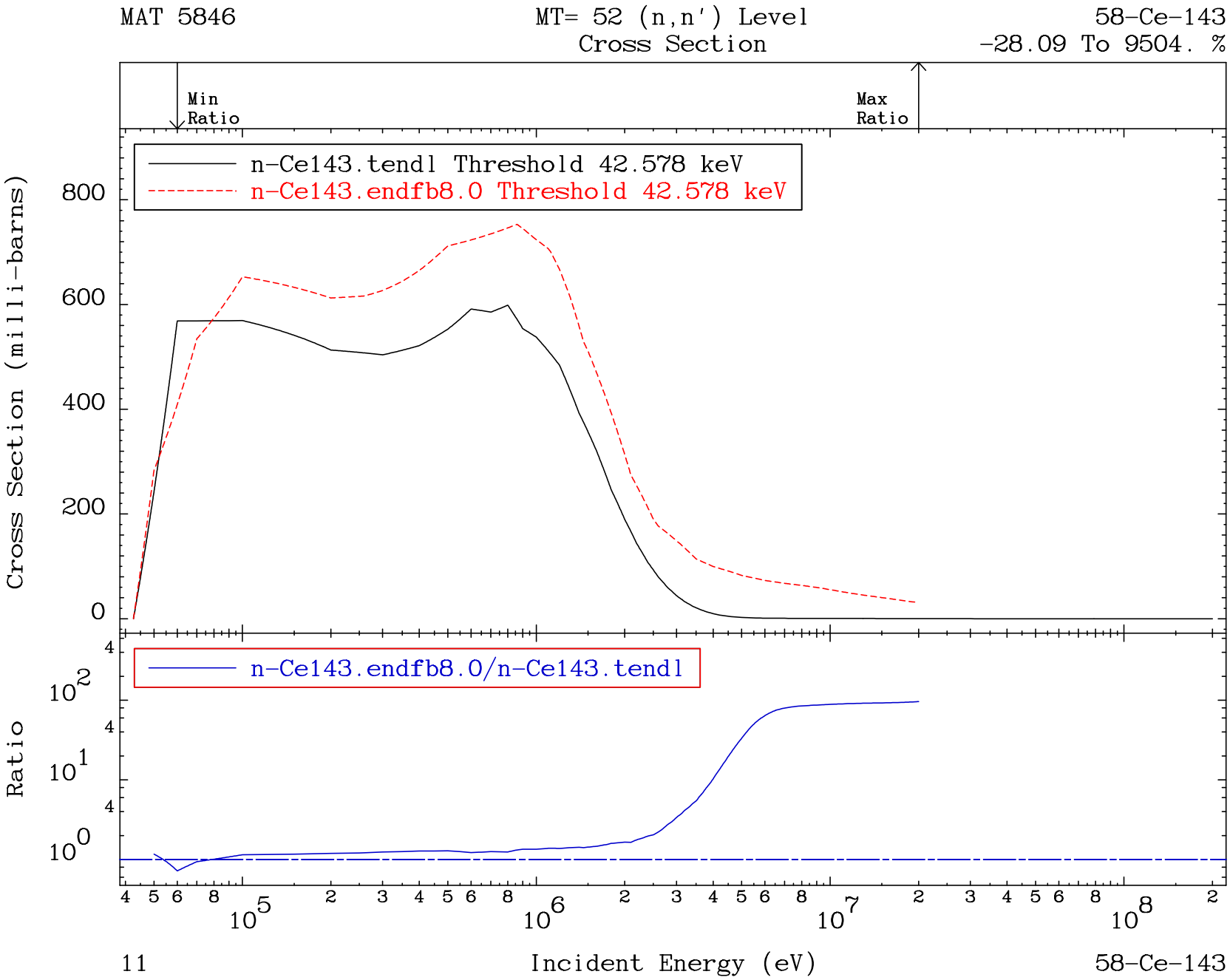

MAT 5846
(n,n') α
Cross Section
58-Ce-143
-48.92 To 5910. %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 2.0442 keV
n-Ce143.endfb8.0 Threshold 5.0000 MeV
Cross Section (milli-barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
6
58-Ce-143

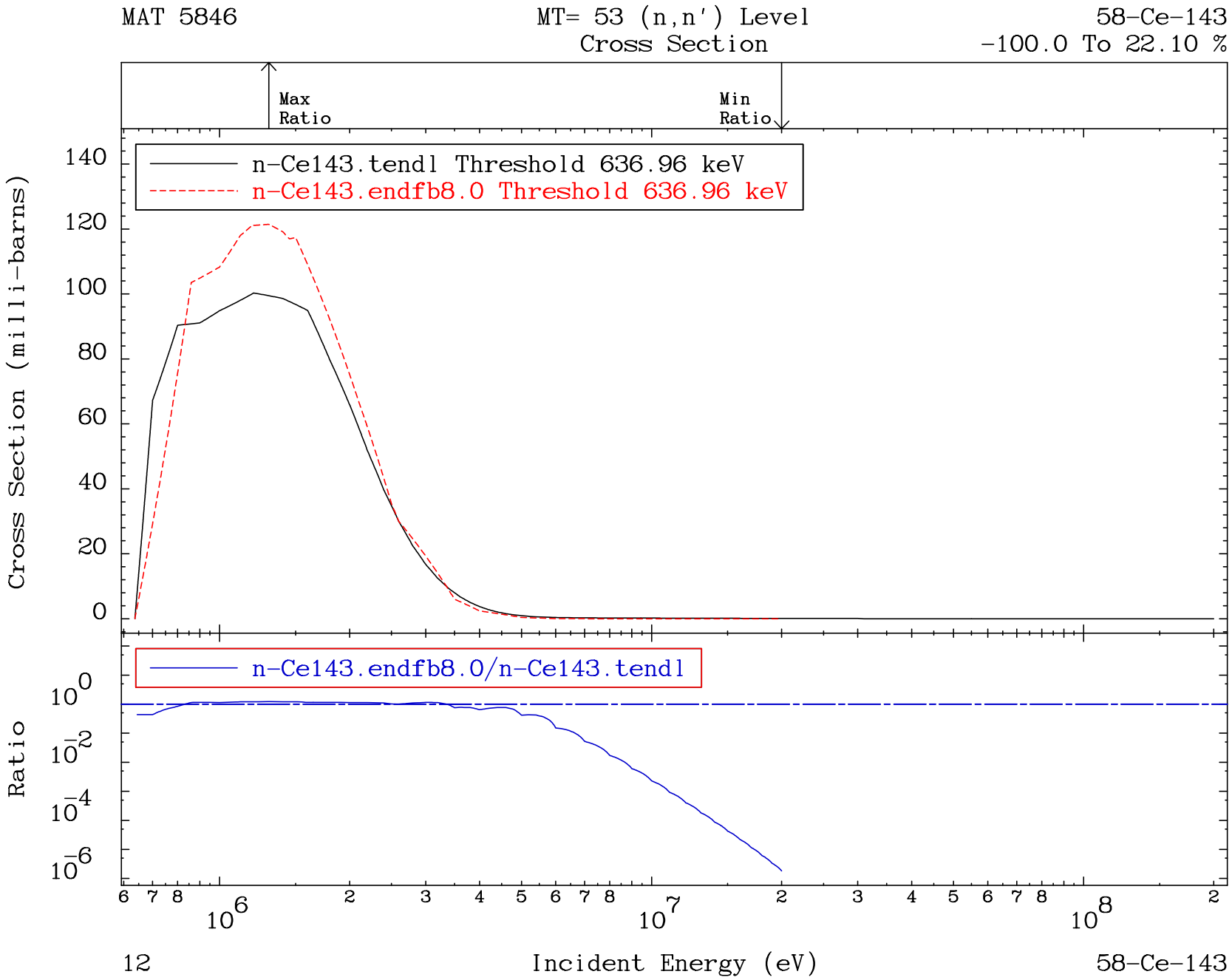

MAT 5846
(n,2n) α
Cross Section
58-Ce-143
-97.84 To 3060. %
Min Ratio
Max Ratio
n-Ce143.tendl Threshold 3.8684 MeV
n-Ce143.endfb8.0 Threshold 9.0000 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^{2}
10^{1}
10^{0}
10^{-1}
4 5 6 7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
Incident Energy (eV)
7
58-Ce-143

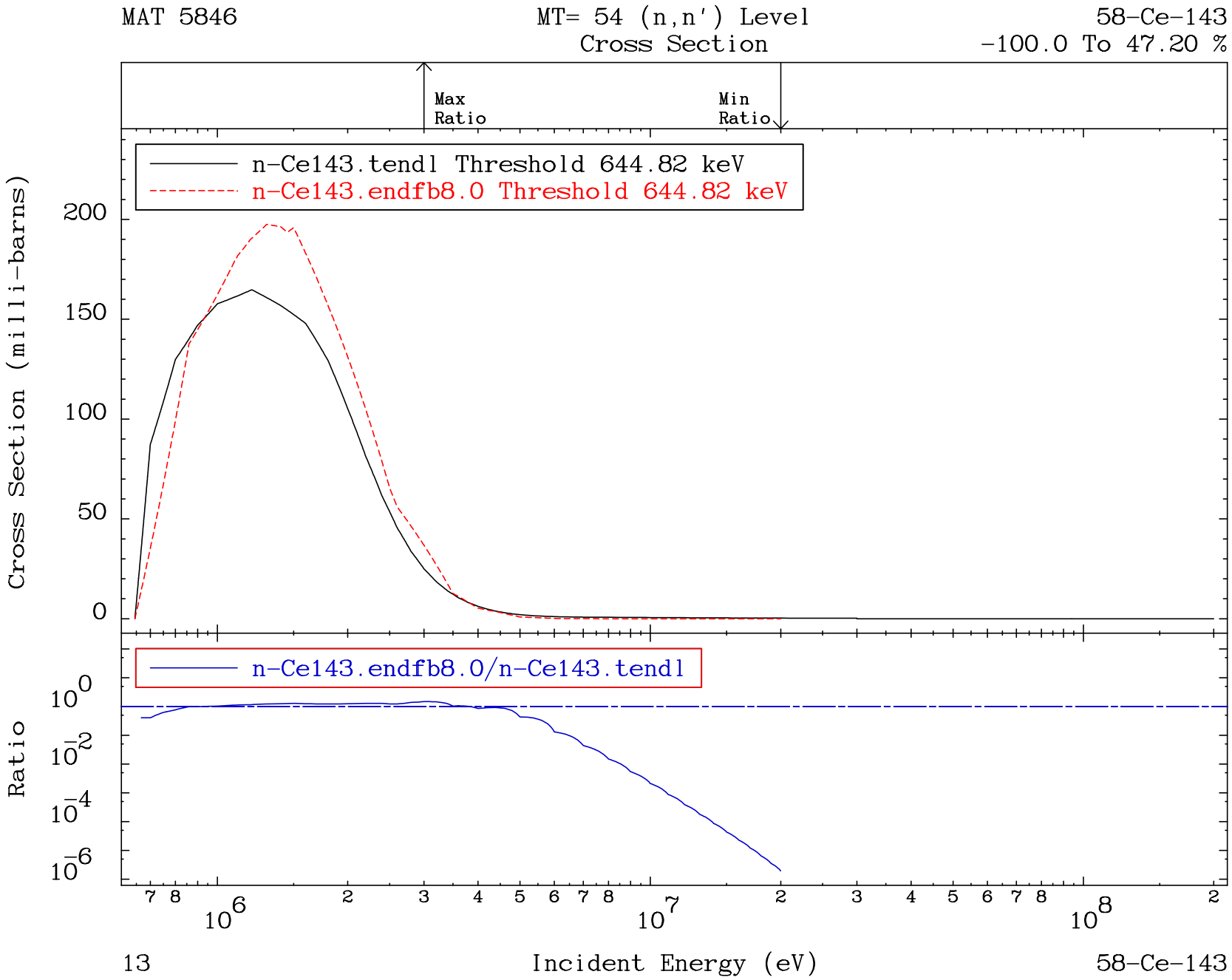

MAT 5846
(n,n') p
Cross Section
58-Ce-143
-99.78 To 112.9 %
Min Ratio
Max Ratio
n-Ce143.tendl Threshold 8.9340 MeV
n-Ce143.endfb8.0 Threshold 10.000 MeV
Cross Section (milli-barns)
0
10
20
30
40
50
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-1
10^-2
9
10^7
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
58-Ce-143

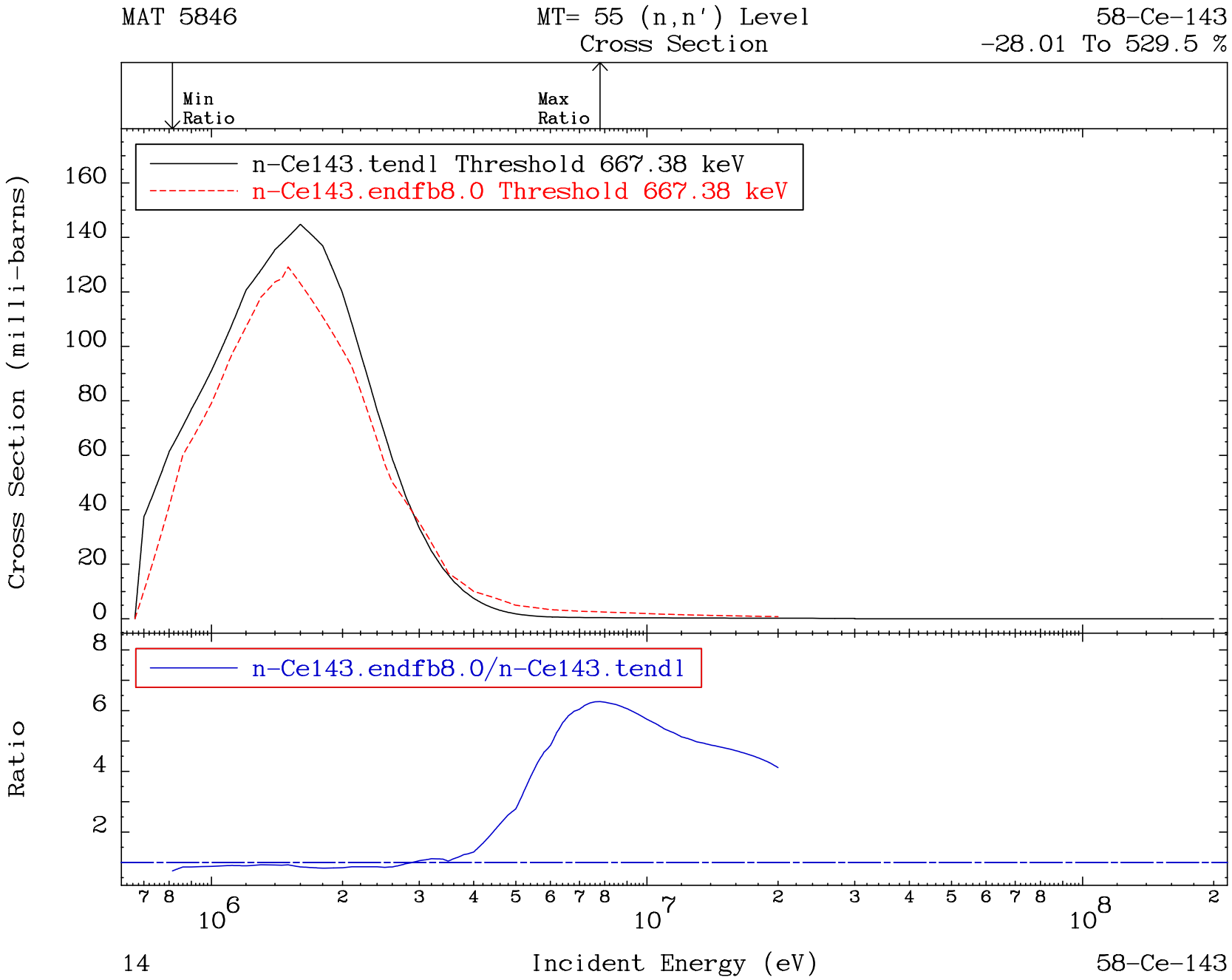

MAT 5846
(n,2n) p
Cross Section
58-Ce-143
-99.97 To 9999. %
Min
Ratio
n-Ce143.tendl Threshold 14.134 MeV
n-Ce143.endfb8.0 Threshold 14.132 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^4
10^2
10^0
10^-2
10^-4
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
58-Ce-143

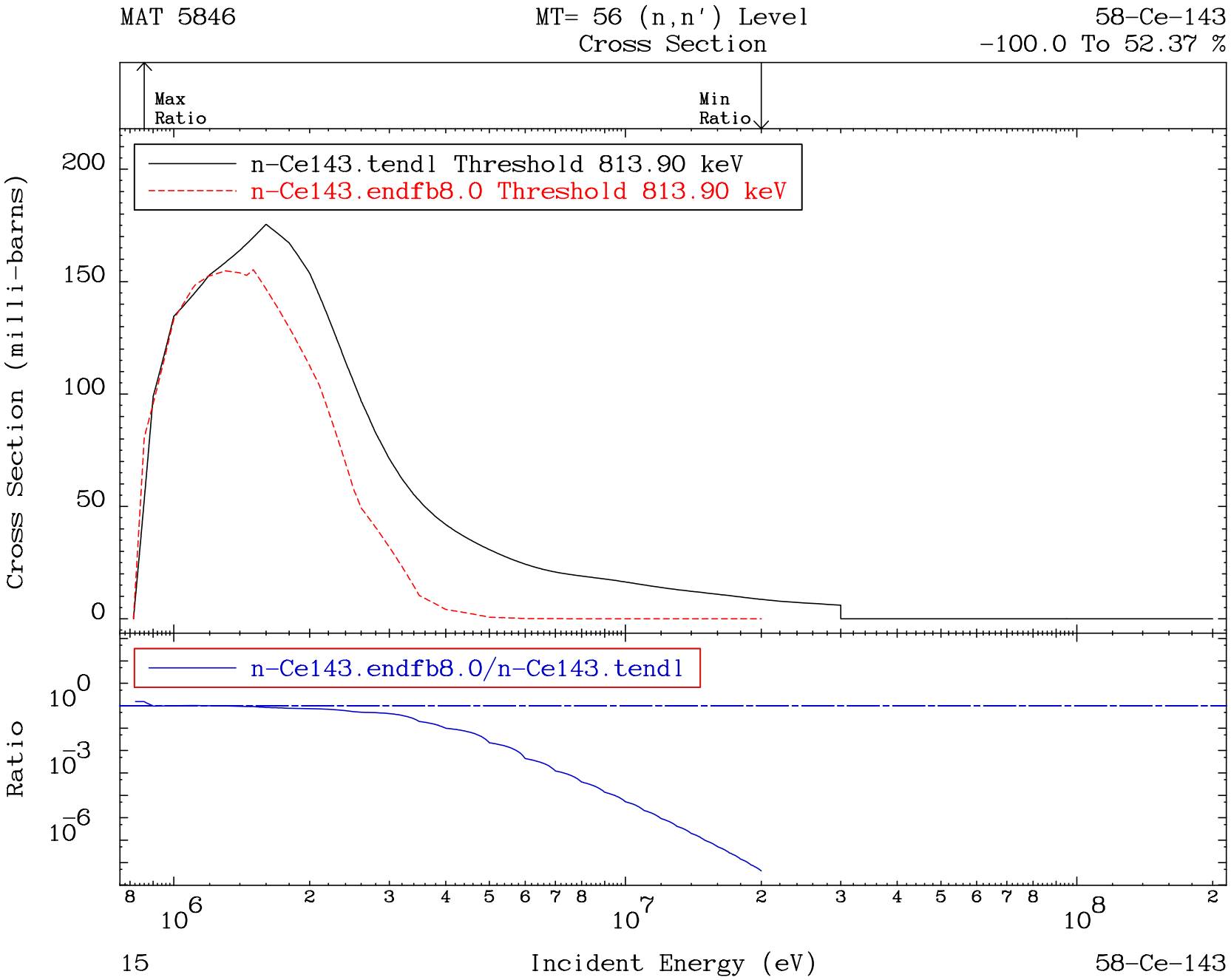

MAT 5846
MT= 51 (n,n') Level
Cross Section
58-Ce-143
-24.57 To 340.8 %
Max
Ratio
Min
Ratio
n-Ce143.tendl Threshold 19.033 keV
n-Ce143.endfb8.0 Threshold 19.033 keV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
4
2
2 3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
10
Incident Energy (eV)
58-Ce-143

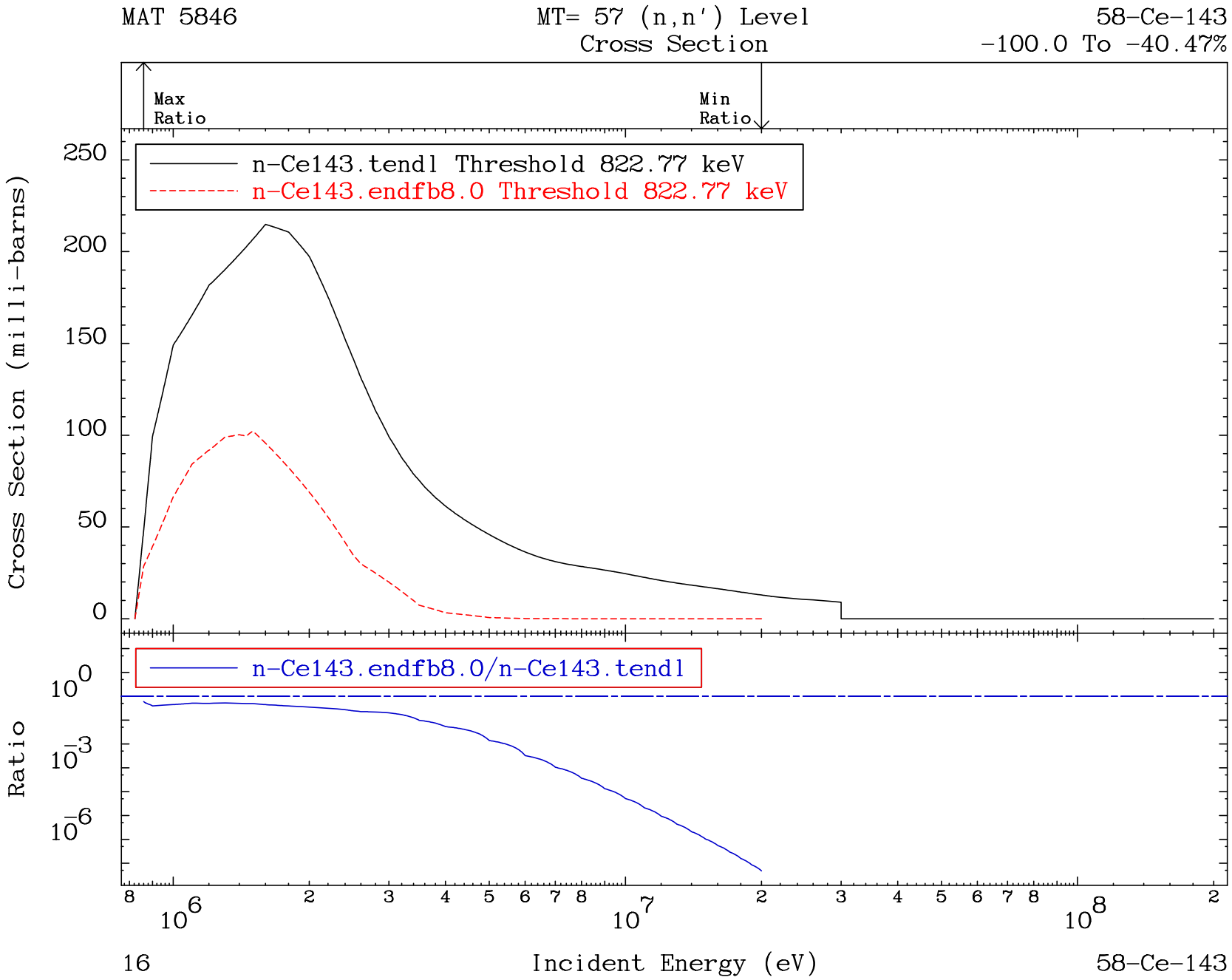

MAT 5846
MT= 52 (n,n') Level
Cross Section
58-Ce-143
-28.09 To 9504. %
Min
Ratio
Max
Ratio
n-Ce143.tendl Threshold 42.578 keV
n-Ce143.endfb8.0 Threshold 42.578 keV
Cross Section (milli-barns)
800
600
400
200
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^2
10^1
10^0
4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
11
Incident Energy (eV)
58-Ce-143

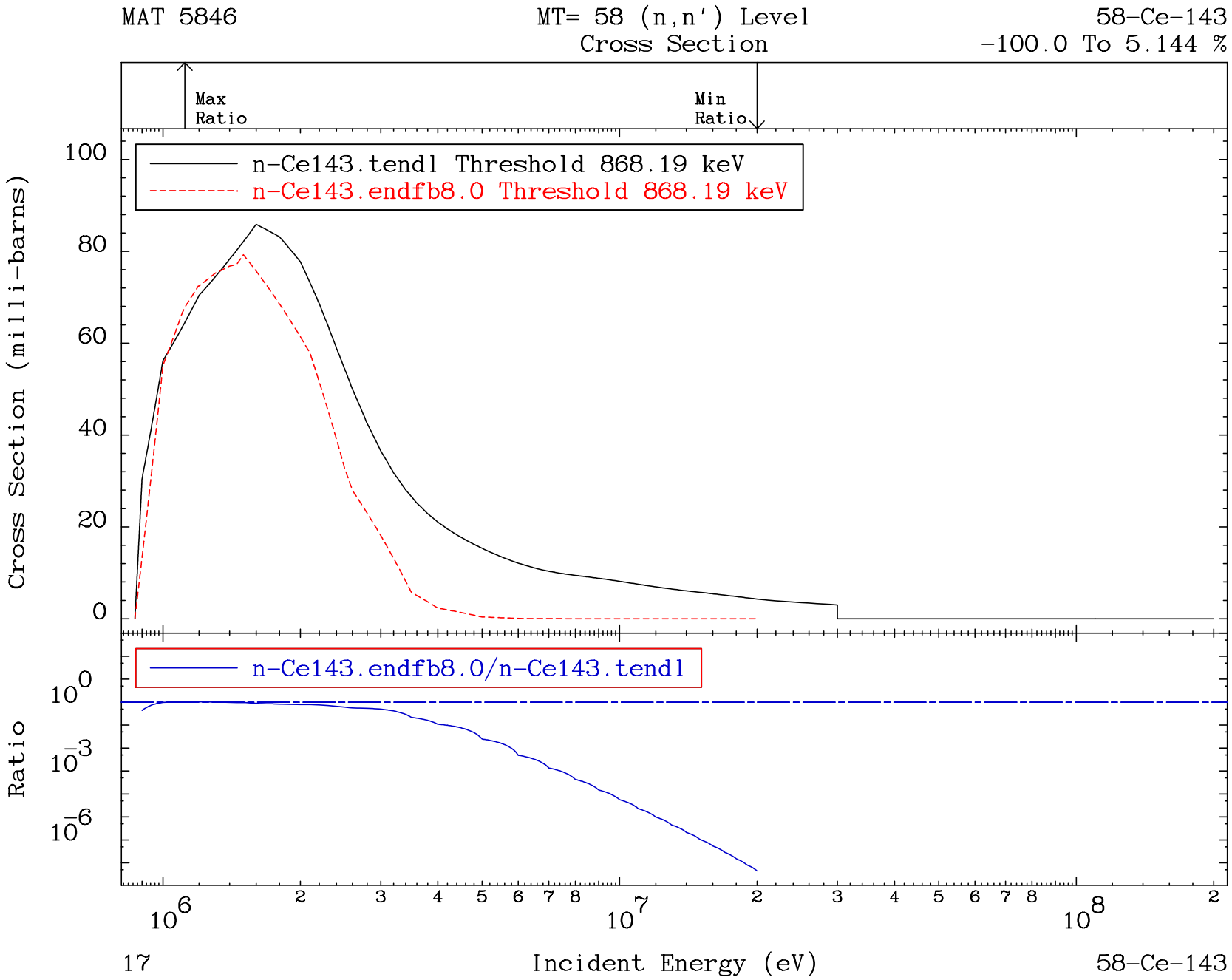

MAT 5846
MT= 53 (n,n') Level
Cross Section
58-Ce-143
-100.0 To 22.10 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 636.96 keV
n-Ce143.endfb8.0 Threshold 636.96 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-2
10^-4
10^-6
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
12
Incident Energy (eV)
58-Ce-143

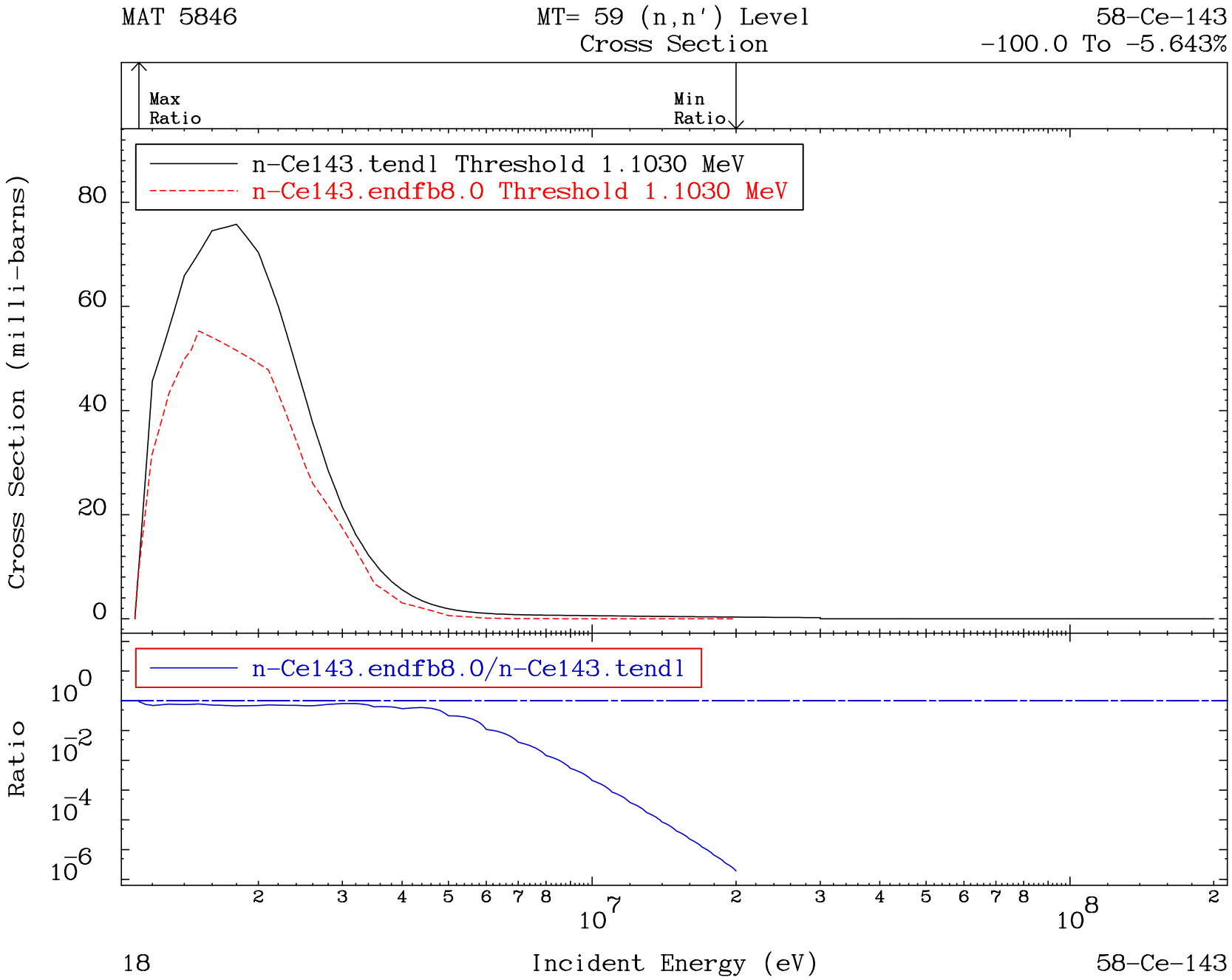

MAT 5846
MT= 54 (n,n') Level
Cross Section
58-Ce-143
-100.0 To 47.20 %
Max
Ratio
Min
Ratio
n-Ce143.tendl Threshold 644.82 keV
n-Ce143.endfb8.0 Threshold 644.82 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-2
10^-4
10^-6
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
13
Incident Energy (eV)
58-Ce-143

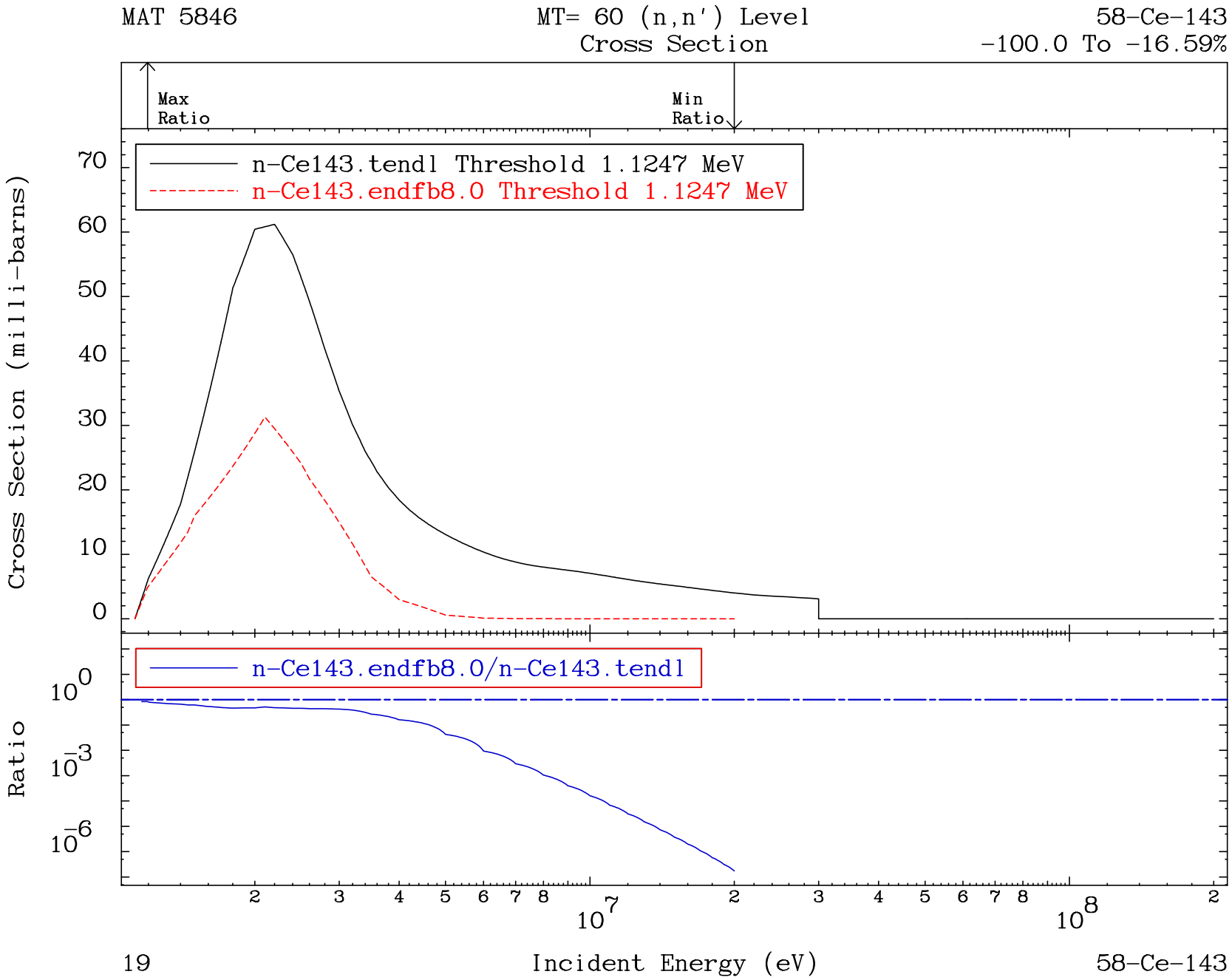

MAT 5846
MT= 55 (n,n') Level
Cross Section
58-Ce-143
-28.01 To 529.5 %
Min Ratio
Max Ratio
n-Ce143.tendl Threshold 667.38 keV
n-Ce143.endfb8.0 Threshold 667.38 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
8
6
4
2
7 8
10^6
2
3
4
5
6
7 8
10^7
2
3
4
5
6
7 8
10^8
2
14
Incident Energy (eV)
58-Ce-143

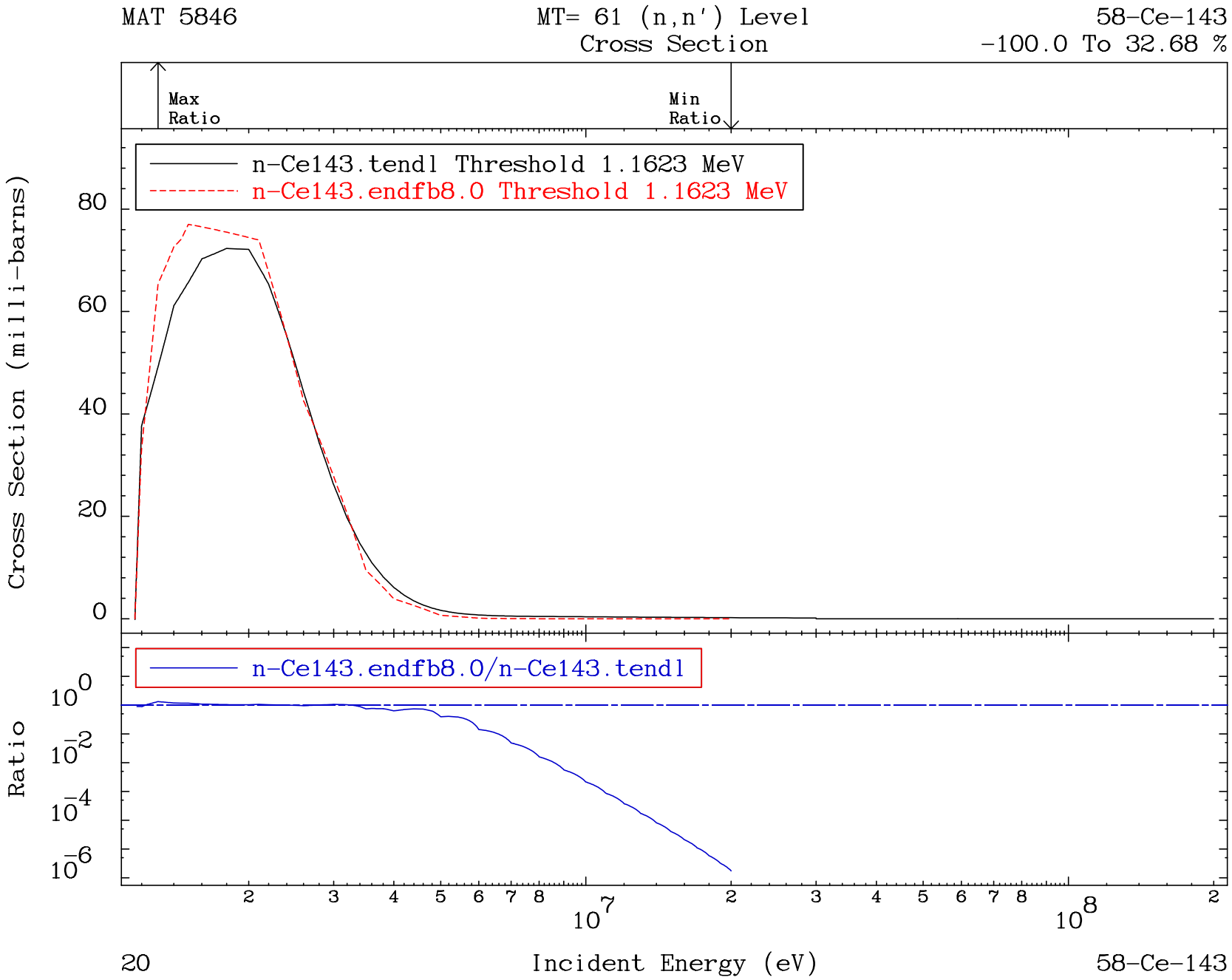

MAT 5846
MT= 56 (n,n') Level
Cross Section
58-Ce-143
-100.0 To 52.37 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 813.90 keV
n-Ce143.endfb8.0 Threshold 813.90 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-3
10^-6
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
15
Incident Energy (eV)
58-Ce-143

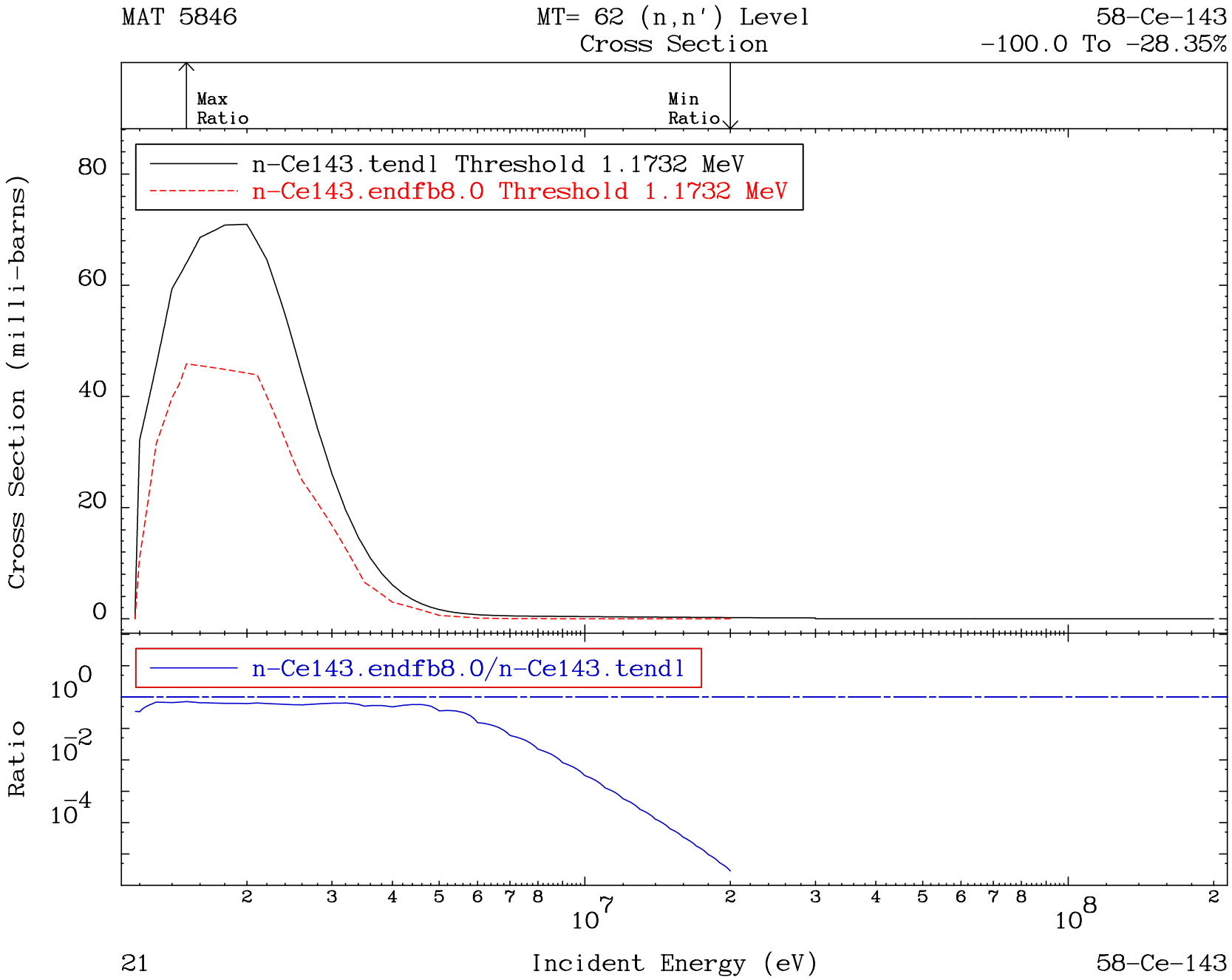

MAT 5846
MT= 57 (n,n') Level
Cross Section
58-Ce-143
-100.0 To -40.47%
Max
Ratio
Min
Ratio
n-Ce143.tendl Threshold 822.77 keV
n-Ce143.endfb8.0 Threshold 822.77 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-3
10^-6
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
16
Incident Energy (eV)
58-Ce-143

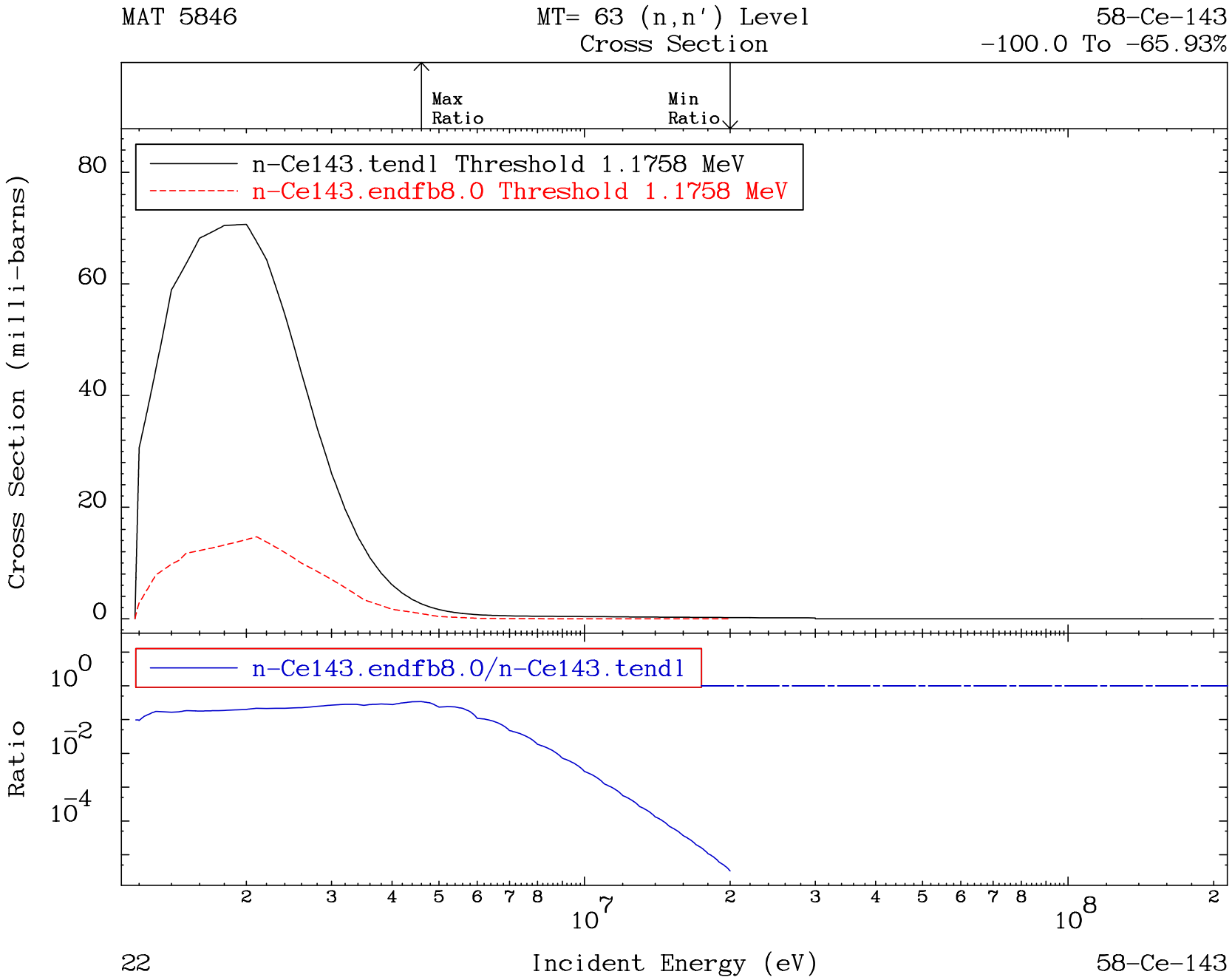

MAT 5846
MT= 58 (n,n') Level
Cross Section
58-Ce-143
-100.0 To 5.144 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 868.19 keV
n-Ce143.endfb8.0 Threshold 868.19 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-3
10^-6
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
17
Incident Energy (eV)
58-Ce-143

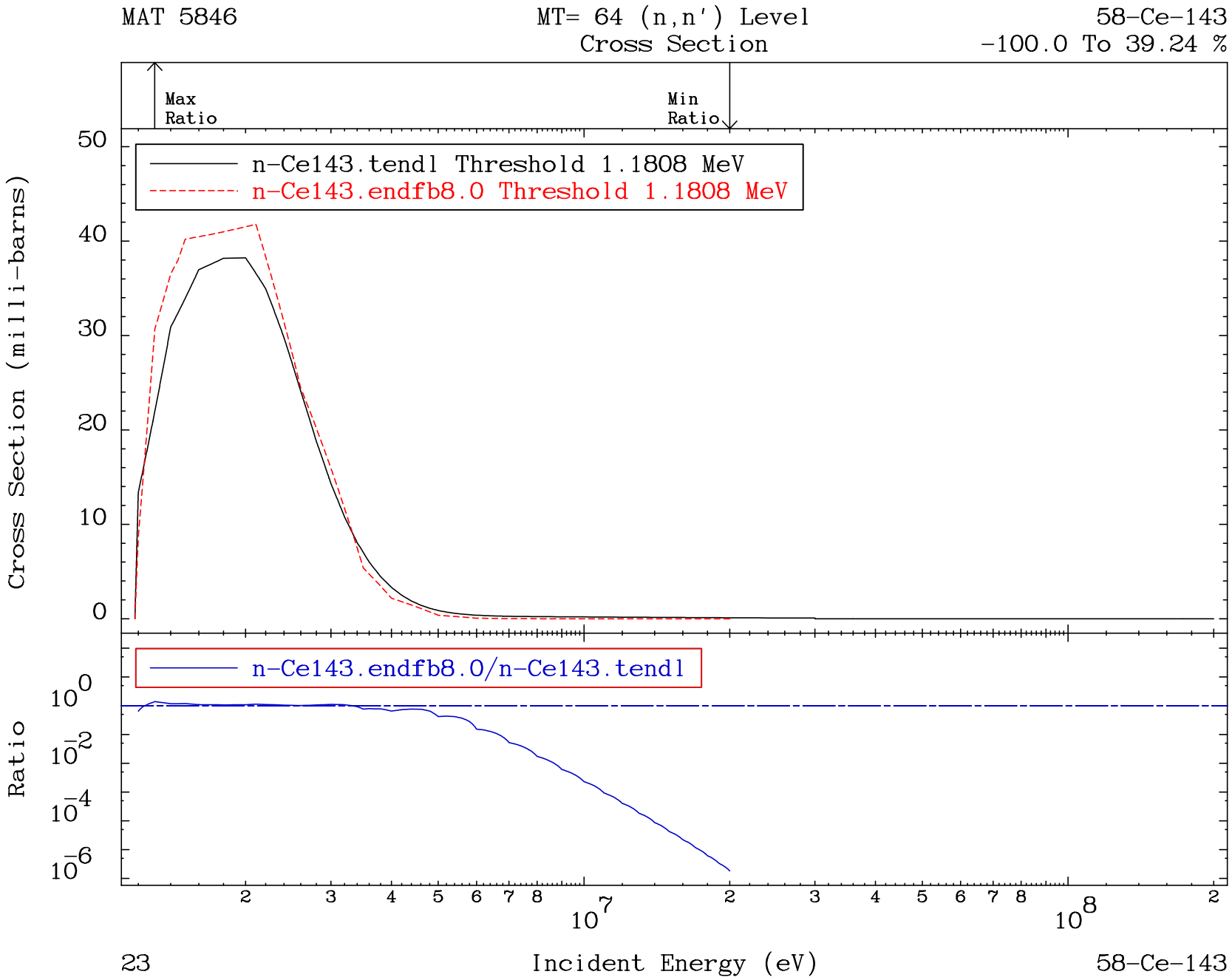

MAT 5846
MT= 59 (n,n') Level
Cross Section
58-Ce-143
-100.0 To -5.643%
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 1.1030 MeV
n-Ce143.endfb8.0 Threshold 1.1030 MeV
Cross Section (milli-barns)
0
20
40
60
80
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^{0}
10^{-2}
10^{-4}
10^{-6}
2 3 4 5 6 7 8 10^{7} 2 3 4 5 6 7 8 10^{8} 2
18
Incident Energy (eV)
58-Ce-143

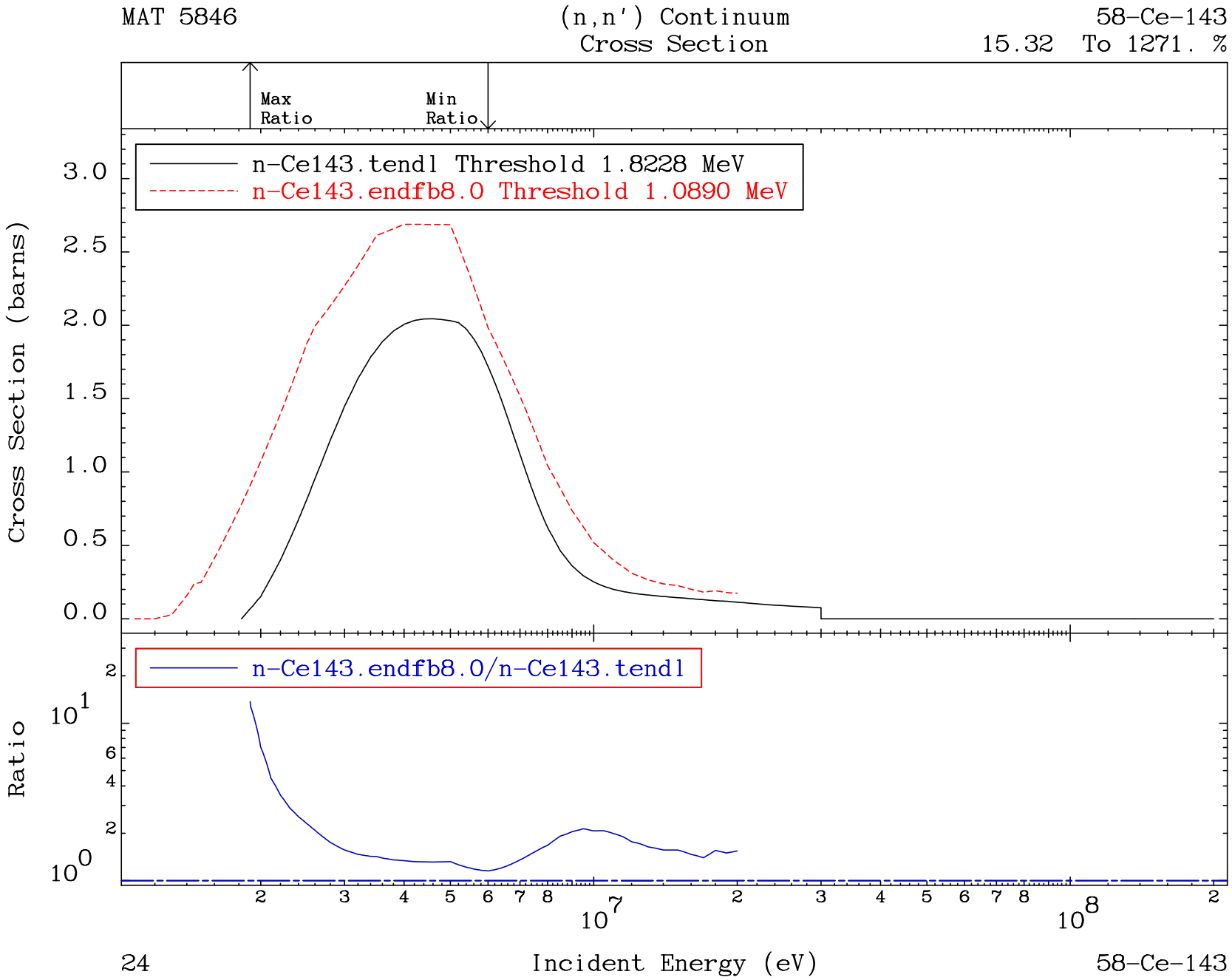

MAT 5846
MT= 60 (n,n') Level
Cross Section
58-Ce-143
-100.0 To -16.59%
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 1.1247 MeV
n-Ce143.endfb8.0 Threshold 1.1247 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-3
10^-6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
19
Incident Energy (eV)
58-Ce-143

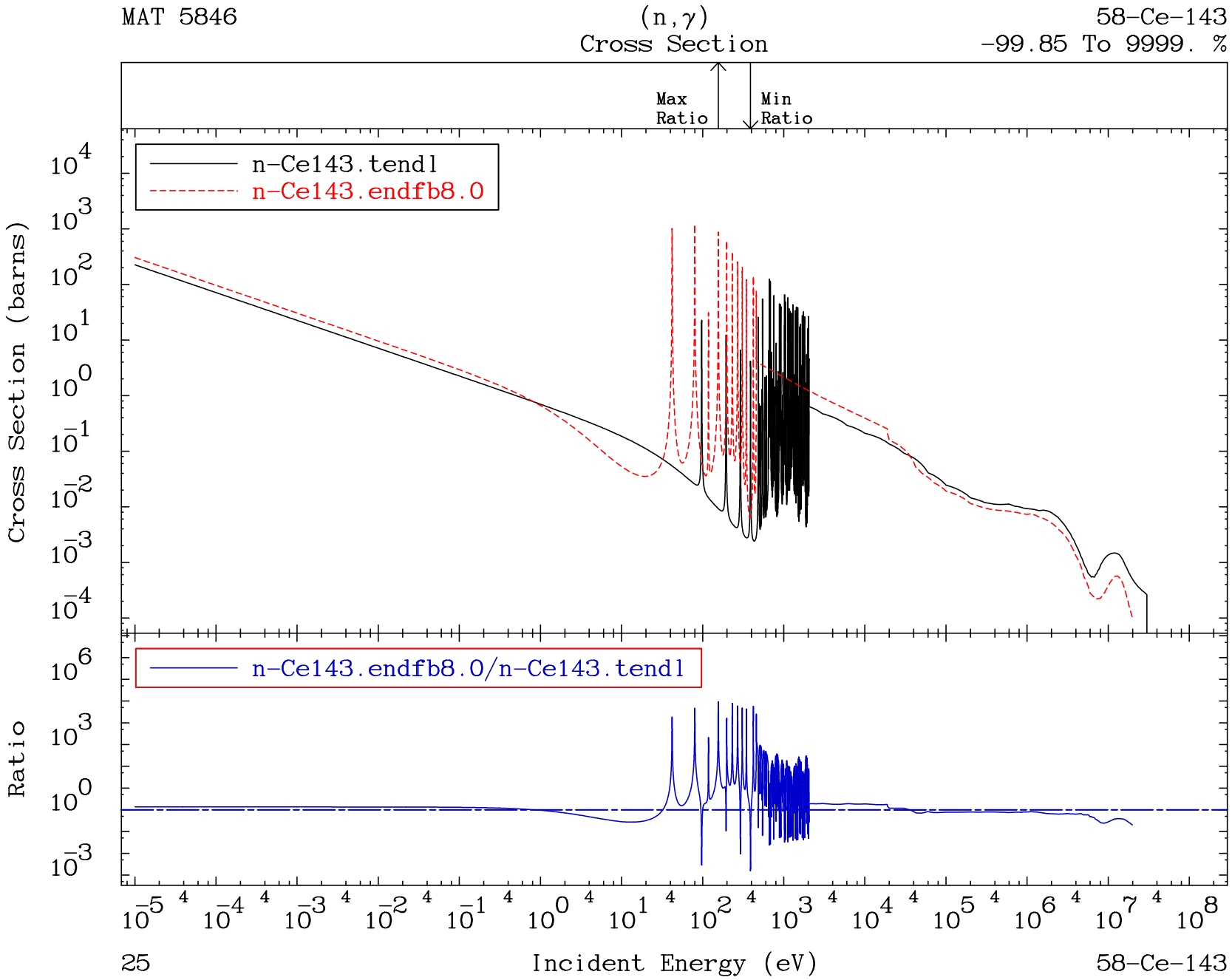

MAT 5846
MT= 61 (n,n') Level
Cross Section
58-Ce-143
-100.0 To 32.68 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 1.1623 MeV
n-Ce143.endfb8.0 Threshold 1.1623 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-2
10^-4
10^-6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
20
Incident Energy (eV)
58-Ce-143

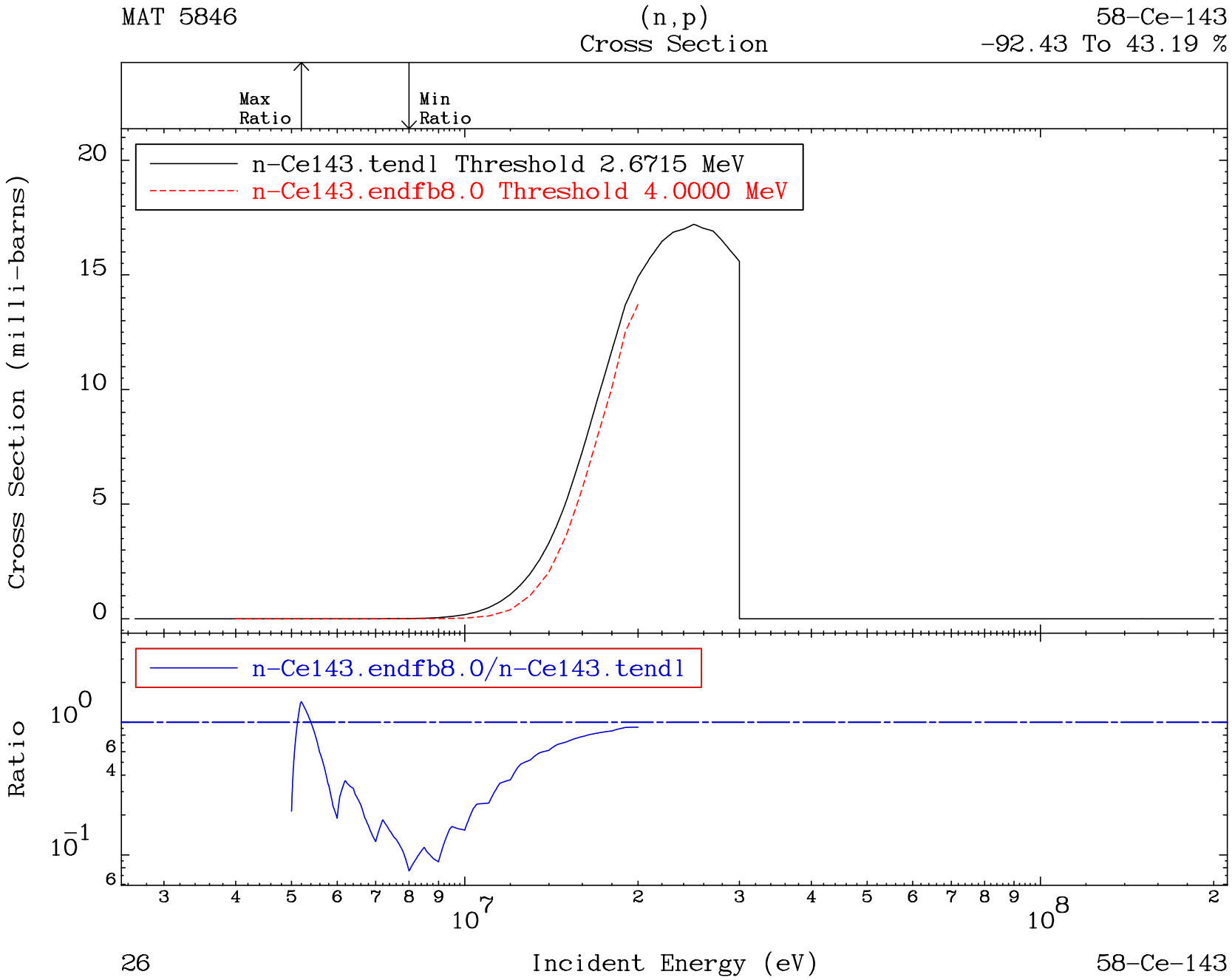

MAT 5846
MT= 62 (n,n') Level
Cross Section
58-Ce-143
-100.0 To -28.35%
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 1.1732 MeV
n-Ce143.endfb8.0 Threshold 1.1732 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-2
10^-4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
58-Ce-143

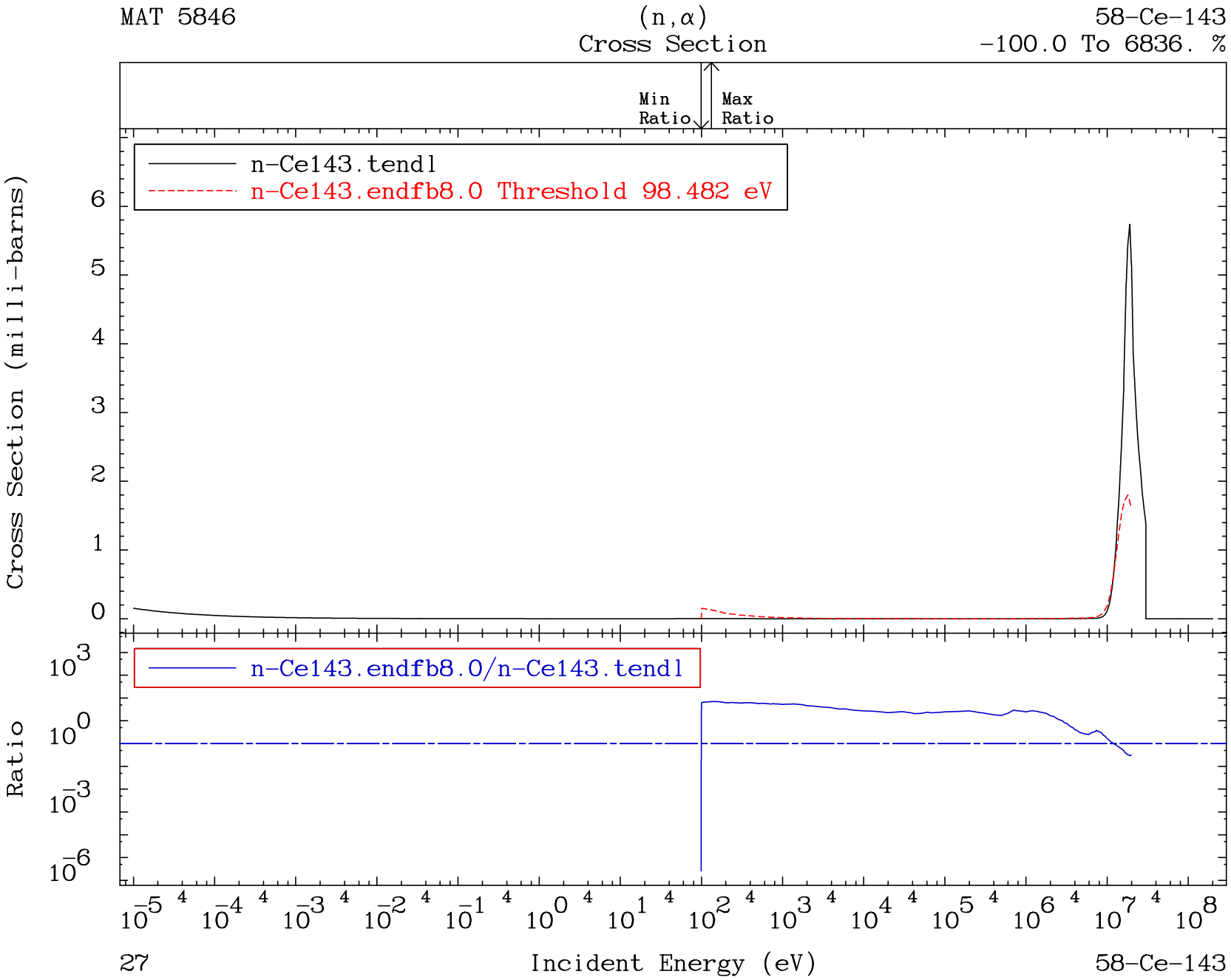

MAT 5846
MT= 63 (n,n') Level
Cross Section
58-Ce-143
-100.0 To -65.93%
Max
Ratio
Min
Ratio
n-Ce143.tendl Threshold 1.1758 MeV
n-Ce143.endfb8.0 Threshold 1.1758 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-2
10^-4
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
22
Incident Energy (eV)
58-Ce-143

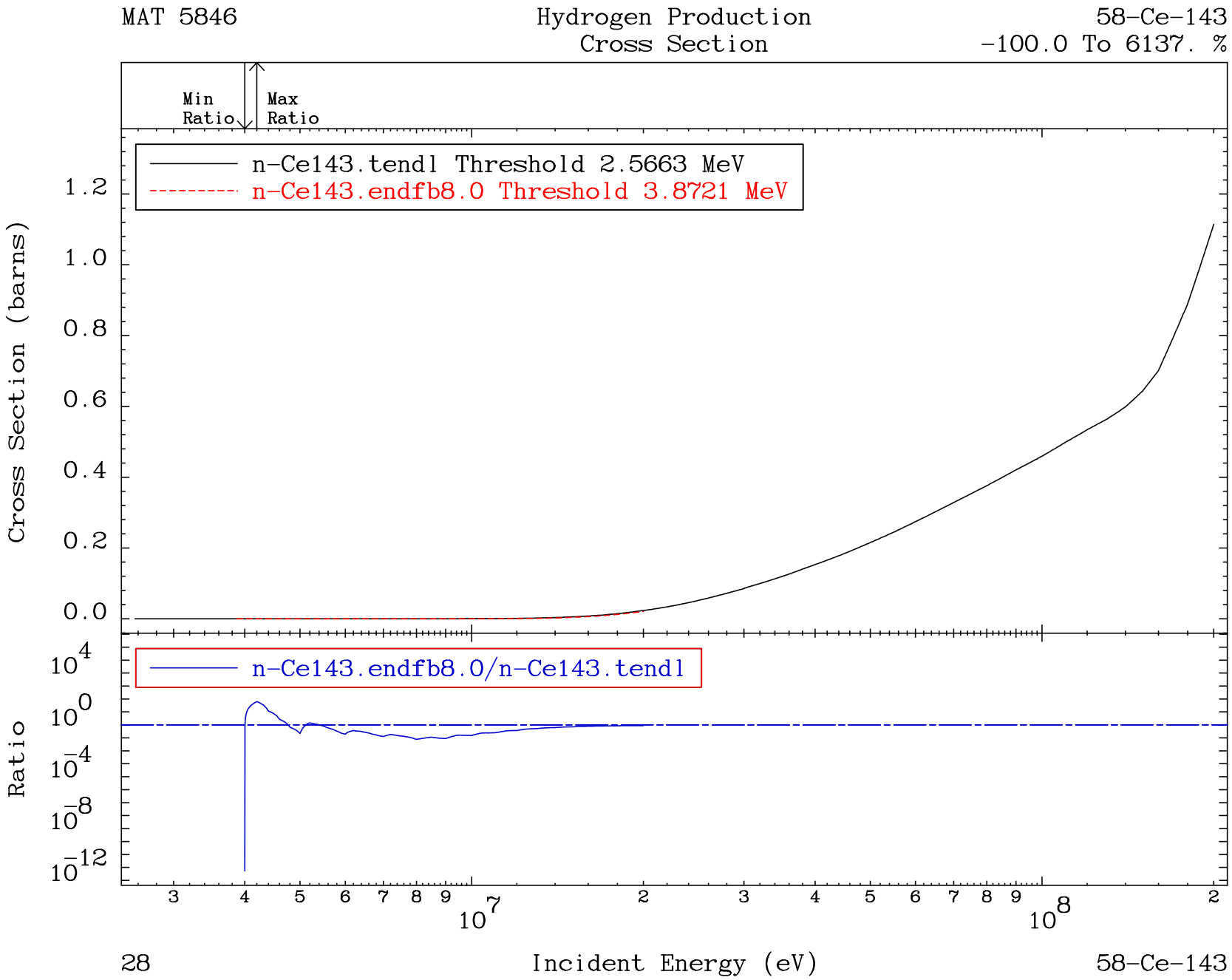

MAT 5846
MT= 64 (n,n') Level
Cross Section
58-Ce-143
-100.0 To 39.24 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 1.1808 MeV
n-Ce143.endfb8.0 Threshold 1.1808 MeV
Cross Section (milli-barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
23
58-Ce-143

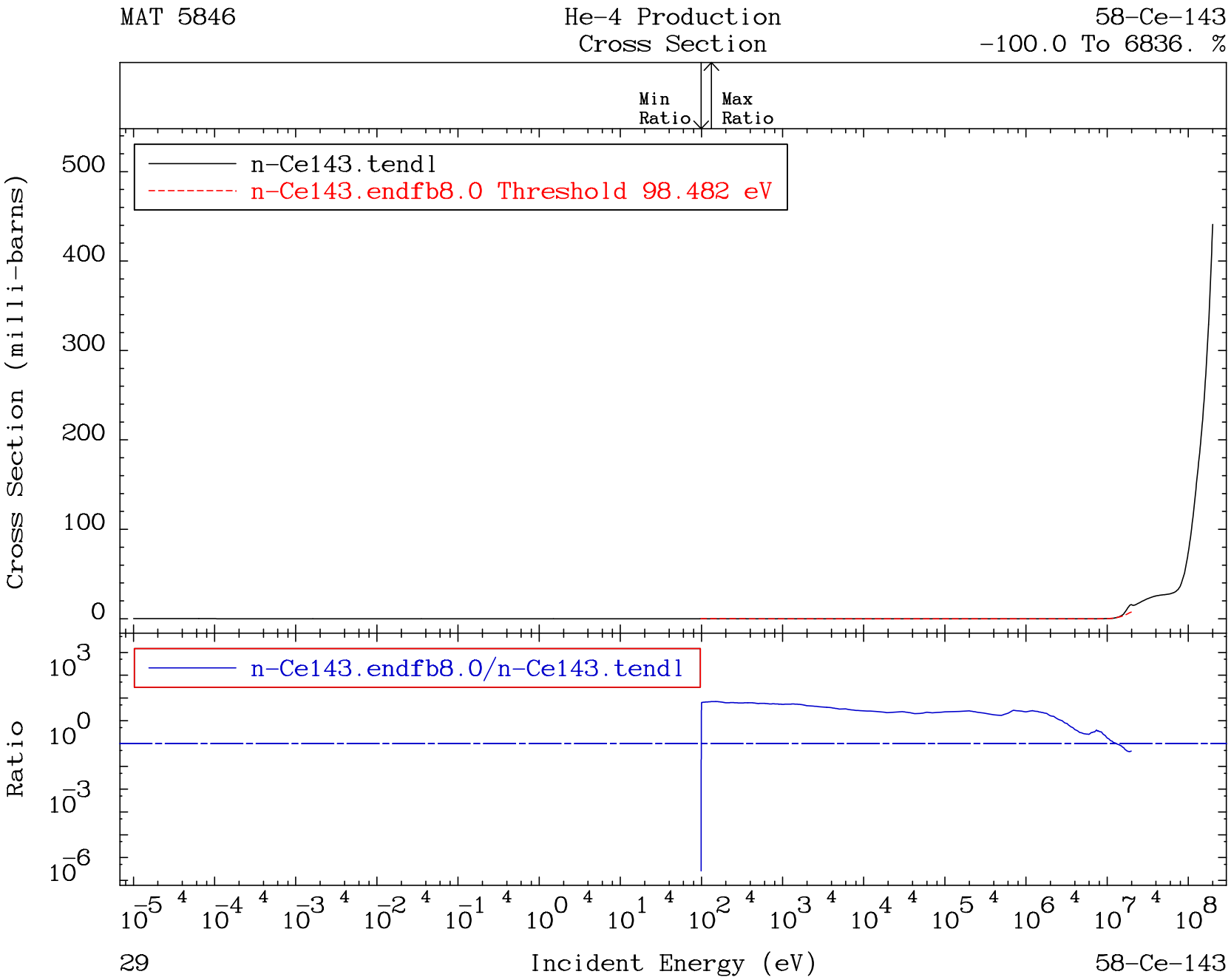

MAT 5846
(n,n') Continuum
Cross Section
58-Ce-143
15.32 To 1271. %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 1.8228 MeV
n-Ce143.endfb8.0 Threshold 1.0890 MeV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
2
10^1
6
4
2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
58-Ce-143

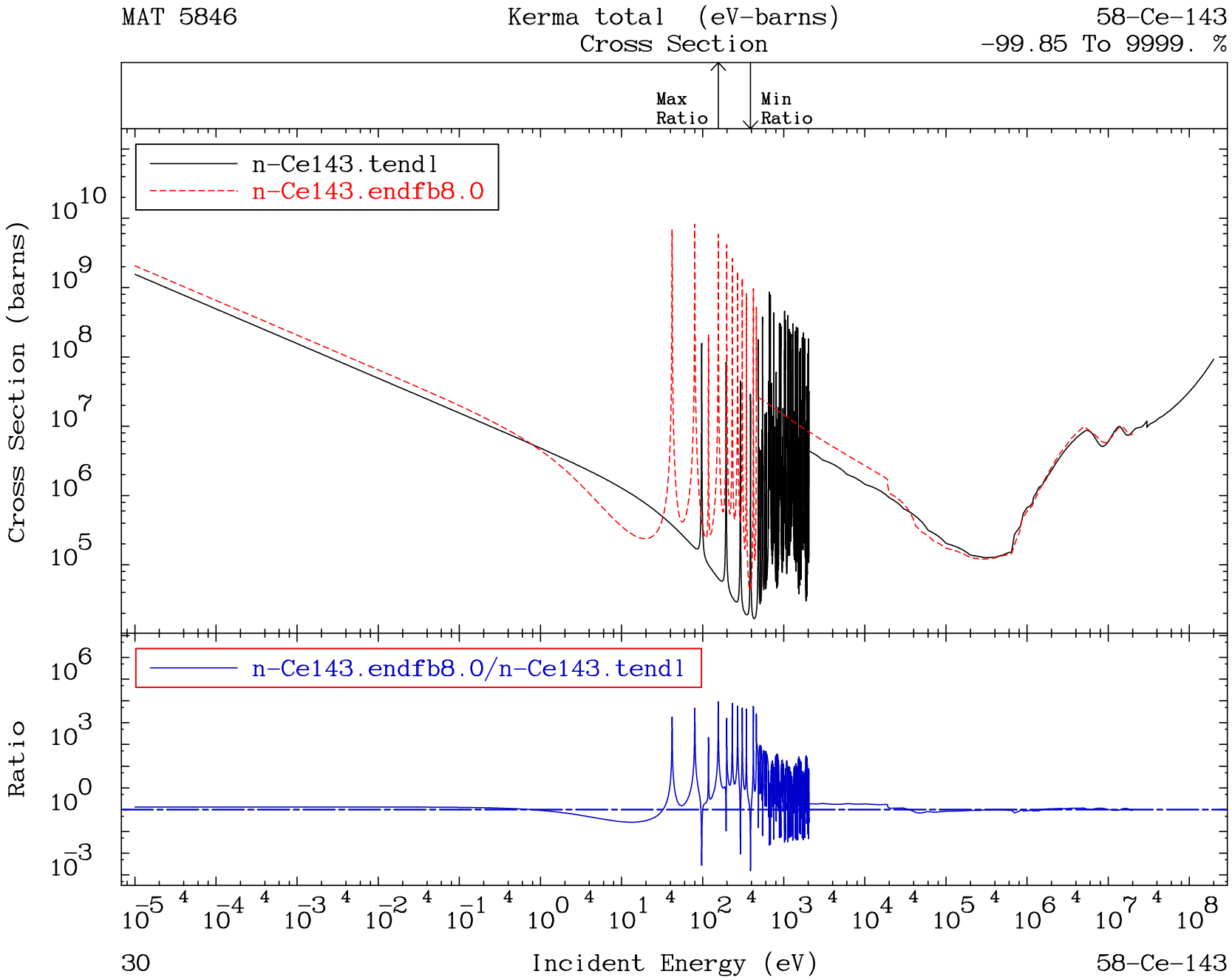

MAT 5846
(n,γ)
Cross Section
58-Ce-143
-99.85 To 9999. %
Max Ratio
Min Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
25
58-Ce-143

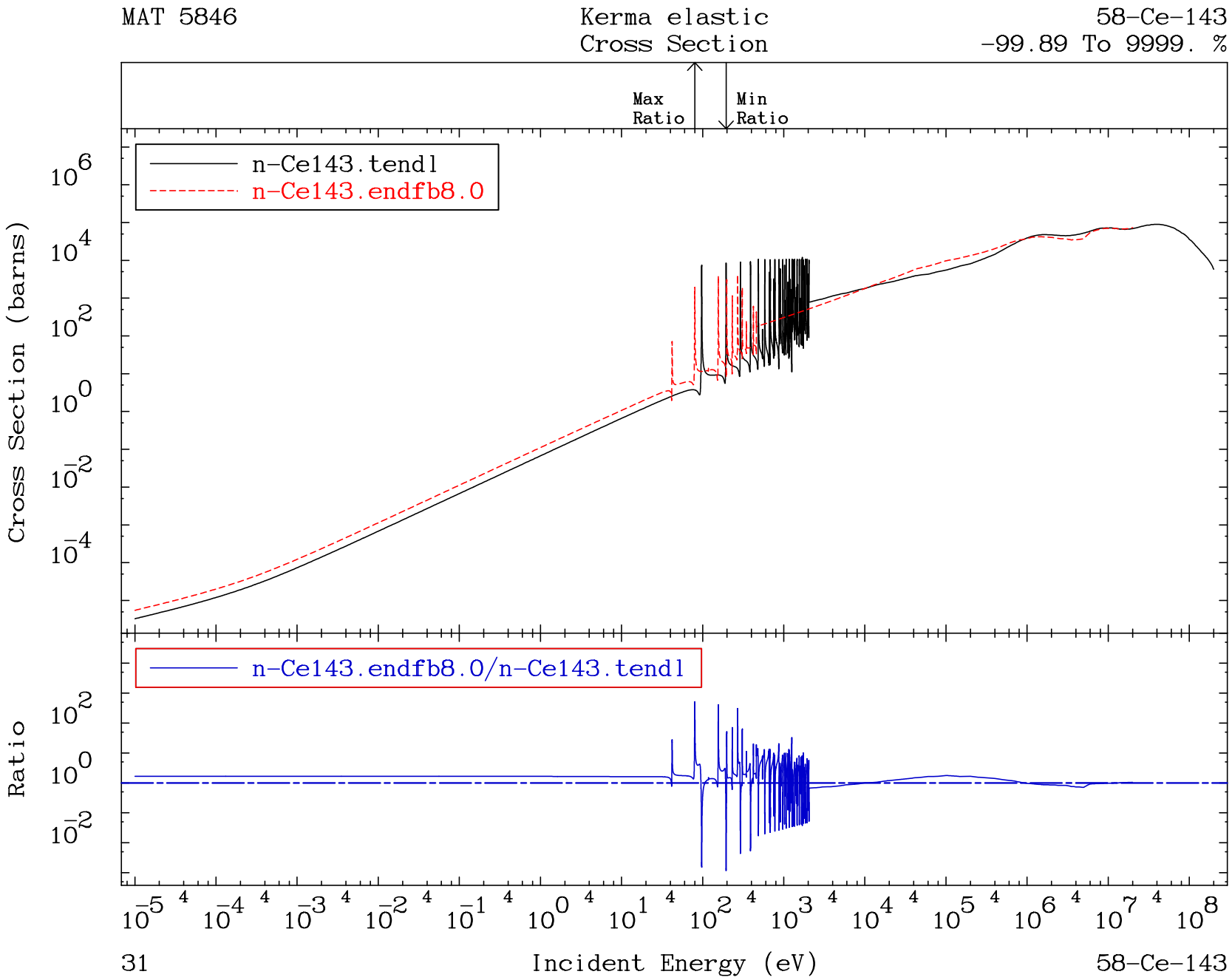

MAT 5846
(n,p)
Cross Section
58-Ce-143
-92.43 To 43.19 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 2.6715 MeV
n-Ce143.endfb8.0 Threshold 4.0000 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^0
10^-1
6
4
6
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
58-Ce-143

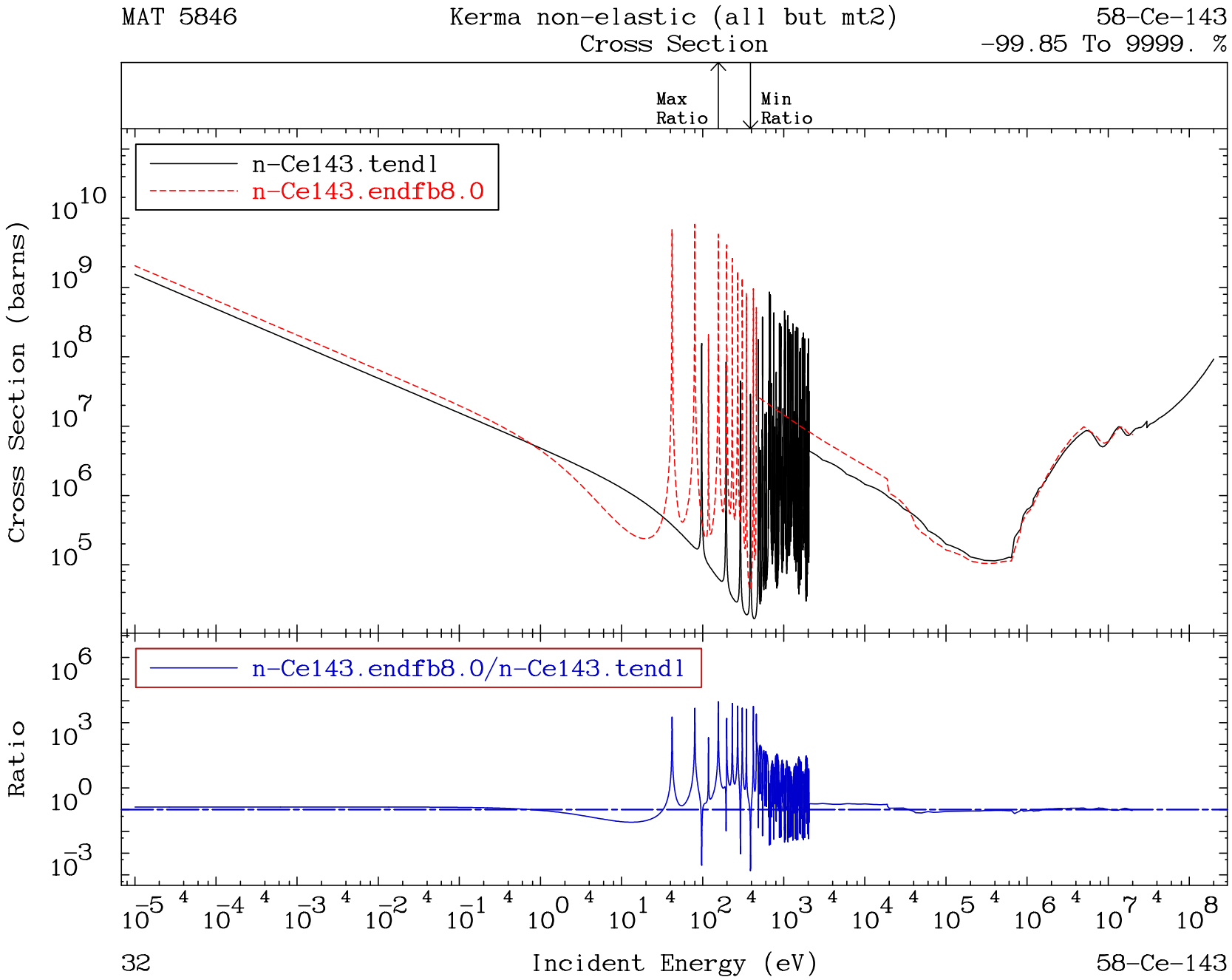

MAT 5846
(n,α)
Cross Section
58-Ce-143
-100.0 To 6836. %
Min Ratio
Max Ratio
n-Ce143.tendl
n-Ce143.endfb8.0 Threshold 98.482 eV
Cross Section (milli-barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
27
58-Ce-143

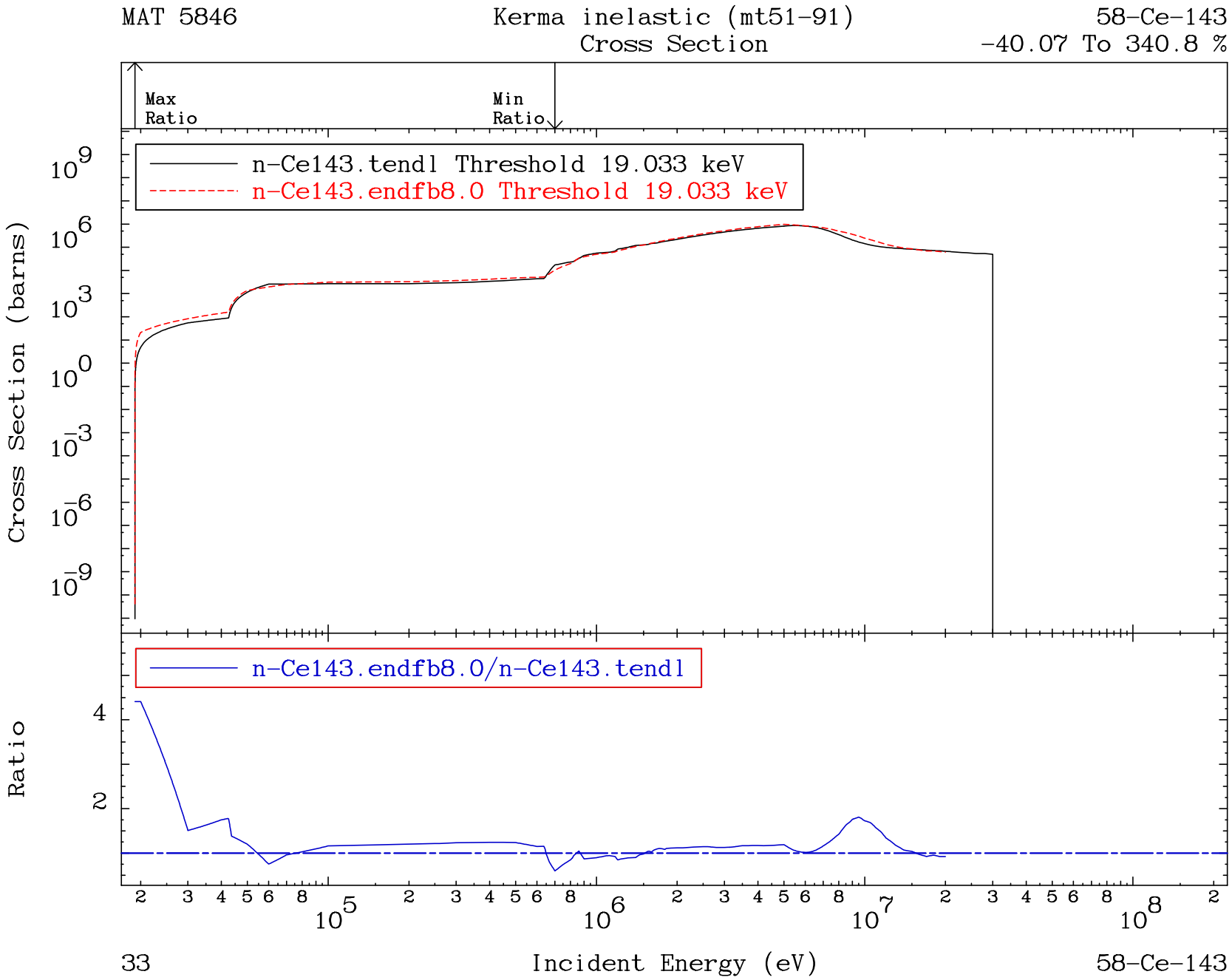

MAT 5846
Hydrogen Production
Cross Section
58-Ce-143
-100.0 To 6137. %
Min Ratio
Max Ratio
n-Ce143.tendl Threshold 2.5663 MeV
n-Ce143.endfb8.0 Threshold 3.8721 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^4
10^0
10^-4
10^-8
10^-12
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
28
Incident Energy (eV)
58-Ce-143

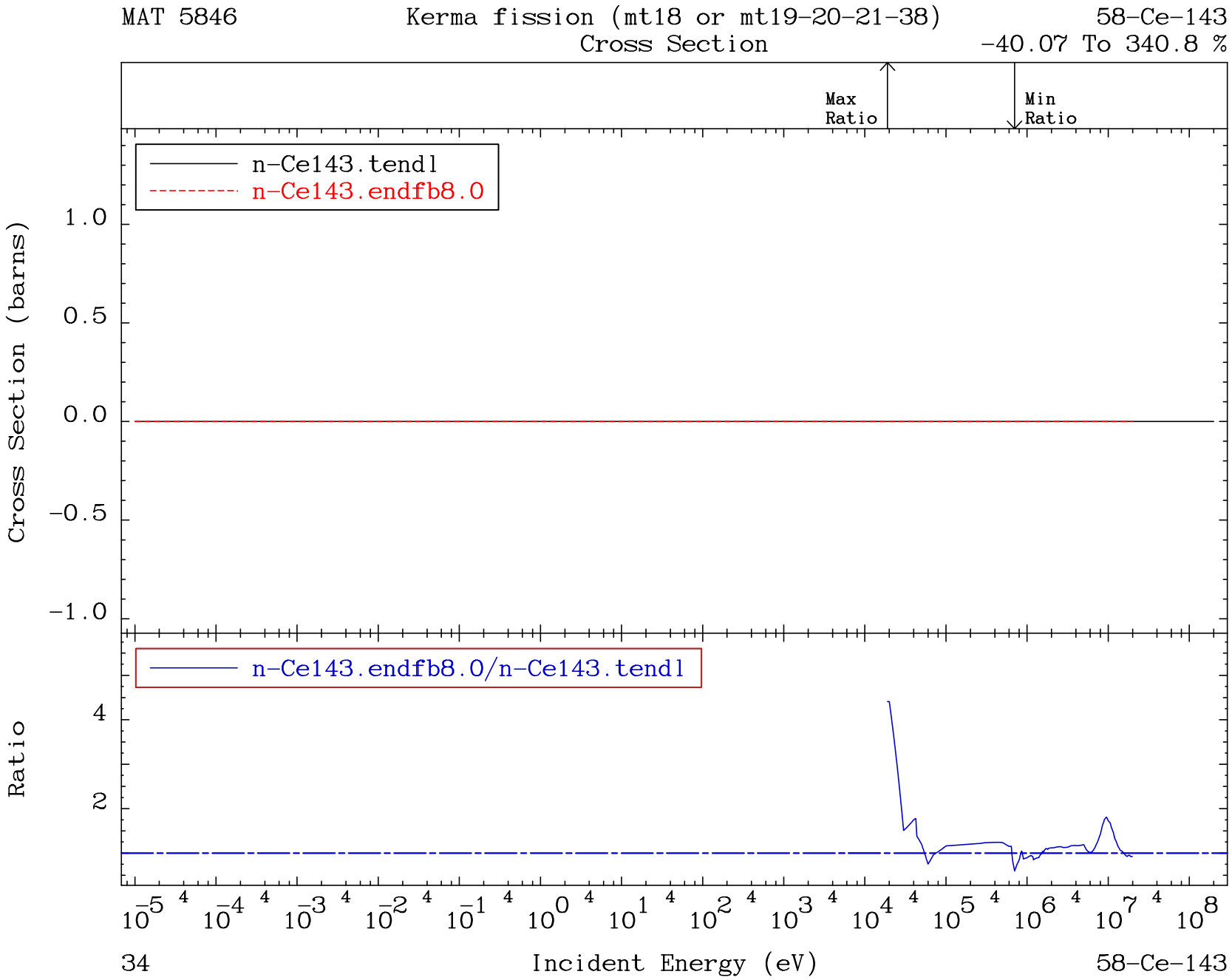

MAT 5846
He-4 Production
Cross Section
58-Ce-143
-100.0 To 6836. %
Min Ratio
Max Ratio
n-Ce143.tendl
n-Ce143.endfb8.0 Threshold 98.482 eV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
10^3
10^0
10^-3
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
29
Incident Energy (eV)
58-Ce-143

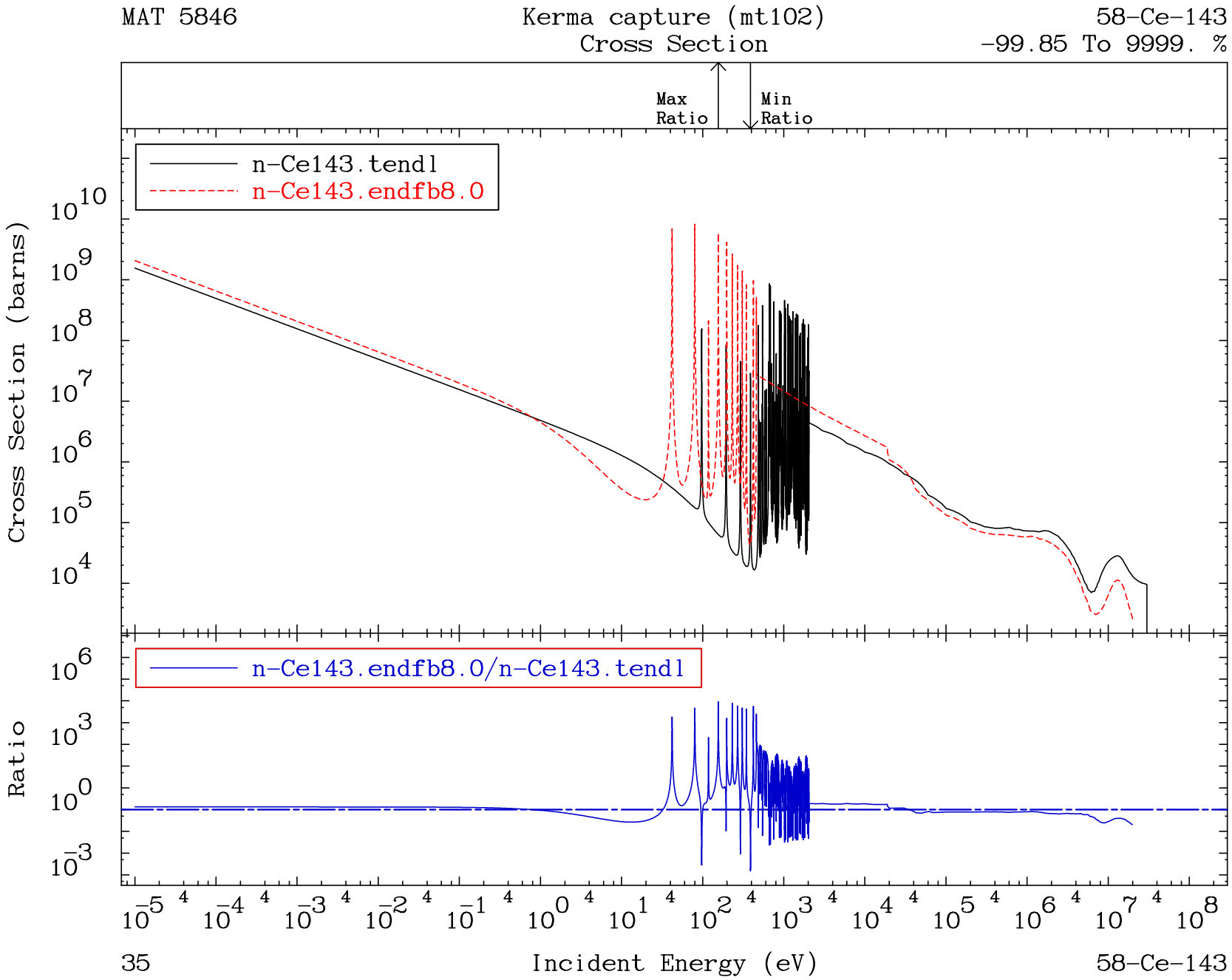

MAT 5846
Kerma total (eV-barns)
Cross Section
58-Ce-143
-99.85 To 9999. %
Max Ratio
Min Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
30
58-Ce-143

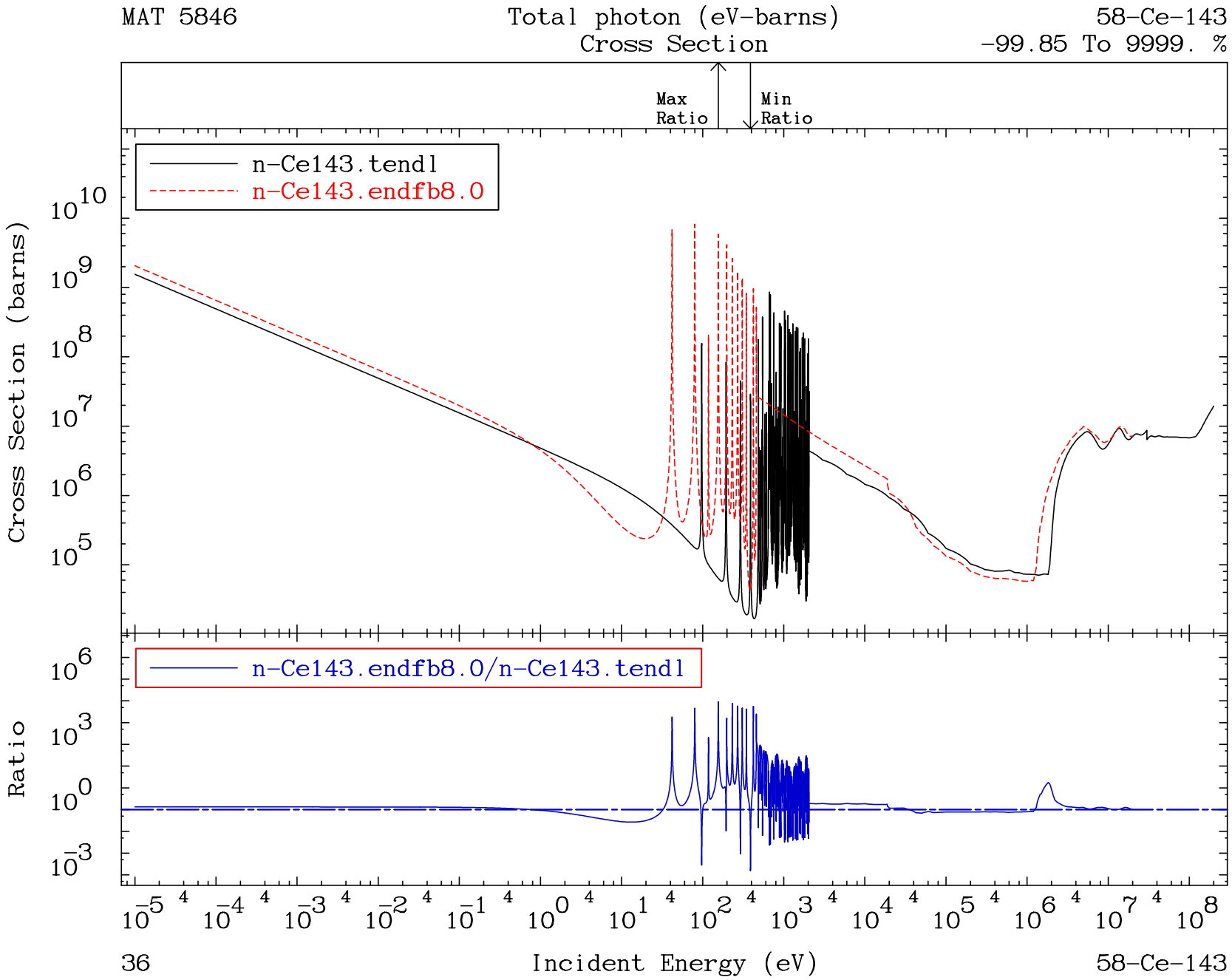

MAT 5846
Kerma elastic
Cross Section
58-Ce-143
-99.89 To 9999. %
Max
Ratio
Min
Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
31
58-Ce-143

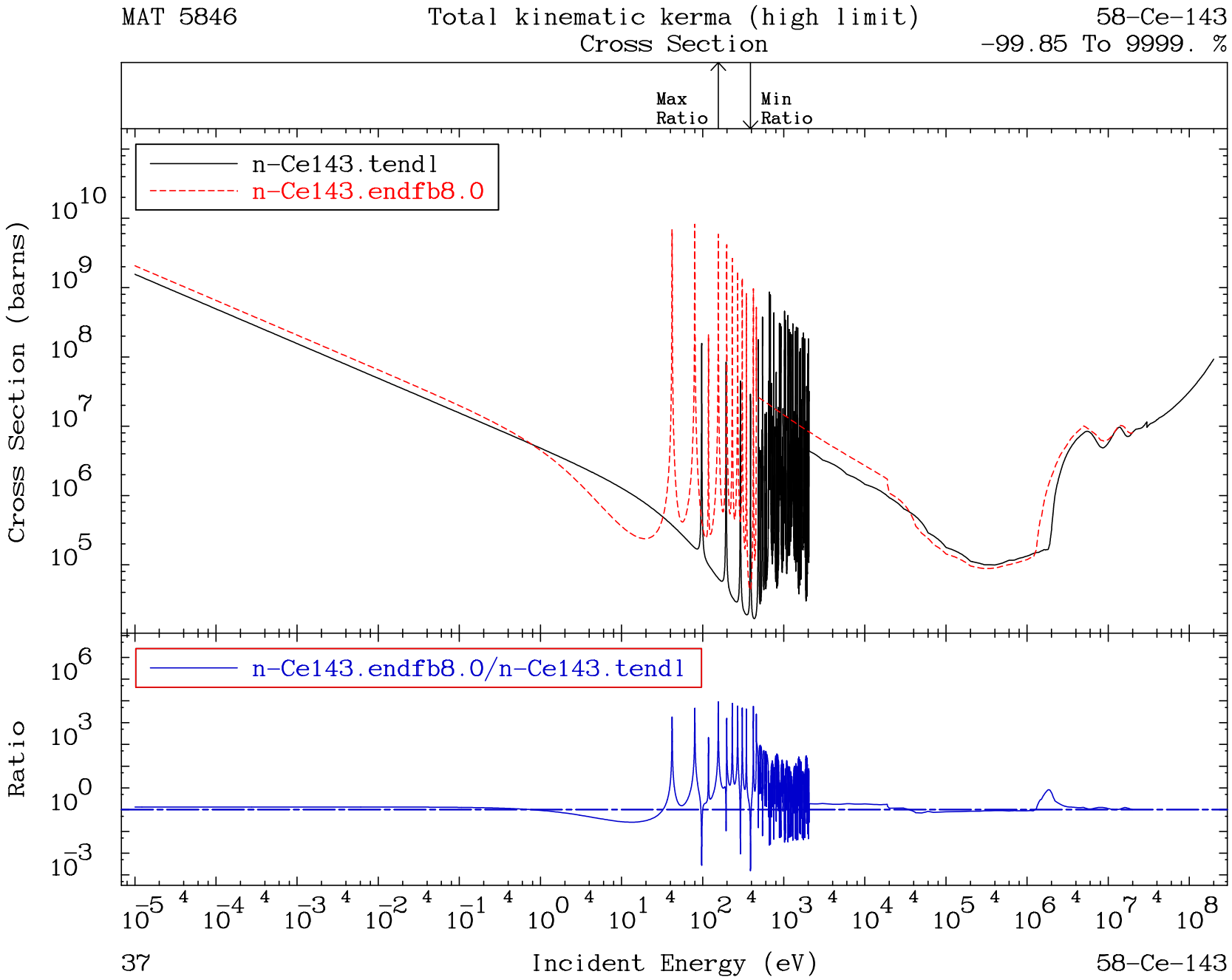

MAT 5846
Kerma non-elastic (all but mt2)
Cross Section
58-Ce-143
-99.85 To 9999. %
Max Ratio
Min Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
32
58-Ce-143

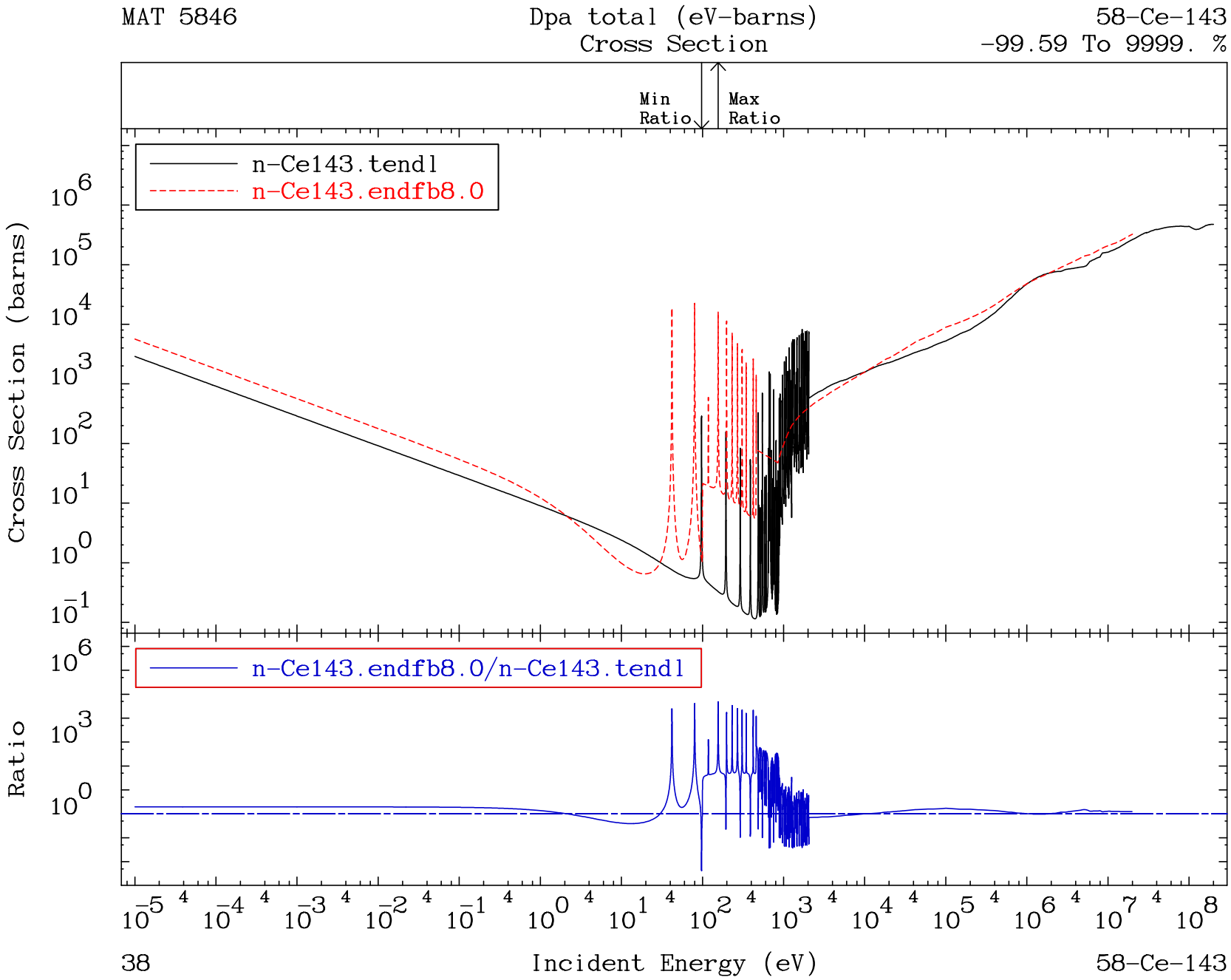

MAT 5846
Kerma inelastic (mt51-91)
Cross Section
58-Ce-143
-40.07 To 340.8 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 19.033 keV
n-Ce143.endfb8.0 Threshold 19.033 keV
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
33
58-Ce-143

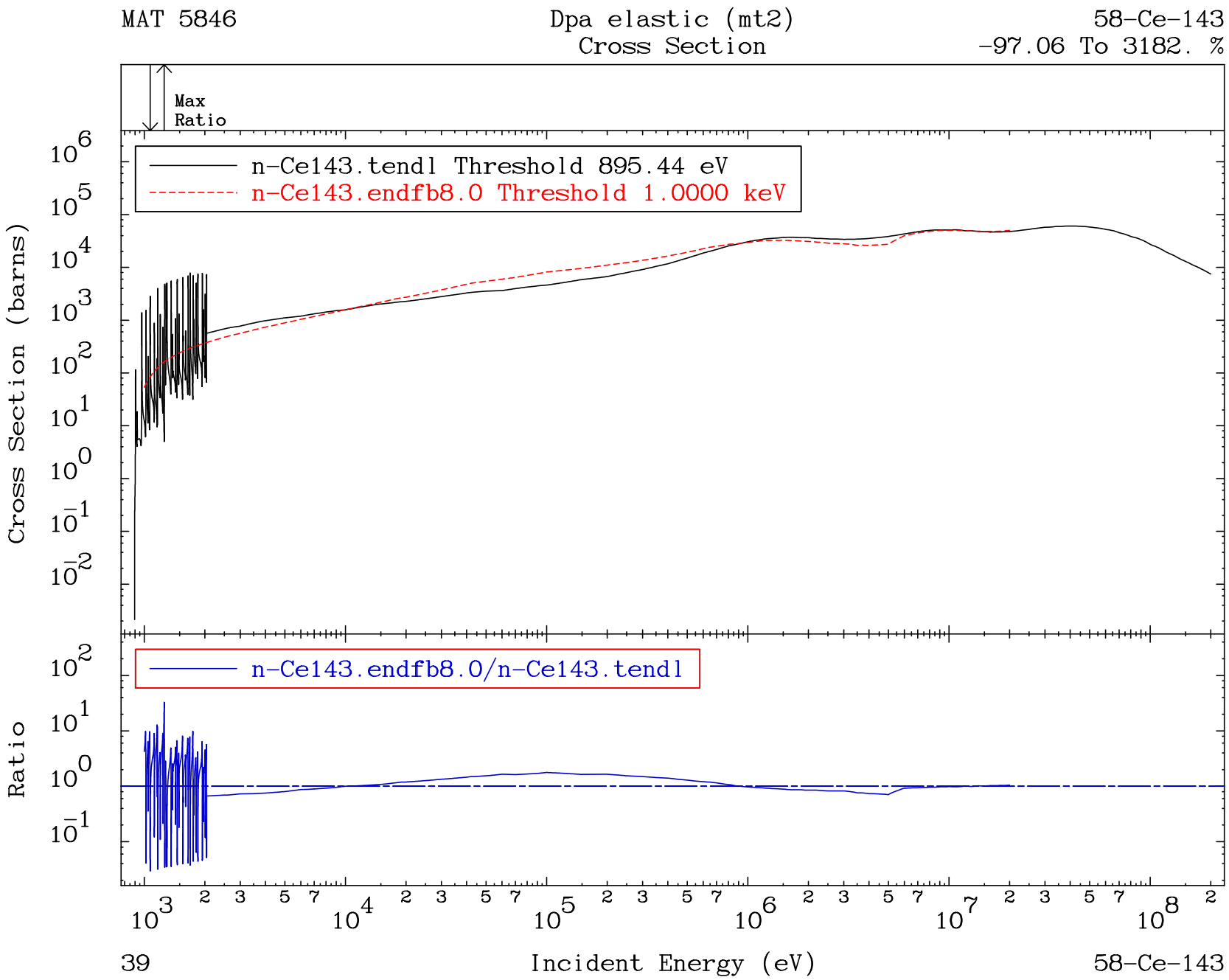

MAT 5846
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
58-Ce-143
-40.07 To 340.8 %
Max Ratio
Min Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
4
2
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
34
Incident Energy (eV)
58-Ce-143

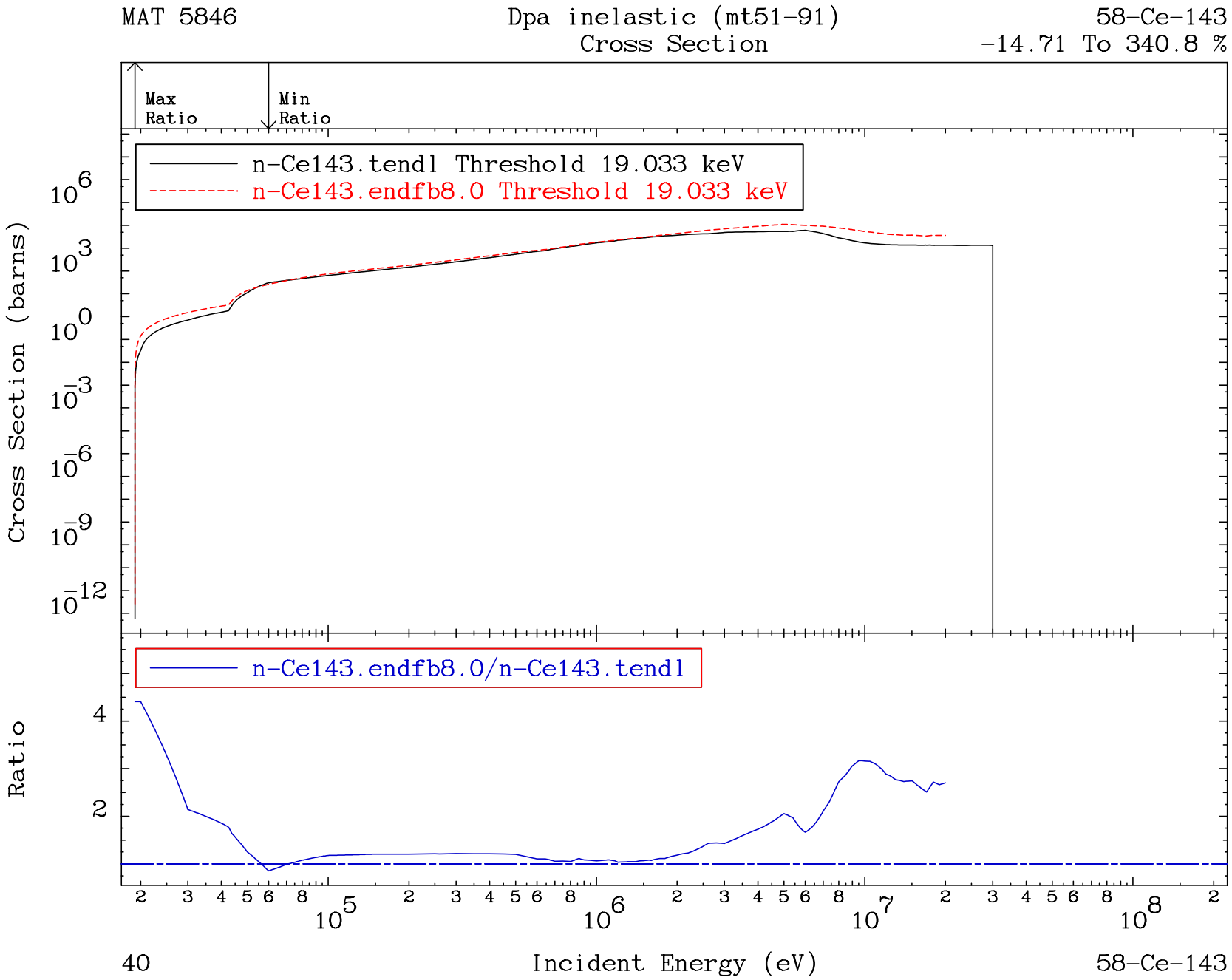

MAT 5846
Kerma capture (mt102)
Cross Section
58-Ce-143
-99.85 To 9999. %
Max Ratio
Min Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
35
58-Ce-143

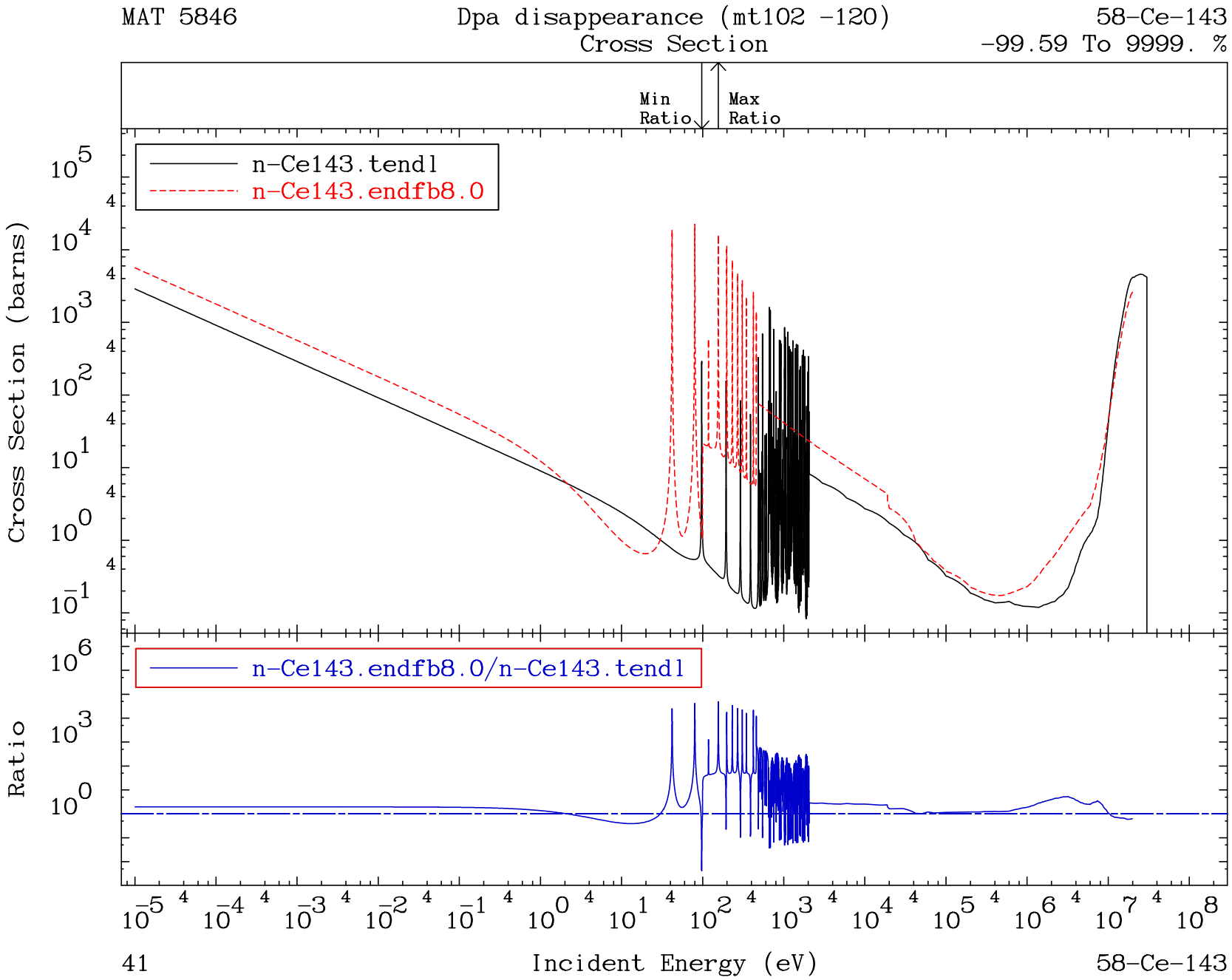

MAT 5846
Total photon (eV-barns)
Cross Section
58-Ce-143
-99.85 To 9999. %
Max Ratio
Min Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
36
58-Ce-143


MAT 5846
Total kinematic kerma (high limit)
Cross Section
58-Ce-143
-99.85 To 9999. %
Max Ratio
Min Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
37
58-Ce-143


MAT 5846
Dpa total (eV-barns)
Cross Section
58-Ce-143
-99.59 To 9999. %
Min Ratio
Max Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
38
58-Ce-143


MAT 5846
Dpa elastic (mt2)
Cross Section
58-Ce-143
-97.06 To 3182. %
Max
Ratio
n-Ce143.tendl Threshold 895.44 eV
n-Ce143.endfb8.0 Threshold 1.0000 keV
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
39
58-Ce-143


MAT 5846
Dpa inelastic (mt51-91)
Cross Section
58-Ce-143
-14.71 To 340.8 %
Max Ratio
Min Ratio
n-Ce143.tendl Threshold 19.033 keV
n-Ce143.endfb8.0 Threshold 19.033 keV
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
40
58-Ce-143


MAT 5846
Dpa disappearance (mt102 -120)
Cross Section
58-Ce-143
-99.59 To 9999. %
Min Ratio
Max Ratio
n-Ce143.tendl
n-Ce143.endfb8.0
Cross Section (barns)
n-Ce143.endfb8.0/n-Ce143.tendl
Ratio
Incident Energy (eV)
41
58-Ce-143