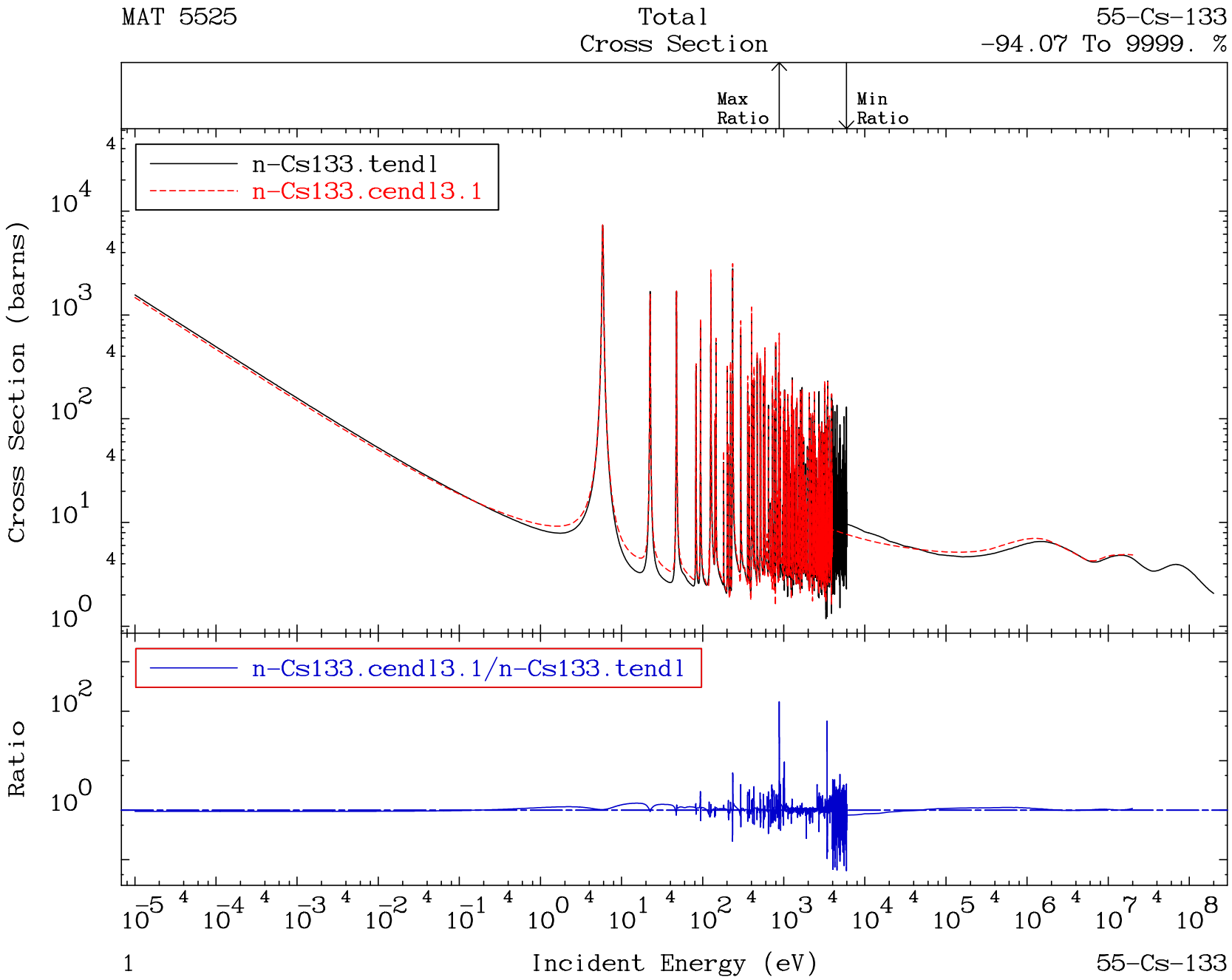
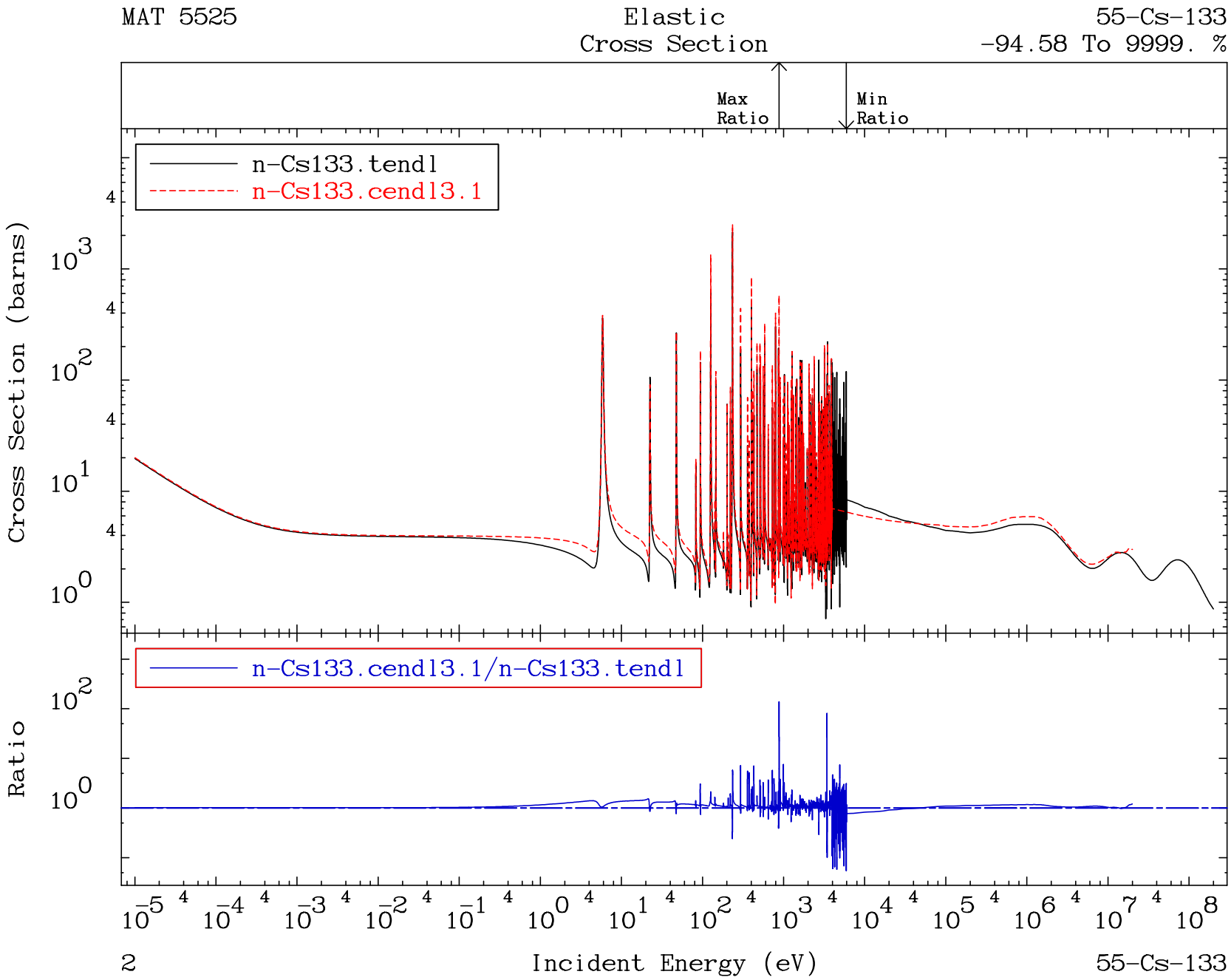
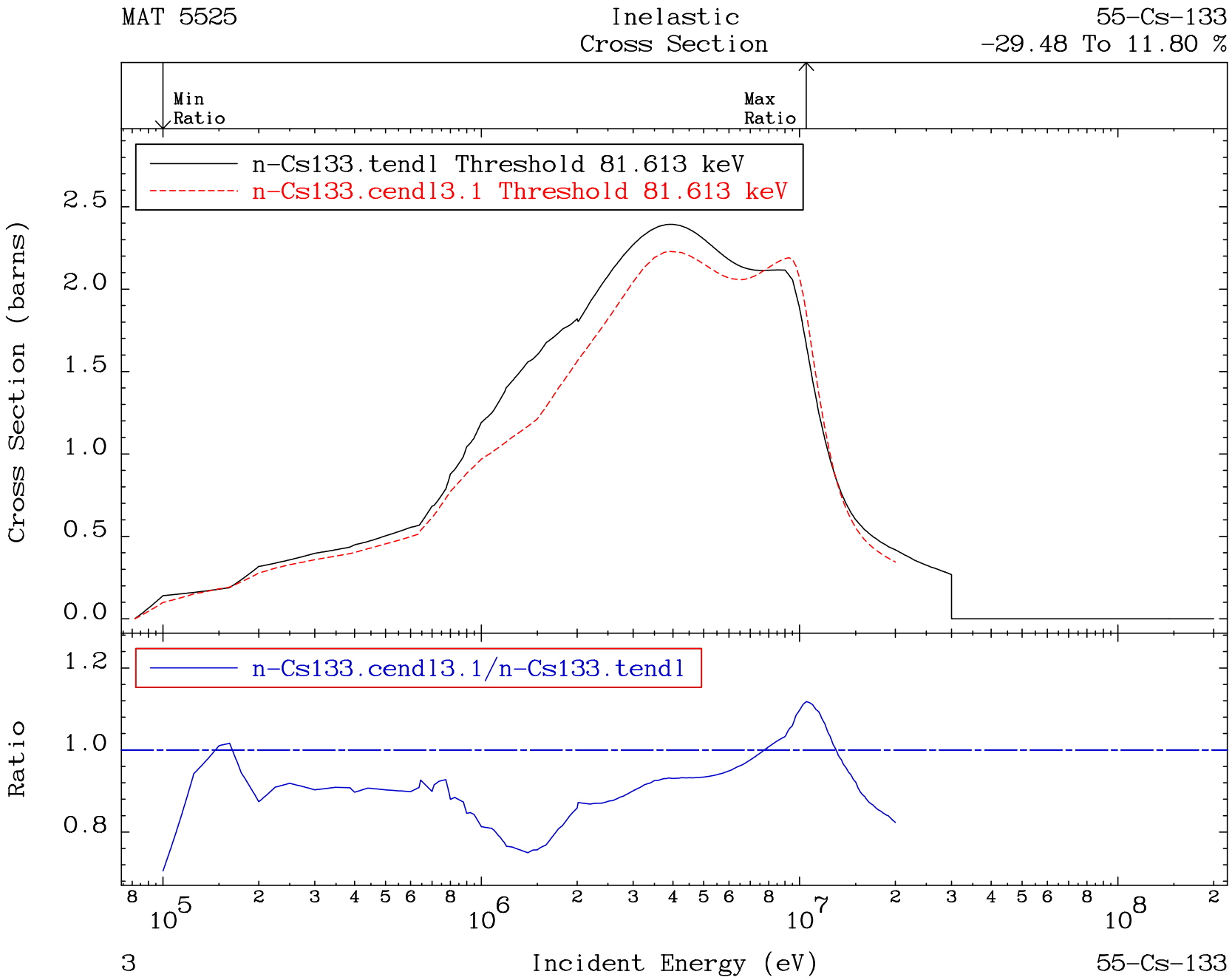
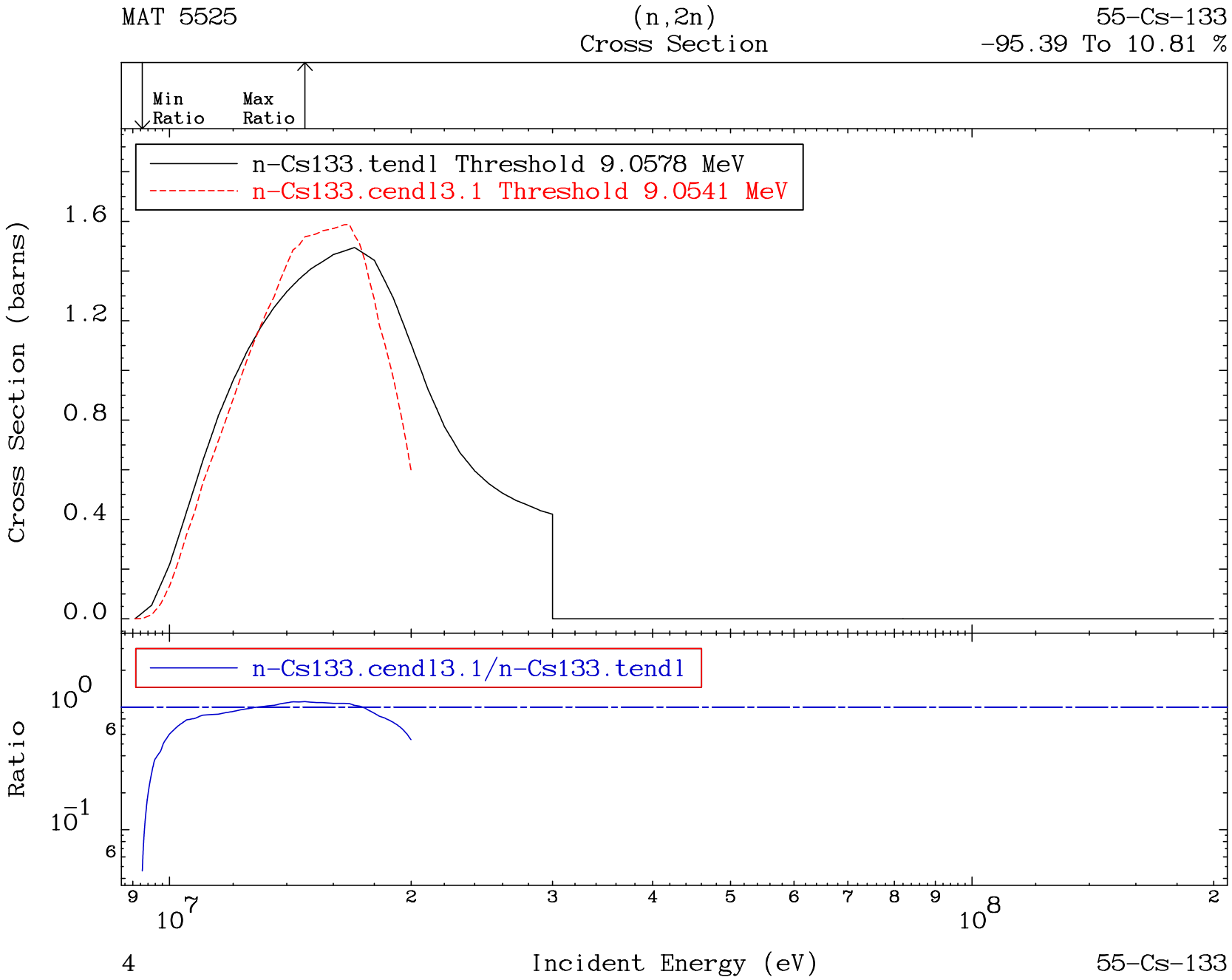
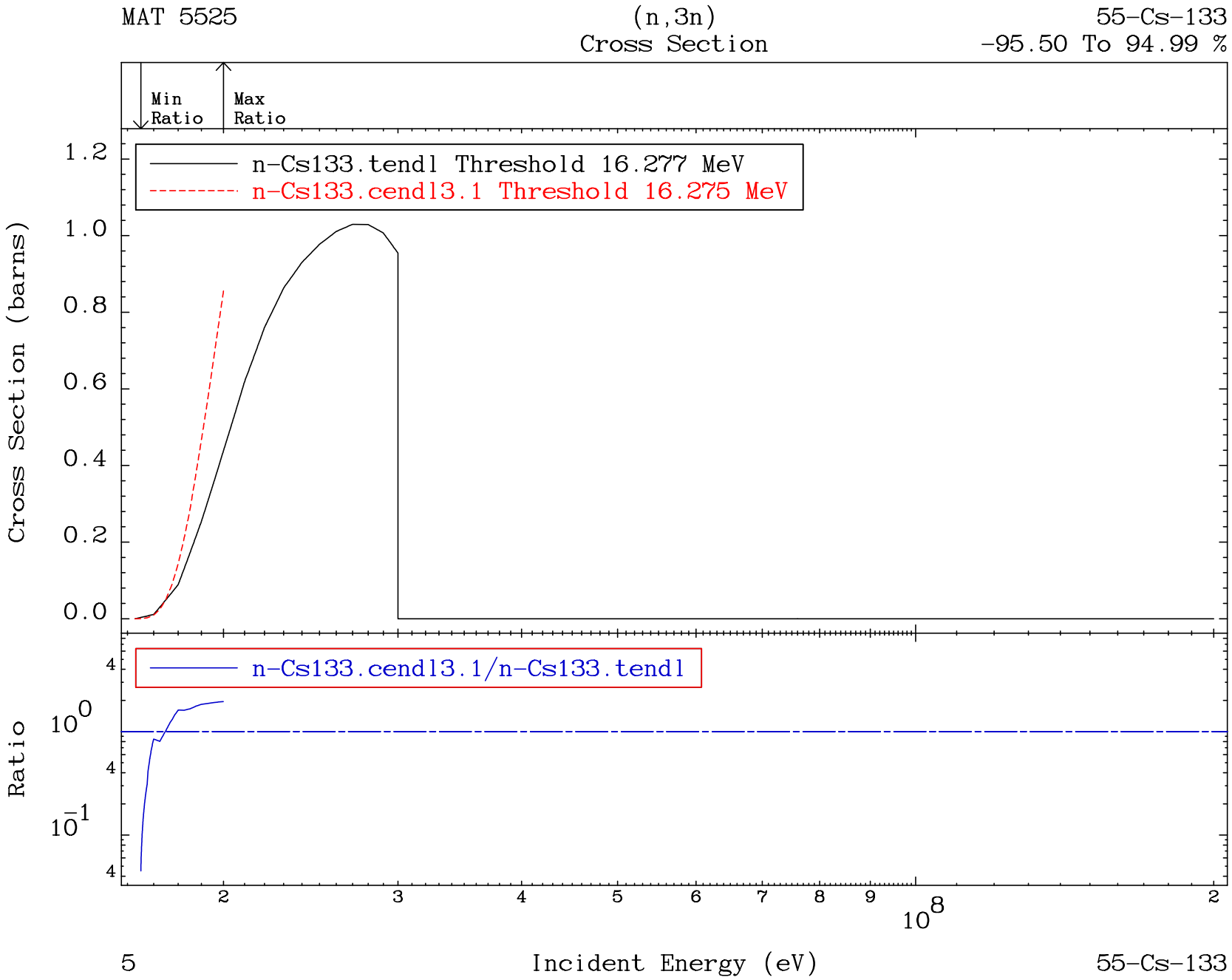
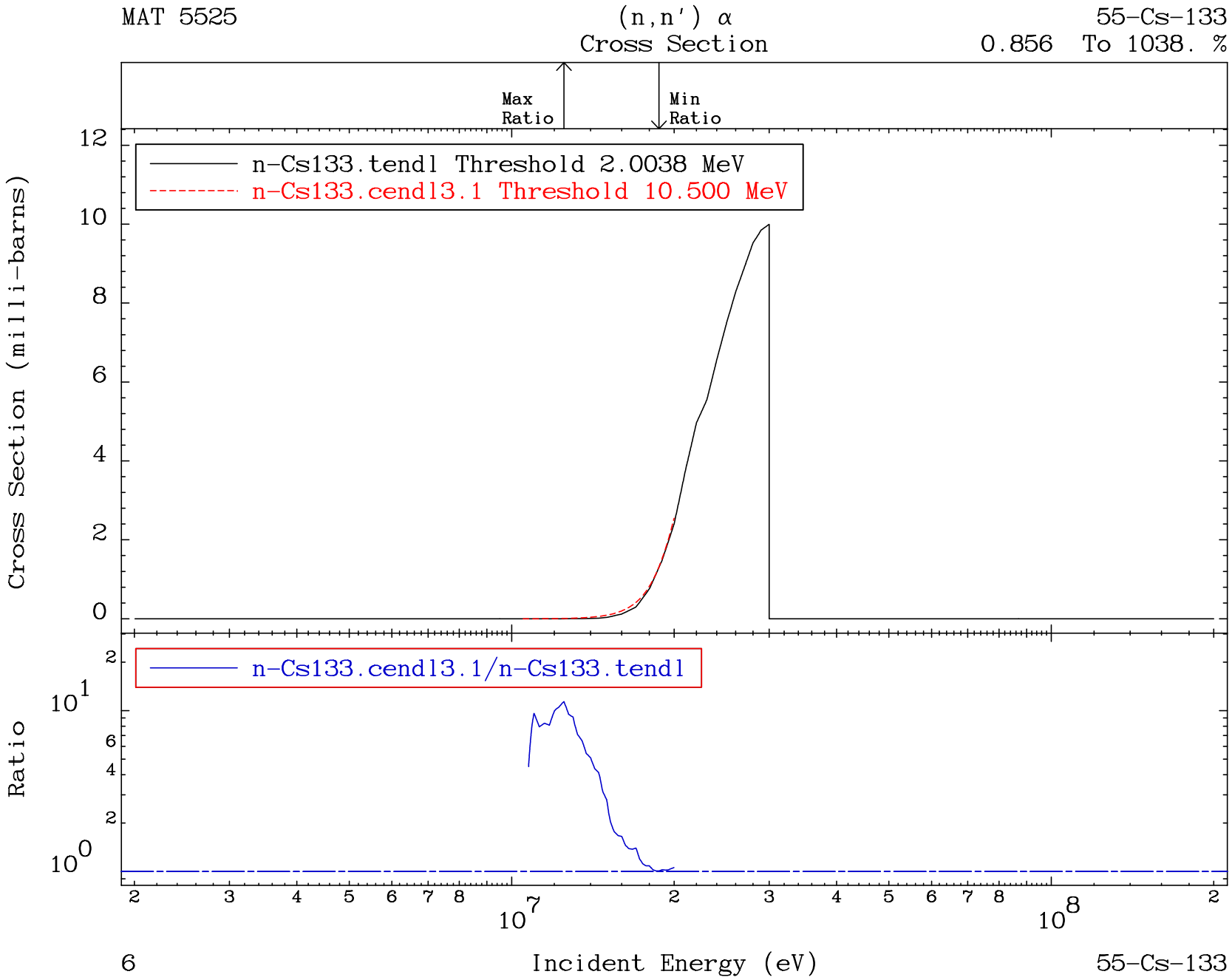

MAT 5525
Total
Cross Section
55-Cs-133
-94.07 To 9999. %
Max
Ratio
Min
Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
1
55-Cs-133

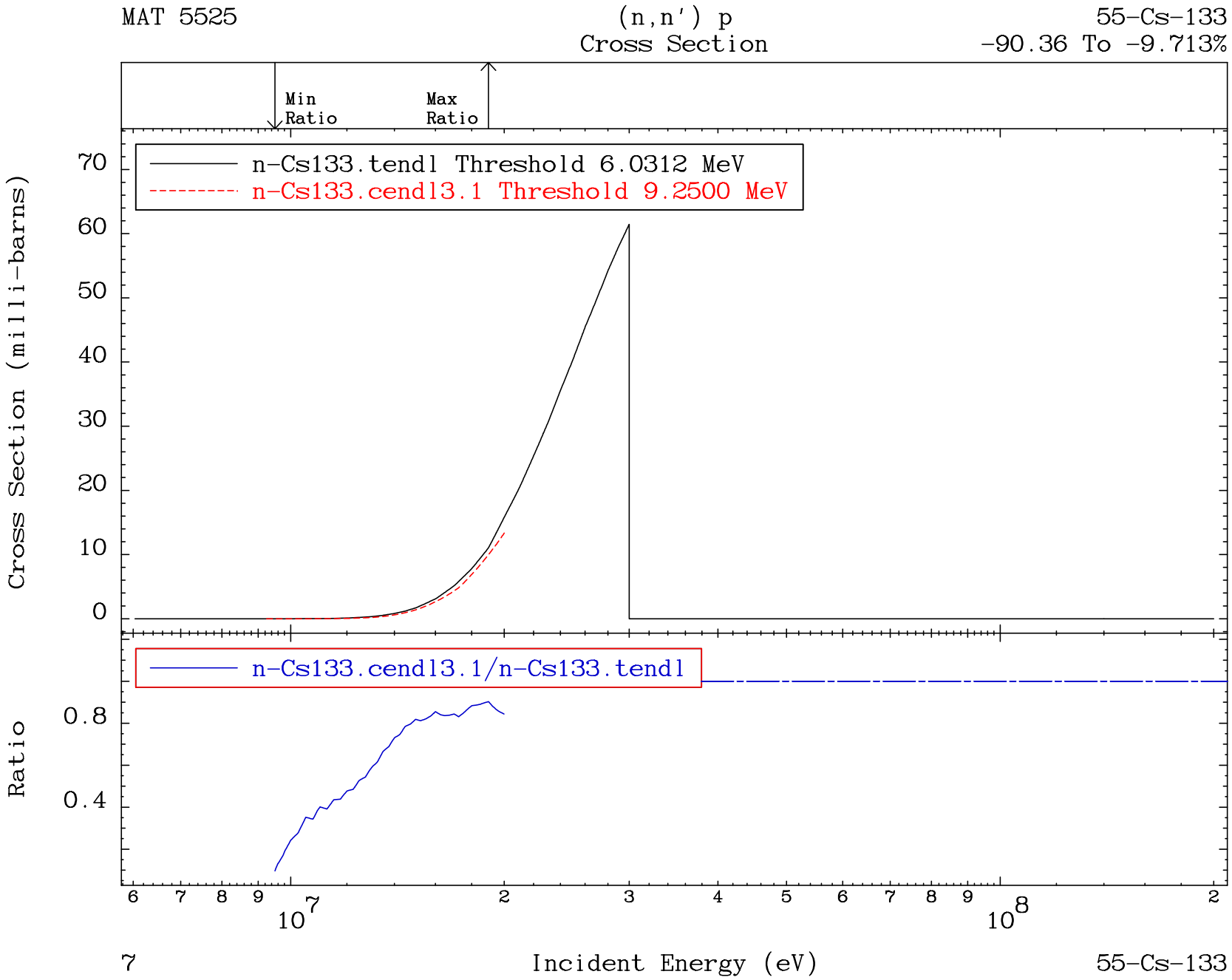

MAT 5525
Elastic
Cross Section
55-Cs-133
-94.58 To 9999. %
Max
Ratio
Min
Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
2
55-Cs-133

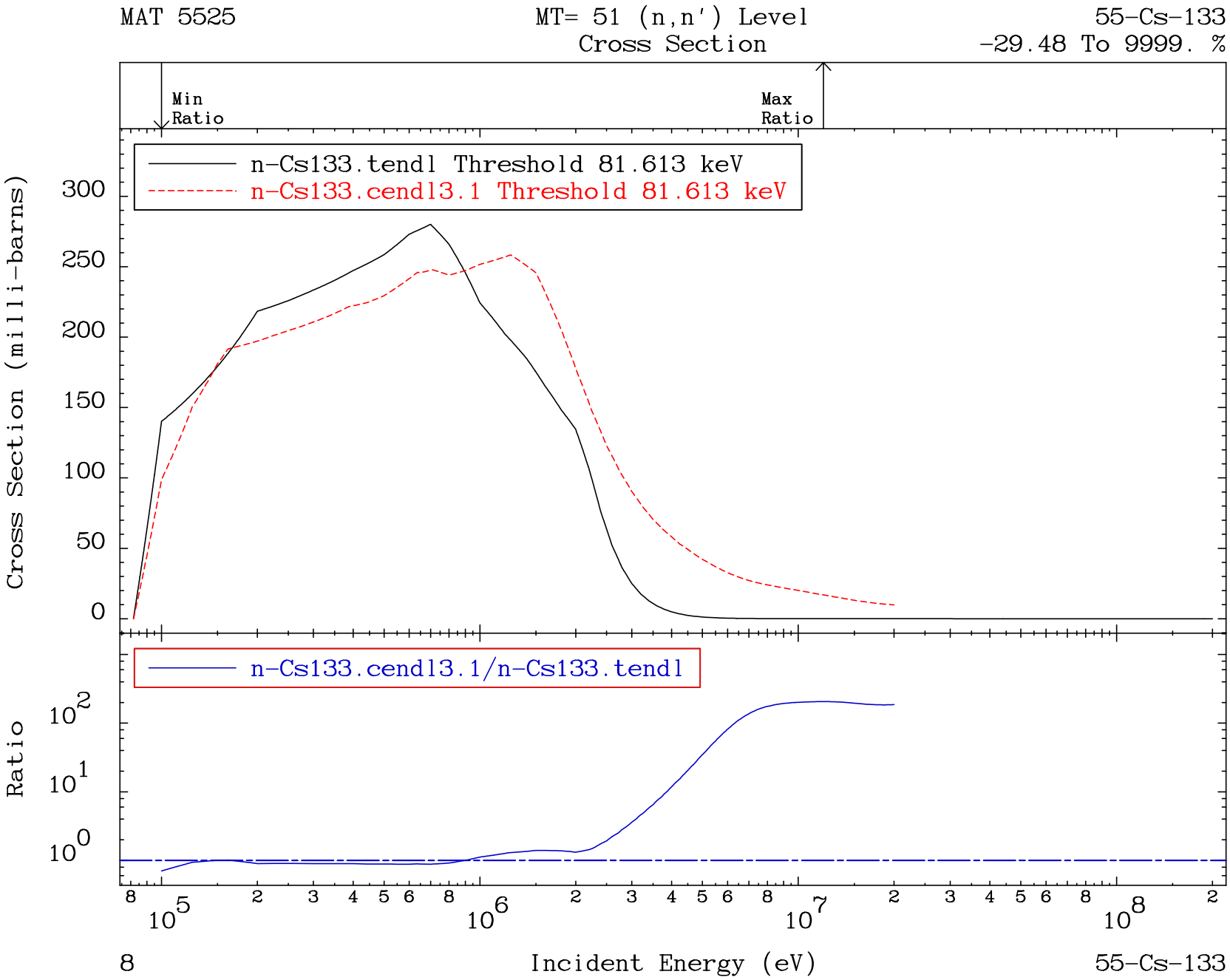

MAT 5525
Inelastic
Cross Section
55-Cs-133
-29.48 To 11.80 %
Min
Ratio
Max
Ratio
n-Cs133.tendl Threshold 81.613 keV
n-Cs133.cendl3.1 Threshold 81.613 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
1.2
1.0
0.8
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
3
Incident Energy (eV)
55-Cs-133

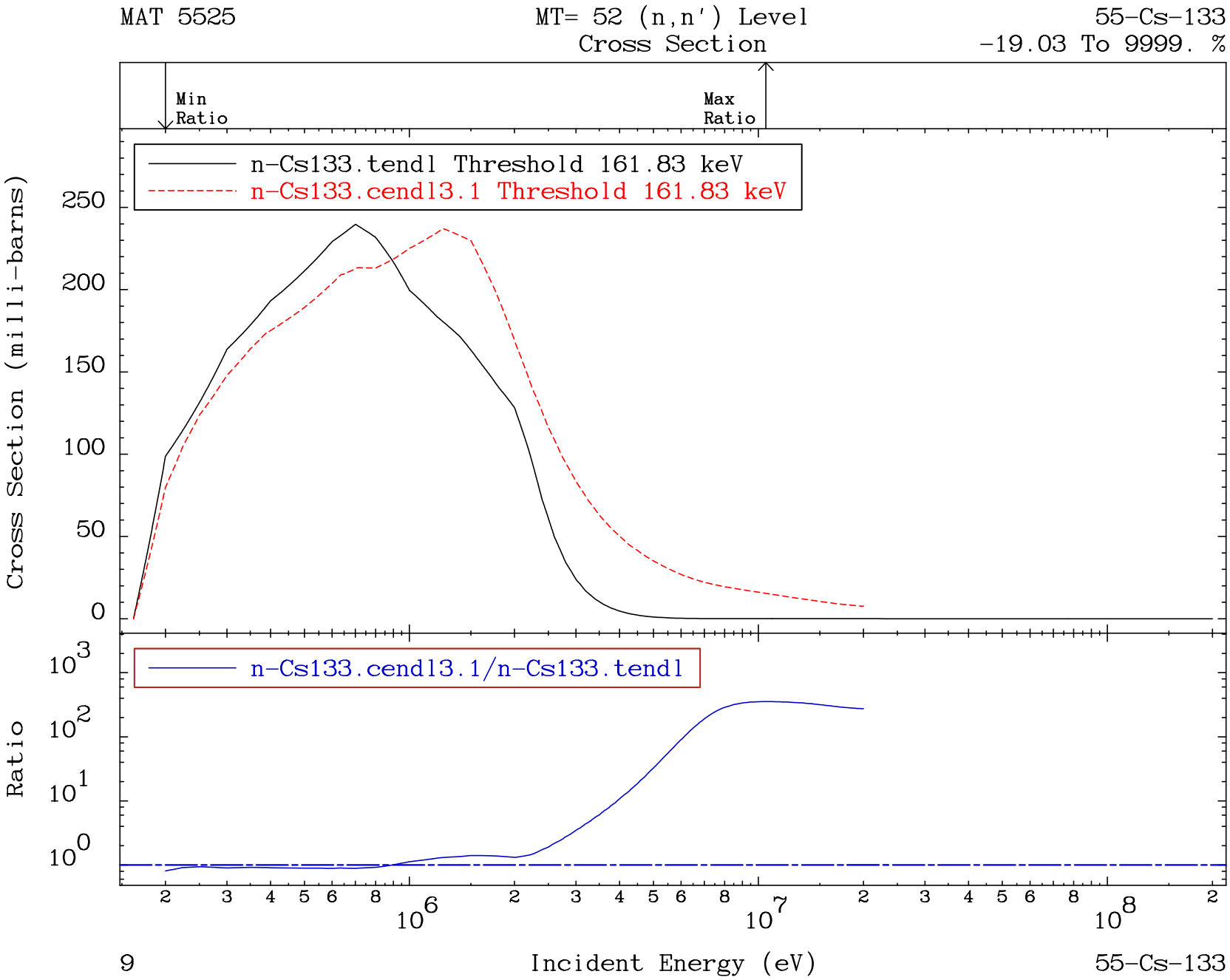

MAT 5525
(n,2n)
Cross Section
55-Cs-133
-95.39 To 10.81 %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 9.0578 MeV
n-Cs133.cendl3.1 Threshold 9.0541 MeV
Cross Section (barns)
1.6
1.2
0.8
0.4
0.0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^0
10^-1
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
55-Cs-133

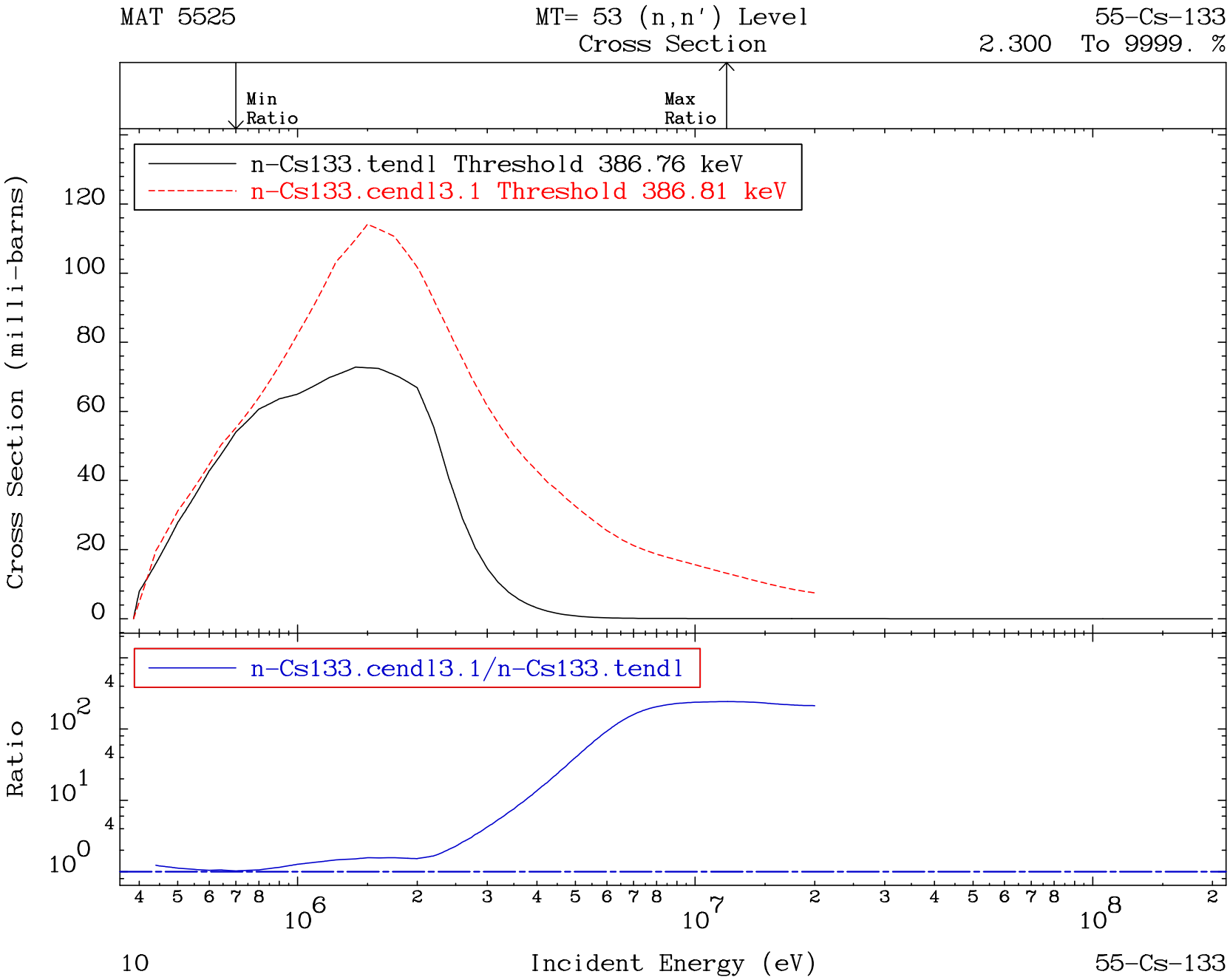

MAT 5525
(n,3n)
Cross Section
55-Cs-133
-95.50 To 94.99 %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 16.277 MeV
n-Cs133.cendl3.1 Threshold 16.275 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^0
10^-1
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
55-Cs-133

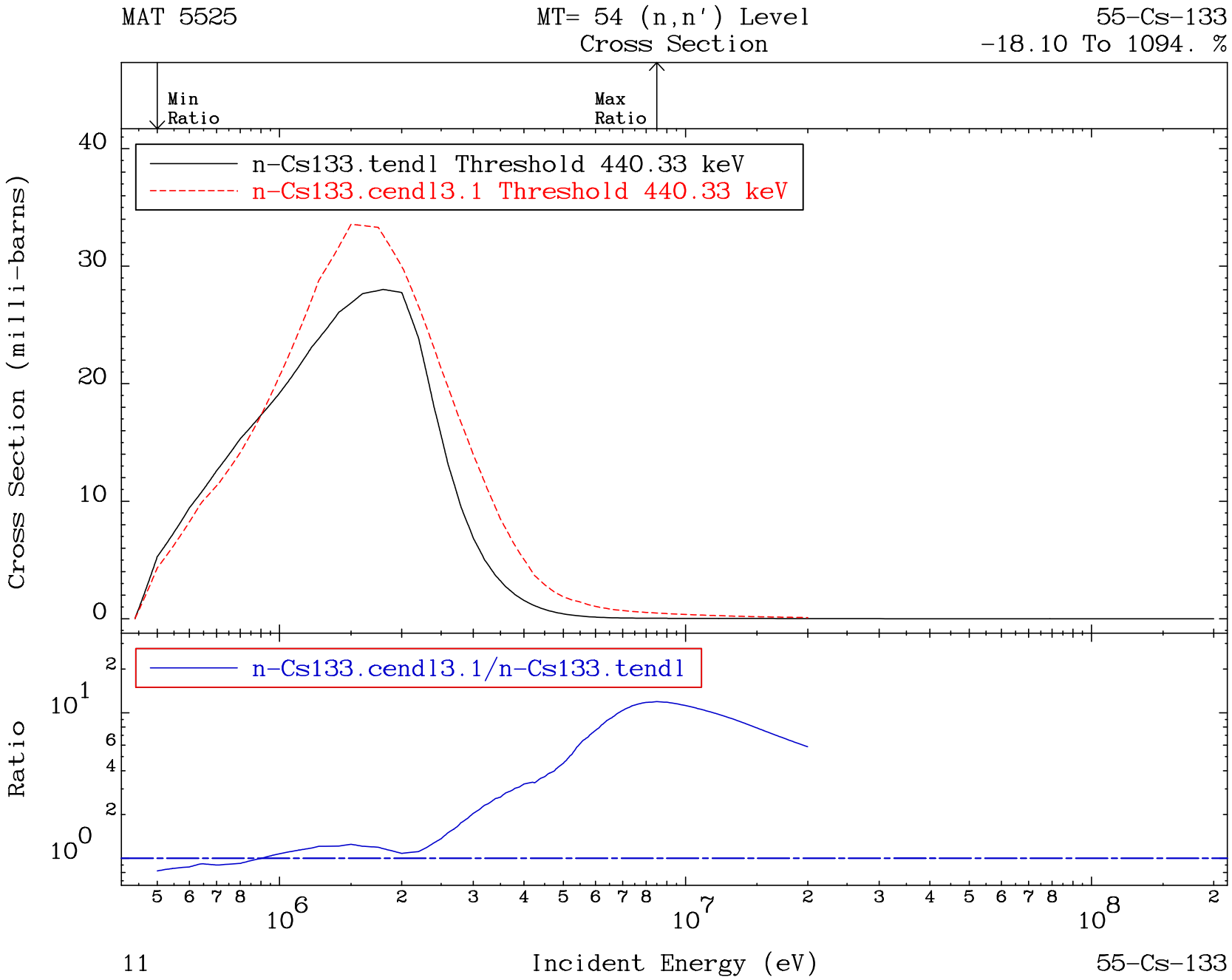

MAT 5525
(n,n') α
Cross Section
55-Cs-133
0.856 To 1038. %
Max Ratio
Min Ratio
n-Cs133.tendl Threshold 2.0038 MeV
n-Cs133.cendl3.1 Threshold 10.500 MeV
Cross Section (milli-barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
6
55-Cs-133

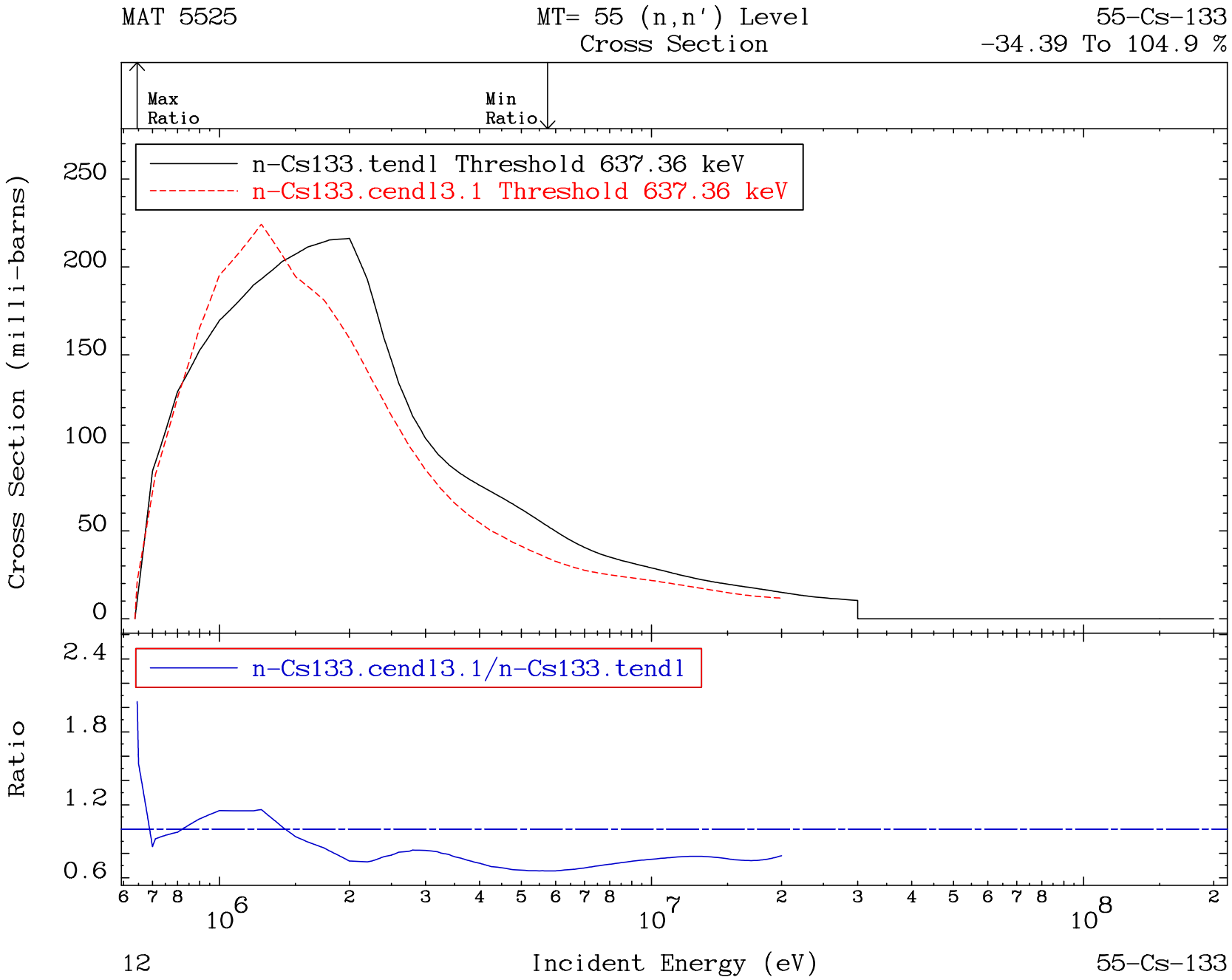

MAT 5525
(n,n') p
Cross Section
55-Cs-133
-90.36 To -9.713%
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 6.0312 MeV
n-Cs133.cendl3.1 Threshold 9.2500 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
0.8
0.4
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
55-Cs-133

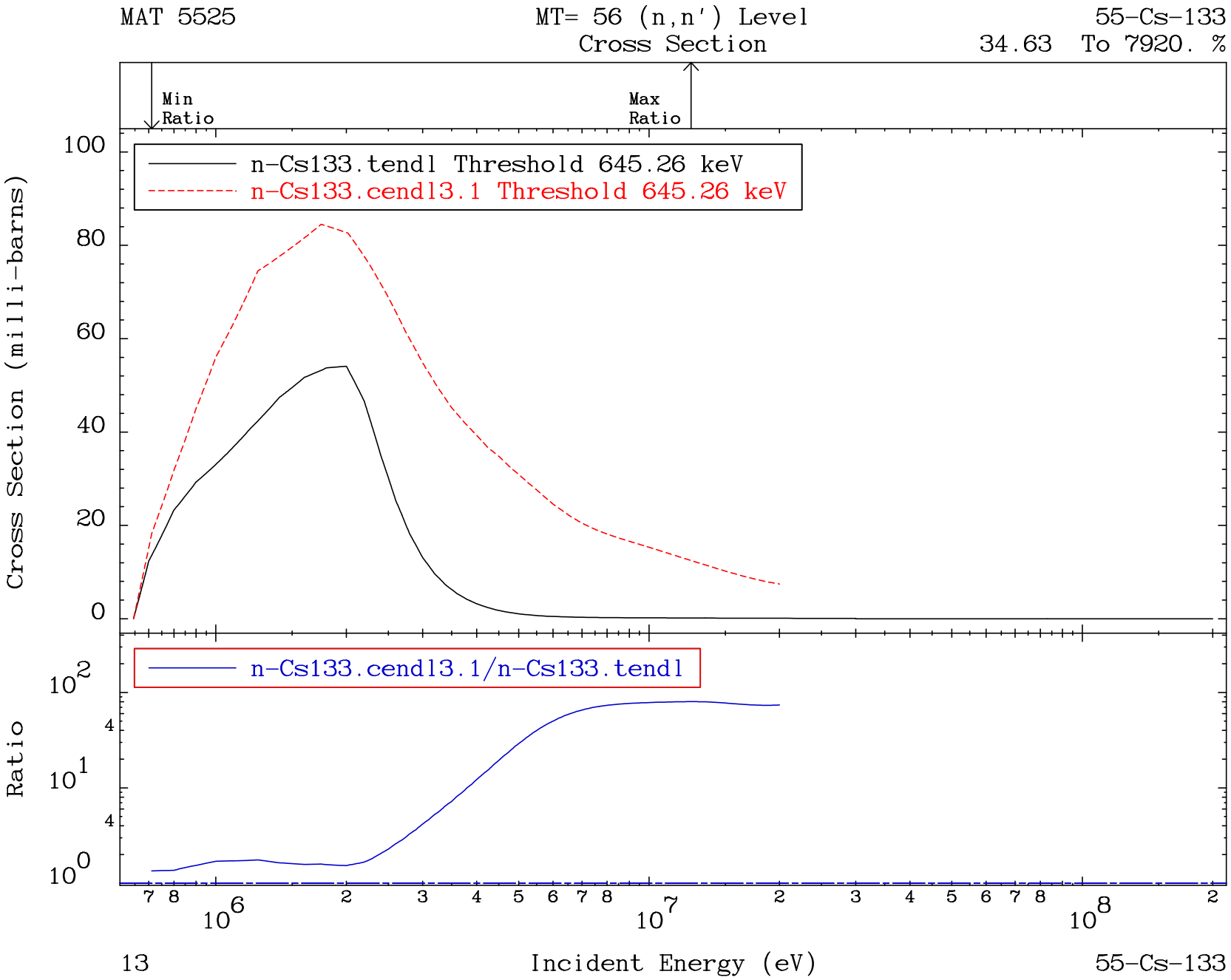

MAT 5525
MT= 51 (n,n') Level
Cross Section
55-Cs-133
-29.48 To 9999. %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 81.613 keV
n-Cs133.cendl3.1 Threshold 81.613 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^2
10^1
10^0
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
Incident Energy (eV)
8
55-Cs-133

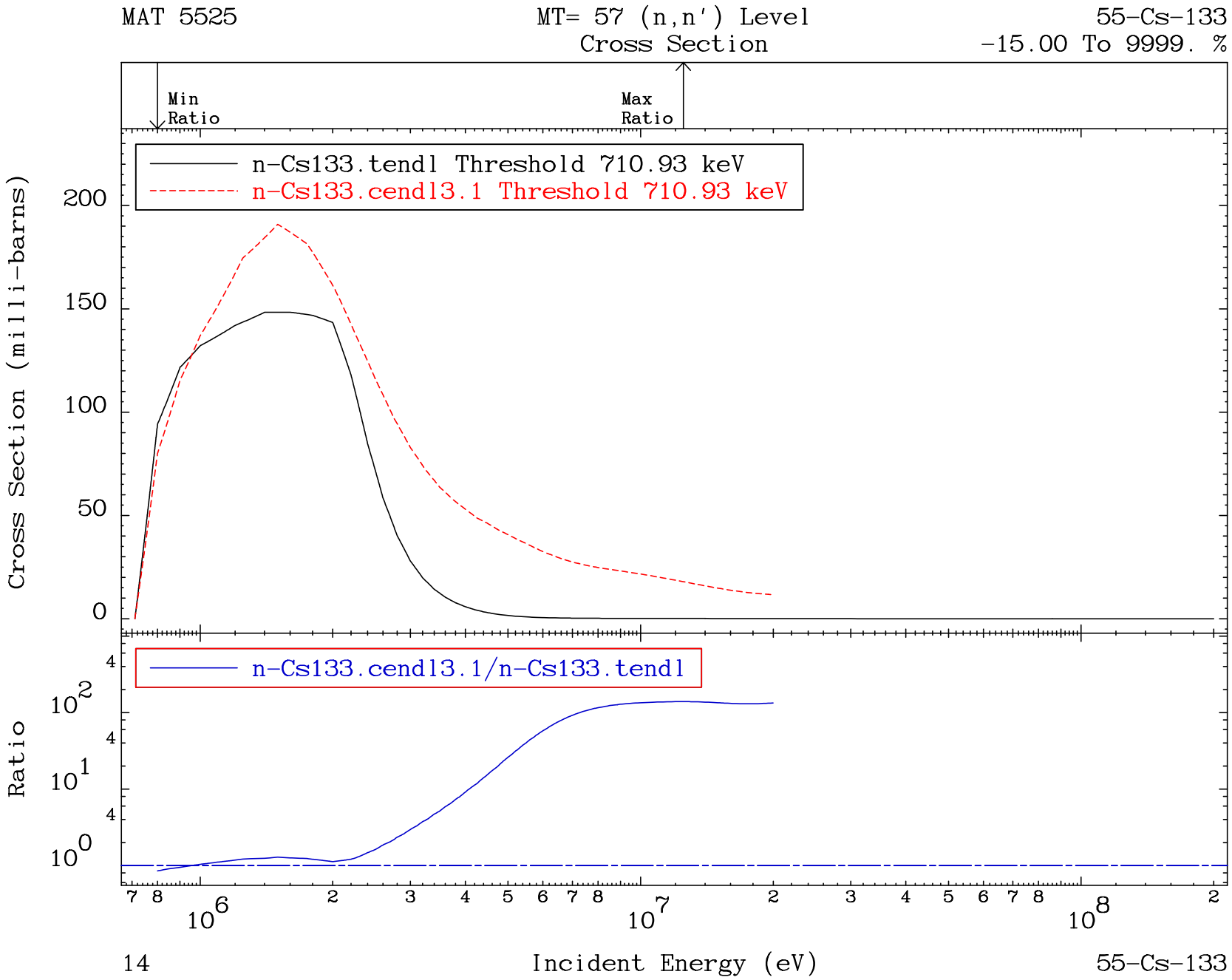

MAT 5525
MT= 52 (n,n') Level
Cross Section
55-Cs-133
-19.03 To 9999. %
Min
Ratio
Max
Ratio
n-Cs133.tendl Threshold 161.83 keV
n-Cs133.cendl3.1 Threshold 161.83 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^3
10^2
10^1
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
9
Incident Energy (eV)
55-Cs-133

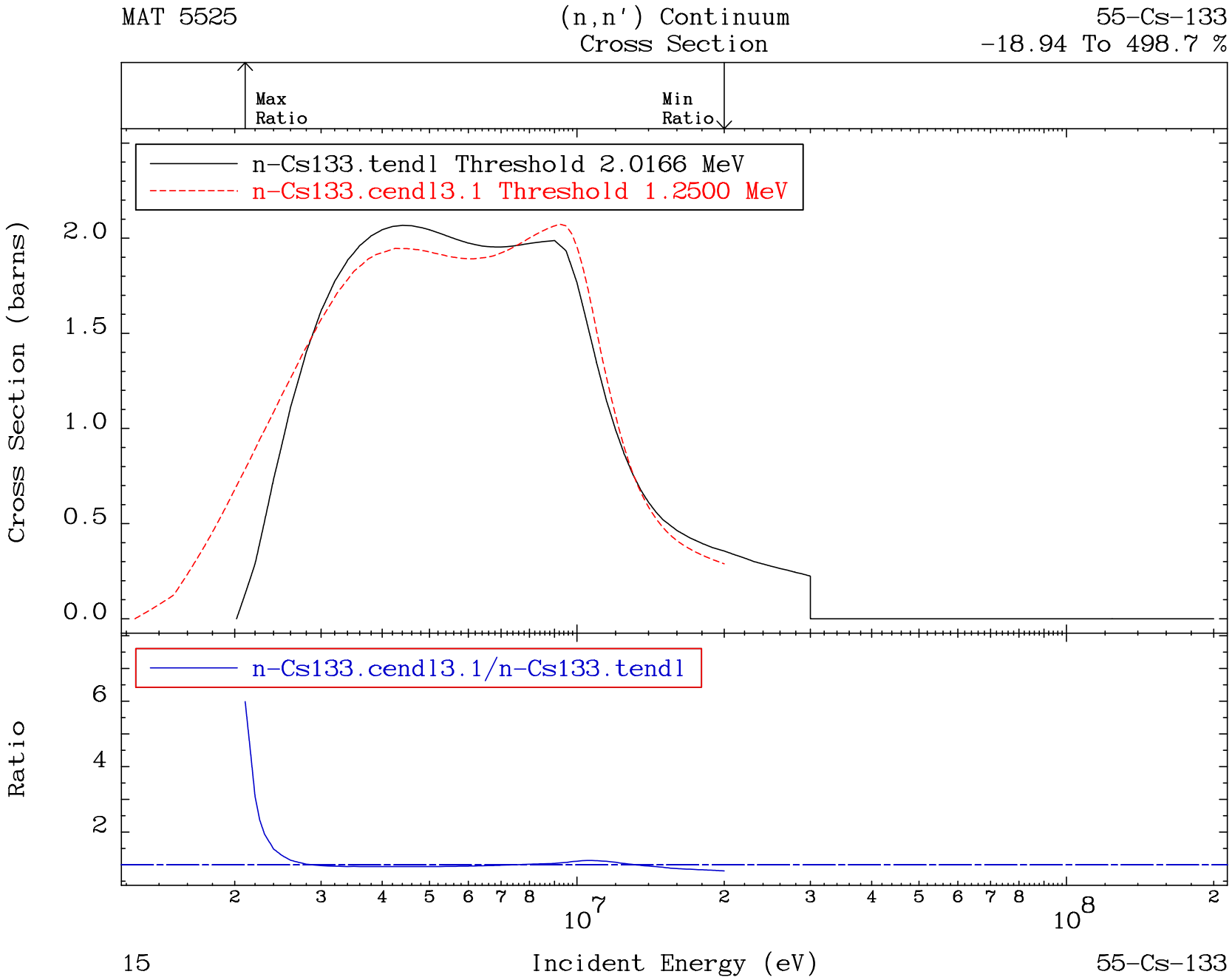

MAT 5525
MT= 53 (n,n') Level
Cross Section
55-Cs-133
2.300 To 9999. %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 386.76 keV
n-Cs133.cendl3.1 Threshold 386.81 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^2
10^1
10^0
4
10^6
10^7
10^8
10
Incident Energy (eV)
55-Cs-133

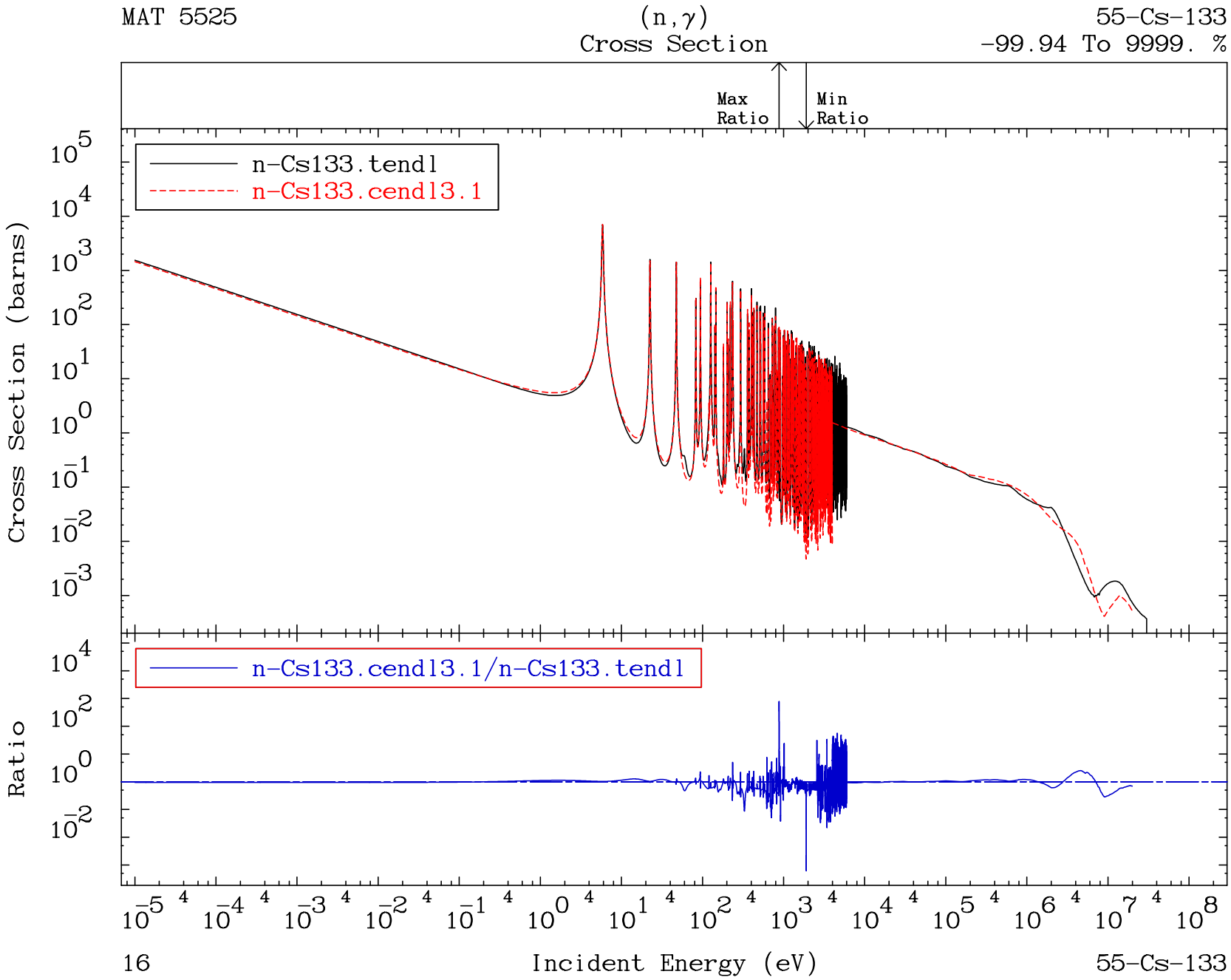

MAT 5525
MT= 54 (n,n') Level
Cross Section
55-Cs-133
-18.10 To 1094. %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 440.33 keV
n-Cs133.cendl3.1 Threshold 440.33 keV
Cross Section (milli-barns)
40
30
20
10
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
2
10^1
6
4
2
10^0
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
55-Cs-133

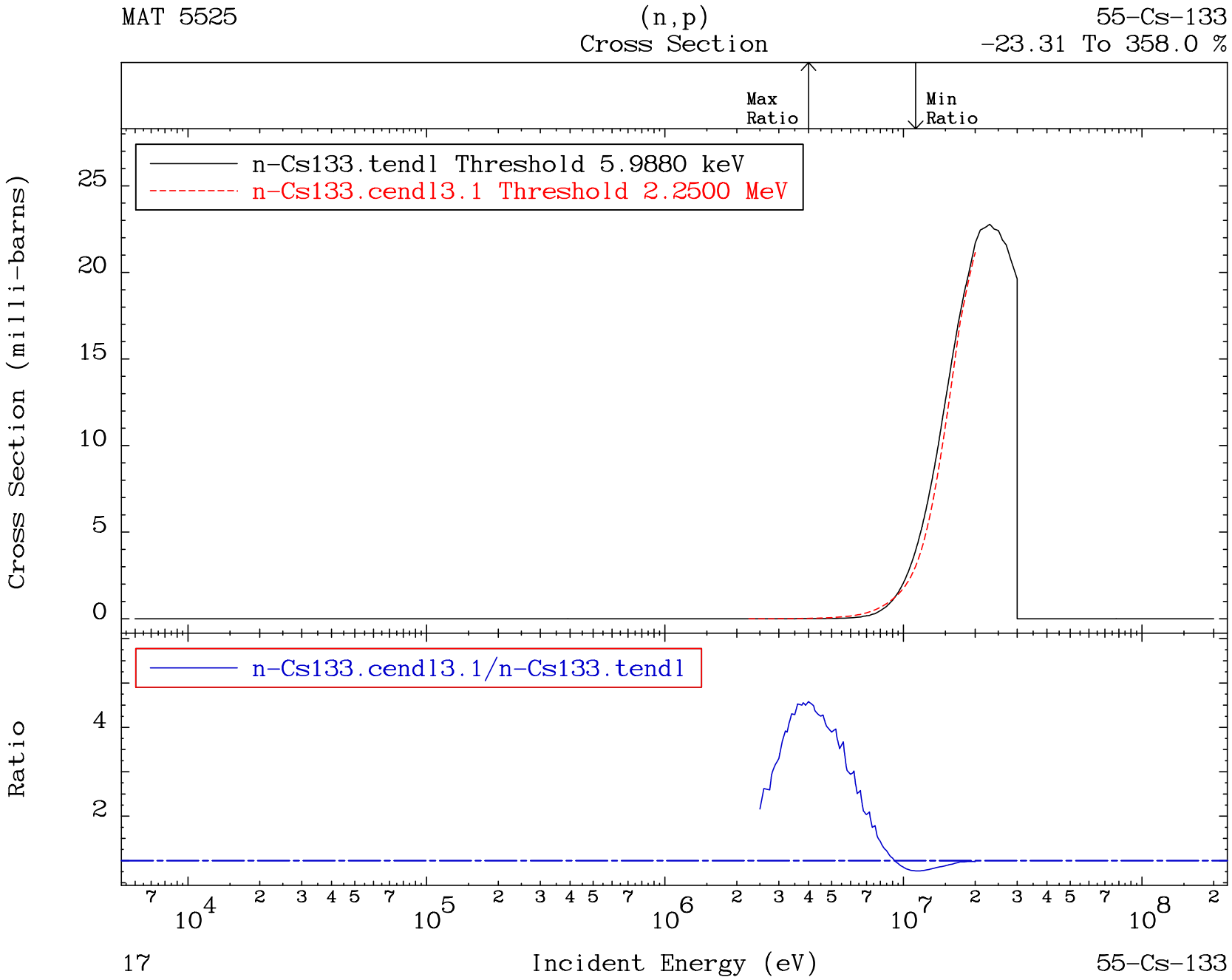

MAT 5525
MT= 55 (n,n') Level
Cross Section
55-Cs-133
-34.39 To 104.9 %
Max Ratio
Min Ratio
n-Cs133.tendl Threshold 637.36 keV
n-Cs133.cendl3.1 Threshold 637.36 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
2.4
1.8
1.2
0.6
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
12
Incident Energy (eV)
55-Cs-133

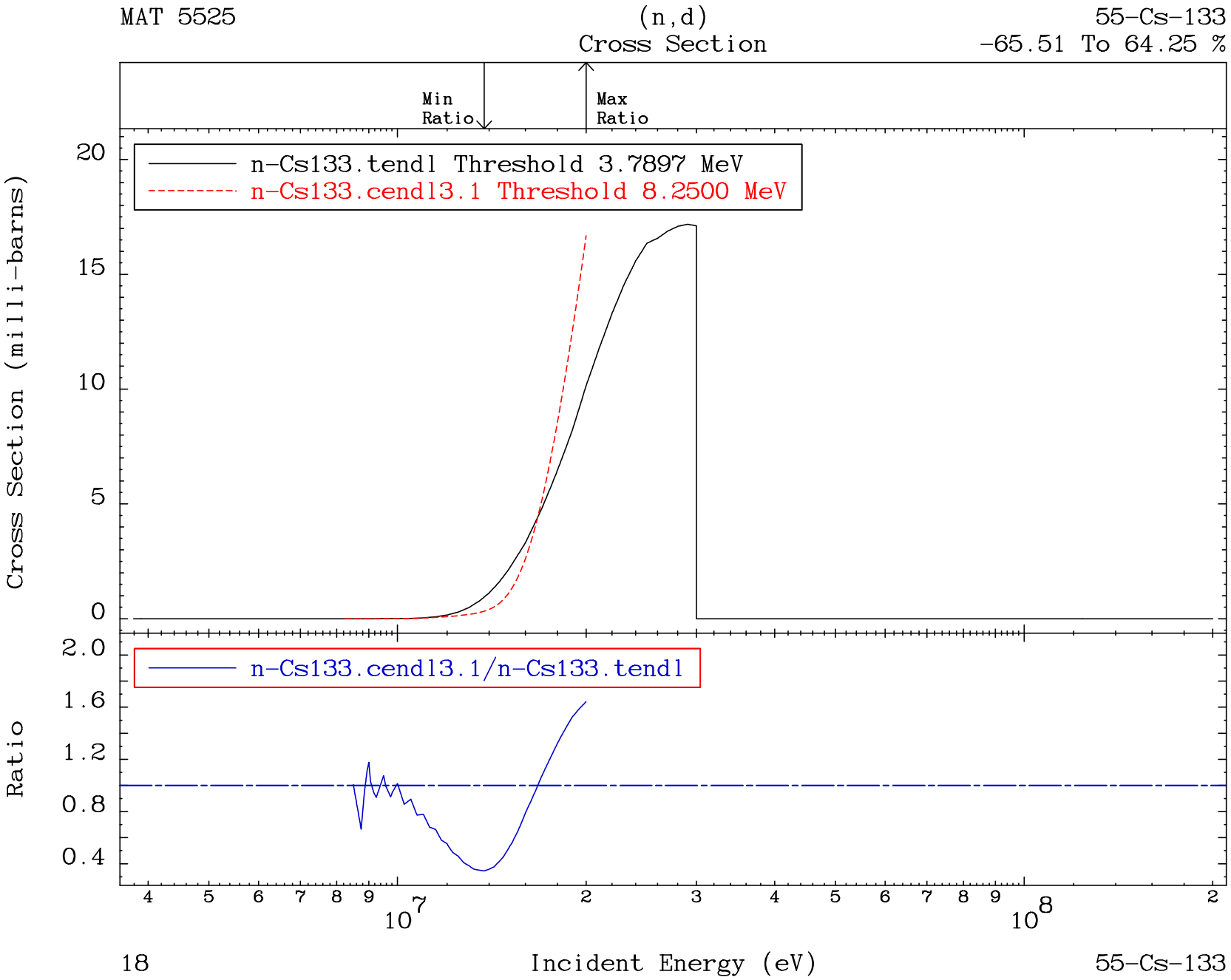

MAT 5525
MT= 56 (n,n') Level
Cross Section
55-Cs-133
34.63 To 7920. %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 645.26 keV
n-Cs133.cendl3.1 Threshold 645.26 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^2
10^1
10^0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
13
Incident Energy (eV)
55-Cs-133

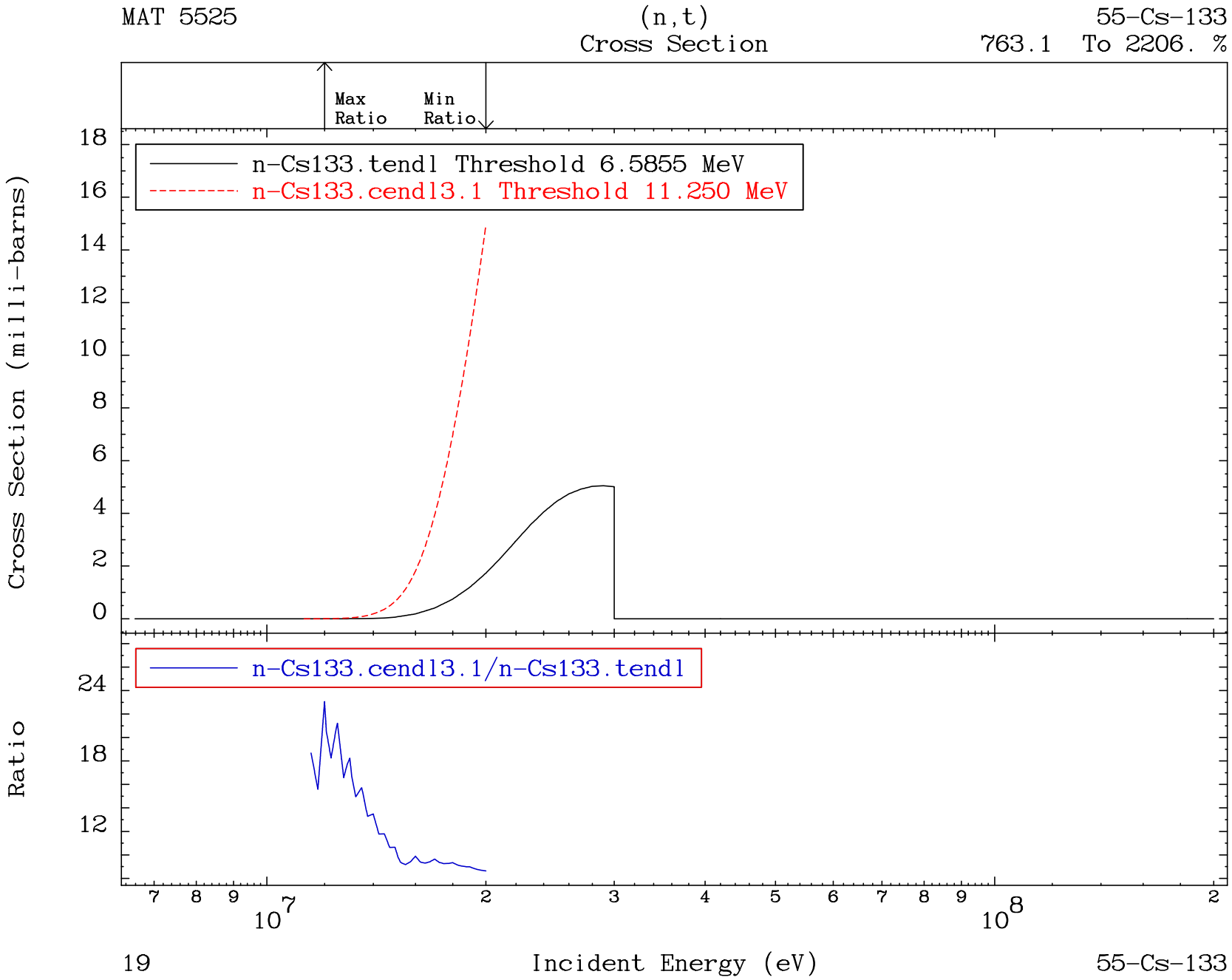

MAT 5525
MT= 57 (n,n') Level
Cross Section
55-Cs-133
-15.00 To 9999. %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 710.93 keV
n-Cs133.cendl3.1 Threshold 710.93 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^2
10^1
10^0
10^6
10^7
10^8
Incident Energy (eV)
14
55-Cs-133

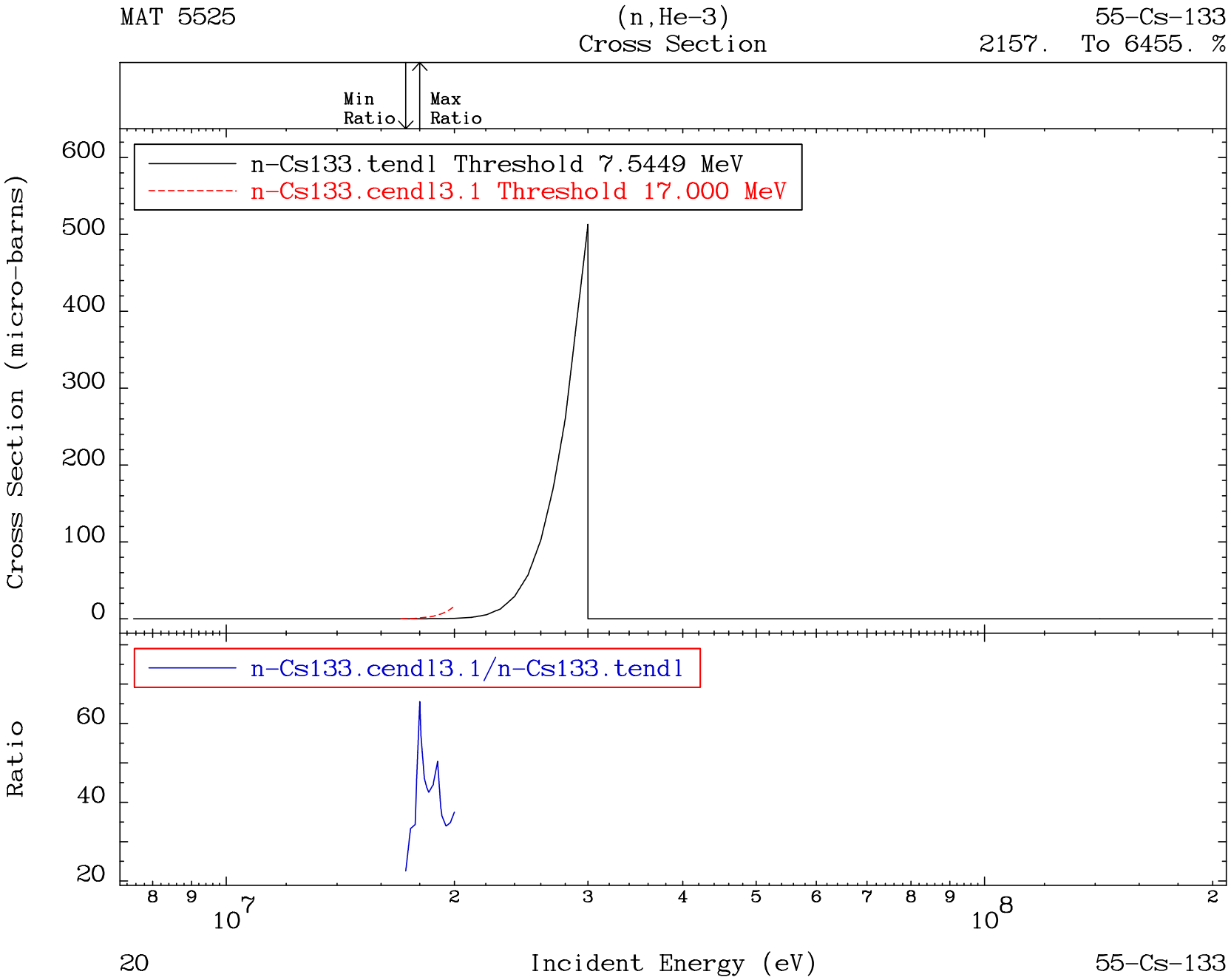

MAT 5525
(n,n') Continuum
Cross Section
55-Cs-133
-18.94 To 498.7 %
Max Ratio
Min Ratio
n-Cs133.tendl Threshold 2.0166 MeV
n-Cs133.cendl3.1 Threshold 1.2500 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
6
4
2
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
15
Incident Energy (eV)
55-Cs-133

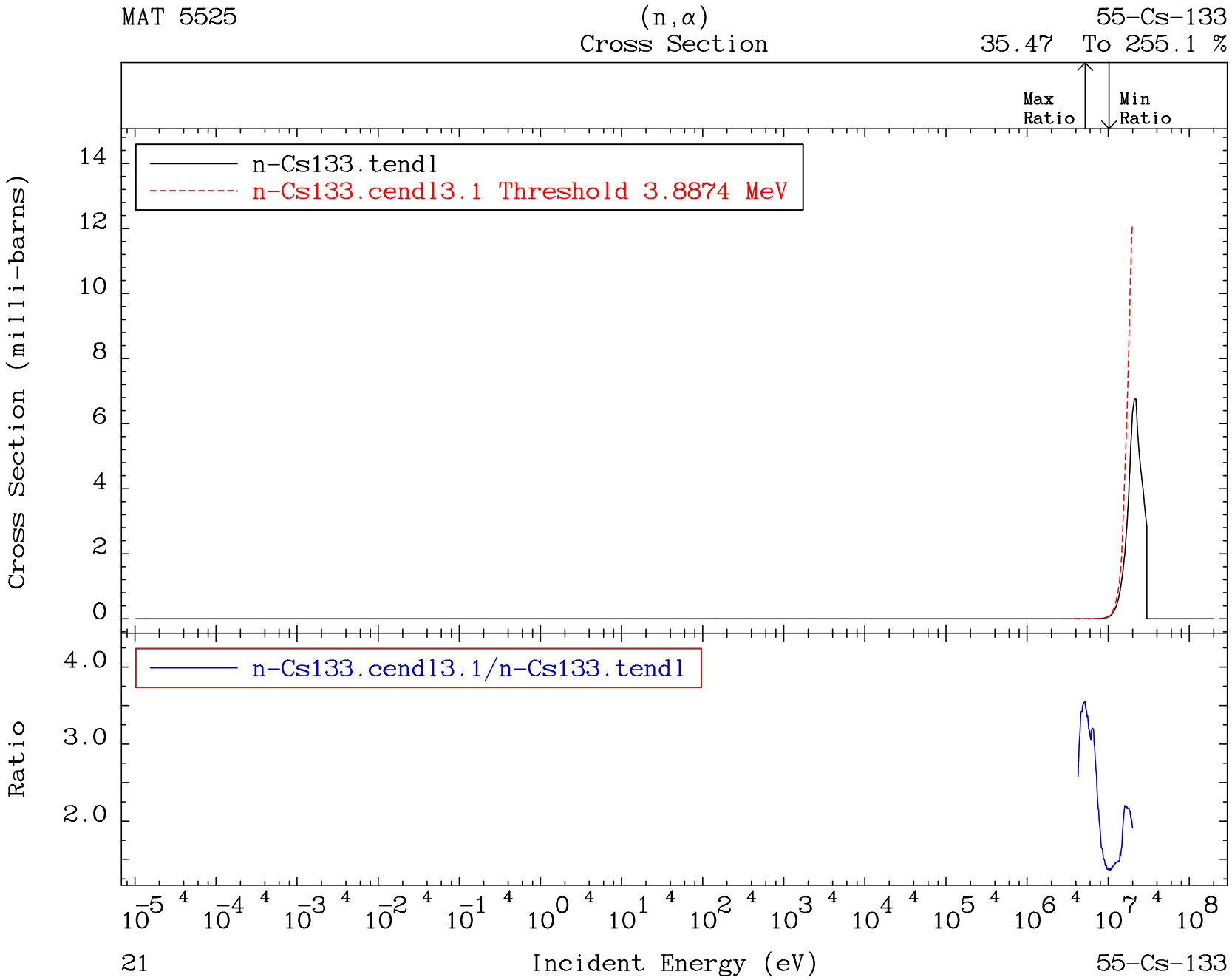

MAT 5525
(n,γ)
Cross Section
55-Cs-133
-99.94 To 9999. %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
16
Incident Energy (eV)
55-Cs-133

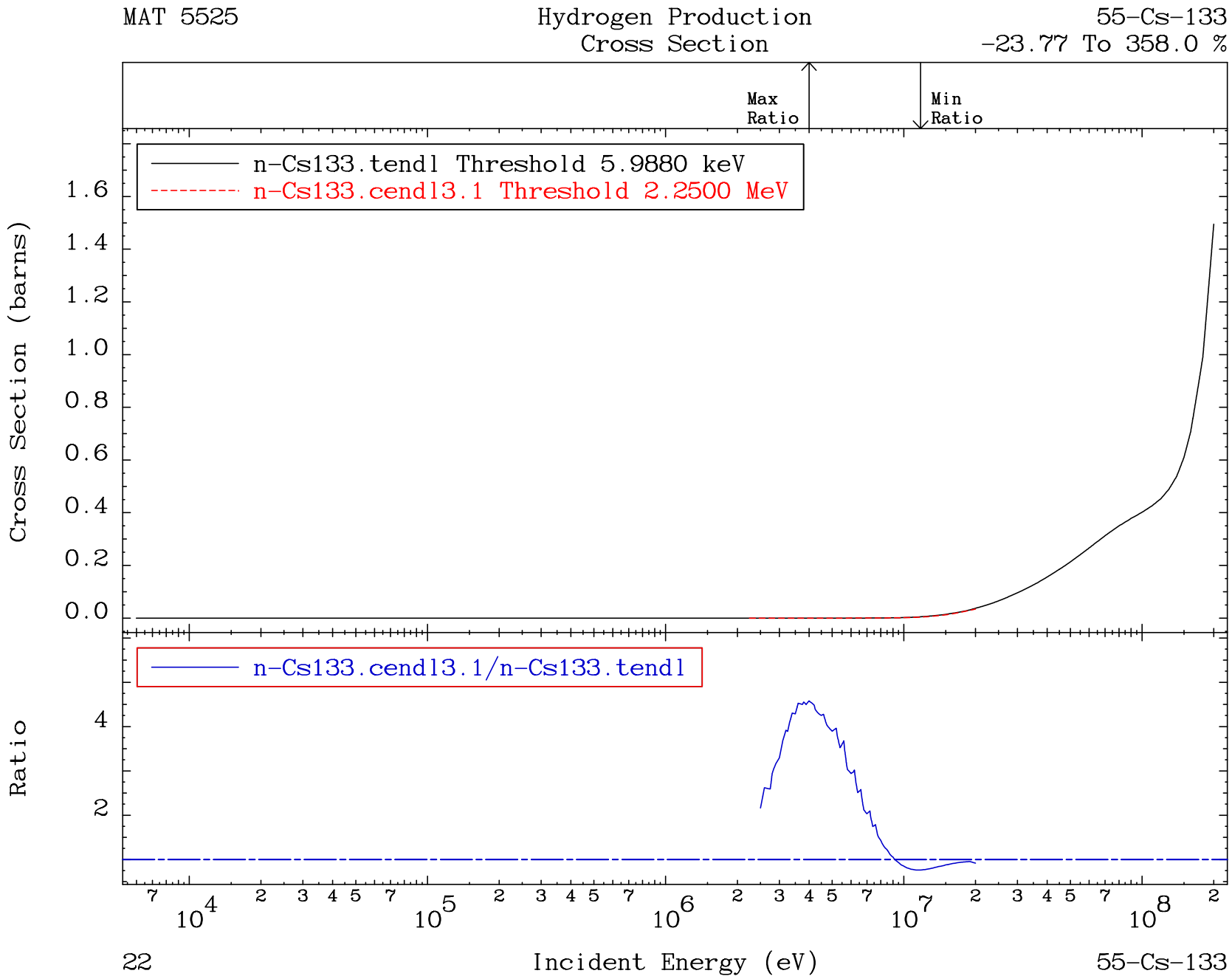

MAT 5525
(n,p)
Cross Section
55-Cs-133
-23.31 To 358.0 %
Max Ratio
Min Ratio
n-Cs133.tendl Threshold 5.9880 keV
n-Cs133.cendl3.1 Threshold 2.2500 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
4
2
7 2 3 4 5 7 2 3 4 5 7 2 3 4 5 7 2 3 4 5 7 2
10^4 10^5 10^6 10^7 10^8
17
Incident Energy (eV)
55-Cs-133

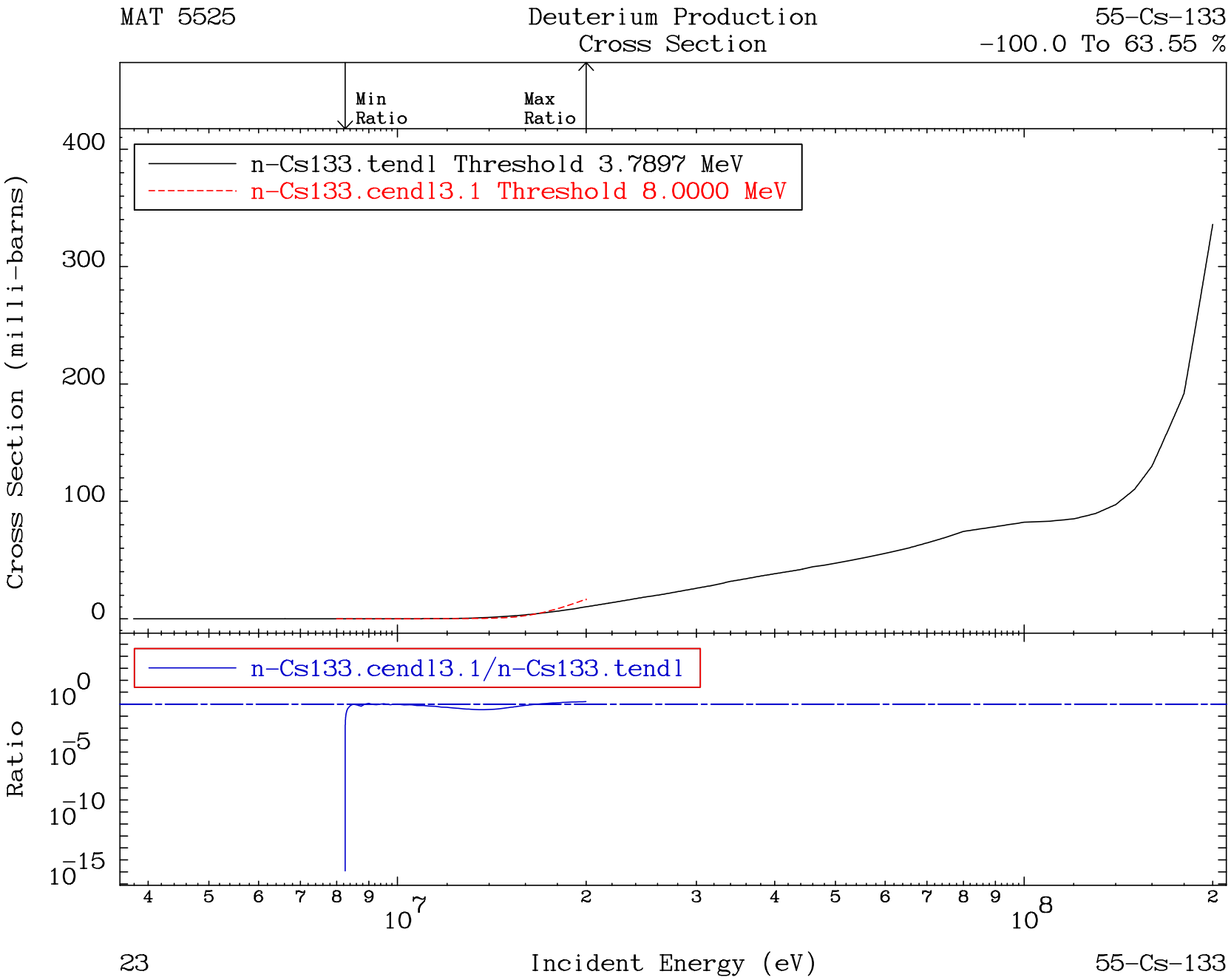

MAT 5525
(n,d)
Cross Section
55-Cs-133
-65.51 To 64.25 %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 3.7897 MeV
n-Cs133.cendl3.1 Threshold 8.2500 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
2.0
1.6
1.2
0.8
0.4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
55-Cs-133

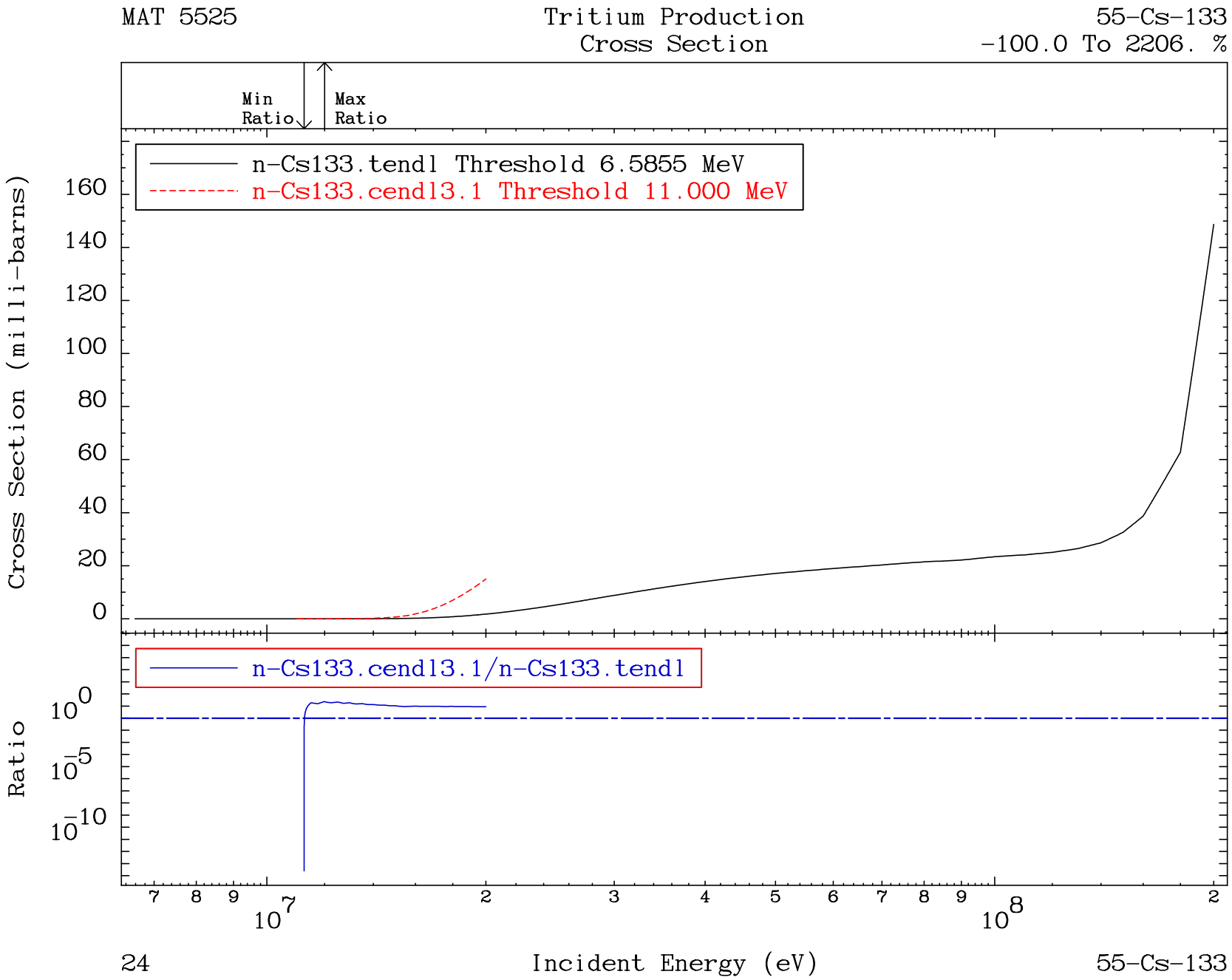

MAT 5525
(n,t)
Cross Section
55-Cs-133
763.1 To 2206. %
Max Ratio
Min Ratio
n-Cs133.tendl Threshold 6.5855 MeV
n-Cs133.cendl3.1 Threshold 11.250 MeV
Cross Section (milli-barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
19
55-Cs-133

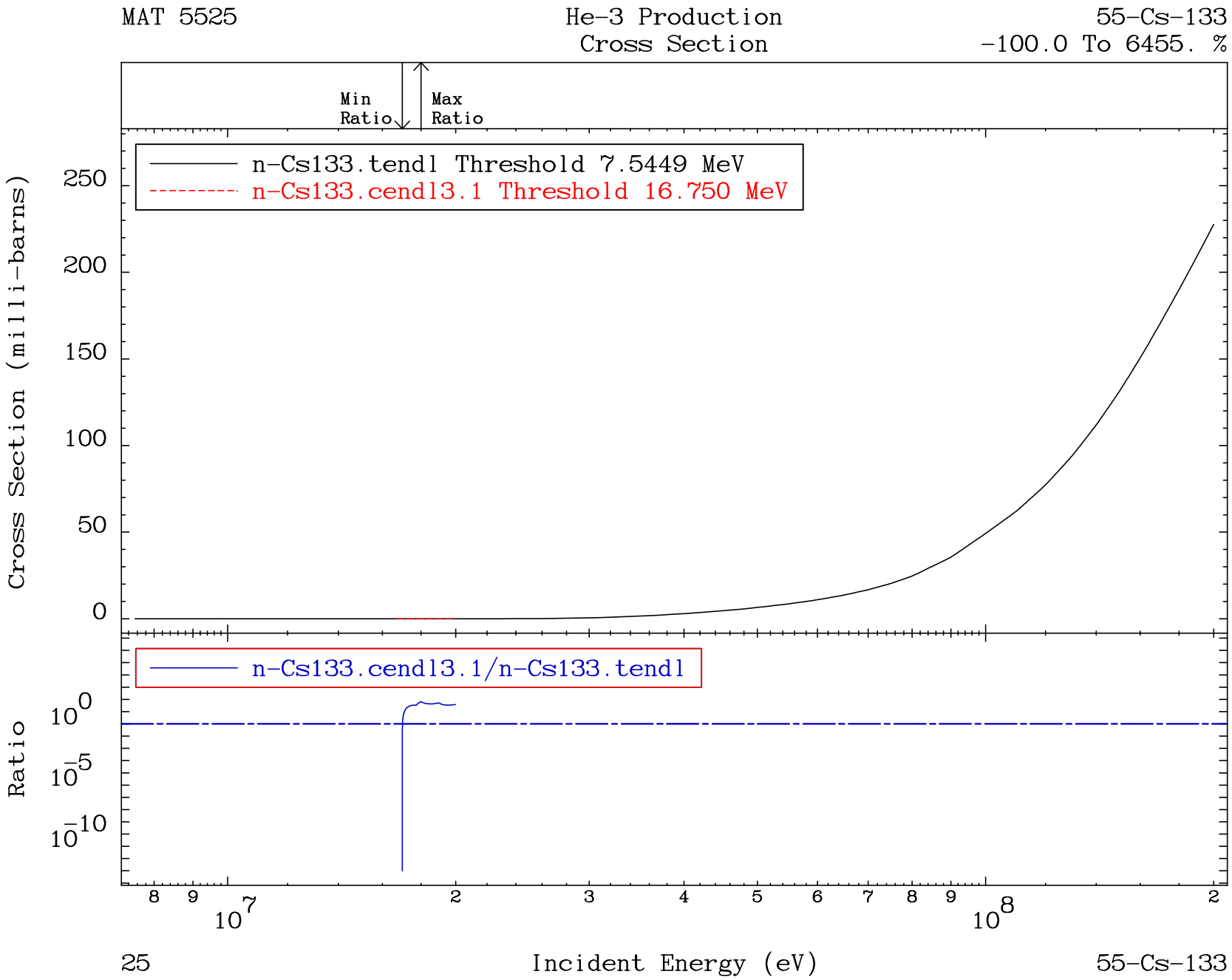

MAT 5525
(n,He-3)
Cross Section
55-Cs-133
2157. To 6455. %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 7.5449 MeV
n-Cs133.cendl3.1 Threshold 17.000 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
60
40
20
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
55-Cs-133

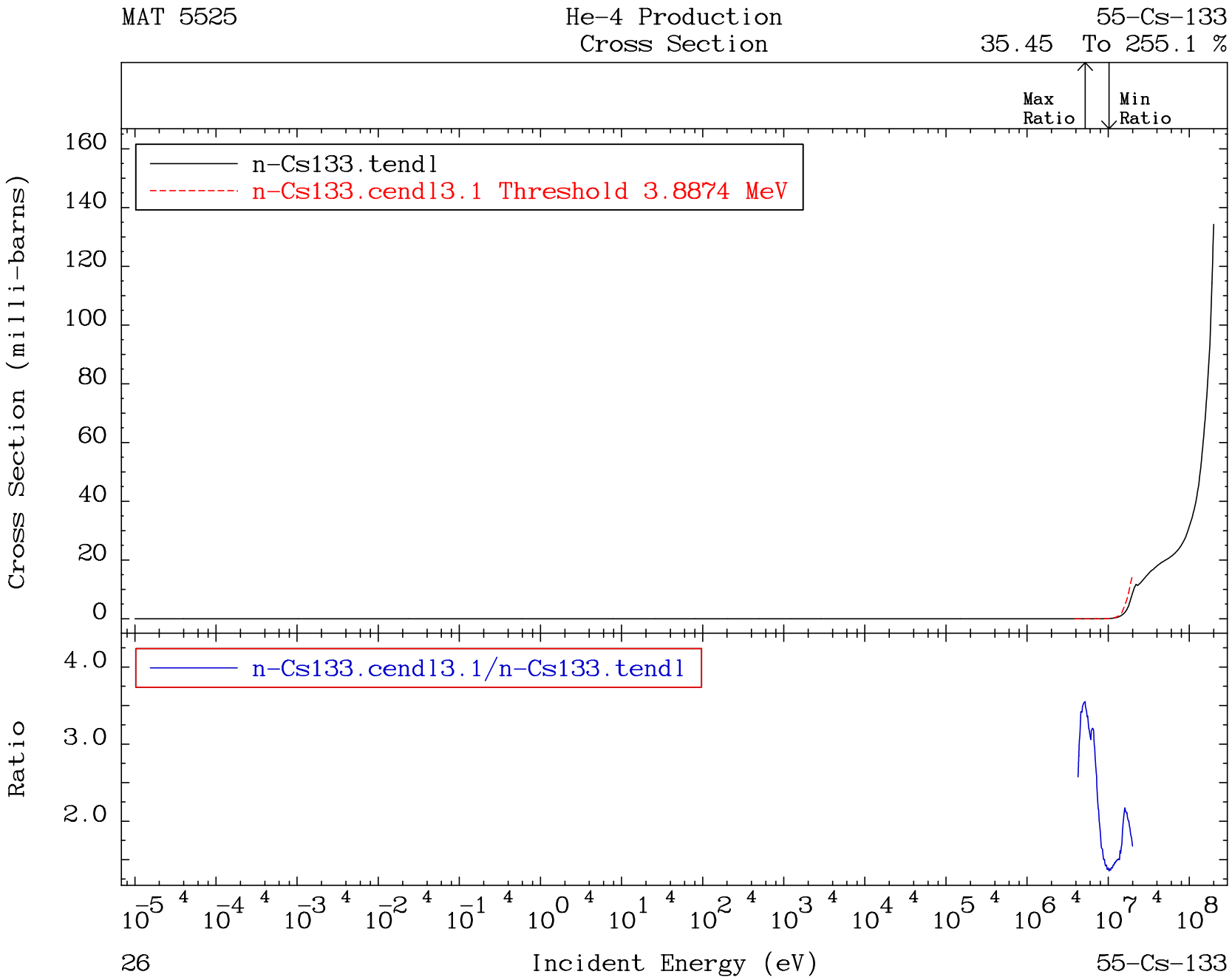

MAT 5525
(n,α)
Cross Section
55-Cs-133
35.47 To 255.1 %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1 Threshold 3.8874 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
2.0
3.0
4.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
21
Incident Energy (eV)
55-Cs-133

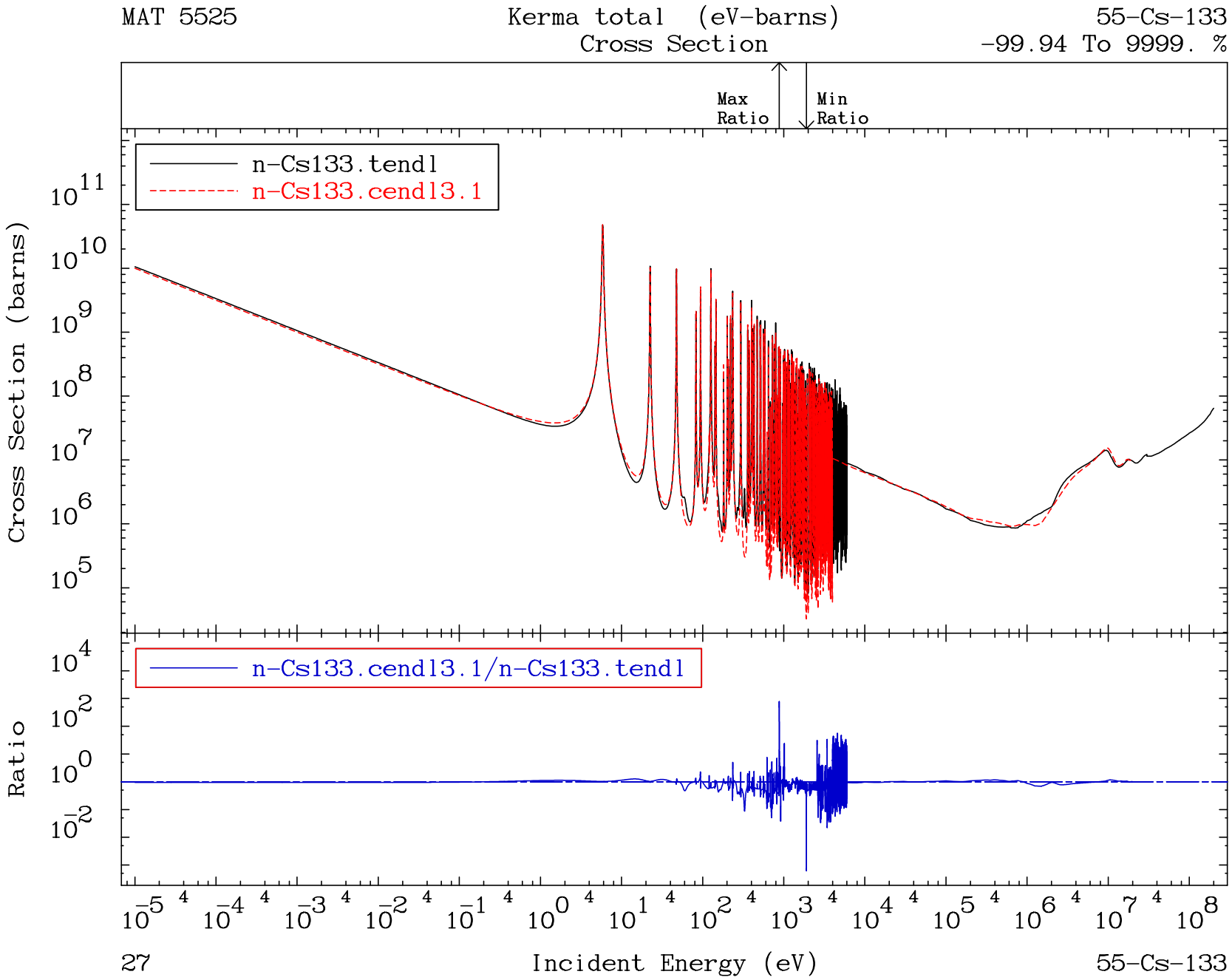

MAT 5525
Hydrogen Production
Cross Section
55-Cs-133
-23.77 To 358.0 %
Max Ratio
Min Ratio
n-Cs133.tendl Threshold 5.9880 keV
n-Cs133.cendl3.1 Threshold 2.2500 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
4
2
7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
22
Incident Energy (eV)
55-Cs-133

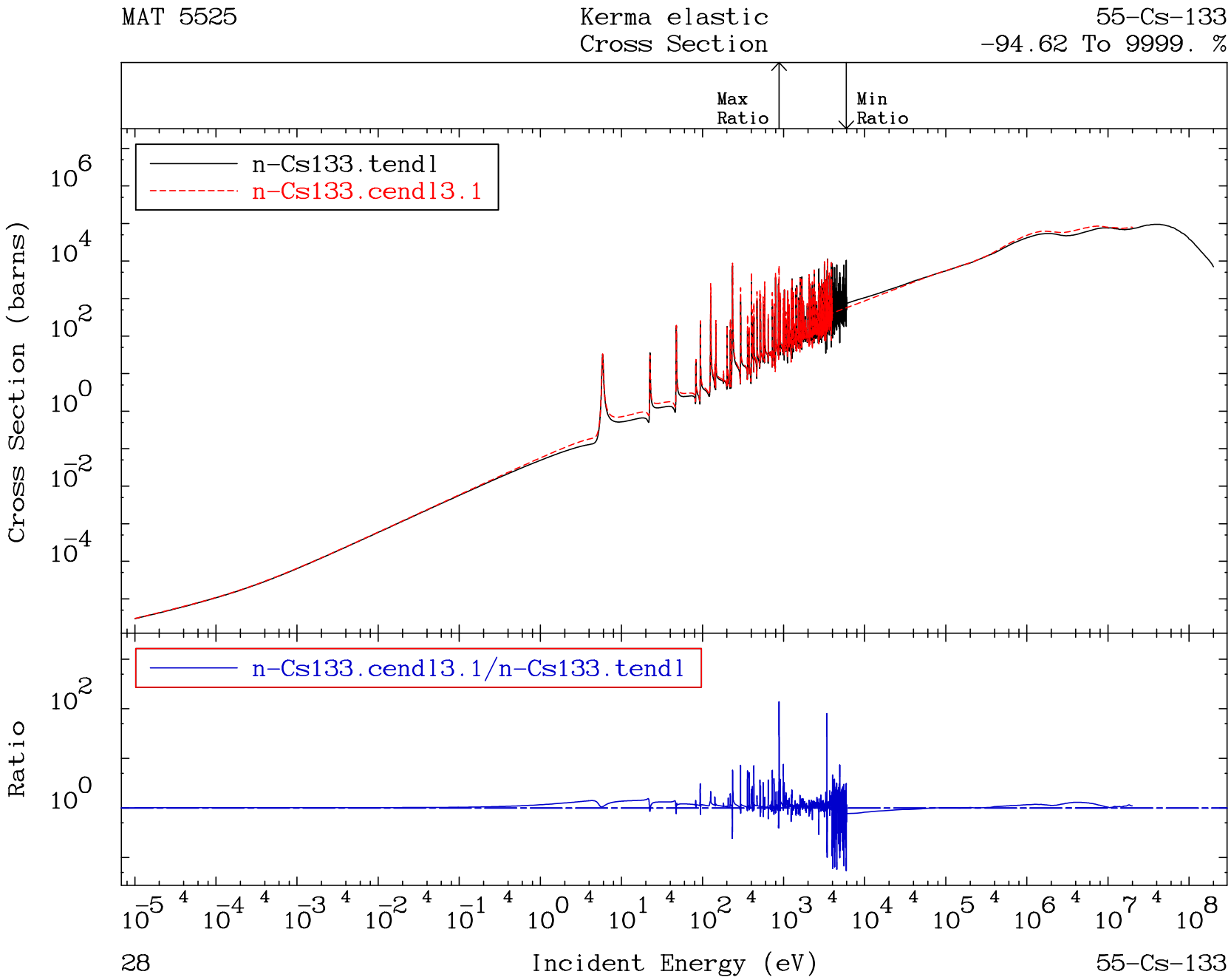

MAT 5525
Deuterium Production
Cross Section
55-Cs-133
-100.0 To 63.55 %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 3.7897 MeV
n-Cs133.cendl3.1 Threshold 8.0000 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^0
10^-5
10^-10
10^-15
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
55-Cs-133

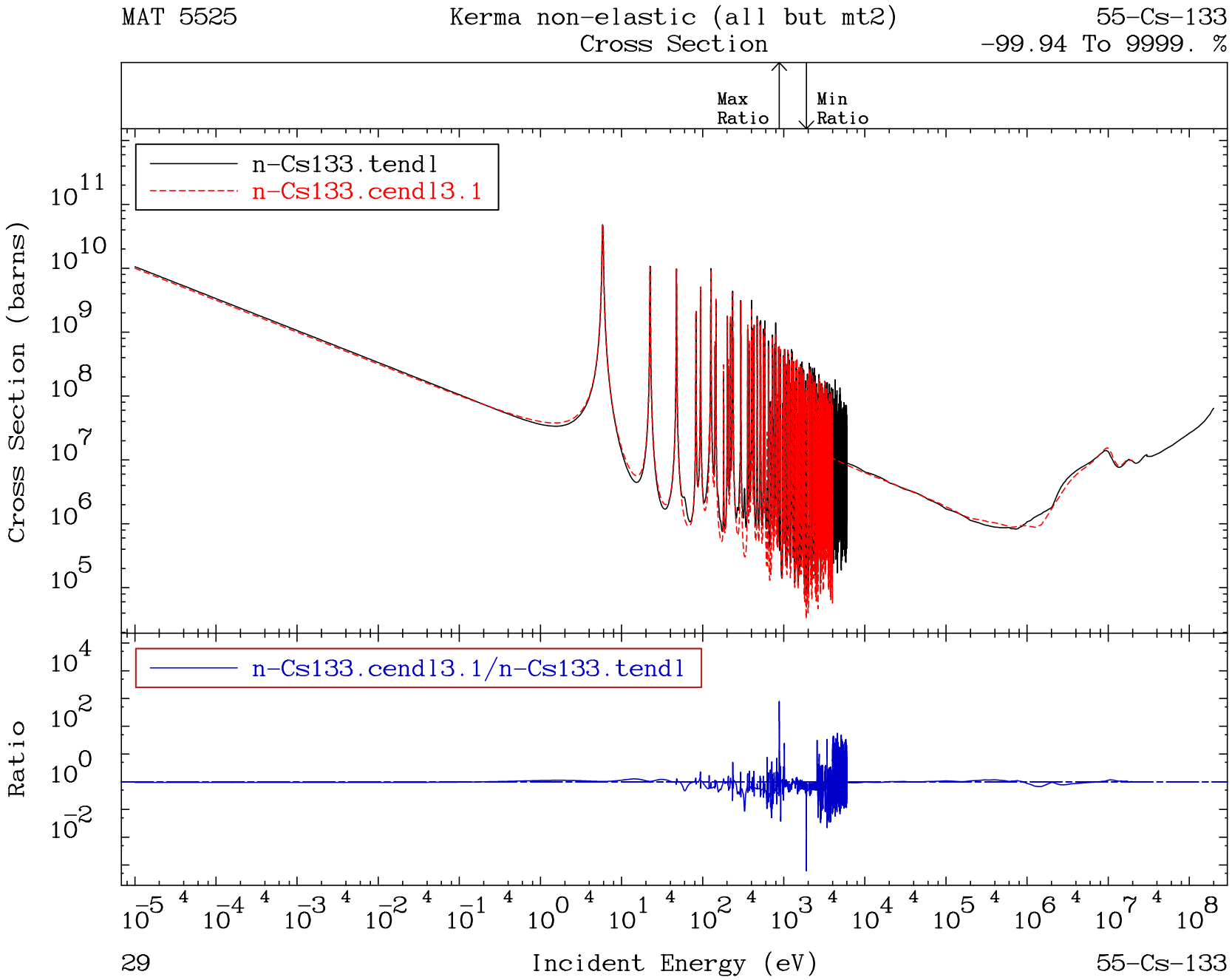

MAT 5525
Tritium Production
Cross Section
55-Cs-133
-100.0 To 2206. %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 6.5855 MeV
n-Cs133.cendl3.1 Threshold 11.000 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^0
10^-5
10^-10
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
55-Cs-133

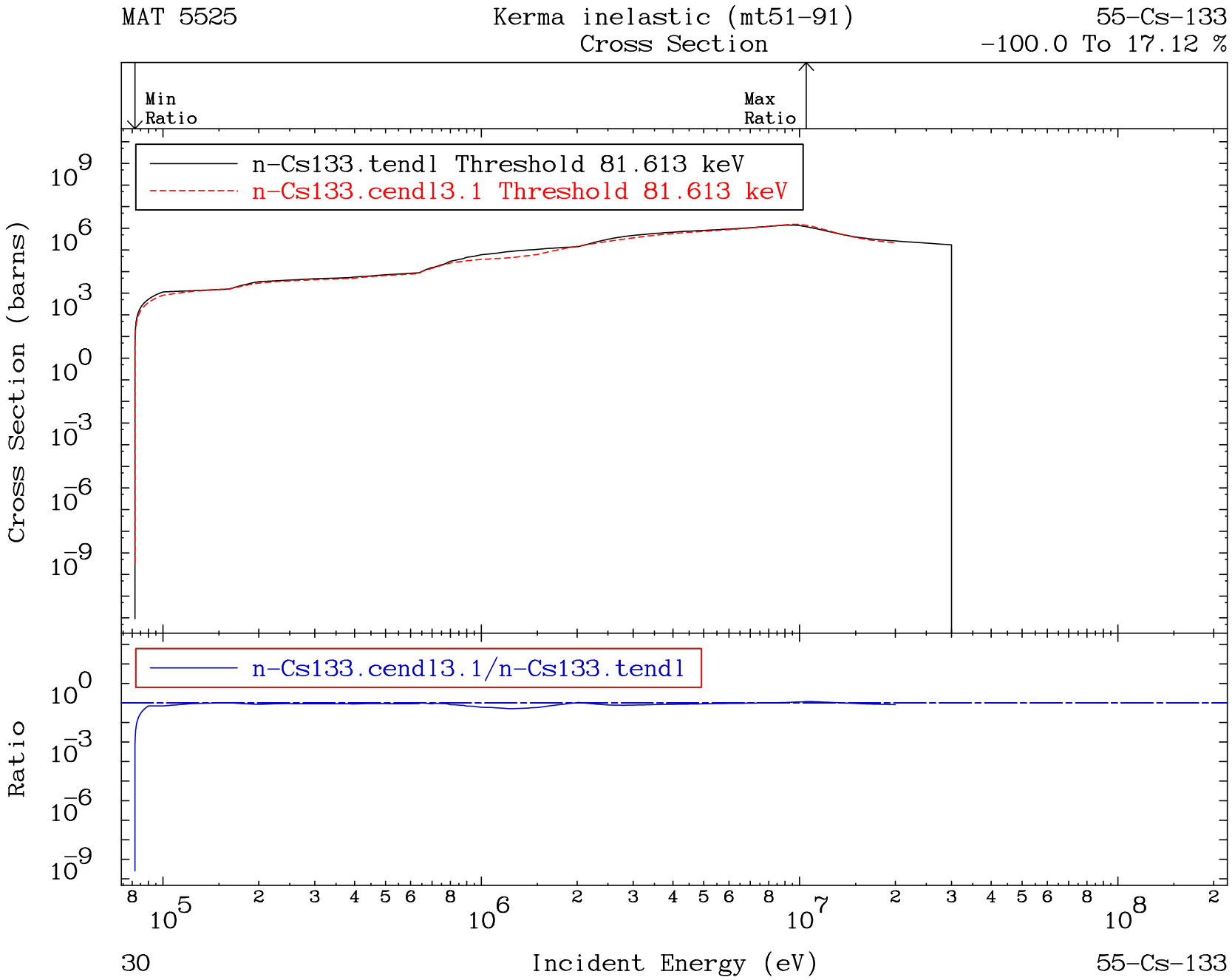

MAT 5525
He-3 Production
Cross Section
55-Cs-133
-100.0 To 6455. %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 7.5449 MeV
n-Cs133.cendl3.1 Threshold 16.750 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^0
10^-5
10^-10
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
55-Cs-133

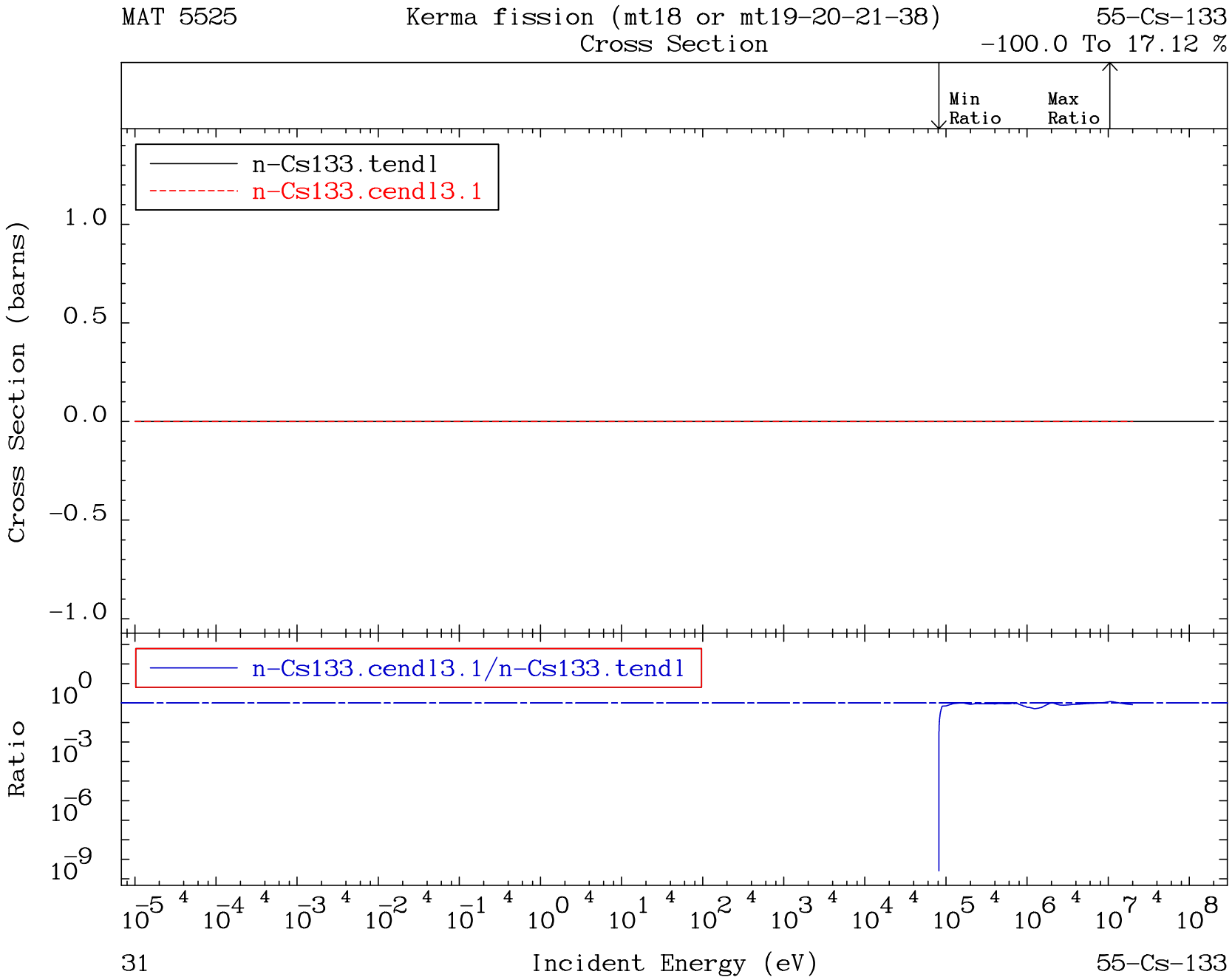

MAT 5525
He-4 Production
Cross Section
55-Cs-133
35.45 To 255.1 %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1 Threshold 3.8874 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
4.0
3.0
2.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
26
Incident Energy (eV)
55-Cs-133

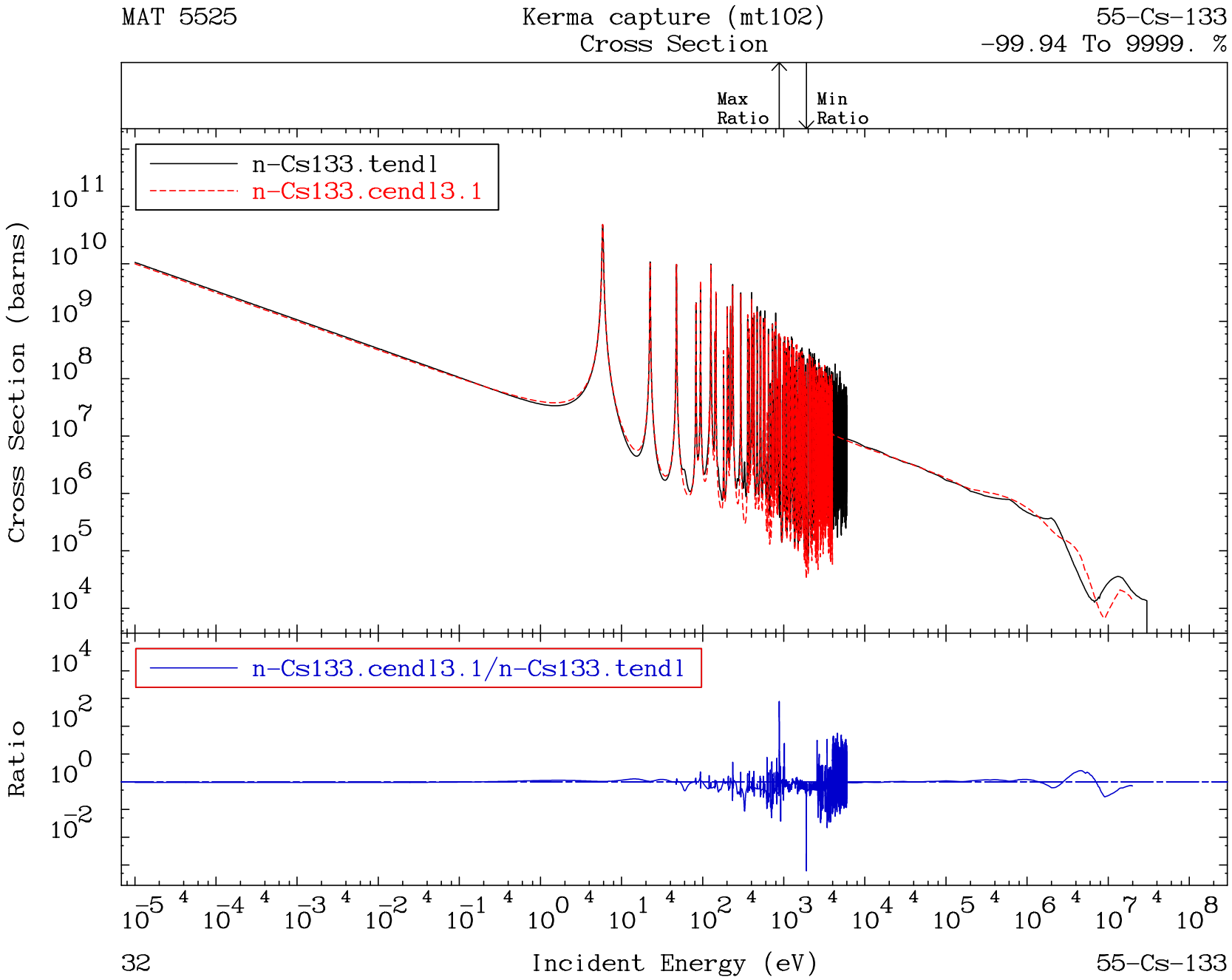

MAT 5525
Kerma total (eV-barns)
Cross Section
55-Cs-133
-99.94 To 9999. %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
27
55-Cs-133

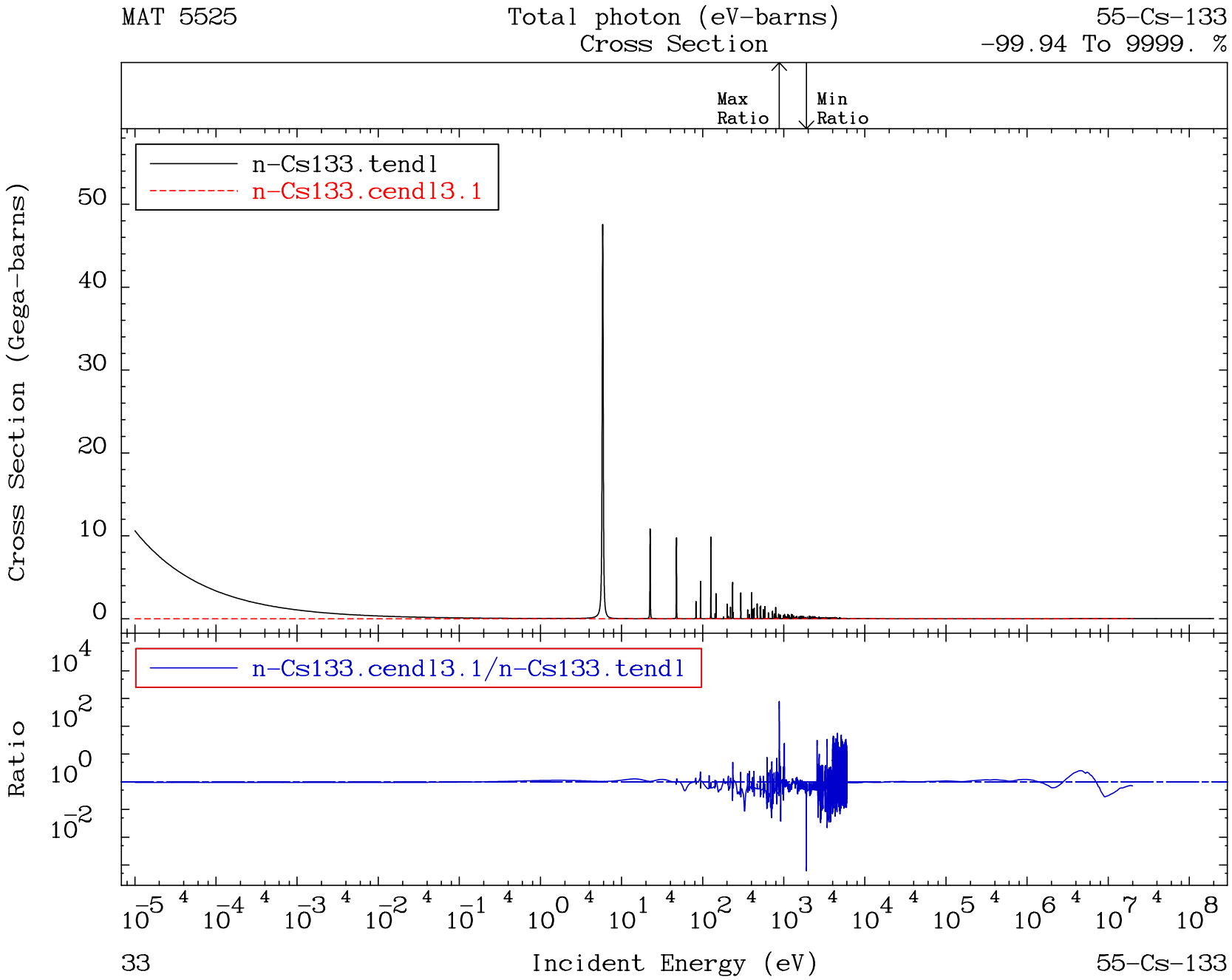

MAT 5525
Kerma elastic
Cross Section
55-Cs-133
-94.62 To 9999. %
Max
Ratio
Min
Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
28
55-Cs-133

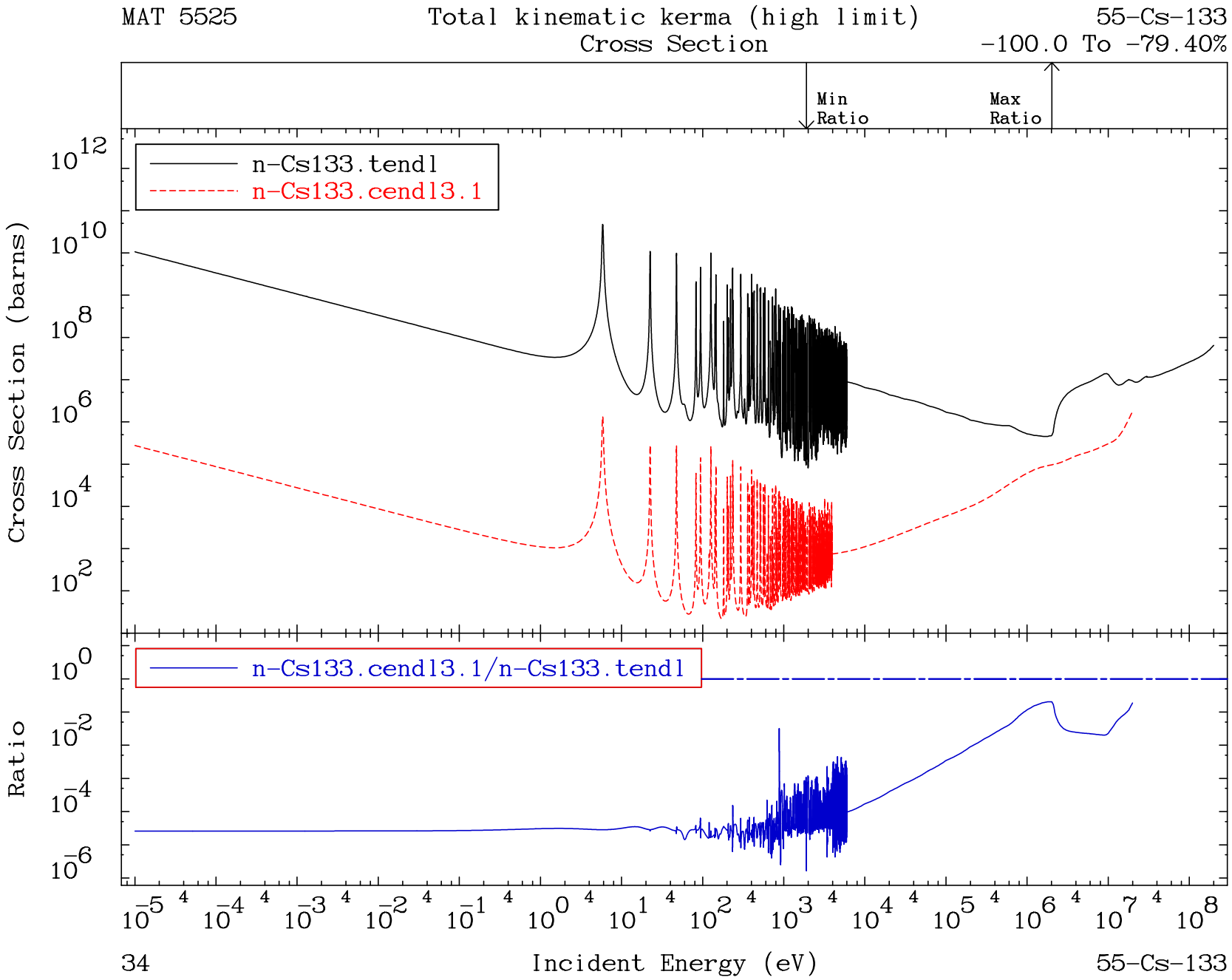

MAT 5525
Kerma non-elastic (all but mt2)
Cross Section
55-Cs-133
-99.94 To 9999. %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
29
55-Cs-133

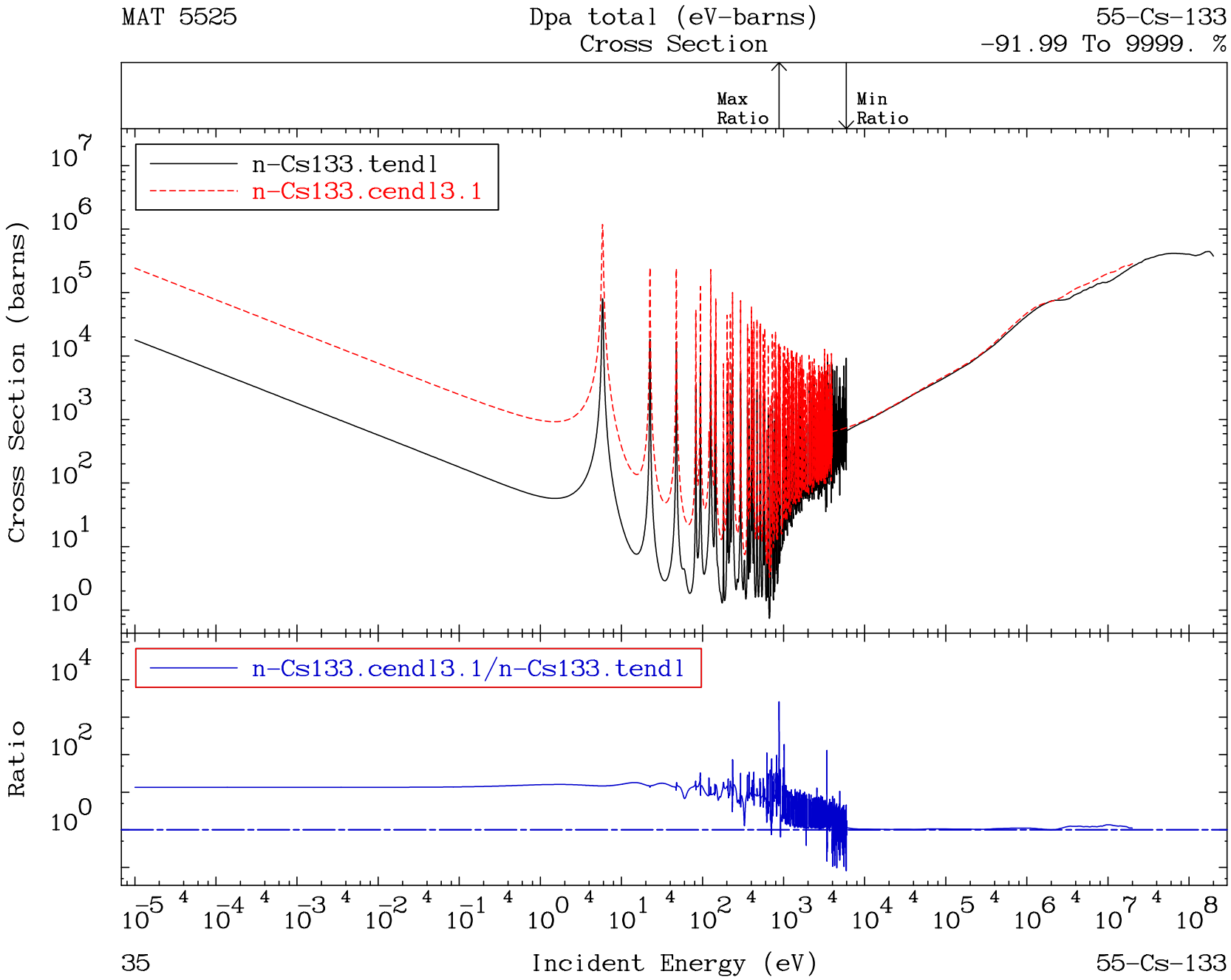

MAT 5525
Kerma inelastic (mt51-91)
Cross Section
55-Cs-133
-100.0 To 17.12 %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 81.613 keV
n-Cs133.cendl3.1 Threshold 81.613 keV
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
30
55-Cs-133

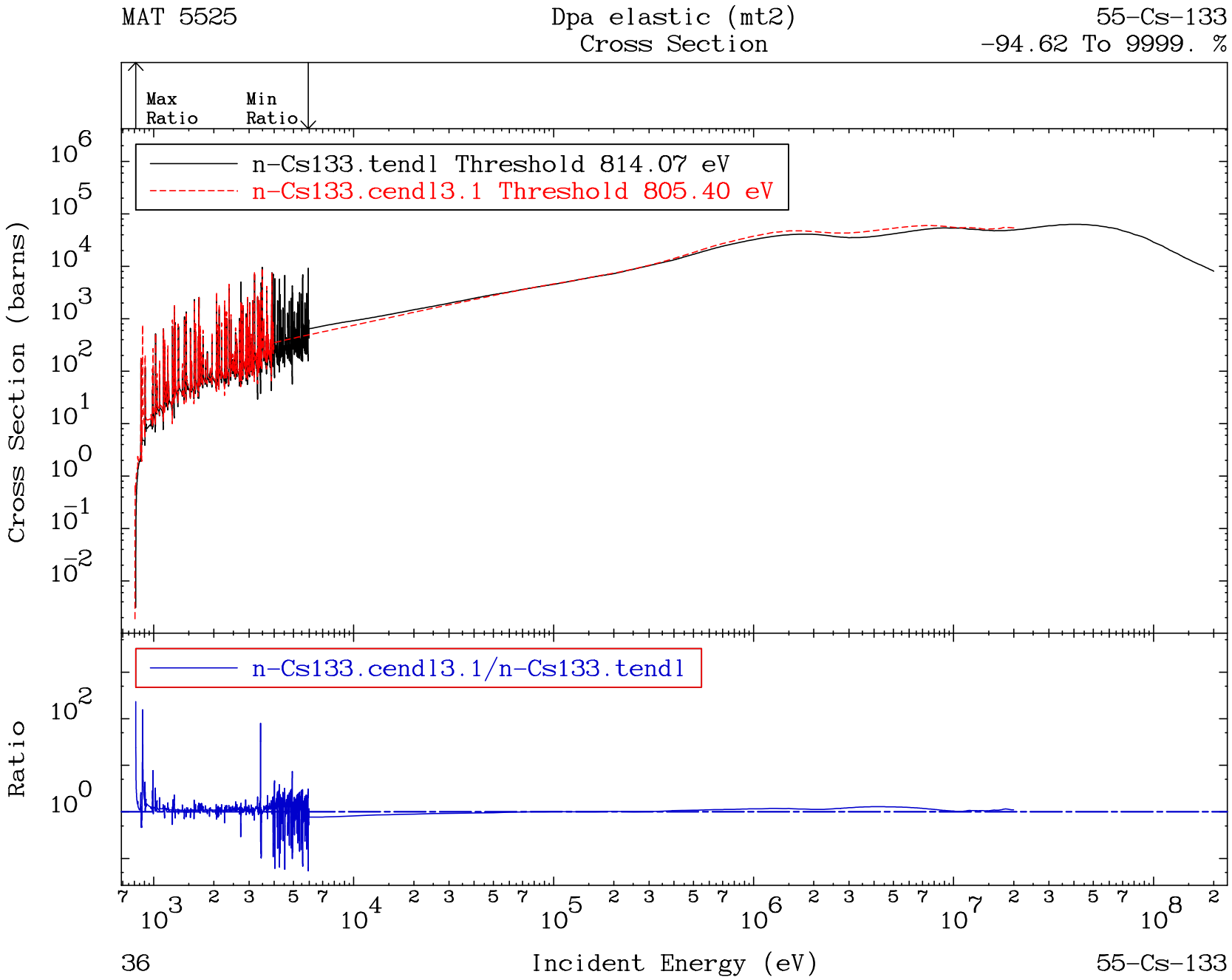

MAT 5525
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
55-Cs-133
-100.0 To 17.12 %
Min Ratio
Max Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^0
10^-3
10^-6
10^-9
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
31
Incident Energy (eV)
55-Cs-133

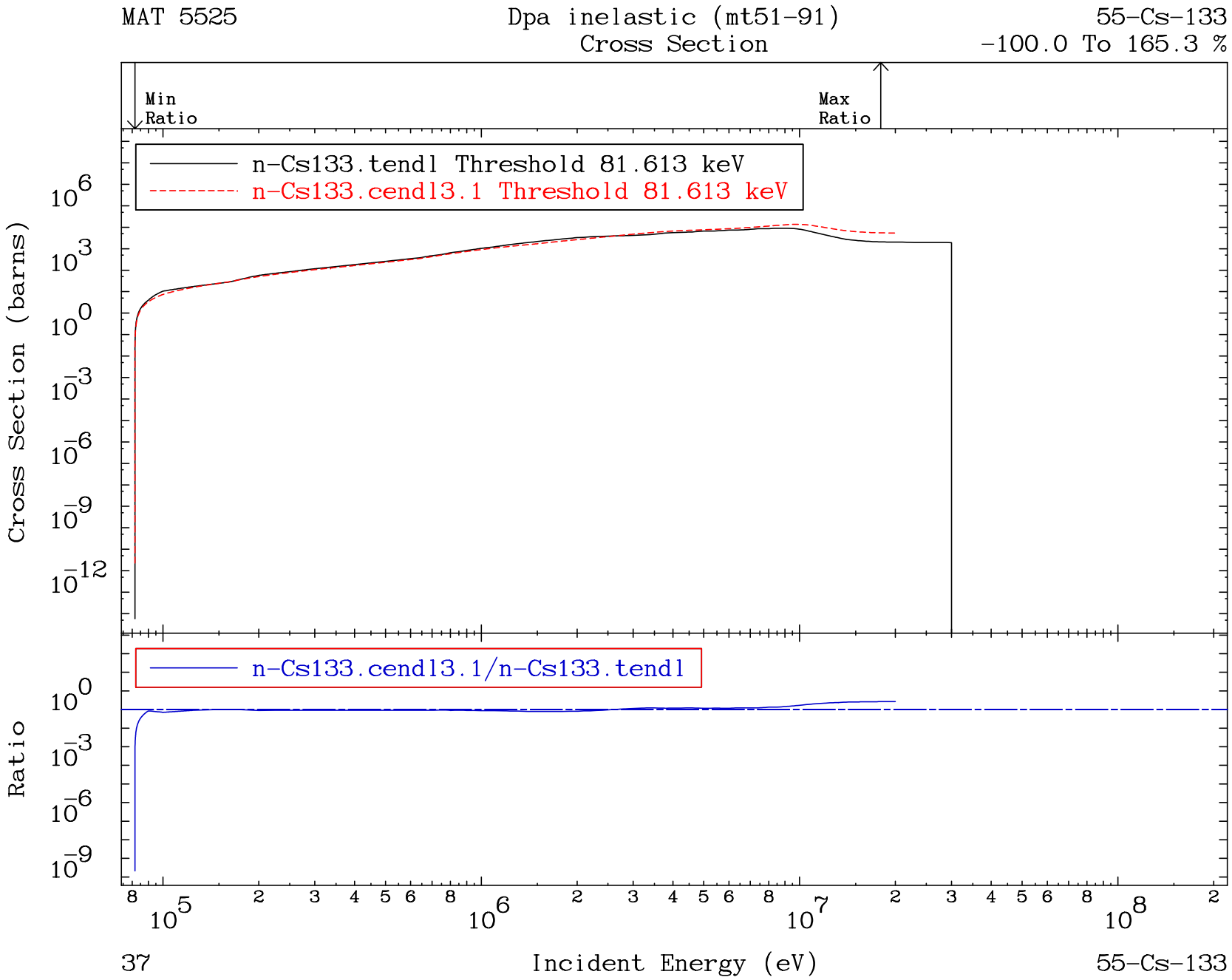

MAT 5525
Kerma capture (mt102)
Cross Section
55-Cs-133
-99.94 To 9999. %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
32
55-Cs-133

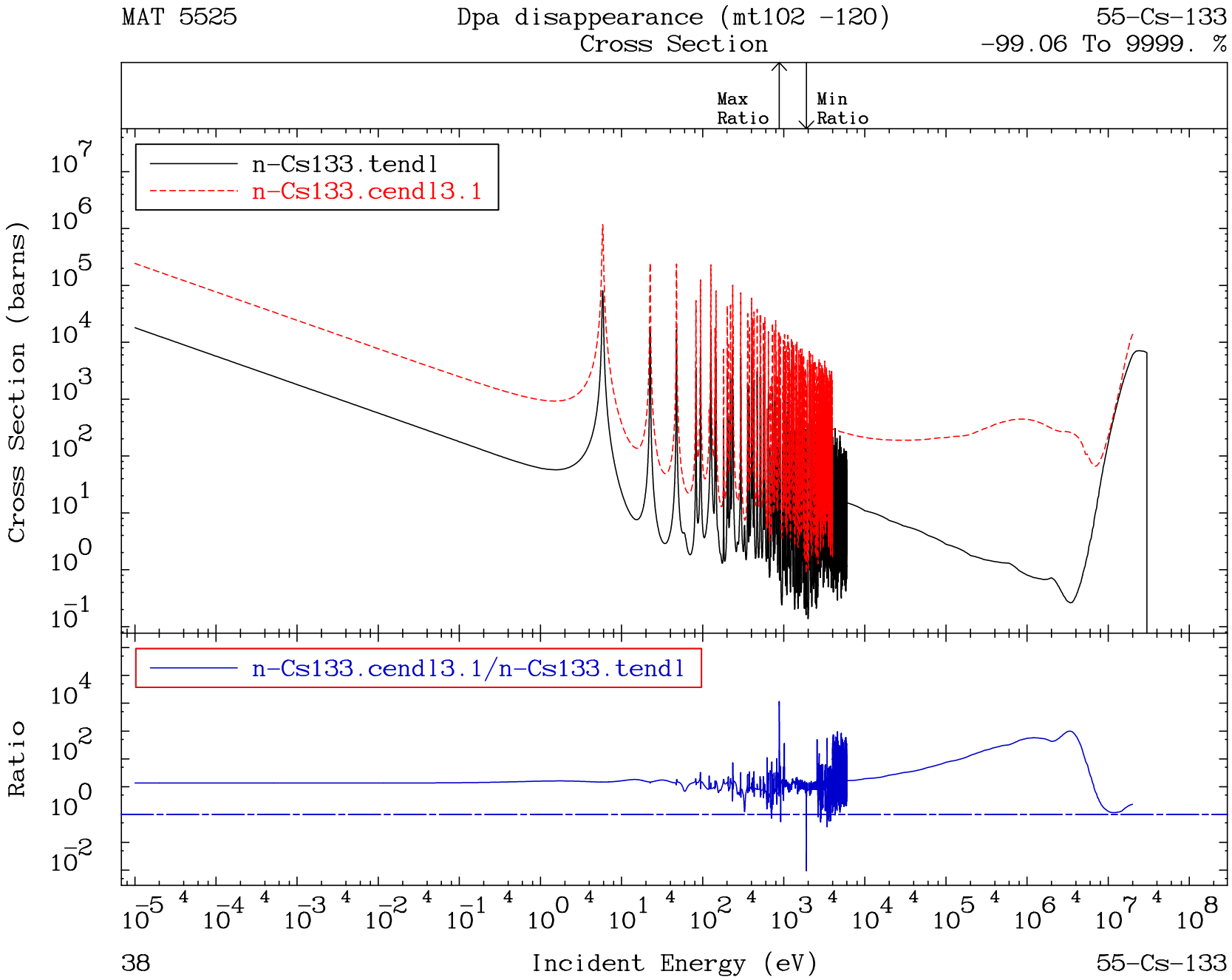

MAT 5525
Total photon (eV-barns)
Cross Section
55-Cs-133
-99.94 To 9999. %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (Giga-barns)
50
40
30
20
10
0
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
10^4
10^2
10^0
10^-2
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
33
Incident Energy (eV)
55-Cs-133


MAT 5525
Total kinematic kerma (high limit)
Cross Section
55-Cs-133
-100.0 To -79.40%
Min Ratio
Max Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
34
55-Cs-133


MAT 5525
Dpa total (eV-barns)
Cross Section
55-Cs-133
-91.99 To 9999. %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
35
55-Cs-133


MAT 5525
Dpa elastic (mt2)
Cross Section
55-Cs-133
-94.62 To 9999. %
Max Ratio
Min Ratio
n-Cs133.tendl Threshold 814.07 eV
n-Cs133.cendl3.1 Threshold 805.40 eV
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
36
55-Cs-133


MAT 5525
Dpa inelastic (mt51-91)
Cross Section
55-Cs-133
-100.0 To 165.3 %
Min Ratio
Max Ratio
n-Cs133.tendl Threshold 81.613 keV
n-Cs133.cendl3.1 Threshold 81.613 keV
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
37
55-Cs-133


MAT 5525
Dpa disappearance (mt102 -120)
Cross Section
55-Cs-133
-99.06 To 9999. %
Max Ratio
Min Ratio
n-Cs133.tendl
n-Cs133.cendl3.1
Cross Section (barns)
n-Cs133.cendl3.1/n-Cs133.tendl
Ratio
Incident Energy (eV)
38
55-Cs-133