Program Complot
(Version 2018-1)
by
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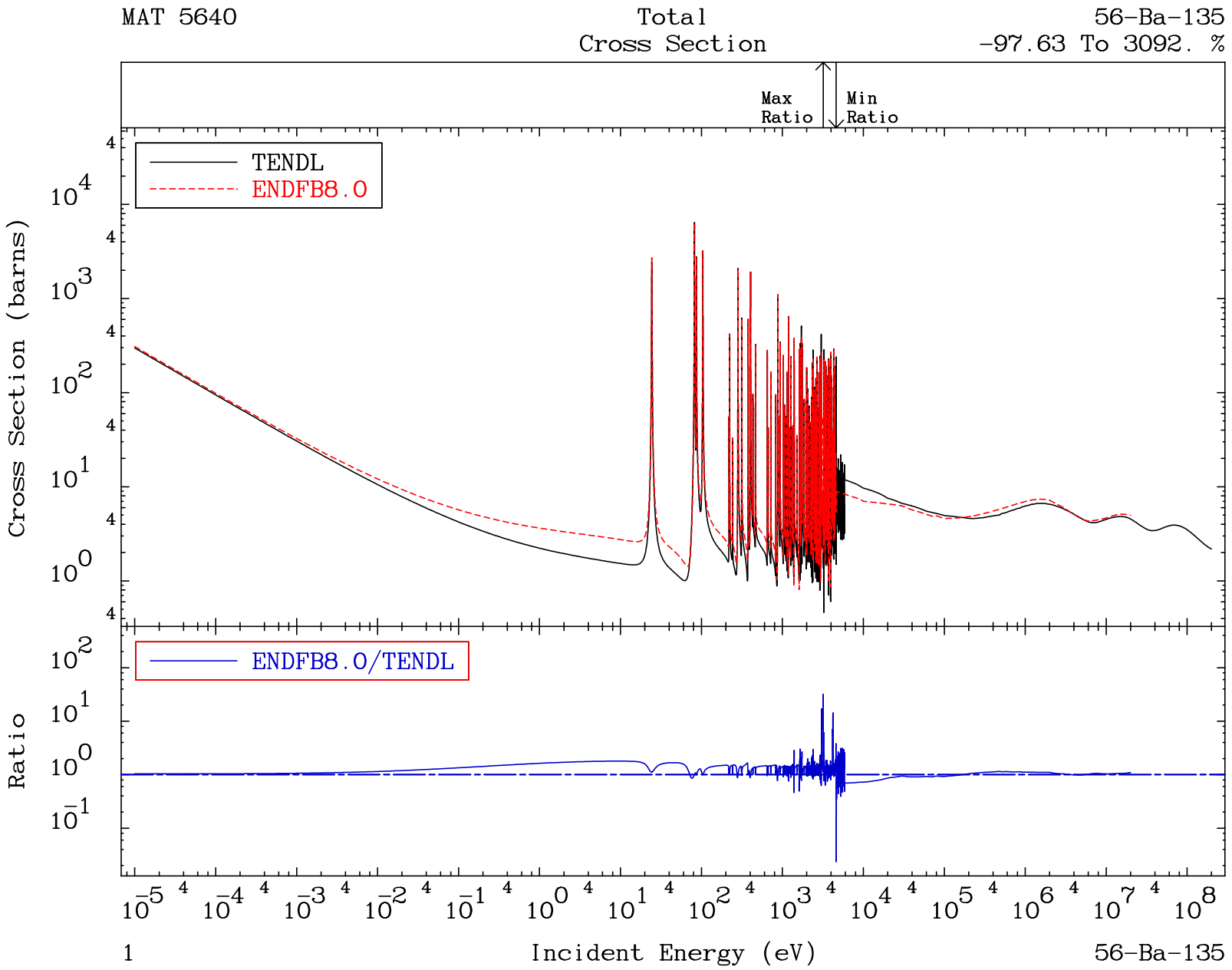
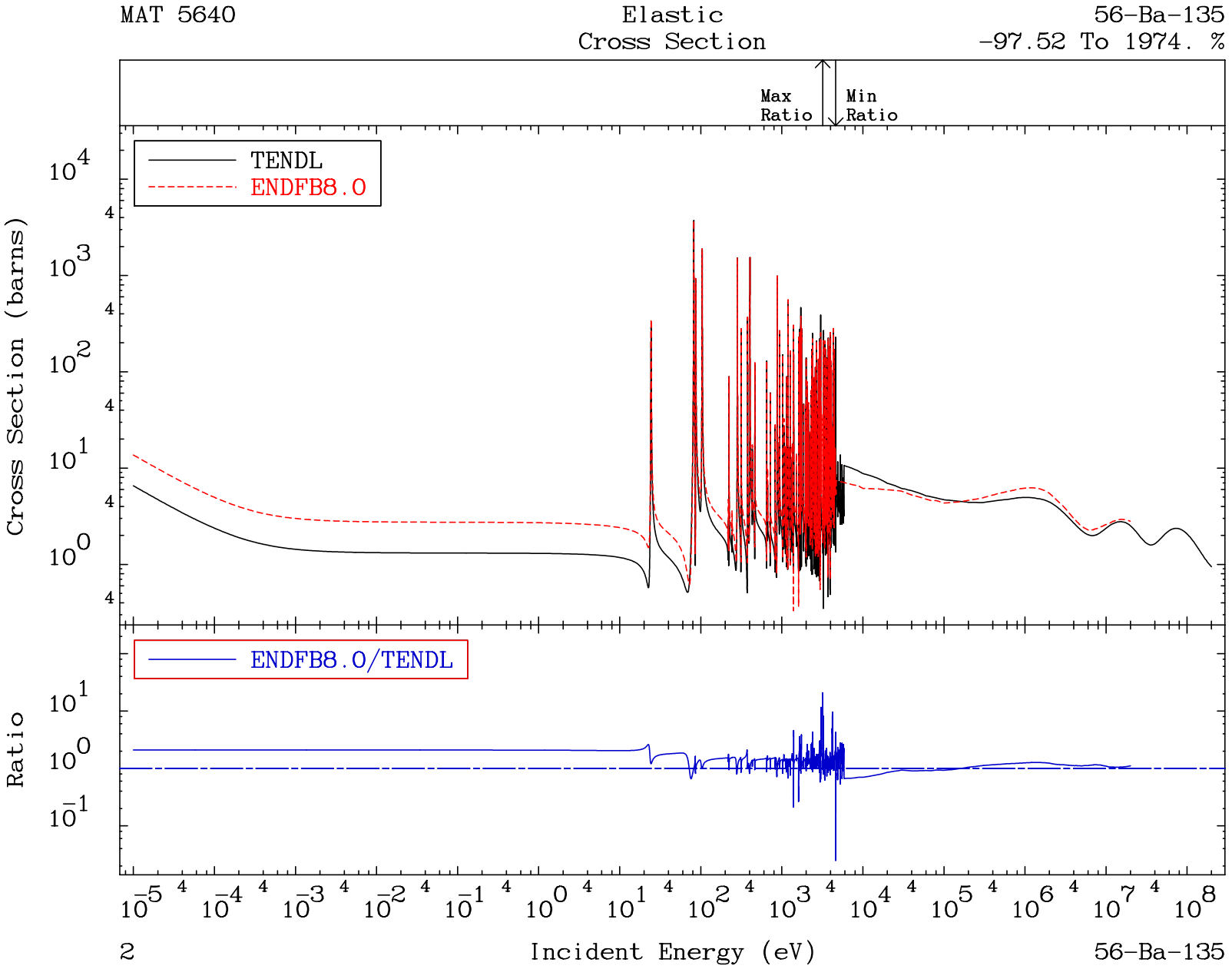
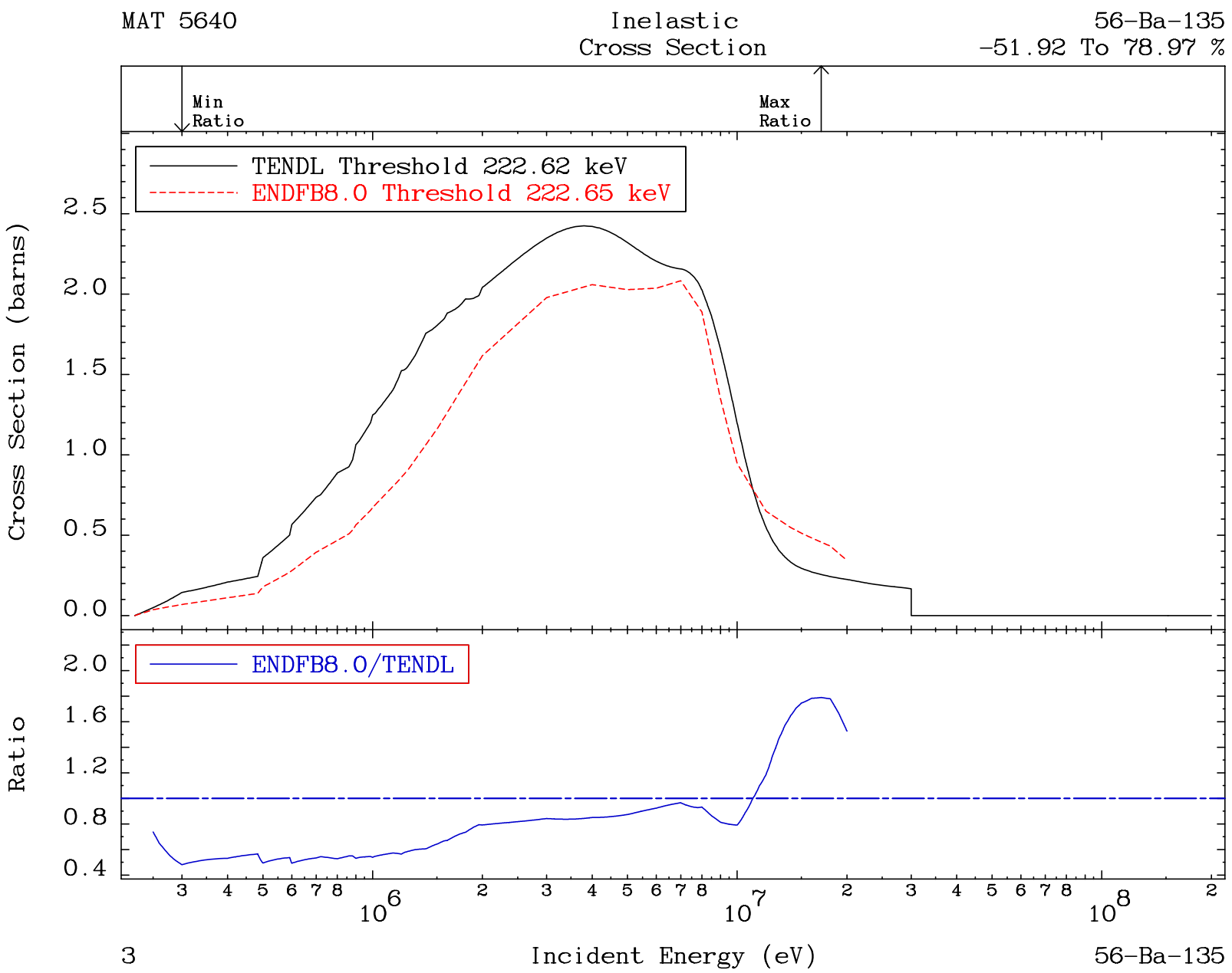
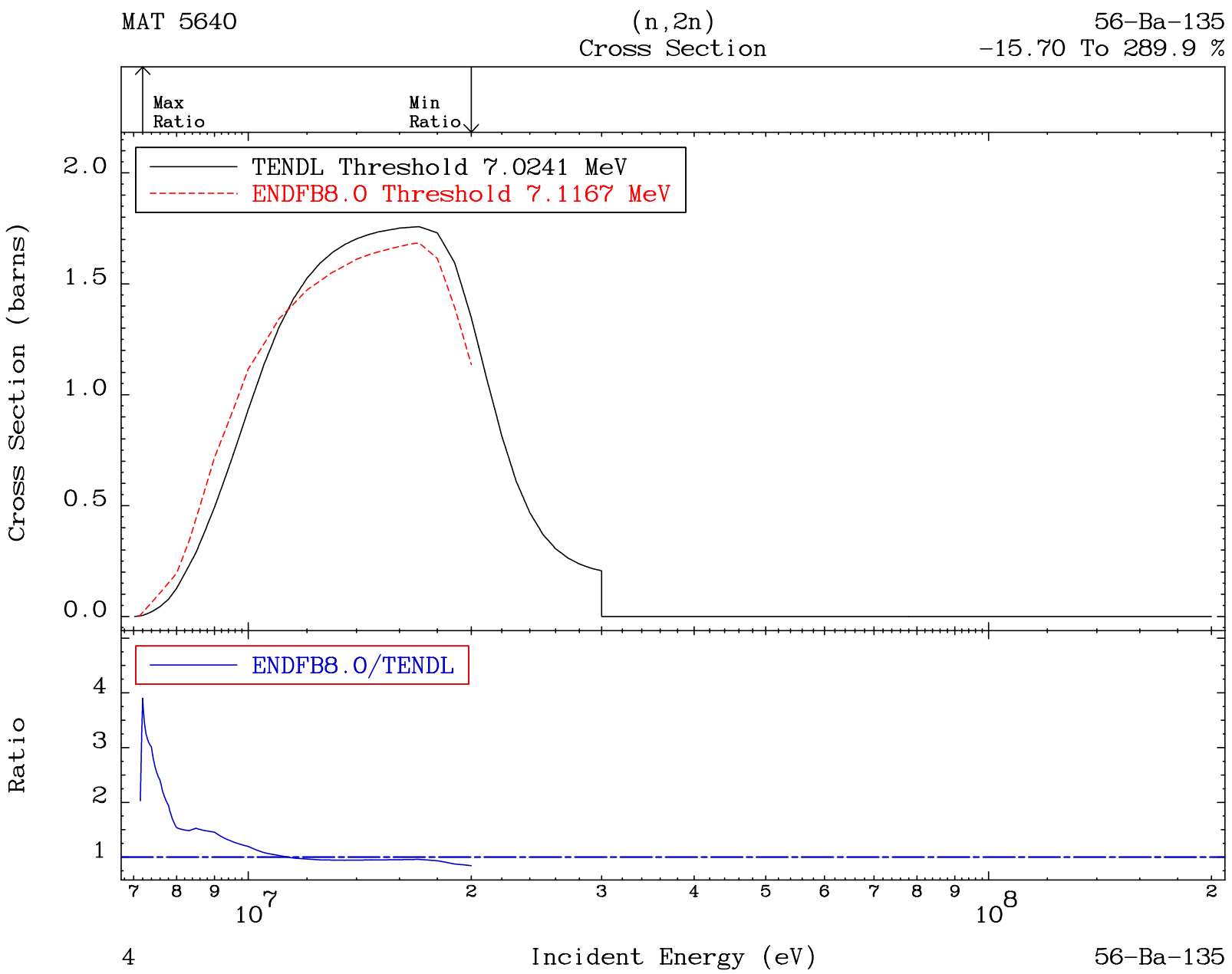
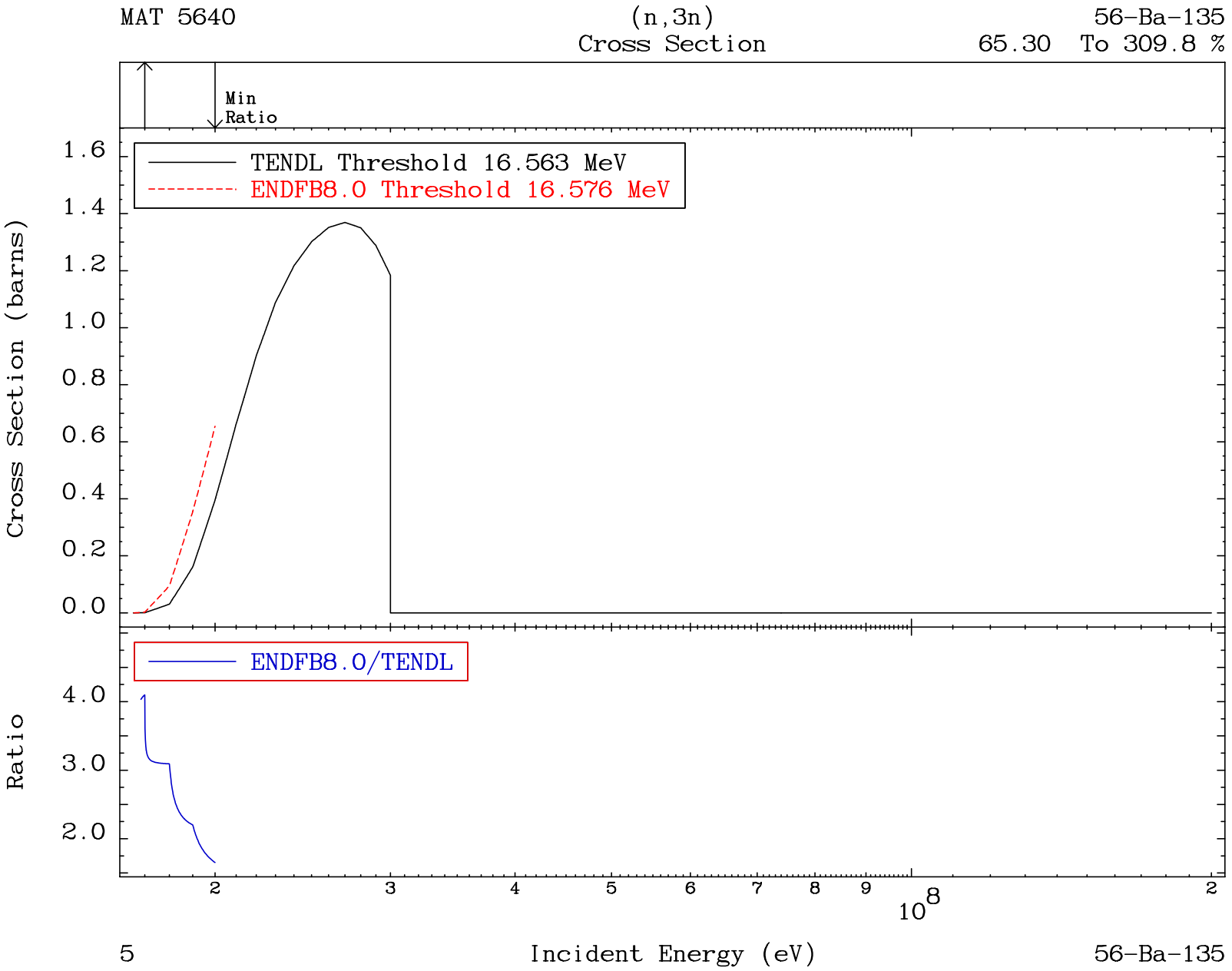
Press Mouse Button to Start

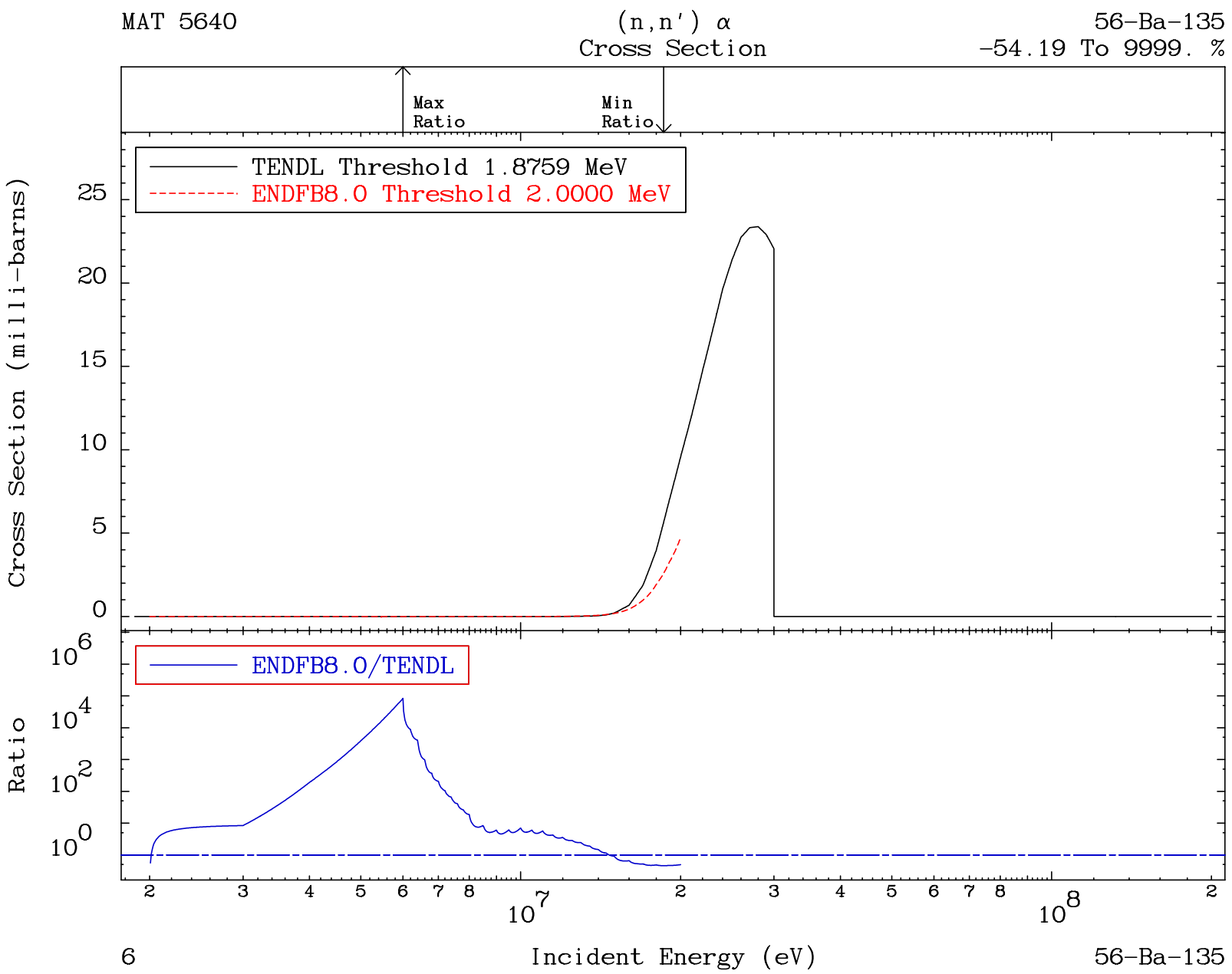

MAT 5640
Total
Cross Section
56-Ba-135
-97.63 To 3092. %
Max
Ratio
Min
Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
1
56-Ba-135

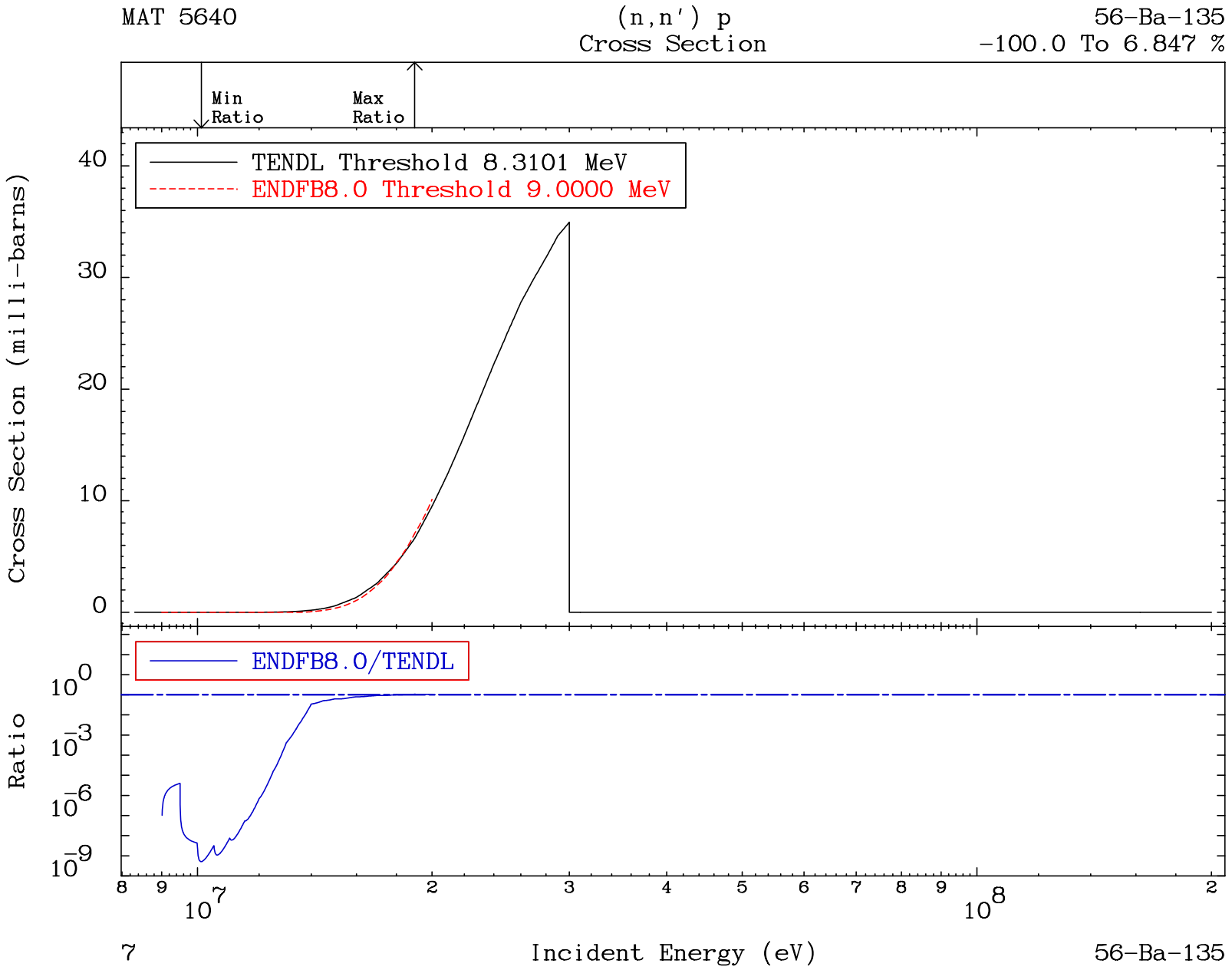

MAT 5640
Elastic
Cross Section
56-Ba-135
-97.52 To 1974. %
Max
Ratio
Min
Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
2
56-Ba-135

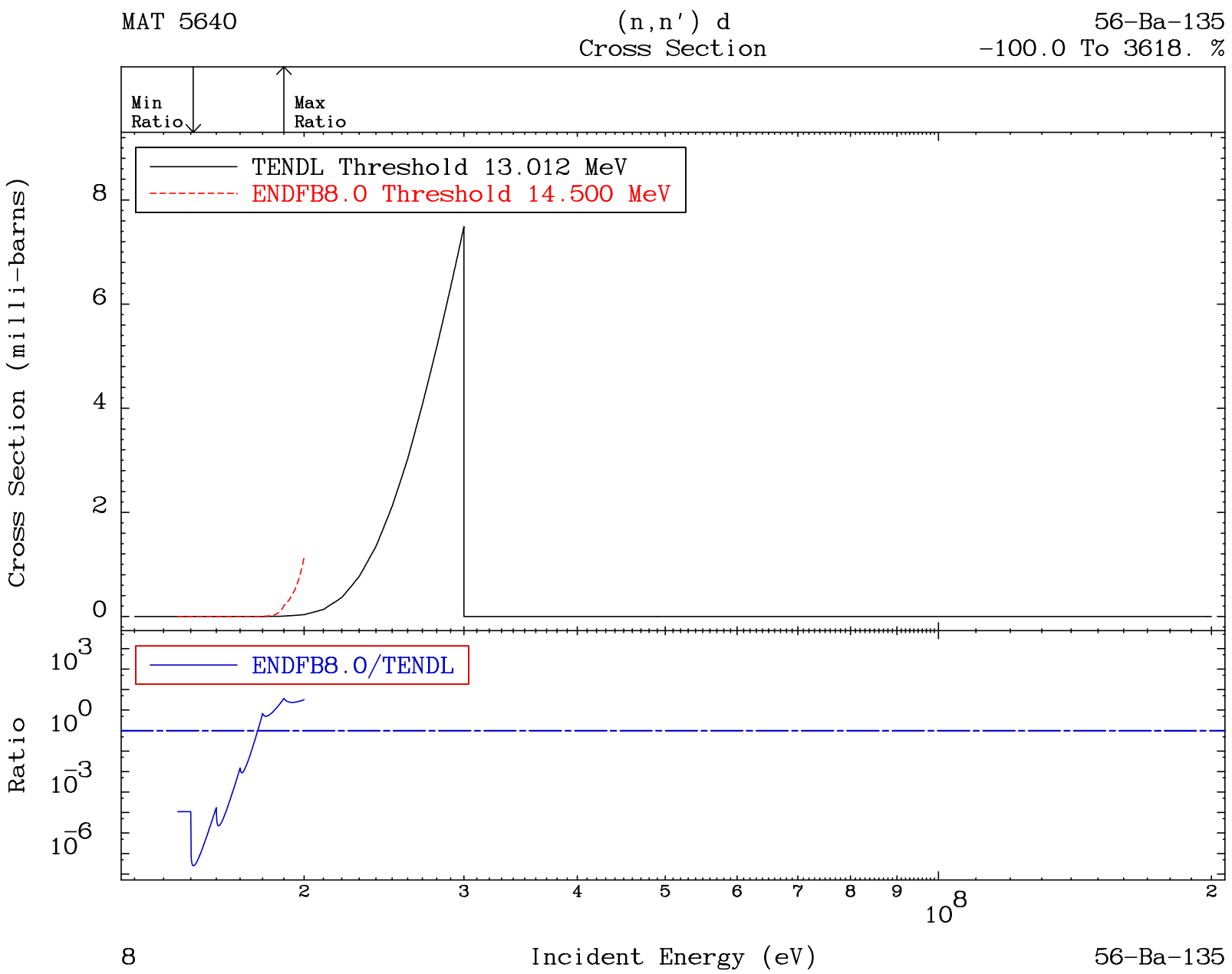

MAT 5640
Inelastic
Cross Section
56-Ba-135
-51.92 To 78.97 %
Min
Ratio
Max
Ratio
TENDL Threshold 222.62 keV
ENDFB8.0 Threshold 222.65 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
2.0
1.6
1.2
0.8
0.4
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
3
Incident Energy (eV)
56-Ba-135

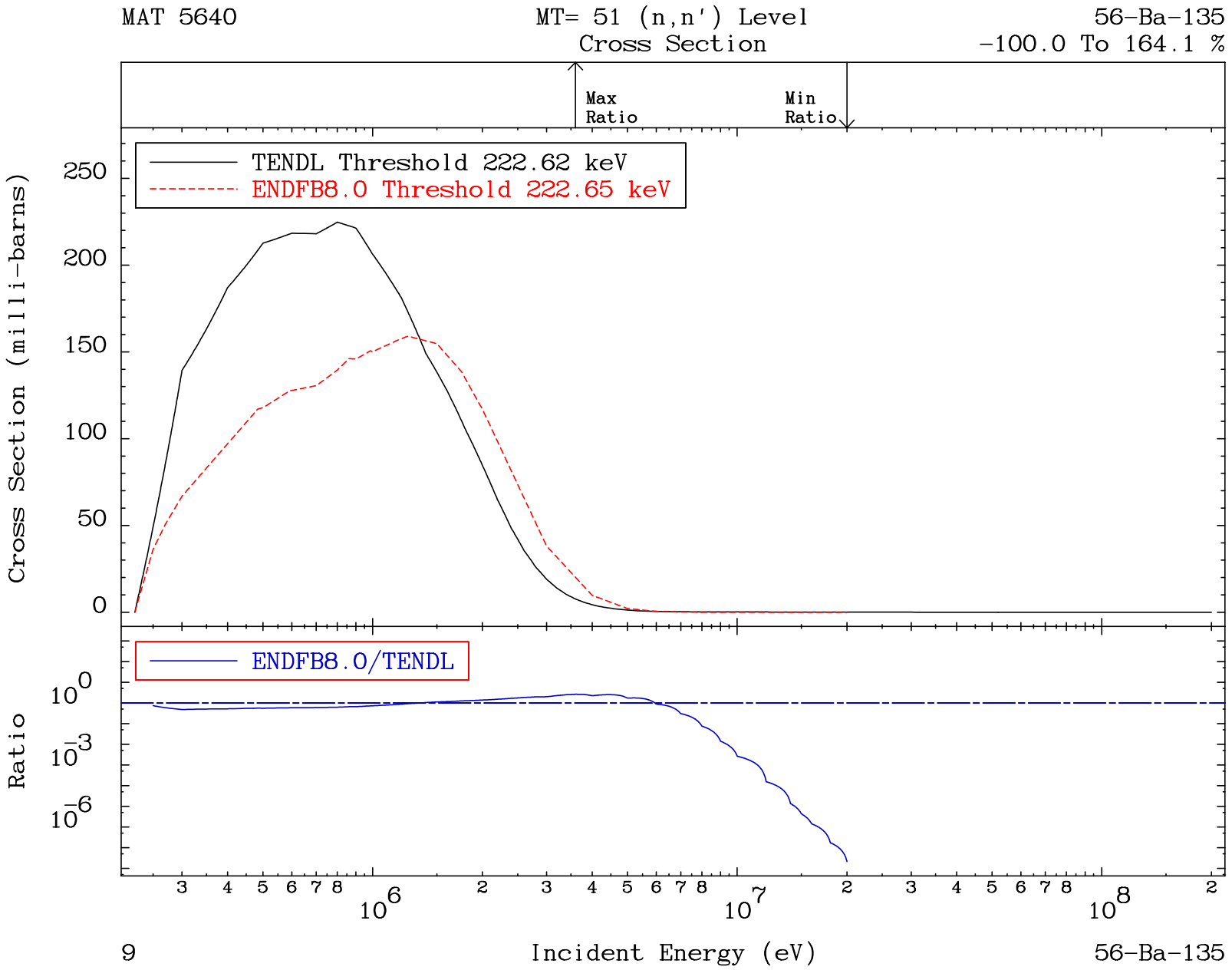

MAT 5640
(n,2n)
Cross Section
56-Ba-135
-15.70 To 289.9 %
Max Ratio
Min Ratio
TENDL Threshold 7.0241 MeV
ENDFB8.0 Threshold 7.1167 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
4
3
2
1
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
56-Ba-135

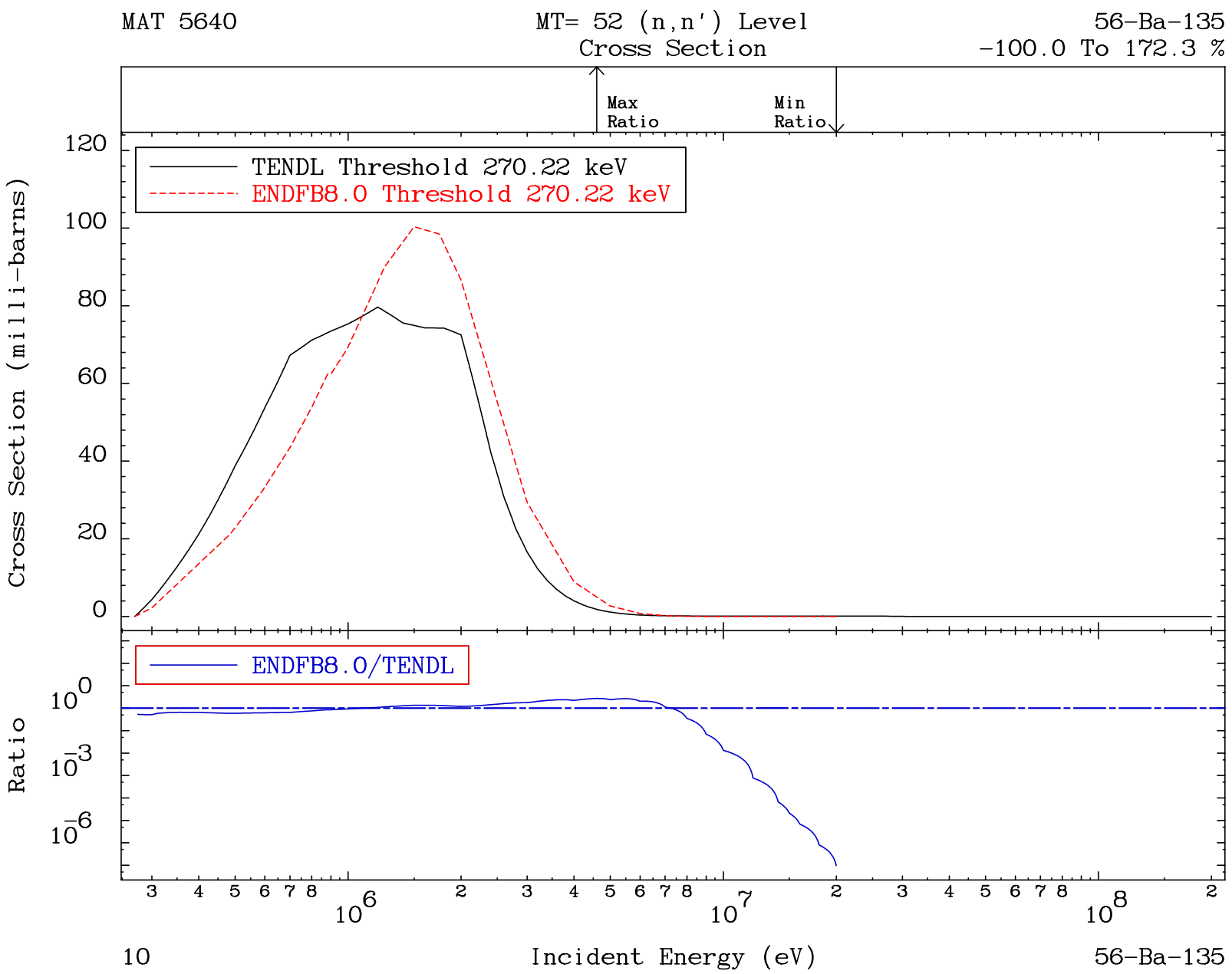

MAT 5640
(n,3n)
Cross Section
56-Ba-135
65.30 To 309.8 %
Min
Ratio
TENDL Threshold 16.563 MeV
ENDFB8.0 Threshold 16.576 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
ENDFB8.0/TENDL
Ratio
4.0
3.0
2.0
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
56-Ba-135

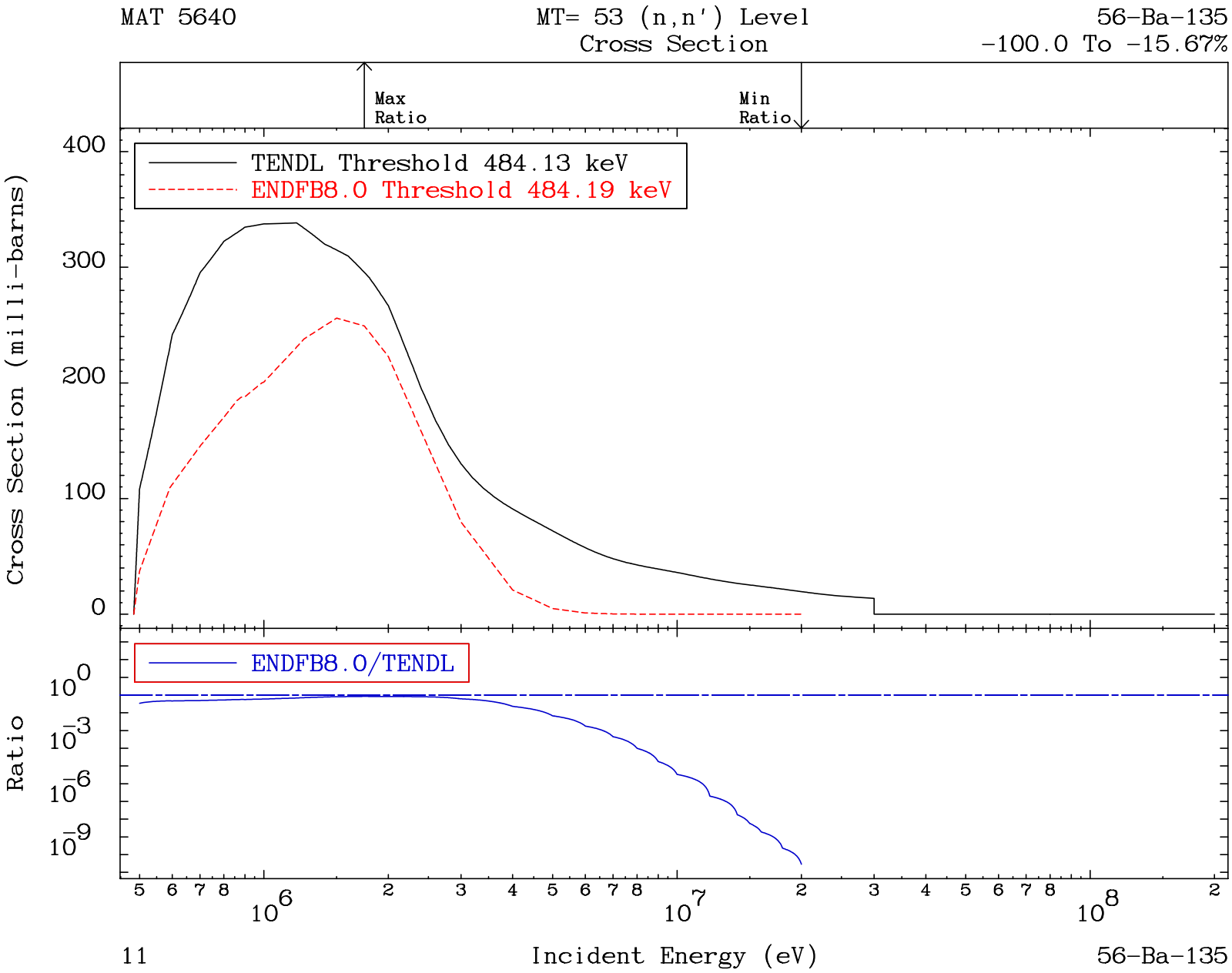

MAT 5640
(n,n') α
Cross Section
56-Ba-135
-54.19 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.8759 MeV
ENDFB8.0 Threshold 2.0000 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
ENDFB8.0/TENDL
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
6
Incident Energy (eV)
56-Ba-135

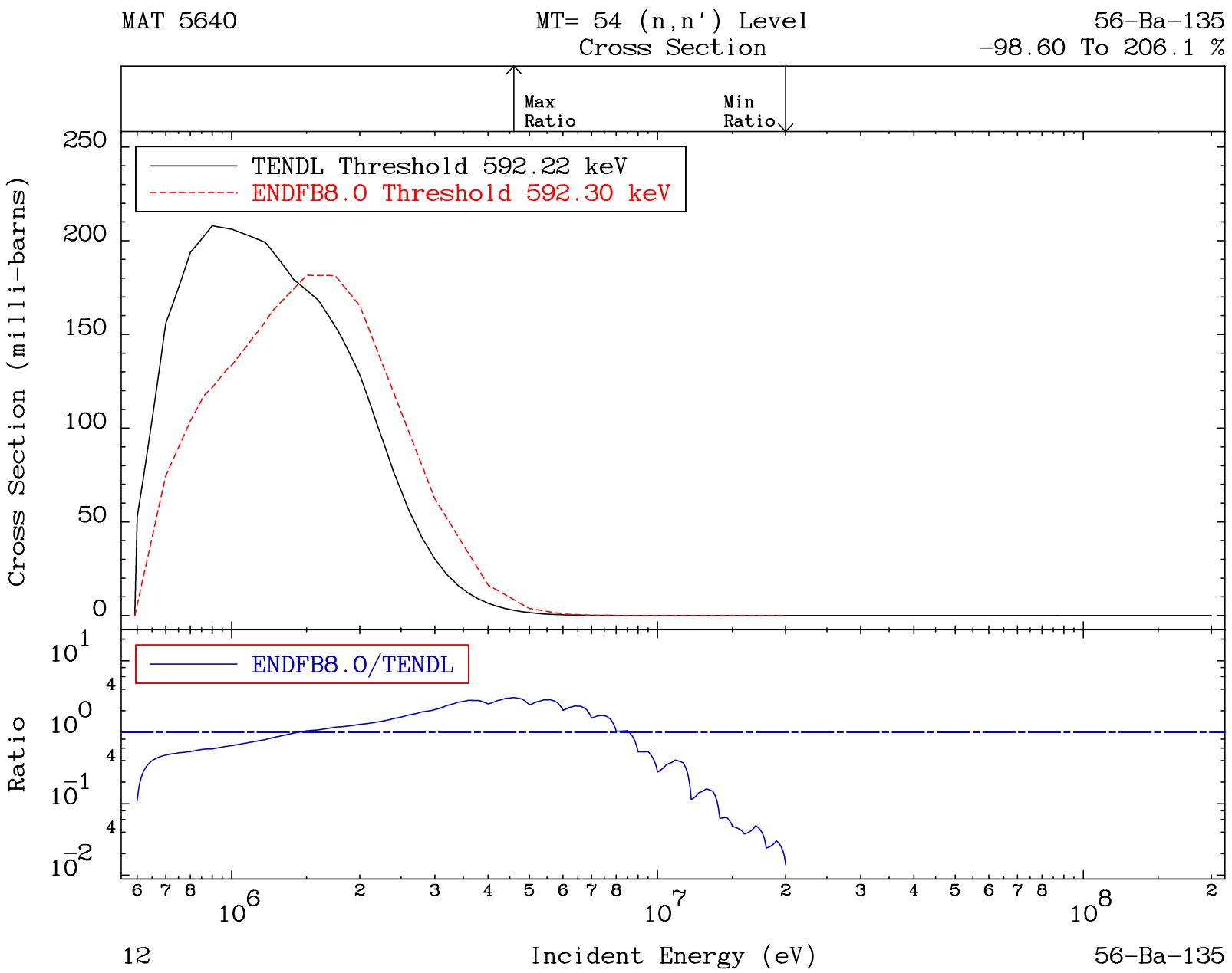

MAT 5640
(n,n') p
Cross Section
56-Ba-135
-100.0 To 6.847 %
Min Ratio
Max Ratio
TENDL Threshold 8.3101 MeV
ENDFB8.0 Threshold 9.0000 MeV
Cross Section (milli-barns)
40
30
20
10
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
10^-9
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
56-Ba-135

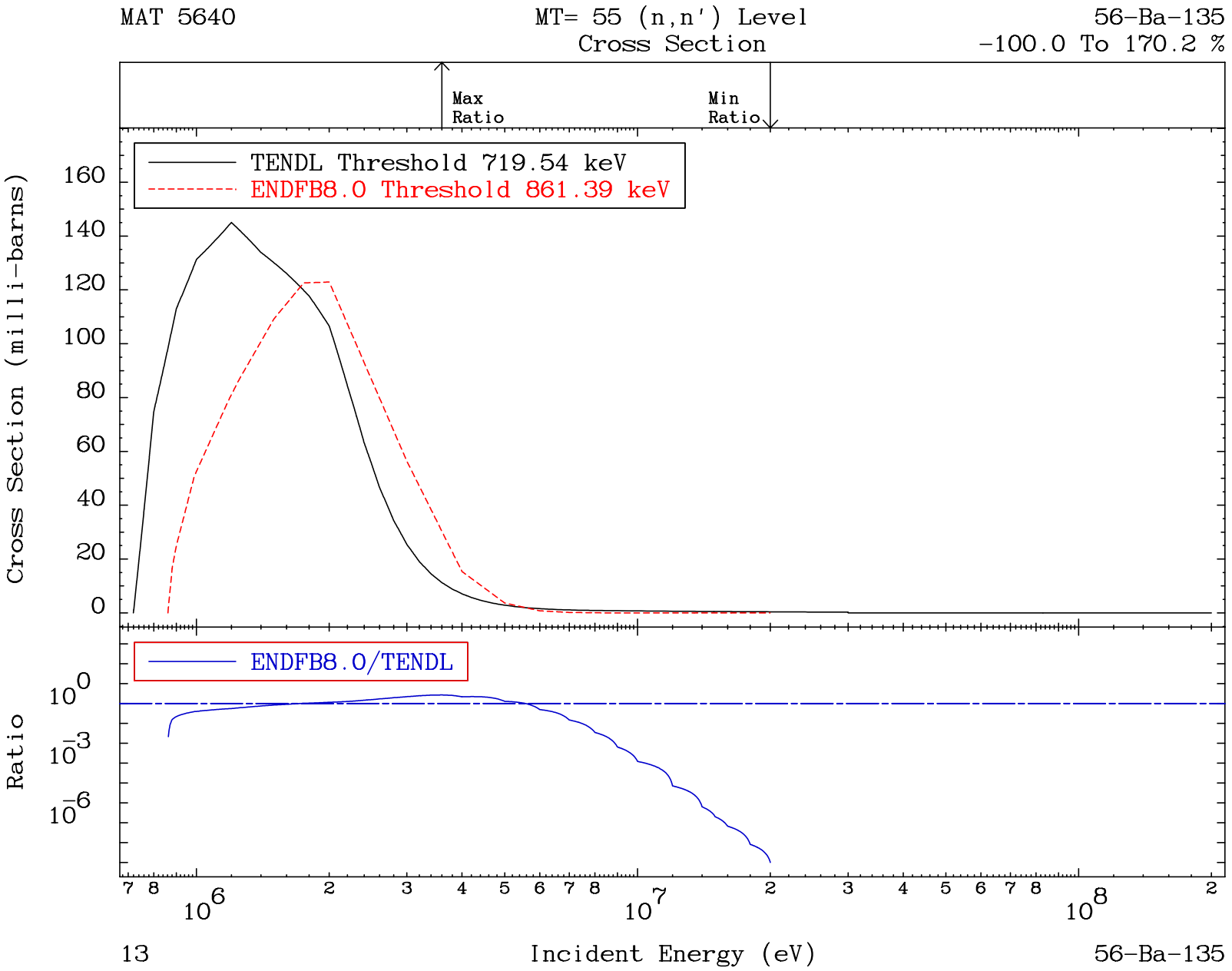

MAT 5640
(n,n') d
Cross Section
56-Ba-135
-100.0 To 3618. %
Min Ratio
Max Ratio
TENDL Threshold 13.012 MeV
ENDFB8.0 Threshold 14.500 MeV
Cross Section (milli-barns)
0
2
4
6
8
ENDFB8.0/TENDL
Ratio
10^3
10^0
10^-3
10^-6
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
56-Ba-135

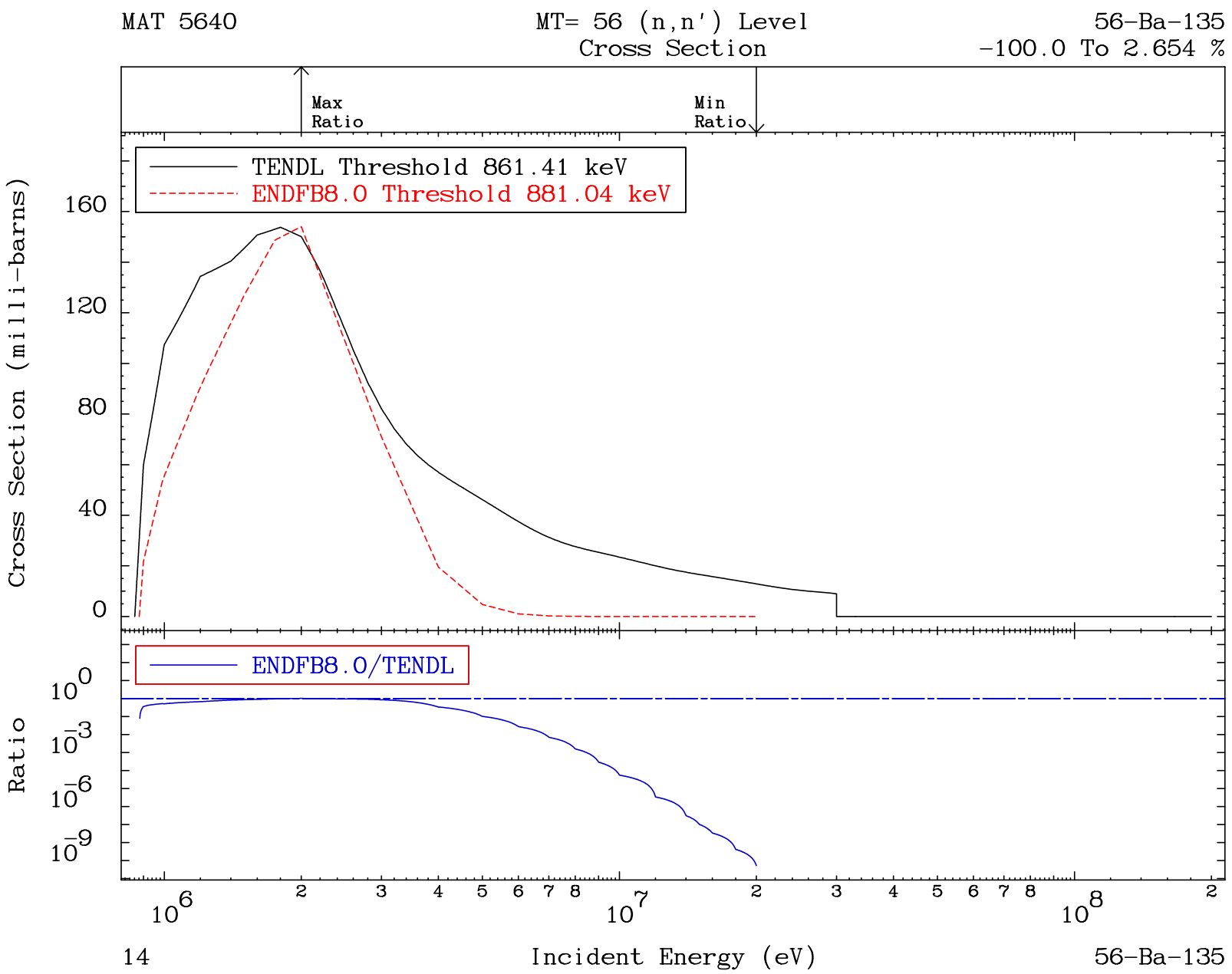

MAT 5640
MT= 51 (n,n') Level
Cross Section
56-Ba-135
-100.0 To 164.1 %
Max Ratio
Min Ratio
TENDL Threshold 222.62 keV
ENDFB8.0 Threshold 222.65 keV
Cross Section (milli-barns)
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
9
Incident Energy (eV)
56-Ba-135

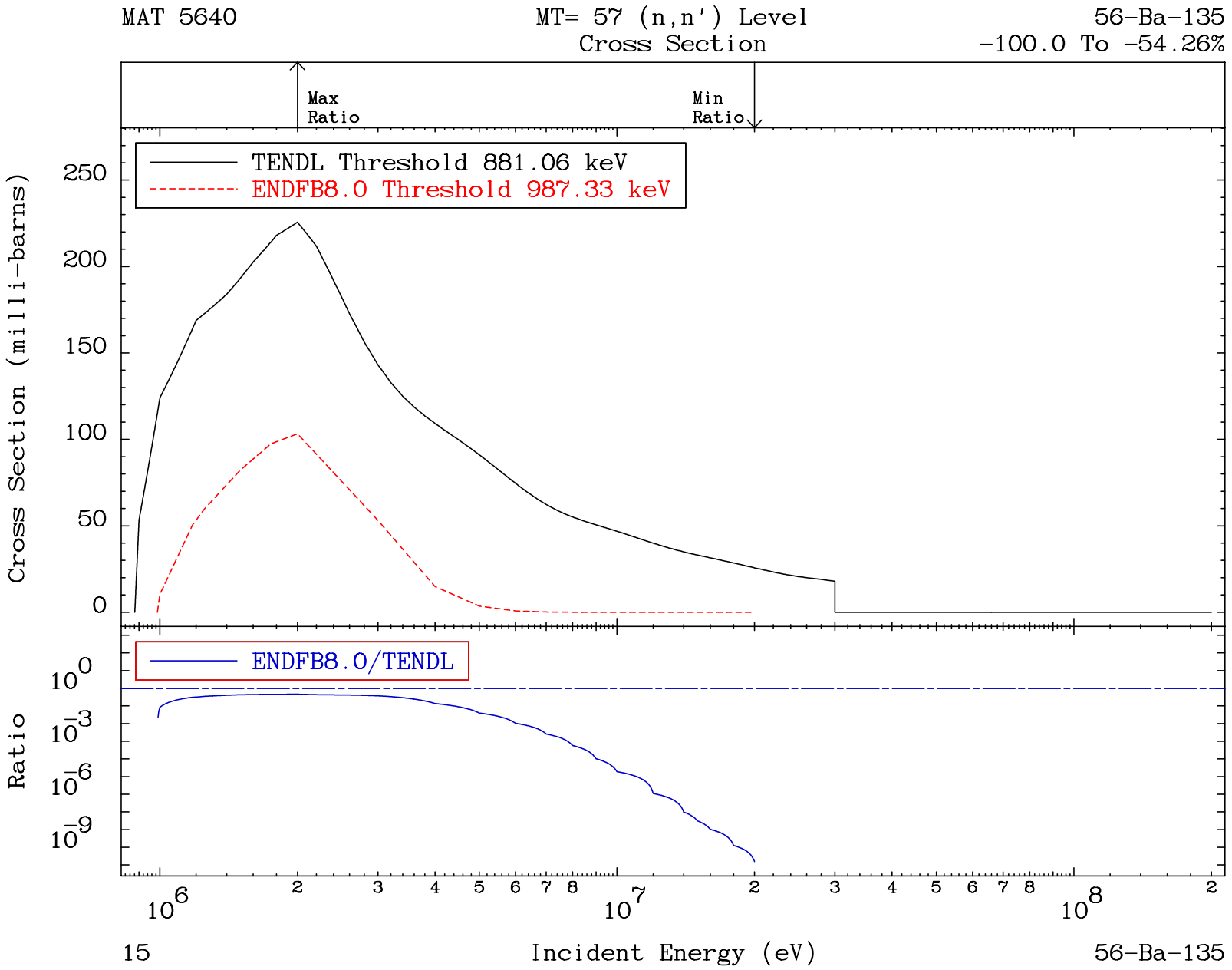

MAT 5640
MT= 52 (n,n') Level
Cross Section
56-Ba-135
-100.0 To 172.3 %
Max
Ratio
Min
Ratio
TENDL Threshold 270.22 keV
ENDFB8.0 Threshold 270.22 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
10
Incident Energy (eV)
56-Ba-135

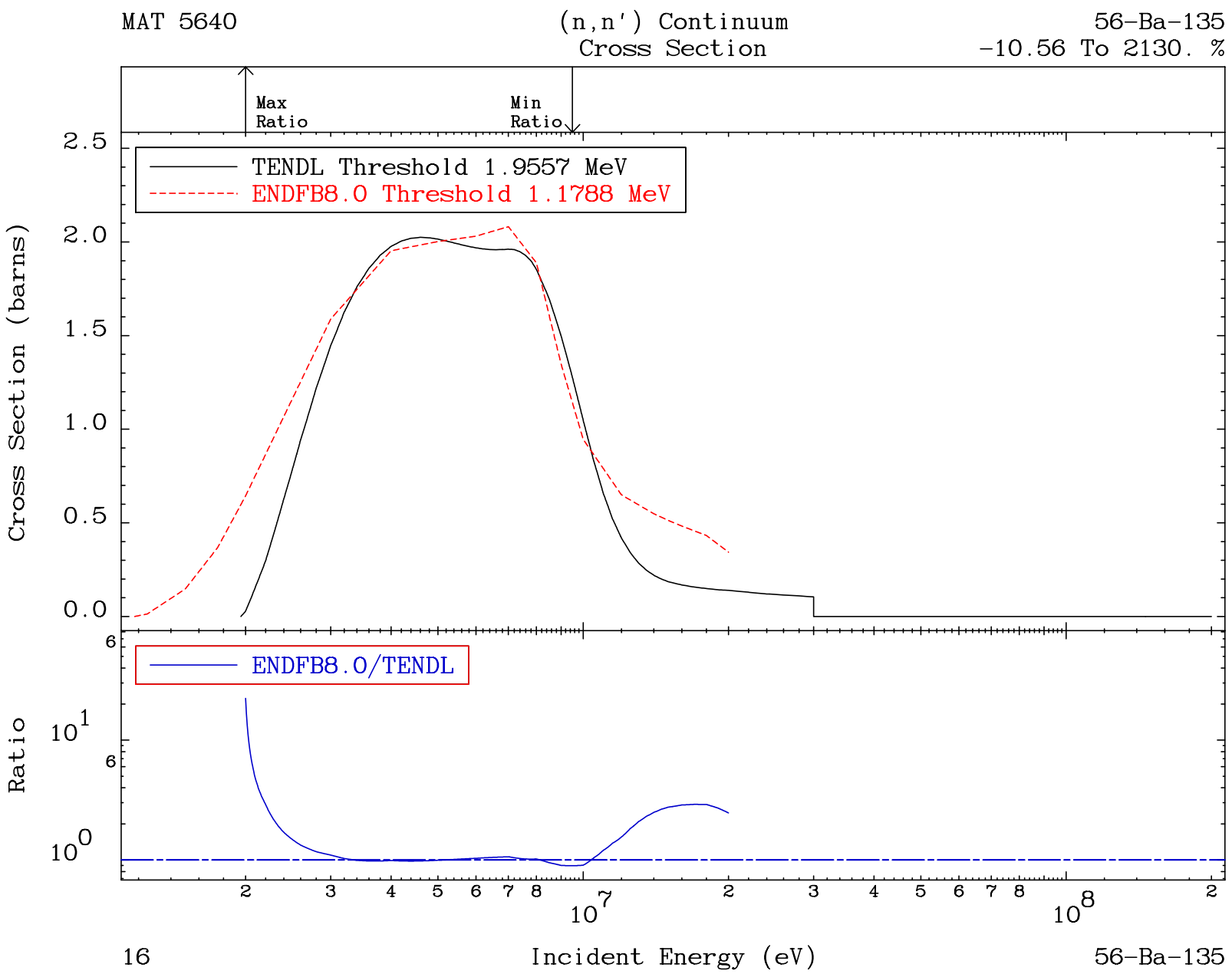

MAT 5640
MT= 53 (n,n') Level
Cross Section
56-Ba-135
-100.0 To -15.67%
Max
Ratio
Min
Ratio
TENDL Threshold 484.13 keV
ENDFB8.0 Threshold 484.19 keV
Cross Section (milli-barns)
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
10^-9
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
56-Ba-135

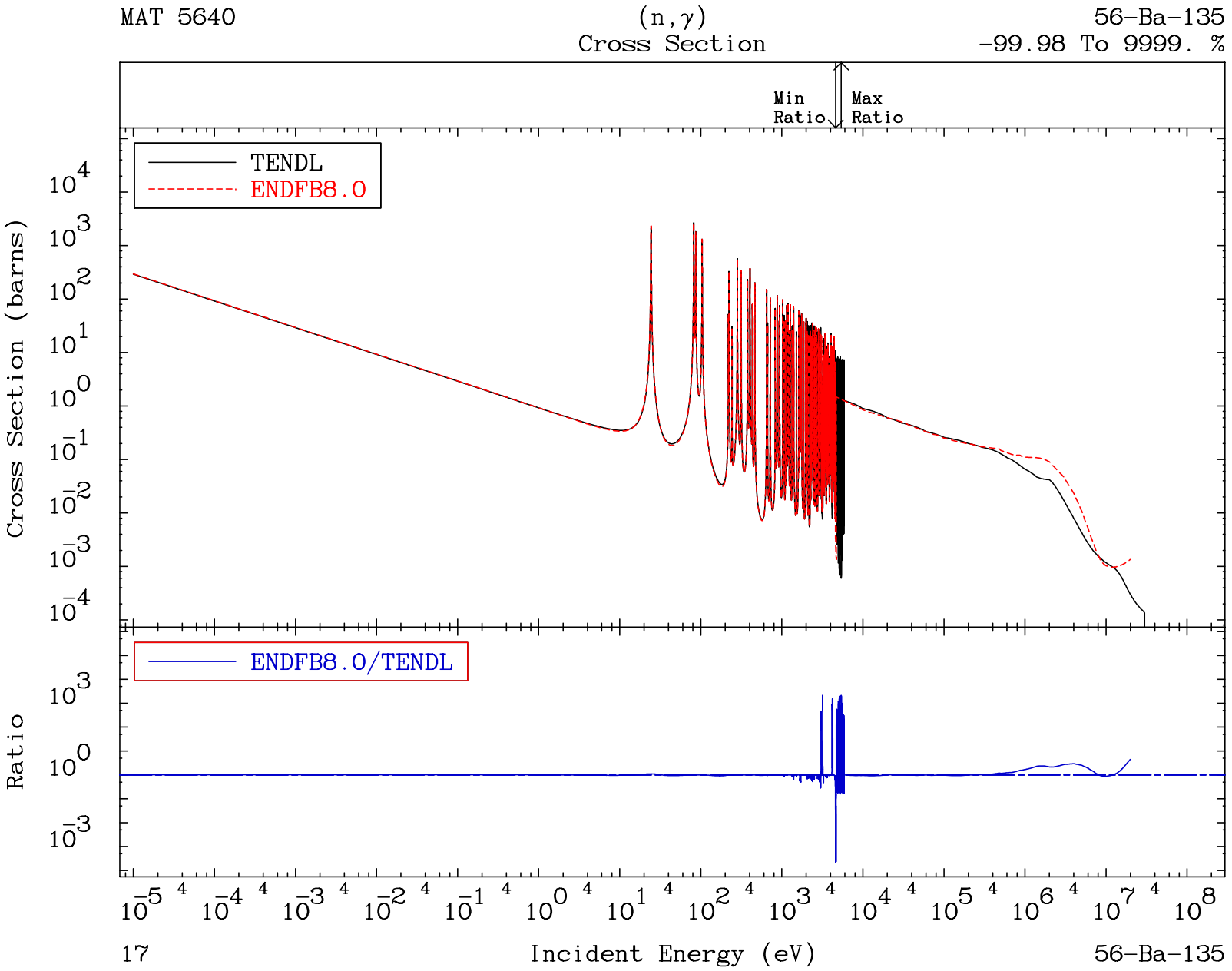

MAT 5640
MT= 54 (n,n') Level
Cross Section
56-Ba-135
-98.60 To 206.1 %
Max
Ratio
Min
Ratio
TENDL Threshold 592.22 keV
ENDFB8.0 Threshold 592.30 keV
Cross Section (milli-barns)
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^1
10^0
10^-1
10^-2
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
56-Ba-135

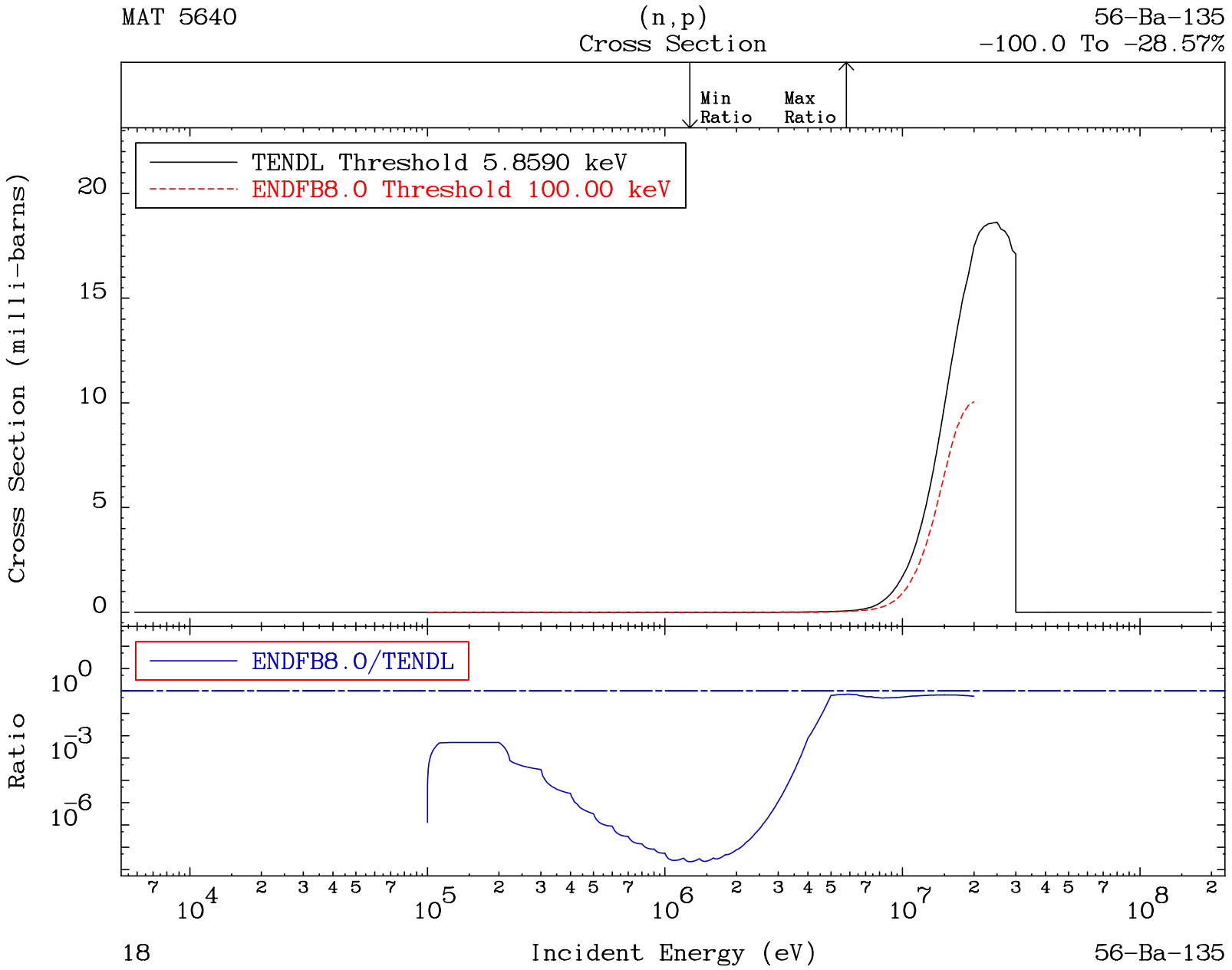

MAT 5640
MT= 55 (n,n') Level
Cross Section
56-Ba-135
-100.0 To 170.2 %
Max
Ratio
Min
Ratio
TENDL Threshold 719.54 keV
ENDFB8.0 Threshold 861.39 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
13
Incident Energy (eV)
56-Ba-135

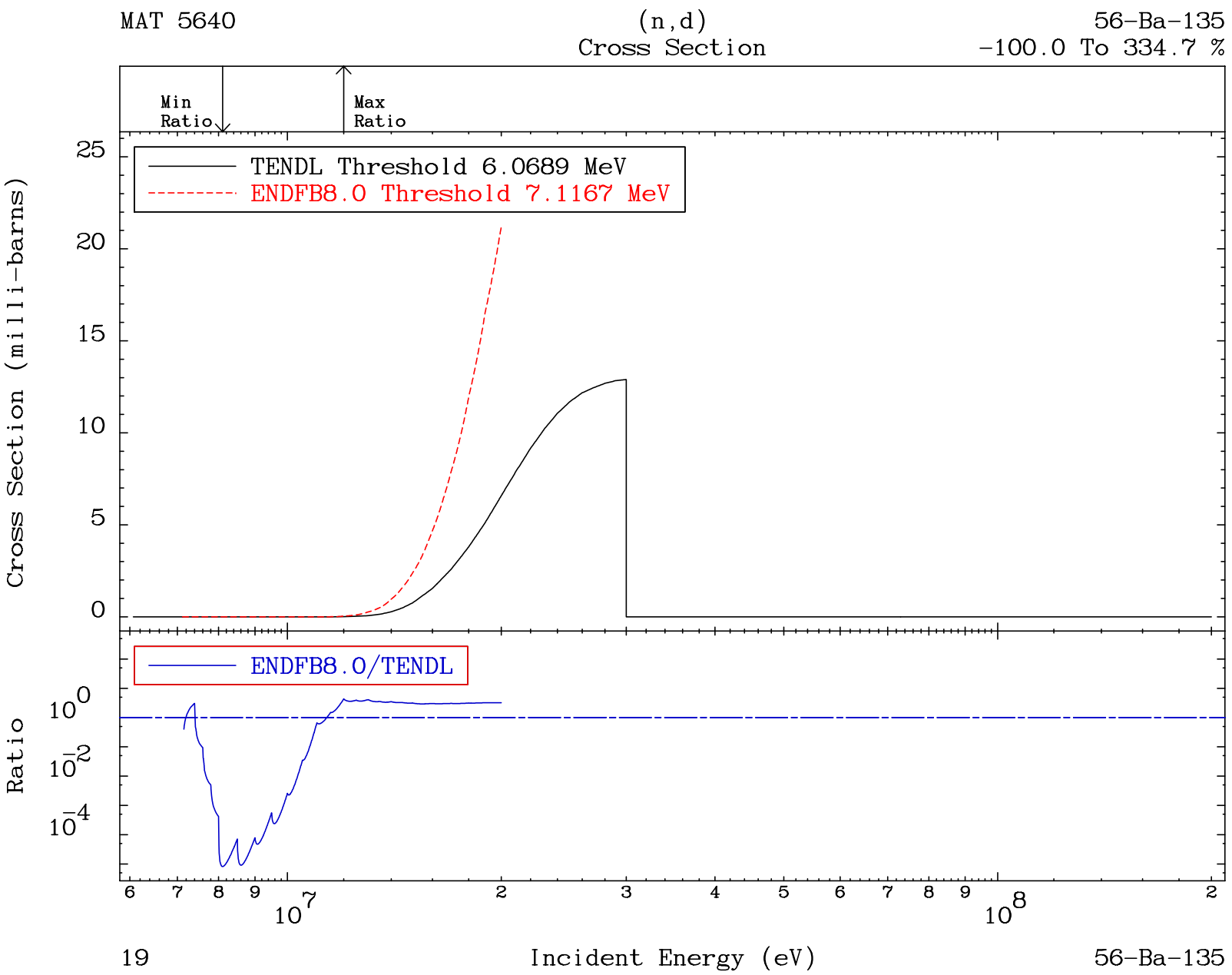

MAT 5640
MT= 56 (n,n') Level
Cross Section
56-Ba-135
-100.0 To 2.654 %
Max
Ratio
Min
Ratio
TENDL Threshold 861.41 keV
ENDFB8.0 Threshold 881.04 keV
Cross Section (milli-barns)
160
120
80
40
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
10^-9
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
14
Incident Energy (eV)
56-Ba-135

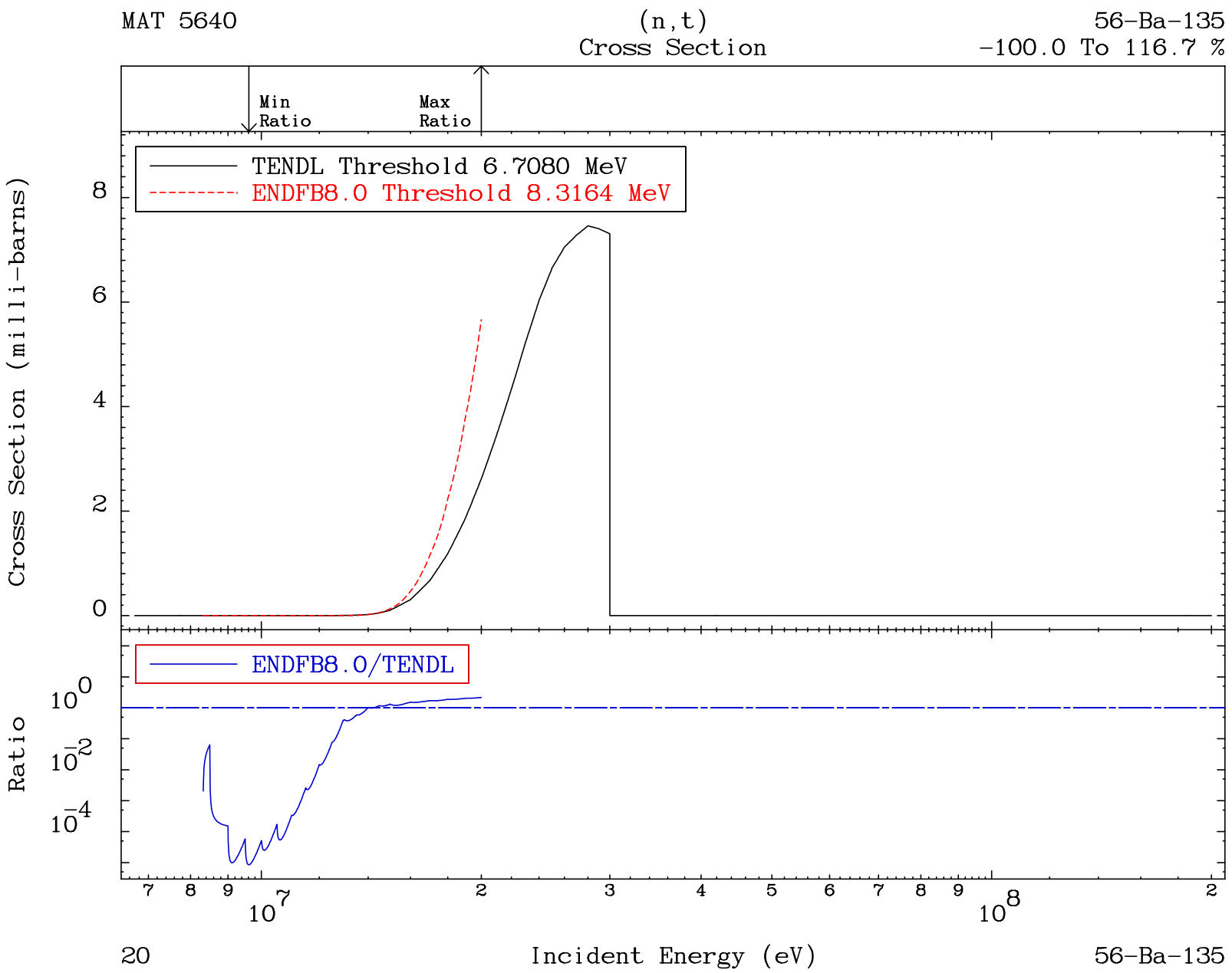

MAT 5640
MT= 57 (n,n') Level
Cross Section
56-Ba-135
-100.0 To -54.26%
Max
Ratio
Min
Ratio
TENDL Threshold 881.06 keV
ENDFB8.0 Threshold 987.33 keV
Cross Section (milli-barns)
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
10^-9
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
15
Incident Energy (eV)
56-Ba-135

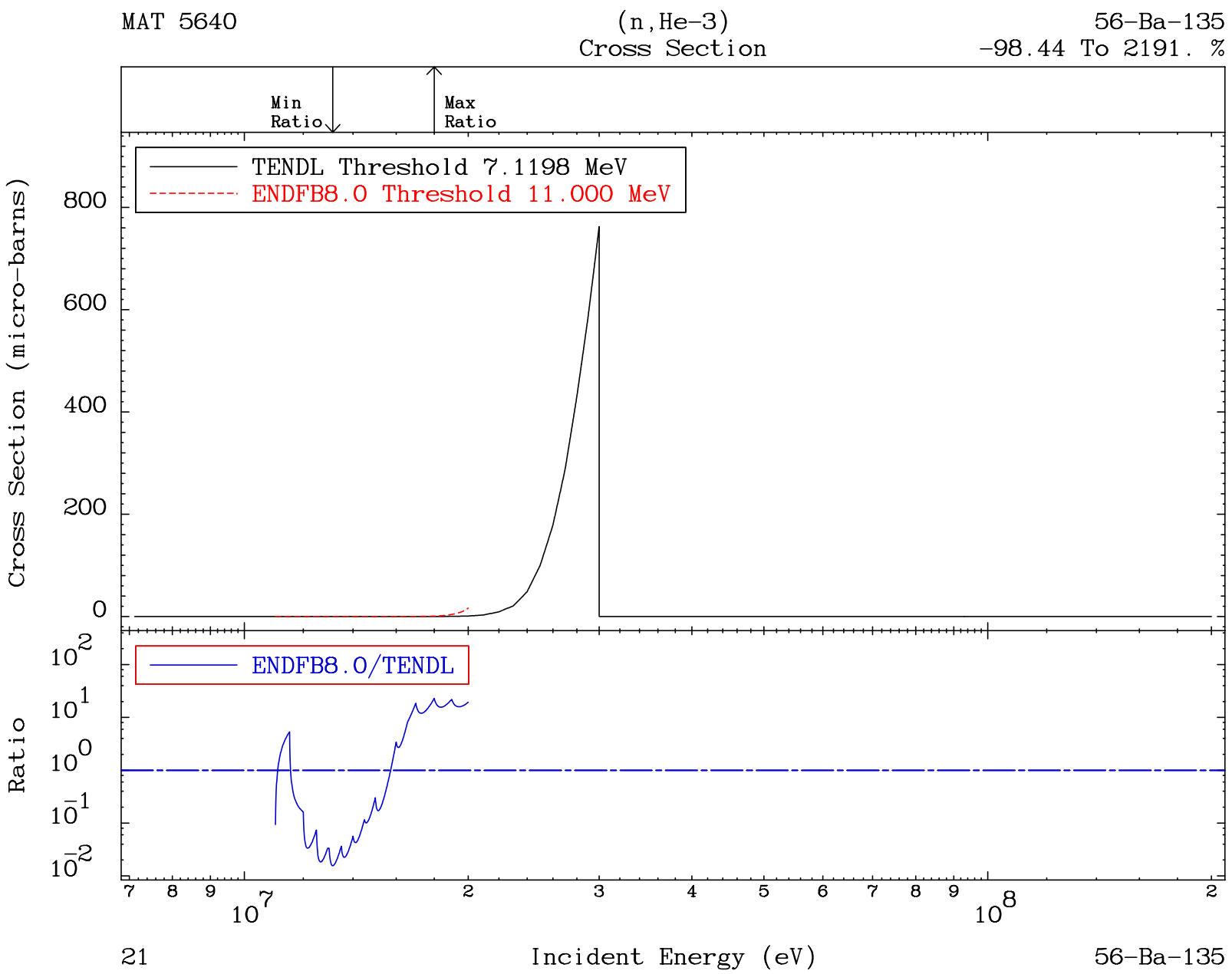

MAT 5640
(n,n') Continuum
Cross Section
56-Ba-135
-10.56 To 2130. %
Max
Ratio
Min
Ratio
TENDL Threshold 1.9557 MeV
ENDFB8.0 Threshold 1.1788 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
10^1
10^0
6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
16
Incident Energy (eV)
56-Ba-135

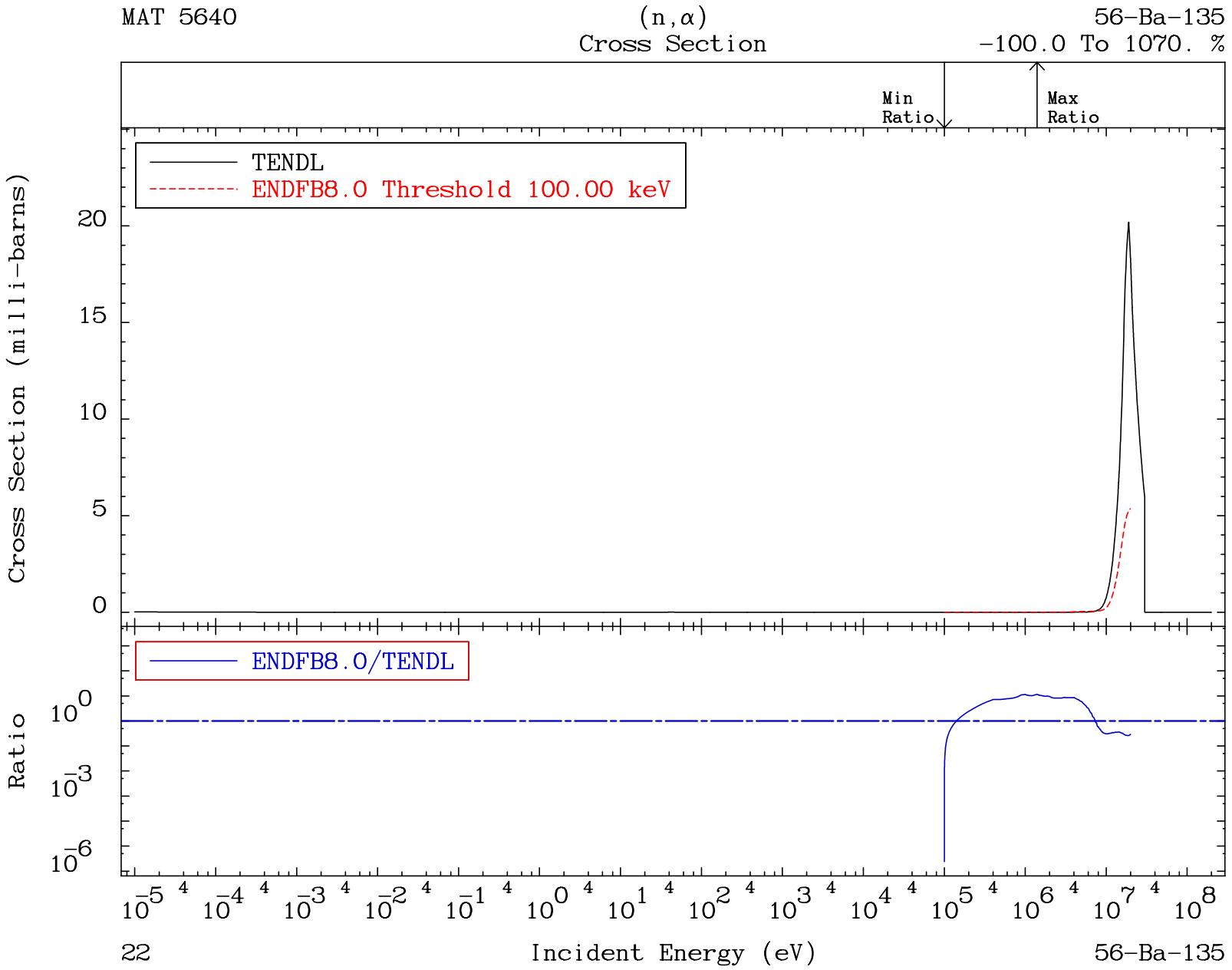

MAT 5640
(n,γ)
Cross Section
56-Ba-135
-99.98 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
17
56-Ba-135

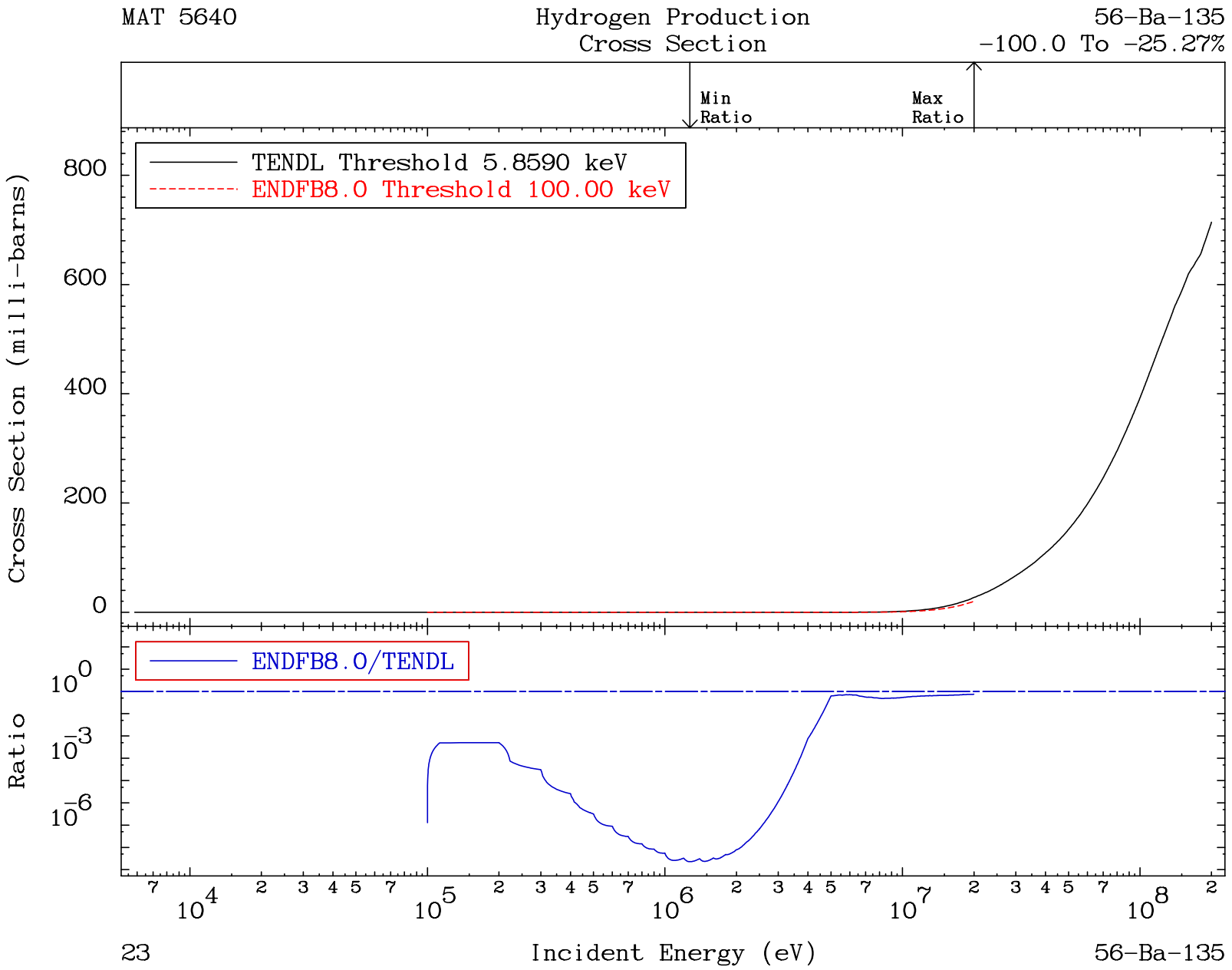

MAT 5640
(n,p)
Cross Section
56-Ba-135
-100.0 To -28.57%
Min Ratio
Max Ratio
TENDL Threshold 5.8590 keV
ENDFB8.0 Threshold 100.00 keV
Cross Section (milli-barns)
20
15
10
5
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
7 2 3 4 5 7 2 3 4 5 7 2 3 4 5 7 2 3 4 5 7 2
10^4
10^5
10^6
10^7
10^8
18
Incident Energy (eV)
56-Ba-135

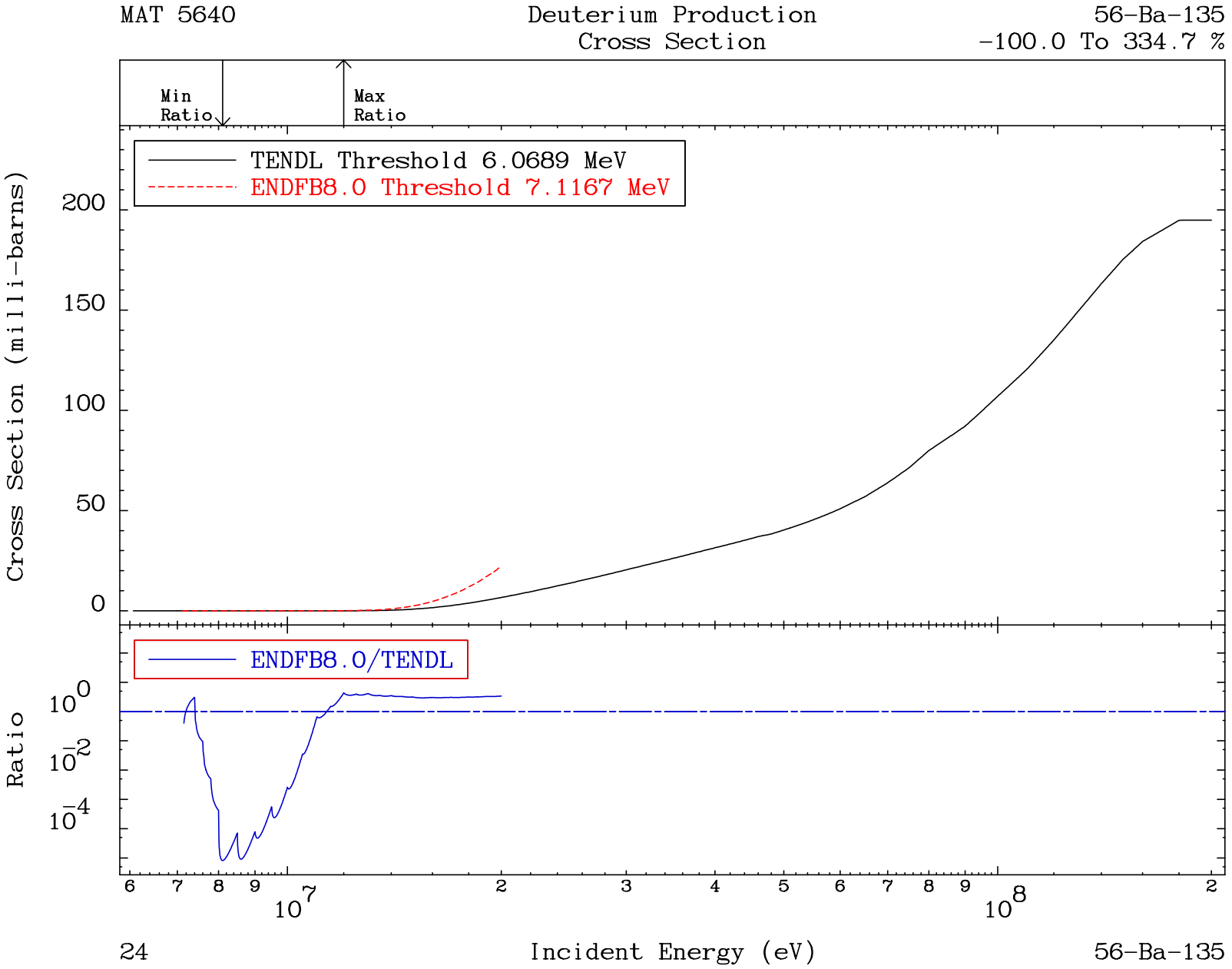

MAT 5640
(n,d)
Cross Section
56-Ba-135
-100.0 To 334.7 %
Min Ratio
Max Ratio
TENDL Threshold 6.0689 MeV
ENDFB8.0 Threshold 7.1167 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
ENDFB8.0/TENDL
Ratio
10^0
10^-2
10^-4
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
56-Ba-135

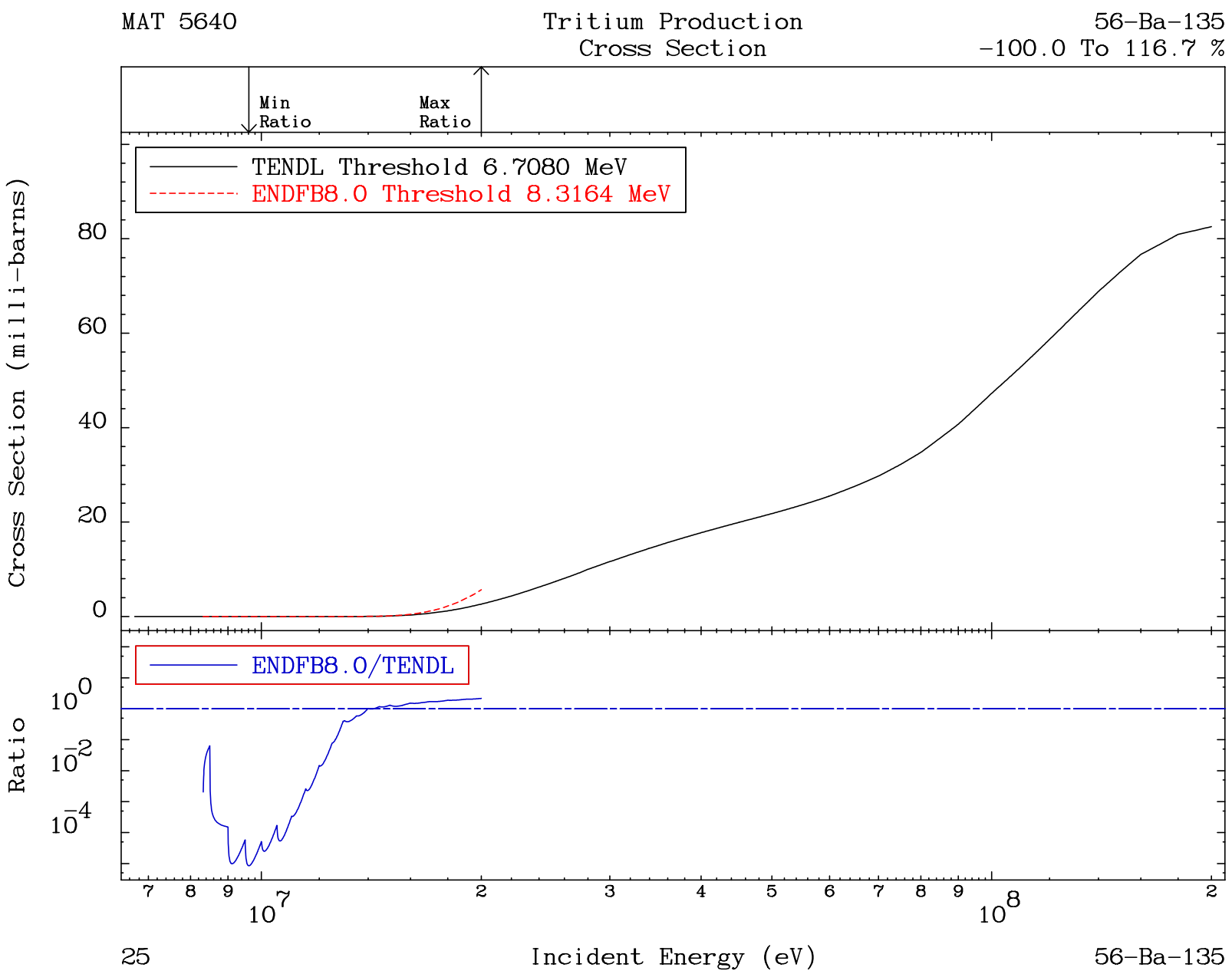

MAT 5640
(n,t)
Cross Section
56-Ba-135
-100.0 To 116.7 %
Min Ratio
Max Ratio
TENDL Threshold 6.7080 MeV
ENDFB8.0 Threshold 8.3164 MeV
Cross Section (milli-barns)
0
2
4
6
8
ENDFB8.0/TENDL
Ratio
10^0
10^-2
10^-4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
56-Ba-135

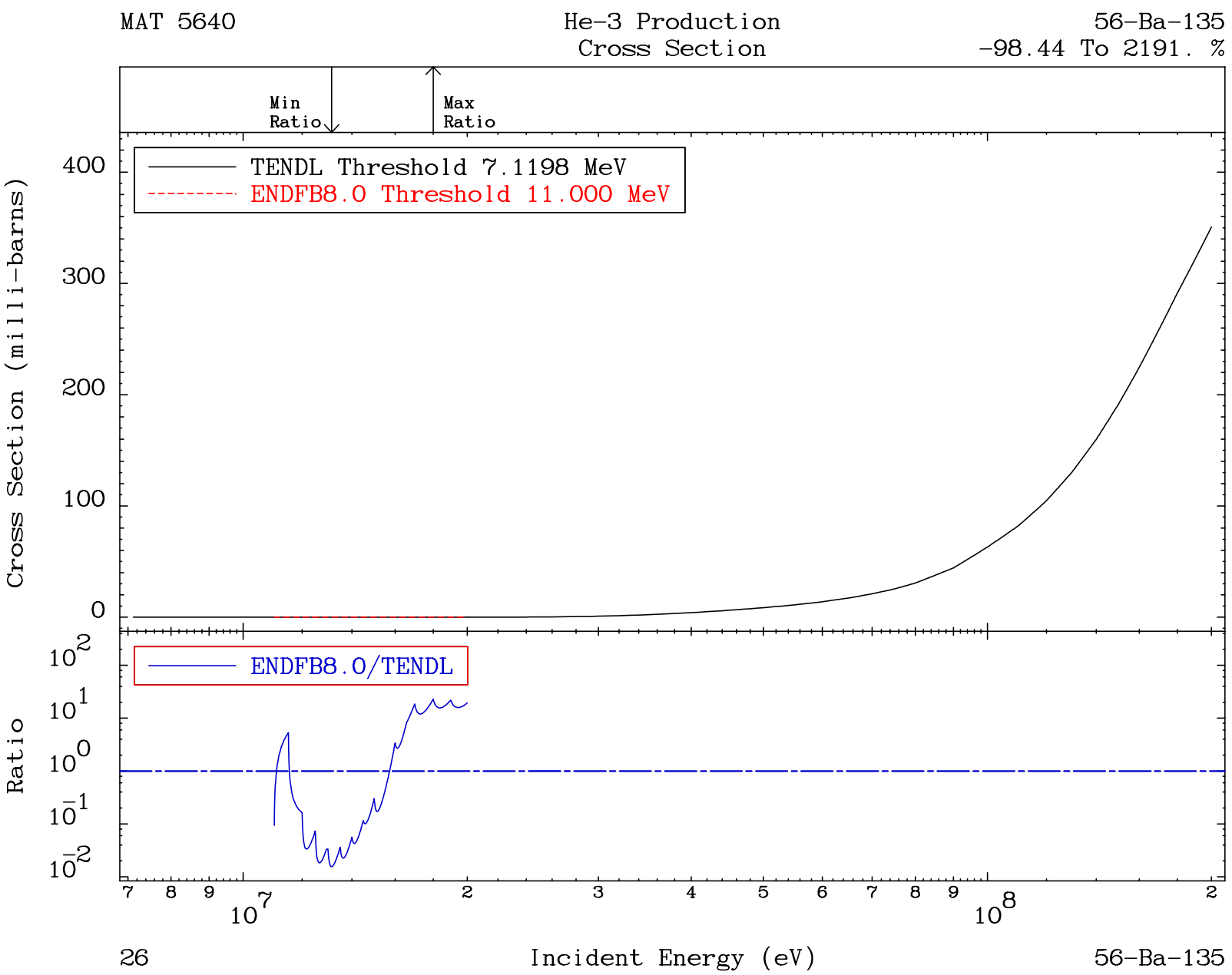

MAT 5640
(n,He-3)
Cross Section
56-Ba-135
-98.44 To 2191. %
Min Ratio
Max Ratio
TENDL Threshold 7.1198 MeV
ENDFB8.0 Threshold 11.000 MeV
Cross Section (micro-barns)
800
600
400
200
0
ENDFB8.0/TENDL
Ratio
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
21
Incident Energy (eV)
56-Ba-135

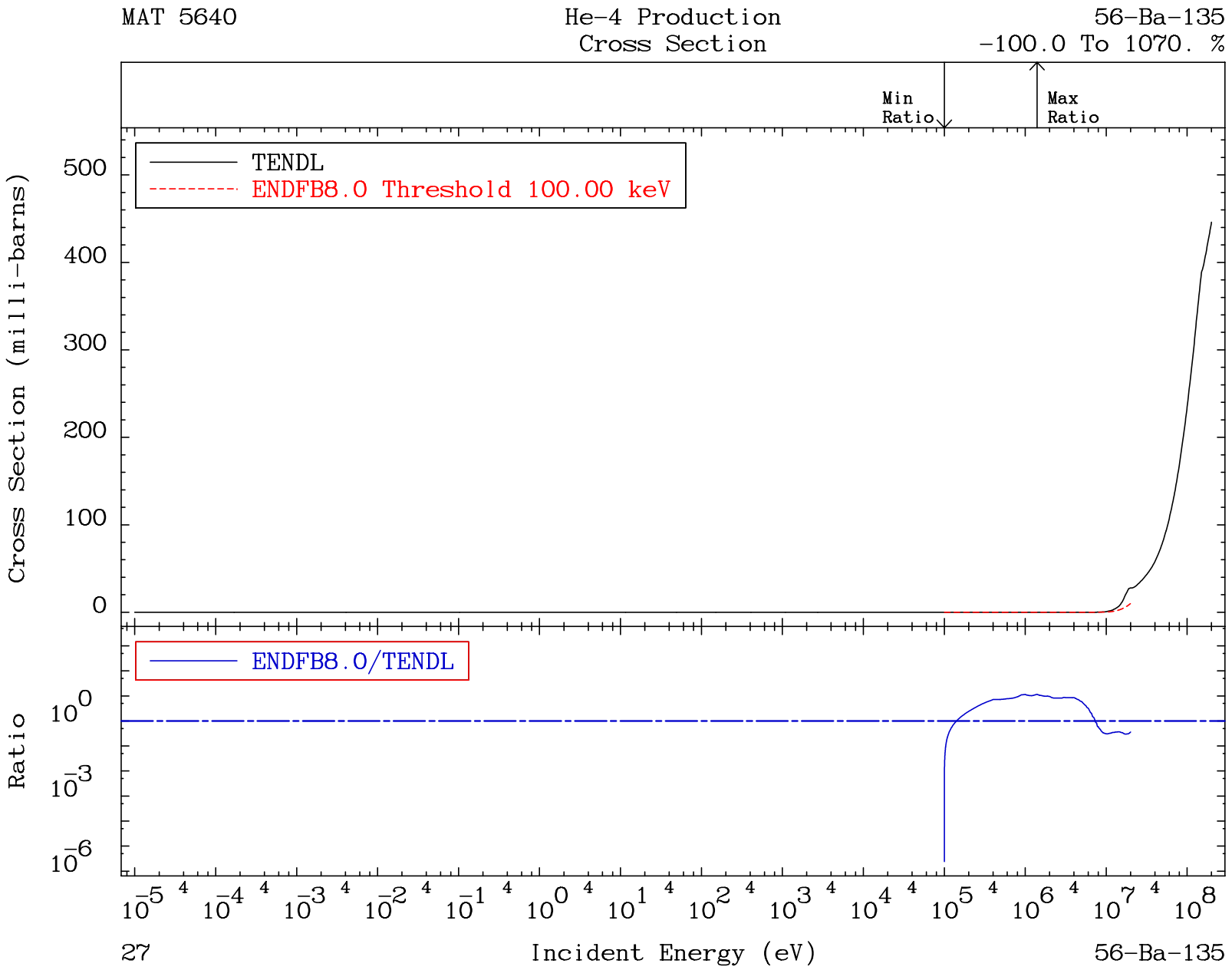

MAT 5640
(n,α)
Cross Section
56-Ba-135
-100.0 To 1070. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0 Threshold 100.00 keV
Cross Section (milli-barns)
0
5
10
15
20
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
22
Incident Energy (eV)
56-Ba-135

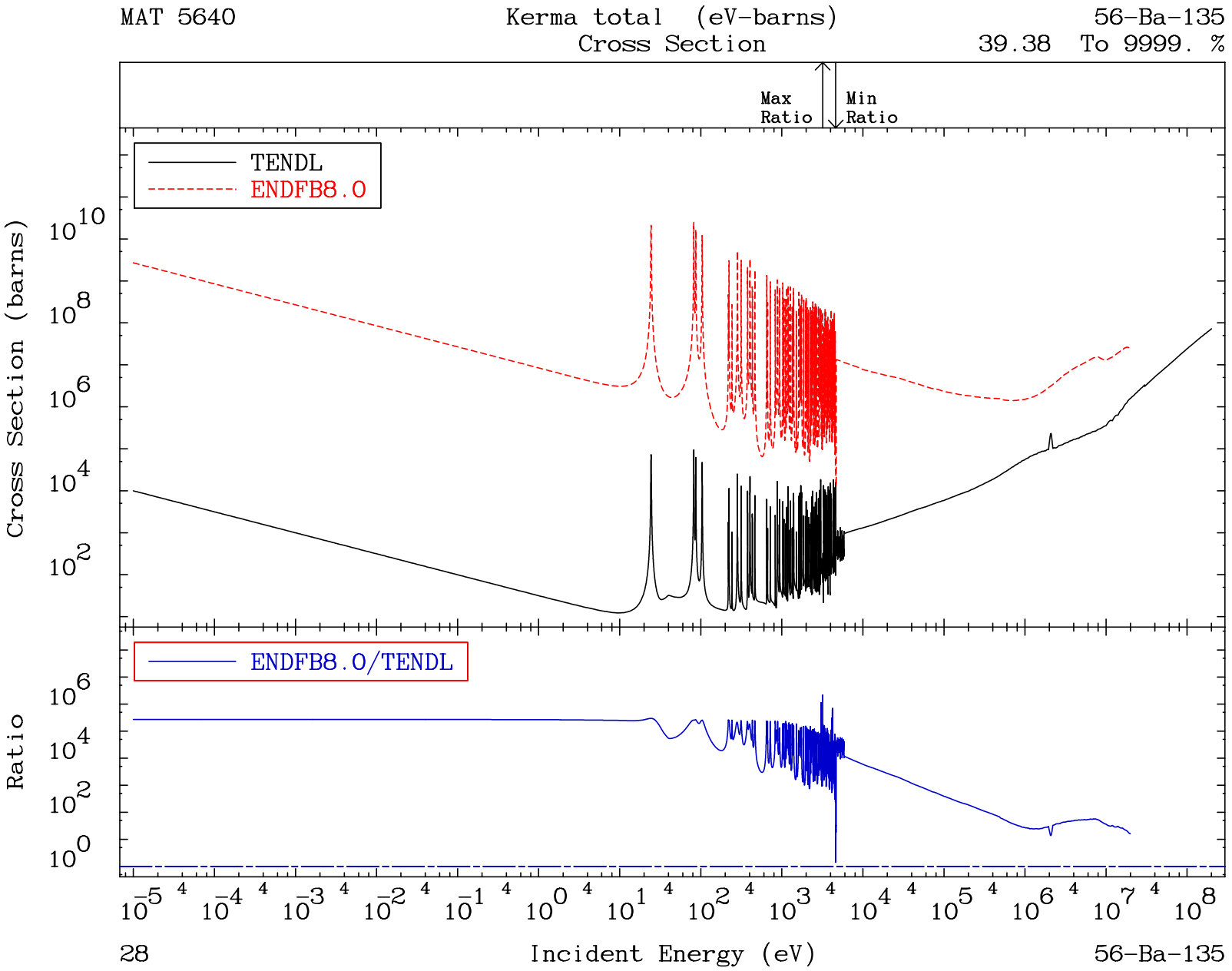

MAT 5640
Hydrogen Production
Cross Section
56-Ba-135
-100.0 To -25.27%
Min Ratio
Max Ratio
TENDL Threshold 5.8590 keV
ENDFB8.0 Threshold 100.00 keV
Cross Section (milli-barns)
800
600
400
200
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
7 2 3 4 5 7 2 3 4 5 7 2 3 4 5 7 2 3 4 5 7 2
10^4
10^5
10^6
10^7
10^8
23
Incident Energy (eV)
56-Ba-135

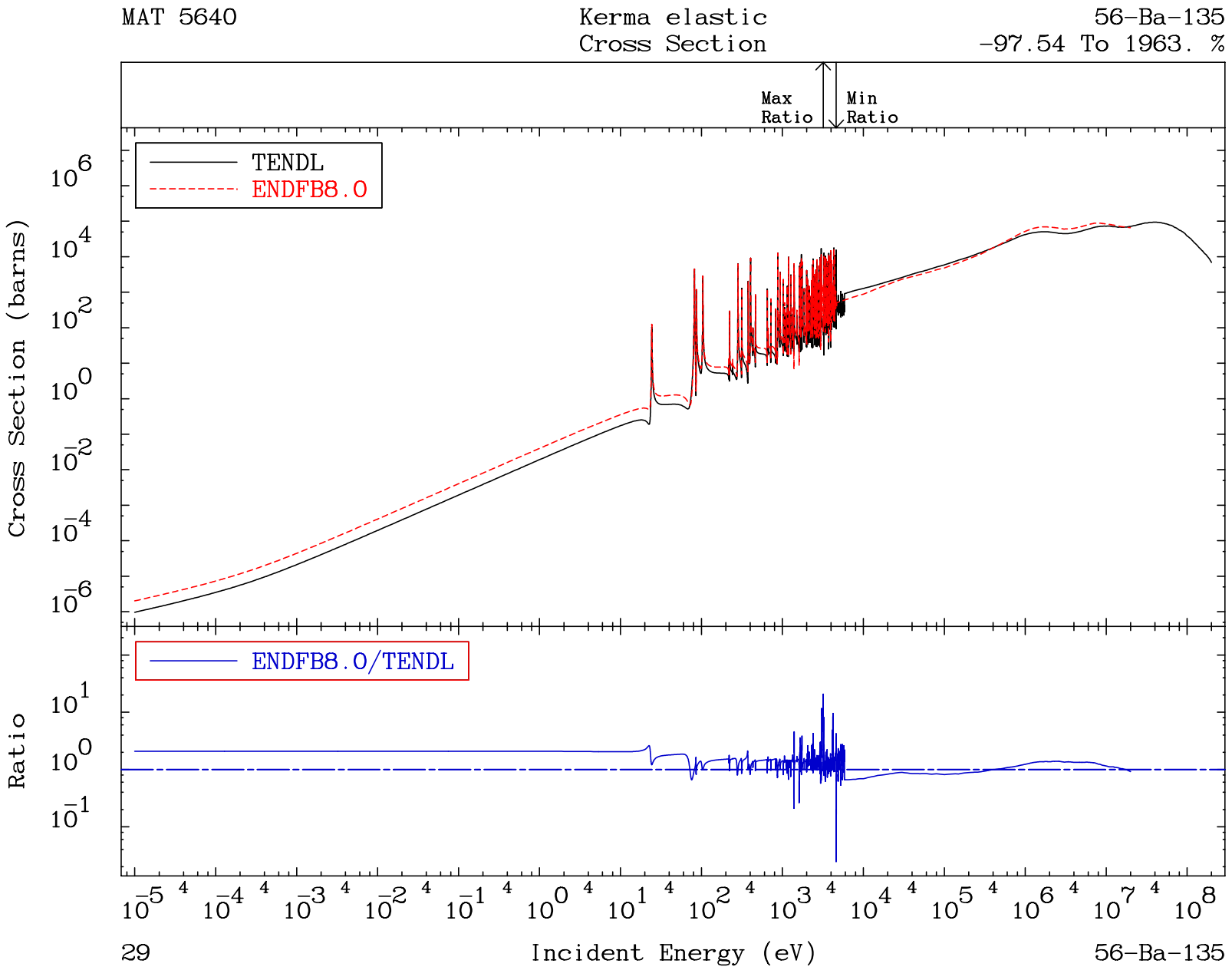

MAT 5640
Deuterium Production
Cross Section
56-Ba-135
-100.0 To 334.7 %
Min Ratio
Max Ratio
TENDL Threshold 6.0689 MeV
ENDFB8.0 Threshold 7.1167 MeV
Cross Section (milli-barns)
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^0
10^-2
10^-4
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
56-Ba-135

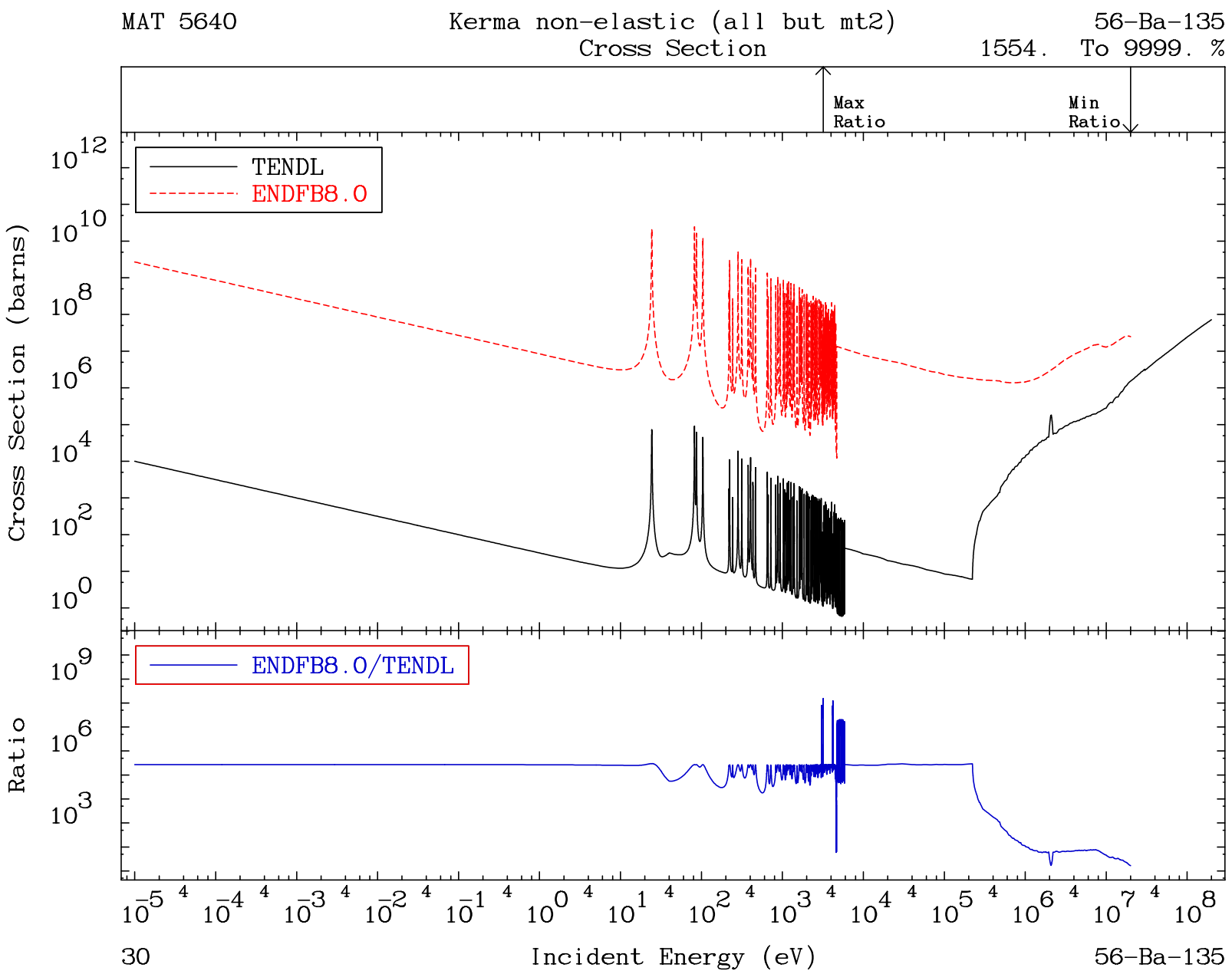

MAT 5640
Tritium Production
Cross Section
56-Ba-135
-100.0 To 116.7 %
Min Ratio
Max Ratio
TENDL Threshold 6.7080 MeV
ENDFB8.0 Threshold 8.3164 MeV
Cross Section (milli-barns)
0
20
40
60
80
ENDFB8.0/TENDL
Ratio
10^0
10^-2
10^-4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
56-Ba-135

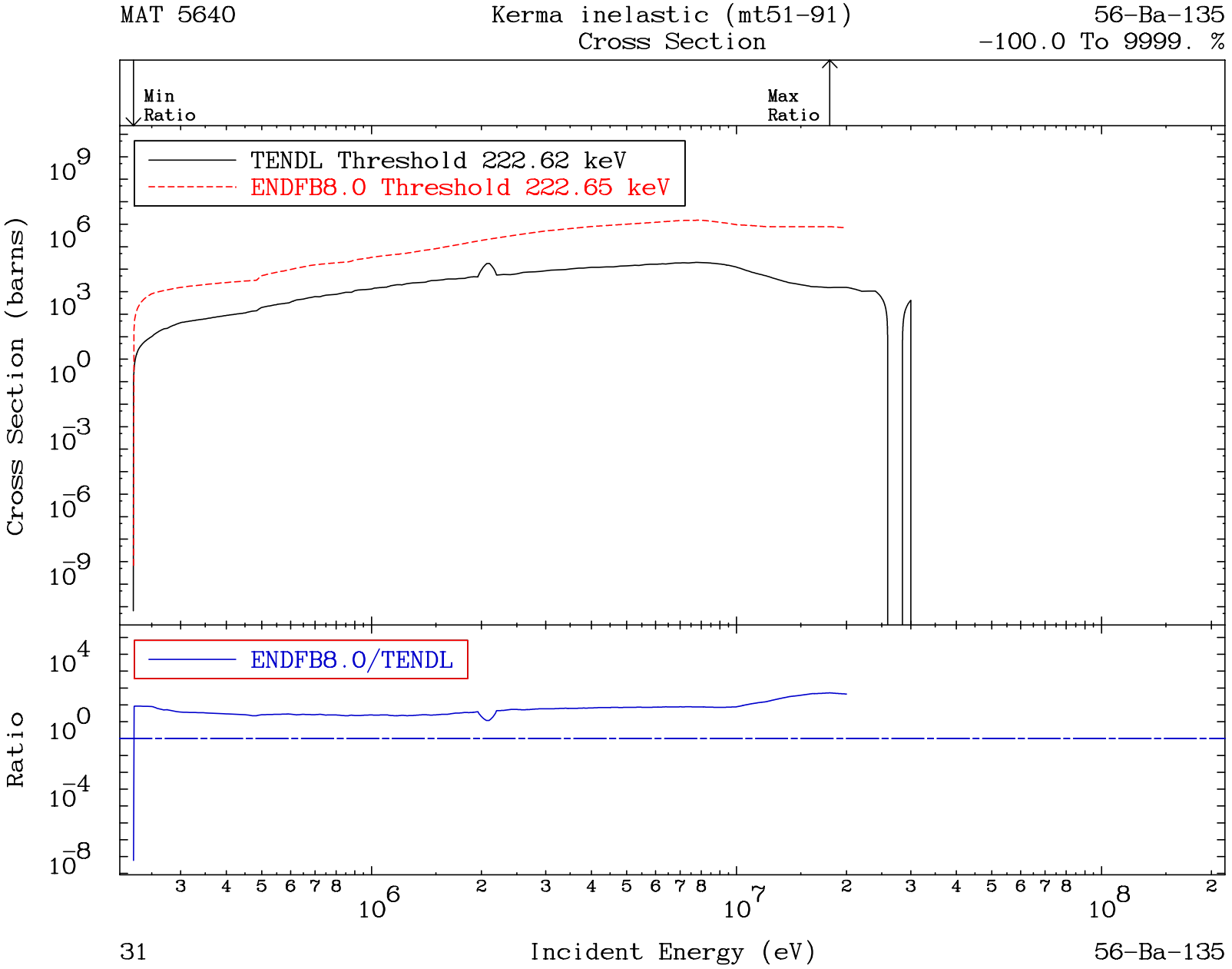

MAT 5640
He-3 Production
Cross Section
56-Ba-135
-98.44 To 2191. %
Min Ratio
Max Ratio
TENDL Threshold 7.1198 MeV
ENDFB8.0 Threshold 11.000 MeV
Cross Section (milli-barns)
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
26
Incident Energy (eV)
56-Ba-135

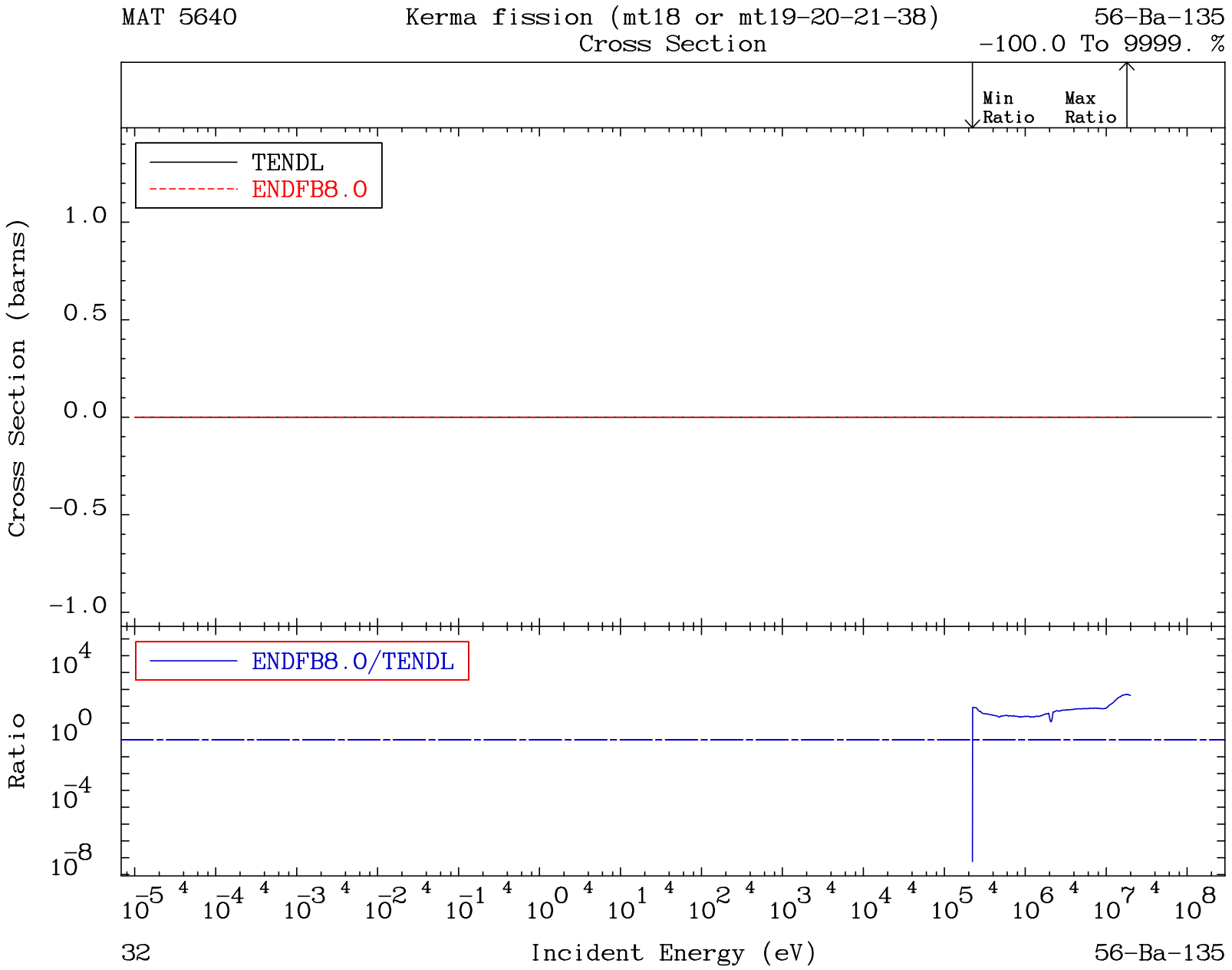

MAT 5640
He-4 Production
Cross Section
56-Ba-135
-100.0 To 1070. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0 Threshold 100.00 keV
Cross Section (milli-barns)
500
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
10^0
10^-3
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
27
Incident Energy (eV)
56-Ba-135

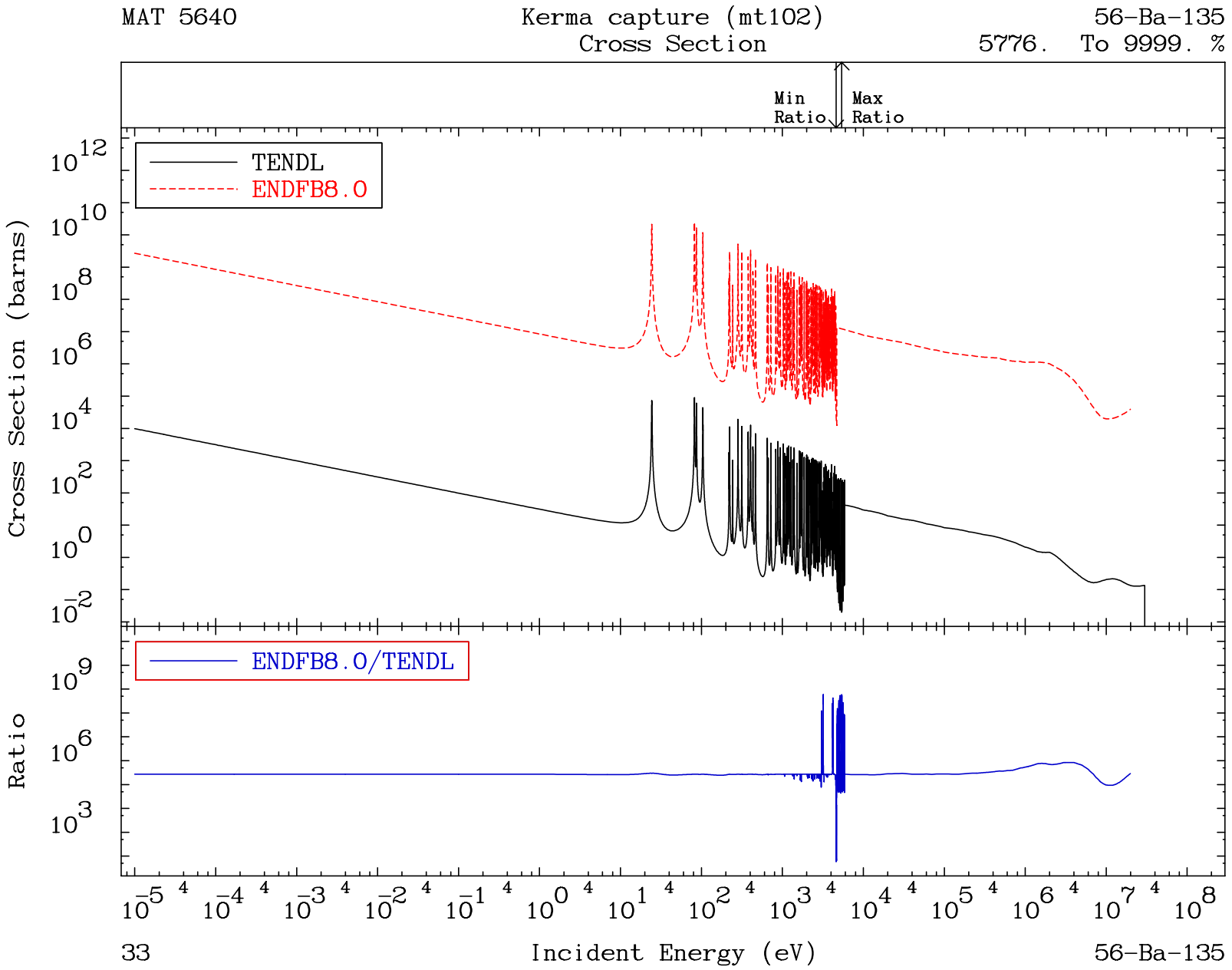

MAT 5640
Kerma total (eV-barns)
Cross Section
56-Ba-135
39.38 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
28
56-Ba-135

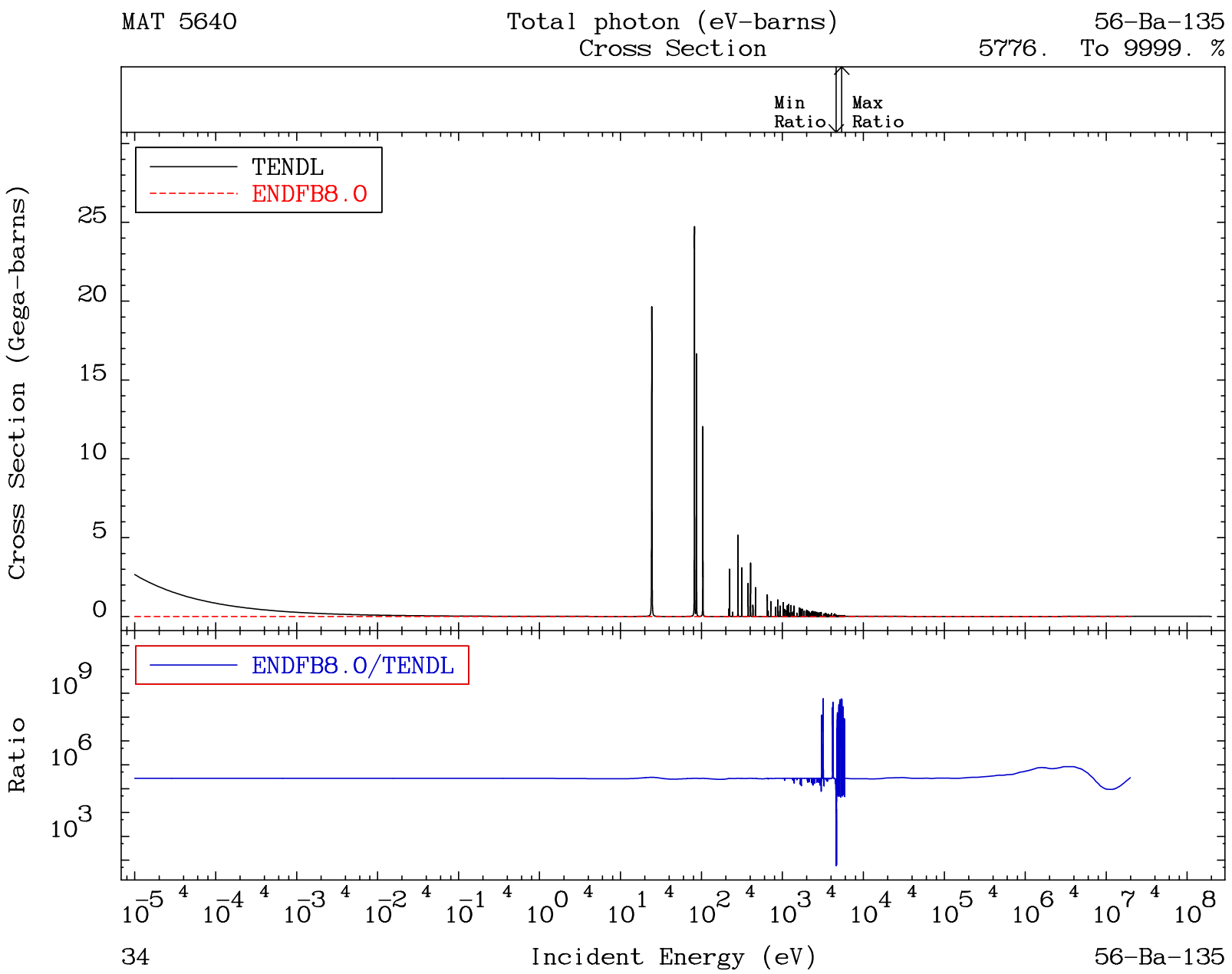

MAT 5640
Kerma elastic
Cross Section
56-Ba-135
-97.54 To 1963. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
29
56-Ba-135

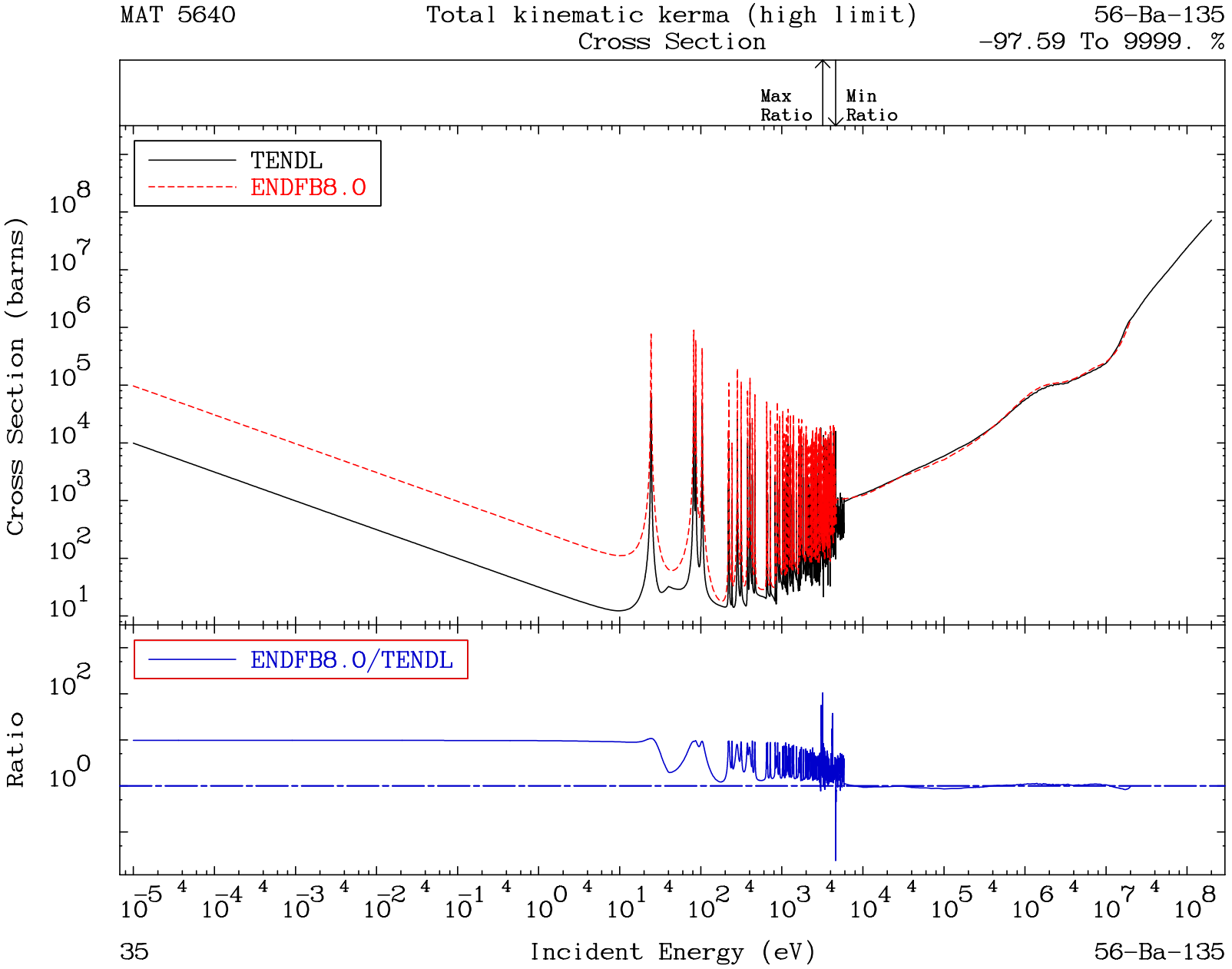

MAT 5640
Kerma non-elastic (all but mt2)
Cross Section
56-Ba-135
1554. To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
30
56-Ba-135

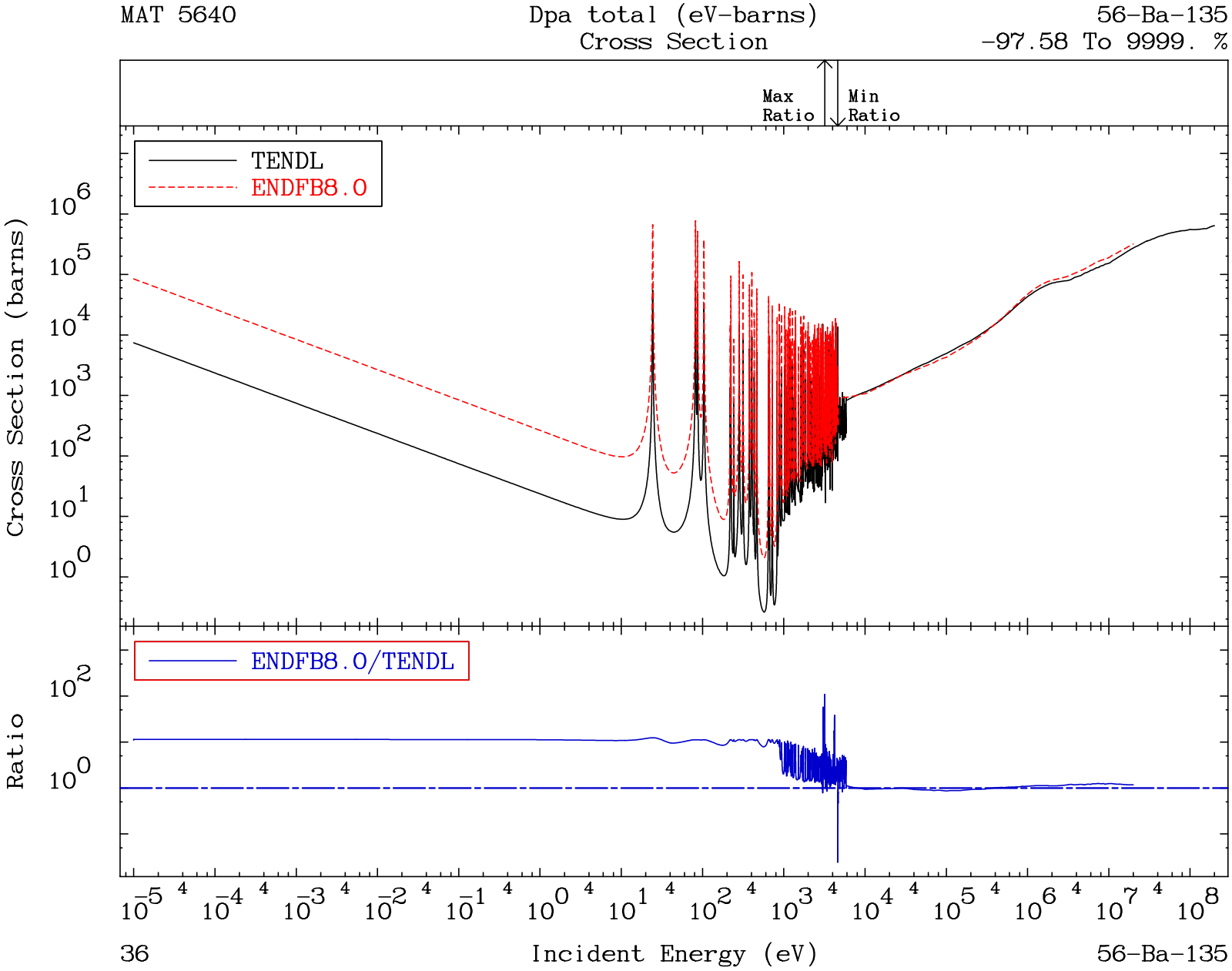

MAT 5640
Kerma inelastic (mt51-91)
Cross Section
56-Ba-135
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 222.62 keV
ENDFB8.0 Threshold 222.65 keV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
31
56-Ba-135

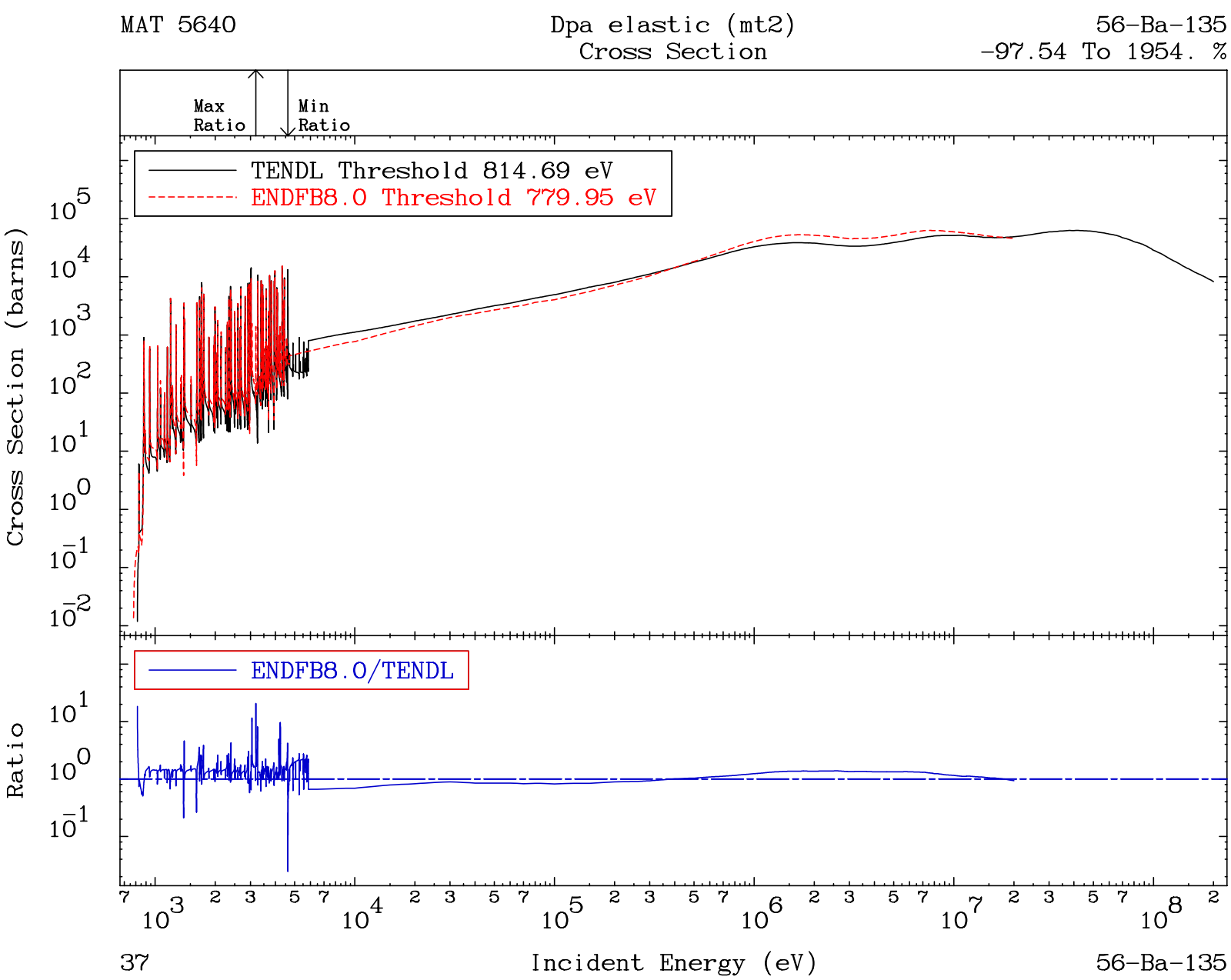

MAT 5640
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
56-Ba-135
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
ENDFB8.0/TENDL
Ratio
10^4
10^0
10^-4
10^-8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
32
Incident Energy (eV)
56-Ba-135

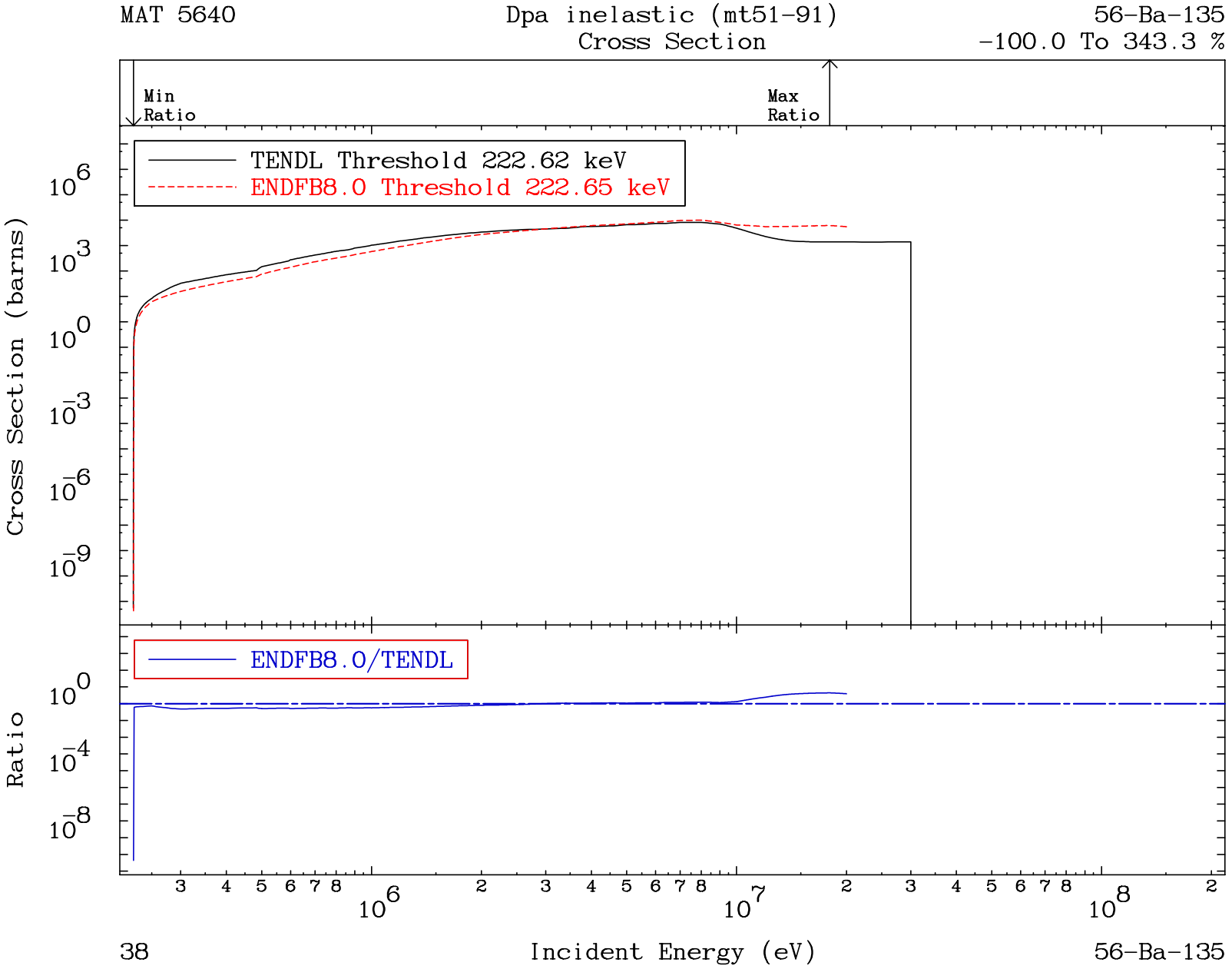

MAT 5640
Kerma capture (mt102)
Cross Section
56-Ba-135
5776. To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
33
56-Ba-135

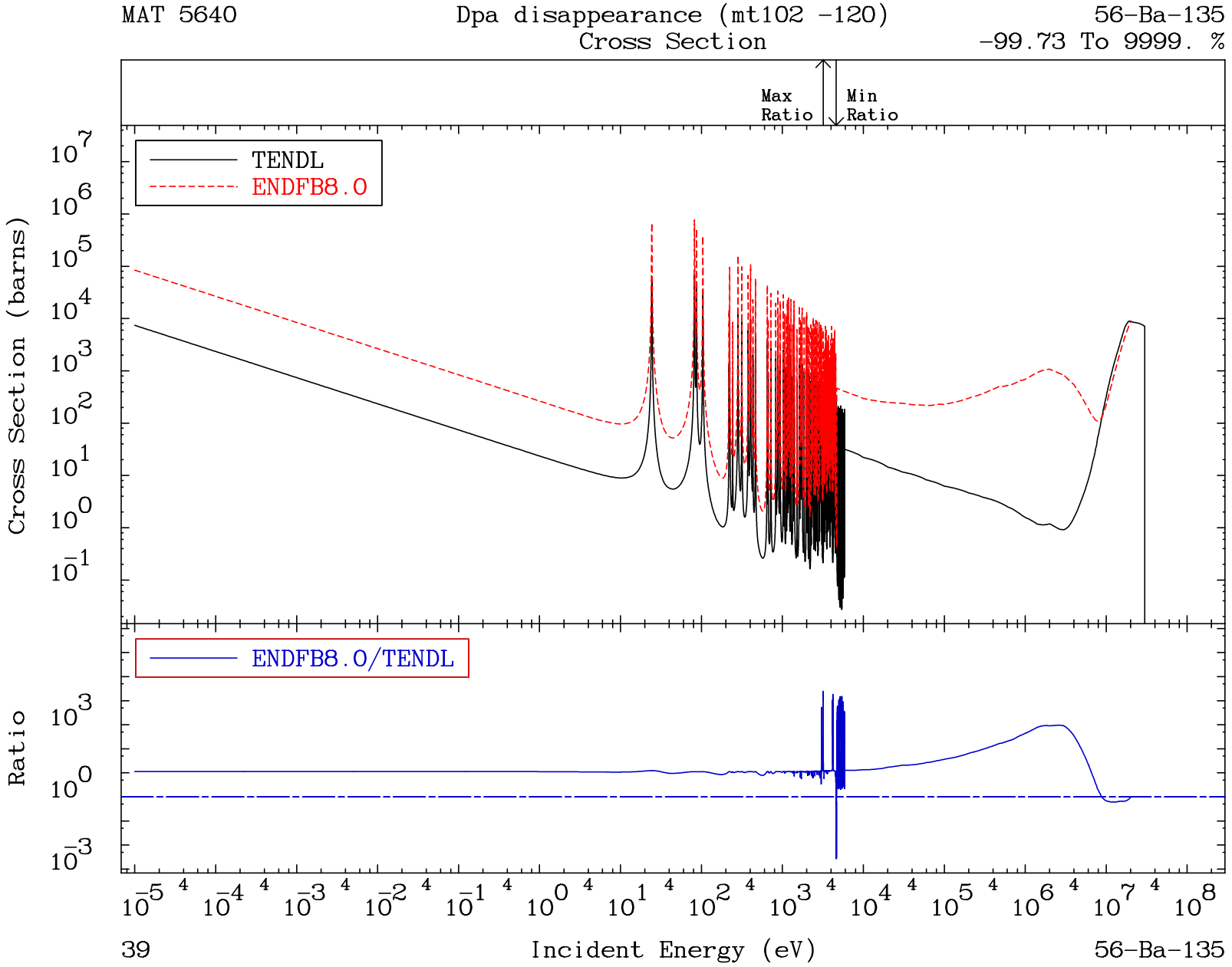

MAT 5640
Total photon (eV-barns)
Cross Section
56-Ba-135
5776. To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (Giga-barns)
25
20
15
10
5
0
ENDFB8.0/TENDL
Ratio
10^9
10^6
10^3
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
34
Incident Energy (eV)
56-Ba-135


MAT 5640
Total kinematic kerma (high limit)
Cross Section
56-Ba-135
-97.59 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
35
56-Ba-135


MAT 5640
Dpa total (eV-barns)
Cross Section
56-Ba-135
-97.58 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
36
56-Ba-135


MAT 5640
Dpa elastic (mt2)
Cross Section
56-Ba-135
-97.54 To 1954. %
Max Ratio
Min Ratio
TENDL Threshold 814.69 eV
ENDFB8.0 Threshold 779.95 eV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
37
56-Ba-135


MAT 5640
Dpa inelastic (mt51-91)
Cross Section
56-Ba-135
-100.0 To 343.3 %
Min Ratio
Max Ratio
TENDL Threshold 222.62 keV
ENDFB8.0 Threshold 222.65 keV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
38
56-Ba-135


MAT 5640
Dpa disappearance (mt102 -120)
Cross Section
56-Ba-135
-99.73 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
39
56-Ba-135