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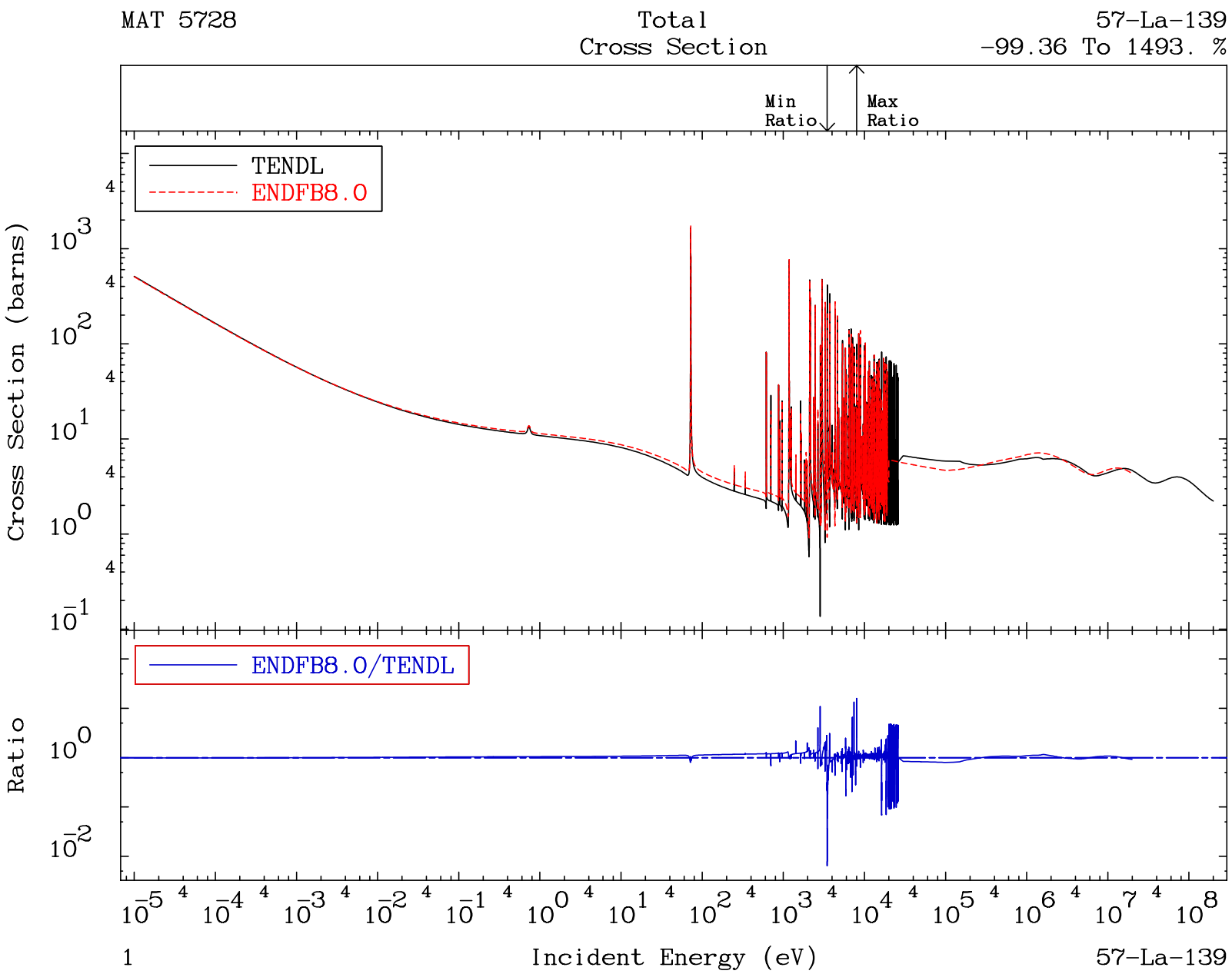
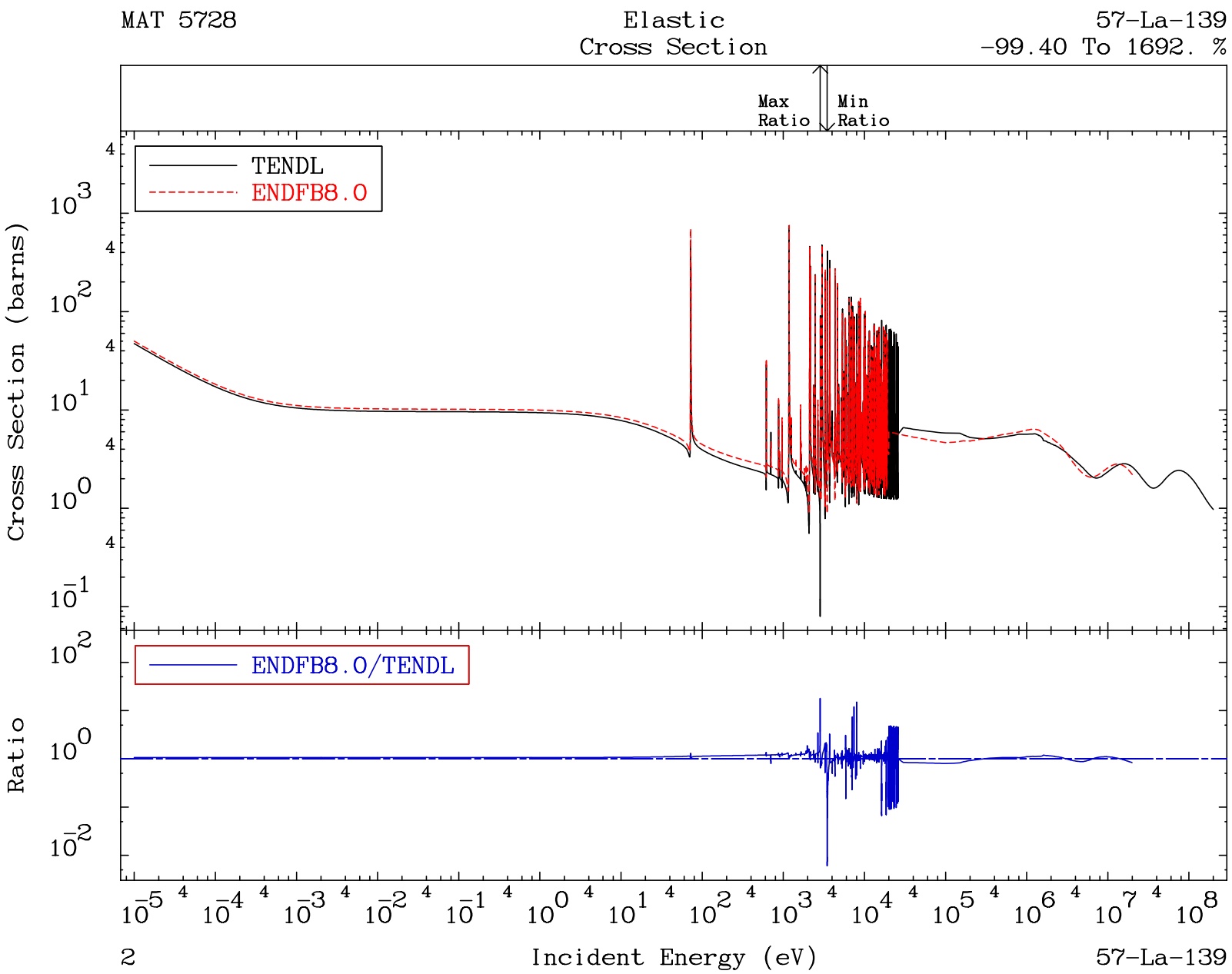
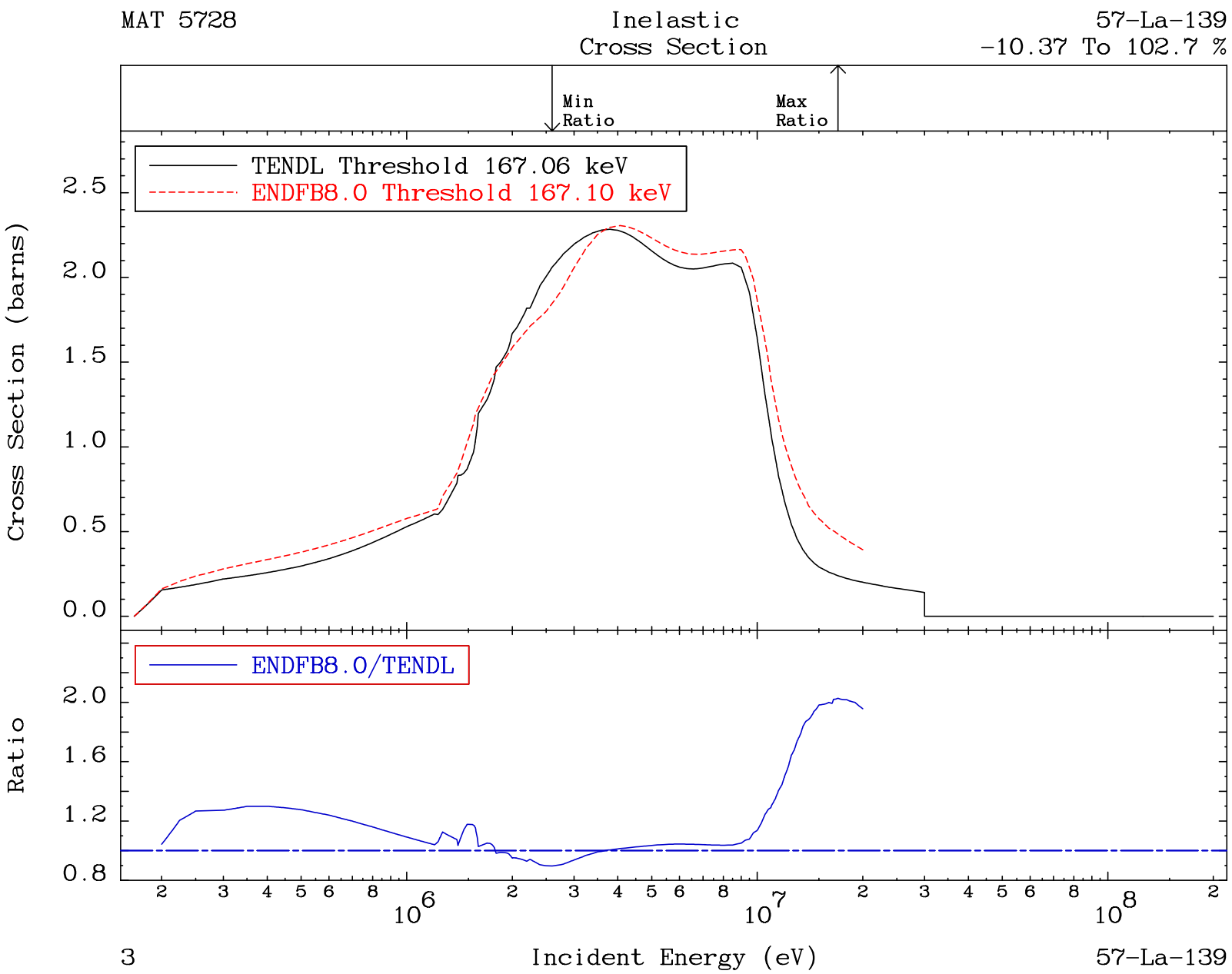
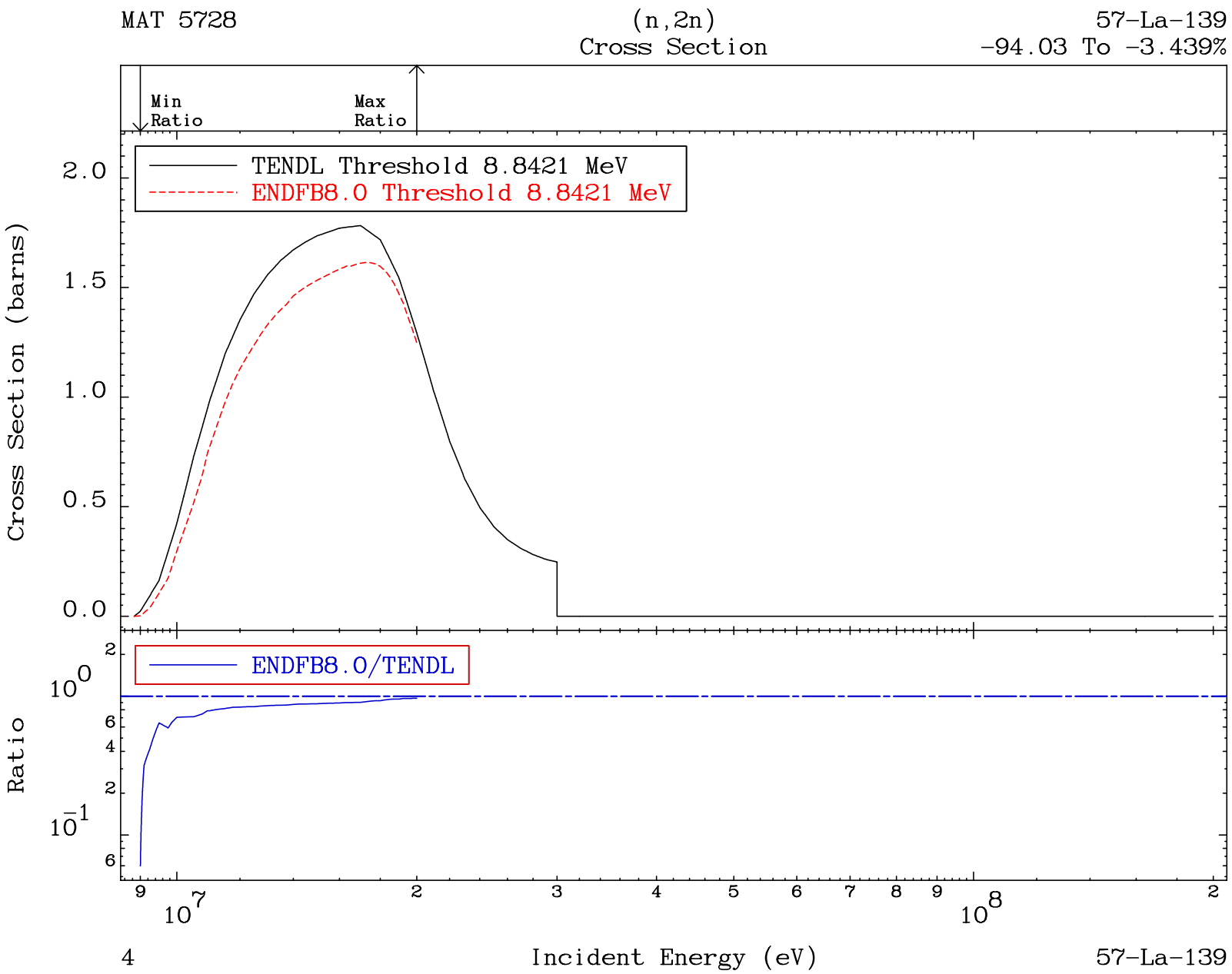
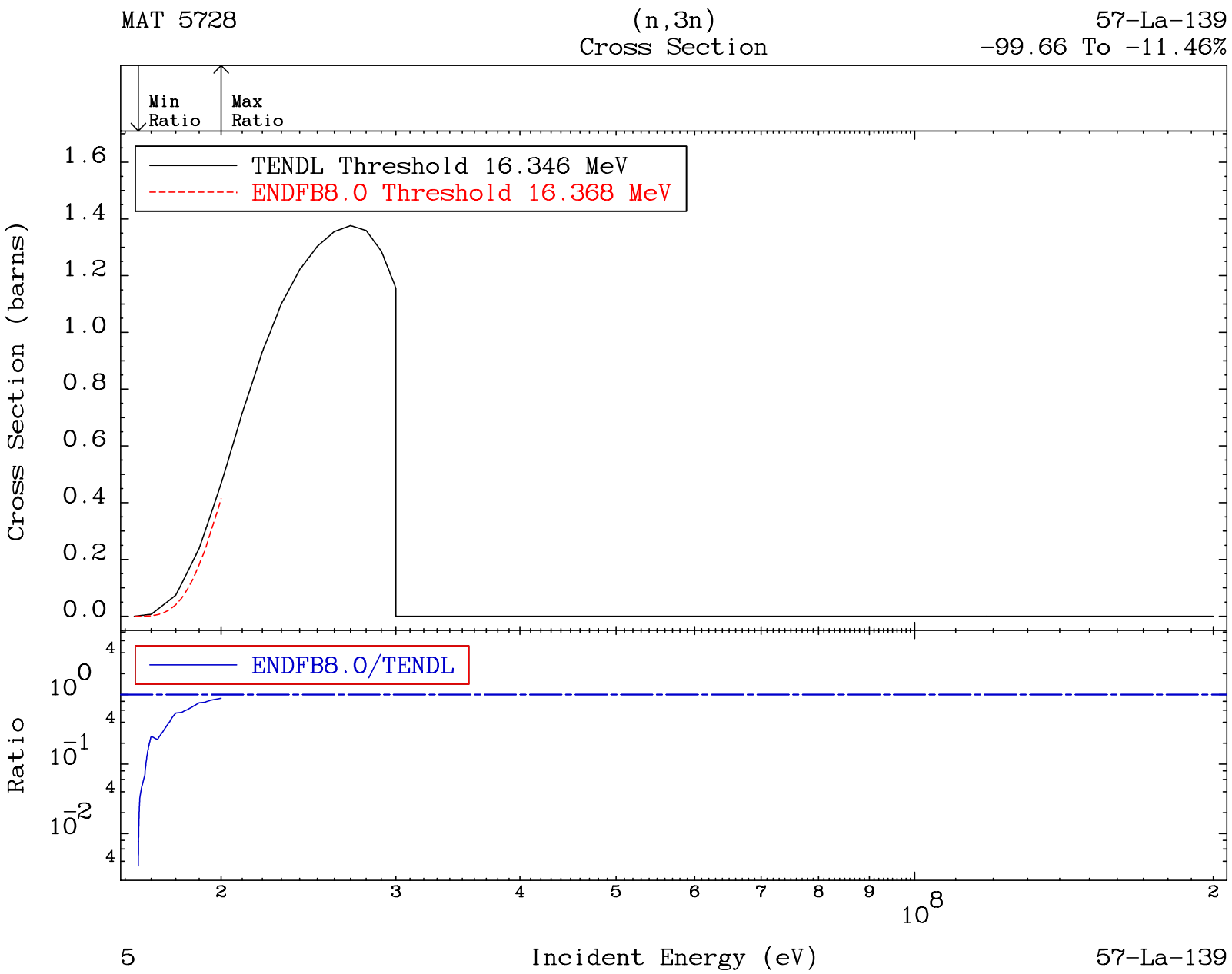
Press Mouse Button to Start

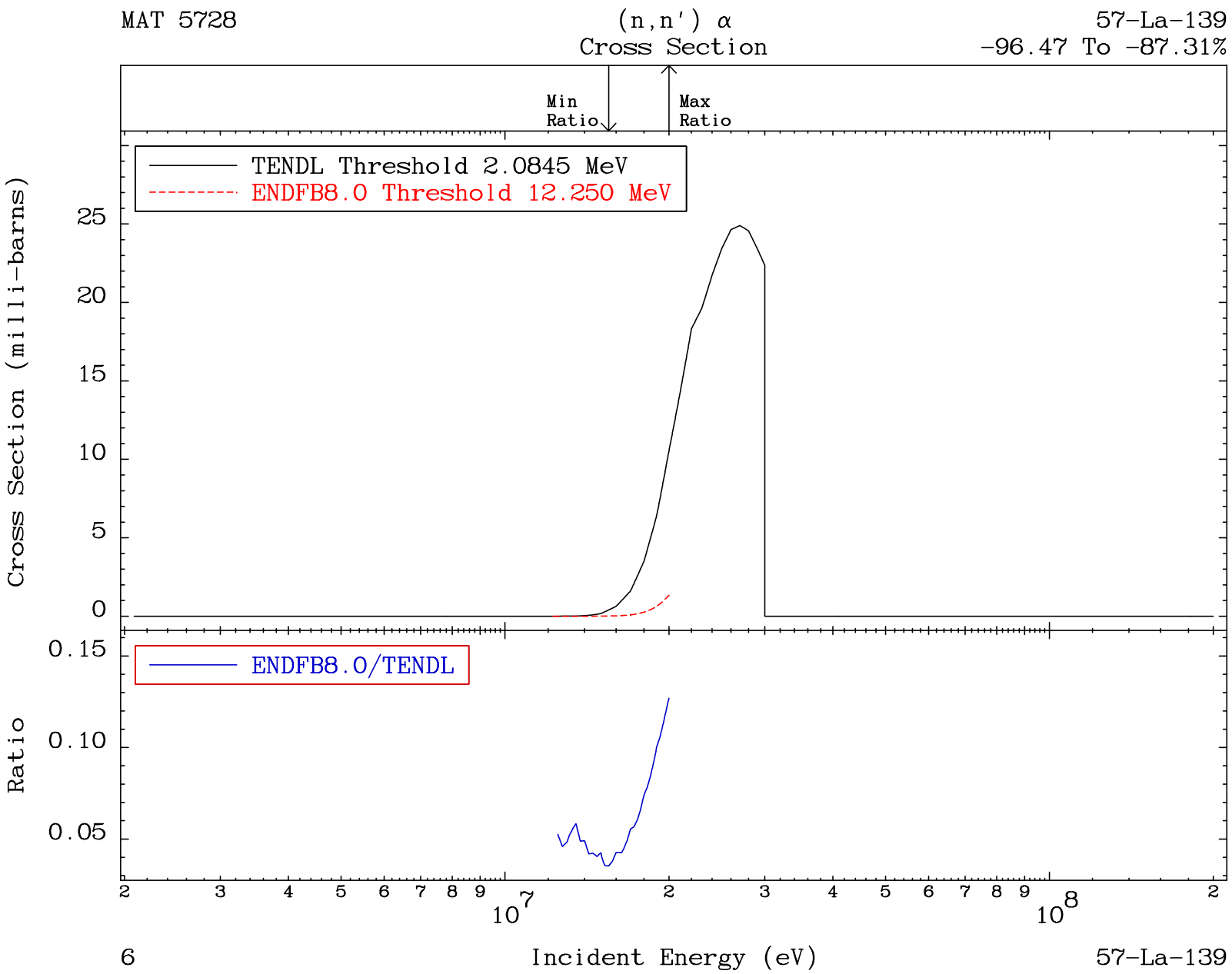

MAT 5728
Total
Cross Section
57-La-139
-99.36 To 1493. %
Min
Ratio
Max
Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
1
57-La-139

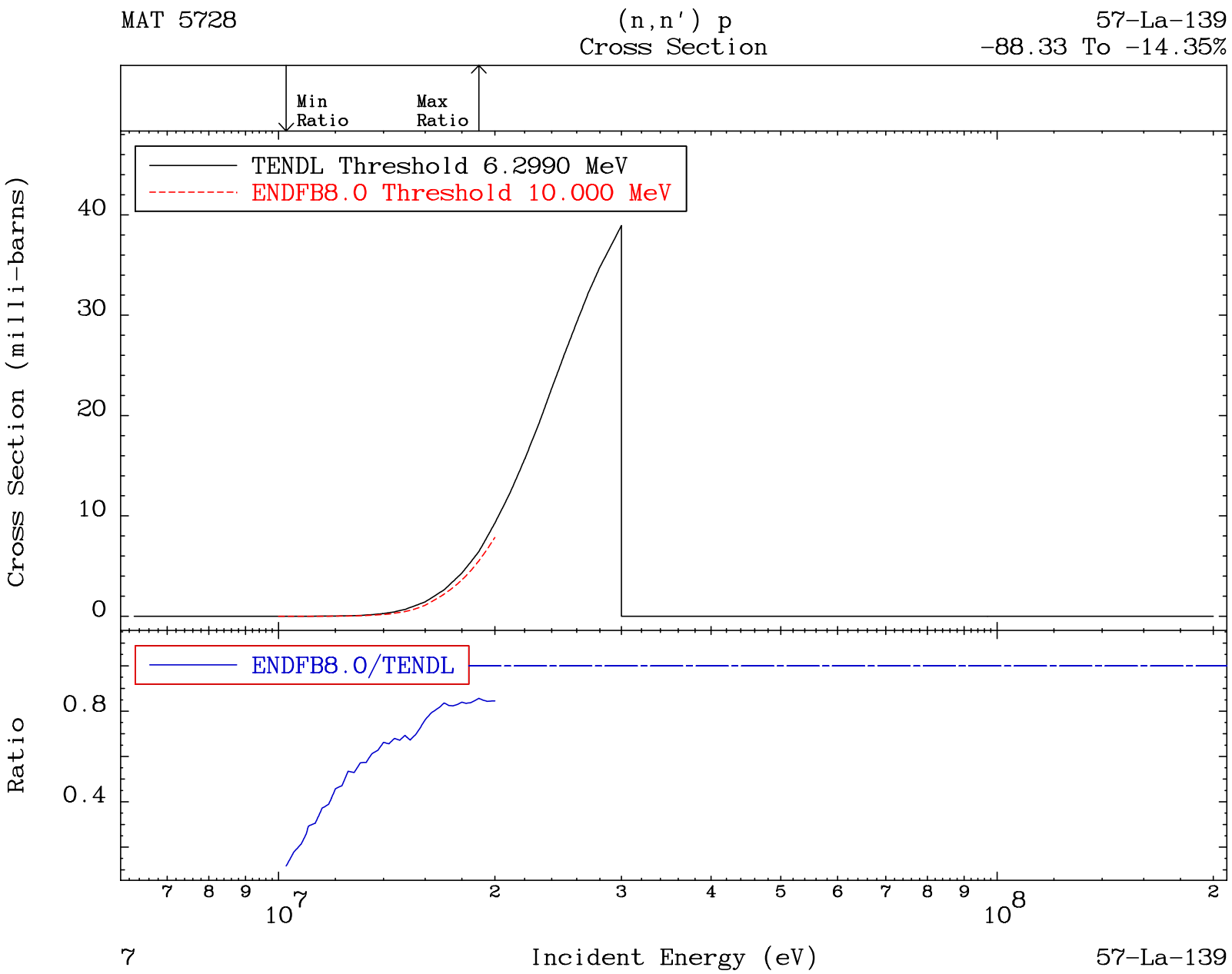

MAT 5728
Elastic
Cross Section
57-La-139
-99.40 To 1692. %
Max
Ratio
Min
Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
2
57-La-139

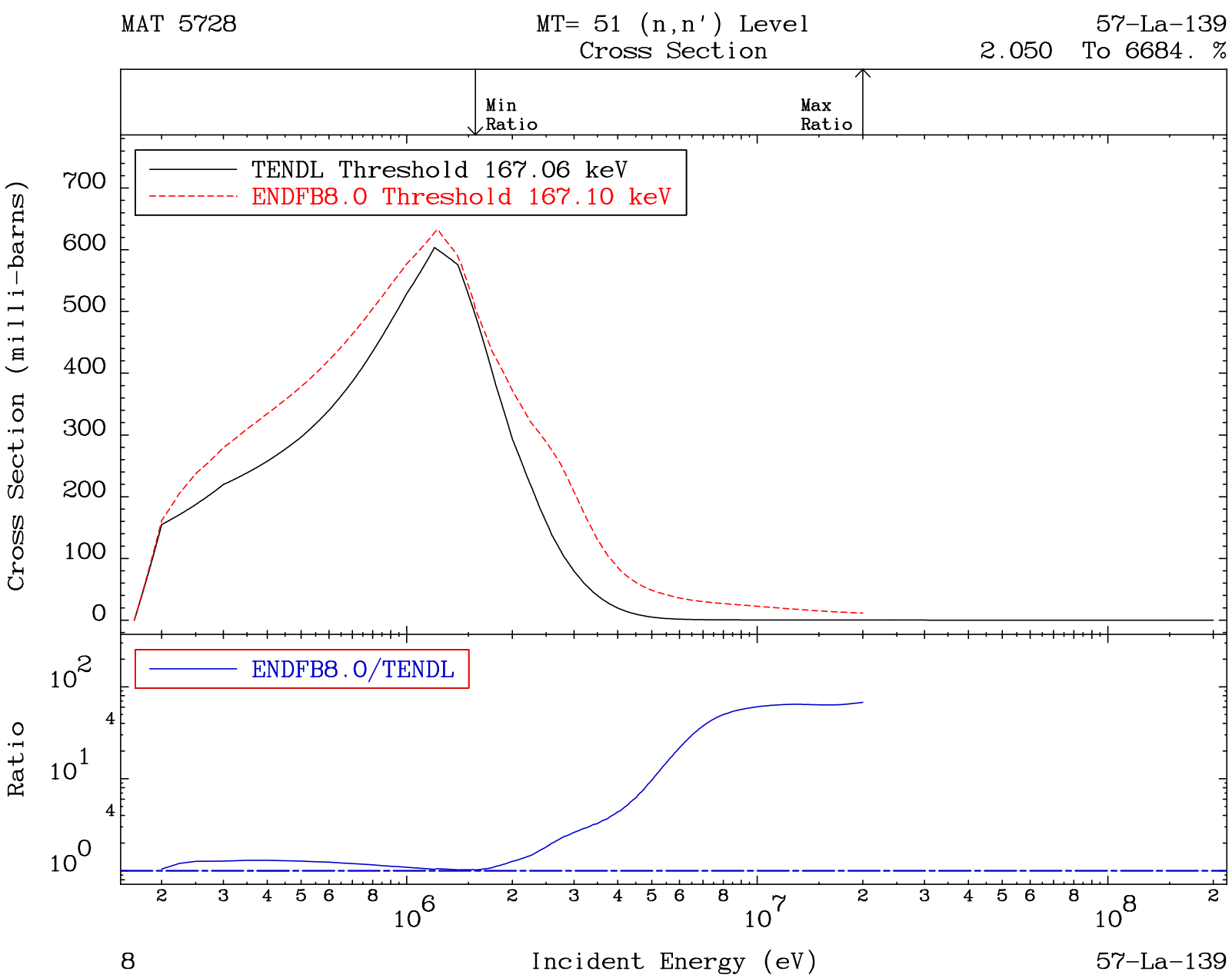

MAT 5728
Inelastic
Cross Section
57-La-139
-10.37 To 102.7 %
Min
Ratio
Max
Ratio
TENDL Threshold 167.06 keV
ENDFB8.0 Threshold 167.10 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
2.0
1.6
1.2
0.8
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
57-La-139

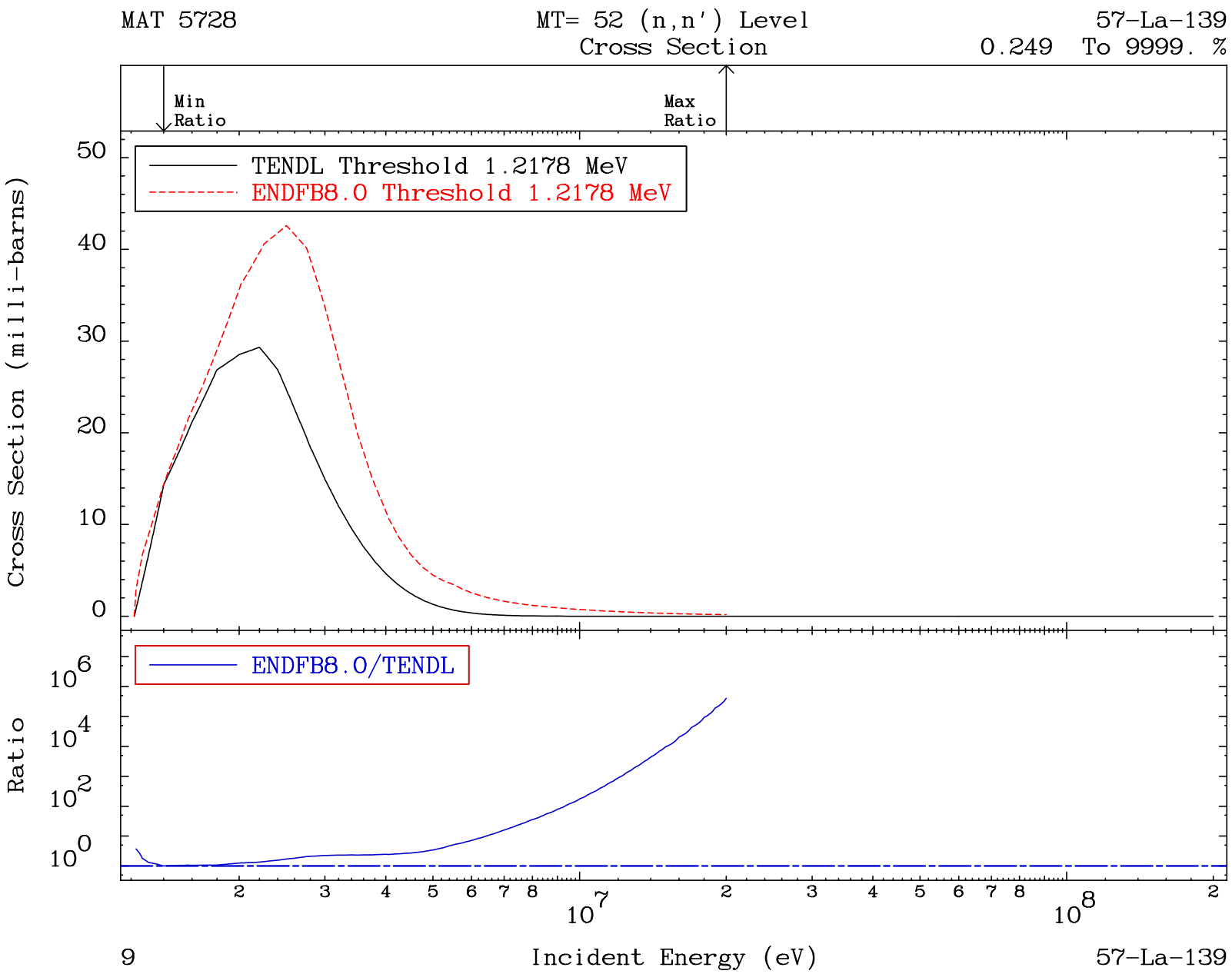

MAT 5728
(n,2n)
Cross Section
57-La-139
-94.03 To -3.439%
Min Ratio
Max Ratio
TENDL Threshold 8.8421 MeV
ENDFB8.0 Threshold 8.8421 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
10^{0}
10^{-1}
10^{7}
10^{8}
Incident Energy (eV)
4
57-La-139

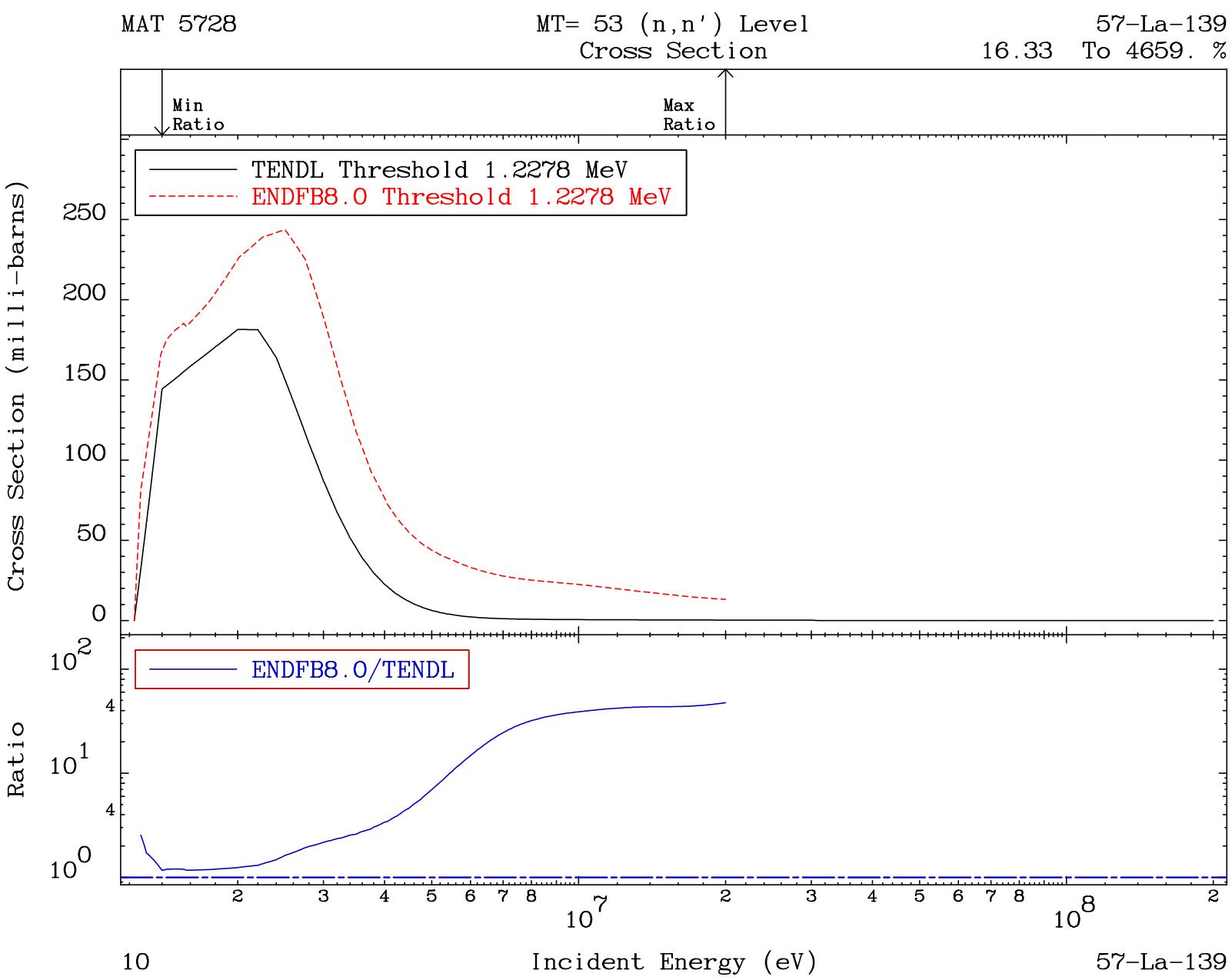

MAT 5728
(n,3n)
Cross Section
57-La-139
-99.66 To -11.46%
Min Ratio
Max Ratio
TENDL Threshold 16.346 MeV
ENDFB8.0 Threshold 16.368 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
ENDFB8.0/TENDL
Ratio
10^0
10^-1
10^-2
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
57-La-139

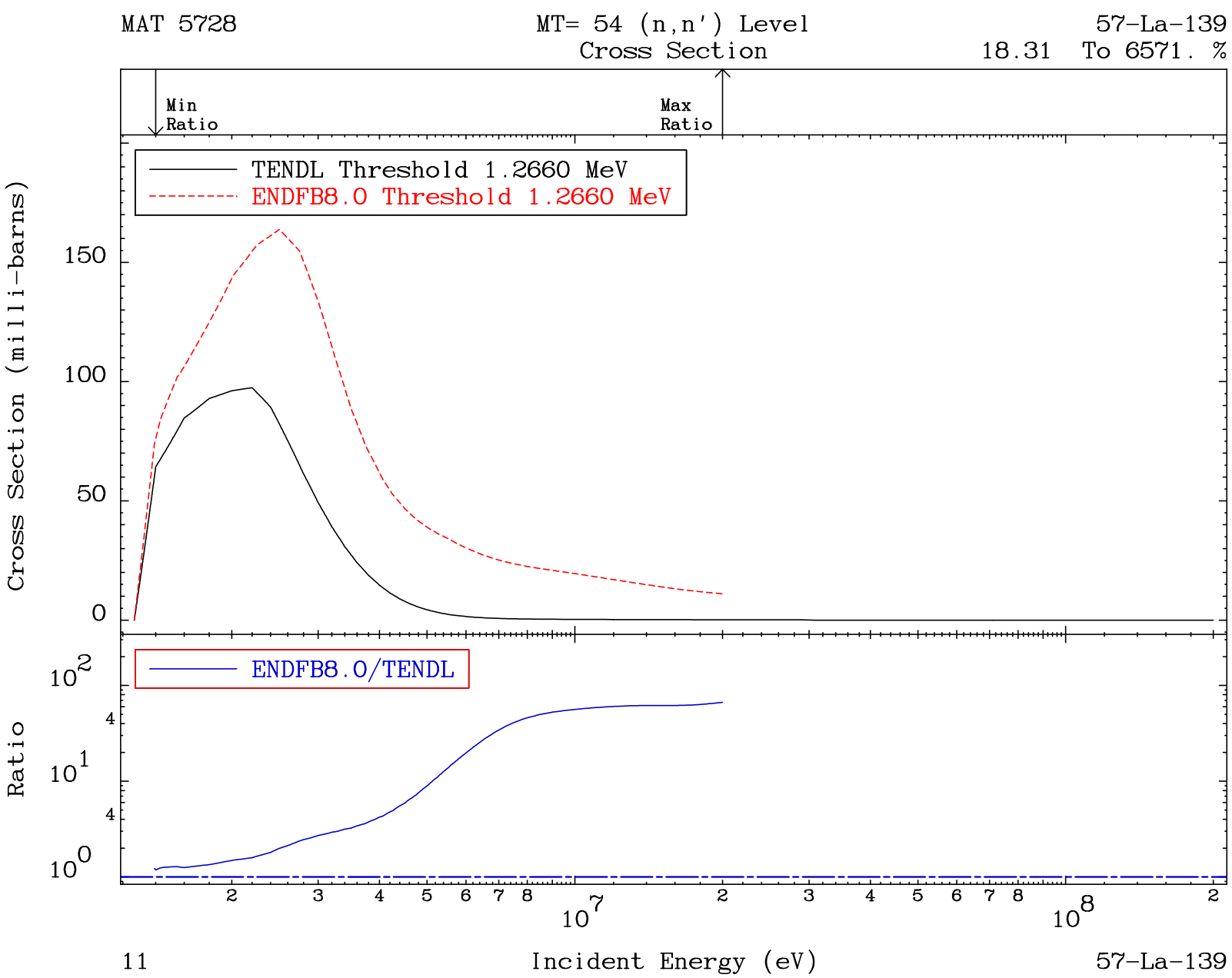

MAT 5728
(n,n') α
Cross Section
57-La-139
-96.47 To -87.31%
Min Ratio
Max Ratio
TENDL Threshold 2.0845 MeV
ENDFB8.0 Threshold 12.250 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
ENDFB8.0/TENDL
Ratio
0.15
0.10
0.05
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
6
Incident Energy (eV)
57-La-139

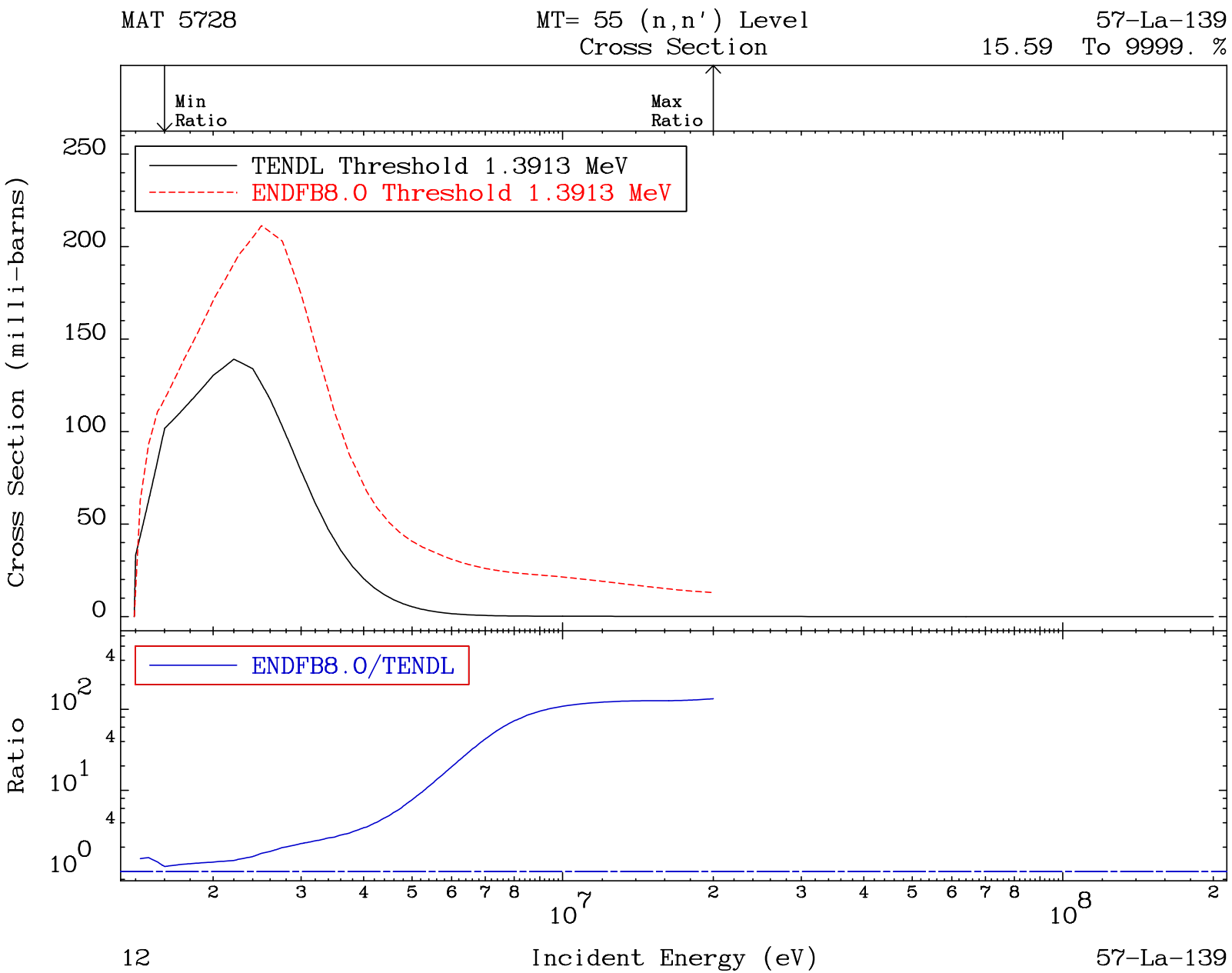

MAT 5728
(n,n') p
Cross Section
57-La-139
-88.33 To -14.35%
Min Ratio
Max Ratio
TENDL Threshold 6.2990 MeV
ENDFB8.0 Threshold 10.000 MeV
Cross Section (milli-barns)
40
30
20
10
0
ENDFB8.0/TENDL
Ratio
0.8
0.4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
57-La-139

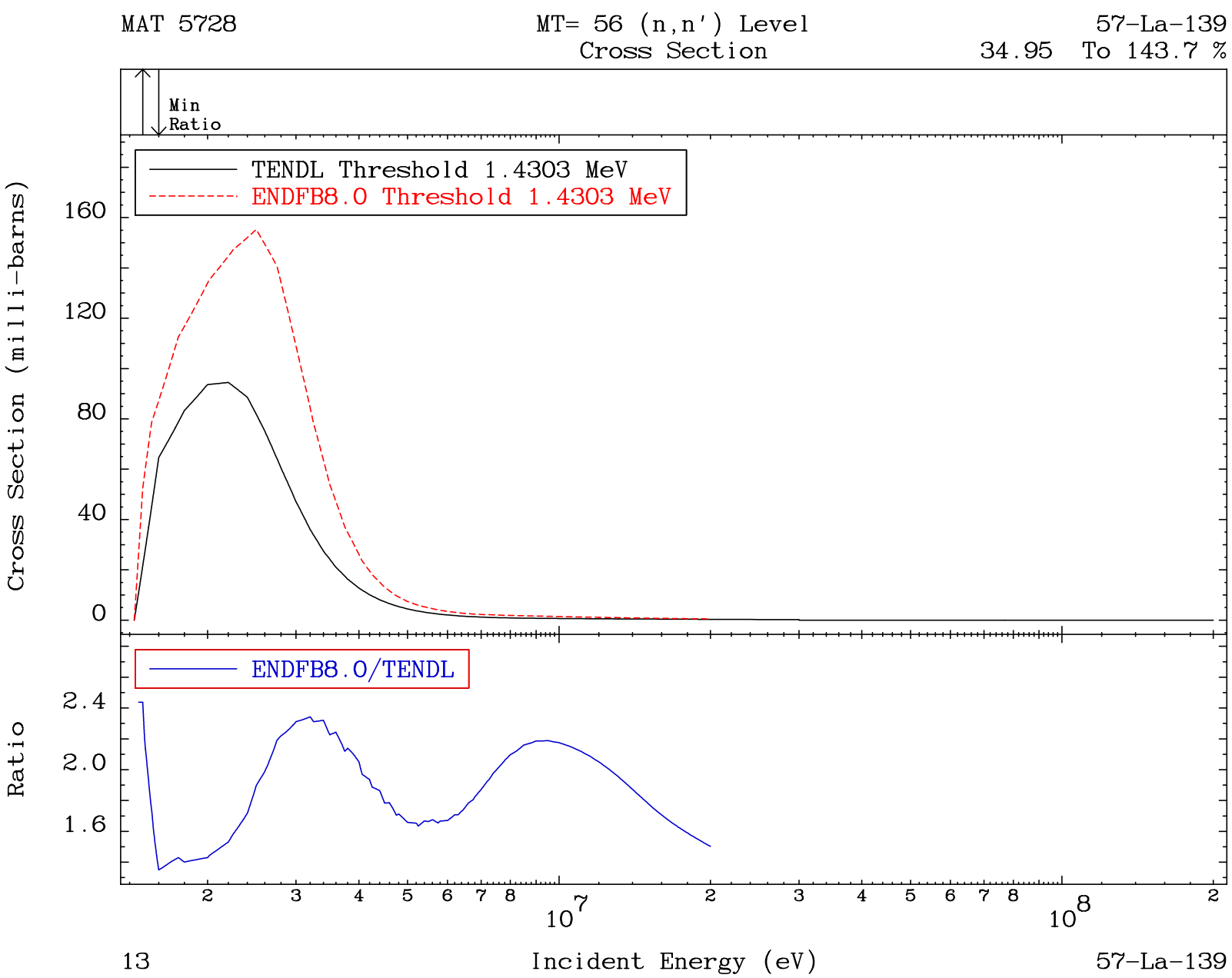

MAT 5728
MT= 51 (n,n') Level
Cross Section
57-La-139
2.050 To 6684. %
Min
Ratio
Max
Ratio
TENDL Threshold 167.06 keV
ENDFB8.0 Threshold 167.10 keV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
10^2
10^1
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
8
Incident Energy (eV)
57-La-139

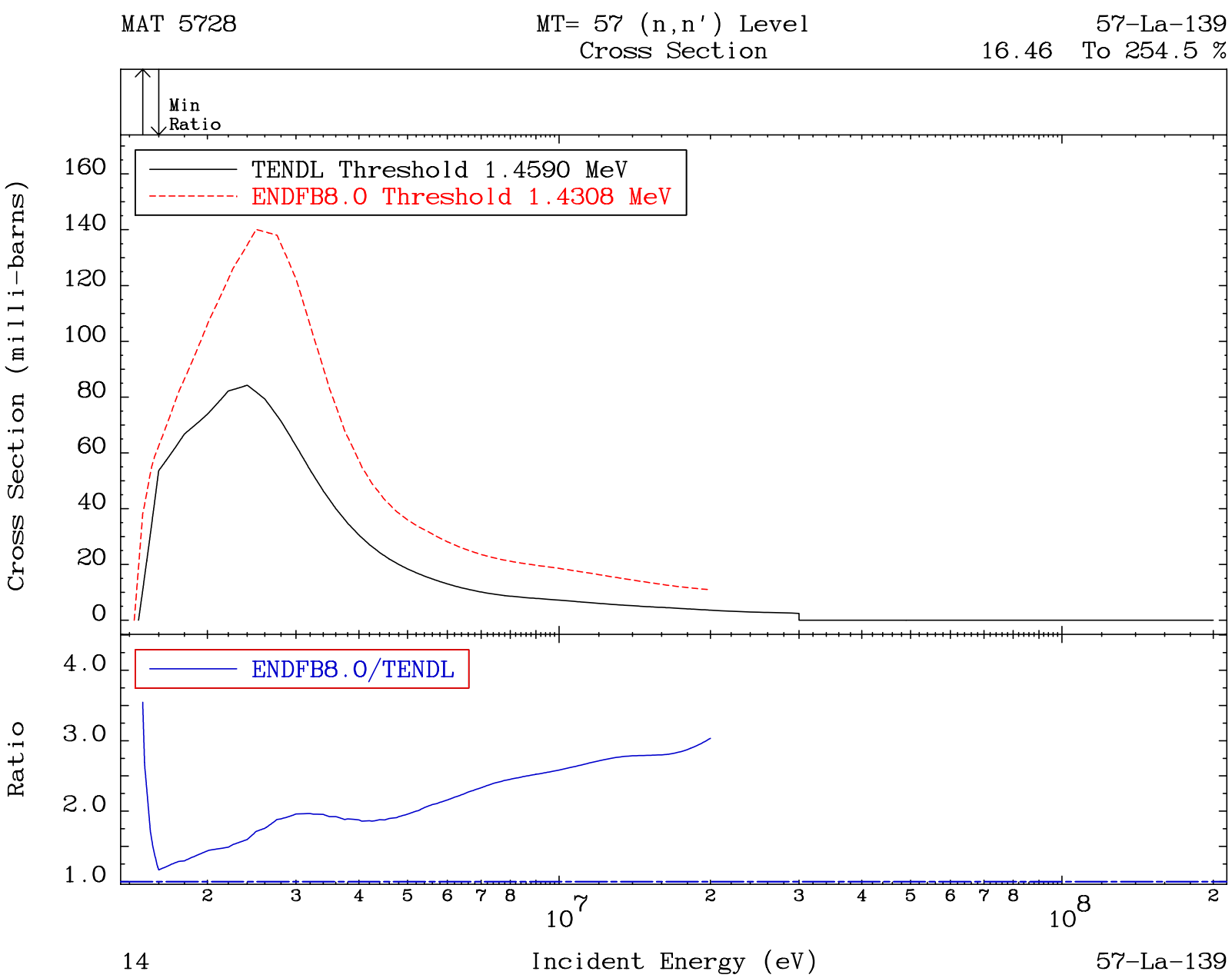

MAT 5728
MT= 52 (n,n') Level
Cross Section
57-La-139
0.249 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2178 MeV
ENDFB8.0 Threshold 1.2178 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
ENDFB8.0/TENDL
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
9
Incident Energy (eV)
57-La-139

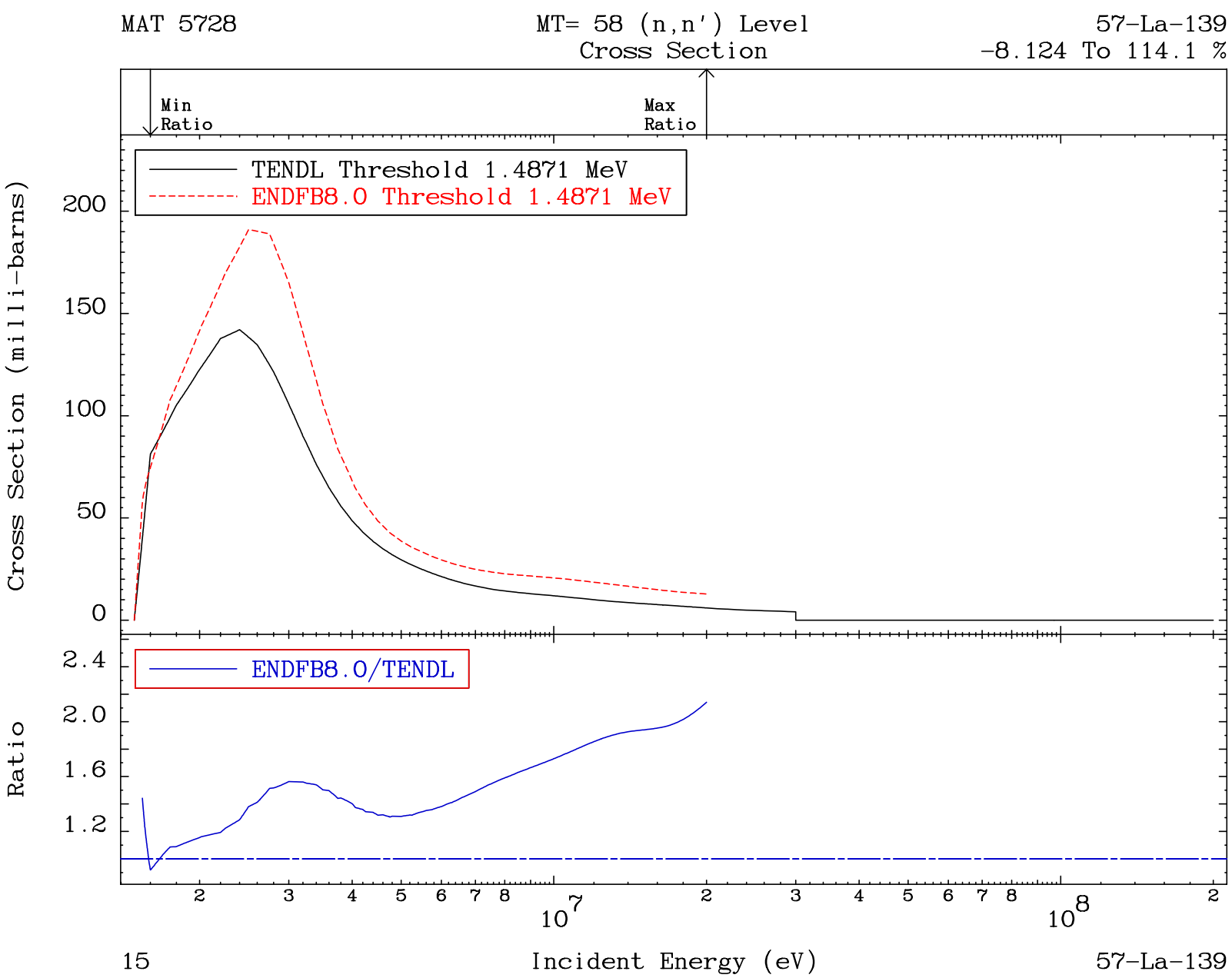

MAT 5728
MT= 53 (n,n') Level
Cross Section
57-La-139
16.33 To 4659. %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2278 MeV
ENDFB8.0 Threshold 1.2278 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^2
4
10^1
4
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
10
Incident Energy (eV)
57-La-139

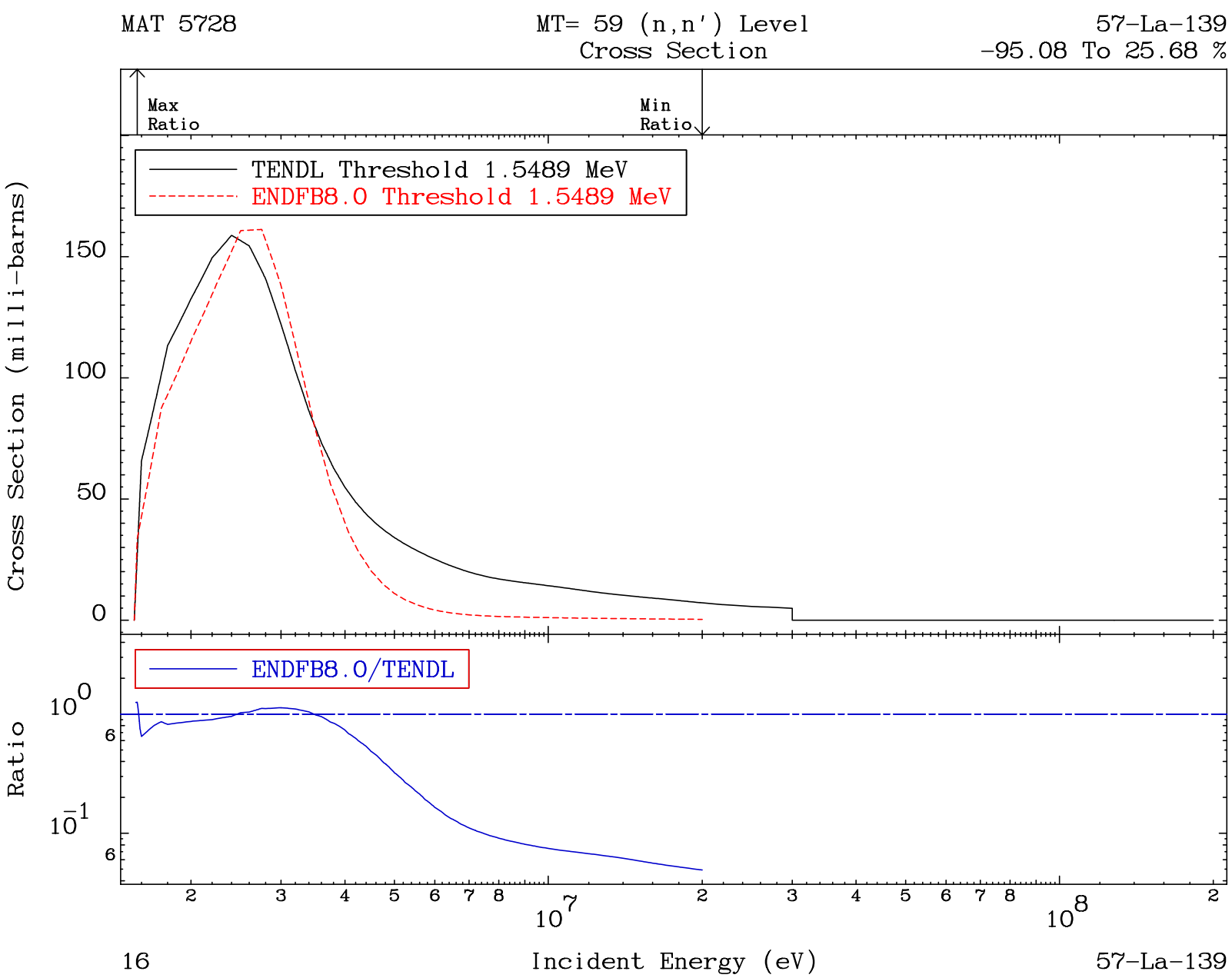

MAT 5728
MT= 54 (n,n') Level
Cross Section
57-La-139
18.31 To 6571. %
Min Ratio
Max Ratio
TENDL Threshold 1.2660 MeV
ENDFB8.0 Threshold 1.2660 MeV
Cross Section (milli-barns)
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^2
10^1
10^0
4
4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
57-La-139

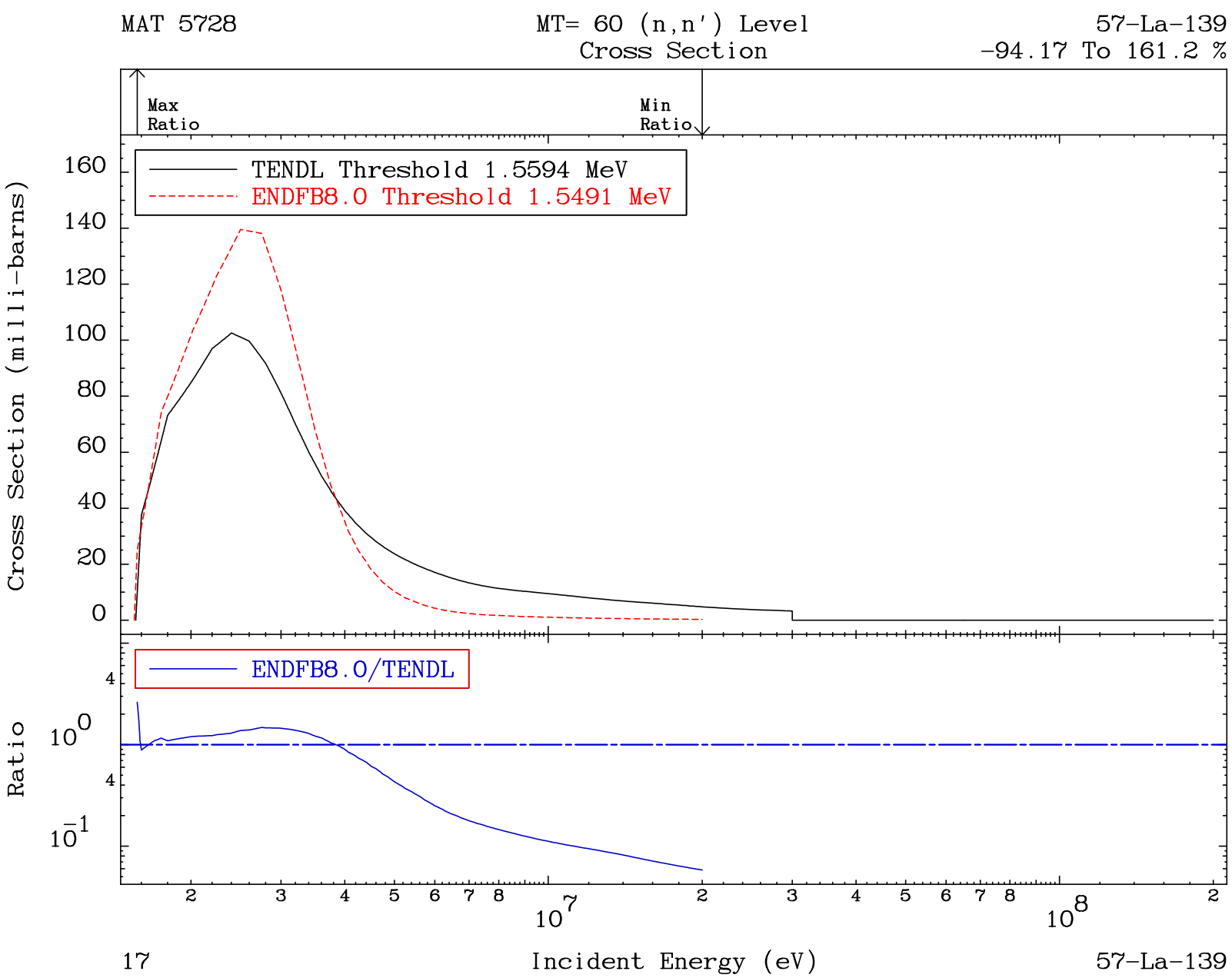

MAT 5728
MT= 55 (n,n') Level
Cross Section
57-La-139
15.59 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.3913 MeV
ENDFB8.0 Threshold 1.3913 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^2
10^1
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
57-La-139

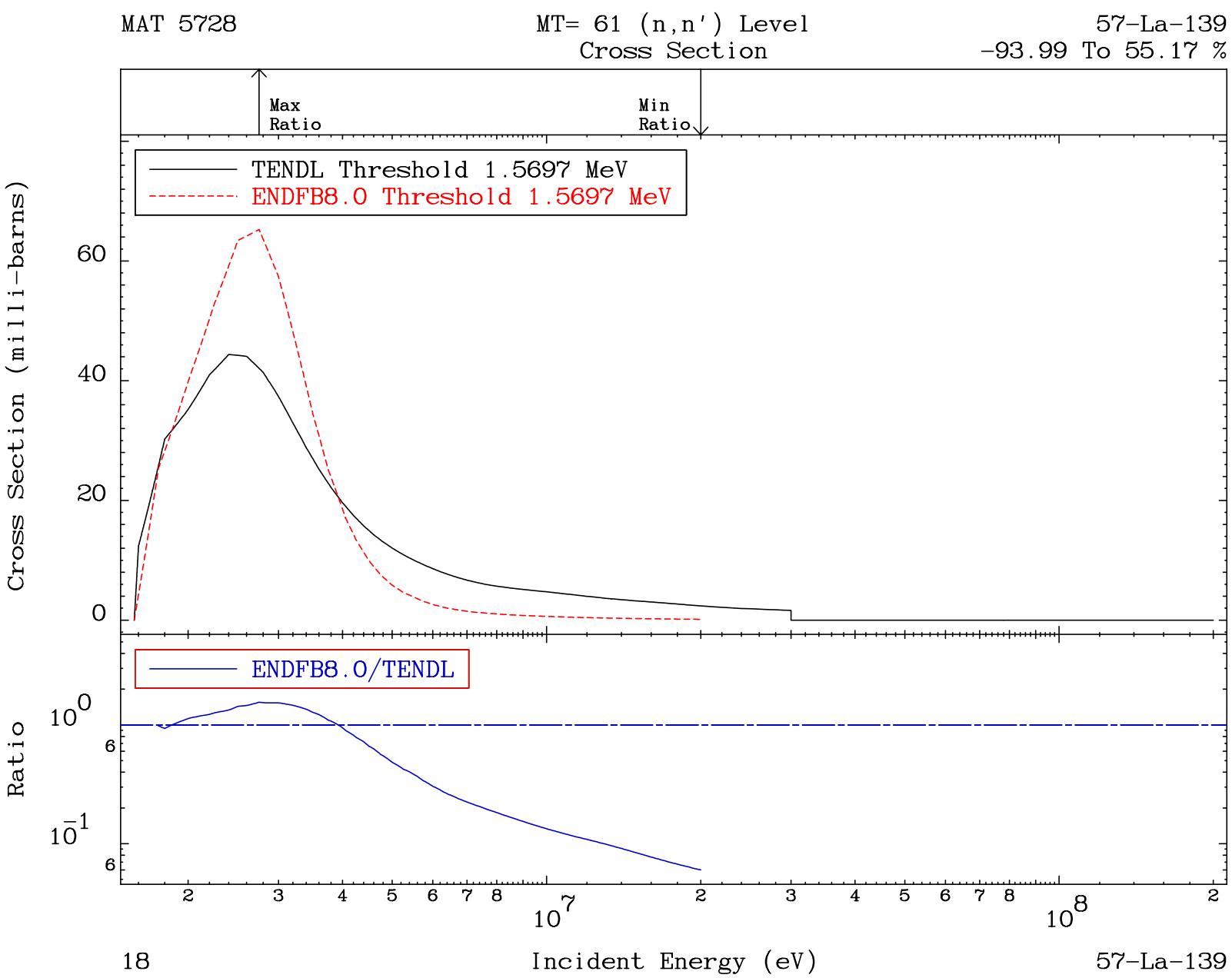

MAT 5728
MT= 56 (n,n') Level
Cross Section
57-La-139
34.95 To 143.7 %
Min
Ratio
TENDL Threshold 1.4303 MeV
ENDFB8.0 Threshold 1.4303 MeV
Cross Section (milli-barns)
160
120
80
40
0
ENDFB8.0/TENDL
Ratio
2.4
2.0
1.6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
13
Incident Energy (eV)
57-La-139

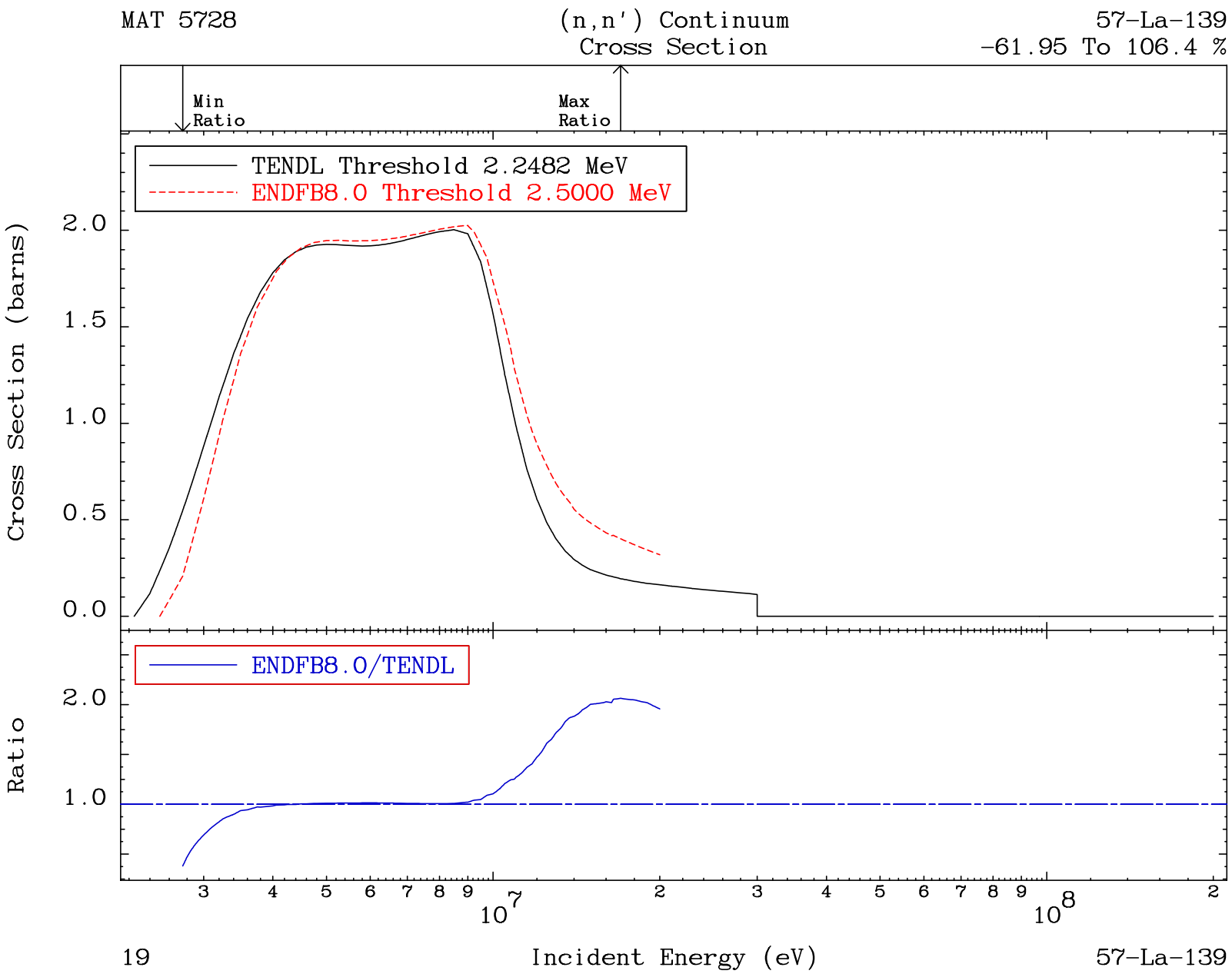

MAT 5728
MT= 57 (n,n') Level
Cross Section
57-La-139
16.46 To 254.5 %
Min
Ratio
TENDL Threshold 1.4590 MeV
ENDFB8.0 Threshold 1.4308 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
ENDFB8.0/TENDL
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
14
Incident Energy (eV)
57-La-139

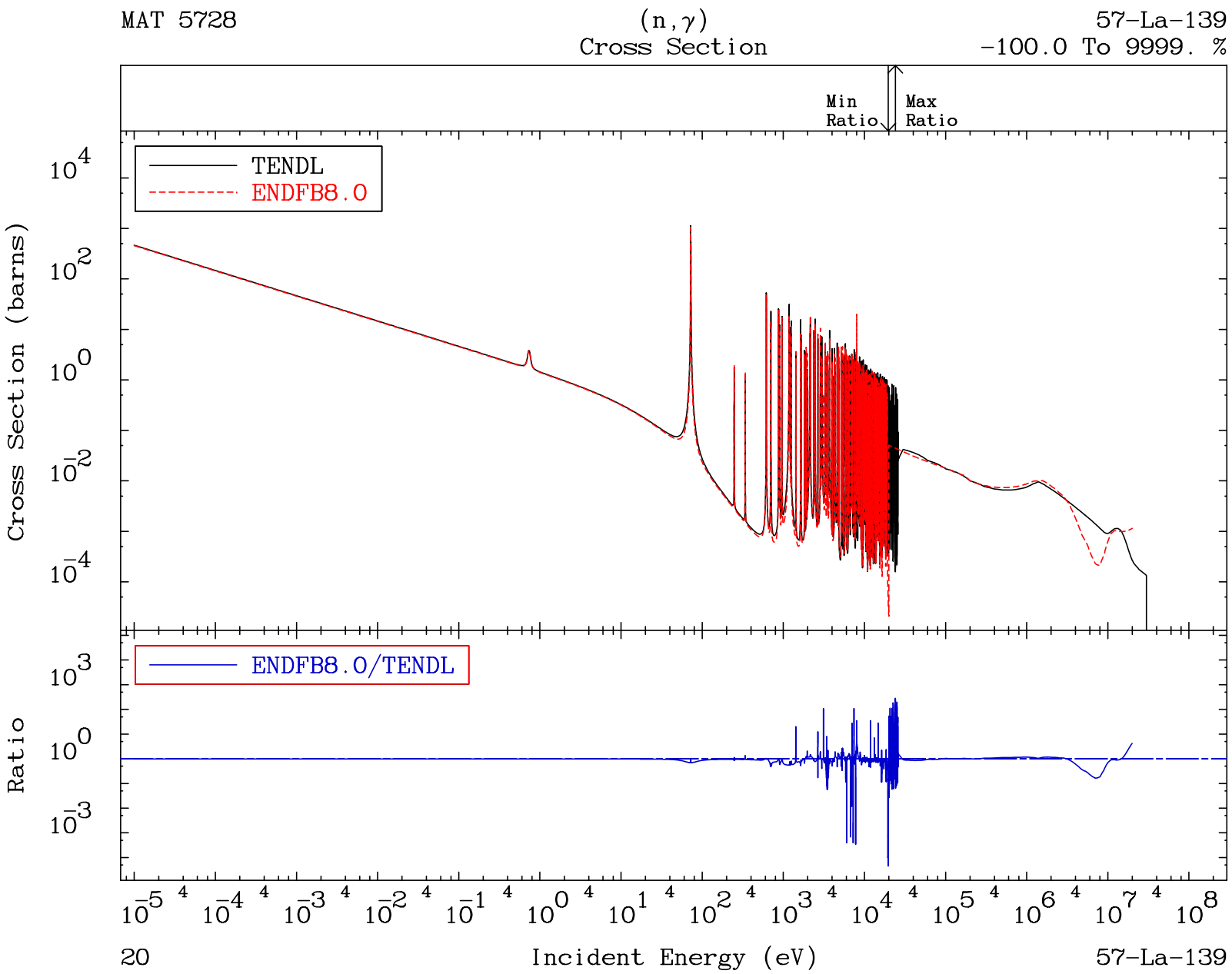

MAT 5728
MT= 58 (n,n') Level
Cross Section
57-La-139
-8.124 To 114.1 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4871 MeV
ENDFB8.0 Threshold 1.4871 MeV
Cross Section (milli-barns)
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
2.4
2.0
1.6
1.2
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
15
Incident Energy (eV)
57-La-139

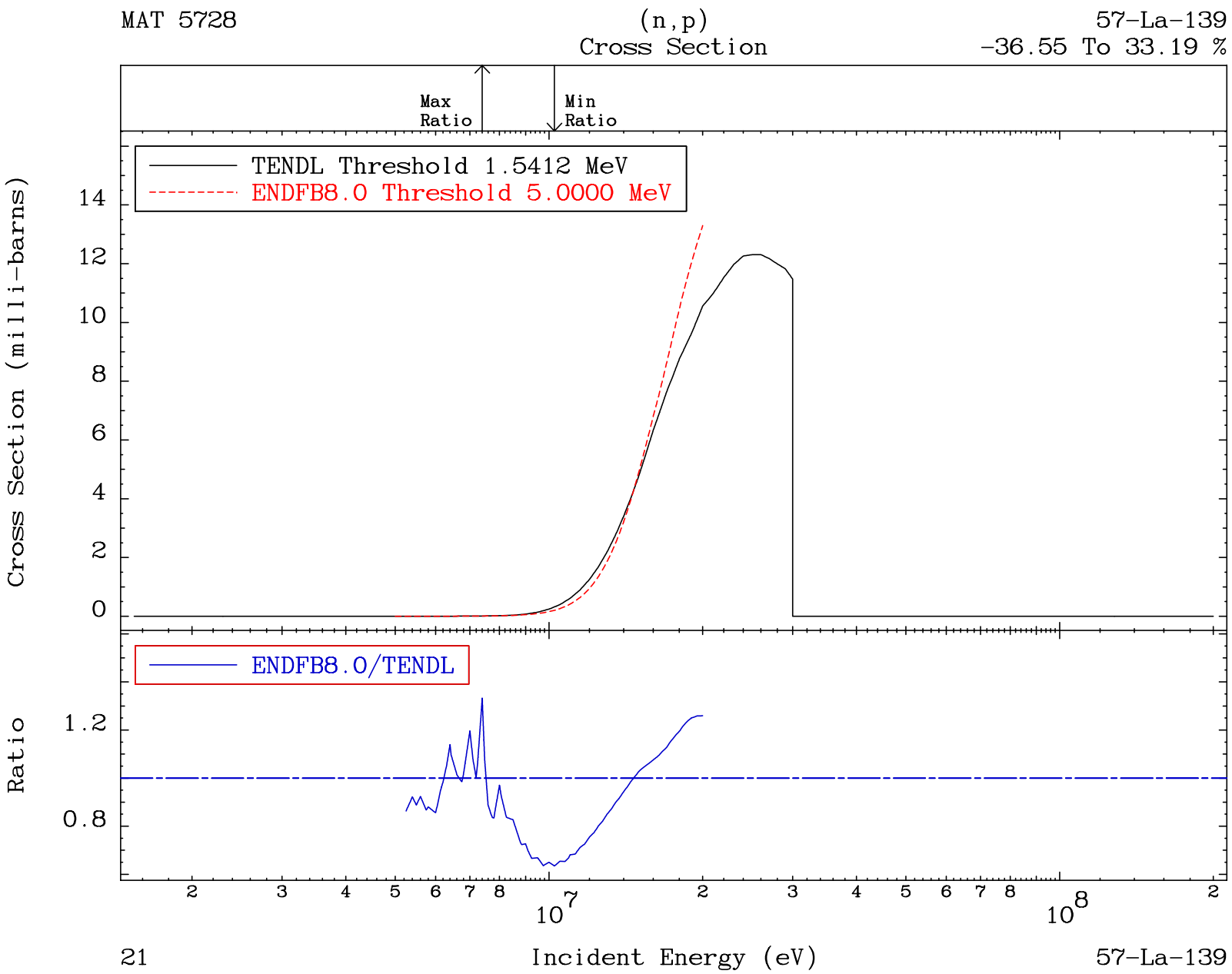

MAT 5728
MT= 59 (n,n') Level
Cross Section
57-La-139
-95.08 To 25.68 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.5489 MeV
ENDFB8.0 Threshold 1.5489 MeV
Cross Section (milli-barns)
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^0
10^-1
2
3
4
5
6
7
8
10^7
10^8
16
Incident Energy (eV)
57-La-139

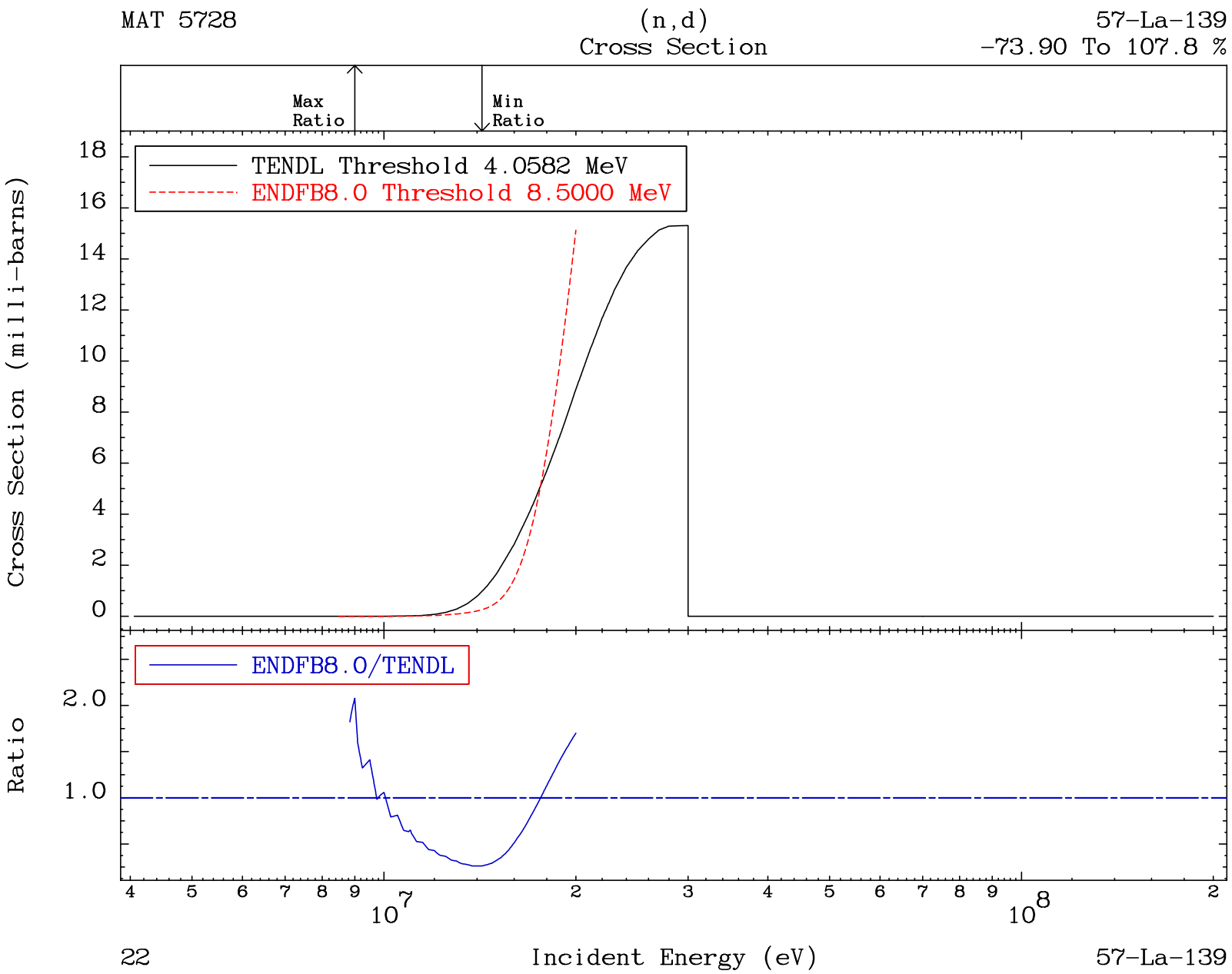

MAT 5728
MT= 60 (n,n') Level
Cross Section
57-La-139
-94.17 To 161.2 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.5594 MeV
ENDFB8.0 Threshold 1.5491 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
ENDFB8.0/TENDL
Ratio
10^{0}
10^{-1}
4
4
2
3
4
5
6
7
8
10^{7}
2
3
4
5
6
7
8
10^{8}
2
17
Incident Energy (eV)
57-La-139

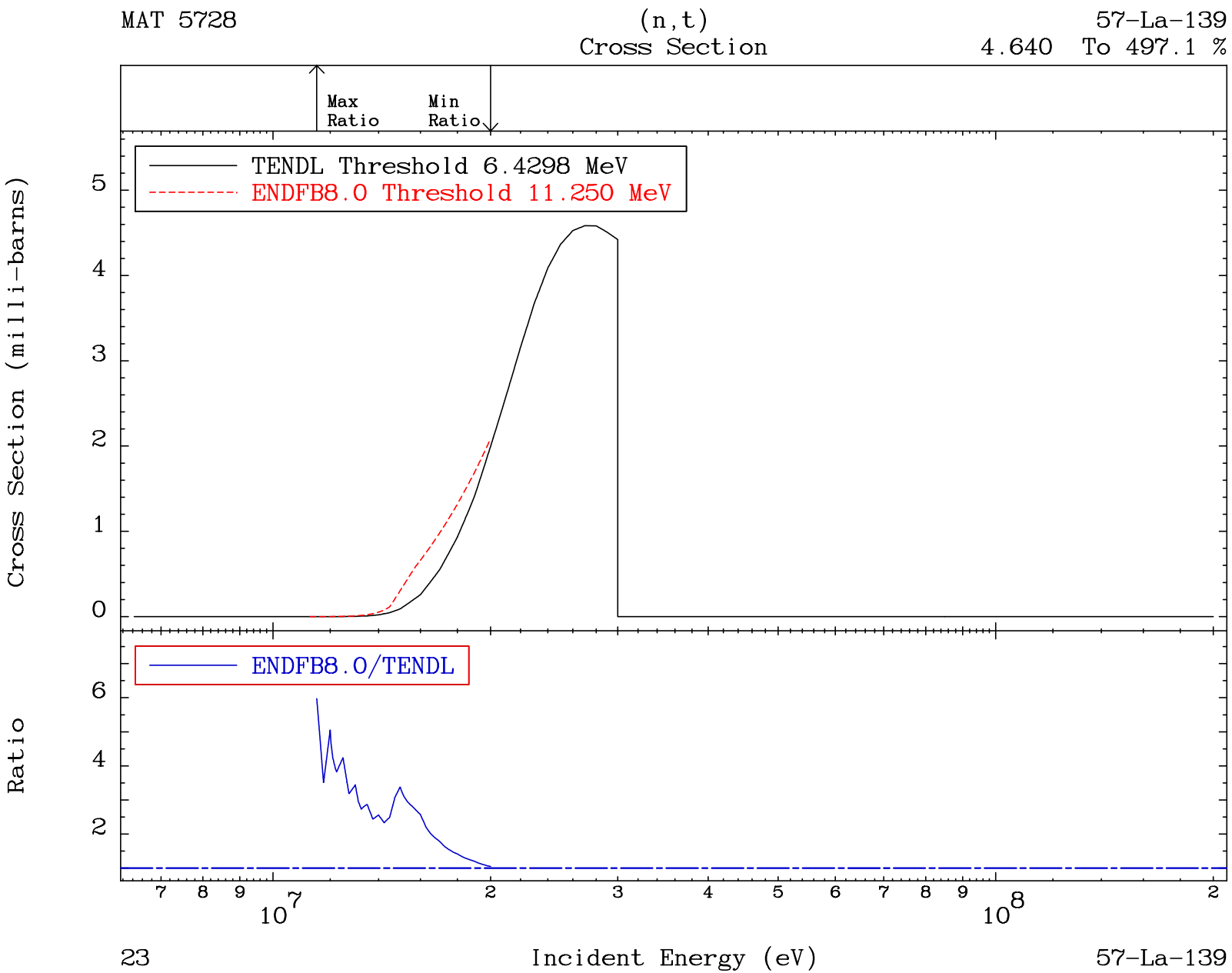

MAT 5728
MT= 61 (n,n') Level
Cross Section
57-La-139
-93.99 To 55.17 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.5697 MeV
ENDFB8.0 Threshold 1.5697 MeV
Cross Section (milli-barns)
60
40
20
0
ENDFB8.0/TENDL
Ratio
10^0
10^-1
2
3
4
5
6
7
8
10^7
10^8
18
Incident Energy (eV)
57-La-139

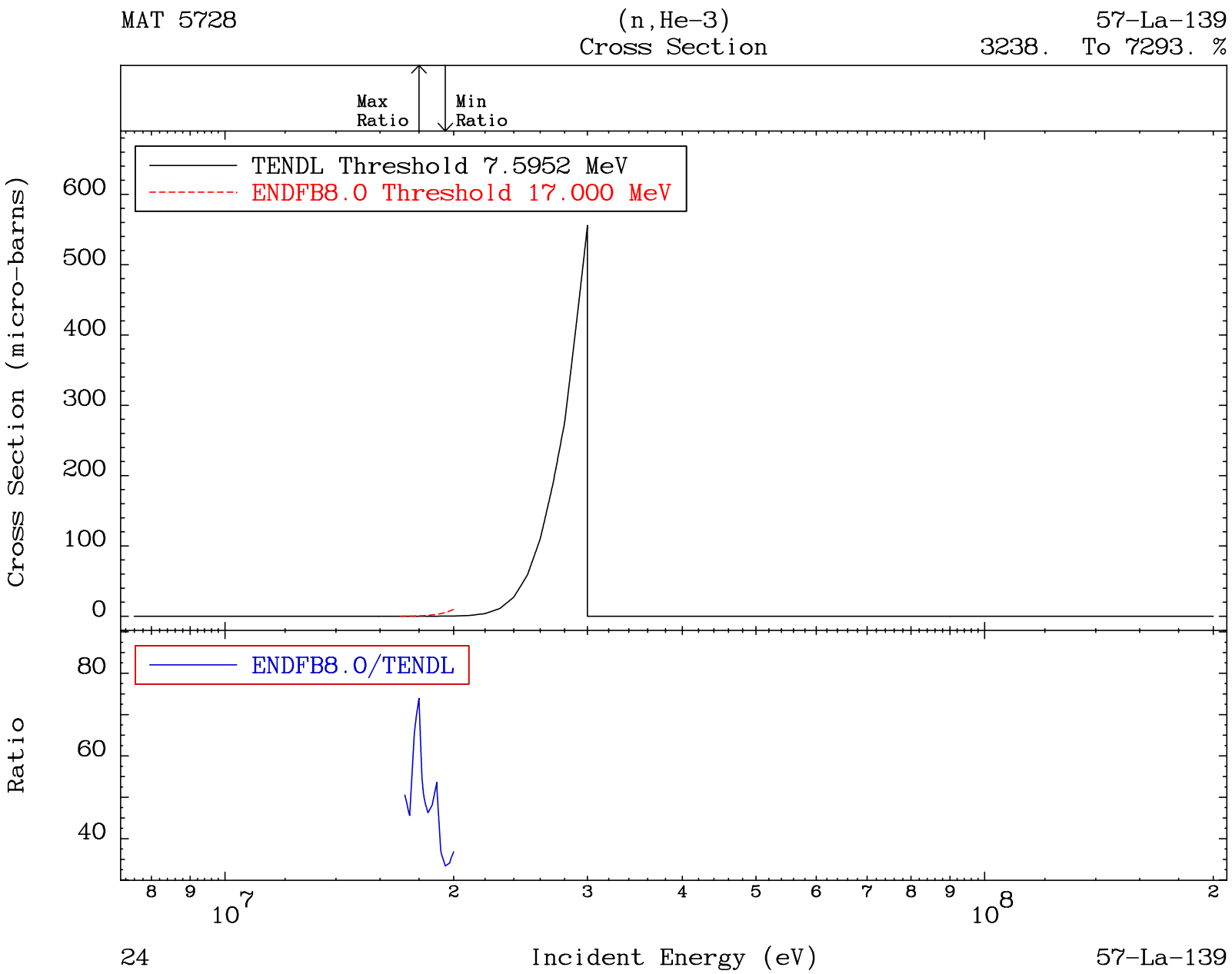

MAT 5728
(n,n') Continuum
Cross Section
57-La-139
-61.95 To 106.4 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.2482 MeV
ENDFB8.0 Threshold 2.5000 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
2.0
1.0
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
19
Incident Energy (eV)
57-La-139

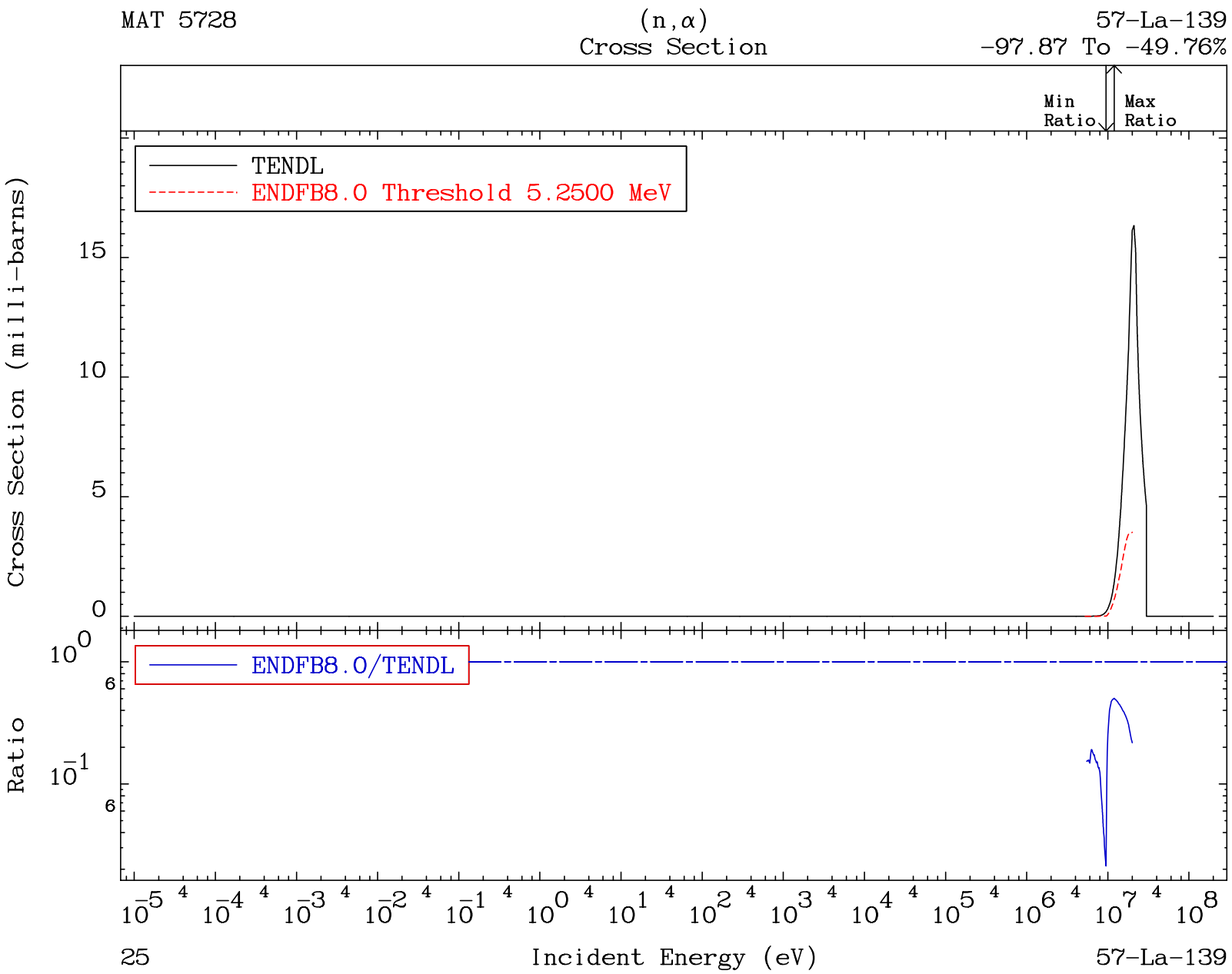

MAT 5728
(n,γ)
Cross Section
57-La-139
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
20
57-La-139

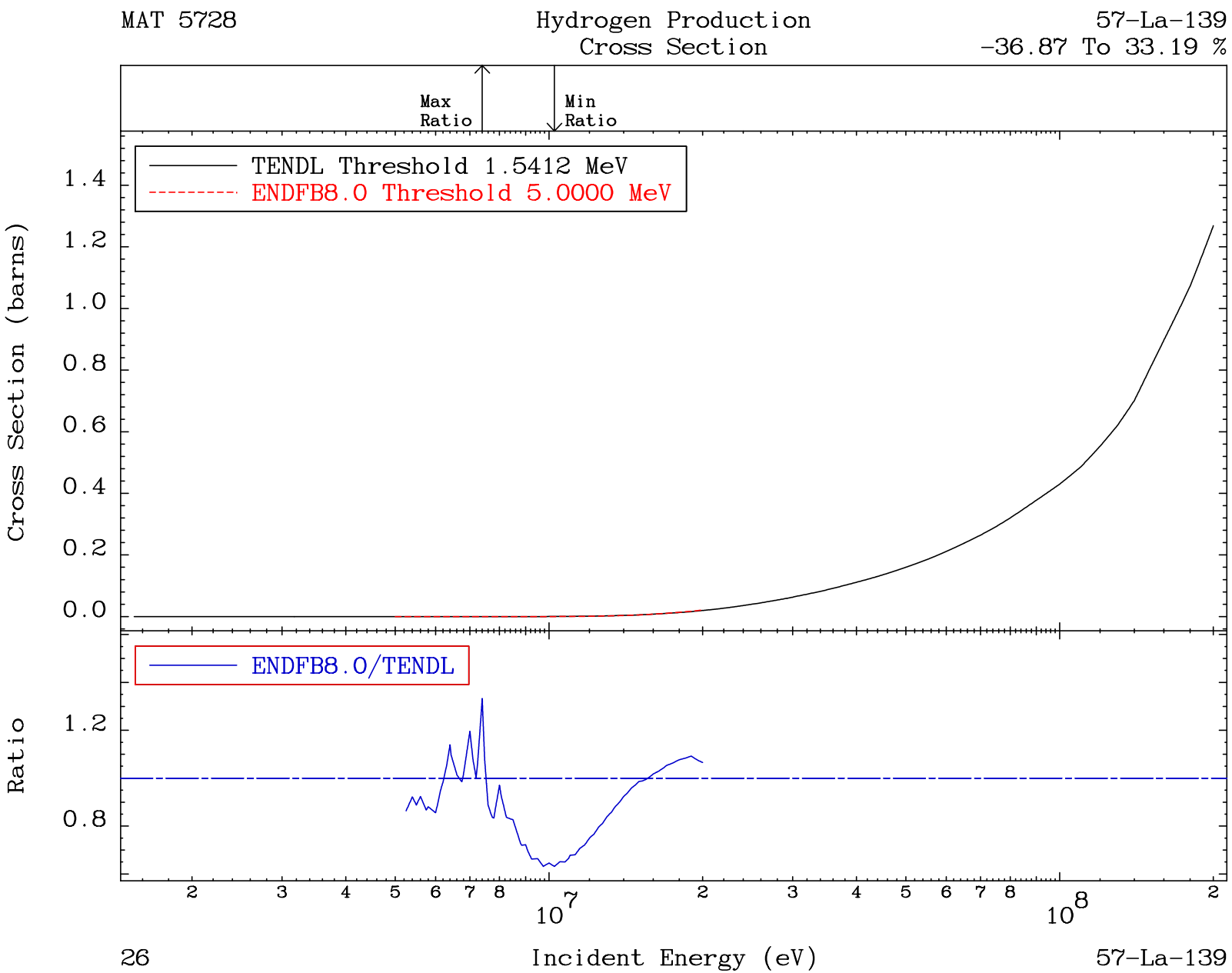

MAT 5728
(n,p)
Cross Section
57-La-139
-36.55 To 33.19 %
Max Ratio
Min Ratio
TENDL Threshold 1.5412 MeV
ENDFB8.0 Threshold 5.0000 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
ENDFB8.0/TENDL
Ratio
0.8
1.2
2
3
4
5
6
7
8
10^7
10^8
21
Incident Energy (eV)
57-La-139

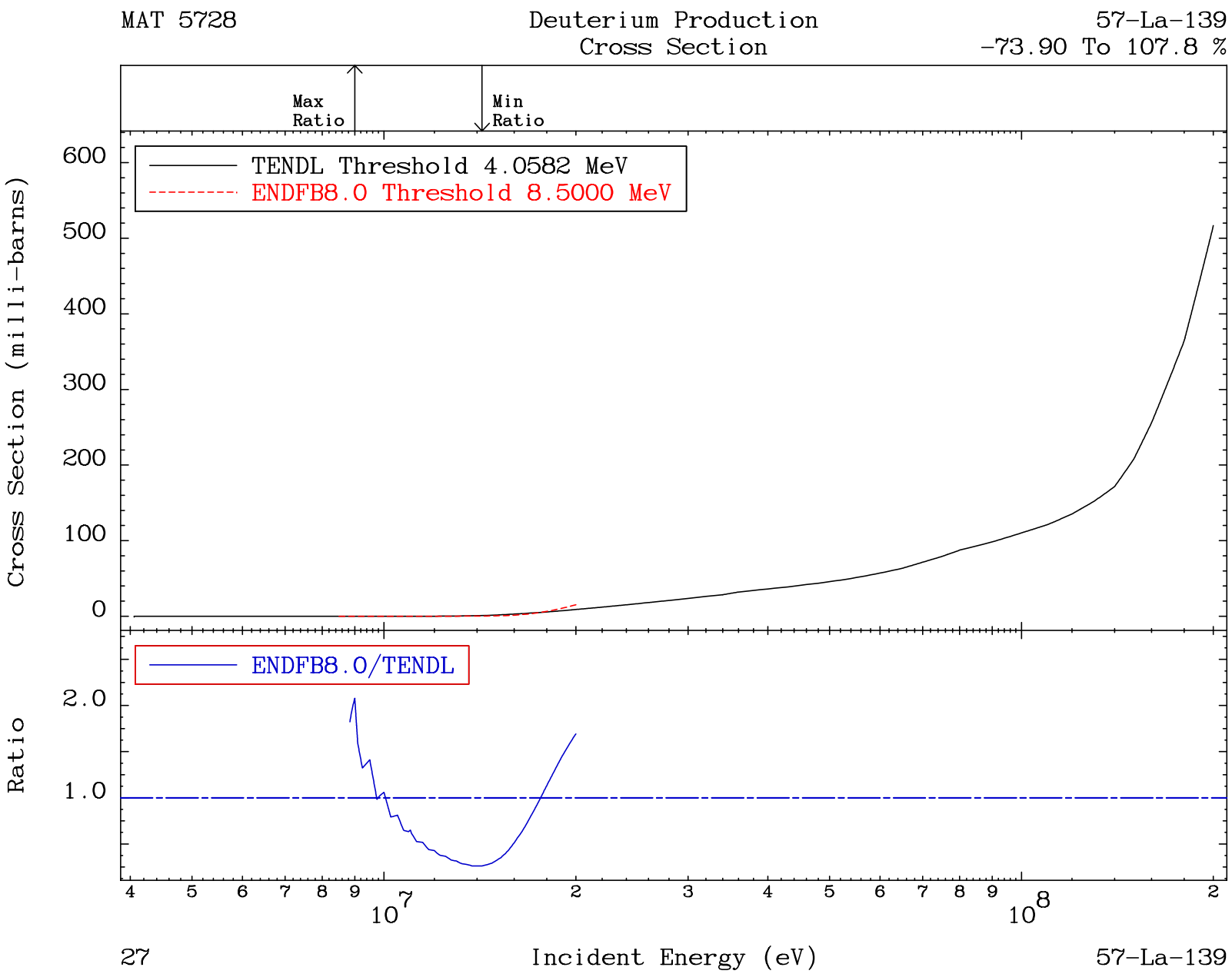

MAT 5728
(n,d)
Cross Section
57-La-139
-73.90 To 107.8 %
Max Ratio
Min Ratio
TENDL Threshold 4.0582 MeV
ENDFB8.0 Threshold 8.5000 MeV
Cross Section (milli-barns)
18
16
14
12
10
8
6
4
2
0
ENDFB8.0/TENDL
Ratio
2.0
1.0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
22
Incident Energy (eV)
57-La-139

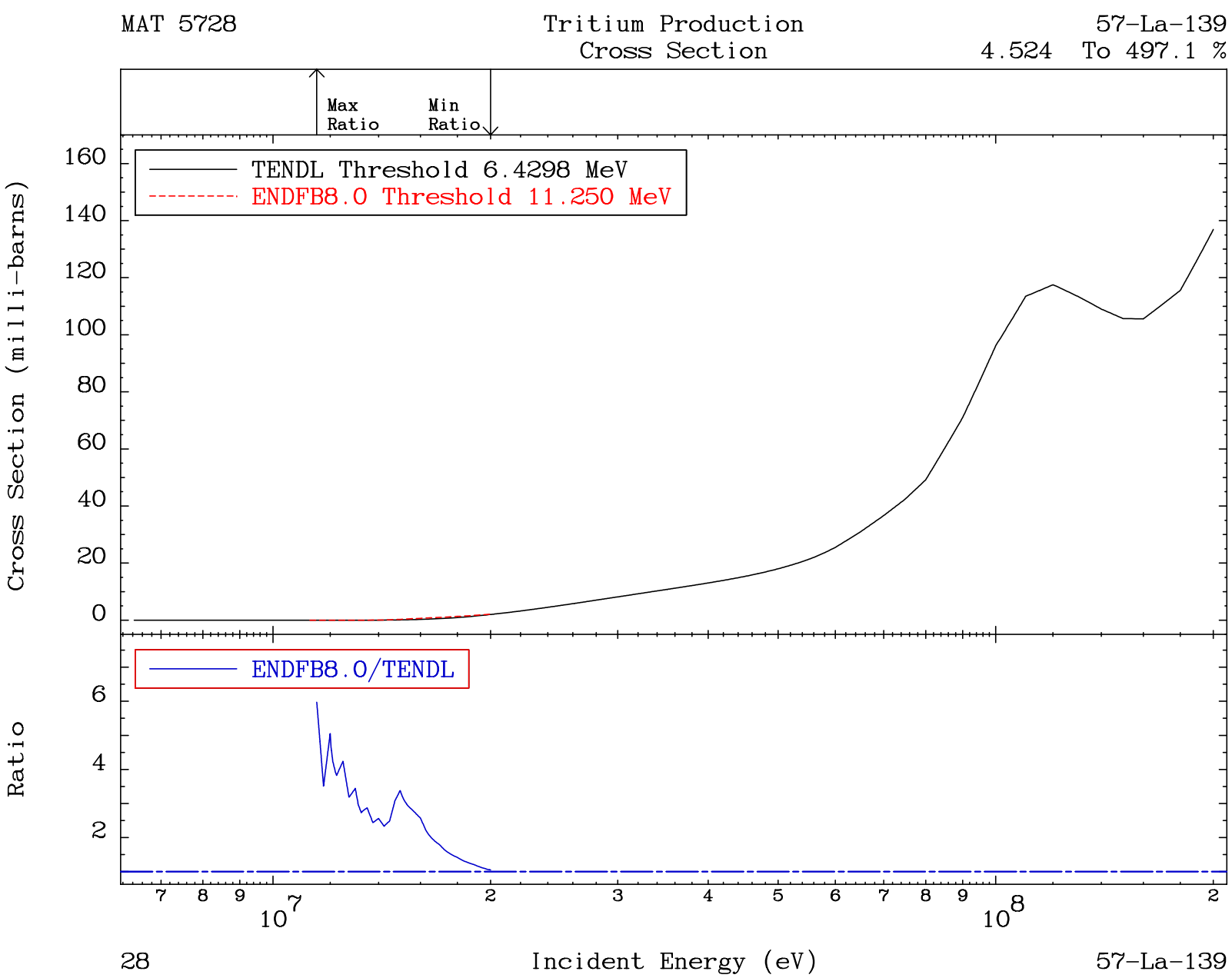

MAT 5728
(n,t)
Cross Section
57-La-139
4.640 To 497.1 %
Max Ratio
Min Ratio
TENDL Threshold 6.4298 MeV
ENDFB8.0 Threshold 11.250 MeV
Cross Section (milli-barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
23
57-La-139

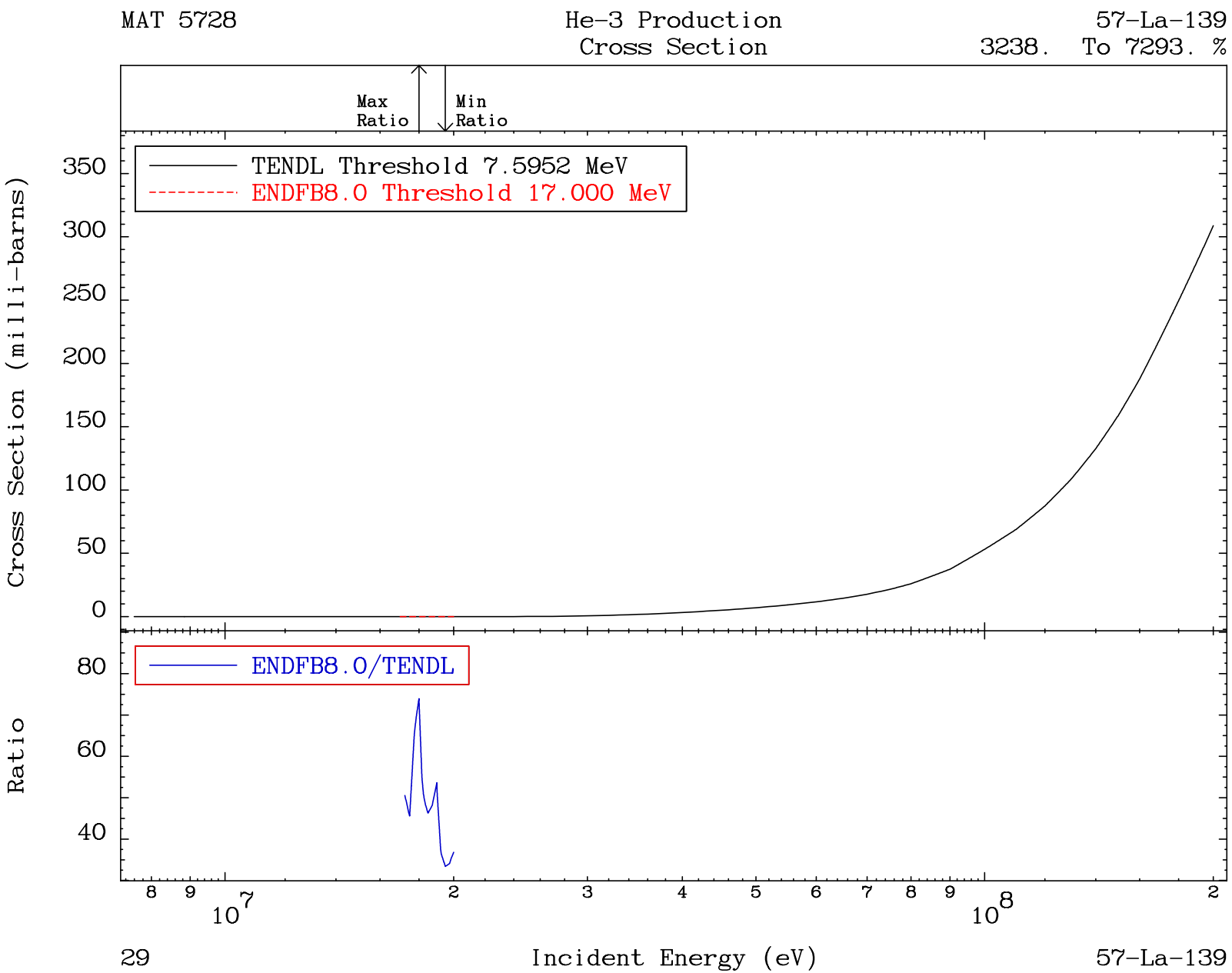

MAT 5728
(n,He-3)
Cross Section
57-La-139
3238. To 7293. %
Max Ratio
Min Ratio
TENDL Threshold 7.5952 MeV
ENDFB8.0 Threshold 17.000 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
80
60
40
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
57-La-139

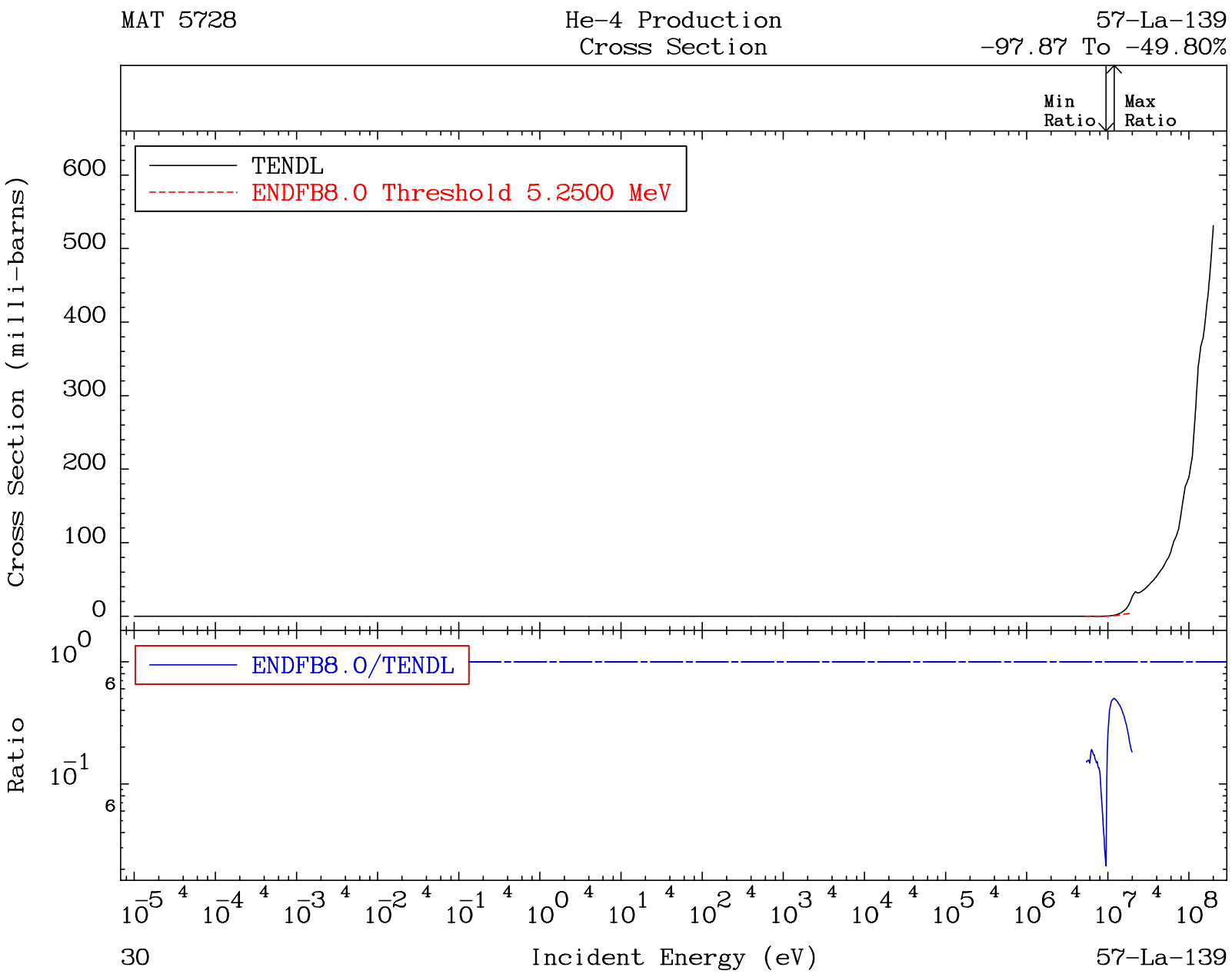

MAT 5728
(n,α)
Cross Section
57-La-139
-97.87 To -49.76%
Min Ratio
Max Ratio
TENDL
ENDFB8.0 Threshold 5.2500 MeV
Cross Section (milli-barns)
15
10
5
0
ENDFB8.0/TENDL
Ratio
10^0
10^-1
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
Incident Energy (eV)
25
57-La-139

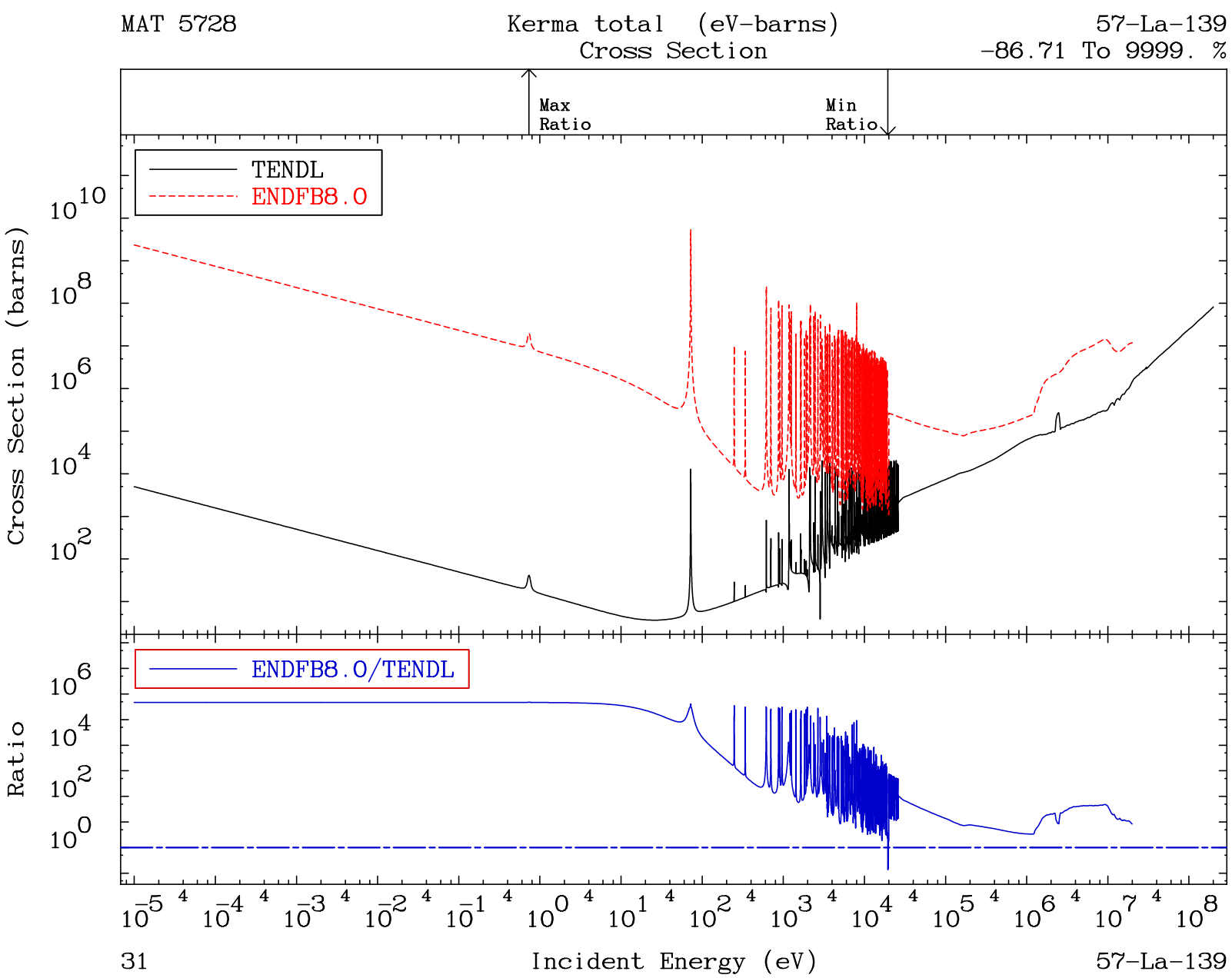

MAT 5728
Hydrogen Production
Cross Section
57-La-139
-36.87 To 33.19 %
Max Ratio
Min Ratio
TENDL Threshold 1.5412 MeV
ENDFB8.0 Threshold 5.0000 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
ENDFB8.0/TENDL
Ratio
1.2
0.8
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
57-La-139

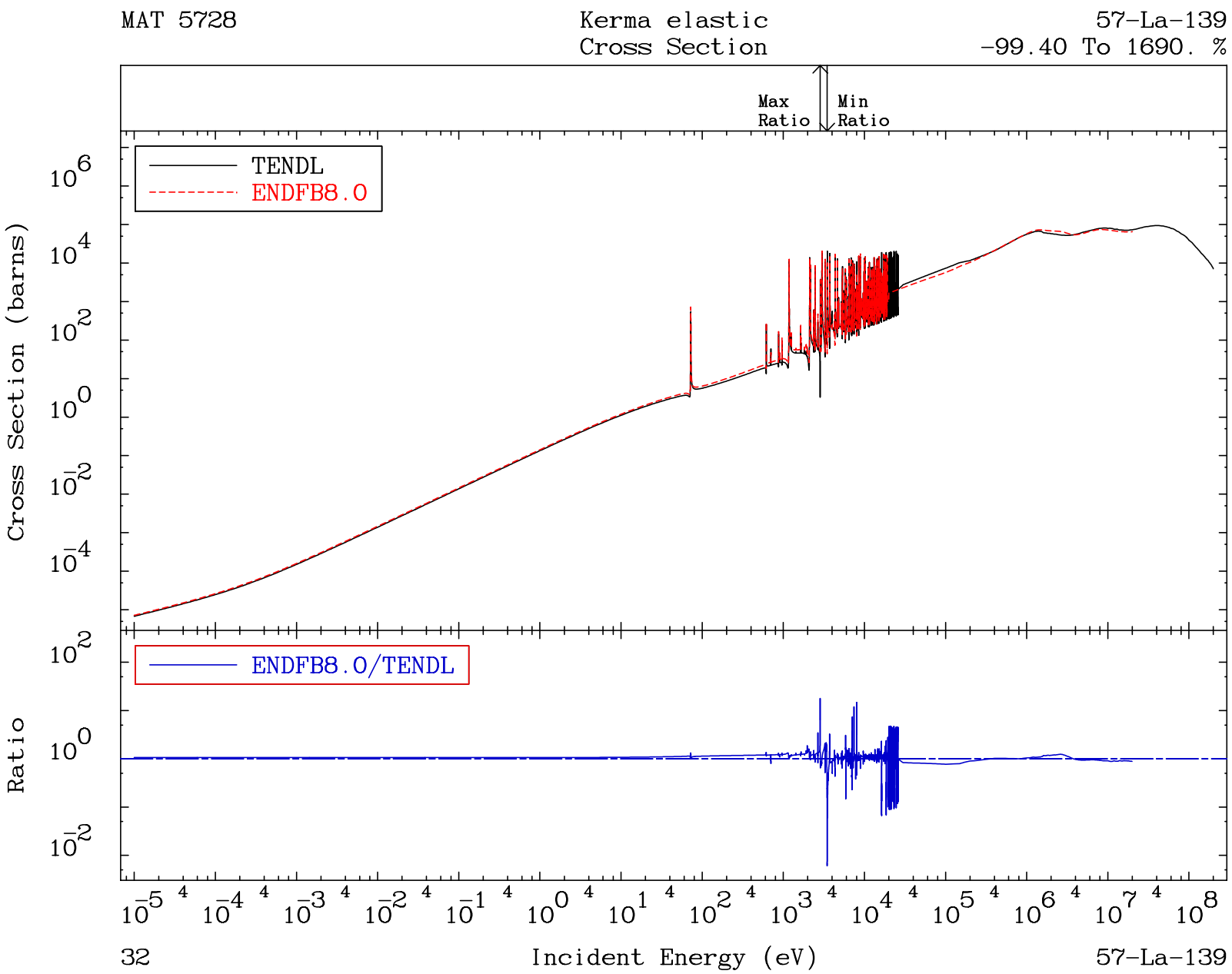

MAT 5728
Deuterium Production
Cross Section
57-La-139
-73.90 To 107.8 %
Max Ratio
Min Ratio
TENDL Threshold 4.0582 MeV
ENDFB8.0 Threshold 8.5000 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
2.0
1.0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
57-La-139

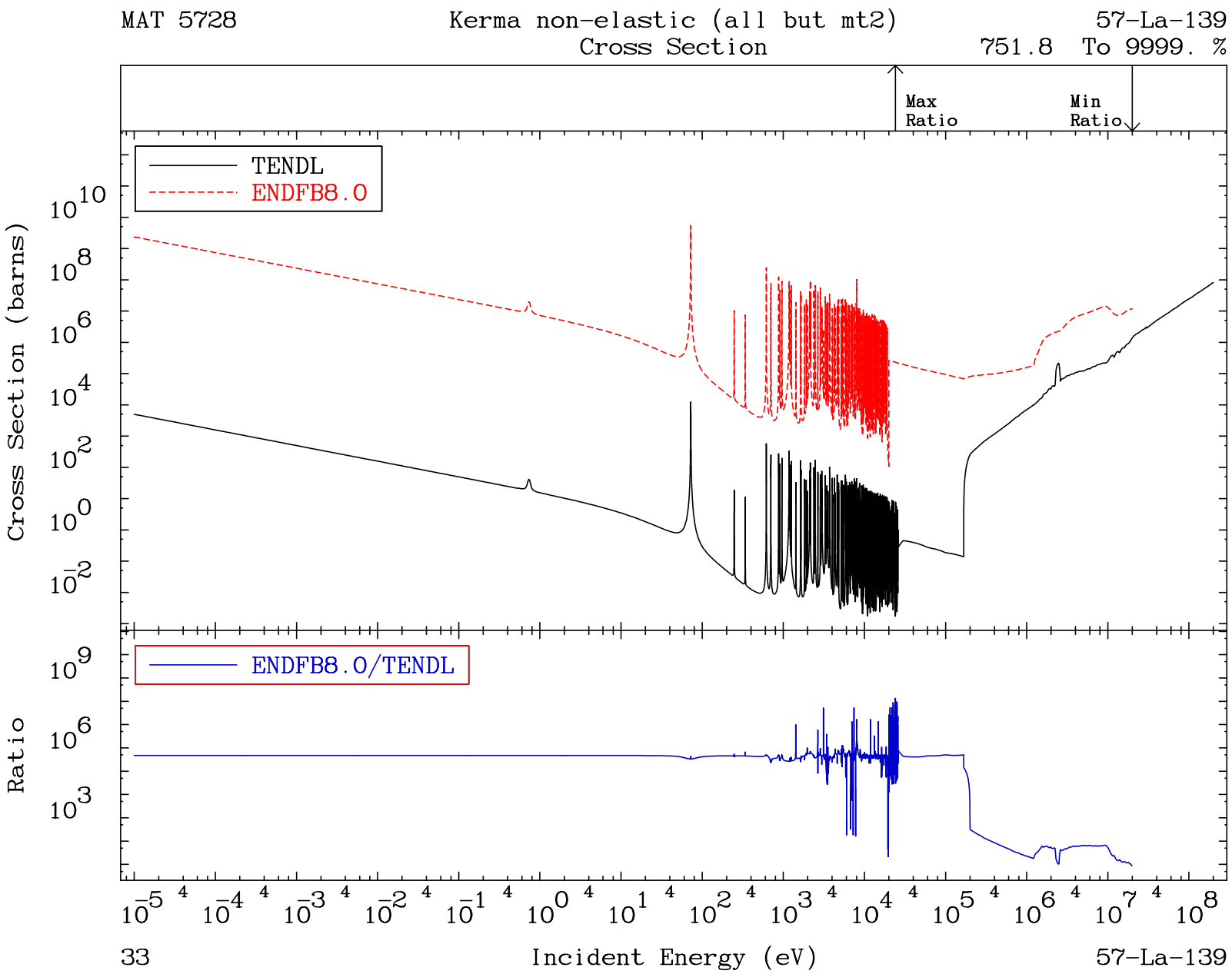

MAT 5728
Tritium Production
Cross Section
57-La-139
4.524 To 497.1 %
Max Ratio
Min Ratio
TENDL Threshold 6.4298 MeV
ENDFB8.0 Threshold 11.250 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
ENDFB8.0/TENDL
Ratio
6
4
2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
28
Incident Energy (eV)
57-La-139

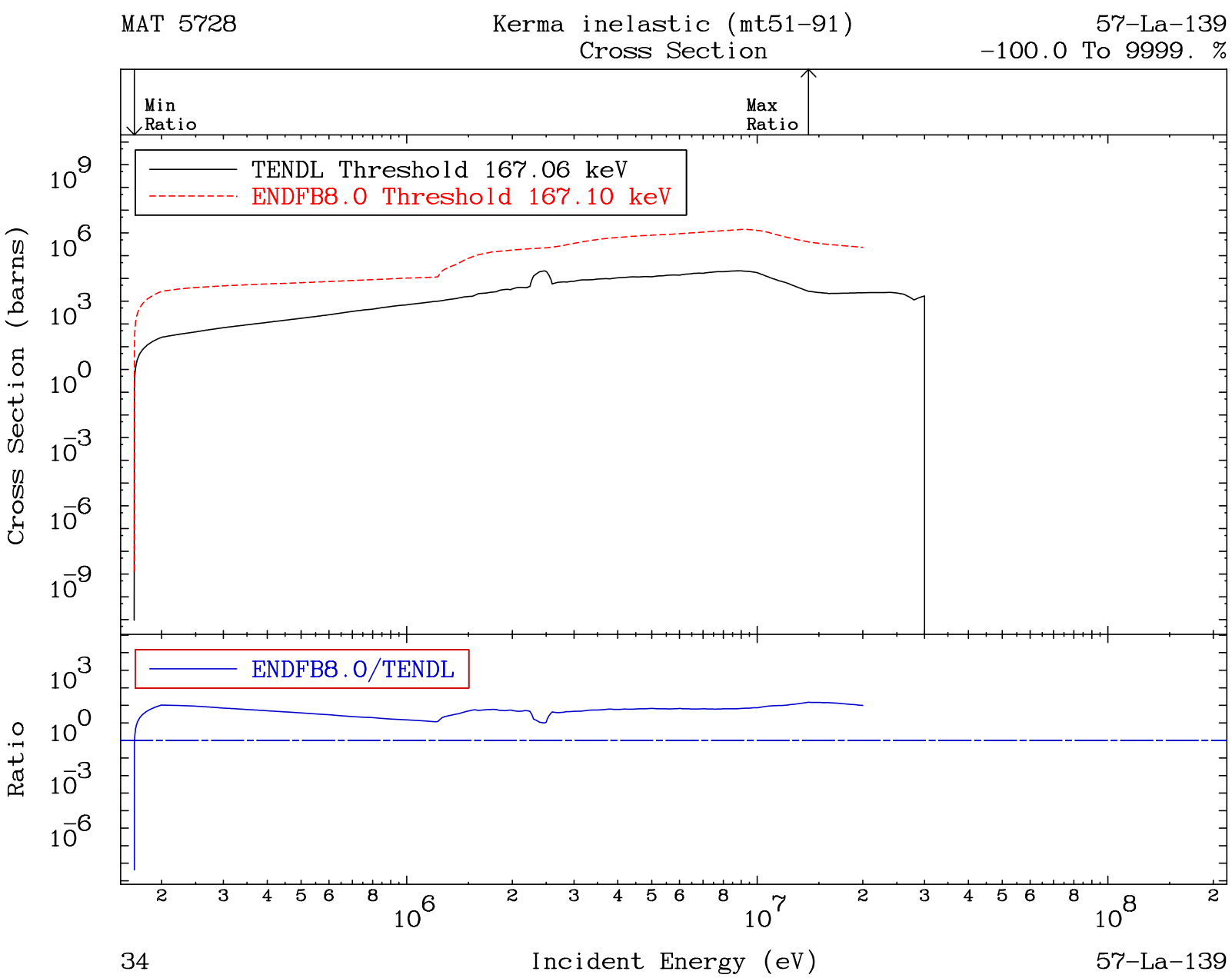

MAT 5728
He-3 Production
Cross Section
57-La-139
3238. To 7293. %
Max Ratio
Min Ratio
TENDL Threshold 7.5952 MeV
ENDFB8.0 Threshold 17.000 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
80
60
40
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
29
Incident Energy (eV)
57-La-139

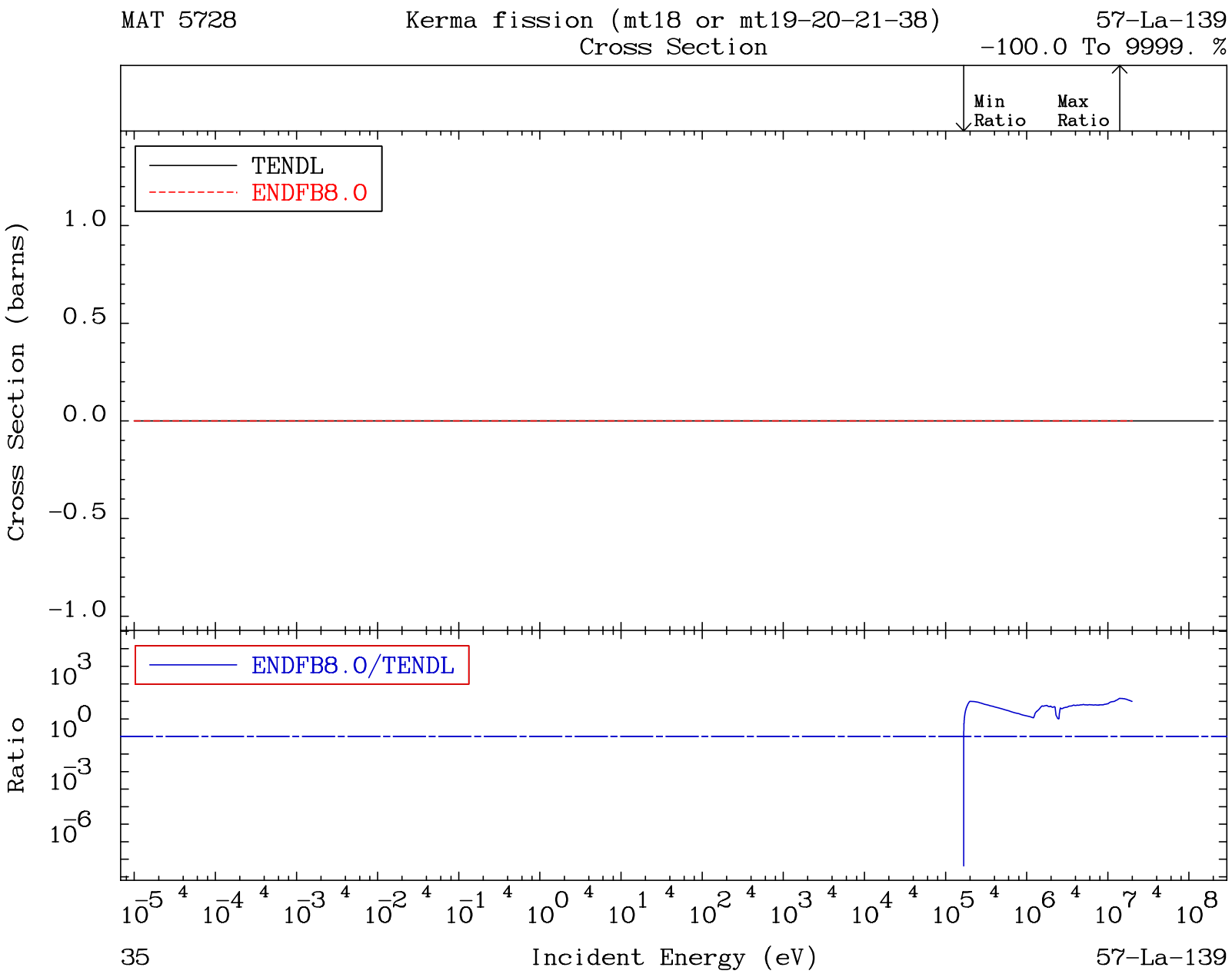

MAT 5728
He-4 Production
Cross Section
57-La-139
-97.87 To -49.80%
Min Ratio
Max Ratio
TENDL
ENDFB8.0 Threshold 5.2500 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
10^0
10^-1
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
Incident Energy (eV)
30
57-La-139

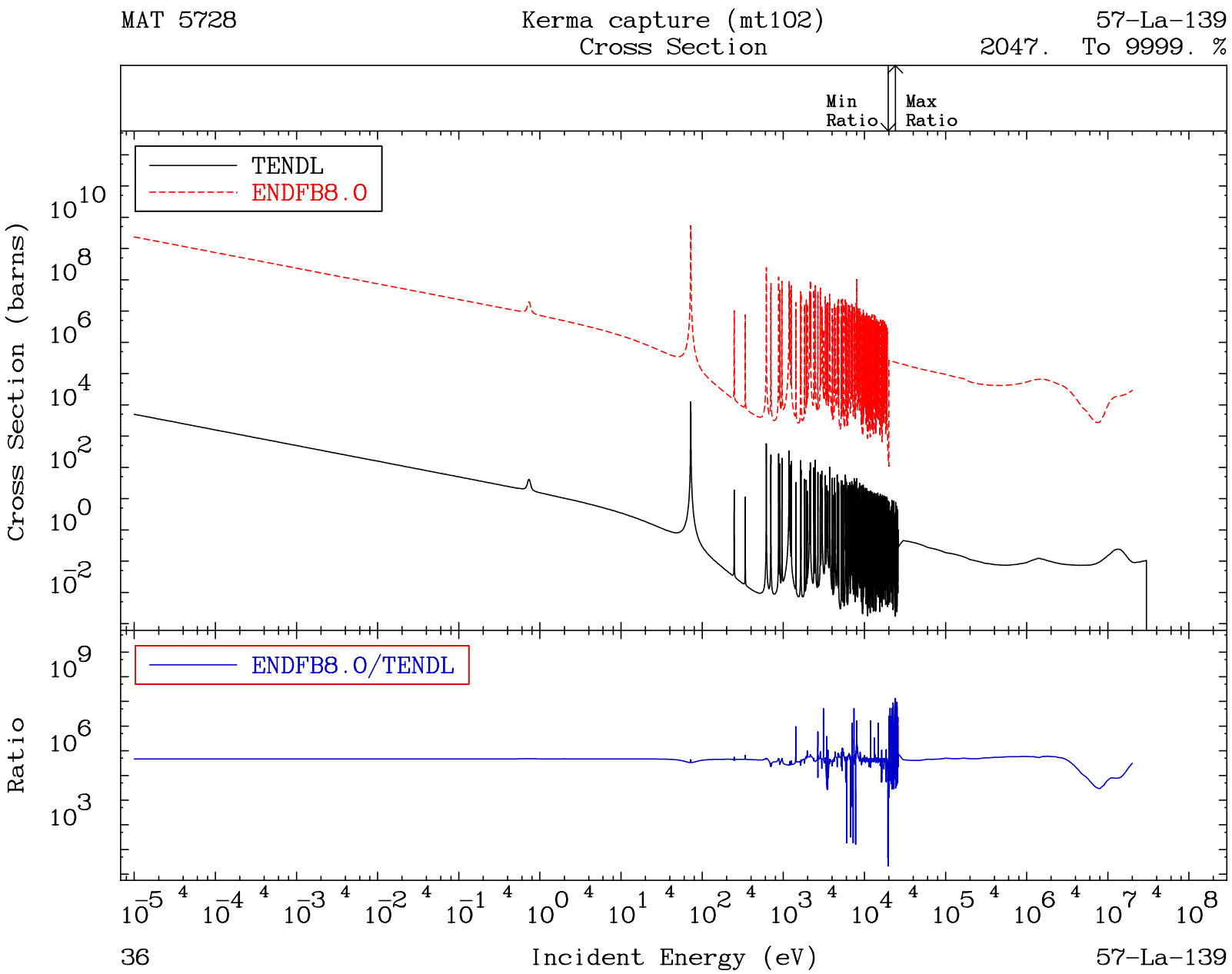

MAT 5728
Kerma total (eV-barns)
Cross Section
57-La-139
-86.71 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
31
57-La-139

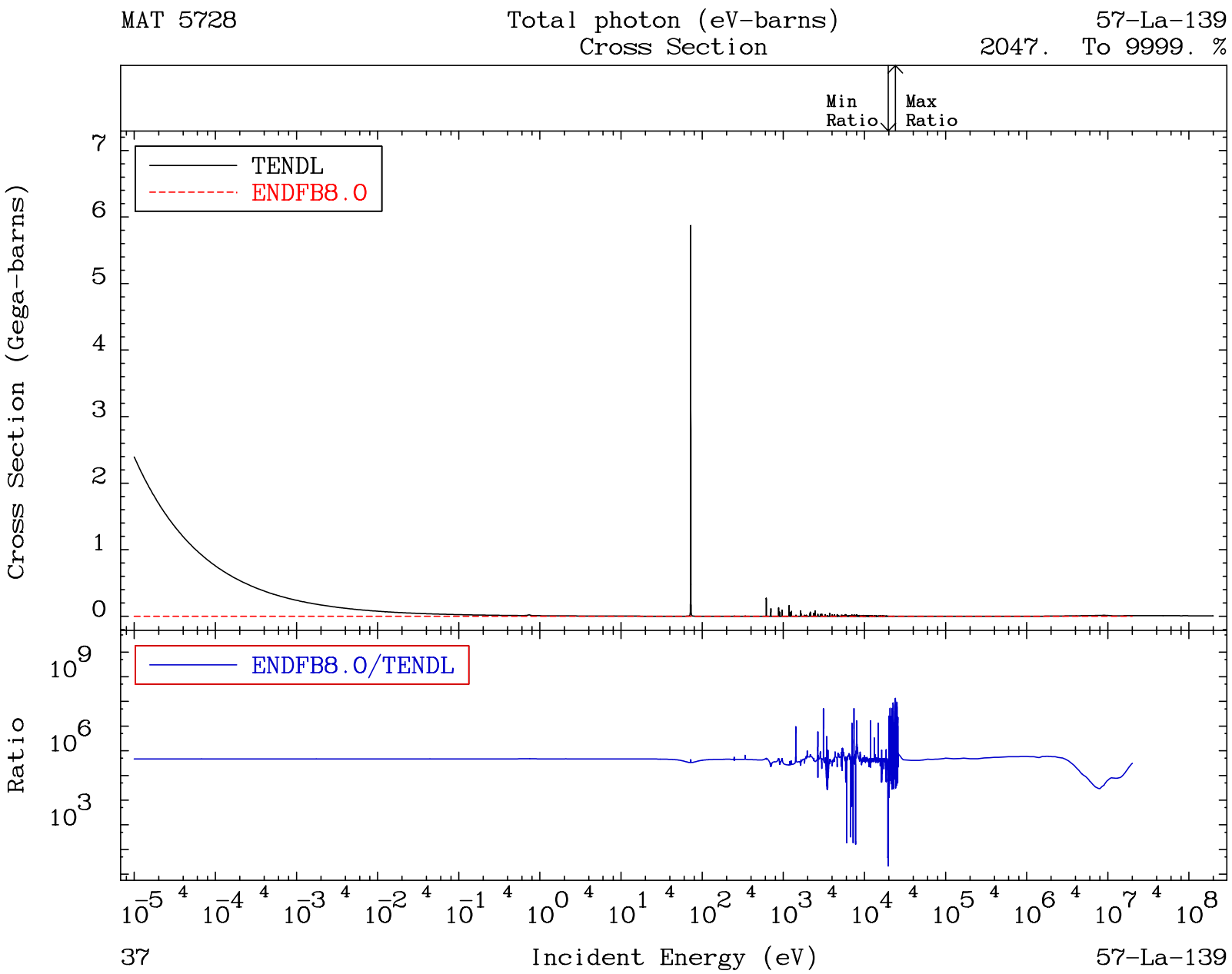

MAT 5728
Kerma elastic
Cross Section
57-La-139
-99.40 To 1690. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
32
57-La-139

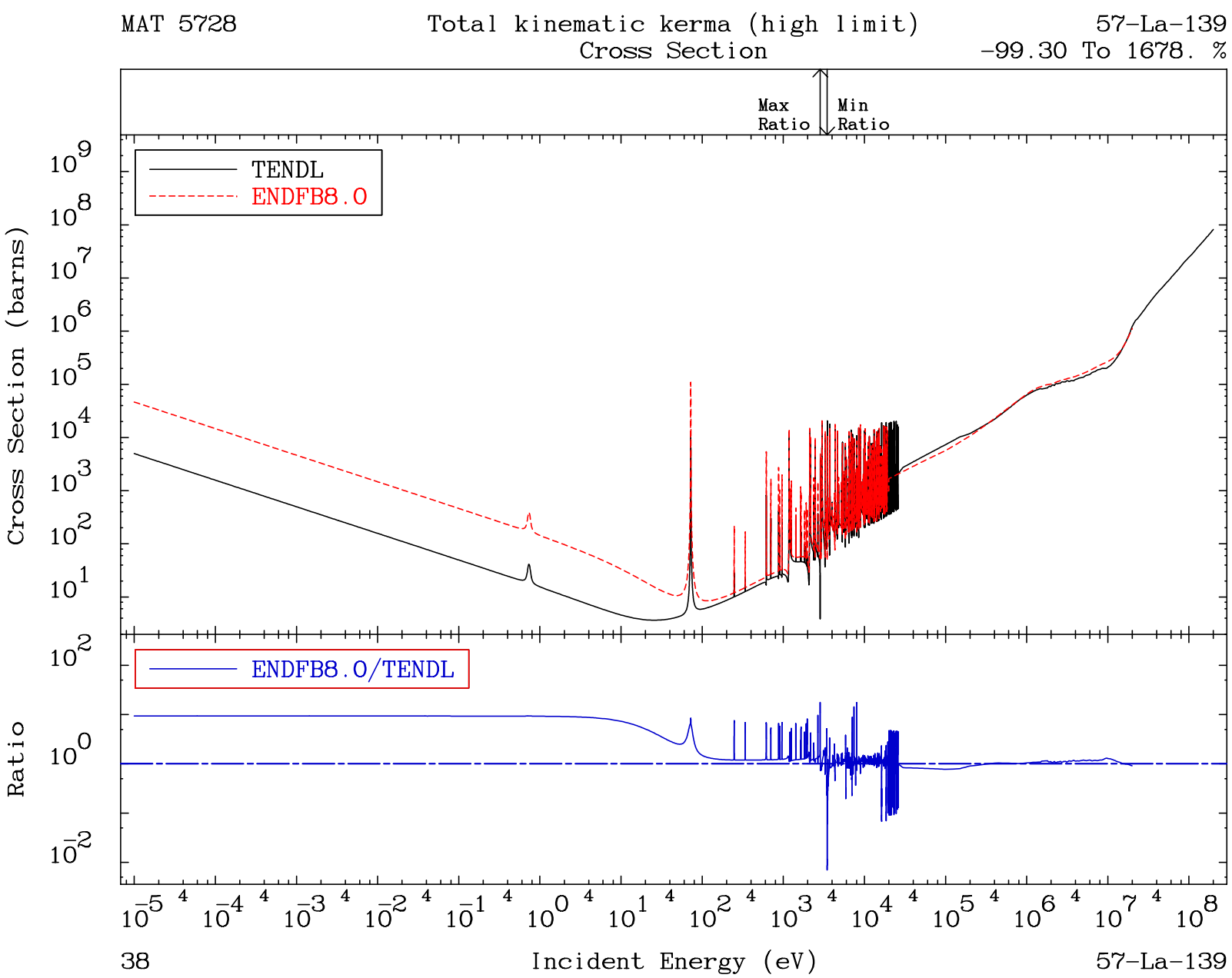

MAT 5728
Kerma non-elastic (all but mt2)
Cross Section
57-La-139
751.8 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
33
57-La-139

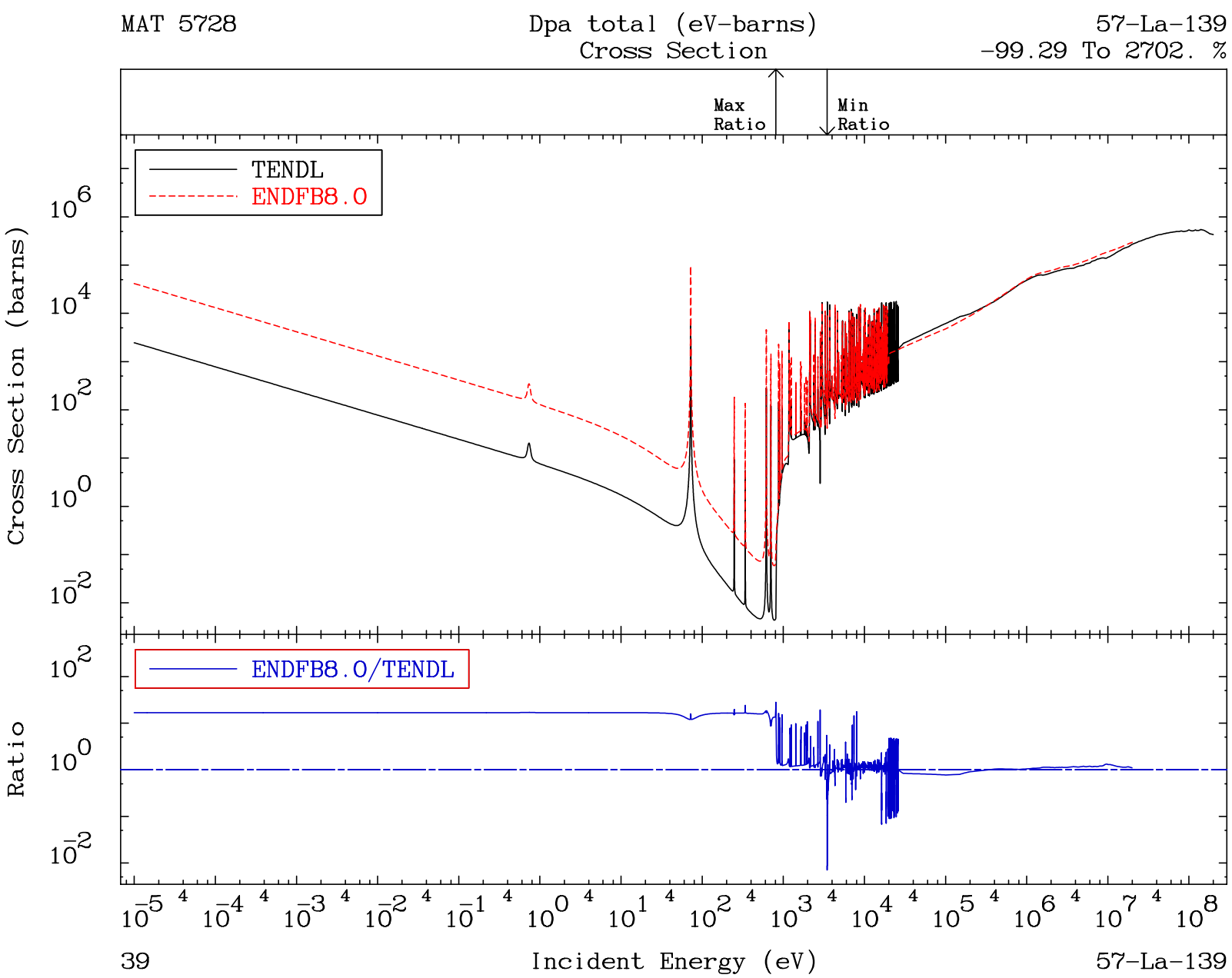

MAT 5728
Kerma inelastic (mt51-91)
Cross Section
57-La-139
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 167.06 keV
ENDFB8.0 Threshold 167.10 keV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
34
57-La-139

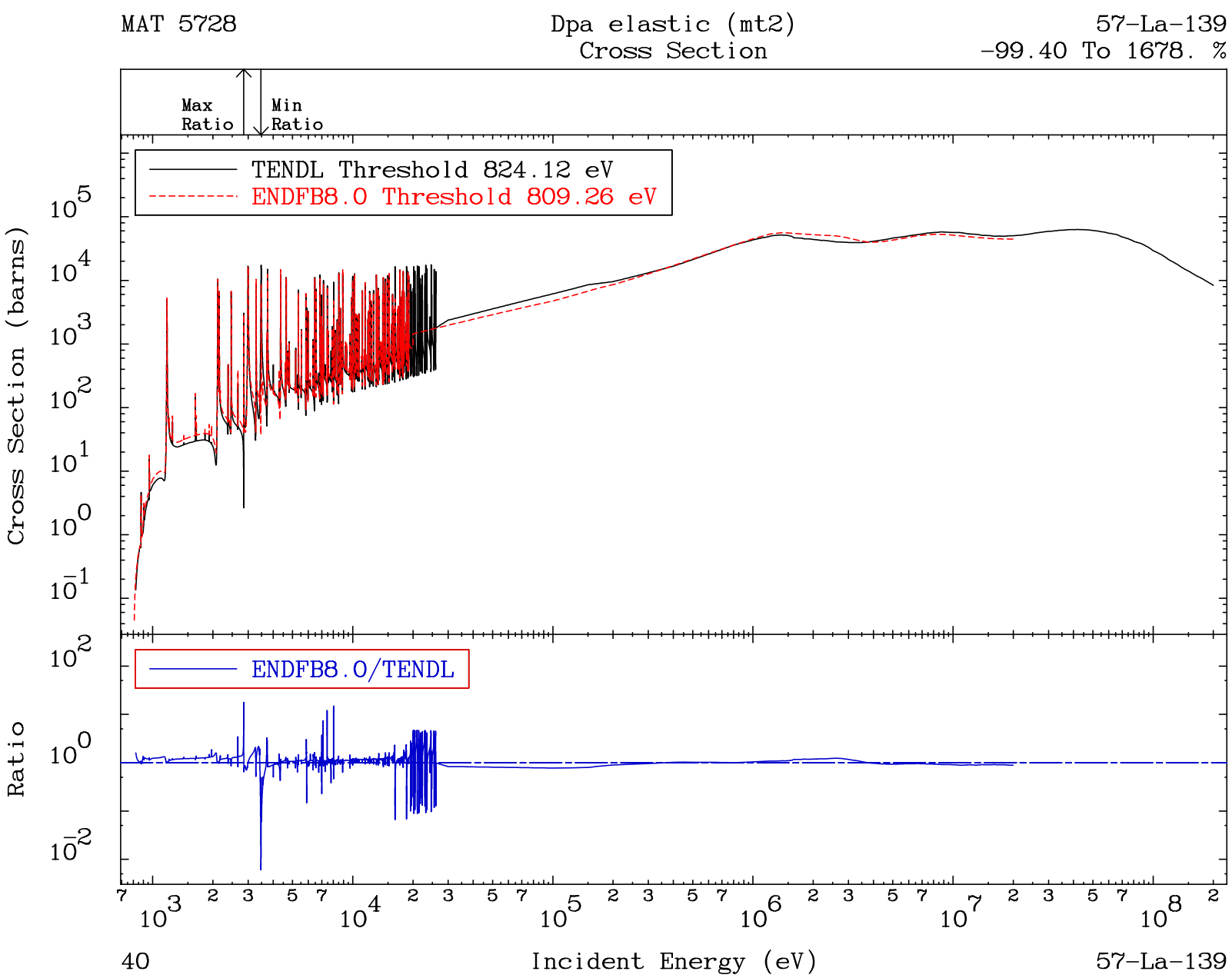

MAT 5728
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
57-La-139
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
ENDFB8.0/TENDL
Ratio
10^3
10^0
10^-3
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
35
Incident Energy (eV)
57-La-139

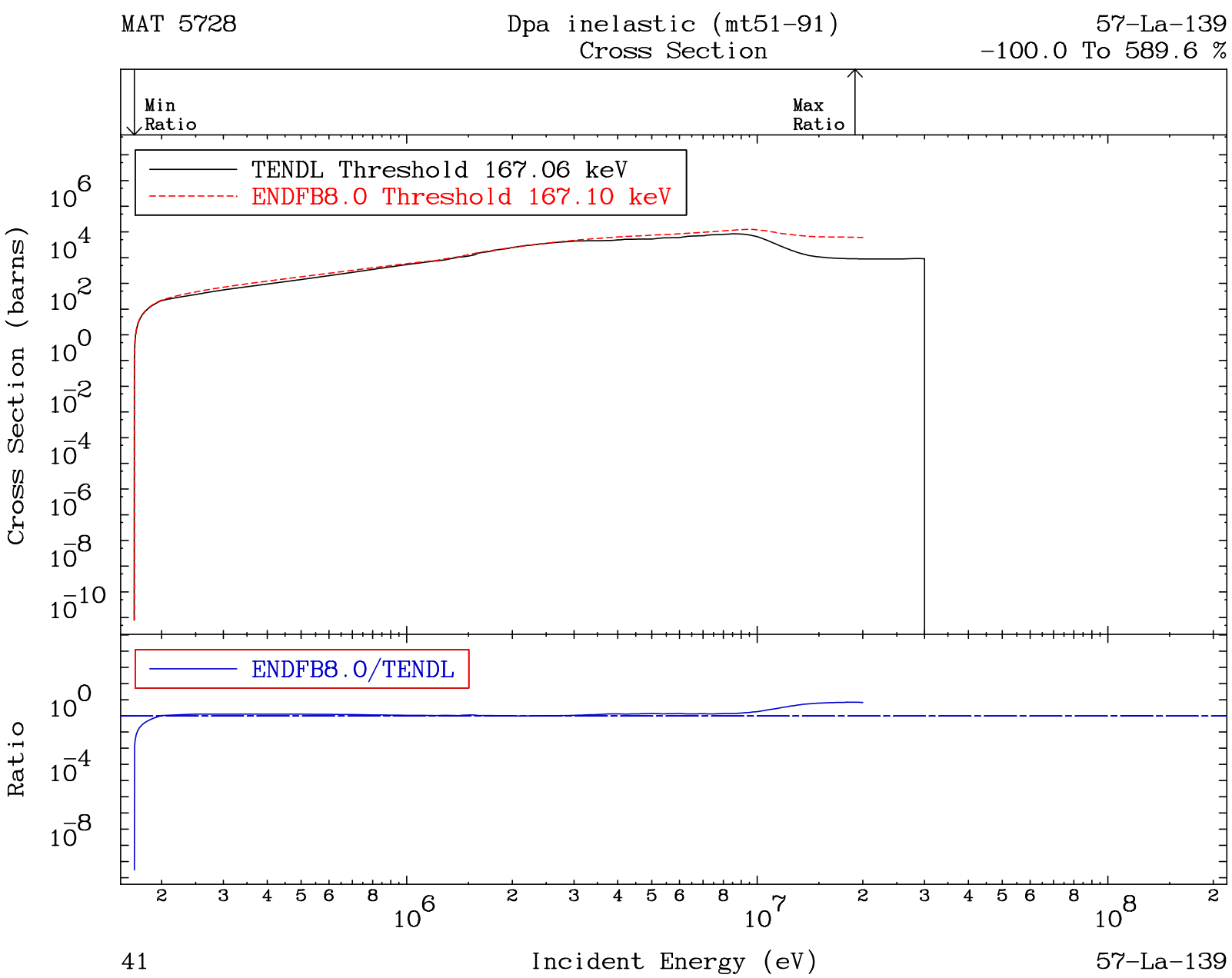

MAT 5728
Kerma capture (mt102)
Cross Section
57-La-139
2047. To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
36
57-La-139

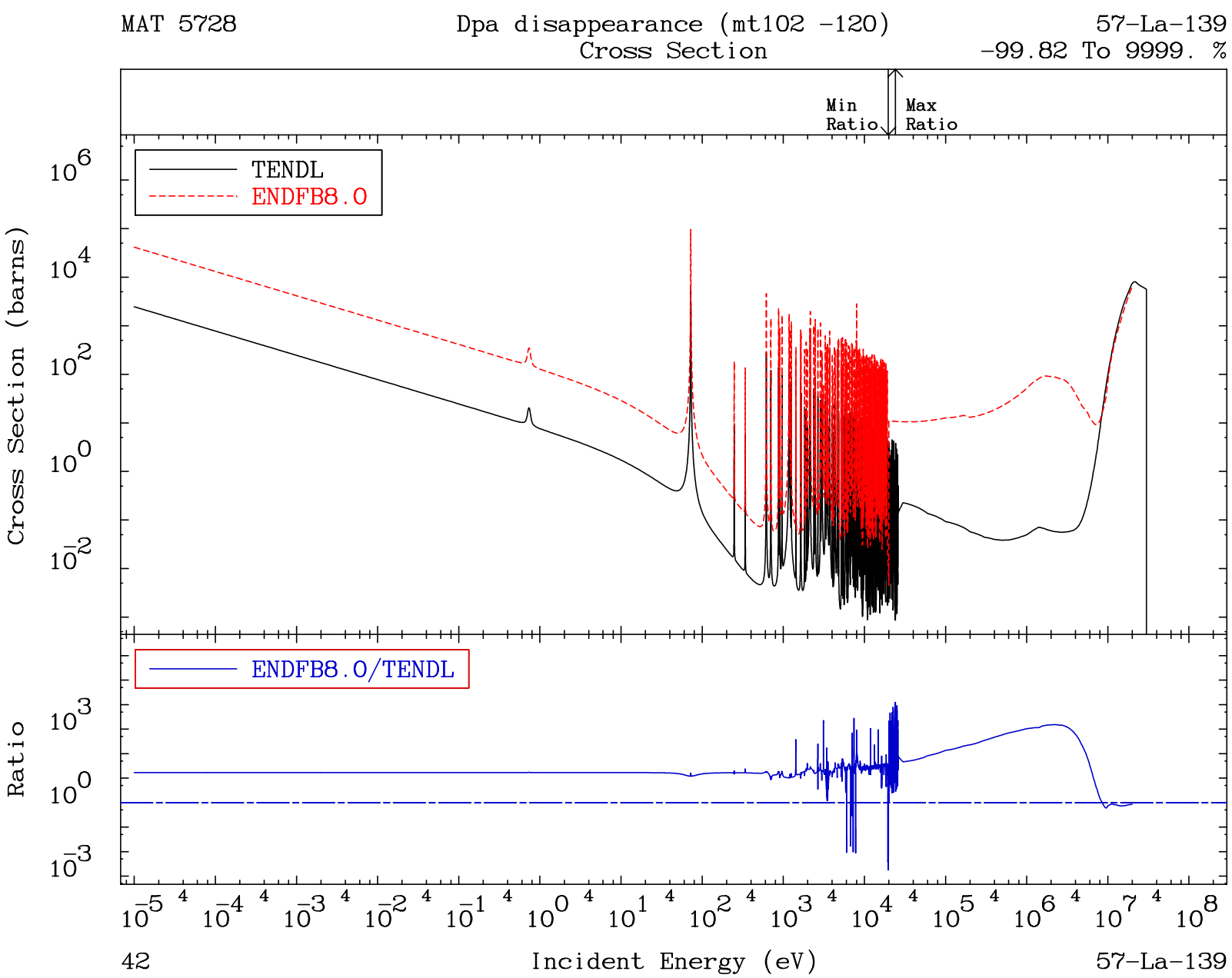

MAT 5728
Total photon (eV-barns)
Cross Section
57-La-139
2047. To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (Giga-barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
37
57-La-139


MAT 5728
Total kinematic kerma (high limit)
Cross Section
57-La-139
-99.30 To 1678. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
38
57-La-139


MAT 5728
Dpa total (eV-barns)
Cross Section
57-La-139
-99.29 To 2702. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
39
57-La-139


MAT 5728
Dpa elastic (mt2)
Cross Section
57-La-139
-99.40 To 1678. %
Max Ratio
Min Ratio
TENDL Threshold 824.12 eV
ENDFB8.0 Threshold 809.26 eV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
40
57-La-139


MAT 5728
Dpa inelastic (mt51-91)
Cross Section
57-La-139
-100.0 To 589.6 %
Min Ratio
Max Ratio
TENDL Threshold 167.06 keV
ENDFB8.0 Threshold 167.10 keV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
41
57-La-139


MAT 5728
Dpa disappearance (mt102 -120)
Cross Section
57-La-139
-99.82 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
42
57-La-139