Program Complot
(Version 2021-1)
by
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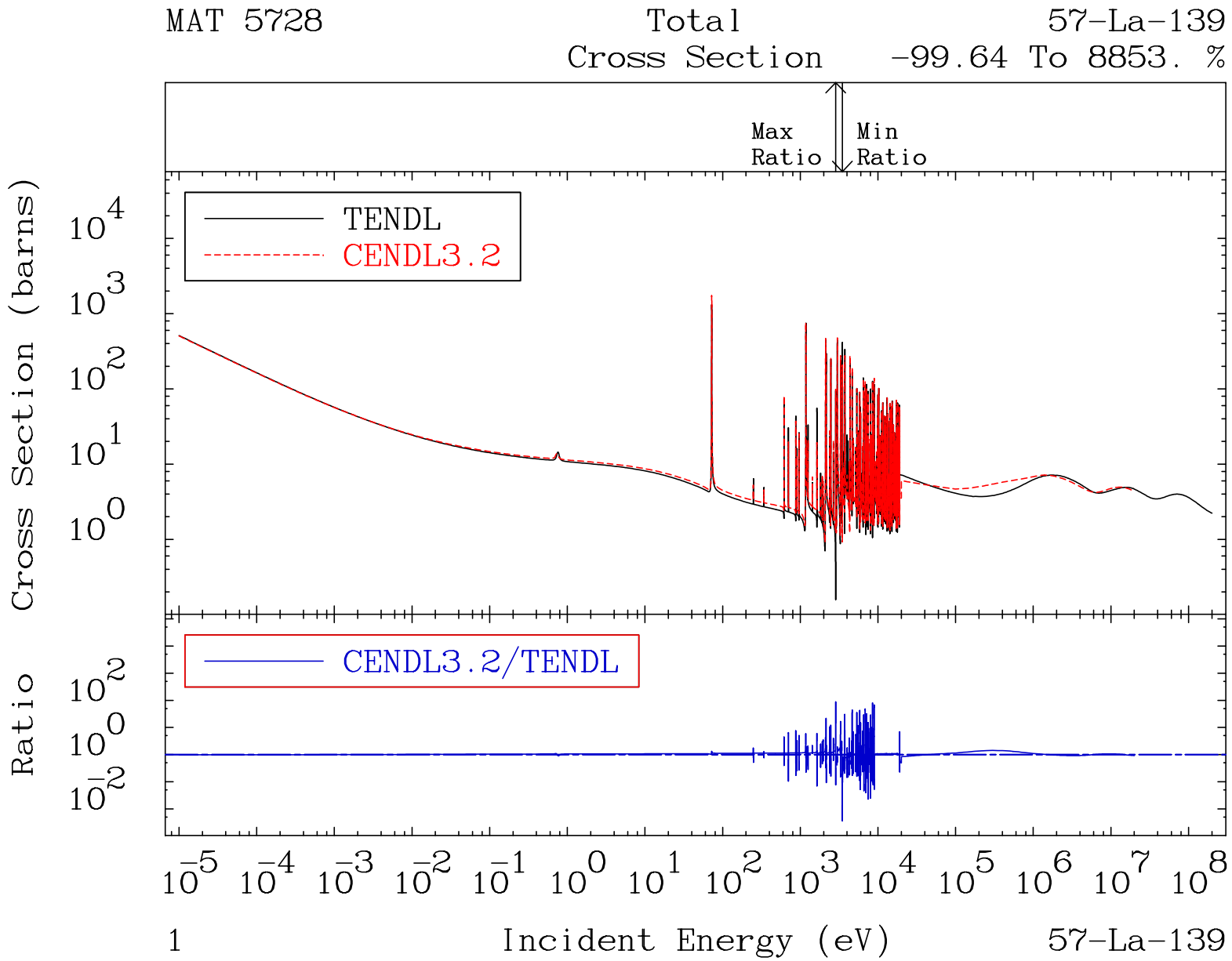
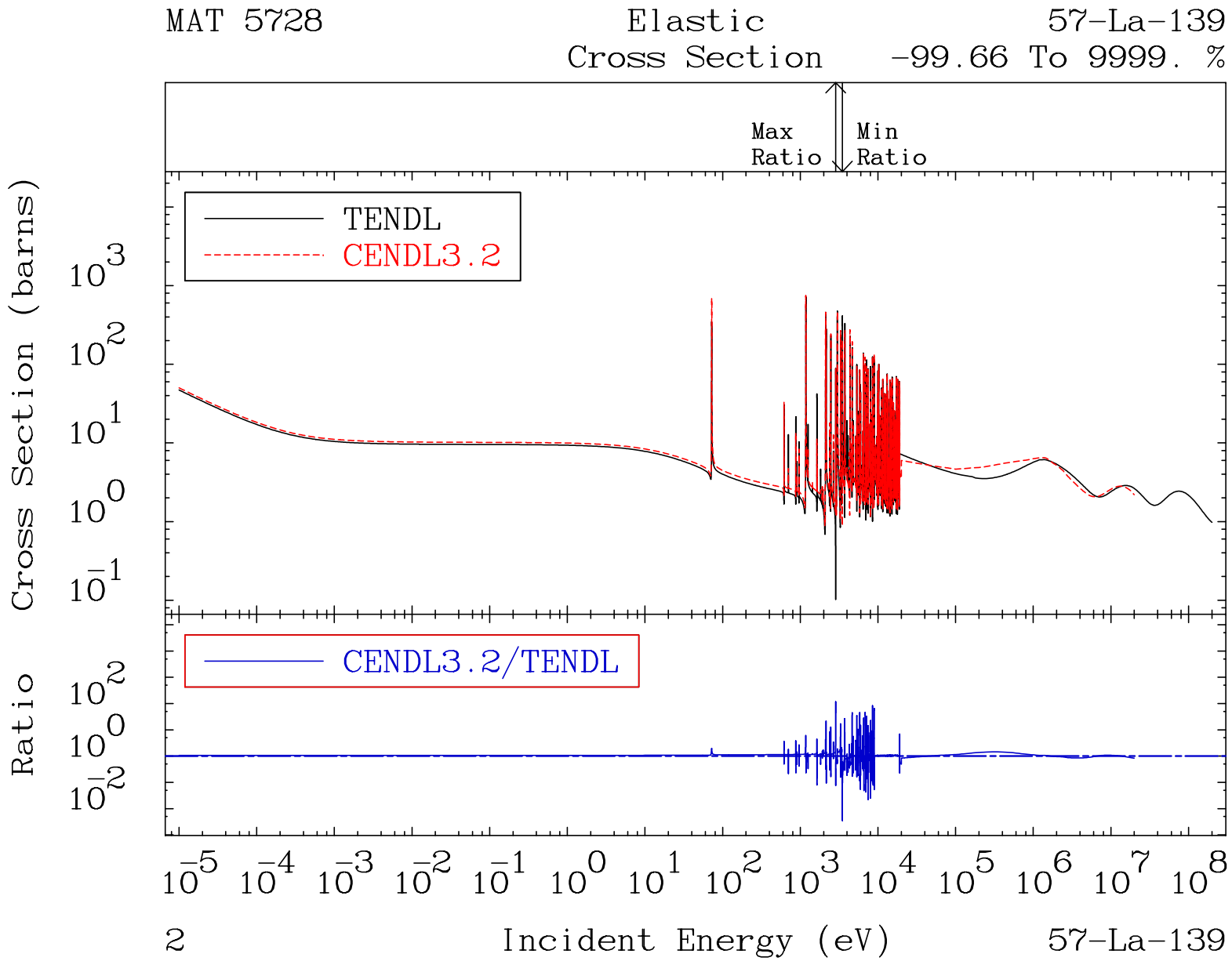
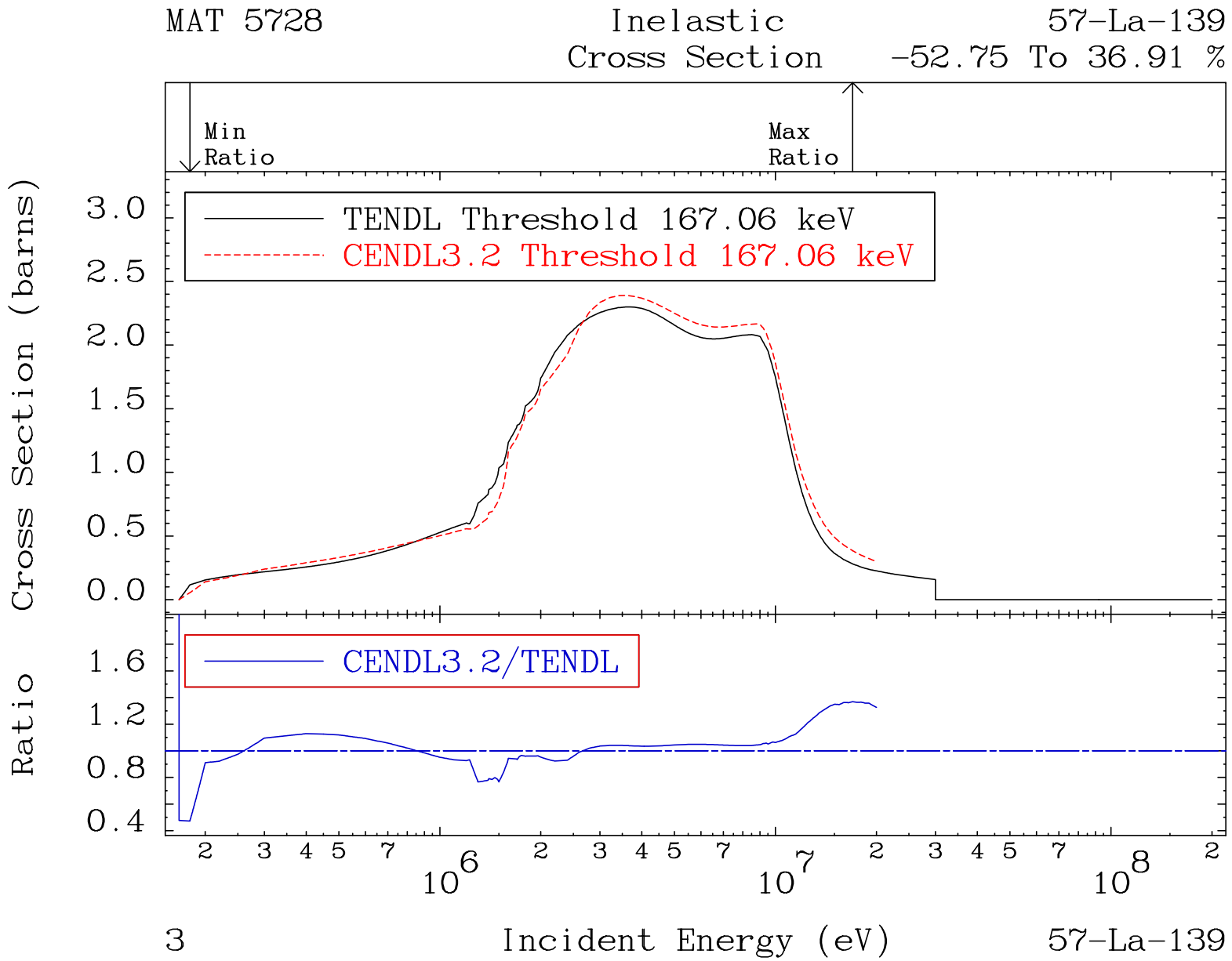
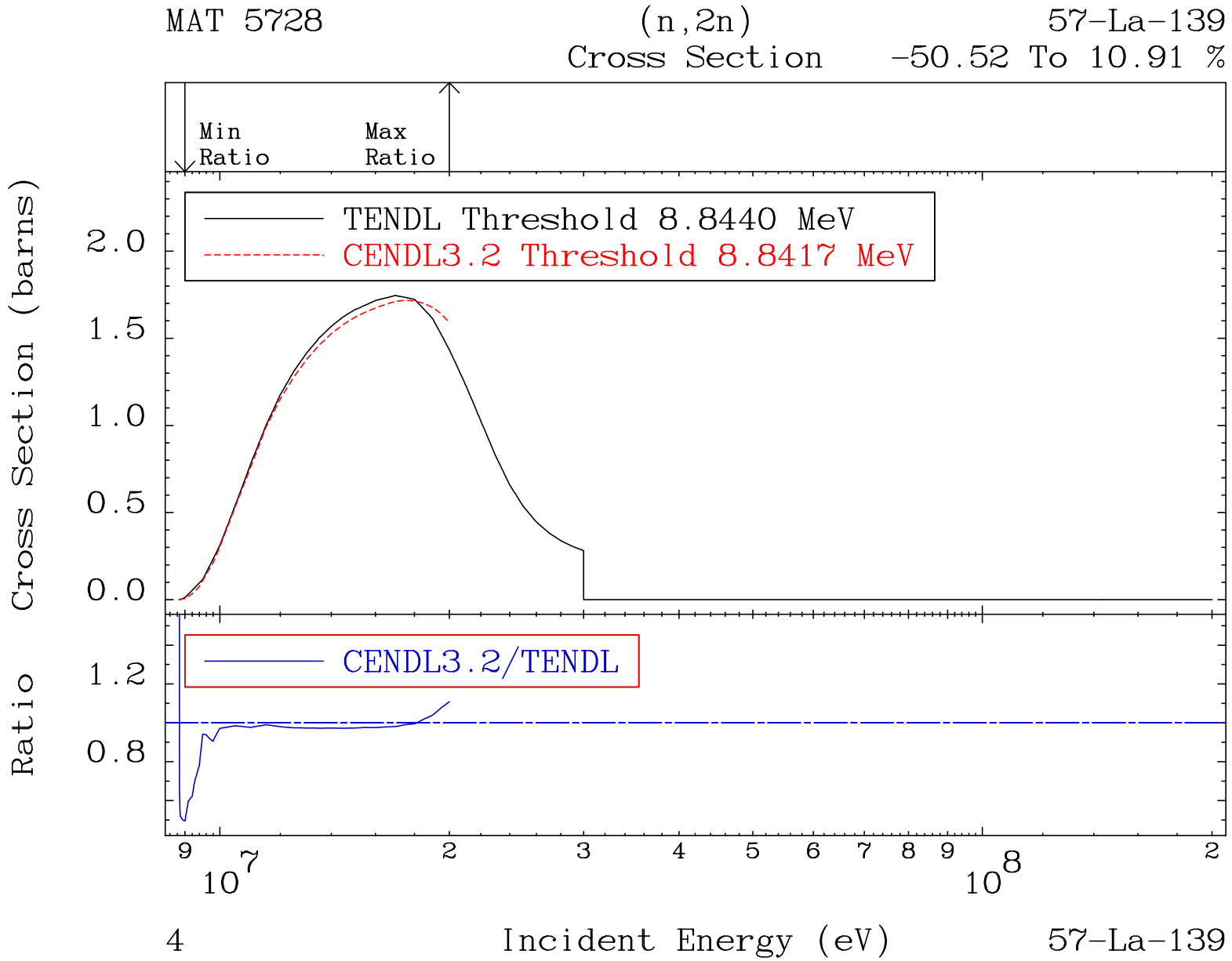
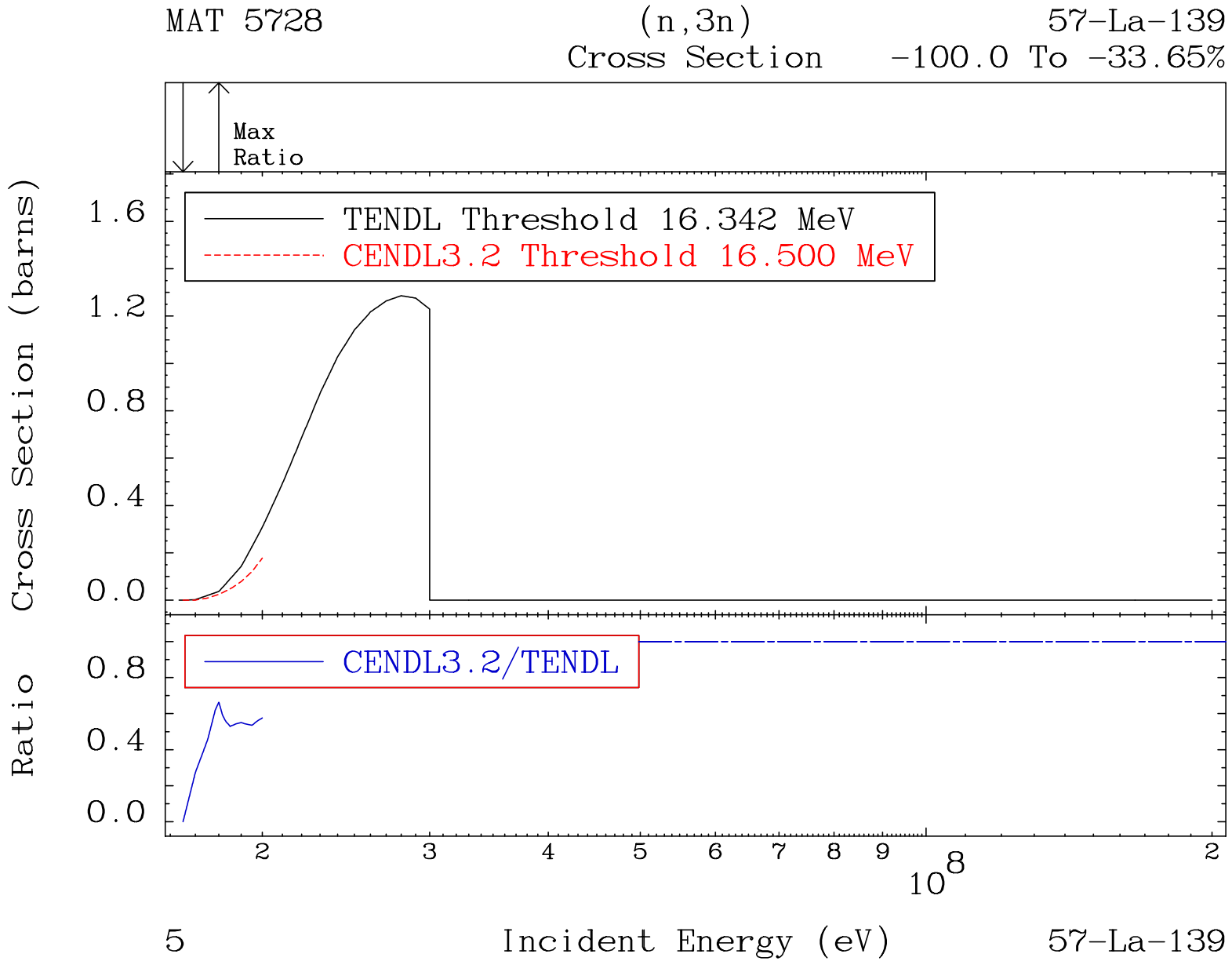
Press Mouse Button to Start

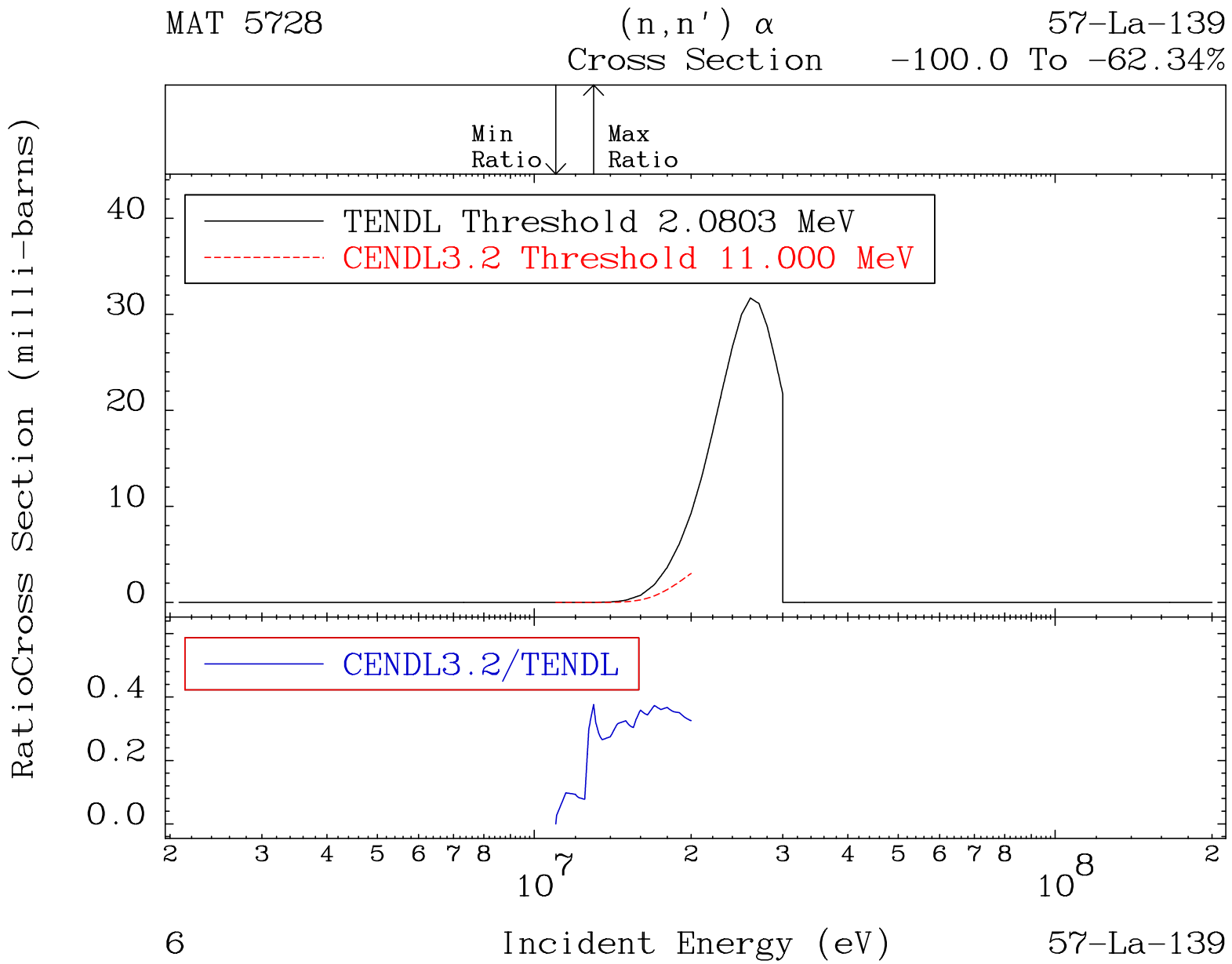

MAT 5728
Total
Cross Section
57-La-139
-99.64 To 8853. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
1
57-La-139

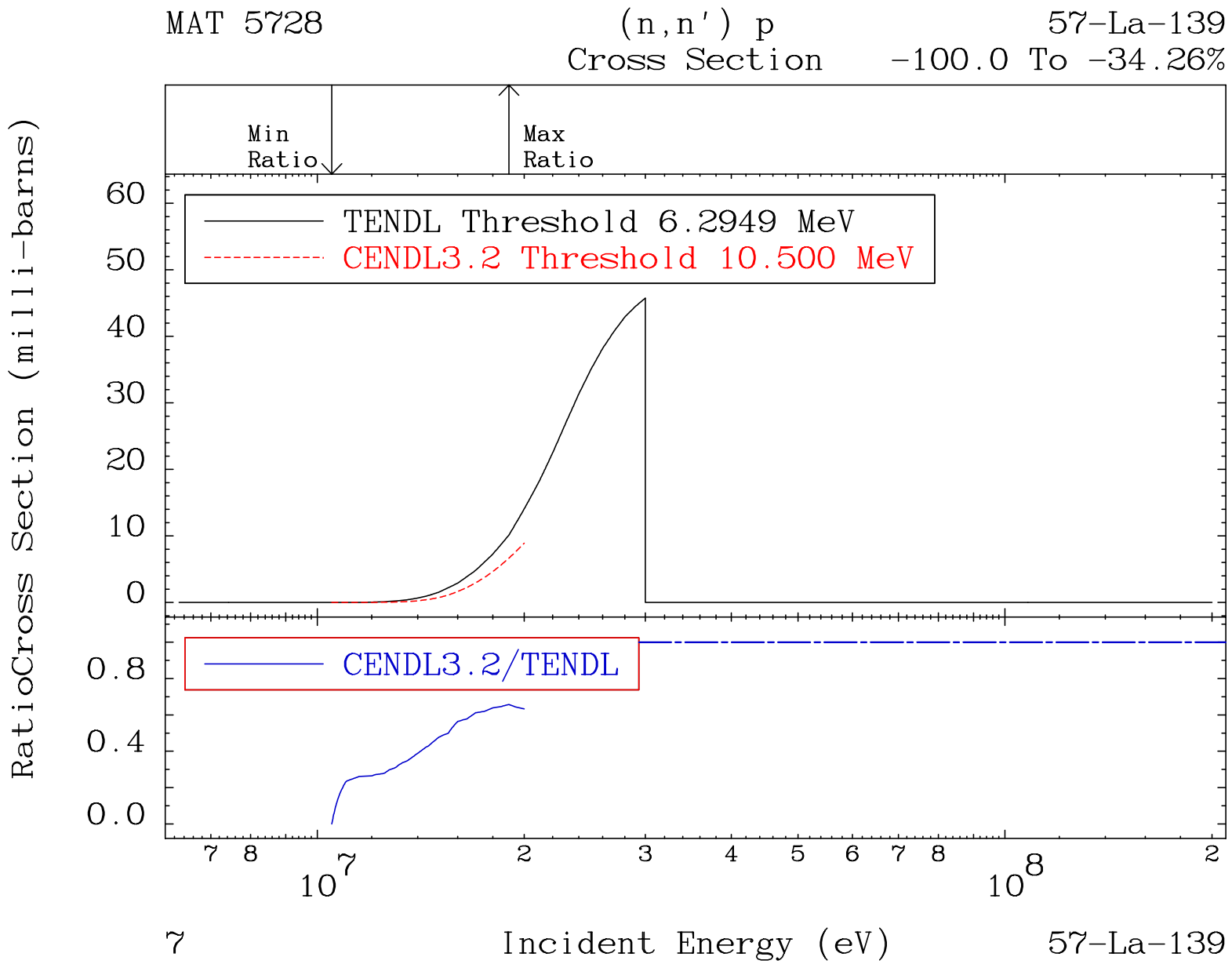

MAT 5728
Elastic
Cross Section
57-La-139
-99.66 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
2
57-La-139

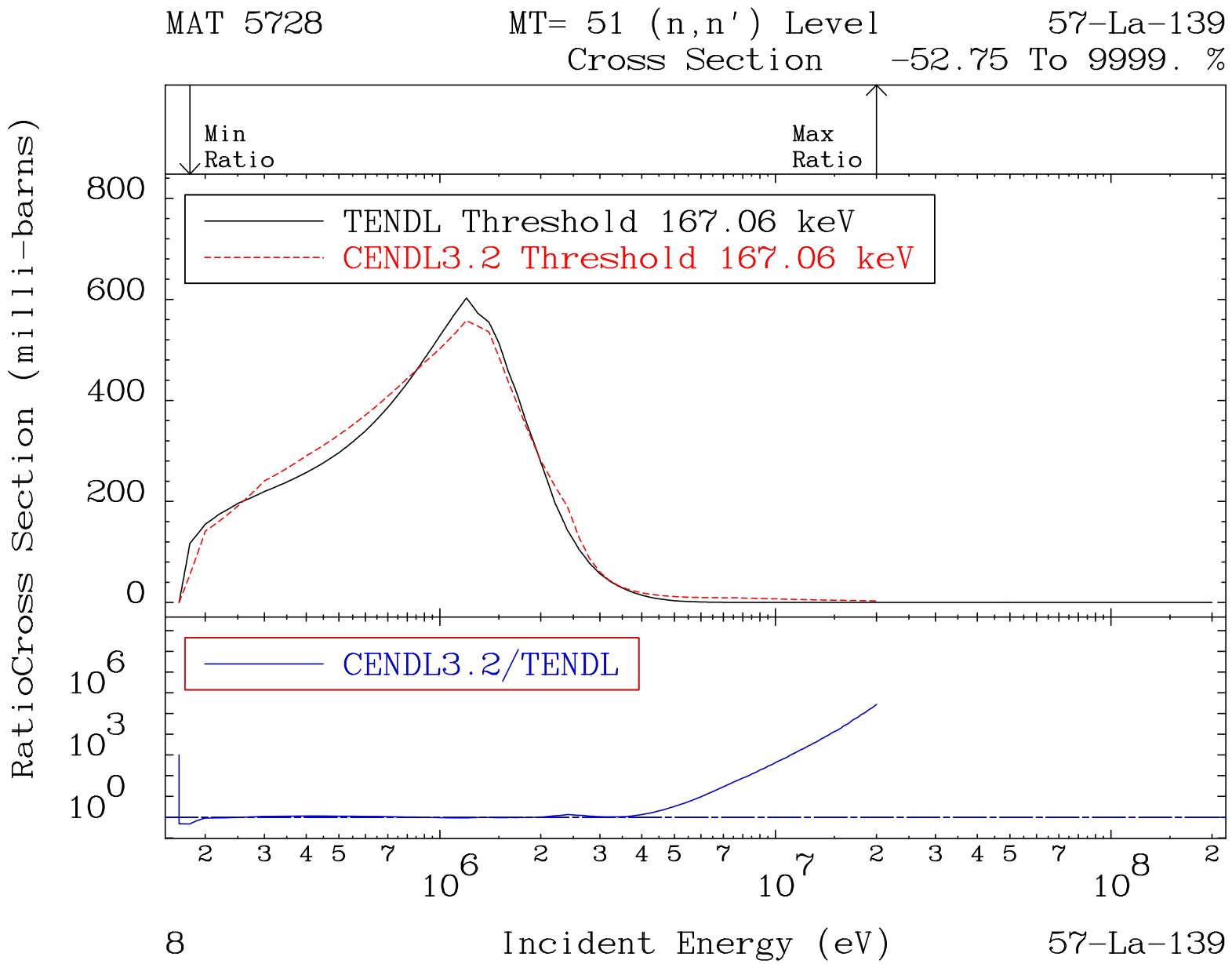

MAT 5728
Inelastic
Cross Section
57-La-139
-52.75 To 36.91 %
Min
Ratio
Max
Ratio
TENDL Threshold 167.06 keV
CENDL3.2 Threshold 167.06 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1.6
1.2
0.8
0.4
2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
Incident Energy (eV)
3
57-La-139

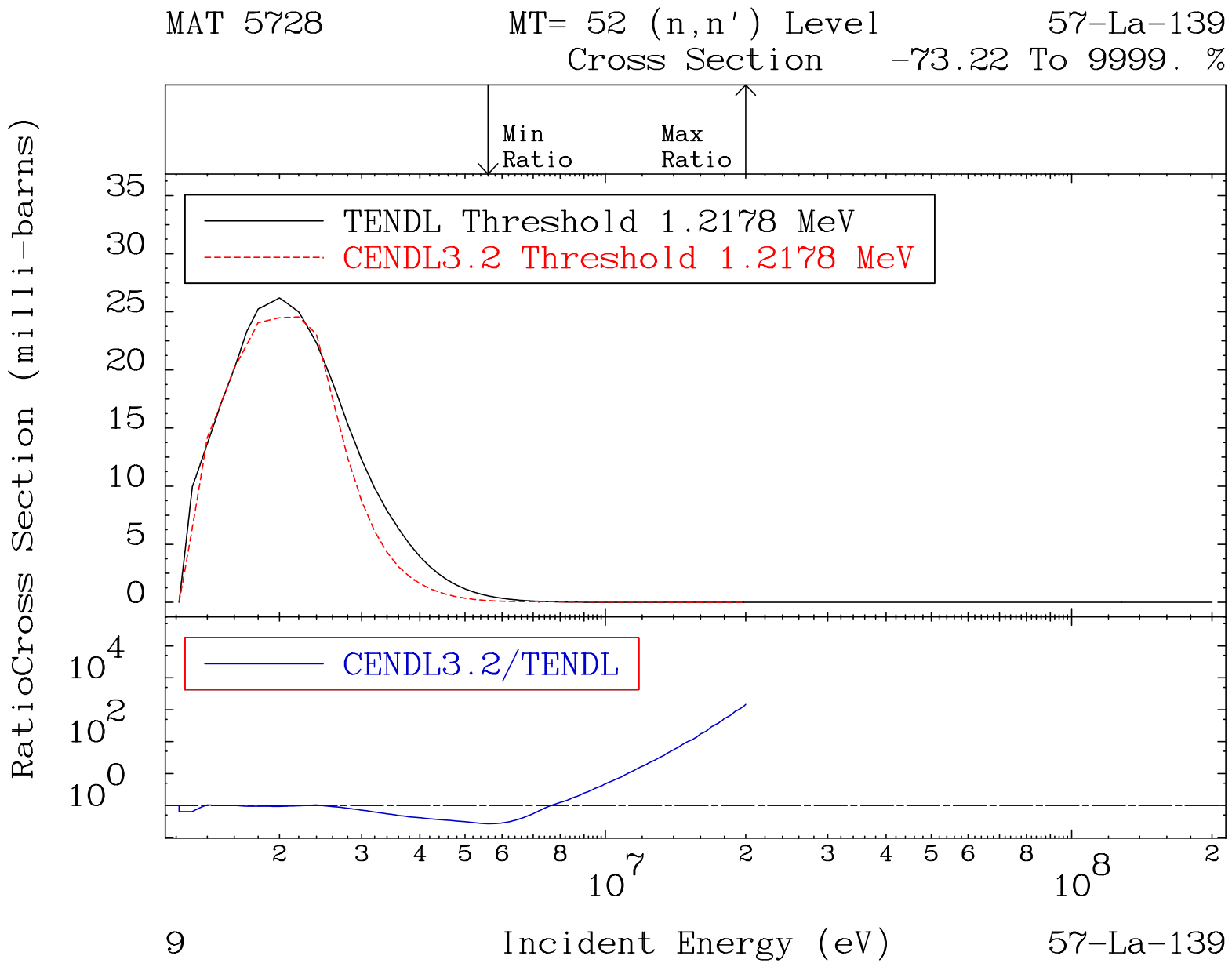

MAT 5728
(n,2n)
Cross Section
57-La-139
-50.52 To 10.91 %
Min Ratio
Max Ratio
TENDL Threshold 8.8440 MeV
CENDL3.2 Threshold 8.8417 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.0
1.5
1.0
0.5
0.0
1.2
0.8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
57-La-139

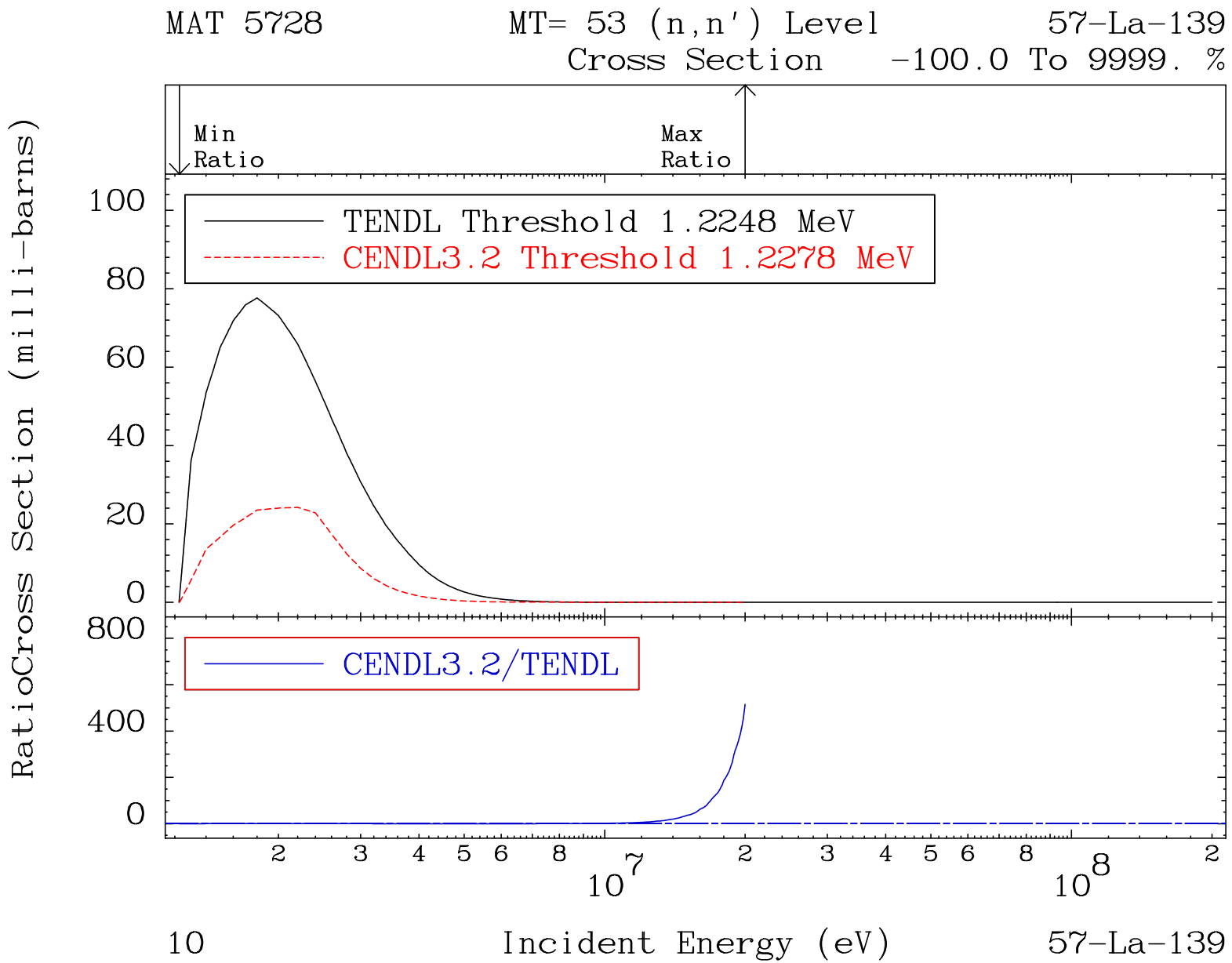

MAT 5728
(n,3n)
Cross Section
57-La-139
-100.0 To -33.65%
Max
Ratio
TENDL Threshold 16.342 MeV
CENDL3.2 Threshold 16.500 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.6
1.2
0.8
0.4
0.0
0.8
0.4
0.0
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
57-La-139

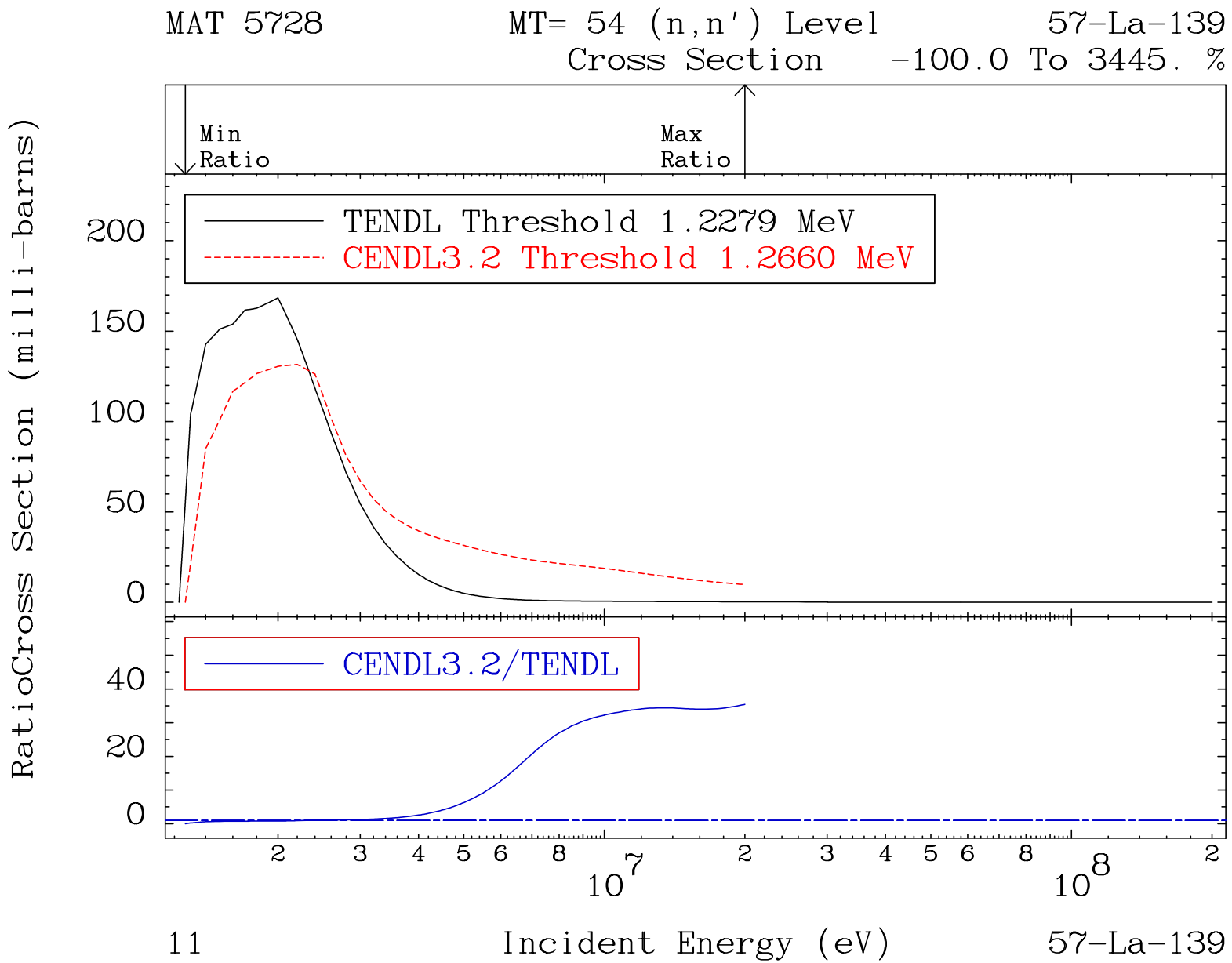

MAT 5728
(n,n') α
Cross Section
57-La-139
-100.0 To -62.34%
Min Ratio
Max Ratio
TENDL Threshold 2.0803 MeV
CENDL3.2 Threshold 11.000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
0.4
0.2
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
6
Incident Energy (eV)
57-La-139

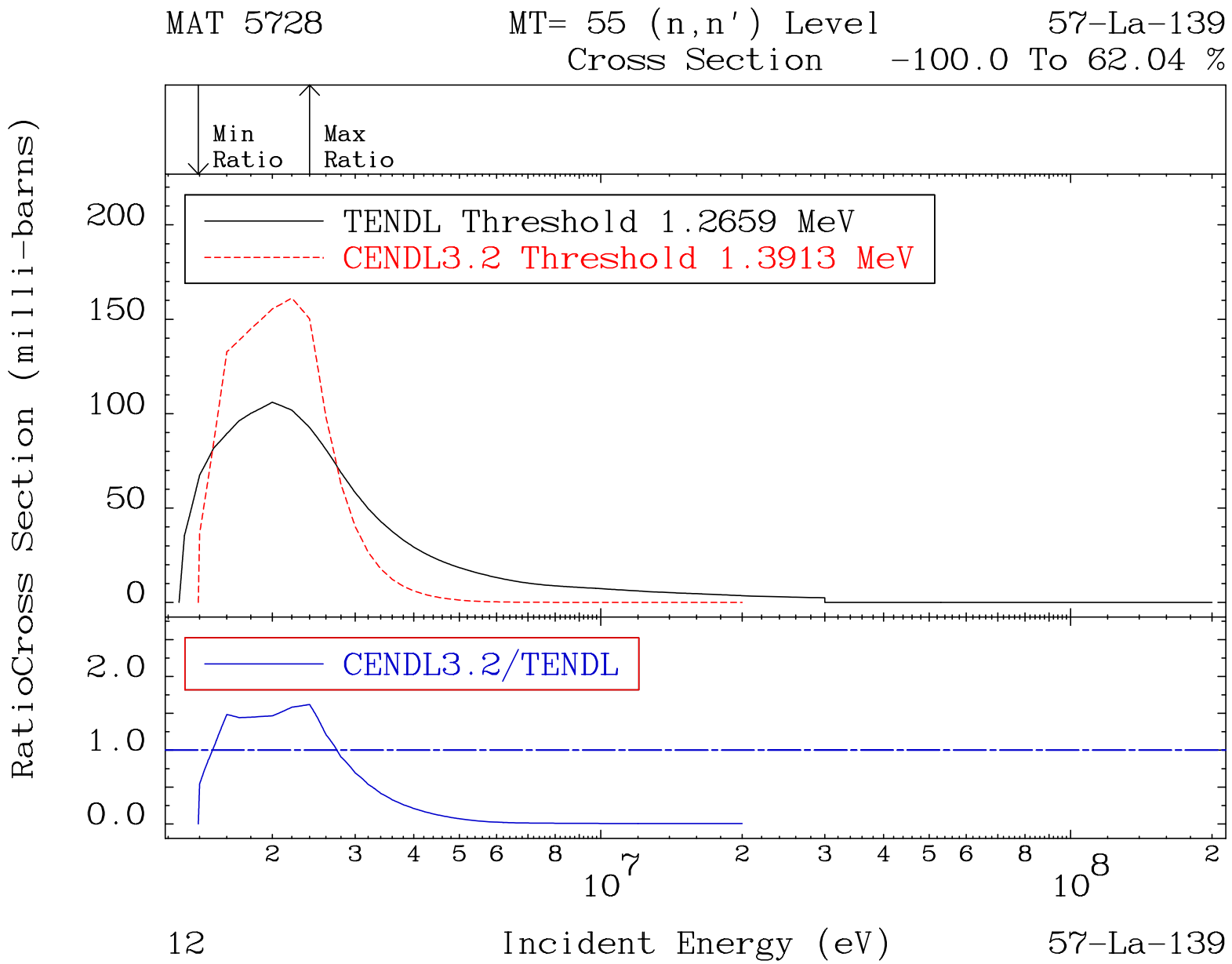

MAT 5728
(n,n') p
Cross Section
57-La-139
-100.0 To -34.26%
Min Ratio
Max Ratio
TENDL Threshold 6.2949 MeV
CENDL3.2 Threshold 10.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
0.8
0.4
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
7
Incident Energy (eV)
57-La-139

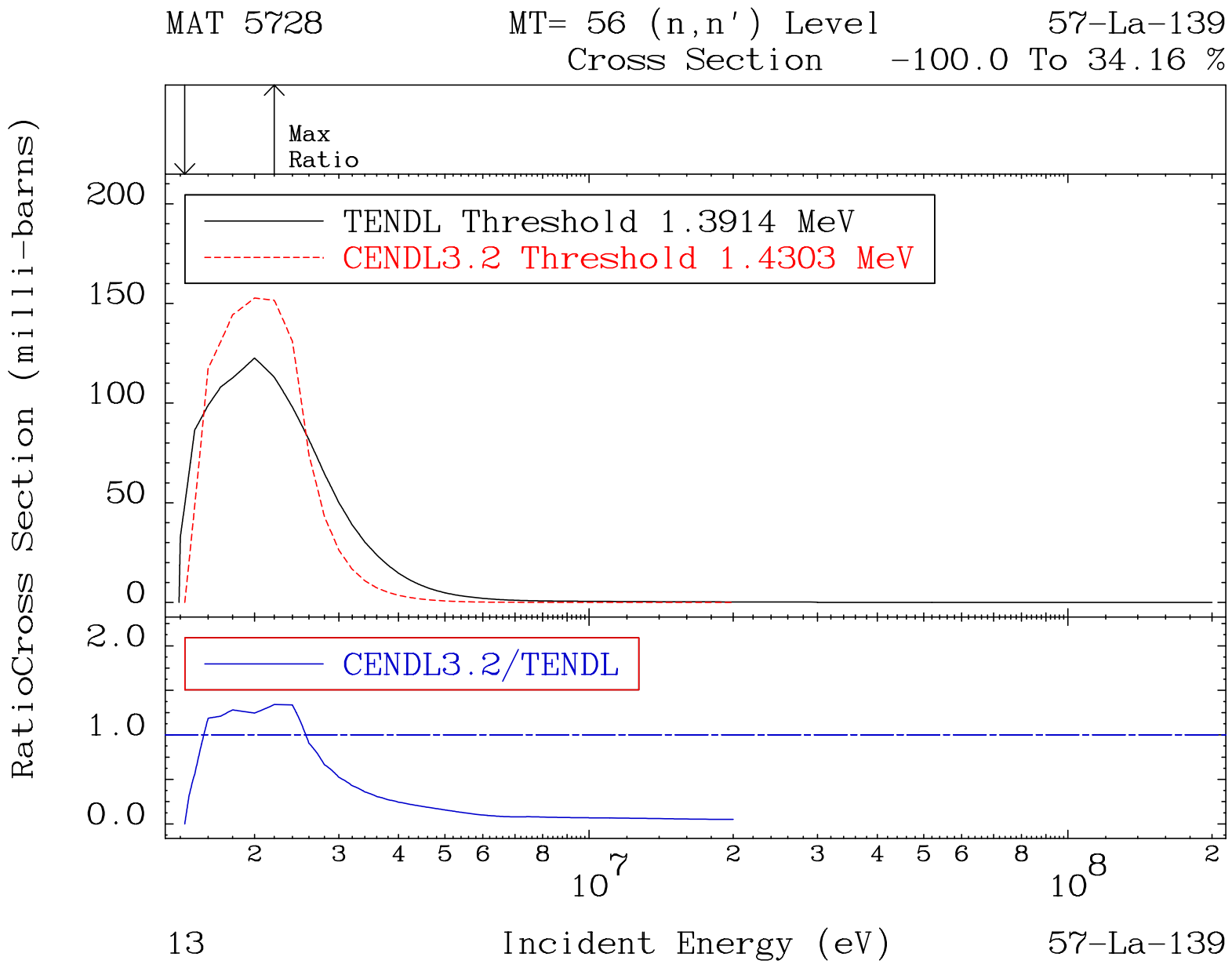

MAT 5728
MT= 51 (n,n') Level
57-La-139
Cross Section -52.75 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 167.06 keV
CENDL3.2 Threshold 167.06 keV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
10^6
10^3
10^0
2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
Incident Energy (eV)
8
57-La-139

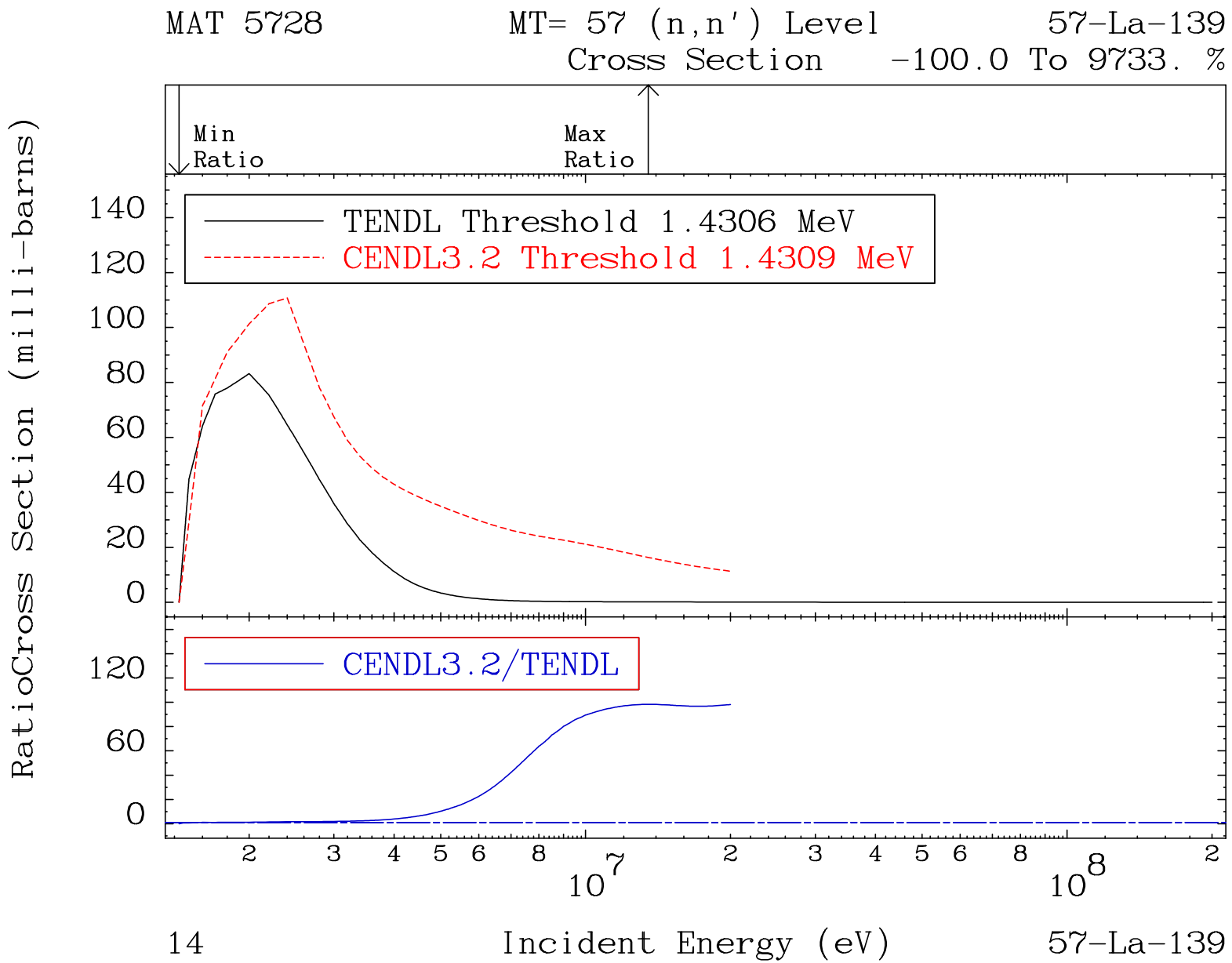

MAT 5728
MT= 52 (n,n') Level
57-La-139
Cross Section -73.22 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.2178 MeV
CENDL3.2 Threshold 1.2178 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
9
57-La-139

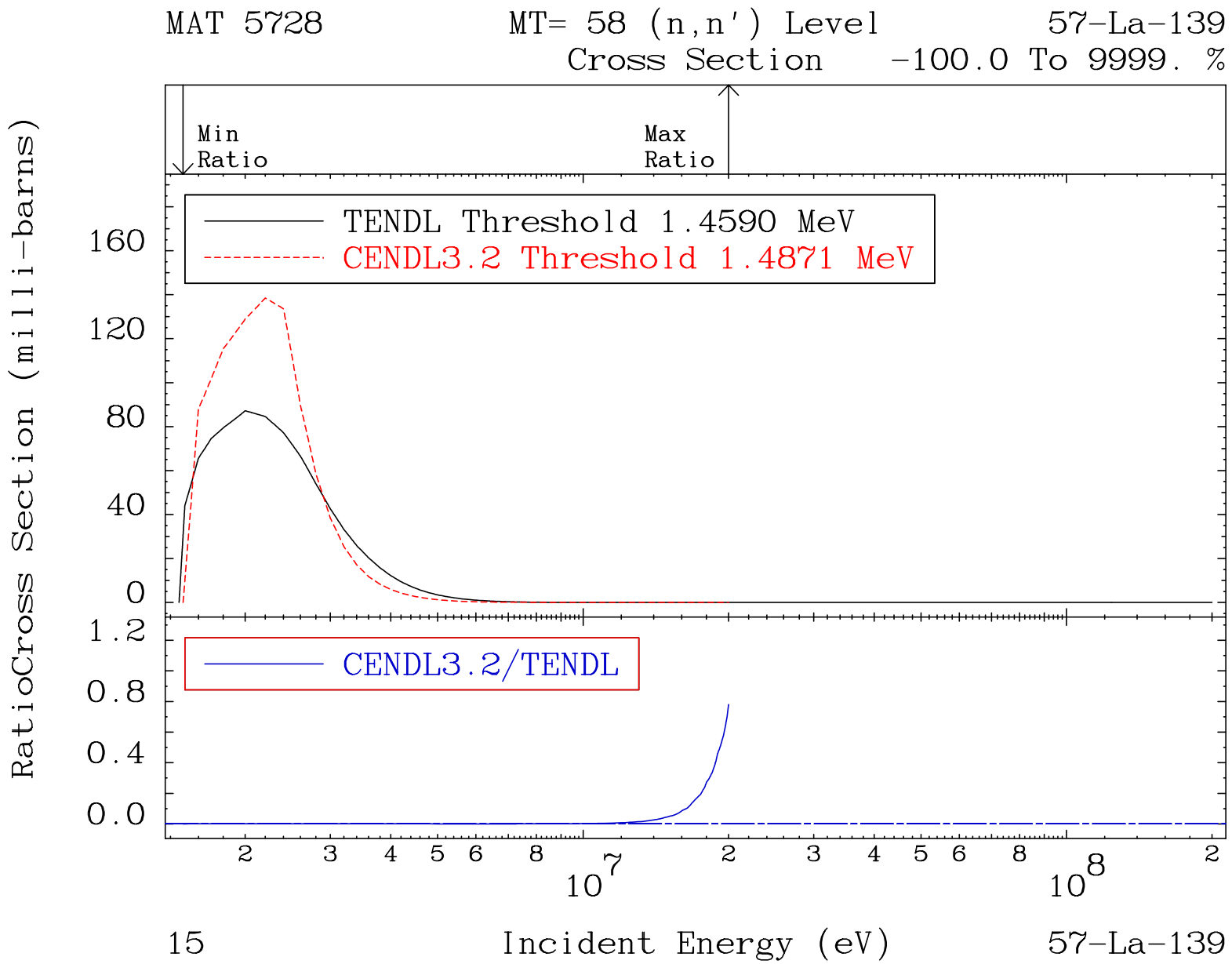

MAT 5728
MT= 53 (n,n') Level
57-La-139
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.2248 MeV
CENDL3.2 Threshold 1.2278 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
800
400
0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
10
Incident Energy (eV)
57-La-139

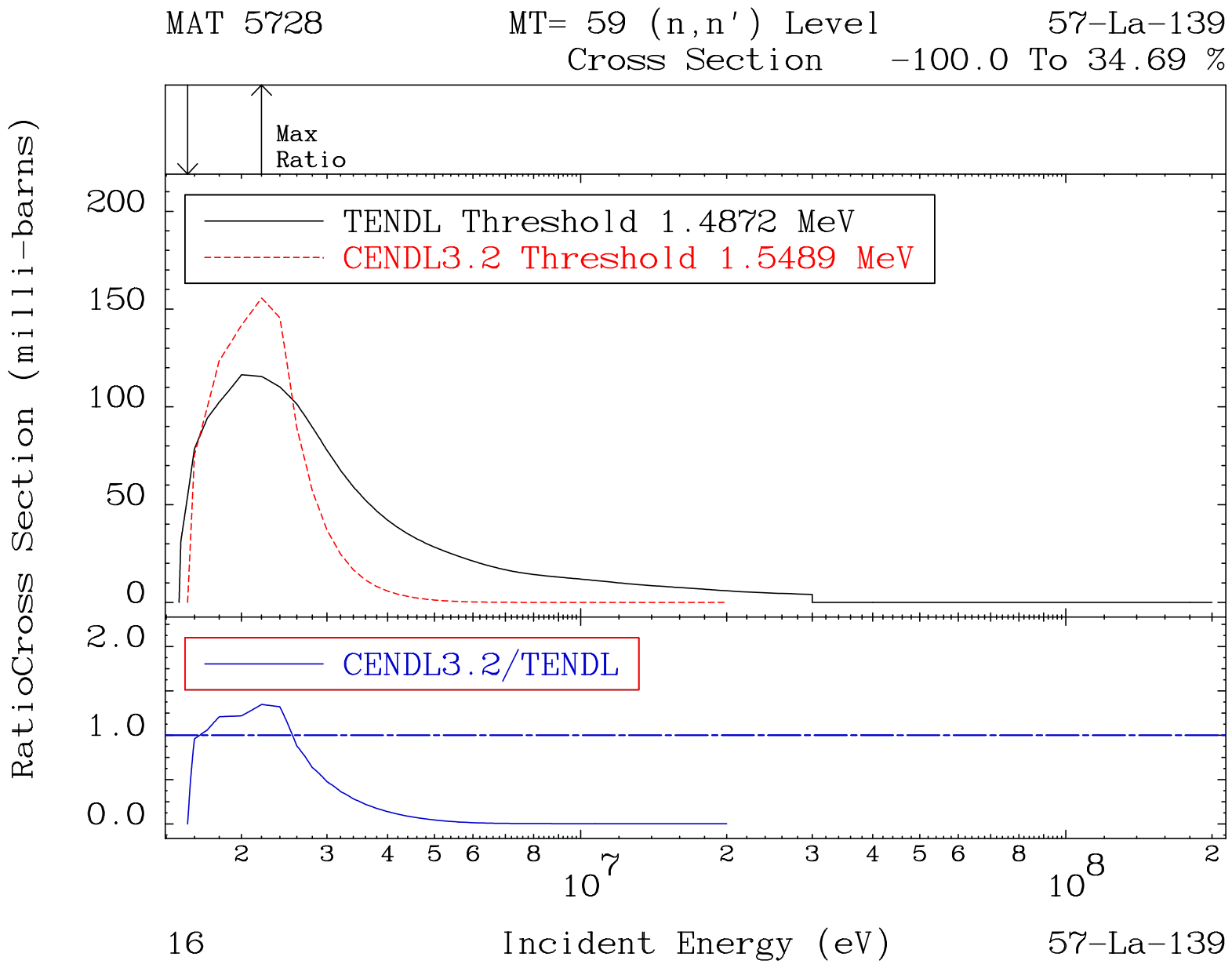

MAT 5728
MT= 54 (n,n') Level
57-La-139
Cross Section -100.0 To 3445. %
Min Ratio
Max Ratio
TENDL Threshold 1.2279 MeV
CENDL3.2 Threshold 1.2660 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
40
20
0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
11
Incident Energy (eV)
57-La-139

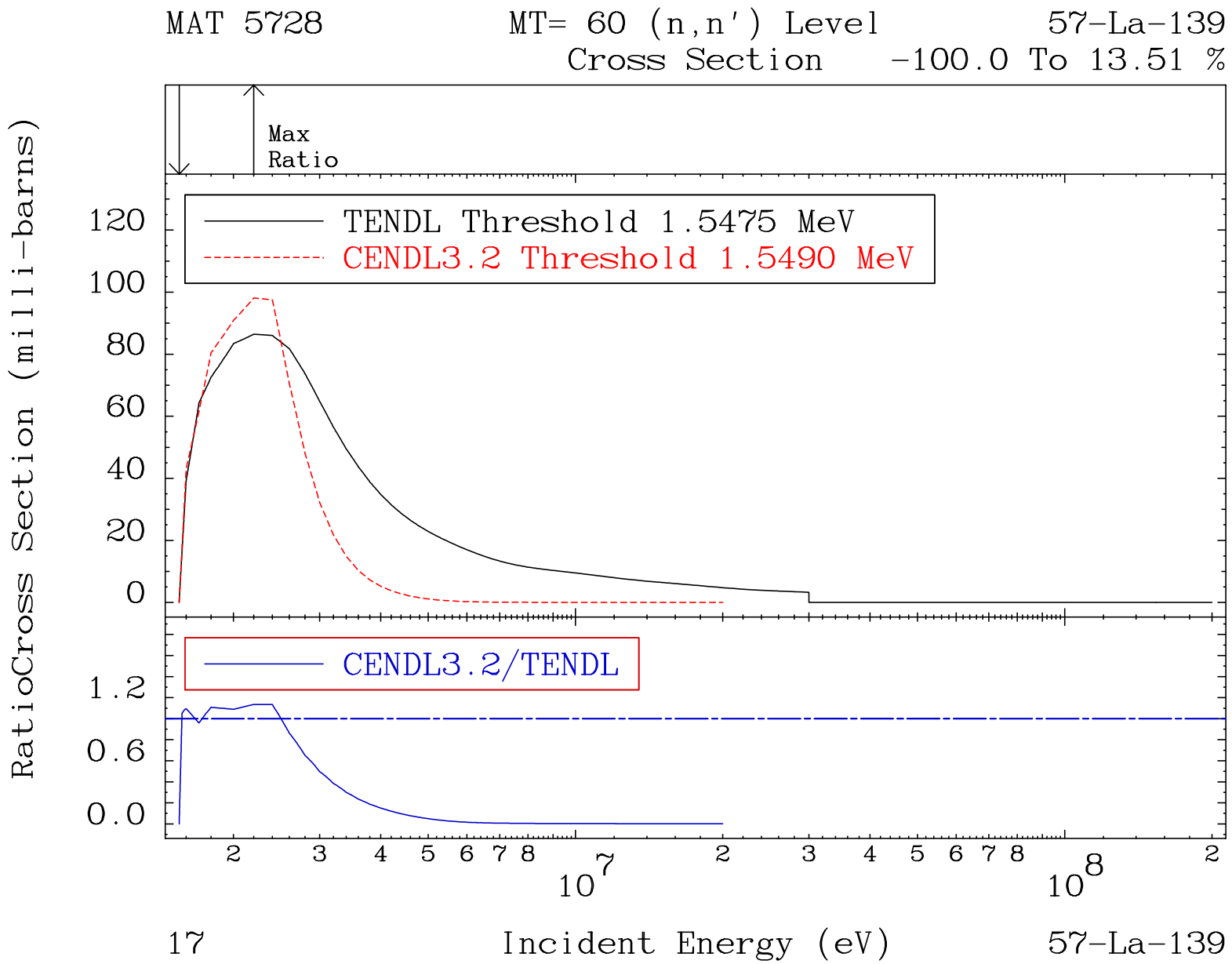

MAT 5728
MT= 55 (n,n') Level
57-La-139
Cross Section
-100.0 To 62.04 %
Min Ratio
Max Ratio
TENDL Threshold 1.2659 MeV
CENDL3.2 Threshold 1.3913 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
2.0
1.0
0.0
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
12
Incident Energy (eV)
57-La-139

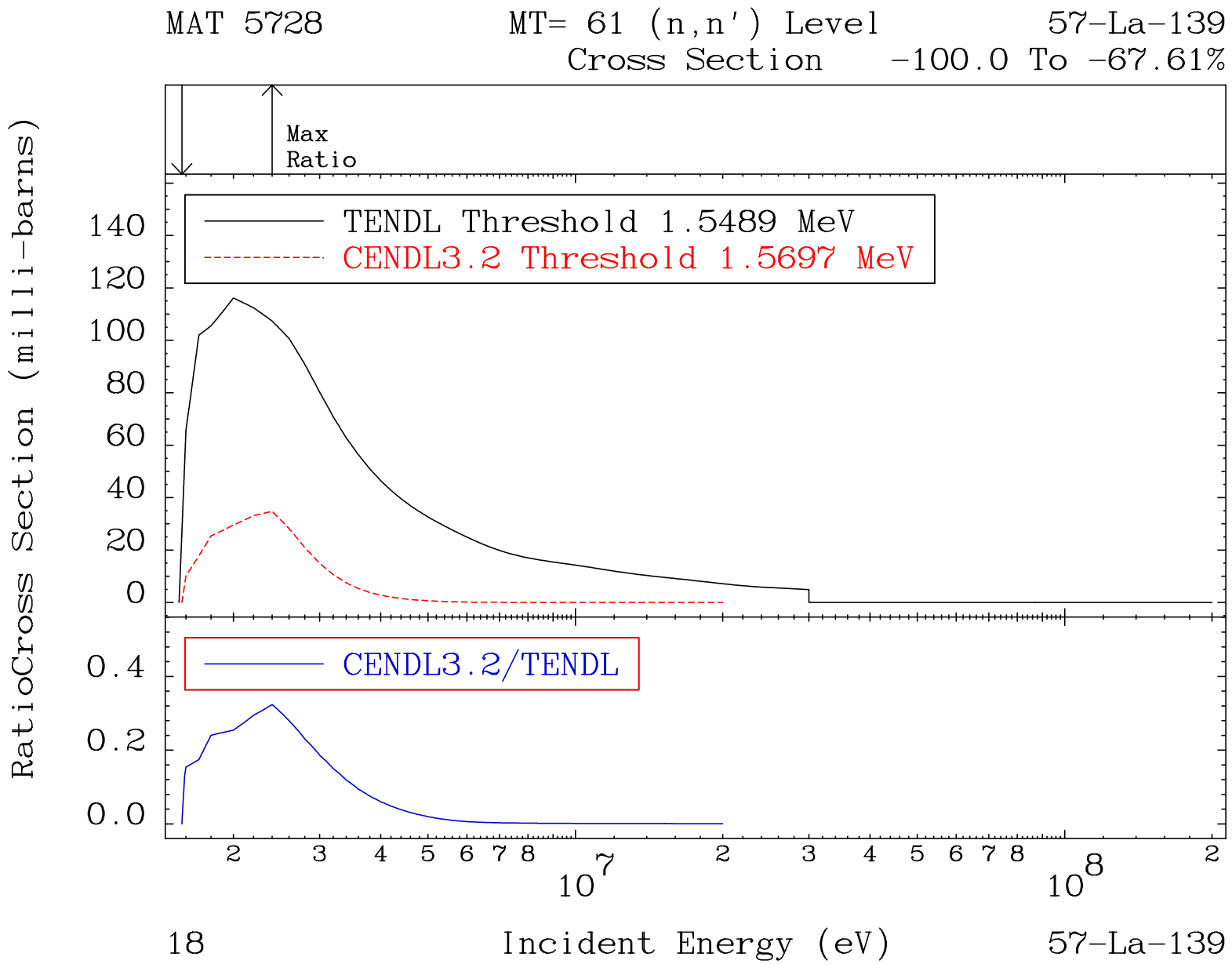

MAT 5728
MT= 56 (n,n') Level
57-La-139
Cross Section
-100.0 To 34.16 %
Max
Ratio
TENDL Threshold 1.3914 MeV
CENDL3.2 Threshold 1.4303 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
2.0
1.0
0.0
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
13
Incident Energy (eV)
57-La-139

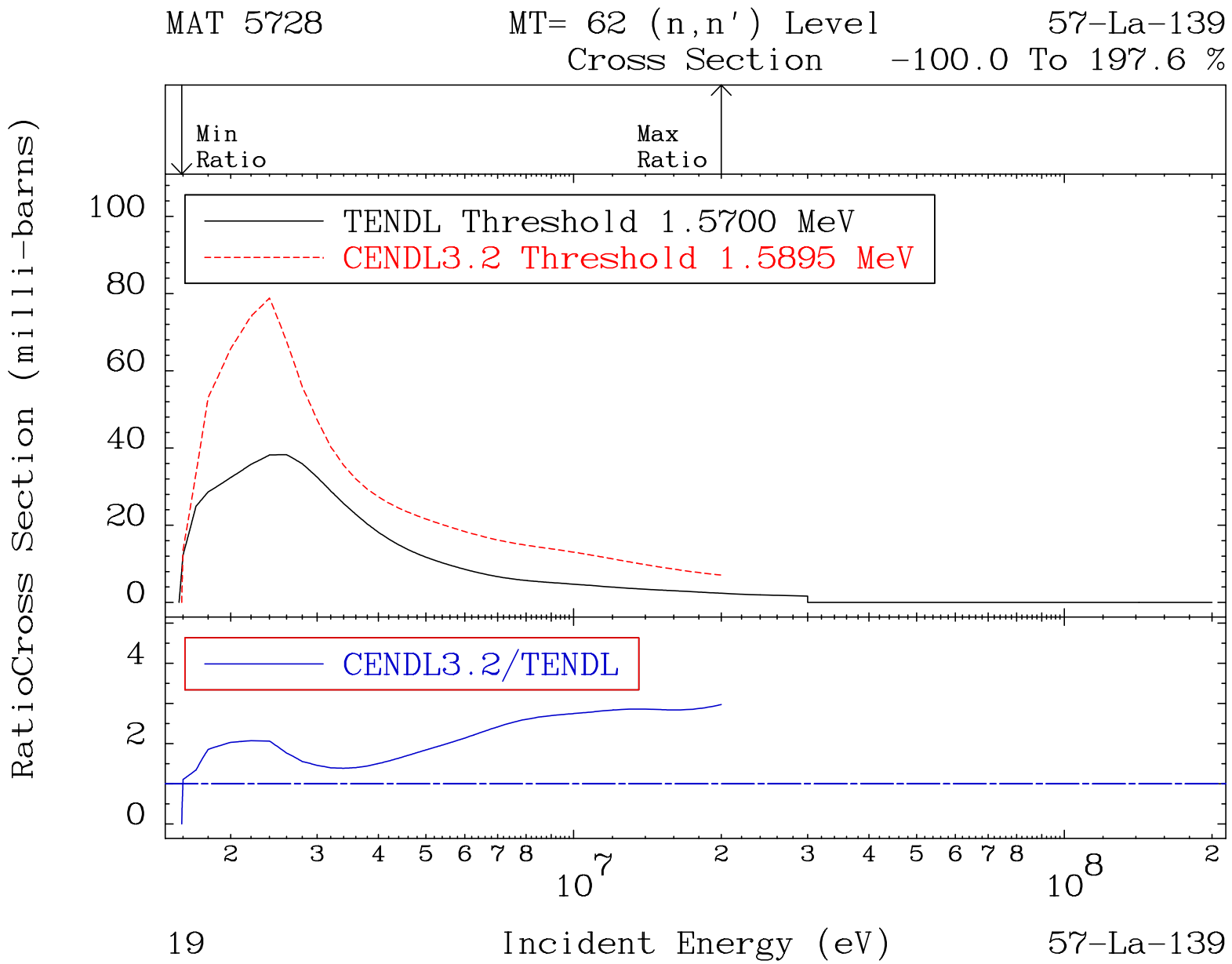

MAT 5728
MT= 57 (n,n') Level
57-La-139
Cross Section
-100.0 To 9733. %
Min Ratio
Max Ratio
TENDL Threshold 1.4306 MeV
CENDL3.2 Threshold 1.4309 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
140
120
100
80
60
40
20
0
120
60
0
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
14
Incident Energy (eV)
57-La-139

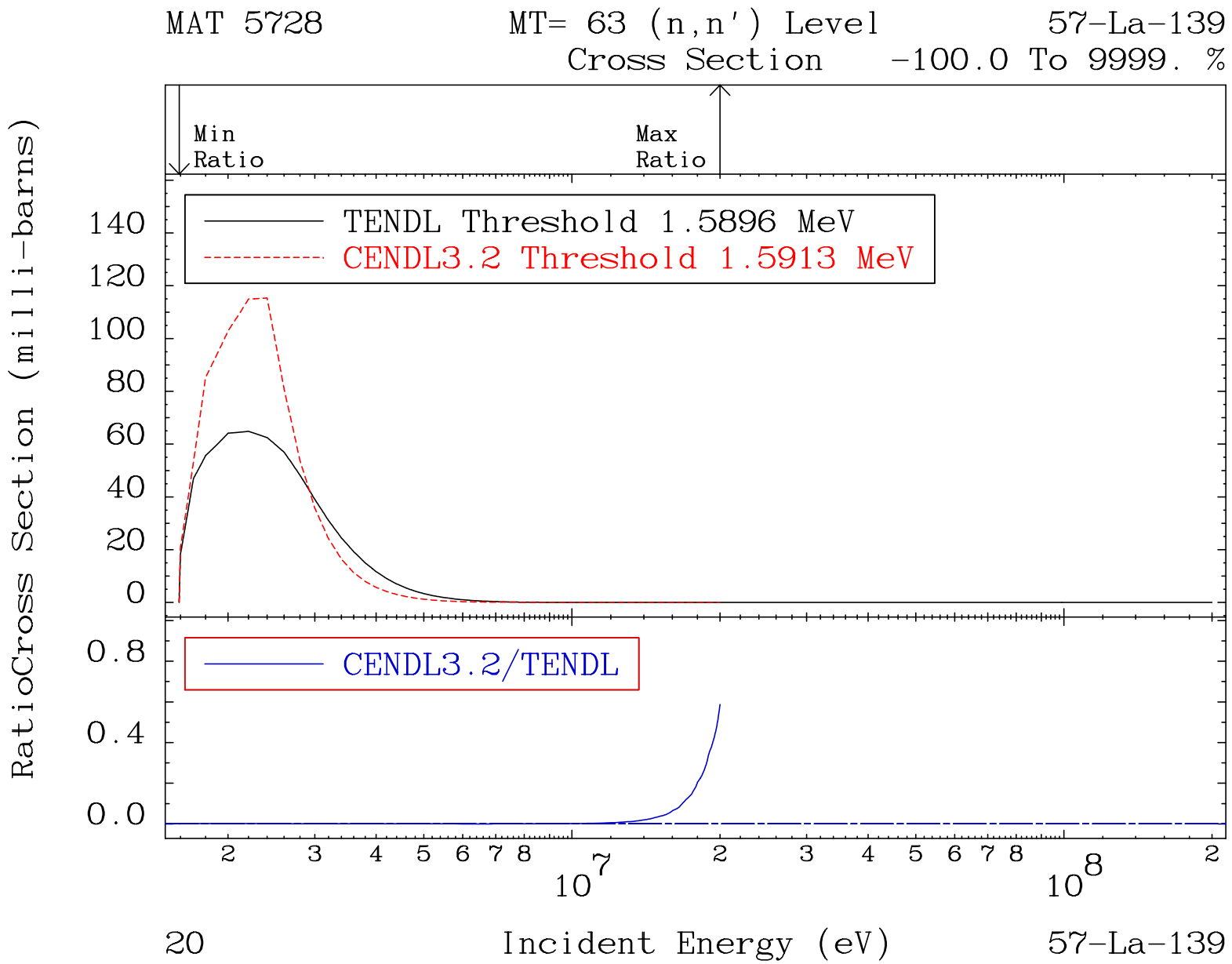

MAT 5728
MT= 58 (n,n') Level
57-La-139
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.4590 MeV
CENDL3.2 Threshold 1.4871 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
1.2
0.8
0.4
0.0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
15
57-La-139

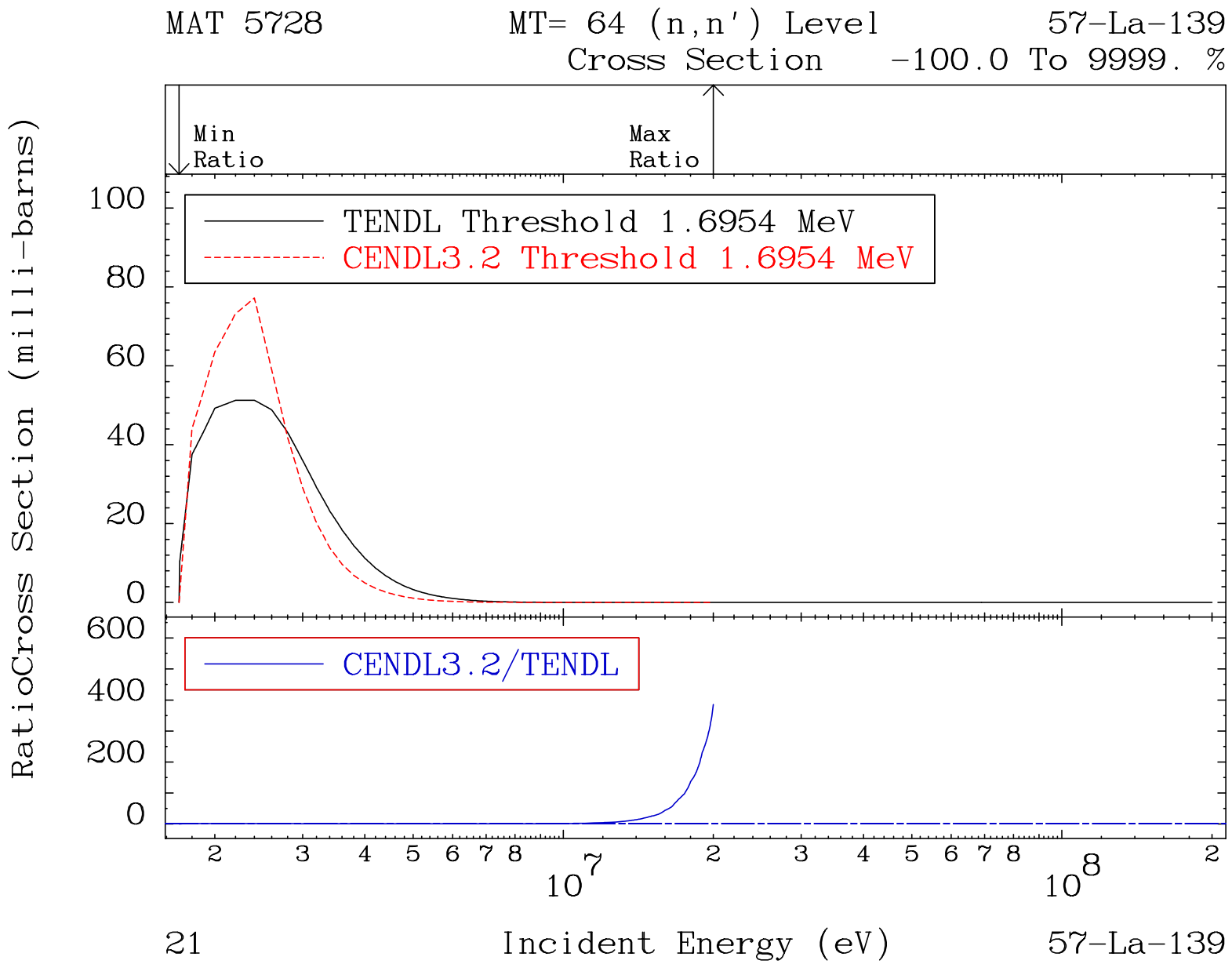

MAT 5728
MT= 59 (n,n') Level
57-La-139
Cross Section
-100.0 To 34.69 %
Max
Ratio
TENDL Threshold 1.4872 MeV
CENDL3.2 Threshold 1.5489 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
2.0
1.0
0.0
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
16
Incident Energy (eV)
57-La-139

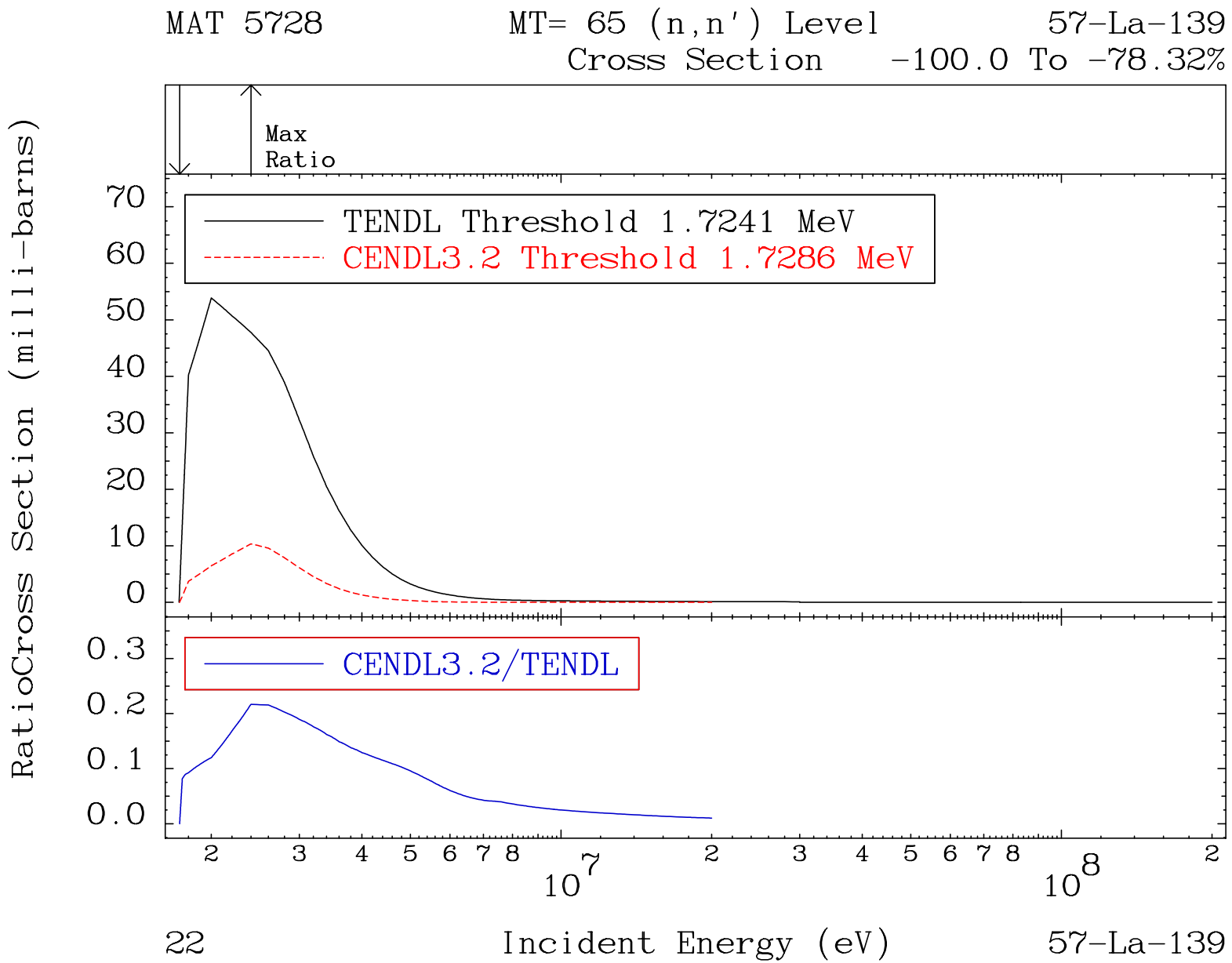

MAT 5728
MT= 60 (n,n') Level
57-La-139
Cross Section
-100.0 To 13.51 %
Max
Ratio
TENDL Threshold 1.5475 MeV
CENDL3.2 Threshold 1.5490 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
1.2
0.6
0.0
2
3
4
5
6
7
8
10^7
10^8
17
Incident Energy (eV)
57-La-139

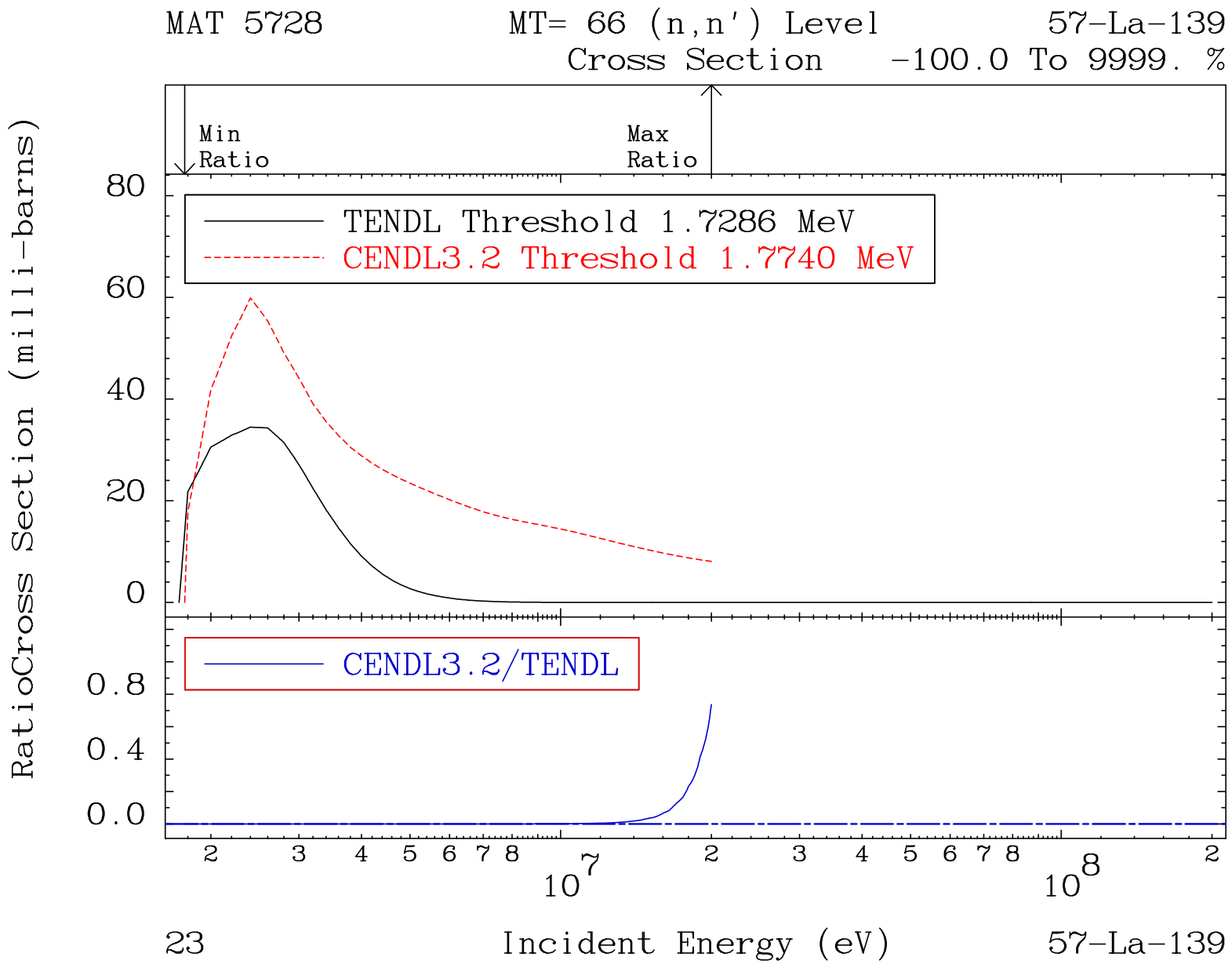

MAT 5728
MT= 61 (n,n') Level
57-La-139
Cross Section
-100.0 To -67.61%
Max
Ratio
TENDL Threshold 1.5489 MeV
CENDL3.2 Threshold 1.5697 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
140
120
100
80
60
40
20
0
0.4
0.2
0.0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
18
Incident Energy (eV)
57-La-139

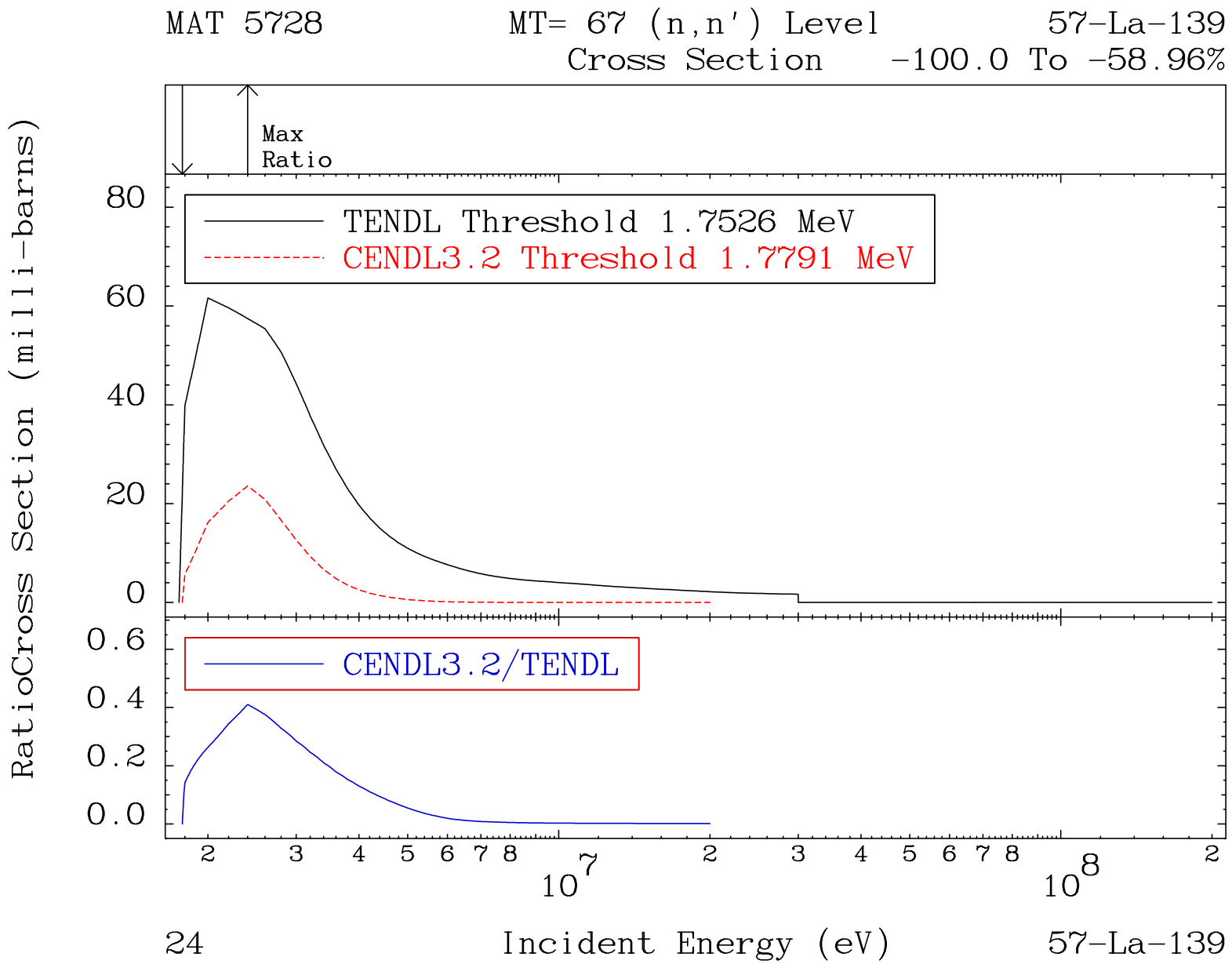

MAT 5728
MT= 62 (n,n') Level
57-La-139
Cross Section
-100.0 To 197.6 %
Min Ratio
Max Ratio
TENDL Threshold 1.5700 MeV
CENDL3.2 Threshold 1.5895 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
4
2
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
19
Incident Energy (eV)
57-La-139

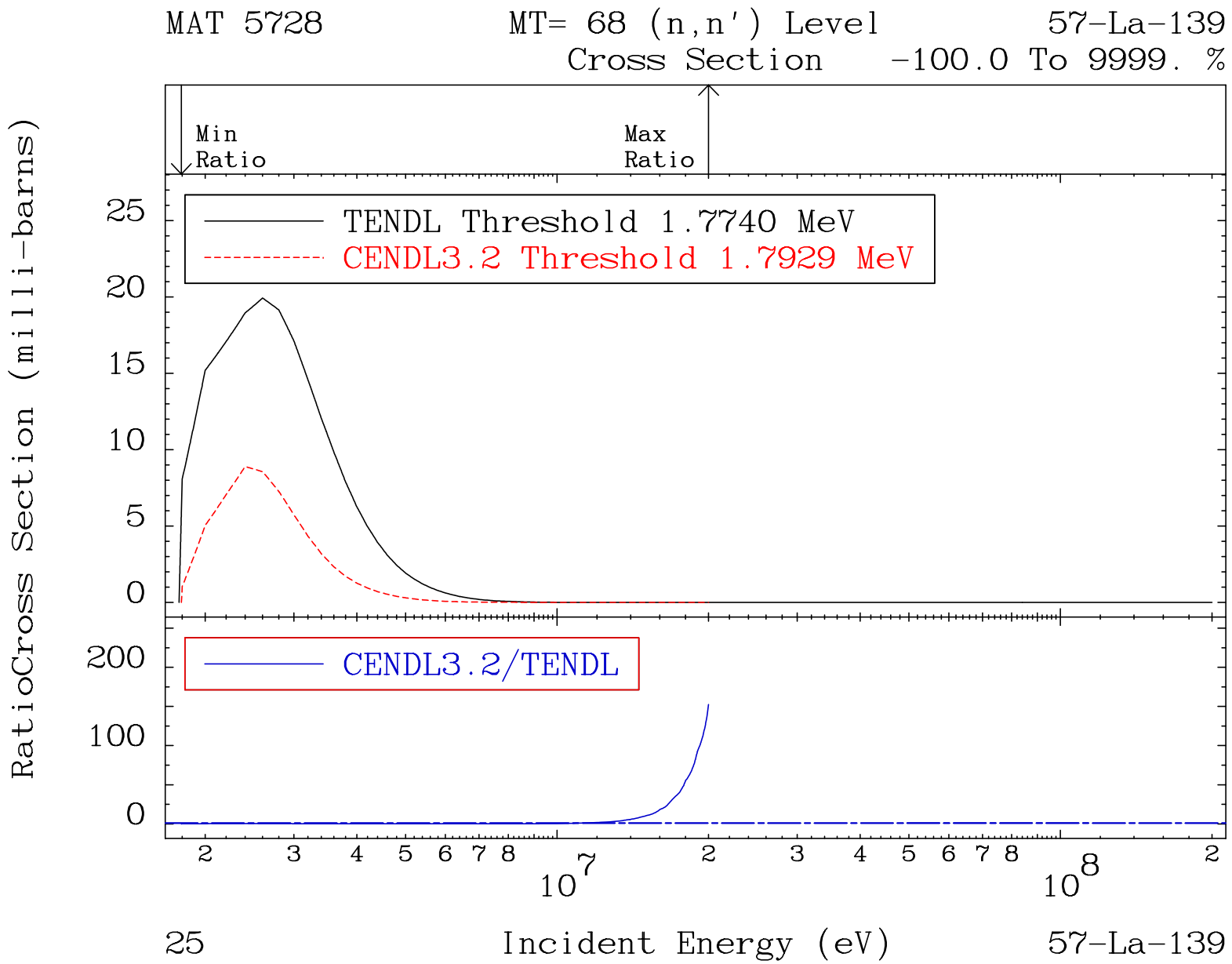

MAT 5728
MT= 63 (n,n') Level
57-La-139
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.5896 MeV
CENDL3.2 Threshold 1.5913 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
140
120
100
80
60
40
20
0
0.8
0.4
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
20
Incident Energy (eV)
57-La-139

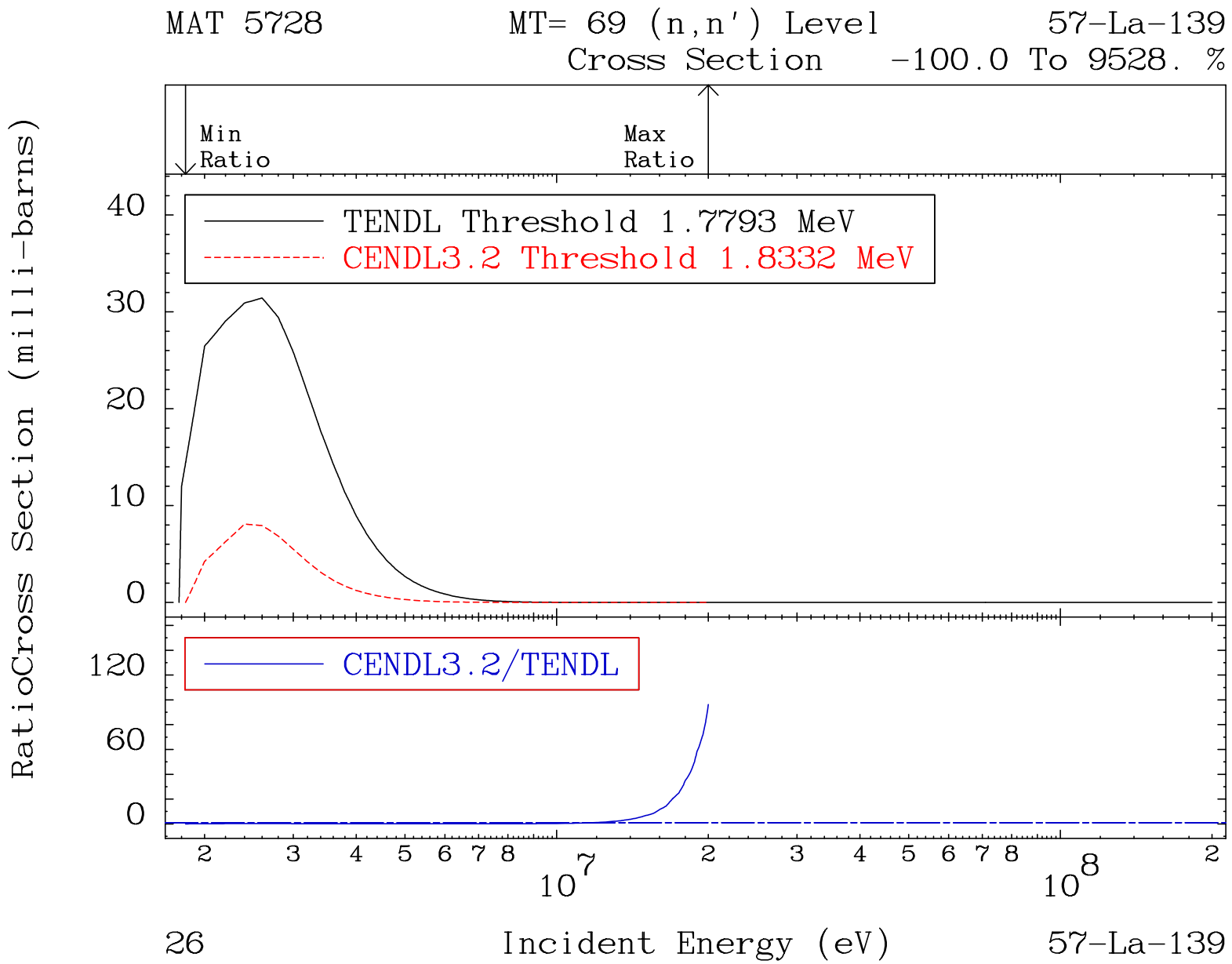

MAT 5728
MT= 64 (n,n') Level
57-La-139
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.6954 MeV
CENDL3.2 Threshold 1.6954 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
600
400
200
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
57-La-139

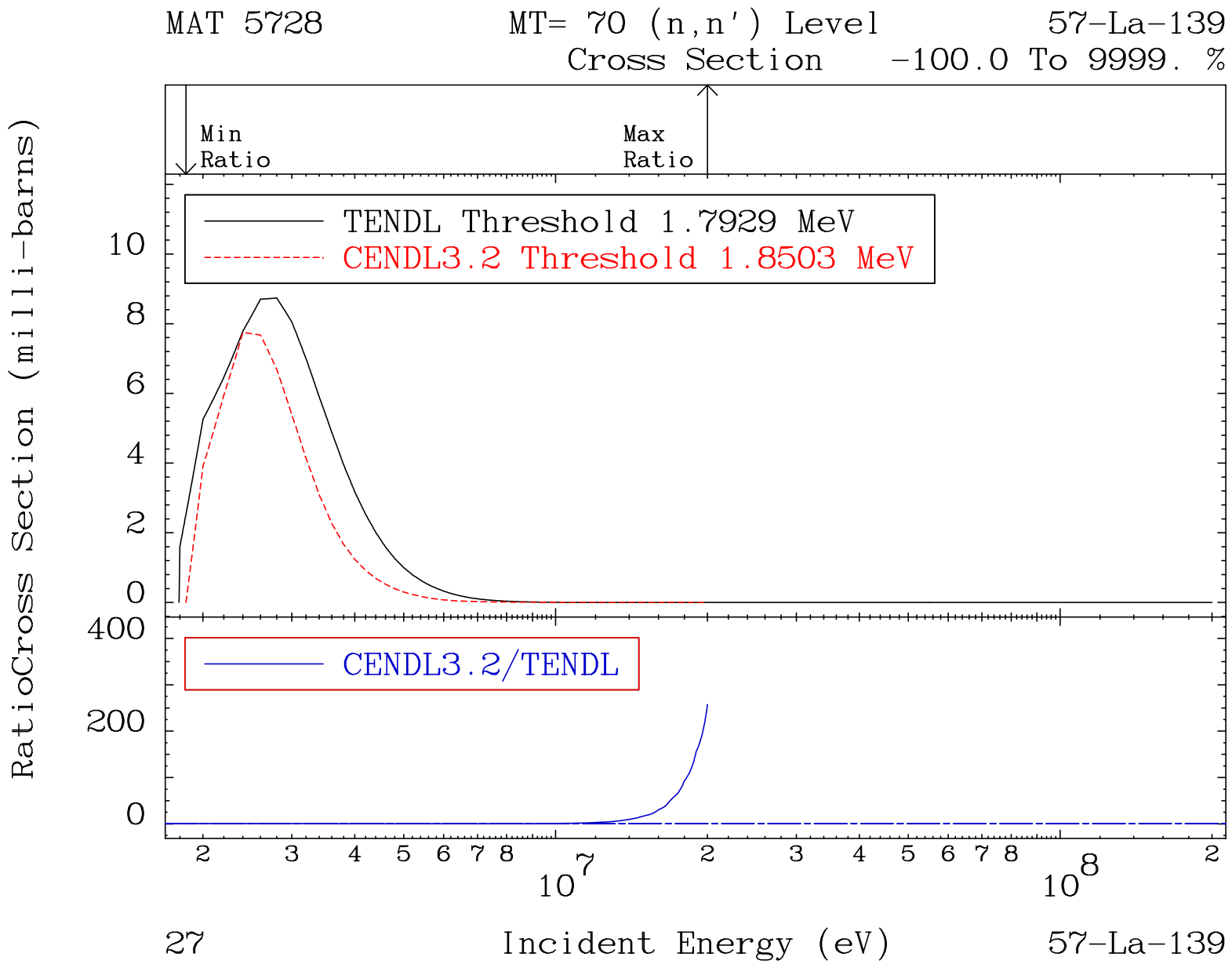

MAT 5728
MT= 65 (n,n') Level
57-La-139
Cross Section
-100.0 To -78.32%
Max
Ratio
TENDL Threshold 1.7241 MeV
CENDL3.2 Threshold 1.7286 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
70
60
50
40
30
20
10
0
0.3
0.2
0.1
0.0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
22
Incident Energy (eV)
57-La-139

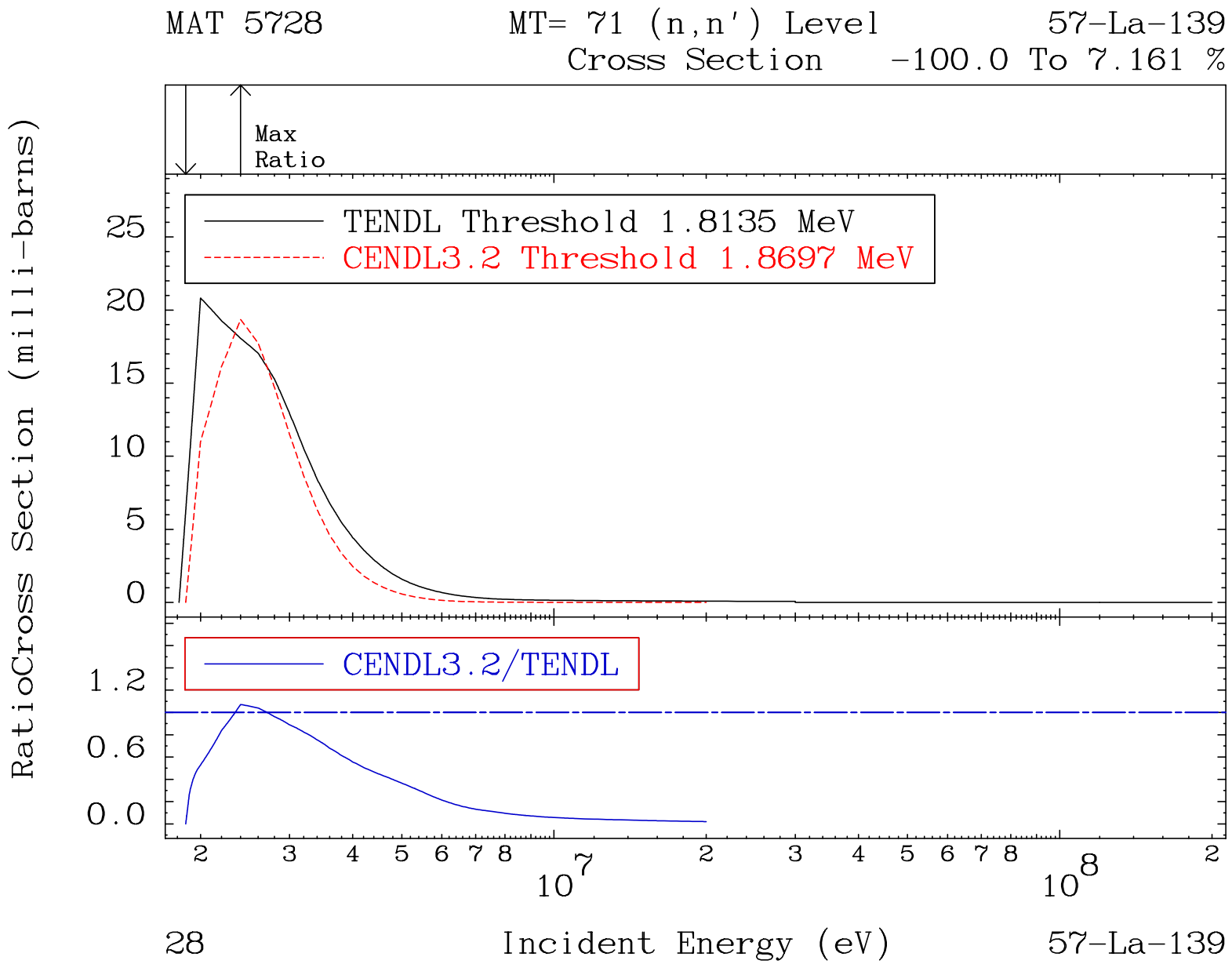

MAT 5728
MT= 66 (n,n') Level
57-La-139
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.7286 MeV
CENDL3.2 Threshold 1.7740 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
0.8
0.4
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
57-La-139

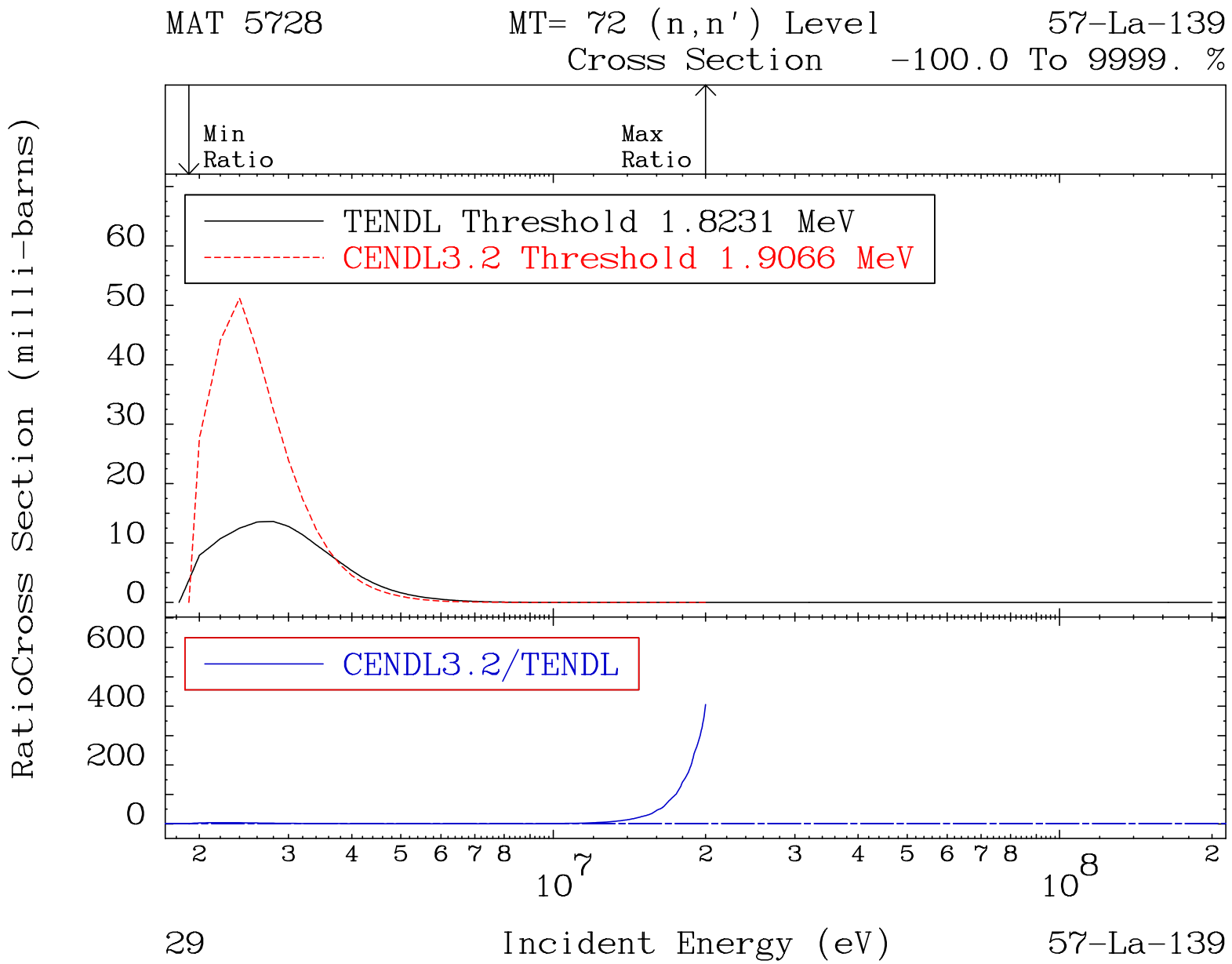

MAT 5728
MT= 67 (n,n') Level
57-La-139
Cross Section
-100.0 To -58.96%
Max
Ratio
80
60
40
20
0
TENDL Threshold 1.7526 MeV
CENDL3.2 Threshold 1.7791 MeV
0.6
0.4
0.2
0.0
CENDL3.2/TENDL
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
RatioCross Section (milli-barns)
24
Incident Energy (eV)
57-La-139

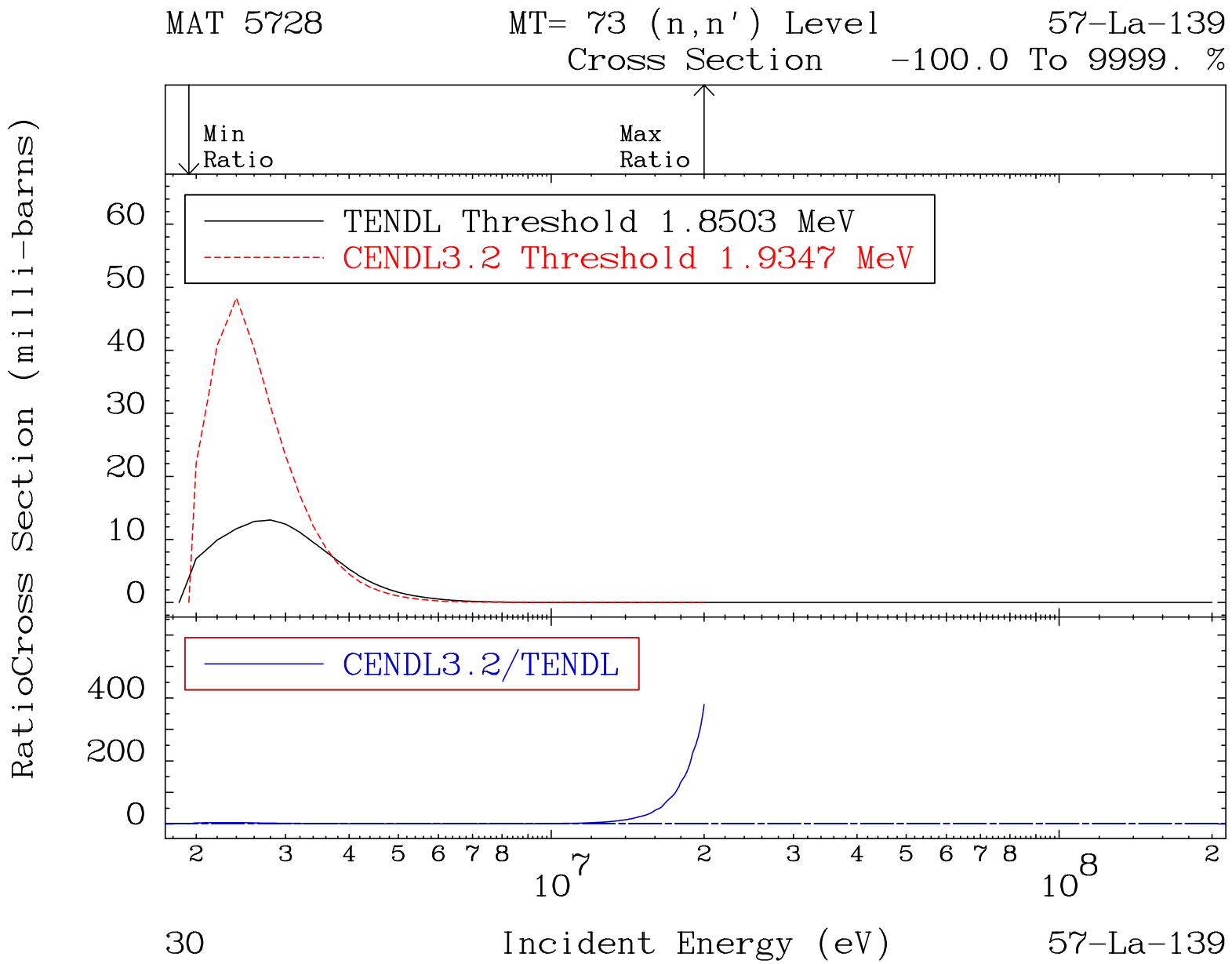

MAT 5728
MT= 68 (n,n') Level
57-La-139
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.7740 MeV
CENDL3.2 Threshold 1.7929 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
200
100
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
57-La-139

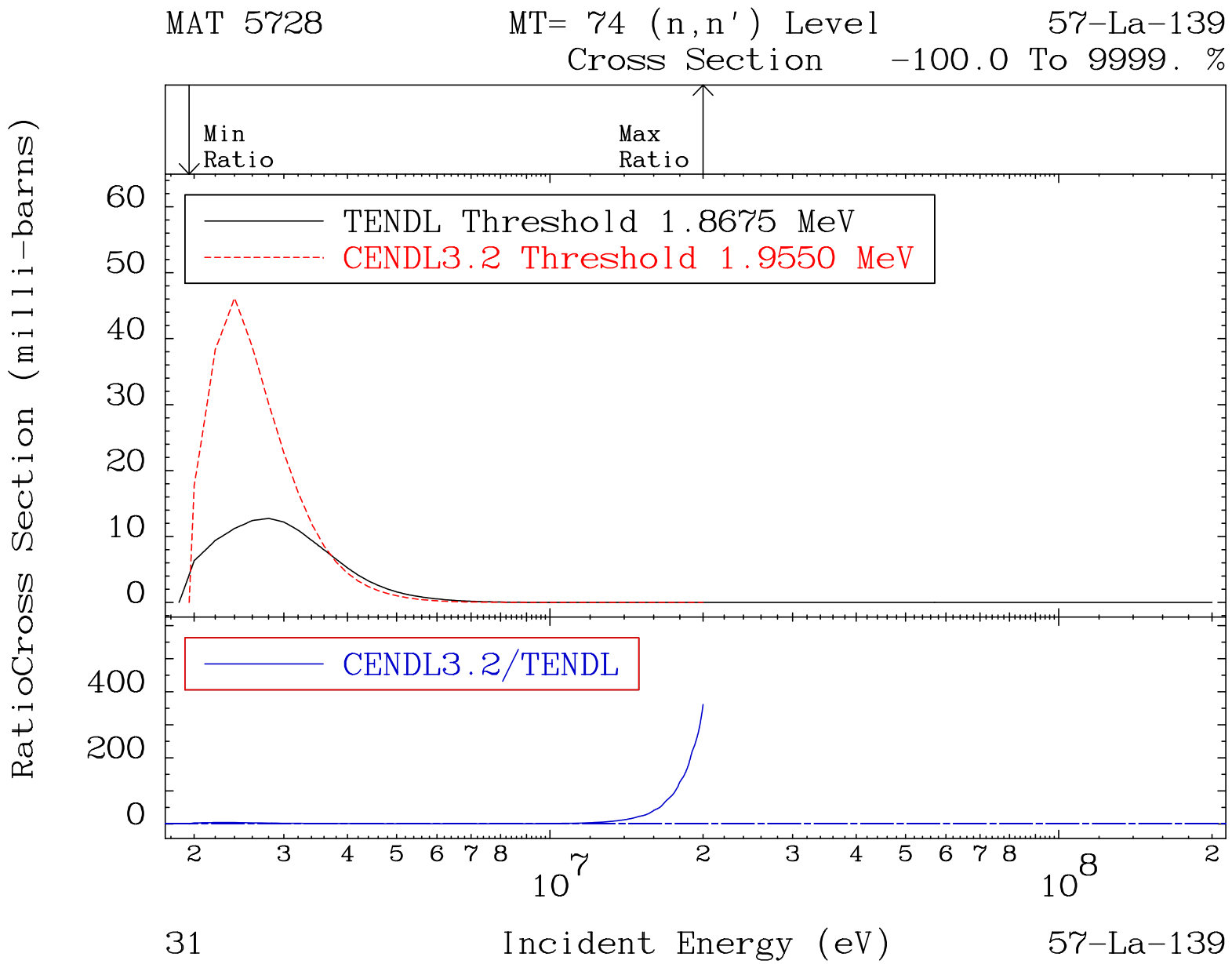

MAT 5728
MT= 69 (n,n') Level
57-La-139
Cross Section
-100.0 To 9528. %
Min Ratio
Max Ratio
TENDL Threshold 1.7793 MeV
CENDL3.2 Threshold 1.8332 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
120
60
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
26
Incident Energy (eV)
57-La-139

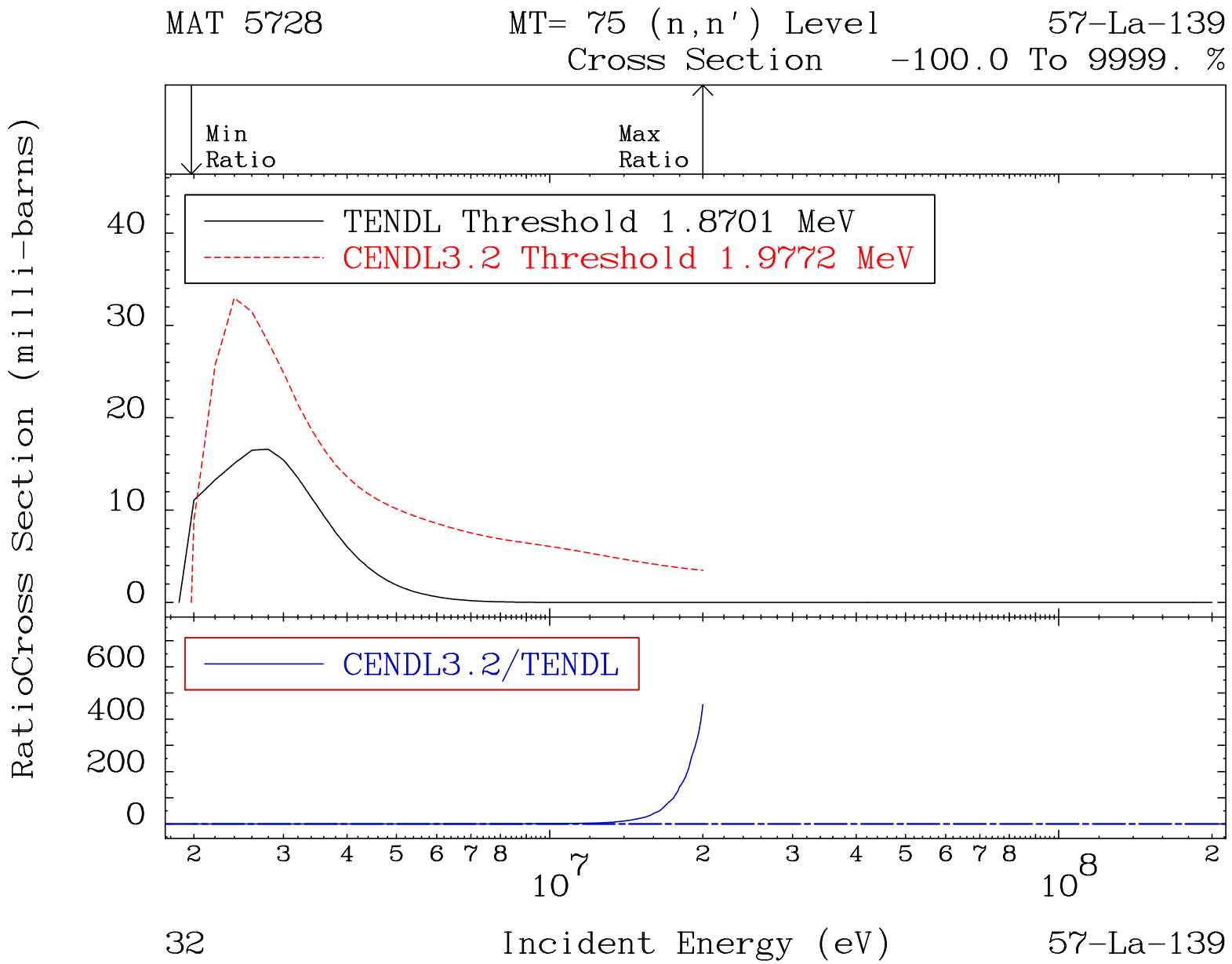

MAT 5728
MT= 70 (n,n') Level
57-La-139
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.7929 MeV
CENDL3.2 Threshold 1.8503 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
27
57-La-139

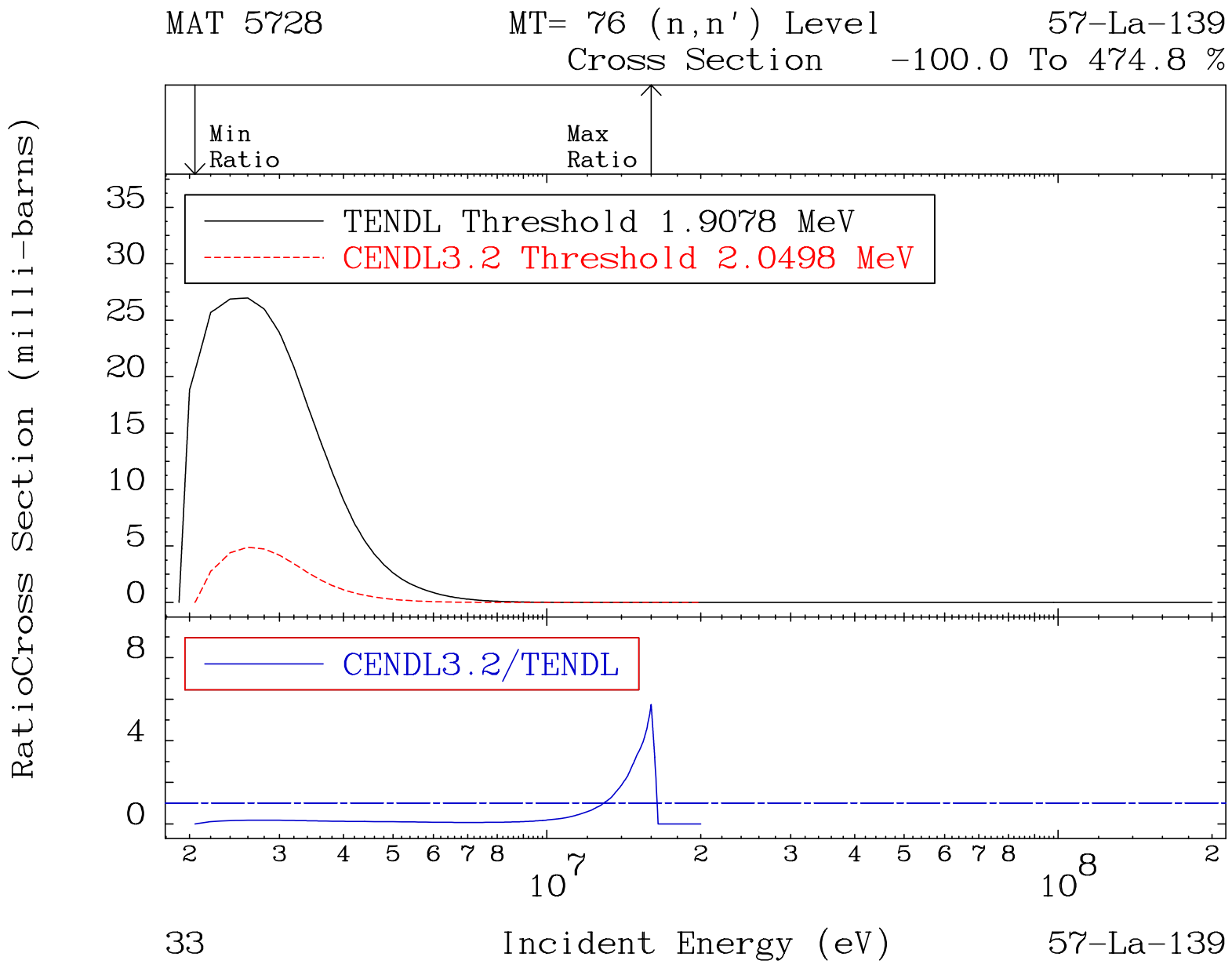

MAT 5728
MT= 71 (n,n') Level
57-La-139
Cross Section -100.0 To 7.161 %
Max
Ratio
TENDL Threshold 1.8135 MeV
CENDL3.2 Threshold 1.8697 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
1.2
0.6
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
28
Incident Energy (eV)
57-La-139

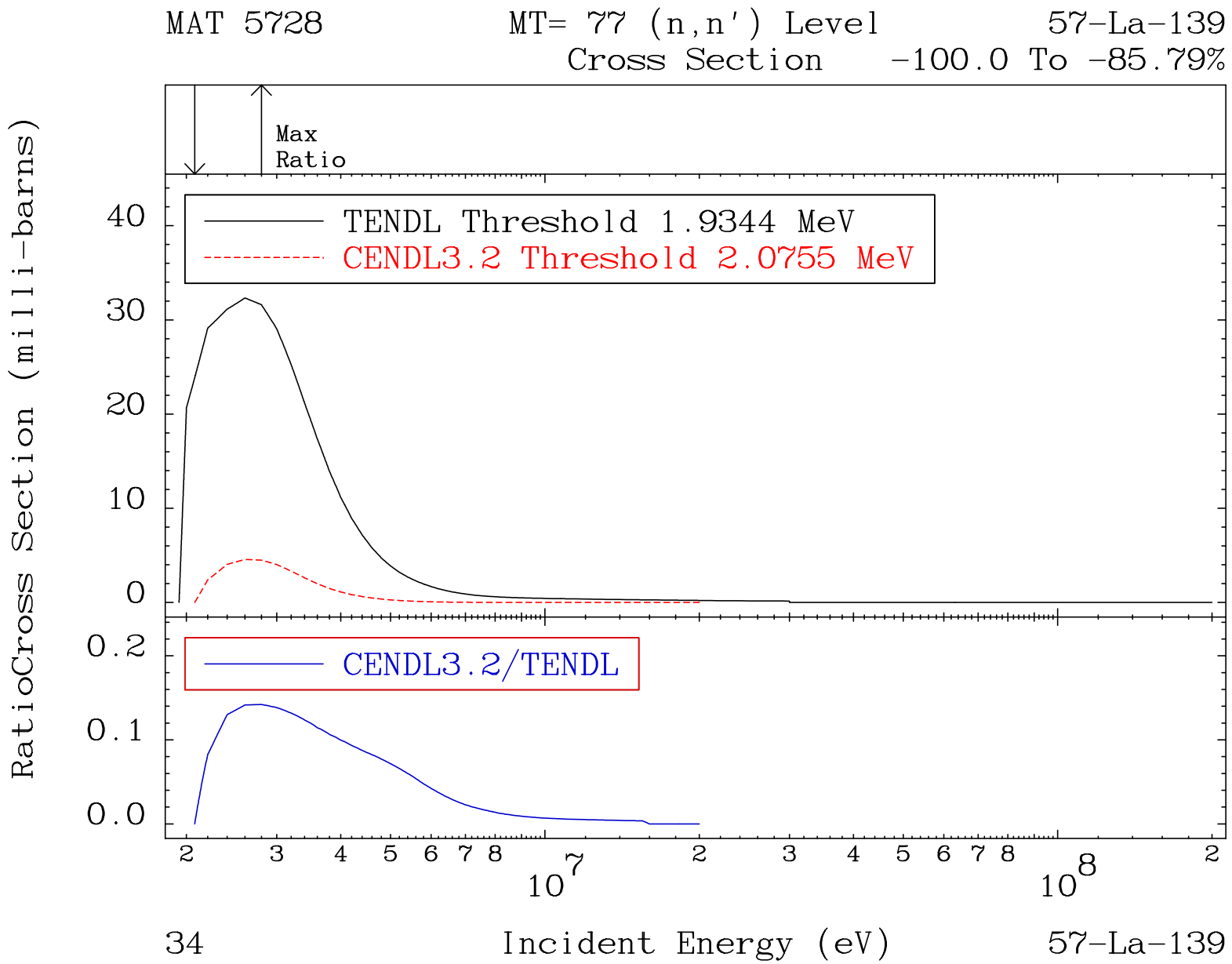

MAT 5728
MT= 72 (n,n') Level
57-La-139
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.8231 MeV
CENDL3.2 Threshold 1.9066 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
600
400
200
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
29
Incident Energy (eV)
57-La-139

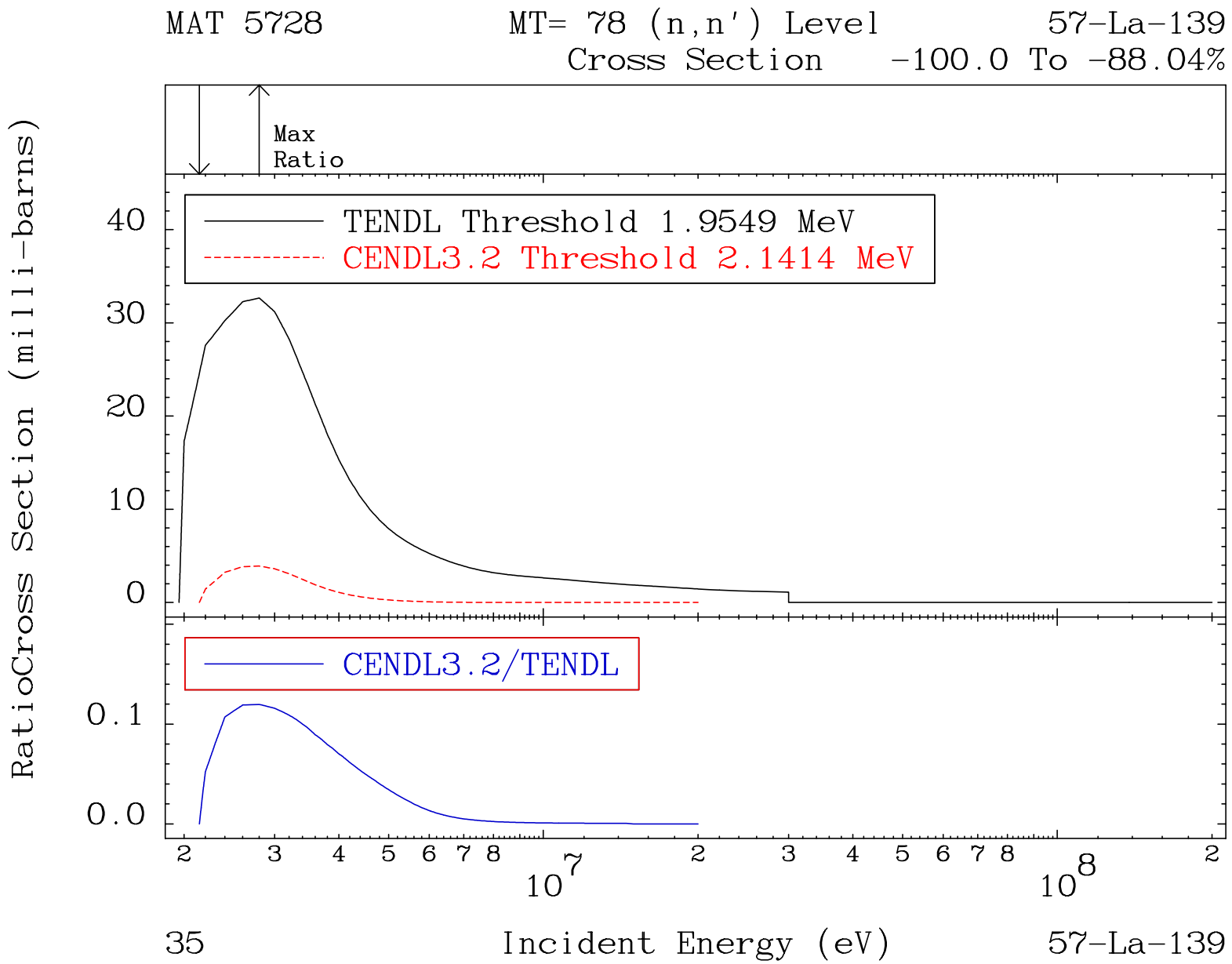

MAT 5728
MT= 73 (n,n') Level
57-La-139
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.8503 MeV
CENDL3.2 Threshold 1.9347 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
400
200
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
57-La-139

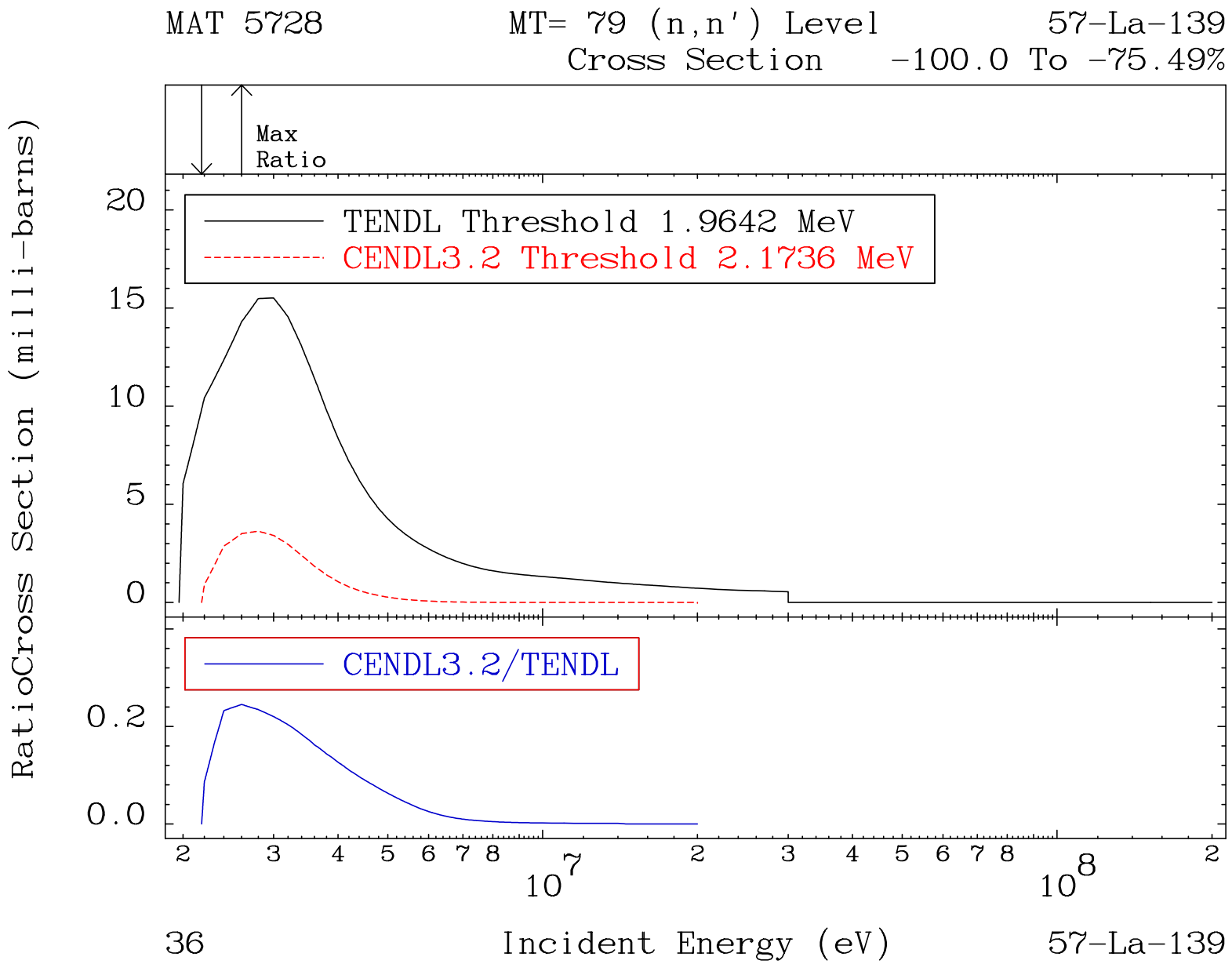

MAT 5728
MT= 74 (n,n') Level
57-La-139
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.8675 MeV
CENDL3.2 Threshold 1.9550 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
400
200
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
31
Incident Energy (eV)
57-La-139

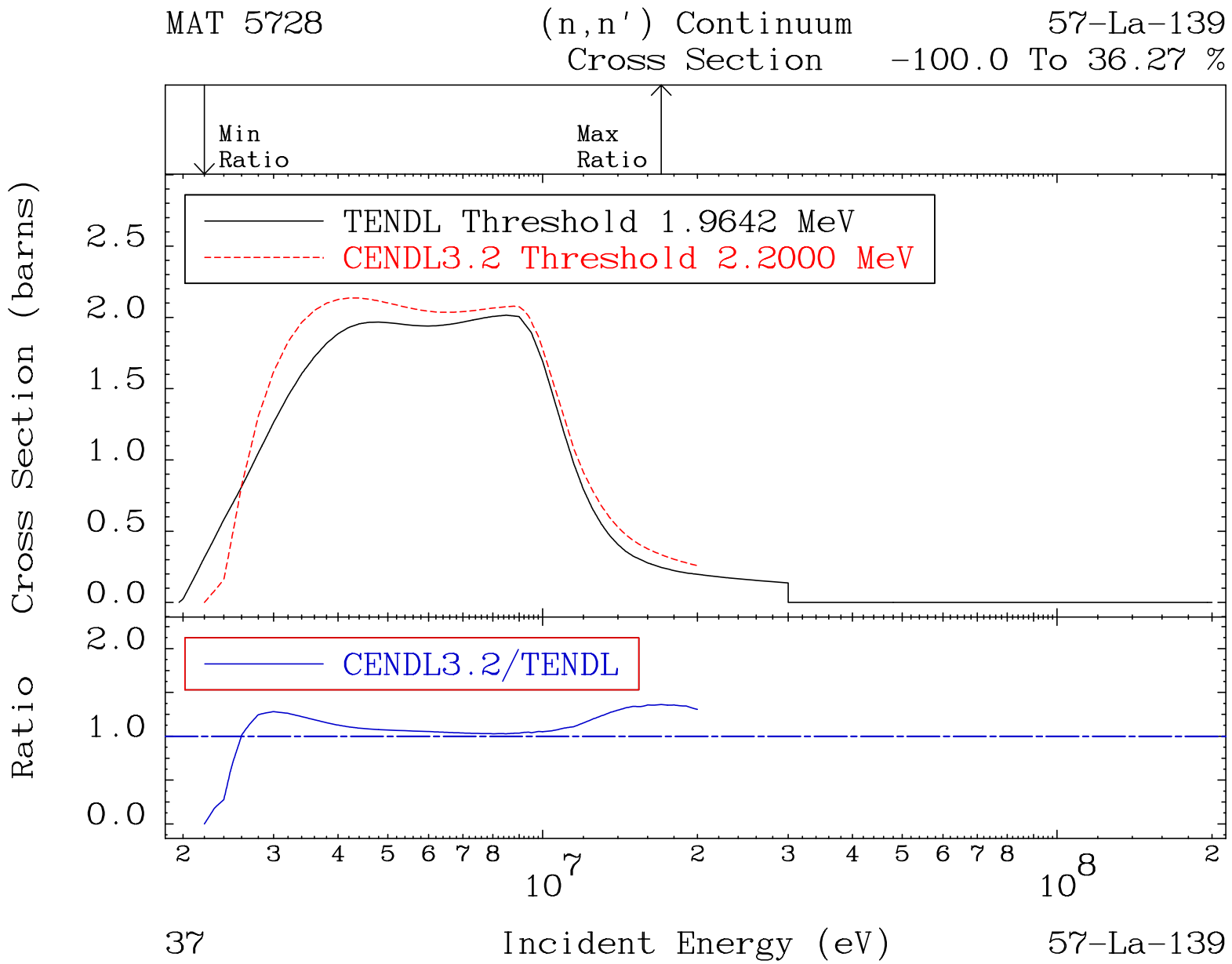

MAT 5728
MT= 75 (n,n') Level
57-La-139
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.8701 MeV
CENDL3.2 Threshold 1.9772 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
600
400
200
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
32
Incident Energy (eV)
57-La-139

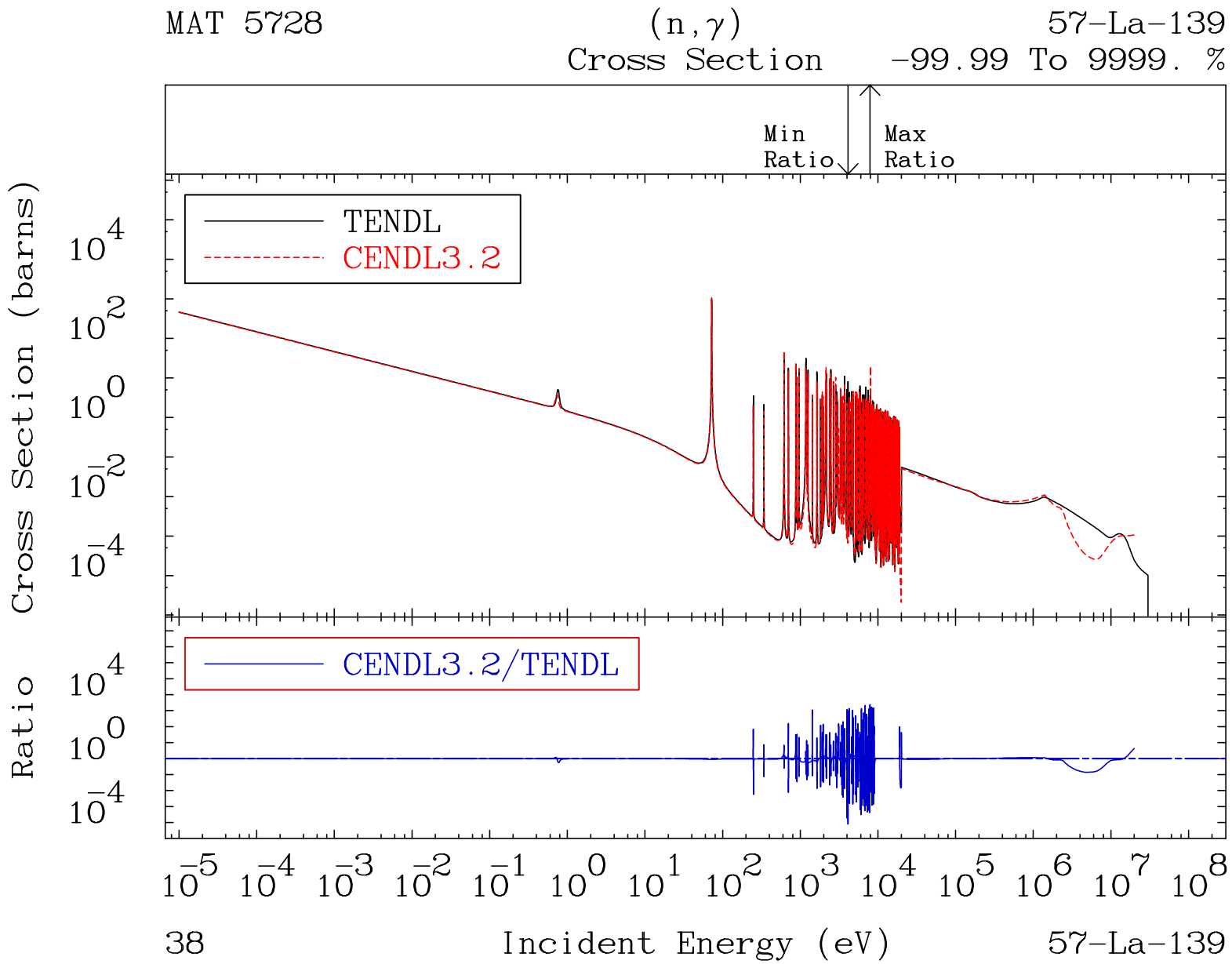

MAT 5728
MT= 76 (n,n') Level
57-La-139
Cross Section -100.0 To 474.8 %
Min Ratio
Max Ratio
TENDL Threshold 1.9078 MeV
CENDL3.2 Threshold 2.0498 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
35
30
25
20
15
10
5
0
8
4
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
33
Incident Energy (eV)
57-La-139

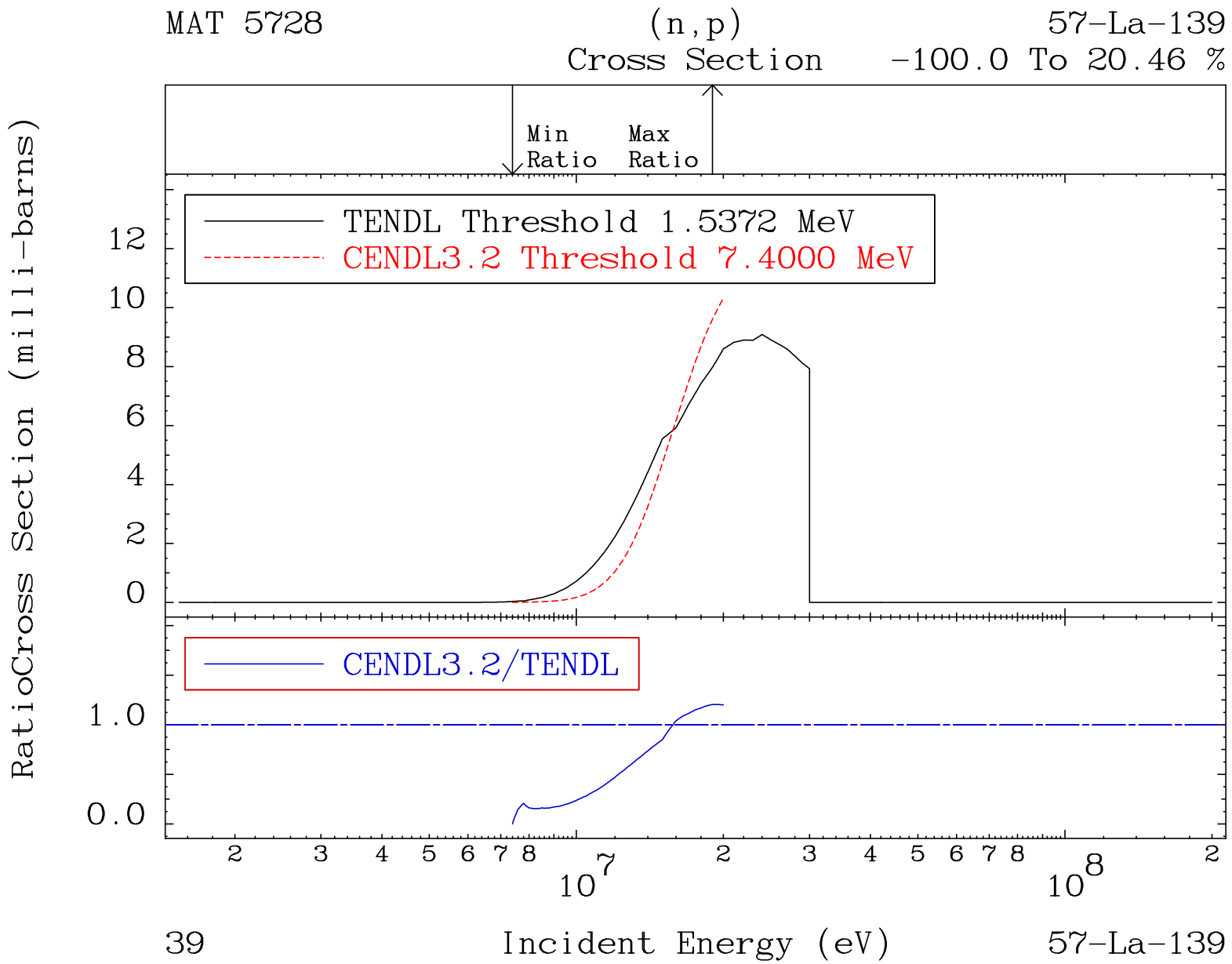

MAT 5728
MT= 77 (n,n') Level
57-La-139
Cross Section -100.0 To -85.79%
Max
Ratio
TENDL Threshold 1.9344 MeV
CENDL3.2 Threshold 2.0755 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
0.2
0.1
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
34
Incident Energy (eV)
57-La-139

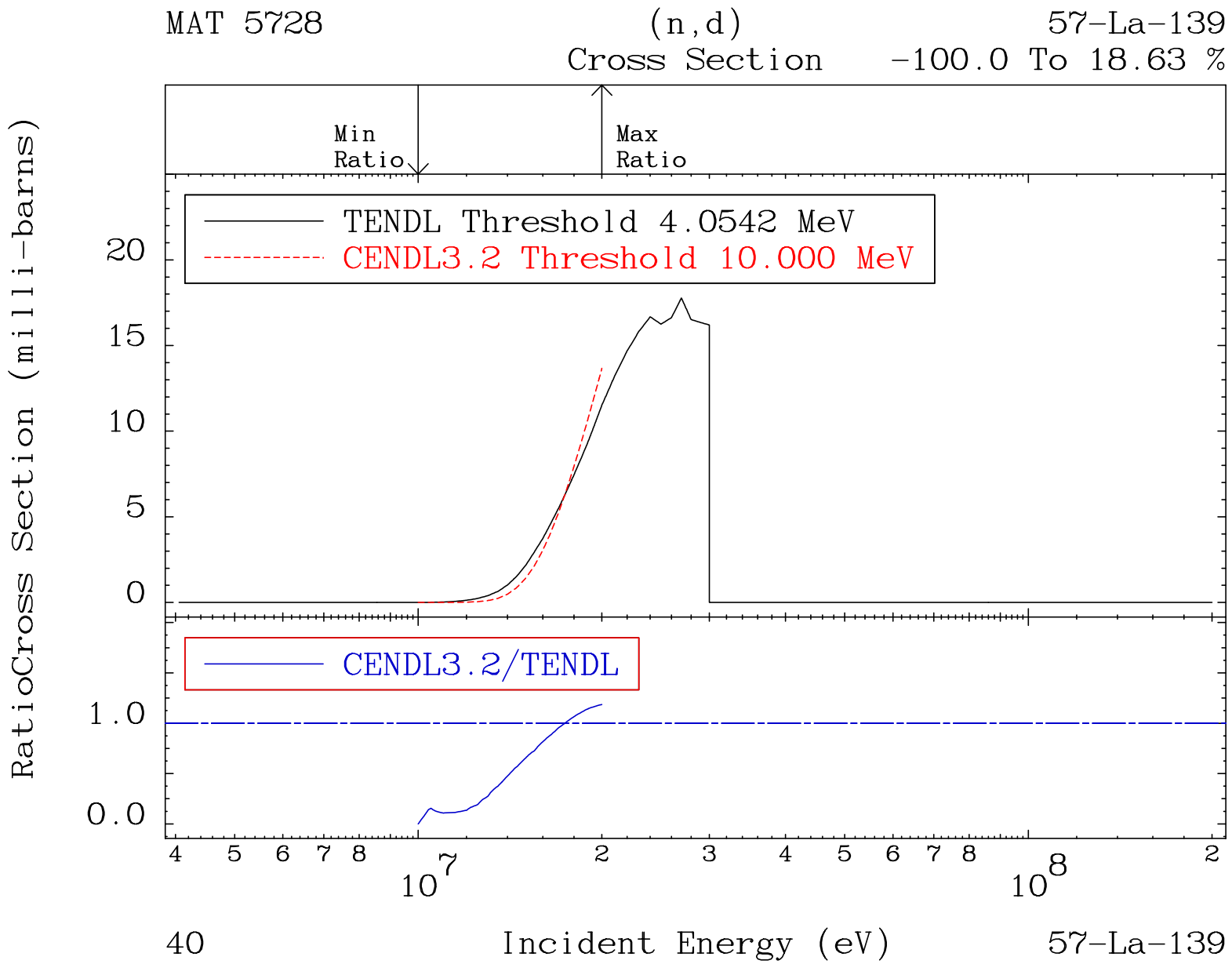

MAT 5728
MT= 78 (n,n') Level
57-La-139
Cross Section
-100.0 To -88.04%
Max
Ratio
TENDL Threshold 1.9549 MeV
CENDL3.2 Threshold 2.1414 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
0.1
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
35
Incident Energy (eV)
57-La-139

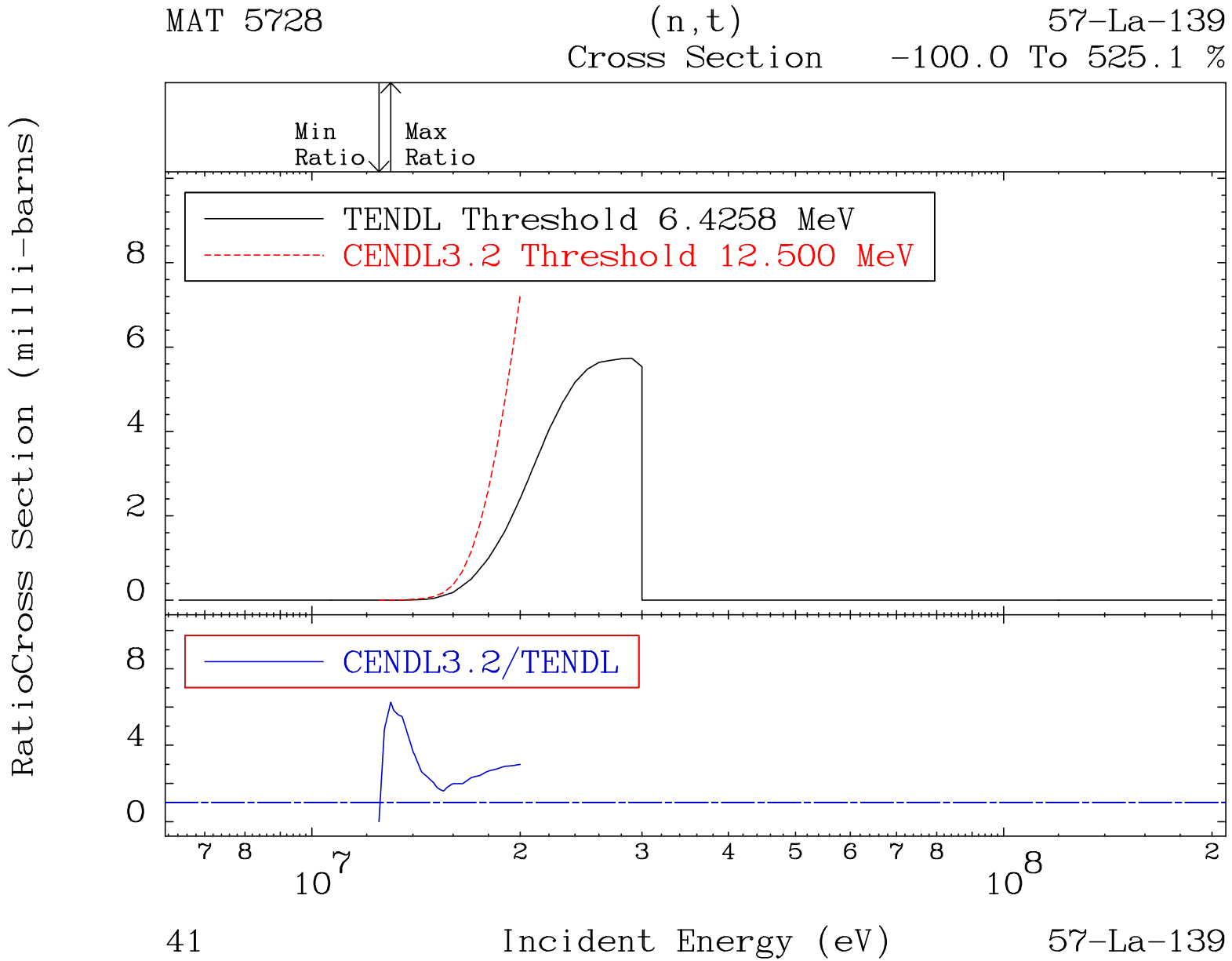

MAT 5728
MT= 79 (n,n') Level
57-La-139
Cross Section -100.0 To -75.49%
Max
Ratio
TENDL Threshold 1.9642 MeV
CENDL3.2 Threshold 2.1736 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
0.2
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
36
Incident Energy (eV)
57-La-139

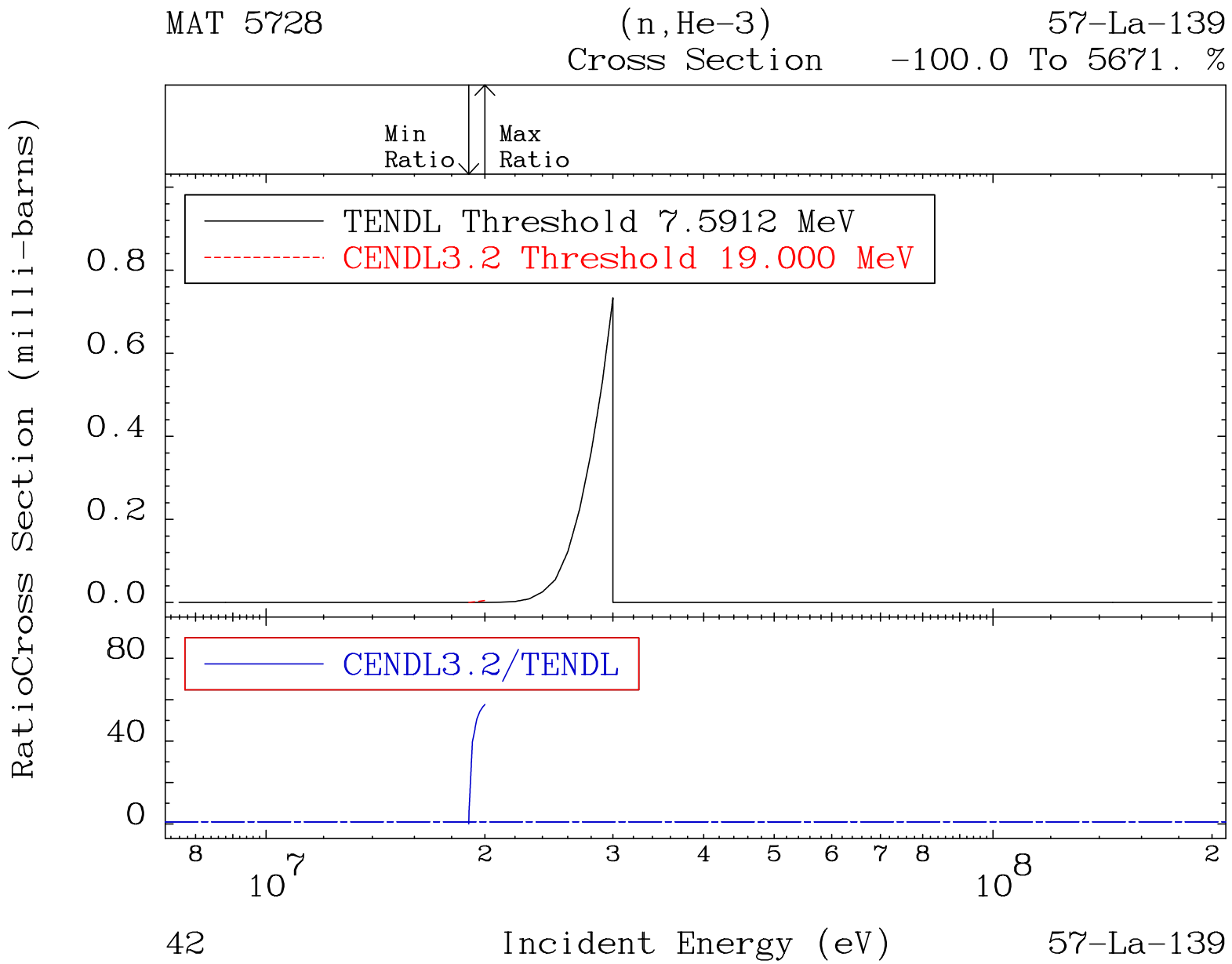

MAT 5728
(n,n') Continuum
Cross Section
57-La-139
-100.0 To 36.27 %
Min Ratio
Max Ratio
TENDL Threshold 1.9642 MeV
CENDL3.2 Threshold 2.2000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.5
2.0
1.5
1.0
0.5
0.0
2.0
1.0
0.0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
37
57-La-139

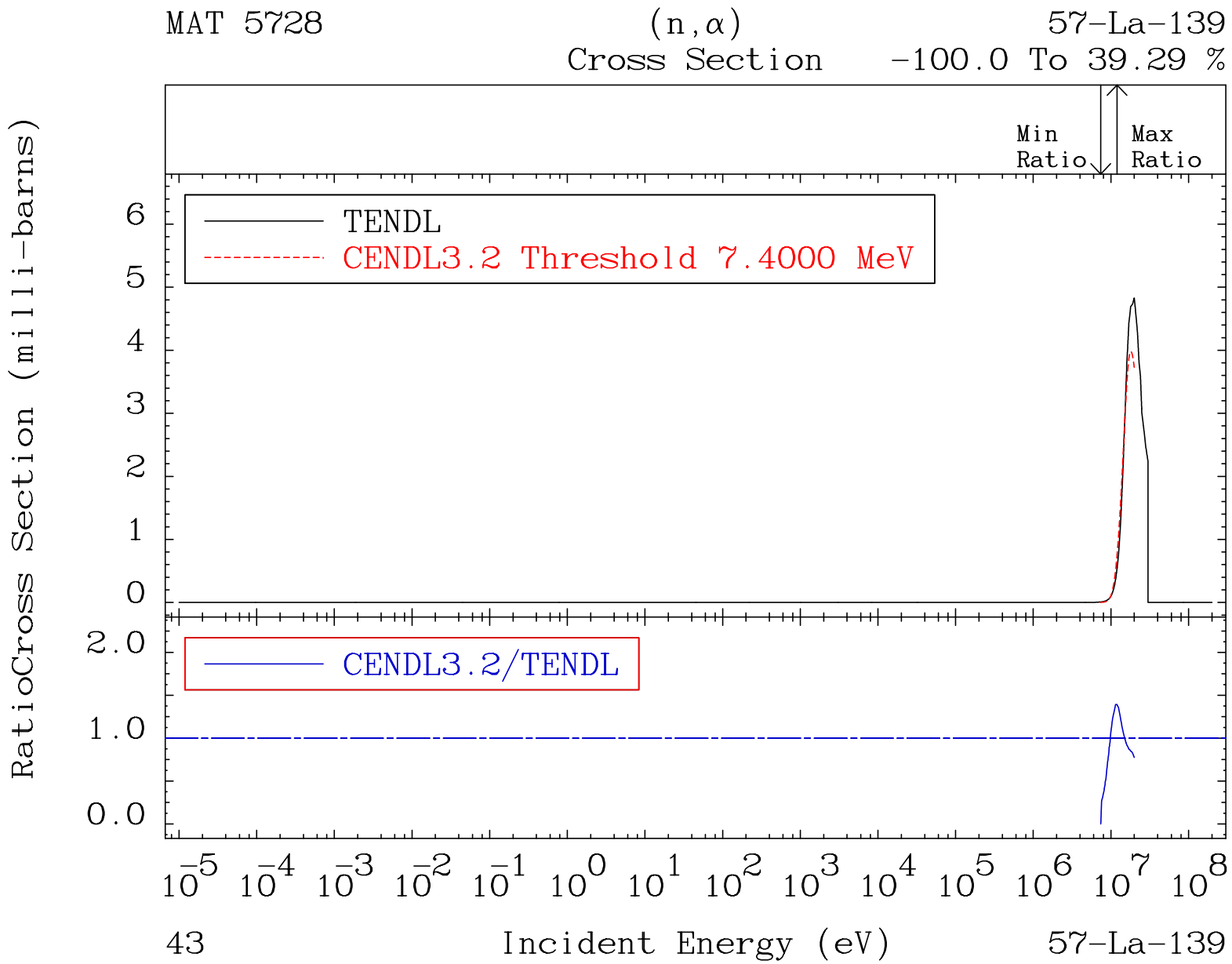

MAT 5728
(n,γ)
Cross Section
57-La-139
-99.99 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
38
57-La-139

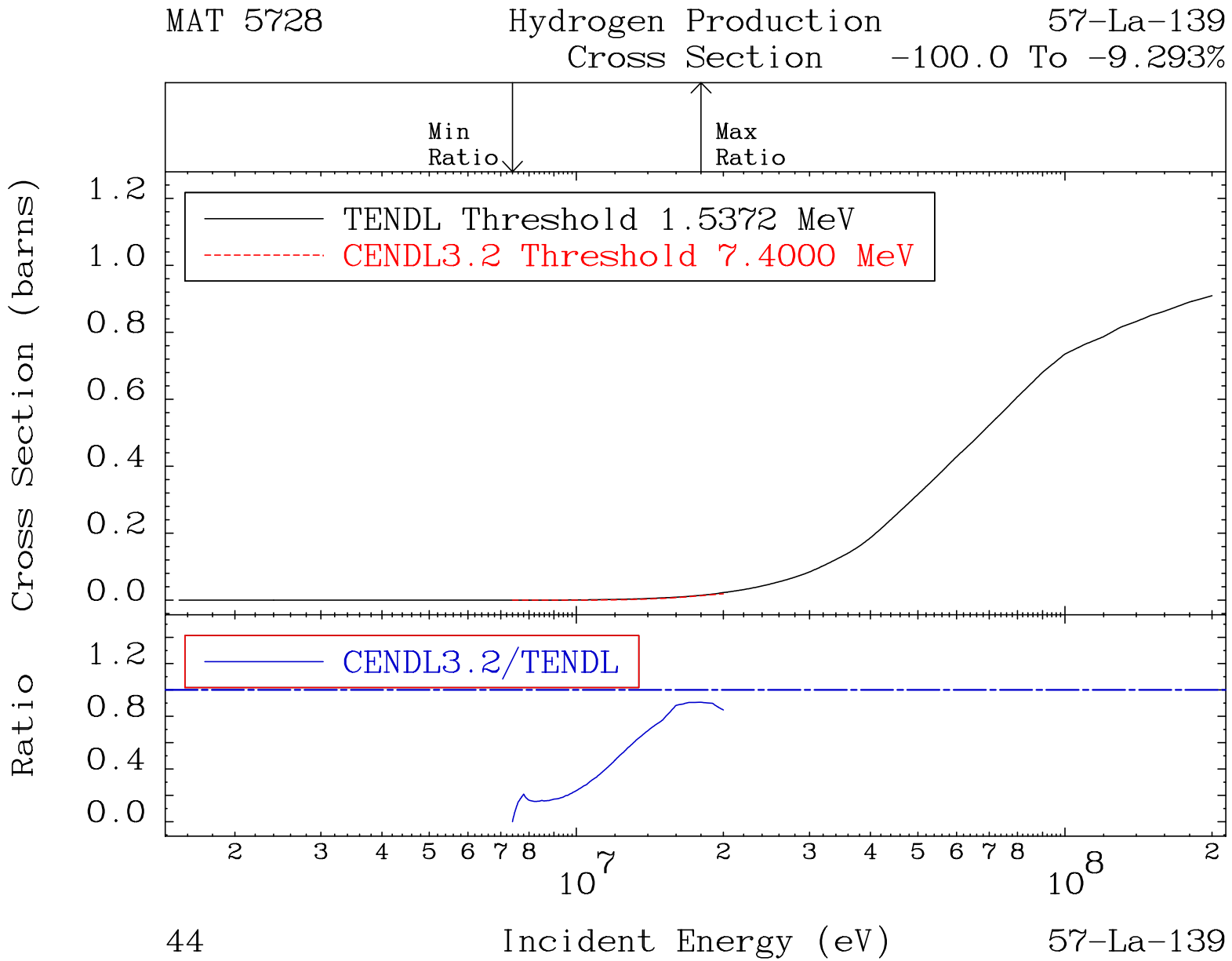

MAT 5728
(n,p)
Cross Section
57-La-139
-100.0 To 20.46 %
Min Ratio
Max Ratio
TENDL Threshold 1.5372 MeV
CENDL3.2 Threshold 7.4000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
12
10
8
6
4
2
0
1.0
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
39
Incident Energy (eV)
57-La-139

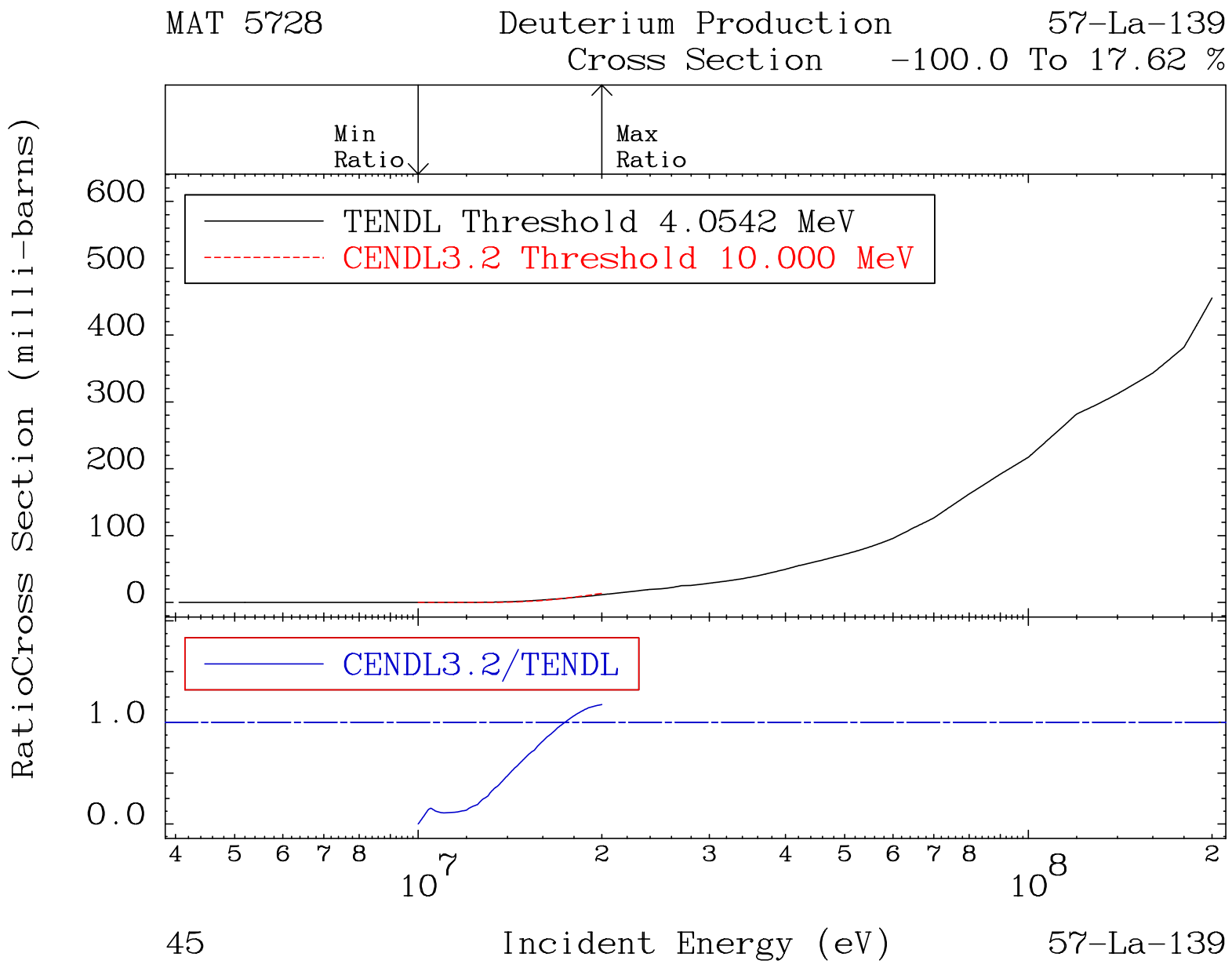

MAT 5728
(n,d)
Cross Section
57-La-139
-100.0 To 18.63 %
Min Ratio
Max Ratio
TENDL Threshold 4.0542 MeV
CENDL3.2 Threshold 10.000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
1.0
0.0
4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
40
Incident Energy (eV)
57-La-139

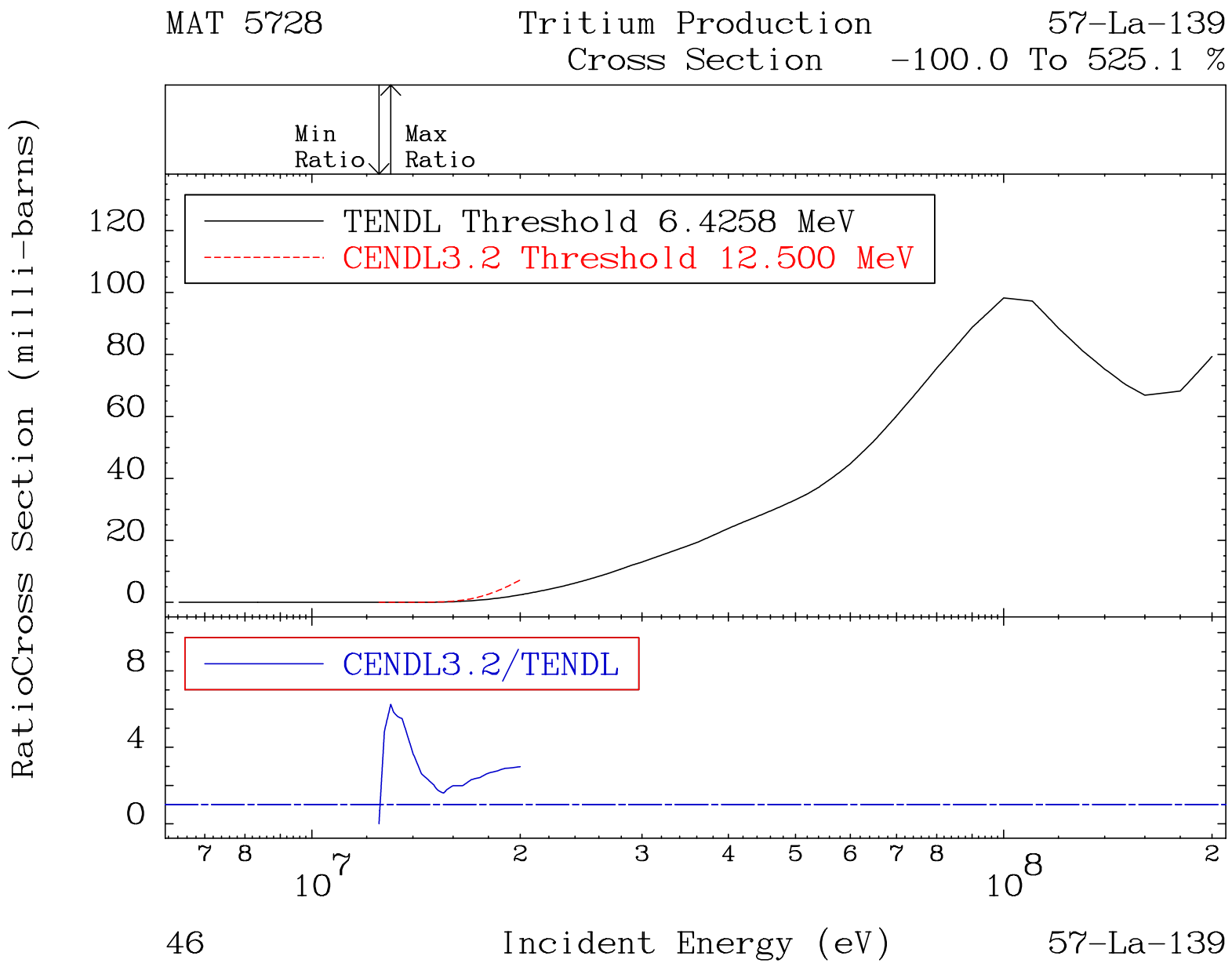

MAT 5728
(n,t)
Cross Section
57-La-139
-100.0 To 525.1 %
Min Ratio
Max Ratio
TENDL Threshold 6.4258 MeV
CENDL3.2 Threshold 12.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
41
57-La-139

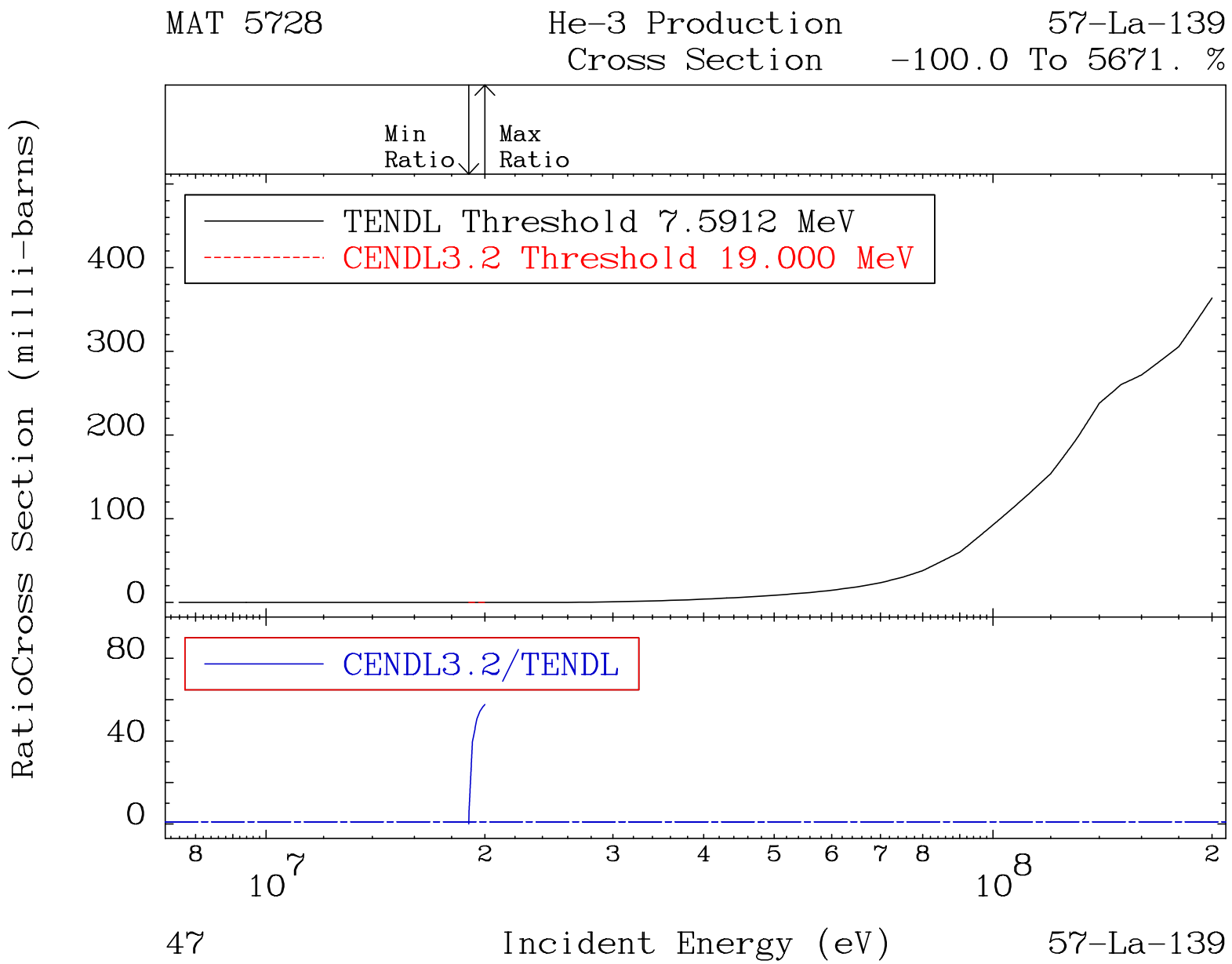

MAT 5728
(n,He-3)
Cross Section
57-La-139
-100.0 To 5671. %
Min Ratio
Max Ratio
TENDL Threshold 7.5912 MeV
CENDL3.2 Threshold 19.000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
0.8
0.6
0.4
0.2
0.0
80
40
0
8
10^7
2
3
4
5
6
7
8
10^8
2
42
Incident Energy (eV)
57-La-139

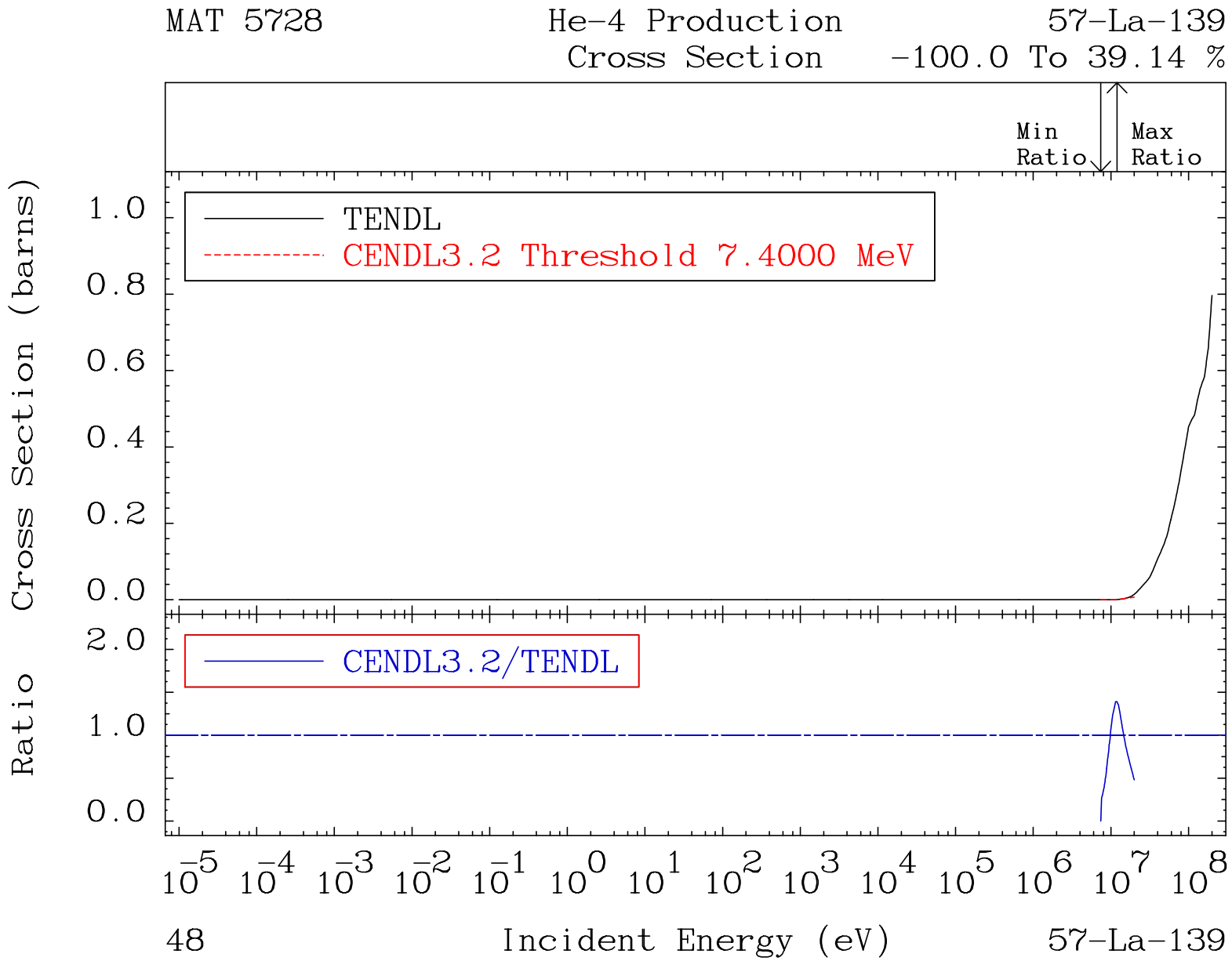

MAT 5728
(n,α)
Cross Section
57-La-139
-100.0 To 39.29 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 7.4000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
43
57-La-139

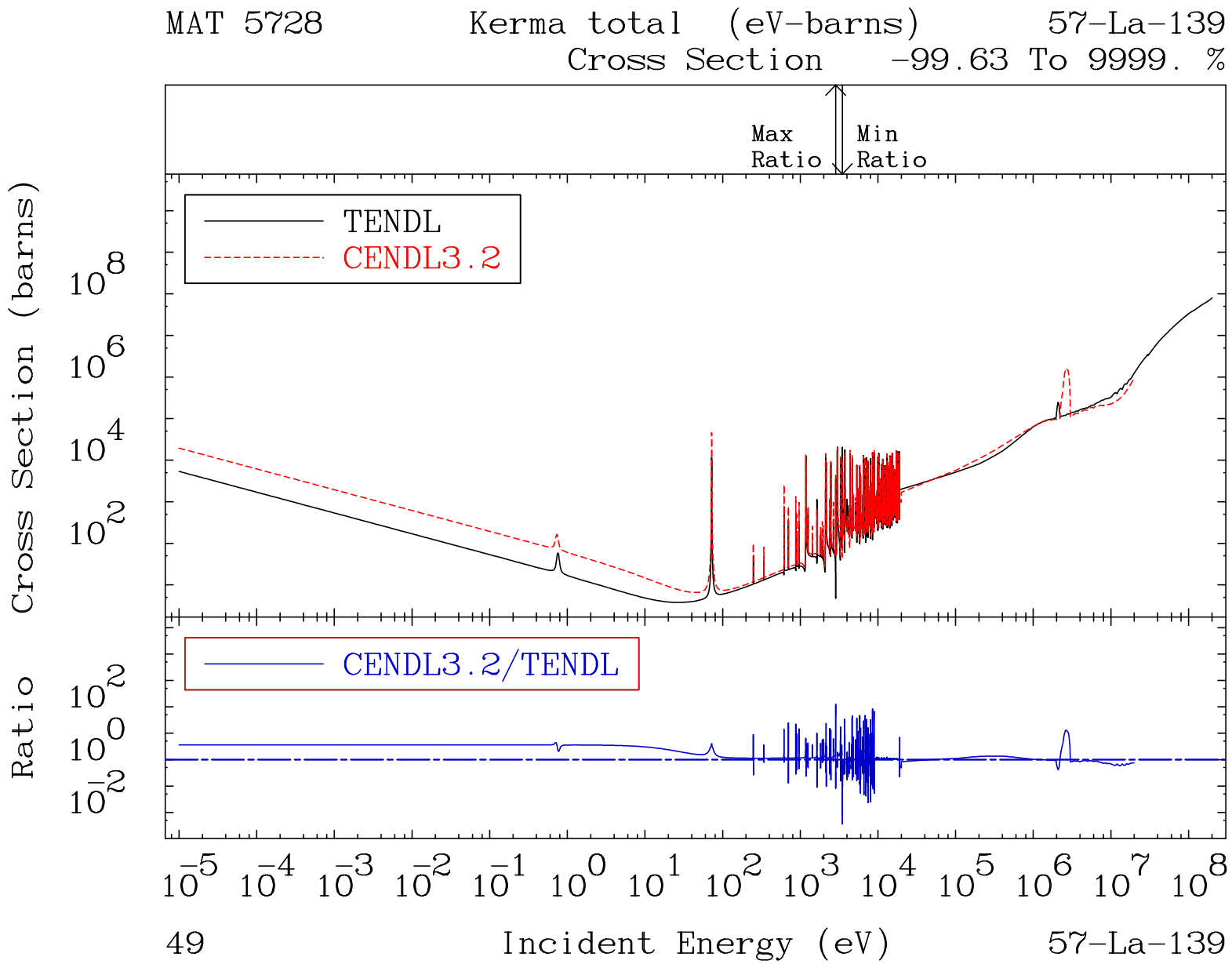

MAT 5728
Hydrogen Production
57-La-139
Cross Section
-100.0 To -9.293%
Min Ratio
Max Ratio
TENDL Threshold 1.5372 MeV
CENDL3.2 Threshold 7.4000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
Incident Energy (eV)
44
57-La-139

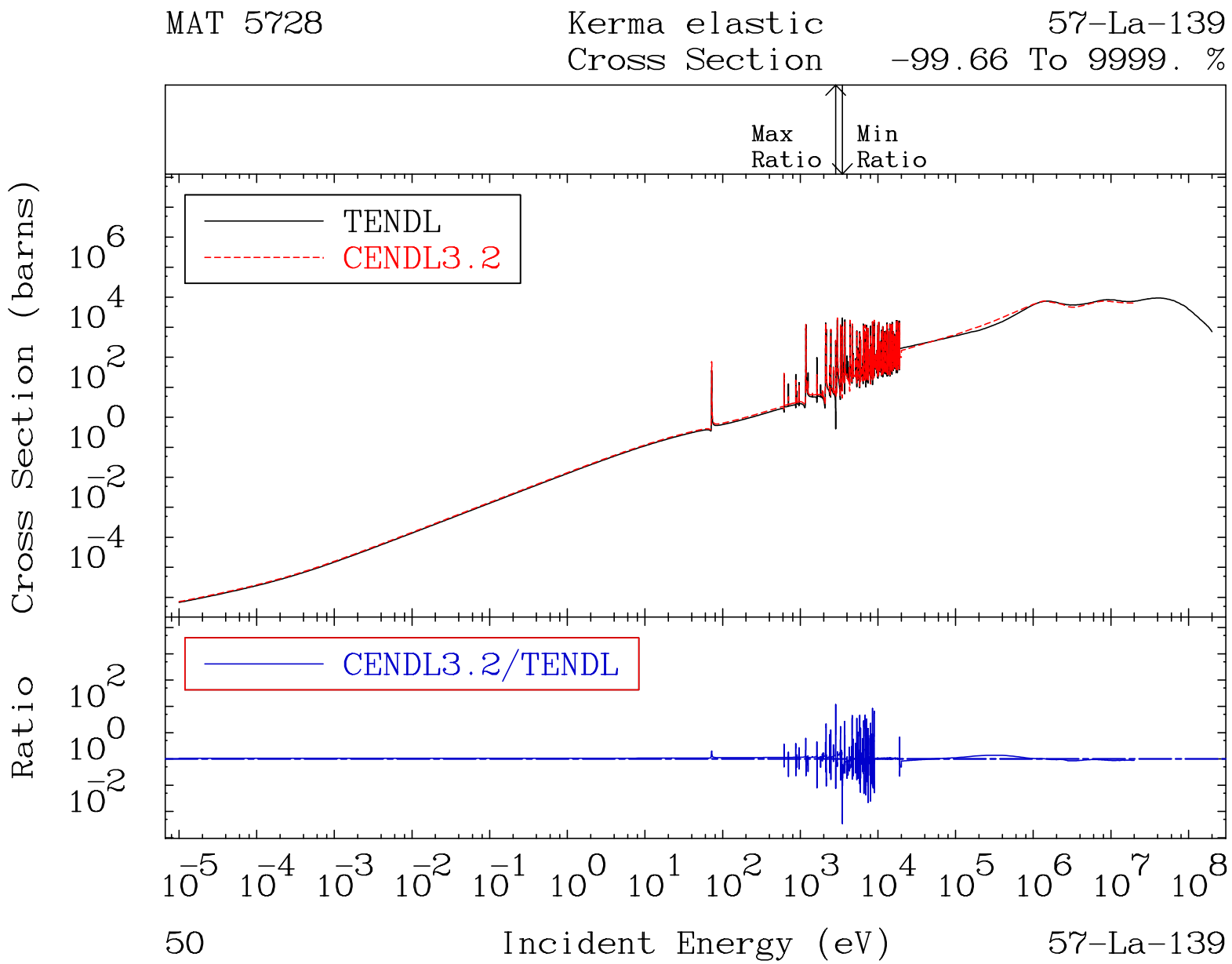

MAT 5728
Deuterium Production
57-La-139
Cross Section
-100.0 To 17.62 %
Min Ratio
Max Ratio
TENDL Threshold 4.0542 MeV
CENDL3.2 Threshold 10.000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
600
500
400
300
200
100
0
1.0
0.0
4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
45
Incident Energy (eV)
57-La-139

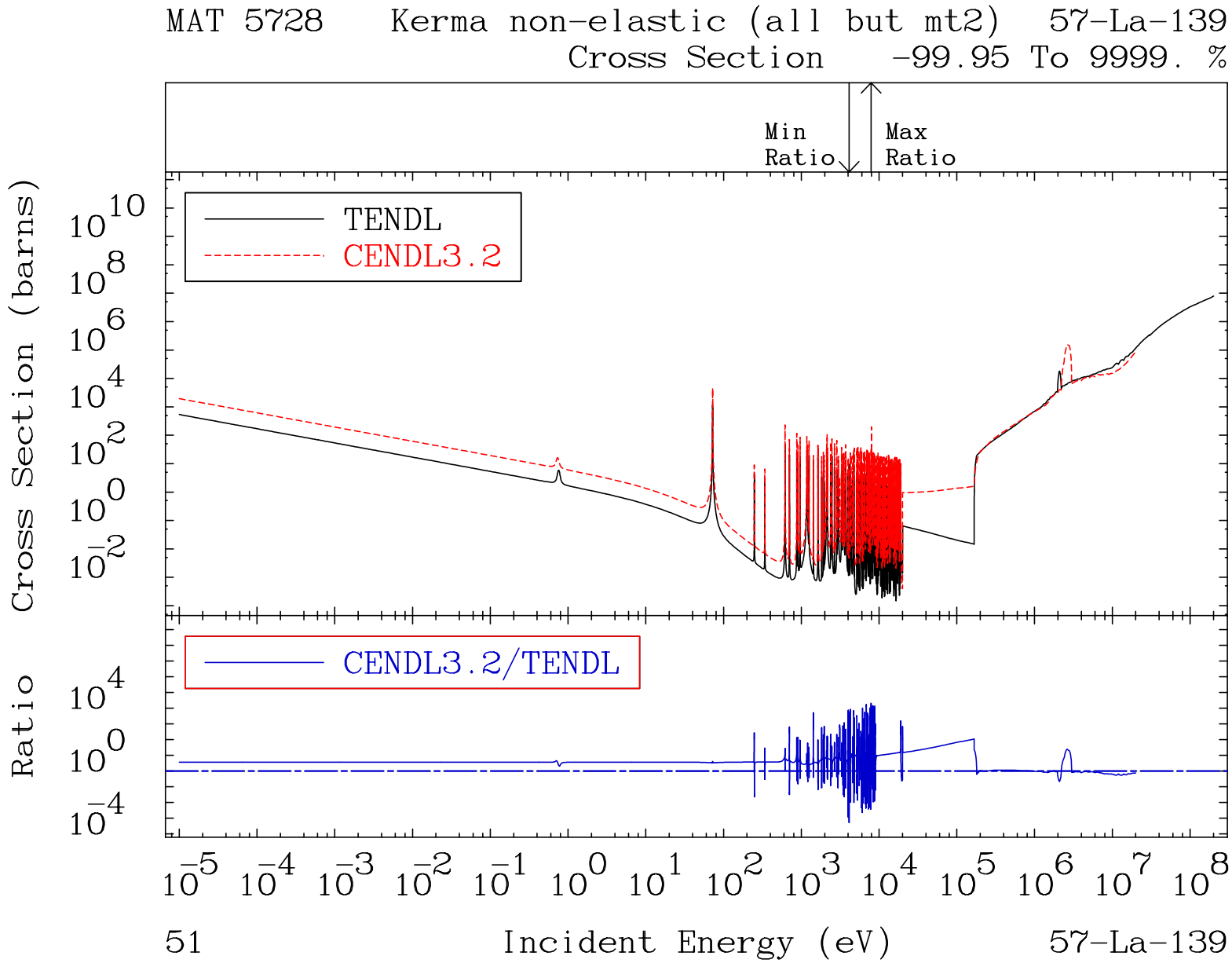

MAT 5728
Tritium Production
57-La-139
Cross Section
-100.0 To 525.1 %
Min Ratio
Max Ratio
TENDL Threshold 6.4258 MeV
CENDL3.2 Threshold 12.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
8
4
0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
46
Incident Energy (eV)
57-La-139

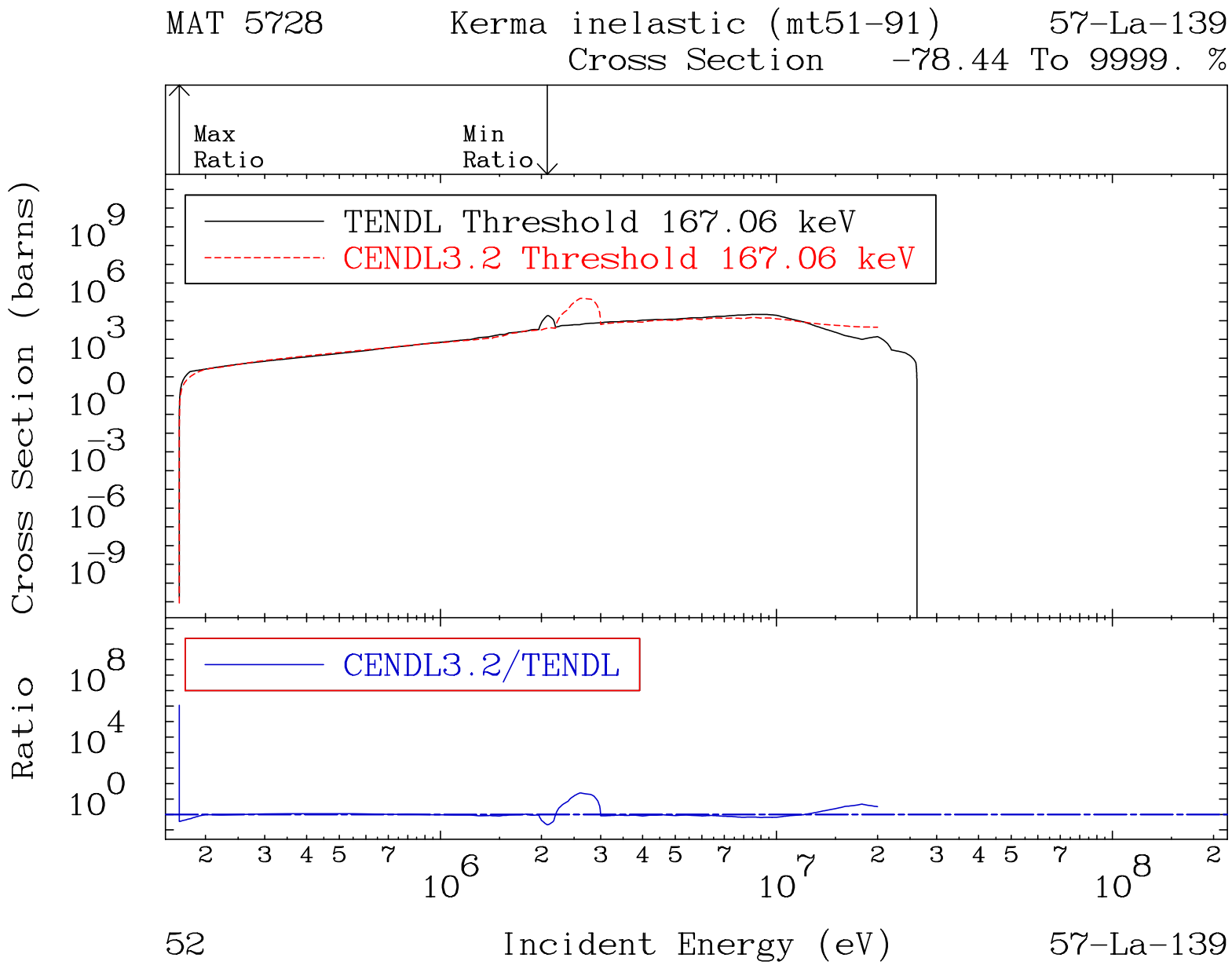

MAT 5728
He-3 Production
Cross Section
57-La-139
-100.0 To 5671. %
Min Ratio
Max Ratio
TENDL Threshold 7.5912 MeV
CENDL3.2 Threshold 19.000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
80
40
0
8
2
3
4
5
6
7
8
2
10^7
10^8
47
Incident Energy (eV)
57-La-139

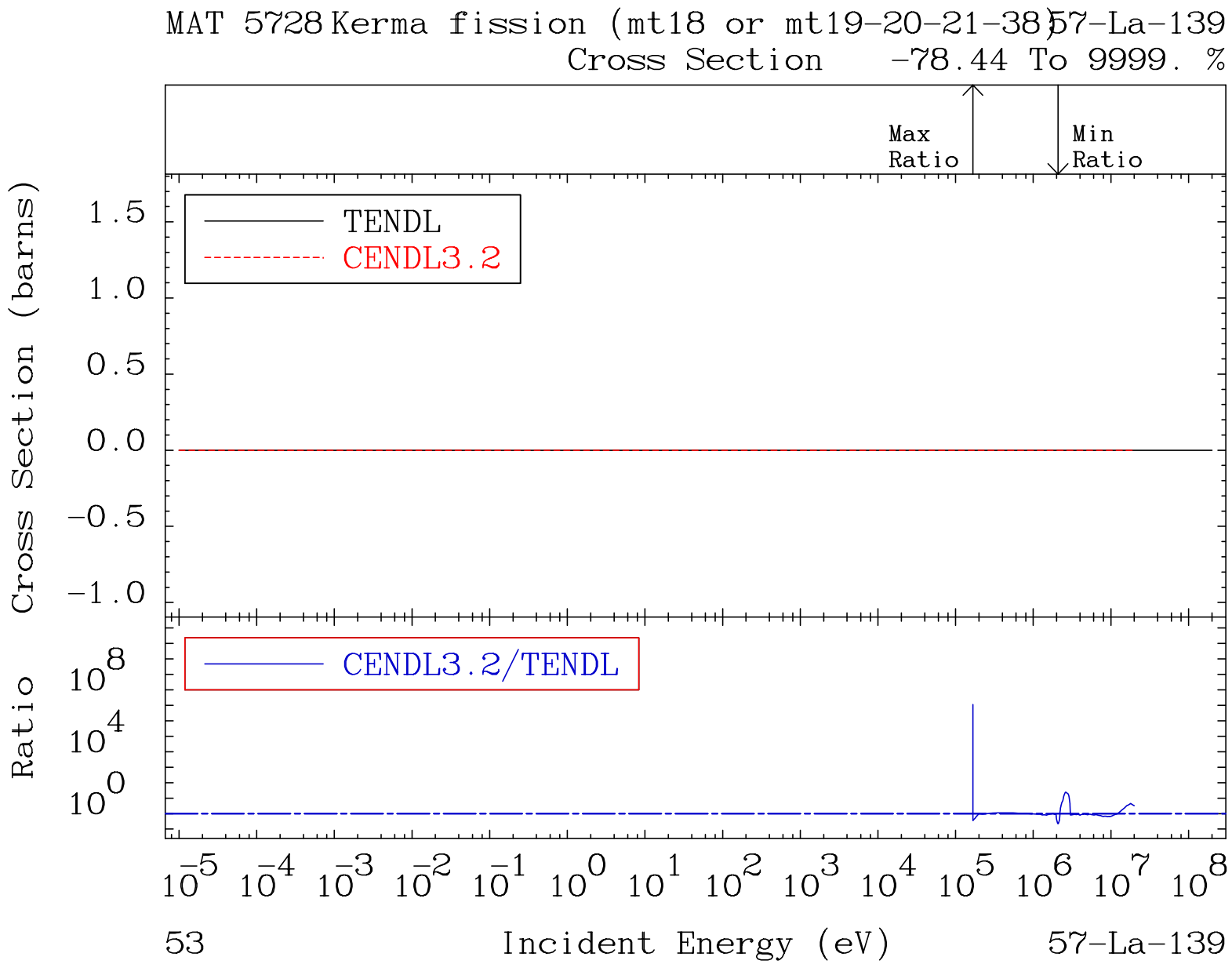

MAT 5728
He-4 Production
Cross Section
57-La-139
-100.0 To 39.14 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 7.4000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.0
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
48
Incident Energy (eV)
57-La-139

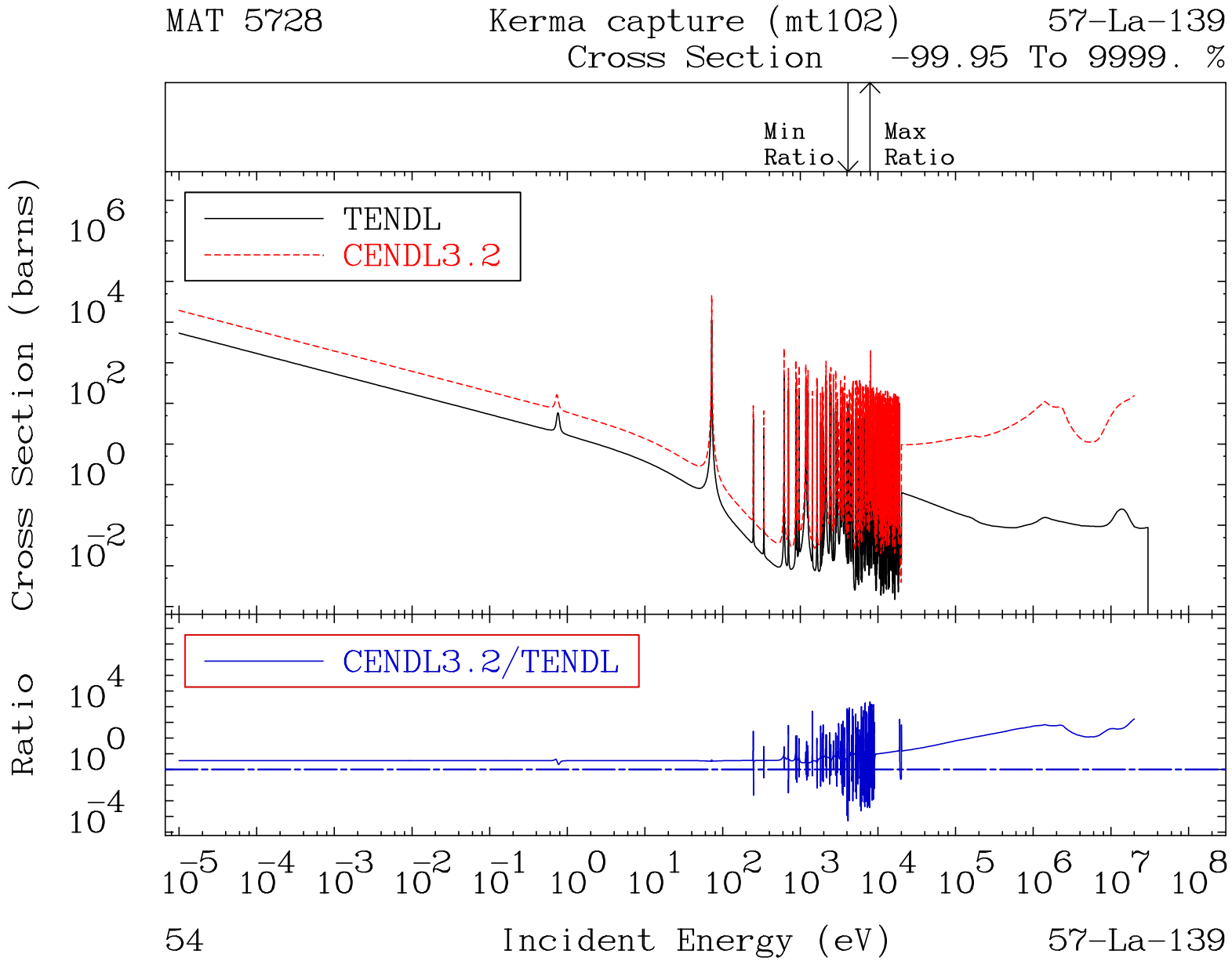

MAT 5728
Kerma total (eV-barns)
57-La-139
Cross Section -99.63 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
49
57-La-139

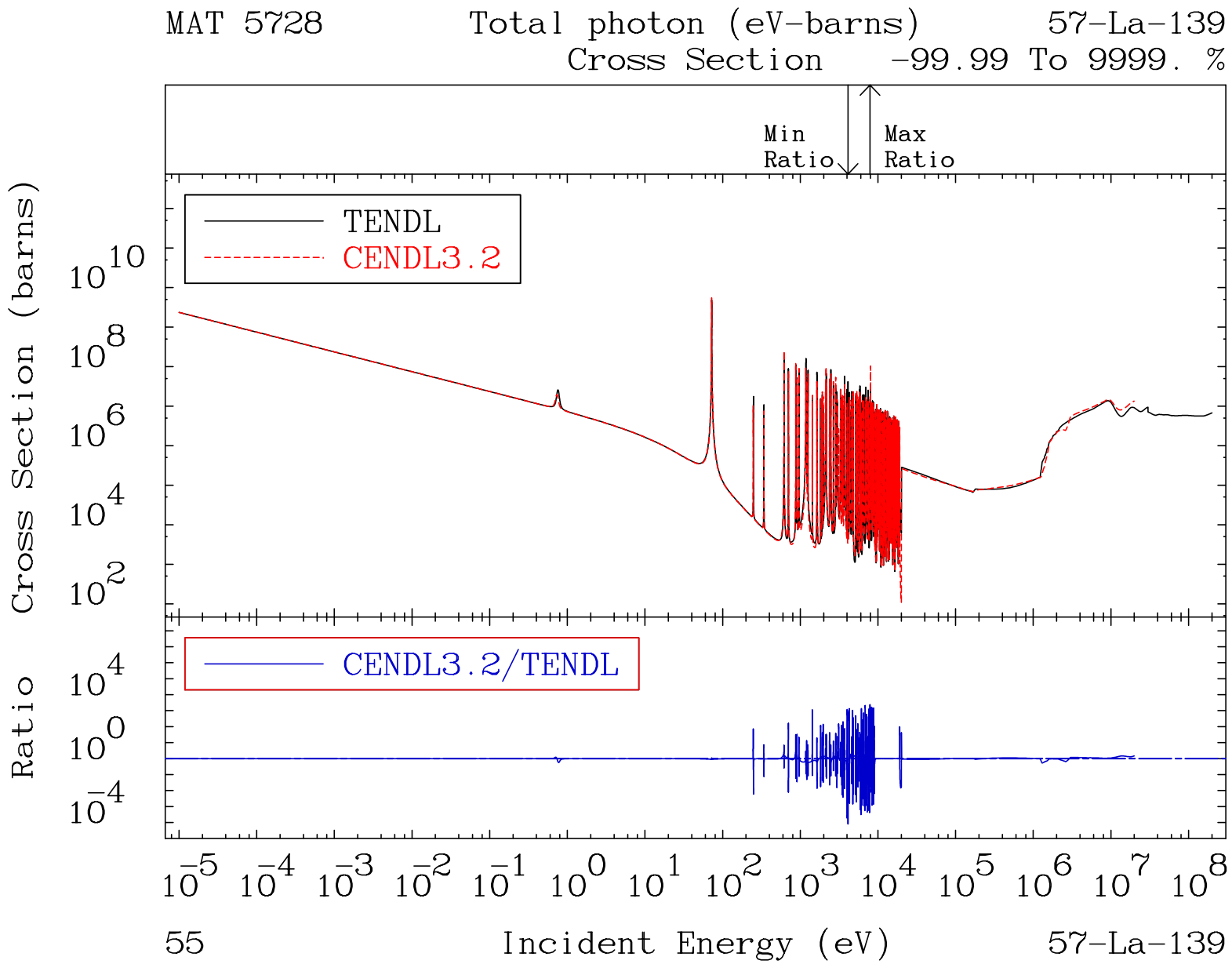

MAT 5728
Kerma elastic
Cross Section
57-La-139
-99.66 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
50
57-La-139

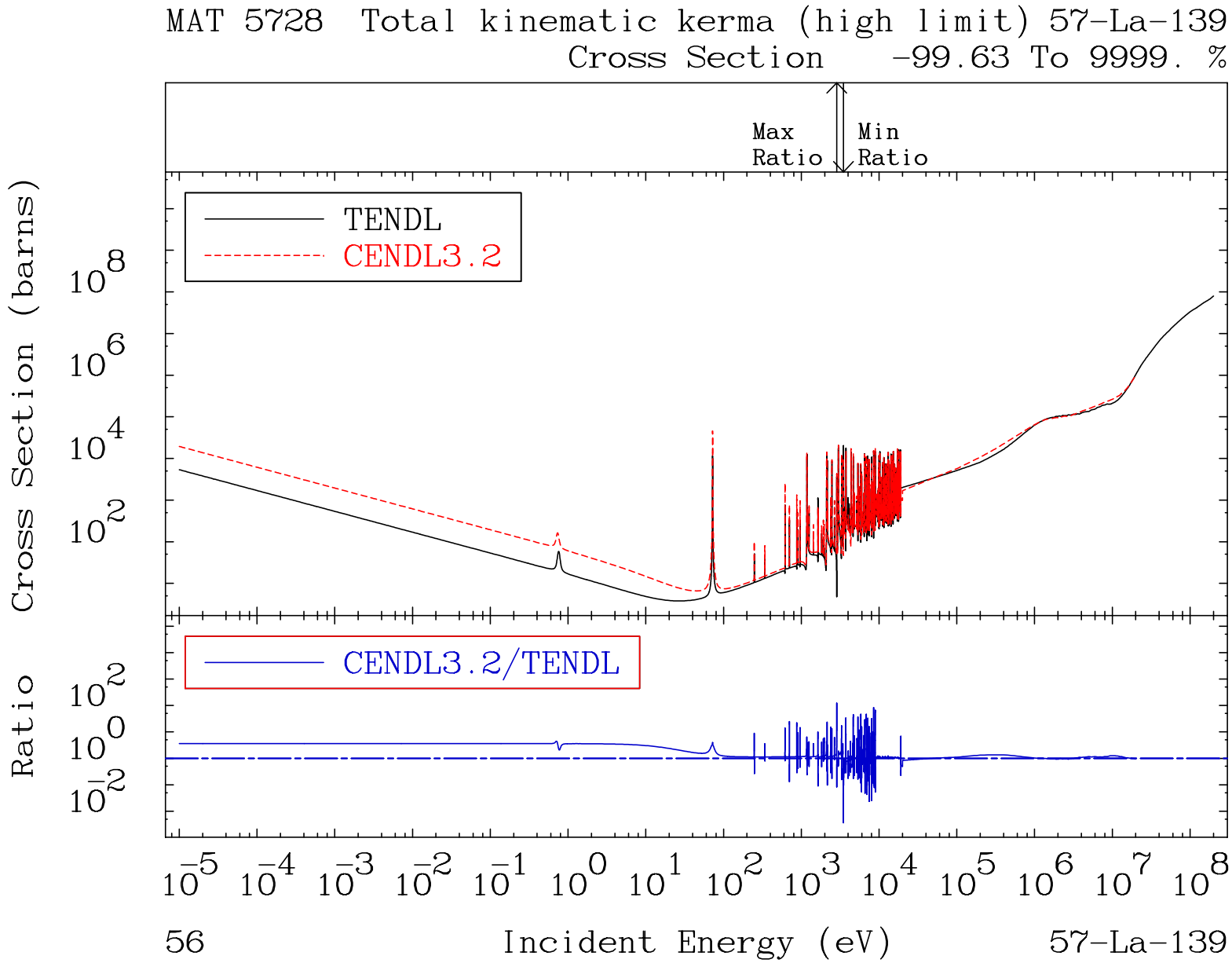

MAT 5728 Kerma non-elastic (all but mt2) 57-La-139
Cross Section -99.95 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
51
57-La-139

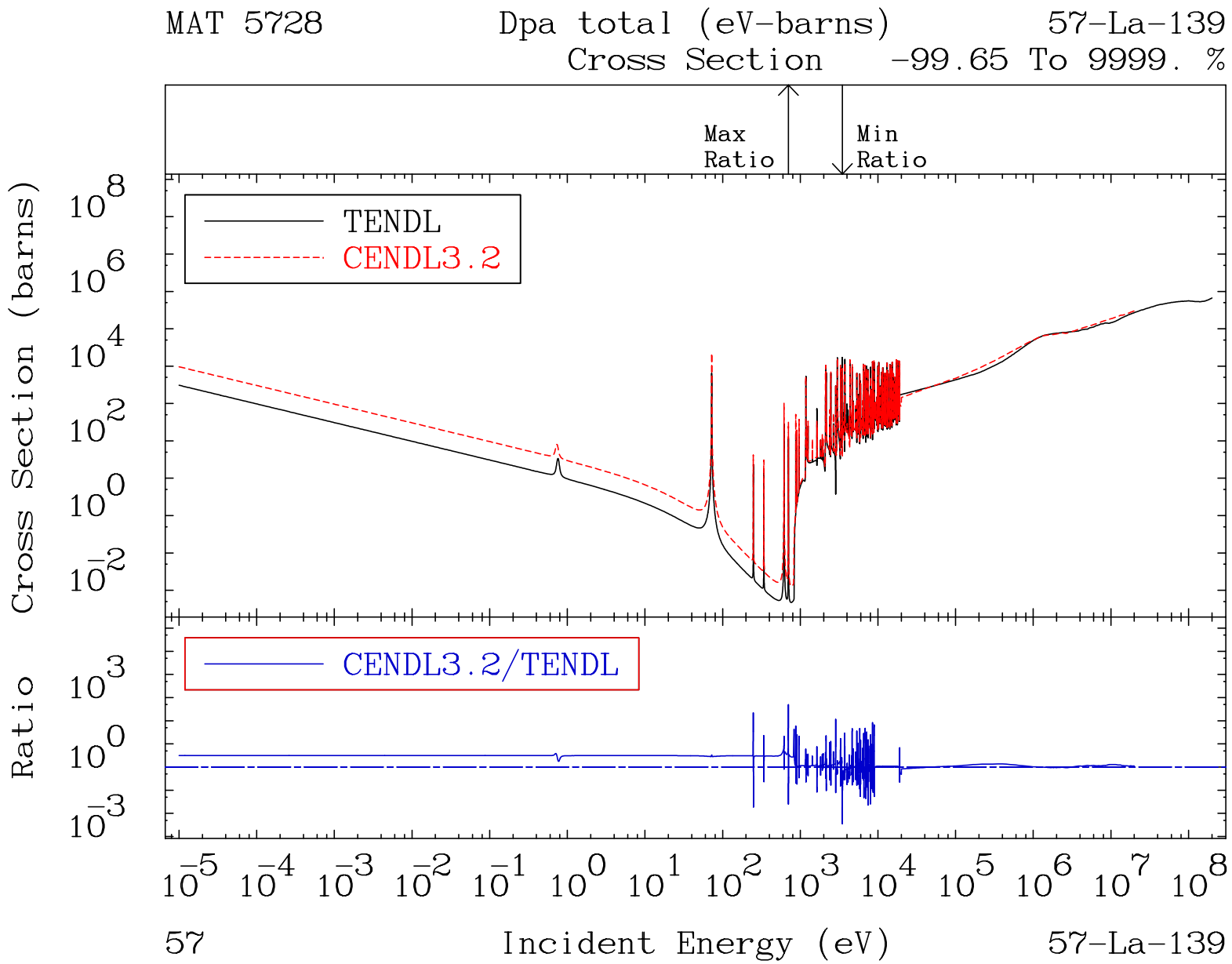

MAT 5728
Kerma inelastic (mt51-91)
57-La-139
Cross Section -78.44 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 167.06 keV
CENDL3.2 Threshold 167.06 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
52
57-La-139

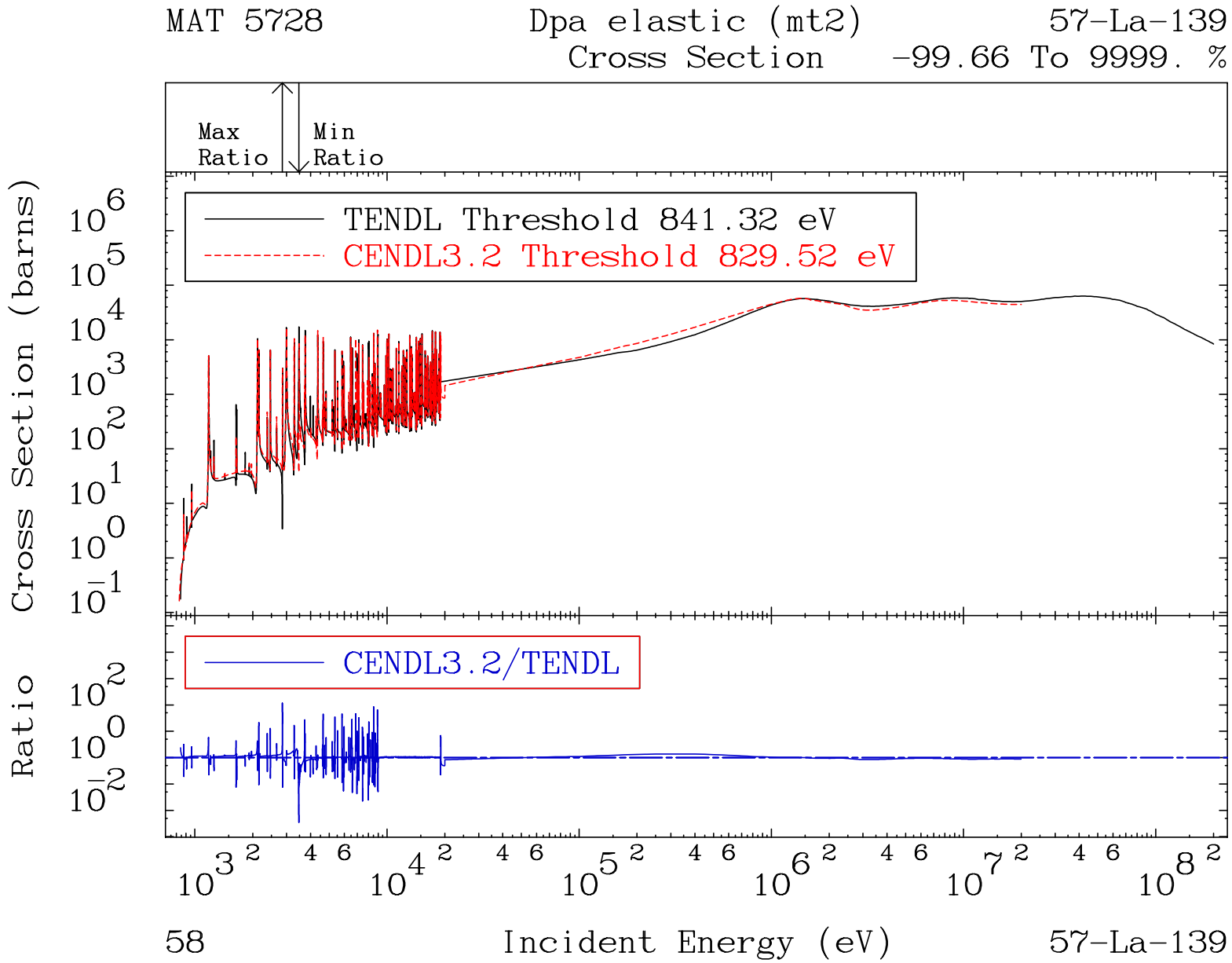

MAT 5728 Kerma fission (mt18 or mt19-20-21-38) 57-La-139
Cross Section -78.44 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{8}
10^{4}
10^{0}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
53
Incident Energy (eV)
57-La-139

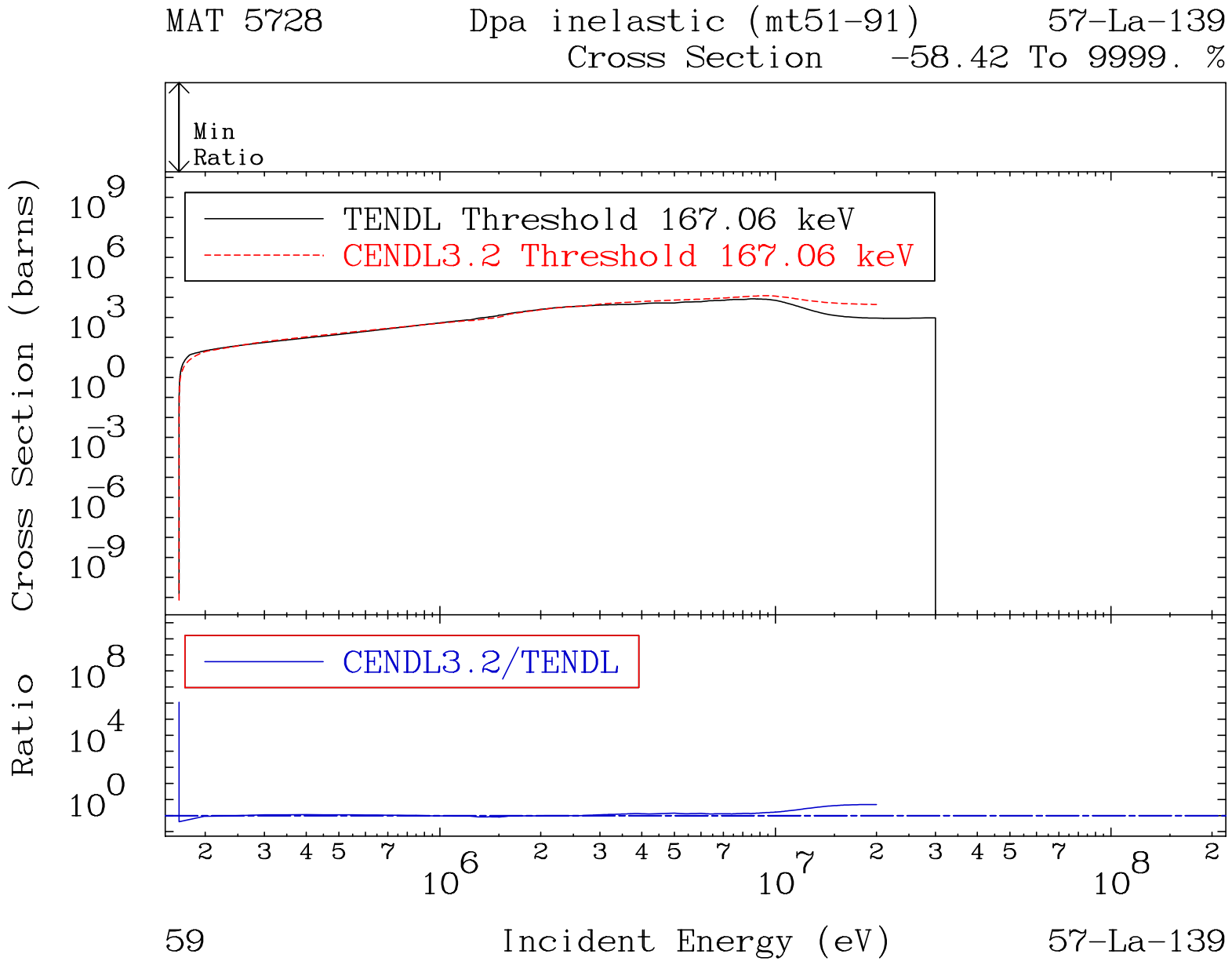

MAT 5728
Kerma capture (mt102)
57-La-139
Cross Section
-99.95 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
54
57-La-139

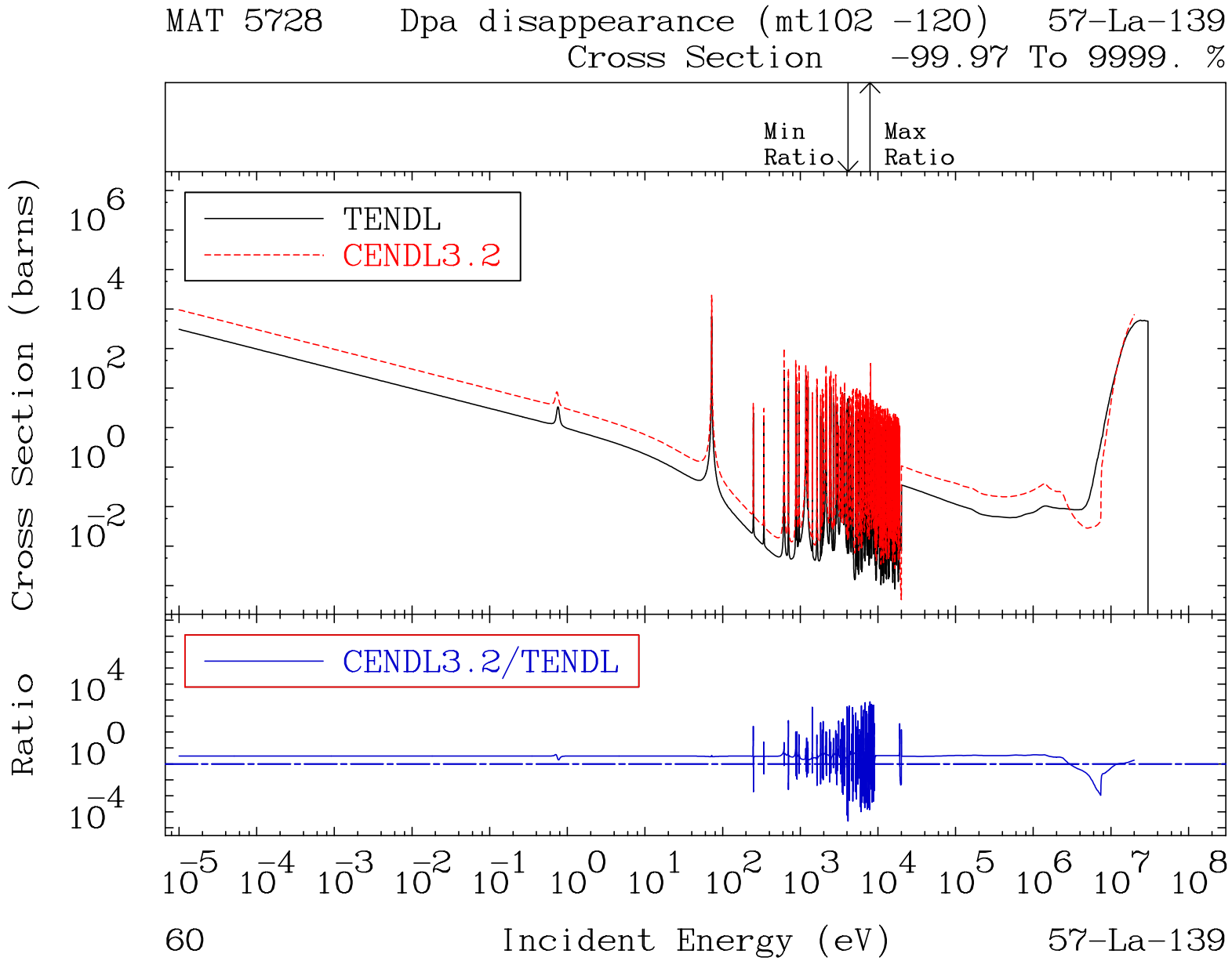

MAT 5728
Total photon (eV-barns)
57-La-139
Cross Section -99.99 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
55
57-La-139

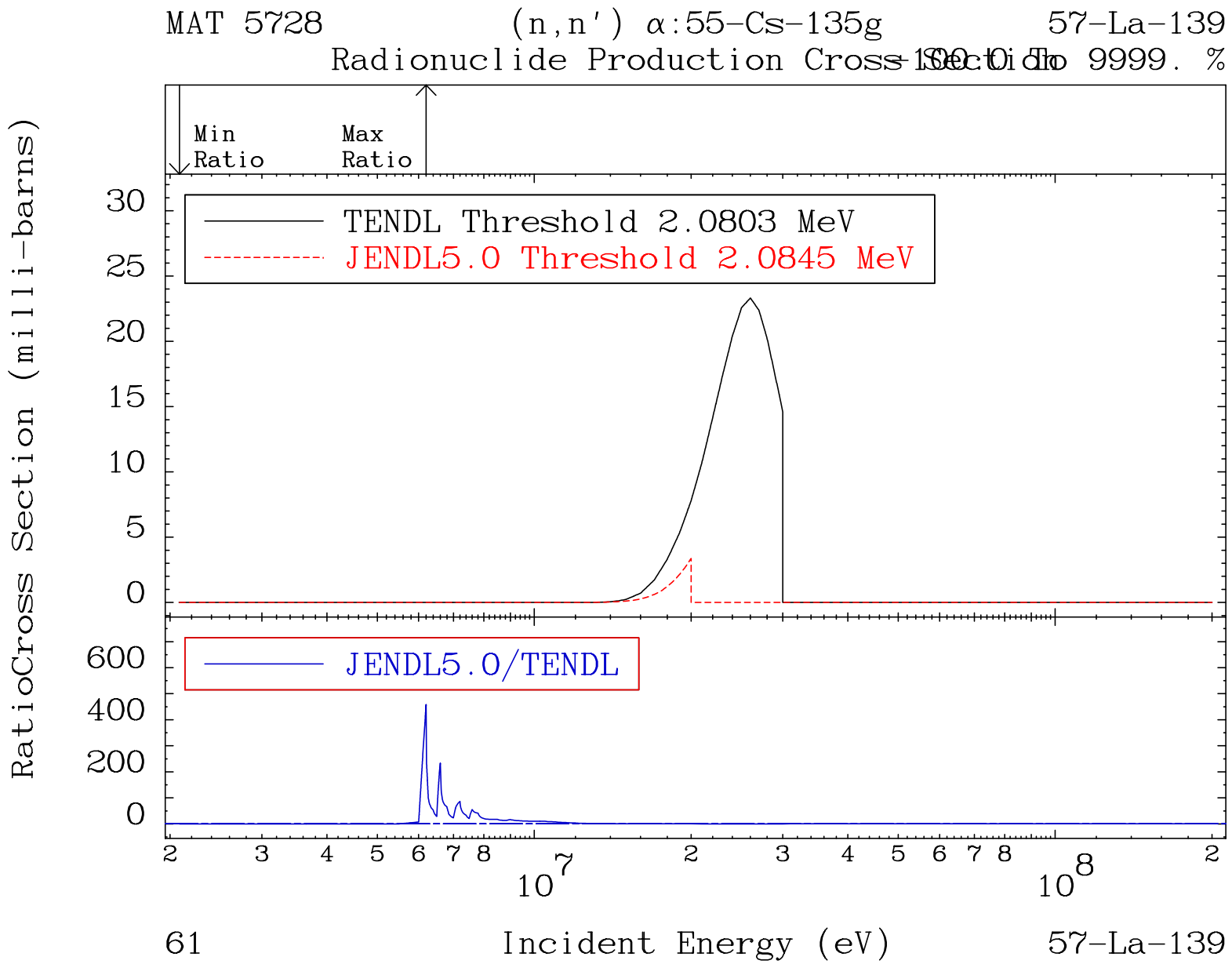

MAT 5728 Total kinematic kerma (high limit) 57-La-139
Cross Section -99.63 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
56
57-La-139

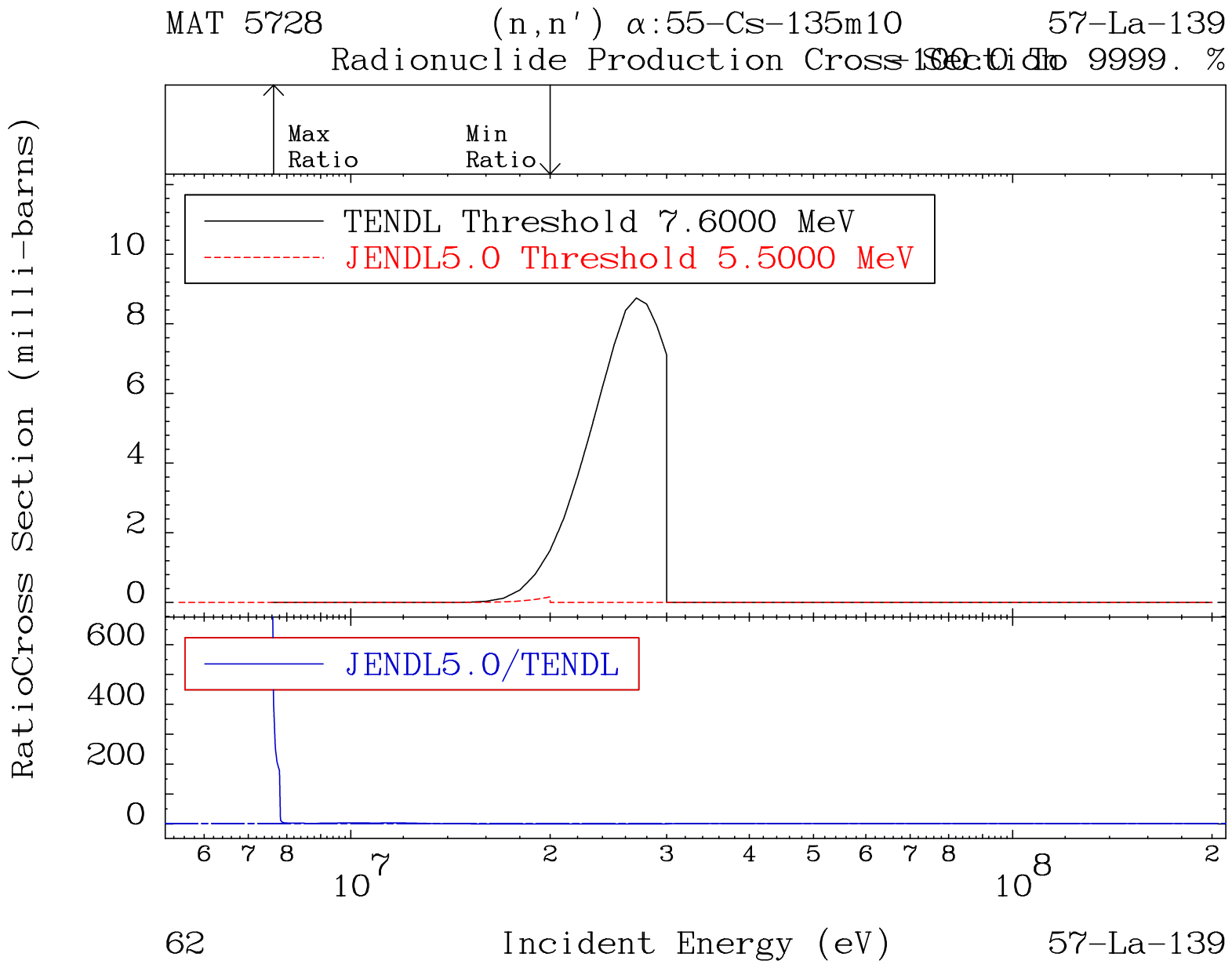

MAT 5728
Dpa total (eV-barns)
57-La-139
Cross Section
-99.65 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
57
57-La-139

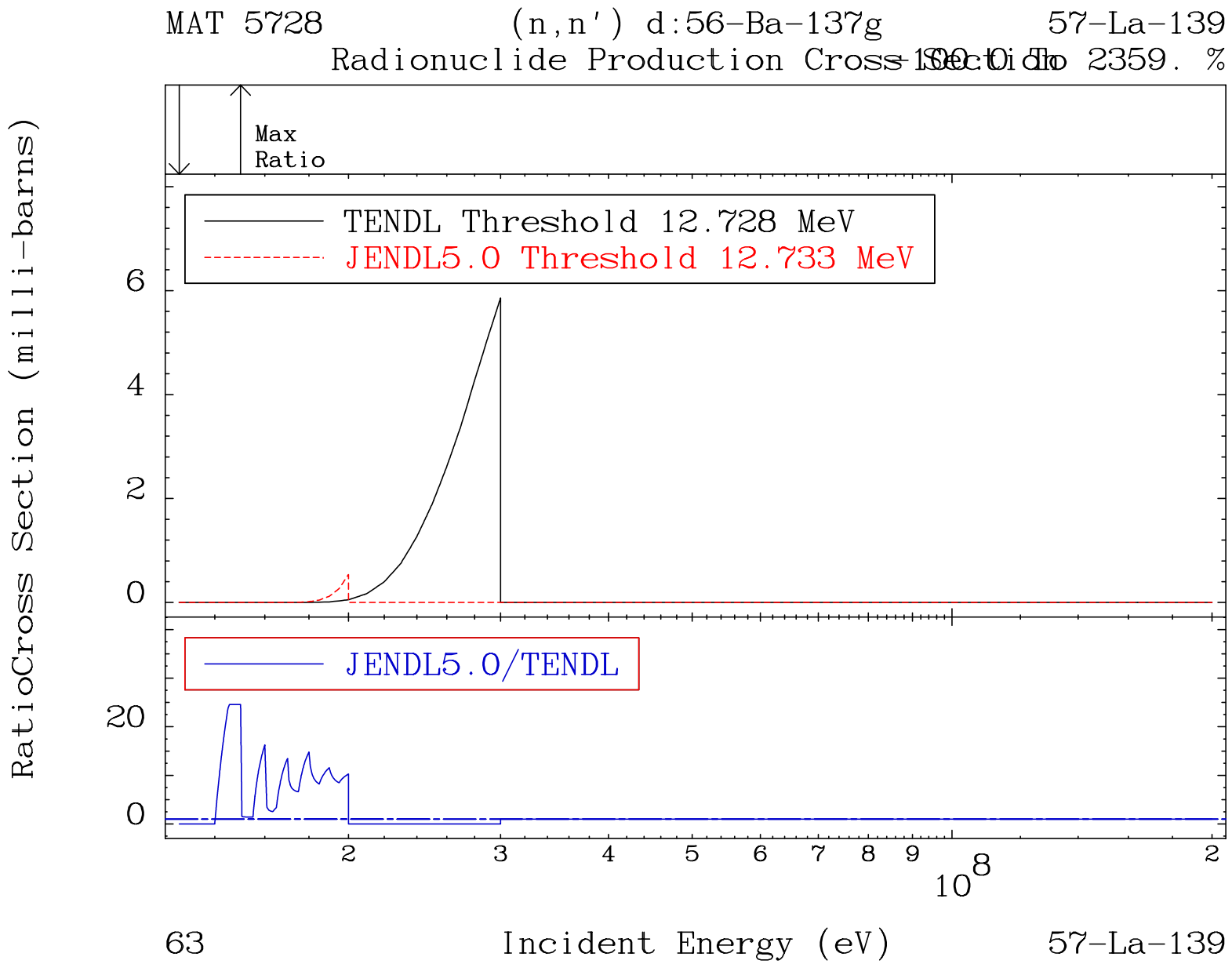

MAT 5728
Dpa elastic (mt2)
Cross Section
57-La-139
-99.66 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 841.32 eV
CENDL3.2 Threshold 829.52 eV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
58
57-La-139

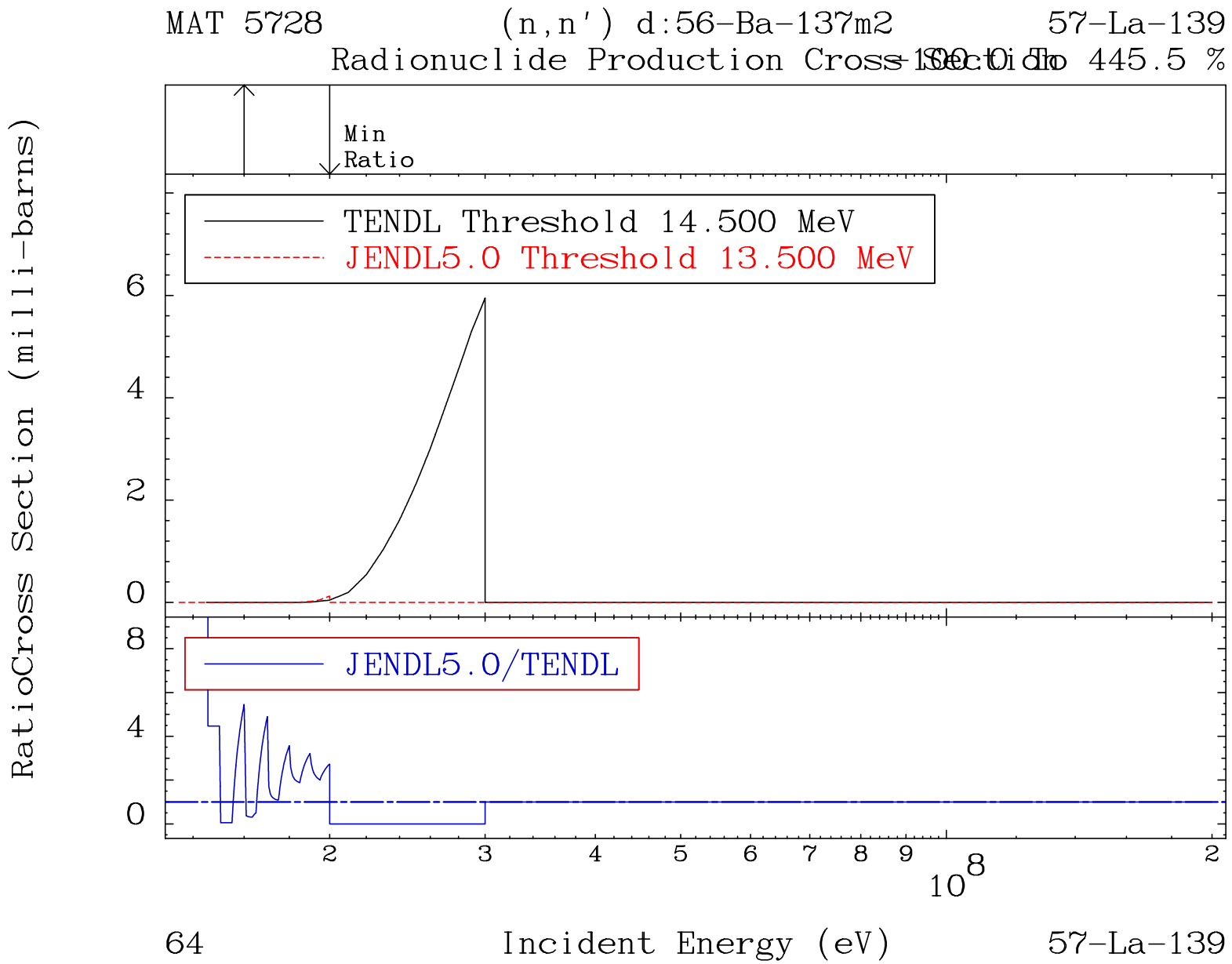

MAT 5728
Dpa inelastic (mt51-91)
57-La-139
Cross Section -58.42 To 9999. %
Min Ratio
TENDL Threshold 167.06 keV
CENDL3.2 Threshold 167.06 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
59
57-La-139

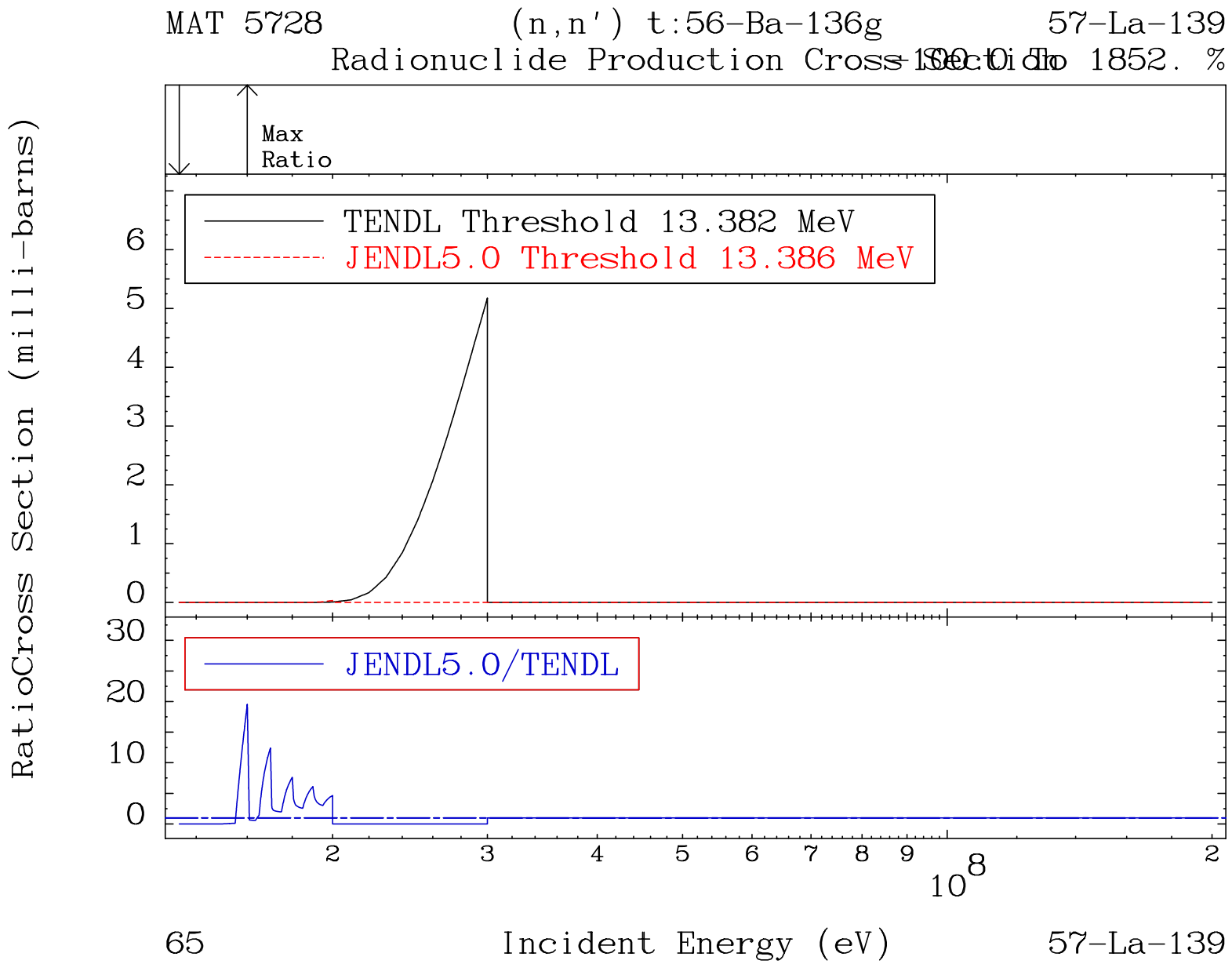

MAT 5728 Dpa disappearance (mt102 -120) 57-La-139
Cross Section -99.97 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
60
57-La-139

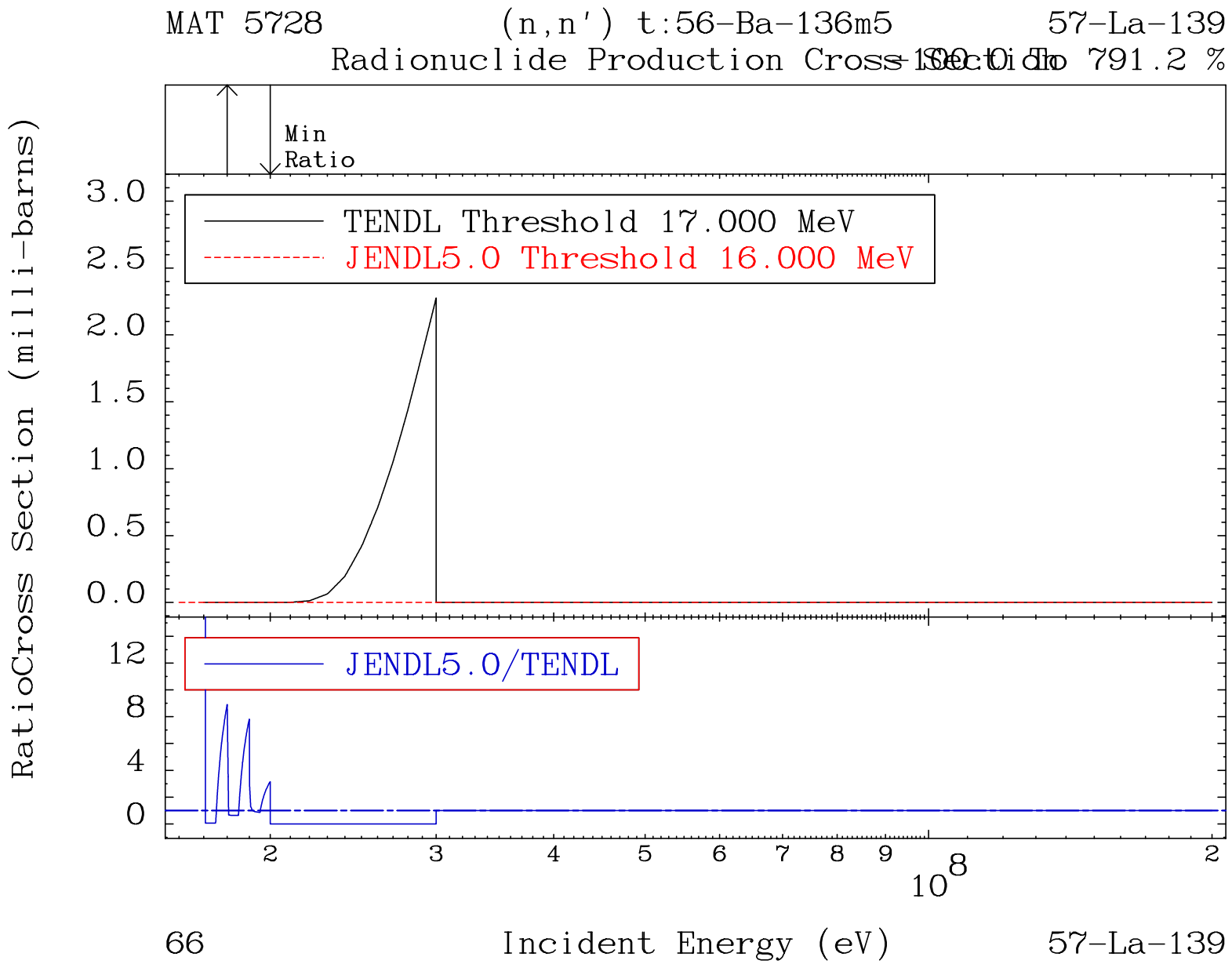

MAT 5728
(n,n') α:55-Cs-135g
57-La-139
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.0803 MeV
JENDL5.0 Threshold 2.0845 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
600
400
200
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
61
Incident Energy (eV)
57-La-139

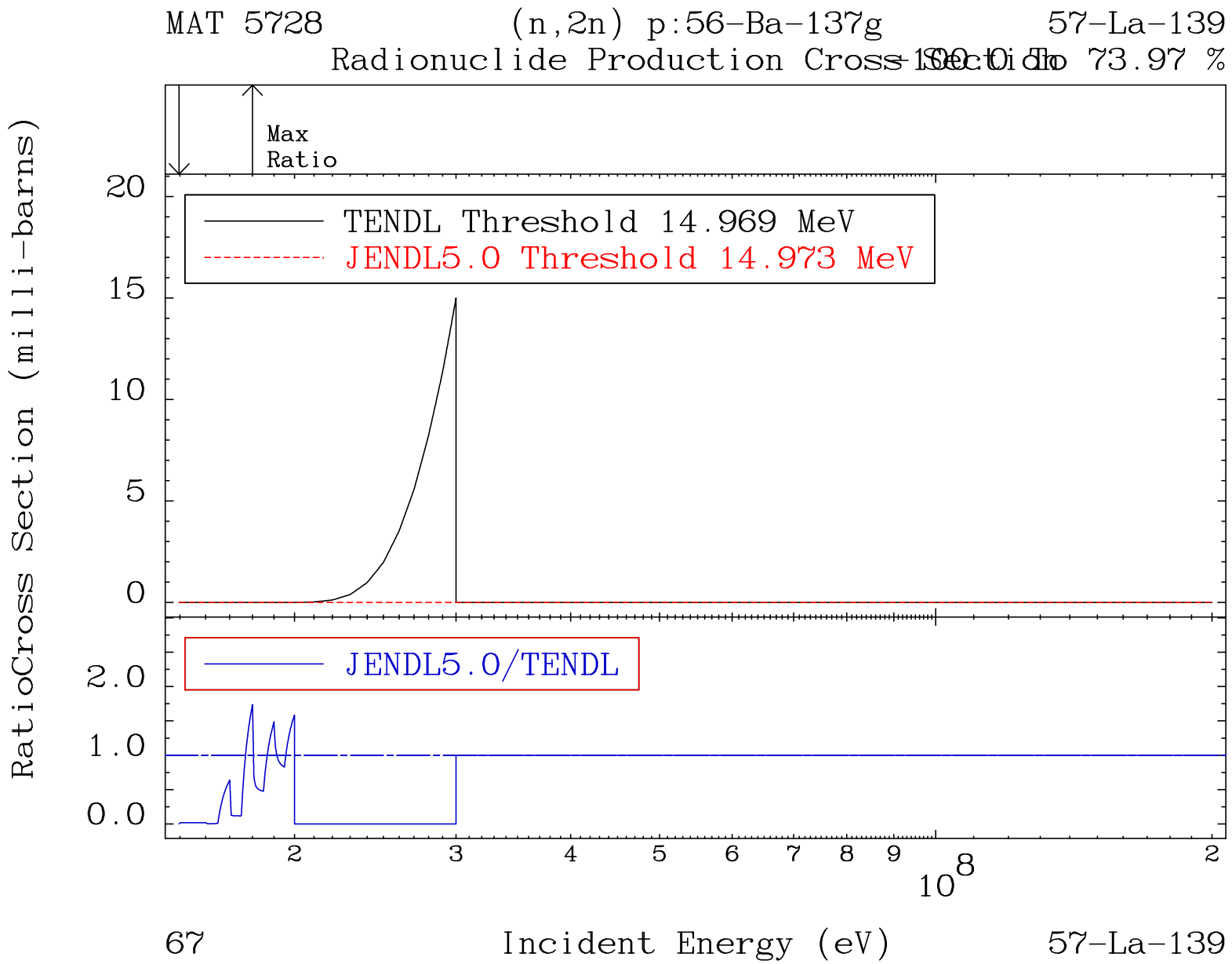

MAT 5728
(n,n') α:55-Cs-135m10
57-La-139
Radionuclide Production Cross Section
1.00 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.6000 MeV
JENDL5.0 Threshold 5.5000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
10
8
6
4
2
0
600
400
200
0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
62
Incident Energy (eV)
57-La-139

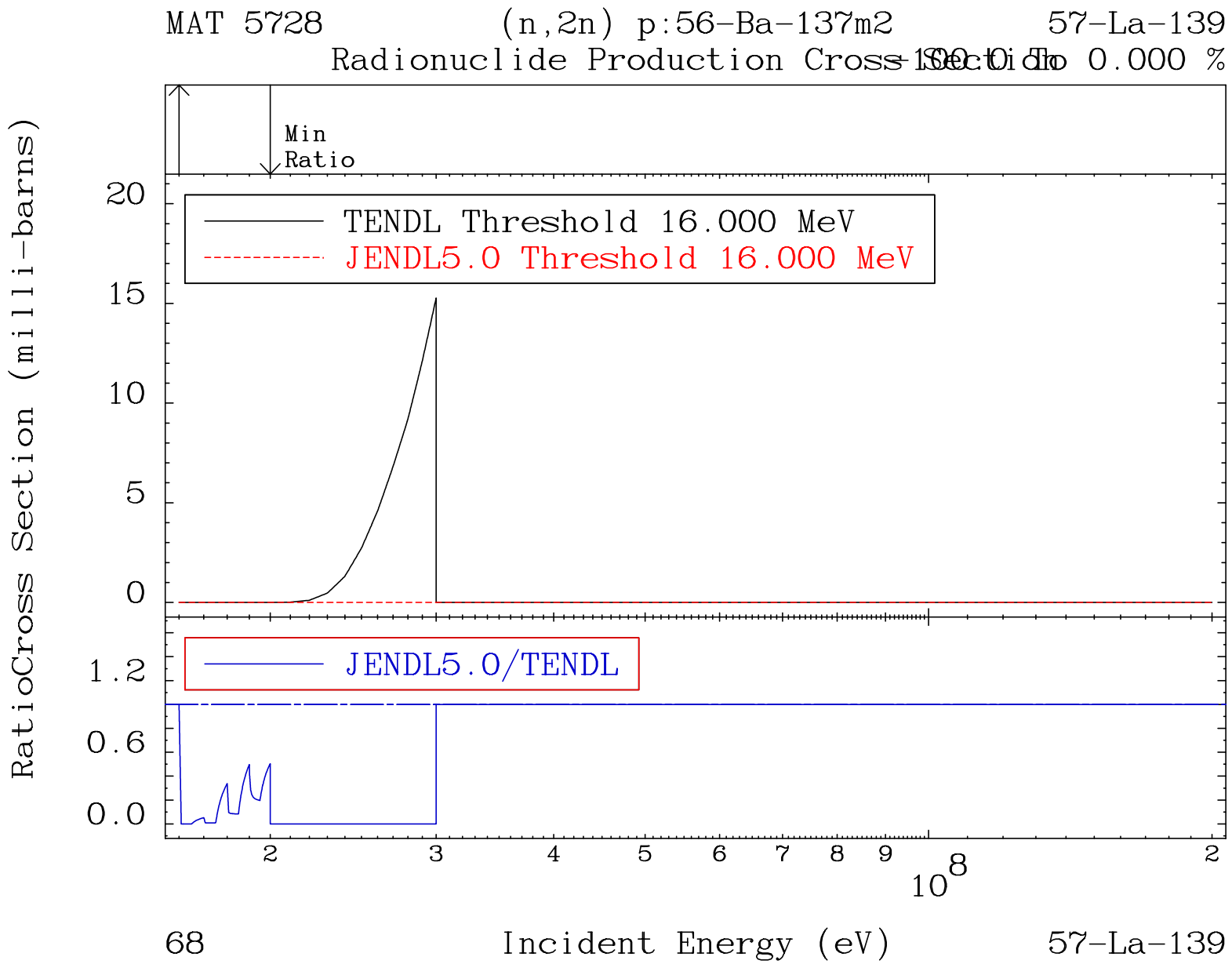

MAT 5728
(n,n') d:56-Ba-137g
57-La-139
Radionuclide Production Cross Section To 2359. %
Max
Ratio
TENDL Threshold 12.728 MeV
JENDL5.0 Threshold 12.733 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
63
57-La-139

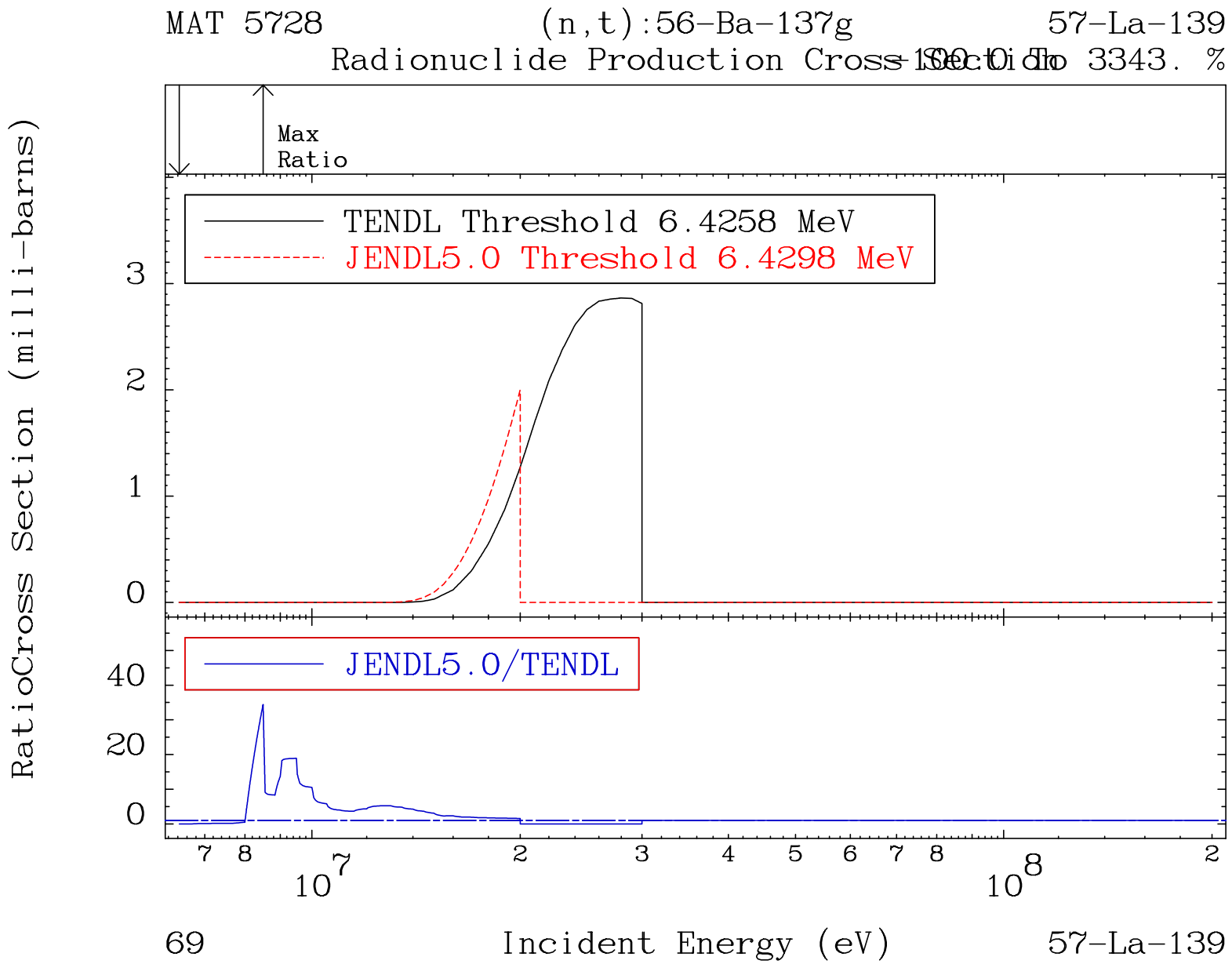

MAT 5728
(n,n') d:56-Ba-137m2
57-La-139
Radionuclide Production Cross Section
Min Ratio
TENDL Threshold 14.500 MeV
JENDL5.0 Threshold 13.500 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
64
57-La-139

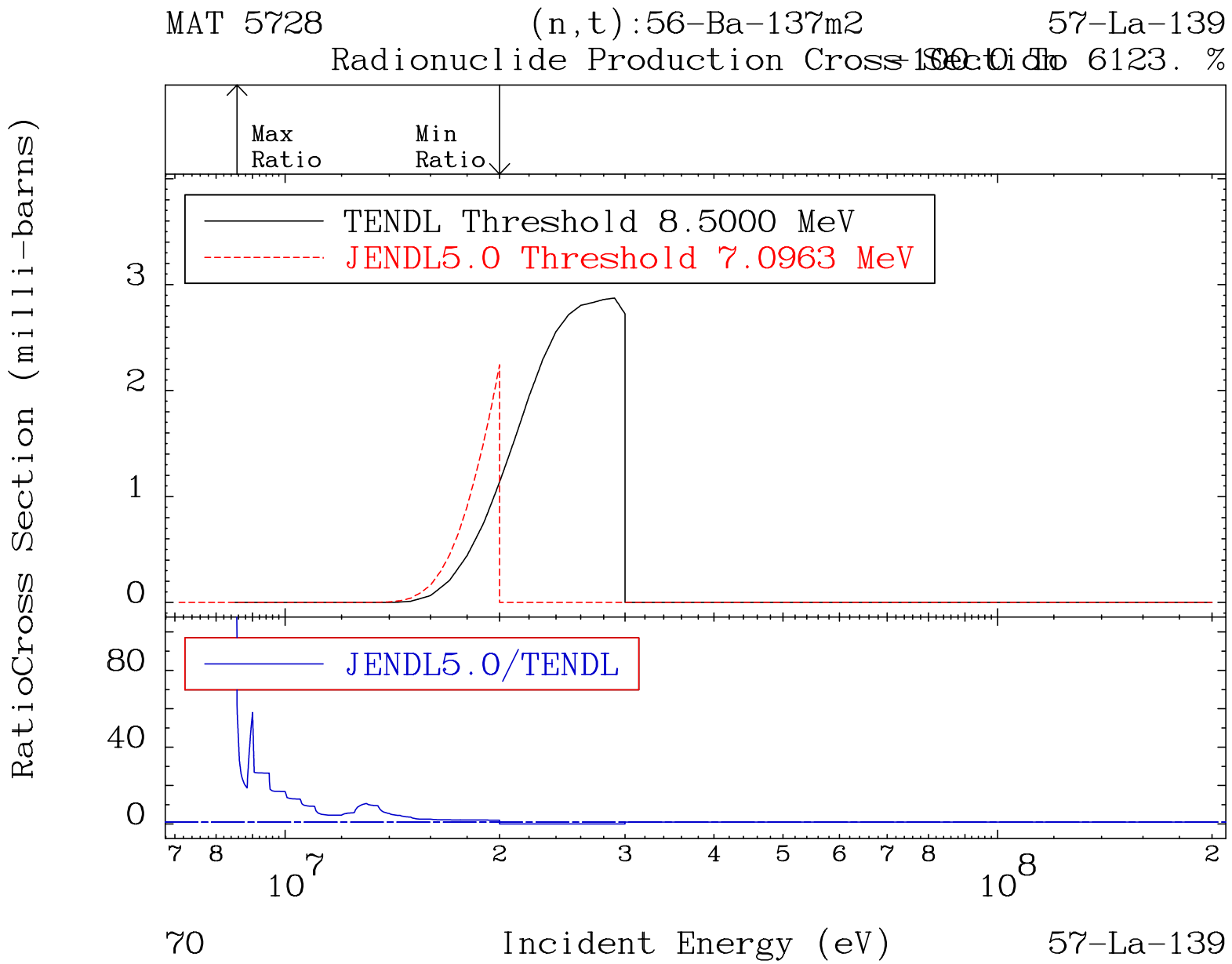

MAT 5728
(n,n') t:56-Ba-136g
57-La-139
Radionuclide Production Cross Section To 1852. %
Max
Ratio
TENDL Threshold 13.382 MeV
JENDL5.0 Threshold 13.386 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
65
57-La-139

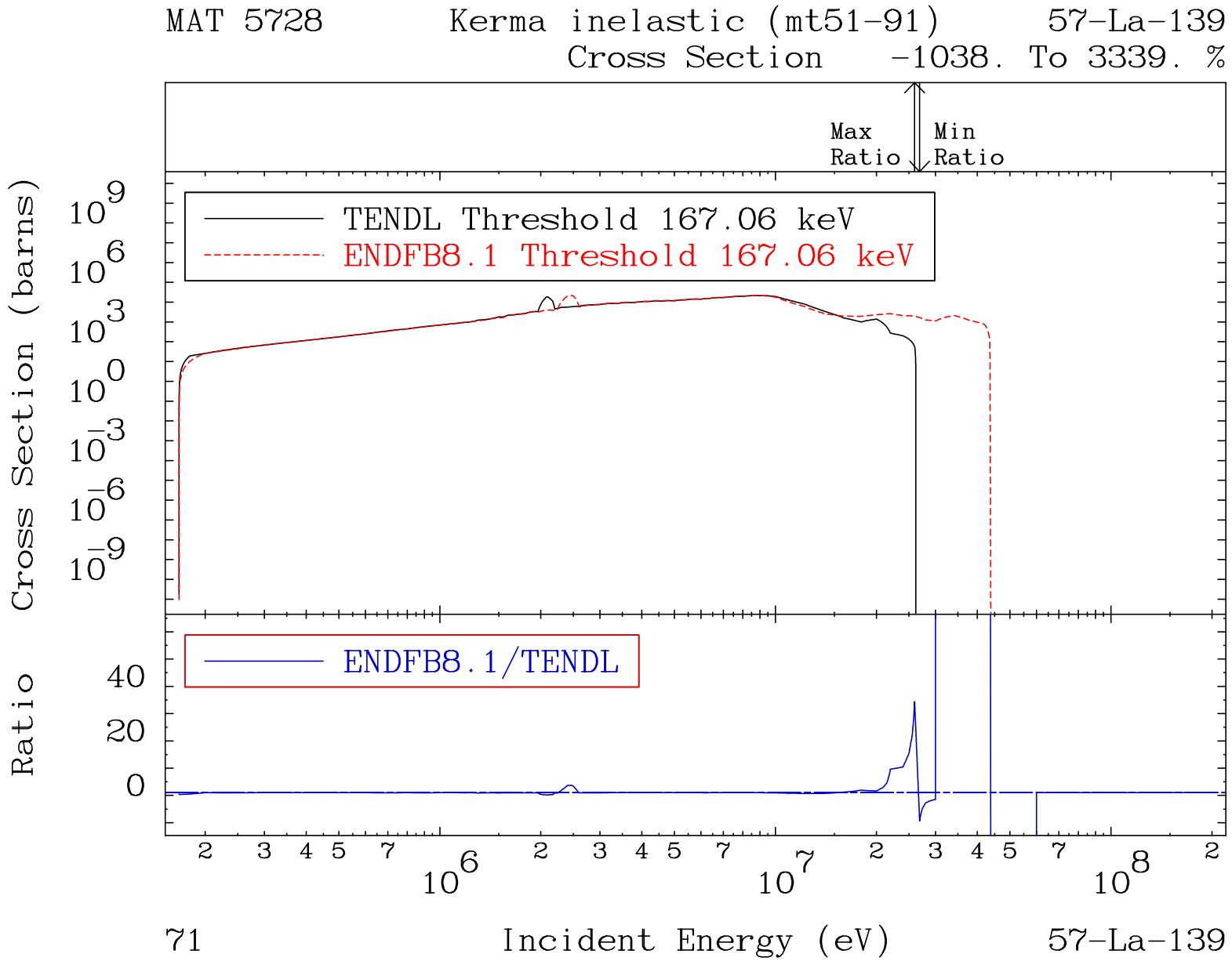

MAT 5728
(n,n') t:56-Ba-136m5
57-La-139
Radionuclide Production Cross Section
Min
Ratio
TENDL Threshold 17.000 MeV
JENDL5.0 Threshold 16.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
66
57-La-139

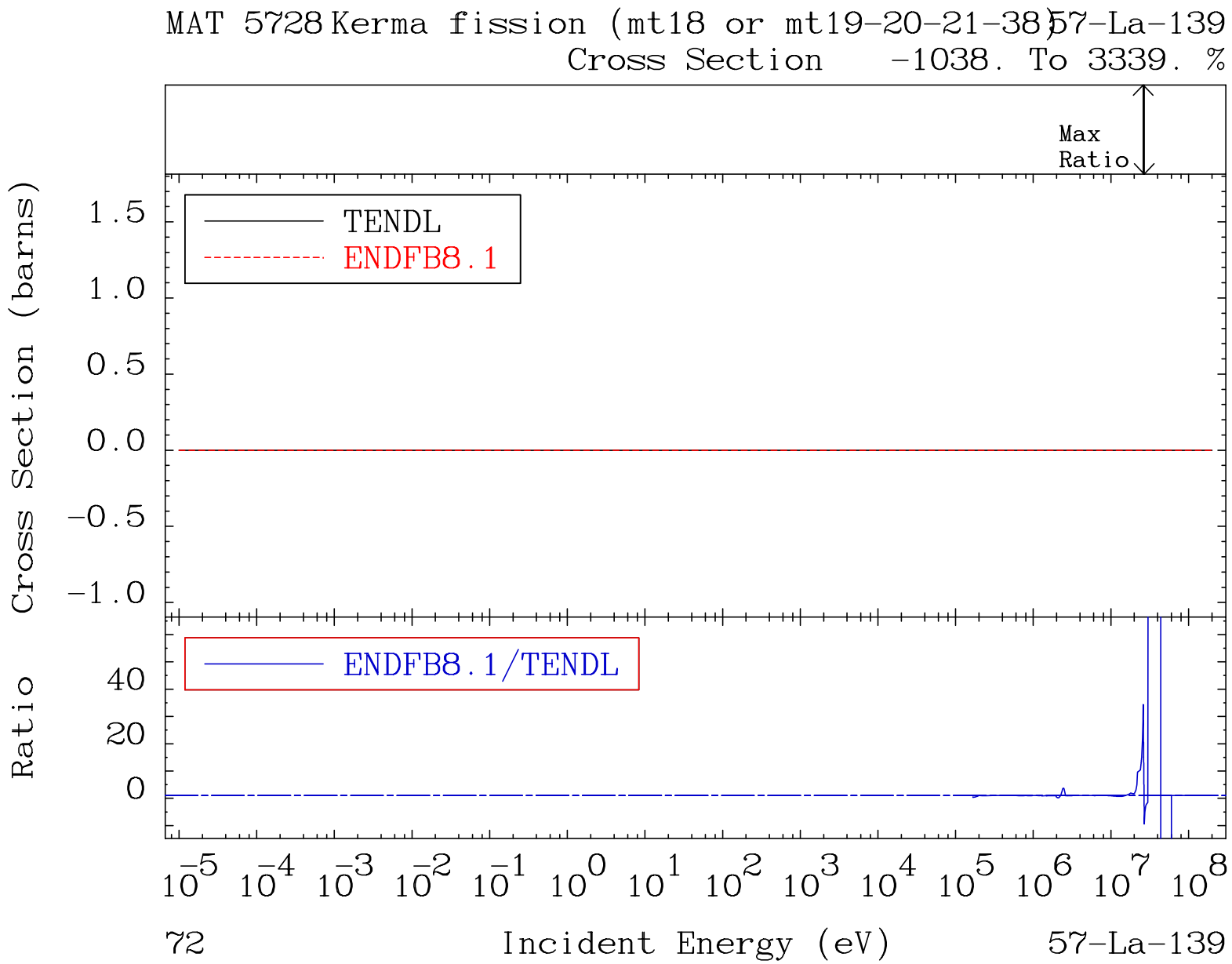

MAT 5728
(n,2n) p:56-Ba-137g
57-La-139
Radionuclide Production Cross Section To 73.97 %
Max
Ratio
TENDL Threshold 14.969 MeV
JENDL5.0 Threshold 14.973 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
67
Incident Energy (eV)
57-La-139

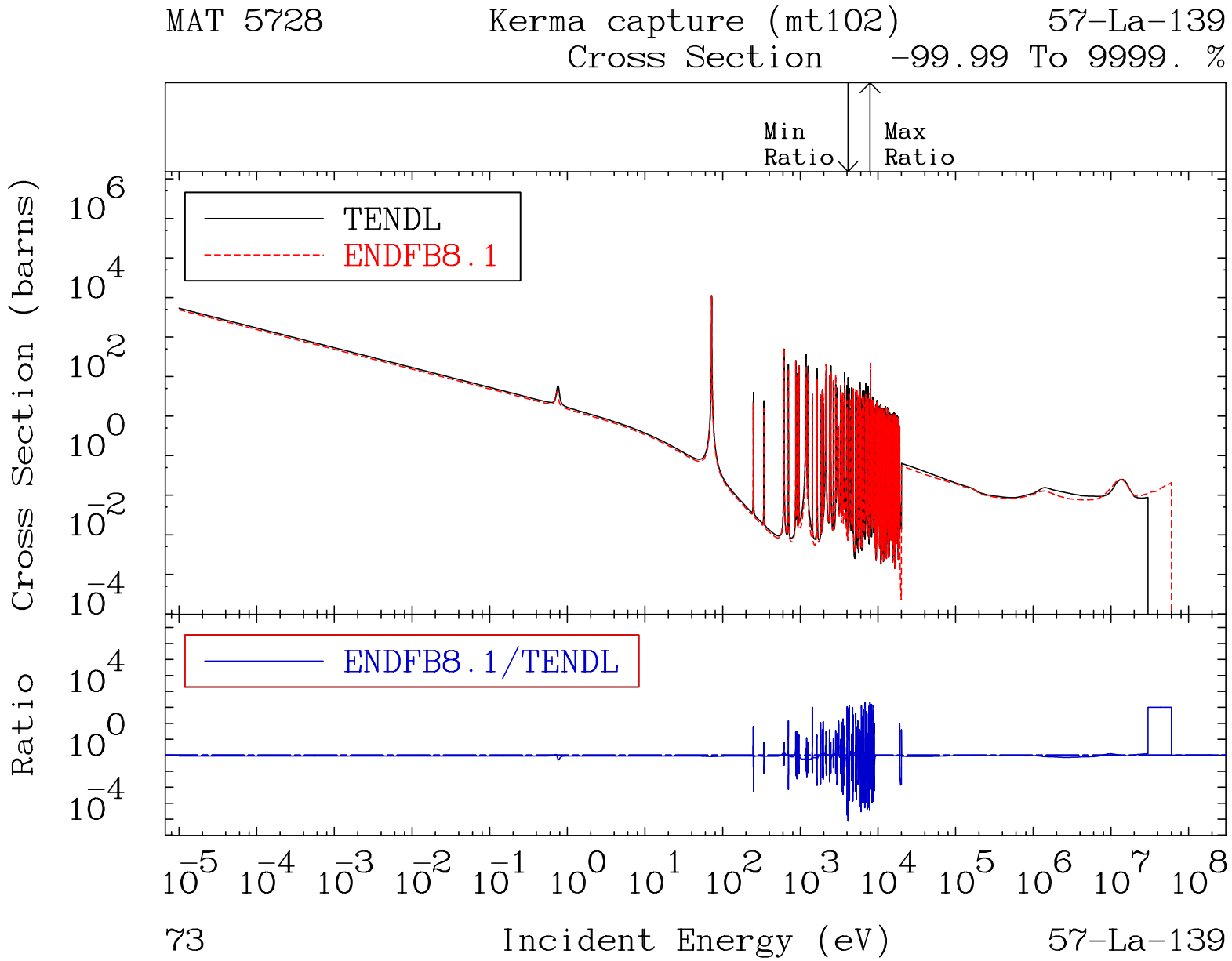

MAT 5728
(n,2n) p:56-Ba-137m2
57-La-139
Radionuclide Production Cross Section
Min Ratio
TENDL Threshold 16.000 MeV
JENDL5.0 Threshold 16.000 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
68
57-La-139

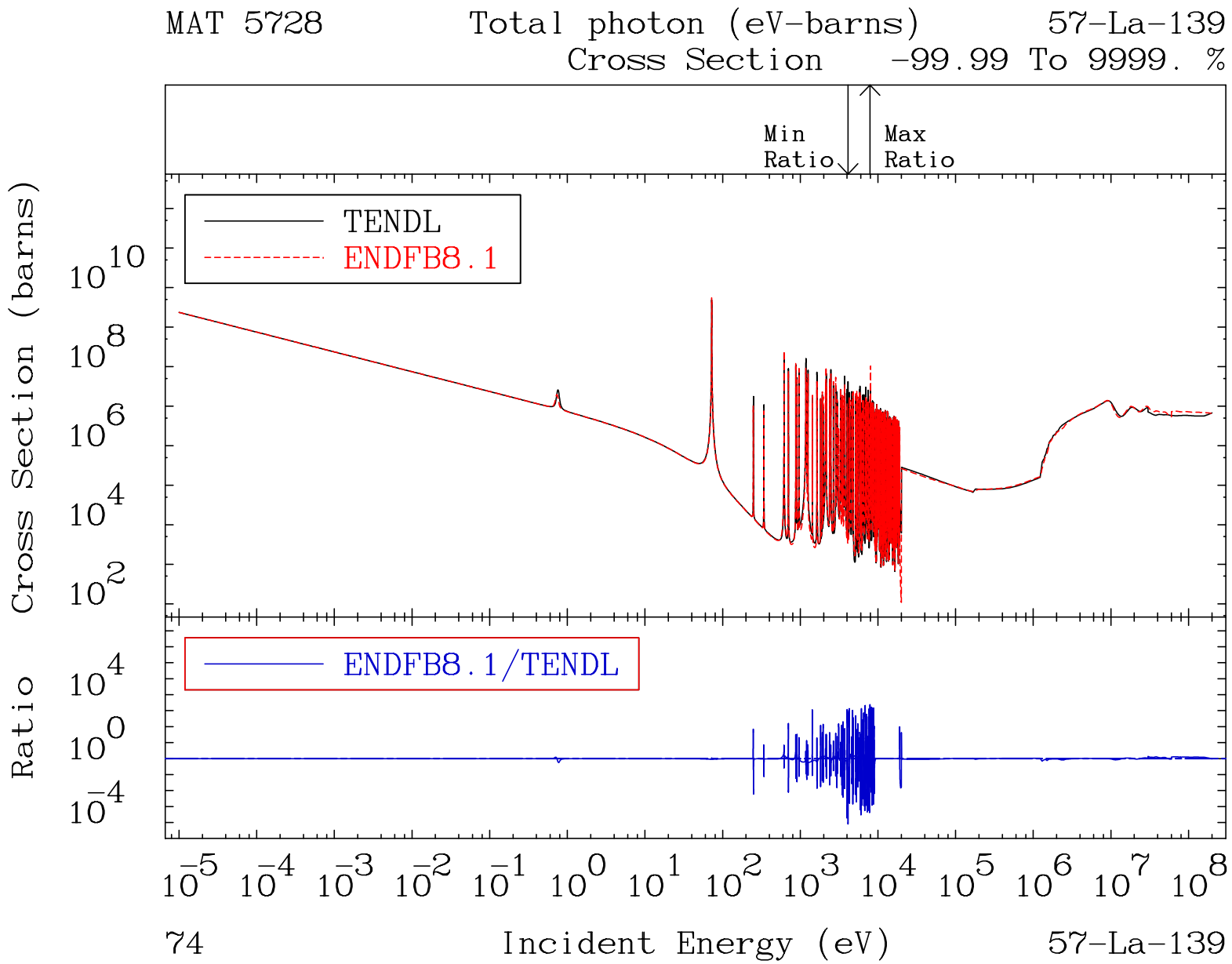

MAT 5728
(n,t):56-Ba-137g
57-La-139
Radionuclide Production Cross Section
Max
Ratio
TENDL Threshold 6.4258 MeV
JENDL5.0 Threshold 6.4298 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
69
57-La-139

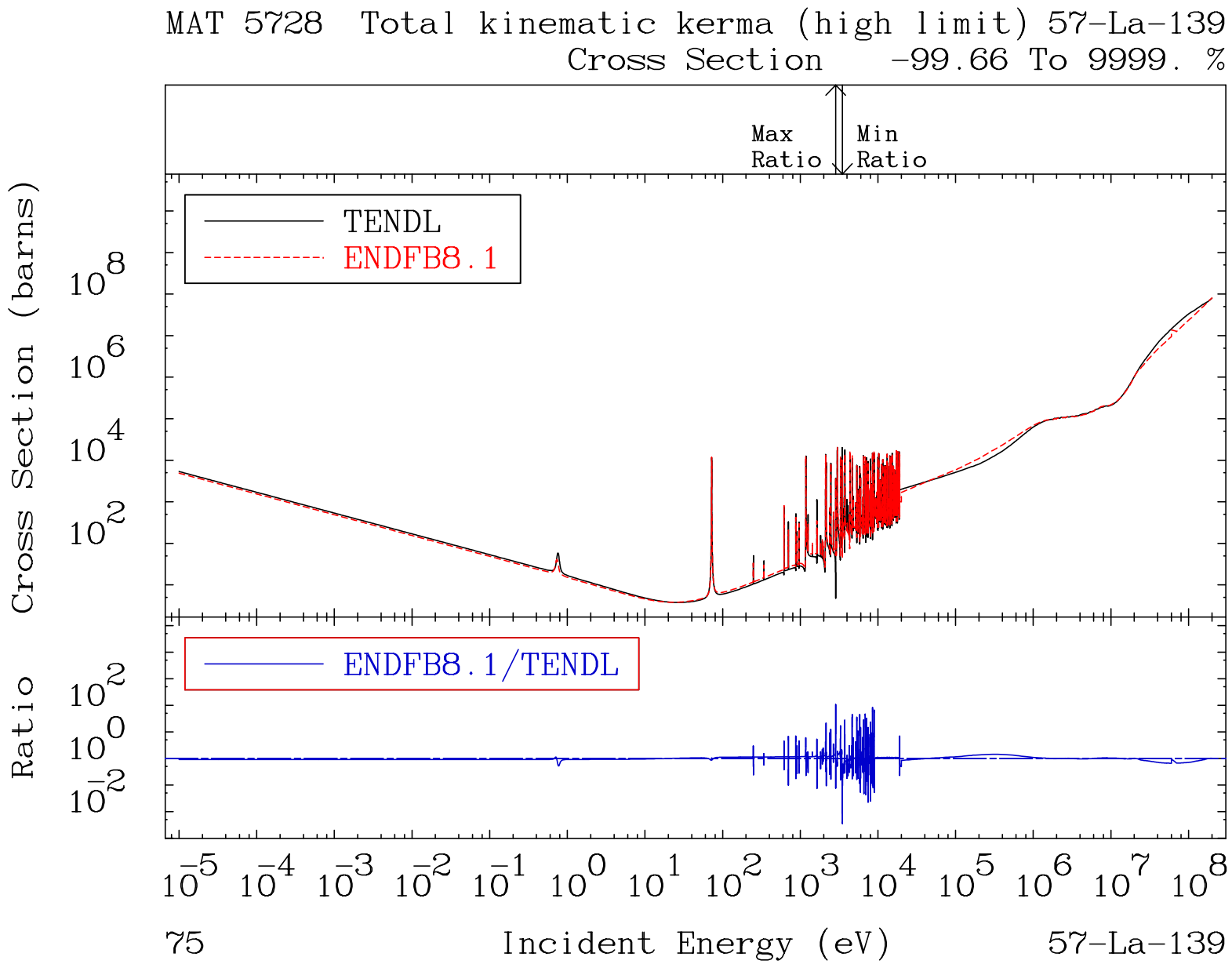

MAT 5728
(n,t):56-Ba-137m2
57-La-139
Radionuclide Production Cross Section To 6123. %
Max Ratio
Min Ratio
TENDL Threshold 8.5000 MeV
JENDL5.0 Threshold 7.0963 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
70
57-La-139

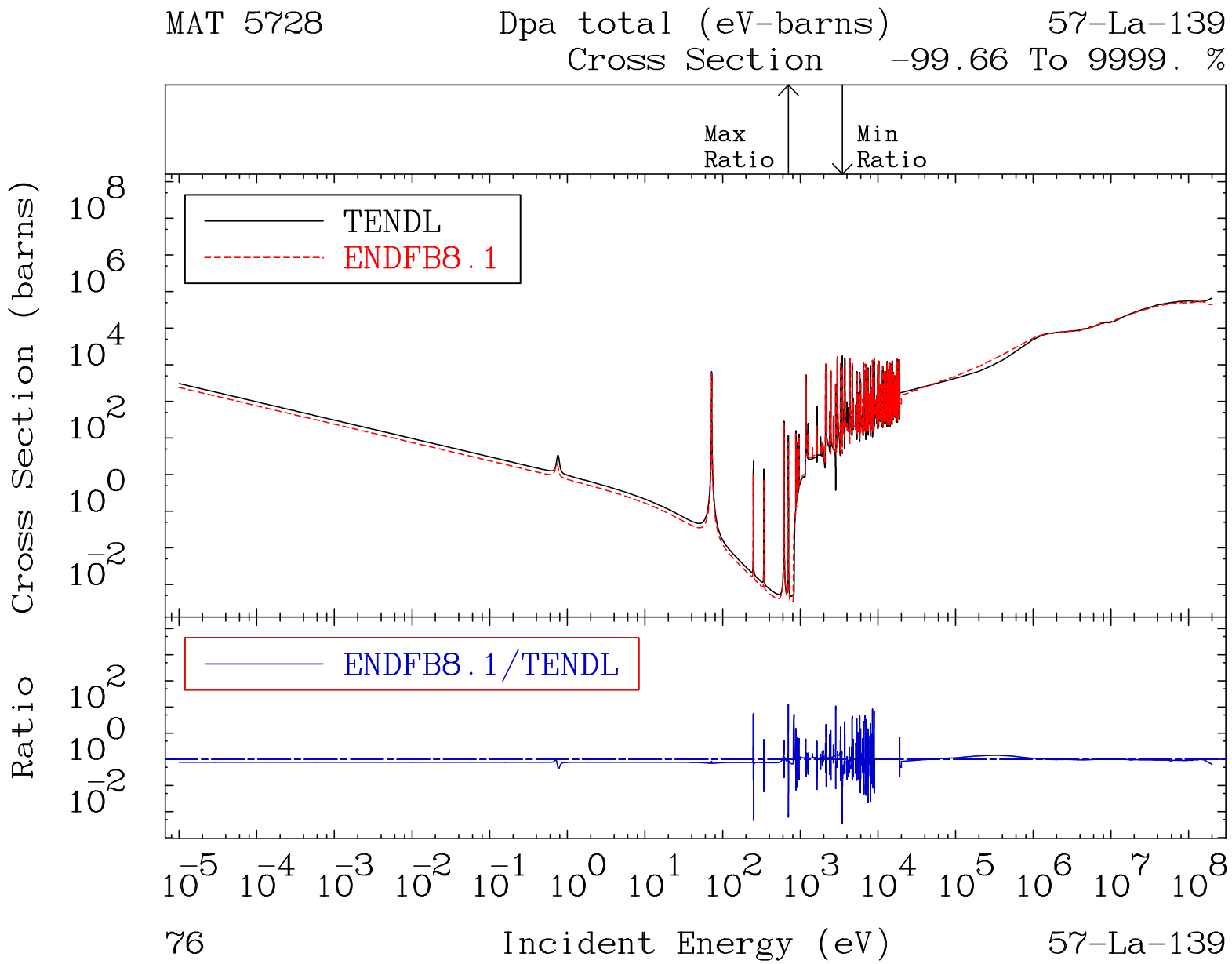

MAT 5728
Kerma inelastic (mt51-91)
57-La-139
Cross Section -1038. To 3339. %
Max Ratio
Min Ratio
TENDL Threshold 167.06 keV
ENDFB8.1 Threshold 167.06 keV
Cross Section (barns)
ENDFB8.1/TENDL
Ratio
Incident Energy (eV)
71
57-La-139

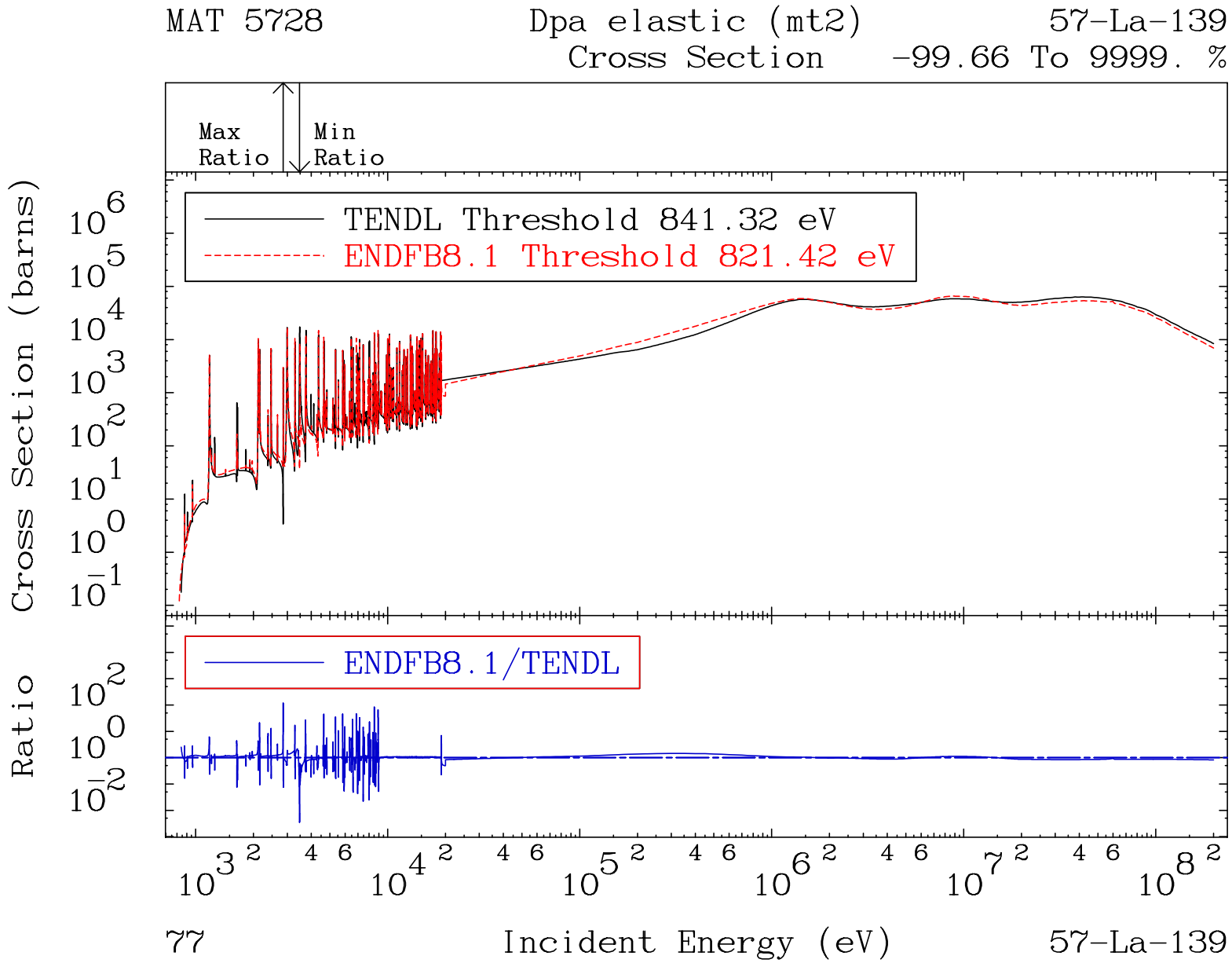

MAT 5728 Kerma fission (mt18 or mt19-20-21-38) 57-La-139
Cross Section -1038. To 3339. %
Max Ratio
TENDL
ENDFB8.1
ENDFB8.1/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
40
20
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
72
Incident Energy (eV)
57-La-139

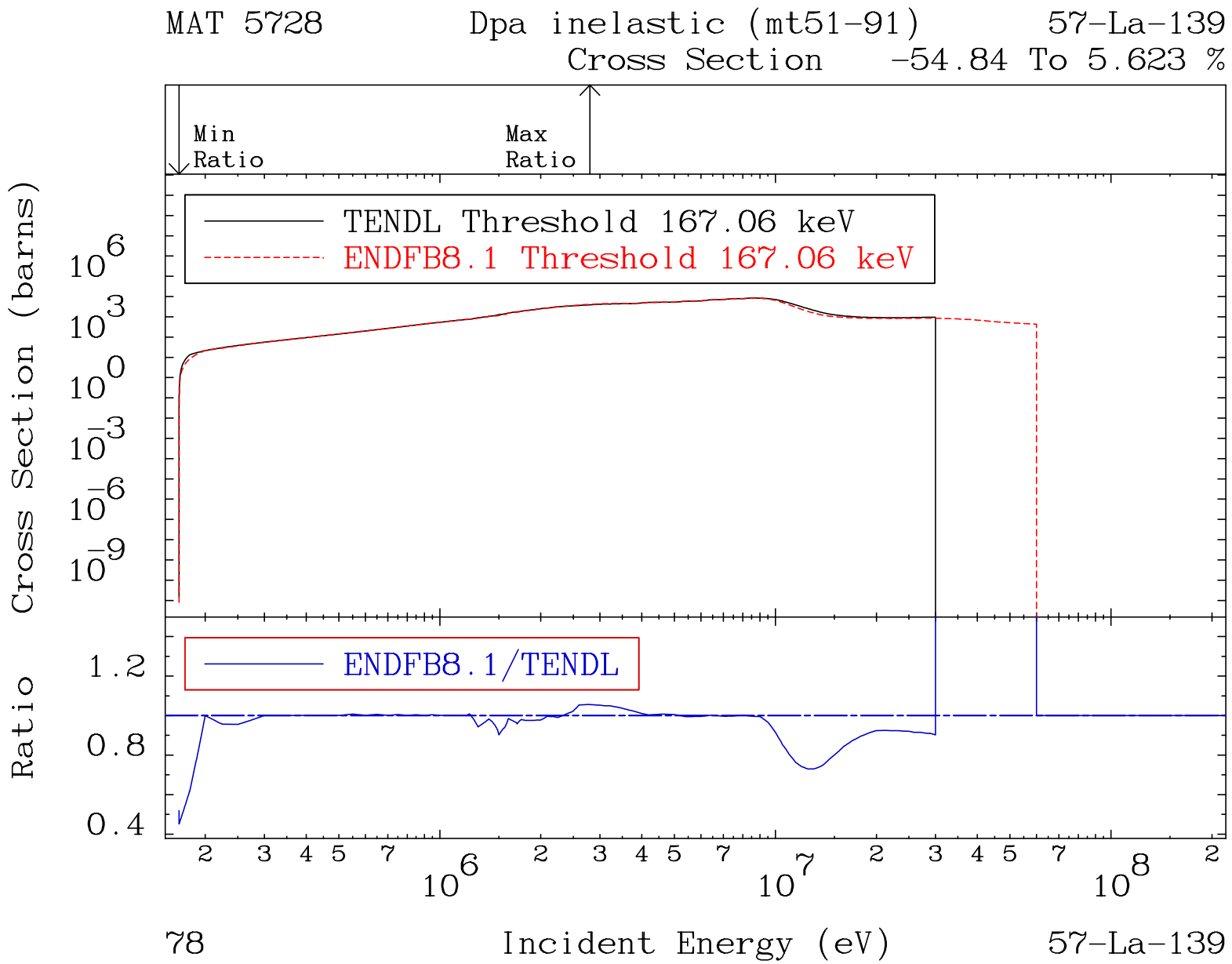

MAT 5728
Kerma capture (mt102)
57-La-139
Cross Section -99.99 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.1
ENDFB8.1/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
73
57-La-139

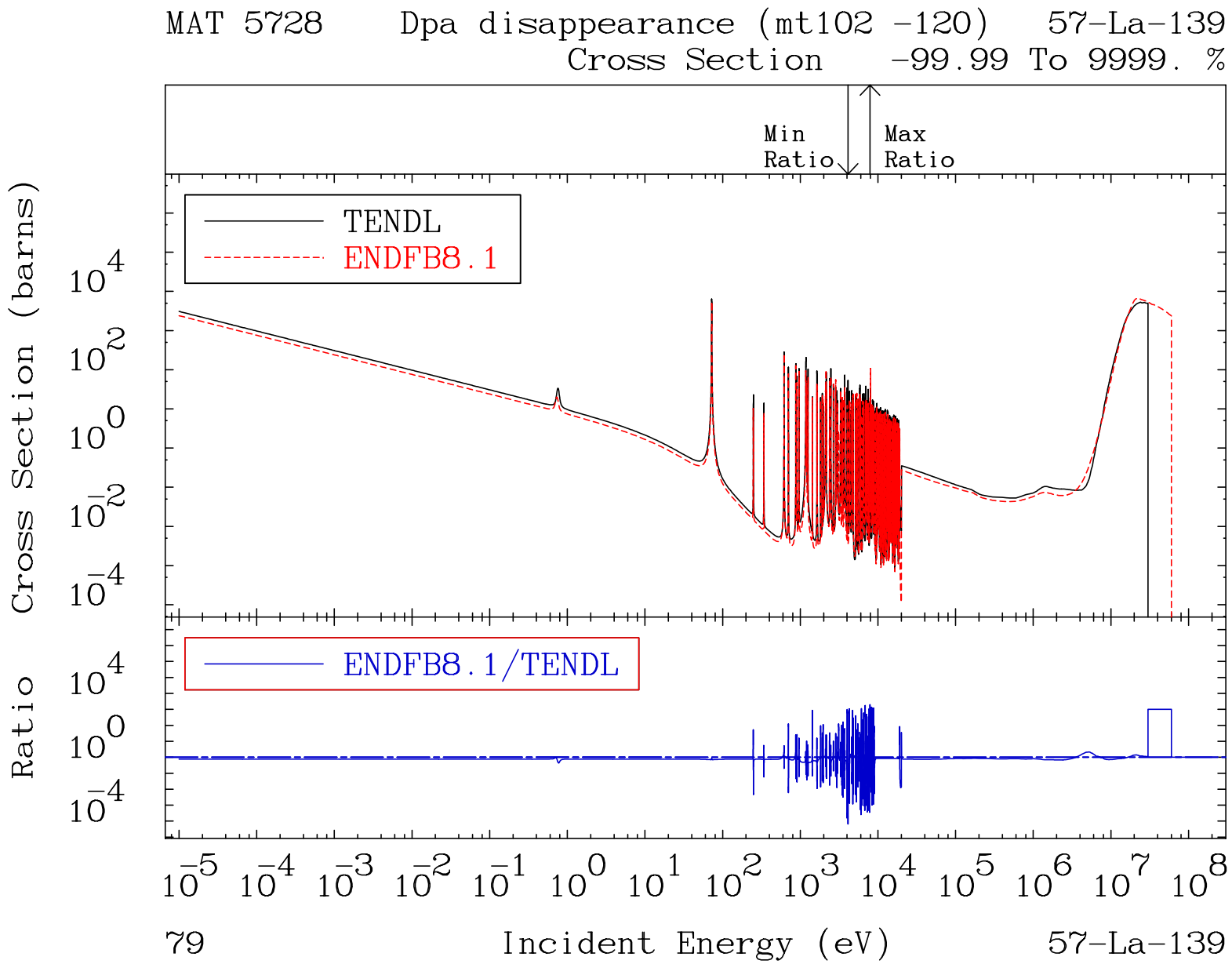

MAT 5728
Total photon (eV-barns)
57-La-139
Cross Section -99.99 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.1
Cross Section (barns)
10^{10}
10^{8}
10^{6}
10^{4}
10^{2}
ENDFB8.1/TENDL
Ratio
10^{4}
10^{0}
10^{-4}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
74
Incident Energy (eV)
57-La-139

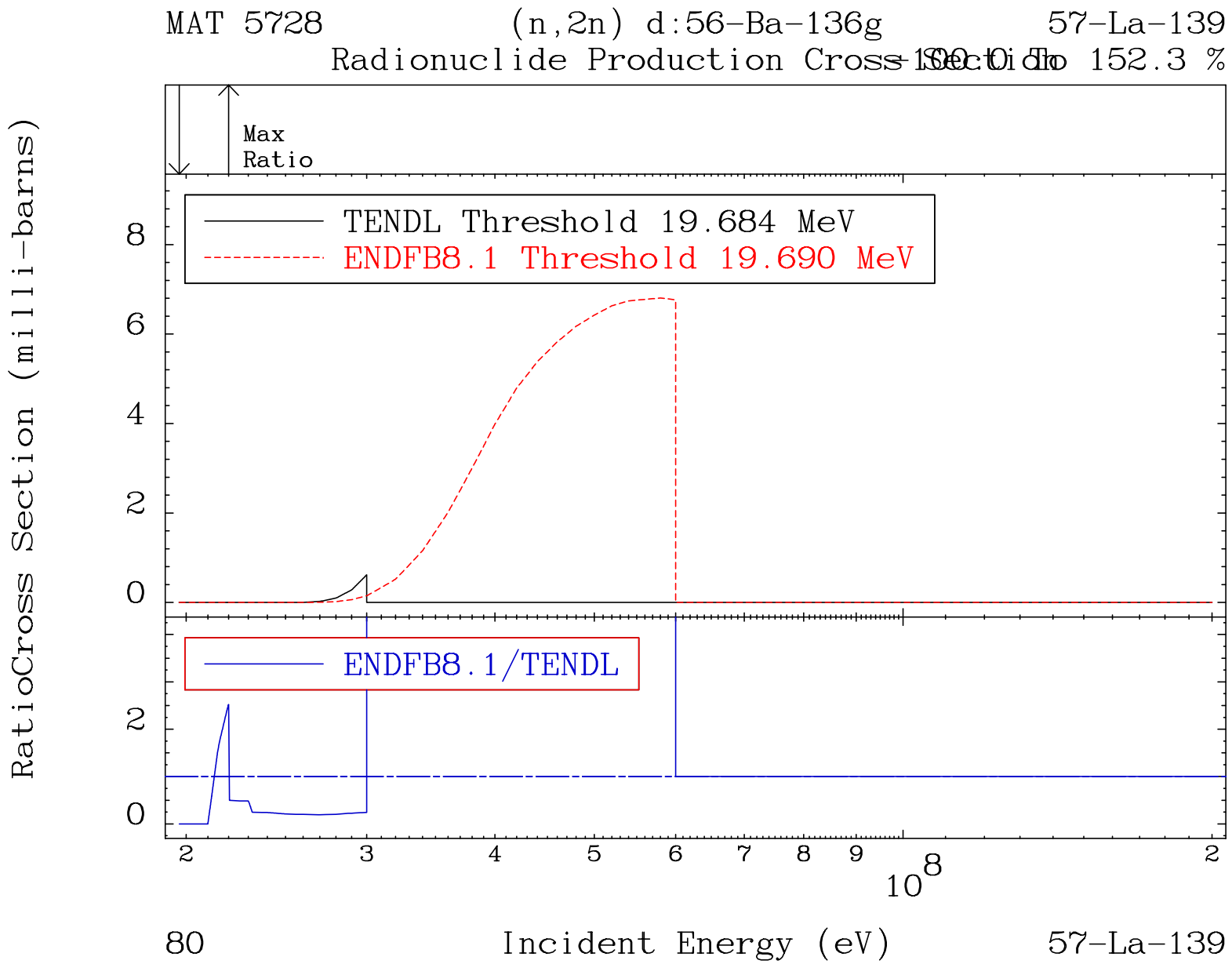

MAT 5728 Total kinematic kerma (high limit) 57-La-139
Cross Section -99.66 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.1
Cross Section (barns)
ENDFB8.1/TENDL
Ratio
Incident Energy (eV)
75
57-La-139

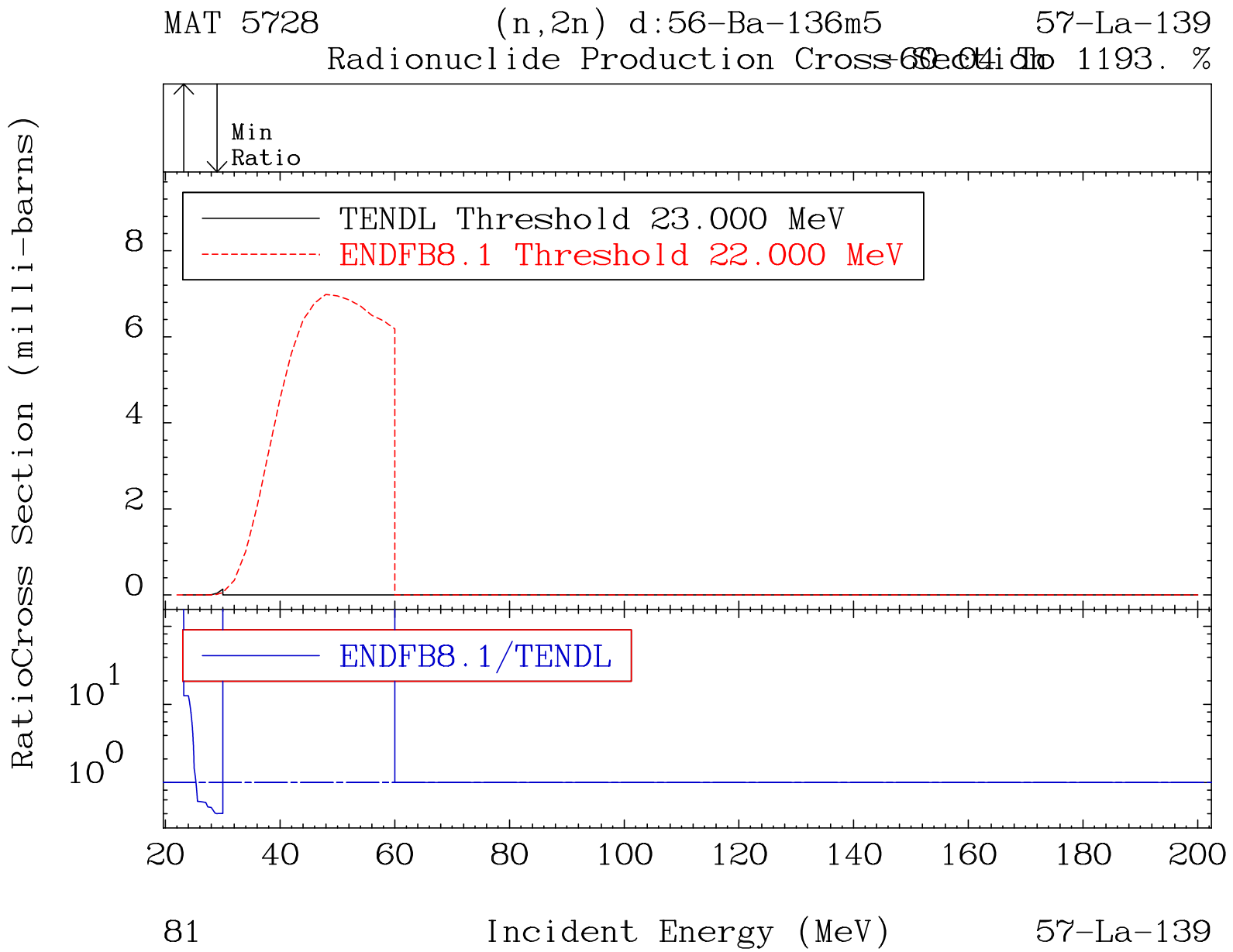

MAT 5728
Dpa total (eV-barns)
57-La-139
Cross Section
-99.66 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.1
Cross Section (barns)
ENDFB8.1/TENDL
Ratio
Incident Energy (eV)
76
57-La-139

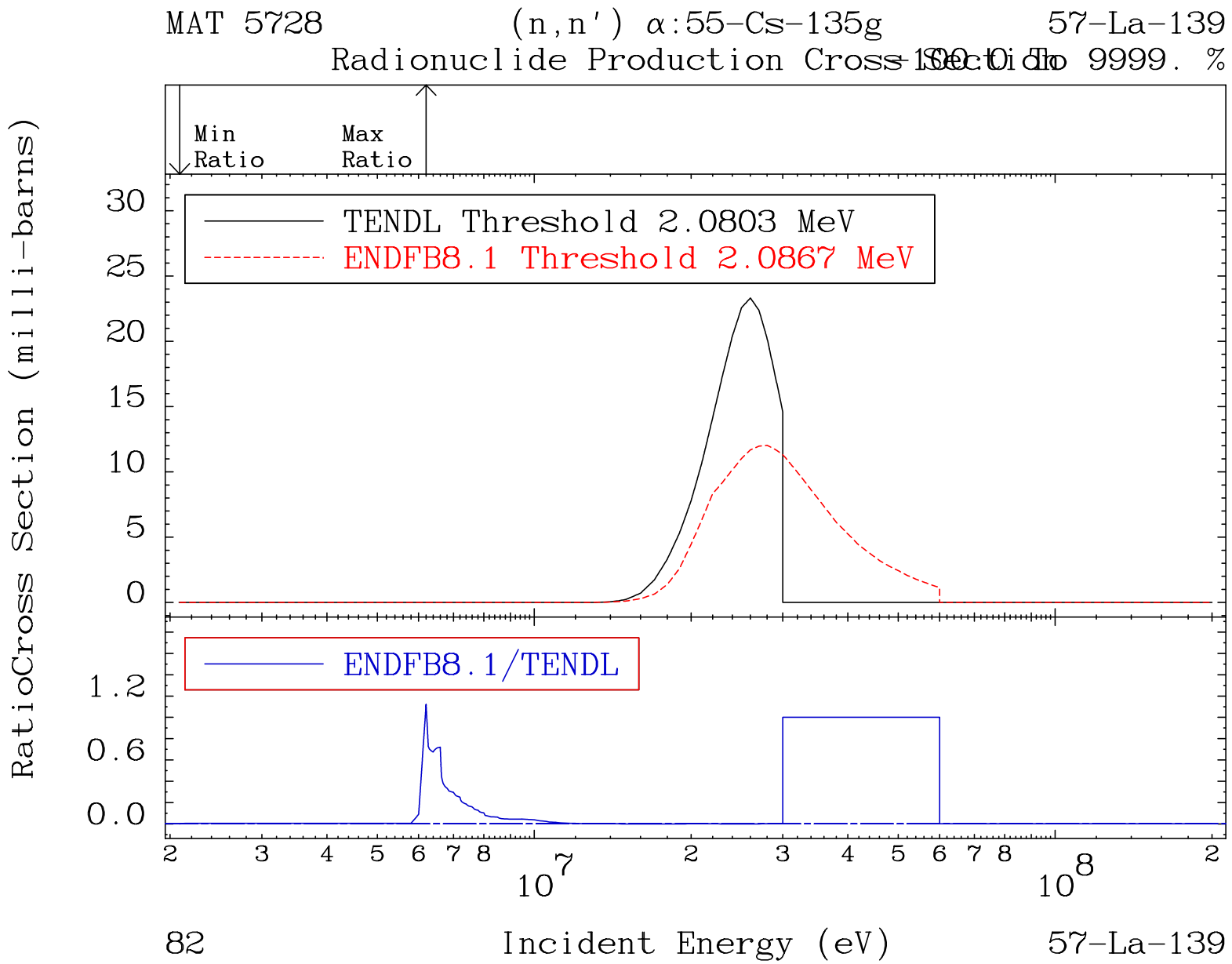

MAT 5728
Dpa elastic (mt2)
Cross Section
57-La-139
-99.66 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 841.32 eV
ENDFB8.1 Threshold 821.42 eV
ENDFB8.1/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
77
57-La-139

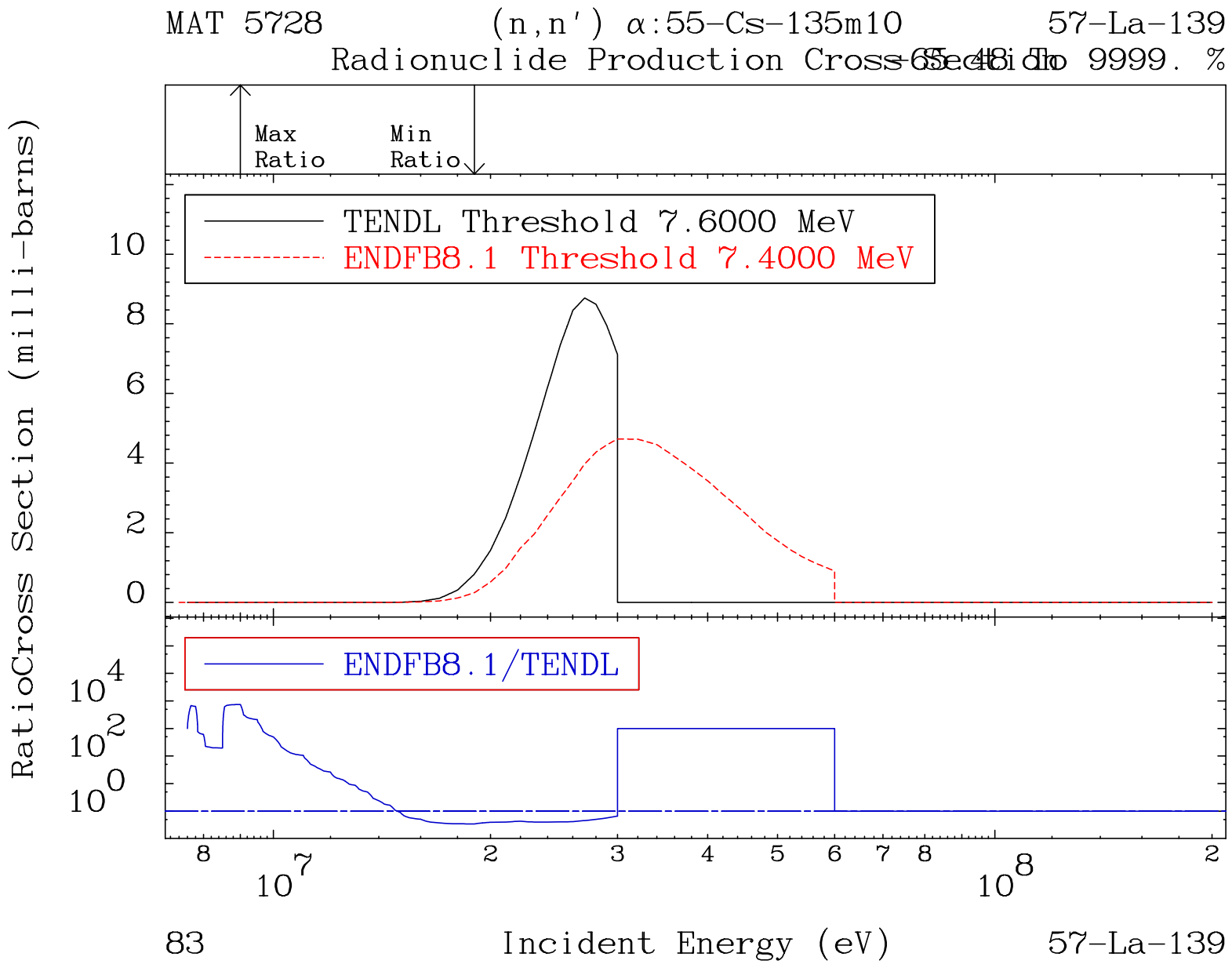

MAT 5728
Dpa inelastic (mt51-91)
57-La-139
Cross Section
-54.84 To 5.623 %
Min Ratio
Max Ratio
TENDL Threshold 167.06 keV
ENDFB8.1 Threshold 167.06 keV
Cross Section (barns)
ENDFB8.1/TENDL
Ratio
Incident Energy (eV)
78
57-La-139

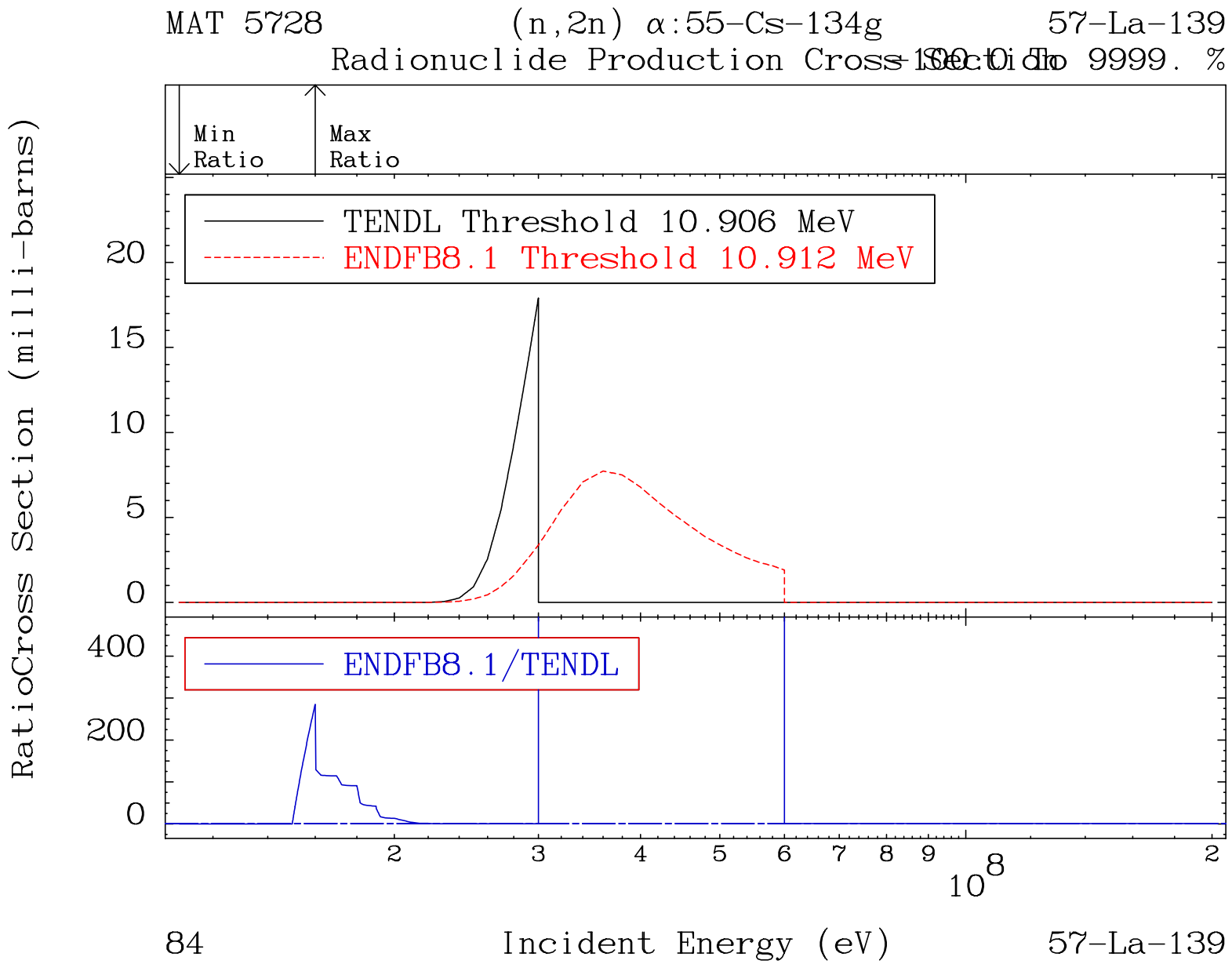

MAT 5728 Dpa disappearance (mt102 -120) 57-La-139
Cross Section -99.99 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.1
ENDFB8.1/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
79
57-La-139

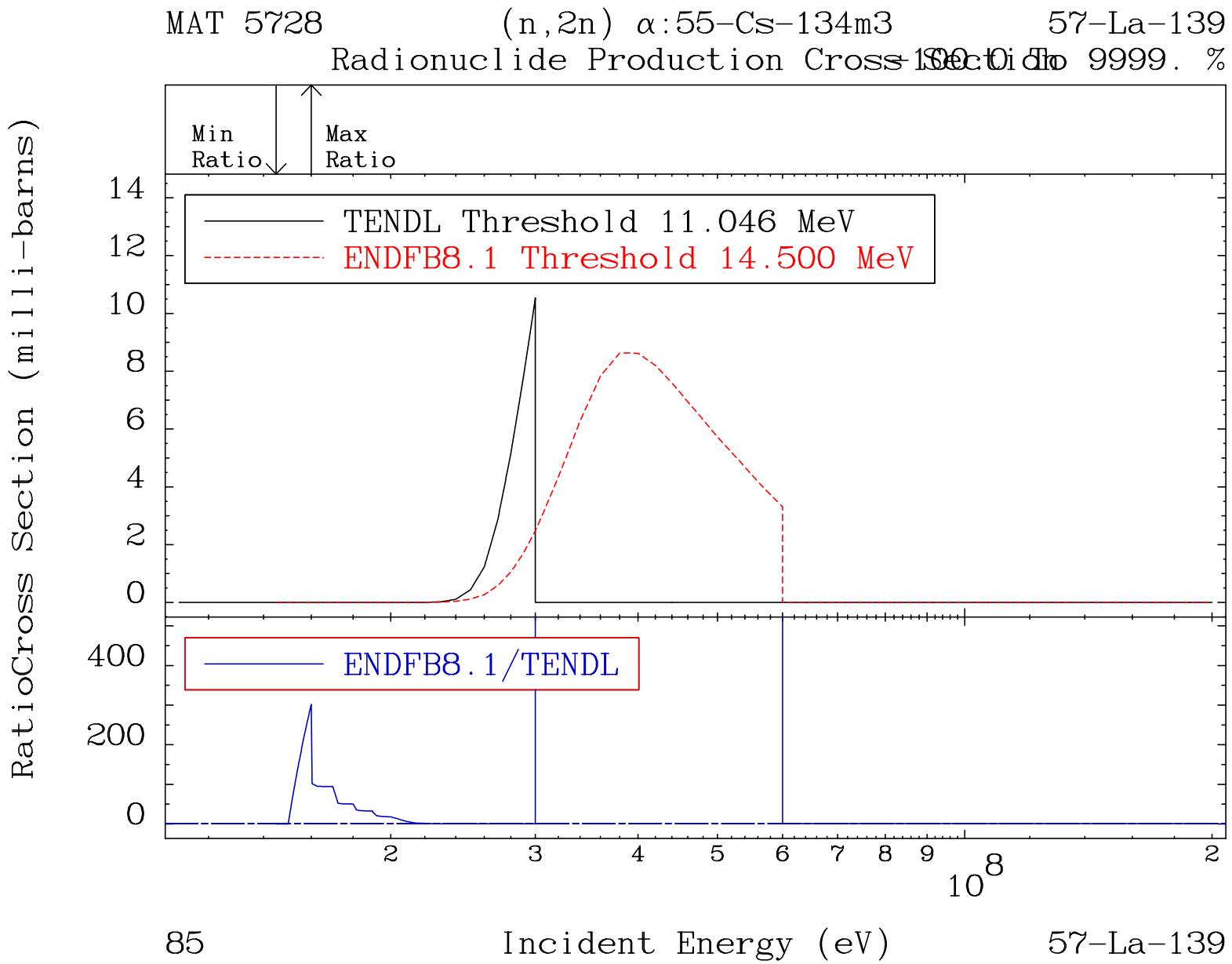

MAT 5728
(n,2n) d:56-Ba-136g
57-La-139
Radionuclide Production Cross Section To 152.3 %
Max
Ratio
TENDL Threshold 19.684 MeV
ENDFB8.1 Threshold 19.690 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
80
57-La-139
0
2
4
6
8
2
3
4
5
6
7
8
9
10^8
2

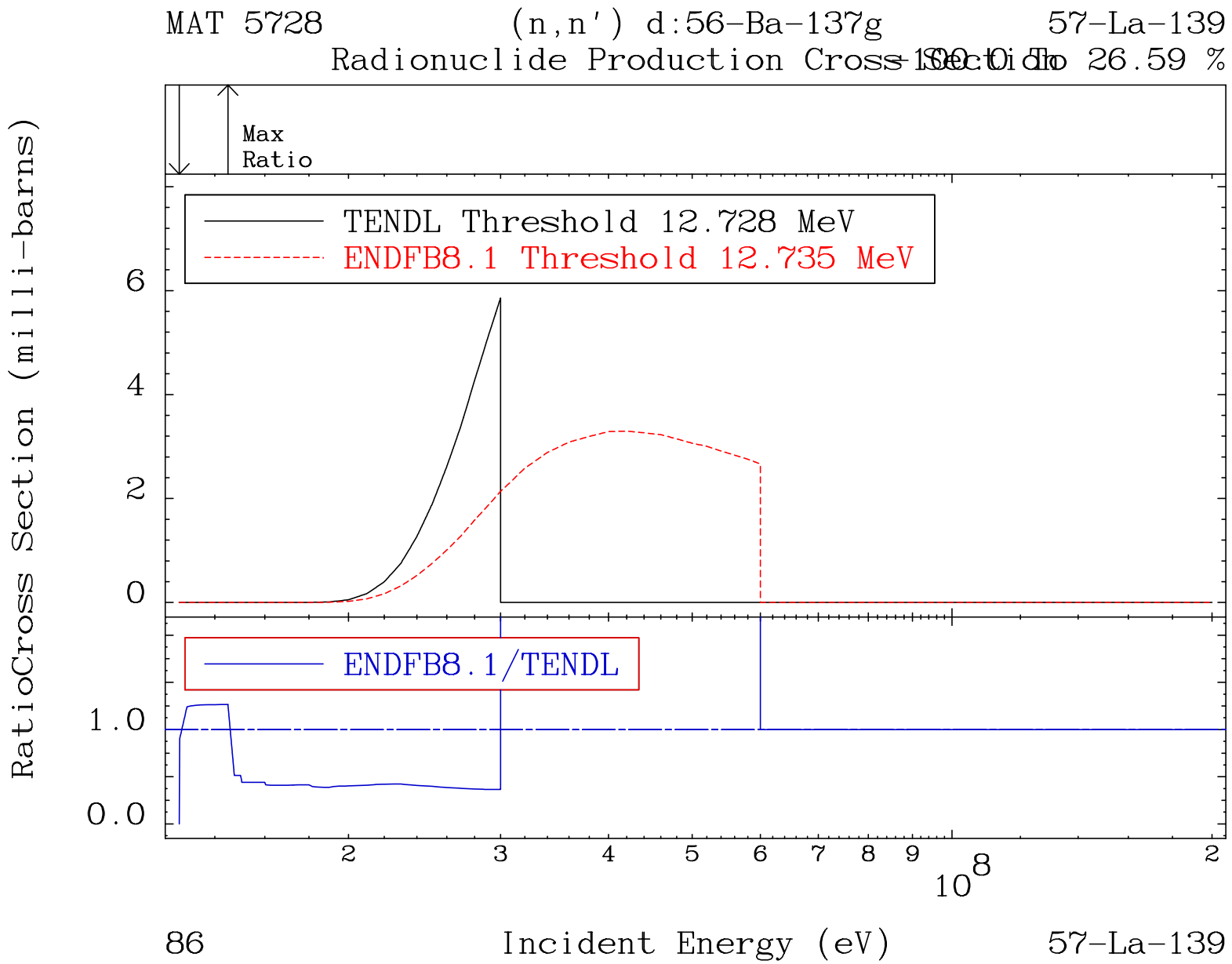

MAT 5728
(n,2n) d:56-Ba-136m5
57-La-139
Radionuclide Production Cross Section To 1193. %
Min
Ratio
TENDL Threshold 23.000 MeV
ENDFB8.1 Threshold 22.000 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (MeV)
81
57-La-139

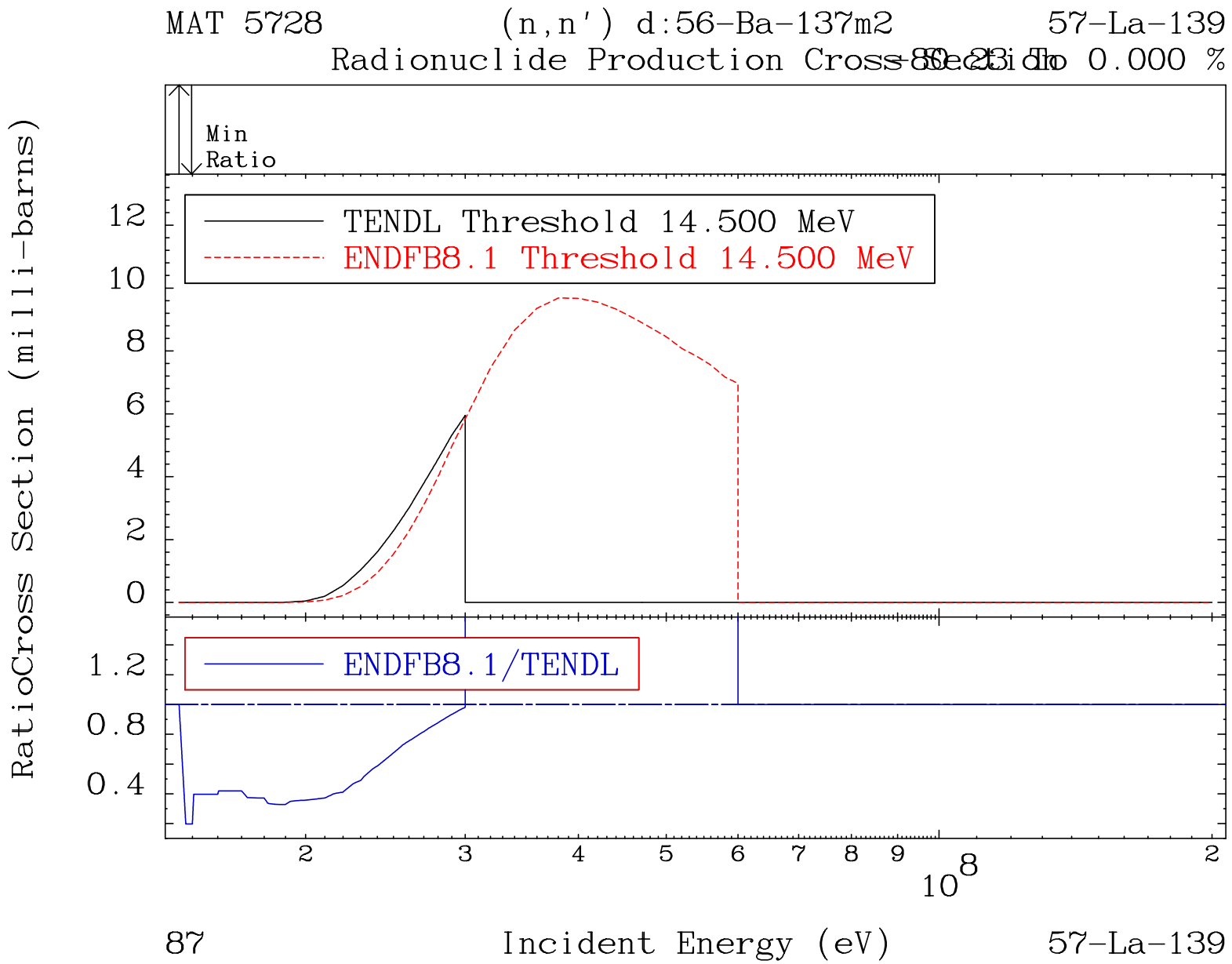

MAT 5728
(n,n') α:55-Cs-135g
57-La-139
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.0803 MeV
ENDFB8.1 Threshold 2.0867 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
82
57-La-139

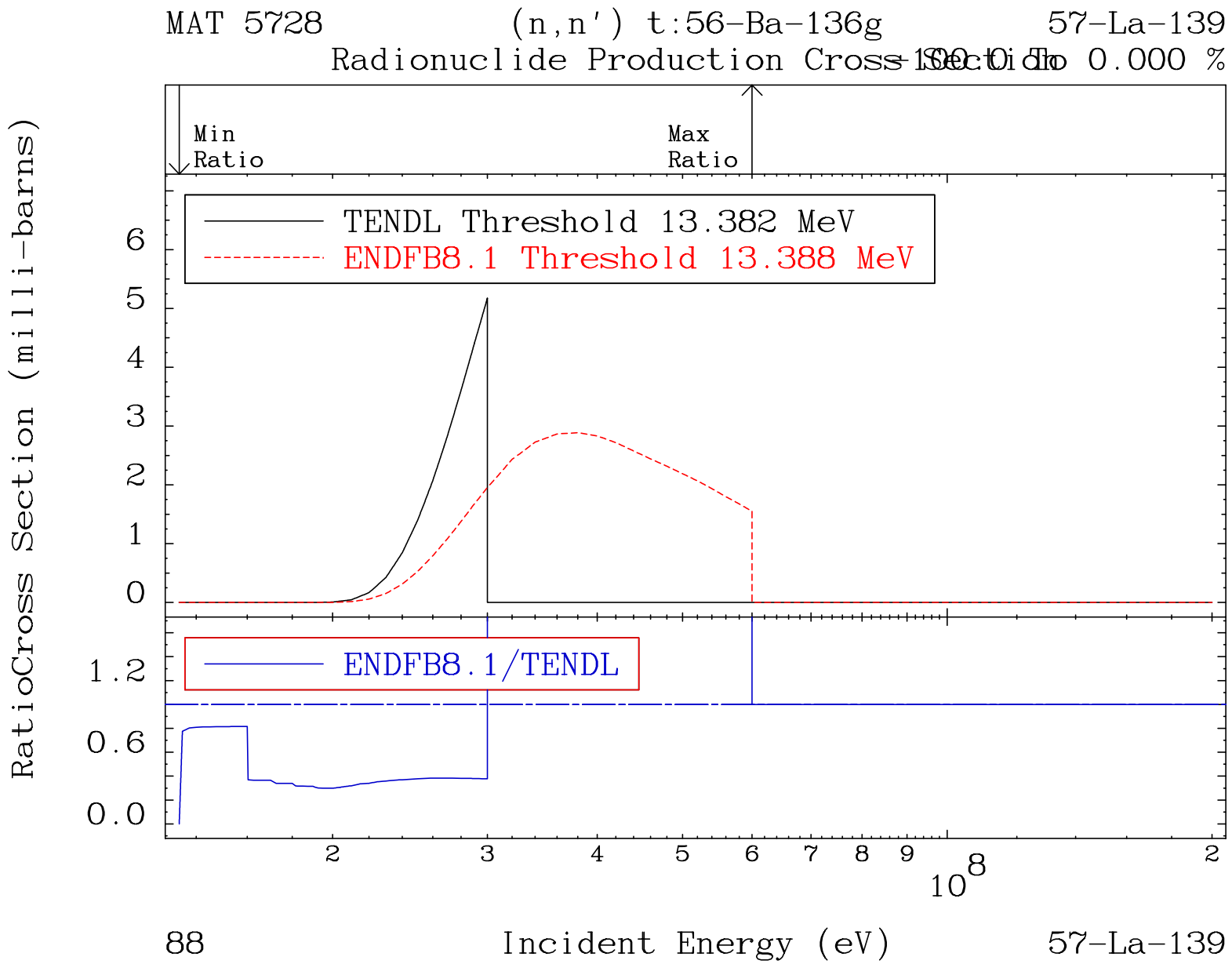

MAT 5728 (n,n') α:55-Cs-135m10 57-La-139
Radionuclide Production Cross-Section To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.6000 MeV
ENDFB8.1 Threshold 7.4000 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
83
57-La-139

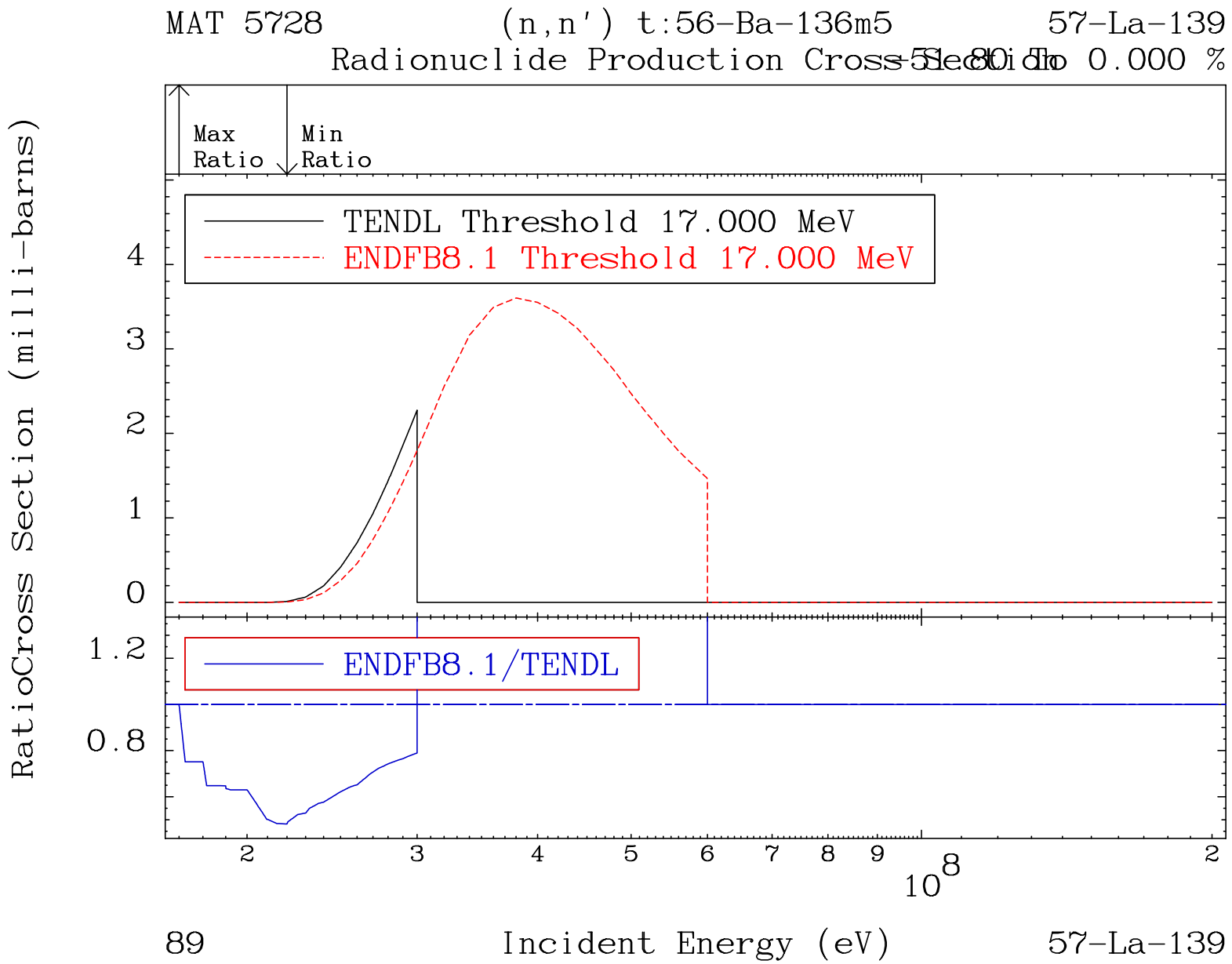

MAT 5728
(n,2n) α:55-Cs-134g
57-La-139
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.906 MeV
ENDFB8.1 Threshold 10.912 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
400
200
0
2
3
4
5
6
7
8
9
10^8
2
84
Incident Energy (eV)
57-La-139

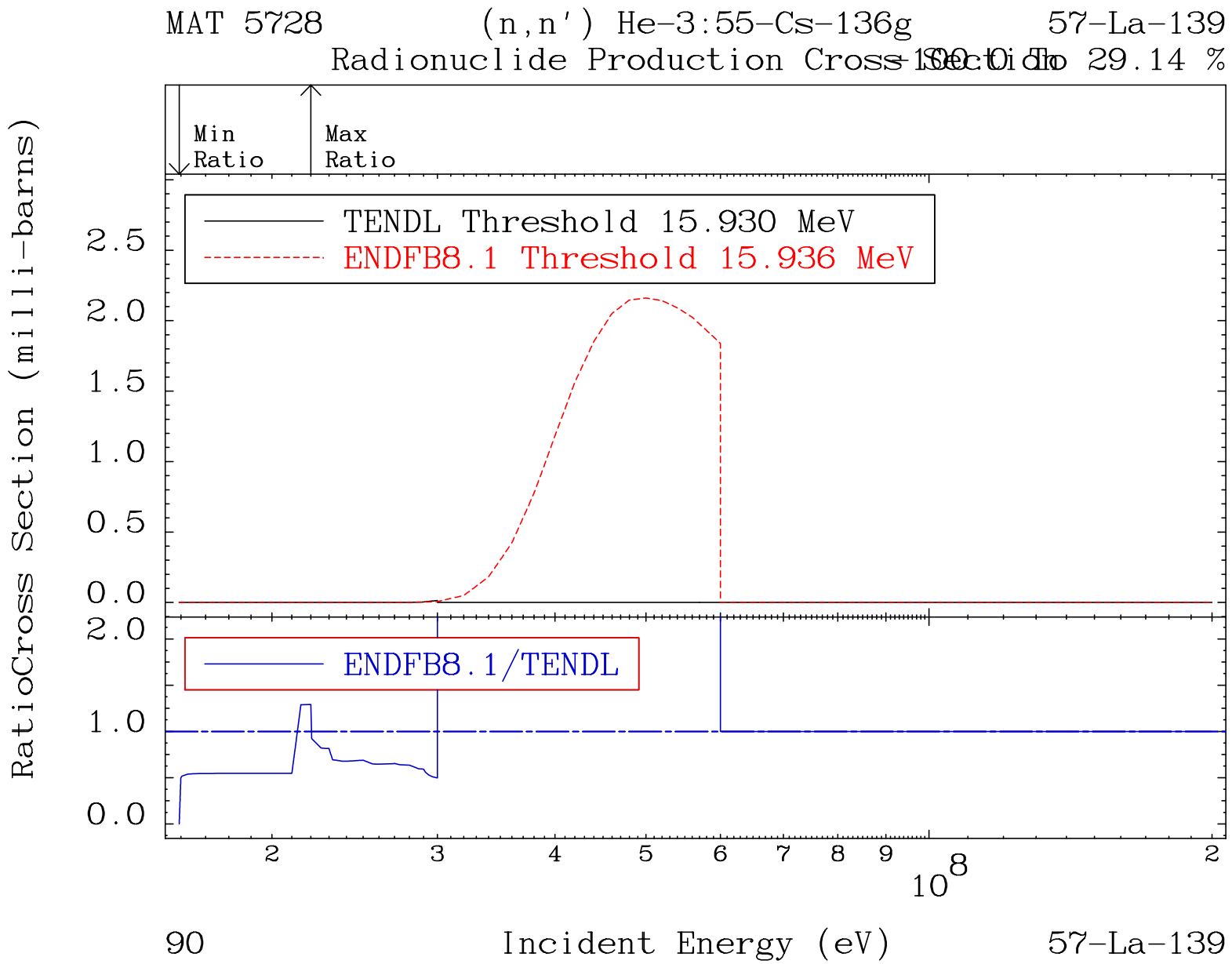

MAT 5728
(n,2n) α:55-Cs-134m3
57-La-139
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 11.046 MeV
ENDFB8.1 Threshold 14.500 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
14
12
10
8
6
4
2
0
400
200
0
2
3
4
5
6
7
8
9
10^8
2
85
Incident Energy (eV)
57-La-139

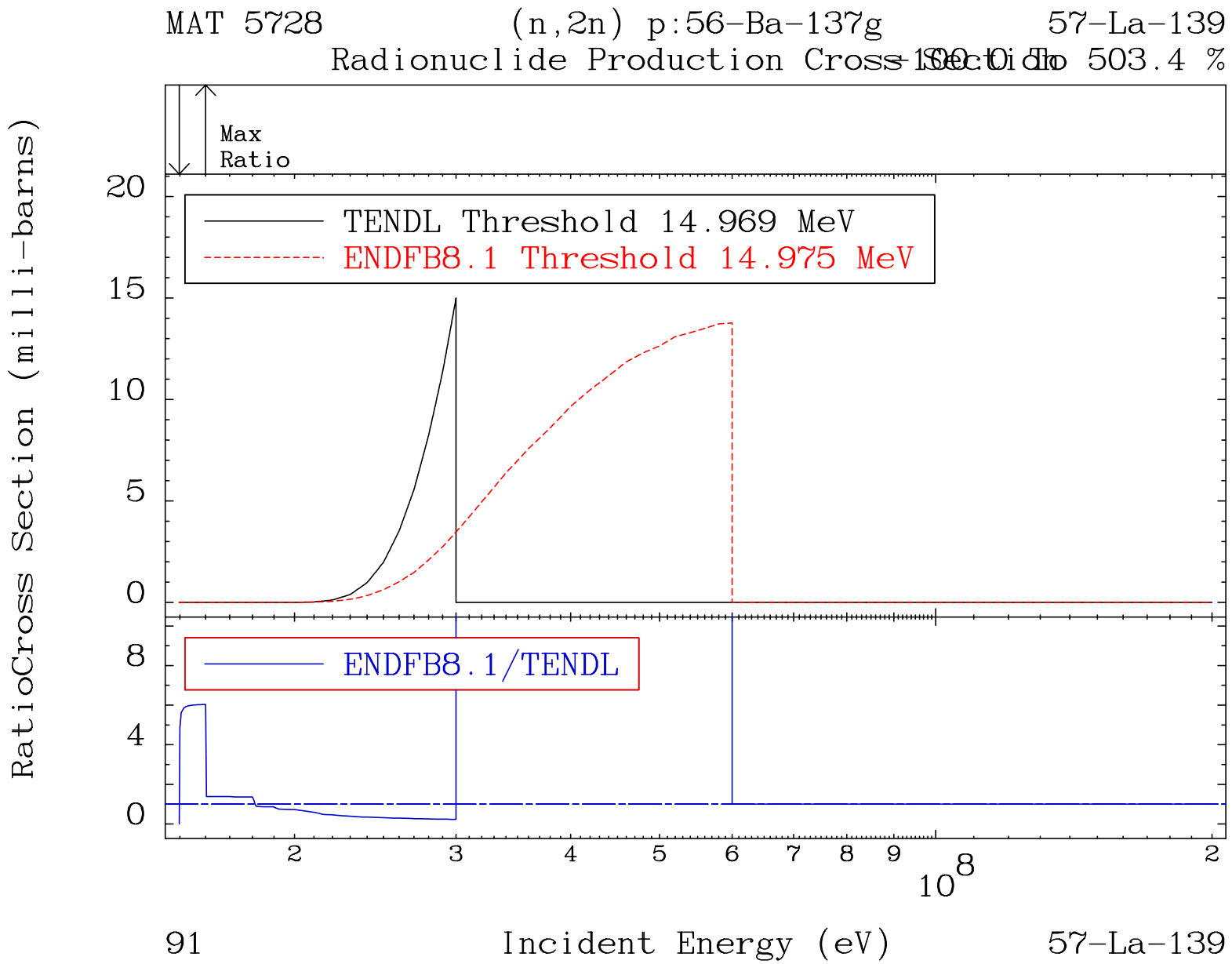

MAT 5728
(n,n') d:56-Ba-137g
57-La-139
Radionuclide Production Cross Section To 26.59 %
Max
Ratio
TENDL Threshold 12.728 MeV
ENDFB8.1 Threshold 12.735 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
6
4
2
0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
86
Incident Energy (eV)
57-La-139

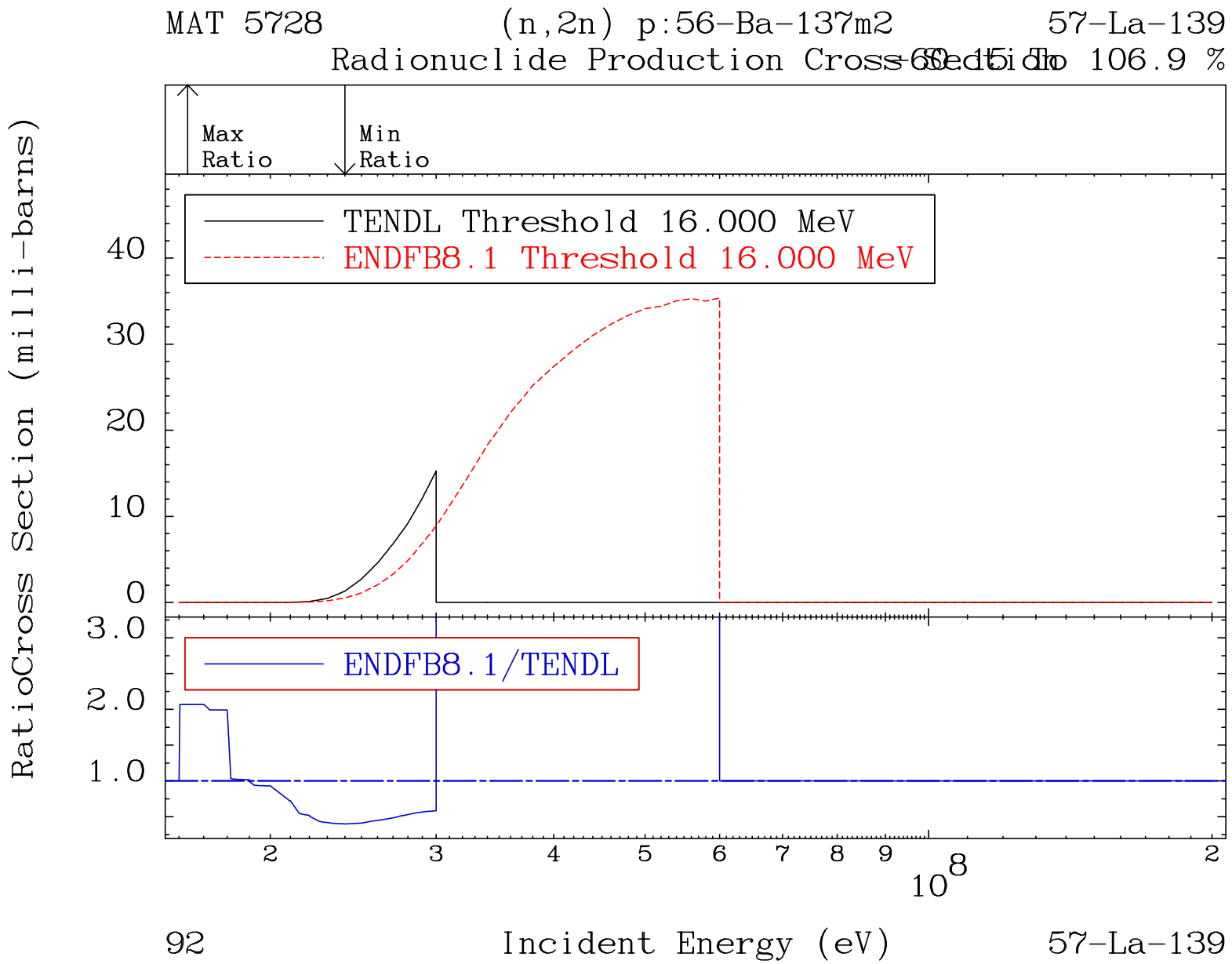

MAT 5728
(n,n') d:56-Ba-137m2
57-La-139
Radionuclide Production Cross Section
Min
Ratio
TENDL Threshold 14.500 MeV
ENDFB8.1 Threshold 14.500 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
12
10
8
6
4
2
0
1.2
0.8
0.4
2
3
4
5
6
7
8
9
2
10^8
87
Incident Energy (eV)
57-La-139

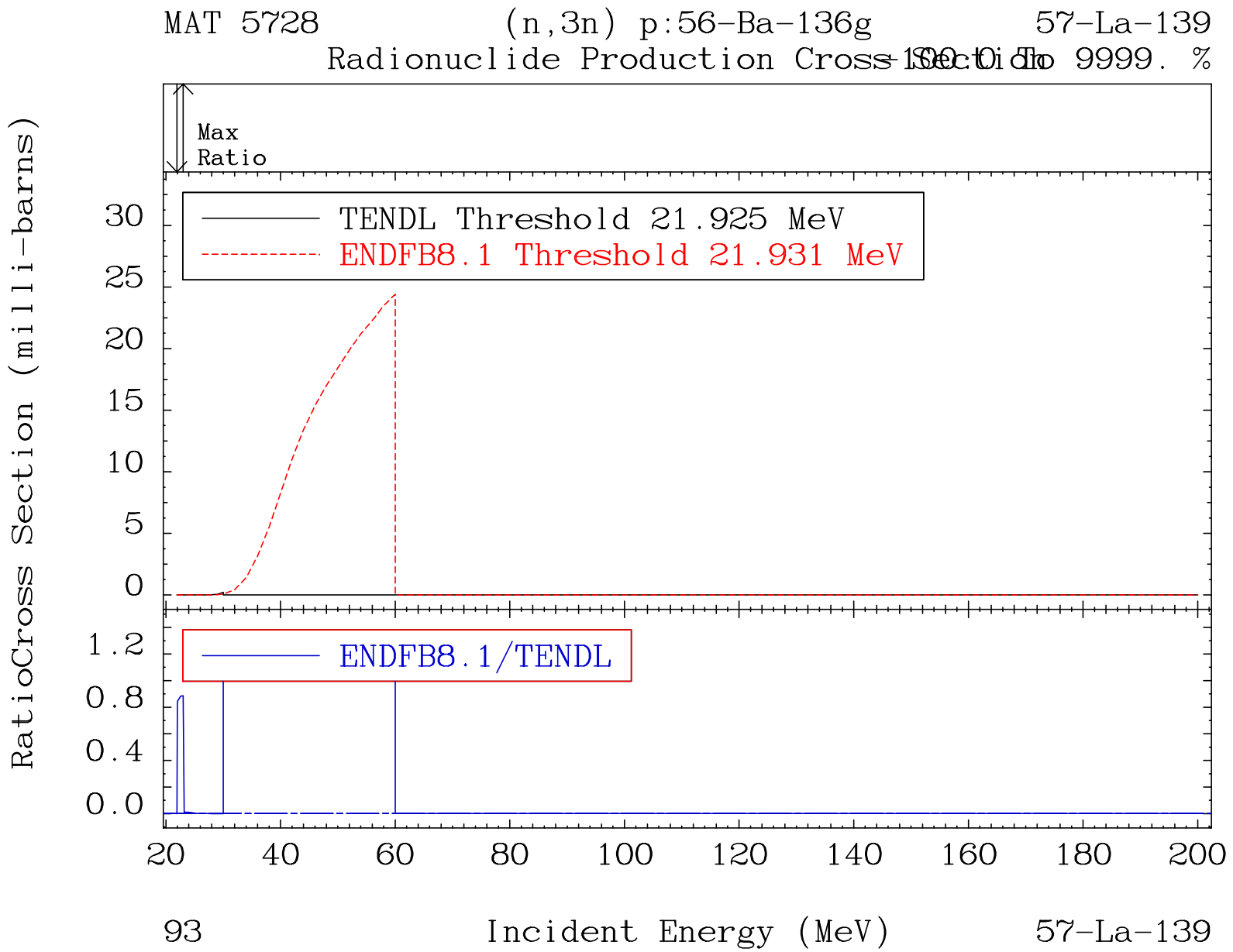

MAT 5728
(n,n') t:56-Ba-136g
57-La-139
Radionuclide Production Cross Section
Uncertainty 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 13.382 MeV
ENDFB8.1 Threshold 13.388 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
88
57-La-139

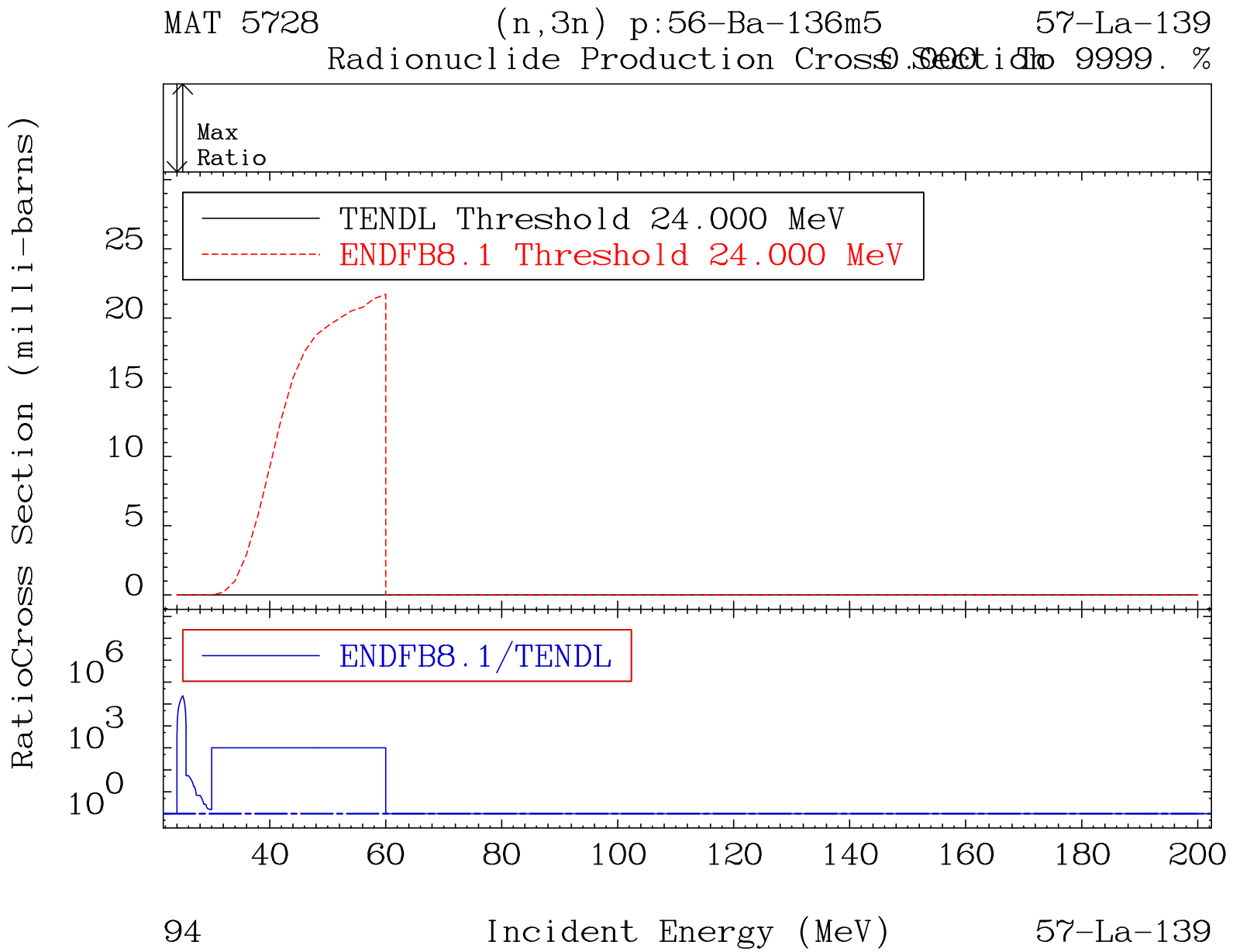

MAT 5728 (n,n') t:56-Ba-136m5 57-La-139
Radionuclide Production Cross-Section To 0.000 %
Max Ratio
Min Ratio
TENDL Threshold 17.000 MeV
ENDFB8.1 Threshold 17.000 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
89
57-La-139
0
1
2
3
4
0.8
1.2
2
3
4
5
6
7
8
9
10^8

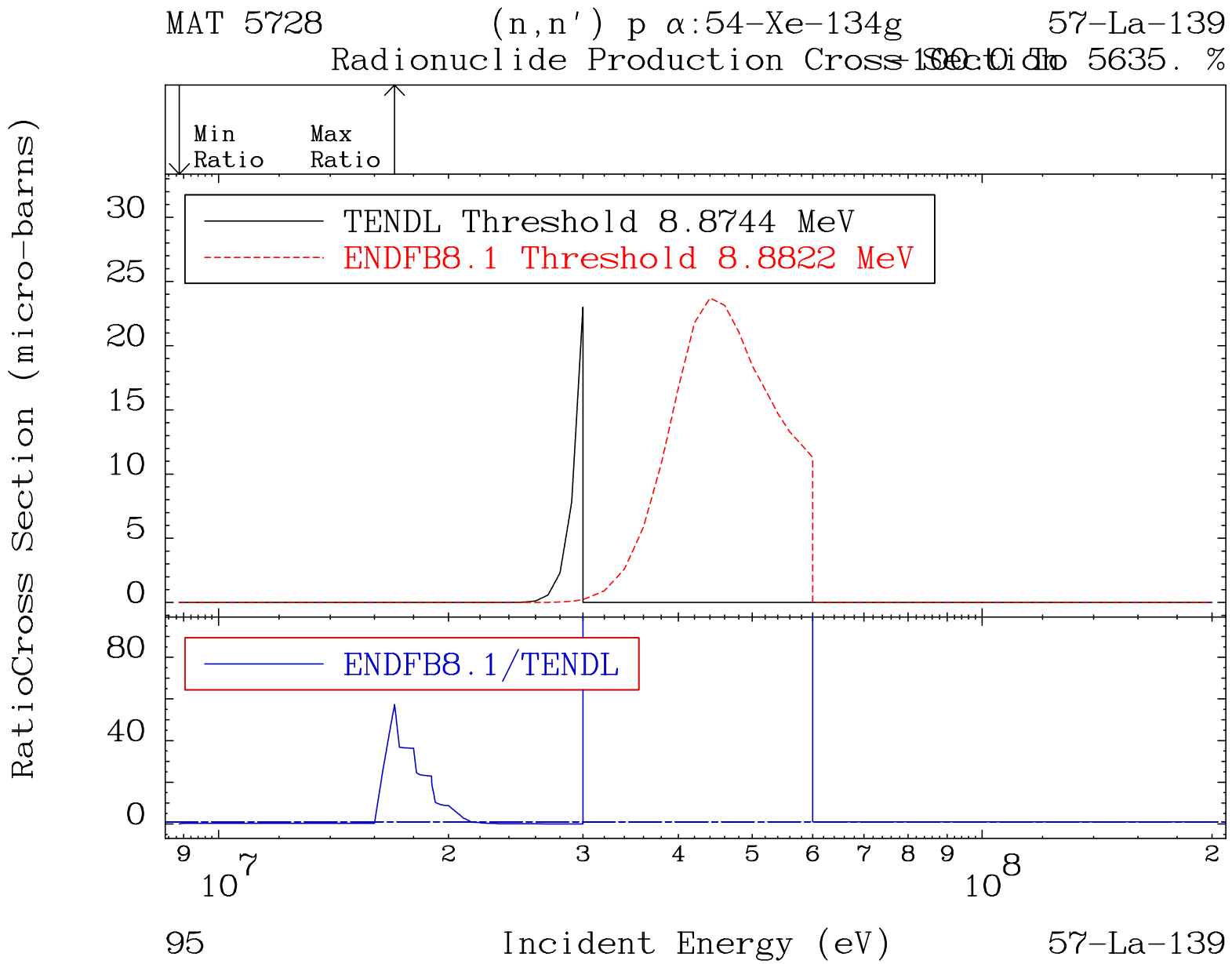

MAT 5728 (n,n') He-3:55-Cs-136g 57-La-139
Radionuclide Production Cross Section To 29.14 %
Min Ratio
Max Ratio
TENDL Threshold 15.930 MeV
ENDFB8.1 Threshold 15.936 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
90
Incident Energy (eV)
57-La-139

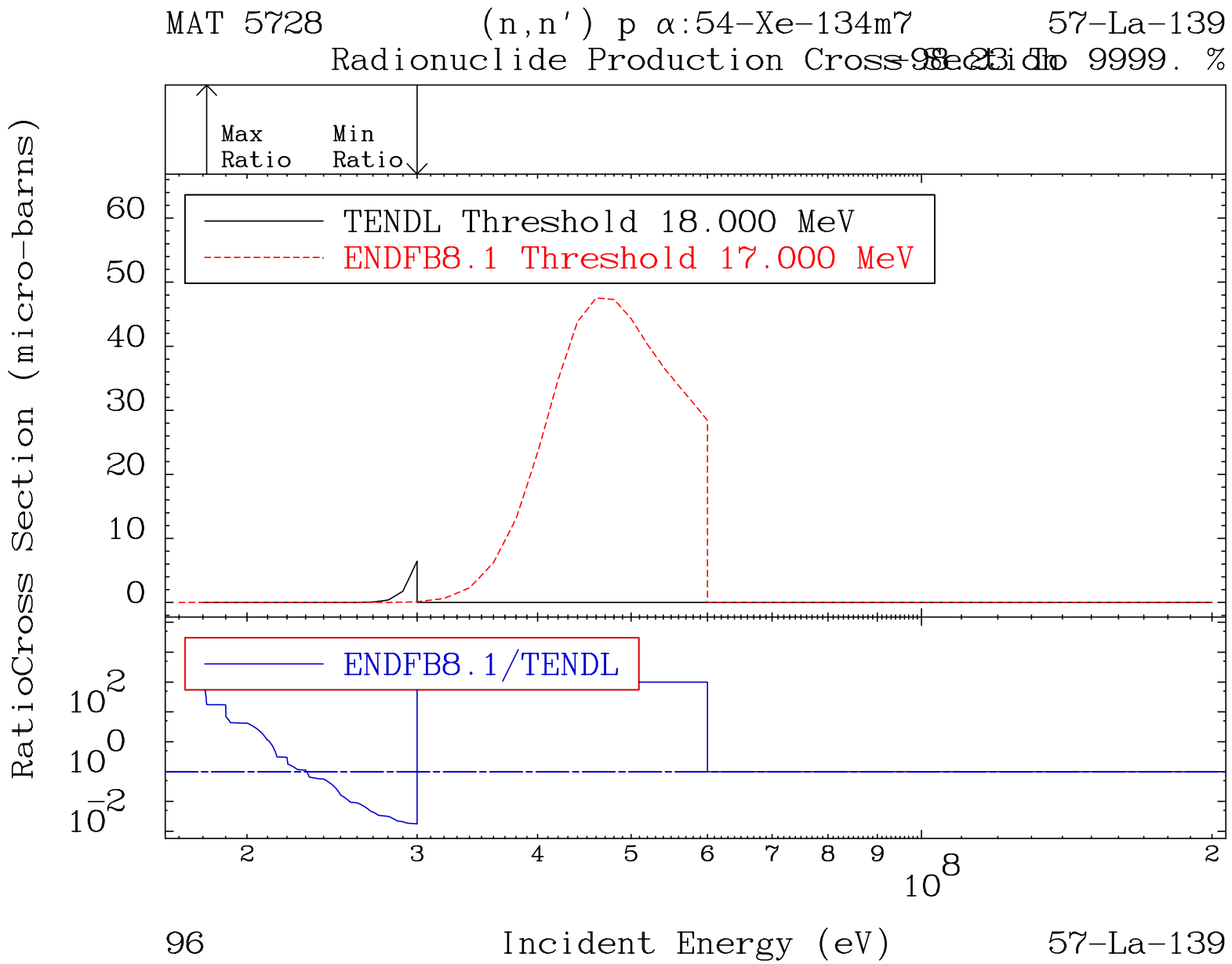

MAT 5728
(n,2n) p:56-Ba-137g
57-La-139
Radionuclide Production Cross Section To 503.4 %
Max
Ratio
TENDL Threshold 14.969 MeV
ENDFB8.1 Threshold 14.975 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
91
57-La-139

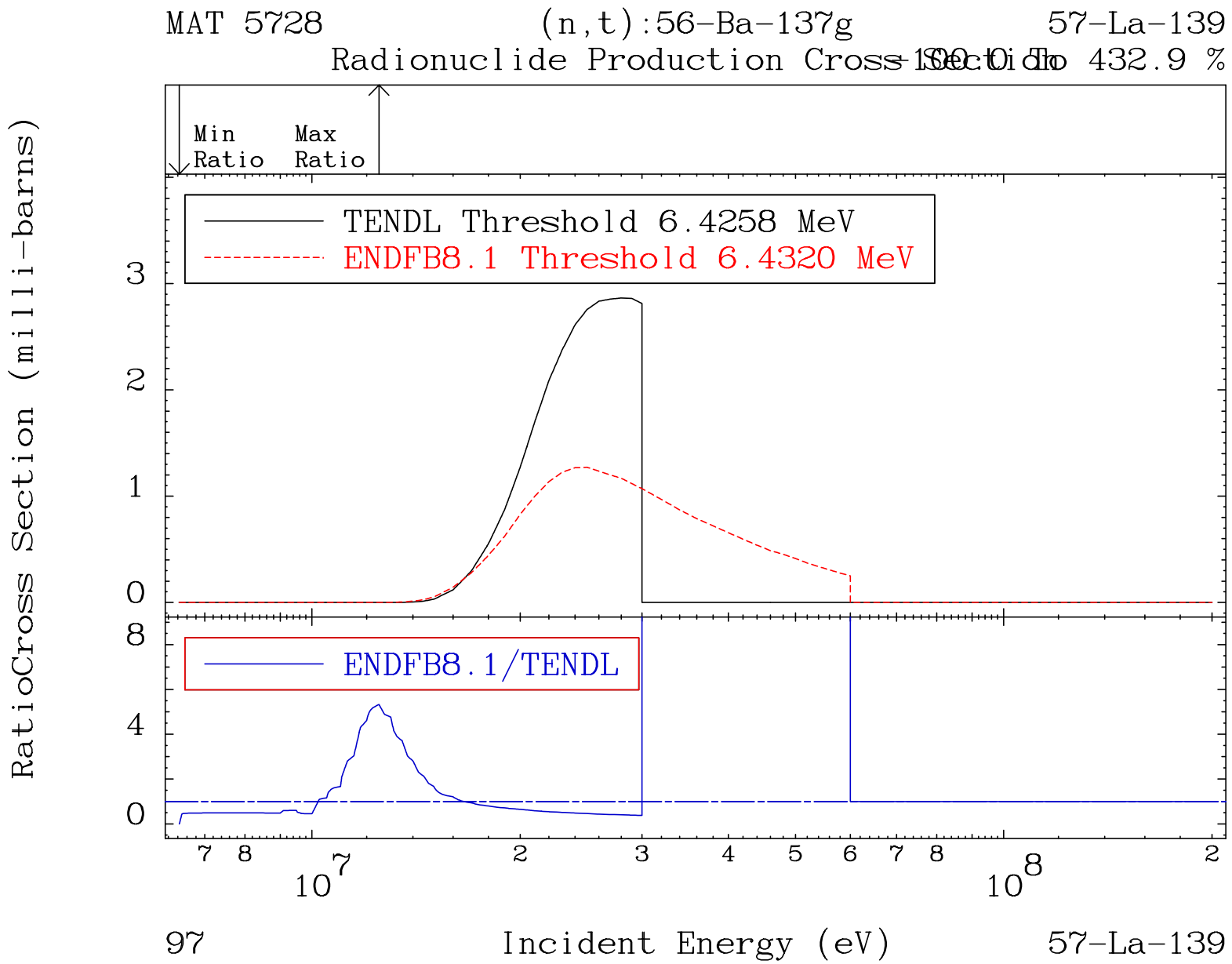

MAT 5728
(n,2n) p:56-Ba-137m2
57-La-139
Radionuclide Production Cross Section
Max Ratio
Min Ratio
TENDL Threshold 16.000 MeV
ENDFB8.1 Threshold 16.000 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
92
57-La-139

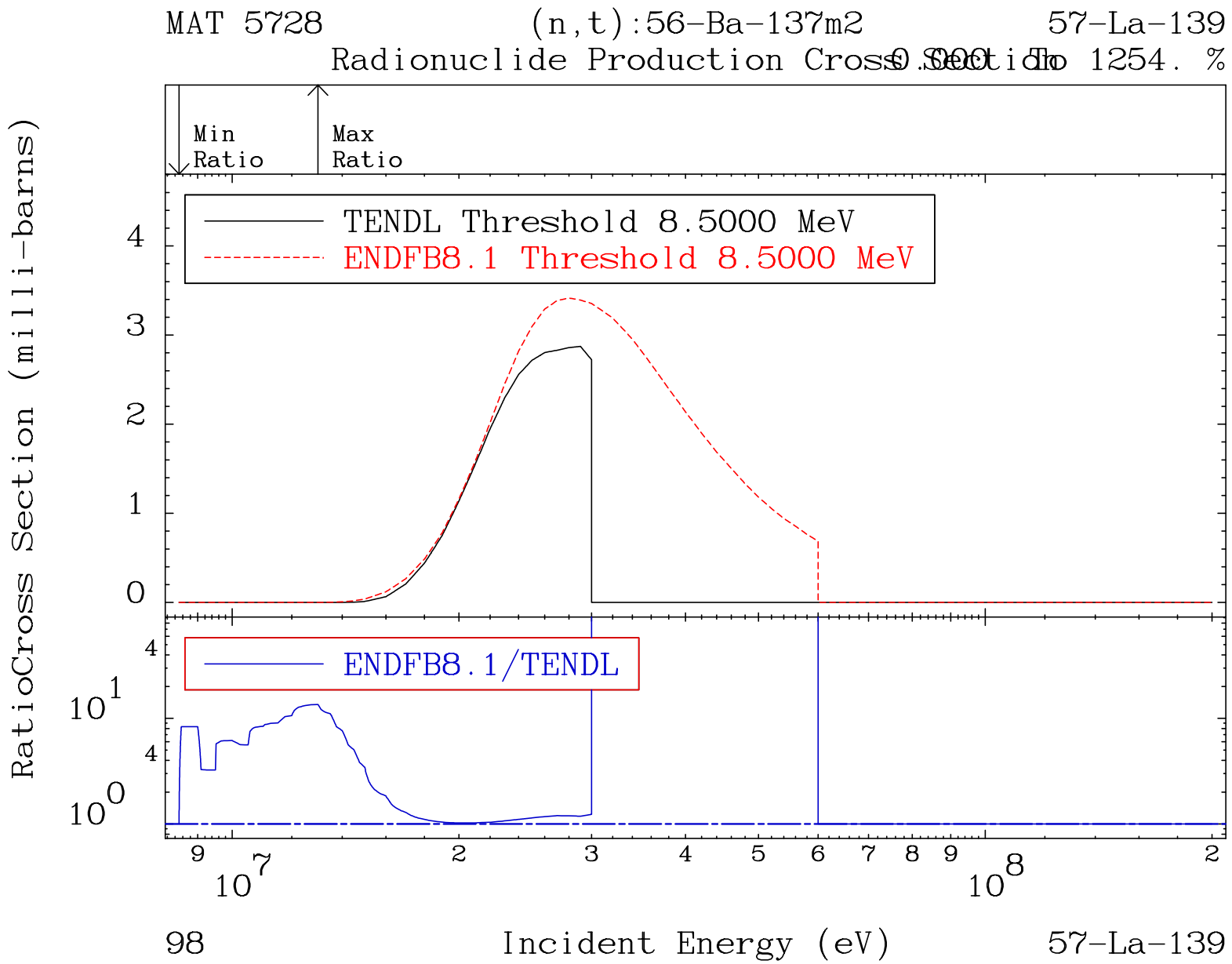

MAT 5728
(n,3n) p:56-Ba-136g
57-La-139
Radionuclide Production Cross Section To 9999. %
Max
Ratio
TENDL Threshold 21.925 MeV
ENDFB8.1 Threshold 21.931 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
1.2
0.8
0.4
0.0
20
40
60
80
100
120
140
160
180
200
93
Incident Energy (MeV)
57-La-139

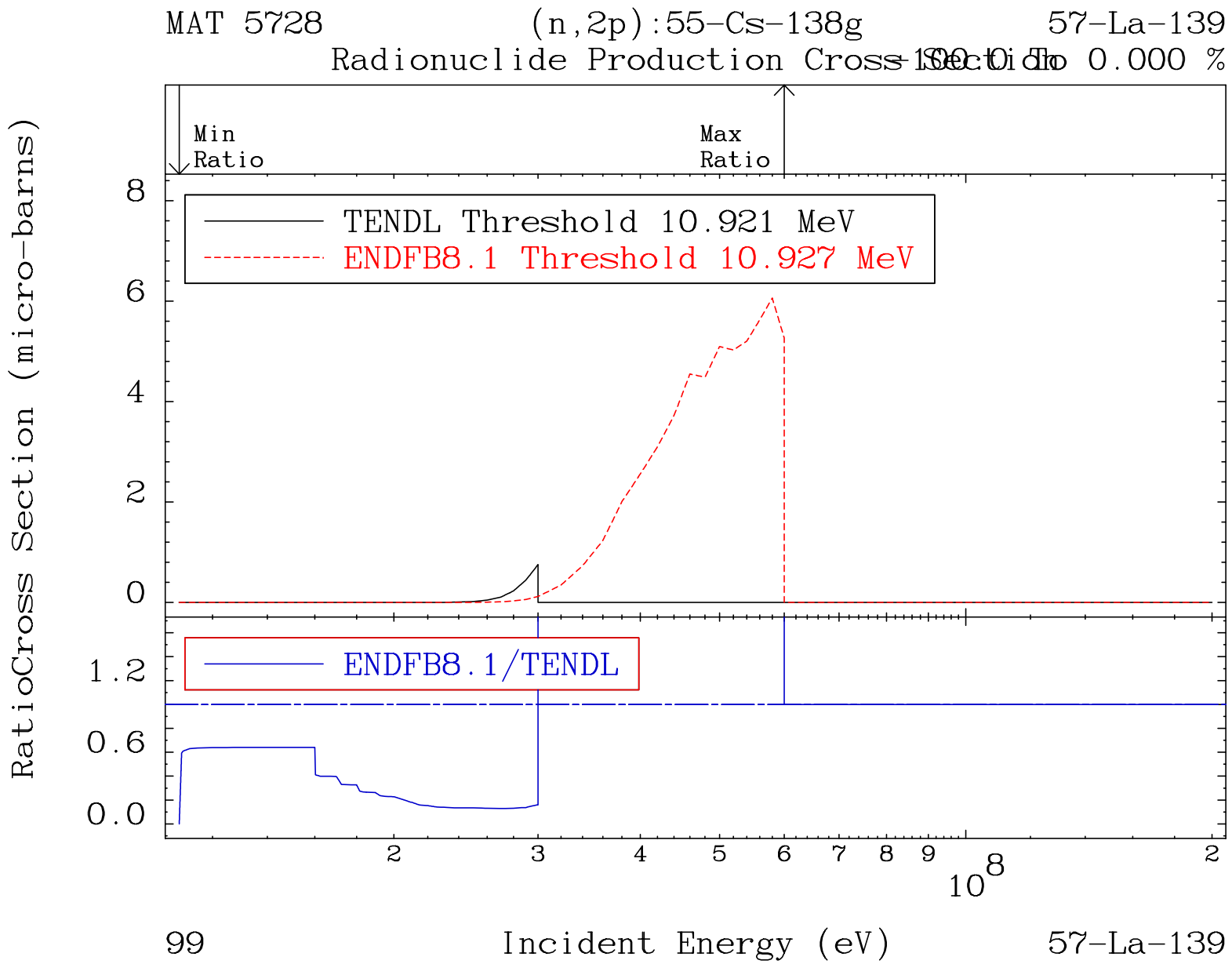

MAT 5728
(n,3n) p:56-Ba-136m5
57-La-139
Radionuclide Production Cross Section
0.000 To 9999. %
Max
Ratio
TENDL Threshold 24.000 MeV
ENDFB8.1 Threshold 24.000 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
10^6
10^3
10^0
40
60
80
100
120
140
160
180
200
94
Incident Energy (MeV)
57-La-139

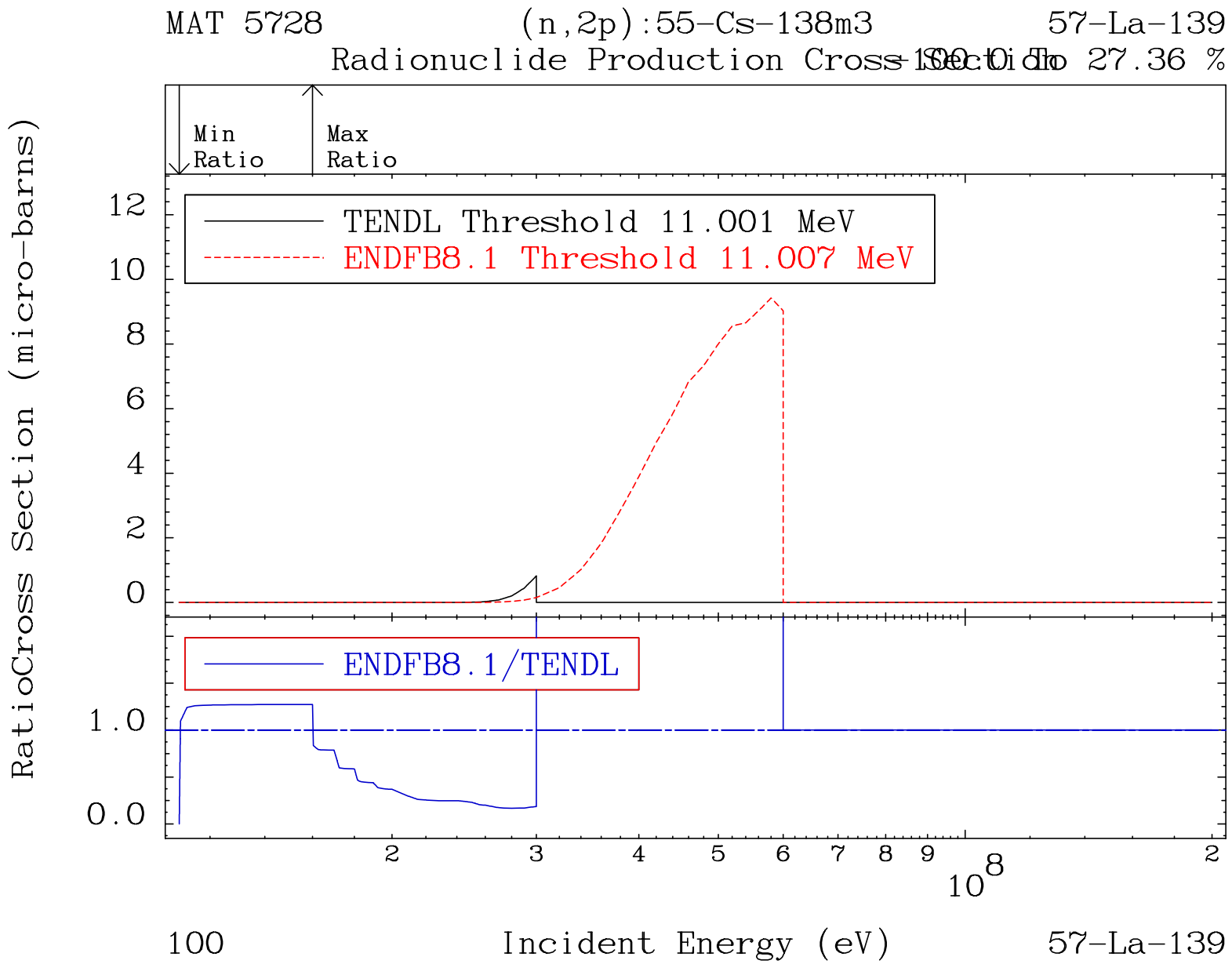

MAT 5728
(n,n') p α:54-Xe-134g
57-La-139
Radionuclide Production Cross Section To 5635. %
Min Ratio
Max Ratio
TENDL Threshold 8.8744 MeV
ENDFB8.1 Threshold 8.8822 MeV
ENDFB8.1/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
95
57-La-139

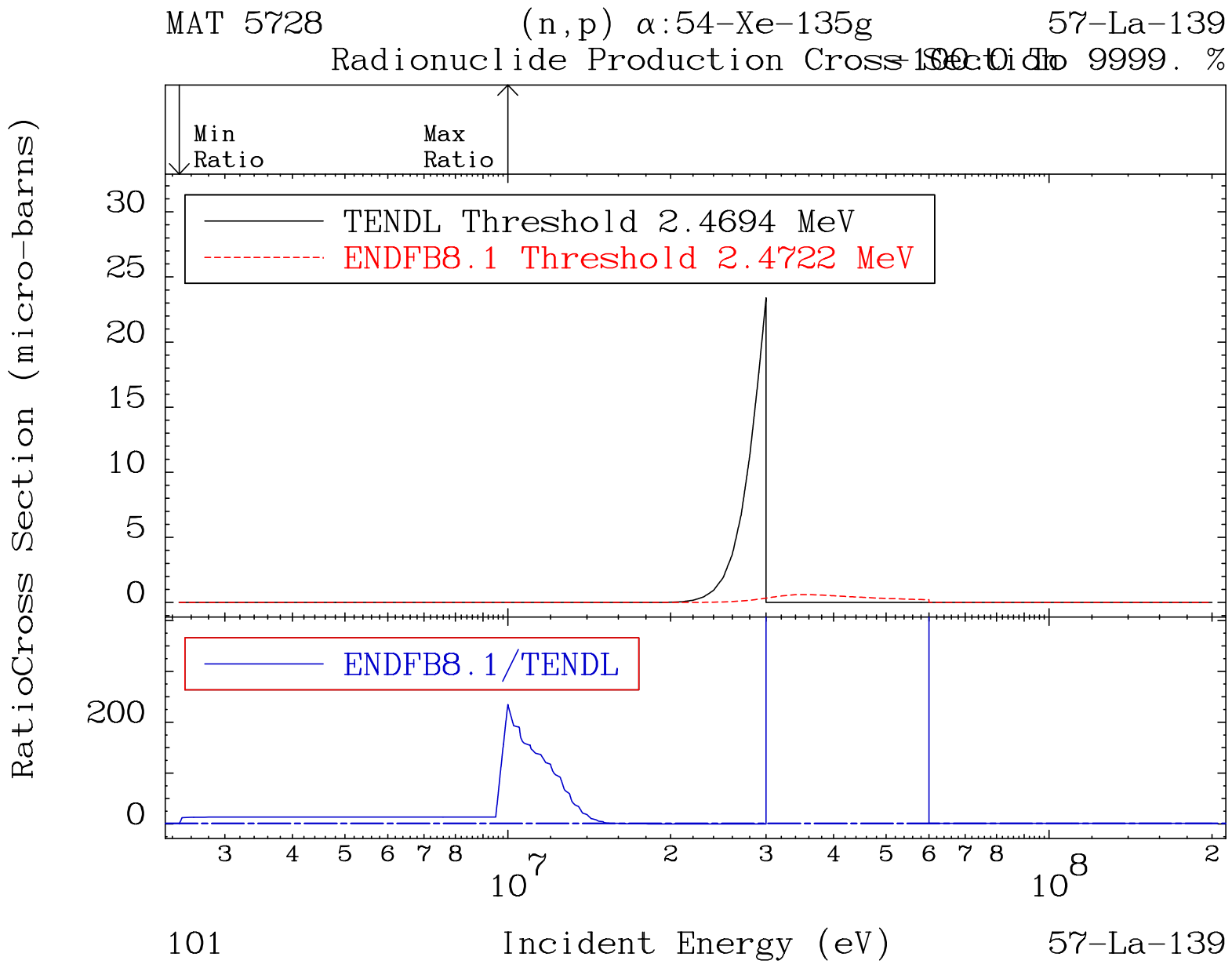

MAT 5728
(n,n') p α:54-Xe-134m7
57-La-139
Radionuclide Production Cross Section To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 18.000 MeV
ENDFB8.1 Threshold 17.000 MeV
ENDFB8.1/TENDL
RatioCross Section (micro-barns)
60
50
40
30
20
10
0
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
96
Incident Energy (eV)
57-La-139

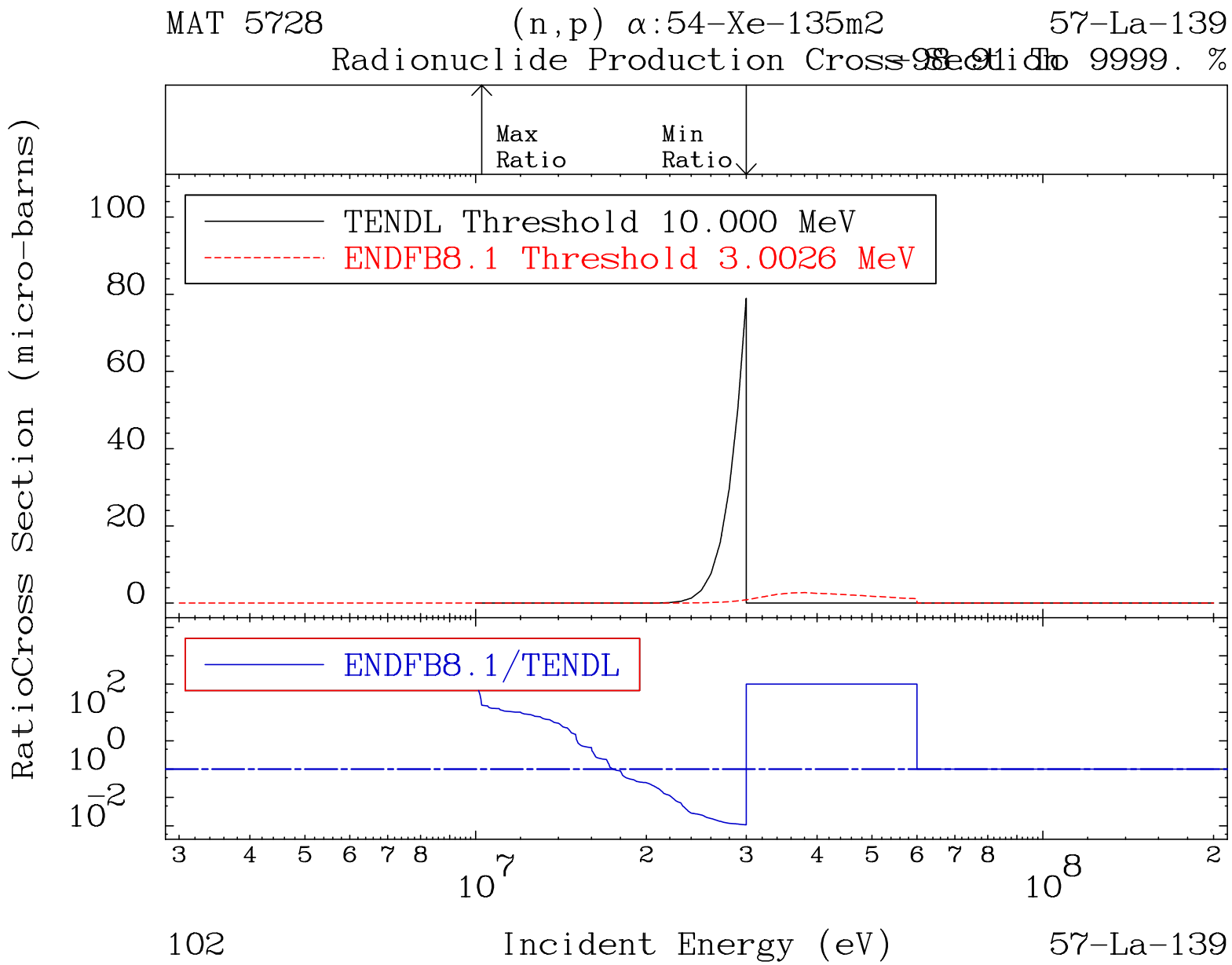

MAT 5728
(n,t):56-Ba-137g
57-La-139
Radionuclide Production Cross Section To 432.9 %
Min Ratio
Max Ratio
TENDL Threshold 6.4258 MeV
ENDFB8.1 Threshold 6.4320 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
97
57-La-139

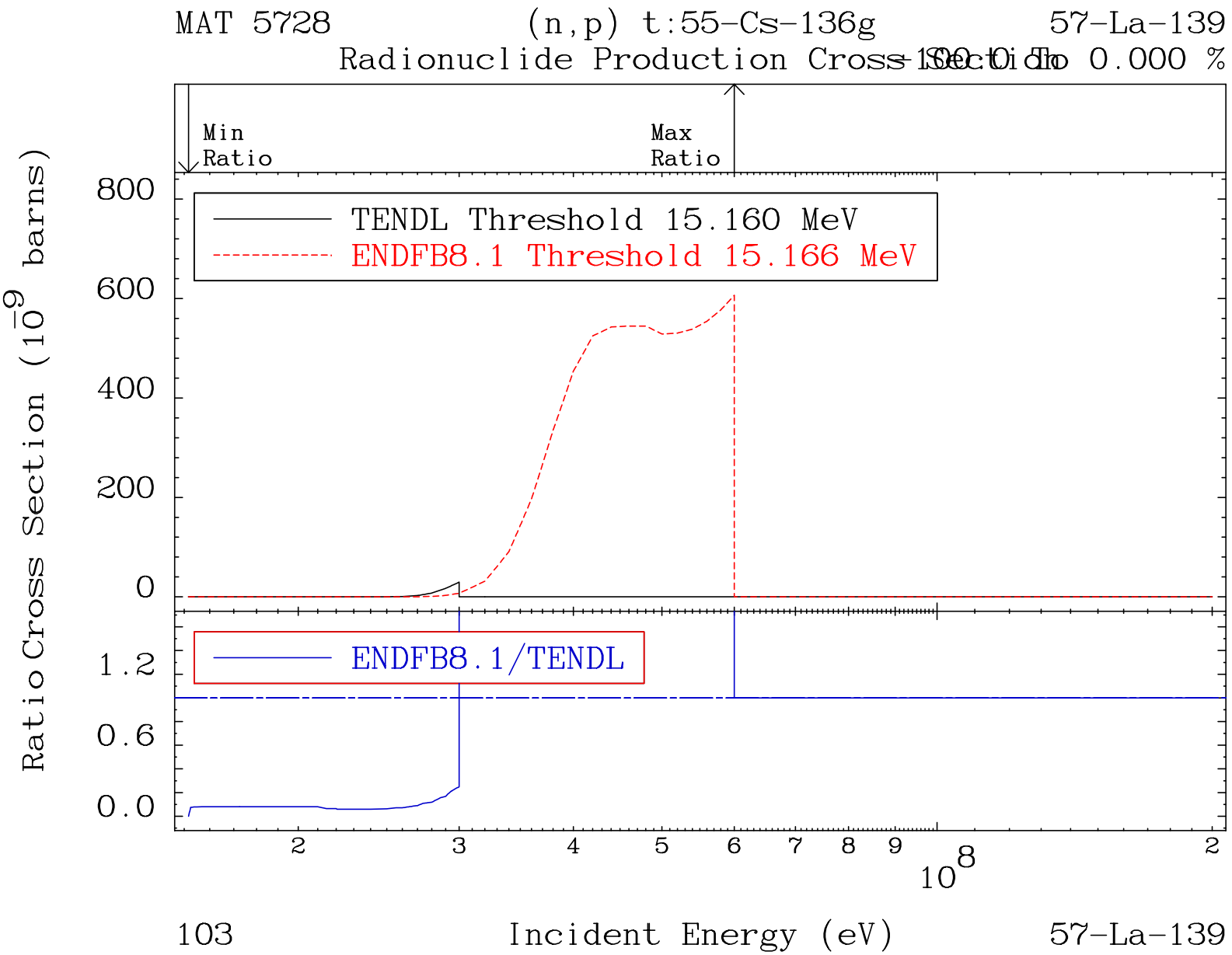

MAT 5728
(n,t):56-Ba-137m2
57-La-139
Radionuclide Production Cross Section
0.000 To 1254. %
Min Ratio
Max Ratio
TENDL Threshold 8.5000 MeV
ENDFB8.1 Threshold 8.5000 MeV
ENDFB8.1/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
98
57-La-139

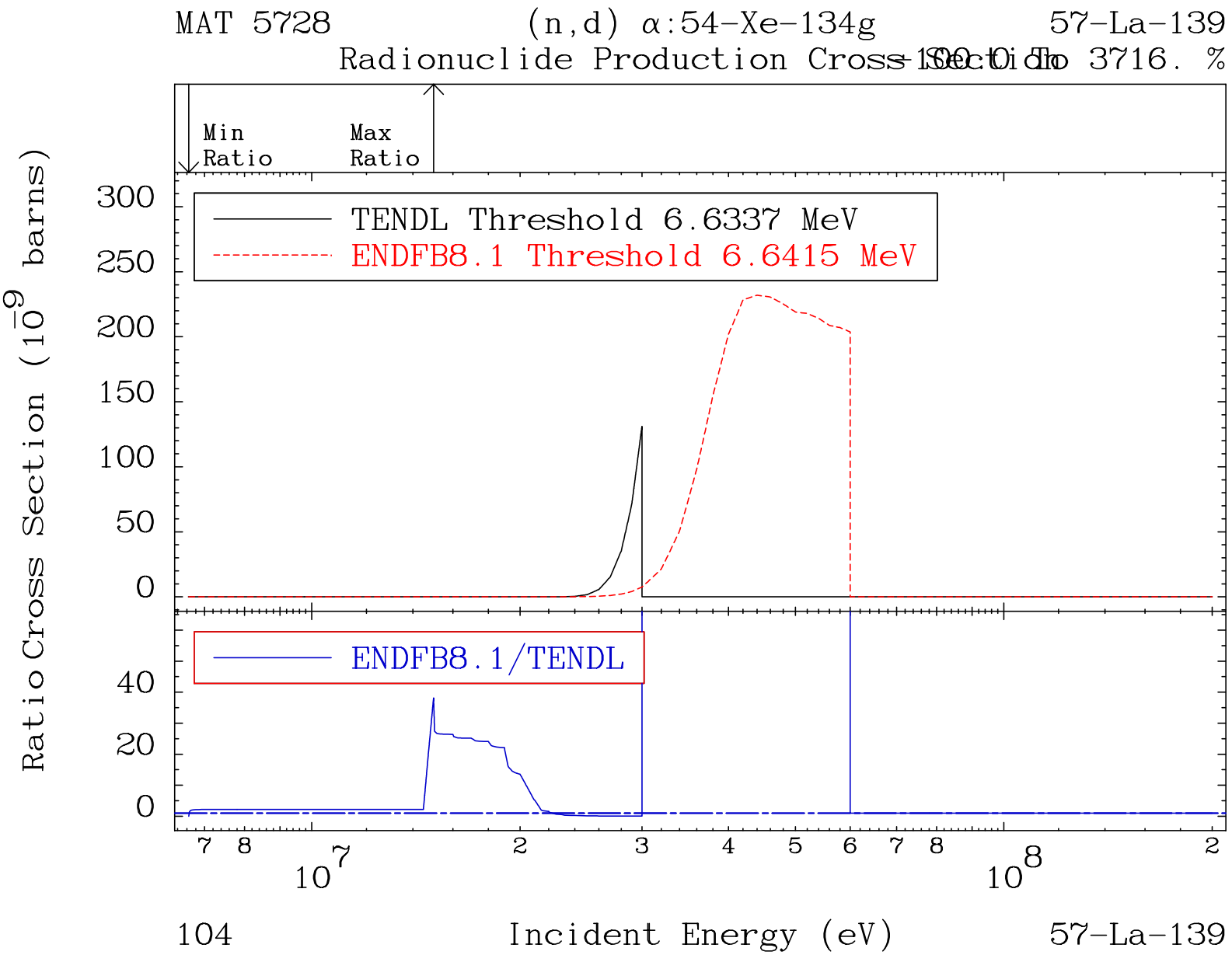

MAT 5728
(n,2p):55-Cs-138g
57-La-139
Radionuclide Production Cross Section
Uncertainty 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 10.921 MeV
ENDFB8.1 Threshold 10.927 MeV
ENDFB8.1/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
99
57-La-139

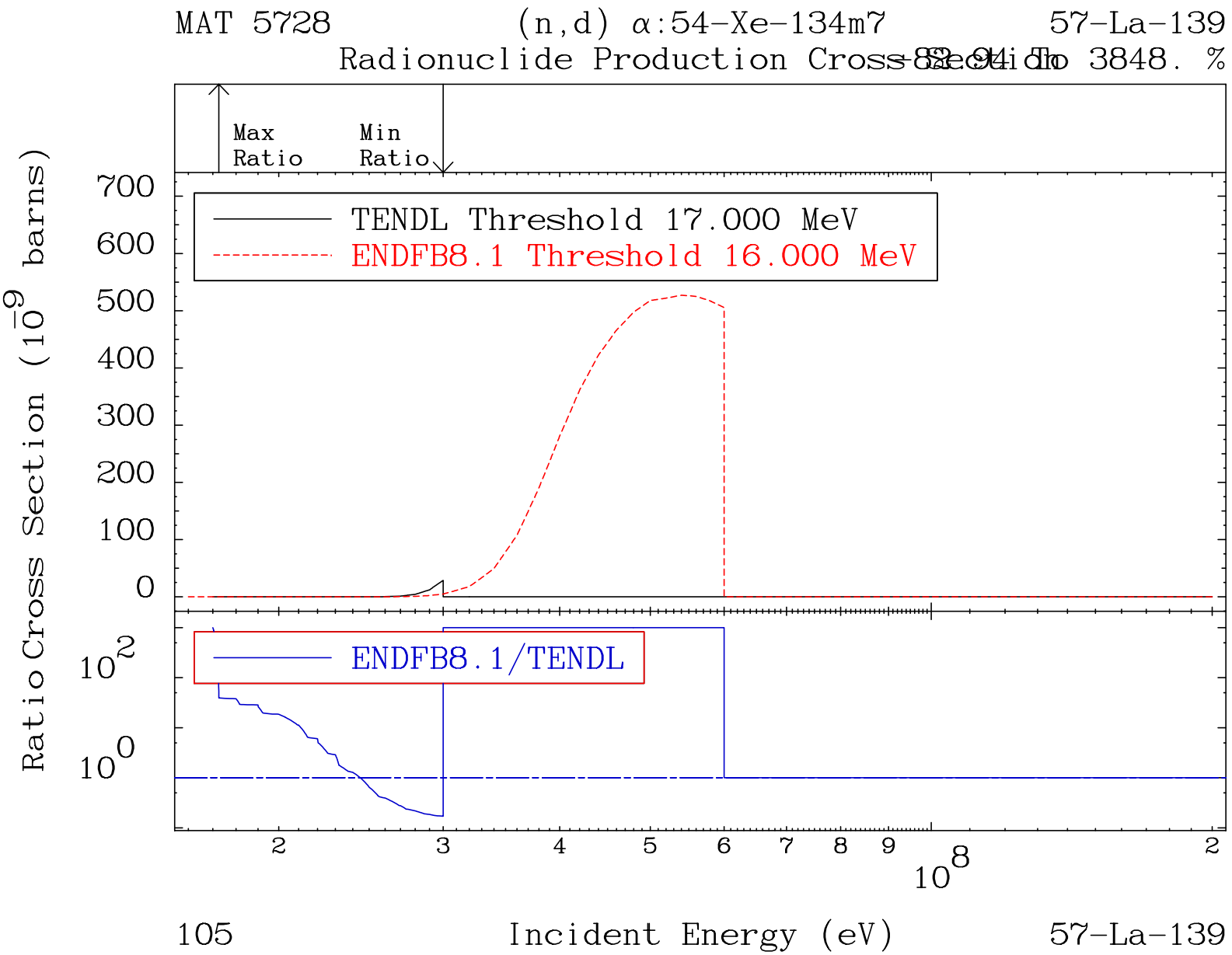

MAT 5728
(n,2p):55-Cs-138m3
57-La-139
Radionuclide Production Cross Section To 27.36 %
Min Ratio
Max Ratio
TENDL Threshold 11.001 MeV
ENDFB8.1 Threshold 11.007 MeV
ENDFB8.1/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
100
57-La-139


MAT 5728
(n,p) α:54-Xe-135g
57-La-139
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.4694 MeV
ENDFB8.1 Threshold 2.4722 MeV
ENDFB8.1/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
101
57-La-139


MAT 5728
(n,p) α:54-Xe-135m2
57-La-139
Radionuclide Production Cross Section To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 10.000 MeV
ENDFB8.1 Threshold 3.0026 MeV
ENDFB8.1/TENDL
RatioCross Section (micro-barns)
100
80
60
40
20
0
10^2
10^0
10^-2
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
102
Incident Energy (eV)
57-La-139


MAT 5728
(n,p) t:55-Cs-136g
57-La-139
Radionuclide Production Cross Section To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 15.160 MeV
ENDFB8.1 Threshold 15.166 MeV
ENDFB8.1/TENDL
Ratio Cross Section (10^{-9} barns)
800
600
400
200
0
1.2
0.6
0.0
2
3
4
5
6
7
8
9
10^8
2
103
Incident Energy (eV)
57-La-139


MAT 5728
(n,d) α:54-Xe-134g
57-La-139
Radionuclide Production Cross Section To 3716. %
Min Ratio
Max Ratio
TENDL Threshold 6.6337 MeV
ENDFB8.1 Threshold 6.6415 MeV
ENDFB8.1/TENDL
Ratio Cross Section (10^{-9} barns)
300
250
200
150
100
50
0
40
20
0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
104
Incident Energy (eV)
57-La-139


MAT 5728
(n,d) α:54-Xe-134m7
57-La-139
Radionuclide Production Cross Section
Max Ratio
Min Ratio
TENDL Threshold 17.000 MeV
ENDFB8.1 Threshold 16.000 MeV
ENDFB8.1/TENDL
Ratio Cross Section (10^-9 barns)
Incident Energy (eV)
105
57-La-139