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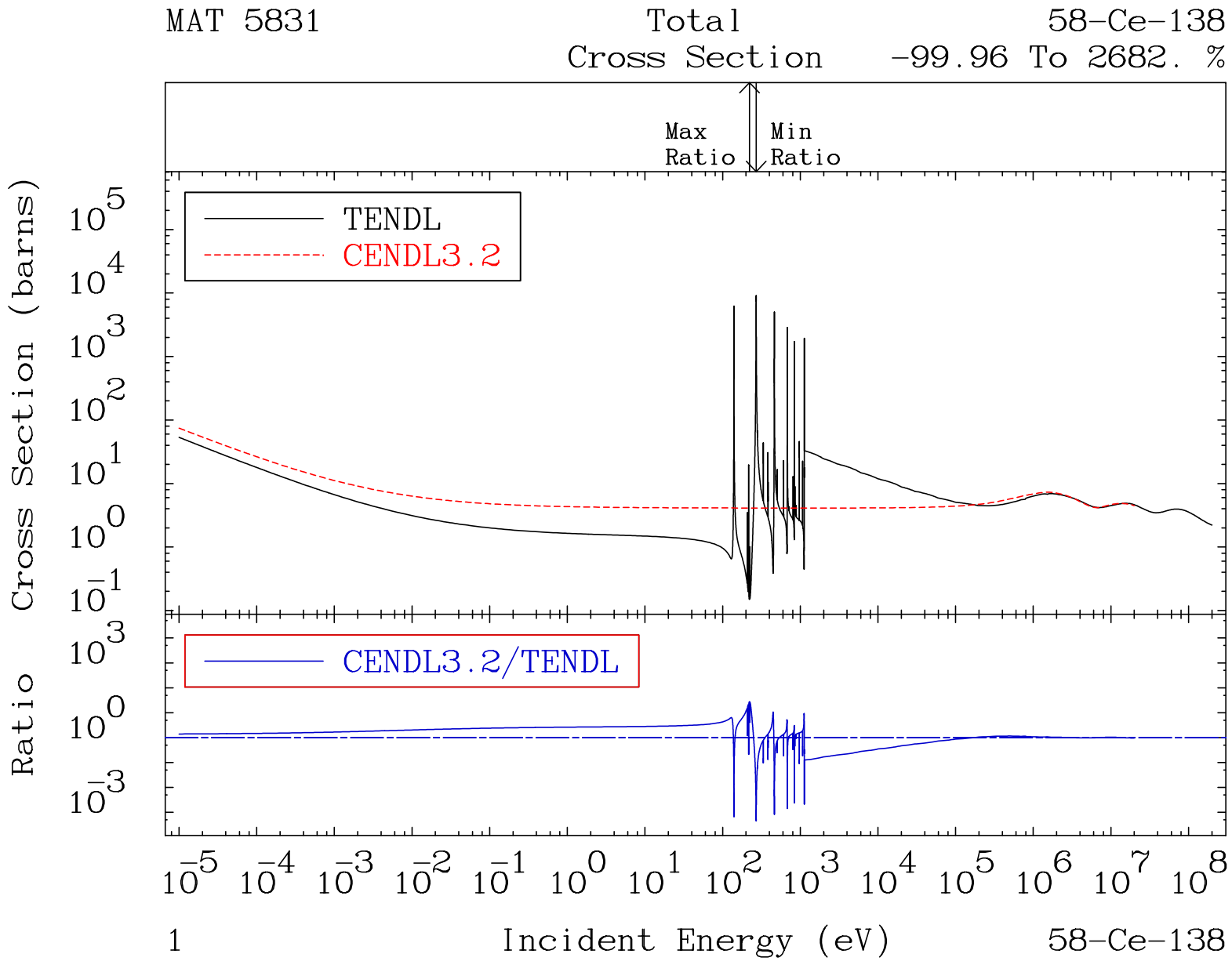
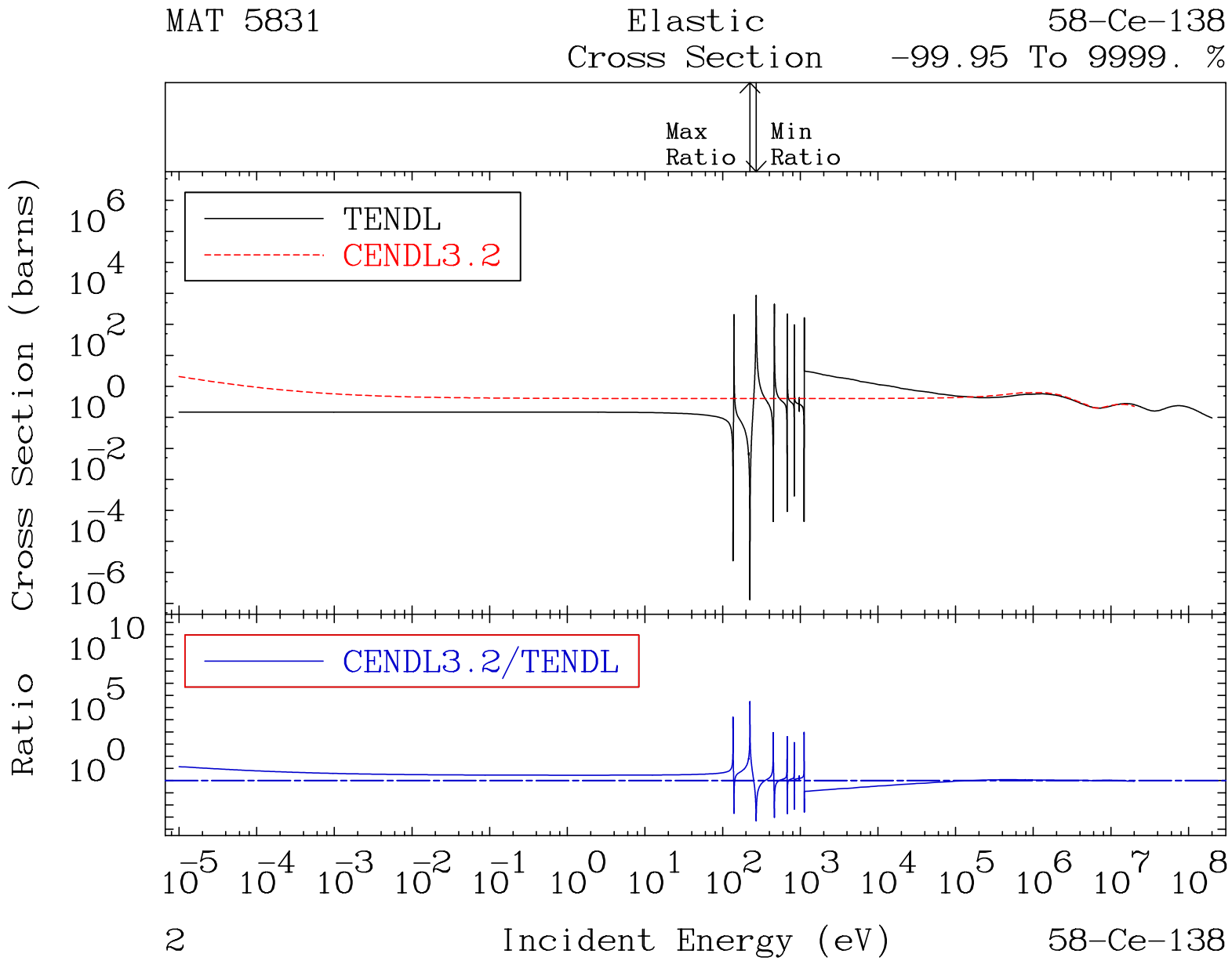
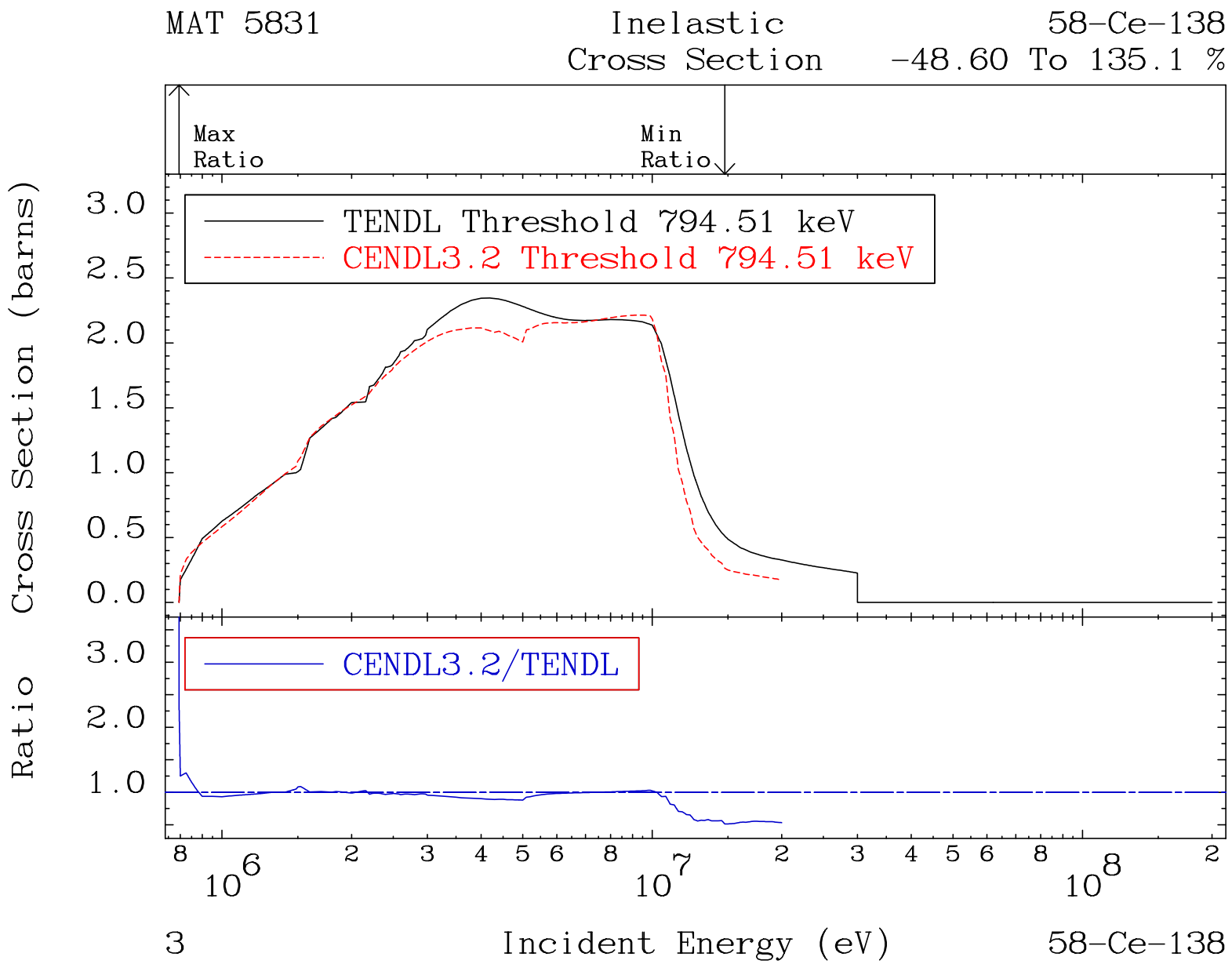
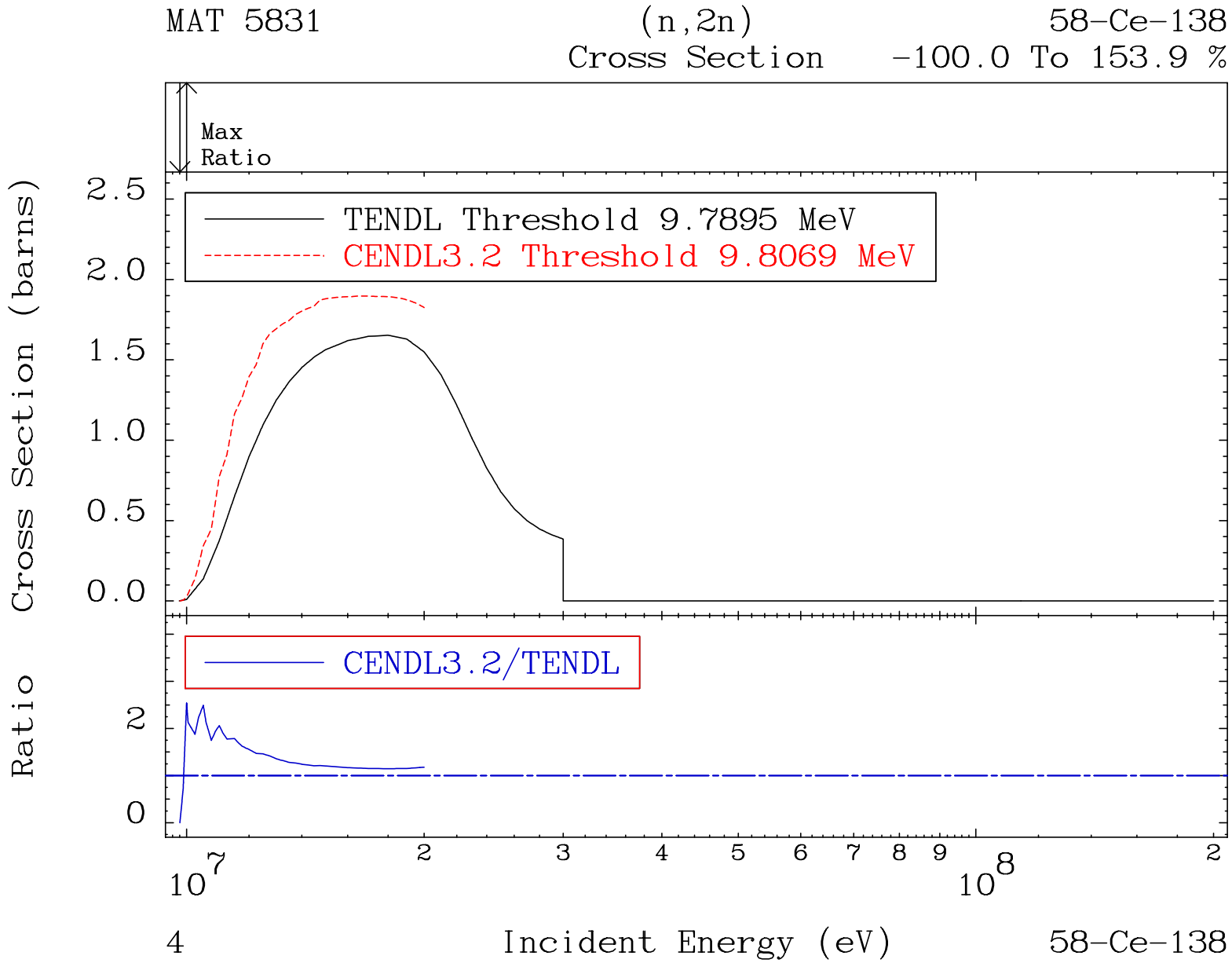
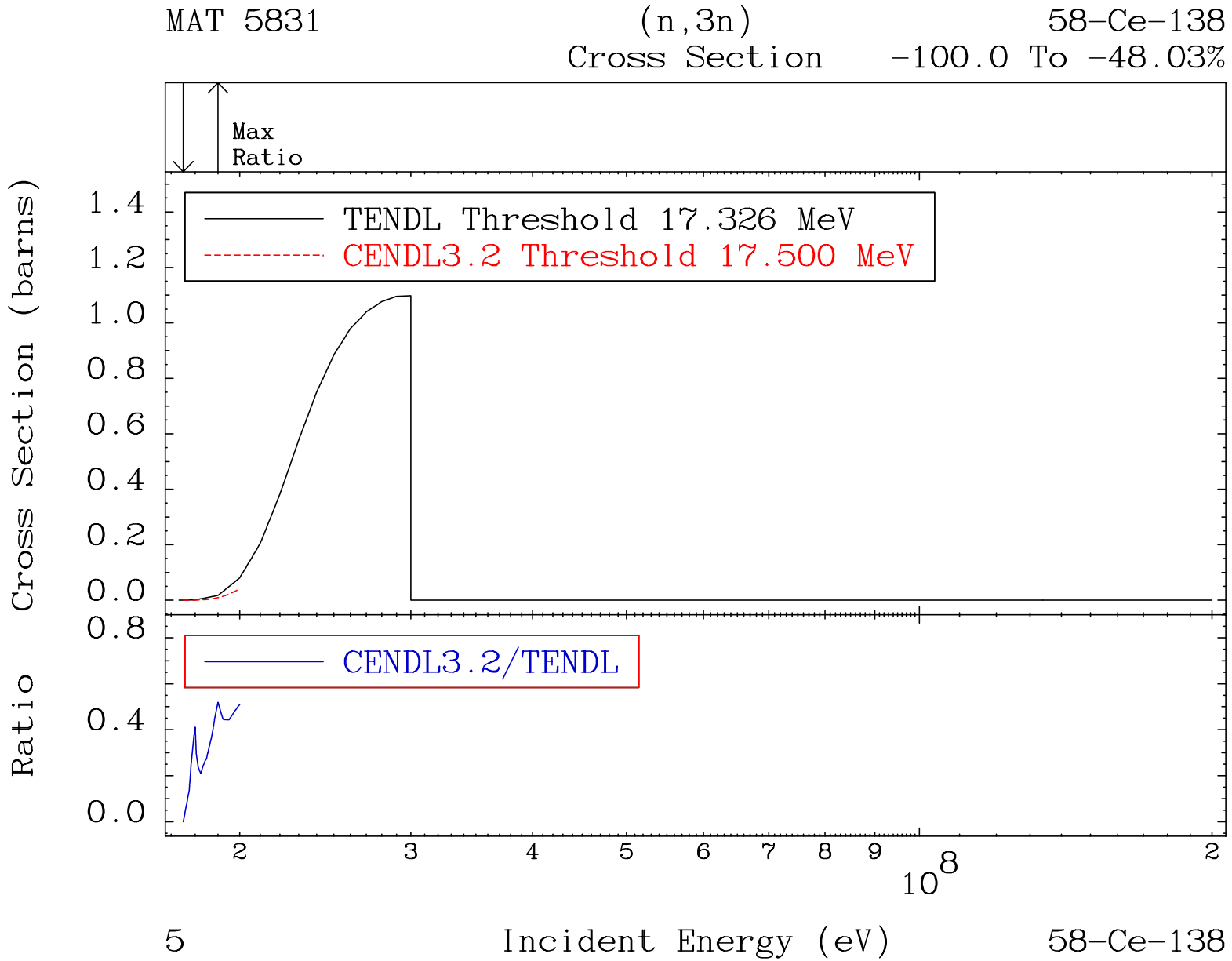
Press Mouse Button to Start

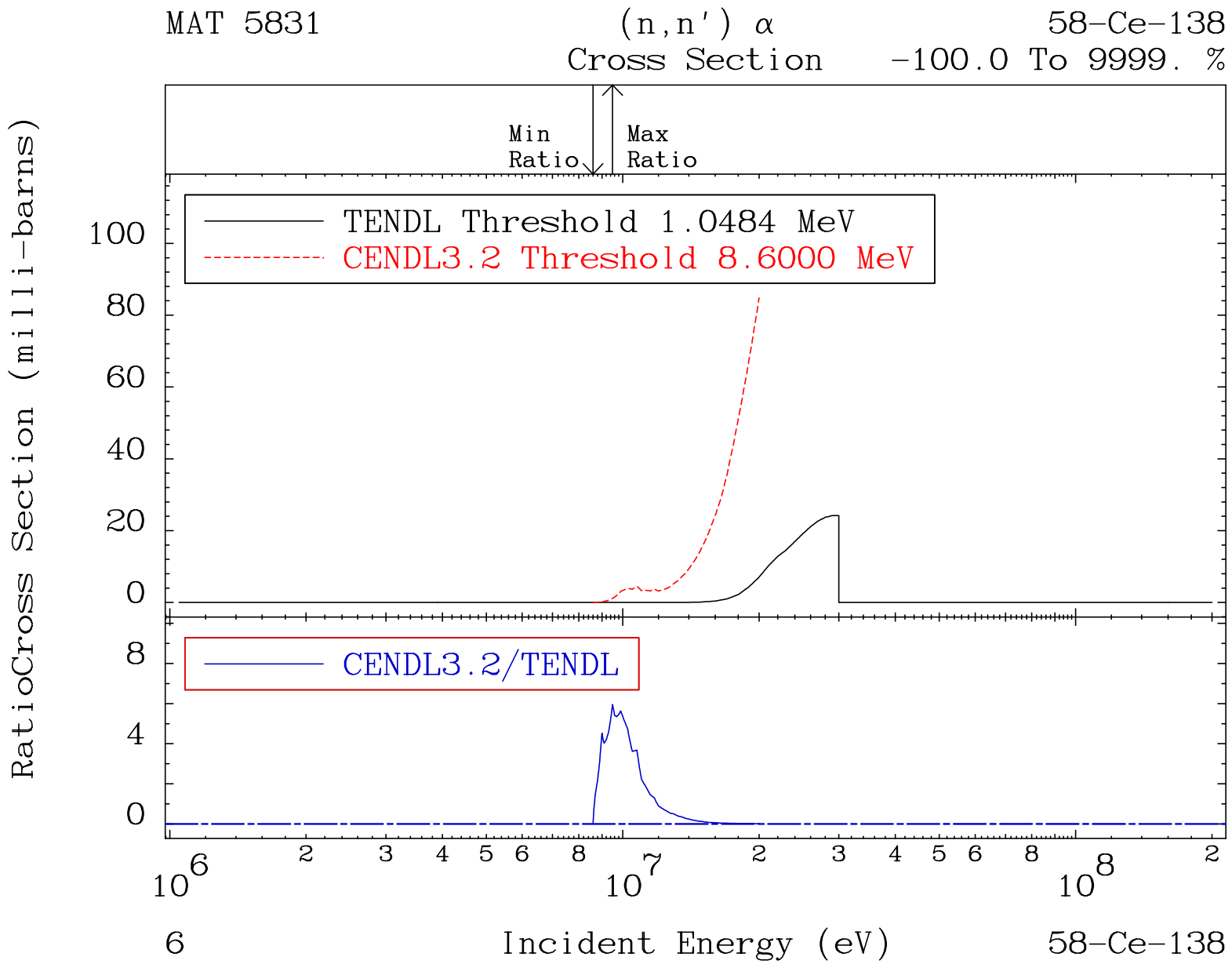

MAT 5831
Total
Cross Section
58-Ce-138
-99.96 To 2682. %
Max
Ratio
Min
Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
58-Ce-138

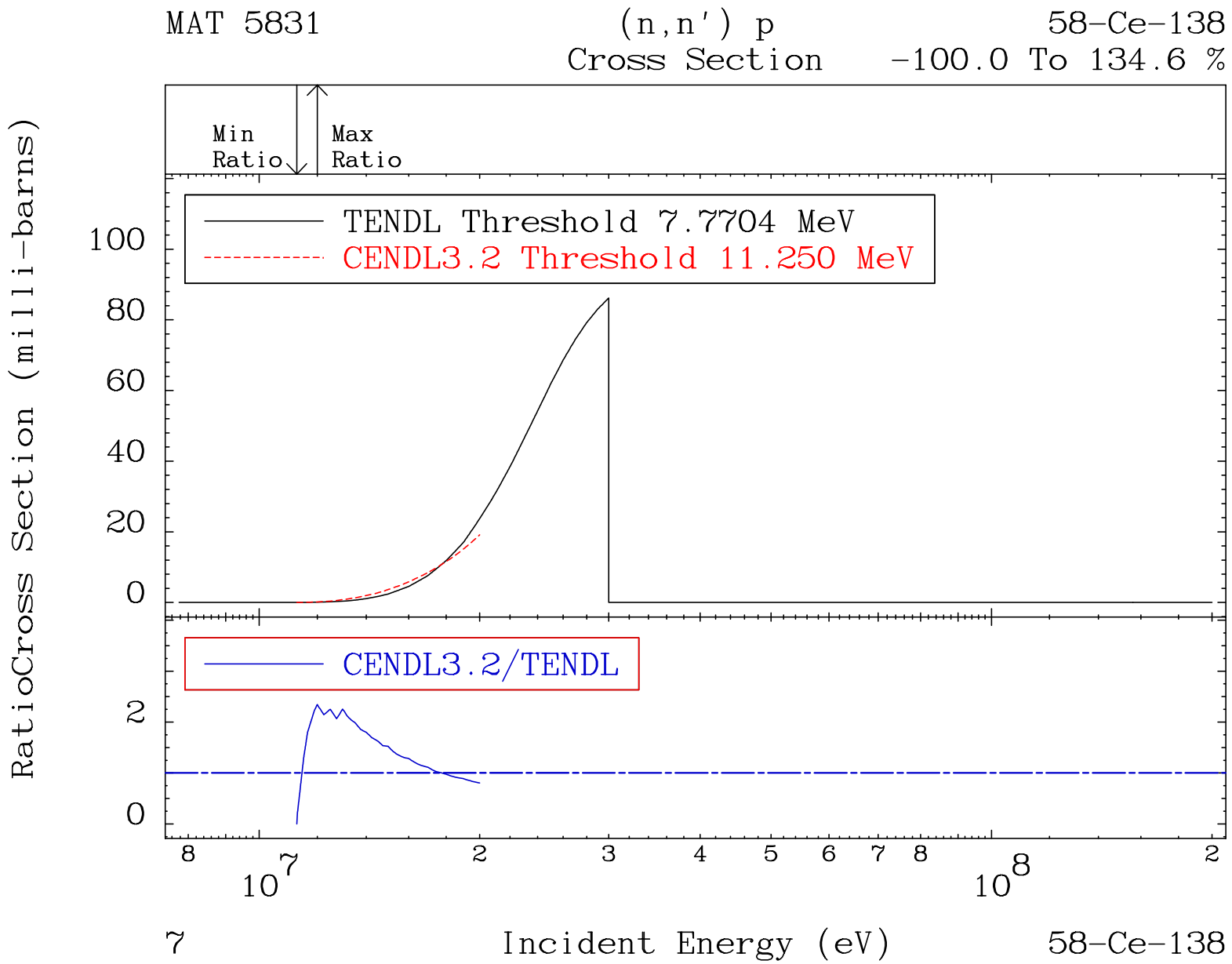

MAT 5831
Elastic
Cross Section
58-Ce-138
-99.95 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
58-Ce-138
2

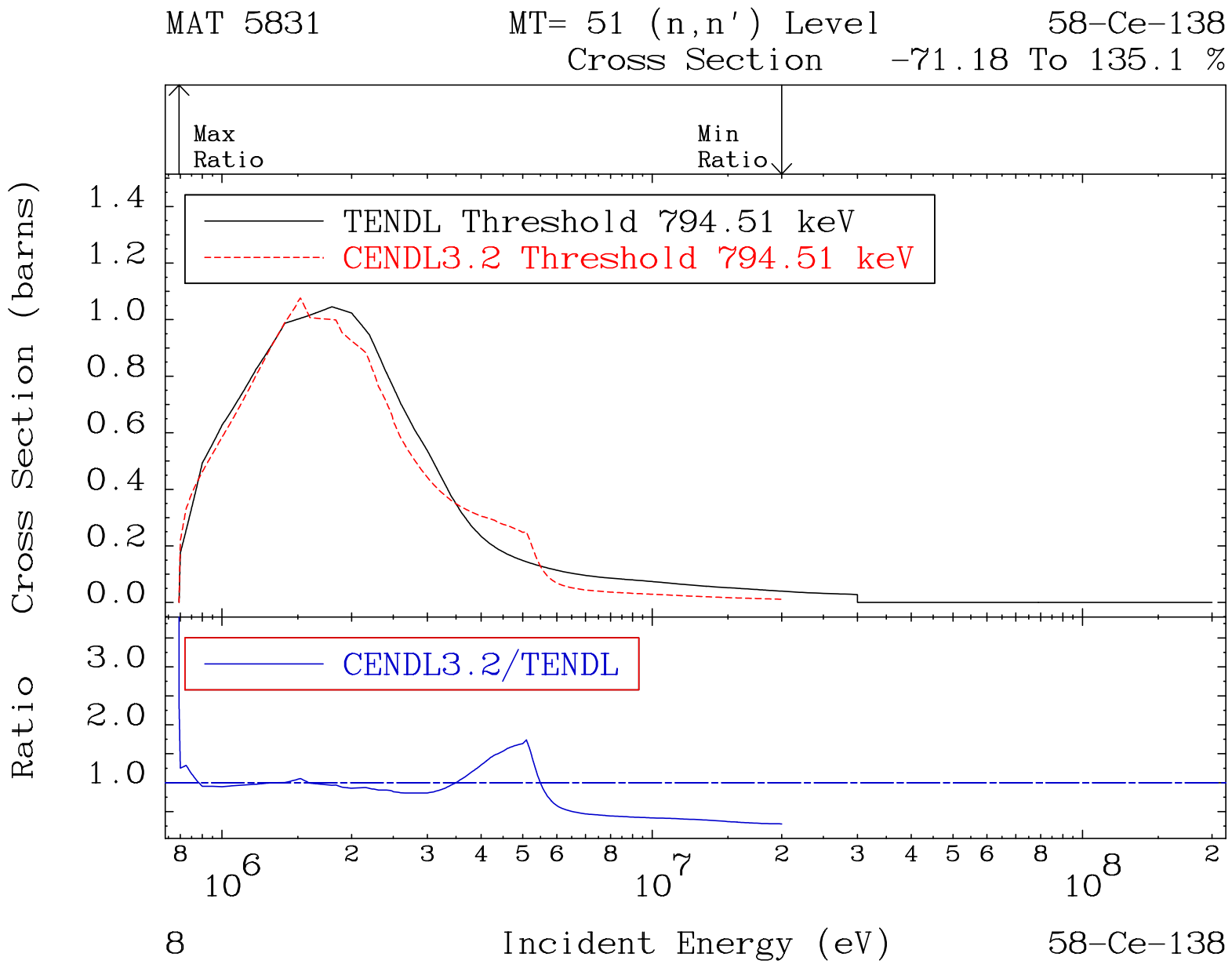

MAT 5831
Inelastic
Cross Section
58-Ce-138
-48.60 To 135.1 %
Max
Ratio
Min
Ratio
TENDL Threshold 794.51 keV
CENDL3.2 Threshold 794.51 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
3.0
2.5
2.0
1.5
1.0
0.5
0.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
Incident Energy (eV)
3
58-Ce-138

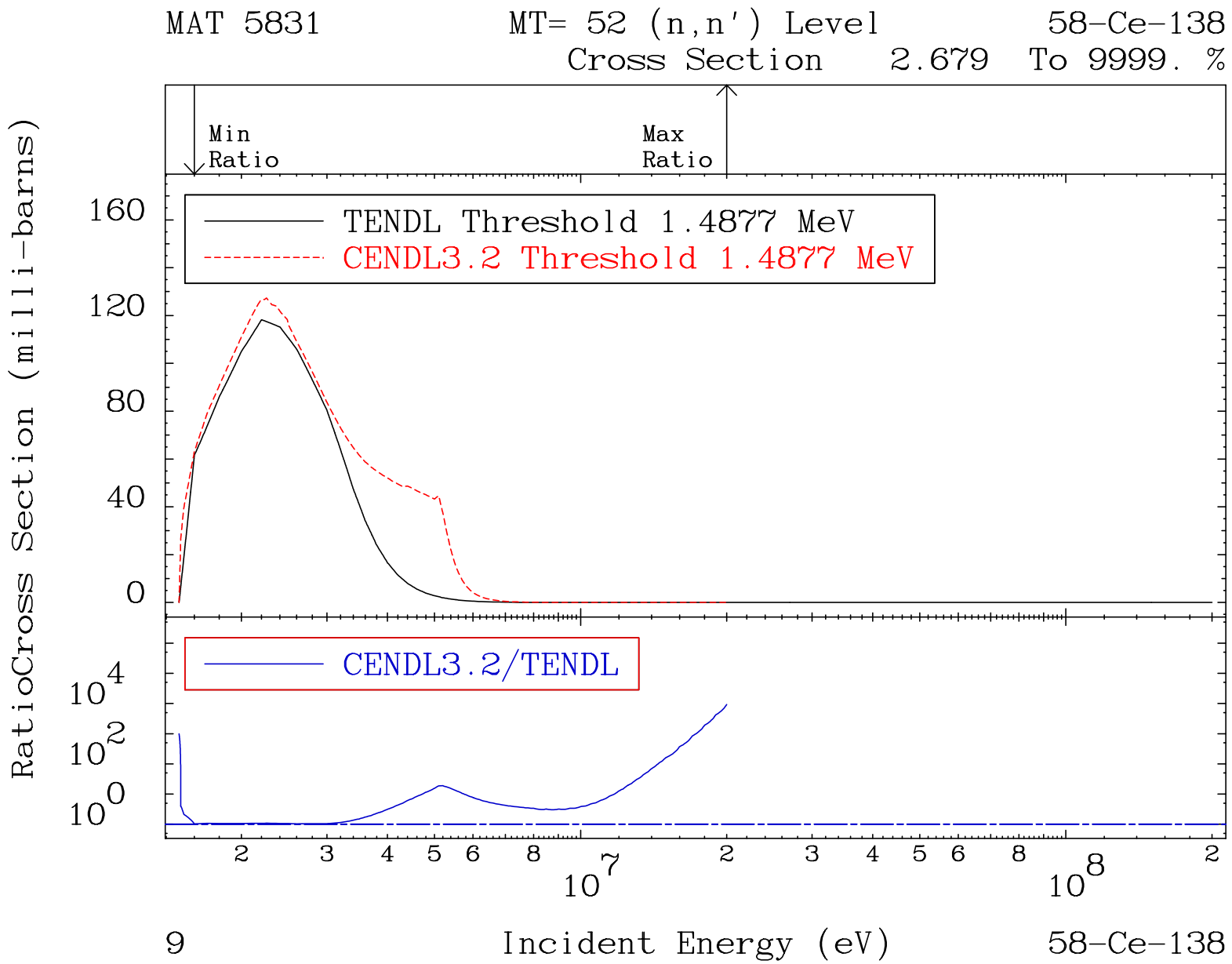

MAT 5831
(n,2n)
Cross Section
58-Ce-138
-100.0 To 153.9 %
Max
Ratio
TENDL Threshold 9.7895 MeV
CENDL3.2 Threshold 9.8069 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.5
2.0
1.5
1.0
0.5
0.0
2
0
10^7
2
3
4
5
6
7
8
9
10^8
2
Incident Energy (eV)
4
58-Ce-138

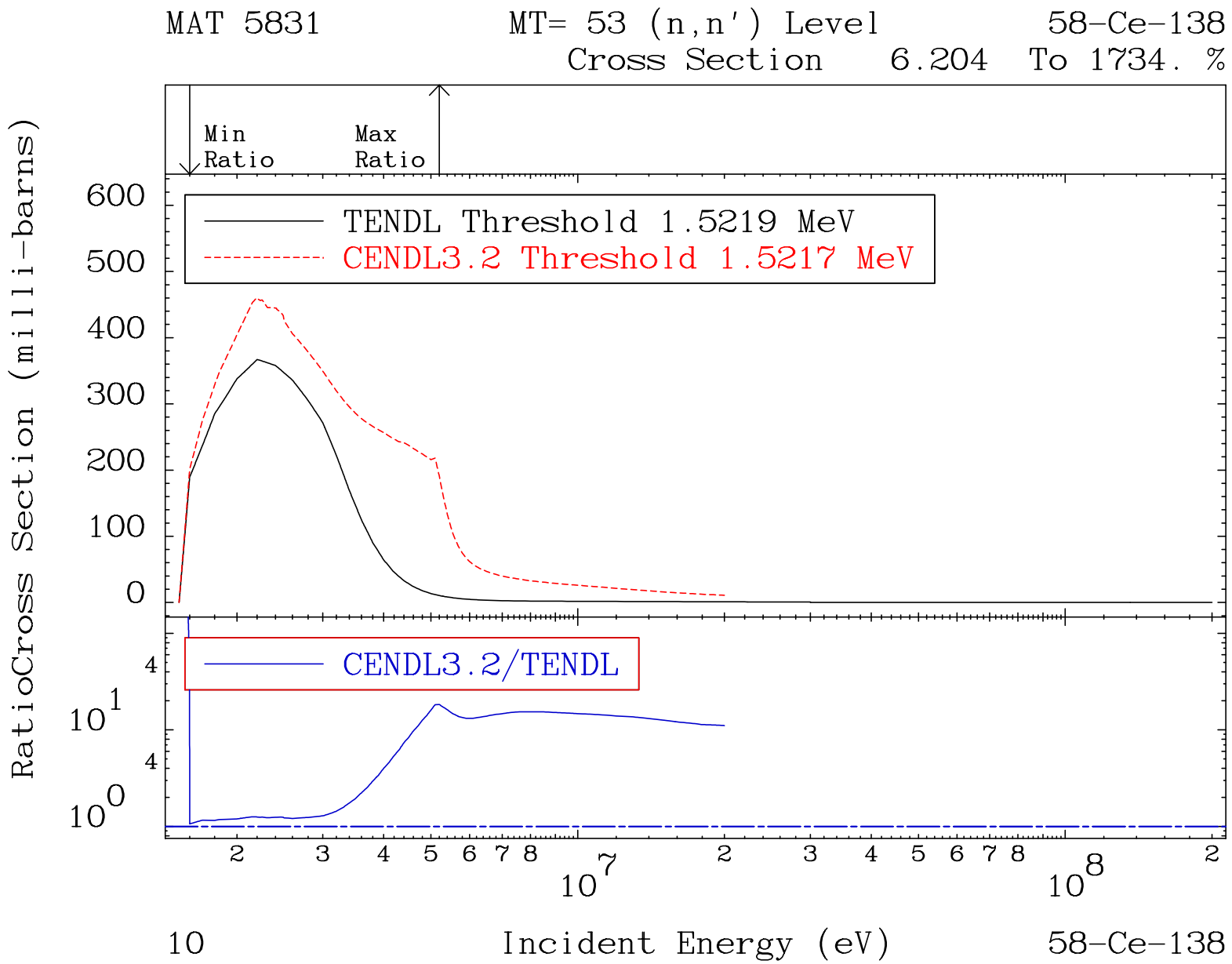

MAT 5831
(n,3n)
Cross Section
58-Ce-138
-100.0 To -48.03%
Max
Ratio
TENDL Threshold 17.326 MeV
CENDL3.2 Threshold 17.500 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.8
0.4
0.0
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
58-Ce-138

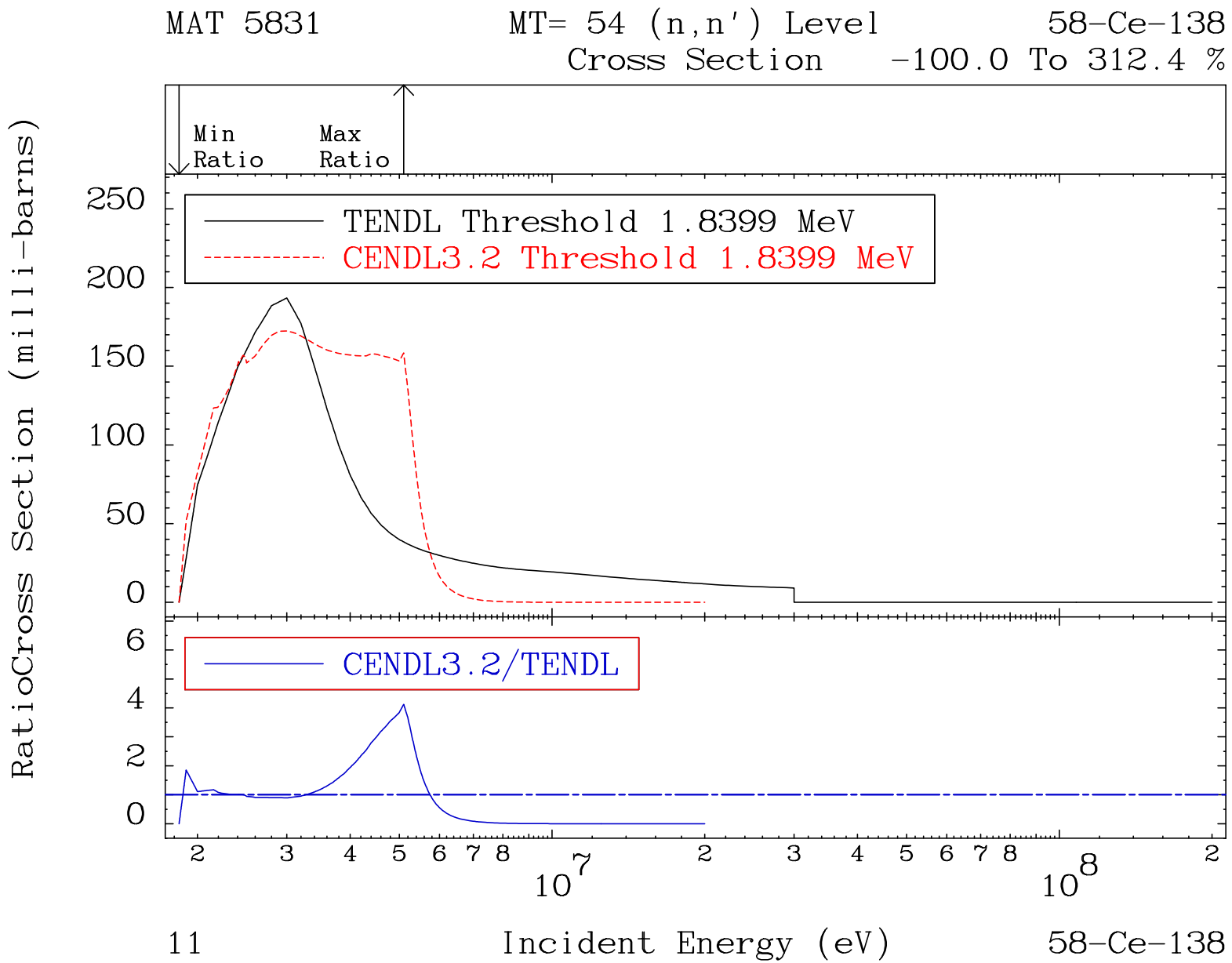

MAT 5831
(n,n') α
58-Ce-138
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.0484 MeV
CENDL3.2 Threshold 8.6000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
8
4
0
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
6
Incident Energy (eV)
58-Ce-138

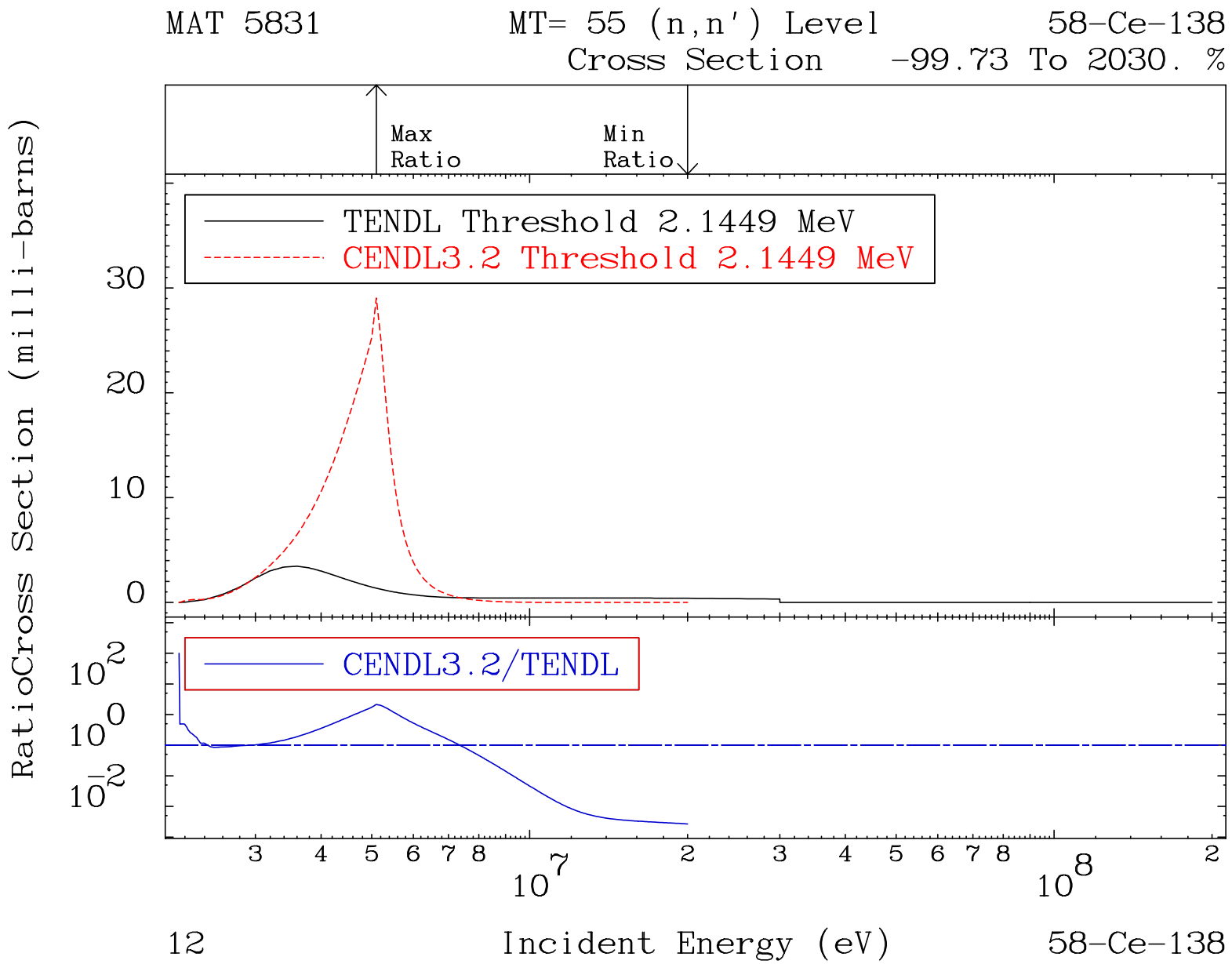

MAT 5831
(n,n') p
Cross Section
58-Ce-138
-100.0 To 134.6 %
Min Ratio
Max Ratio
TENDL Threshold 7.7704 MeV
CENDL3.2 Threshold 11.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
2
0
8
10^7
2
3
4
5
6
7
8
10^8
2
7
Incident Energy (eV)
58-Ce-138

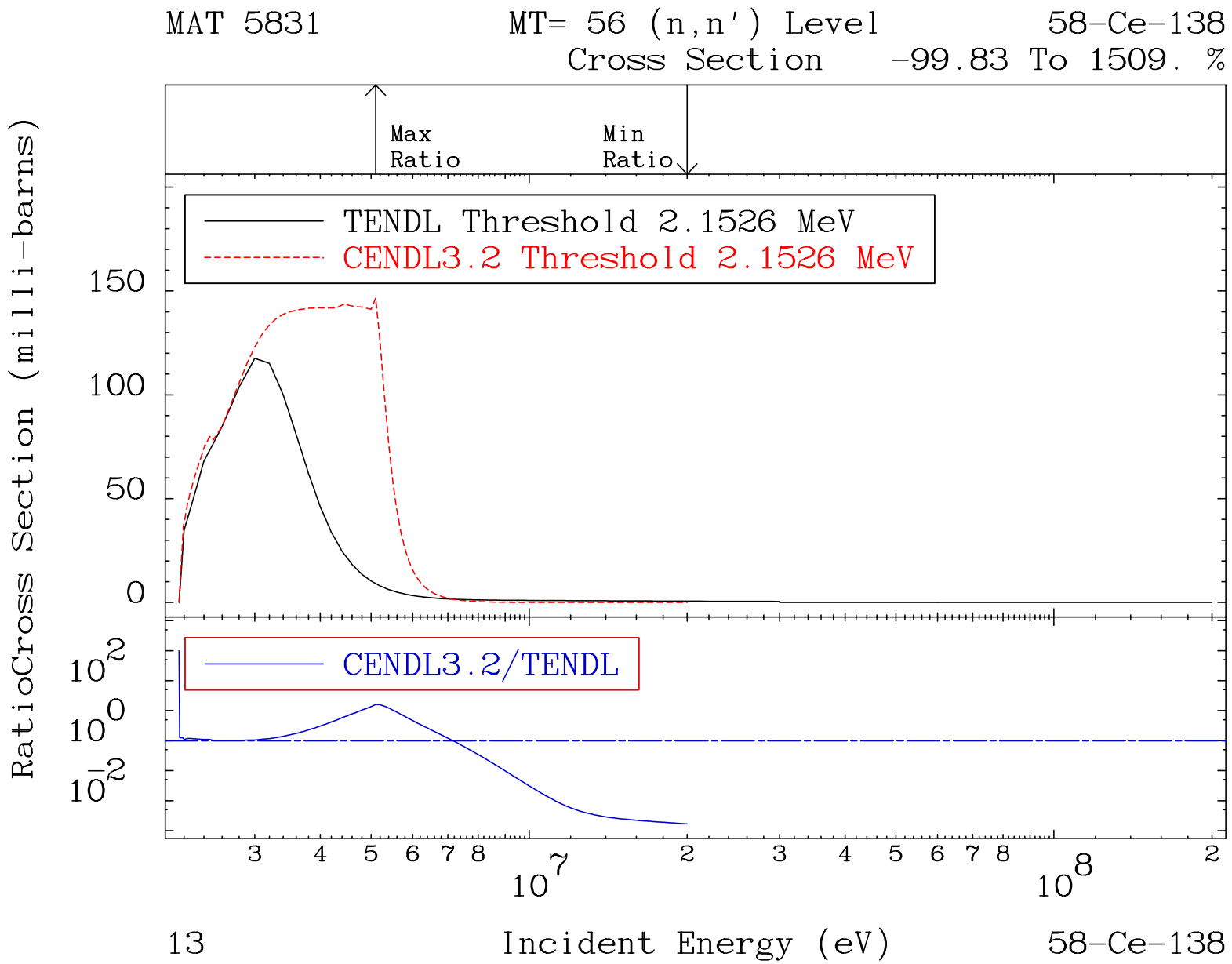

MAT 5831
MT= 51 (n,n') Level
58-Ce-138
Cross Section
-71.18 To 135.1 %
Max Ratio
Min Ratio
TENDL Threshold 794.51 keV
CENDL3.2 Threshold 794.51 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
58-Ce-138

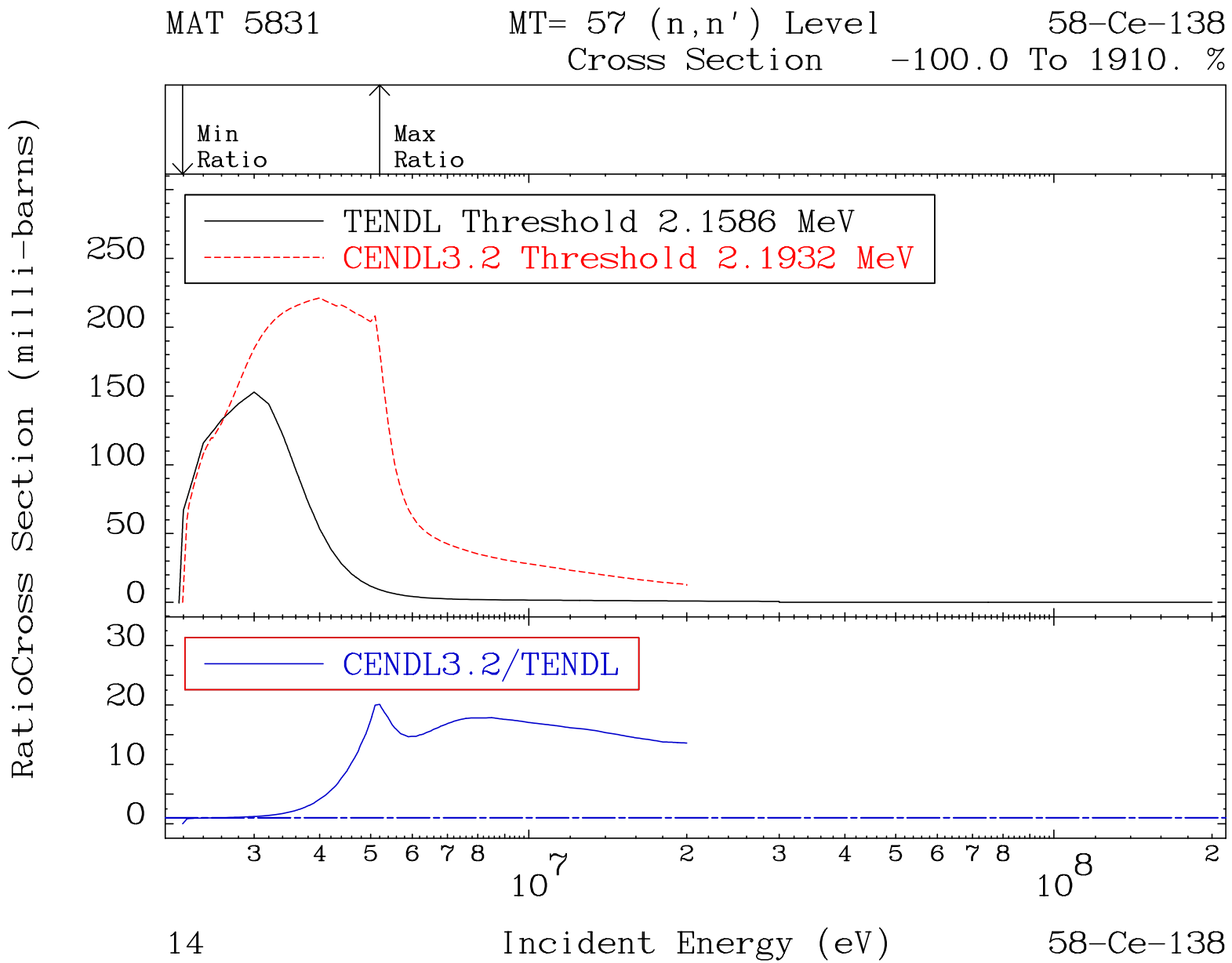

MAT 5831
MT= 52 (n,n') Level
58-Ce-138
Cross Section 2.679 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.4877 MeV
CENDL3.2 Threshold 1.4877 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
10^4
10^2
10^0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
9
Incident Energy (eV)
58-Ce-138

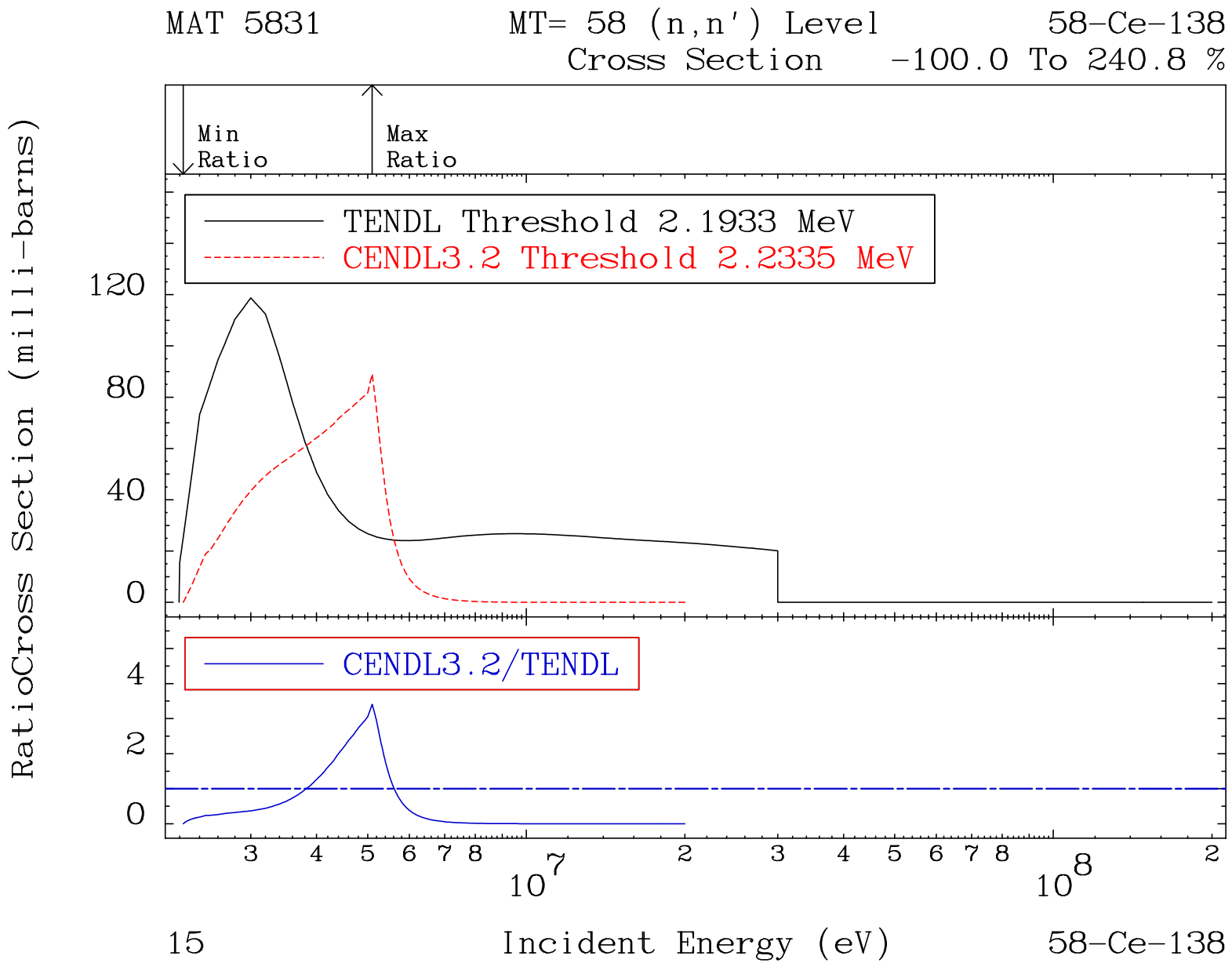

MAT 5831
MT= 53 (n,n') Level
58-Ce-138
Cross Section 6.204 To 1734. %
Min Ratio
Max Ratio
TENDL Threshold 1.5219 MeV
CENDL3.2 Threshold 1.5217 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
600
500
400
300
200
100
0
10^1
10^0
4
4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
10
Incident Energy (eV)
58-Ce-138

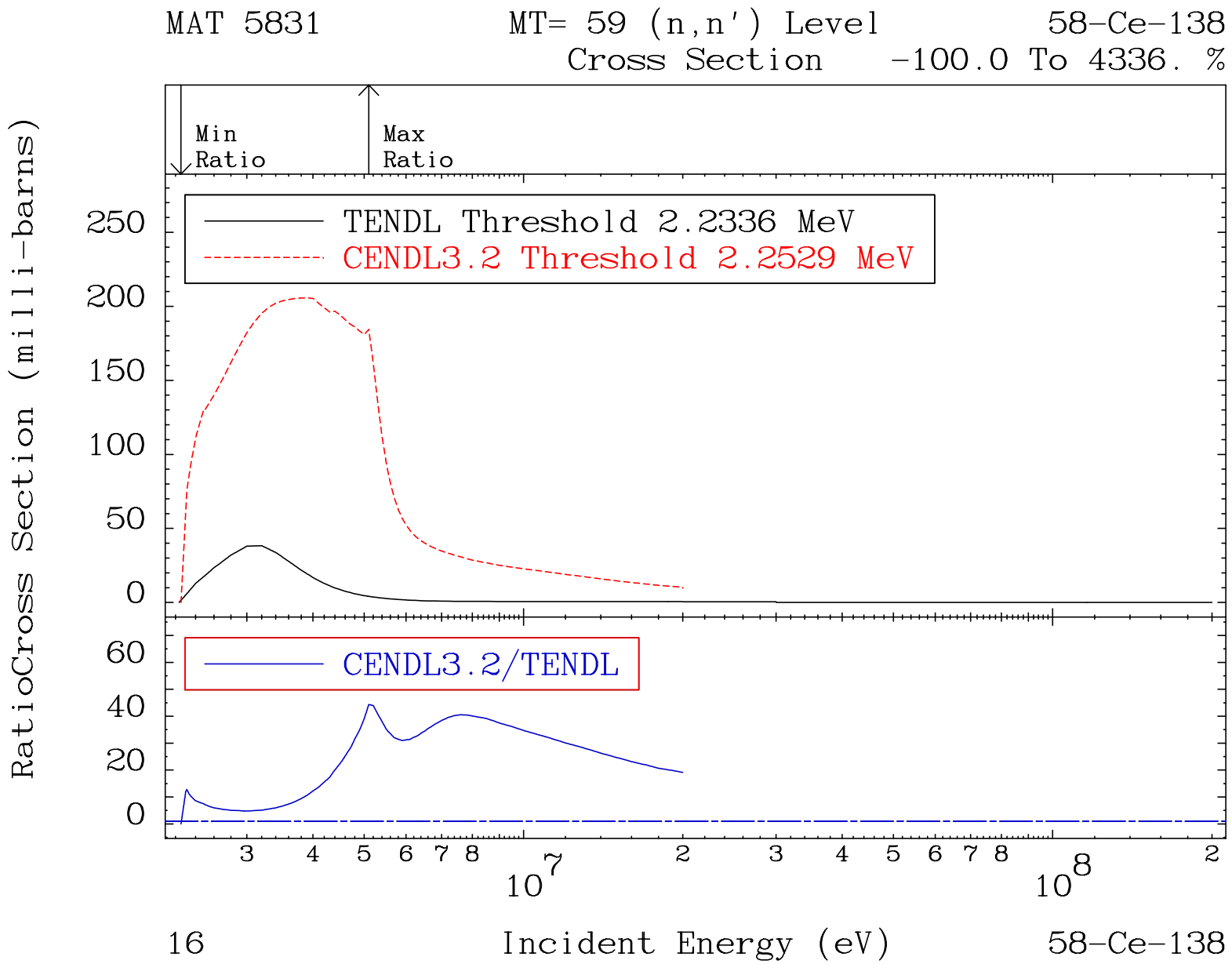

MAT 5831
MT= 54 (n,n') Level
58-Ce-138
Cross Section
-100.0 To 312.4 %
Min Ratio
Max Ratio
TENDL Threshold 1.8399 MeV
CENDL3.2 Threshold 1.8399 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
6
4
2
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
58-Ce-138

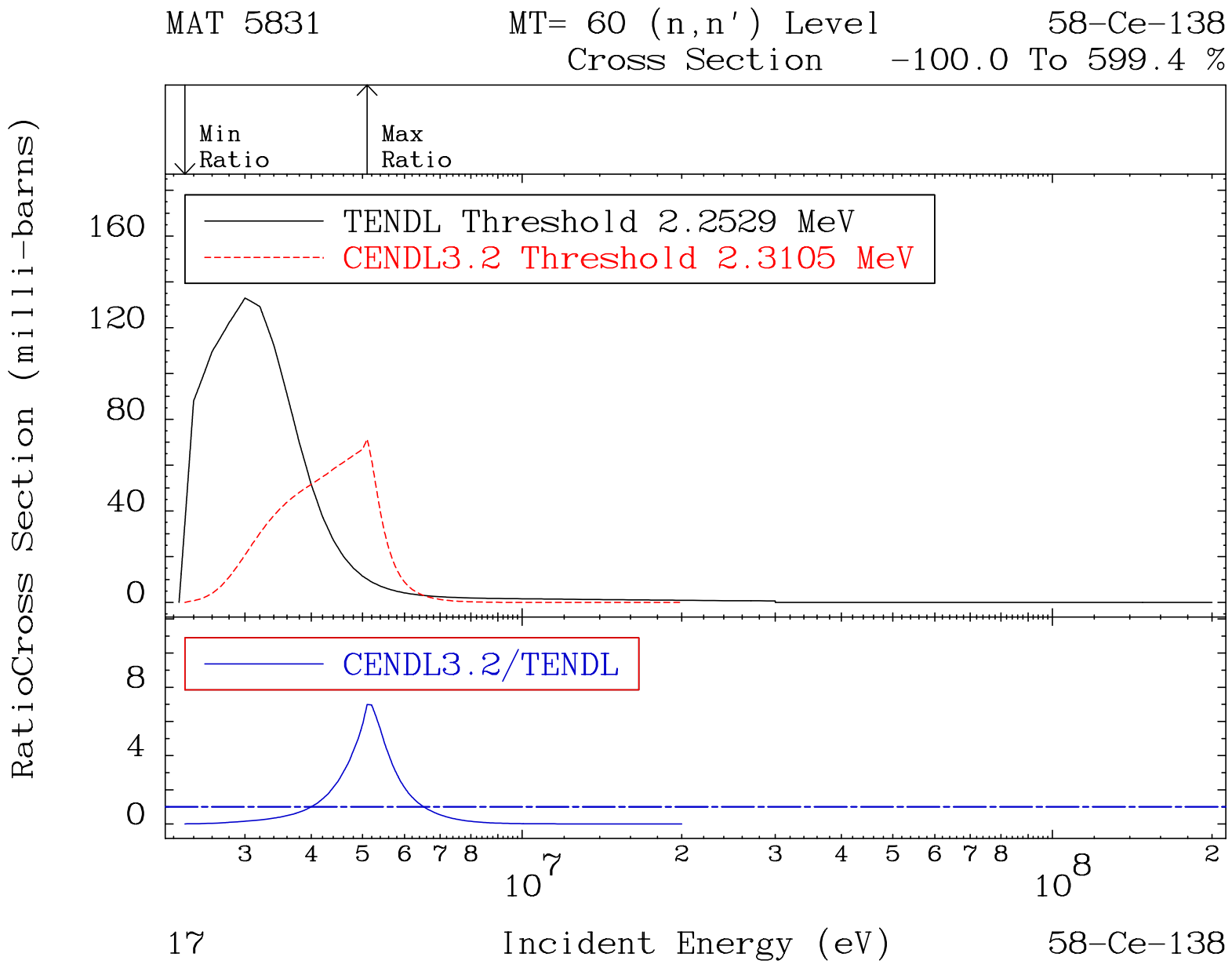

MAT 5831
MT= 55 (n,n') Level
58-Ce-138
Cross Section -99.73 To 2030. %
Max Ratio
Min Ratio
TENDL Threshold 2.1449 MeV
CENDL3.2 Threshold 2.1449 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
30
20
10
0
10^{2}
10^{0}
10^{-2}
3 4 5 6 7 8
10^{7}
2 3 4 5 6 7 8
10^{8}
2
12
Incident Energy (eV)
58-Ce-138

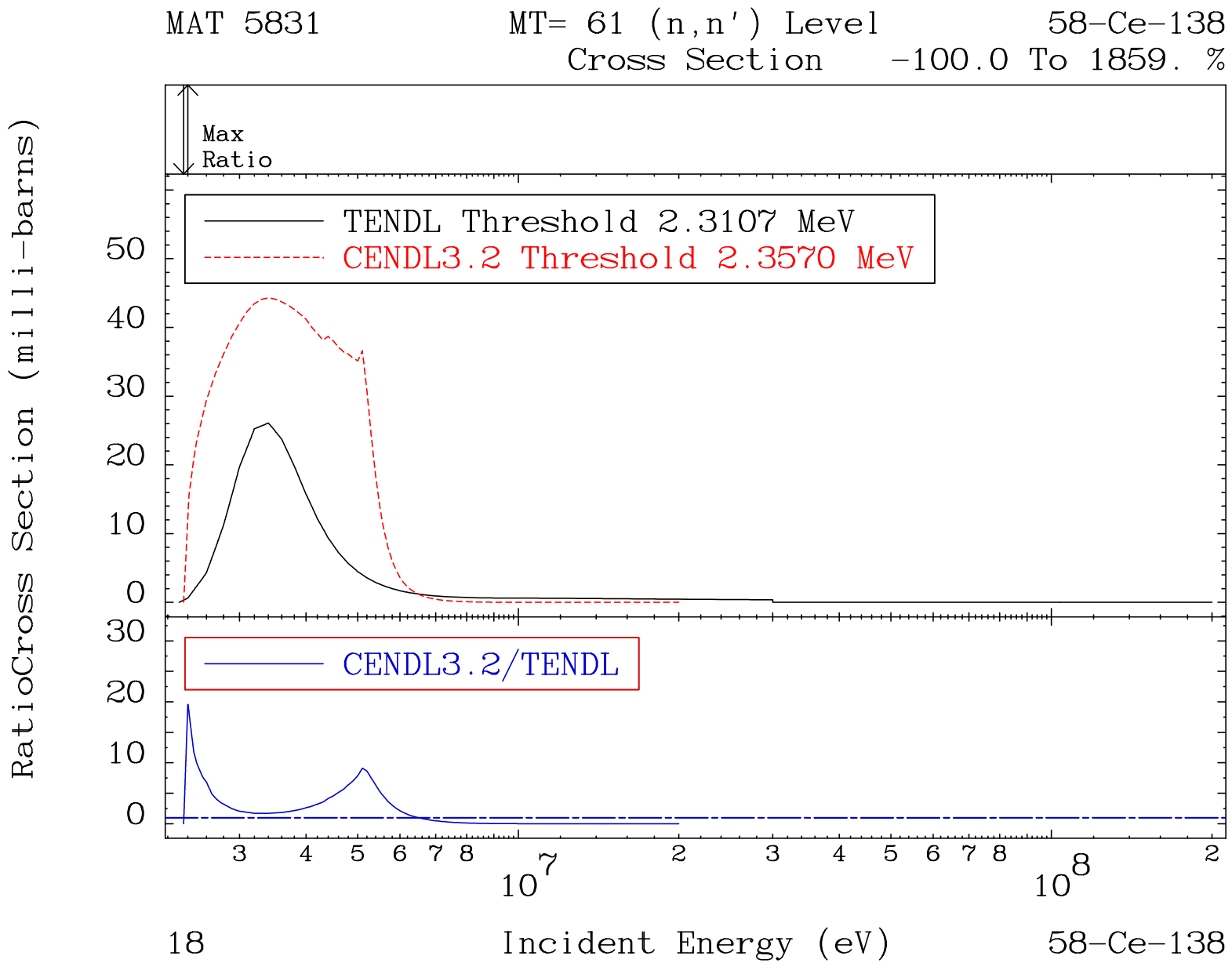

MAT 5831
MT= 56 (n,n') Level
58-Ce-138
Cross Section -99.83 To 1509. %
Max Ratio
Min Ratio
TENDL Threshold 2.1526 MeV
CENDL3.2 Threshold 2.1526 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
150
100
50
0
10^2
10^0
10^-2
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
58-Ce-138

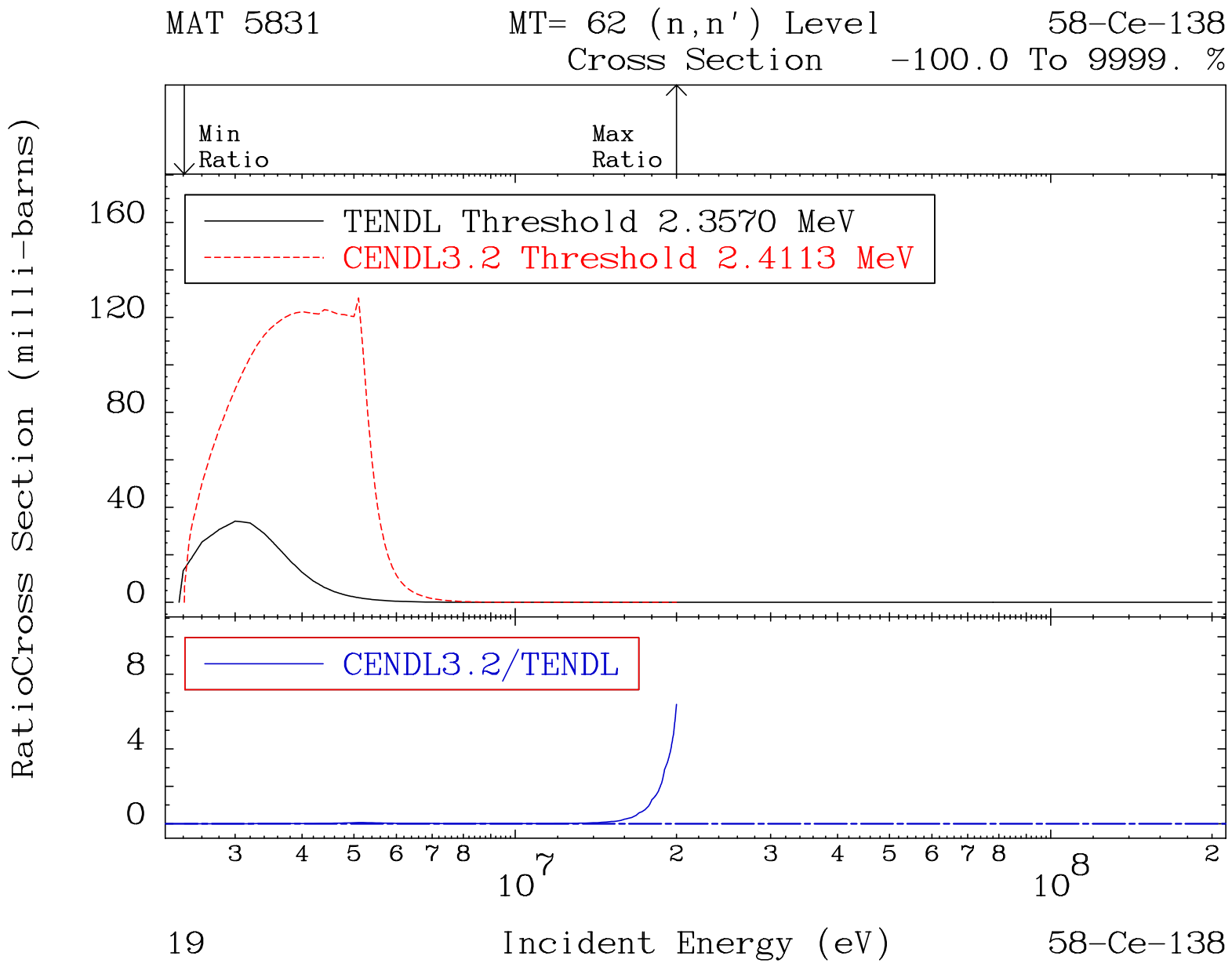

MAT 5831
MT= 57 (n,n') Level
58-Ce-138
Cross Section -100.0 To 1910. %
Min Ratio
Max Ratio
TENDL Threshold 2.1586 MeV
CENDL3.2 Threshold 2.1932 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
30
20
10
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
14
Incident Energy (eV)
58-Ce-138

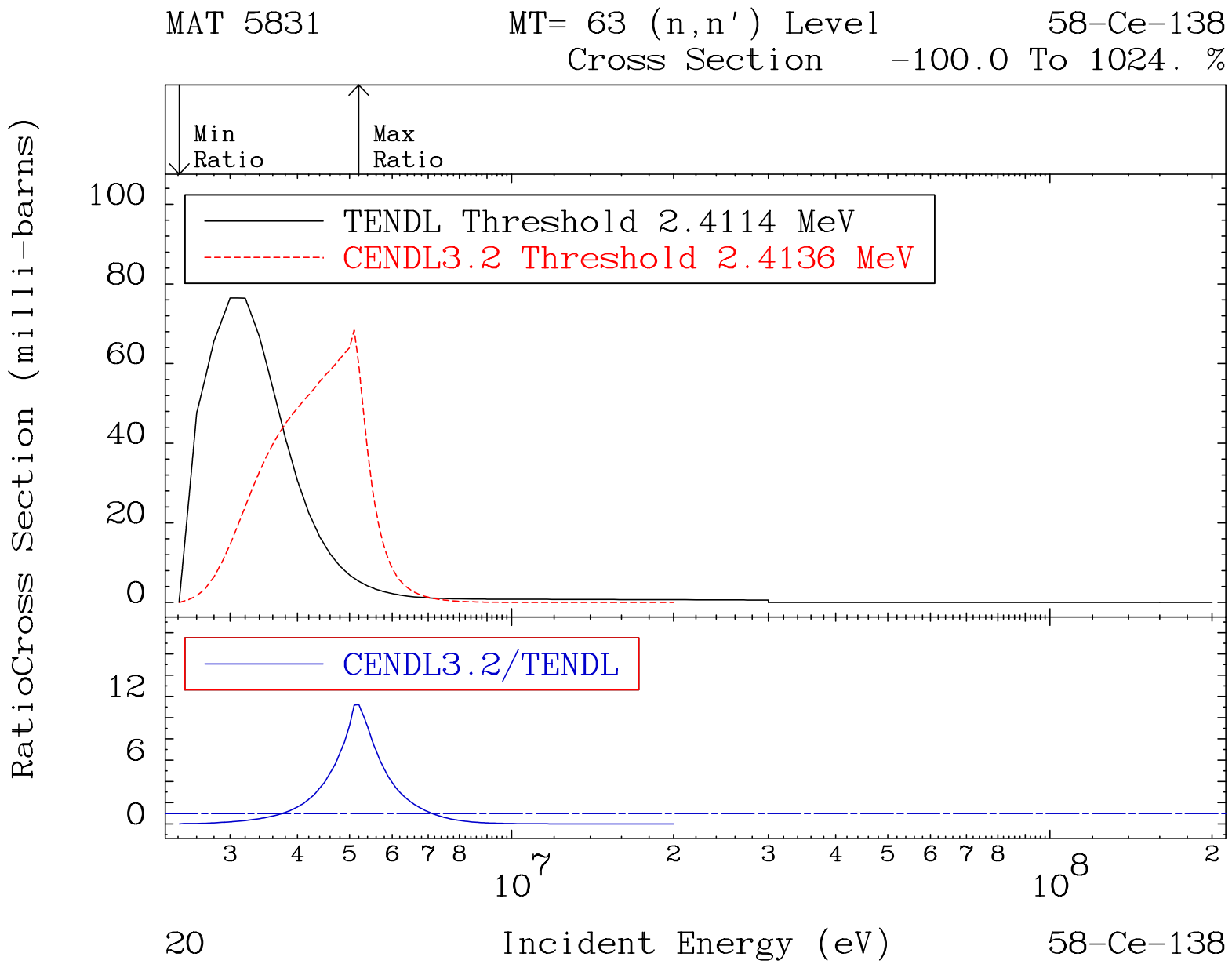

MAT 5831
MT= 58 (n,n') Level
58-Ce-138
Cross Section -100.0 To 240.8 %
Min Ratio
Max Ratio
TENDL Threshold 2.1933 MeV
CENDL3.2 Threshold 2.2335 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
80
40
0
4
2
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
15
58-Ce-138

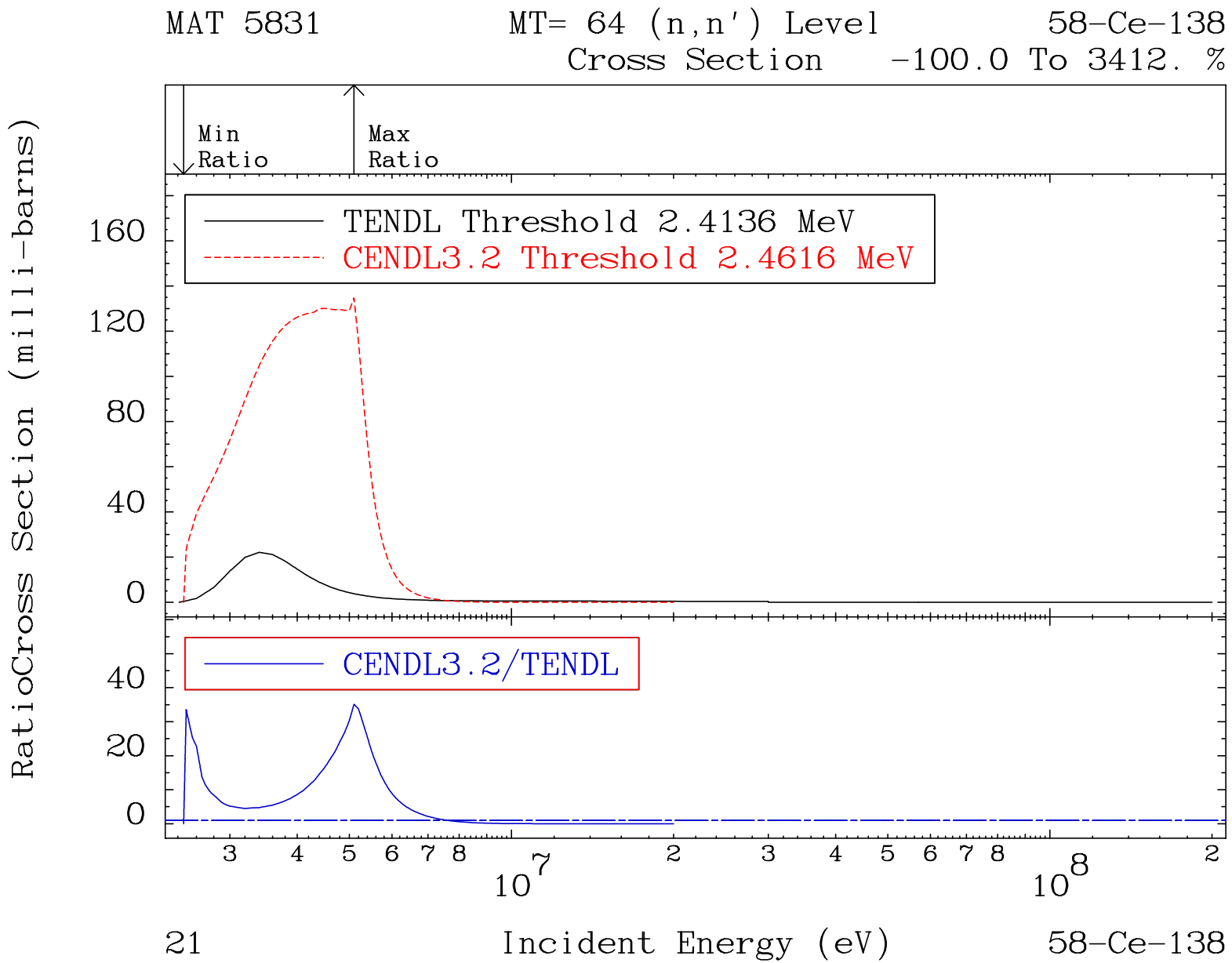

MAT 5831
MT= 59 (n,n') Level
58-Ce-138
Cross Section -100.0 To 4336. %
Min Ratio
Max Ratio
TENDL Threshold 2.2336 MeV
CENDL3.2 Threshold 2.2529 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
60
40
20
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
16
Incident Energy (eV)
58-Ce-138

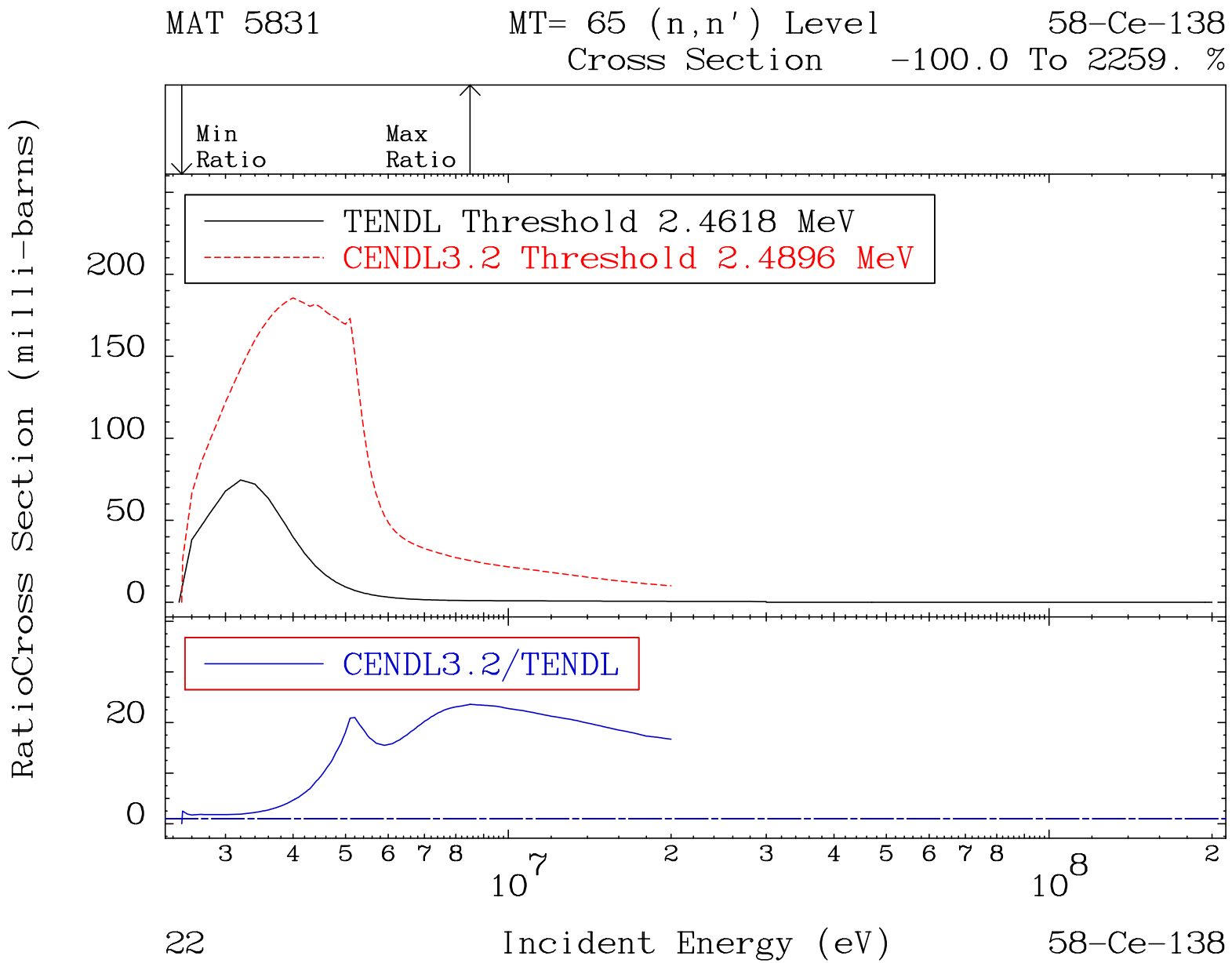

MAT 5831
MT= 60 (n,n') Level
58-Ce-138
Cross Section -100.0 To 599.4 %
Min Ratio
Max Ratio
TENDL Threshold 2.2529 MeV
CENDL3.2 Threshold 2.3105 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
8
4
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
17
Incident Energy (eV)
58-Ce-138

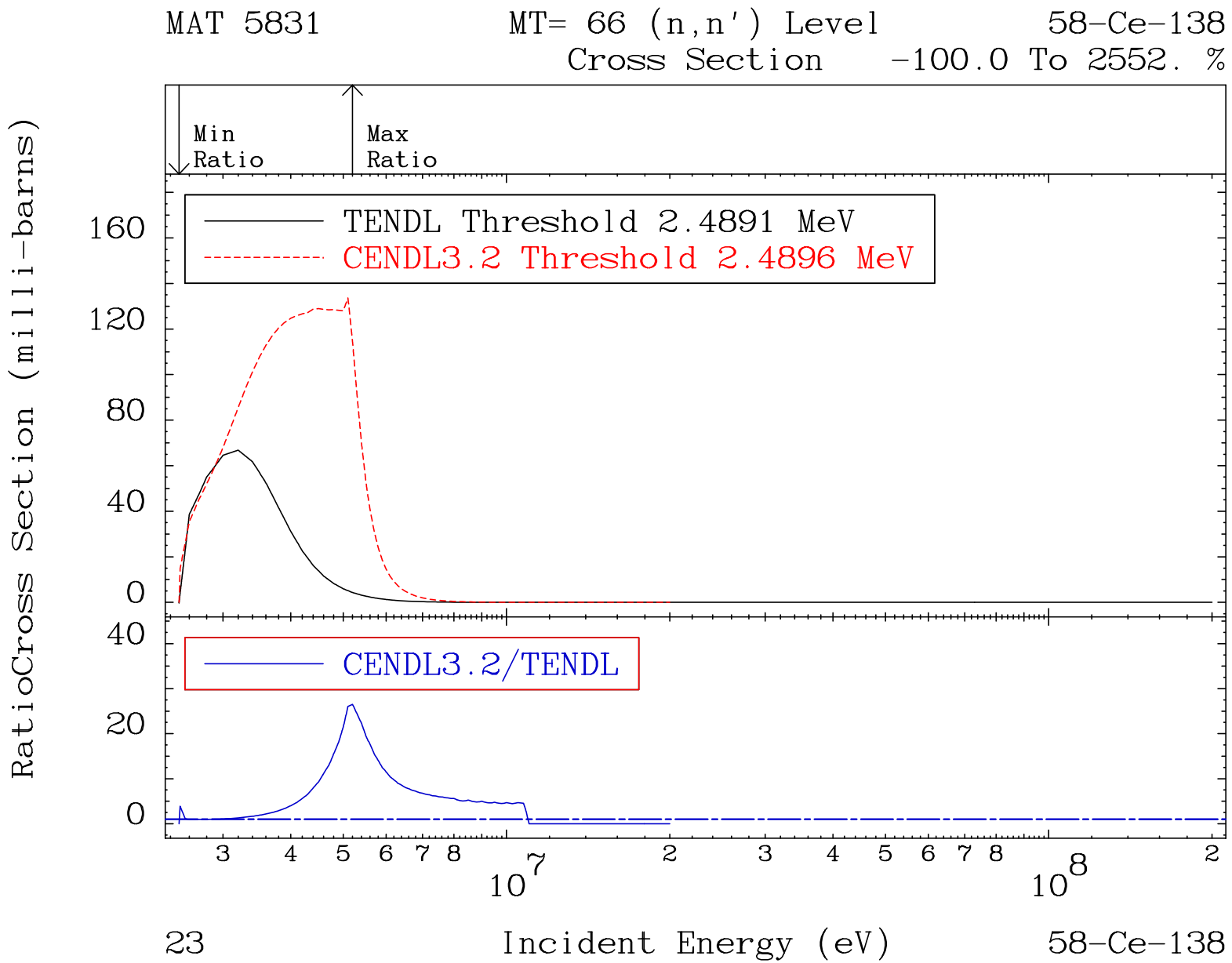

MAT 5831
MT= 61 (n,n') Level
58-Ce-138
Cross Section -100.0 To 1859. %
Max
Ratio
TENDL Threshold 2.3107 MeV
CENDL3.2 Threshold 2.3570 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
50
40
30
20
10
0
30
20
10
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
18
Incident Energy (eV)
58-Ce-138

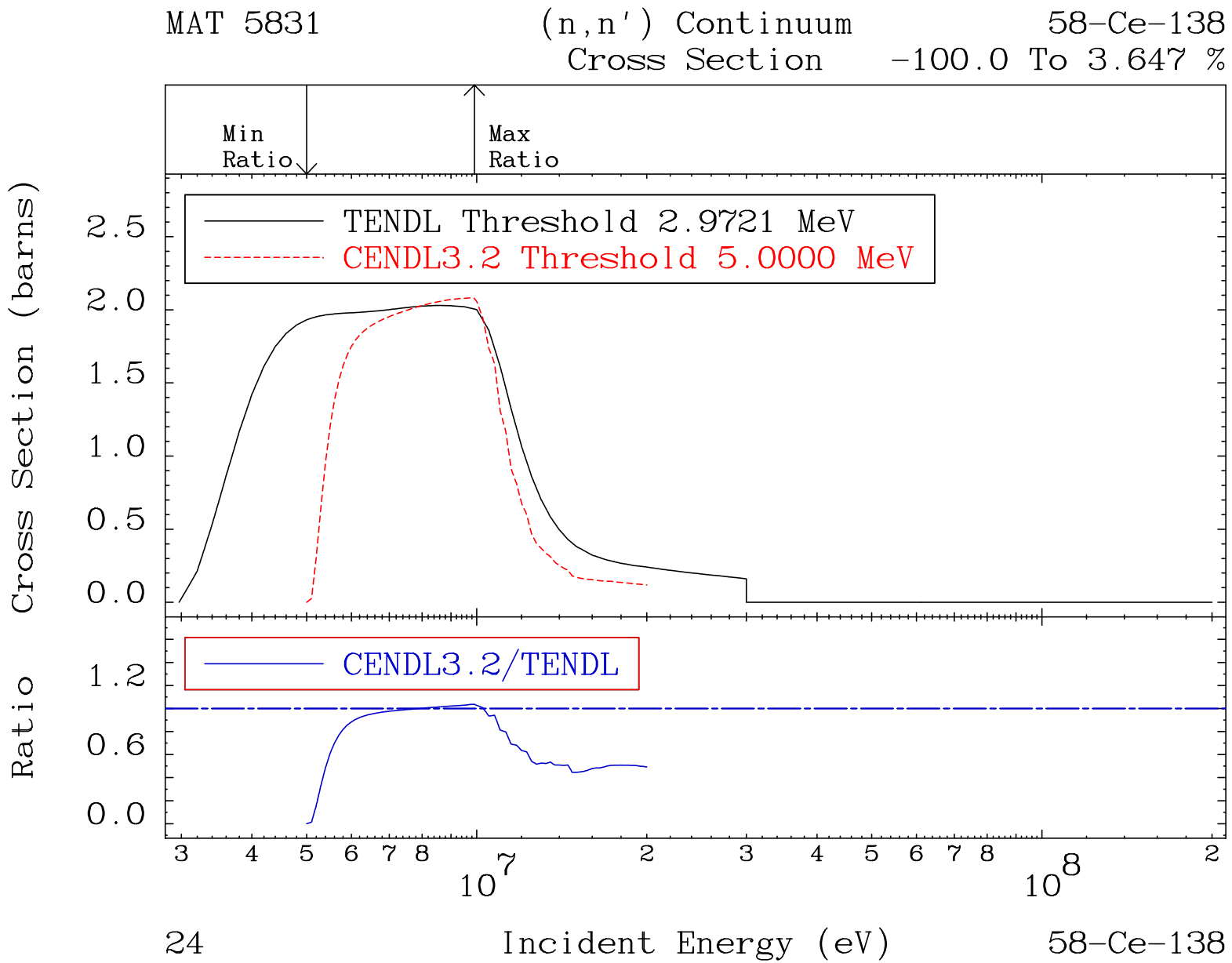

MAT 5831
MT= 62 (n,n') Level
58-Ce-138
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.3570 MeV
CENDL3.2 Threshold 2.4113 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
8
4
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
19
Incident Energy (eV)
58-Ce-138

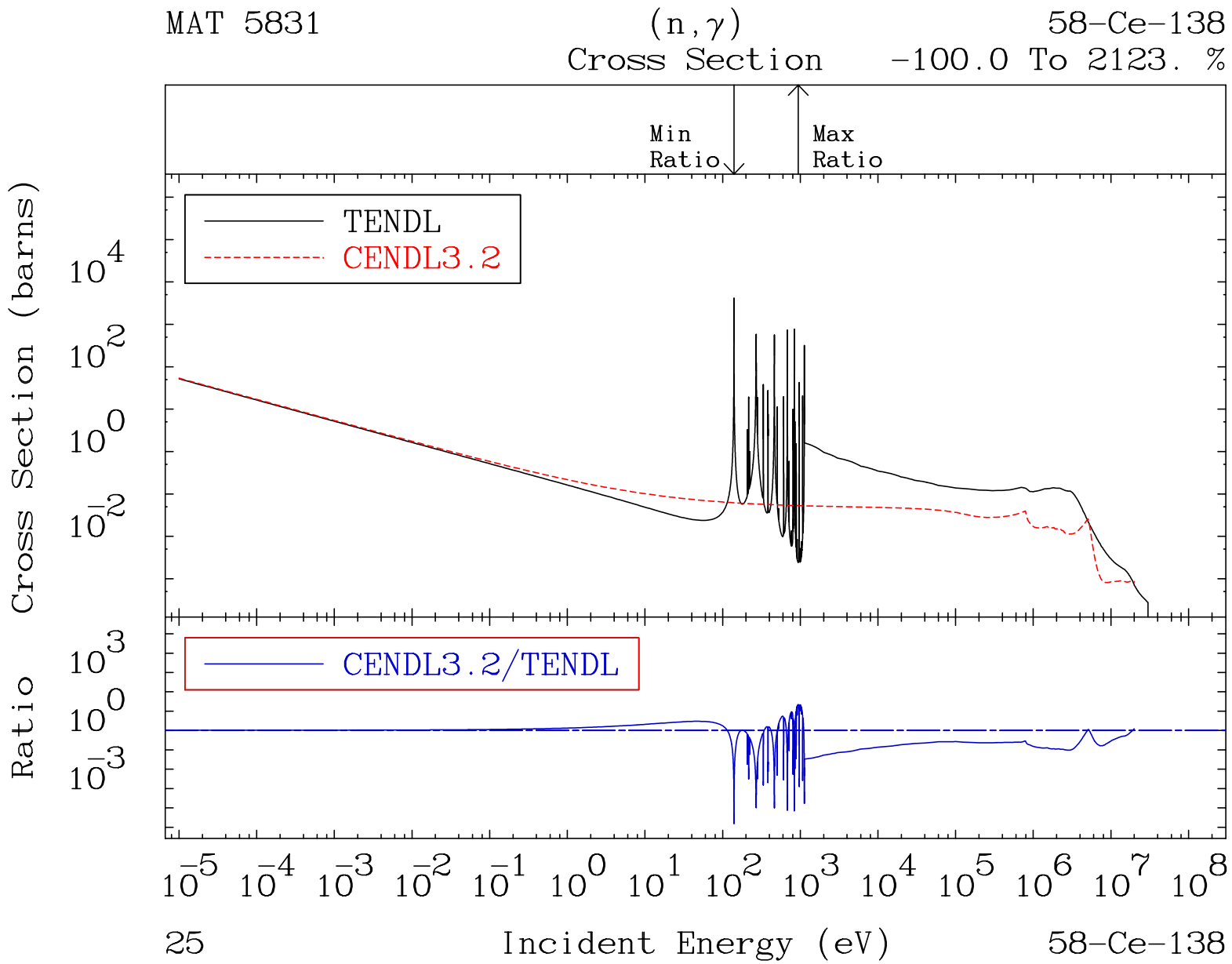

MAT 5831
MT= 63 (n,n') Level
58-Ce-138
Cross Section -100.0 To 1024. %
Min Ratio
Max Ratio
TENDL Threshold 2.4114 MeV
CENDL3.2 Threshold 2.4136 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
12
6
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
58-Ce-138

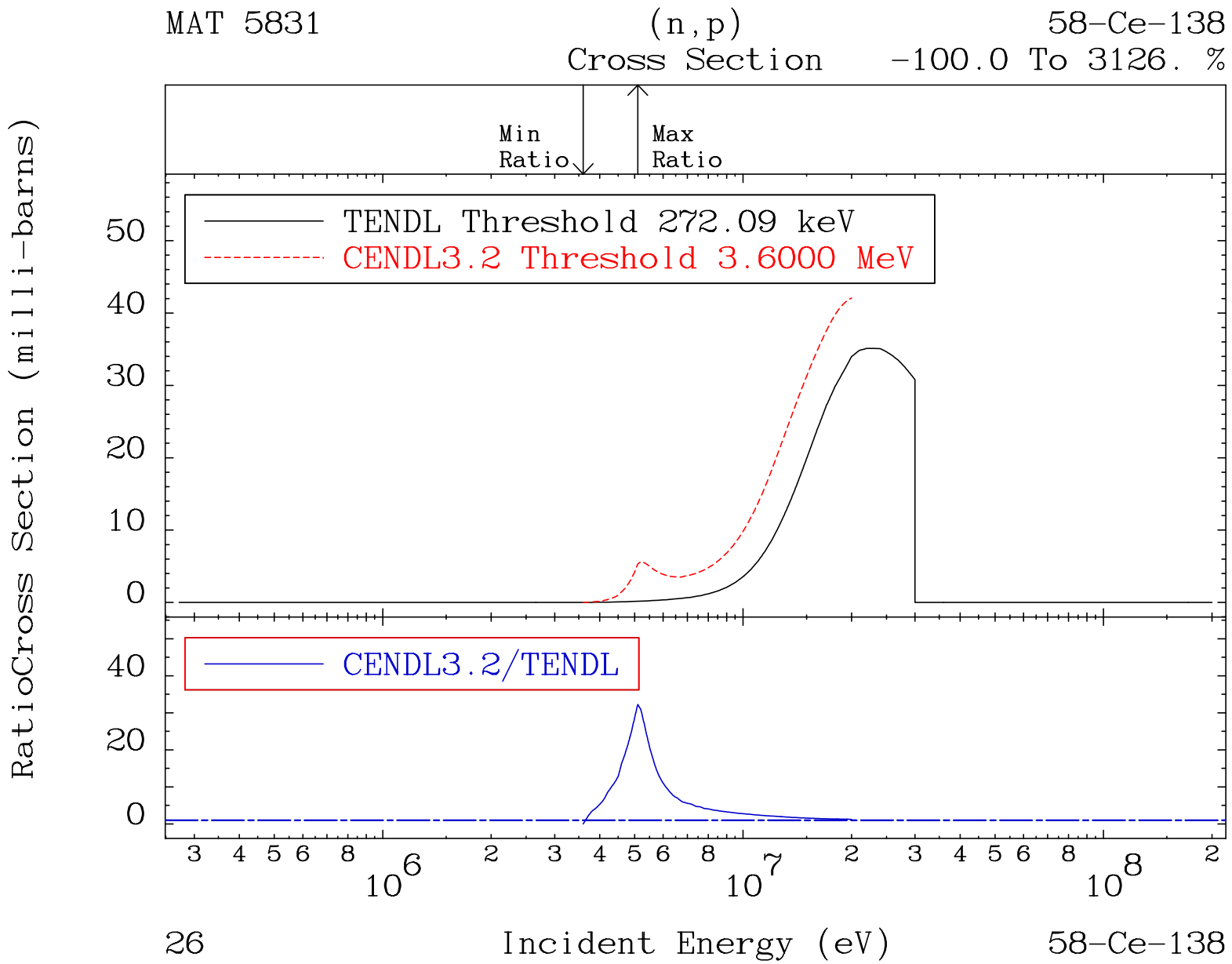

MAT 5831
MT= 64 (n,n') Level
58-Ce-138
Cross Section -100.0 To 3412. %
Min Ratio
Max Ratio
TENDL Threshold 2.4136 MeV
CENDL3.2 Threshold 2.4616 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
40
20
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
21
Incident Energy (eV)
58-Ce-138

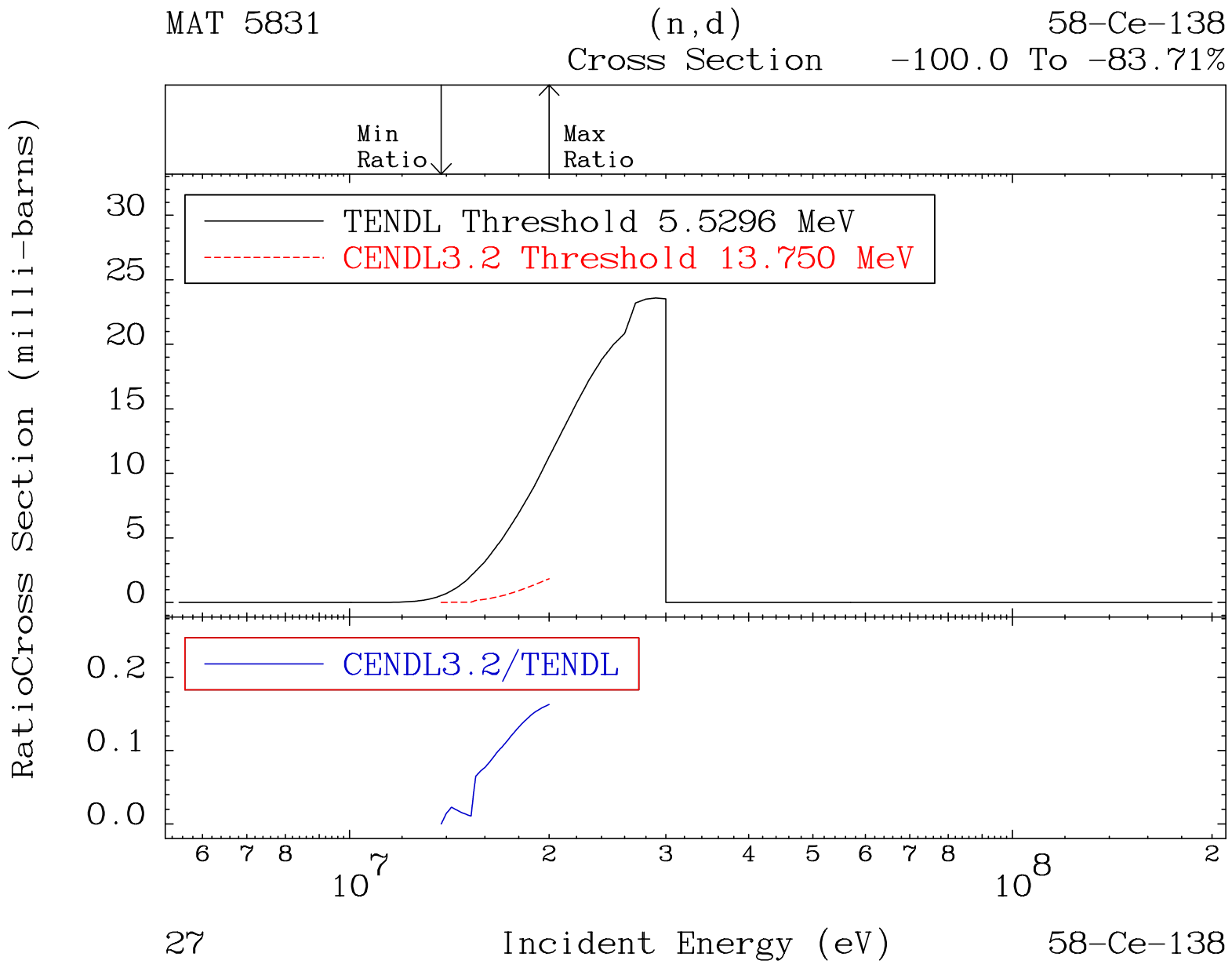

MAT 5831
MT= 65 (n,n') Level
58-Ce-138
Cross Section -100.0 To 2259. %
Min Ratio
Max Ratio
TENDL Threshold 2.4618 MeV
CENDL3.2 Threshold 2.4896 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
20
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
58-Ce-138

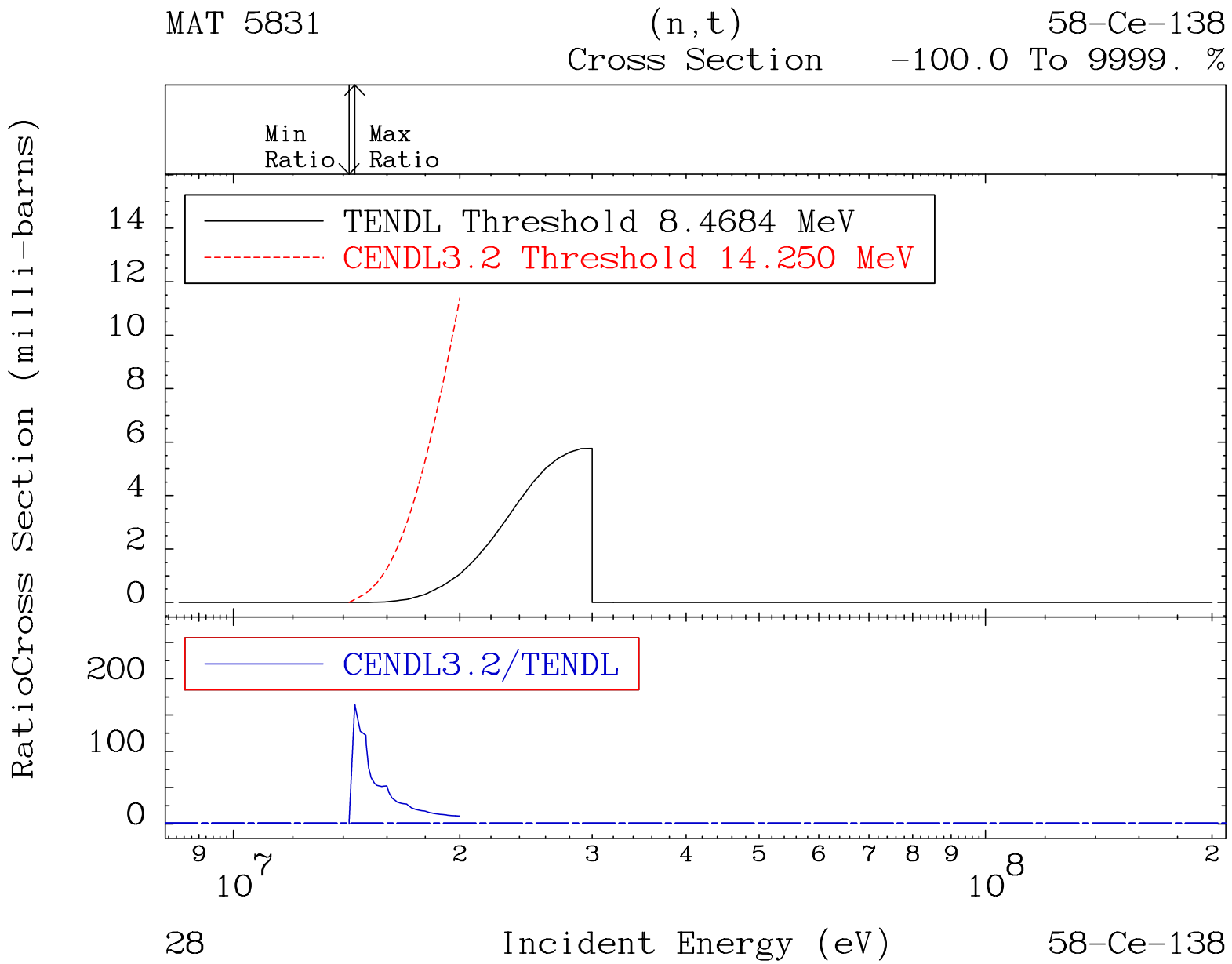

MAT 5831
MT= 66 (n,n') Level
58-Ce-138
Cross Section -100.0 To 2552. %
Min Ratio
Max Ratio
TENDL Threshold 2.4891 MeV
CENDL3.2 Threshold 2.4896 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
40
20
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
58-Ce-138

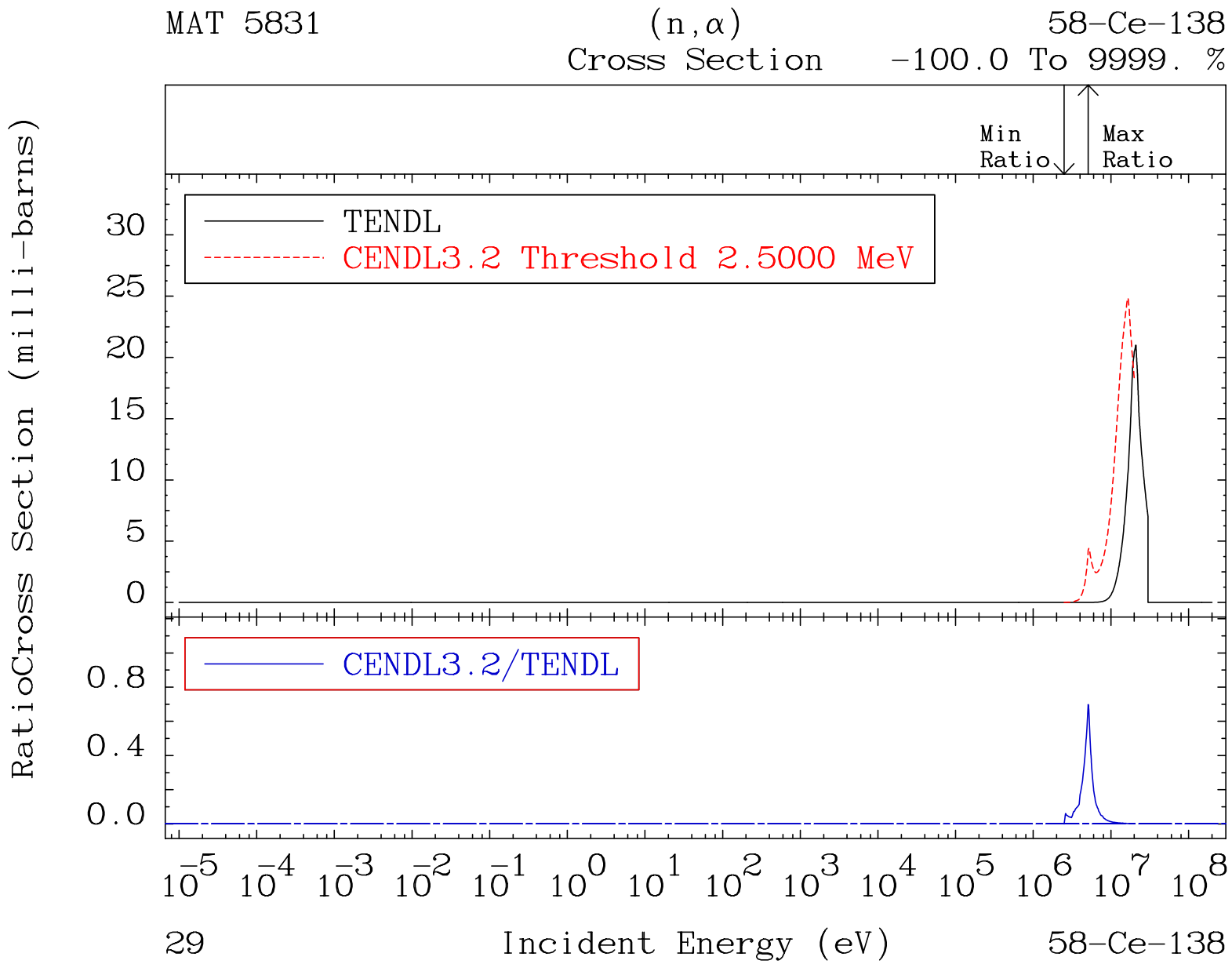

MAT 5831
(n,n') Continuum
Cross Section
58-Ce-138
-100.0 To 3.647 %
Min Ratio
Max Ratio
TENDL Threshold 2.9721 MeV
CENDL3.2 Threshold 5.0000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.5
2.0
1.5
1.0
0.5
0.0
1.2
0.6
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
24
58-Ce-138

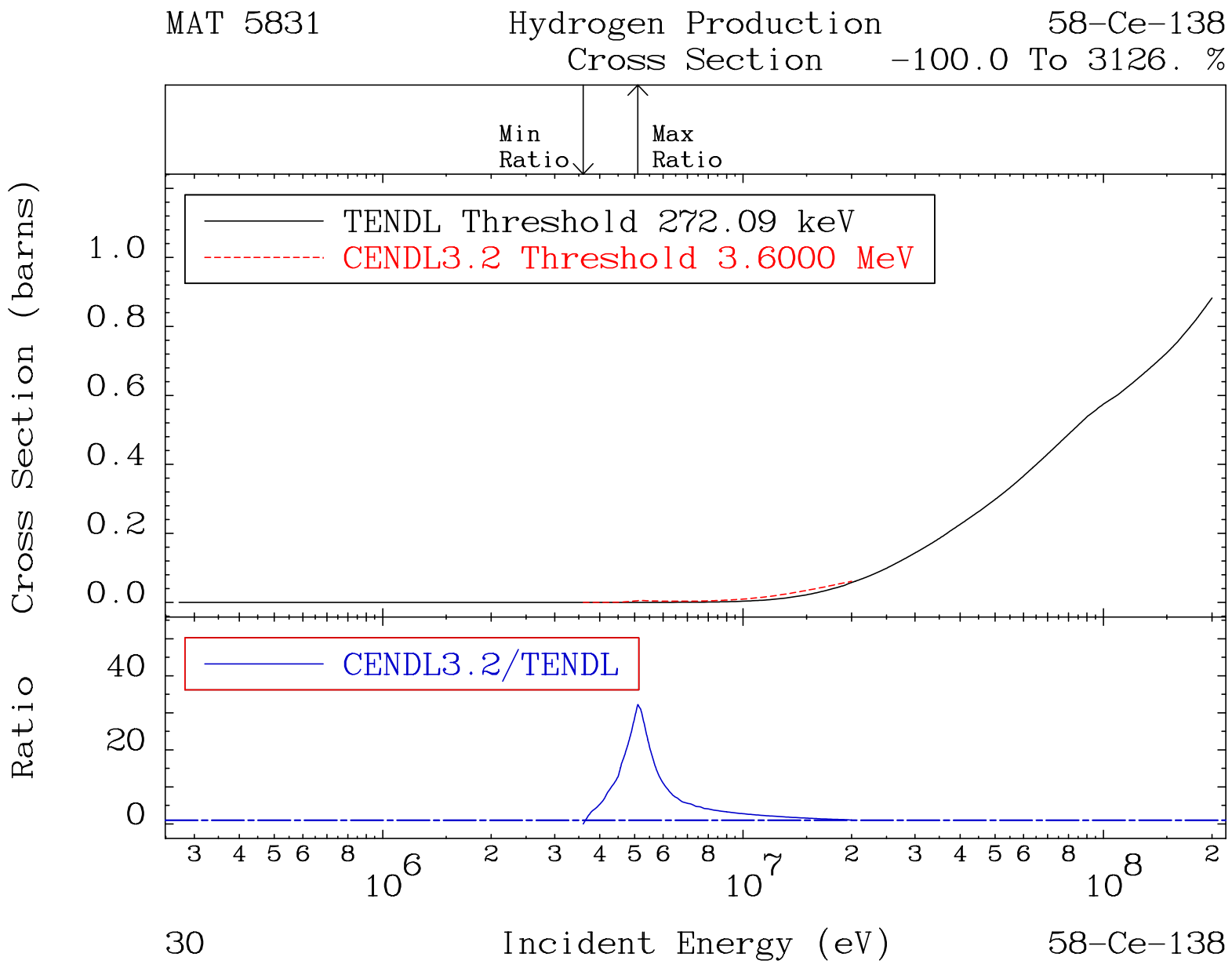

MAT 5831
(n,γ)
58-Ce-138
Cross Section
-100.0 To 2123. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
25
58-Ce-138

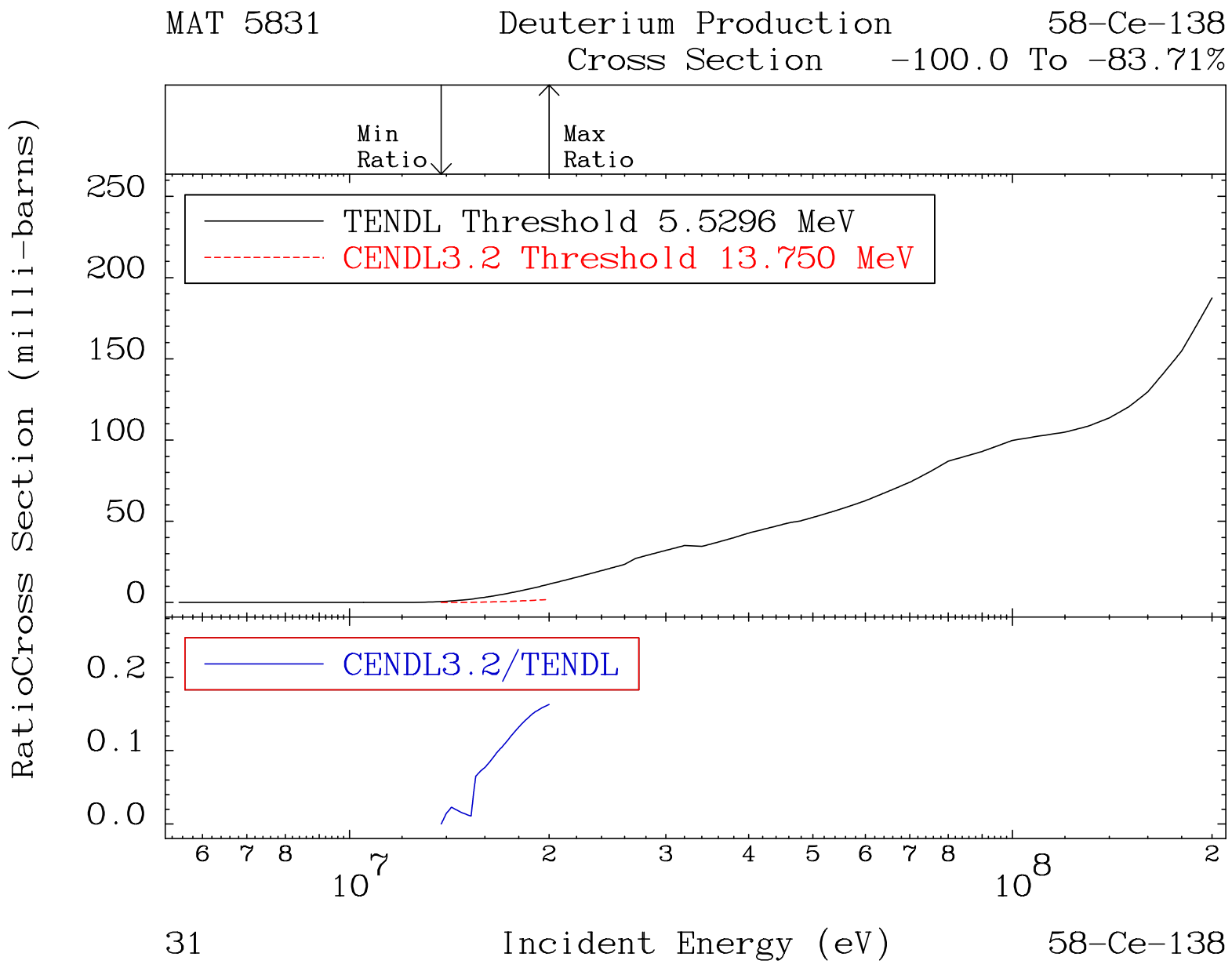

MAT 5831
(n,p)
58-Ce-138
Cross Section
-100.0 To 3126. %
Min Ratio
Max Ratio
TENDL Threshold 272.09 keV
CENDL3.2 Threshold 3.6000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
50
40
30
20
10
0
40
20
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
26
Incident Energy (eV)
58-Ce-138

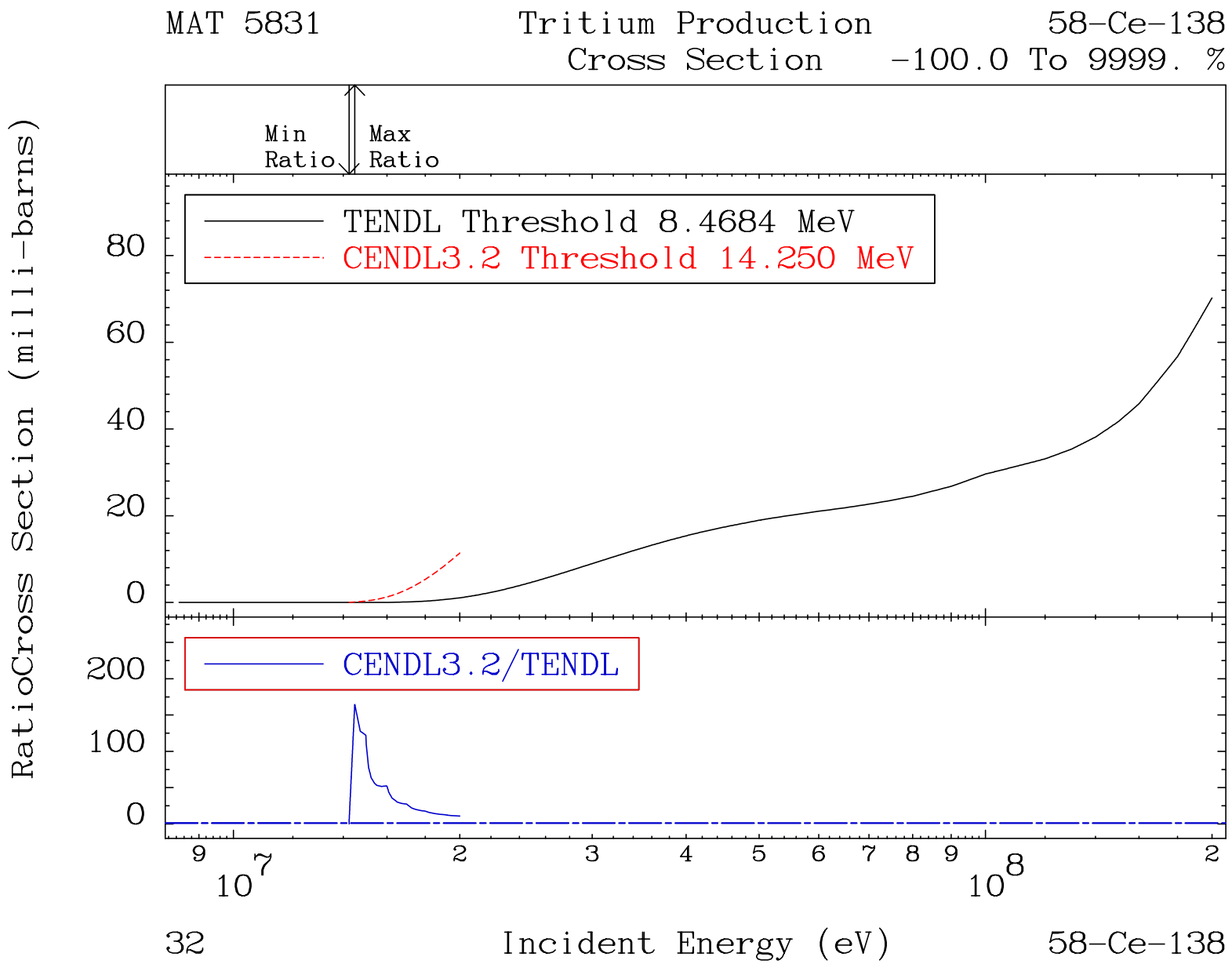

MAT 5831
(n,d)
58-Ce-138
Cross Section
-100.0 To -83.71%
Min Ratio
Max Ratio
TENDL Threshold 5.5296 MeV
CENDL3.2 Threshold 13.750 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
0.2
0.1
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
27
Incident Energy (eV)
58-Ce-138

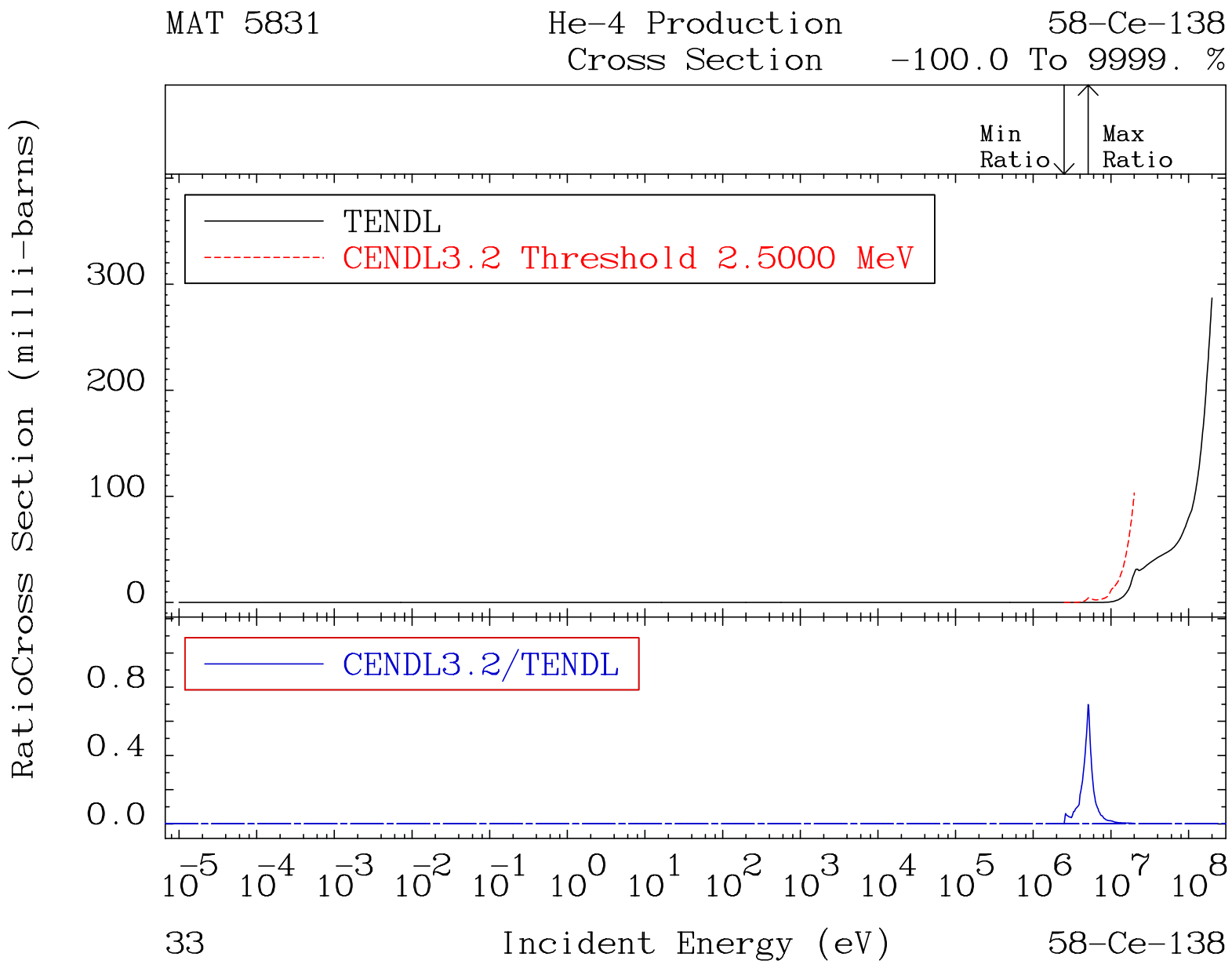

MAT 5831
(n,t)
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 8.4684 MeV
CENDL3.2 Threshold 14.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
14
12
10
8
6
4
2
0
200
100
0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
28
Incident Energy (eV)
58-Ce-138

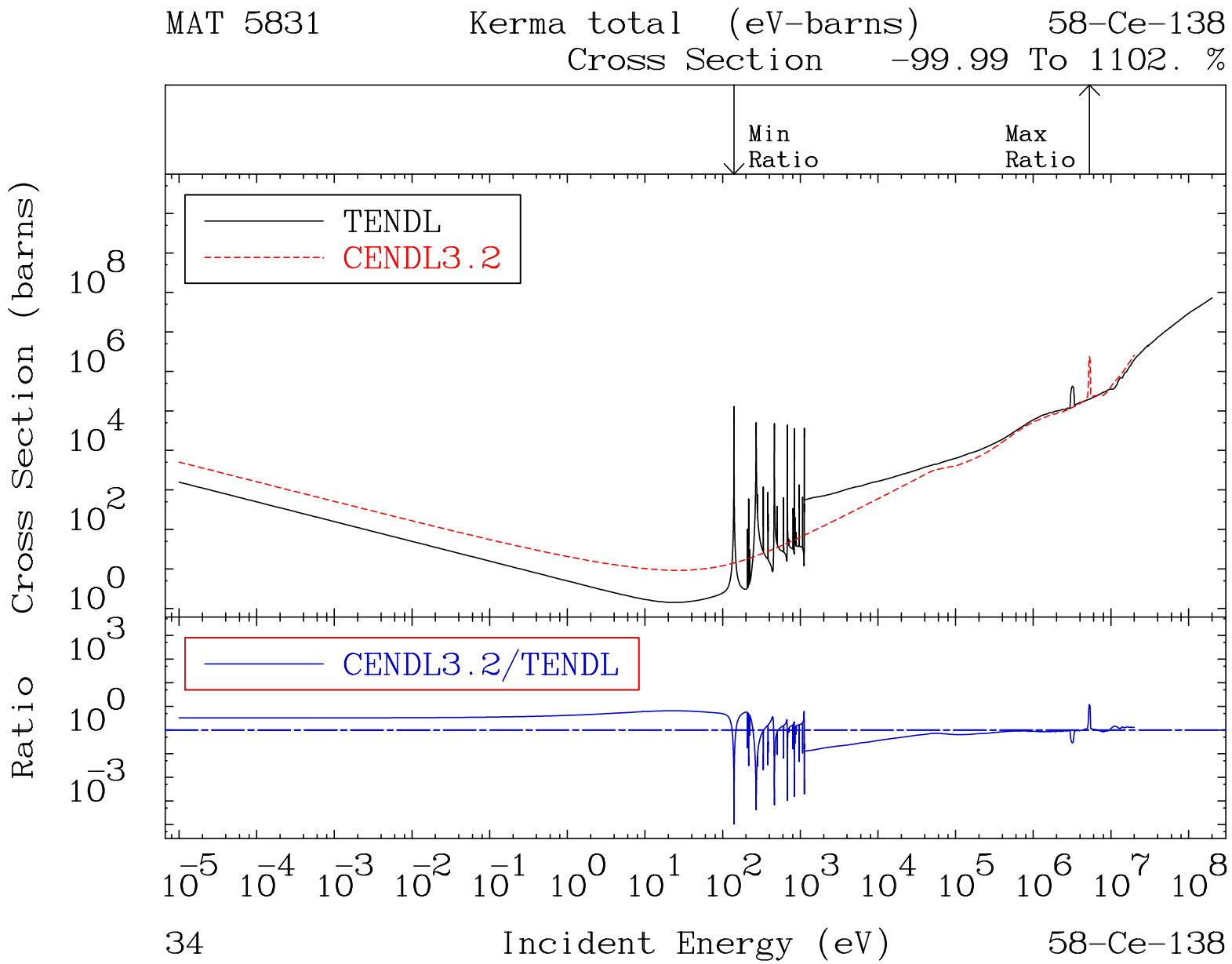

MAT 5831
(n,α)
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 2.5000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
0.8
0.4
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
29
Incident Energy (eV)
58-Ce-138

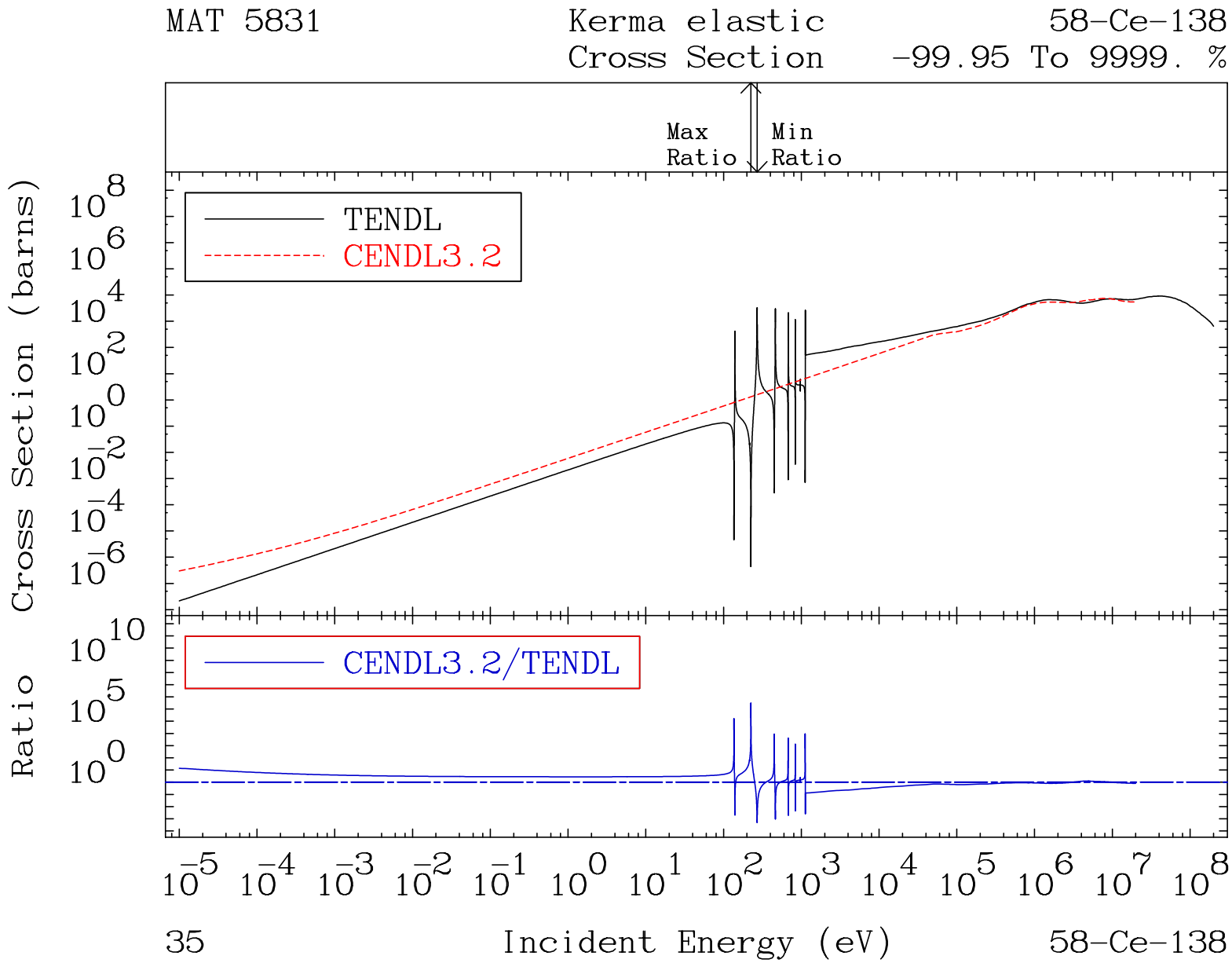

MAT 5831
Hydrogen Production
58-Ce-138
Cross Section
-100.0 To 3126. %
Min Ratio
Max Ratio
TENDL Threshold 272.09 keV
CENDL3.2 Threshold 3.6000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.0
0.8
0.6
0.4
0.2
0.0
40
20
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
30
Incident Energy (eV)
58-Ce-138

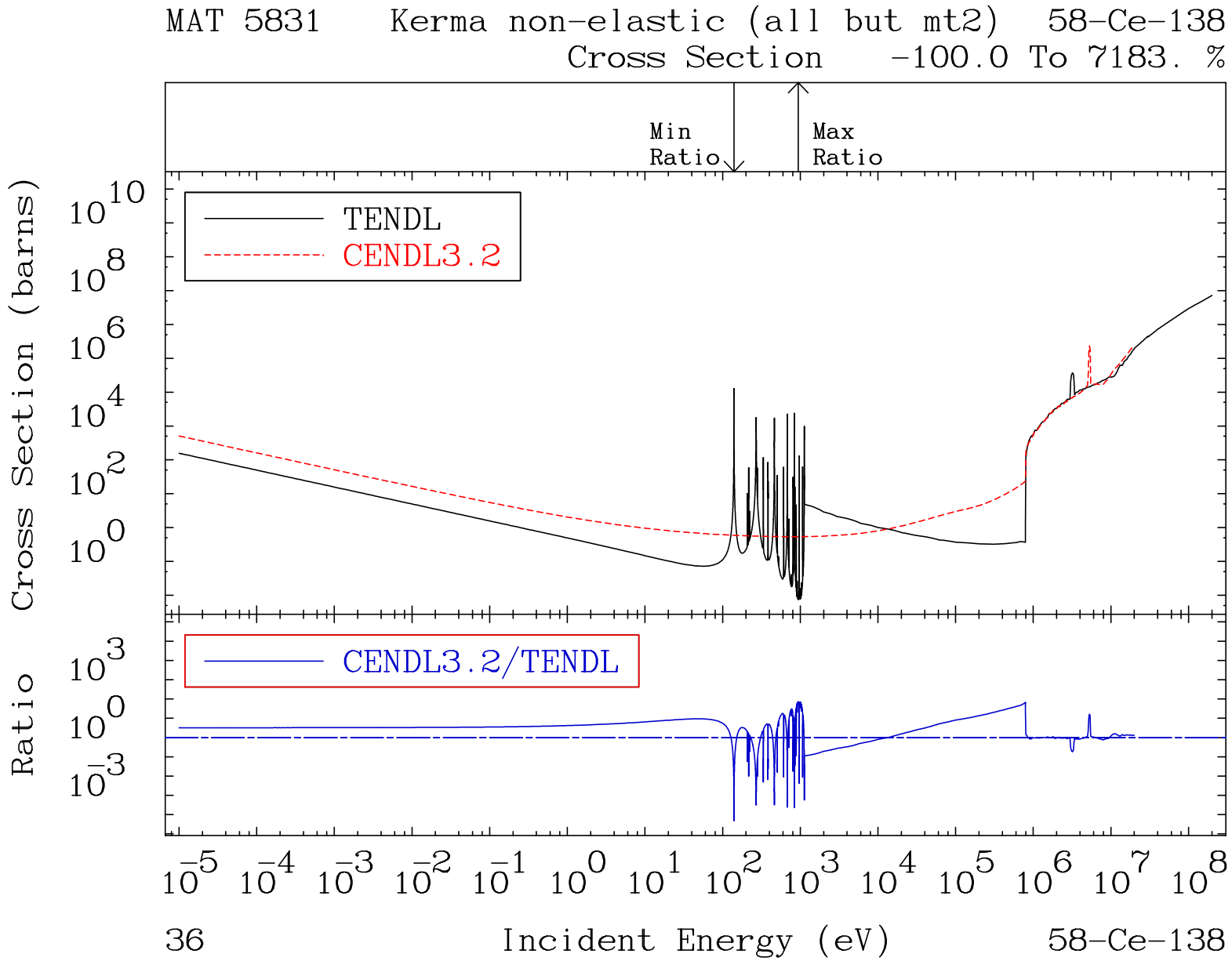

MAT 5831
Deuterium Production
58-Ce-138
Cross Section
-100.0 To -83.71%
Min Ratio
Max Ratio
TENDL Threshold 5.5296 MeV
CENDL3.2 Threshold 13.750 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
0.2
0.1
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
31
Incident Energy (eV)
58-Ce-138

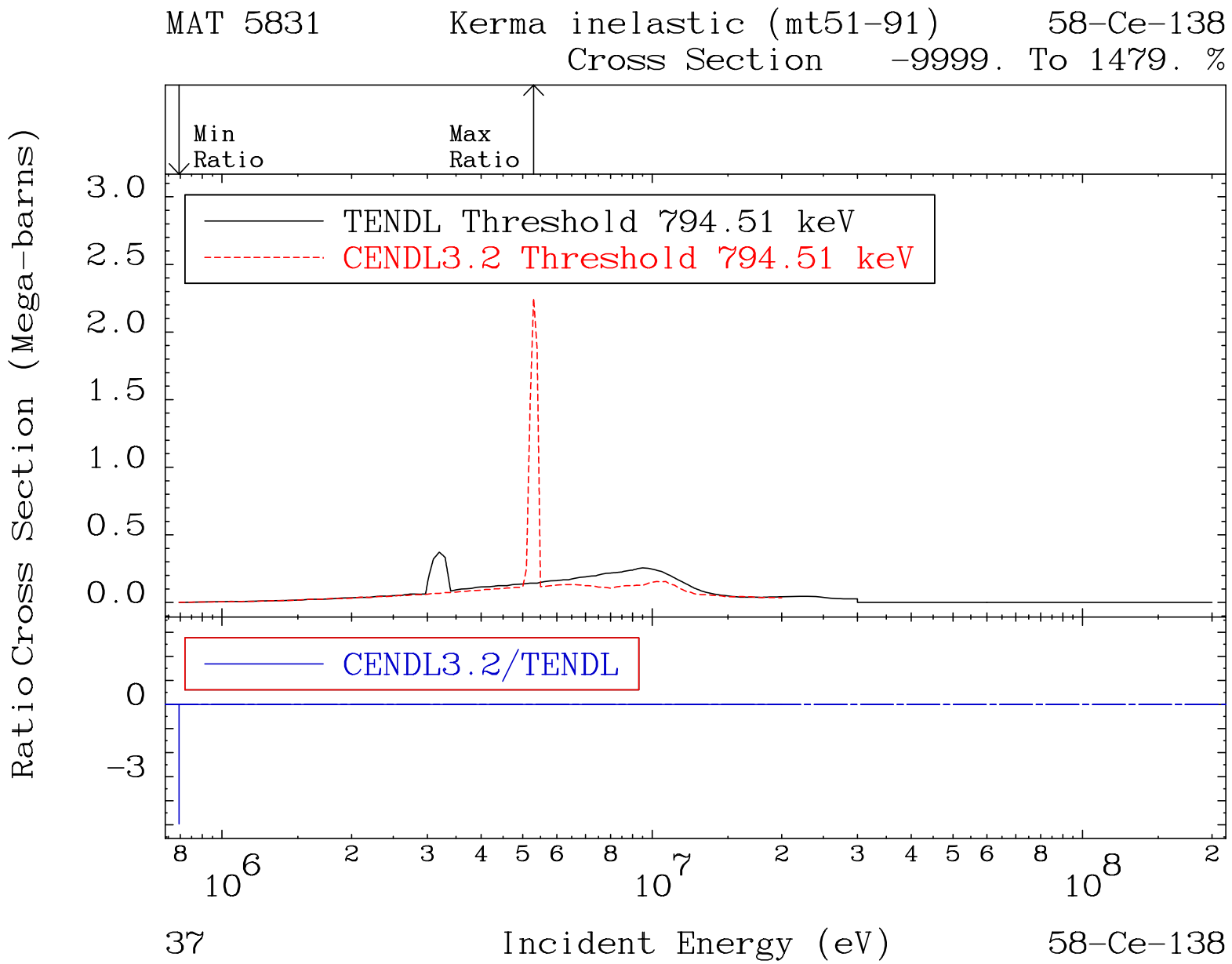

MAT 5831
Tritium Production
58-Ce-138
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 8.4684 MeV
CENDL3.2 Threshold 14.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
200
100
0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
32
Incident Energy (eV)
58-Ce-138

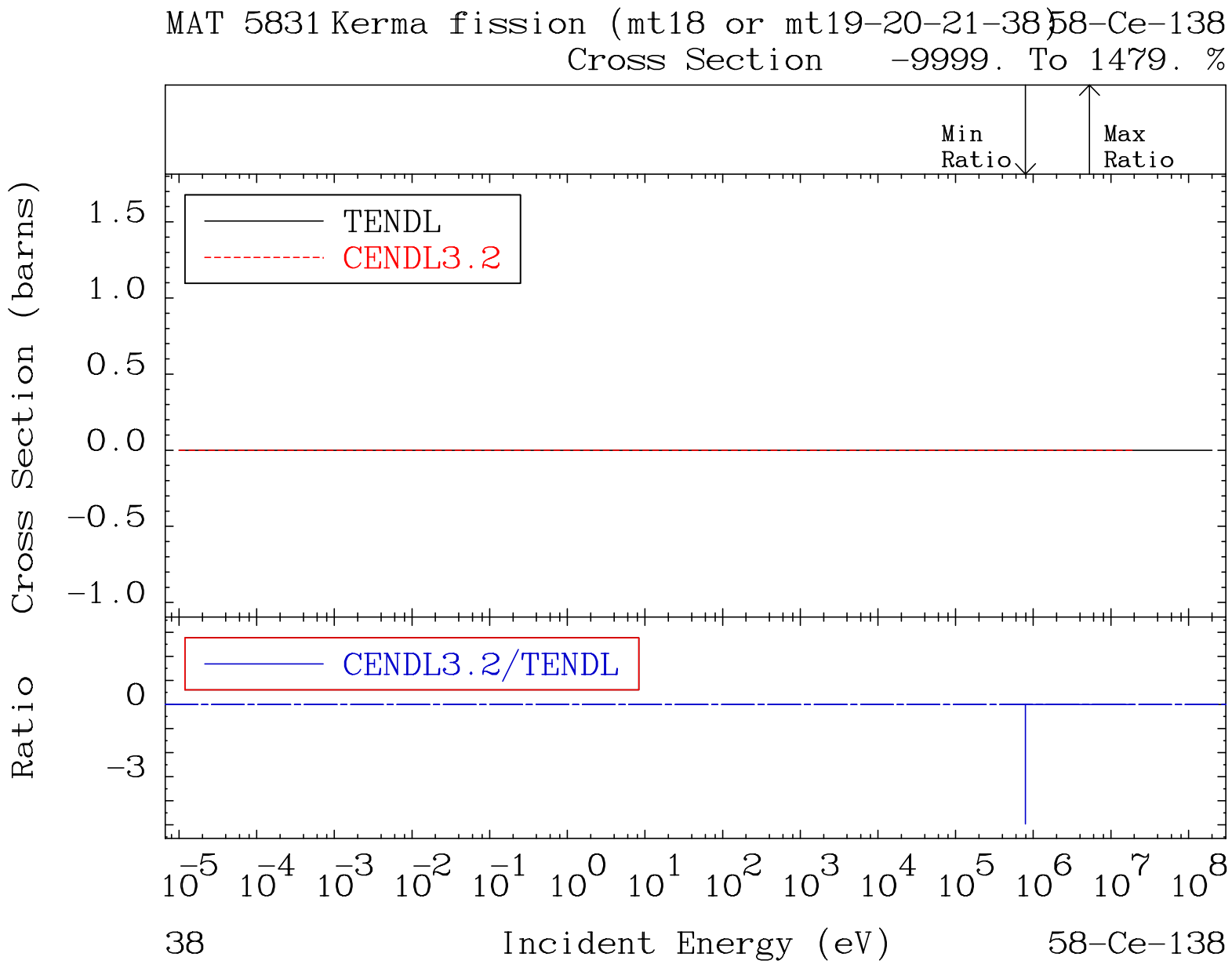

MAT 5831
He-4 Production
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 2.5000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
300
200
100
0
0.8
0.4
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
33
Incident Energy (eV)
58-Ce-138

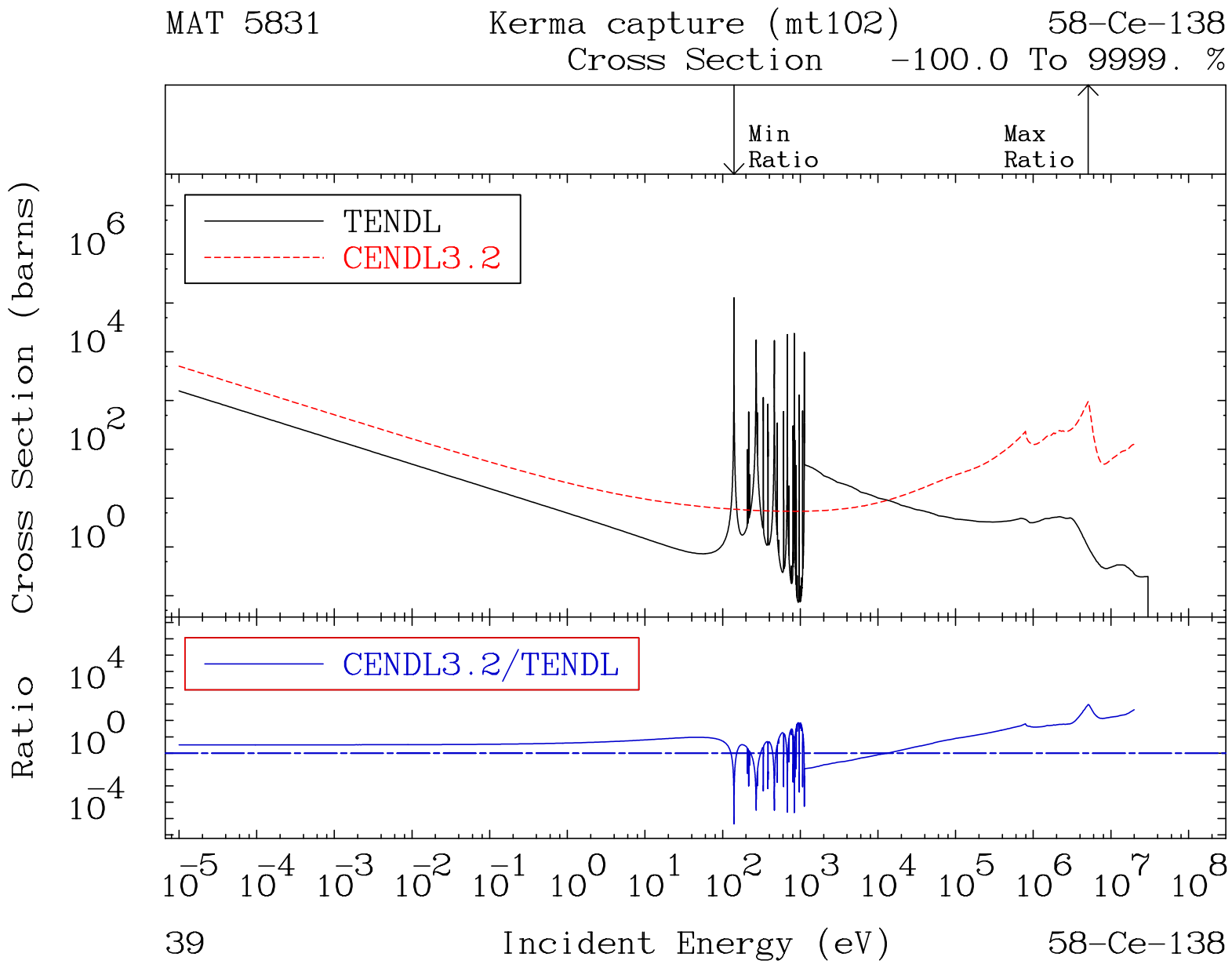

MAT 5831
Kerma total (eV-barns)
58-Ce-138
Cross Section -99.99 To 1102. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
34
58-Ce-138

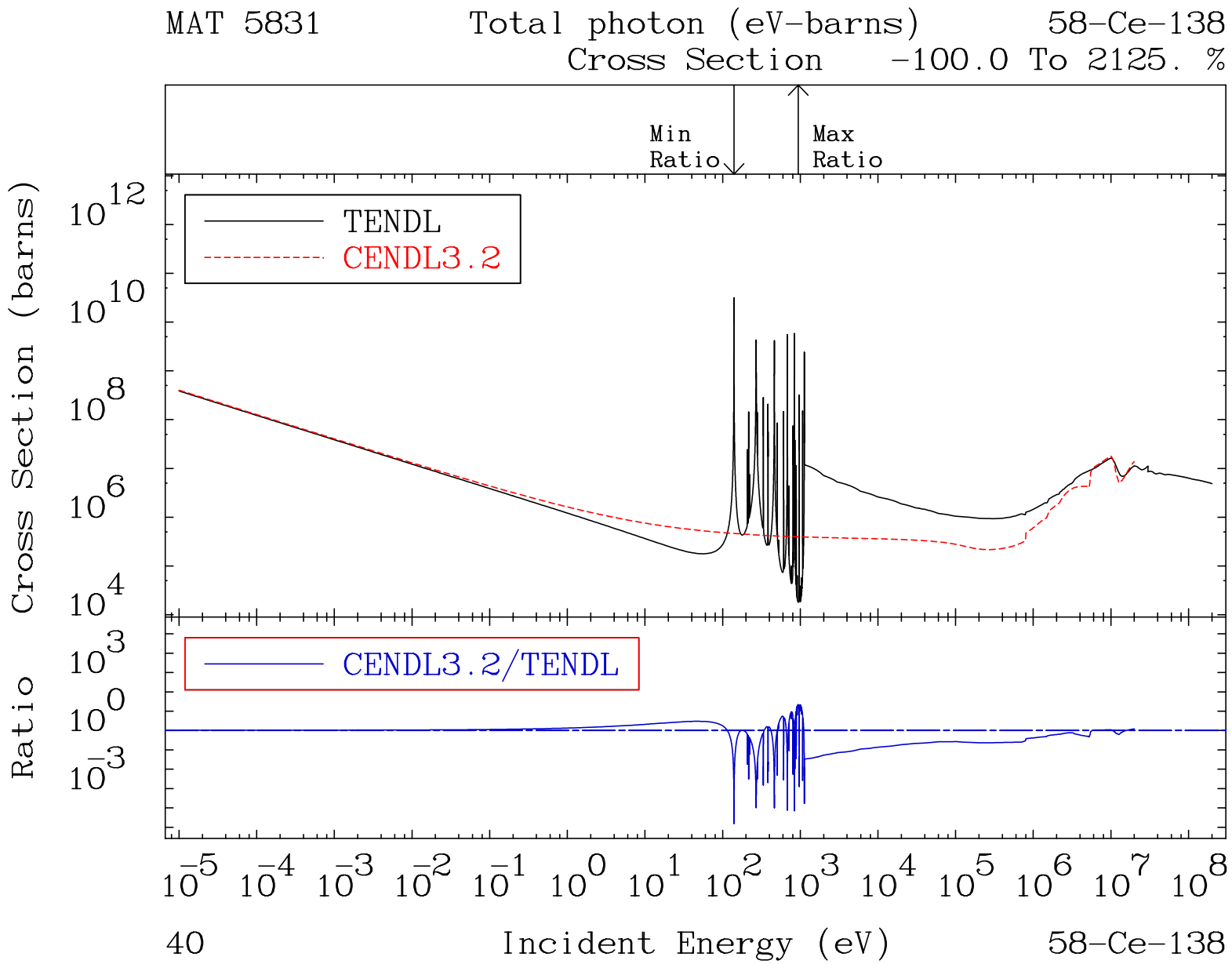

MAT 5831
Kerma elastic
58-Ce-138
Cross Section
-99.95 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
35
58-Ce-138

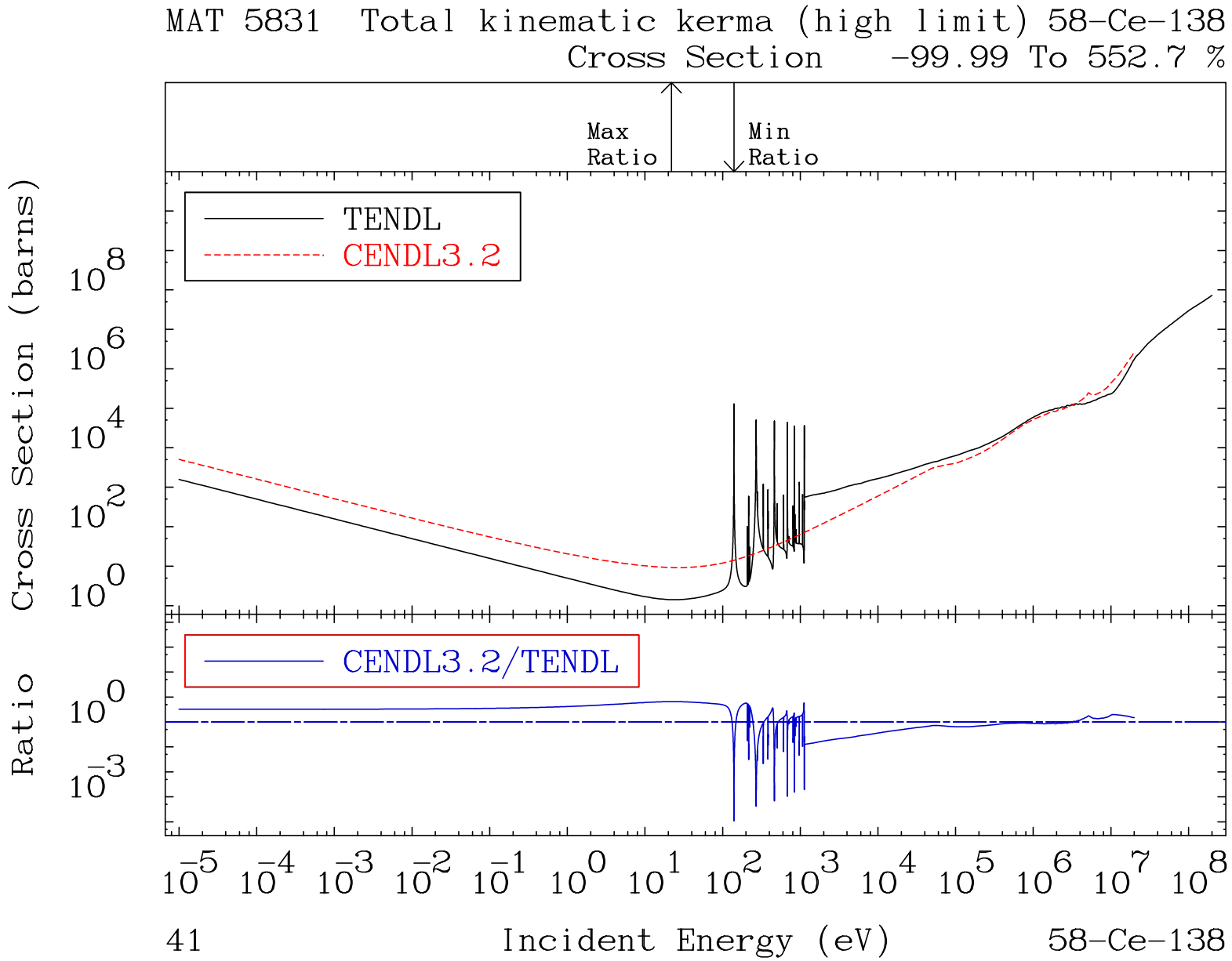

MAT 5831 Kerma non-elastic (all but mt2) 58-Ce-138
Cross Section -100.0 To 7183. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
36
58-Ce-138

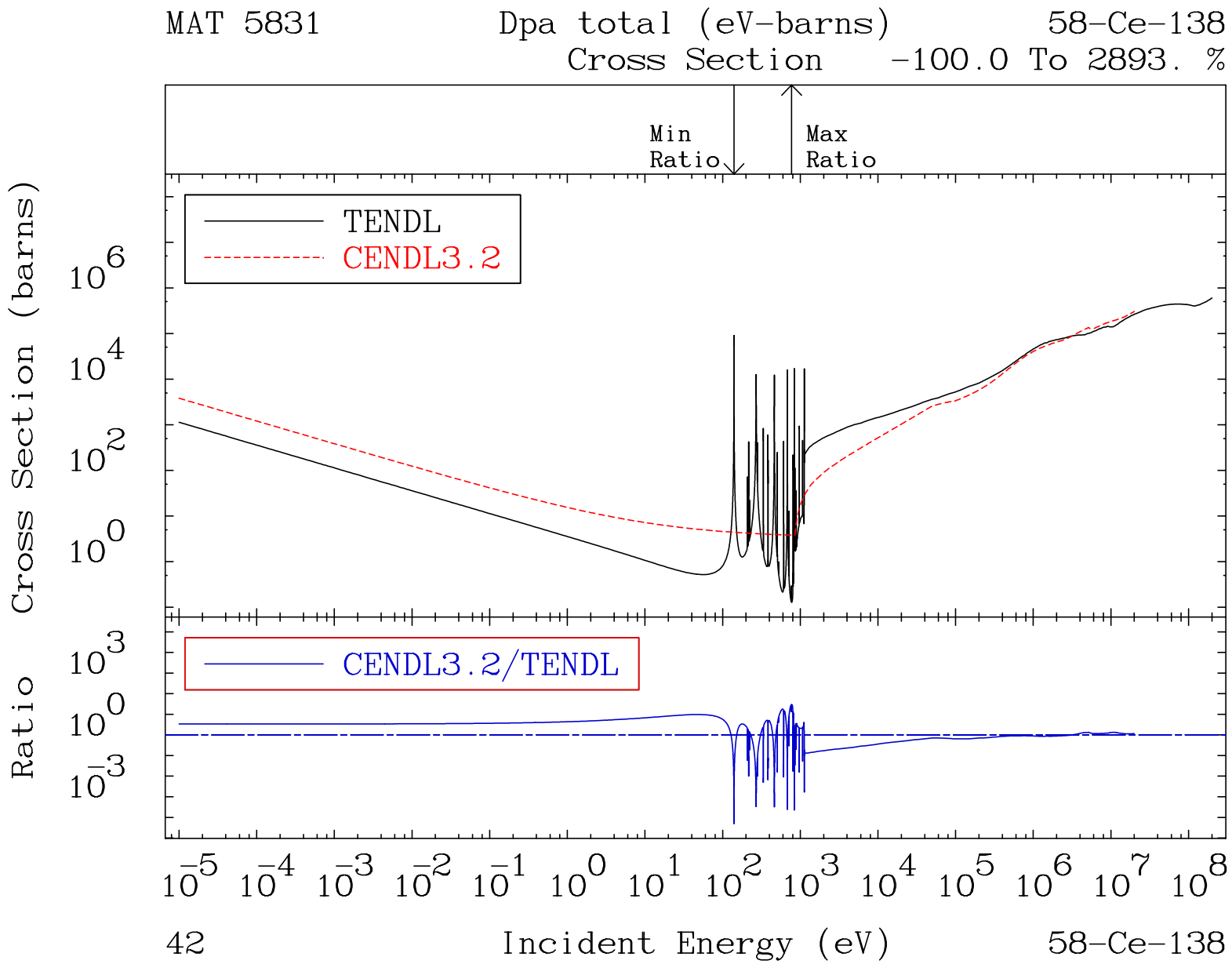

MAT 5831
Kerma inelastic (mt51-91)
58-Ce-138
Cross Section -9999. To 1479. %
Min Ratio
Max Ratio
TENDL Threshold 794.51 keV
CENDL3.2 Threshold 794.51 keV
CENDL3.2/TENDL
Ratio Cross Section (Mega-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
-3
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
37
Incident Energy (eV)
58-Ce-138

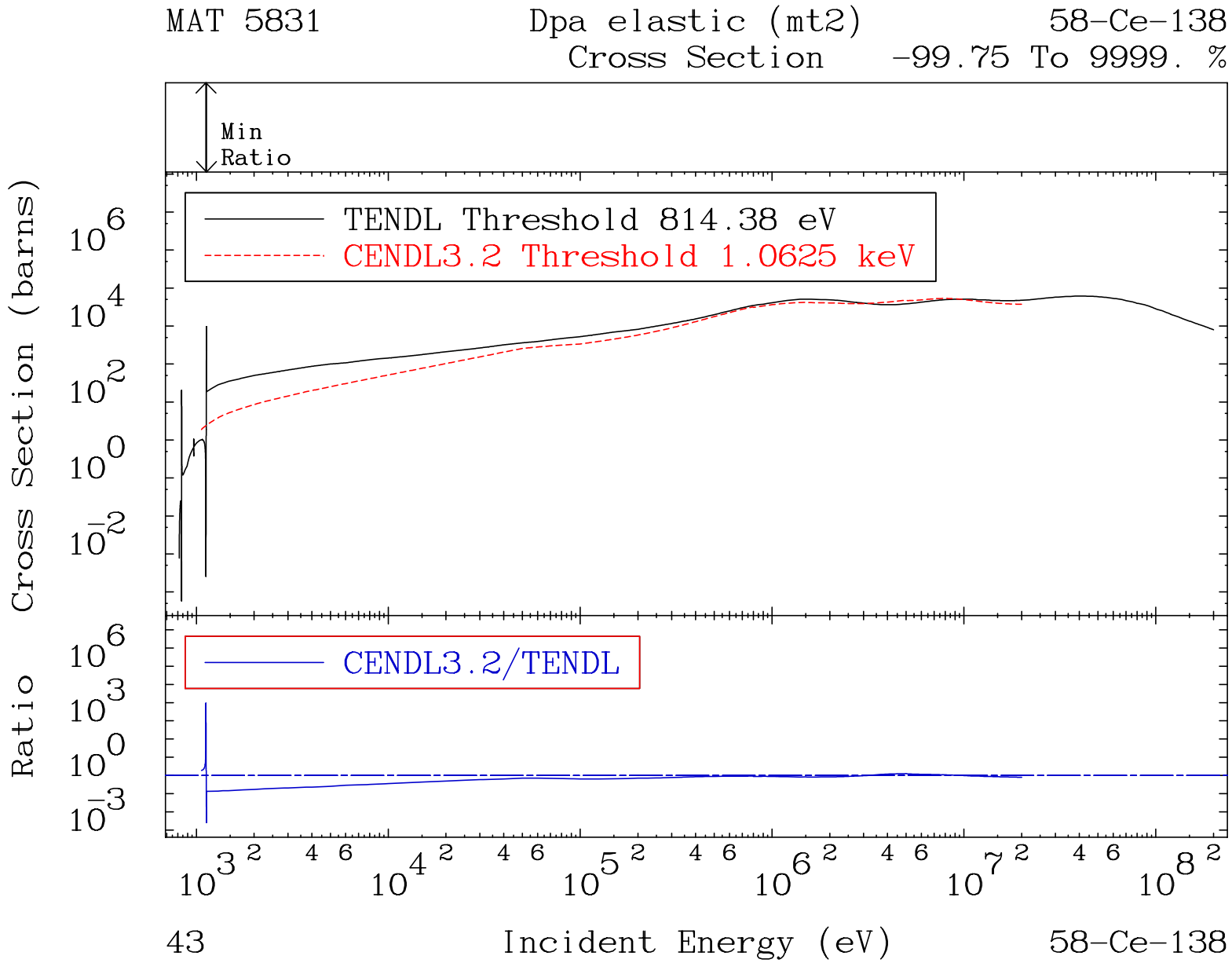

MAT 5831 Kerma fission (mt18 or mt19-20-21-38) 58-Ce-138
Cross Section -9999. To 1479. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
0
-3
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
38
Incident Energy (eV)
58-Ce-138

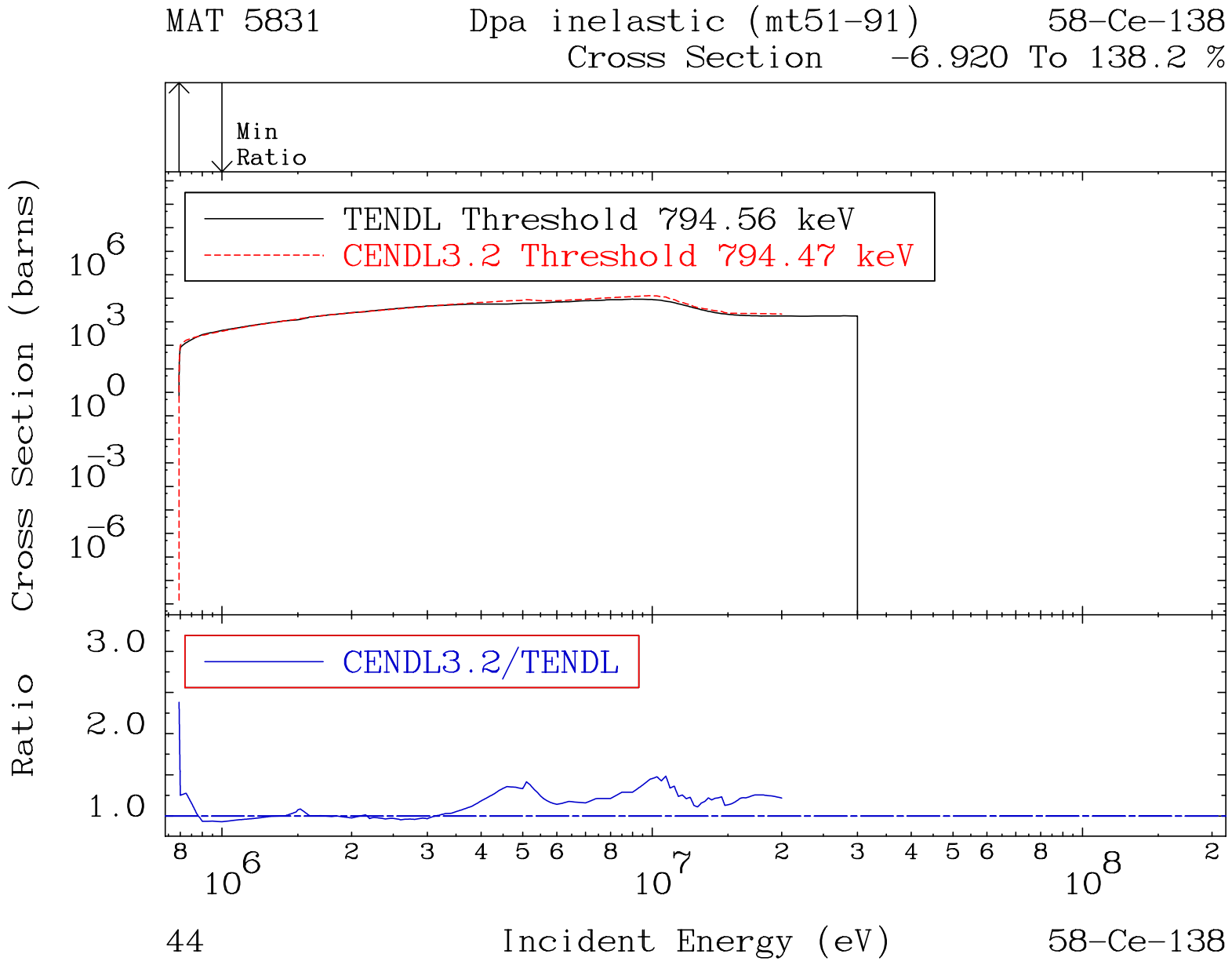

MAT 5831
Kerma capture (mt102)
58-Ce-138
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
39
58-Ce-138

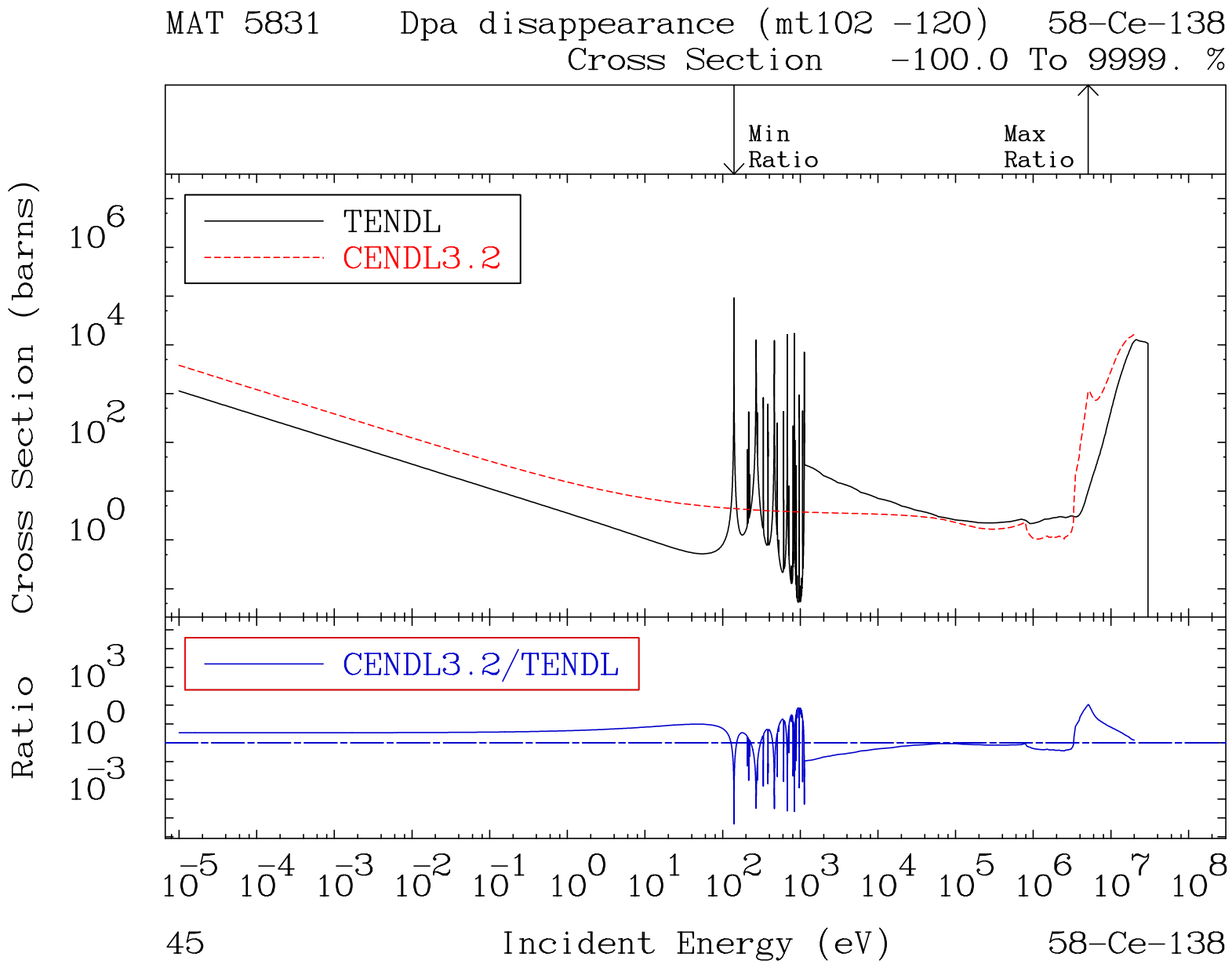

MAT 5831
Total photon (eV-barns)
58-Ce-138
Cross Section -100.0 To 2125. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
40
58-Ce-138

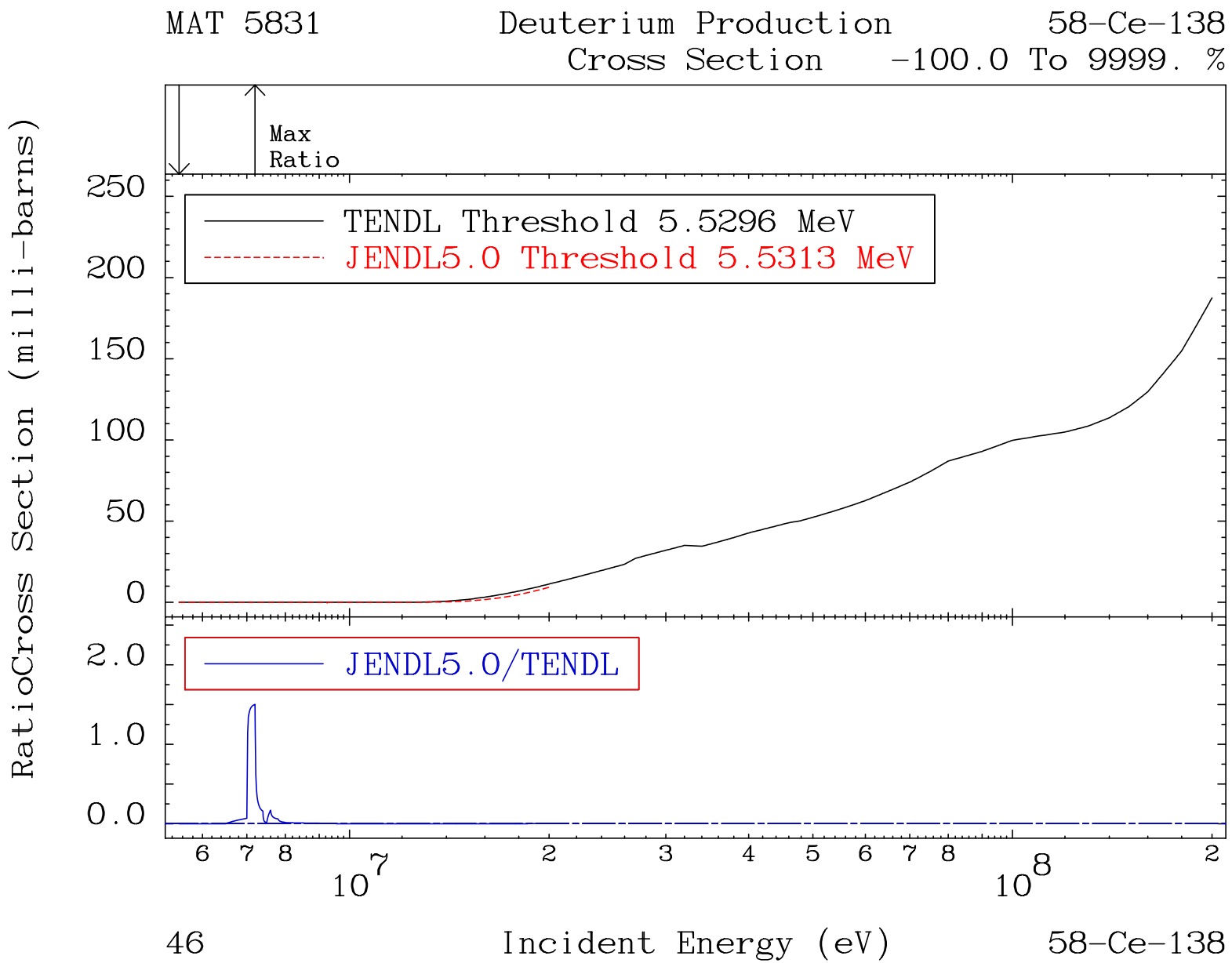

MAT 5831 Total kinematic kerma (high limit) 58-Ce-138
Cross Section -99.99 To 552.7 %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
41
58-Ce-138

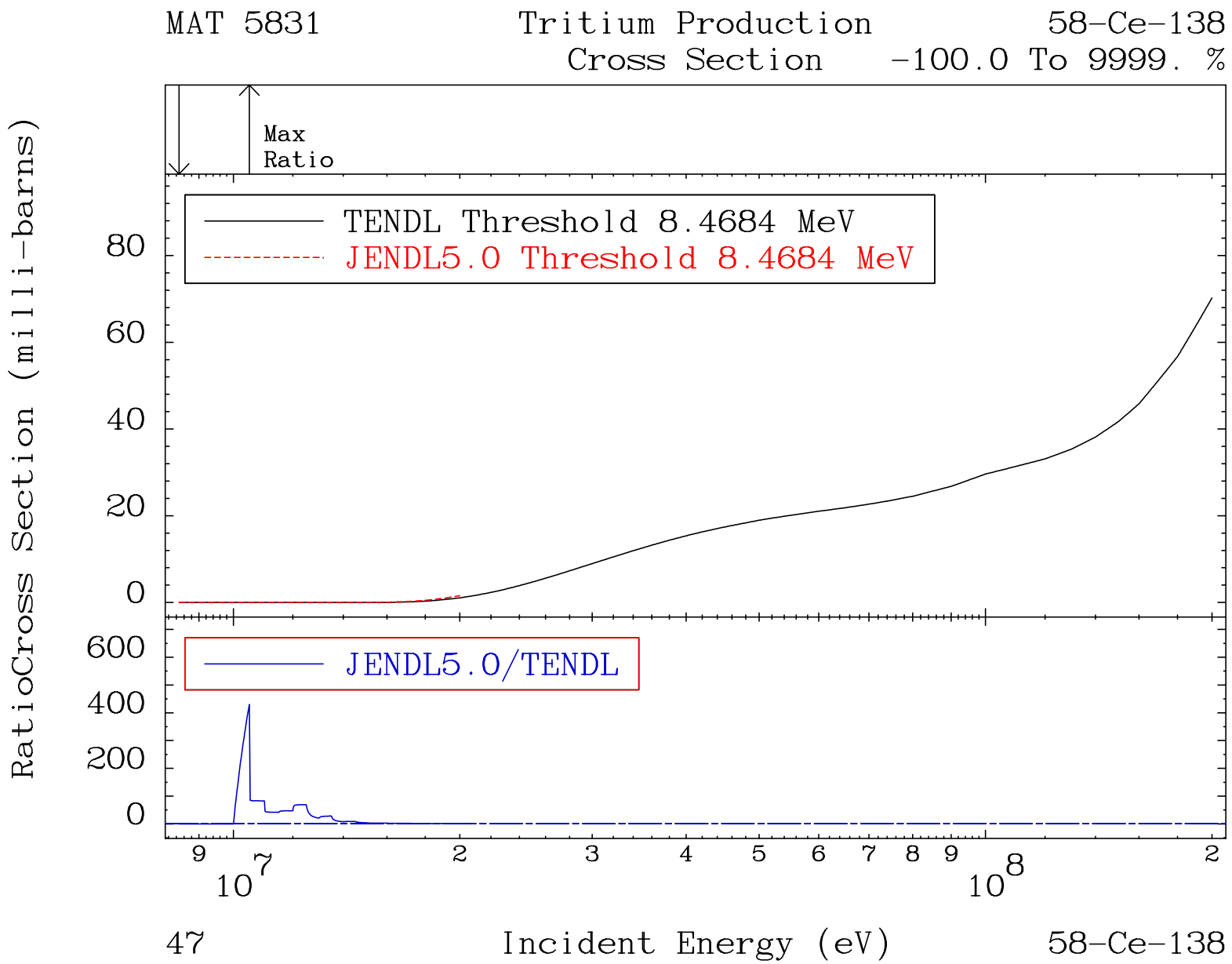

MAT 5831
Dpa total (eV-barns)
58-Ce-138
Cross Section -100.0 To 2893. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
42
58-Ce-138

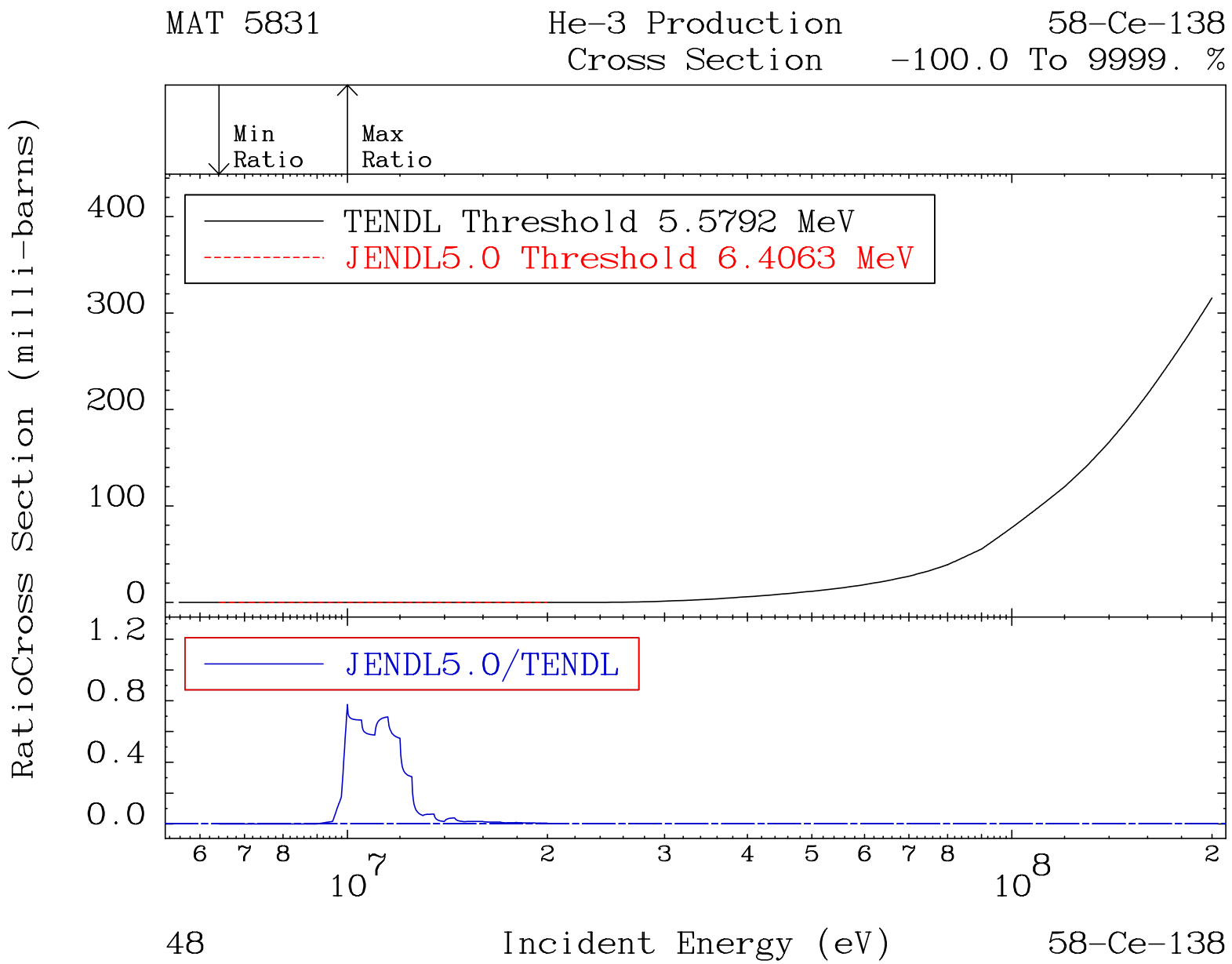

MAT 5831
Dpa elastic (mt2)
Cross Section
58-Ce-138
-99.75 To 9999. %
Min
Ratio
TENDL Threshold 814.38 eV
CENDL3.2 Threshold 1.0625 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
43
58-Ce-138

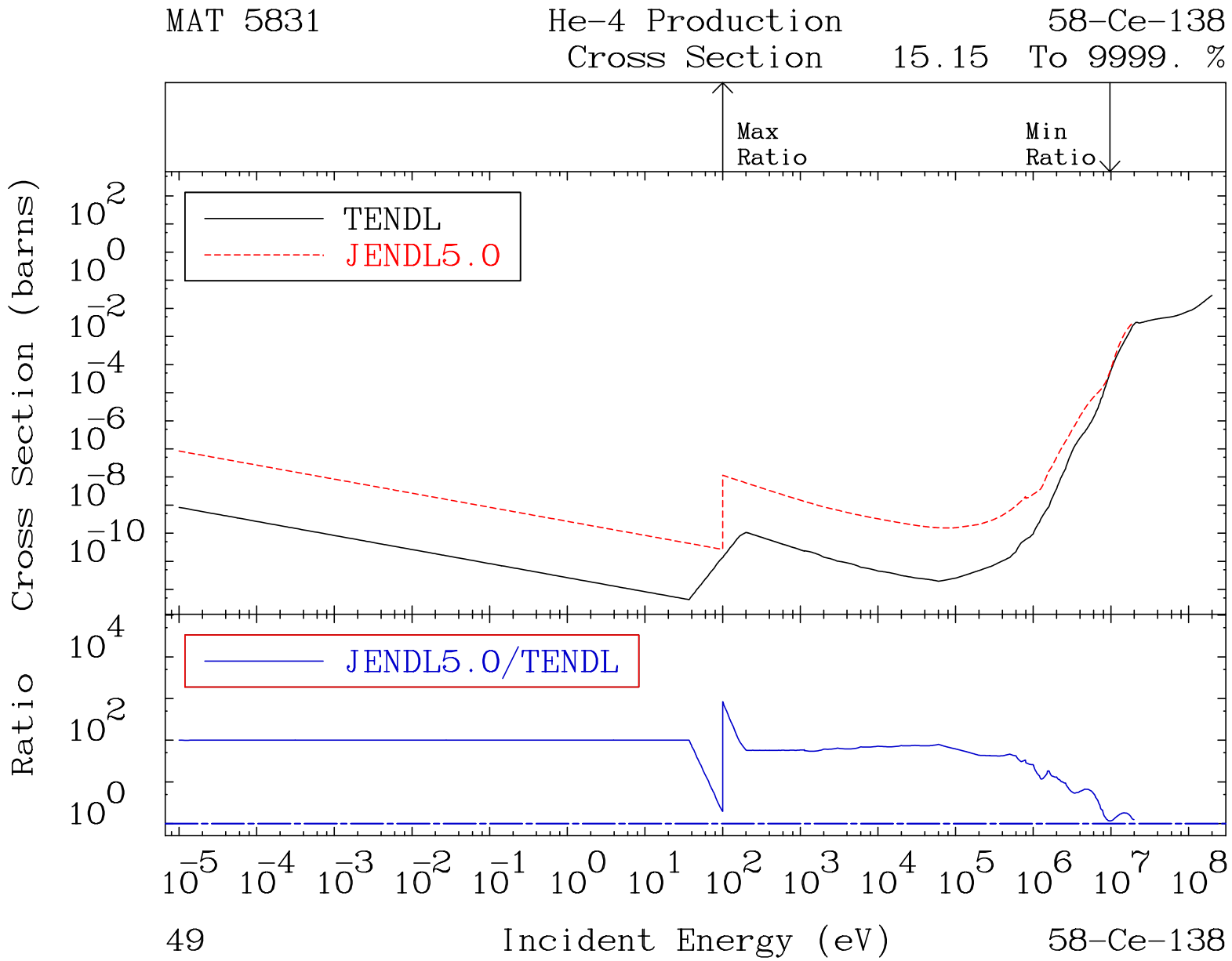

MAT 5831
Dpa inelastic (mt51-91)
58-Ce-138
Cross Section
-6.920 To 138.2 %
Min
Ratio
TENDL Threshold 794.56 keV
CENDL3.2 Threshold 794.47 keV
Cross Section (barns)
10^6
10^3
10^0
10^-3
10^-6
CENDL3.2/TENDL
Ratio
3.0
2.0
1.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
44
Incident Energy (eV)
58-Ce-138

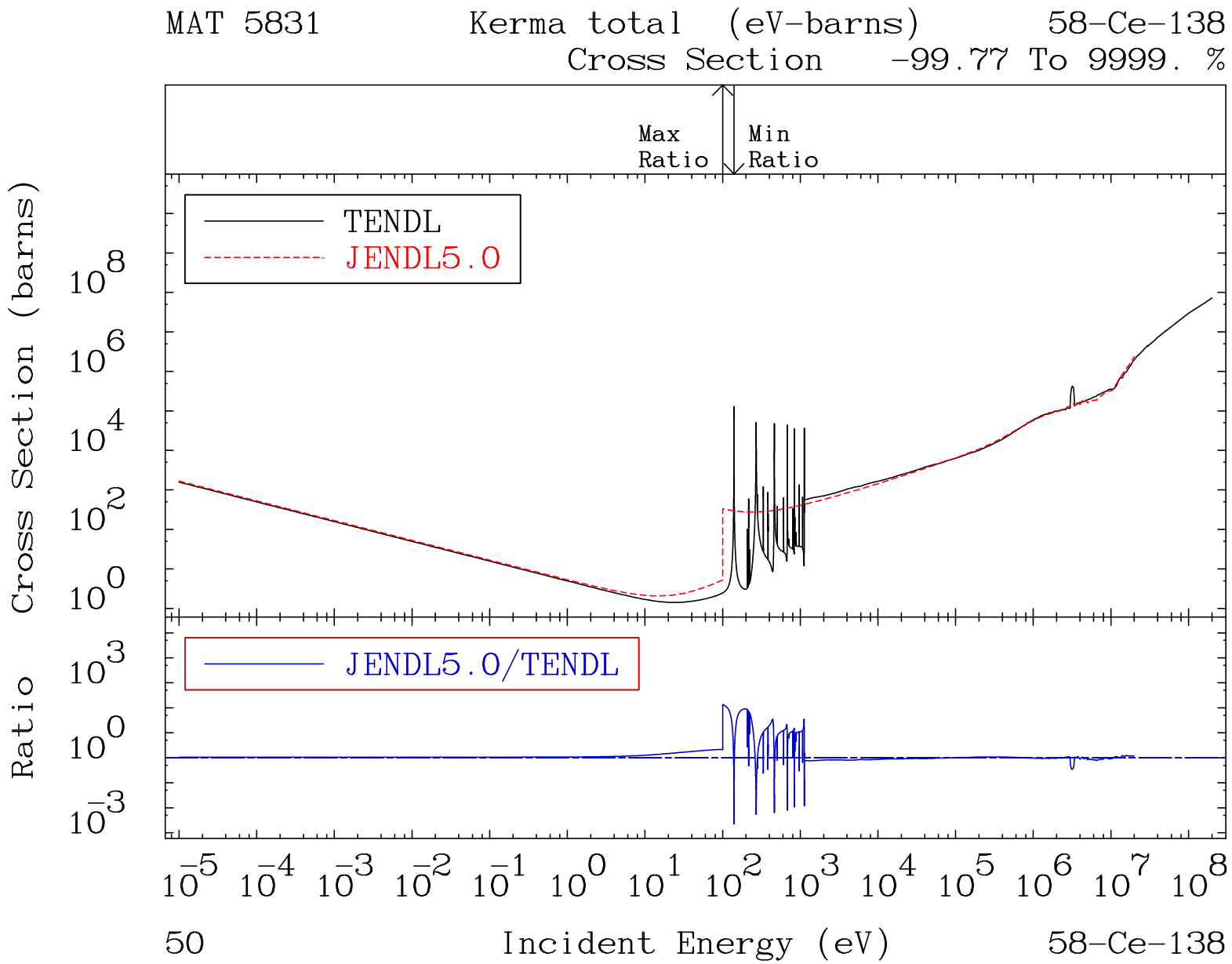

MAT 5831 Dpa disappearance (mt102 -120) 58-Ce-138
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
45
58-Ce-138

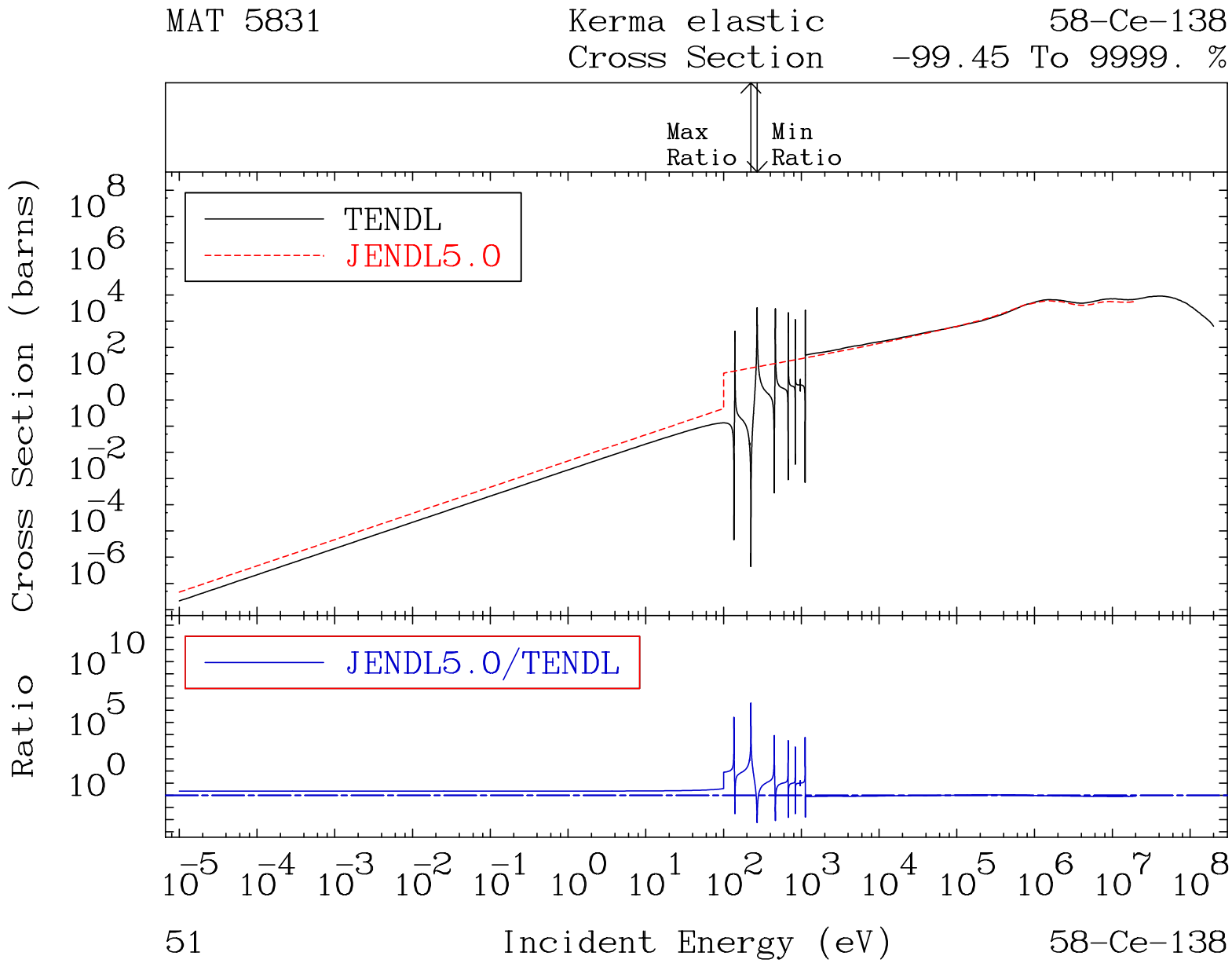

MAT 5831
Deuterium Production
58-Ce-138
Cross Section
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 5.5296 MeV
JENDL5.0 Threshold 5.5313 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
2.0
1.0
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
46
Incident Energy (eV)
58-Ce-138

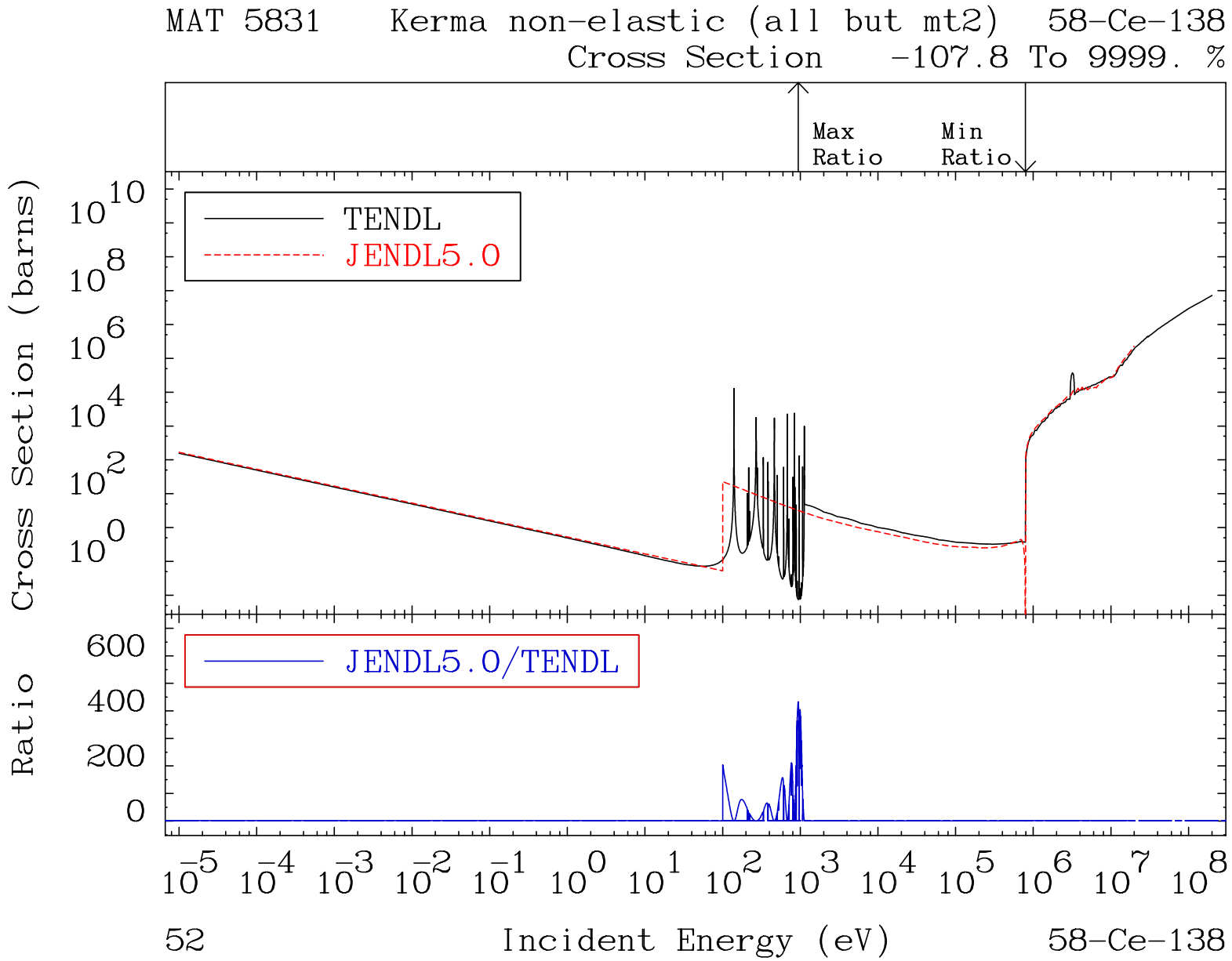

MAT 5831
Tritium Production
58-Ce-138
Cross Section
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 8.4684 MeV
JENDL5.0 Threshold 8.4684 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
600
400
200
0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
47
Incident Energy (eV)
58-Ce-138

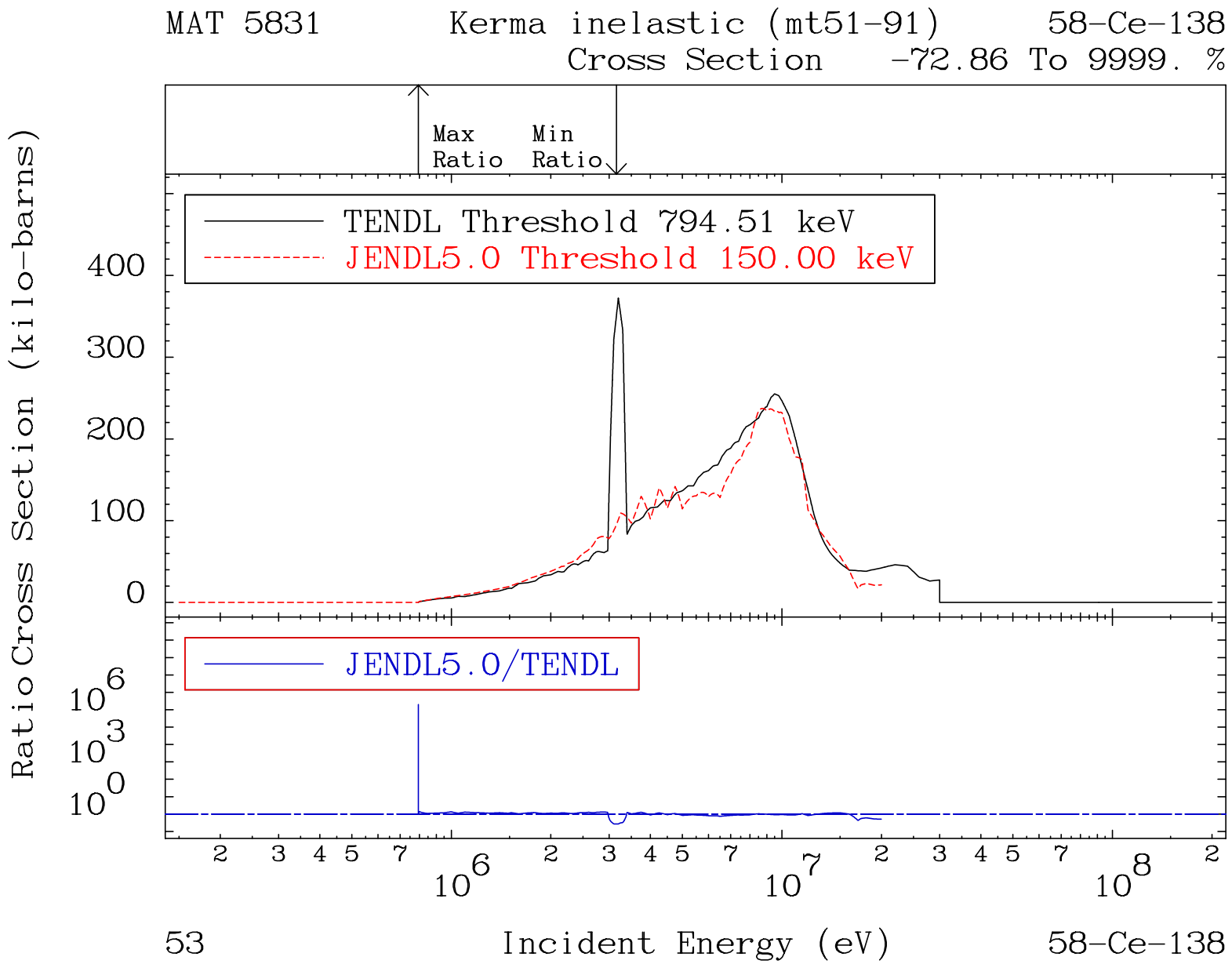

MAT 5831
He-3 Production
58-Ce-138
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JENDL5.0 Threshold 6.4063 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
1.2
0.8
0.4
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
48
Incident Energy (eV)
58-Ce-138

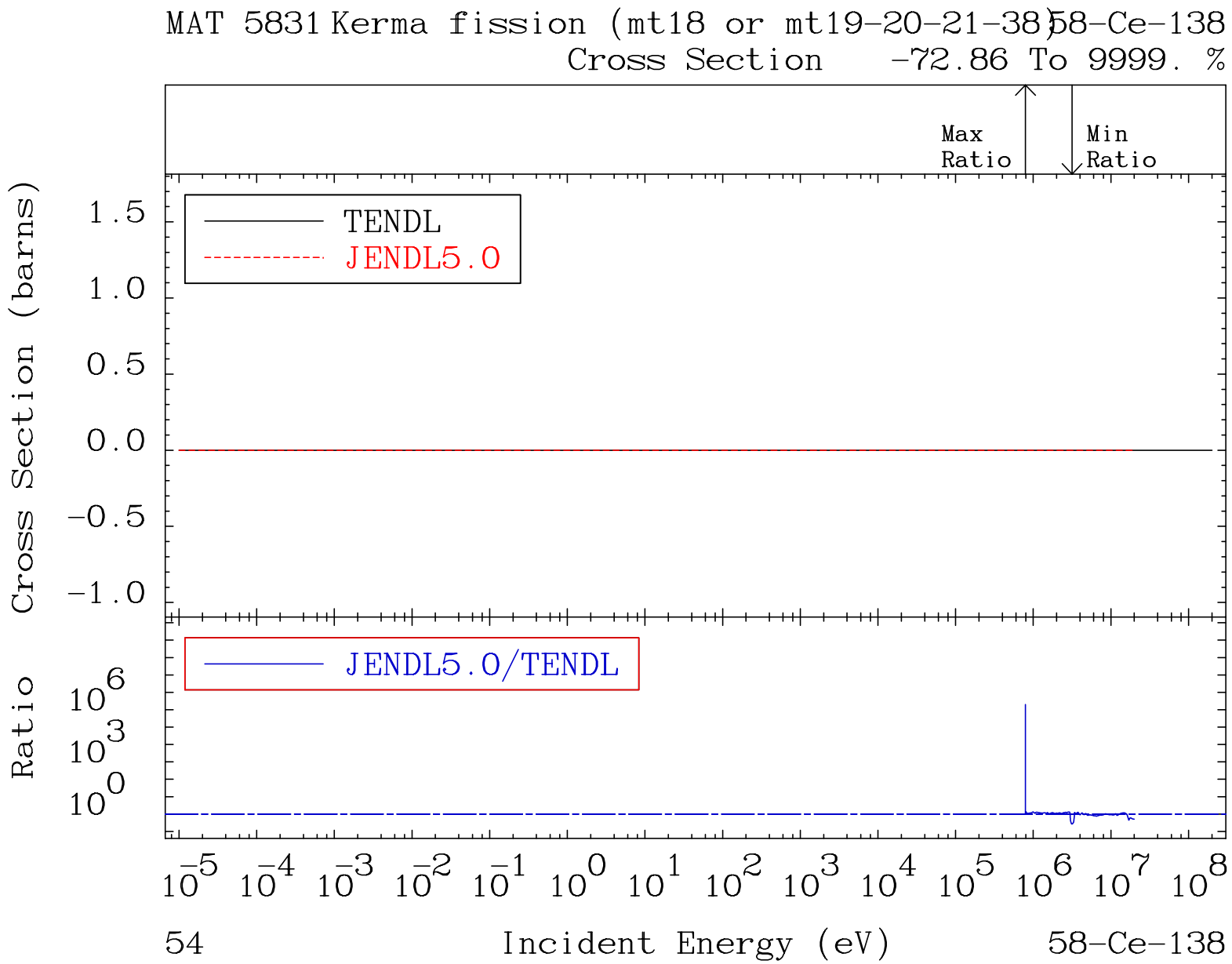

MAT 5831
He-4 Production
Cross Section
58-Ce-138
15.15 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
49
58-Ce-138

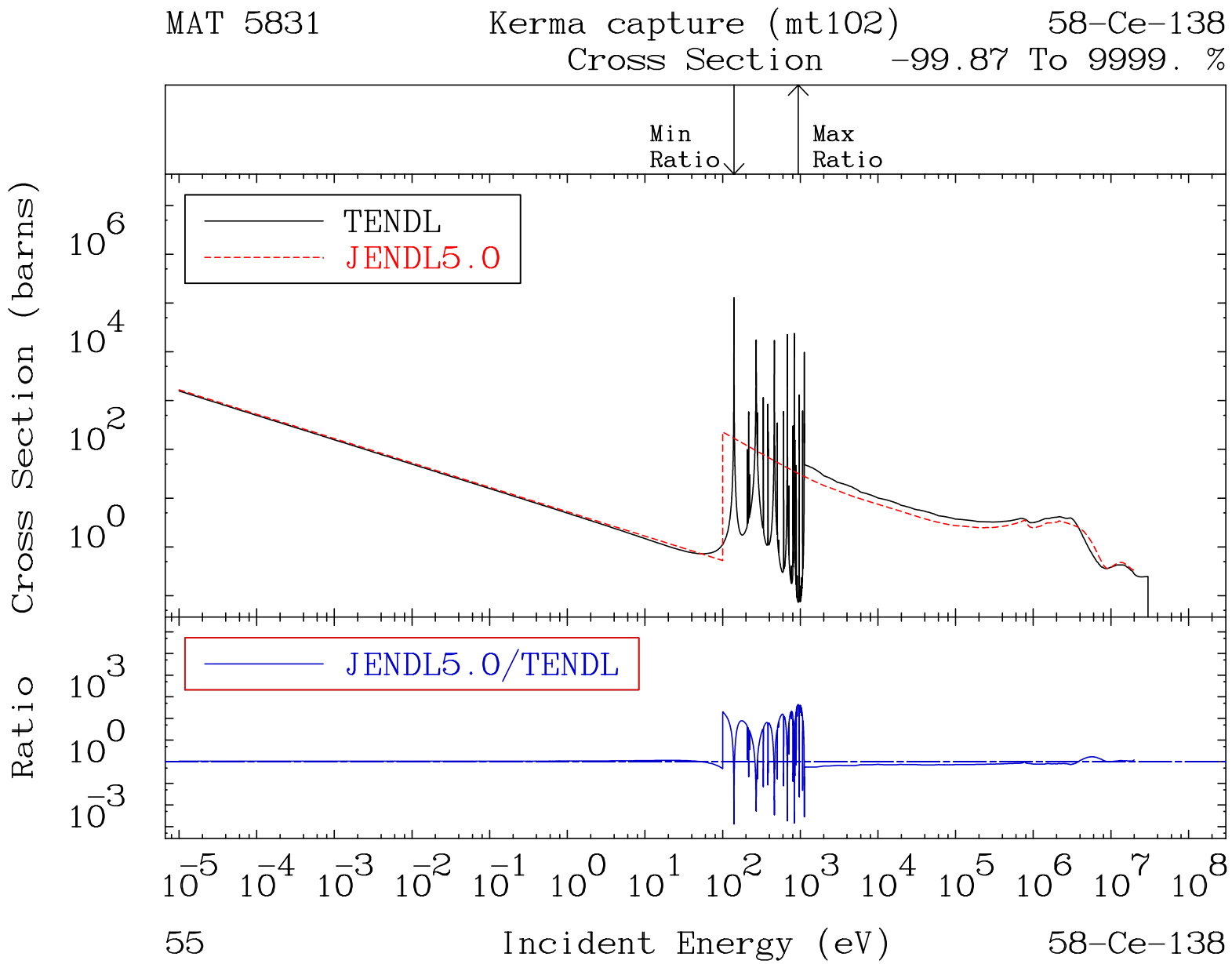

MAT 5831
Kerma total (eV-barns)
58-Ce-138
Cross Section -99.77 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
50
58-Ce-138

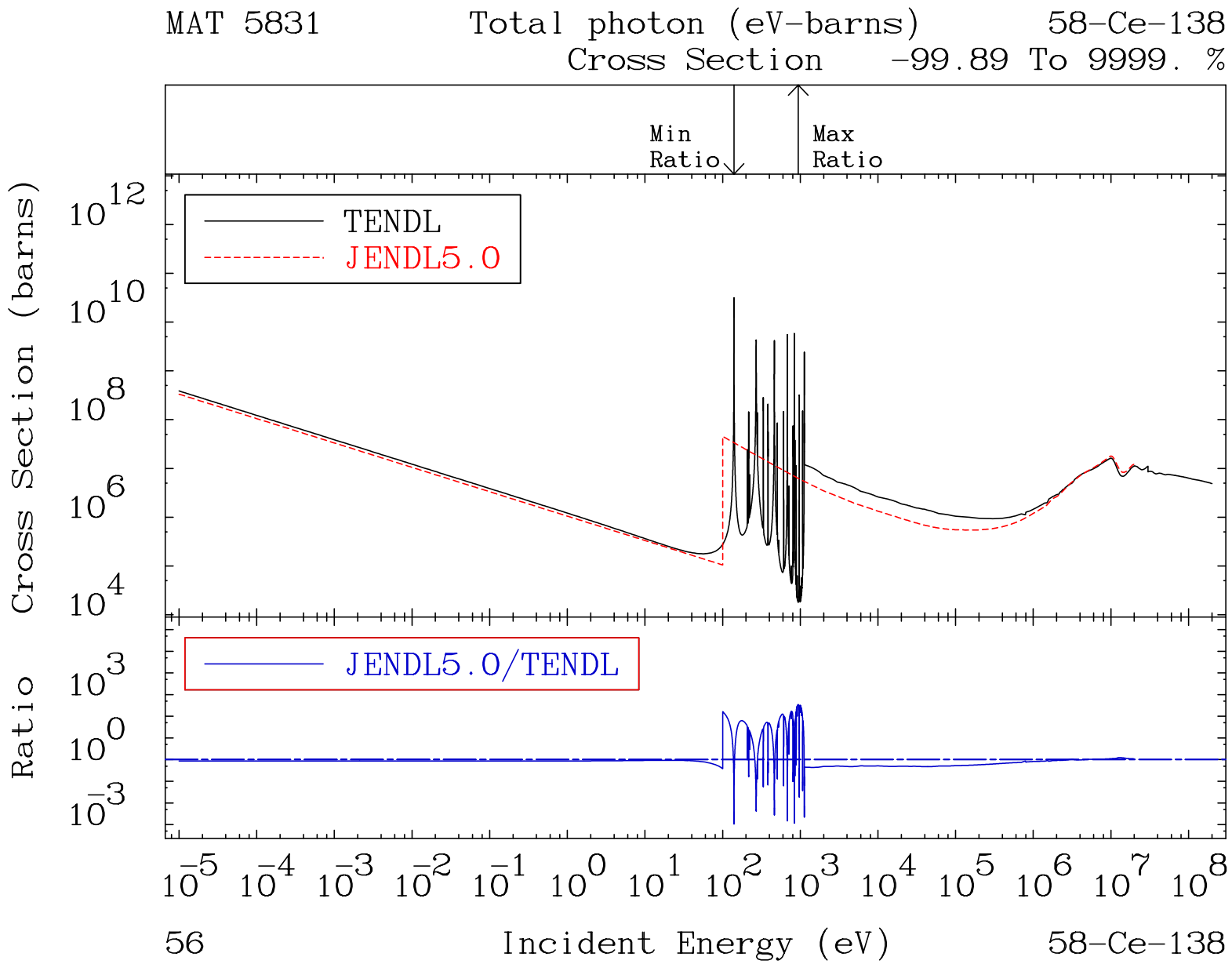

MAT 5831
Kerma elastic
Cross Section
58-Ce-138
-99.45 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
51
58-Ce-138

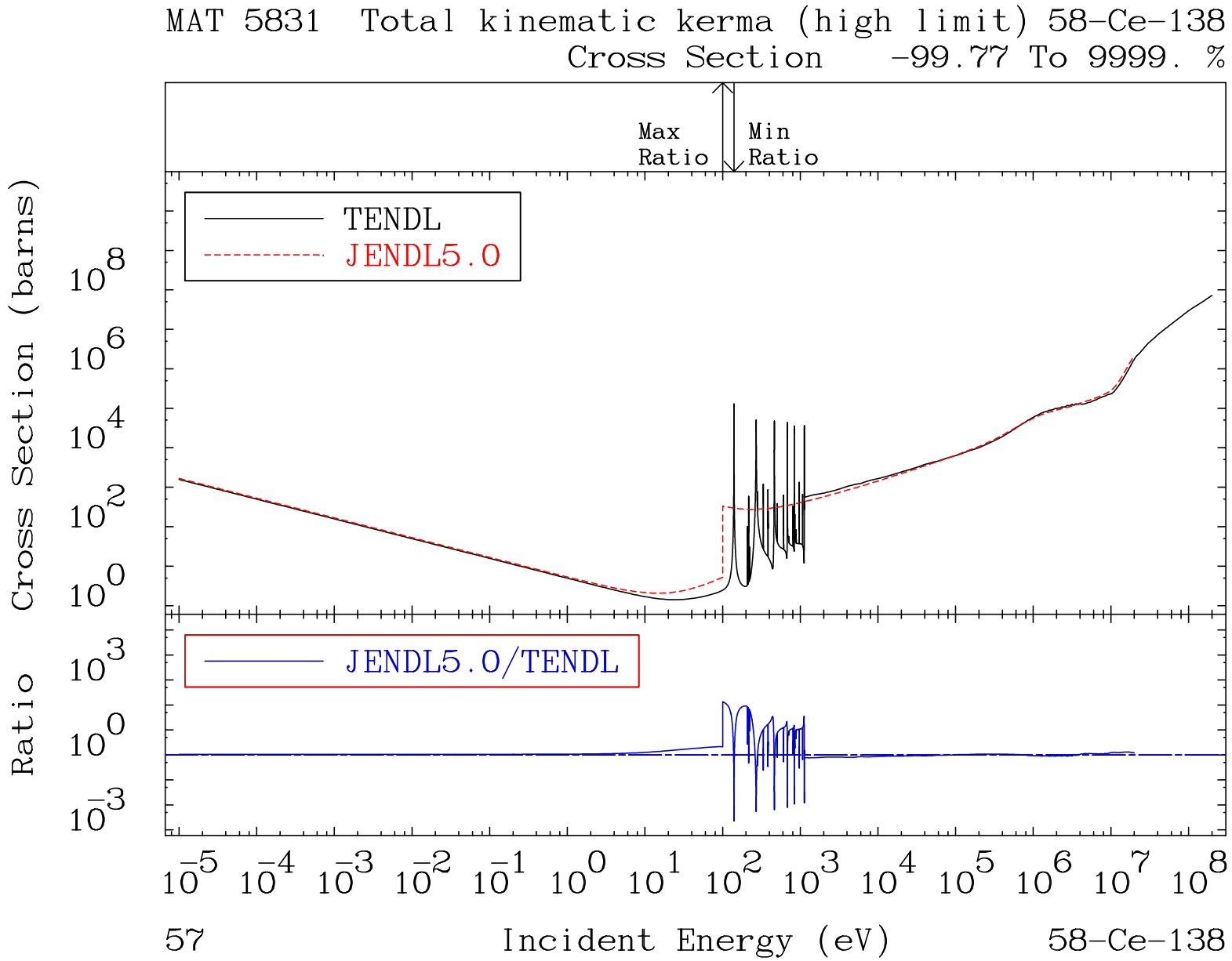

MAT 5831 Kerma non-elastic (all but mt2) 58-Ce-138
Cross Section -107.8 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
52
58-Ce-138

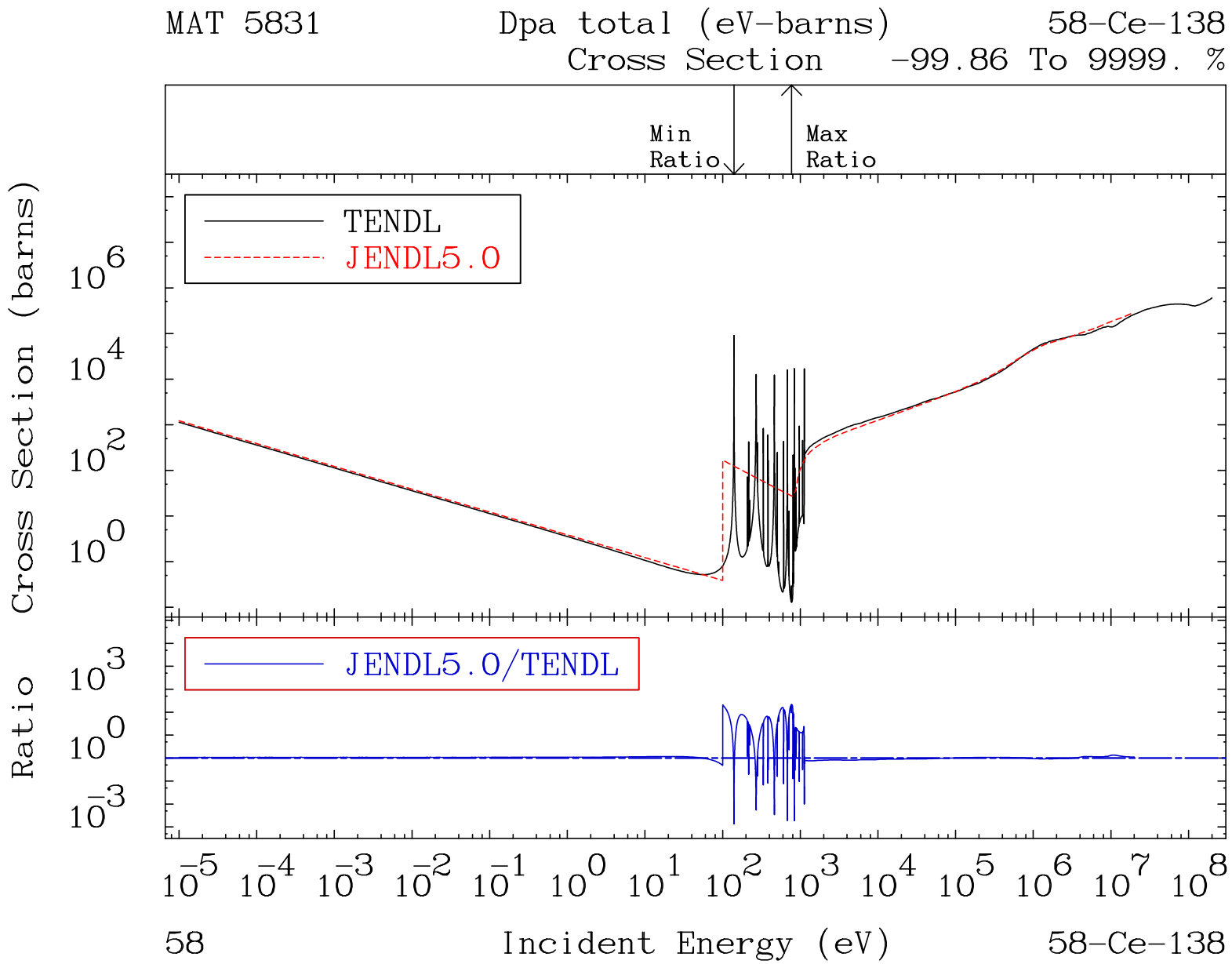

MAT 5831
Kerma inelastic (mt51-91)
58-Ce-138
Cross Section -72.86 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 794.51 keV
JENDL5.0 Threshold 150.00 keV
400
300
200
100
0
JENDL5.0/TENDL
10^6
10^3
10^0
2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
Ratio Cross Section (kilo-barns)
53
Incident Energy (eV)
58-Ce-138

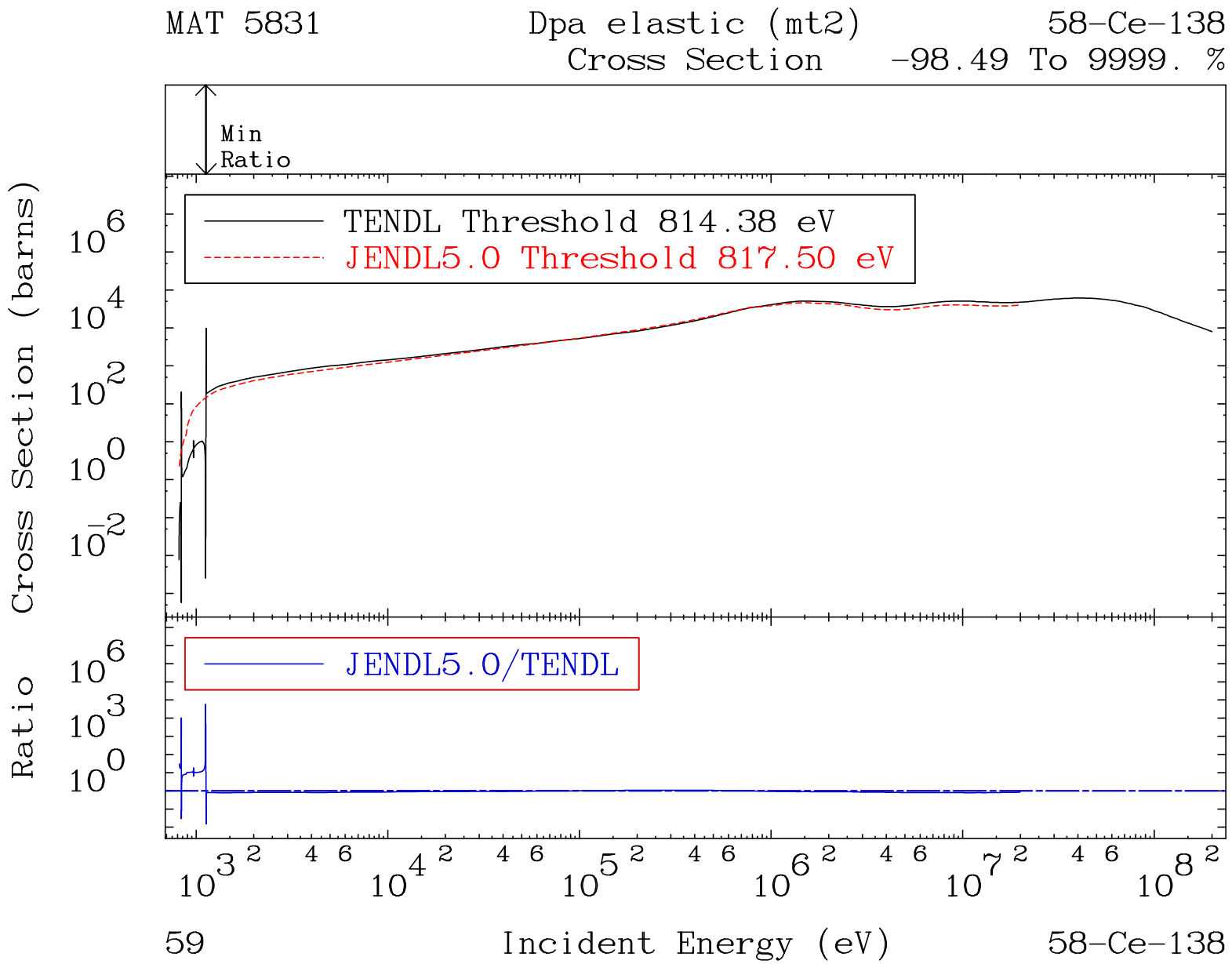

MAT 5831 Kerma fission (mt18 or mt19-20-21-38) 58-Ce-138
Cross Section -72.86 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{6}
10^{3}
10^{0}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
54
Incident Energy (eV)
58-Ce-138

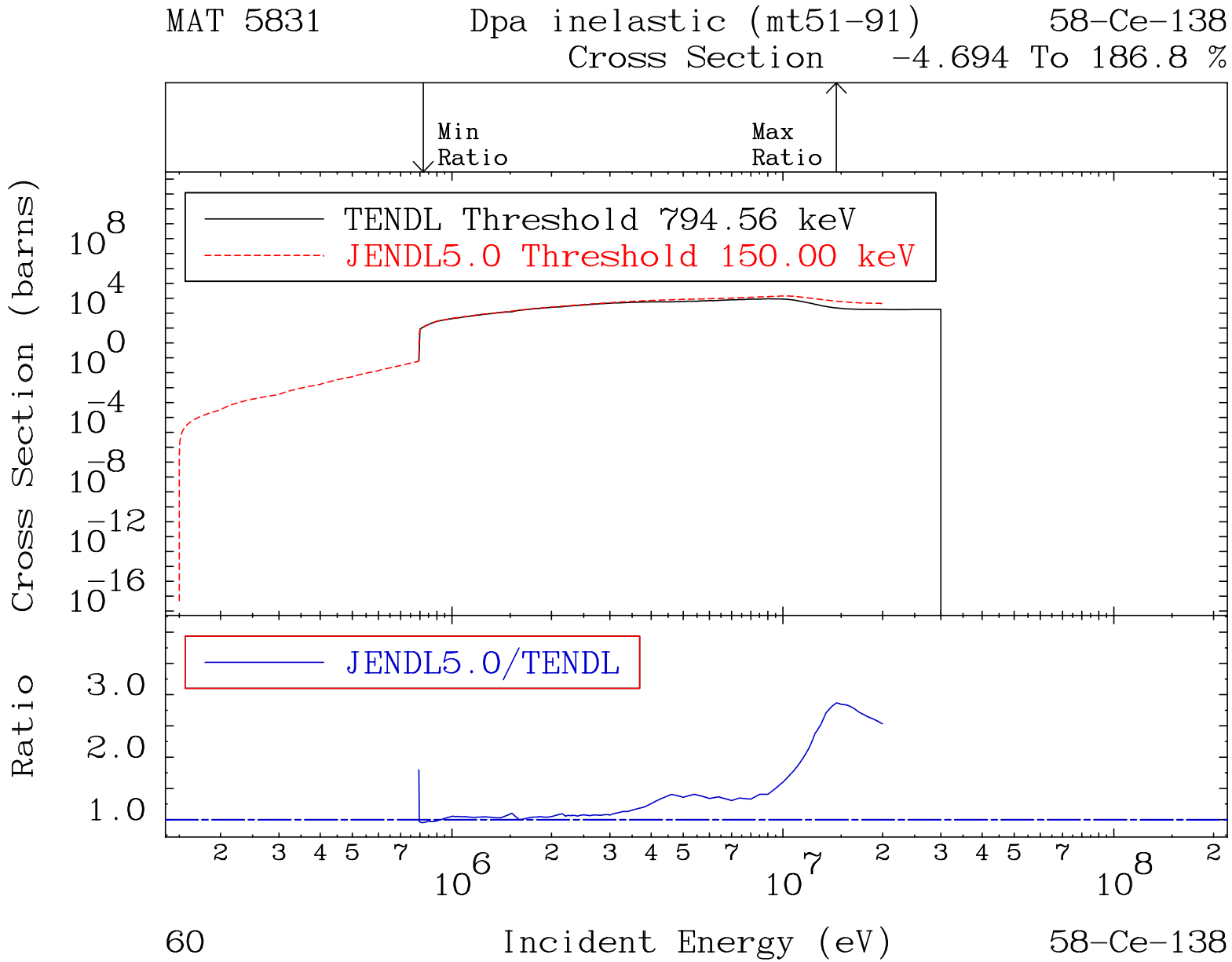

MAT 5831
Kerma capture (mt102)
58-Ce-138
Cross Section -99.87 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
55
58-Ce-138

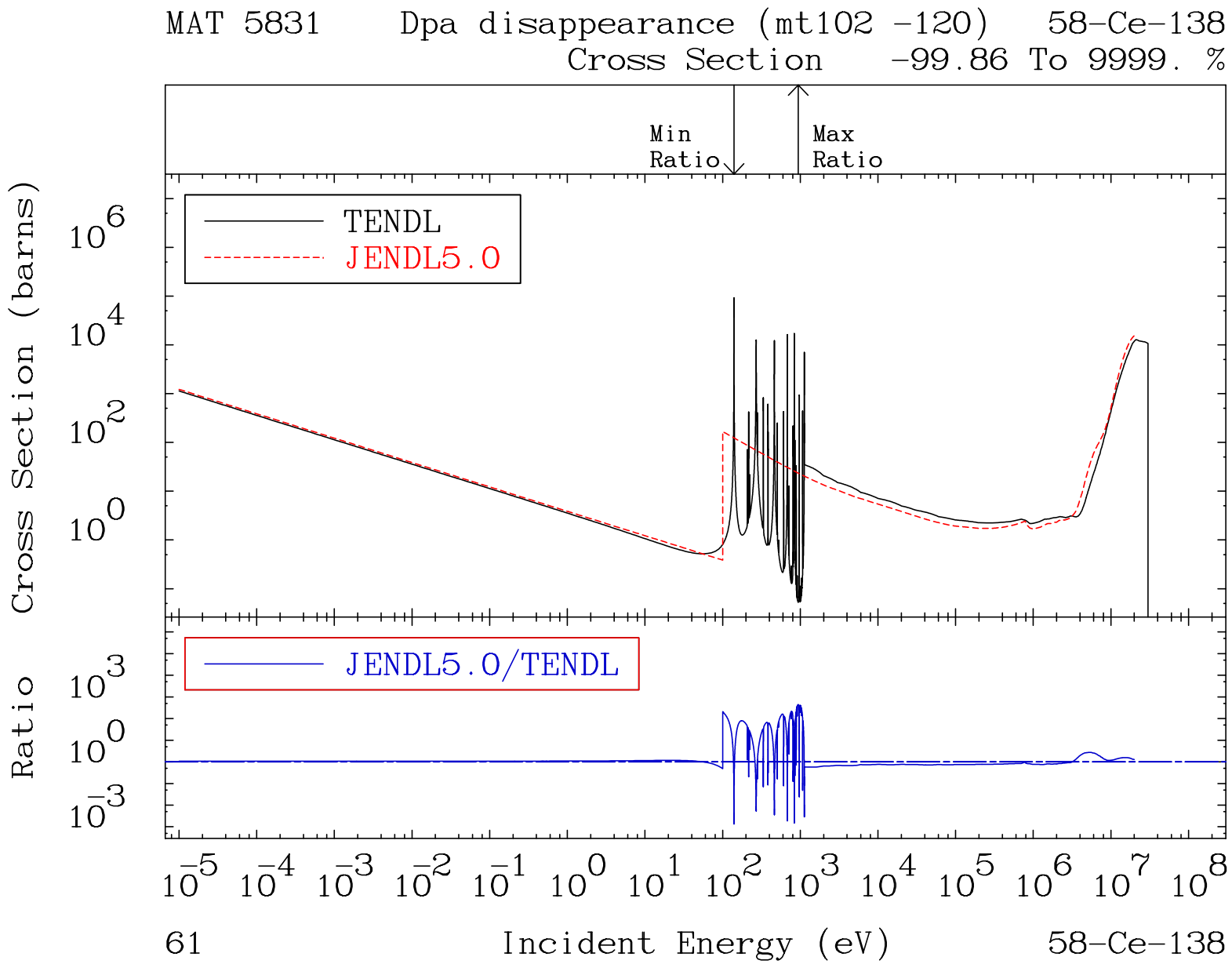

MAT 5831
Total photon (eV-barns)
58-Ce-138
Cross Section -99.89 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
56
58-Ce-138

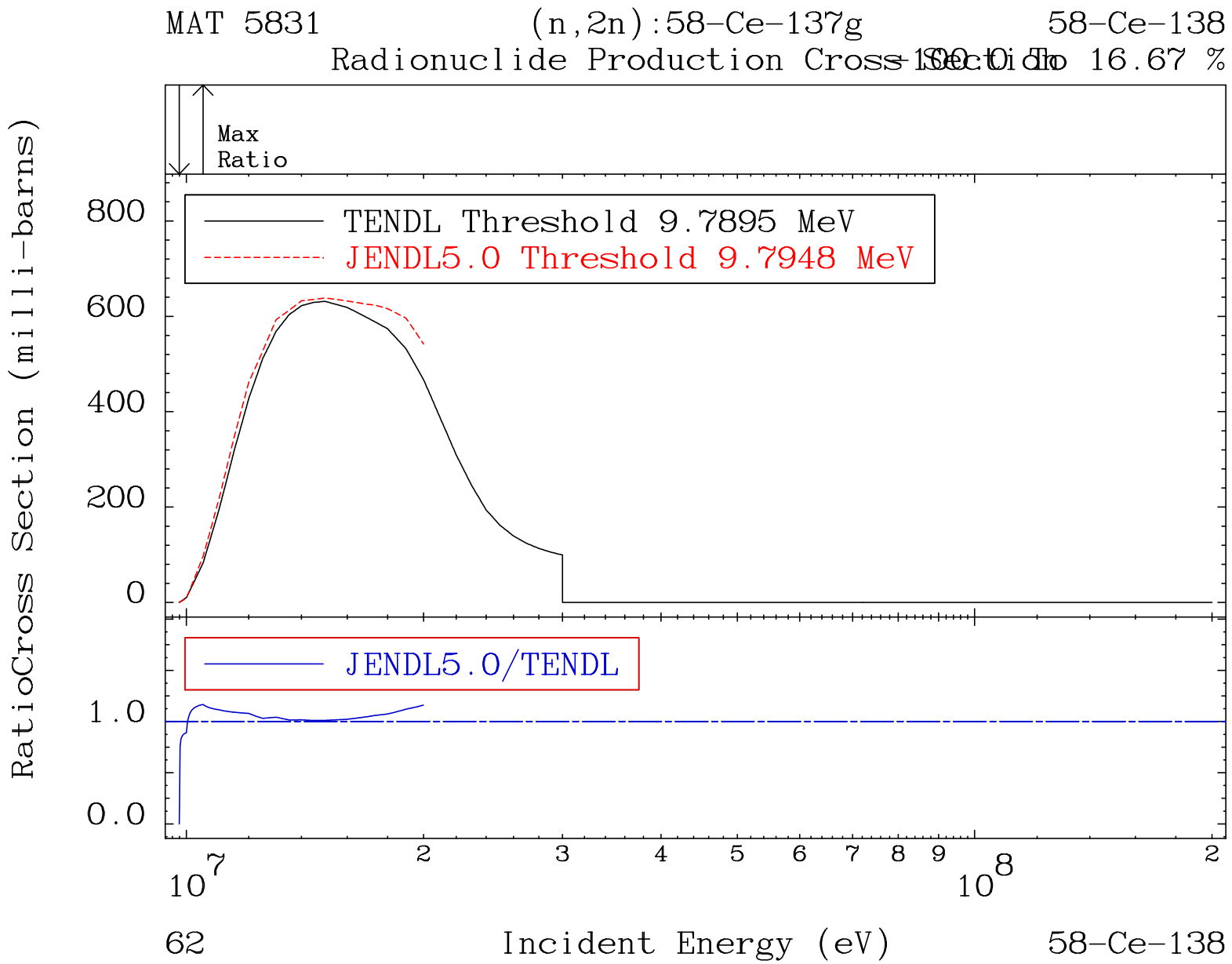

MAT 5831 Total kinematic kerma (high limit) 58-Ce-138
Cross Section -99.77 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
57
58-Ce-138

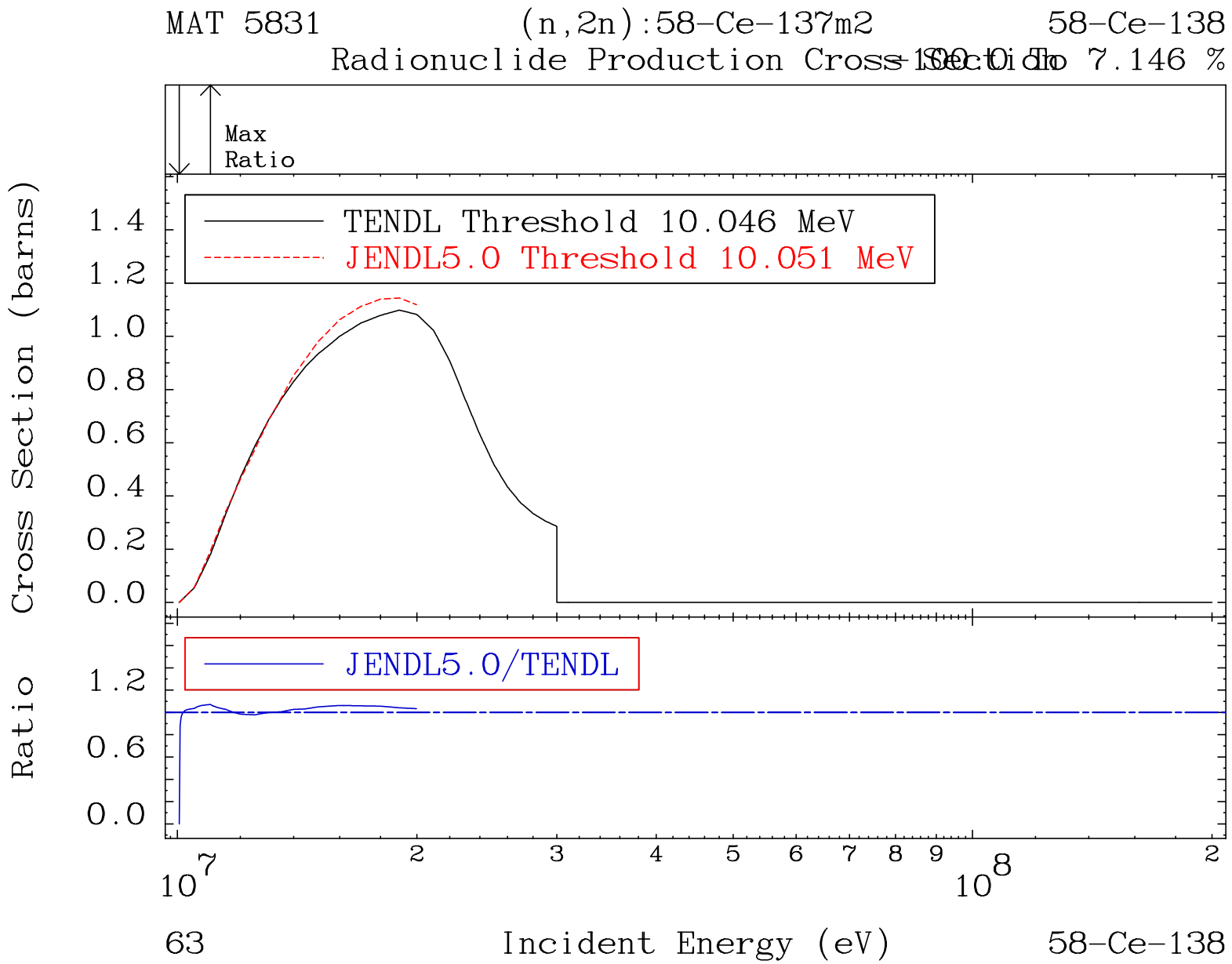

MAT 5831
Dpa total (eV-barns)
58-Ce-138
Cross Section -99.86 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
58
58-Ce-138

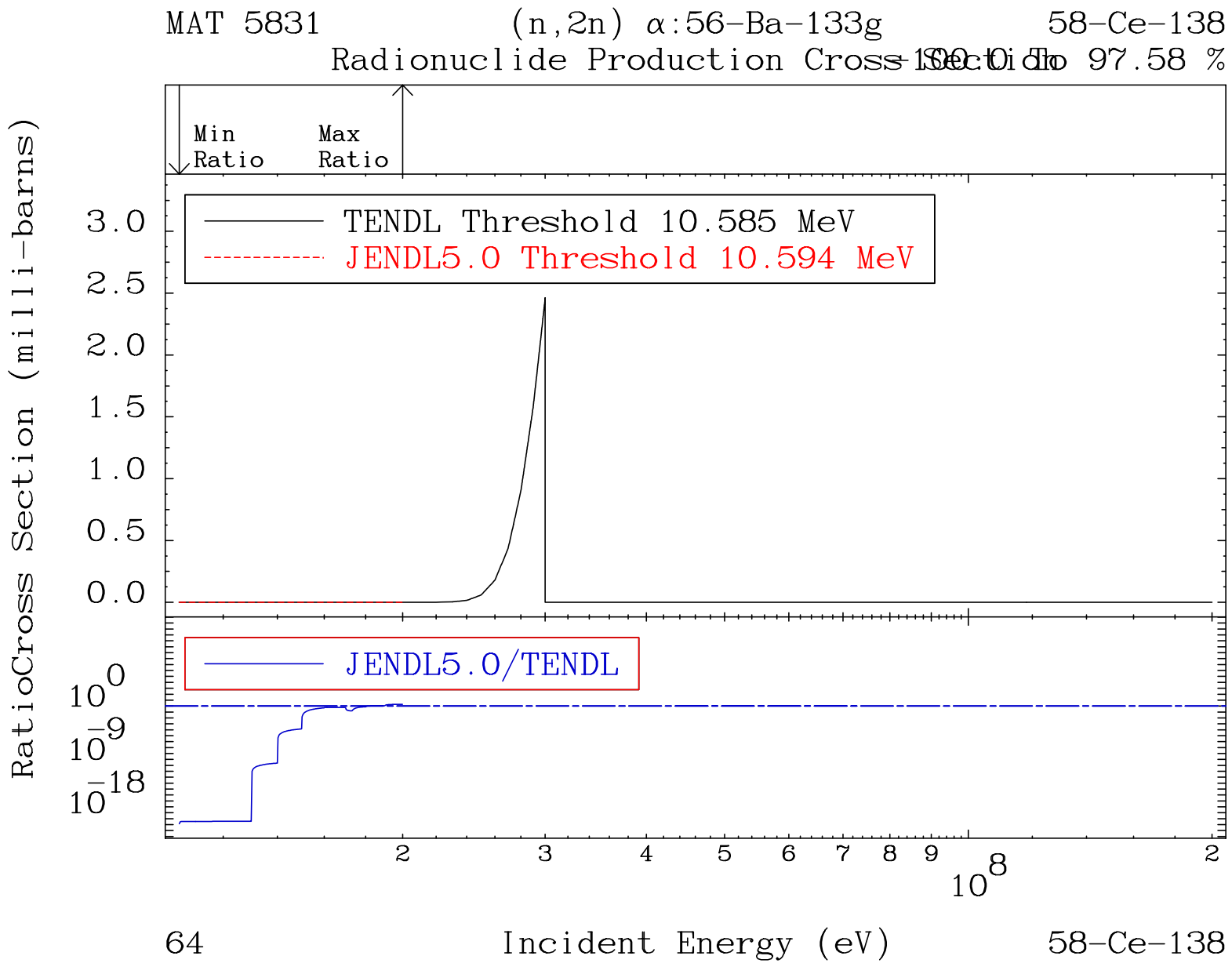

MAT 5831
Dpa elastic (mt2)
Cross Section
58-Ce-138
-98.49 To 9999. %
Min
Ratio
TENDL Threshold 814.38 eV
JENDL5.0 Threshold 817.50 eV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
59
58-Ce-138

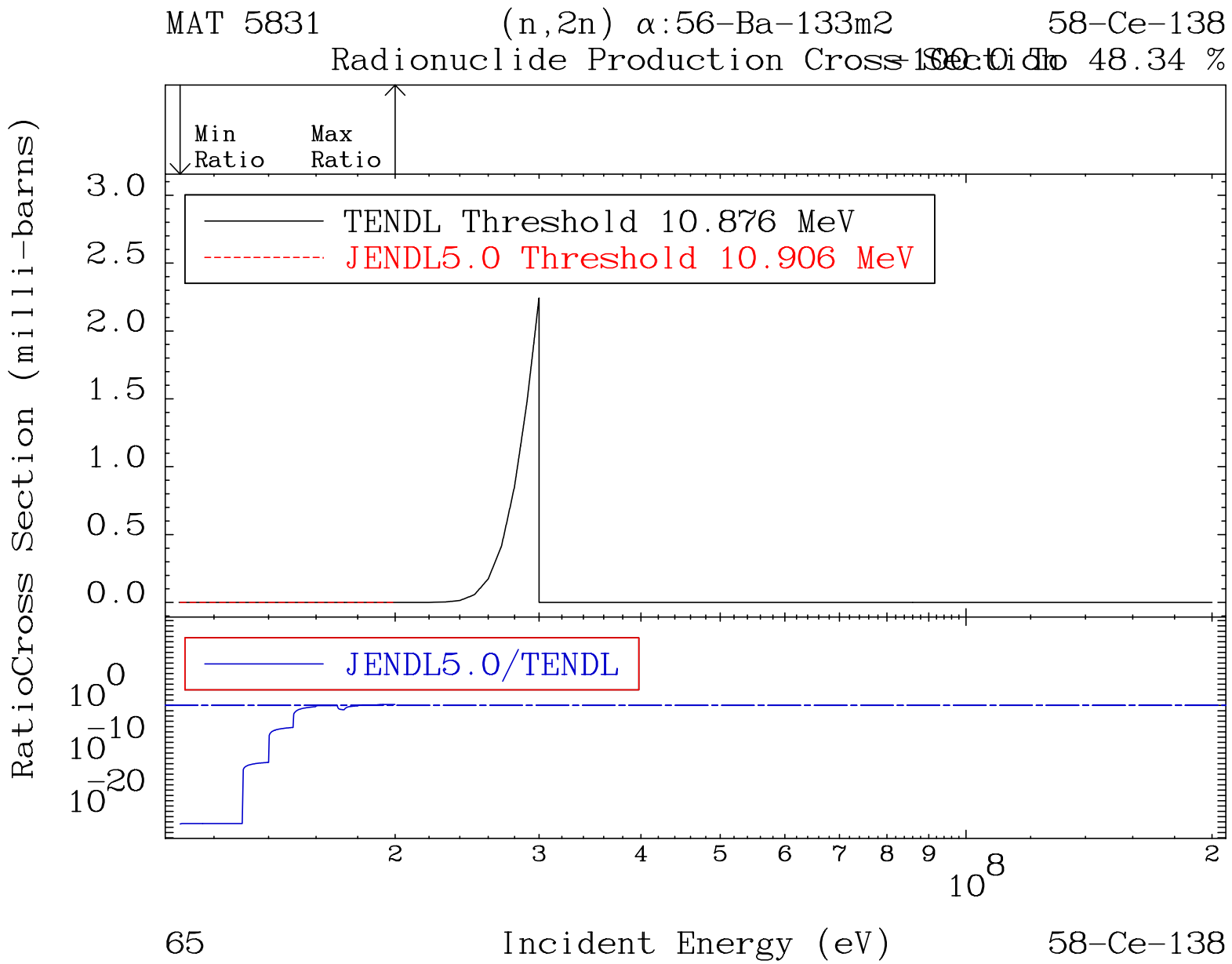

MAT 5831
Dpa inelastic (mt51-91)
58-Ce-138
Cross Section
-4.694 To 186.8 %
Min Ratio
Max Ratio
TENDL Threshold 794.56 keV
JENDL5.0 Threshold 150.00 keV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
60
58-Ce-138

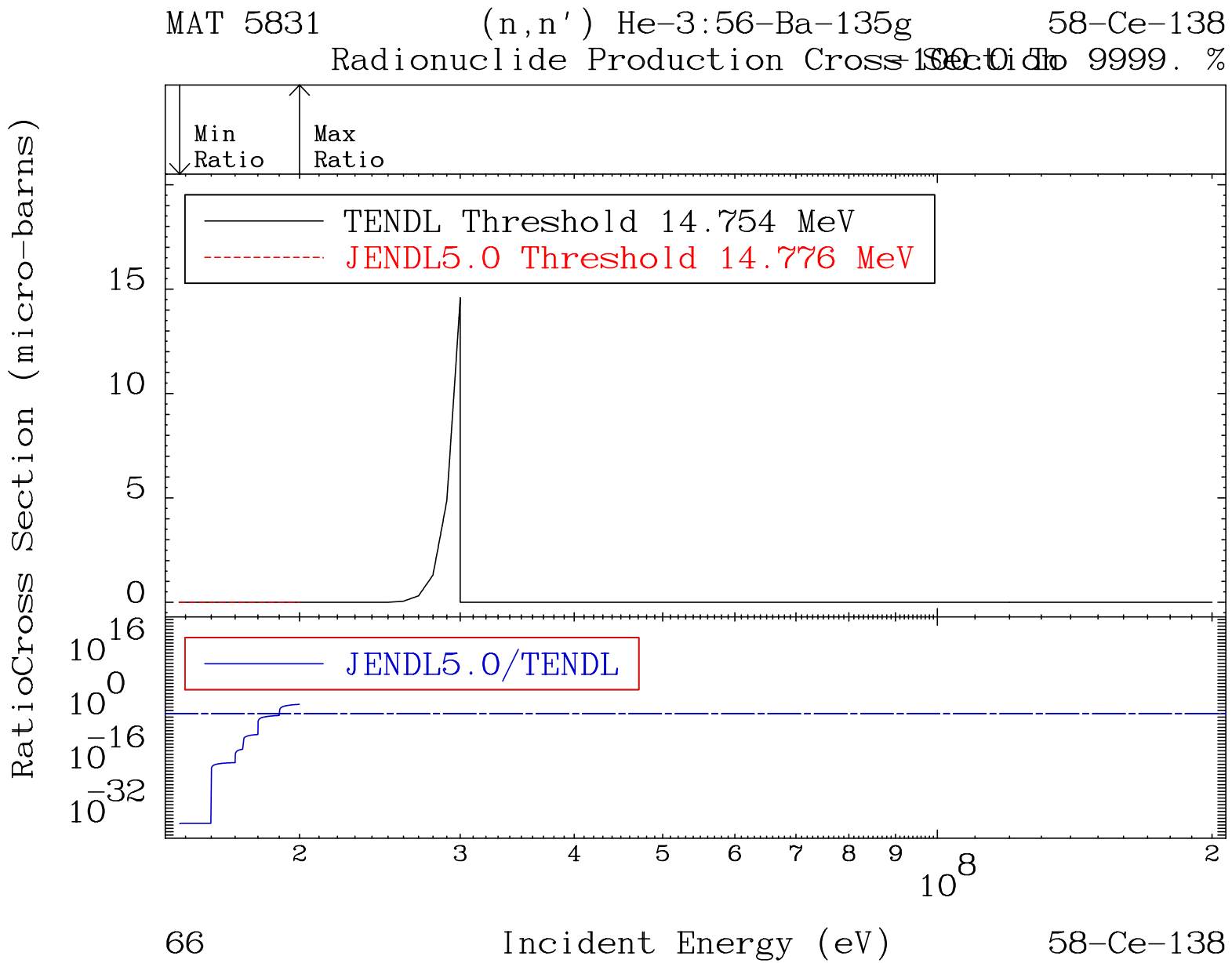

MAT 5831 Dpa disappearance (mt102 -120) 58-Ce-138
Cross Section -99.86 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
61
58-Ce-138

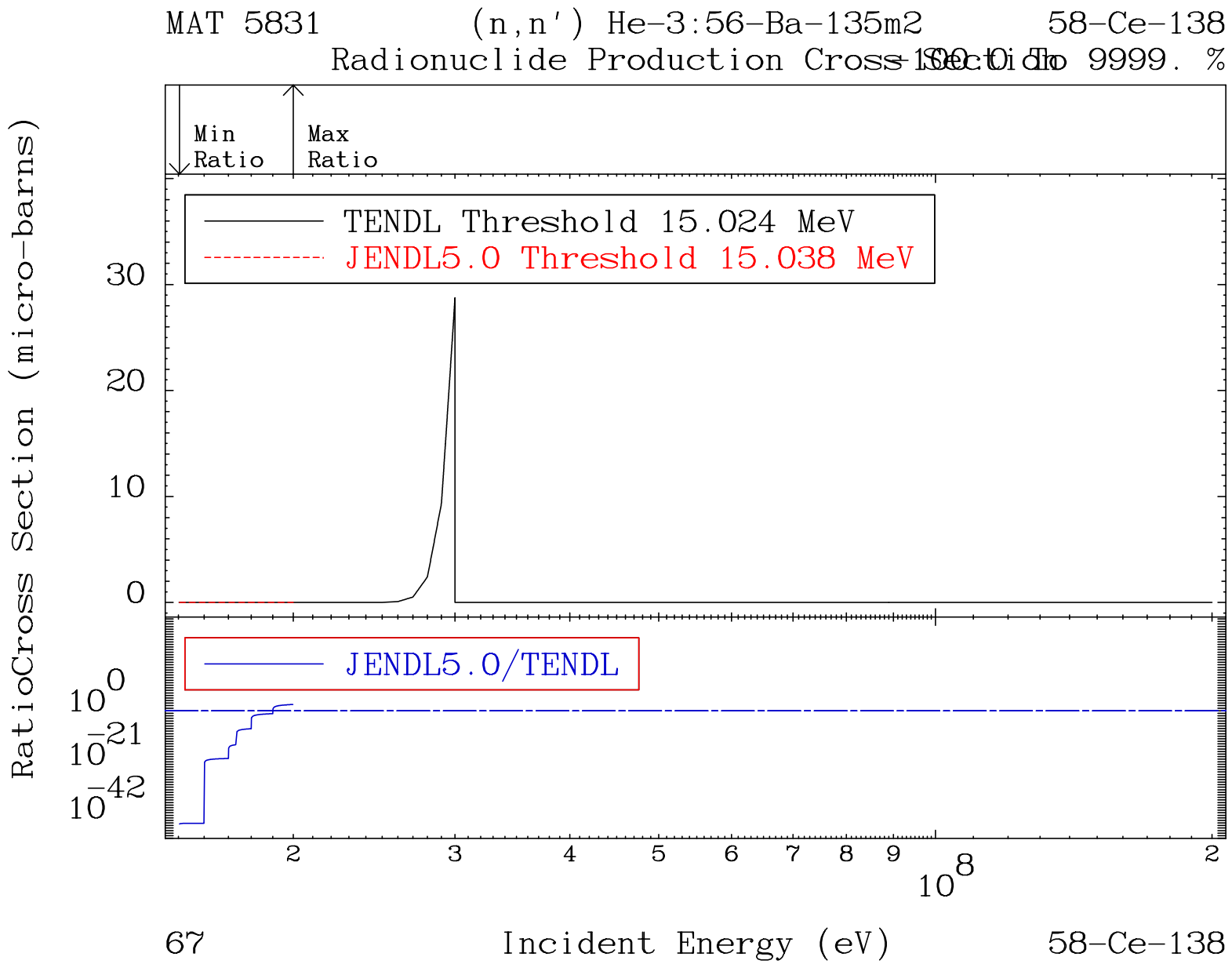

MAT 5831
(n,2n):58-Ce-137g
58-Ce-138
Radionuclide Production Cross Section To 16.67 %
Max
Ratio
TENDL Threshold 9.7895 MeV
JENDL5.0 Threshold 9.7948 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
1.0
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
62
Incident Energy (eV)
58-Ce-138

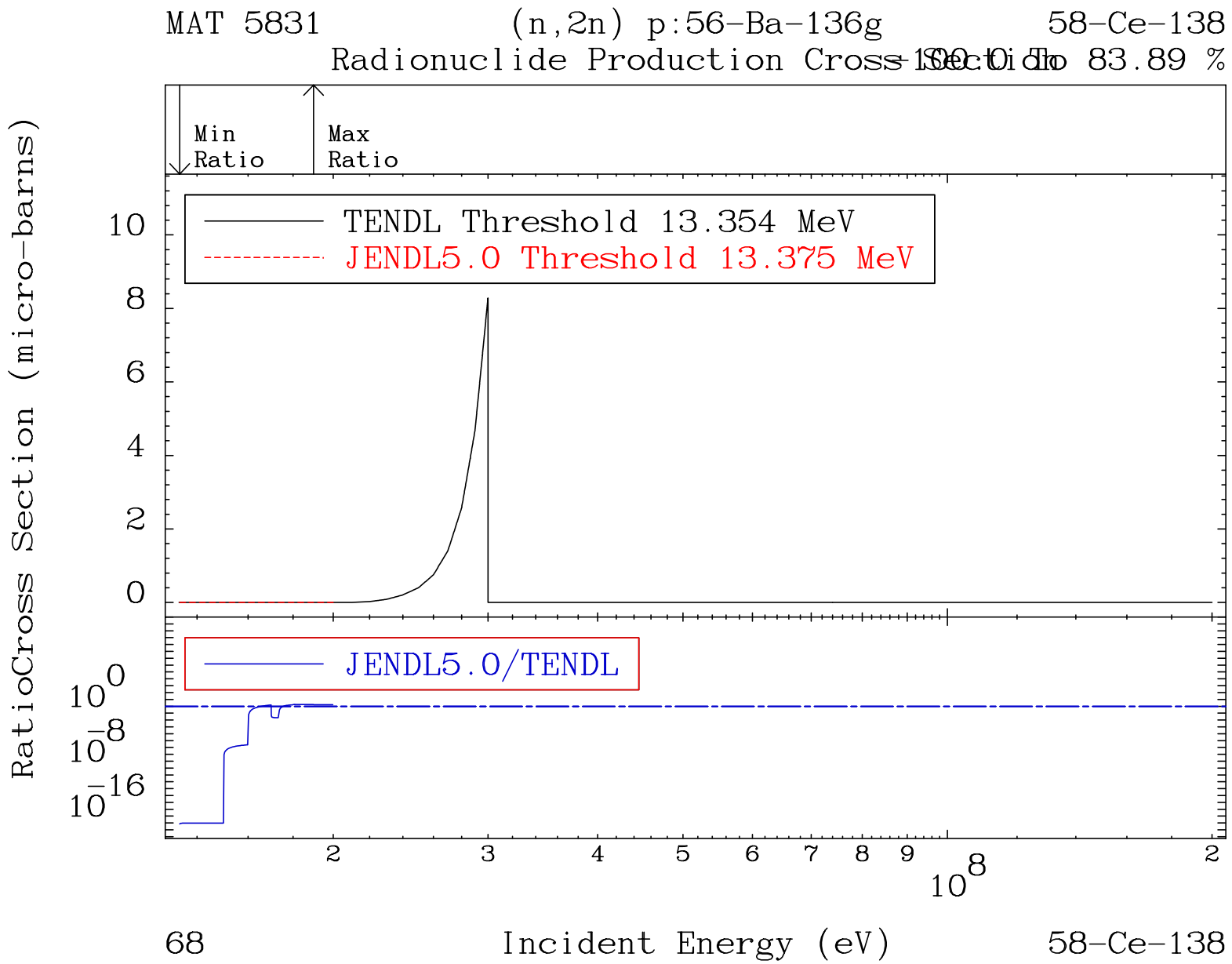

MAT 5831
(n,2n):58-Ce-137m2
58-Ce-138
Radionuclide Production Cross Section To 7.146 %
Max
Ratio
TENDL Threshold 10.046 MeV
JENDL5.0 Threshold 10.051 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL5.0/TENDL
Ratio
1.2
0.6
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
58-Ce-138

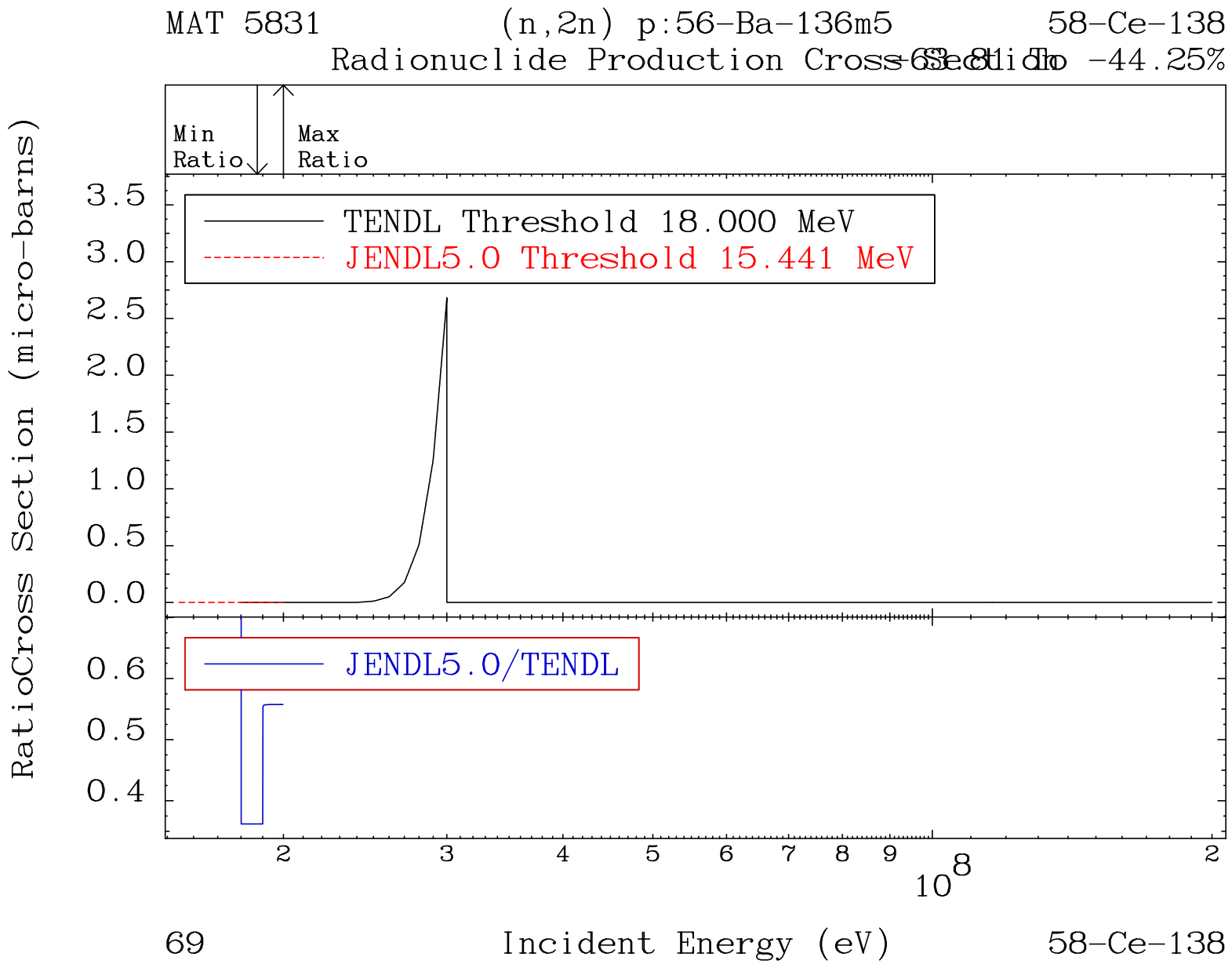

MAT 5831
(n,2n) α:56-Ba-133g
58-Ce-138
Radionuclide Production Cross Section To 97.58 %
Min Ratio
Max Ratio
TENDL Threshold 10.585 MeV
JENDL5.0 Threshold 10.594 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
10^0
10^-9
10^-18
2
3
4
5
6
7
8
9
10^8
2
64
Incident Energy (eV)
58-Ce-138

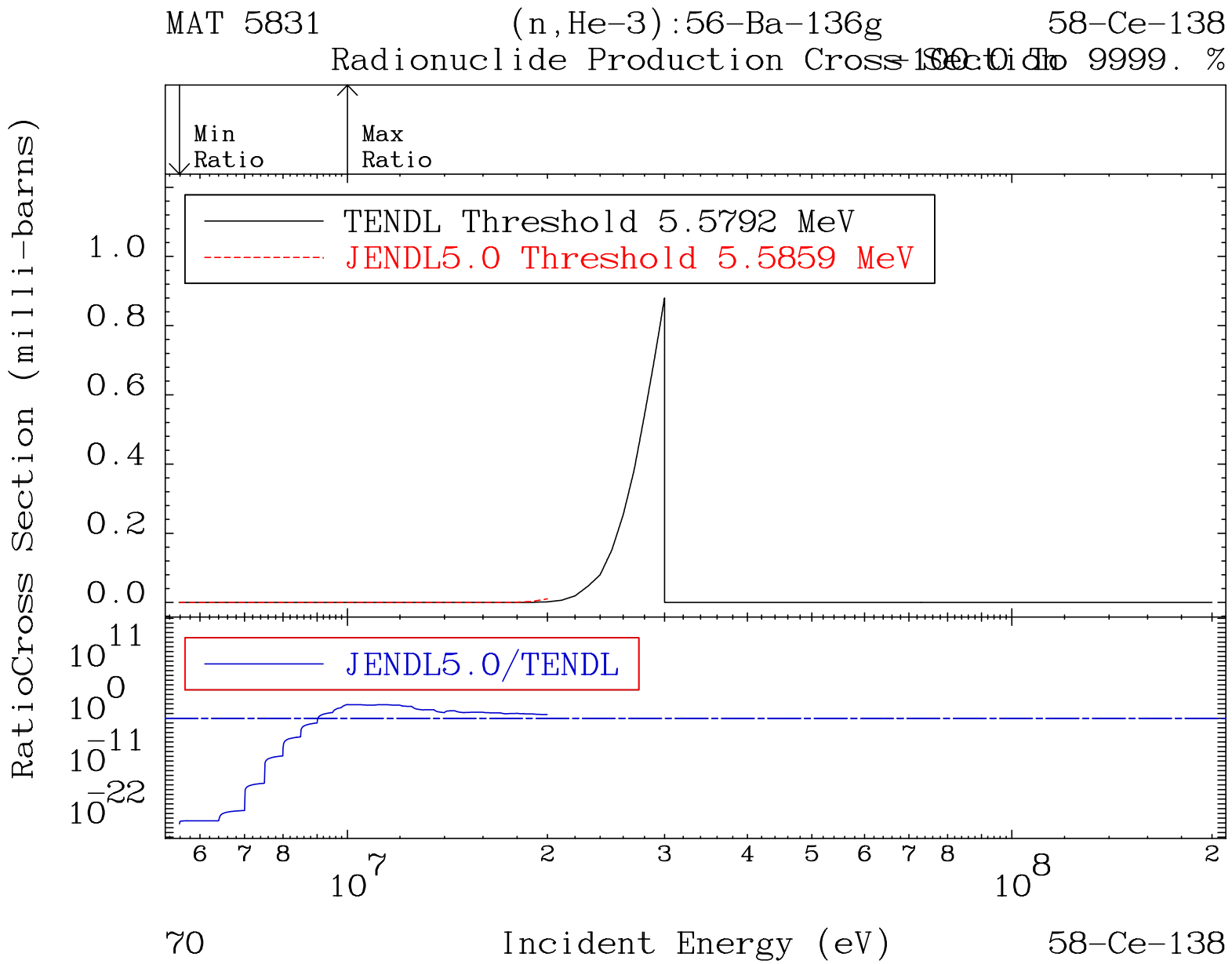

MAT 5831
(n,2n) α:56-Ba-133m2
58-Ce-138
Radionuclide Production Cross Section To 48.34 %
Min Ratio
Max Ratio
TENDL Threshold 10.876 MeV
JENDL5.0 Threshold 10.906 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
10^0
10^-10
10^-20
2
3
4
5
6
7
8
9
10^8
2
65
Incident Energy (eV)
58-Ce-138

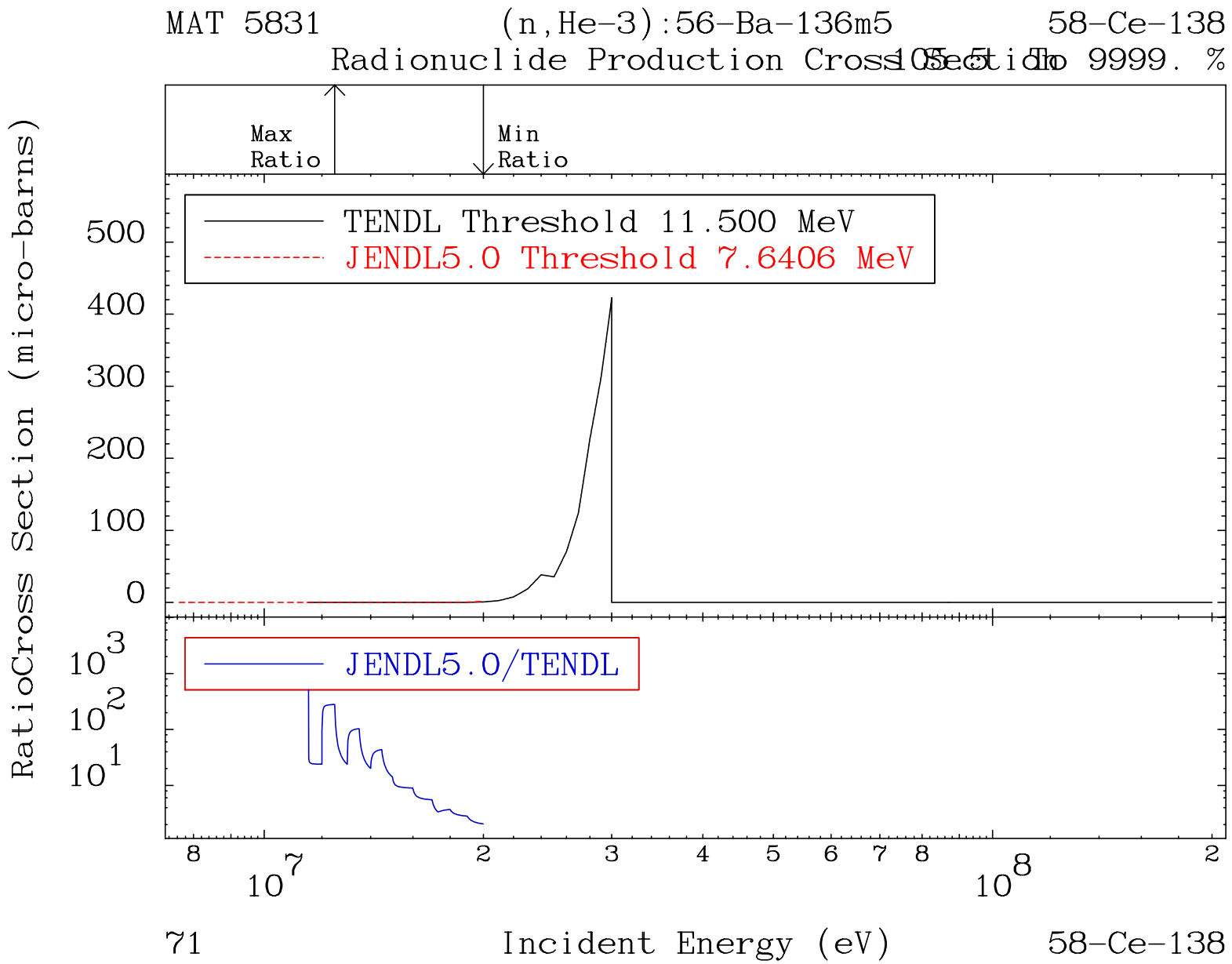

MAT 5831 (n,n') He-3:56-Ba-135g 58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 14.754 MeV
JENDL5.0 Threshold 14.776 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
15
10
5
0
10^16
10^0
10^-16
10^-32
2
3
4
5
6
7
8
9
10^8
2
66
Incident Energy (eV)
58-Ce-138

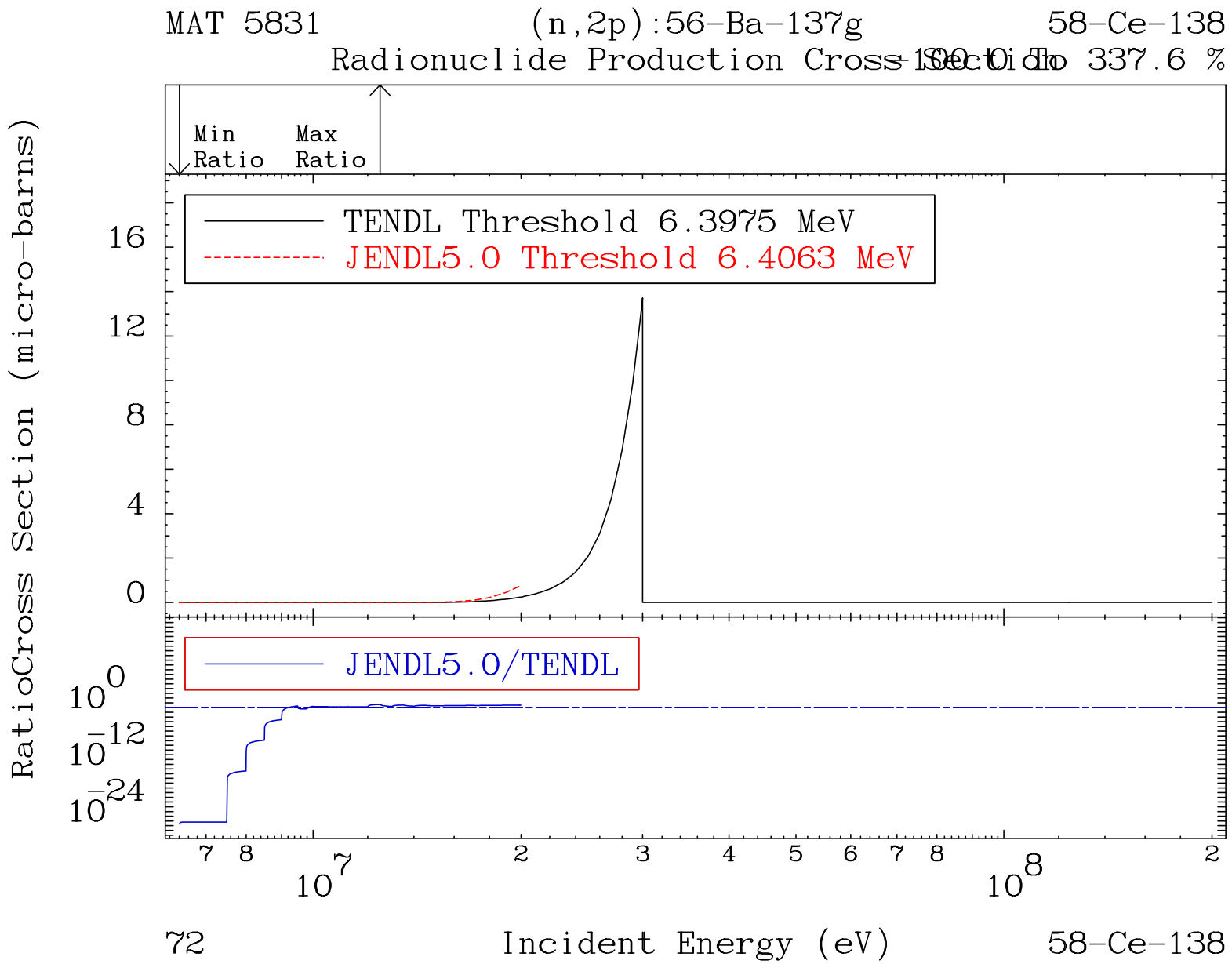

MAT 5831 (n,n') He-3:56-Ba-135m2 58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 15.024 MeV
JENDL5.0 Threshold 15.038 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
30
20
10
0
10^{0}
10^{-21}
10^{-42}
2 3 4 5 6 7 8 9 10^{8} 2
67
Incident Energy (eV)
58-Ce-138

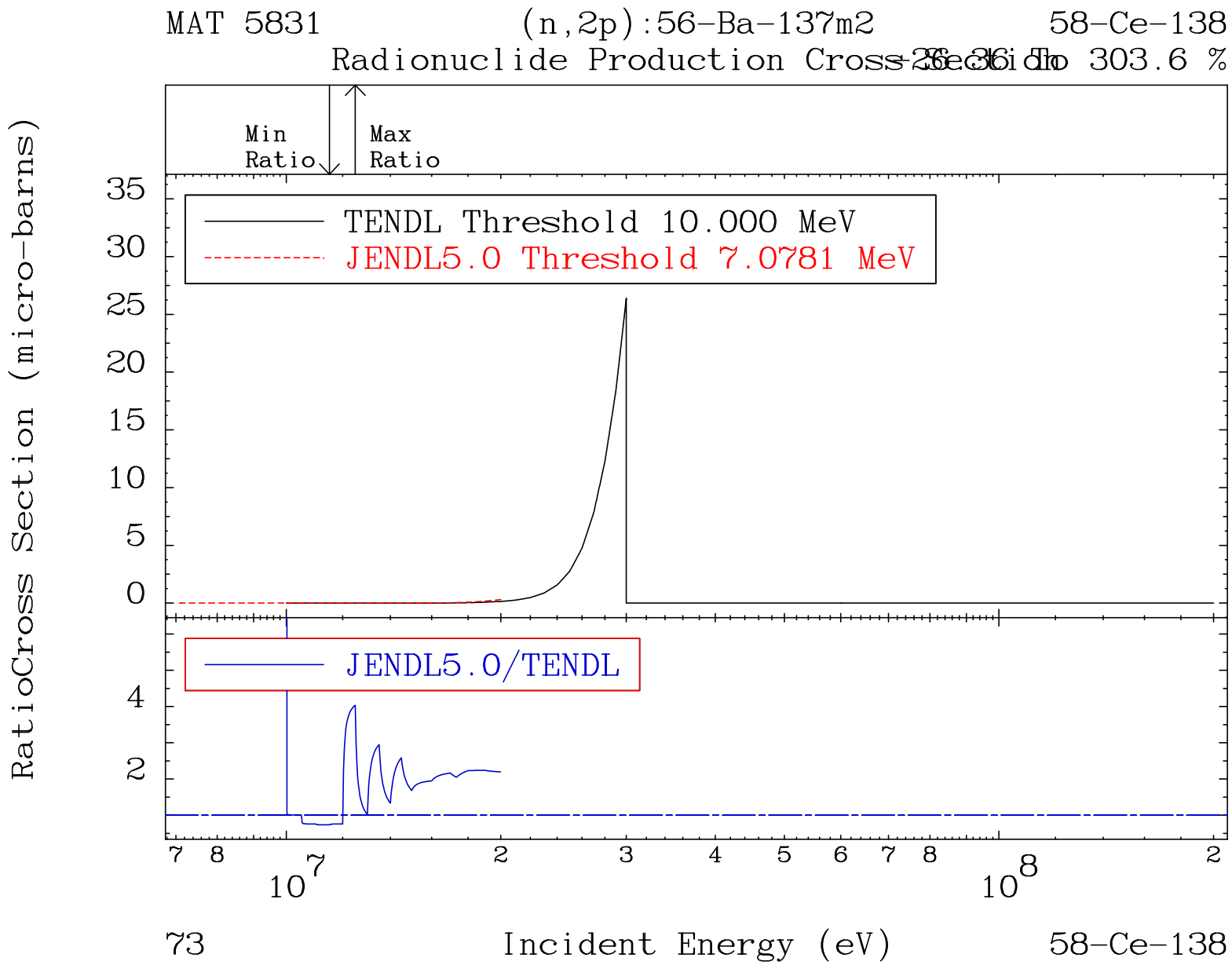

MAT 5831
(n,2n) p:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 83.89 %
Min Ratio
Max Ratio
TENDL Threshold 13.354 MeV
JENDL5.0 Threshold 13.375 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
68
58-Ce-138

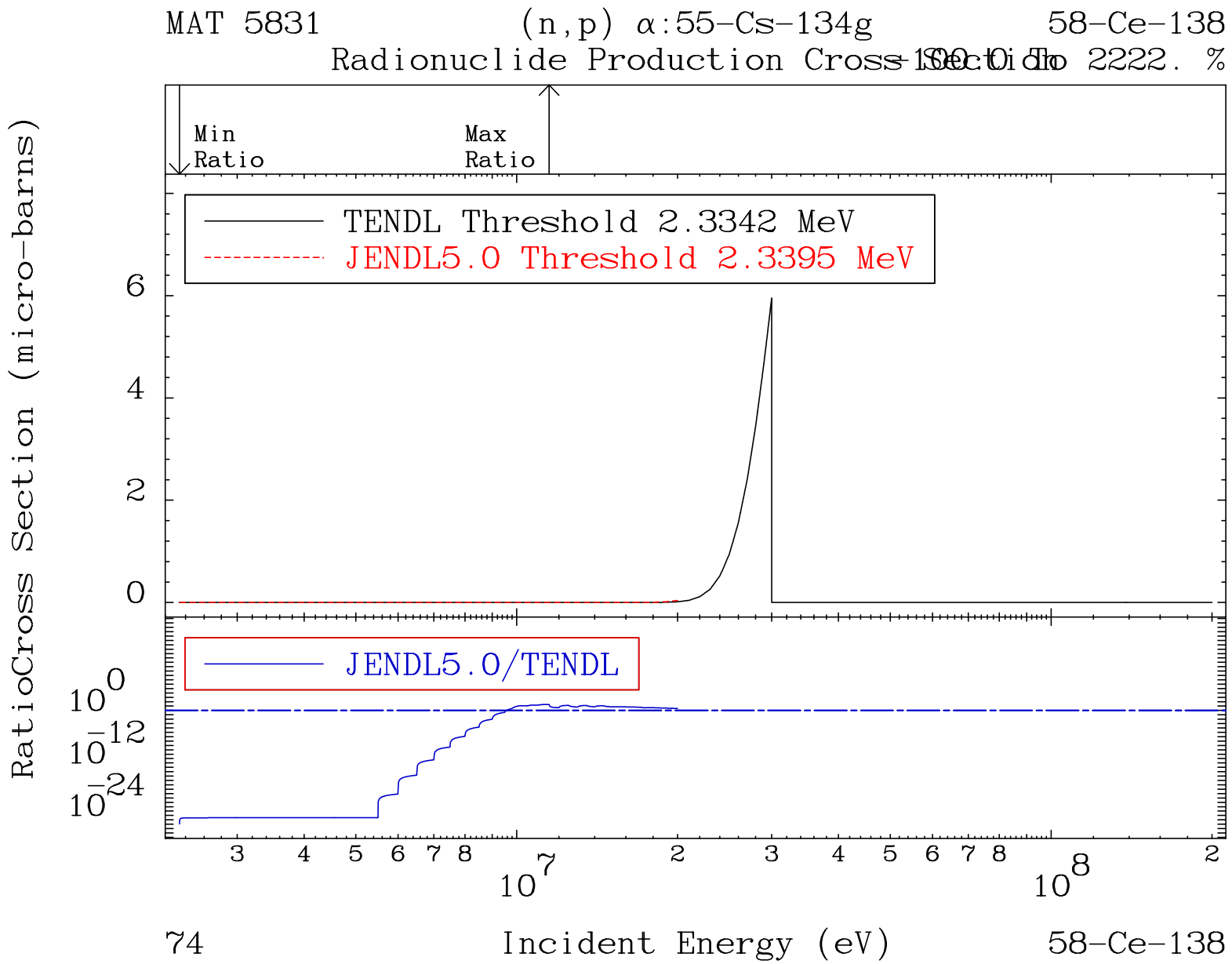

MAT 5831
(n,2n) p:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 18.000 MeV
JENDL5.0 Threshold 15.441 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
69
58-Ce-138

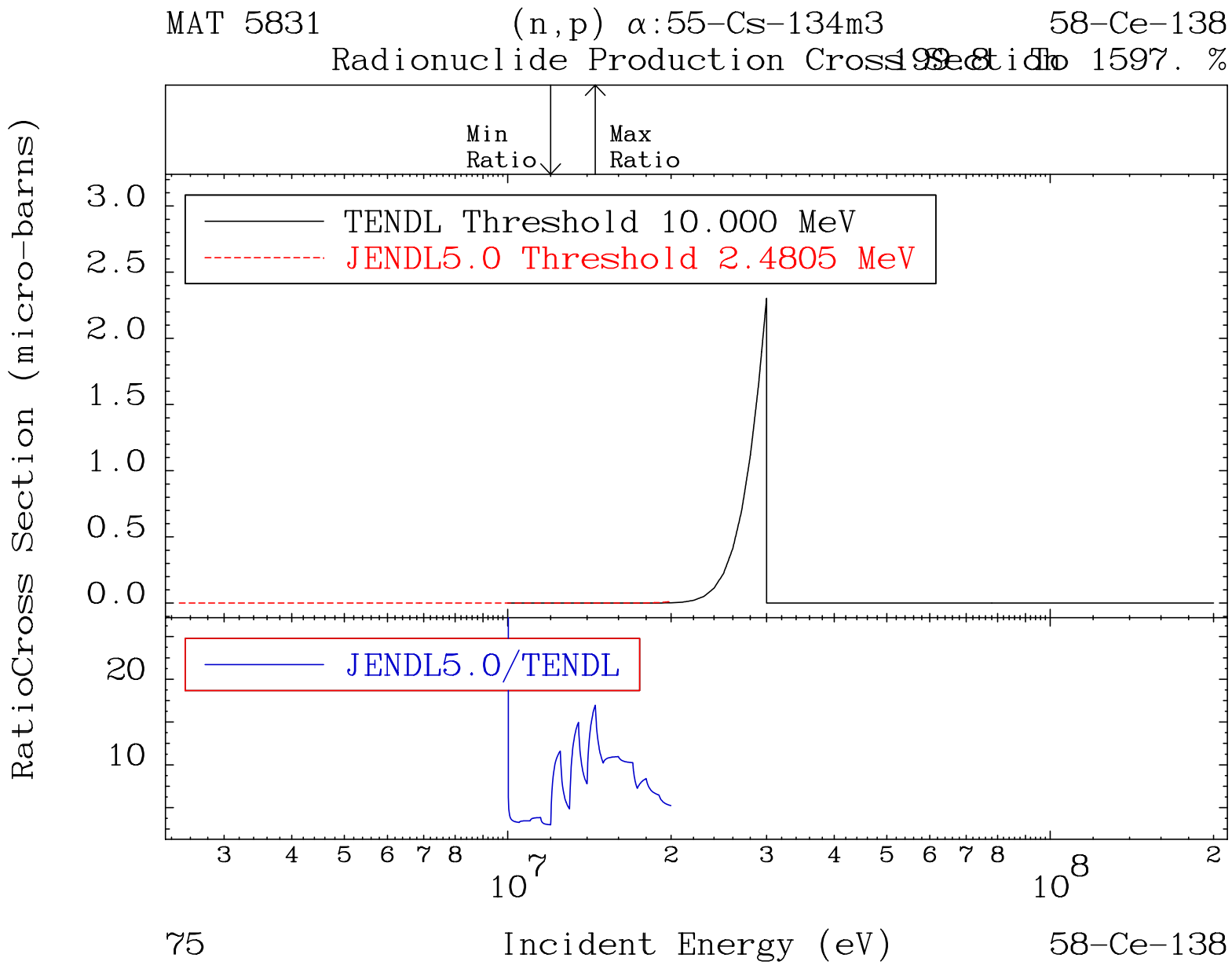

MAT 5831
(n,He-3):56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JENDL5.0 Threshold 5.5859 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
10^{11}
10^{0}
10^{-11}
10^{-22}
6 7 8
10^{7}
2 3 4 5 6 7 8
10^{8}
2
70
Incident Energy (eV)
58-Ce-138

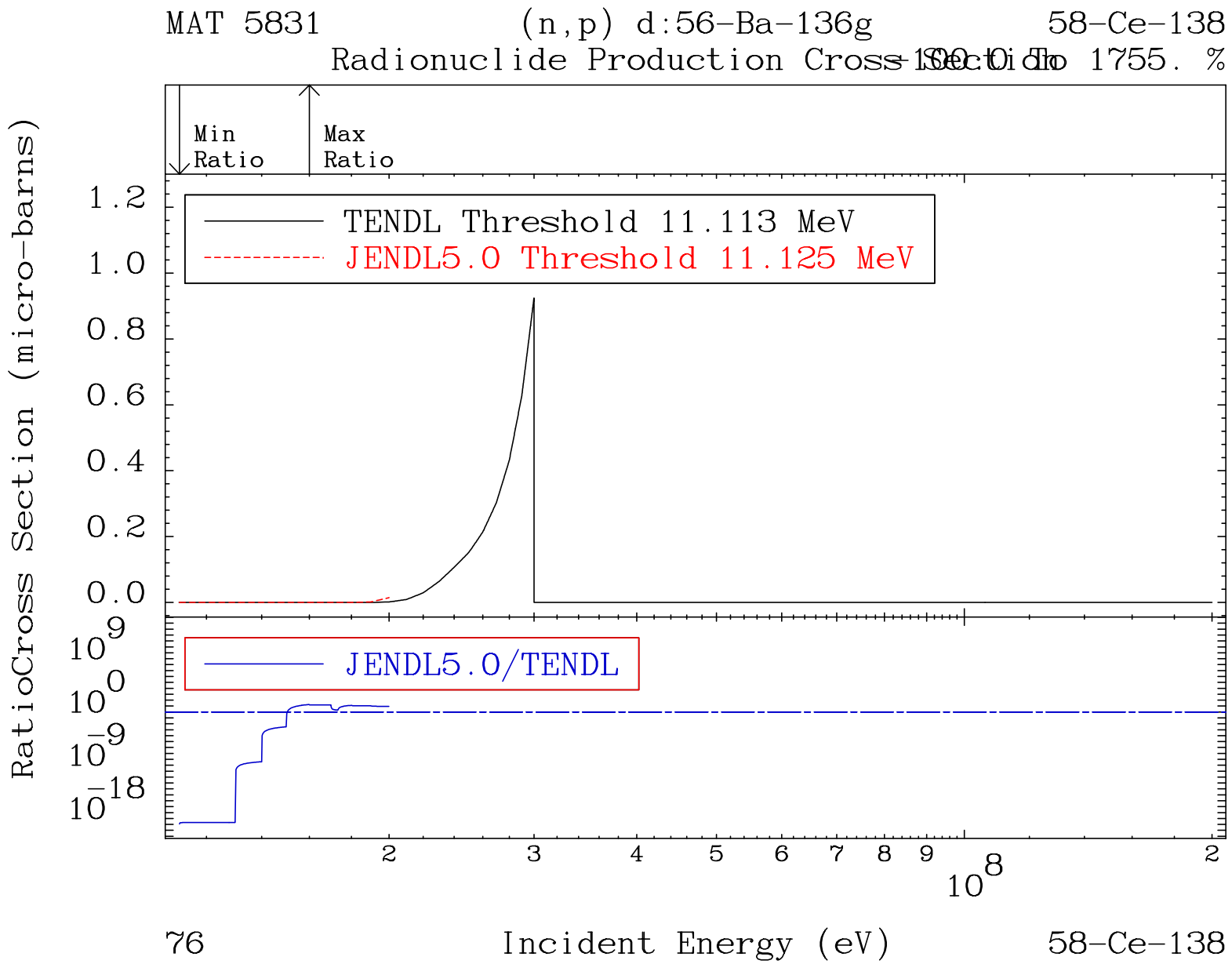

MAT 5831
(n,He-3):56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 11.500 MeV
JENDL5.0 Threshold 7.6406 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
500
400
300
200
100
0
10^3
10^2
10^1
8
10^7
2
3
4
5
6
7
8
10^8
2
71
Incident Energy (eV)
58-Ce-138

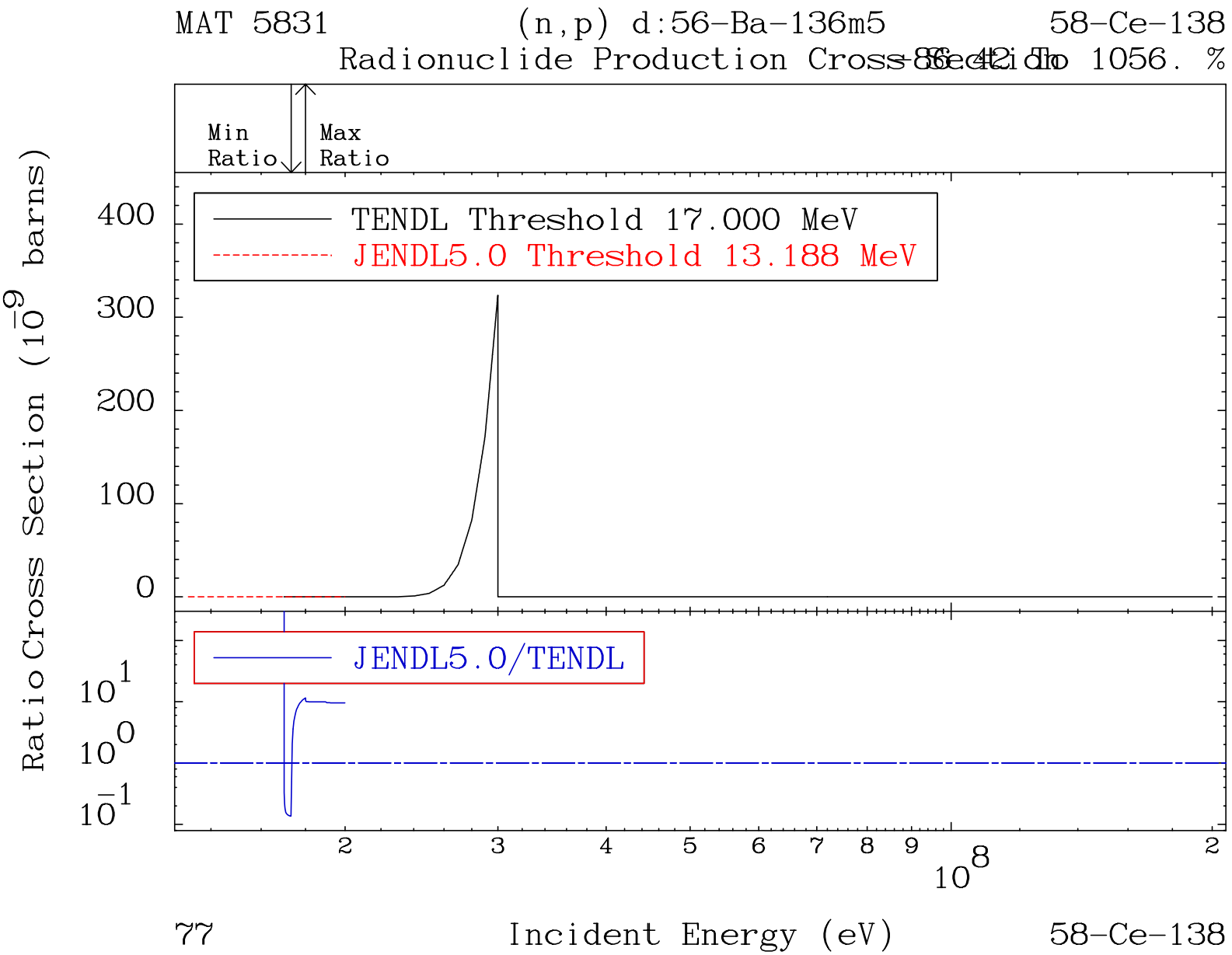

MAT 5831
(n,2p):56-Ba-137g
58-Ce-138
Radionuclide Production Cross Section To 337.6 %
Min Ratio
Max Ratio
TENDL Threshold 6.3975 MeV
JENDL5.0 Threshold 6.4063 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
16
12
8
4
0
10^0
10^-12
10^-24
7 8
10^7
2 3 4 5 6 7 8
10^8
2
72
Incident Energy (eV)
58-Ce-138

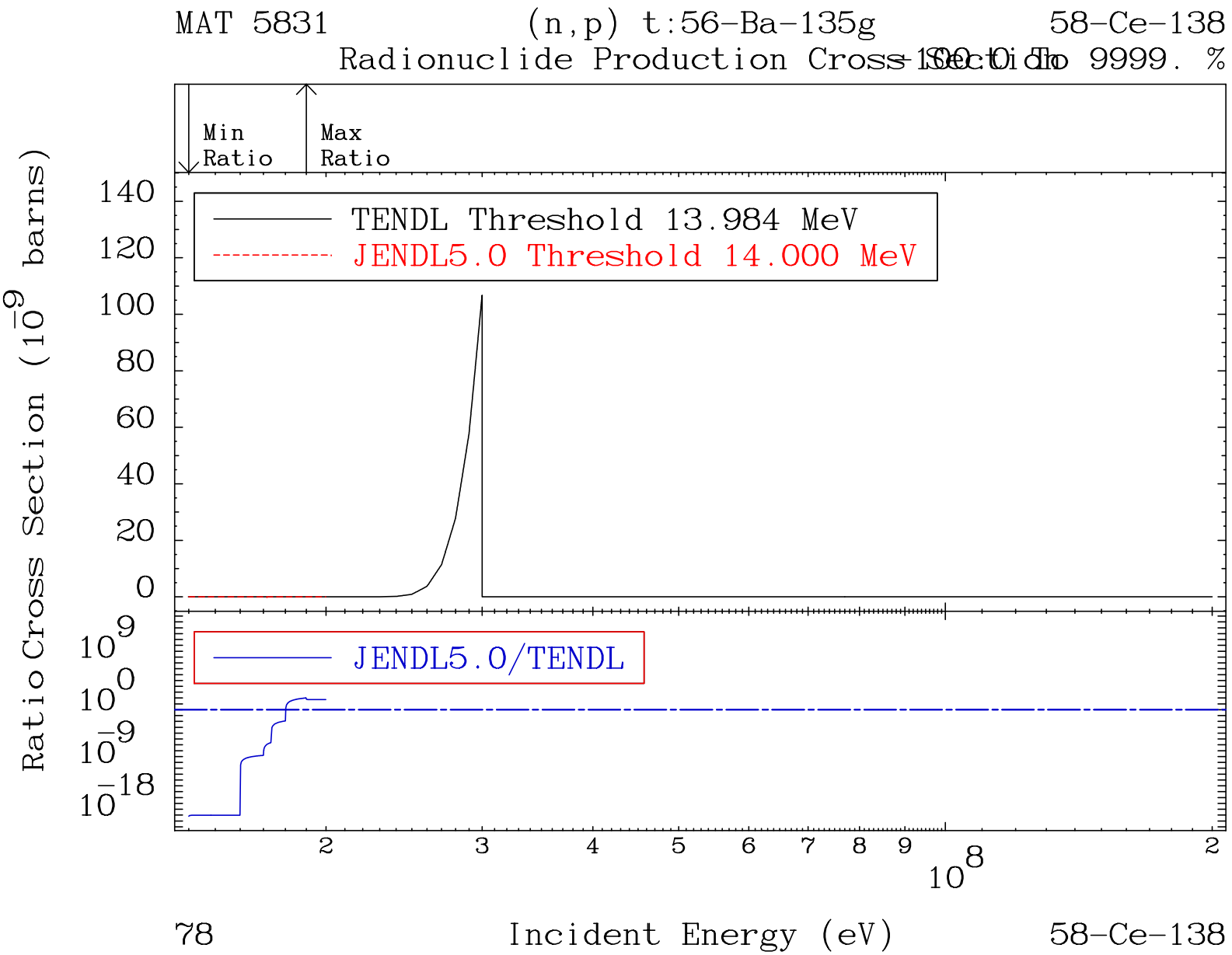

MAT 5831
(n,2p):56-Ba-137m2
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 10.000 MeV
JENDL5.0 Threshold 7.0781 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
73
58-Ce-138

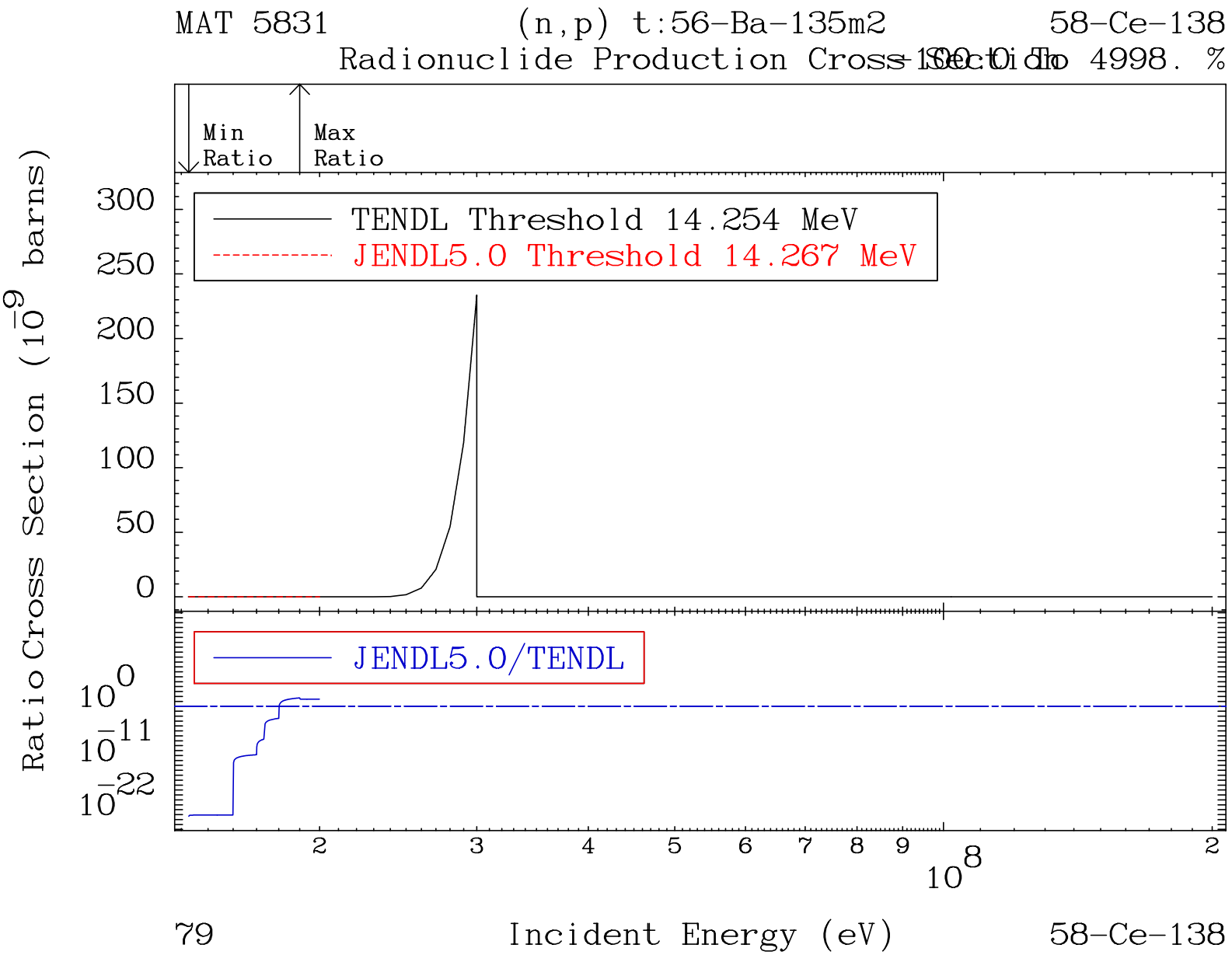

MAT 5831
(n,p) α:55-Cs-134g
58-Ce-138
Radionuclide Production Cross Section To 2222. %
Min Ratio
Max Ratio
TENDL Threshold 2.3342 MeV
JENDL5.0 Threshold 2.3395 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
74
58-Ce-138

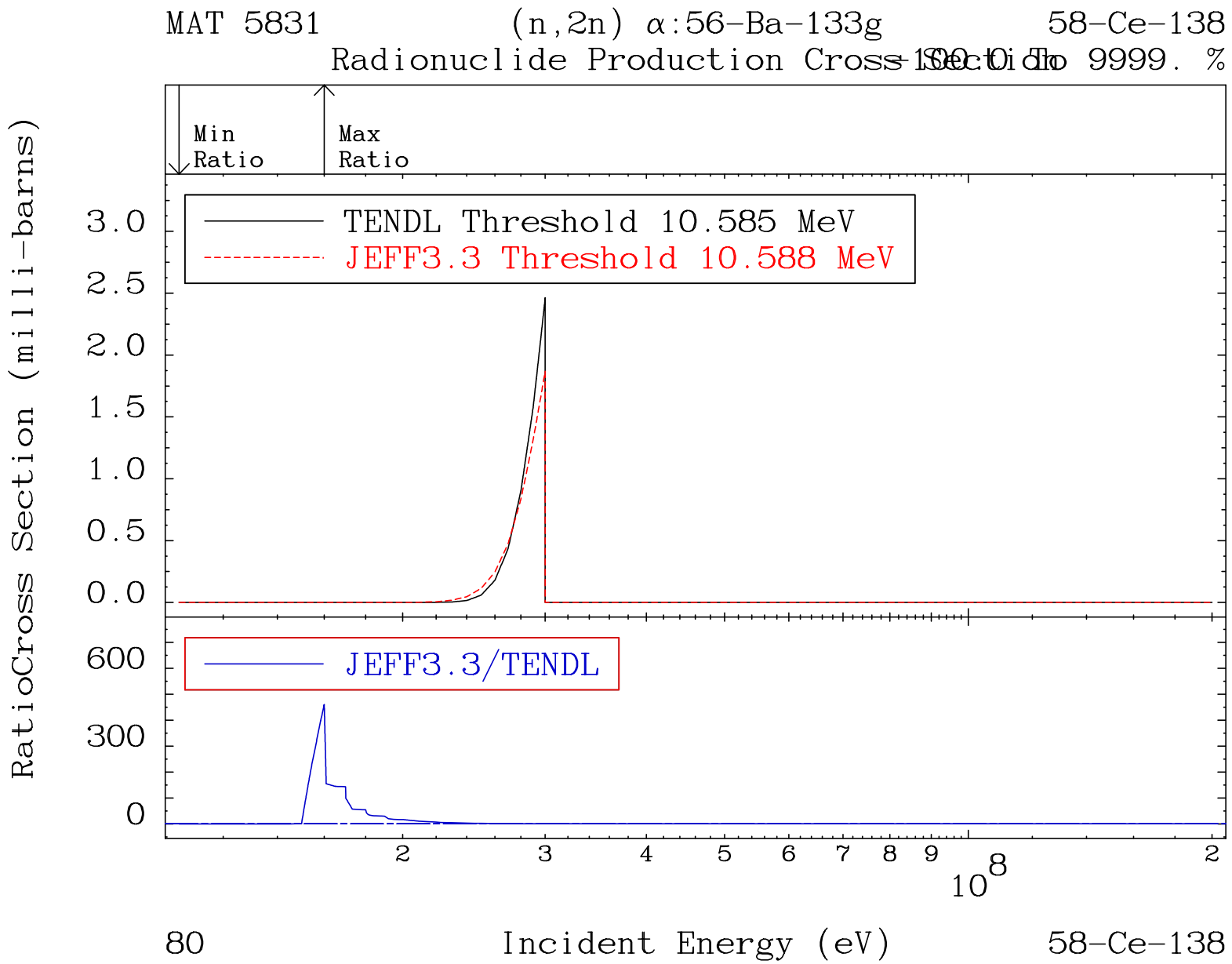

MAT 5831
(n,p) α:55-Cs-134m3
58-Ce-138
Radionuclide Production Cross Section To 1597. %
Min Ratio
Max Ratio
TENDL Threshold 10.000 MeV
JENDL5.0 Threshold 2.4805 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
20
10
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
75
Incident Energy (eV)
58-Ce-138

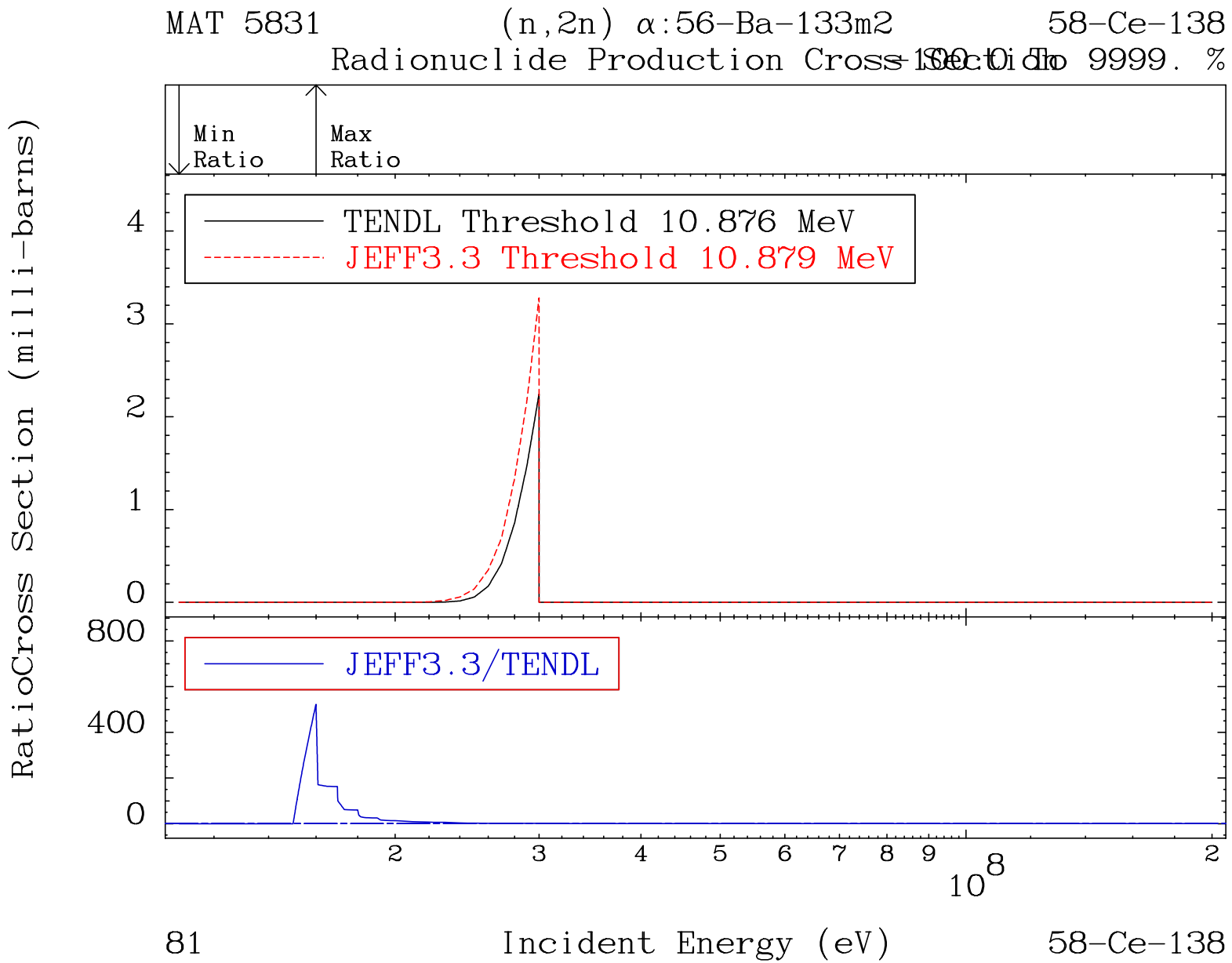

MAT 5831
(n,p) d:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 1755. %
Min Ratio
Max Ratio
TENDL Threshold 11.113 MeV
JENDL5.0 Threshold 11.125 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
10^9
10^0
10^-9
10^-18
2
3
4
5
6
7
8
9
10^8
2
76
Incident Energy (eV)
58-Ce-138

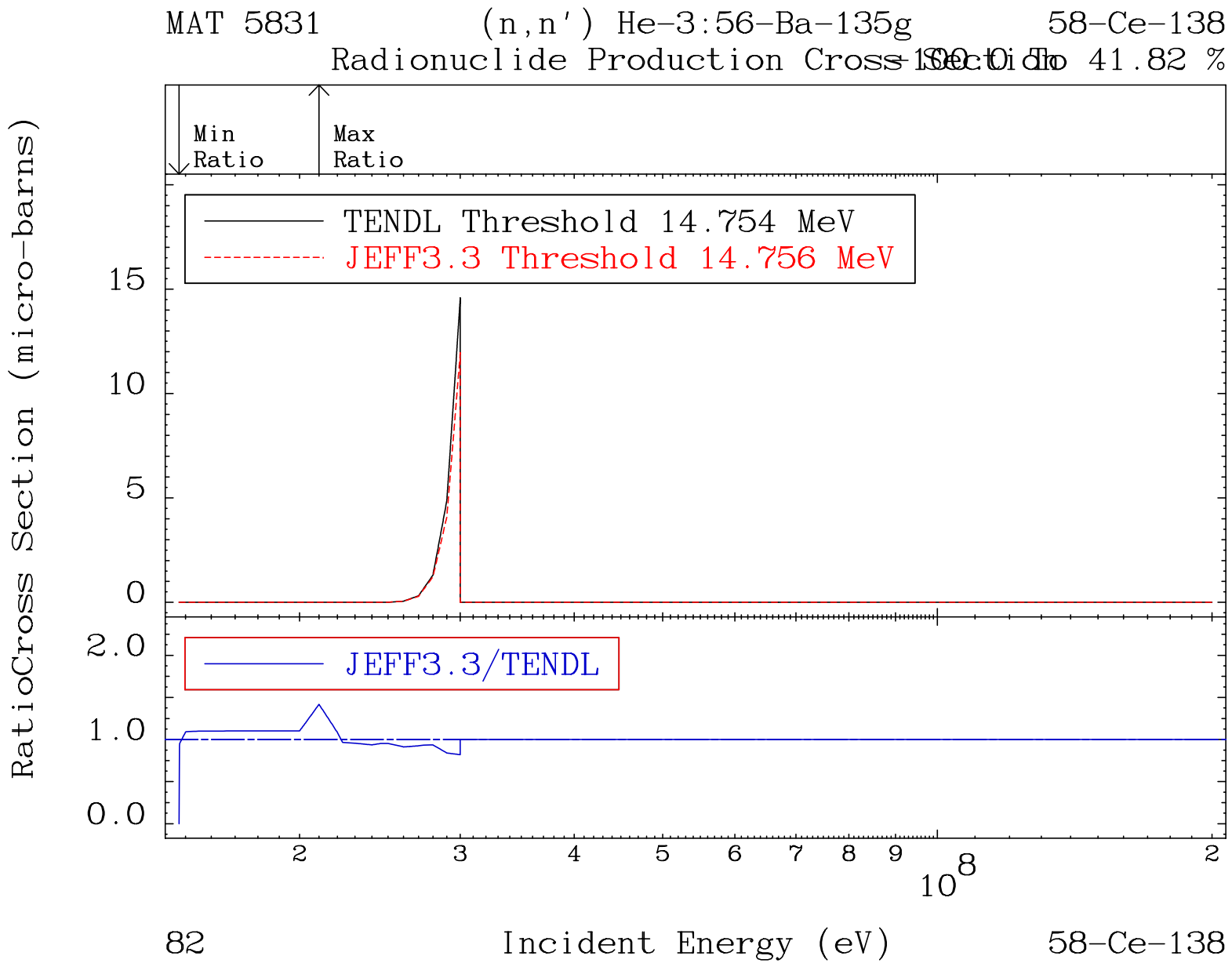

MAT 5831
(n,p) d:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 17.000 MeV
JENDL5.0 Threshold 13.188 MeV
JENDL5.0/TENDL
Ratio Cross Section (10^{-9} barns)
Incident Energy (eV)
77
58-Ce-138

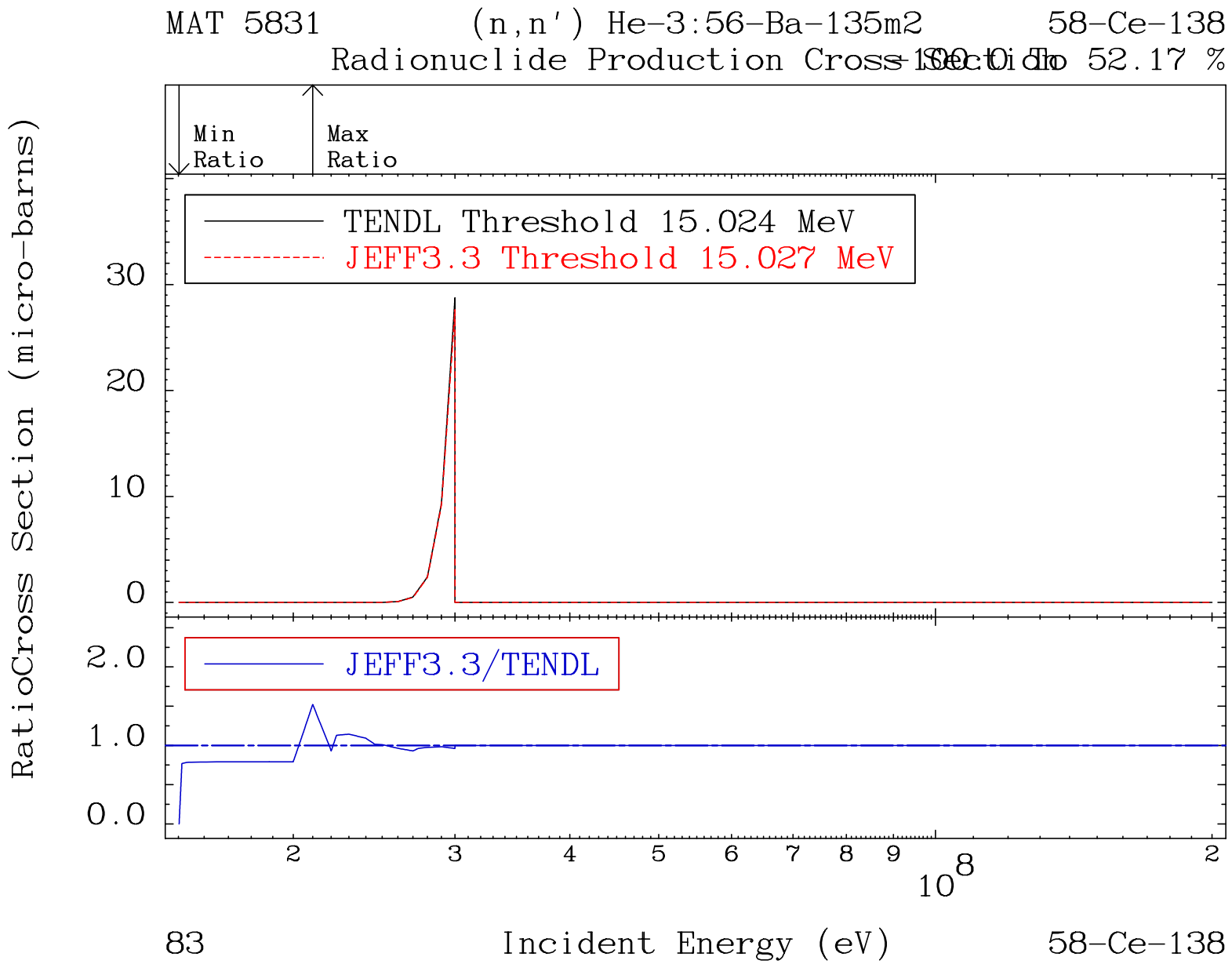

MAT 5831
(n,p) t:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 13.984 MeV
JENDL5.0 Threshold 14.000 MeV
JENDL5.0/TENDL
Ratio Cross Section (10^{-9} barns)
140
120
100
80
60
40
20
0
10^{9}
10^{0}
10^{-9}
10^{-18}
2
3
4
5
6
7
8
9
10^{8}
2
78
Incident Energy (eV)
58-Ce-138

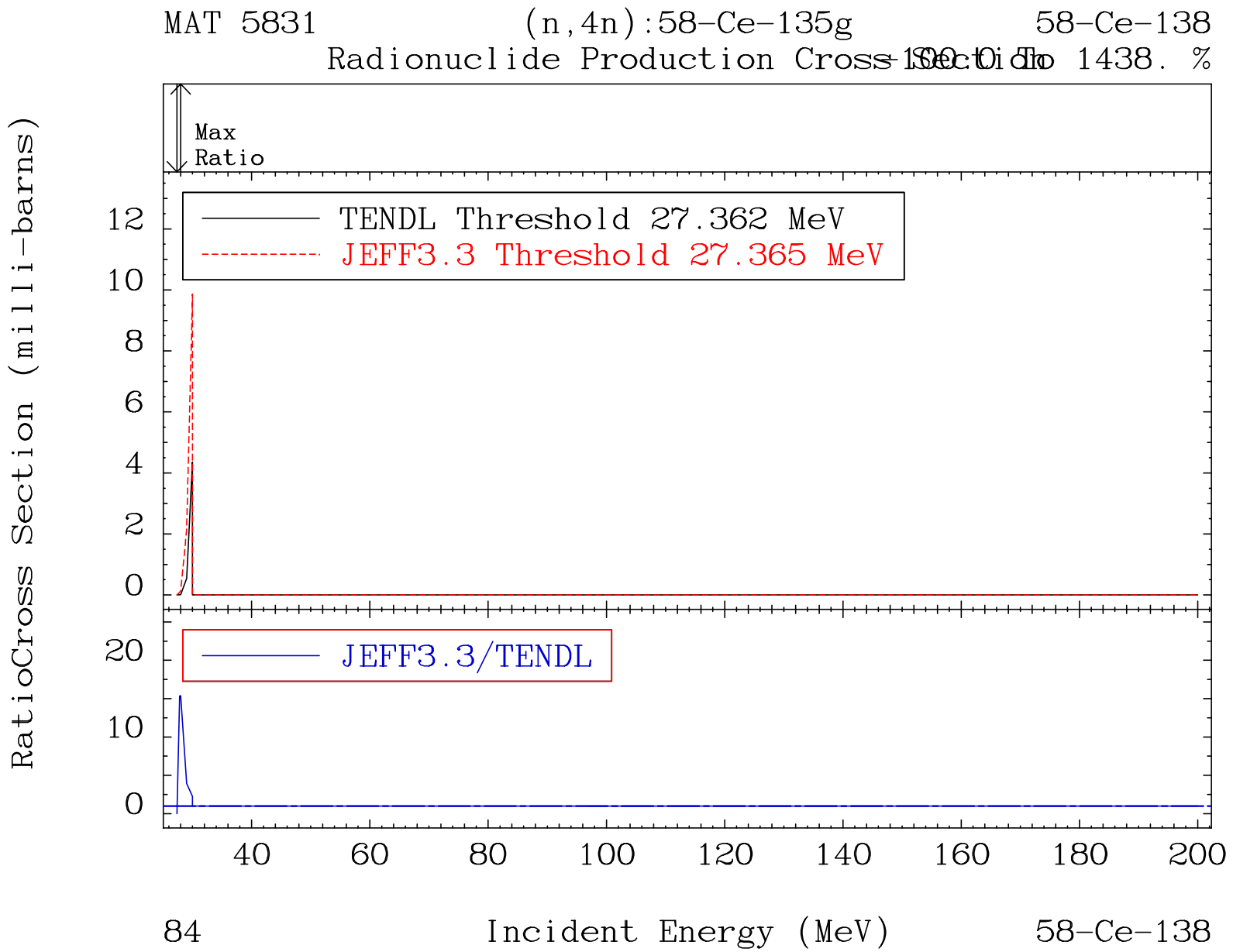

MAT 5831
(n,p) t:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section To 4998. %
Min Ratio
Max Ratio
TENDL Threshold 14.254 MeV
JENDL5.0 Threshold 14.267 MeV
JENDL5.0/TENDL
Ratio Cross Section (10^{-9} barns)
300
250
200
150
100
50
0
10^{0}
10^{-11}
10^{-22}
2
3
4
5
6
7
8
9
10^{8}
2
79
Incident Energy (eV)
58-Ce-138

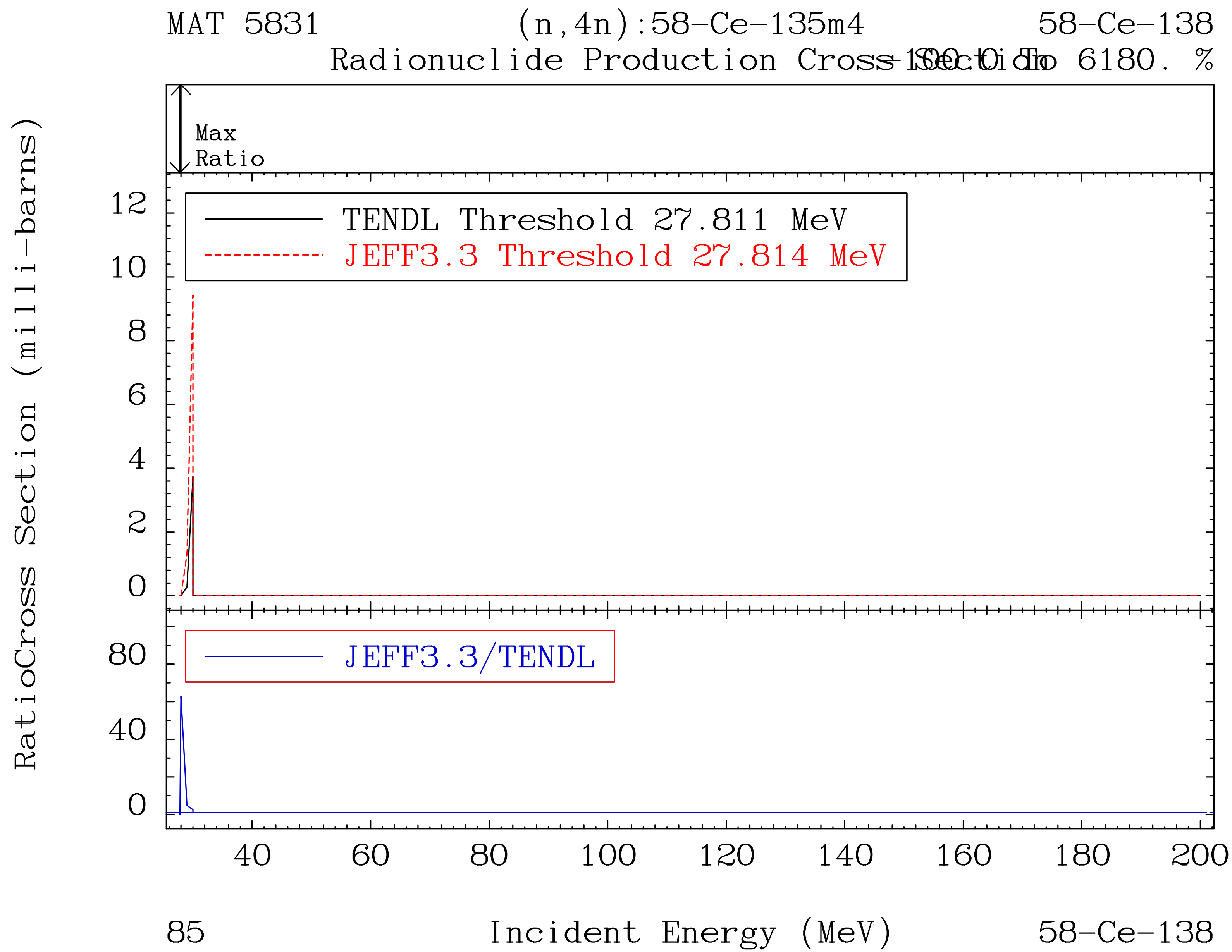

MAT 5831
(n,2n) α:56-Ba-133g
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.585 MeV
JEFF3.3 Threshold 10.588 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
600
300
0
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
58-Ce-138

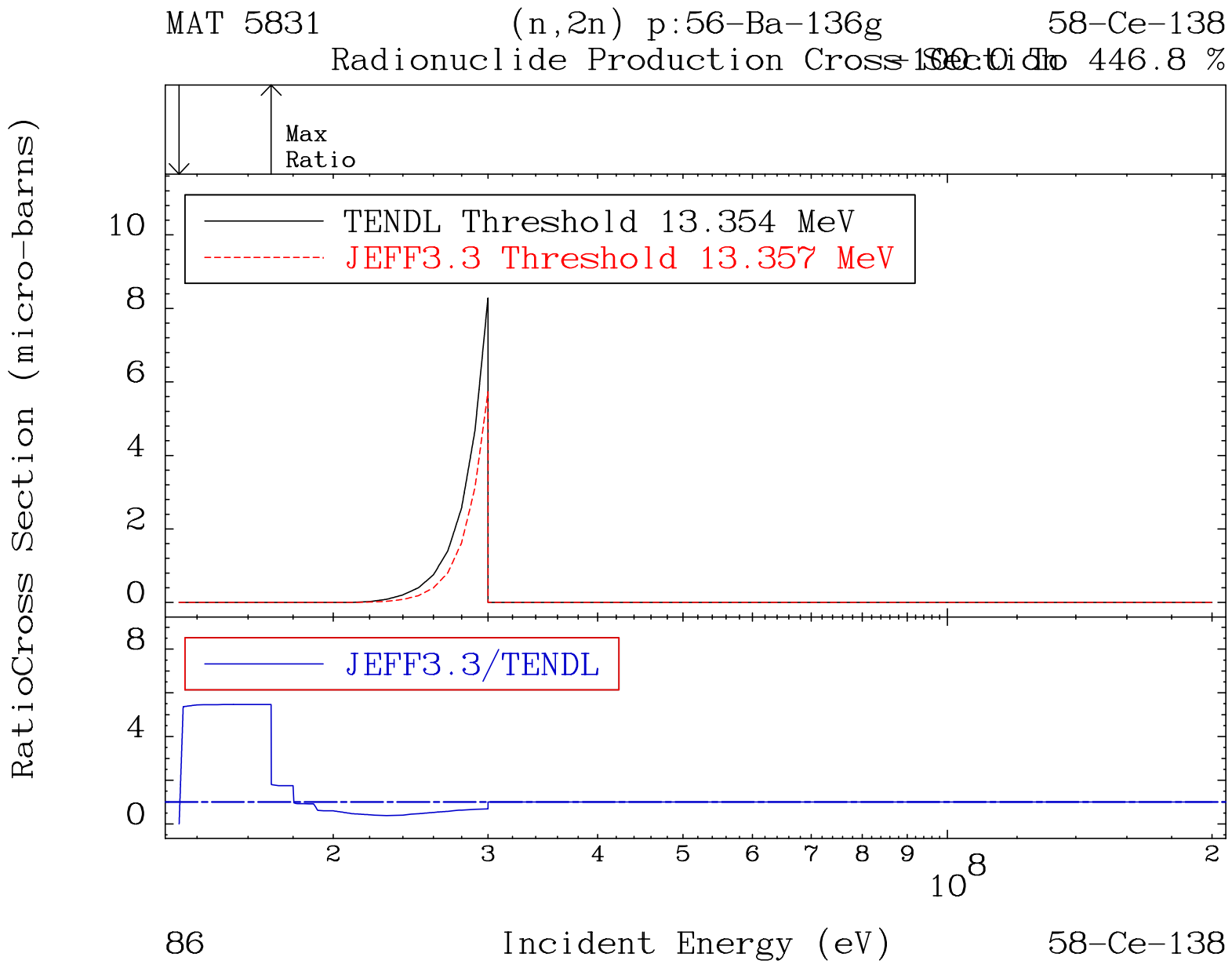

MAT 5831
(n,2n) α:56-Ba-133m2
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.876 MeV
JEFF3.3 Threshold 10.879 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
4
3
2
1
0
800
400
0
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
58-Ce-138

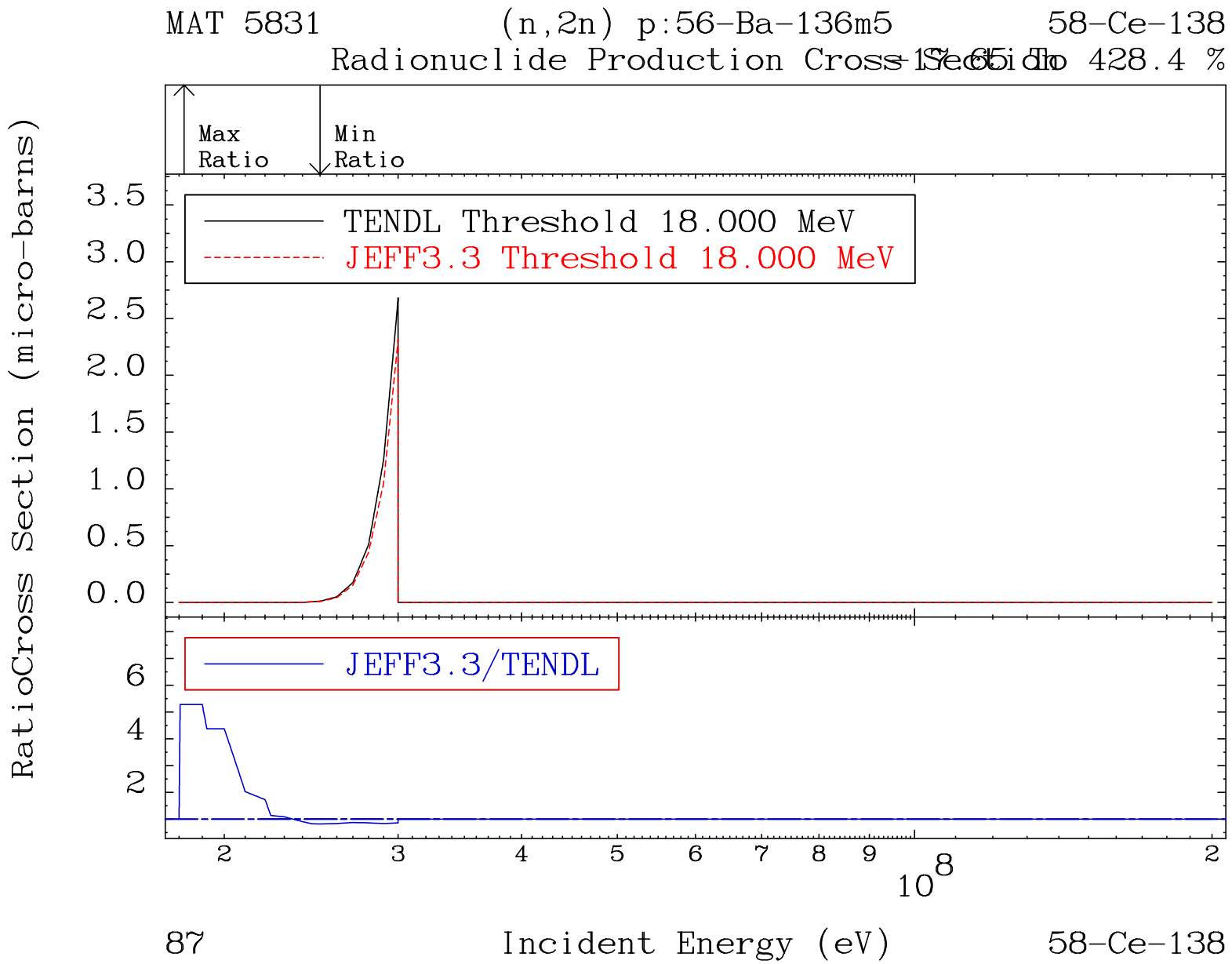

MAT 5831
(n,n') He-3:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section To 41.82 %
Min Ratio
Max Ratio
TENDL Threshold 14.754 MeV
JEFF3.3 Threshold 14.756 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
15
10
5
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
82
Incident Energy (eV)
58-Ce-138

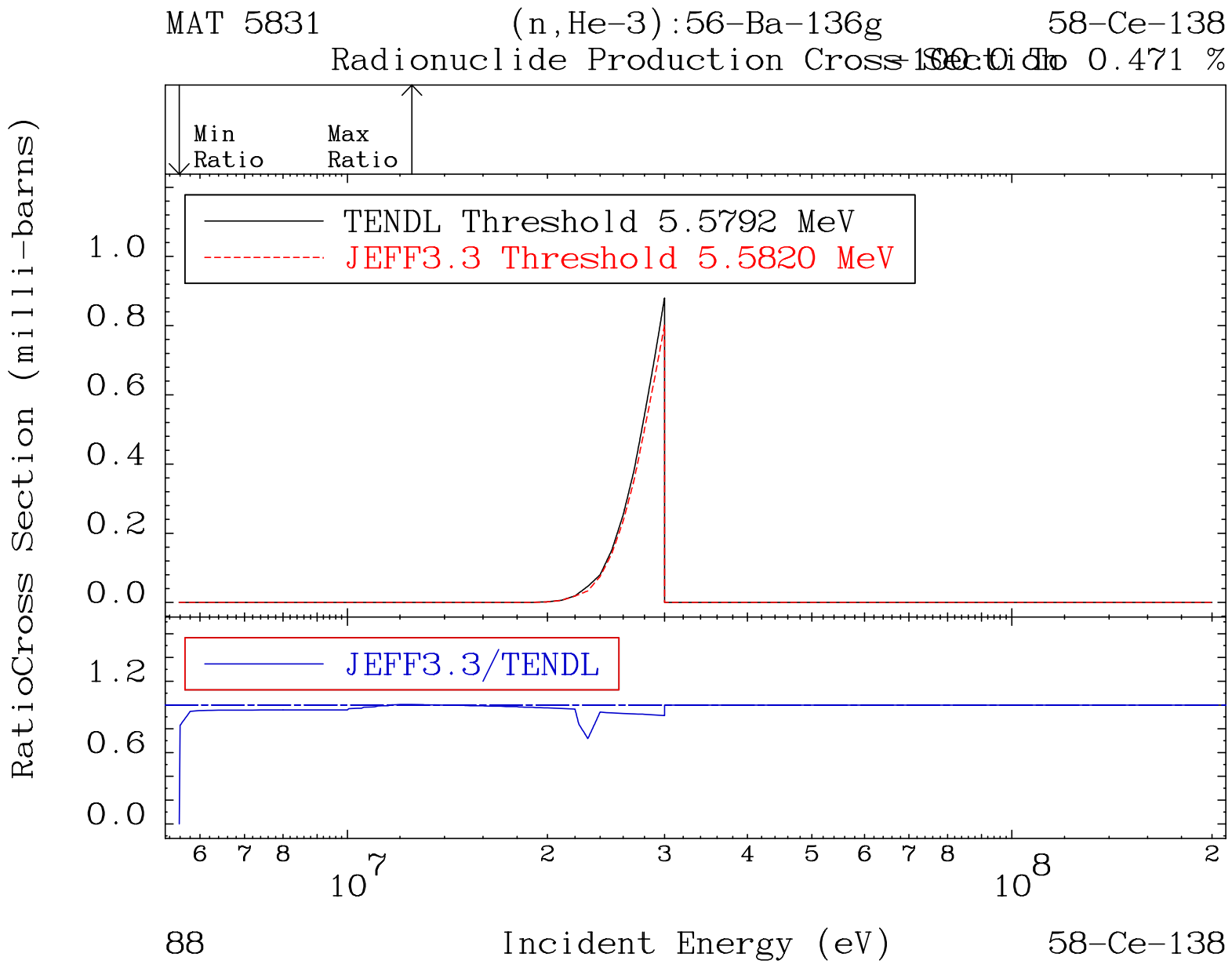

MAT 5831
(n,n') He-3:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section To 52.17 %
Min Ratio
Max Ratio
TENDL Threshold 15.024 MeV
JEFF3.3 Threshold 15.027 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
30
20
10
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
58-Ce-138

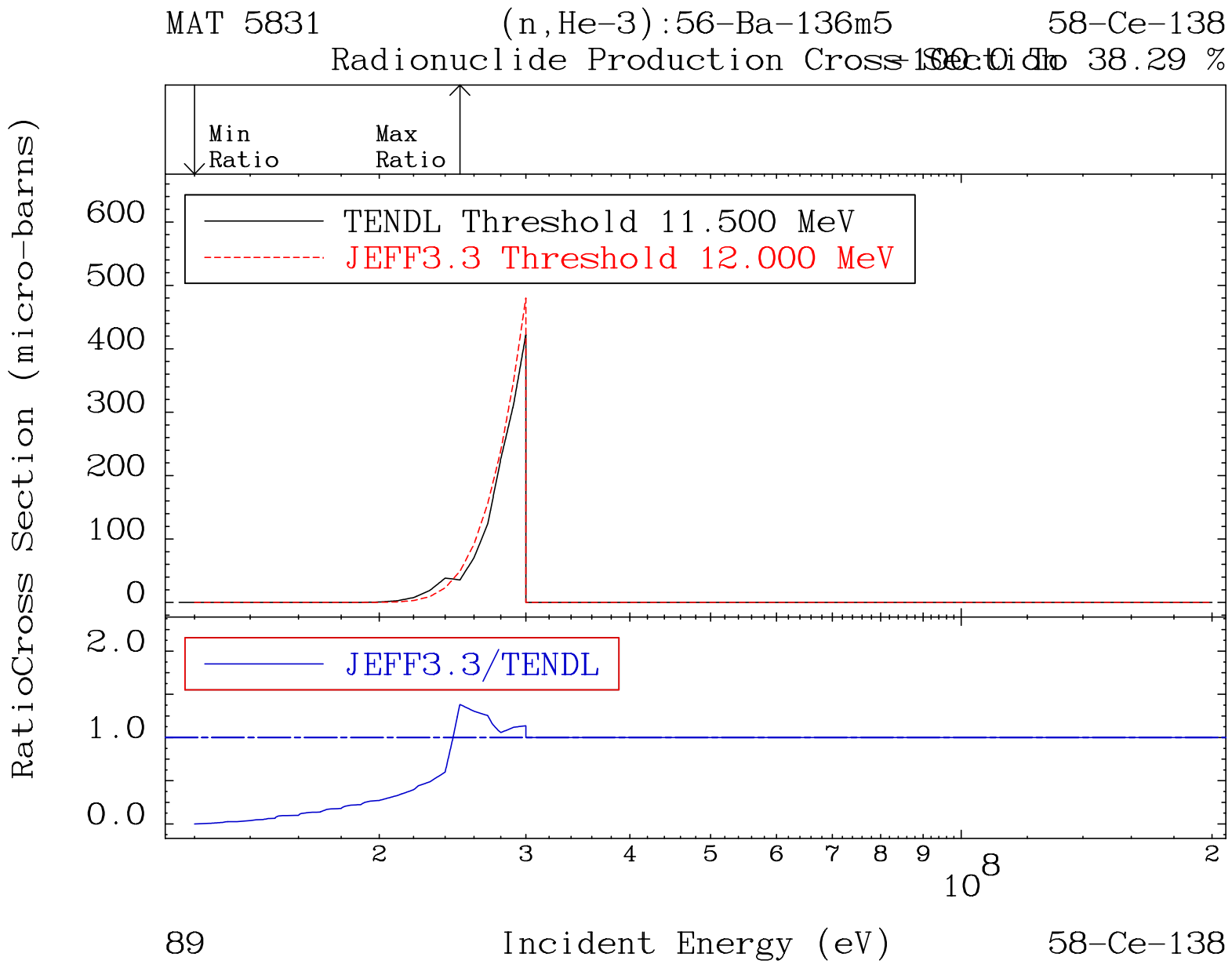

MAT 5831
(n,4n):58-Ce-135g
58-Ce-138
Radionuclide Production Cross Section To 1438. %
Max
Ratio
TENDL Threshold 27.362 MeV
JEFF3.3 Threshold 27.365 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
12
10
8
6
4
2
0
20
10
0
40
60
80
100
120
140
160
180
200
84
Incident Energy (MeV)
58-Ce-138

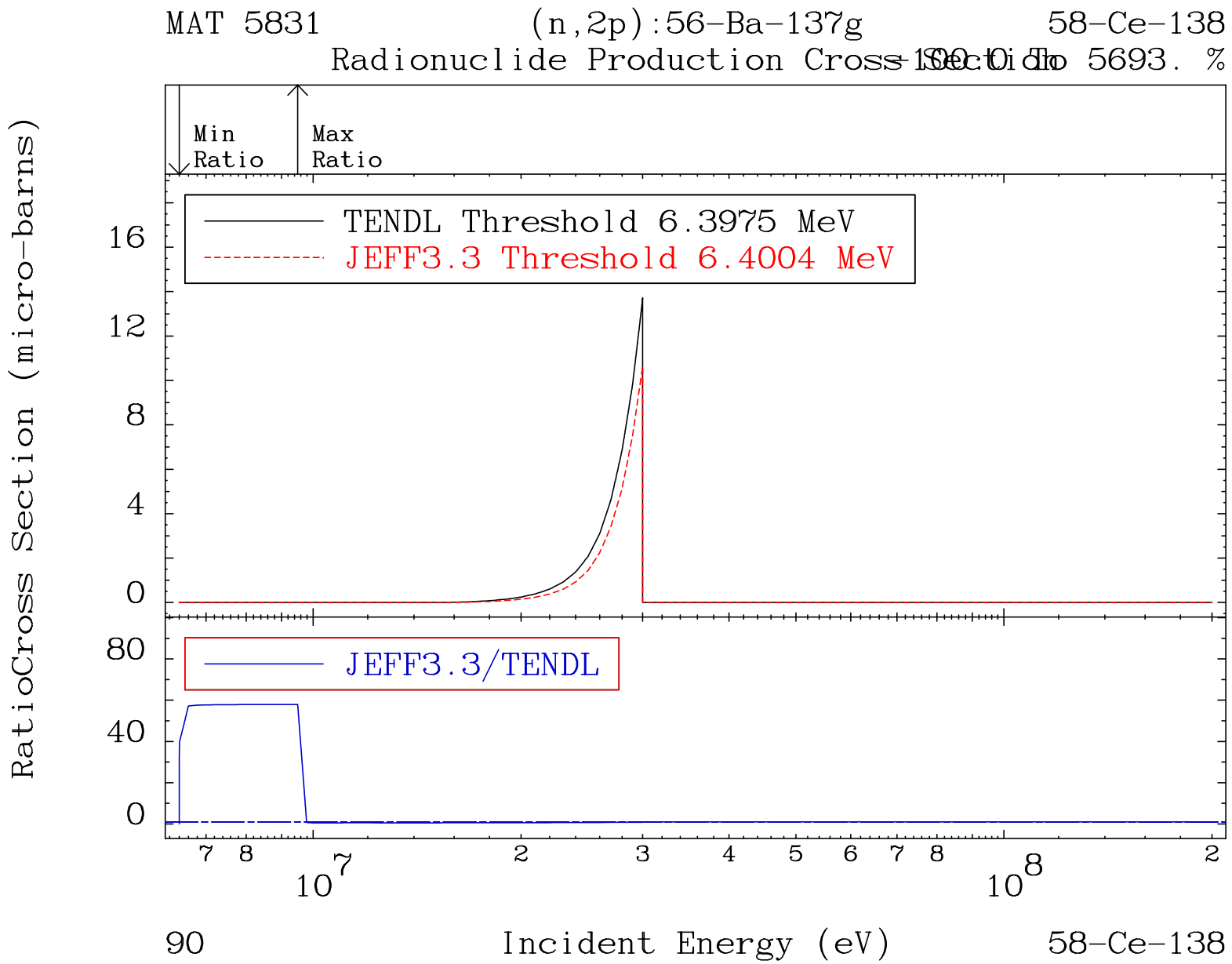

MAT 5831
(n,4n):58-Ce-135m4
58-Ce-138
Radionuclide Production Cross Section
-100.0 To 6180. %
Max
Ratio
TENDL Threshold 27.811 MeV
JEFF3.3 Threshold 27.814 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
0
2
4
6
8
10
12
0
40
80
40
60
80
100
120
140
160
180
200
85
Incident Energy (MeV)
58-Ce-138

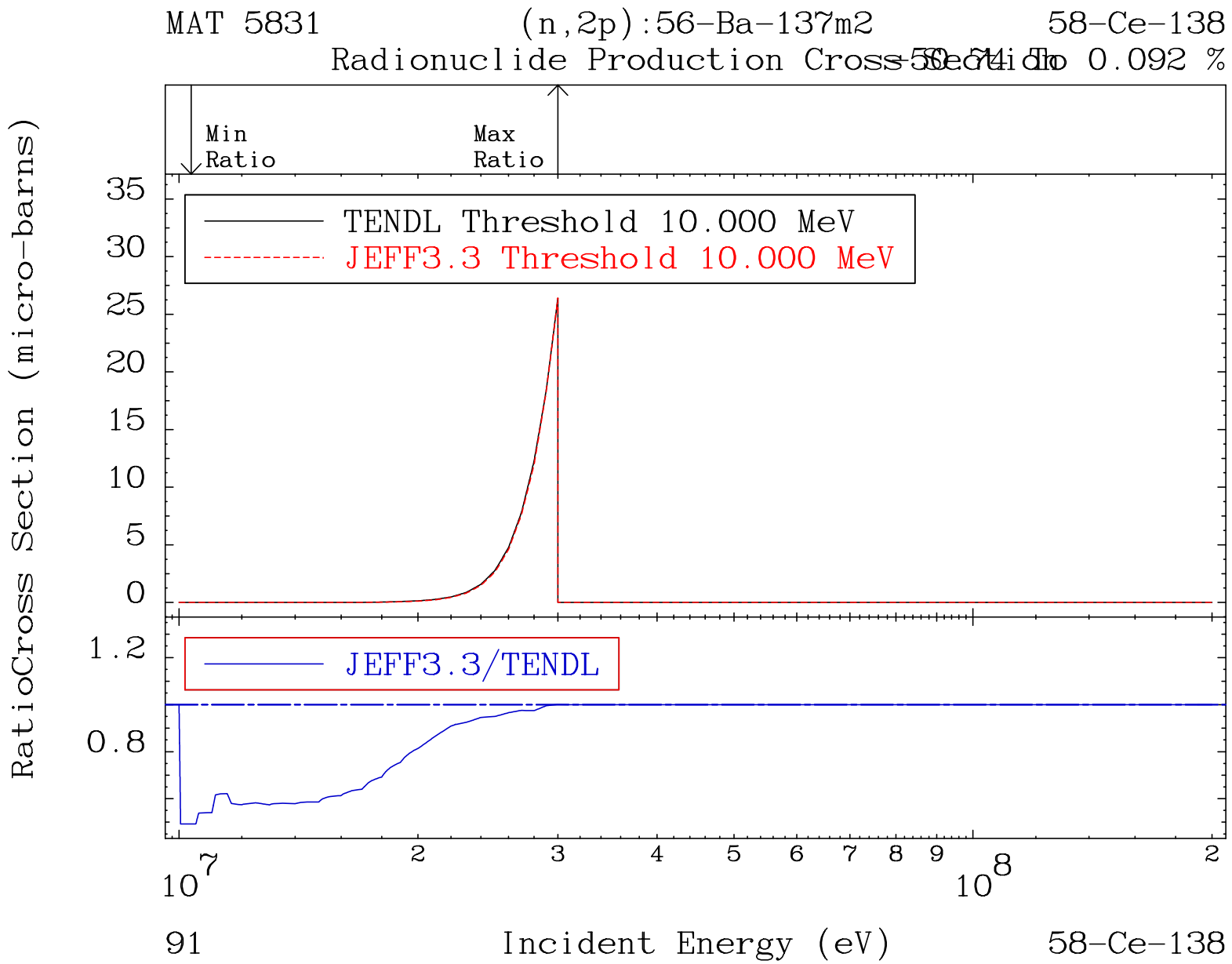

MAT 5831
(n,2n) p:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 446.8 %
Max
Ratio
TENDL Threshold 13.354 MeV
JEFF3.3 Threshold 13.357 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
86
58-Ce-138

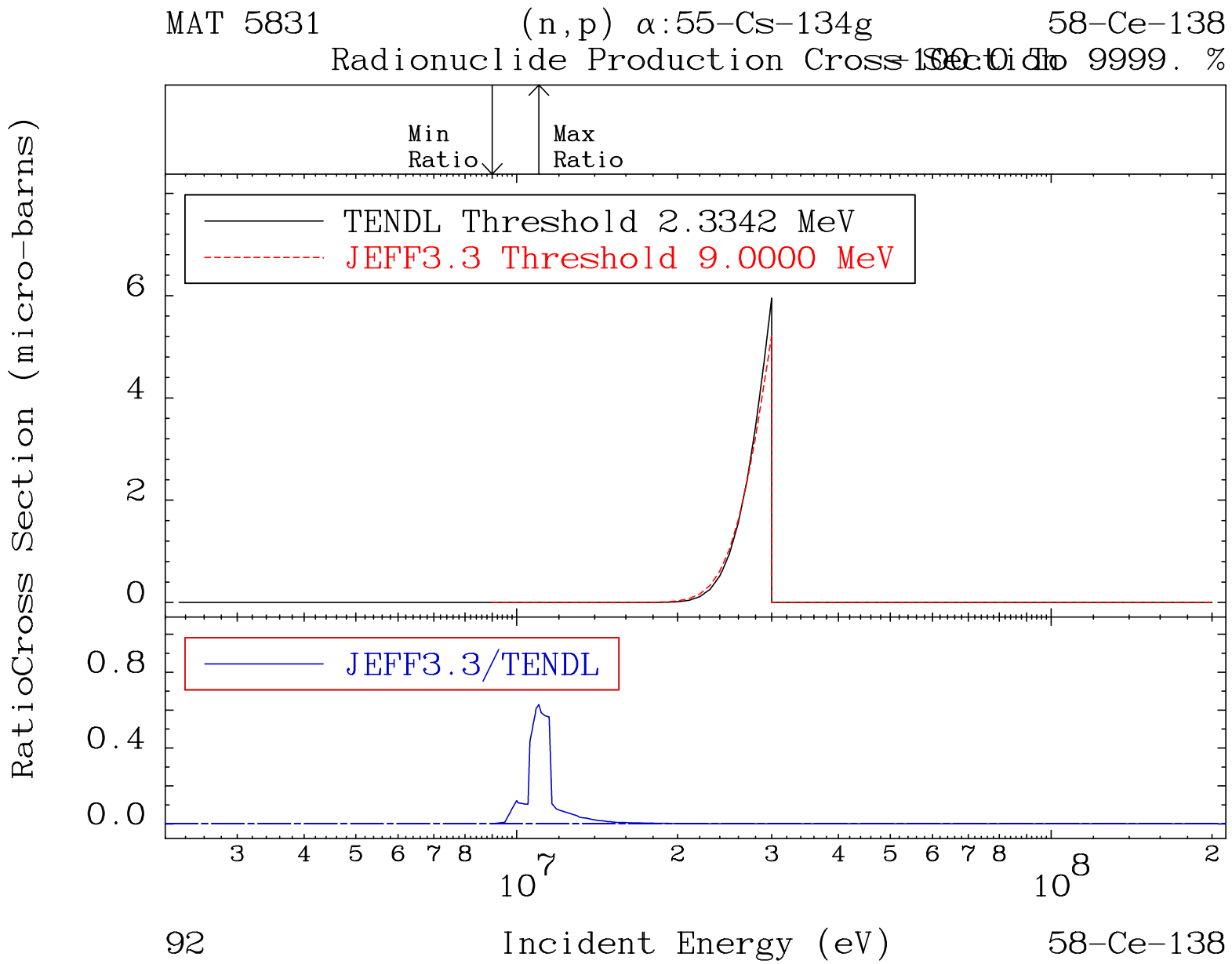

MAT 5831
(n,2n) p:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
Max Ratio
Min Ratio
TENDL Threshold 18.000 MeV
JEFF3.3 Threshold 18.000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
87
58-Ce-138

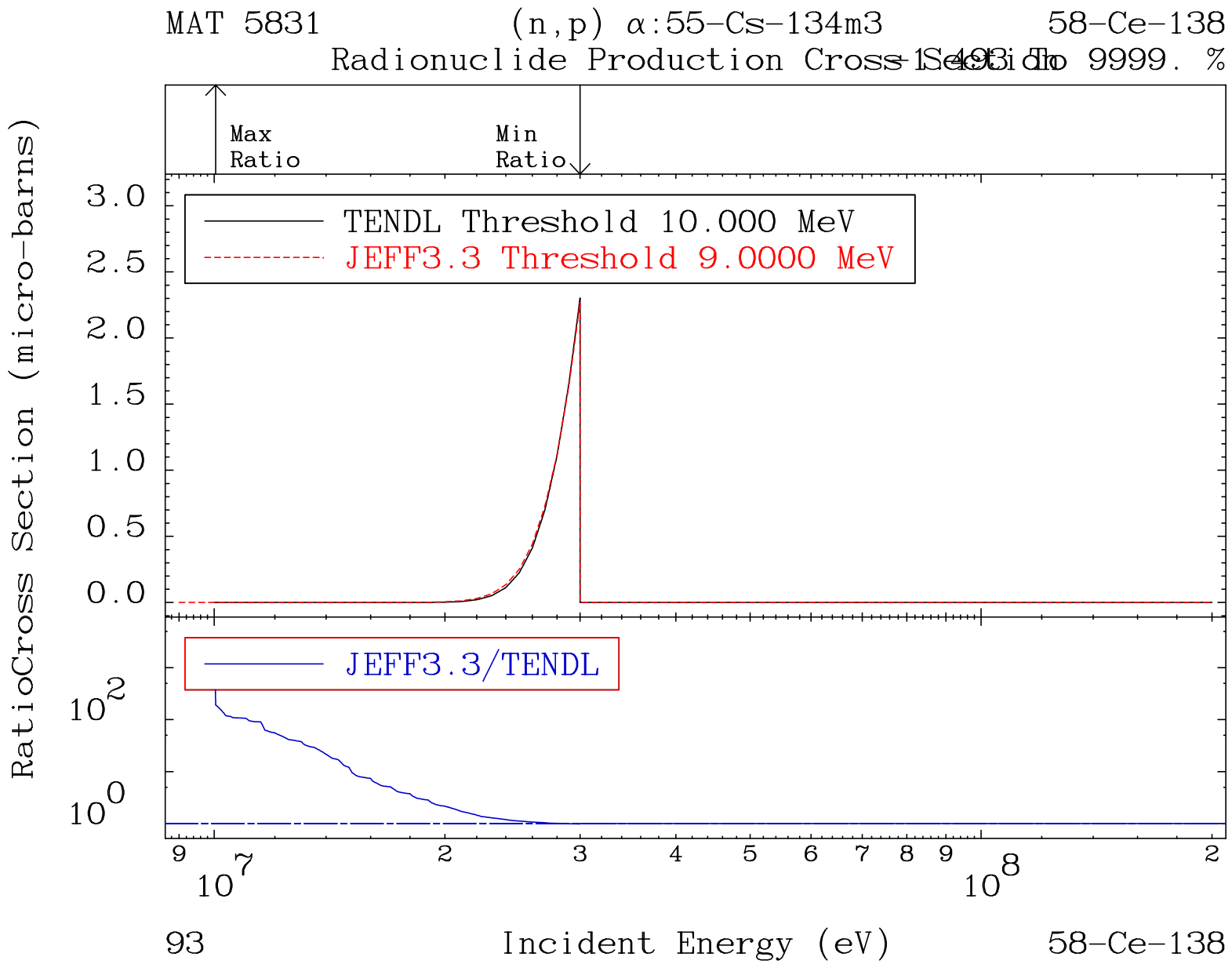

MAT 5831
(n,He-3):56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 0.471 %
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JEFF3.3 Threshold 5.5820 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
88
Incident Energy (eV)
58-Ce-138

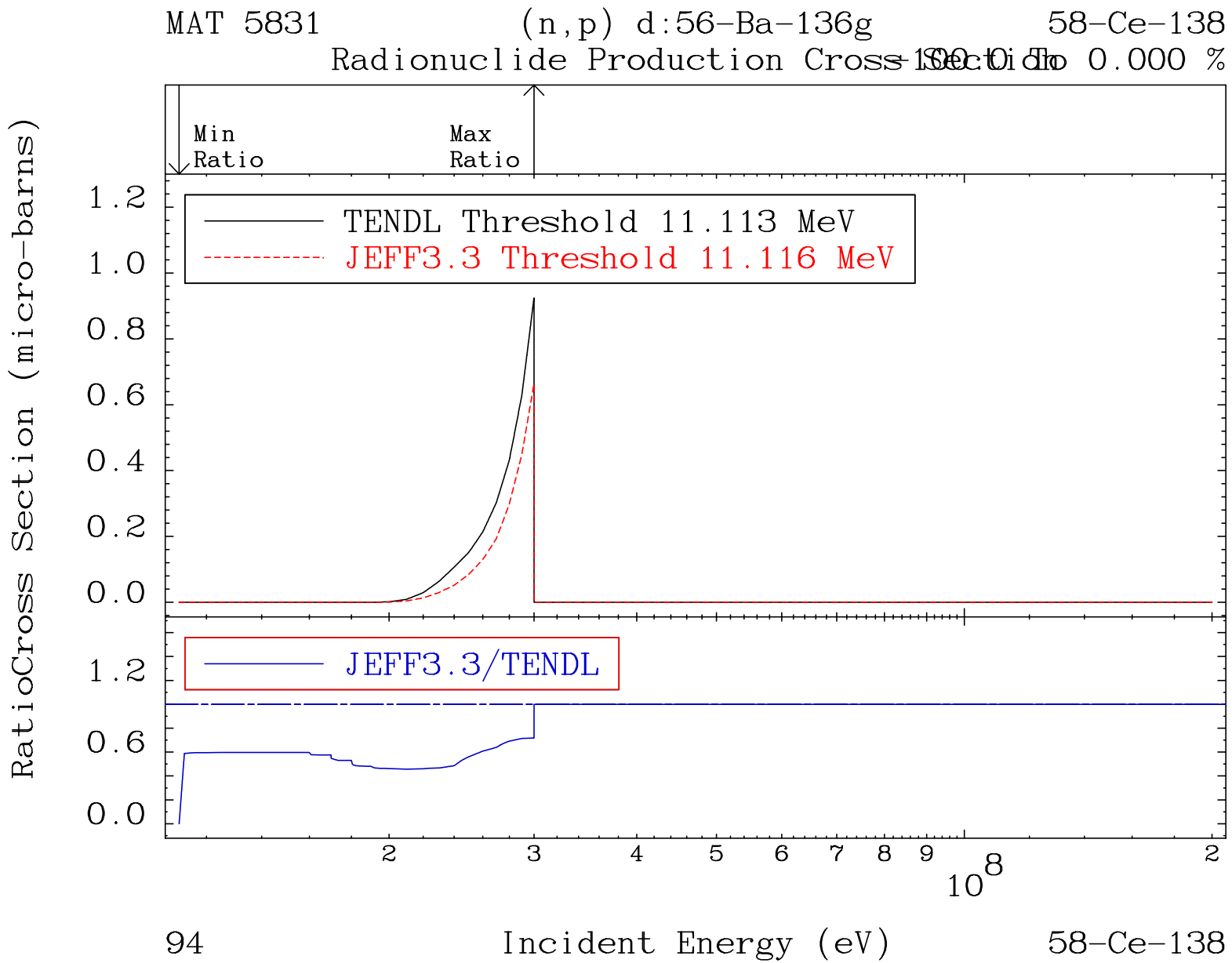

MAT 5831
(n,He-3):56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section To 38.29 %
Min Ratio
Max Ratio
TENDL Threshold 11.500 MeV
JEFF3.3 Threshold 12.000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
600
500
400
300
200
100
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
89
Incident Energy (eV)
58-Ce-138

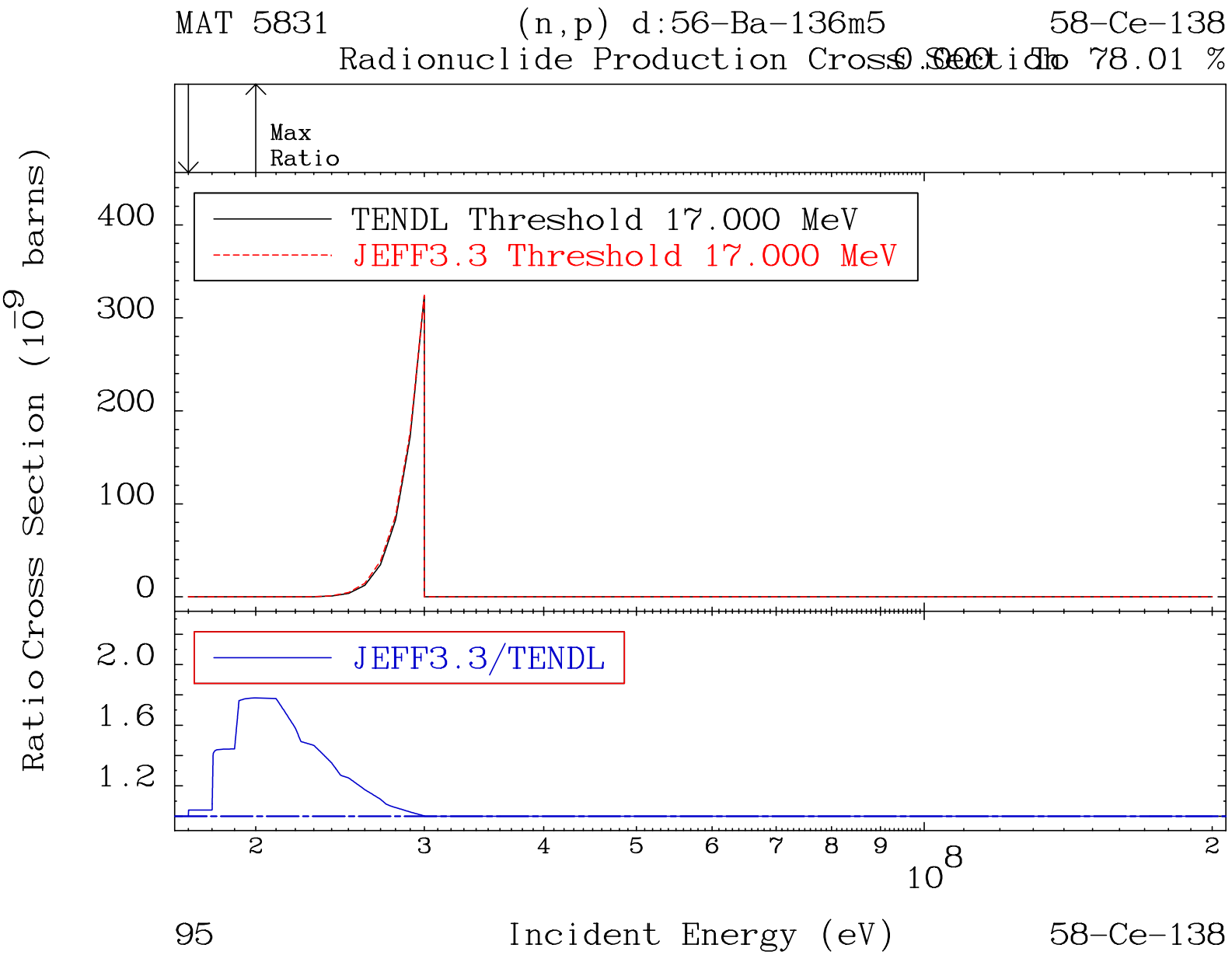

MAT 5831
(n,2p):56-Ba-137g
58-Ce-138
Radionuclide Production Cross Section To 5693. %
Min Ratio
Max Ratio
TENDL Threshold 6.3975 MeV
JEFF3.3 Threshold 6.4004 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
16
12
8
4
0
80
40
0
7 8
10^7
2 3 4 5 6 7 8
10^8
2
90
Incident Energy (eV)
58-Ce-138

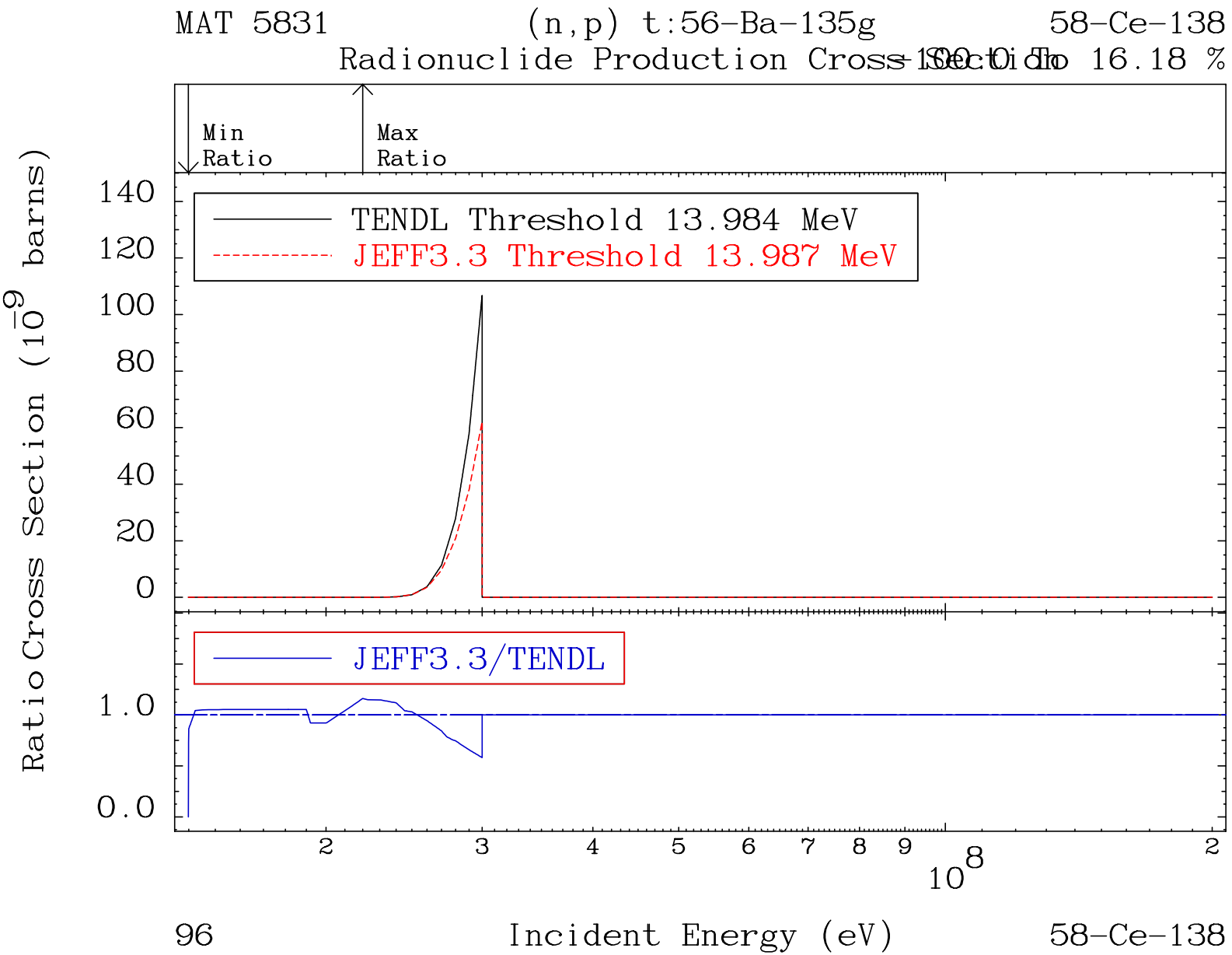

MAT 5831
(n,2p):56-Ba-137m2
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 10.000 MeV
JEFF3.3 Threshold 10.000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
35
30
25
20
15
10
5
0
1.2
0.8
10^7
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
58-Ce-138

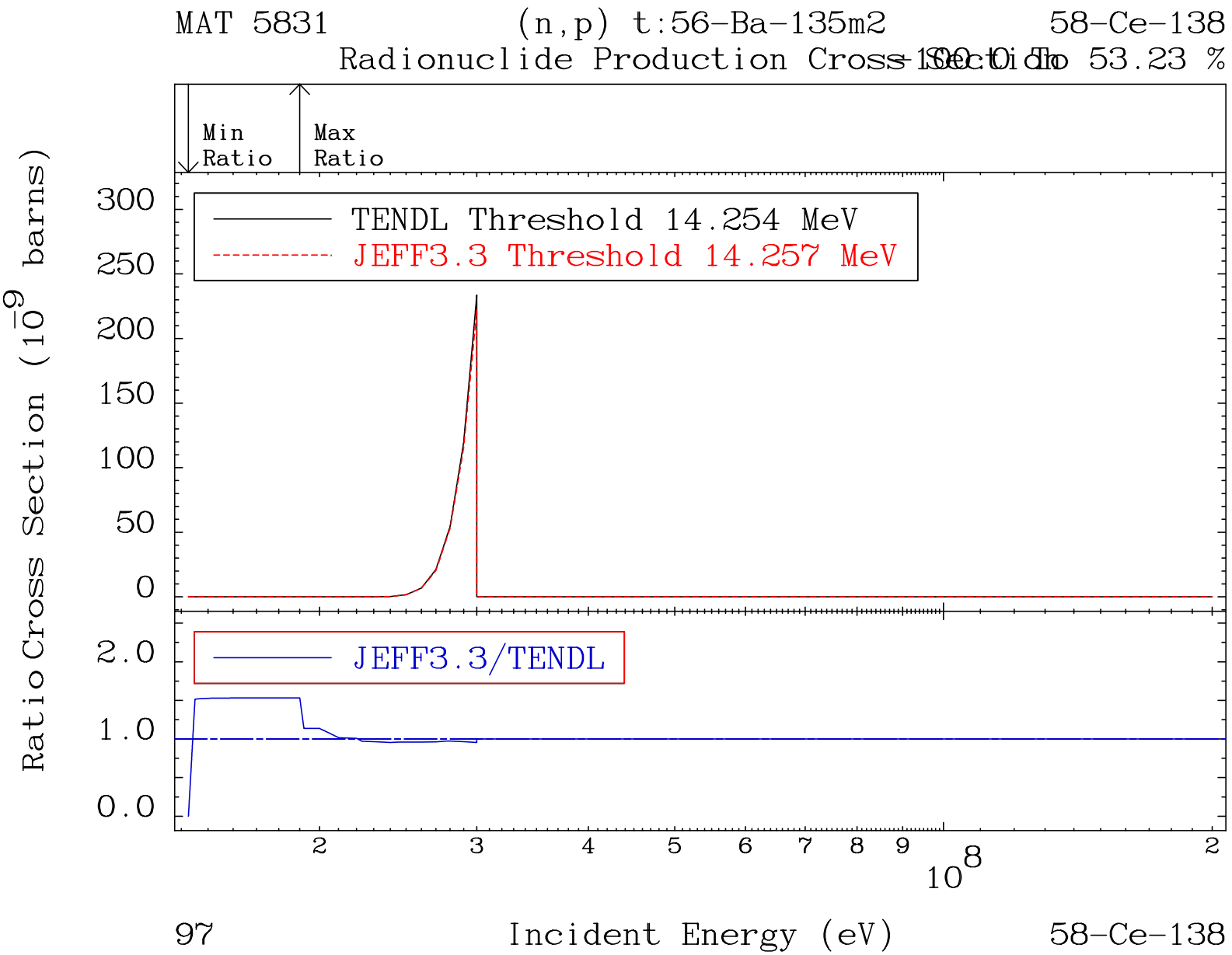

MAT 5831
(n,p) α:55-Cs-134g
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.3342 MeV
JEFF3.3 Threshold 9.0000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
92
58-Ce-138


MAT 5831
(n,p) α:55-Cs-134m3
58-Ce-138
Radionuclide Production Cross Section
1.493 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 10.000 MeV
JEFF3.3 Threshold 9.0000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
10^2
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
93
Incident Energy (eV)
58-Ce-138


MAT 5831
(n,p) d:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 11.113 MeV
JEFF3.3 Threshold 11.116 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
94
58-Ce-138


MAT 5831
(n,p) d:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
0.000 To 78.01 %
Max
Ratio
TENDL Threshold 17.000 MeV
JEFF3.3 Threshold 17.000 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^-9 barns)
400
300
200
100
0
2.0
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
95
Incident Energy (eV)
58-Ce-138


MAT 5831
(n,p) t:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section To 16.18 %
Min Ratio
Max Ratio
TENDL Threshold 13.984 MeV
JEFF3.3 Threshold 13.987 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
140
120
100
80
60
40
20
0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
96
Incident Energy (eV)
58-Ce-138


MAT 5831
(n,p) t:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section To 53.23 %
Min Ratio
Max Ratio
TENDL Threshold 14.254 MeV
JEFF3.3 Threshold 14.257 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
300
250
200
150
100
50
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
97
Incident Energy (eV)
58-Ce-138