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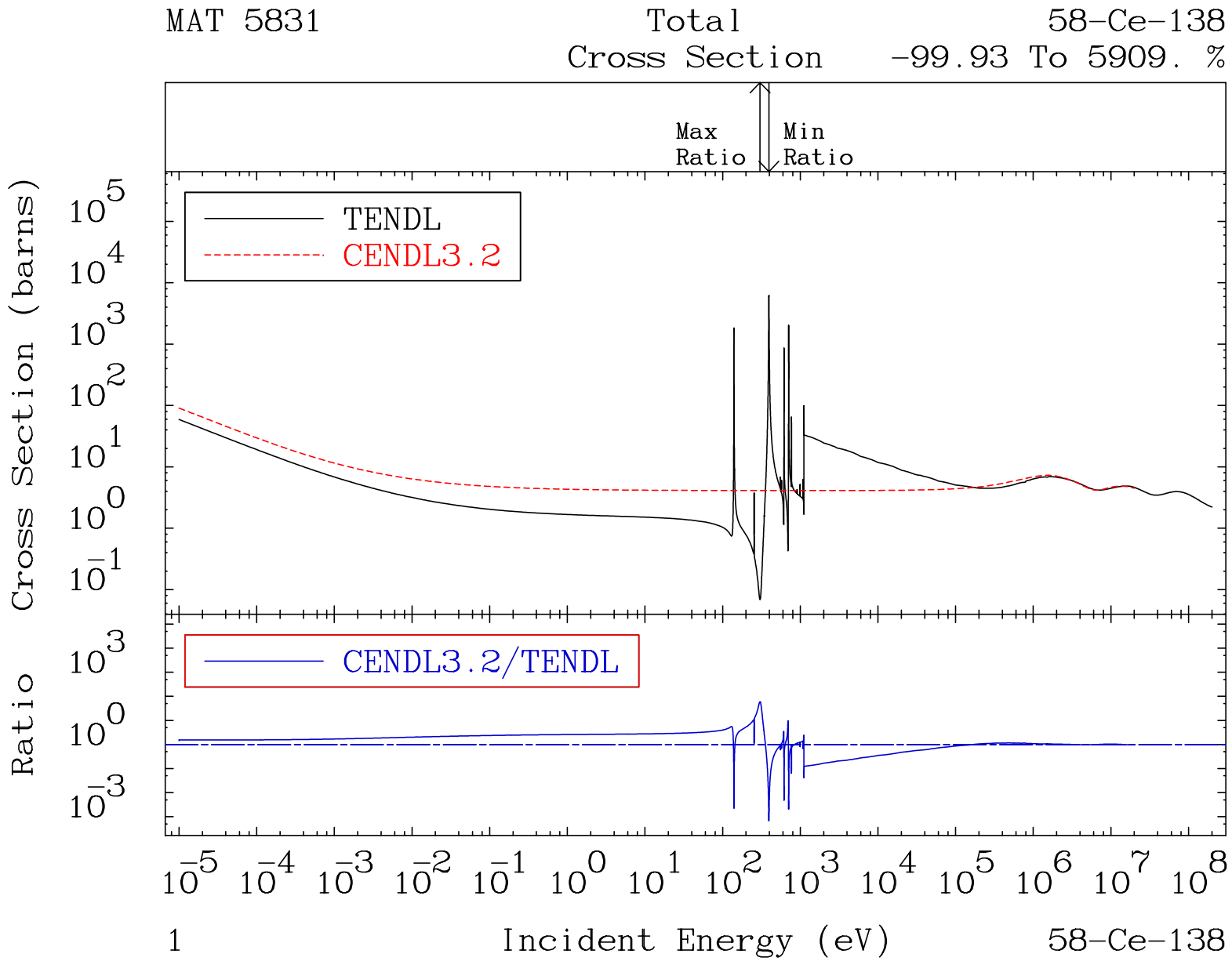
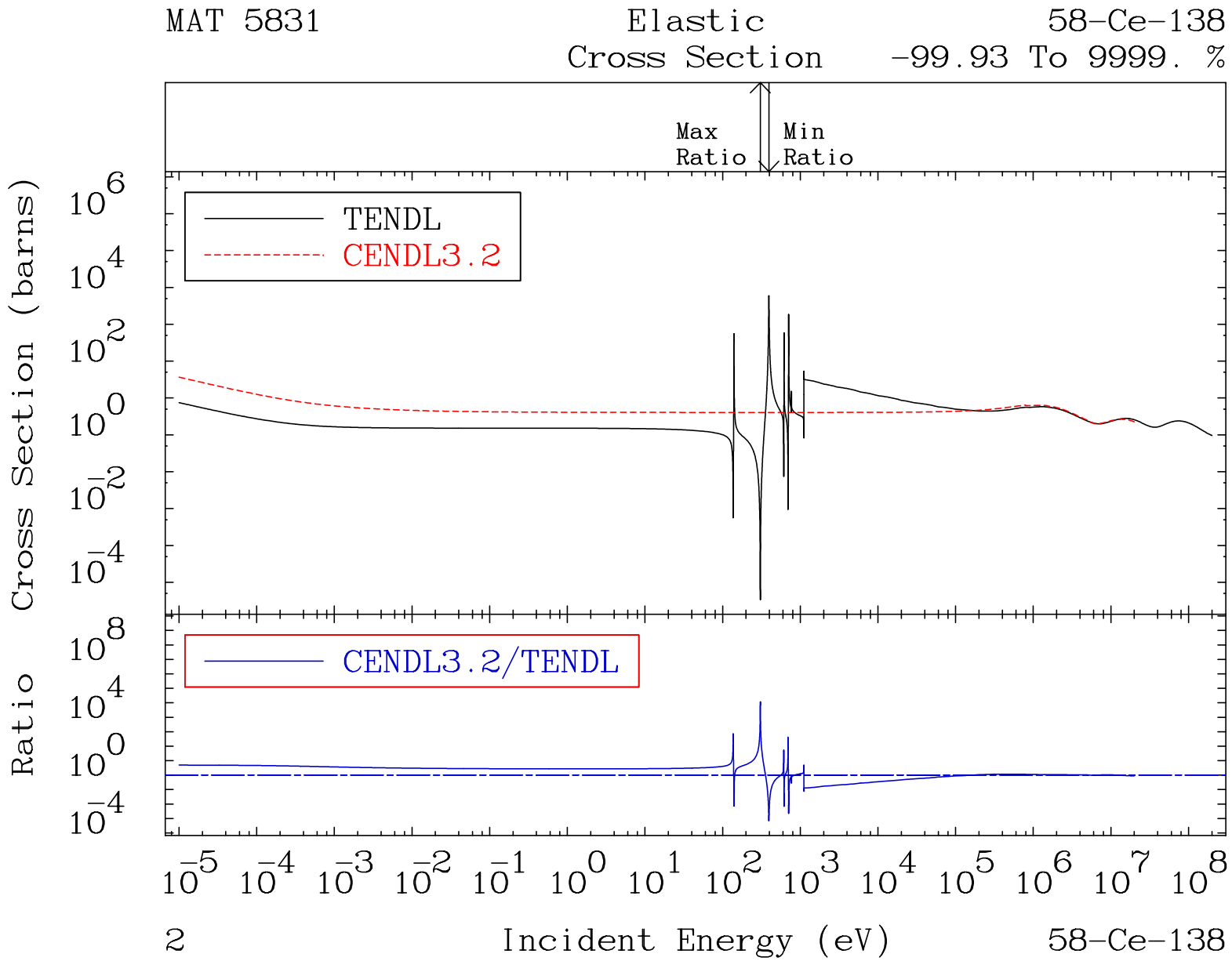
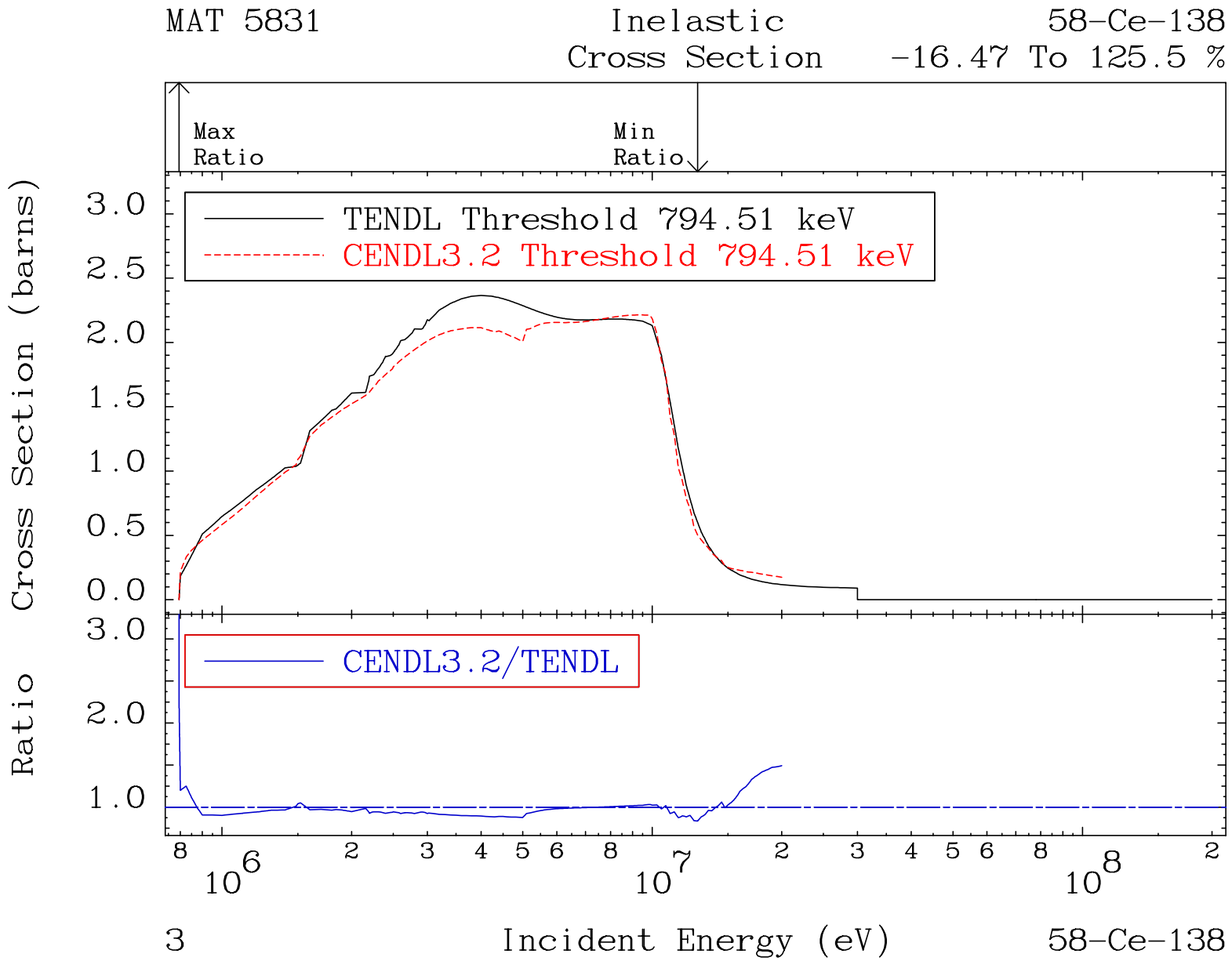
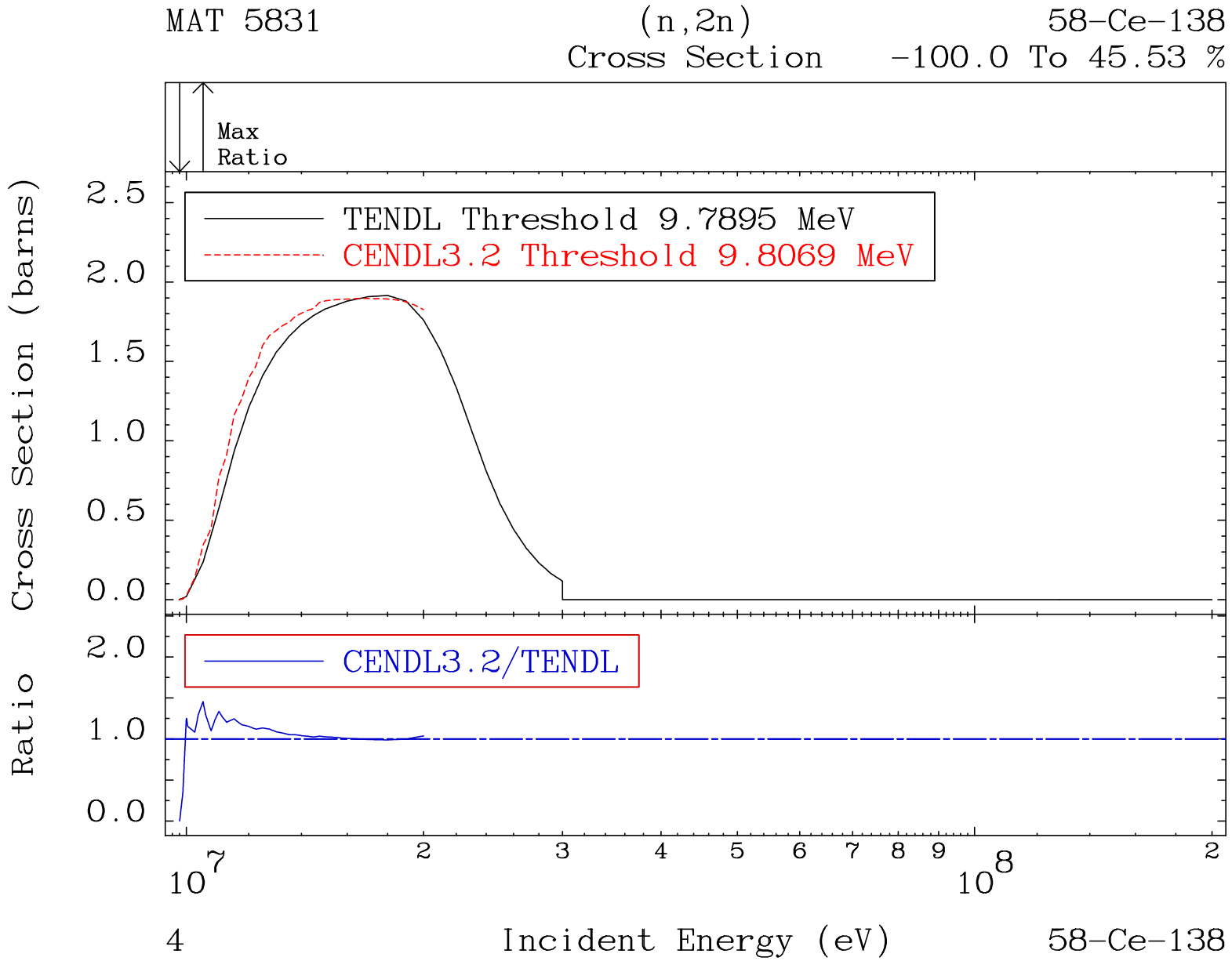
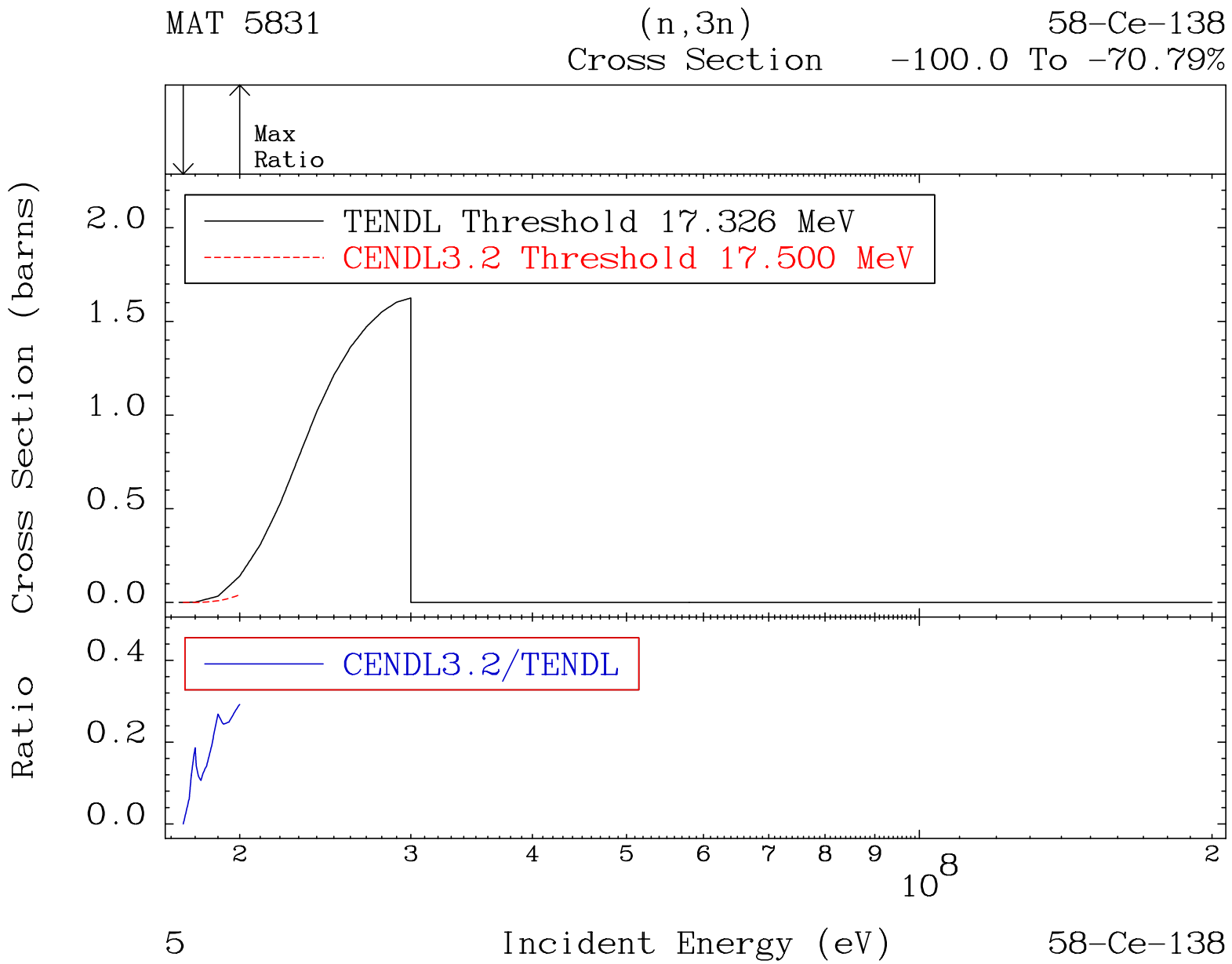
Press Mouse Button to Start

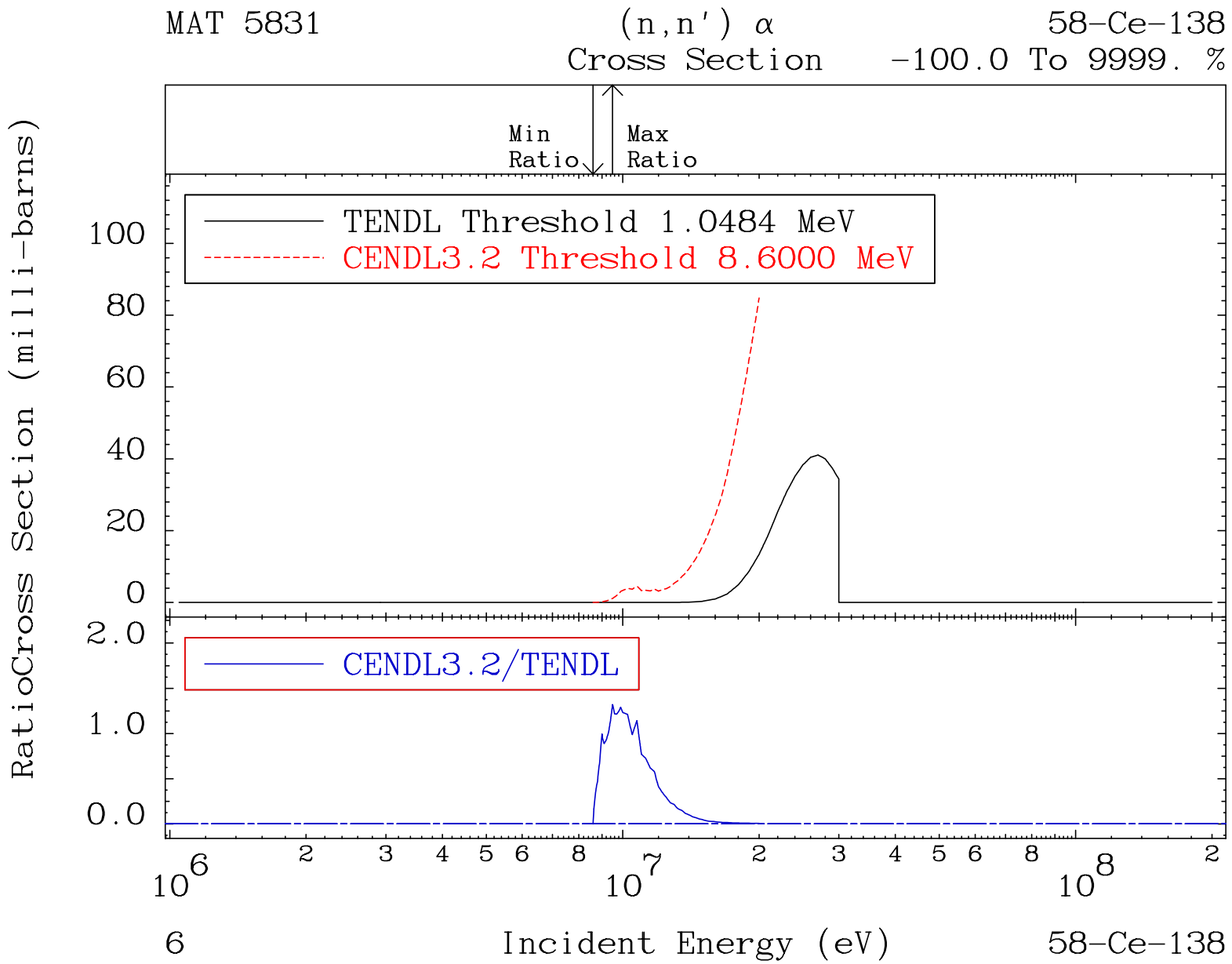

MAT 5831
Total
Cross Section
58-Ce-138
-99.93 To 5909. %
Max
Ratio
Min
Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
58-Ce-138

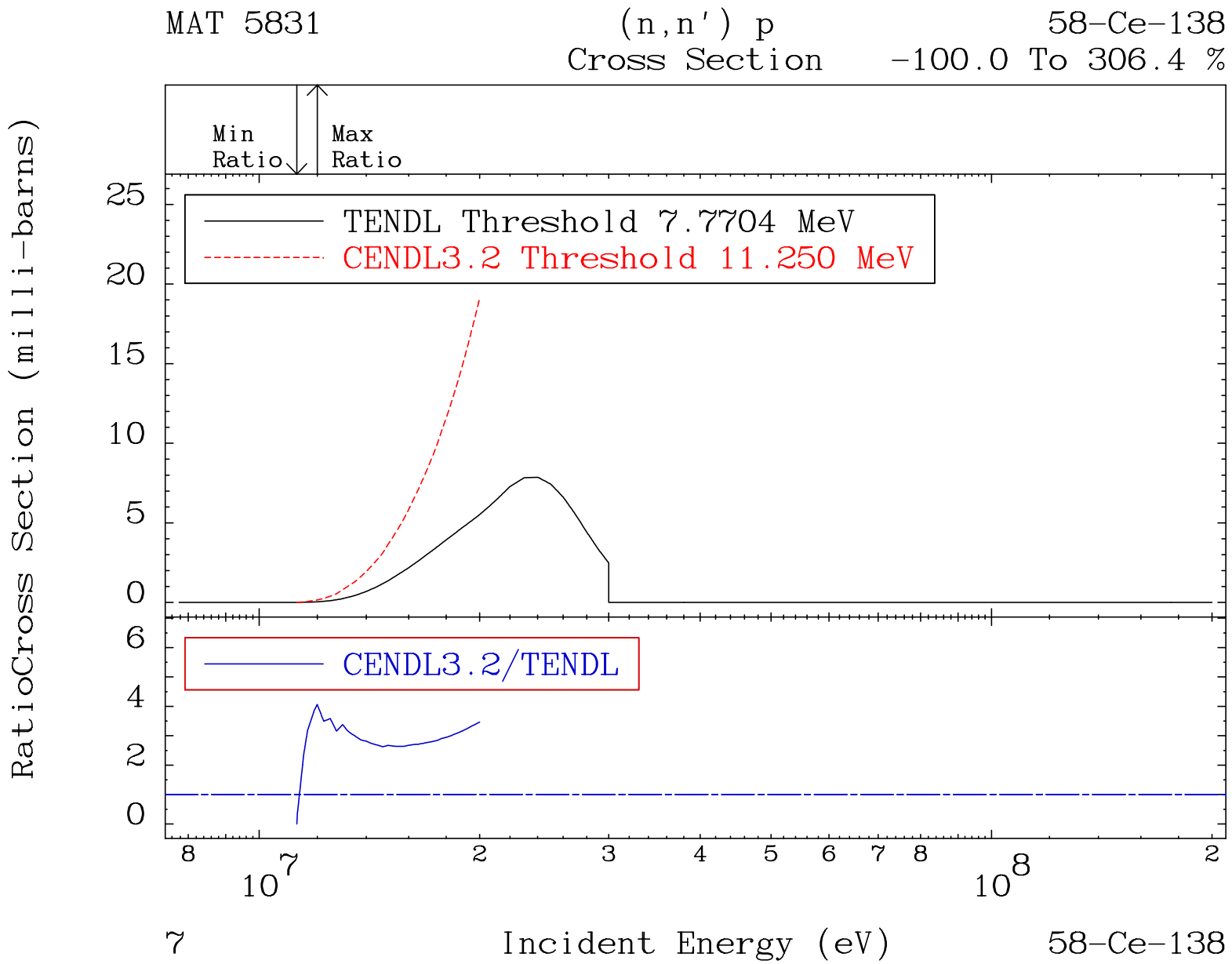

MAT 5831
Elastic
Cross Section
58-Ce-138
-99.93 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
2
58-Ce-138

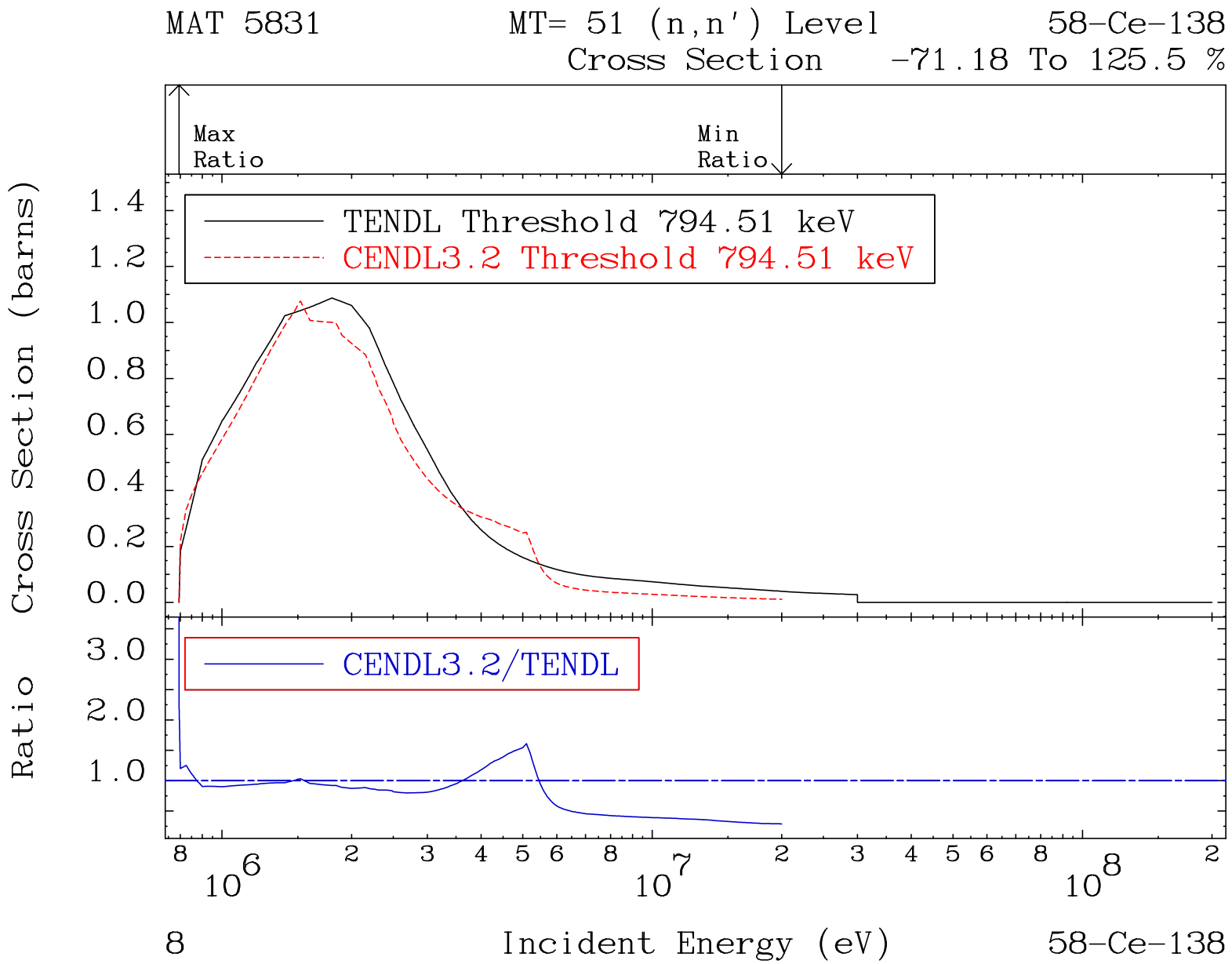

MAT 5831
Inelastic
Cross Section
58-Ce-138
-16.47 To 125.5 %
Max Ratio
Min Ratio
TENDL Threshold 794.51 keV
CENDL3.2 Threshold 794.51 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
3
58-Ce-138

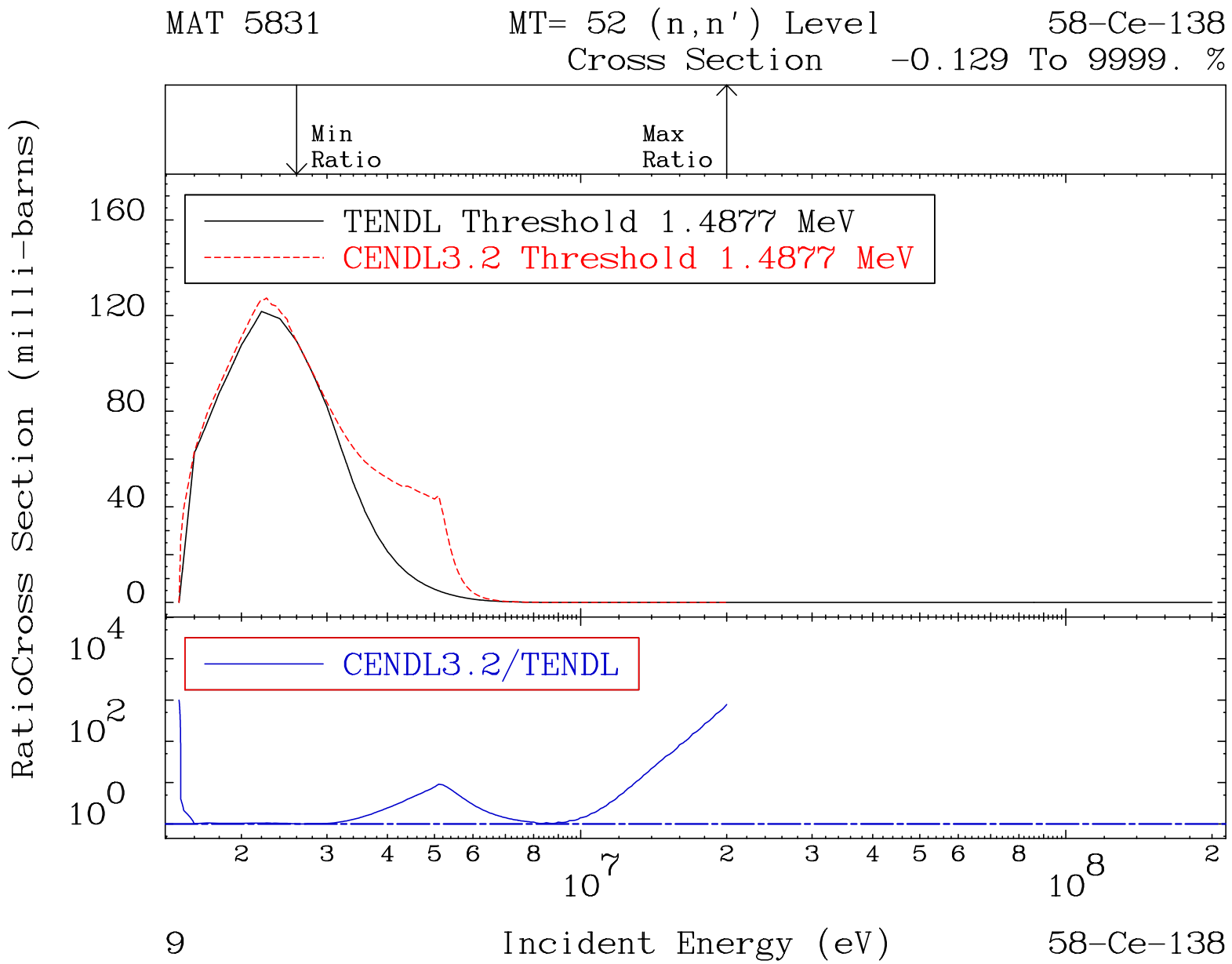

MAT 5831
(n,2n)
Cross Section
58-Ce-138
-100.0 To 45.53 %
Max
Ratio
TENDL Threshold 9.7895 MeV
CENDL3.2 Threshold 9.8069 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.5
2.0
1.5
1.0
0.5
0.0
2.0
1.0
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
58-Ce-138

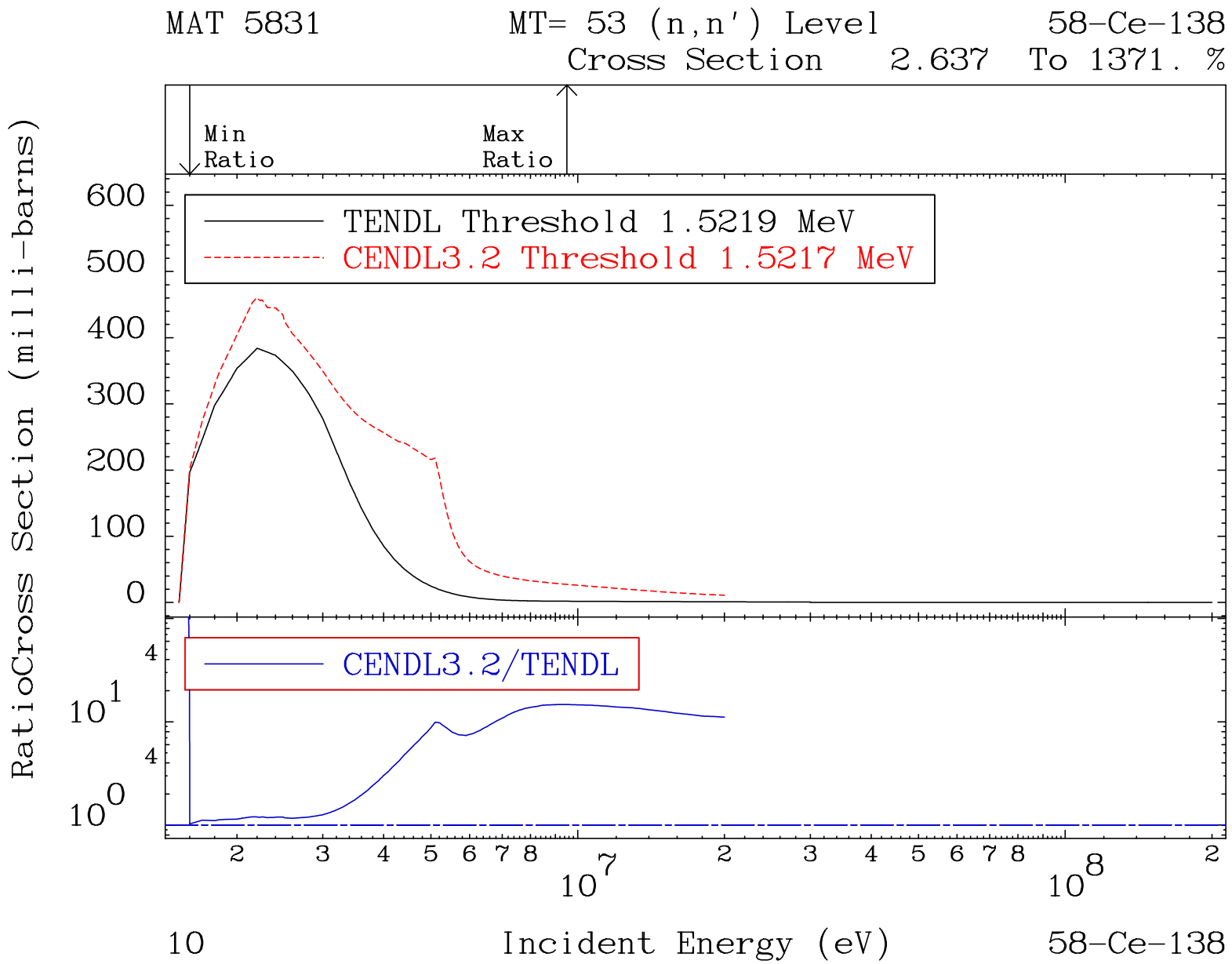

MAT 5831
(n,3n)
Cross Section
58-Ce-138
-100.0 To -70.79%
Max
Ratio
TENDL Threshold 17.326 MeV
CENDL3.2 Threshold 17.500 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.0
1.5
1.0
0.5
0.0
0.4
0.2
0.0
2
3
4
5
6
7
8
9
2
10^8
5
Incident Energy (eV)
58-Ce-138

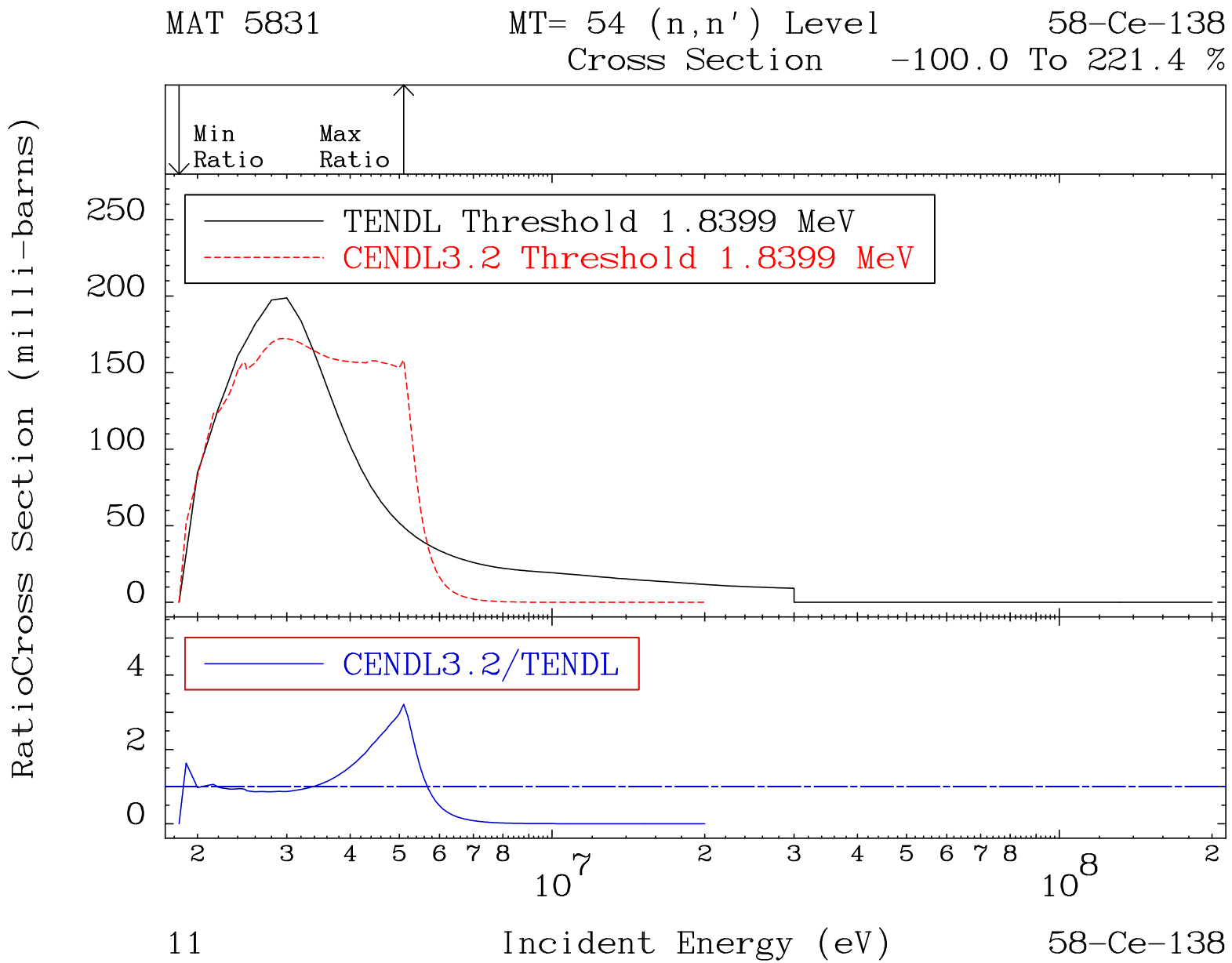

MAT 5831
(n,n') α
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.0484 MeV
CENDL3.2 Threshold 8.6000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
2.0
1.0
0.0
2
3
4
5
6
8
10^6
10^7
10^8
Incident Energy (eV)
58-Ce-138

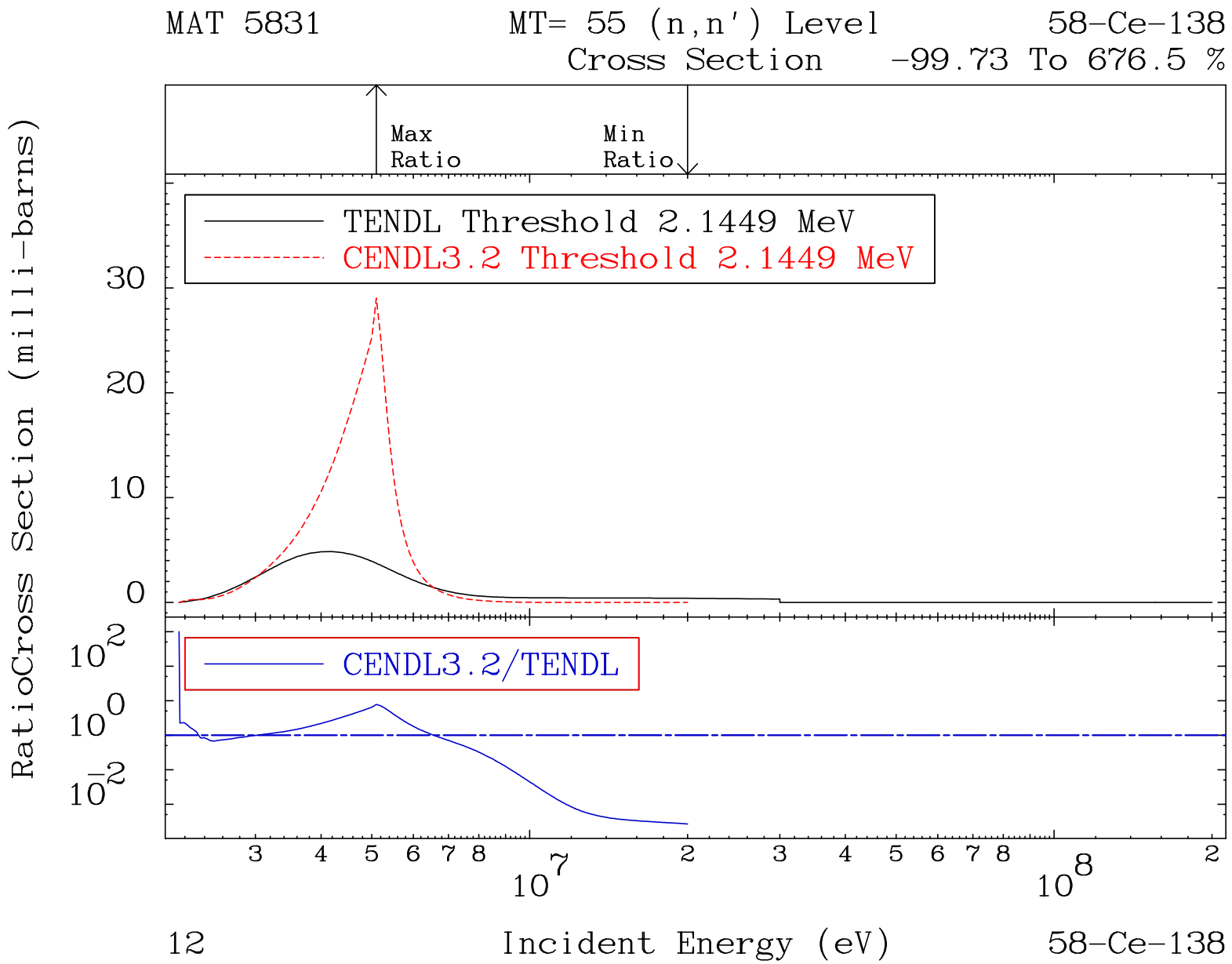

MAT 5831
(n,n') p
Cross Section
58-Ce-138
-100.0 To 306.4 %
Min Ratio
Max Ratio
TENDL Threshold 7.7704 MeV
CENDL3.2 Threshold 11.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
58-Ce-138

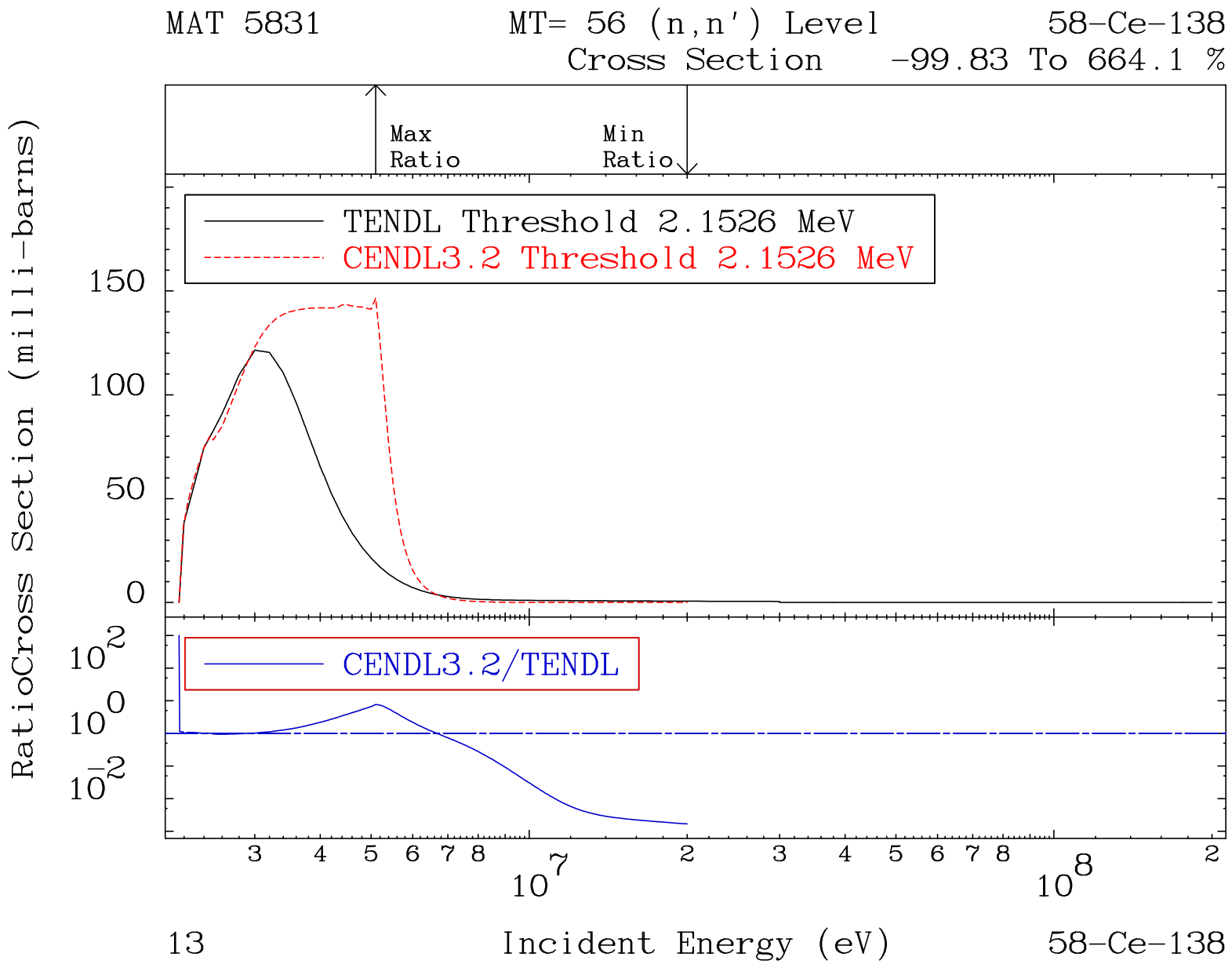

MAT 5831
MT= 51 (n,n') Level
58-Ce-138
Cross Section -71.18 To 125.5 %
Max Ratio
Min Ratio
TENDL Threshold 794.51 keV
CENDL3.2 Threshold 794.51 keV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
58-Ce-138

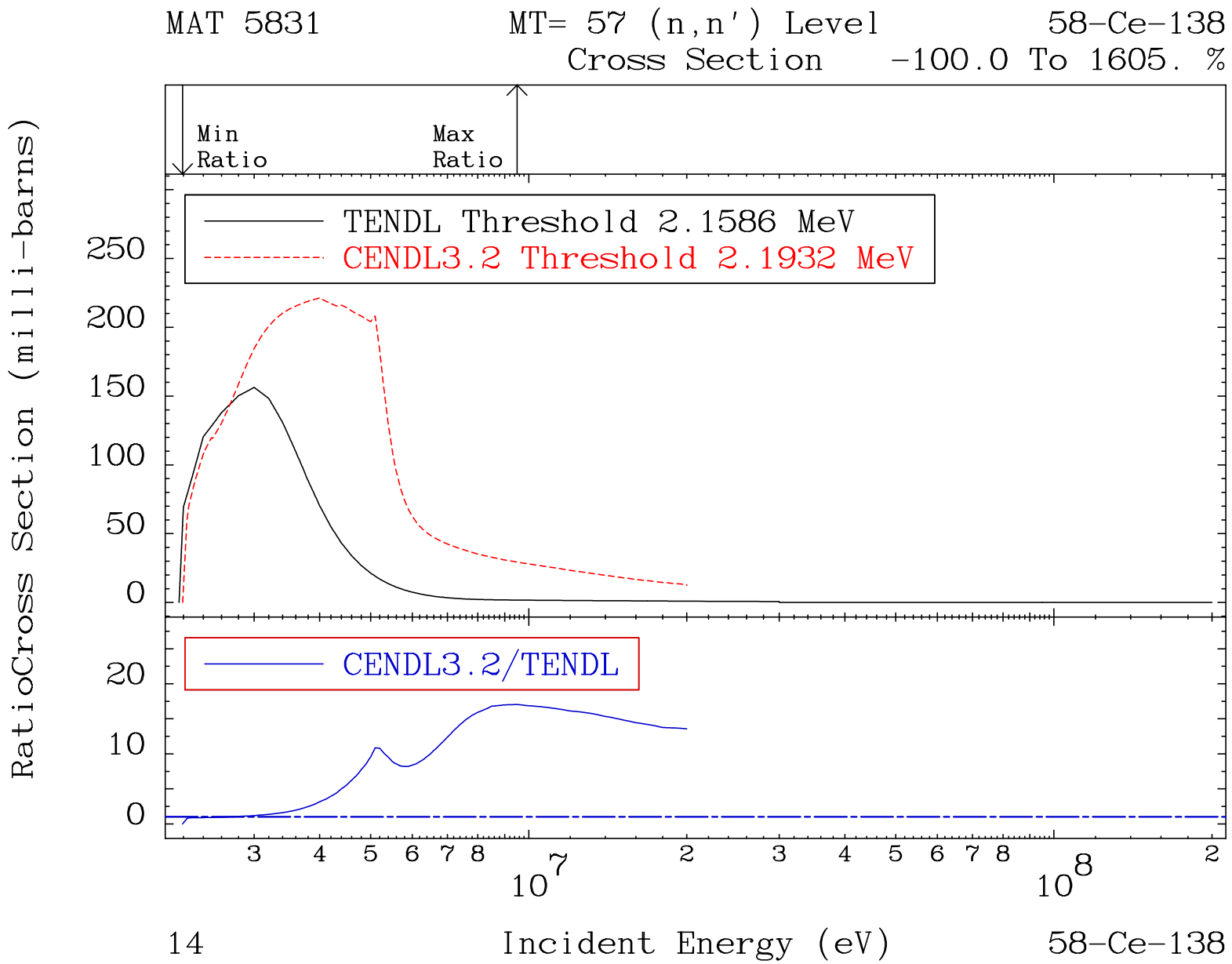

MAT 5831
MT= 52 (n,n') Level
58-Ce-138
Cross Section -0.129 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.4877 MeV
CENDL3.2 Threshold 1.4877 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
10^4
10^2
10^0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
9
Incident Energy (eV)
58-Ce-138

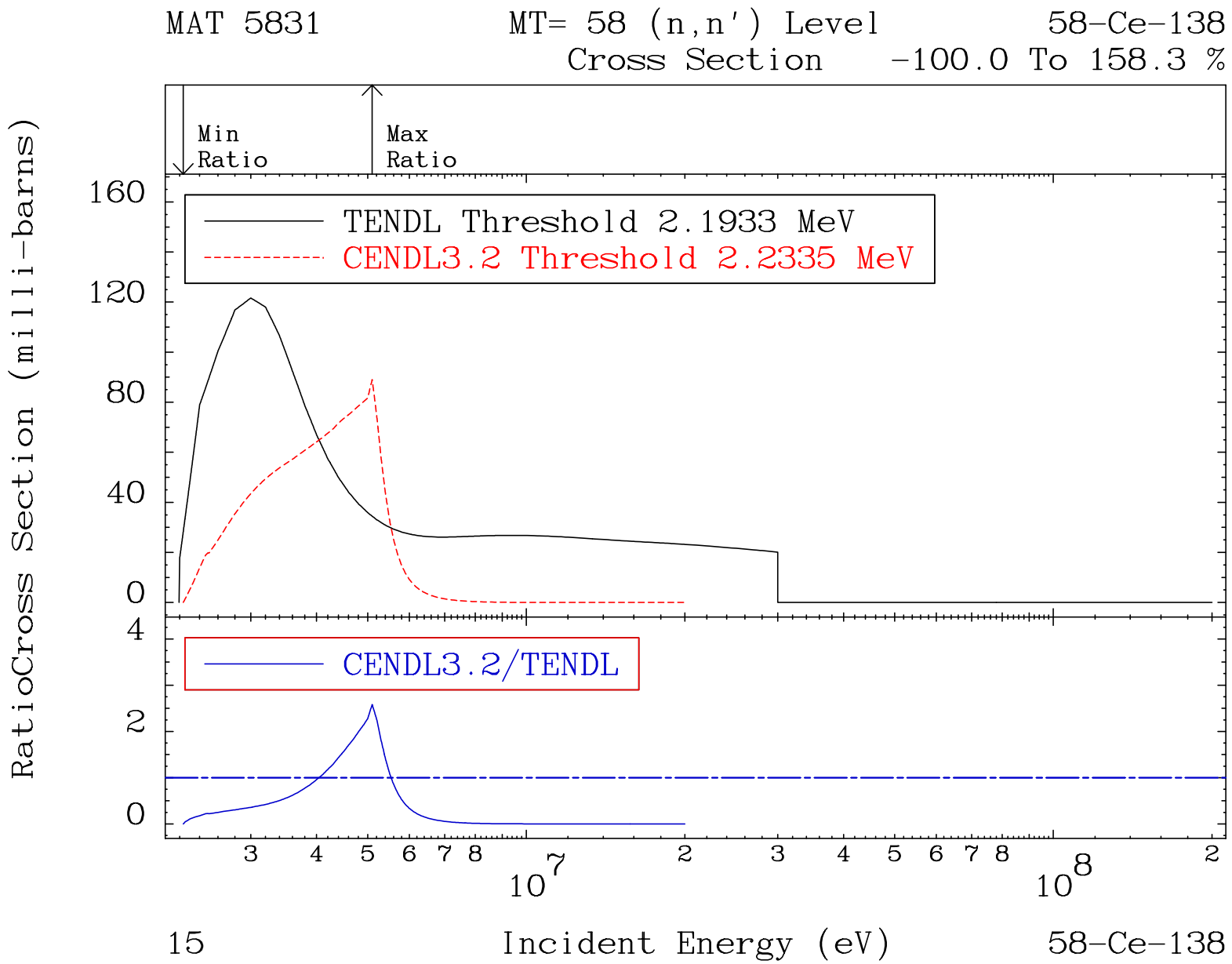

MAT 5831
MT= 53 (n,n') Level
58-Ce-138
Cross Section 2.637 To 1371. %
Min Ratio
Max Ratio
TENDL Threshold 1.5219 MeV
CENDL3.2 Threshold 1.5217 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
600
500
400
300
200
100
0
10^1
10^0
4
4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
10
Incident Energy (eV)
58-Ce-138

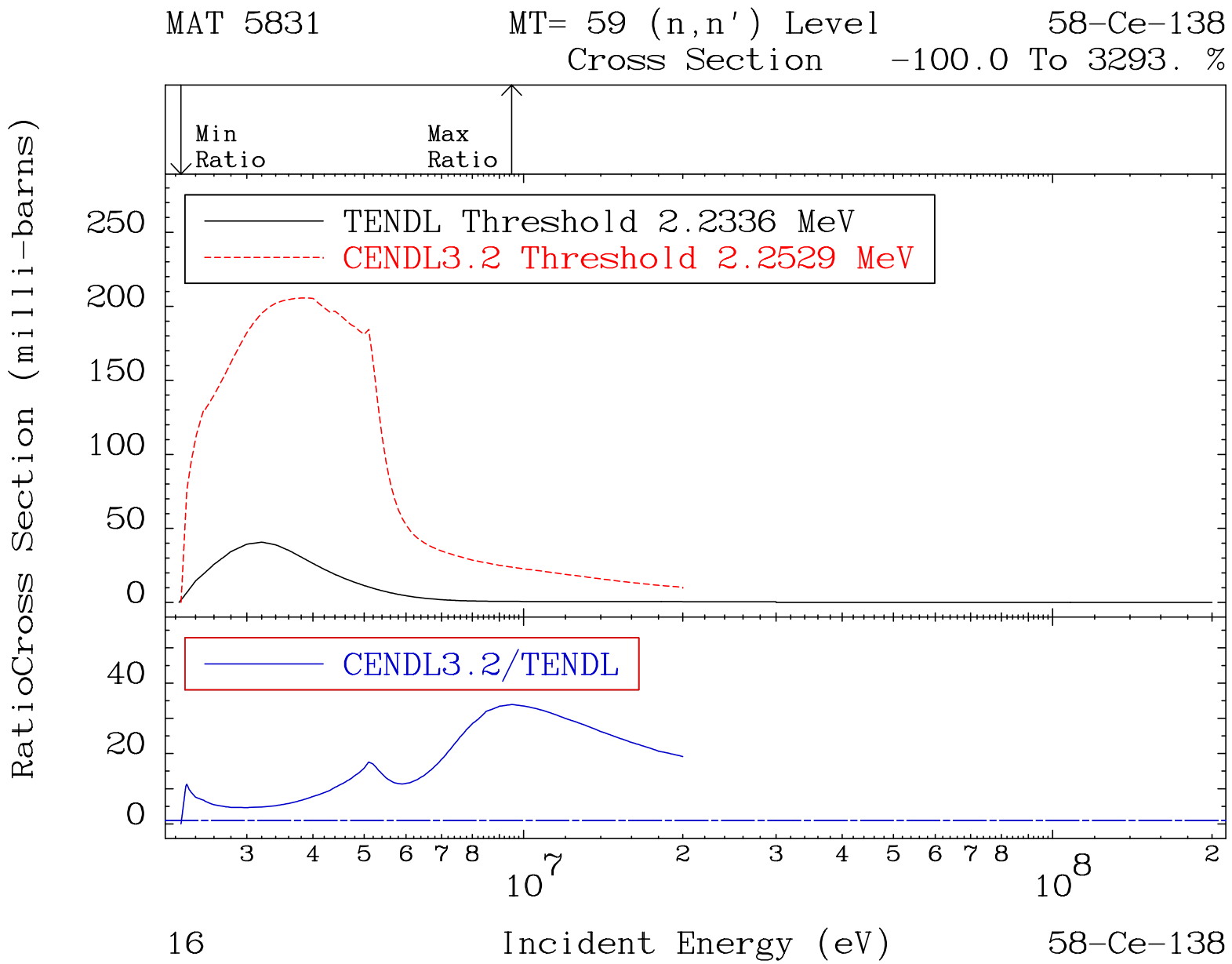

MAT 5831
MT= 54 (n,n') Level
58-Ce-138
Cross Section -100.0 To 221.4 %
Min Ratio
Max Ratio
TENDL Threshold 1.8399 MeV
CENDL3.2 Threshold 1.8399 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
4
2
0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
11
Incident Energy (eV)
58-Ce-138

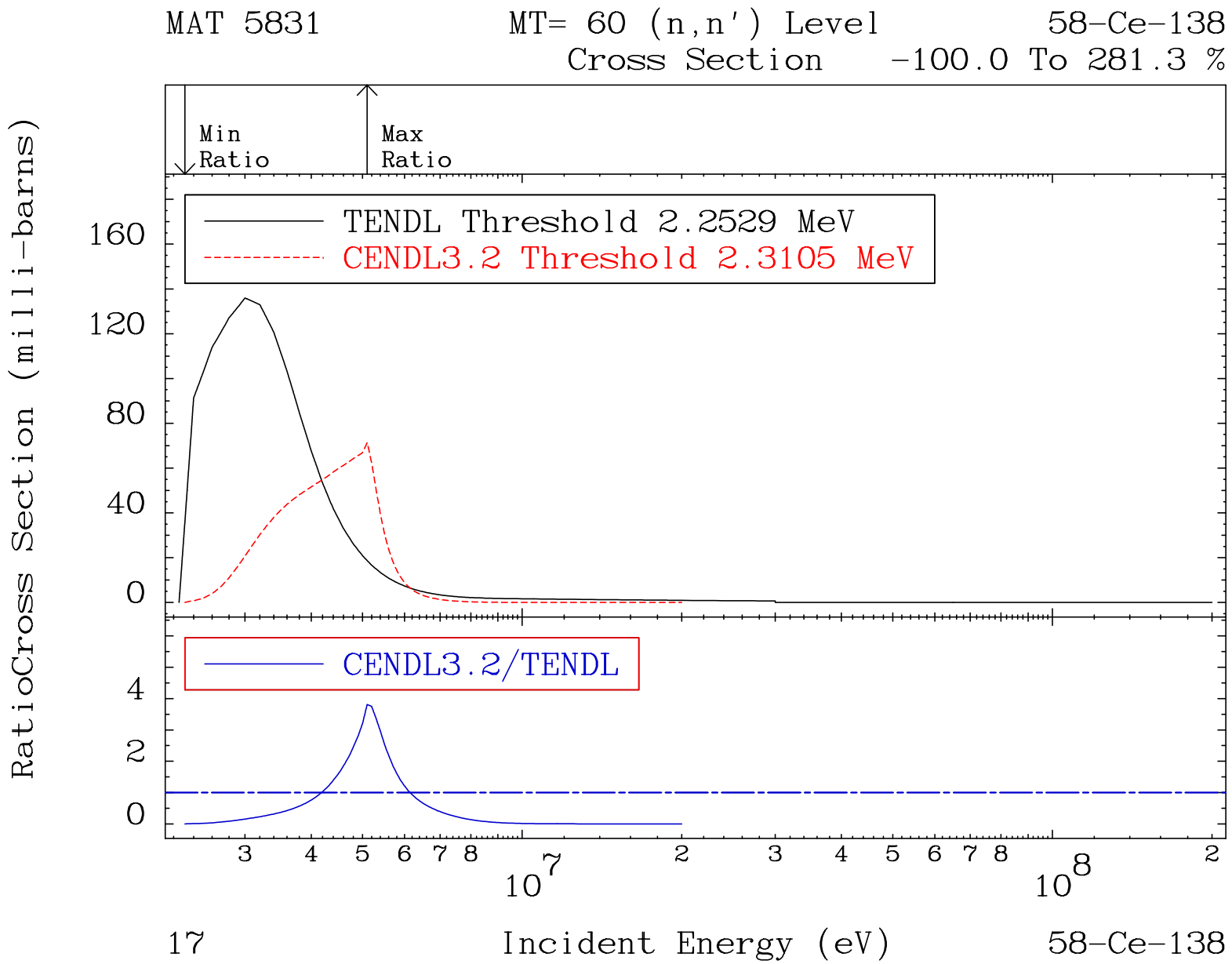

MAT 5831
MT= 55 (n,n') Level
58-Ce-138
Cross Section -99.73 To 676.5 %
Max Ratio
Min Ratio
TENDL Threshold 2.1449 MeV
CENDL3.2 Threshold 2.1449 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
30
20
10
0
10^2
10^0
10^-2
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
58-Ce-138

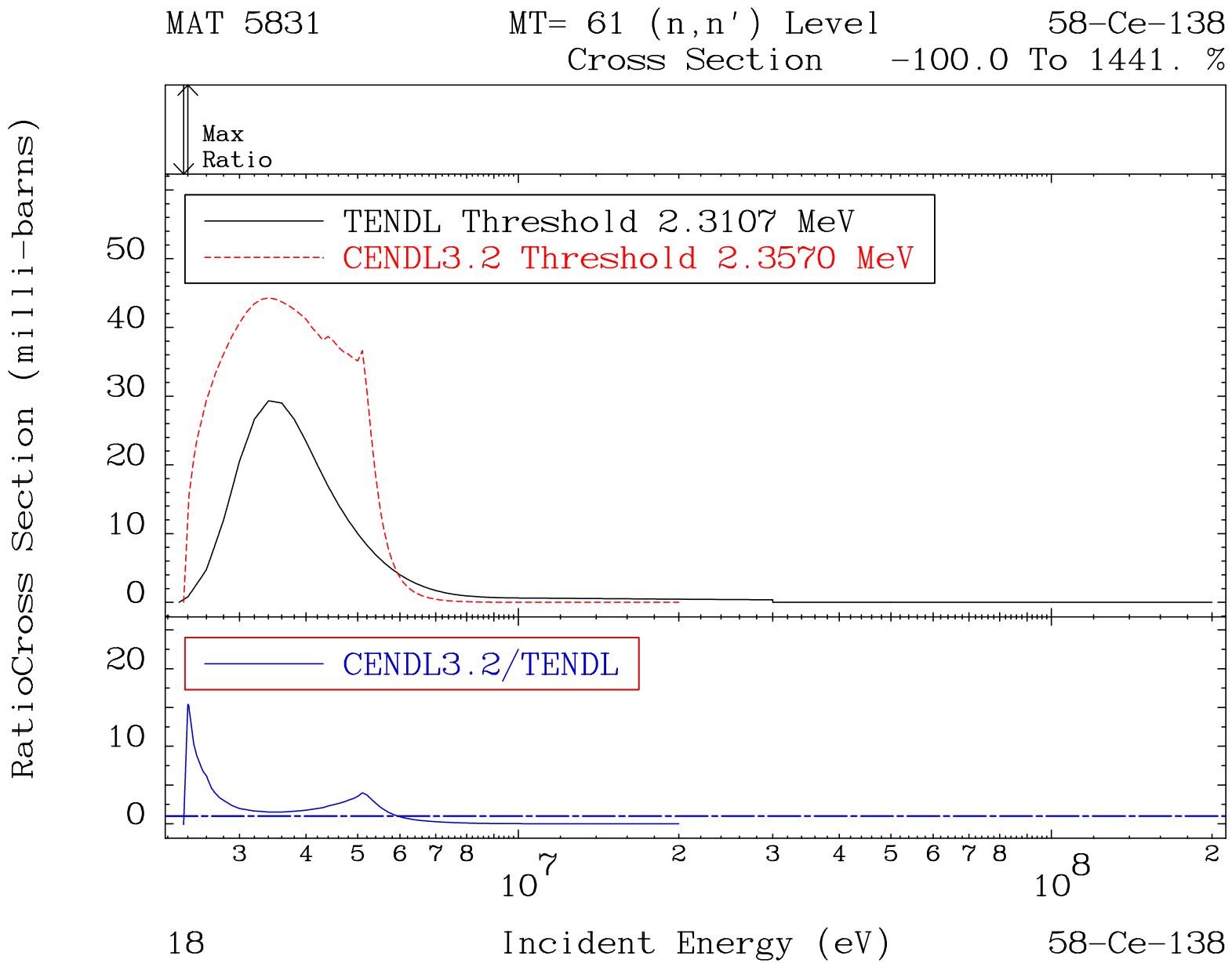

MAT 5831
MT= 56 (n,n') Level
58-Ce-138
Cross Section -99.83 To 664.1 %
Max Ratio
Min Ratio
TENDL Threshold 2.1526 MeV
CENDL3.2 Threshold 2.1526 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
150
100
50
0
10^2
10^0
10^-2
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
13
Incident Energy (eV)
58-Ce-138

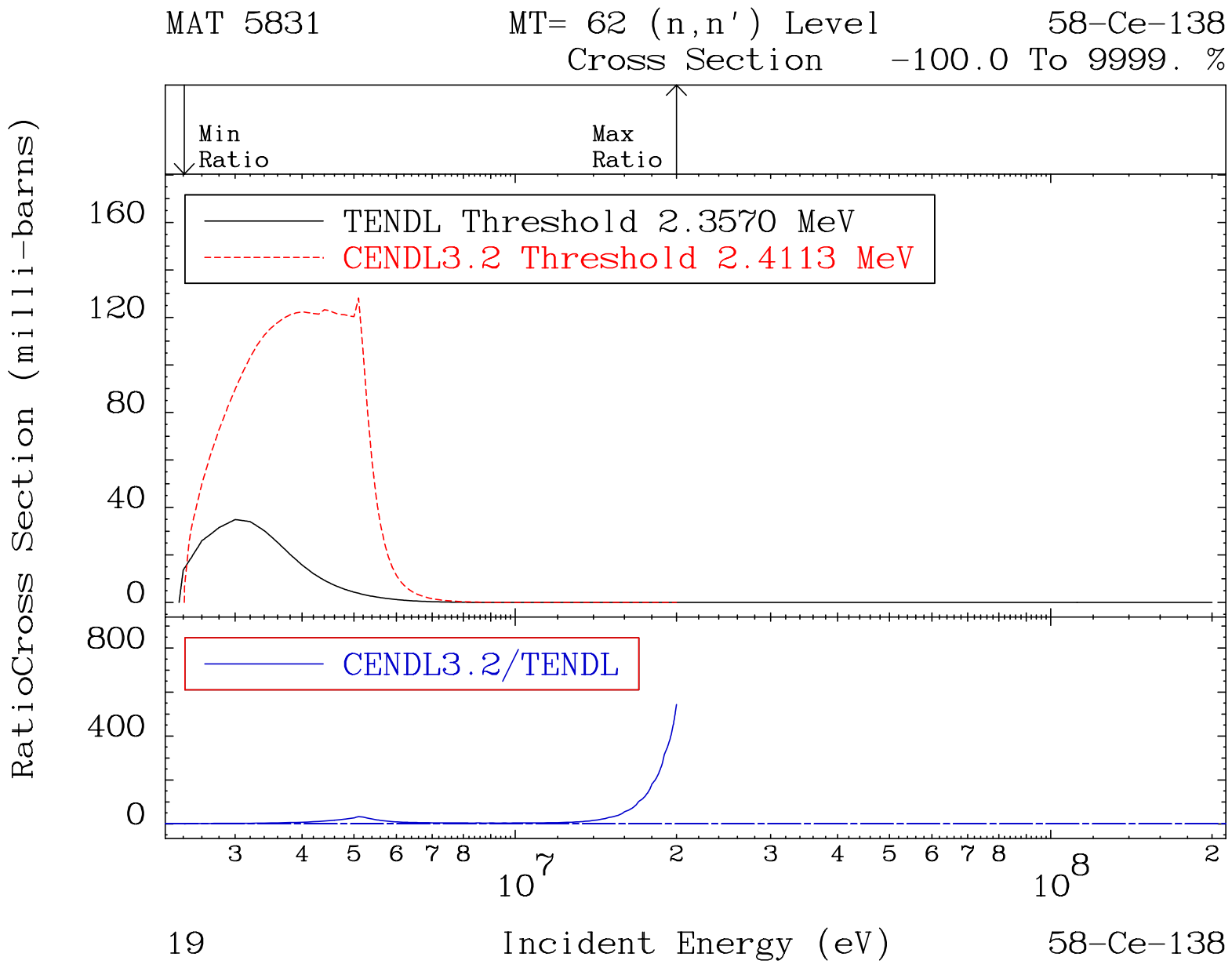

MAT 5831
MT= 57 (n,n') Level
58-Ce-138
Cross Section -100.0 To 1605. %
Min Ratio
Max Ratio
TENDL Threshold 2.1586 MeV
CENDL3.2 Threshold 2.1932 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
20
10
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
14
Incident Energy (eV)
58-Ce-138

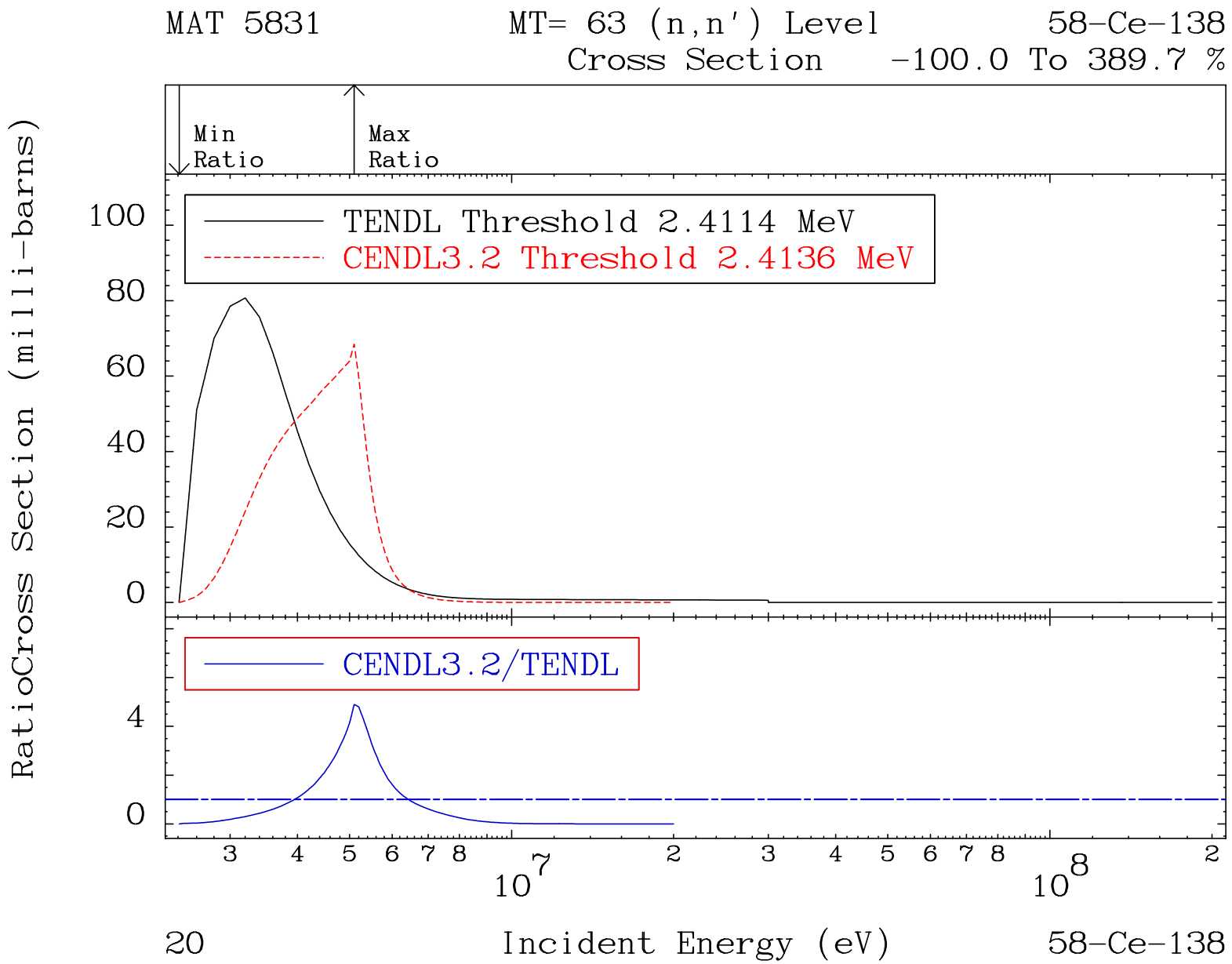

MAT 5831
MT= 58 (n,n') Level
58-Ce-138
Cross Section
-100.0 To 158.3 %
Min Ratio
Max Ratio
TENDL Threshold 2.1933 MeV
CENDL3.2 Threshold 2.2335 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
4
2
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
58-Ce-138

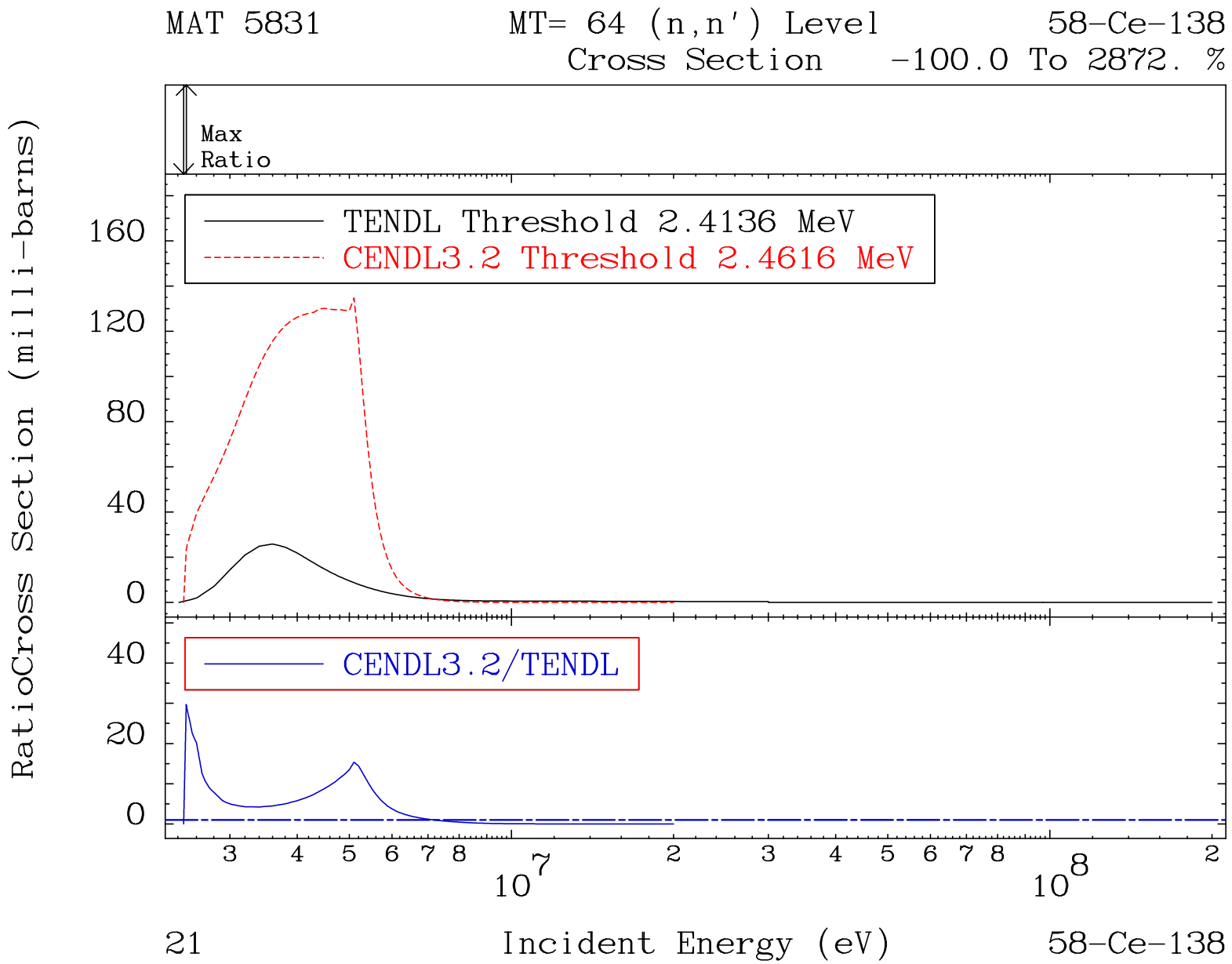

MAT 5831
MT= 59 (n,n') Level
58-Ce-138
Cross Section -100.0 To 3293. %
Min Ratio
Max Ratio
TENDL Threshold 2.2336 MeV
CENDL3.2 Threshold 2.2529 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
40
20
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
16
Incident Energy (eV)
58-Ce-138

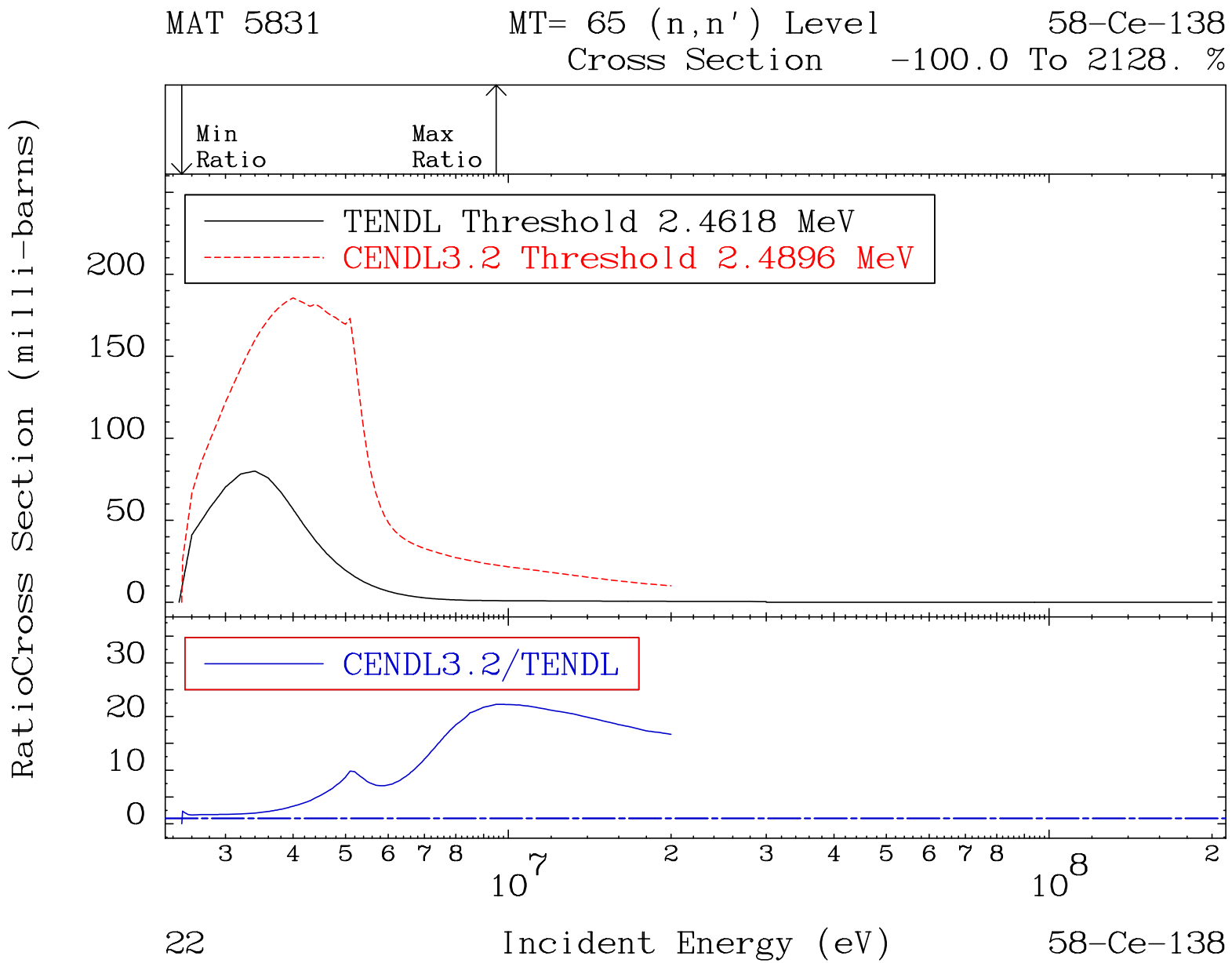

MAT 5831
MT= 60 (n,n') Level
58-Ce-138
Cross Section -100.0 To 281.3 %
Min Ratio
Max Ratio
TENDL Threshold 2.2529 MeV
CENDL3.2 Threshold 2.3105 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
4
2
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
58-Ce-138

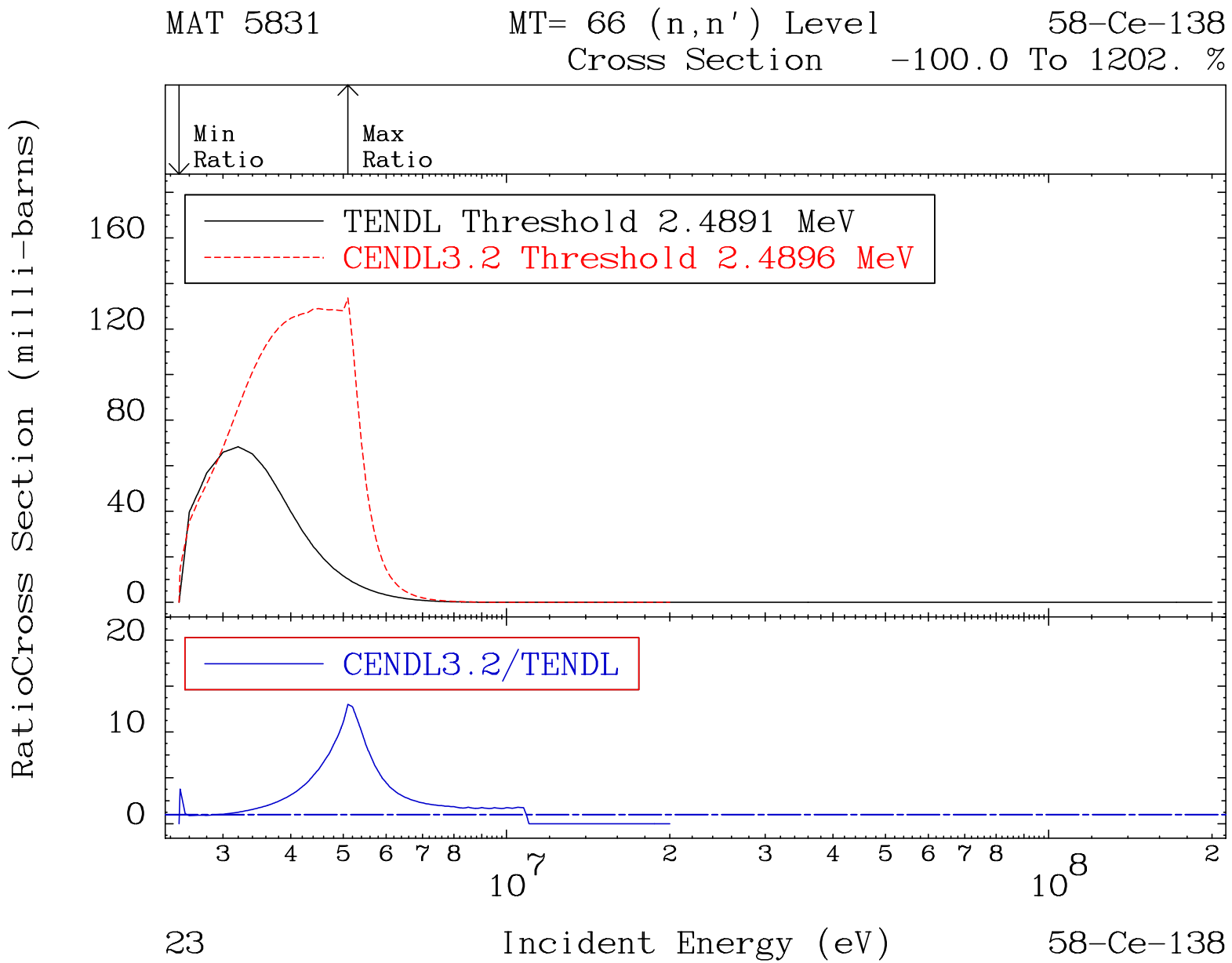

MAT 5831
MT= 61 (n,n') Level
58-Ce-138
Cross Section -100.0 To 1441. %
Max
Ratio
TENDL Threshold 2.3107 MeV
CENDL3.2 Threshold 2.3570 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
50
40
30
20
10
0
20
10
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
18
Incident Energy (eV)
58-Ce-138

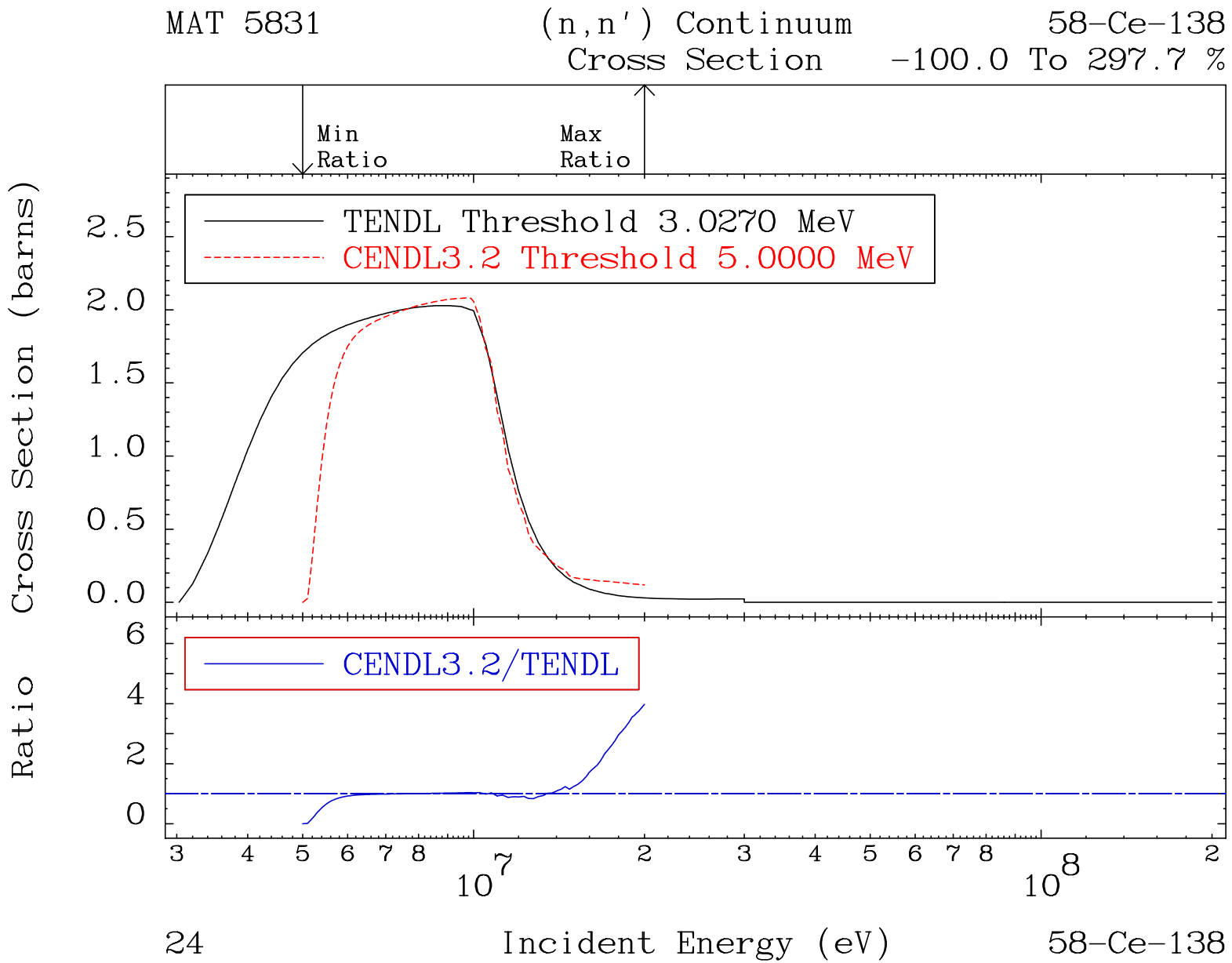

MAT 5831
MT= 62 (n,n') Level
58-Ce-138
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.3570 MeV
CENDL3.2 Threshold 2.4113 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
800
400
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
19
Incident Energy (eV)
58-Ce-138

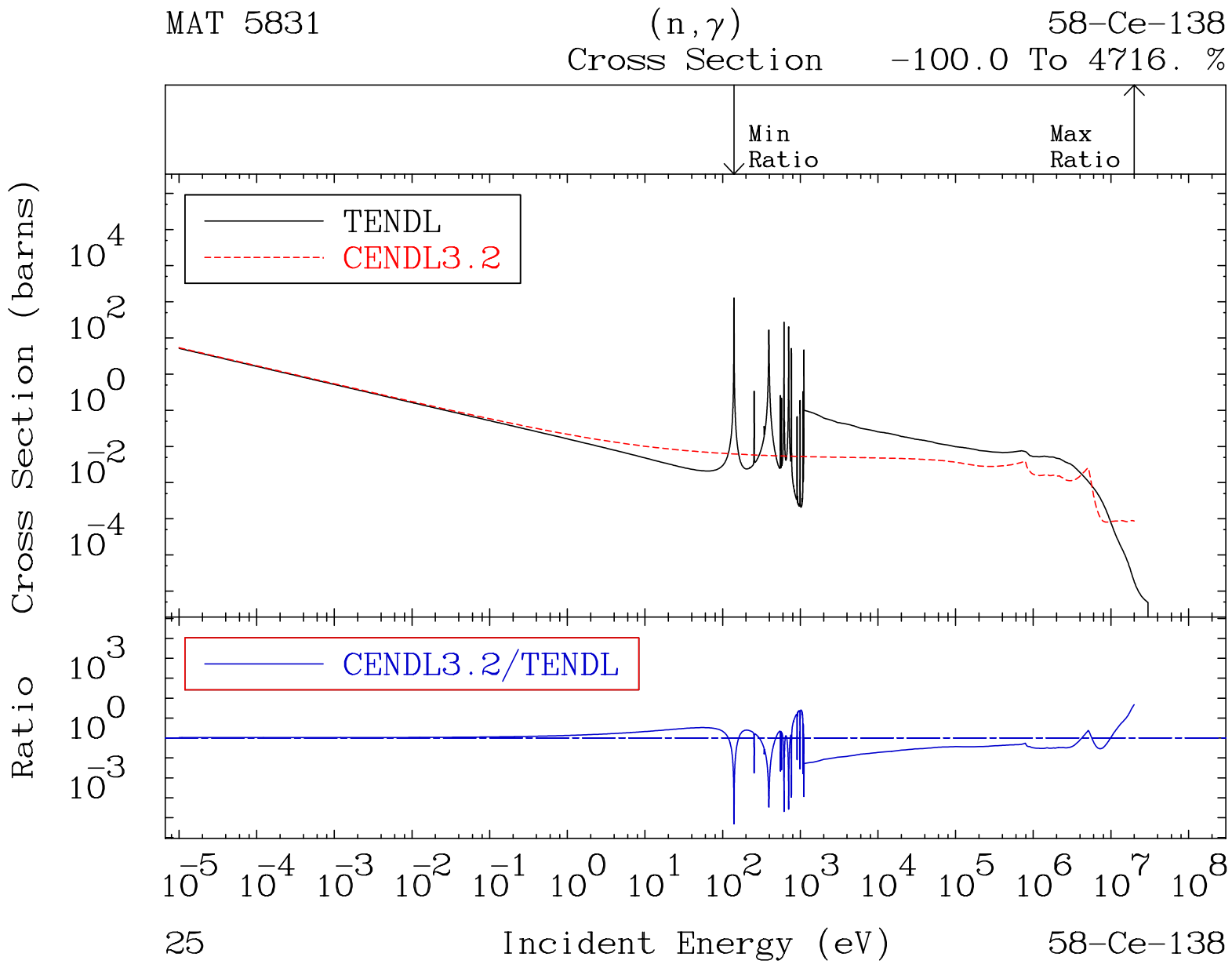

MAT 5831
MT= 63 (n,n') Level
58-Ce-138
Cross Section -100.0 To 389.7 %
Min Ratio
Max Ratio
TENDL Threshold 2.4114 MeV
CENDL3.2 Threshold 2.4136 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
4
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
58-Ce-138

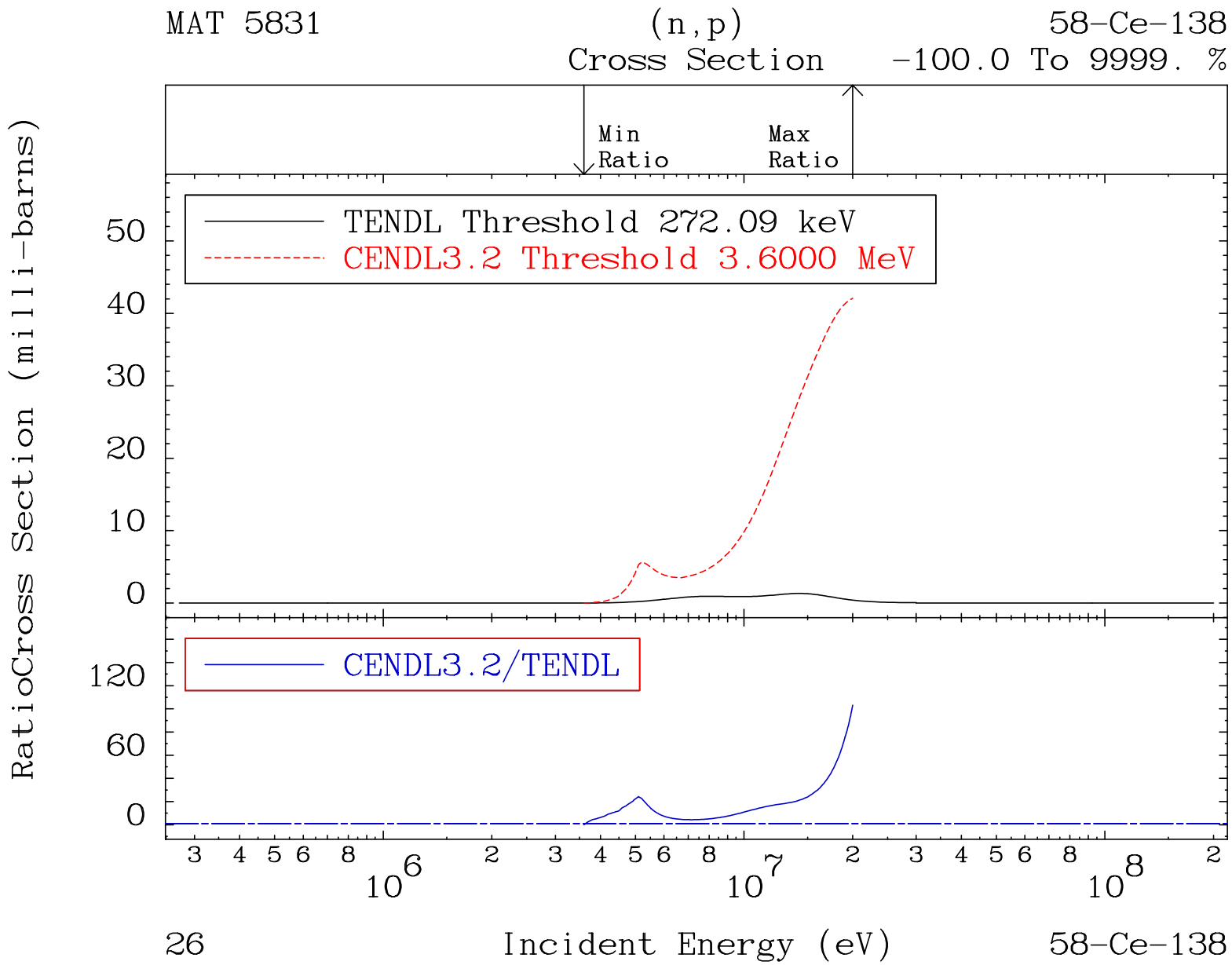

MAT 5831
MT= 64 (n,n') Level
58-Ce-138
Cross Section -100.0 To 2872. %
Max
Ratio
TENDL Threshold 2.4136 MeV
CENDL3.2 Threshold 2.4616 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
40
20
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
21
Incident Energy (eV)
58-Ce-138

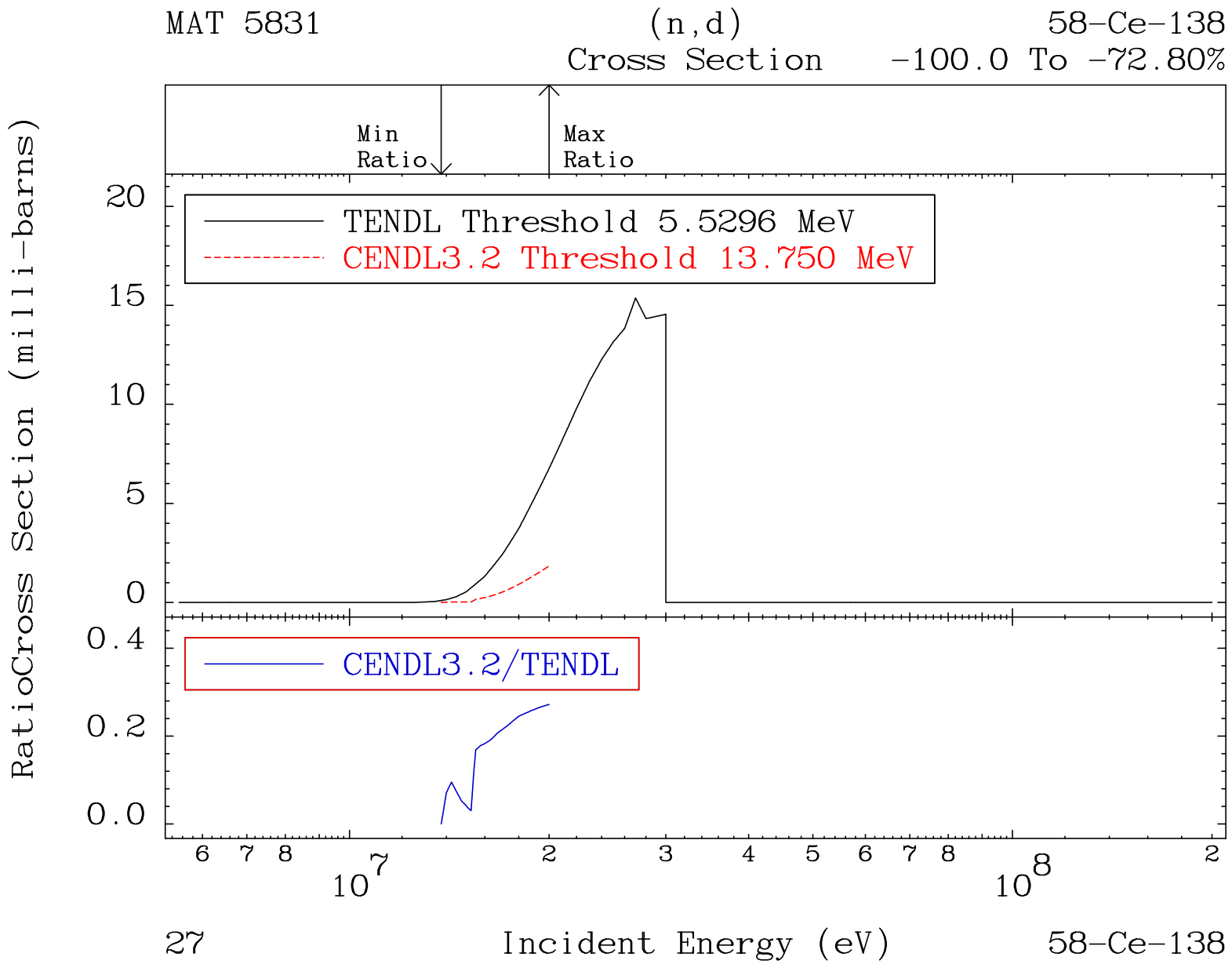

MAT 5831
MT= 65 (n,n') Level
58-Ce-138
Cross Section -100.0 To 2128. %
Min Ratio
Max Ratio
TENDL Threshold 2.4618 MeV
CENDL3.2 Threshold 2.4896 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
30
20
10
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
58-Ce-138

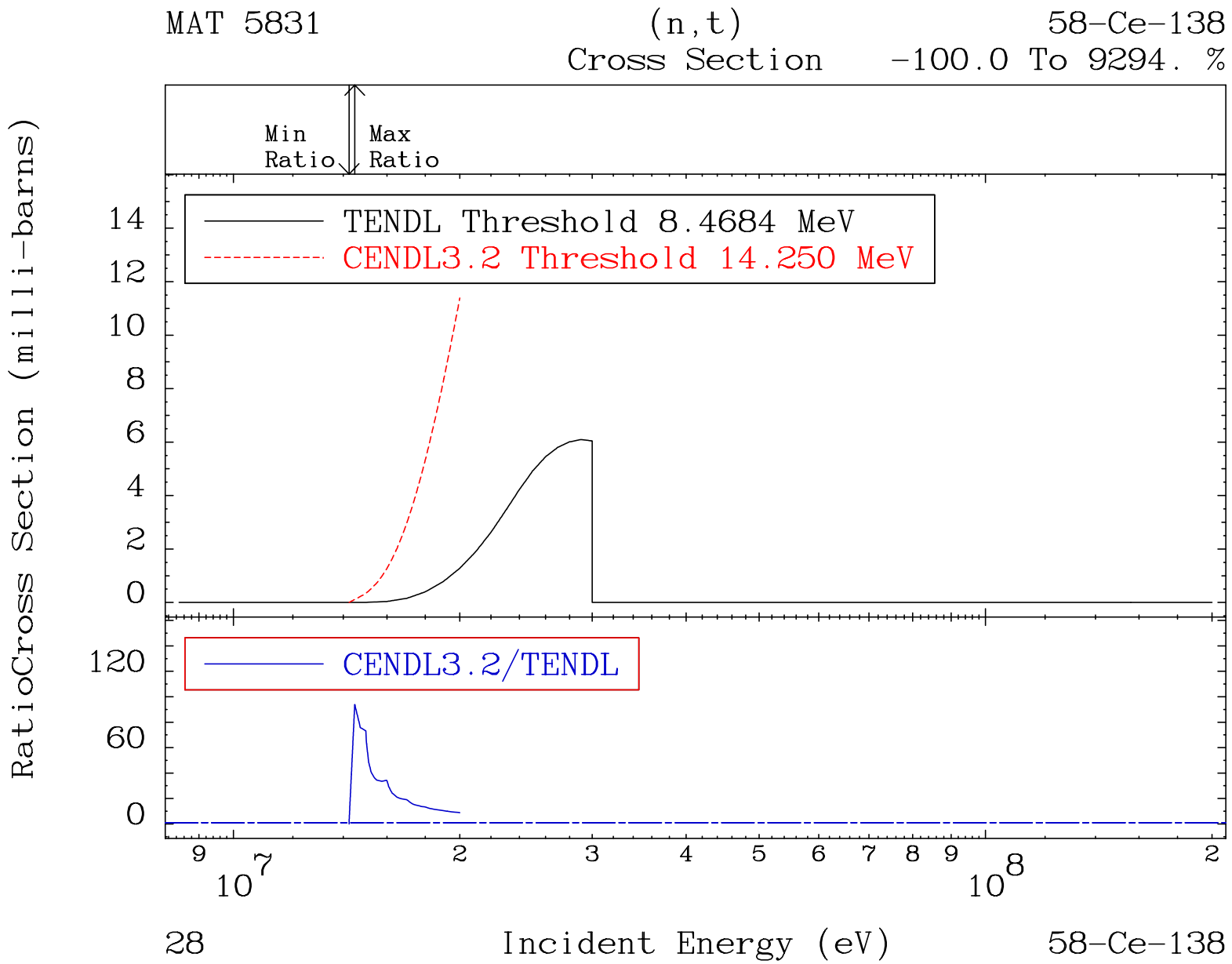

MAT 5831
MT= 66 (n,n') Level
58-Ce-138
Cross Section -100.0 To 1202. %
Min Ratio
Max Ratio
TENDL Threshold 2.4891 MeV
CENDL3.2 Threshold 2.4896 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
20
10
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
58-Ce-138

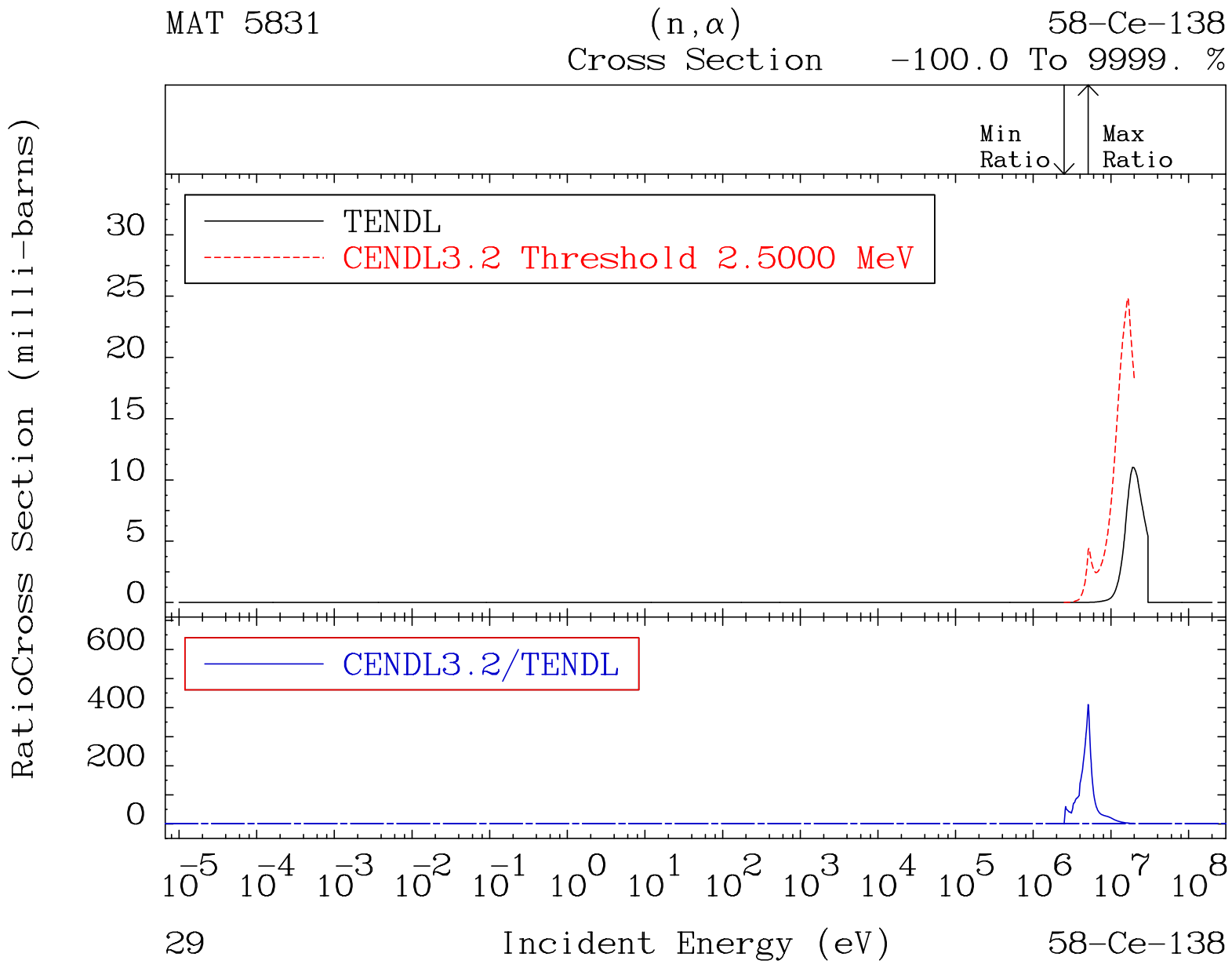

MAT 5831
(n,n') Continuum
Cross Section
58-Ce-138
-100.0 To 297.7 %
Min Ratio
Max Ratio
TENDL Threshold 3.0270 MeV
CENDL3.2 Threshold 5.0000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
24
58-Ce-138

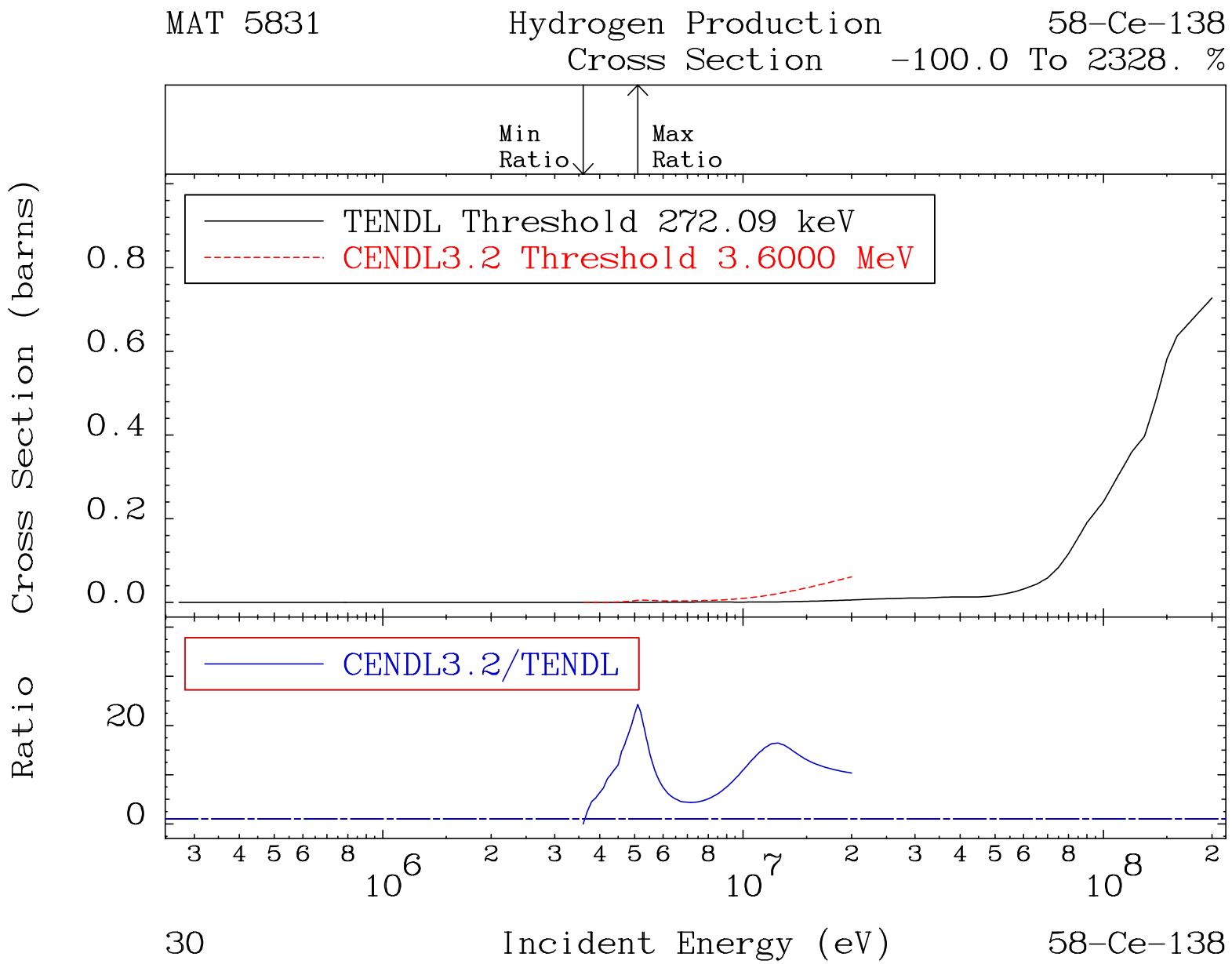

MAT 5831
(n,γ)
Cross Section
58-Ce-138
-100.0 To 4716. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
25
58-Ce-138

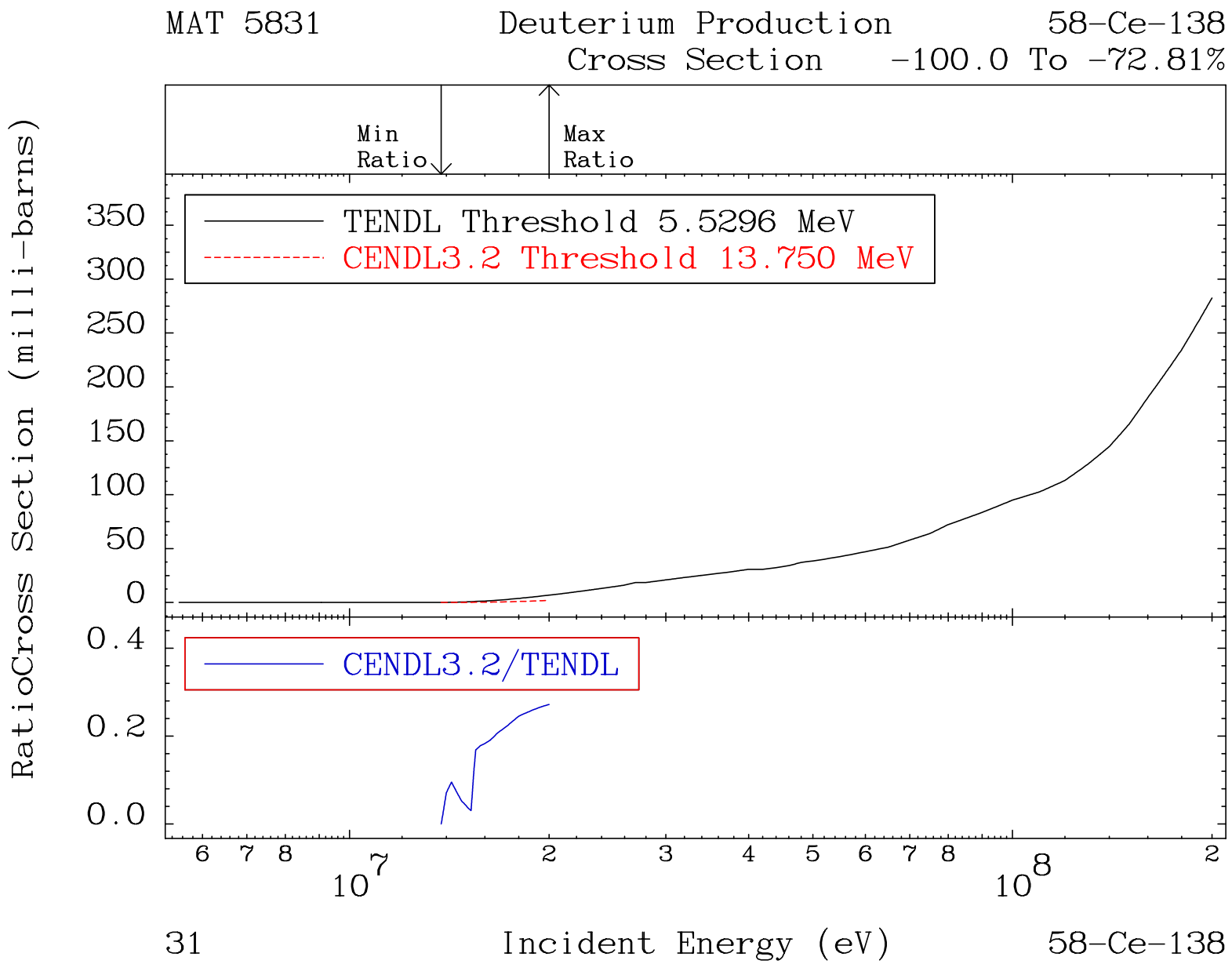

MAT 5831
(n,p)
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 272.09 keV
CENDL3.2 Threshold 3.6000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
50
40
30
20
10
0
120
60
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
26
Incident Energy (eV)
58-Ce-138

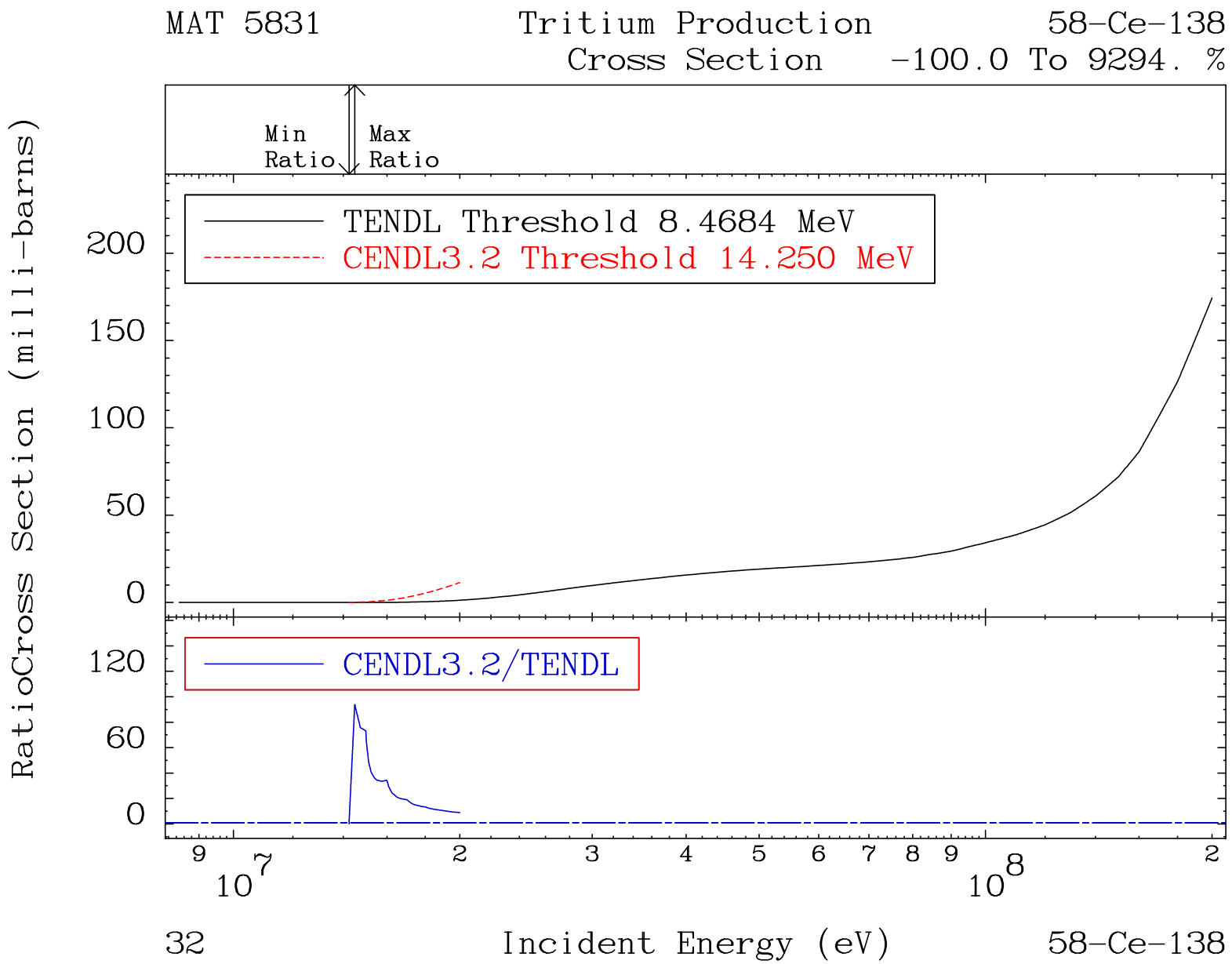

MAT 5831
(n,d)
58-Ce-138
Cross Section
-100.0 To -72.80%
Min Ratio
Max Ratio
TENDL Threshold 5.5296 MeV
CENDL3.2 Threshold 13.750 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
0.4
0.2
0.0
6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
27
Incident Energy (eV)
58-Ce-138

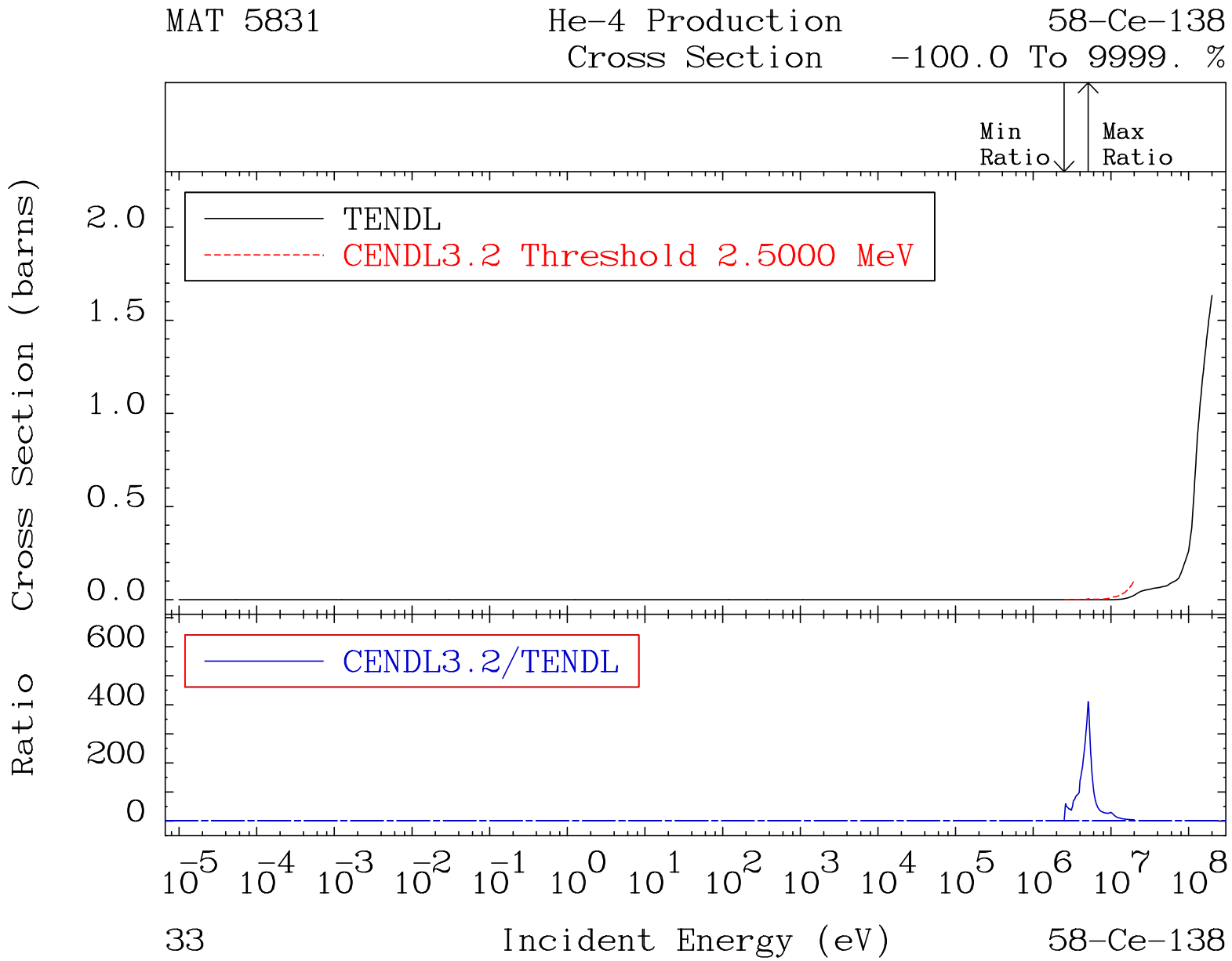

MAT 5831
(n,t)
Cross Section
58-Ce-138
-100.0 To 9294. %
Min Ratio
Max Ratio
TENDL Threshold 8.4684 MeV
CENDL3.2 Threshold 14.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
14
12
10
8
6
4
2
0
120
60
0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
28
Incident Energy (eV)
58-Ce-138

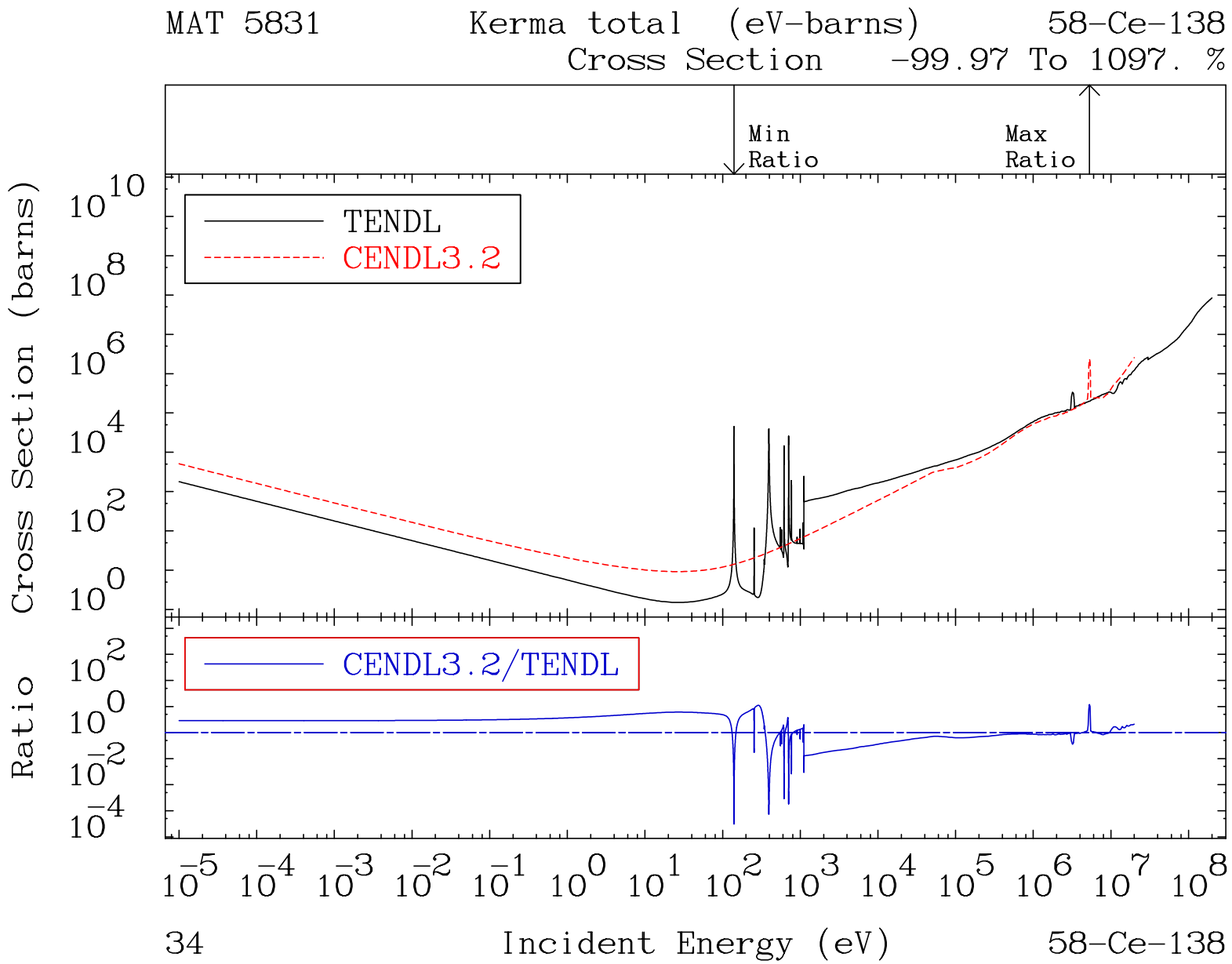

MAT 5831
(n,α)
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 2.5000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
600
400
200
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
29
Incident Energy (eV)
58-Ce-138

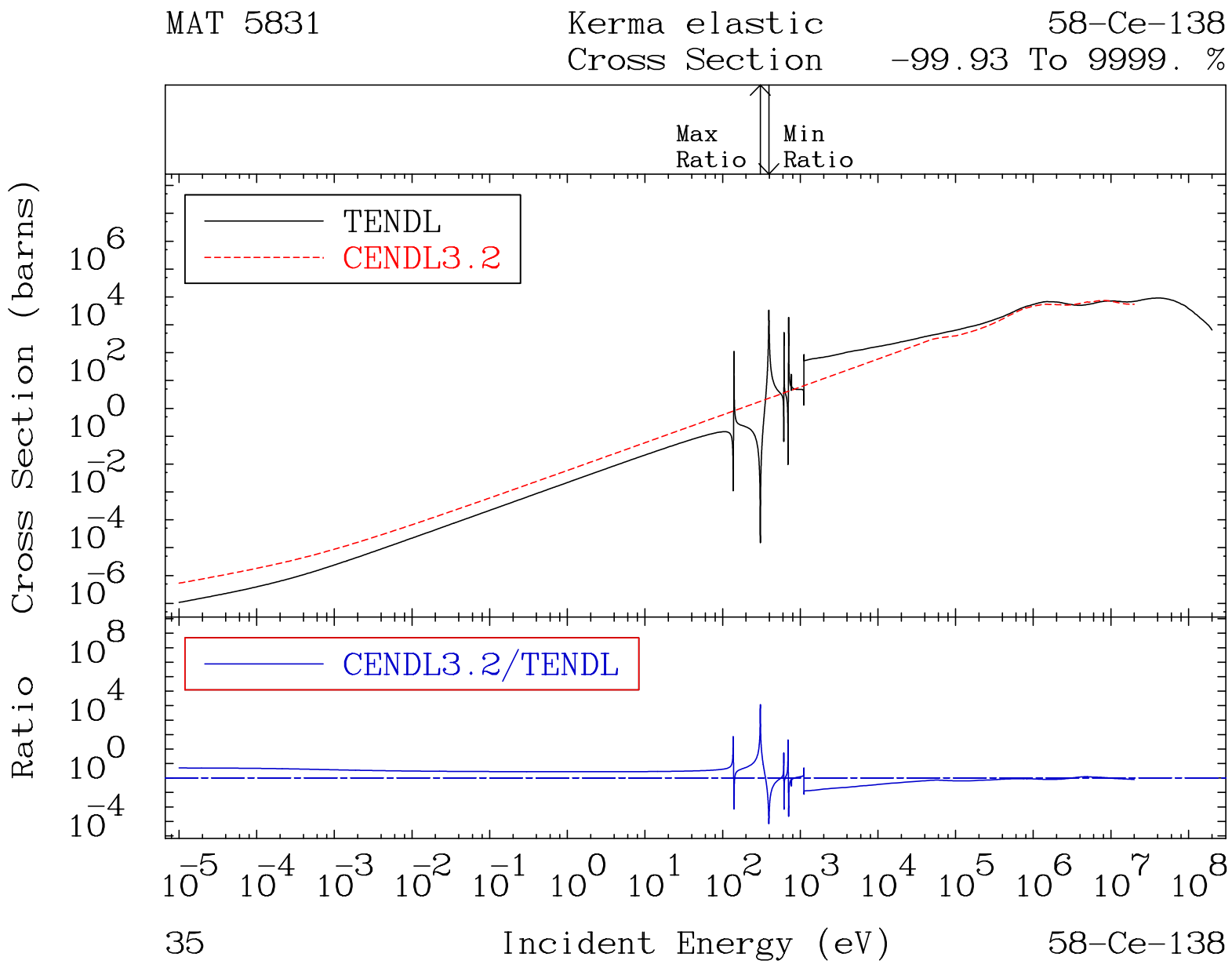

MAT 5831
Hydrogen Production
58-Ce-138
Cross Section
-100.0 To 2328. %
Min Ratio
Max Ratio
TENDL Threshold 272.09 keV
CENDL3.2 Threshold 3.6000 MeV
0.8
0.6
0.4
0.2
0.0
CENDL3.2/TENDL
20
0
Ratio
Cross Section (barns)
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
30
Incident Energy (eV)
58-Ce-138

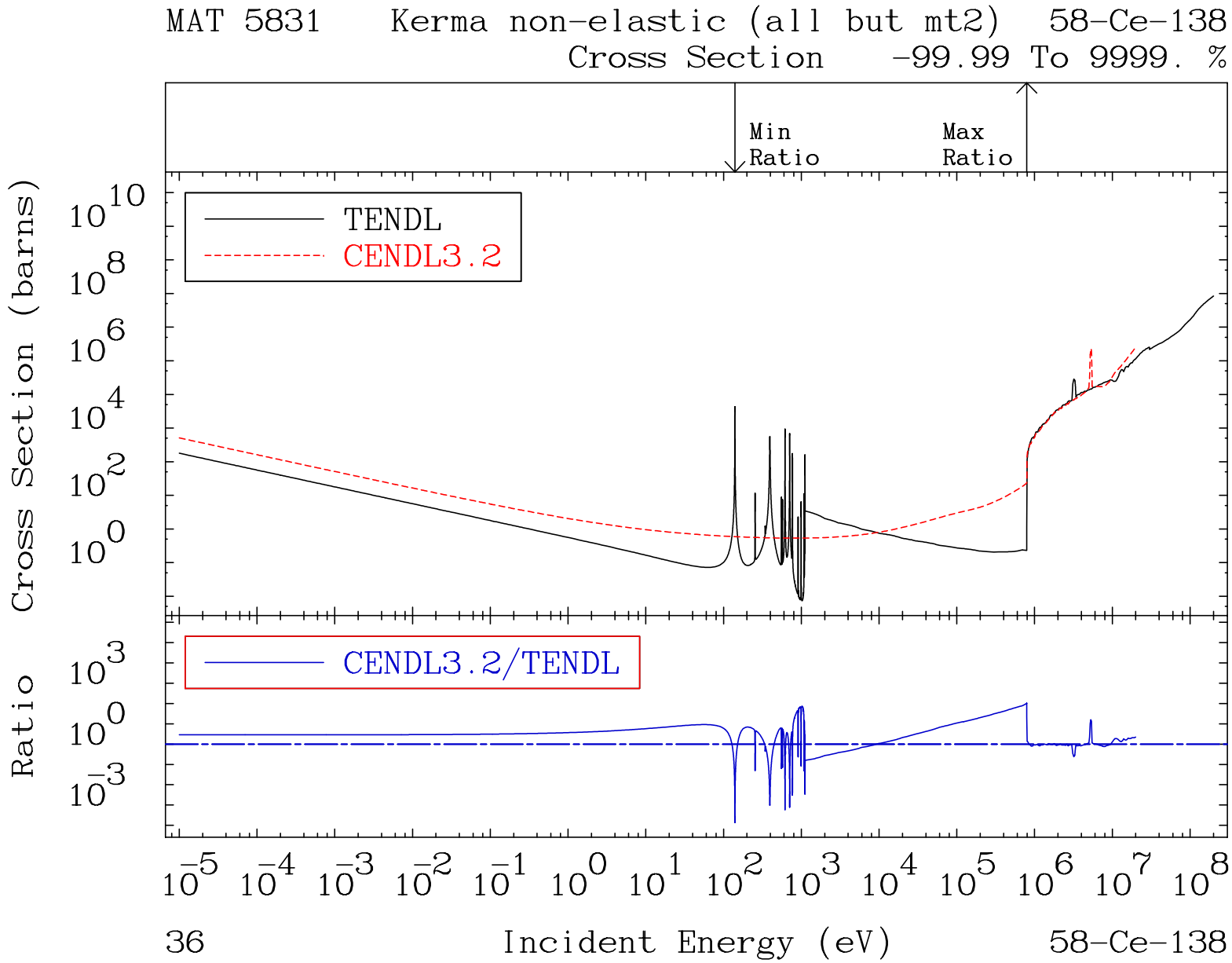

MAT 5831
Deuterium Production
58-Ce-138
Cross Section
-100.0 To -72.81%
Min Ratio
Max Ratio
TENDL Threshold 5.5296 MeV
CENDL3.2 Threshold 13.750 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
350
300
250
200
150
100
50
0
0.4
0.2
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
31
Incident Energy (eV)
58-Ce-138

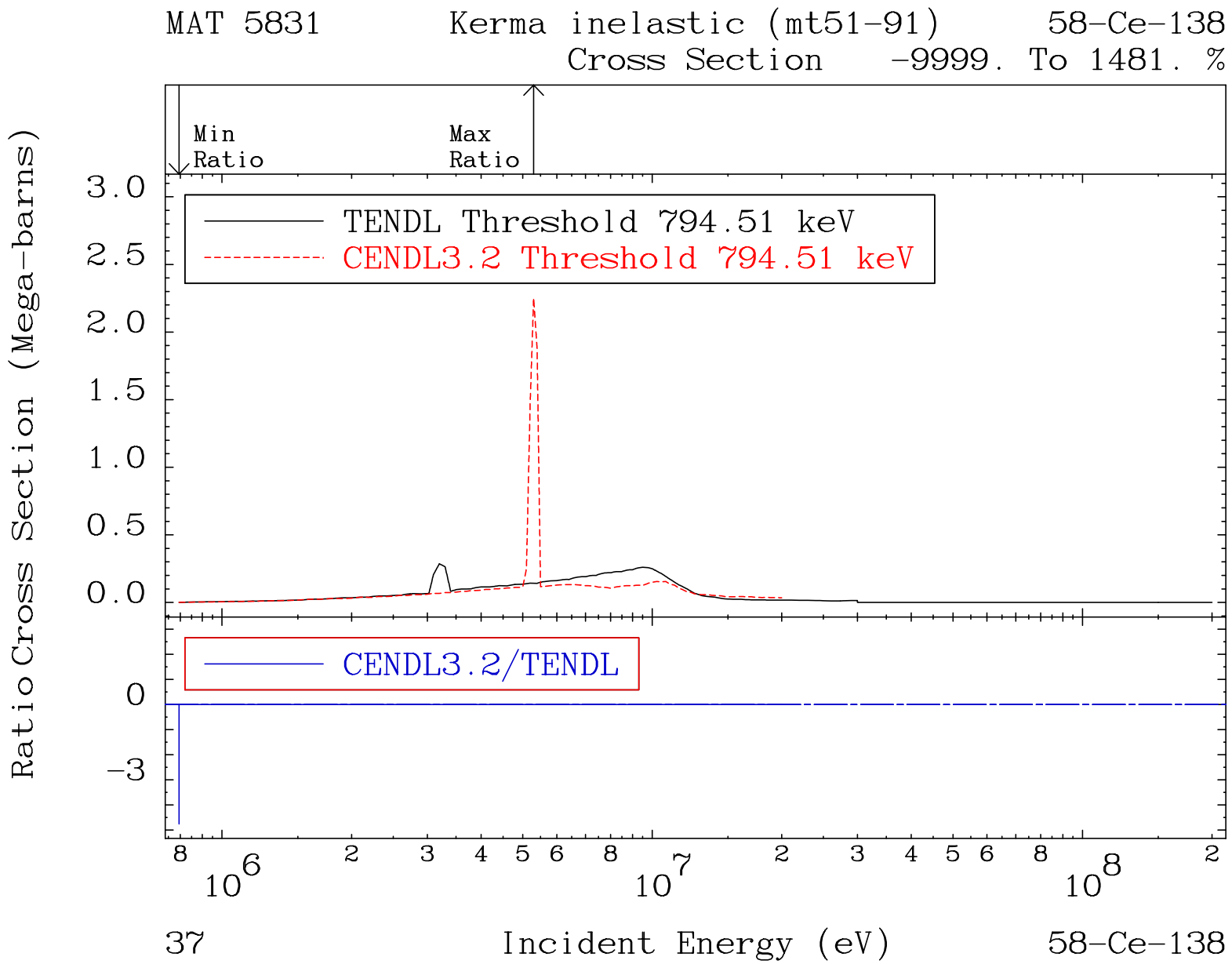

MAT 5831
Tritium Production
58-Ce-138
Cross Section
-100.0 To 9294. %
Min Ratio
Max Ratio
TENDL Threshold 8.4684 MeV
CENDL3.2 Threshold 14.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
120
60
0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
32
Incident Energy (eV)
58-Ce-138

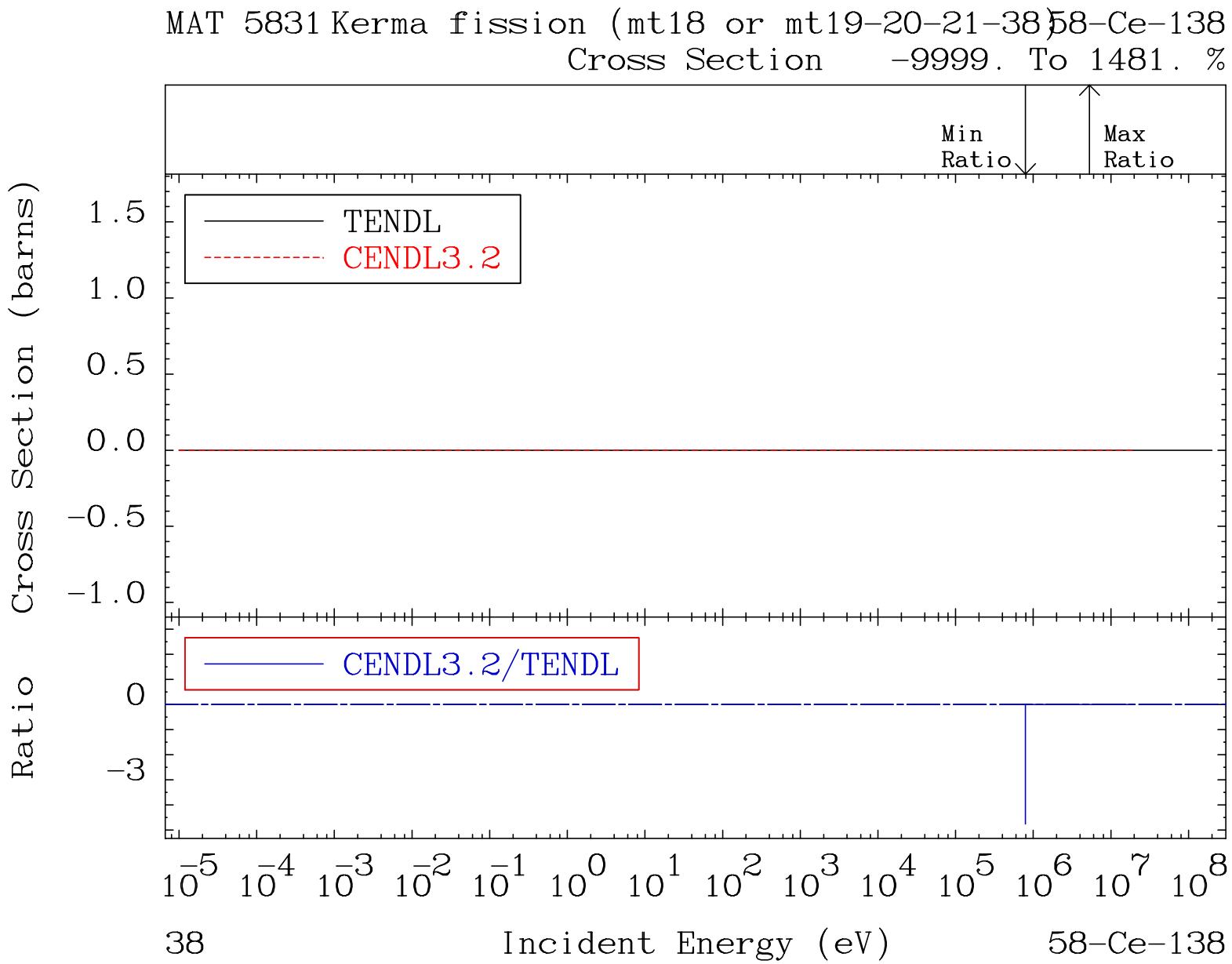

MAT 5831
He-4 Production
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 2.5000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
2.0
1.5
1.0
0.5
0.0
600
400
200
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
33
Incident Energy (eV)
58-Ce-138

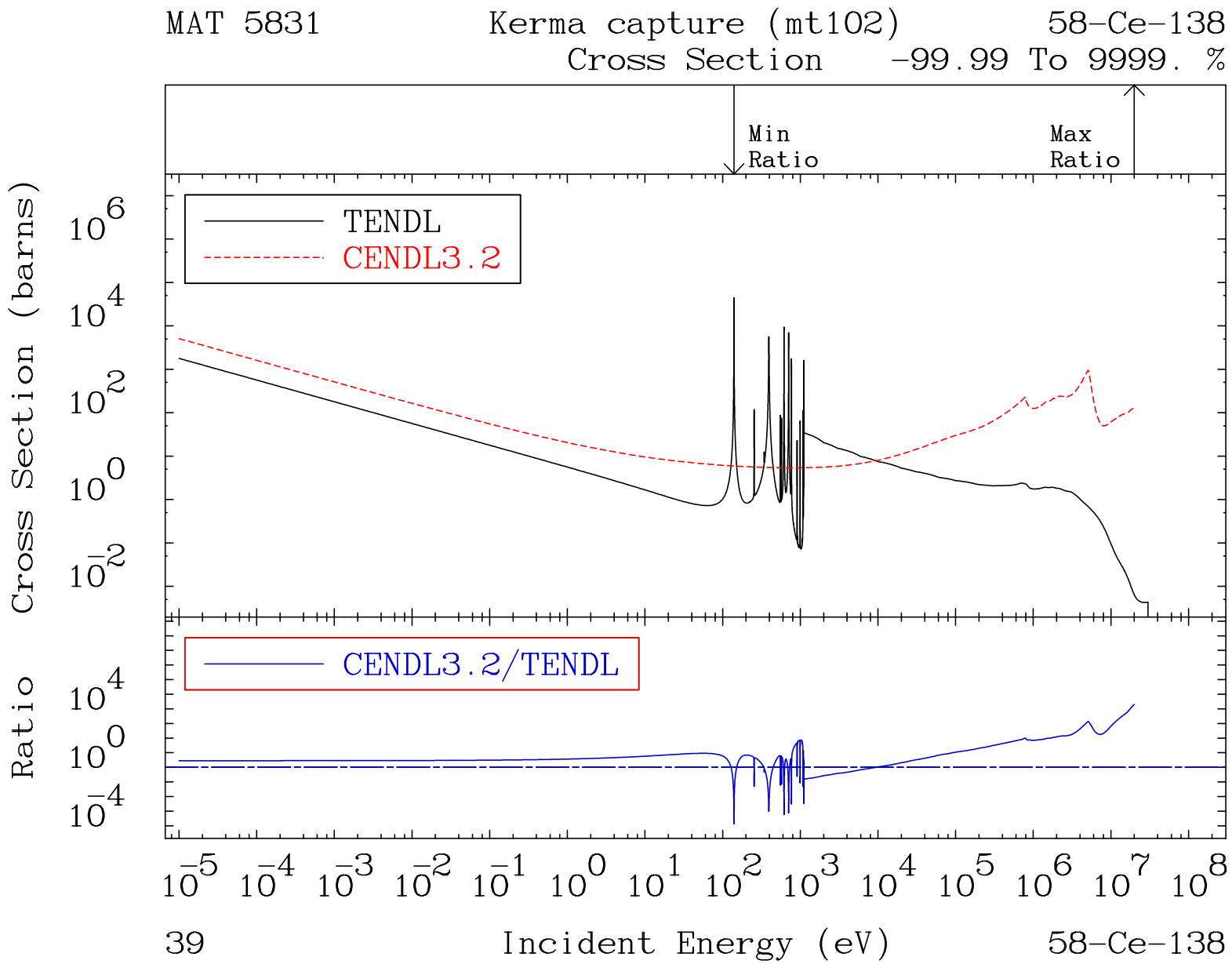

MAT 5831
Kerma total (eV-barns)
58-Ce-138
Cross Section -99.97 To 1097. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
34
58-Ce-138

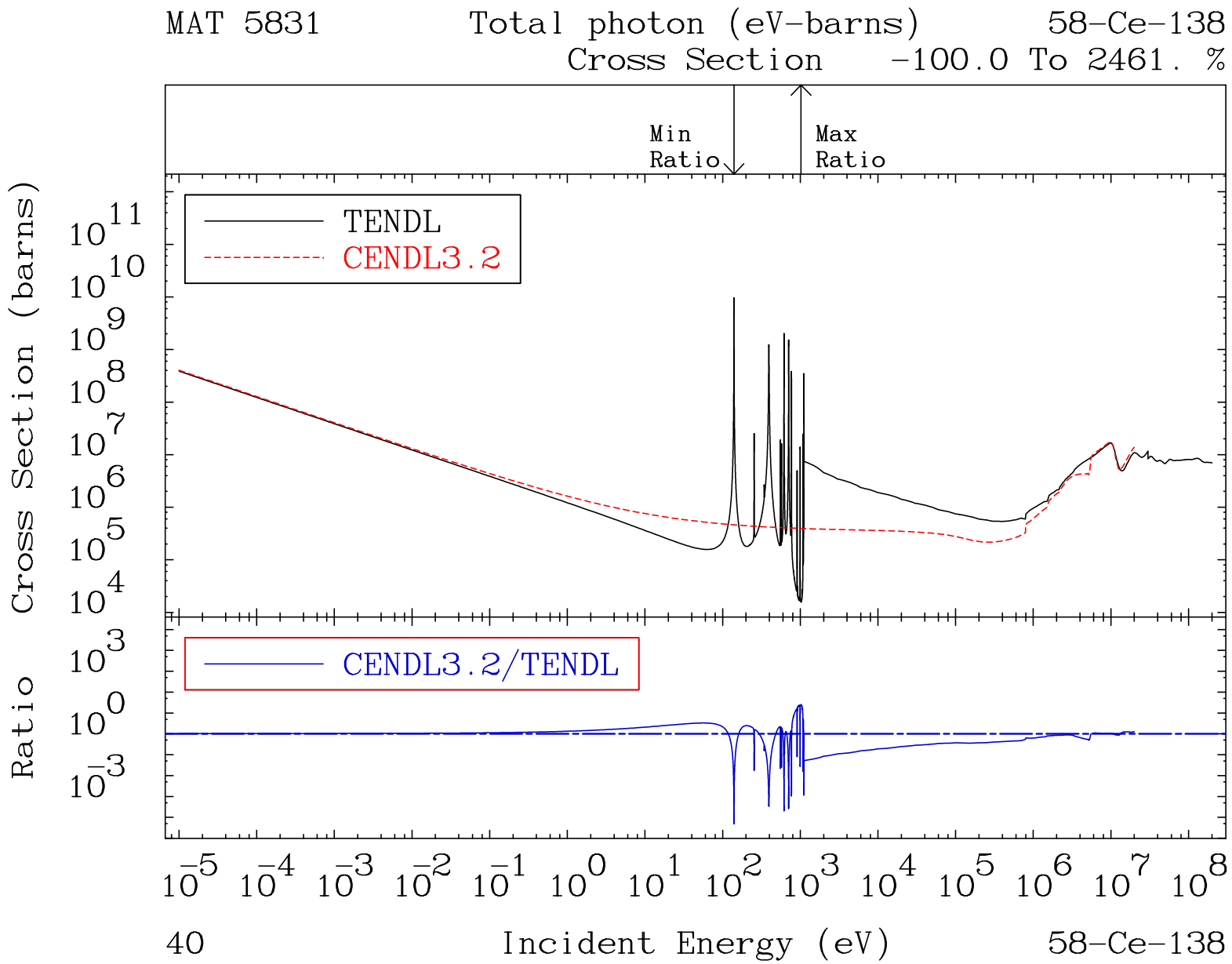

MAT 5831
Kerma elastic
Cross Section
58-Ce-138
-99.93 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
35
58-Ce-138

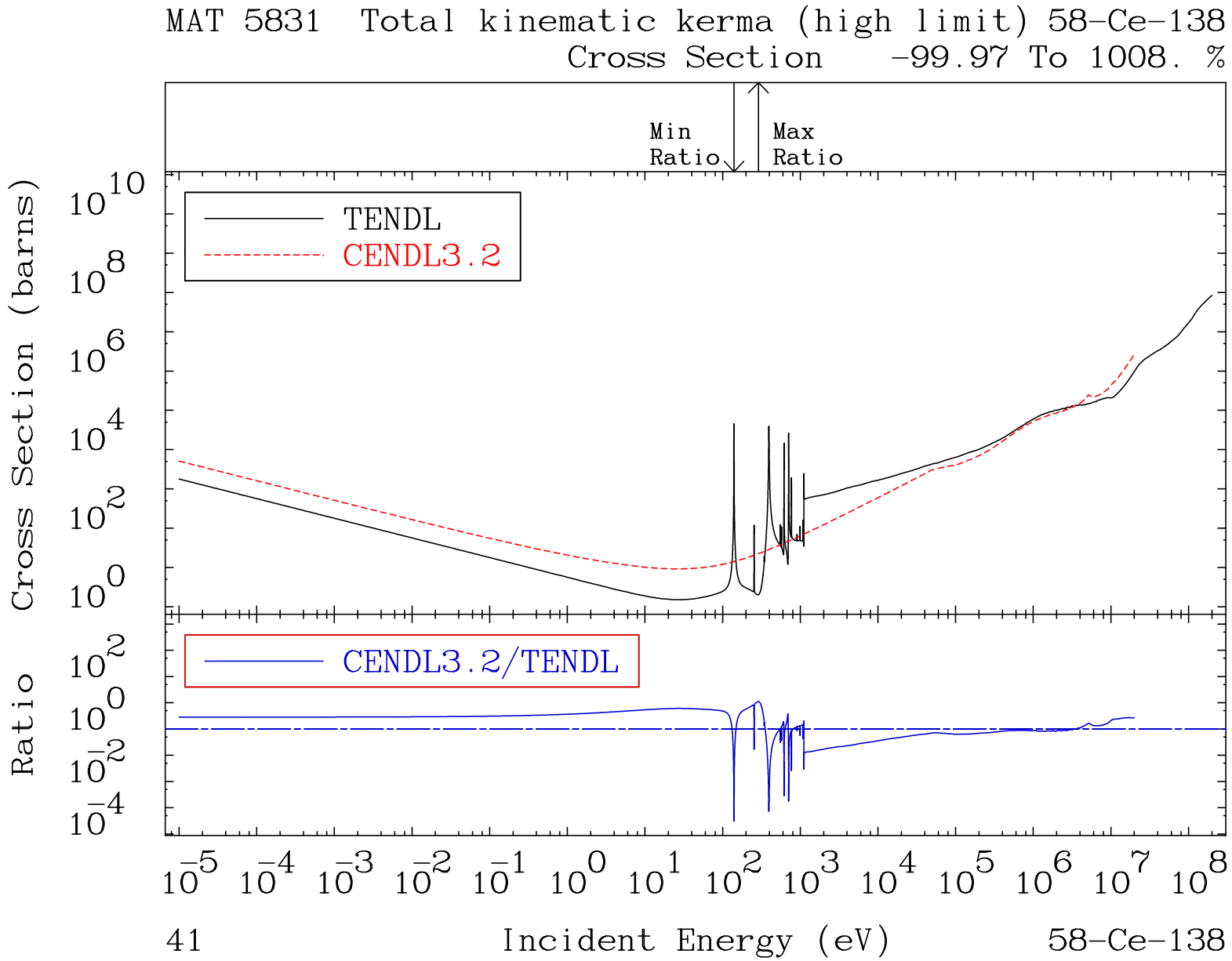

MAT 5831 Kerma non-elastic (all but mt2) 58-Ce-138
Cross Section -99.99 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
36
58-Ce-138

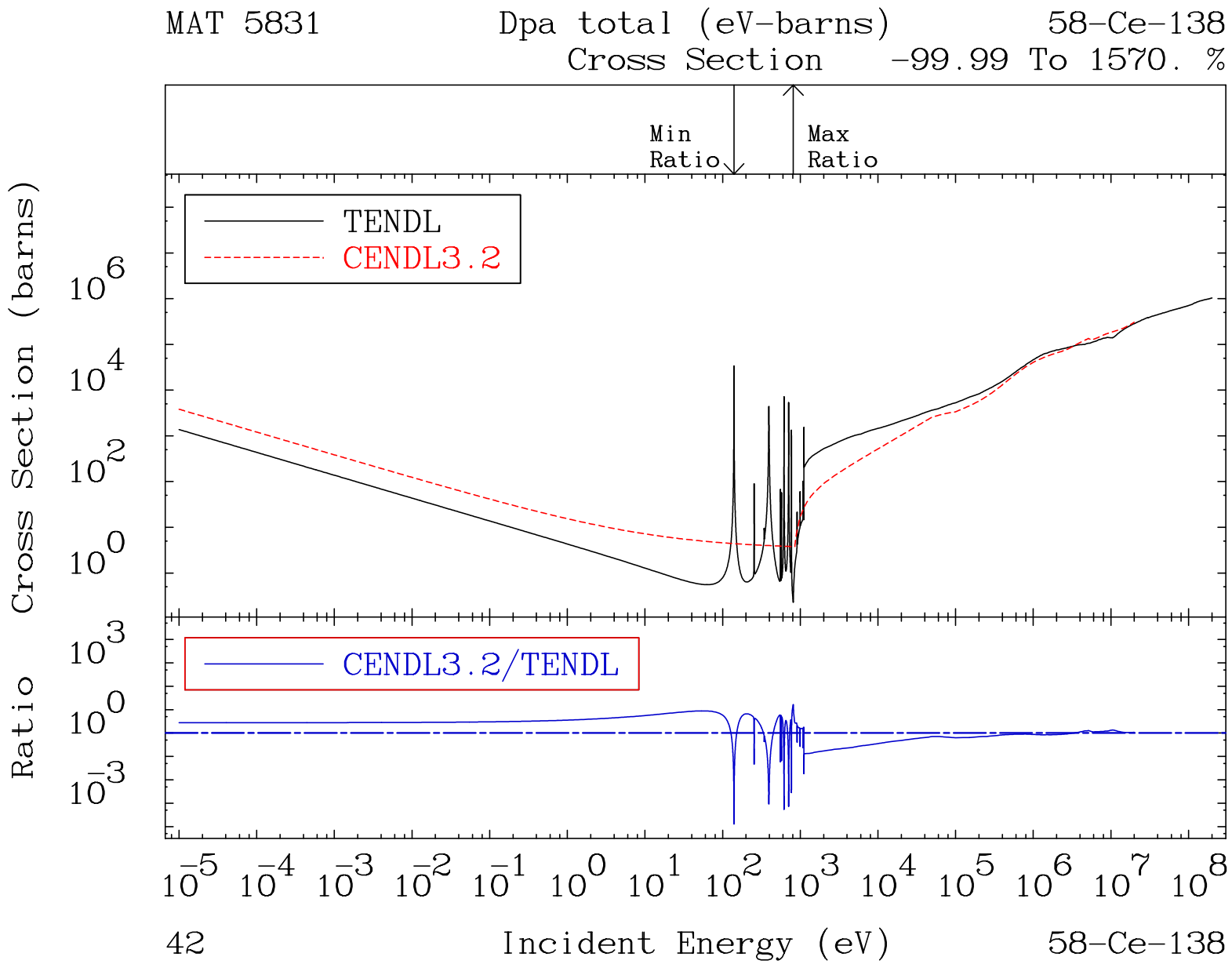

MAT 5831
Kerma inelastic (mt51-91)
58-Ce-138
Cross Section -9999. To 1481. %
Min Ratio
Max Ratio
TENDL Threshold 794.51 keV
CENDL3.2 Threshold 794.51 keV
CENDL3.2/TENDL
Ratio Cross Section (Mega-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
-3
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
37
Incident Energy (eV)
58-Ce-138

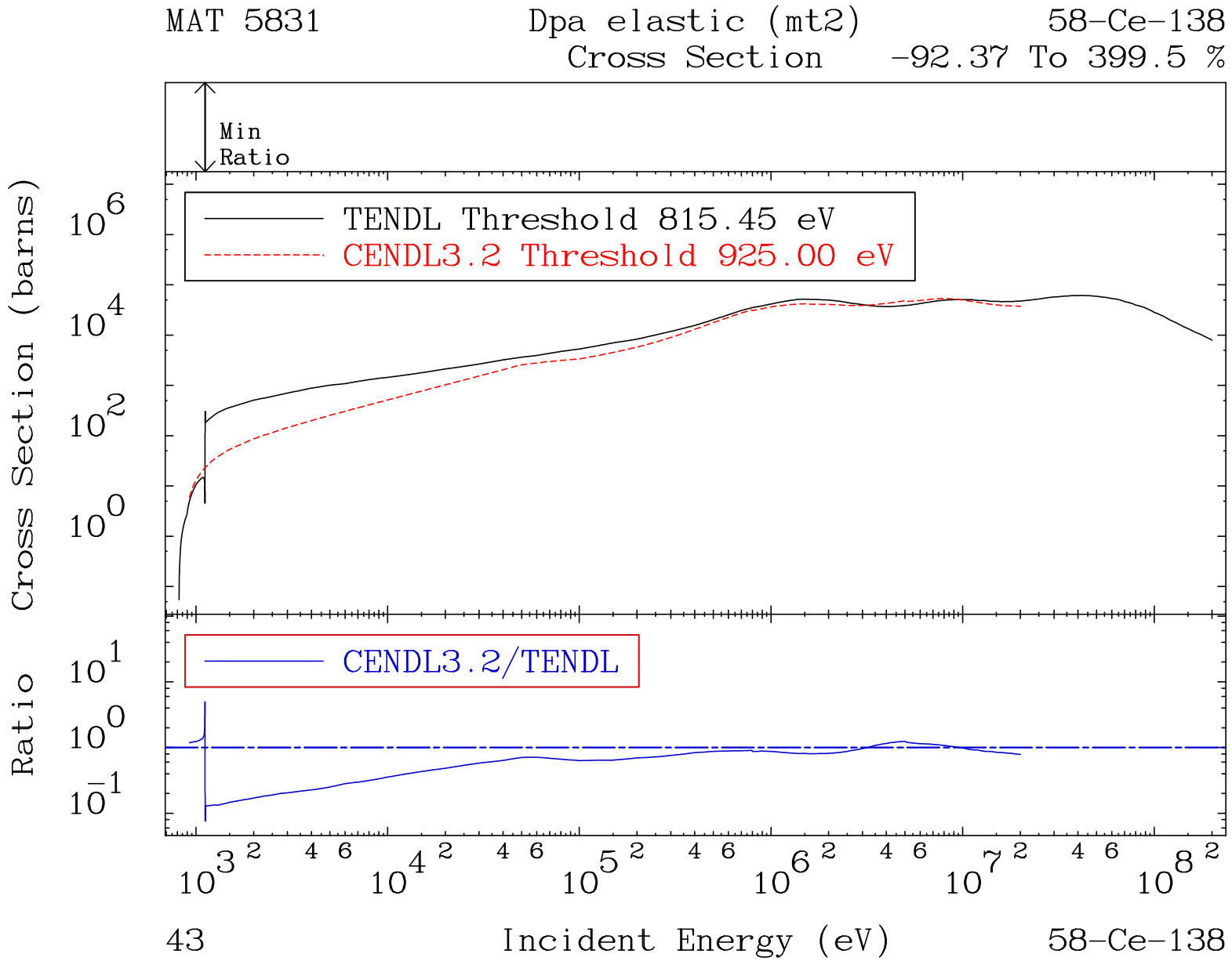

MAT 5831 Kerma fission (mt18 or mt19-20-21-38) 58-Ce-138
Cross Section -9999. To 1481. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
0
-3
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
38
Incident Energy (eV)
58-Ce-138

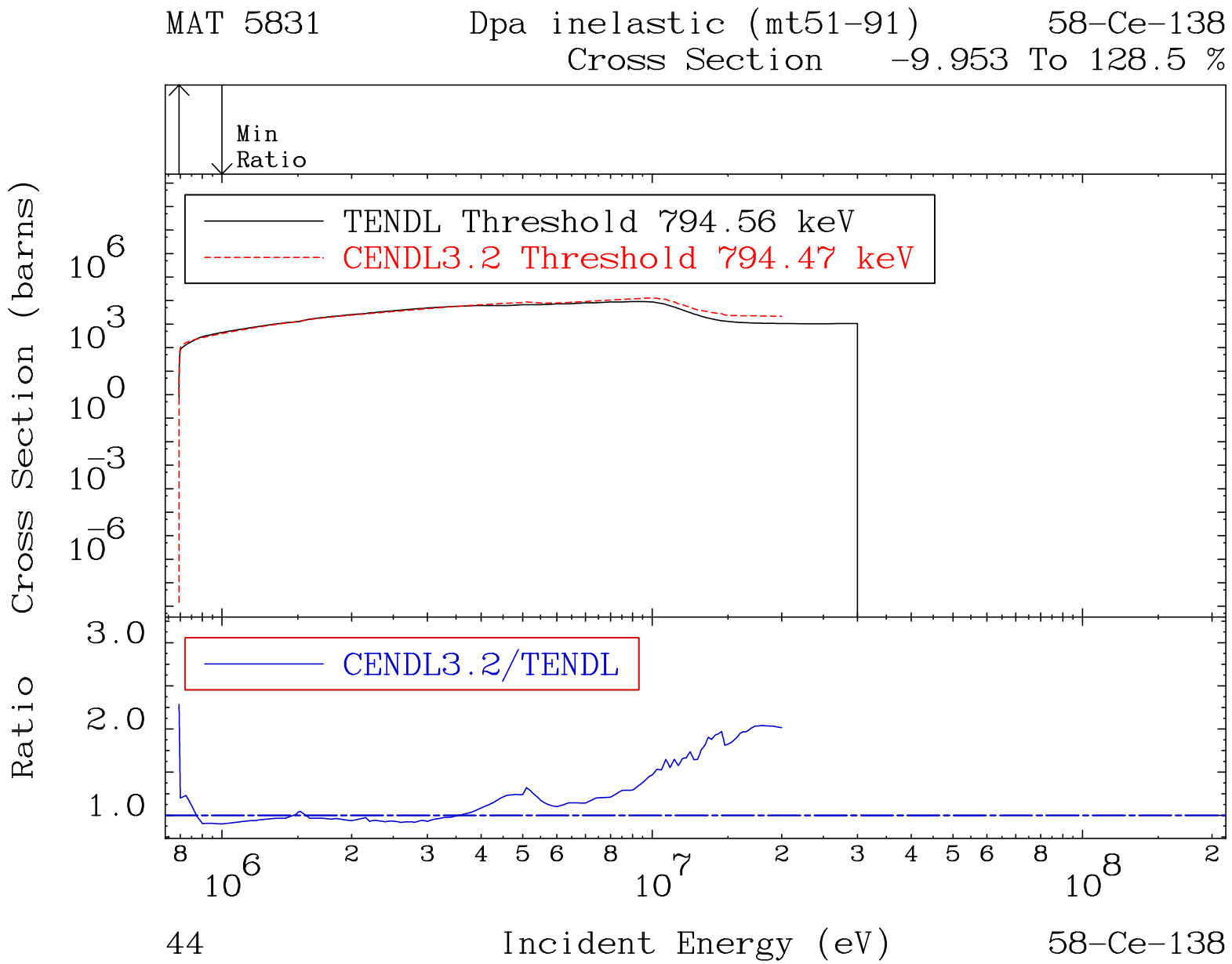

MAT 5831
Kerma capture (mt102)
58-Ce-138
Cross Section -99.99 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
39
58-Ce-138

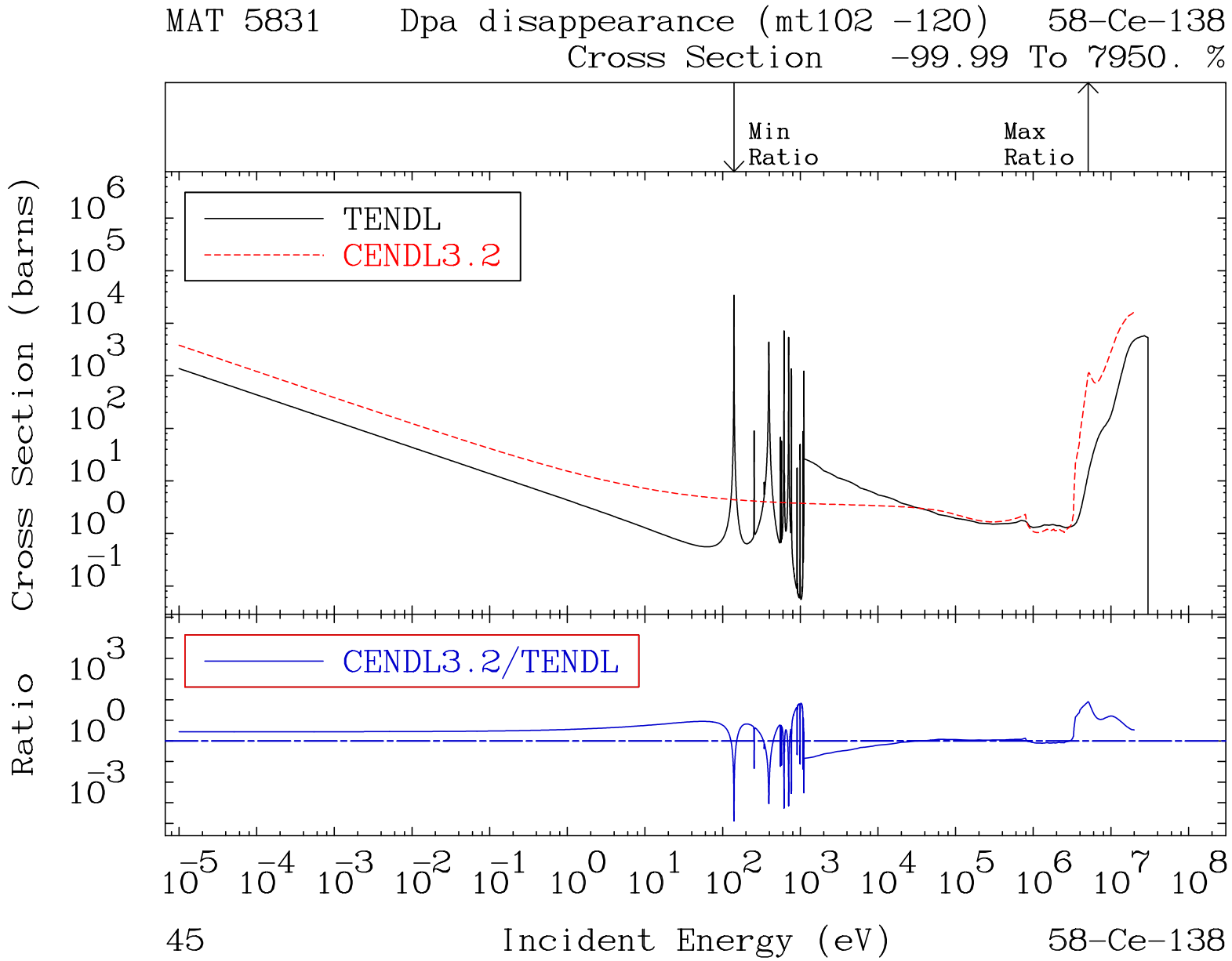

MAT 5831
Total photon (eV-barns)
58-Ce-138
Cross Section -100.0 To 2461. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
40
58-Ce-138

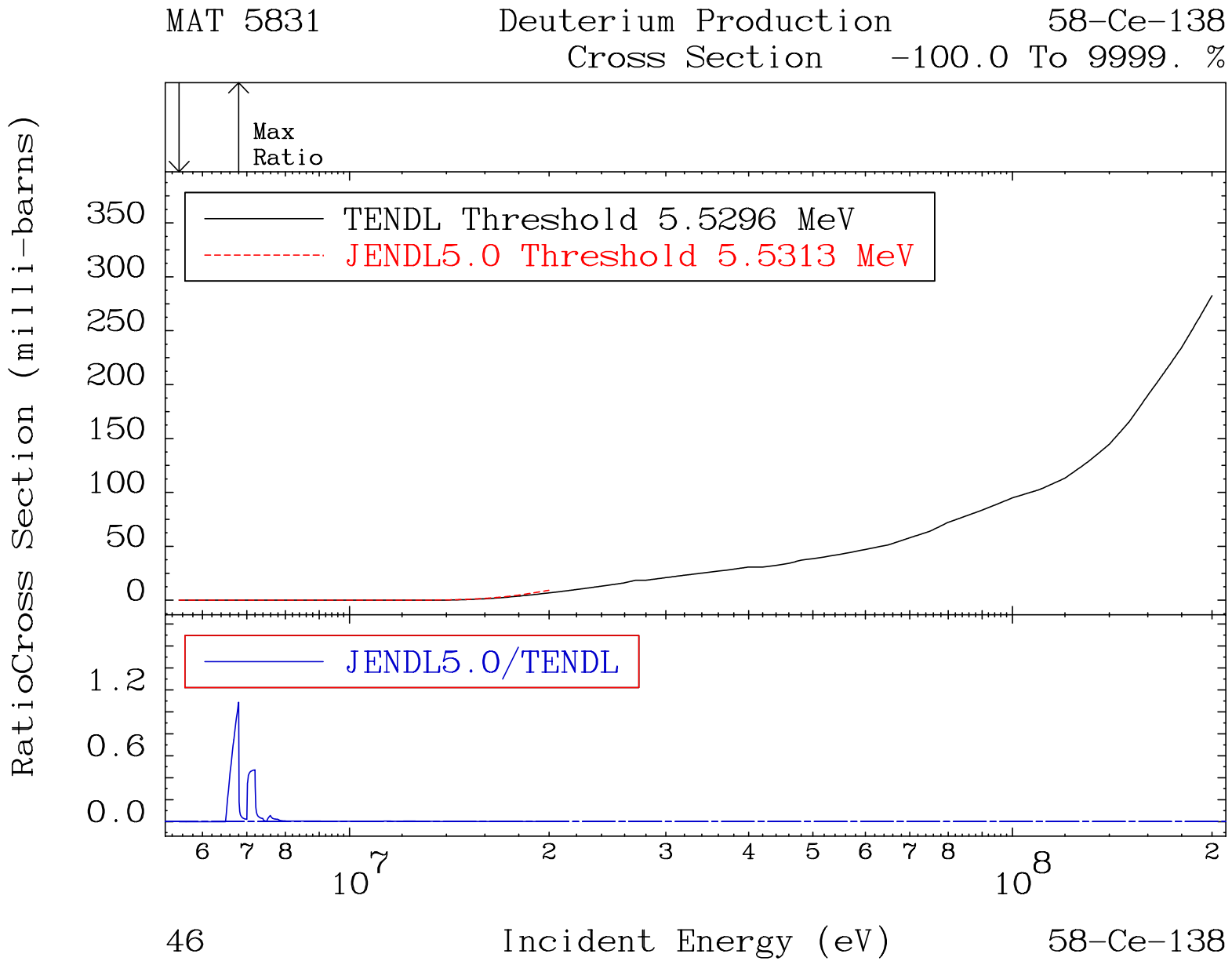

MAT 5831 Total kinematic kerma (high limit) 58-Ce-138
Cross Section -99.97 To 1008. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
41
58-Ce-138

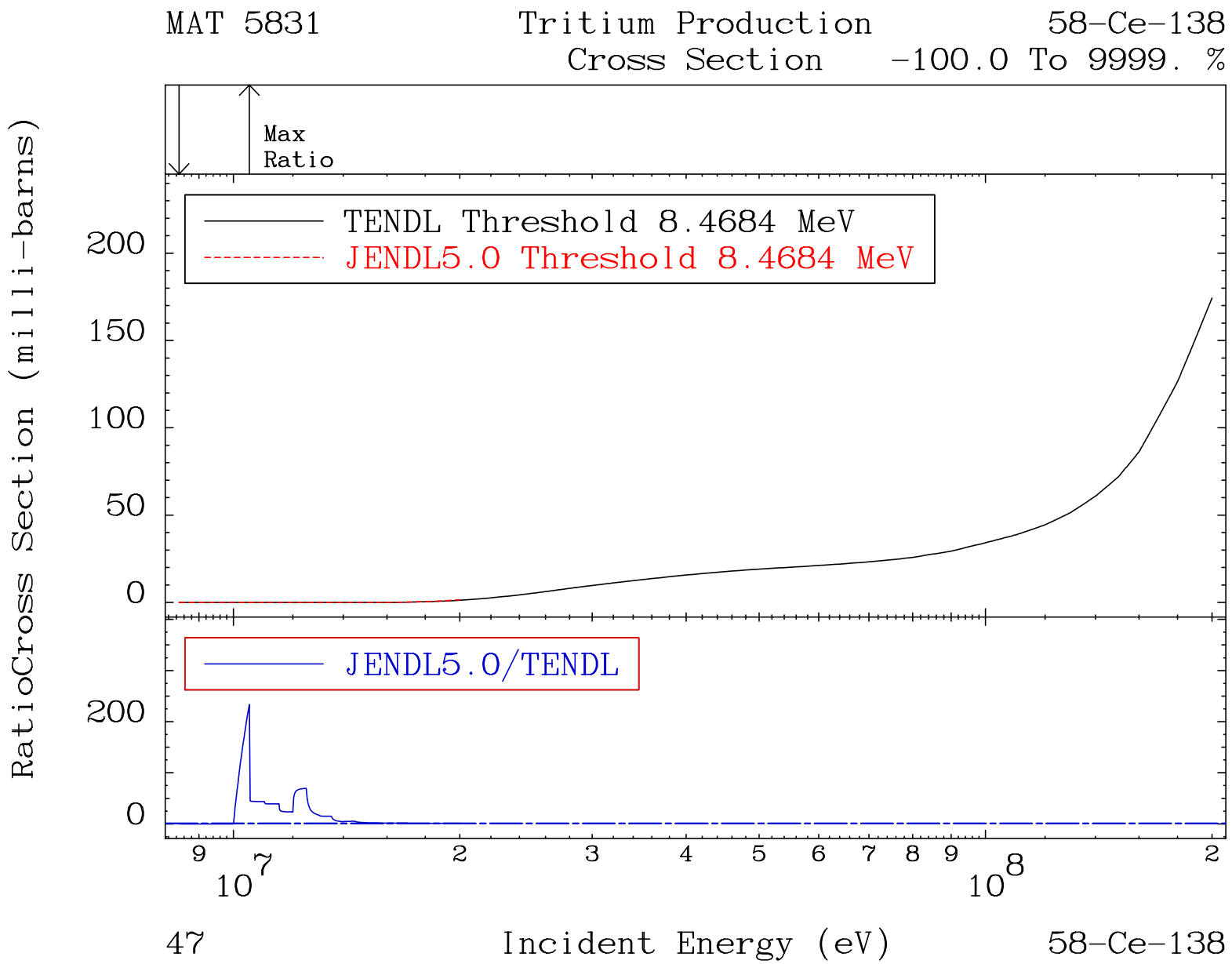

MAT 5831
Dpa total (eV-barns)
58-Ce-138
Cross Section -99.99 To 1570. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
42
58-Ce-138

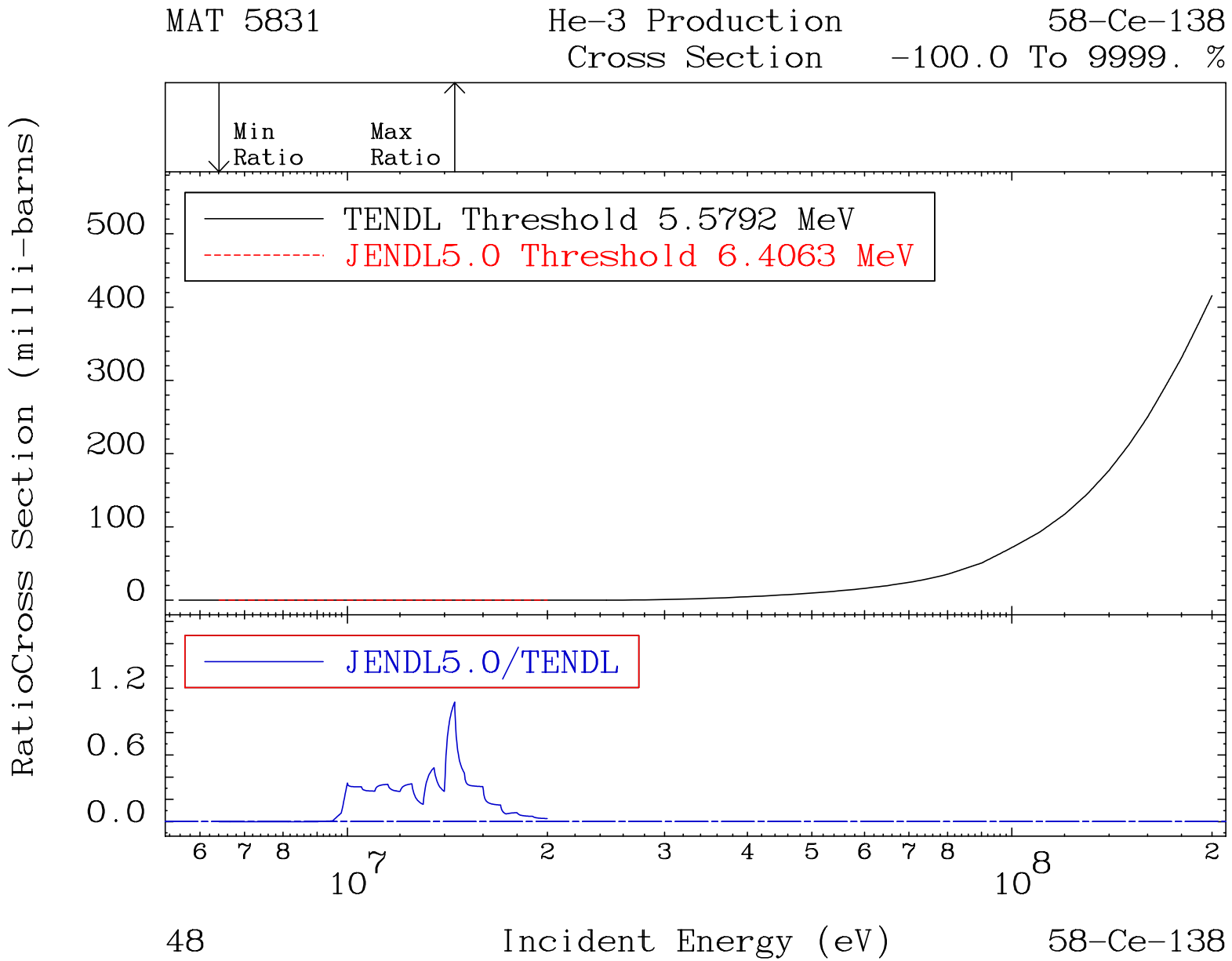

MAT 5831
Dpa elastic (mt2)
Cross Section
58-Ce-138
-92.37 To 399.5 %
Min
Ratio
TENDL Threshold 815.45 eV
CENDL3.2 Threshold 925.00 eV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
43
58-Ce-138

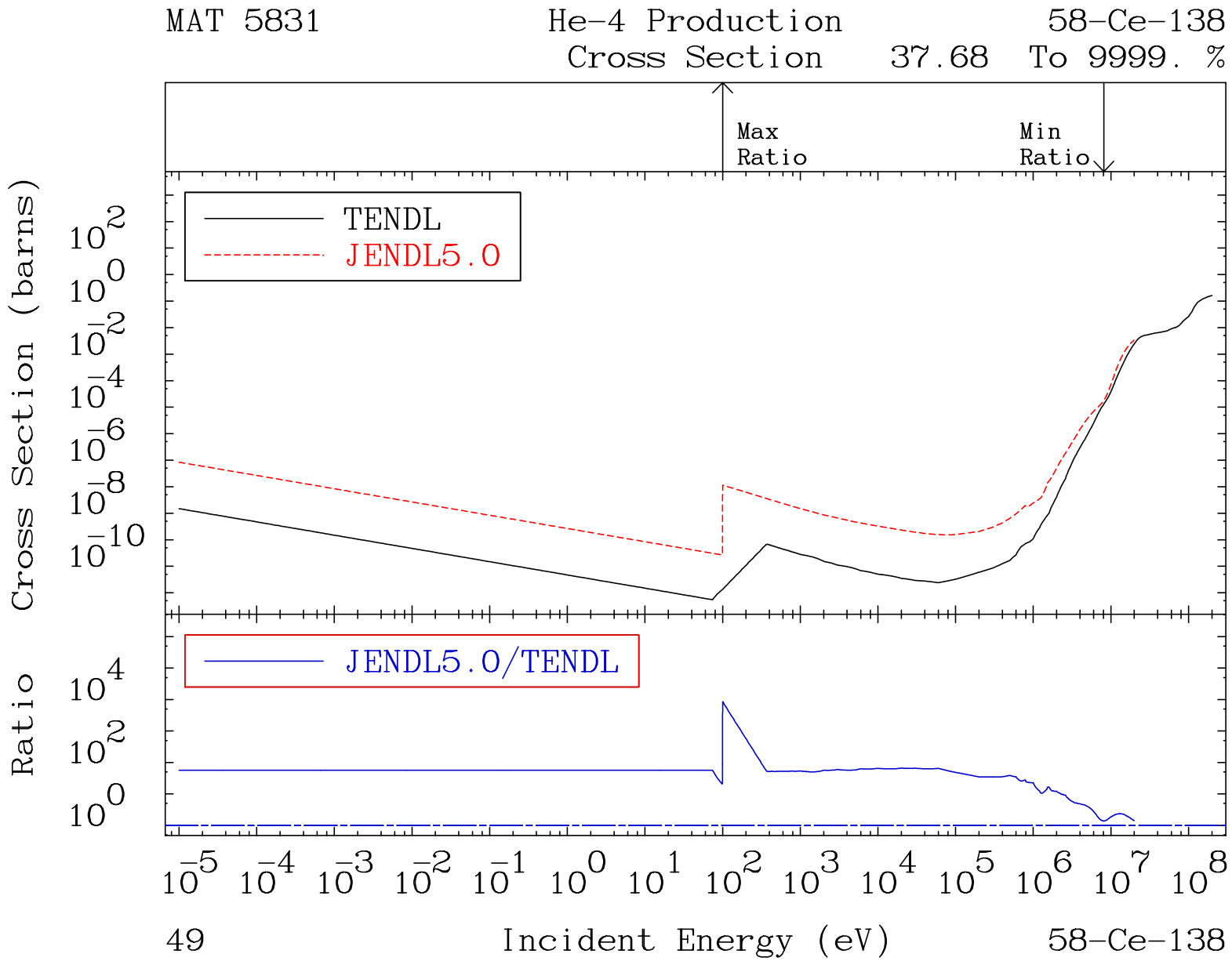

MAT 5831
Dpa inelastic (mt51-91)
58-Ce-138
Cross Section
-9.953 To 128.5 %
Min
Ratio
TENDL Threshold 794.56 keV
CENDL3.2 Threshold 794.47 keV
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
44
58-Ce-138

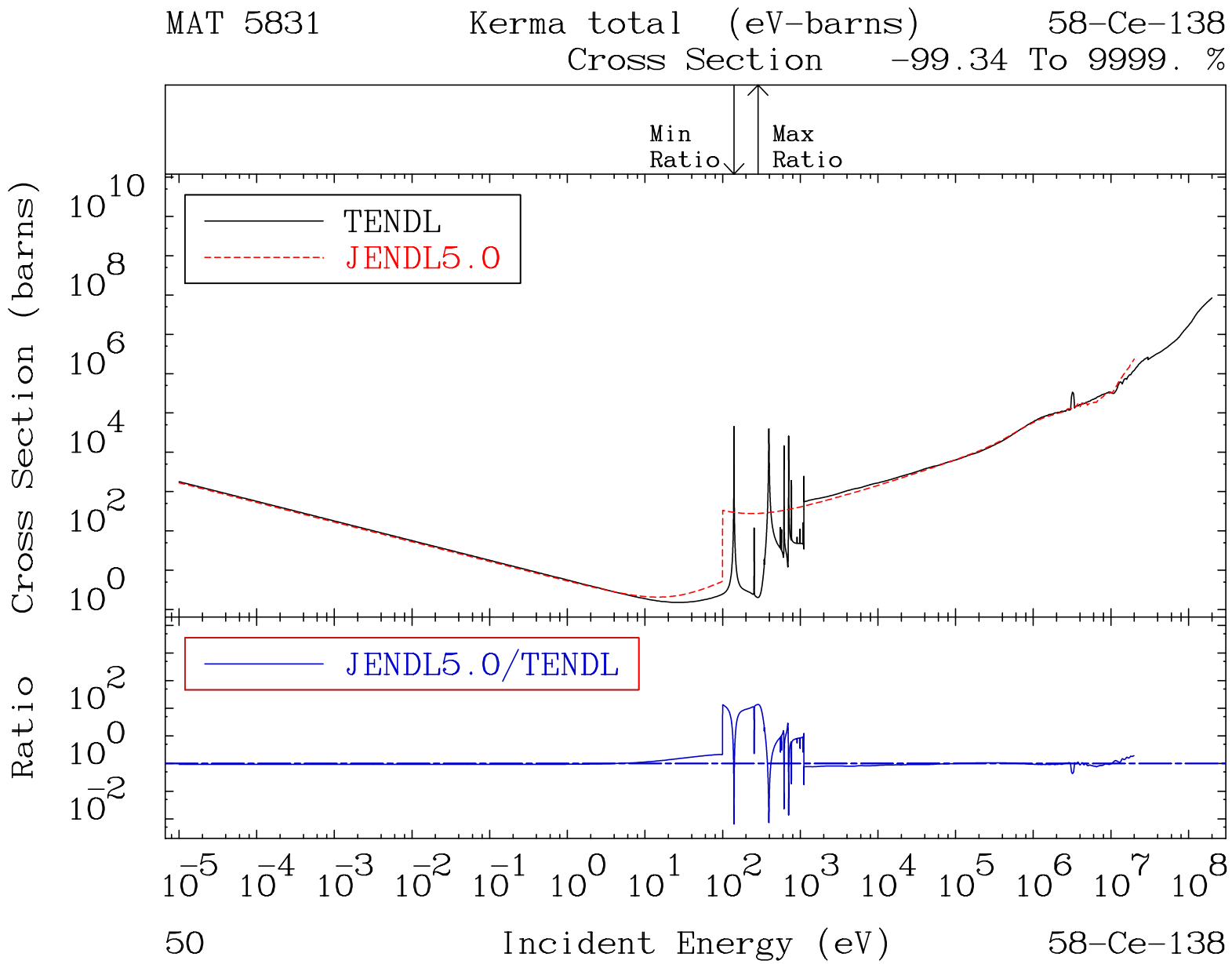

MAT 5831 Dpa disappearance (mt102 -120) 58-Ce-138
Cross Section -99.99 To 7950. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
45
58-Ce-138

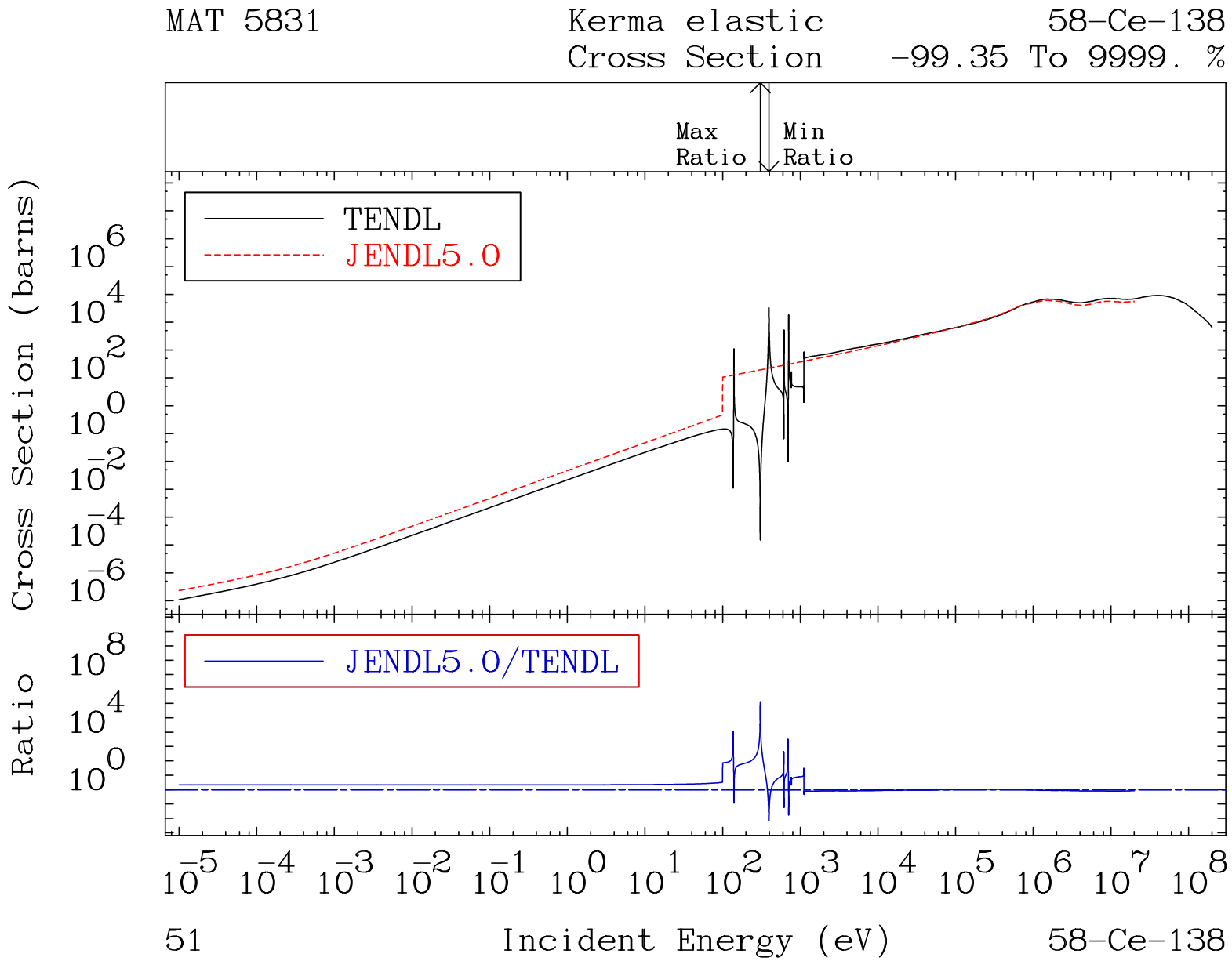

MAT 5831
Deuterium Production
58-Ce-138
Cross Section -100.0 To 9999. %
Max
Ratio
TENDL Threshold 5.5296 MeV
JENDL5.0 Threshold 5.5313 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
350
300
250
200
150
100
50
0
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
46
Incident Energy (eV)
58-Ce-138

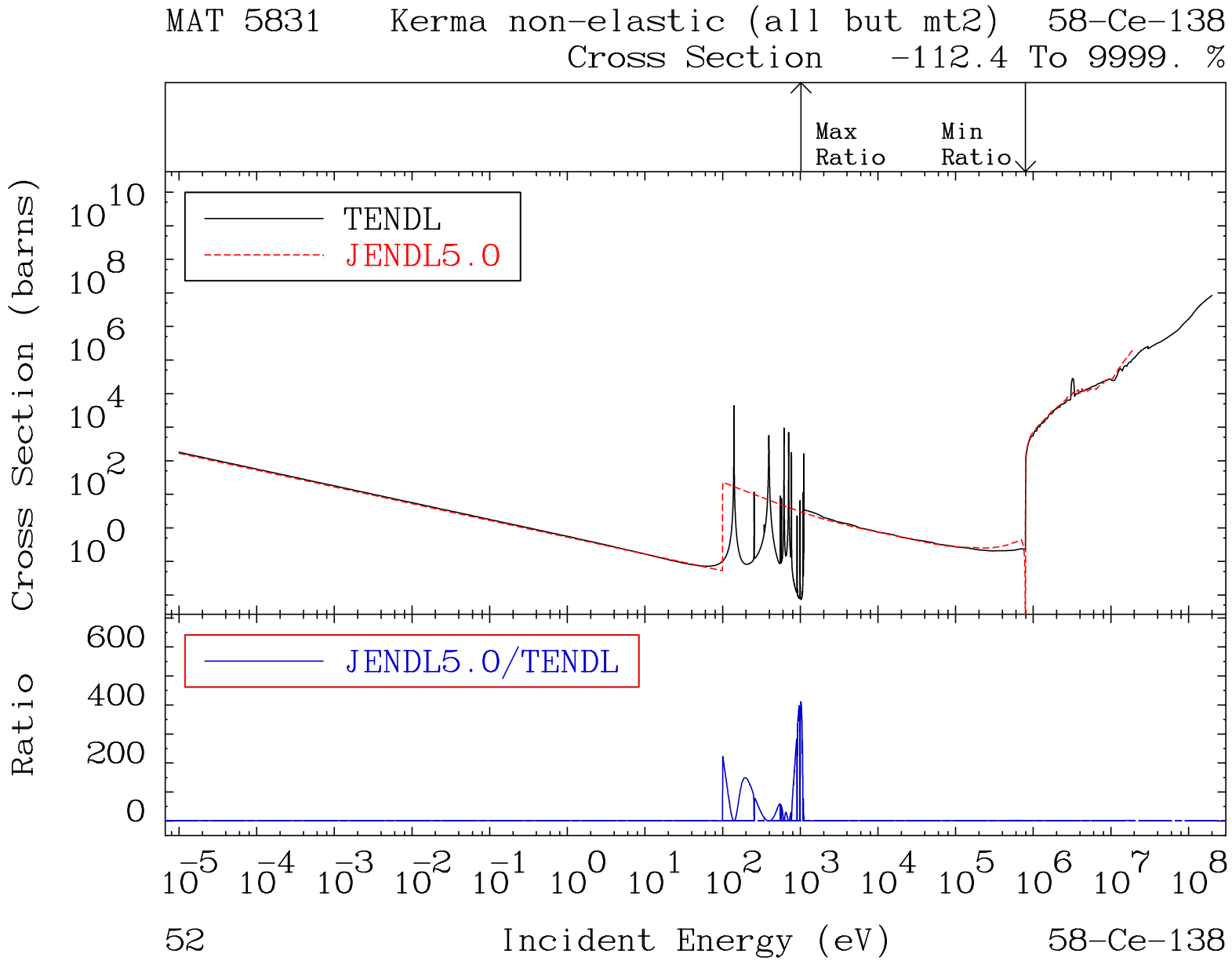

MAT 5831
Tritium Production
58-Ce-138
Cross Section
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 8.4684 MeV
JENDL5.0 Threshold 8.4684 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
200
0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
47
Incident Energy (eV)
58-Ce-138

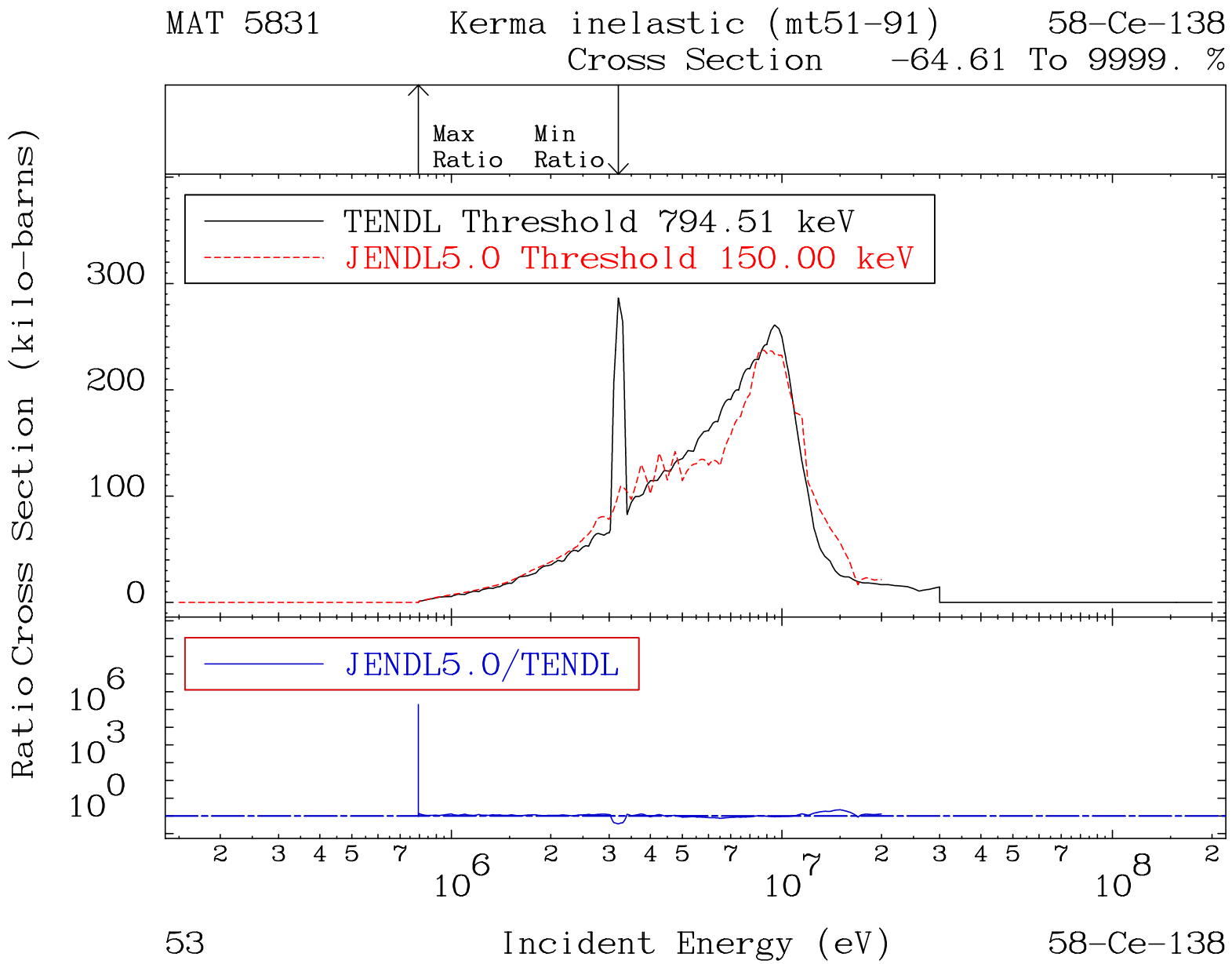

MAT 5831
He-3 Production
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JENDL5.0 Threshold 6.4063 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
500
400
300
200
100
0
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
48
Incident Energy (eV)
58-Ce-138

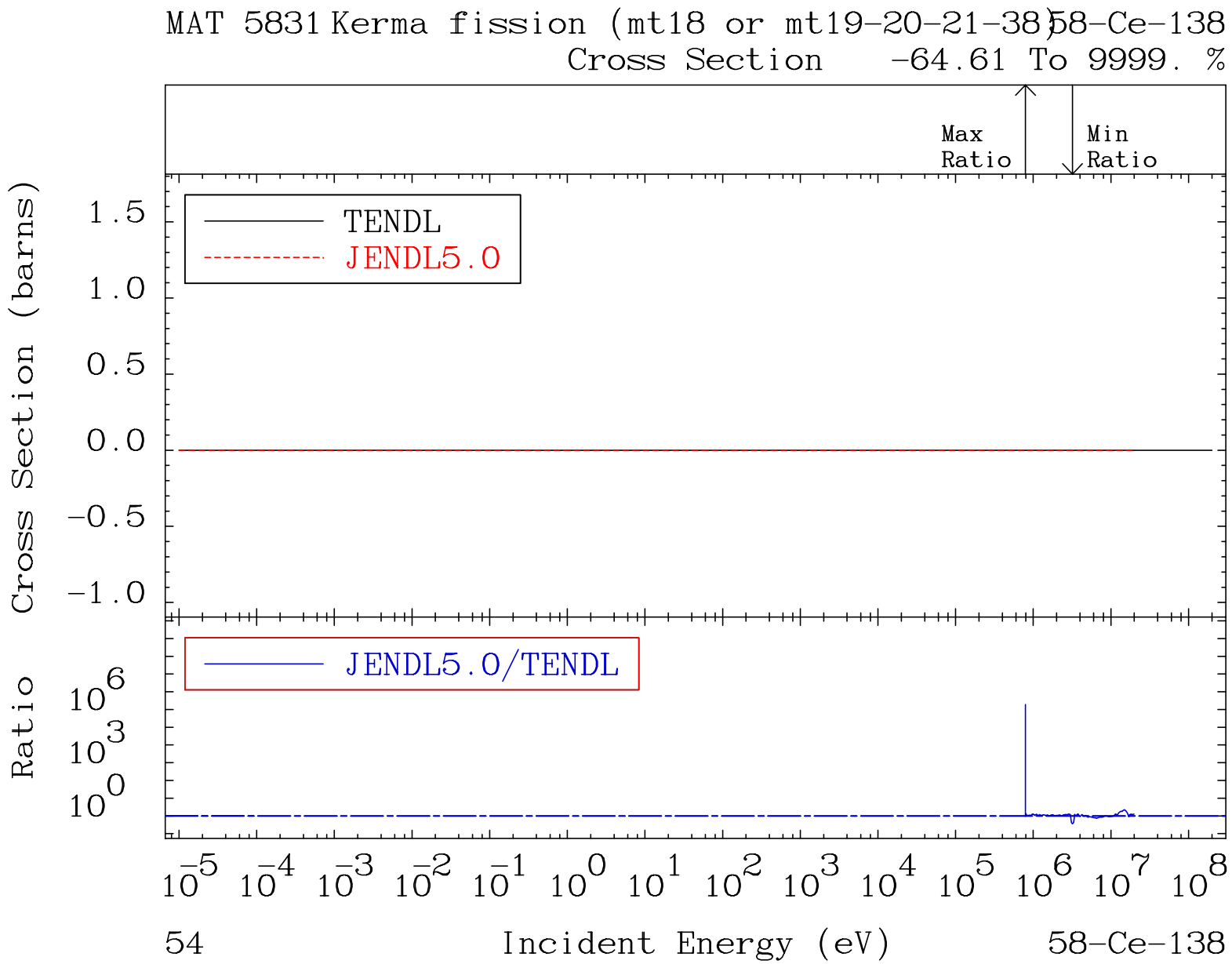

MAT 5831
He-4 Production
Cross Section
58-Ce-138
37.68 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
49
58-Ce-138

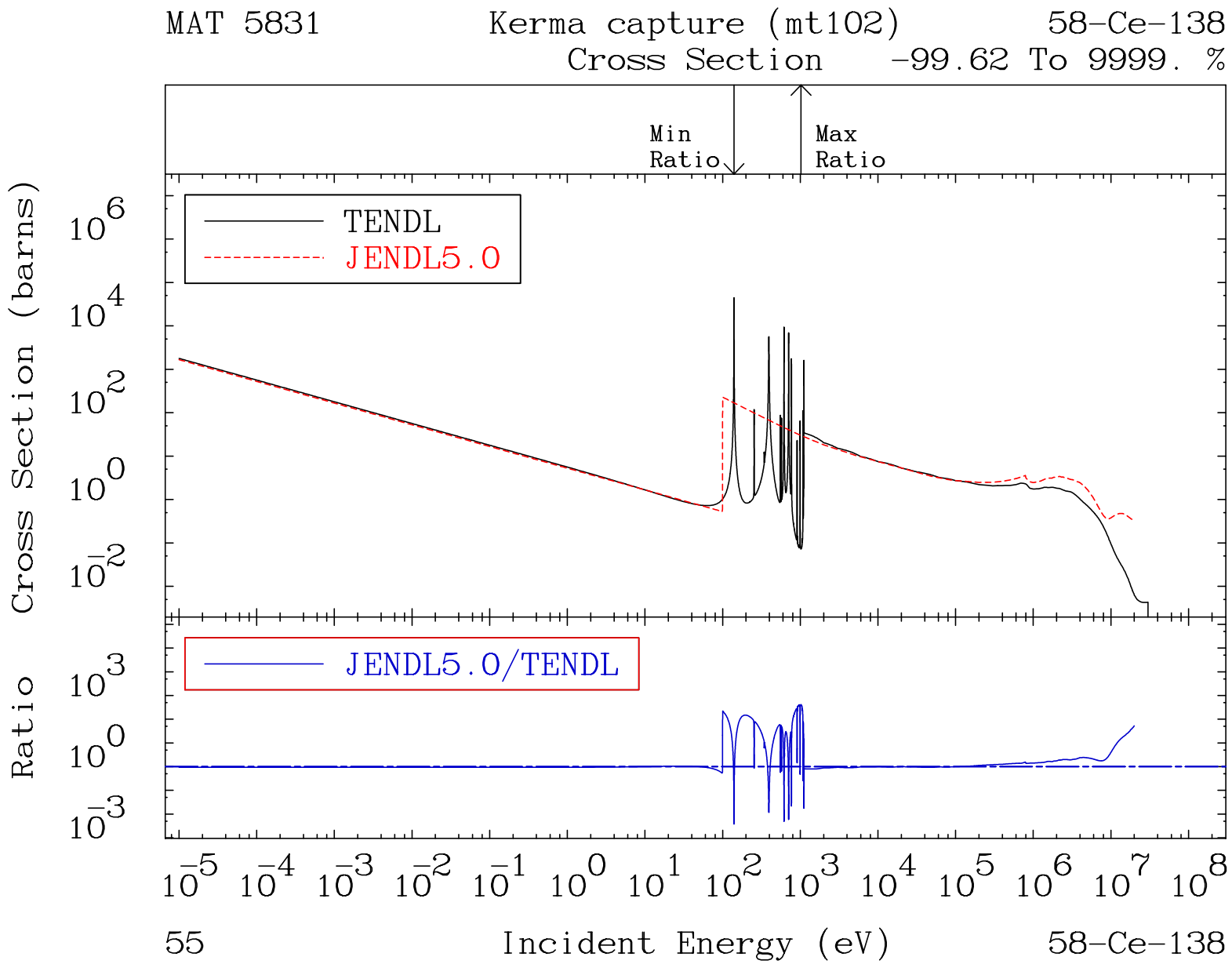

MAT 5831
Kerma total (eV-barns)
58-Ce-138
Cross Section -99.34 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
Incident Energy (eV)
50
58-Ce-138

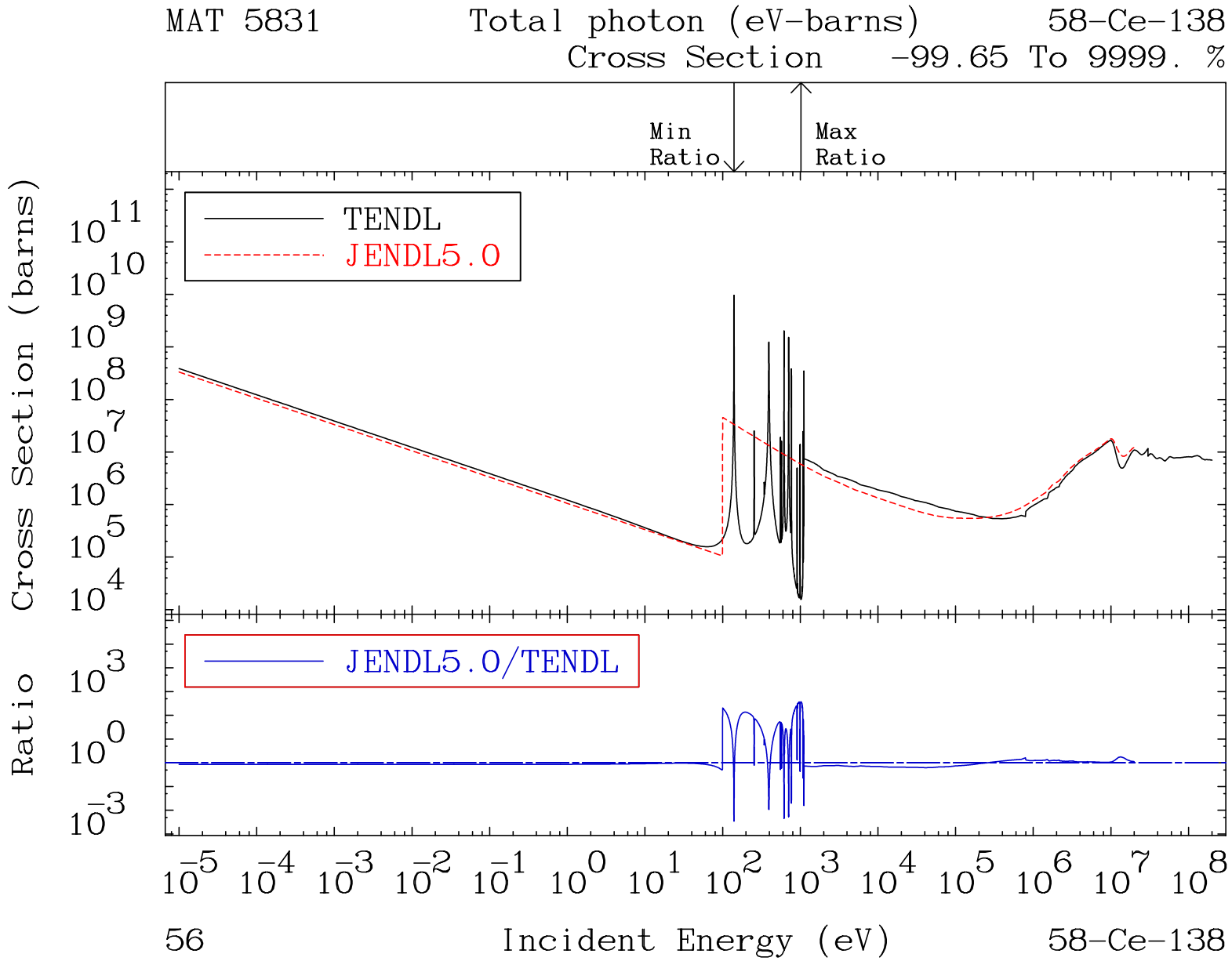

MAT 5831
Kerma elastic
Cross Section
58-Ce-138
-99.35 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
51
58-Ce-138

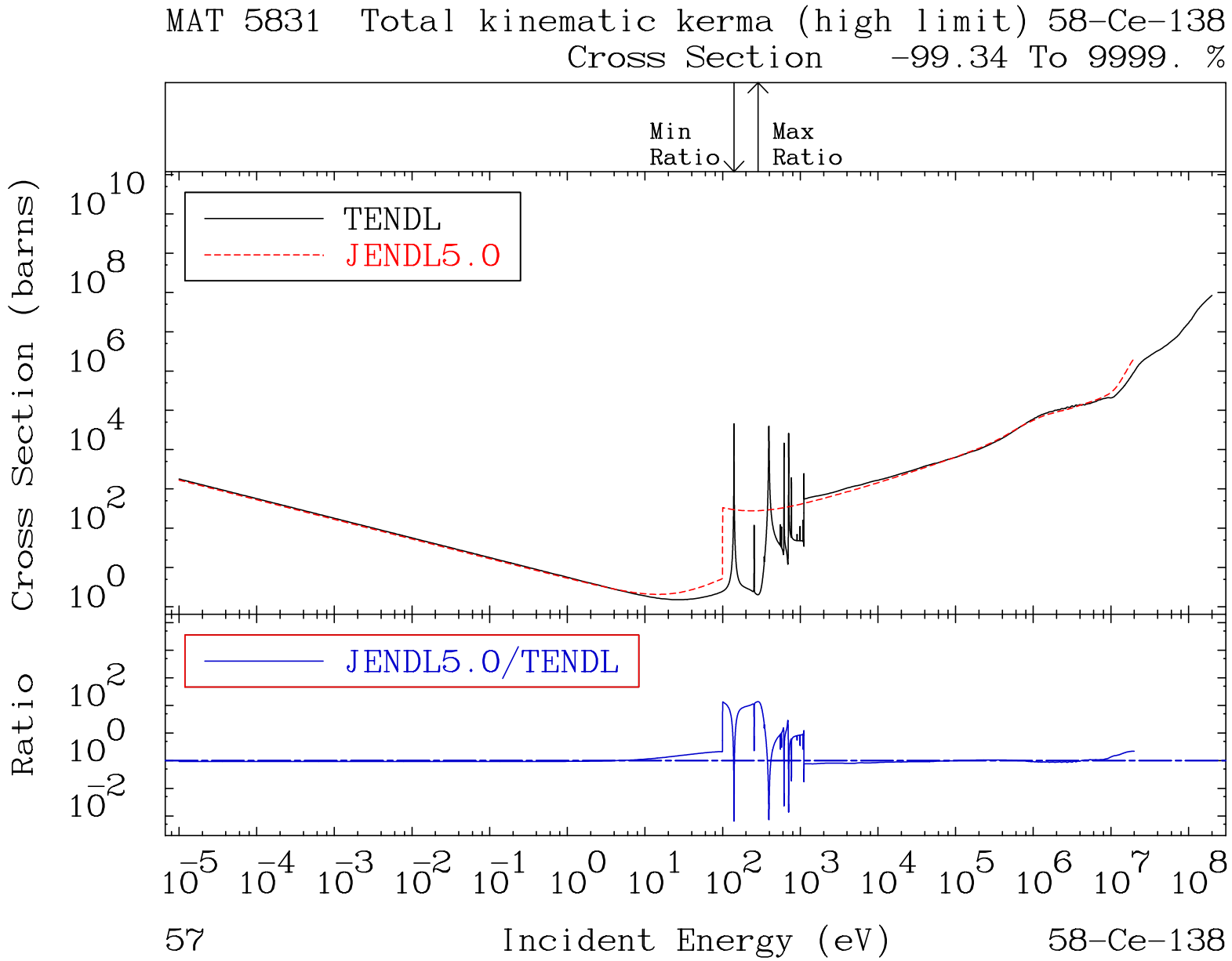

MAT 5831 Kerma non-elastic (all but mt2) 58-Ce-138
Cross Section -112.4 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
52
58-Ce-138

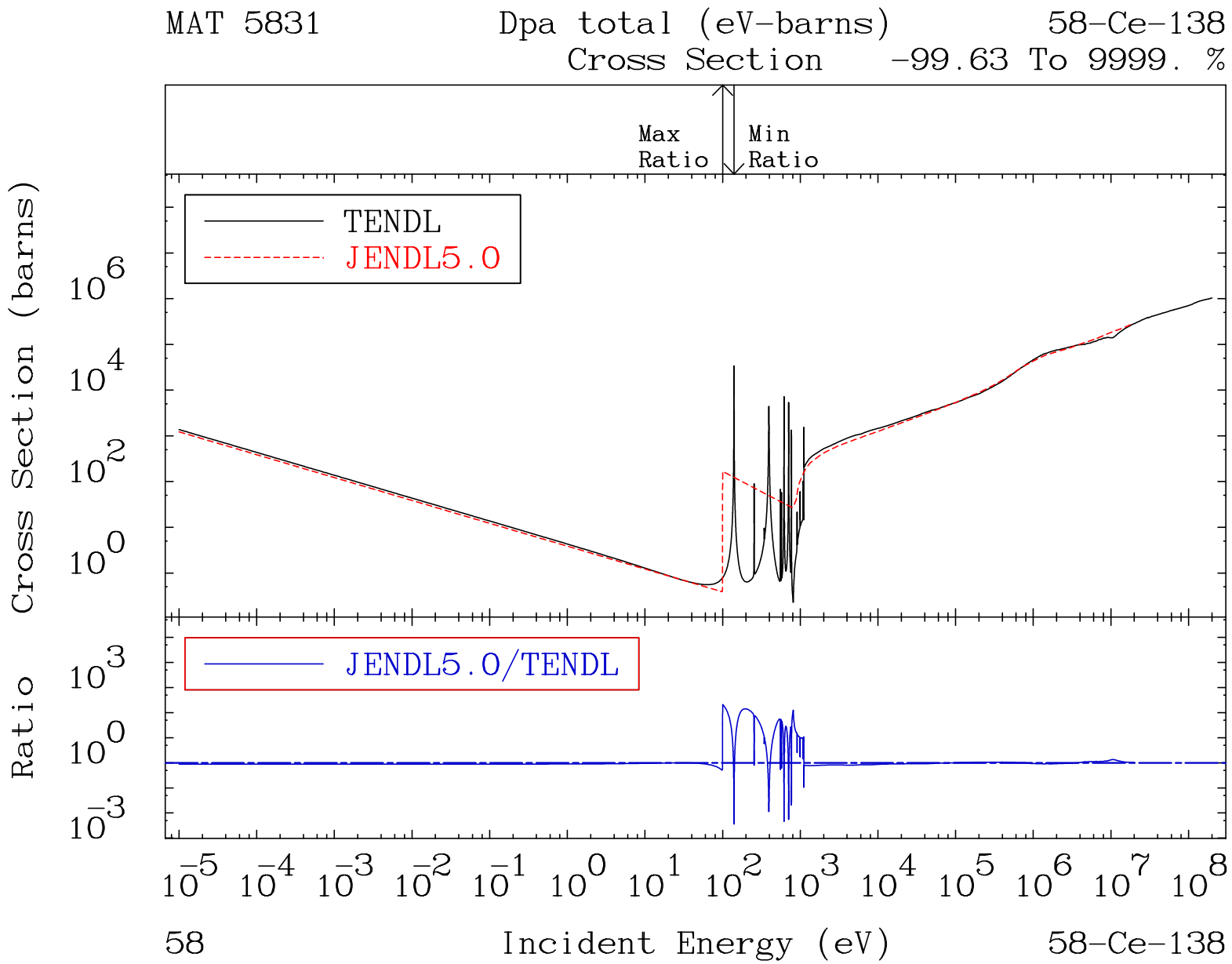

MAT 5831
Kerma inelastic (mt51-91)
58-Ce-138
Cross Section -64.61 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 794.51 keV
JENDL5.0 Threshold 150.00 keV
300
200
100
0
JENDL5.0/TENDL
10^6
10^3
10^0
2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
Ratio Cross Section (kilo-barns)
53
Incident Energy (eV)
58-Ce-138

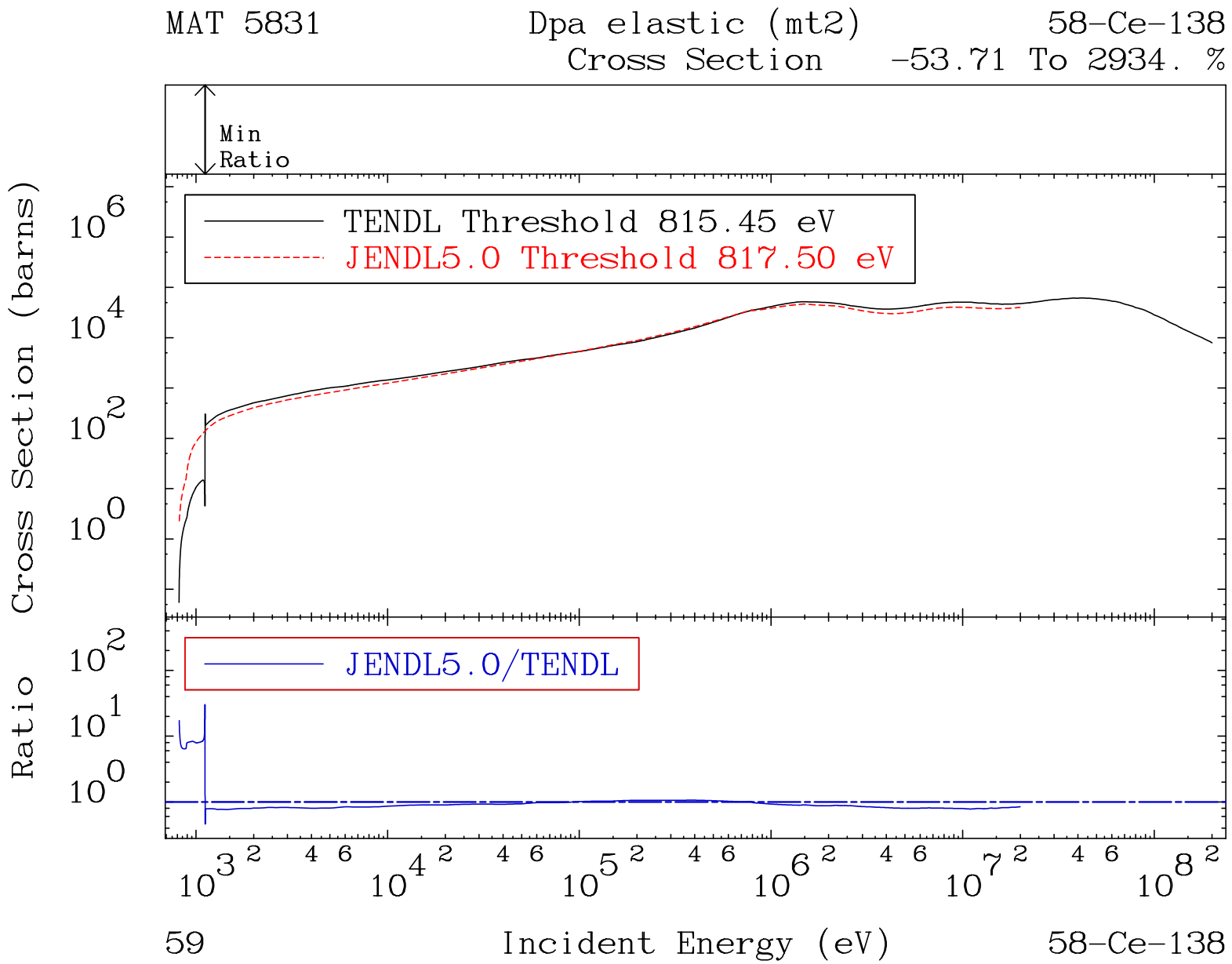

MAT 5831 Kerma fission (mt18 or mt19-20-21-38) 58-Ce-138
Cross Section -64.61 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{6}
10^{3}
10^{0}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
54
Incident Energy (eV)
58-Ce-138

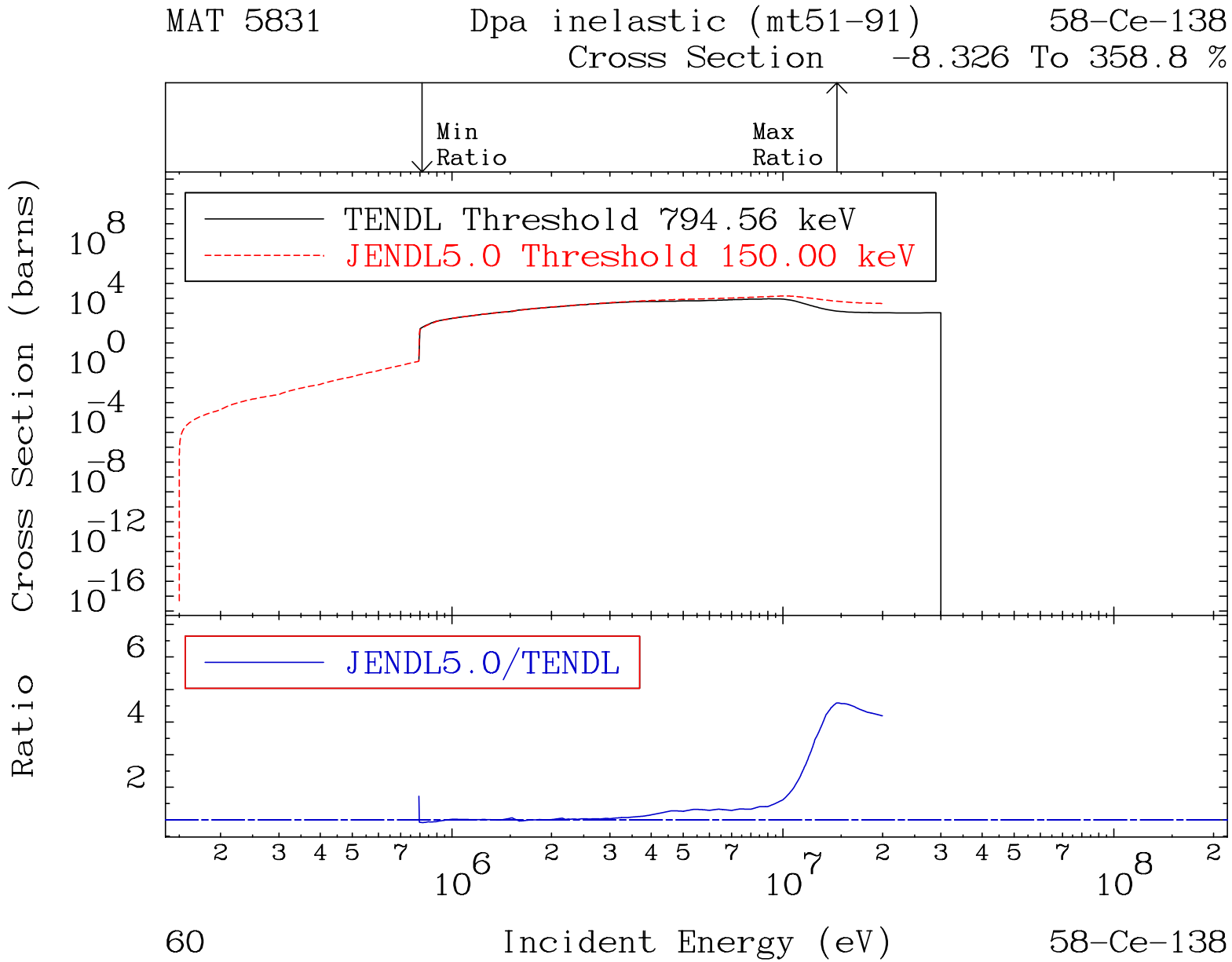

MAT 5831
Kerma capture (mt102)
58-Ce-138
Cross Section -99.62 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
55
58-Ce-138

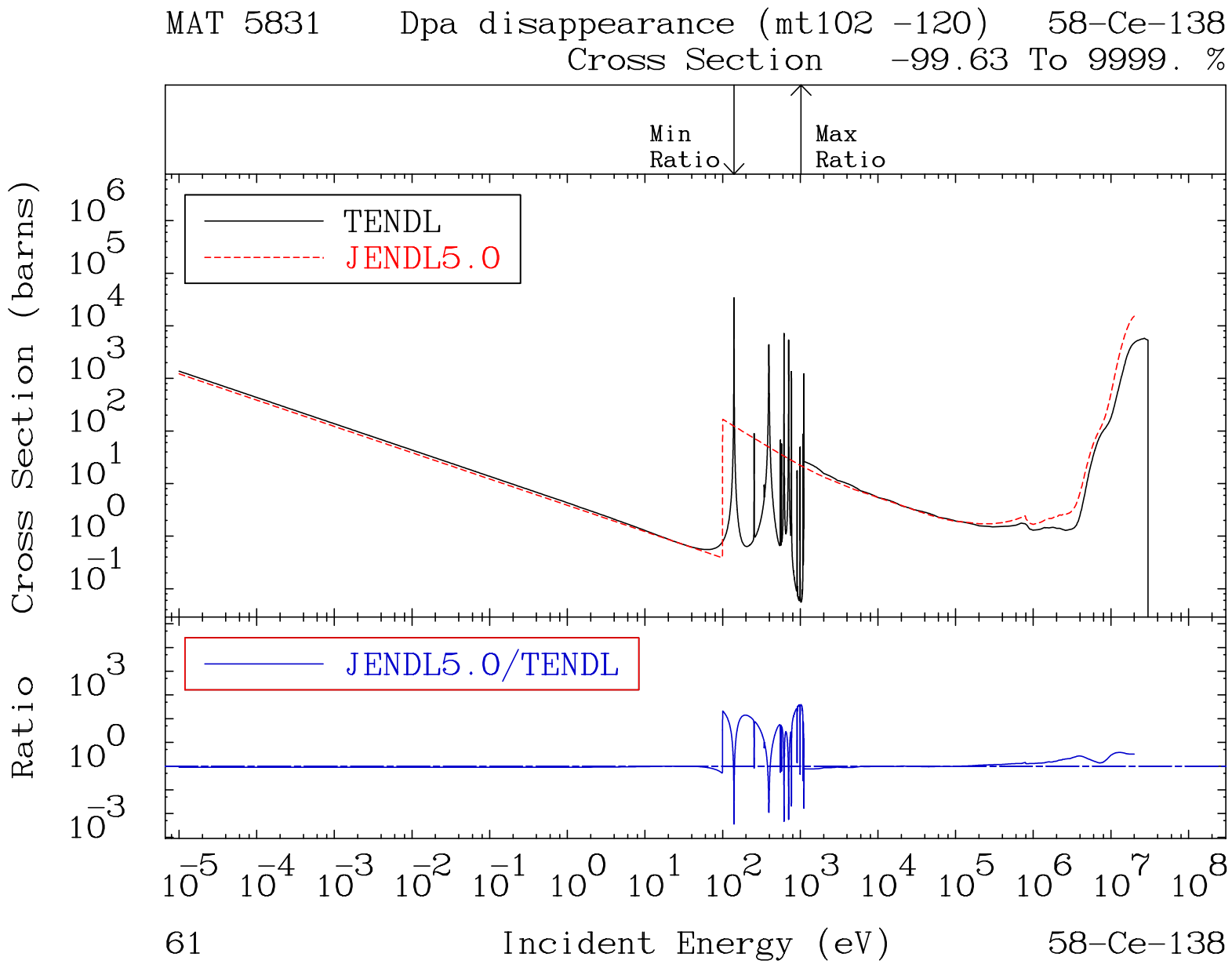

MAT 5831
Total photon (eV-barns)
58-Ce-138
Cross Section -99.65 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
56
58-Ce-138

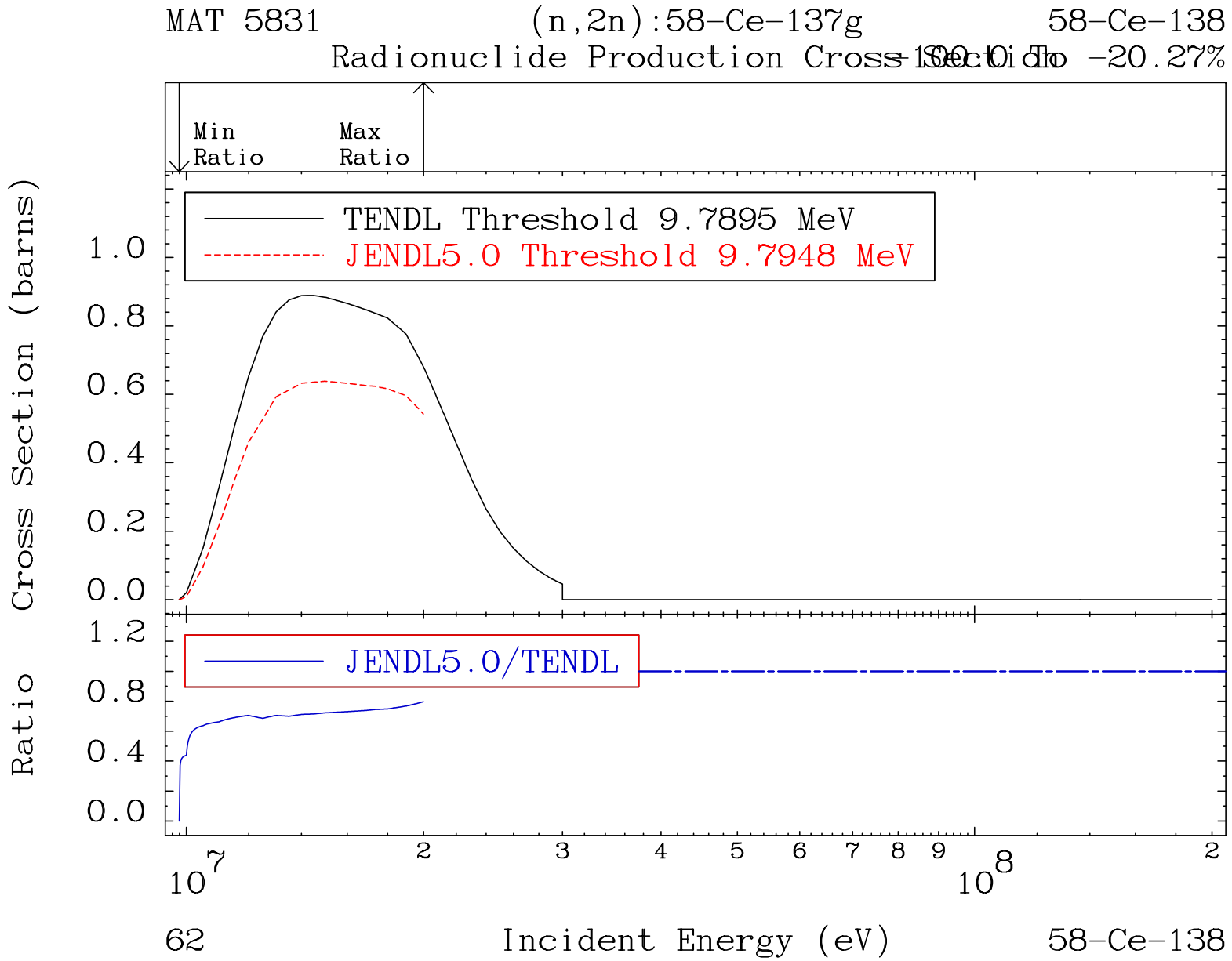

MAT 5831 Total kinematic kerma (high limit) 58-Ce-138
Cross Section -99.34 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
57
58-Ce-138

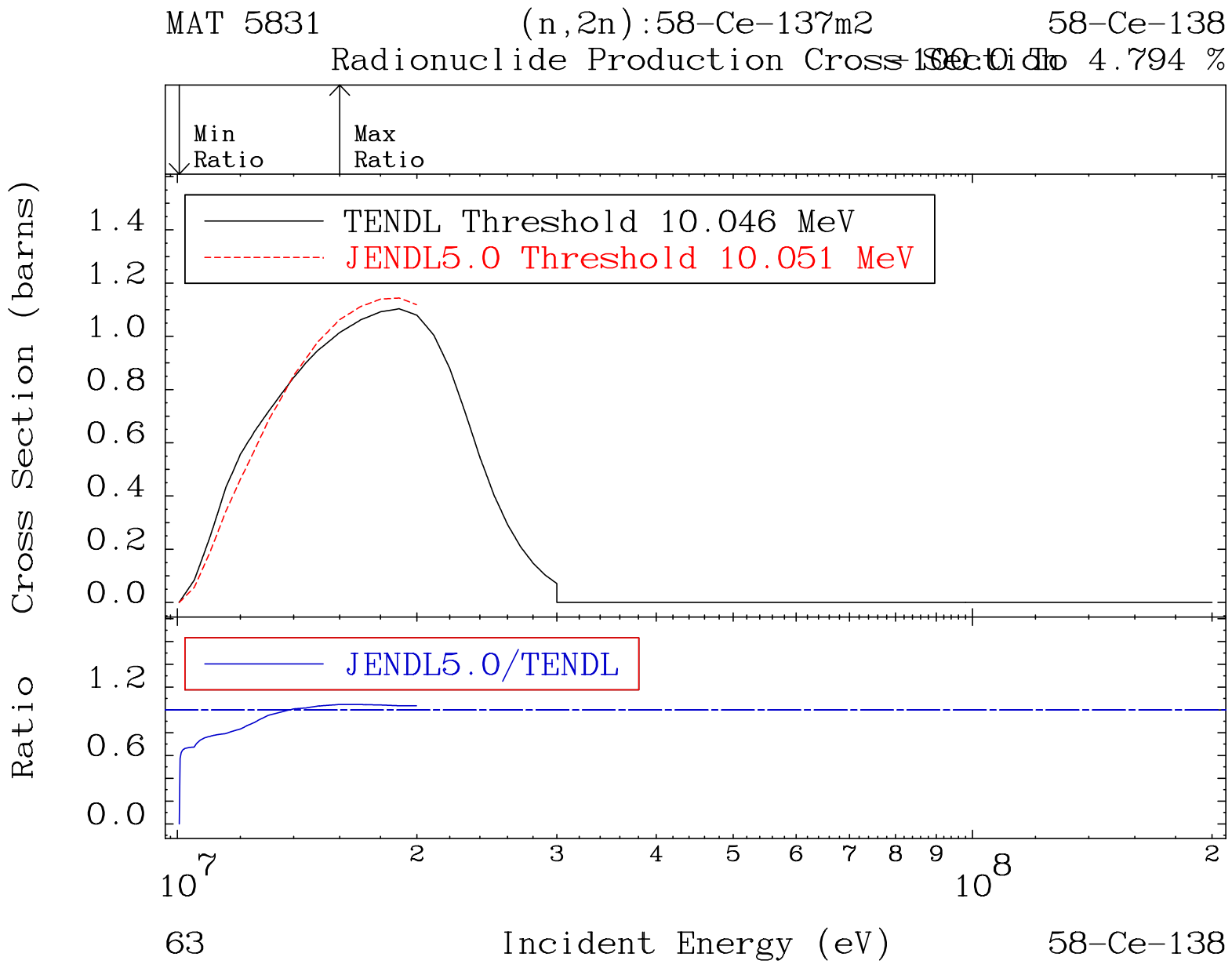

MAT 5831
Dpa total (eV-barns)
58-Ce-138
Cross Section -99.63 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL5.0
Cross Section (barns)
JENDL5.0/TENDL
Ratio
58
Incident Energy (eV)
58-Ce-138

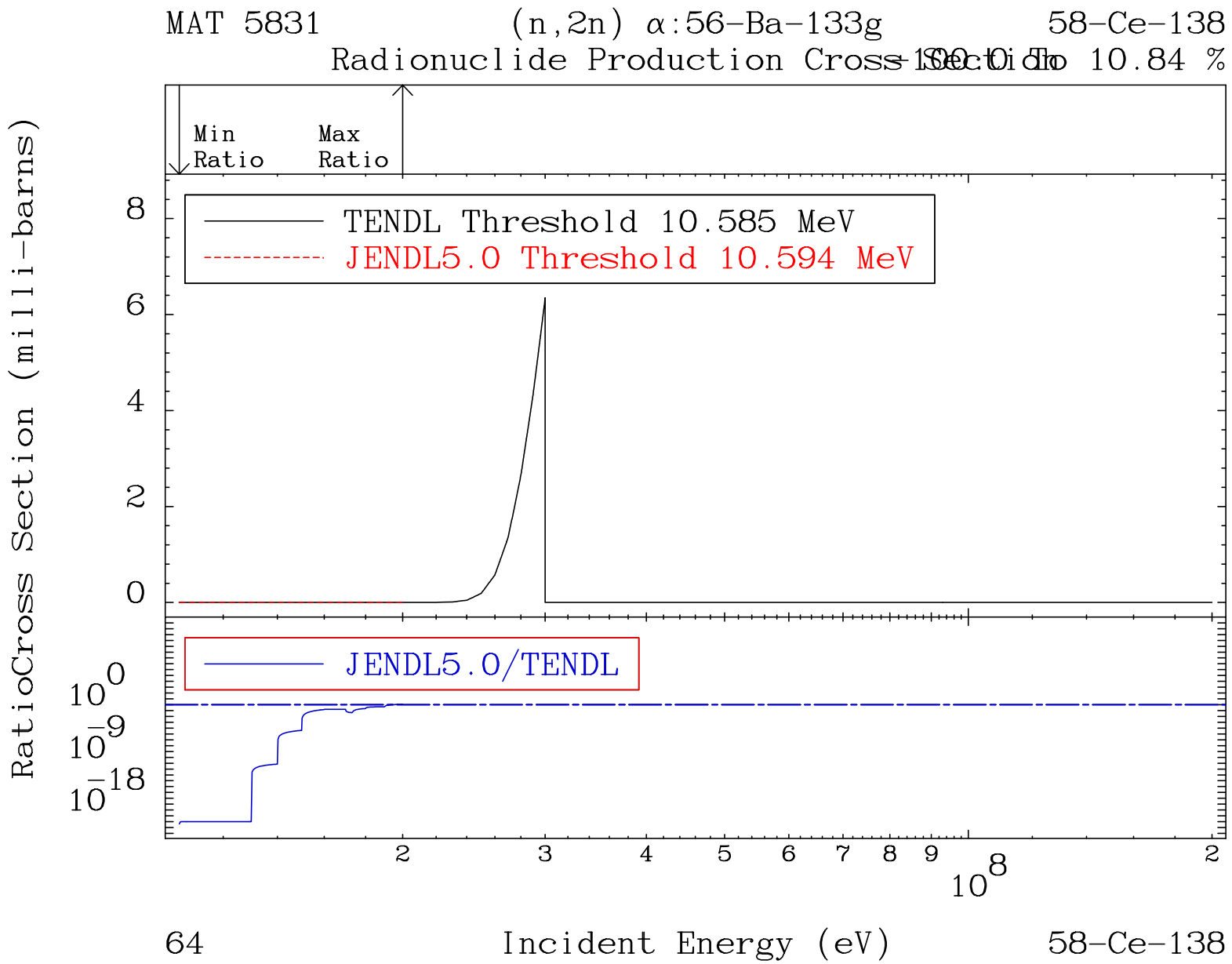

MAT 5831
Dpa elastic (mt2)
Cross Section
58-Ce-138
-53.71 To 2934. %
Min
Ratio
TENDL Threshold 815.45 eV
JENDL5.0 Threshold 817.50 eV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
59
58-Ce-138

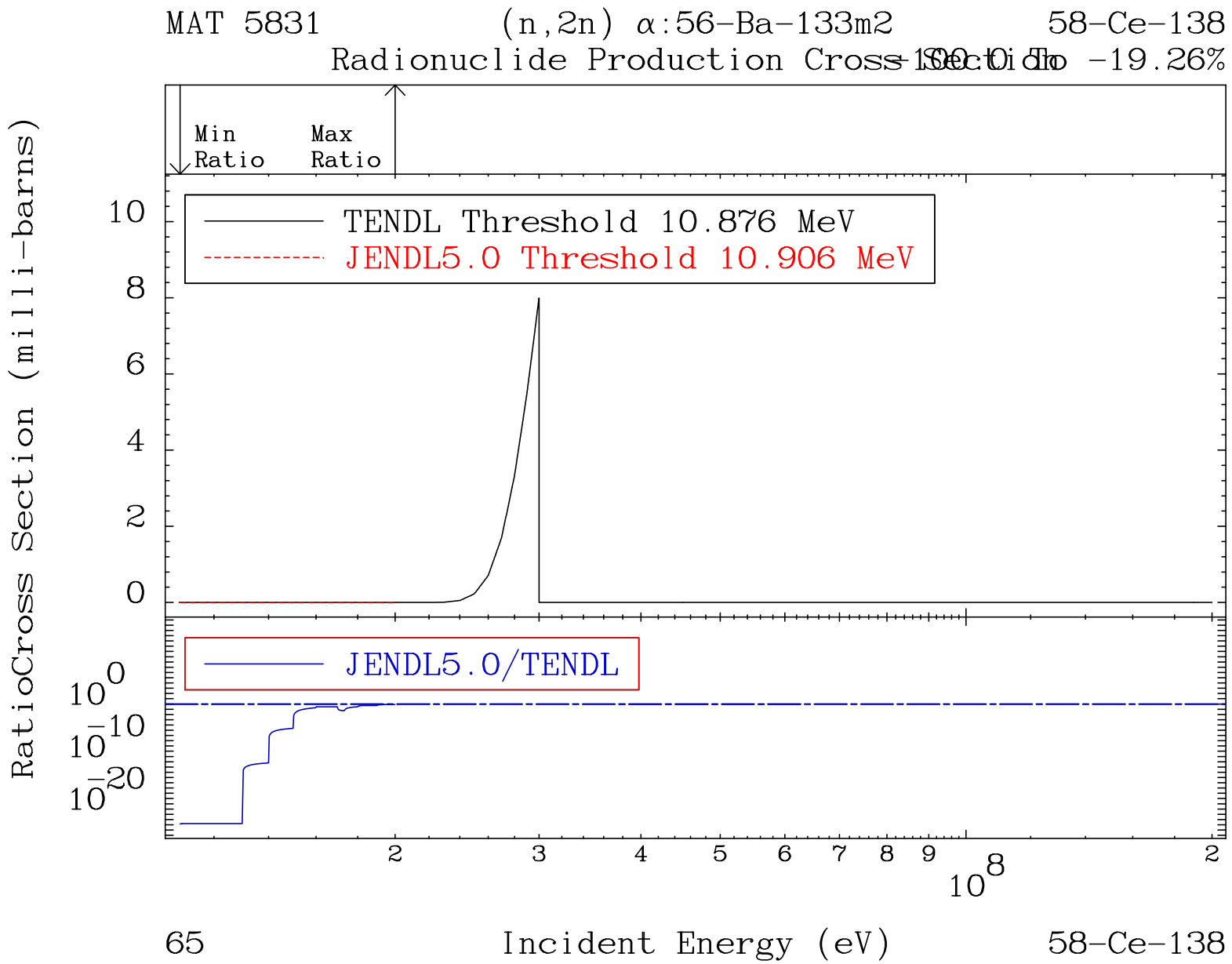

MAT 5831
Dpa inelastic (mt51-91)
58-Ce-138
Cross Section
-8.326 To 358.8 %
Min Ratio
Max Ratio
TENDL Threshold 794.56 keV
JENDL5.0 Threshold 150.00 keV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
60
58-Ce-138

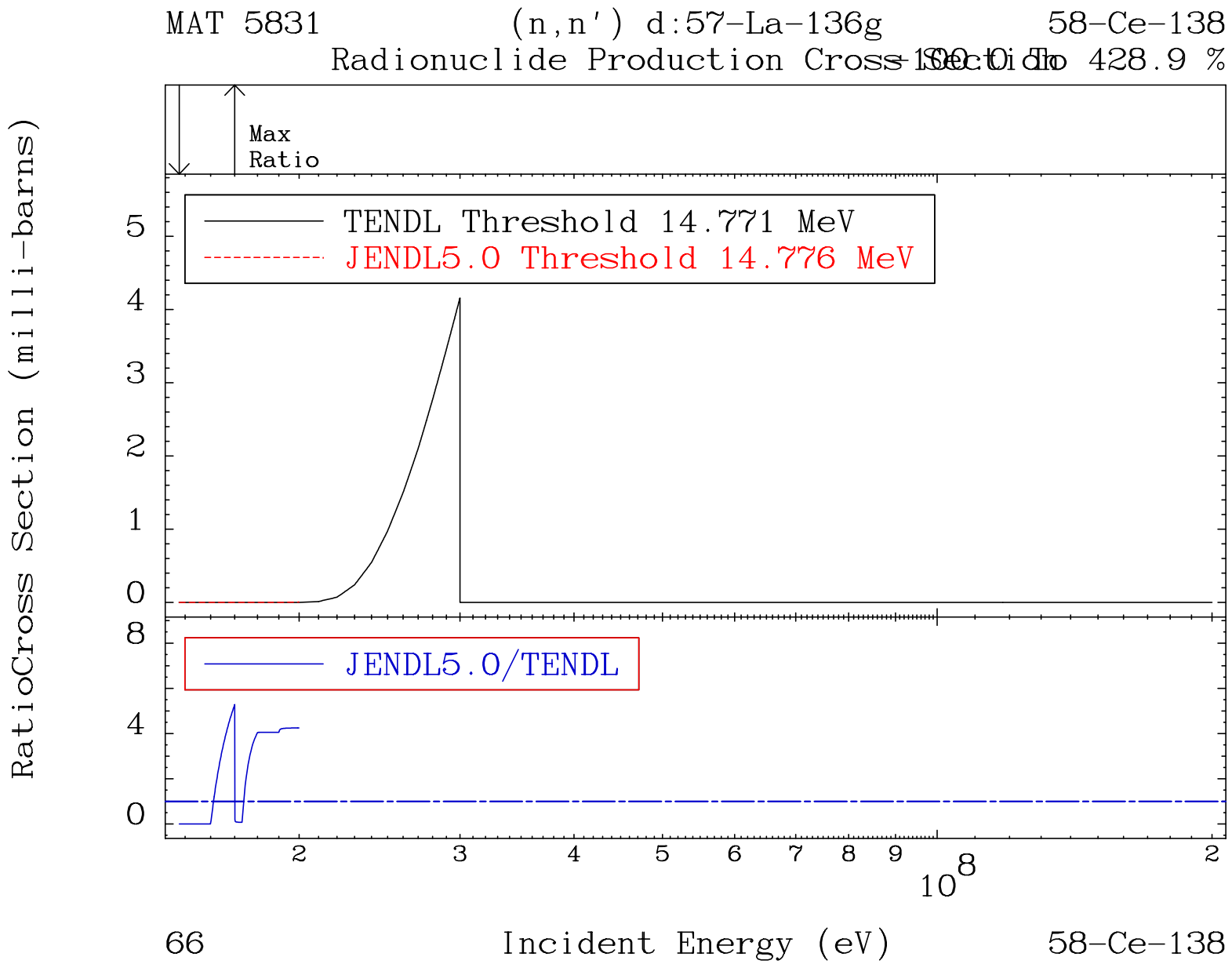

MAT 5831 Dpa disappearance (mt102 -120) 58-Ce-138
Cross Section -99.63 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL5.0
JENDL5.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
61
58-Ce-138

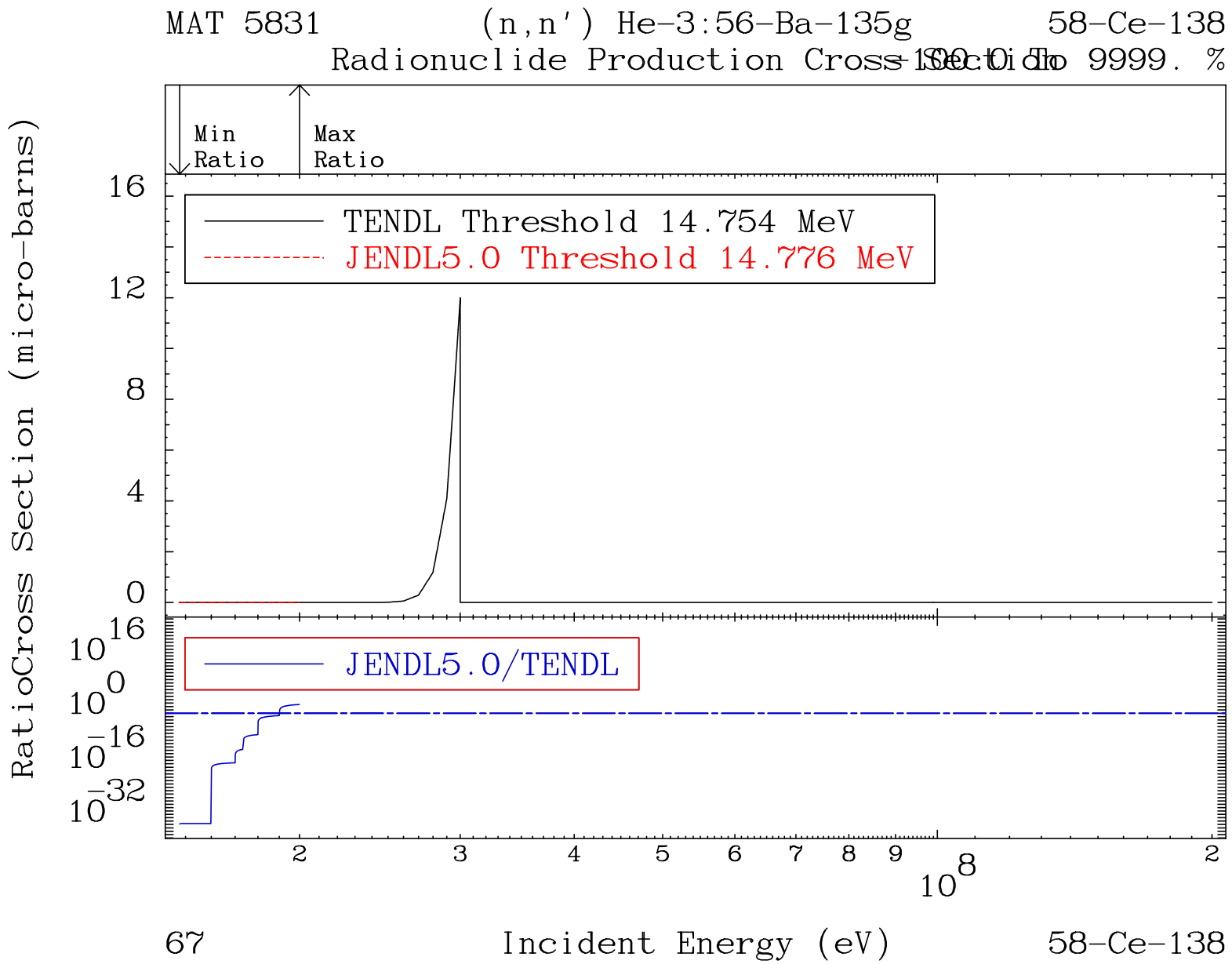

MAT 5831
(n,2n):58-Ce-137g
58-Ce-138
Radionuclide Production Cross Section
-20.27%
Min Ratio
Max Ratio
TENDL Threshold 9.7895 MeV
JENDL5.0 Threshold 9.7948 MeV
JENDL5.0/TENDL
Cross Section (barns)
Ratio
1.0
0.8
0.6
0.4
0.2
0.0
1.2
0.8
0.4
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
62
Incident Energy (eV)
58-Ce-138

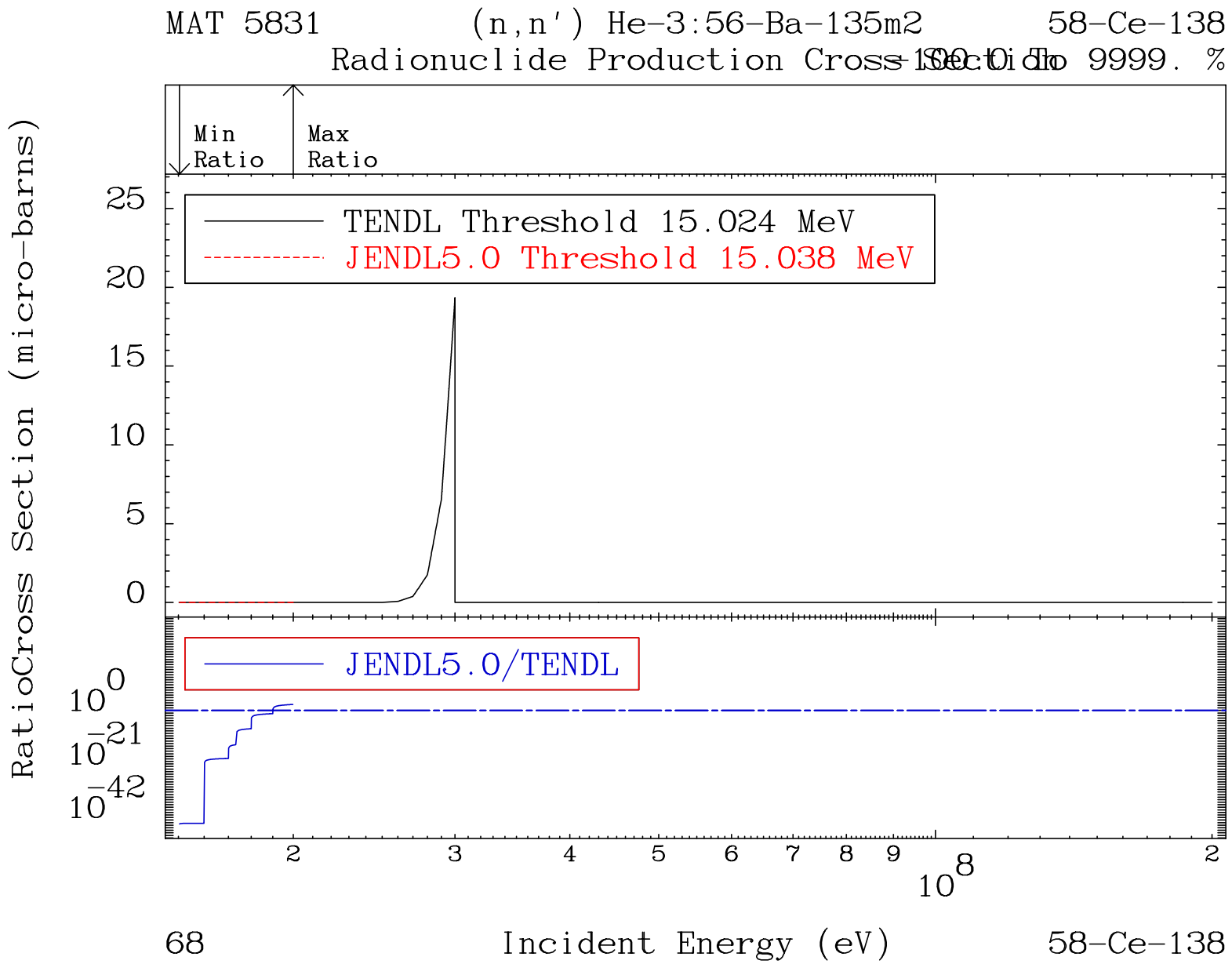

MAT 5831
(n,2n):58-Ce-137m2
58-Ce-138
Radionuclide Production Cross Section To 4.794 %
Min Ratio
Max Ratio
TENDL Threshold 10.046 MeV
JENDL5.0 Threshold 10.051 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL5.0/TENDL
Ratio
1.2
0.6
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
58-Ce-138

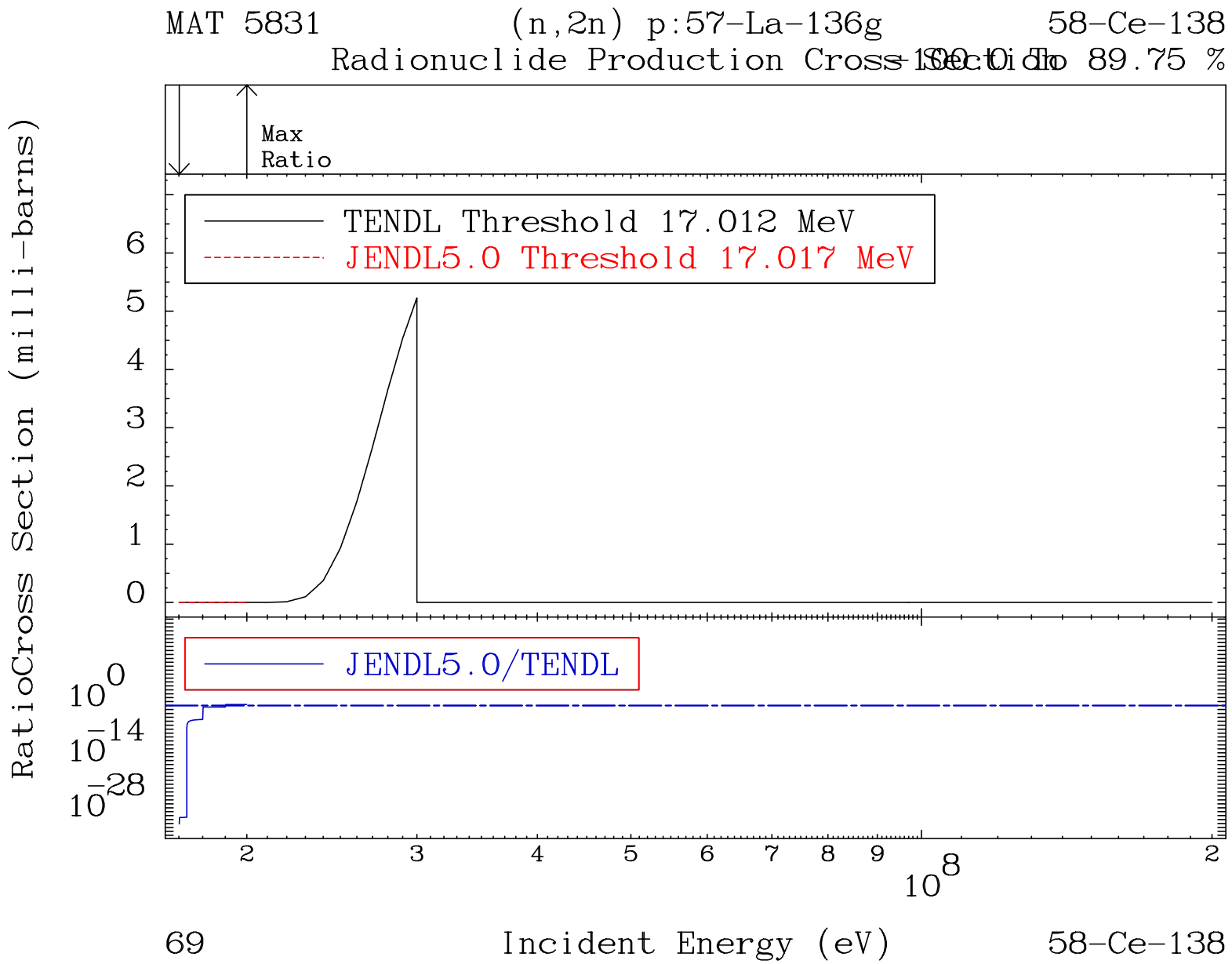

MAT 5831
(n,2n) α:56-Ba-133g
58-Ce-138
Radionuclide Production Cross Section To 10.84 %
Min Ratio
Max Ratio
TENDL Threshold 10.585 MeV
JENDL5.0 Threshold 10.594 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
64
58-Ce-138

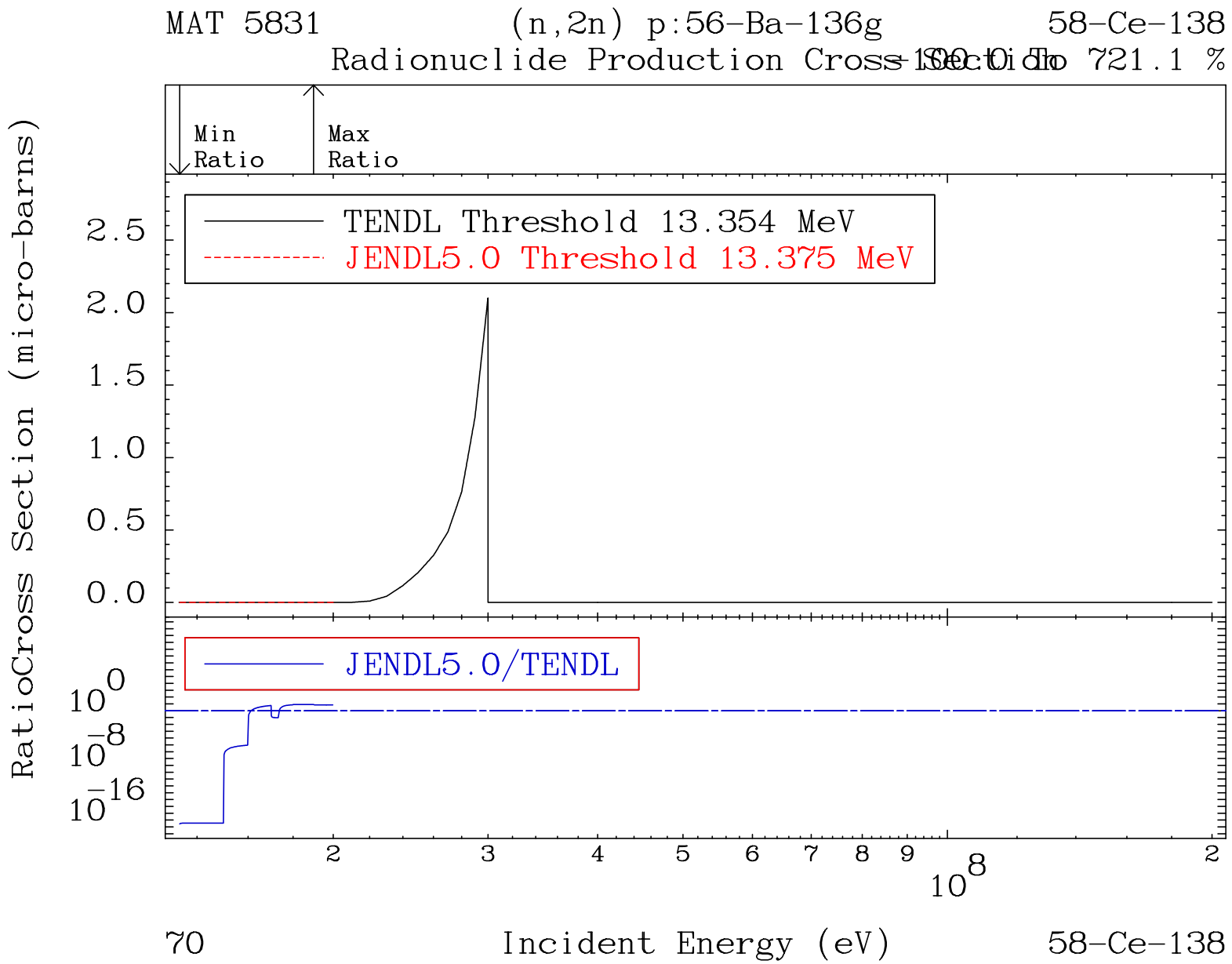

MAT 5831
(n,2n) α:56-Ba-133m2
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 10.876 MeV
JENDL5.0 Threshold 10.906 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
65
58-Ce-138

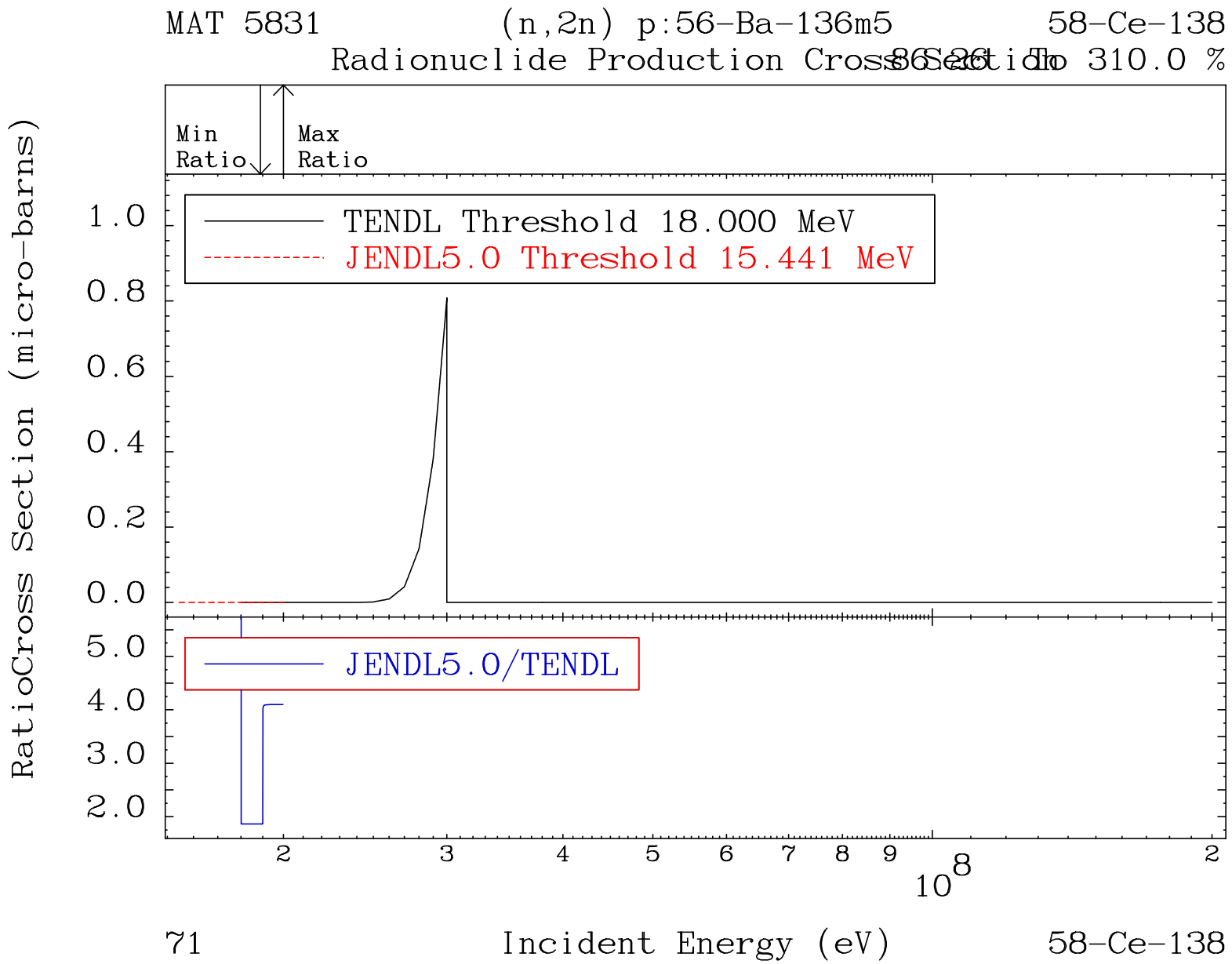

MAT 5831
(n,n') d:57-La-136g
58-Ce-138
Radionuclide Production Cross Section To 428.9 %
Max
Ratio
TENDL Threshold 14.771 MeV
JENDL5.0 Threshold 14.776 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
66
58-Ce-138

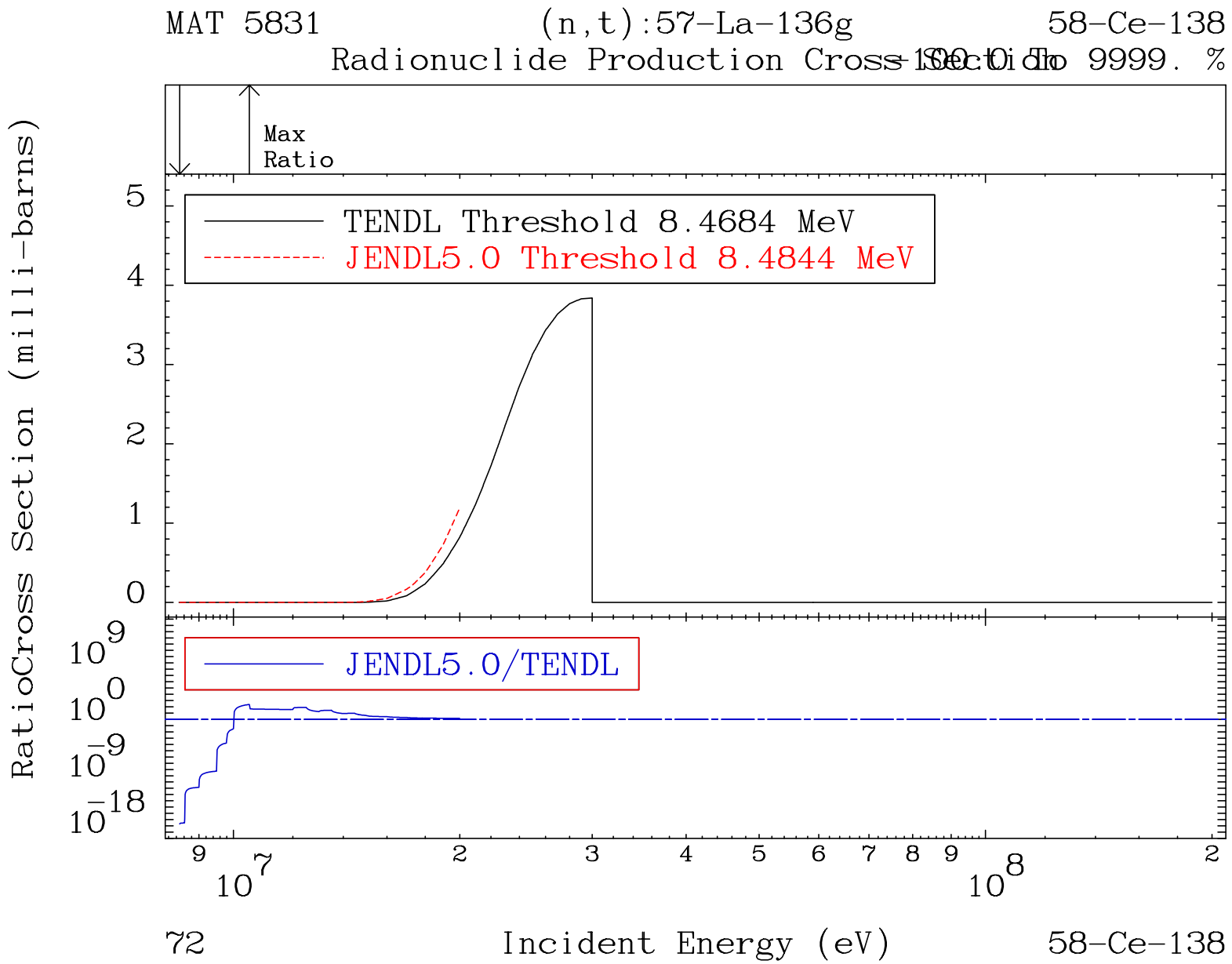

MAT 5831
(n,n') He-3:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 14.754 MeV
JENDL5.0 Threshold 14.776 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
16
12
8
4
0
10^16
10^0
10^-16
10^-32
2
3
4
5
6
7
8
9
10^8
2
67
Incident Energy (eV)
58-Ce-138

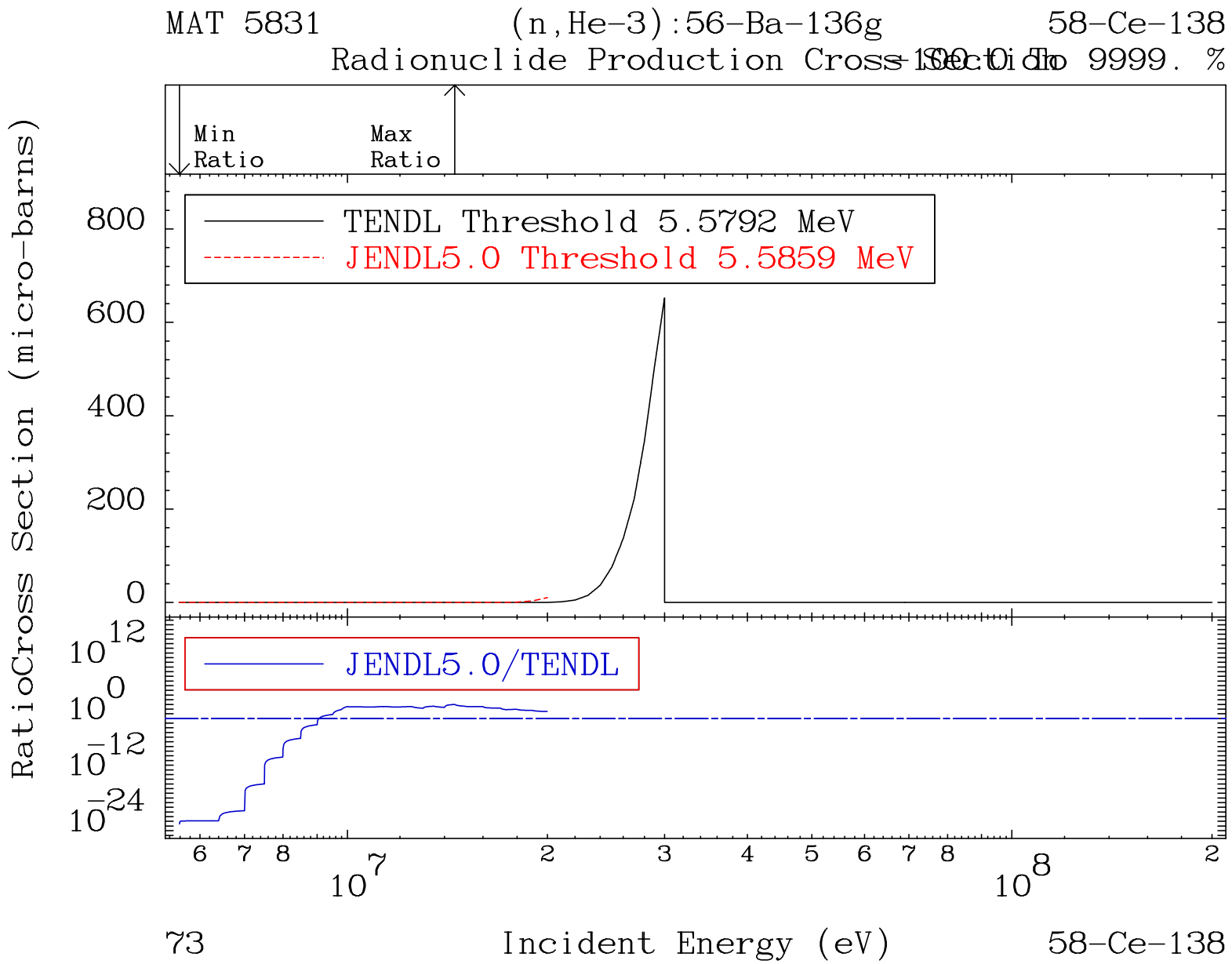

MAT 5831 (n,n') He-3:56-Ba-135m2 58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 15.024 MeV
JENDL5.0 Threshold 15.038 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
25
20
15
10
5
0
10^{0}
10^{-21}
10^{-42}
2
3
4
5
6
7
8
9
10^{8}
2
68
Incident Energy (eV)
58-Ce-138

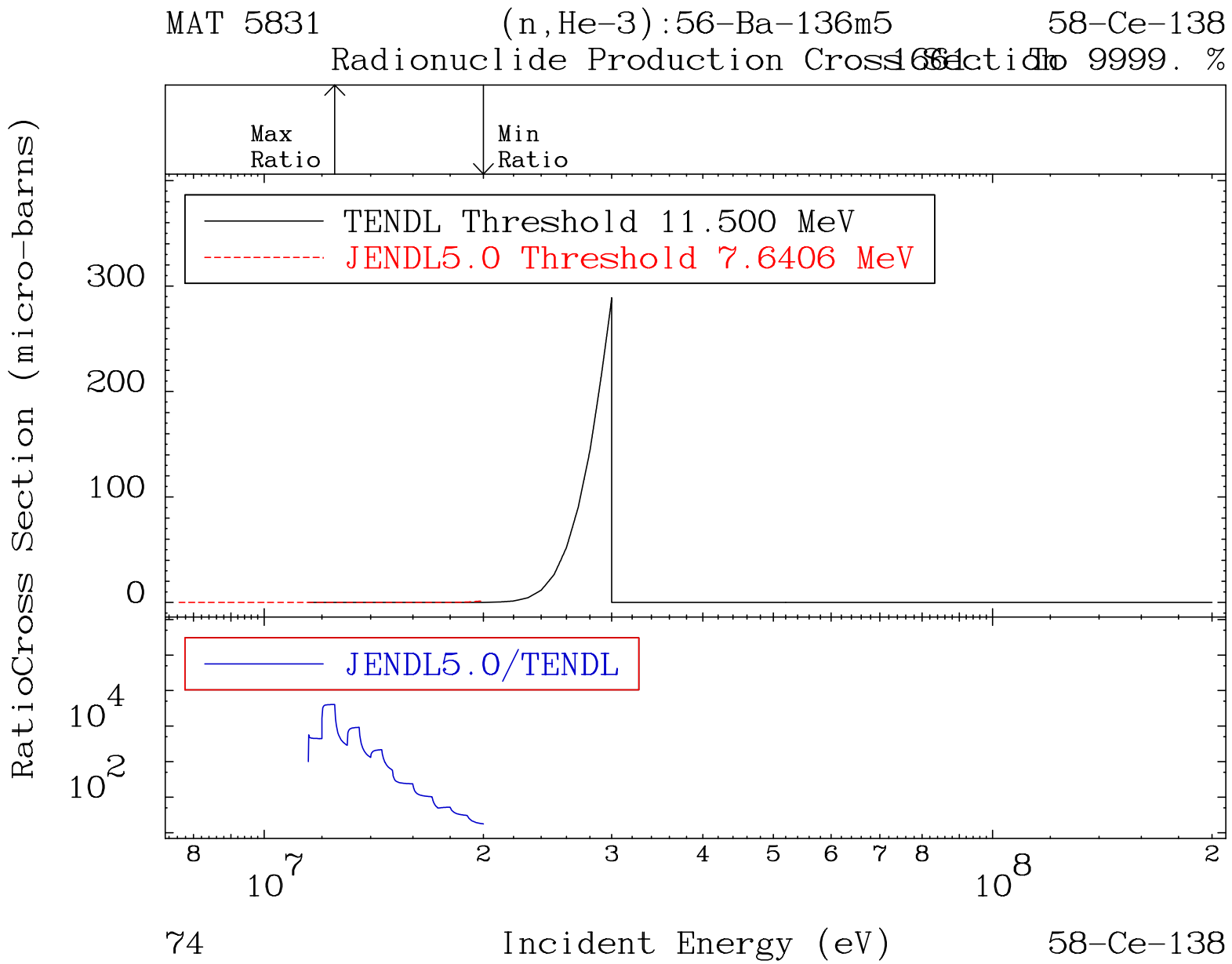

MAT 5831
(n,2n) p:57-La-136g
58-Ce-138
Radionuclide Production Cross Section To 89.75 %
Max
Ratio
TENDL Threshold 17.012 MeV
JENDL5.0 Threshold 17.017 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
69
58-Ce-138

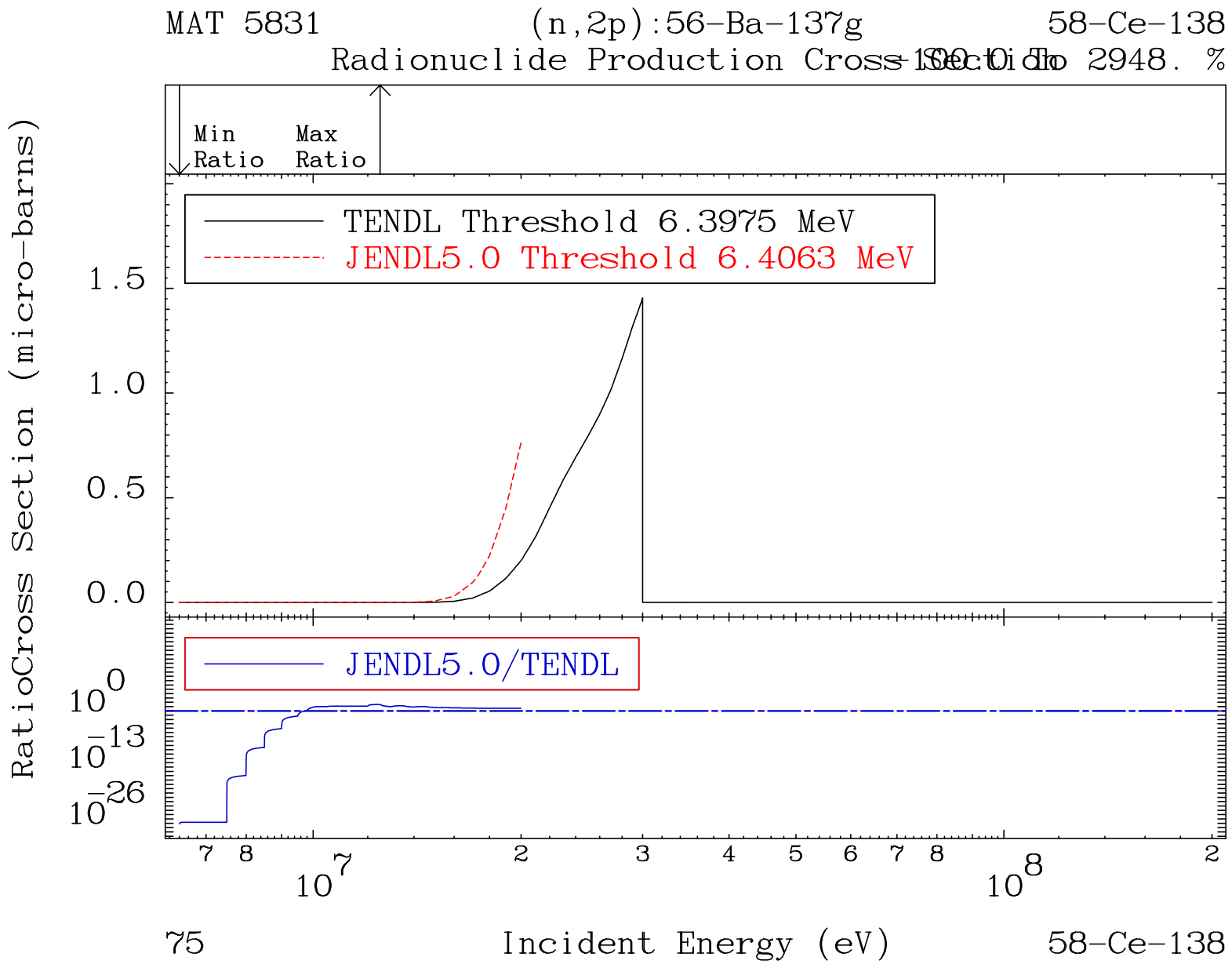

MAT 5831
(n,2n) p:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 721.1 %
Min Ratio
Max Ratio
TENDL Threshold 13.354 MeV
JENDL5.0 Threshold 13.375 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
2.5
2.0
1.5
1.0
0.5
0.0
10^0
10^-8
10^-16
2
3
4
5
6
7
8
9
10^8
2
70
Incident Energy (eV)
58-Ce-138

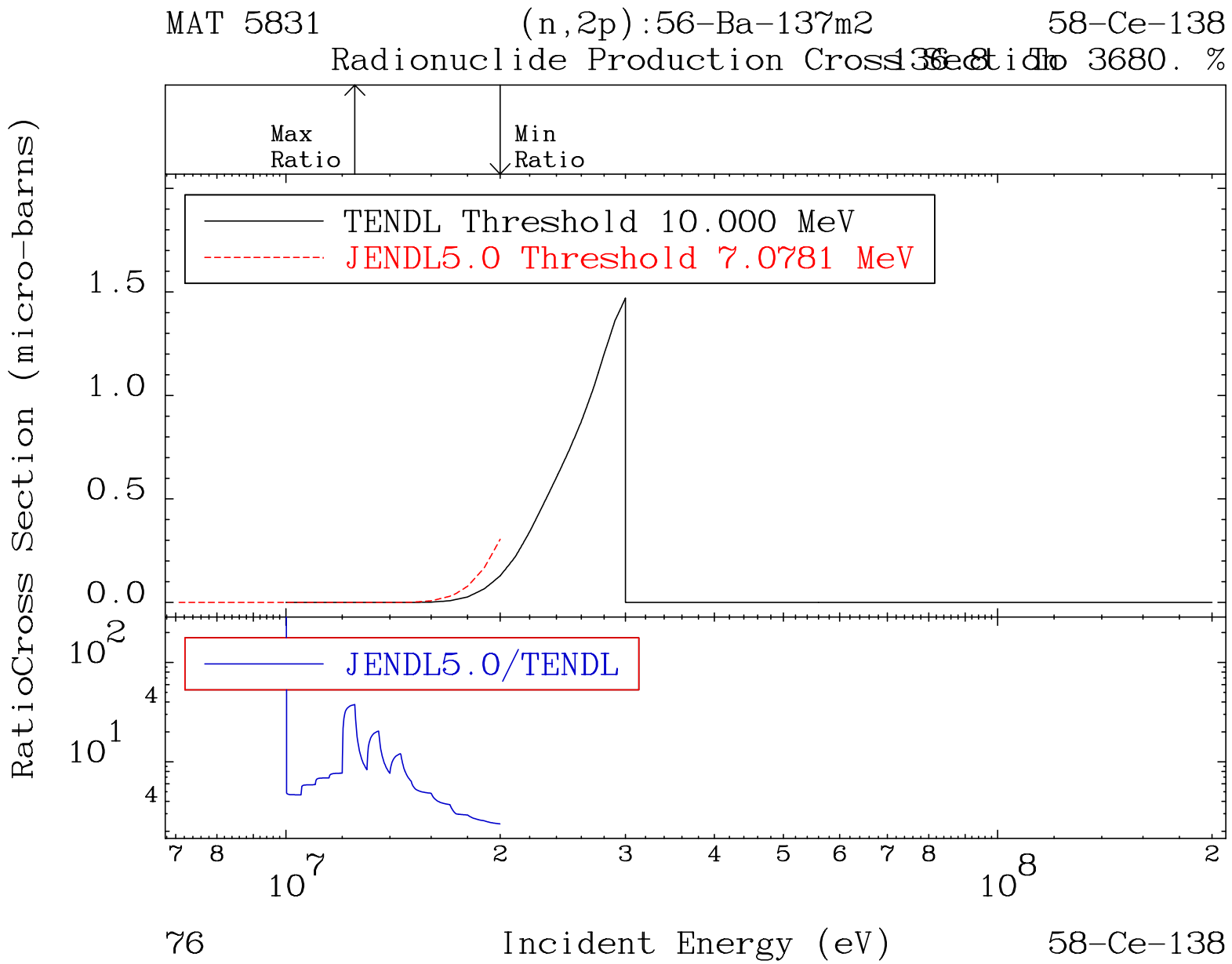

MAT 5831
(n,2n) p:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
86.26 to 310.0 %
Min Ratio
Max Ratio
TENDL Threshold 18.000 MeV
JENDL5.0 Threshold 15.441 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
5.0
4.0
3.0
2.0
2
3
4
5
6
7
8
9
10^8
2
71
Incident Energy (eV)
58-Ce-138

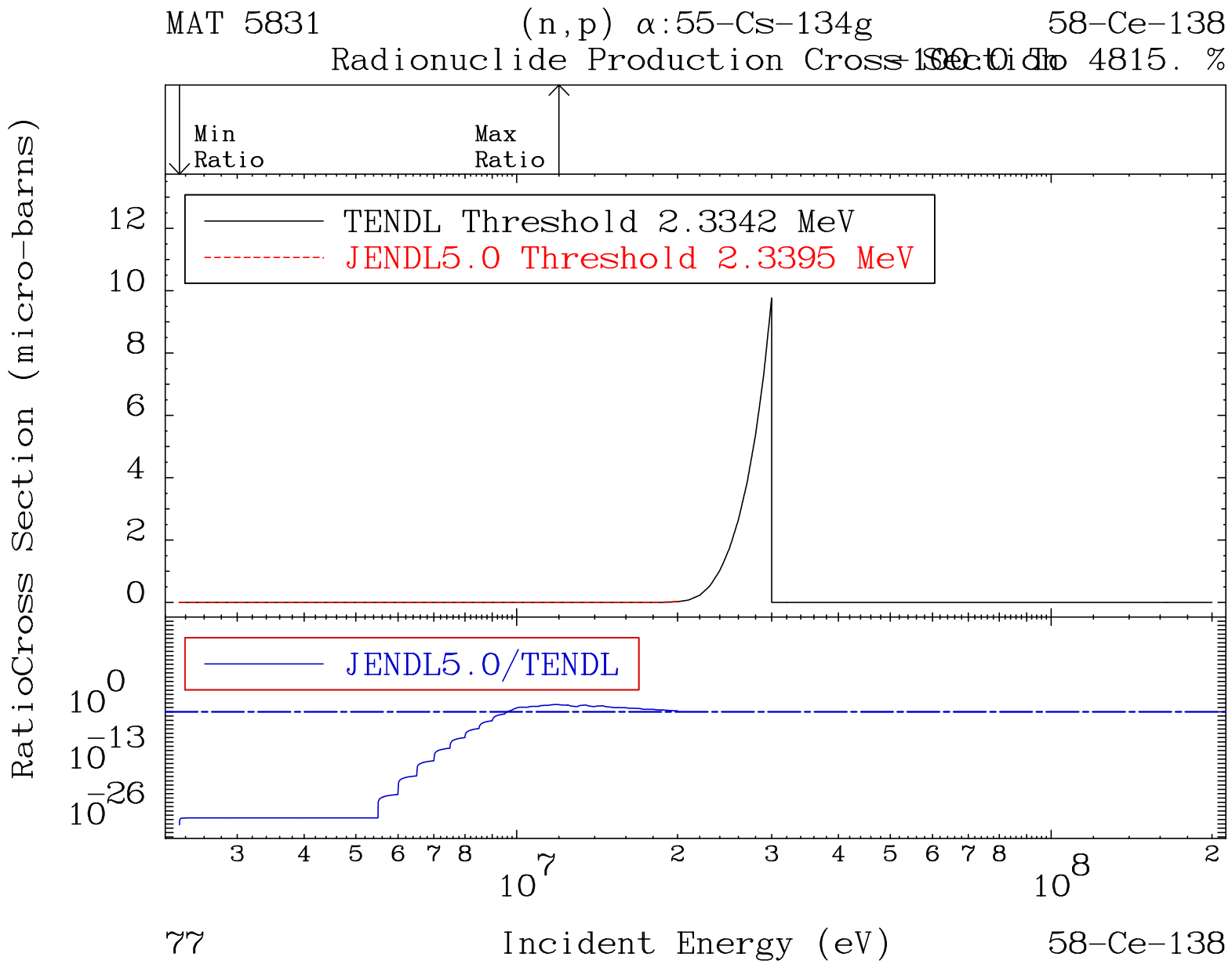

MAT 5831
(n,t):57-La-136g
58-Ce-138
Radionuclide Production Cross Section
Max
Ratio
TENDL Threshold 8.4684 MeV
JENDL5.0 Threshold 8.4844 MeV
JENDL5.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
72
58-Ce-138

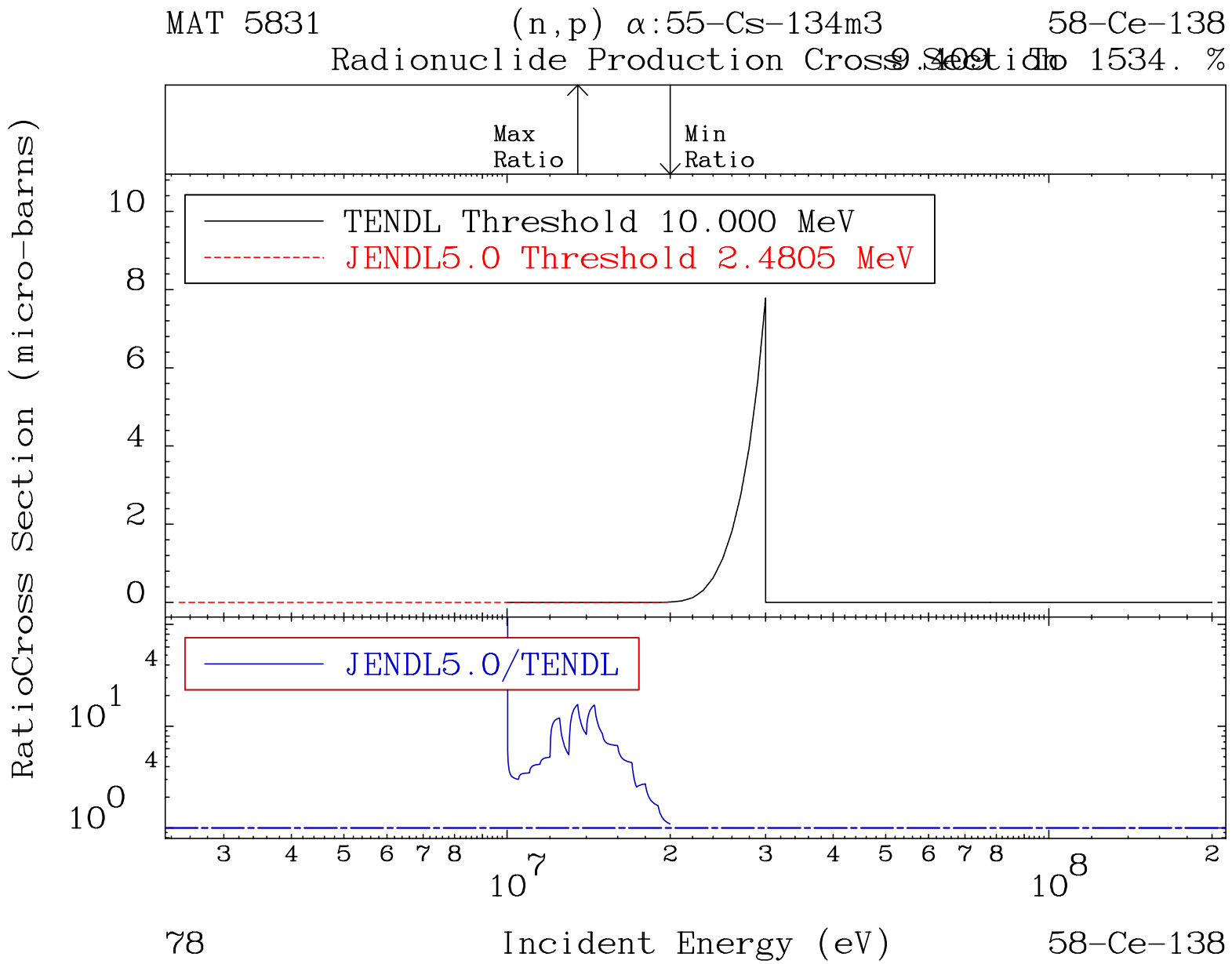

MAT 5831
(n,He-3):56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JENDL5.0 Threshold 5.5859 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
73
58-Ce-138

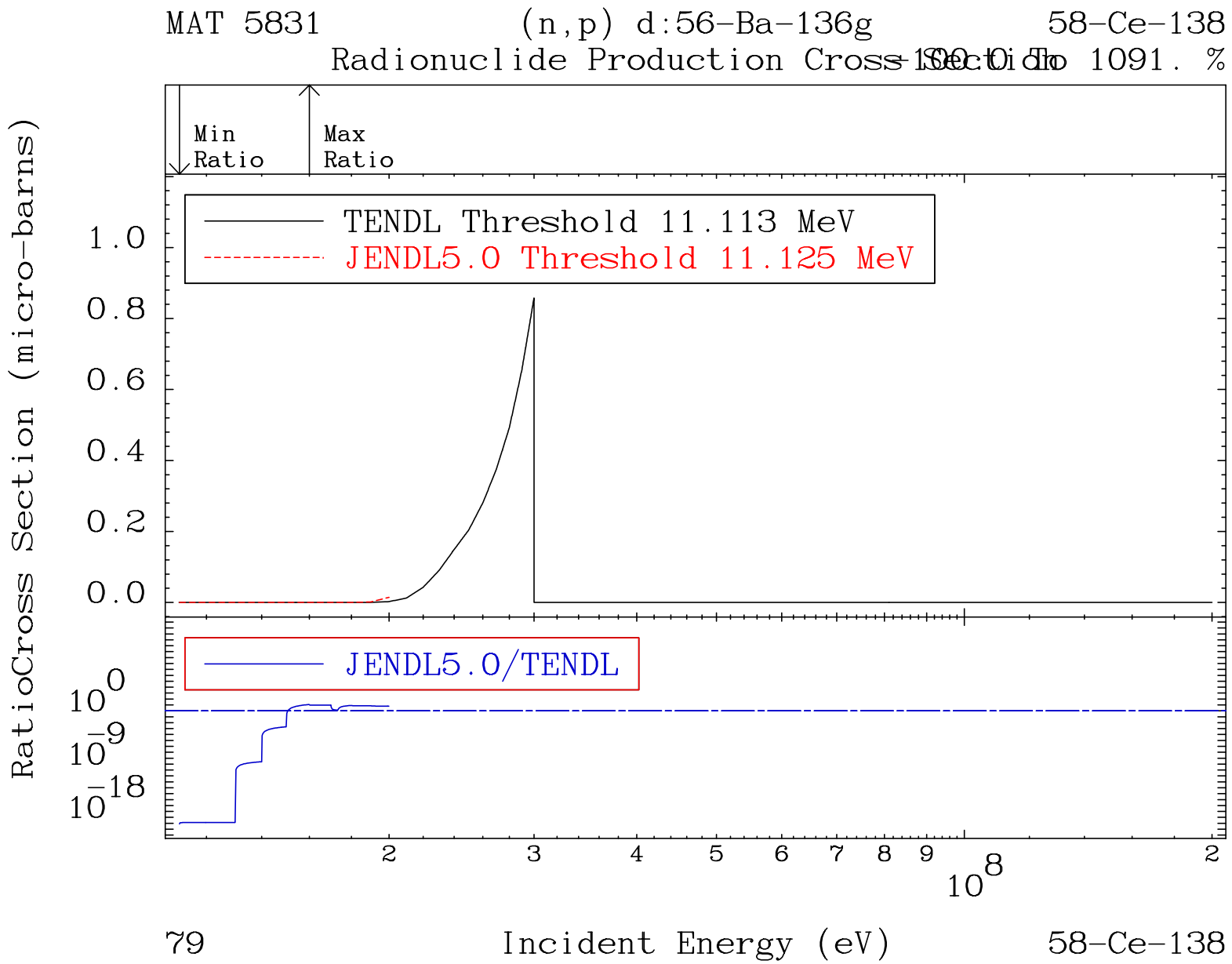

MAT 5831
(n,He-3):56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 11.500 MeV
JENDL5.0 Threshold 7.6406 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
300
200
100
0
10^4
10^2
8
10^7
2
3
4
5
6
7
8
10^8
2
74
Incident Energy (eV)
58-Ce-138

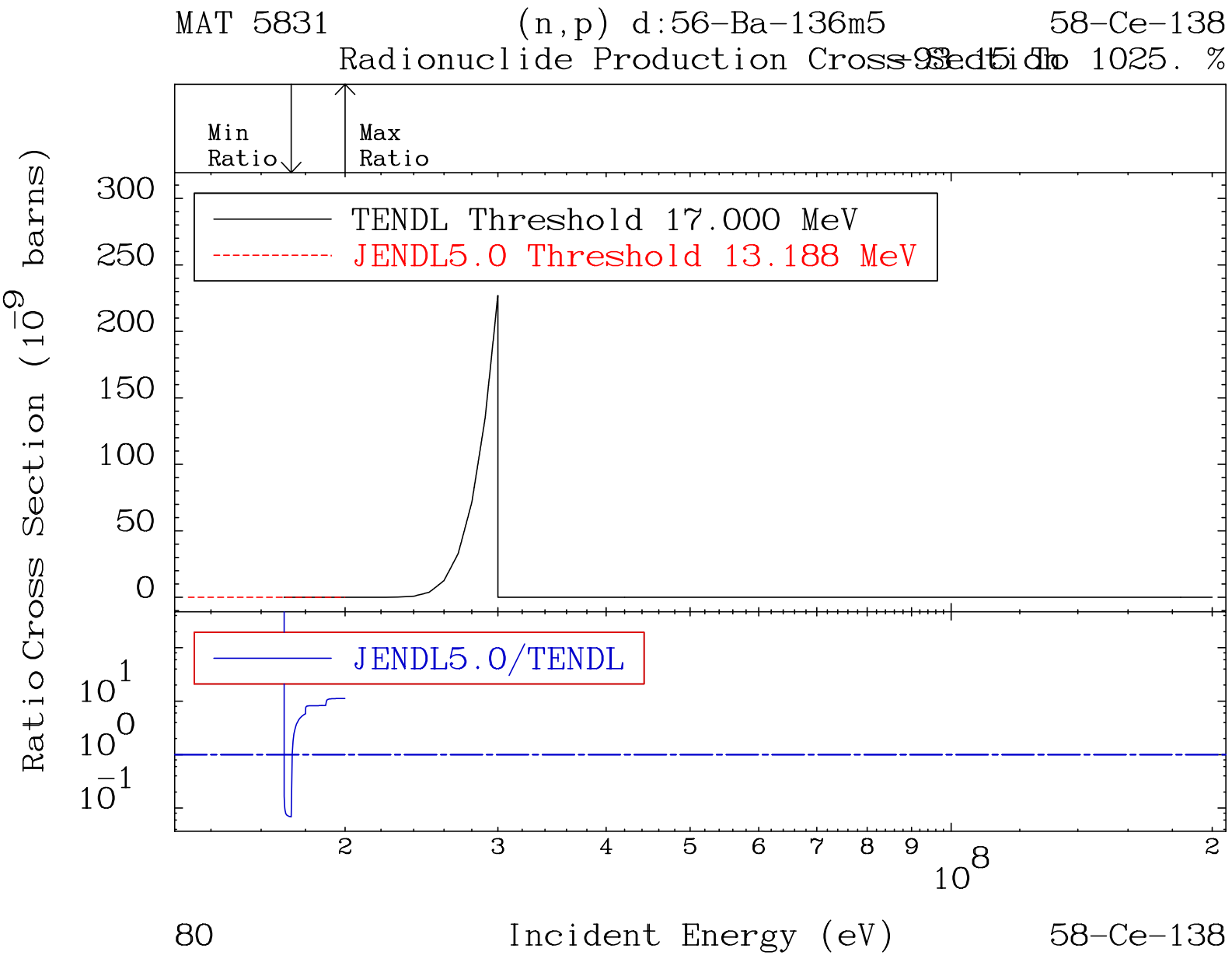

MAT 5831
(n,2p):56-Ba-137g
58-Ce-138
Radionuclide Production Cross Section To 2948. %
Min Ratio
Max Ratio
TENDL Threshold 6.3975 MeV
JENDL5.0 Threshold 6.4063 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
1.5
1.0
0.5
0.0
10^0
10^-13
10^-26
7 8
10^7
2 3 4 5 6 7 8
10^8
2
75
Incident Energy (eV)
58-Ce-138

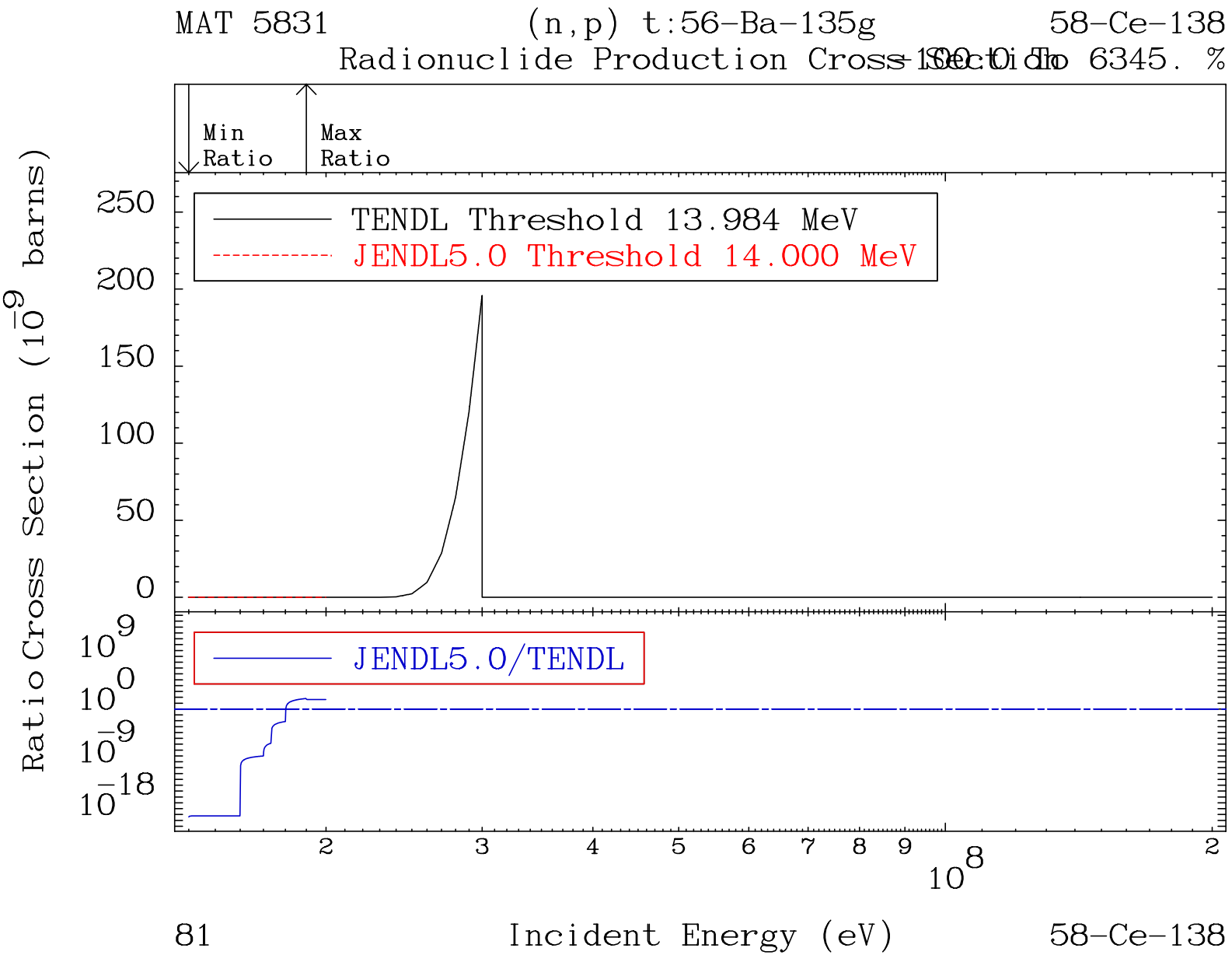

MAT 5831
(n,2p):56-Ba-137m2
58-Ce-138
Radionuclide Production Cross Section To 3680. %
Max Ratio
Min Ratio
TENDL Threshold 10.000 MeV
JENDL5.0 Threshold 7.0781 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
1.5
1.0
0.5
0.0
10^2
10^1
4
4
7 8
10^7
2 3 4 5 6 7 8
10^8
2
76
Incident Energy (eV)
58-Ce-138

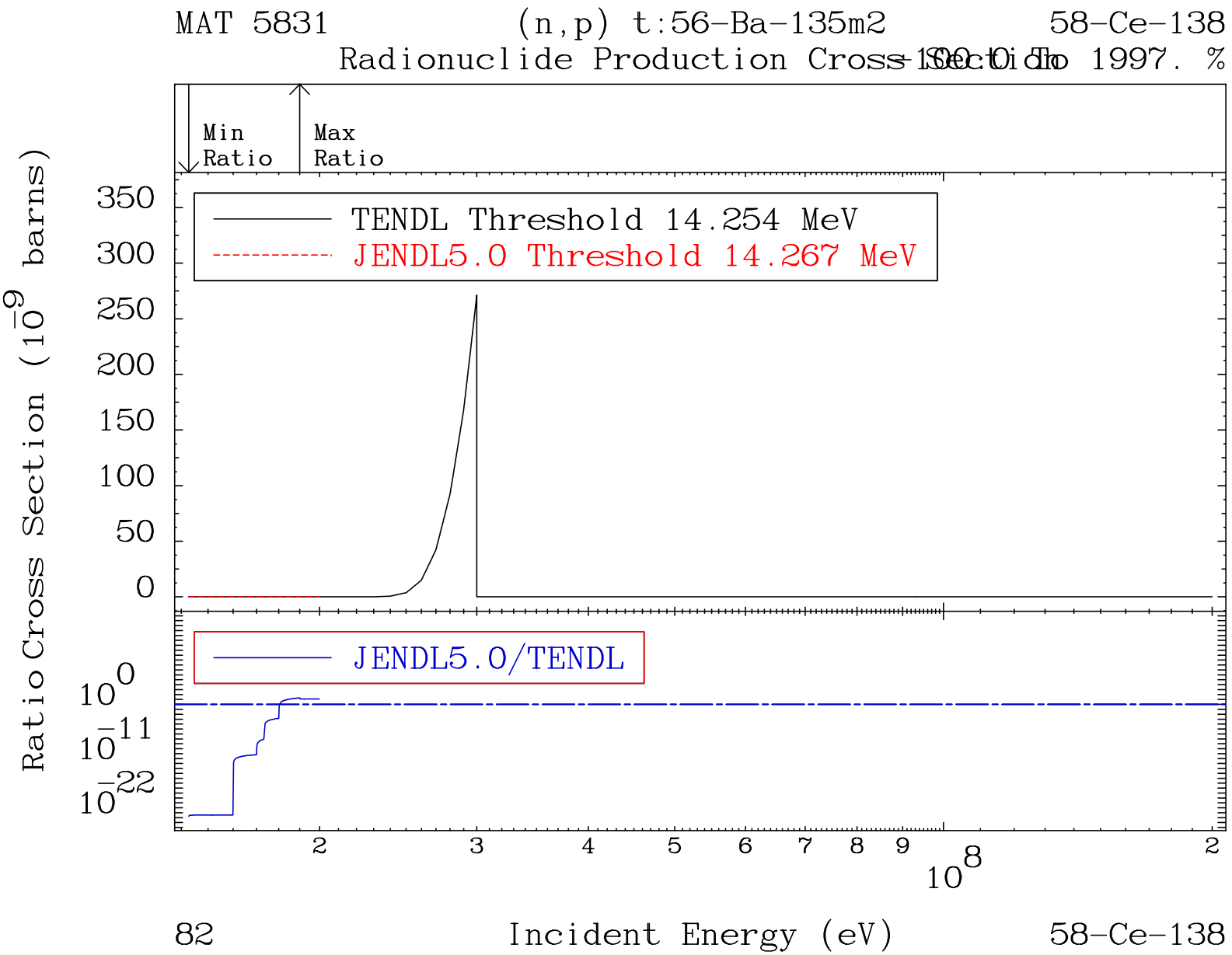

MAT 5831
(n,p) α:55-Cs-134g
58-Ce-138
Radionuclide Production Cross Section To 4815. %
Min Ratio
Max Ratio
TENDL Threshold 2.3342 MeV
JENDL5.0 Threshold 2.3395 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
77
58-Ce-138

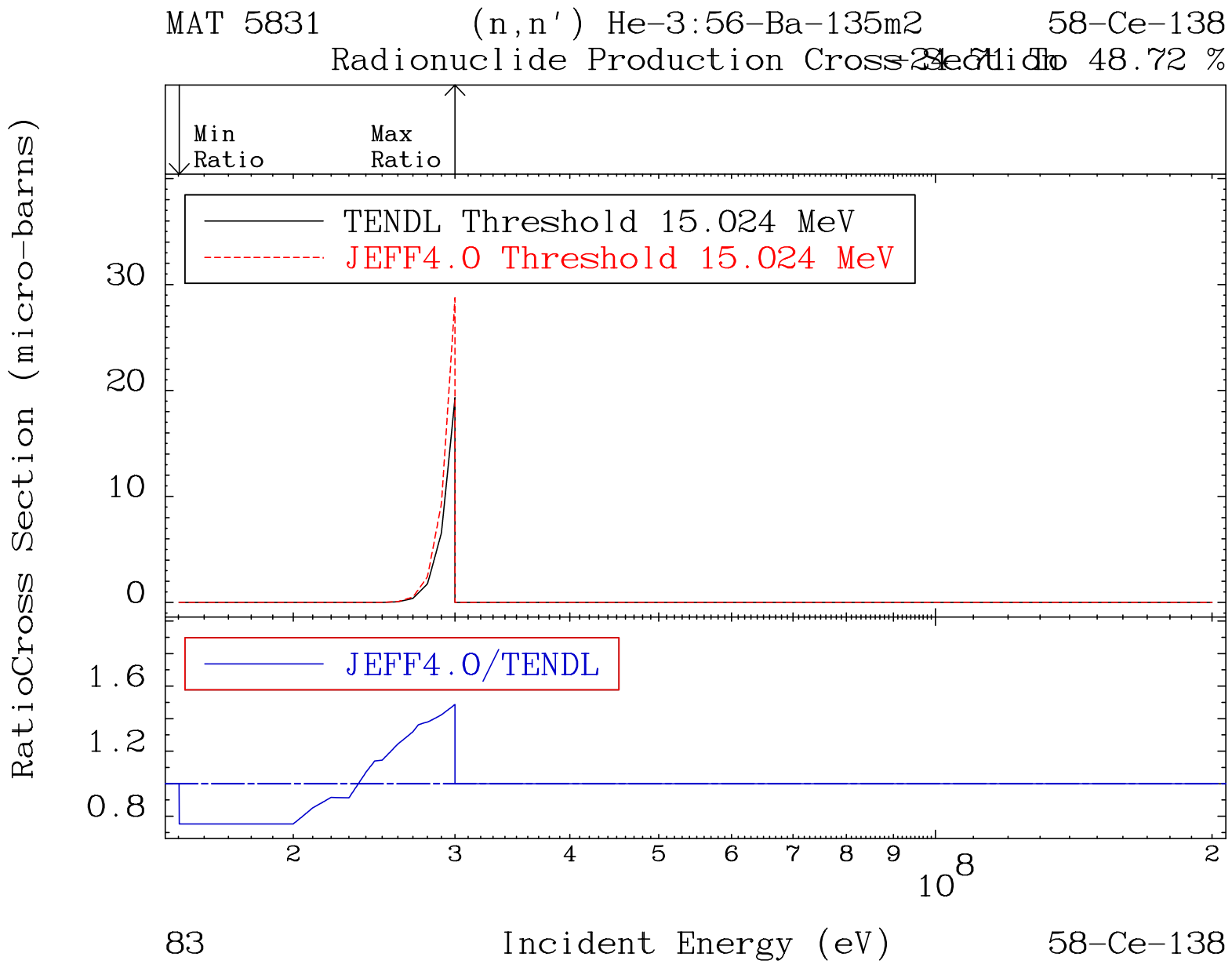

MAT 5831
(n,p) α:55-Cs-134m3
58-Ce-138
Radionuclide Production Cross Section
Max Ratio
Min Ratio
TENDL Threshold 10.000 MeV
JENDL5.0 Threshold 2.4805 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
78
58-Ce-138

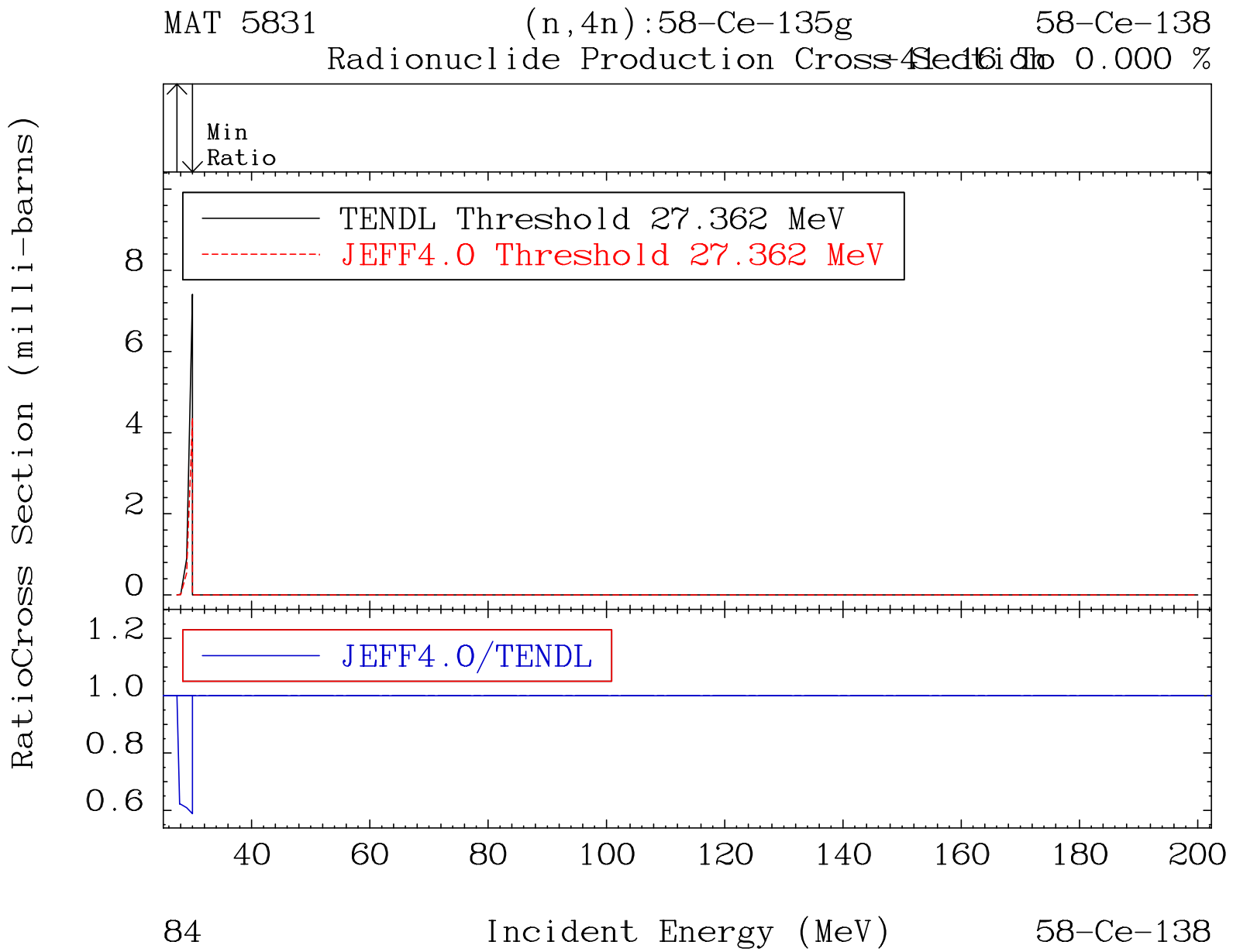

MAT 5831
(n,p) d:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 1091. %
Min Ratio
Max Ratio
TENDL Threshold 11.113 MeV
JENDL5.0 Threshold 11.125 MeV
JENDL5.0/TENDL
RatioCross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
10^0
10^-9
10^-18
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
58-Ce-138

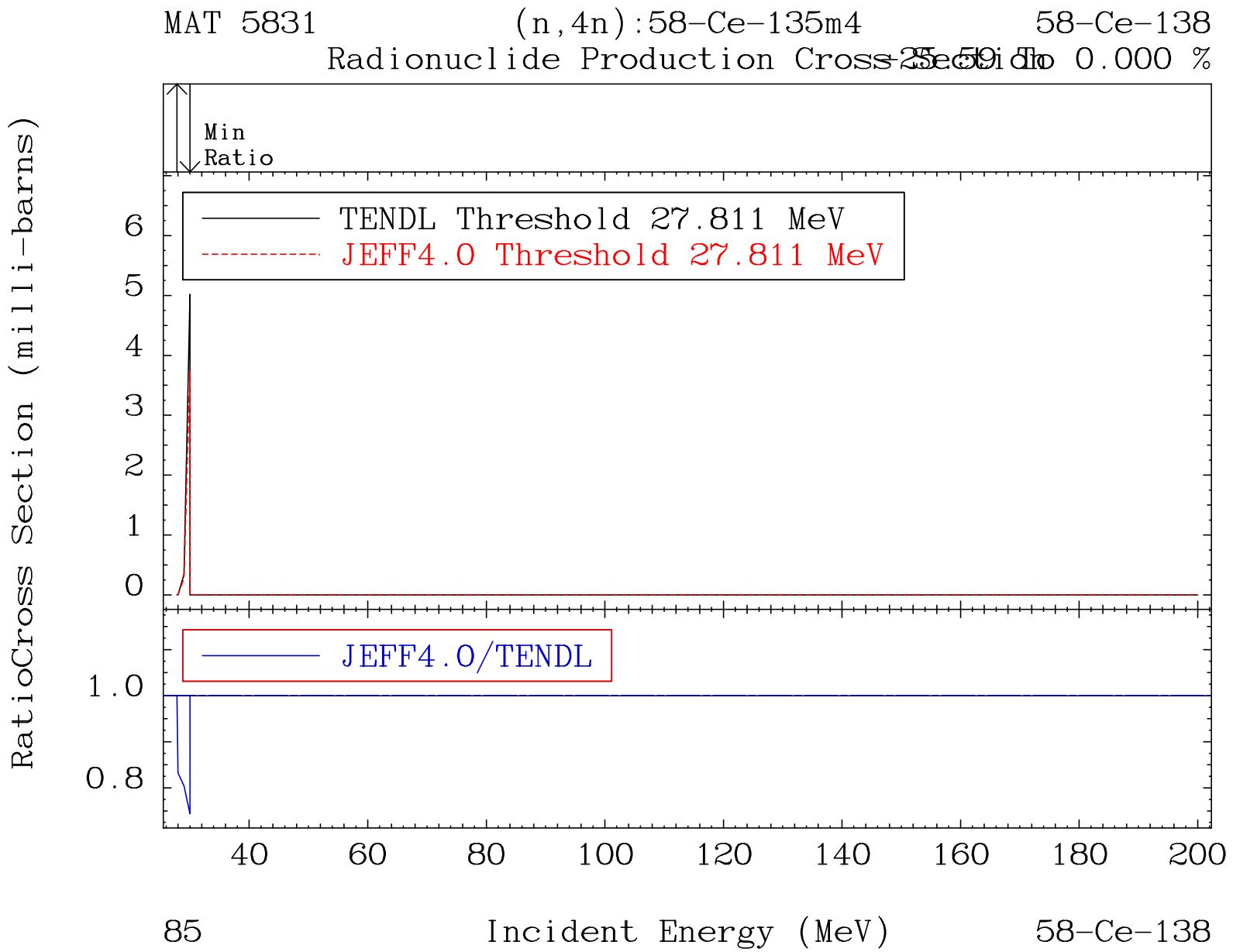

MAT 5831
(n,p) d:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 17.000 MeV
JENDL5.0 Threshold 13.188 MeV
JENDL5.0/TENDL
Ratio Cross Section (10^{-9} barns)
Incident Energy (eV)
80
58-Ce-138

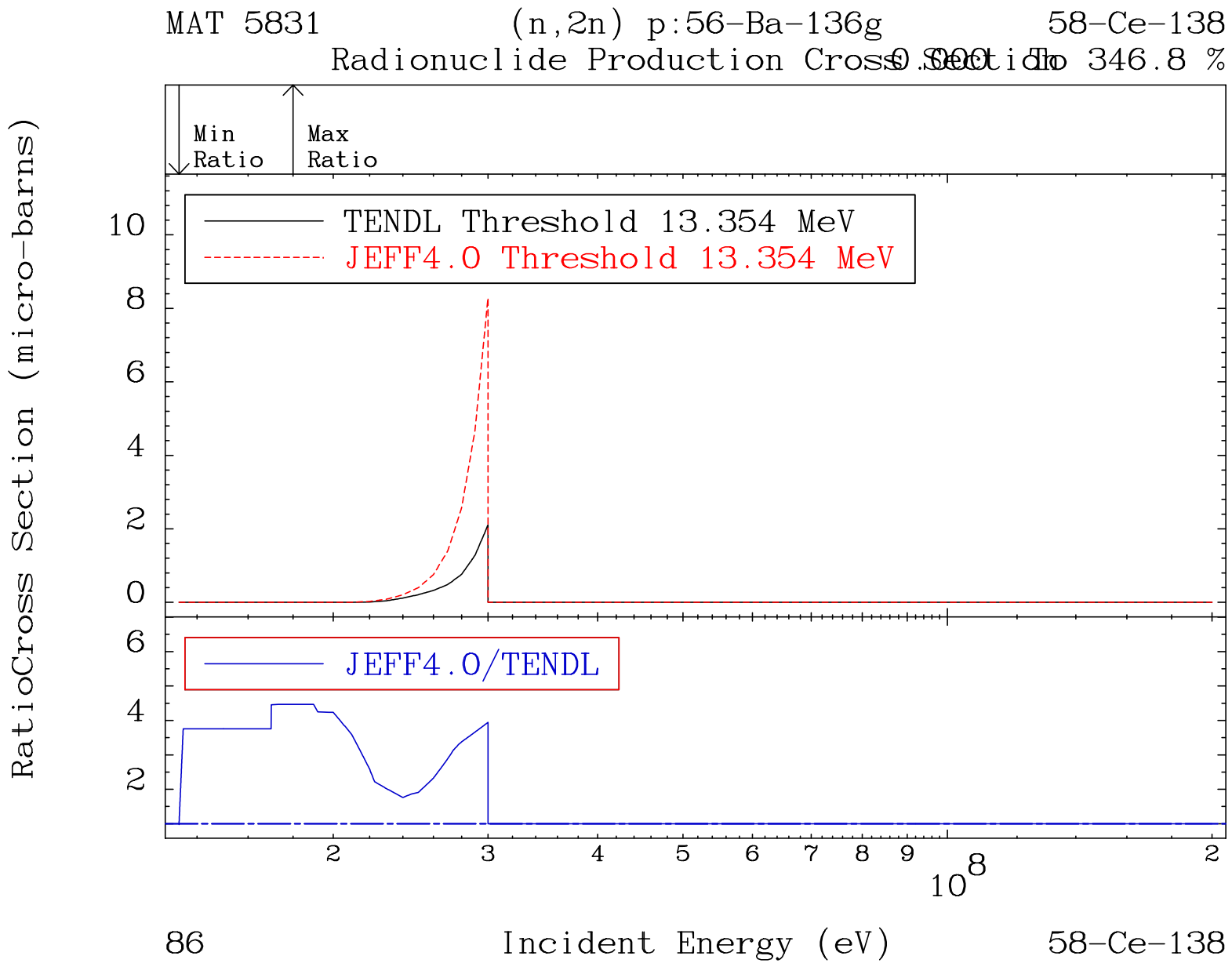

MAT 5831
(n,p) t:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section To 6345. %
Min Ratio
Max Ratio
TENDL Threshold 13.984 MeV
JENDL5.0 Threshold 14.000 MeV
JENDL5.0/TENDL
Ratio Cross Section (10^{-9} barns)
250
200
150
100
50
0
10^{9}
10^{0}
10^{-9}
10^{-18}
2
3
4
5
6
7
8
9
10^{8}
2
81
Incident Energy (eV)
58-Ce-138

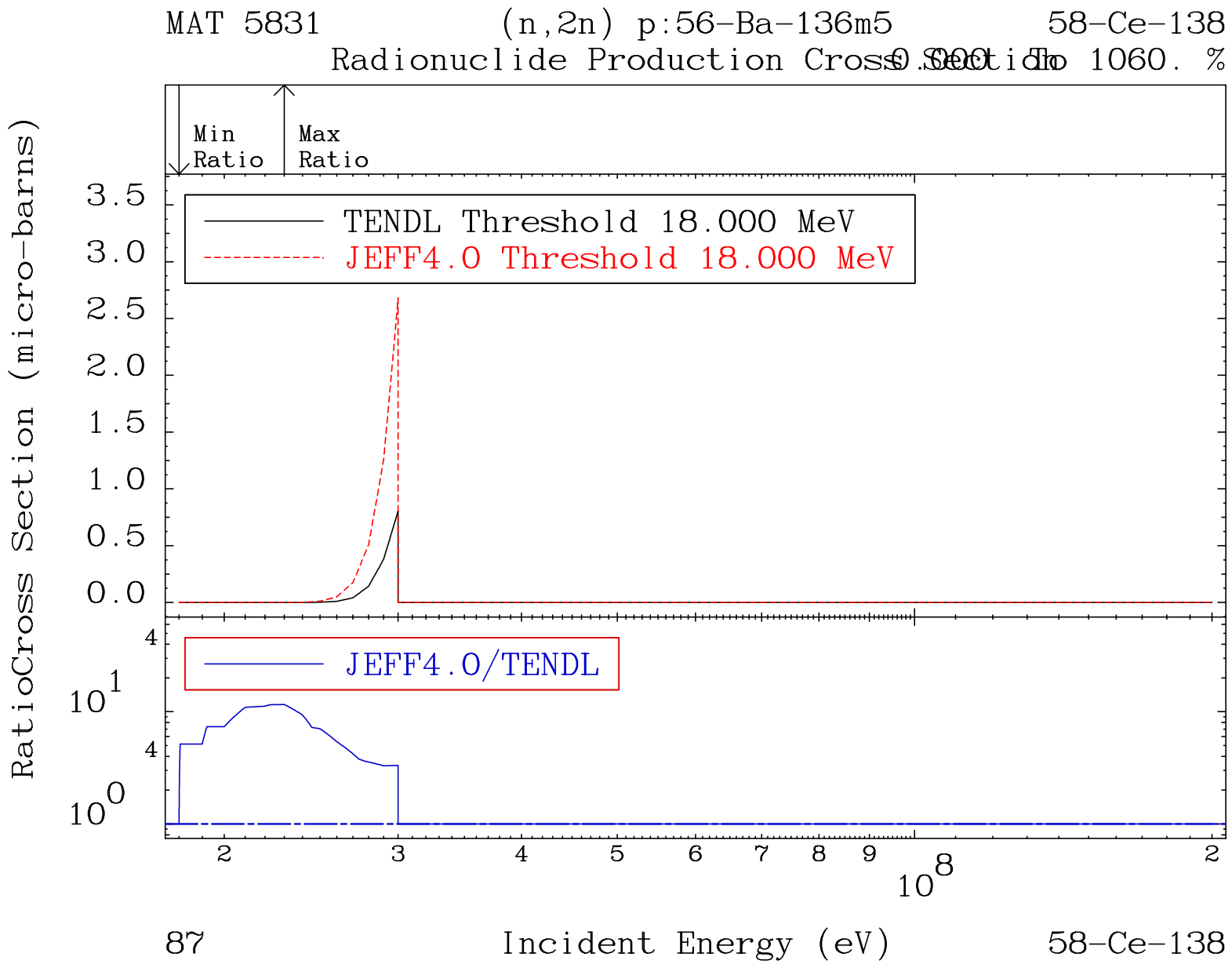

MAT 5831
(n,p) t:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section
1990 To 1997. %
Min Ratio
Max Ratio
TENDL Threshold 14.254 MeV
JENDL5.0 Threshold 14.267 MeV
JENDL5.0/TENDL
Ratio Cross Section (10^{-9} barns)
350
300
250
200
150
100
50
0
10^{0}
10^{-11}
10^{-22}
2
3
4
5
6
7
8
9
10^{8}
2
82
Incident Energy (eV)
58-Ce-138

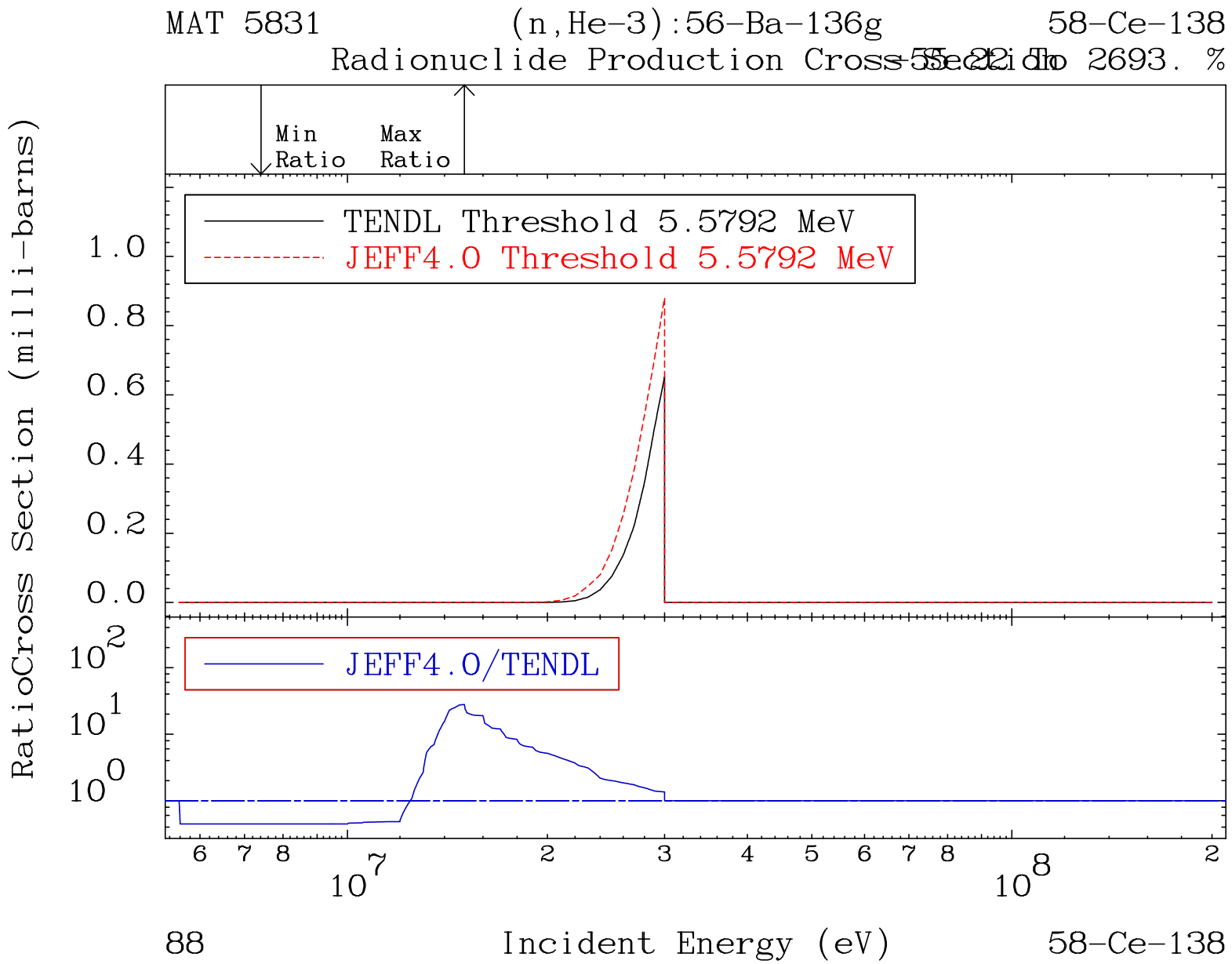

MAT 5831
(n,n') He-3:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section To 48.72 %
Min Ratio
Max Ratio
TENDL Threshold 15.024 MeV
JEFF4.0 Threshold 15.024 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
30
20
10
0
1.6
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
58-Ce-138

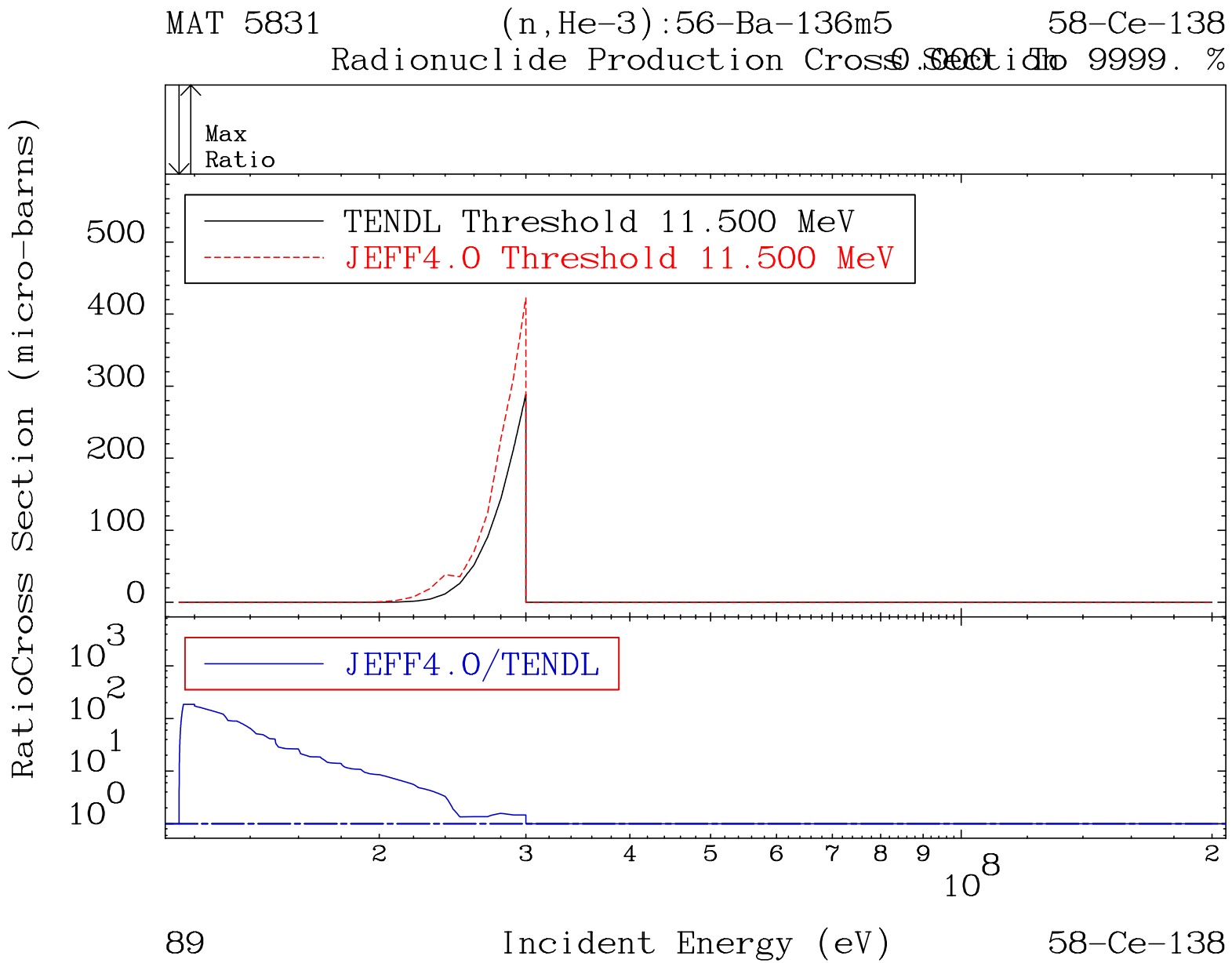

MAT 5831
(n,4n):58-Ce-135g
58-Ce-138
Radionuclide Production Cross Section
Min
Ratio
TENDL Threshold 27.362 MeV
JEFF4.0 Threshold 27.362 MeV
JEFF4.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (MeV)
84
58-Ce-138

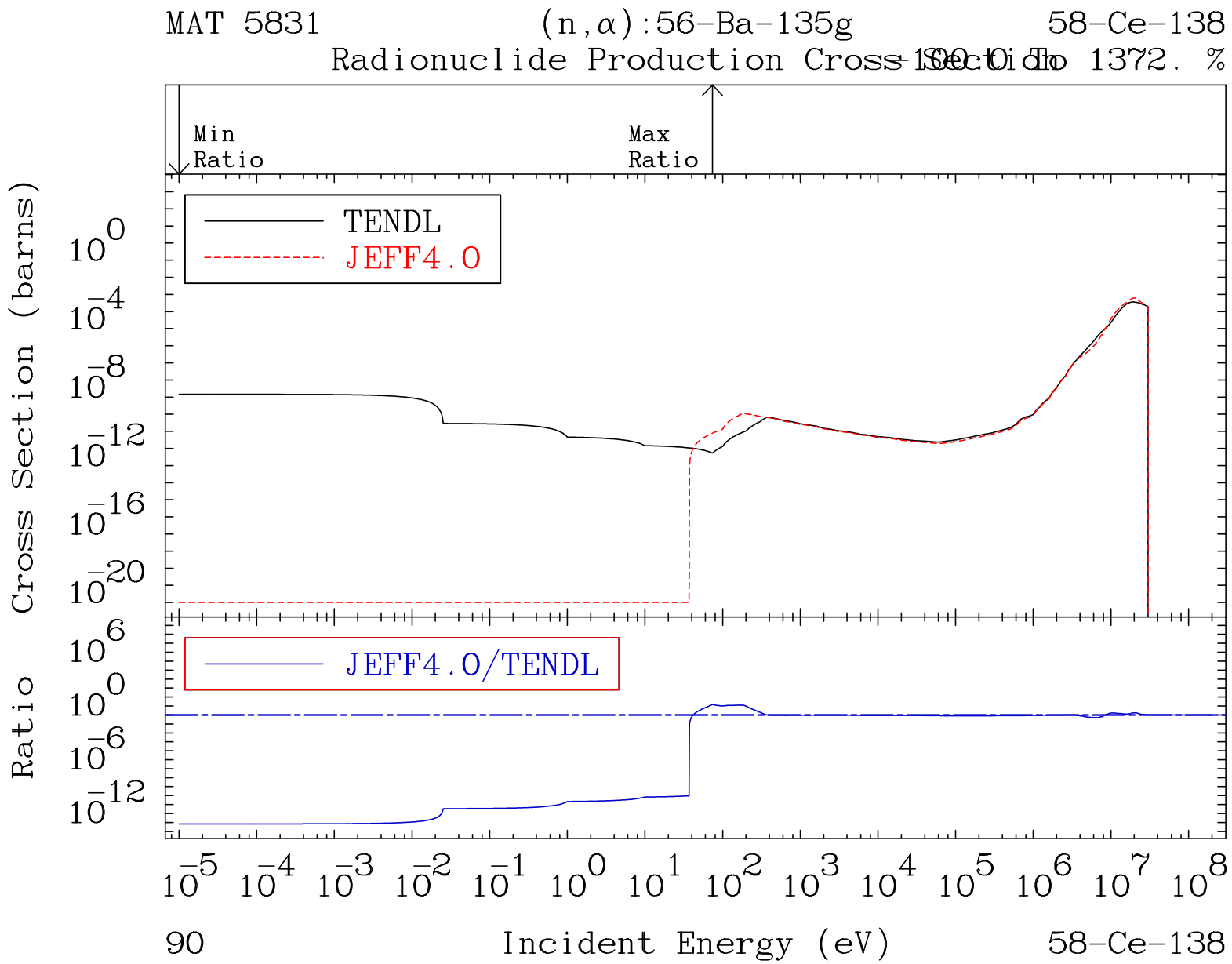

MAT 5831
(n,4n):58-Ce-135m4
58-Ce-138
Radionuclide Production Cross Section
Min
Ratio
TENDL Threshold 27.811 MeV
JEFF4.0 Threshold 27.811 MeV
JEFF4.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (MeV)
85
58-Ce-138

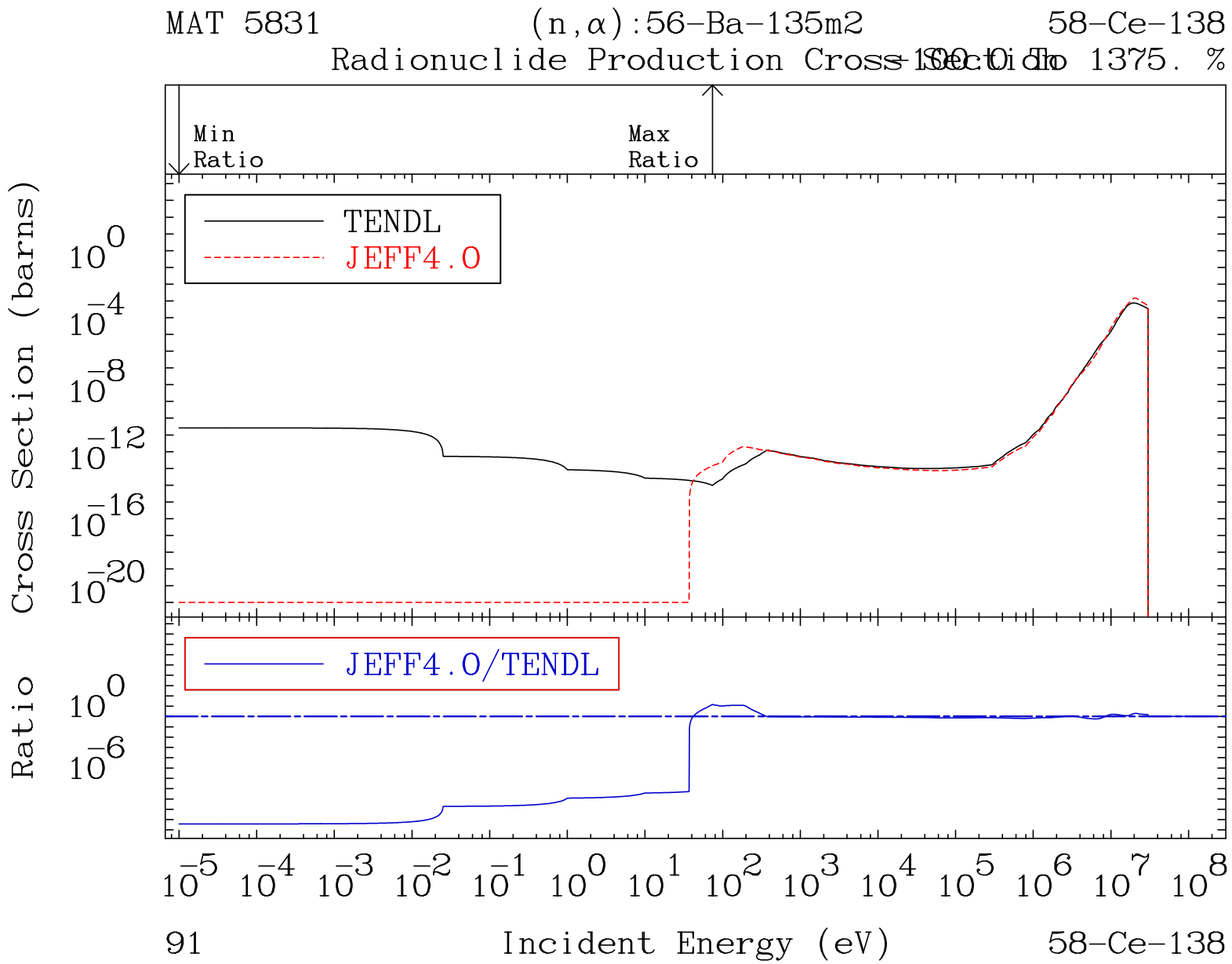

MAT 5831
(n,2n) p:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section
0.000 To 346.8 %
Min Ratio
Max Ratio
TENDL Threshold 13.354 MeV
JEFF4.0 Threshold 13.354 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
86
58-Ce-138

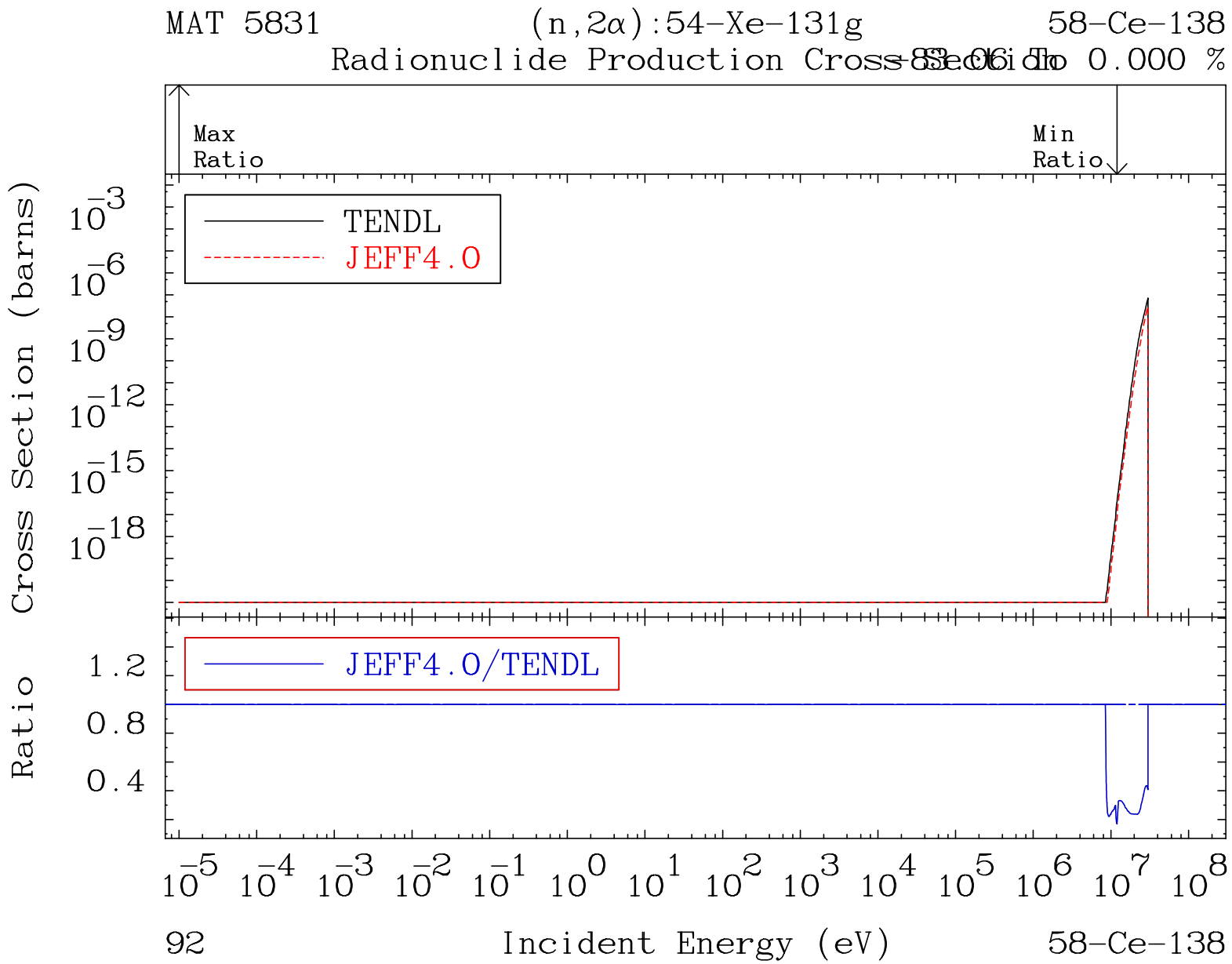

MAT 5831
(n,2n) p:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
0.000 To 1060. %
Min Ratio
Max Ratio
TENDL Threshold 18.000 MeV
JEFF4.0 Threshold 18.000 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
87
58-Ce-138

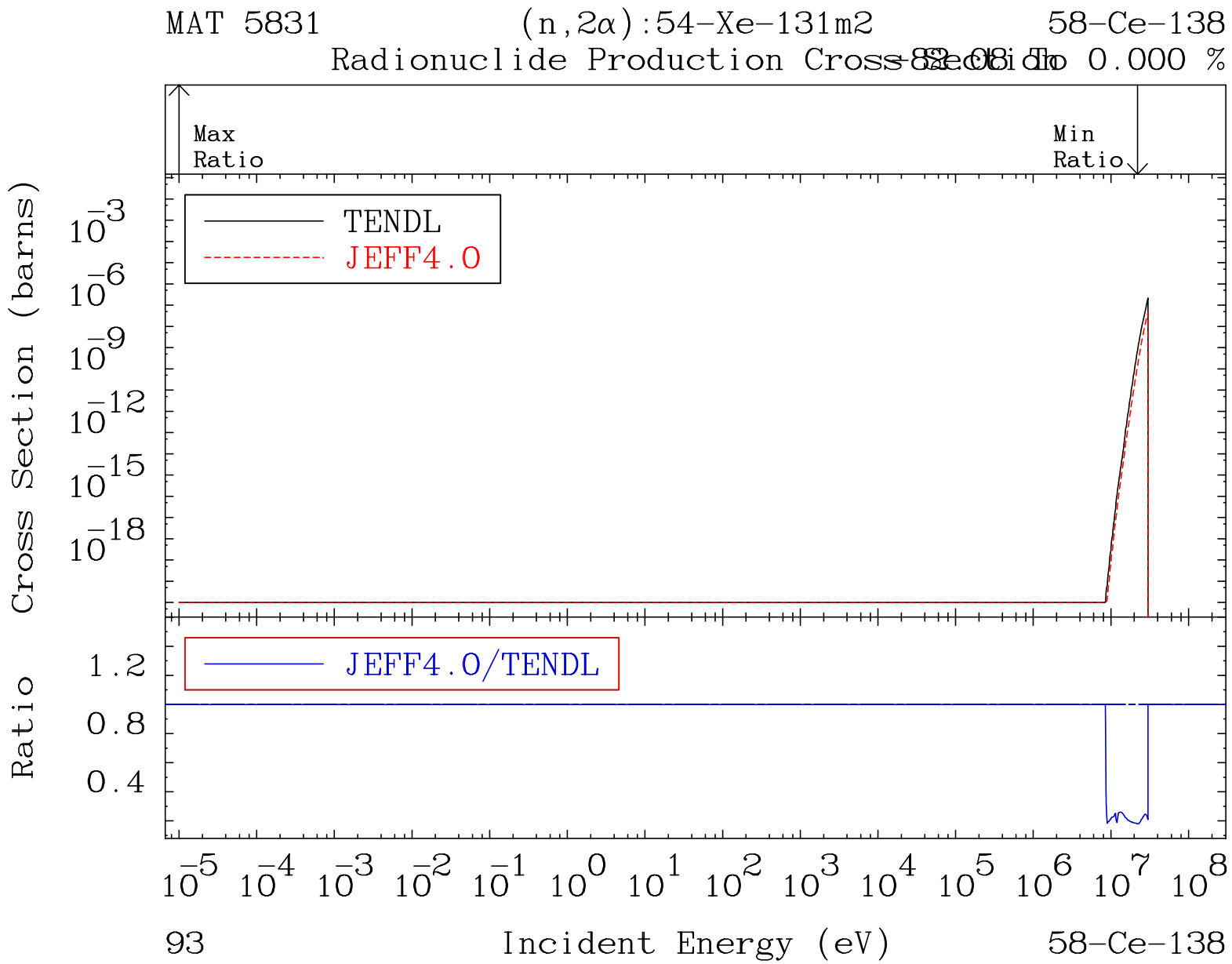

MAT 5831
(n,He-3):56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 2693. %
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JEFF4.0 Threshold 5.5792 MeV
JEFF4.0/TENDL
RatioCross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
10^2
10^1
10^0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
88
Incident Energy (eV)
58-Ce-138

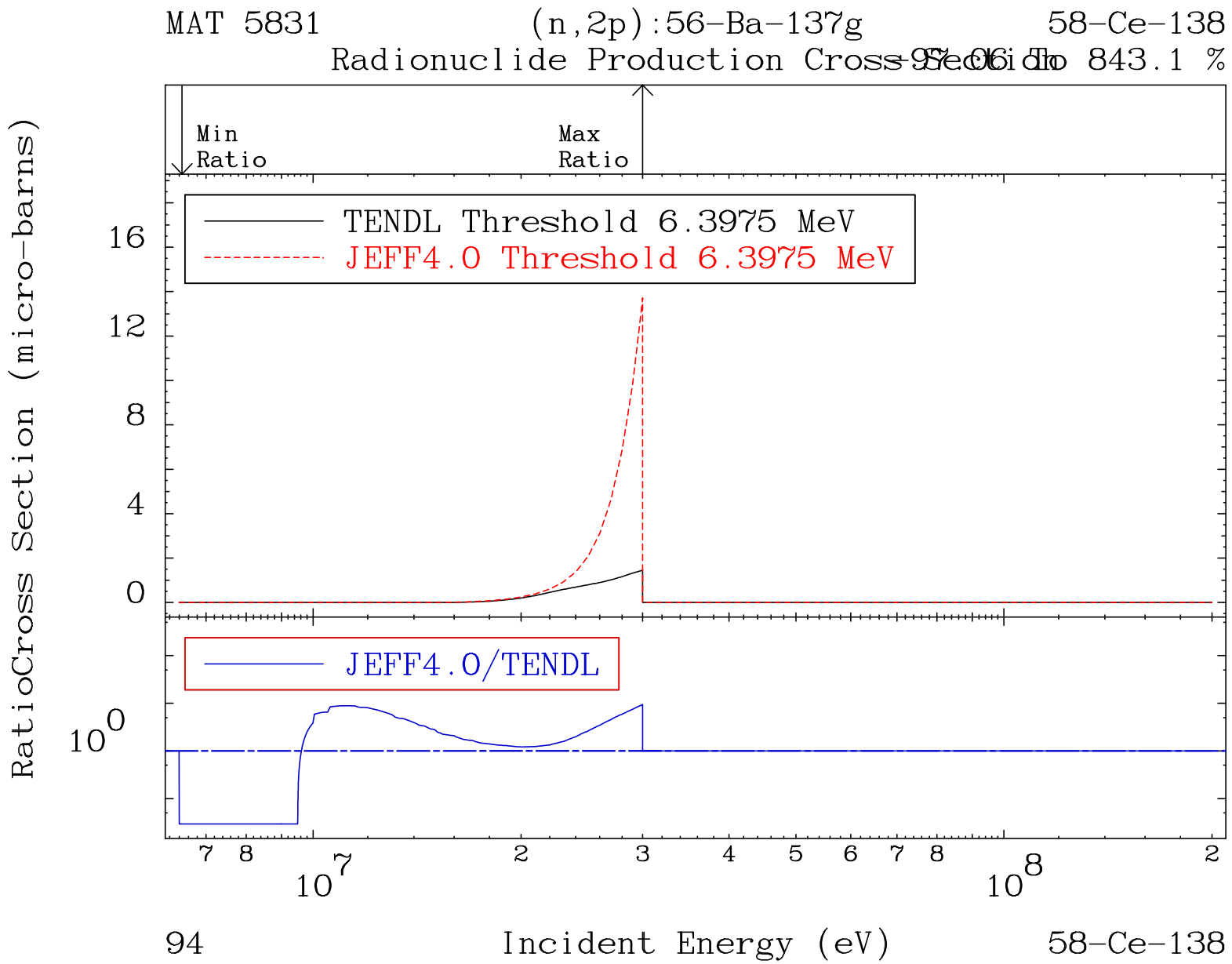

MAT 5831
(n,He-3):56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
0.000 To 9999. %
Max
Ratio
TENDL Threshold 11.500 MeV
JEFF4.0 Threshold 11.500 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
500
400
300
200
100
0
10^3
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
89
Incident Energy (eV)
58-Ce-138

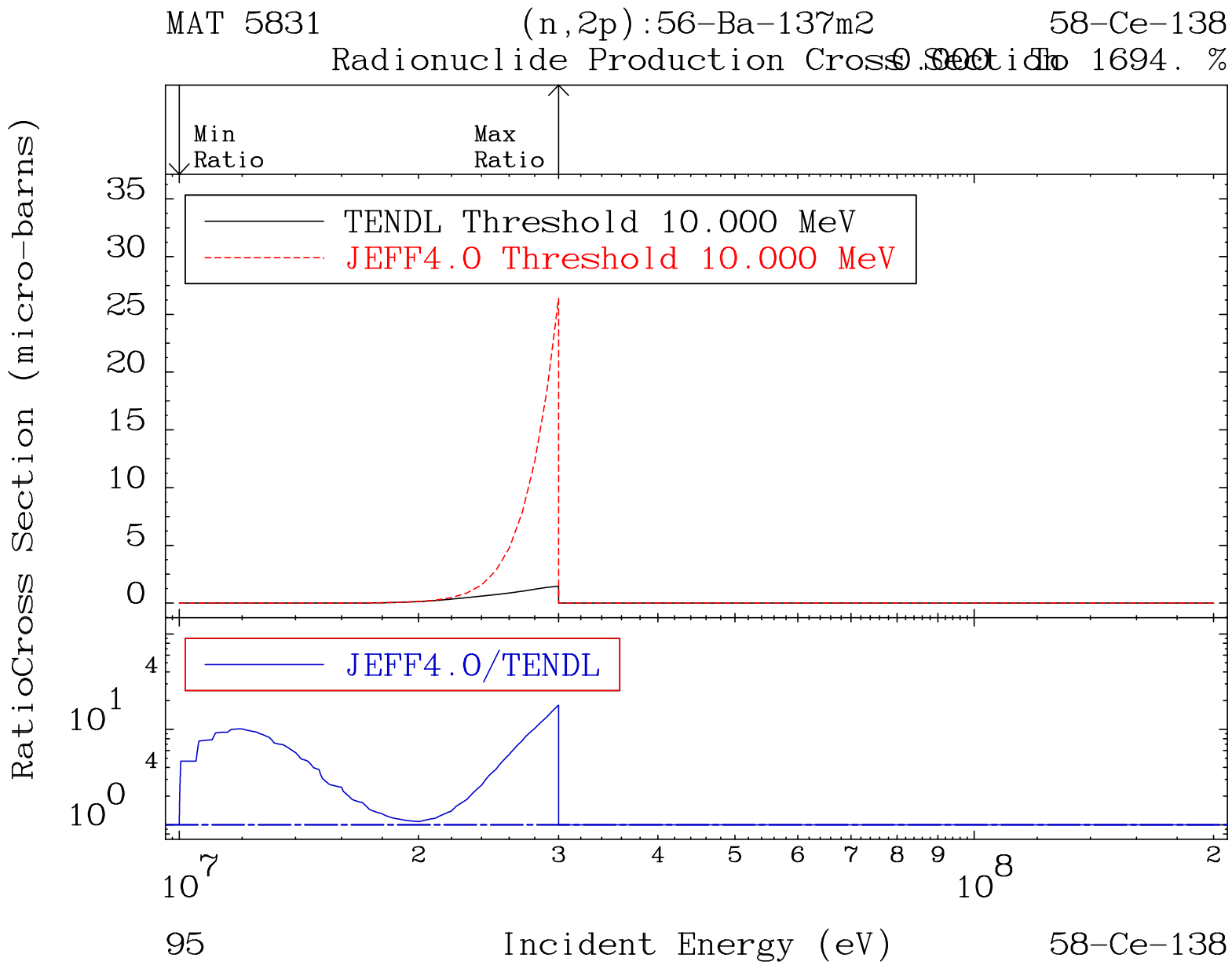

MAT 5831
(n,α):56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL
JEFF4.0
JEFF4.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
90
58-Ce-138

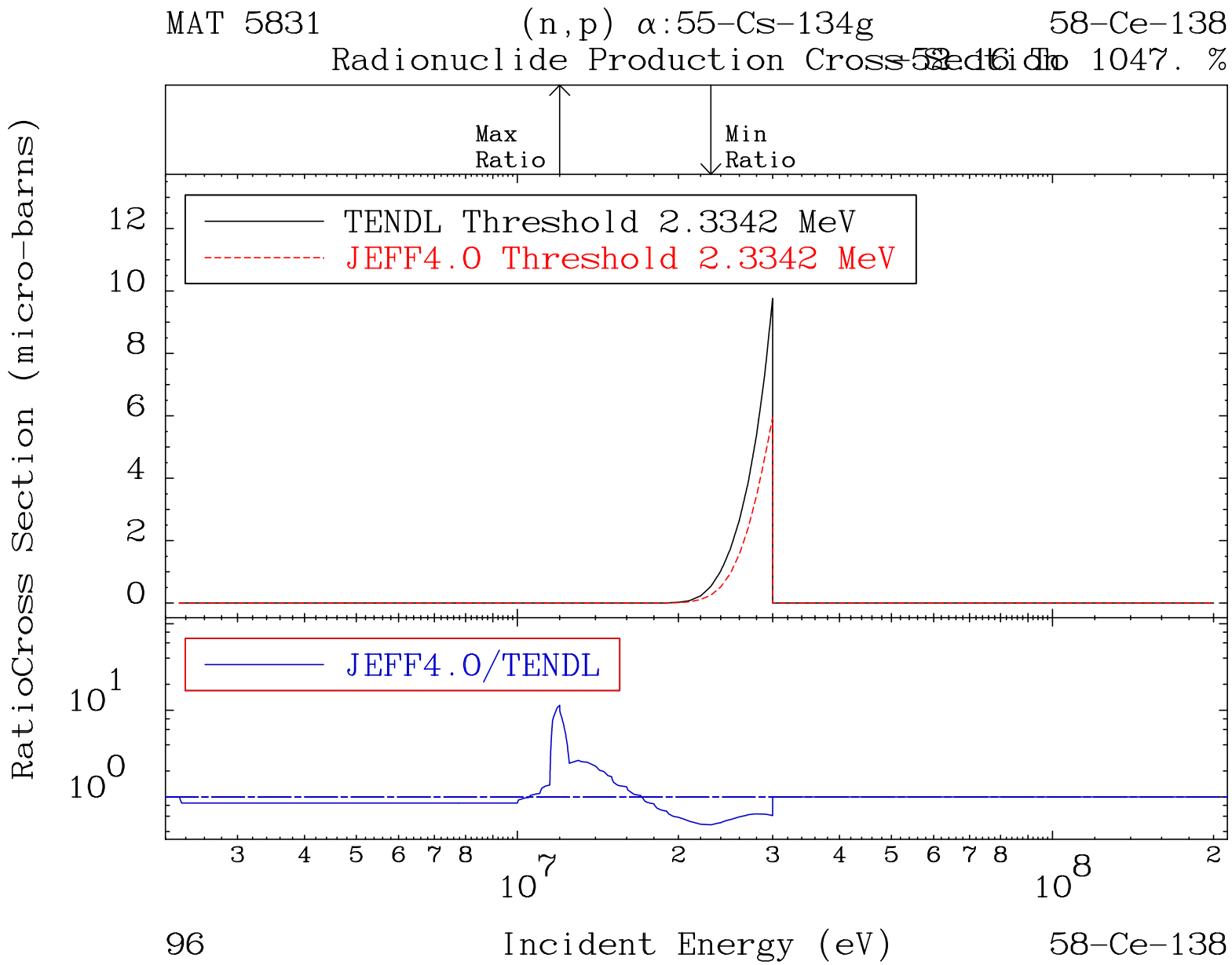

MAT 5831
(n,α):56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL
JEFF4.0
JEFF4.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
91
58-Ce-138

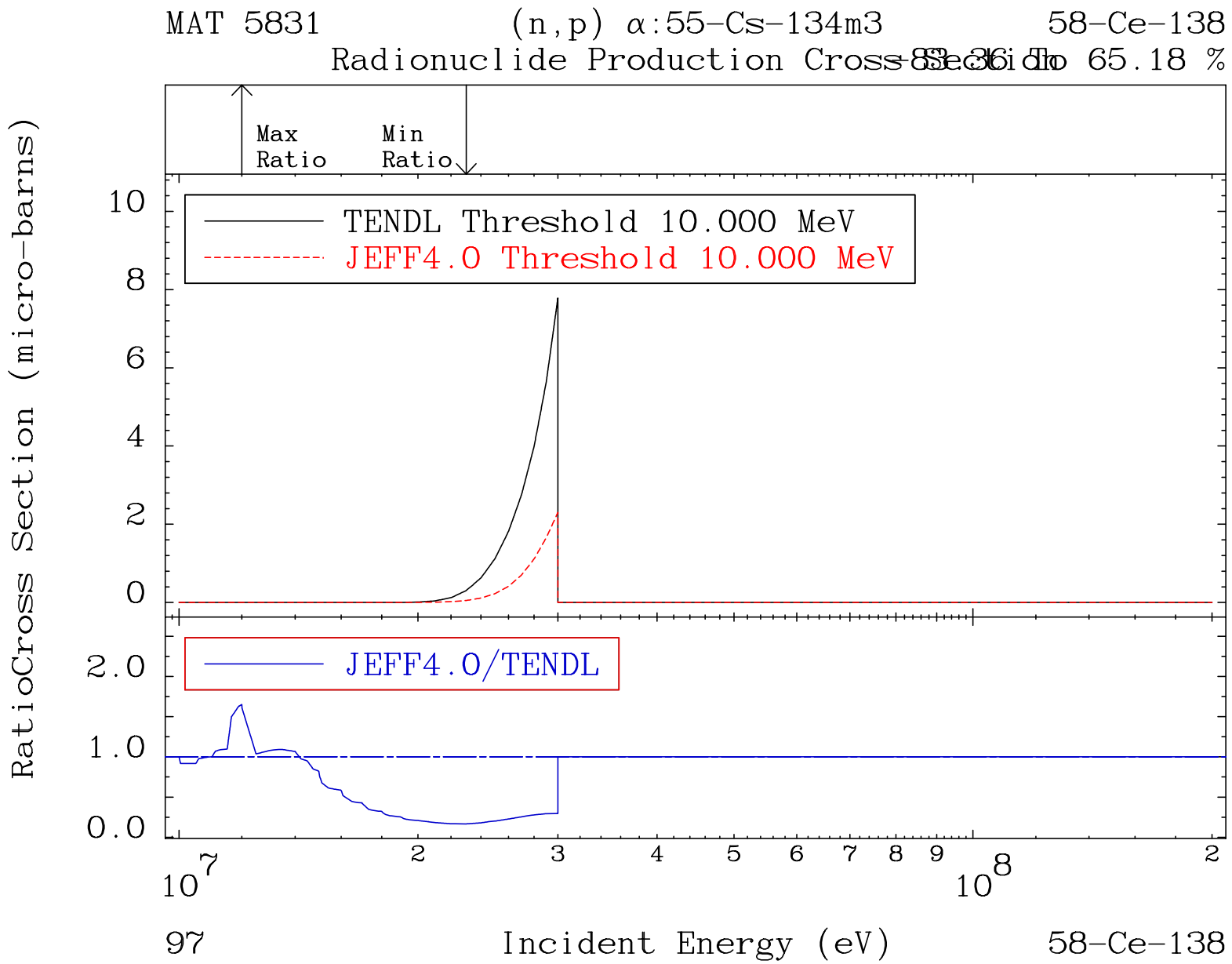

MAT 5831
(n,2α):54-Xe-131g
58-Ce-138
Radionuclide Production Cross Section To 0.000 %
Max Ratio
Min Ratio
TENDL
JEFF4.0
JEFF4.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
92
58-Ce-138

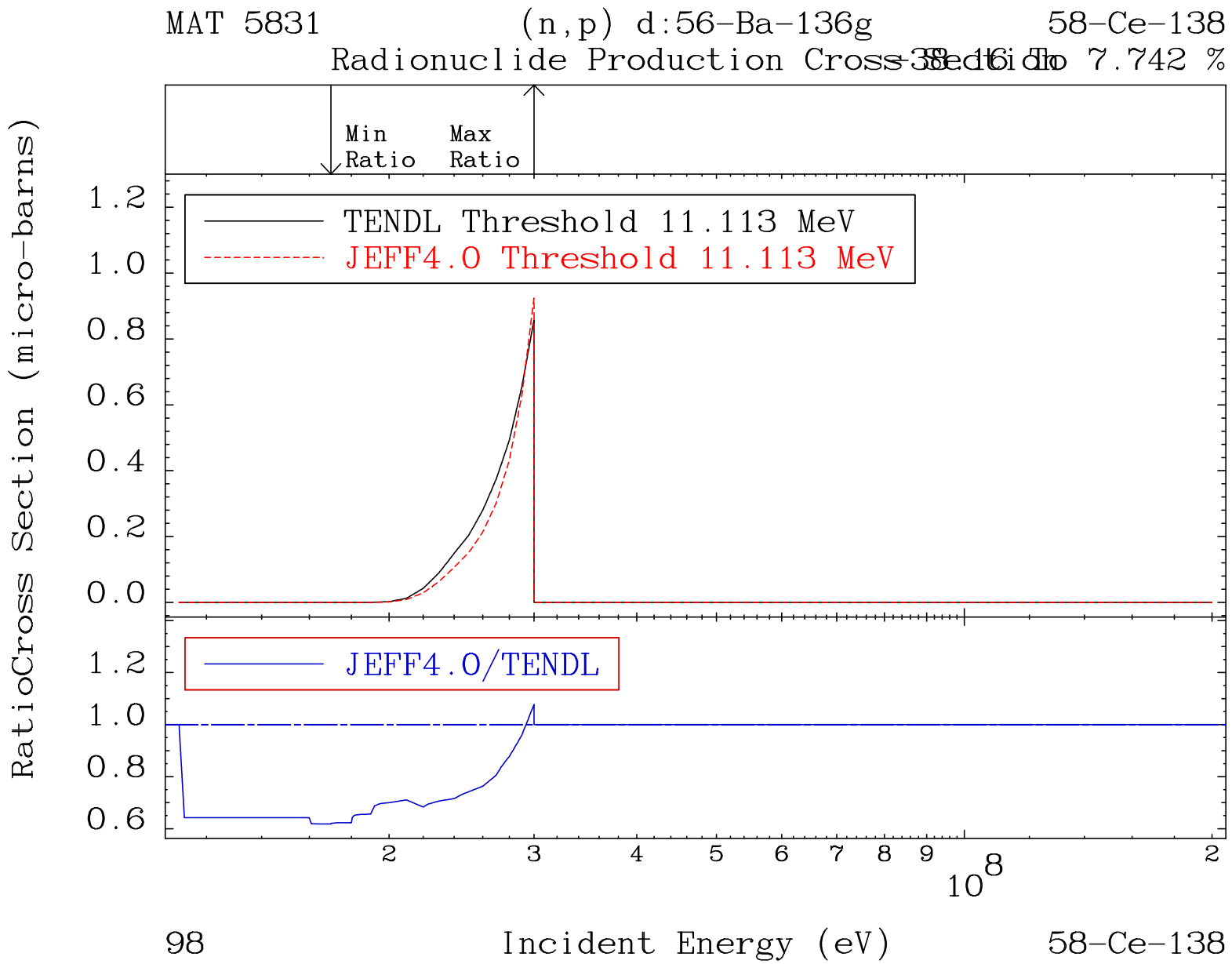

MAT 5831
(n,2α):54-Xe-131m2
58-Ce-138
Radionuclide Production Cross Section To 0.000 %
Max Ratio
Min Ratio
TENDL
JEFF4.0
JEFF4.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
93
58-Ce-138

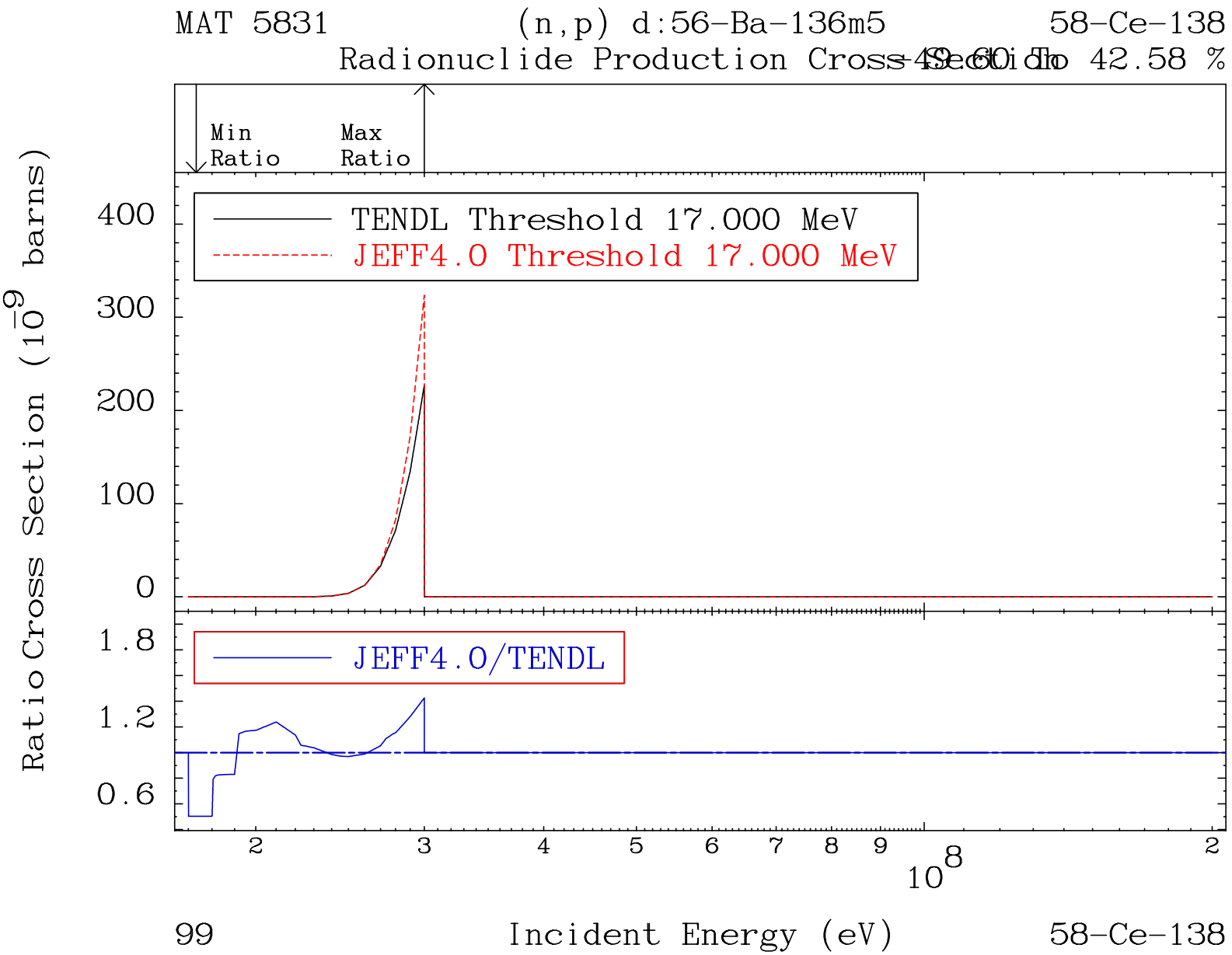

MAT 5831
(n,2p):56-Ba-137g
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 6.3975 MeV
JEFF4.0 Threshold 6.3975 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
94
58-Ce-138

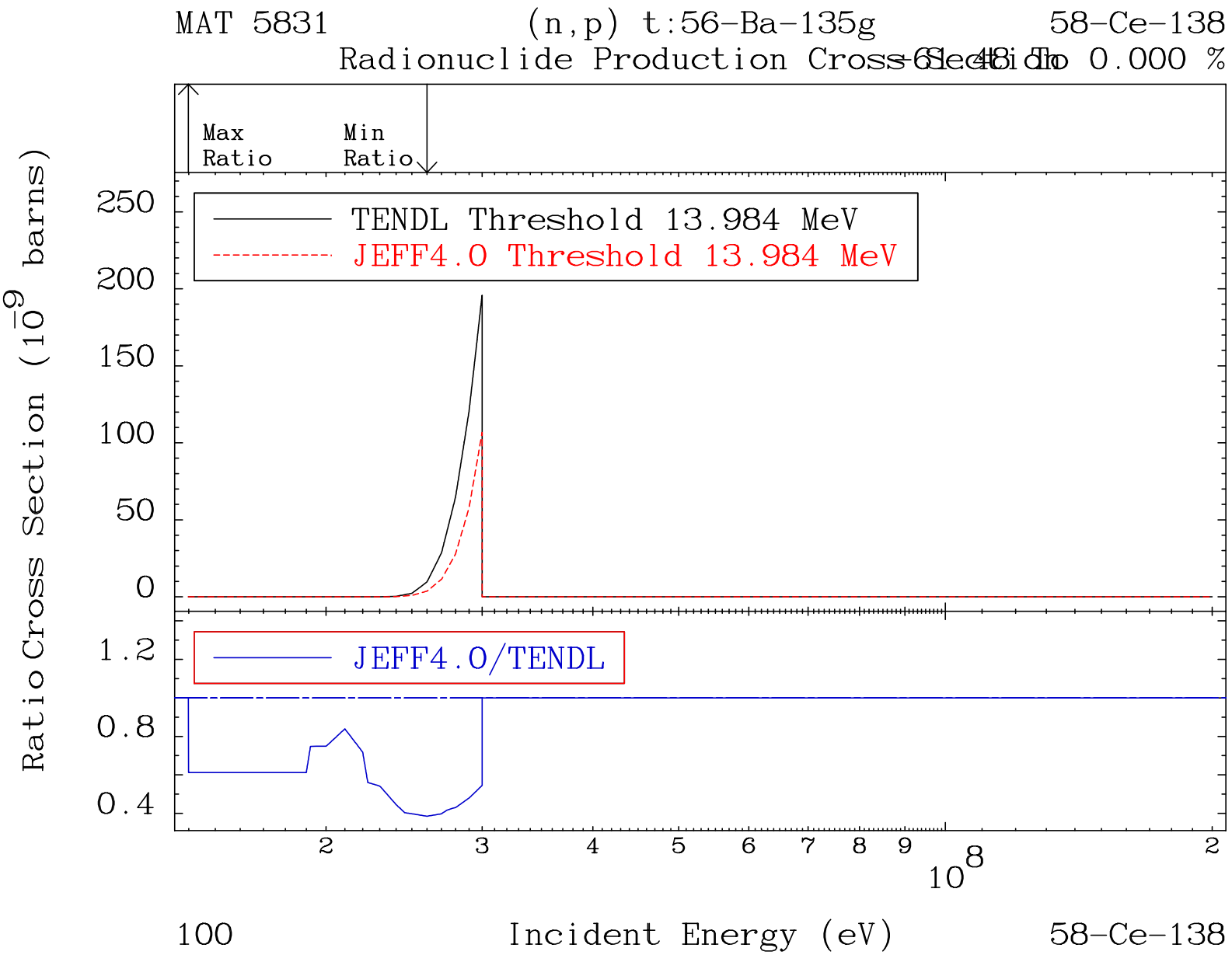

MAT 5831
(n,2p):56-Ba-137m2
58-Ce-138
Radionuclide Production Cross Section
0.000 To 1694. %
Min Ratio
Max Ratio
TENDL Threshold 10.000 MeV
JEFF4.0 Threshold 10.000 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
95
58-Ce-138

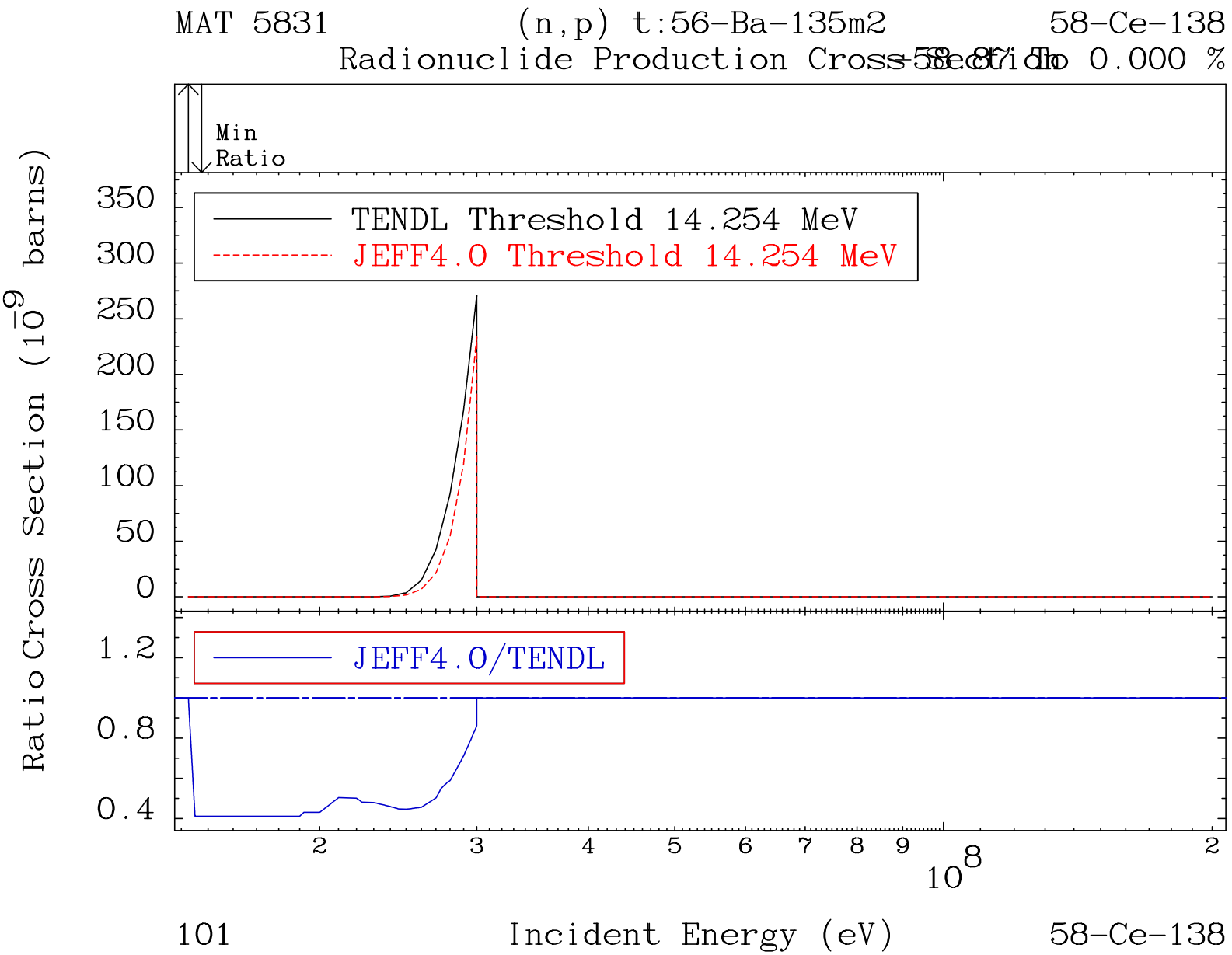

MAT 5831
(n,p) α:55-Cs-134g
58-Ce-138
Radionuclide Production Cross Section To 1047. %
Max Ratio
Min Ratio
TENDL Threshold 2.3342 MeV
JEFF4.0 Threshold 2.3342 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
96
58-Ce-138


MAT 5831
(n,p) α:55-Cs-134m3
58-Ce-138
Radionuclide Production Cross Section To 65.18 %
Max Ratio
Min Ratio
TENDL Threshold 10.000 MeV
JEFF4.0 Threshold 10.000 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
97
58-Ce-138


MAT 5831
(n,p) d:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 7.742 %
Min Ratio
Max Ratio
TENDL Threshold 11.113 MeV
JEFF4.0 Threshold 11.113 MeV
JEFF4.0/TENDL
RatioCross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2
3
4
5
6
7
8
9
10^8
98
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
JEFF4.0 Threshold 17.000 MeV
JEFF4.0/TENDL
Ratio Cross Section (10^{-9} barns)
Incident Energy (eV)
99
58-Ce-138


MAT 5831
(n,p) t:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section To 0.000 %
Max Ratio
Min Ratio
TENDL Threshold 13.984 MeV
JEFF4.0 Threshold 13.984 MeV
JEFF4.0/TENDL
Ratio Cross Section (10^{-9} barns)
250
200
150
100
50
0
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
100
Incident Energy (eV)
58-Ce-138


MAT 5831
(n,p) t:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section To 0.000 %
Min
Ratio
TENDL Threshold 14.254 MeV
JEFF4.0 Threshold 14.254 MeV
JEFF4.0/TENDL
Ratio Cross Section (10^{-9} barns)
350
300
250
200
150
100
50
0
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
101
Incident Energy (eV)
58-Ce-138