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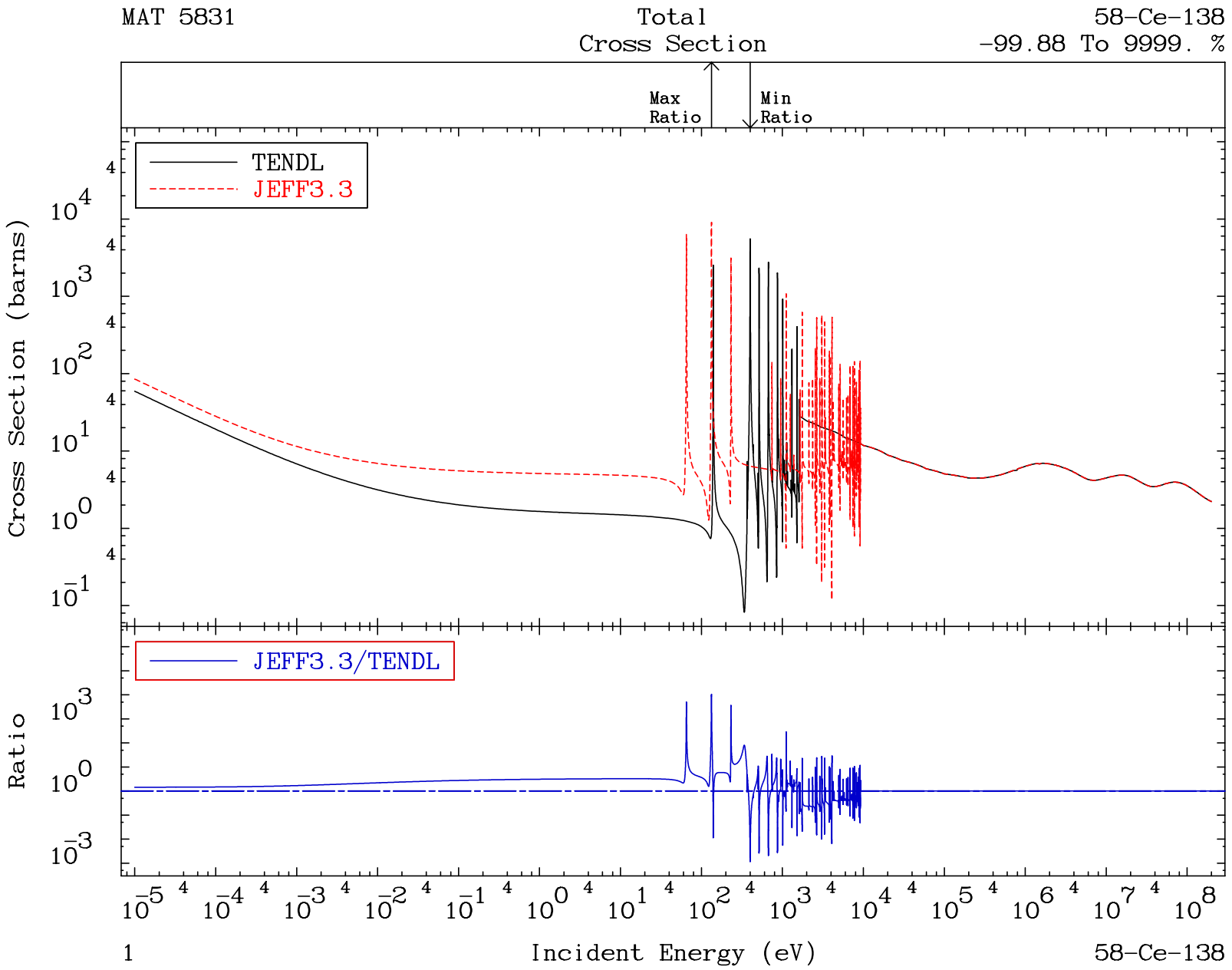
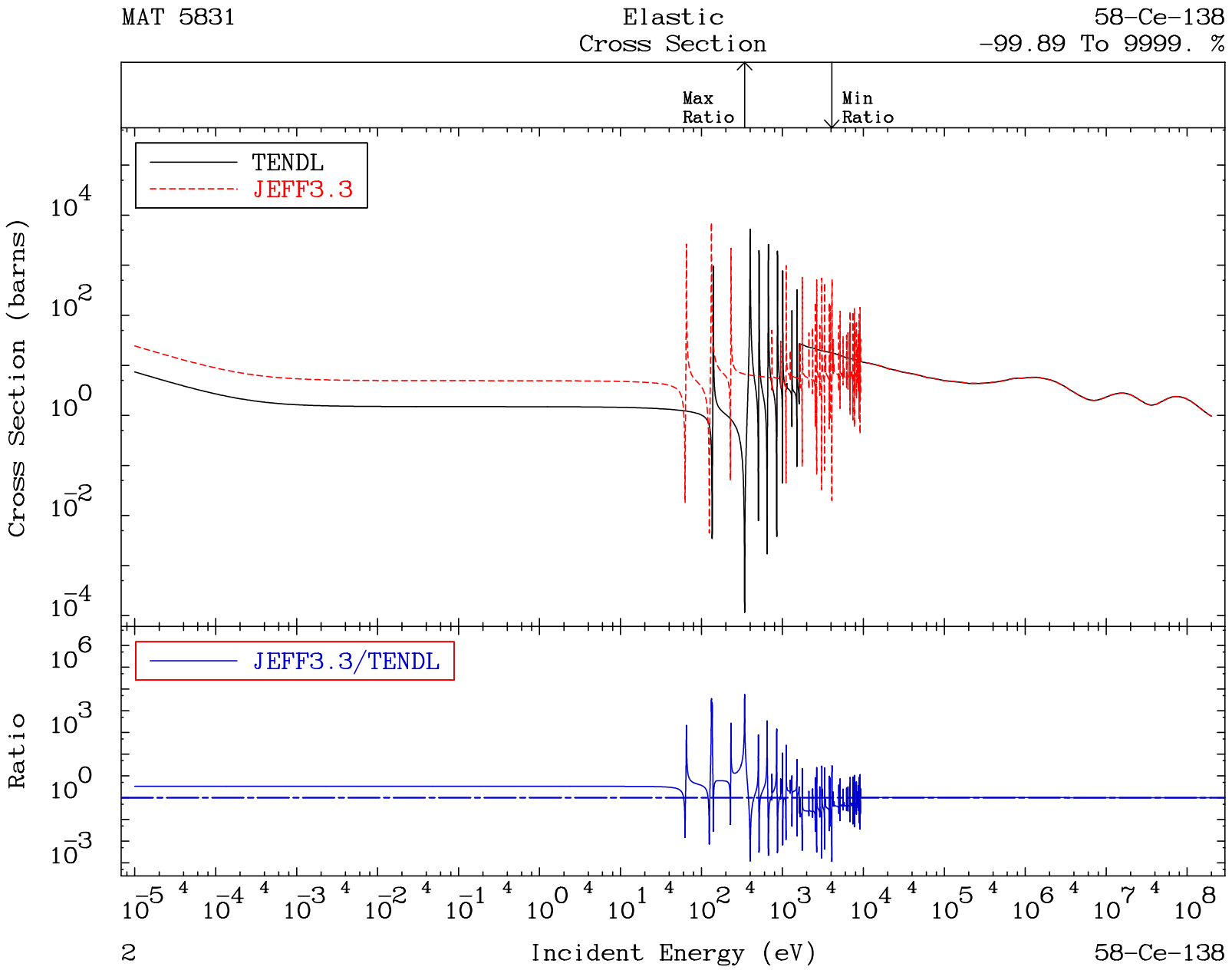
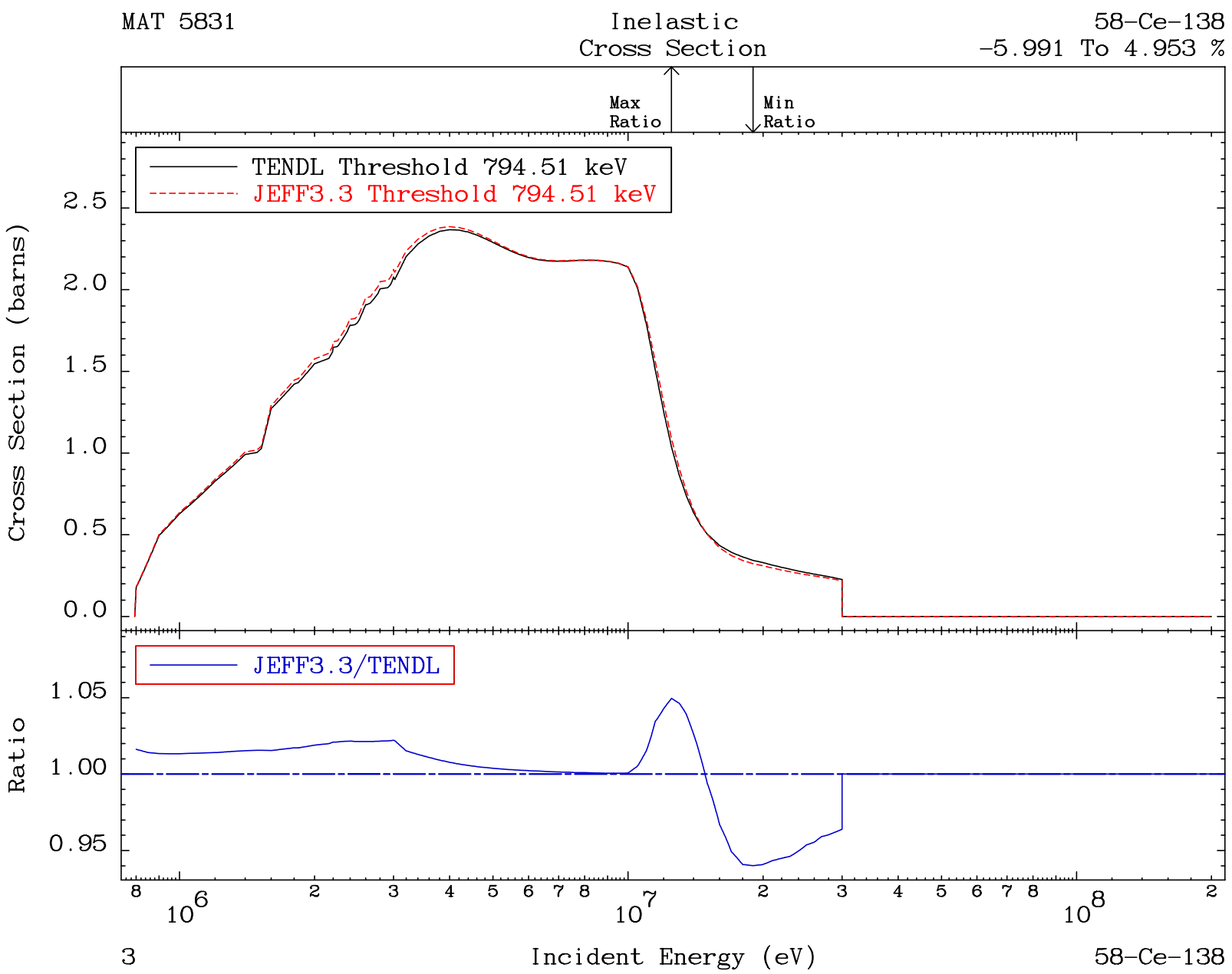
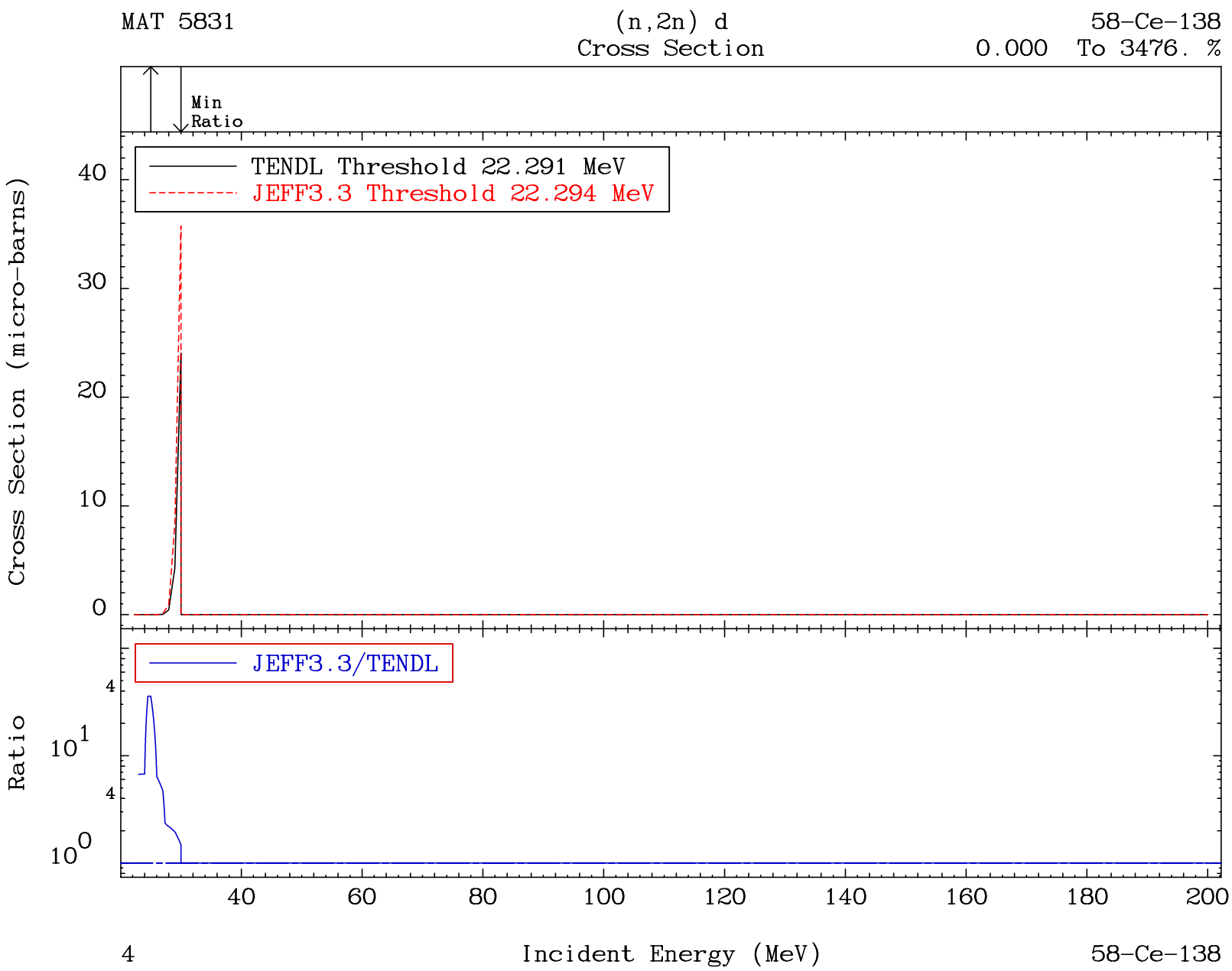
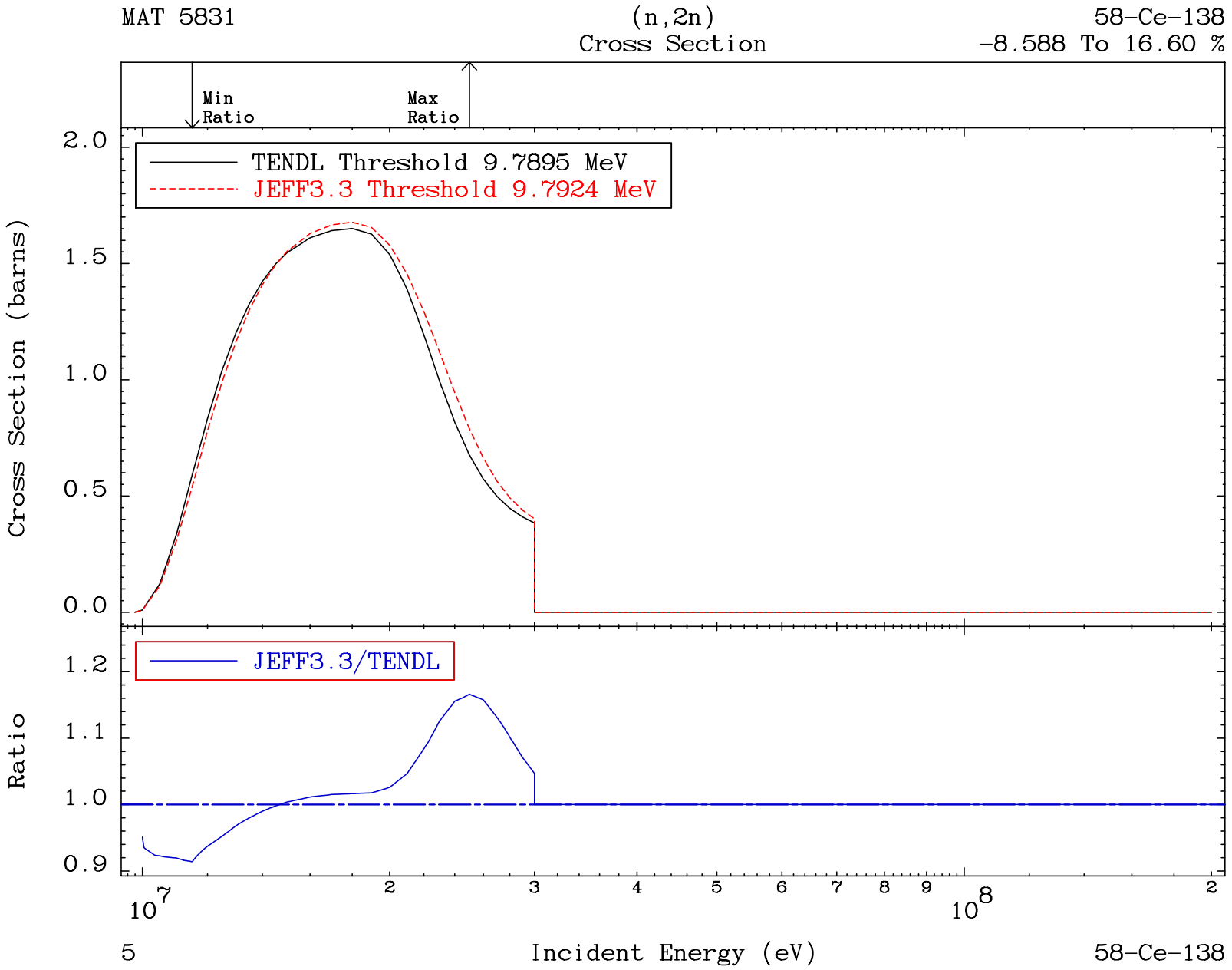
Press Mouse Button to Start

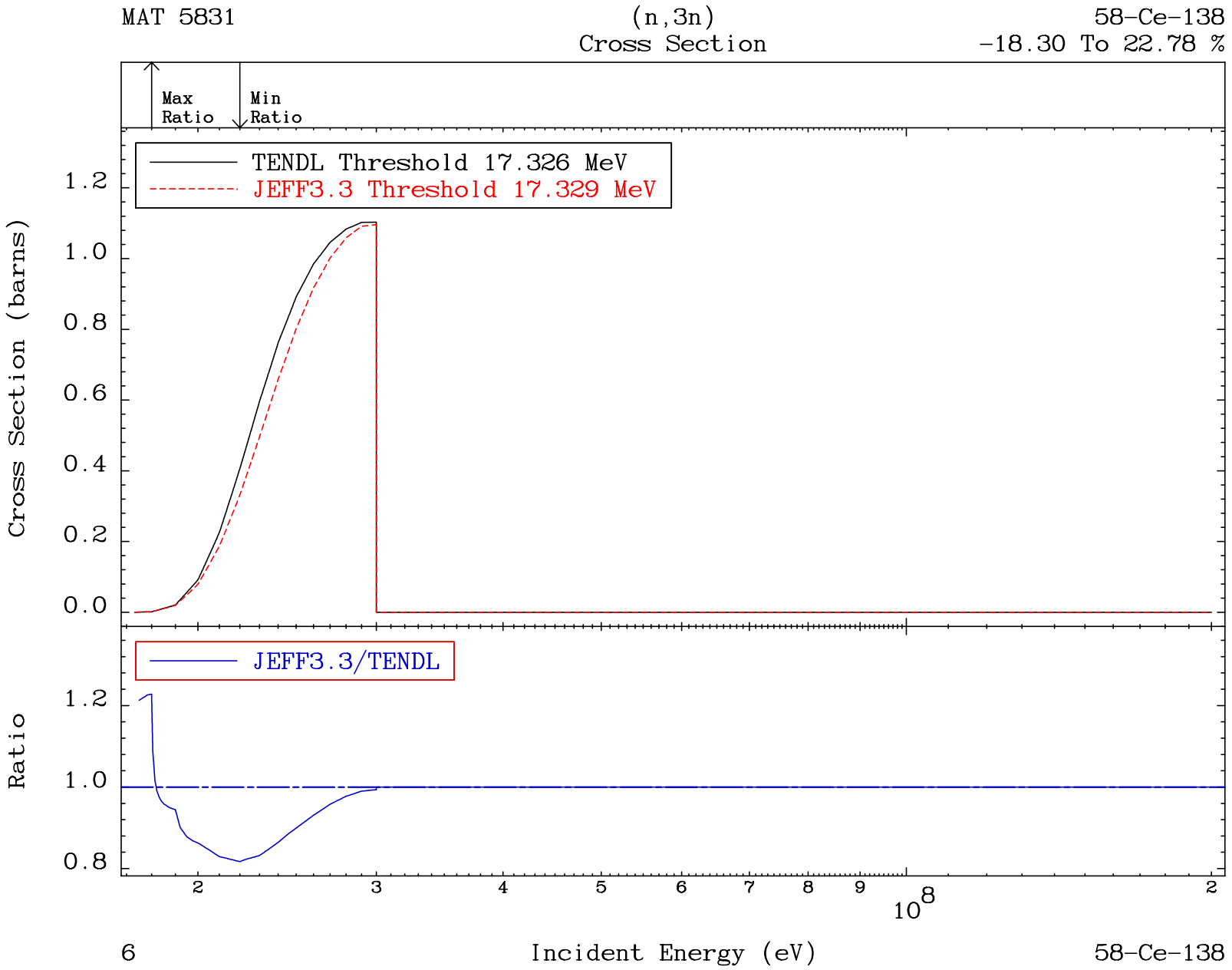

MAT 5831
Total
Cross Section
58-Ce-138
-99.88 To 9999. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
1
58-Ce-138

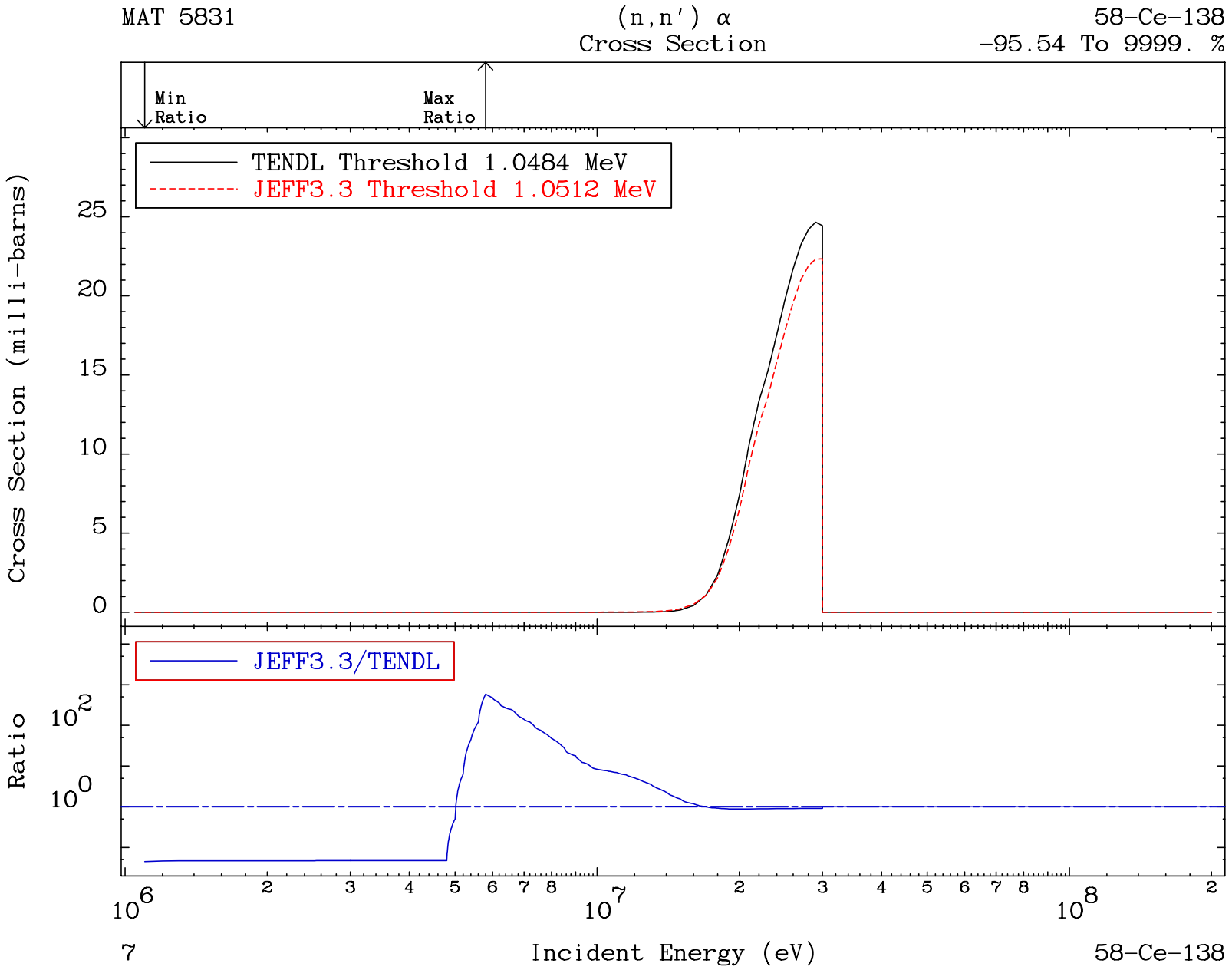

MAT 5831
Elastic
Cross Section
58-Ce-138
-99.89 To 9999. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
2
58-Ce-138

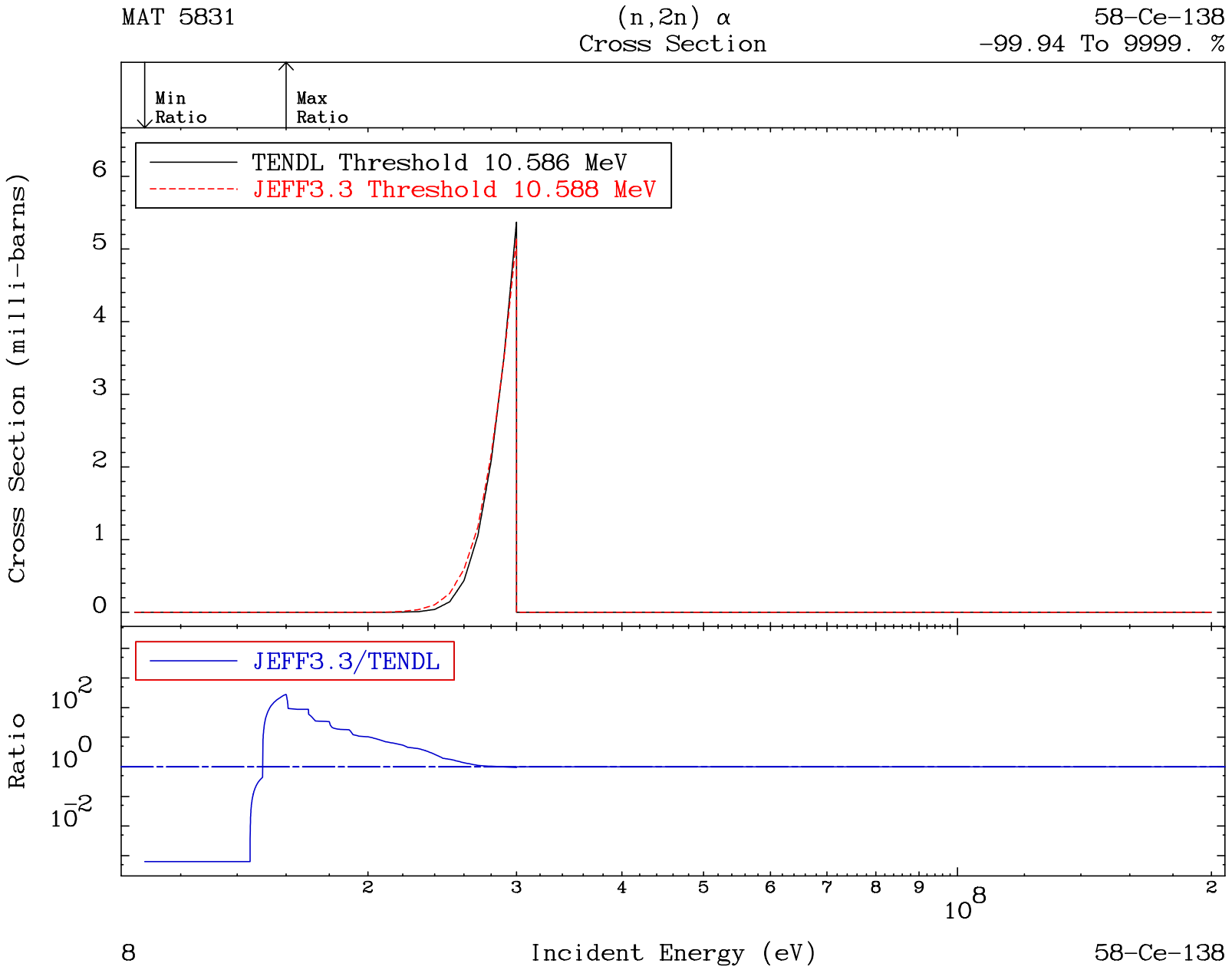

MAT 5831
Inelastic
Cross Section
58-Ce-138
-5.991 To 4.953 %
Max
Ratio
Min
Ratio
TENDL Threshold 794.51 keV
JEFF3.3 Threshold 794.51 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.05
1.00
0.95
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
3
Incident Energy (eV)
58-Ce-138

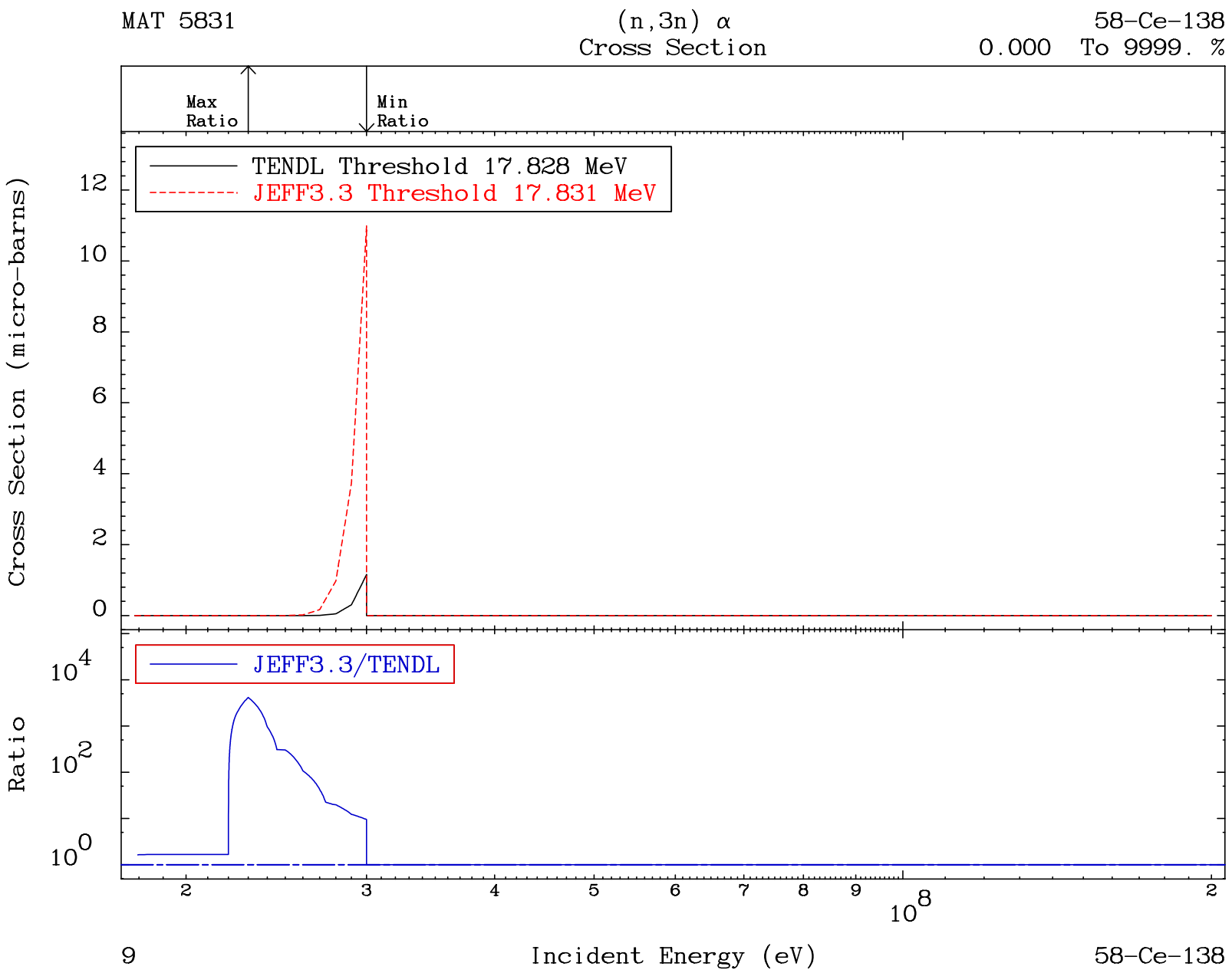

MAT 5831
(n,2n) d
Cross Section
58-Ce-138
0.000 To 3476. %
Min
Ratio
TENDL Threshold 22.291 MeV
JEFF3.3 Threshold 22.294 MeV
Cross Section (micro-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
4
10^1
4
10^0
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
58-Ce-138

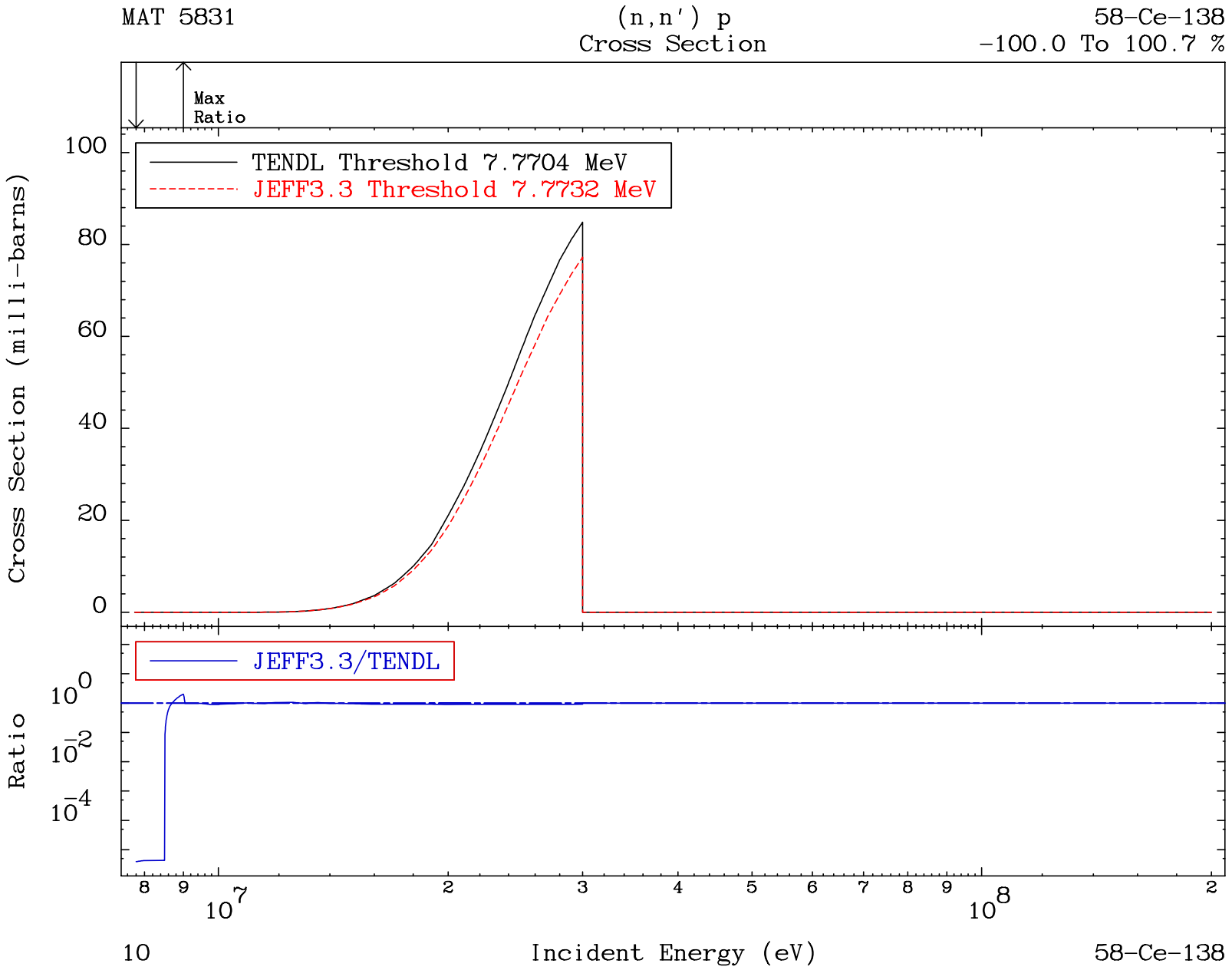

MAT 5831
(n,2n)
Cross Section
58-Ce-138
-8.588 To 16.60 %
Min Ratio
Max Ratio
TENDL Threshold 9.7895 MeV
JEFF3.3 Threshold 9.7924 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
0.9
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
58-Ce-138

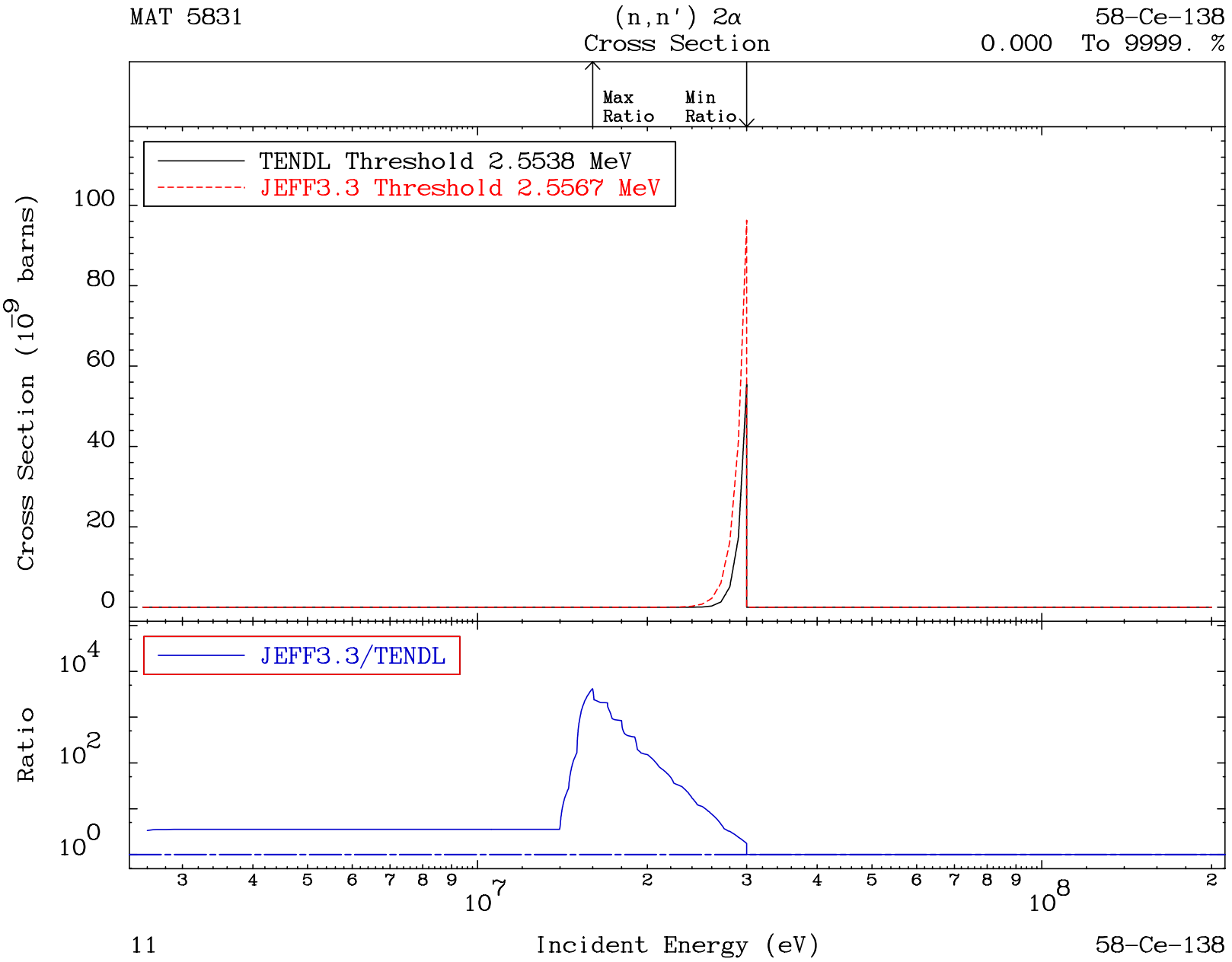

MAT 5831
(n,3n)
Cross Section
58-Ce-138
-18.30 To 22.78 %
Max Ratio
Min Ratio
TENDL Threshold 17.326 MeV
JEFF3.3 Threshold 17.329 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.2
1.0
0.8
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
58-Ce-138

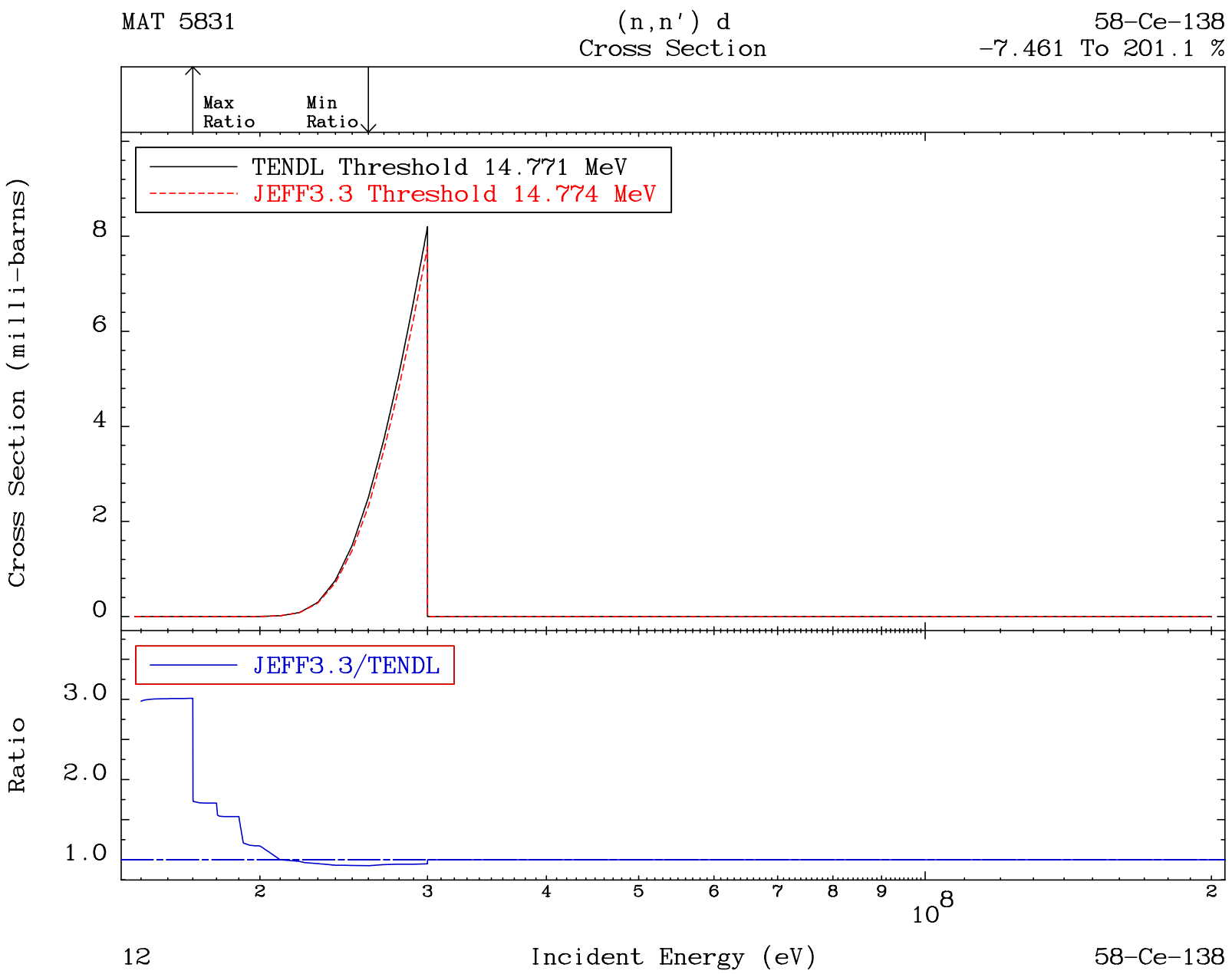

MAT 5831
(n,n') α
Cross Section
58-Ce-138
-95.54 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.0484 MeV
JEFF3.3 Threshold 1.0512 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^2
10^0
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
7
Incident Energy (eV)
58-Ce-138

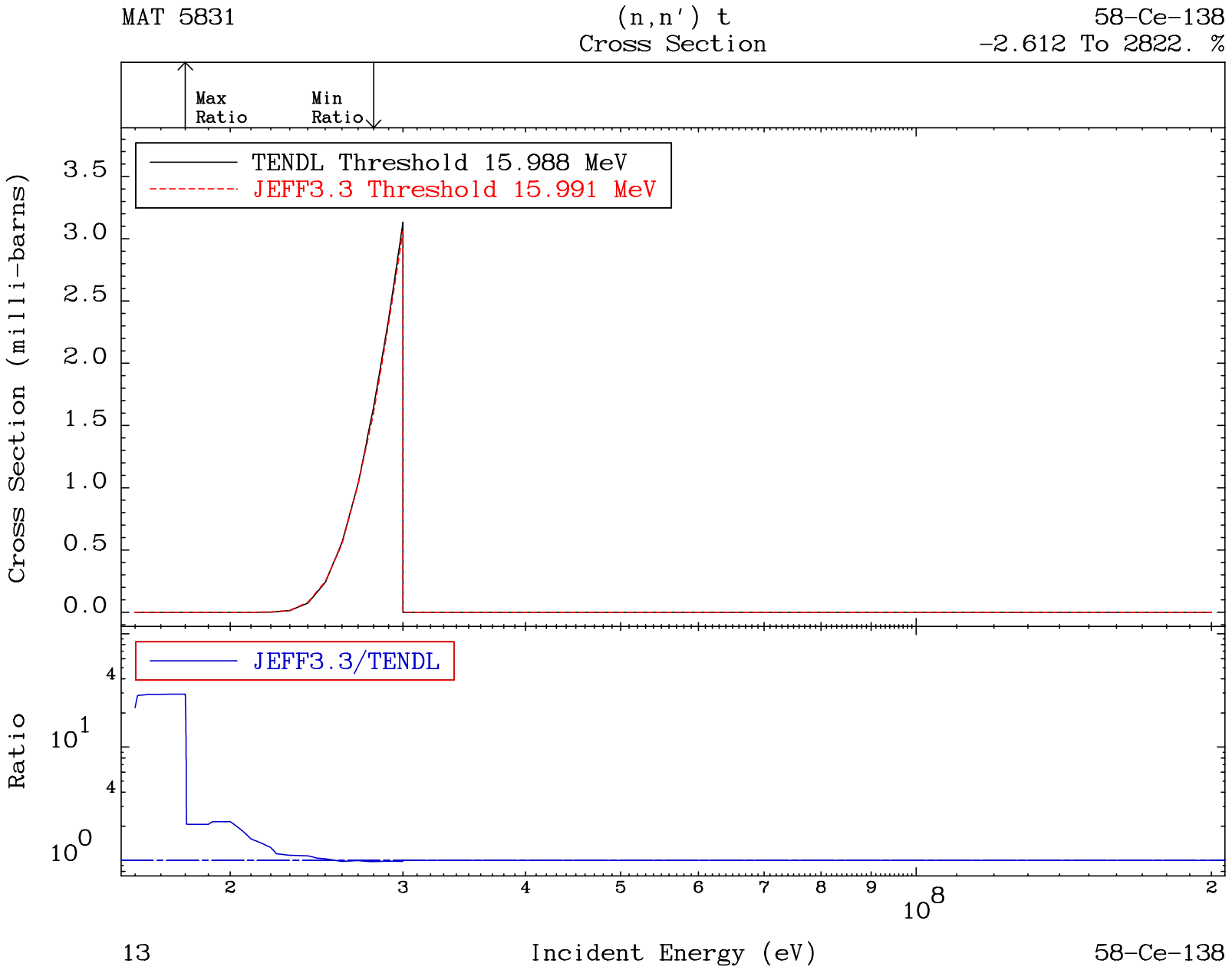

MAT 5831
(n,2n) α
Cross Section
58-Ce-138
-99.94 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.586 MeV
JEFF3.3 Threshold 10.588 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
58-Ce-138

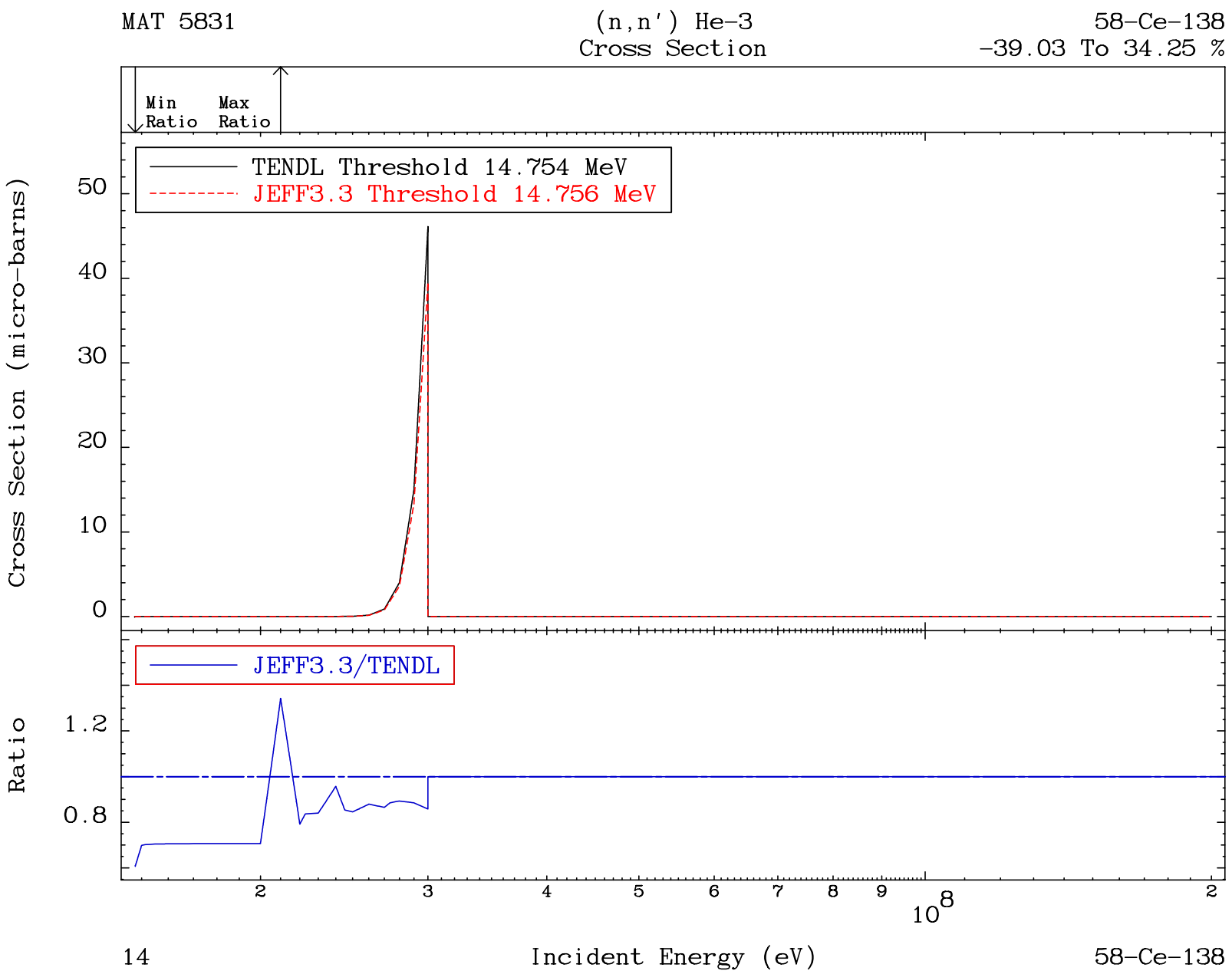

MAT 5831
(n,3n) α
Cross Section
58-Ce-138
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 17.828 MeV
JEFF3.3 Threshold 17.831 MeV
Cross Section (micro-barns)
0
2
4
6
8
10
12
JEFF3.3/TENDL
Ratio
10^0
10^2
10^4
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
58-Ce-138

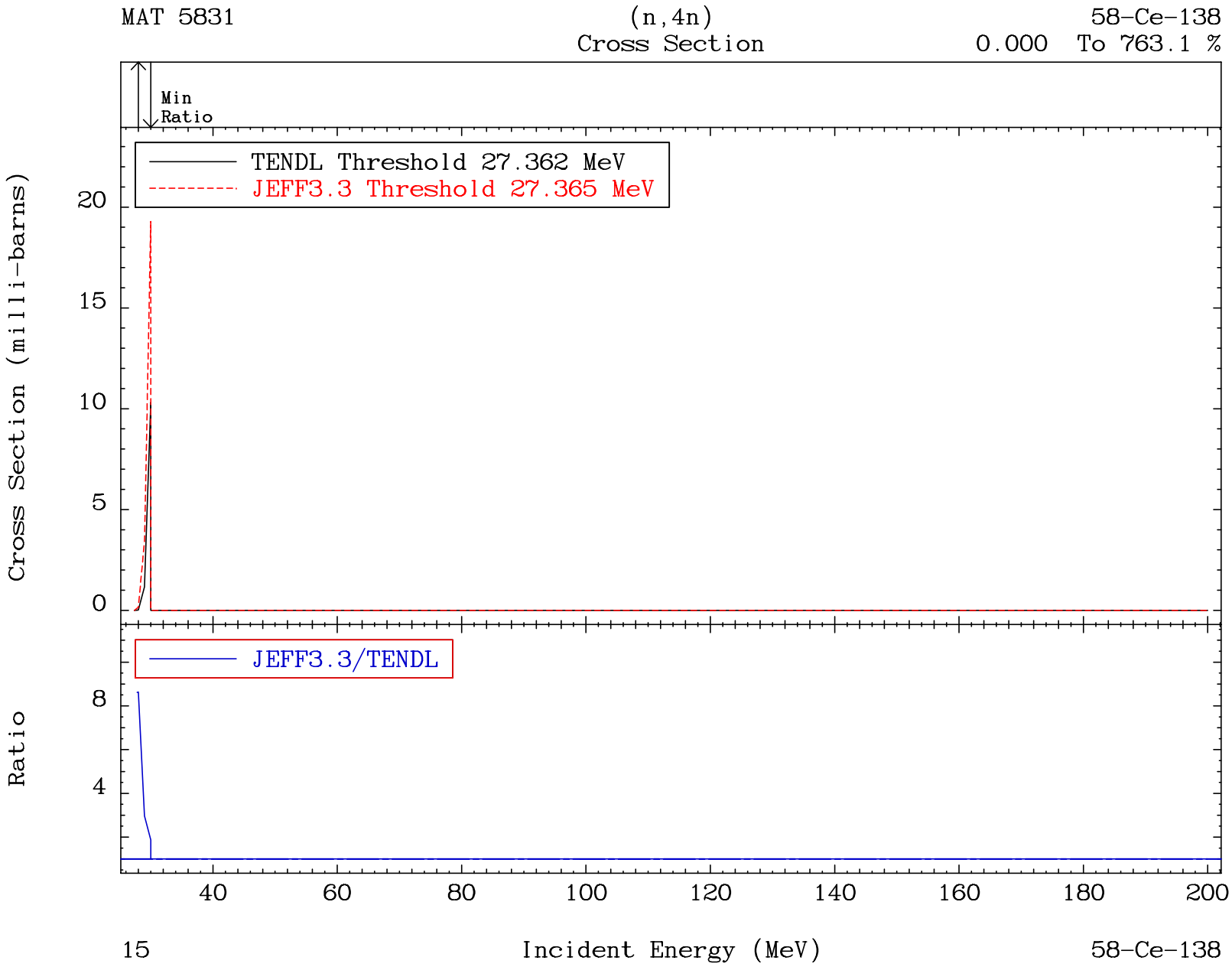

MAT 5831
(n,n') p
Cross Section
58-Ce-138
-100.0 To 100.7 %
Max
Ratio
TENDL Threshold 7.7704 MeV
JEFF3.3 Threshold 7.7732 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^0
10^-2
10^-4
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
58-Ce-138

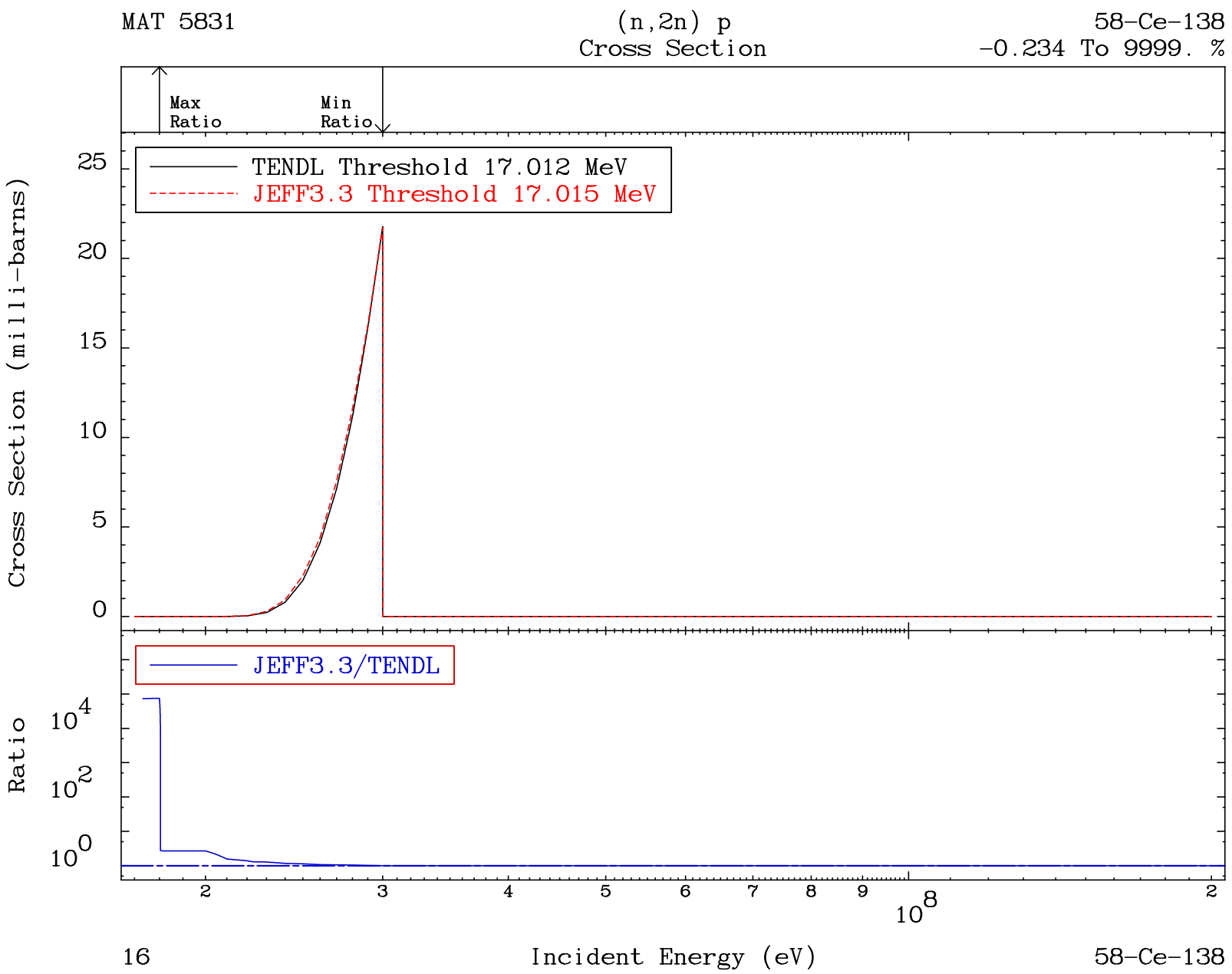

MAT 5831
(n,n') 2α
Cross Section
58-Ce-138
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.5538 MeV
JEFF3.3 Threshold 2.5567 MeV
Cross Section (10^{-9} barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
11
Incident Energy (eV)
58-Ce-138

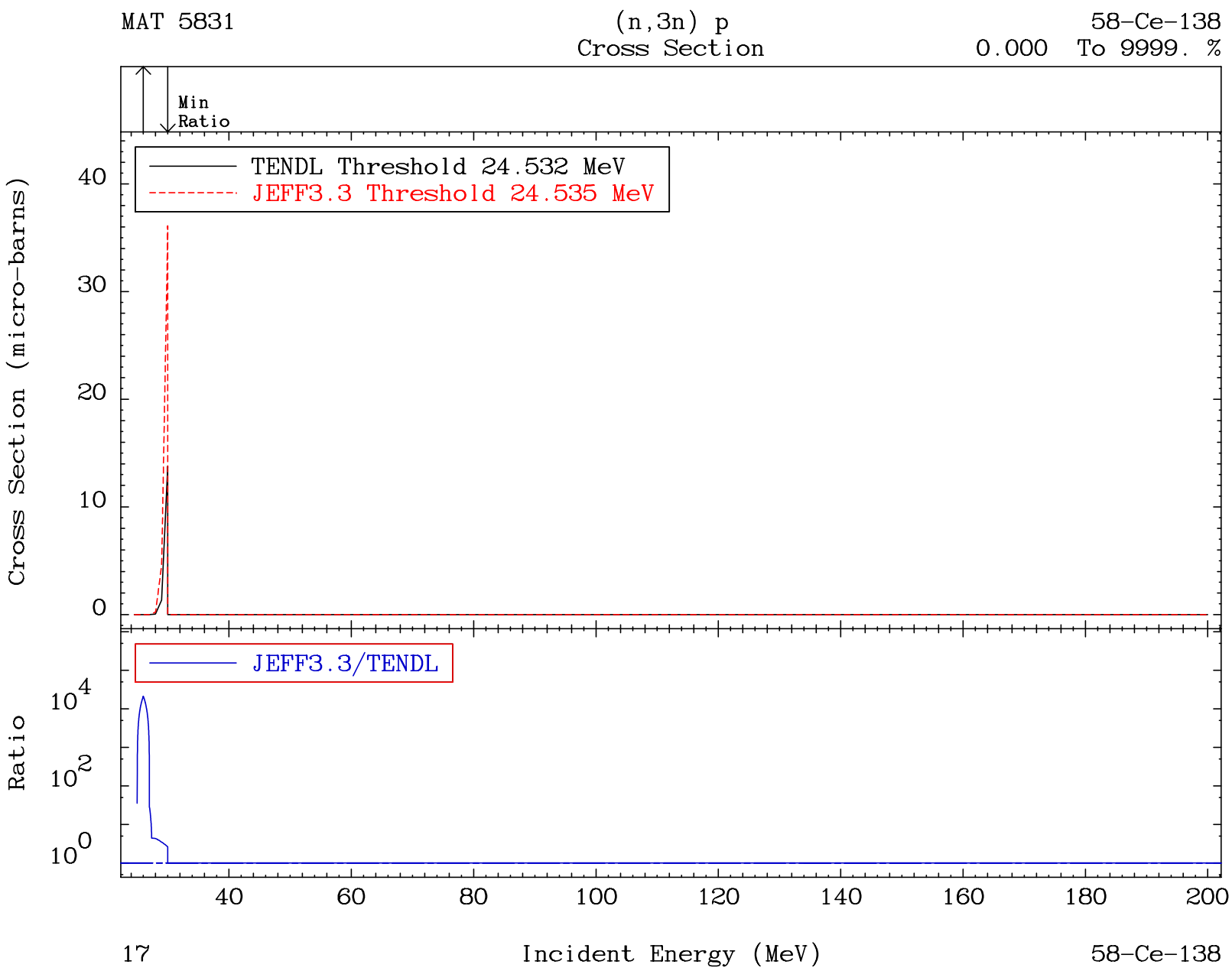

MAT 5831
(n,n') d
Cross Section
58-Ce-138
-7.461 To 201.1 %
Max Ratio
Min Ratio
TENDL Threshold 14.771 MeV
JEFF3.3 Threshold 14.774 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
1.0
2.0
3.0
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
58-Ce-138

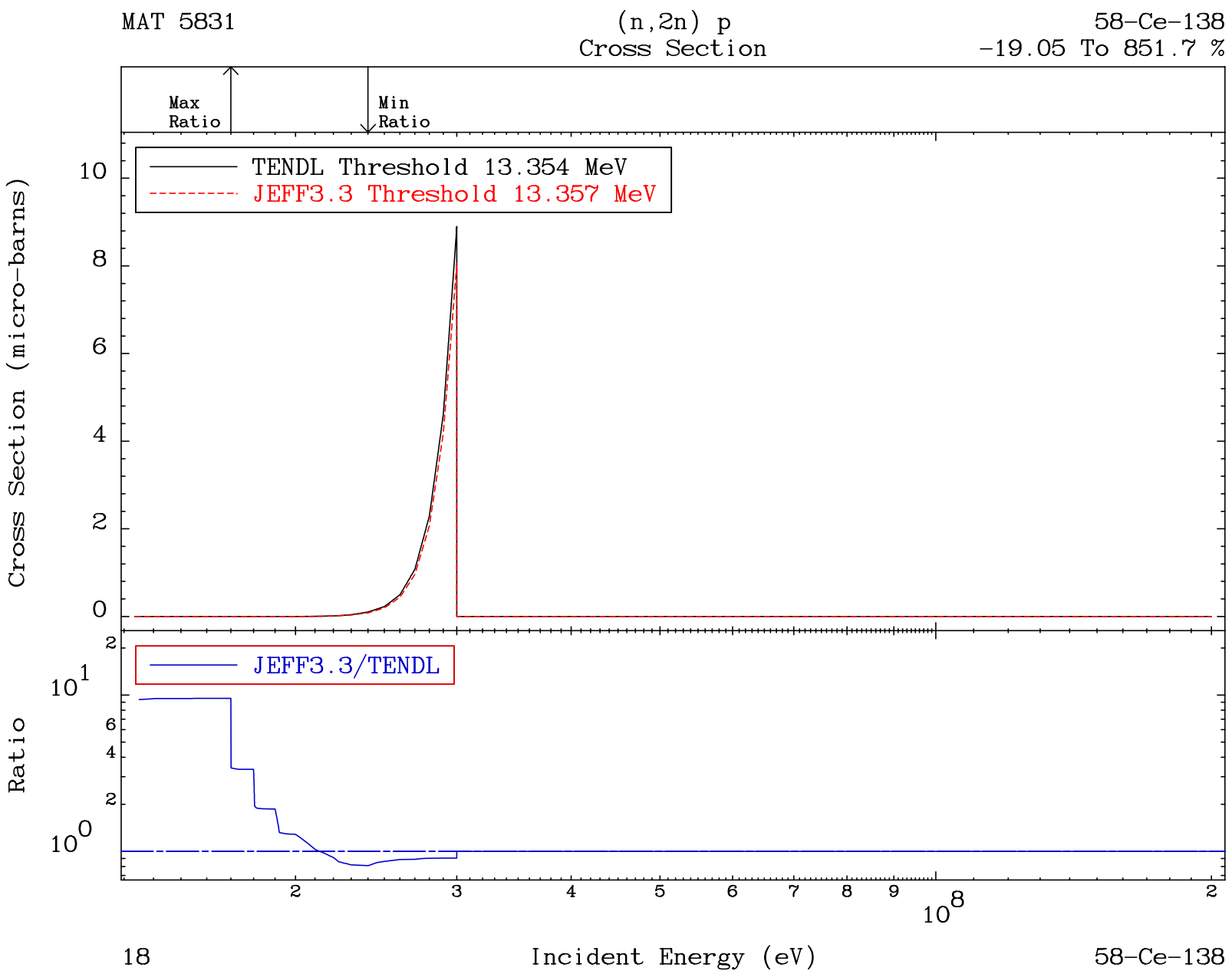

MAT 5831
(n,n') t
Cross Section
58-Ce-138
-2.612 To 2822. %
Max Ratio
Min Ratio
TENDL Threshold 15.988 MeV
JEFF3.3 Threshold 15.991 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^1
4
10^0
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
58-Ce-138

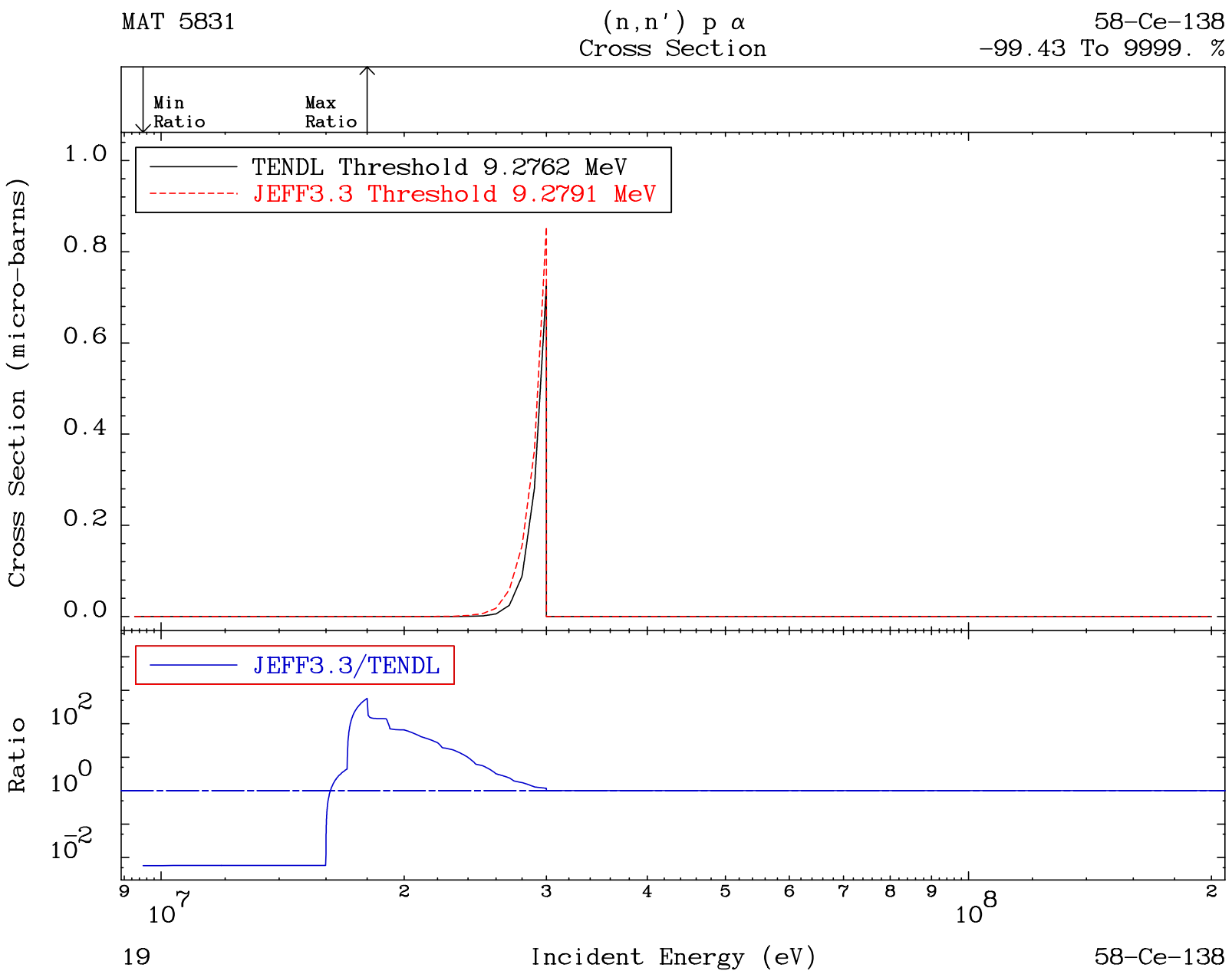

MAT 5831
(n,n') He-3
Cross Section
58-Ce-138
-39.03 To 34.25 %
Min Ratio
Max Ratio
TENDL Threshold 14.754 MeV
JEFF3.3 Threshold 14.756 MeV
Cross Section (micro-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
58-Ce-138

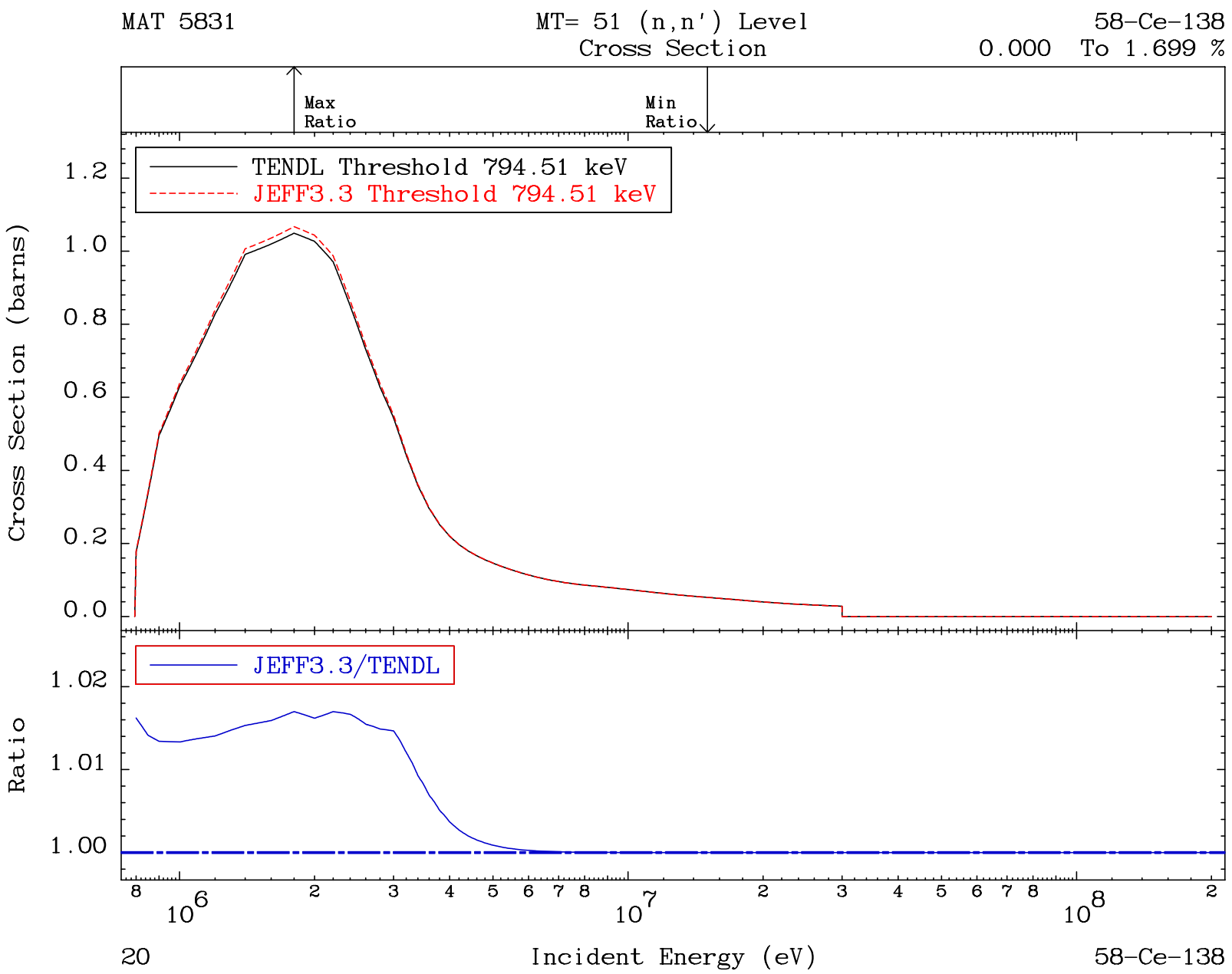

MAT 5831
(n,4n)
Cross Section
58-Ce-138
0.000 To 763.1 %
Min
Ratio
TENDL Threshold 27.362 MeV
JEFF3.3 Threshold 27.365 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
8
4
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
58-Ce-138

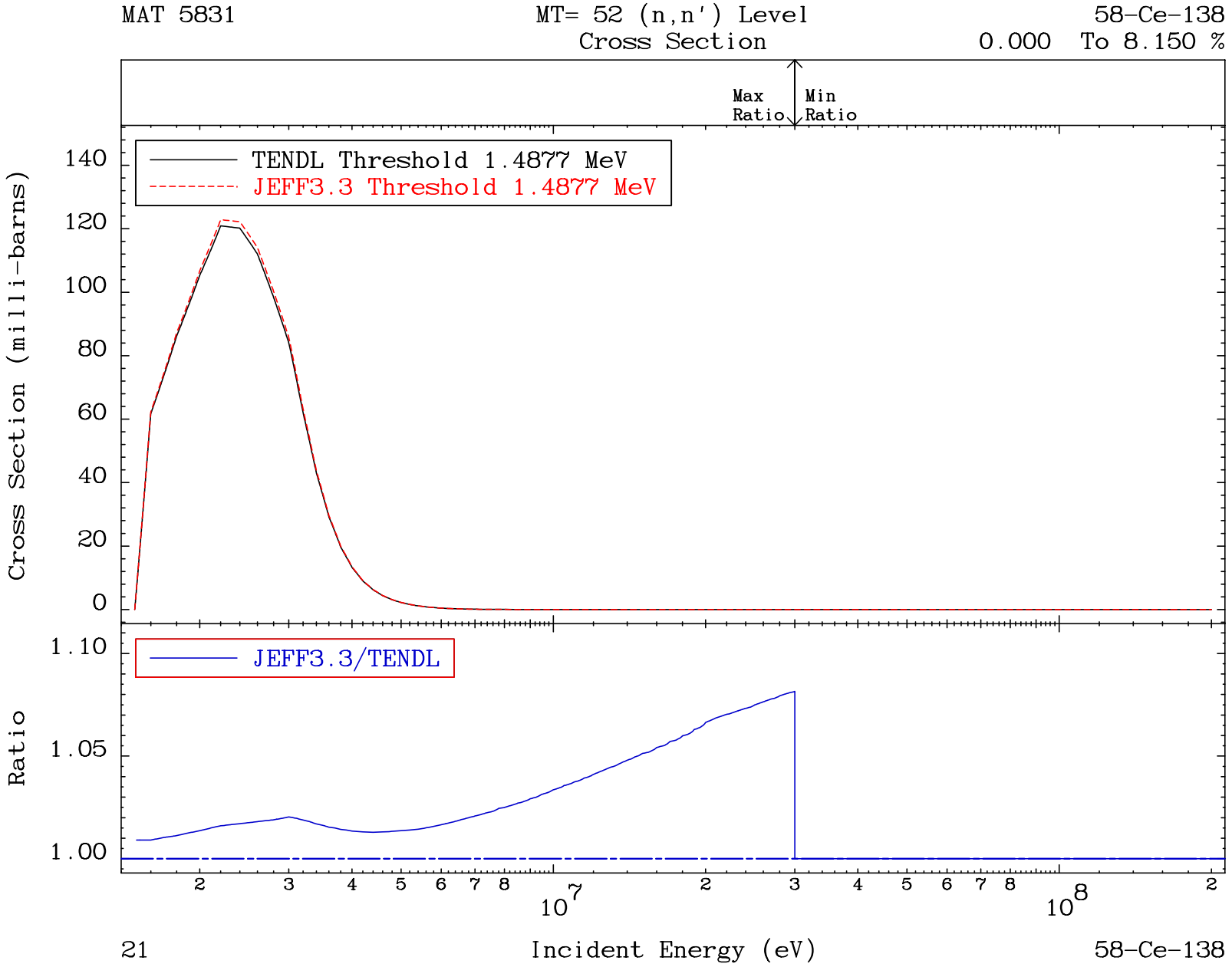

MAT 5831
(n,2n) p
Cross Section
58-Ce-138
-0.234 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 17.012 MeV
JEFF3.3 Threshold 17.015 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
58-Ce-138

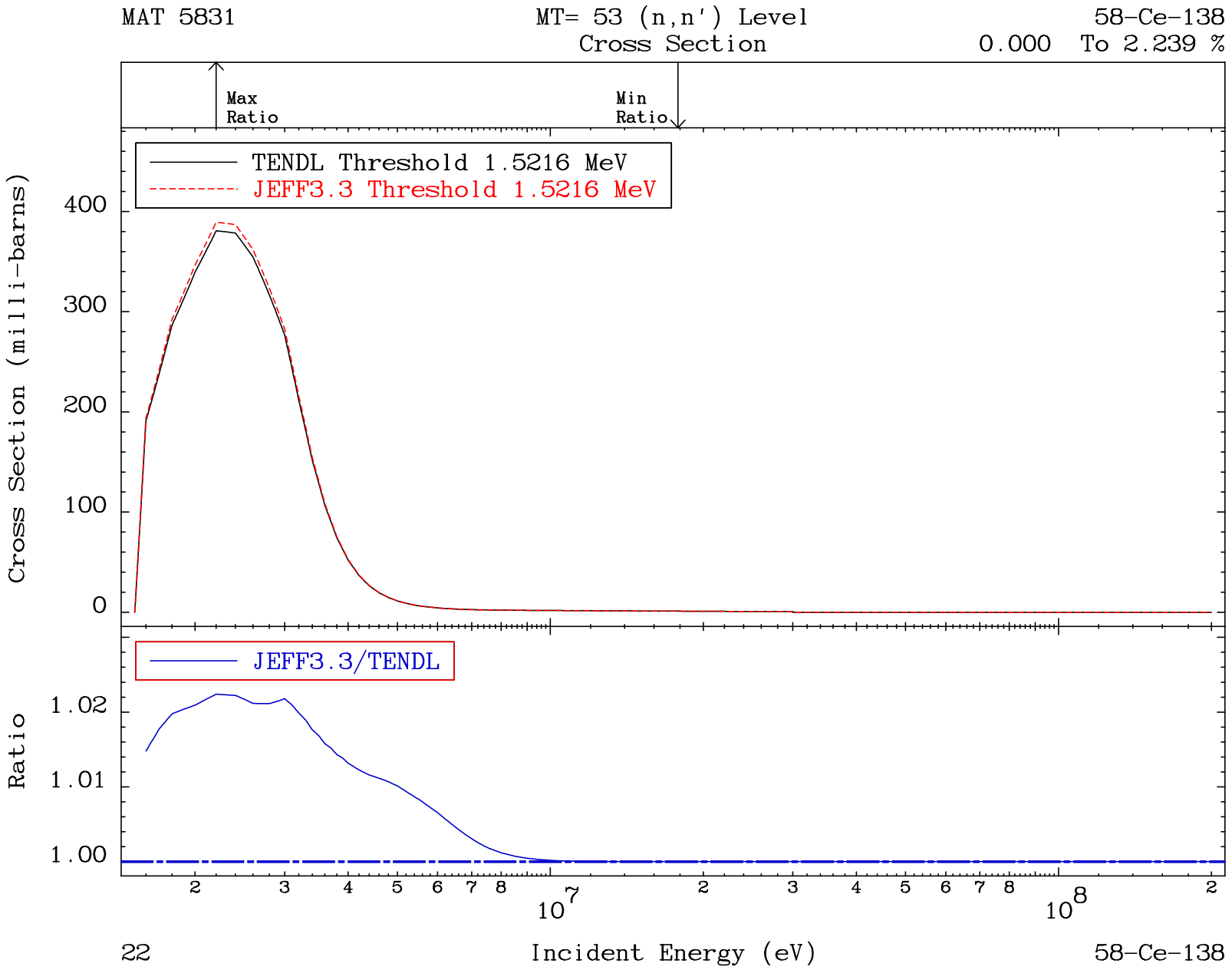

MAT 5831
(n,3n) p
Cross Section
58-Ce-138
0.000 To 9999. %
Min
Ratio
TENDL Threshold 24.532 MeV
JEFF3.3 Threshold 24.535 MeV
Cross Section (micro-barns)
0
10
20
30
40
JEFF3.3/TENDL
Ratio
10^0
10^2
10^4
40
60
80
100
120
140
160
180
200
17
Incident Energy (MeV)
58-Ce-138

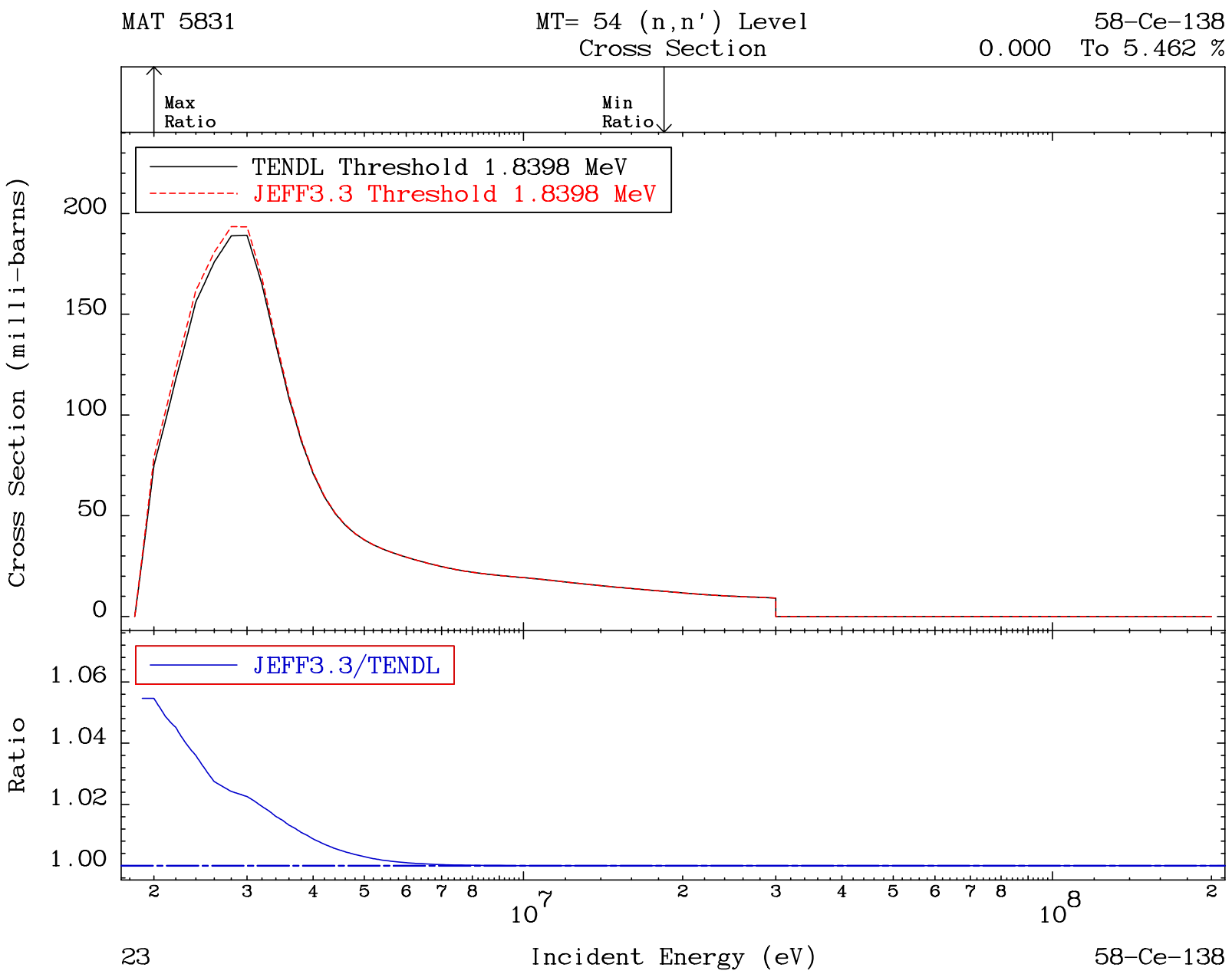

MAT 5831
(n,2n) p
Cross Section
58-Ce-138
-19.05 To 851.7 %
Max Ratio
Min Ratio
TENDL Threshold 13.354 MeV
JEFF3.3 Threshold 13.357 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
18
58-Ce-138

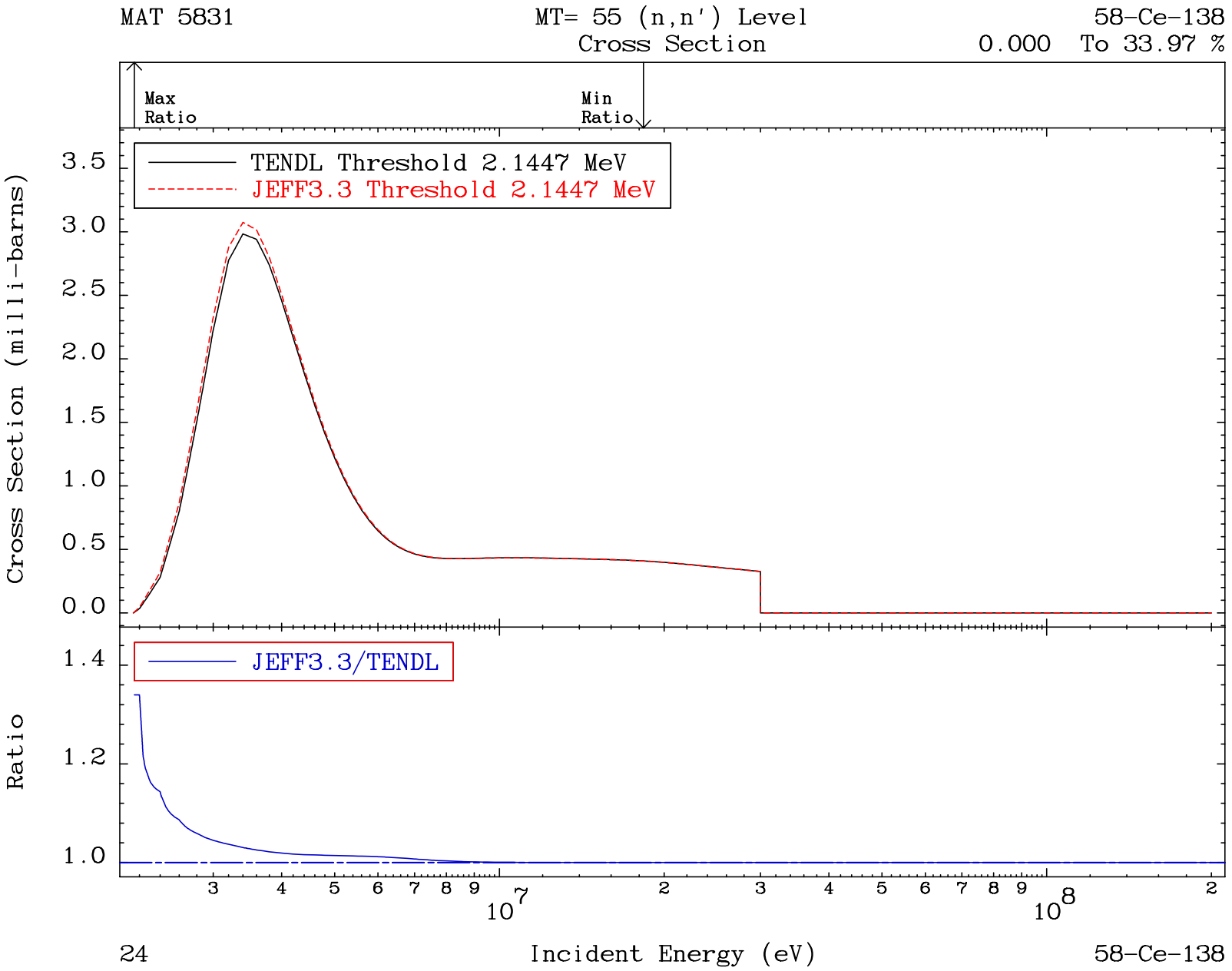

MAT 5831
(n,n') p α
Cross Section
58-Ce-138
-99.43 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 9.2762 MeV
JEFF3.3 Threshold 9.2791 MeV
Cross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
9
2
3
4
5
6
7
8
9
2
10^7
10^8
19
Incident Energy (eV)
58-Ce-138

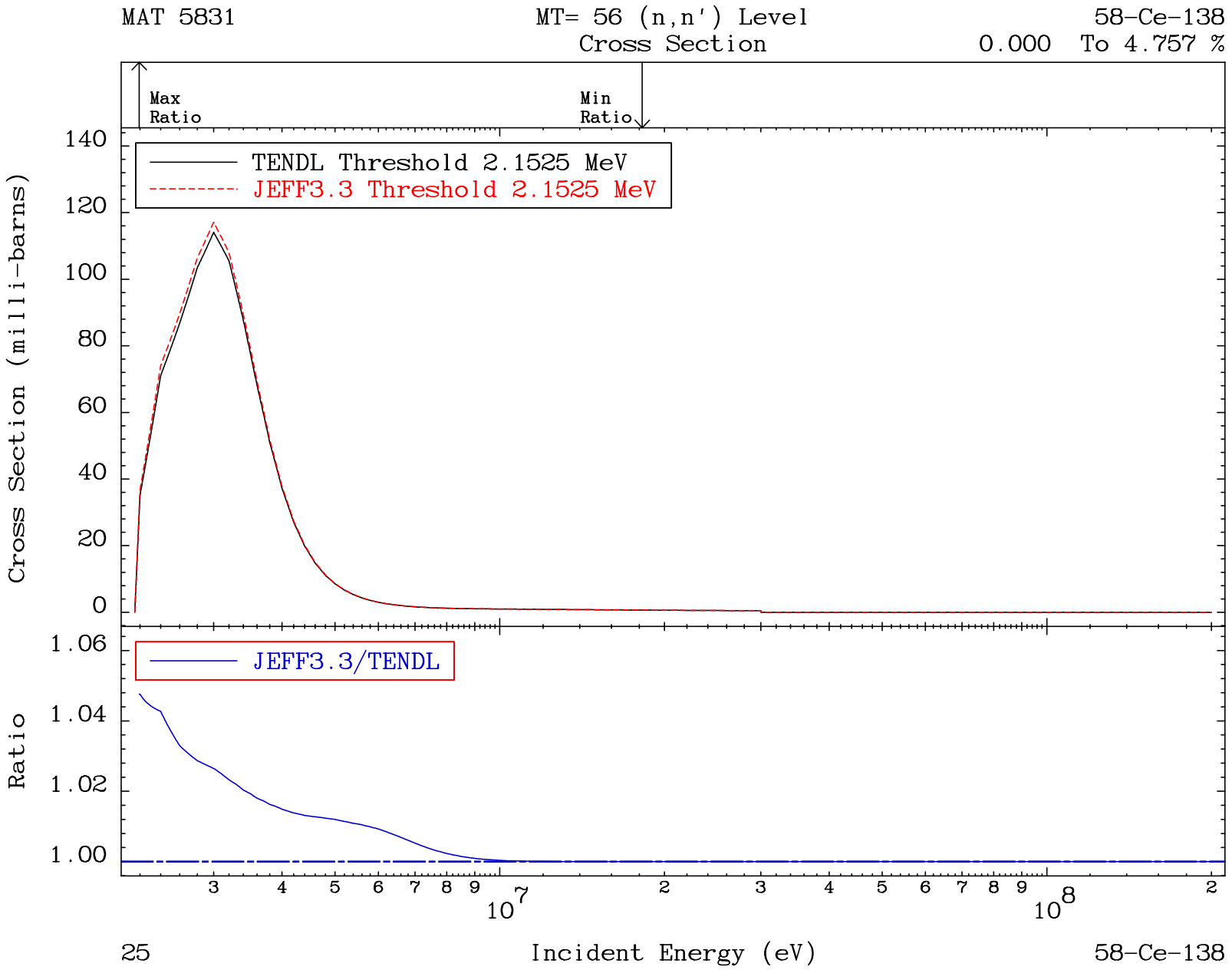

MAT 5831
MT= 51 (n,n') Level
Cross Section
58-Ce-138
0.000 To 1.699 %
Max Ratio
Min Ratio
TENDL Threshold 794.51 keV
JEFF3.3 Threshold 794.51 keV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
20
Incident Energy (eV)
58-Ce-138

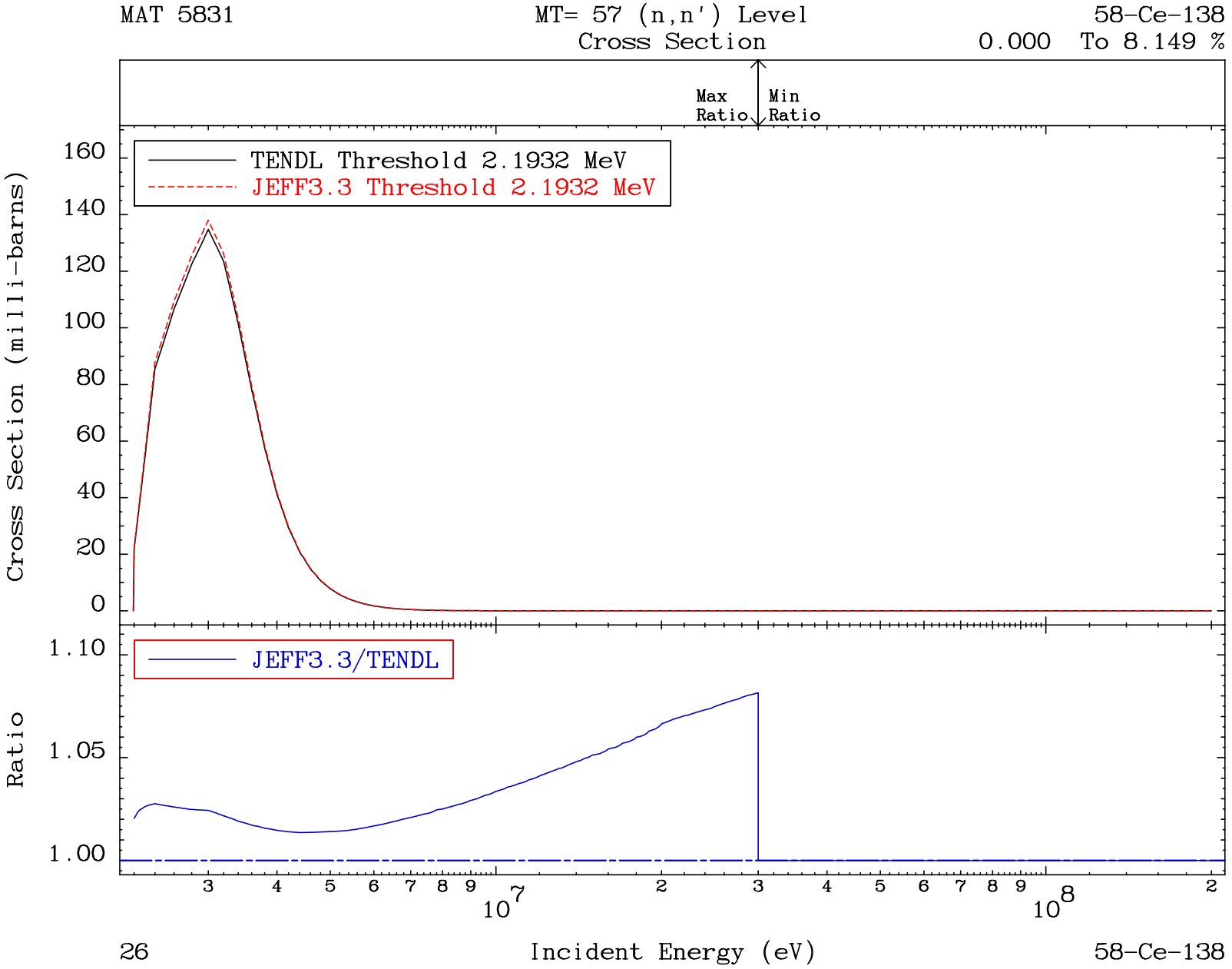

MAT 5831
MT= 52 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.150 %
Max Ratio
Min Ratio
TENDL Threshold 1.4877 MeV
JEFF3.3 Threshold 1.4877 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
58-Ce-138

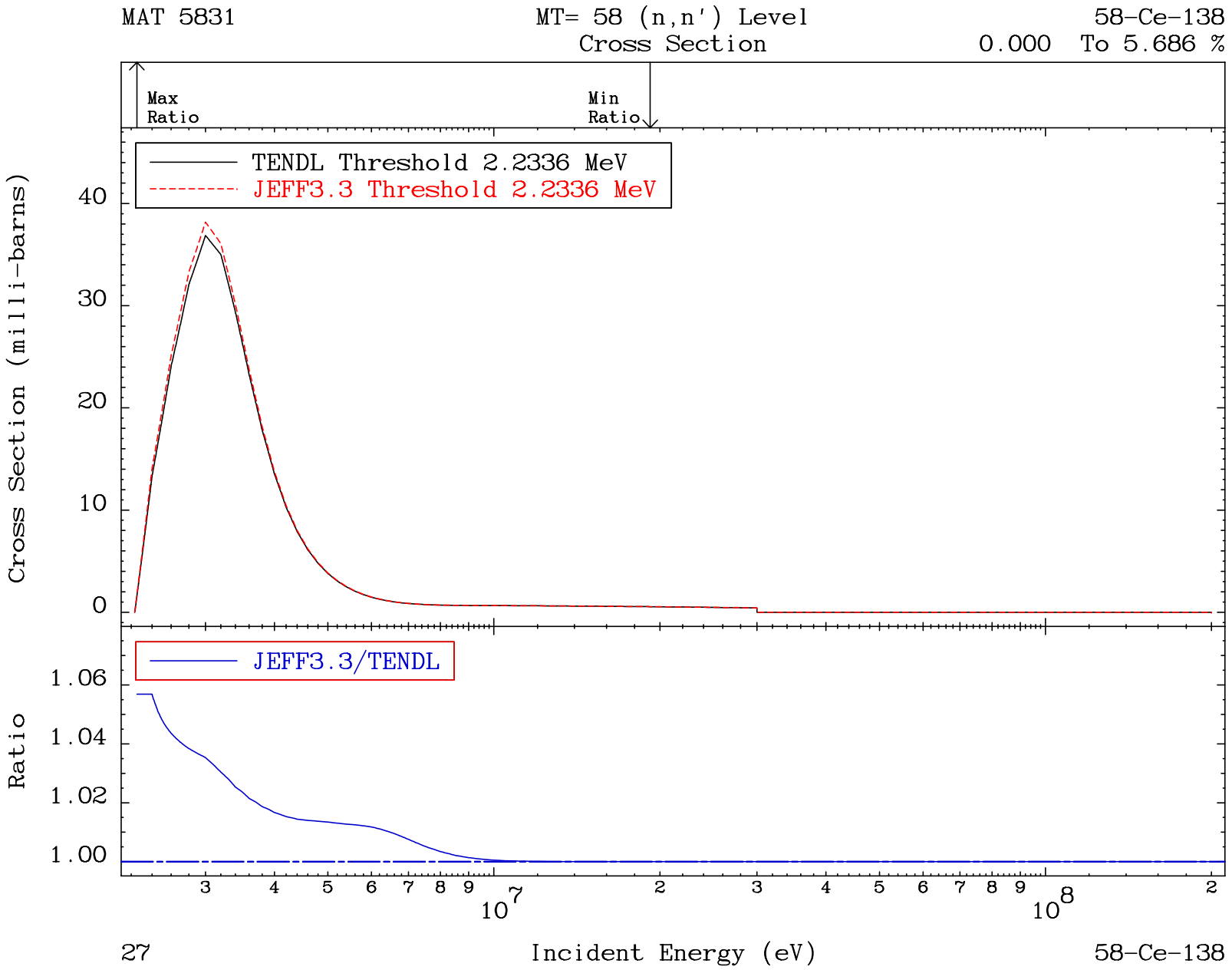

MAT 5831
MT= 53 (n,n') Level
Cross Section
58-Ce-138
0.000 To 2.239 %
Max Ratio
Min Ratio
TENDL Threshold 1.5216 MeV
JEFF3.3 Threshold 1.5216 MeV
Cross Section (milli-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
58-Ce-138

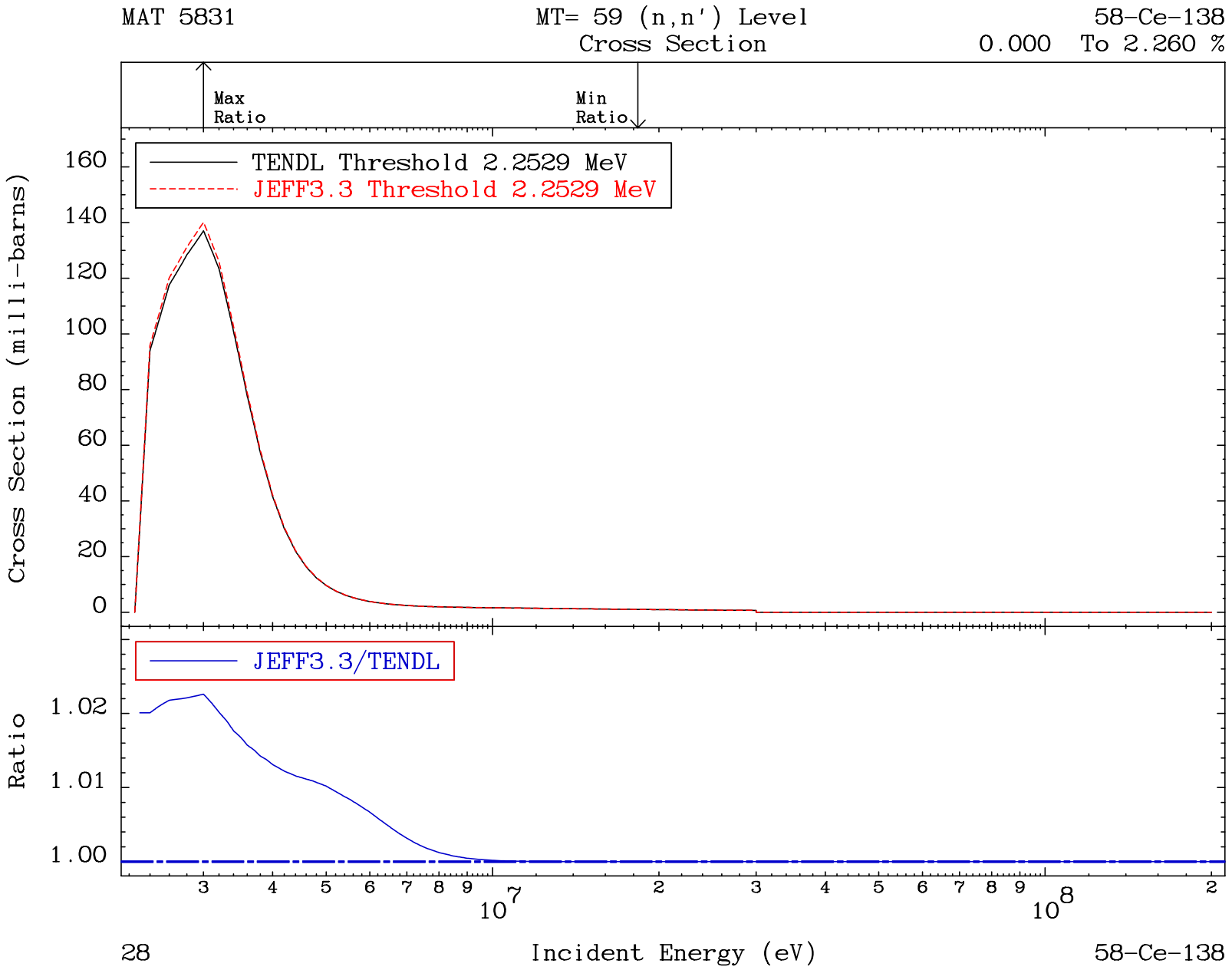

MAT 5831
MT= 54 (n,n') Level
Cross Section
58-Ce-138
0.000 To 5.462 %
Max Ratio
Min Ratio
TENDL Threshold 1.8398 MeV
JEFF3.3 Threshold 1.8398 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.06
1.04
1.02
1.00
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
58-Ce-138

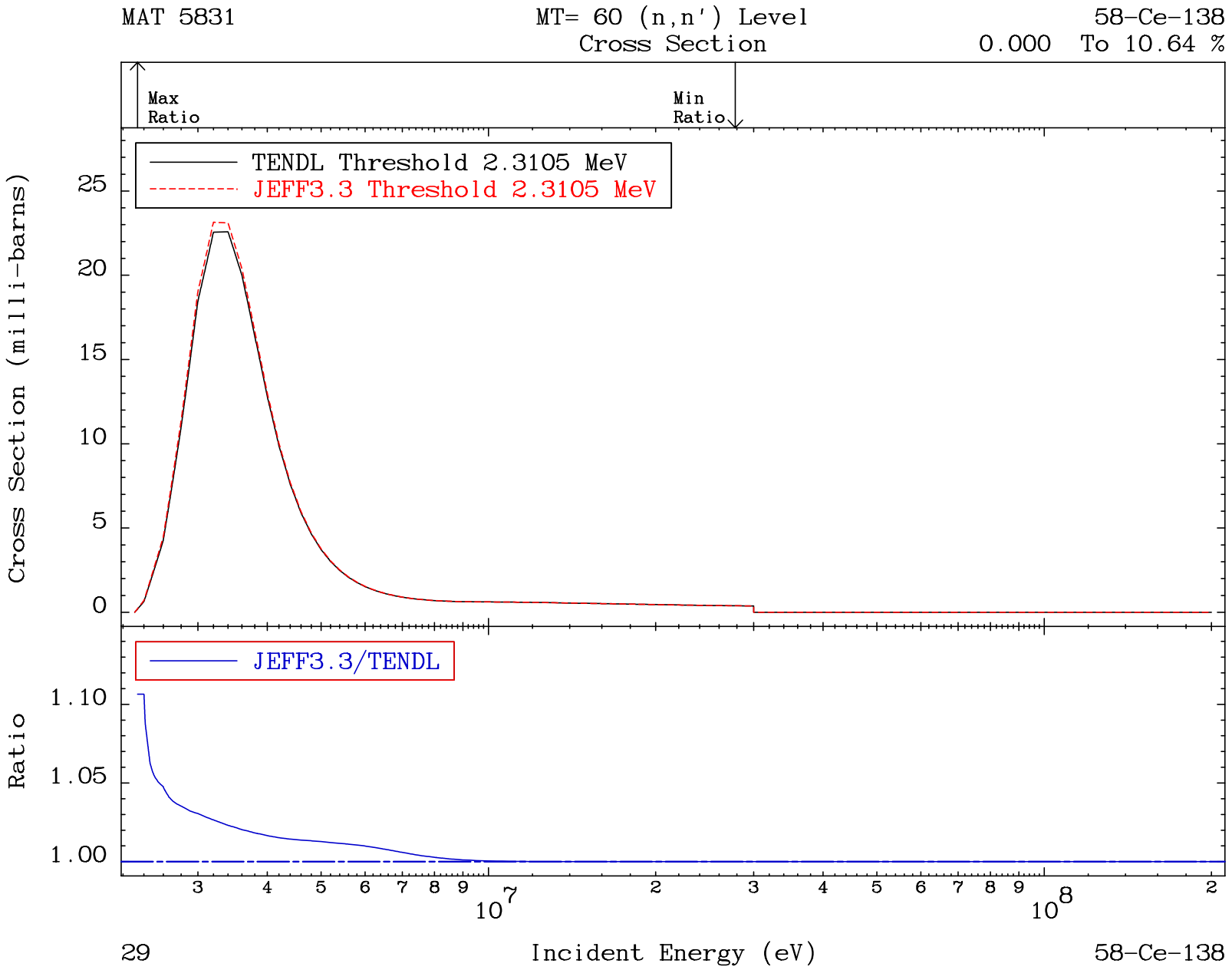

MAT 5831
MT= 55 (n,n') Level
Cross Section
58-Ce-138
0.000 To 33.97 %
Max Ratio
Min Ratio
TENDL Threshold 2.1447 MeV
JEFF3.3 Threshold 2.1447 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
24
Incident Energy (eV)
58-Ce-138

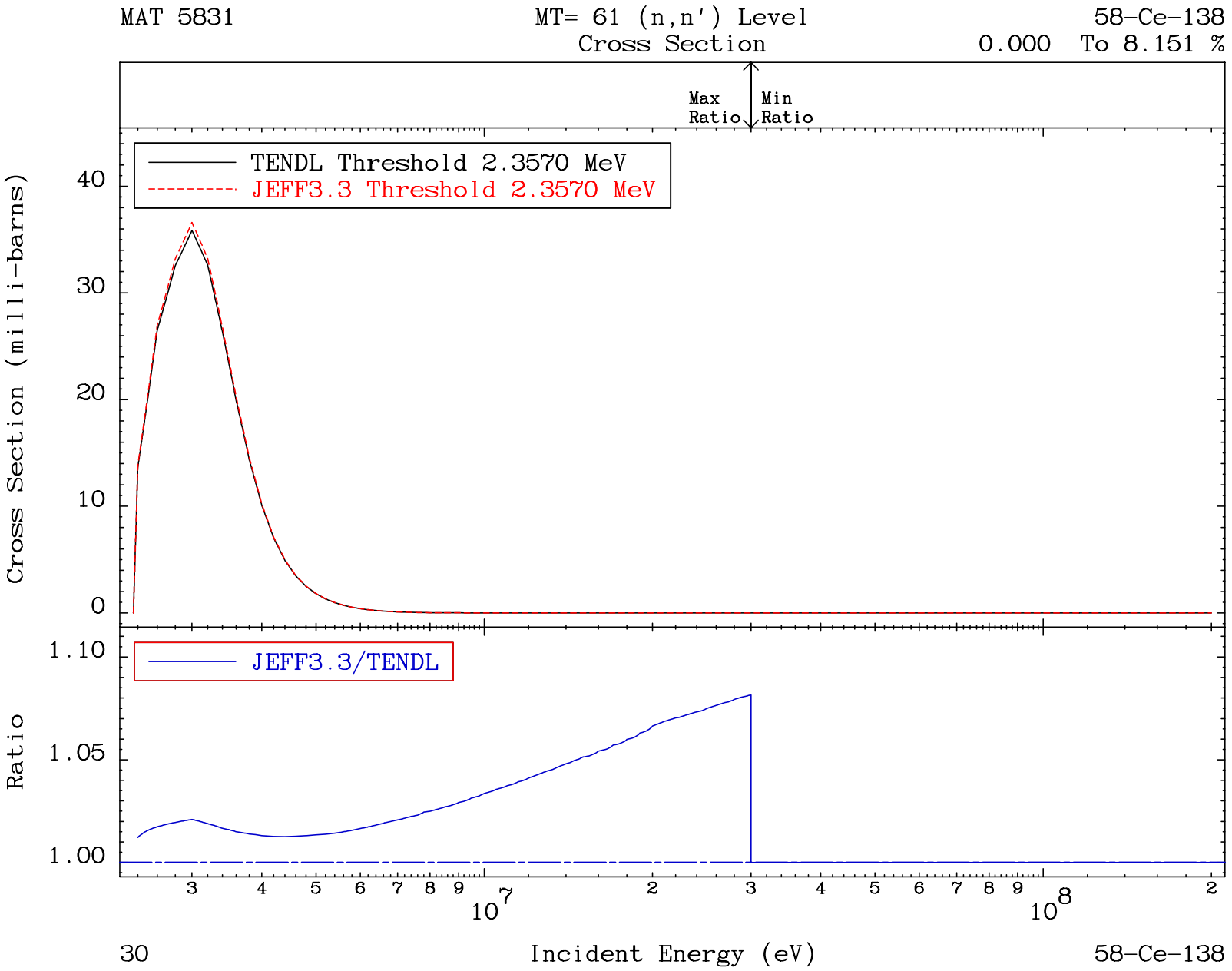

MAT 5831
MT= 56 (n,n') Level
Cross Section
58-Ce-138
0.000 To 4.757 %
Max Ratio
Min Ratio
TENDL Threshold 2.1525 MeV
JEFF3.3 Threshold 2.1525 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.06
1.04
1.02
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
58-Ce-138

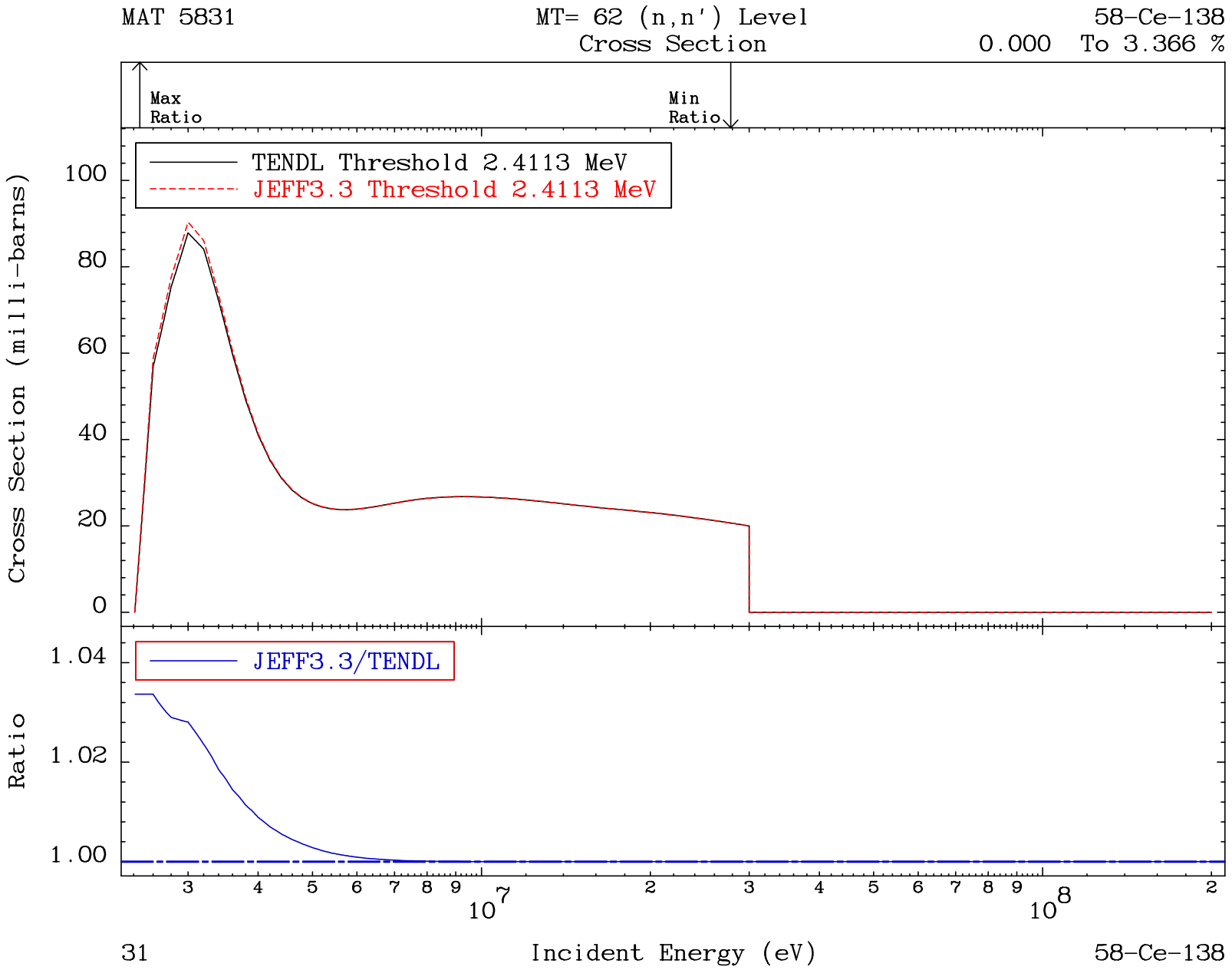

MAT 5831
MT= 57 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.149 %
Max Ratio
Min Ratio
TENDL Threshold 2.1932 MeV
JEFF3.3 Threshold 2.1932 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
26
Incident Energy (eV)
58-Ce-138

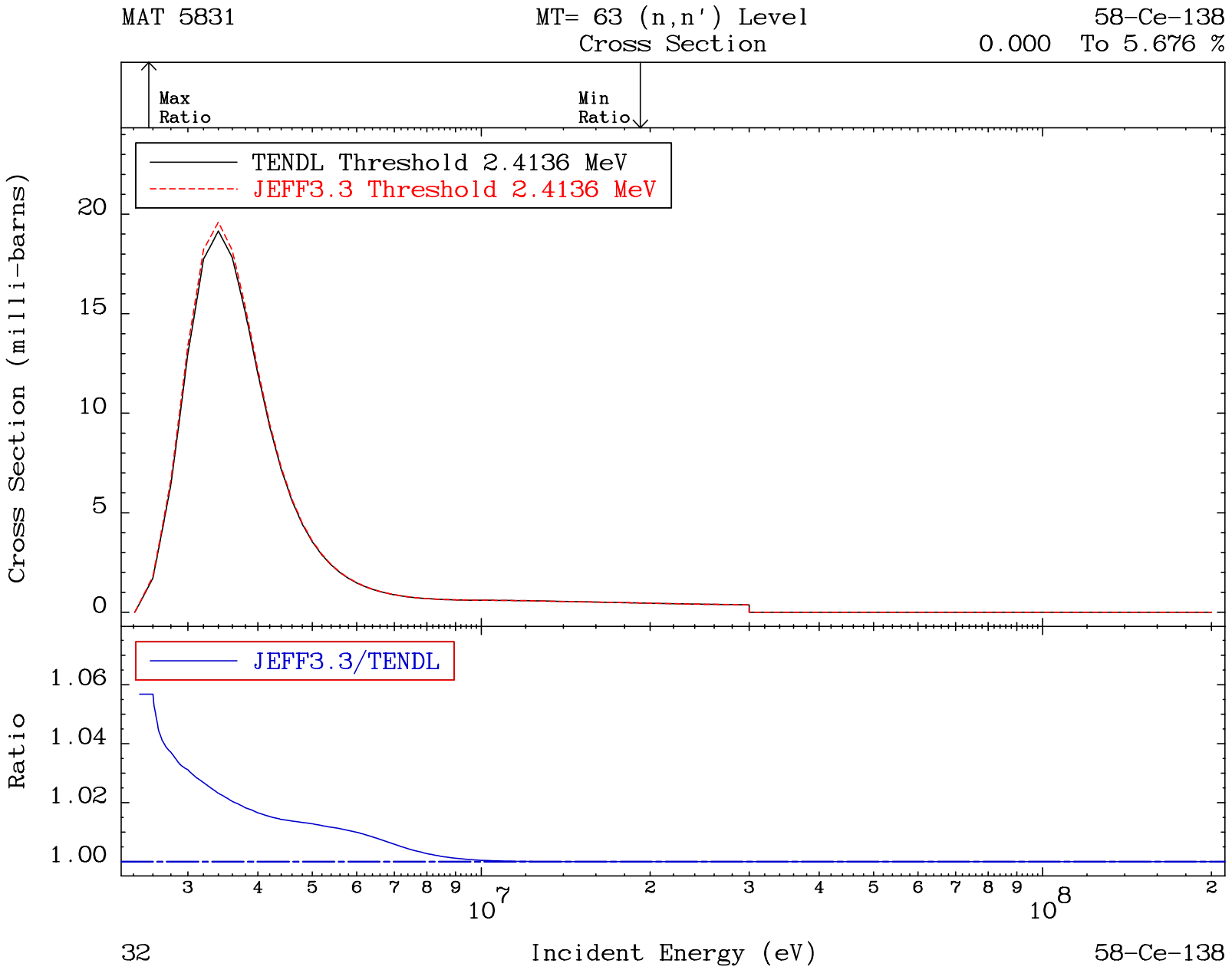

MAT 5831
MT= 58 (n,n') Level
Cross Section
58-Ce-138
0.000 To 5.686 %
Max Ratio
Min Ratio
TENDL Threshold 2.2336 MeV
JEFF3.3 Threshold 2.2336 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.06
1.04
1.02
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
58-Ce-138

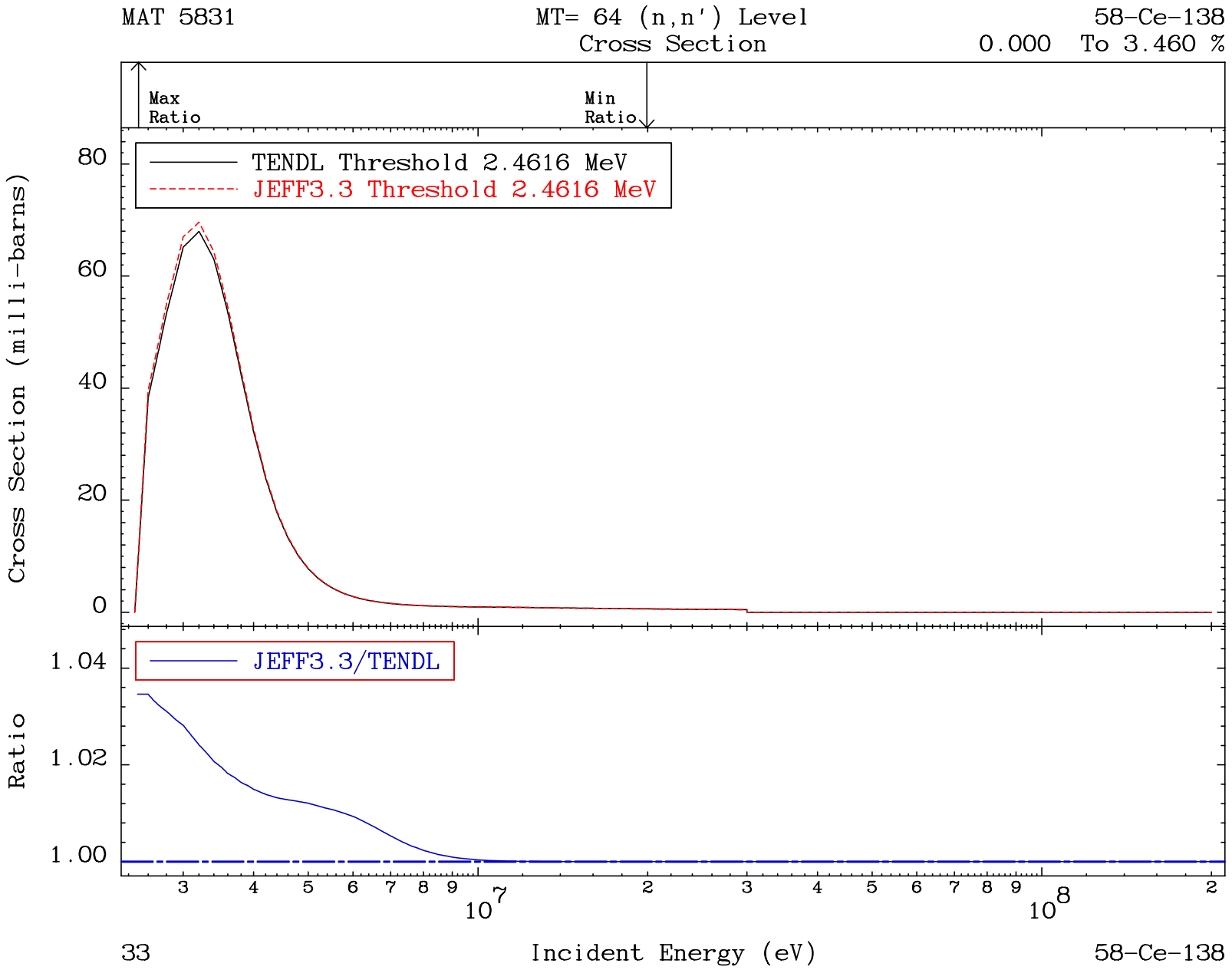

MAT 5831
MT= 59 (n,n') Level
Cross Section
58-Ce-138
0.000 To 2.260 %
Max Ratio
Min Ratio
TENDL Threshold 2.2529 MeV
JEFF3.3 Threshold 2.2529 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
28
Incident Energy (eV)
58-Ce-138

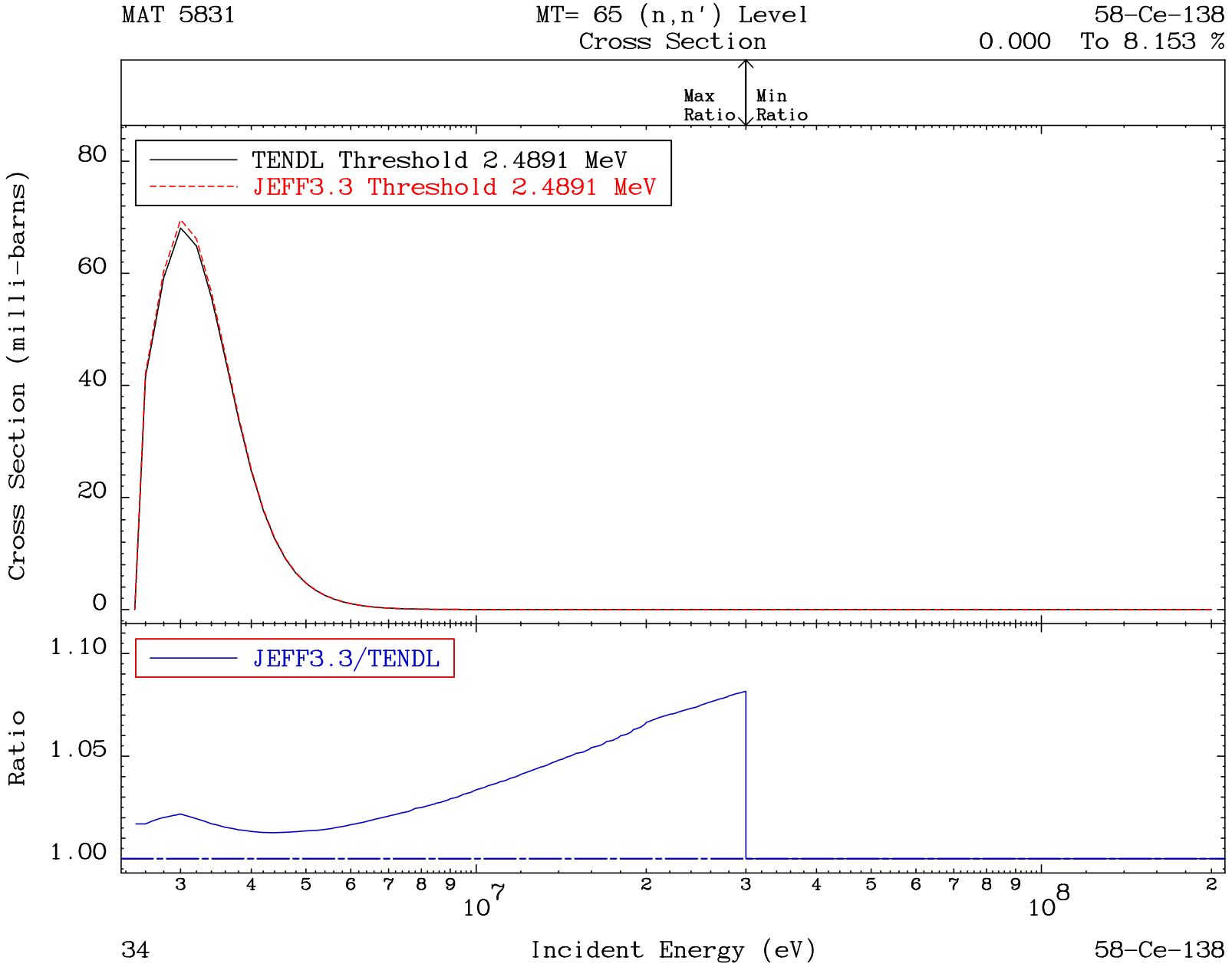

MAT 5831
MT= 60 (n,n') Level
Cross Section
58-Ce-138
0.000 To 10.64 %
Max Ratio
Min Ratio
TENDL Threshold 2.3105 MeV
JEFF3.3 Threshold 2.3105 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
29
Incident Energy (eV)
58-Ce-138

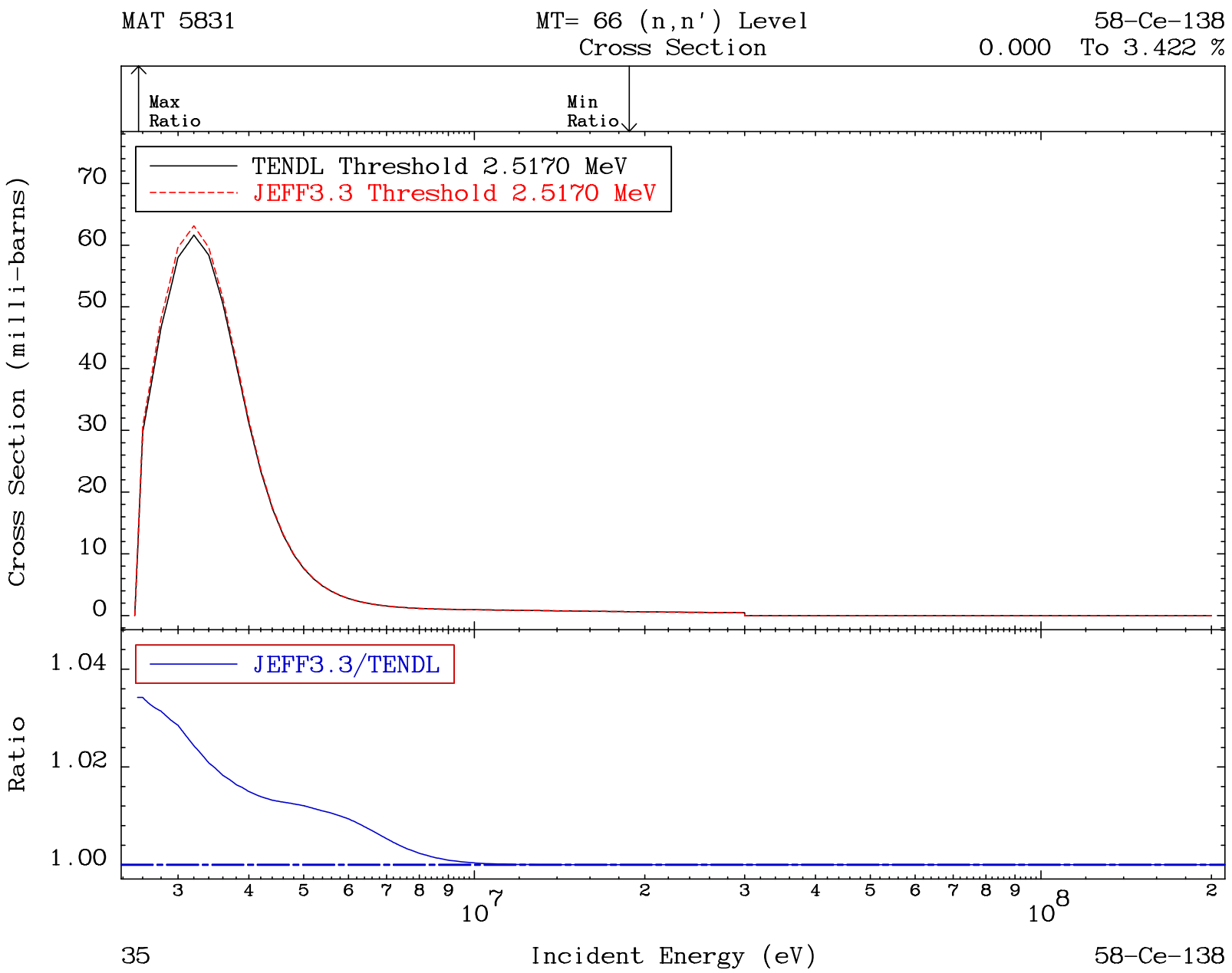

MAT 5831
MT= 61 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.151 %
Max Ratio
Min Ratio
TENDL Threshold 2.3570 MeV
JEFF3.3 Threshold 2.3570 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
30
Incident Energy (eV)
58-Ce-138

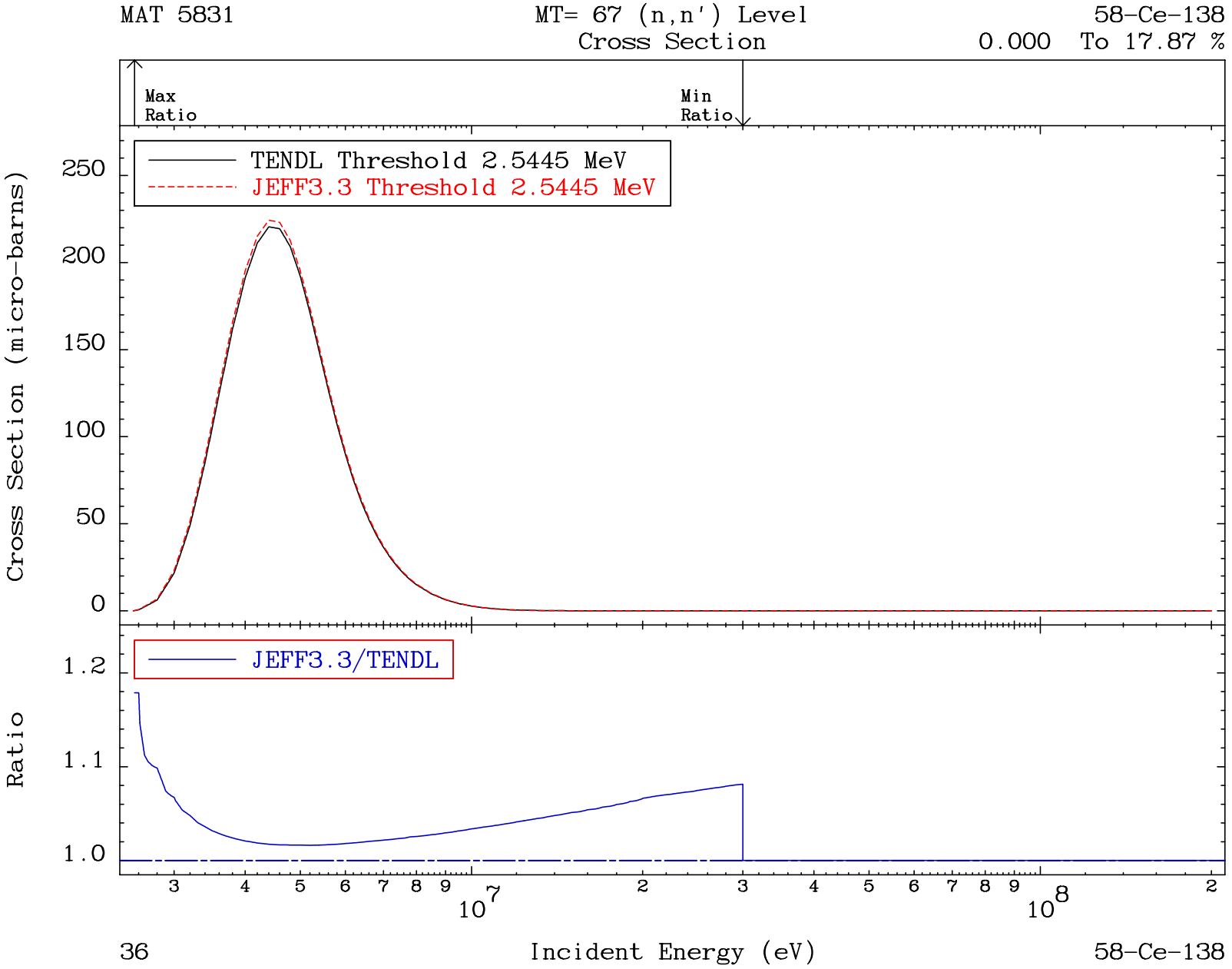

MAT 5831
MT= 62 (n,n') Level
Cross Section
58-Ce-138
0.000 To 3.366 %
Max Ratio
Min Ratio
TENDL Threshold 2.4113 MeV
JEFF3.3 Threshold 2.4113 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
58-Ce-138

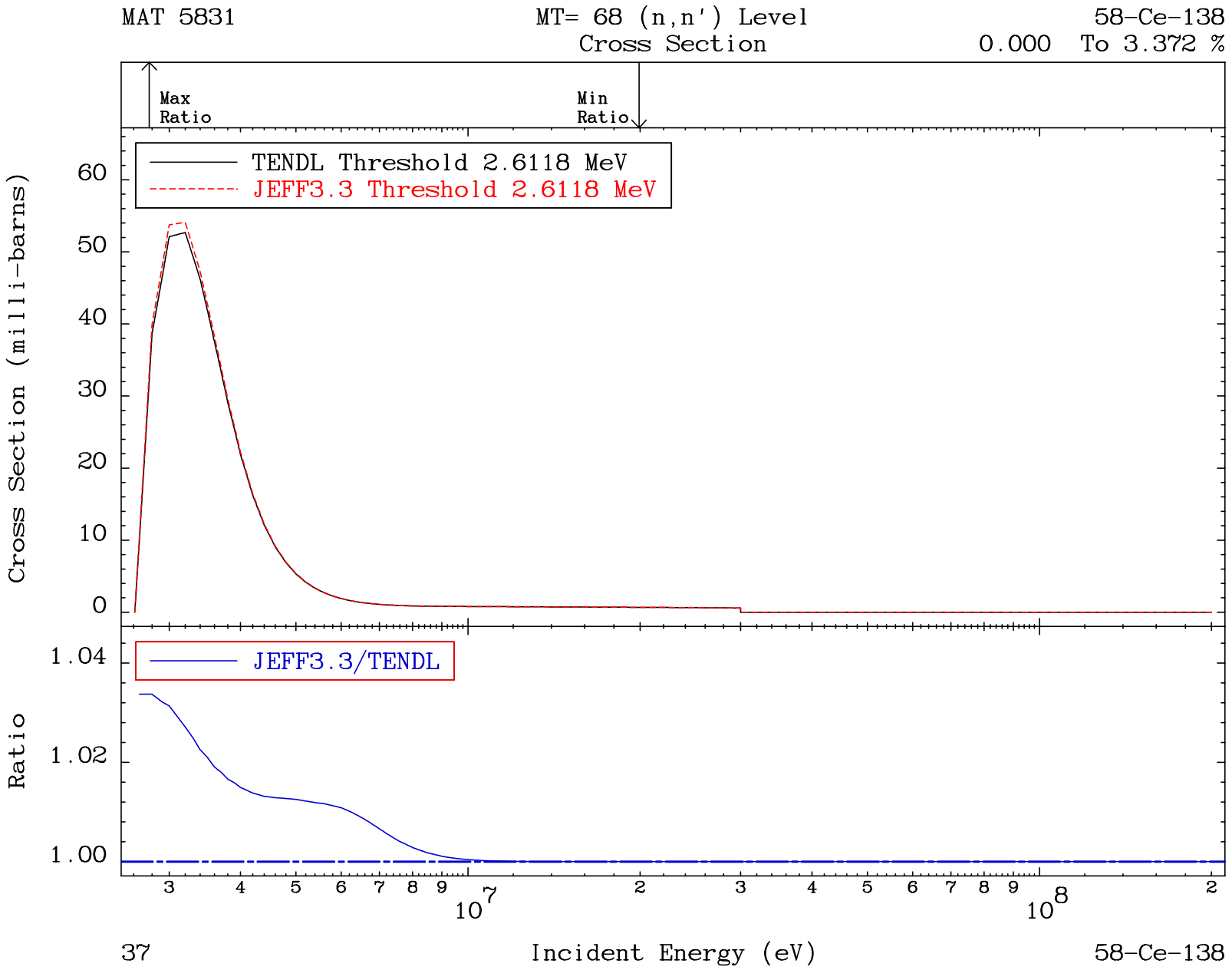

MAT 5831
MT= 63 (n,n') Level
Cross Section
58-Ce-138
0.000 To 5.676 %
Max Ratio
Min Ratio
TENDL Threshold 2.4136 MeV
JEFF3.3 Threshold 2.4136 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.06
1.04
1.02
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
32
Incident Energy (eV)
58-Ce-138

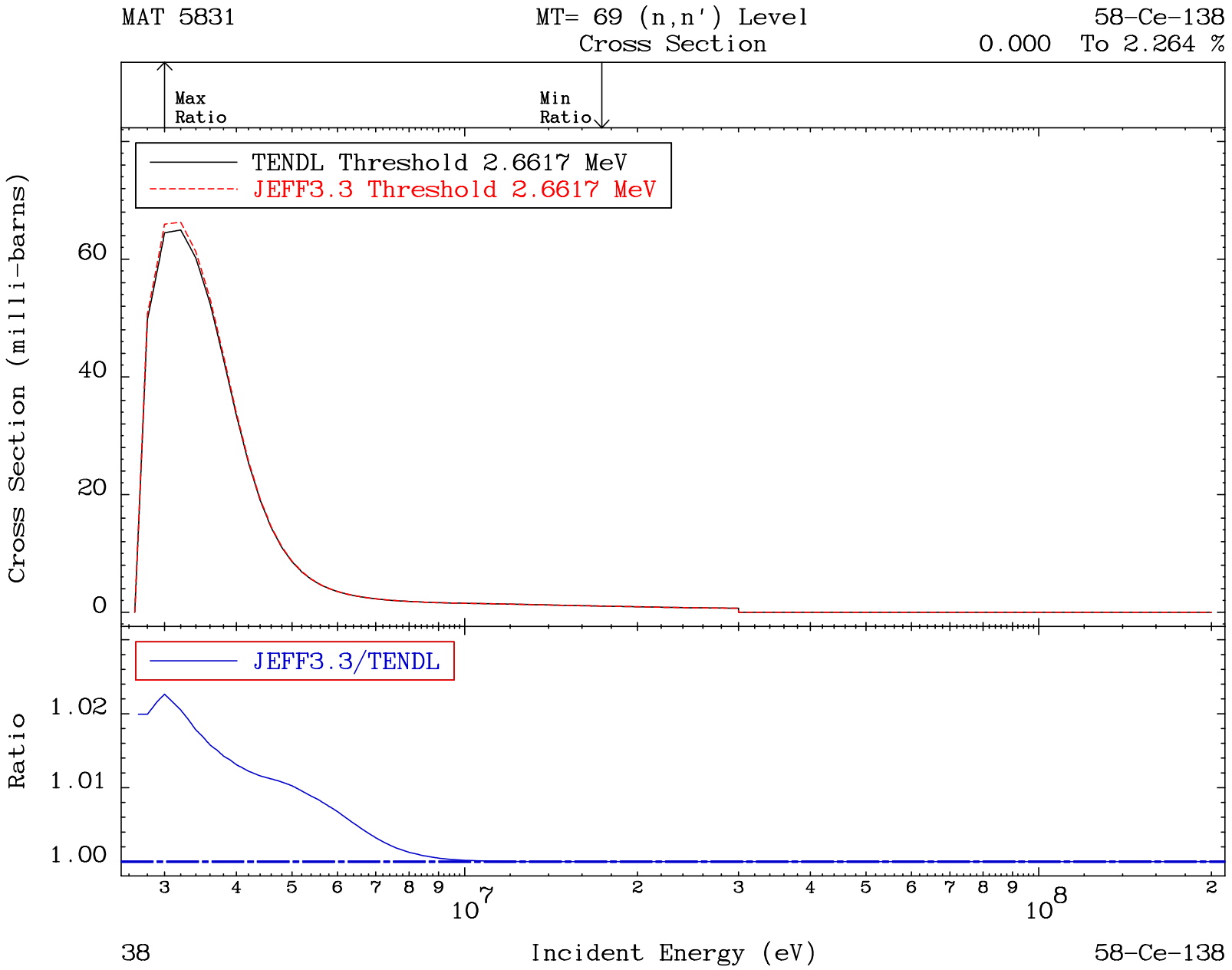

MAT 5831
MT= 64 (n,n') Level
Cross Section
58-Ce-138
0.000 To 3.460 %
Max Ratio
Min Ratio
TENDL Threshold 2.4616 MeV
JEFF3.3 Threshold 2.4616 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
33
Incident Energy (eV)
58-Ce-138

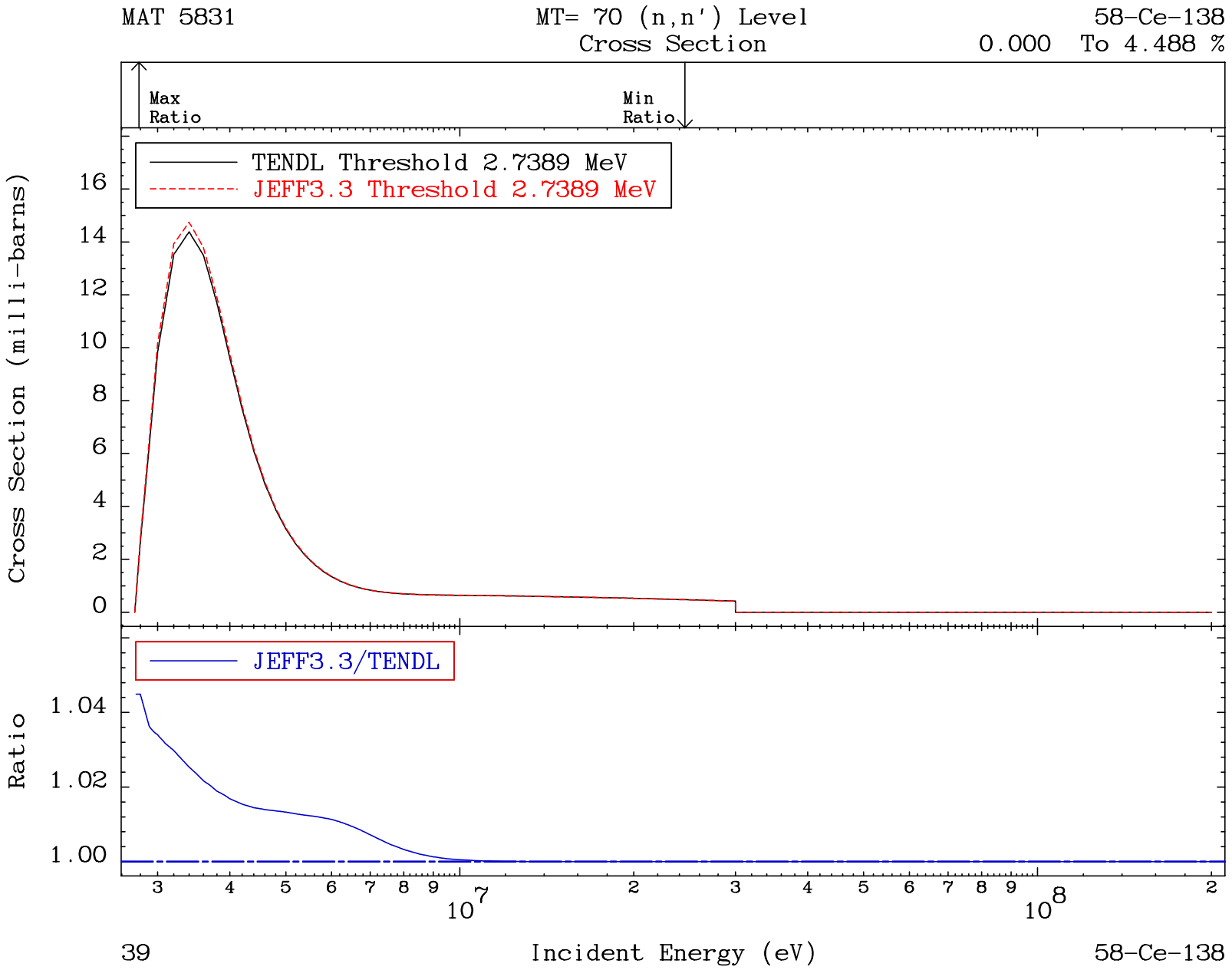

MAT 5831
MT= 65 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.153 %
Max Ratio
Min Ratio
TENDL Threshold 2.4891 MeV
JEFF3.3 Threshold 2.4891 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
34
Incident Energy (eV)
58-Ce-138

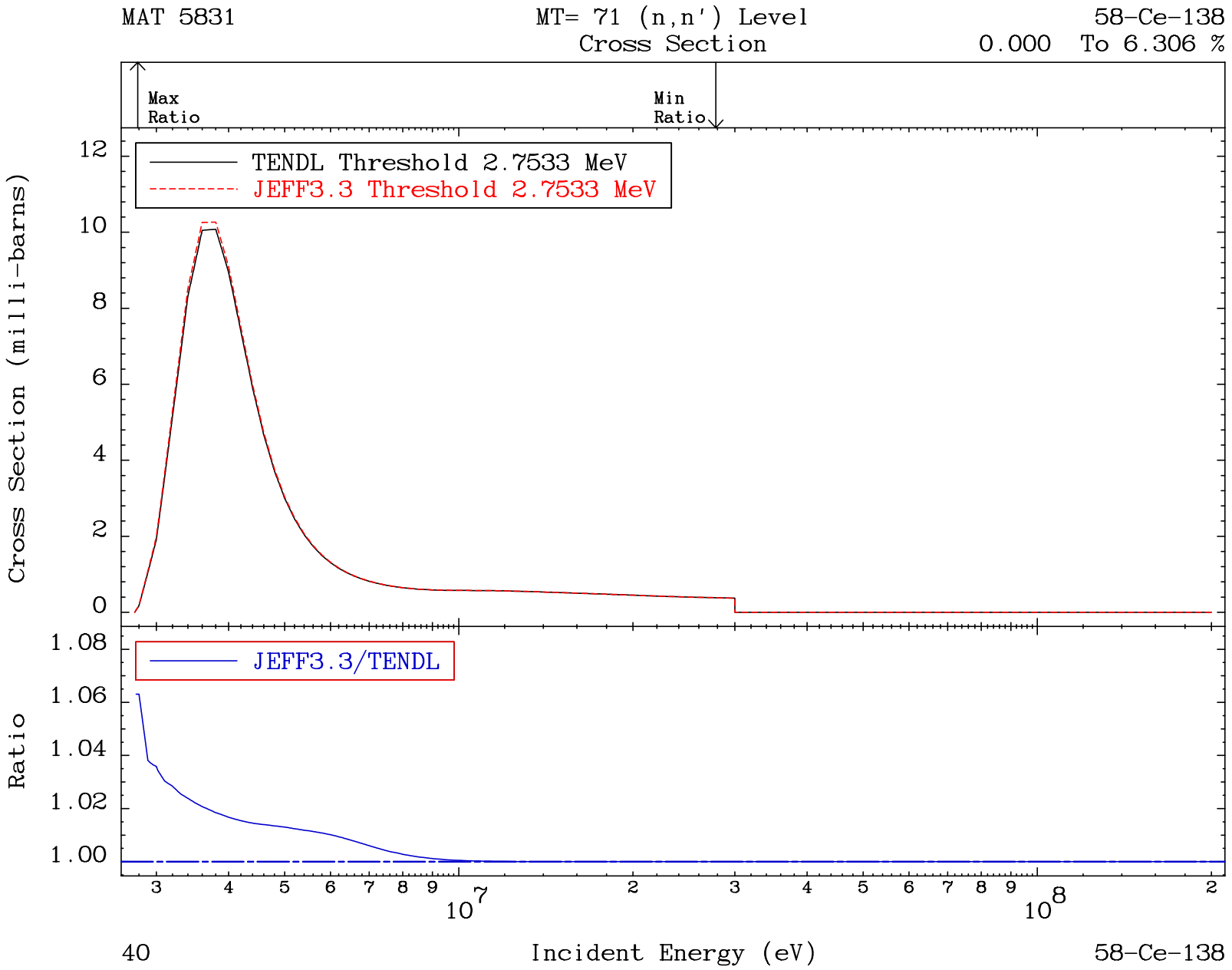

MAT 5831
MT= 66 (n,n') Level
Cross Section
58-Ce-138
0.000 To 3.422 %
Max Ratio
Min Ratio
TENDL Threshold 2.5170 MeV
JEFF3.3 Threshold 2.5170 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
35
Incident Energy (eV)
58-Ce-138

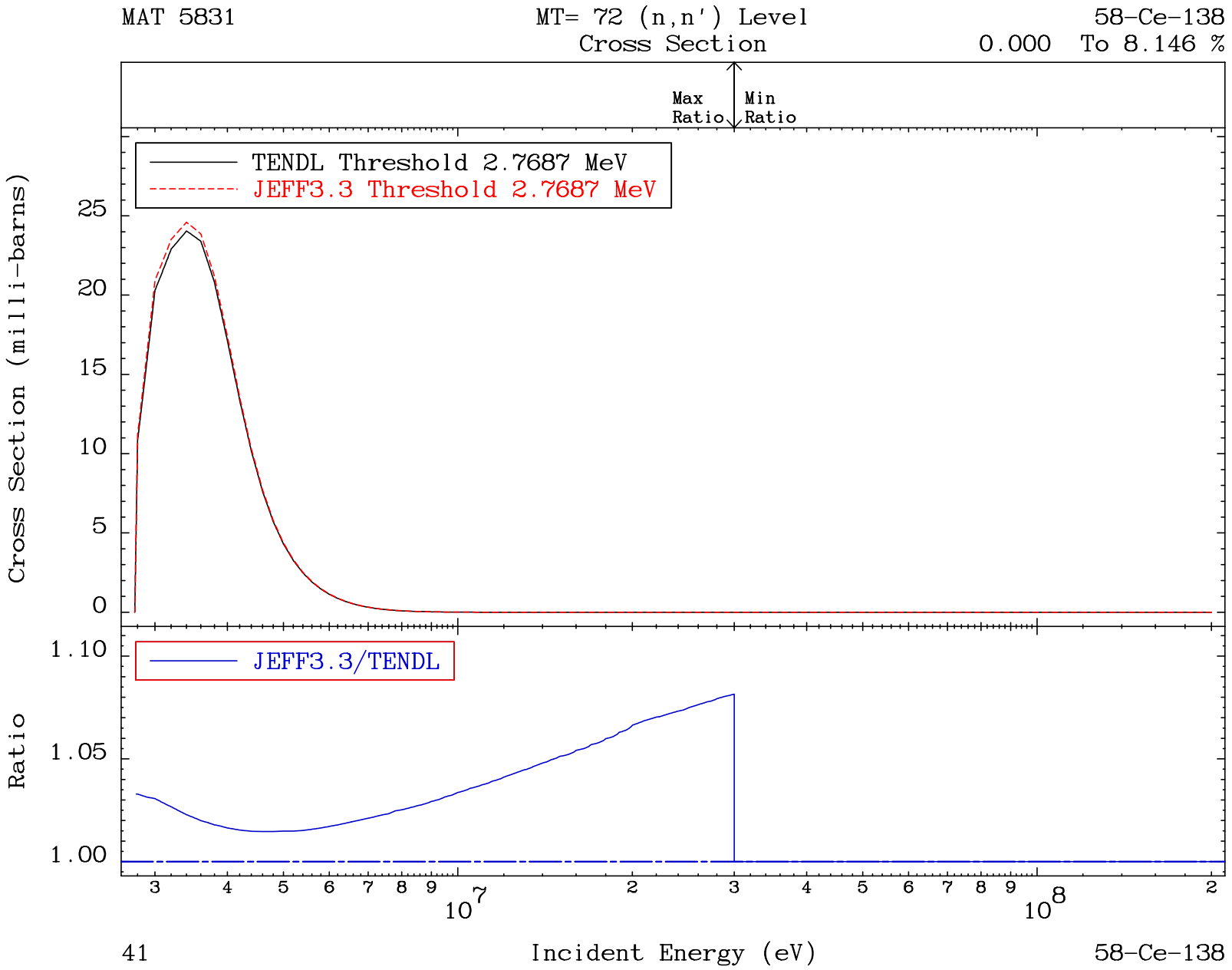

MAT 5831
MT= 67 (n,n') Level
Cross Section
58-Ce-138
0.000 To 17.87 %
Max Ratio
Min Ratio
TENDL Threshold 2.5445 MeV
JEFF3.3 Threshold 2.5445 MeV
Cross Section (micro-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
36
Incident Energy (eV)
58-Ce-138

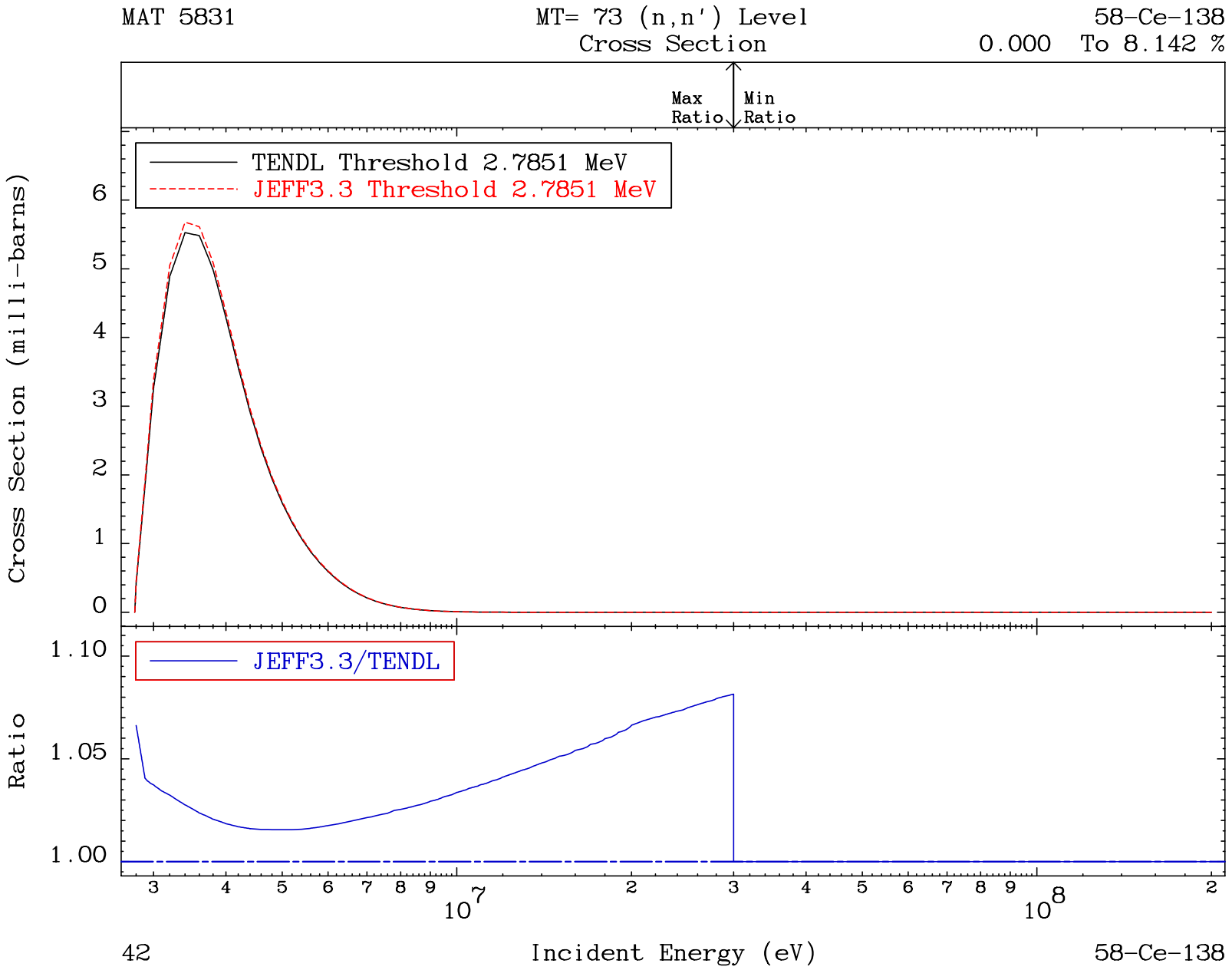

MAT 5831
MT= 68 (n,n') Level
Cross Section
58-Ce-138
0.000 To 3.372 %
Max Ratio
Min Ratio
TENDL Threshold 2.6118 MeV
JEFF3.3 Threshold 2.6118 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
58-Ce-138

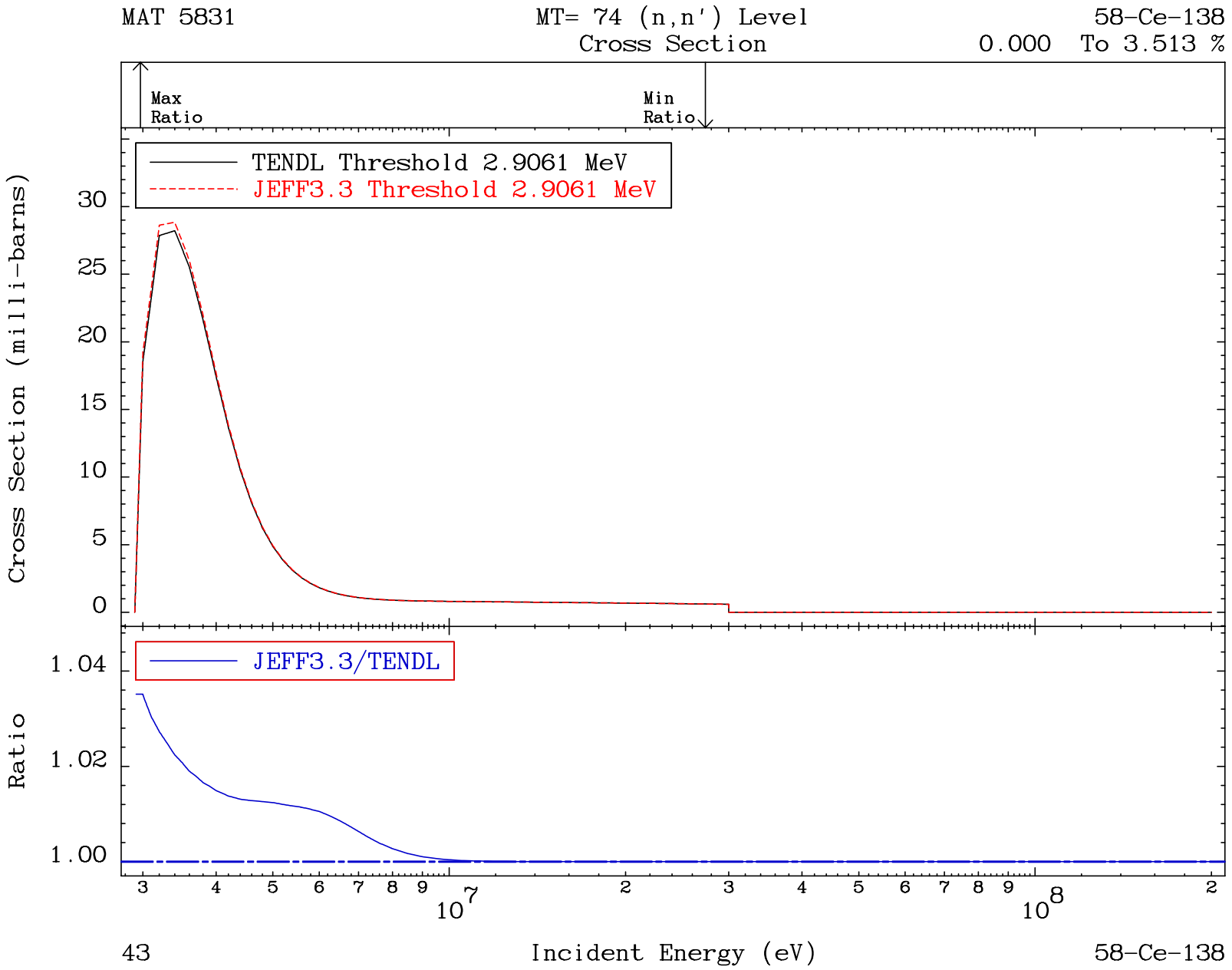

MAT 5831
MT= 69 (n,n') Level
Cross Section
58-Ce-138
0.000 To 2.264 %
Max Ratio
Min Ratio
TENDL Threshold 2.6617 MeV
JEFF3.3 Threshold 2.6617 MeV
Cross Section (milli-barns)
60
40
20
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
38
Incident Energy (eV)
58-Ce-138

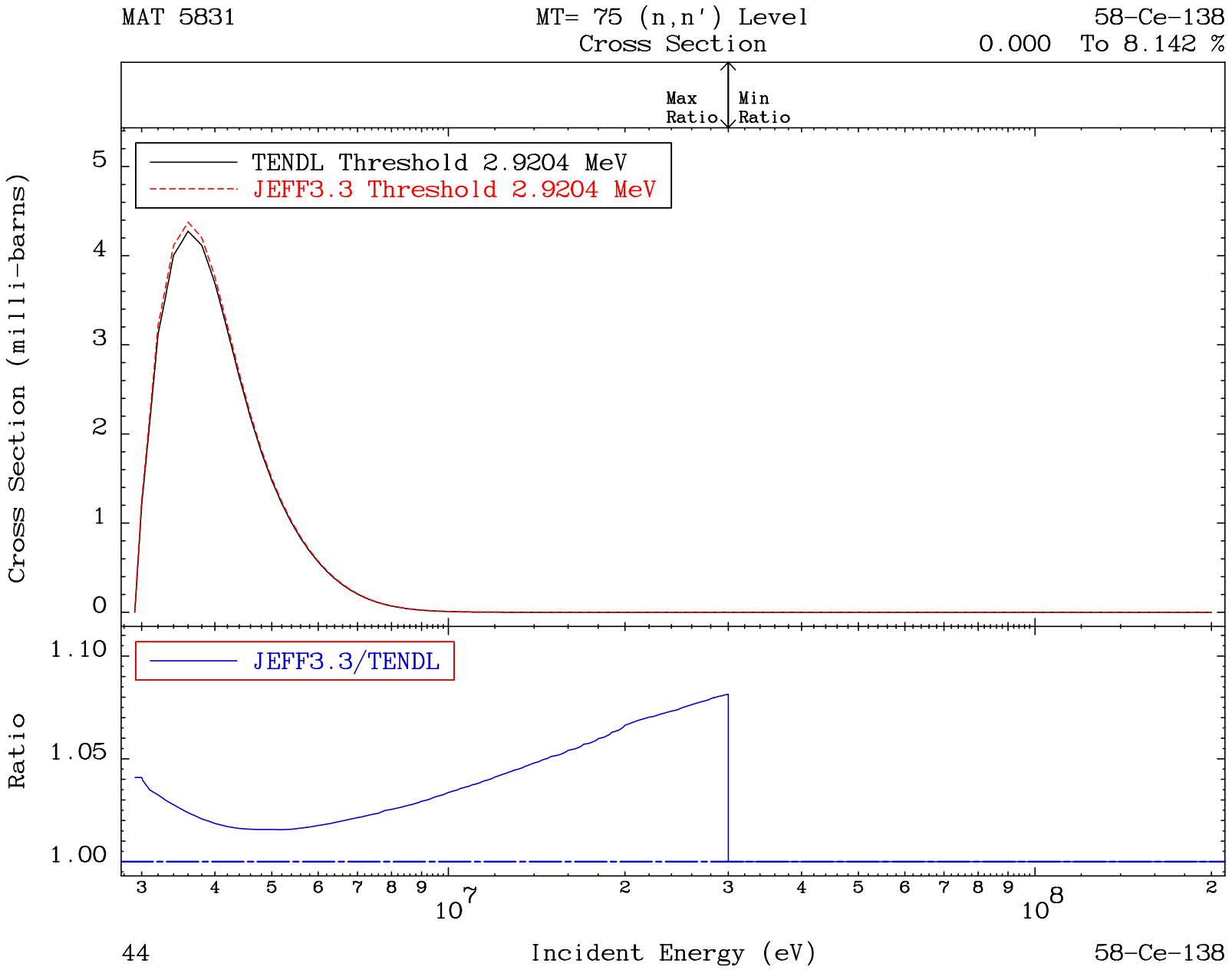

MAT 5831
MT= 70 (n,n') Level
Cross Section
58-Ce-138
0.000 To 4.488 %
Max Ratio
Min Ratio
TENDL Threshold 2.7389 MeV
JEFF3.3 Threshold 2.7389 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
39
Incident Energy (eV)
58-Ce-138

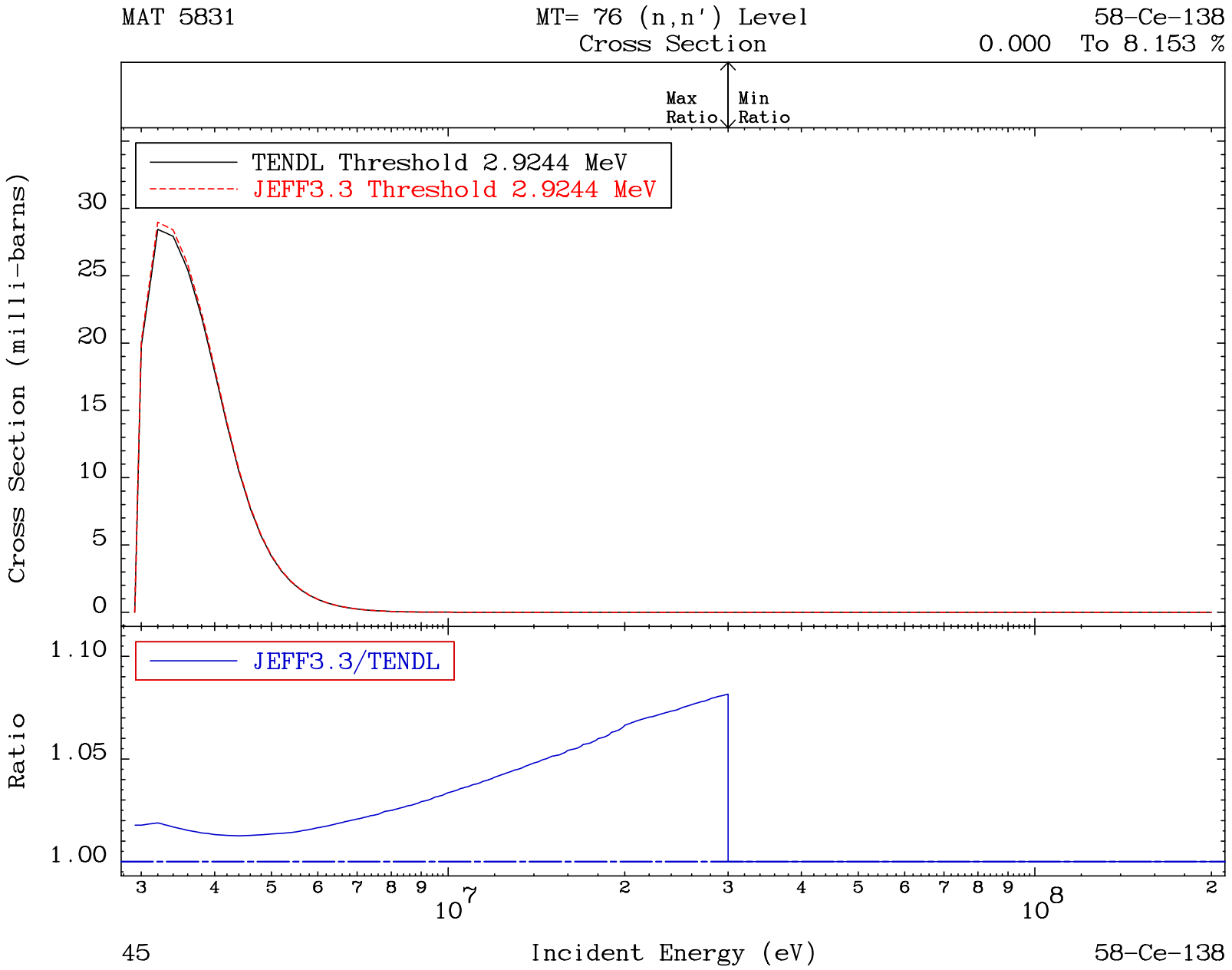

MAT 5831
MT= 71 (n,n') Level
Cross Section
58-Ce-138
0.000 To 6.306 %
Max Ratio
Min Ratio
TENDL Threshold 2.7533 MeV
JEFF3.3 Threshold 2.7533 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
40
58-Ce-138

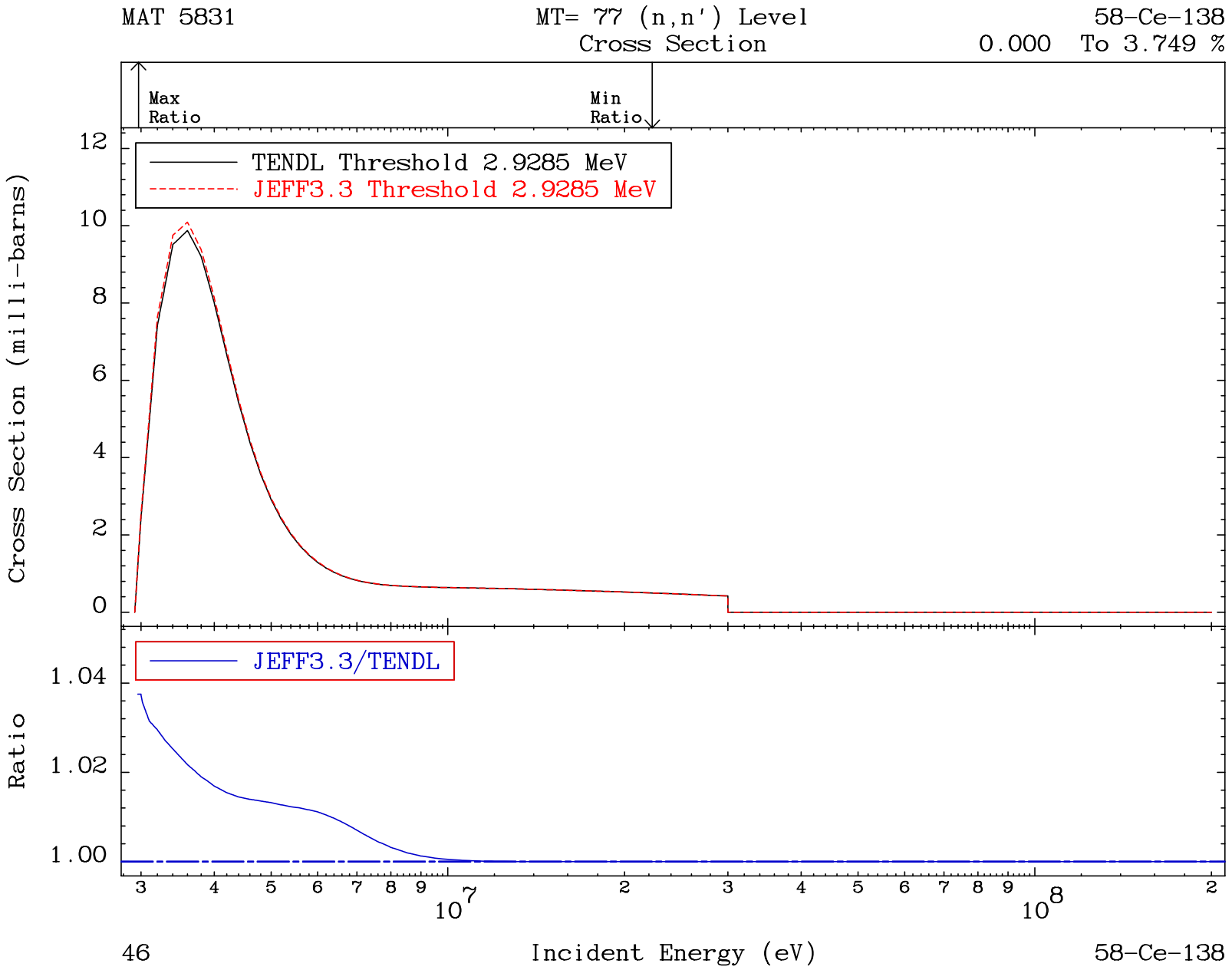

MAT 5831
MT= 72 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.146 %
Max Ratio
Min Ratio
TENDL Threshold 2.7687 MeV
JEFF3.3 Threshold 2.7687 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
41
Incident Energy (eV)
58-Ce-138

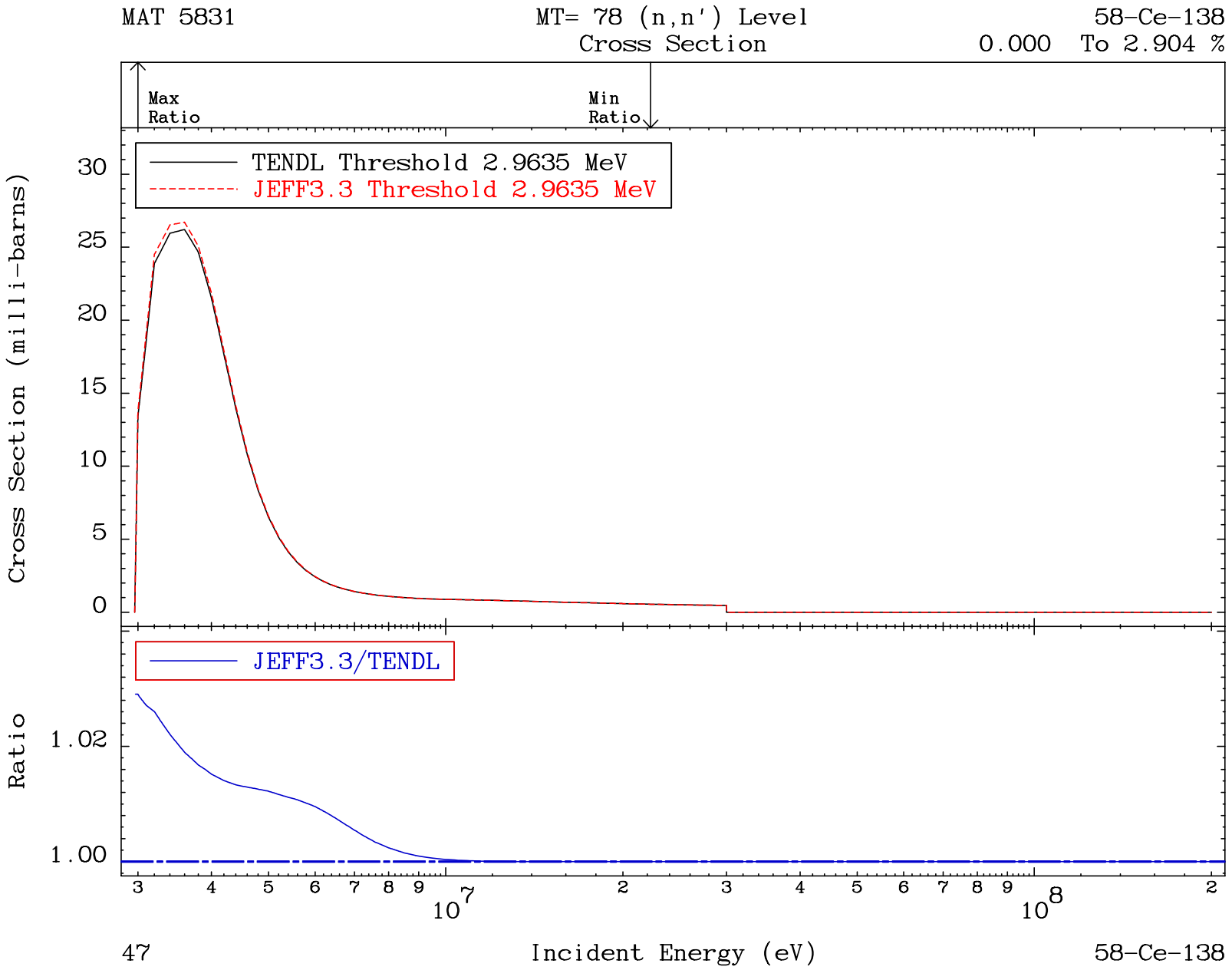

MAT 5831
MT= 73 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.142 %
Max Ratio
Min Ratio
TENDL Threshold 2.7851 MeV
JEFF3.3 Threshold 2.7851 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
42
58-Ce-138

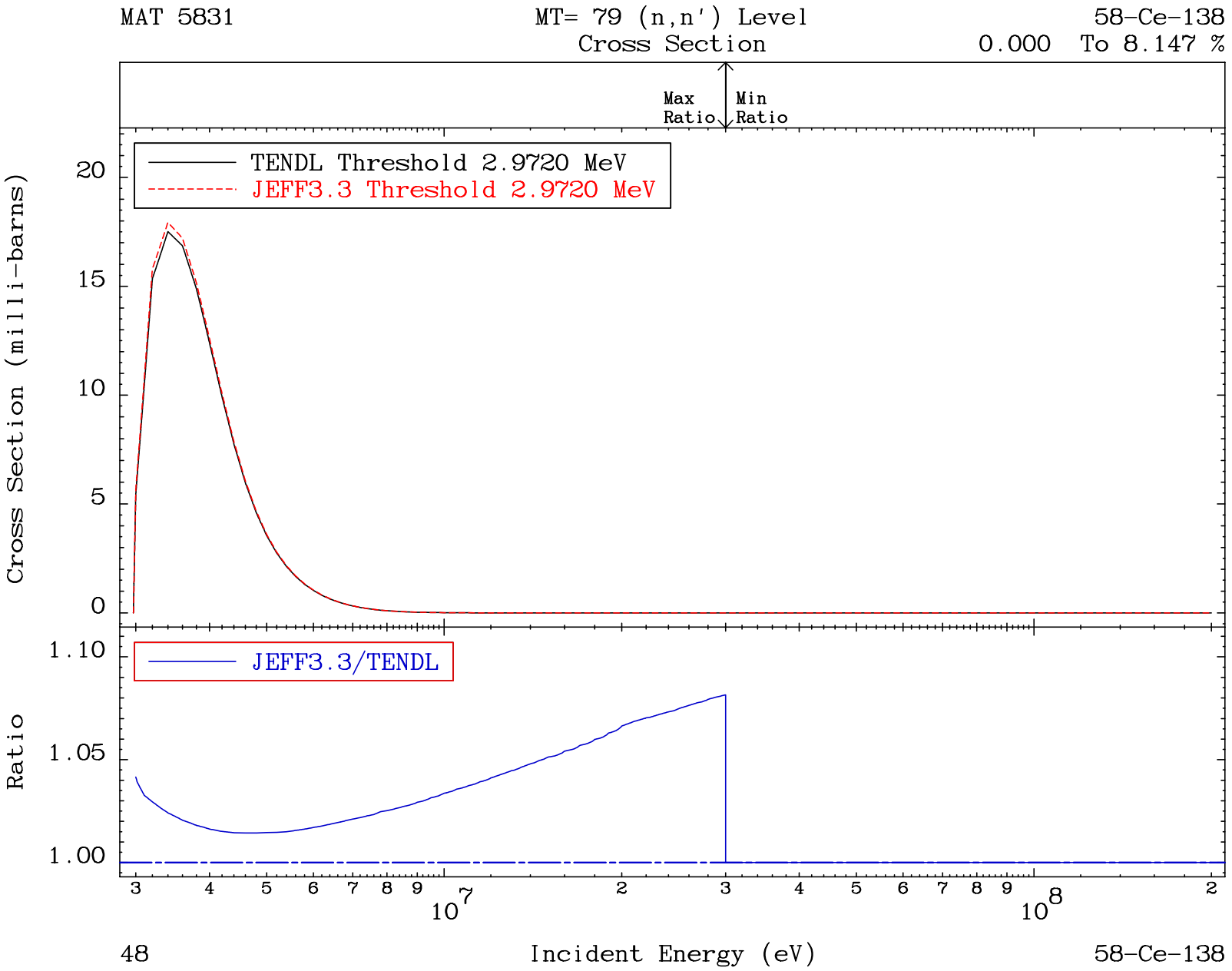

MAT 5831
MT= 74 (n,n') Level
Cross Section
58-Ce-138
0.000 To 3.513 %
Max Ratio
Min Ratio
TENDL Threshold 2.9061 MeV
JEFF3.3 Threshold 2.9061 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
43
Incident Energy (eV)
58-Ce-138

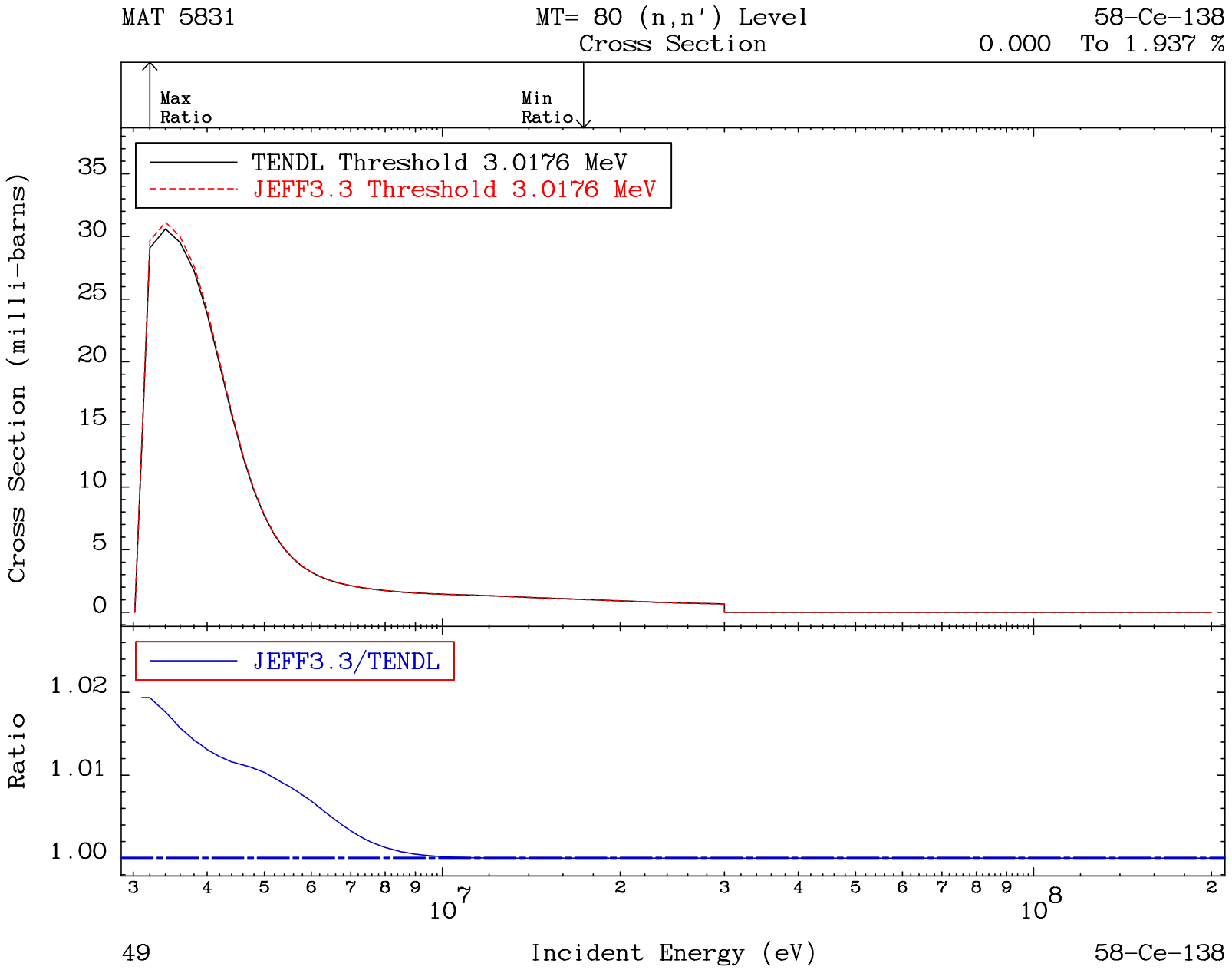

MAT 5831
MT= 75 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.142 %
Max Ratio
Min Ratio
TENDL Threshold 2.9204 MeV
JEFF3.3 Threshold 2.9204 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
44
58-Ce-138

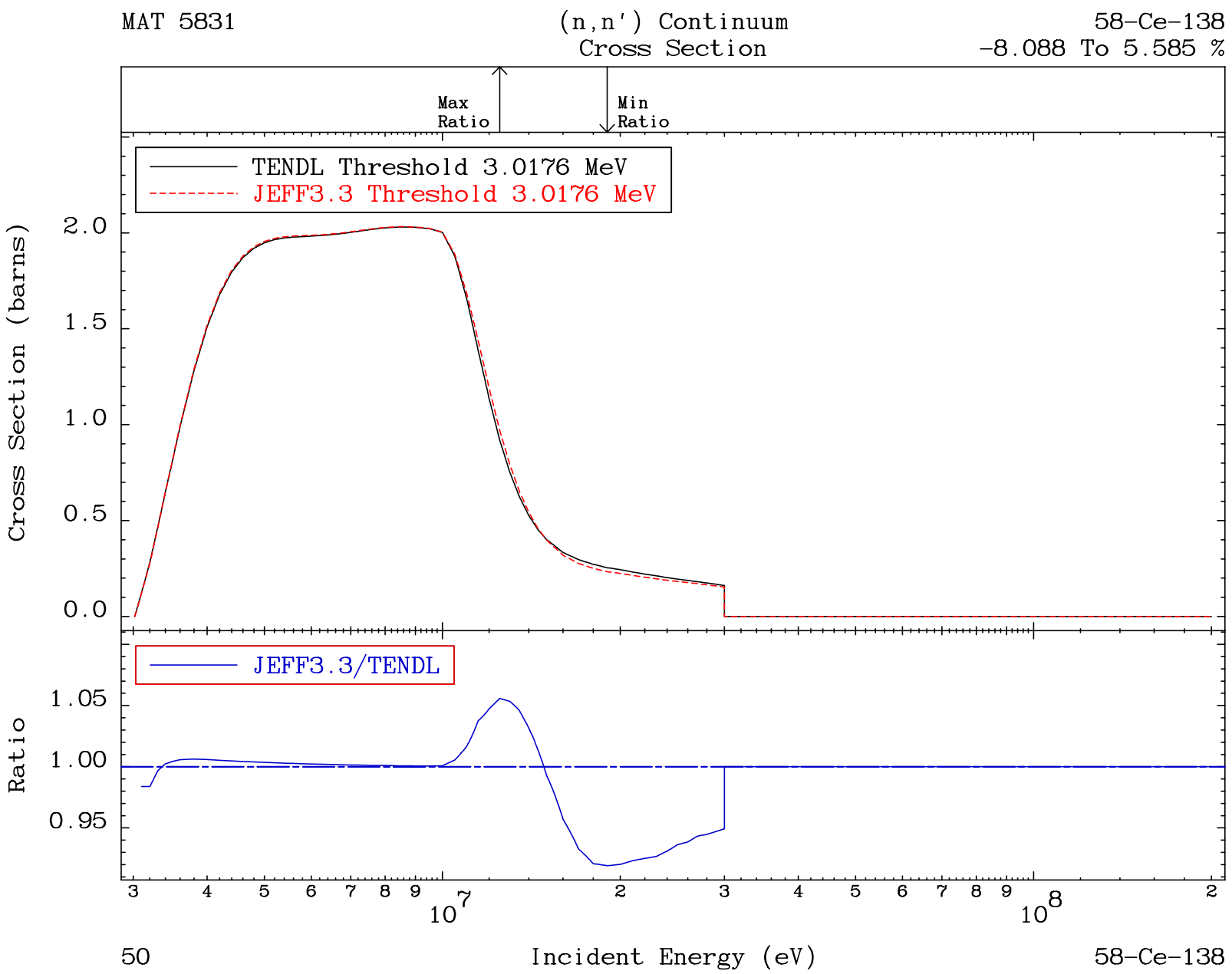

MAT 5831
MT= 76 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.153 %
Max Ratio
Min Ratio
TENDL Threshold 2.9244 MeV
JEFF3.3 Threshold 2.9244 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
45
Incident Energy (eV)
58-Ce-138

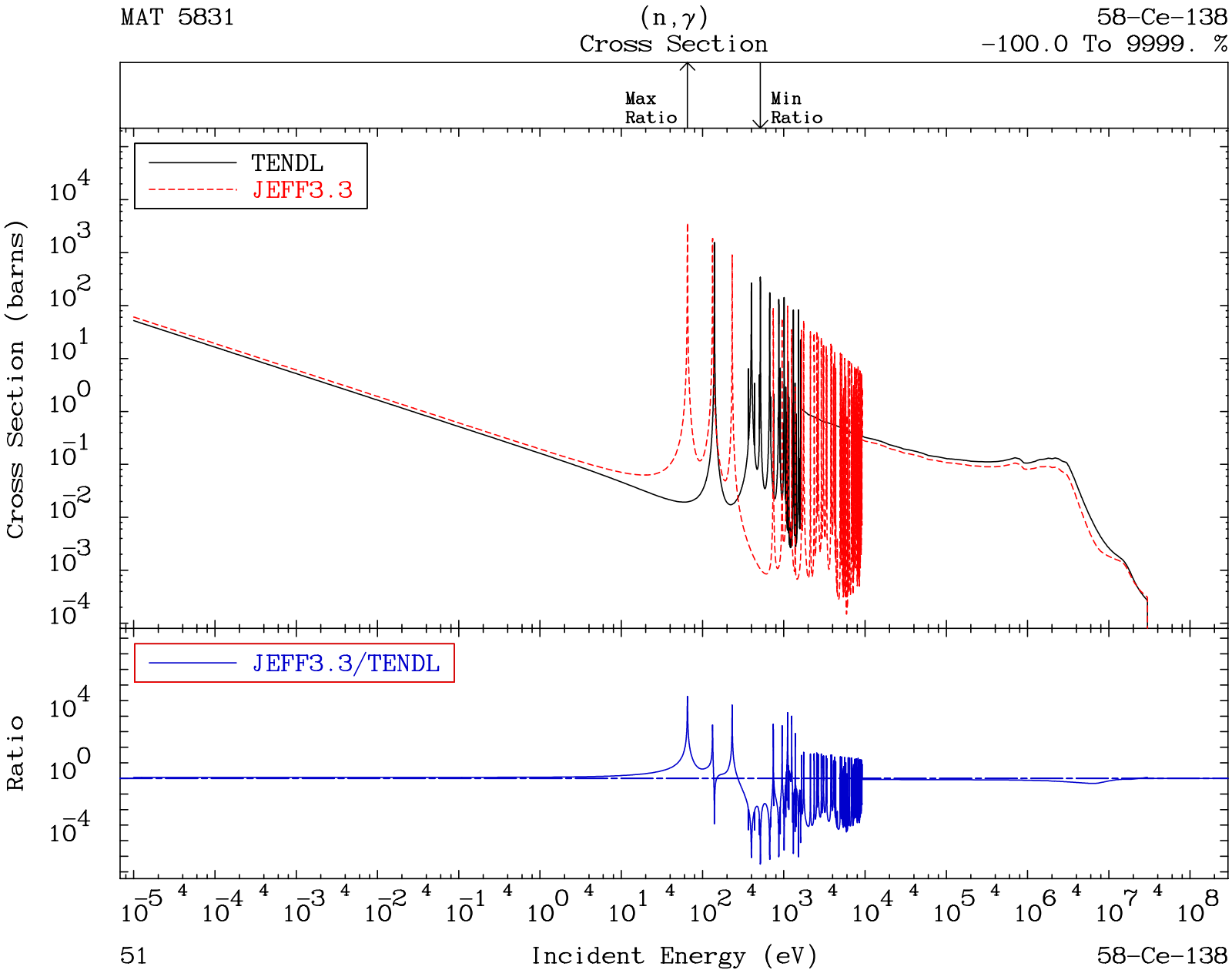

MAT 5831
MT= 77 (n,n') Level
Cross Section
58-Ce-138
0.000 To 3.749 %
Max Ratio
Min Ratio
TENDL Threshold 2.9285 MeV
JEFF3.3 Threshold 2.9285 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
46
58-Ce-138

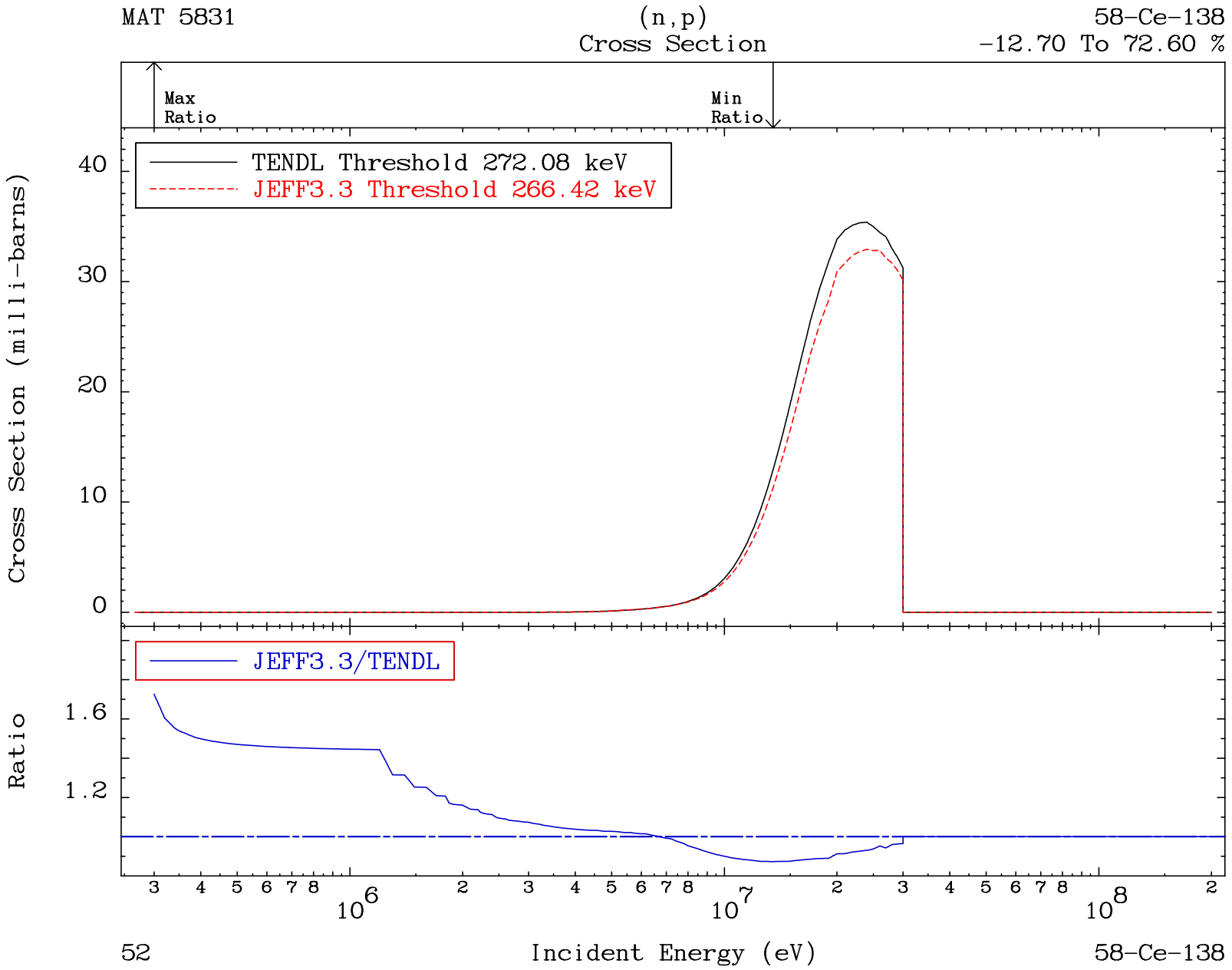

MAT 5831
MT= 78 (n,n') Level
Cross Section
58-Ce-138
0.000 To 2.904 %
Max Ratio
Min Ratio
TENDL Threshold 2.9635 MeV
JEFF3.3 Threshold 2.9635 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.02
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
47
Incident Energy (eV)
58-Ce-138

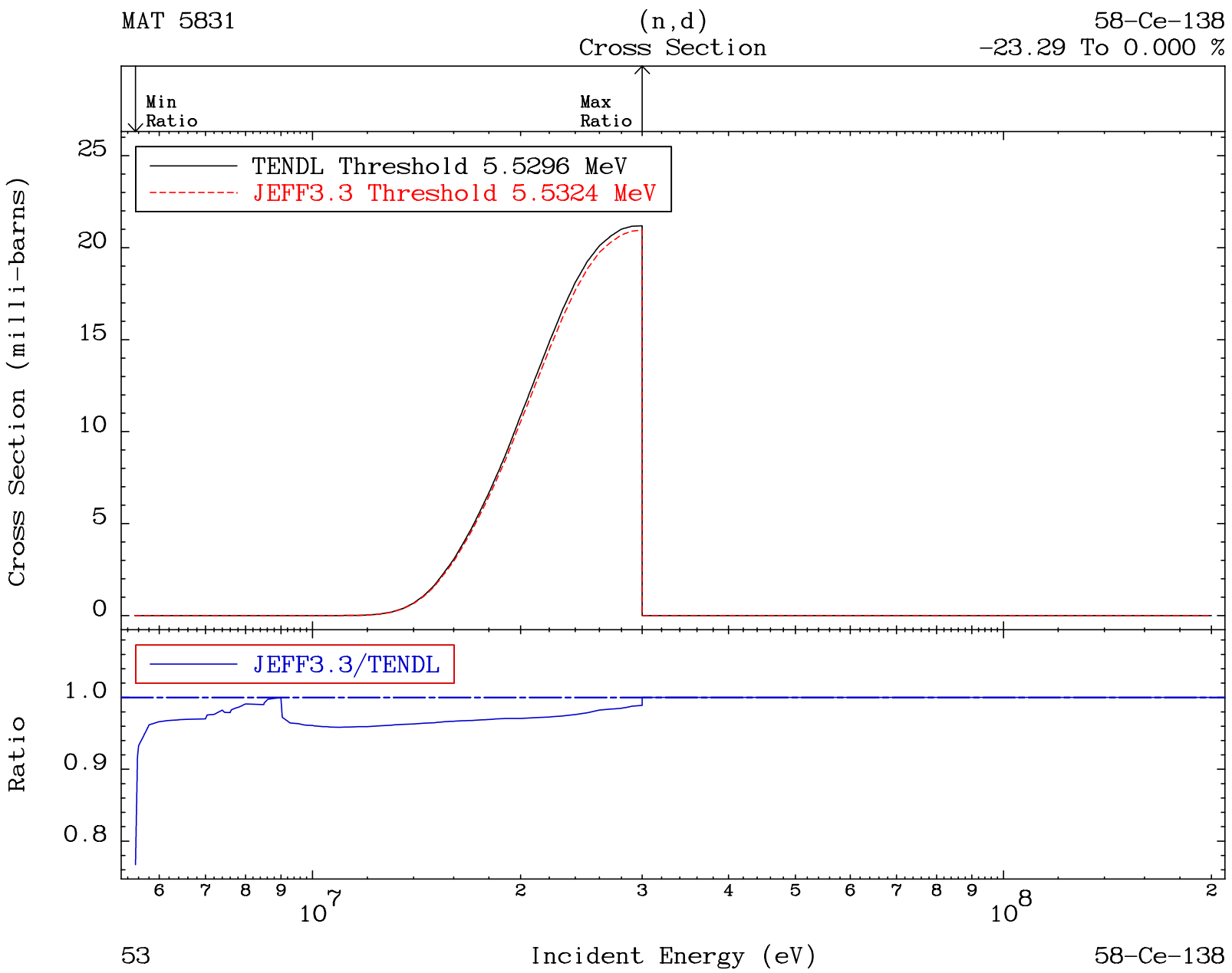

MAT 5831
MT= 79 (n,n') Level
Cross Section
58-Ce-138
0.000 To 8.147 %
Max Ratio
Min Ratio
TENDL Threshold 2.9720 MeV
JEFF3.3 Threshold 2.9720 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
48
Incident Energy (eV)
58-Ce-138

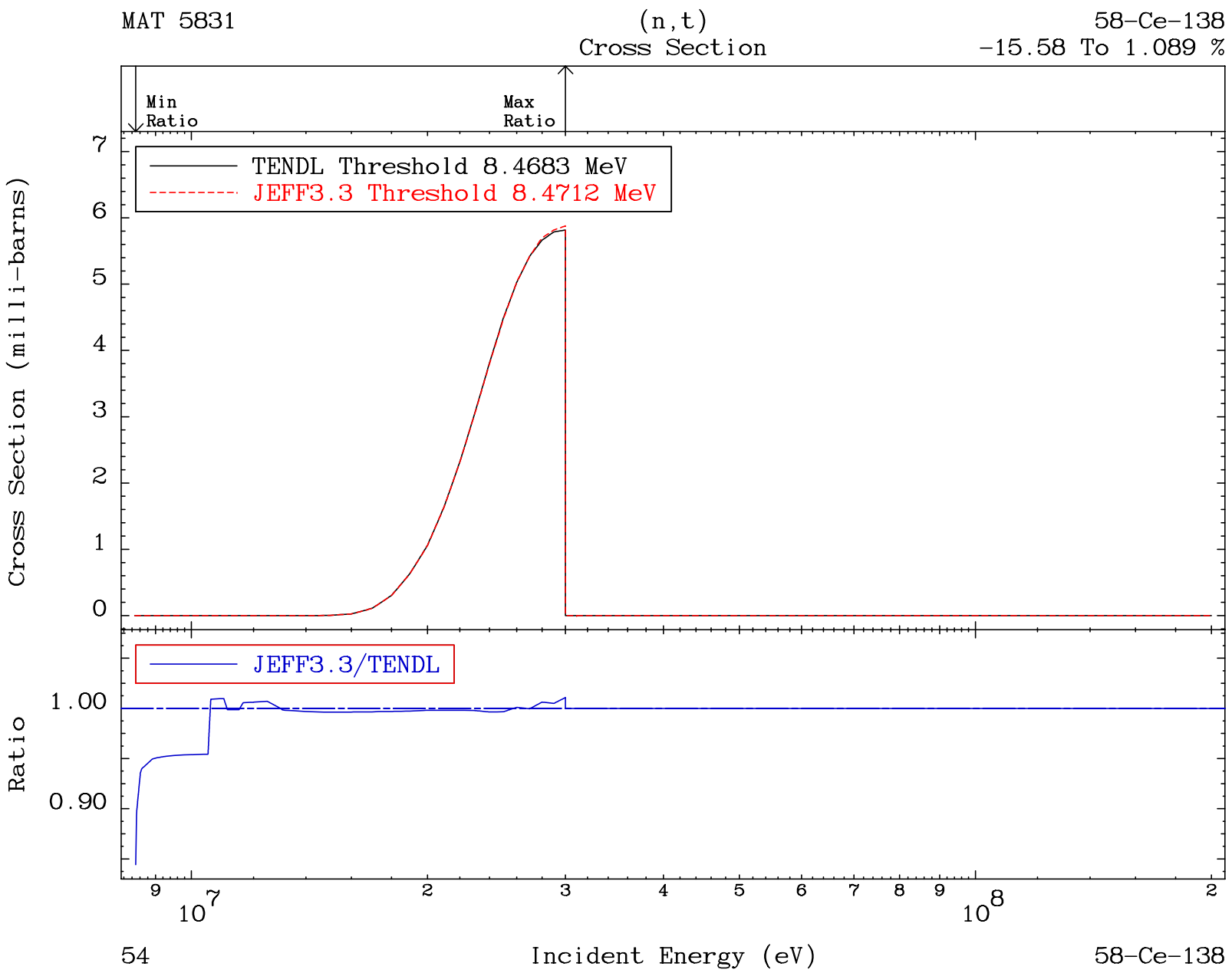

MAT 5831
MT= 80 (n,n') Level
Cross Section
58-Ce-138
0.000 To 1.937 %
Max Ratio
Min Ratio
TENDL Threshold 3.0176 MeV
JEFF3.3 Threshold 3.0176 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
49
Incident Energy (eV)
58-Ce-138

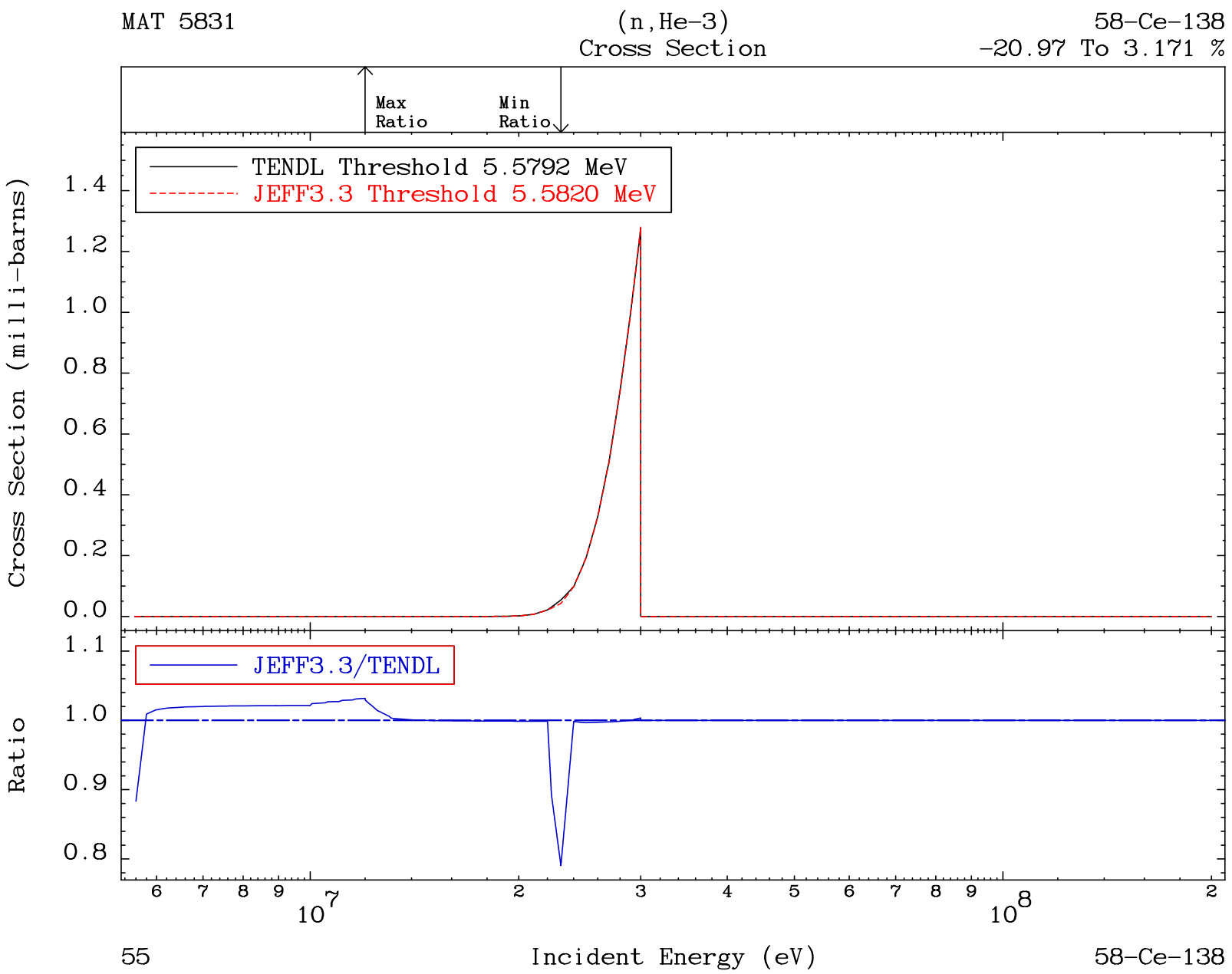

MAT 5831
(n,n') Continuum
Cross Section
58-Ce-138
-8.088 To 5.585 %
Max Ratio
Min Ratio
TENDL Threshold 3.0176 MeV
JEFF3.3 Threshold 3.0176 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.05
1.00
0.95
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
50
Incident Energy (eV)
58-Ce-138

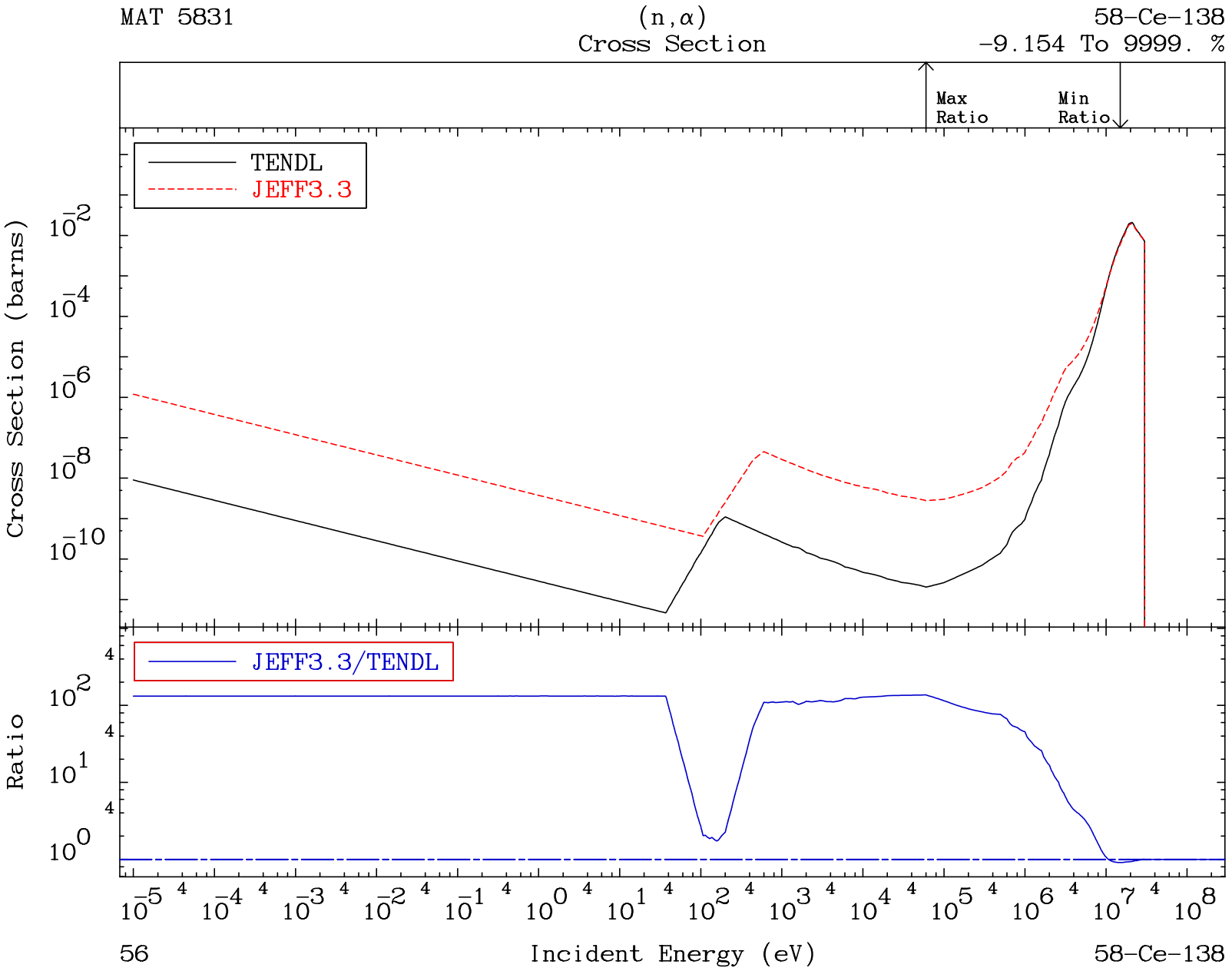

MAT 5831
(n,γ)
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
51
58-Ce-138

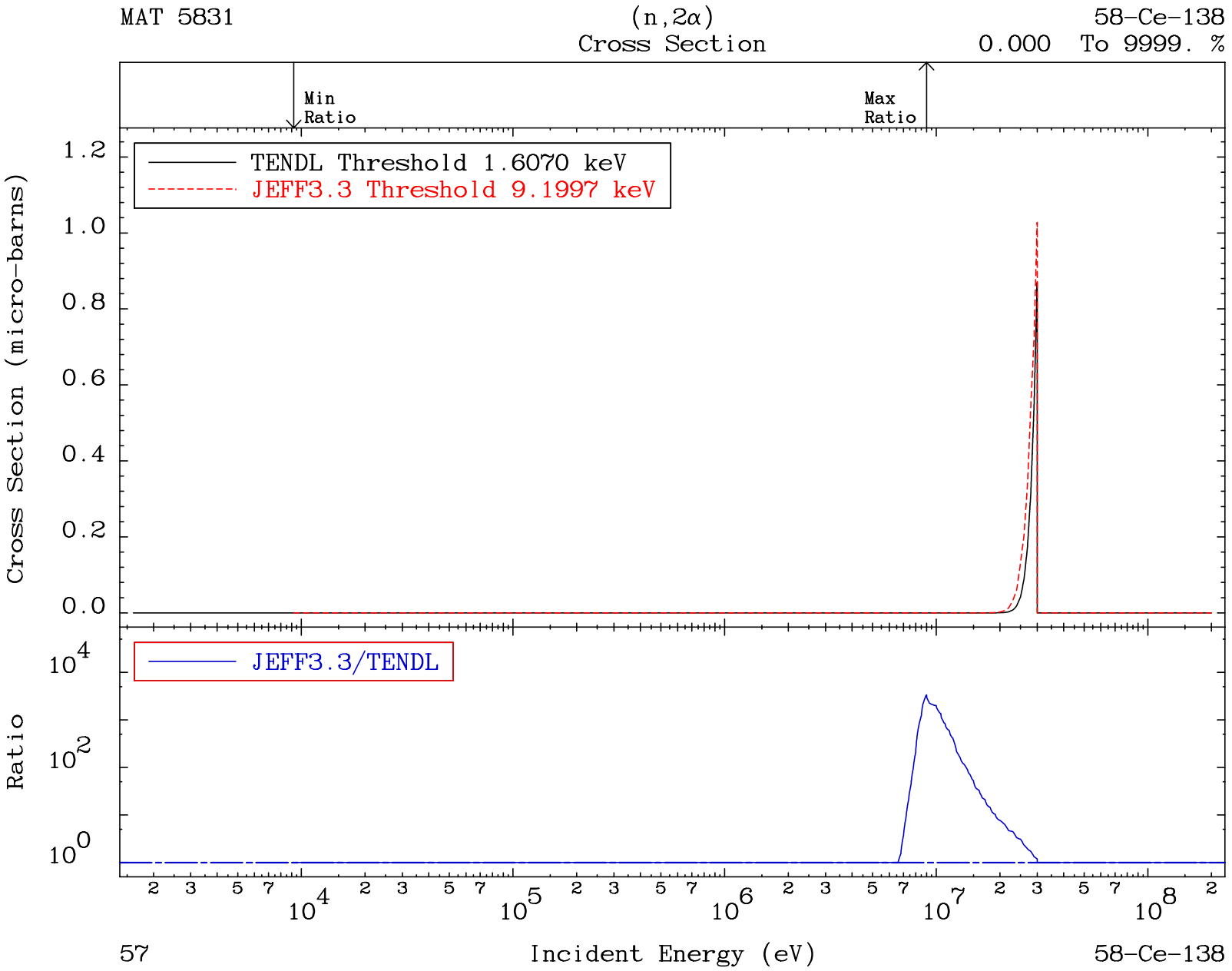

MAT 5831
(n,p)
Cross Section
58-Ce-138
-12.70 To 72.60 %
Max Ratio
Min Ratio
TENDL Threshold 272.08 keV
JEFF3.3 Threshold 266.42 keV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.6
1.2
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
52
Incident Energy (eV)
58-Ce-138

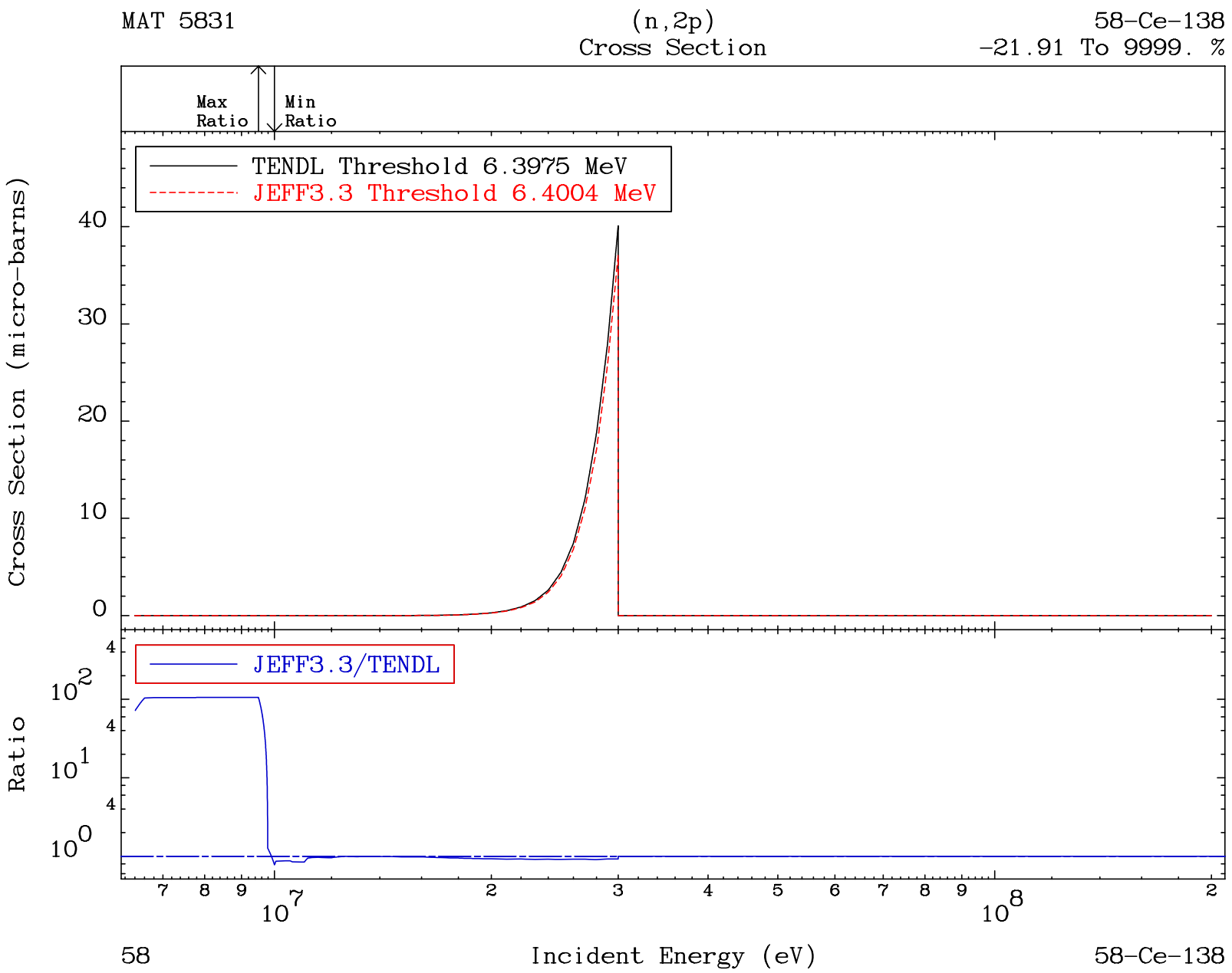

MAT 5831
(n,d)
Cross Section
58-Ce-138
-23.29 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 5.5296 MeV
JEFF3.3 Threshold 5.5324 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.0
0.9
0.8
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
53
Incident Energy (eV)
58-Ce-138

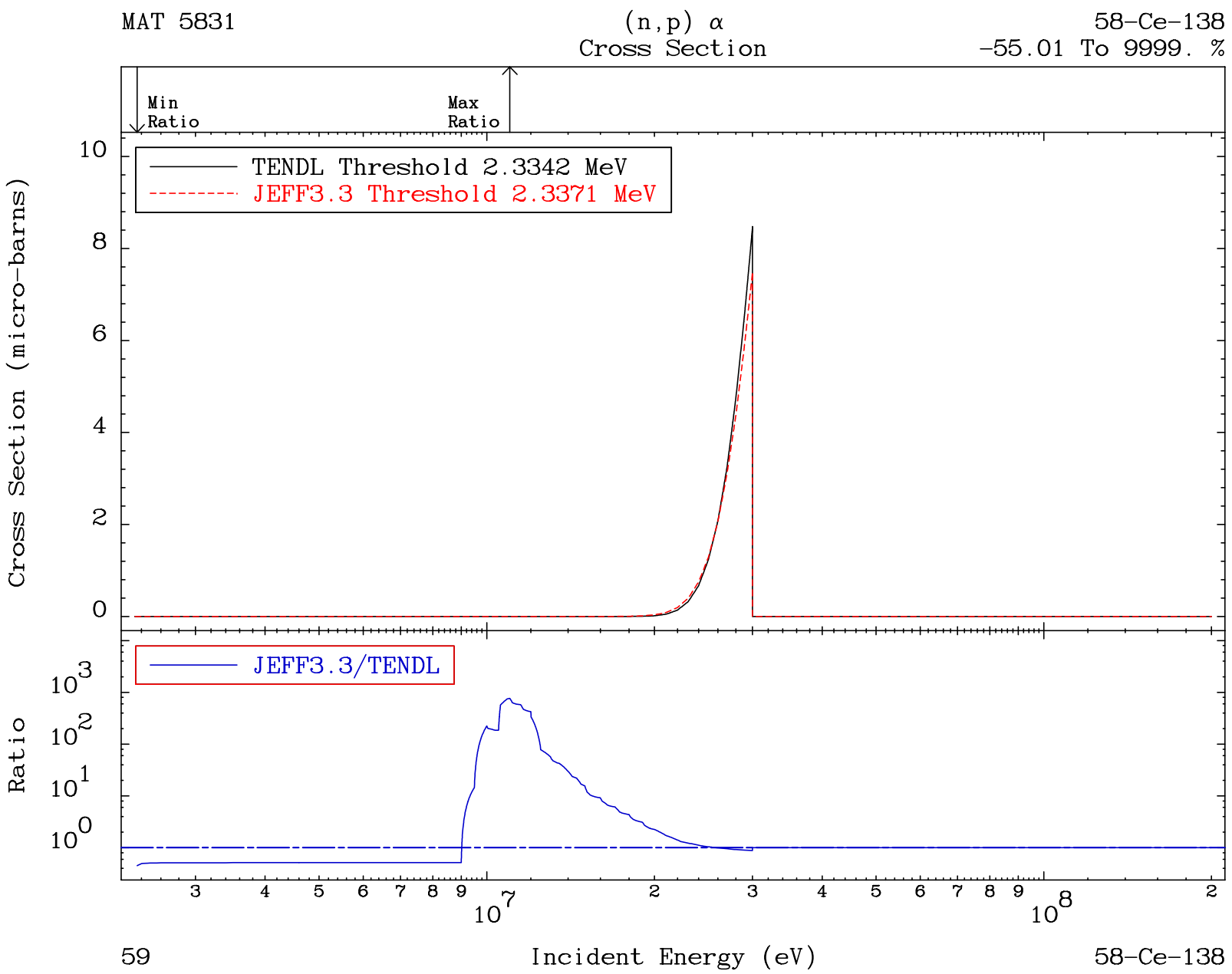

MAT 5831
(n,t)
Cross Section
58-Ce-138
-15.58 To 1.089 %
Min Ratio
Max Ratio
TENDL Threshold 8.4683 MeV
JEFF3.3 Threshold 8.4712 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
JEFF3.3/TENDL
Ratio
1.00
0.90
9
10^7
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
58-Ce-138

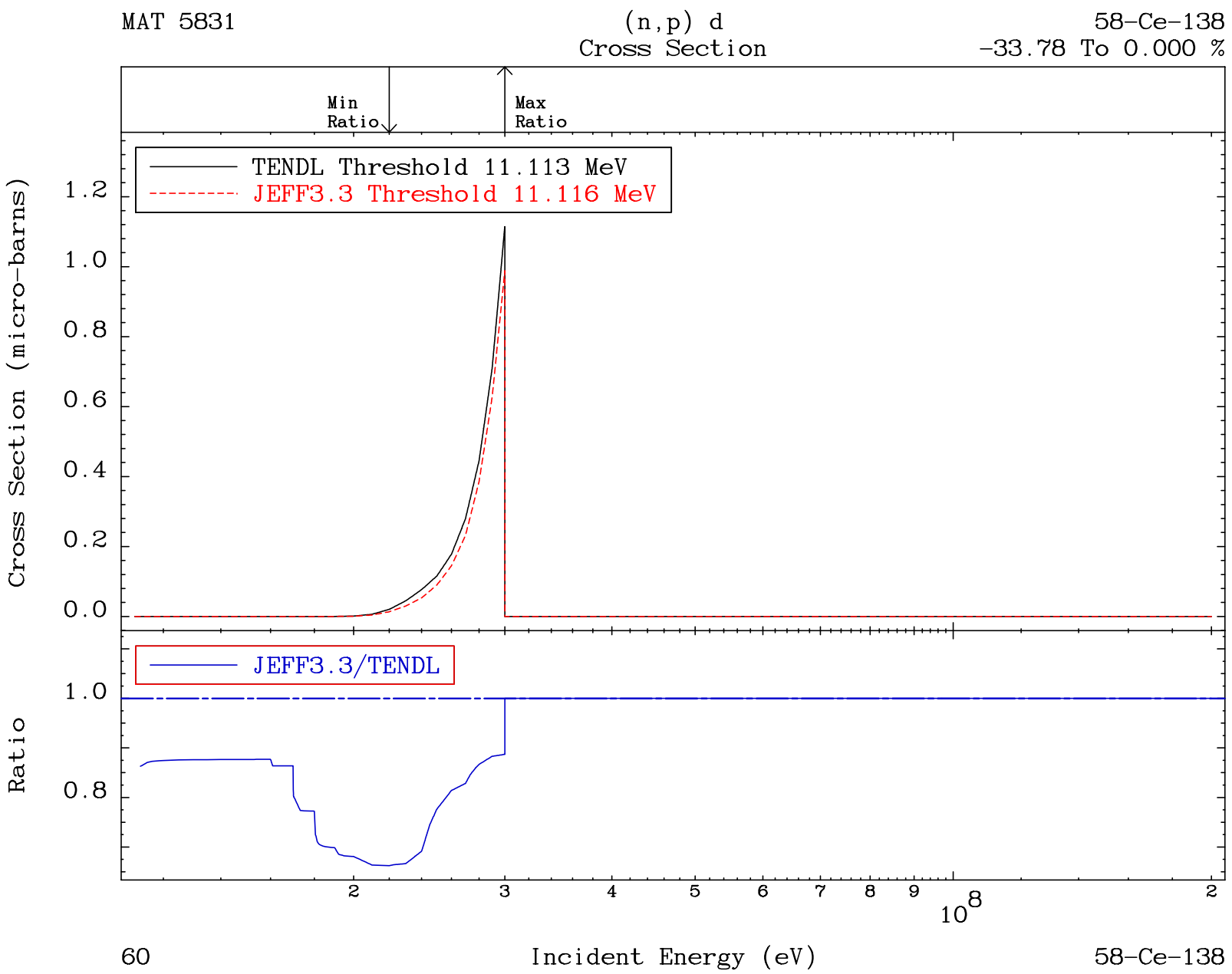

MAT 5831
(n,He-3)
Cross Section
58-Ce-138
-20.97 To 3.171 %
Max Ratio
Min Ratio
TENDL Threshold 5.5792 MeV
JEFF3.3 Threshold 5.5820 MeV
Cross Section (milli-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
0.8
6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
55
Incident Energy (eV)
58-Ce-138

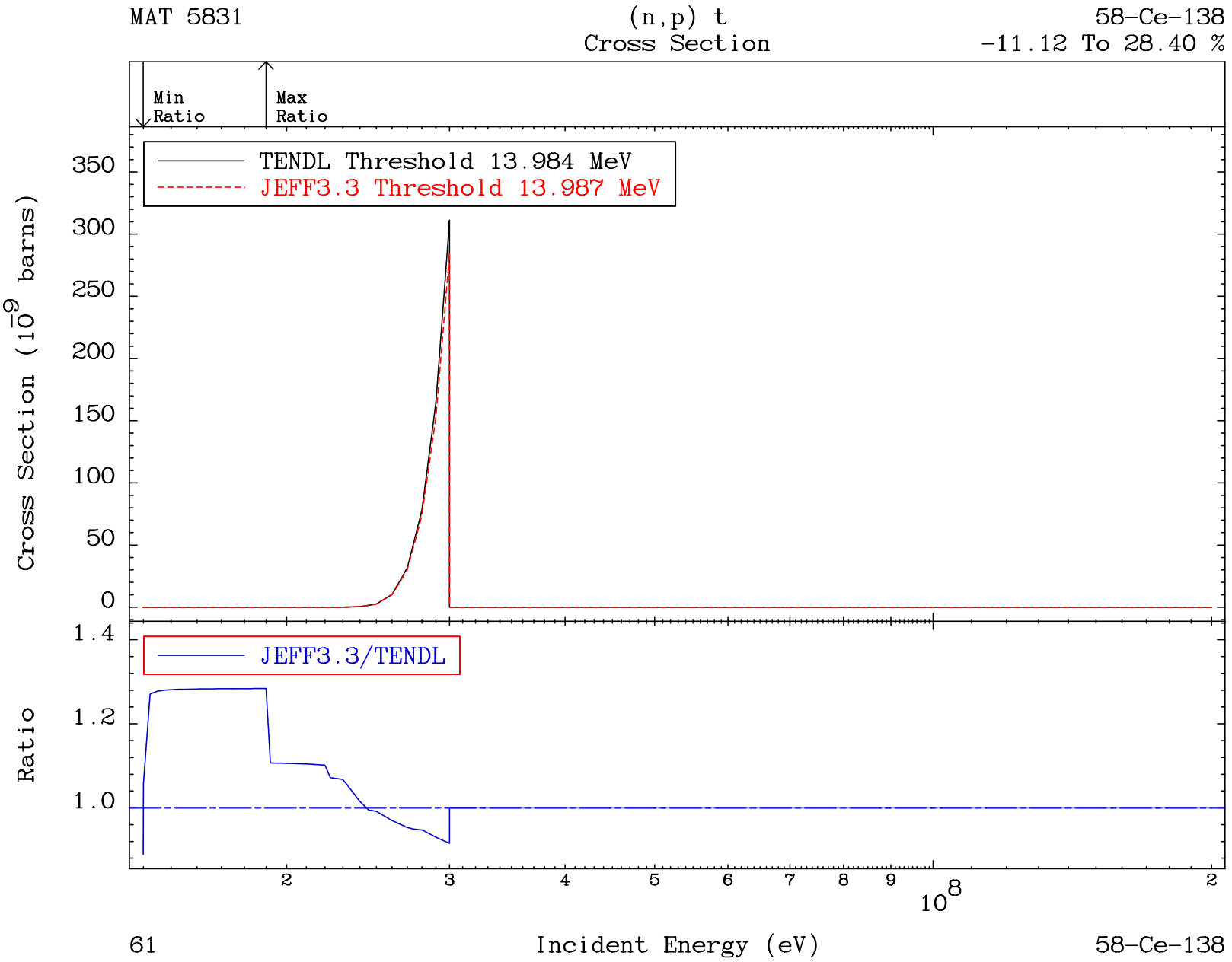

MAT 5831
(n,α)
Cross Section
58-Ce-138
-9.154 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
56
58-Ce-138

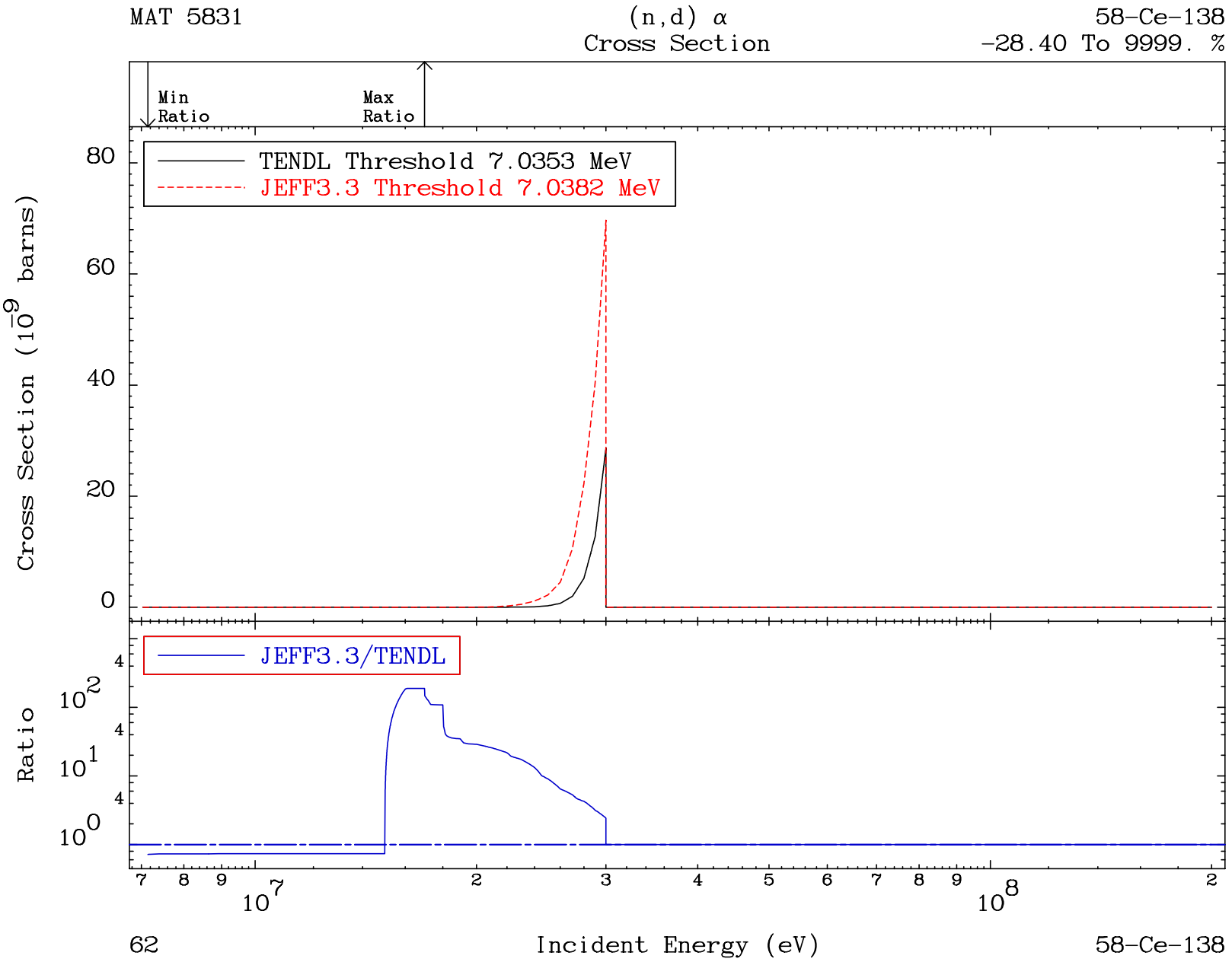

MAT 5831
(n,2α)
Cross Section
58-Ce-138
0.000 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.6070 keV
JEFF3.3 Threshold 9.1997 keV
Cross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
57
Incident Energy (eV)
58-Ce-138

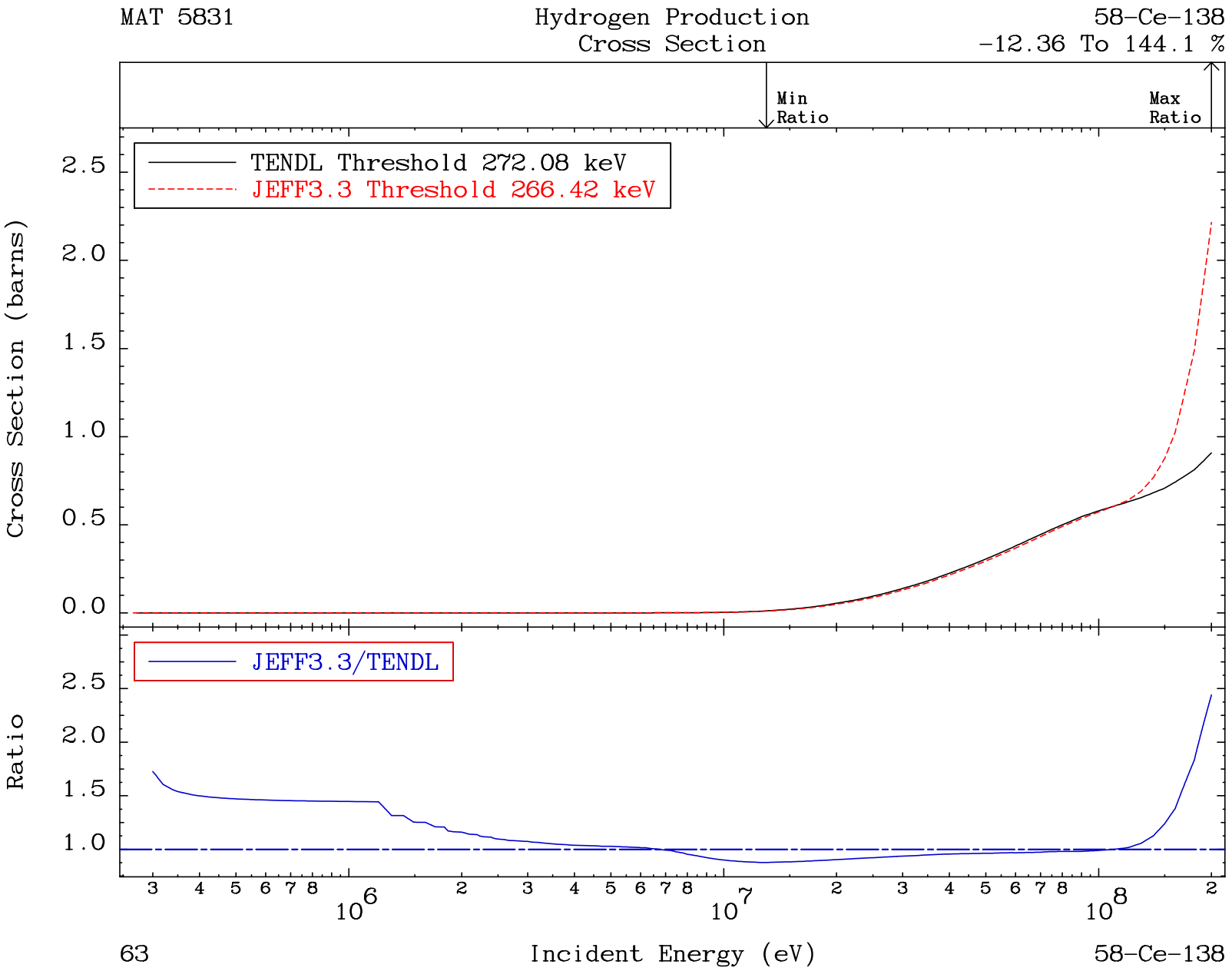

MAT 5831
(n,2p)
Cross Section
58-Ce-138
-21.91 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.3975 MeV
JEFF3.3 Threshold 6.4004 MeV
Cross Section (micro-barns)
0
10
20
30
40
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
58
Incident Energy (eV)
58-Ce-138

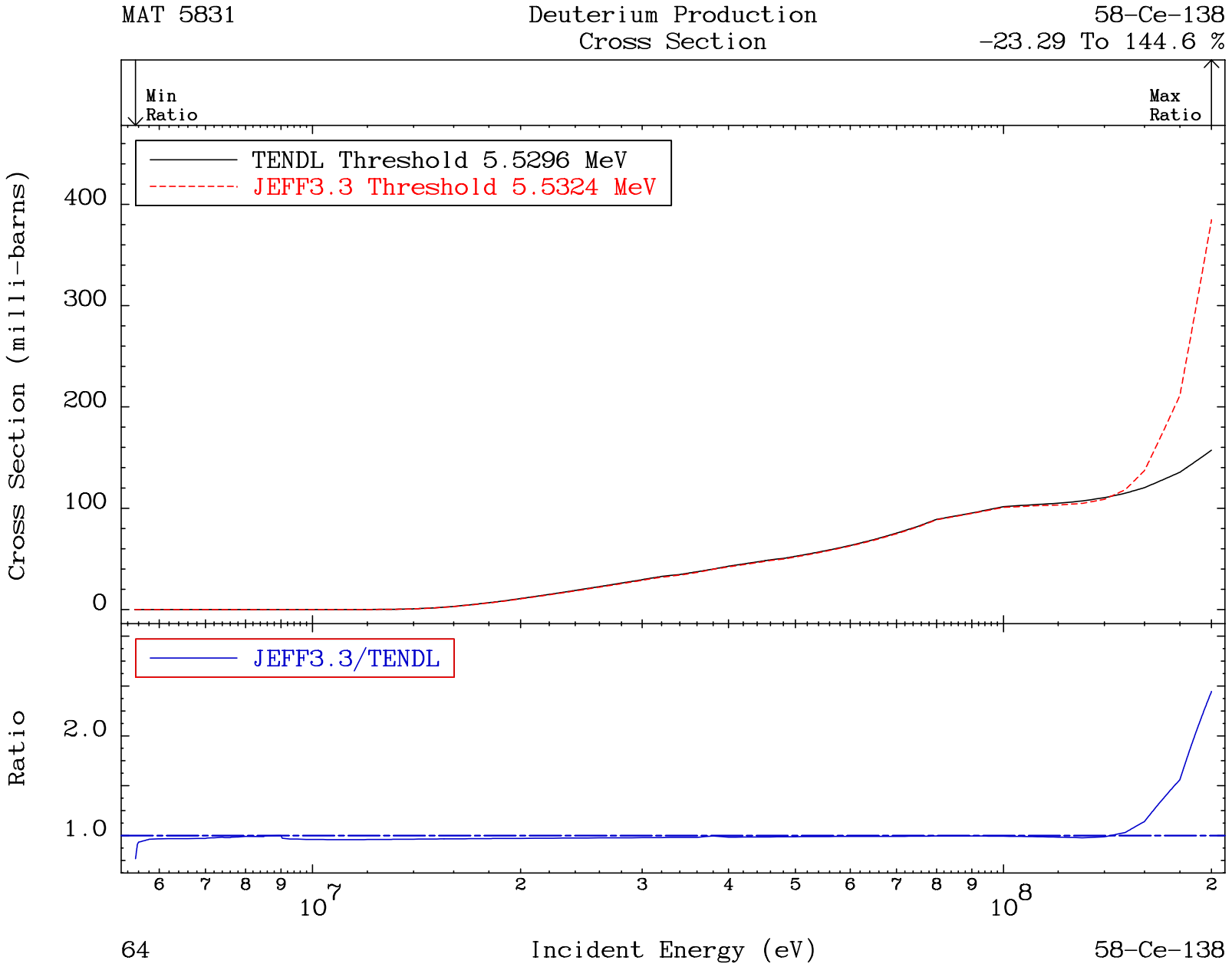

MAT 5831
(n,p) α
Cross Section
58-Ce-138
-55.01 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.3342 MeV
JEFF3.3 Threshold 2.3371 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
59
58-Ce-138

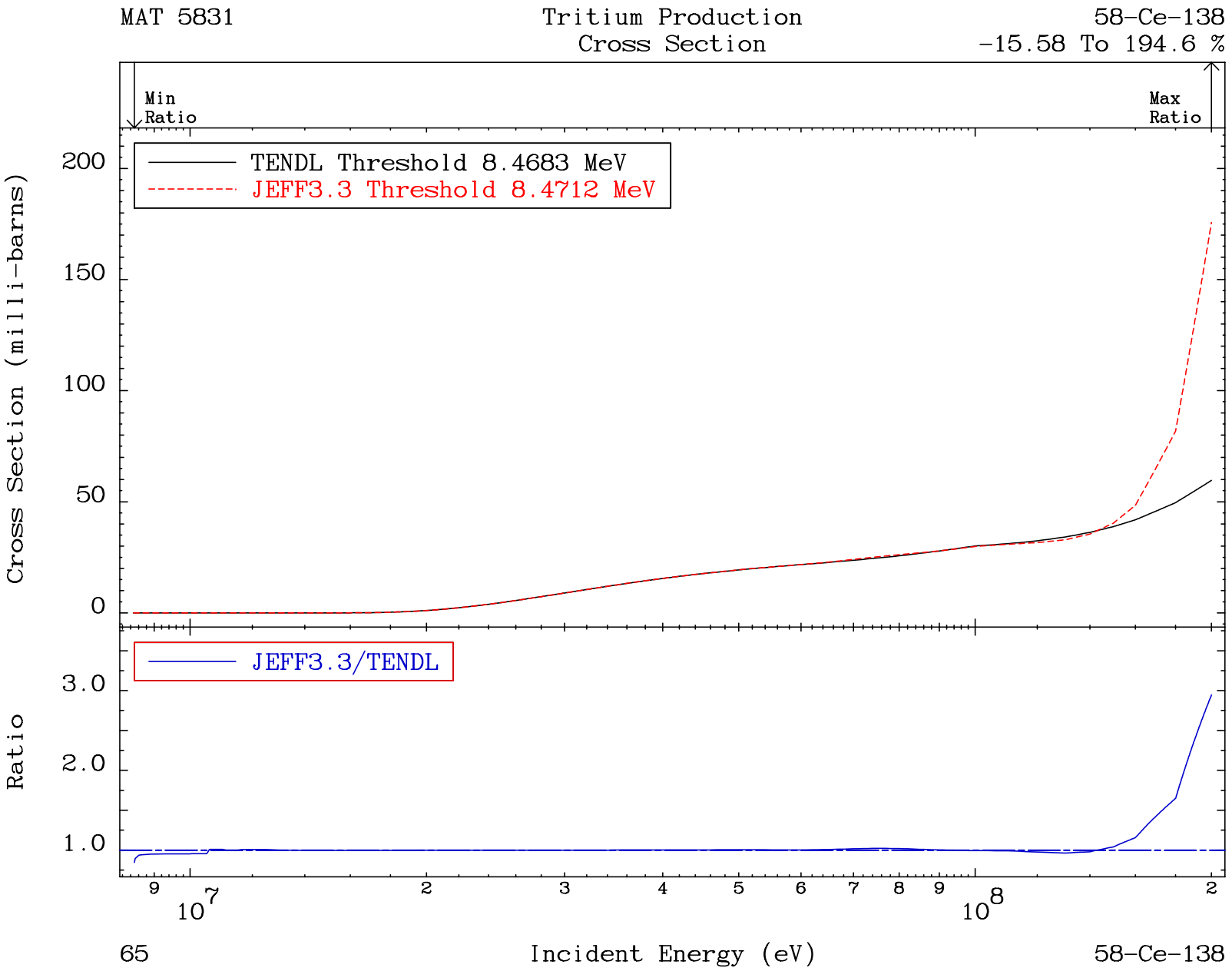

MAT 5831
(n,p) d
Cross Section
58-Ce-138
-33.78 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 11.113 MeV
JEFF3.3 Threshold 11.116 MeV
Cross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.0
0.8
2
3
4
5
6
7
8
9
10^8
2
60
Incident Energy (eV)
58-Ce-138

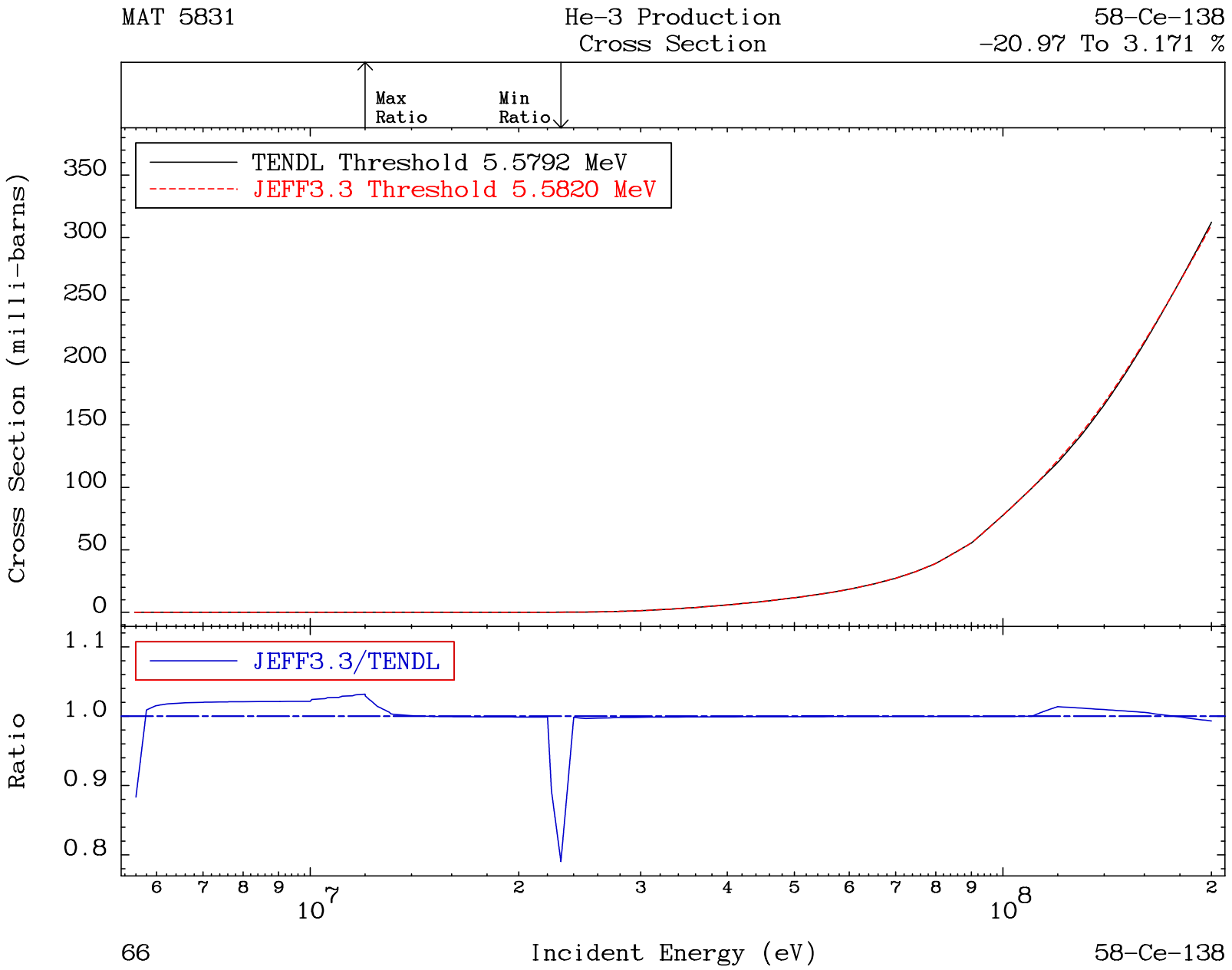

MAT 5831
(n,p) t
Cross Section
58-Ce-138
-11.12 To 28.40 %
Min Ratio
Max Ratio
TENDL Threshold 13.984 MeV
JEFF3.3 Threshold 13.987 MeV
Cross Section (10^{-9} barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
2
3
4
5
6
7
8
9
10^8
2
61
Incident Energy (eV)
58-Ce-138

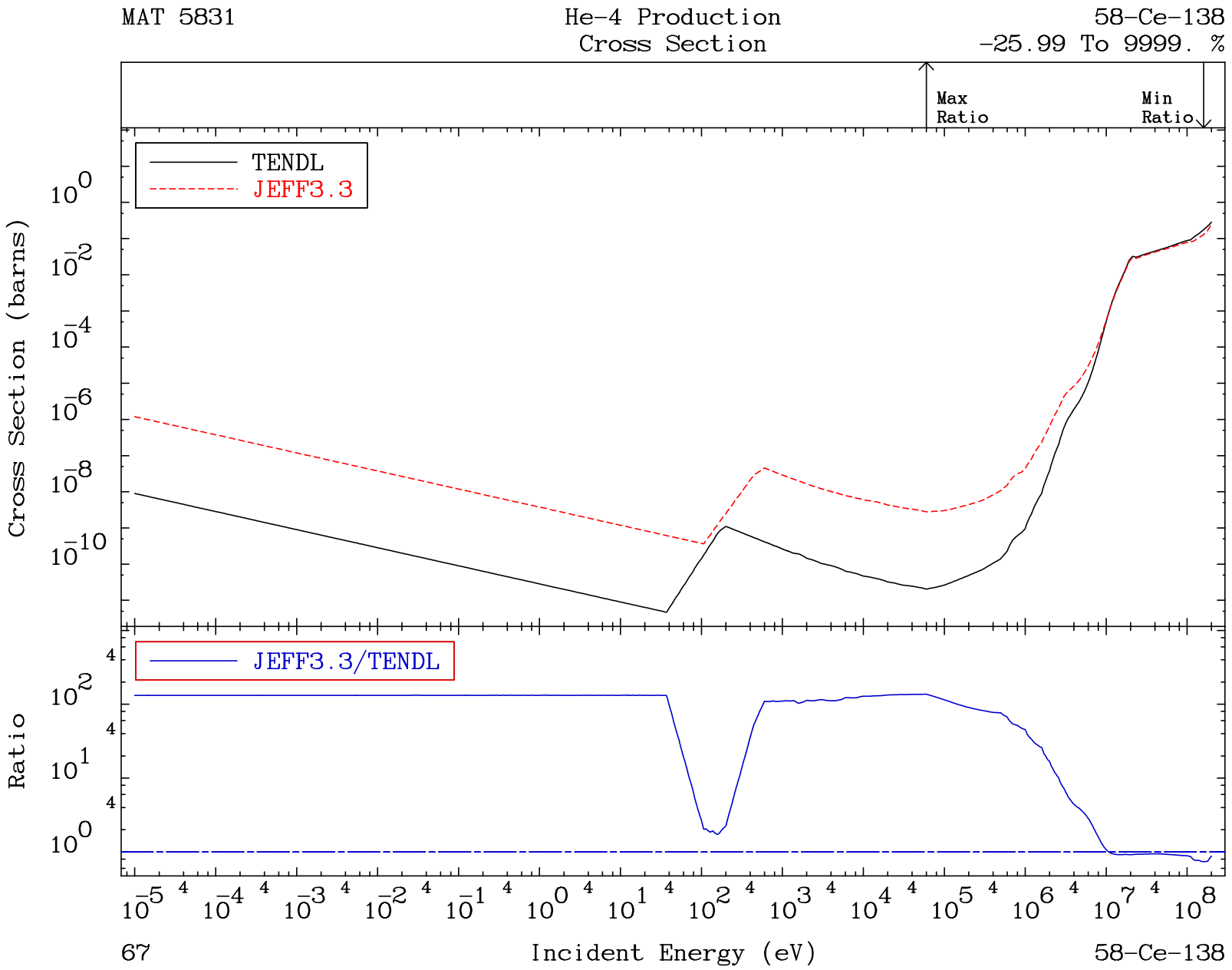

MAT 5831
(n,d) α
Cross Section
58-Ce-138
-28.40 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 7.0353 MeV
JEFF3.3 Threshold 7.0382 MeV
Cross Section (10^-9 barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
62
58-Ce-138

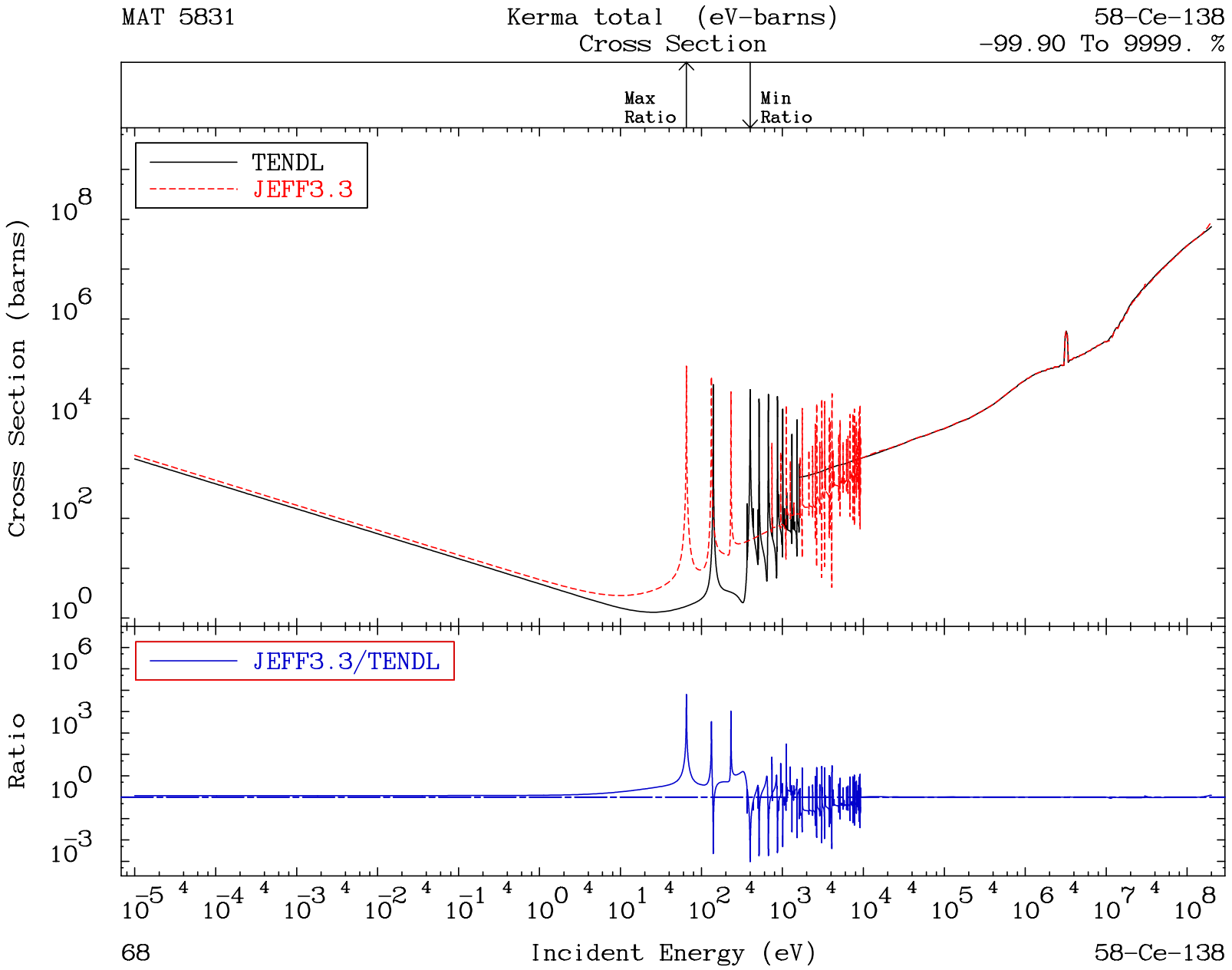

MAT 5831
Hydrogen Production
Cross Section
58-Ce-138
-12.36 To 144.1 %
Min Ratio
Max Ratio
TENDL Threshold 272.08 keV
JEFF3.3 Threshold 266.42 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
63
58-Ce-138

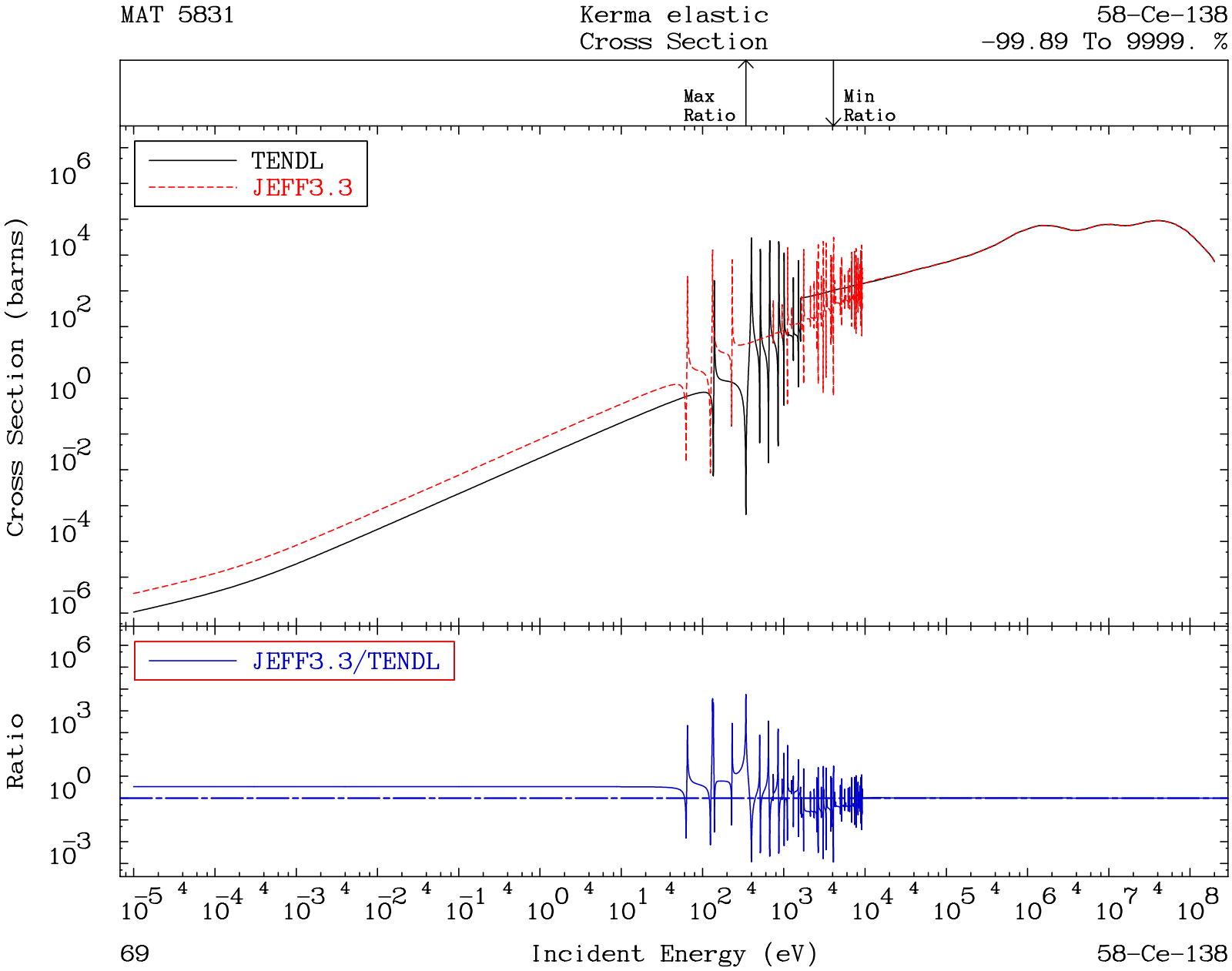

MAT 5831
Deuterium Production
Cross Section
58-Ce-138
-23.29 To 144.6 %
Min Ratio
Max Ratio
TENDL Threshold 5.5296 MeV
JEFF3.3 Threshold 5.5324 MeV
Cross Section (milli-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
2.0
1.0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
64
Incident Energy (eV)
58-Ce-138

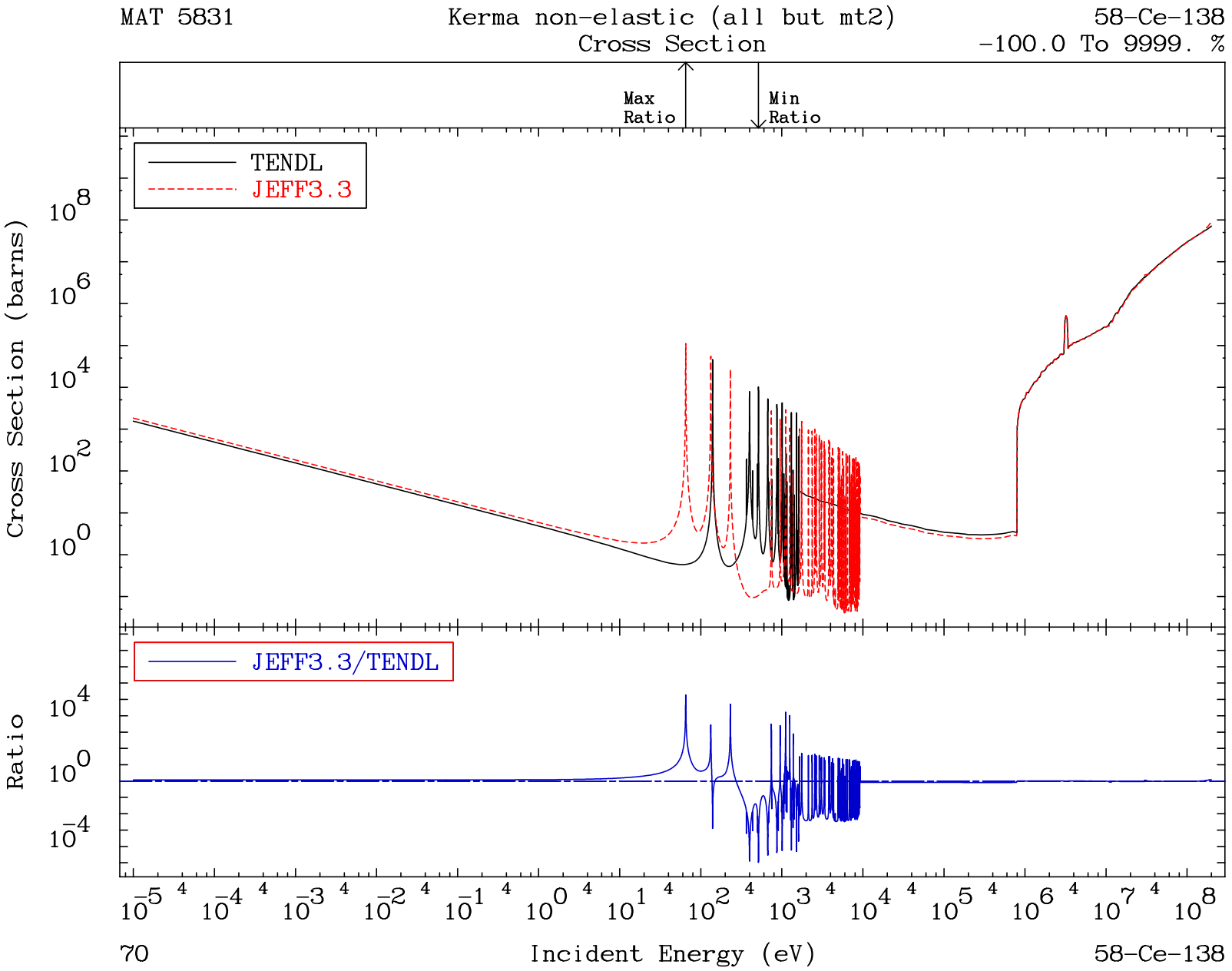

MAT 5831
Tritium Production
Cross Section
58-Ce-138
-15.58 To 194.6 %
Min Ratio
Max Ratio
TENDL Threshold 8.4683 MeV
JEFF3.3 Threshold 8.4712 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
65
Incident Energy (eV)
58-Ce-138

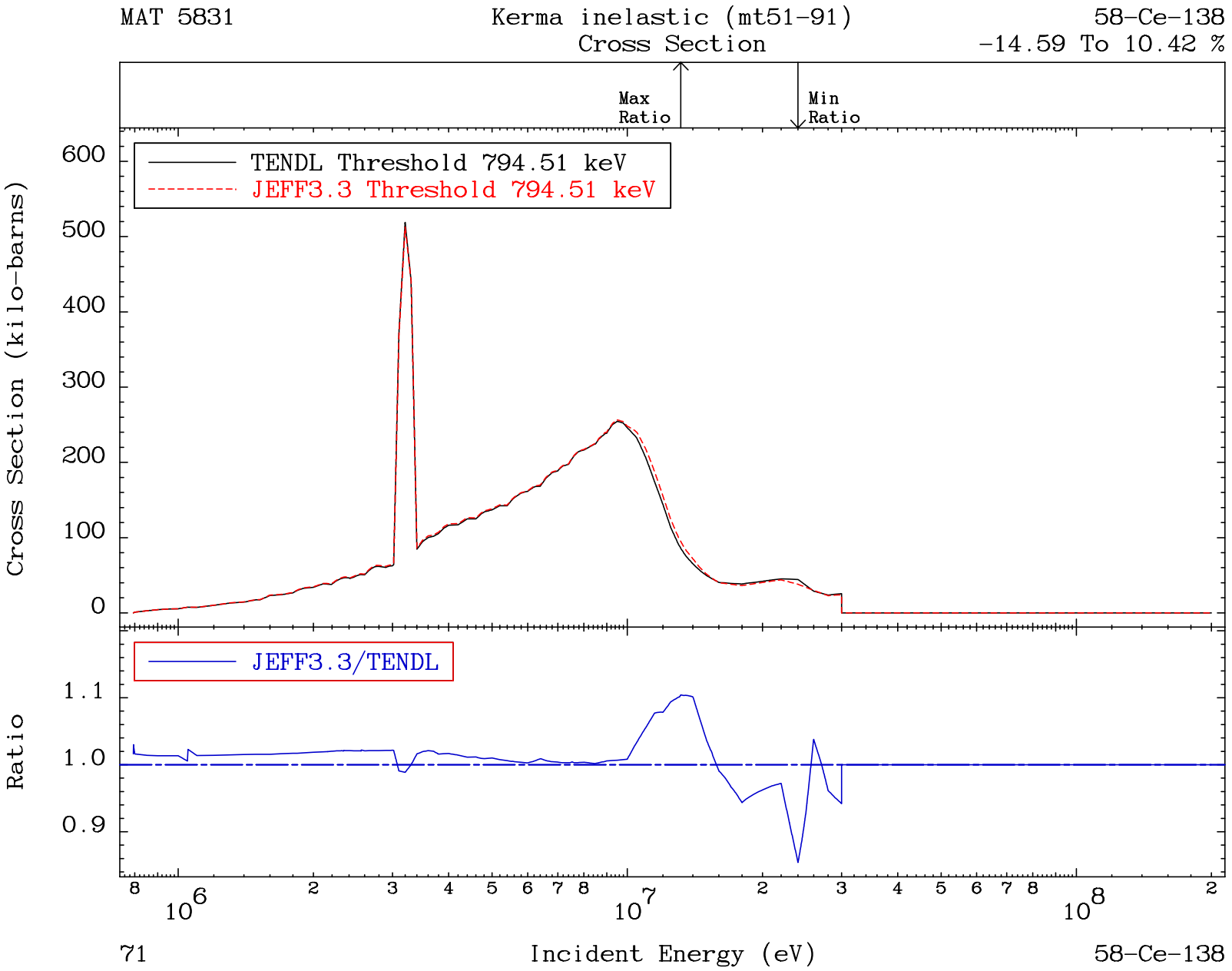

MAT 5831
He-3 Production
Cross Section
58-Ce-138
-20.97 To 3.171 %
Max Ratio
Min Ratio
TENDL Threshold 5.5792 MeV
JEFF3.3 Threshold 5.5820 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
0.8
6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
66
Incident Energy (eV)
58-Ce-138

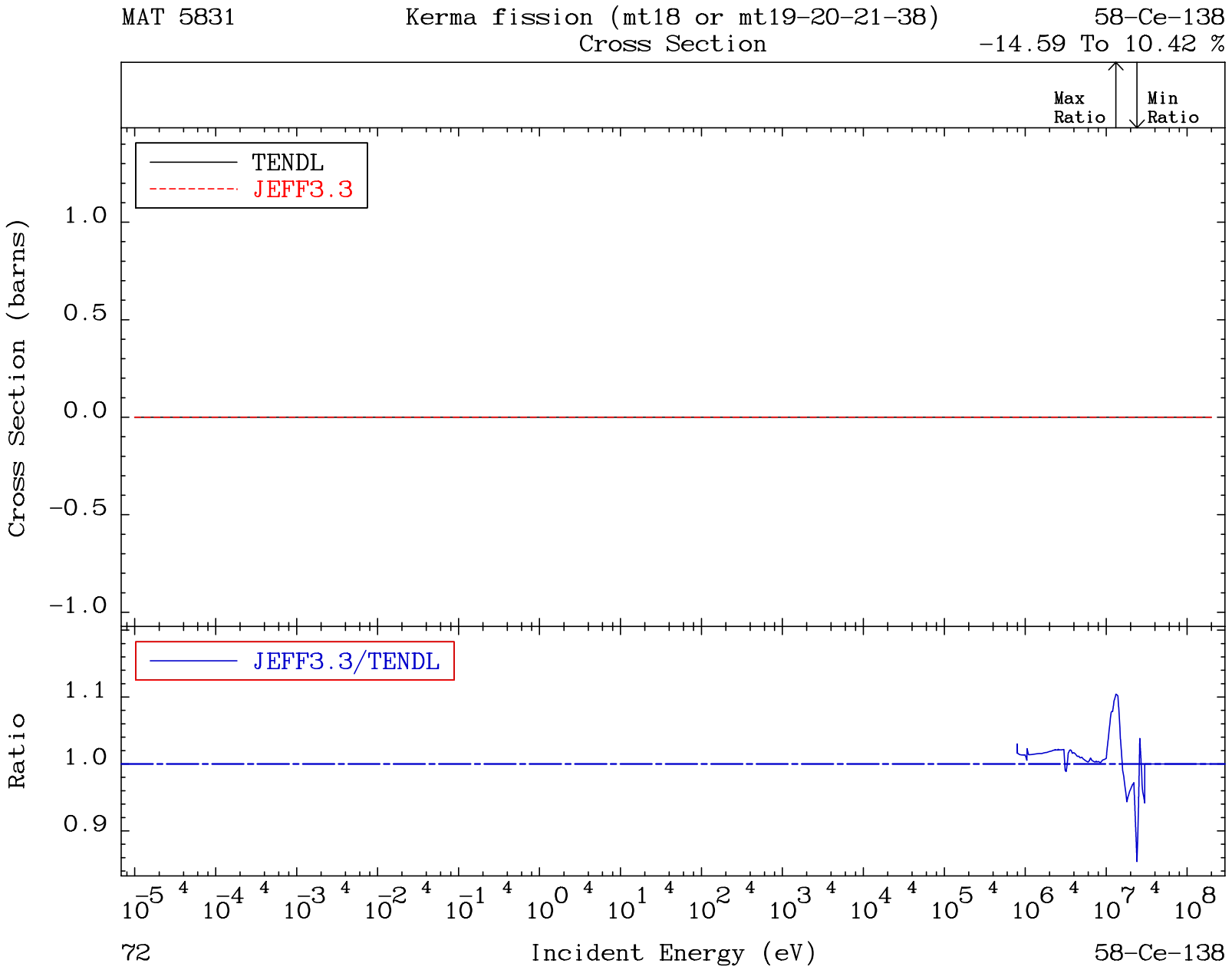

MAT 5831
He-4 Production
Cross Section
58-Ce-138
-25.99 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
67
58-Ce-138

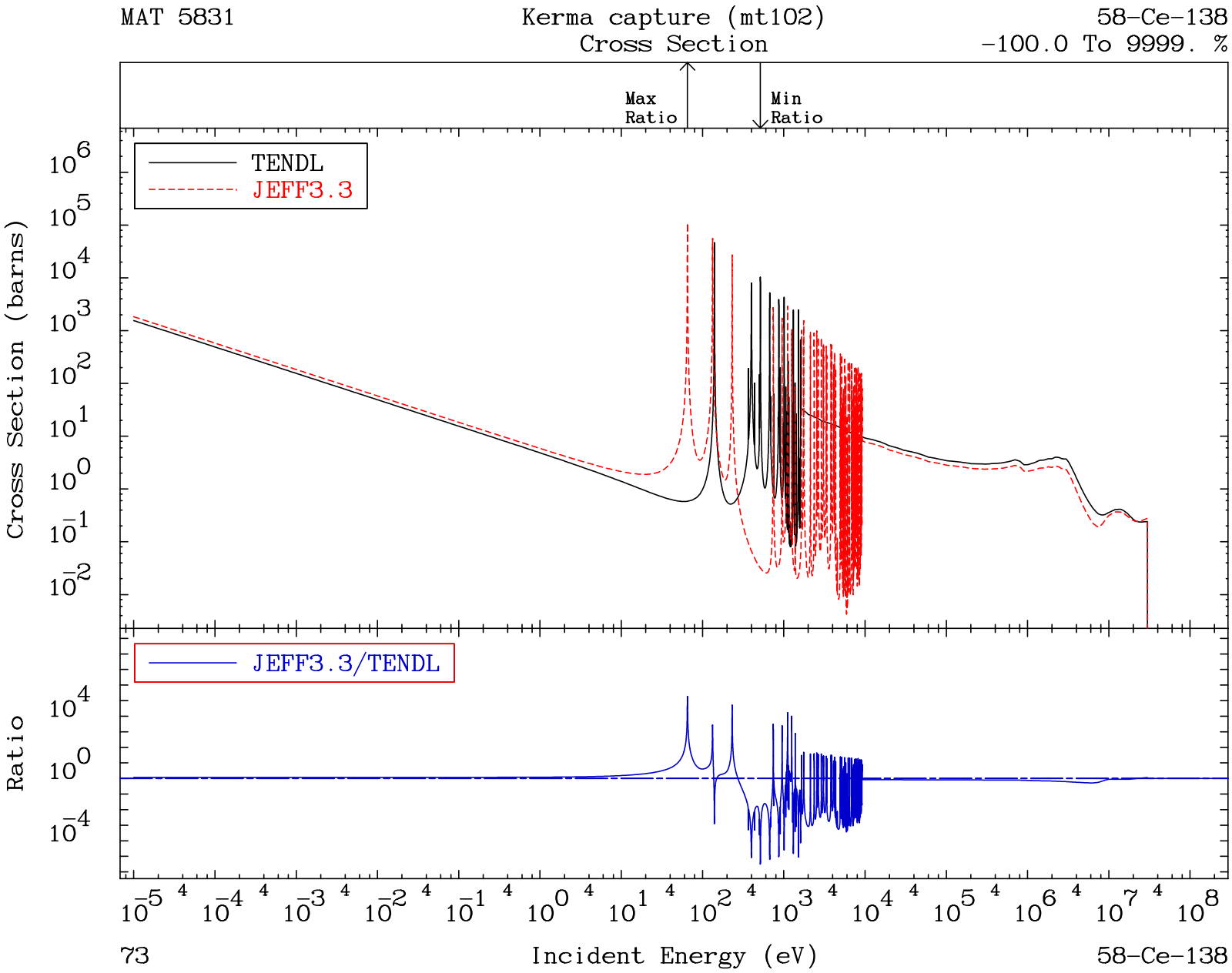

MAT 5831
Kerma total (eV-barns)
Cross Section
58-Ce-138
-99.90 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
58-Ce-138

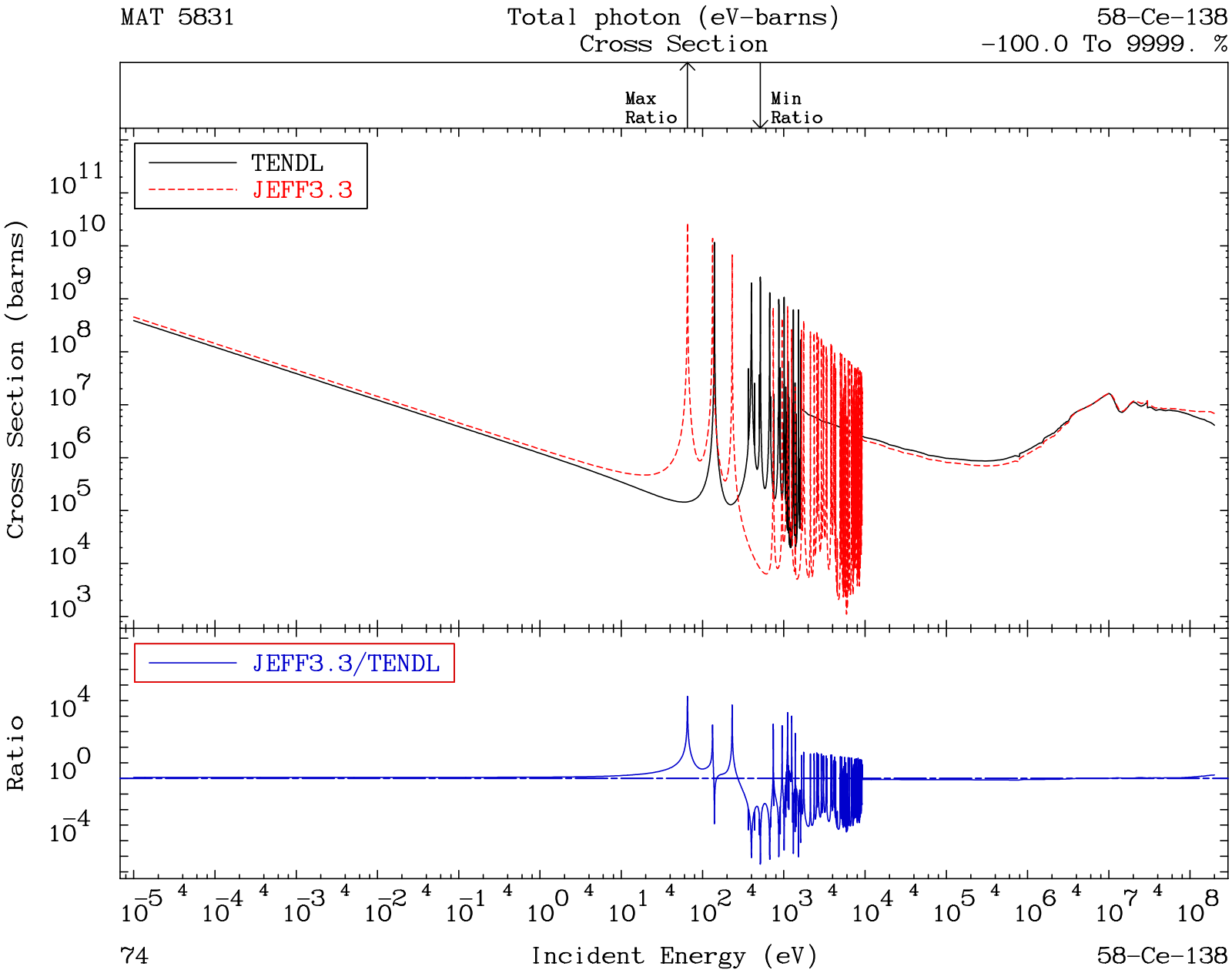

MAT 5831
Kerma elastic
Cross Section
58-Ce-138
-99.89 To 9999. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
69
58-Ce-138

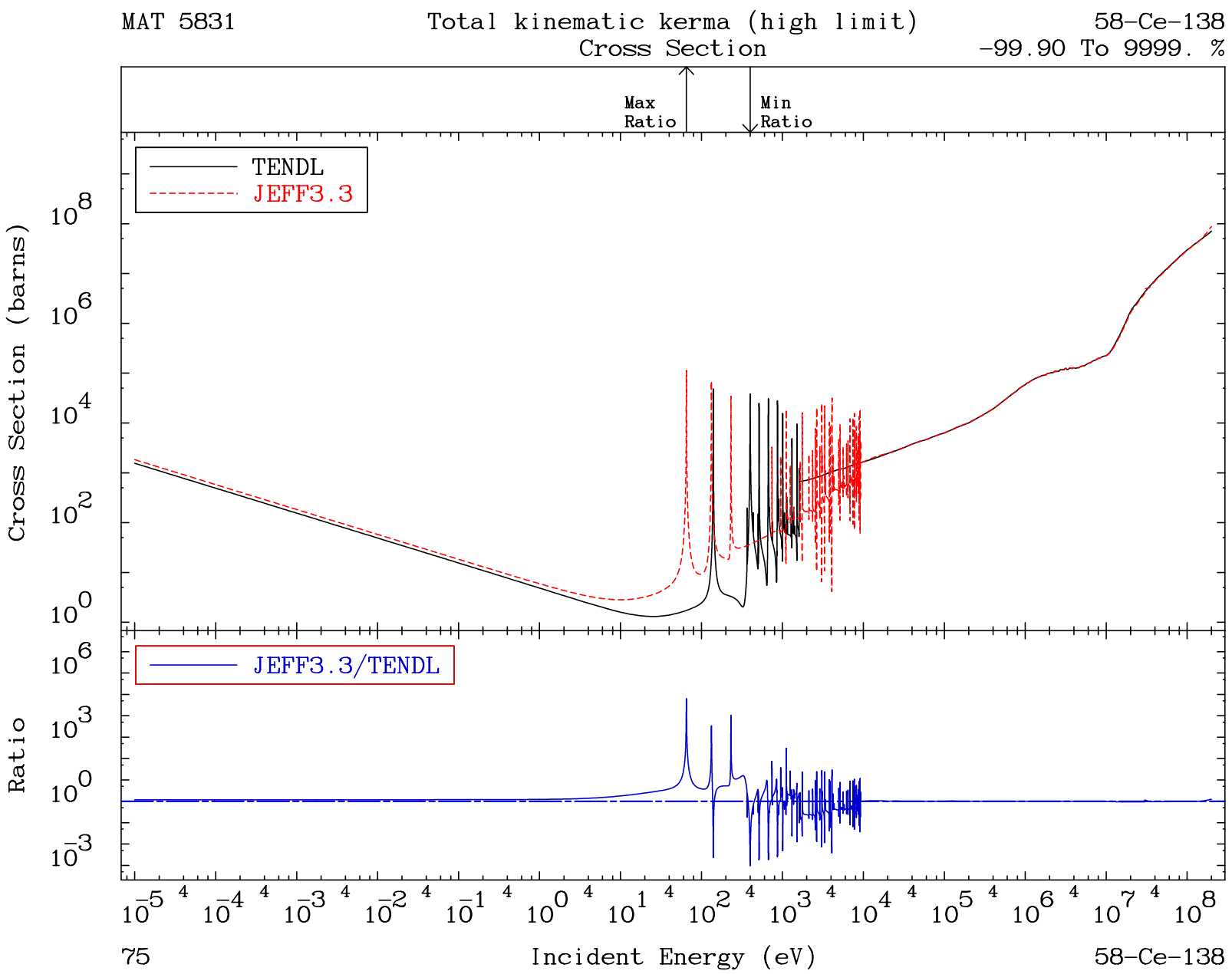

MAT 5831
Kerma non-elastic (all but mt2)
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
70
58-Ce-138

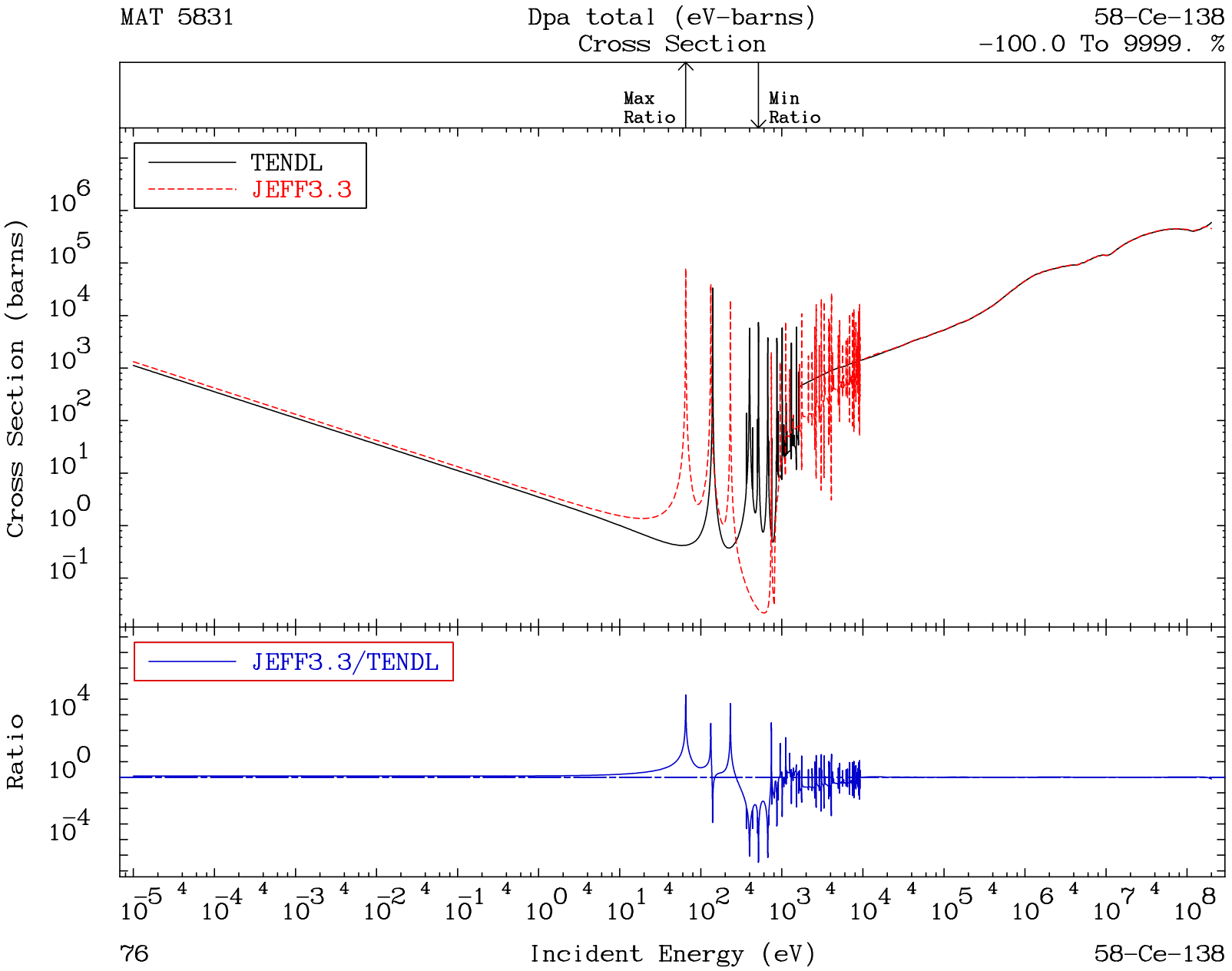

MAT 5831
Kerma inelastic (mt51-91)
Cross Section
58-Ce-138
-14.59 To 10.42 %
Max Ratio
Min Ratio
TENDL Threshold 794.51 keV
JEFF3.3 Threshold 794.51 keV
Cross Section (kilo-barns)
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
71
Incident Energy (eV)
58-Ce-138

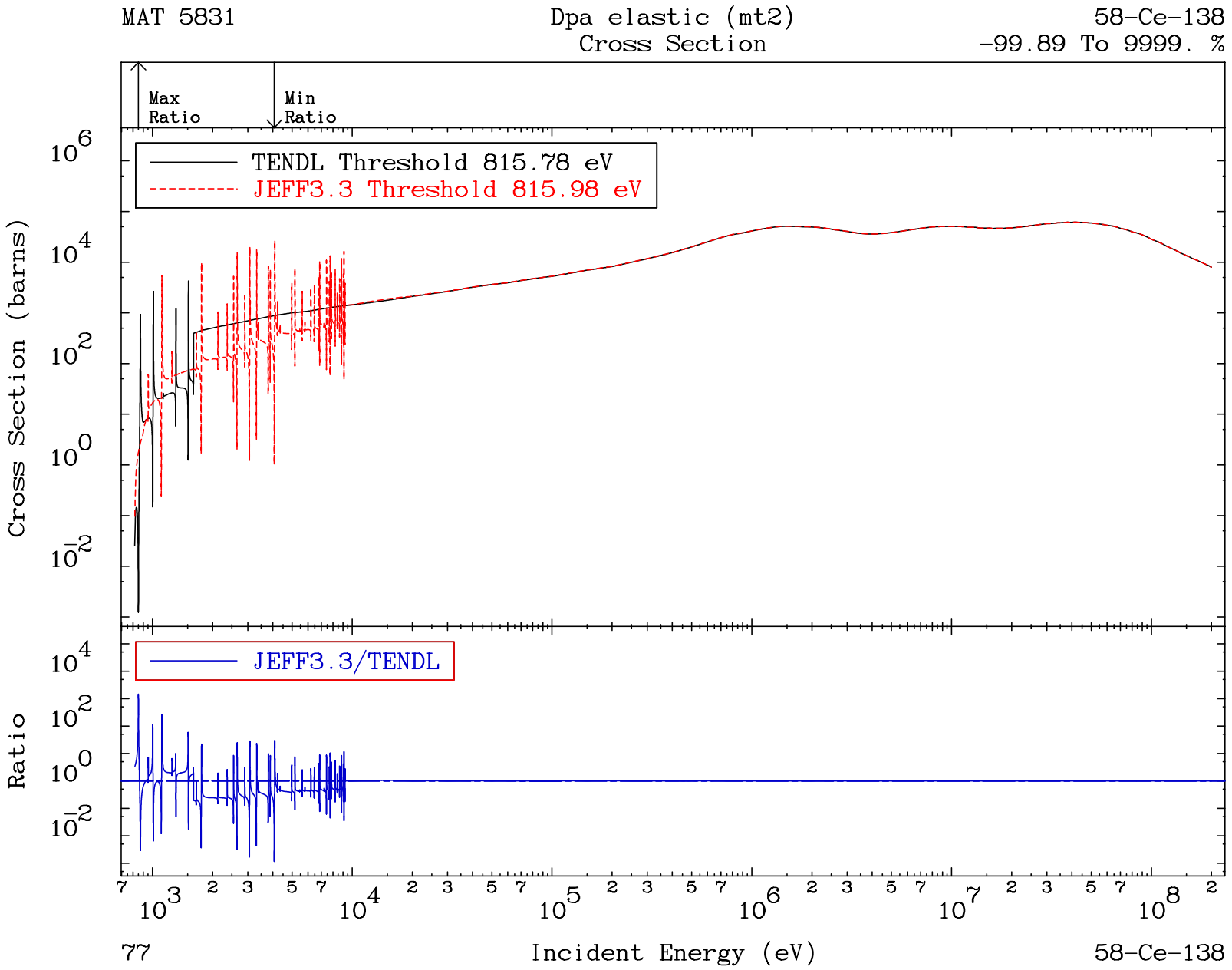

MAT 5831
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
58-Ce-138
-14.59 To 10.42 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
72
Incident Energy (eV)
58-Ce-138

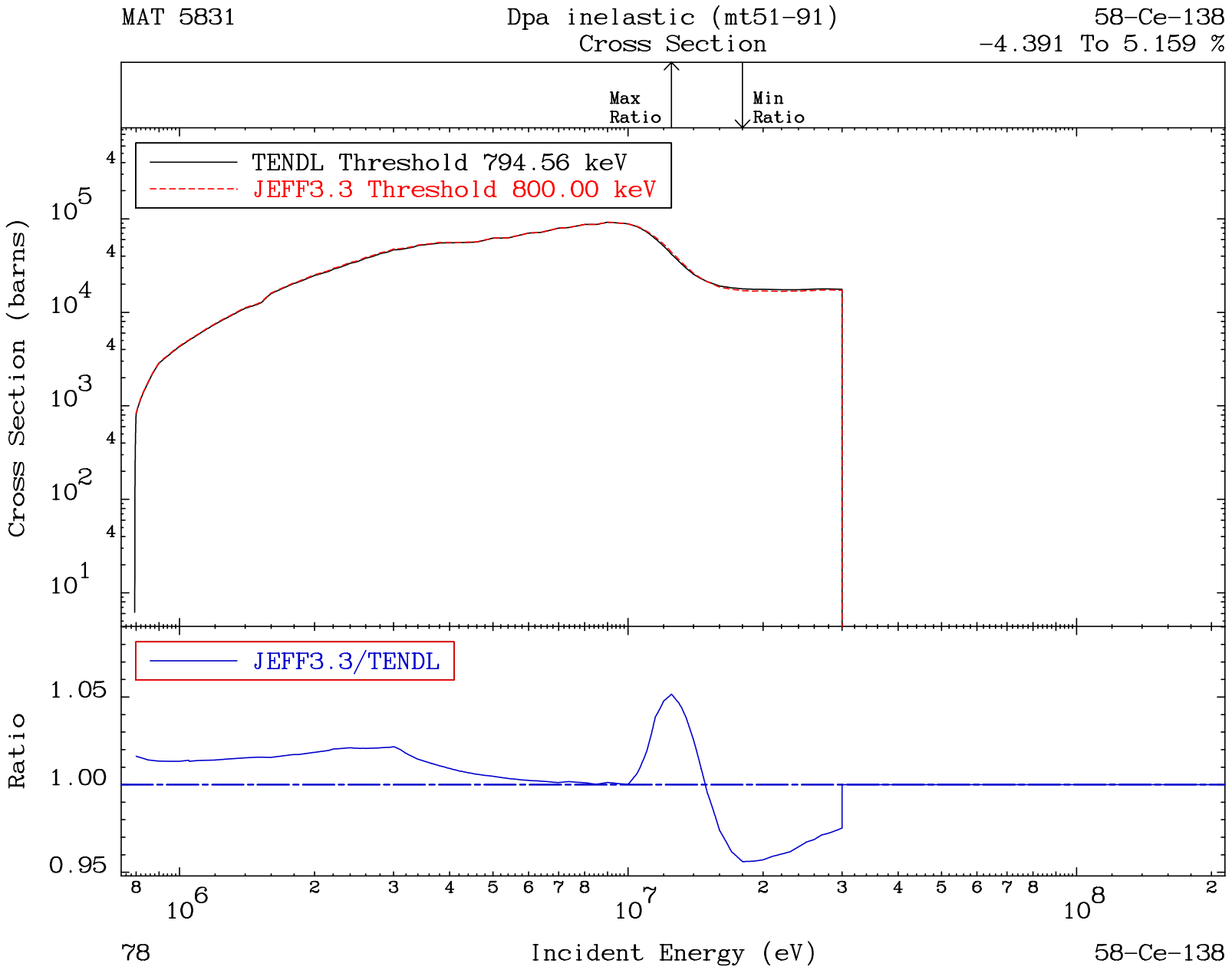

MAT 5831
Kerma capture (mt102)
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
73
Incident Energy (eV)
58-Ce-138

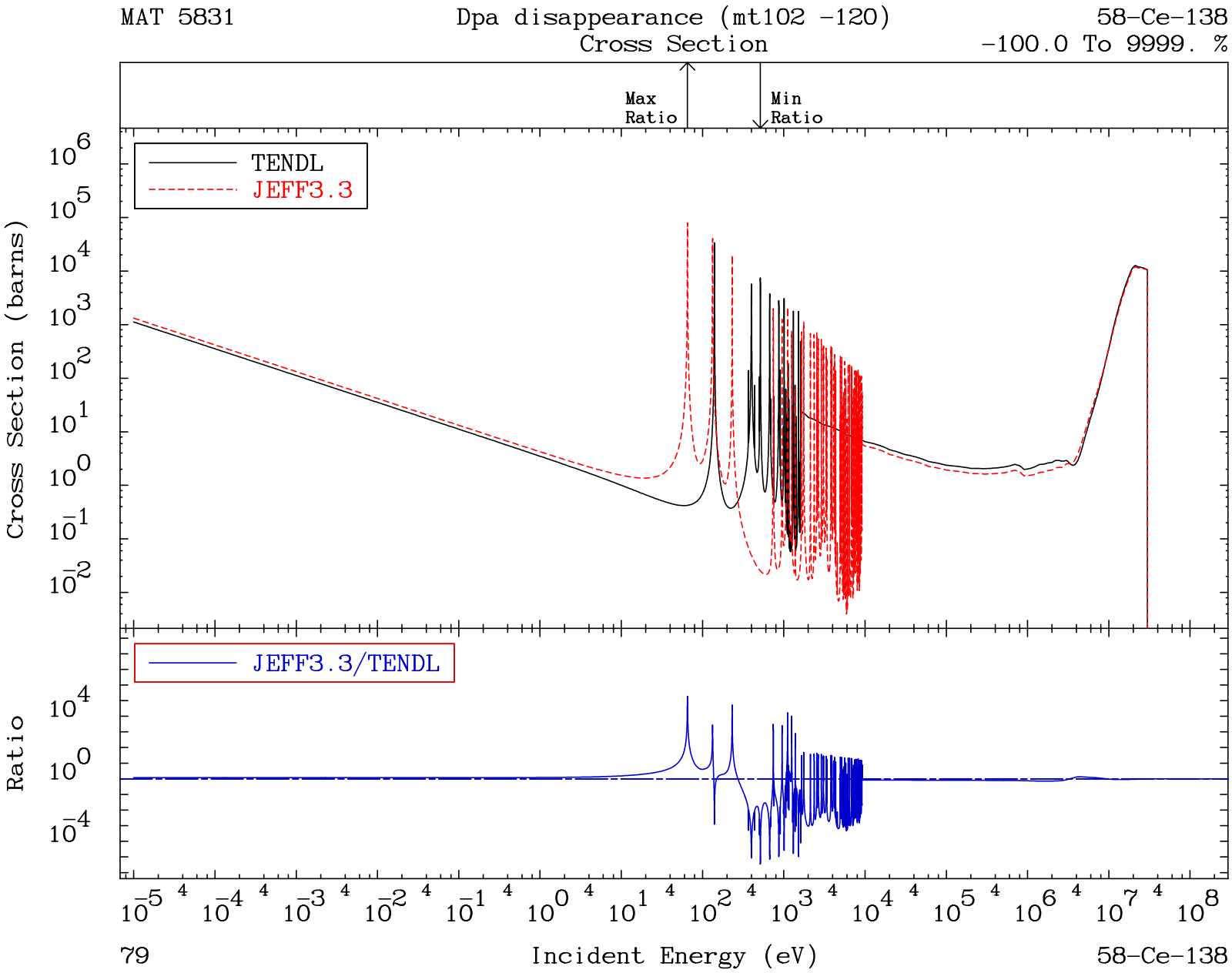

MAT 5831
Total photon (eV-barns)
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
74
Incident Energy (eV)
58-Ce-138

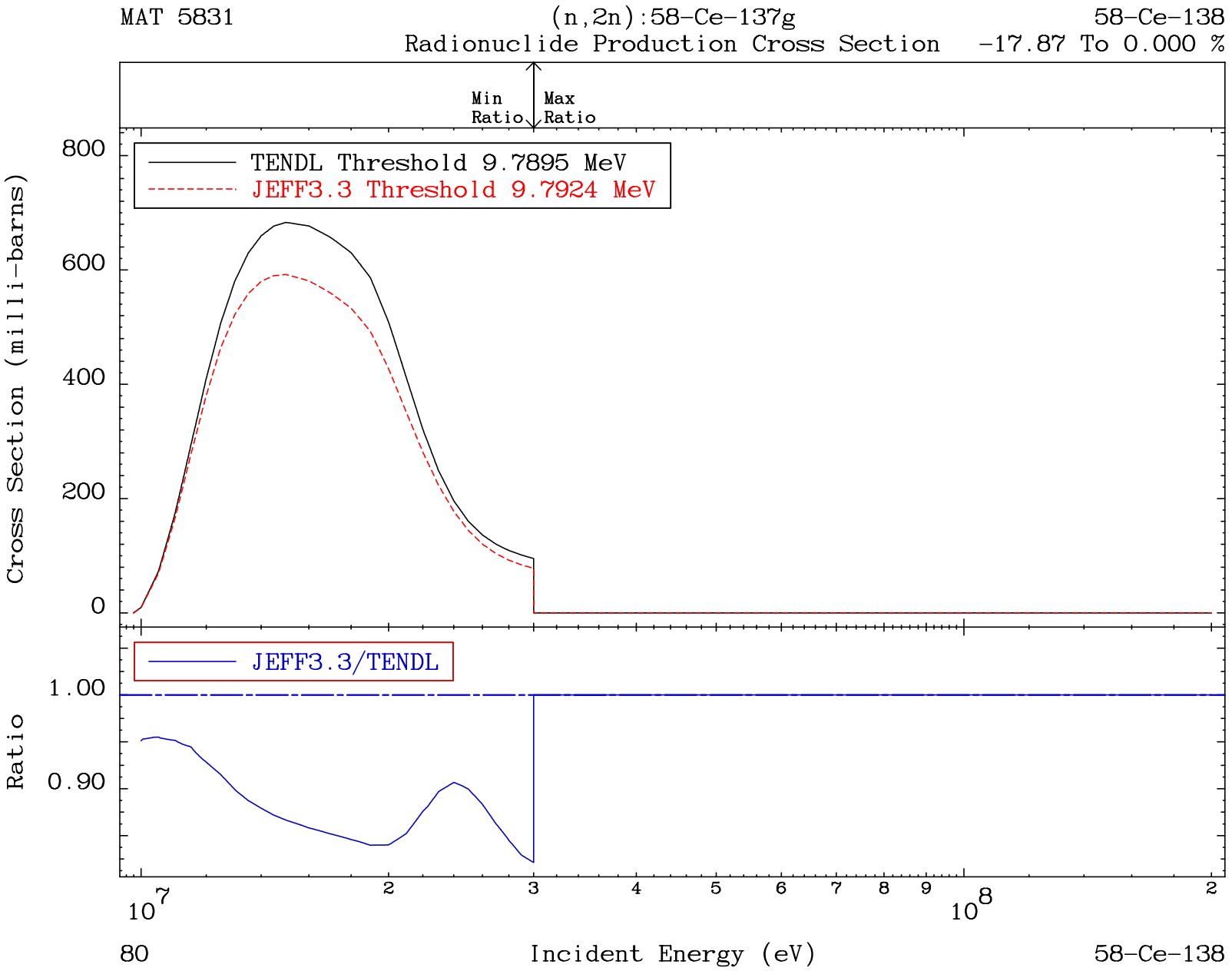

MAT 5831
Total kinematic kerma (high limit)
Cross Section
58-Ce-138
-99.90 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
75
58-Ce-138

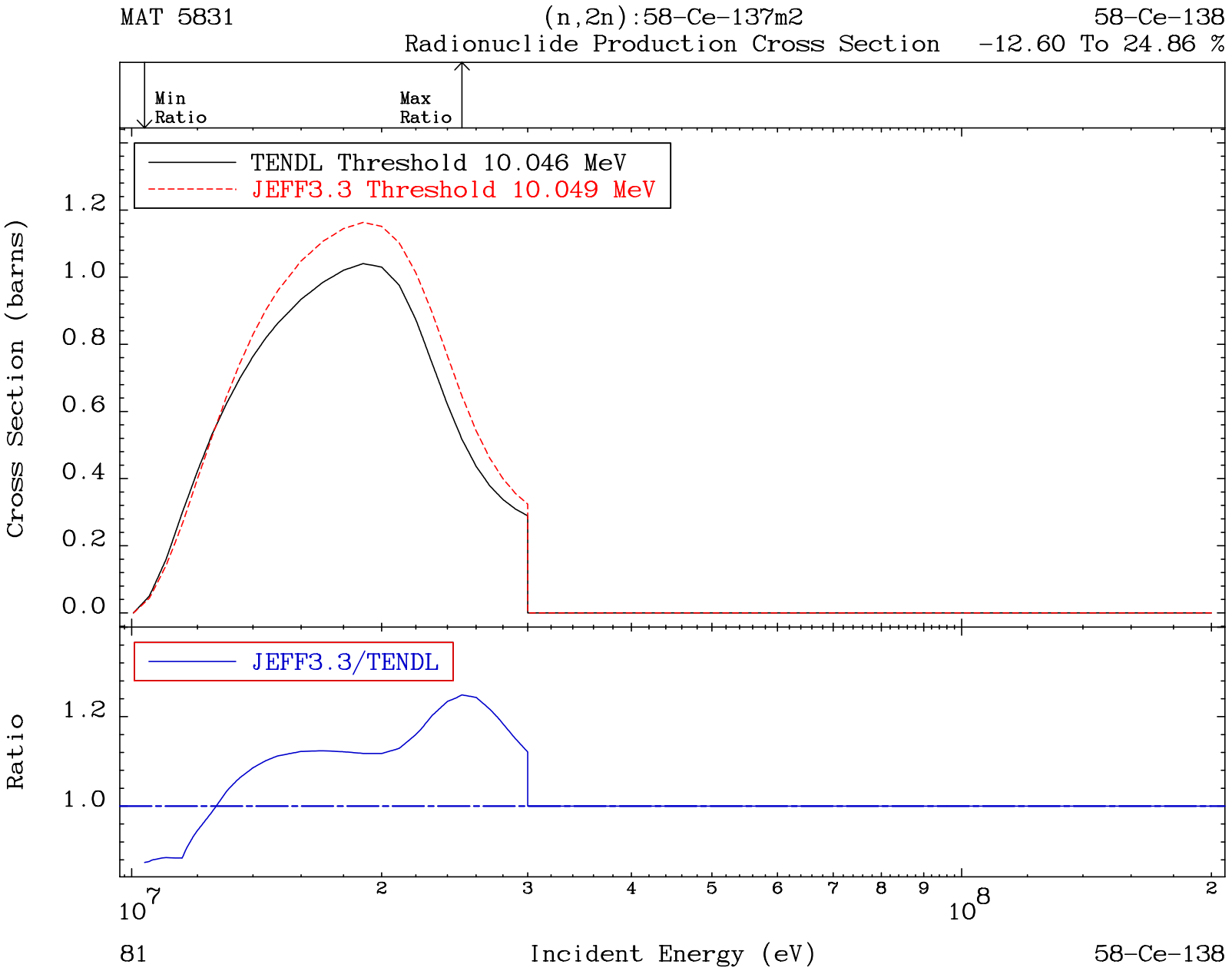

MAT 5831
Dpa total (eV-barns)
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
76
58-Ce-138

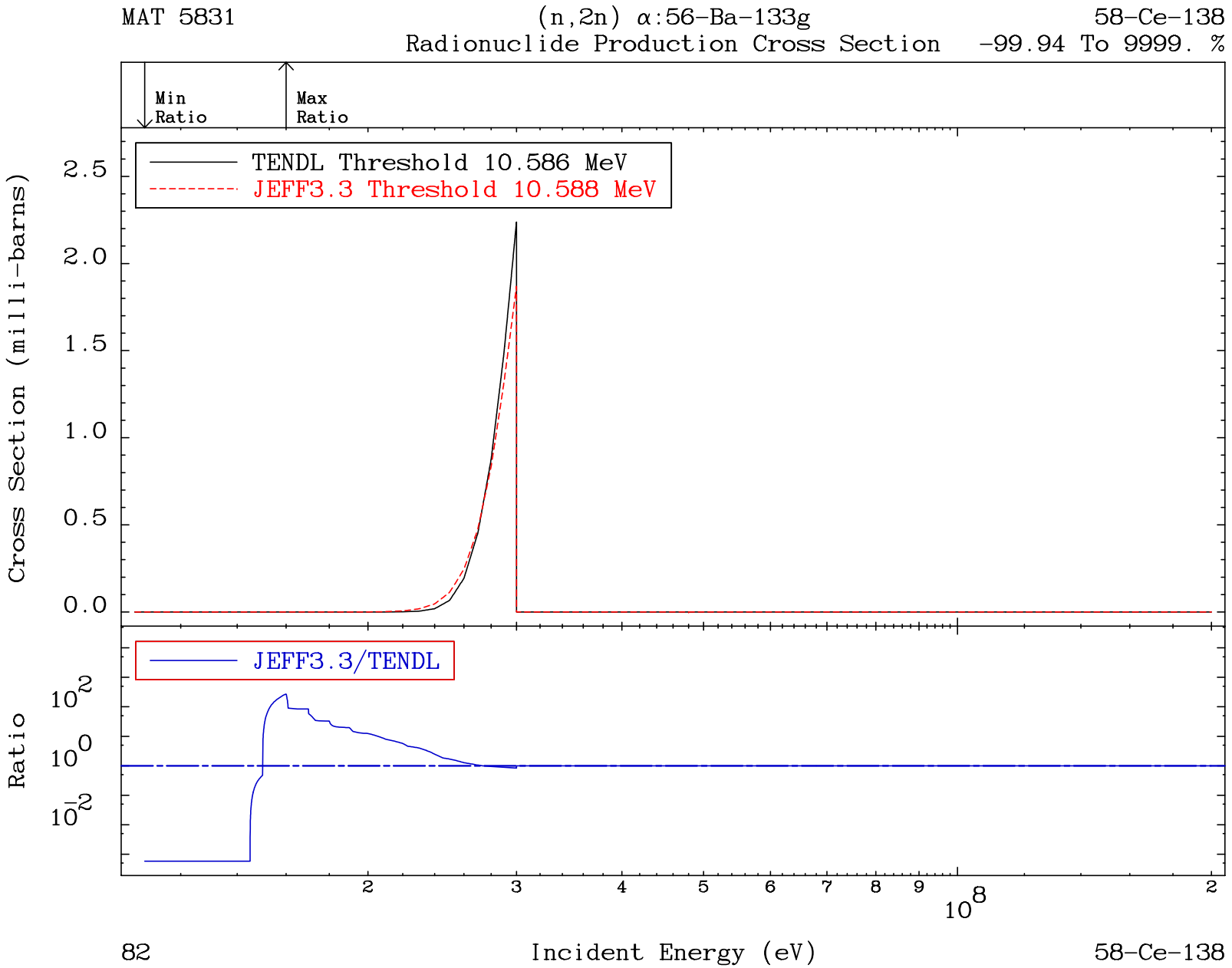

MAT 5831
Dpa elastic (mt2)
Cross Section
58-Ce-138
-99.89 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 815.78 eV
JEFF3.3 Threshold 815.98 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
77
58-Ce-138

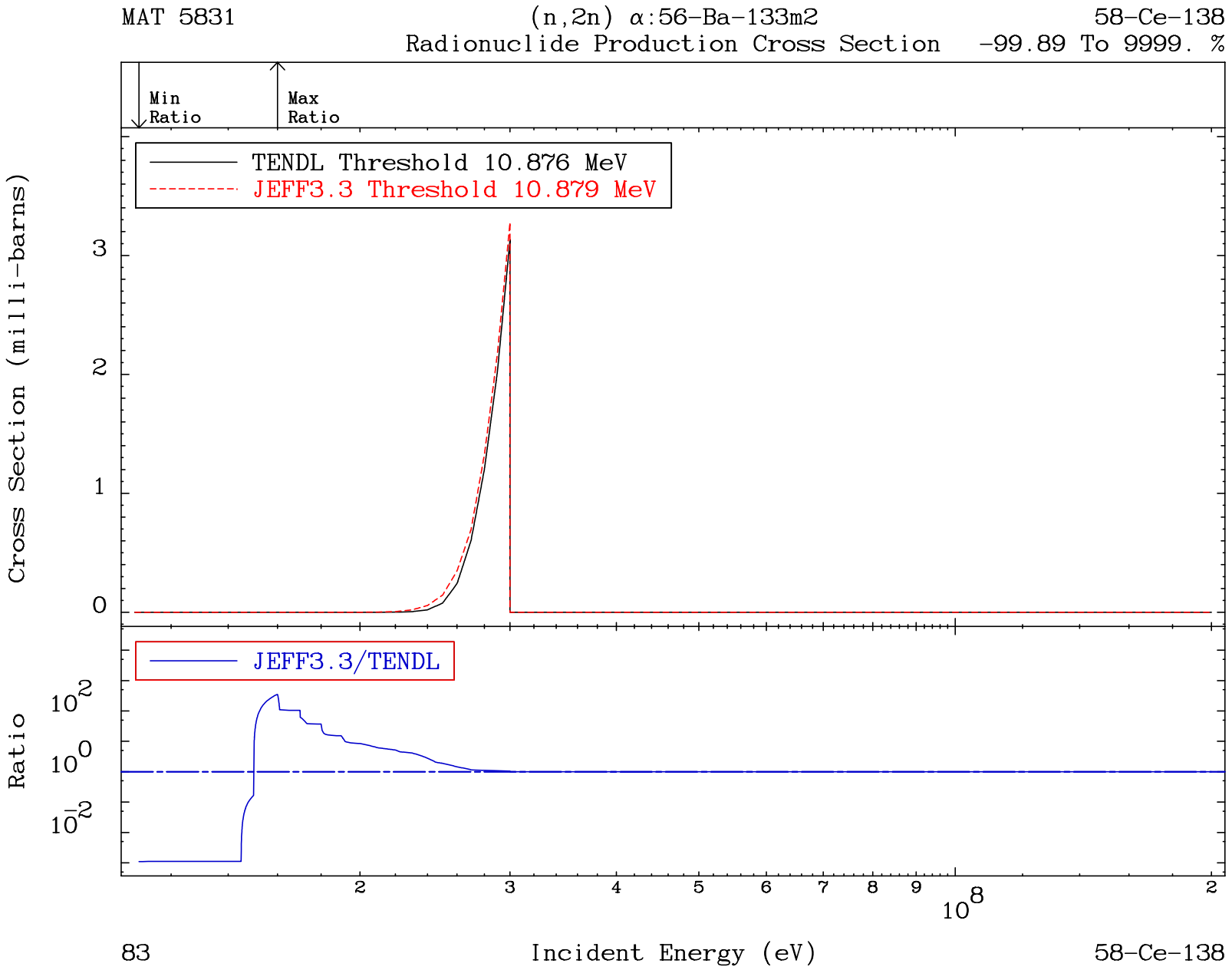

MAT 5831
Dpa inelastic (mt51-91)
Cross Section
58-Ce-138
-4.391 To 5.159 %
Max Ratio
Min Ratio
TENDL Threshold 794.56 keV
JEFF3.3 Threshold 800.00 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
78
58-Ce-138

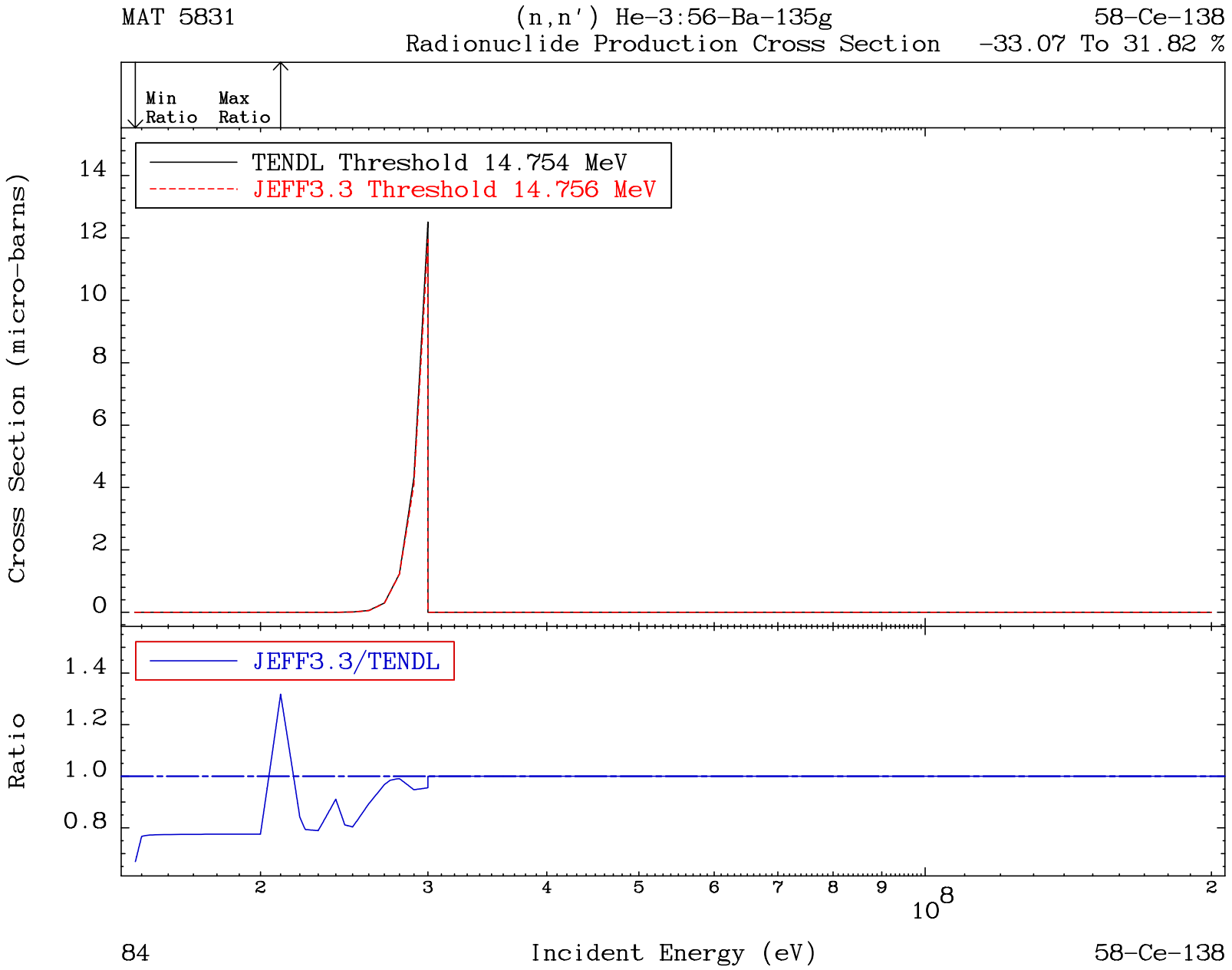

MAT 5831
Dpa disappearance (mt102 -120)
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
79
58-Ce-138

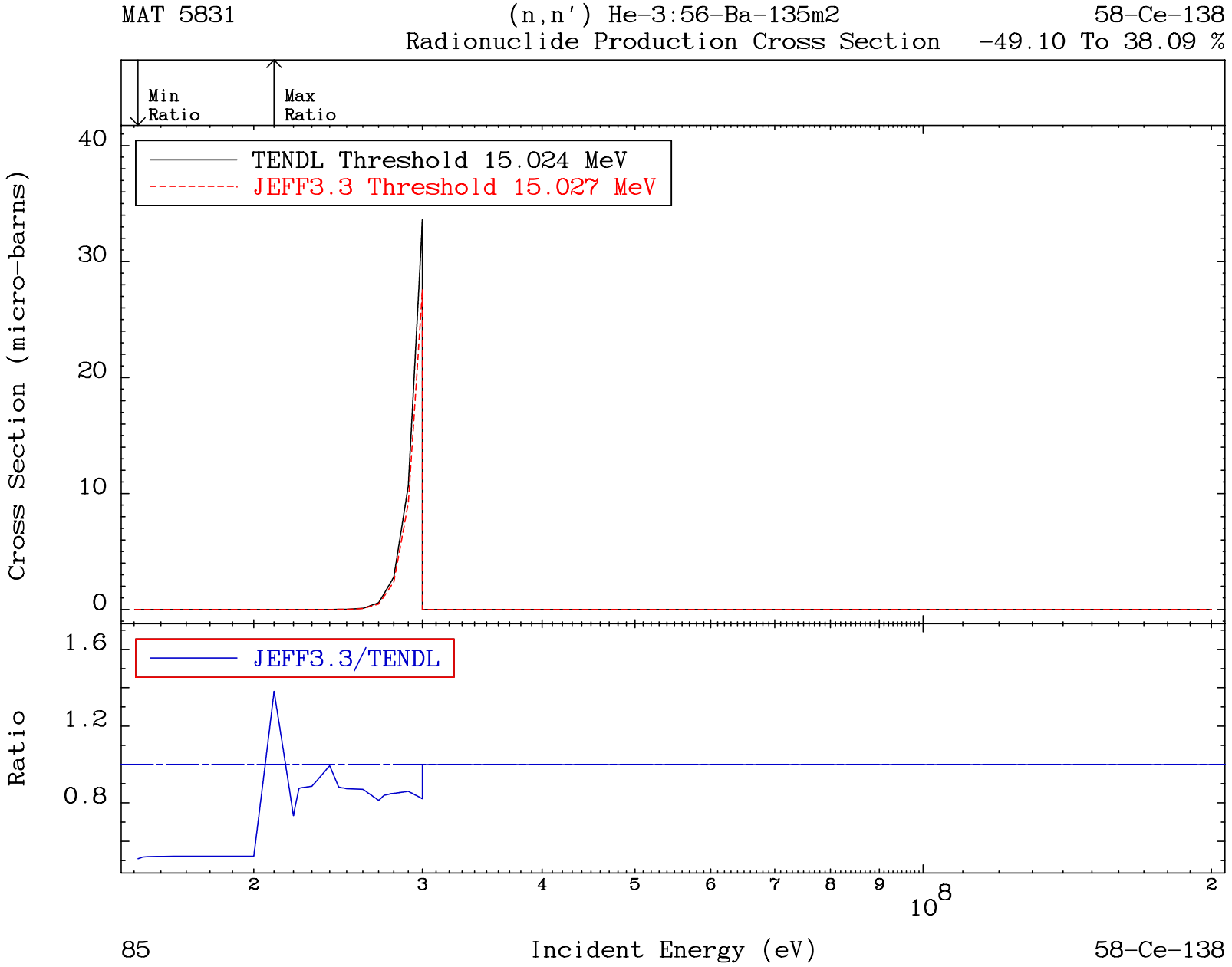

MAT 5831
(n,2n):58-Ce-137g
58-Ce-138
Radionuclide Production Cross Section
-17.87 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 9.7895 MeV
JEFF3.3 Threshold 9.7924 MeV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.00
0.90
10^7
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
58-Ce-138

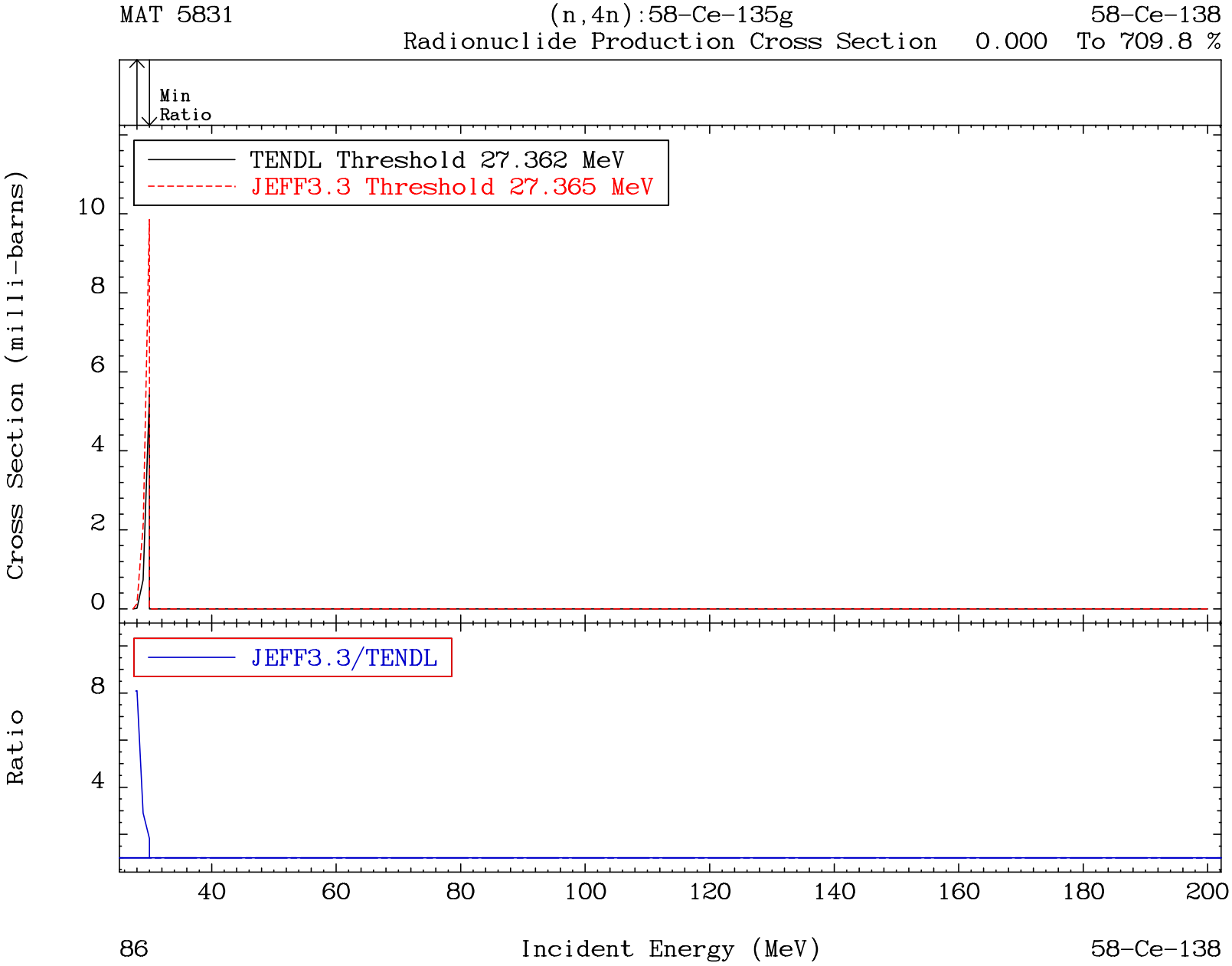

MAT 5831
(n,2n):58-Ce-137m2
58-Ce-138
Radionuclide Production Cross Section
-12.60 To 24.86 %
Min Ratio
Max Ratio
TENDL Threshold 10.046 MeV
JEFF3.3 Threshold 10.049 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.2
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
58-Ce-138

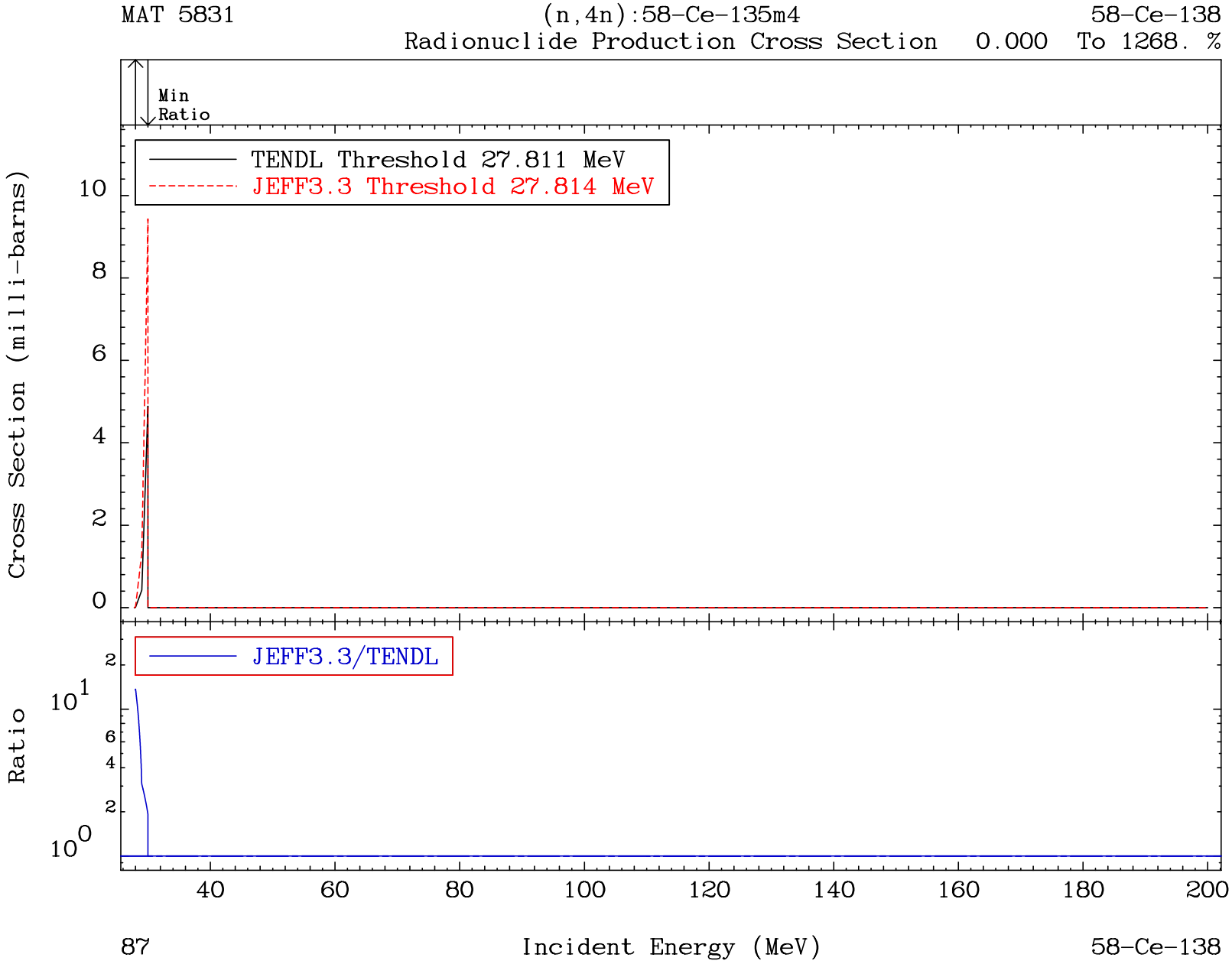

MAT 5831
(n,2n) α:56-Ba-133g
58-Ce-138
Radionuclide Production Cross Section -99.94 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.586 MeV
JEFF3.3 Threshold 10.588 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
82
Incident Energy (eV)
58-Ce-138

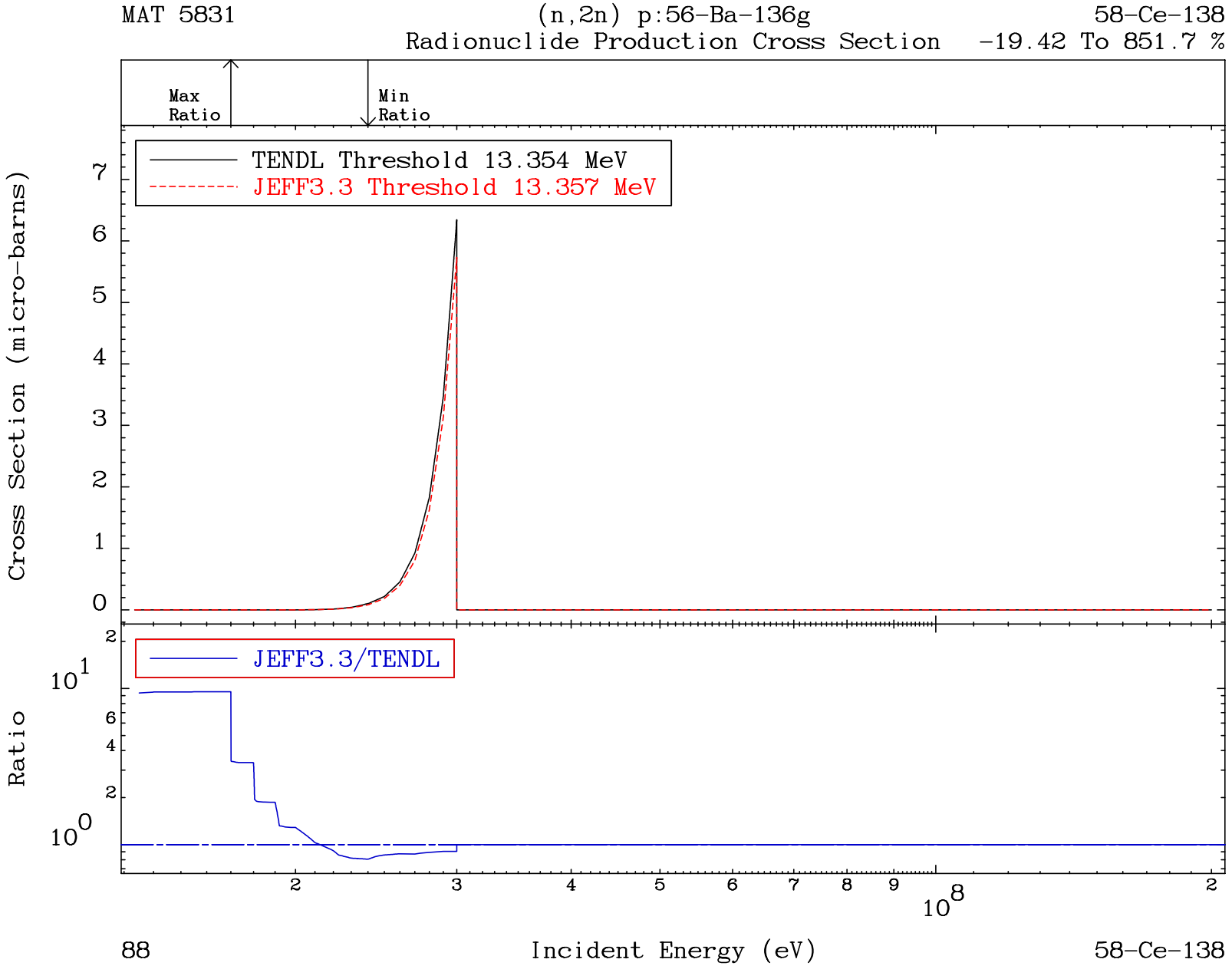

MAT 5831
(n,2n) α:56-Ba-133m2
58-Ce-138
Radionuclide Production Cross Section -99.89 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.876 MeV
JEFF3.3 Threshold 10.879 MeV
Cross Section (milli-barns)
0
1
2
3
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
58-Ce-138

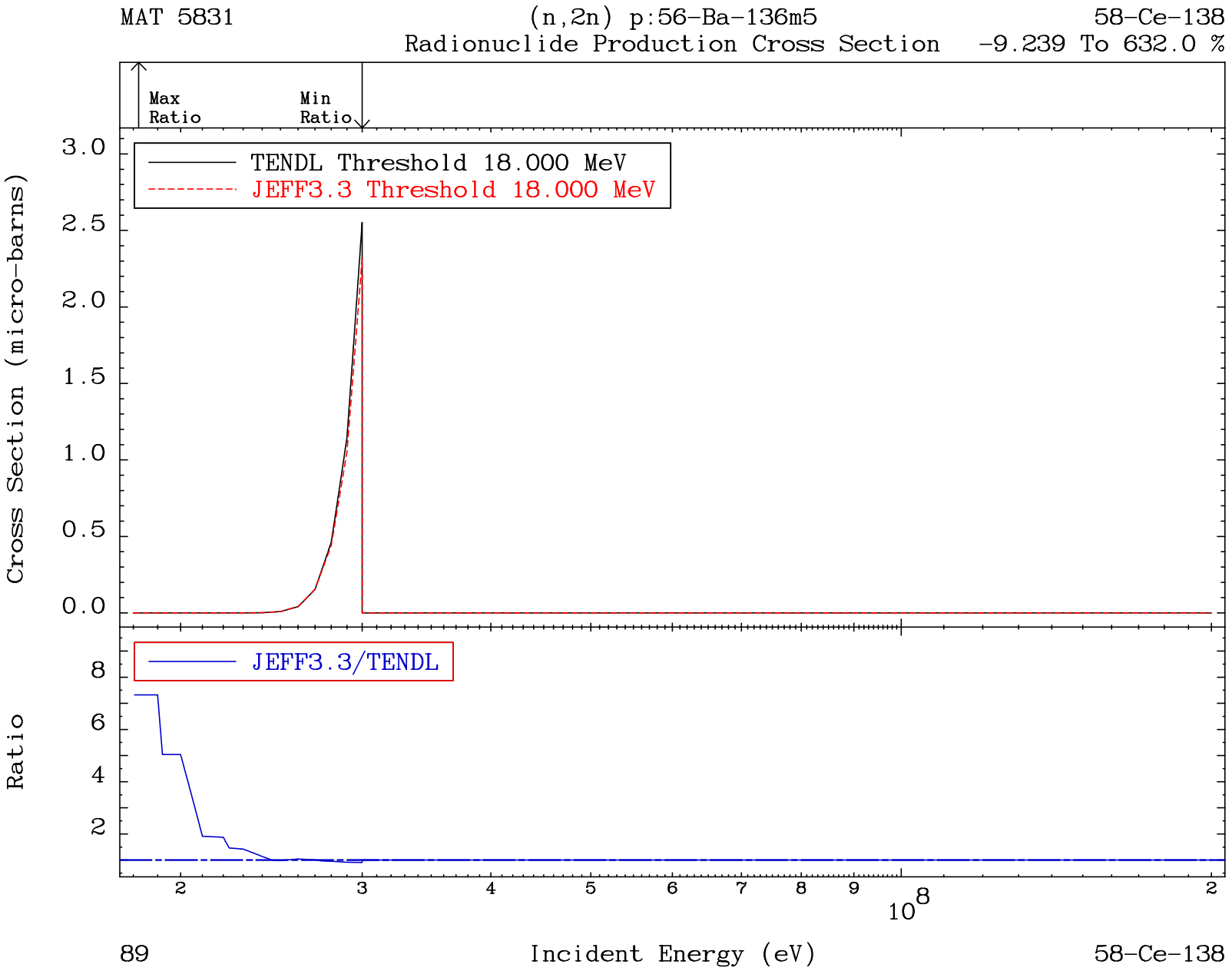

MAT 5831
(n,n') He-3:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section
-33.07 To 31.82 %
Min Ratio
Max Ratio
TENDL Threshold 14.754 MeV
JEFF3.3 Threshold 14.756 MeV
Cross Section (micro-barns)
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
0.8
2
3
4
5
6
7
8
9
10^8
2
84
Incident Energy (eV)
58-Ce-138

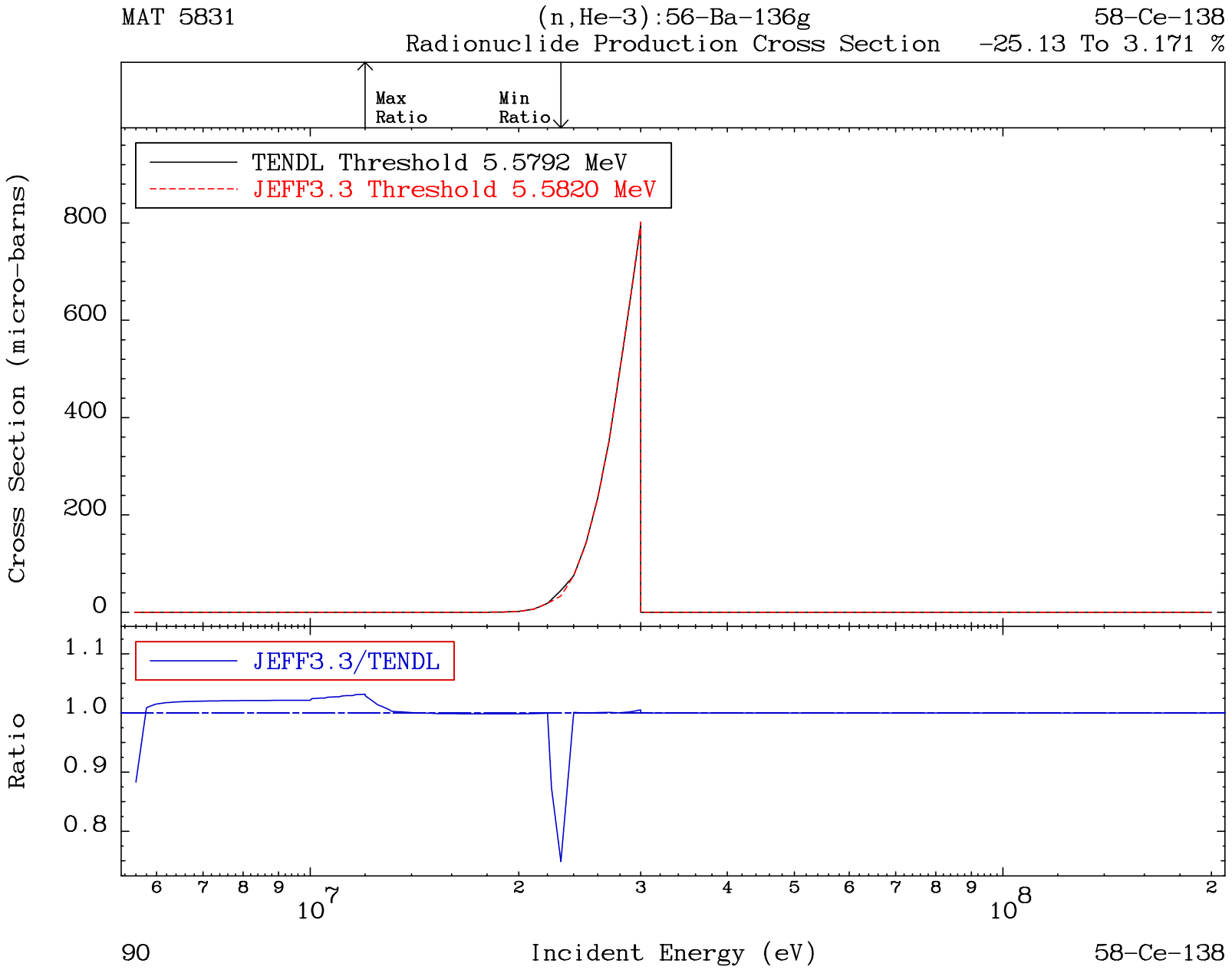

MAT 5831
(n,n') He-3:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section -49.10 To 38.09 %
Min Ratio
Max Ratio
TENDL Threshold 15.024 MeV
JEFF3.3 Threshold 15.027 MeV
Cross Section (micro-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.6
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
85
Incident Energy (eV)
58-Ce-138

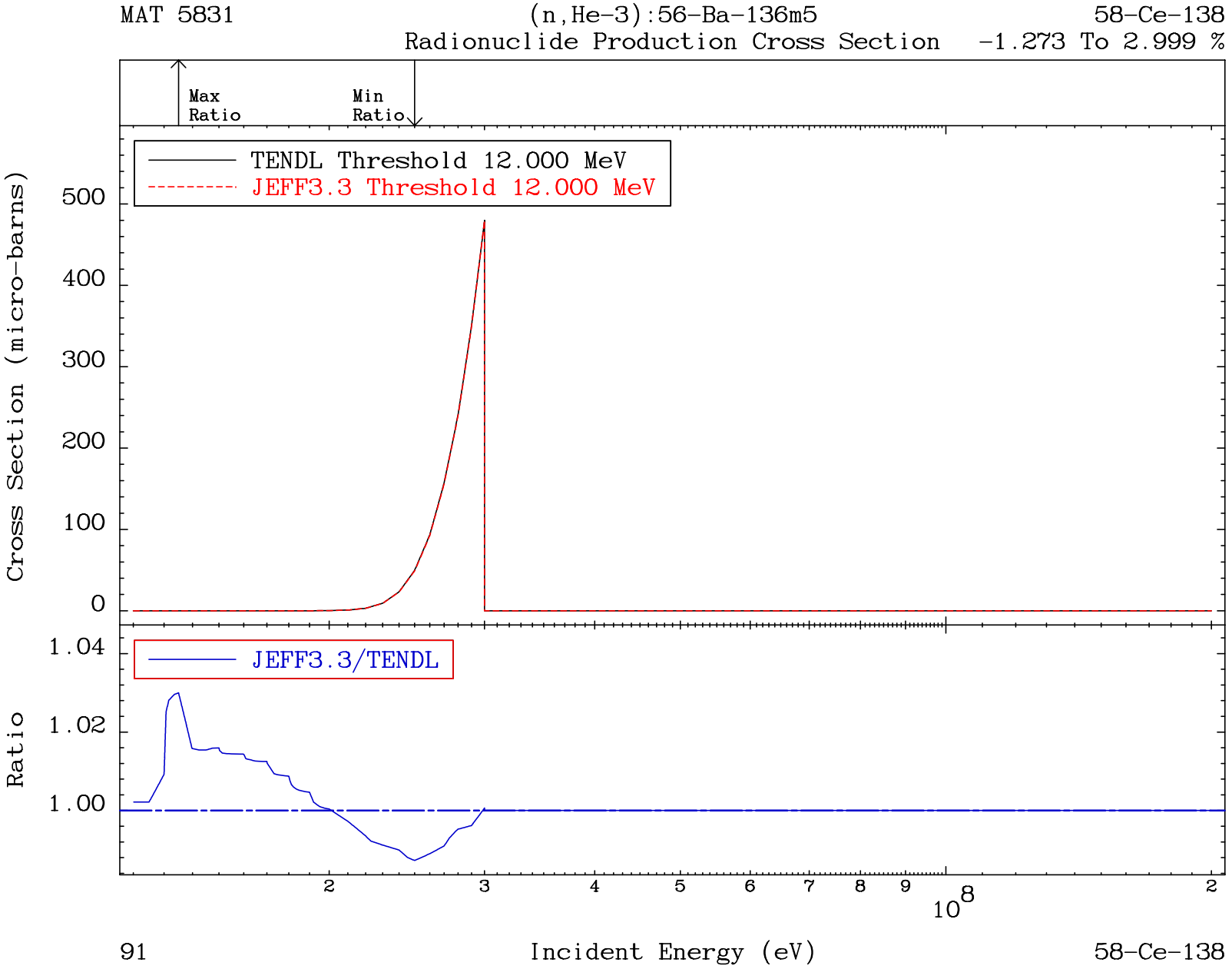

MAT 5831
(n,4n):58-Ce-135g
58-Ce-138
Radionuclide Production Cross Section 0.000 To 709.8 %
Min Ratio
TENDL Threshold 27.362 MeV
JEFF3.3 Threshold 27.365 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
JEFF3.3/TENDL
Ratio
4
8
40
60
80
100
120
140
160
180
200
86
Incident Energy (MeV)
58-Ce-138

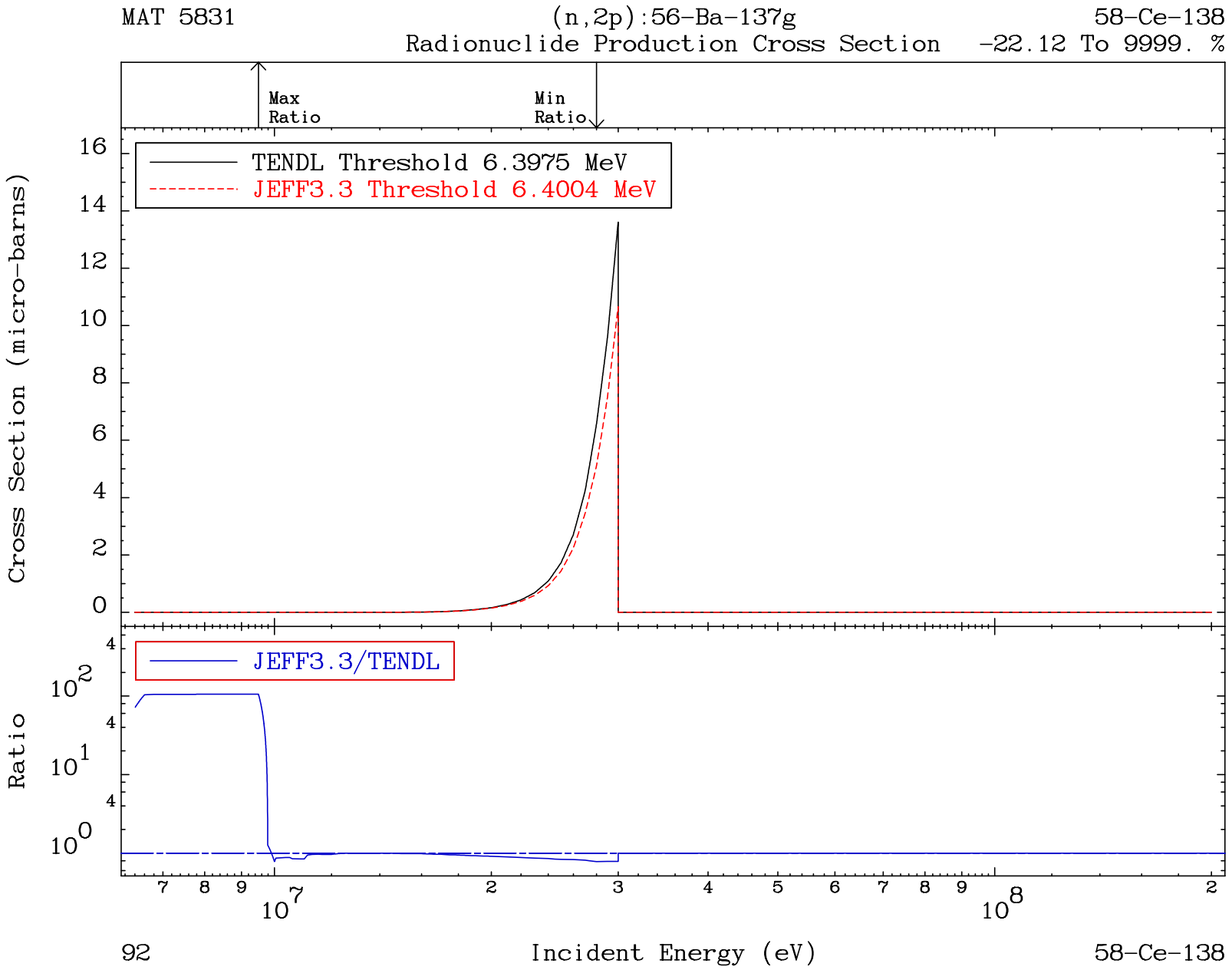

MAT 5831
(n,4n):58-Ce-135m4
58-Ce-138
Radionuclide Production Cross Section 0.000 To 1268. %
Min Ratio
TENDL Threshold 27.811 MeV
JEFF3.3 Threshold 27.814 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (MeV)
87
58-Ce-138

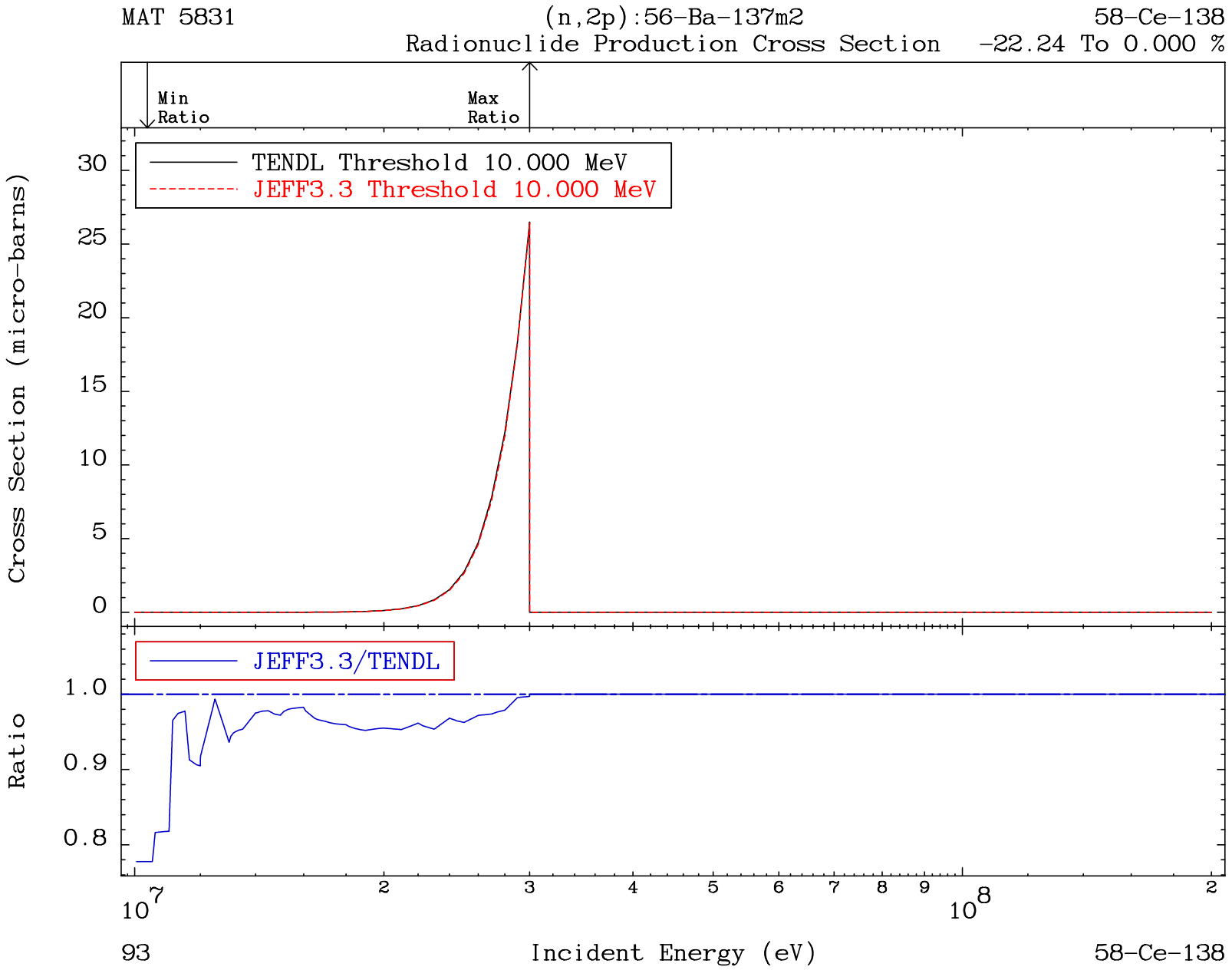

MAT 5831
(n,2n) p:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section -19.42 To 851.7 %
Max Ratio
Min Ratio
TENDL Threshold 13.354 MeV
JEFF3.3 Threshold 13.357 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
88
58-Ce-138

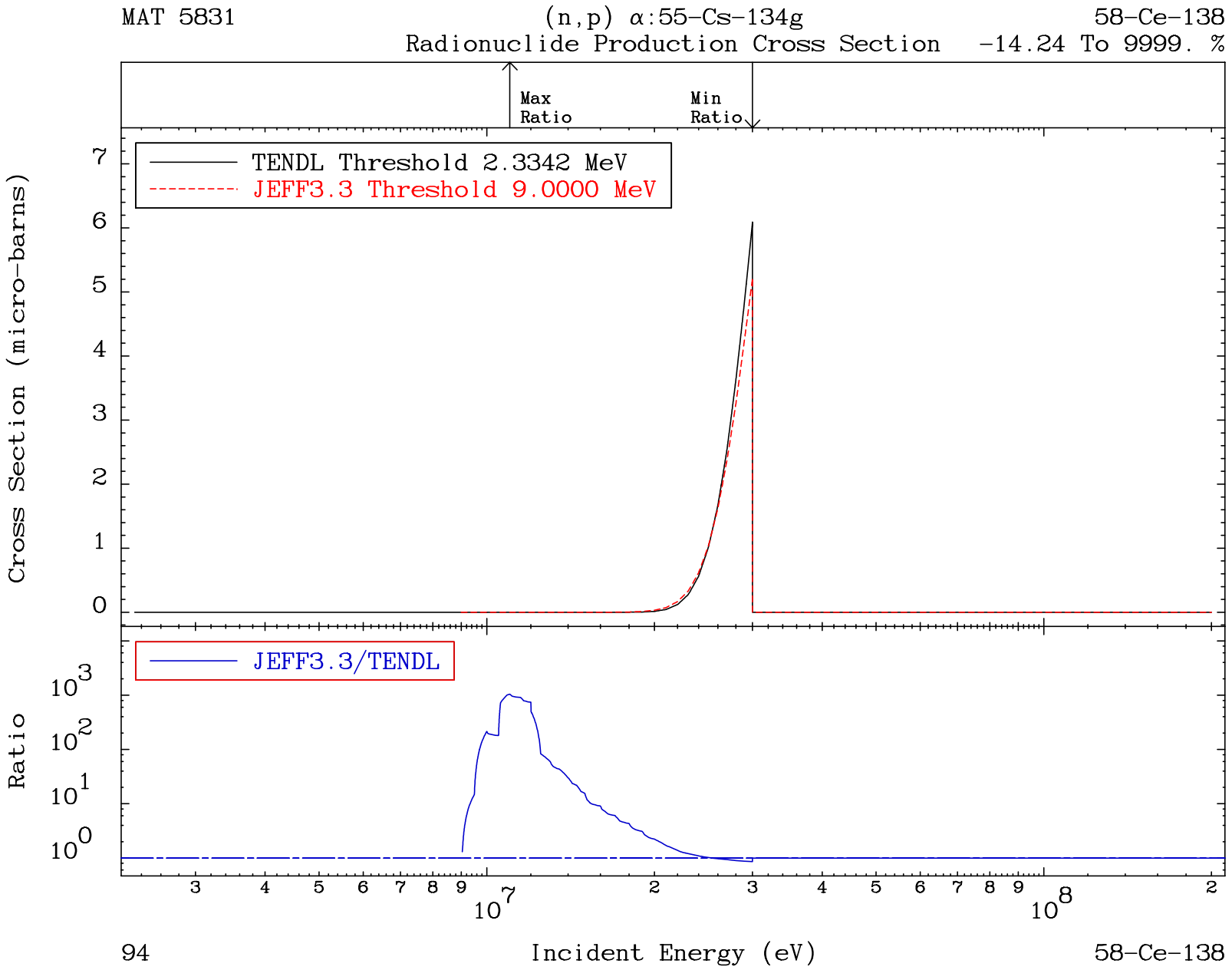

MAT 5831
(n,2n) p:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
-9.239 To 632.0 %
Max Ratio
Min Ratio
TENDL Threshold 18.000 MeV
JEFF3.3 Threshold 18.000 MeV
Cross Section (micro-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
8
6
4
2
2
3
4
5
6
7
8
9
10^8
2
89
Incident Energy (eV)
58-Ce-138

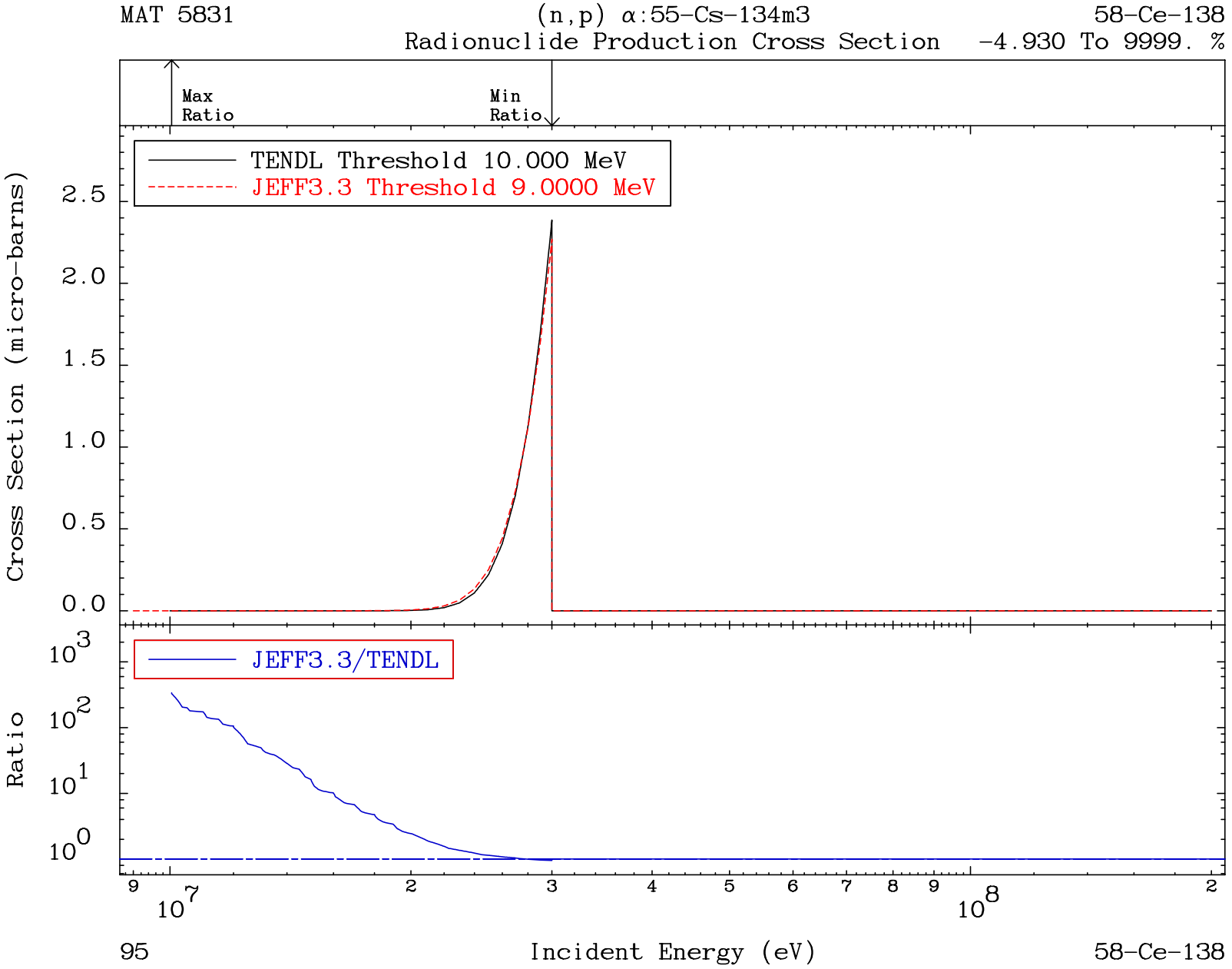

MAT 5831
(n,He-3):56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section
-25.13 To 3.171 %
Max Ratio
Min Ratio
TENDL Threshold 5.5792 MeV
JEFF3.3 Threshold 5.5820 MeV
Cross Section (micro-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
0.8
6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
90
Incident Energy (eV)
58-Ce-138

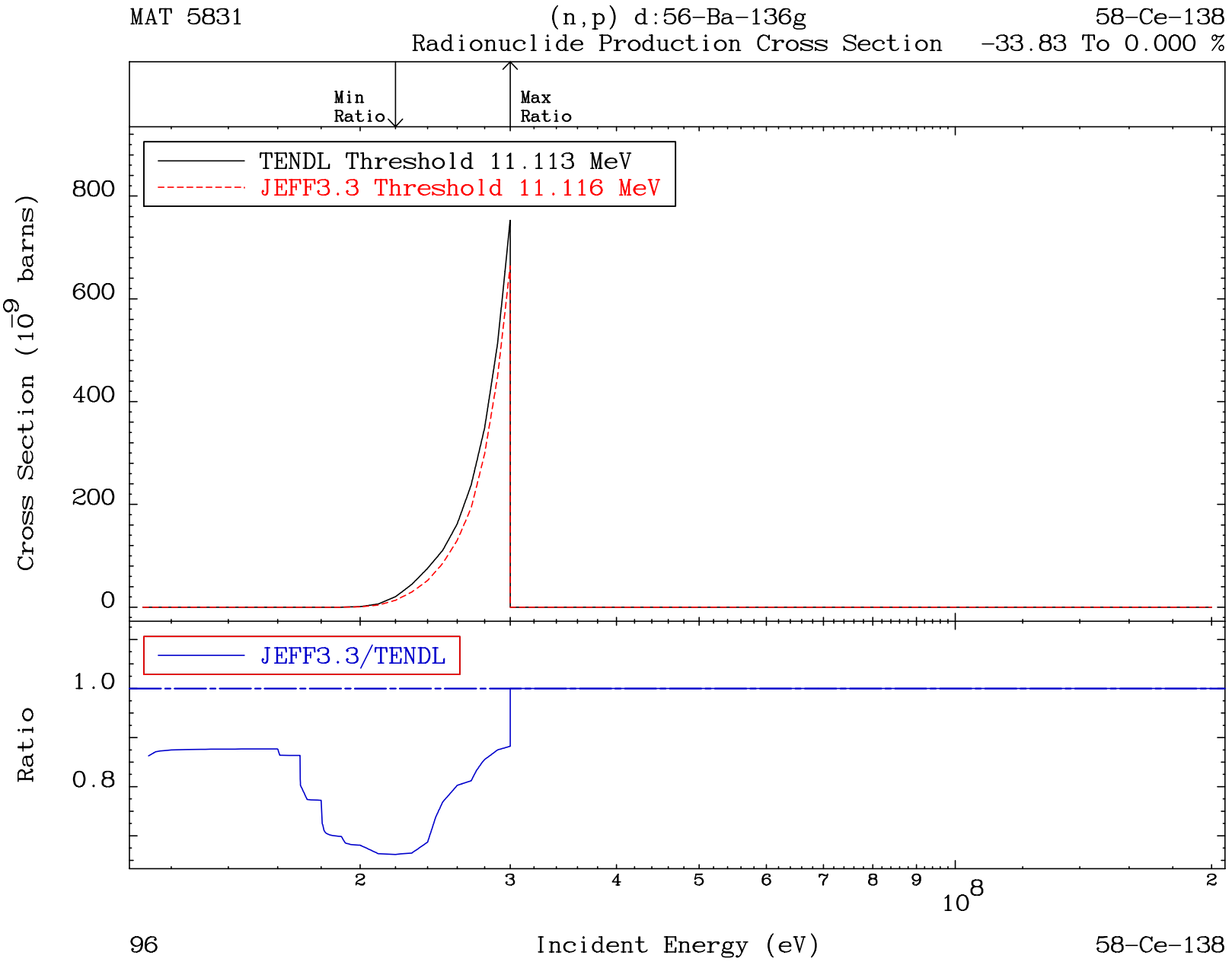

MAT 5831
(n,He-3):56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section -1.273 To 2.999 %
Max Ratio
Min Ratio
TENDL Threshold 12.000 MeV
JEFF3.3 Threshold 12.000 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
58-Ce-138

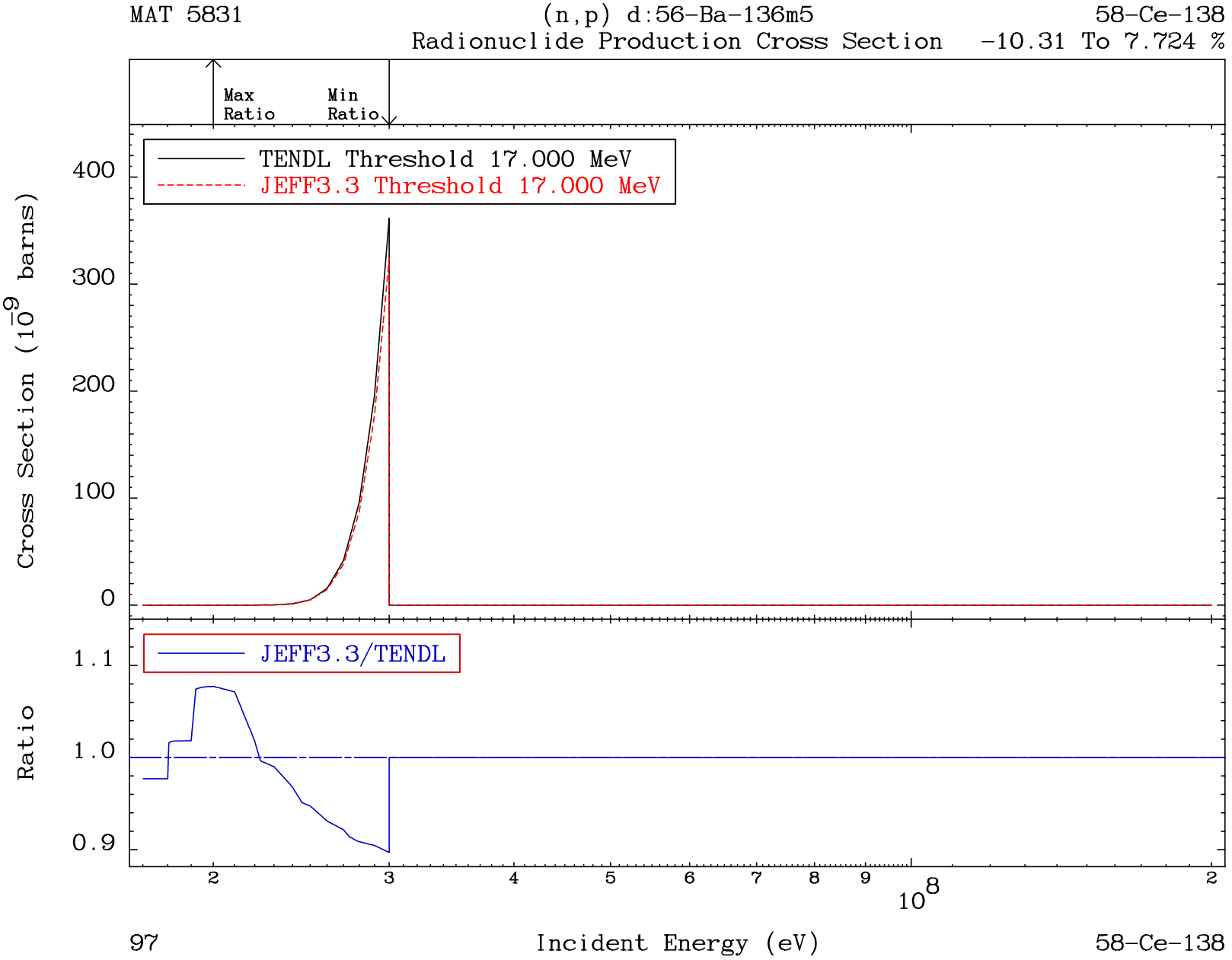

MAT 5831
(n,2p):56-Ba-137g
58-Ce-138
Radionuclide Production Cross Section -22.12 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.3975 MeV
JEFF3.3 Threshold 6.4004 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
92
58-Ce-138

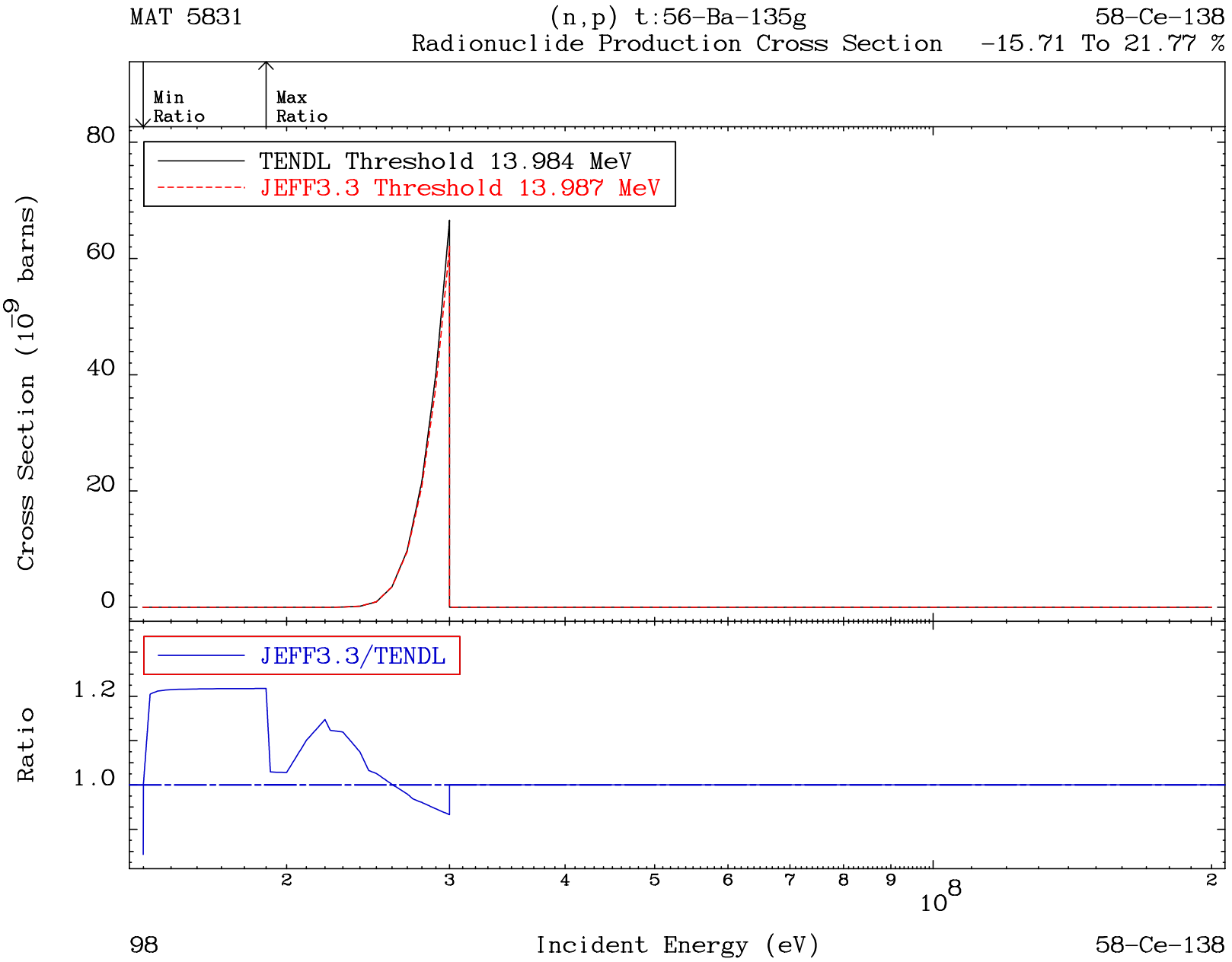

MAT 5831
(n,2p):56-Ba-137m2
58-Ce-138
Radionuclide Production Cross Section
-22.24 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 10.000 MeV
JEFF3.3 Threshold 10.000 MeV
Cross Section (micro-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.0
0.9
0.8
10^7
2
3
4
5
6
7
8
9
10^8
2
93
Incident Energy (eV)
58-Ce-138

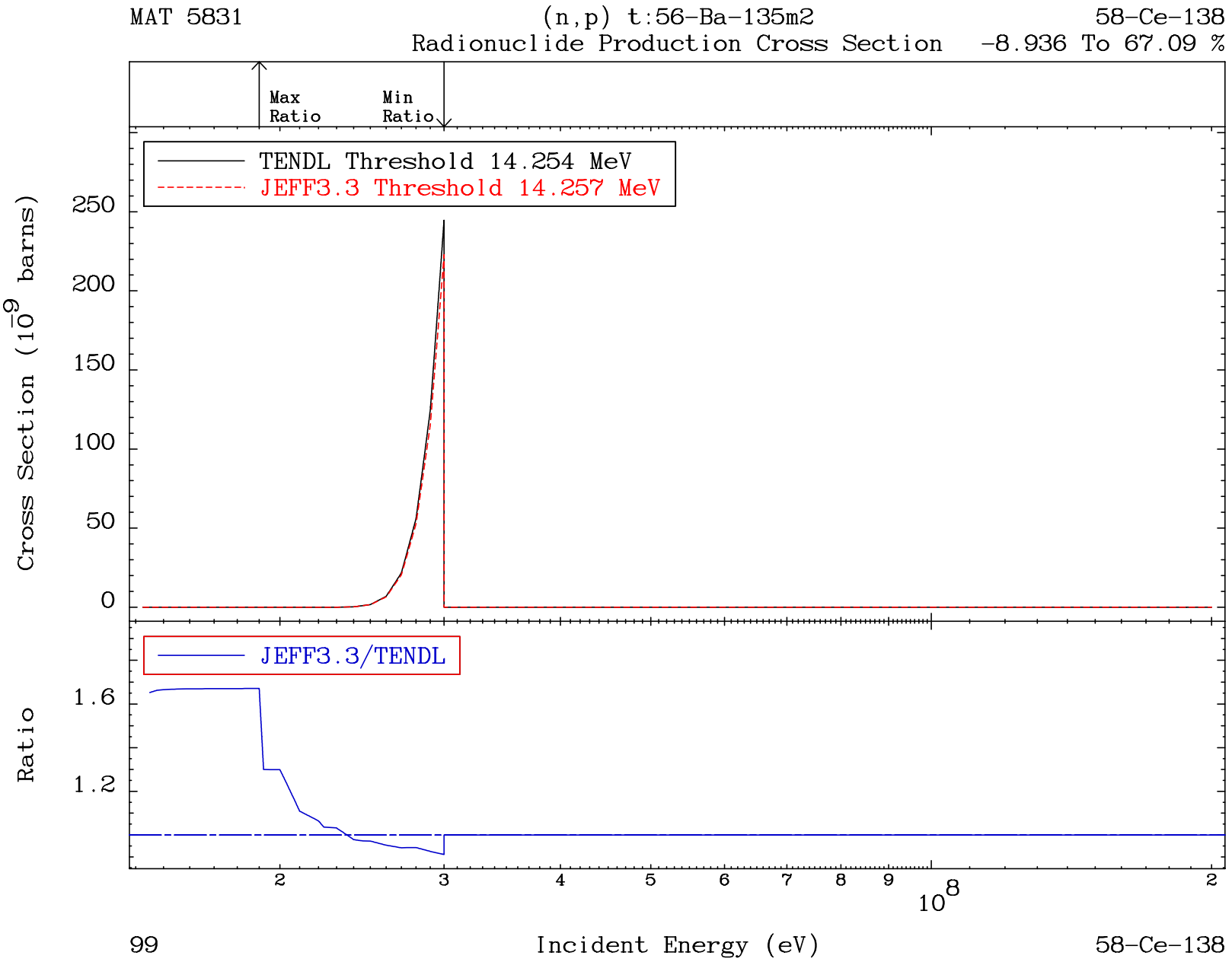

MAT 5831
(n,p) α:55-Cs-134g
58-Ce-138
Radionuclide Production Cross Section -14.24 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.3342 MeV
JEFF3.3 Threshold 9.0000 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
94
58-Ce-138


MAT 5831
(n,p) α:55-Cs-134m3
58-Ce-138
Radionuclide Production Cross Section -4.930 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 10.000 MeV
JEFF3.3 Threshold 9.0000 MeV
Cross Section (micro-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^3
10^2
10^1
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
95
Incident Energy (eV)
58-Ce-138


MAT 5831
(n,p) d:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section
-33.83 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 11.113 MeV
JEFF3.3 Threshold 11.116 MeV
Cross Section (10^{-9} barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.0
0.8
2
3
4
5
6
7
8
9
10^8
2
96
Incident Energy (eV)
58-Ce-138


MAT 5831
(n,p) d:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section -10.31 To 7.724 %
Max Ratio
Min Ratio
TENDL Threshold 17.000 MeV
JEFF3.3 Threshold 17.000 MeV
Cross Section (10^{-9} barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
2
3
4
5
6
7
8
9
10^8
2
97
Incident Energy (eV)
58-Ce-138


MAT 5831
(n,p) t:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section
-15.71 To 21.77 %
Min Ratio
Max Ratio
TENDL Threshold 13.984 MeV
JEFF3.3 Threshold 13.987 MeV
Cross Section (10^{-9} barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.2
1.0
2
3
4
5
6
7
8
9
10^8
2
98
Incident Energy (eV)
58-Ce-138


MAT 5831
(n,p) t:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section
-8.936 To 67.09 %
Max Ratio
Min Ratio
TENDL Threshold 14.254 MeV
JEFF3.3 Threshold 14.257 MeV
Cross Section (10^{-9} barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
99
Incident Energy (eV)
58-Ce-138