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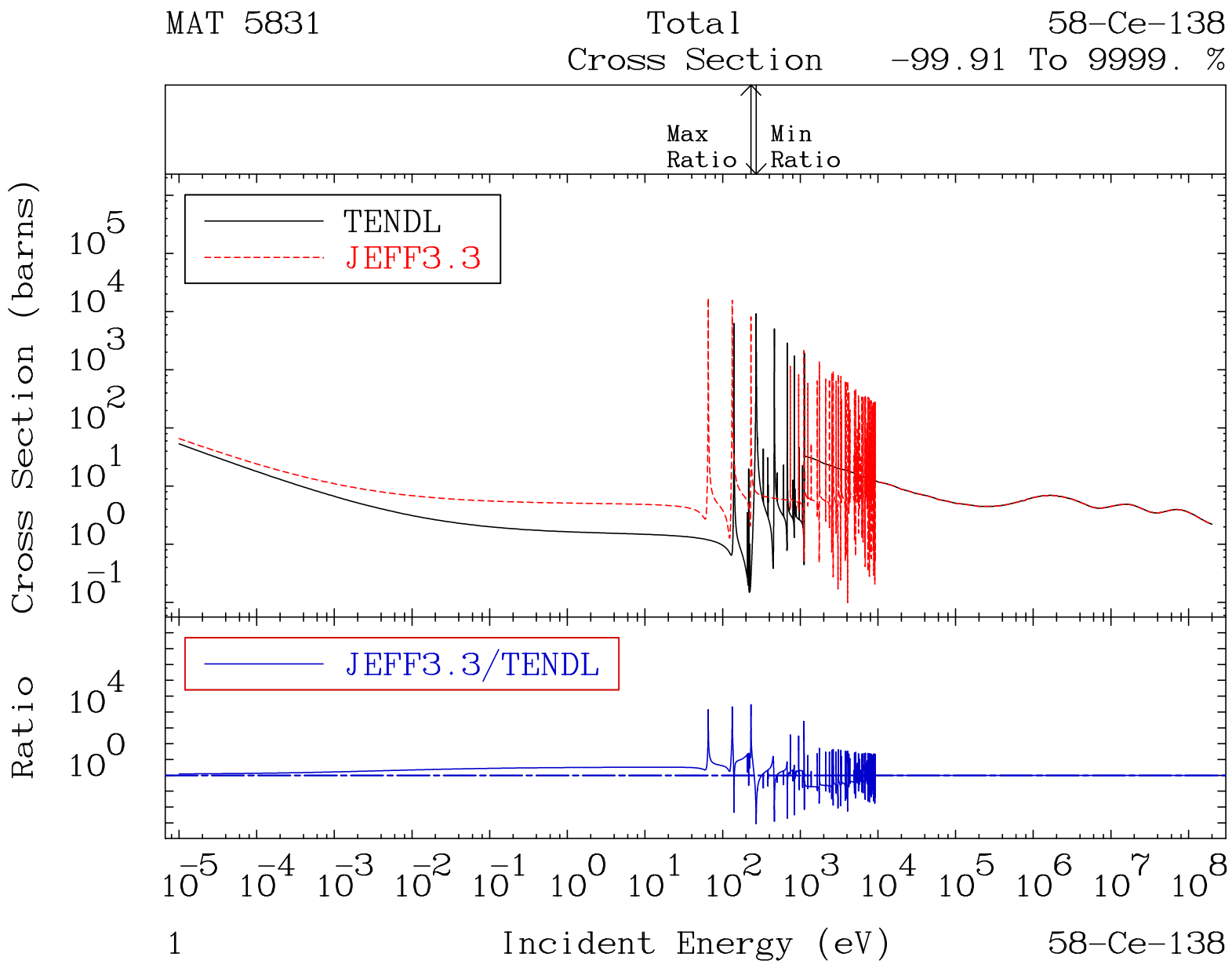
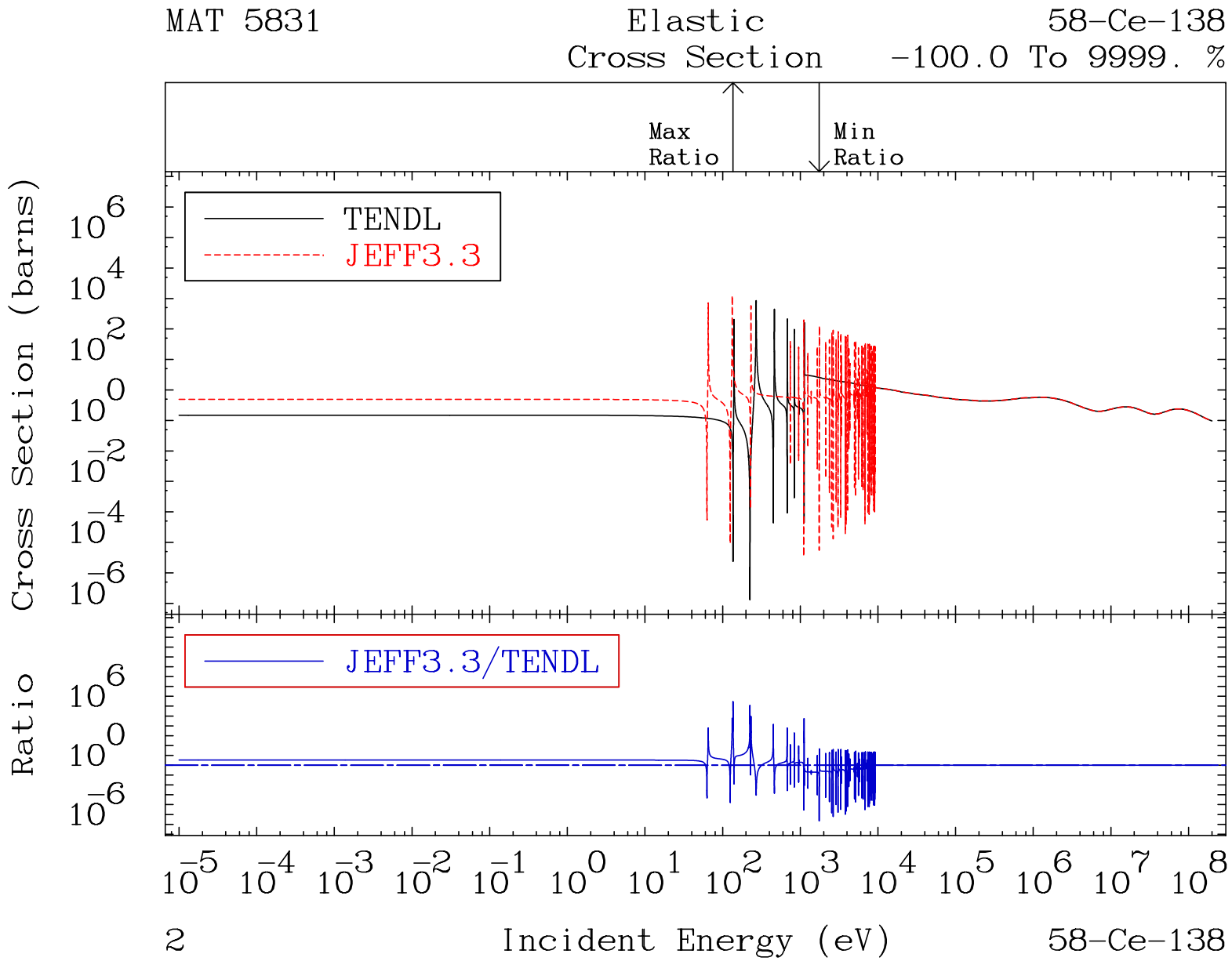
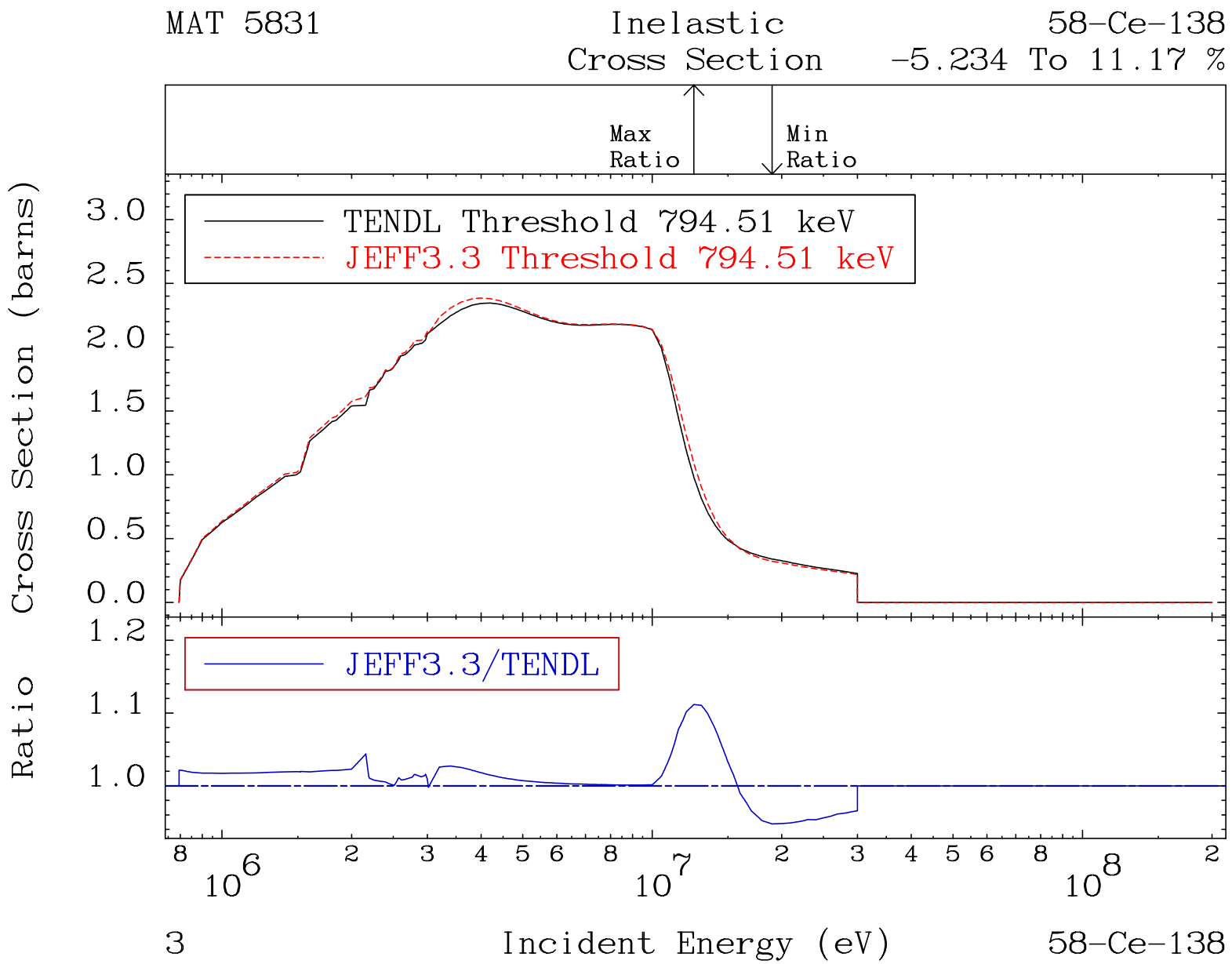
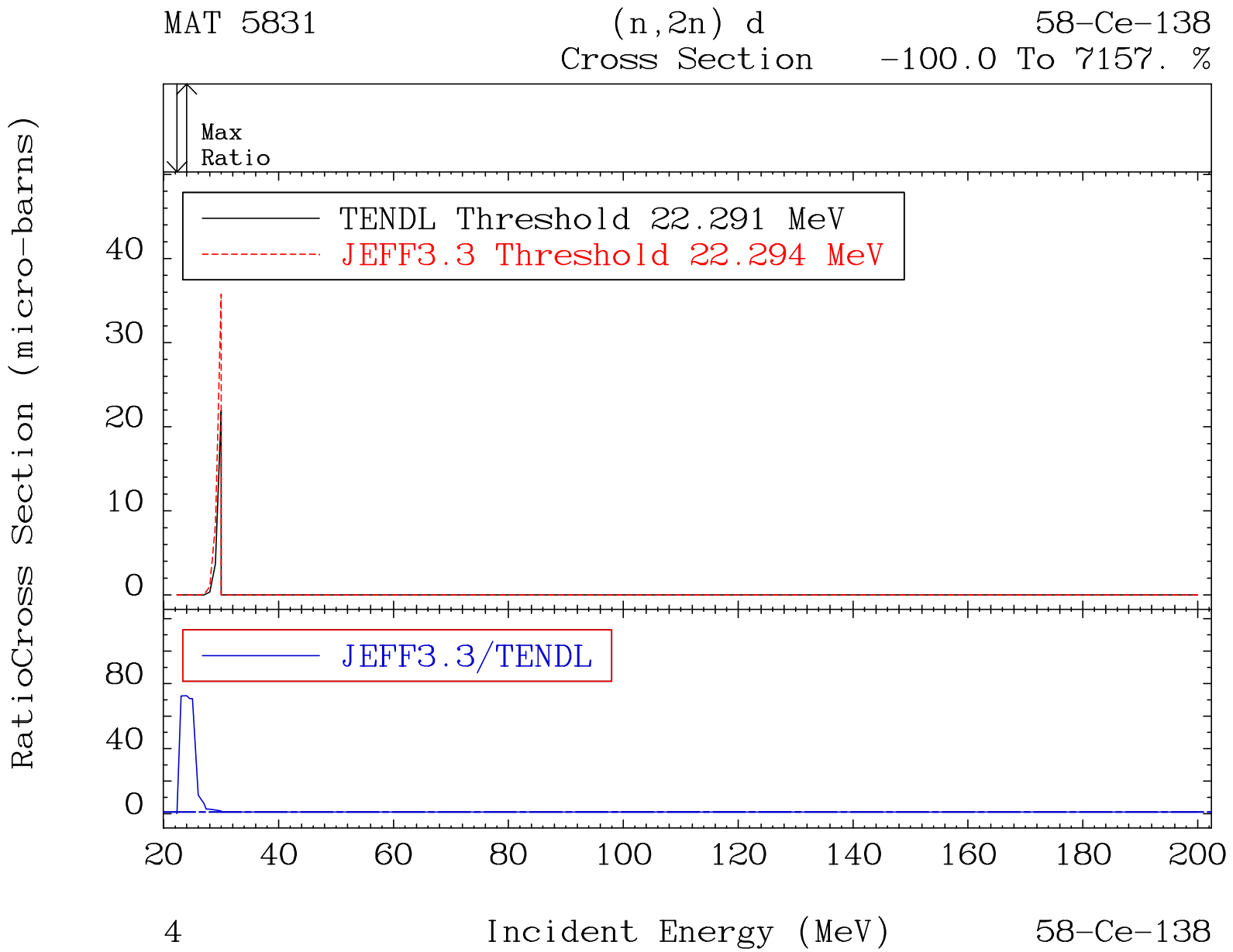
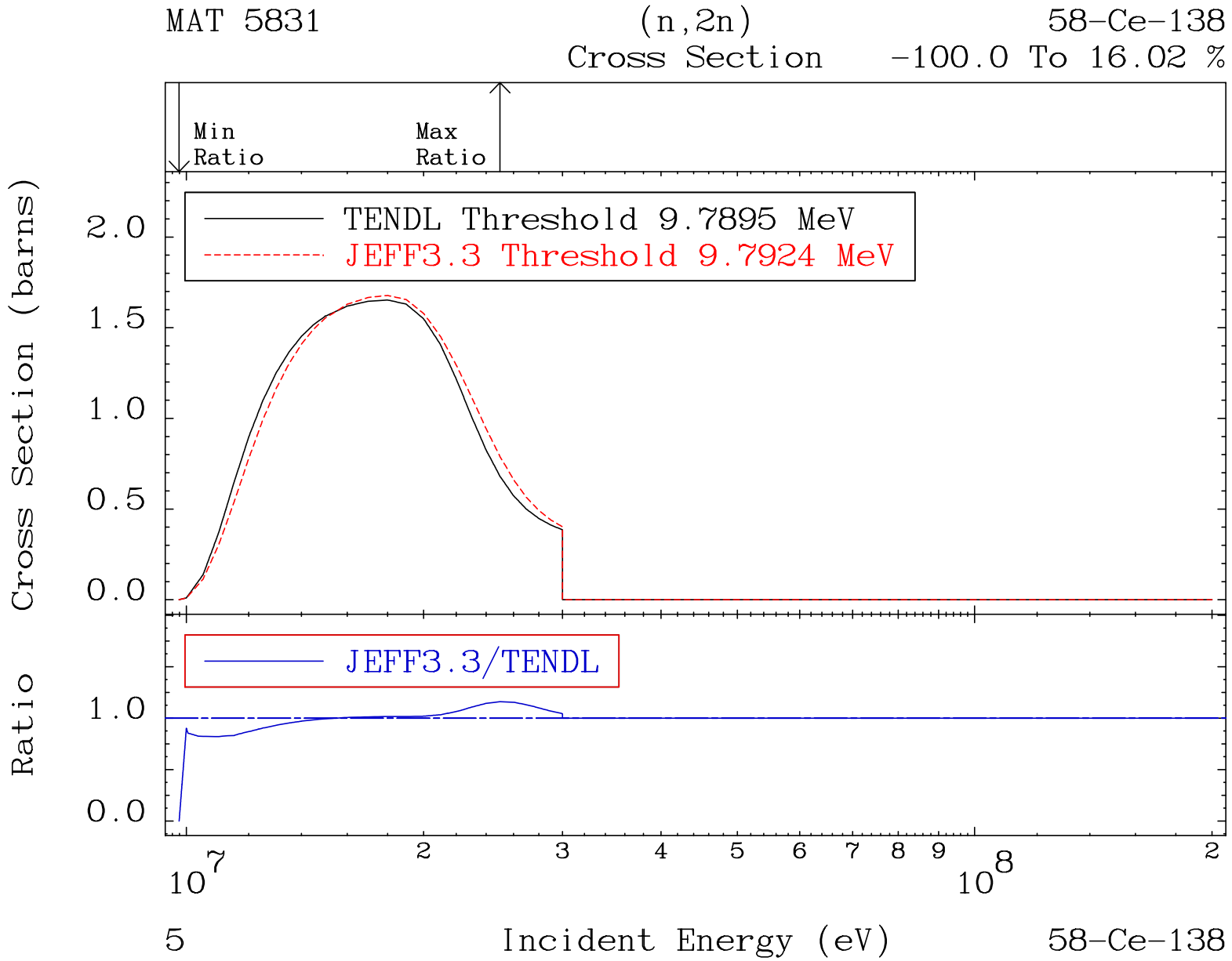
Press Mouse Button to Start

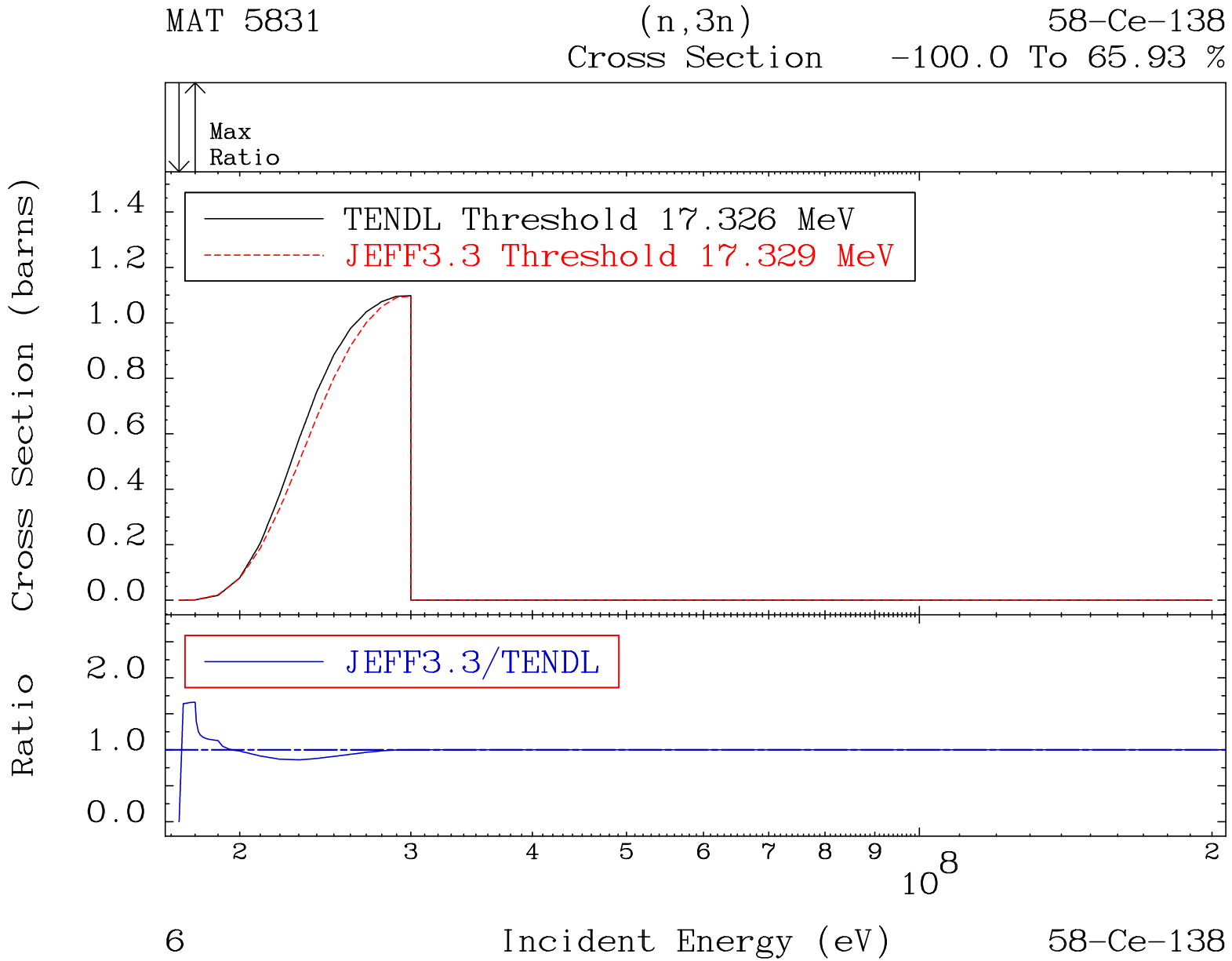

MAT 5831
Total
Cross Section
58-Ce-138
-99.91 To 9999. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
58-Ce-138

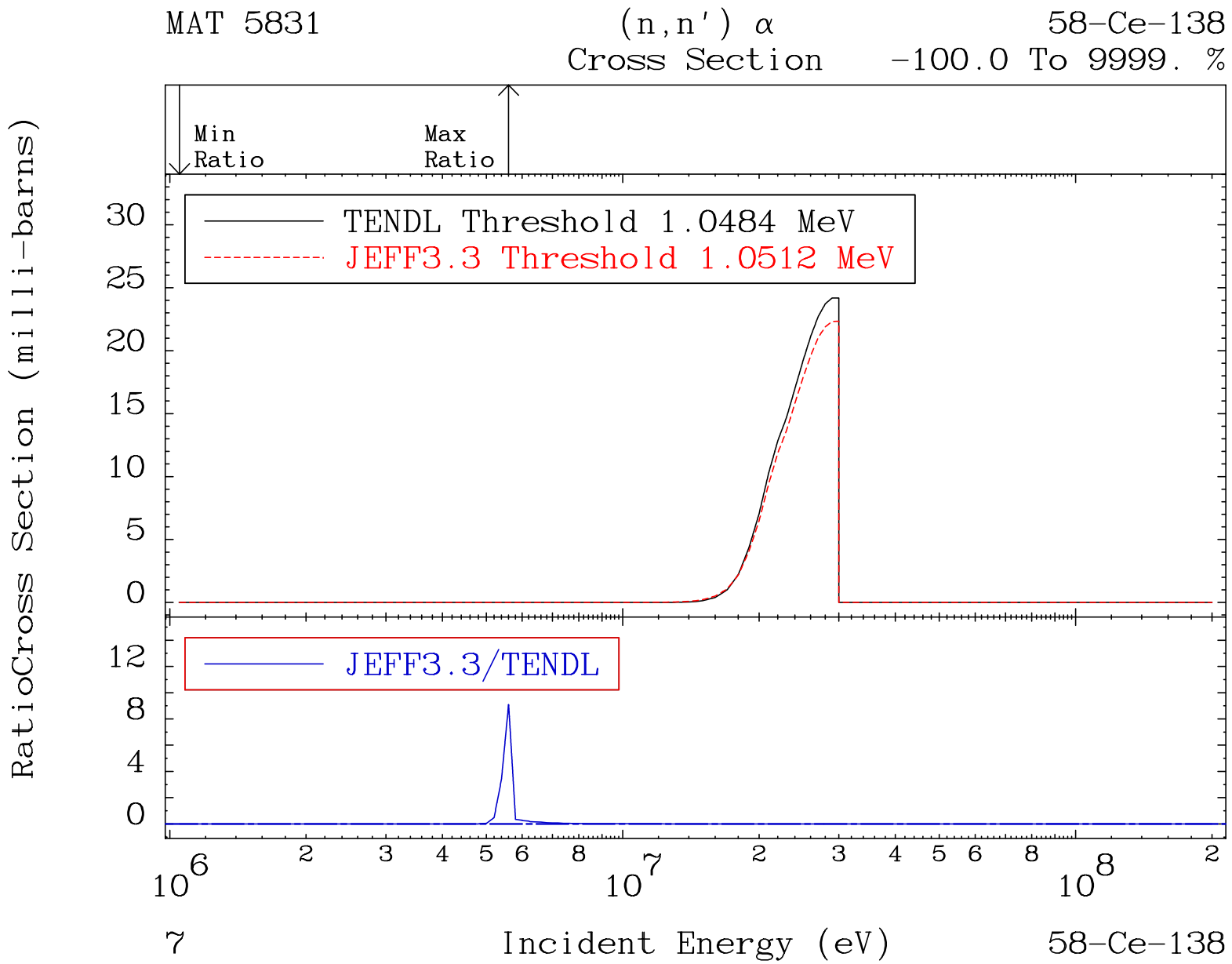

MAT 5831
Elastic
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
2
58-Ce-138

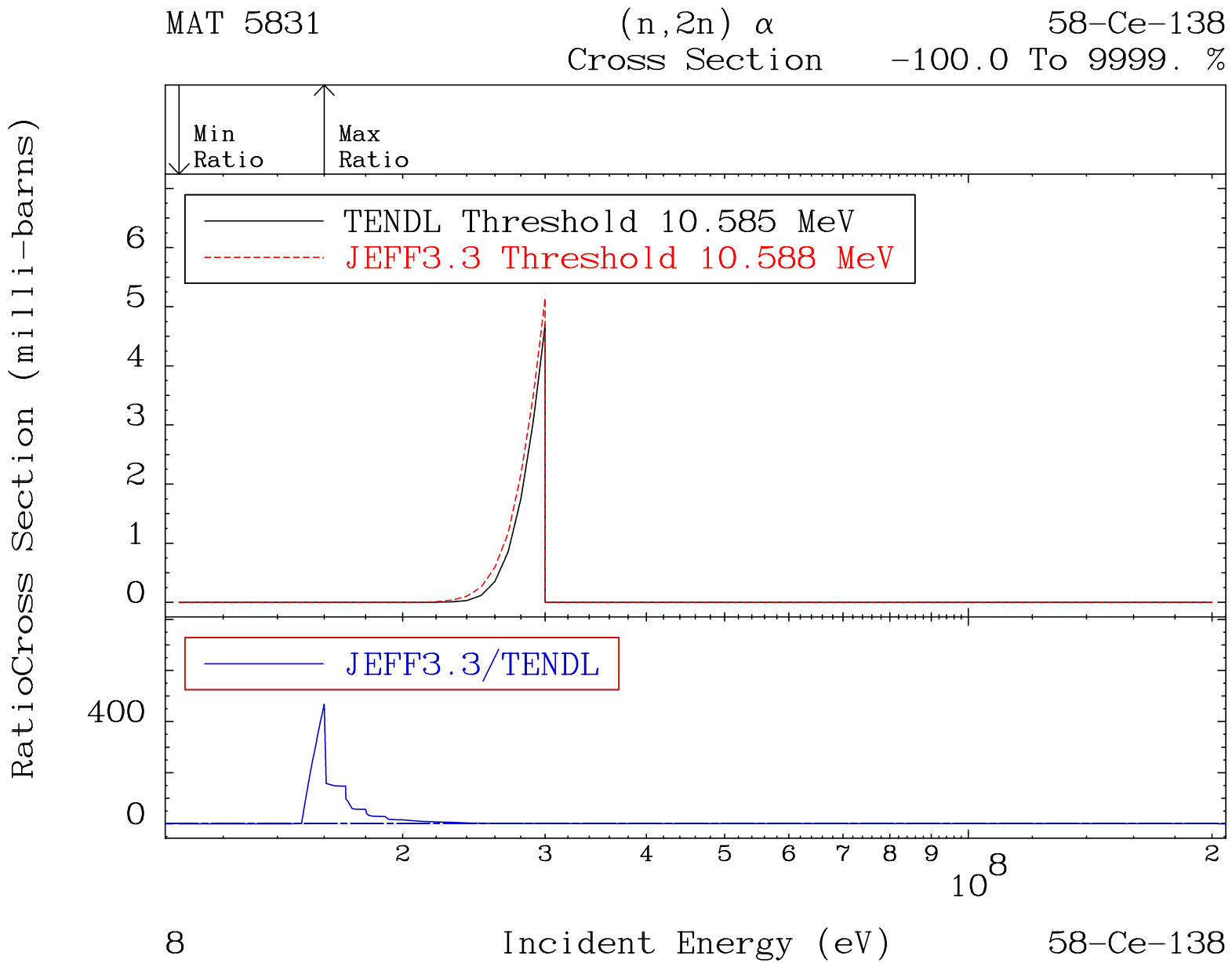

MAT 5831
Inelastic
Cross Section
58-Ce-138
-5.234 To 11.17 %
Max
Ratio
Min
Ratio
TENDL Threshold 794.51 keV
JEFF3.3 Threshold 794.51 keV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
3
58-Ce-138

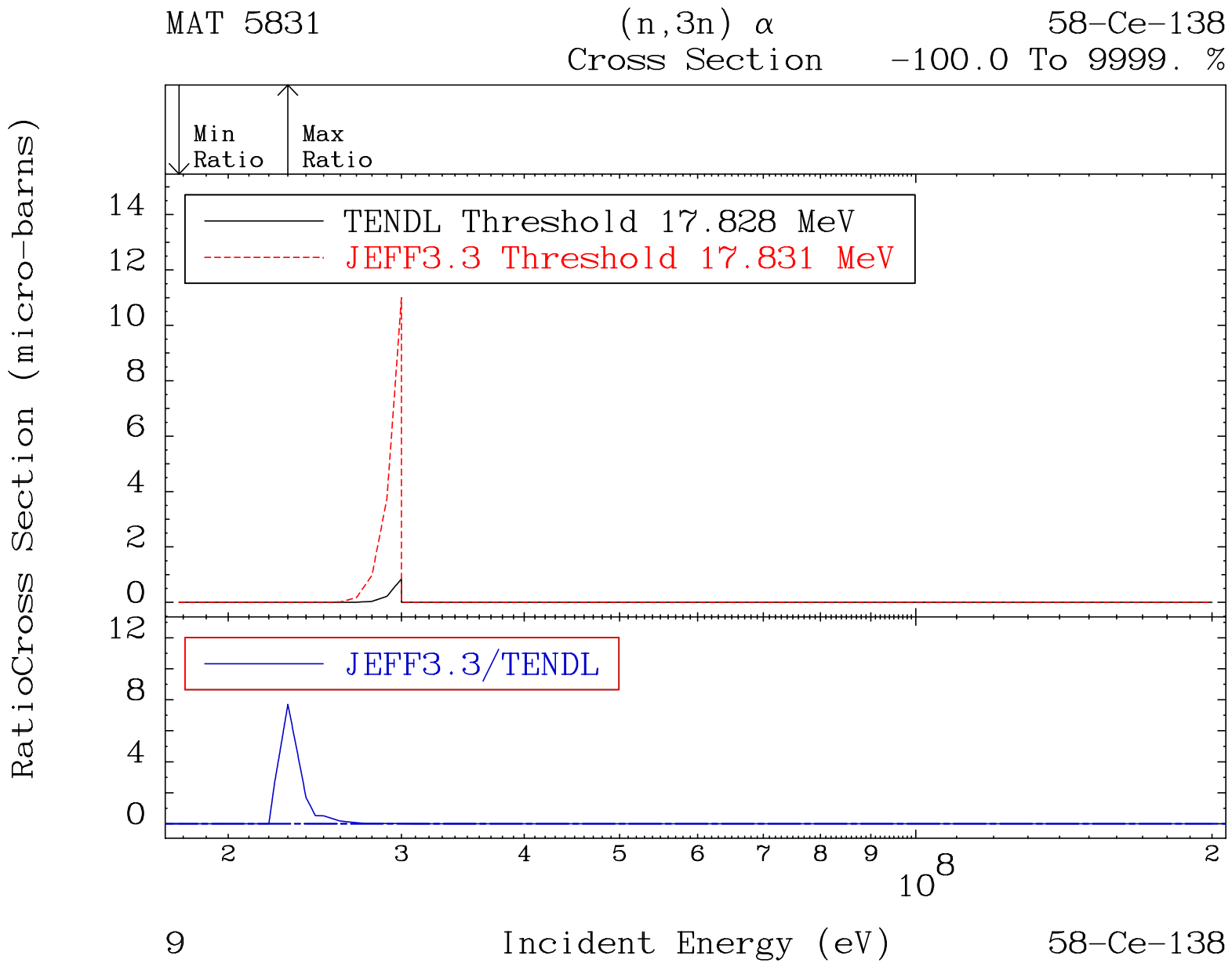

MAT 5831
(n,2n) d
58-Ce-138
Cross Section
-100.0 To 7157. %
Max
Ratio
TENDL Threshold 22.291 MeV
JEFF3.3 Threshold 22.294 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
40
30
20
10
0
80
40
0
20
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
58-Ce-138

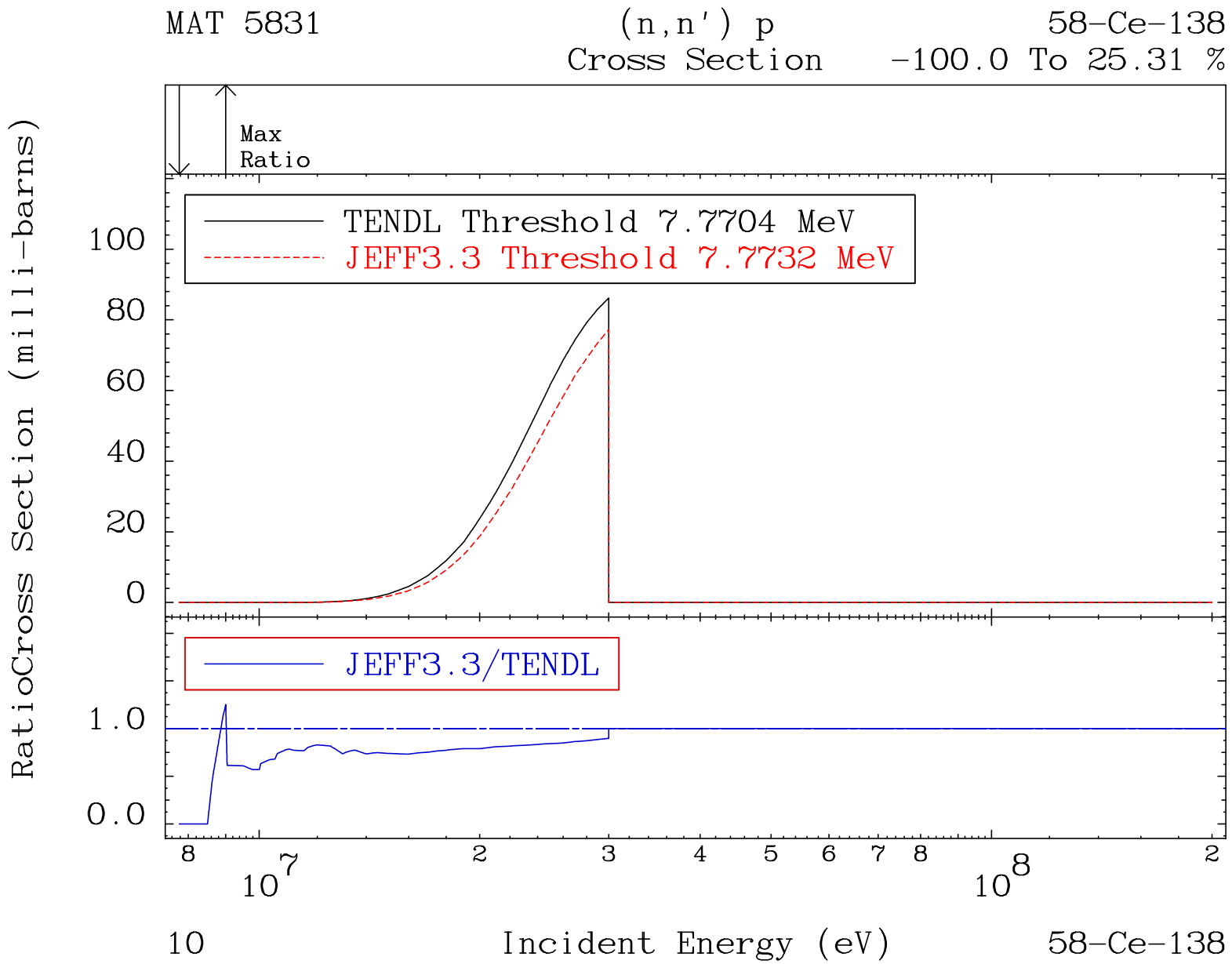

MAT 5831
(n,2n)
Cross Section
58-Ce-138
-100.0 To 16.02 %
Min Ratio
Max Ratio
TENDL Threshold 9.7895 MeV
JEFF3.3 Threshold 9.7924 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
2.0
1.5
1.0
0.5
0.0
1.0
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
58-Ce-138

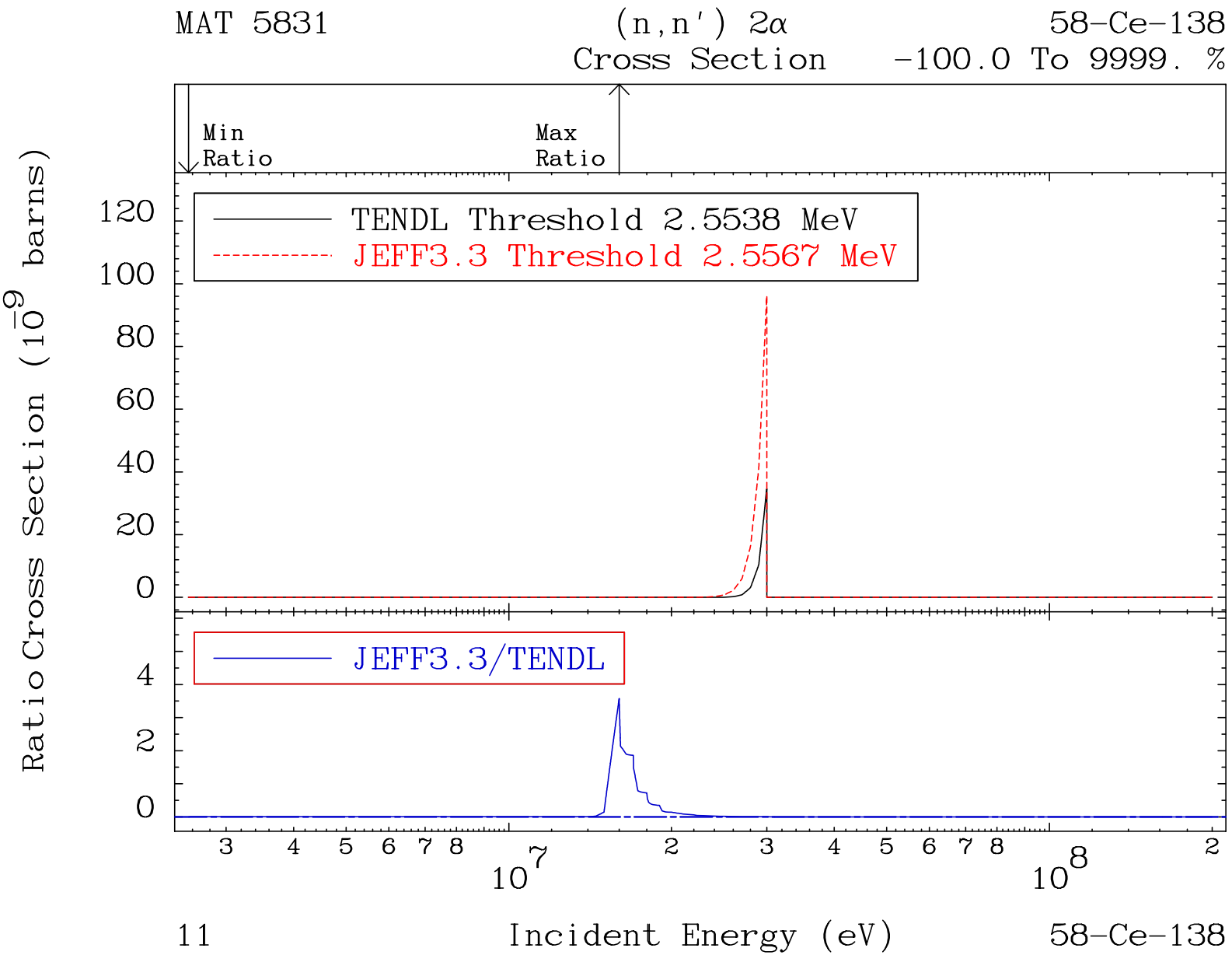

MAT 5831
(n,3n)
Cross Section
58-Ce-138
-100.0 To 65.93 %
Max
Ratio
TENDL Threshold 17.326 MeV
JEFF3.3 Threshold 17.329 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
58-Ce-138

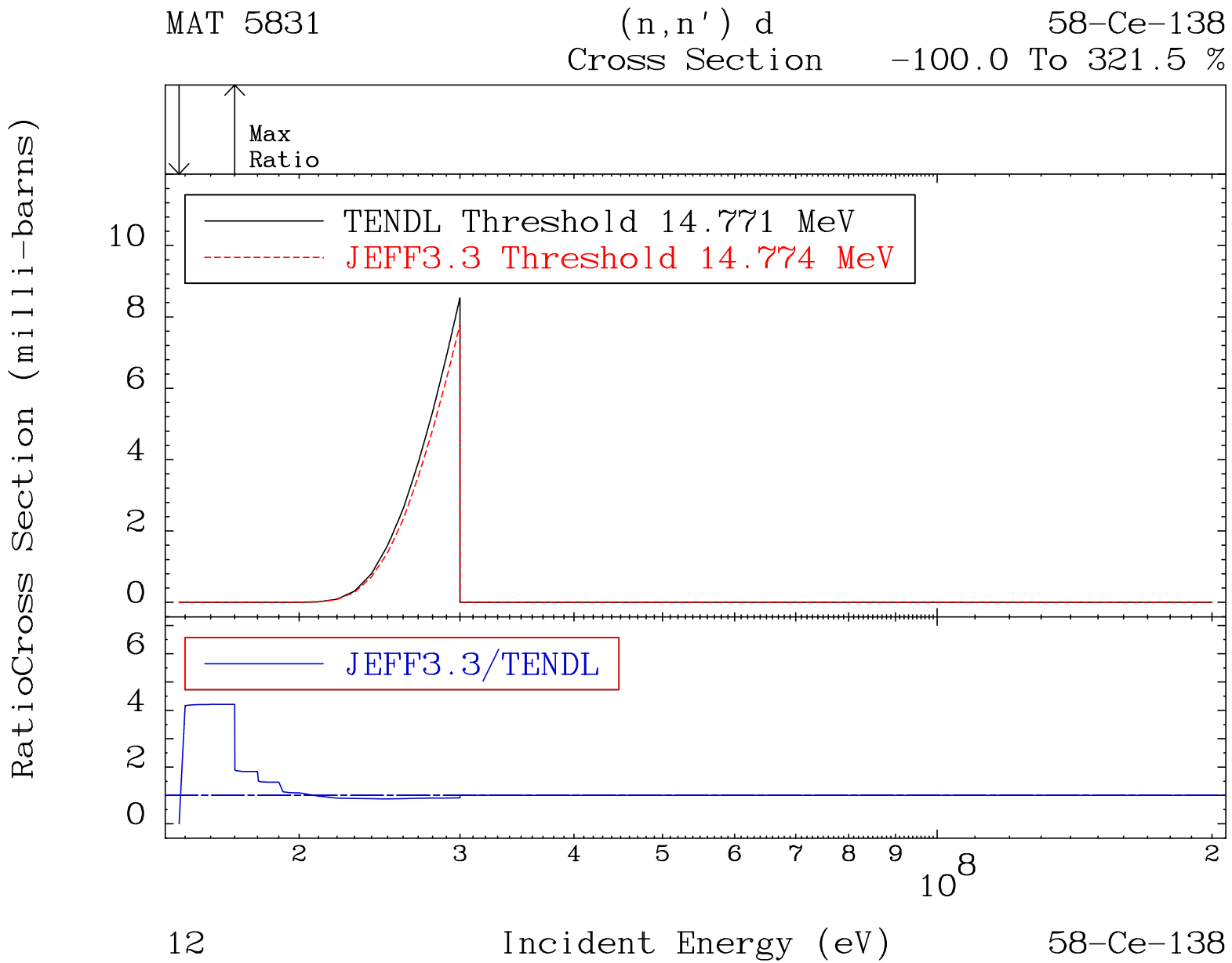

MAT 5831
(n,n') α
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.0484 MeV
JEFF3.3 Threshold 1.0512 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
12
8
4
0
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
7
Incident Energy (eV)
58-Ce-138

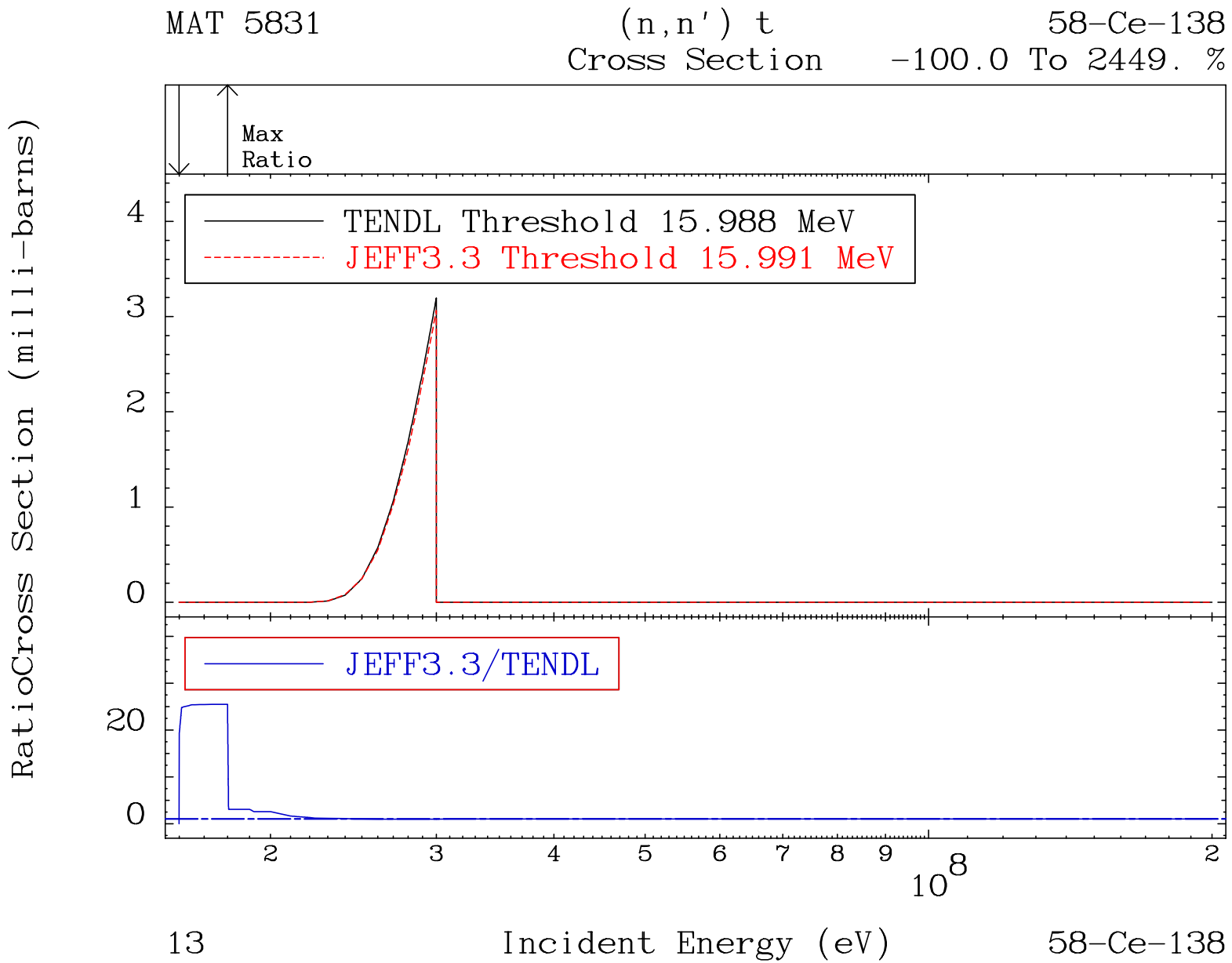

MAT 5831
(n,2n) α
58-Ce-138
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.585 MeV
JEFF3.3 Threshold 10.588 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
6
5
4
3
2
1
0
400
0
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
58-Ce-138

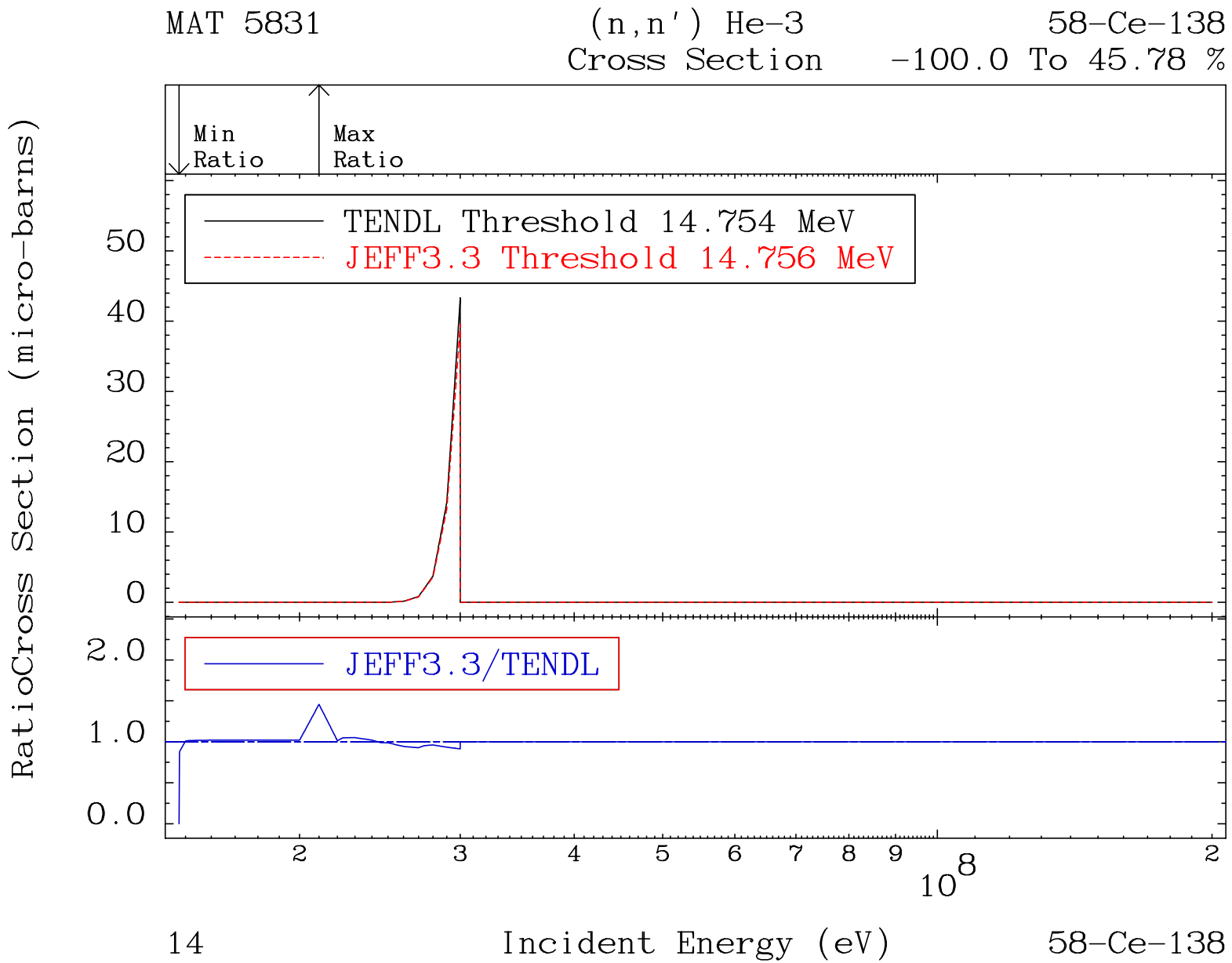

MAT 5831
(n,3n) α
58-Ce-138
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 17.828 MeV
JEFF3.3 Threshold 17.831 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
14
12
10
8
6
4
2
0
12
8
4
0
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
58-Ce-138

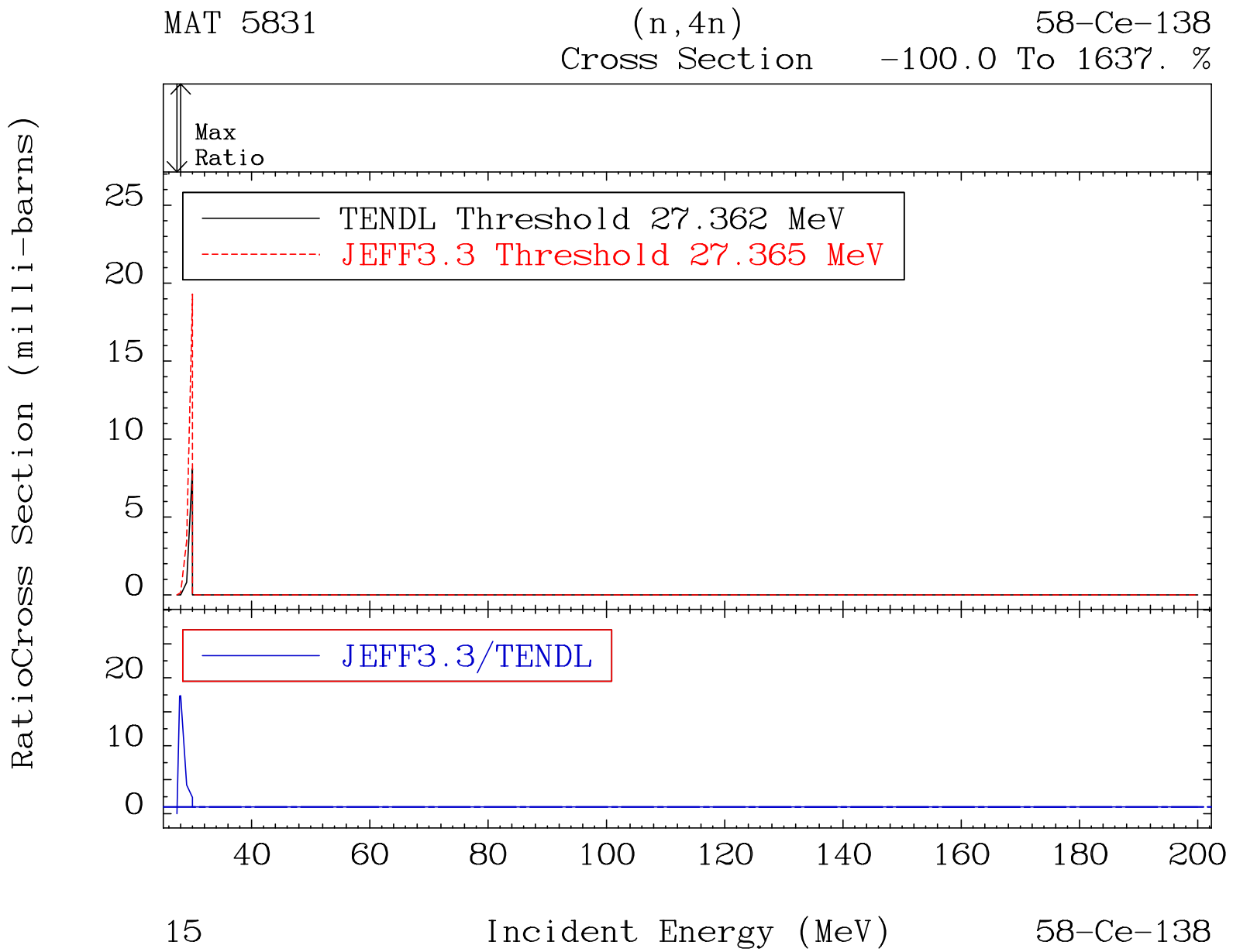

MAT 5831
(n,n') p
Cross Section
58-Ce-138
-100.0 To 25.31 %
Max
Ratio
TENDL Threshold 7.7704 MeV
JEFF3.3 Threshold 7.7732 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
1.0
0.0
8
2
3
4
5
6
7
8
2
10^7
10^8
10
Incident Energy (eV)
58-Ce-138

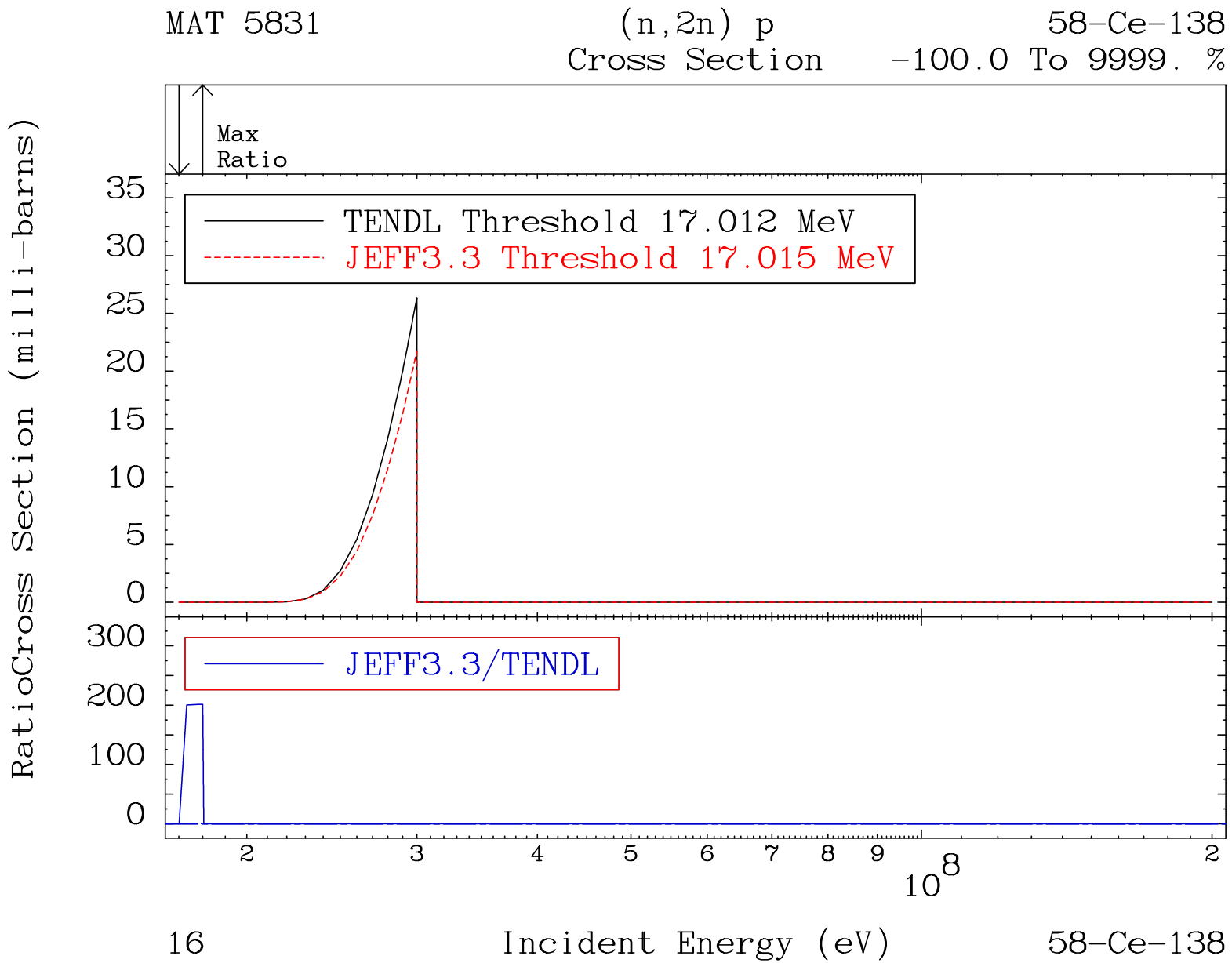

MAT 5831
(n,n') 2α
58-Ce-138
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.5538 MeV
JEFF3.3 Threshold 2.5567 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^-9 barns)
120
100
80
60
40
20
0
4
2
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
58-Ce-138

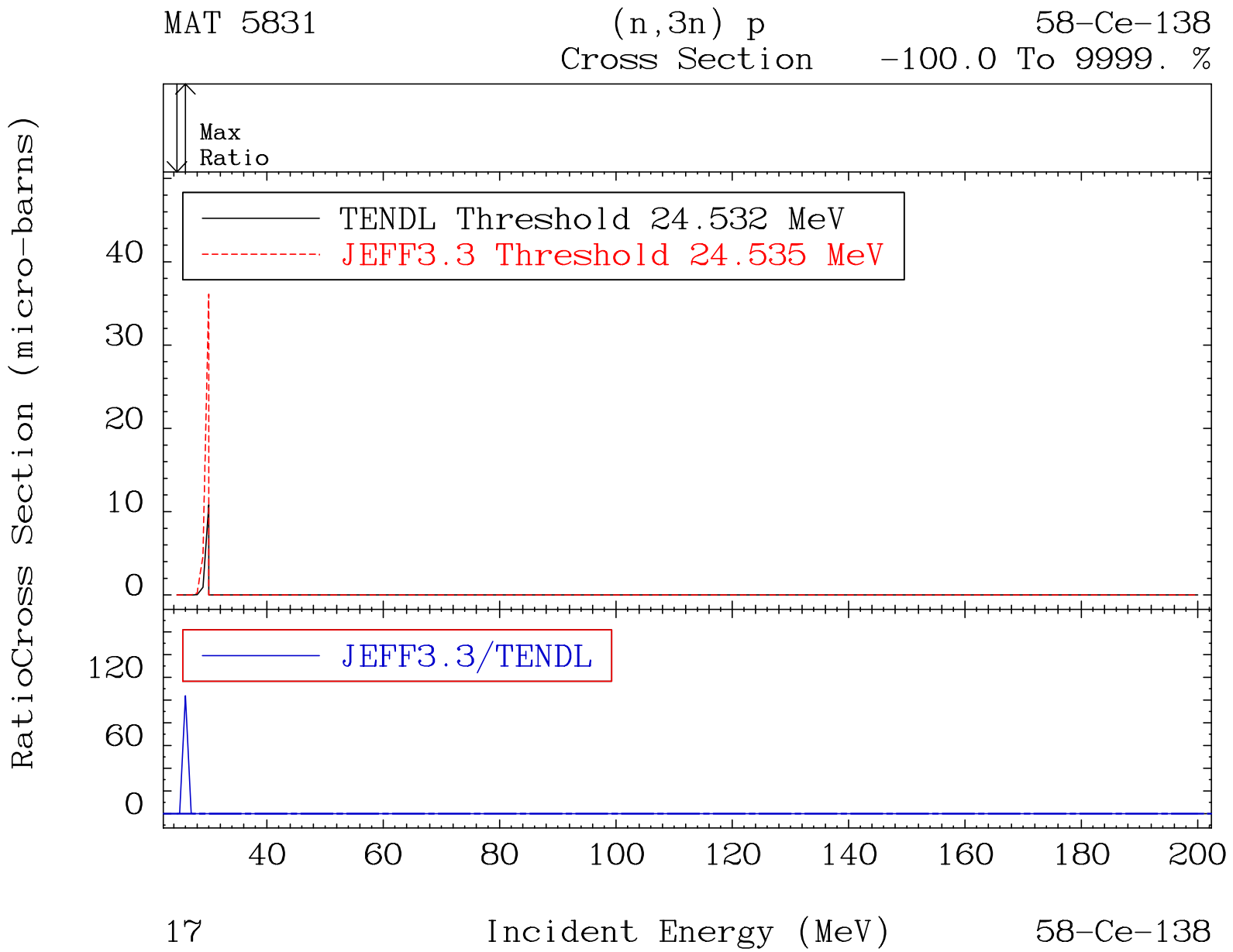

MAT 5831
(n,n') d
Cross Section
58-Ce-138
-100.0 To 321.5 %
Max
Ratio
TENDL Threshold 14.771 MeV
JEFF3.3 Threshold 14.774 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
10
8
6
4
2
0
6
4
2
0
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
58-Ce-138

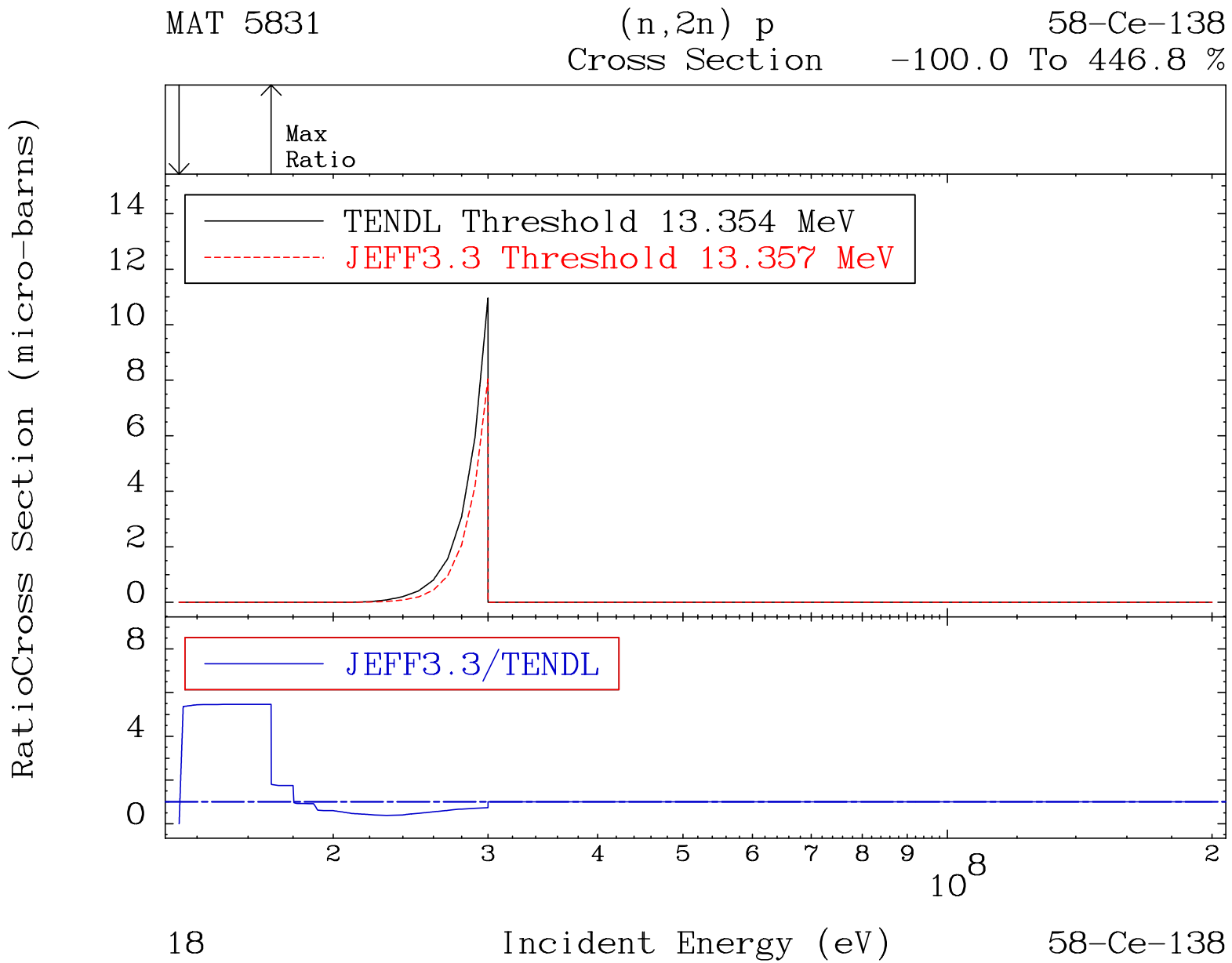

MAT 5831
(n,n') t
Cross Section
58-Ce-138
-100.0 To 2449. %
Max
Ratio
TENDL Threshold 15.988 MeV
JEFF3.3 Threshold 15.991 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
4
3
2
1
0
20
0
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
58-Ce-138

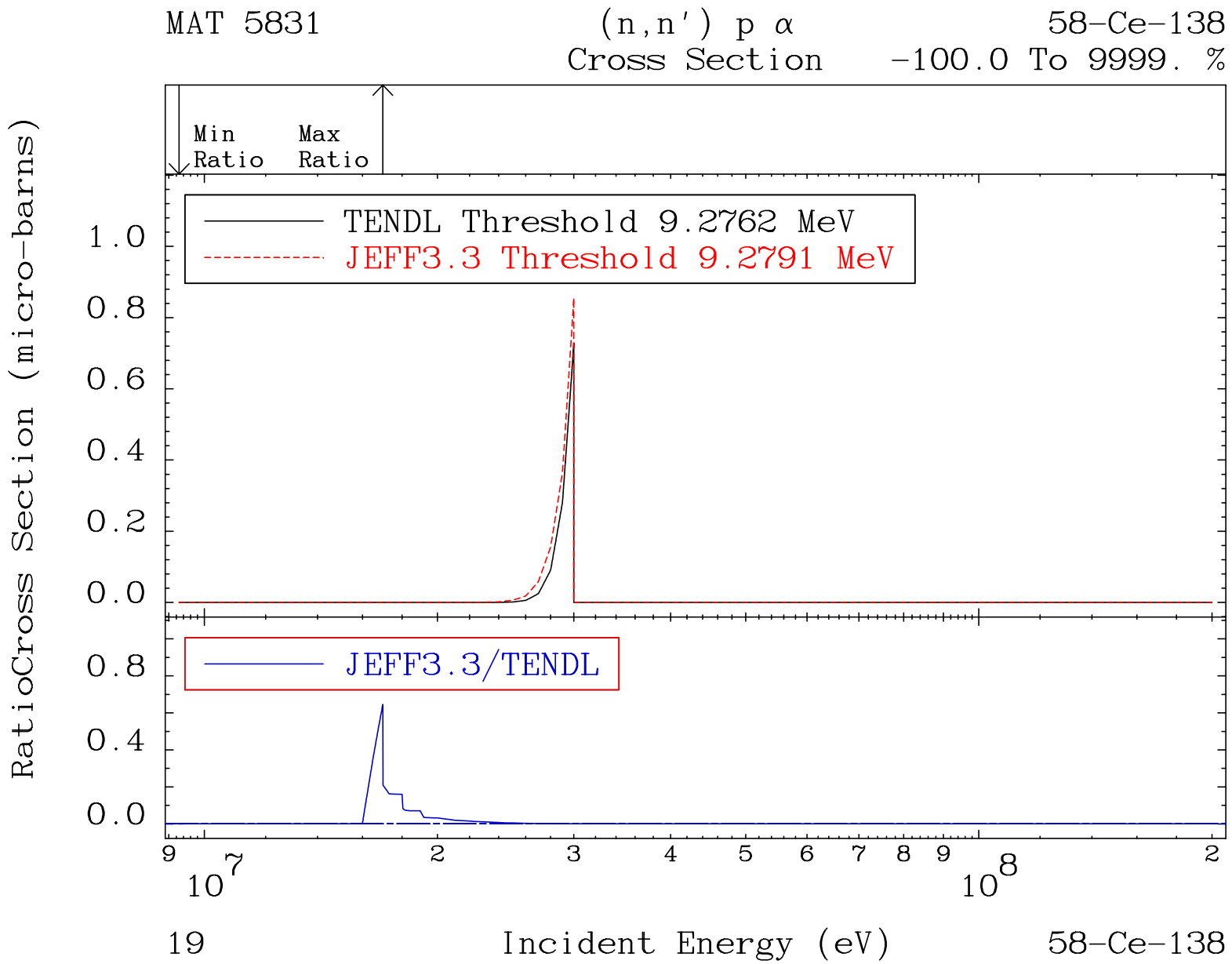

MAT 5831
(n,n') He-3
Cross Section
58-Ce-138
-100.0 To 45.78 %
Min Ratio
Max Ratio
TENDL Threshold 14.754 MeV
JEFF3.3 Threshold 14.756 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
50
40
30
20
10
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
58-Ce-138

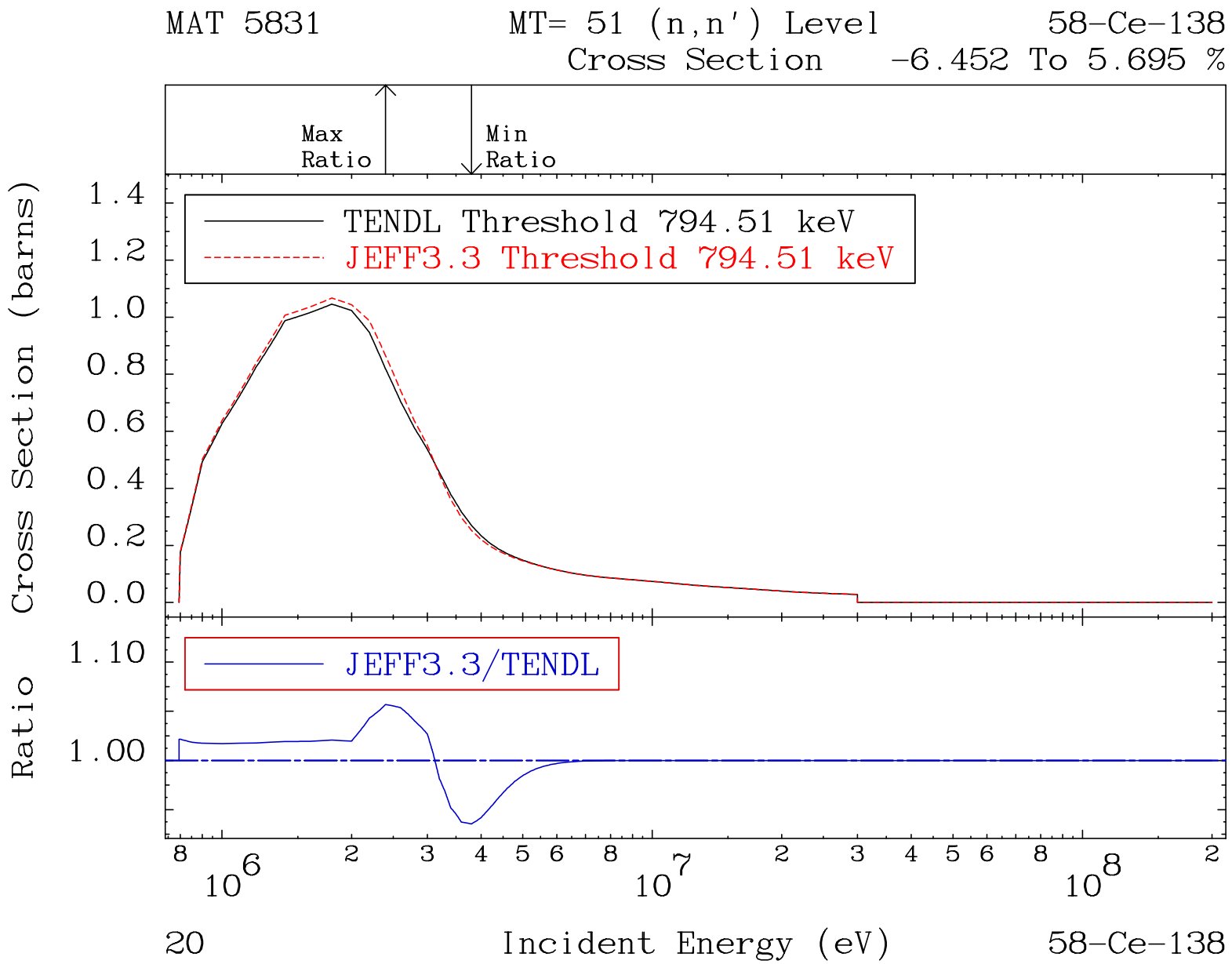

MAT 5831
(n,4n)
58-Ce-138
Cross Section
-100.0 To 1637. %
Max
Ratio
TENDL Threshold 27.362 MeV
JEFF3.3 Threshold 27.365 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
20
10
0
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
58-Ce-138

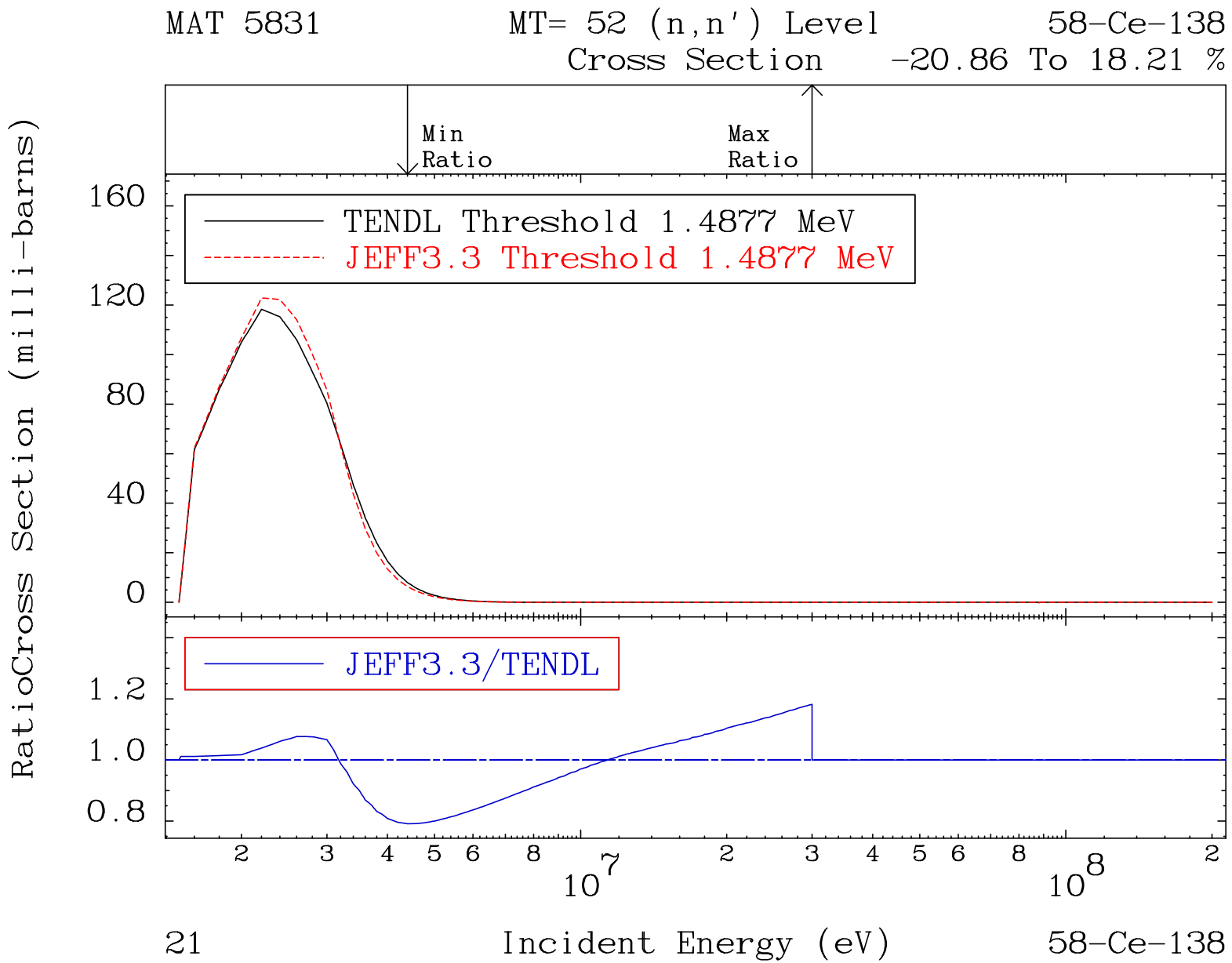

MAT 5831
(n,2n) p
Cross Section
58-Ce-138
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 17.012 MeV
JEFF3.3 Threshold 17.015 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
35
30
25
20
15
10
5
0
300
200
100
0
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
58-Ce-138

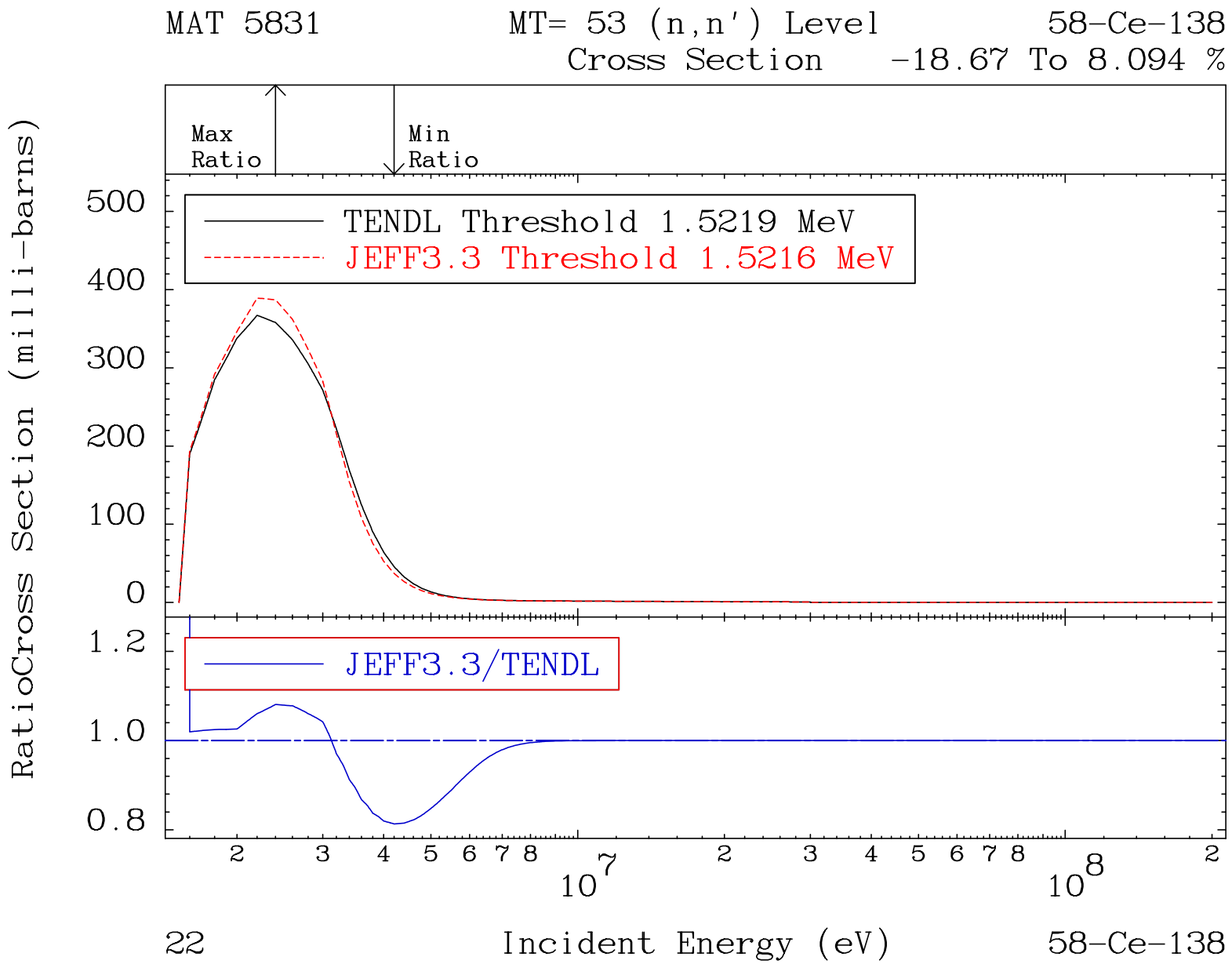

MAT 5831
(n,3n) p
Cross Section
58-Ce-138
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 24.532 MeV
JEFF3.3 Threshold 24.535 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
40
30
20
10
0
120
60
0
40
60
80
100
120
140
160
180
200
17
Incident Energy (MeV)
58-Ce-138

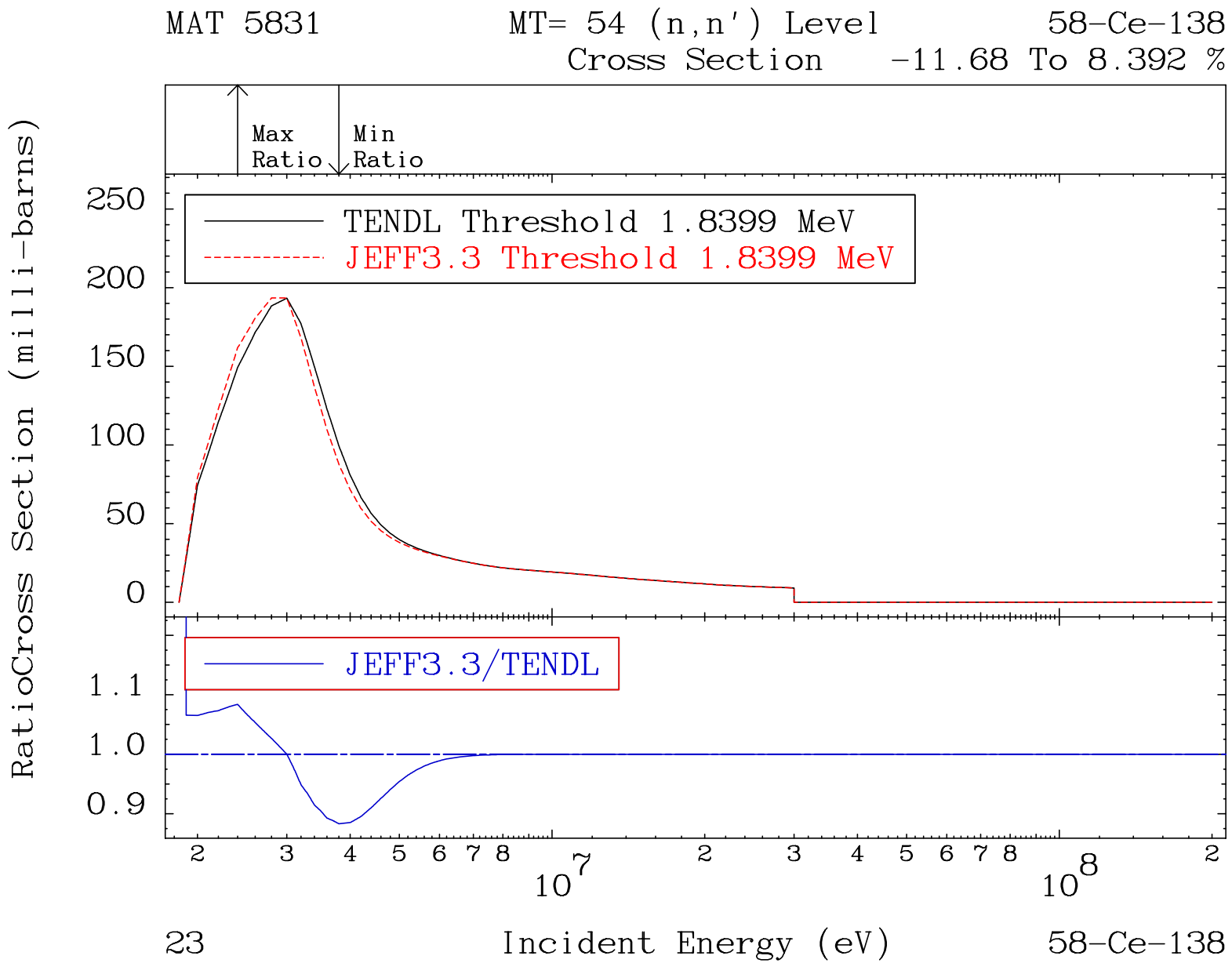

MAT 5831
(n,2n) p
Cross Section
58-Ce-138
-100.0 To 446.8 %
Max
Ratio
TENDL Threshold 13.354 MeV
JEFF3.3 Threshold 13.357 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
18
58-Ce-138

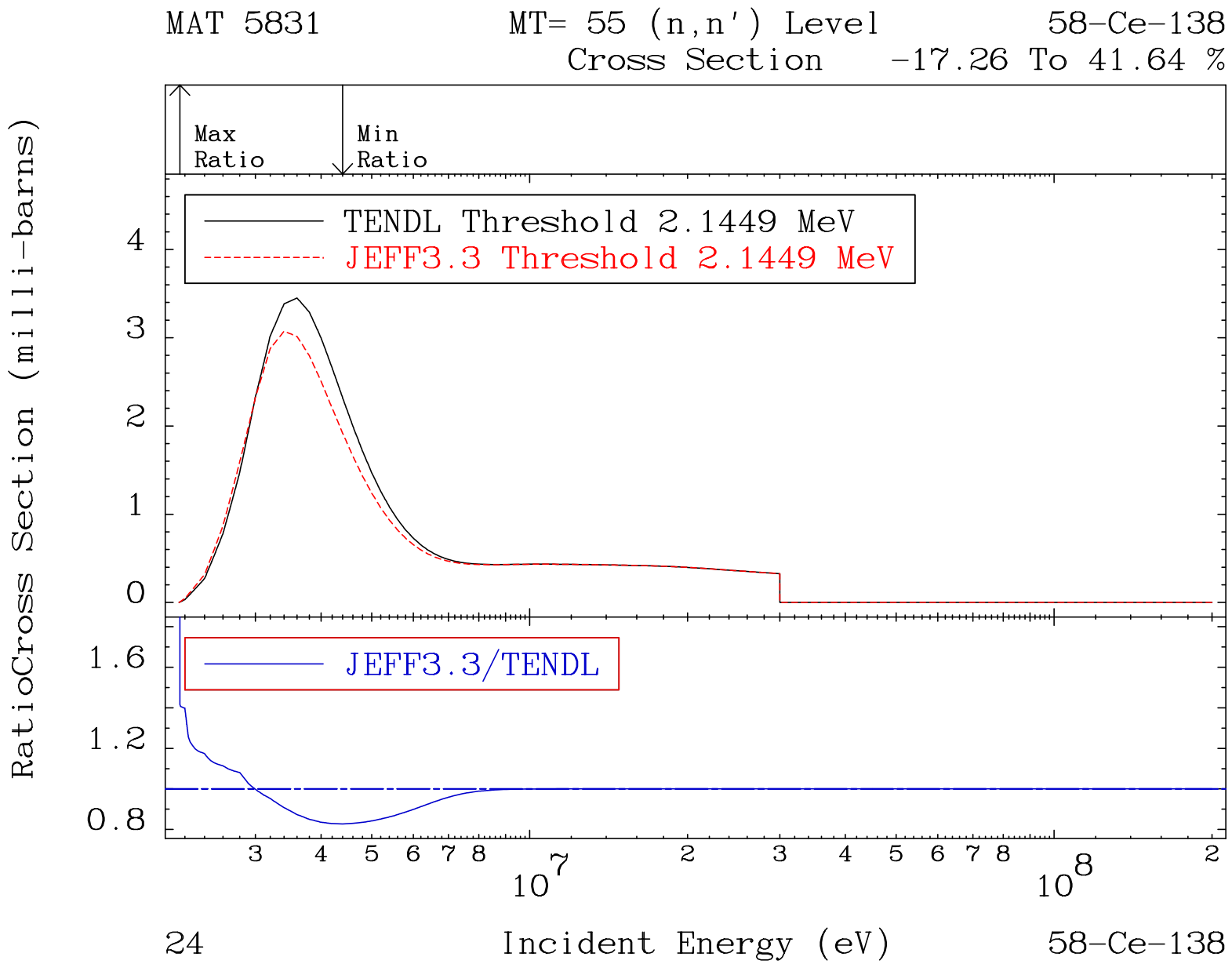

MAT 5831
(n,n') p α
58-Ce-138
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 9.2762 MeV
JEFF3.3 Threshold 9.2791 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
0.8
0.4
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
19
Incident Energy (eV)
58-Ce-138

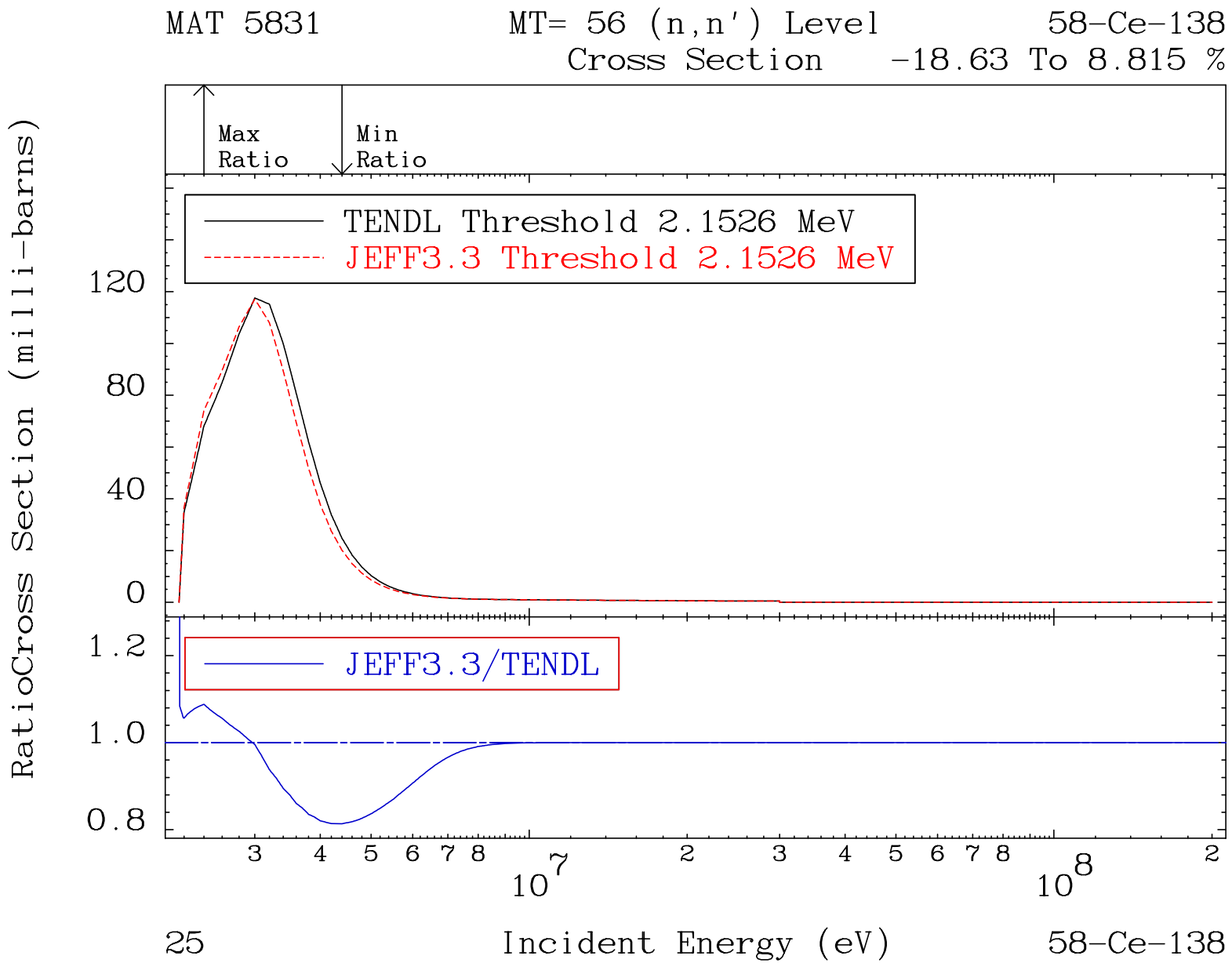

MAT 5831
MT= 51 (n,n') Level
58-Ce-138
Cross Section
-6.452 To 5.695 %
Max Ratio
Min Ratio
TENDL Threshold 794.51 keV
JEFF3.3 Threshold 794.51 keV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
1.10
1.00
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
20
Incident Energy (eV)
58-Ce-138

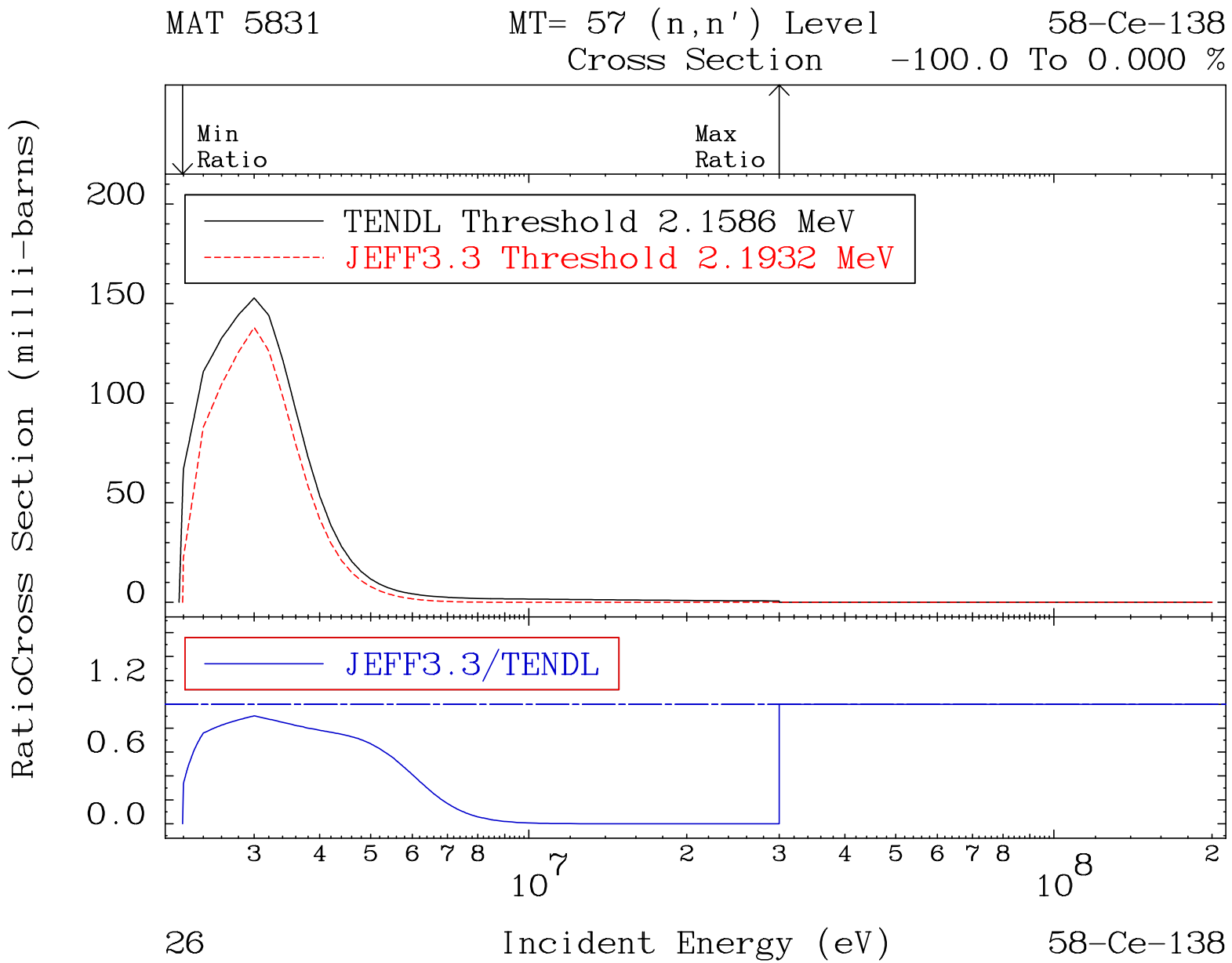

MAT 5831
MT= 52 (n,n') Level
58-Ce-138
Cross Section -20.86 To 18.21 %
Min Ratio
Max Ratio
TENDL Threshold 1.4877 MeV
JEFF3.3 Threshold 1.4877 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
1.2
1.0
0.8
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
21
Incident Energy (eV)
58-Ce-138

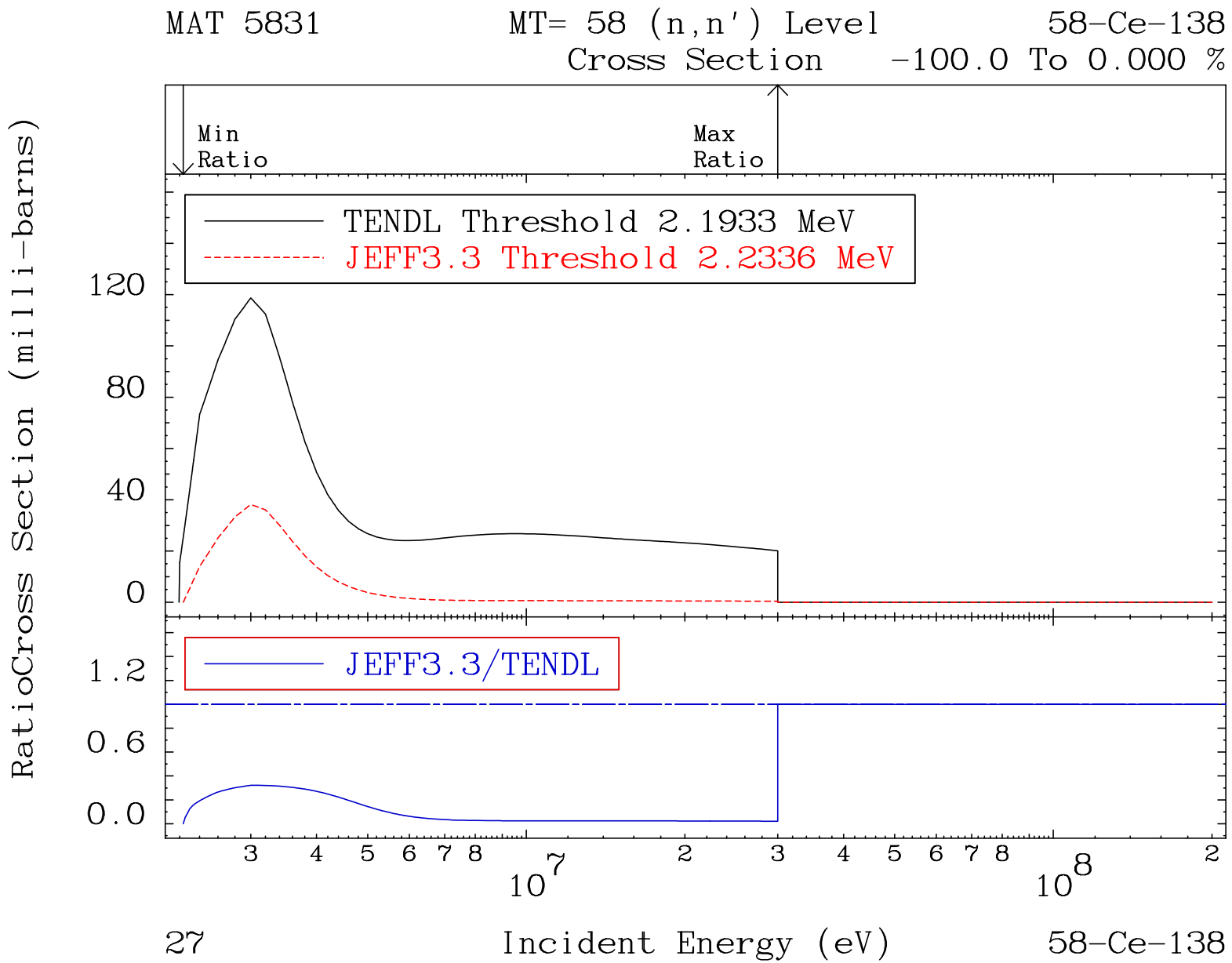

MAT 5831
MT= 53 (n,n') Level
58-Ce-138
Cross Section
-18.67 To 8.094 %
Max Ratio
Min Ratio
TENDL Threshold 1.5219 MeV
JEFF3.3 Threshold 1.5216 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
500
400
300
200
100
0
1.2
1.0
0.8
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
58-Ce-138

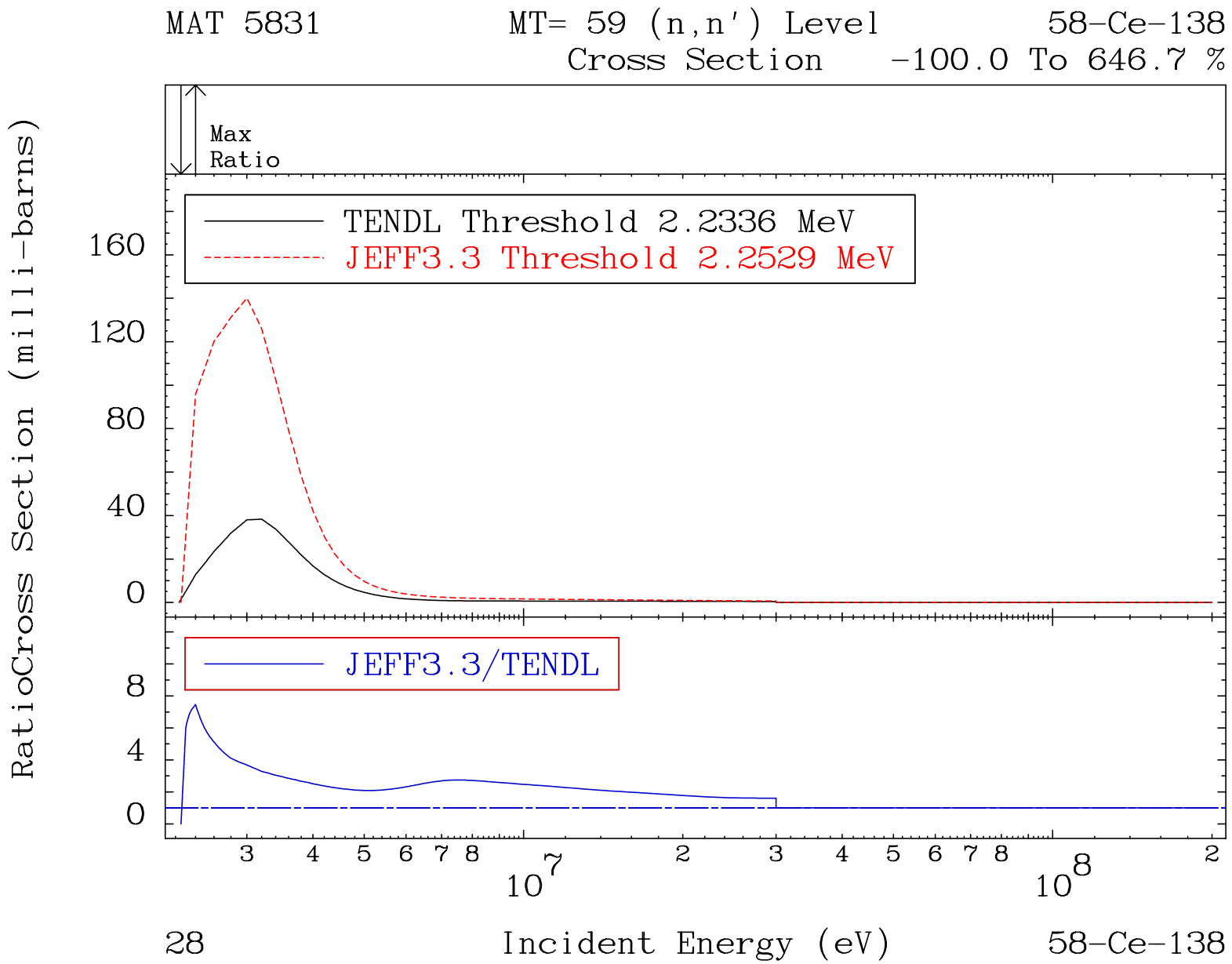

MAT 5831
MT= 54 (n,n') Level
58-Ce-138
Cross Section -11.68 To 8.392 %
Max Ratio
Min Ratio
TENDL Threshold 1.8399 MeV
JEFF3.3 Threshold 1.8399 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
1.1
1.0
0.9
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
58-Ce-138

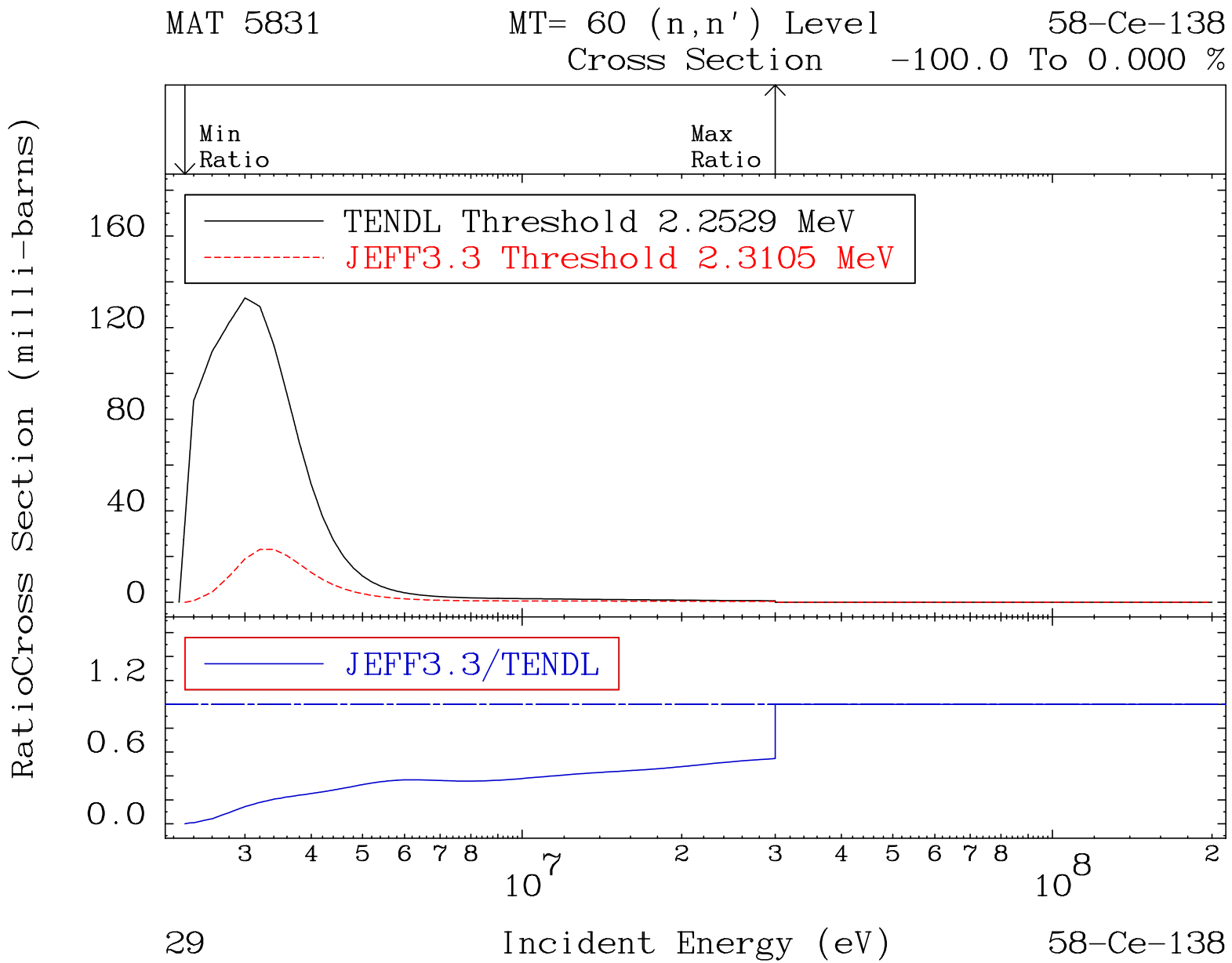

MAT 5831
MT= 55 (n,n') Level
58-Ce-138
Cross Section -17.26 To 41.64 %
Max Ratio
Min Ratio
TENDL Threshold 2.1449 MeV
JEFF3.3 Threshold 2.1449 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
24
58-Ce-138

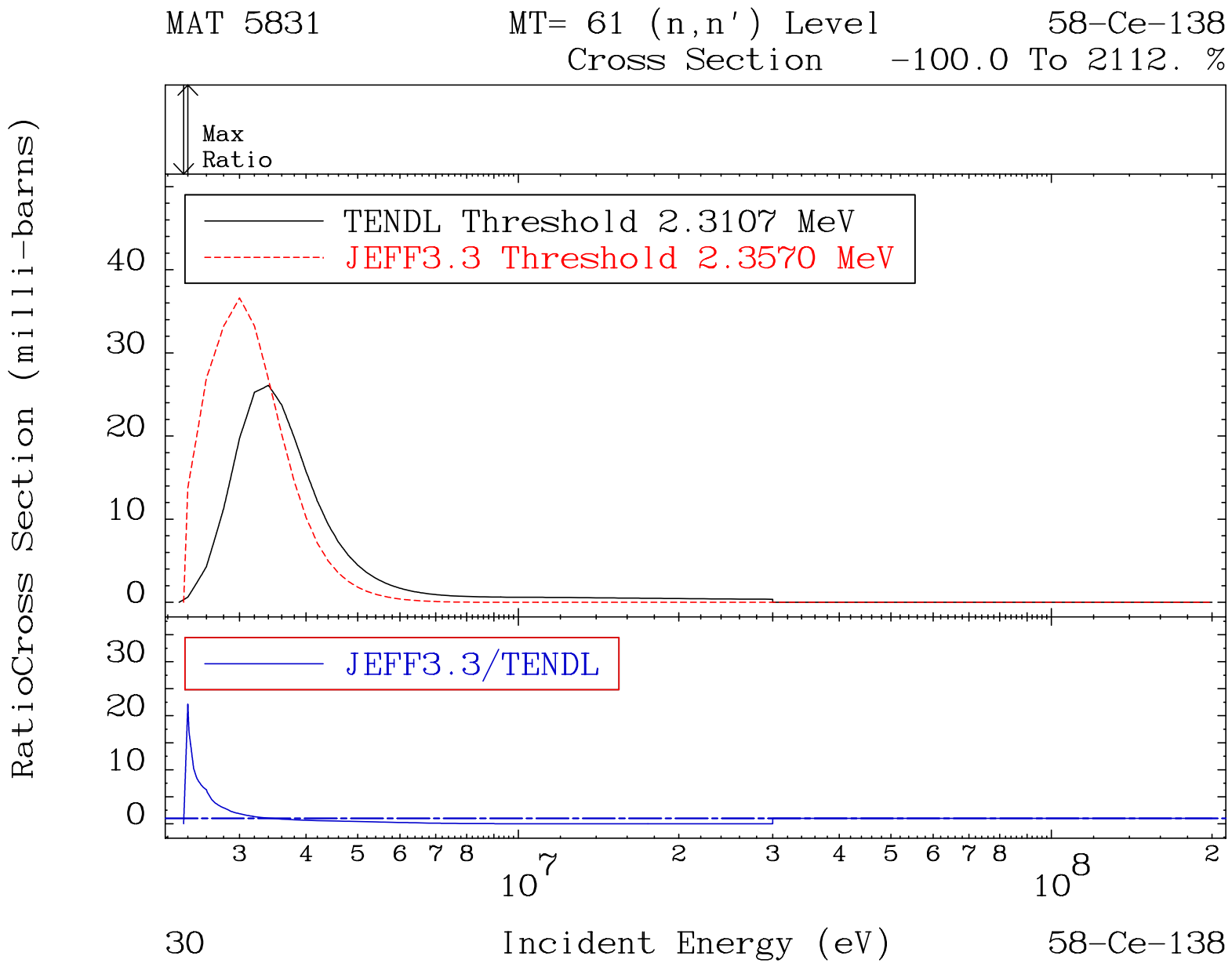

MAT 5831
MT= 56 (n,n') Level
58-Ce-138
Cross Section -18.63 To 8.815 %
Max Ratio
Min Ratio
TENDL Threshold 2.1526 MeV
JEFF3.3 Threshold 2.1526 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
120
80
40
0
1.2
1.0
0.8
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
58-Ce-138

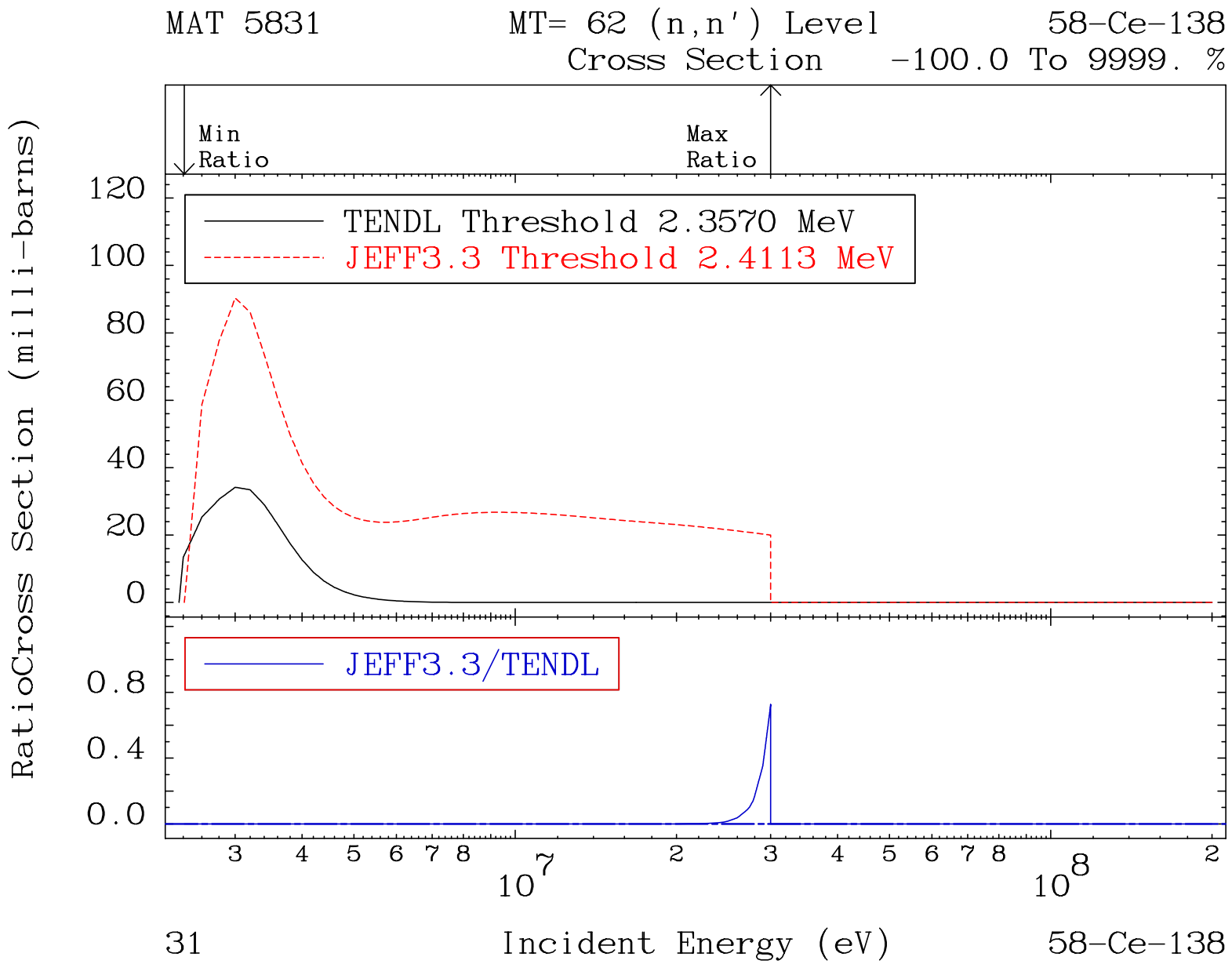

MAT 5831
MT= 57 (n,n') Level
58-Ce-138
Cross Section -100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 2.1586 MeV
JEFF3.3 Threshold 2.1932 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
1.2
0.6
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
26
Incident Energy (eV)
58-Ce-138

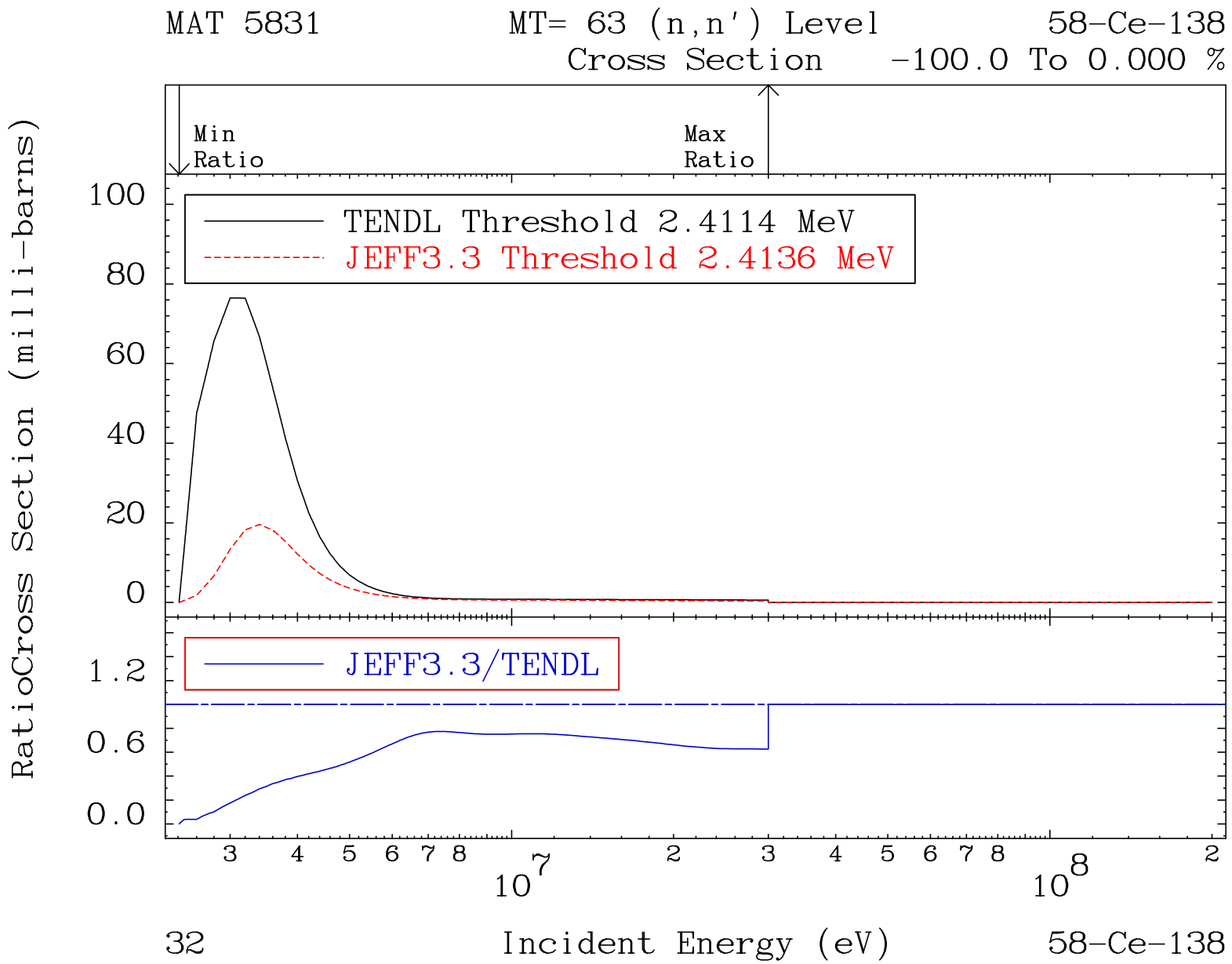

MAT 5831
MT= 58 (n,n') Level
58-Ce-138
Cross Section -100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 2.1933 MeV
JEFF3.3 Threshold 2.2336 MeV
120
80
40
0
JEFF3.3/TENDL
1.2
0.6
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
RatioCross Section (milli-barns)
27
Incident Energy (eV)
58-Ce-138

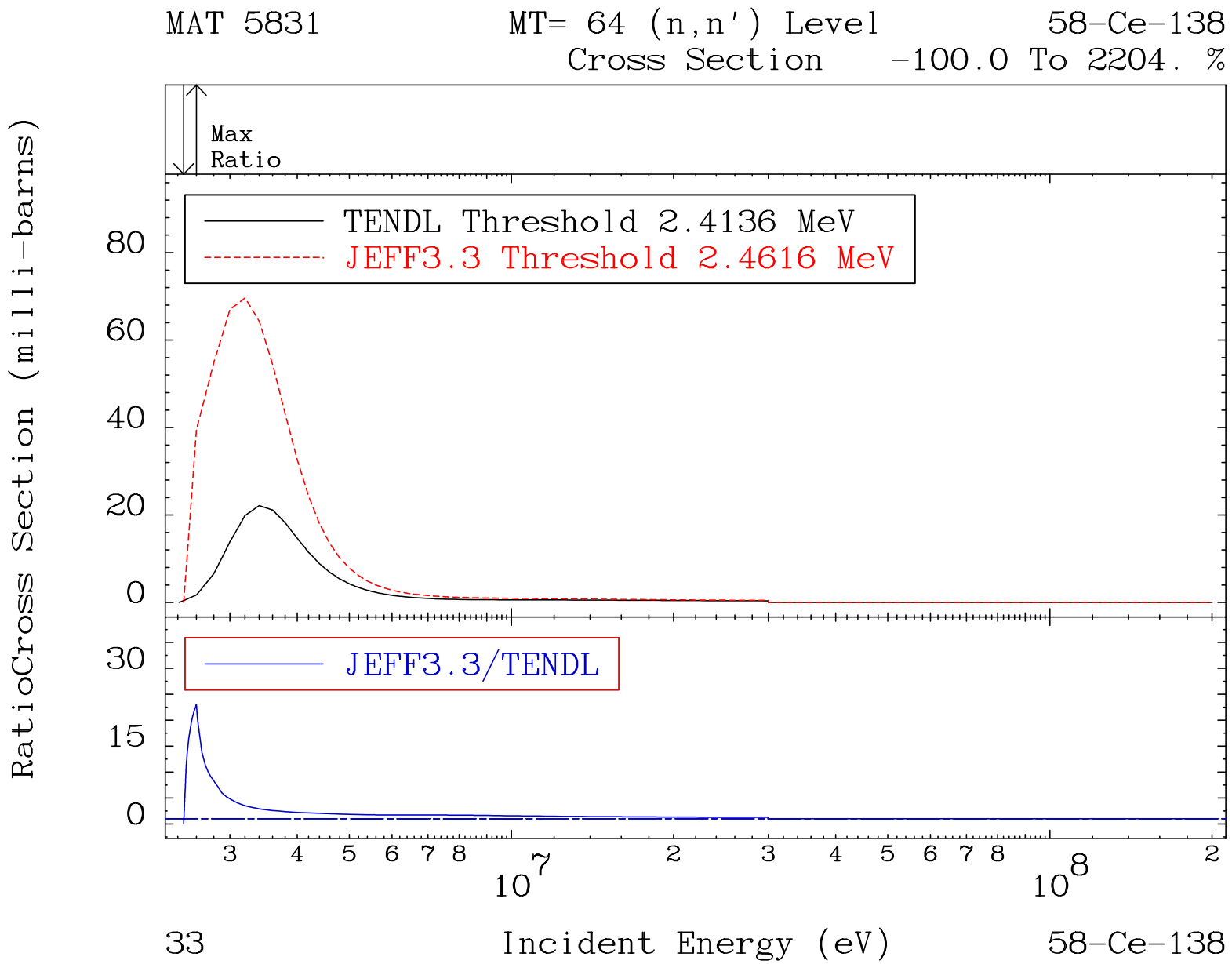

MAT 5831
MT= 59 (n,n') Level
58-Ce-138
Cross Section
-100.0 To 646.7 %
Max
Ratio
TENDL Threshold 2.2336 MeV
JEFF3.3 Threshold 2.2529 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
8
4
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
28
Incident Energy (eV)
58-Ce-138

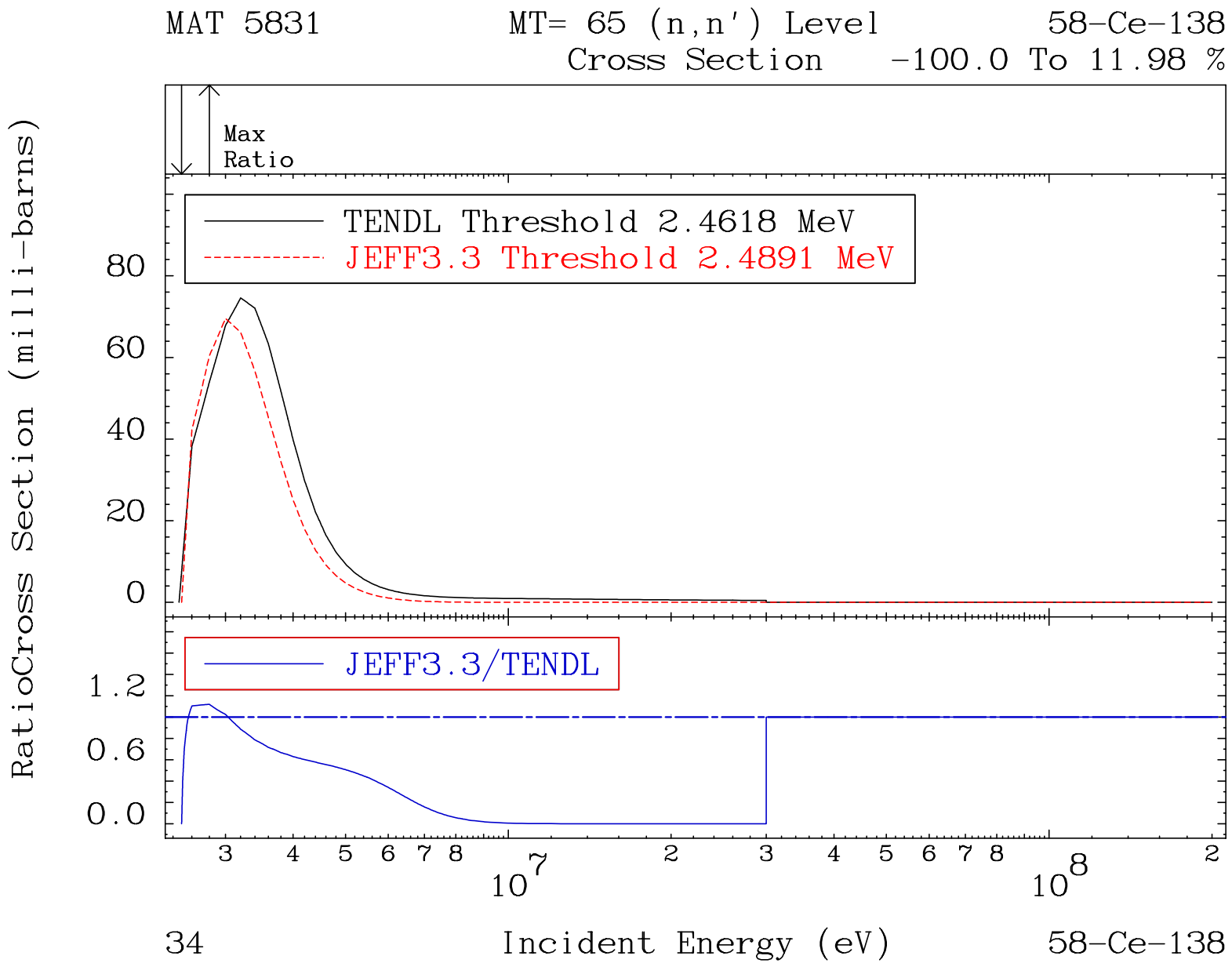

MAT 5831
MT= 60 (n,n') Level
58-Ce-138
Cross Section -100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 2.2529 MeV
JEFF3.3 Threshold 2.3105 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
1.2
0.6
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
29
Incident Energy (eV)
58-Ce-138

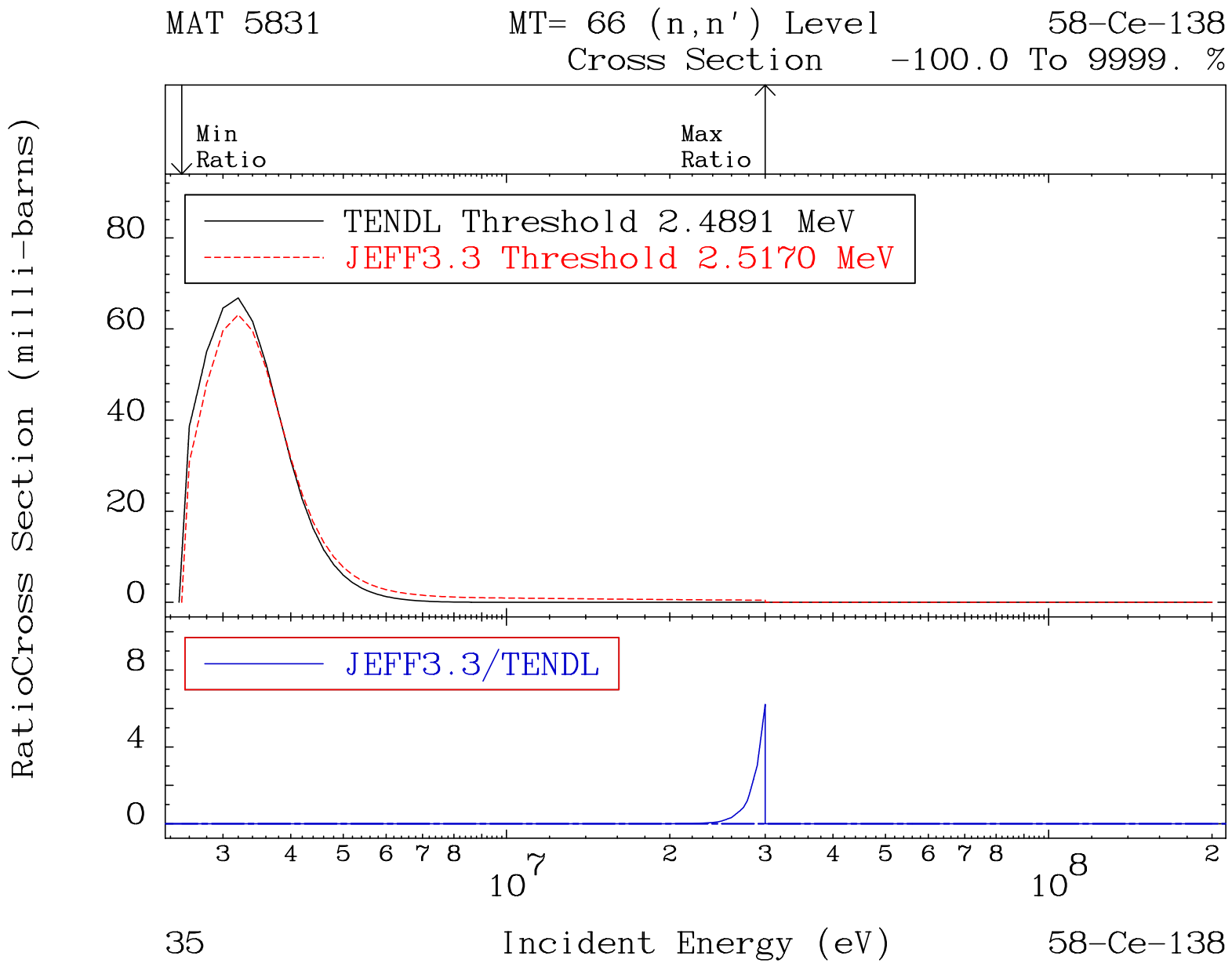

MAT 5831
MT= 61 (n,n') Level
58-Ce-138
Cross Section -100.0 To 2112. %
Max
Ratio
TENDL Threshold 2.3107 MeV
JEFF3.3 Threshold 2.3570 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
30
20
10
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
58-Ce-138

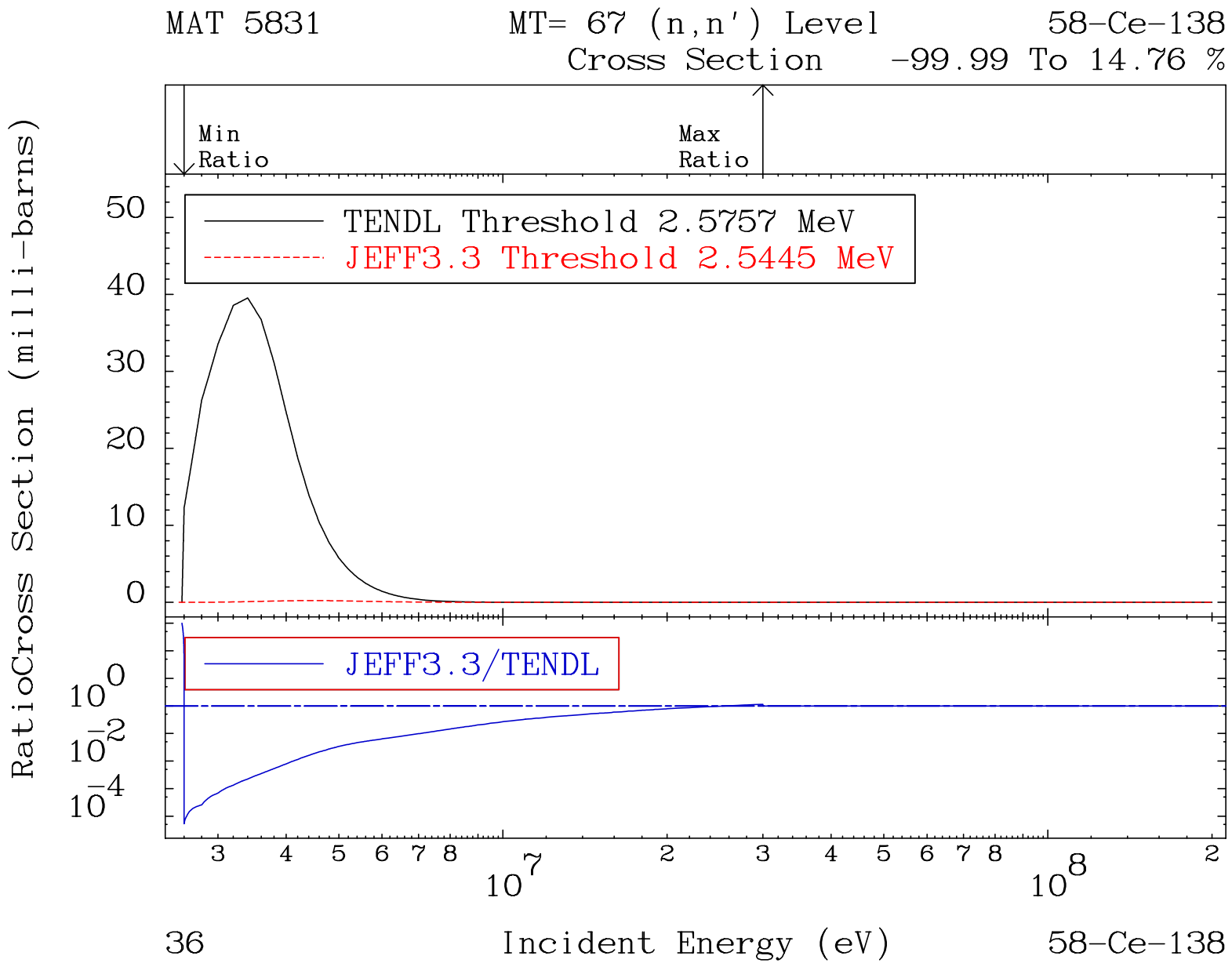

MAT 5831
MT= 62 (n,n') Level
58-Ce-138
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.3570 MeV
JEFF3.3 Threshold 2.4113 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
0.8
0.4
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
58-Ce-138

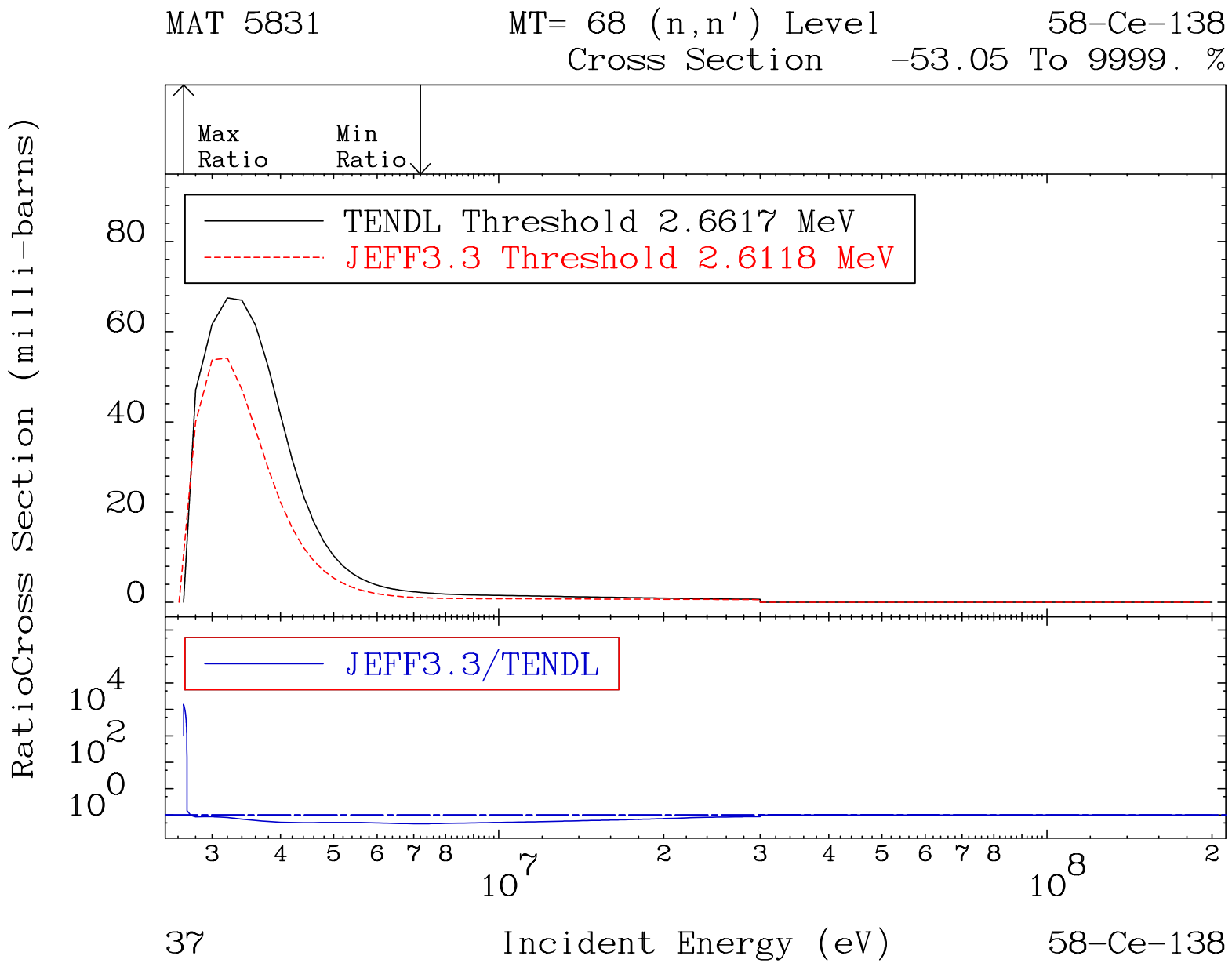

MAT 5831
MT= 63 (n,n') Level
58-Ce-138
Cross Section -100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 2.4114 MeV
JEFF3.3 Threshold 2.4136 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
1.2
0.6
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
32
Incident Energy (eV)
58-Ce-138

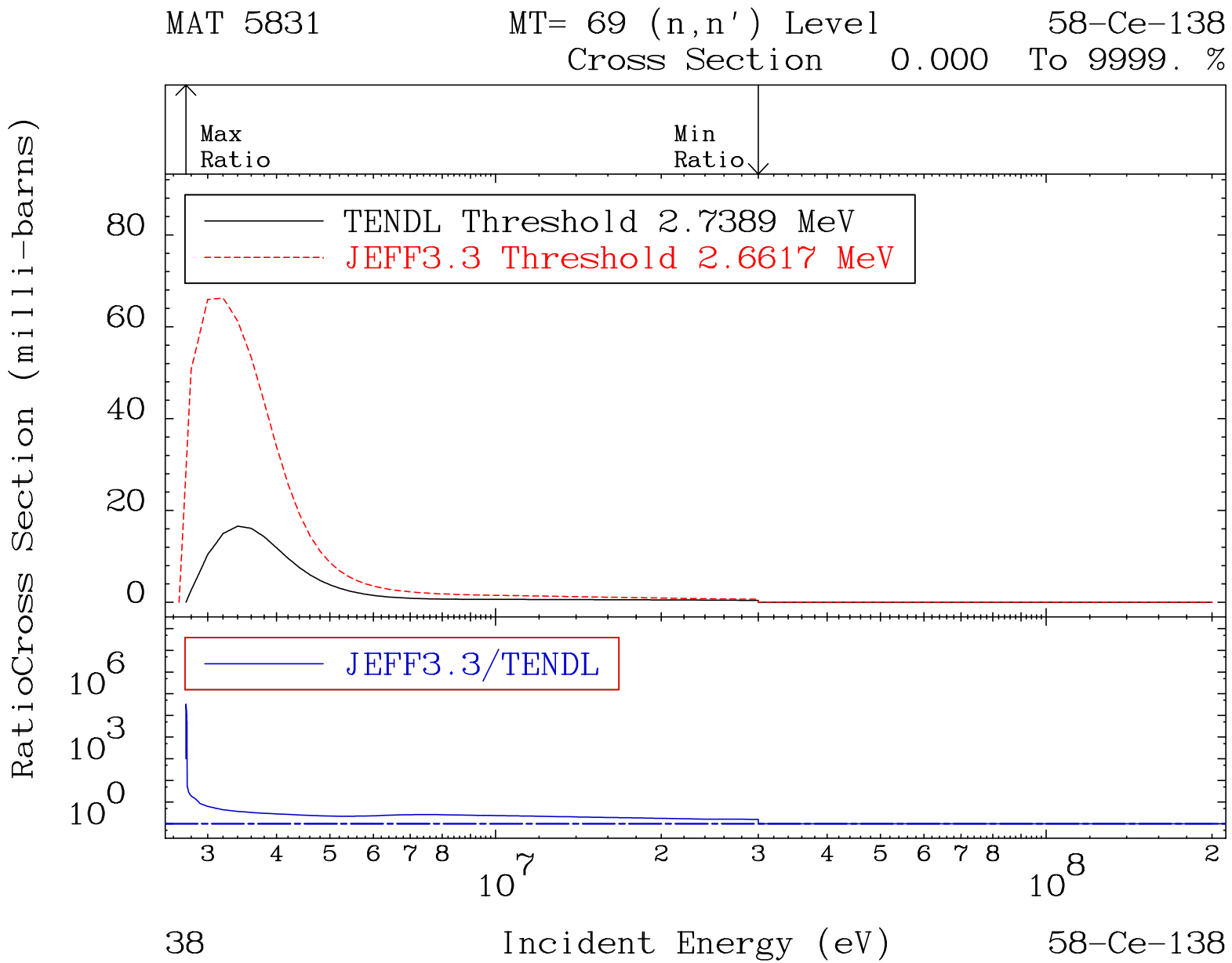

MAT 5831
MT= 64 (n,n') Level
58-Ce-138
Cross Section -100.0 To 2204. %
Max
Ratio
TENDL Threshold 2.4136 MeV
JEFF3.3 Threshold 2.4616 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
30
15
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
33
Incident Energy (eV)
58-Ce-138

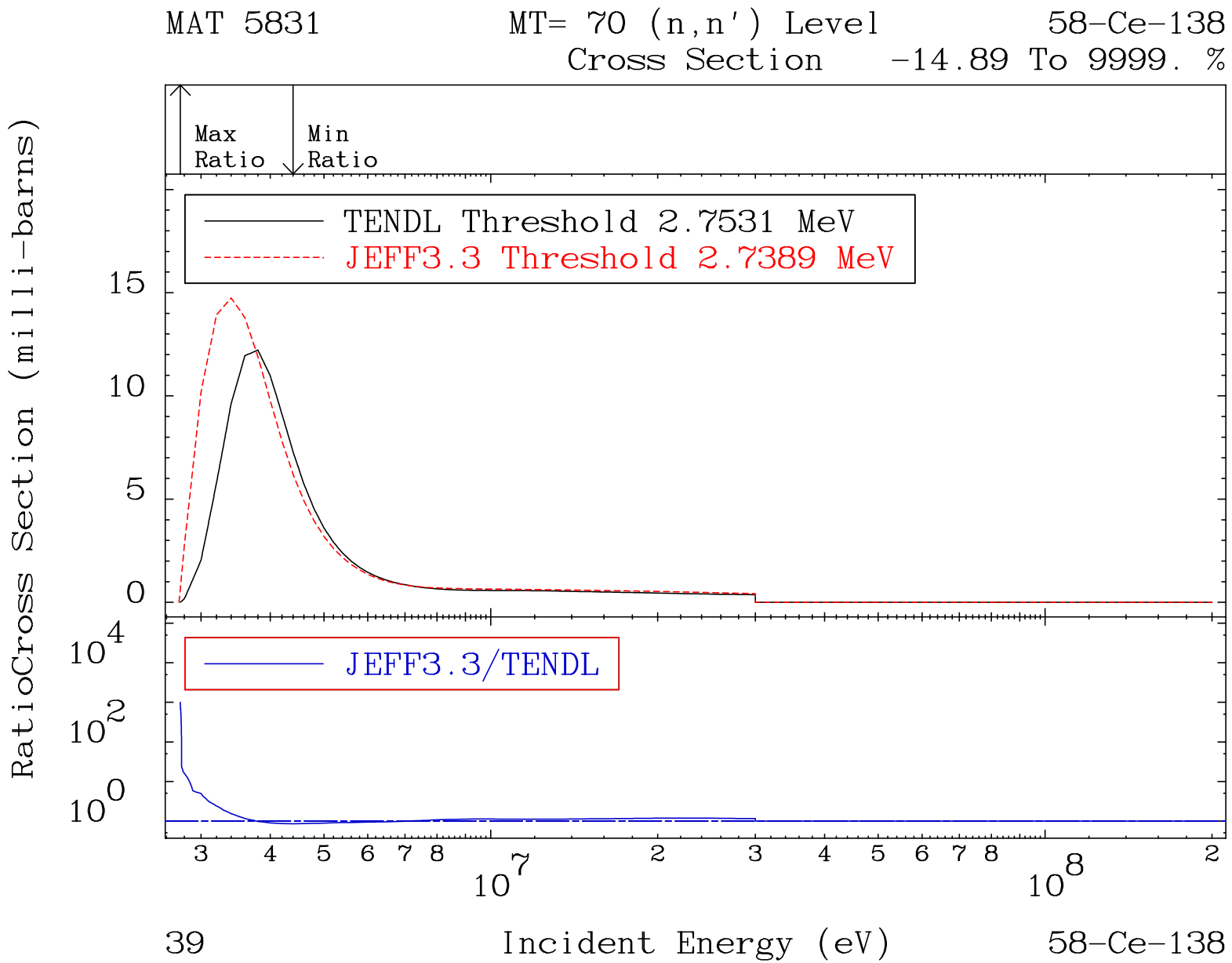

MAT 5831
MT= 65 (n,n') Level
58-Ce-138
Cross Section -100.0 To 11.98 %
Max
Ratio
TENDL Threshold 2.4618 MeV
JEFF3.3 Threshold 2.4891 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
1.2
0.6
0.0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
34
Incident Energy (eV)
58-Ce-138

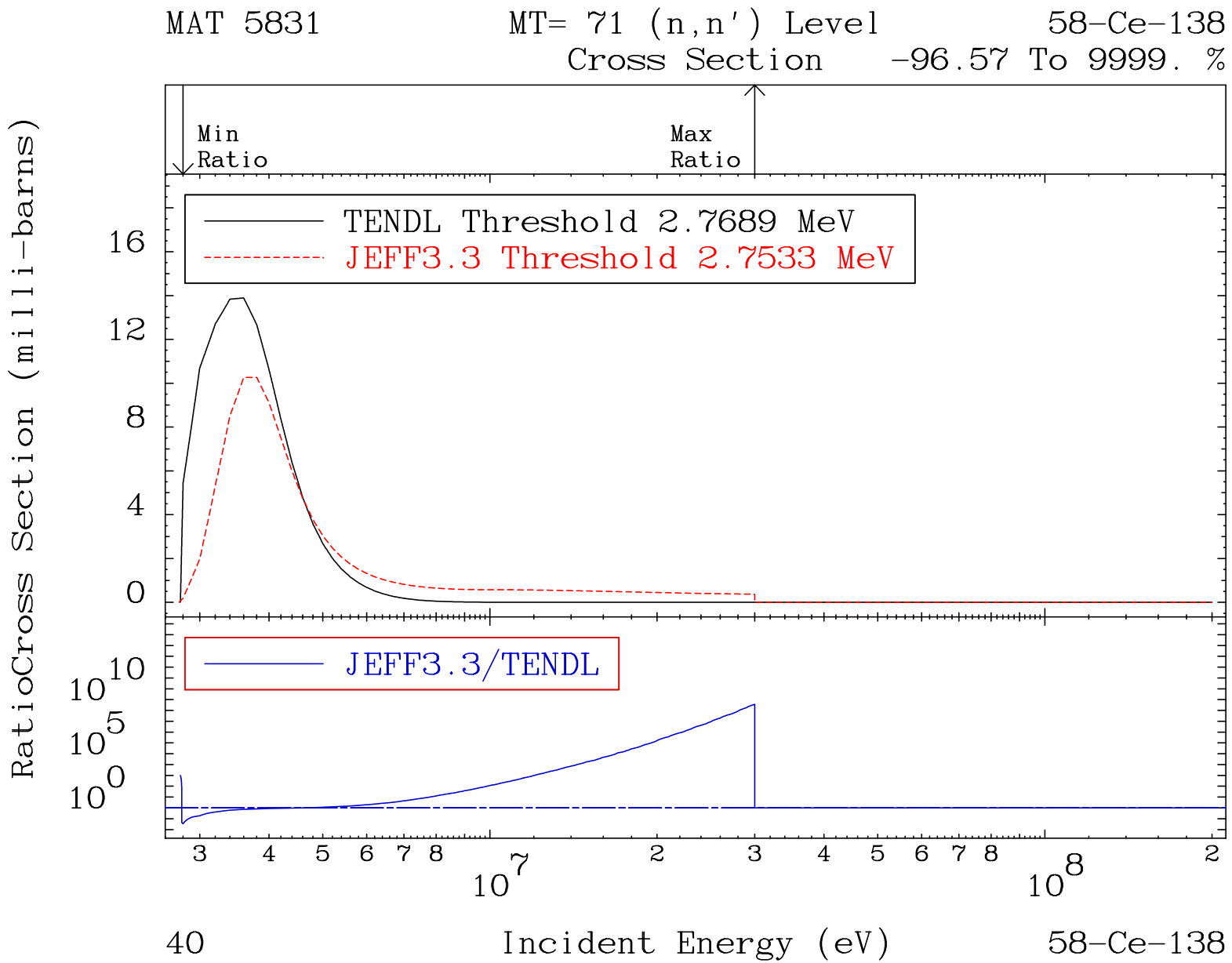

MAT 5831
MT= 66 (n,n') Level
58-Ce-138
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.4891 MeV
JEFF3.3 Threshold 2.5170 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
8
4
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
35
Incident Energy (eV)
58-Ce-138

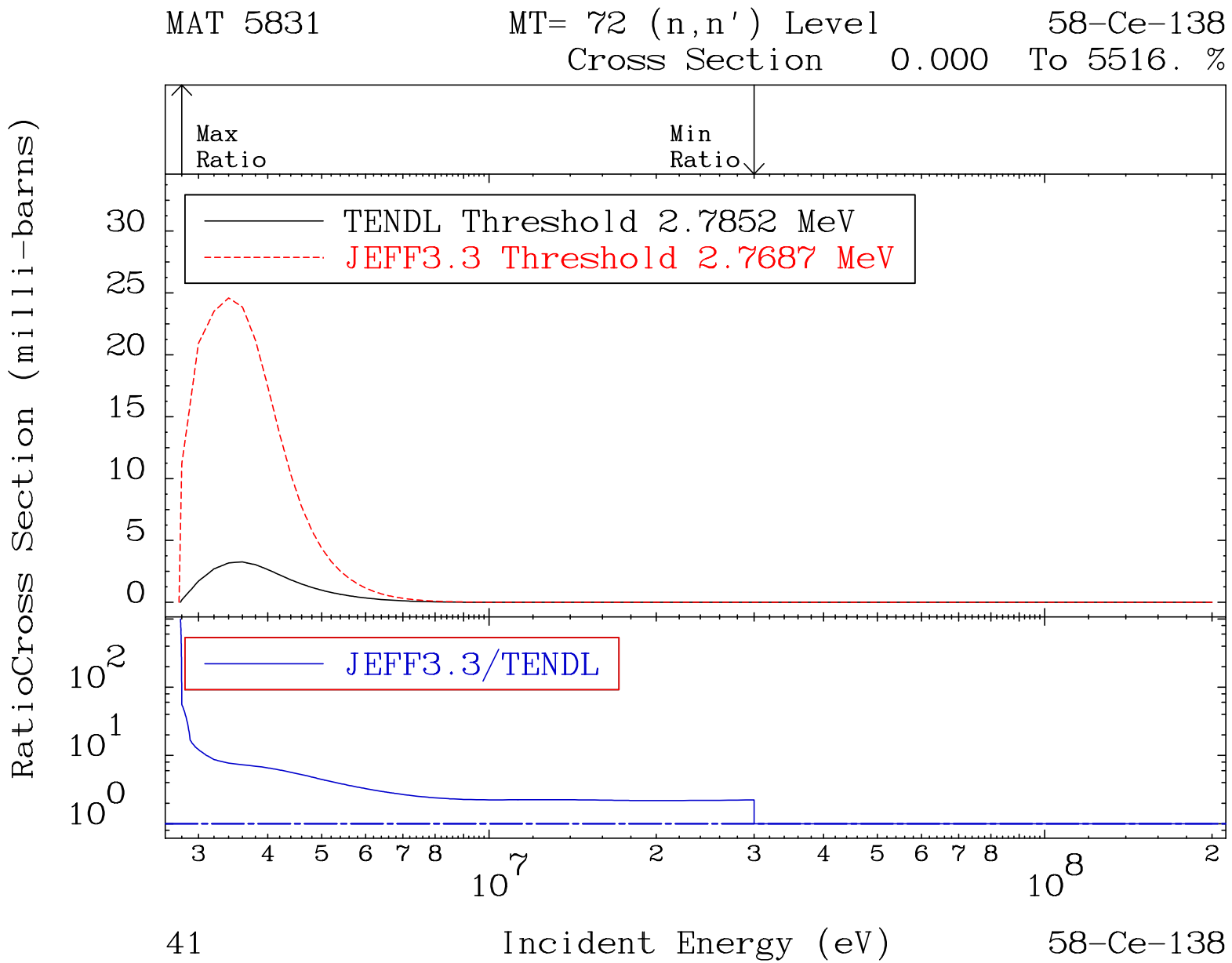

MAT 5831
MT= 67 (n,n') Level
58-Ce-138
Cross Section -99.99 To 14.76 %
Min Ratio
Max Ratio
TENDL Threshold 2.5757 MeV
JEFF3.3 Threshold 2.5445 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
50
40
30
20
10
0
10^{0}
10^{-2}
10^{-4}
3 4 5 6 7 8 10^{7} 2 3 4 5 6 7 8 10^{8} 2
Incident Energy (eV)
36
58-Ce-138

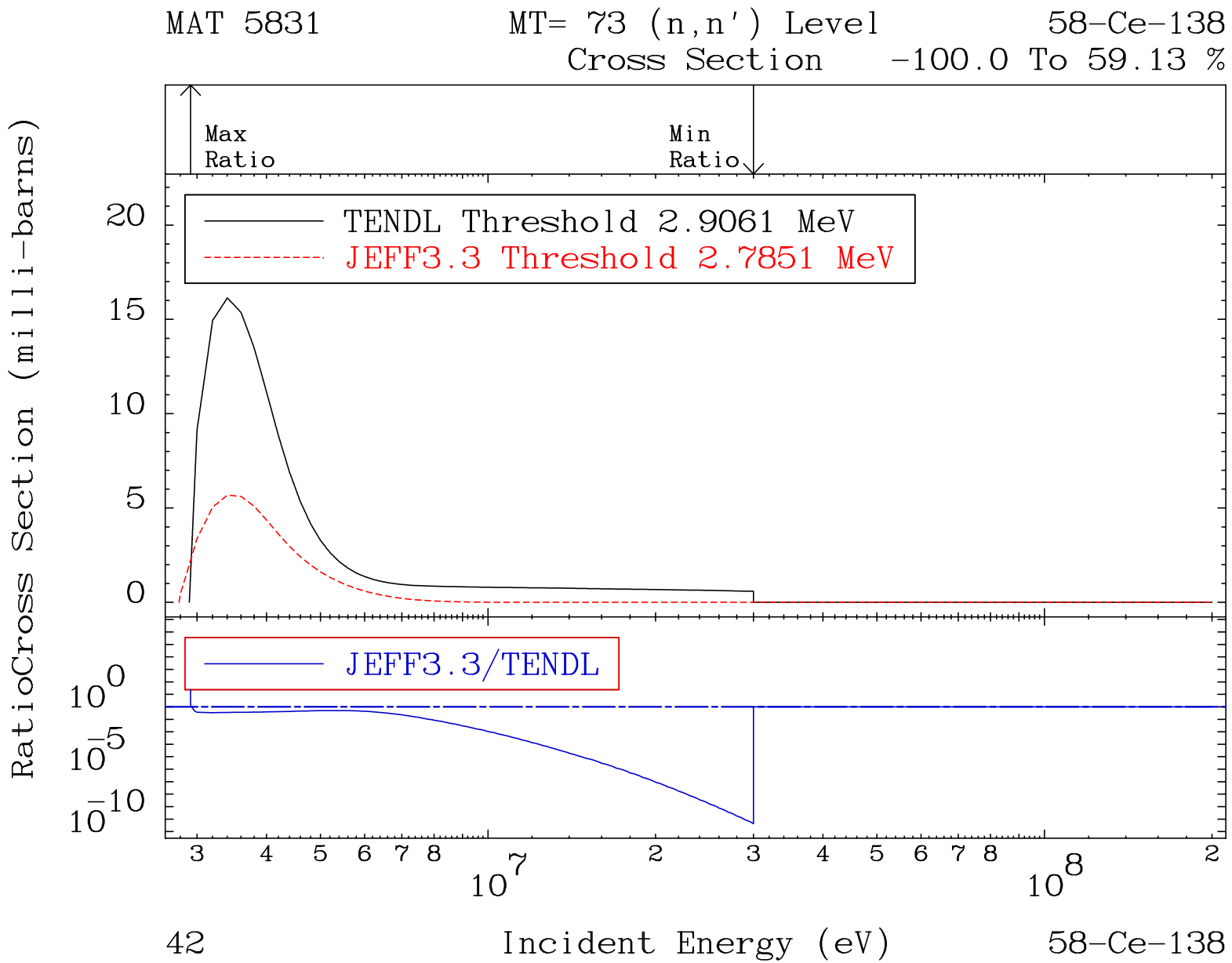

MAT 5831
MT= 68 (n,n') Level
58-Ce-138
Cross Section -53.05 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.6617 MeV
JEFF3.3 Threshold 2.6118 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
10^4
10^2
10^0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
37
Incident Energy (eV)
58-Ce-138

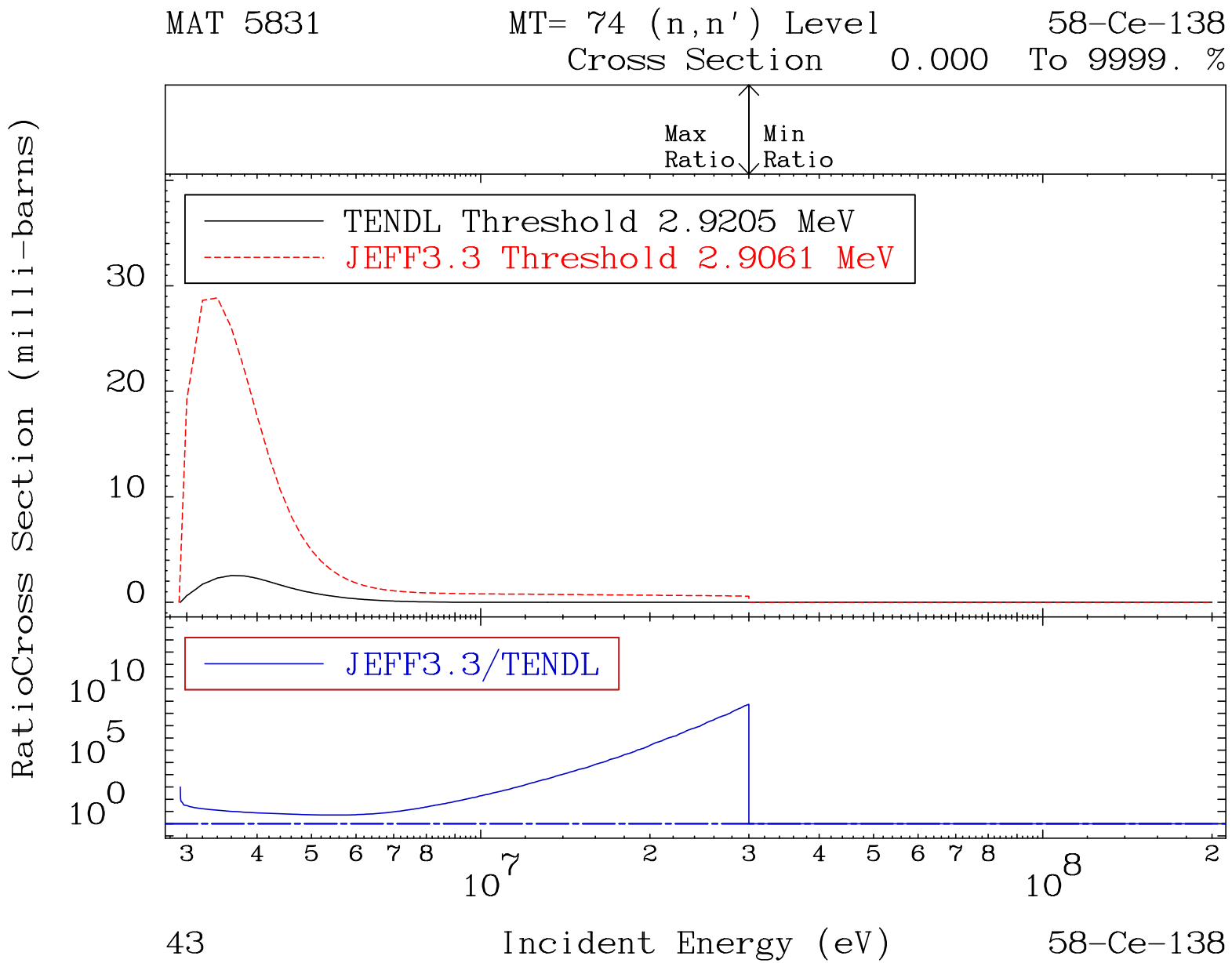

MAT 5831
MT= 69 (n,n') Level
58-Ce-138
Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.7389 MeV
JEFF3.3 Threshold 2.6617 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
10^6
10^3
10^0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
38
Incident Energy (eV)
58-Ce-138

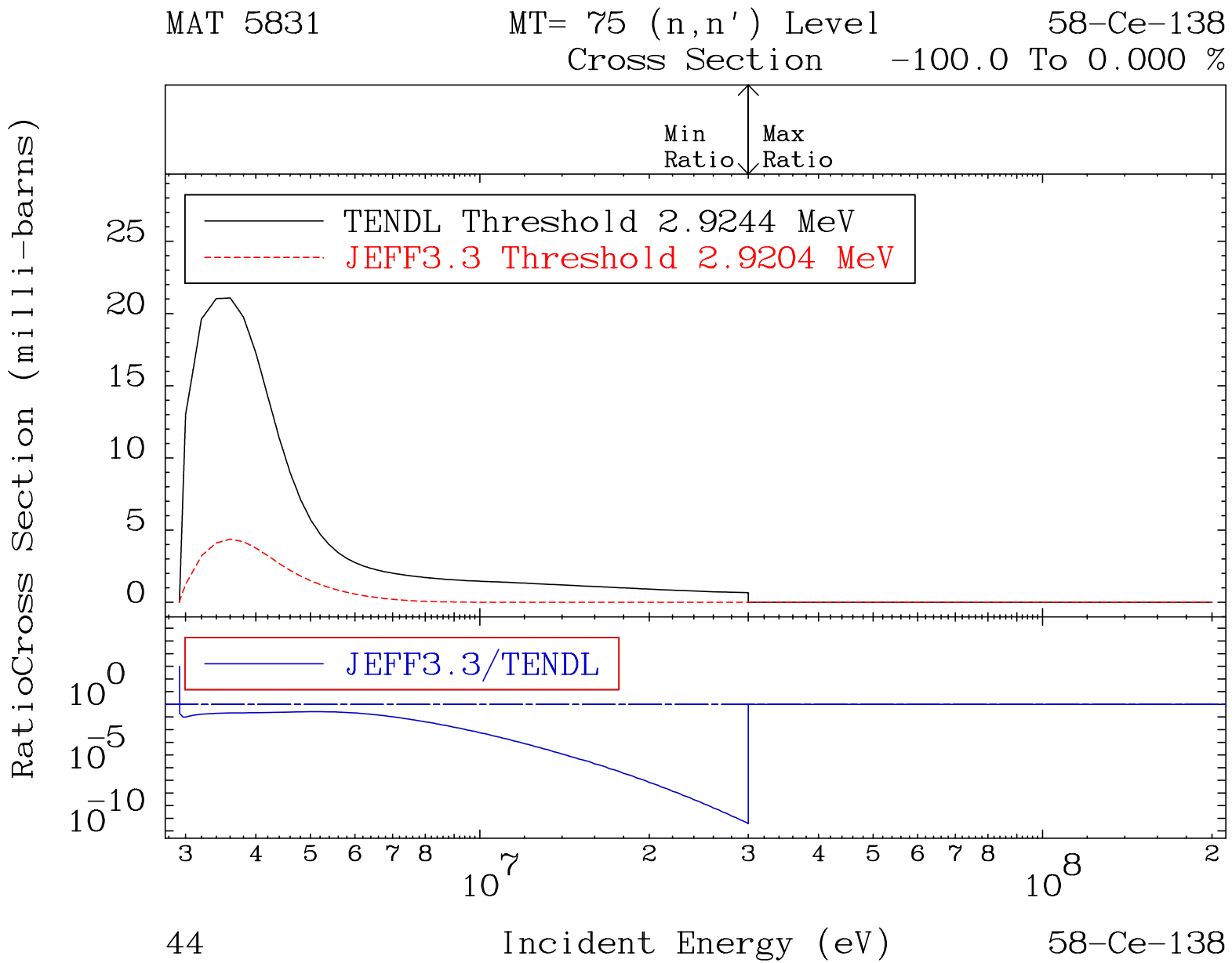

MAT 5831
MT= 70 (n,n') Level
58-Ce-138
Cross Section -14.89 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.7531 MeV
JEFF3.3 Threshold 2.7389 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
15
10
5
0
10^4
10^2
10^0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
39
Incident Energy (eV)
58-Ce-138

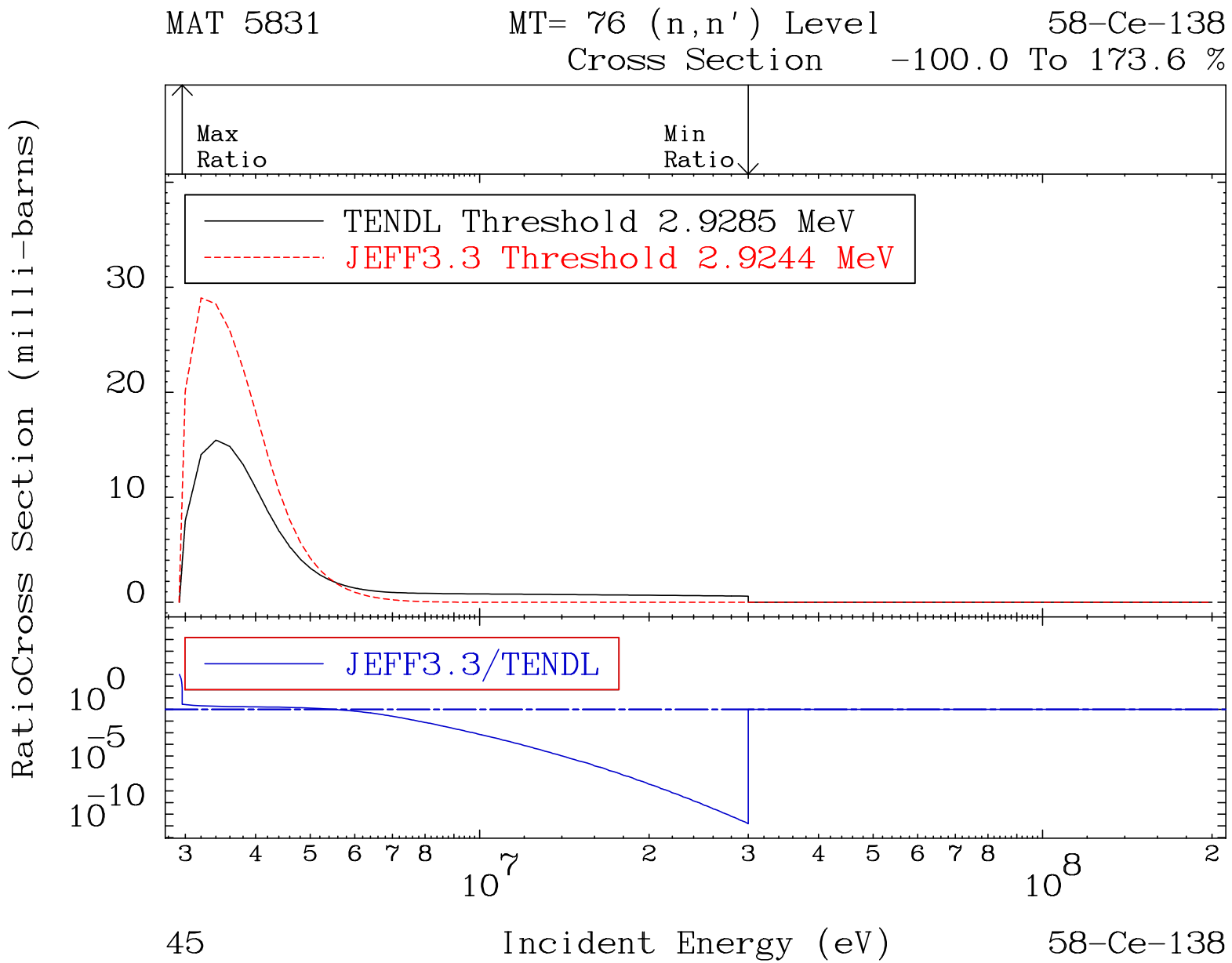

MAT 5831
MT= 71 (n,n') Level
58-Ce-138
Cross Section -96.57 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.7689 MeV
JEFF3.3 Threshold 2.7533 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
40
58-Ce-138

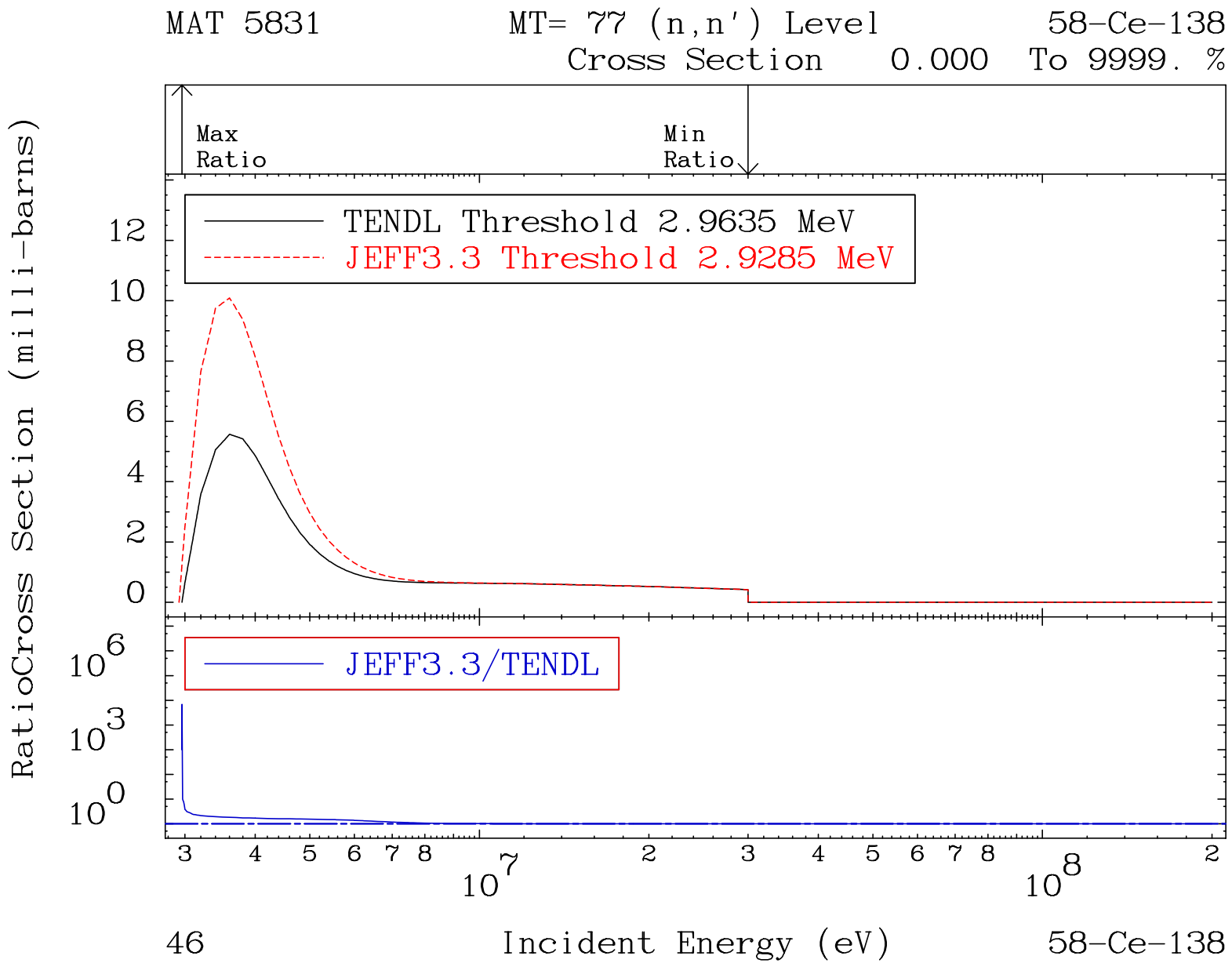

MAT 5831
MT= 72 (n,n') Level
58-Ce-138
Cross Section 0.000 To 5516. %
Max Ratio
Min Ratio
TENDL Threshold 2.7852 MeV
JEFF3.3 Threshold 2.7687 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
10^2
10^1
10^0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
41
Incident Energy (eV)
58-Ce-138

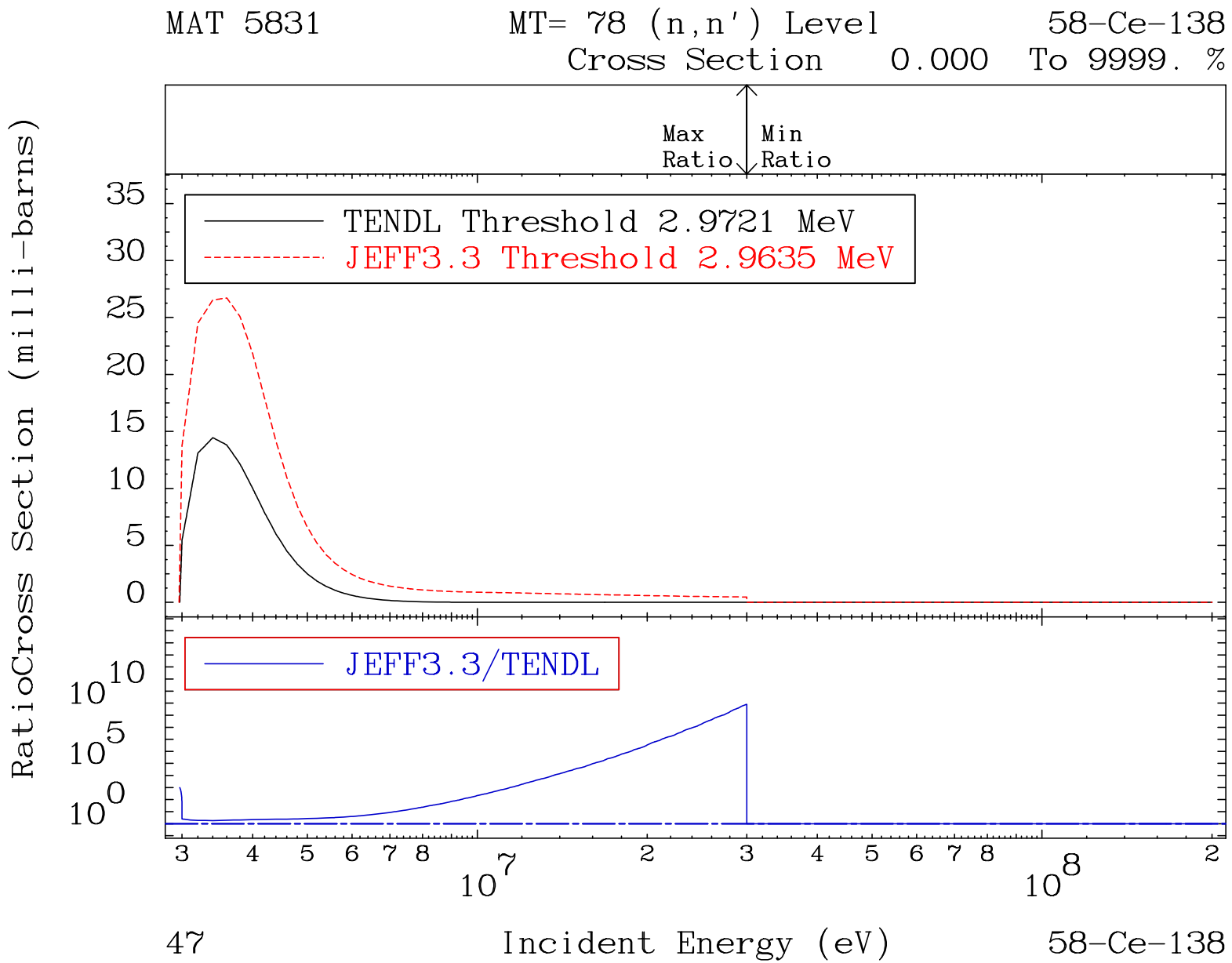

MAT 5831
MT= 73 (n,n') Level
58-Ce-138
Cross Section -100.0 To 59.13 %
Max Ratio
Min Ratio
TENDL Threshold 2.9061 MeV
JEFF3.3 Threshold 2.7851 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
20
15
10
5
0
10^{0}
10^{-5}
10^{-10}
3 4 5 6 7 8 10^{7} 2 3 4 5 6 7 8 10^{8} 2
Incident Energy (eV)
42
58-Ce-138

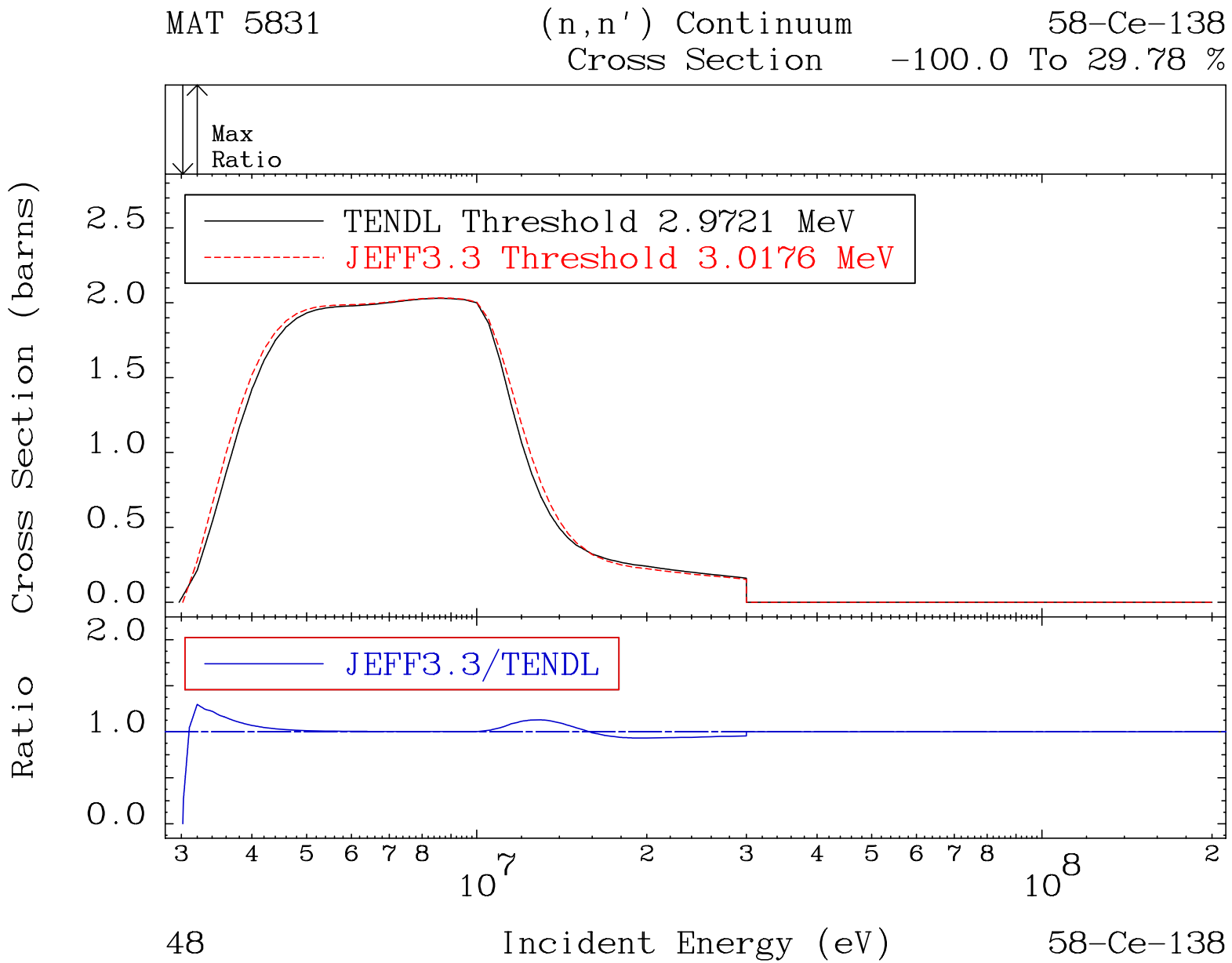

MAT 5831
MT= 74 (n,n') Level
58-Ce-138
Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.9205 MeV
JEFF3.3 Threshold 2.9061 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
30
20
10
0
10^10
10^5
10^0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
43
Incident Energy (eV)
58-Ce-138

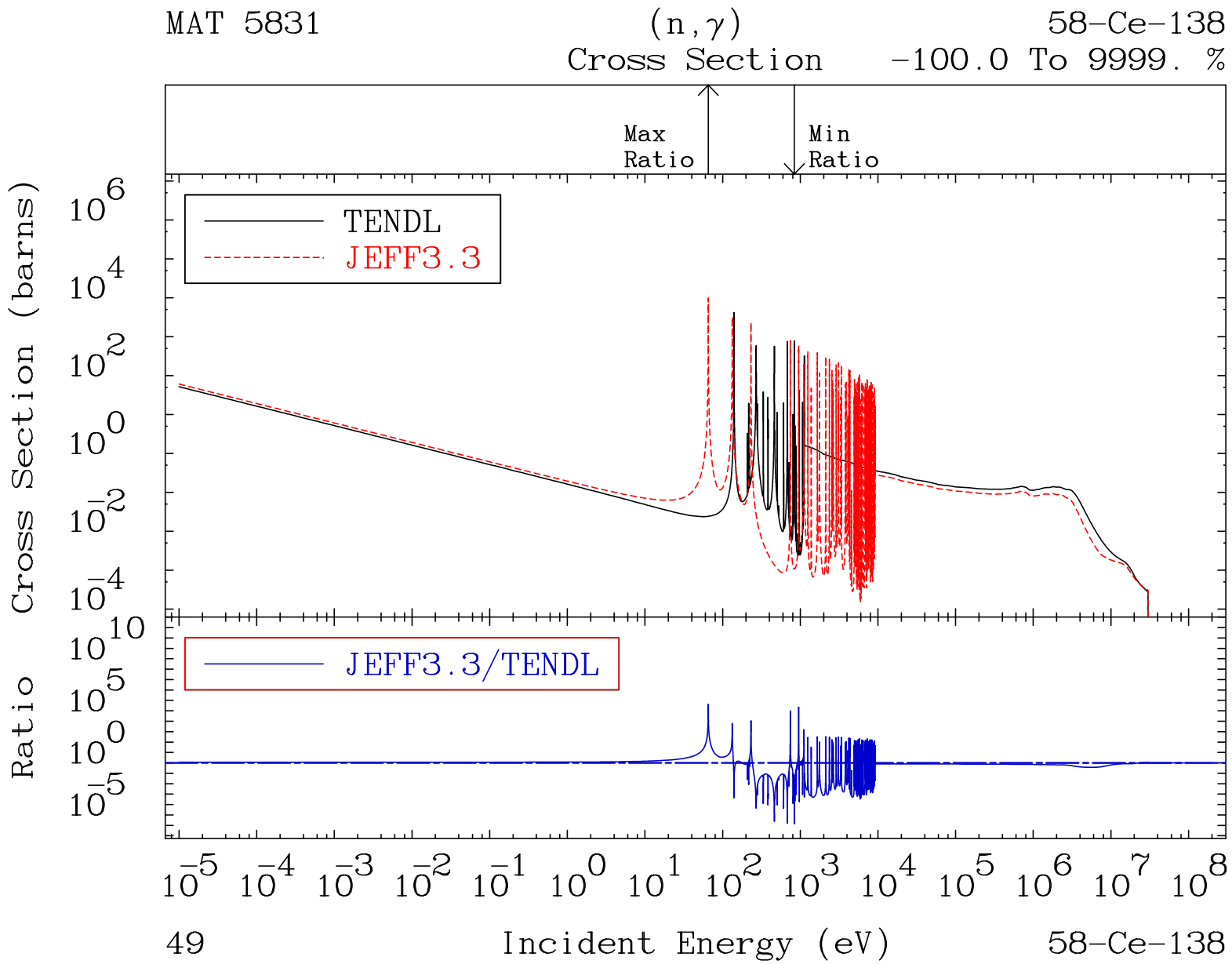

MAT 5831
MT= 75 (n,n') Level
58-Ce-138
Cross Section -100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 2.9244 MeV
JEFF3.3 Threshold 2.9204 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
10^0
10^-5
10^-10
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
44
Incident Energy (eV)
58-Ce-138

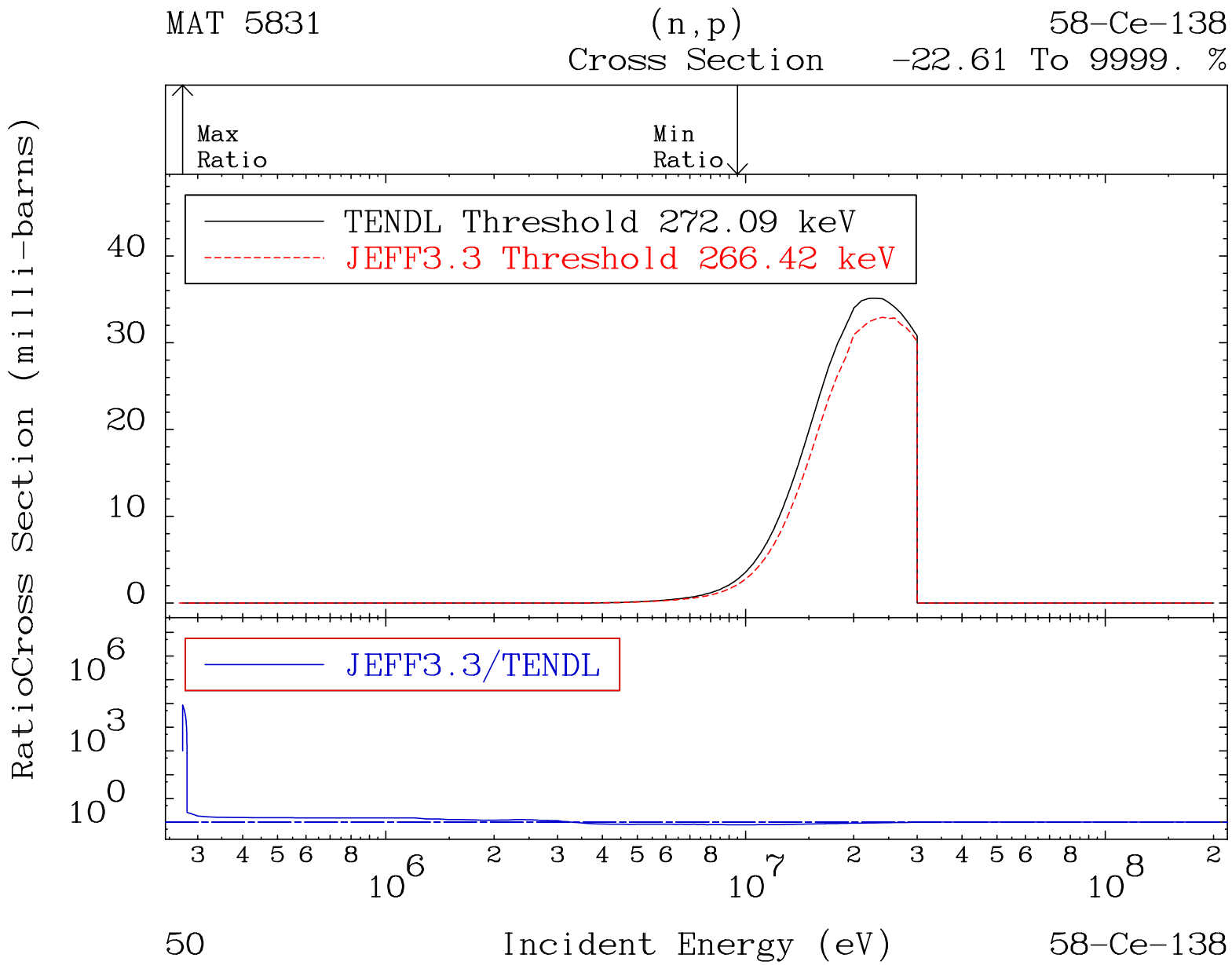

MAT 5831
MT= 76 (n,n') Level
58-Ce-138
Cross Section -100.0 To 173.6 %
Max Ratio
Min Ratio
TENDL Threshold 2.9285 MeV
JEFF3.3 Threshold 2.9244 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
30
20
10
0
10^0
10^-5
10^-10
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
45
Incident Energy (eV)
58-Ce-138

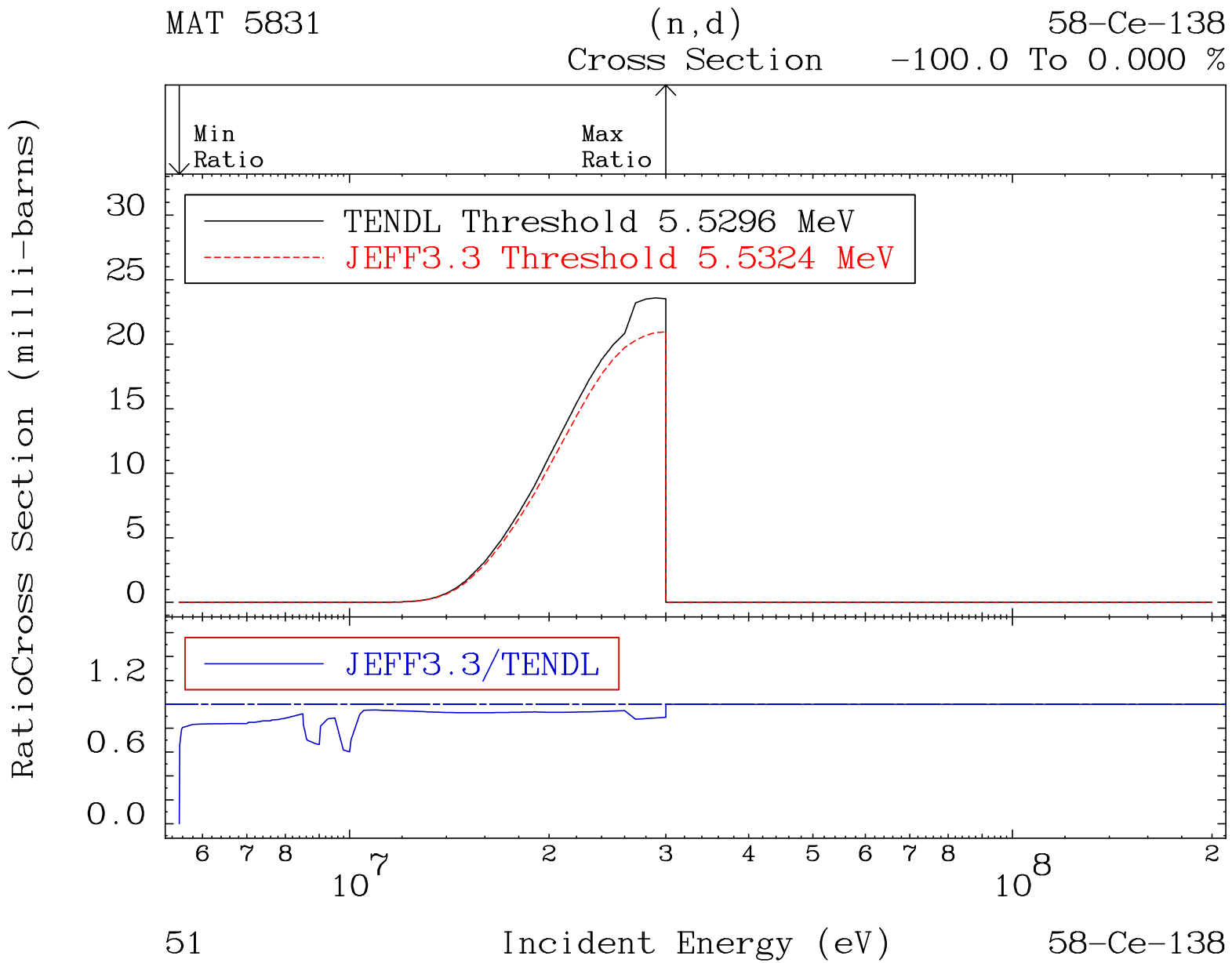

MAT 5831
MT= 77 (n,n') Level
58-Ce-138
Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.9635 MeV
JEFF3.3 Threshold 2.9285 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
46
58-Ce-138

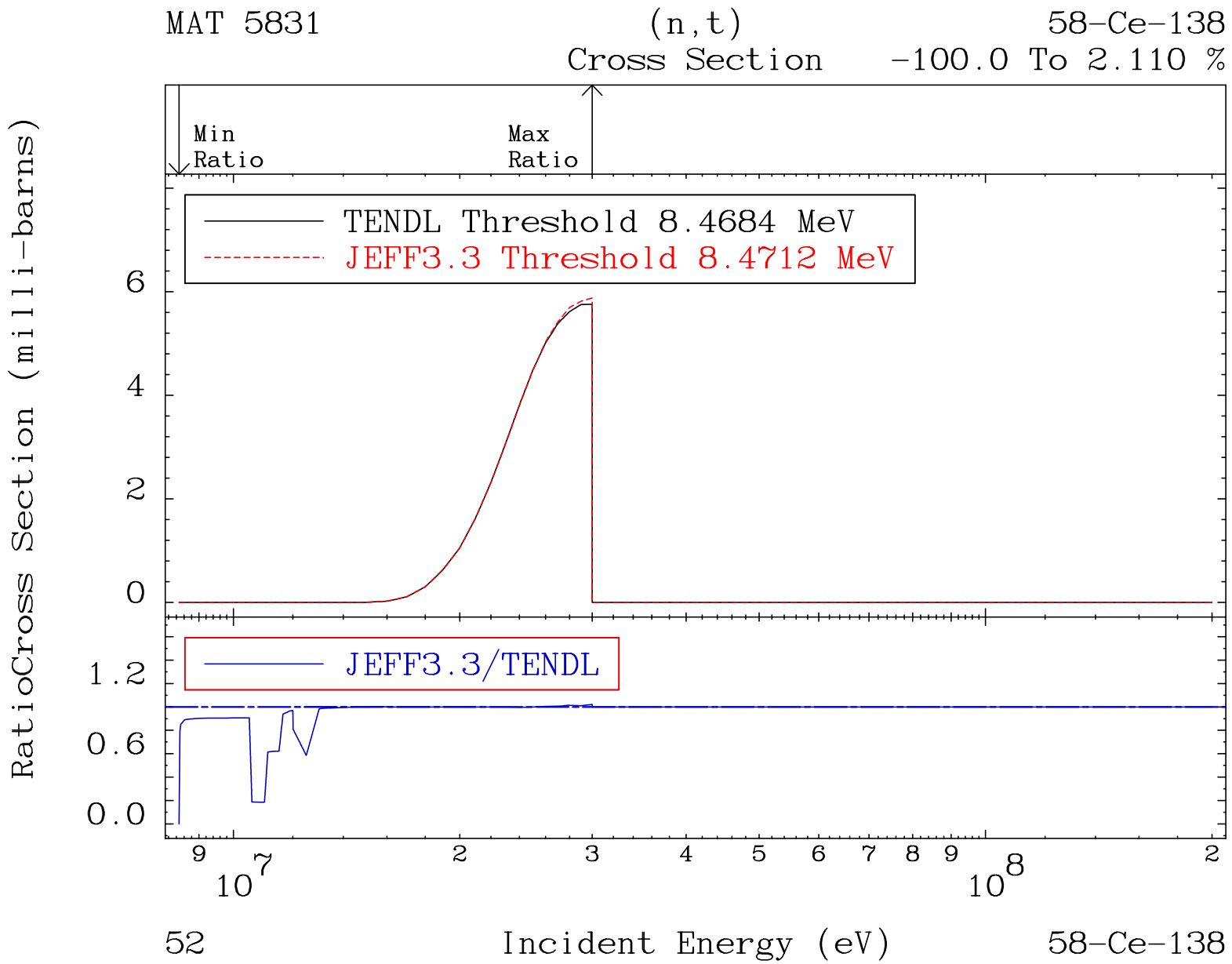

MAT 5831
MT= 78 (n,n') Level
58-Ce-138
Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.9721 MeV
JEFF3.3 Threshold 2.9635 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
35
30
25
20
15
10
5
0
10^10
10^5
10^0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
47
Incident Energy (eV)
58-Ce-138

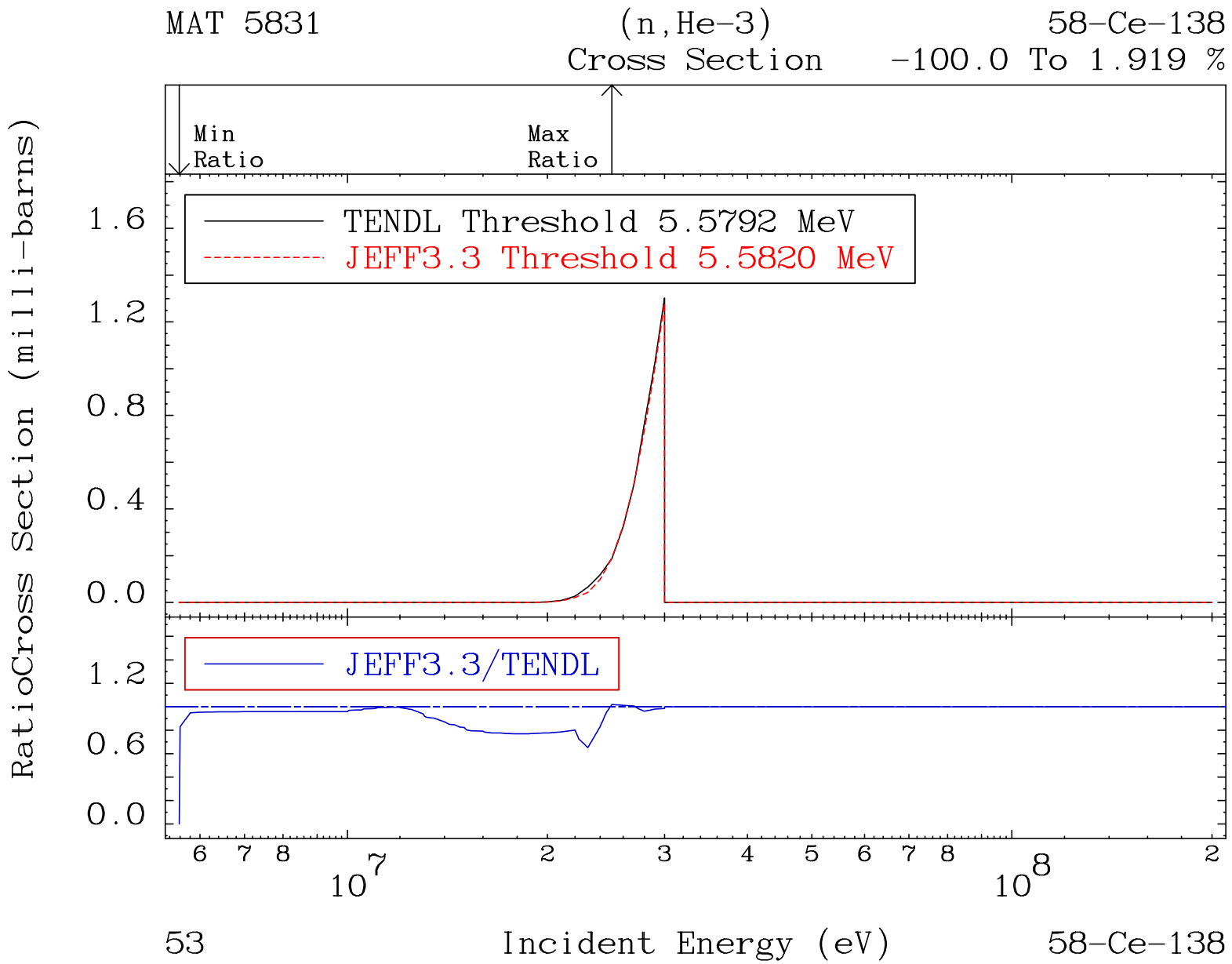

MAT 5831
(n,n') Continuum
Cross Section
58-Ce-138
-100.0 To 29.78 %
Max
Ratio
TENDL Threshold 2.9721 MeV
JEFF3.3 Threshold 3.0176 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
2.5
2.0
1.5
1.0
0.5
0.0
2.0
1.0
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
48
58-Ce-138

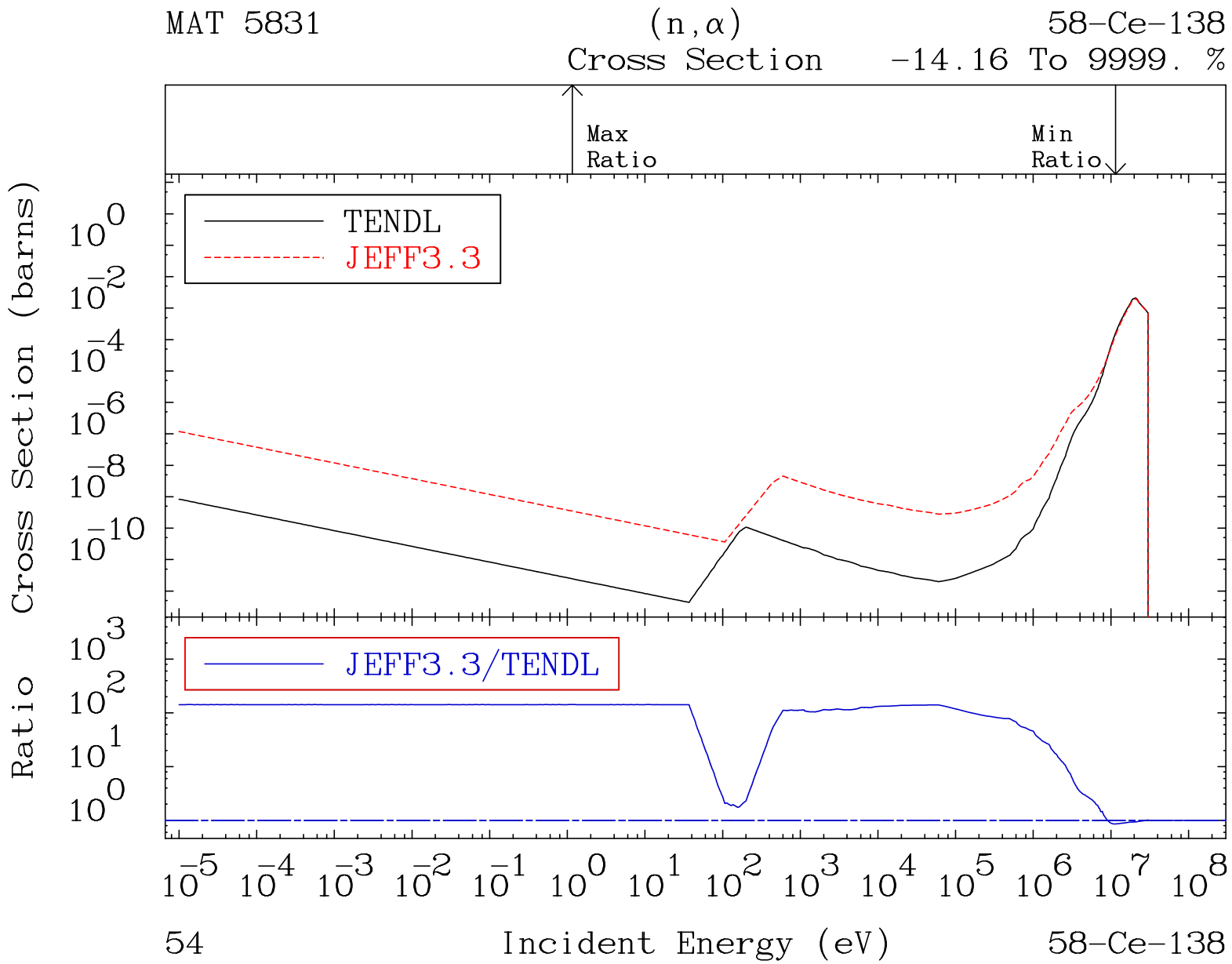

MAT 5831
(n,γ)
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
49
58-Ce-138

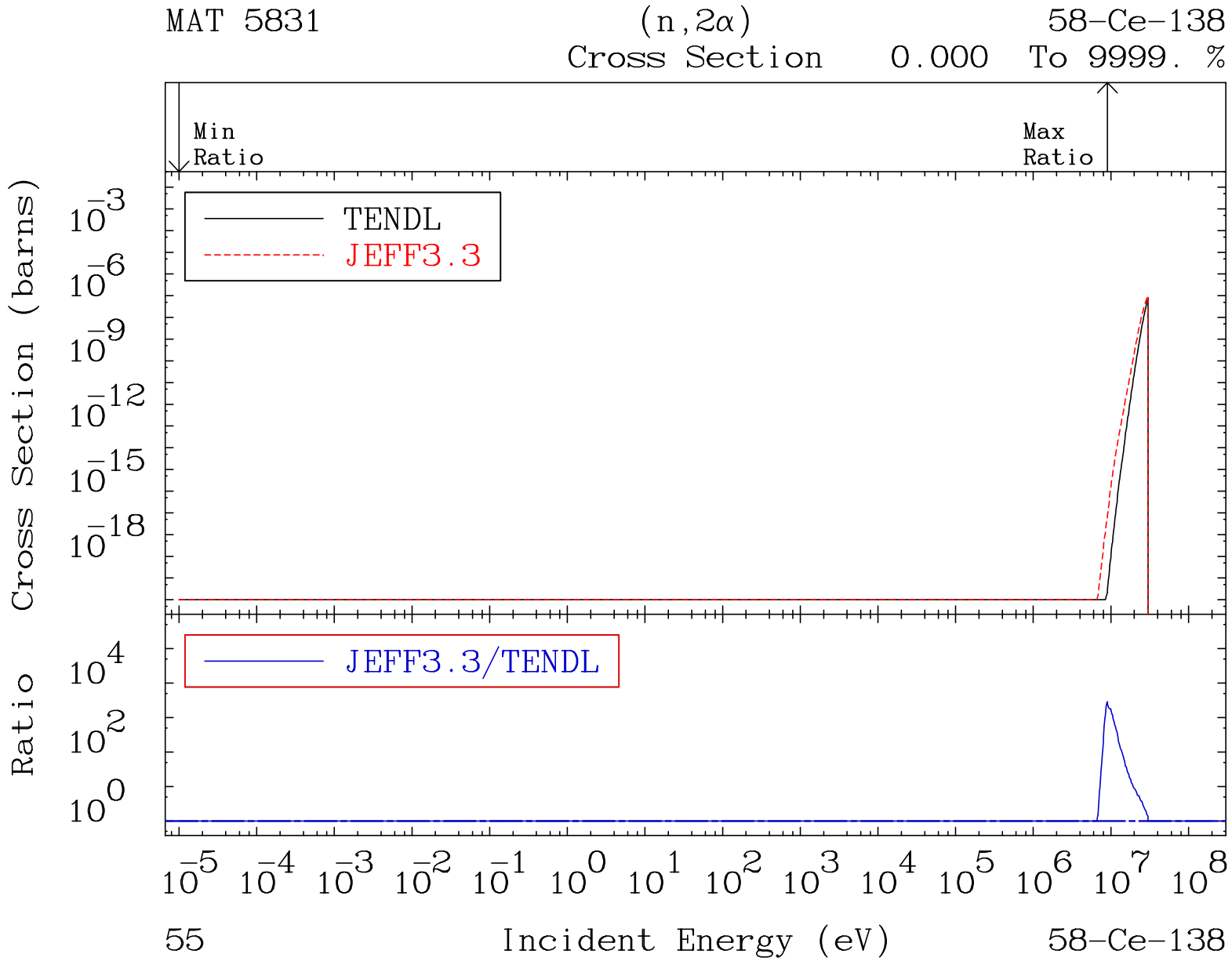

MAT 5831
(n,p)
58-Ce-138
Cross Section
-22.61 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 272.09 keV
JEFF3.3 Threshold 266.42 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
40
30
20
10
0
10^6
10^3
10^0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
50
Incident Energy (eV)
58-Ce-138

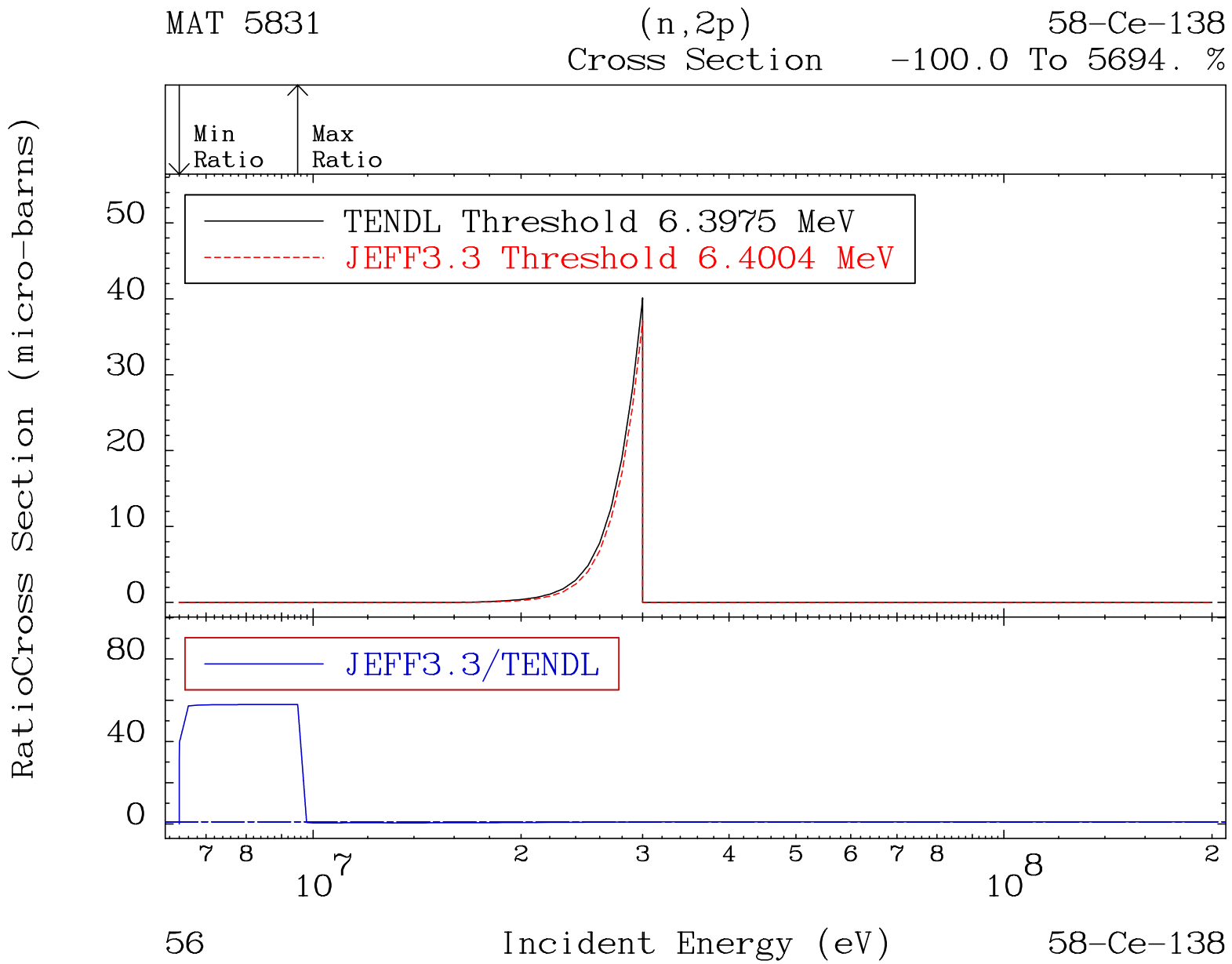

MAT 5831
(n,d)
58-Ce-138
Cross Section
-100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 5.5296 MeV
JEFF3.3 Threshold 5.5324 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
51
Incident Energy (eV)
58-Ce-138

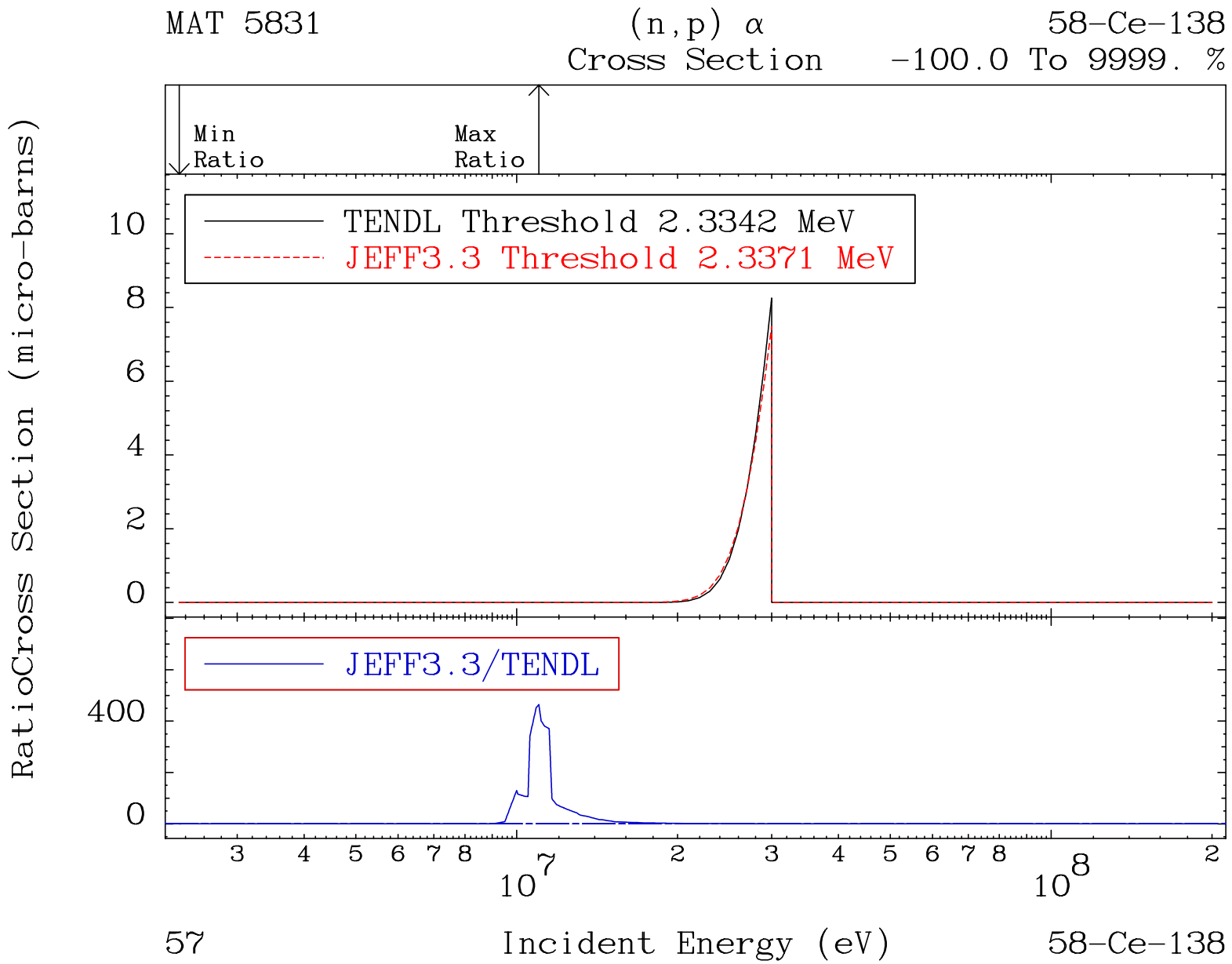

MAT 5831
(n,t)
Cross Section
58-Ce-138
-100.0 To 2.110 %
Min Ratio
Max Ratio
TENDL Threshold 8.4684 MeV
JEFF3.3 Threshold 8.4712 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
6
4
2
0
1.2
0.6
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
52
Incident Energy (eV)
58-Ce-138

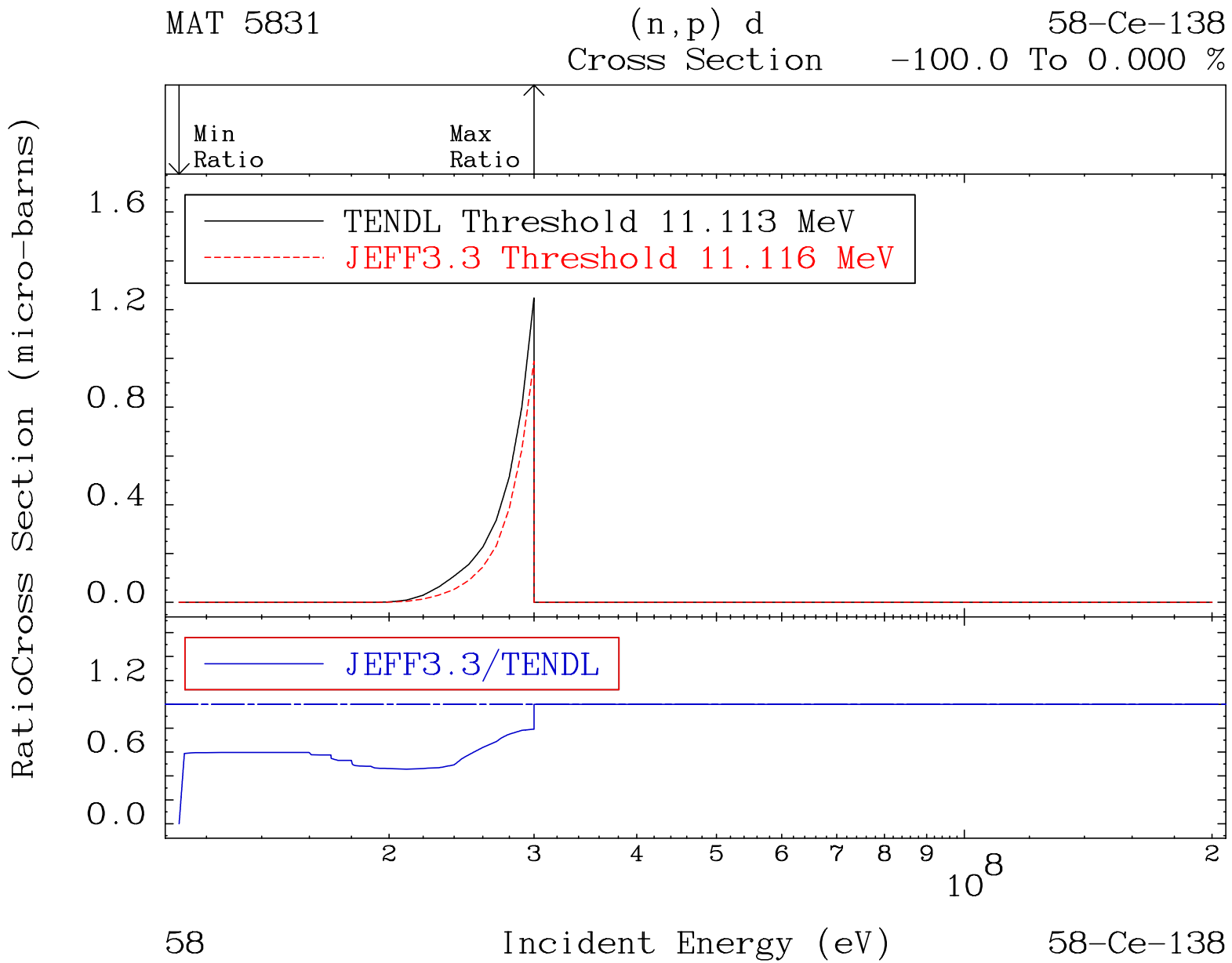

MAT 5831
(n,He-3)
Cross Section
58-Ce-138
-100.0 To 1.919 %
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JEFF3.3 Threshold 5.5820 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
1.6
1.2
0.8
0.4
0.0
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
53
Incident Energy (eV)
58-Ce-138

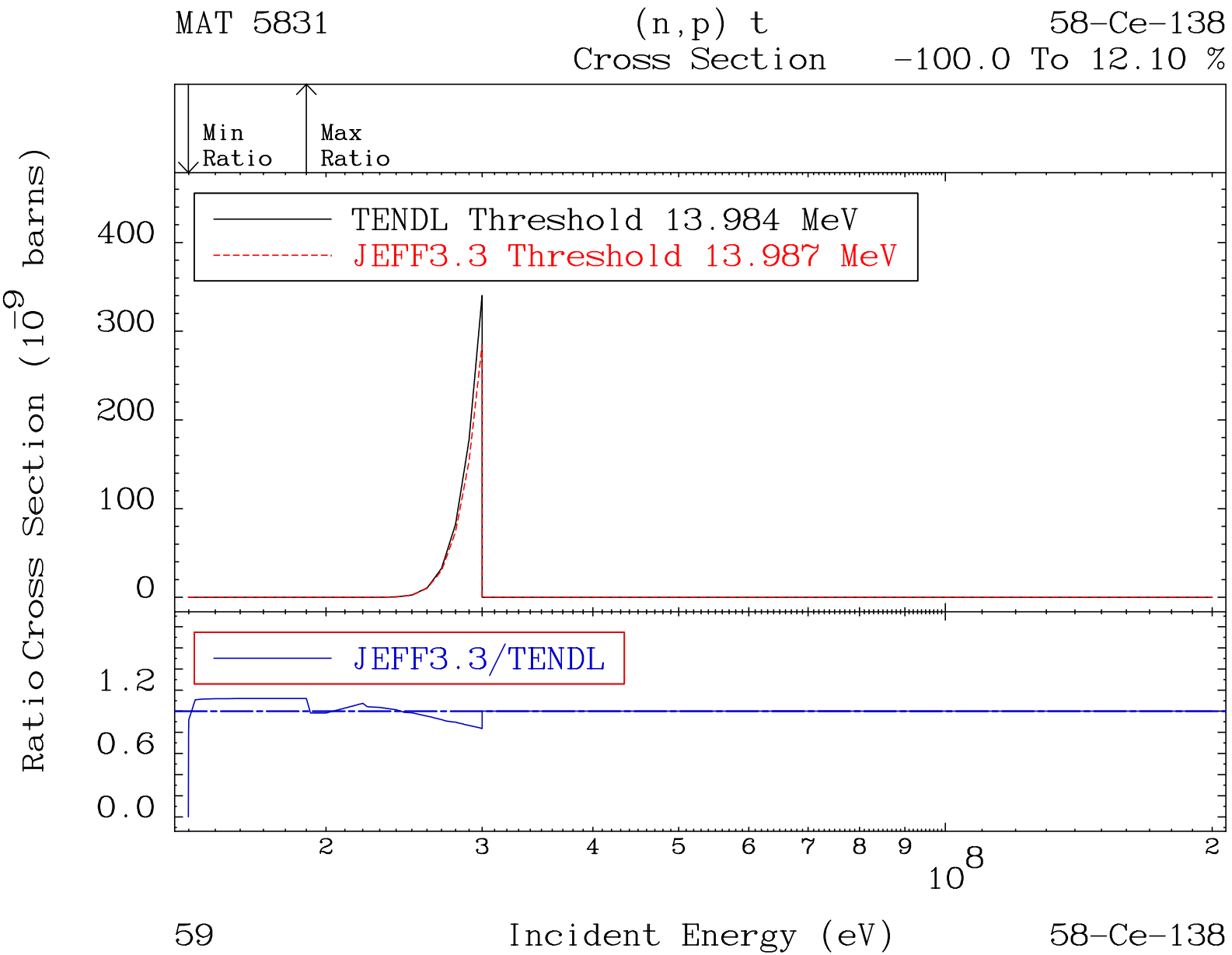

MAT 5831
(n,α)
58-Ce-138
Cross Section
-14.16 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
54
58-Ce-138

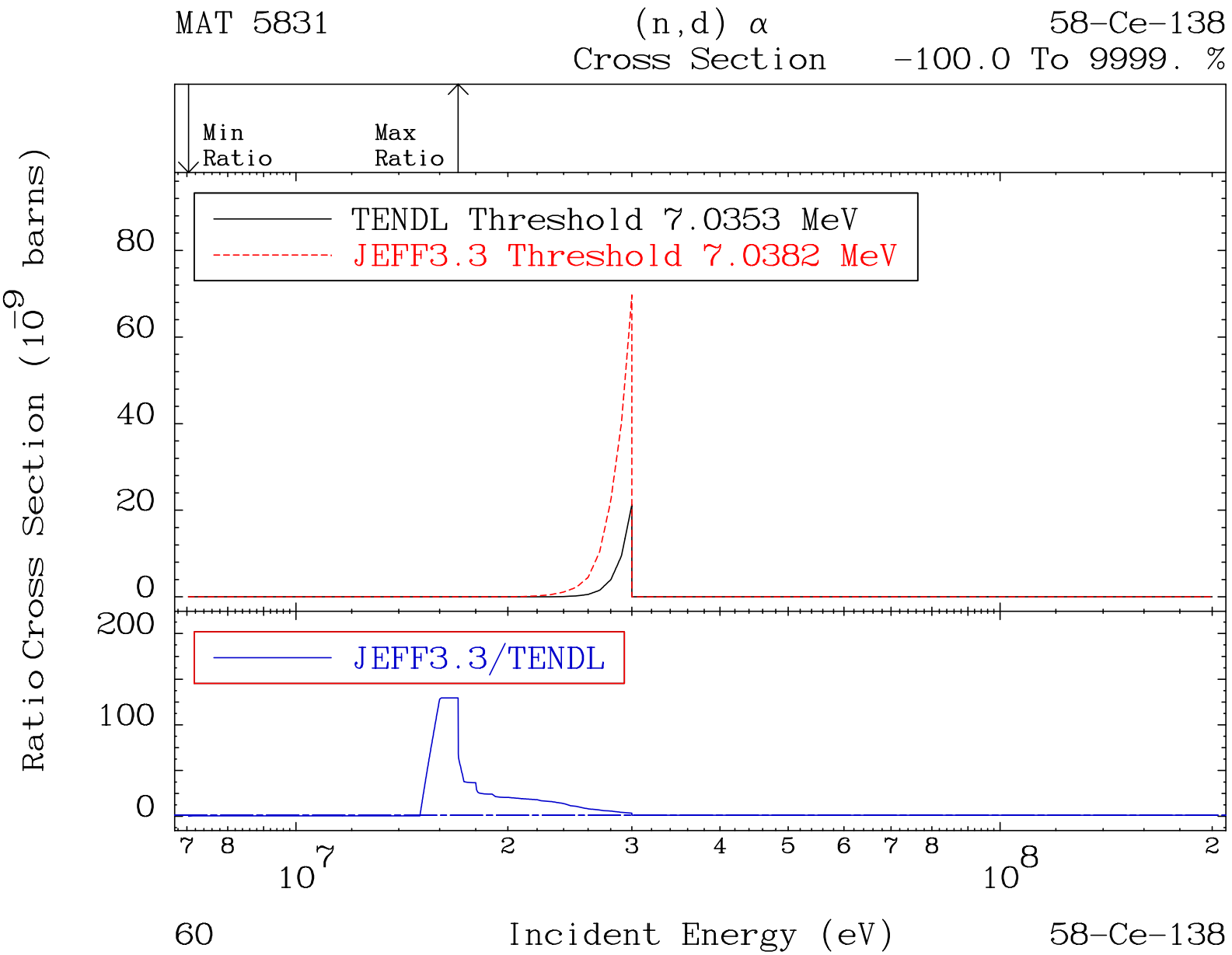

MAT 5831
(n,2α)
58-Ce-138
Cross Section 0.000 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
55
58-Ce-138

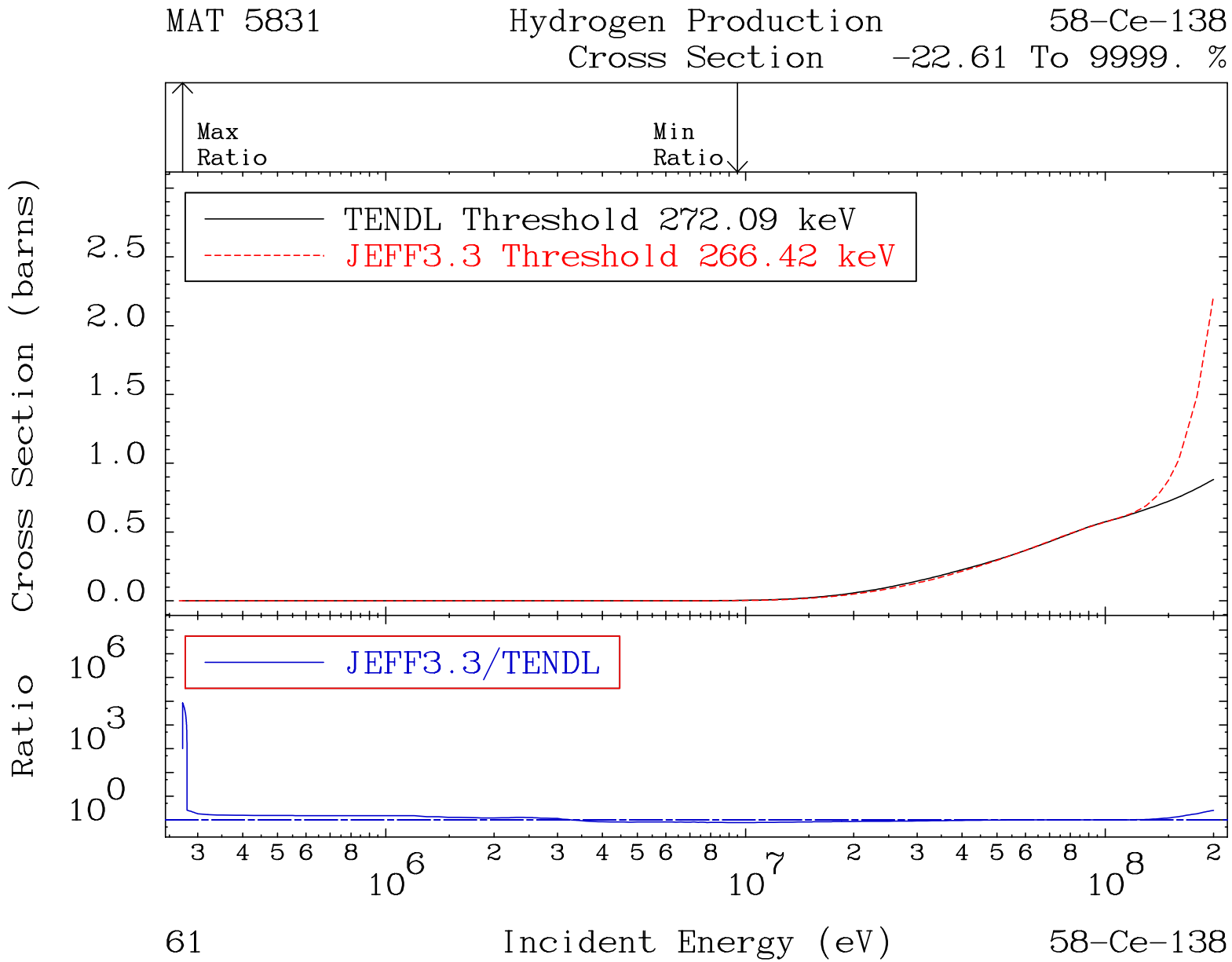

MAT 5831
(n,2p)
58-Ce-138
Cross Section
-100.0 To 5694. %
Min Ratio
Max Ratio
TENDL Threshold 6.3975 MeV
JEFF3.3 Threshold 6.4004 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
50
40
30
20
10
0
80
40
0
7 8
10^7
2 3 4 5 6 7 8
10^8
2
56
Incident Energy (eV)
58-Ce-138

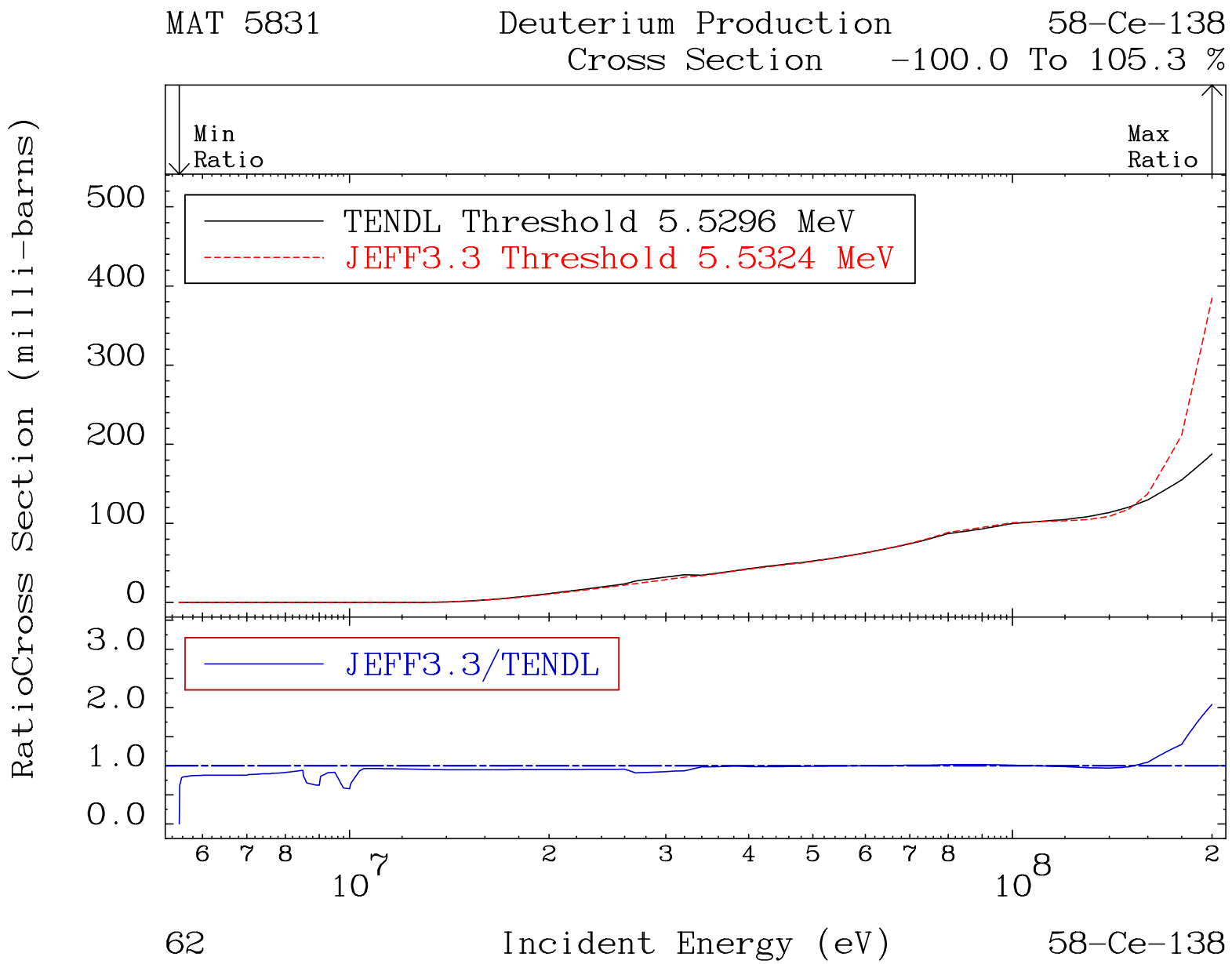

MAT 5831
(n,p) α
Cross Section
58-Ce-138
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.3342 MeV
JEFF3.3 Threshold 2.3371 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
10
8
6
4
2
0
400
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
57
Incident Energy (eV)
58-Ce-138

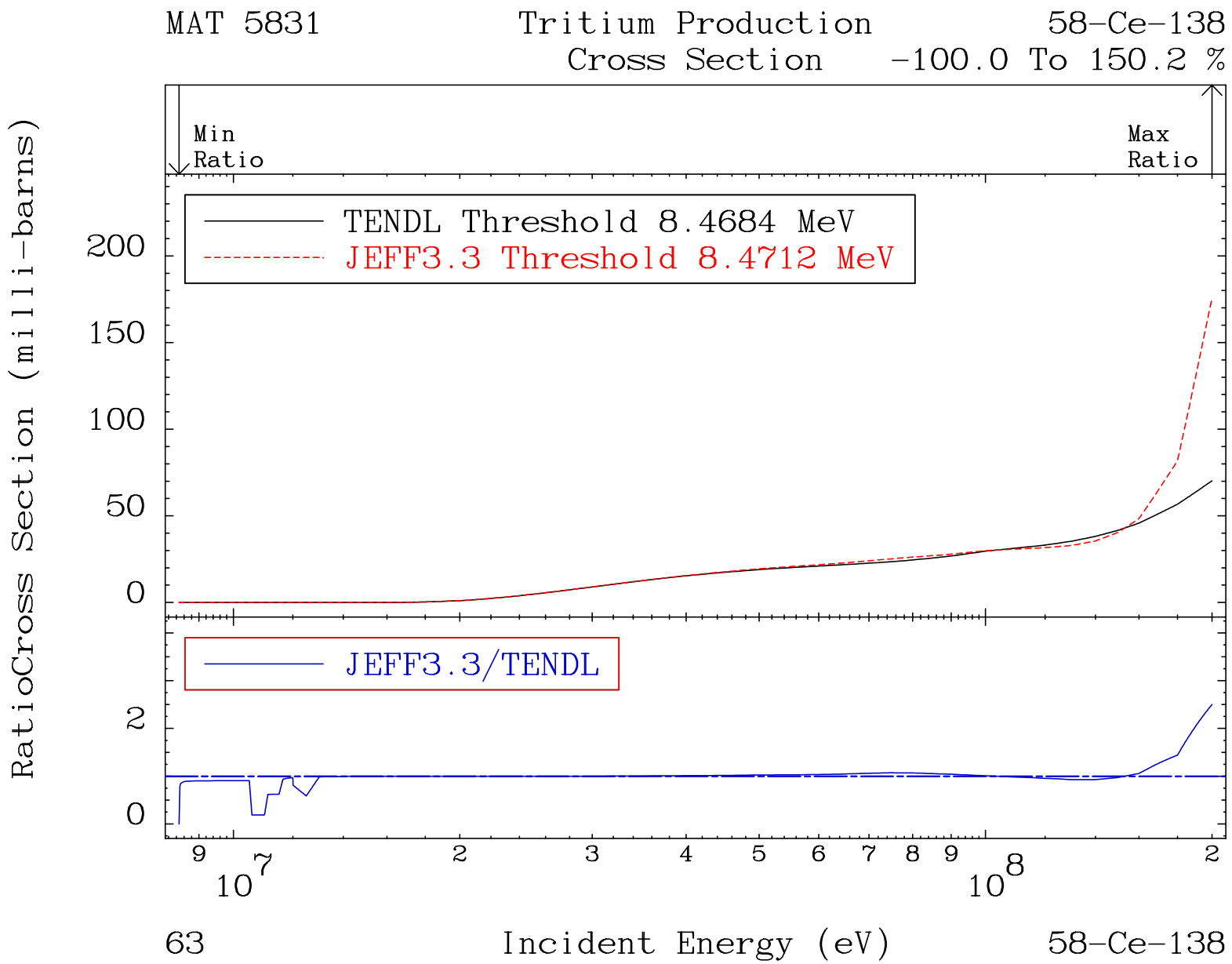

MAT 5831
(n,p) d
Cross Section
58-Ce-138
-100.0 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 11.113 MeV
JEFF3.3 Threshold 11.116 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
1.6
1.2
0.8
0.4
0.0
1.2
0.6
0.0
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
58-Ce-138

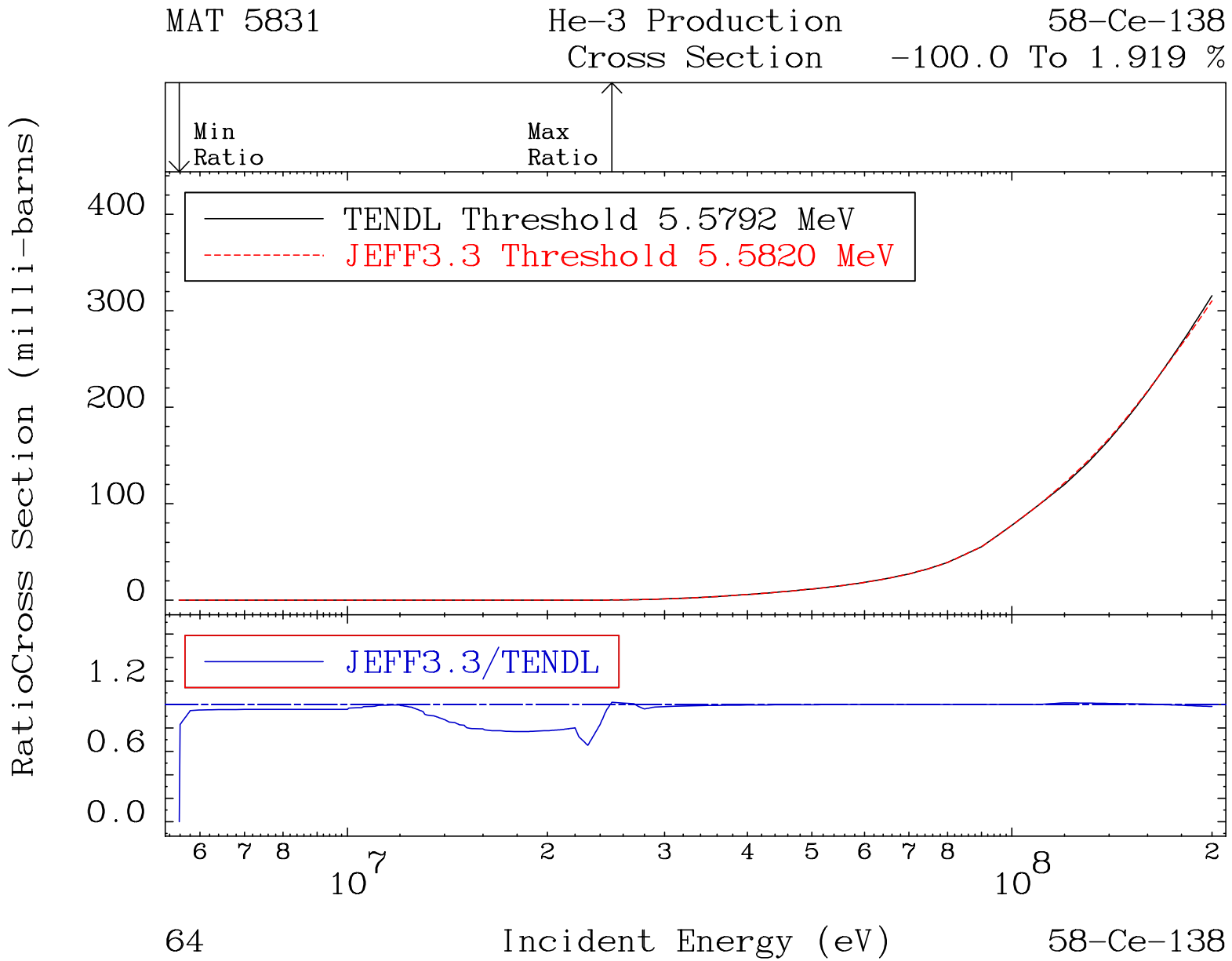

MAT 5831
(n,p) t
Cross Section
58-Ce-138
-100.0 To 12.10 %
Min Ratio
Max Ratio
TENDL Threshold 13.984 MeV
JEFF3.3 Threshold 13.987 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^-9 barns)
400
300
200
100
0
1.2
0.6
0.0
2
3
4
5
6
7
8
9
10^8
2
59
Incident Energy (eV)
58-Ce-138

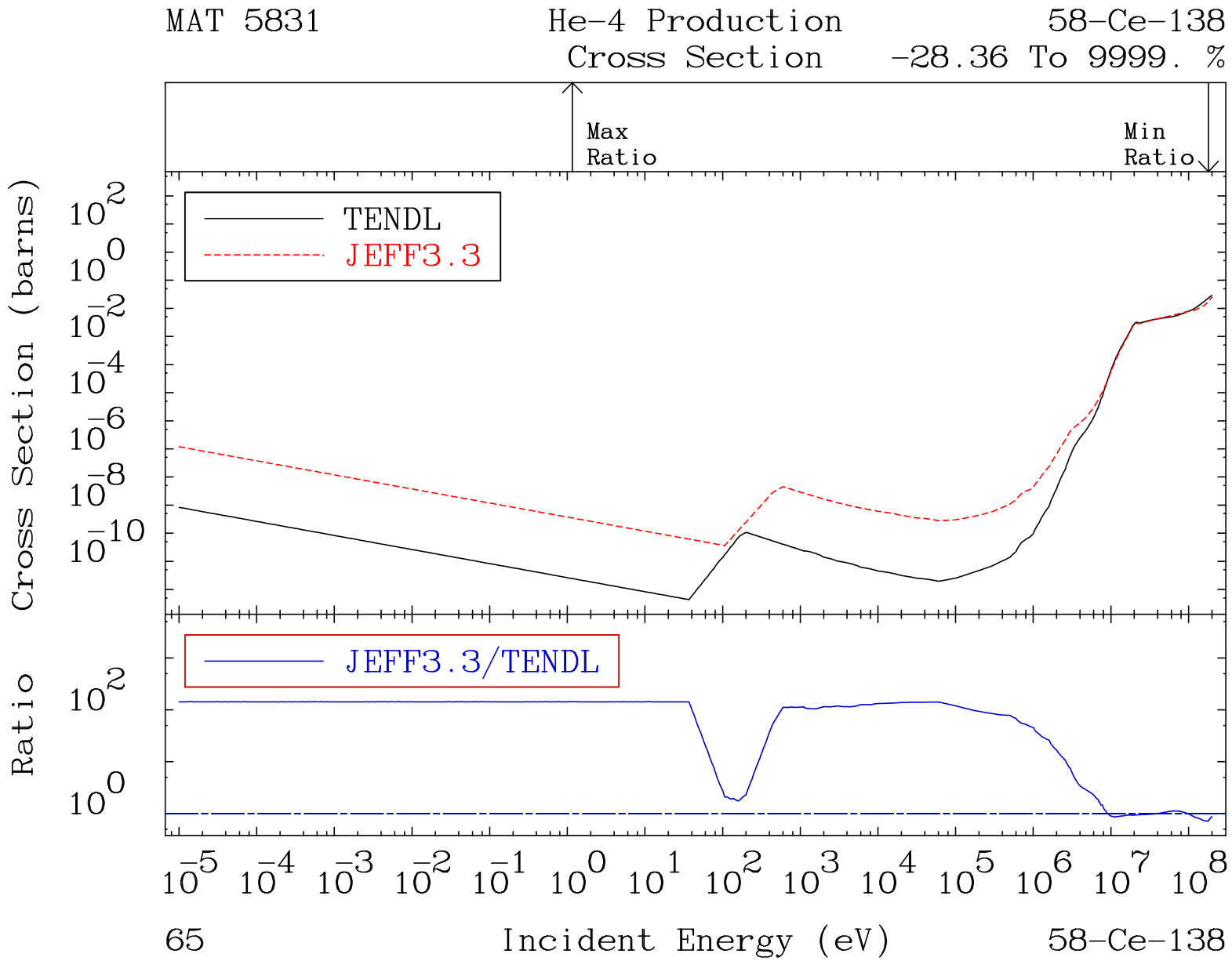

MAT 5831
(n,d) α
58-Ce-138
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 7.0353 MeV
JEFF3.3 Threshold 7.0382 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^-9 barns)
80
60
40
20
0
200
100
0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
60
Incident Energy (eV)
58-Ce-138

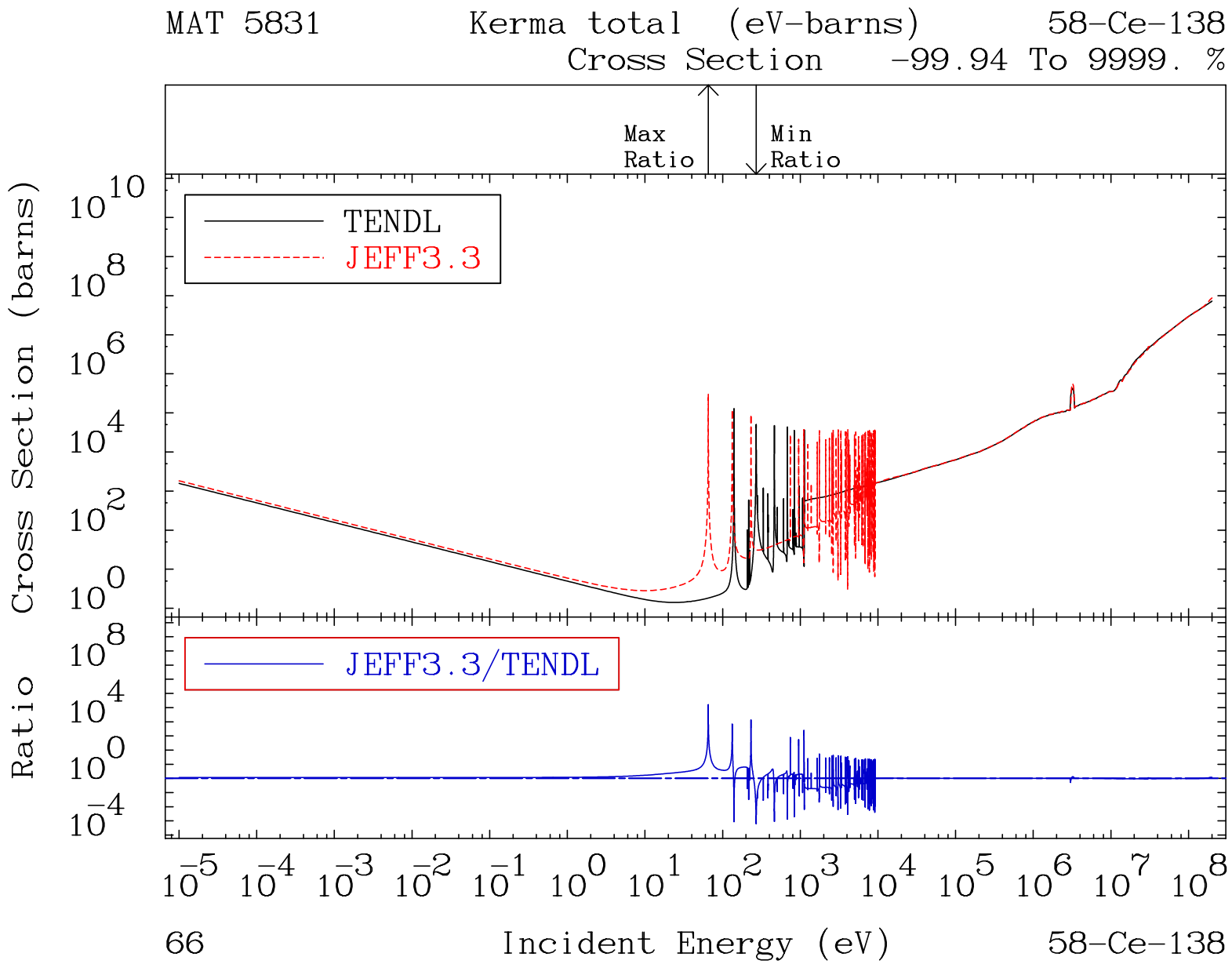

MAT 5831
Hydrogen Production
58-Ce-138
Cross Section
-22.61 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 272.09 keV
JEFF3.3 Threshold 266.42 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^6
10^3
10^0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
61
Incident Energy (eV)
58-Ce-138

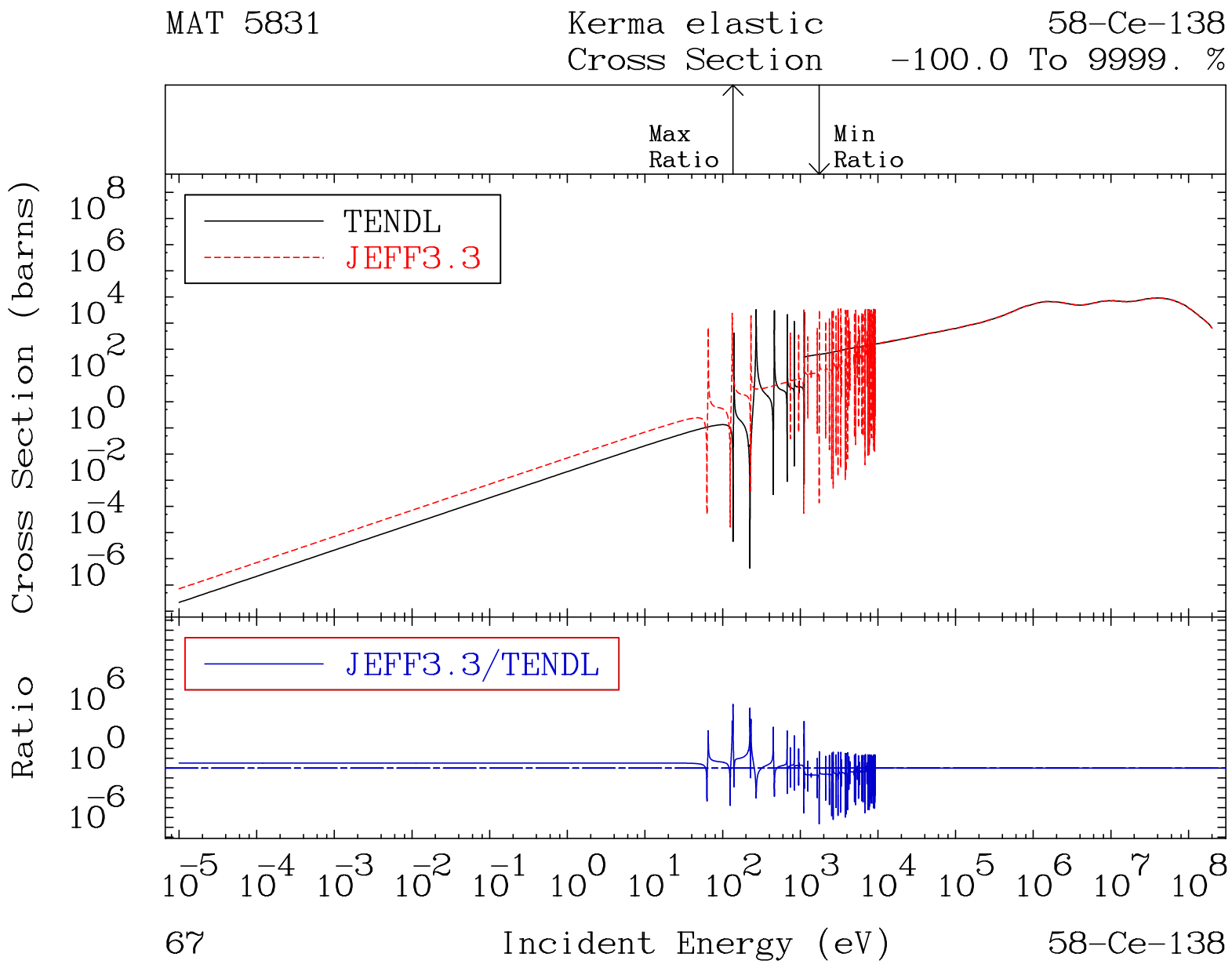

MAT 5831
Deuterium Production
58-Ce-138
Cross Section
-100.0 To 105.3 %
Min Ratio
Max Ratio
TENDL Threshold 5.5296 MeV
JEFF3.3 Threshold 5.5324 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
500
400
300
200
100
0
3.0
2.0
1.0
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
62
Incident Energy (eV)
58-Ce-138

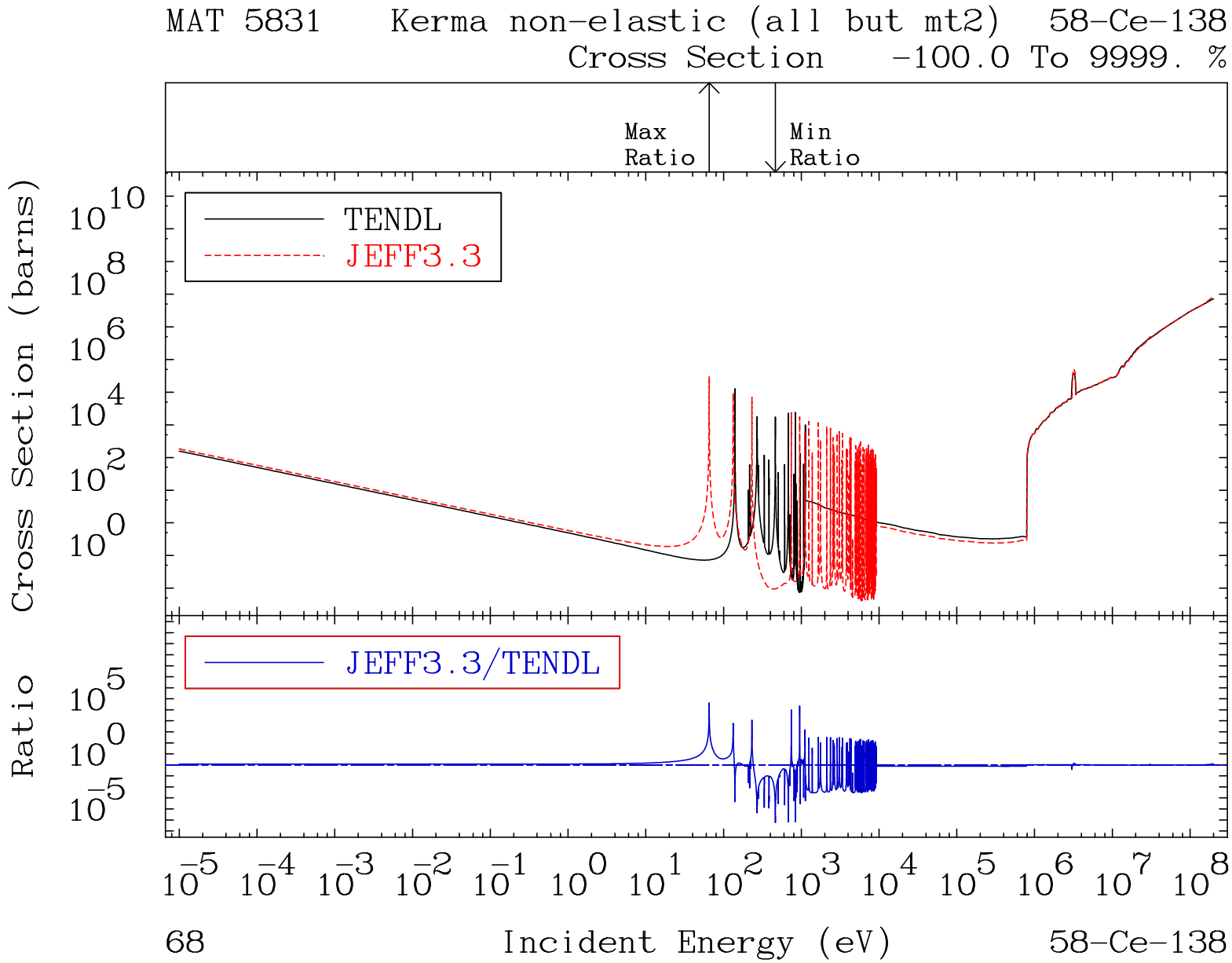

MAT 5831
Tritium Production
Cross Section
58-Ce-138
-100.0 To 150.2 %
Min Ratio
Max Ratio
TENDL Threshold 8.4684 MeV
JEFF3.3 Threshold 8.4712 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
2
0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
58-Ce-138

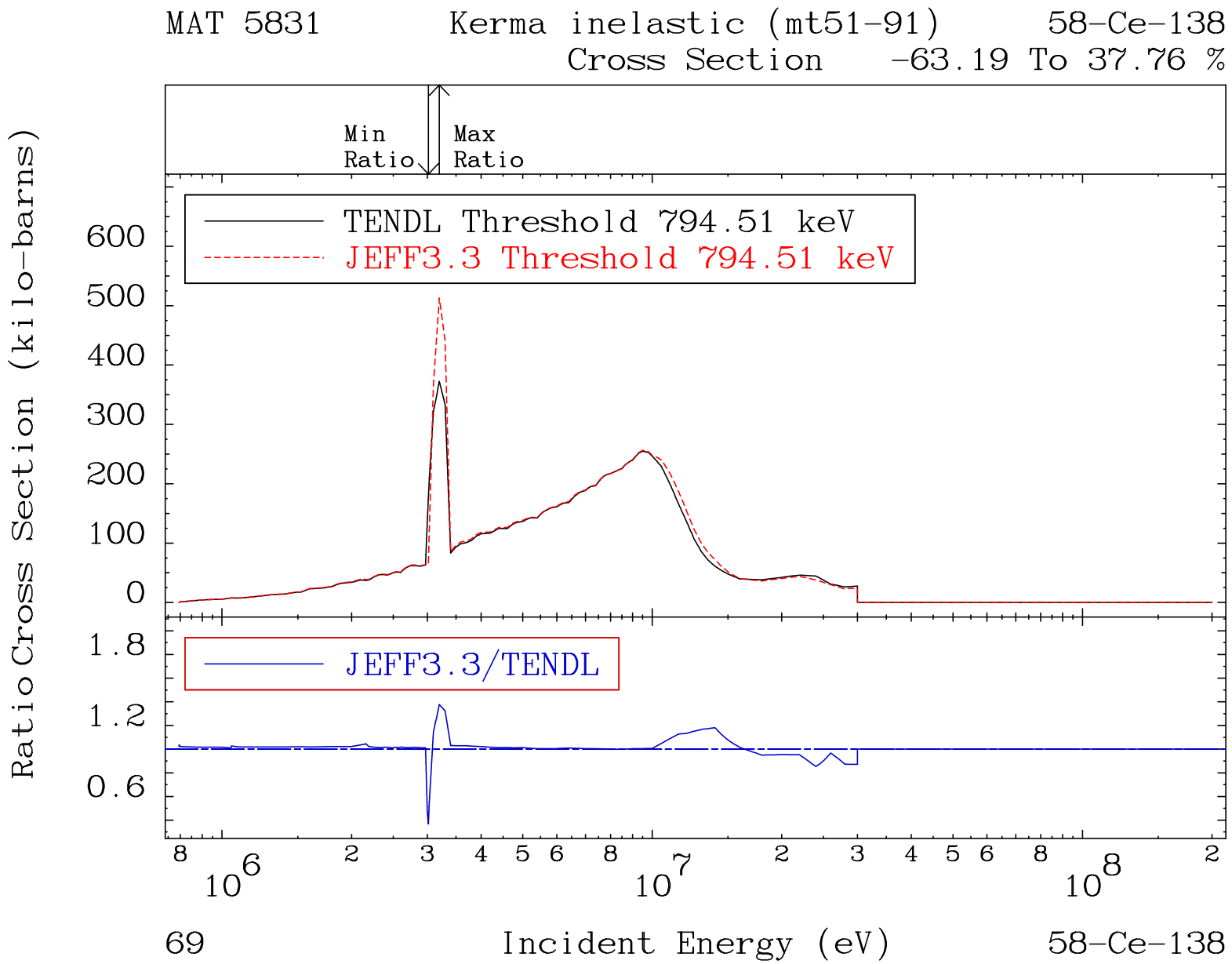

MAT 5831
He-3 Production
Cross Section
58-Ce-138
-100.0 To 1.919 %
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JEFF3.3 Threshold 5.5820 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
64
Incident Energy (eV)
58-Ce-138

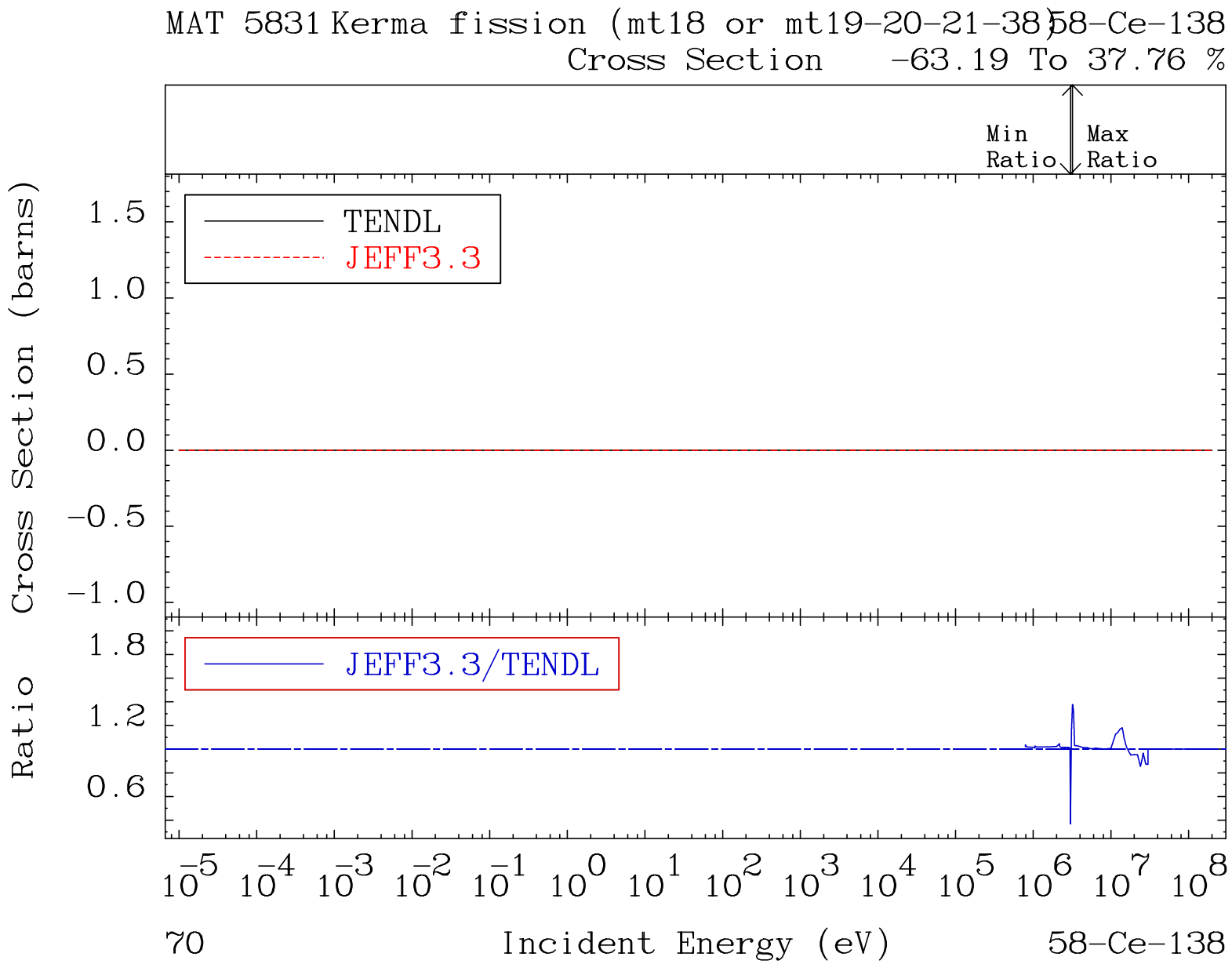

MAT 5831
He-4 Production
Cross Section
58-Ce-138
-28.36 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
65
58-Ce-138

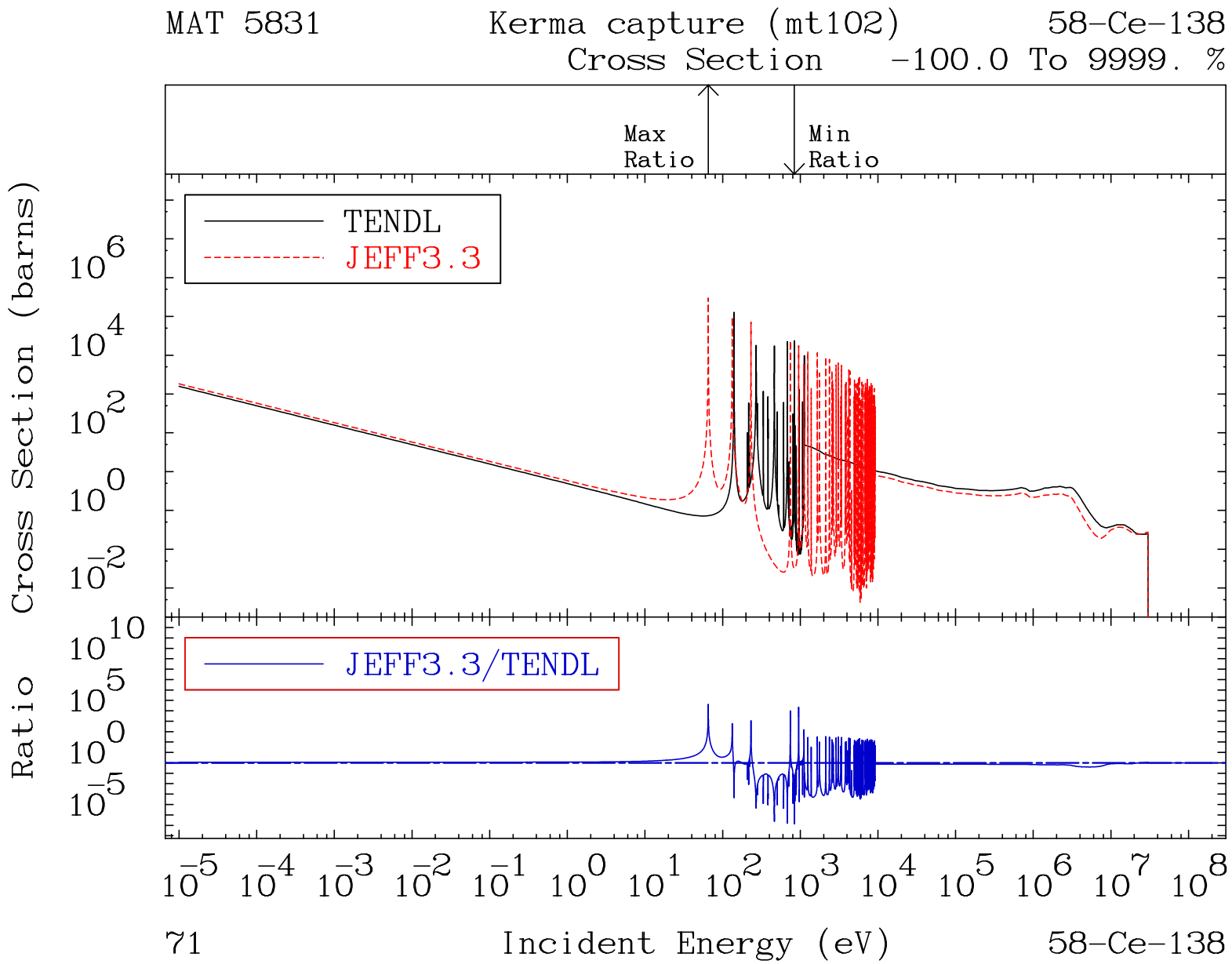

MAT 5831
Kerma total (eV-barns)
58-Ce-138
Cross Section -99.94 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
66
58-Ce-138

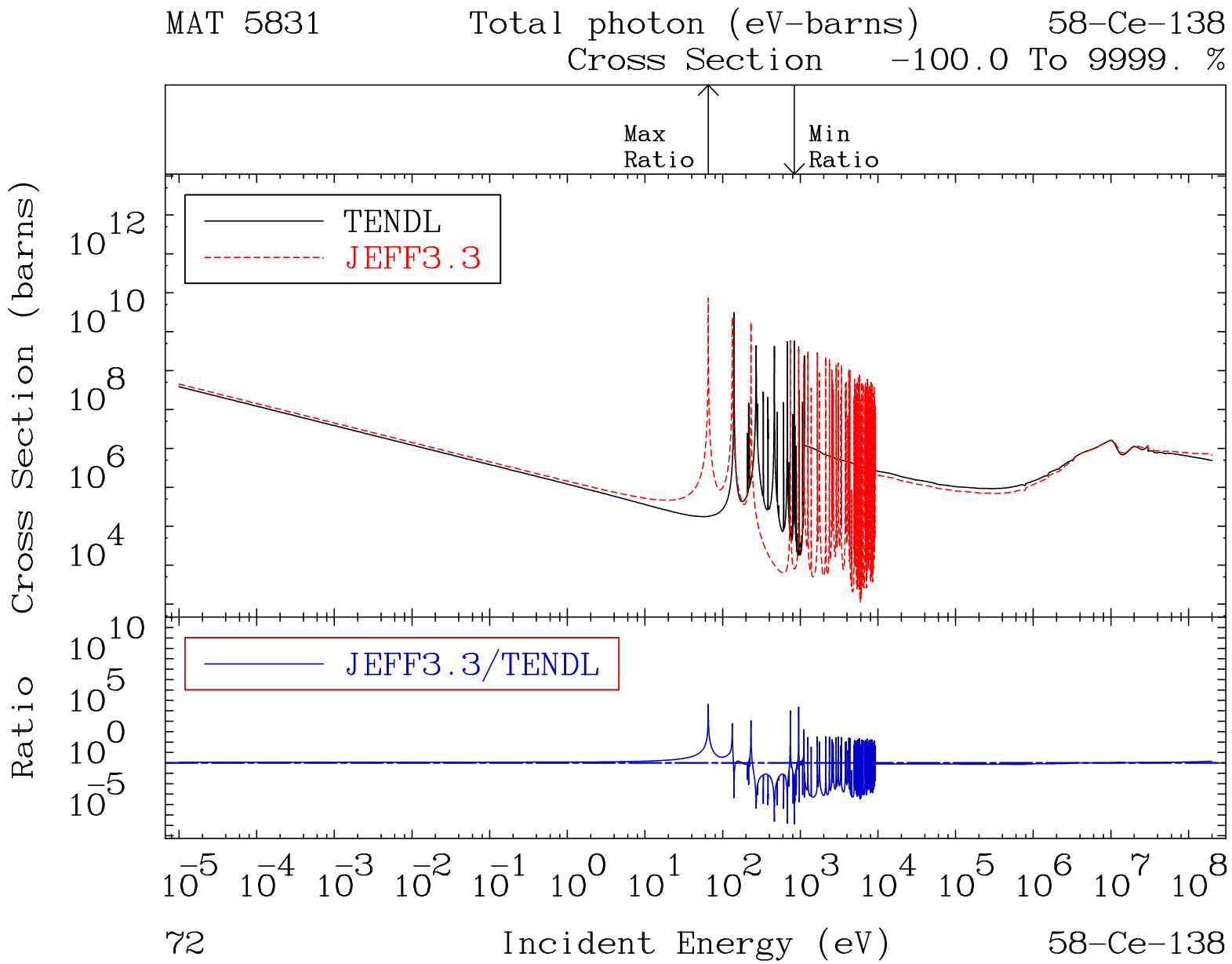

MAT 5831
Kerma elastic
Cross Section
58-Ce-138
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
67
58-Ce-138

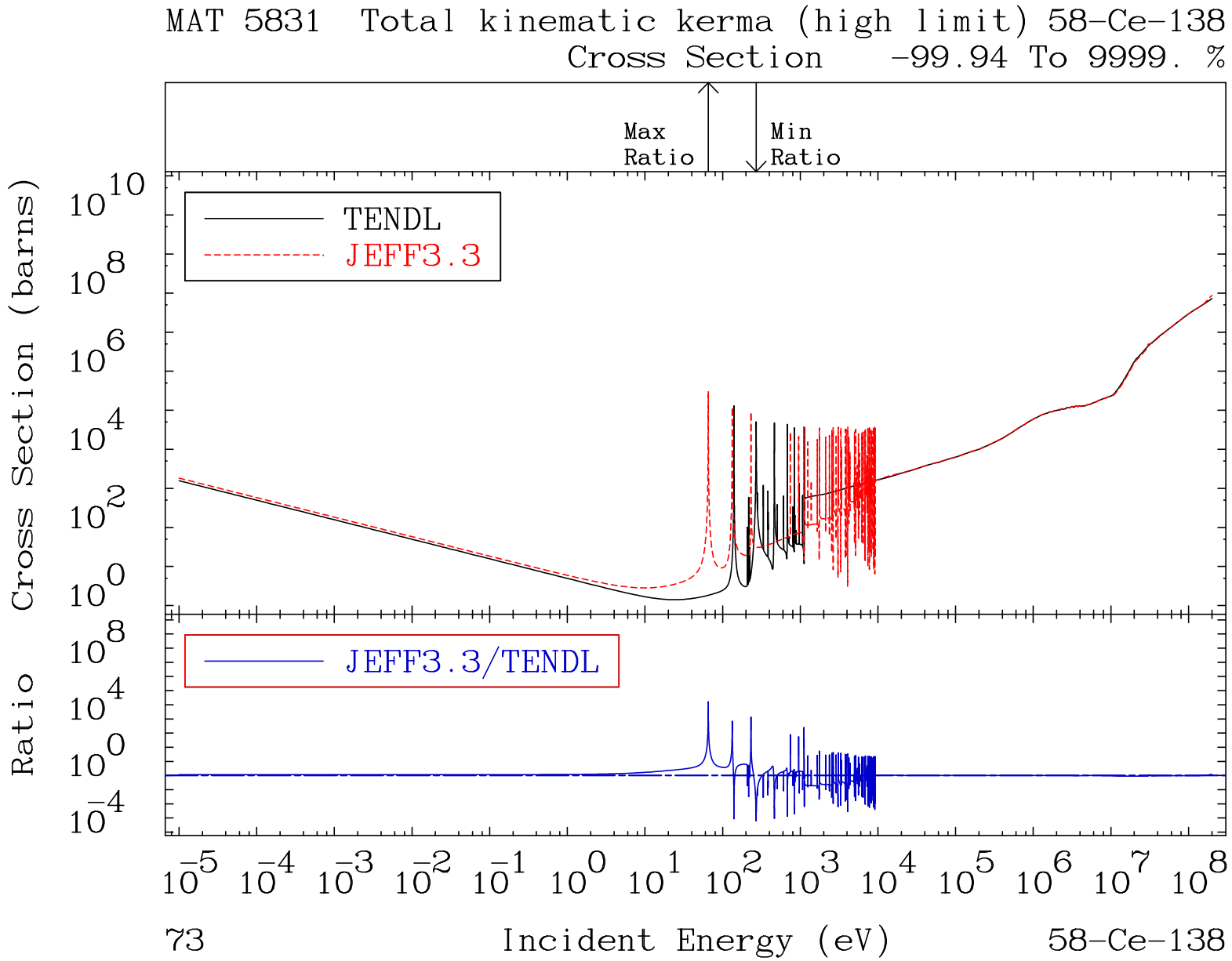

MAT 5831 Kerma non-elastic (all but mt2) 58-Ce-138
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
68
58-Ce-138

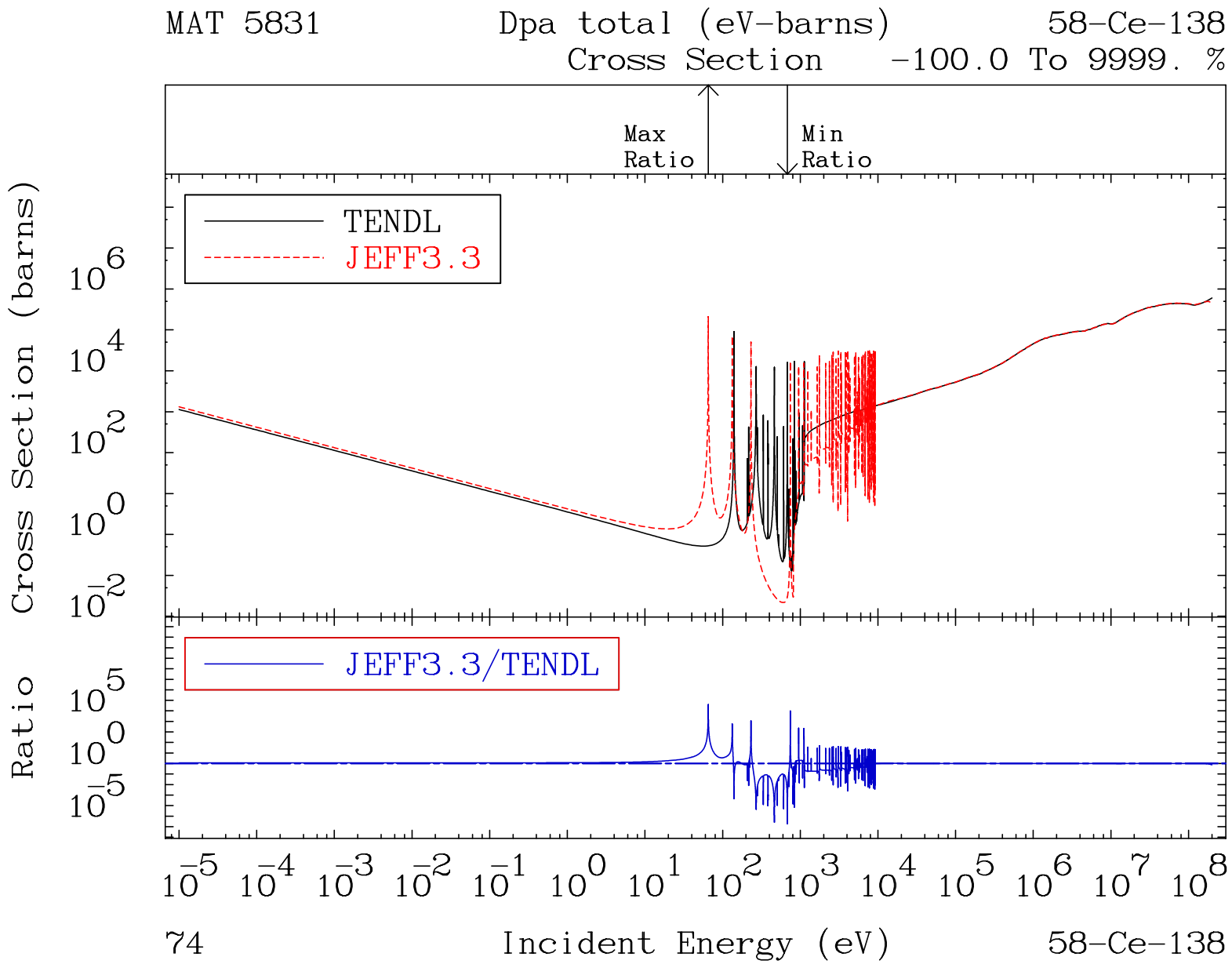

MAT 5831
Kerma inelastic (mt51-91)
58-Ce-138
Cross Section
-63.19 To 37.76 %
Min Ratio
Max Ratio
TENDL Threshold 794.51 keV
JEFF3.3 Threshold 794.51 keV
JEFF3.3/TENDL
Ratio Cross Section (kilo-barns)
600
500
400
300
200
100
0
1.8
1.2
0.6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
69
Incident Energy (eV)
58-Ce-138

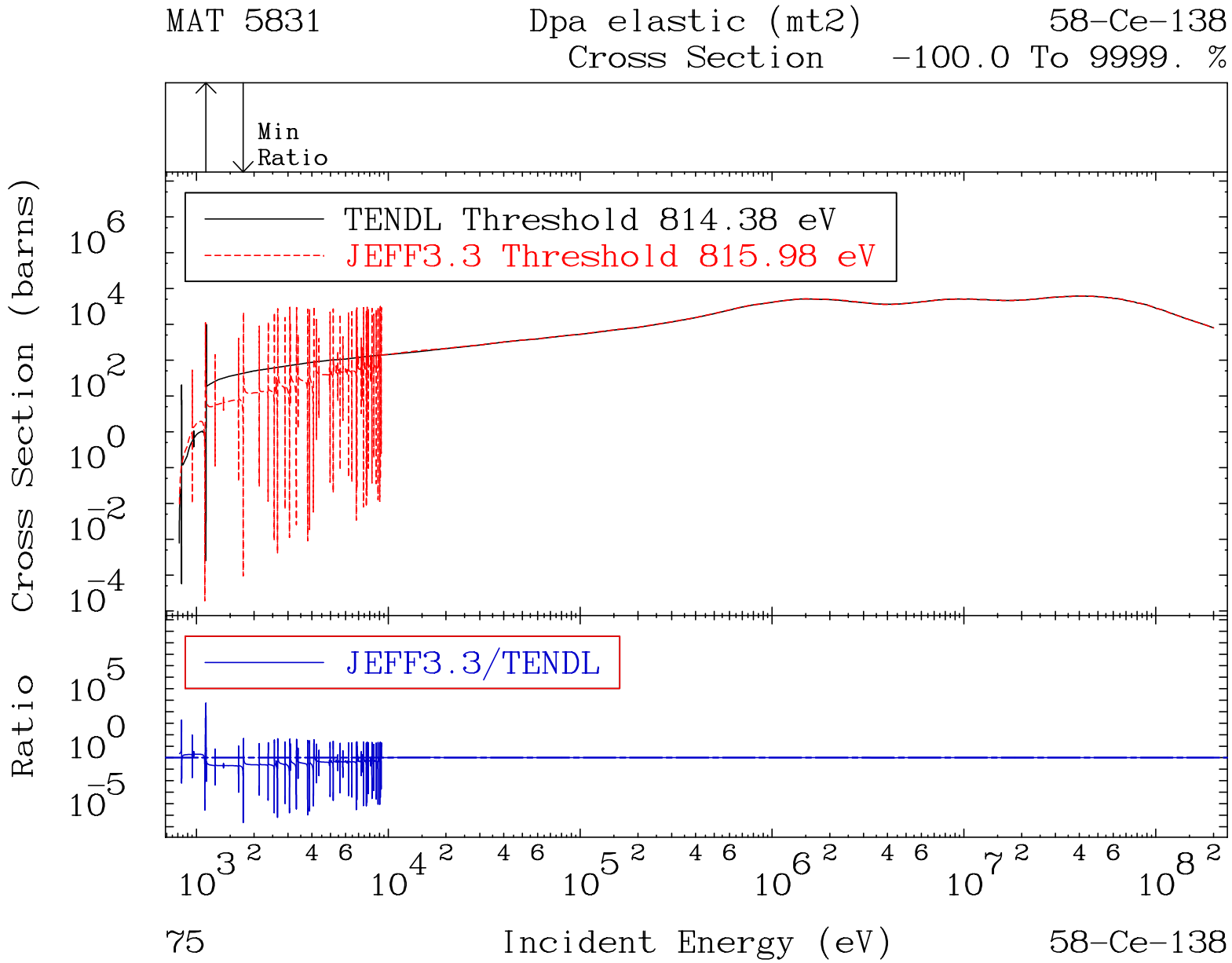

MAT 5831 Kerma fission (mt18 or mt19-20-21-38) 58-Ce-138
Cross Section -63.19 To 37.76 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
1.8
1.2
0.6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
Incident Energy (eV)
70
58-Ce-138

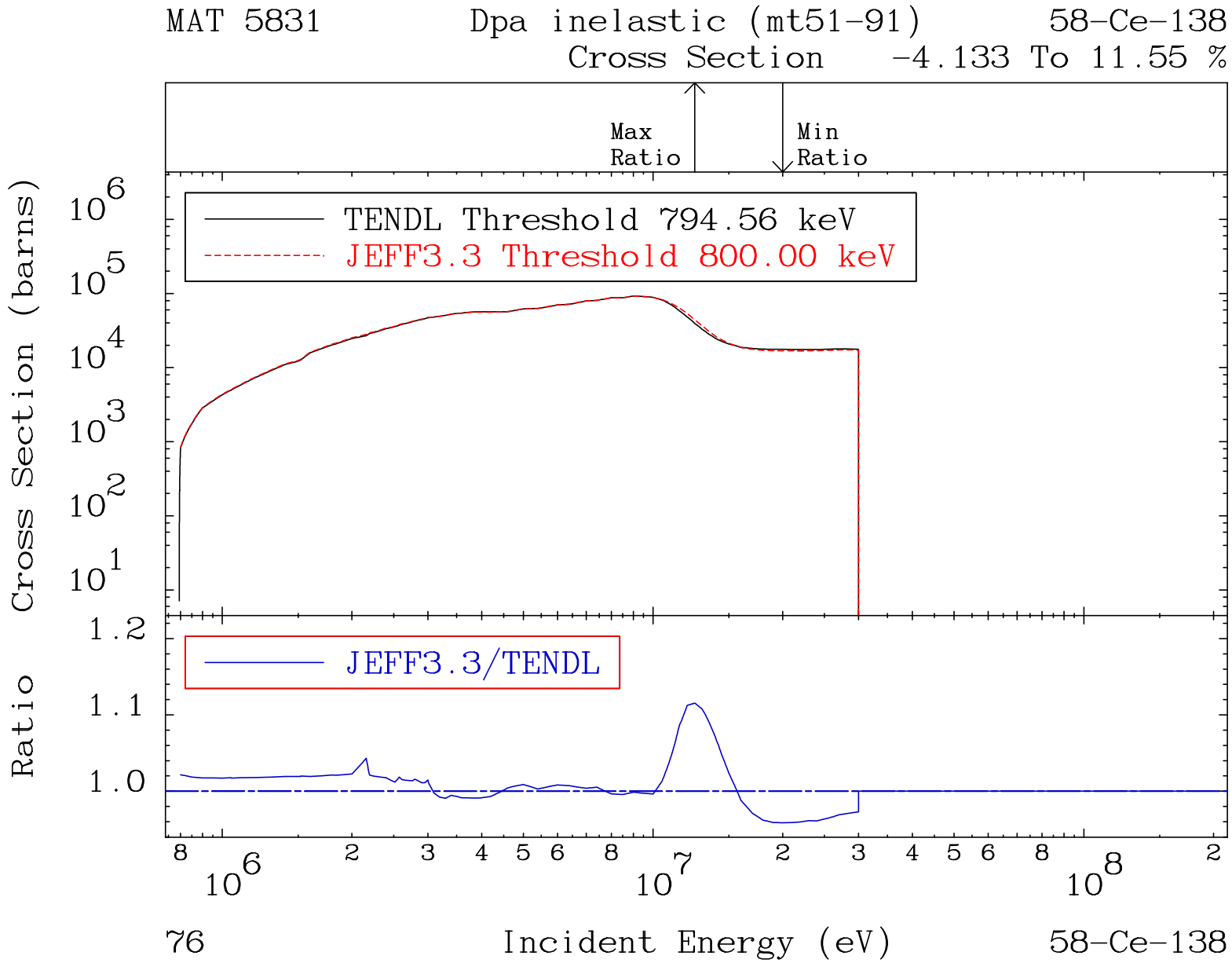

MAT 5831
Kerma capture (mt102)
58-Ce-138
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
71
58-Ce-138

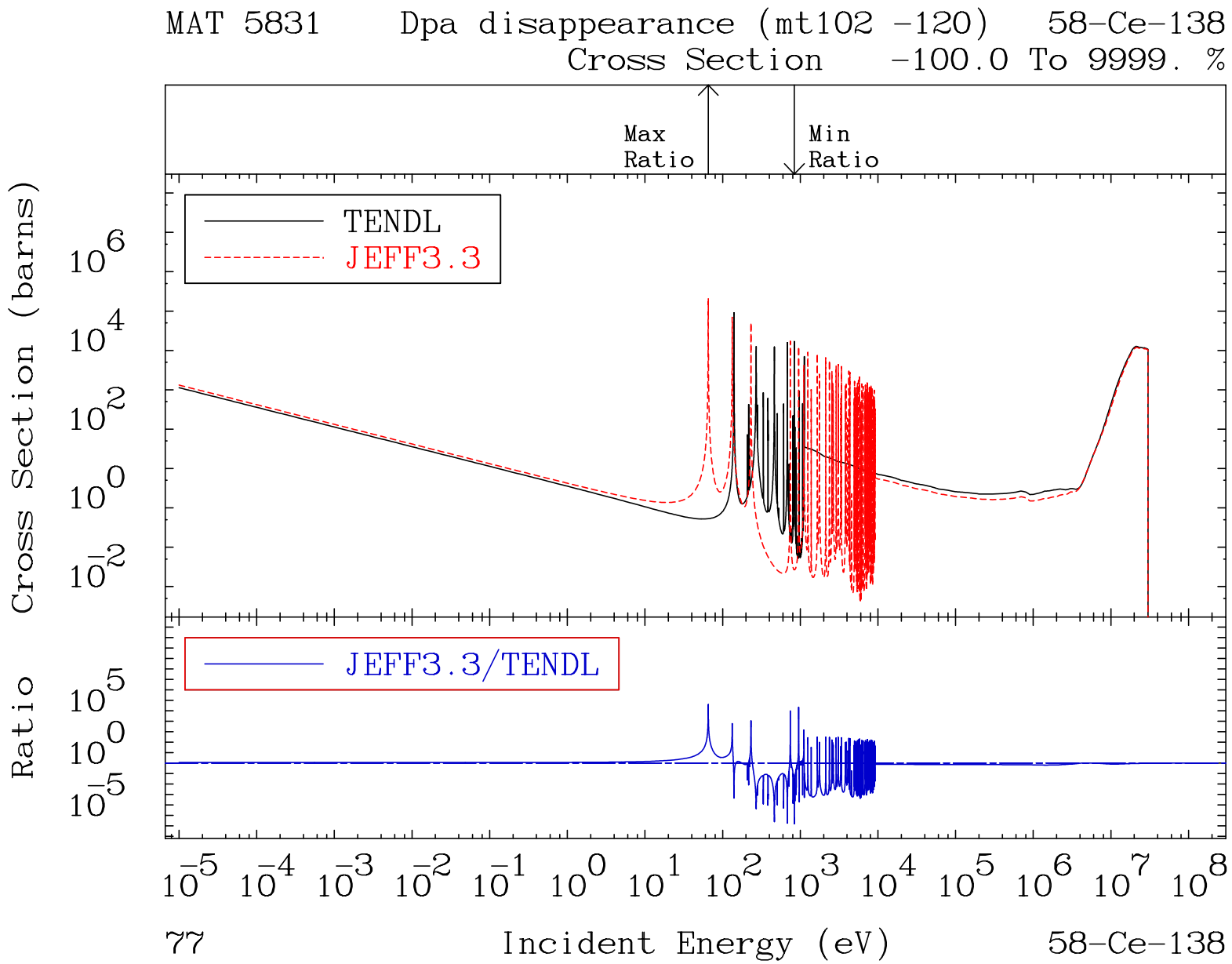

MAT 5831
Total photon (eV-barns)
58-Ce-138
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
72
58-Ce-138

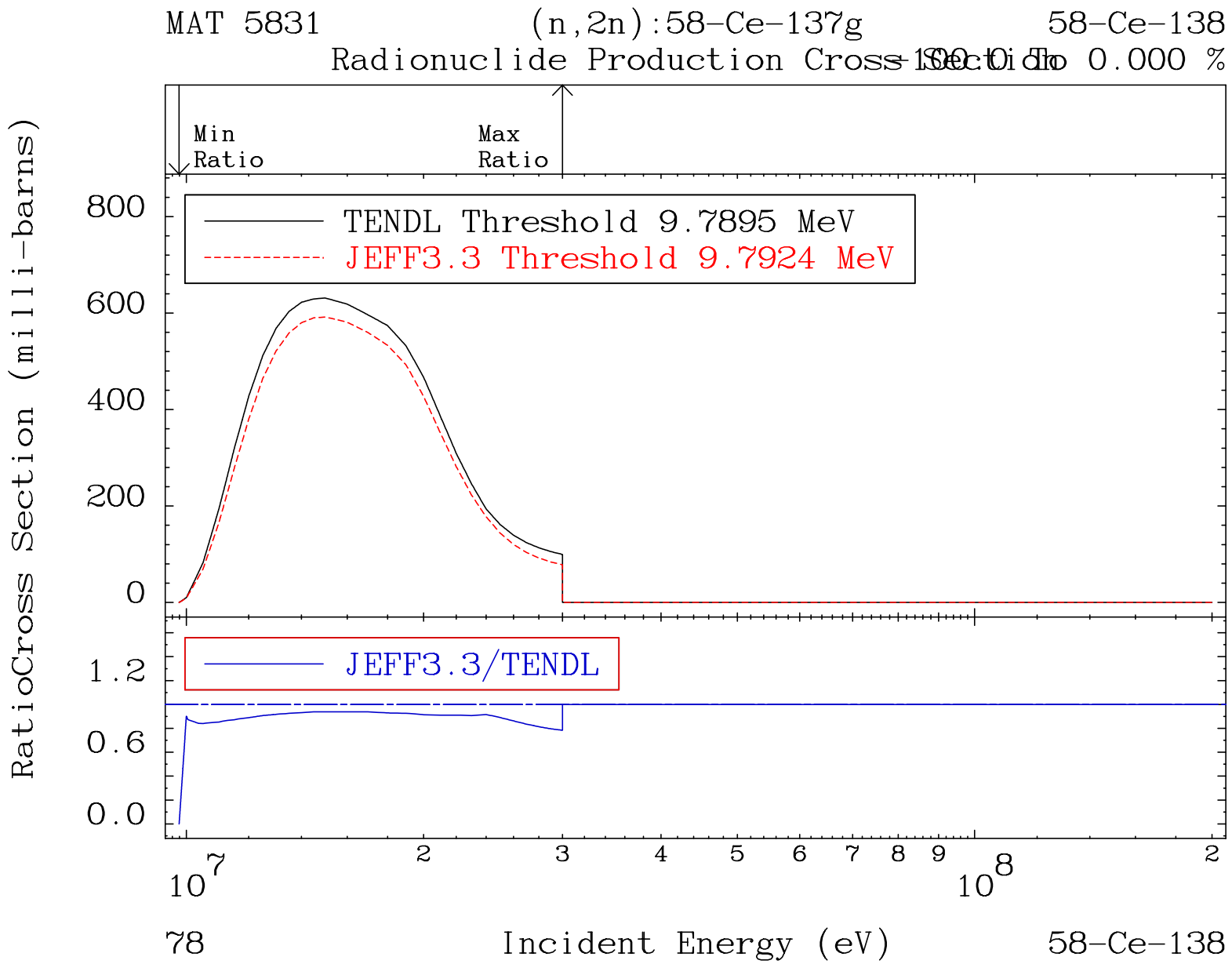

MAT 5831 Total kinematic kerma (high limit) 58-Ce-138
Cross Section -99.94 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
73
58-Ce-138

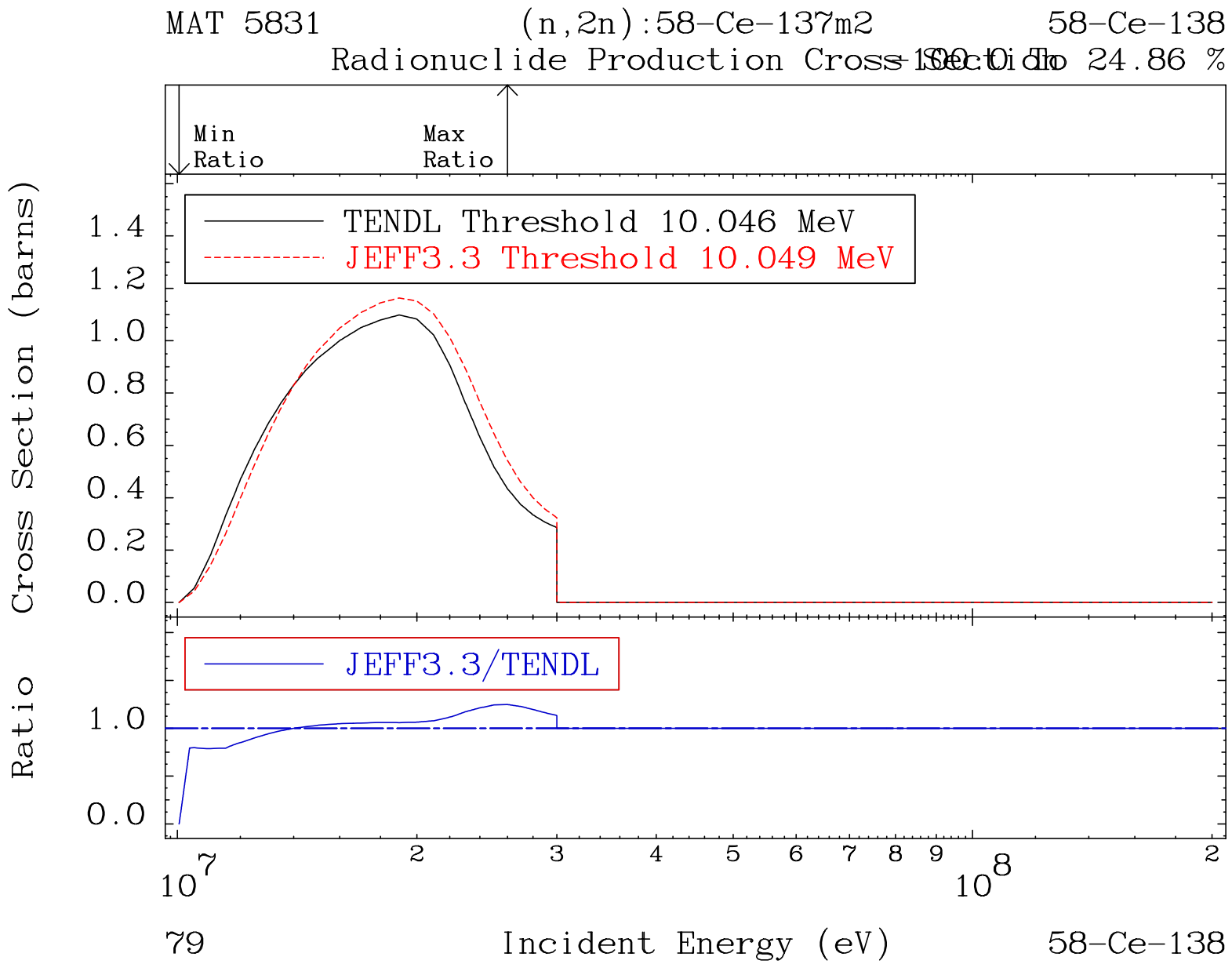

MAT 5831
Dpa total (eV-barns)
58-Ce-138
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
74
58-Ce-138

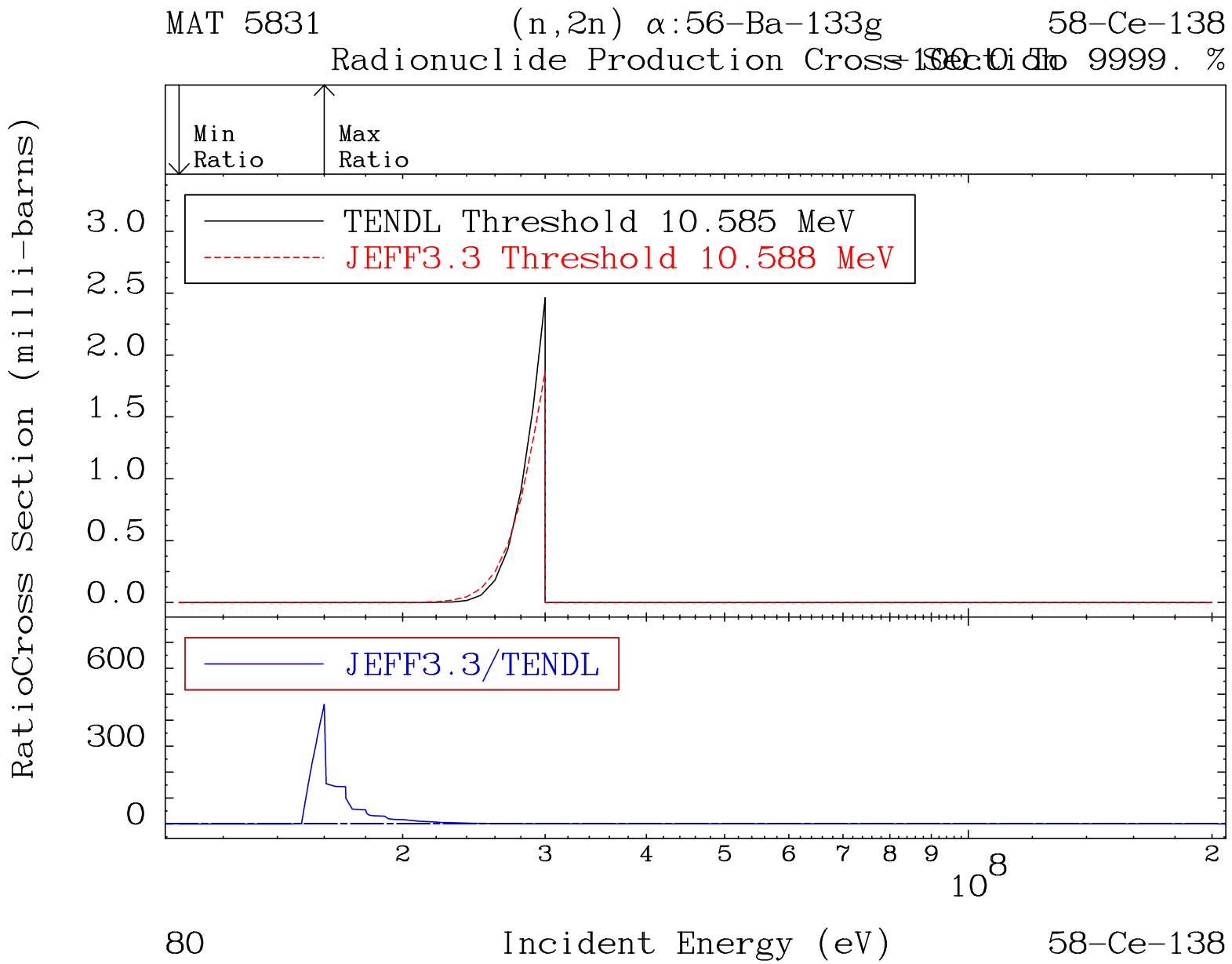

MAT 5831
Dpa elastic (mt2)
Cross Section
58-Ce-138
-100.0 To 9999. %
Min
Ratio
TENDL Threshold 814.38 eV
JEFF3.3 Threshold 815.98 eV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
75
58-Ce-138

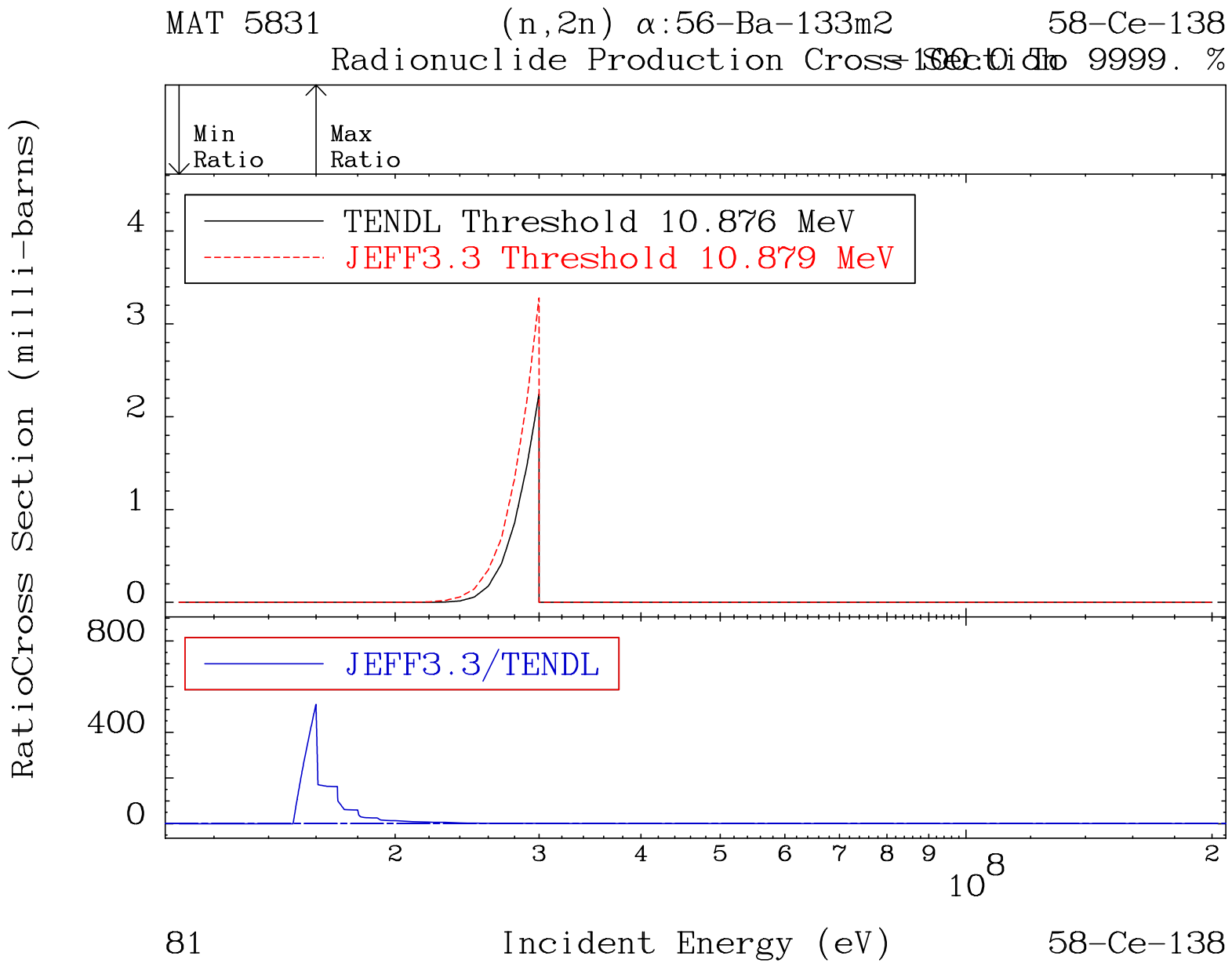

MAT 5831
Dpa inelastic (mt51-91)
58-Ce-138
Cross Section -4.133 To 11.55 %
Max Ratio
Min Ratio
TENDL Threshold 794.56 keV
JEFF3.3 Threshold 800.00 keV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
76
58-Ce-138

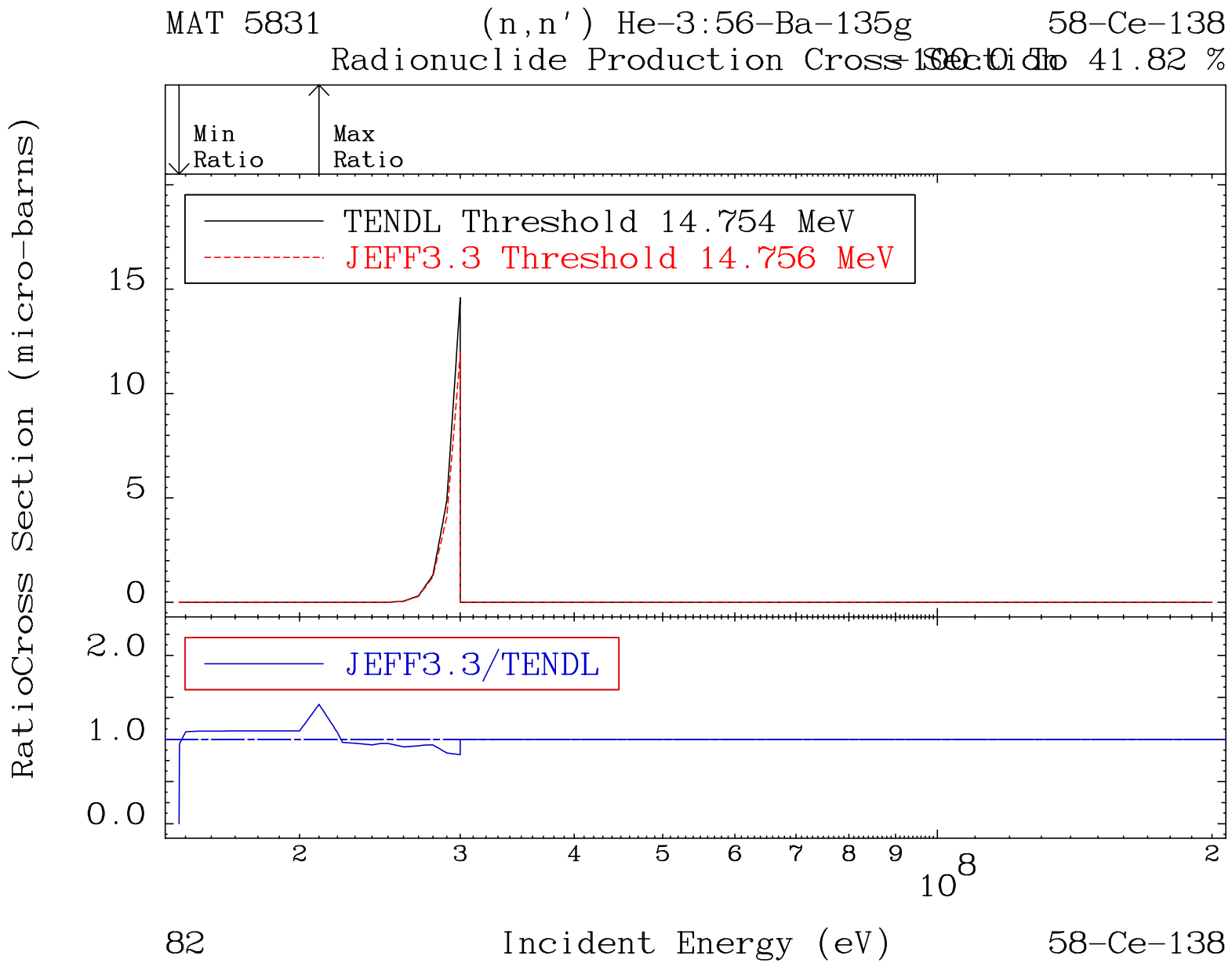

MAT 5831 Dpa disappearance (mt102 -120) 58-Ce-138
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
77
58-Ce-138

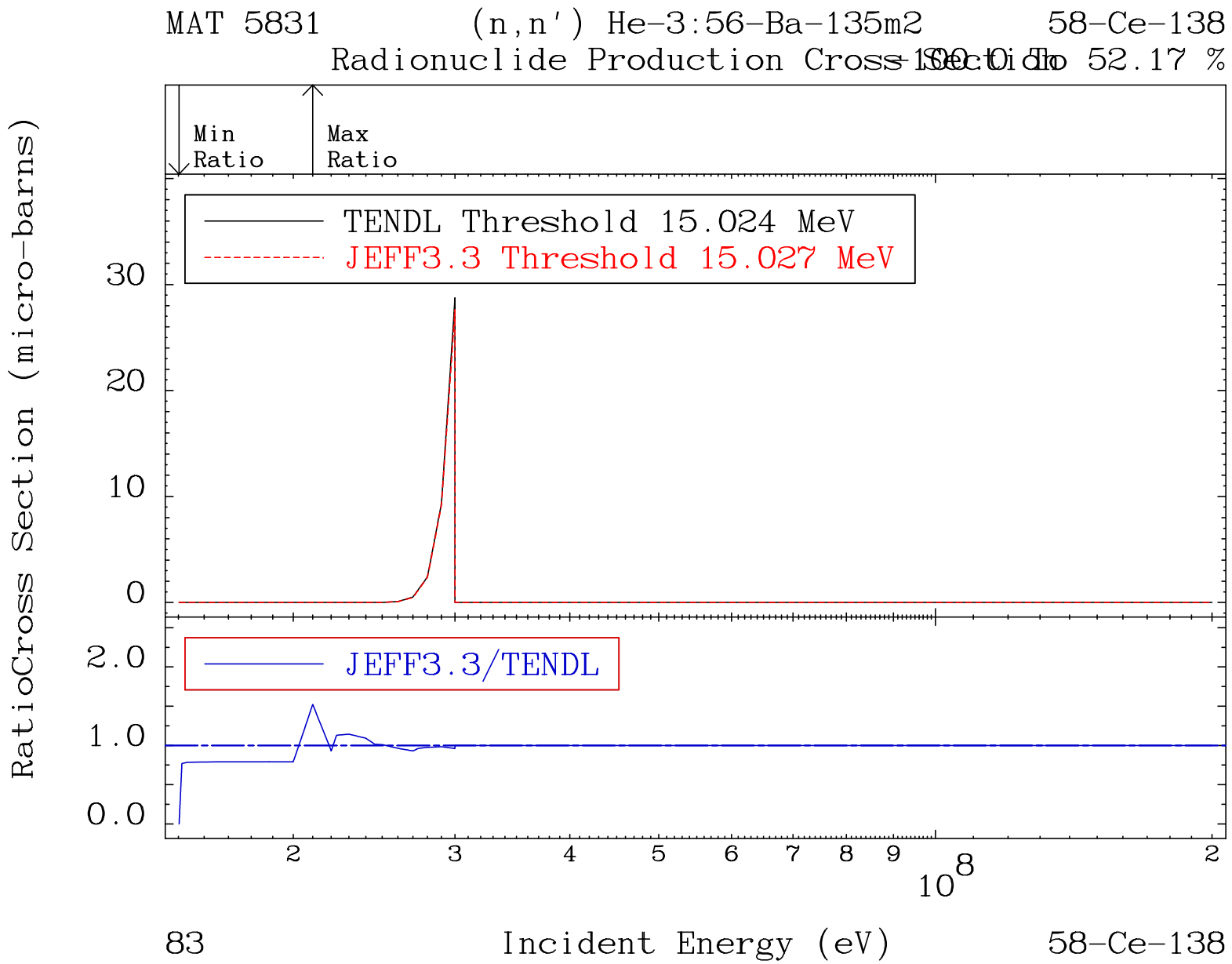

MAT 5831
(n,2n):58-Ce-137g
58-Ce-138
Radionuclide Production Cross Section
Uncertainty 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 9.7895 MeV
JEFF3.3 Threshold 9.7924 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
1.2
0.6
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
78
Incident Energy (eV)
58-Ce-138

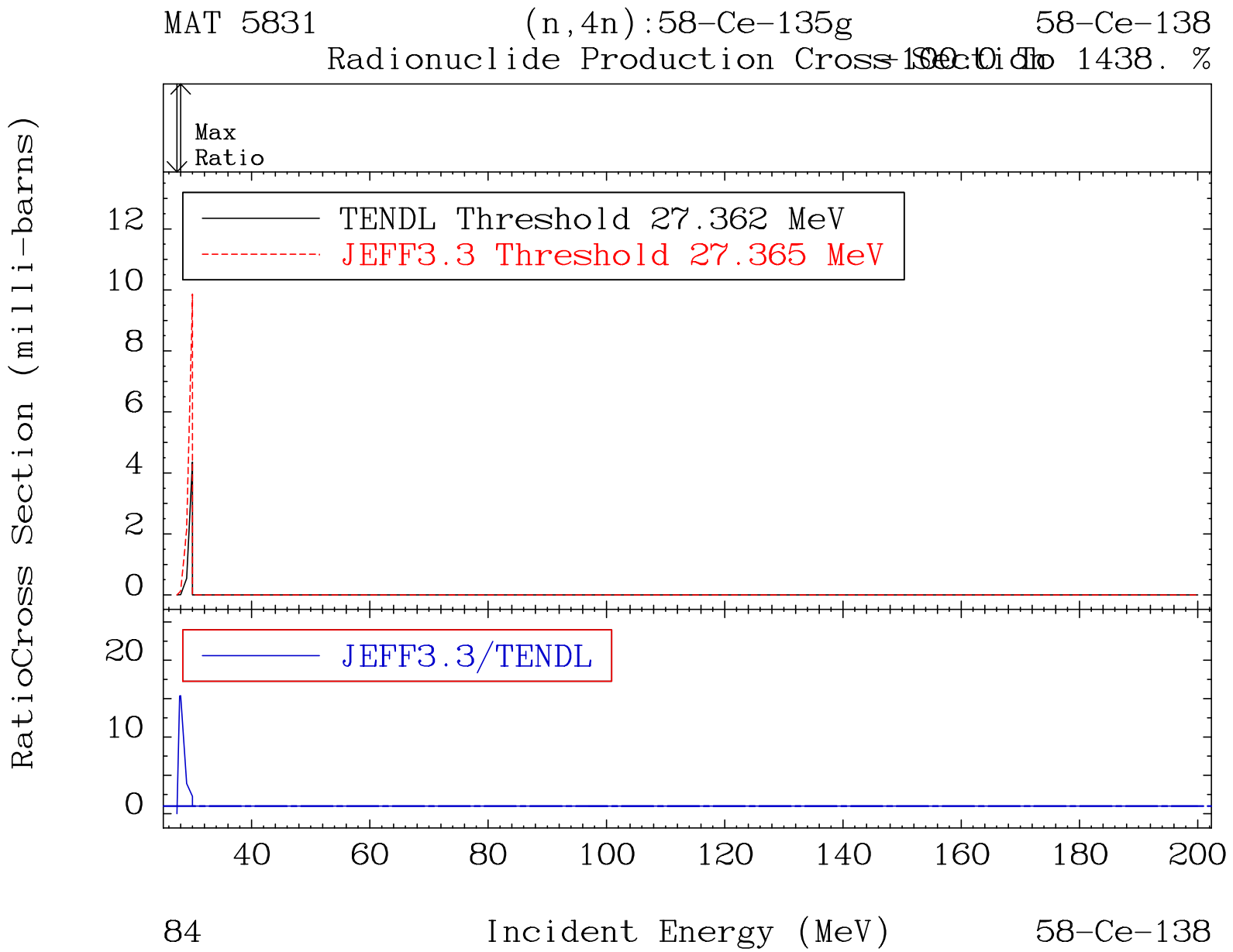

MAT 5831
(n,2n):58-Ce-137m2
58-Ce-138
Radionuclide Production Cross Section To 24.86 %
Min Ratio
Max Ratio
TENDL Threshold 10.046 MeV
JEFF3.3 Threshold 10.049 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.0
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
58-Ce-138

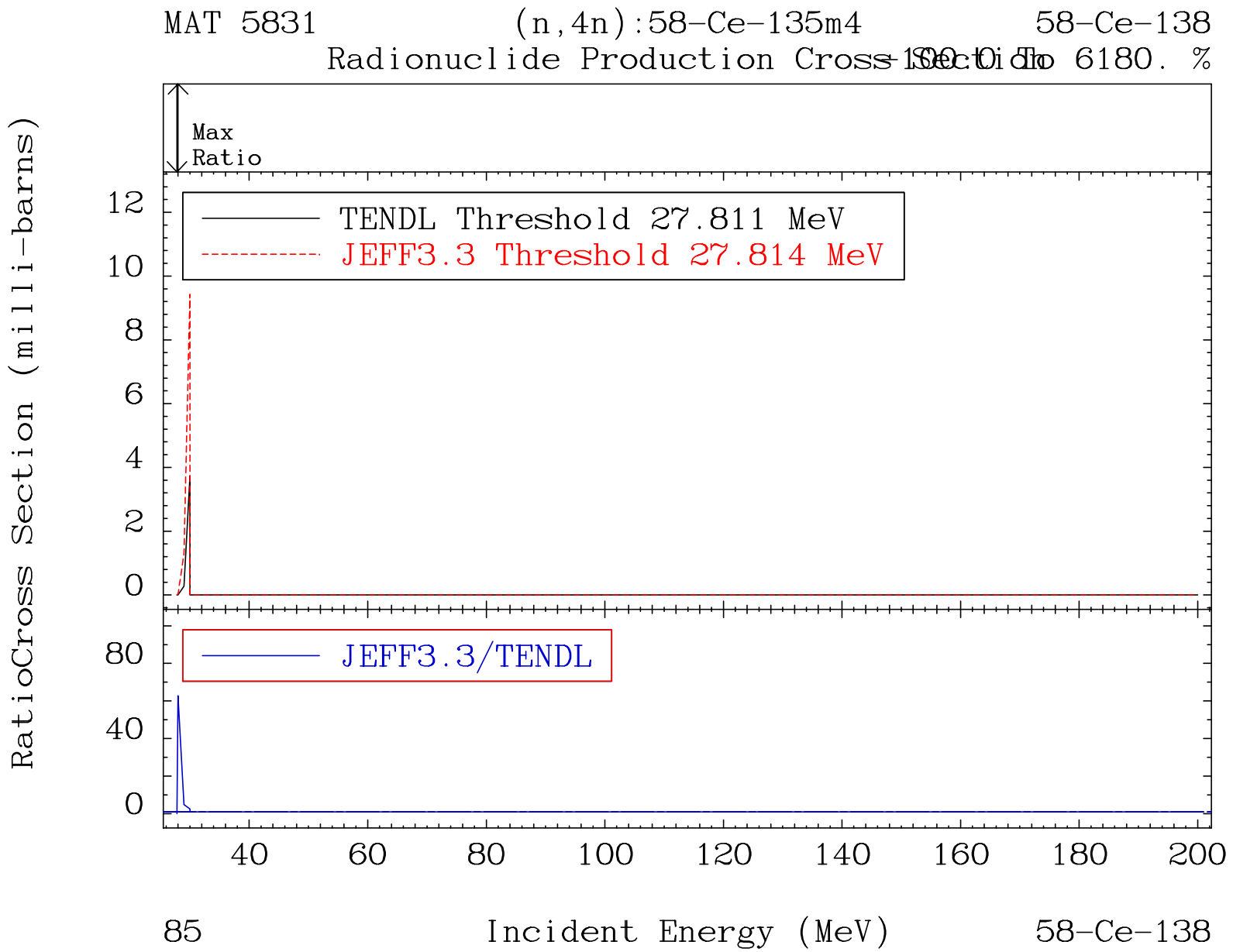

MAT 5831
(n,2n) α:56-Ba-133g
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.585 MeV
JEFF3.3 Threshold 10.588 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
600
300
0
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
58-Ce-138

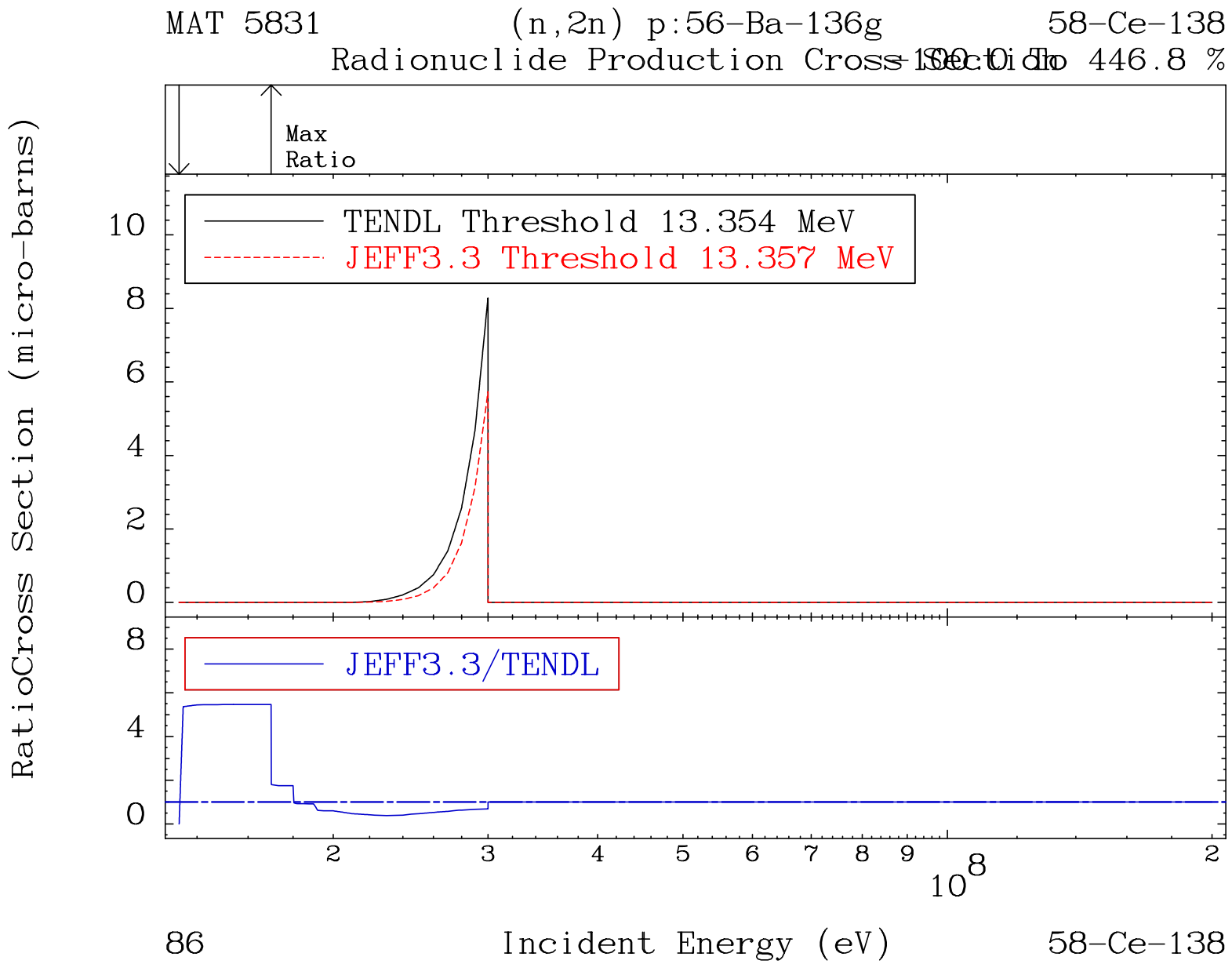

MAT 5831
(n,2n) α:56-Ba-133m2
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.876 MeV
JEFF3.3 Threshold 10.879 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
4
3
2
1
0
800
400
0
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
58-Ce-138

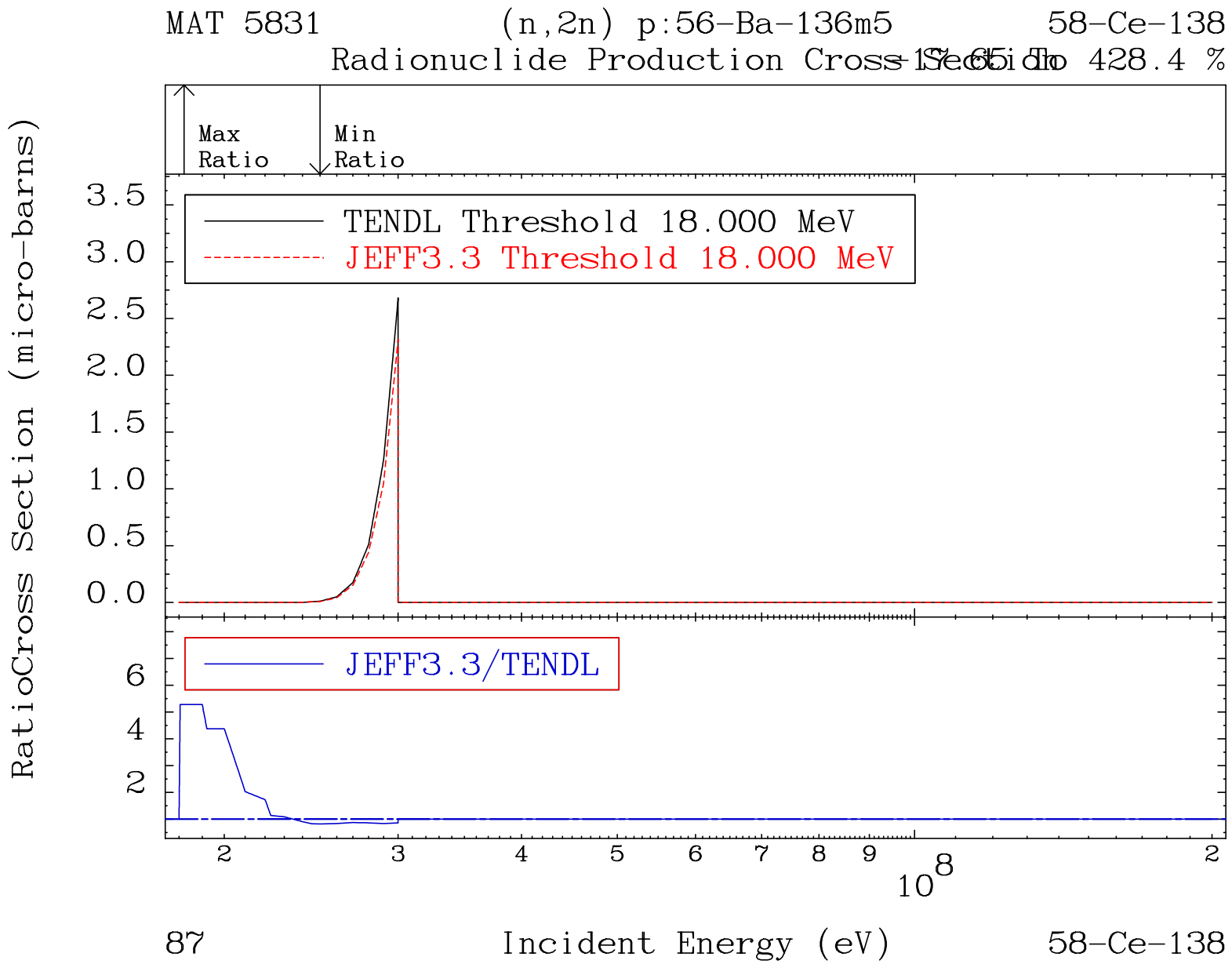

MAT 5831
(n,n') He-3:56-Ba-135g
58-Ce-138
Radionuclide Production Cross Section To 41.82 %
Min Ratio
Max Ratio
TENDL Threshold 14.754 MeV
JEFF3.3 Threshold 14.756 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
15
10
5
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
82
Incident Energy (eV)
58-Ce-138

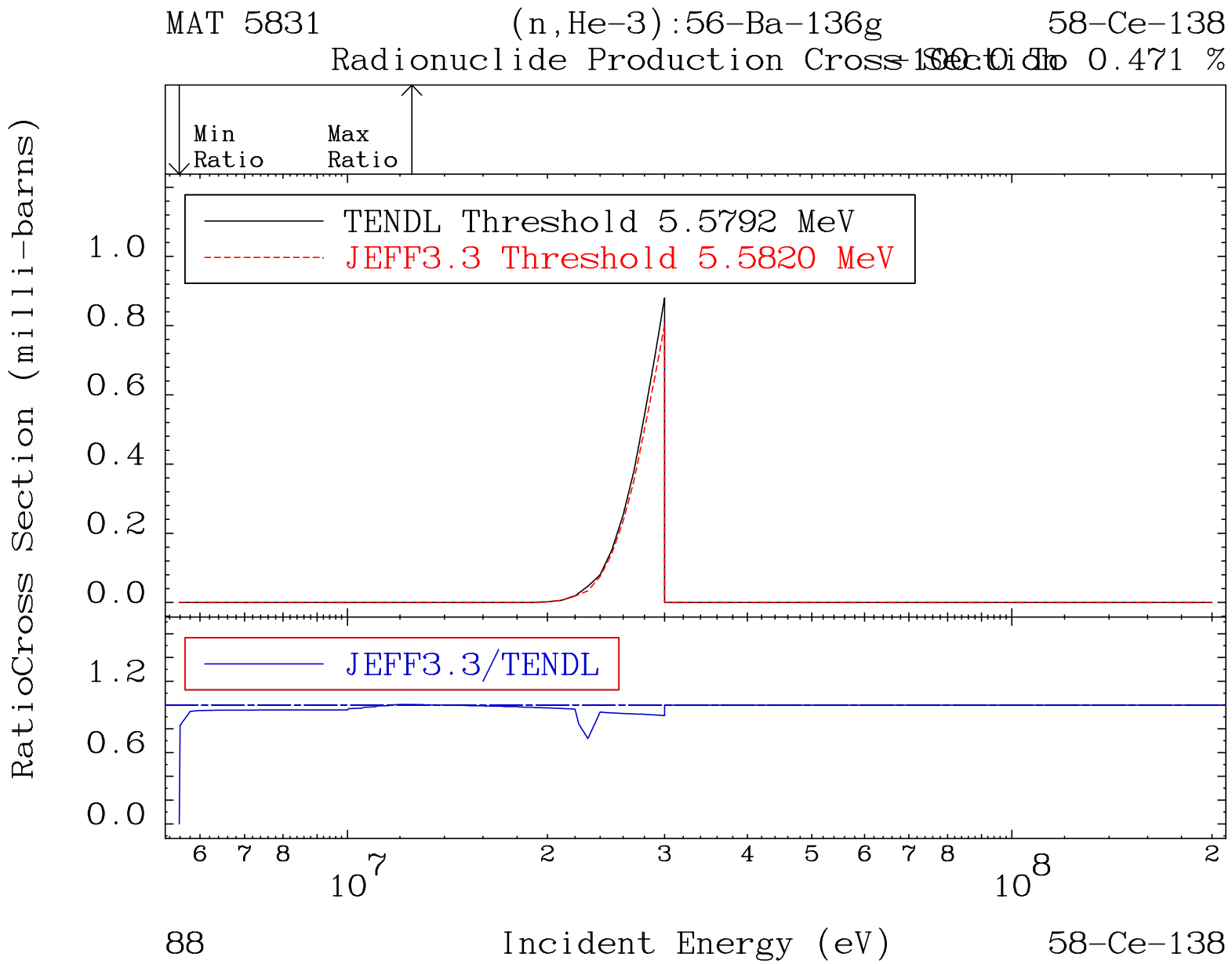

MAT 5831
(n,n') He-3:56-Ba-135m2
58-Ce-138
Radionuclide Production Cross Section To 52.17 %
Min Ratio
Max Ratio
TENDL Threshold 15.024 MeV
JEFF3.3 Threshold 15.027 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
30
20
10
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
58-Ce-138

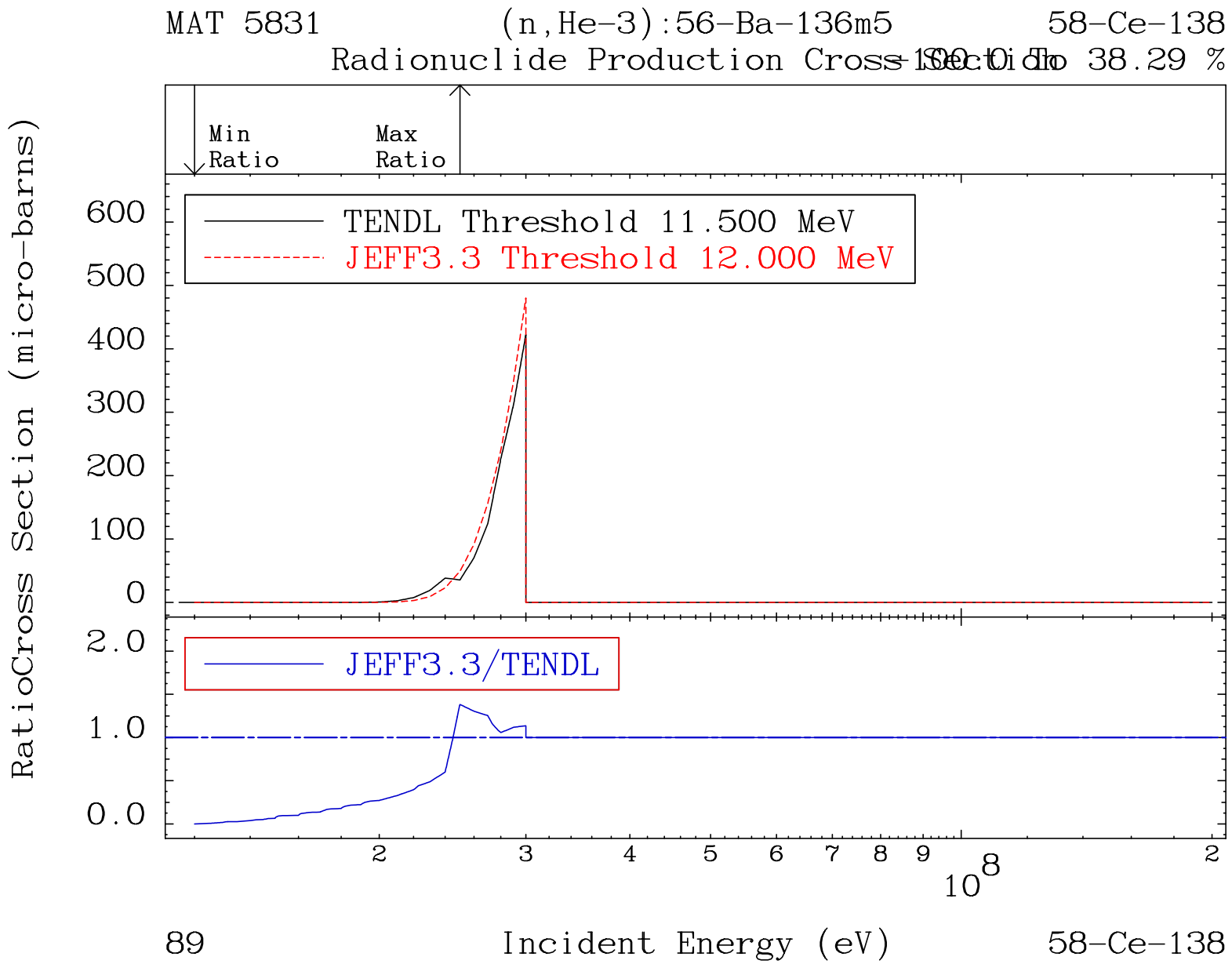

MAT 5831
(n,4n):58-Ce-135g
58-Ce-138
Radionuclide Production Cross Section To 1438. %
Max
Ratio
TENDL Threshold 27.362 MeV
JEFF3.3 Threshold 27.365 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
12
10
8
6
4
2
0
20
10
0
40
60
80
100
120
140
160
180
200
84
Incident Energy (MeV)
58-Ce-138

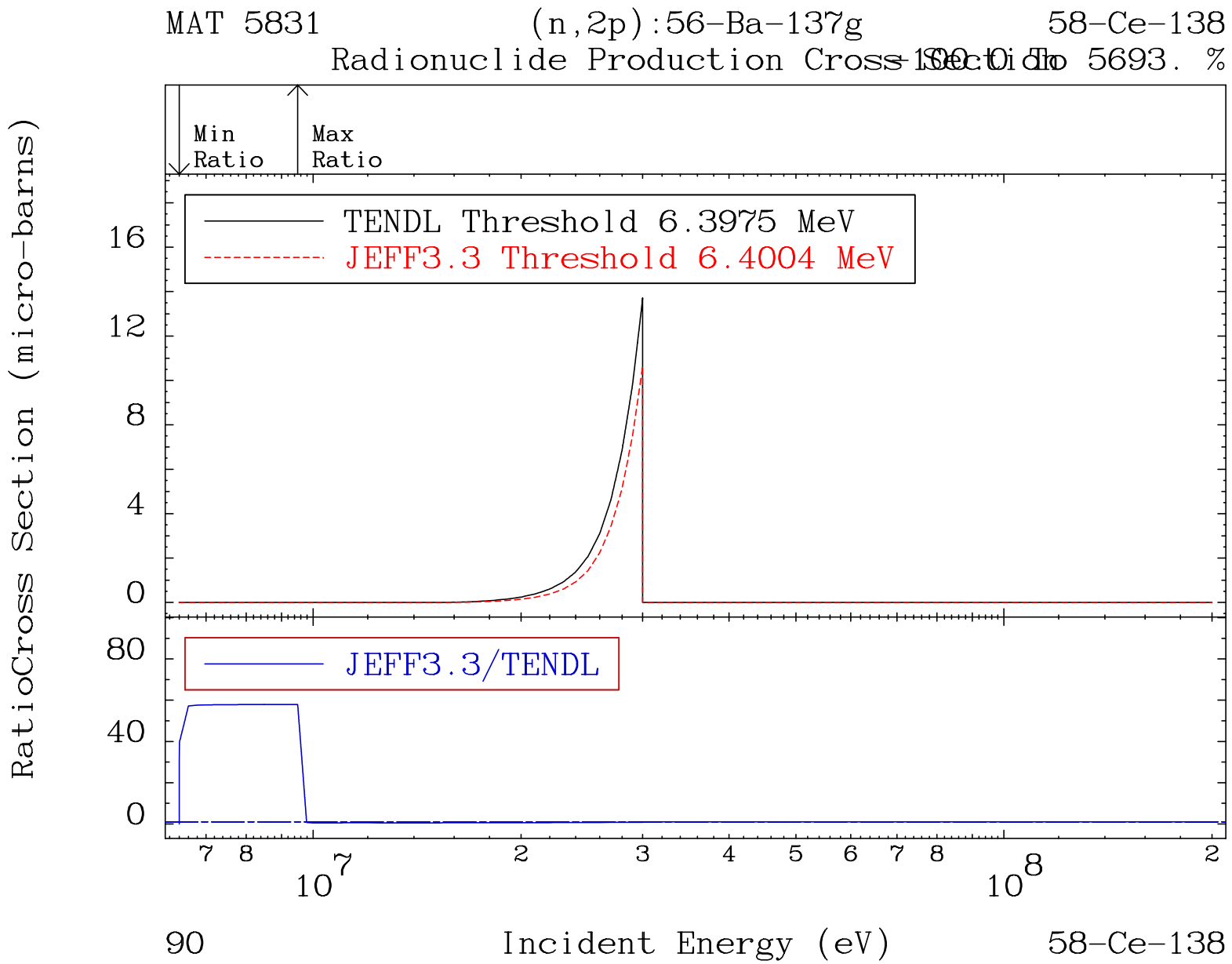

MAT 5831
(n,4n):58-Ce-135m4
58-Ce-138
Radionuclide Production Cross Section
+100.0 To 6180. %
Max
Ratio
TENDL Threshold 27.811 MeV
JEFF3.3 Threshold 27.814 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
12
10
8
6
4
2
0
80
40
0
40
60
80
100
120
140
160
180
200
85
Incident Energy (MeV)
58-Ce-138

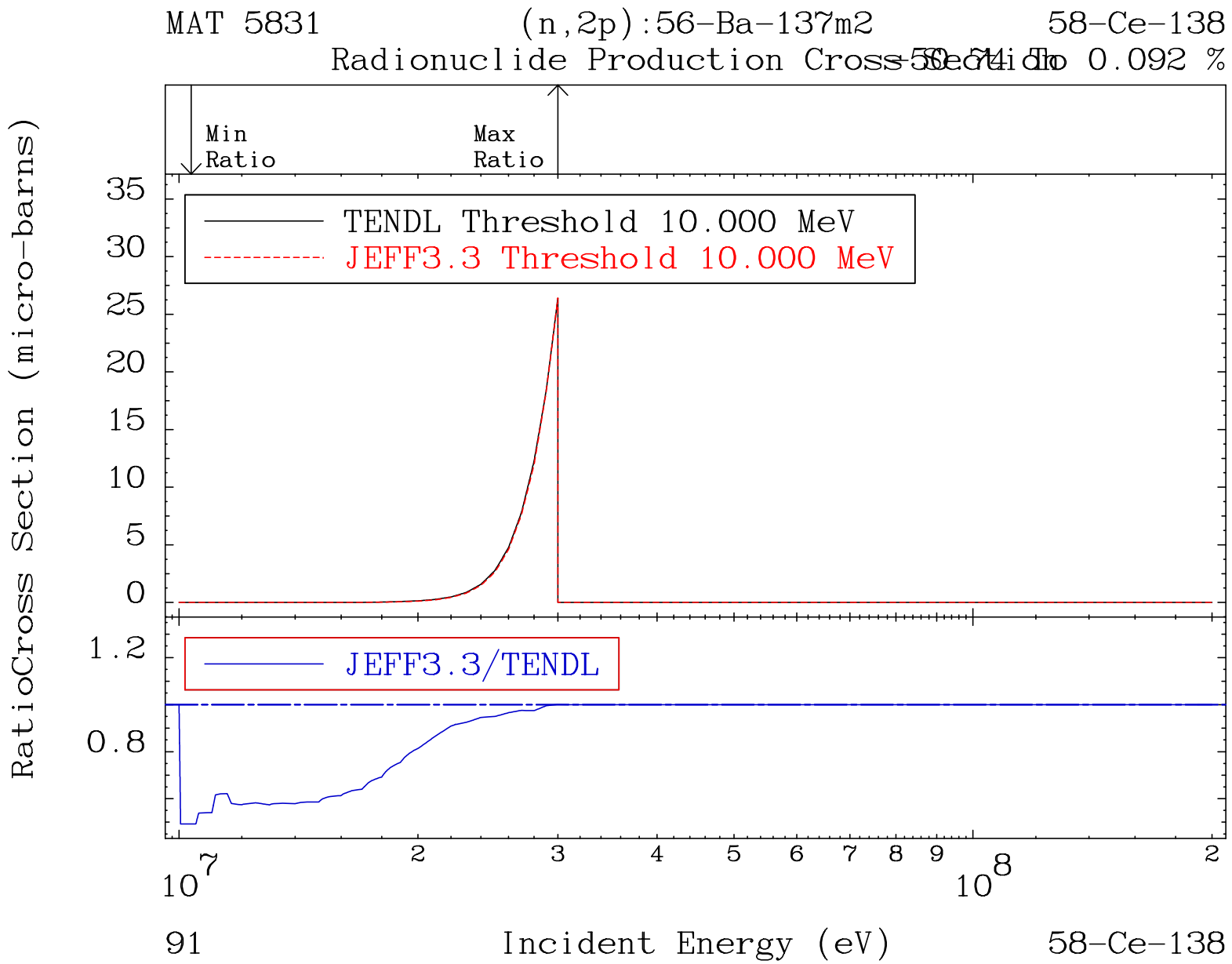

MAT 5831
(n,2n) p:56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 446.8 %
Max
Ratio
TENDL Threshold 13.354 MeV
JEFF3.3 Threshold 13.357 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
86
58-Ce-138

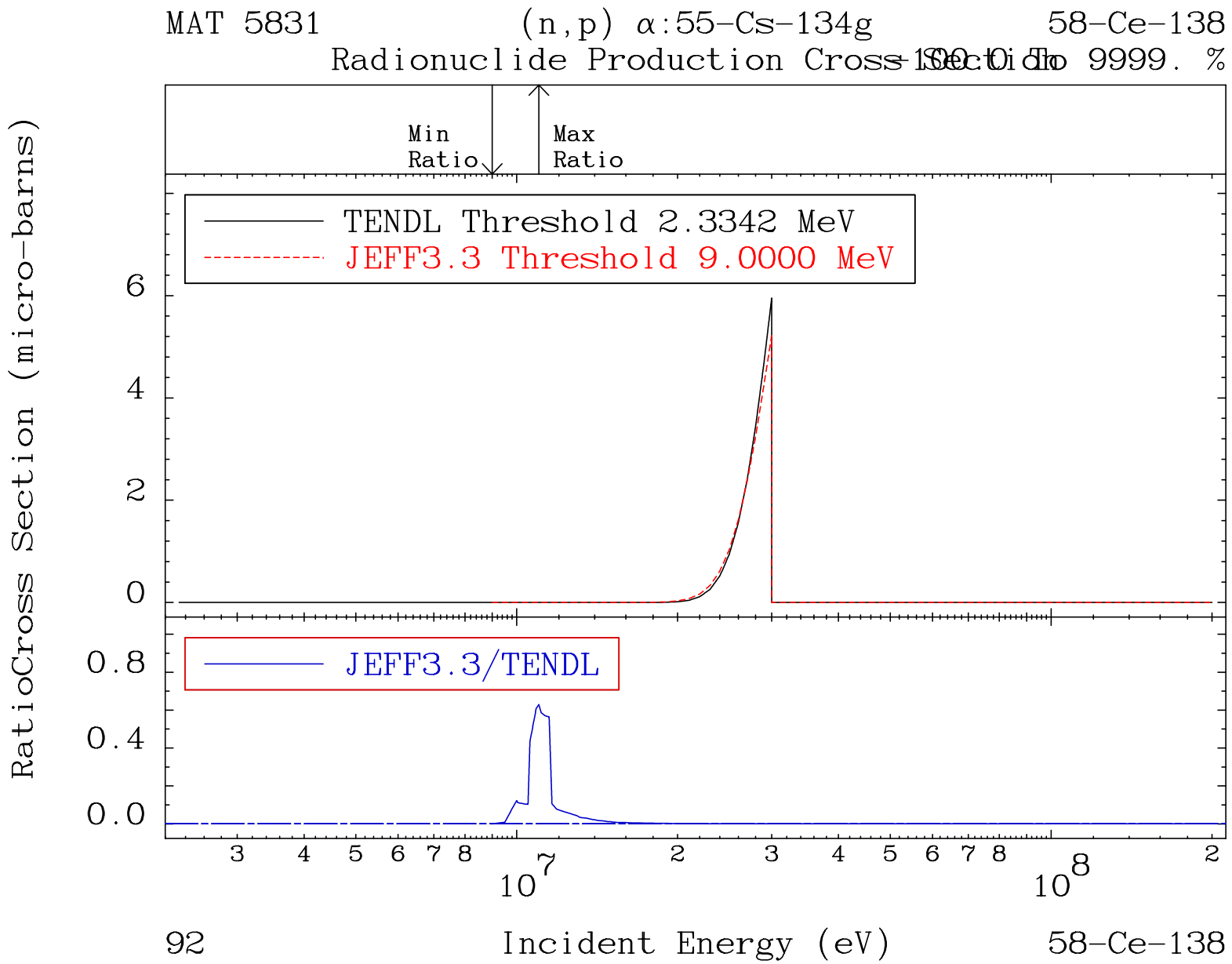

MAT 5831
(n,2n) p:56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section
Max Ratio
Min Ratio
TENDL Threshold 18.000 MeV
JEFF3.3 Threshold 18.000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
87
58-Ce-138

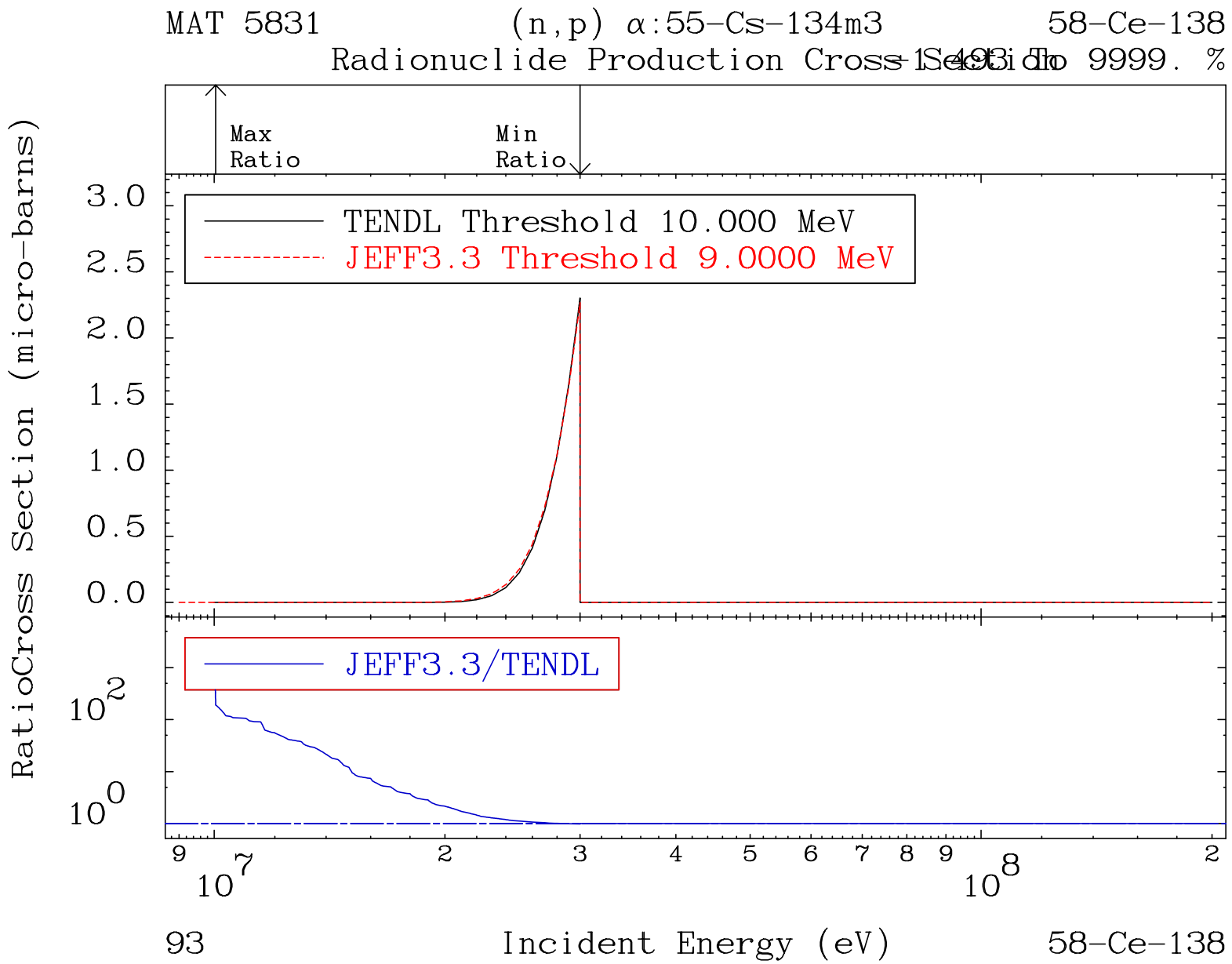

MAT 5831
(n,He-3):56-Ba-136g
58-Ce-138
Radionuclide Production Cross Section To 0.471 %
Min Ratio
Max Ratio
TENDL Threshold 5.5792 MeV
JEFF3.3 Threshold 5.5820 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
1.2
0.6
0.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
88
Incident Energy (eV)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

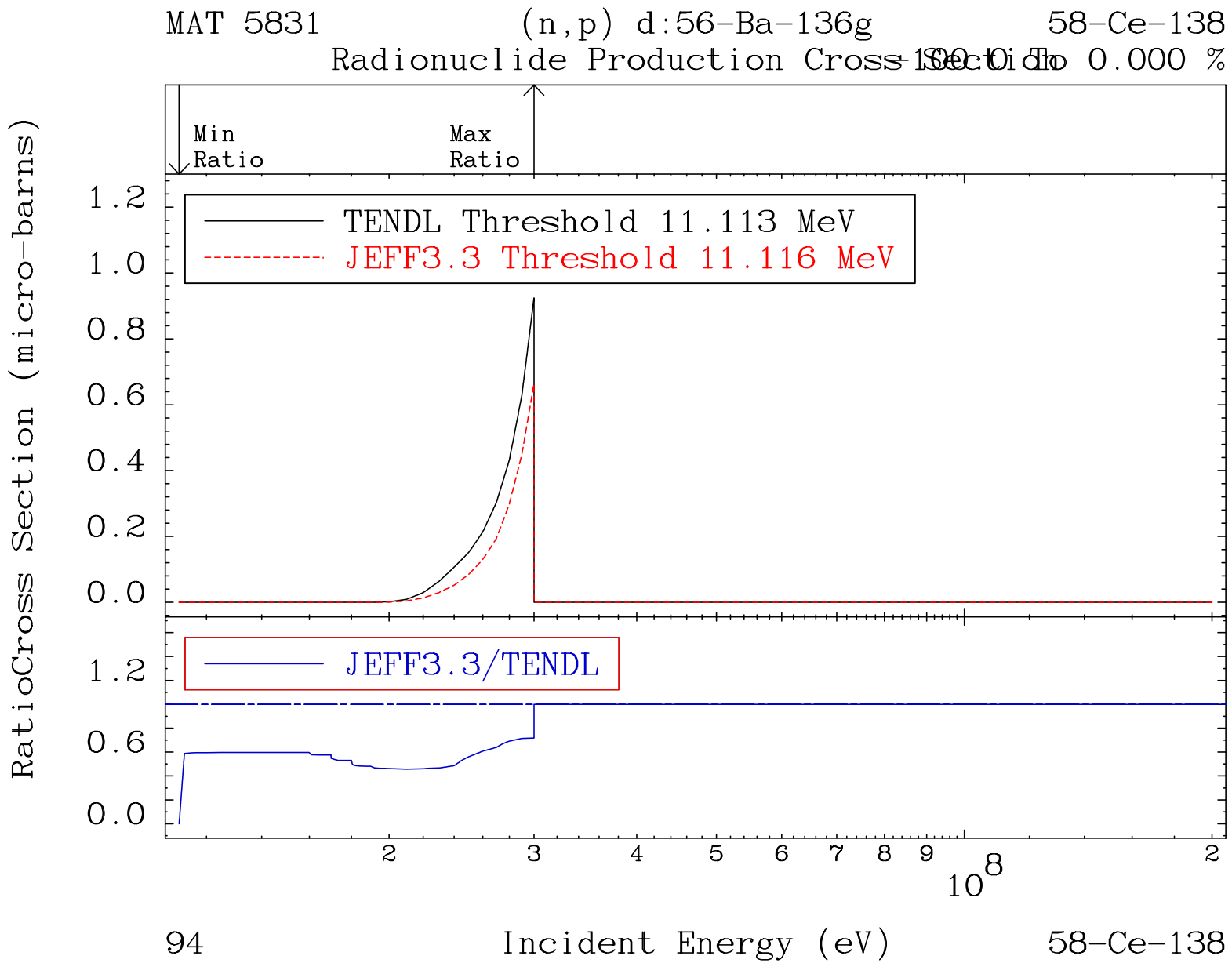

MAT 5831
(n,He-3):56-Ba-136m5
58-Ce-138
Radionuclide Production Cross Section To 38.29 %
Min Ratio
Max Ratio
TENDL Threshold 11.500 MeV
JEFF3.3 Threshold 12.000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
600
500
400
300
200
100
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
89
Incident Energy (eV)
58-Ce-138

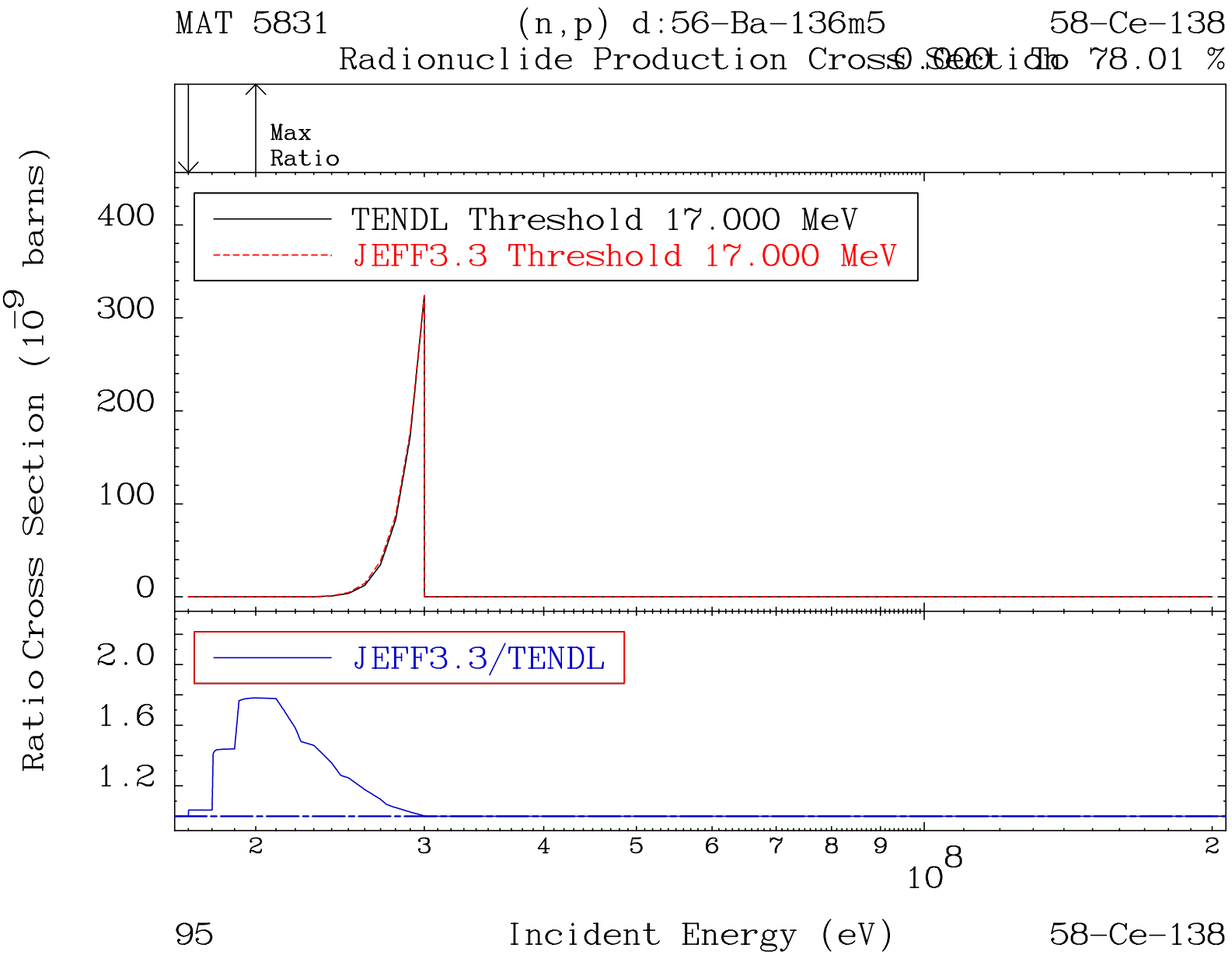

MAT 5831
(n,2p):56-Ba-137g
58-Ce-138
Radionuclide Production Cross Section To 5693. %
Min Ratio
Max Ratio
TENDL Threshold 6.3975 MeV
JEFF3.3 Threshold 6.4004 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
16
12
8
4
0
80
40
0
7 8
10^7
2 3 4 5 6 7 8
10^8
2
90
Incident Energy (eV)
58-Ce-138

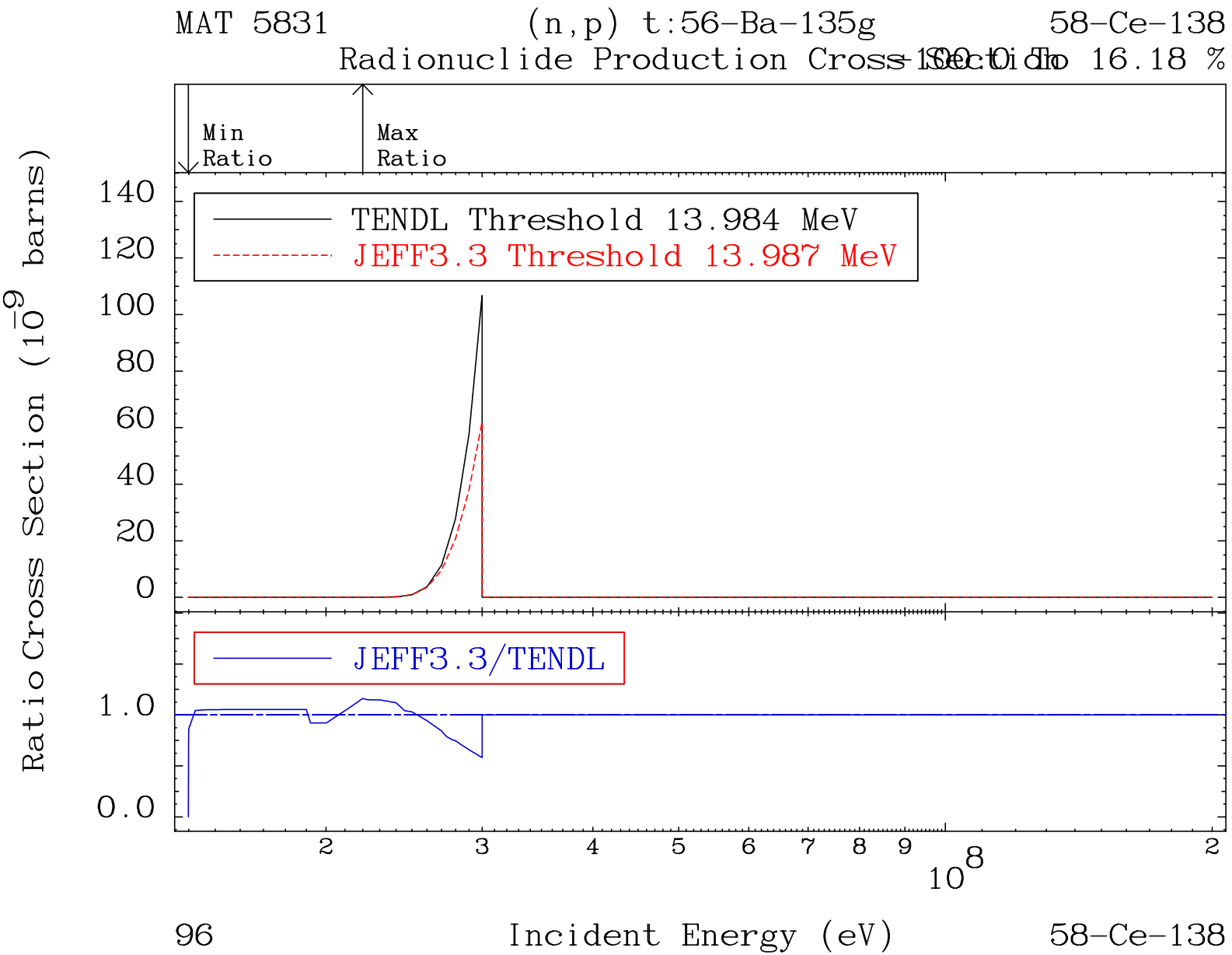

MAT 5831
(n,2p):56-Ba-137m2
58-Ce-138
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 10.000 MeV
JEFF3.3 Threshold 10.000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
35
30
25
20
15
10
5
0
1.2
0.8
10^7
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
58-Ce-138

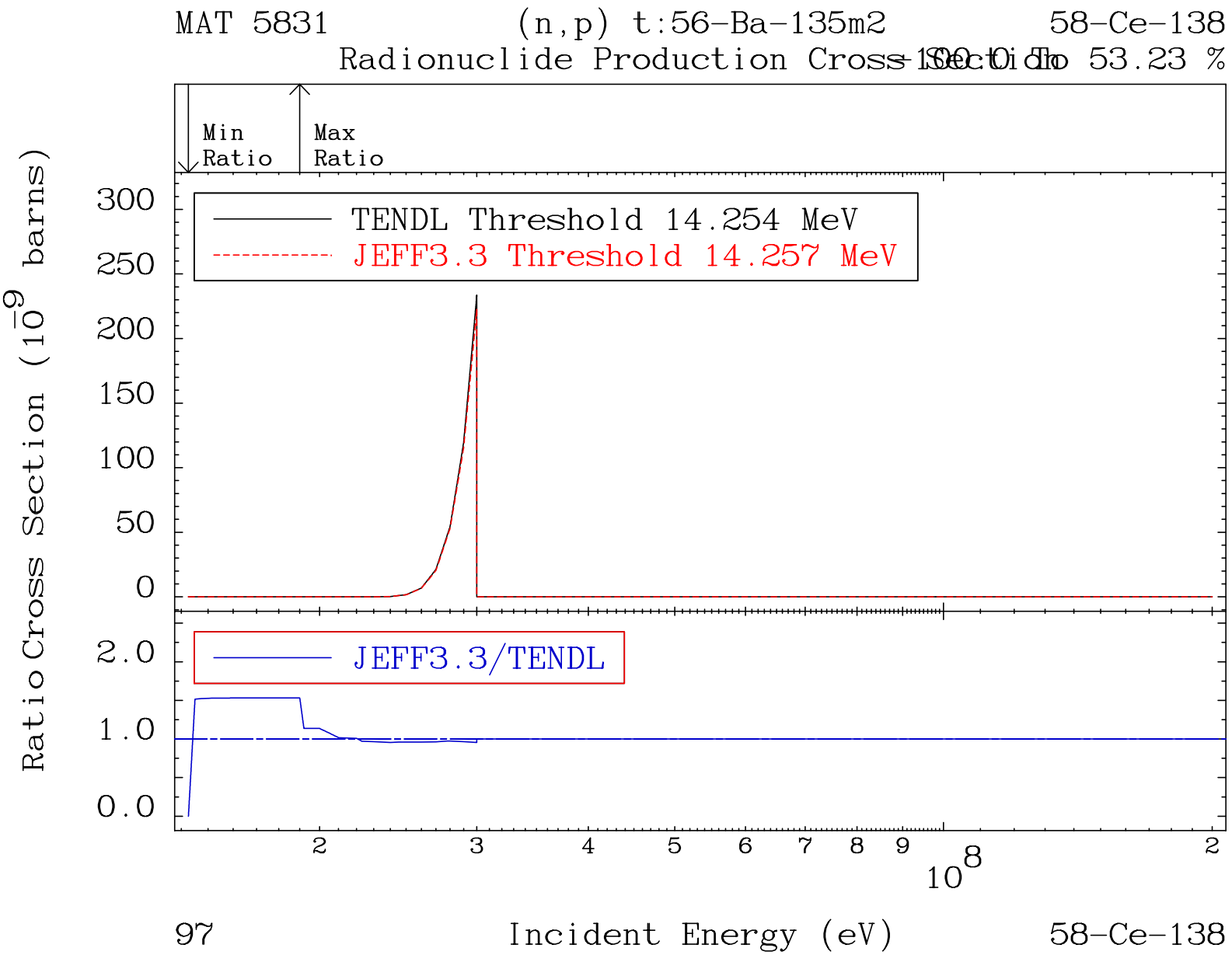

MAT 5831
(n,p) α:55-Cs-134g
58-Ce-138
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.3342 MeV
JEFF3.3 Threshold 9.0000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
92
58-Ce-138


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


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


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


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


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