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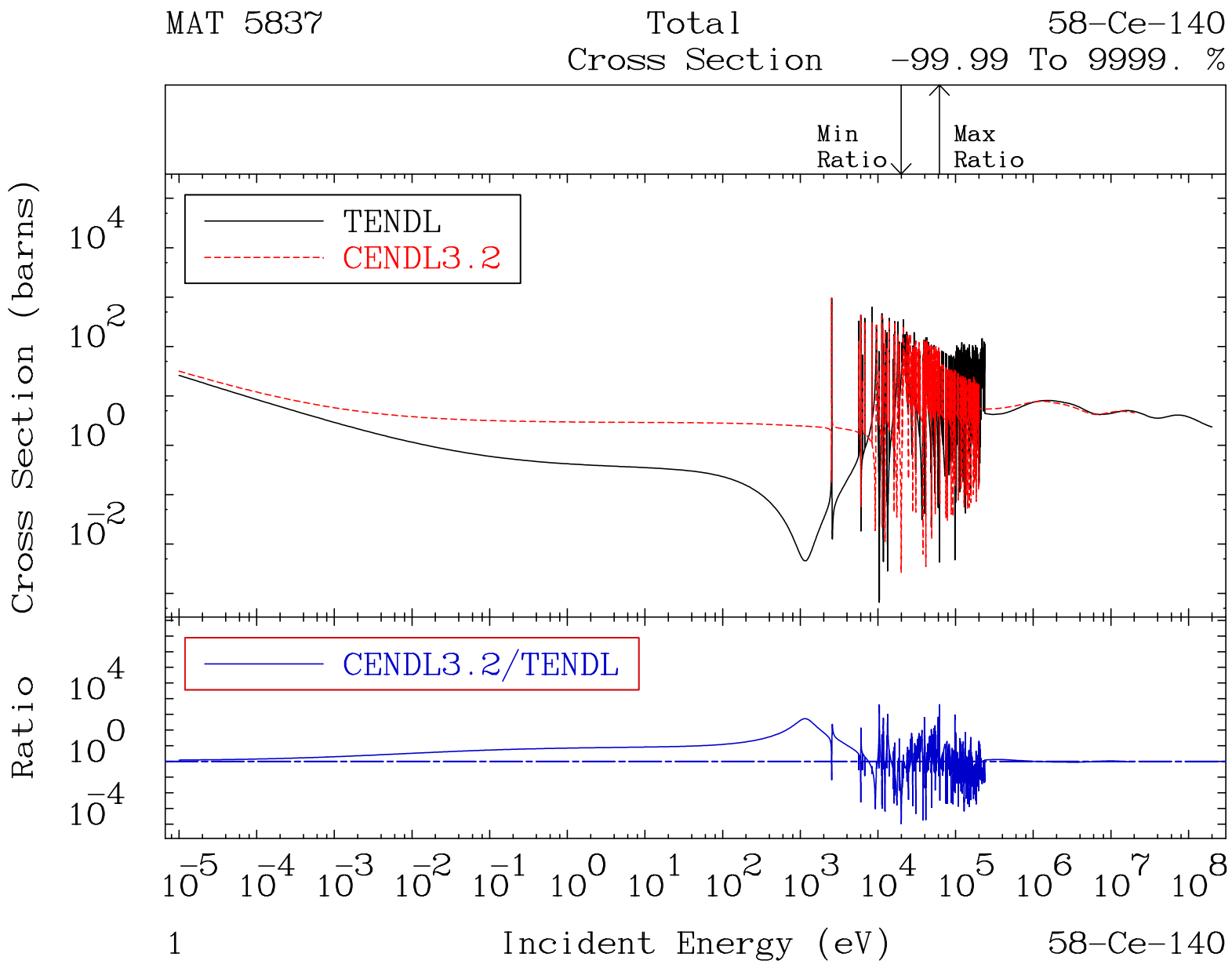
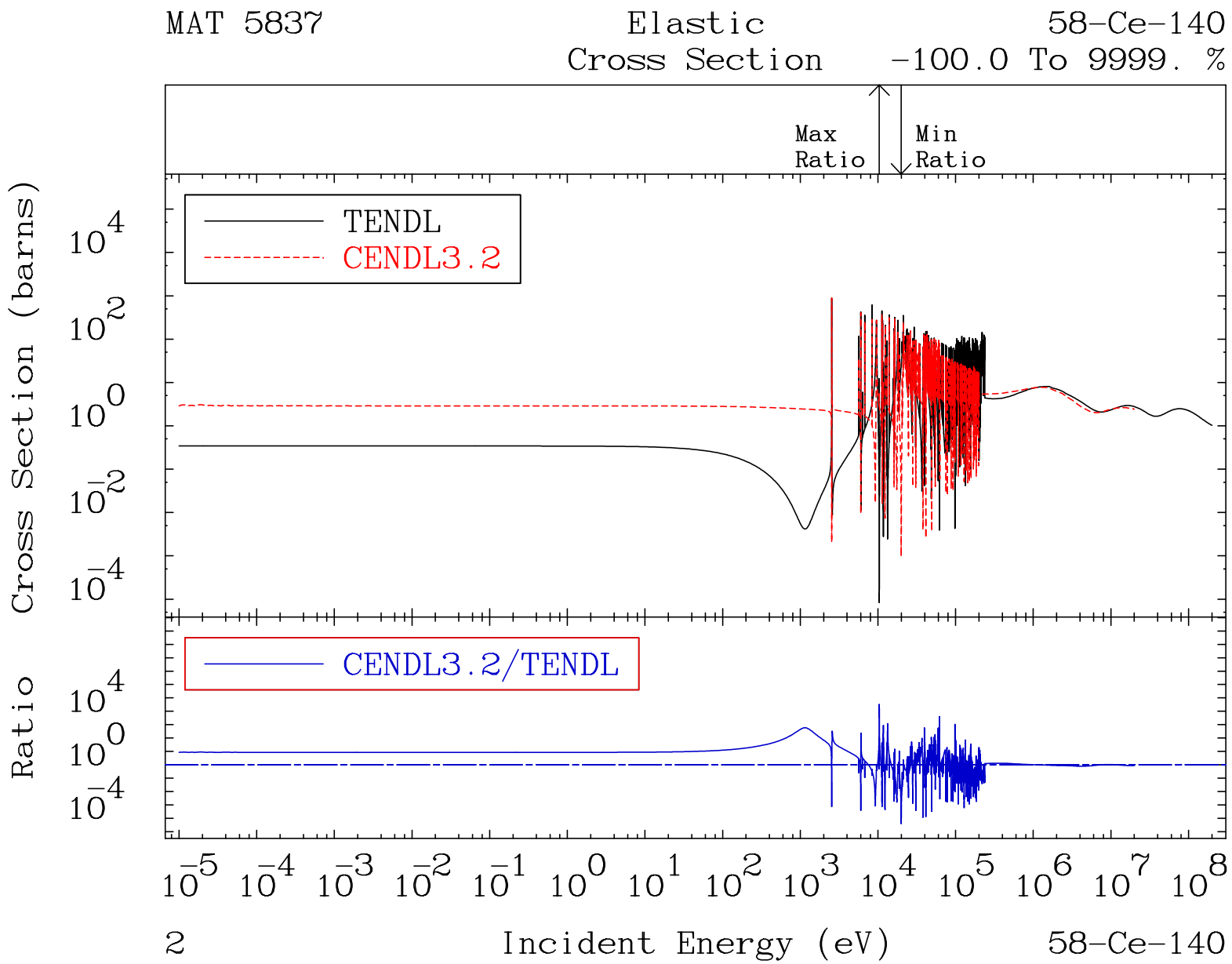
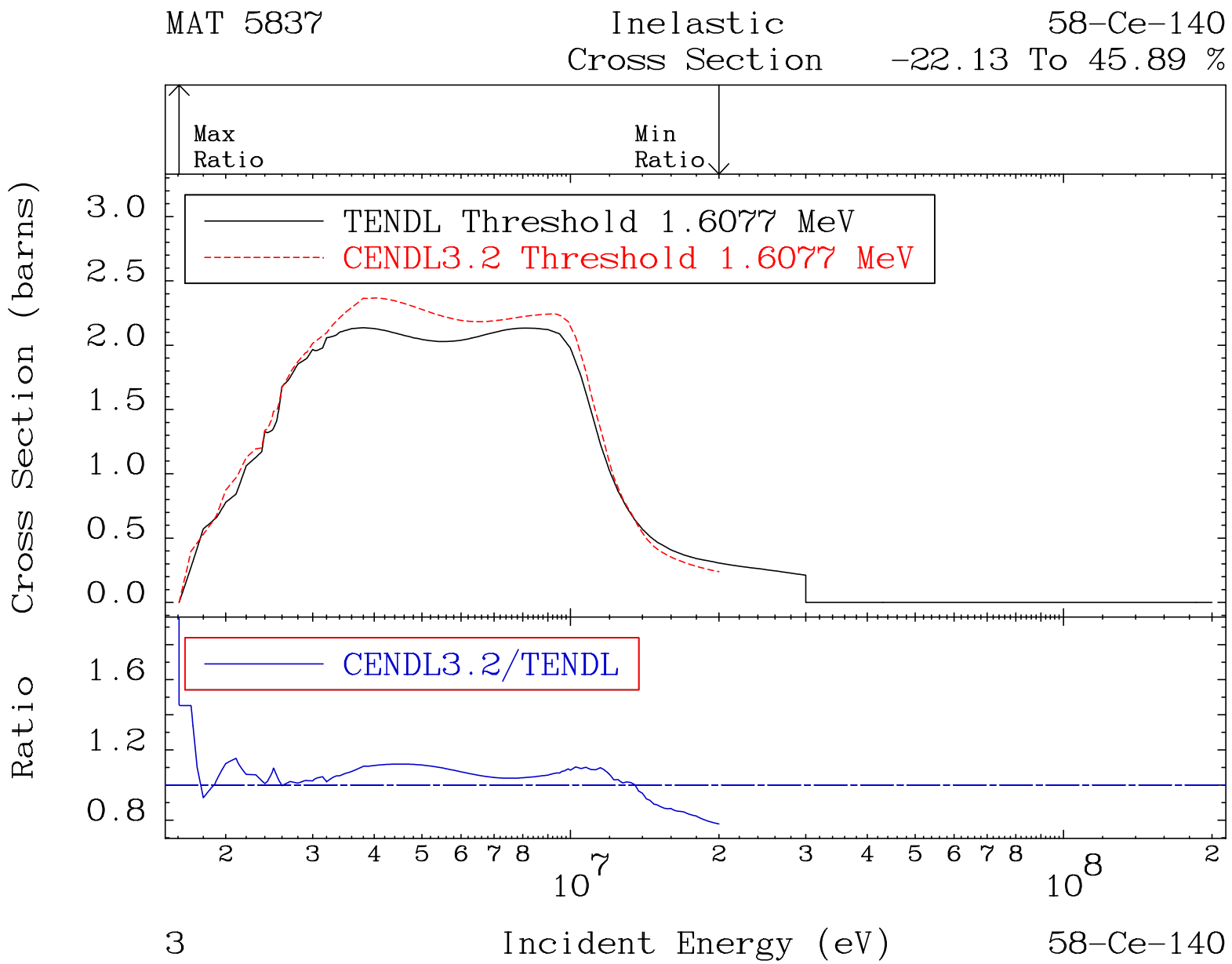
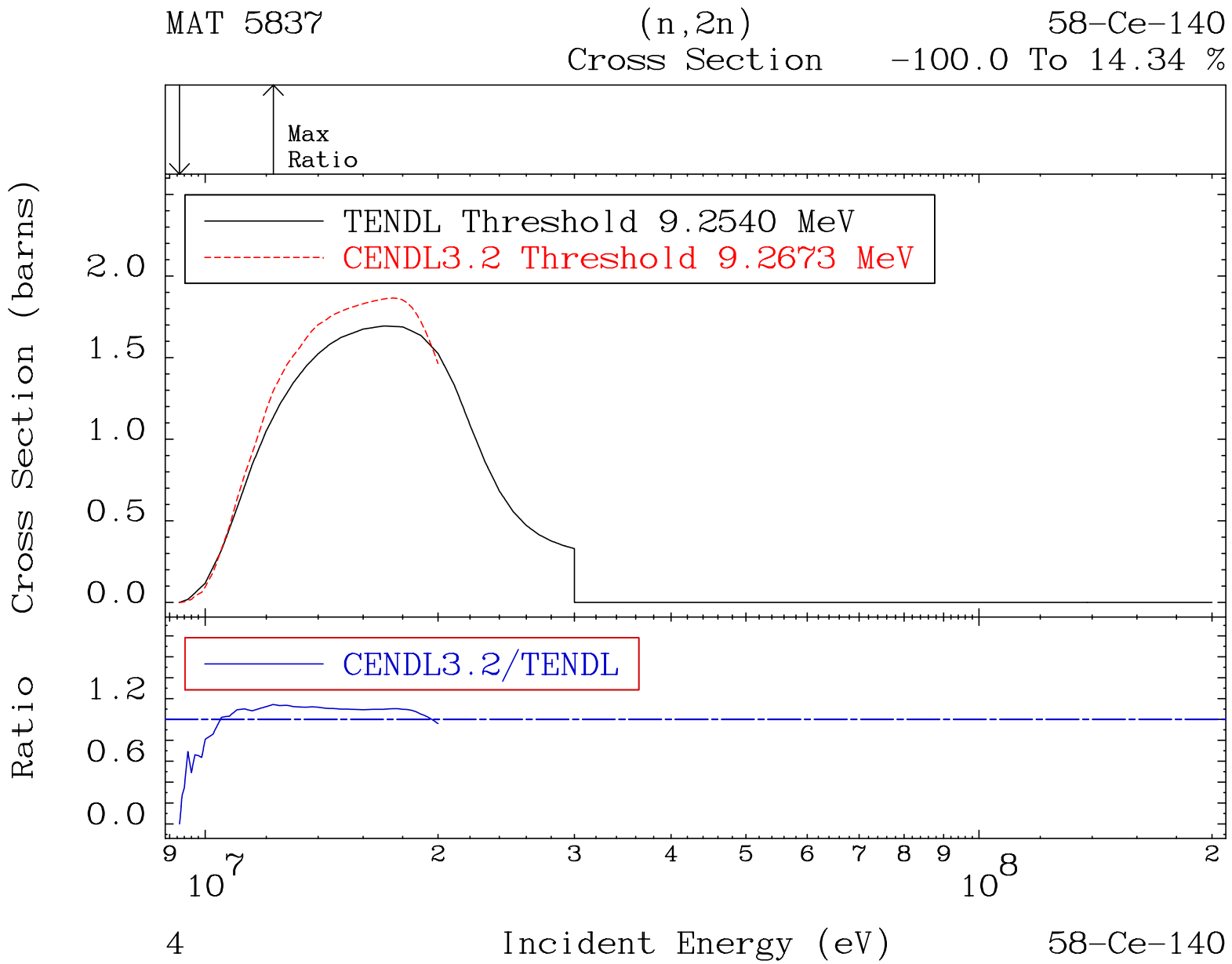
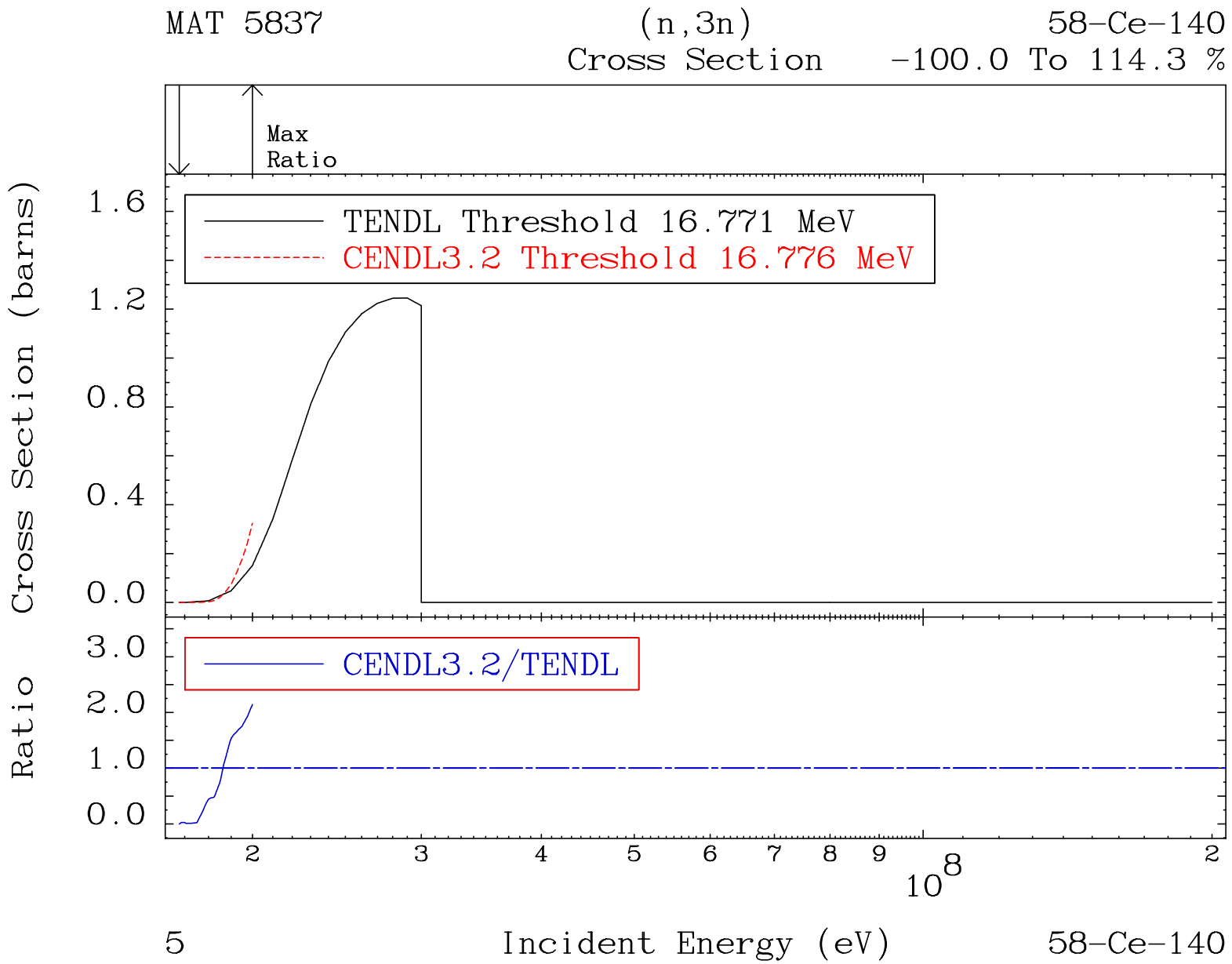
Press Mouse Button to Start

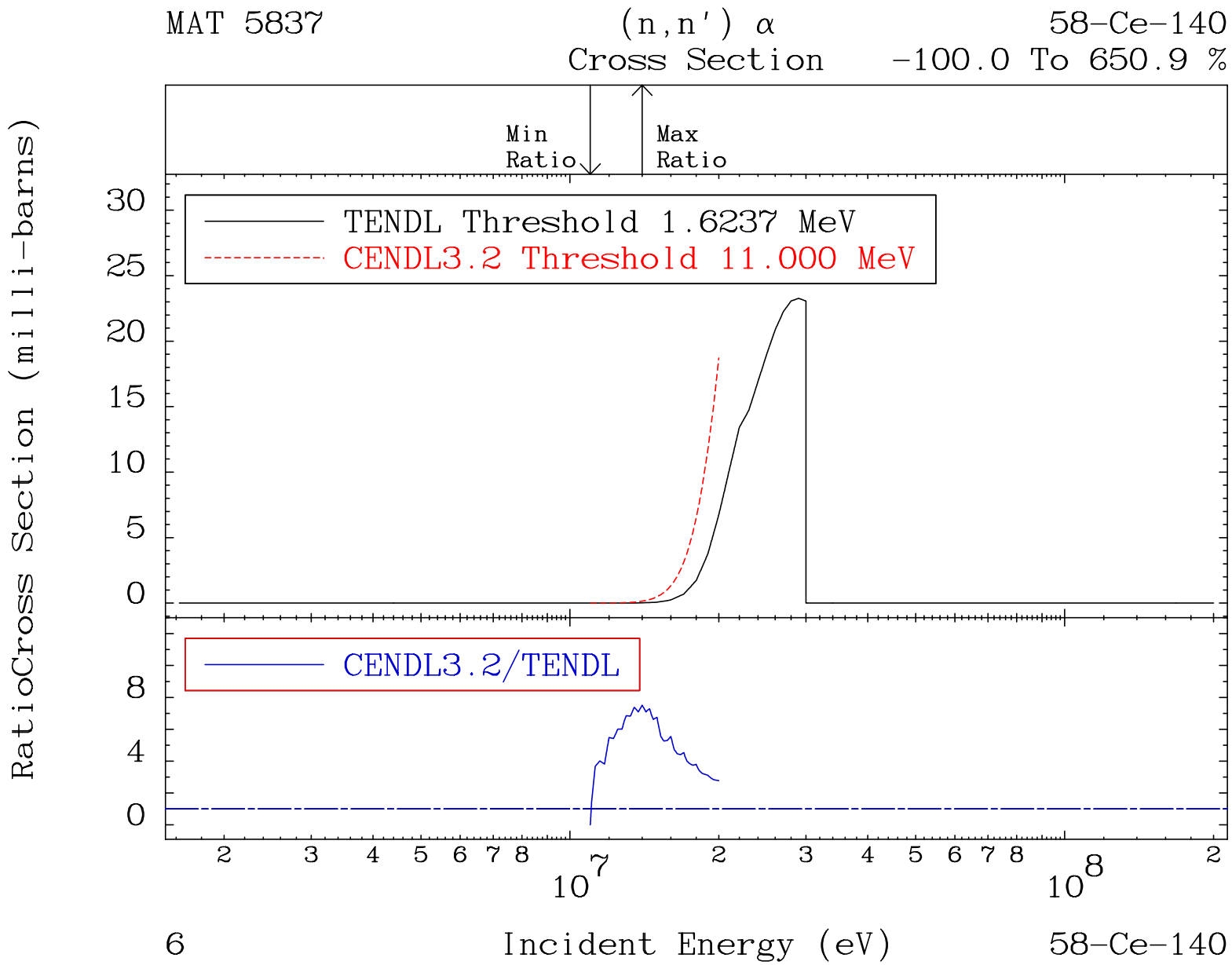

MAT 5837
Total
Cross Section
58-Ce-140
-99.99 To 9999. %
Min
Ratio
Max
Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
1
58-Ce-140

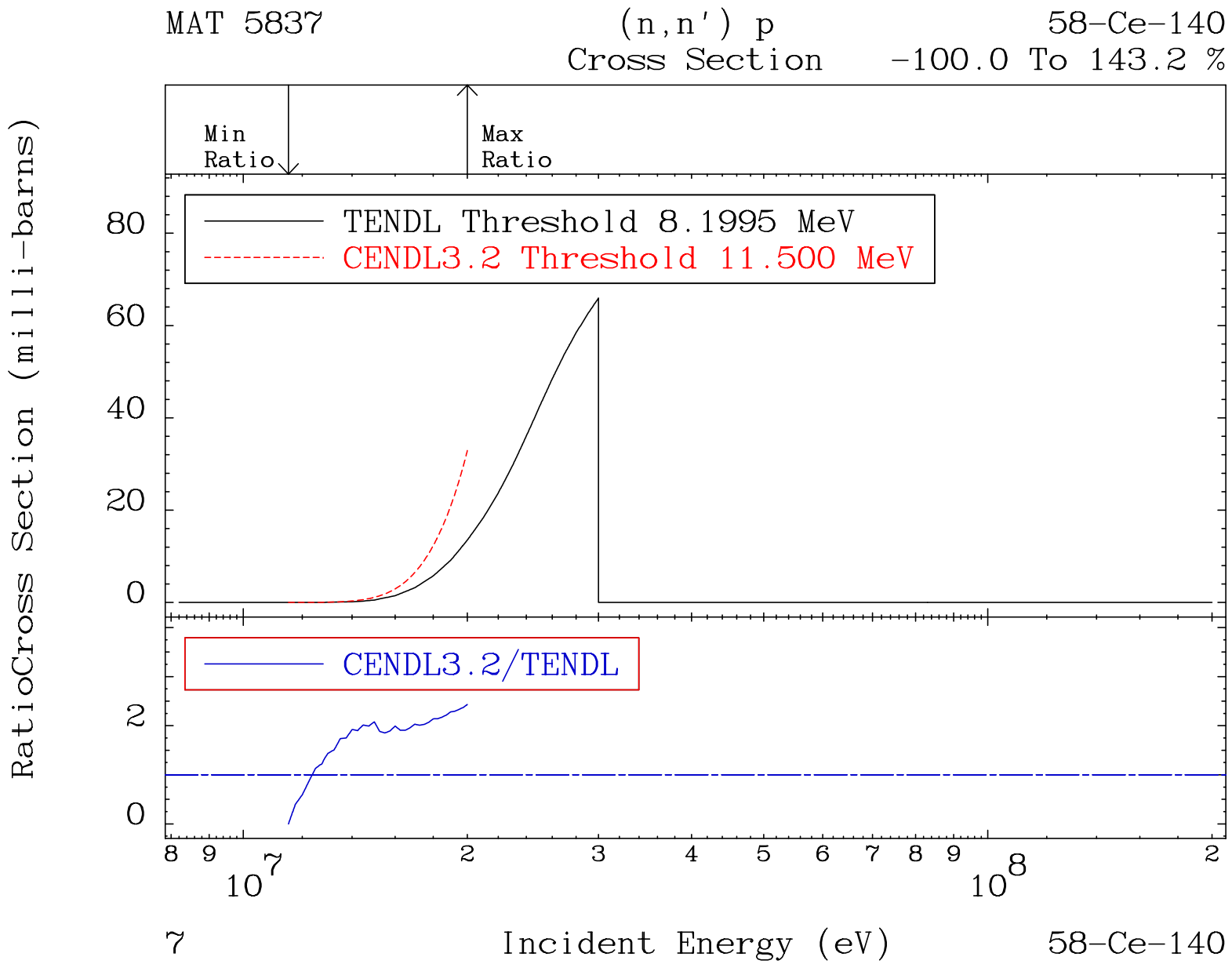

MAT 5837
Elastic
Cross Section
58-Ce-140
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
2
58-Ce-140

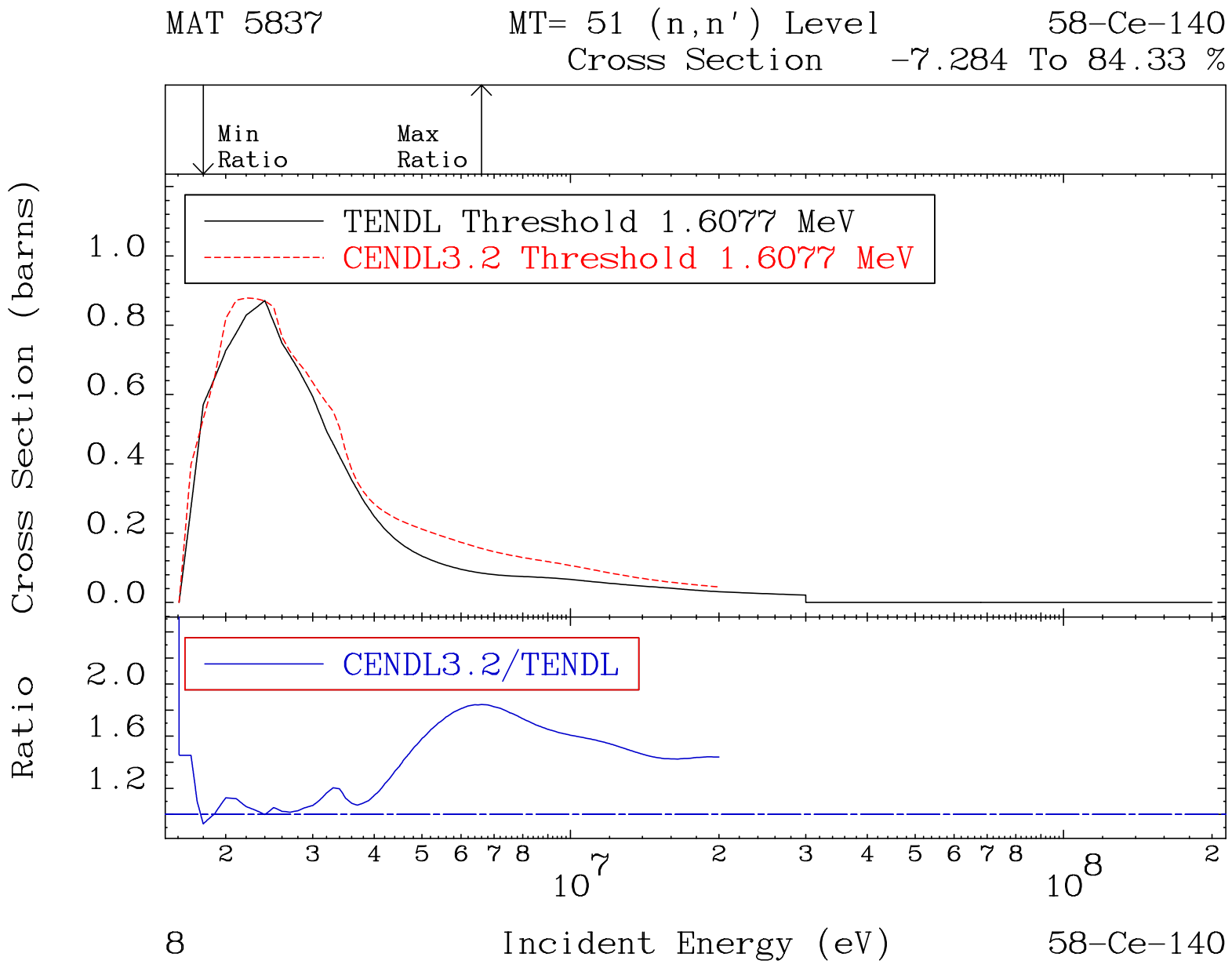

MAT 5837
Inelastic
Cross Section
58-Ce-140
-22.13 To 45.89 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.6077 MeV
CENDL3.2 Threshold 1.6077 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1.6
1.2
0.8
2
3
4
5
6
7
8
10^7
10^8
3
Incident Energy (eV)
58-Ce-140

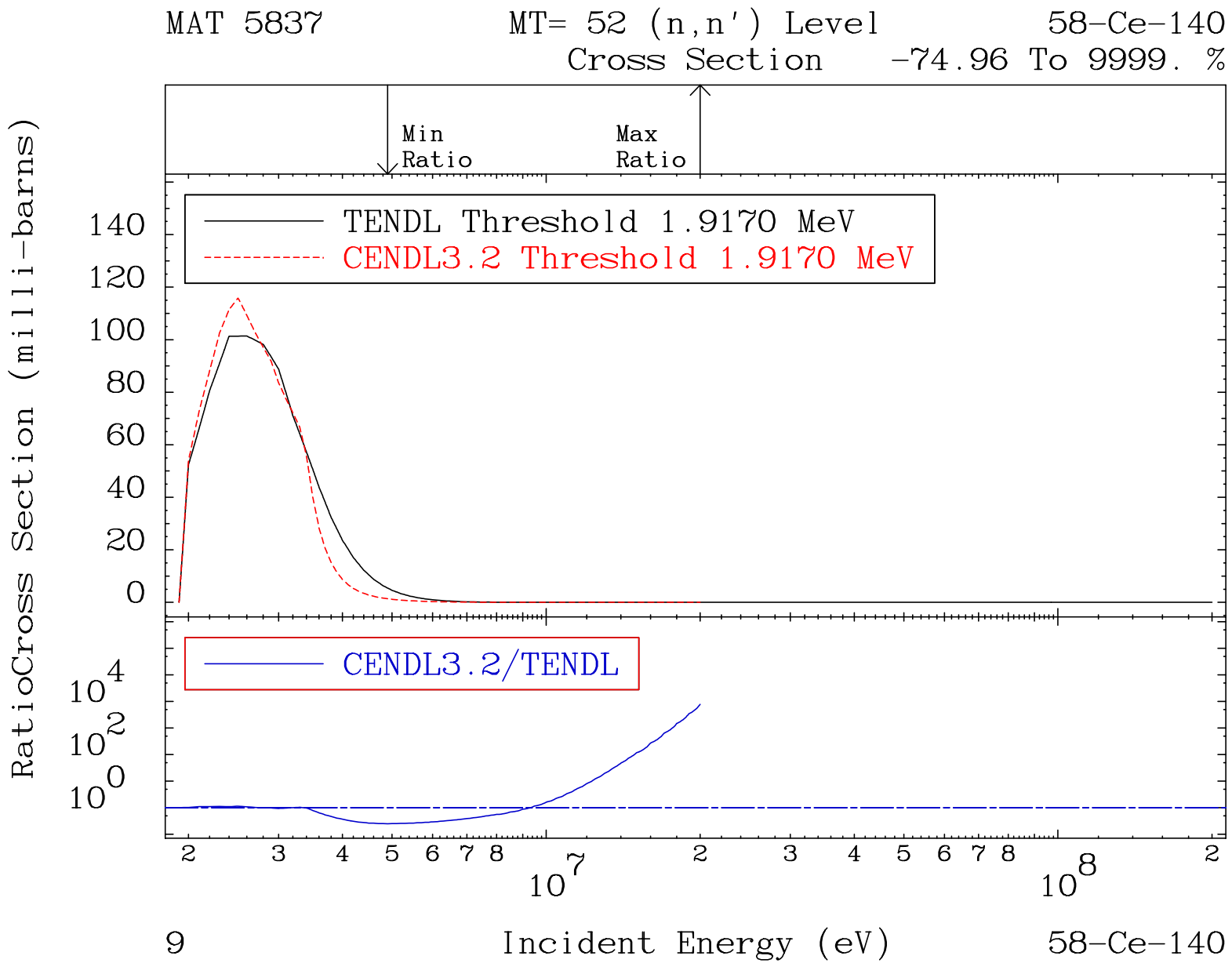

MAT 5837
(n,2n)
Cross Section
58-Ce-140
-100.0 To 14.34 %
Max
Ratio
TENDL Threshold 9.2540 MeV
CENDL3.2 Threshold 9.2673 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
CENDL3.2/TENDL
Ratio
1.2
0.6
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
58-Ce-140

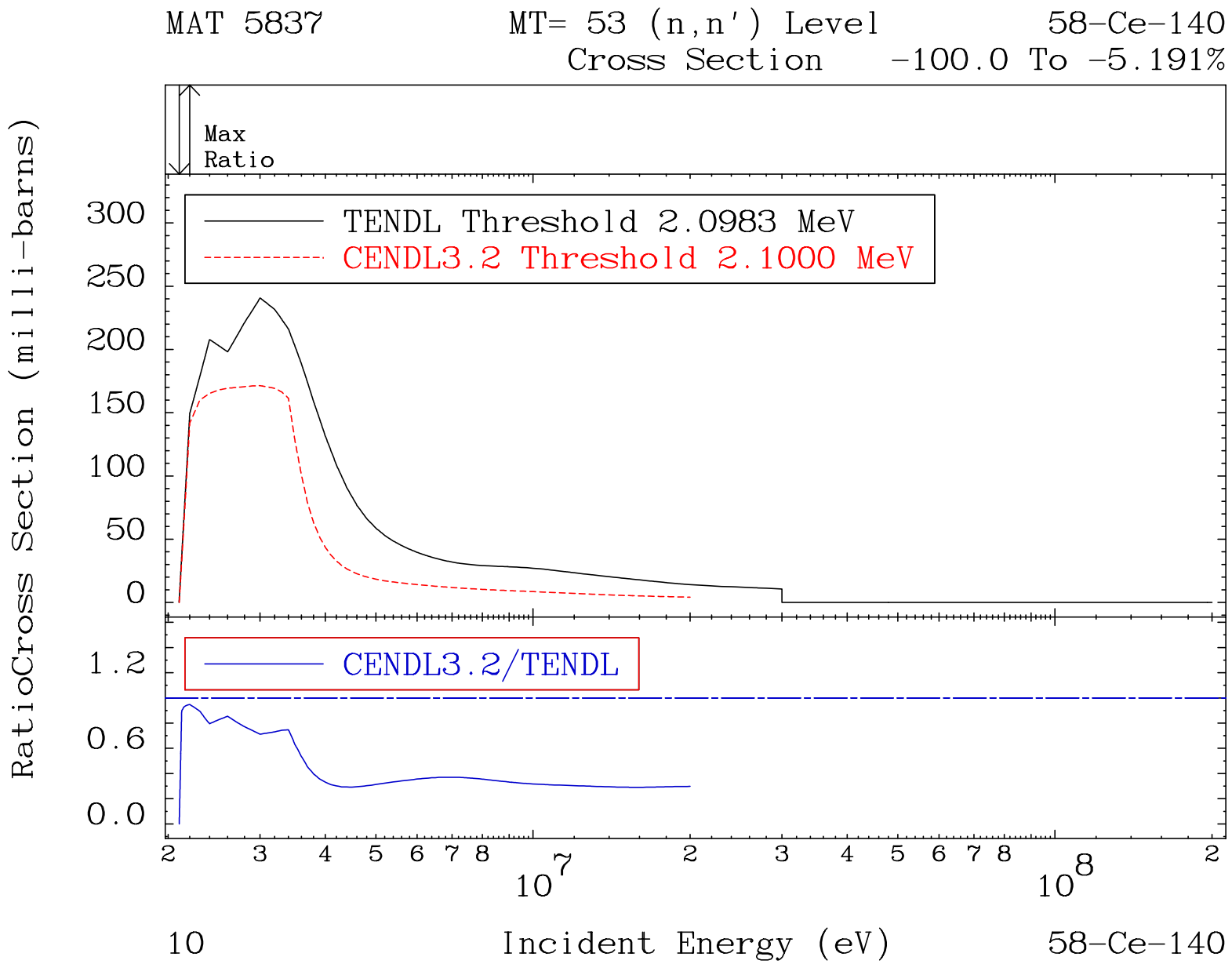

MAT 5837
(n,3n)
Cross Section
58-Ce-140
-100.0 To 114.3 %
Max
Ratio
TENDL Threshold 16.771 MeV
CENDL3.2 Threshold 16.776 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.6
1.2
0.8
0.4
0.0
3.0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
58-Ce-140

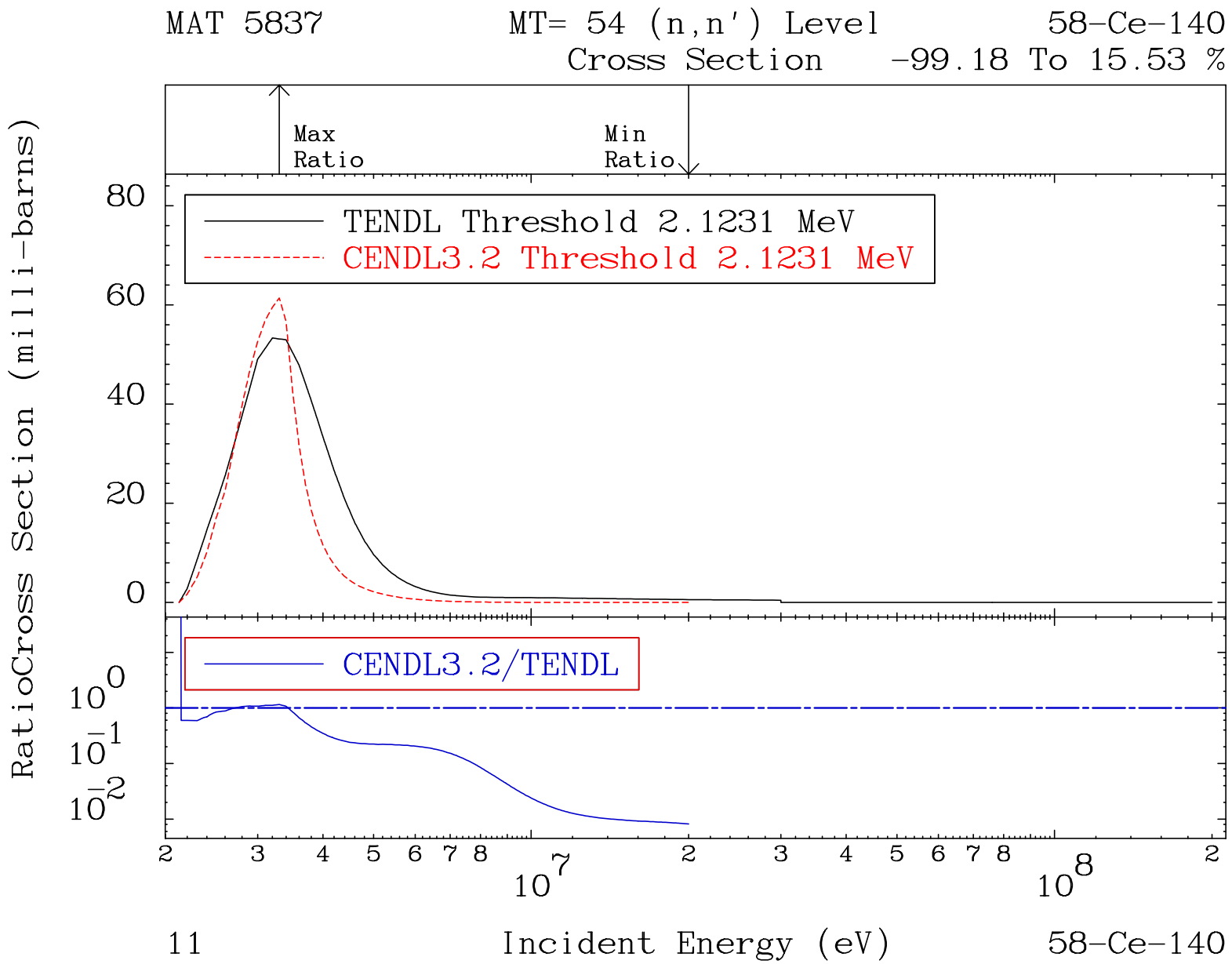

MAT 5837
(n,n') α
Cross Section
58-Ce-140
-100.0 To 650.9 %
Min Ratio
Max Ratio
TENDL Threshold 1.6237 MeV
CENDL3.2 Threshold 11.000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
8
4
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
6
Incident Energy (eV)
58-Ce-140

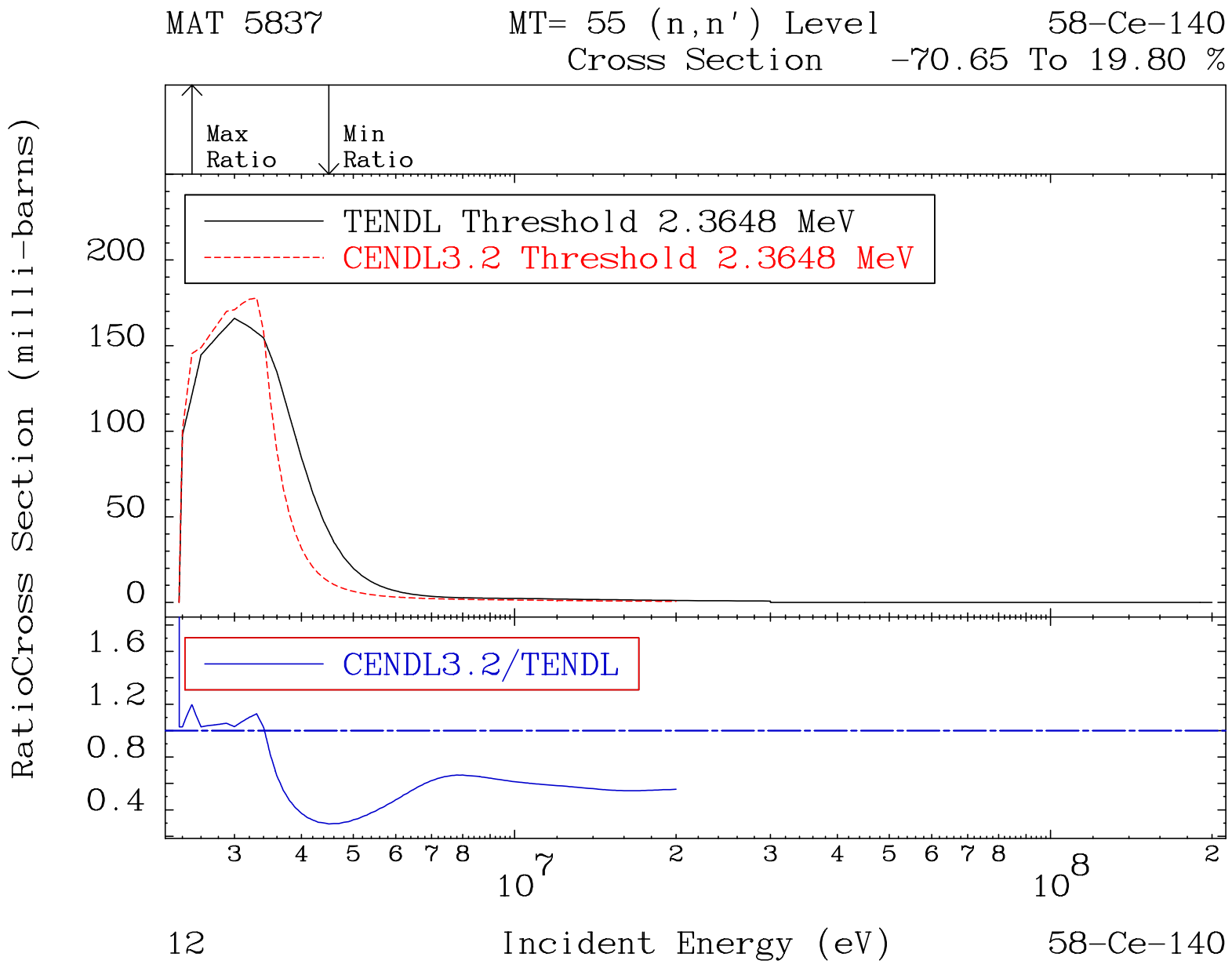

MAT 5837
(n,n') p
Cross Section
58-Ce-140
-100.0 To 143.2 %
Min Ratio
Max Ratio
TENDL Threshold 8.1995 MeV
CENDL3.2 Threshold 11.500 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
2
0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
58-Ce-140

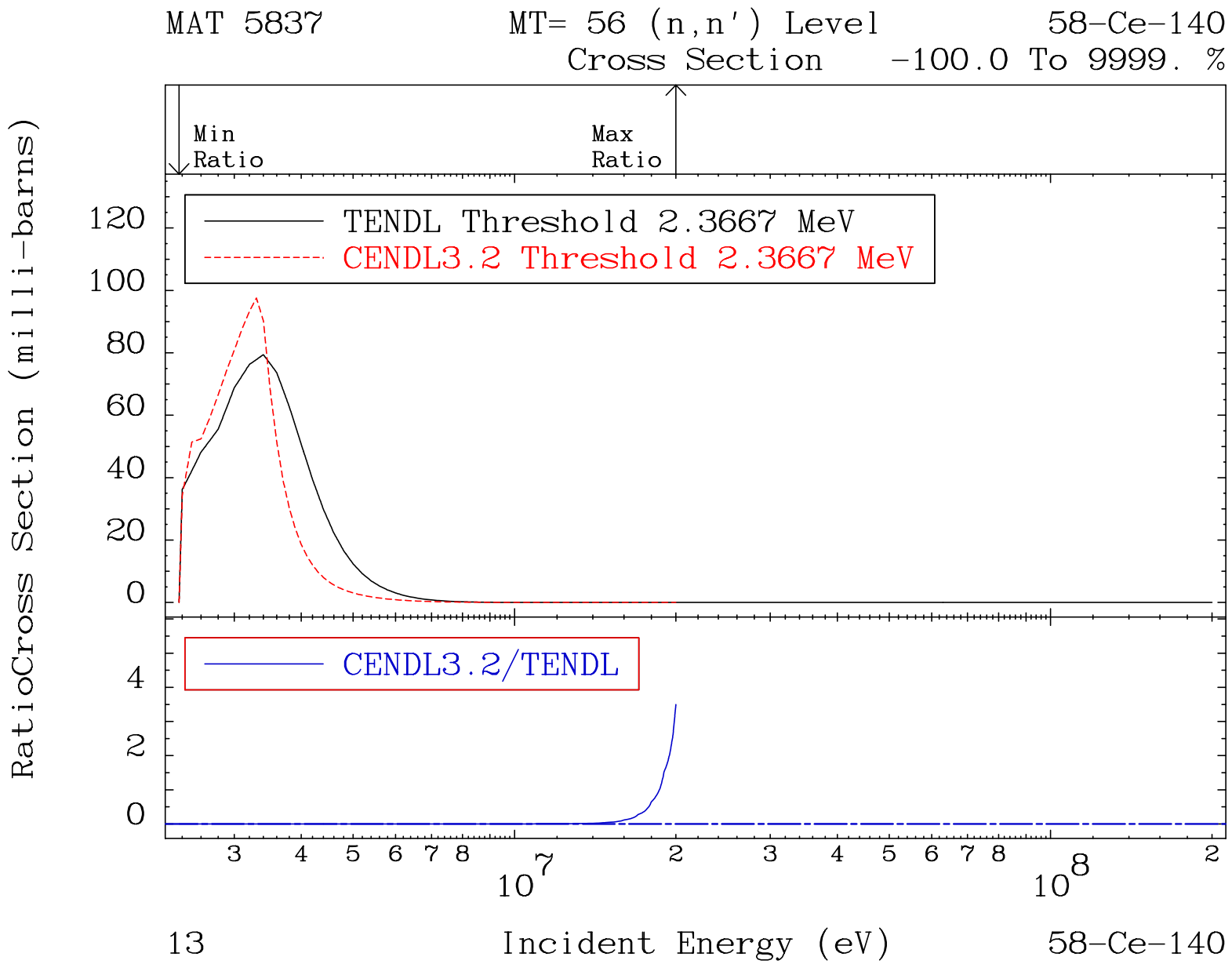

MAT 5837
MT= 51 (n,n') Level
58-Ce-140
Cross Section
-7.284 To 84.33 %
Min Ratio
Max Ratio
TENDL Threshold 1.6077 MeV
CENDL3.2 Threshold 1.6077 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.6
1.2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
Incident Energy (eV)
8
58-Ce-140

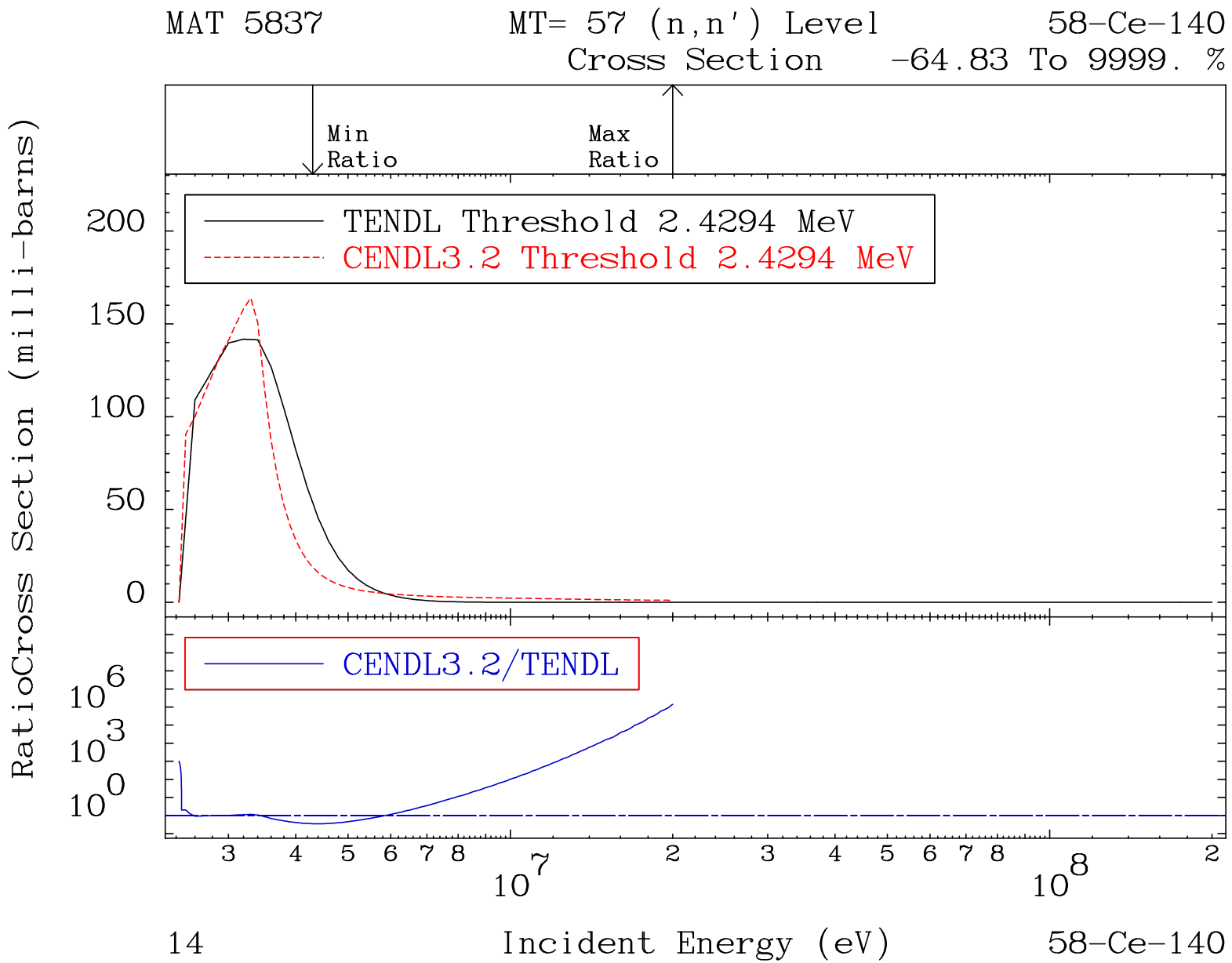

MAT 5837
MT= 52 (n,n') Level
58-Ce-140
Cross Section -74.96 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.9170 MeV
CENDL3.2 Threshold 1.9170 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
140
120
100
80
60
40
20
0
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
9
Incident Energy (eV)
58-Ce-140

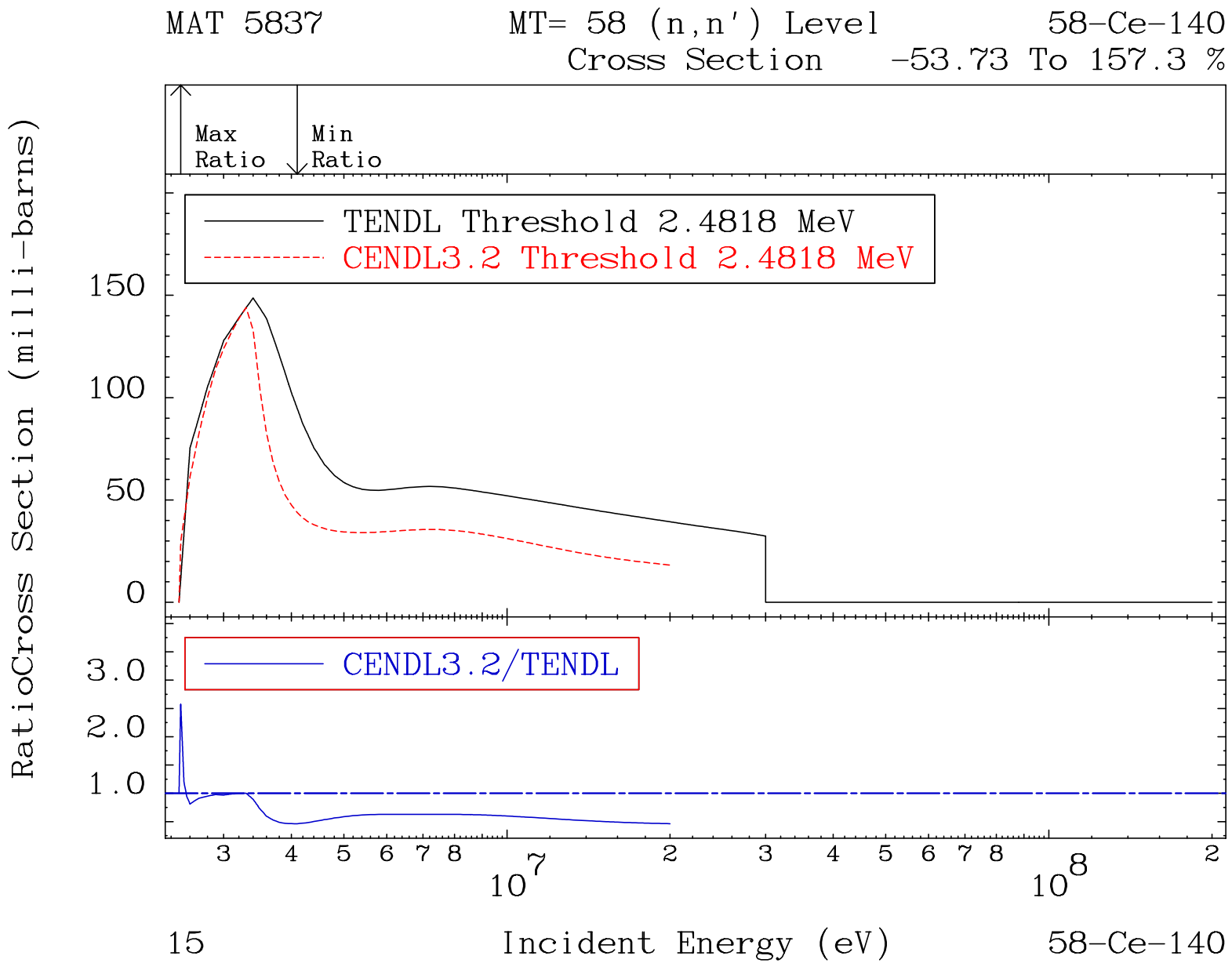

MAT 5837
MT= 53 (n,n') Level
58-Ce-140
Cross Section
-100.0 To -5.191%
Max
Ratio
TENDL Threshold 2.0983 MeV
CENDL3.2 Threshold 2.1000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
300
250
200
150
100
50
0
1.2
0.6
0.0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
10
Incident Energy (eV)
58-Ce-140

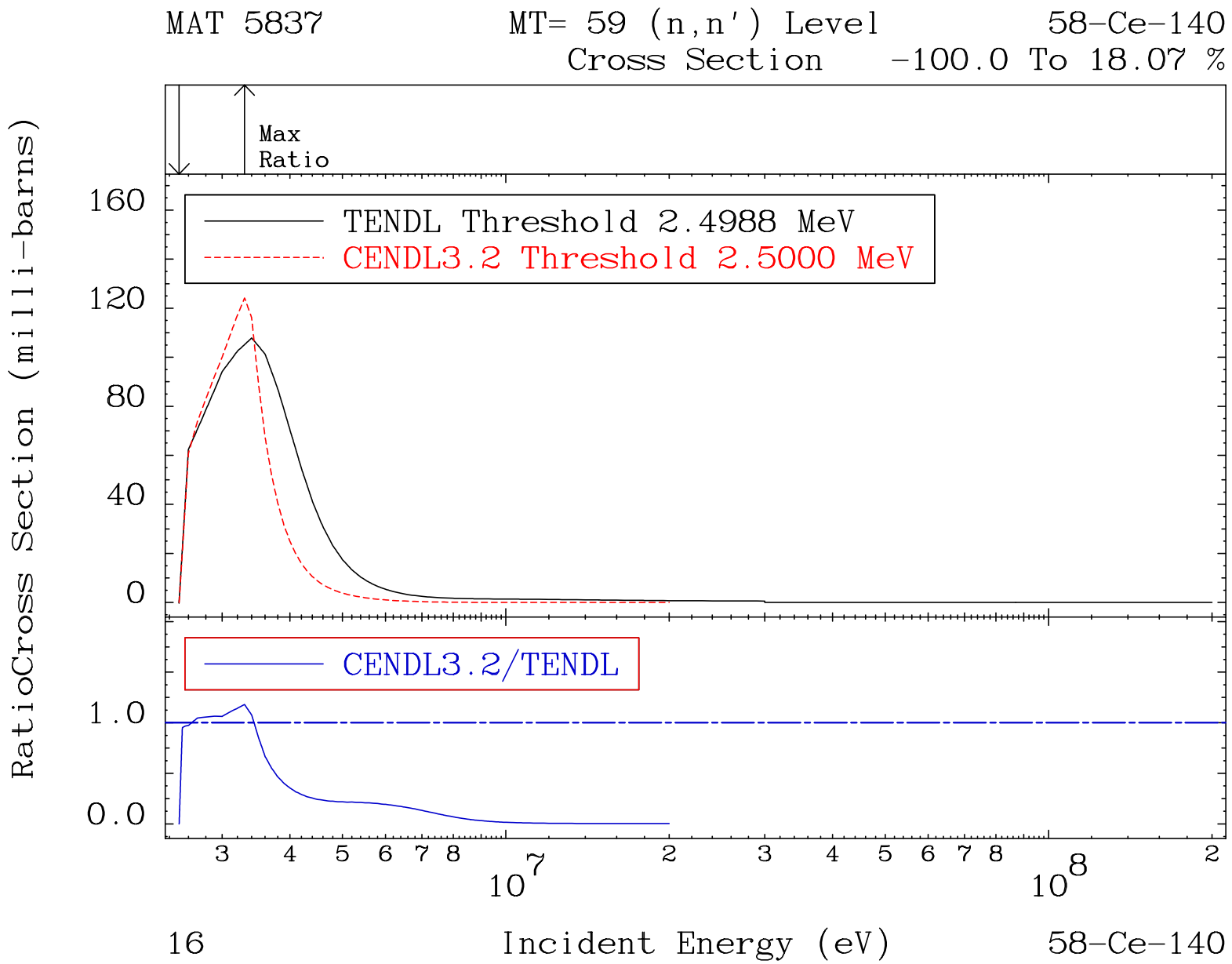

MAT 5837
MT= 54 (n,n') Level
58-Ce-140
Cross Section -99.18 To 15.53 %
Max Ratio
Min Ratio
TENDL Threshold 2.1231 MeV
CENDL3.2 Threshold 2.1231 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
10^{0}
10^{-1}
10^{-2}
2 3 4 5 6 7 8 10^{7} 2 3 4 5 6 7 8 10^{8} 2
11
Incident Energy (eV)
58-Ce-140

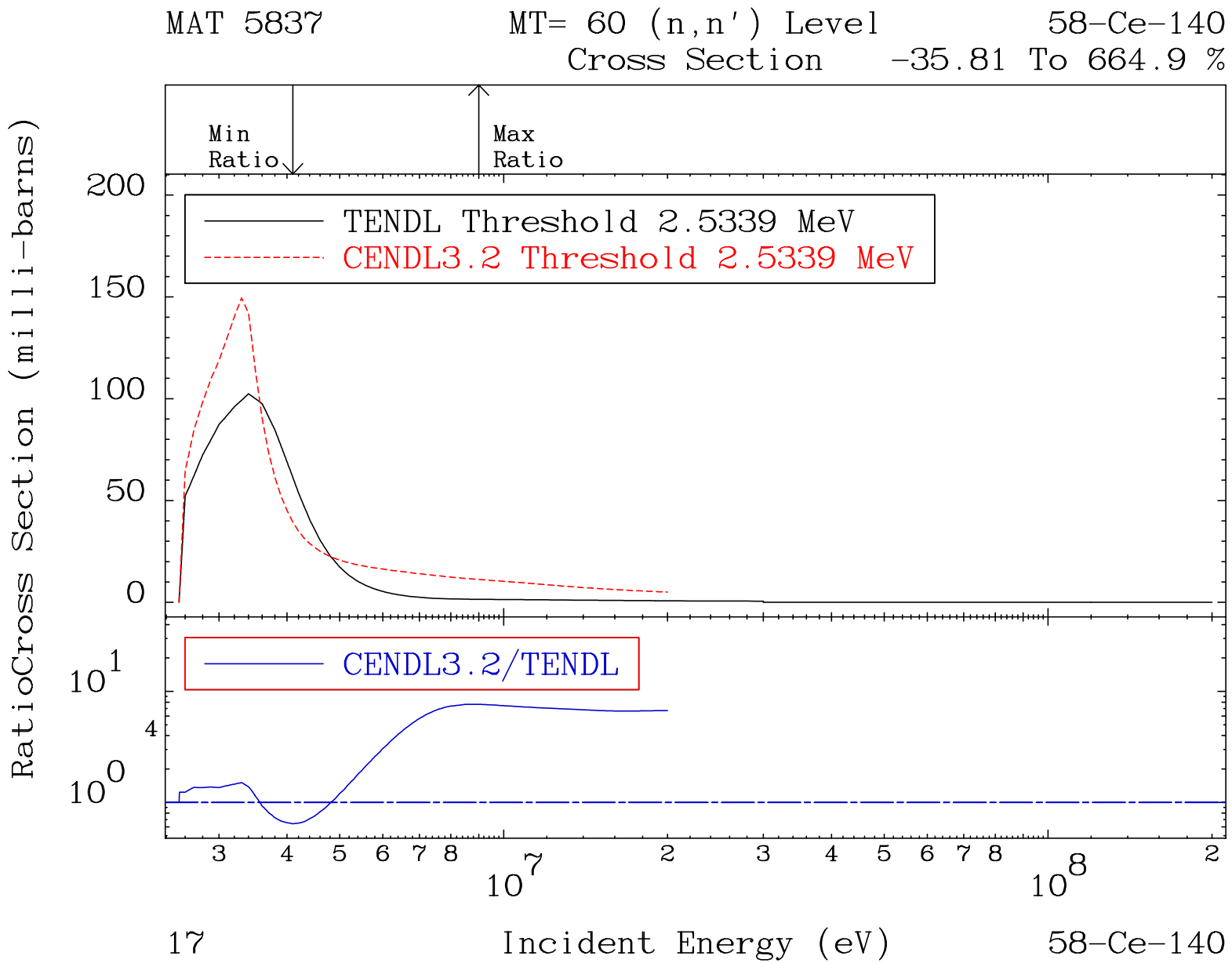

MAT 5837
MT= 55 (n,n') Level
58-Ce-140
Cross Section -70.65 To 19.80 %
Max Ratio
Min Ratio
TENDL Threshold 2.3648 MeV
CENDL3.2 Threshold 2.3648 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
1.6
1.2
0.8
0.4
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
12
Incident Energy (eV)
58-Ce-140

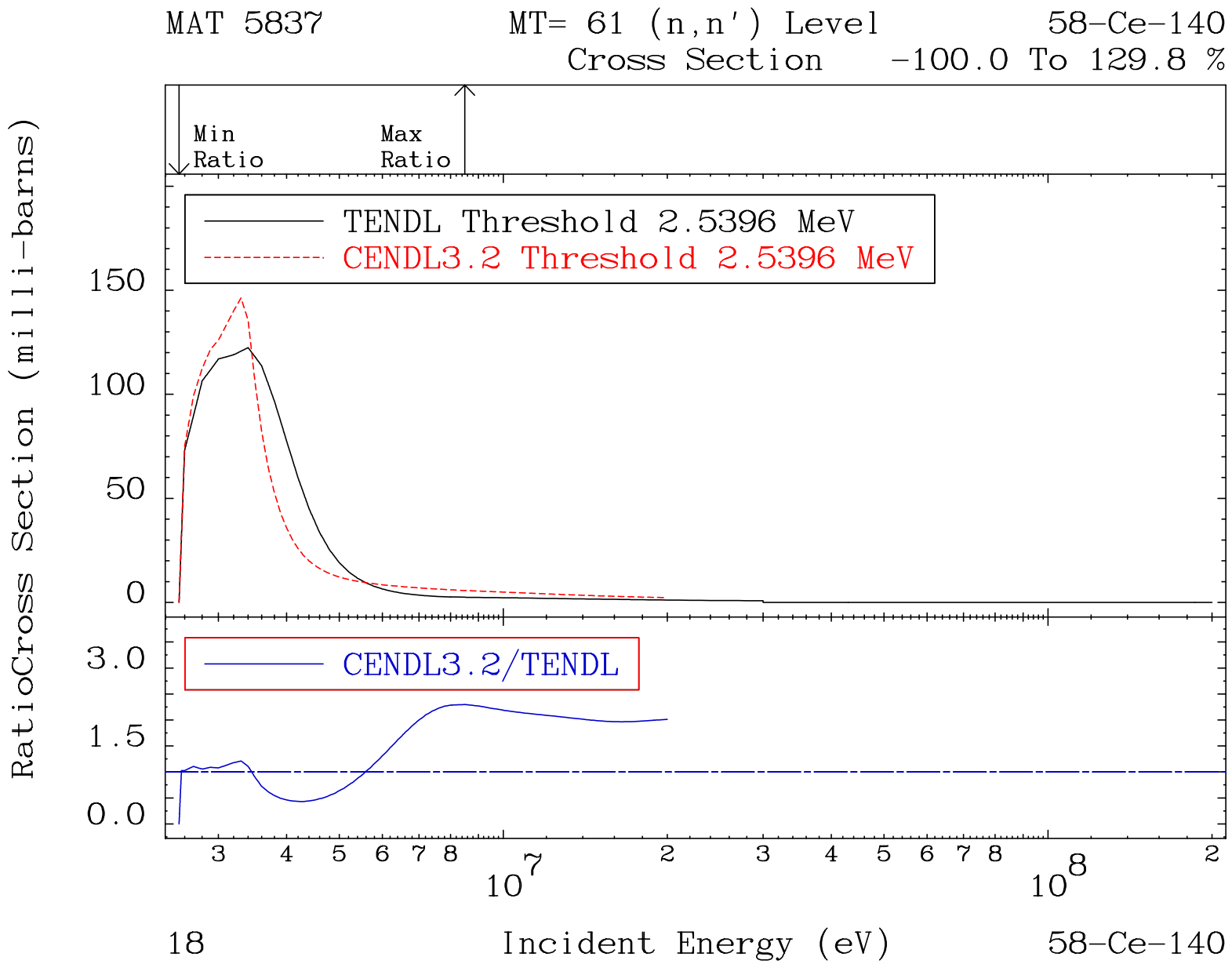

MAT 5837
MT= 56 (n,n') Level
58-Ce-140
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.3667 MeV
CENDL3.2 Threshold 2.3667 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
4
2
0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
58-Ce-140

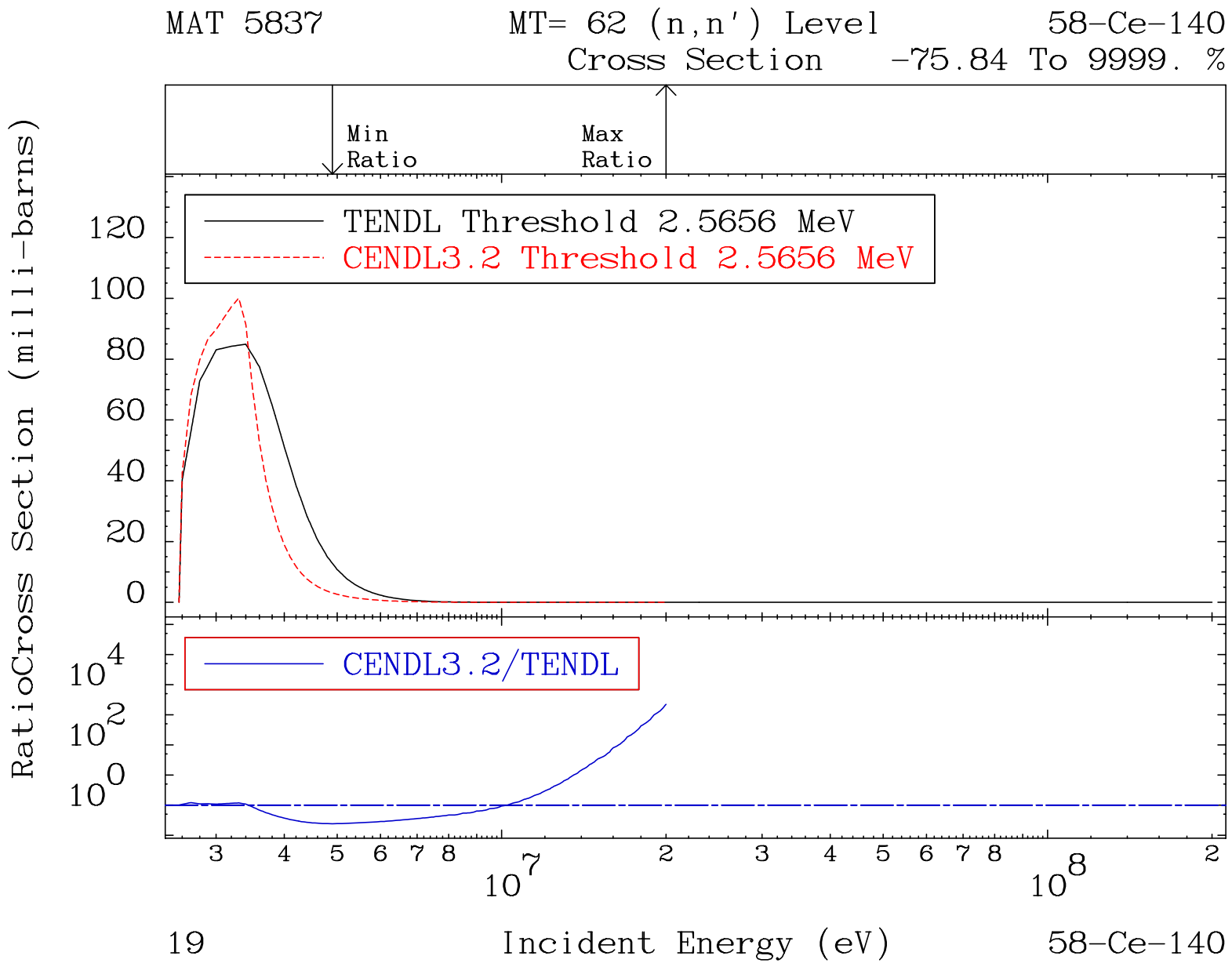

MAT 5837
MT= 57 (n,n') Level
58-Ce-140
Cross Section -64.83 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.4294 MeV
CENDL3.2 Threshold 2.4294 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
10^6
10^3
10^0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
14
Incident Energy (eV)
58-Ce-140

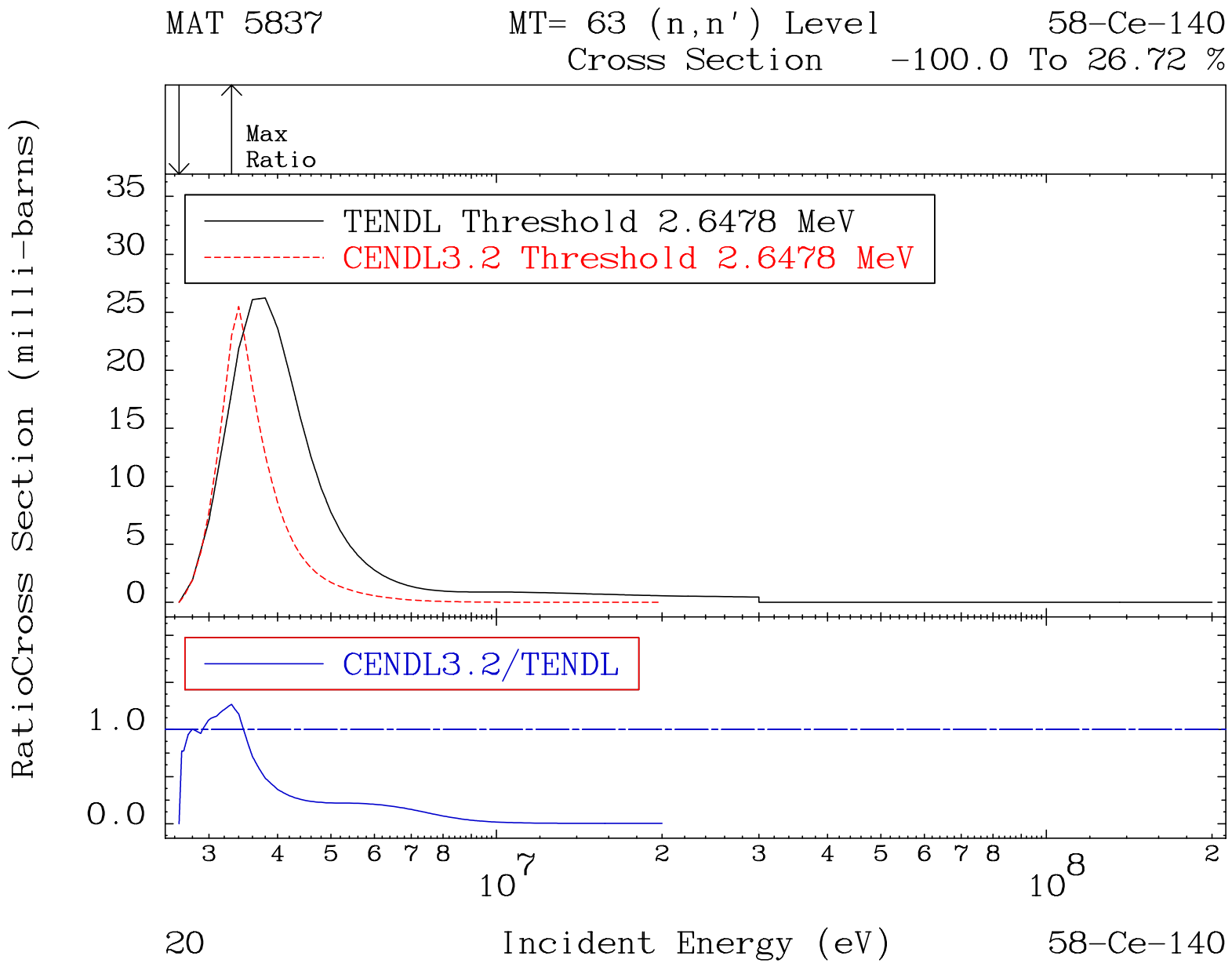

MAT 5837
MT= 58 (n,n') Level
58-Ce-140
Cross Section
-53.73 To 157.3 %
Max Ratio
Min Ratio
TENDL Threshold 2.4818 MeV
CENDL3.2 Threshold 2.4818 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
150
100
50
0
3.0
2.0
1.0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
58-Ce-140

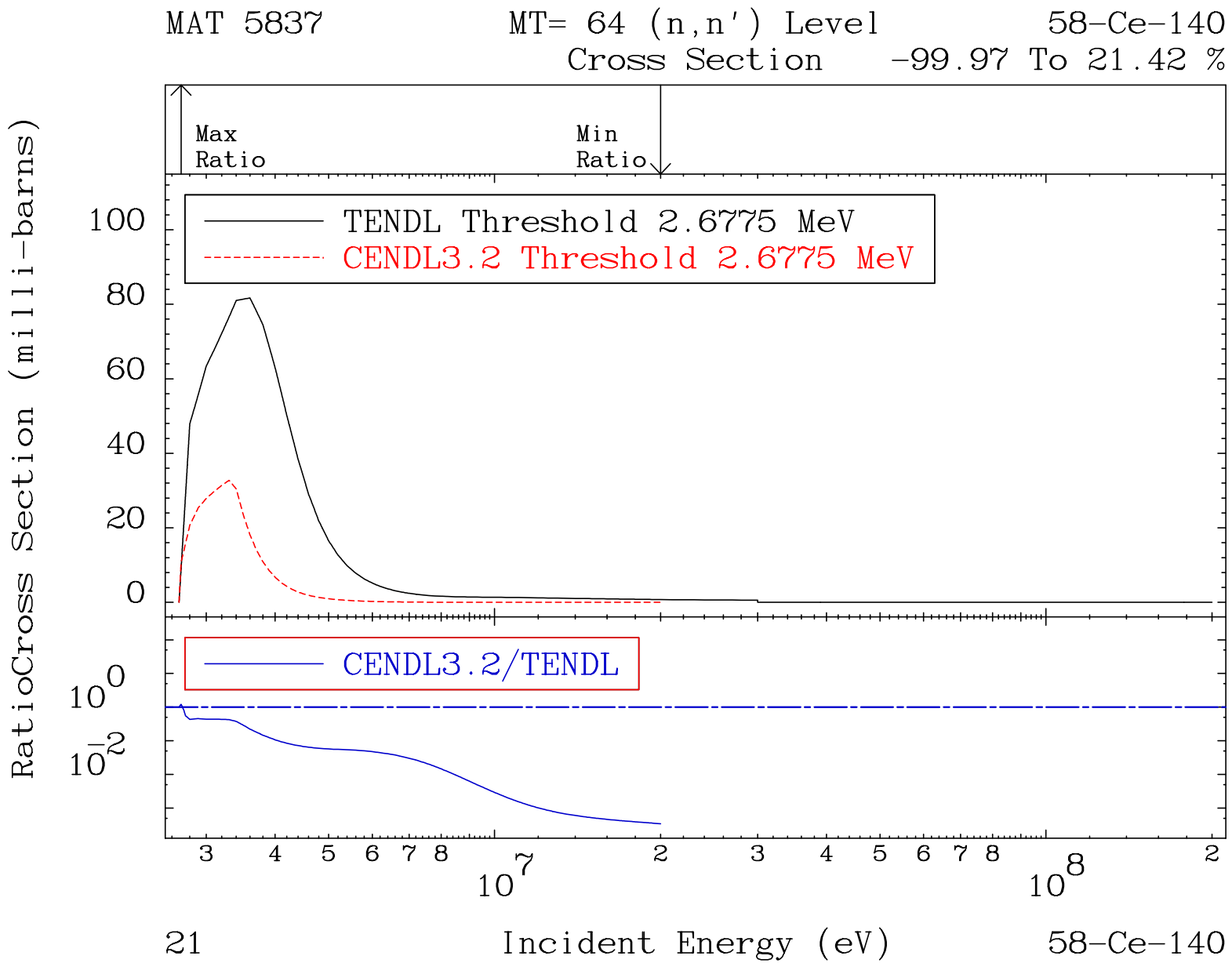

MAT 5837
MT= 59 (n,n') Level
58-Ce-140
Cross Section -100.0 To 18.07 %
Max
Ratio
TENDL Threshold 2.4988 MeV
CENDL3.2 Threshold 2.5000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
1.0
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
16
Incident Energy (eV)
58-Ce-140

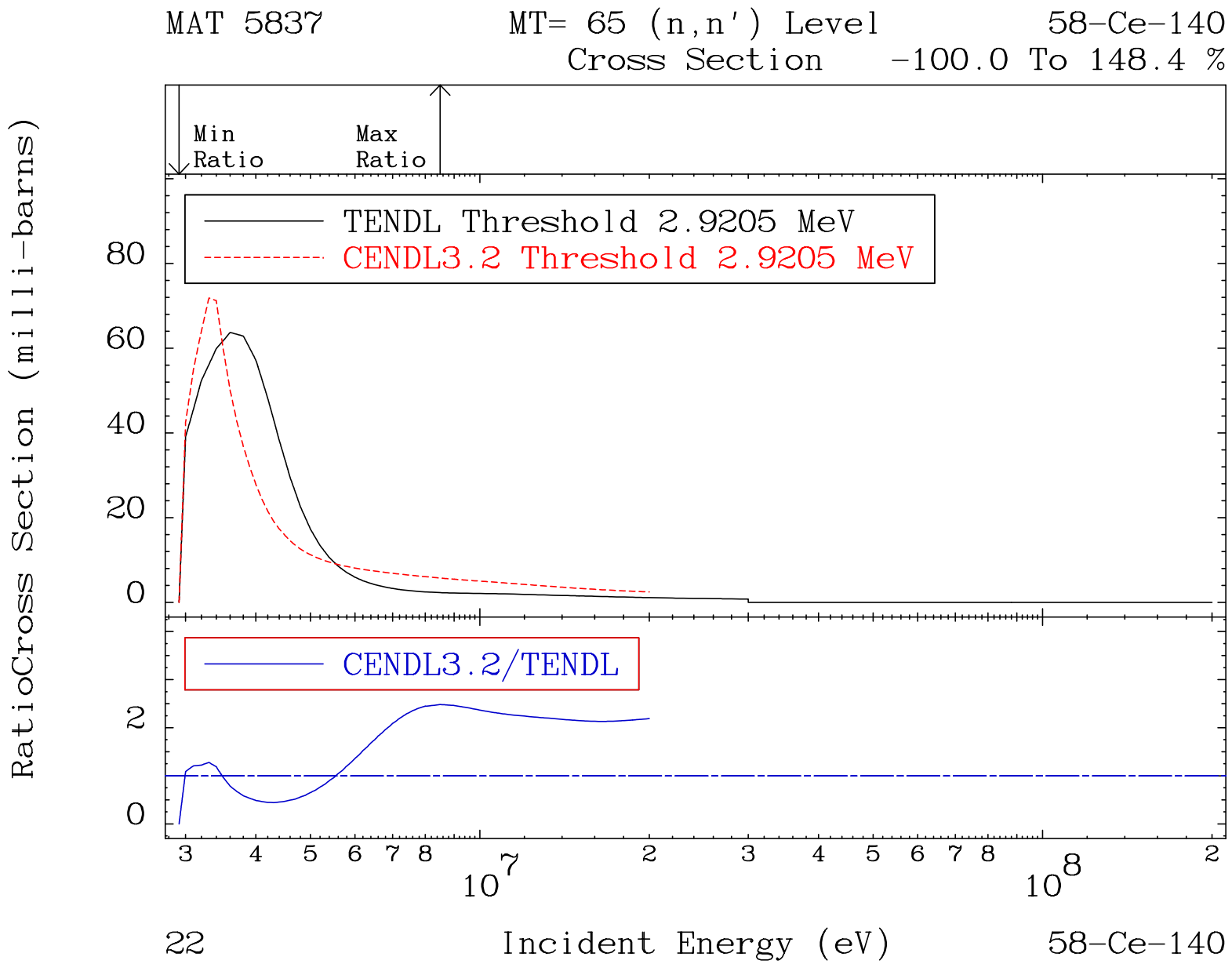

MAT 5837
MT= 60 (n,n') Level
58-Ce-140
Cross Section -35.81 To 664.9 %
Min Ratio
Max Ratio
TENDL Threshold 2.5339 MeV
CENDL3.2 Threshold 2.5339 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
10^1
10^0
4
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
17
Incident Energy (eV)
58-Ce-140

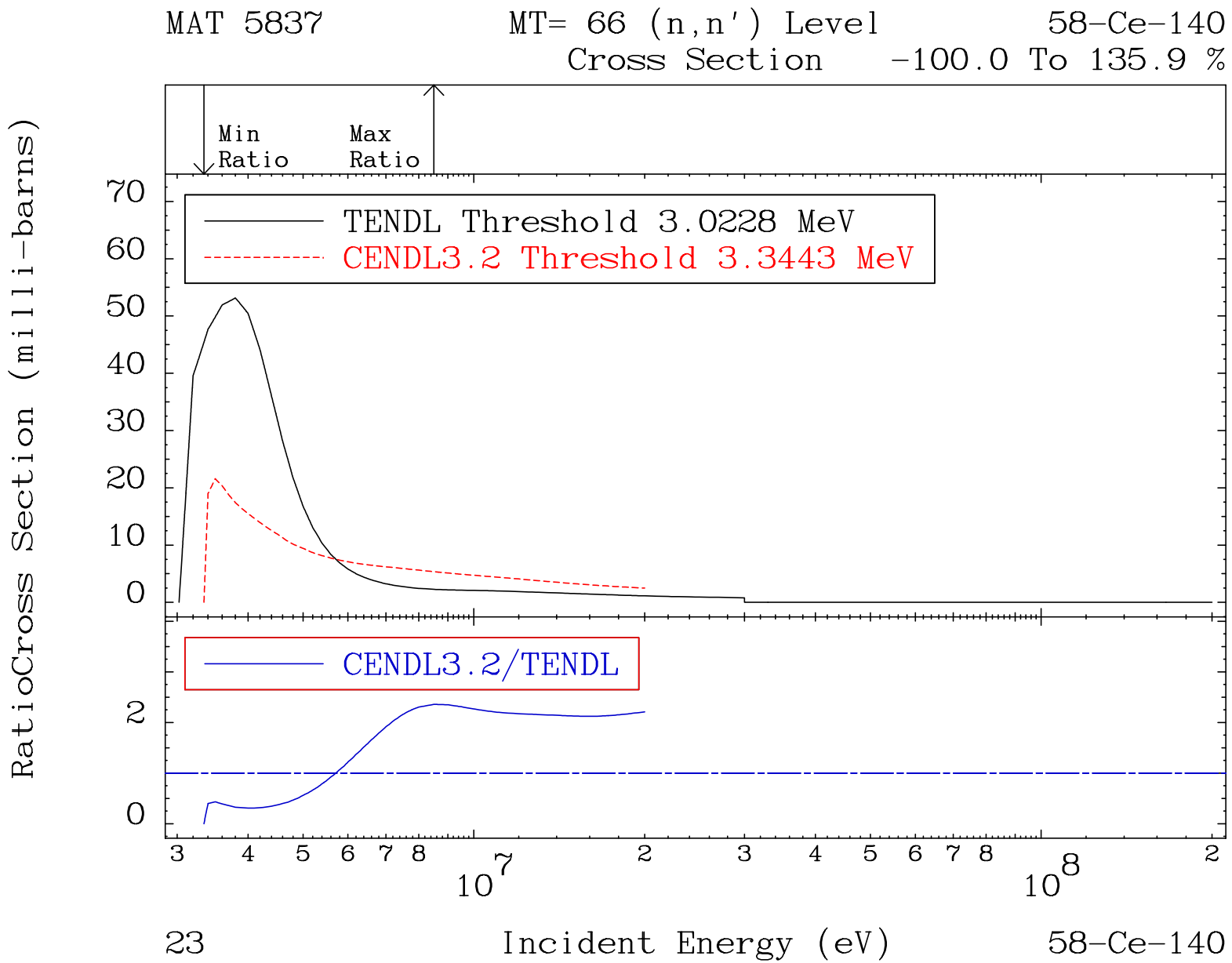

MAT 5837
MT= 61 (n,n') Level
58-Ce-140
Cross Section -100.0 To 129.8 %
Min Ratio
Max Ratio
TENDL Threshold 2.5396 MeV
CENDL3.2 Threshold 2.5396 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
150
100
50
0
3.0
1.5
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
18
Incident Energy (eV)
58-Ce-140

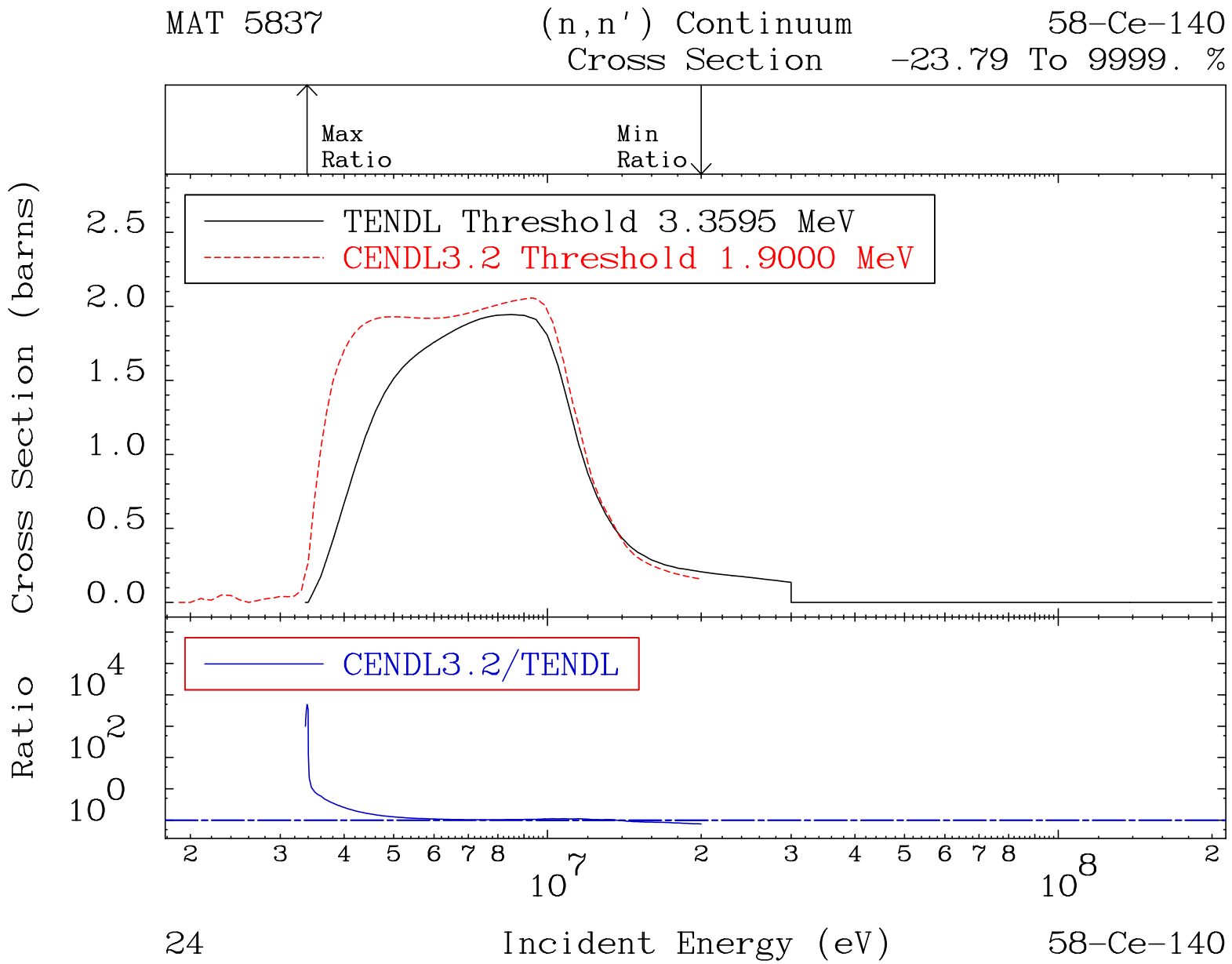

MAT 5837
MT= 62 (n,n') Level
58-Ce-140
Cross Section -75.84 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.5656 MeV
CENDL3.2 Threshold 2.5656 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
10^4
10^2
10^0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
19
Incident Energy (eV)
58-Ce-140

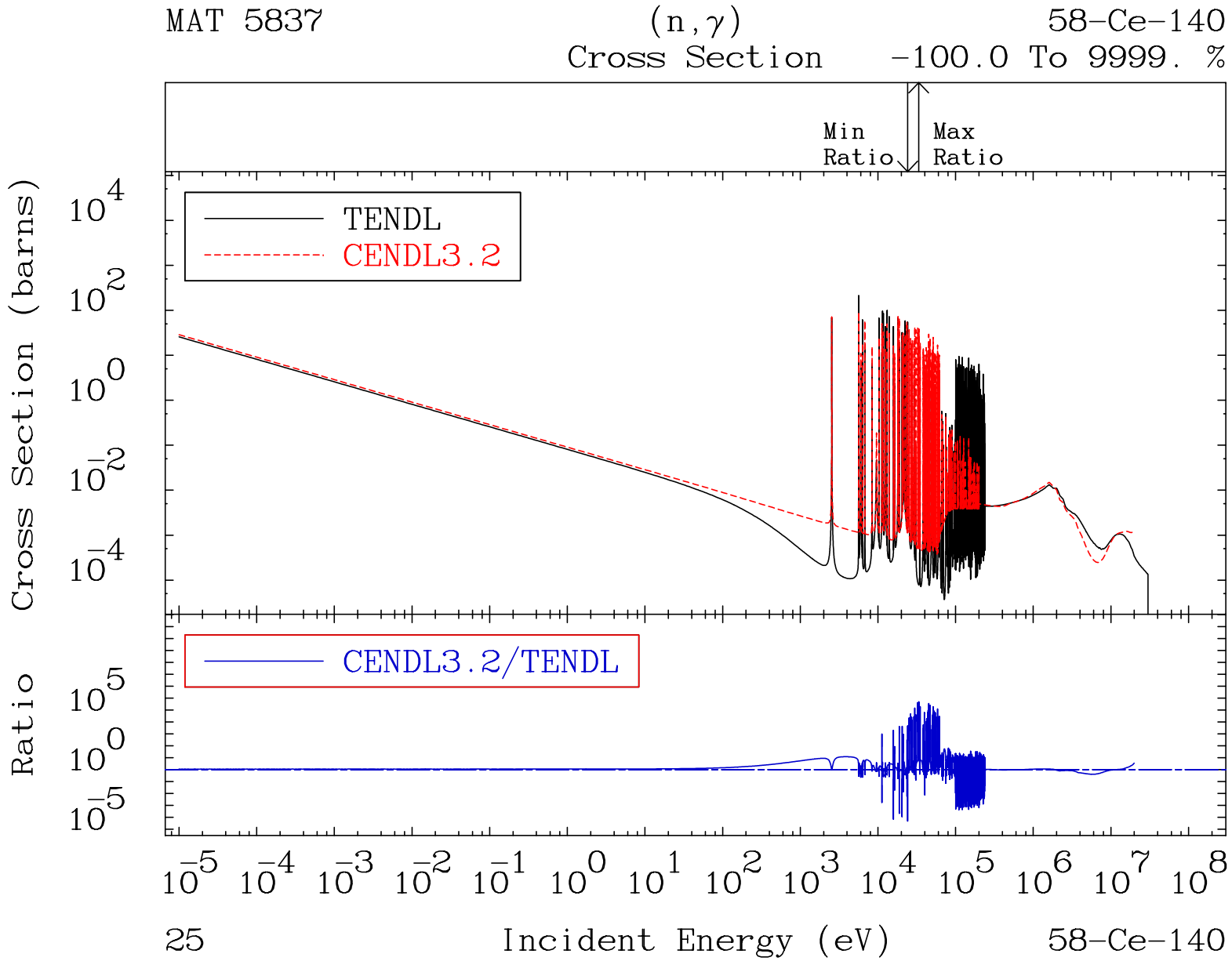

MAT 5837
MT= 63 (n,n') Level
58-Ce-140
Cross Section
-100.0 To 26.72 %
Max
Ratio
TENDL Threshold 2.6478 MeV
CENDL3.2 Threshold 2.6478 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
35
30
25
20
15
10
5
0
1.0
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
58-Ce-140

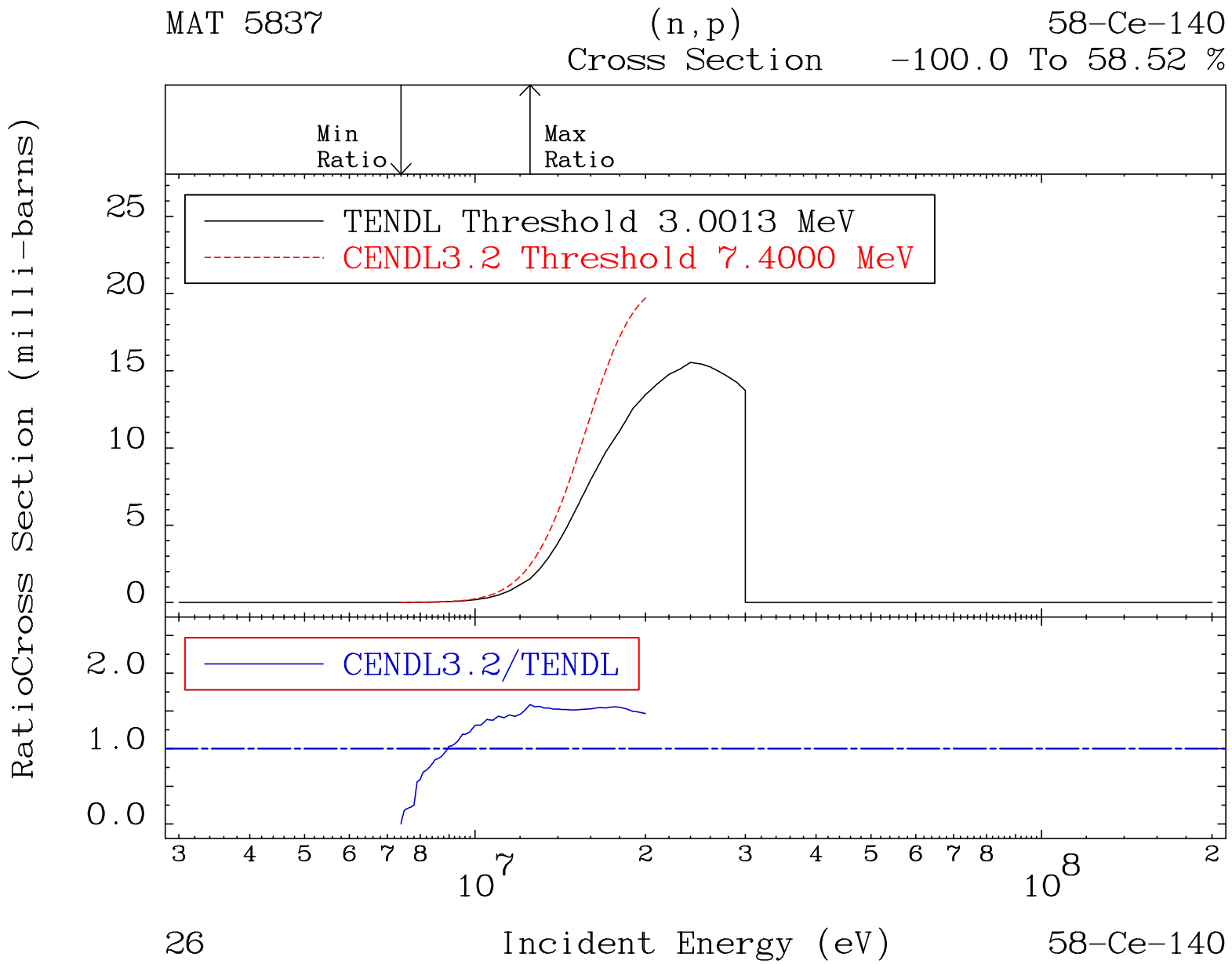

MAT 5837
MT= 64 (n,n') Level
58-Ce-140
Cross Section -99.97 To 21.42 %
Max Ratio
Min Ratio
TENDL Threshold 2.6775 MeV
CENDL3.2 Threshold 2.6775 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
10^{0}
10^{-2}
3 4 5 6 7 8 10^{7} 2 3 4 5 6 7 8 10^{8} 2
21
Incident Energy (eV)
58-Ce-140

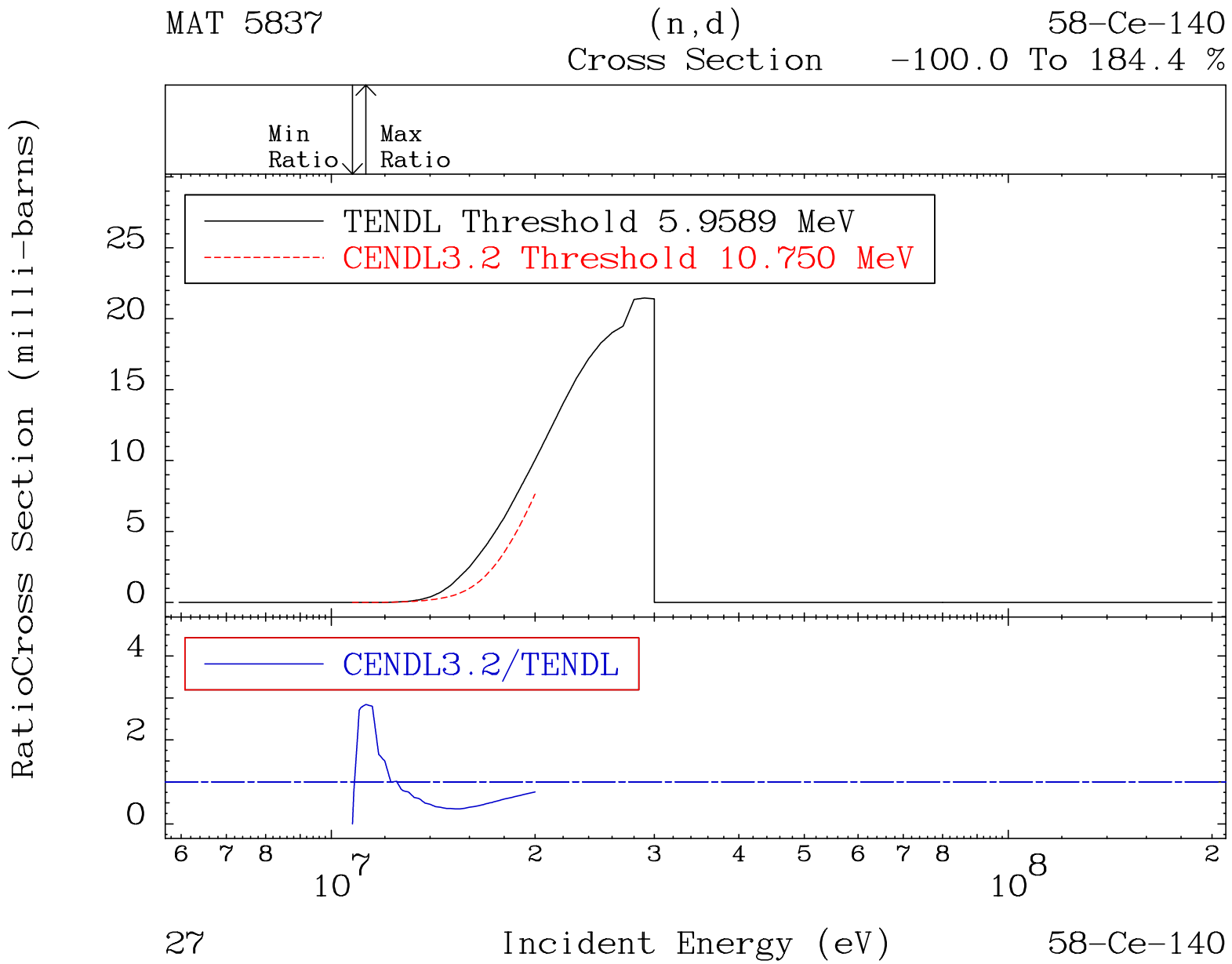

MAT 5837
MT= 65 (n,n') Level
58-Ce-140
Cross Section -100.0 To 148.4 %
Min Ratio
Max Ratio
TENDL Threshold 2.9205 MeV
CENDL3.2 Threshold 2.9205 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
2
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
58-Ce-140

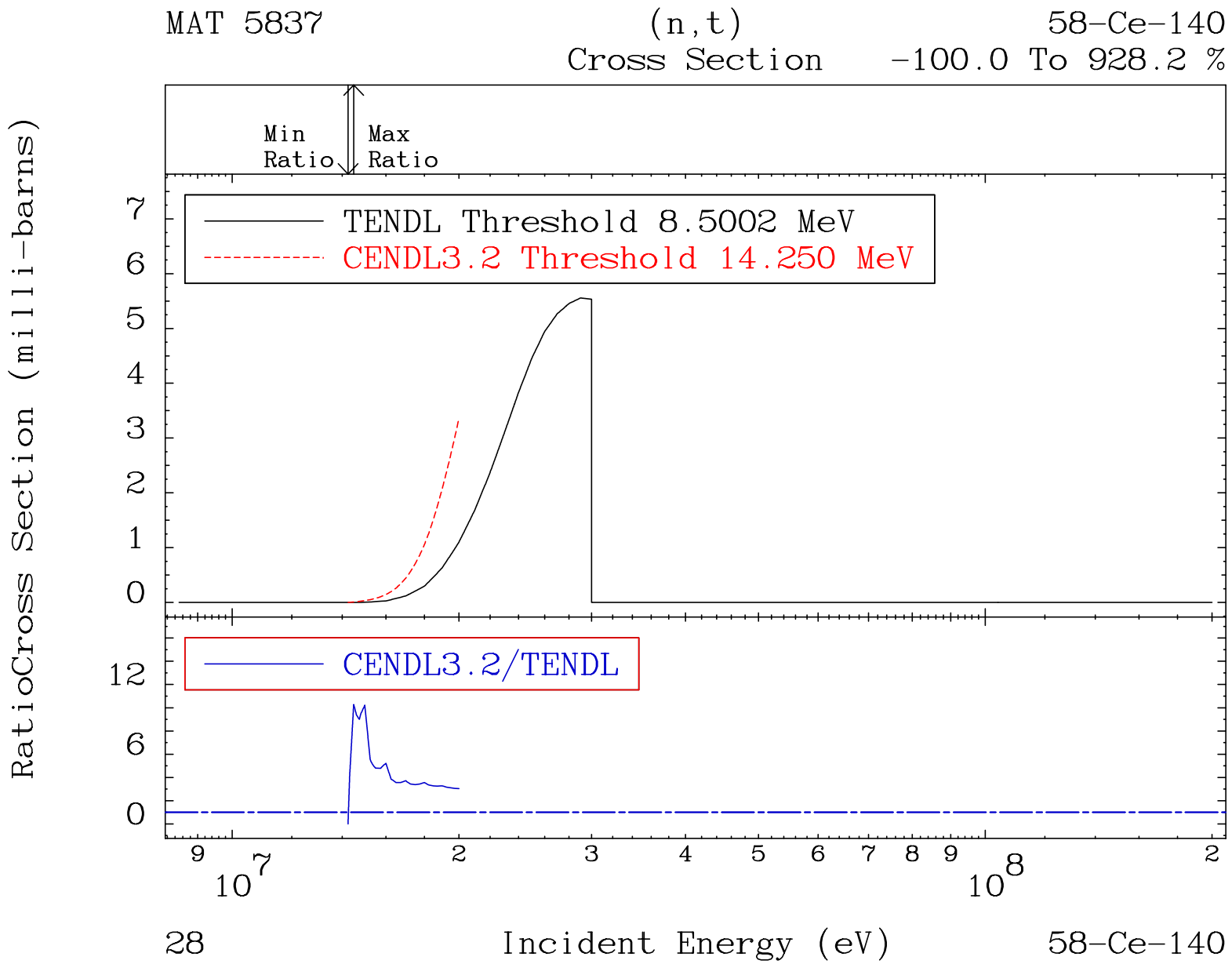

MAT 5837
MT= 66 (n,n') Level
58-Ce-140
Cross Section
-100.0 To 135.9 %
Min Ratio
Max Ratio
TENDL Threshold 3.0228 MeV
CENDL3.2 Threshold 3.3443 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
70
60
50
40
30
20
10
0
2
0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
58-Ce-140

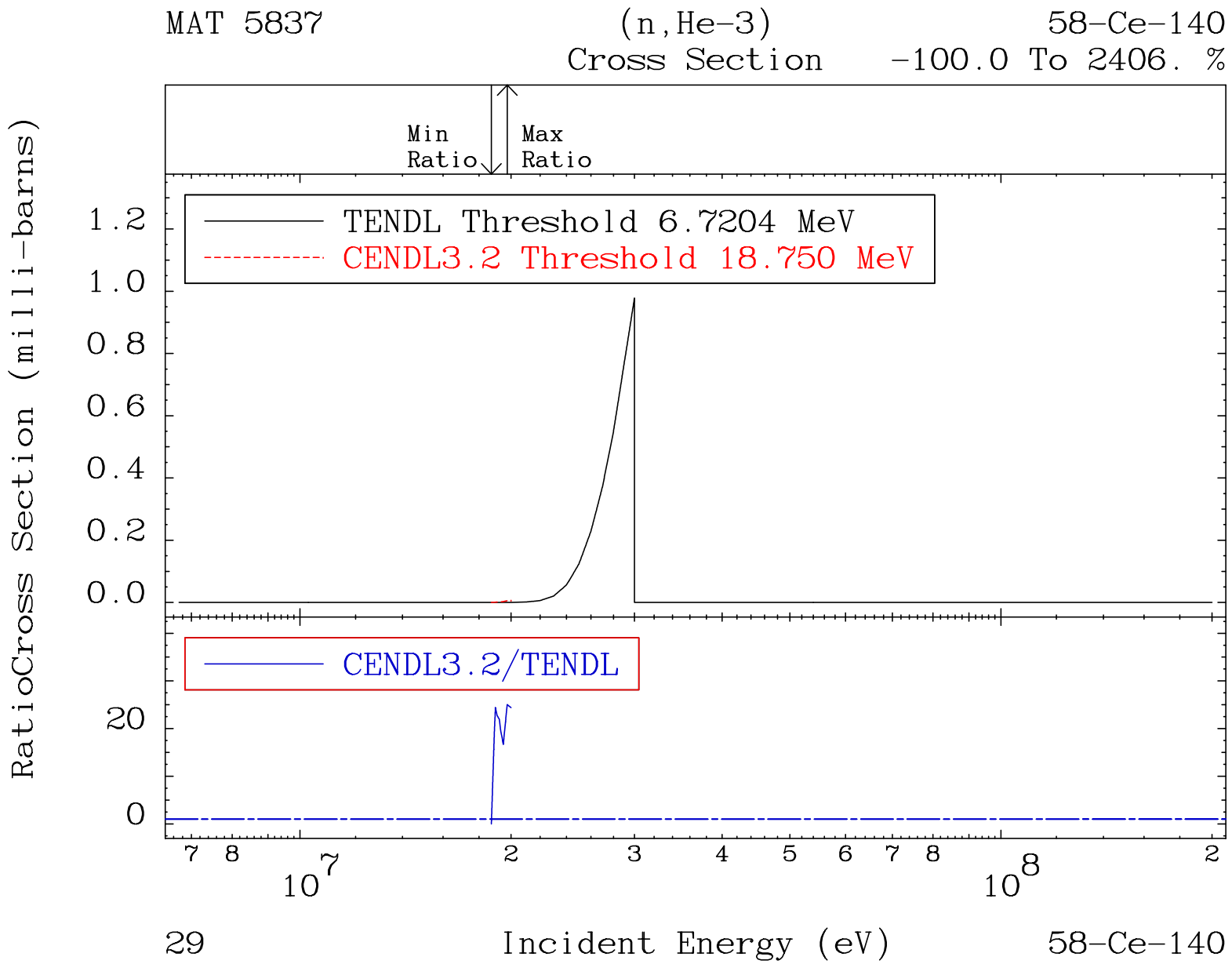

MAT 5837
(n,n') Continuum
Cross Section
58-Ce-140
-23.79 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 3.3595 MeV
CENDL3.2 Threshold 1.9000 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
CENDL3.2/TENDL
Ratio
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
58-Ce-140

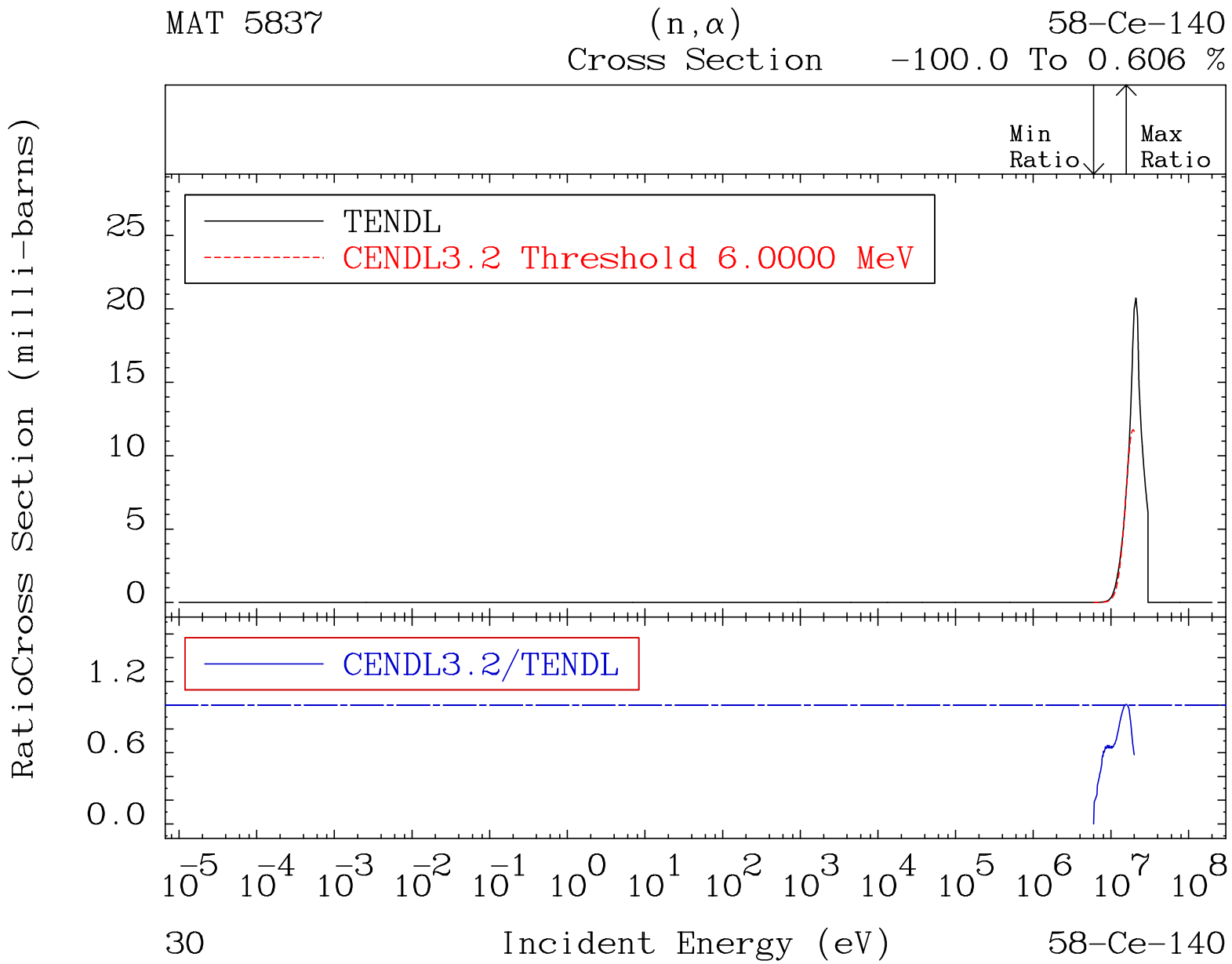

MAT 5837
(n,γ)
Cross Section
58-Ce-140
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
25
58-Ce-140

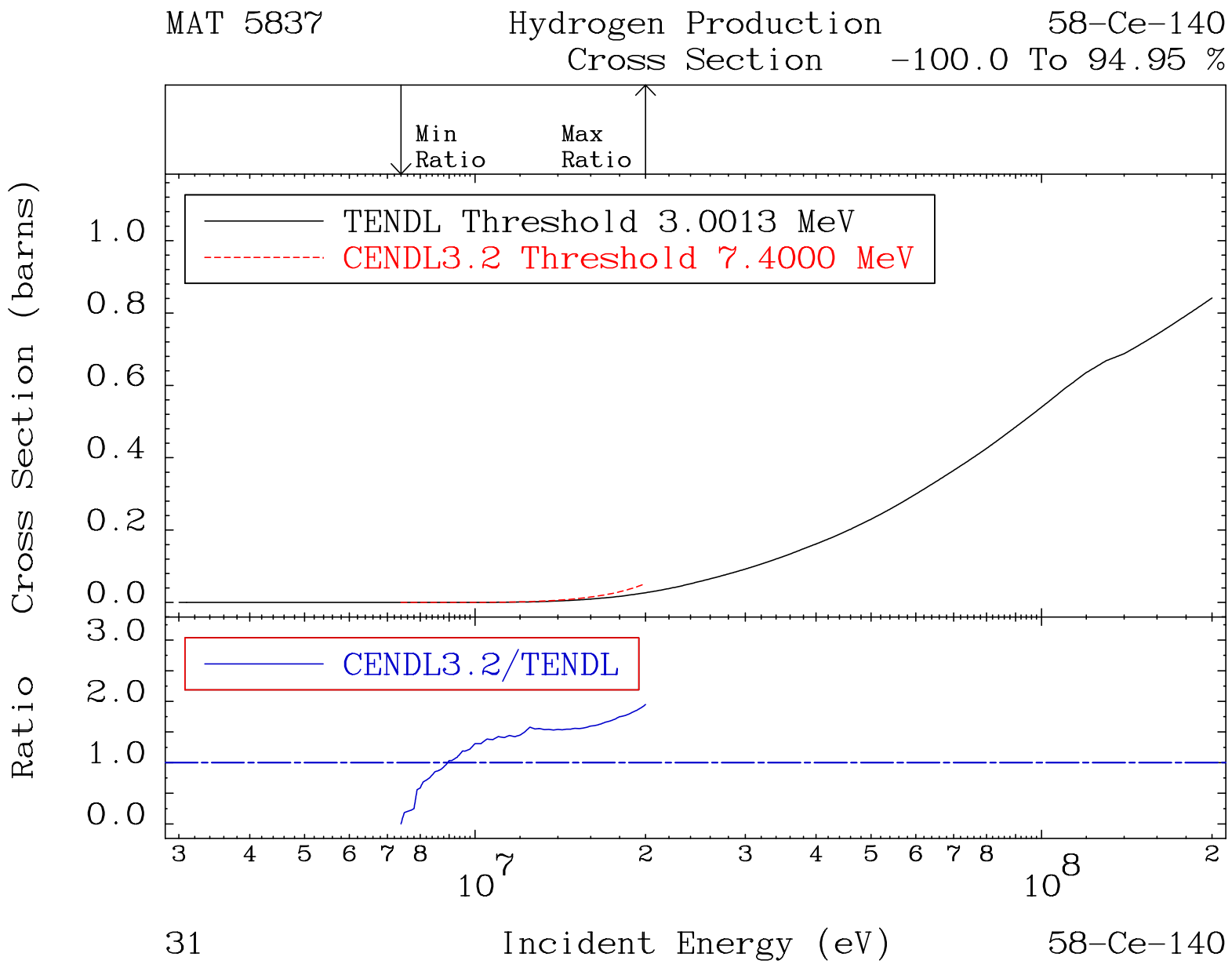

MAT 5837
(n,p)
58-Ce-140
Cross Section
-100.0 To 58.52 %
Min Ratio
Max Ratio
TENDL Threshold 3.0013 MeV
CENDL3.2 Threshold 7.4000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
2.0
1.0
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
26
Incident Energy (eV)
58-Ce-140

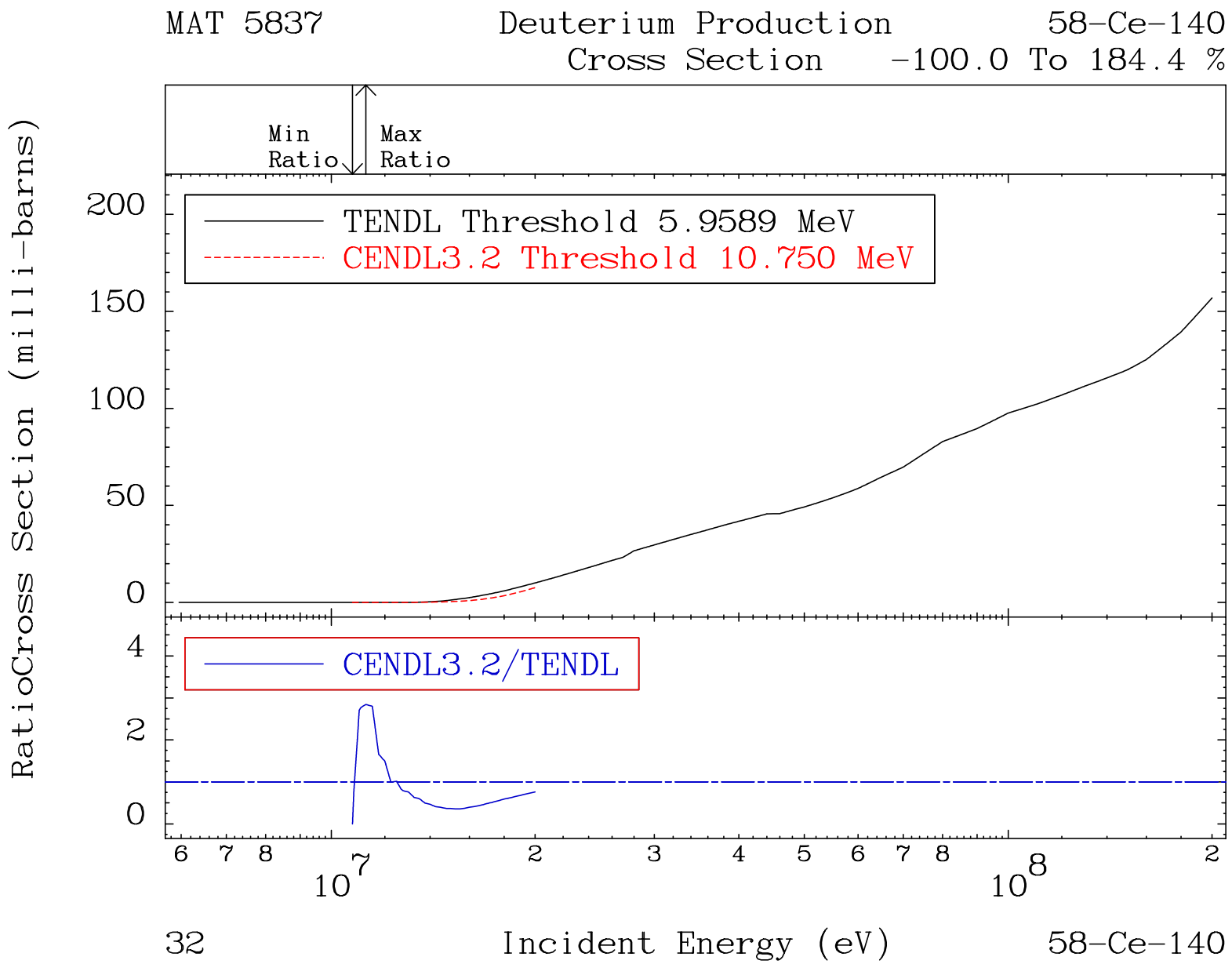

MAT 5837
(n,d)
58-Ce-140
Cross Section
-100.0 To 184.4 %
Min Ratio
Max Ratio
TENDL Threshold 5.9589 MeV
CENDL3.2 Threshold 10.750 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
4
2
0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
27
Incident Energy (eV)
58-Ce-140

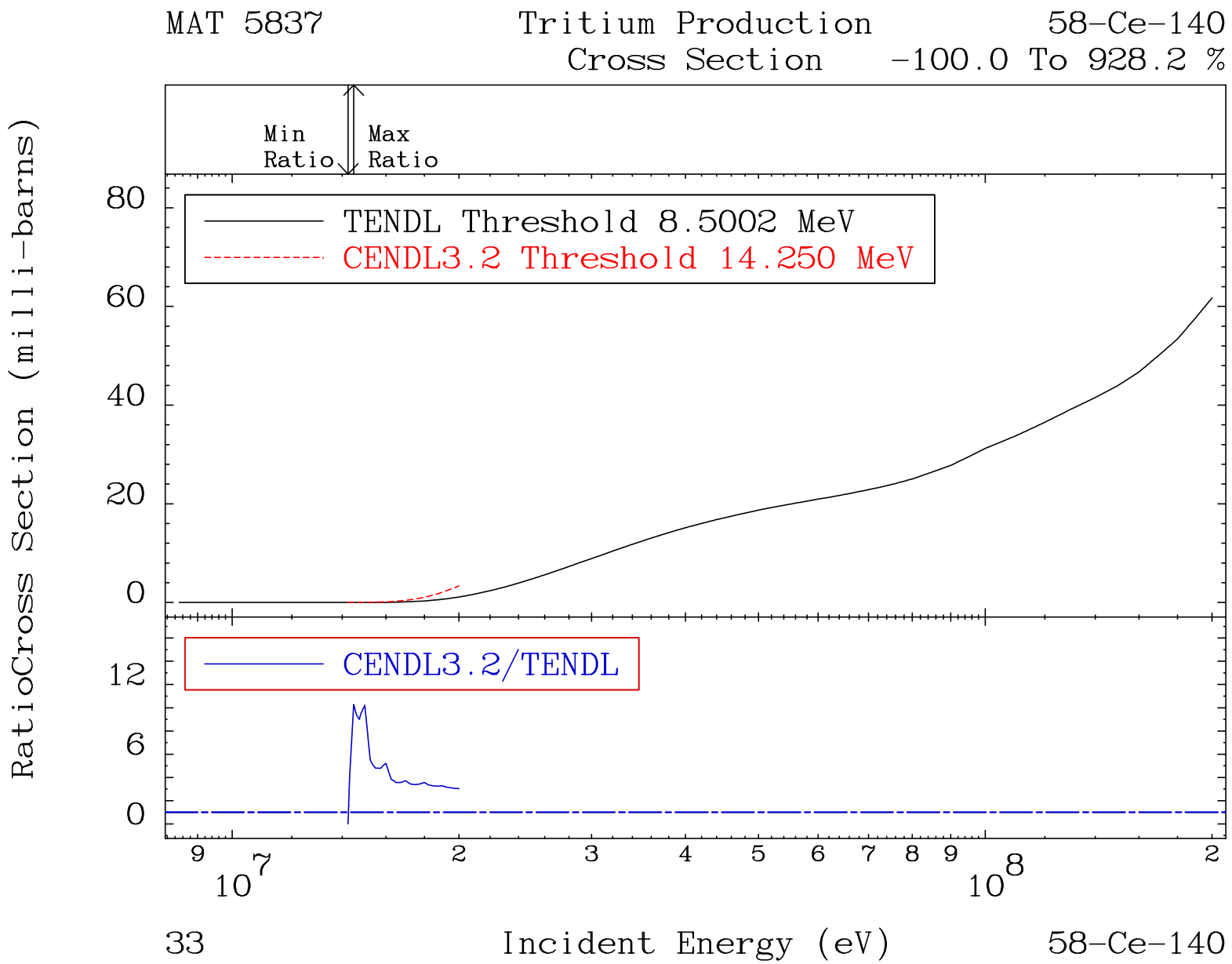

MAT 5837
(n,t)
Cross Section
58-Ce-140
-100.0 To 928.2 %
Min Ratio
Max Ratio
TENDL Threshold 8.5002 MeV
CENDL3.2 Threshold 14.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
28
58-Ce-140

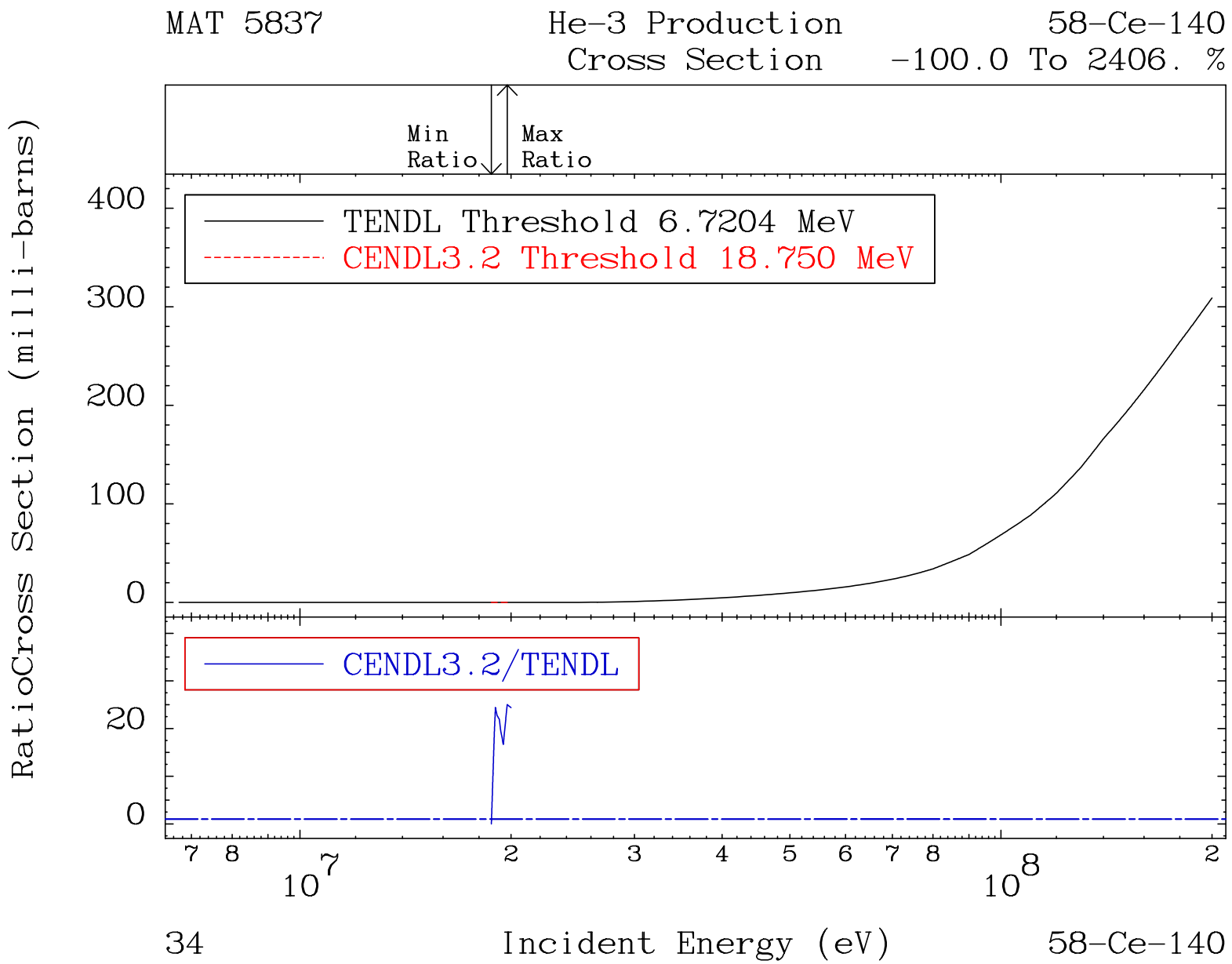

MAT 5837
(n,He-3)
Cross Section
58-Ce-140
-100.0 To 2406. %
Min Ratio
Max Ratio
TENDL Threshold 6.7204 MeV
CENDL3.2 Threshold 18.750 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
20
0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
29
Incident Energy (eV)
58-Ce-140

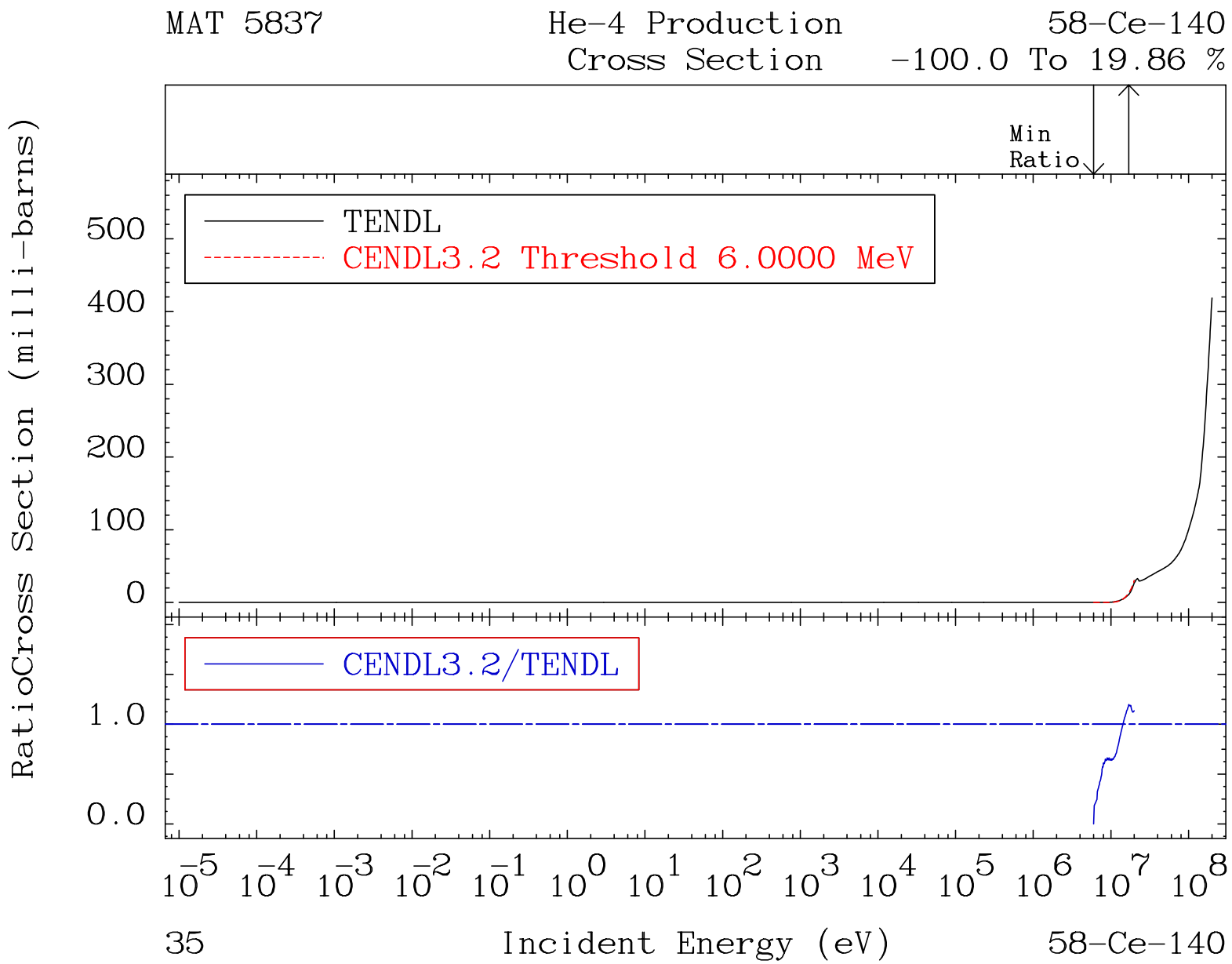

MAT 5837
(n,α)
Cross Section
58-Ce-140
-100.0 To 0.606 %
Min Ratio
Max Ratio
TENDL
CENDL3.2 Threshold 6.0000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
1.2
0.6
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
Incident Energy (eV)
30
58-Ce-140

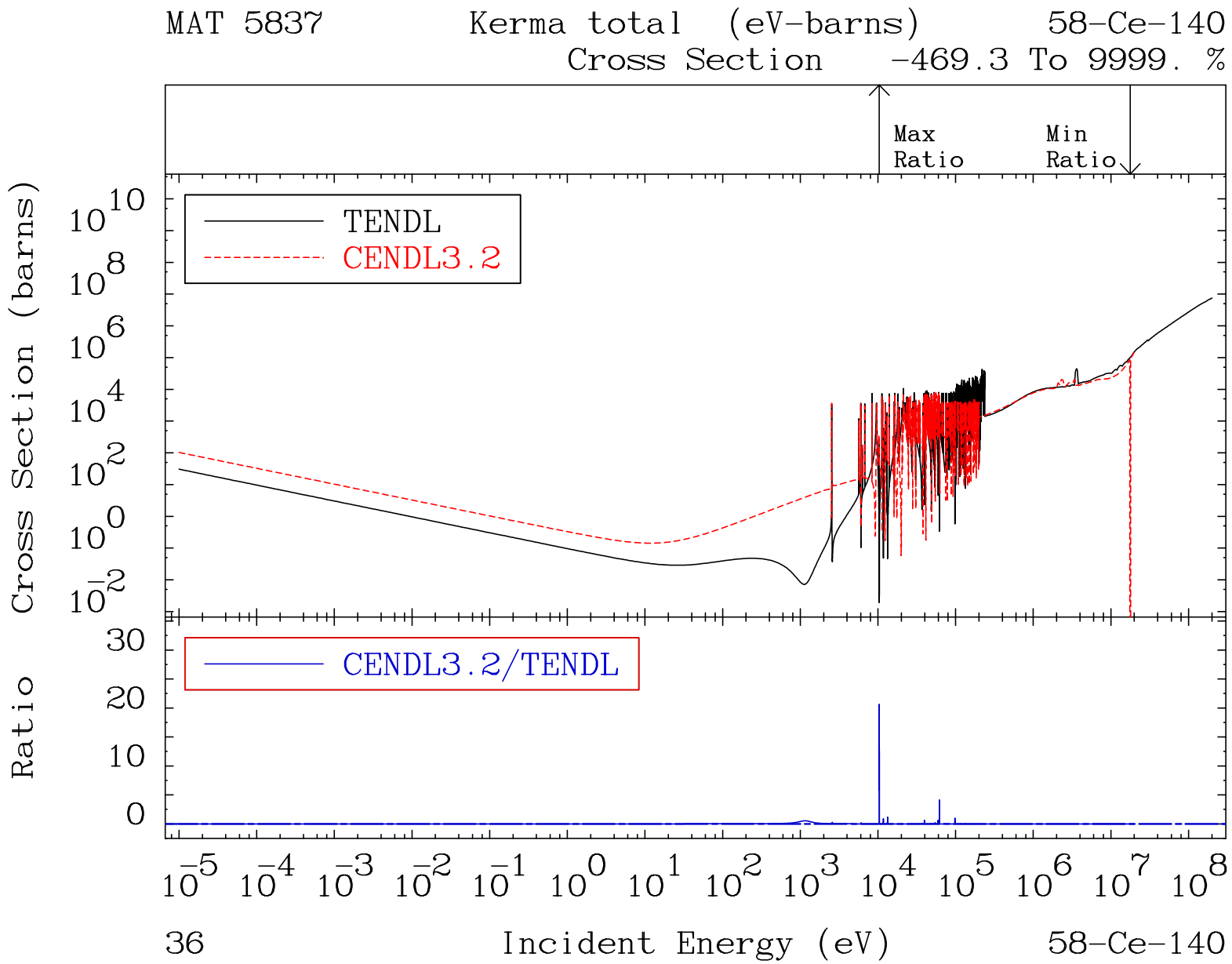

MAT 5837
Hydrogen Production
58-Ce-140
Cross Section
-100.0 To 94.95 %
Min Ratio
Max Ratio
TENDL Threshold 3.0013 MeV
CENDL3.2 Threshold 7.4000 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.0
0.8
0.6
0.4
0.2
0.0
3.0
2.0
1.0
0.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
58-Ce-140

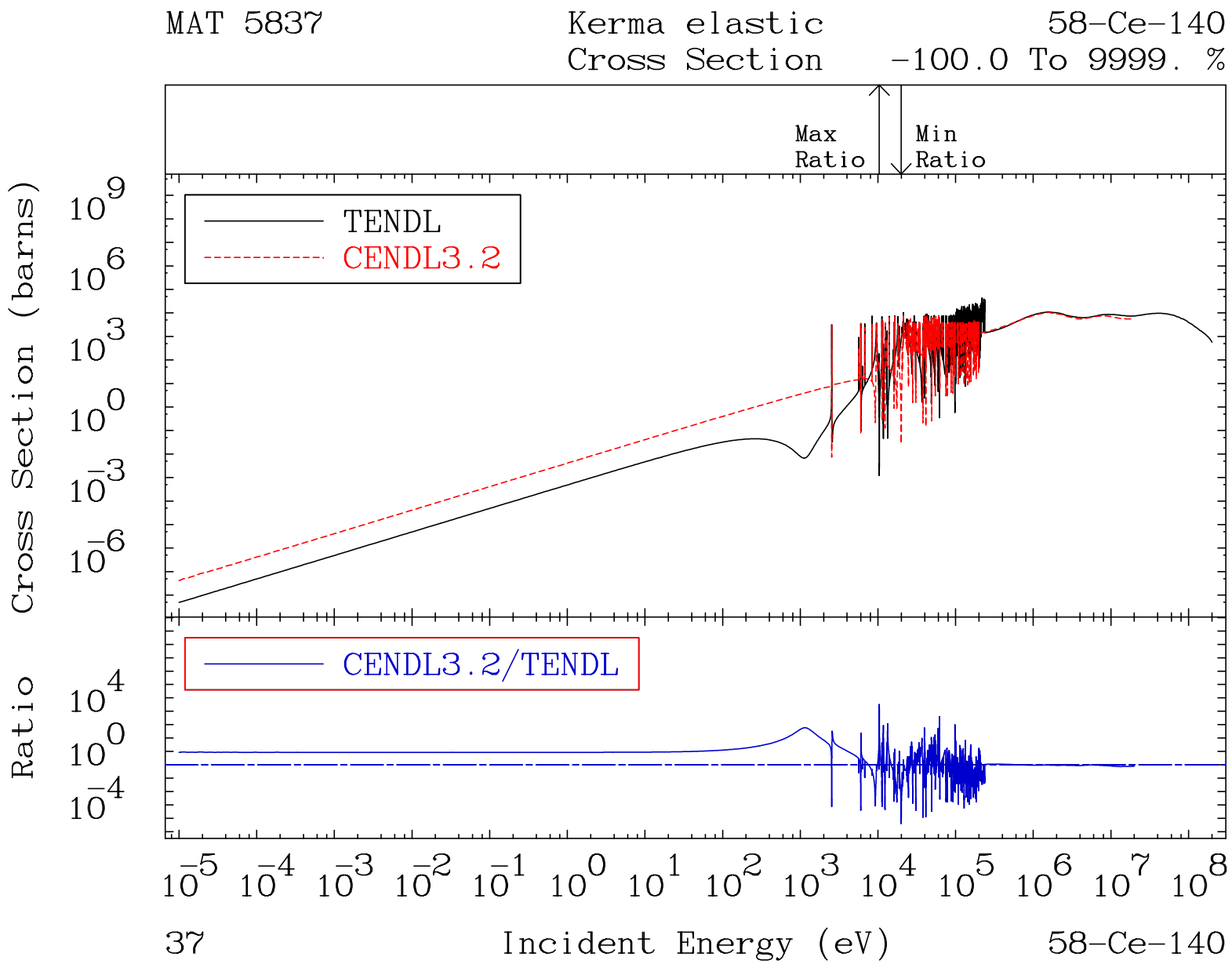

MAT 5837
Deuterium Production
58-Ce-140
Cross Section -100.0 To 184.4 %
Min Ratio
Max Ratio
TENDL Threshold 5.9589 MeV
CENDL3.2 Threshold 10.750 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
4
2
0
6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
32
Incident Energy (eV)
58-Ce-140

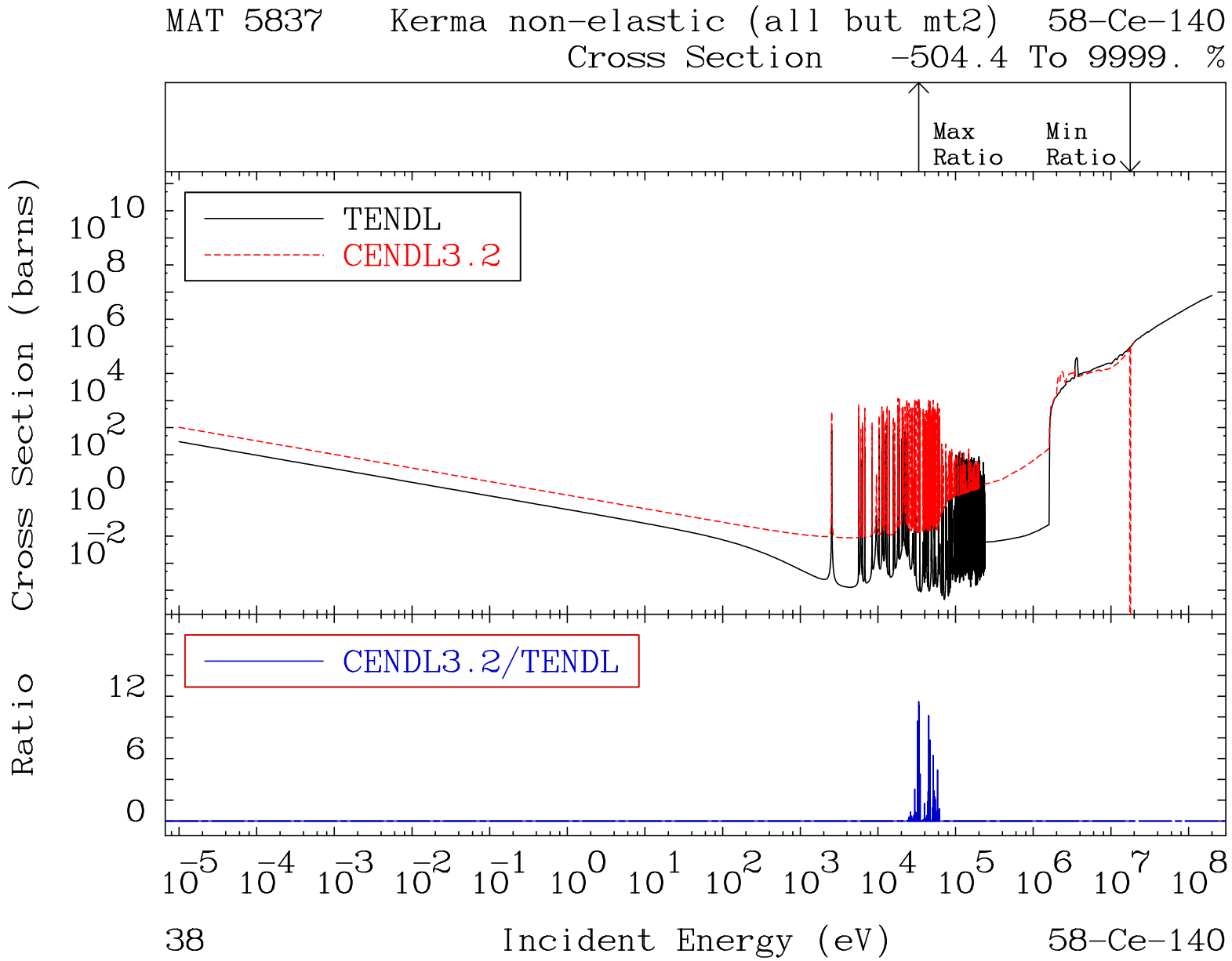

MAT 5837
Tritium Production
58-Ce-140
Cross Section
-100.0 To 928.2 %
Min Ratio
Max Ratio
TENDL Threshold 8.5002 MeV
CENDL3.2 Threshold 14.250 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
12
6
0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
33
Incident Energy (eV)
58-Ce-140

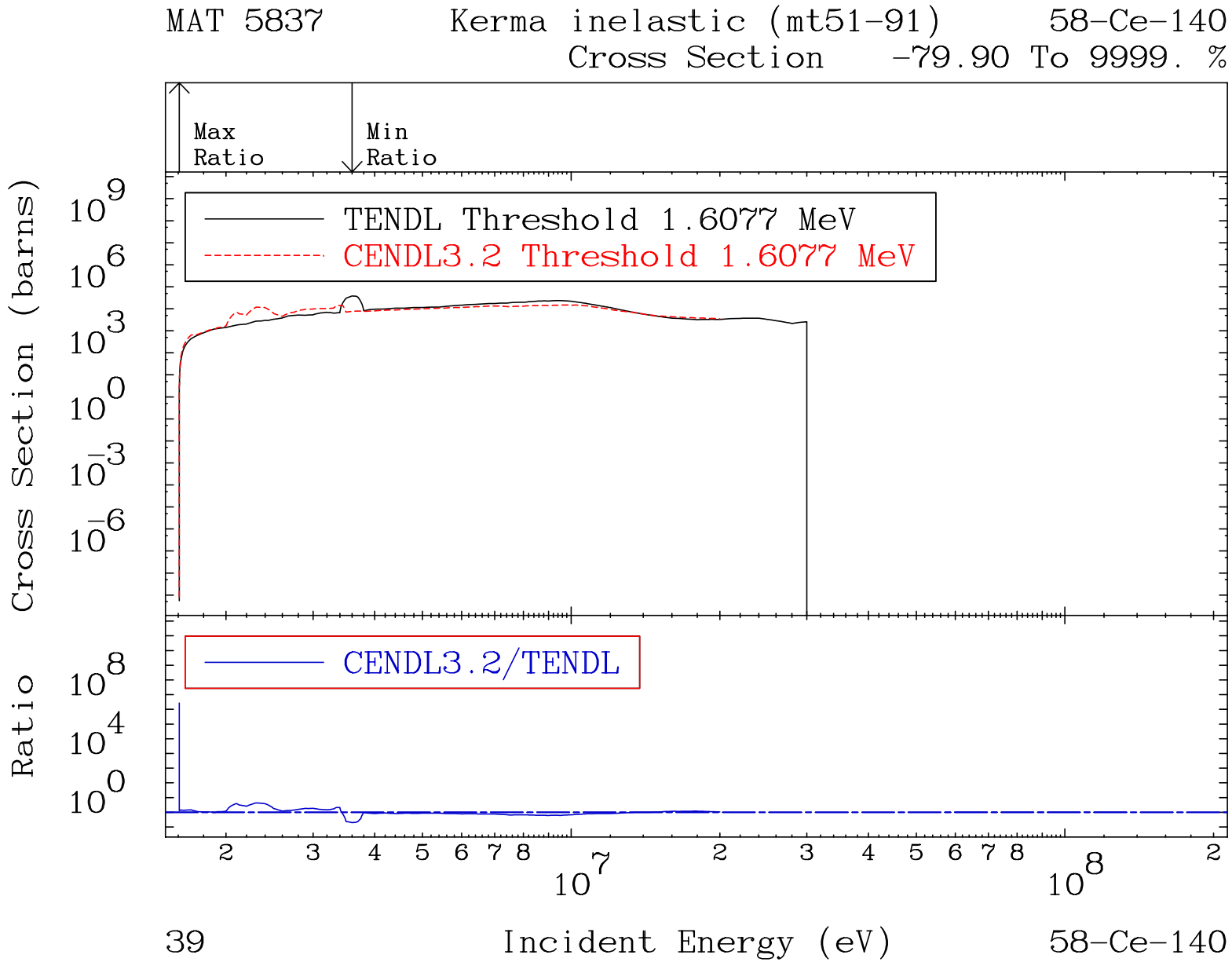

MAT 5837
He-3 Production
Cross Section
58-Ce-140
-100.0 To 2406. %
Min Ratio
Max Ratio
TENDL Threshold 6.7204 MeV
CENDL3.2 Threshold 18.750 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
20
0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
34
Incident Energy (eV)
58-Ce-140

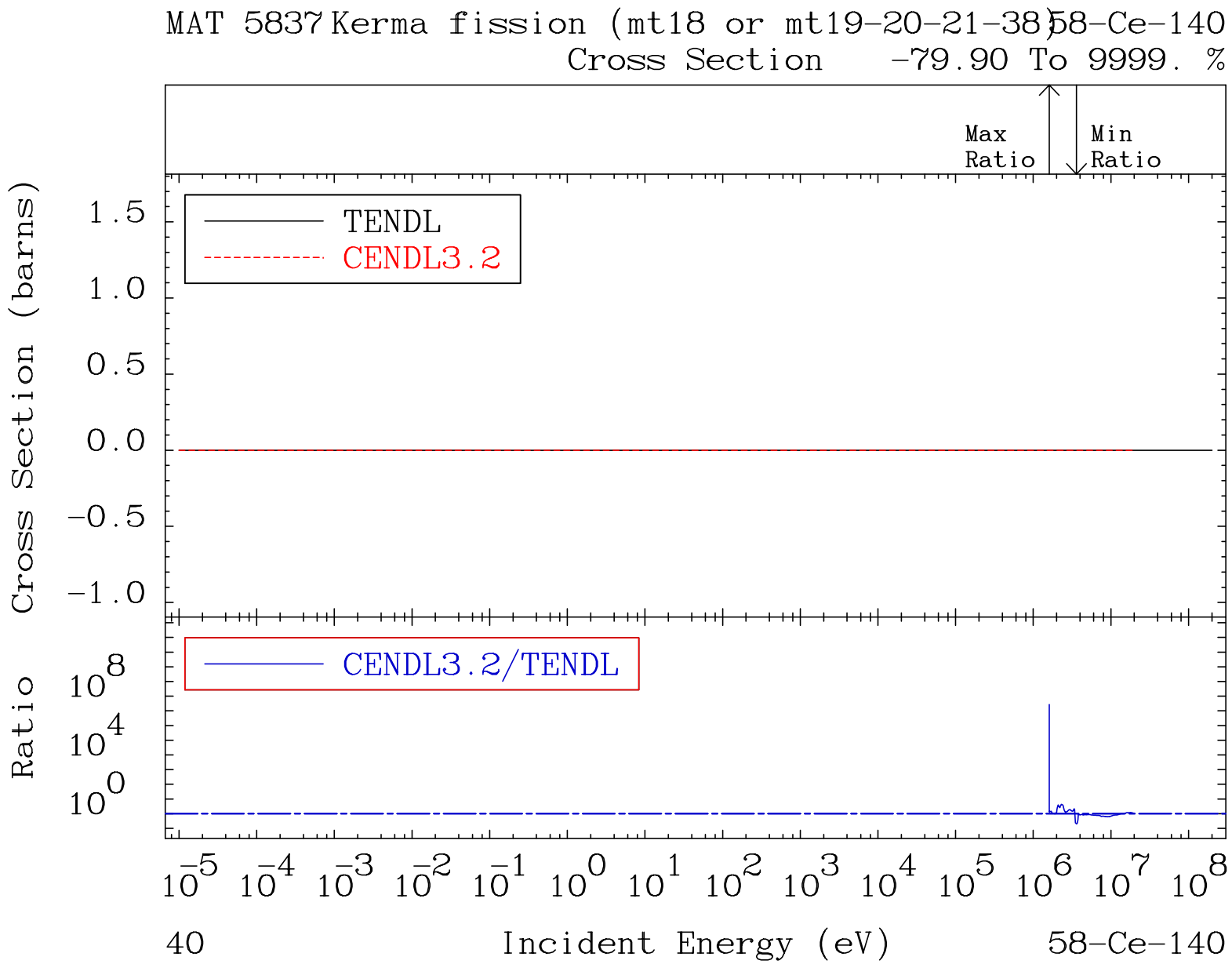

MAT 5837
He-4 Production
Cross Section
58-Ce-140
-100.0 To 19.86 %
Min
Ratio
TENDL
CENDL3.2 Threshold 6.0000 MeV
CENDL3.2/TENDL
RatioCross Section (milli-barns)
500
400
300
200
100
0
1.0
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
35
Incident Energy (eV)
58-Ce-140

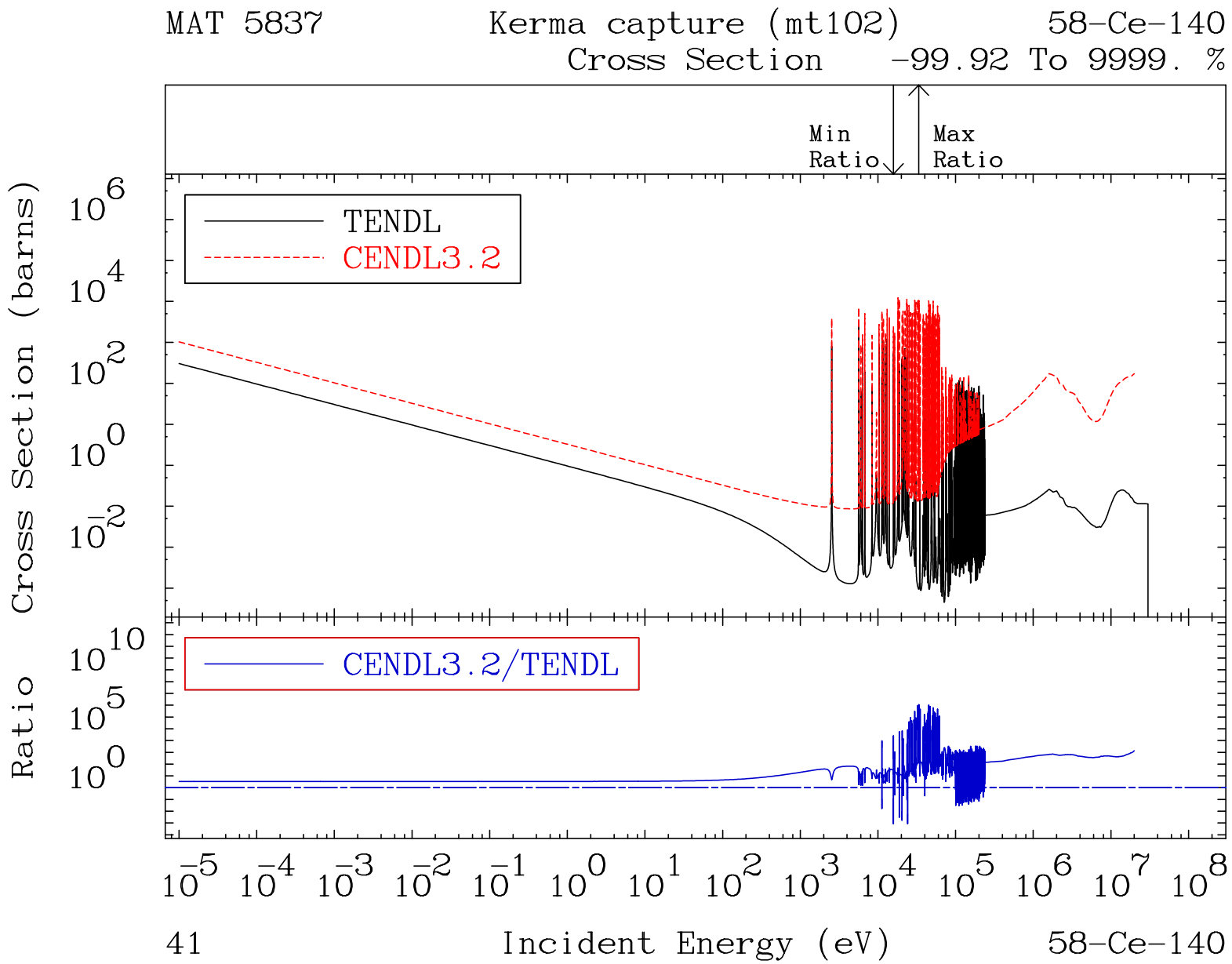

MAT 5837
Kerma total (eV-barns)
58-Ce-140
Cross Section -469.3 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
36
58-Ce-140

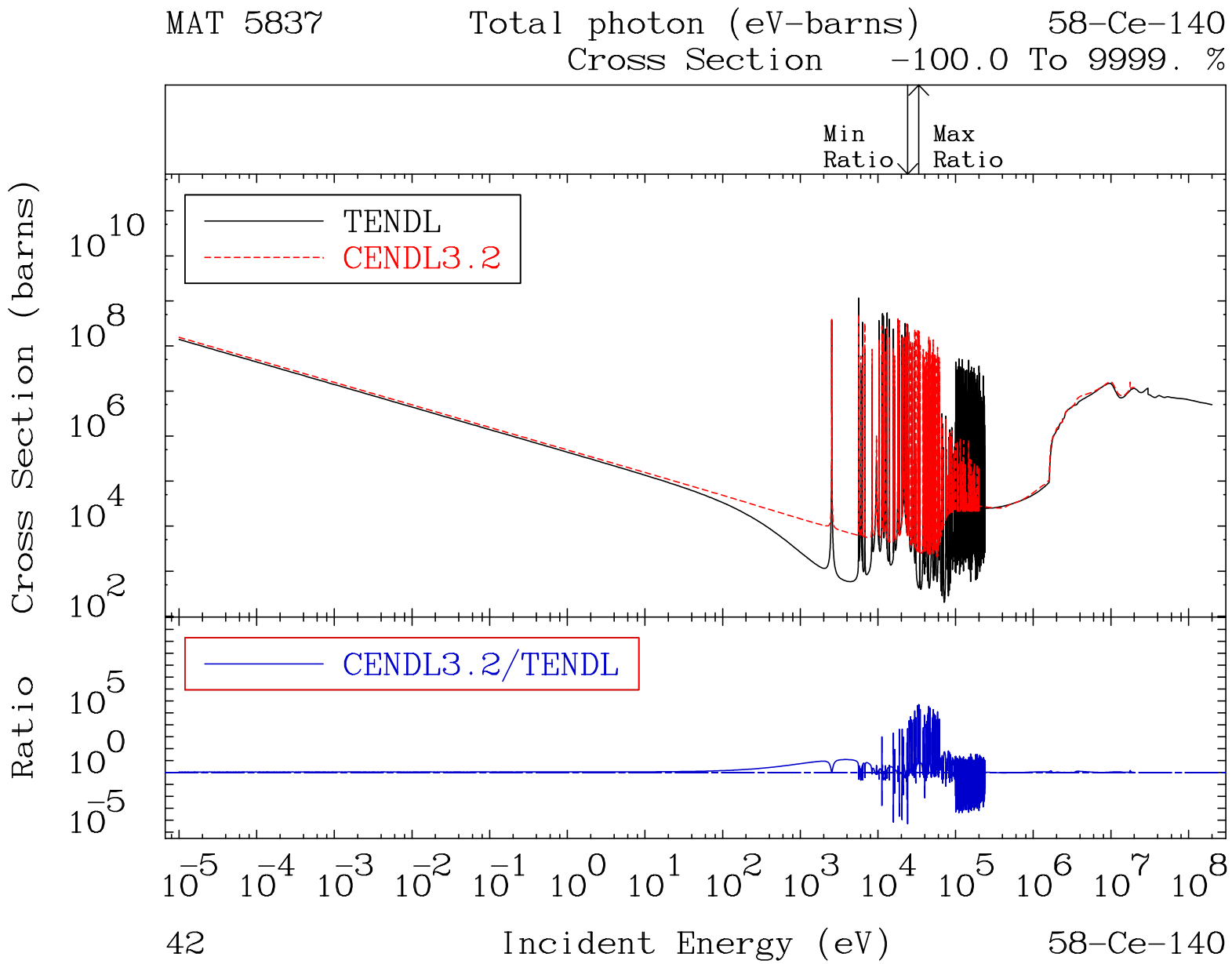

MAT 5837
Kerma elastic
58-Ce-140
Cross Section
-100.0 To 9999. %
Max
Ratio
Min
Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
37
58-Ce-140

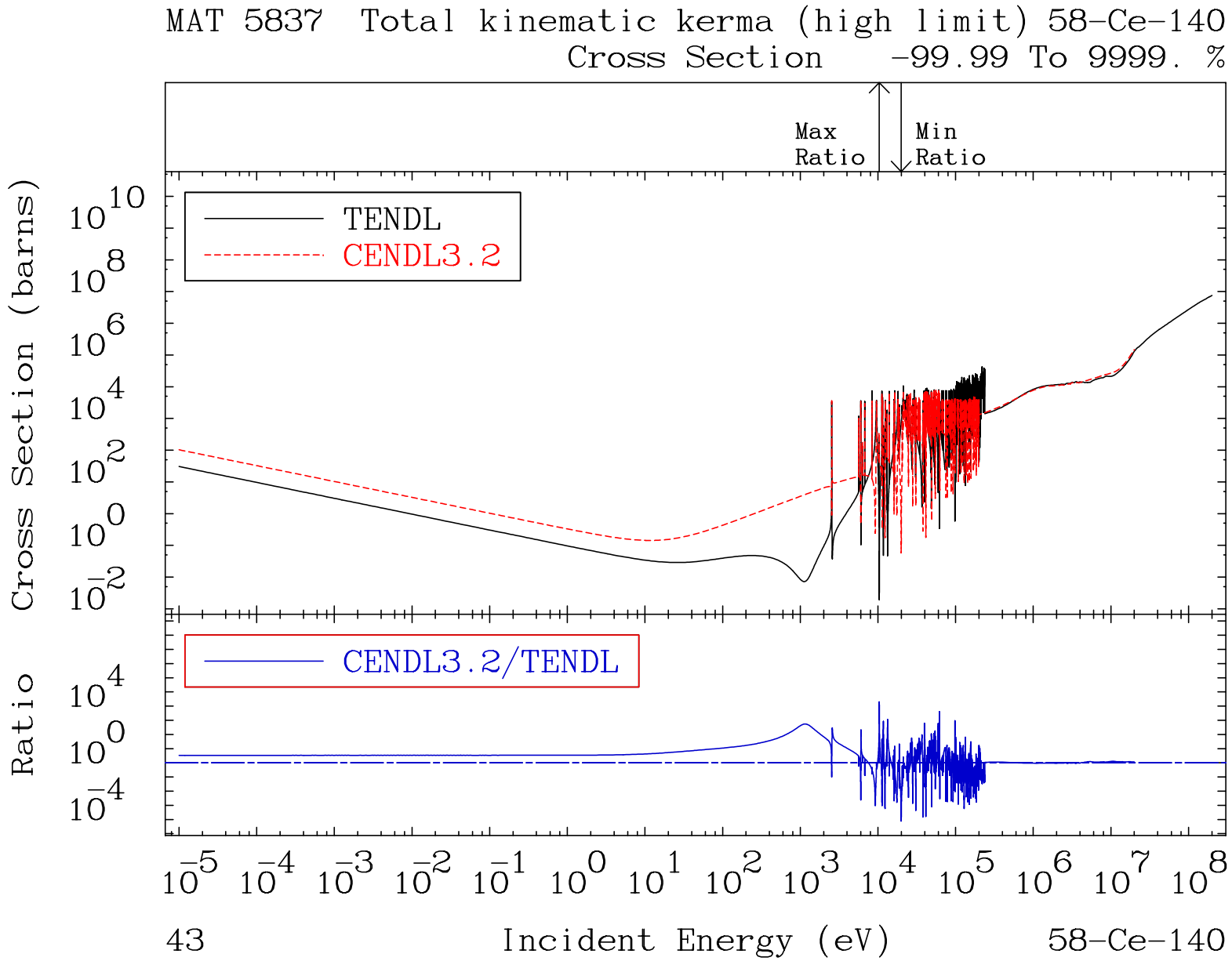

MAT 5837 Kerma non-elastic (all but mt2) 58-Ce-140
Cross Section -504.4 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
38
58-Ce-140

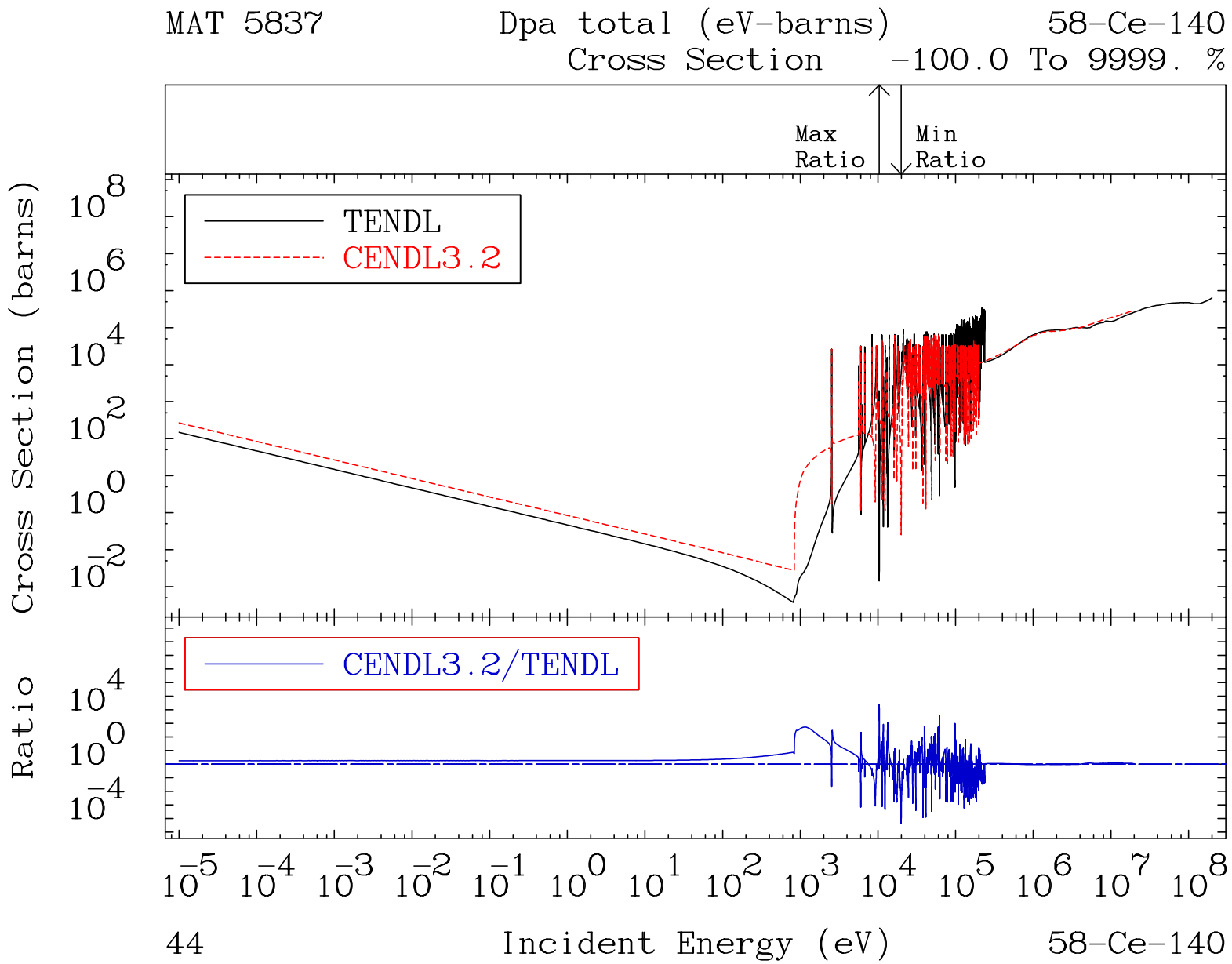

MAT 5837
Kerma inelastic (mt51-91)
58-Ce-140
Cross Section -79.90 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.6077 MeV
CENDL3.2 Threshold 1.6077 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
39
58-Ce-140

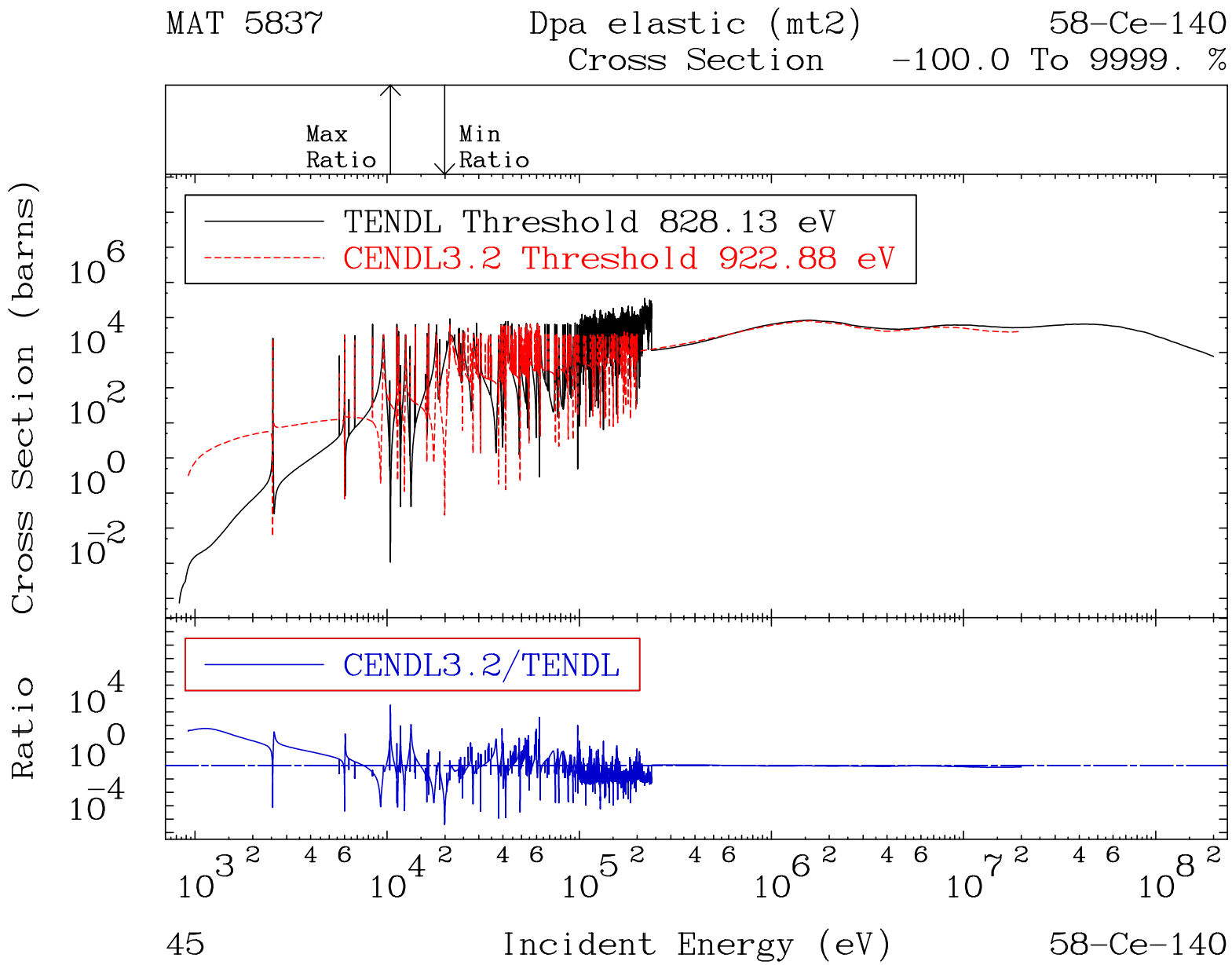

MAT 5837 Kerma fission (mt18 or mt19-20-21-38) 58-Ce-140
Cross Section -79.90 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{8}
10^{4}
10^{0}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
Incident Energy (eV)
40
58-Ce-140

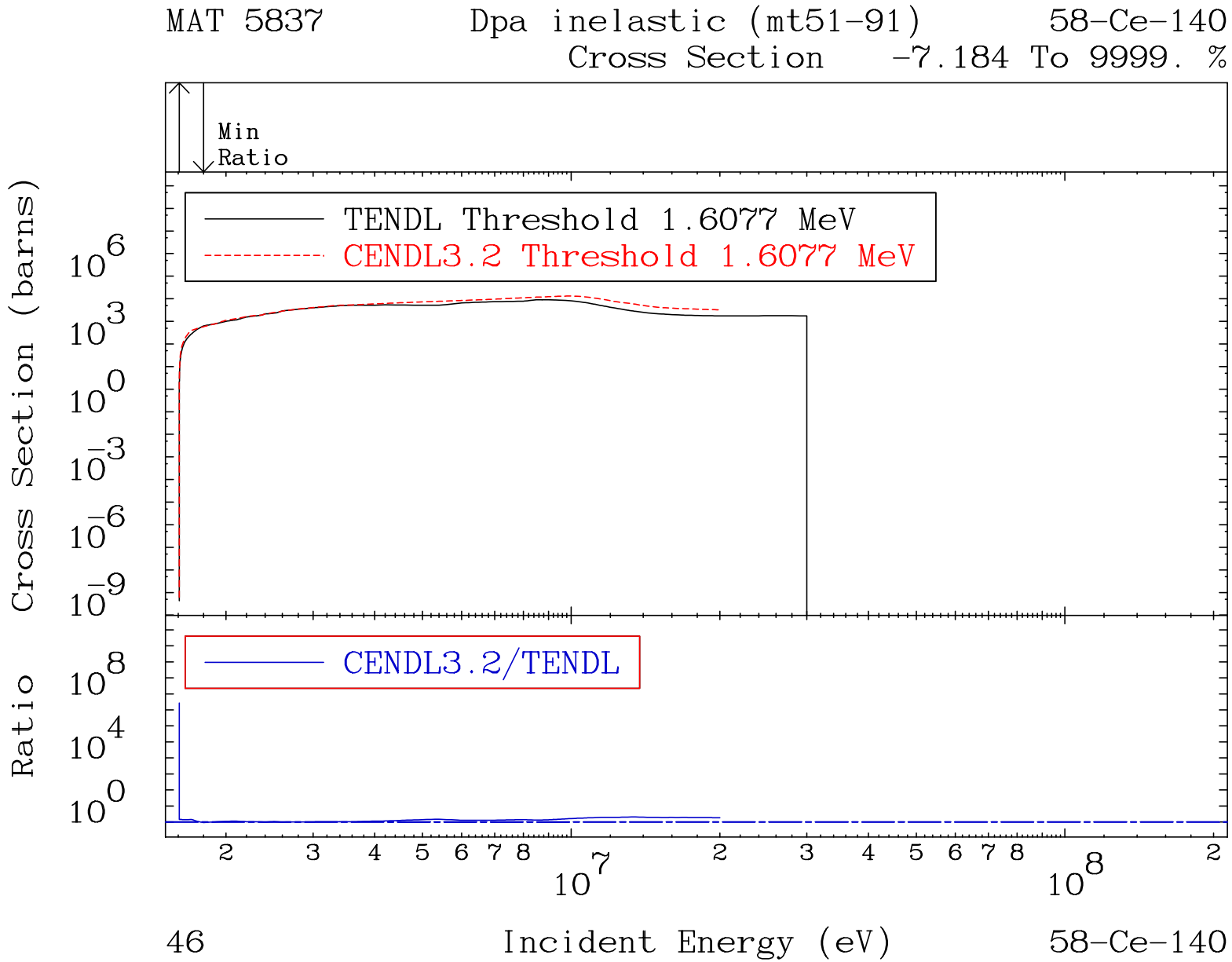

MAT 5837
Kerma capture (mt102)
58-Ce-140
Cross Section
-99.92 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
Cross Section (barns)
CENDL3.2/TENDL
Ratio
Incident Energy (eV)
41
58-Ce-140

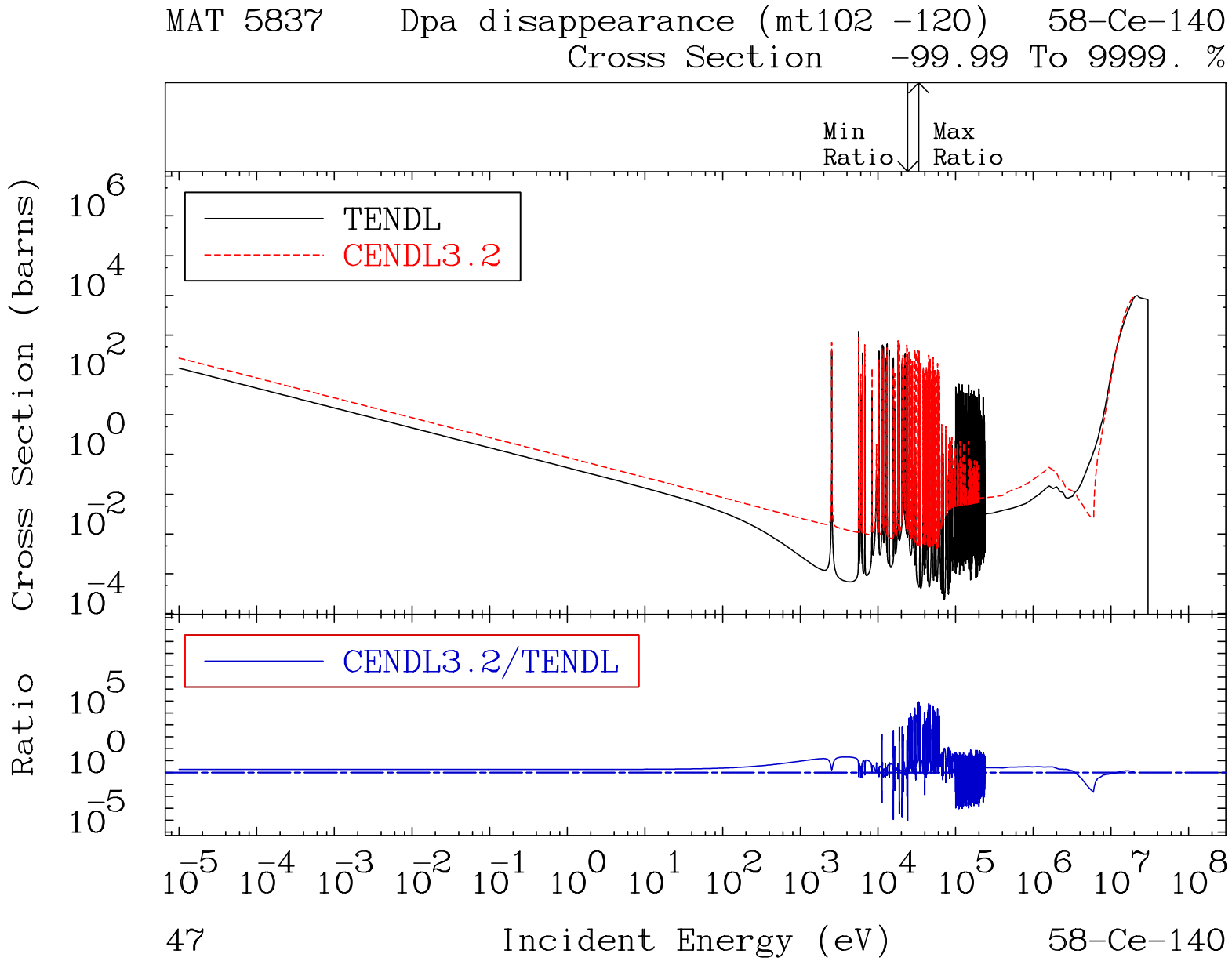

MAT 5837
Total photon (eV-barns)
58-Ce-140
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
42
58-Ce-140

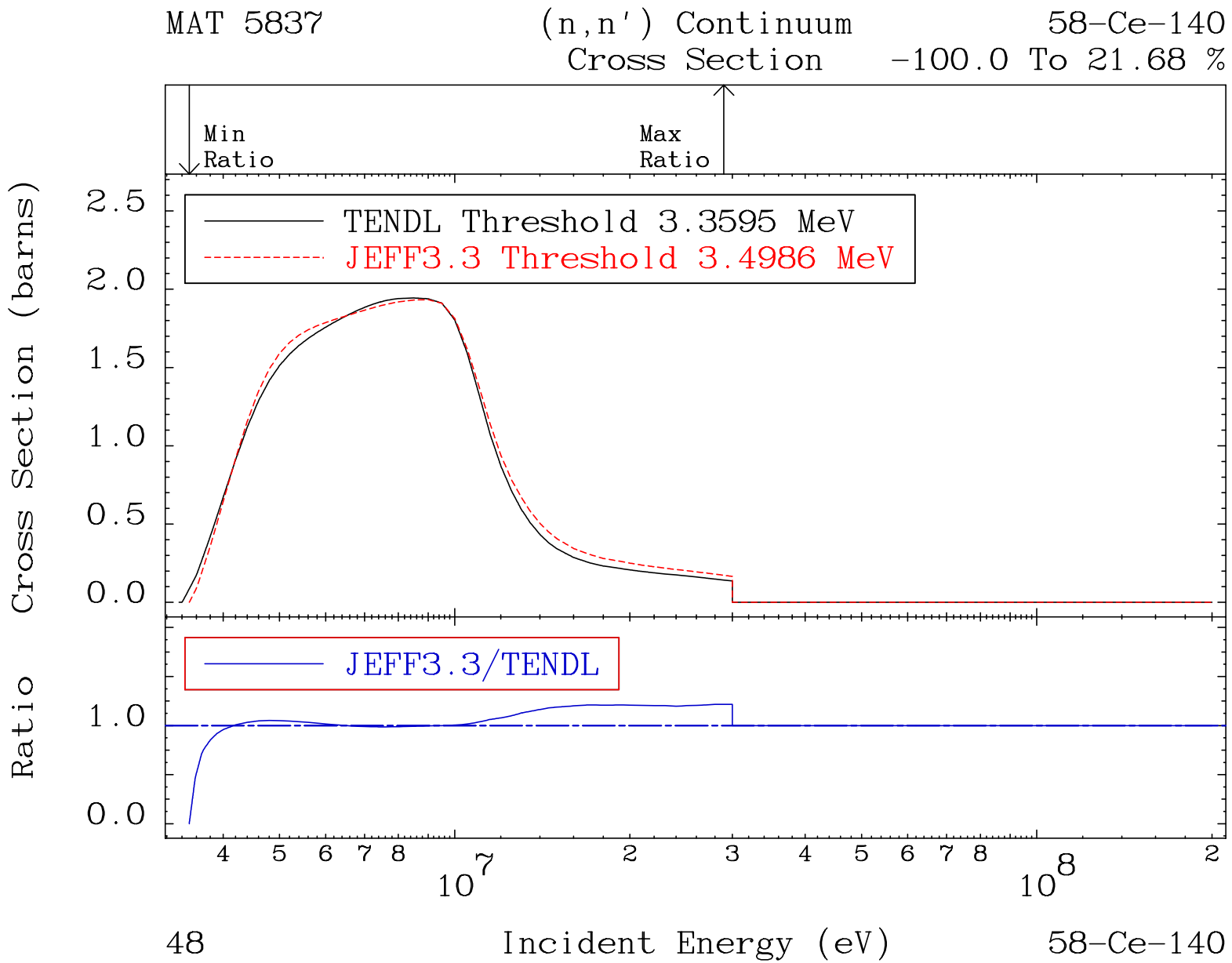

MAT 5837 Total kinematic kerma (high limit) 58-Ce-140
Cross Section -99.99 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
43
58-Ce-140

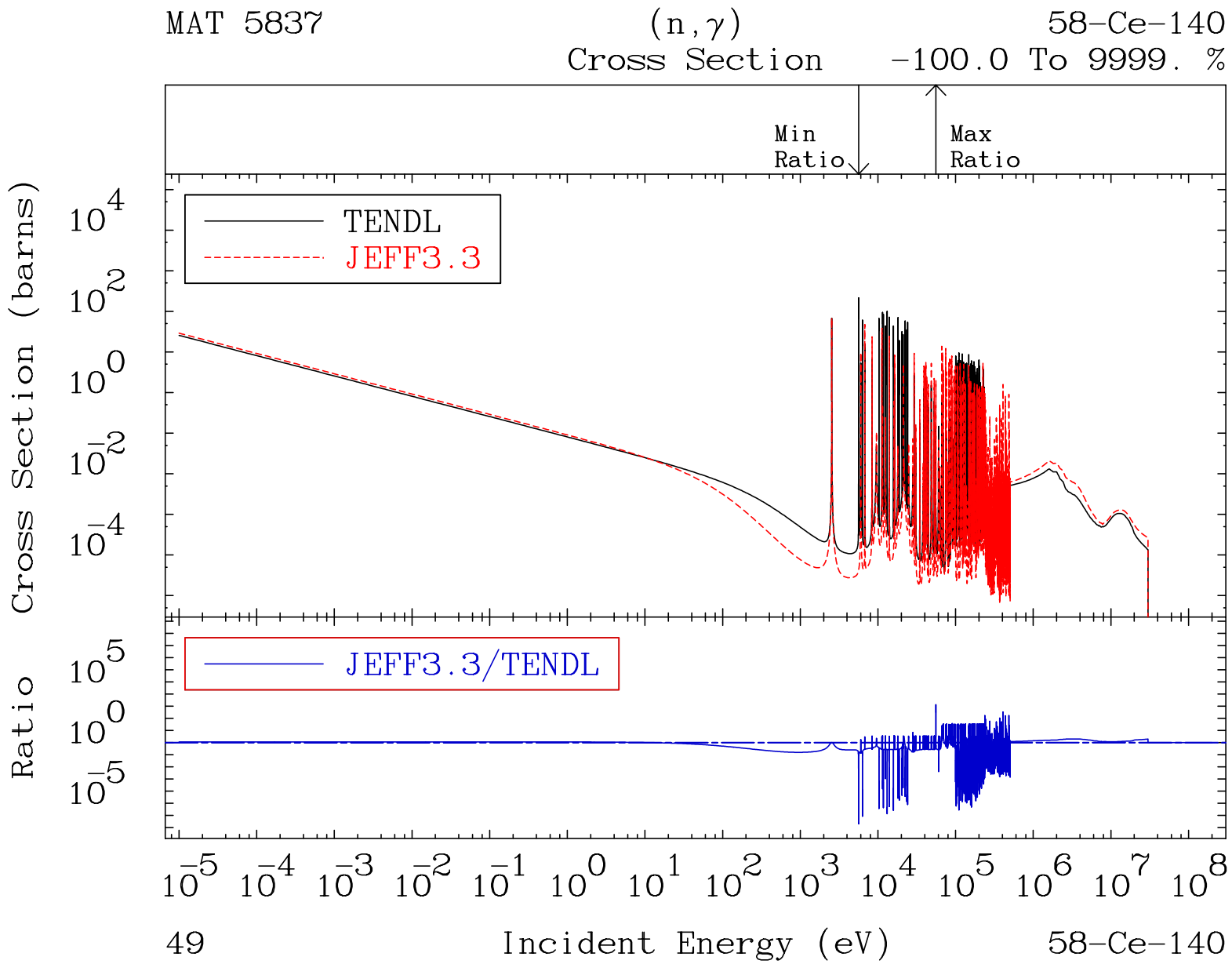

MAT 5837
Dpa total (eV-barns)
58-Ce-140
Cross Section -100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
44
58-Ce-140

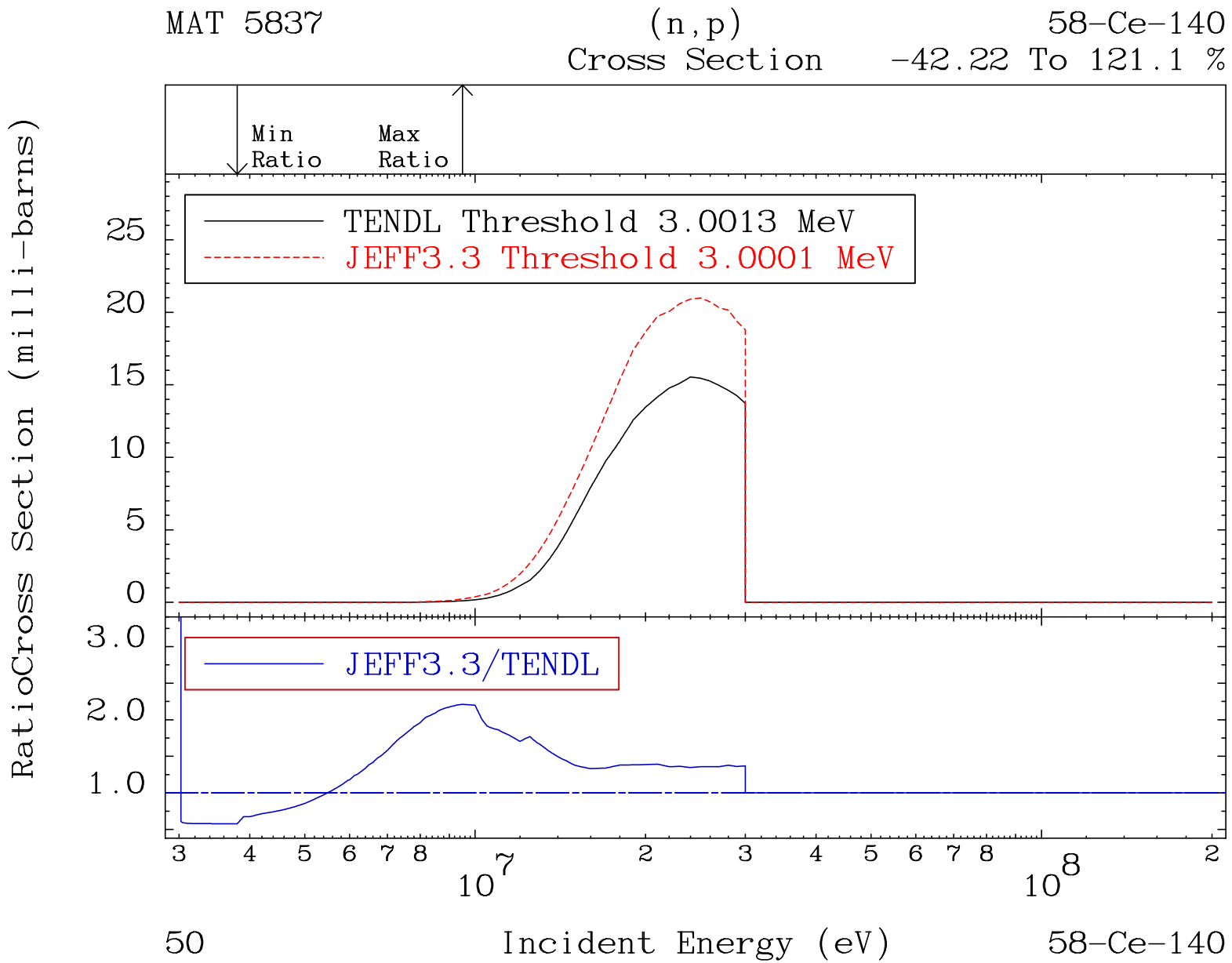

MAT 5837
Dpa elastic (mt2)
Cross Section
58-Ce-140
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 828.13 eV
CENDL3.2 Threshold 922.88 eV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
45
58-Ce-140

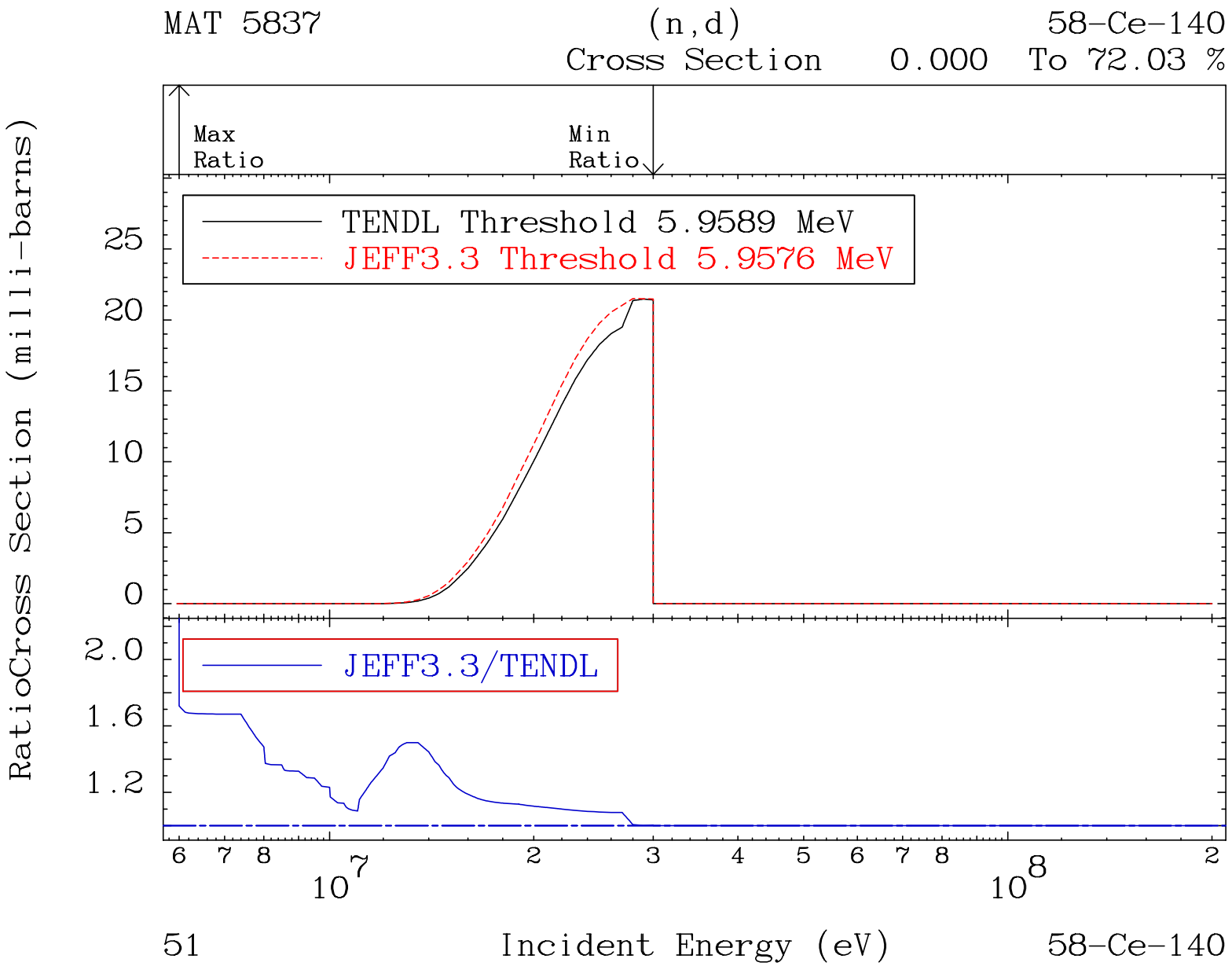

MAT 5837
Dpa inelastic (mt51-91)
58-Ce-140
Cross Section
-7.184 To 9999. %
Min
Ratio
TENDL Threshold 1.6077 MeV
CENDL3.2 Threshold 1.6077 MeV
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
46
58-Ce-140

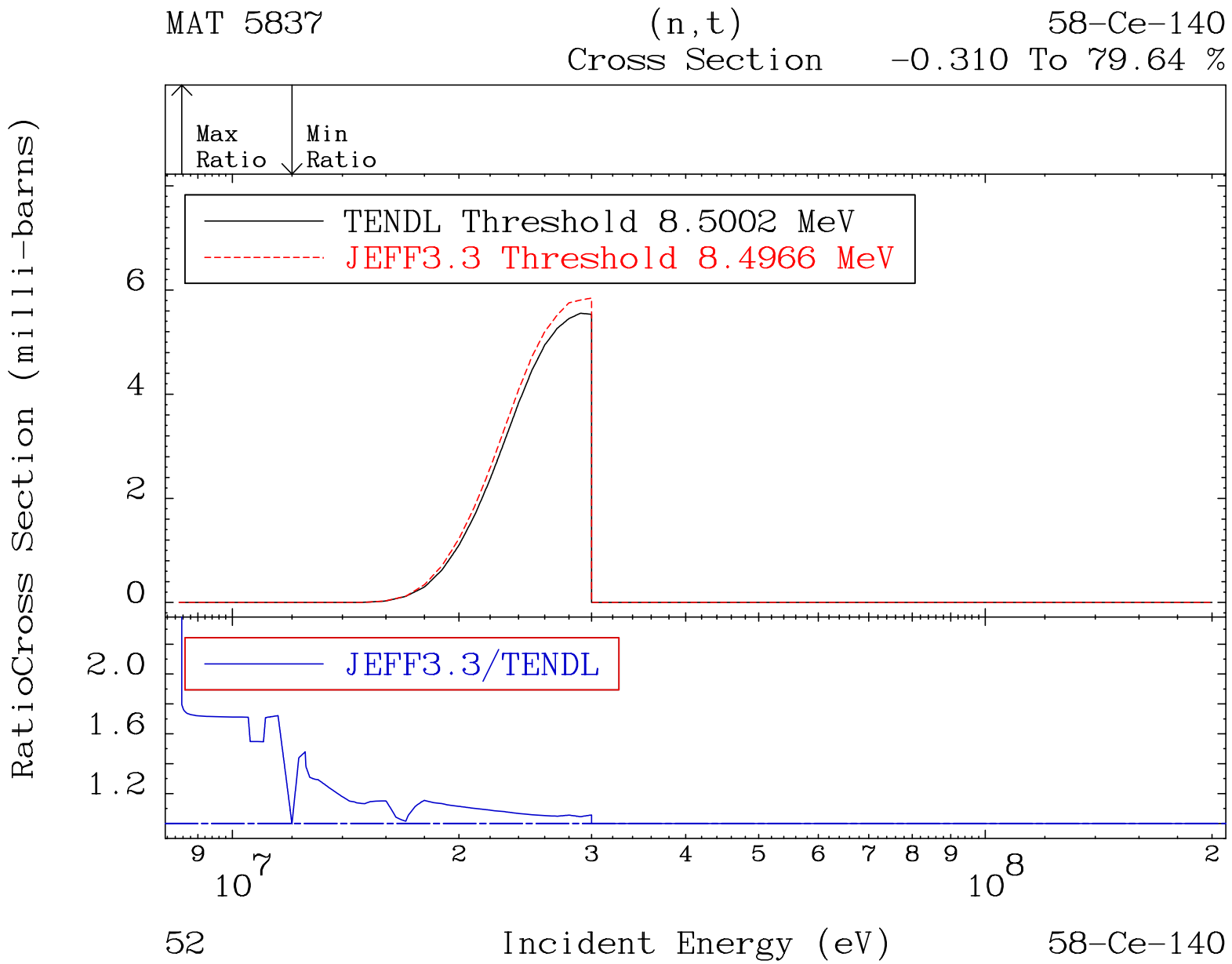

MAT 5837 Dpa disappearance (mt102 -120) 58-Ce-140
Cross Section -99.99 To 9999. %
Min Ratio
Max Ratio
TENDL
CENDL3.2
CENDL3.2/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
47
58-Ce-140

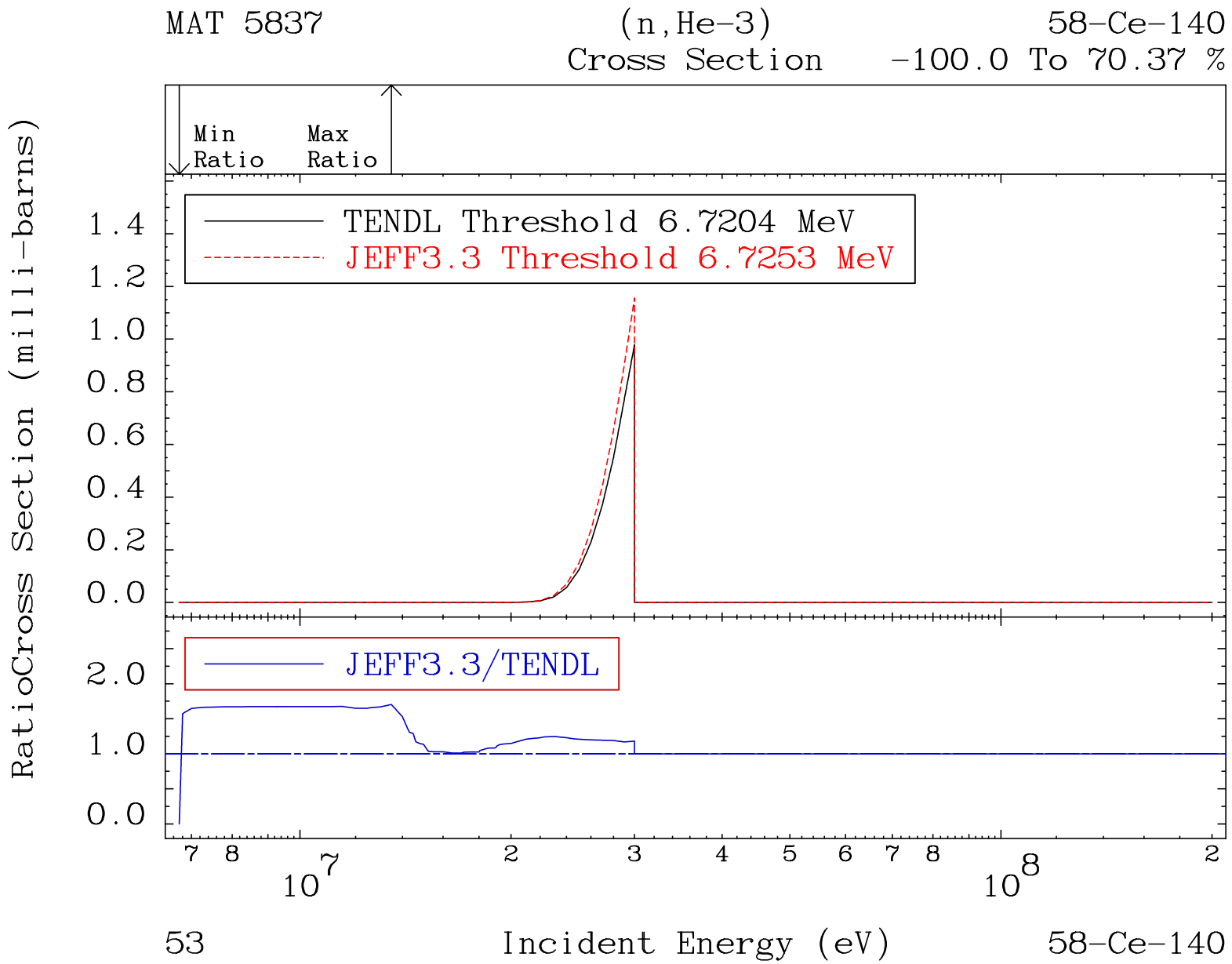

MAT 5837
(n,n') Continuum
Cross Section
58-Ce-140
-100.0 To 21.68 %
Min
Ratio
Max
Ratio
TENDL Threshold 3.3595 MeV
JEFF3.3 Threshold 3.4986 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
2.5
2.0
1.5
1.0
0.5
0.0
1.0
0.0
4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
48
Incident Energy (eV)
58-Ce-140

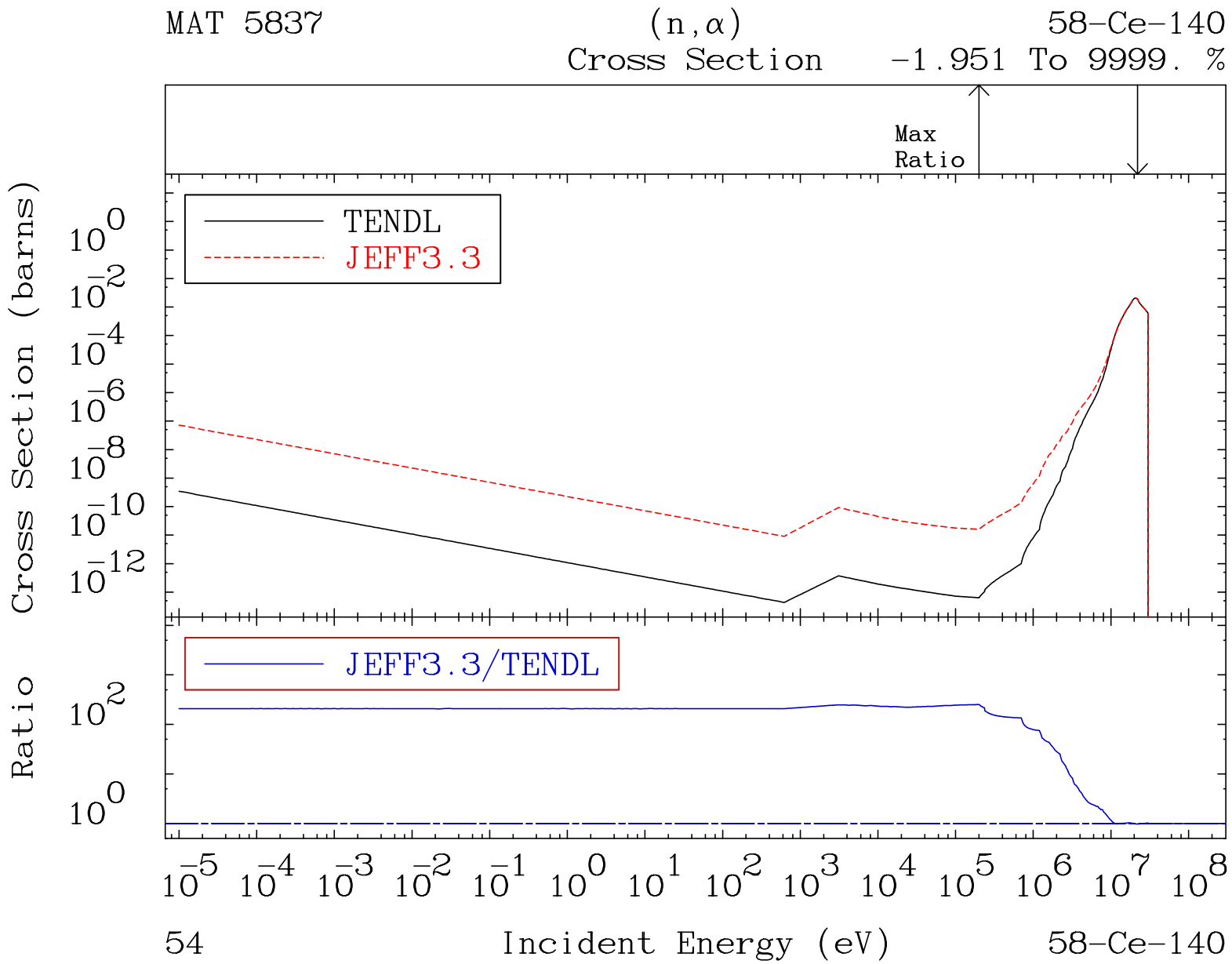

MAT 5837
(n,γ)
Cross Section
58-Ce-140
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
49
58-Ce-140

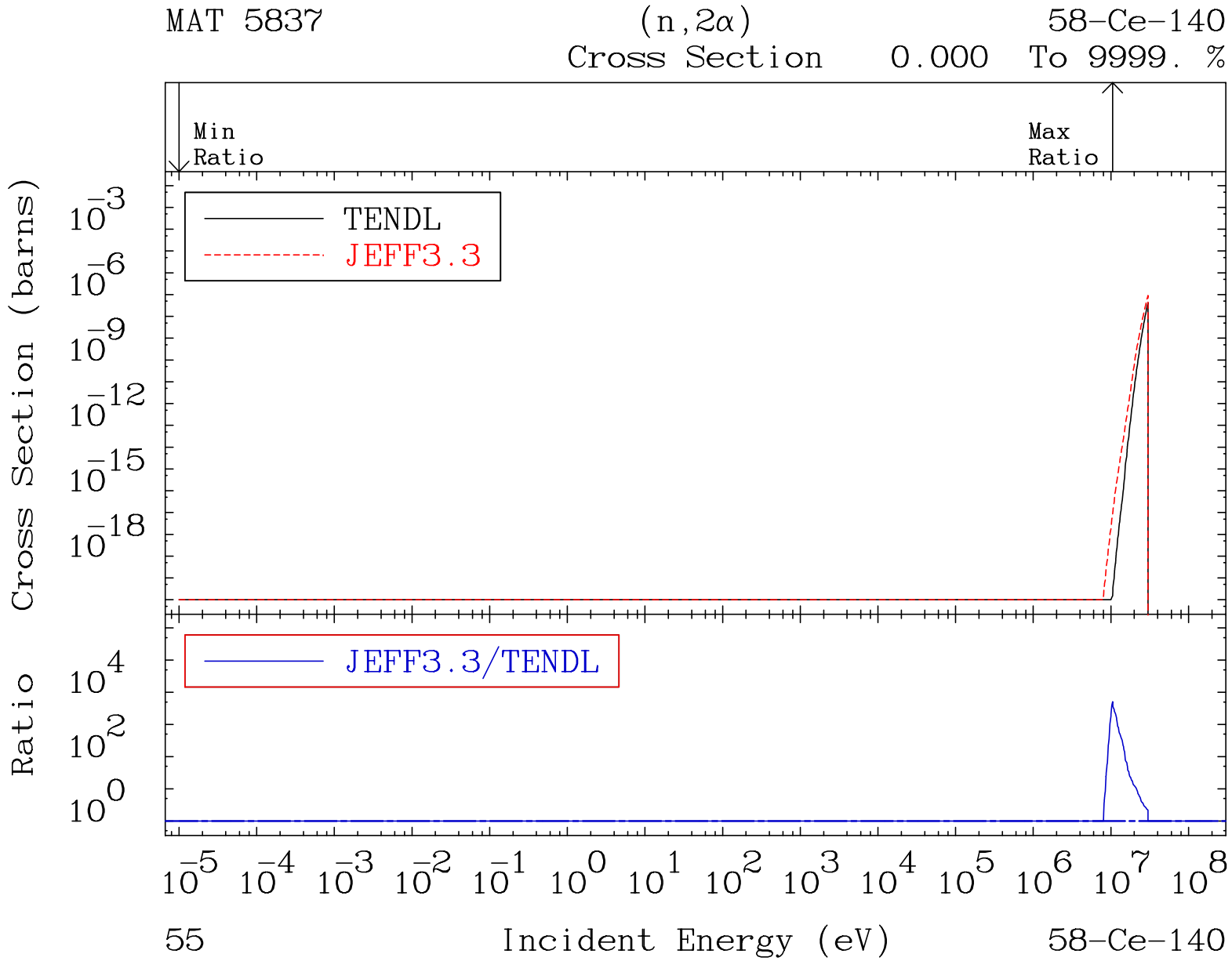

MAT 5837
(n,p)
58-Ce-140
Cross Section
-42.22 To 121.1 %
Min Ratio
Max Ratio
TENDL Threshold 3.0013 MeV
JEFF3.3 Threshold 3.0001 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
3.0
2.0
1.0
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
50
Incident Energy (eV)
58-Ce-140

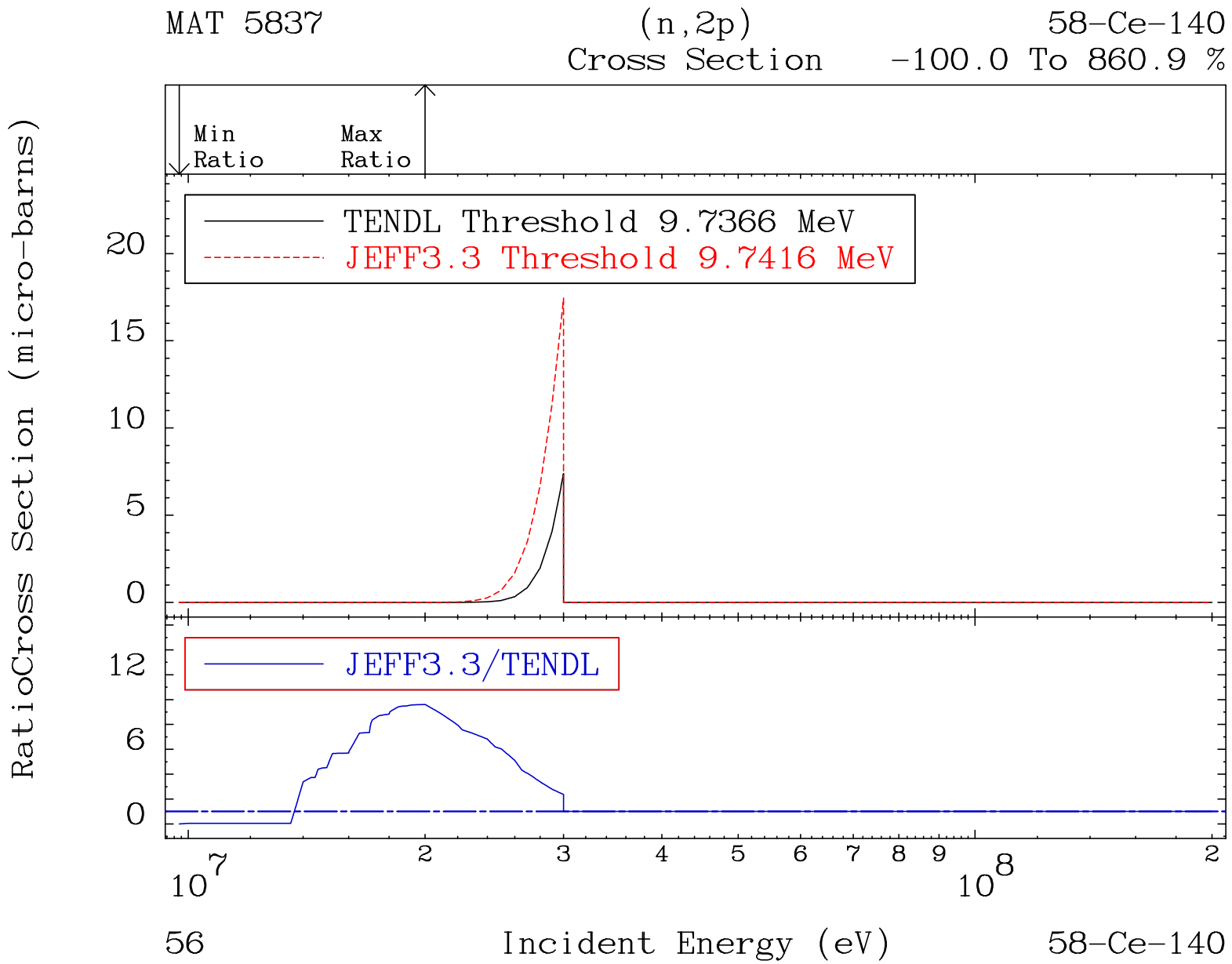

MAT 5837
(n,d)
58-Ce-140
Cross Section 0.000 To 72.03 %
Max Ratio
Min Ratio
TENDL Threshold 5.9589 MeV
JEFF3.3 Threshold 5.9576 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
2.0
1.6
1.2
6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
51
Incident Energy (eV)
58-Ce-140

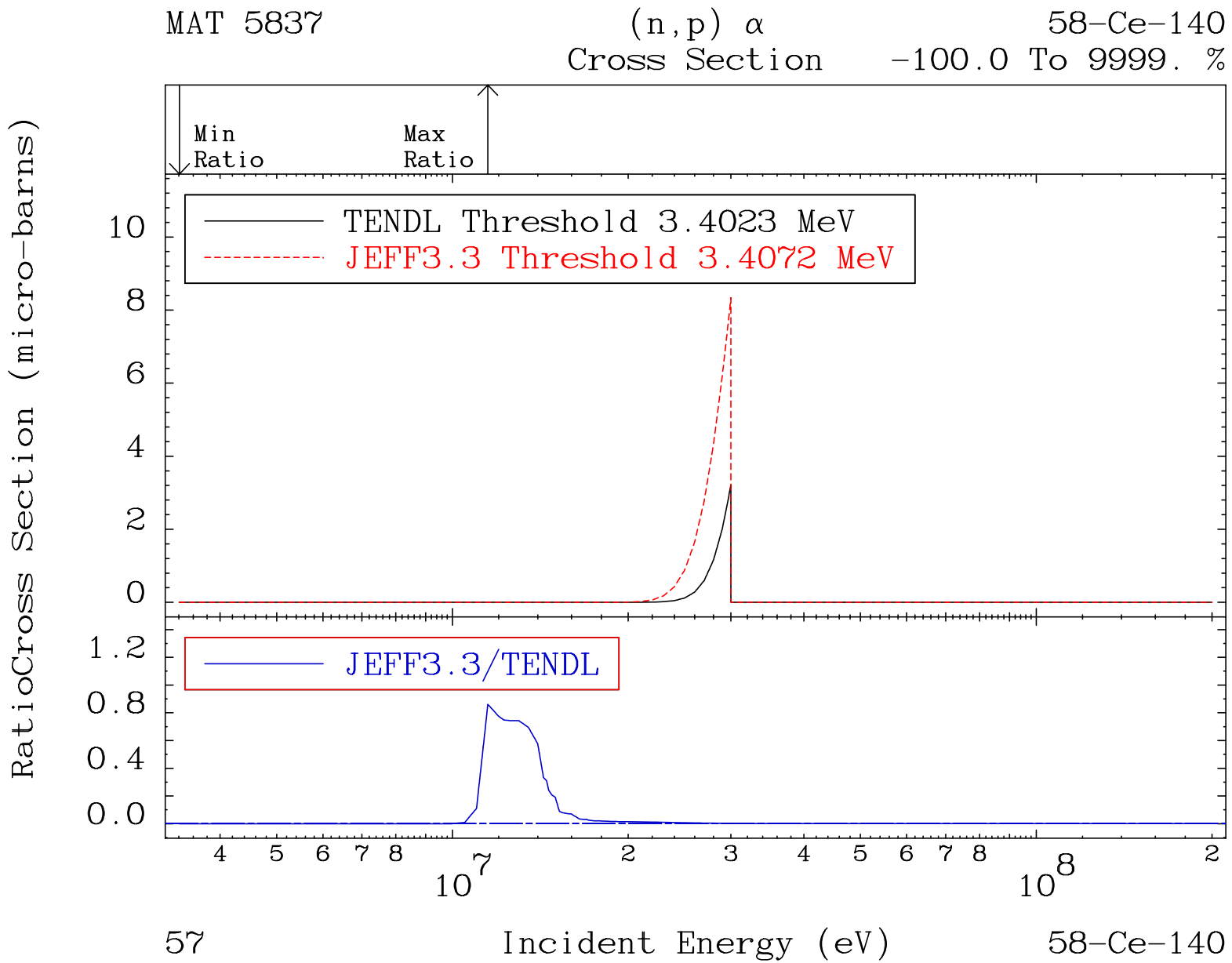

MAT 5837
(n,t)
Cross Section
58-Ce-140
-0.310 To 79.64 %
Max Ratio
Min Ratio
TENDL Threshold 8.5002 MeV
JEFF3.3 Threshold 8.4966 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
52
58-Ce-140

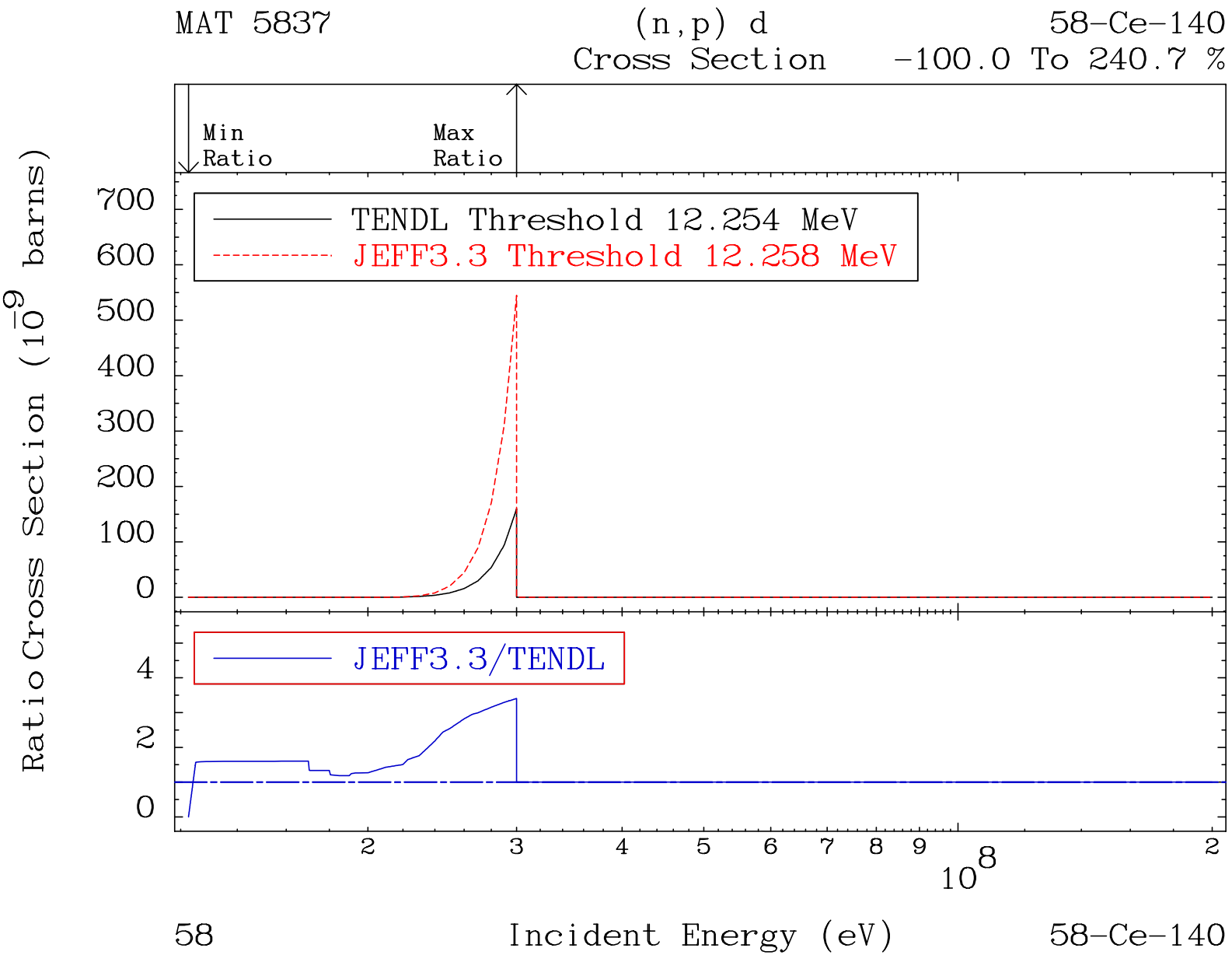

MAT 5837
(n,He-3)
Cross Section
58-Ce-140
-100.0 To 70.37 %
Min Ratio
Max Ratio
TENDL Threshold 6.7204 MeV
JEFF3.3 Threshold 6.7253 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.0
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
53
Incident Energy (eV)
58-Ce-140

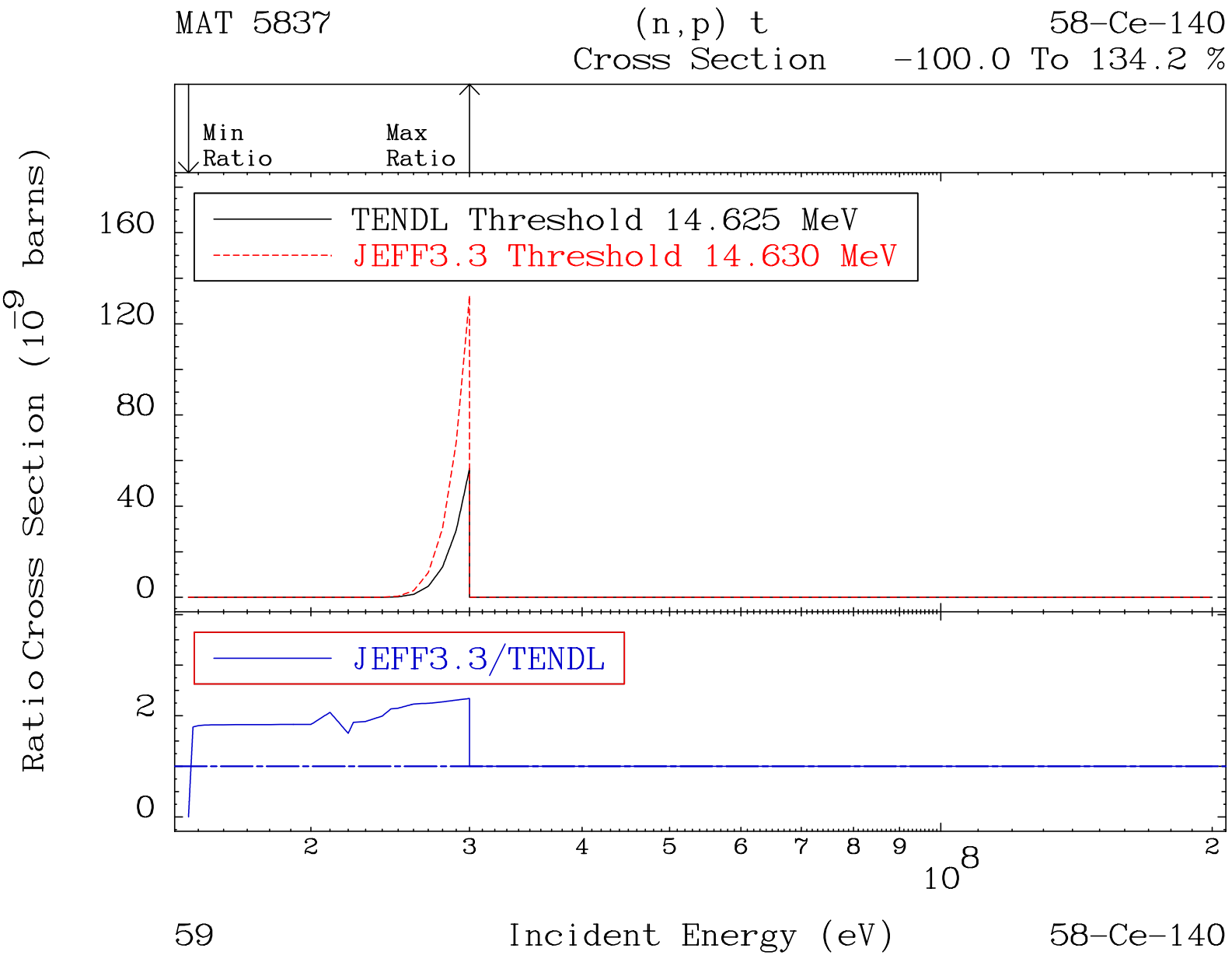

MAT 5837
(n,α)
Cross Section
58-Ce-140
-1.951 To 9999. %
Max
Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
54
58-Ce-140

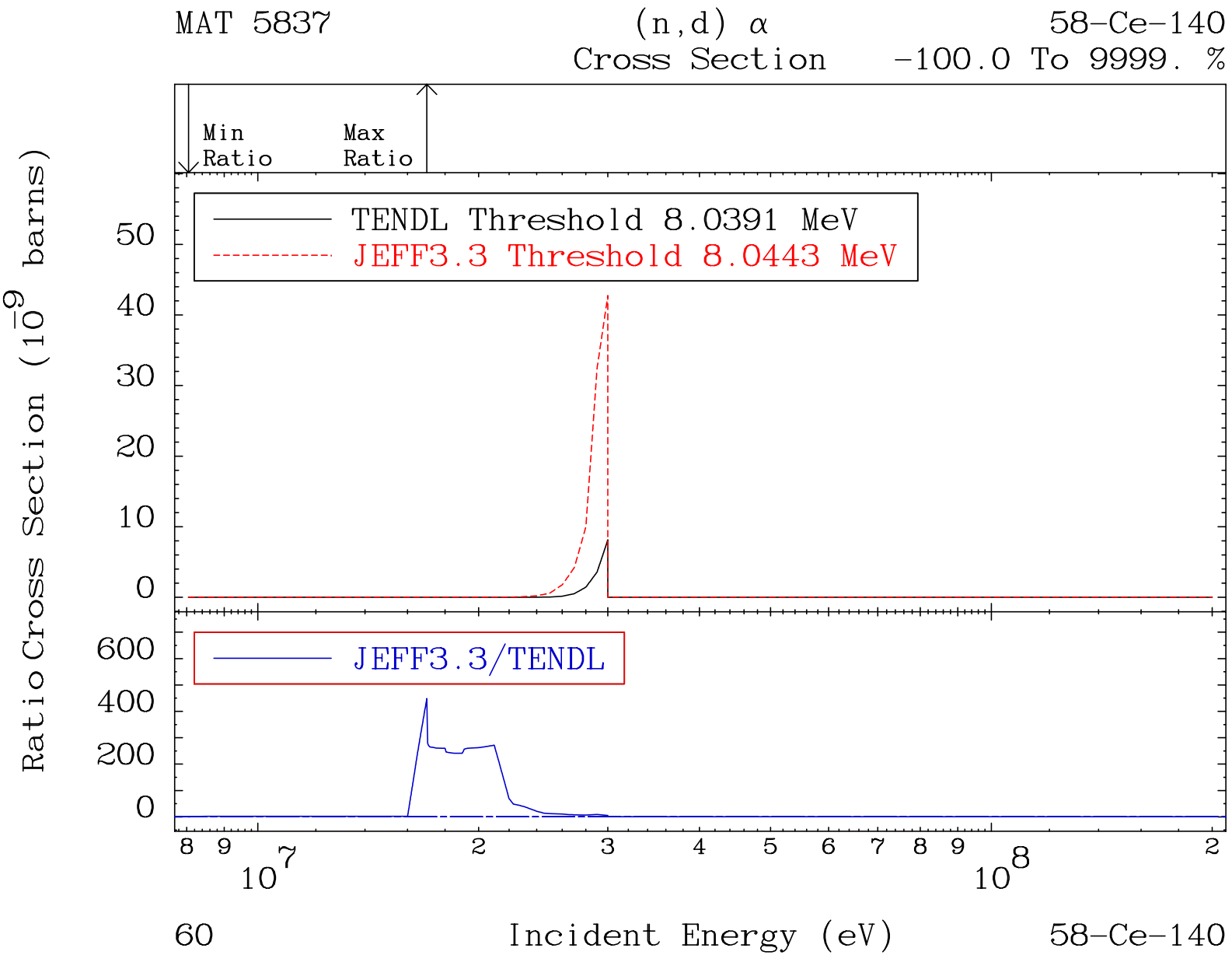

MAT 5837
(n,2α)
58-Ce-140
Cross Section 0.000 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
55
58-Ce-140

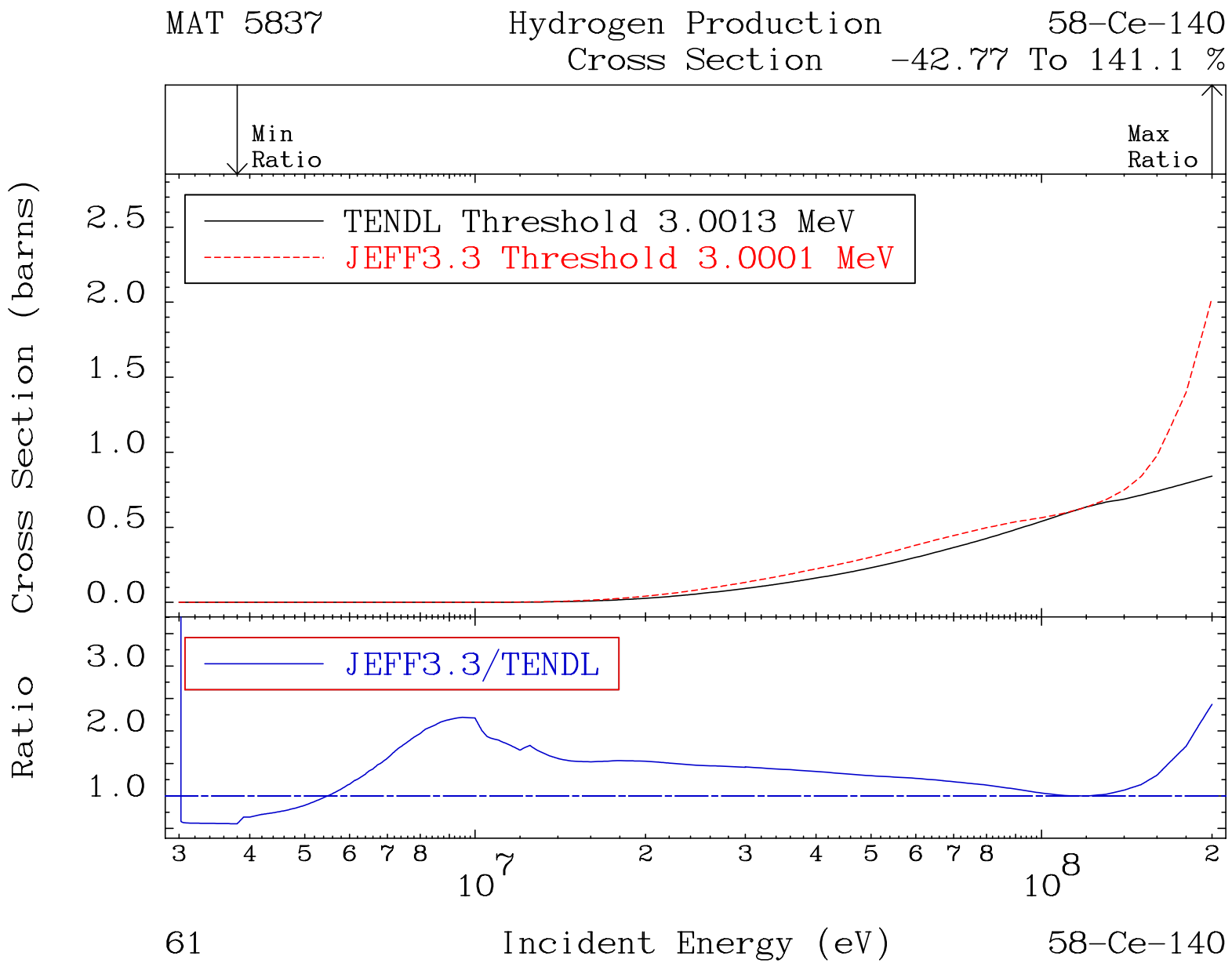

MAT 5837
(n,2p)
58-Ce-140
Cross Section
-100.0 To 860.9 %
Min Ratio
Max Ratio
TENDL Threshold 9.7366 MeV
JEFF3.3 Threshold 9.7416 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
20
15
10
5
0
12
6
0
10^7
2
3
4
5
6
7
8
9
10^8
2
56
Incident Energy (eV)
58-Ce-140

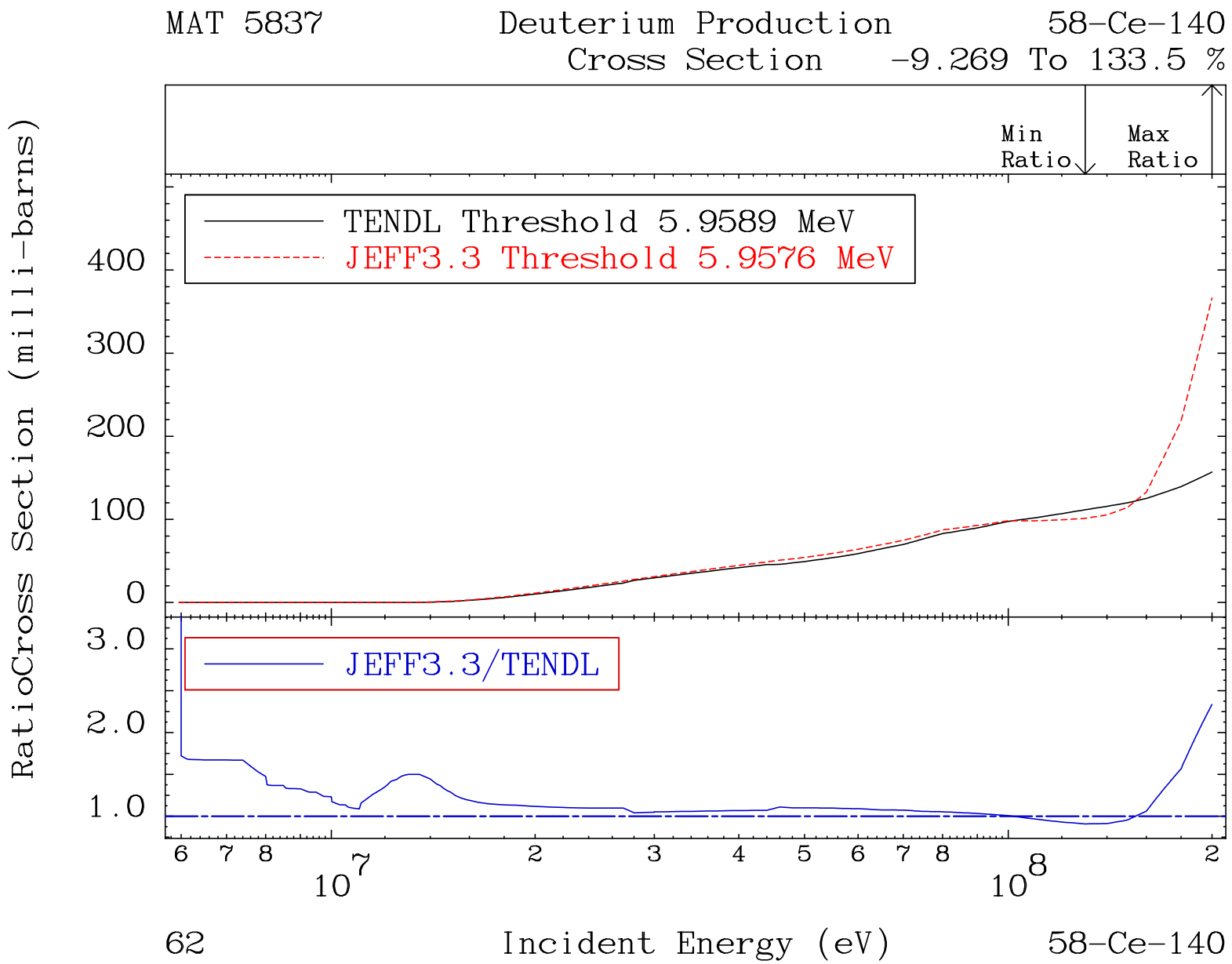

MAT 5837
(n,p) α
58-Ce-140
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 3.4023 MeV
JEFF3.3 Threshold 3.4072 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
10
8
6
4
2
0
1.2
0.8
0.4
0.0
4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
57
Incident Energy (eV)
58-Ce-140

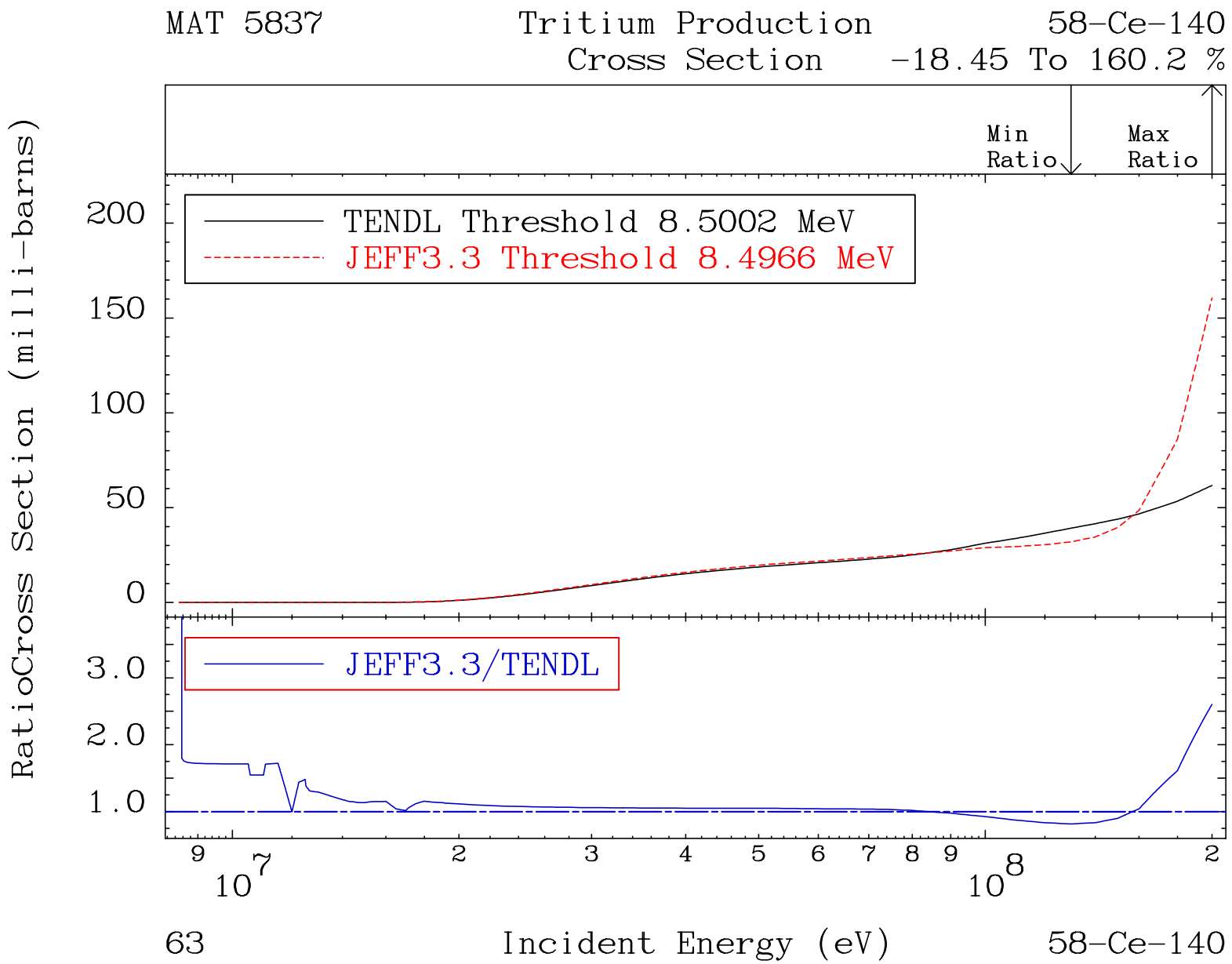

MAT 5837
(n,p) d
Cross Section
58-Ce-140
-100.0 To 240.7 %
Min Ratio
Max Ratio
TENDL Threshold 12.254 MeV
JEFF3.3 Threshold 12.258 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
700
600
500
400
300
200
100
0
4
2
0
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
58-Ce-140

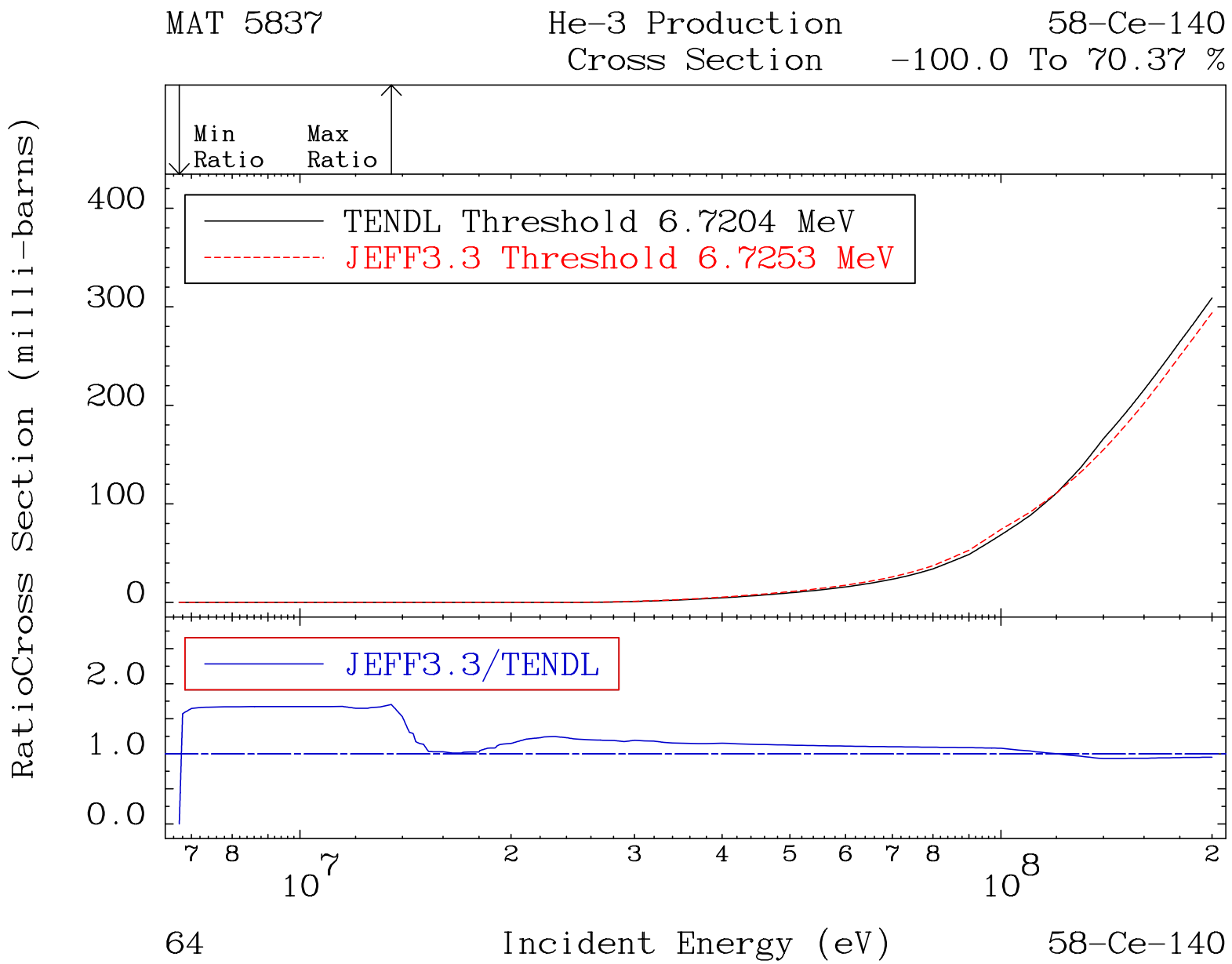

MAT 5837
(n,p) t
58-Ce-140
Cross Section
-100.0 To 134.2 %
Min Ratio
Max Ratio
TENDL Threshold 14.625 MeV
JEFF3.3 Threshold 14.630 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
160
120
80
40
0
2
0
2
3
4
5
6
7
8
9
10^8
2
59
Incident Energy (eV)
58-Ce-140

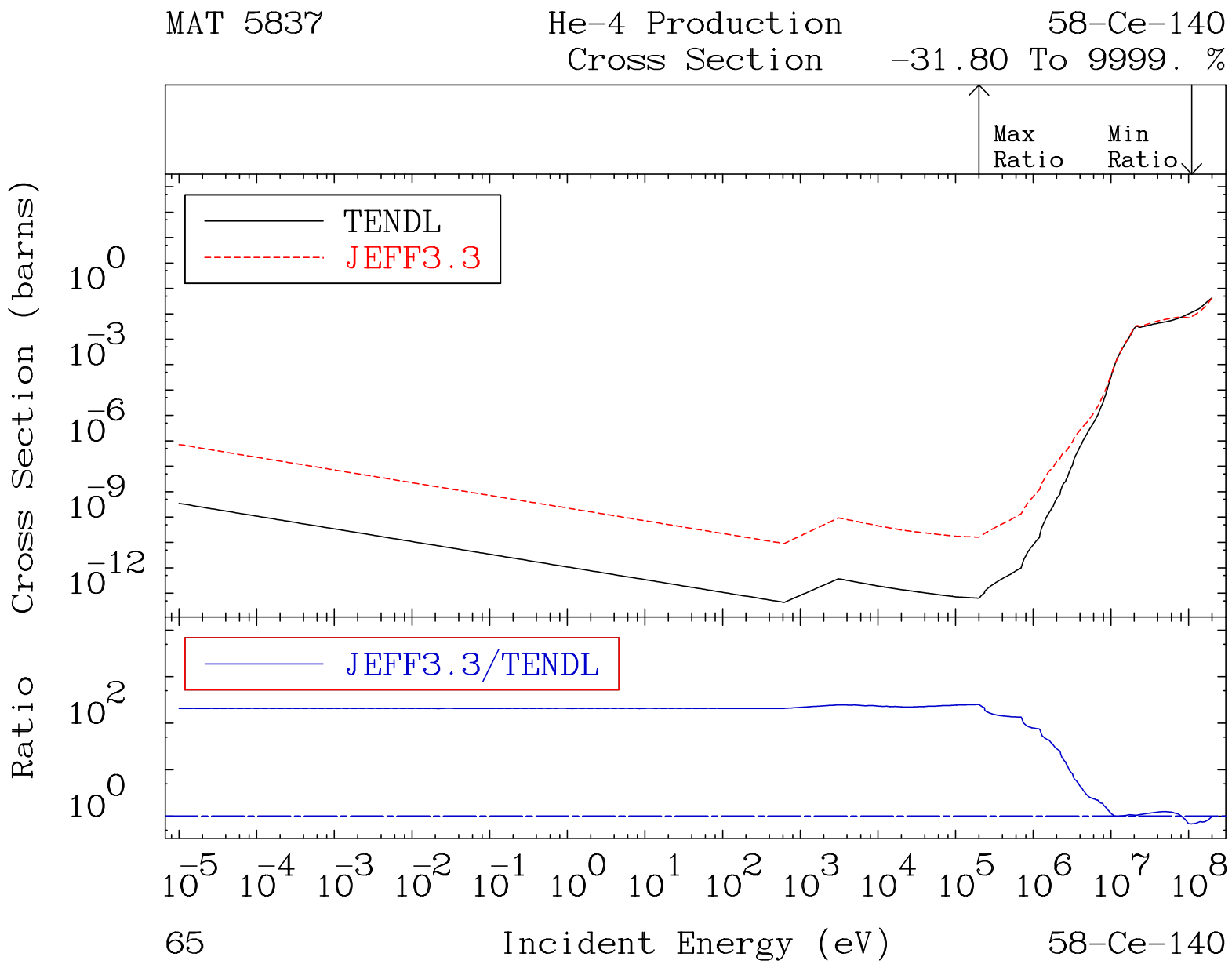

MAT 5837
(n,d) α
Cross Section
58-Ce-140
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 8.0391 MeV
JEFF3.3 Threshold 8.0443 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
50
40
30
20
10
0
600
400
200
0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
60
Incident Energy (eV)
58-Ce-140

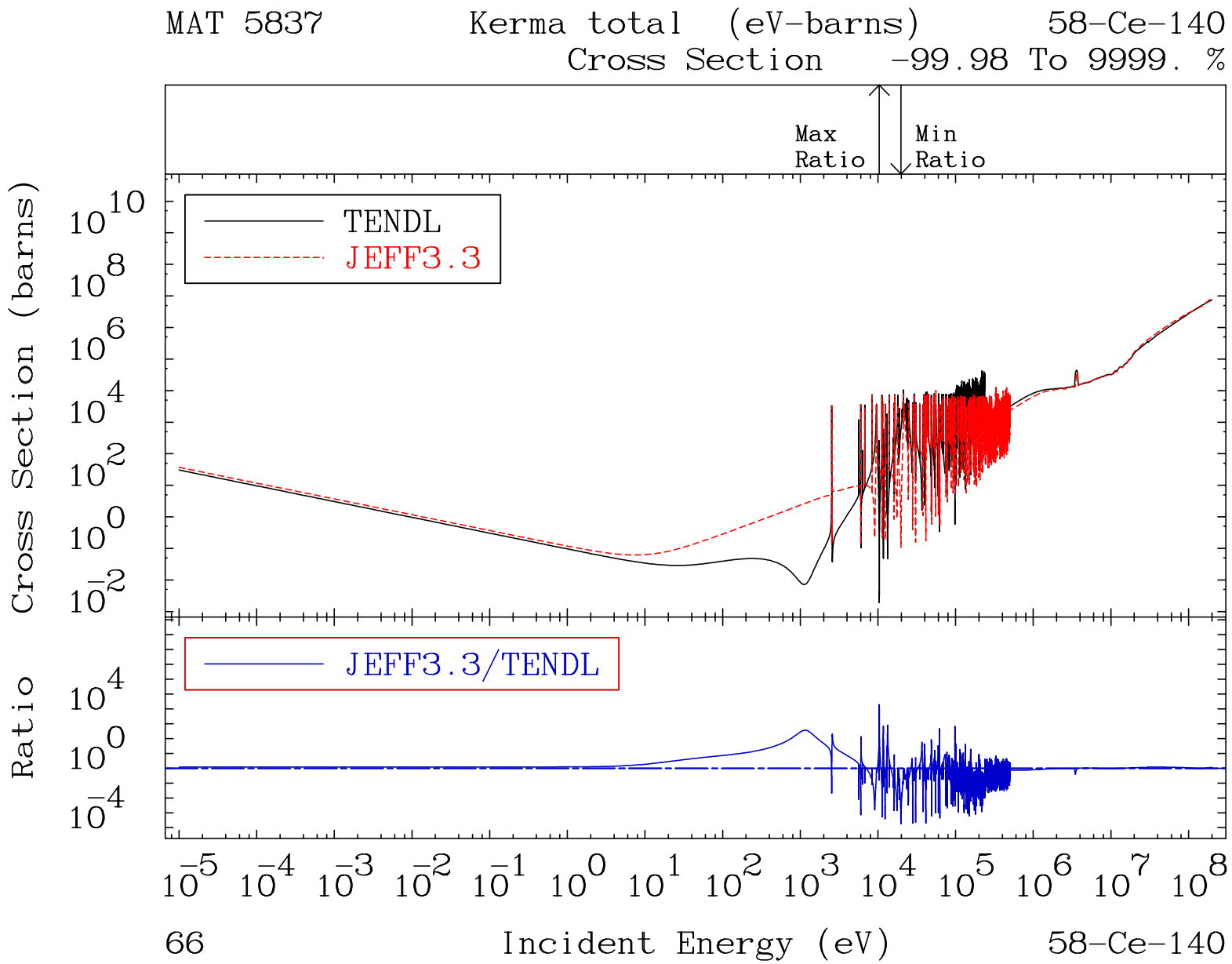

MAT 5837
Hydrogen Production
58-Ce-140
Cross Section
-42.77 To 141.1 %
Min Ratio
Max Ratio
TENDL Threshold 3.0013 MeV
JEFF3.3 Threshold 3.0001 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
2.5
2.0
1.5
1.0
0.5
0.0
3.0
2.0
1.0
3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
61
Incident Energy (eV)
58-Ce-140

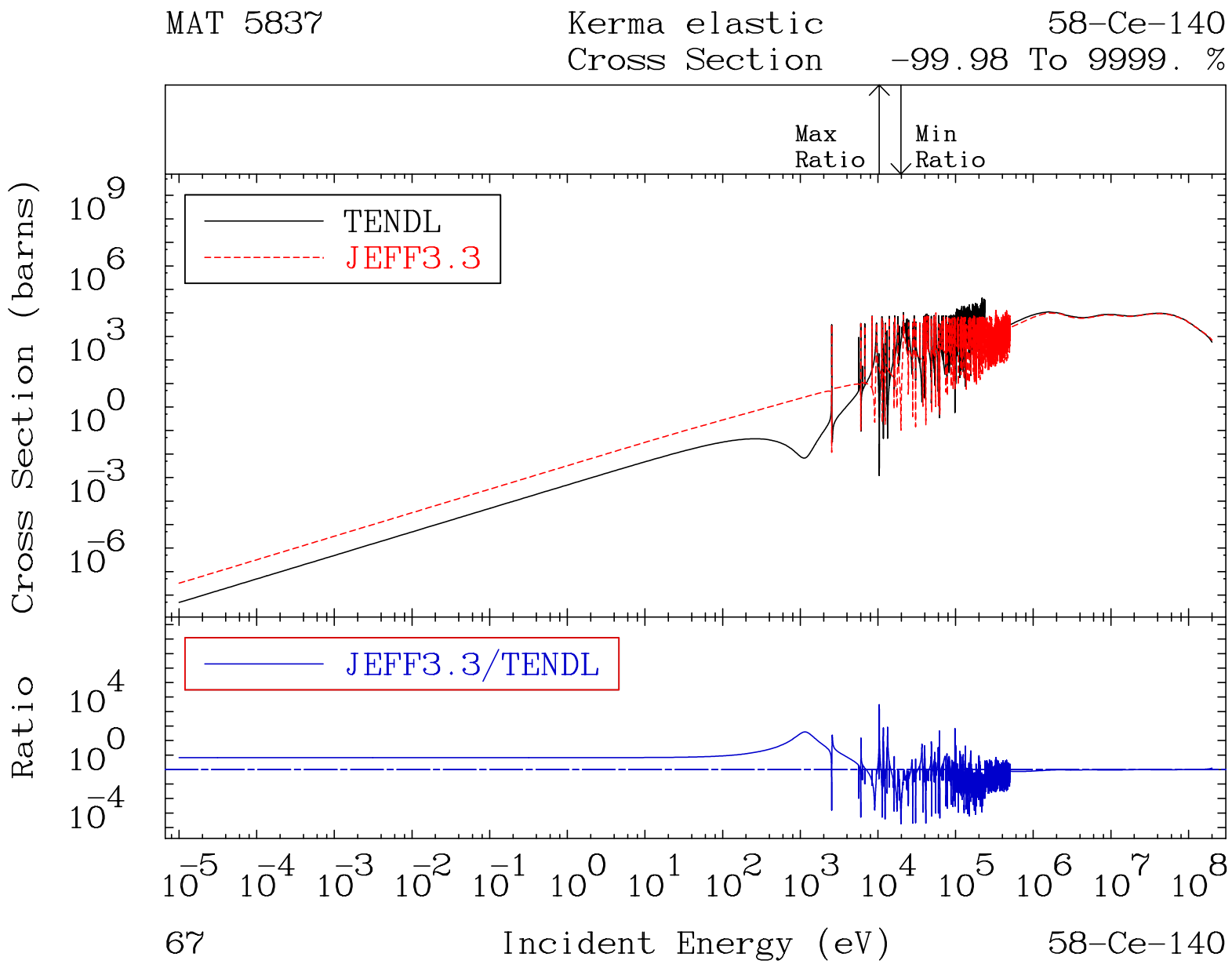

MAT 5837
Deuterium Production
58-Ce-140
Cross Section
-9.269 To 133.5 %
Min Ratio
Max Ratio
TENDL Threshold 5.9589 MeV
JEFF3.3 Threshold 5.9576 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
3.0
2.0
1.0
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
62
Incident Energy (eV)
58-Ce-140

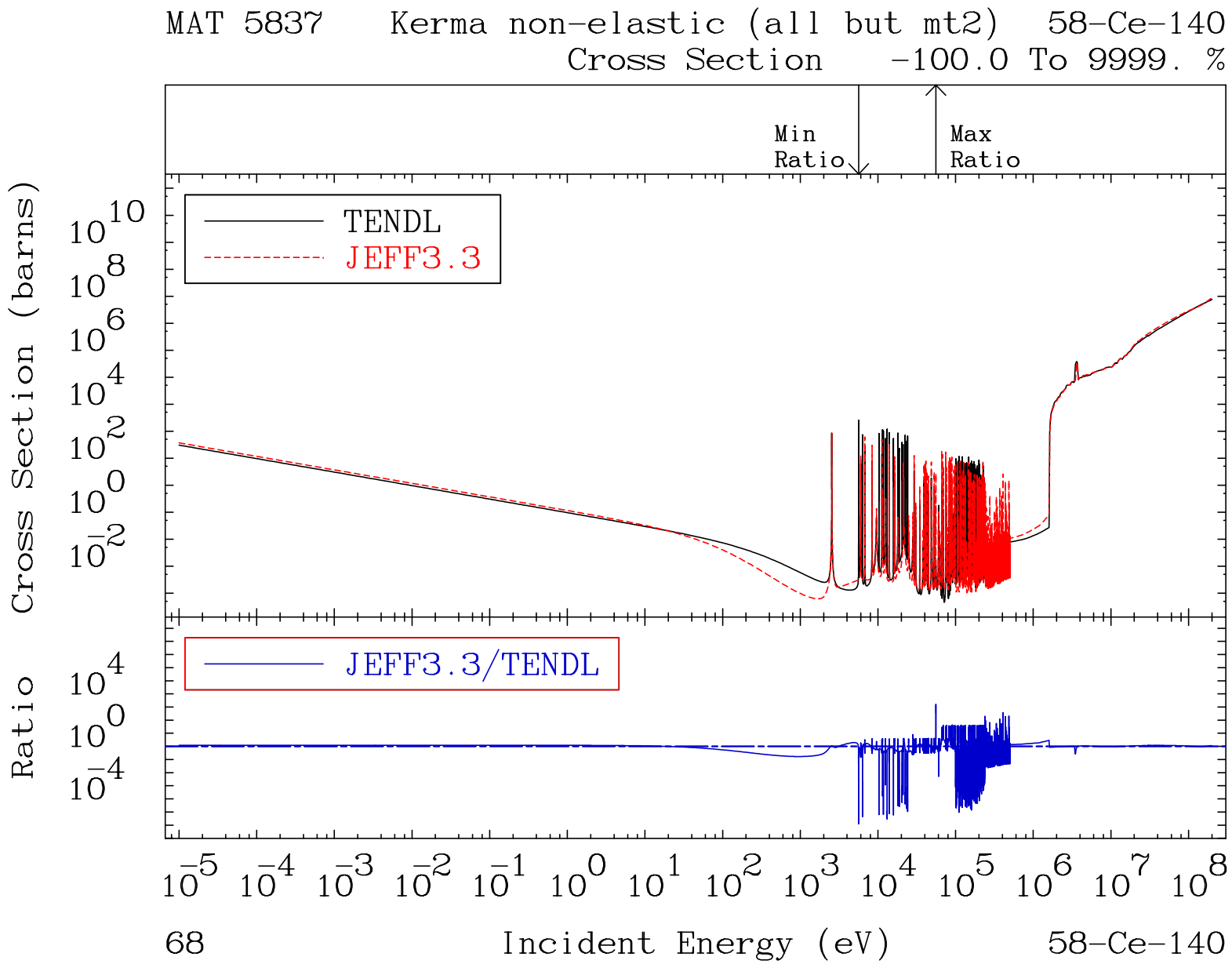

MAT 5837
Tritium Production
58-Ce-140
Cross Section
-18.45 To 160.2 %
Min Ratio
Max Ratio
TENDL Threshold 8.5002 MeV
JEFF3.3 Threshold 8.4966 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
3.0
2.0
1.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
63
Incident Energy (eV)
58-Ce-140

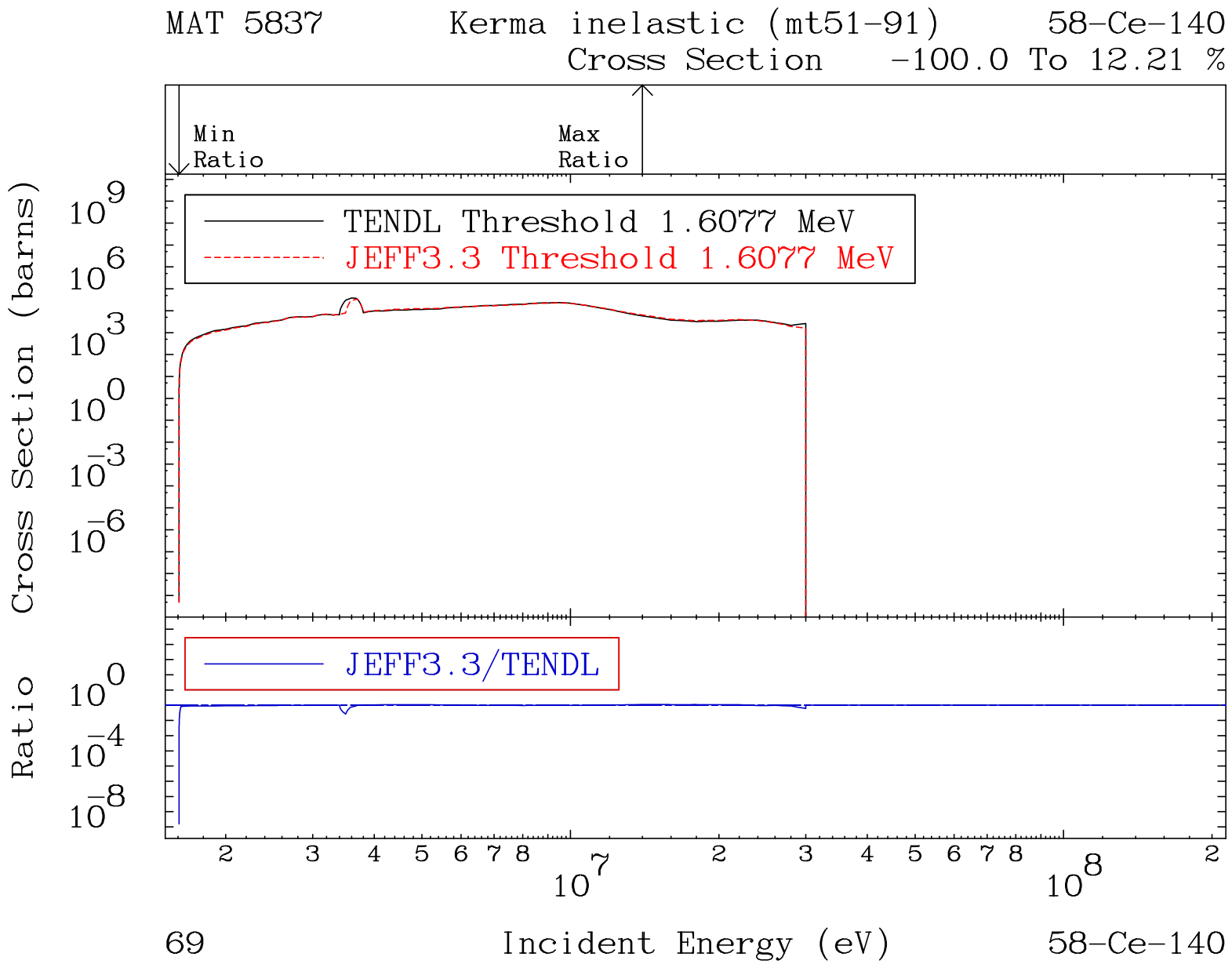

MAT 5837
He-3 Production
Cross Section
58-Ce-140
-100.0 To 70.37 %
Min Ratio
Max Ratio
TENDL Threshold 6.7204 MeV
JEFF3.3 Threshold 6.7253 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
2.0
1.0
0.0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
64
Incident Energy (eV)
58-Ce-140

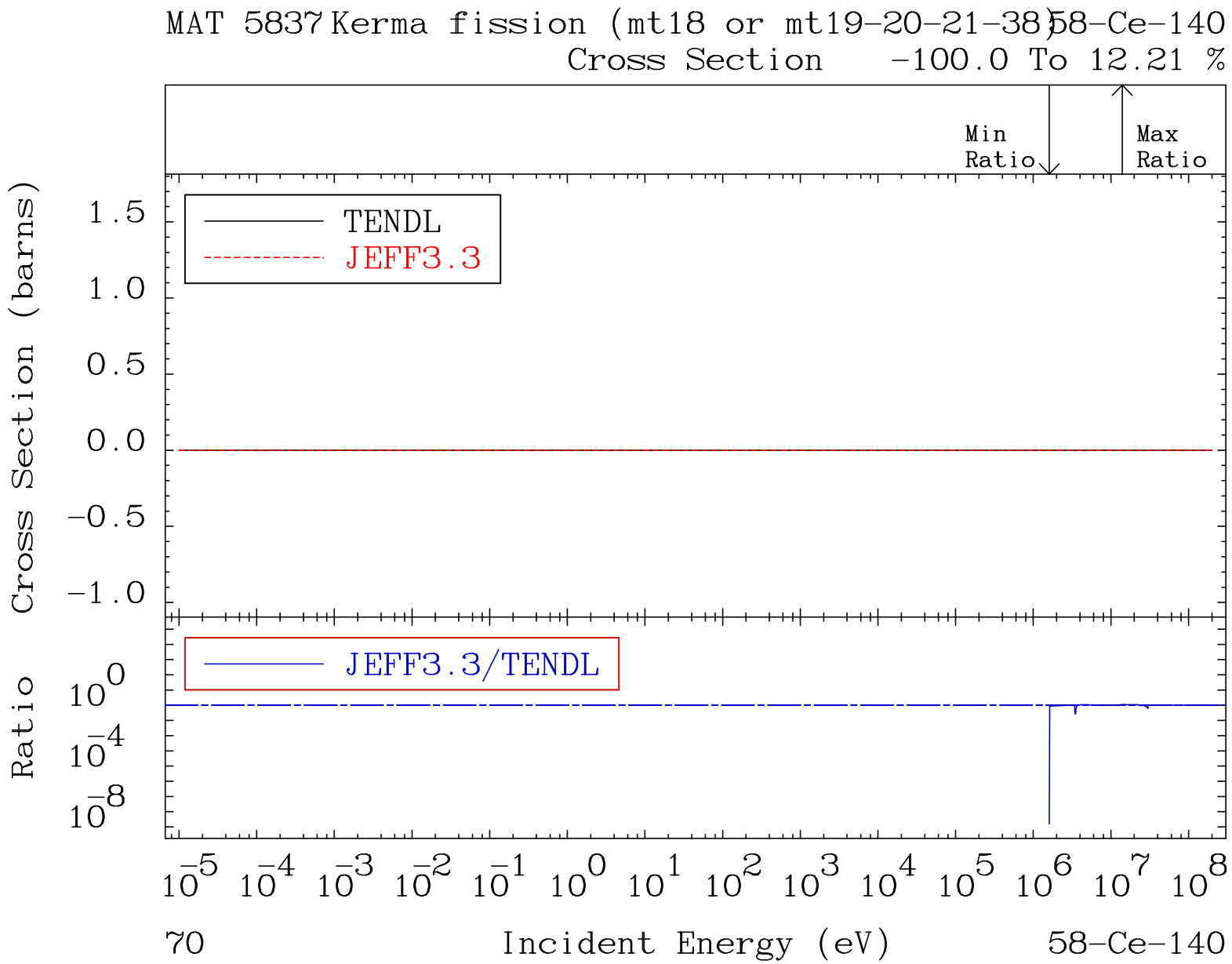

MAT 5837
He-4 Production
Cross Section
58-Ce-140
-31.80 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
65
58-Ce-140

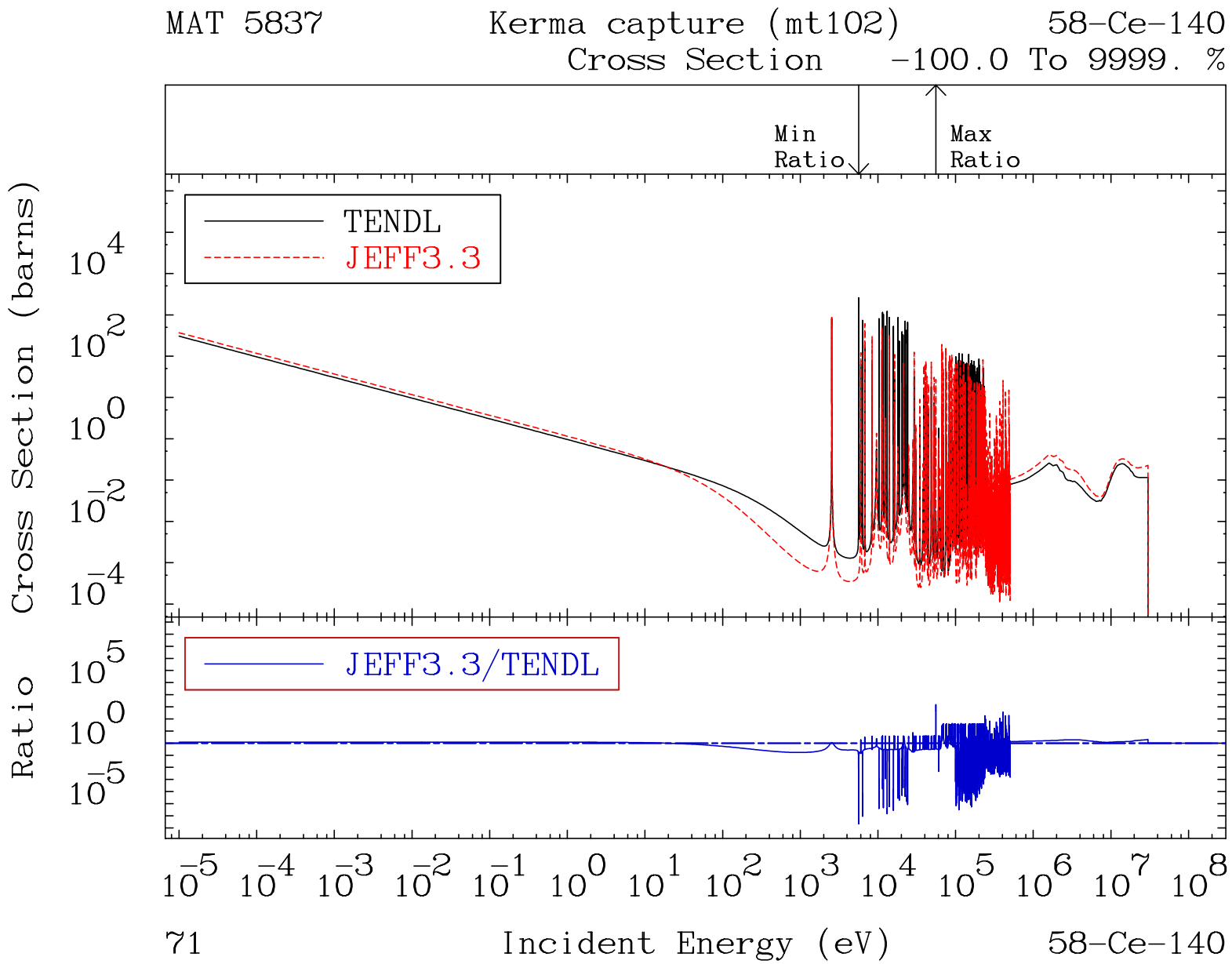

MAT 5837
Kerma total (eV-barns)
58-Ce-140
Cross Section -99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
66
58-Ce-140

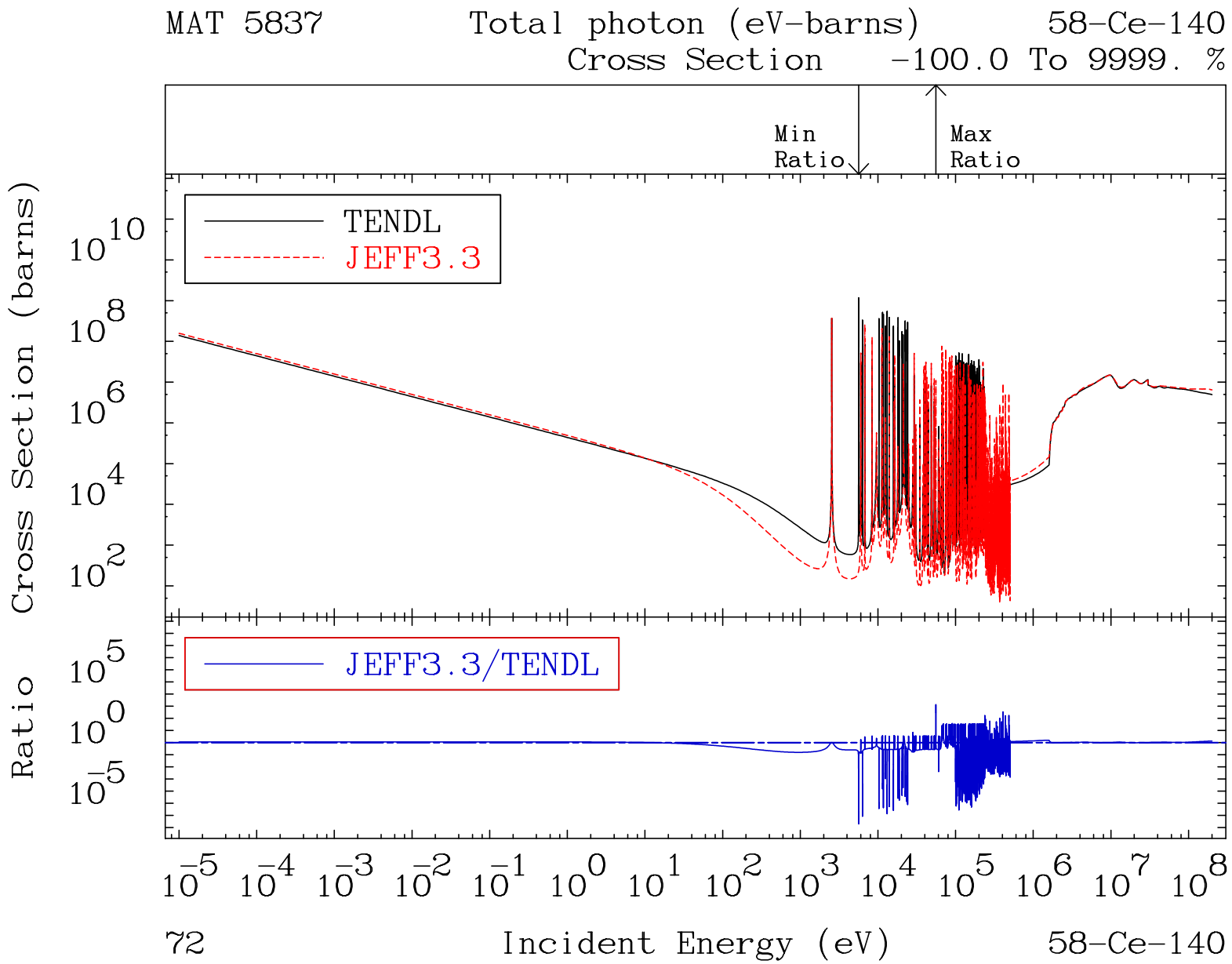

MAT 5837
Kerma elastic
Cross Section
58-Ce-140
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
67
58-Ce-140

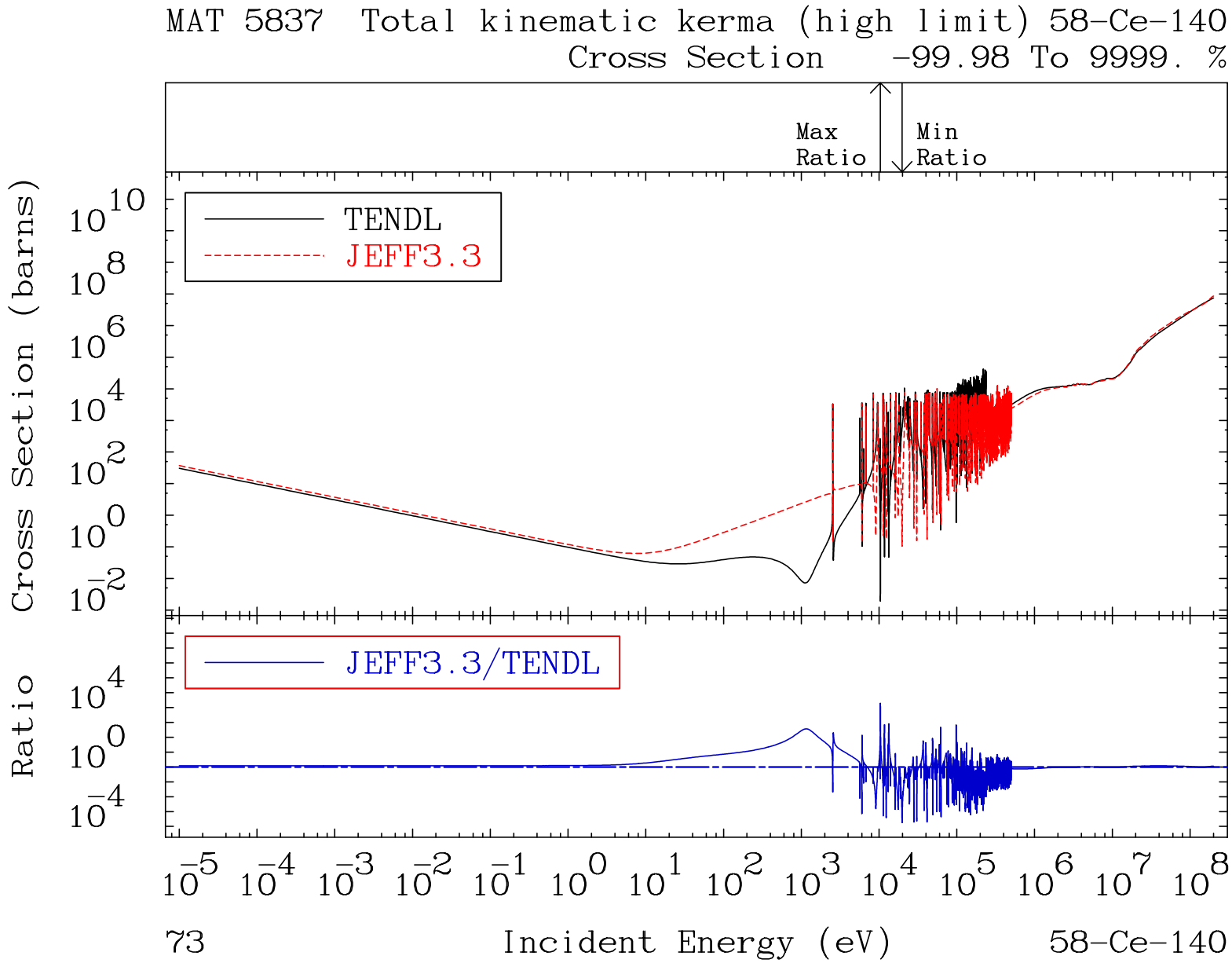

MAT 5837 Kerma non-elastic (all but mt2) 58-Ce-140
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
68
58-Ce-140

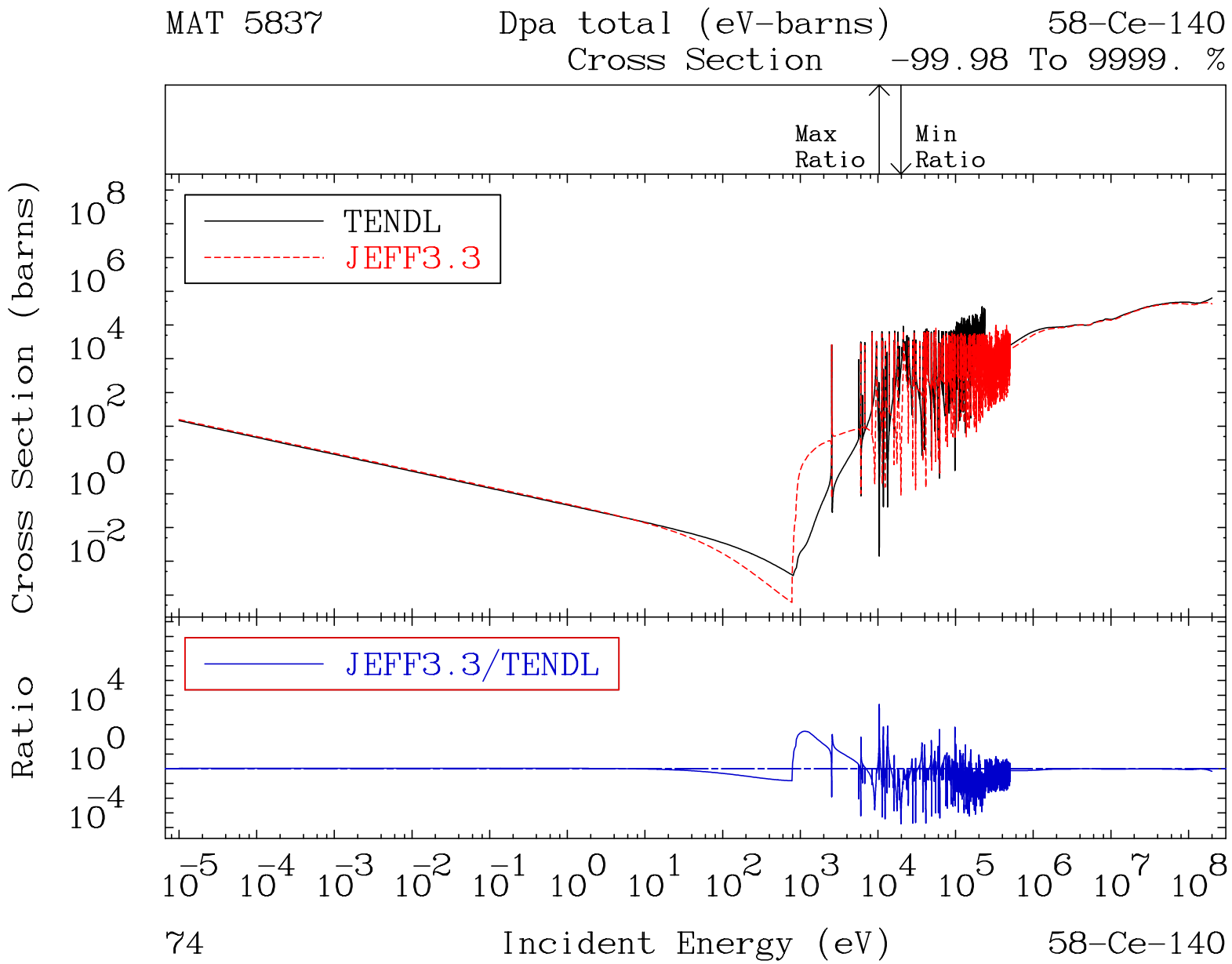

MAT 5837
Kerma inelastic (mt51-91)
58-Ce-140
Cross Section -100.0 To 12.21 %
Min Ratio
Max Ratio
TENDL Threshold 1.6077 MeV
JEFF3.3 Threshold 1.6077 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
69
58-Ce-140

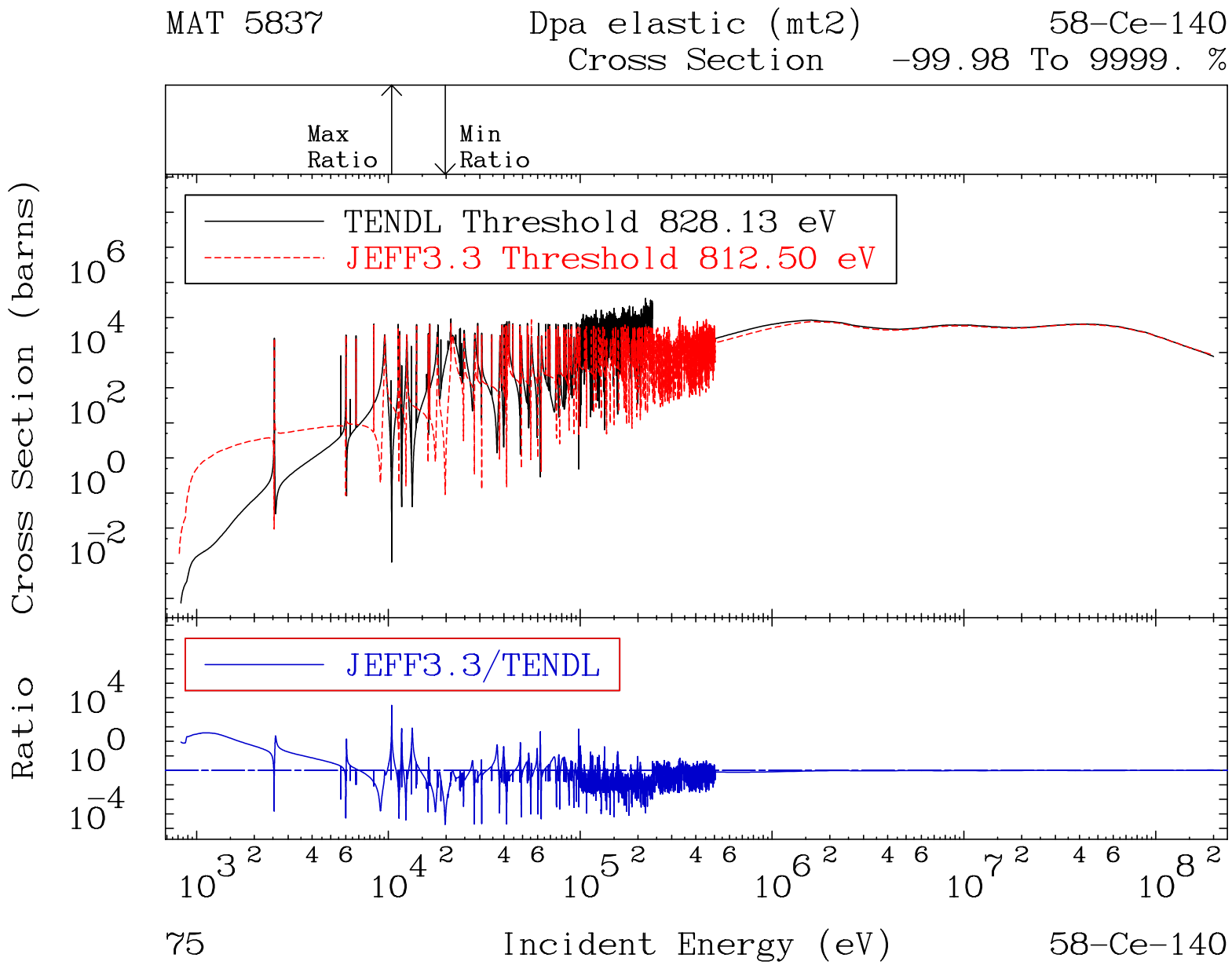

MAT 5837 Kerma fission (mt18 or mt19-20-21-38) 58-Ce-140
Cross Section -100.0 To 12.21 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{0}
10^{-4}
10^{-8}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
70
Incident Energy (eV)
58-Ce-140

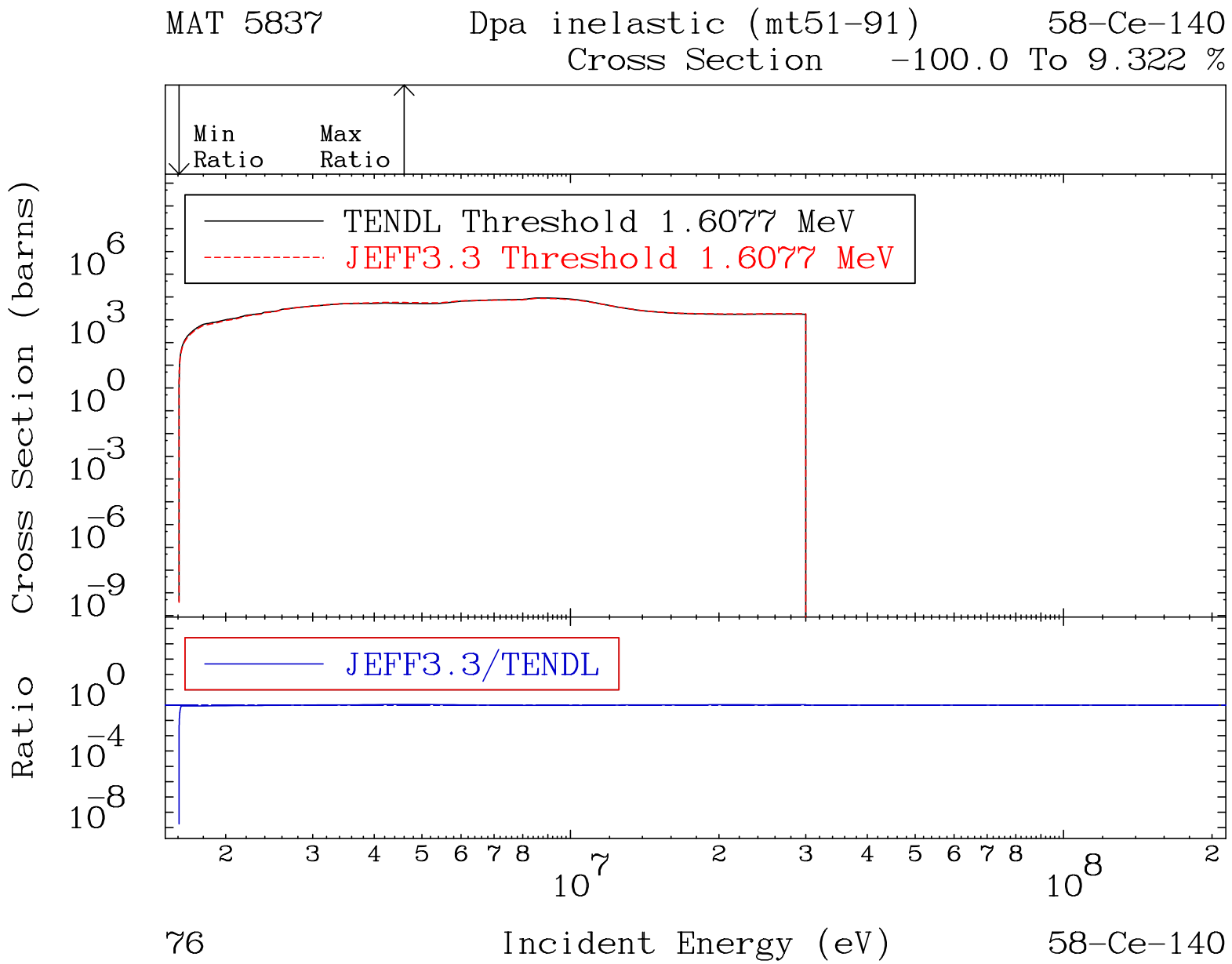

MAT 5837
Kerma capture (mt102)
58-Ce-140
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
71
58-Ce-140

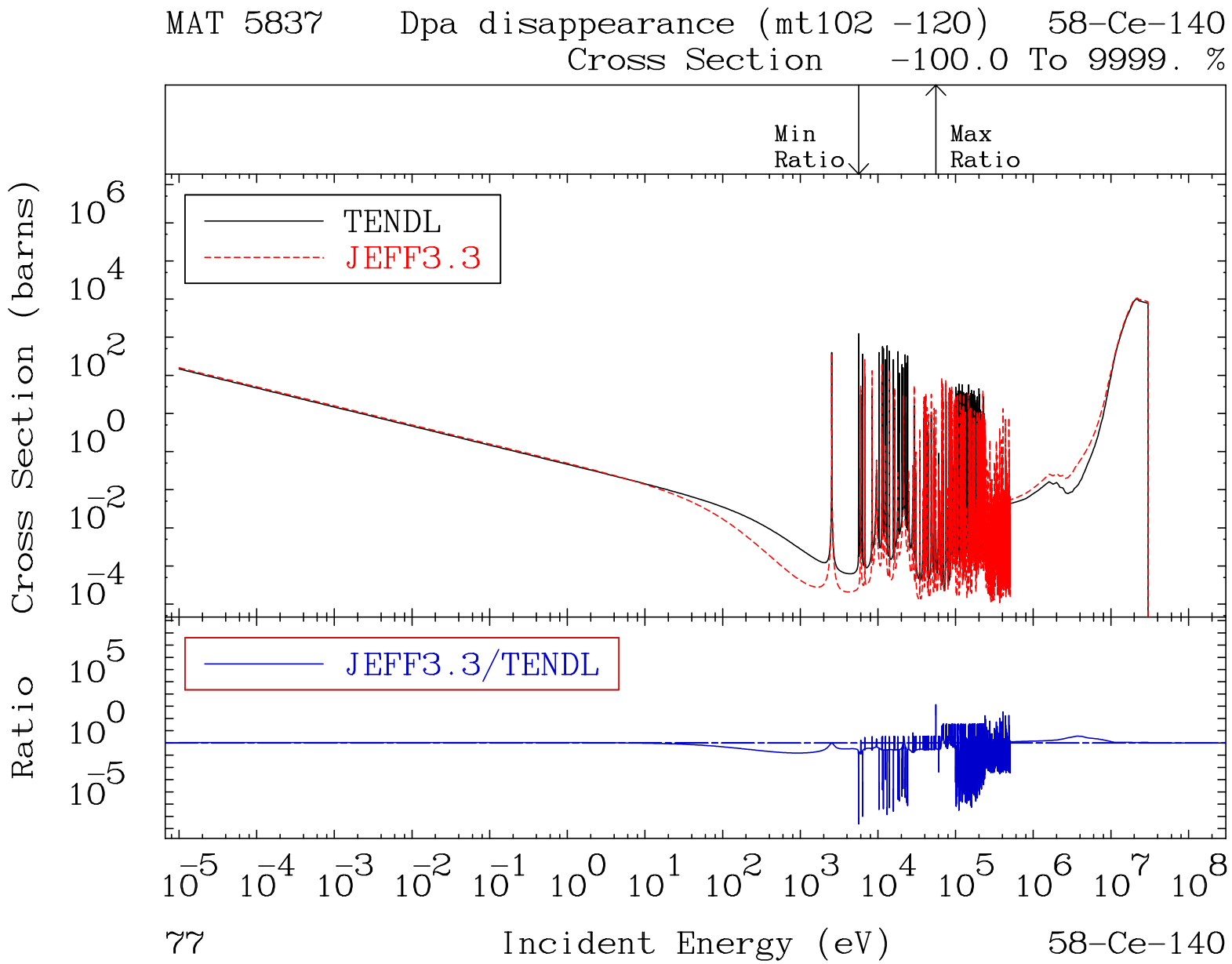

MAT 5837
Total photon (eV-barns)
58-Ce-140
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
72
58-Ce-140

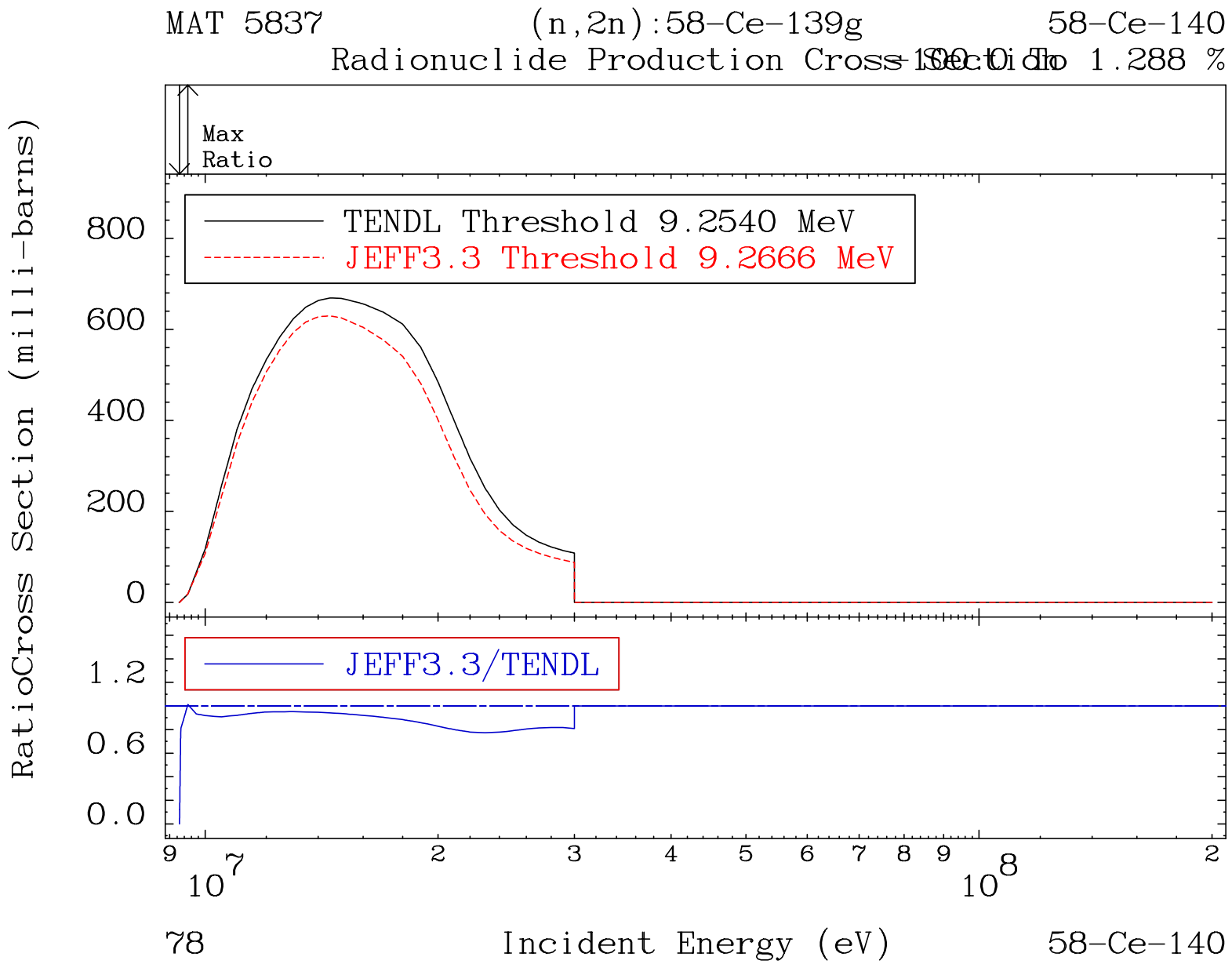

MAT 5837 Total kinematic kerma (high limit) 58-Ce-140
Cross Section -99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
73
58-Ce-140

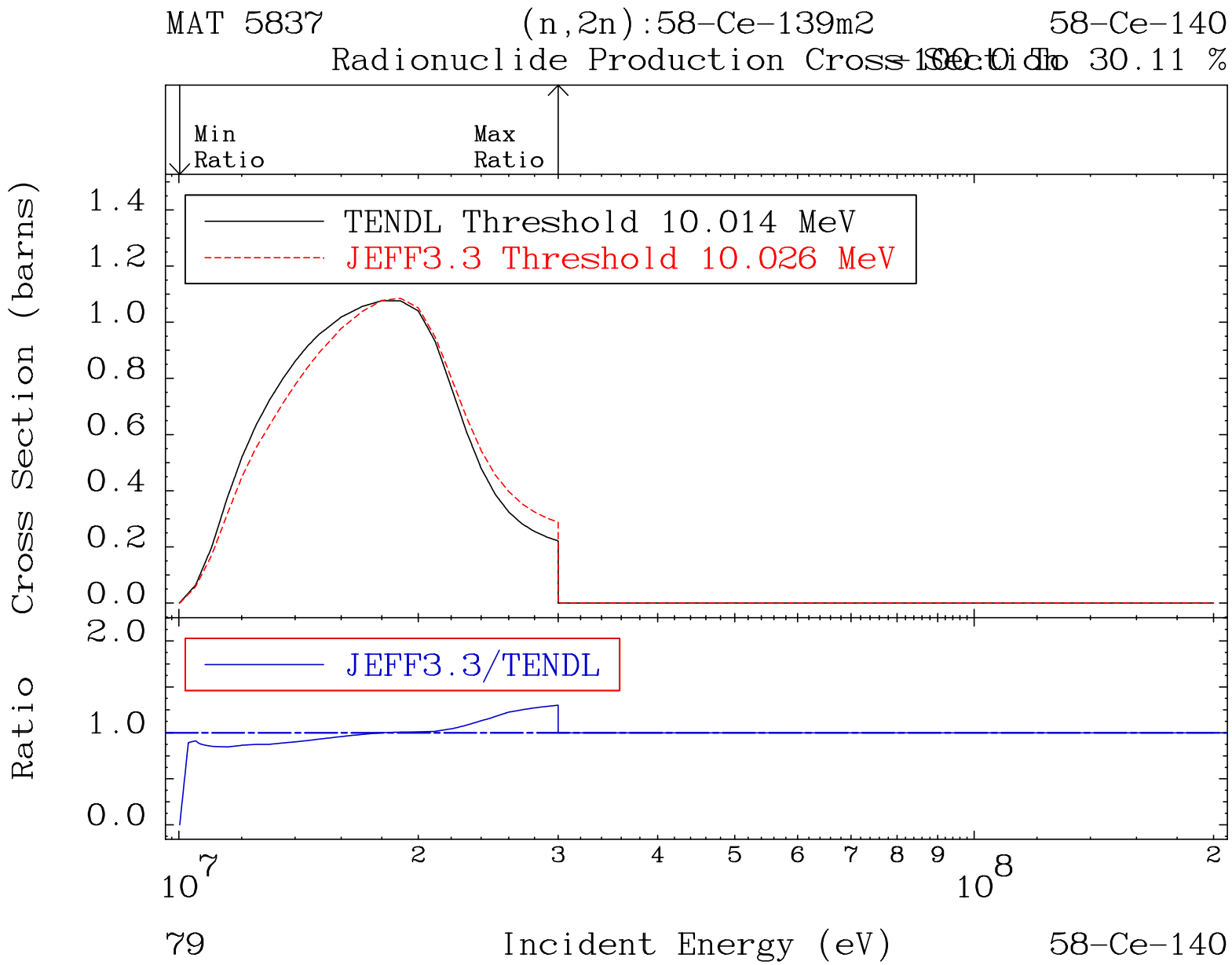

MAT 5837
Dpa total (eV-barns)
58-Ce-140
Cross Section
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
74
58-Ce-140

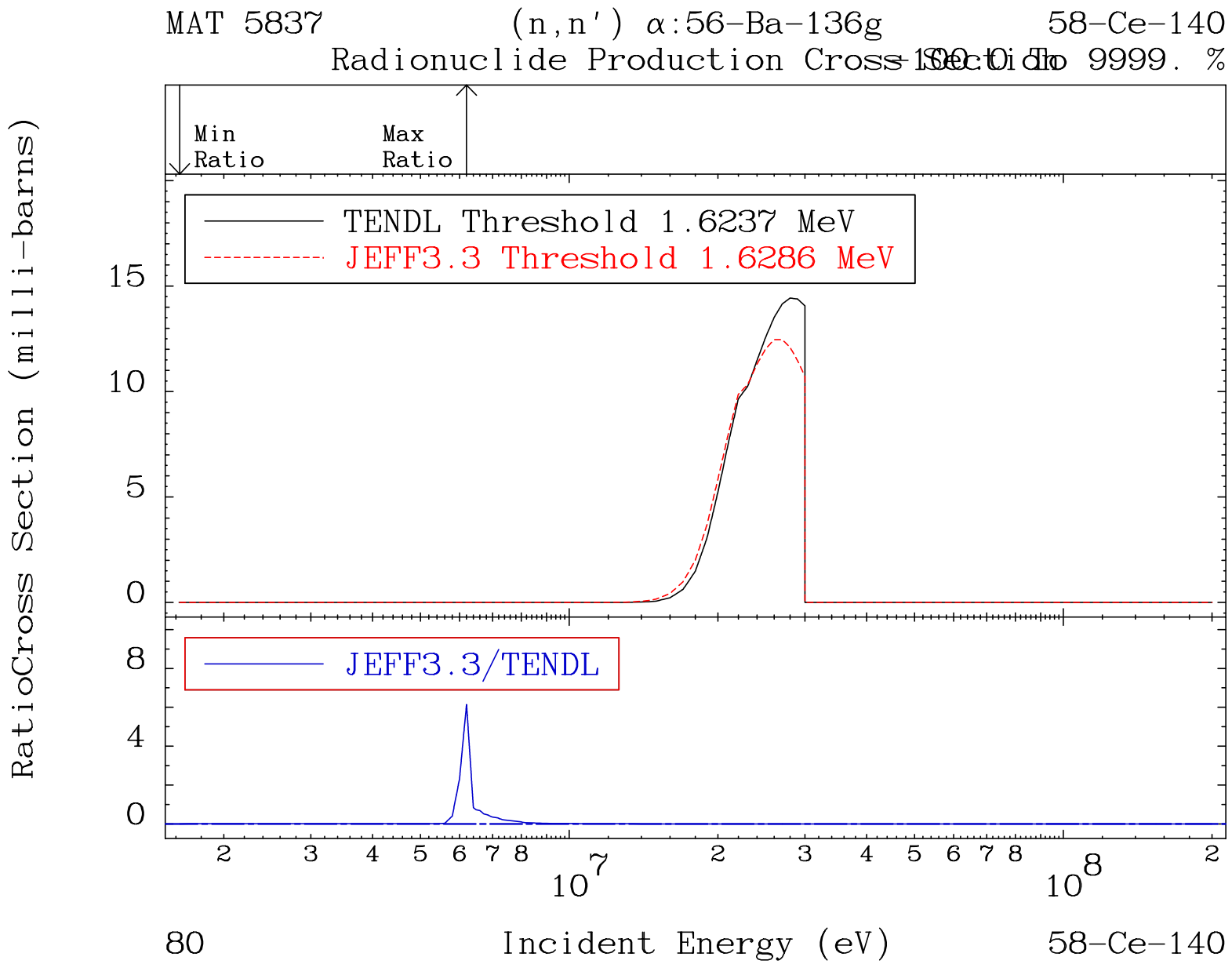

MAT 5837
Dpa elastic (mt2)
Cross Section
58-Ce-140
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 828.13 eV
JEFF3.3 Threshold 812.50 eV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
75
58-Ce-140

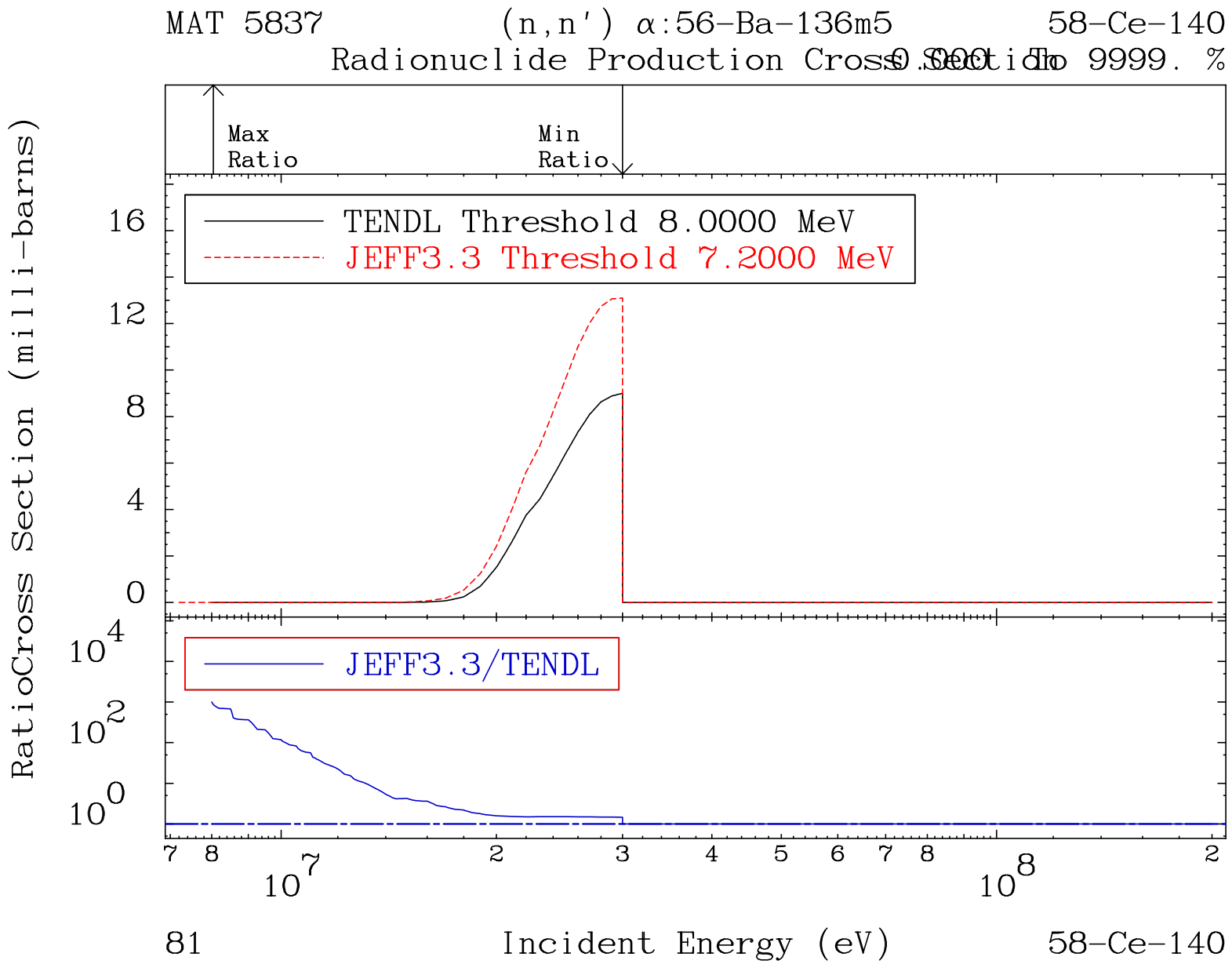

MAT 5837
Dpa inelastic (mt51-91)
58-Ce-140
Cross Section
-100.0 To 9.322 %
Min Ratio
Max Ratio
TENDL Threshold 1.6077 MeV
JEFF3.3 Threshold 1.6077 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
76
58-Ce-140

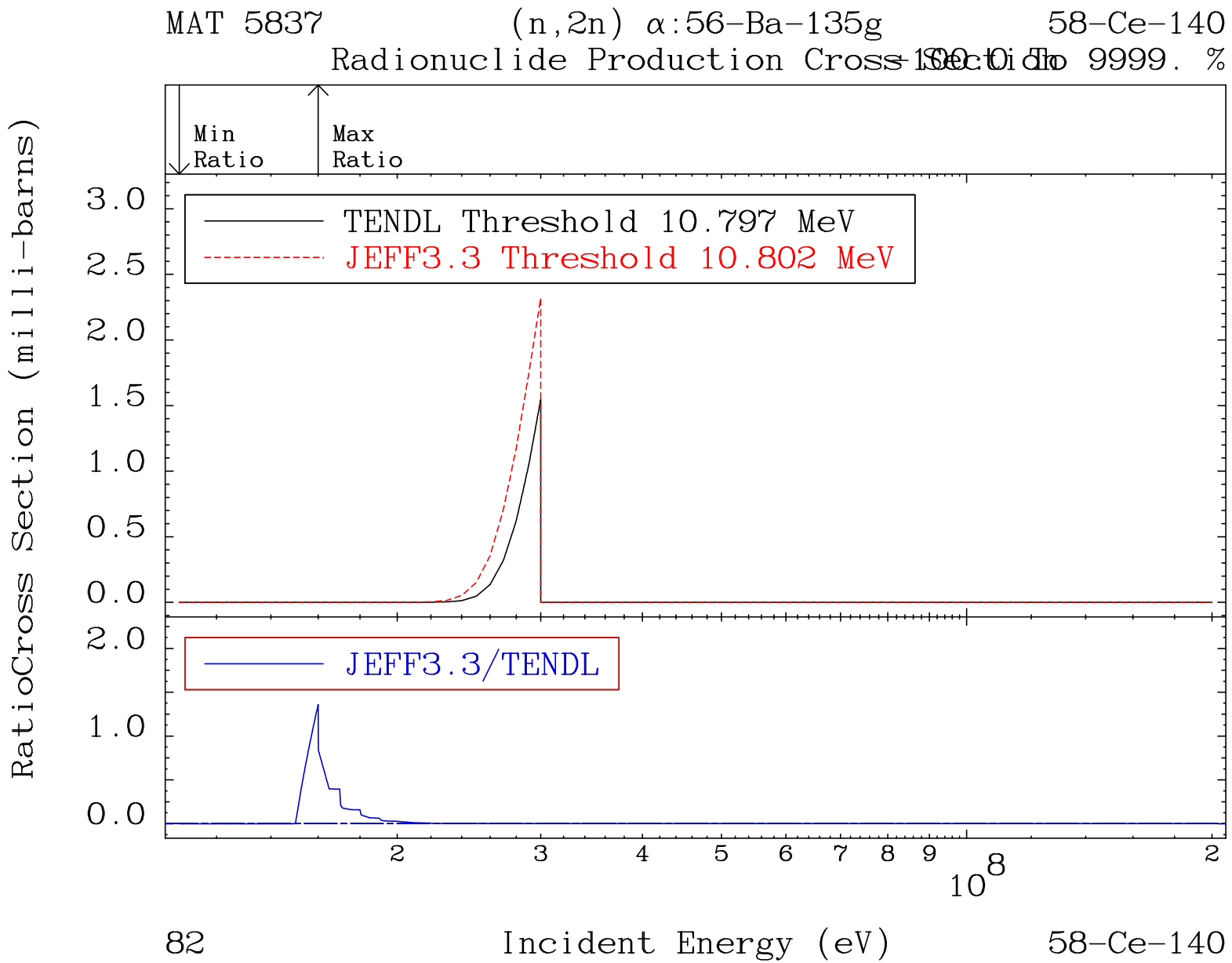

MAT 5837 Dpa disappearance (mt102 -120) 58-Ce-140
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
77
58-Ce-140

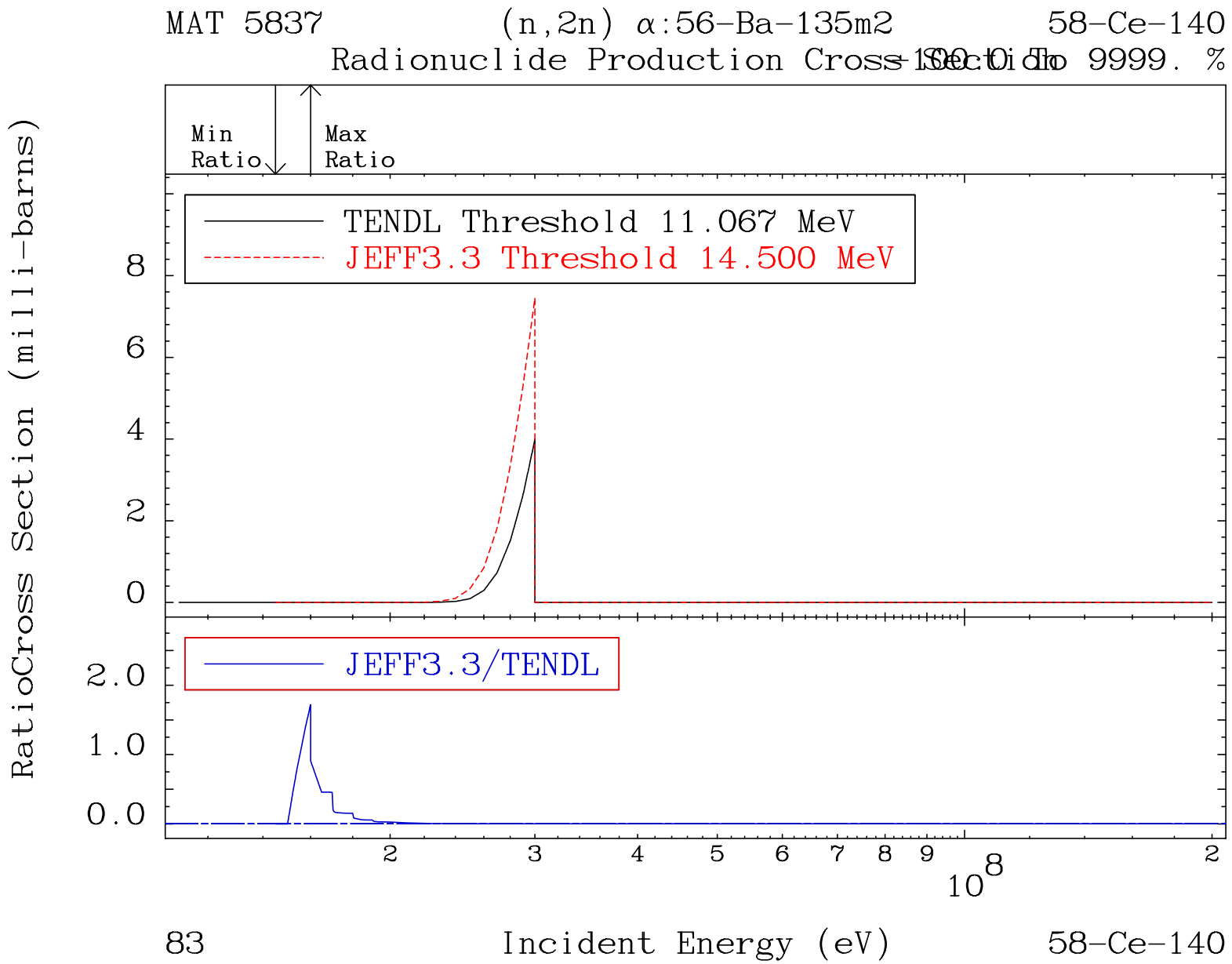

MAT 5837
(n,2n):58-Ce-139g
58-Ce-140
Radionuclide Production Cross Section To 1.288 %
Max
Ratio
TENDL Threshold 9.2540 MeV
JEFF3.3 Threshold 9.2666 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
1.2
0.6
0.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
78
Incident Energy (eV)
58-Ce-140

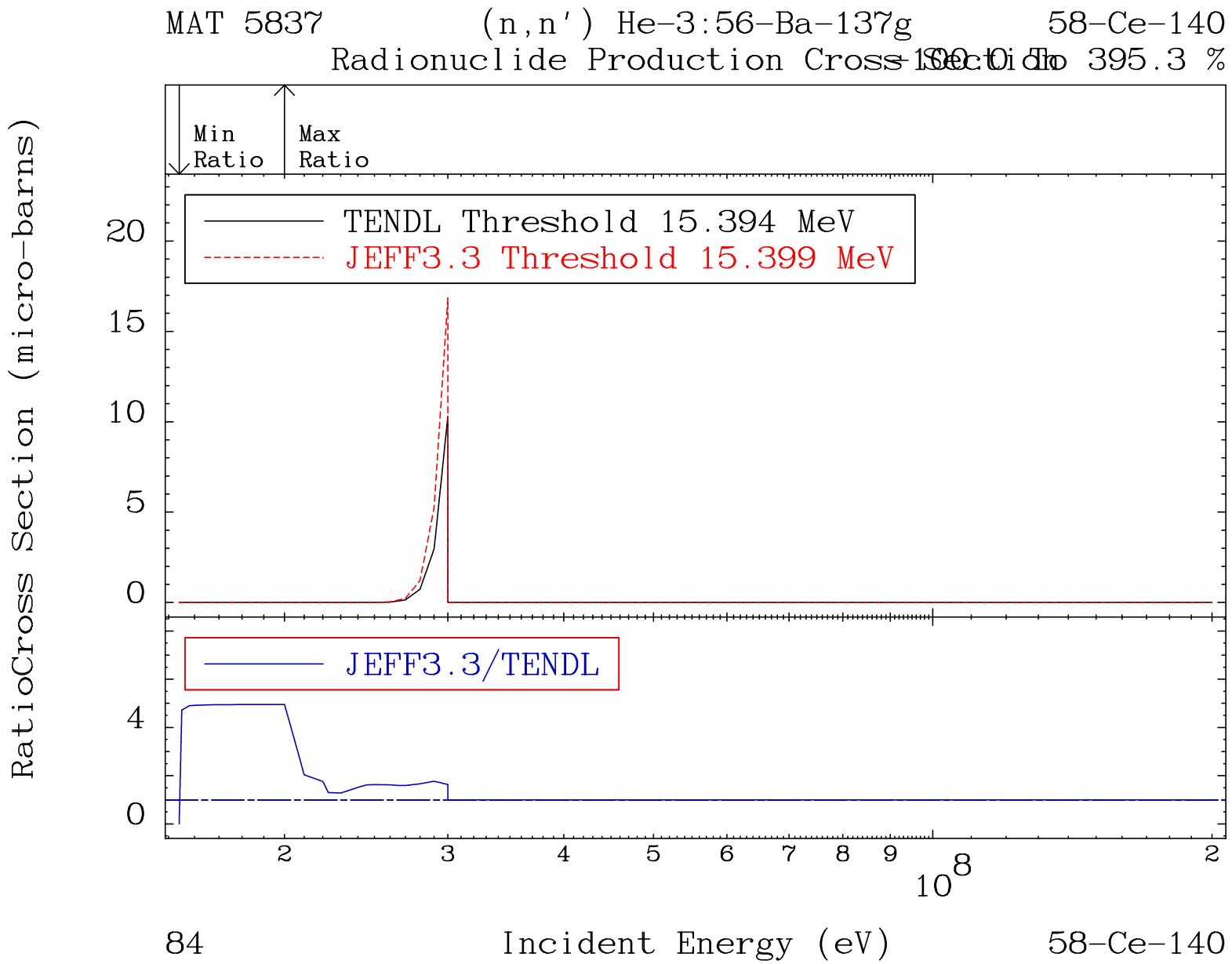

MAT 5837
(n,2n):58-Ce-139m2
58-Ce-140
Radionuclide Production Cross Section To 30.11 %
Min Ratio
Max Ratio
TENDL Threshold 10.014 MeV
JEFF3.3 Threshold 10.026 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2.0
1.0
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
58-Ce-140

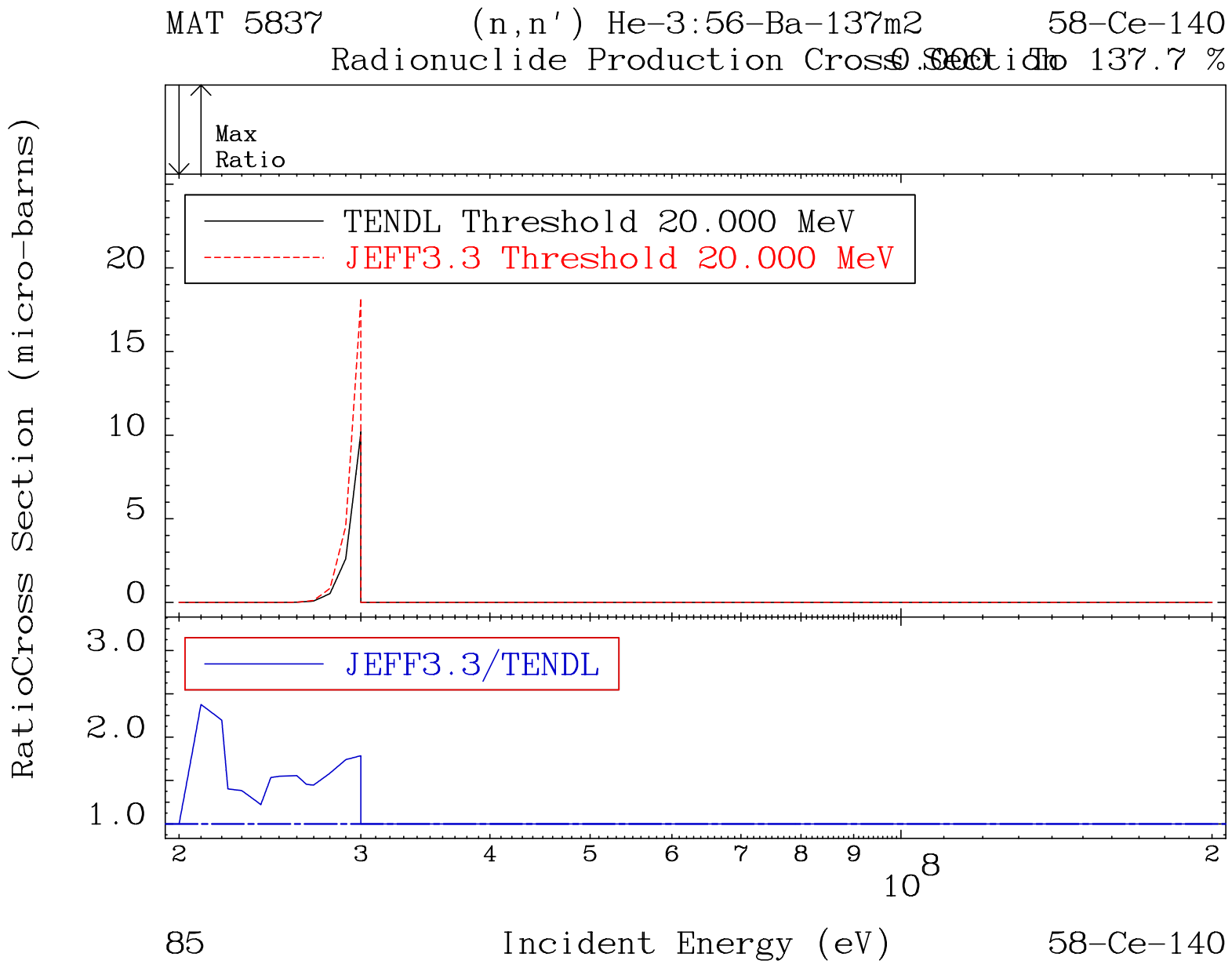

MAT 5837
(n,n') α:56-Ba-136g
58-Ce-140
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 1.6237 MeV
JEFF3.3 Threshold 1.6286 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
80
58-Ce-140

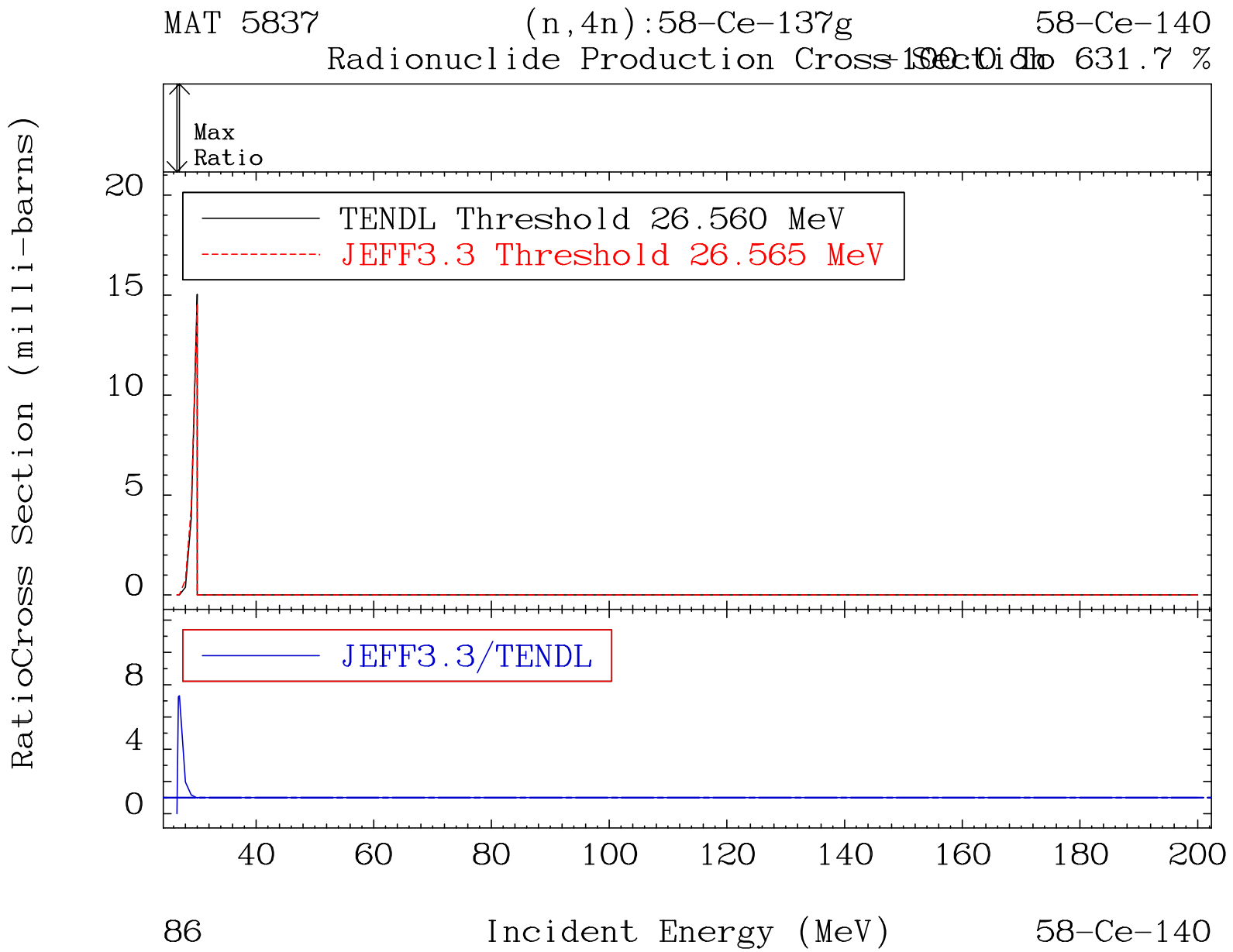

MAT 5837 (n,n') α:56-Ba-136m5 58-Ce-140
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 8.0000 MeV
JEFF3.3 Threshold 7.2000 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
16
12
8
4
0
10^4
10^2
10^0
7 8 10^7 2 3 4 5 6 7 8 10^8 2
81
Incident Energy (eV)
58-Ce-140

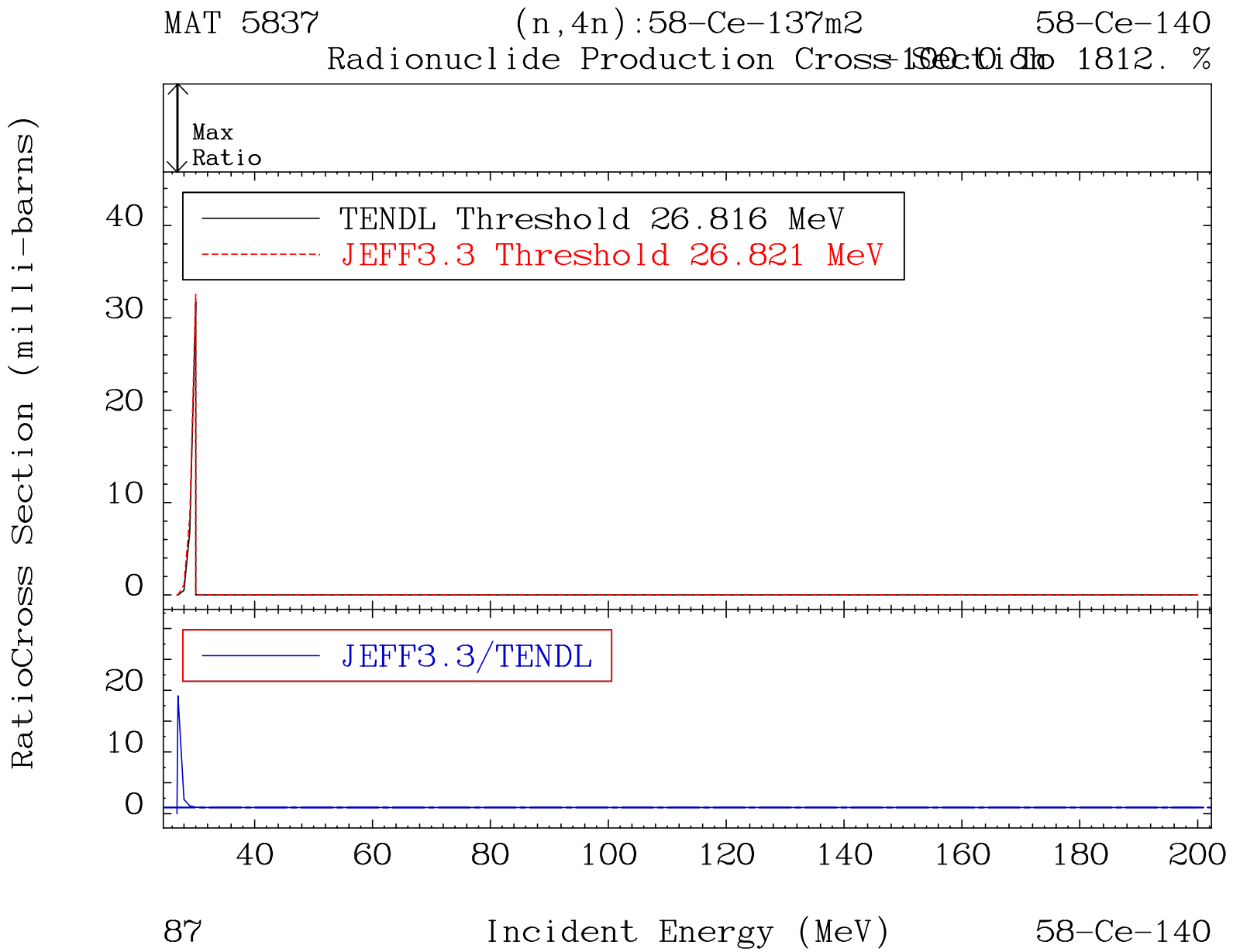

MAT 5837
(n,2n) α:56-Ba-135g
58-Ce-140
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.797 MeV
JEFF3.3 Threshold 10.802 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
2
10^8
82
Incident Energy (eV)
58-Ce-140

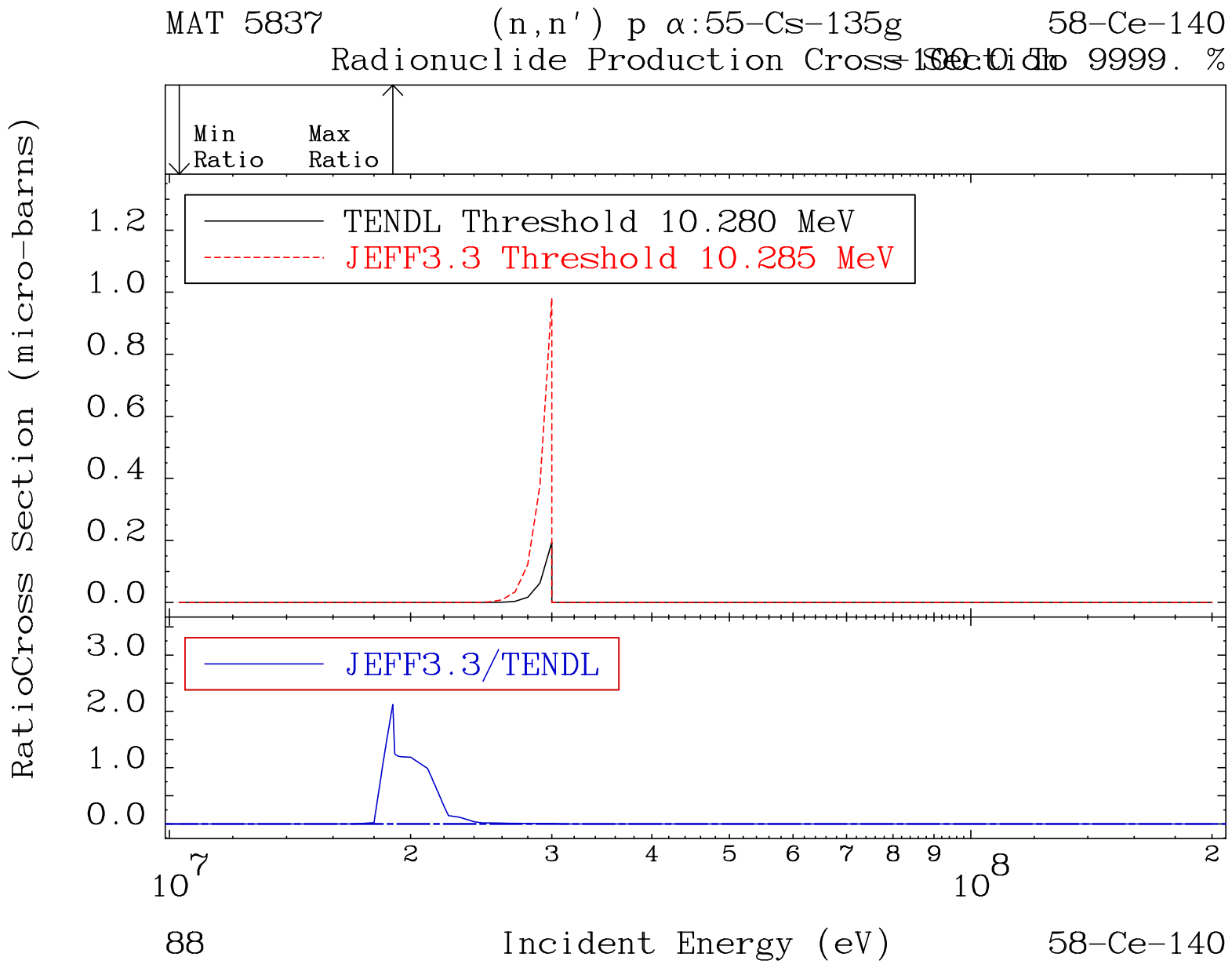

MAT 5837
(n,2n) α:56-Ba-135m2
58-Ce-140
Radionuclide Production Cross Section
Min Ratio
Max Ratio
TENDL Threshold 11.067 MeV
JEFF3.3 Threshold 14.500 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
83
58-Ce-140

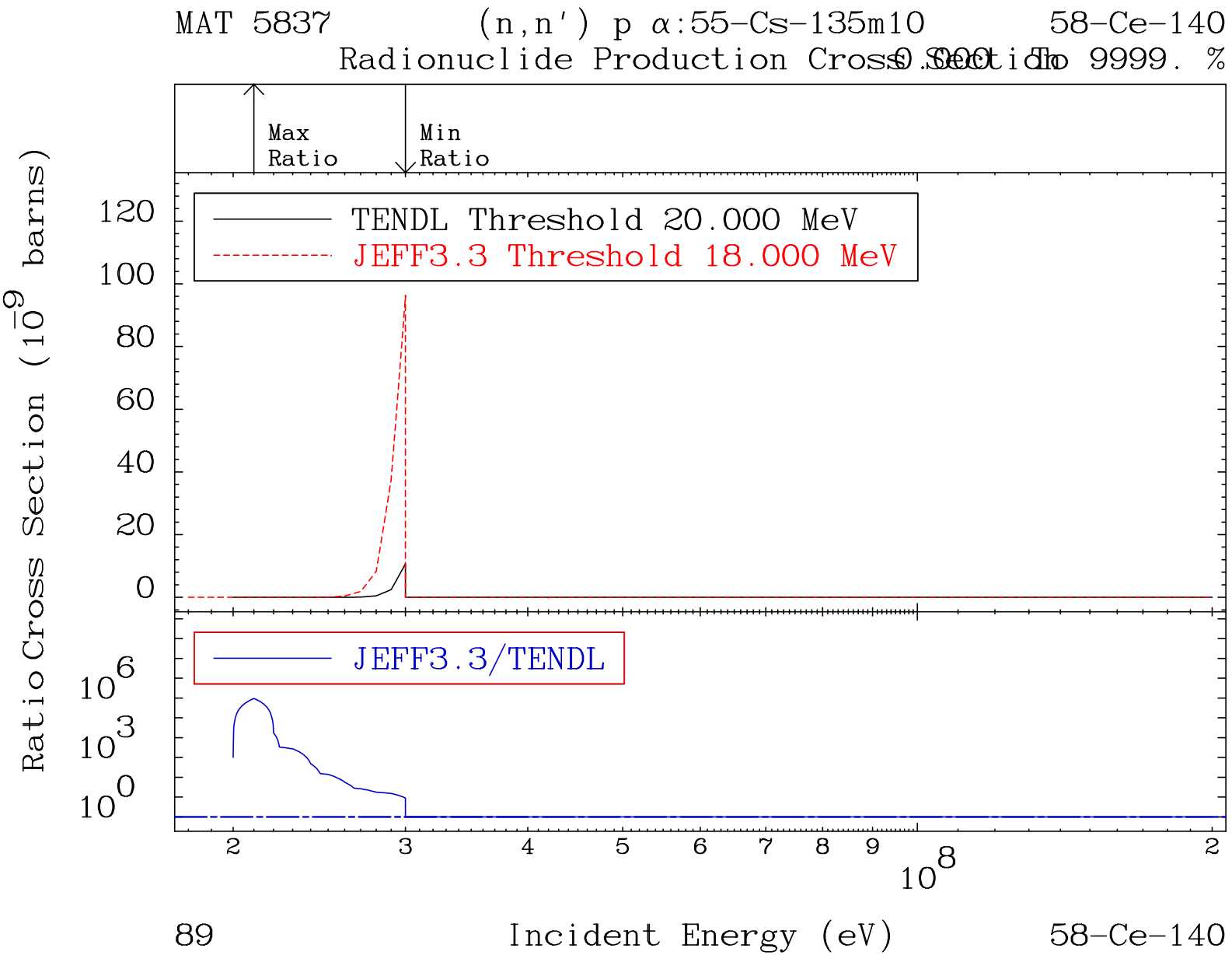

MAT 5837 (n,n') He-3:56-Ba-137g 58-Ce-140
Radionuclide Production Cross Section To 395.3 %
Min Ratio
Max Ratio
TENDL Threshold 15.394 MeV
JEFF3.3 Threshold 15.399 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
20
15
10
5
0
4
0
2
3
4
5
6
7
8
9
10^8
2
84
Incident Energy (eV)
58-Ce-140

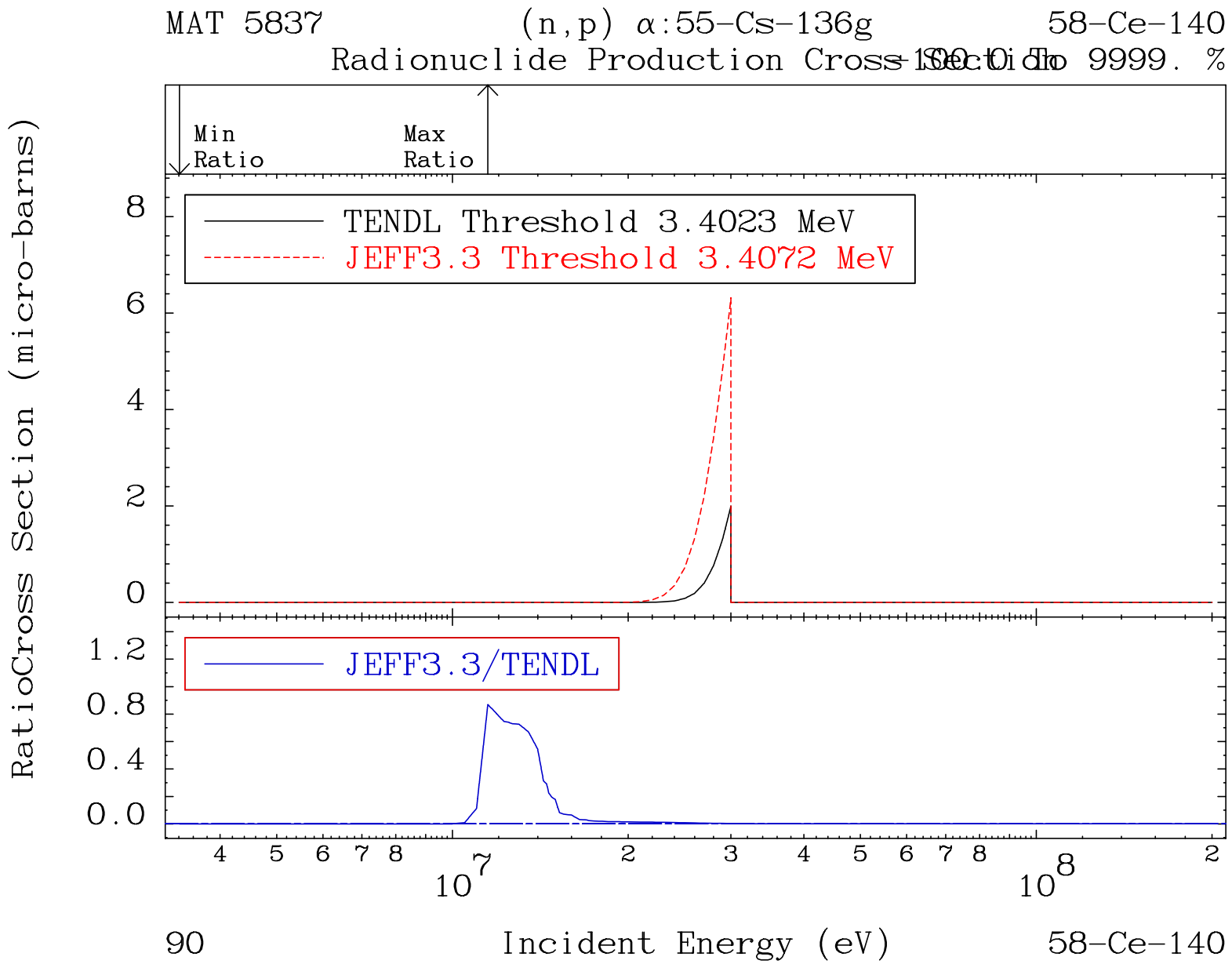

MAT 5837 (n,n') He-3:56-Ba-137m2 58-Ce-140
Radionuclide Production Cross Section To 137.7 %
Max
Ratio
TENDL Threshold 20.000 MeV
JEFF3.3 Threshold 20.000 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
20
15
10
5
0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
2
10^8
85
Incident Energy (eV)
58-Ce-140

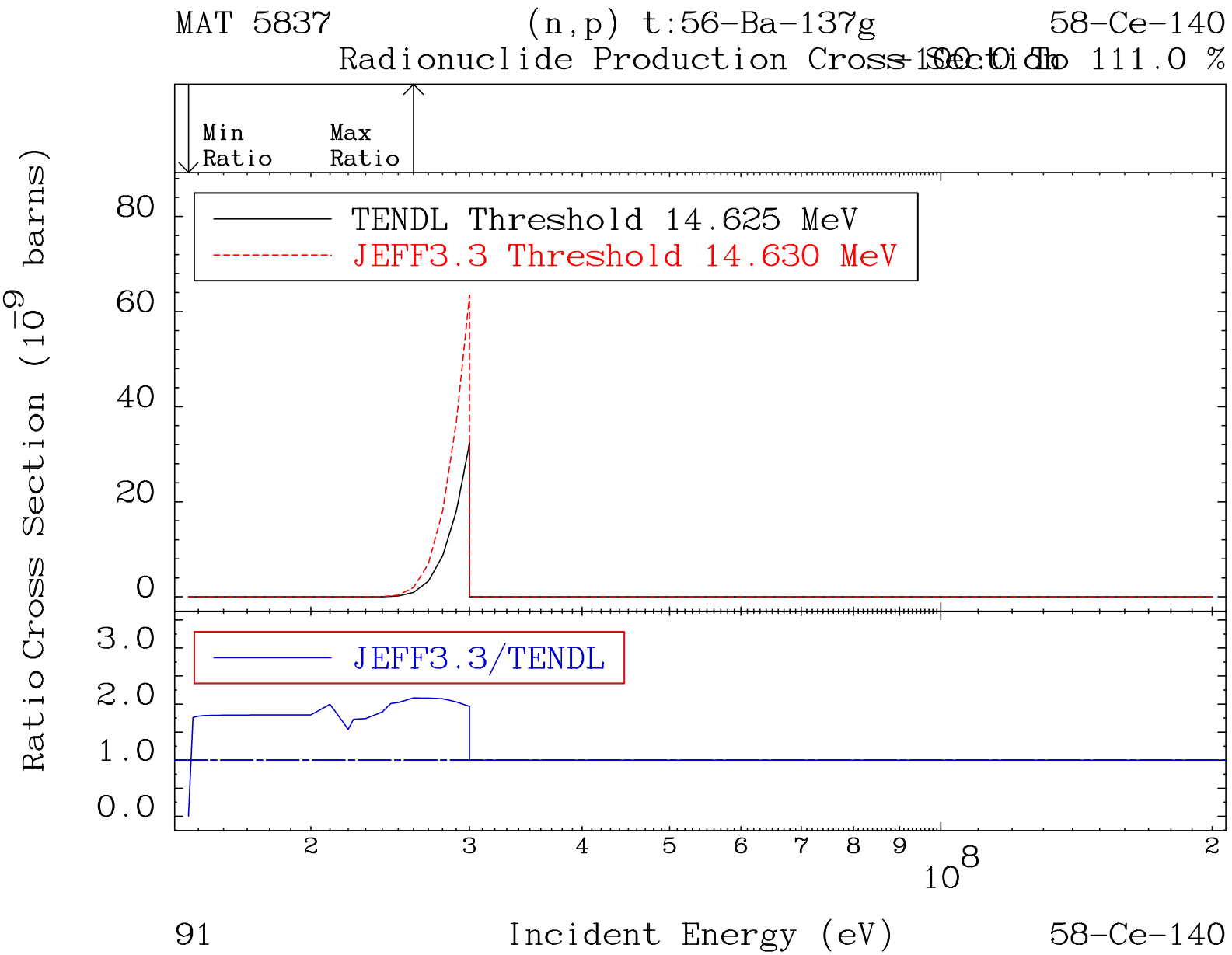

MAT 5837
(n,4n):58-Ce-137g
58-Ce-140
Radionuclide Production Cross Section To
Max
Ratio
TENDL Threshold 26.560 MeV
JEFF3.3 Threshold 26.565 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (MeV)
86
58-Ce-140

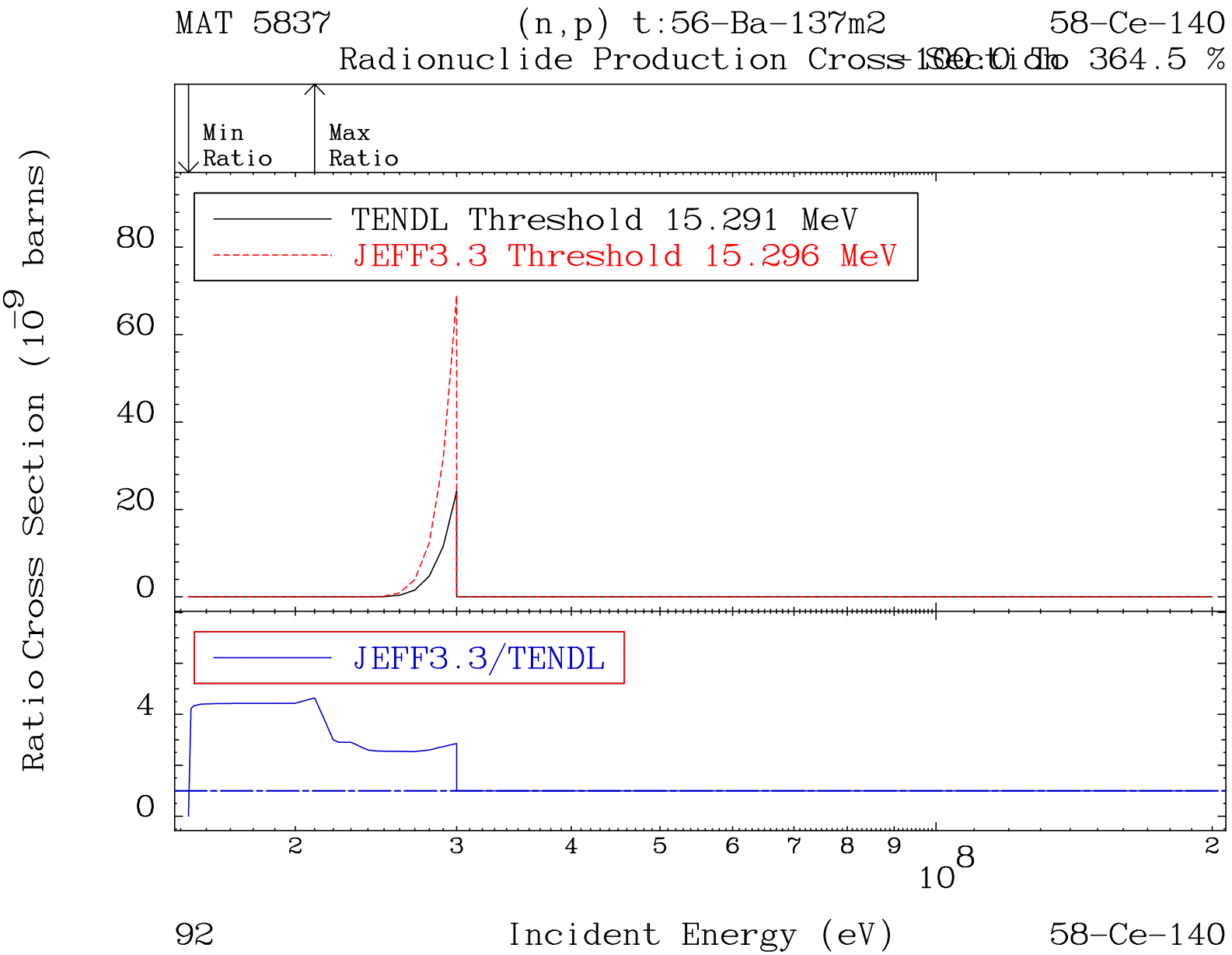

MAT 5837
(n,4n):58-Ce-137m2
58-Ce-140
Radionuclide Production Cross Section
Max
Ratio
TENDL Threshold 26.816 MeV
JEFF3.3 Threshold 26.821 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (MeV)
87
58-Ce-140

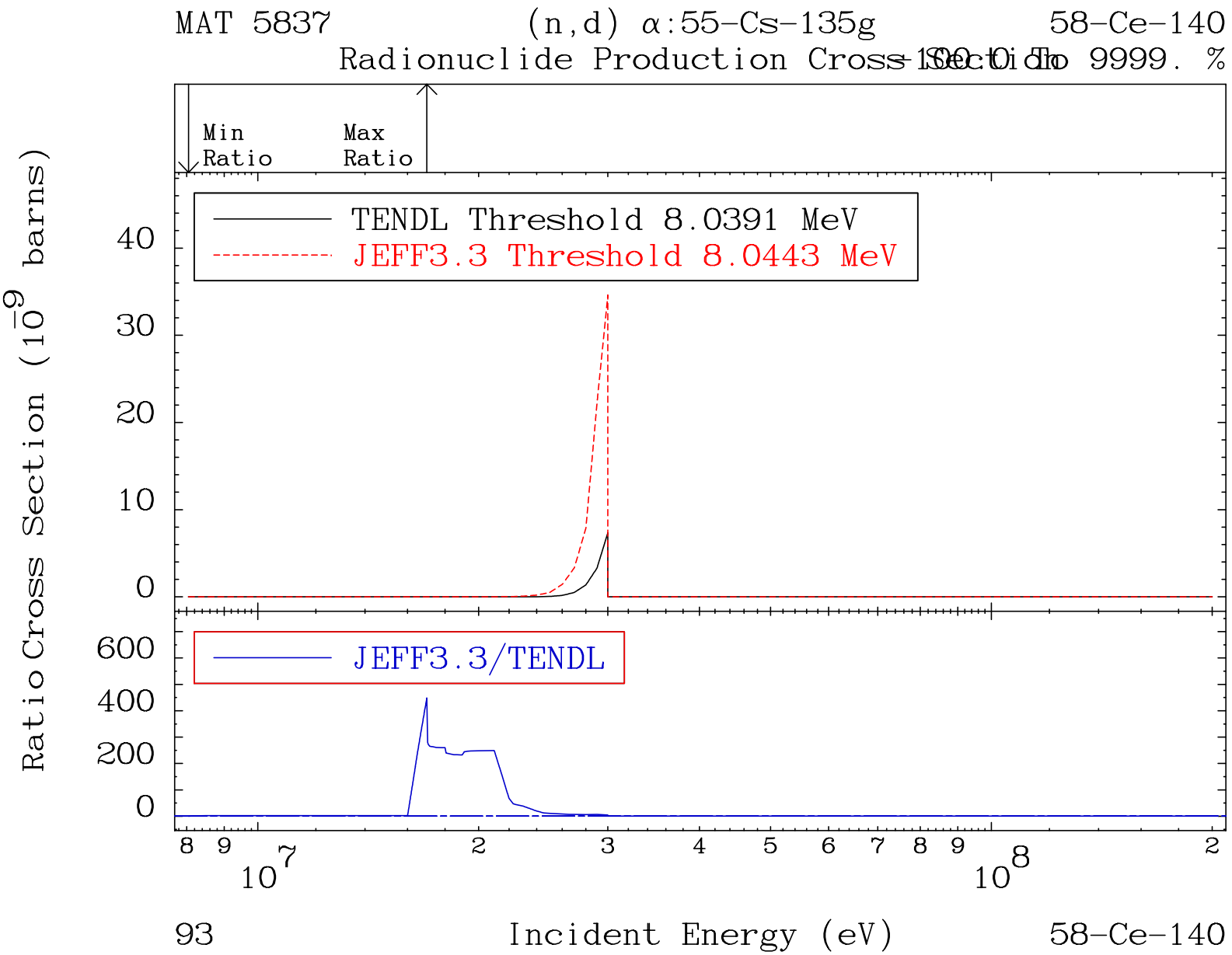

MAT 5837
(n,n') p α:55-Cs-135g
58-Ce-140
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 10.280 MeV
JEFF3.3 Threshold 10.285 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
3.0
2.0
1.0
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
88
Incident Energy (eV)
58-Ce-140

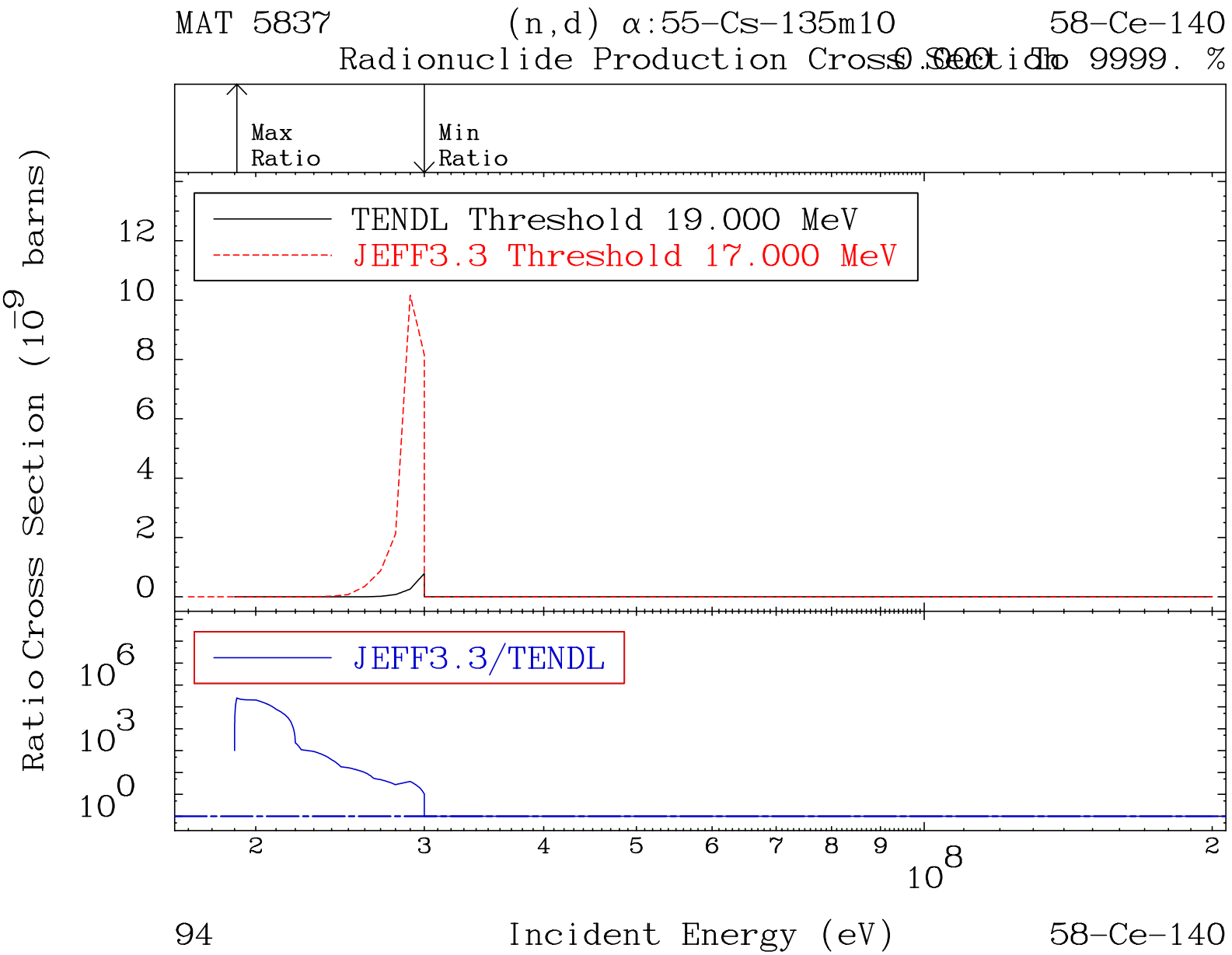

MAT 5837 (n,n') p α:55-Cs-135m10 58-Ce-140
Radionuclide Production Cross Section
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 20.000 MeV
JEFF3.3 Threshold 18.000 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
120
100
80
60
40
20
0
10^{6}
10^{3}
10^{0}
2
3
4
5
6
7
8
9
10^{8}
2
89
Incident Energy (eV)
58-Ce-140


MAT 5837
(n,p) α:55-Cs-136g
58-Ce-140
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 3.4023 MeV
JEFF3.3 Threshold 3.4072 MeV
JEFF3.3/TENDL
RatioCross Section (micro-barns)
Incident Energy (eV)
90
58-Ce-140


MAT 5837
(n,p) t:56-Ba-137g
58-Ce-140
Radionuclide Production Cross Section To 111.0 %
Min Ratio
Max Ratio
TENDL Threshold 14.625 MeV
JEFF3.3 Threshold 14.630 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
80
60
40
20
0
3.0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
58-Ce-140


MAT 5837
(n,p) t:56-Ba-137m2
58-Ce-140
Radionuclide Production Cross Section To 364.5 %
Min Ratio
Max Ratio
TENDL Threshold 15.291 MeV
JEFF3.3 Threshold 15.296 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^{-9} barns)
80
60
40
20
0
4
0
2
3
4
5
6
7
8
9
10^8
2
92
Incident Energy (eV)
58-Ce-140


MAT 5837
(n,d) α:55-Cs-135g
58-Ce-140
Radionuclide Production Cross Section To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 8.0391 MeV
JEFF3.3 Threshold 8.0443 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^-9 barns)
40
30
20
10
0
600
400
200
0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
93
Incident Energy (eV)
58-Ce-140


MAT 5837
(n,d) α:55-Cs-135m10
58-Ce-140
Radionuclide Production Cross Section
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 19.000 MeV
JEFF3.3 Threshold 17.000 MeV
JEFF3.3/TENDL
Ratio Cross Section (10^-9 barns)
0
2
4
6
8
10
12
10^6
10^3
10^0
2
3
4
5
6
7
8
9
10^8
2
94
Incident Energy (eV)
58-Ce-140