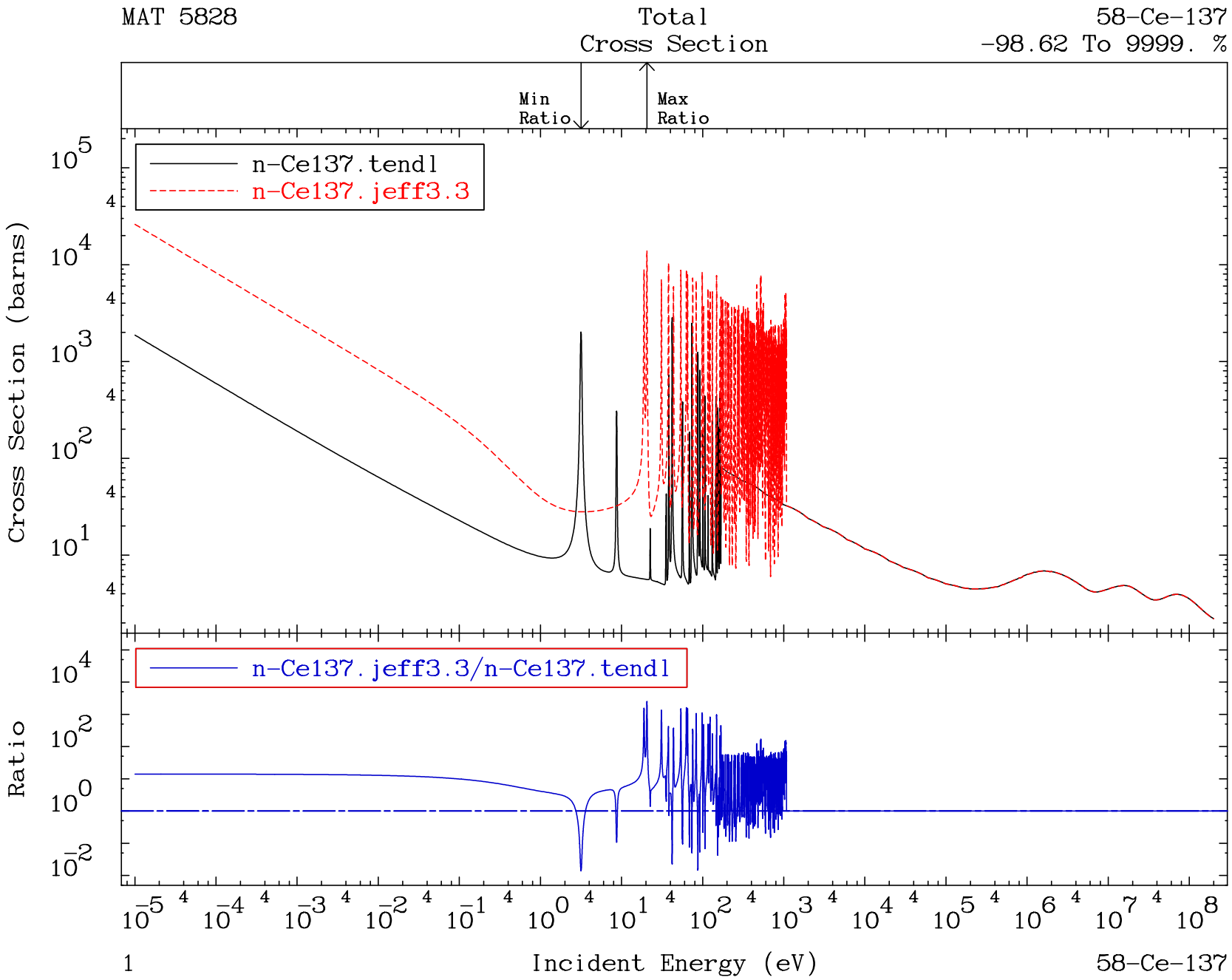
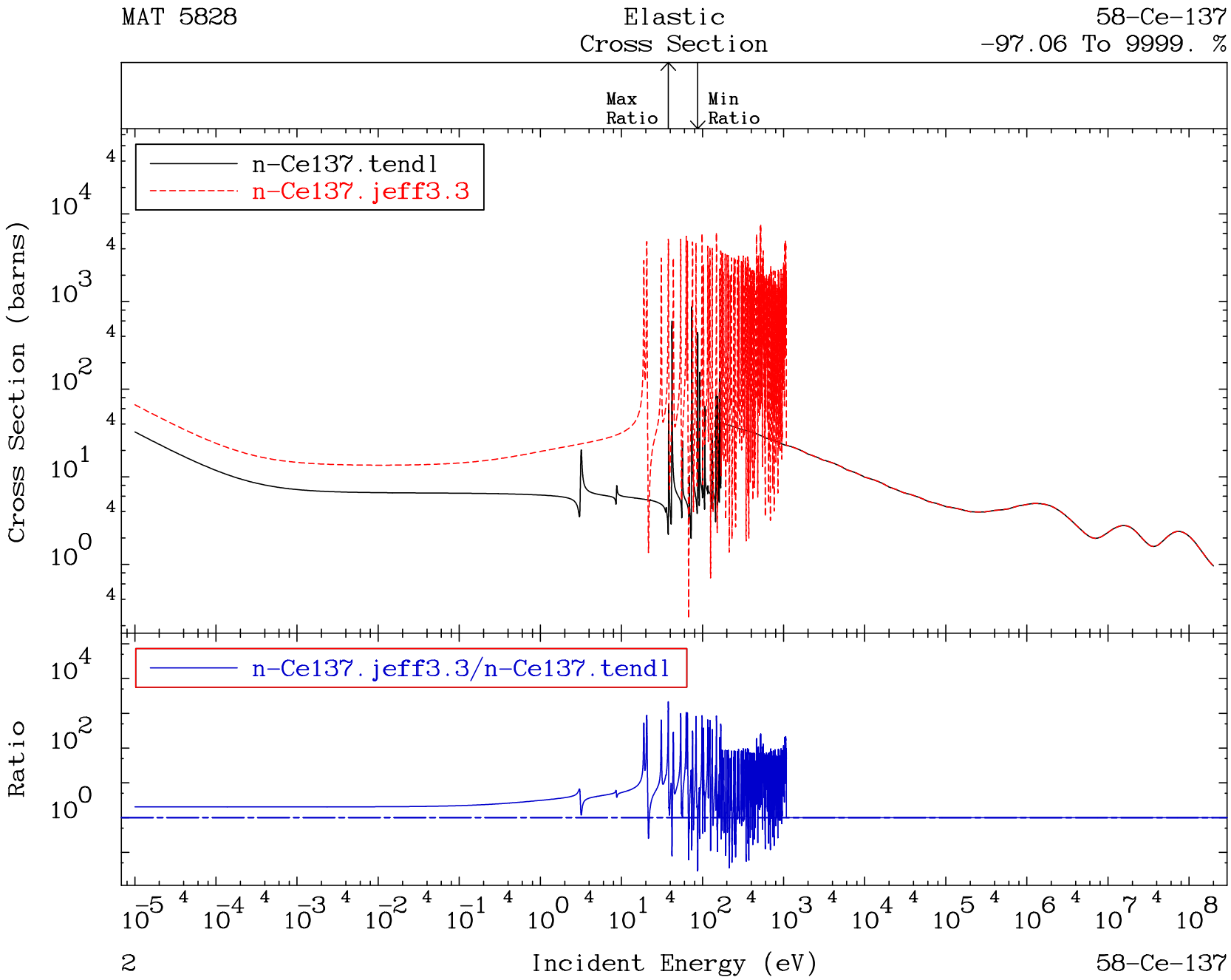
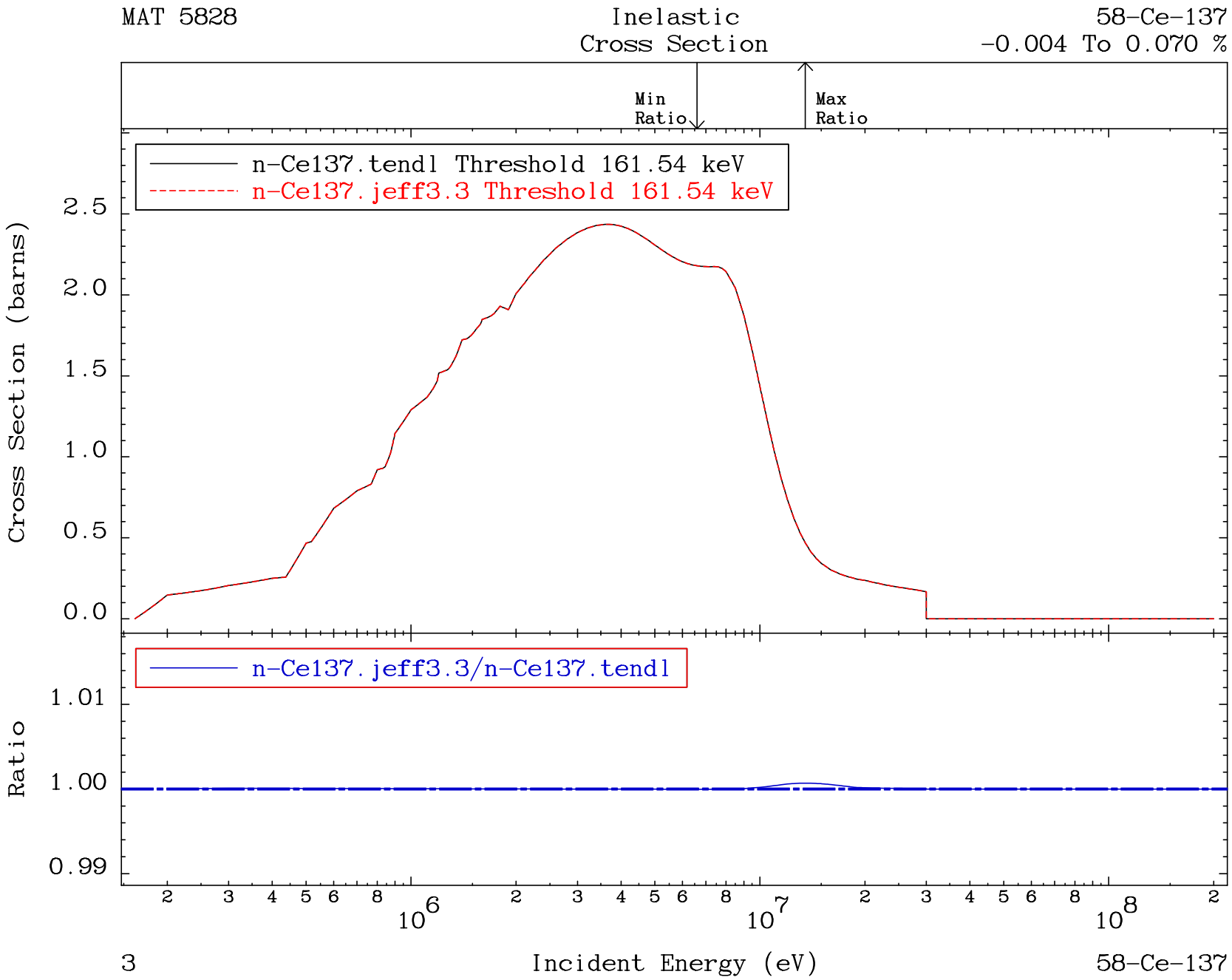
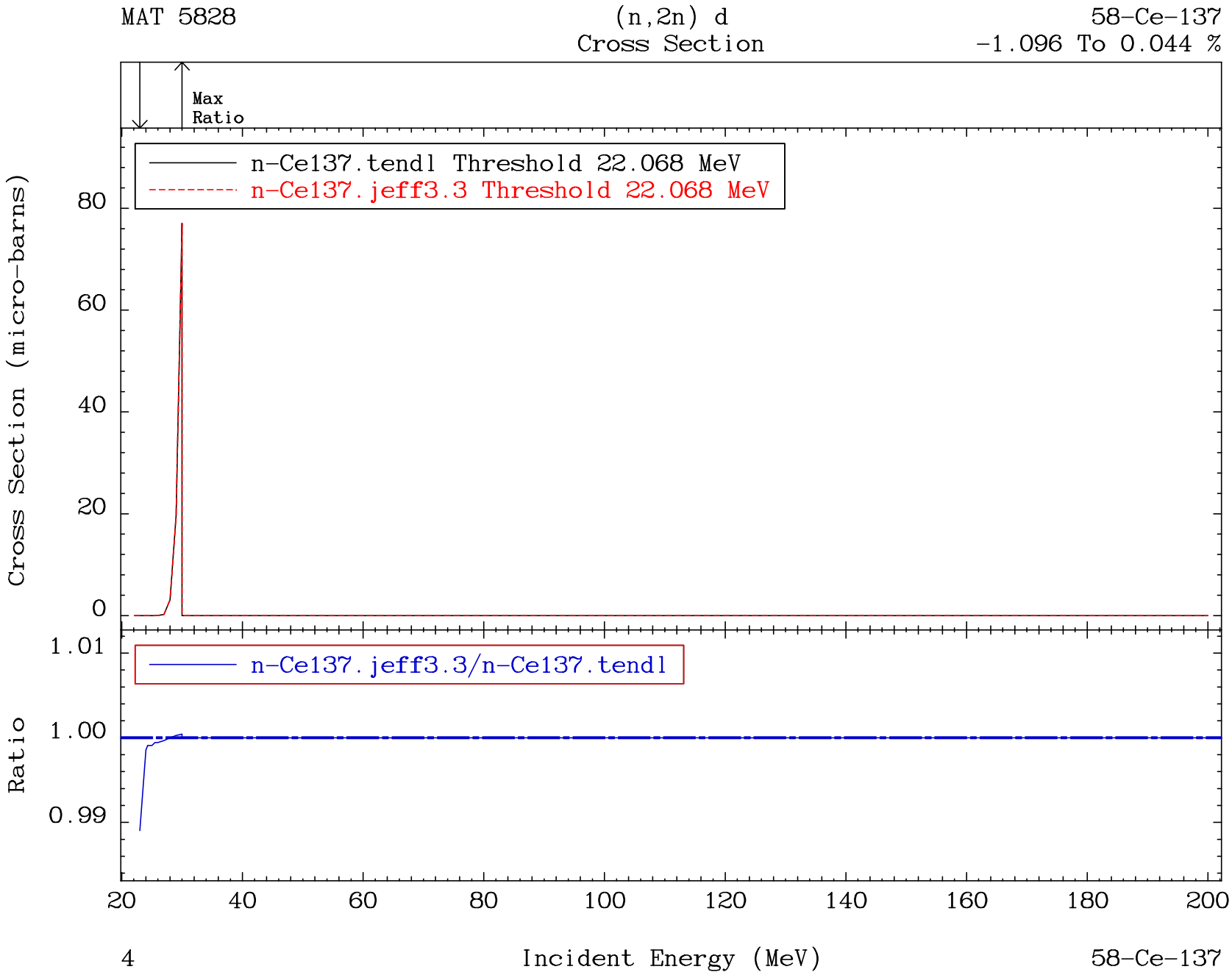
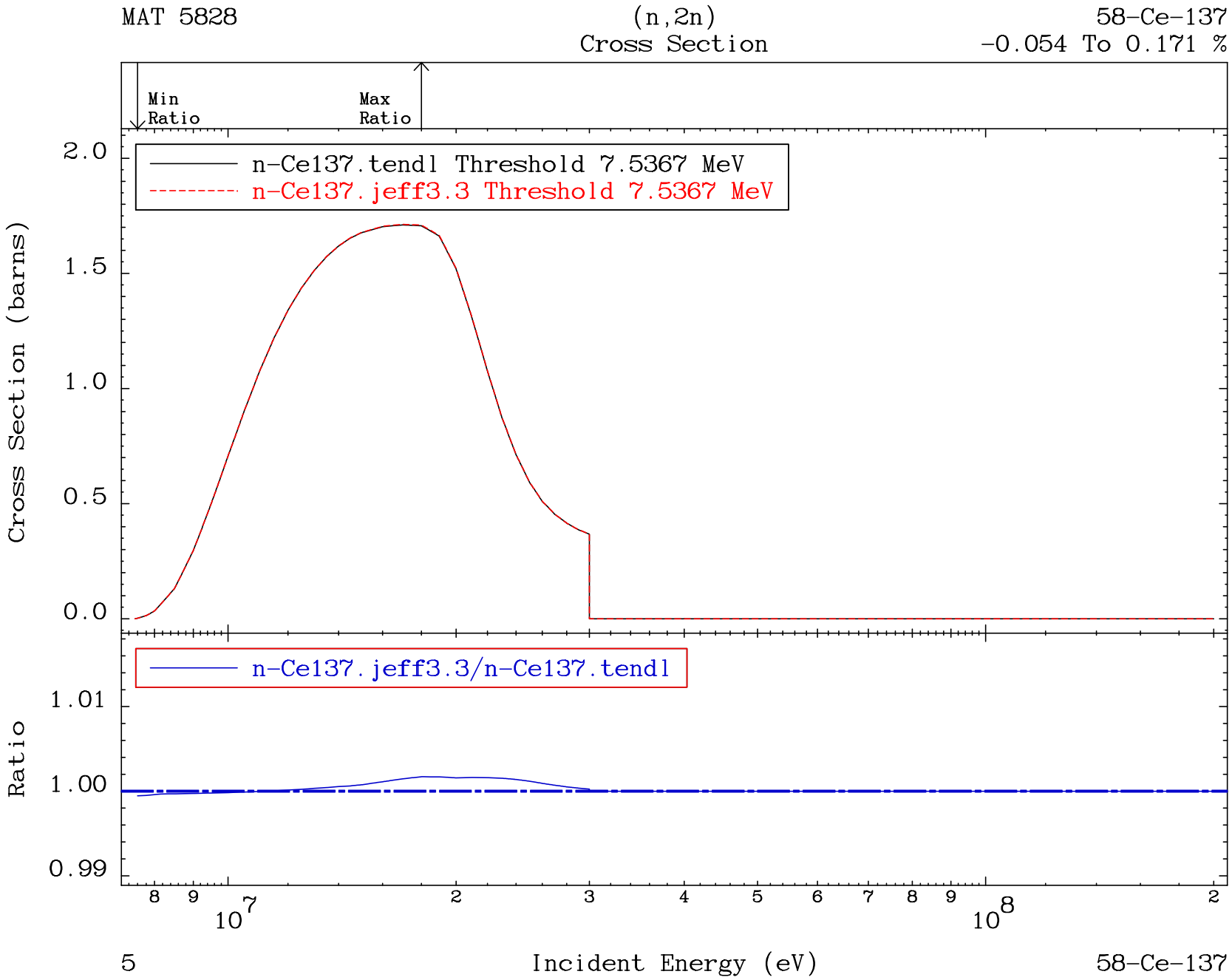
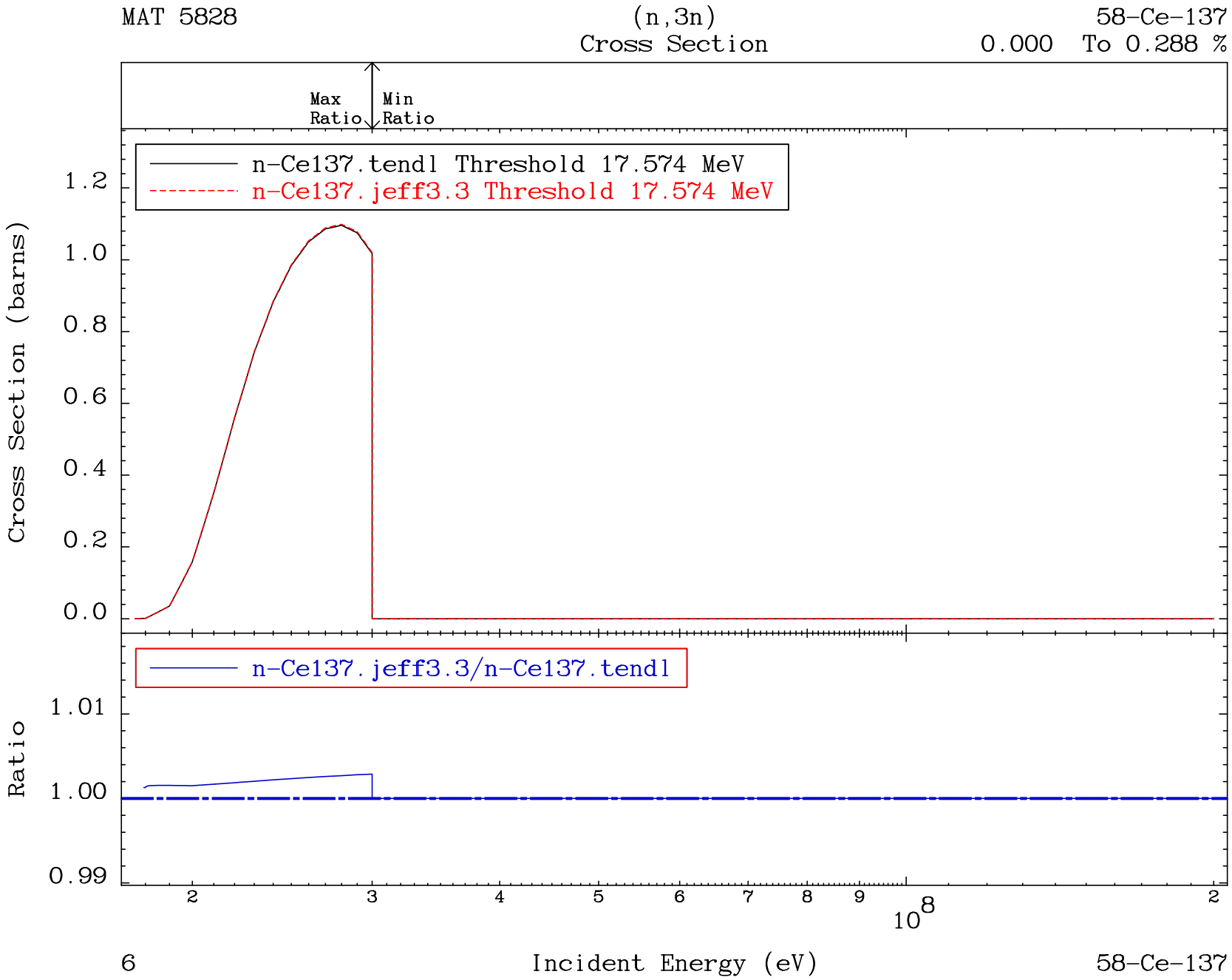

MAT 5828
Total
Cross Section
58-Ce-137
-98.62 To 9999. %
Min
Ratio
Max
Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
1
58-Ce-137

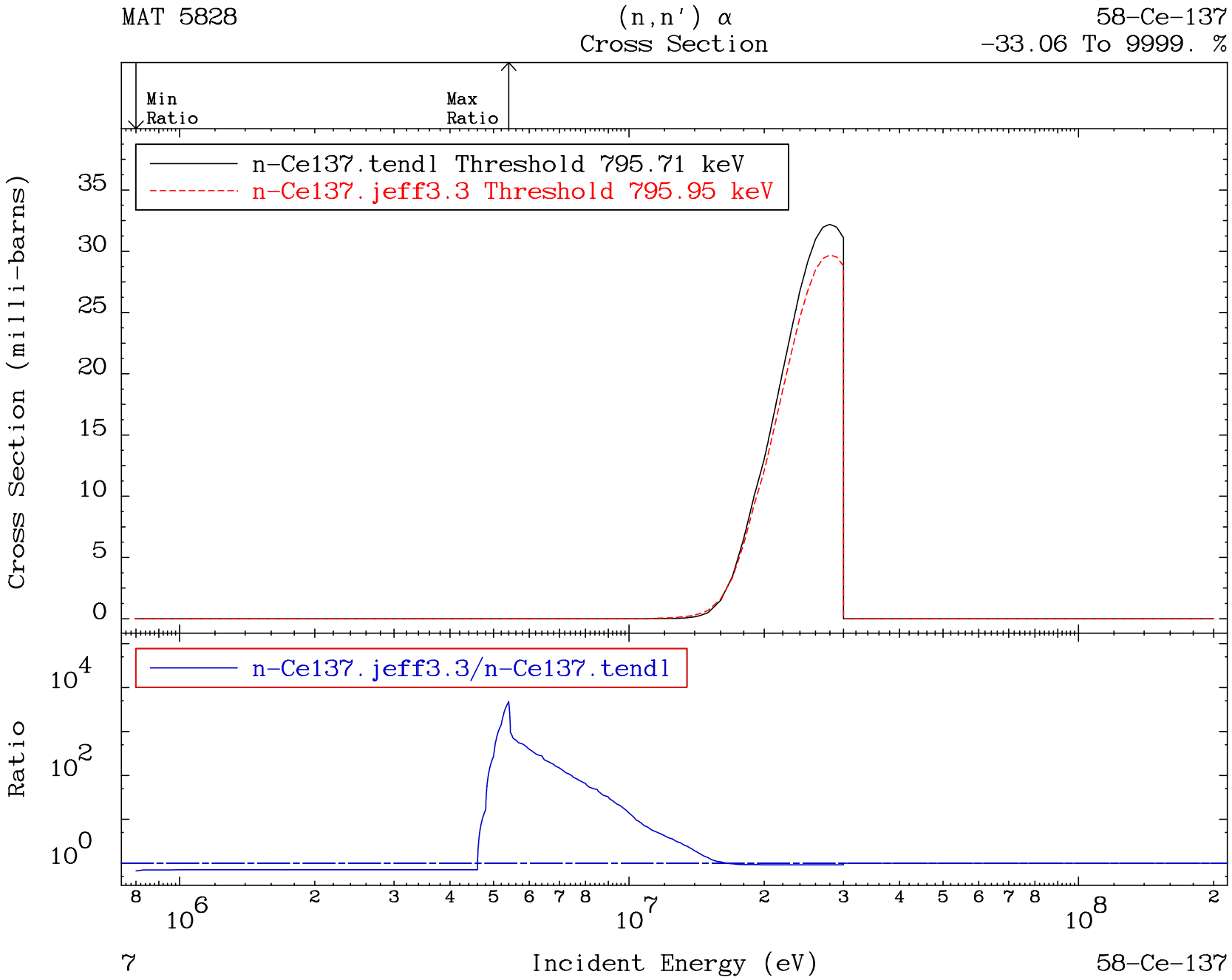

MAT 5828
Elastic
Cross Section
58-Ce-137
-97.06 To 9999. %
Max
Ratio
Min
Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
2
58-Ce-137

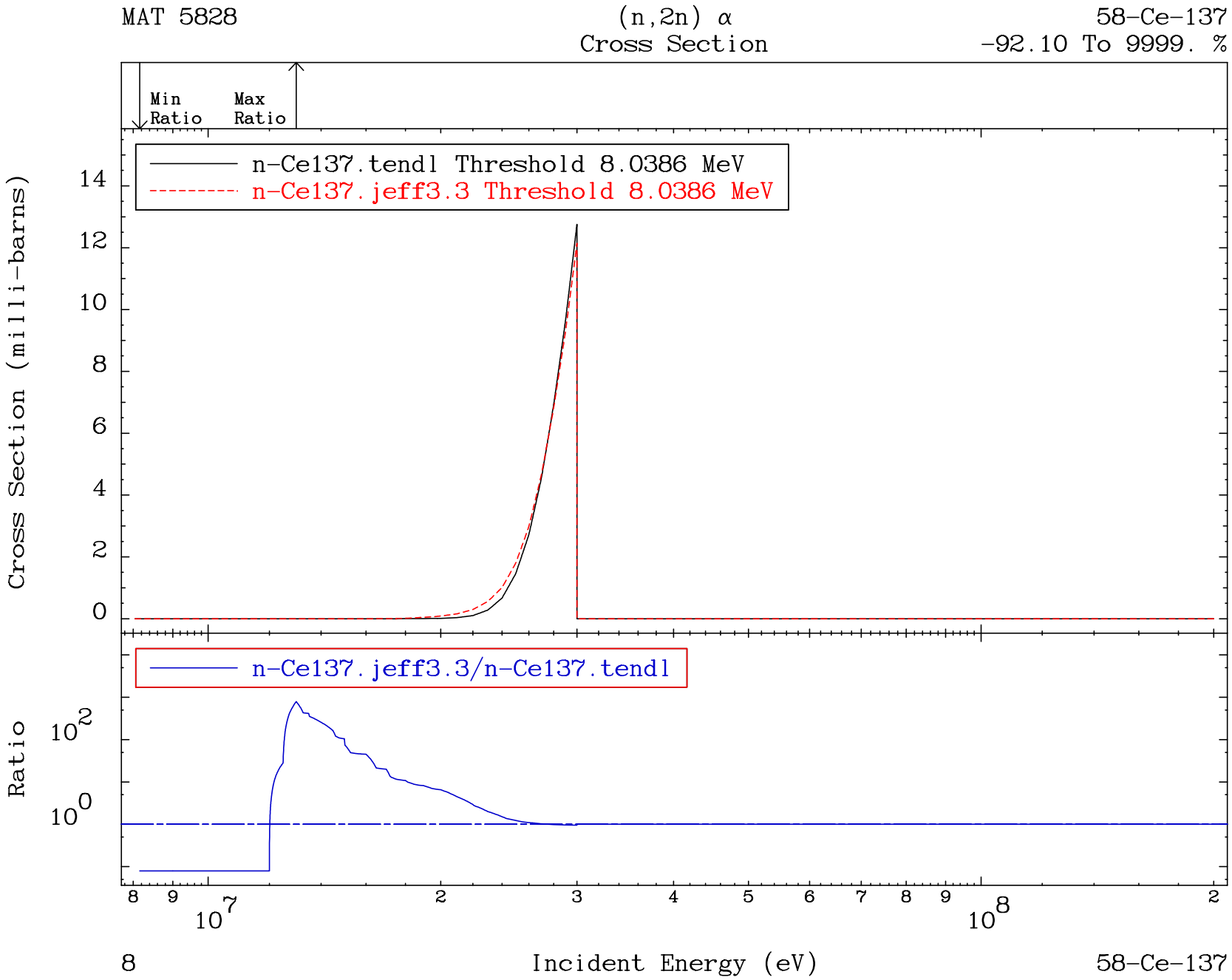

MAT 5828
Inelastic
Cross Section
58-Ce-137
-0.004 To 0.070 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 161.54 keV
n-Ce137.jeff3.3 Threshold 161.54 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
58-Ce-137

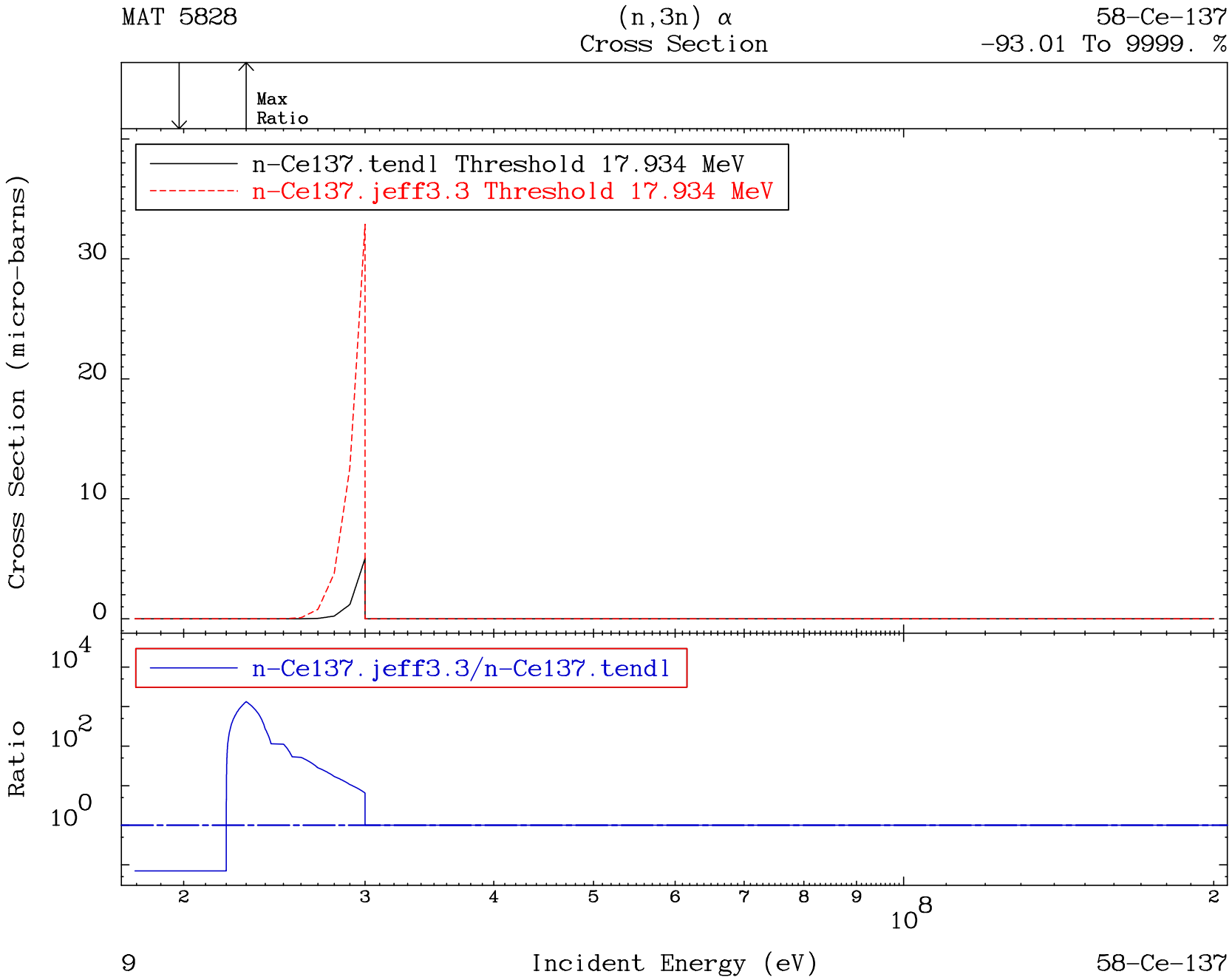

MAT 5828
(n,2n) d
Cross Section
58-Ce-137
-1.096 To 0.044 %
Max
Ratio
n-Ce137.tendl Threshold 22.068 MeV
n-Ce137.jeff3.3 Threshold 22.068 MeV
Cross Section (micro-barns)
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
58-Ce-137

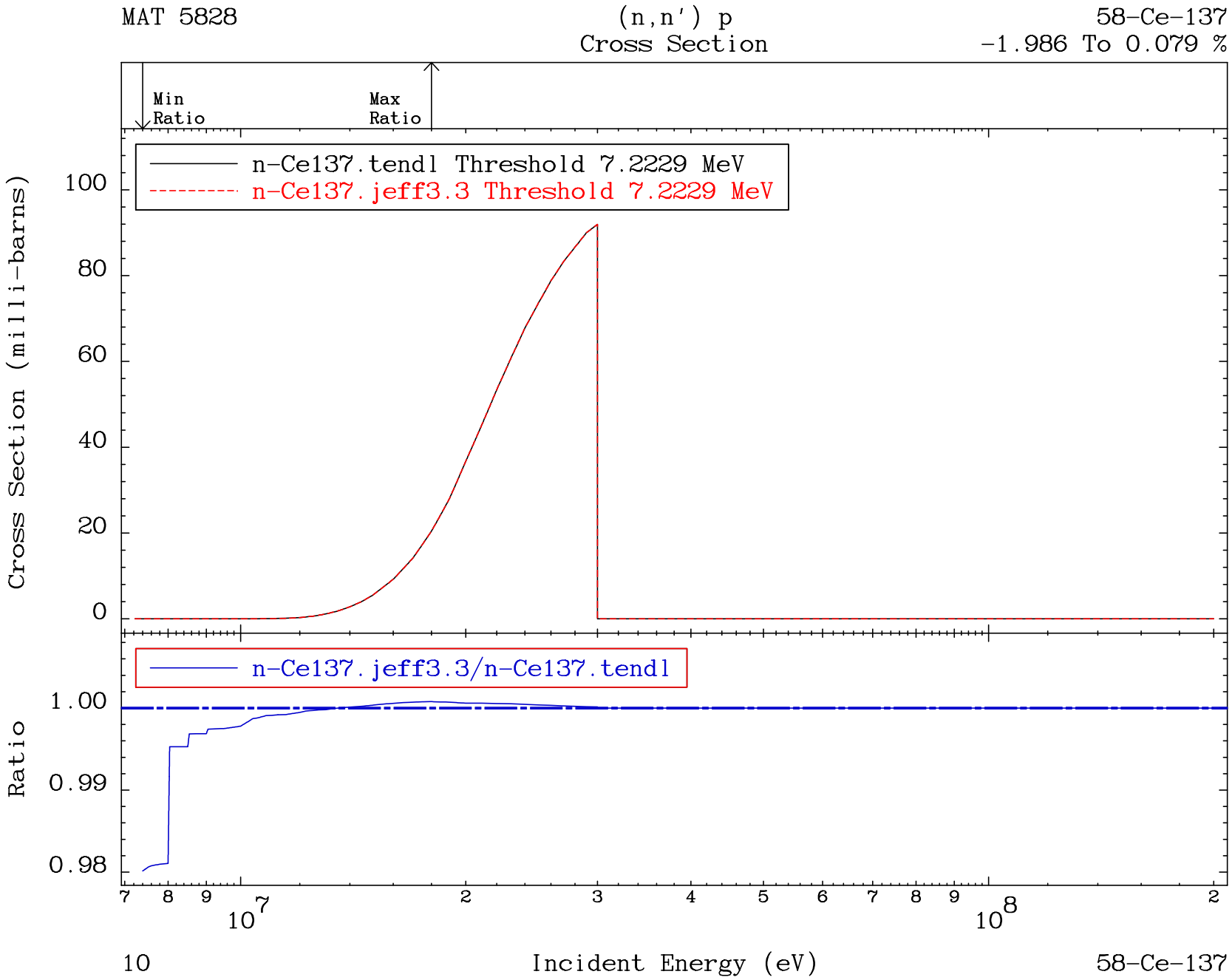

MAT 5828
(n,2n)
Cross Section
58-Ce-137
-0.054 To 0.171 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 7.5367 MeV
n-Ce137.jeff3.3 Threshold 7.5367 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
58-Ce-137

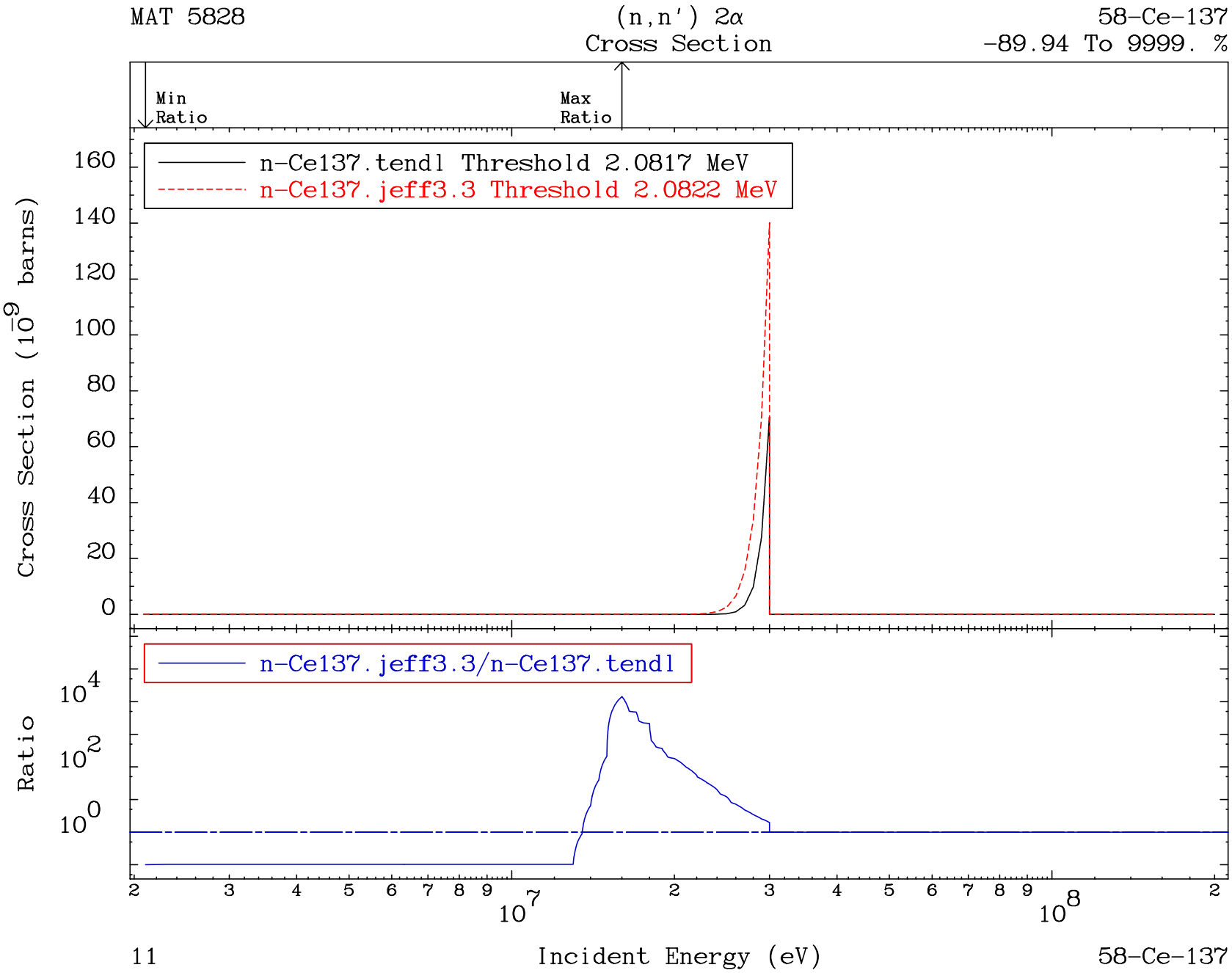

MAT 5828
(n,3n)
Cross Section
58-Ce-137
0.000 To 0.288 %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 17.574 MeV
n-Ce137.jeff3.3 Threshold 17.574 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
58-Ce-137

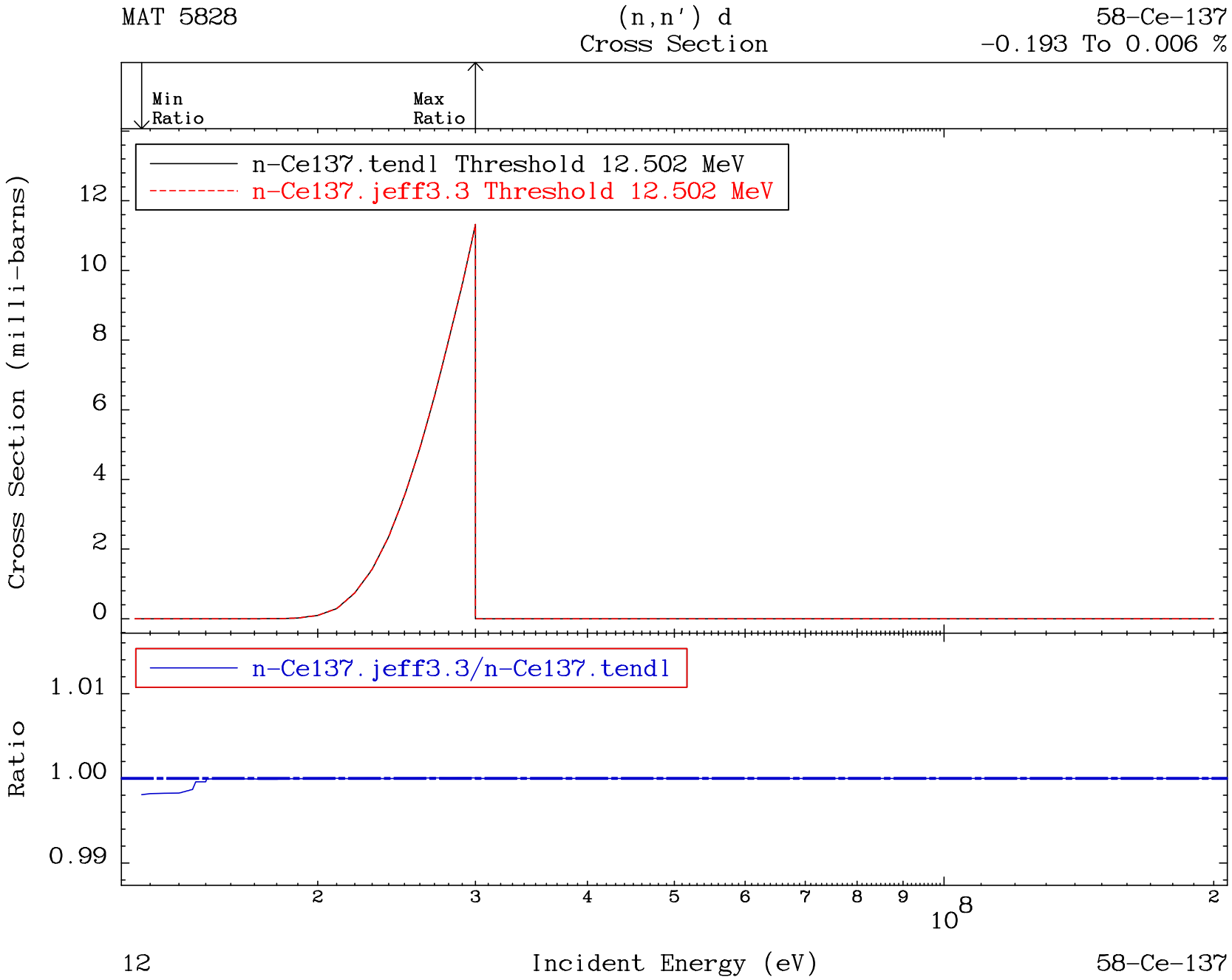

MAT 5828
(n,n') α
Cross Section
58-Ce-137
-33.06 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 795.71 keV
n-Ce137.jeff3.3 Threshold 795.95 keV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^4
10^2
10^0
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
7
Incident Energy (eV)
58-Ce-137

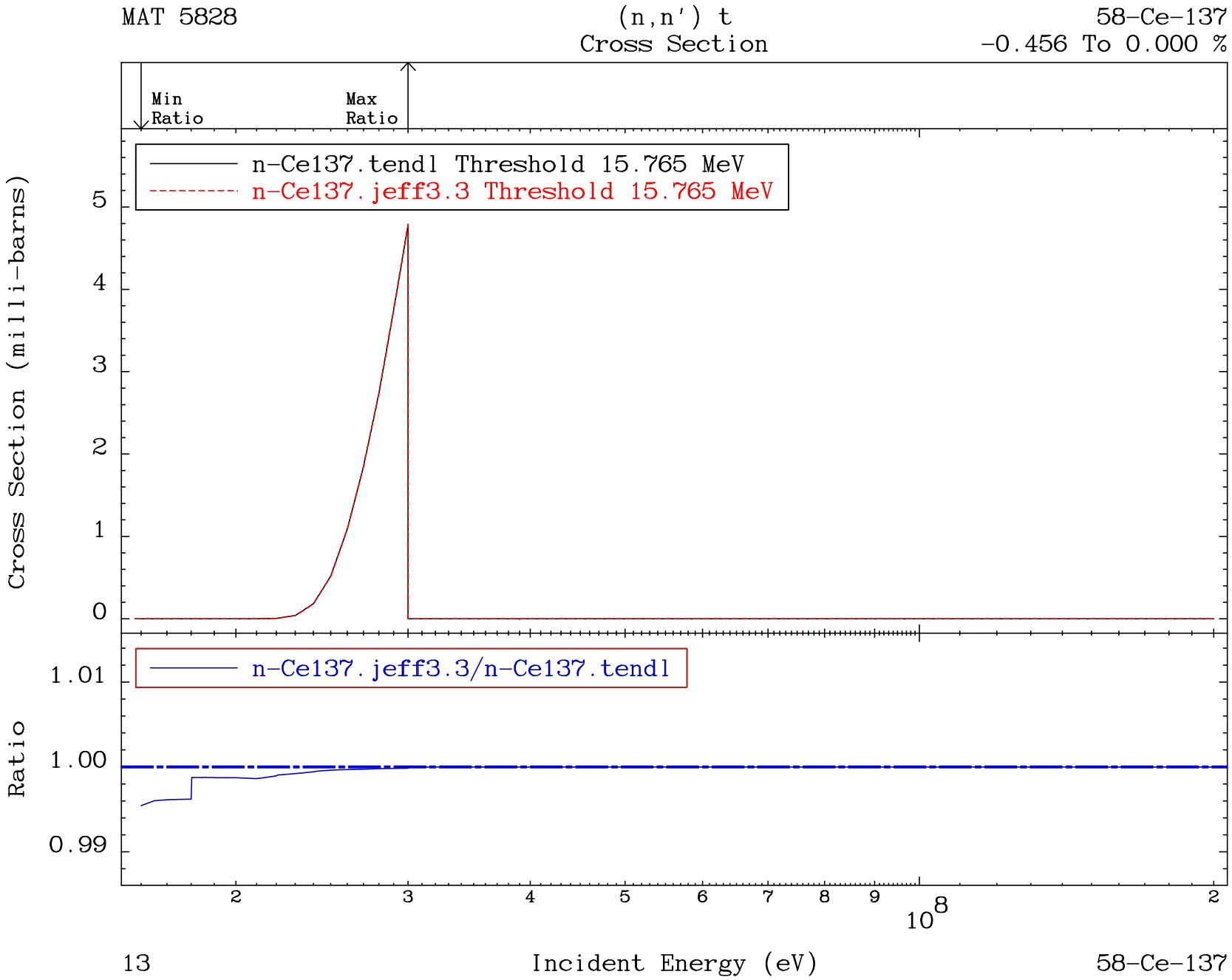

MAT 5828
(n,2n) α
Cross Section
58-Ce-137
-92.10 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 8.0386 MeV
n-Ce137.jeff3.3 Threshold 8.0386 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^2
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
58-Ce-137

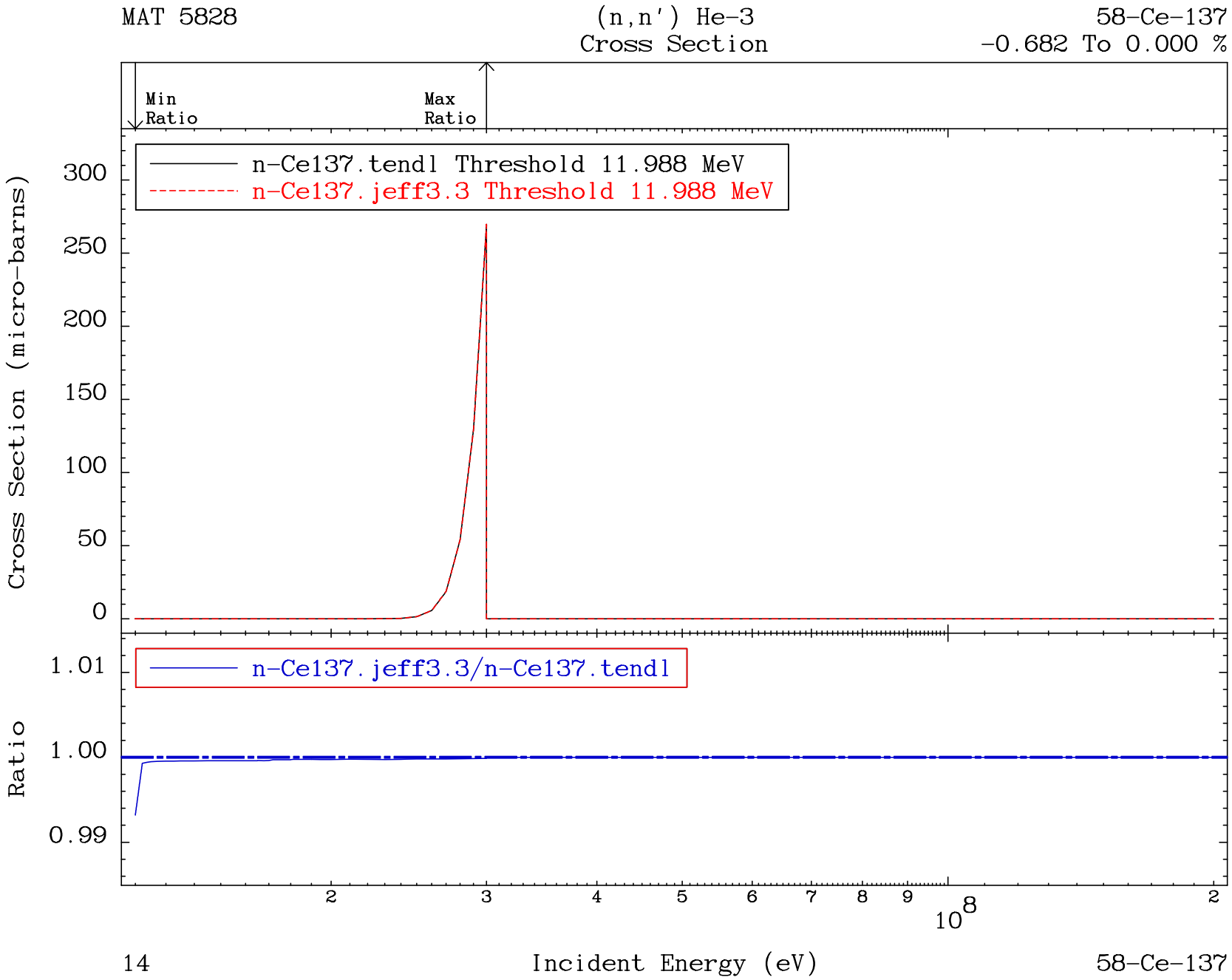

MAT 5828
(n,3n) α
Cross Section
58-Ce-137
-93.01 To 9999. %
Max
Ratio
n-Ce137.tendl Threshold 17.934 MeV
n-Ce137.jeff3.3 Threshold 17.934 MeV
Cross Section (micro-barns)
30
20
10
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
58-Ce-137

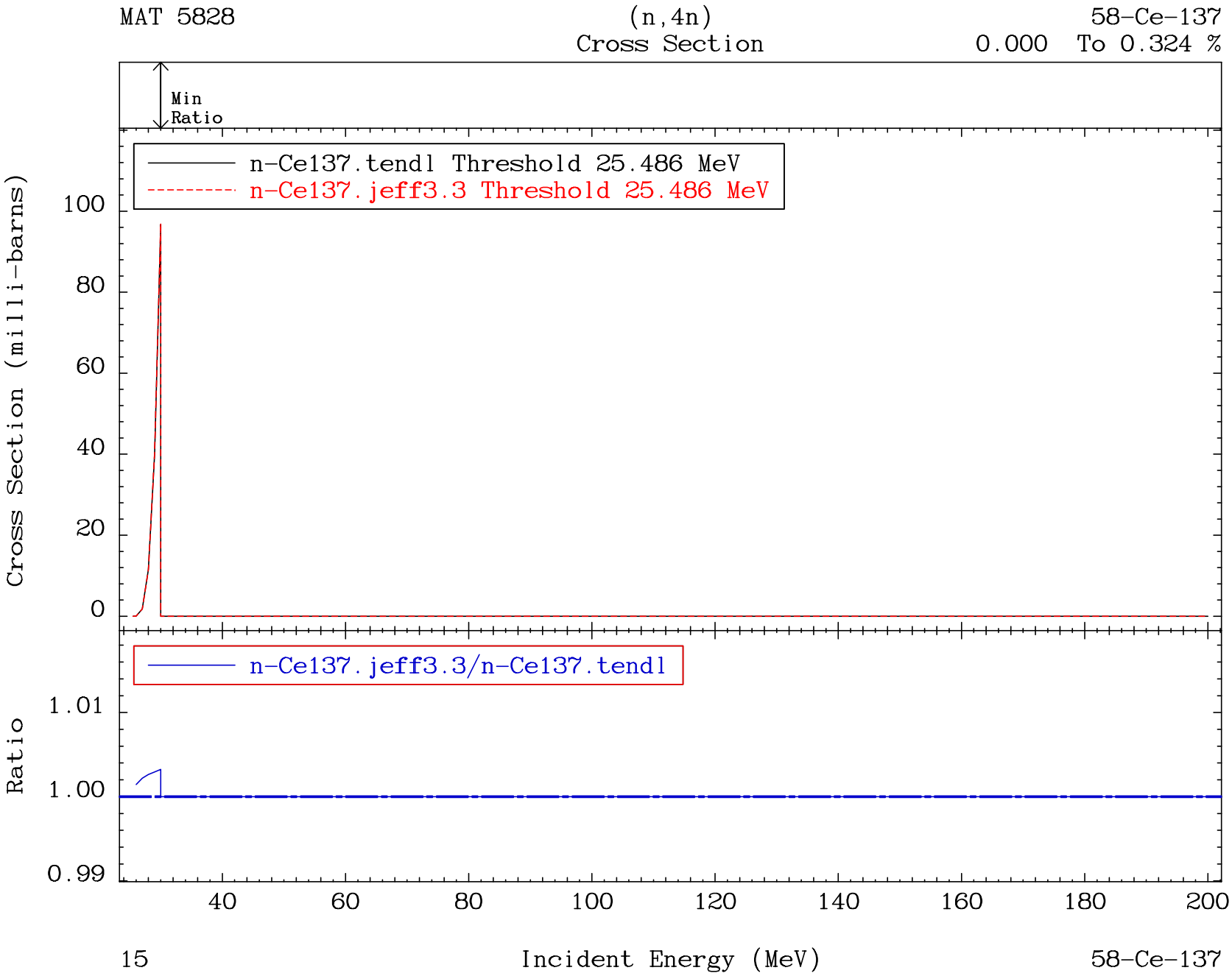

MAT 5828
(n,n') p
Cross Section
58-Ce-137
-1.986 To 0.079 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 7.2229 MeV
n-Ce137.jeff3.3 Threshold 7.2229 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.00
0.99
0.98
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
58-Ce-137

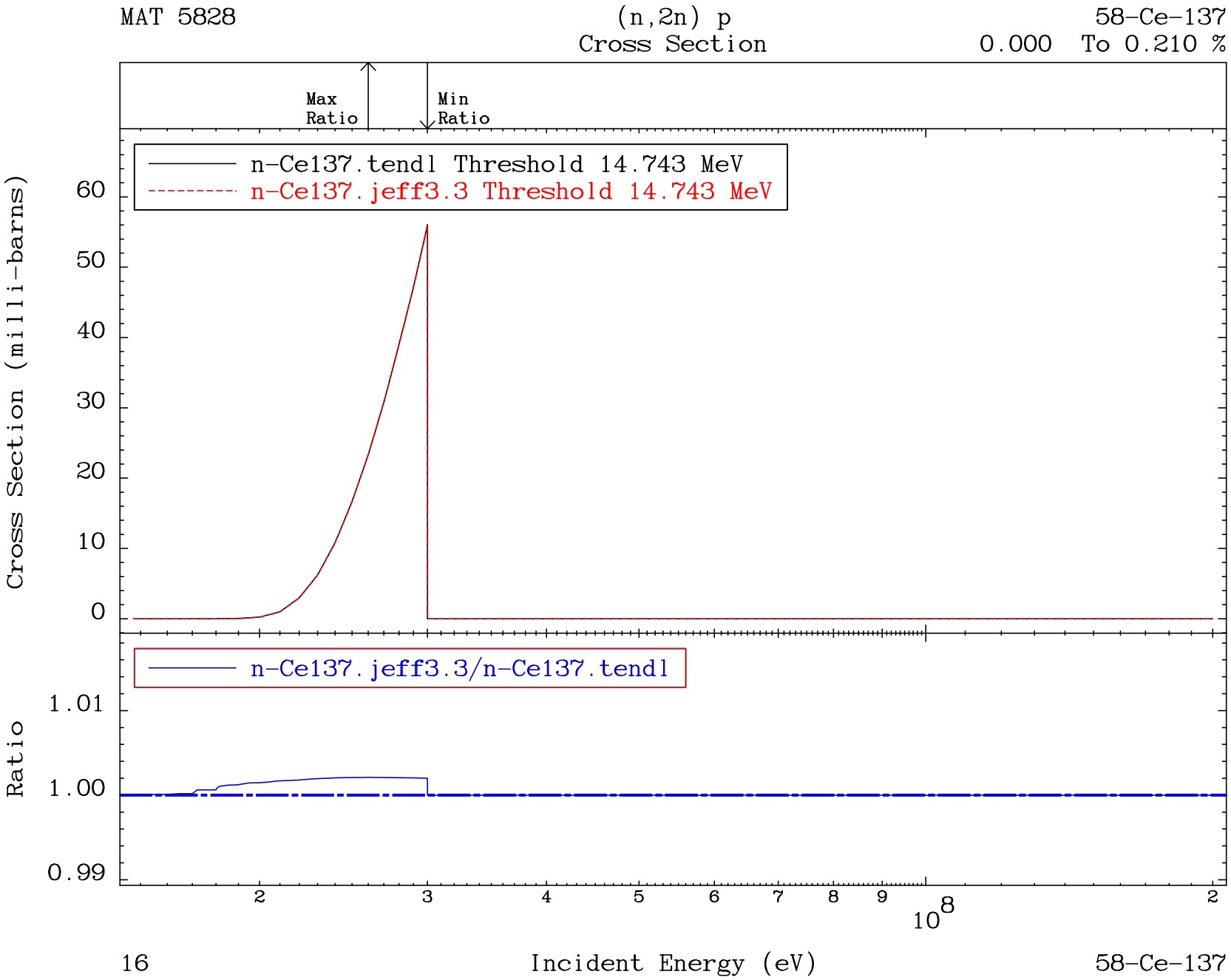

MAT 5828
(n,n') 2α
Cross Section
58-Ce-137
-89.94 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 2.0817 MeV
n-Ce137.jeff3.3 Threshold 2.0822 MeV
Cross Section ($10^{-9}$ barns)
160
140
120
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
$10^4$
$10^2$
$10^0$
2 3 4 5 6 7 8 9 $10^7$ 2 3 4 5 6 7 8 9 $10^8$ 2
11
Incident Energy (eV)
58-Ce-137

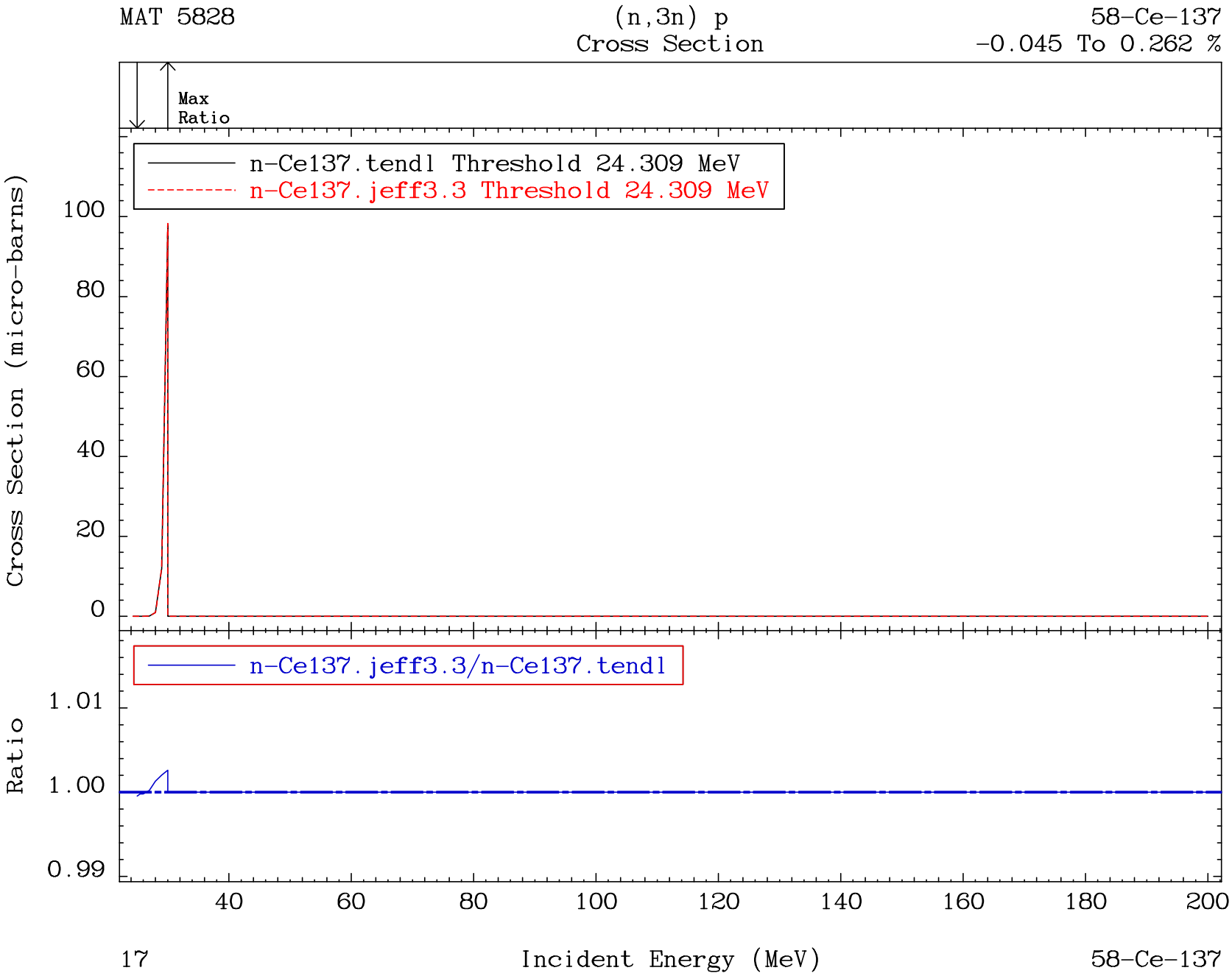

MAT 5828
(n,n') d
Cross Section
58-Ce-137
-0.193 To 0.006 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 12.502 MeV
n-Ce137.jeff3.3 Threshold 12.502 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
58-Ce-137

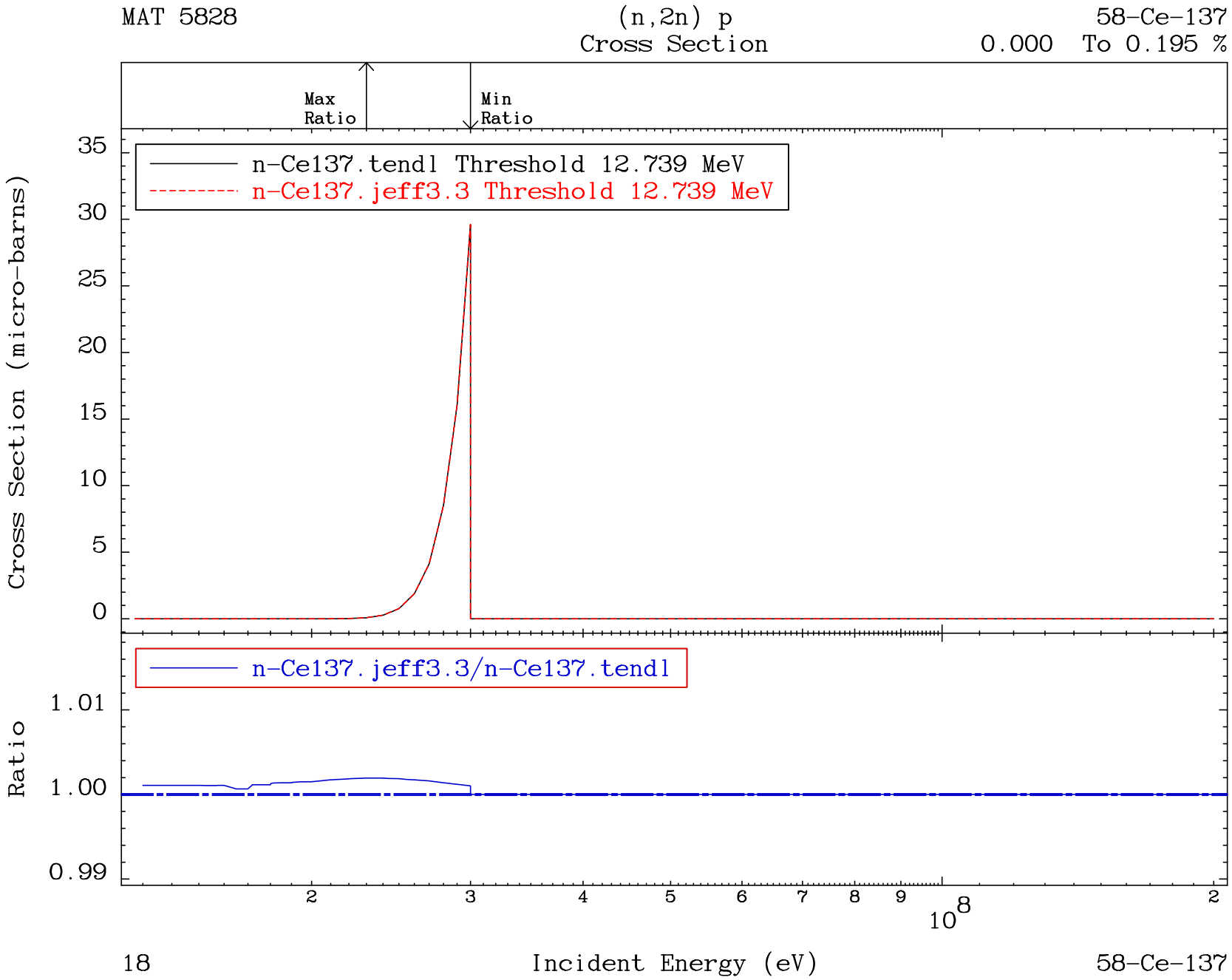

MAT 5828
(n,n') t
Cross Section
58-Ce-137
-0.456 To 0.000 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 15.765 MeV
n-Ce137.jeff3.3 Threshold 15.765 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
58-Ce-137

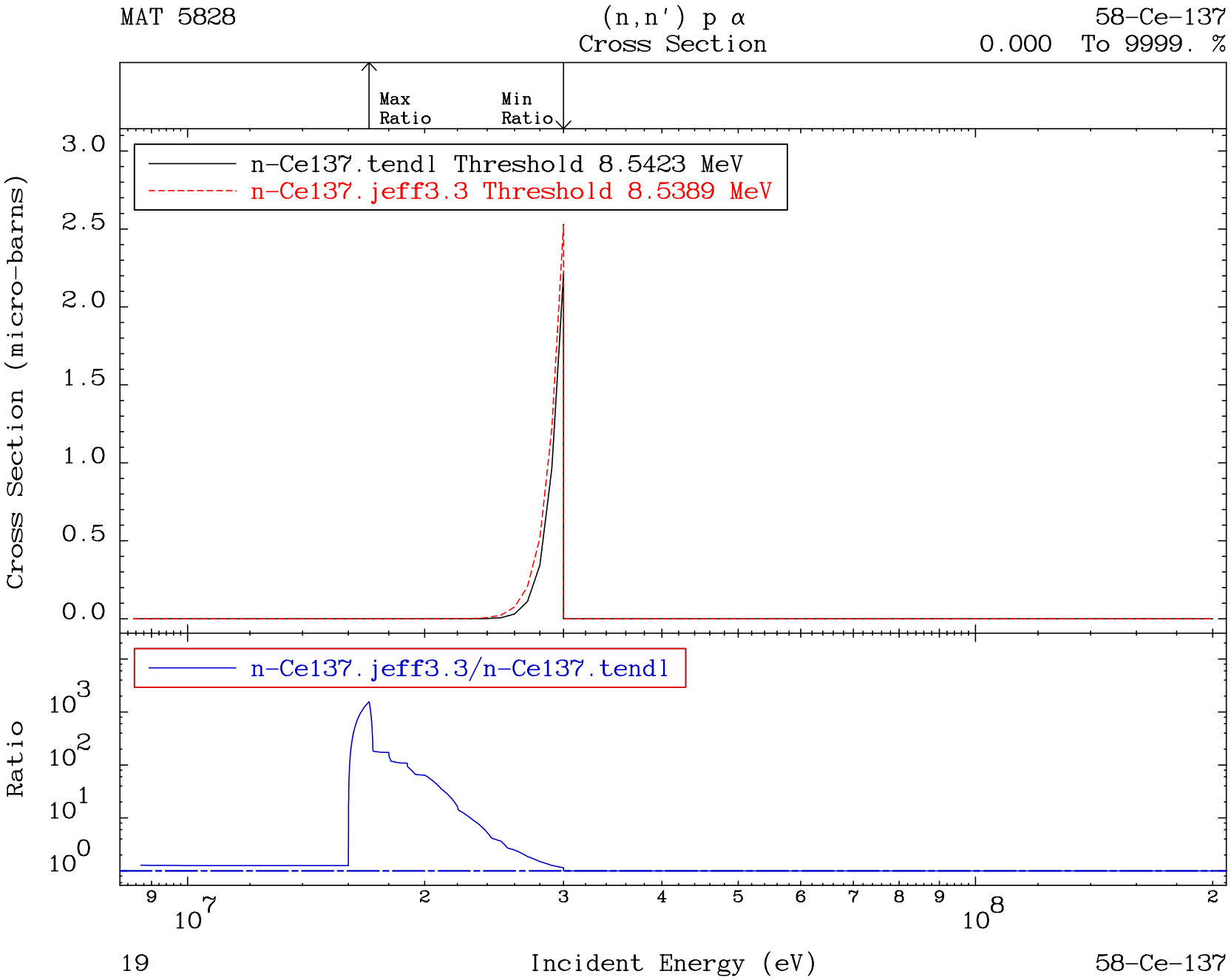

MAT 5828
(n,n') He-3
Cross Section
58-Ce-137
-0.682 To 0.000 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 11.988 MeV
n-Ce137.jeff3.3 Threshold 11.988 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
58-Ce-137

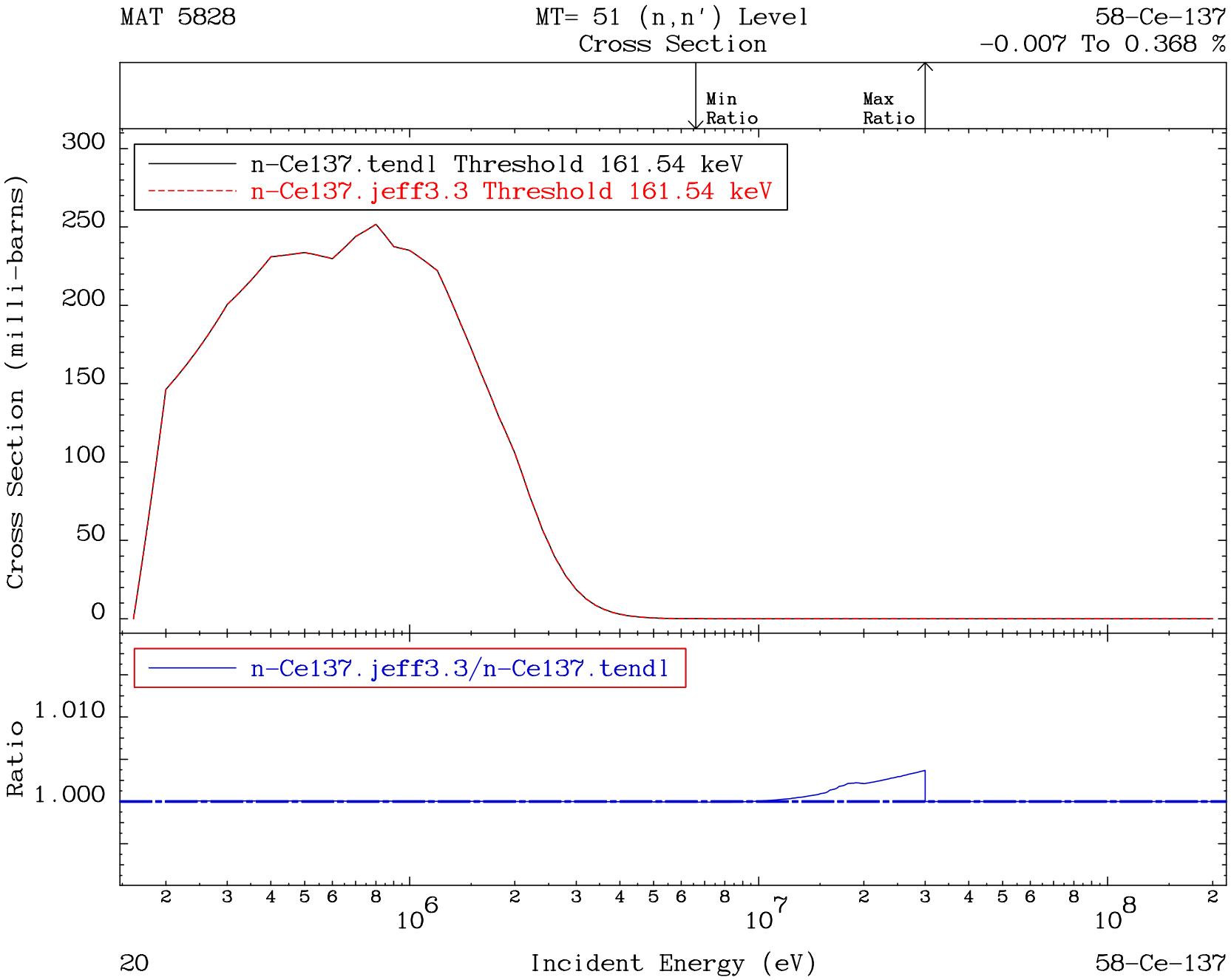

MAT 5828
(n,4n)
Cross Section
58-Ce-137
0.000 To 0.324 %
Min
Ratio
n-Ce137.tendl Threshold 25.486 MeV
n-Ce137.jeff3.3 Threshold 25.486 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
58-Ce-137

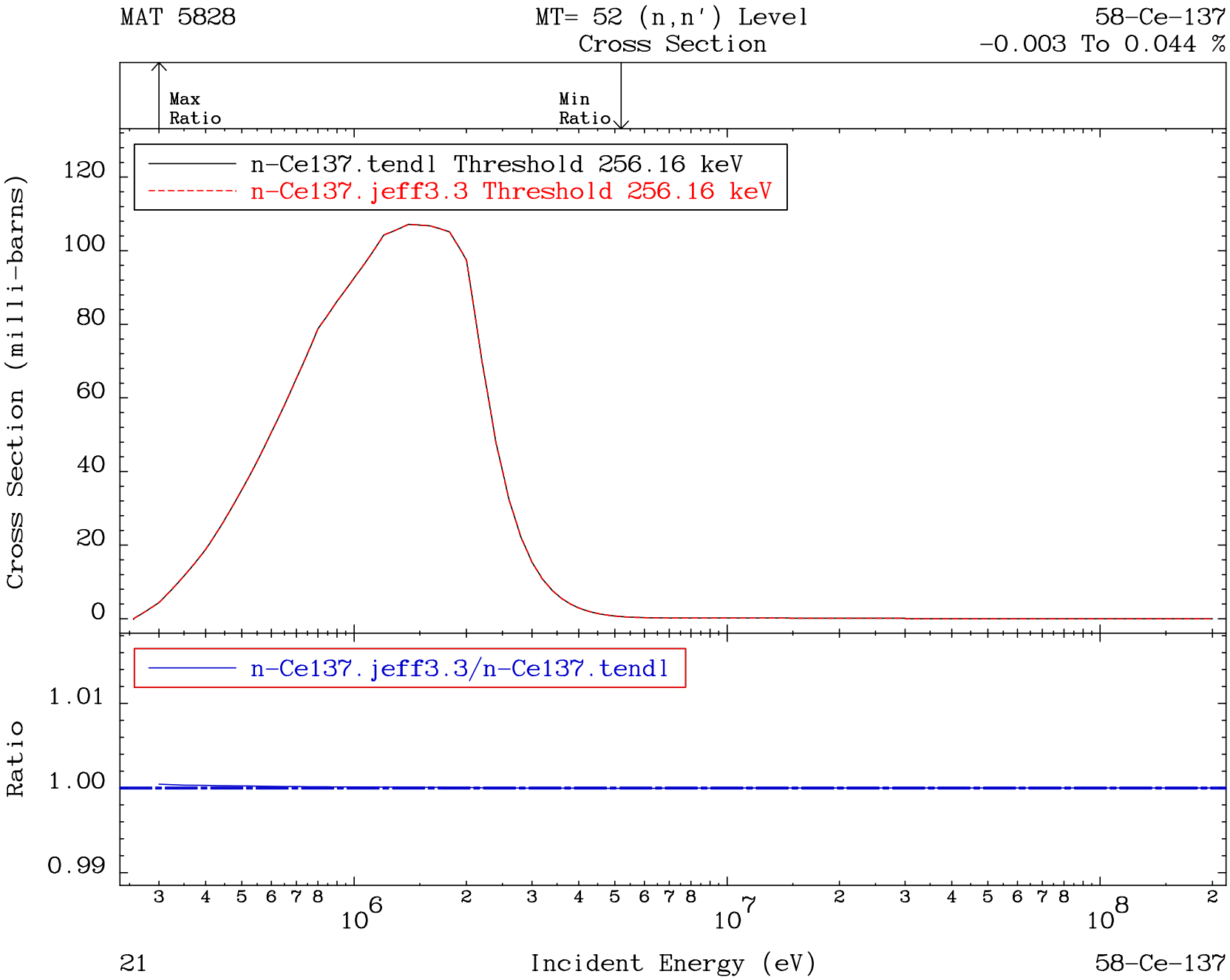

MAT 5828
(n,2n) p
Cross Section
58-Ce-137
0.000 To 0.210 %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 14.743 MeV
n-Ce137.jeff3.3 Threshold 14.743 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
58-Ce-137

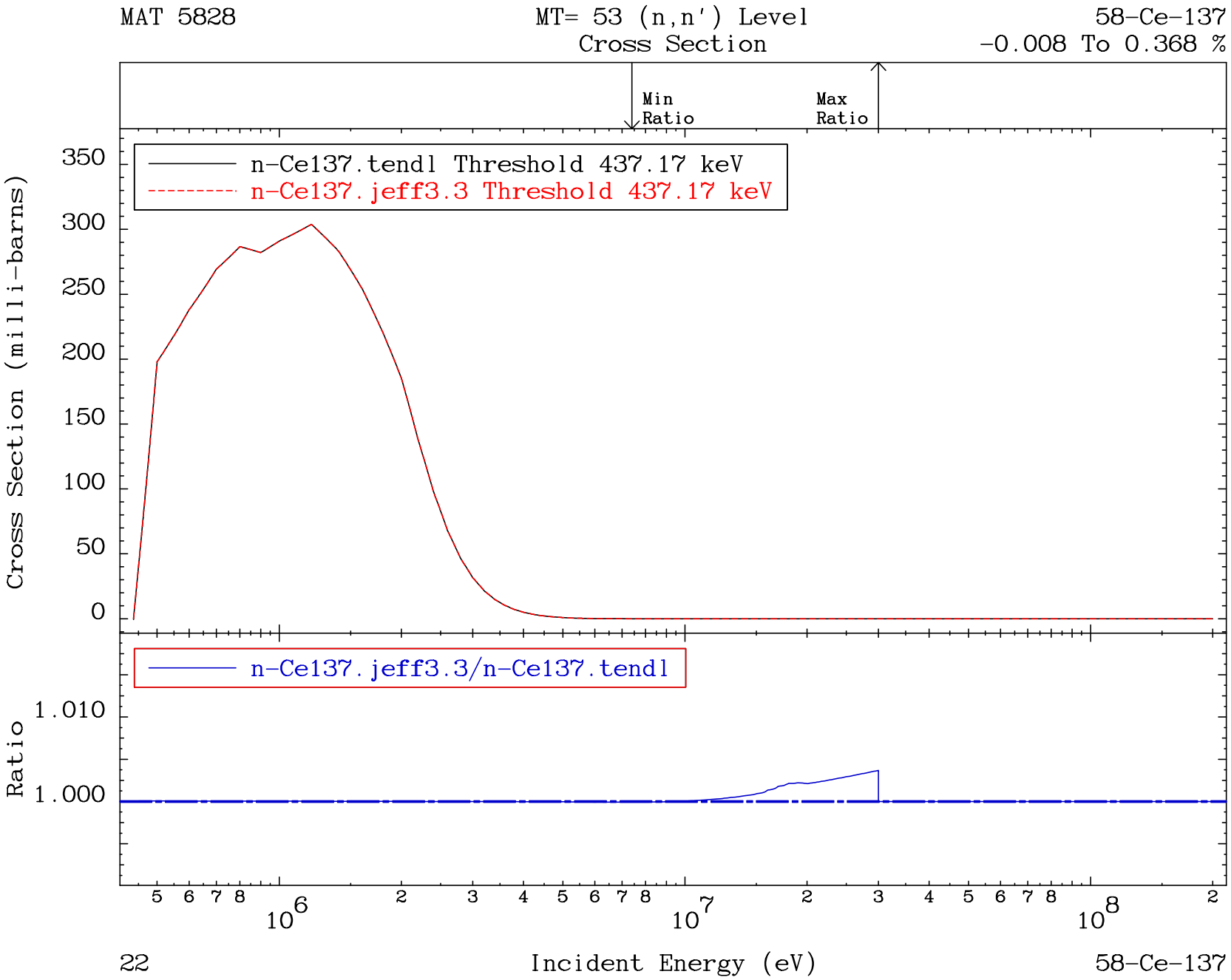

MAT 5828
(n,3n) p
Cross Section
58-Ce-137
-0.045 To 0.262 %
Max
Ratio
n-Ce137.tendl Threshold 24.309 MeV
n-Ce137.jeff3.3 Threshold 24.309 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
17
Incident Energy (MeV)
58-Ce-137

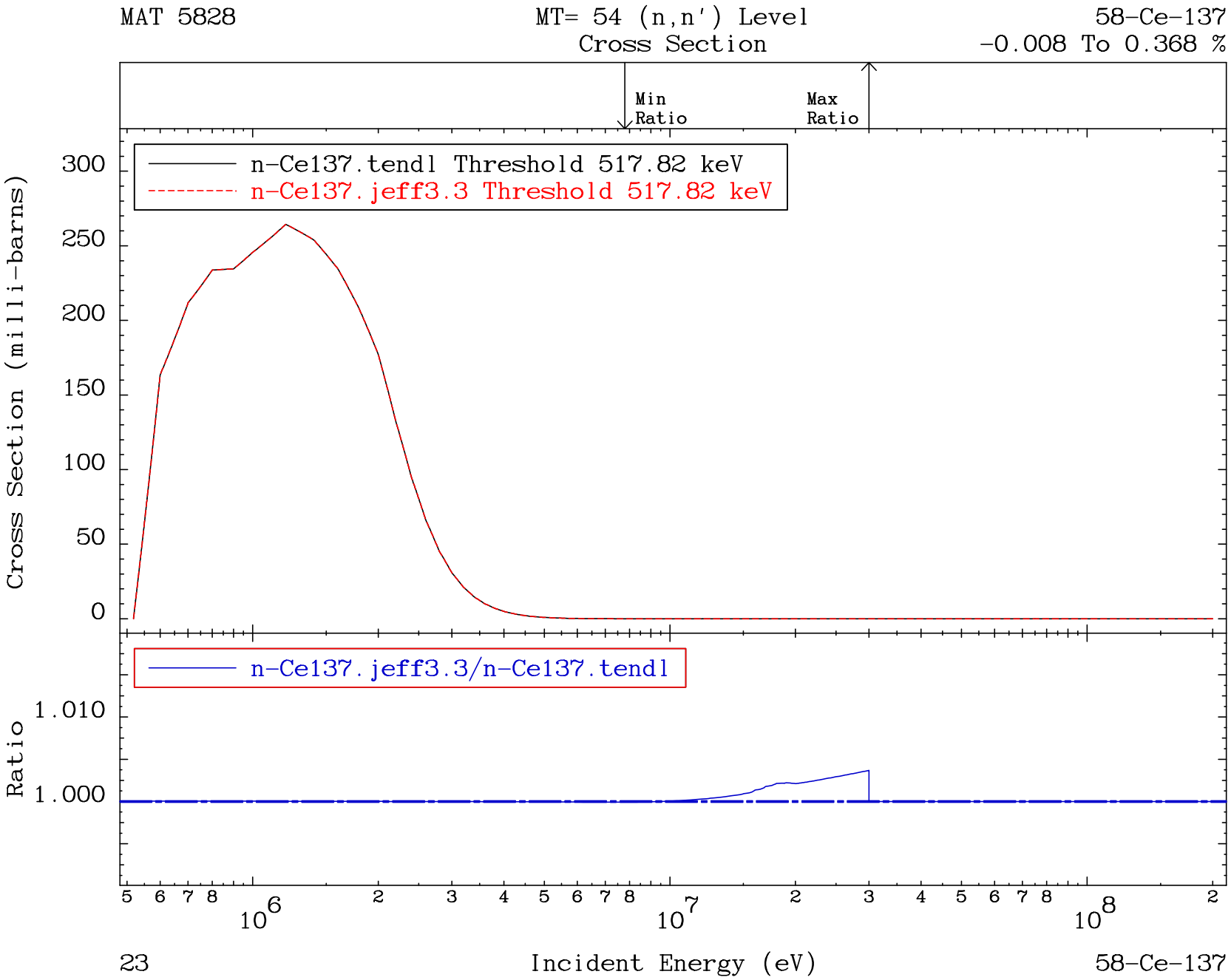

MAT 5828
(n,2n) p
Cross Section
58-Ce-137
0.000 To 0.195 %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 12.739 MeV
n-Ce137.jeff3.3 Threshold 12.739 MeV
Cross Section (micro-barns)
35
30
25
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
18
Incident Energy (eV)
58-Ce-137

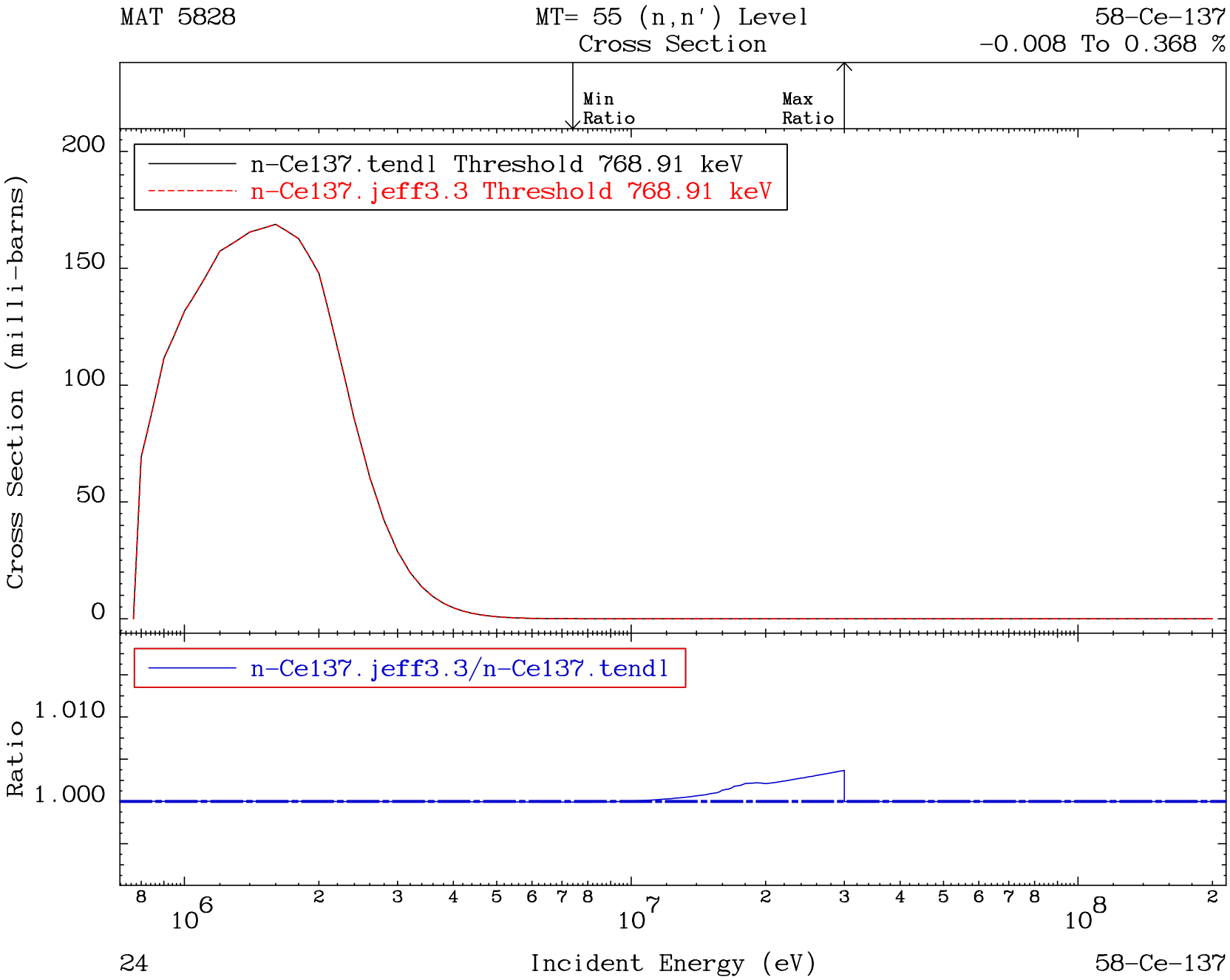

MAT 5828
(n,n') p α
Cross Section
58-Ce-137
0.000 To 9999. %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 8.5423 MeV
n-Ce137.jeff3.3 Threshold 8.5389 MeV
Cross Section (micro-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^3
10^2
10^1
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
19
Incident Energy (eV)
58-Ce-137

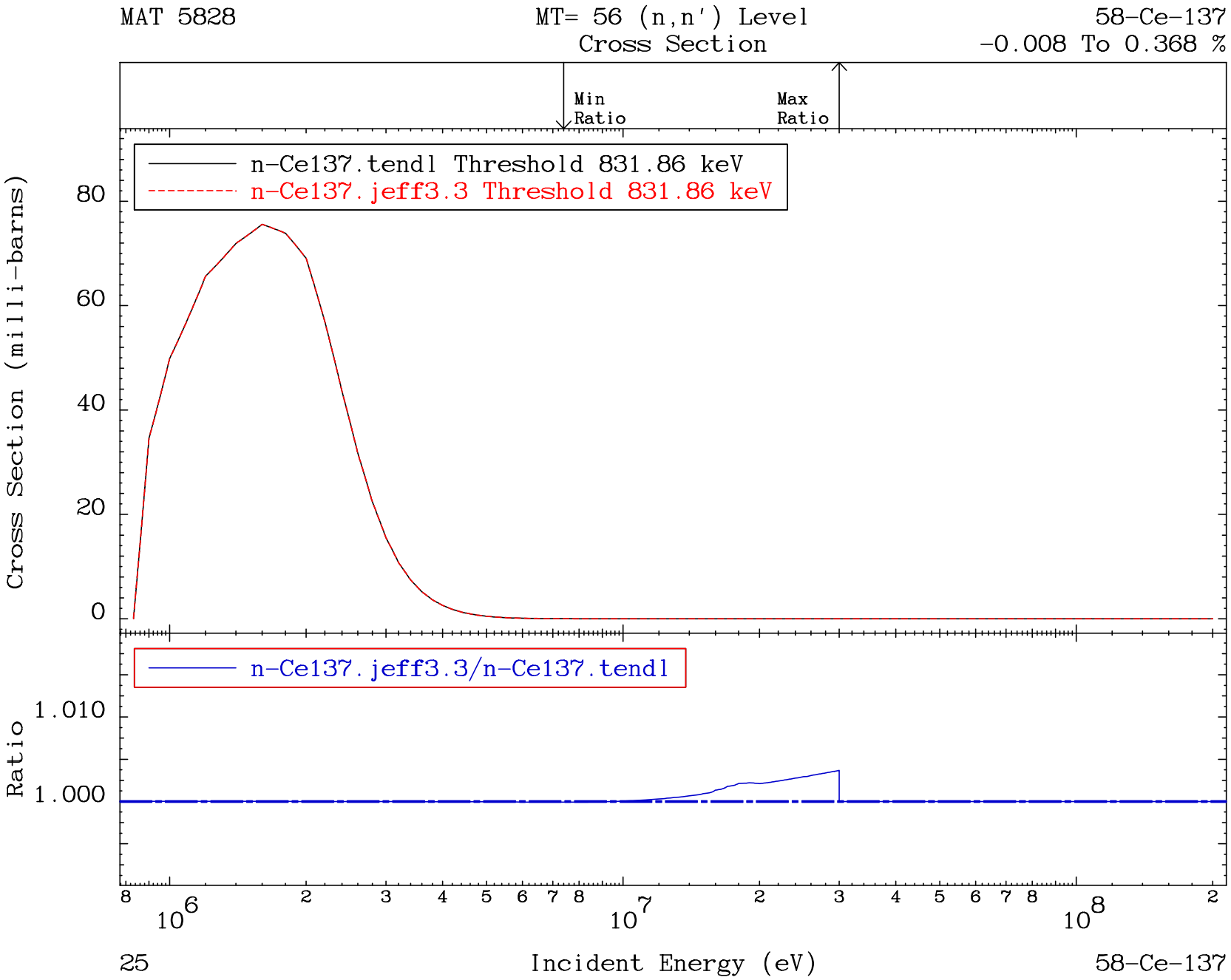

MAT 5828
MT= 51 (n,n') Level
Cross Section
58-Ce-137
-0.007 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 161.54 keV
n-Ce137.jeff3.3 Threshold 161.54 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
20
Incident Energy (eV)
58-Ce-137

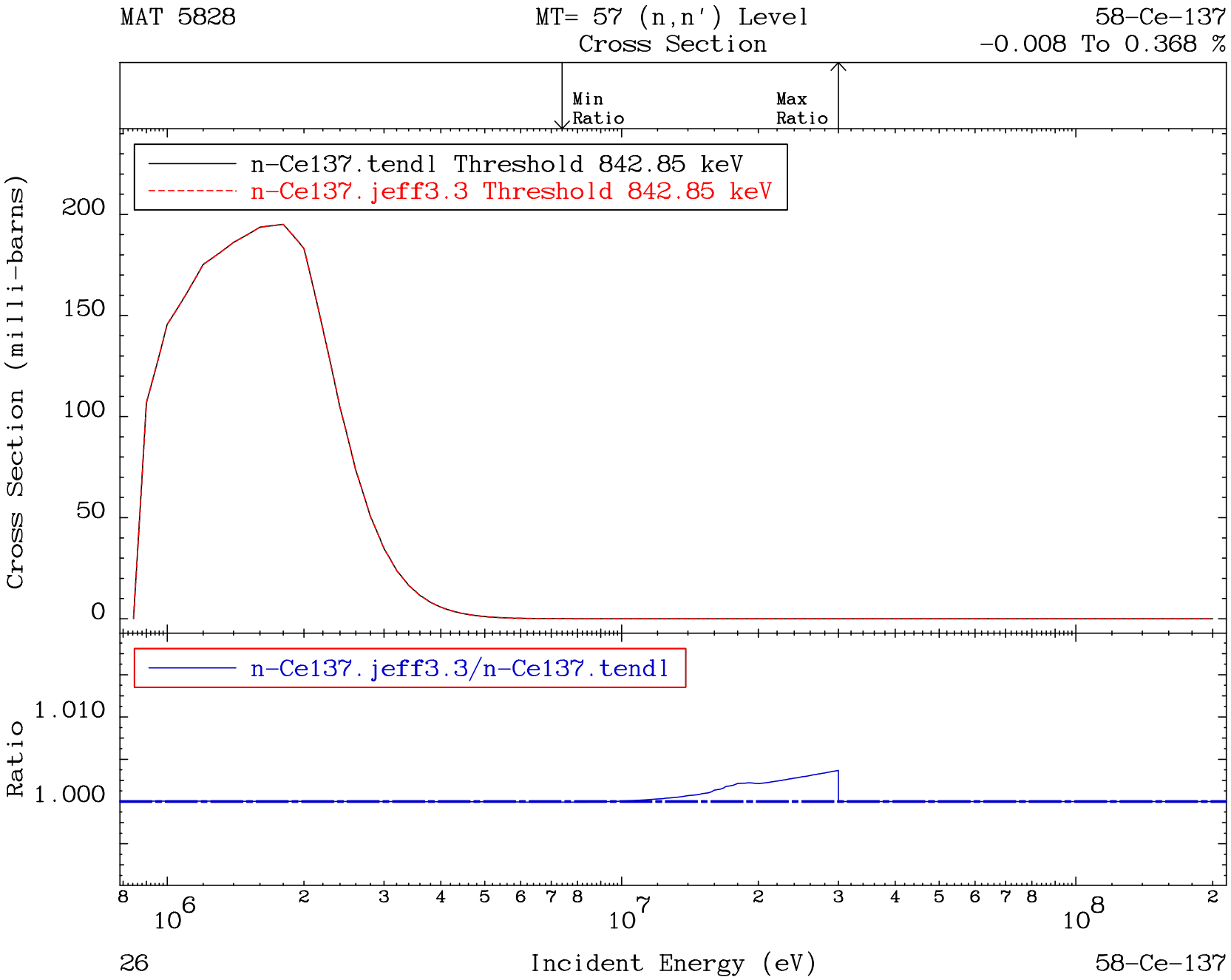

MAT 5828
MT= 52 (n,n') Level
Cross Section
58-Ce-137
-0.003 To 0.044 %
Max
Ratio
Min
Ratio
n-Ce137.tendl Threshold 256.16 keV
n-Ce137.jeff3.3 Threshold 256.16 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
58-Ce-137

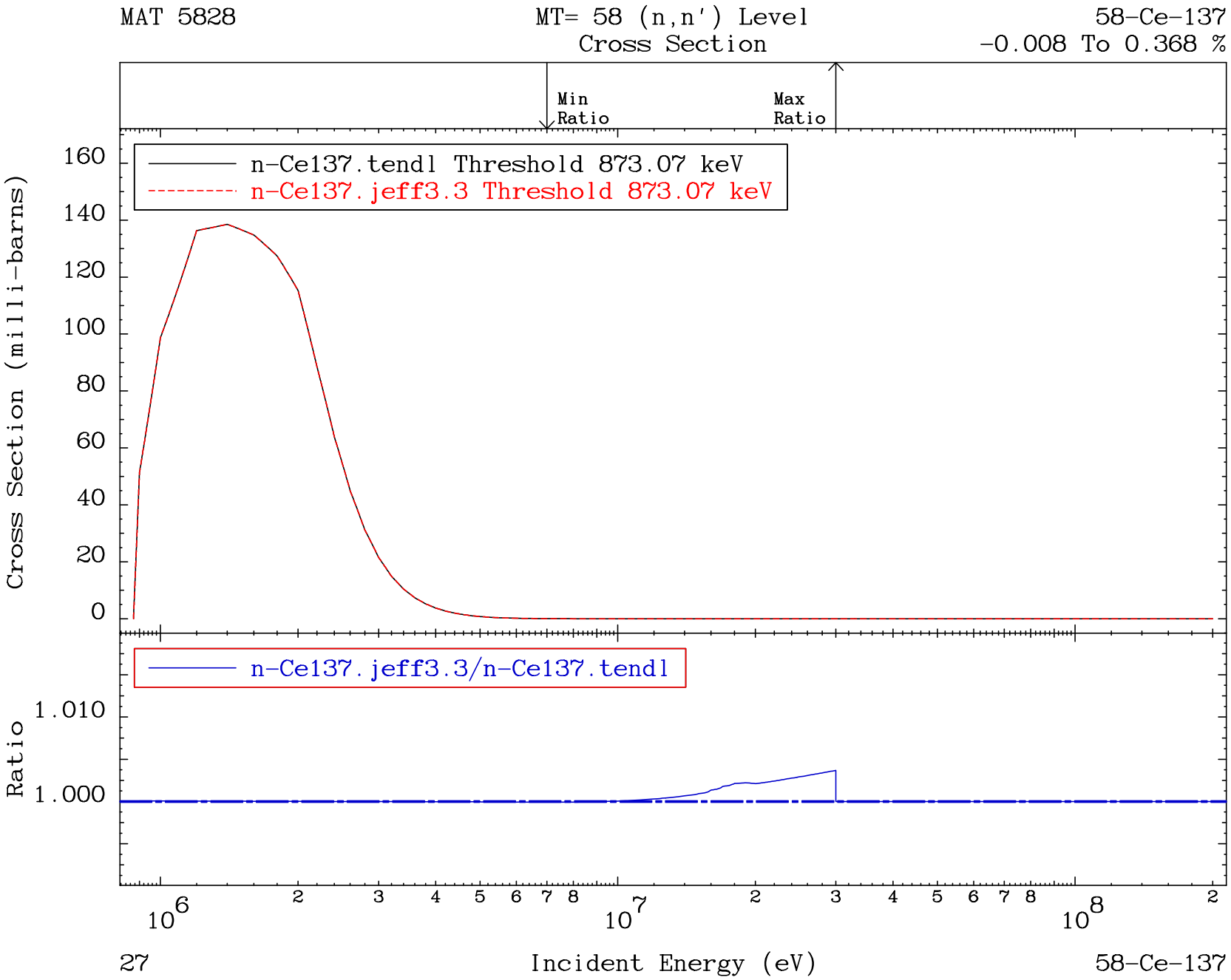

MAT 5828
MT= 53 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 437.17 keV
n-Ce137.jeff3.3 Threshold 437.17 keV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
58-Ce-137

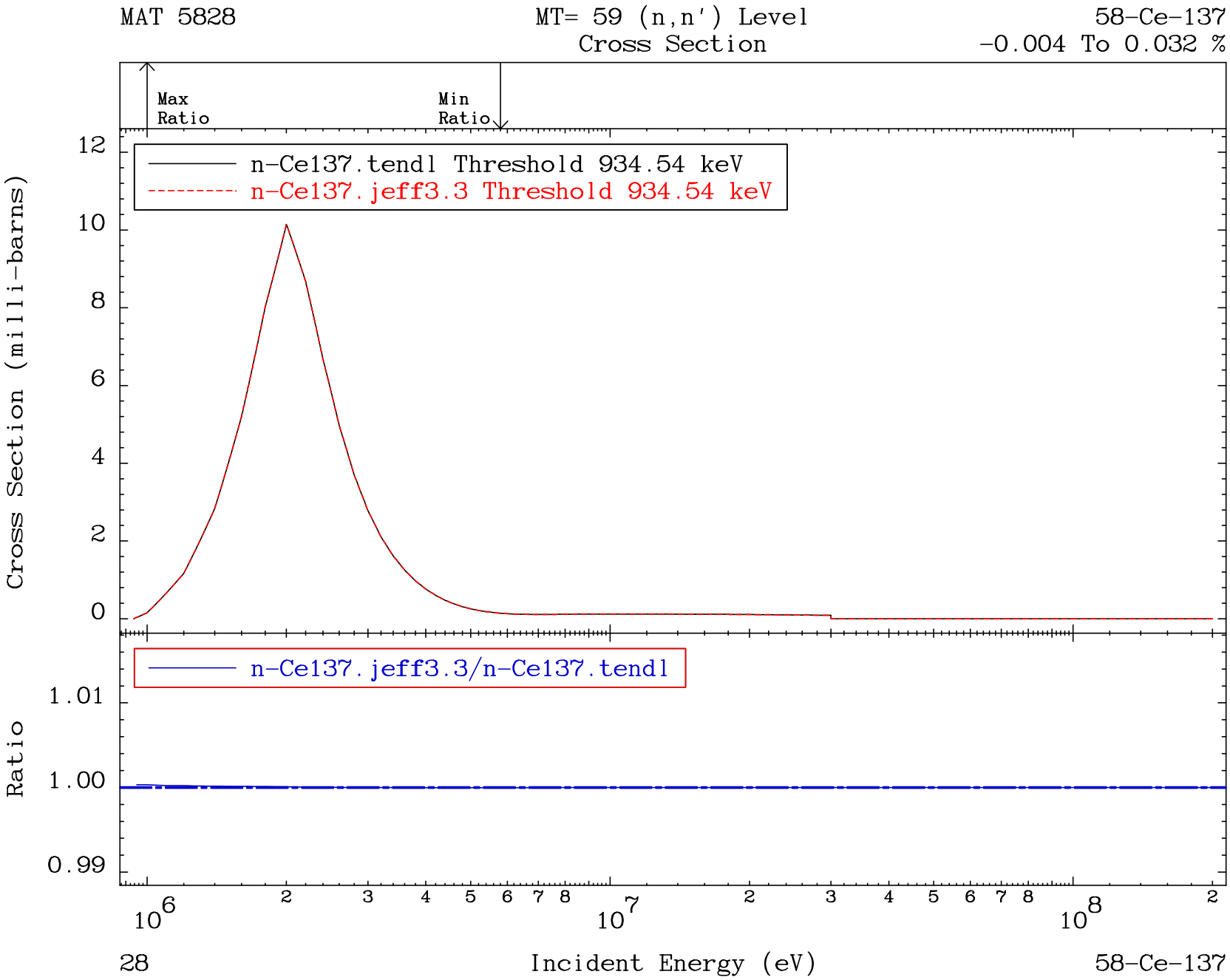

MAT 5828
MT= 54 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 517.82 keV
n-Ce137.jeff3.3 Threshold 517.82 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
58-Ce-137

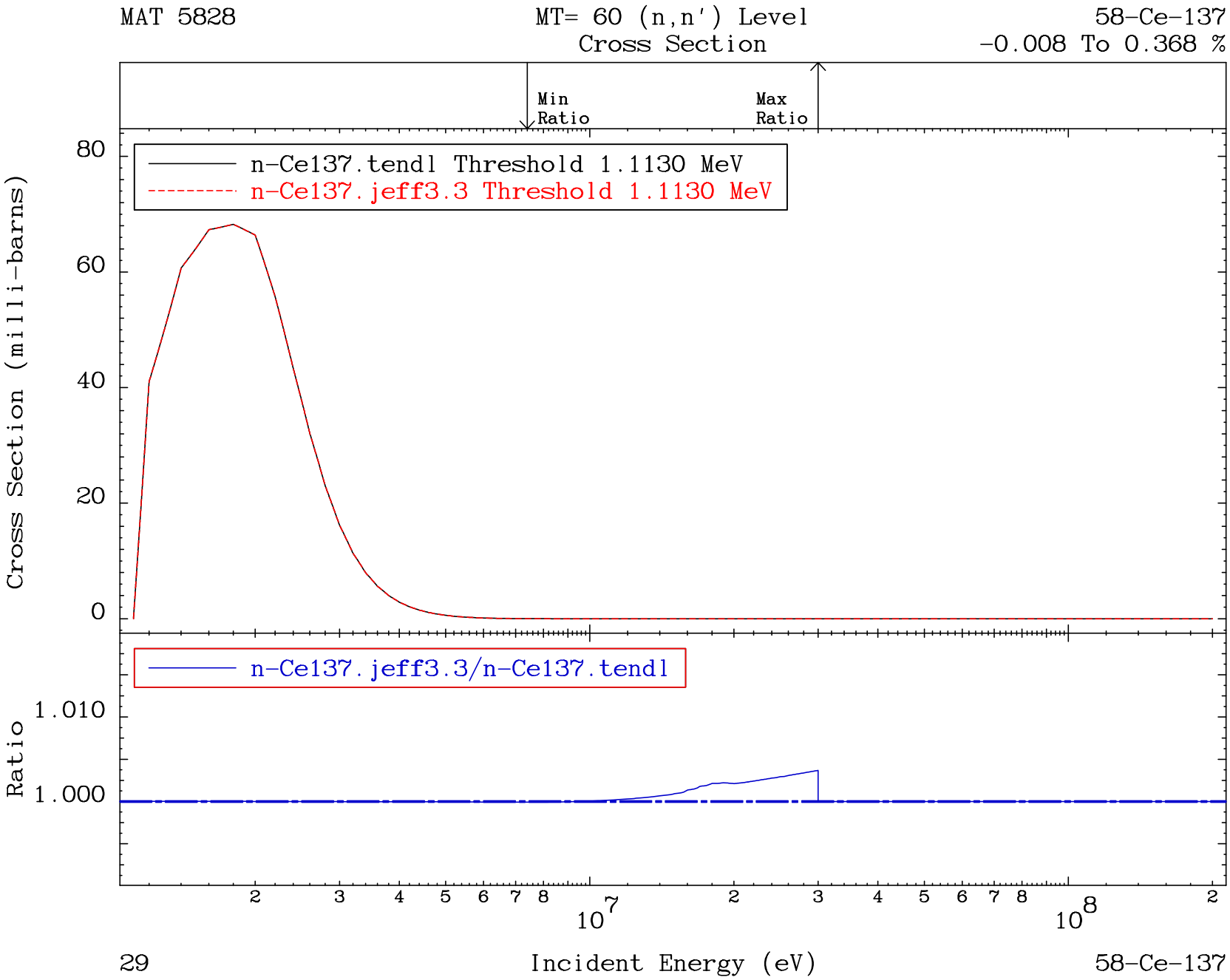

MAT 5828
MT= 55 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 768.91 keV
n-Ce137.jeff3.3 Threshold 768.91 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
24
Incident Energy (eV)
58-Ce-137

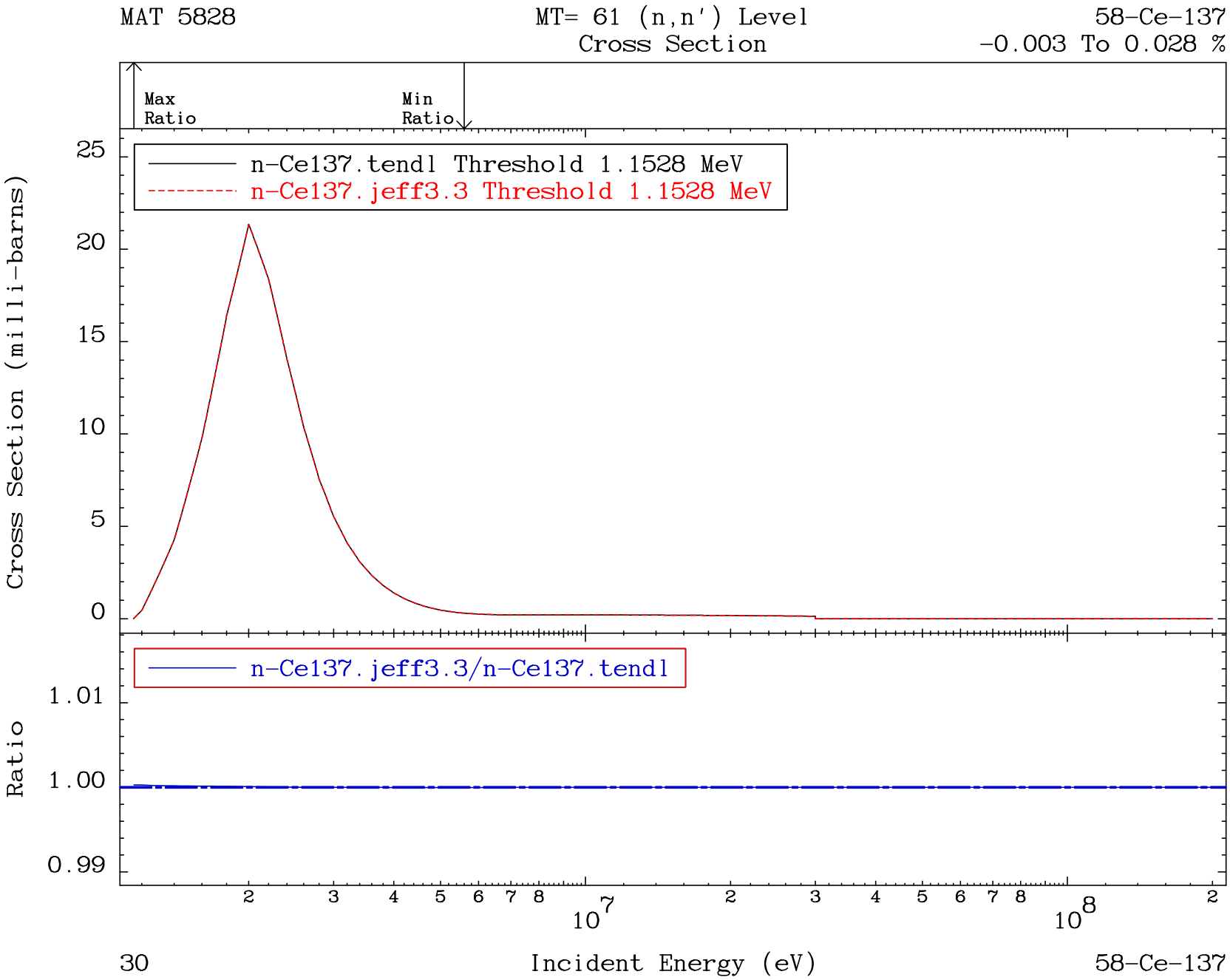

MAT 5828
MT= 56 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 831.86 keV
n-Ce137.jeff3.3 Threshold 831.86 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
25
Incident Energy (eV)
58-Ce-137

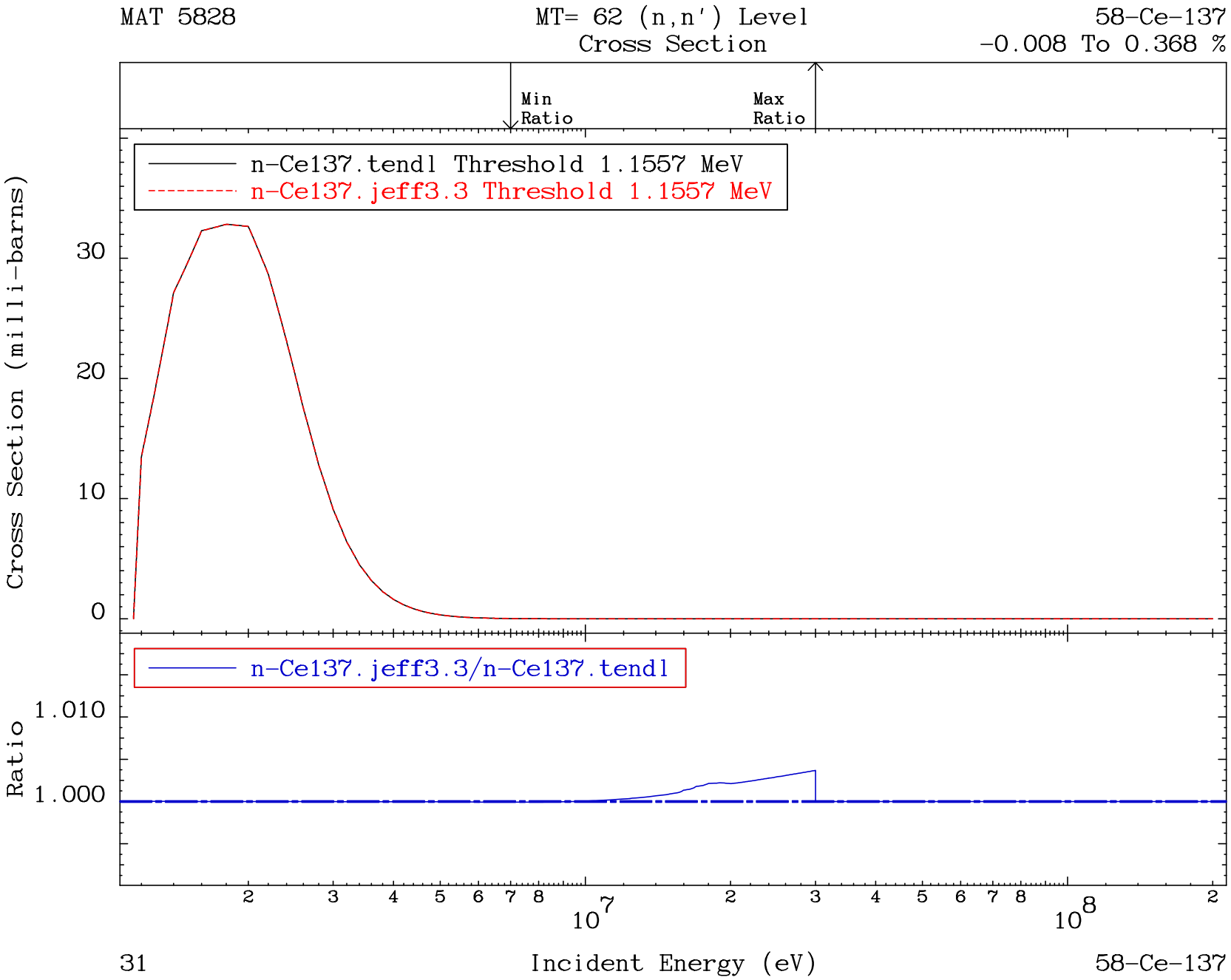

MAT 5828
MT= 57 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 842.85 keV
n-Ce137.jeff3.3 Threshold 842.85 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
26
Incident Energy (eV)
58-Ce-137

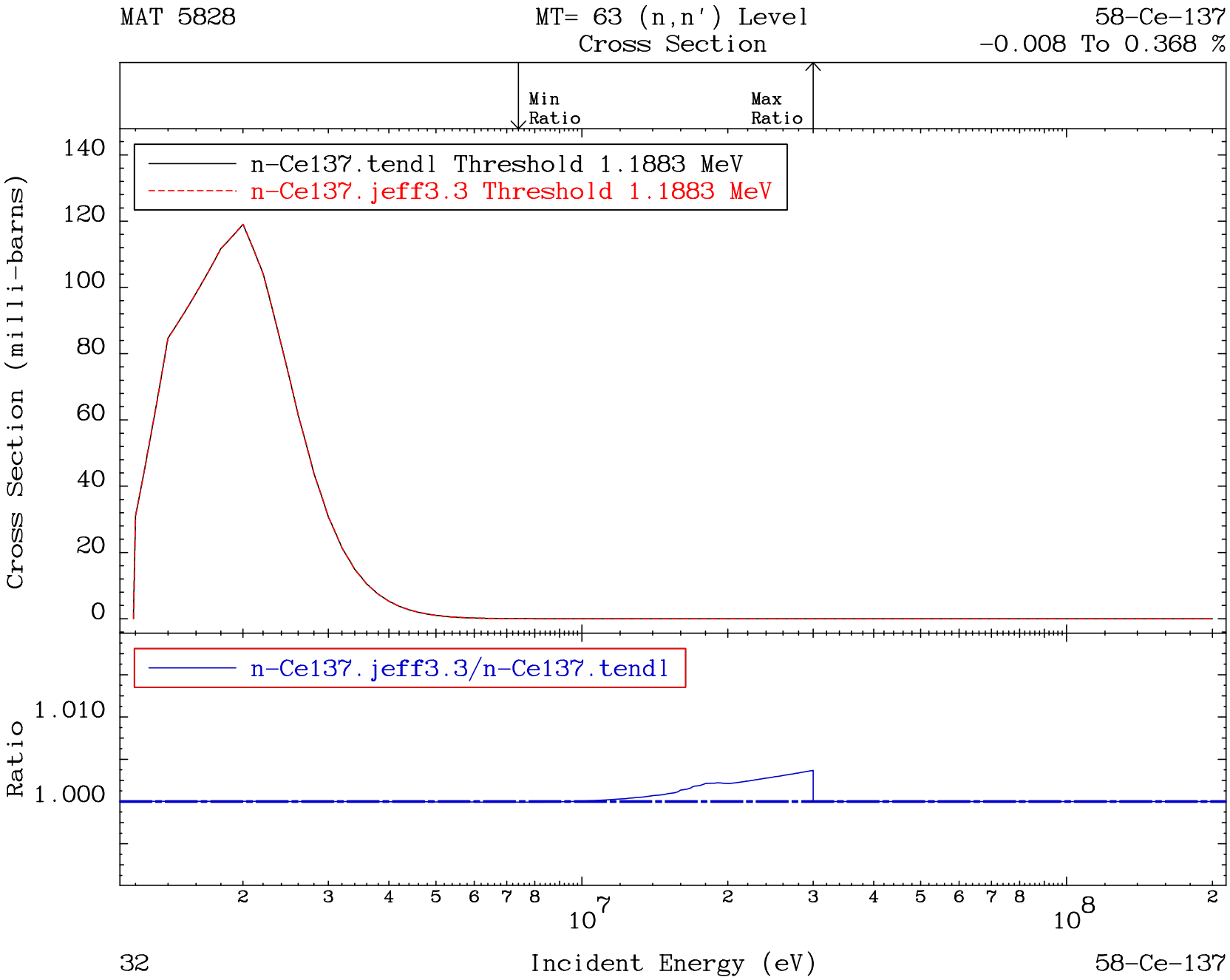

MAT 5828
MT= 58 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 873.07 keV
n-Ce137.jeff3.3 Threshold 873.07 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
27
Incident Energy (eV)
58-Ce-137

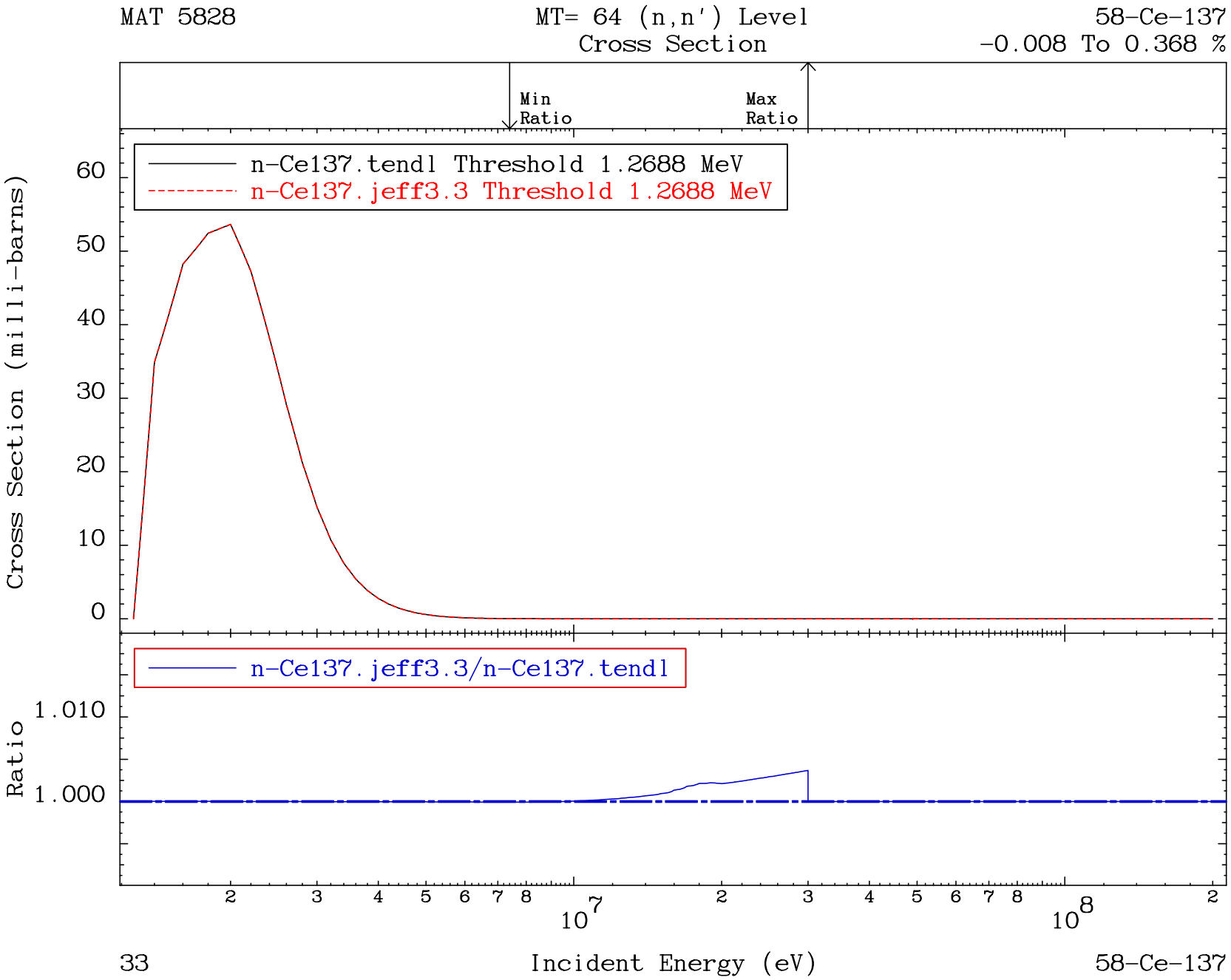

MAT 5828
MT= 59 (n,n') Level
Cross Section
58-Ce-137
-0.004 To 0.032 %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 934.54 keV
n-Ce137.jeff3.3 Threshold 934.54 keV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
28
Incident Energy (eV)
58-Ce-137

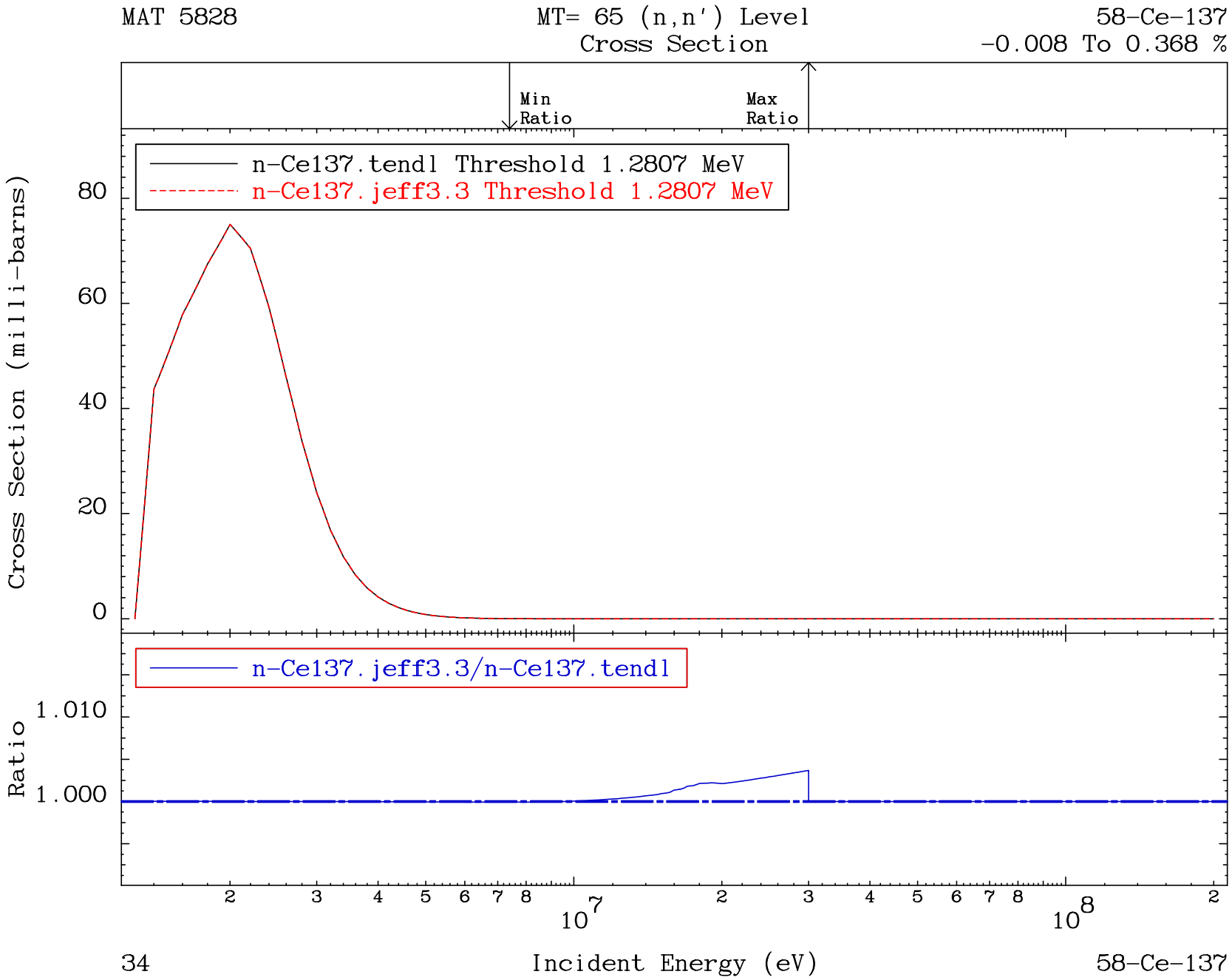

MAT 5828
MT= 60 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 1.1130 MeV
n-Ce137.jeff3.3 Threshold 1.1130 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
29
Incident Energy (eV)
58-Ce-137

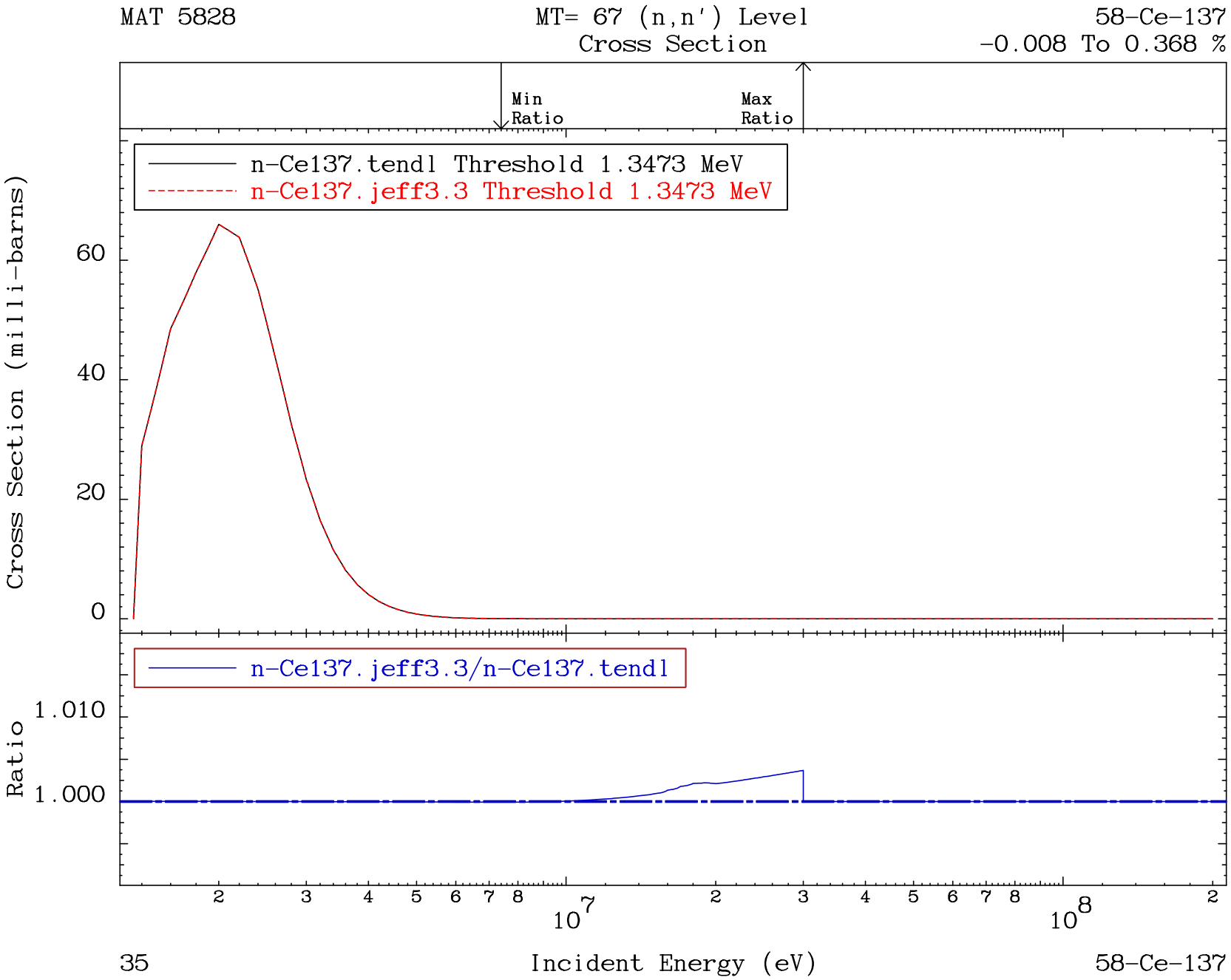

MAT 5828
MT= 61 (n,n') Level
Cross Section
58-Ce-137
-0.003 To 0.028 %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 1.1528 MeV
n-Ce137.jeff3.3 Threshold 1.1528 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
58-Ce-137

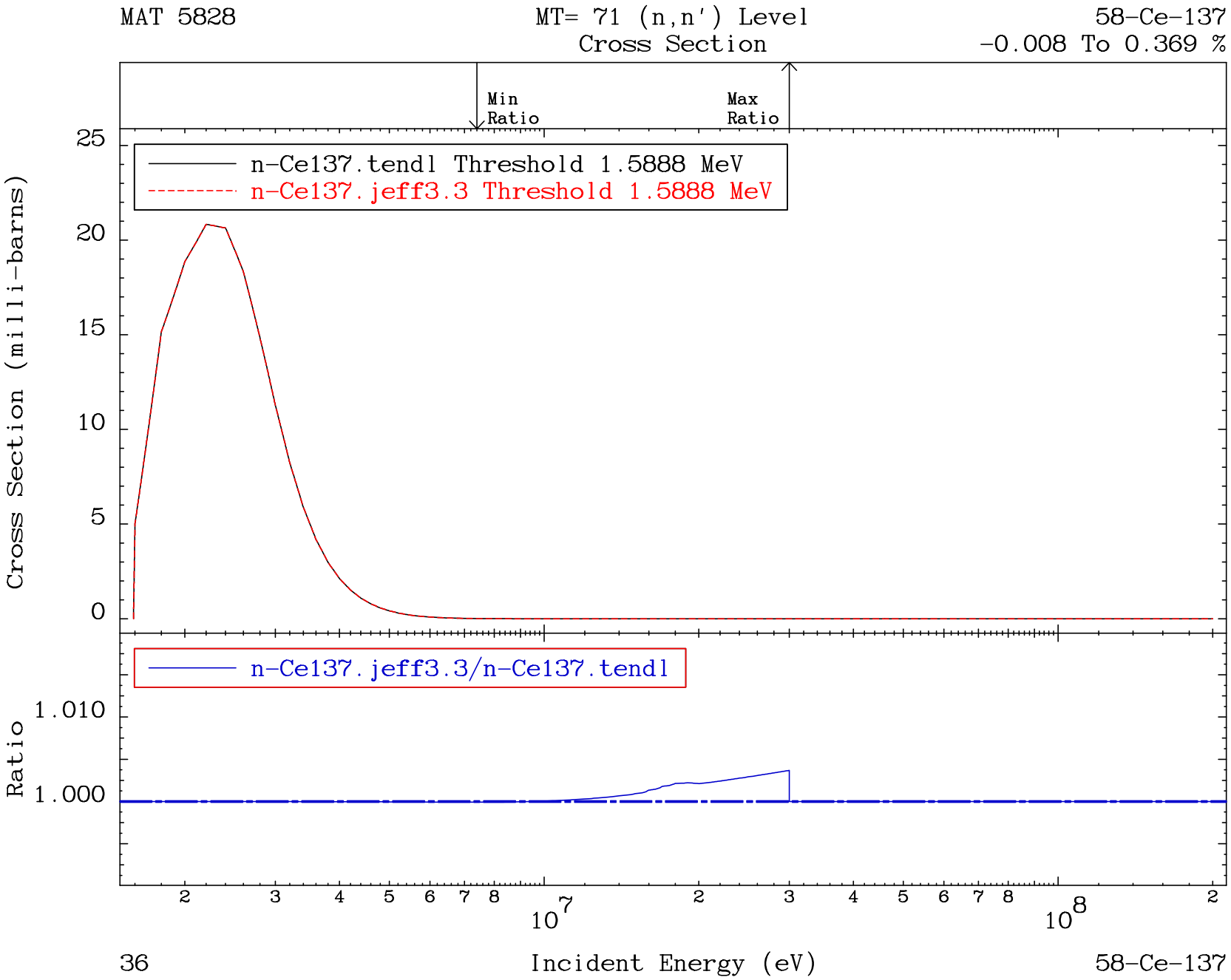

MAT 5828
MT= 62 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 1.1557 MeV
n-Ce137.jeff3.3 Threshold 1.1557 MeV
Cross Section (milli-barns)
30
20
10
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
31
Incident Energy (eV)
58-Ce-137

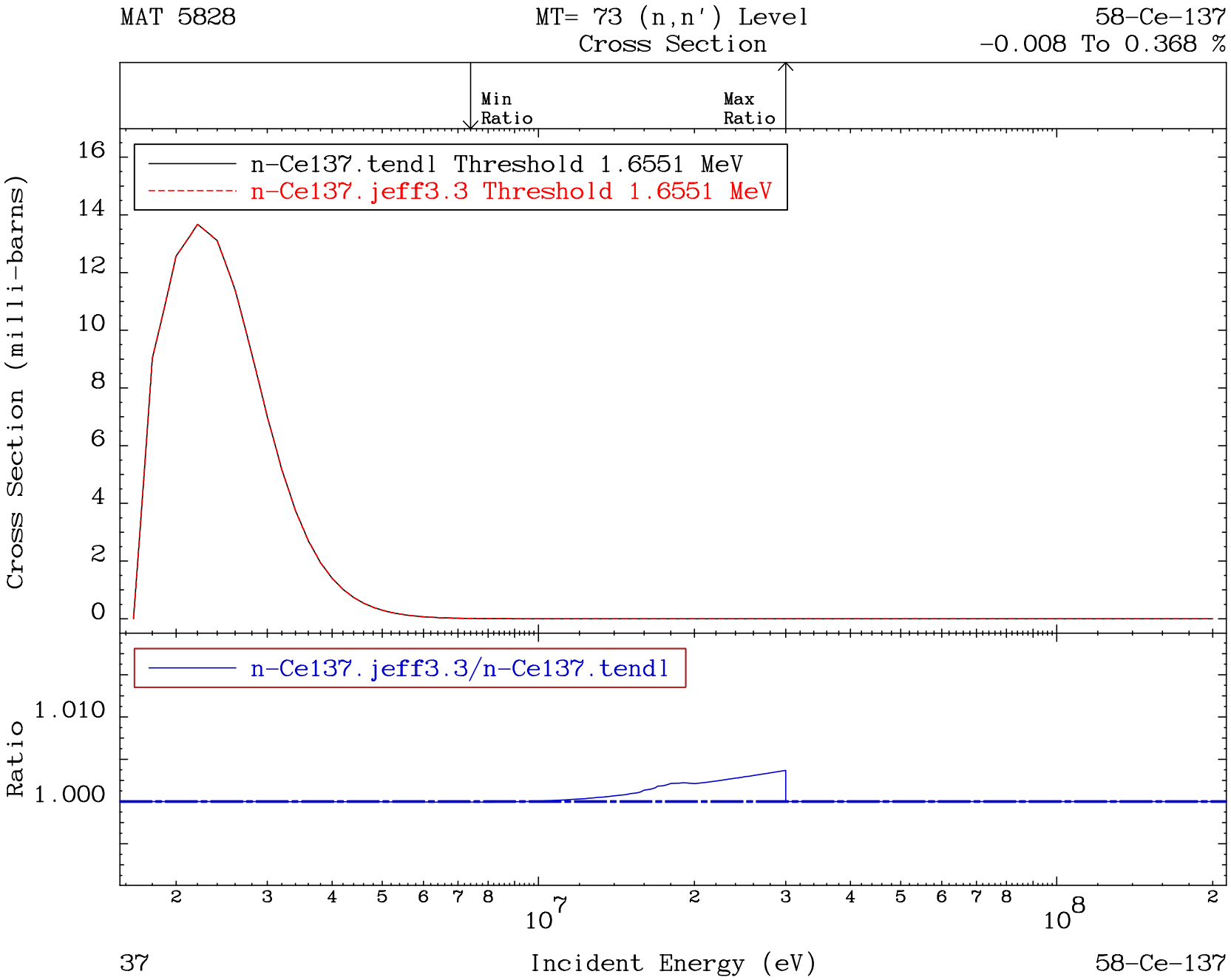

MAT 5828
MT= 63 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 1.1883 MeV
n-Ce137.jeff3.3 Threshold 1.1883 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
32
Incident Energy (eV)
58-Ce-137

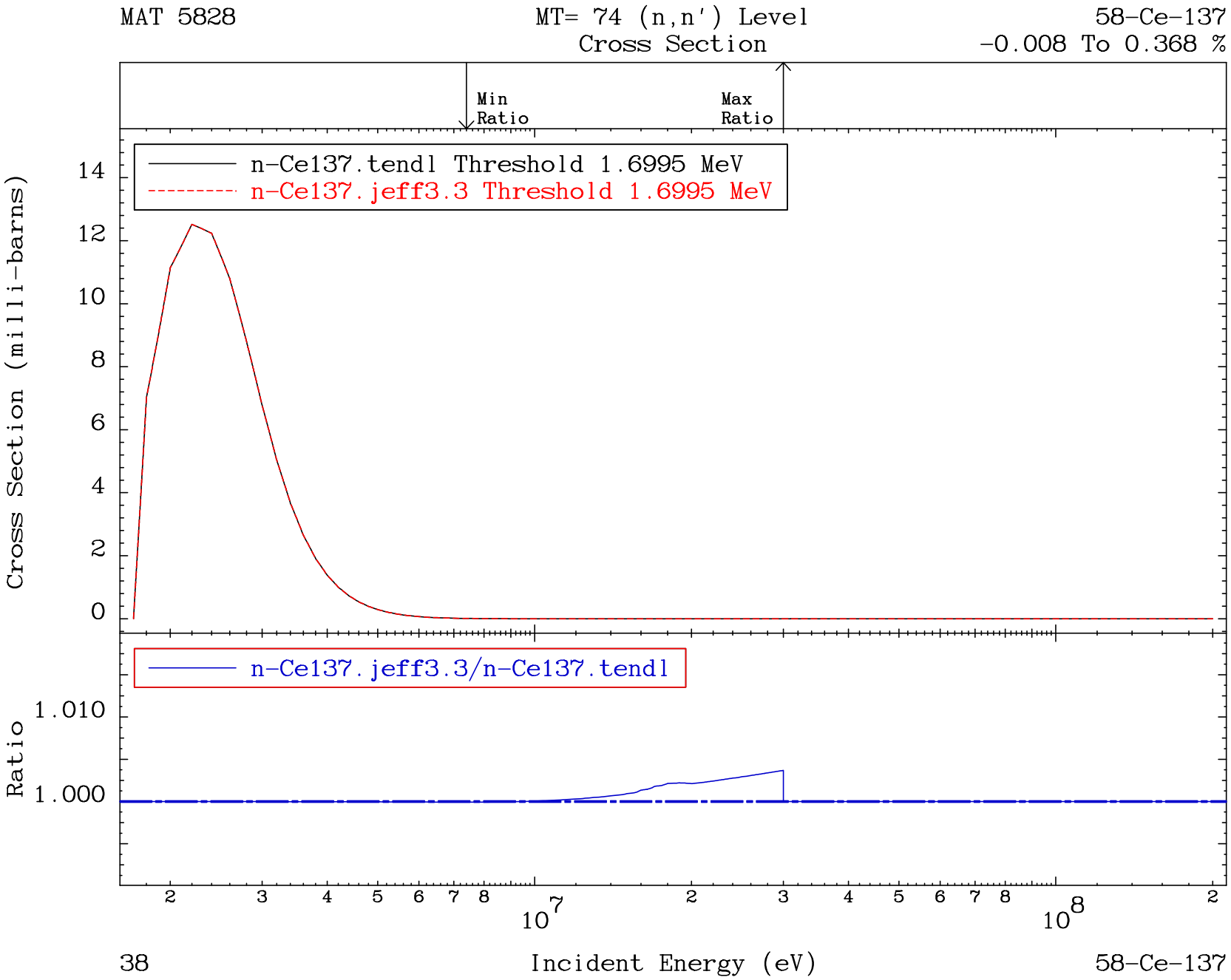

MAT 5828
MT= 64 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 1.2688 MeV
n-Ce137.jeff3.3 Threshold 1.2688 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
33
Incident Energy (eV)
58-Ce-137

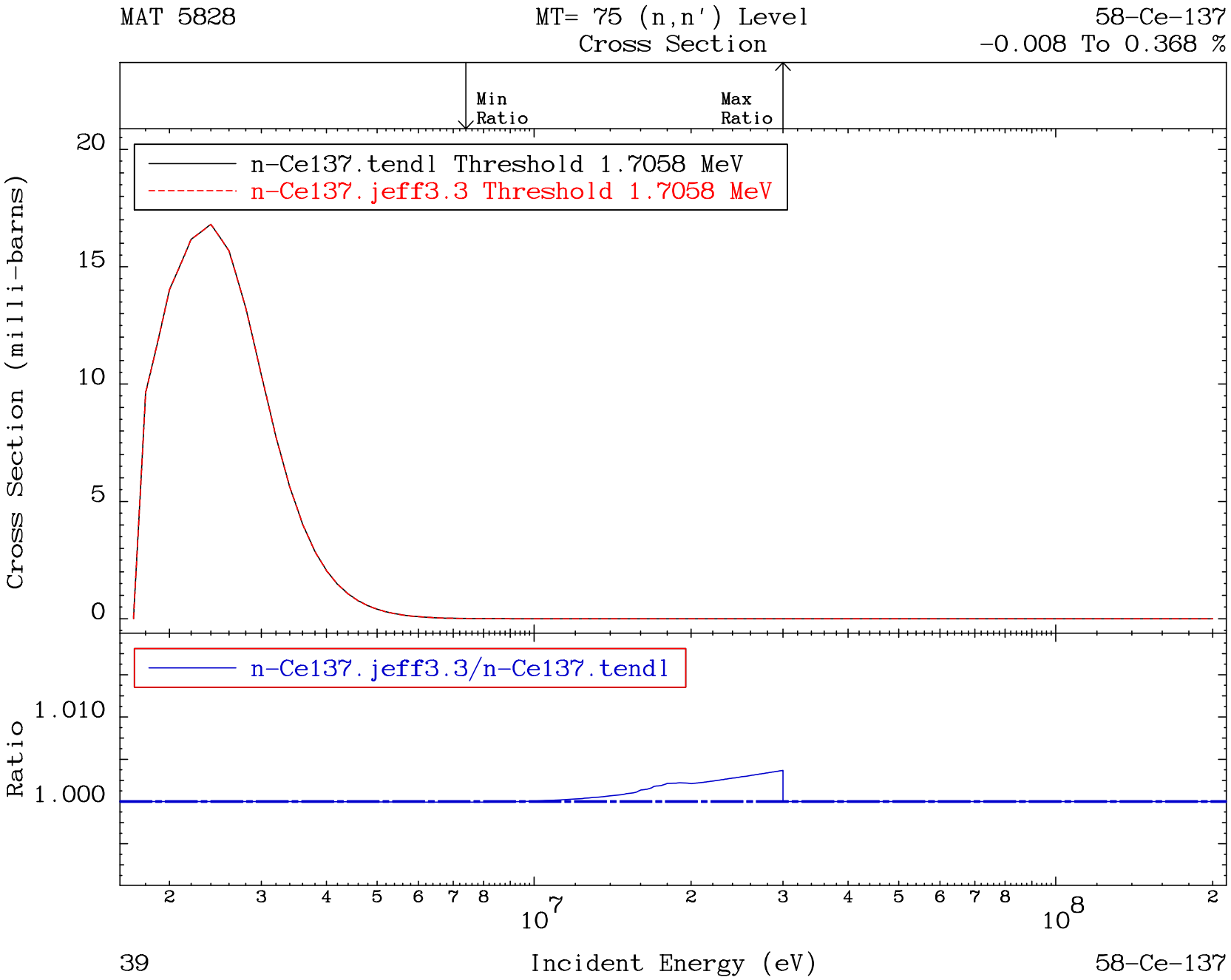

MAT 5828
MT= 65 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 1.2807 MeV
n-Ce137.jeff3.3 Threshold 1.2807 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
34
Incident Energy (eV)
58-Ce-137

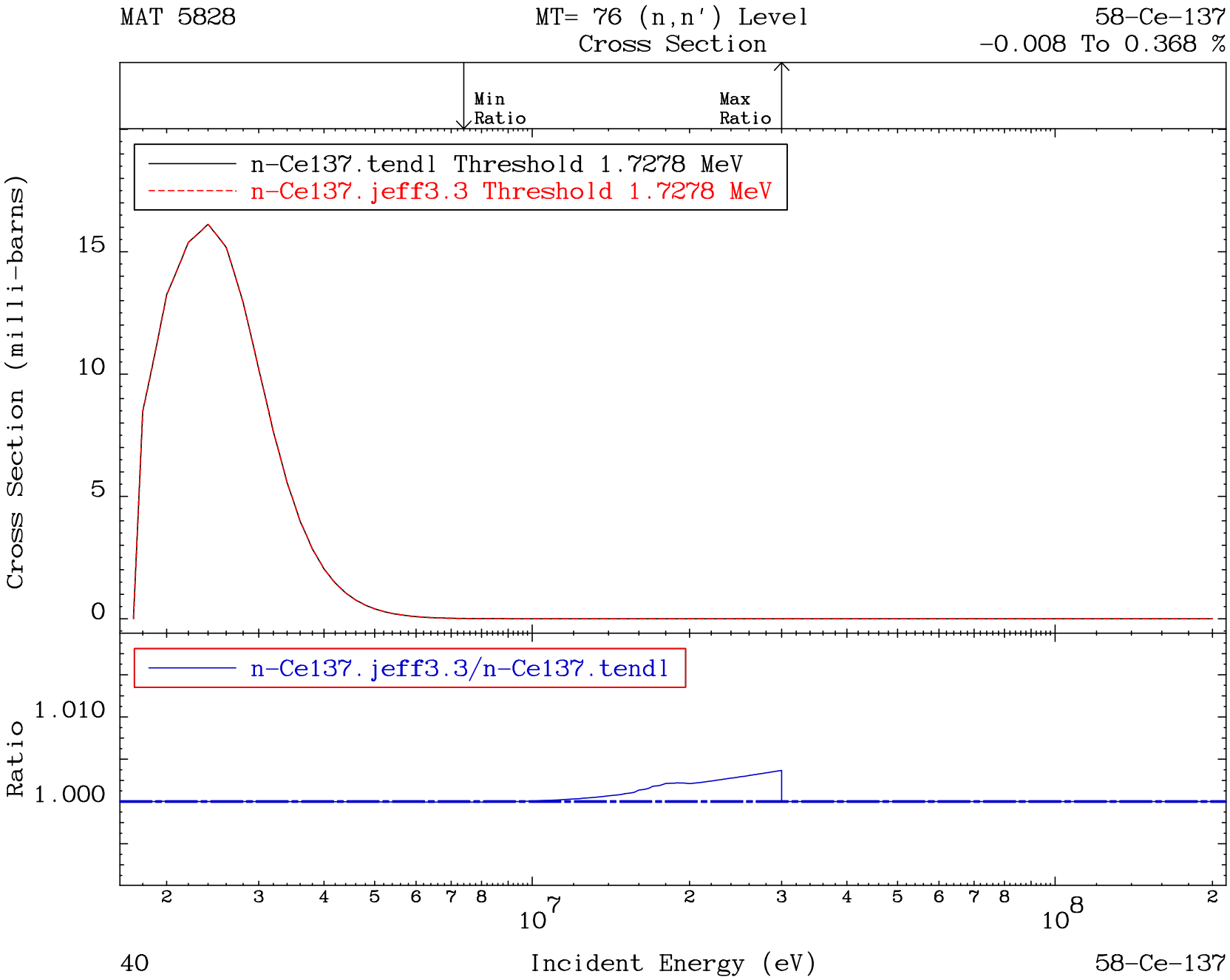

MAT 5828
MT= 67 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 1.3473 MeV
n-Ce137.jeff3.3 Threshold 1.3473 MeV
Cross Section (milli-barns)
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
35
Incident Energy (eV)
58-Ce-137

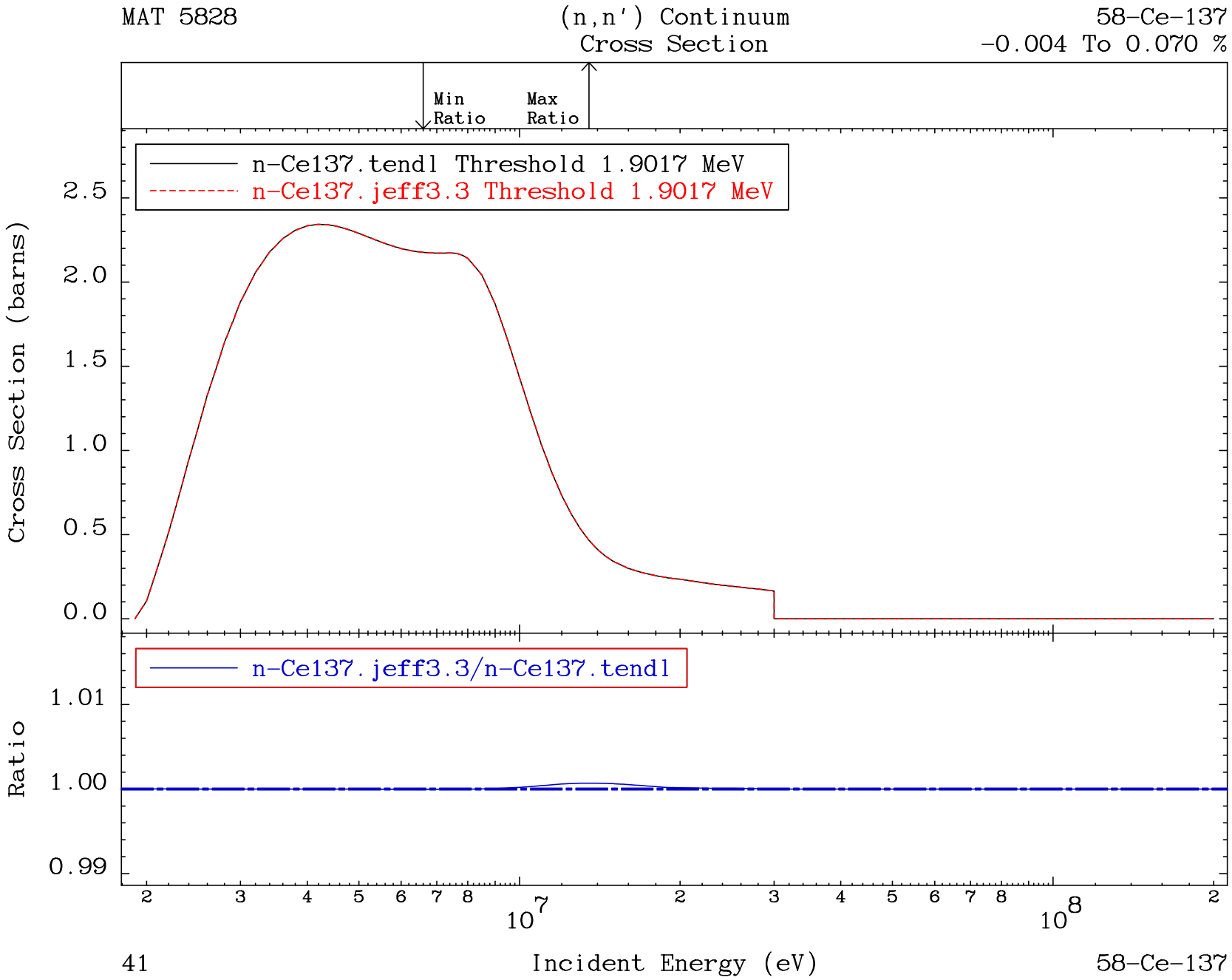

MAT 5828
MT= 71 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.369 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 1.5888 MeV
n-Ce137.jeff3.3 Threshold 1.5888 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
36
Incident Energy (eV)
58-Ce-137

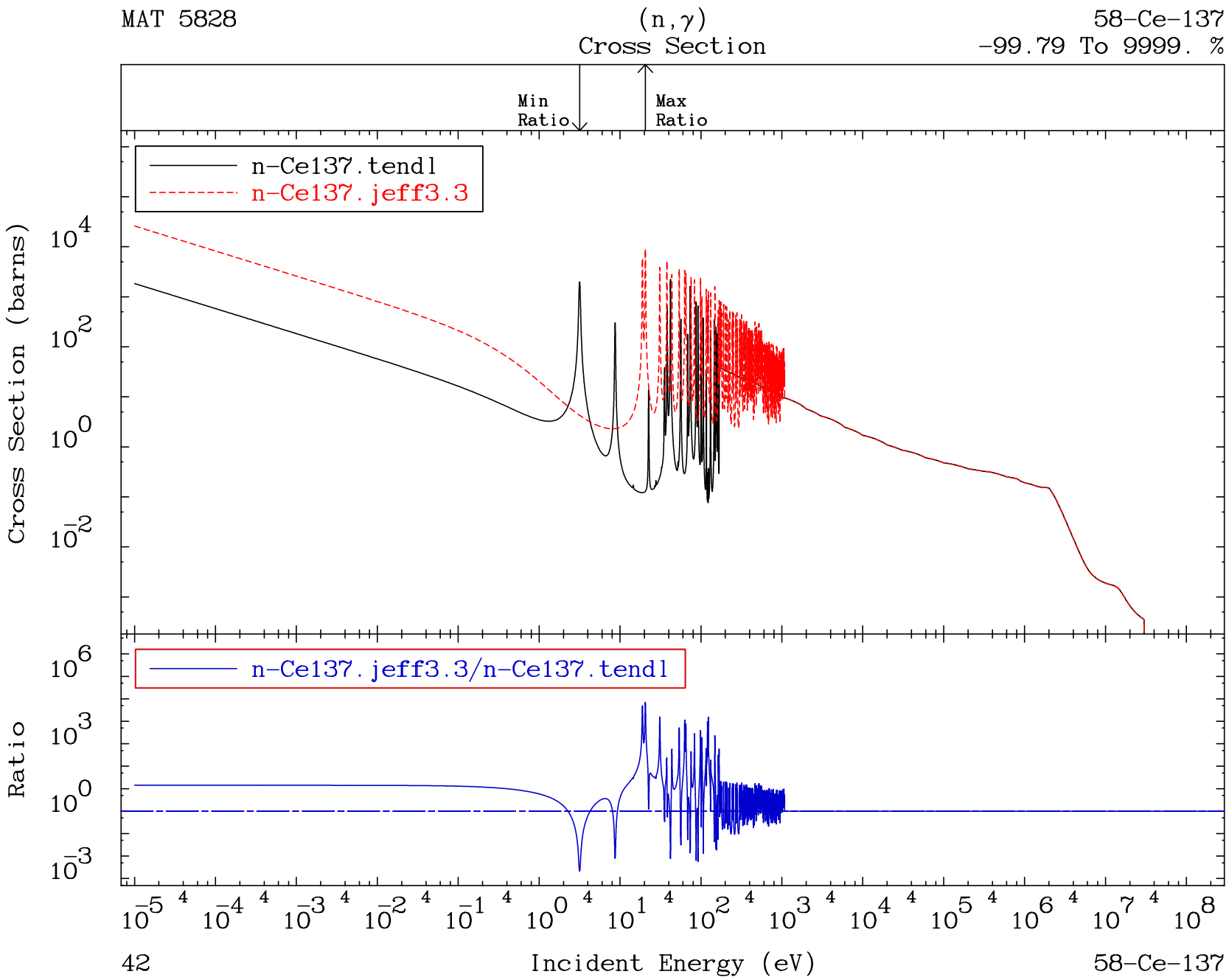

MAT 5828
MT= 73 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 1.6551 MeV
n-Ce137.jeff3.3 Threshold 1.6551 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
37
Incident Energy (eV)
58-Ce-137

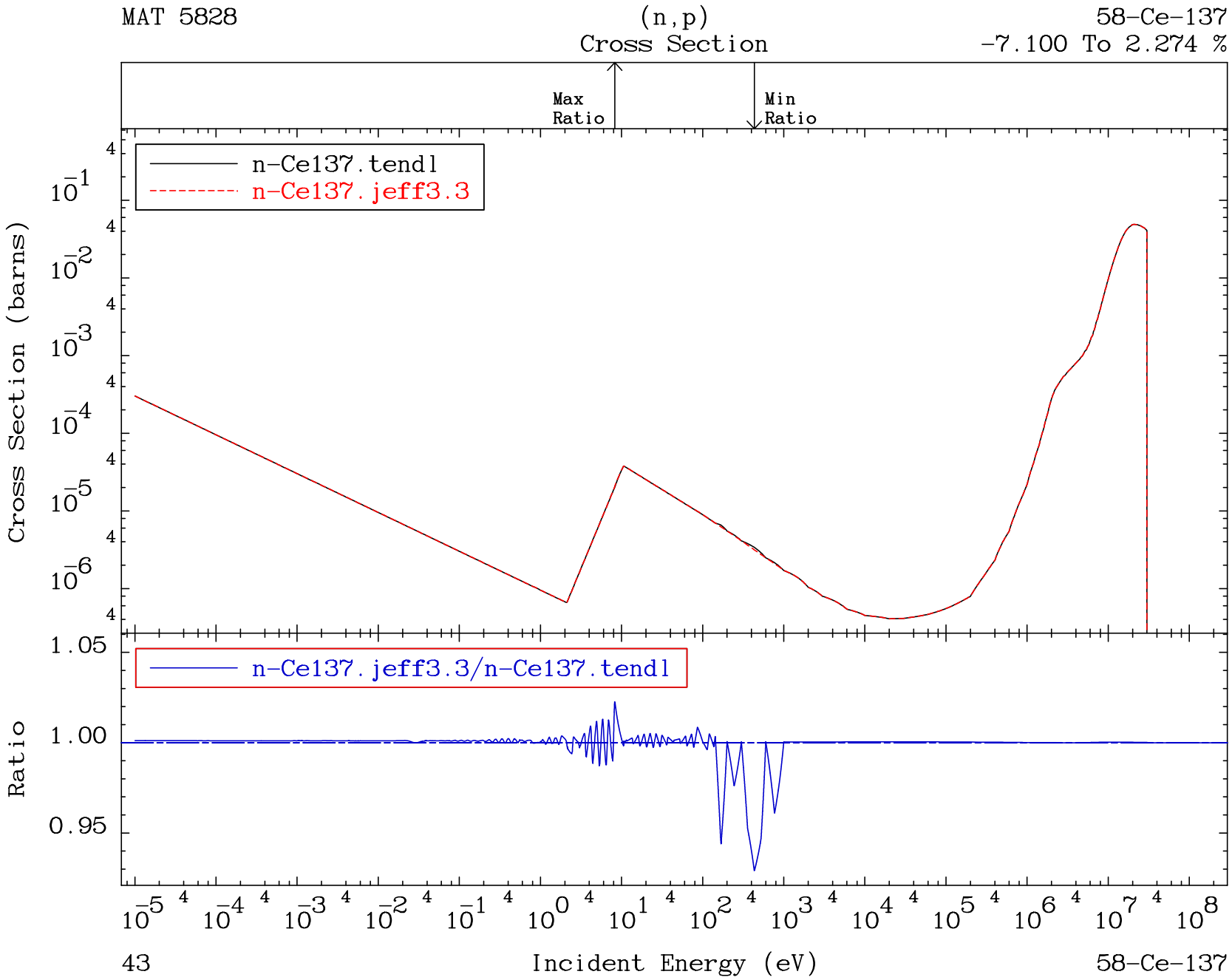

MAT 5828
MT= 74 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 1.6995 MeV
n-Ce137.jeff3.3 Threshold 1.6995 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.000
1.010
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
38
Incident Energy (eV)
58-Ce-137

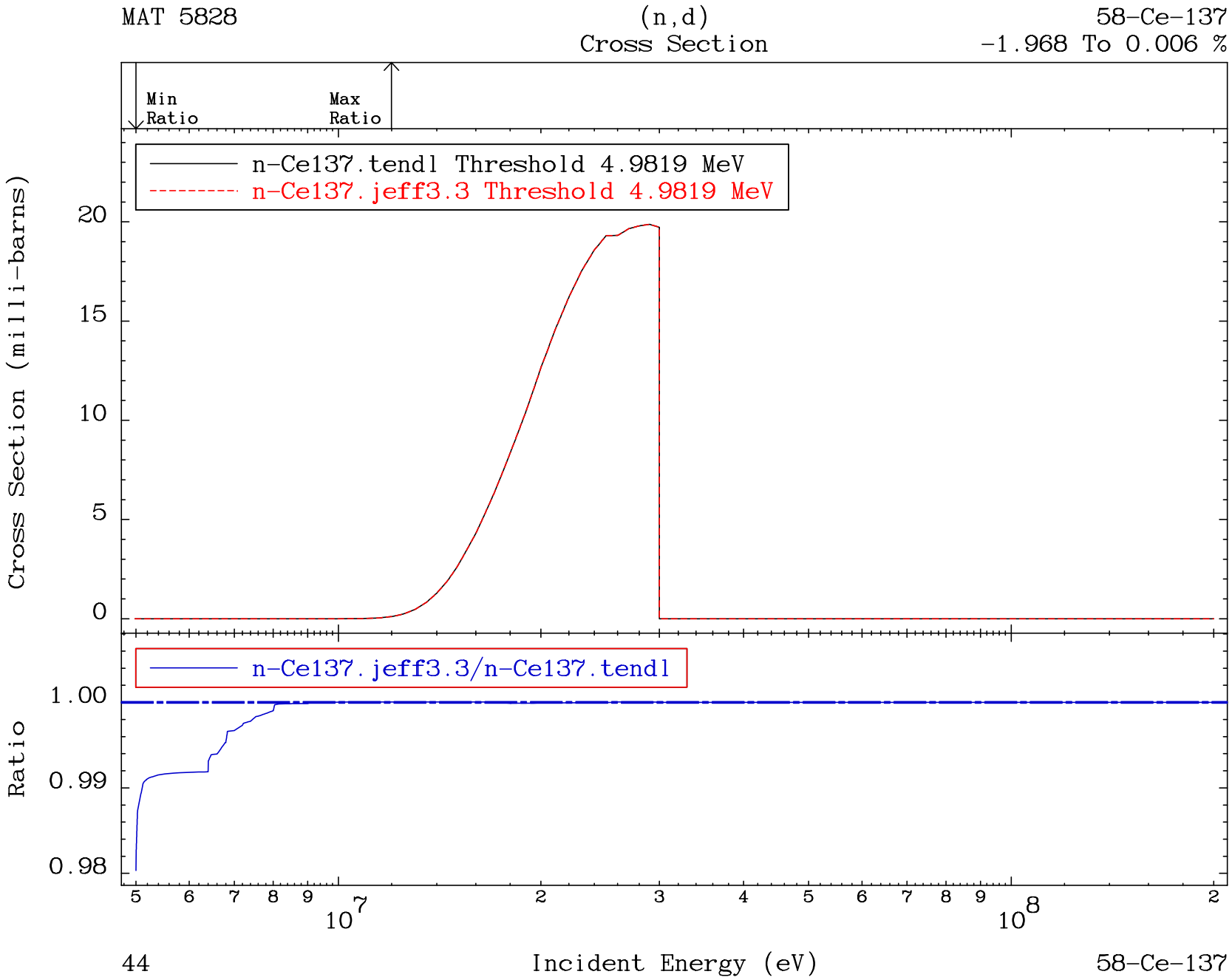

MAT 5828
MT= 75 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 1.7058 MeV
n-Ce137.jeff3.3 Threshold 1.7058 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
39
Incident Energy (eV)
58-Ce-137

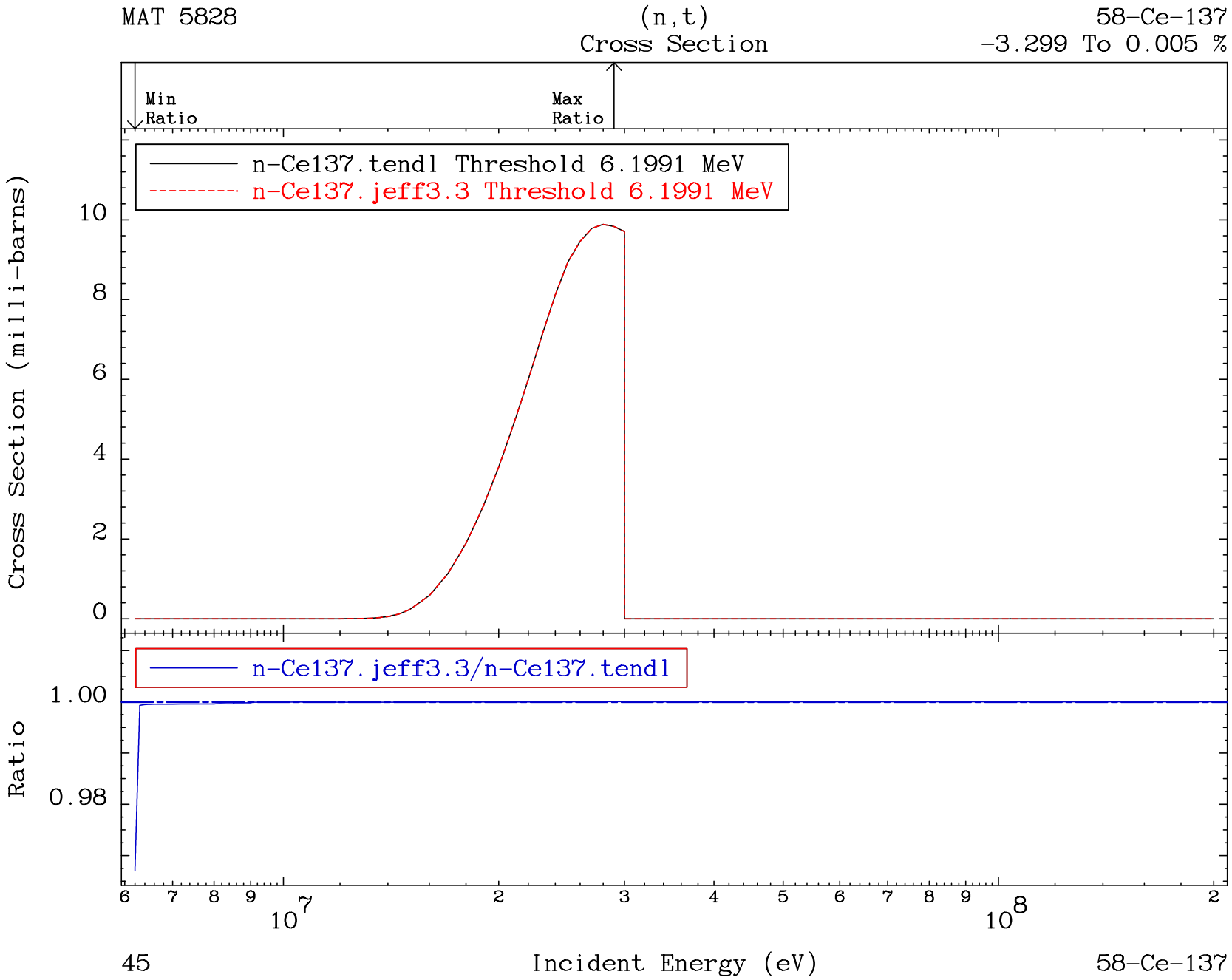

MAT 5828
MT= 76 (n,n') Level
Cross Section
58-Ce-137
-0.008 To 0.368 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 1.7278 MeV
n-Ce137.jeff3.3 Threshold 1.7278 MeV
Cross Section (milli-barns)
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.010
1.000
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
40
Incident Energy (eV)
58-Ce-137

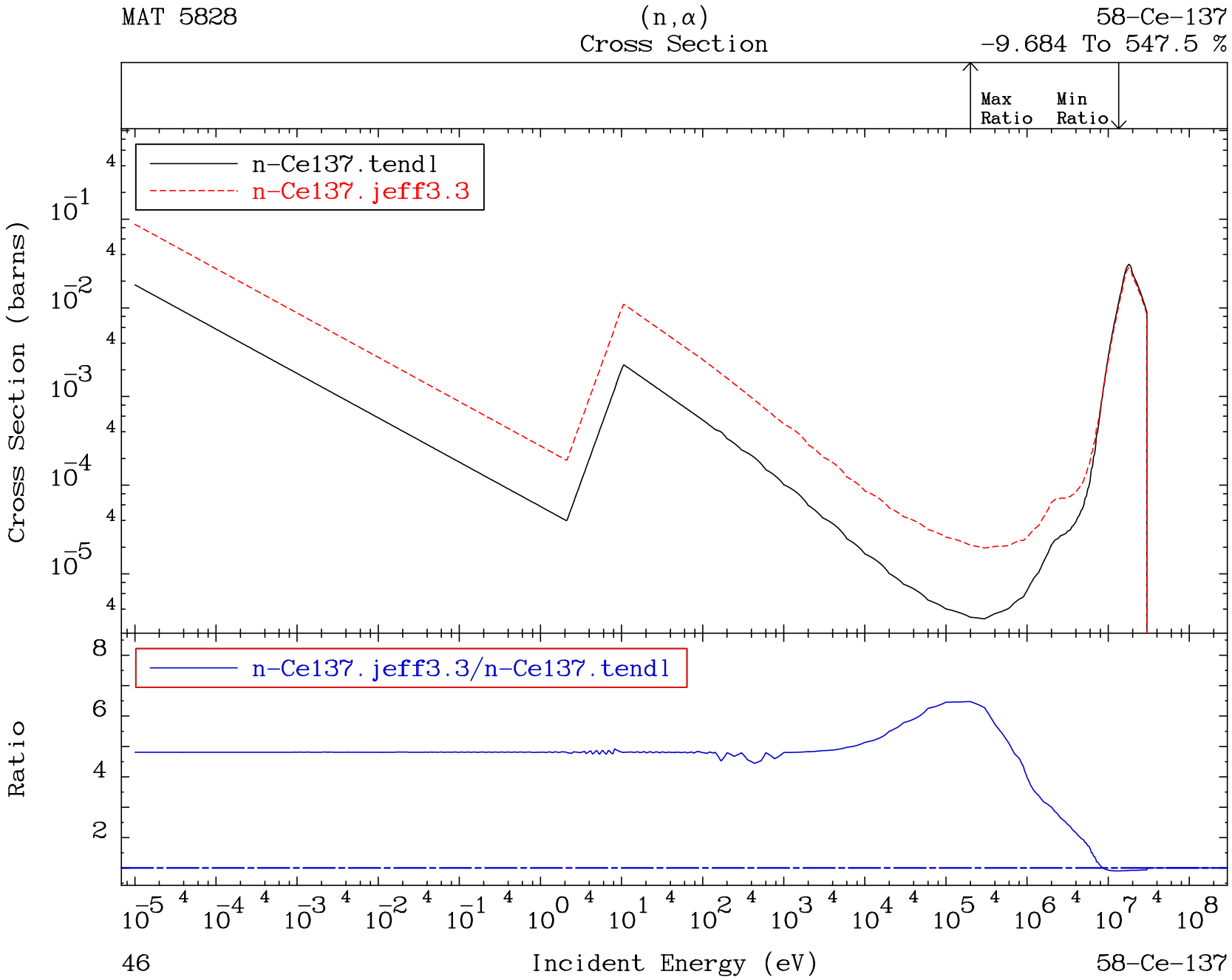

MAT 5828
(n,n') Continuum
Cross Section
58-Ce-137
-0.004 To 0.070 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 1.9017 MeV
n-Ce137.jeff3.3 Threshold 1.9017 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
41
Incident Energy (eV)
58-Ce-137

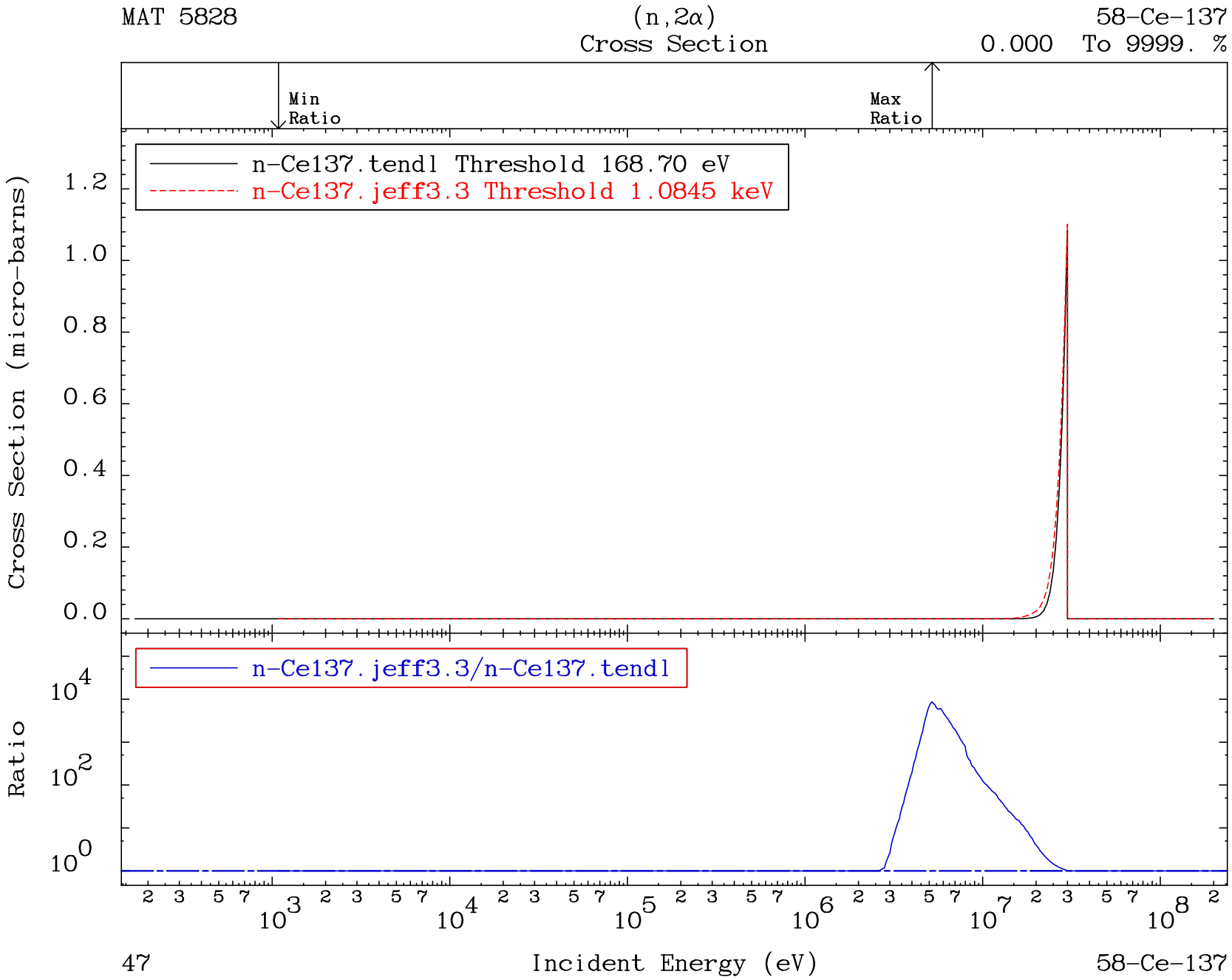

MAT 5828
(n,γ)
Cross Section
58-Ce-137
-99.79 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
42
58-Ce-137

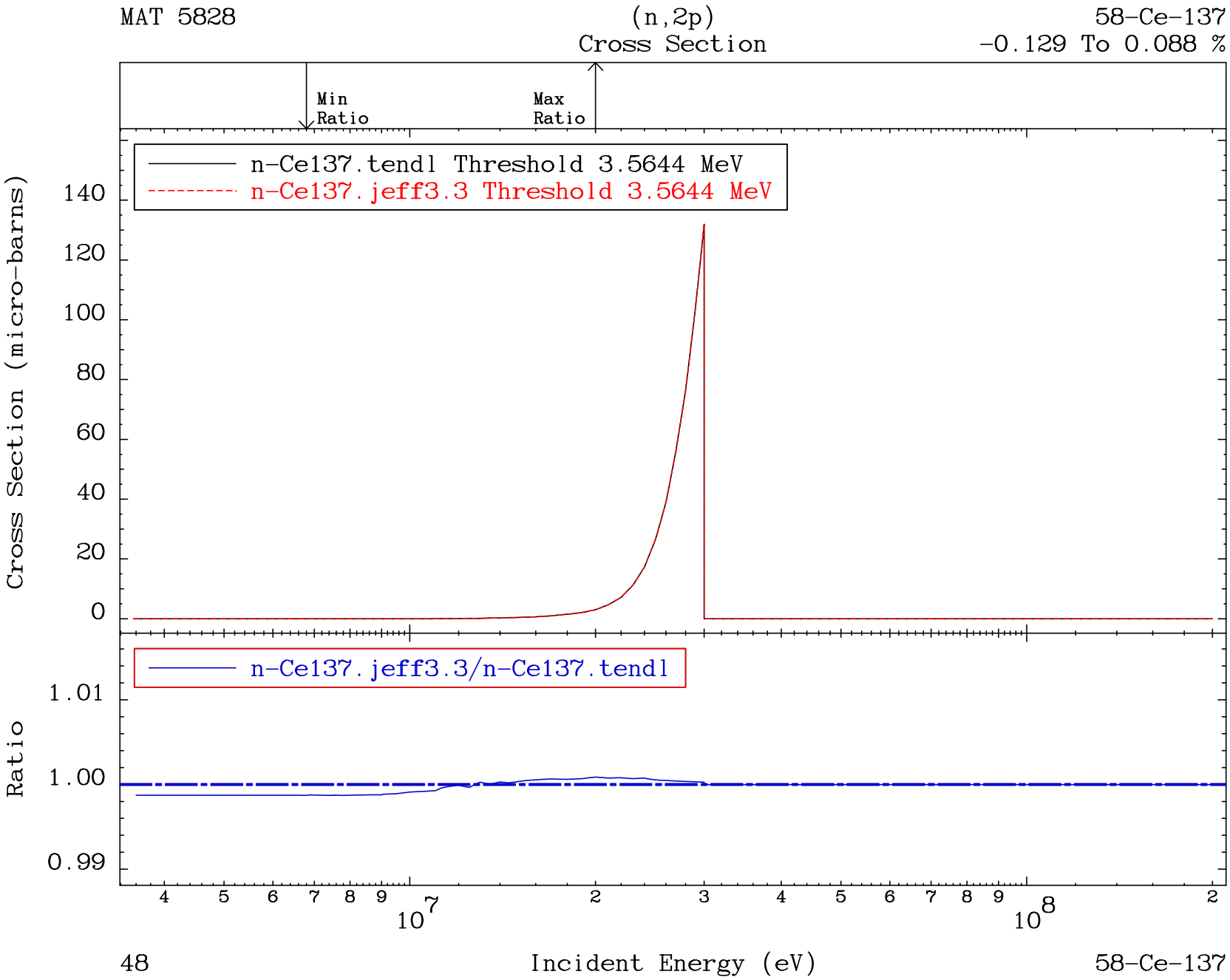

MAT 5828
(n,p)
Cross Section
58-Ce-137
-7.100 To 2.274 %
Max Ratio
Min Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
43
58-Ce-137

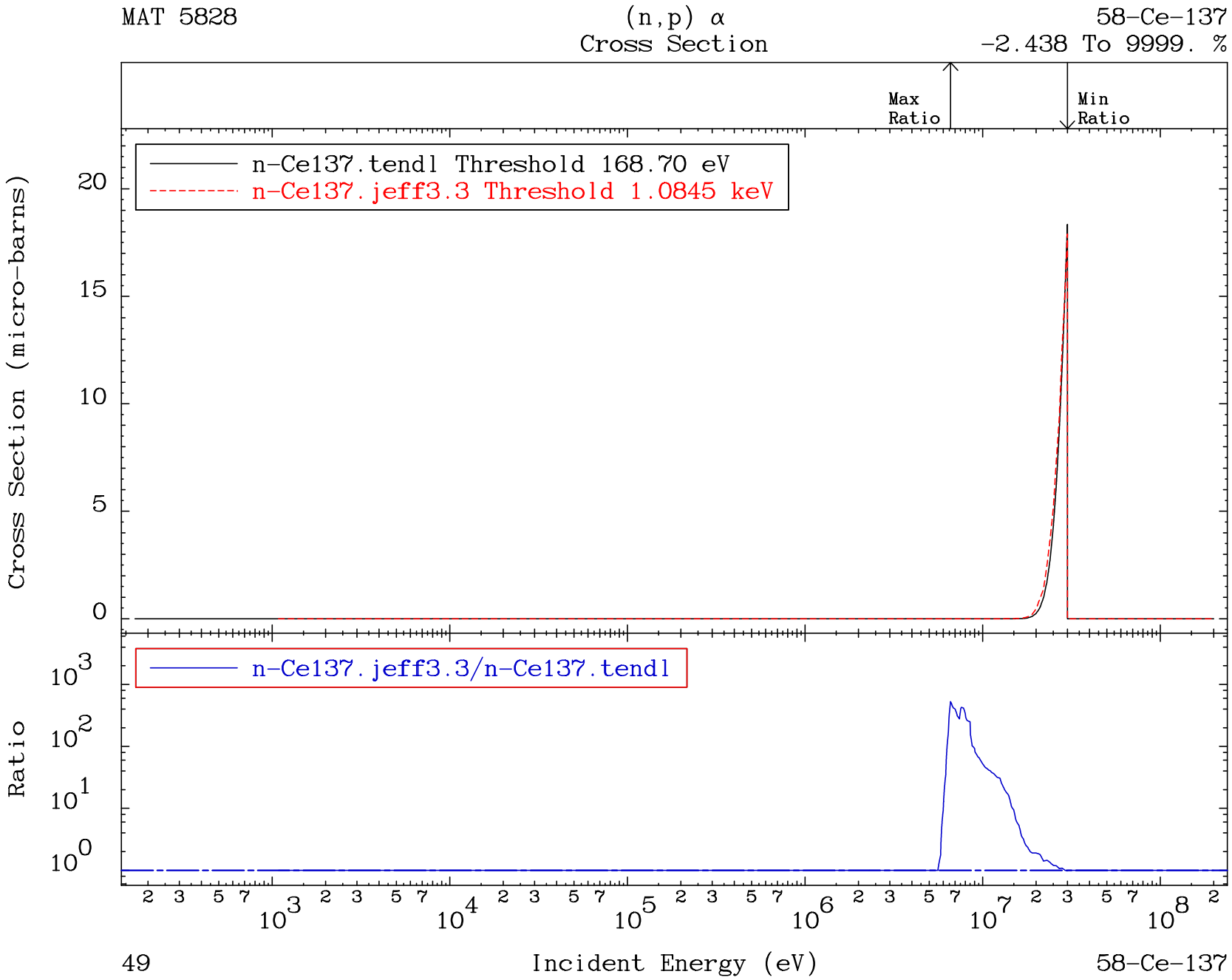

MAT 5828
(n,d)
Cross Section
58-Ce-137
-1.968 To 0.006 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 4.9819 MeV
n-Ce137.jeff3.3 Threshold 4.9819 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.00
0.99
0.98
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
58-Ce-137

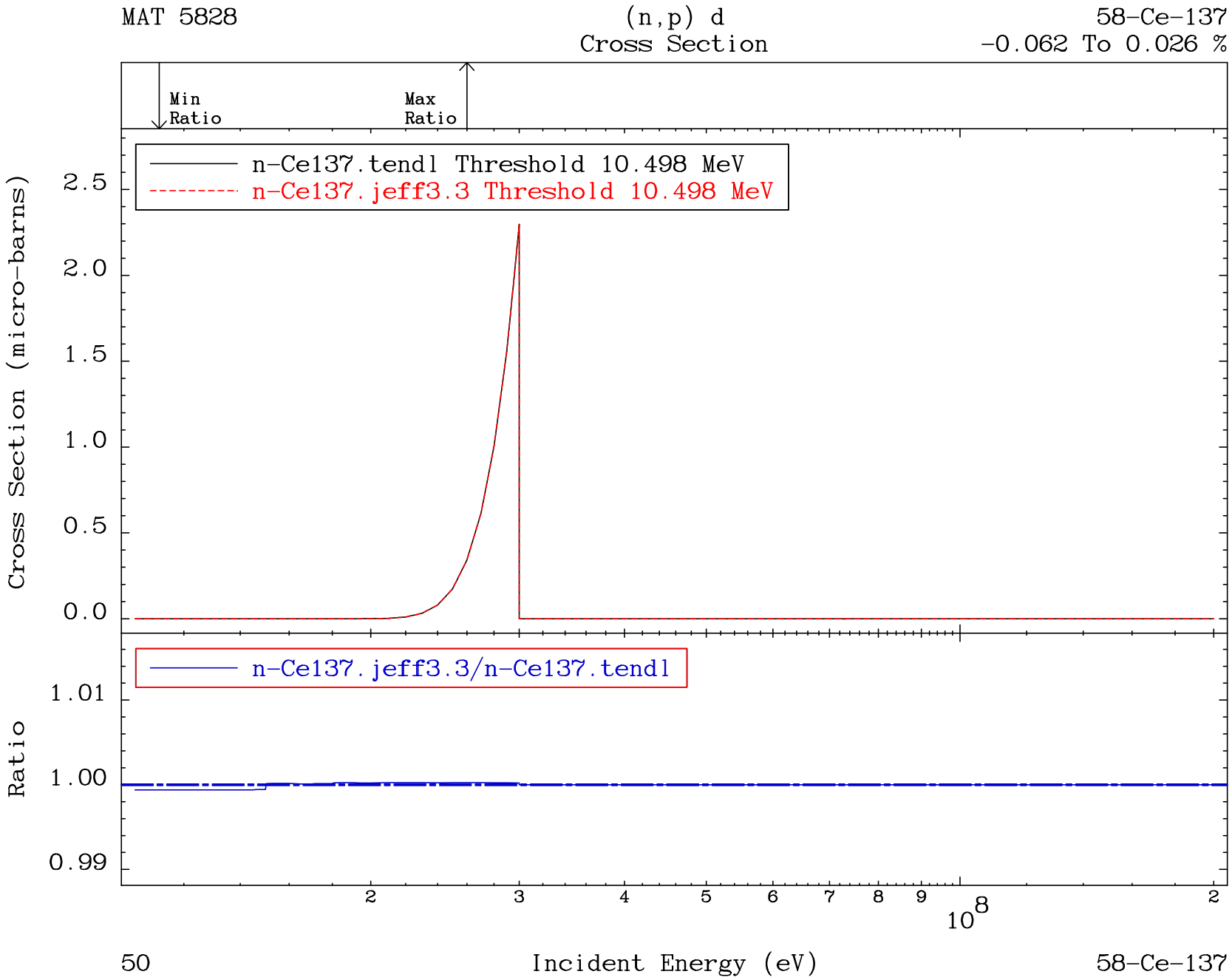

MAT 5828
(n,t)
Cross Section
58-Ce-137
-3.299 To 0.005 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 6.1991 MeV
n-Ce137.jeff3.3 Threshold 6.1991 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.00
0.98
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
58-Ce-137

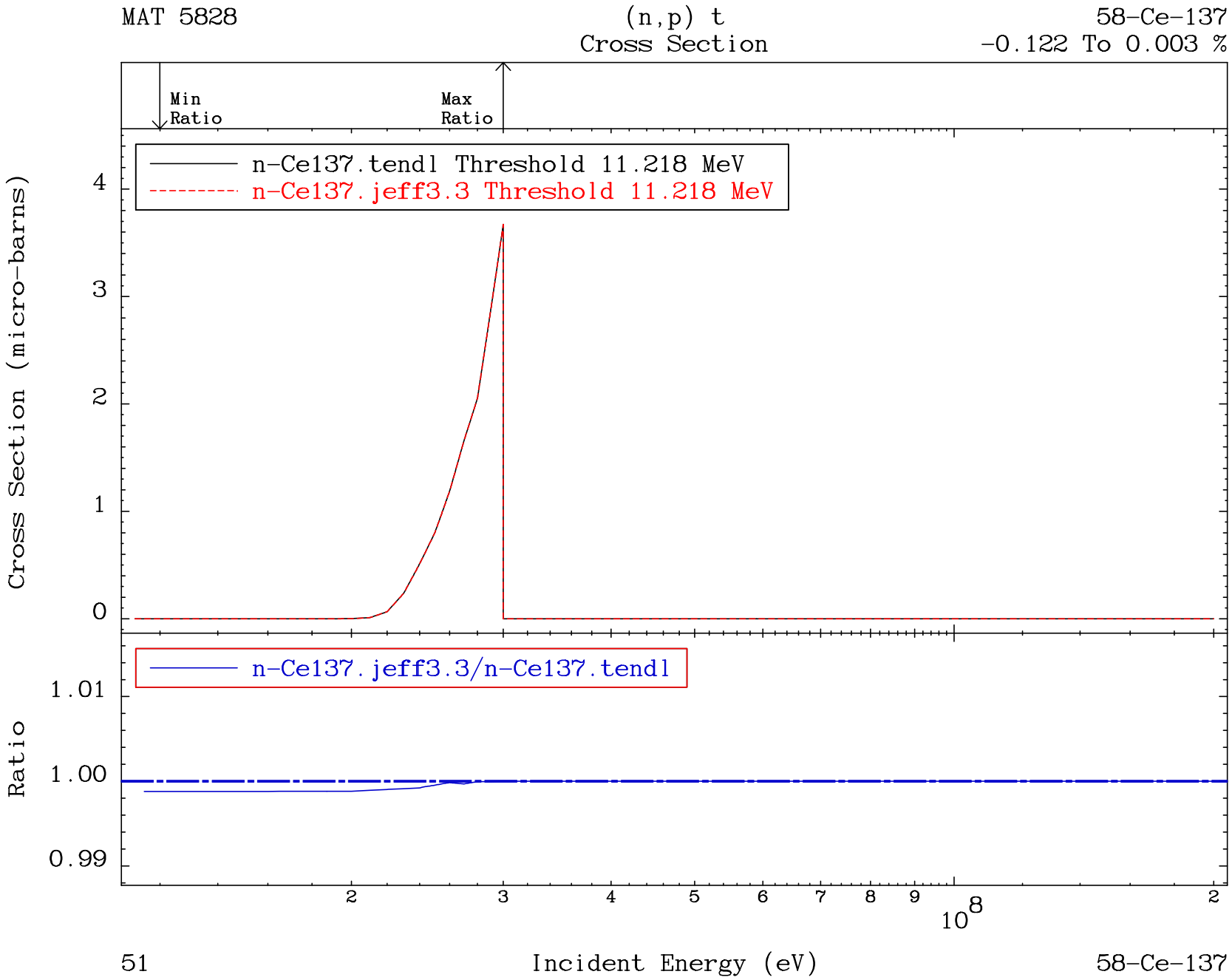

MAT 5828
(n,α)
Cross Section
58-Ce-137
-9.684 To 547.5 %
Max Ratio
Min Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
46
58-Ce-137

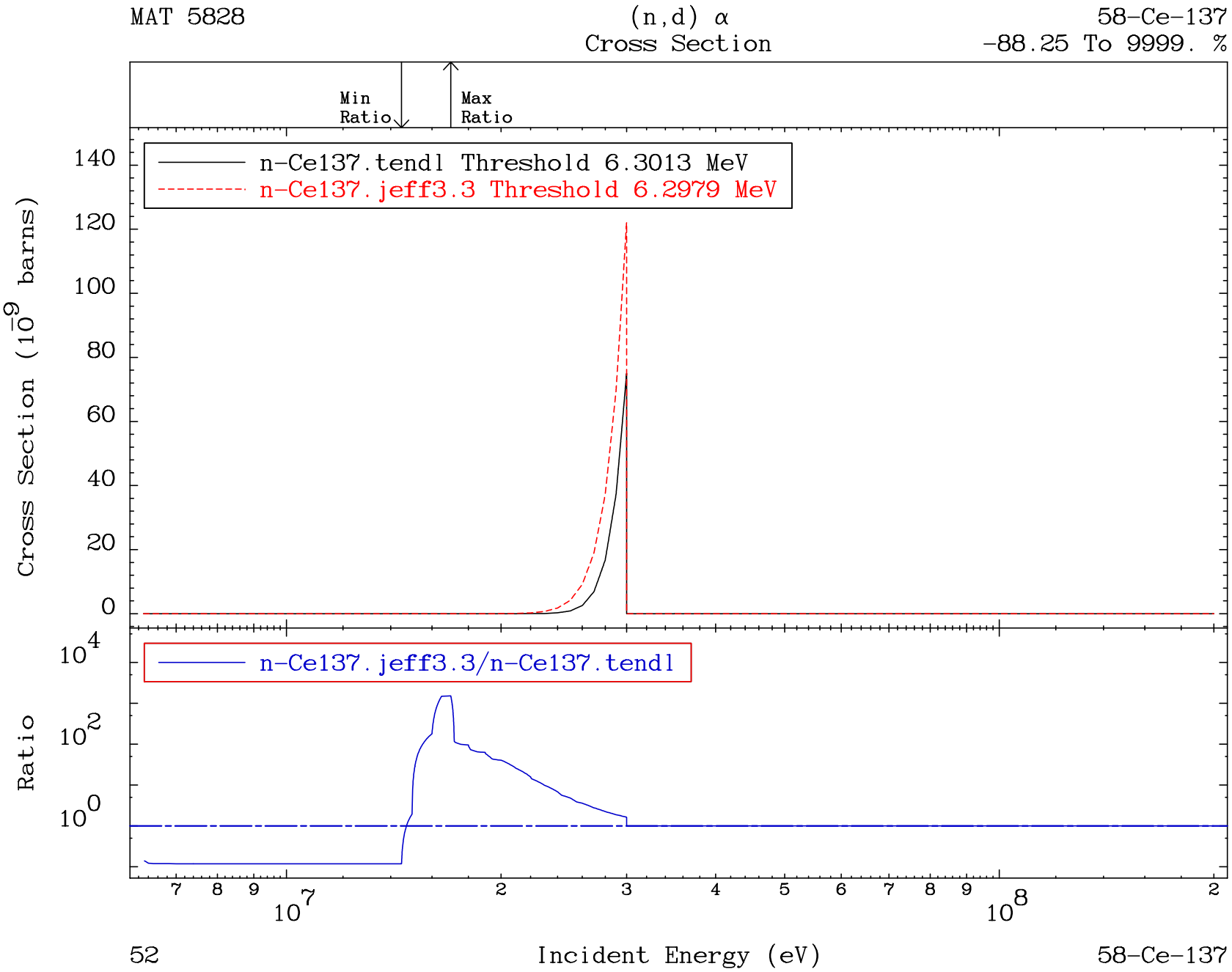

MAT 5828
(n,2α)
Cross Section
58-Ce-137
0.000 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 168.70 eV
n-Ce137.jeff3.3 Threshold 1.0845 keV
Cross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^4
10^2
10^0
2 3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
47
Incident Energy (eV)
58-Ce-137

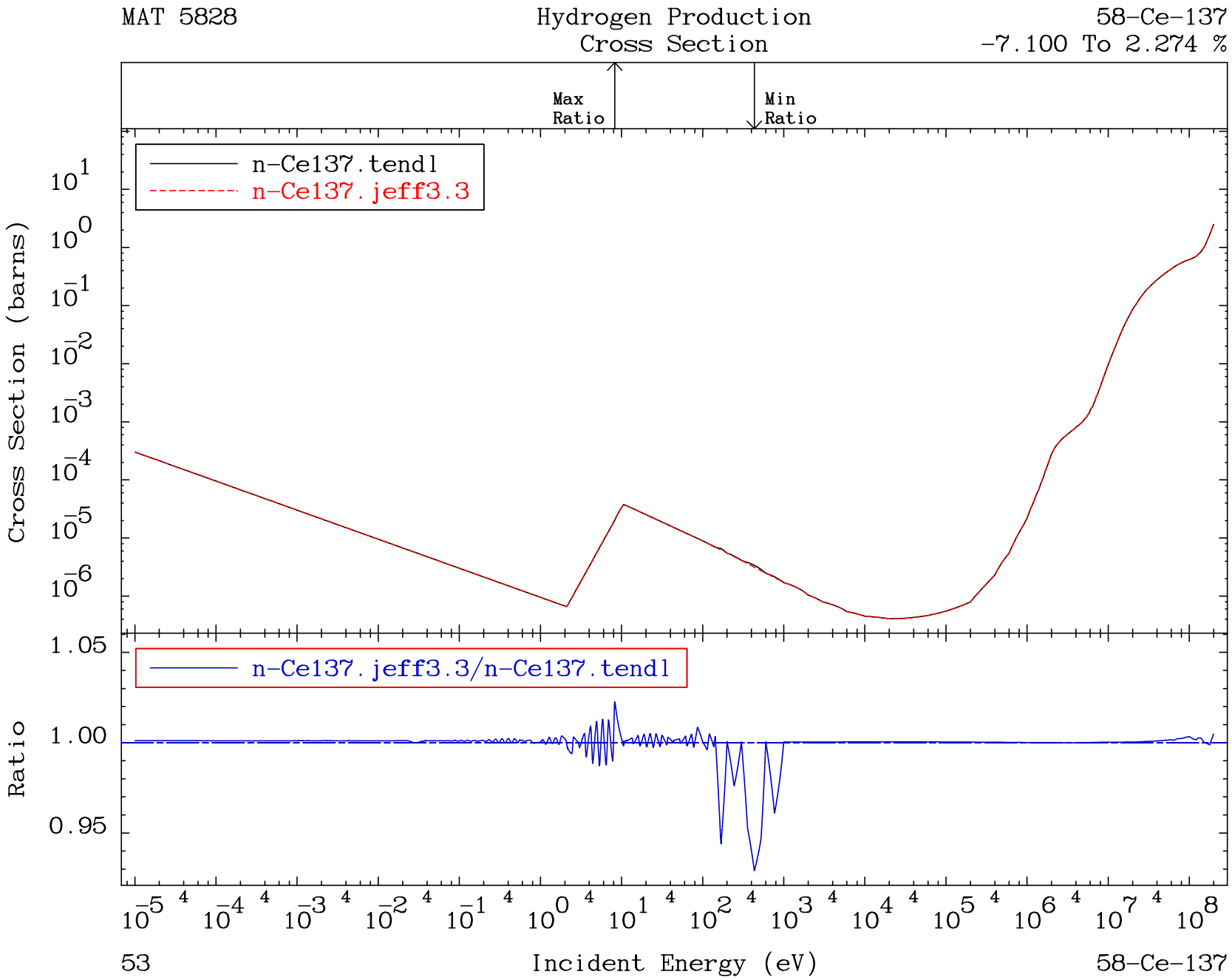

MAT 5828
(n,2p)
Cross Section
58-Ce-137
-0.129 To 0.088 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 3.5644 MeV
n-Ce137.jeff3.3 Threshold 3.5644 MeV
Cross Section (micro-barns)
140
120
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
48
Incident Energy (eV)
58-Ce-137

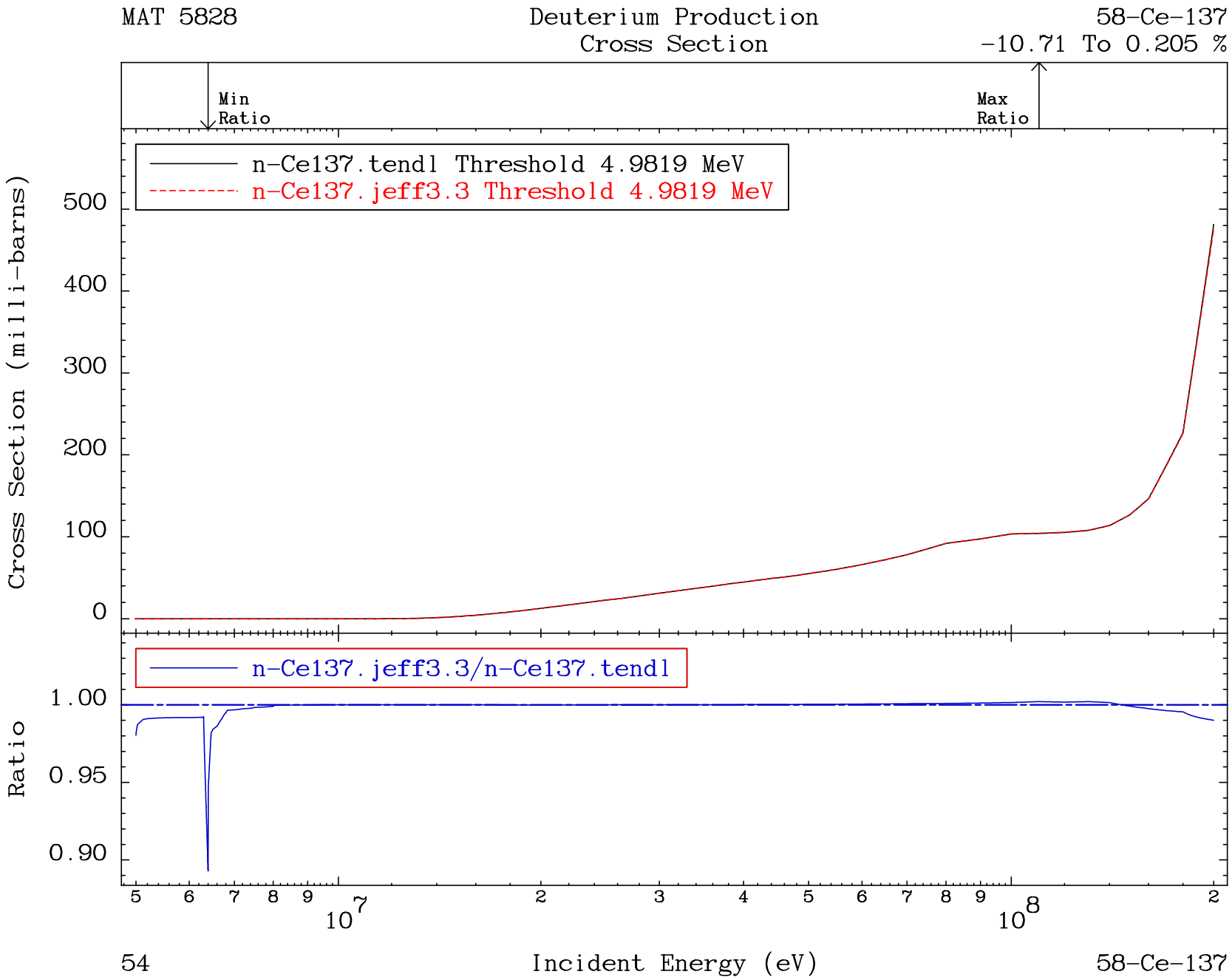

MAT 5828
(n,p) α
Cross Section
58-Ce-137
-2.438 To 9999. %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 168.70 eV
n-Ce137.jeff3.3 Threshold 1.0845 keV
Cross Section (micro-barns)
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^3
10^2
10^1
10^0
2 3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
49
Incident Energy (eV)
58-Ce-137

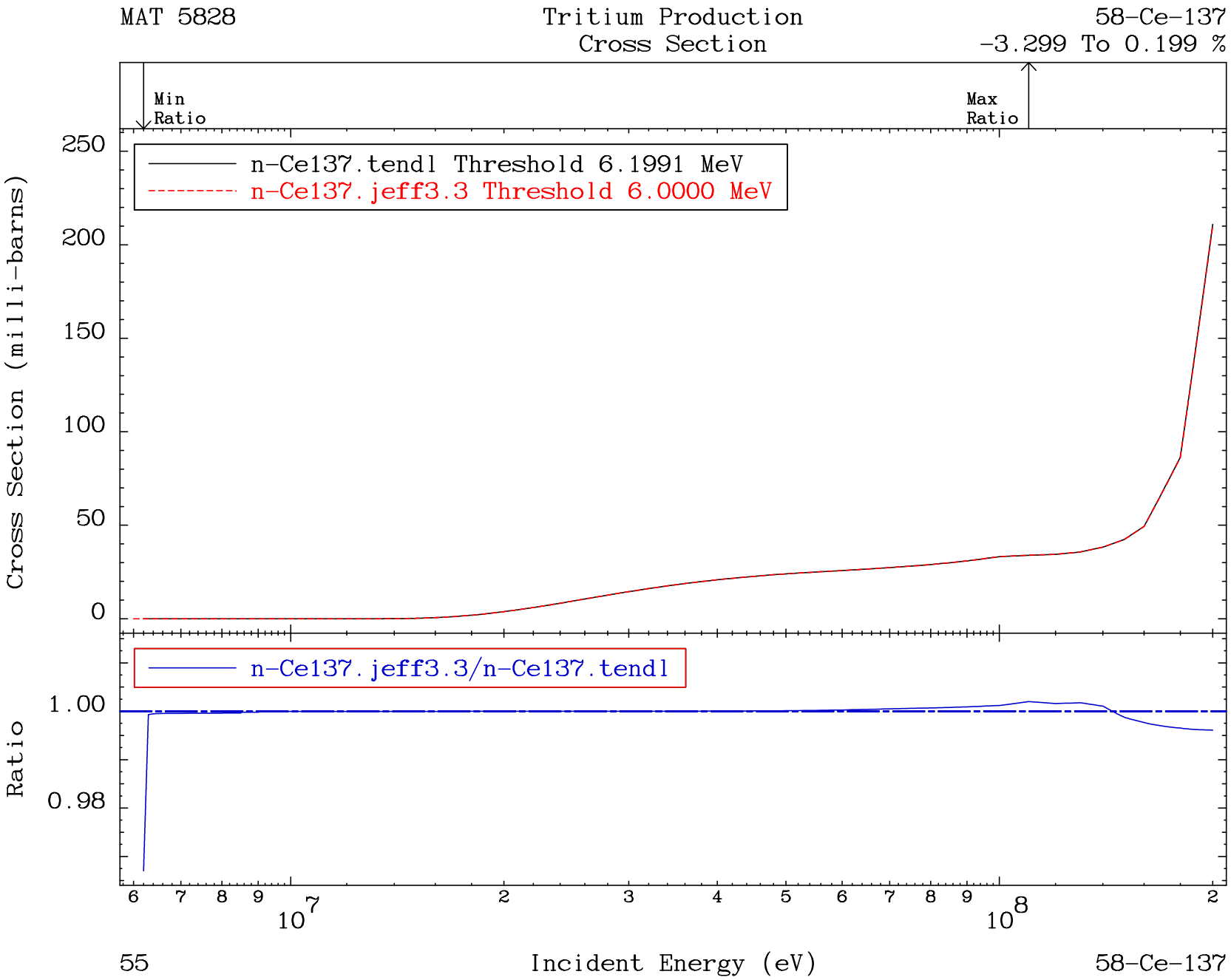

MAT 5828
(n,p) d
Cross Section
58-Ce-137
-0.062 To 0.026 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 10.498 MeV
n-Ce137.jeff3.3 Threshold 10.498 MeV
Cross Section (micro-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
50
Incident Energy (eV)
58-Ce-137

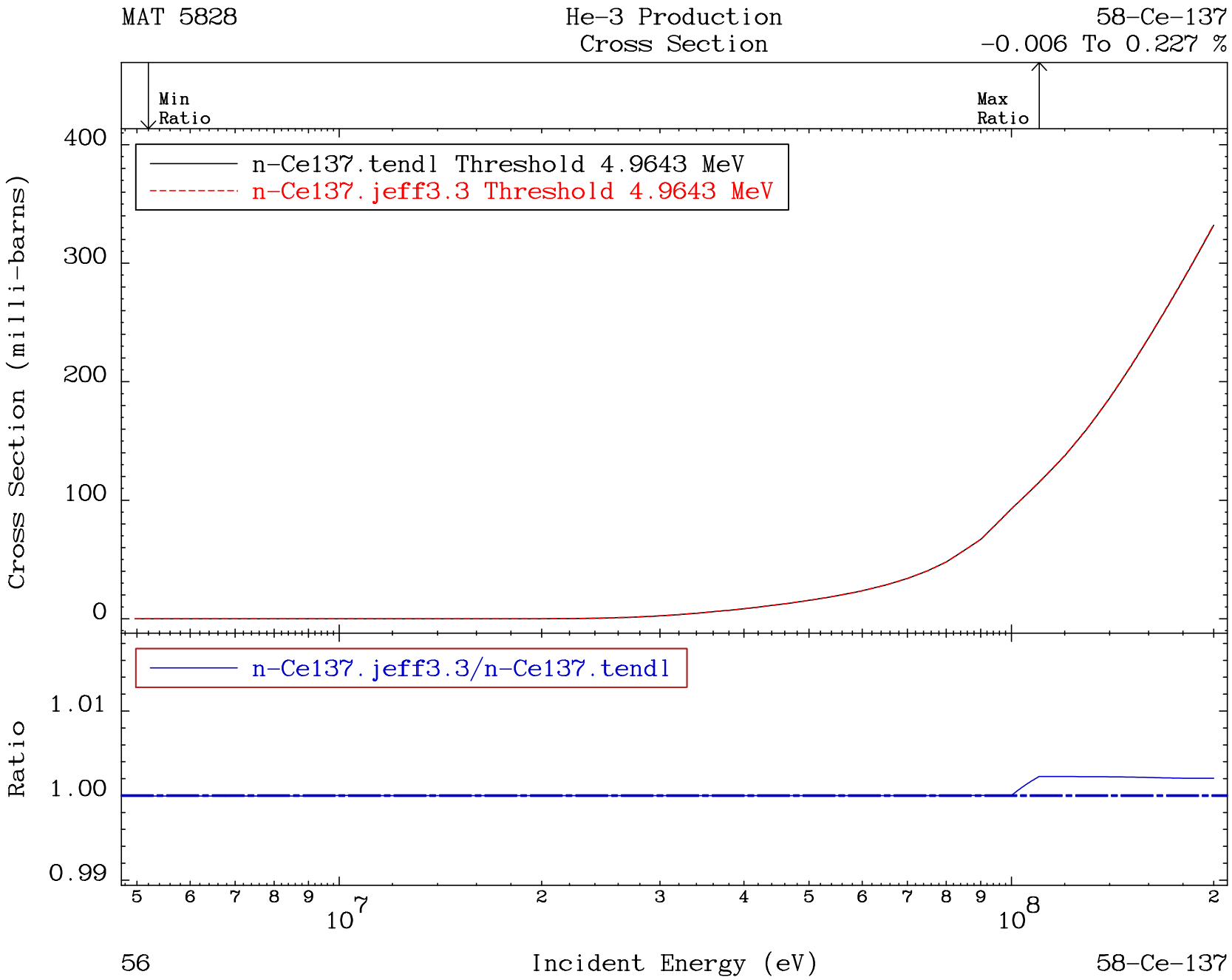

MAT 5828
(n,p) t
Cross Section
58-Ce-137
-0.122 To 0.003 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 11.218 MeV
n-Ce137.jeff3.3 Threshold 11.218 MeV
Cross Section (micro-barns)
0
1
2
3
4
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
51
Incident Energy (eV)
58-Ce-137

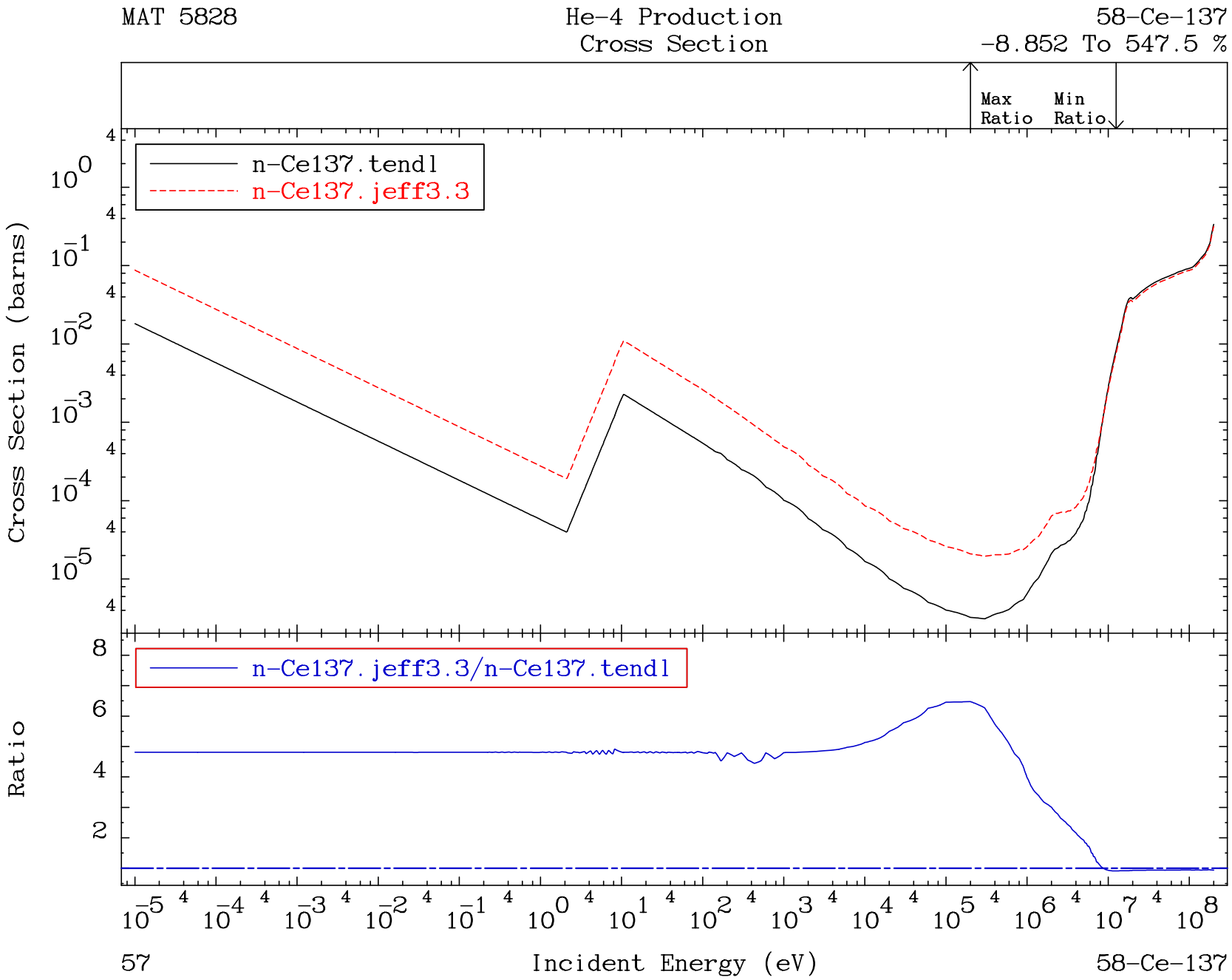

MAT 5828
(n,d) α
Cross Section
58-Ce-137
-88.25 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 6.3013 MeV
n-Ce137.jeff3.3 Threshold 6.2979 MeV
Cross Section ($10^{-9}$ barns)
140
120
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
$10^4$
$10^2$
$10^0$
7 8 9 $10^7$ 2 3 4 5 6 7 8 9 $10^8$ 2
52
Incident Energy (eV)
58-Ce-137

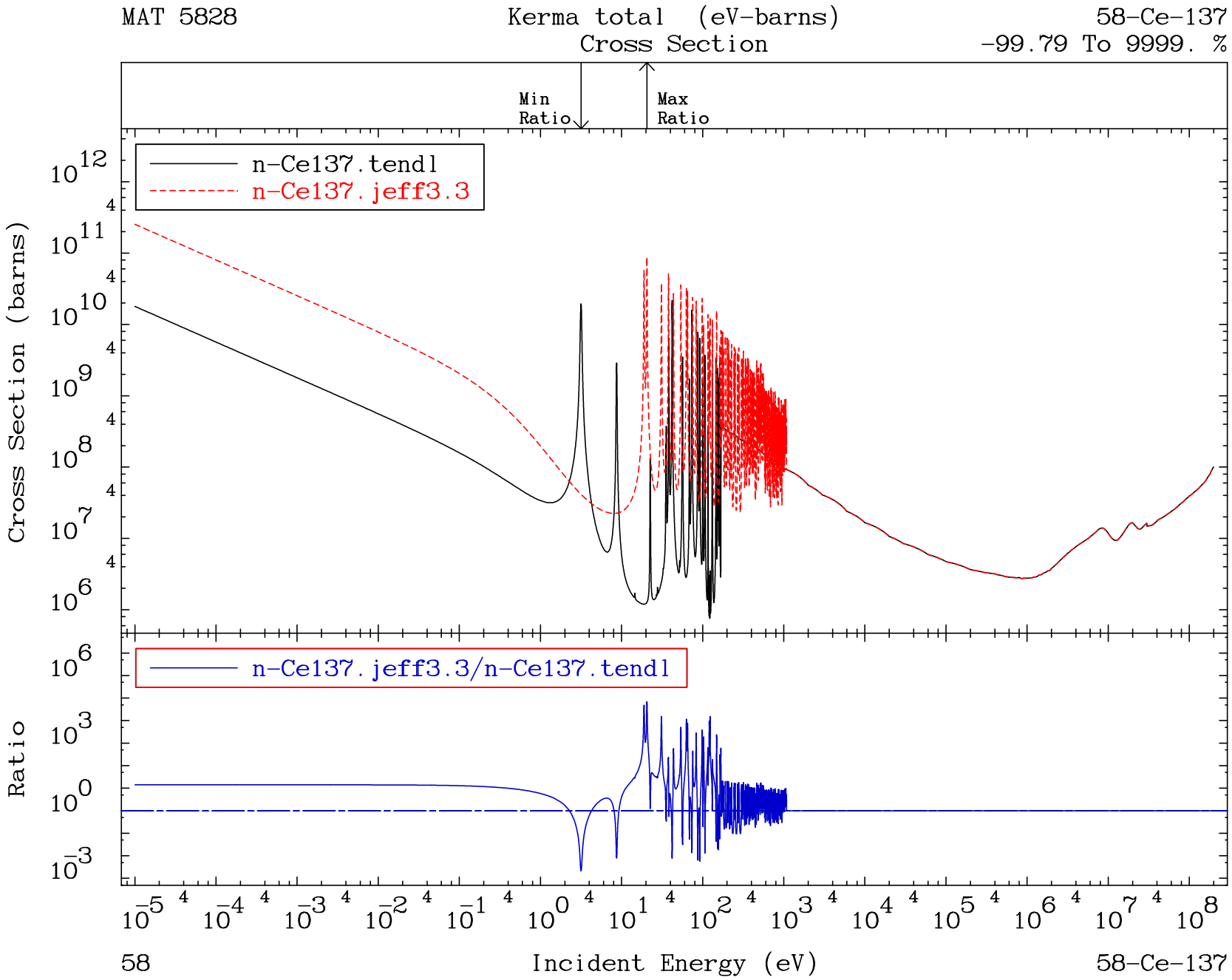

MAT 5828
Hydrogen Production
Cross Section
58-Ce-137
-7.100 To 2.274 %
Max Ratio
Min Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
53
58-Ce-137

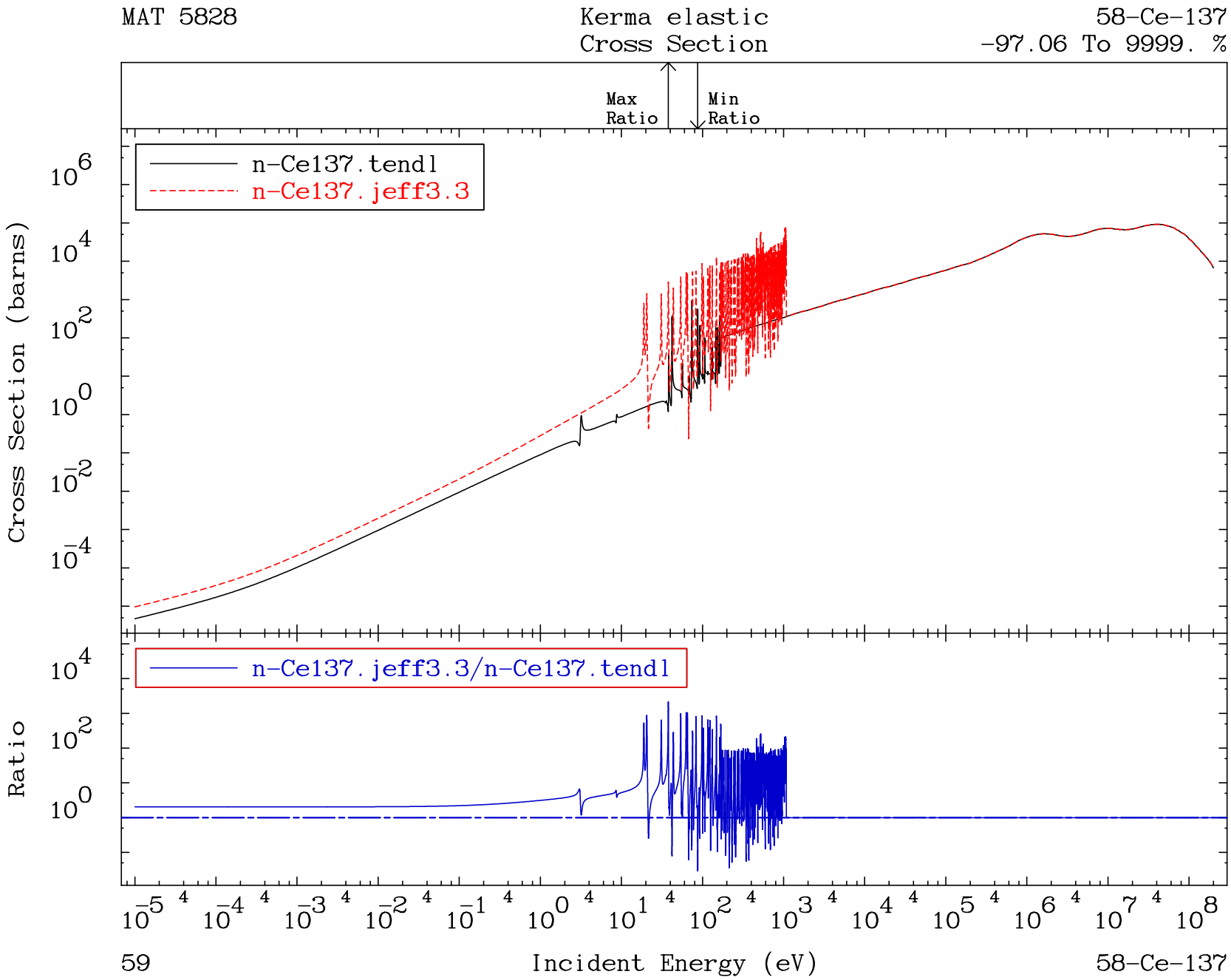

MAT 5828
Deuterium Production
Cross Section
58-Ce-137
-10.71 To 0.205 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 4.9819 MeV
n-Ce137.jeff3.3 Threshold 4.9819 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.00
0.95
0.90
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
54
Incident Energy (eV)
58-Ce-137

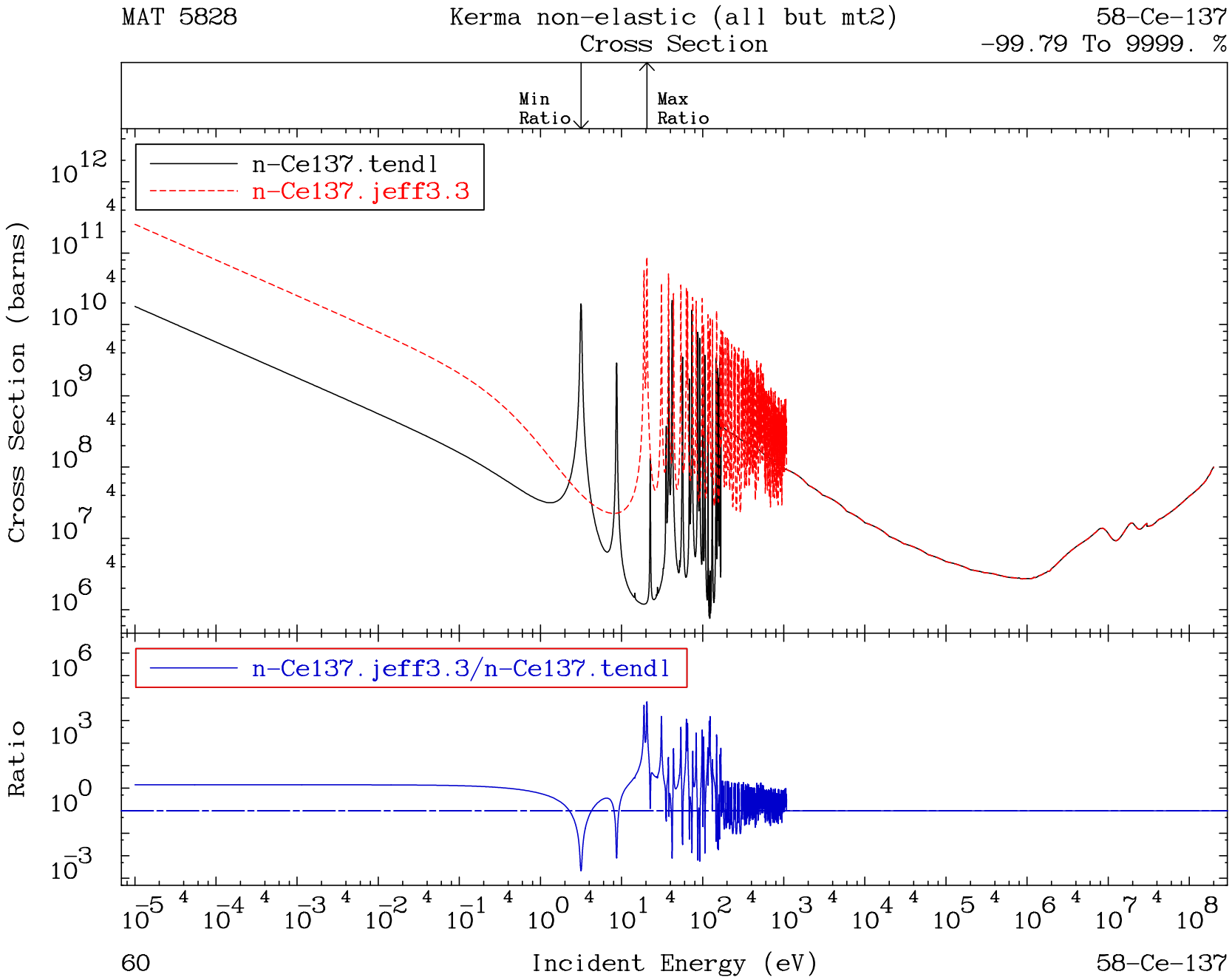

MAT 5828
Tritium Production
Cross Section
58-Ce-137
-3.299 To 0.199 %
Min
Ratio
Max
Ratio
n-Ce137.tendl Threshold 6.1991 MeV
n-Ce137.jeff3.3 Threshold 6.0000 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.00
0.98
6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
55
Incident Energy (eV)
58-Ce-137

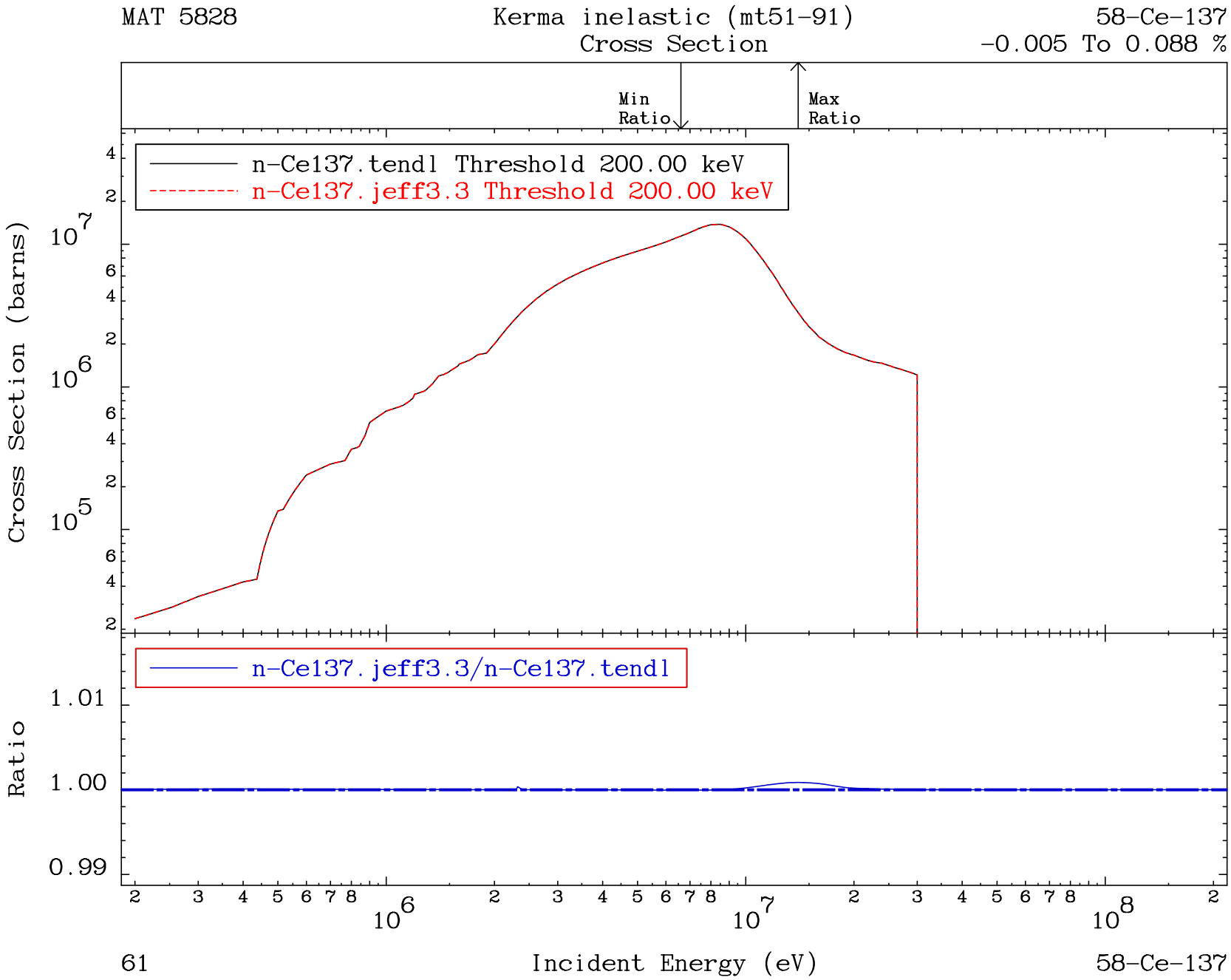

MAT 5828
He-3 Production
Cross Section
58-Ce-137
-0.006 To 0.227 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 4.9643 MeV
n-Ce137.jeff3.3 Threshold 4.9643 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
56
Incident Energy (eV)
58-Ce-137

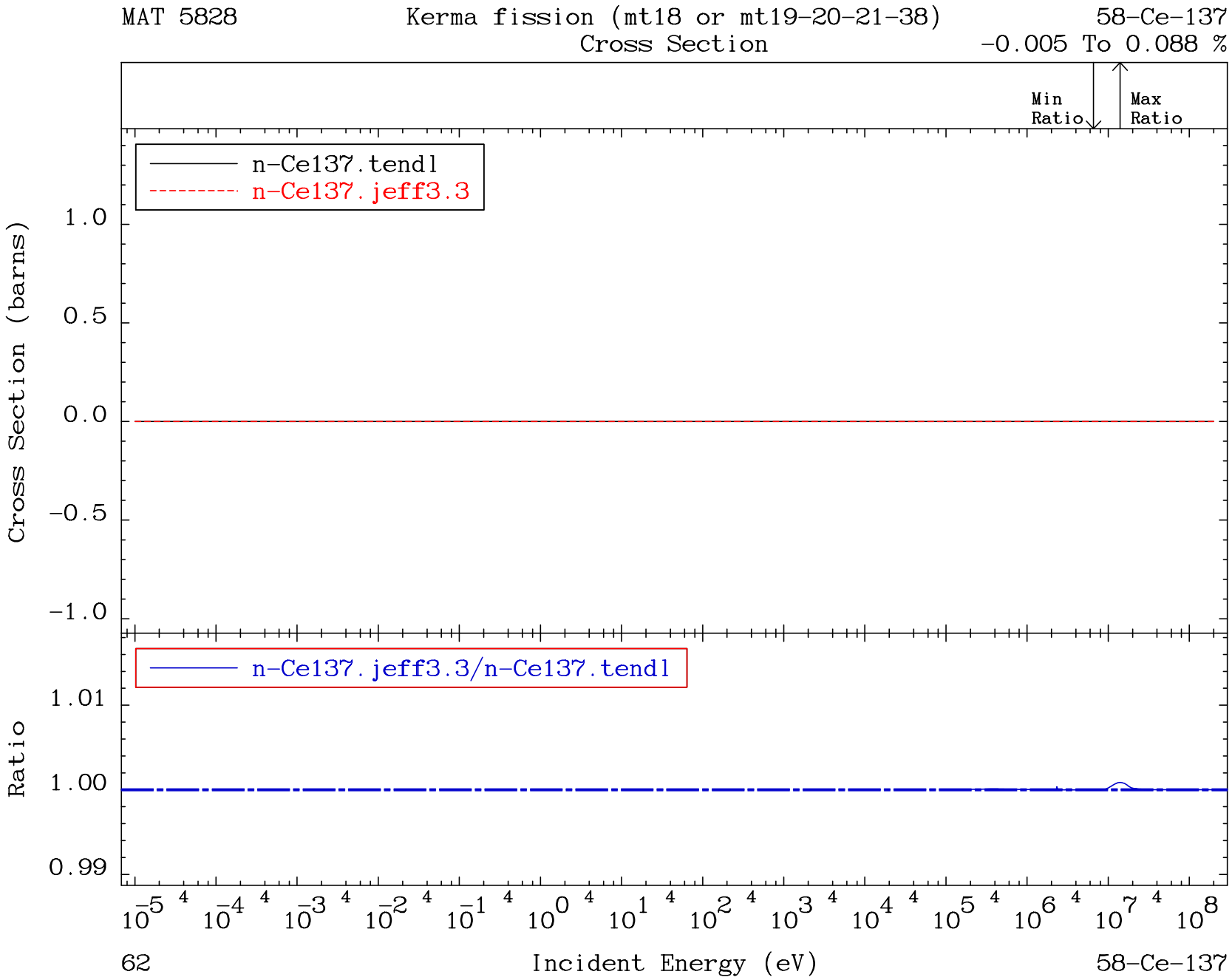

MAT 5828
He-4 Production
Cross Section
58-Ce-137
-8.852 To 547.5 %
Max Ratio
Min Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
57
58-Ce-137

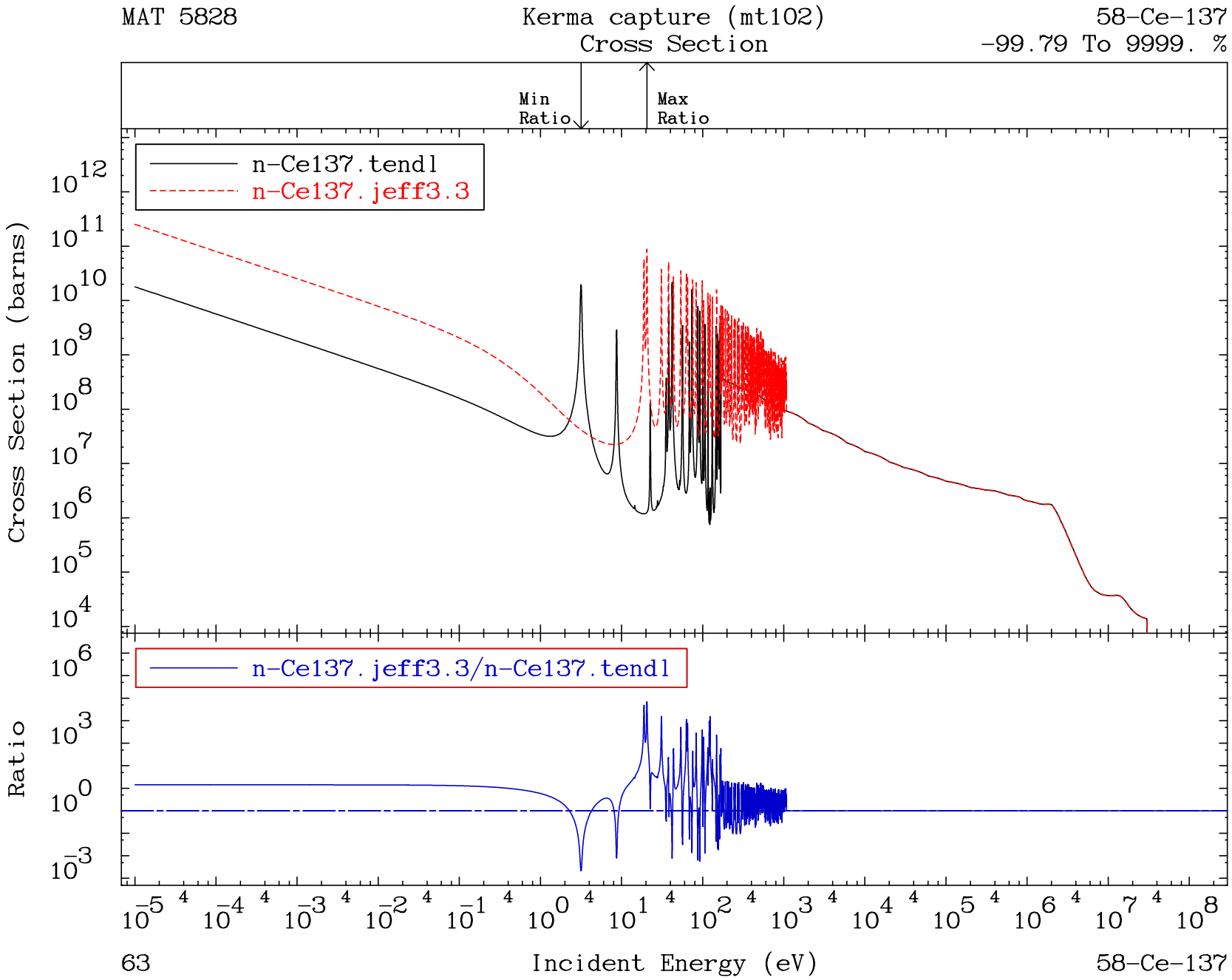

MAT 5828
Kerma total (eV-barns)
Cross Section
58-Ce-137
-99.79 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
58
Incident Energy (eV)
58-Ce-137

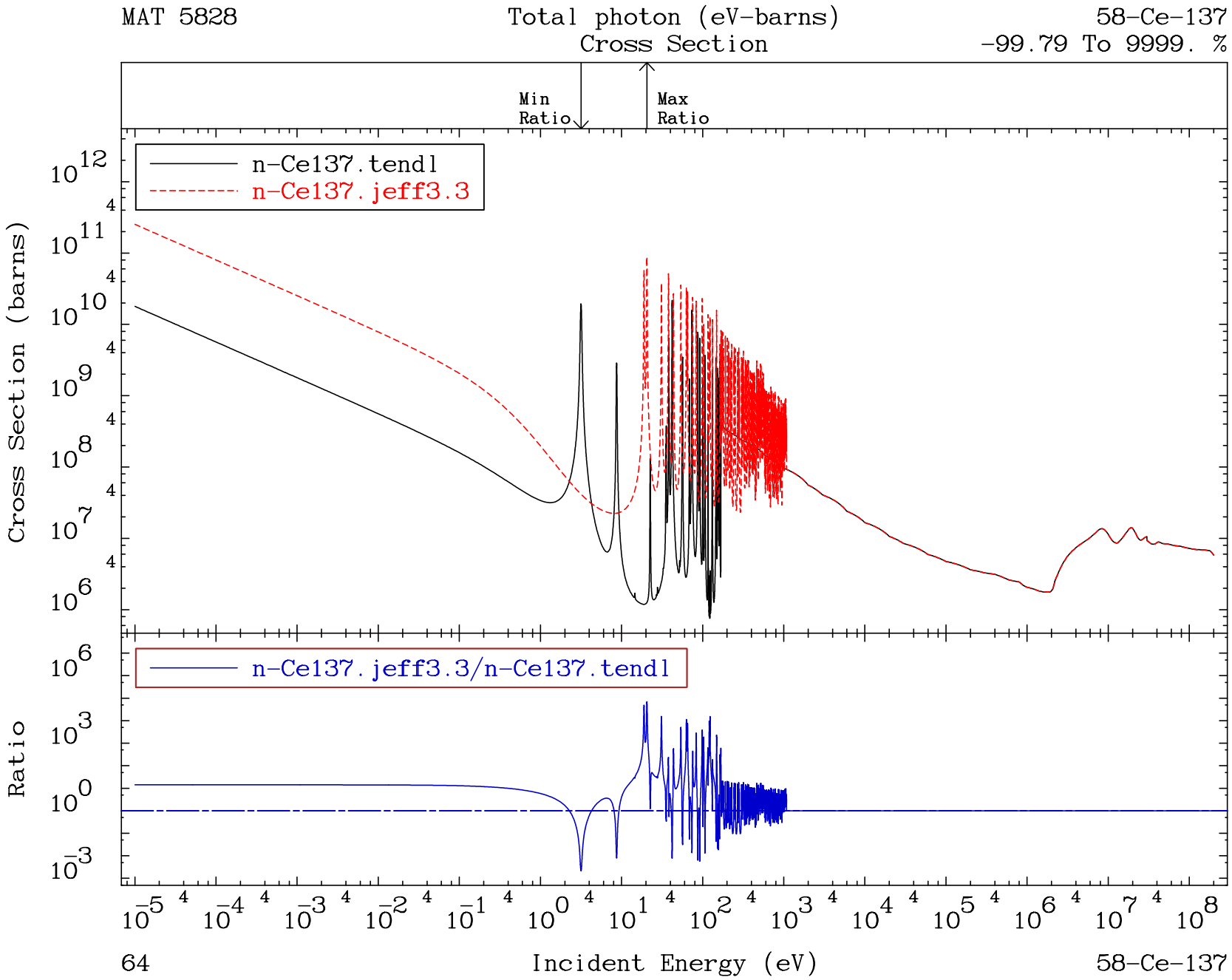

MAT 5828
Kerma elastic
Cross Section
58-Ce-137
-97.06 To 9999. %
Max
Ratio
Min
Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
59
58-Ce-137

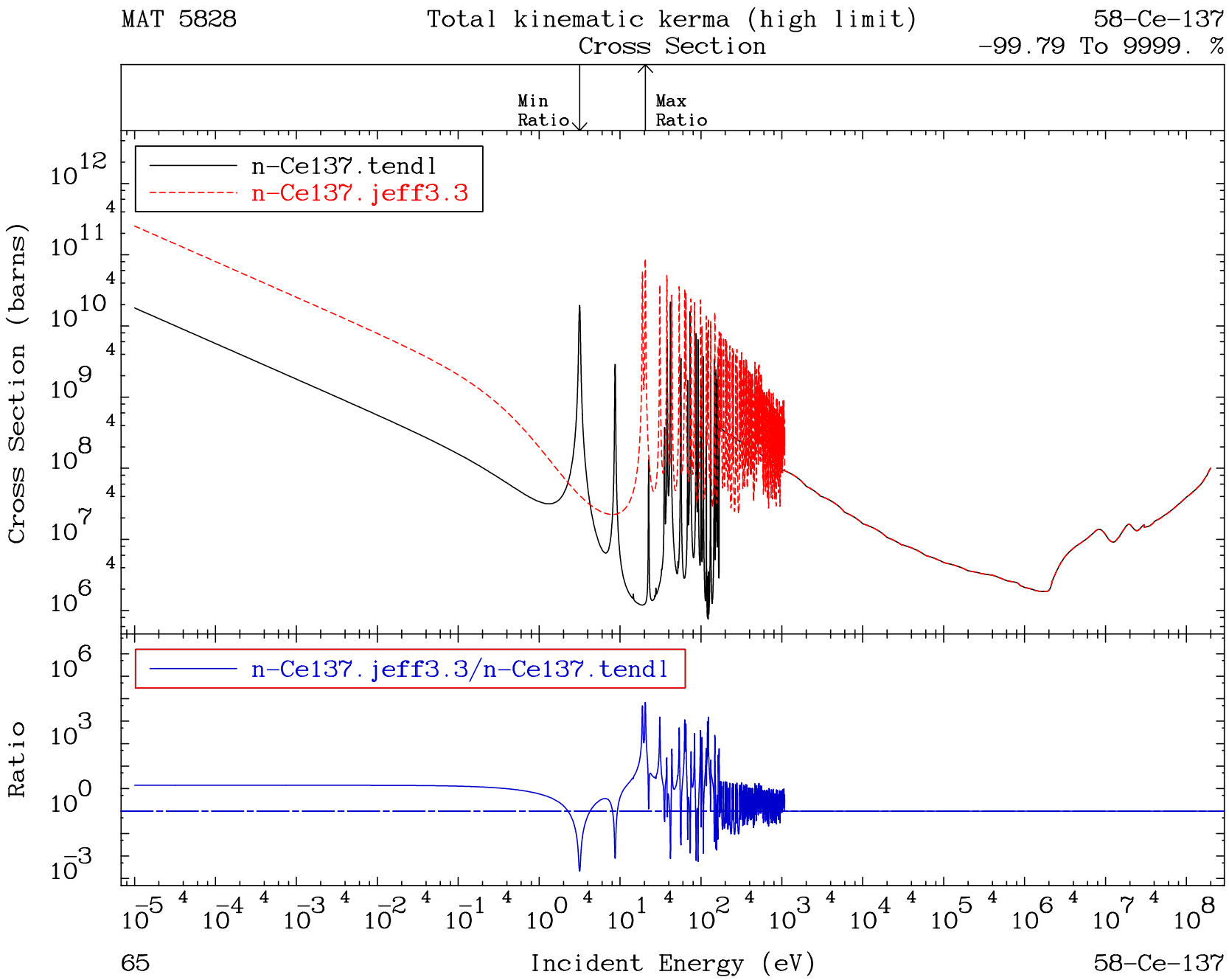

MAT 5828
Kerma non-elastic (all but mt2)
Cross Section
58-Ce-137
-99.79 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
60
58-Ce-137

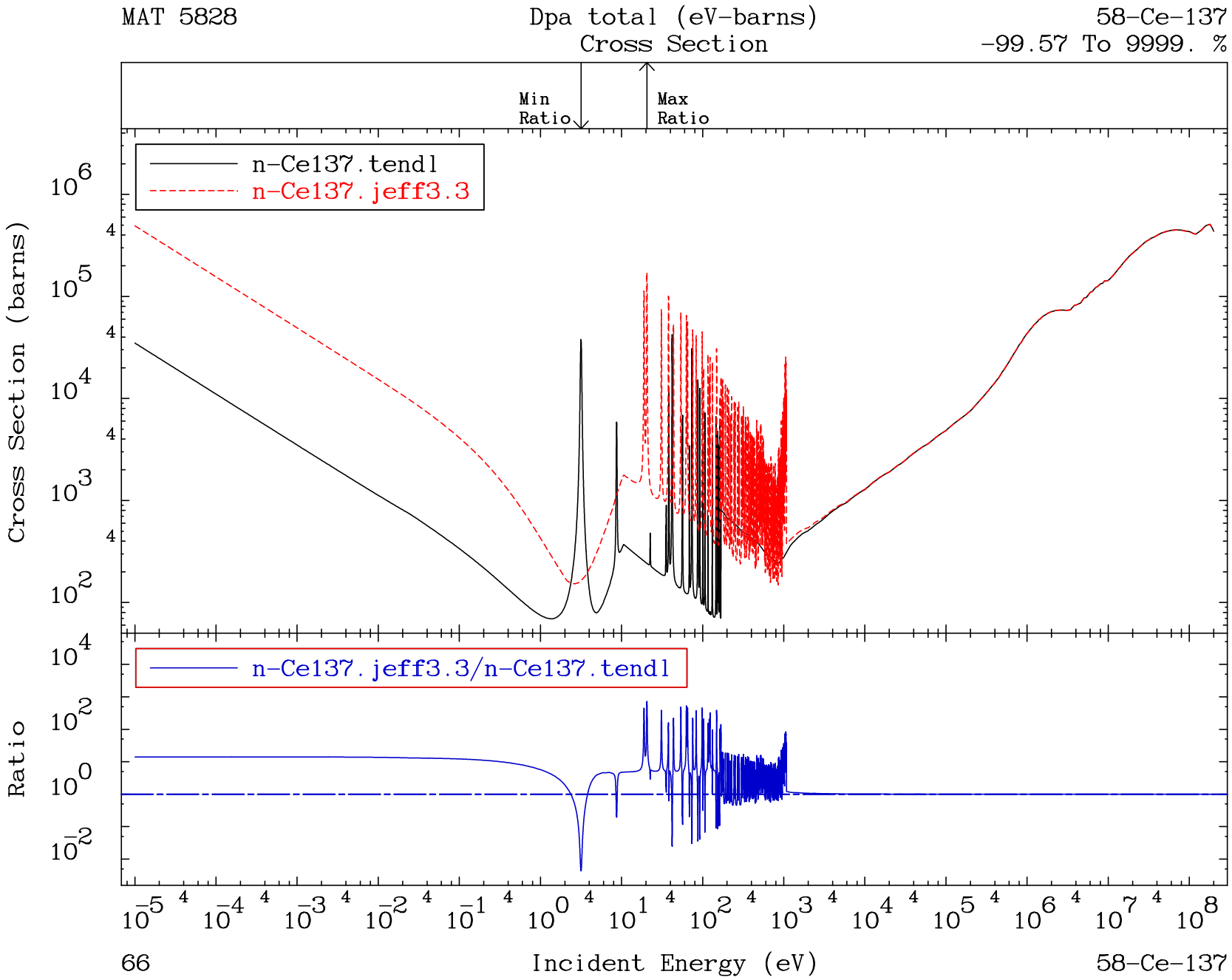

MAT 5828
Kerma inelastic (mt51-91)
Cross Section
58-Ce-137
-0.005 To 0.088 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 200.00 keV
n-Ce137.jeff3.3 Threshold 200.00 keV
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
61
58-Ce-137

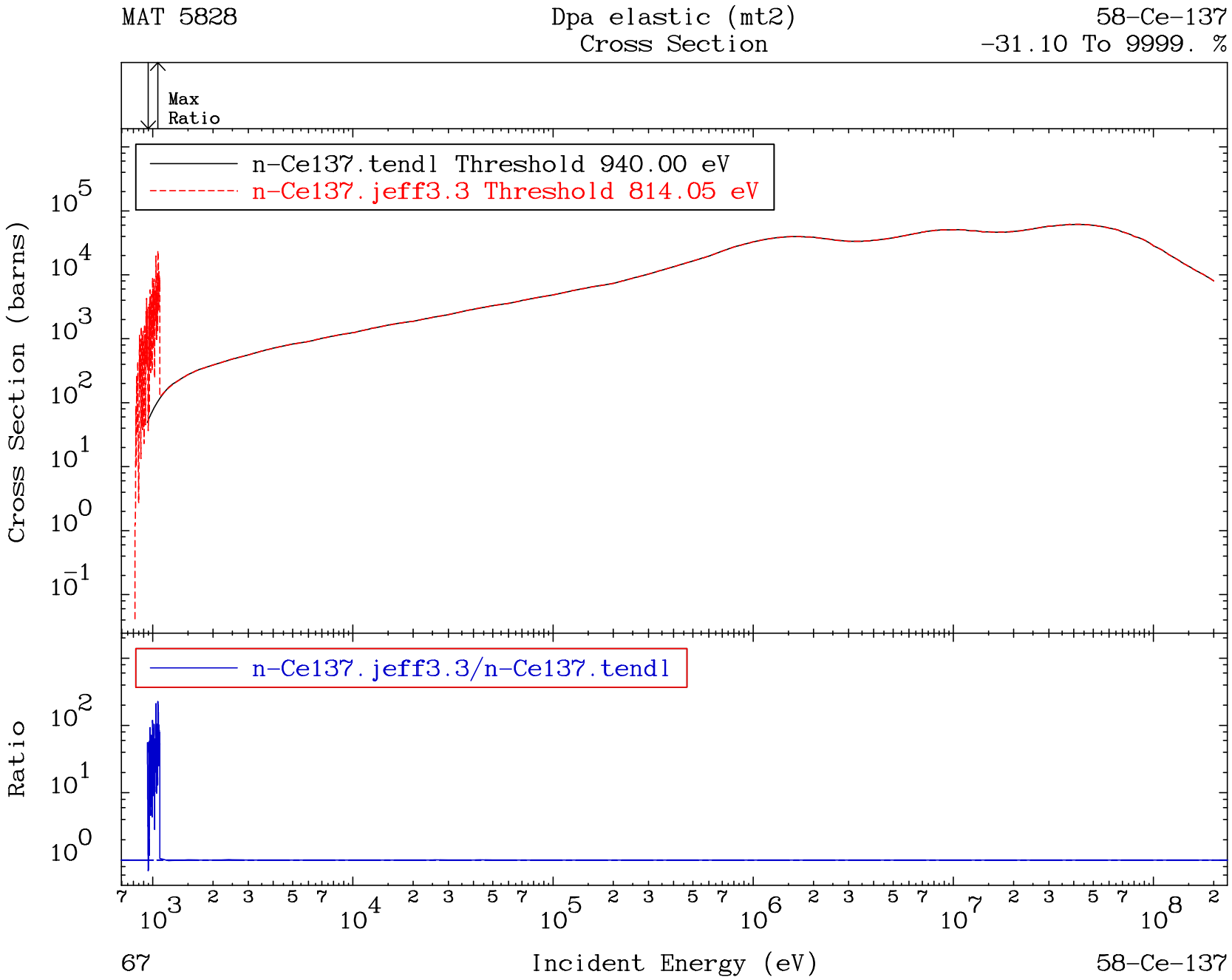

MAT 5828
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
58-Ce-137
-0.005 To 0.088 %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
62
Incident Energy (eV)
58-Ce-137

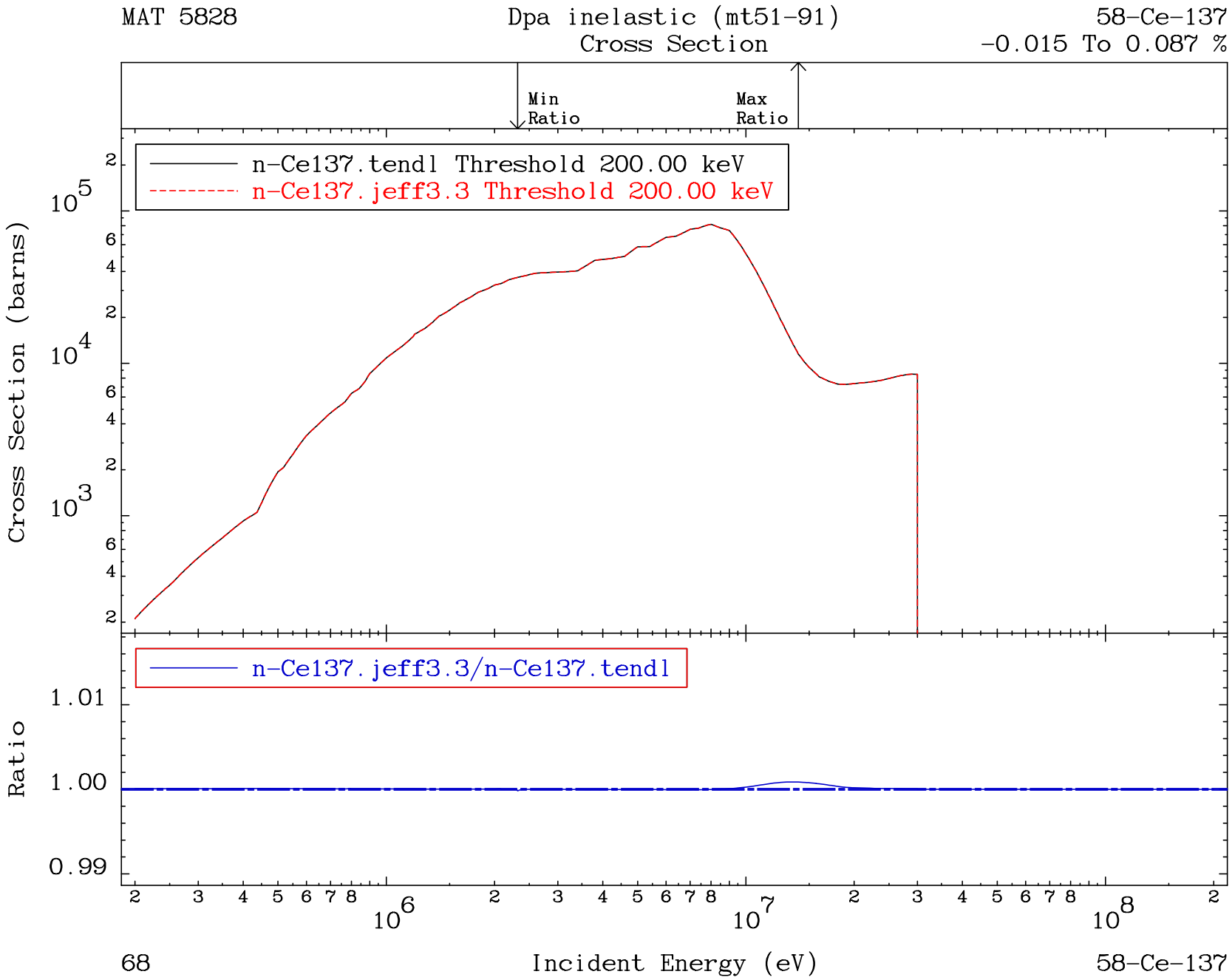

MAT 5828
Kerma capture (mt102)
Cross Section
58-Ce-137
-99.79 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
63
Incident Energy (eV)
58-Ce-137

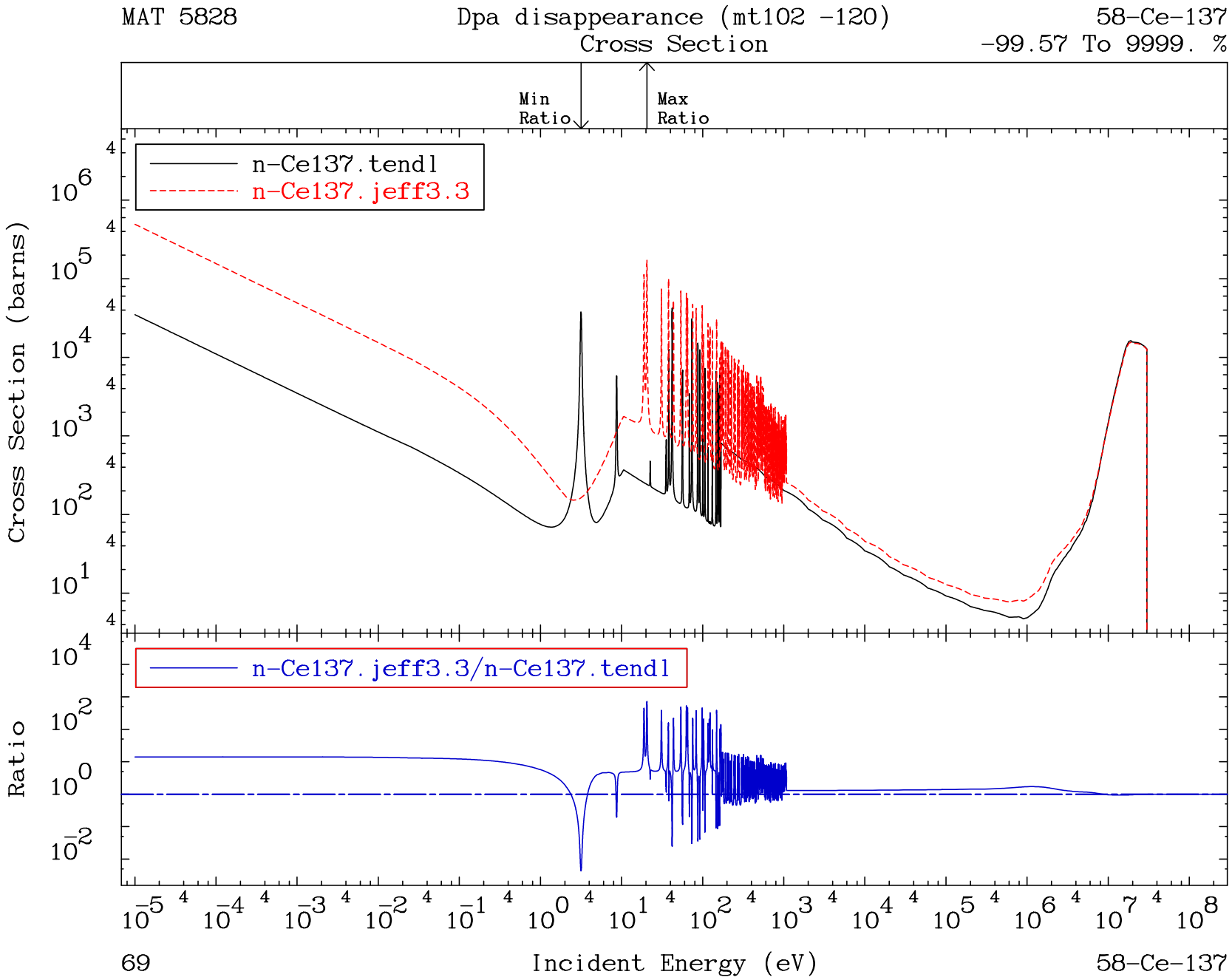

MAT 5828
Total photon (eV-barns)
Cross Section
58-Ce-137
-99.79 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
64
Incident Energy (eV)
58-Ce-137

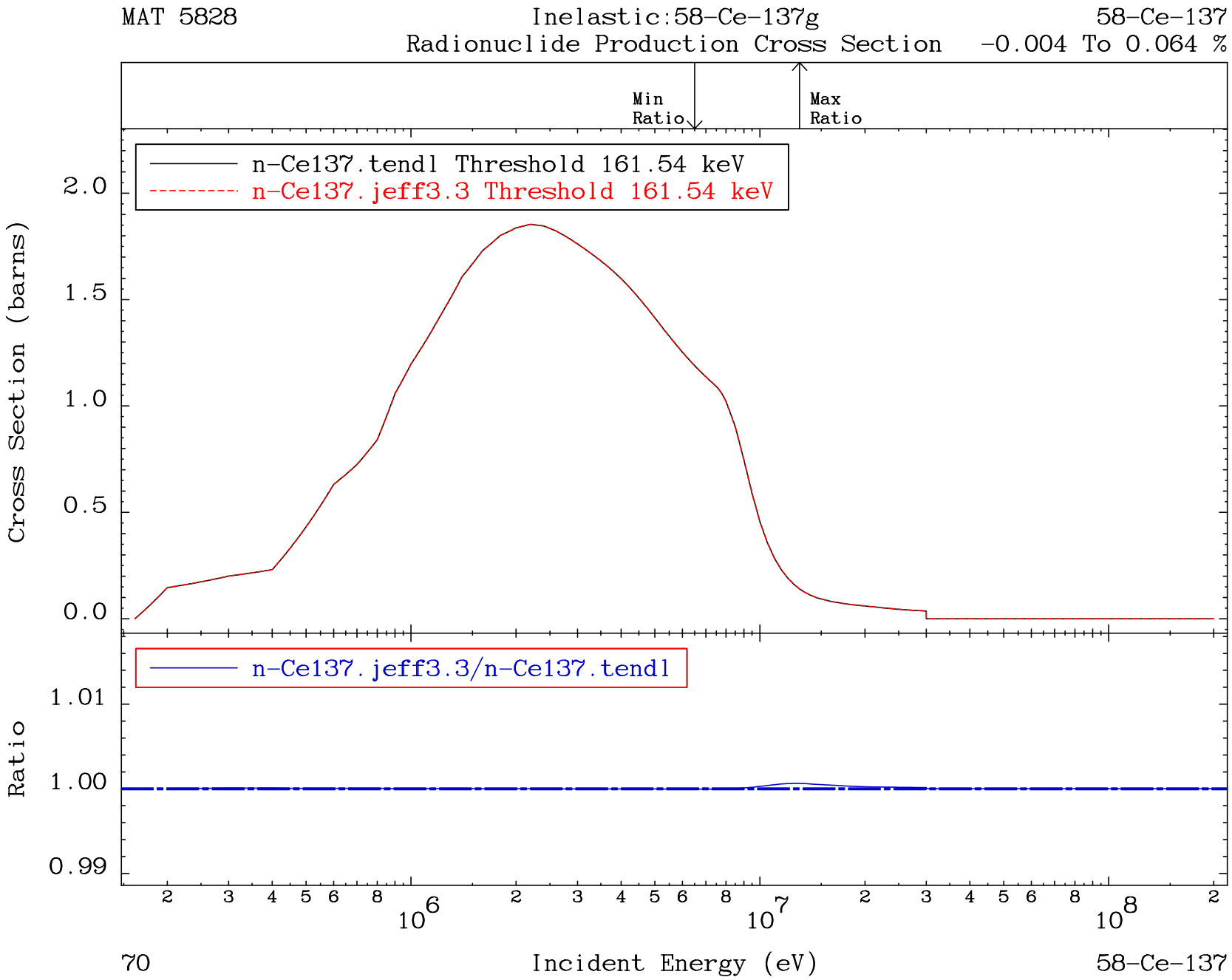

MAT 5828
Total kinematic kerma (high limit)
Cross Section
58-Ce-137
-99.79 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
65
Incident Energy (eV)
58-Ce-137

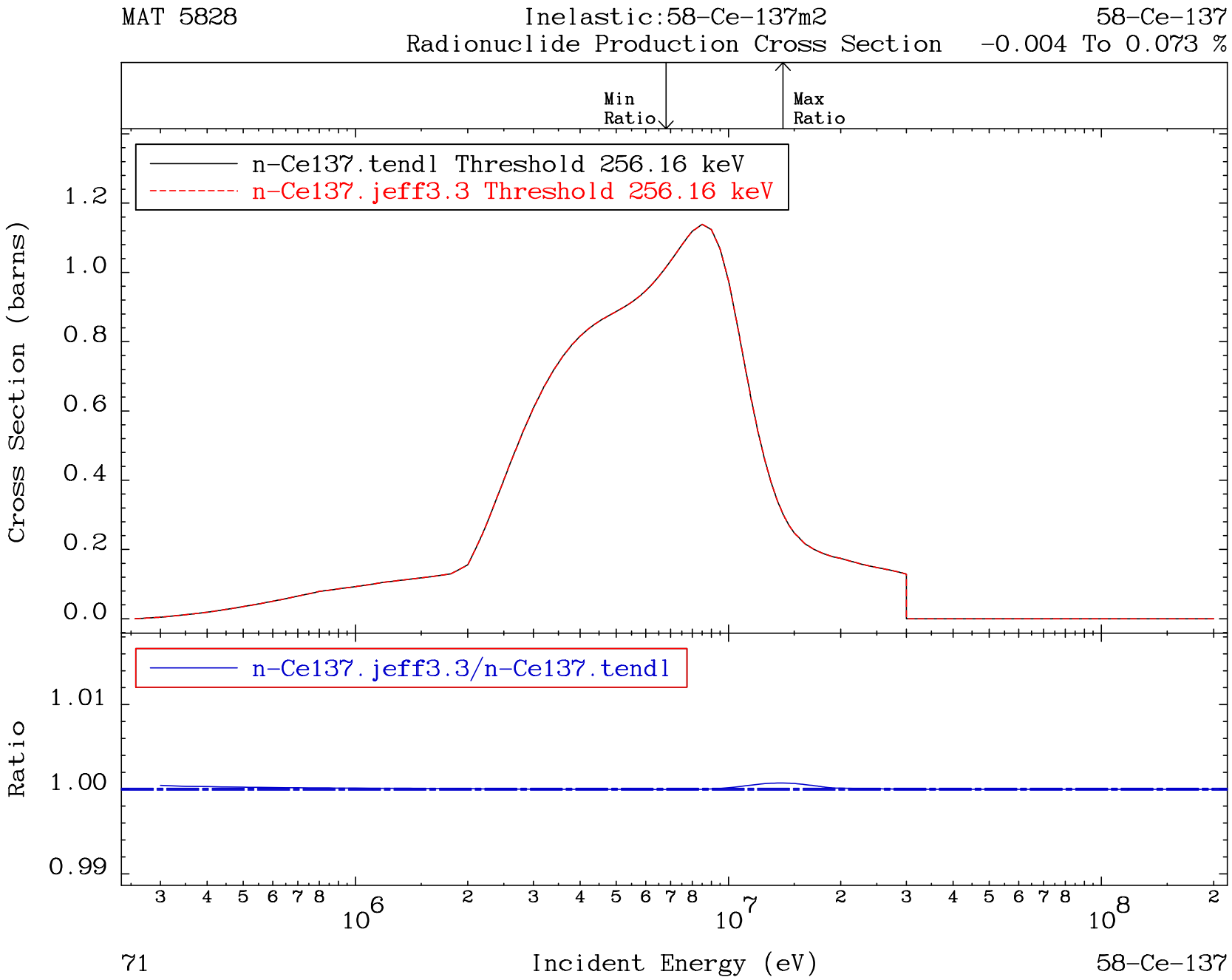

MAT 5828
Dpa total (eV-barns)
Cross Section
58-Ce-137
-99.57 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
66
58-Ce-137

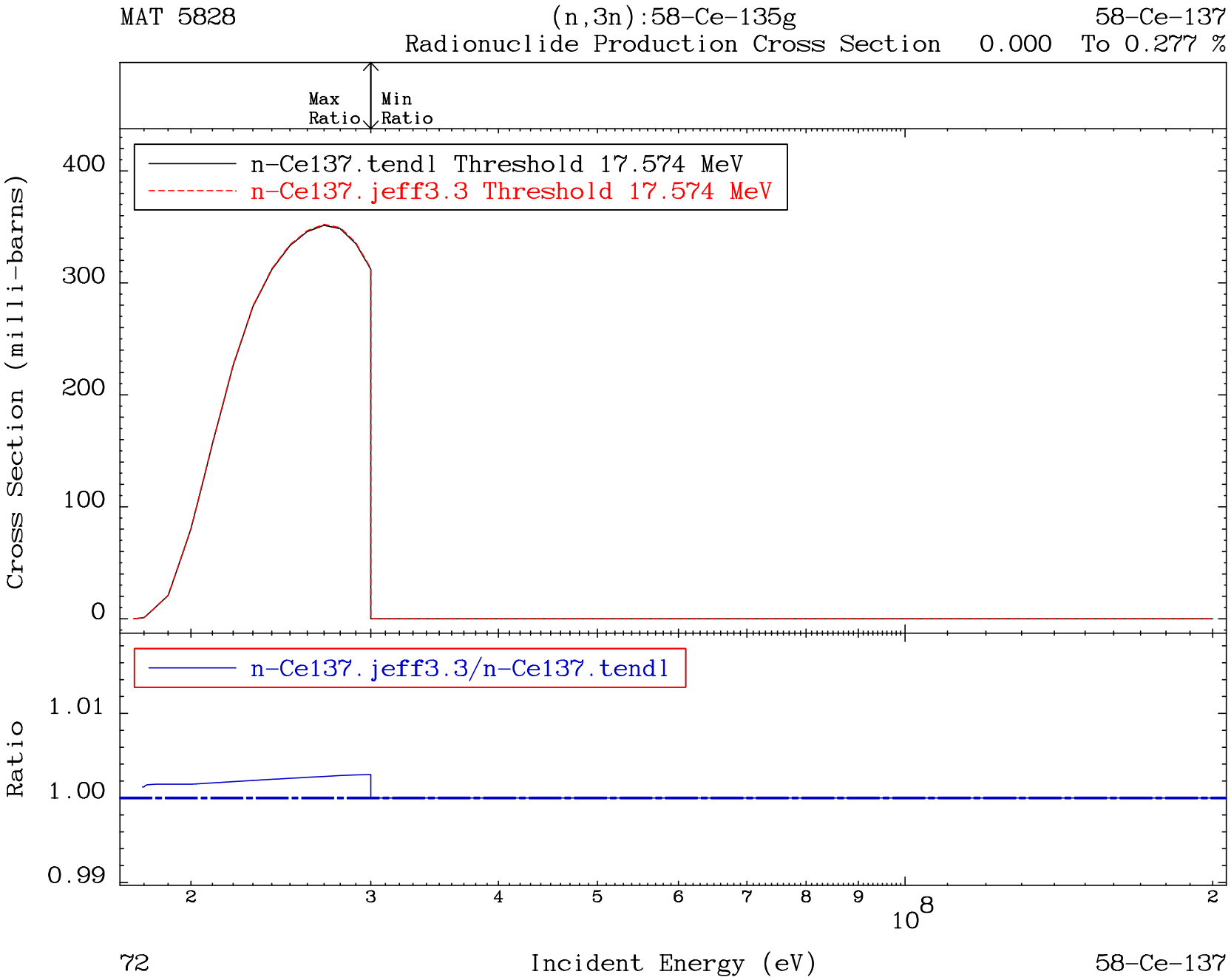

MAT 5828
Dpa elastic (mt2)
Cross Section
58-Ce-137
-31.10 To 9999. %
Max
Ratio
n-Ce137.tendl Threshold 940.00 eV
n-Ce137.jeff3.3 Threshold 814.05 eV
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
67
58-Ce-137

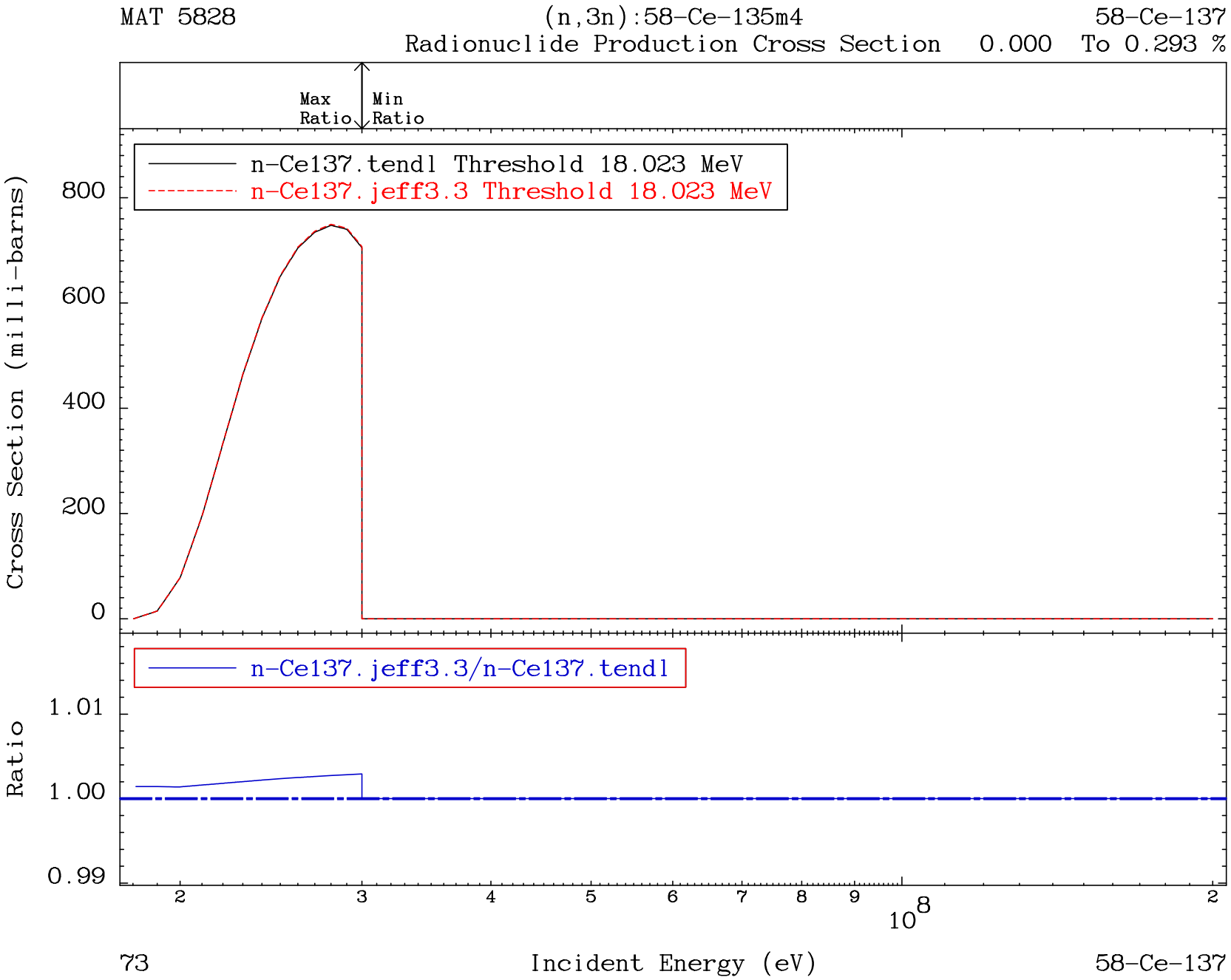

MAT 5828
Dpa inelastic (mt51-91)
Cross Section
58-Ce-137
-0.015 To 0.087 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 200.00 keV
n-Ce137.jeff3.3 Threshold 200.00 keV
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
68
58-Ce-137

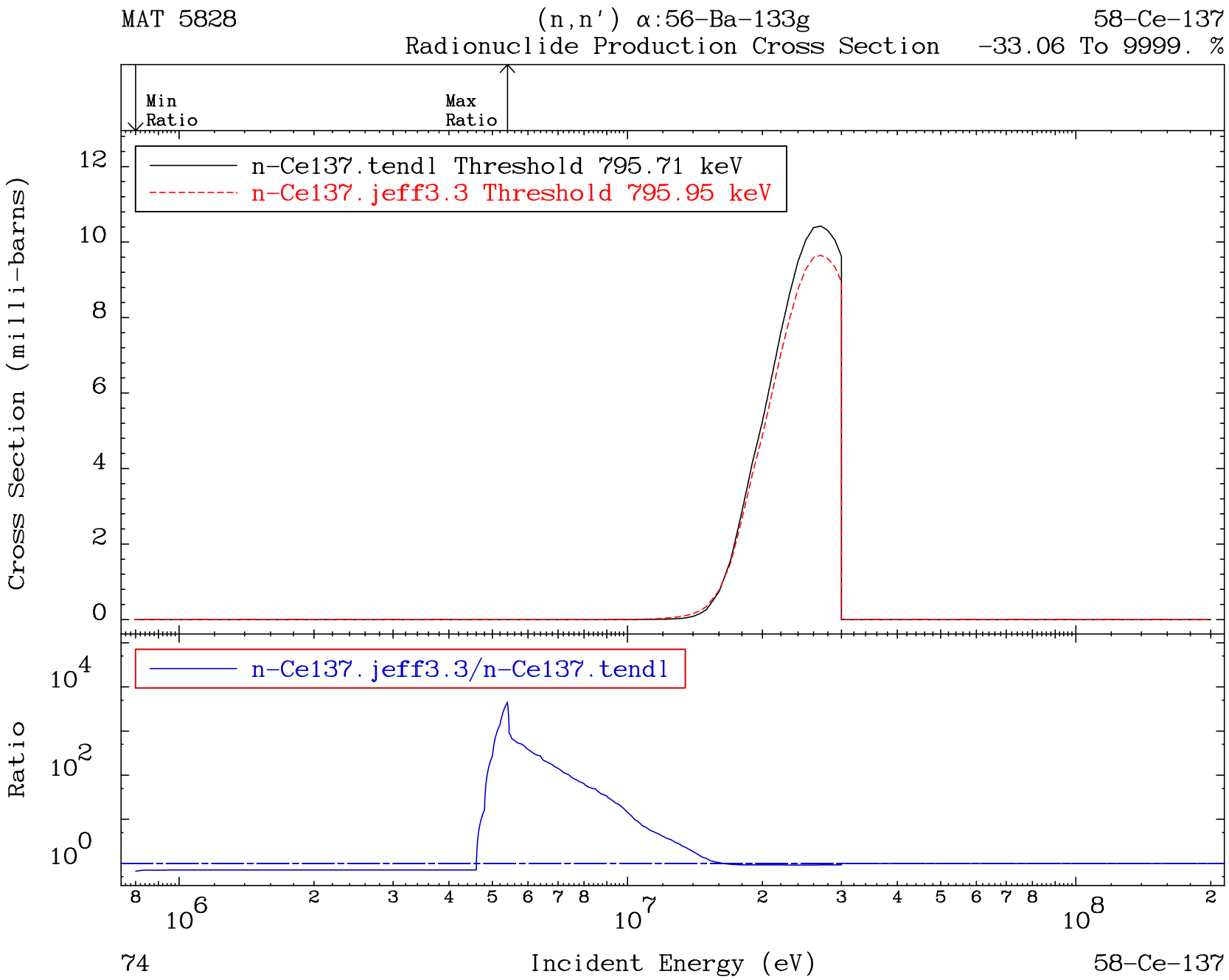

MAT 5828
Dpa disappearance (mt102 -120)
Cross Section
58-Ce-137
-99.57 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl
n-Ce137.jeff3.3
Cross Section (barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
69
58-Ce-137

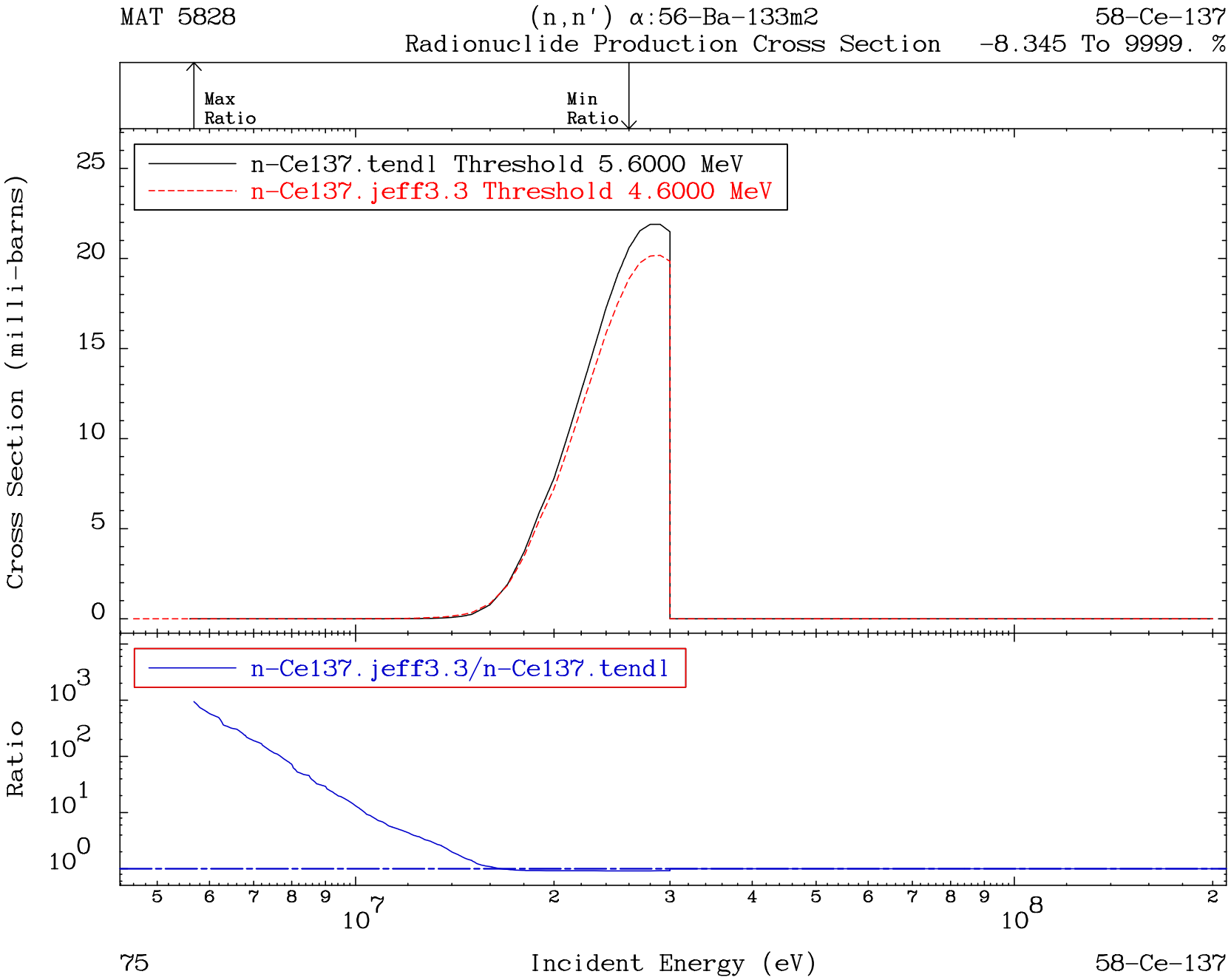

MAT 5828
Inelastic:58-Ce-137g
58-Ce-137
Radionuclide Production Cross Section
-0.004 To 0.064 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 161.54 keV
n-Ce137.jeff3.3 Threshold 161.54 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
70
Incident Energy (eV)
58-Ce-137

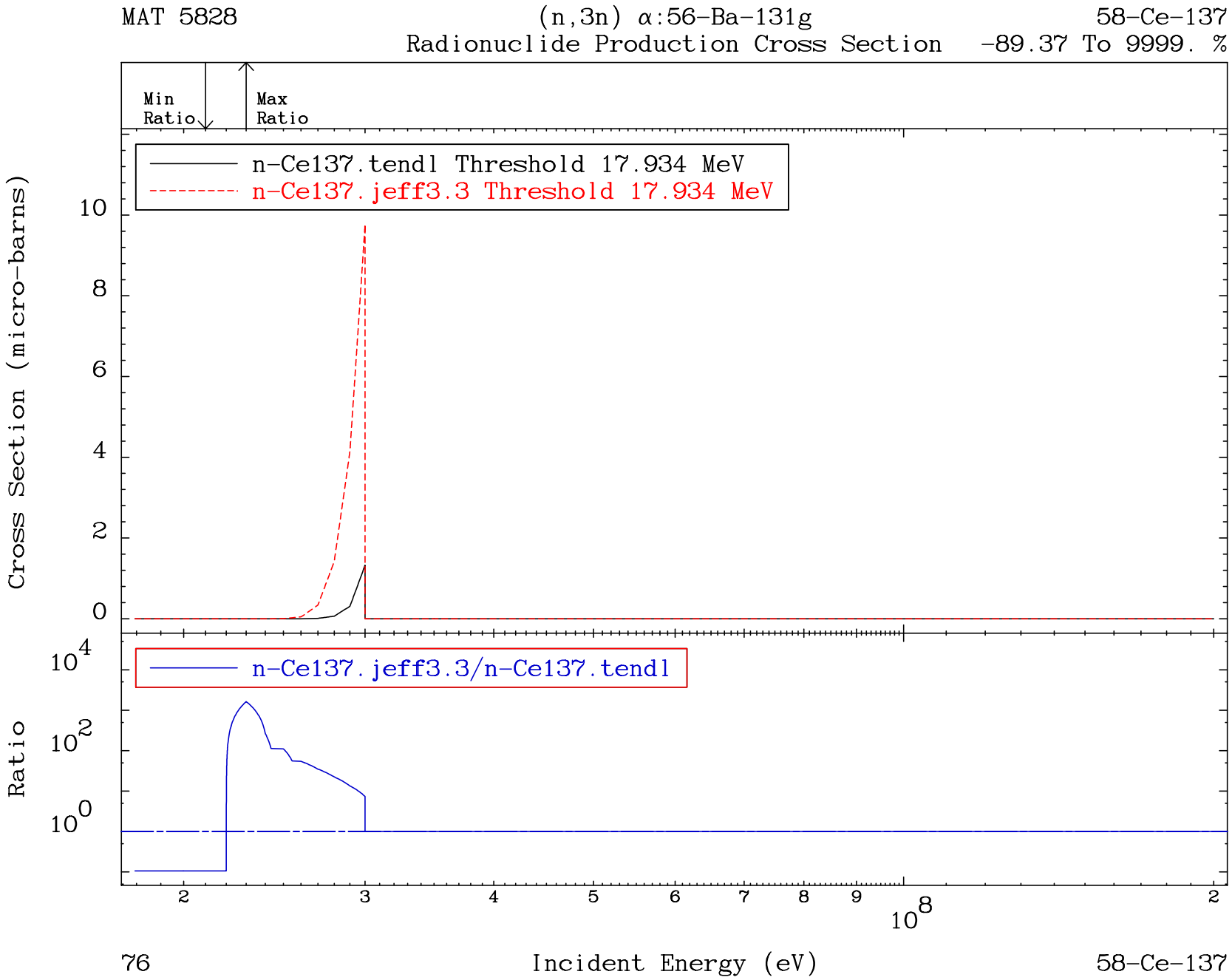

MAT 5828
Inelastic:58-Ce-137m2
58-Ce-137
Radionuclide Production Cross Section
-0.004 To 0.073 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 256.16 keV
n-Ce137.jeff3.3 Threshold 256.16 keV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
71
Incident Energy (eV)
58-Ce-137

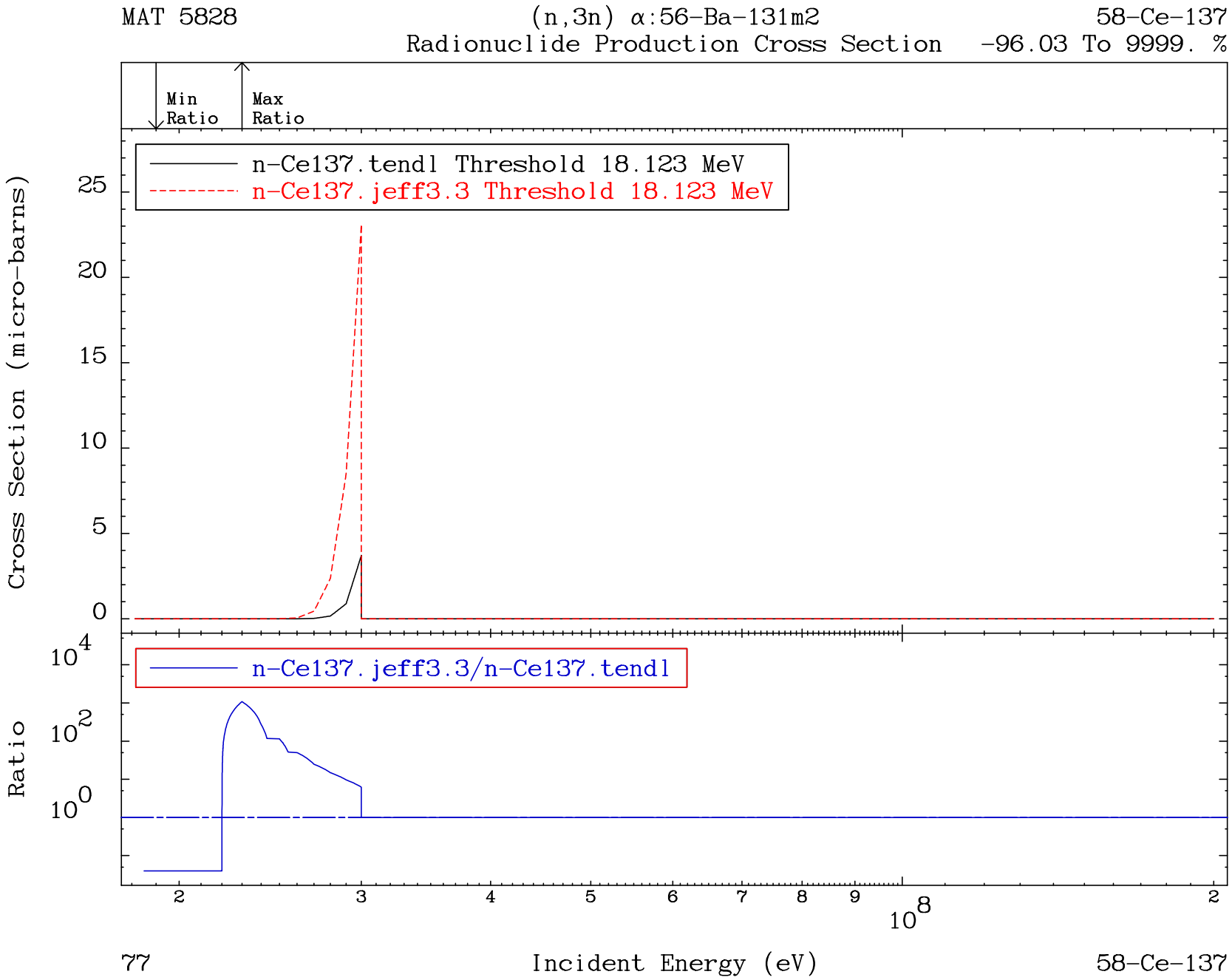

MAT 5828
(n,3n):58-Ce-135g
58-Ce-137
Radionuclide Production Cross Section 0.000 To 0.277 %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 17.574 MeV
n-Ce137.jeff3.3 Threshold 17.574 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
72
Incident Energy (eV)
58-Ce-137

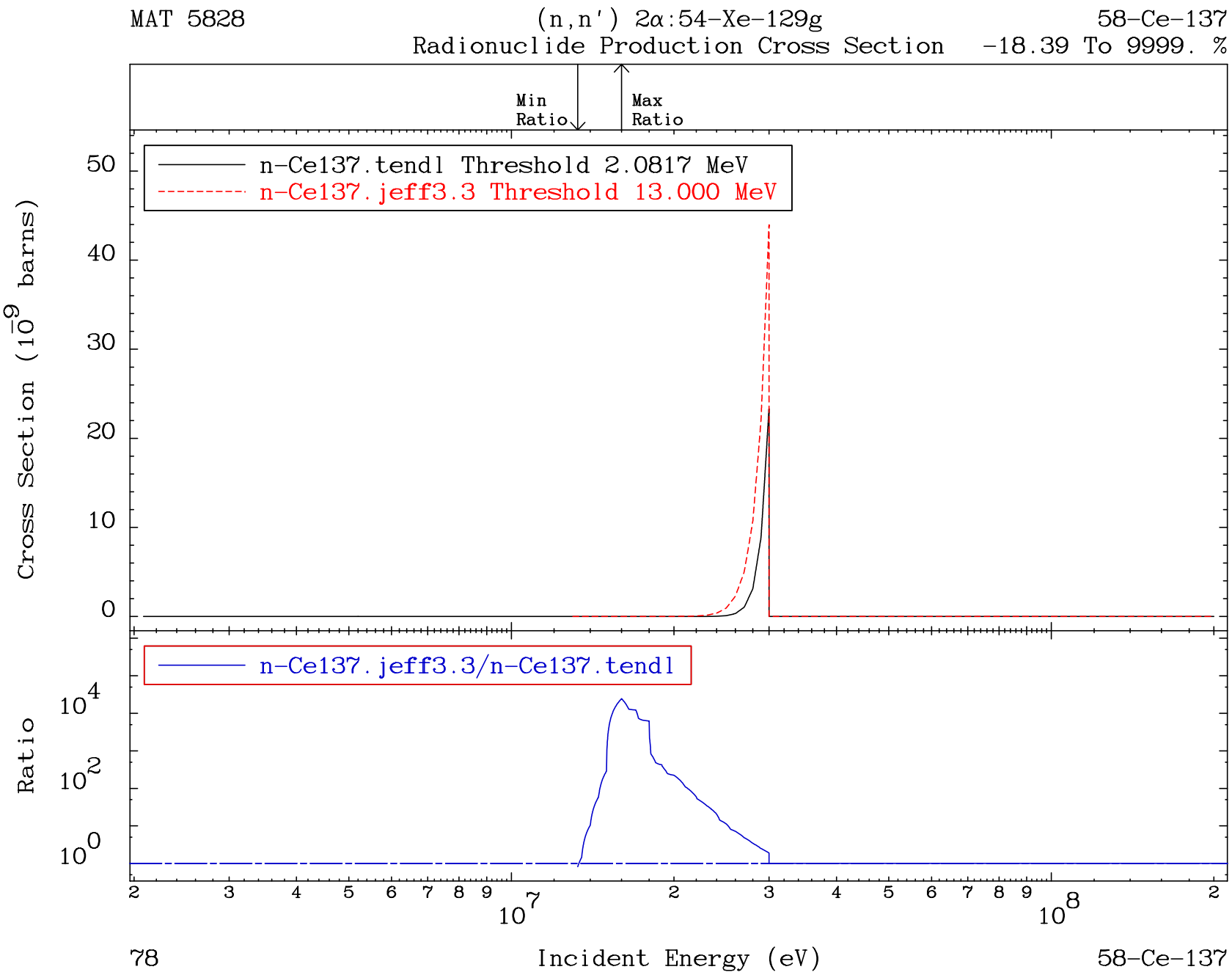

MAT 5828
(n,3n):58-Ce-135m4
58-Ce-137
Radionuclide Production Cross Section 0.000 To 0.293 %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 18.023 MeV
n-Ce137.jeff3.3 Threshold 18.023 MeV
Cross Section (milli-barns)
800
600
400
200
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
73
Incident Energy (eV)
58-Ce-137

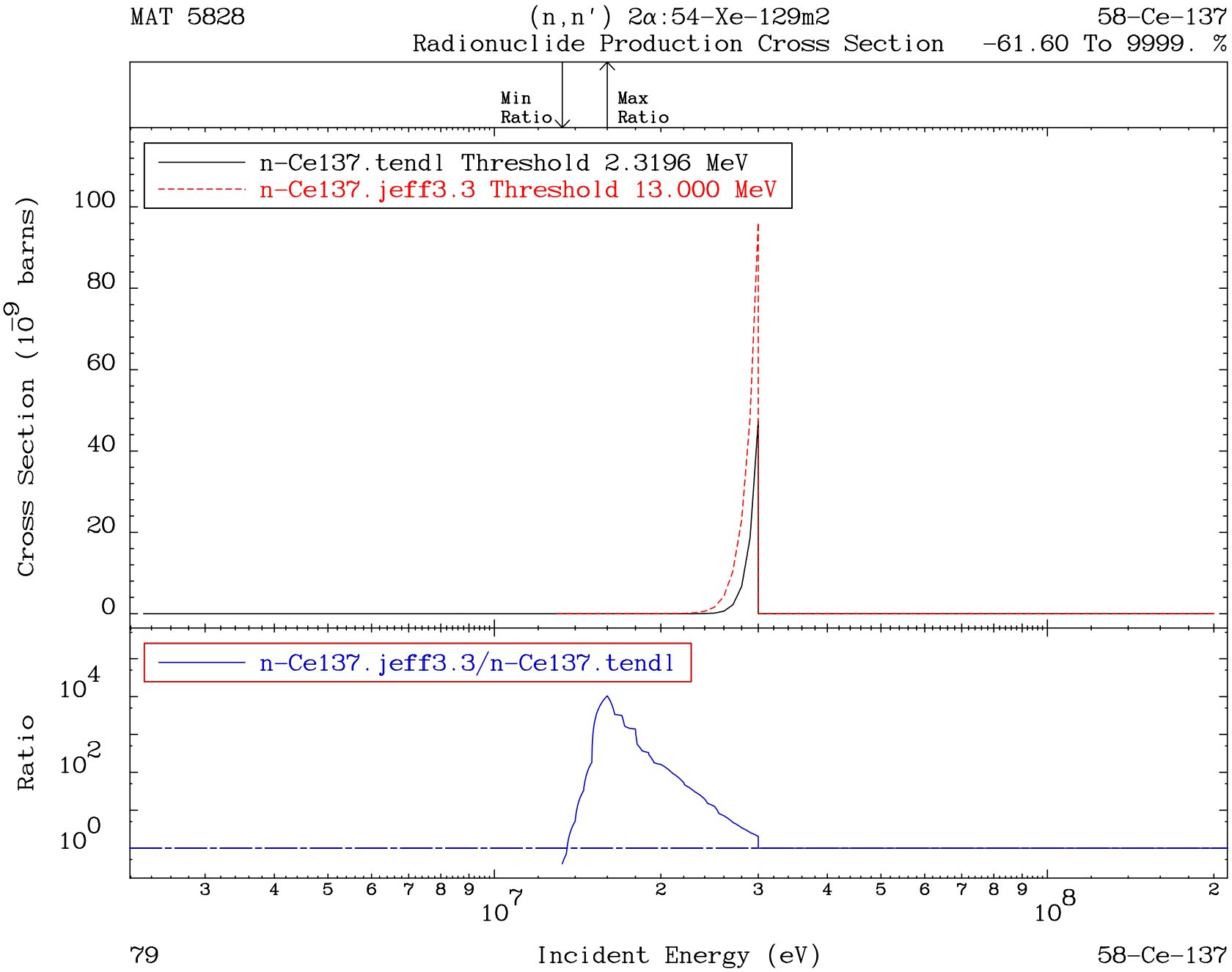

MAT 5828
(n,n') α:56-Ba-133g
58-Ce-137
Radionuclide Production Cross Section -33.06 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 795.71 keV
n-Ce137.jeff3.3 Threshold 795.95 keV
Cross Section (milli-barns)
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
Incident Energy (eV)
74
58-Ce-137

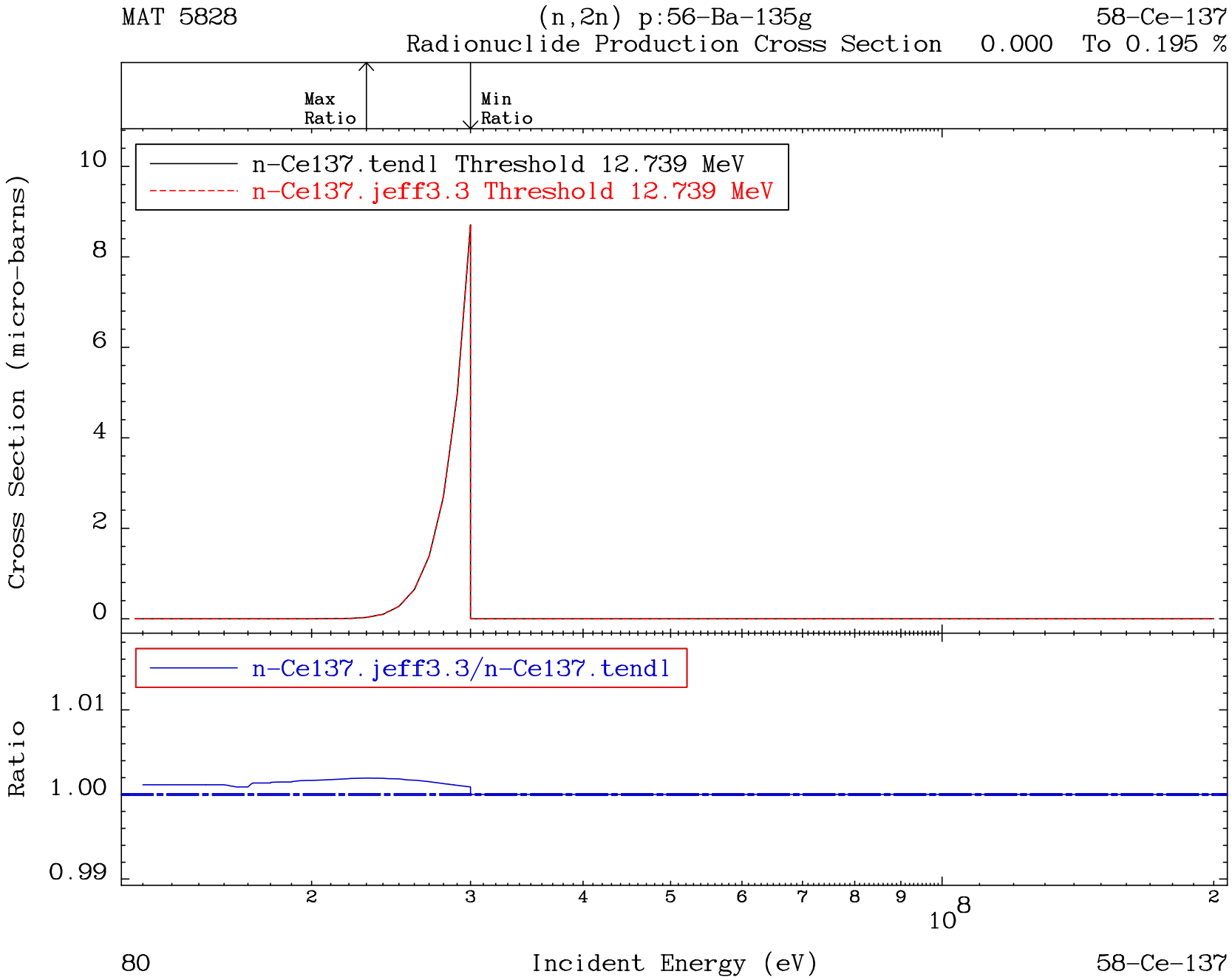

MAT 5828
(n,n') α:56-Ba-133m2
58-Ce-137
Radionuclide Production Cross Section -8.345 To 9999. %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 5.6000 MeV
n-Ce137.jeff3.3 Threshold 4.6000 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^3
10^2
10^1
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
75
Incident Energy (eV)
58-Ce-137

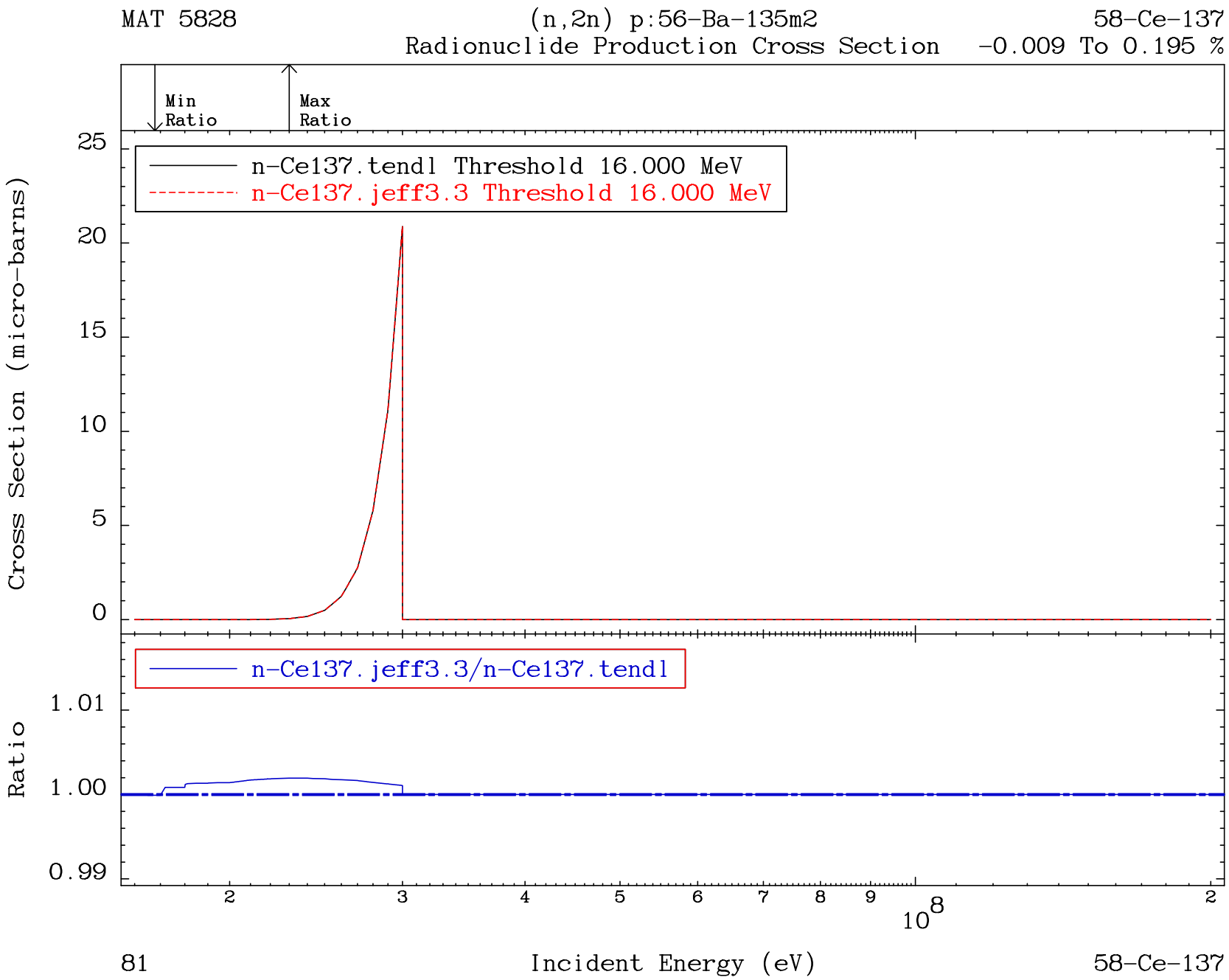

MAT 5828
(n,3n) α:56-Ba-131g
58-Ce-137
Radionuclide Production Cross Section -89.37 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 17.934 MeV
n-Ce137.jeff3.3 Threshold 17.934 MeV
Cross Section (micro-barns)
10
8
6
4
2
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
76
Incident Energy (eV)
58-Ce-137

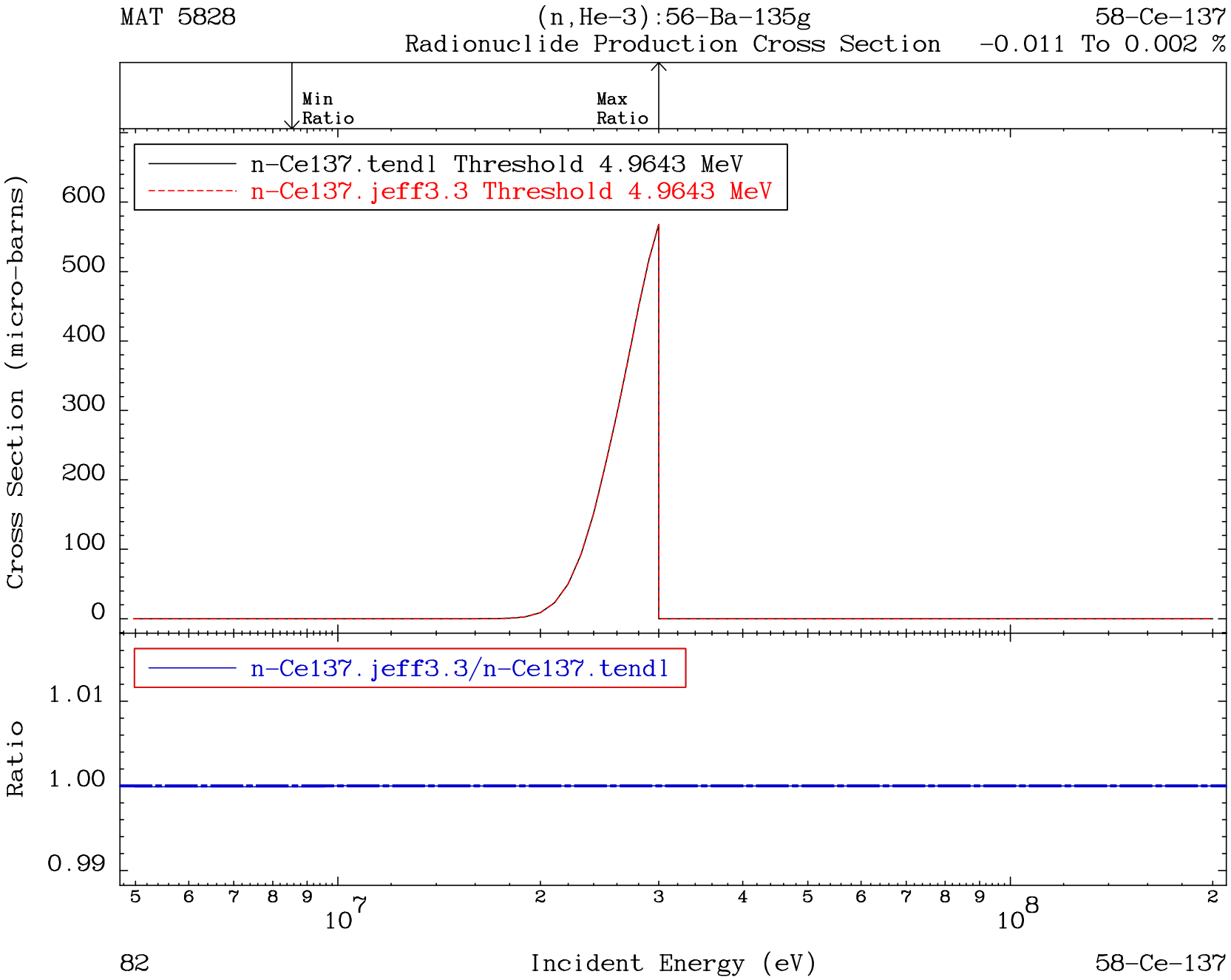

MAT 5828
(n,3n) α:56-Ba-131m2
58-Ce-137
Radionuclide Production Cross Section -96.03 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 18.123 MeV
n-Ce137.jeff3.3 Threshold 18.123 MeV
Cross Section (micro-barns)
25
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
77
Incident Energy (eV)
58-Ce-137

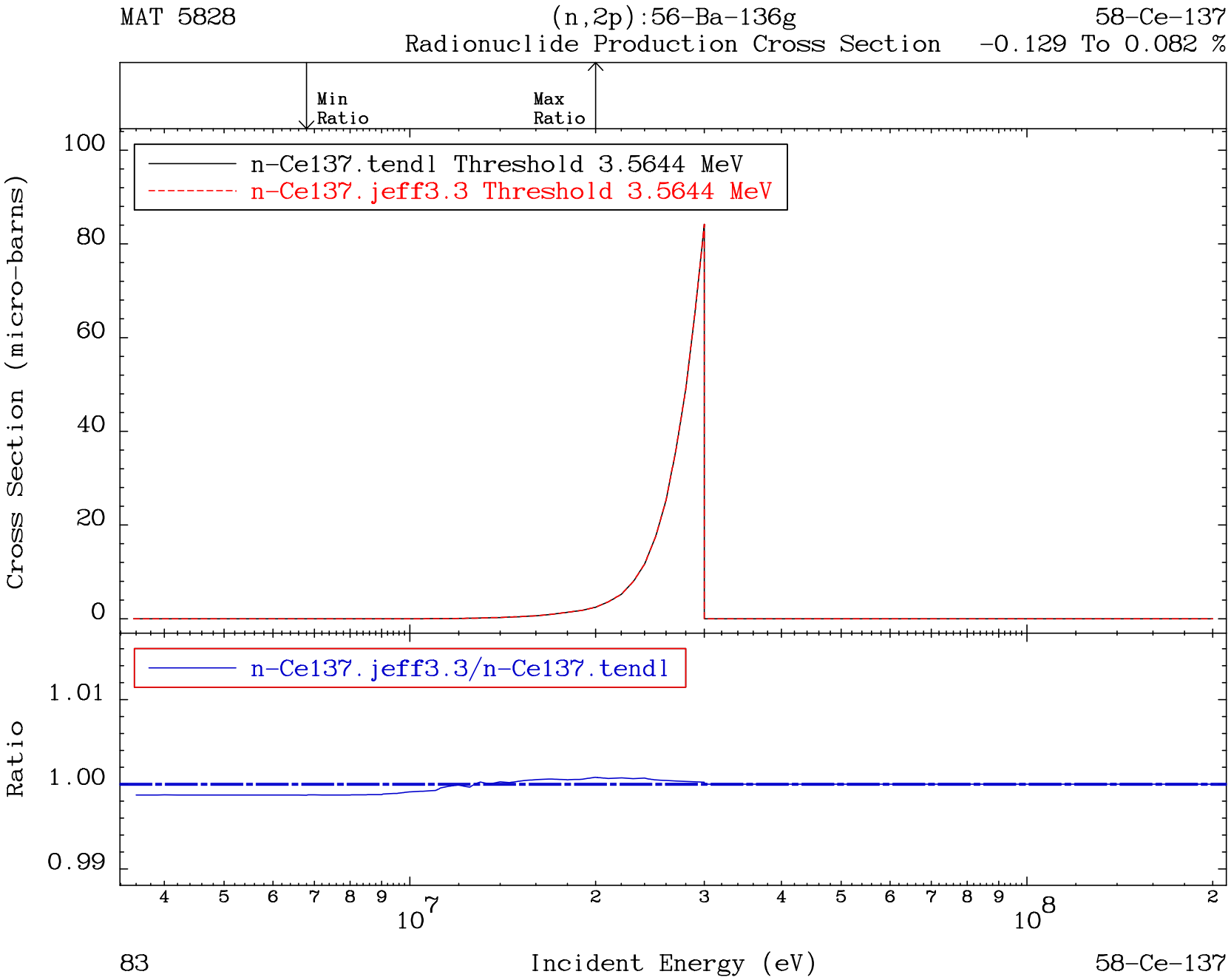

MAT 5828
(n,n') 2α:54-Xe-129g
58-Ce-137
Radionuclide Production Cross Section -18.39 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 2.0817 MeV
n-Ce137.jeff3.3 Threshold 13.000 MeV
Cross Section ($10^{-9}$ barns)
50
40
30
20
10
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
$10^4$
$10^2$
$10^0$
2 3 4 5 6 7 8 9 $10^7$ 2 3 4 5 6 7 8 9 $10^8$ 2
78
Incident Energy (eV)
58-Ce-137

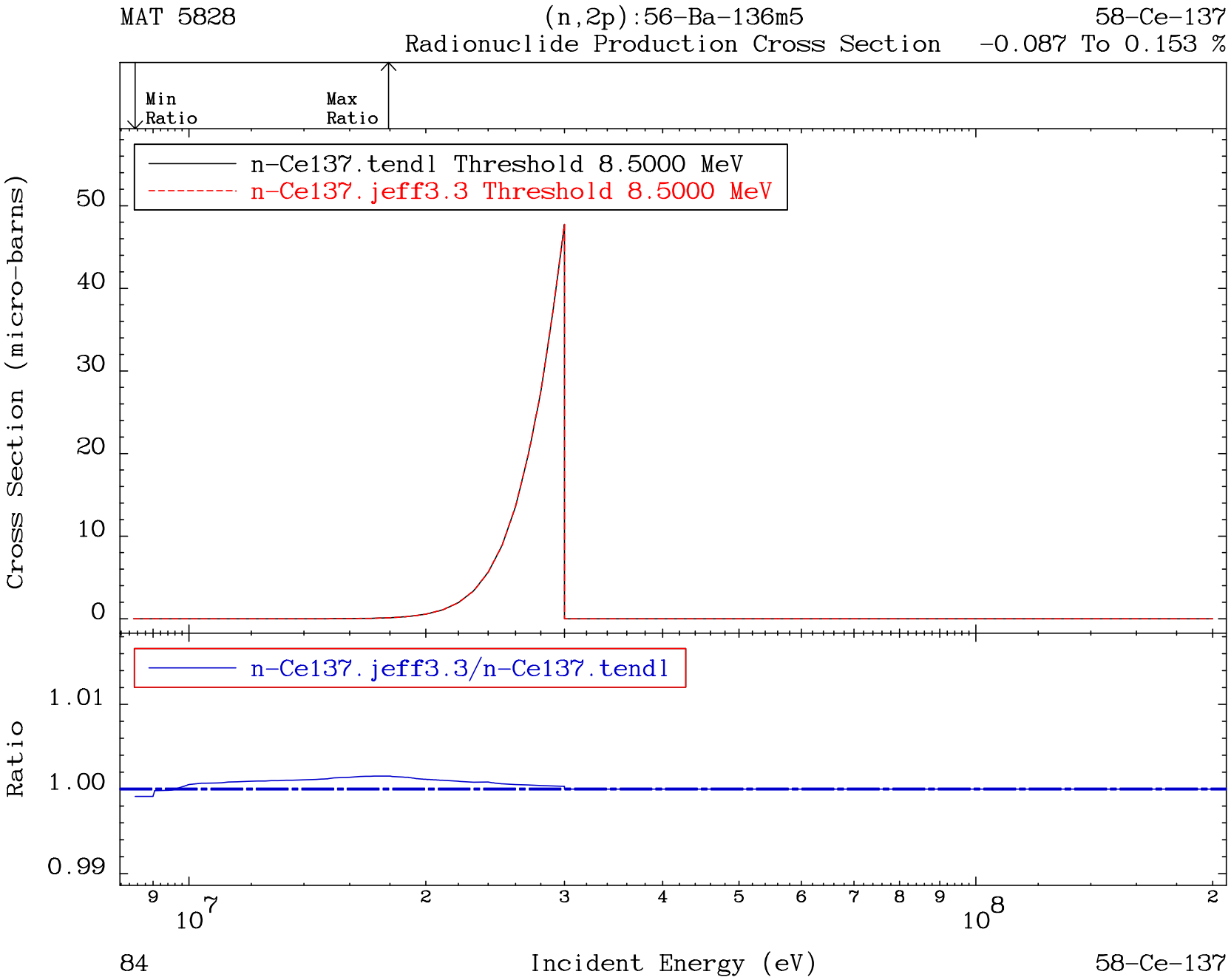

MAT 5828
(n,n') 2α:54-Xe-129m2
58-Ce-137
Radionuclide Production Cross Section -61.60 To 9999. %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 2.3196 MeV
n-Ce137.jeff3.3 Threshold 13.000 MeV
Cross Section ($10^{-9}$ barns)
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
$10^4$
$10^2$
$10^0$
3 4 5 6 7 8 9 $10^7$ 2 3 4 5 6 7 8 9 $10^8$ 2
79
Incident Energy (eV)
58-Ce-137

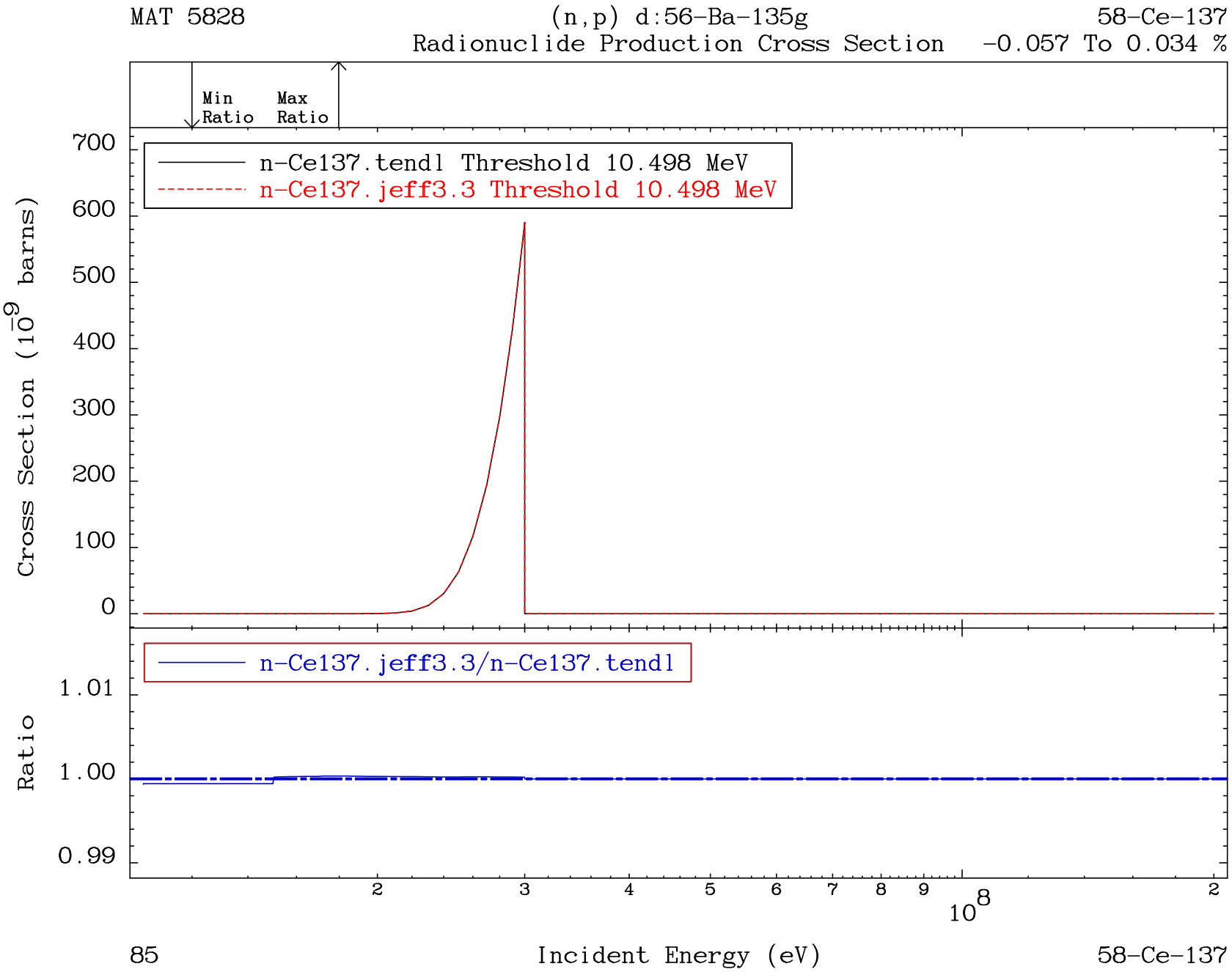

MAT 5828
(n,2n) p:56-Ba-135g
58-Ce-137
Radionuclide Production Cross Section 0.000 To 0.195 %
Max Ratio
Min Ratio
n-Ce137.tendl Threshold 12.739 MeV
n-Ce137.jeff3.3 Threshold 12.739 MeV
Cross Section (micro-barns)
10
8
6
4
2
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
58-Ce-137

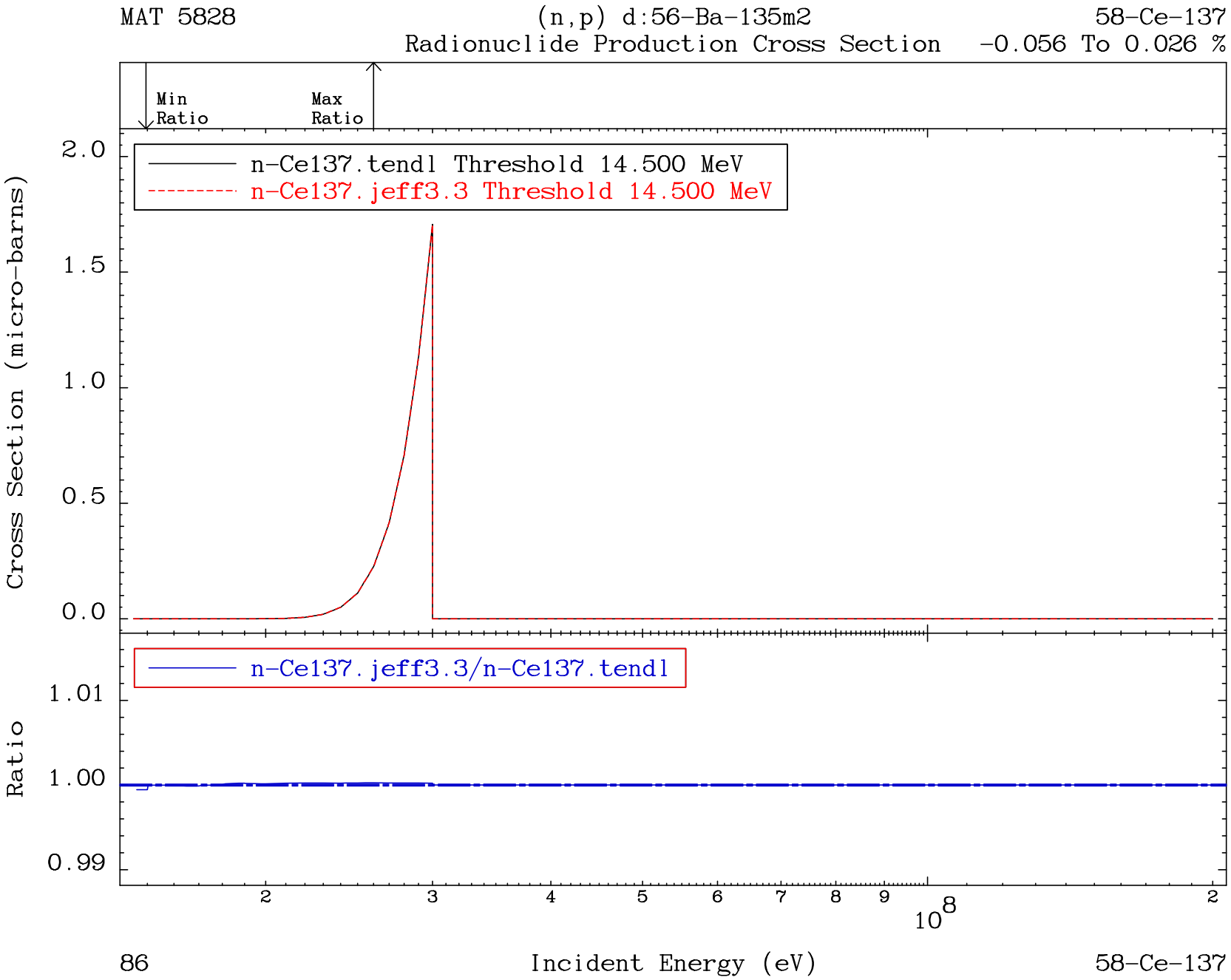

MAT 5828
(n,2n) p:56-Ba-135m2
58-Ce-137
Radionuclide Production Cross Section
-0.009 To 0.195 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 16.000 MeV
n-Ce137.jeff3.3 Threshold 16.000 MeV
Cross Section (micro-barns)
25
20
15
10
5
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
58-Ce-137


MAT 5828
(n,He-3):56-Ba-135g
58-Ce-137
Radionuclide Production Cross Section
-0.011 To 0.002 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 4.9643 MeV
n-Ce137.jeff3.3 Threshold 4.9643 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
82
Incident Energy (eV)
58-Ce-137


MAT 5828
(n,2p):56-Ba-136g
58-Ce-137
Radionuclide Production Cross Section -0.129 To 0.082 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 3.5644 MeV
n-Ce137.jeff3.3 Threshold 3.5644 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
83
Incident Energy (eV)
58-Ce-137


MAT 5828
(n,2p):56-Ba-136m5
58-Ce-137
Radionuclide Production Cross Section -0.087 To 0.153 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 8.5000 MeV
n-Ce137.jeff3.3 Threshold 8.5000 MeV
Cross Section (micro-barns)
50
40
30
20
10
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
84
Incident Energy (eV)
58-Ce-137


MAT 5828
(n,p) d:56-Ba-135g
58-Ce-137
Radionuclide Production Cross Section
-0.057 To 0.034 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 10.498 MeV
n-Ce137.jeff3.3 Threshold 10.498 MeV
Cross Section ($10^{-9}$ barns)
700
600
500
400
300
200
100
0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
$10^8$
2
85
Incident Energy (eV)
58-Ce-137


MAT 5828
(n,p) d:56-Ba-135m2
58-Ce-137
Radionuclide Production Cross Section
-0.056 To 0.026 %
Min Ratio
Max Ratio
n-Ce137.tendl Threshold 14.500 MeV
n-Ce137.jeff3.3 Threshold 14.500 MeV
Cross Section (micro-barns)
2.0
1.5
1.0
0.5
0.0
n-Ce137.jeff3.3/n-Ce137.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
86
Incident Energy (eV)
58-Ce-137