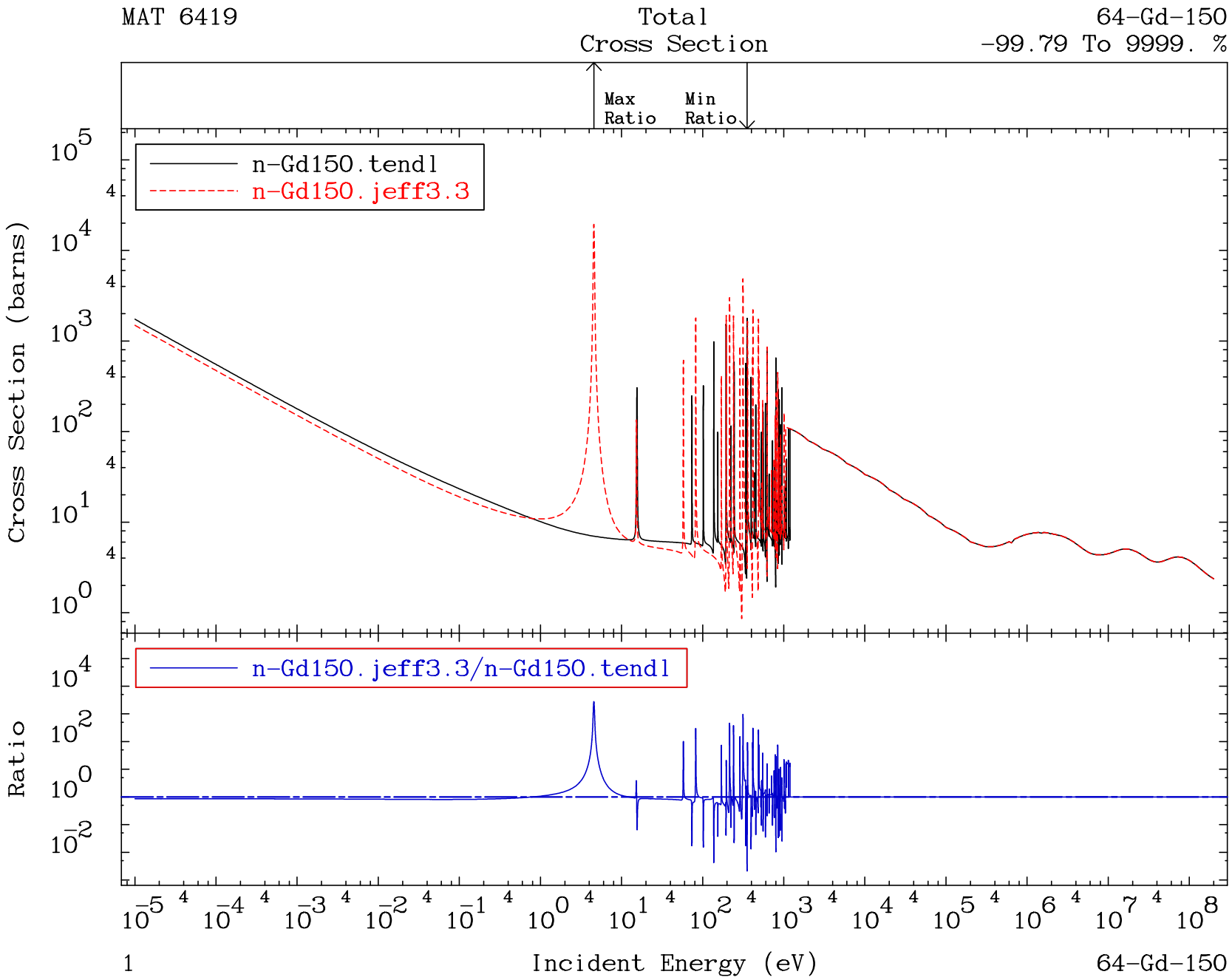
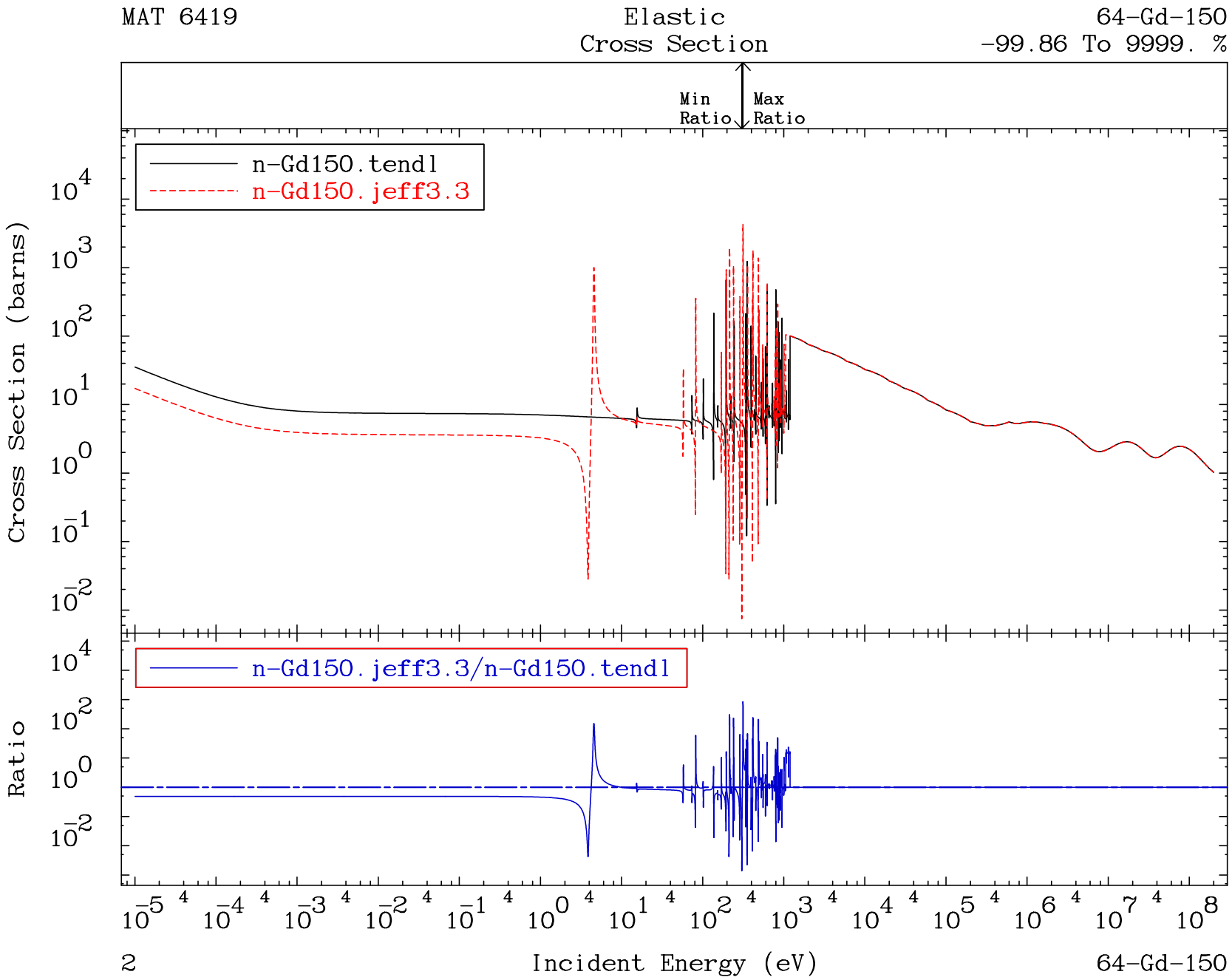
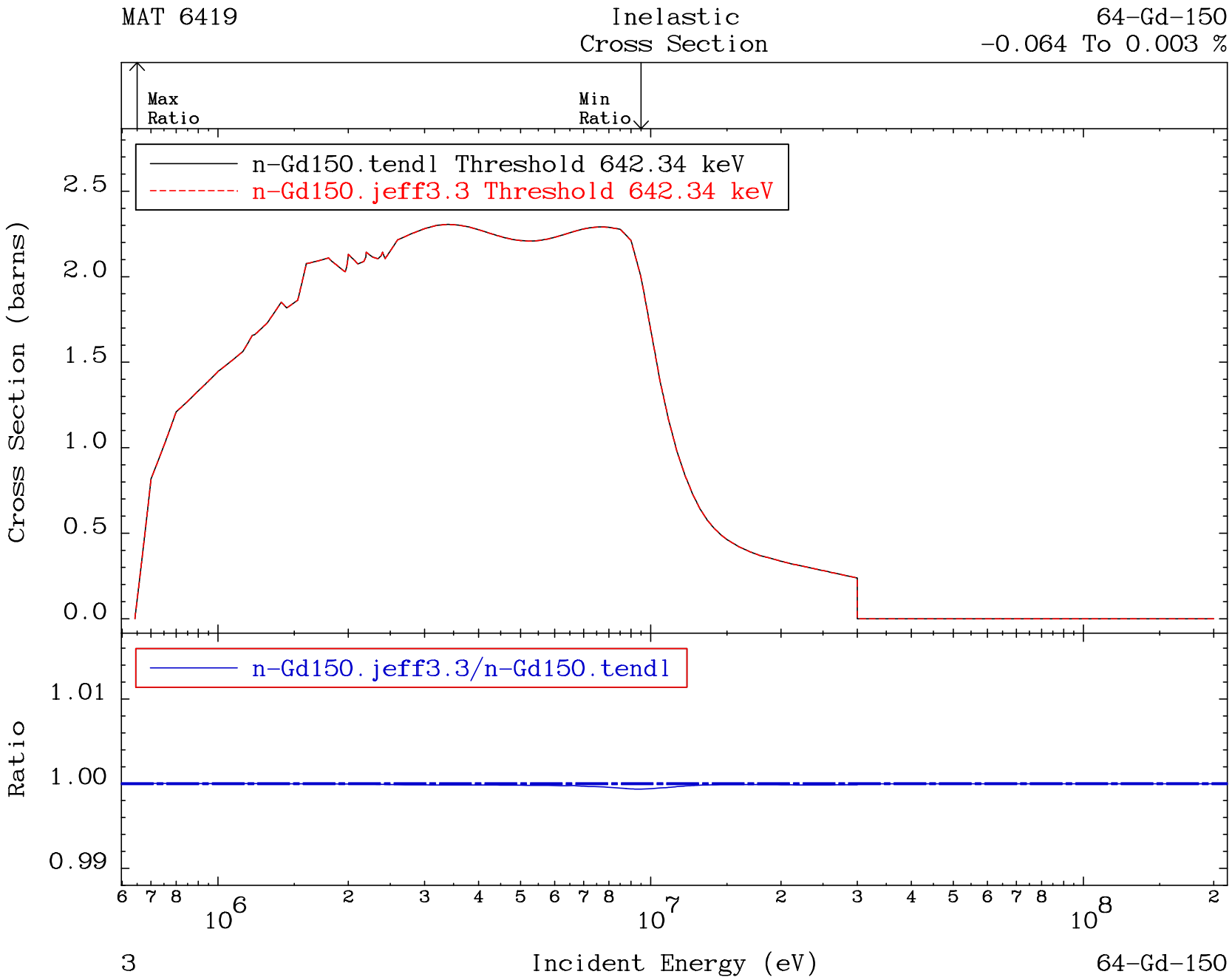
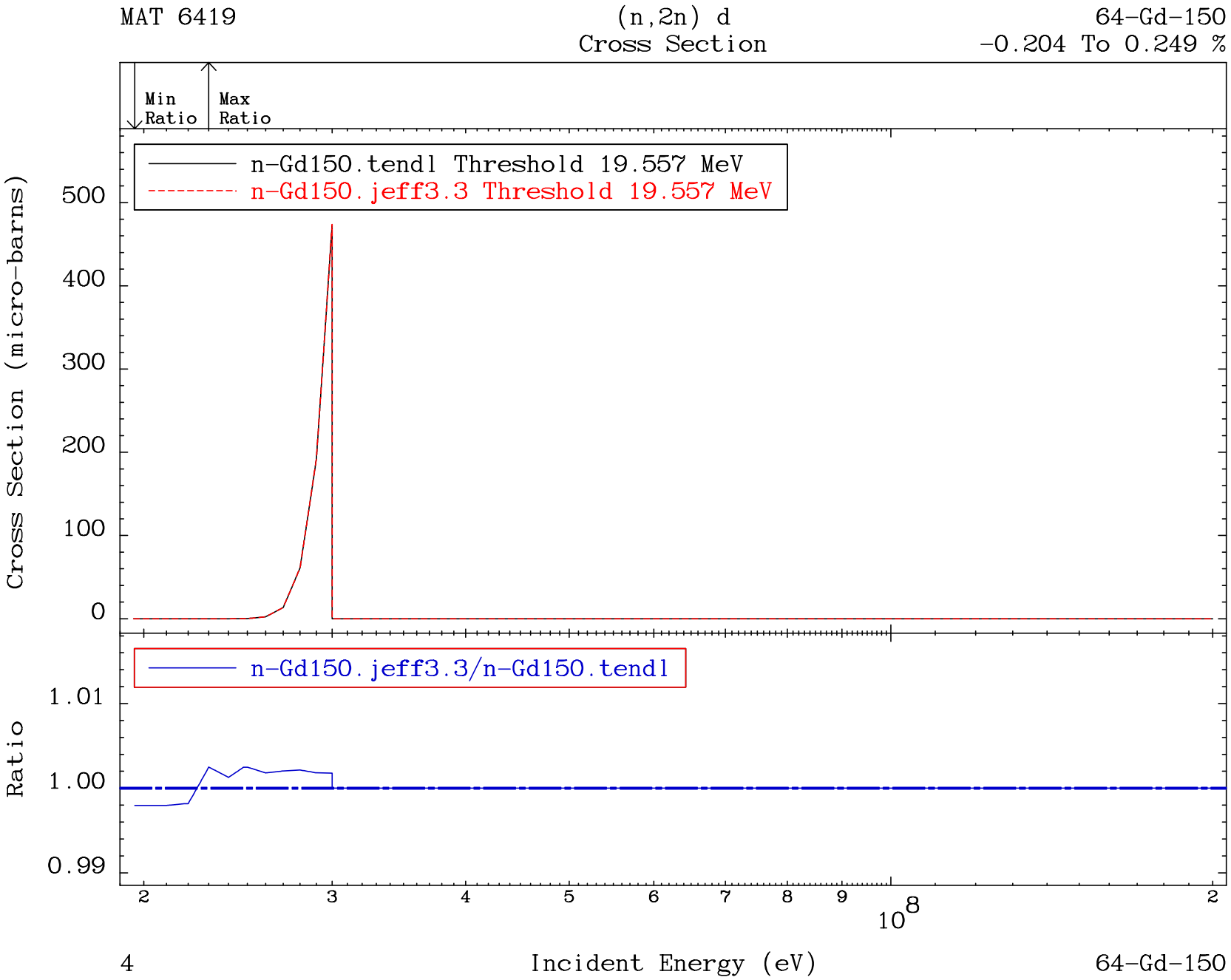
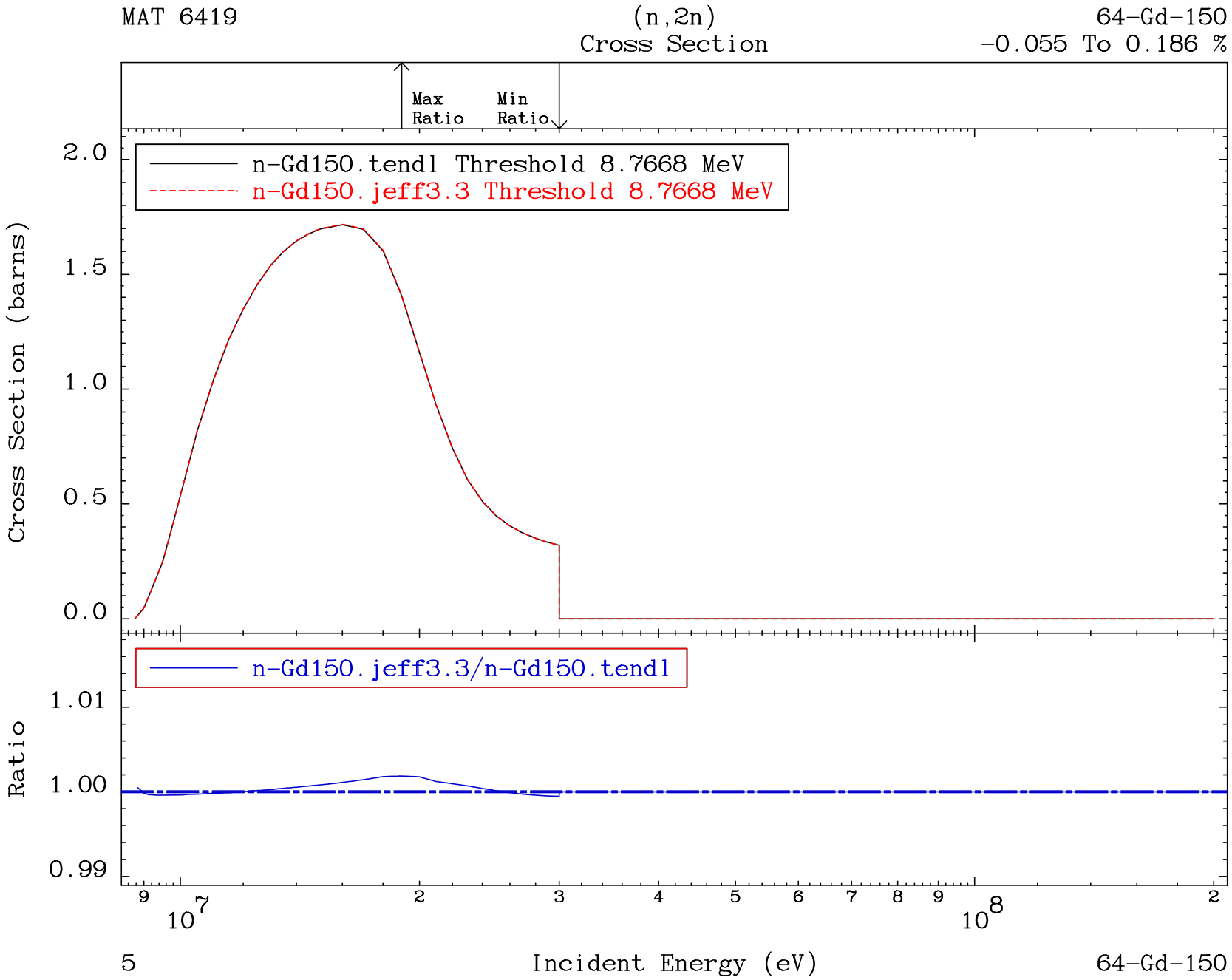
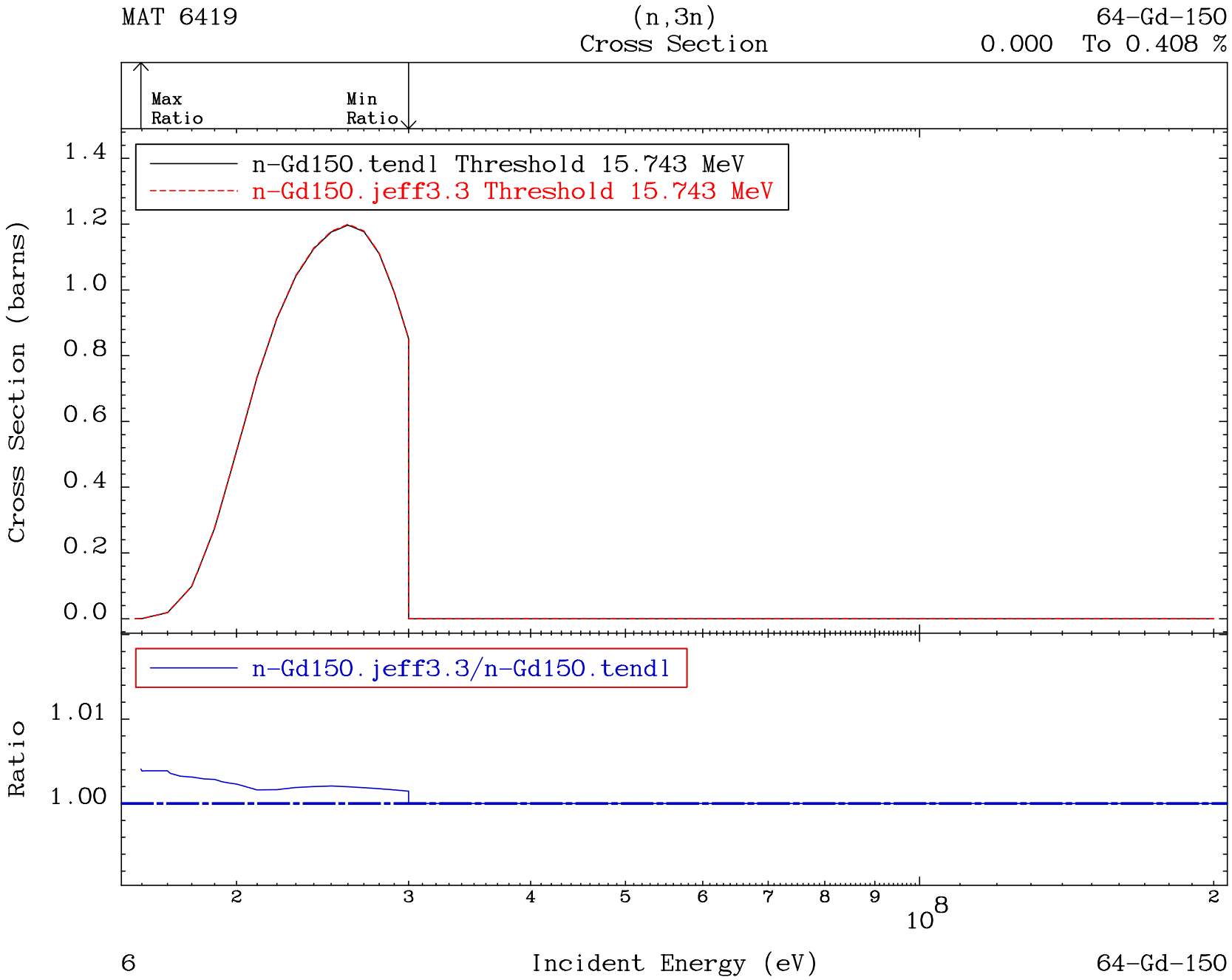

MAT 6419
Total
Cross Section
64-Gd-150
-99.79 To 9999. %
Max
Ratio
Min
Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
1
64-Gd-150

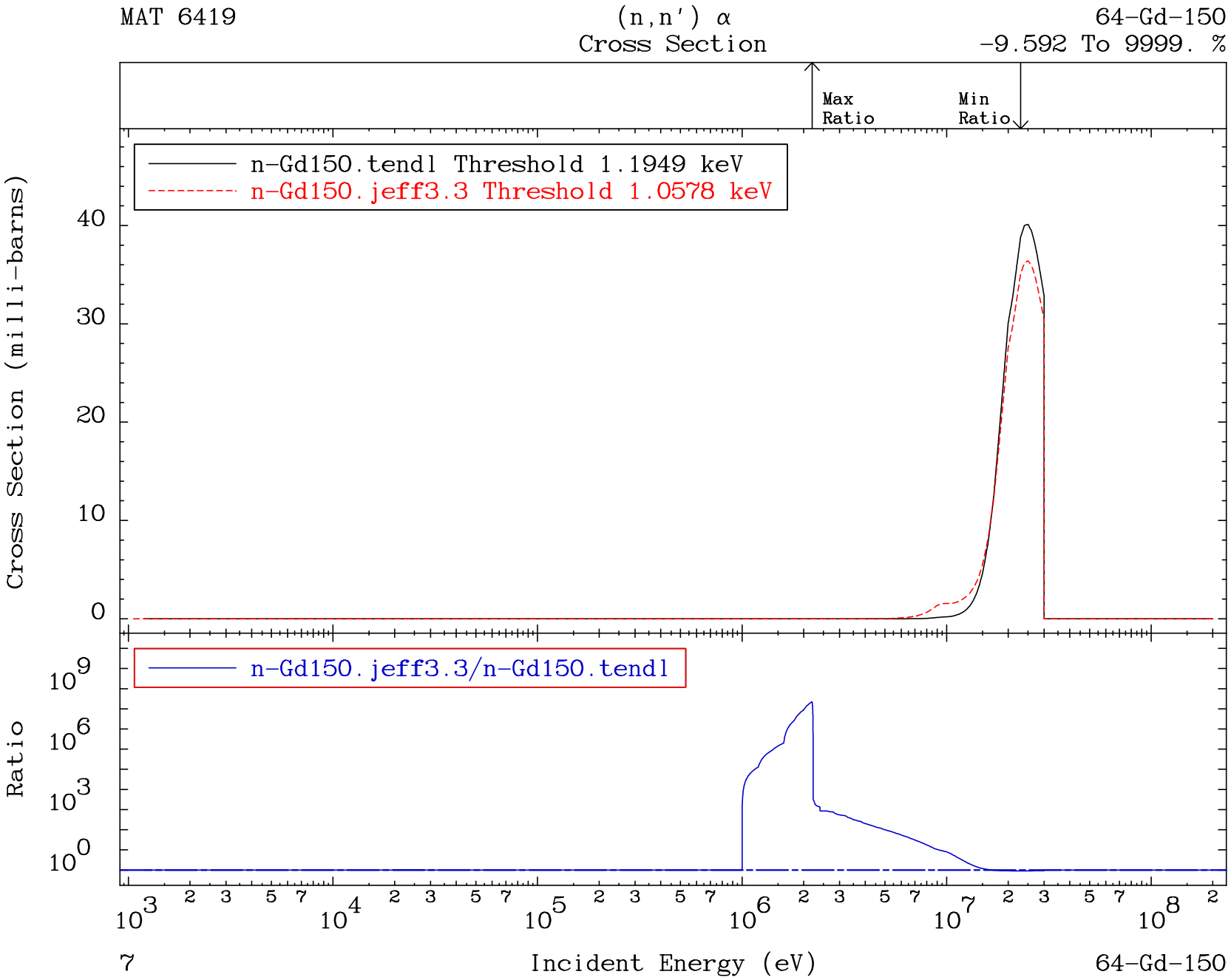

MAT 6419
Elastic
Cross Section
64-Gd-150
-99.86 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
2
64-Gd-150

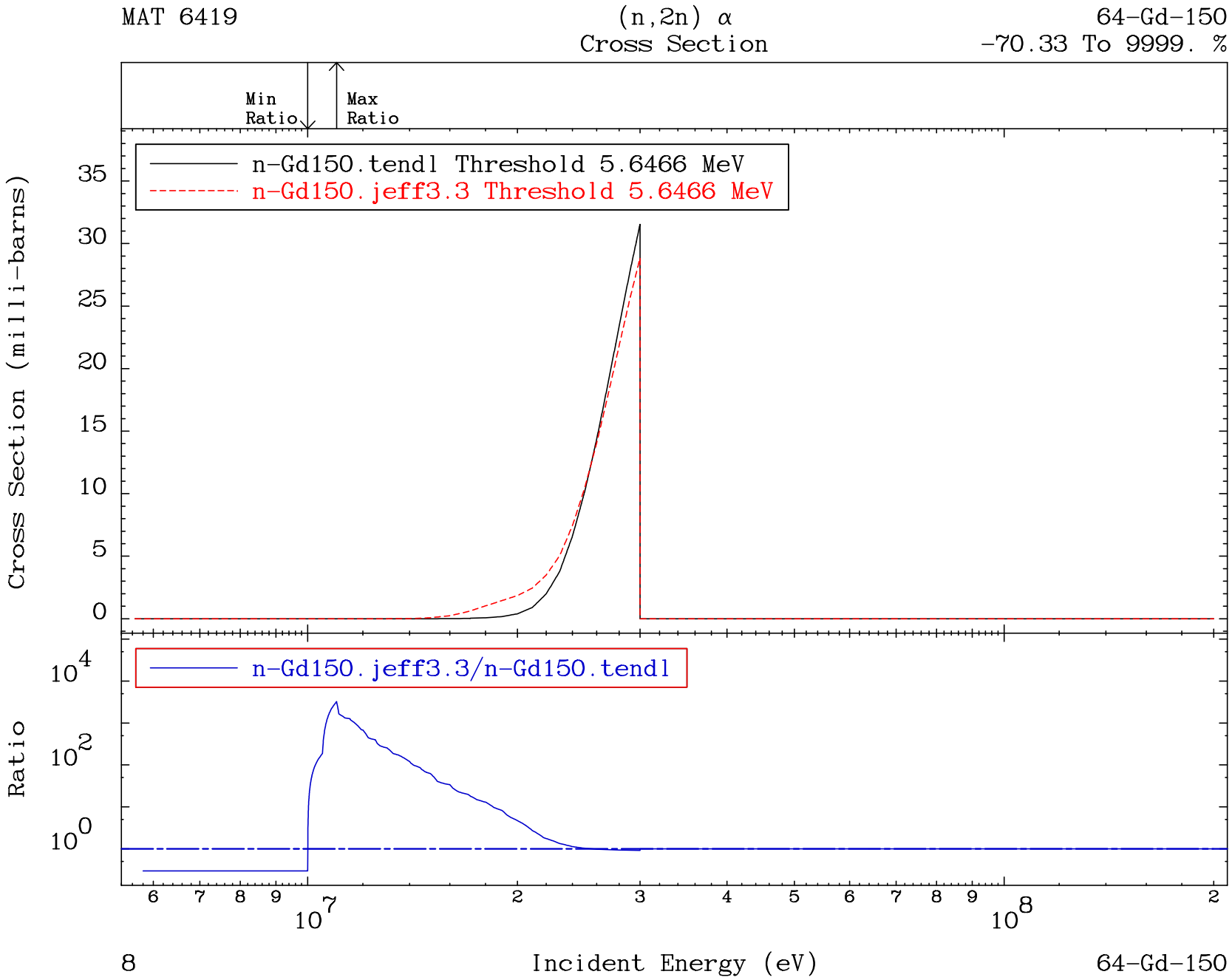

MAT 6419
Inelastic
Cross Section
64-Gd-150
-0.064 To 0.003 %
Max
Ratio
Min
Ratio
n-Gd150.tendl Threshold 642.34 keV
n-Gd150.jeff3.3 Threshold 642.34 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
3
Incident Energy (eV)
64-Gd-150

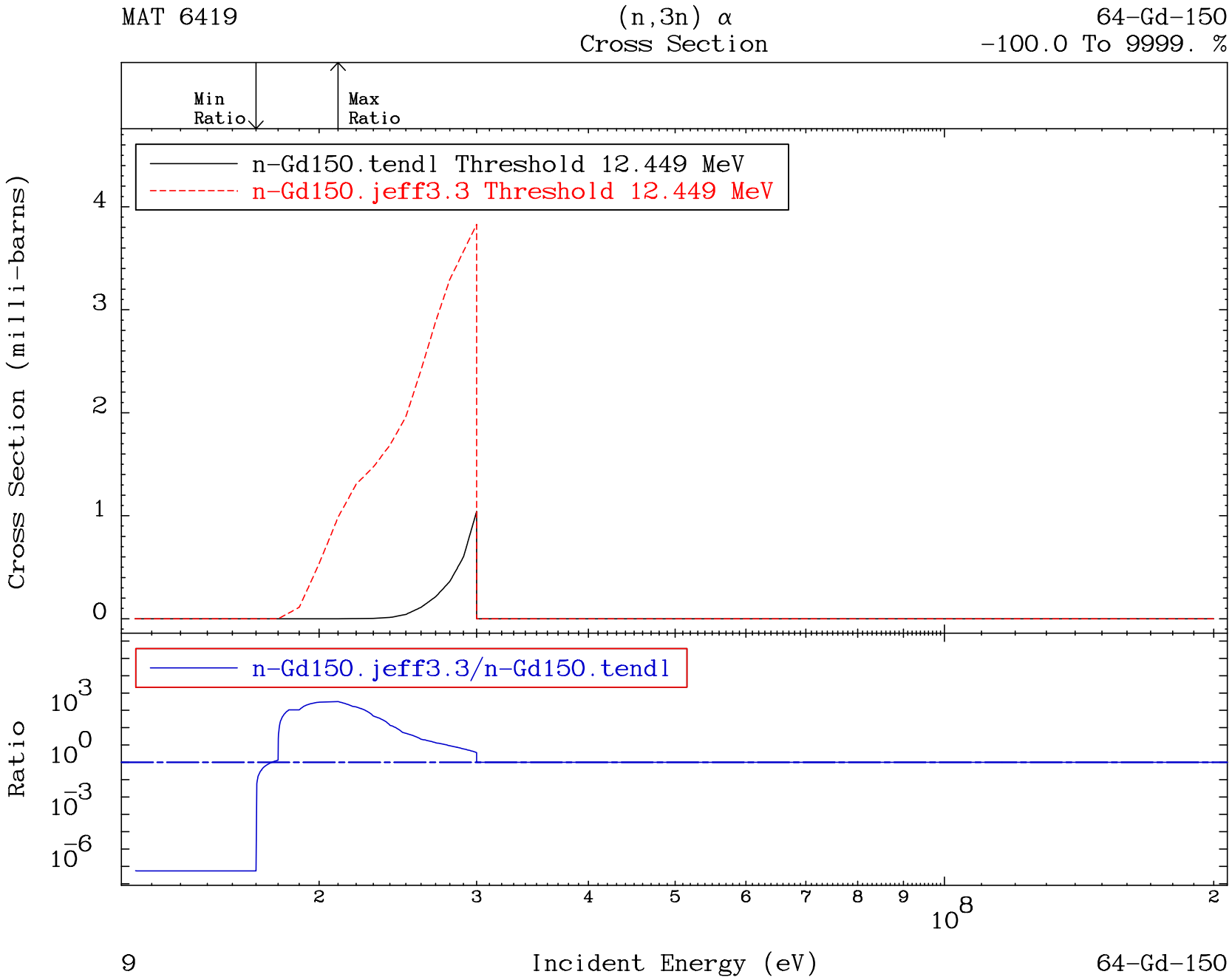

MAT 6419
(n,2n) d
Cross Section
64-Gd-150
-0.204 To 0.249 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 19.557 MeV
n-Gd150.jeff3.3 Threshold 19.557 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
64-Gd-150

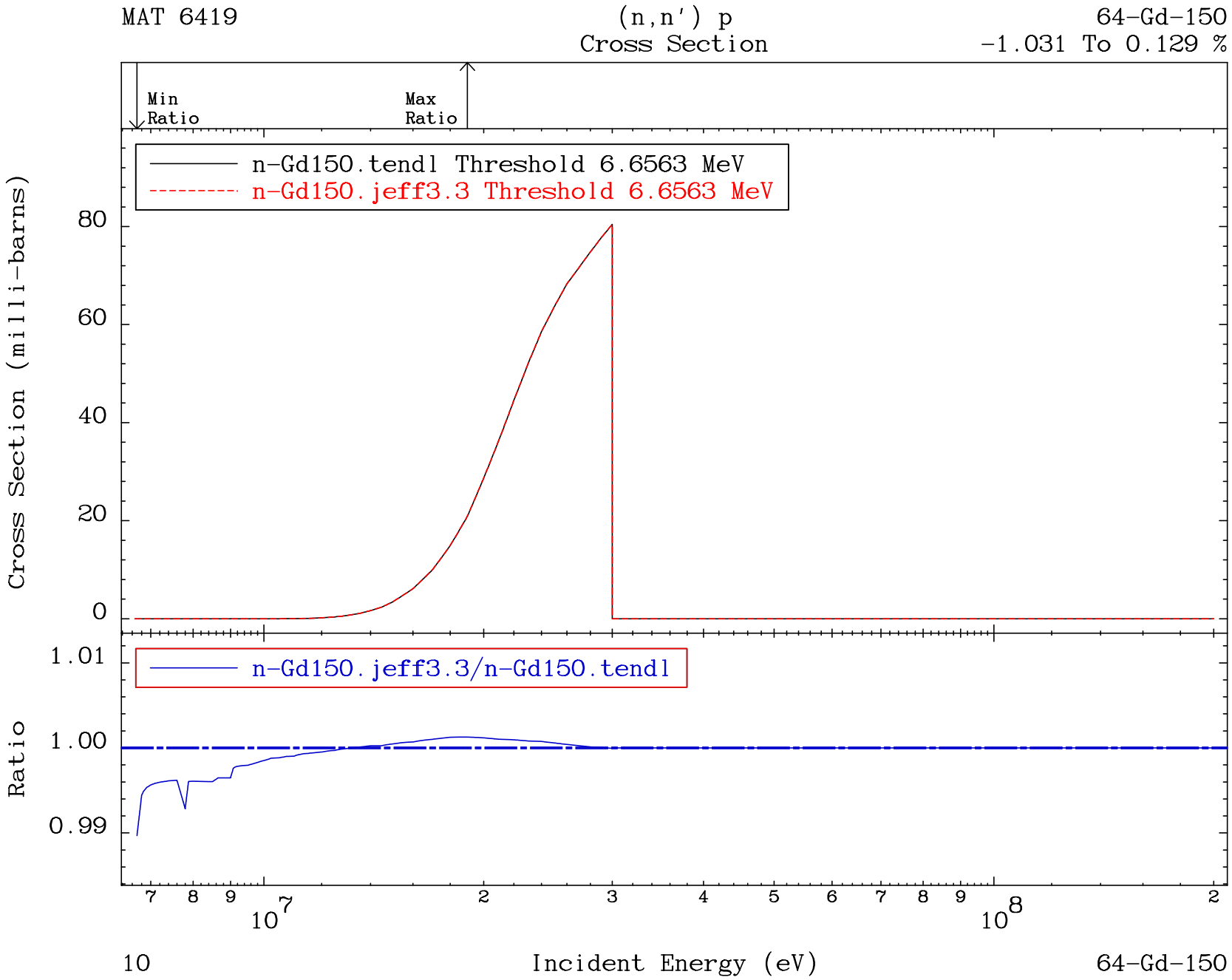

MAT 6419
(n,2n)
Cross Section
64-Gd-150
-0.055 To 0.186 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 8.7668 MeV
n-Gd150.jeff3.3 Threshold 8.7668 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
64-Gd-150

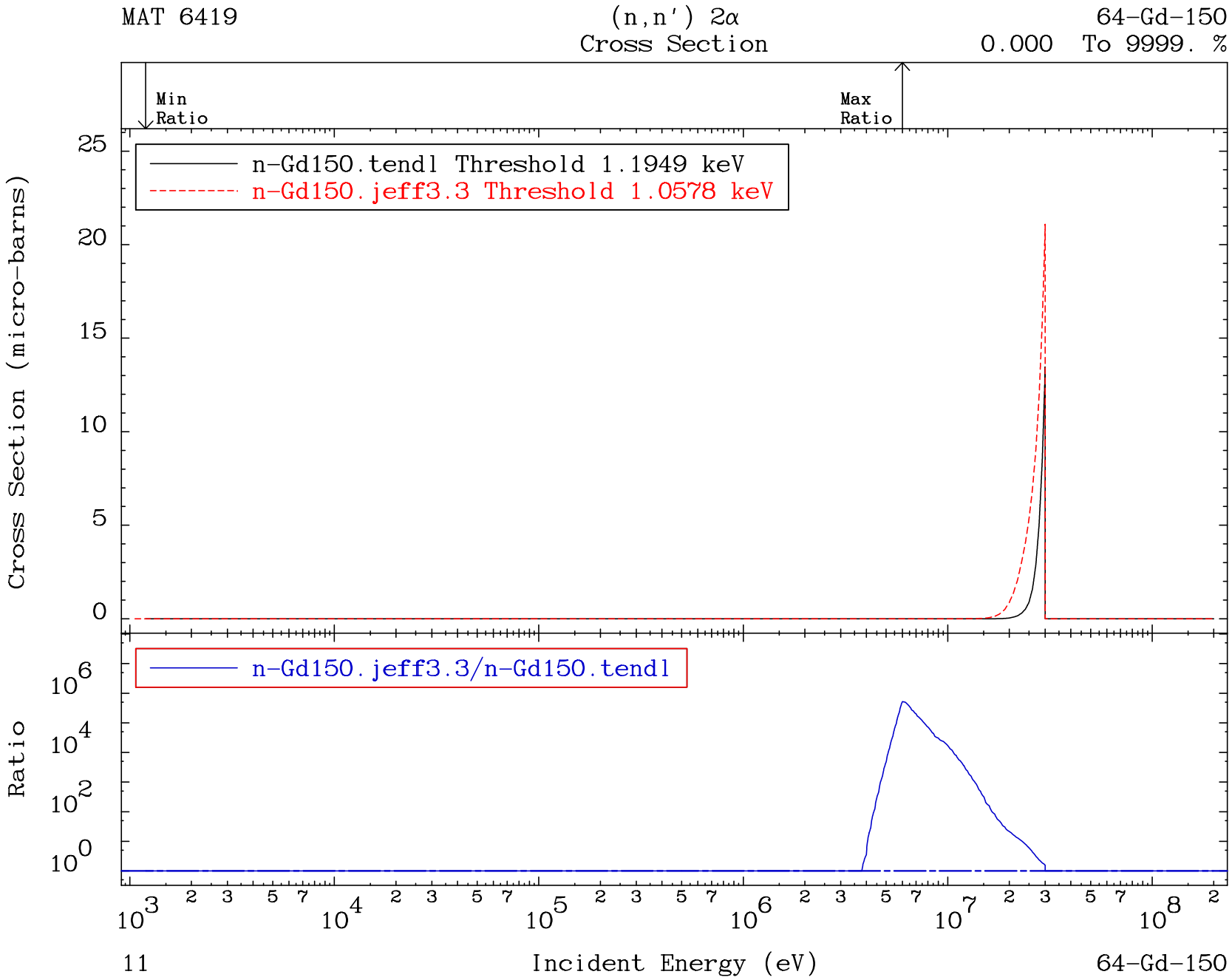

MAT 6419
(n,3n)
Cross Section
64-Gd-150
0.000 To 0.408 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 15.743 MeV
n-Gd150.jeff3.3 Threshold 15.743 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
64-Gd-150

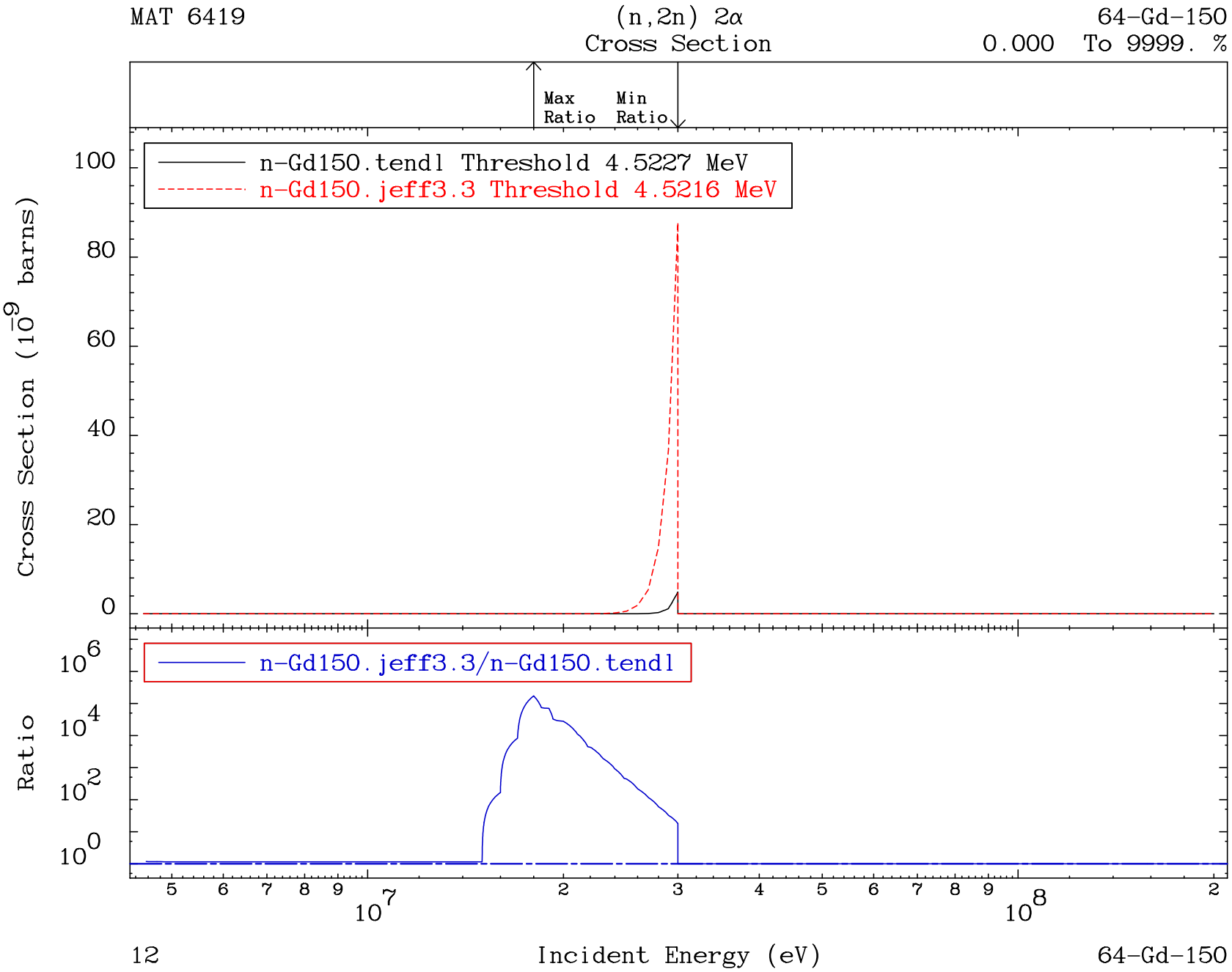

MAT 6419
(n,n') α
Cross Section
64-Gd-150
-9.592 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 1.1949 keV
n-Gd150.jeff3.3 Threshold 1.0578 keV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^9
10^6
10^3
10^0
10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
7
Incident Energy (eV)
64-Gd-150

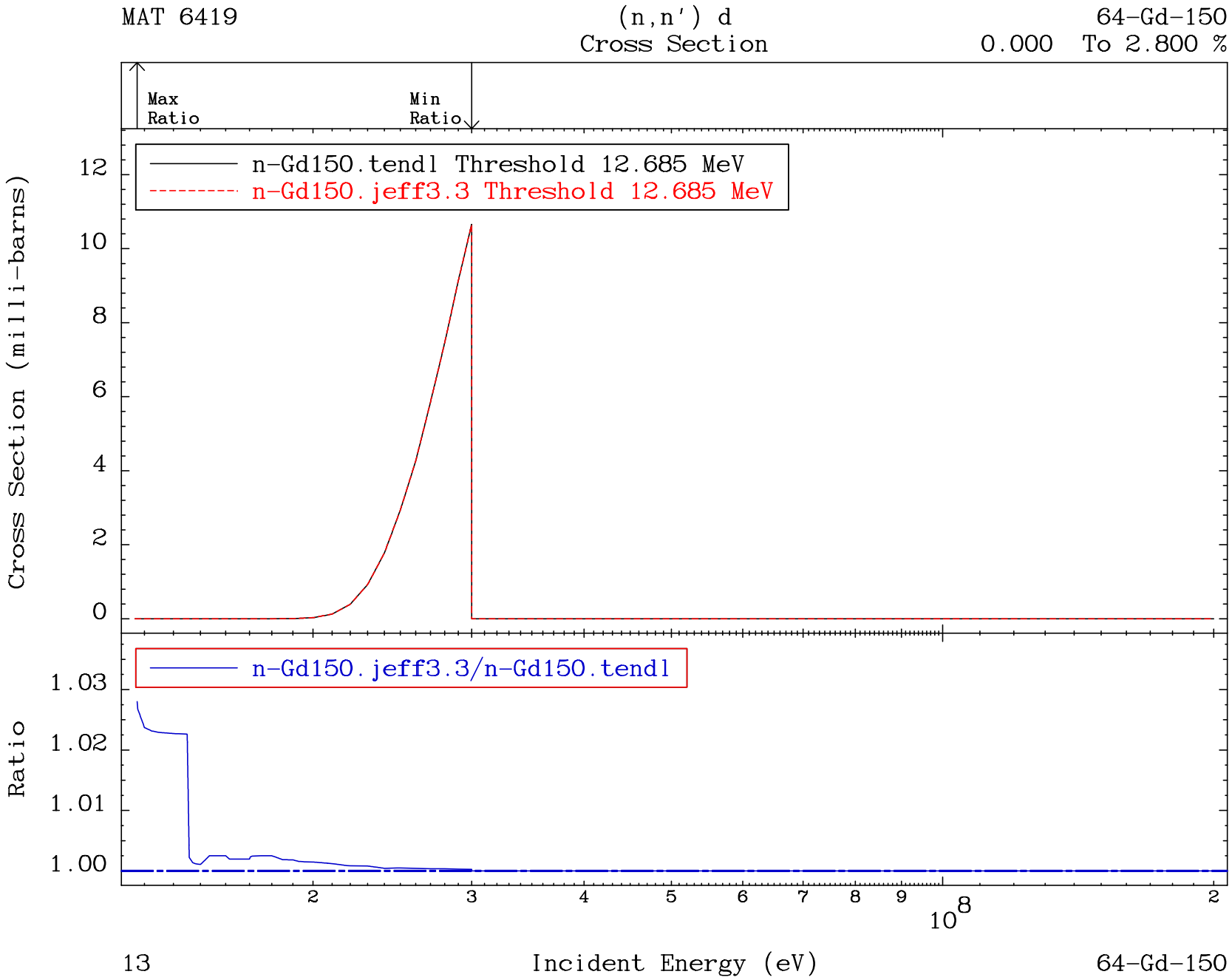

MAT 6419
(n,2n) α
Cross Section
64-Gd-150
-70.33 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 5.6466 MeV
n-Gd150.jeff3.3 Threshold 5.6466 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^4
10^2
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
64-Gd-150

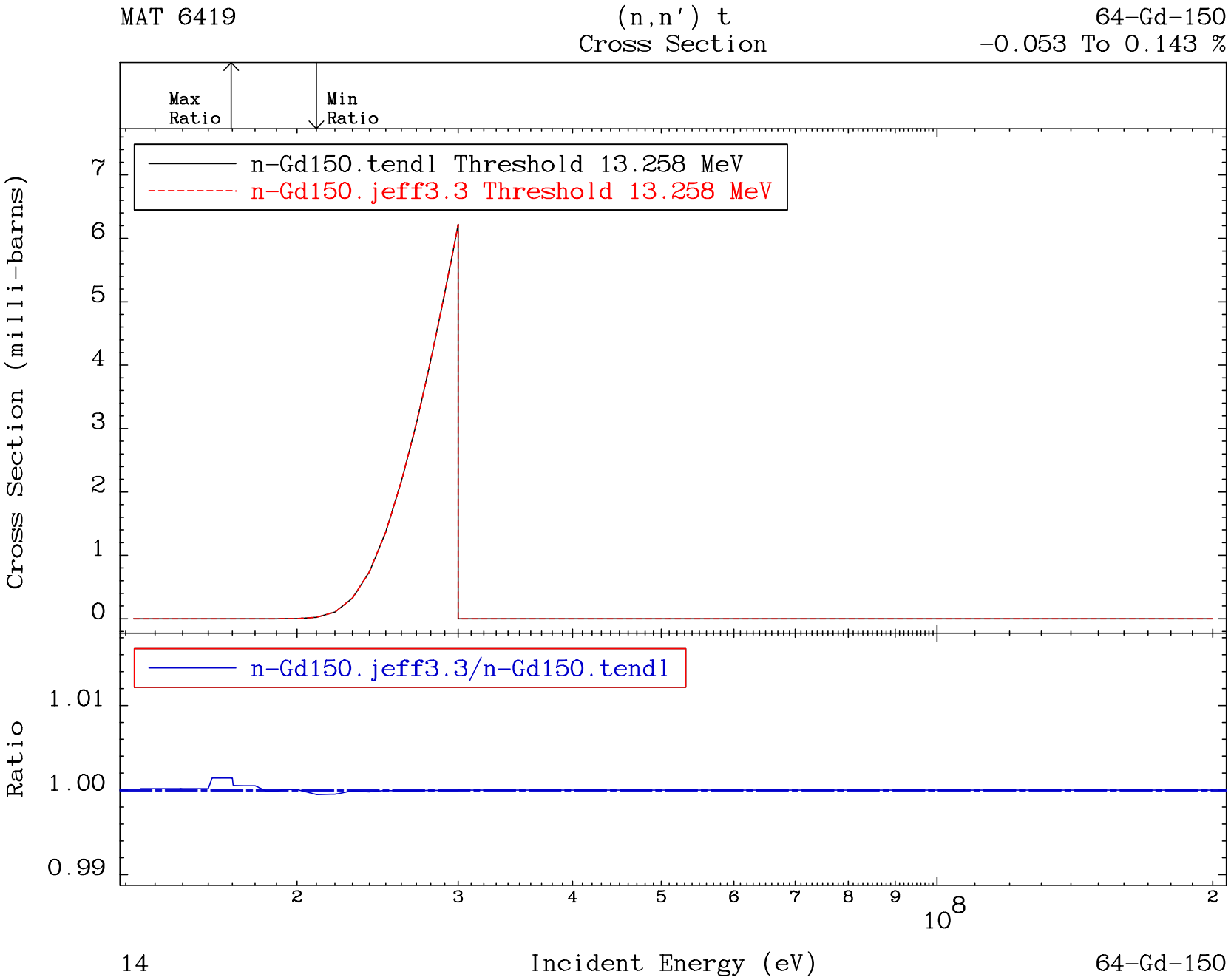

MAT 6419
(n,3n) α
Cross Section
64-Gd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 12.449 MeV
n-Gd150.jeff3.3 Threshold 12.449 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^3
10^0
10^-3
10^-6
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
64-Gd-150

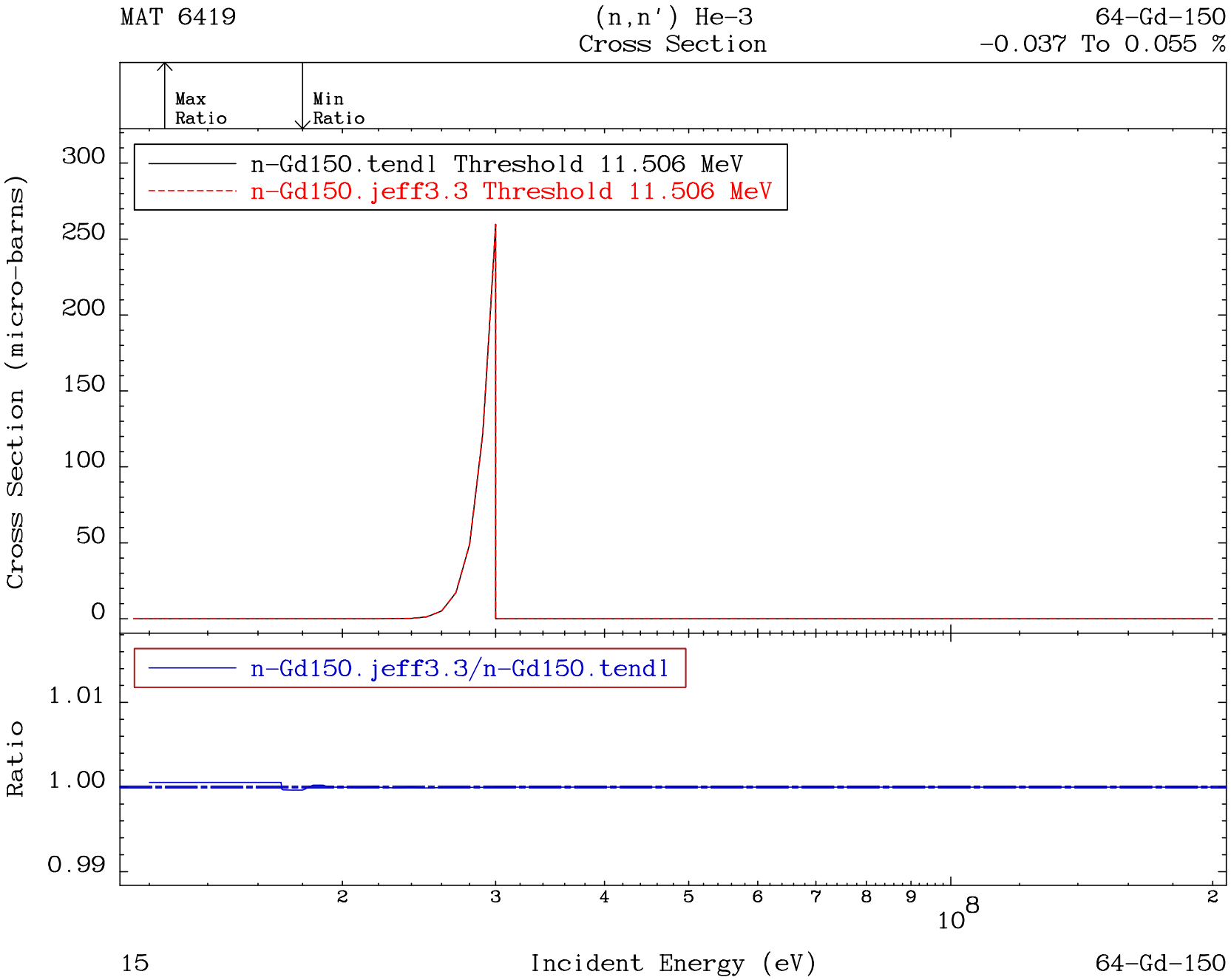

MAT 6419
(n,n') p
Cross Section
64-Gd-150
-1.031 To 0.129 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 6.6563 MeV
n-Gd150.jeff3.3 Threshold 6.6563 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
64-Gd-150

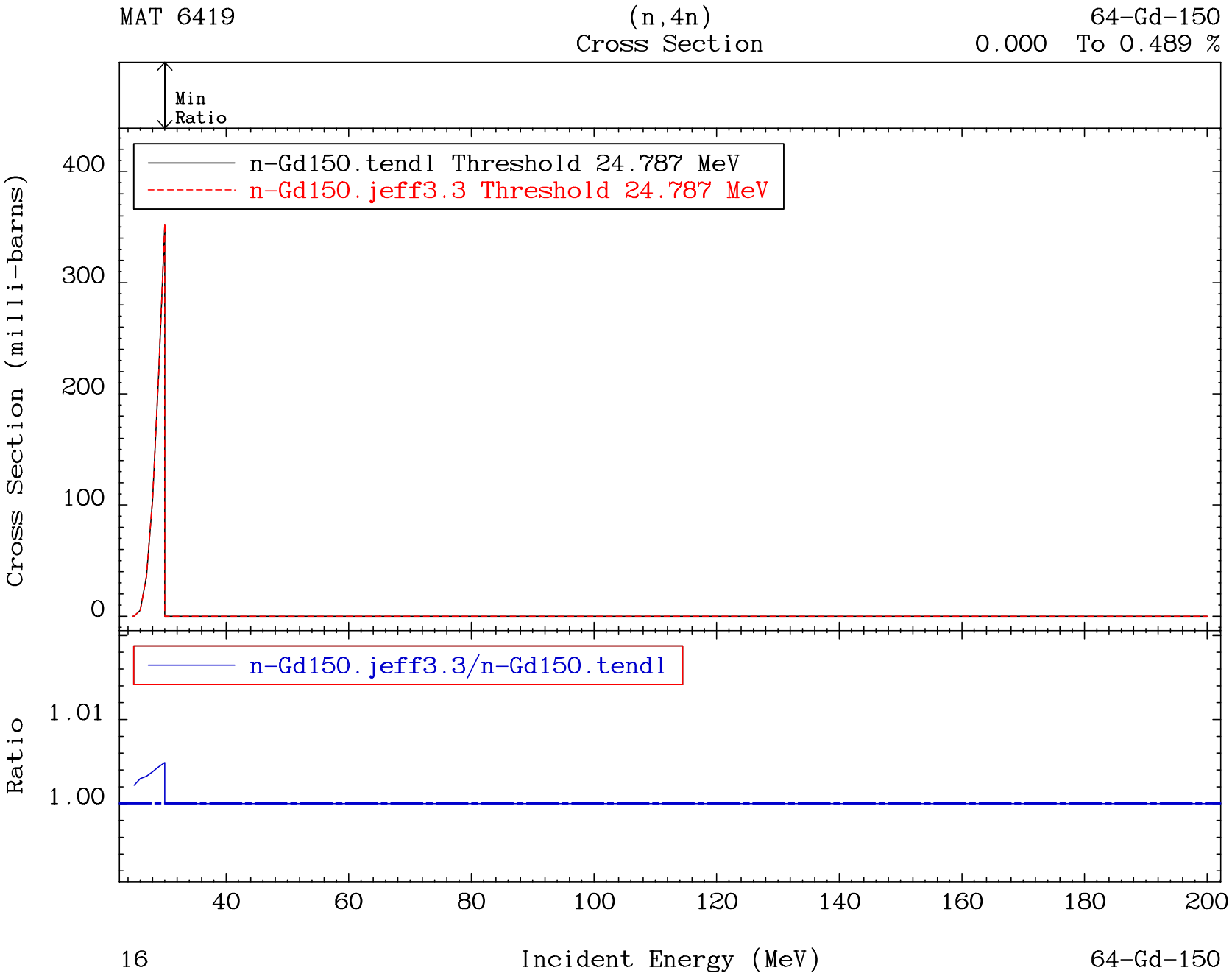

MAT 6419
(n,n') 2α
Cross Section
64-Gd-150
0.000 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.1949 keV
n-Gd150.jeff3.3 Threshold 1.0578 keV
Cross Section (micro-barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
11
64-Gd-150

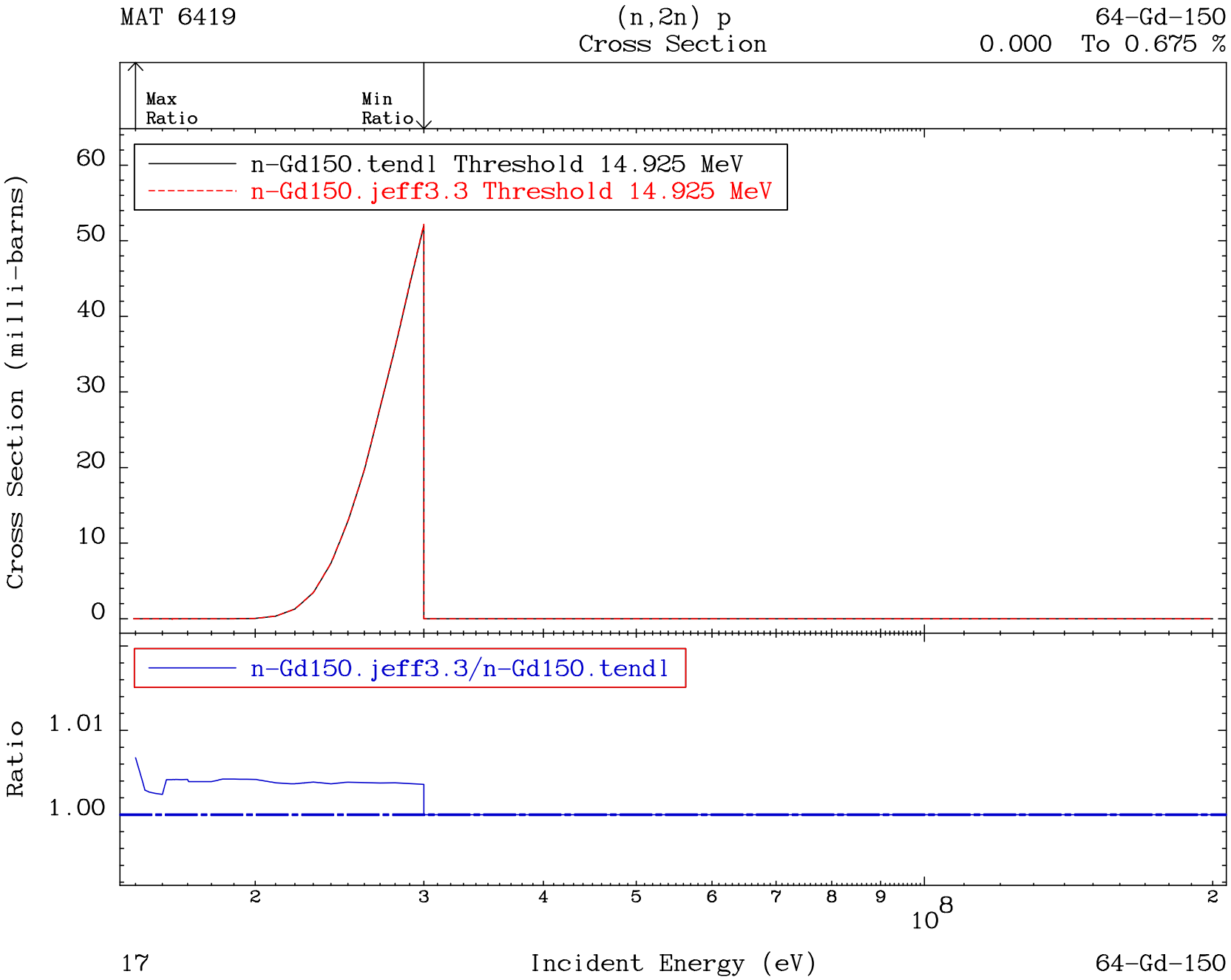

MAT 6419
(n,2n) 2α
Cross Section
64-Gd-150
0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 4.5227 MeV
n-Gd150.jeff3.3 Threshold 4.5216 MeV
Cross Section (10^{-9} barns)
100
80
60
40
20
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^6
10^4
10^2
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
12
Incident Energy (eV)
64-Gd-150

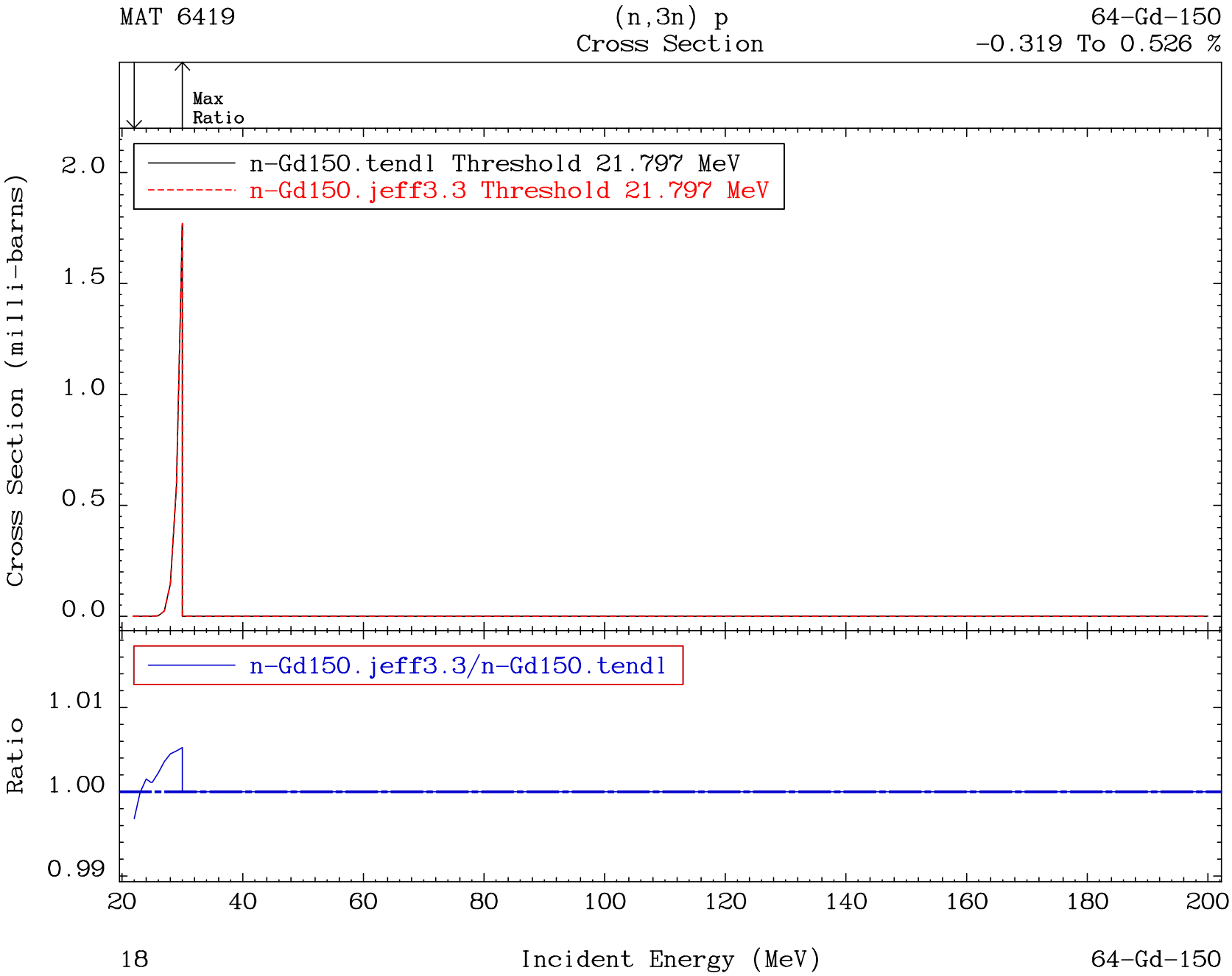

MAT 6419
(n,n') d
Cross Section
64-Gd-150
0.000 To 2.800 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 12.685 MeV
n-Gd150.jeff3.3 Threshold 12.685 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
64-Gd-150

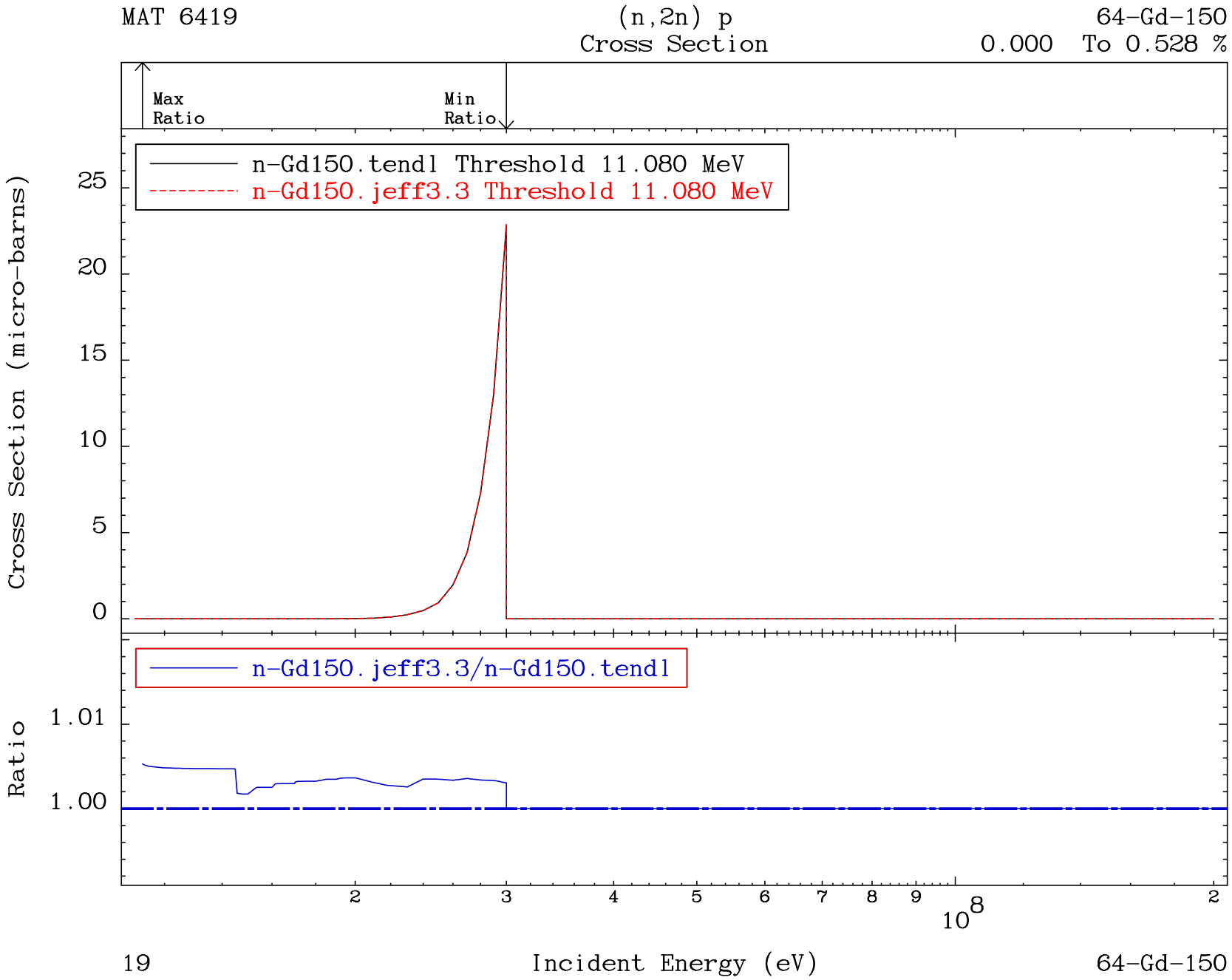

MAT 6419
(n,n') t
Cross Section
64-Gd-150
-0.053 To 0.143 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 13.258 MeV
n-Gd150.jeff3.3 Threshold 13.258 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
64-Gd-150

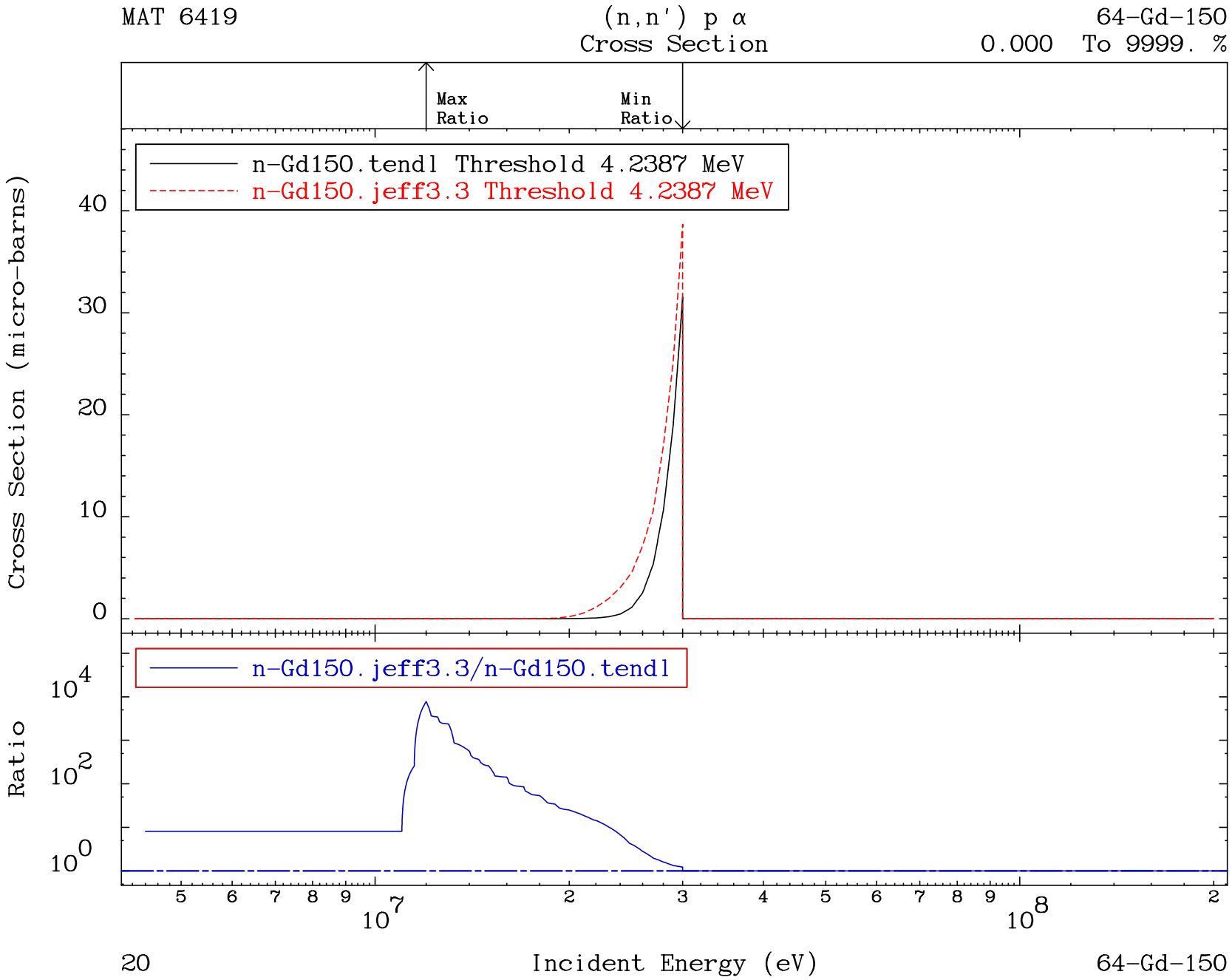

MAT 6419
(n,n') He-3
Cross Section
64-Gd-150
-0.037 To 0.055 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 11.506 MeV
n-Gd150.jeff3.3 Threshold 11.506 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
64-Gd-150

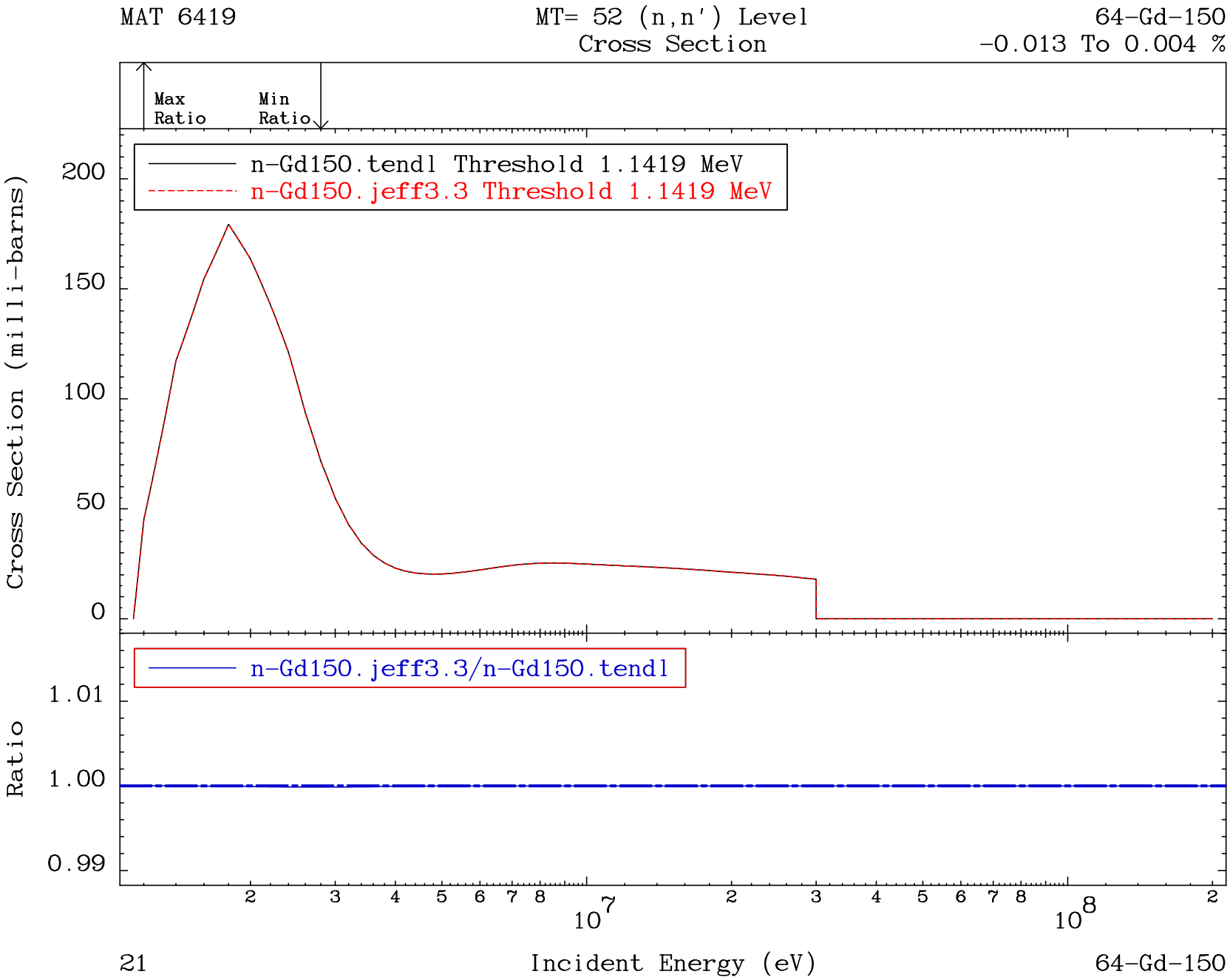

MAT 6419
(n,4n)
Cross Section
64-Gd-150
0.000 To 0.489 %
Min
Ratio
n-Gd150.tendl Threshold 24.787 MeV
n-Gd150.jeff3.3 Threshold 24.787 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
40
60
80
100
120
140
160
180
200
16
Incident Energy (MeV)
64-Gd-150

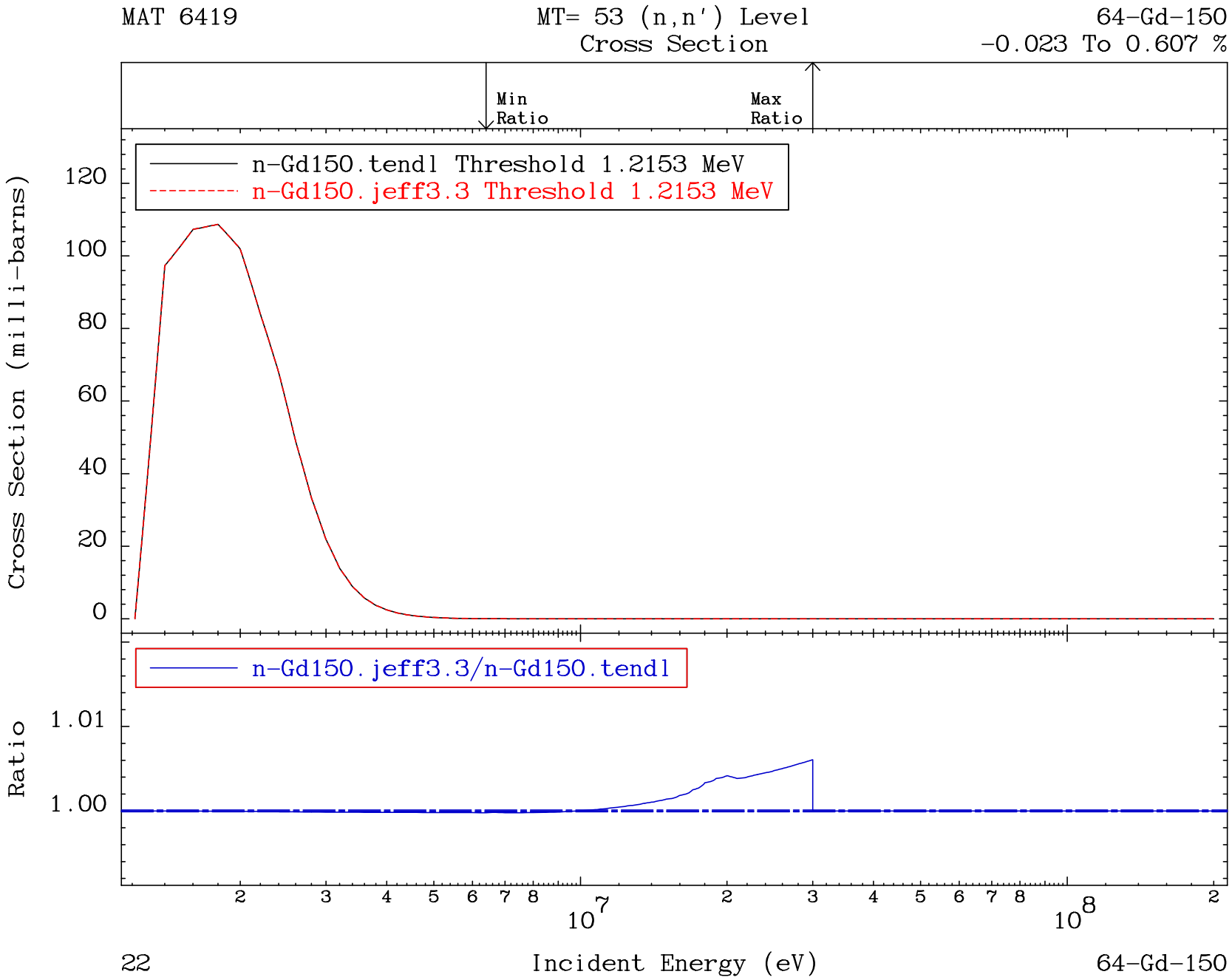

MAT 6419
(n,2n) p
Cross Section
64-Gd-150
0.000 To 0.675 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 14.925 MeV
n-Gd150.jeff3.3 Threshold 14.925 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
17
Incident Energy (eV)
64-Gd-150

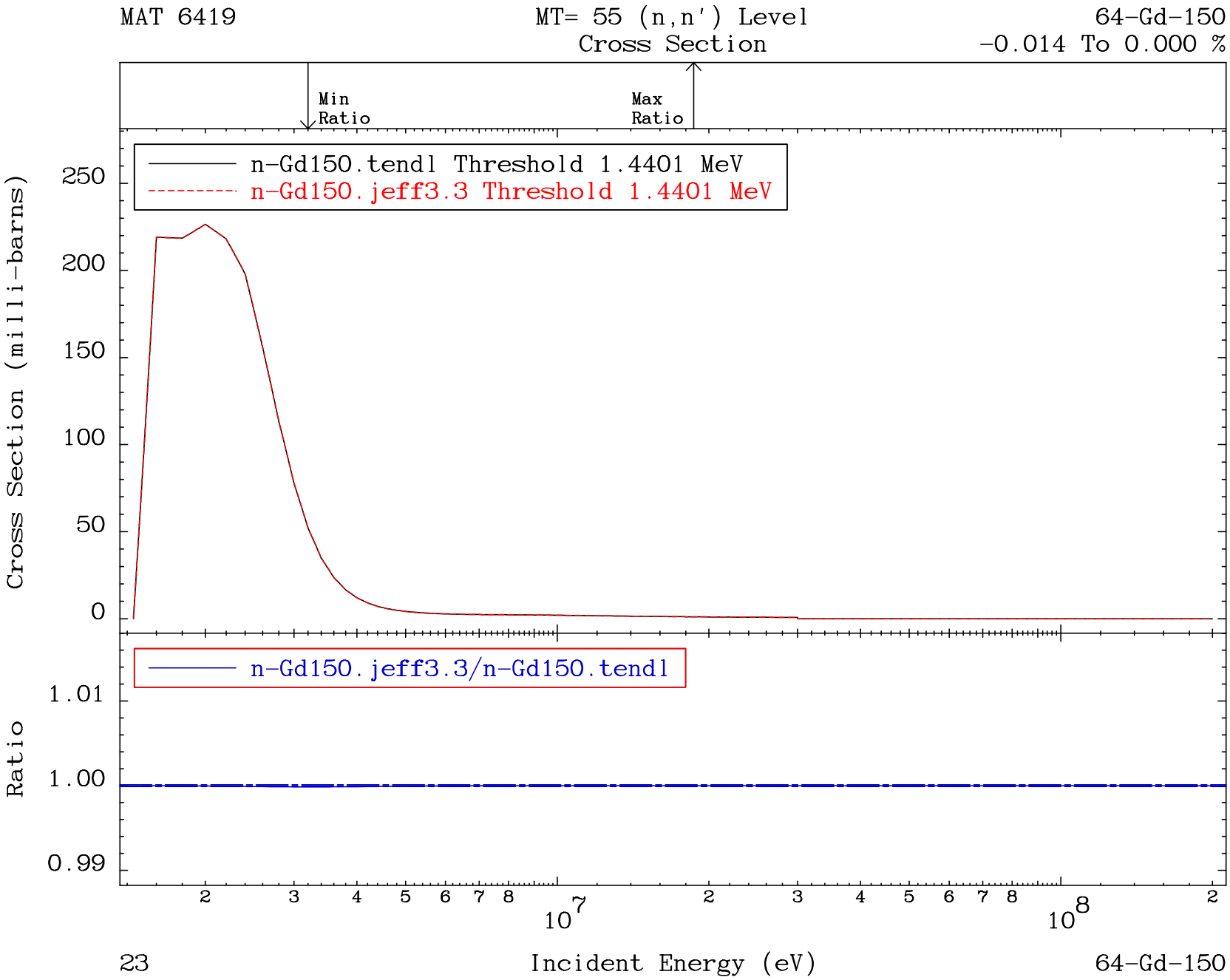

MAT 6419
(n,3n) p
Cross Section
64-Gd-150
-0.319 To 0.526 %
Max
Ratio
n-Gd150.tendl Threshold 21.797 MeV
n-Gd150.jeff3.3 Threshold 21.797 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
18
Incident Energy (MeV)
64-Gd-150

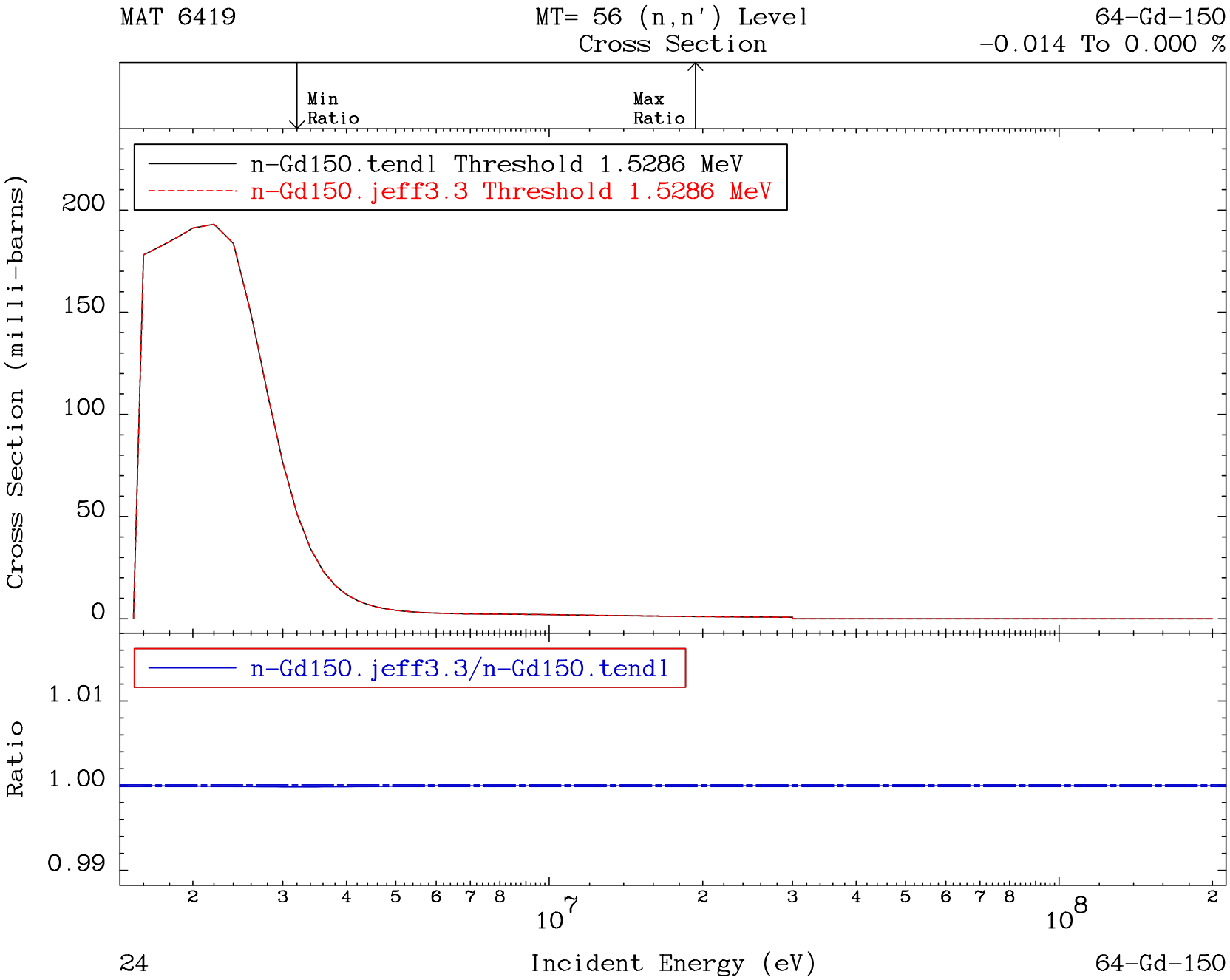

MAT 6419
(n,2n) p
Cross Section
64-Gd-150
0.000 To 0.528 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 11.080 MeV
n-Gd150.jeff3.3 Threshold 11.080 MeV
Cross Section (micro-barns)
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
19
Incident Energy (eV)
64-Gd-150

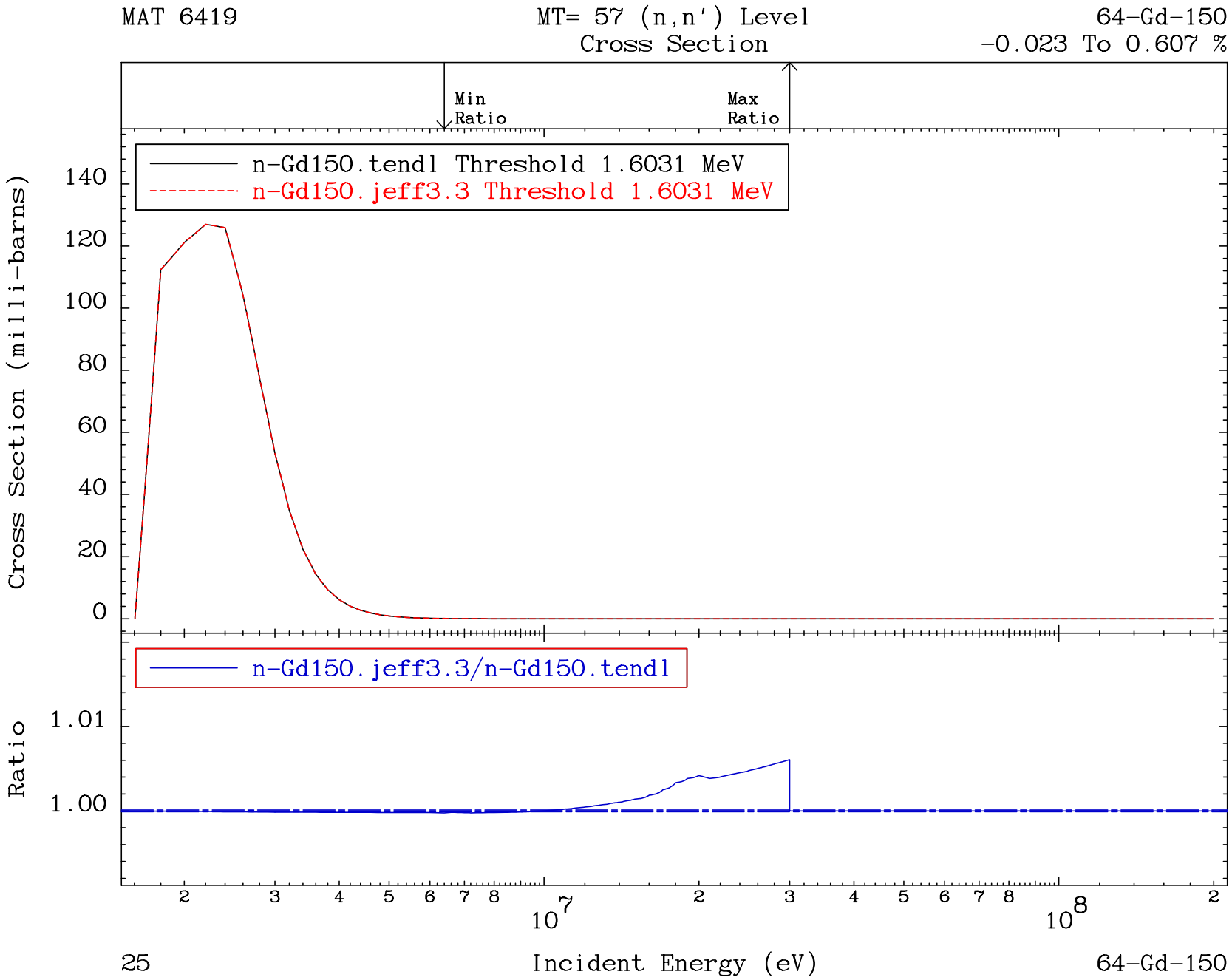

MAT 6419
(n,n') p α
Cross Section
64-Gd-150
0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 4.2387 MeV
n-Gd150.jeff3.3 Threshold 4.2387 MeV
Cross Section (micro-barns)
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^4
10^2
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
64-Gd-150

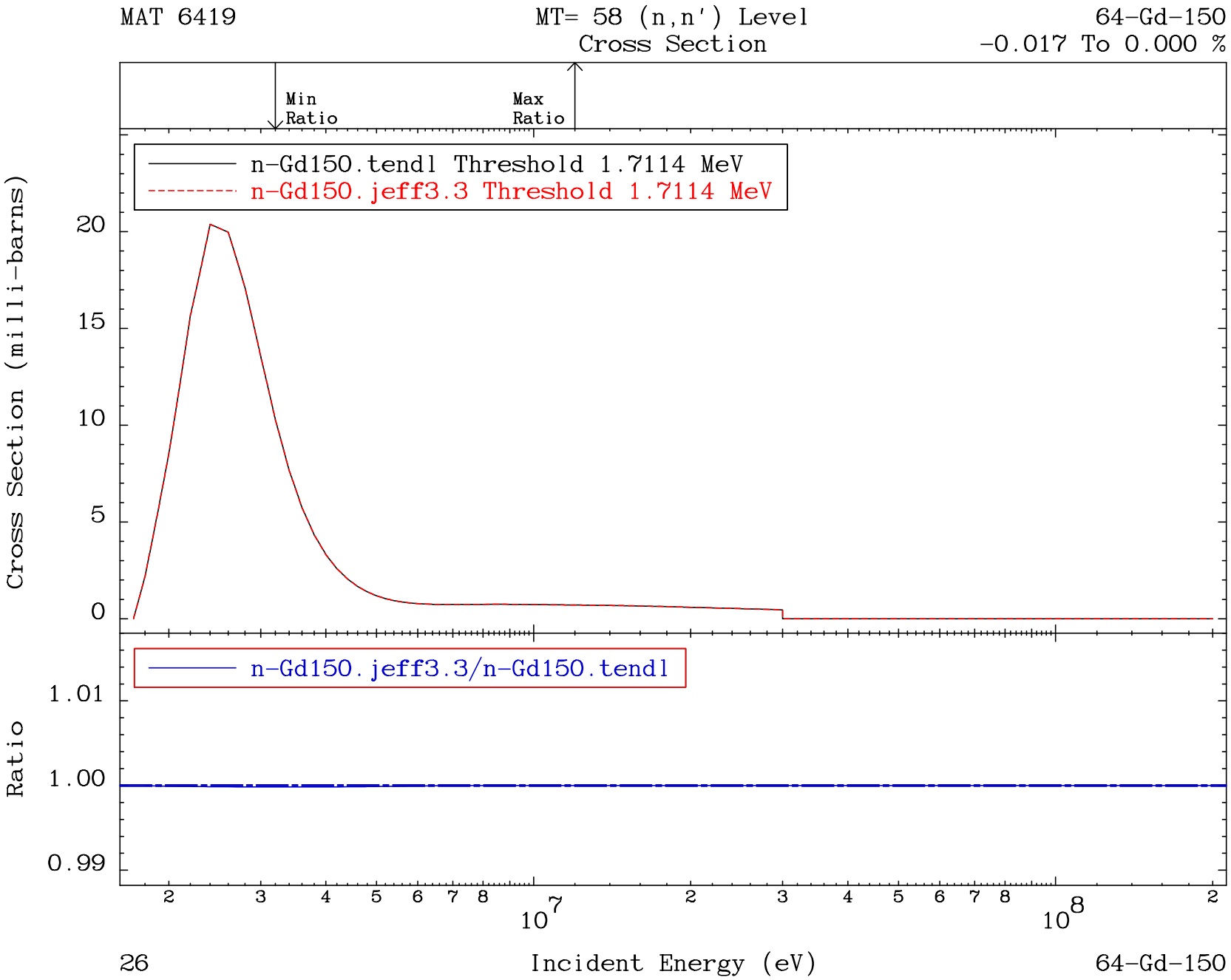

MAT 6419
MT= 52 (n,n') Level
Cross Section
64-Gd-150
-0.013 To 0.004 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 1.1419 MeV
n-Gd150.jeff3.3 Threshold 1.1419 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
21
Incident Energy (eV)
64-Gd-150

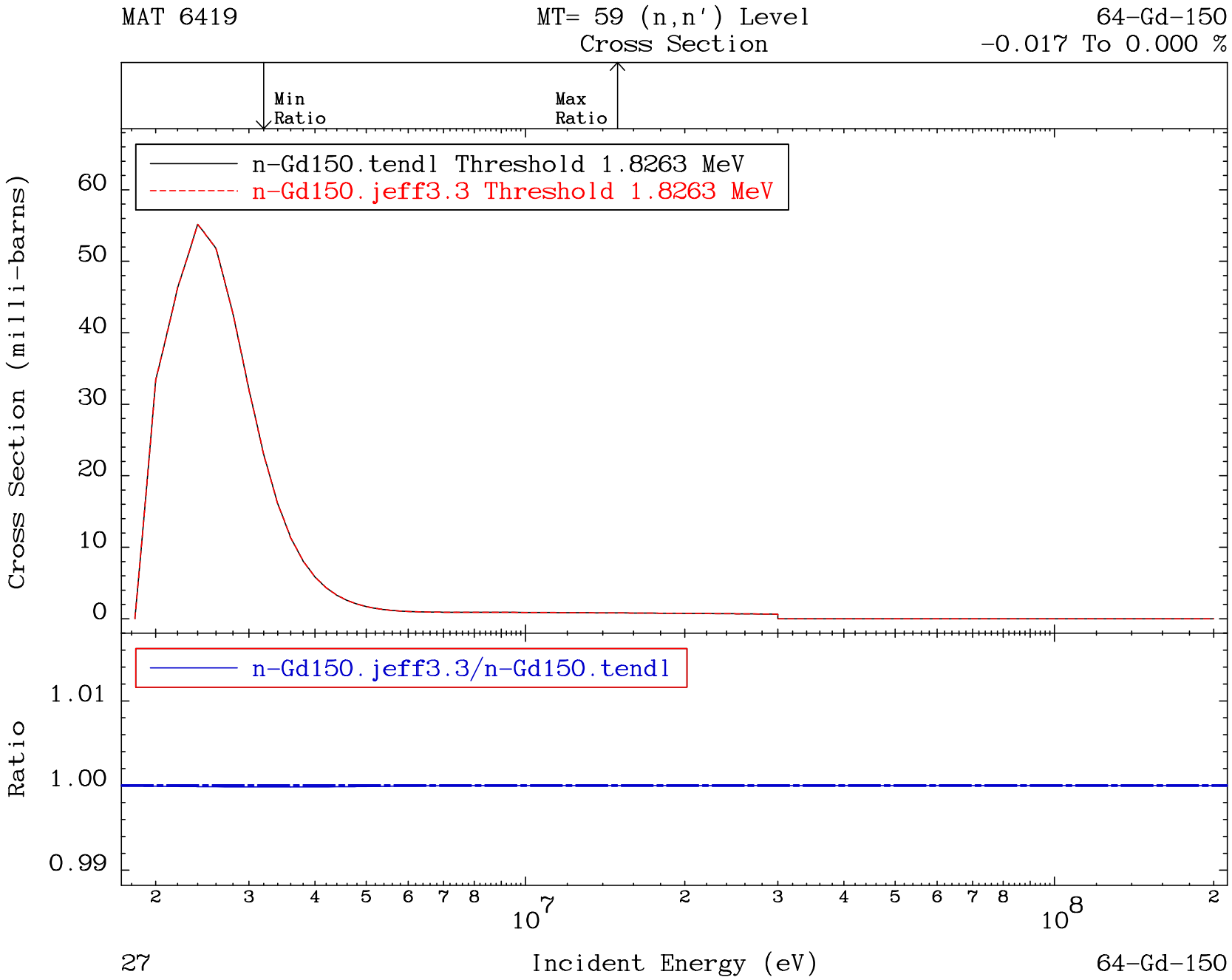

MAT 6419
MT= 53 (n,n') Level
Cross Section
64-Gd-150
-0.023 To 0.607 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 1.2153 MeV
n-Gd150.jeff3.3 Threshold 1.2153 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
22
Incident Energy (eV)
64-Gd-150

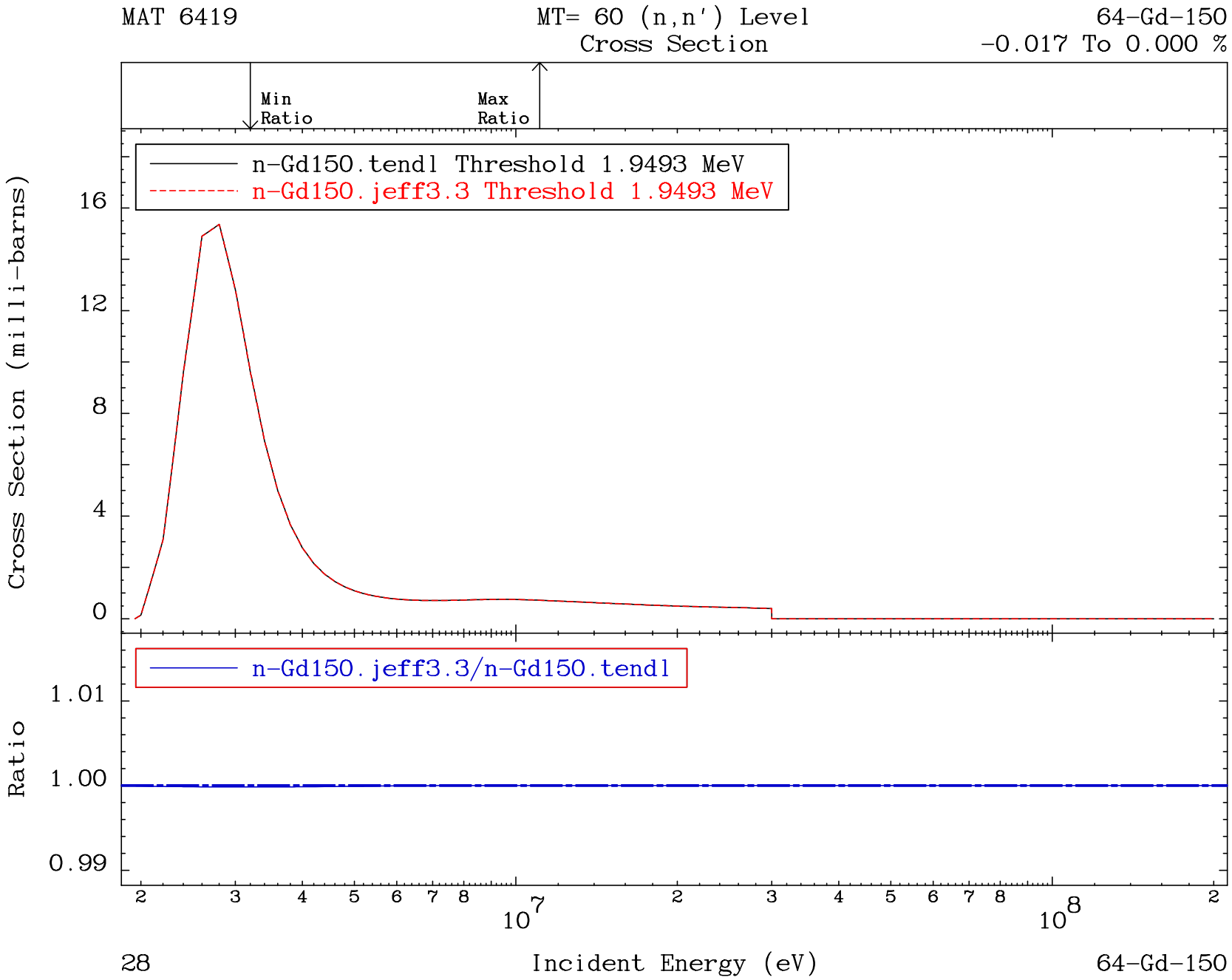

MAT 6419
MT= 55 (n,n') Level
Cross Section
64-Gd-150
-0.014 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 1.4401 MeV
n-Gd150.jeff3.3 Threshold 1.4401 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
23
Incident Energy (eV)
64-Gd-150

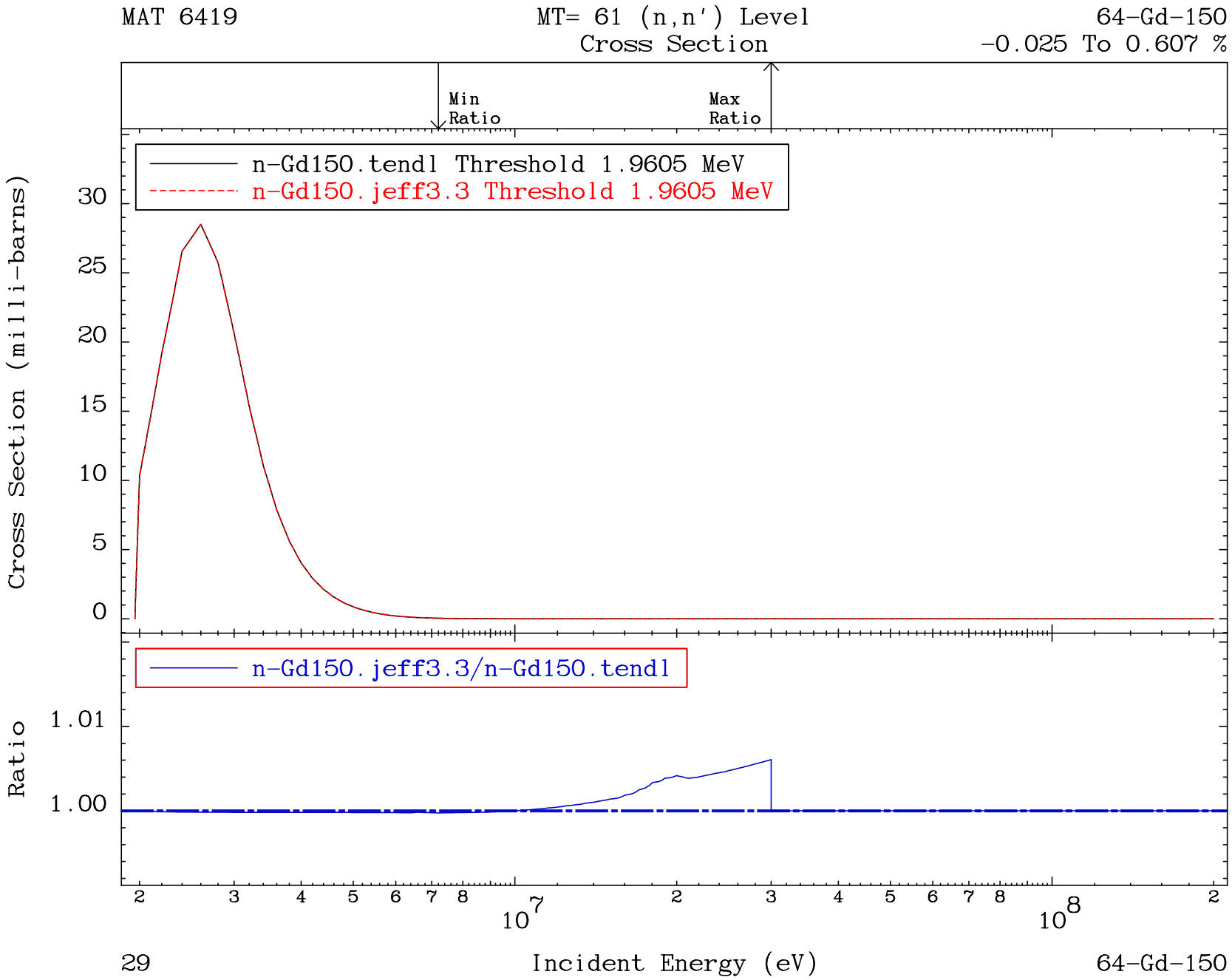

MAT 6419
MT= 56 (n,n') Level
Cross Section
64-Gd-150
-0.014 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 1.5286 MeV
n-Gd150.jeff3.3 Threshold 1.5286 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
24
Incident Energy (eV)
64-Gd-150

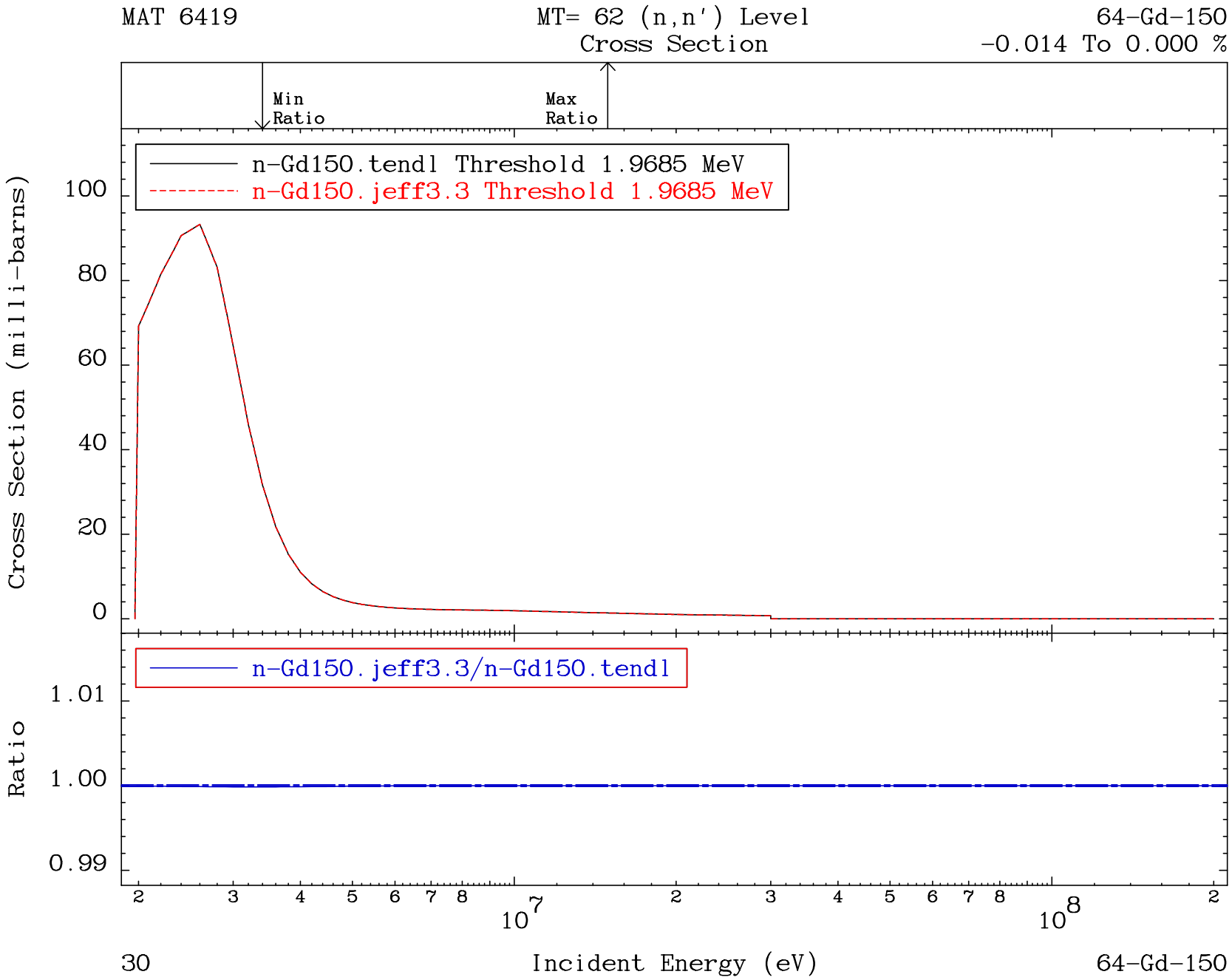

MAT 6419
MT= 57 (n,n') Level
Cross Section
64-Gd-150
-0.023 To 0.607 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 1.6031 MeV
n-Gd150.jeff3.3 Threshold 1.6031 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
25
Incident Energy (eV)
64-Gd-150

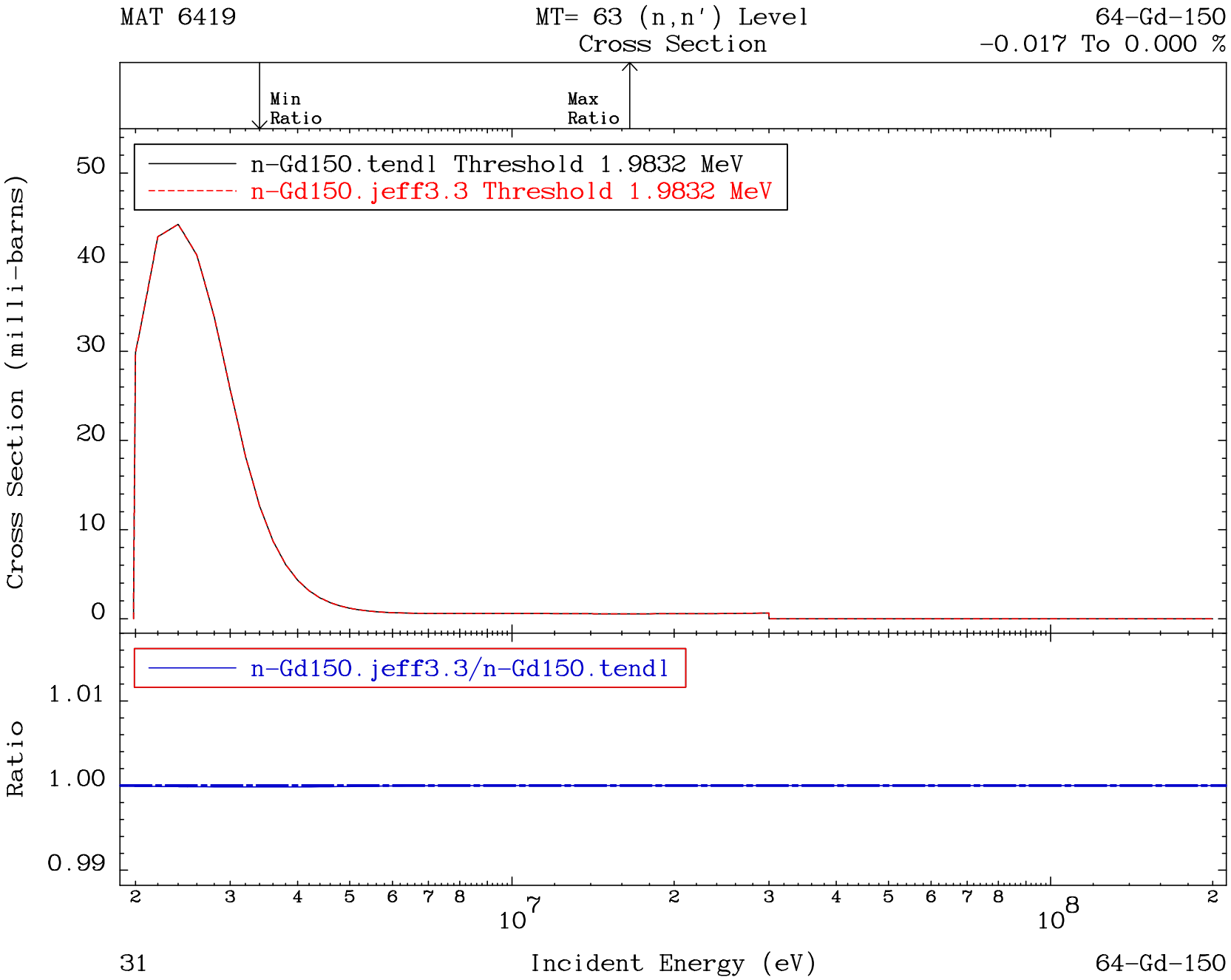

MAT 6419
MT= 58 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 1.7114 MeV
n-Gd150.jeff3.3 Threshold 1.7114 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
64-Gd-150

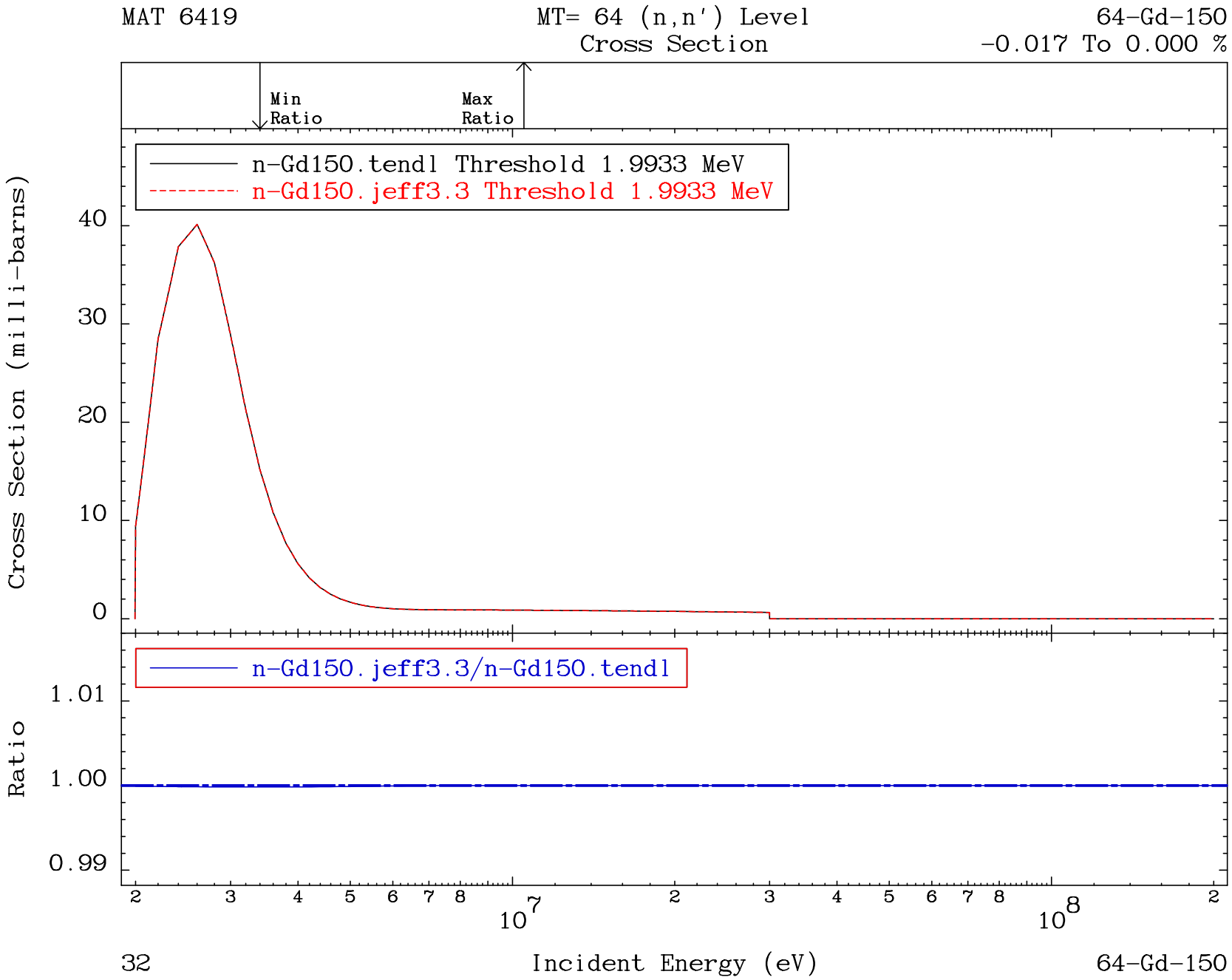

MAT 6419
MT= 59 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.8263 MeV
n-Gd150.jeff3.3 Threshold 1.8263 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
27
Incident Energy (eV)
64-Gd-150

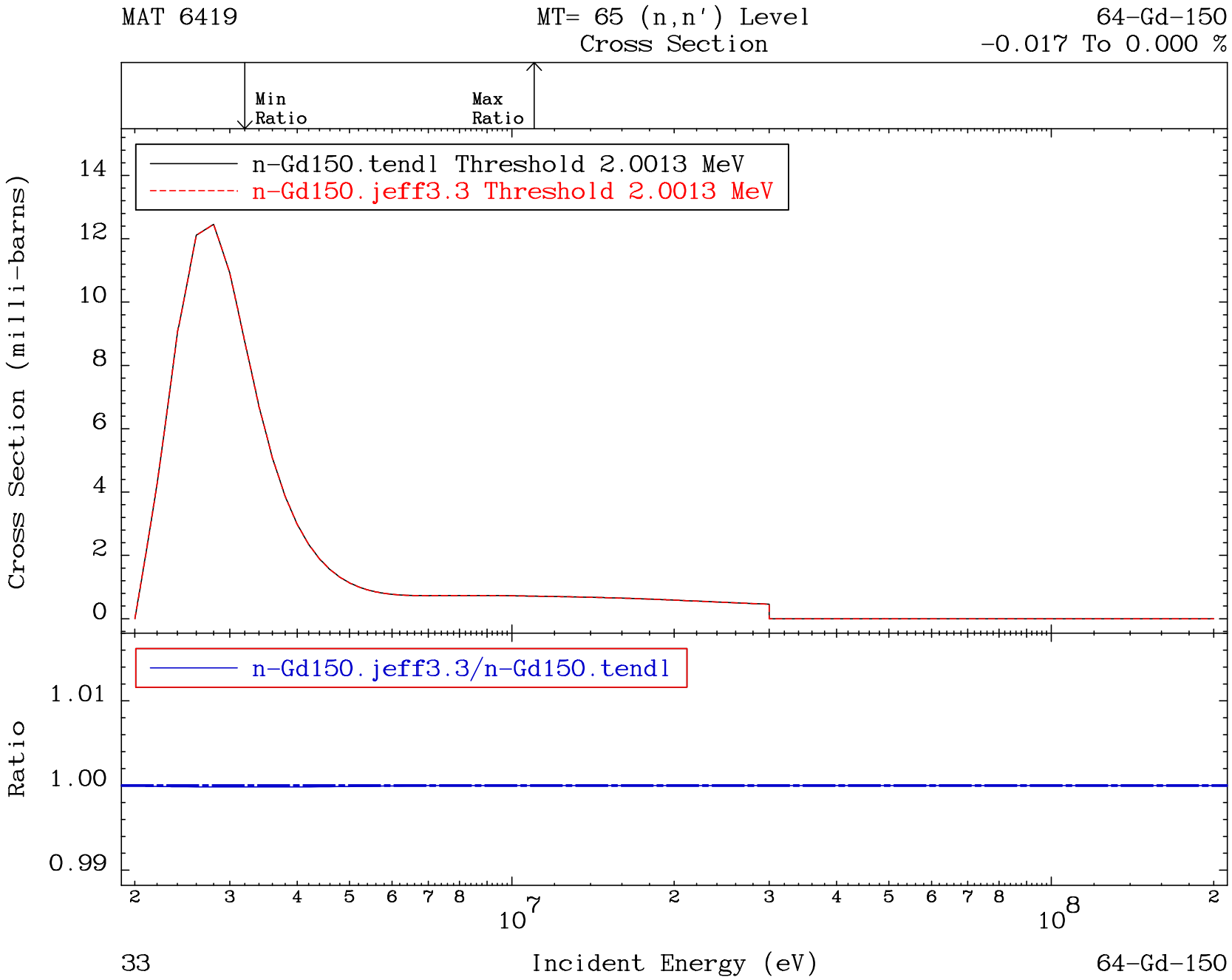

MAT 6419
MT= 60 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.9493 MeV
n-Gd150.jeff3.3 Threshold 1.9493 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
28
Incident Energy (eV)
64-Gd-150

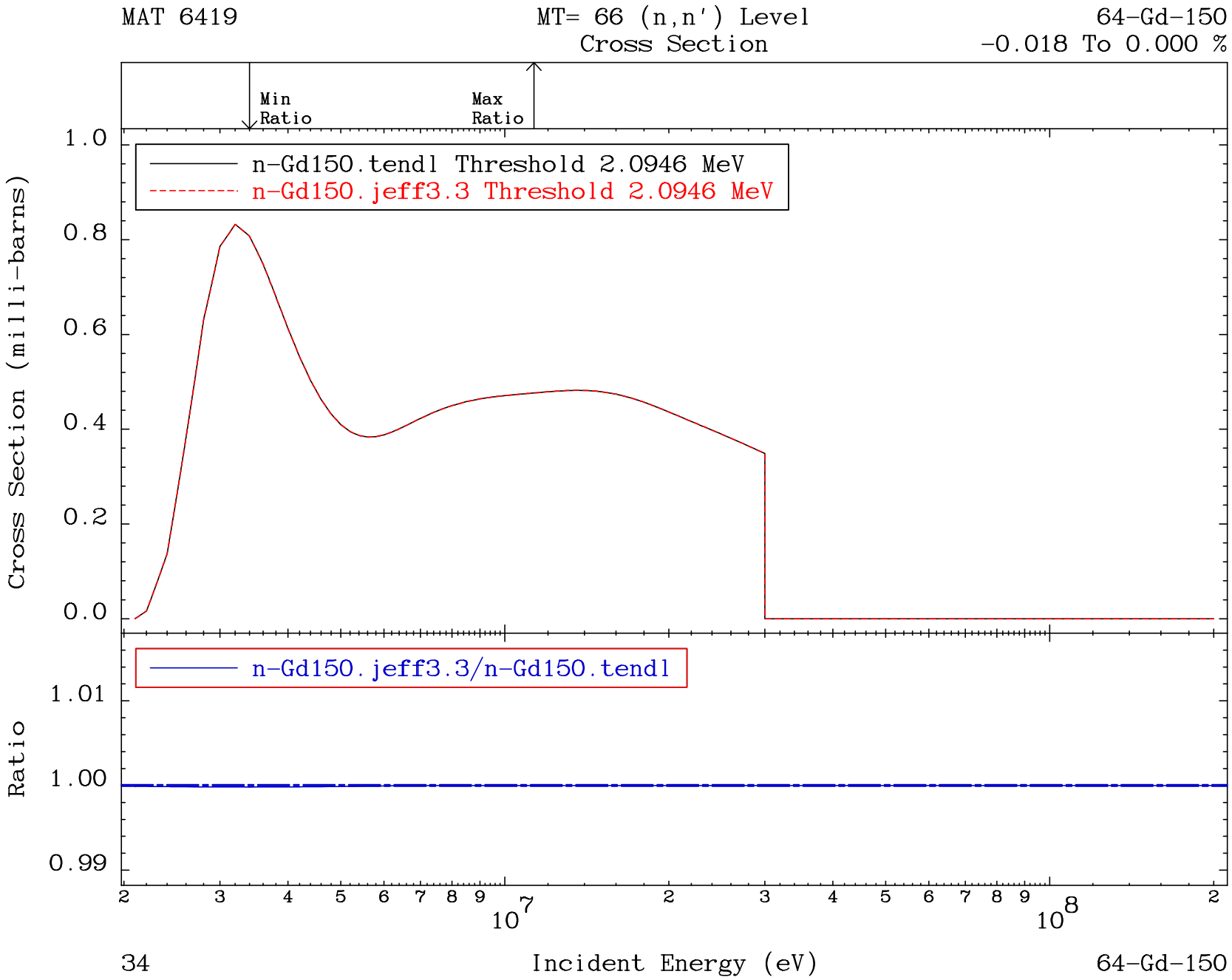

MAT 6419
MT= 61 (n,n') Level
Cross Section
64-Gd-150
-0.025 To 0.607 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.9605 MeV
n-Gd150.jeff3.3 Threshold 1.9605 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
29
Incident Energy (eV)
64-Gd-150

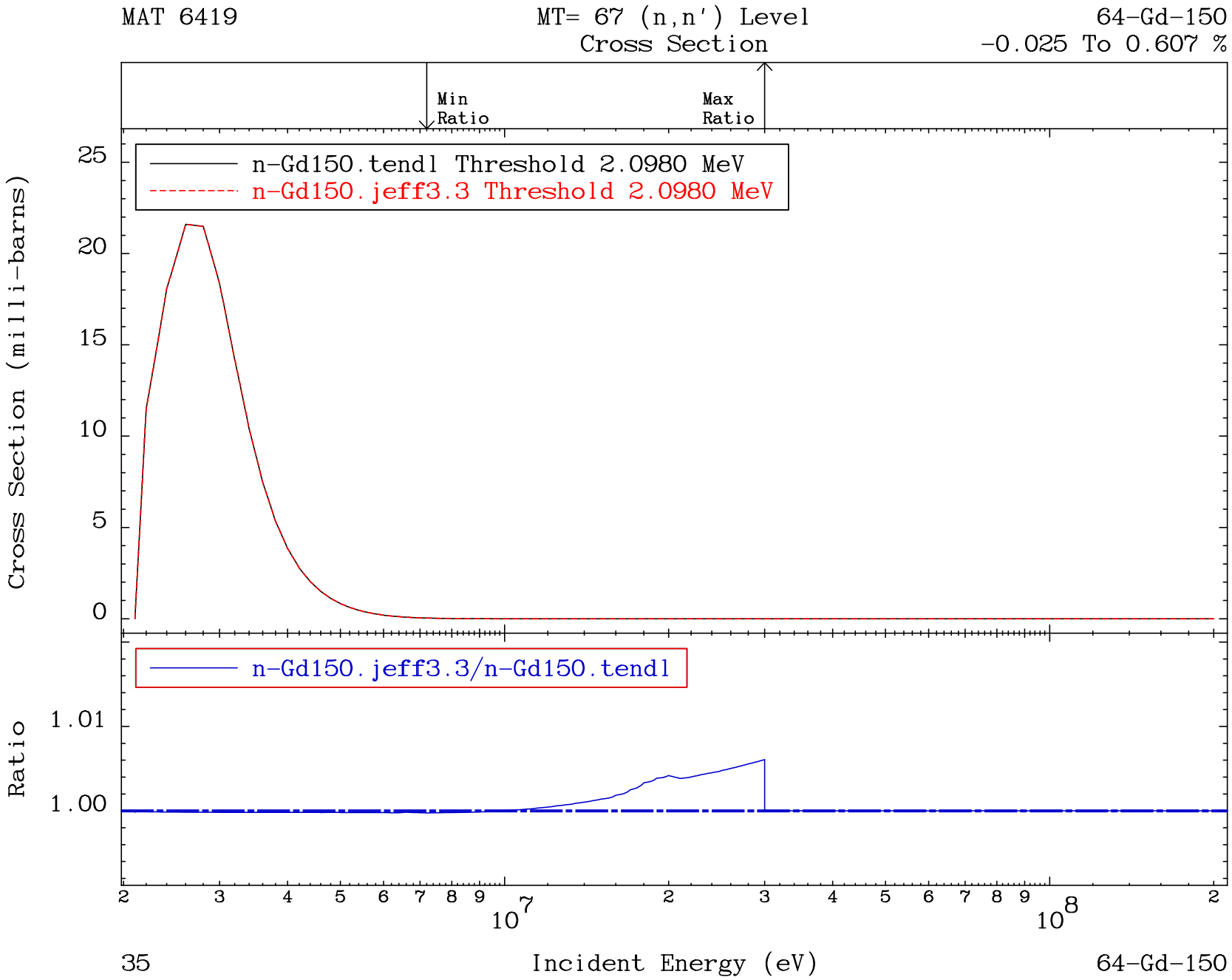

MAT 6419
MT= 62 (n,n') Level
Cross Section
64-Gd-150
-0.014 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.9685 MeV
n-Gd150.jeff3.3 Threshold 1.9685 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
30
Incident Energy (eV)
64-Gd-150

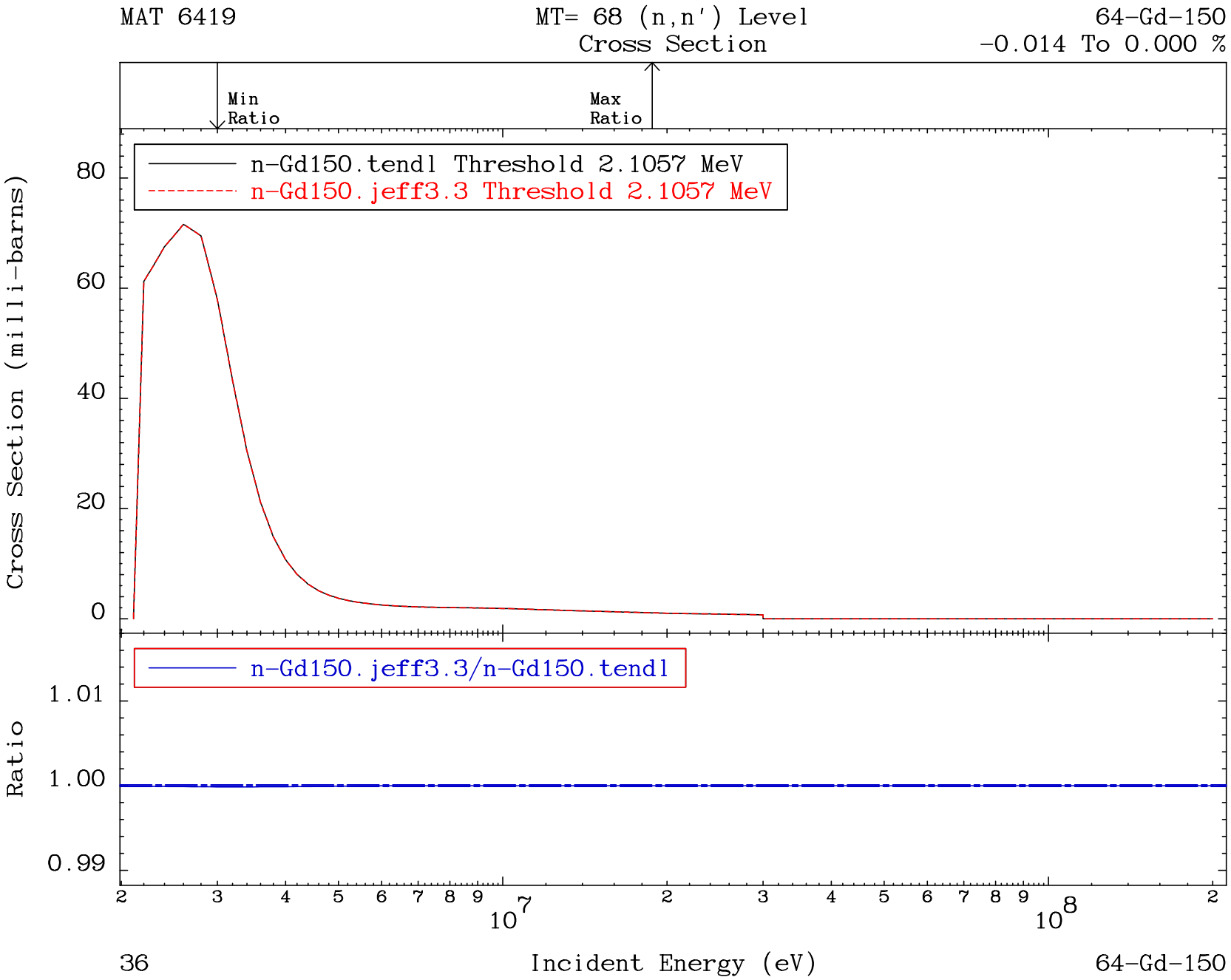

MAT 6419
MT= 63 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 1.9832 MeV
n-Gd150.jeff3.3 Threshold 1.9832 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
31
Incident Energy (eV)
64-Gd-150

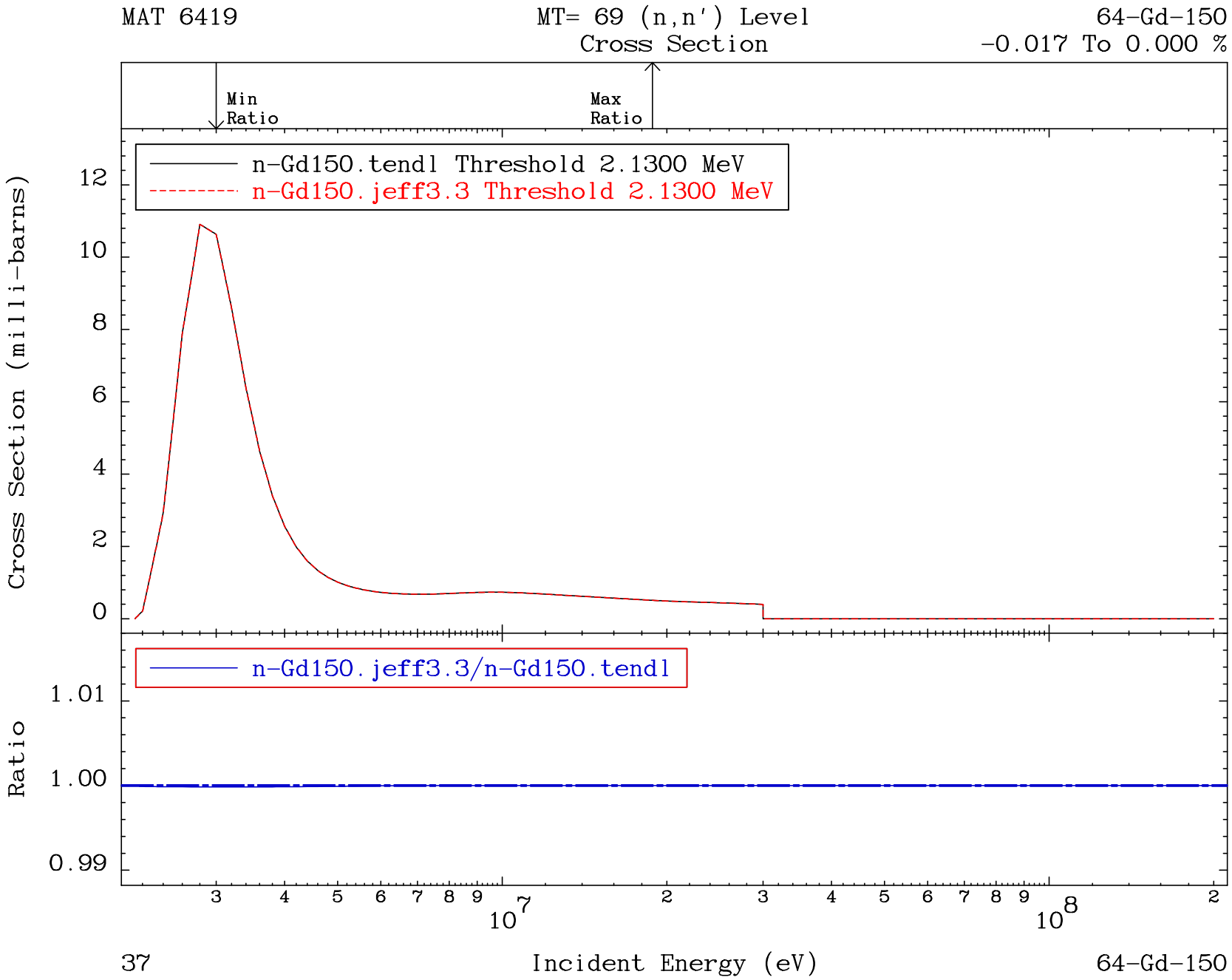

MAT 6419
MT= 64 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.9933 MeV
n-Gd150.jeff3.3 Threshold 1.9933 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
32
Incident Energy (eV)
64-Gd-150

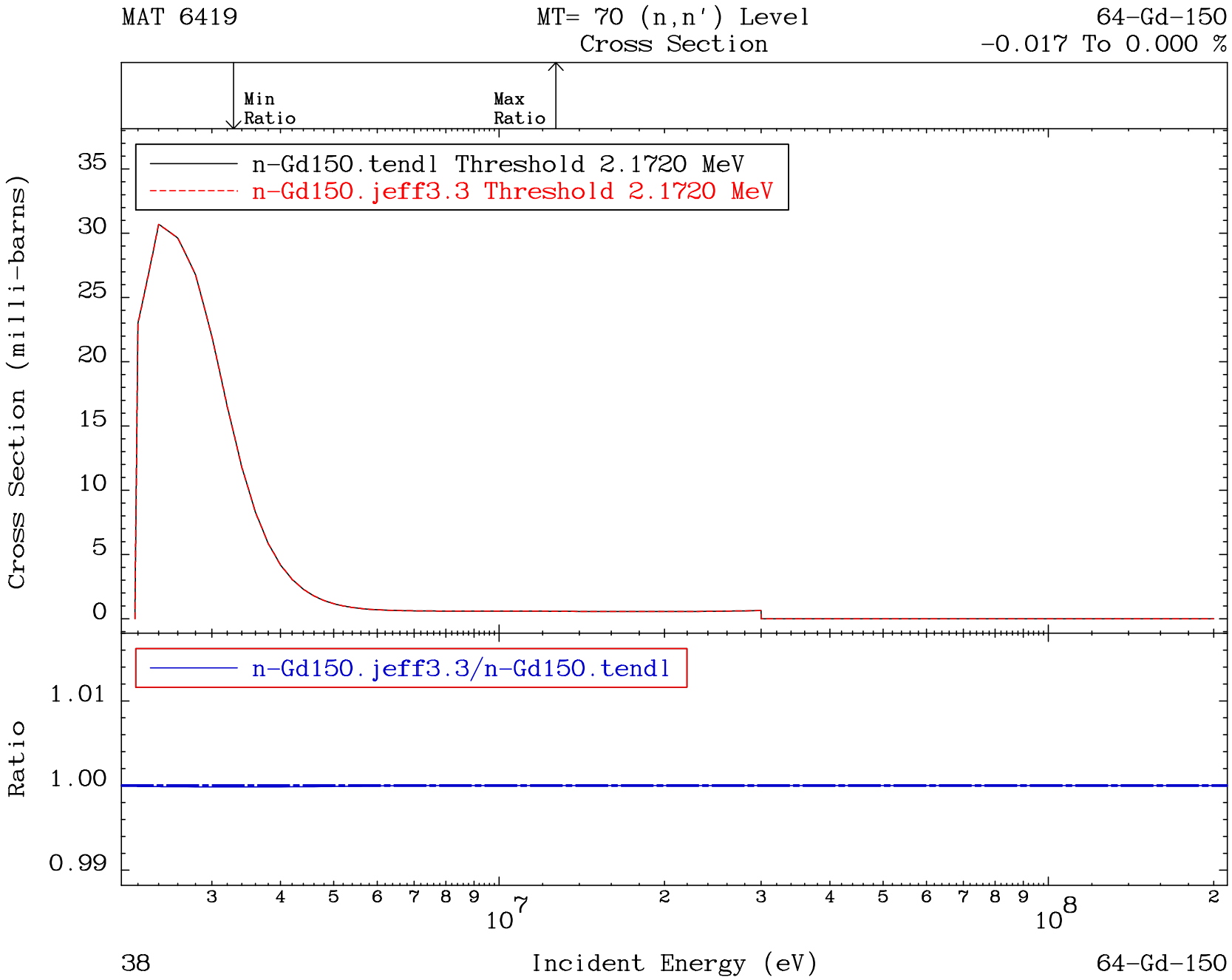

MAT 6419
MT= 65 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.0013 MeV
n-Gd150.jeff3.3 Threshold 2.0013 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
33
Incident Energy (eV)
64-Gd-150

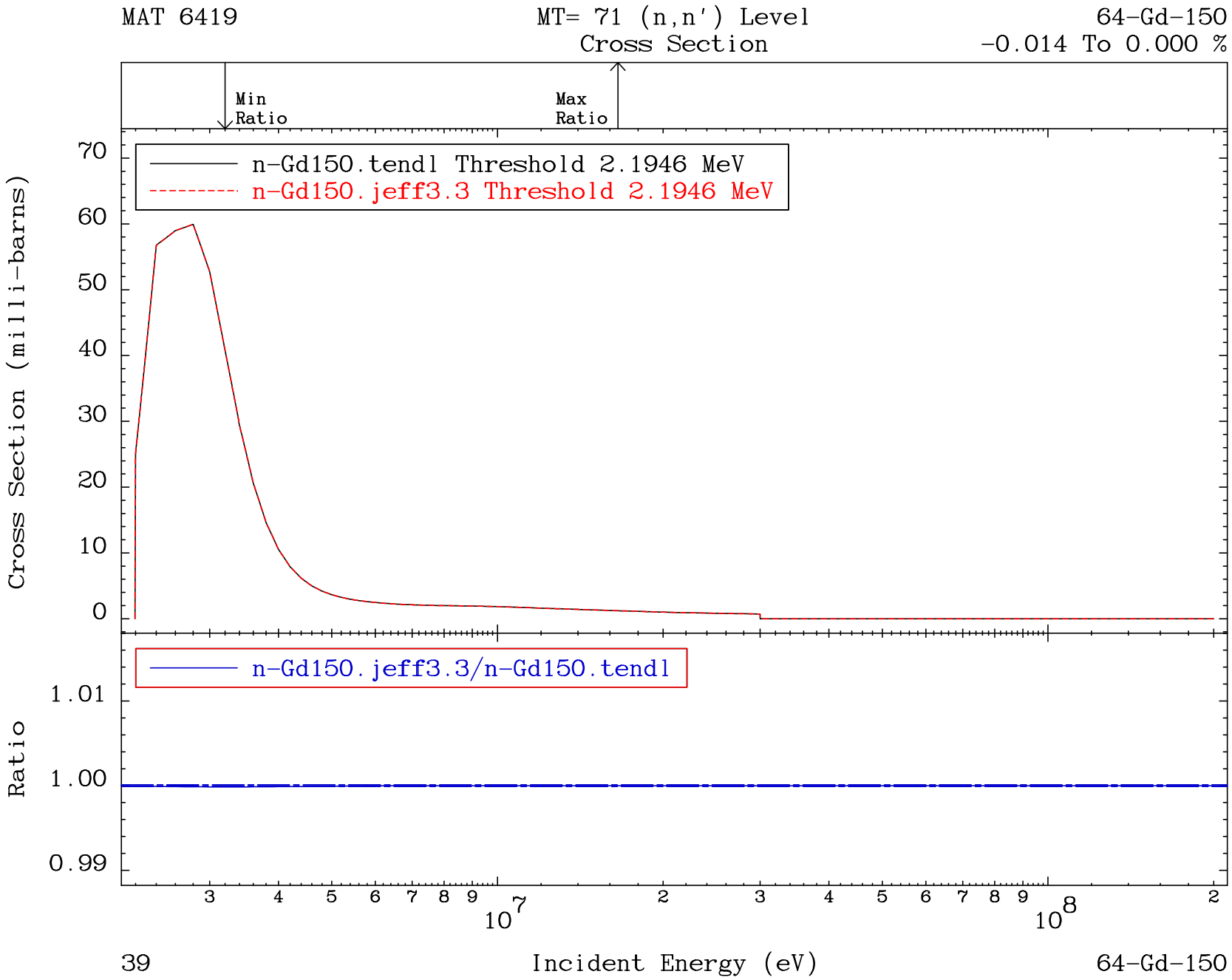

MAT 6419
MT= 66 (n,n') Level
Cross Section
64-Gd-150
-0.018 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.0946 MeV
n-Gd150.jeff3.3 Threshold 2.0946 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
34
Incident Energy (eV)
64-Gd-150

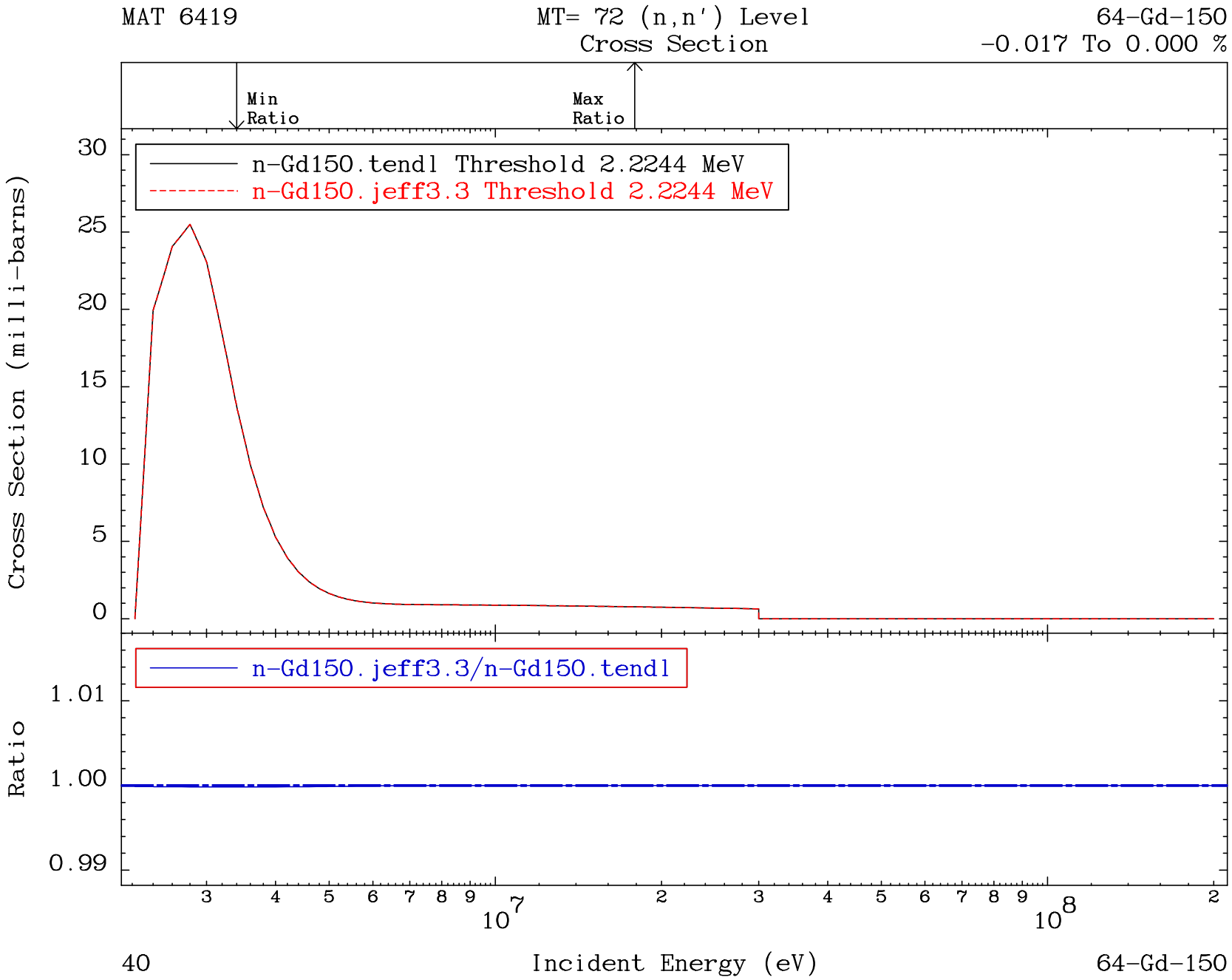

MAT 6419
MT= 67 (n,n') Level
Cross Section
64-Gd-150
-0.025 To 0.607 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 2.0980 MeV
n-Gd150.jeff3.3 Threshold 2.0980 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
35
Incident Energy (eV)
64-Gd-150

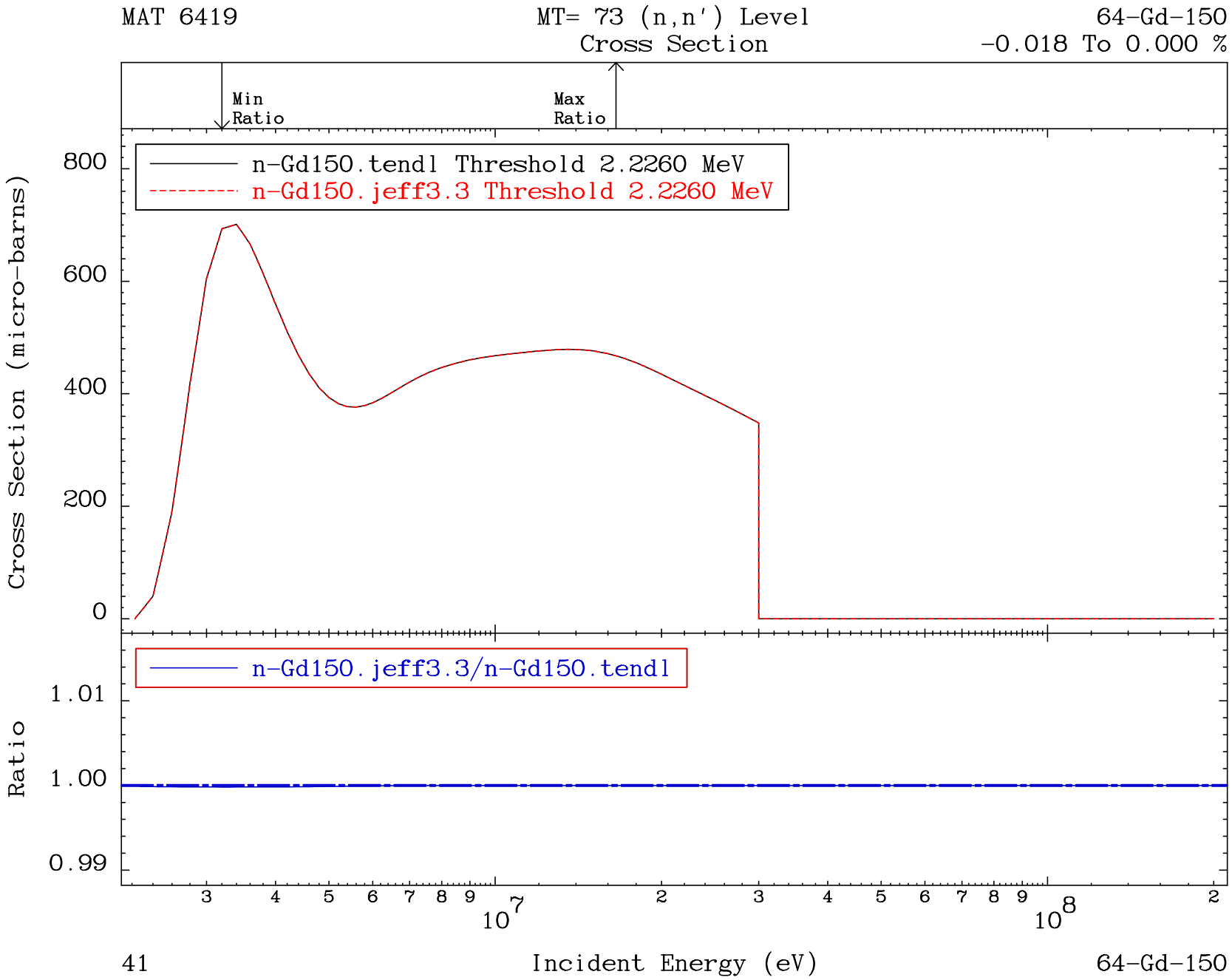

MAT 6419
MT= 68 (n,n') Level
Cross Section
64-Gd-150
-0.014 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.1057 MeV
n-Gd150.jeff3.3 Threshold 2.1057 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
36
Incident Energy (eV)
64-Gd-150

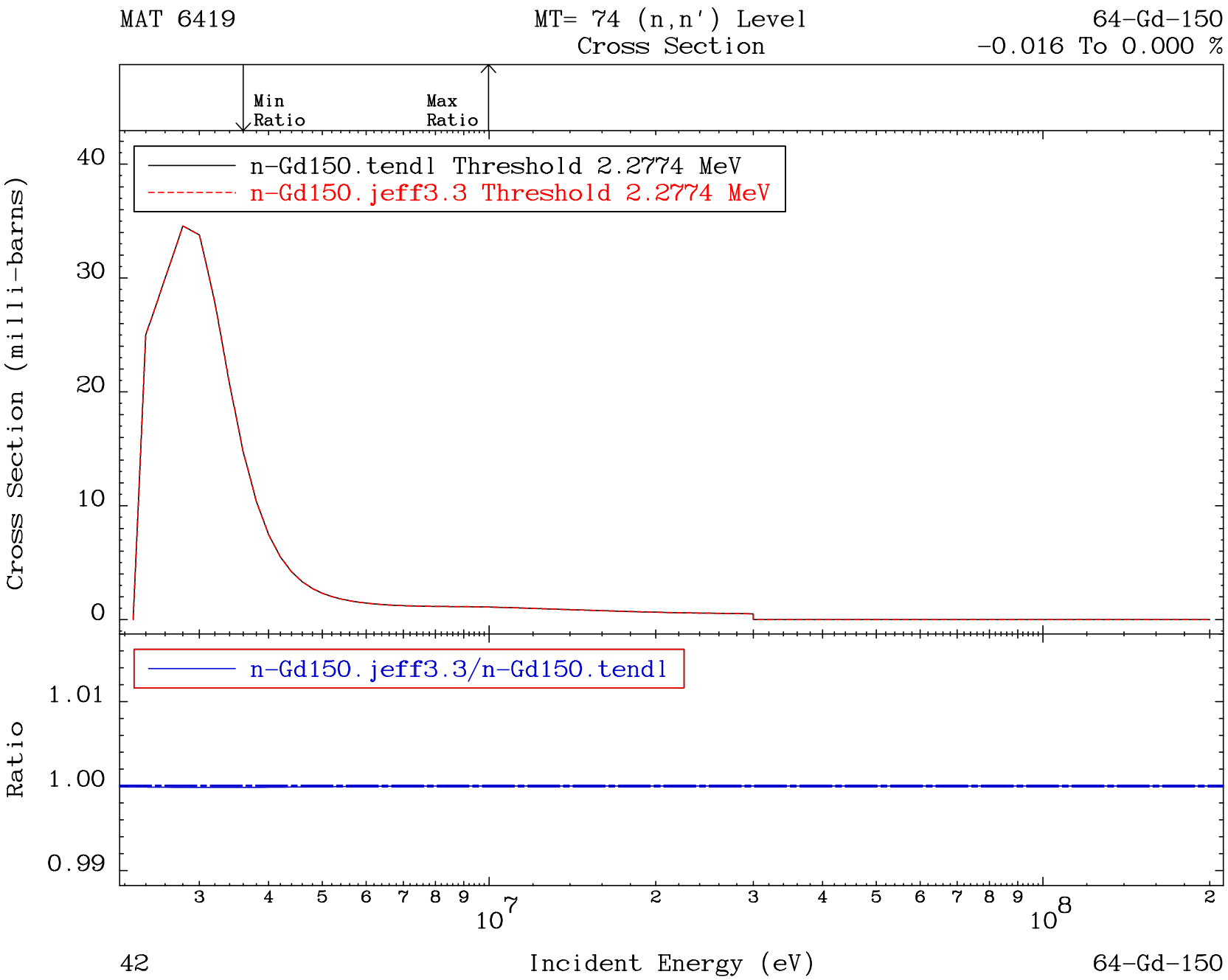

MAT 6419
MT= 69 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 2.1300 MeV
n-Gd150.jeff3.3 Threshold 2.1300 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
37
Incident Energy (eV)
64-Gd-150

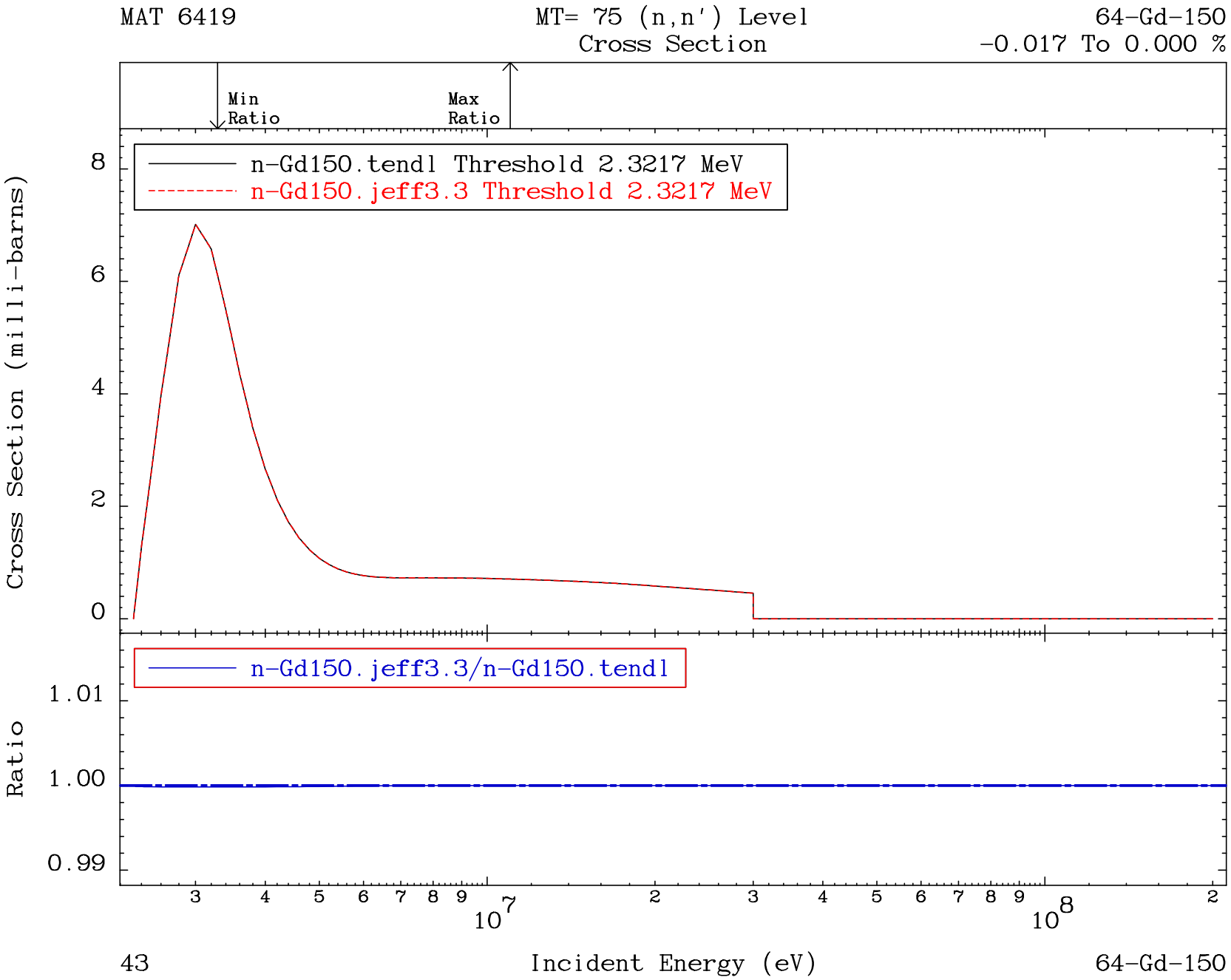

MAT 6419
MT= 70 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.1720 MeV
n-Gd150.jeff3.3 Threshold 2.1720 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
38
Incident Energy (eV)
64-Gd-150

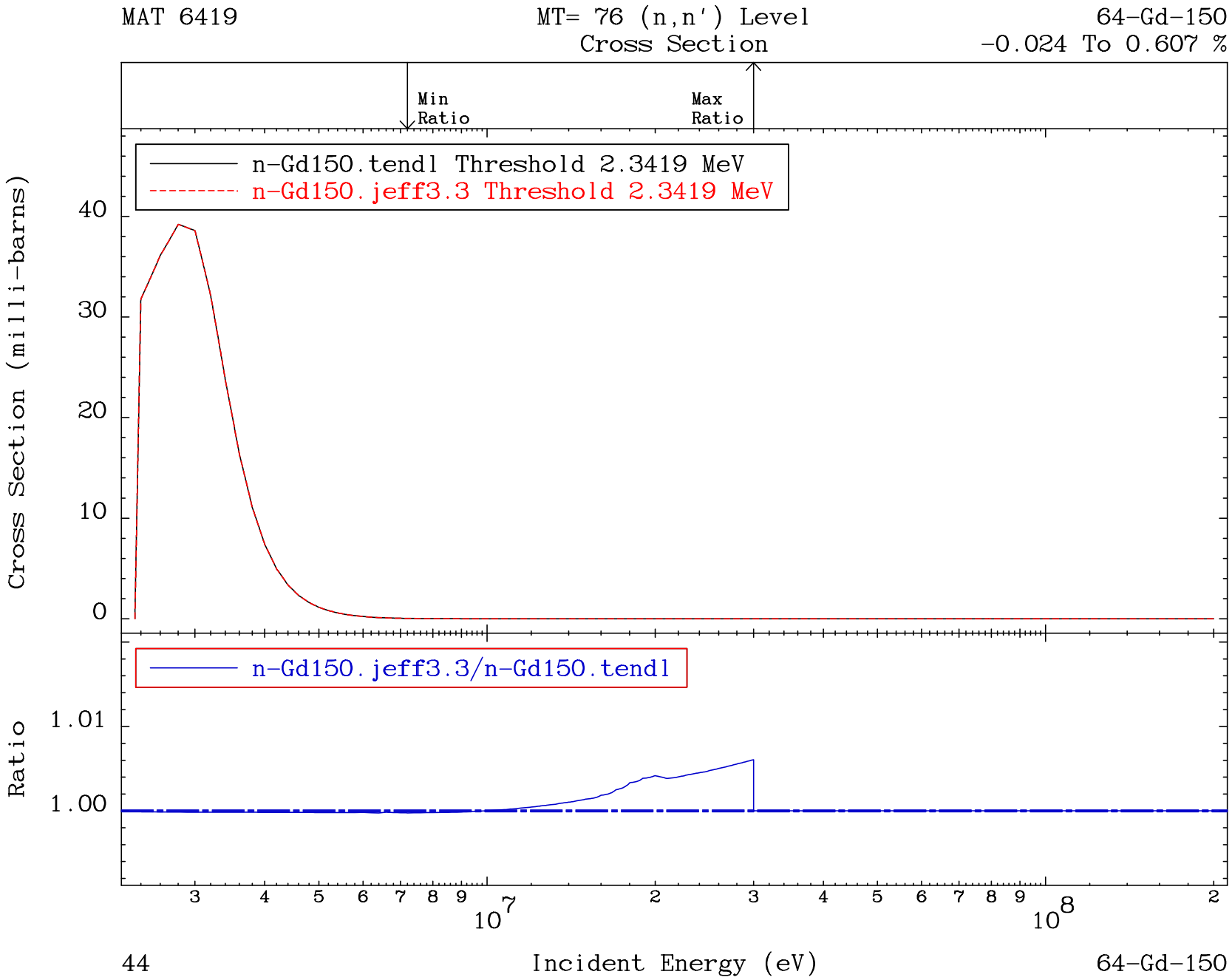

MAT 6419
MT= 71 (n,n') Level
Cross Section
64-Gd-150
-0.014 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.1946 MeV
n-Gd150.jeff3.3 Threshold 2.1946 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
39
Incident Energy (eV)
64-Gd-150

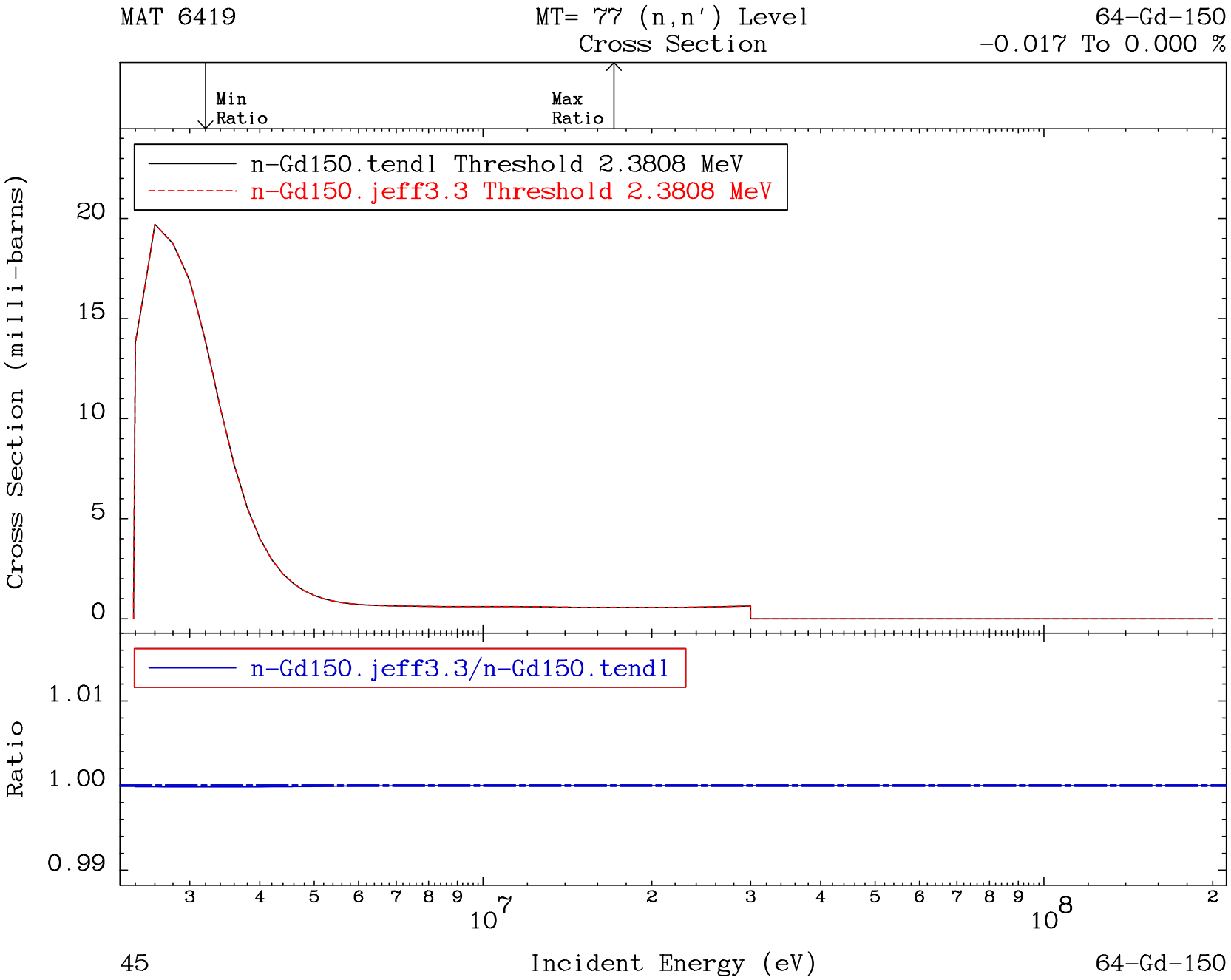

MAT 6419
MT= 72 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 2.2244 MeV
n-Gd150.jeff3.3 Threshold 2.2244 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
64-Gd-150

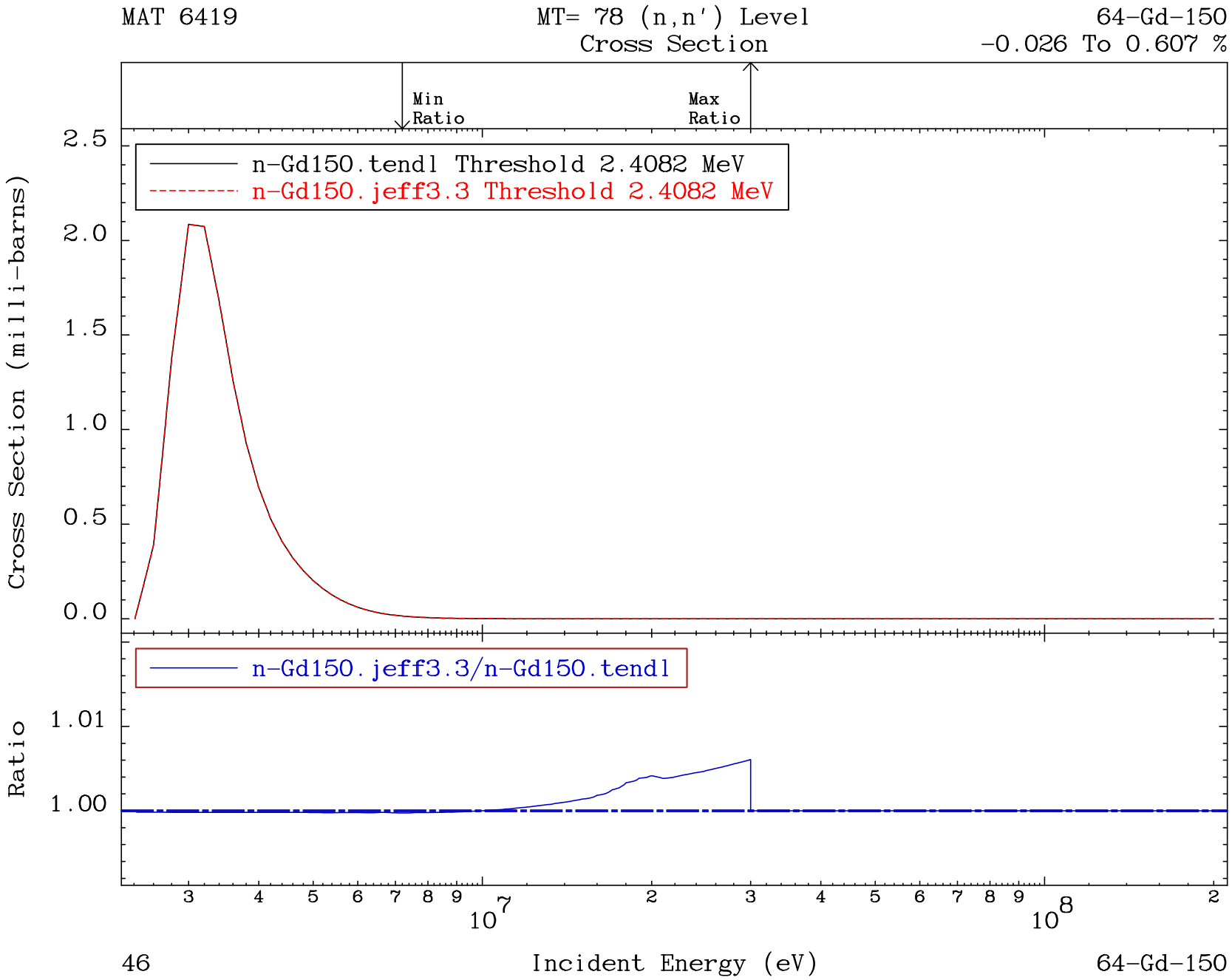

MAT 6419
MT= 73 (n,n') Level
Cross Section
64-Gd-150
-0.018 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.2260 MeV
n-Gd150.jeff3.3 Threshold 2.2260 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
41
Incident Energy (eV)
64-Gd-150

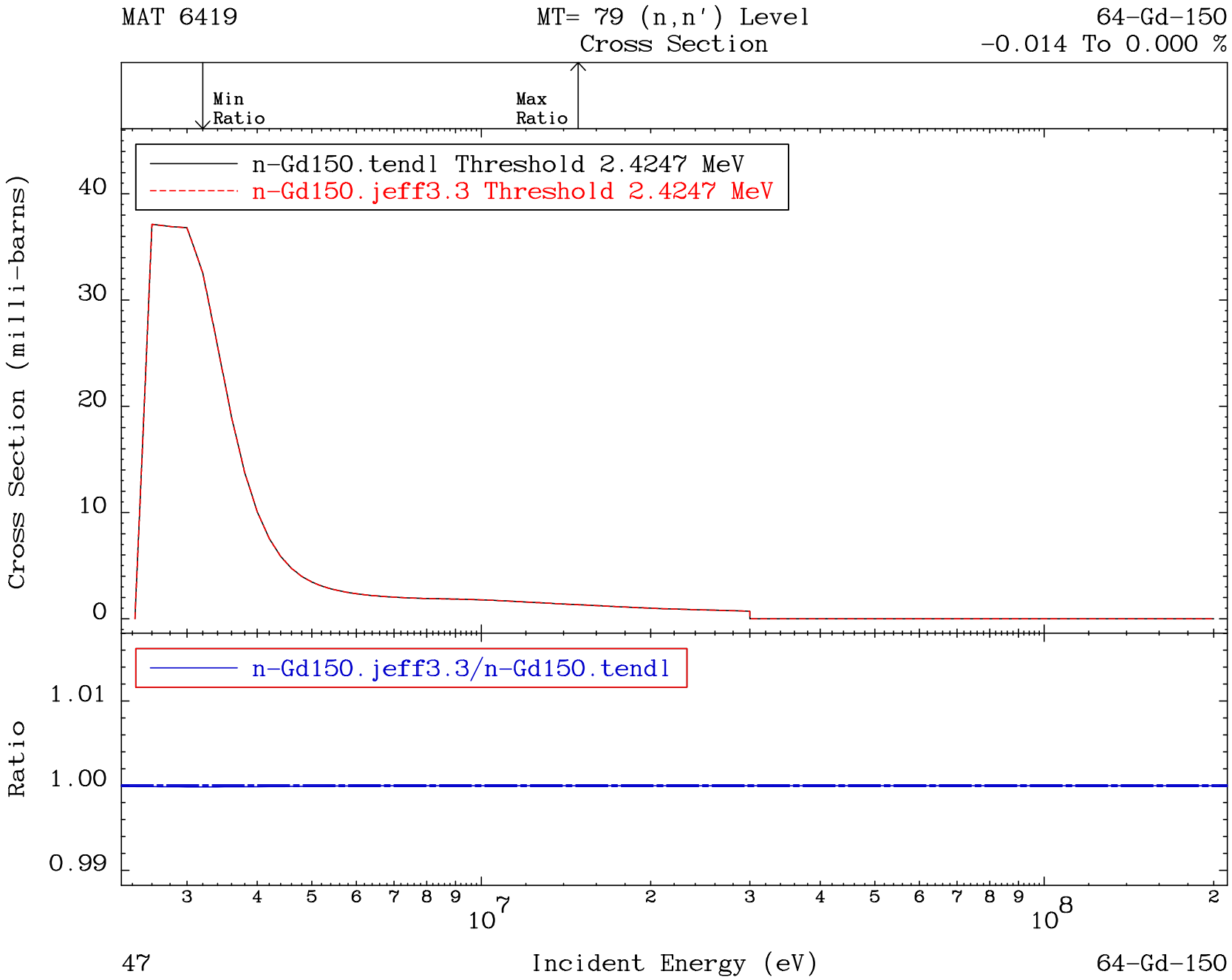

MAT 6419
MT= 74 (n,n') Level
Cross Section
64-Gd-150
-0.016 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.2774 MeV
n-Gd150.jeff3.3 Threshold 2.2774 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
42
Incident Energy (eV)
64-Gd-150

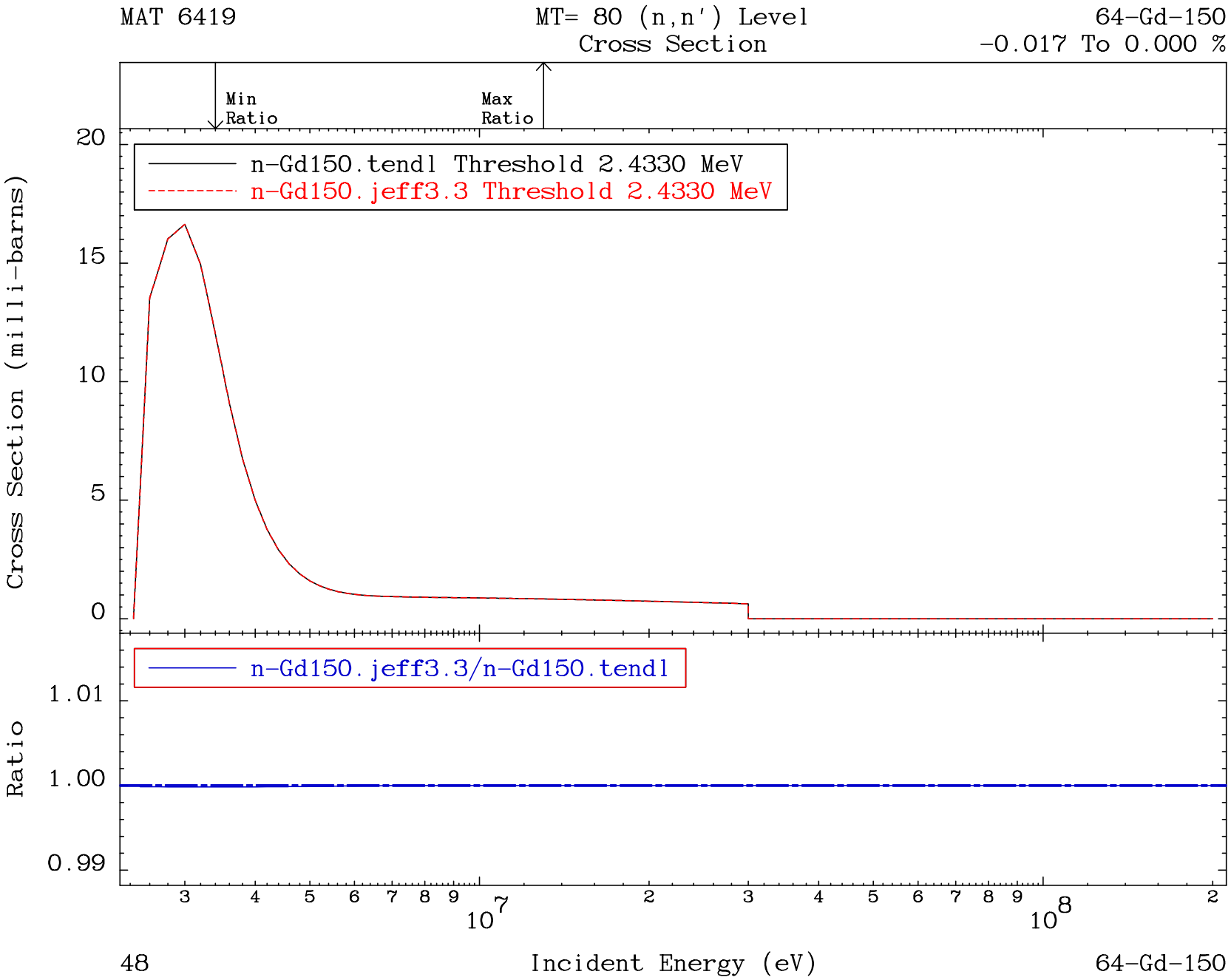

MAT 6419
MT= 75 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.3217 MeV
n-Gd150.jeff3.3 Threshold 2.3217 MeV
Cross Section (milli-barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
43
64-Gd-150

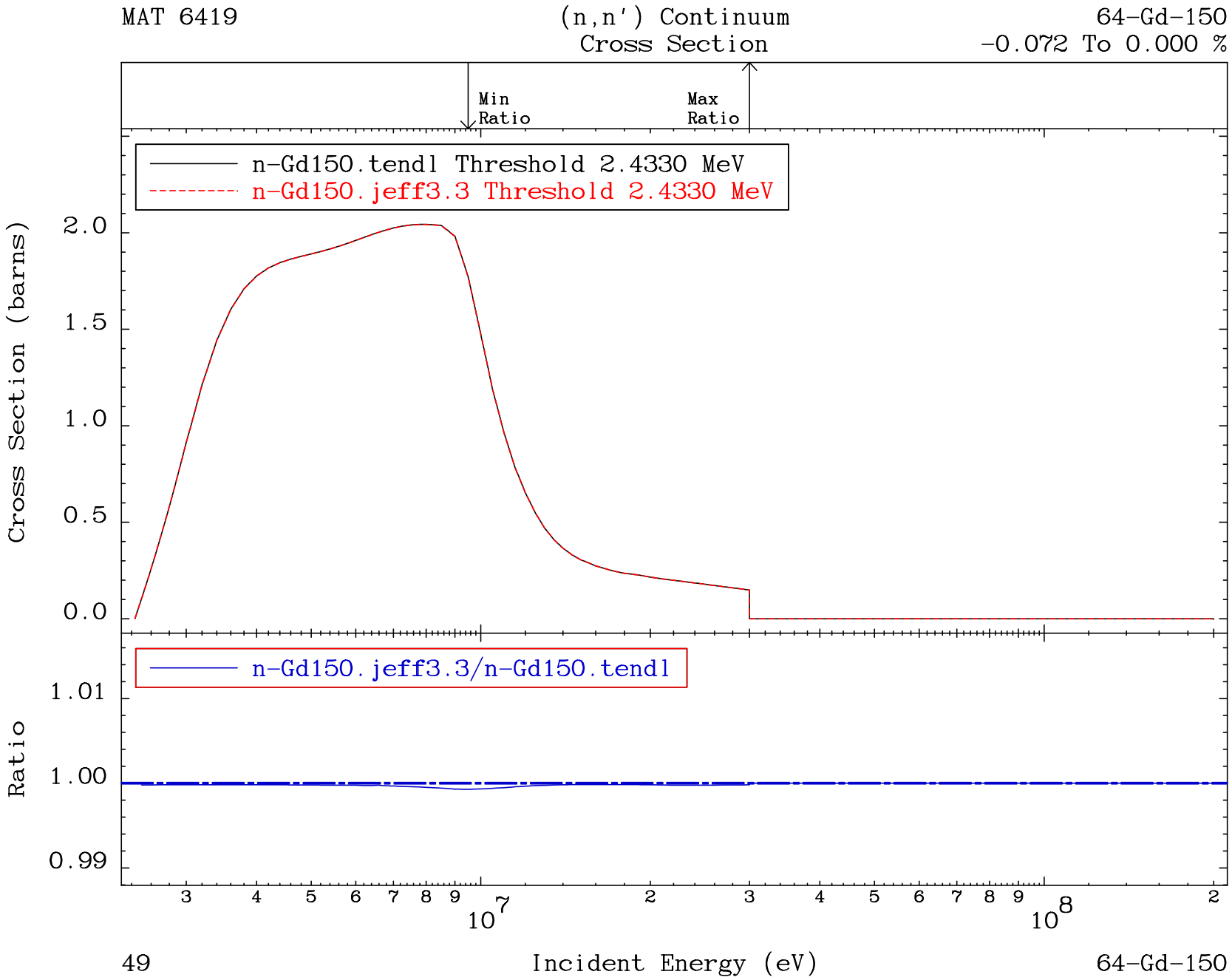

MAT 6419
MT= 76 (n,n') Level
Cross Section
64-Gd-150
-0.024 To 0.607 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.3419 MeV
n-Gd150.jeff3.3 Threshold 2.3419 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
44
Incident Energy (eV)
64-Gd-150

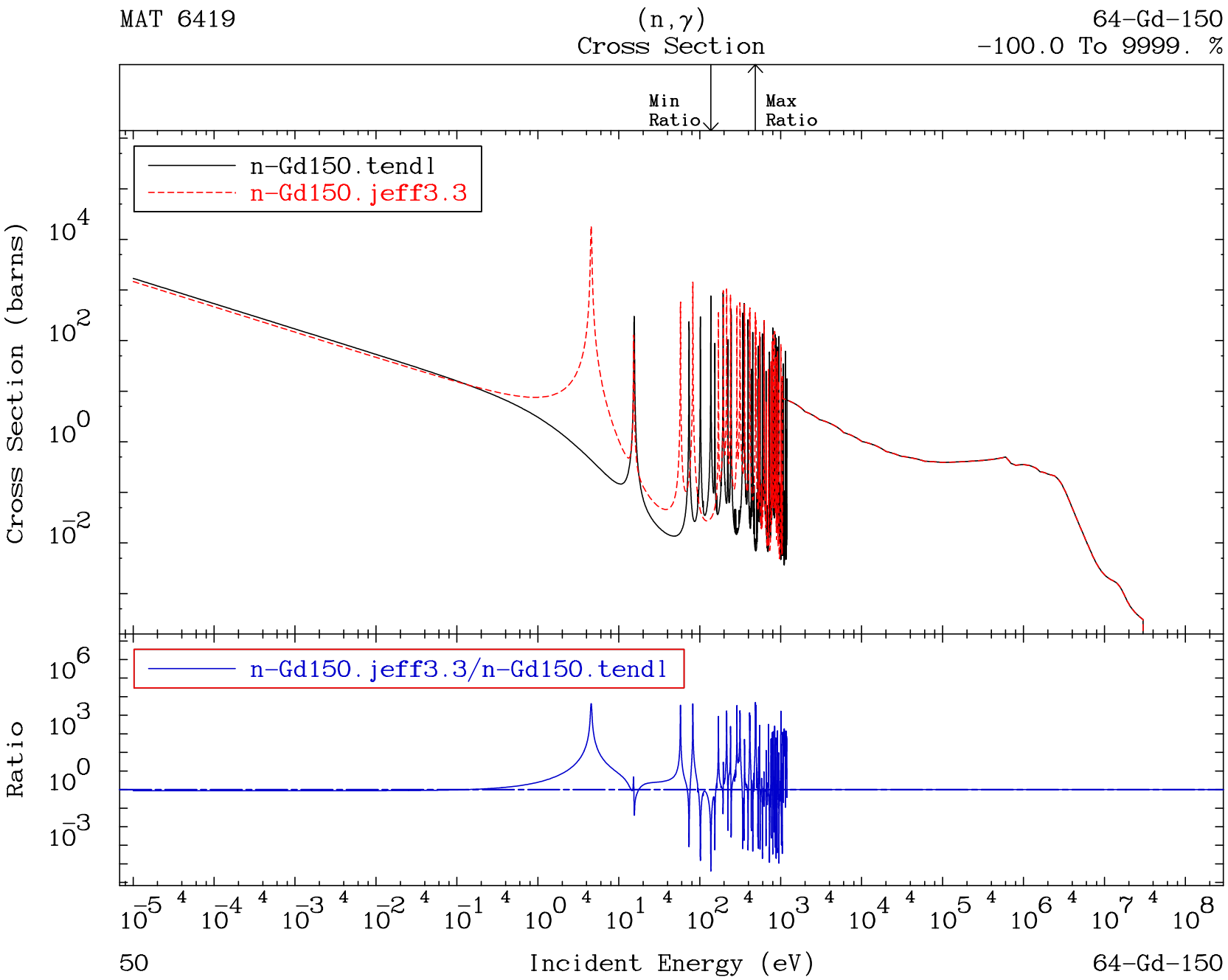

MAT 6419
MT= 77 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 2.3808 MeV
n-Gd150.jeff3.3 Threshold 2.3808 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
64-Gd-150

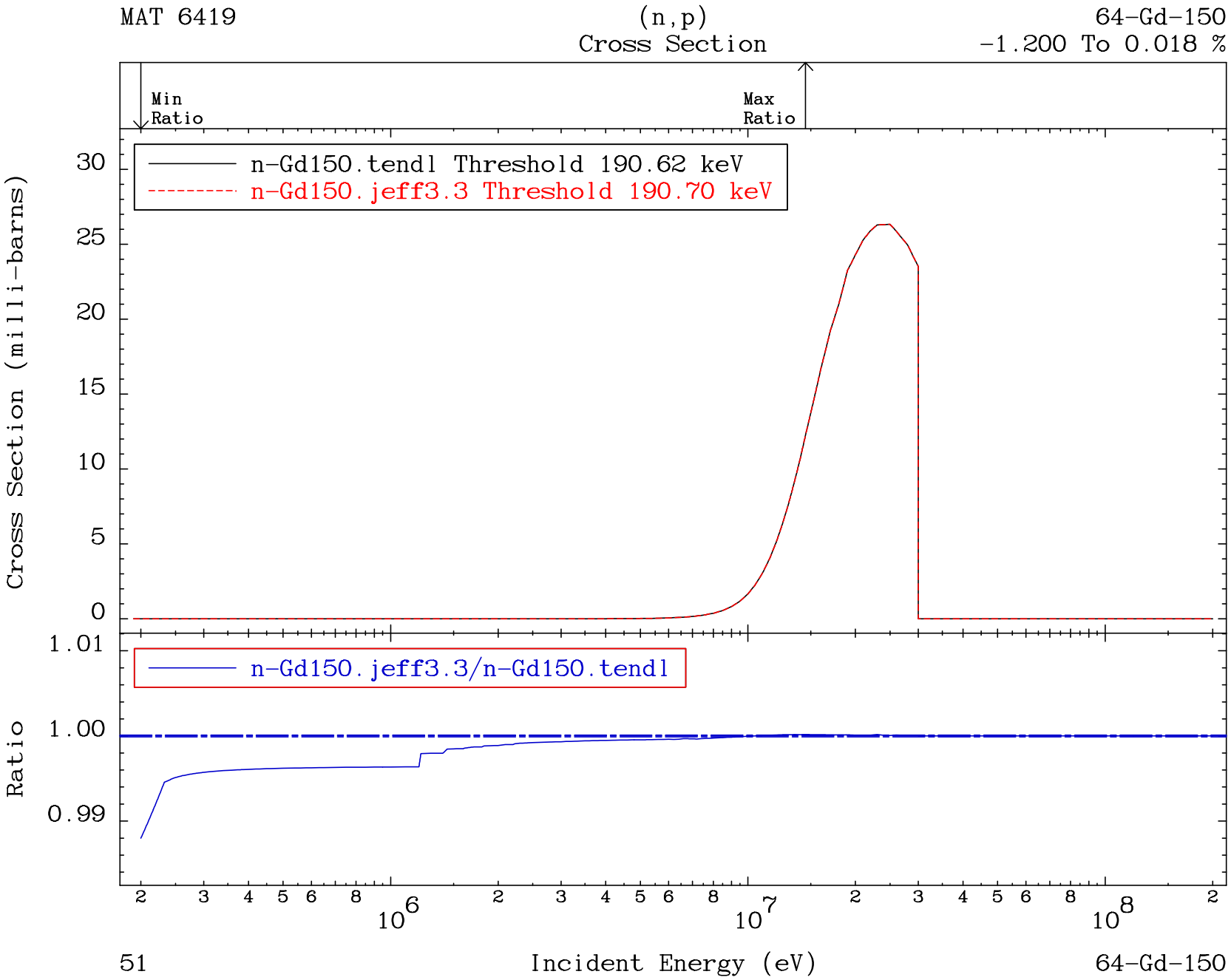

MAT 6419
MT= 78 (n,n') Level
Cross Section
64-Gd-150
-0.026 To 0.607 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 2.4082 MeV
n-Gd150.jeff3.3 Threshold 2.4082 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
46
Incident Energy (eV)
64-Gd-150

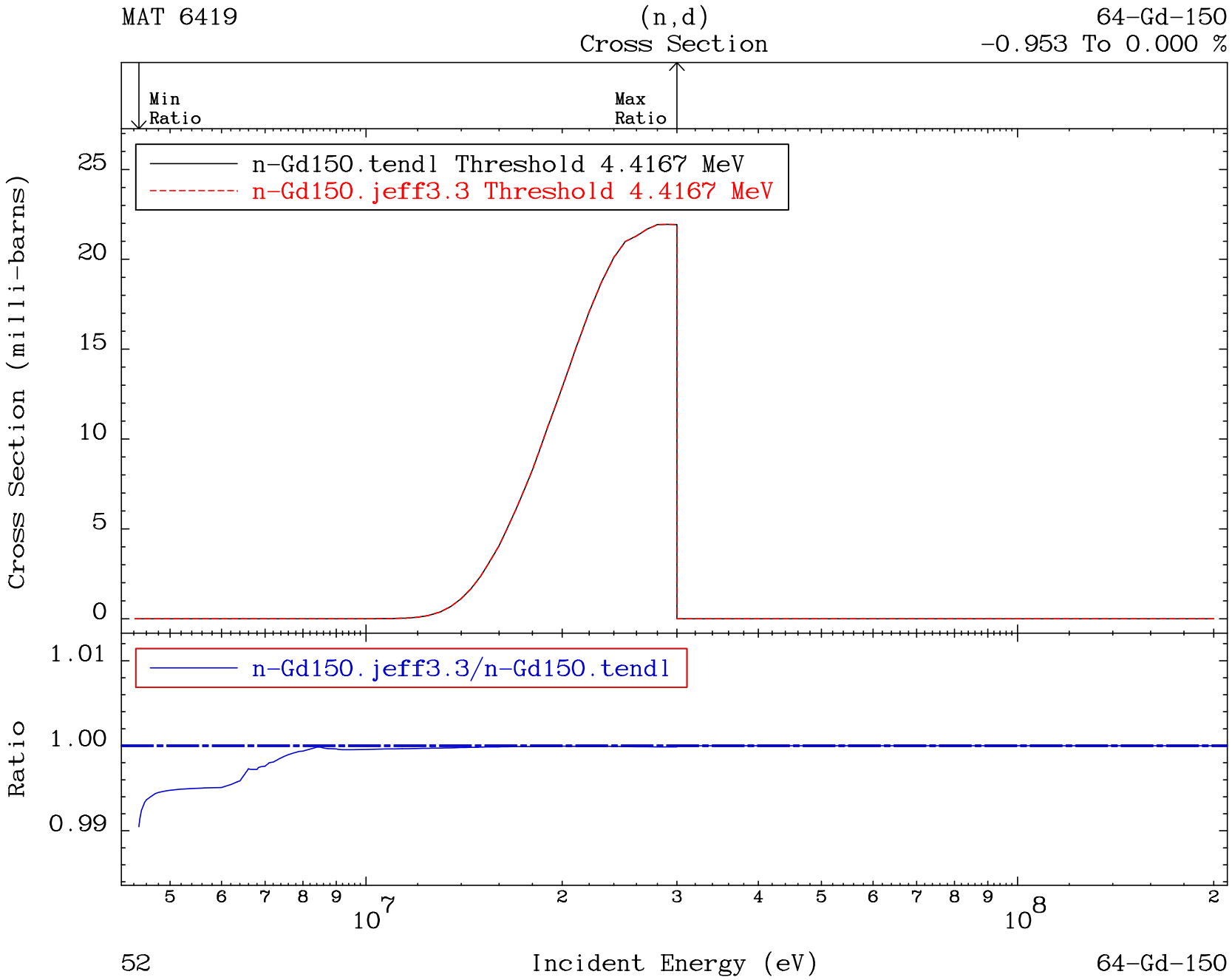

MAT 6419
MT= 79 (n,n') Level
Cross Section
64-Gd-150
-0.014 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.4247 MeV
n-Gd150.jeff3.3 Threshold 2.4247 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
47
Incident Energy (eV)
64-Gd-150

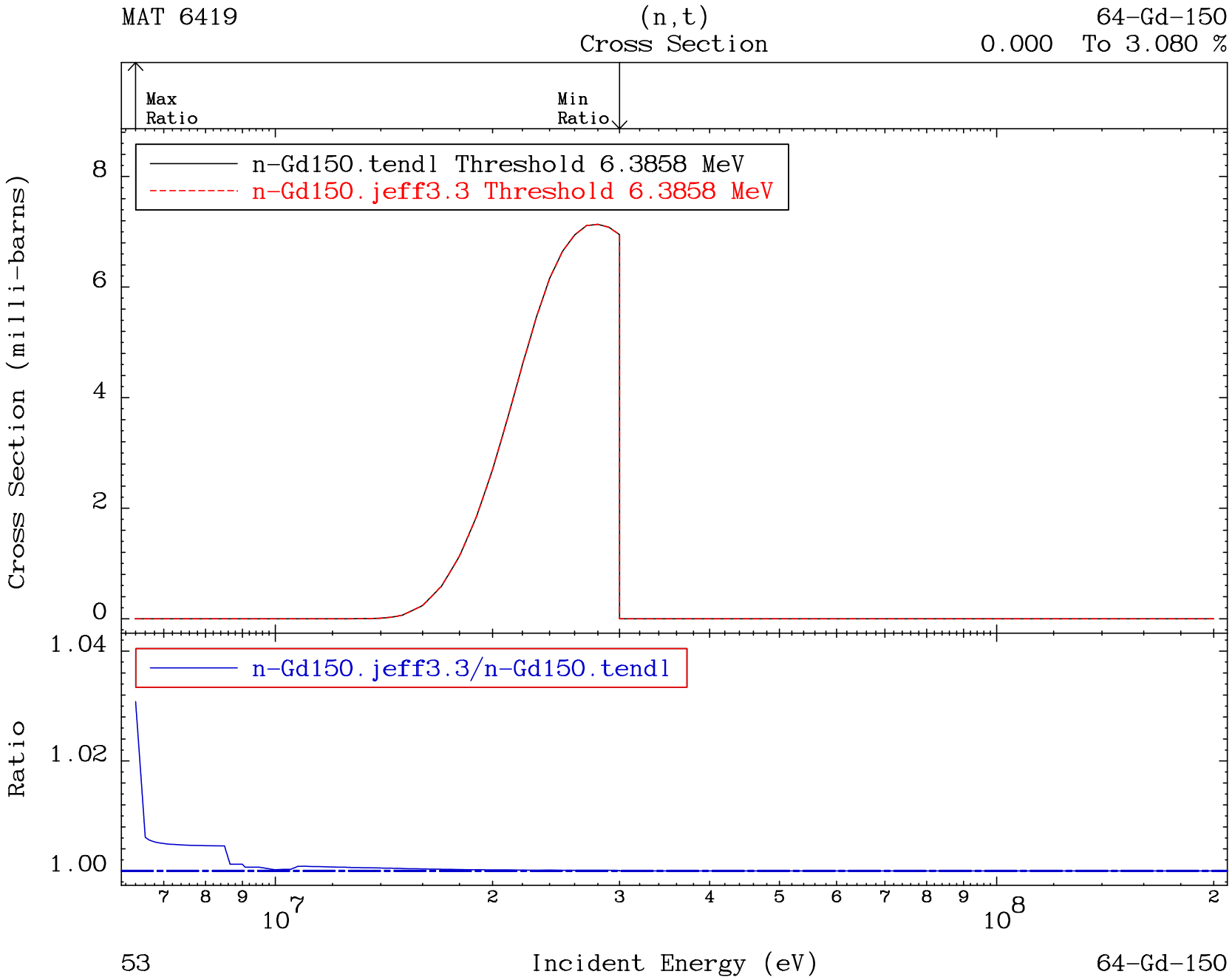

MAT 6419
MT= 80 (n,n') Level
Cross Section
64-Gd-150
-0.017 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 2.4330 MeV
n-Gd150.jeff3.3 Threshold 2.4330 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
48
Incident Energy (eV)
64-Gd-150

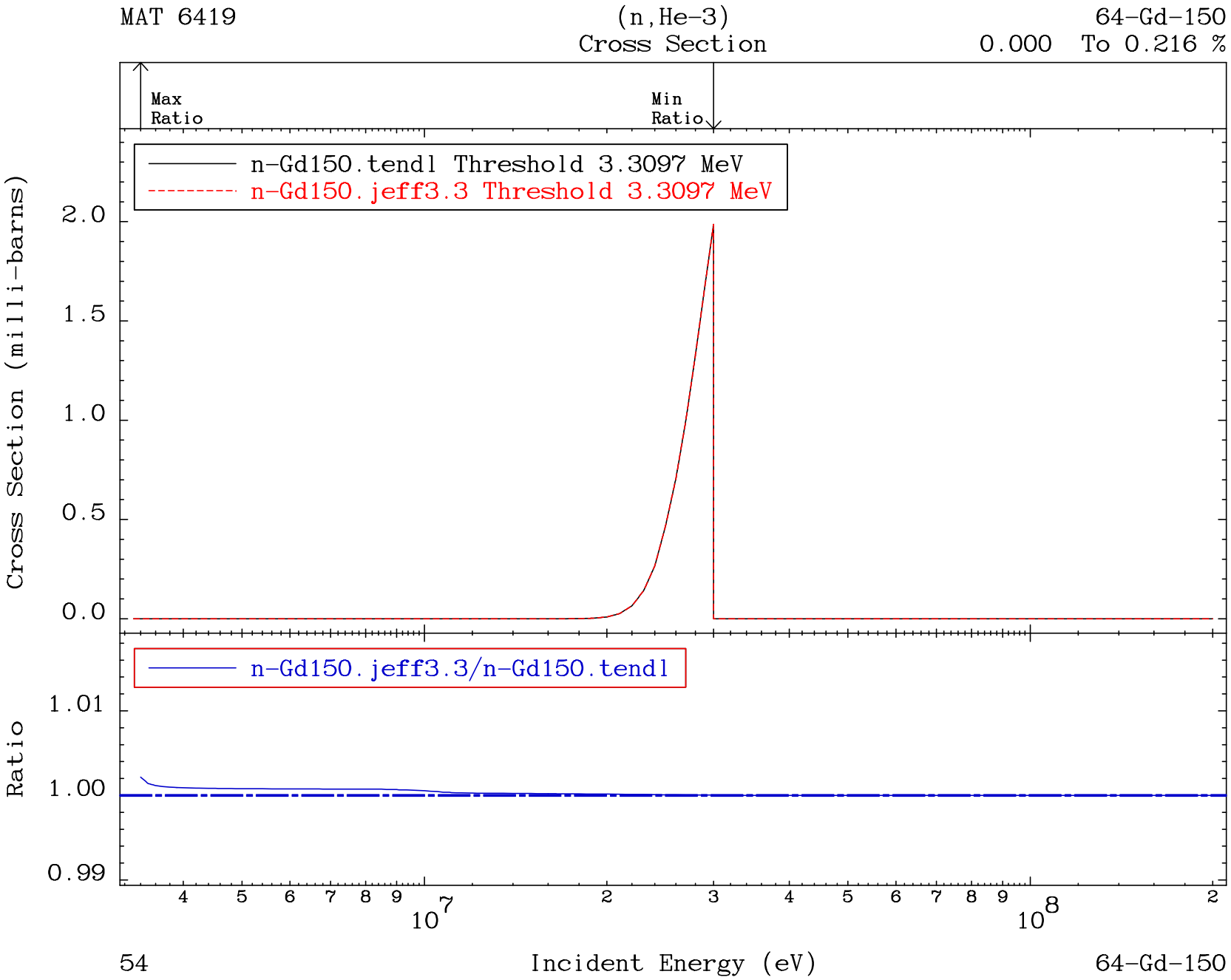

MAT 6419
(n,n') Continuum
Cross Section
64-Gd-150
-0.072 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd150.tendl Threshold 2.4330 MeV
n-Gd150.jeff3.3 Threshold 2.4330 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
49
Incident Energy (eV)
64-Gd-150

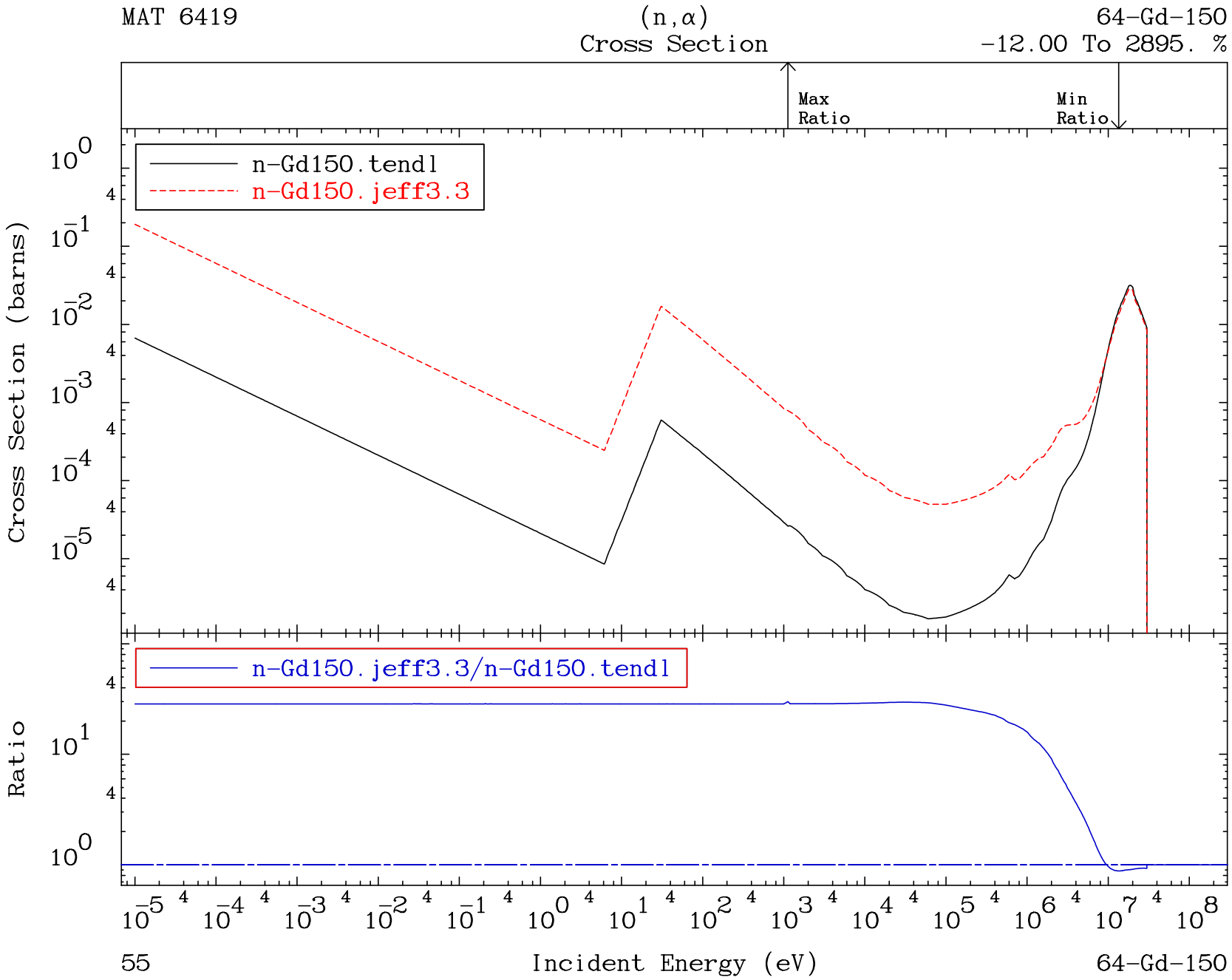

MAT 6419
(n,γ)
Cross Section
64-Gd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
50
64-Gd-150

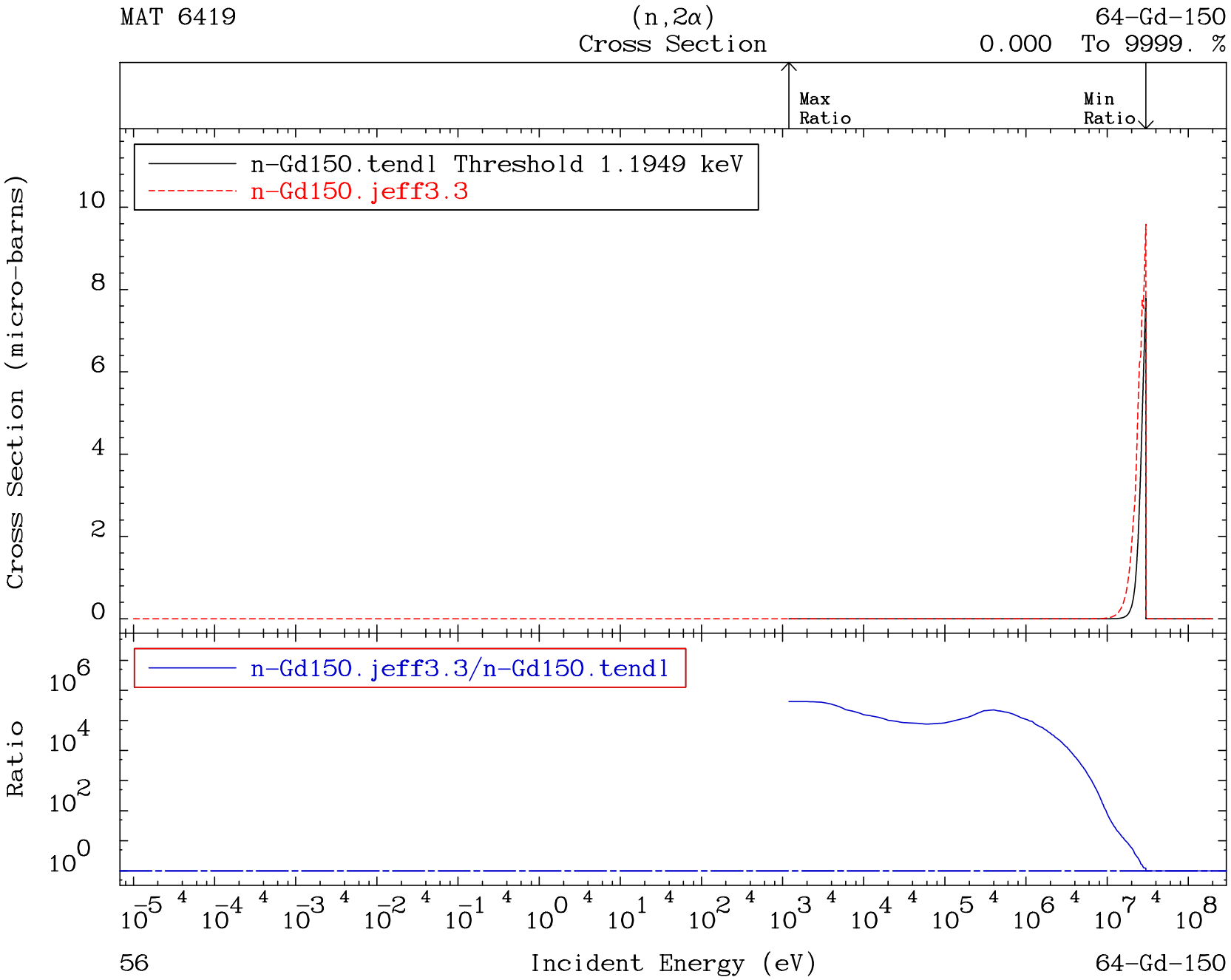

MAT 6419
(n,p)
Cross Section
64-Gd-150
-1.200 To 0.018 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 190.62 keV
n-Gd150.jeff3.3 Threshold 190.70 keV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
51
Incident Energy (eV)
64-Gd-150

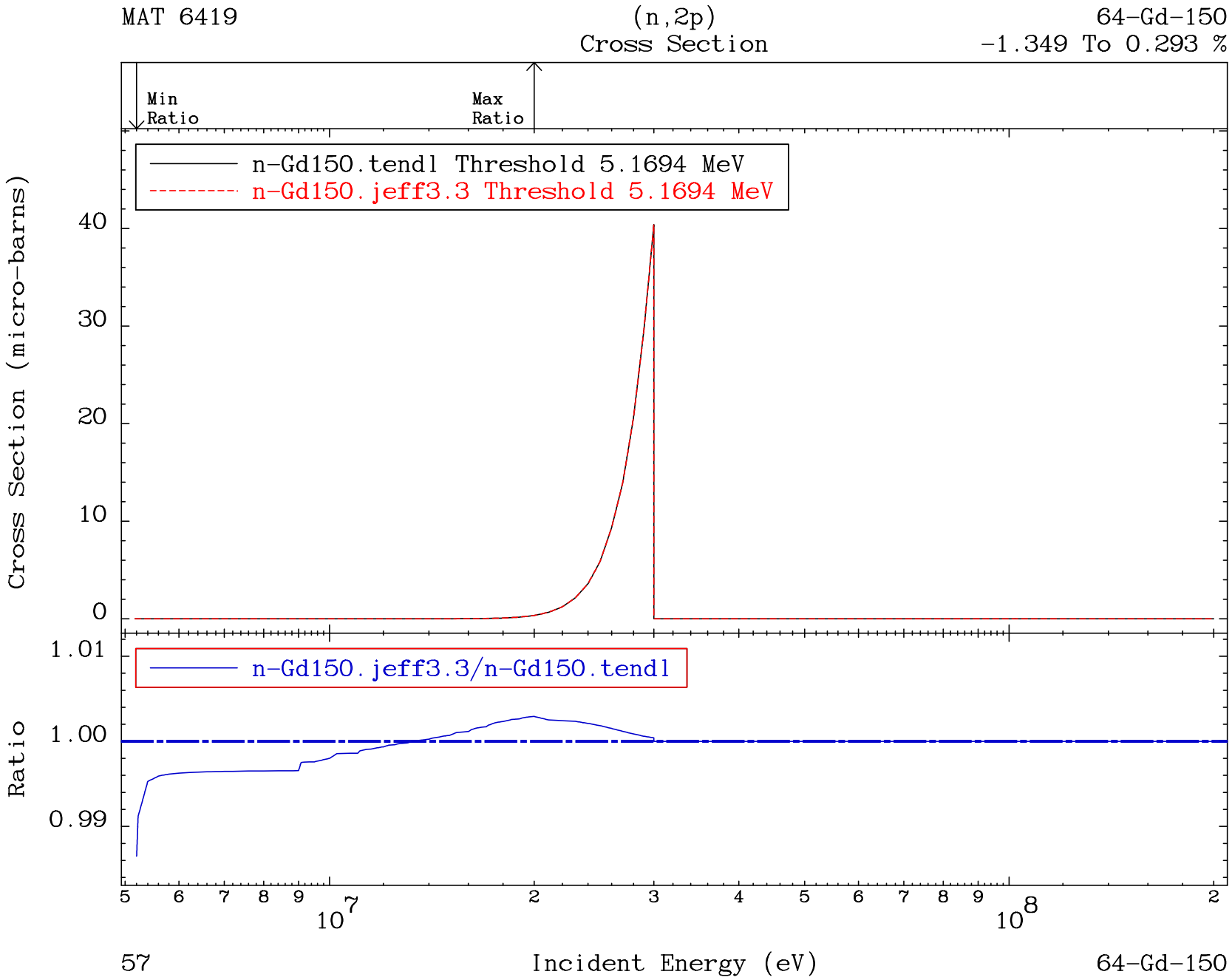

MAT 6419
(n,d)
Cross Section
64-Gd-150
-0.953 To 0.000 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 4.4167 MeV
n-Gd150.jeff3.3 Threshold 4.4167 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
52
Incident Energy (eV)
64-Gd-150

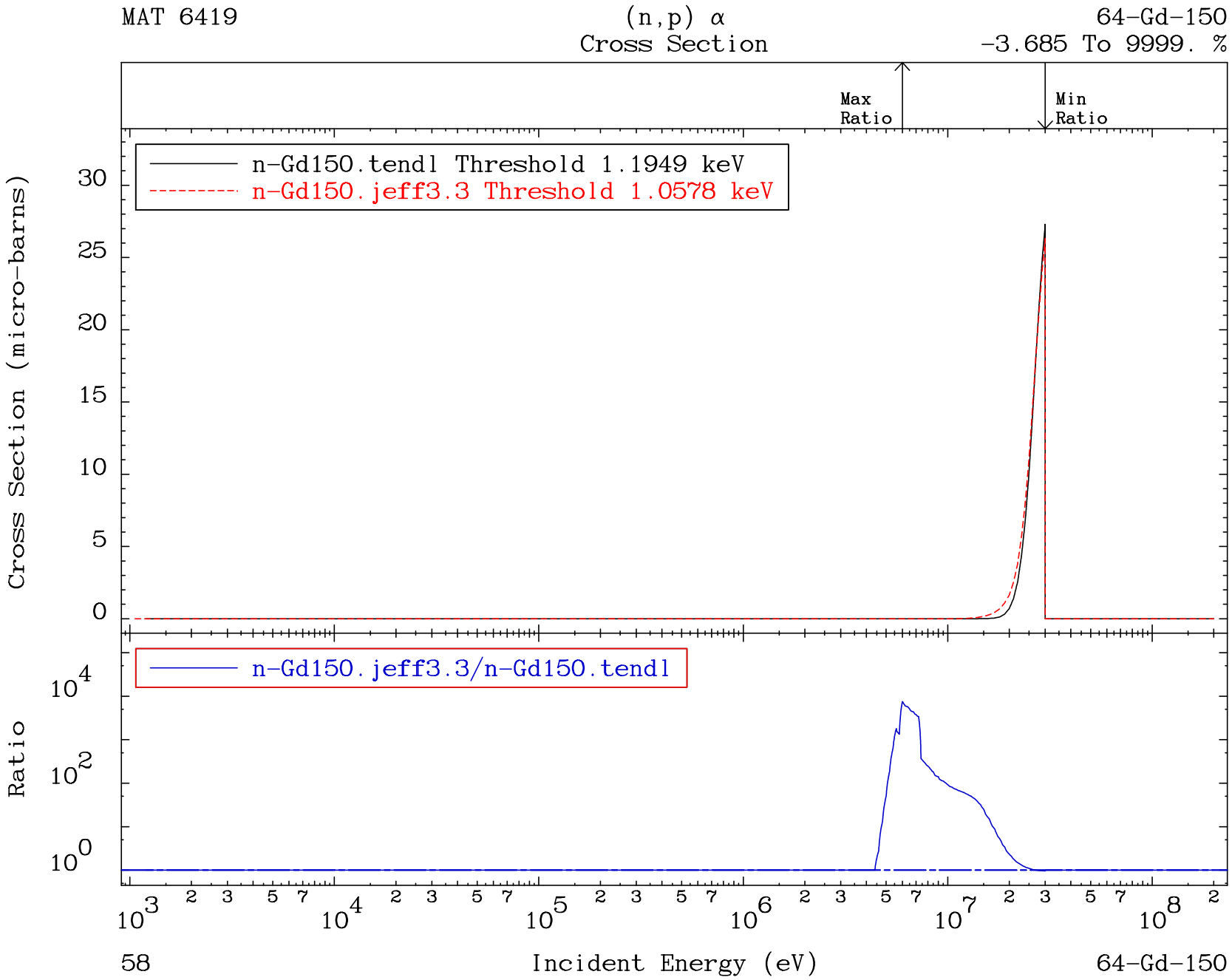

MAT 6419
(n,t)
Cross Section
64-Gd-150
0.000 To 3.080 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 6.3858 MeV
n-Gd150.jeff3.3 Threshold 6.3858 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.00
1.02
1.04
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
53
Incident Energy (eV)
64-Gd-150

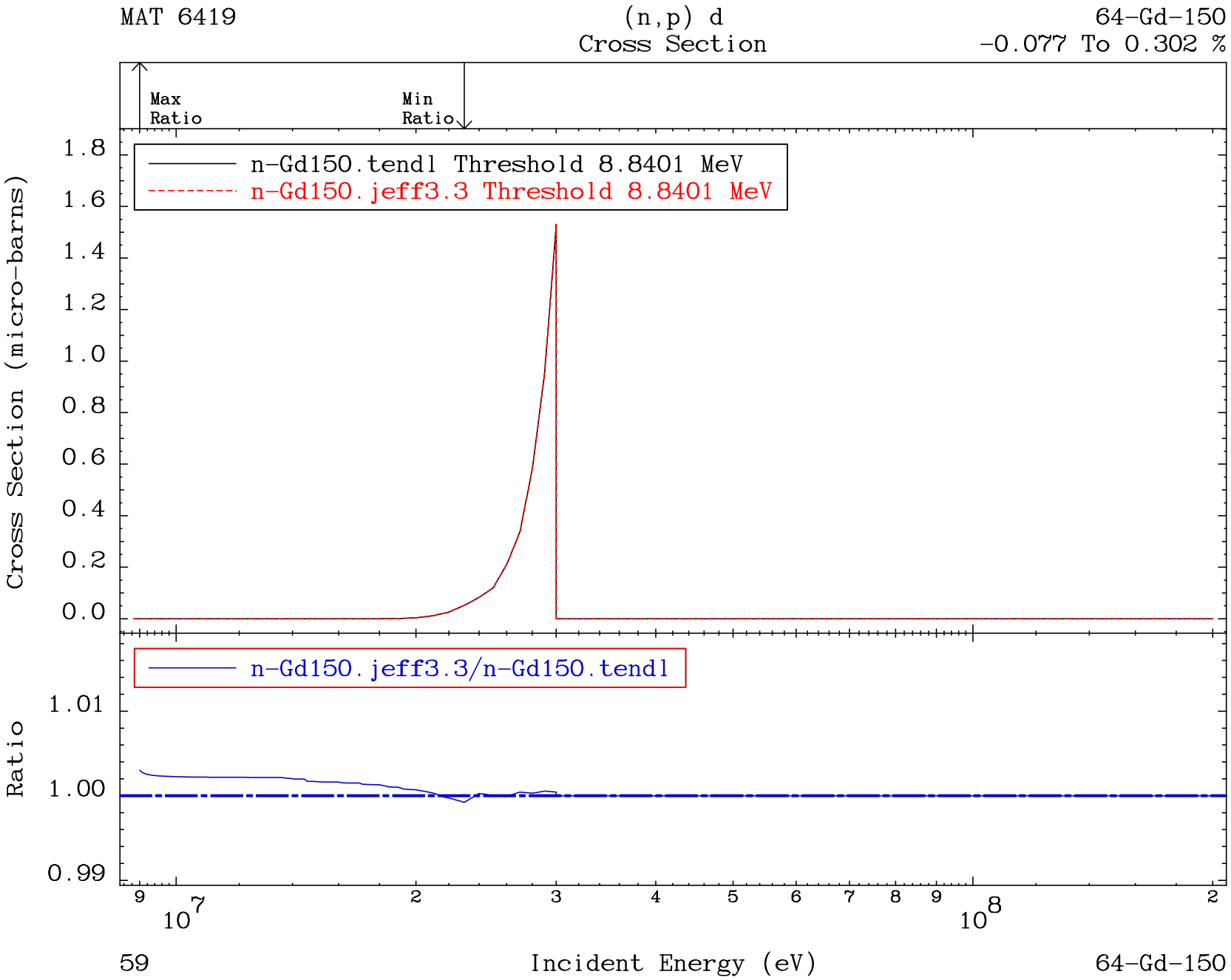

MAT 6419
(n,He-3)
Cross Section
64-Gd-150
0.000 To 0.216 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 3.3097 MeV
n-Gd150.jeff3.3 Threshold 3.3097 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
54
Incident Energy (eV)
64-Gd-150

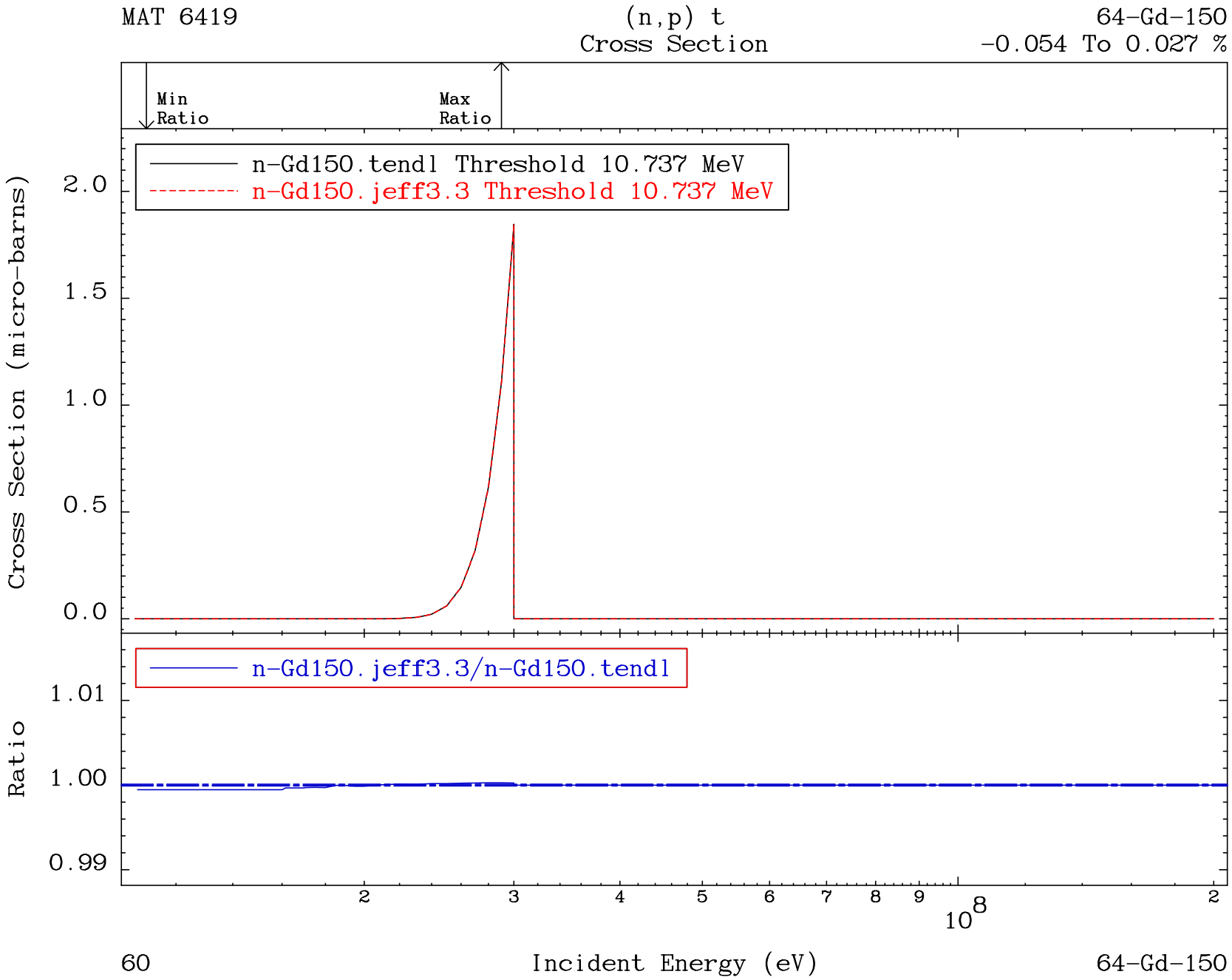

MAT 6419
(n,α)
Cross Section
64-Gd-150
-12.00 To 2895. %
Max Ratio
Min Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
55
64-Gd-150

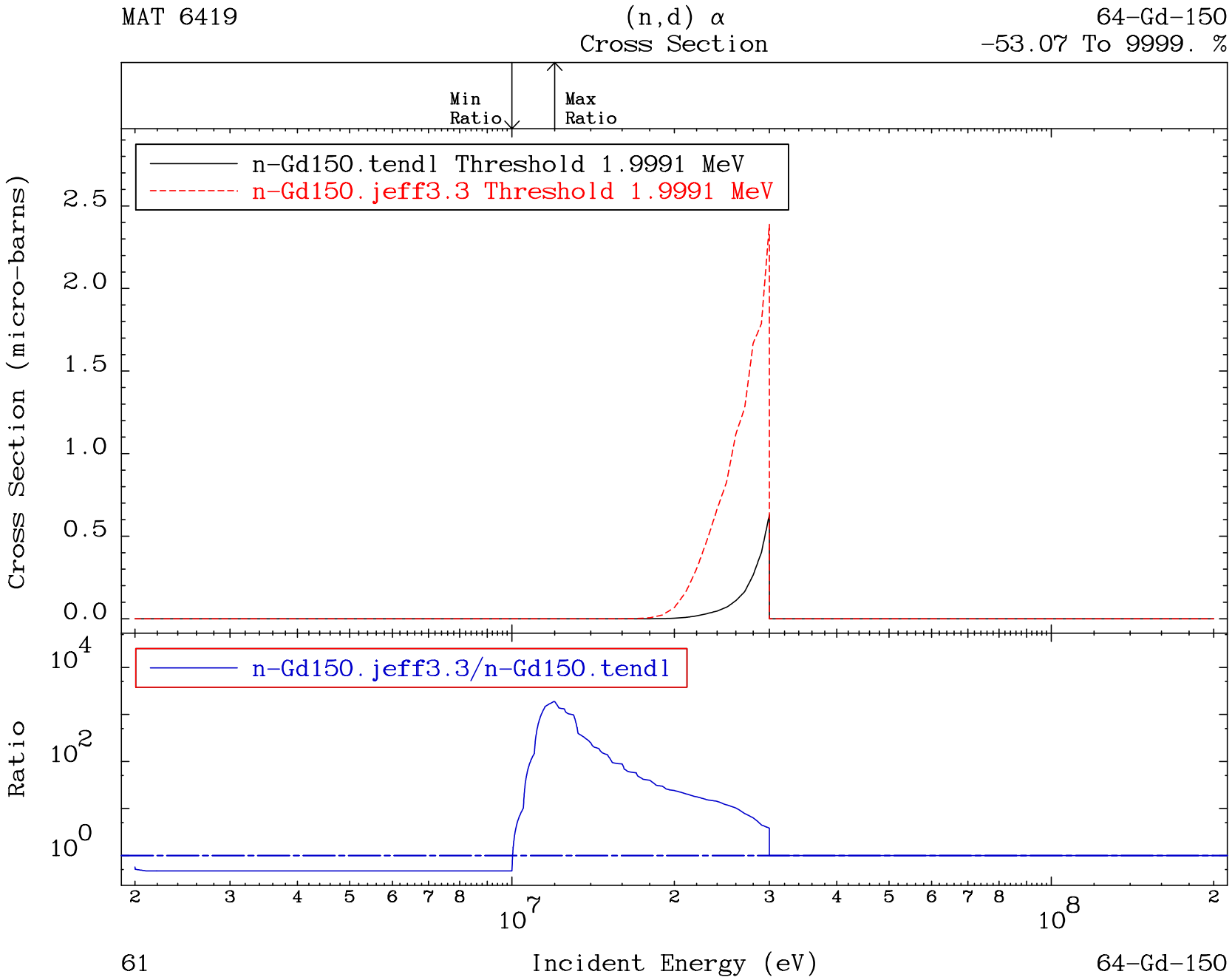

MAT 6419
(n,2α)
Cross Section
64-Gd-150
0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 1.1949 keV
n-Gd150.jeff3.3
Cross Section (micro-barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
56
64-Gd-150

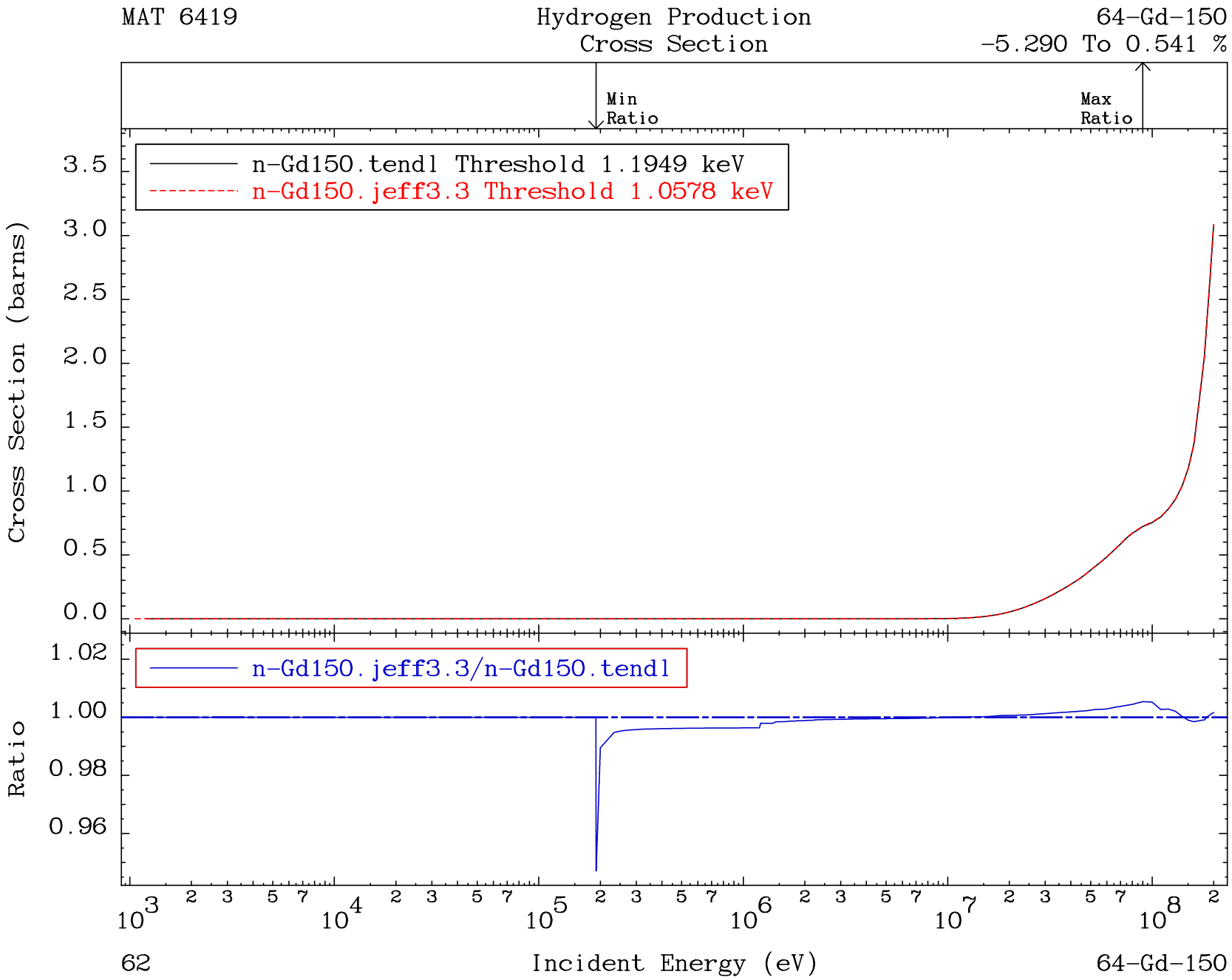

MAT 6419
(n,2p)
Cross Section
64-Gd-150
-1.349 To 0.293 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 5.1694 MeV
n-Gd150.jeff3.3 Threshold 5.1694 MeV
Cross Section (micro-barns)
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
57
Incident Energy (eV)
64-Gd-150

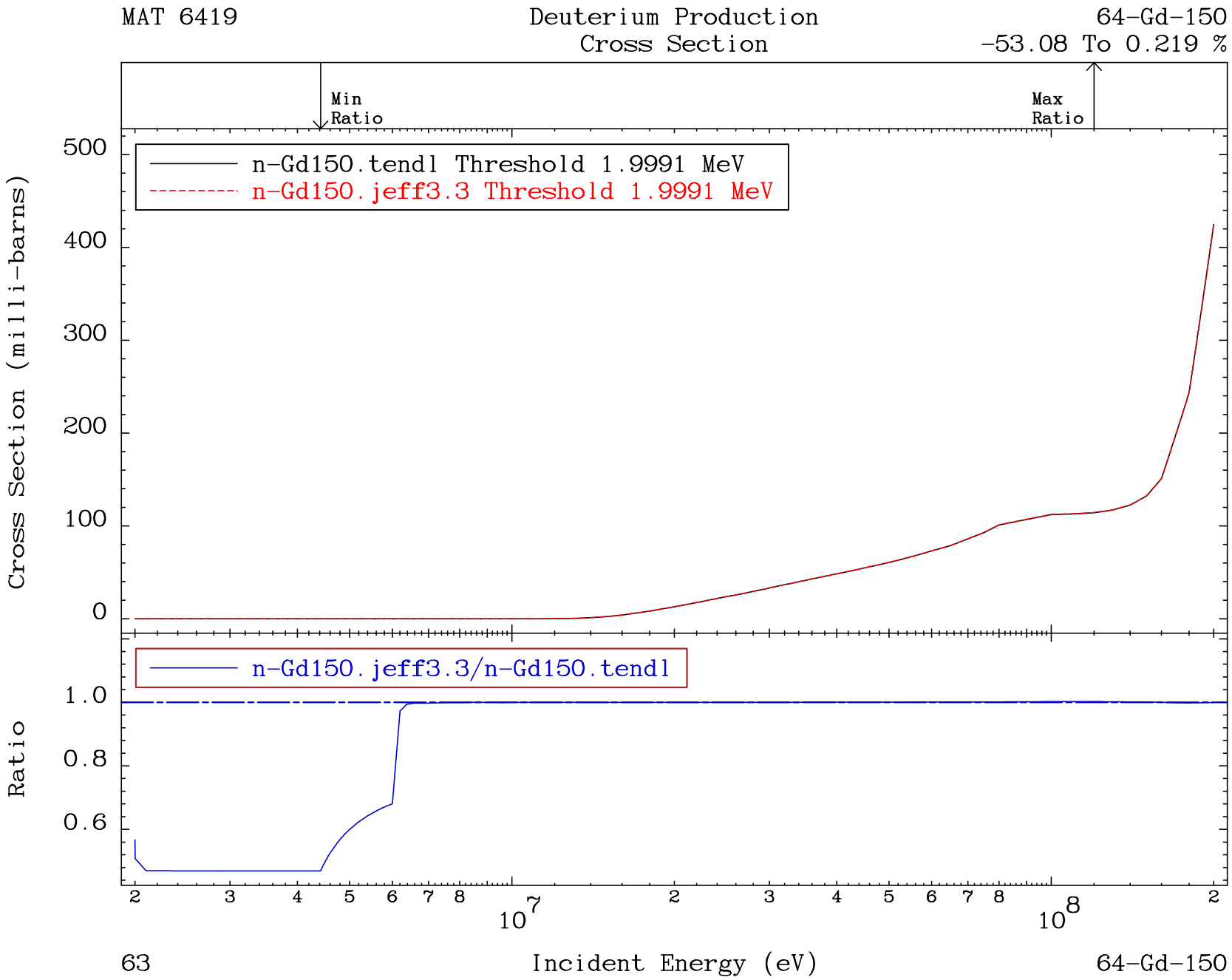

MAT 6419
(n,p) α
Cross Section
64-Gd-150
-3.685 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 1.1949 keV
n-Gd150.jeff3.3 Threshold 1.0578 keV
Cross Section (micro-barns)
30
25
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^4
10^2
10^0
10^3
2 3 5 7
10^4
2 3 5 7
10^5
2 3 5 7
10^6
2 3 5 7
10^7
2 3 5 7
10^8
2
58
Incident Energy (eV)
64-Gd-150

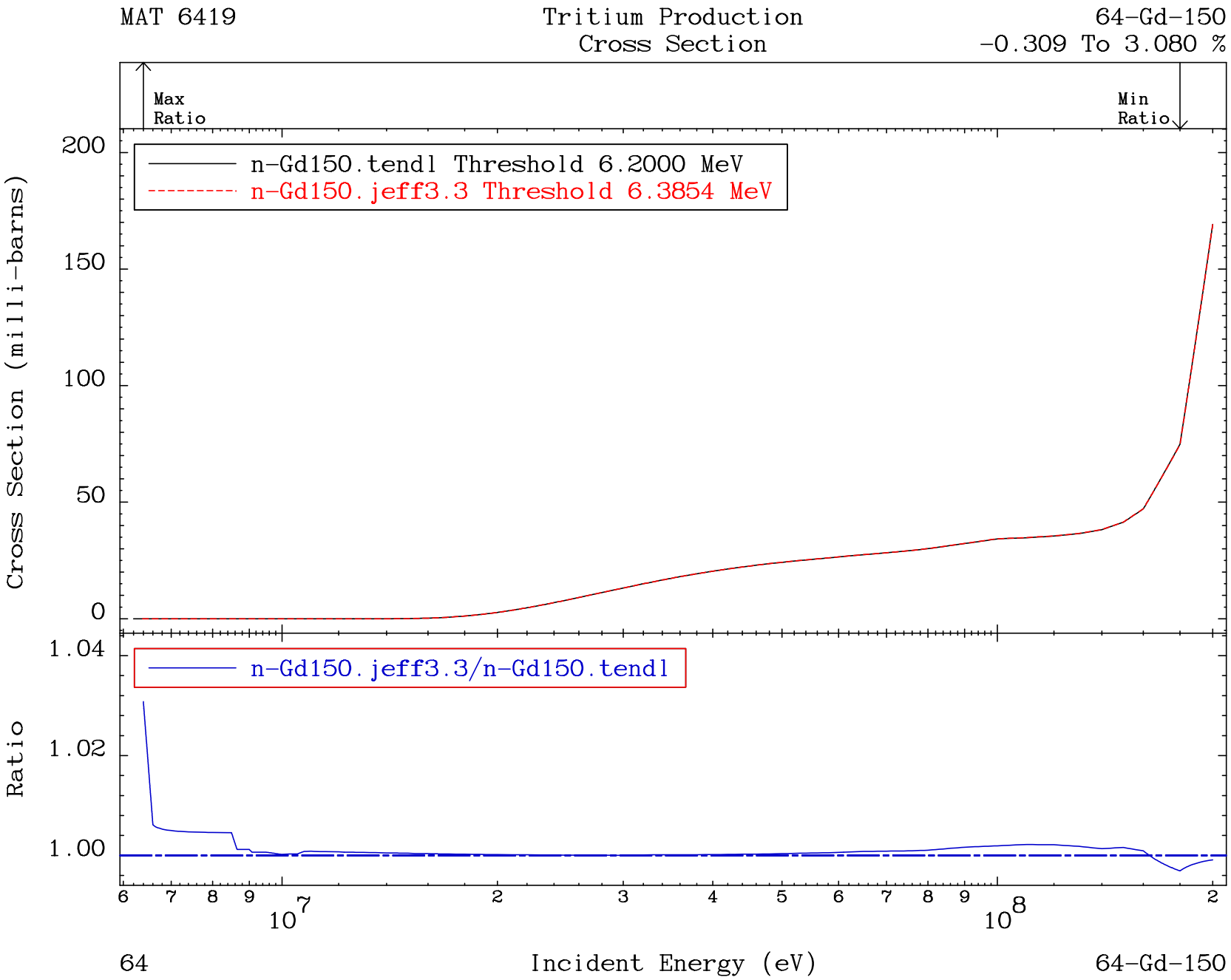

MAT 6419
(n,p) d
Cross Section
64-Gd-150
-0.077 To 0.302 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 8.8401 MeV
n-Gd150.jeff3.3 Threshold 8.8401 MeV
Cross Section (micro-barns)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
59
Incident Energy (eV)
64-Gd-150

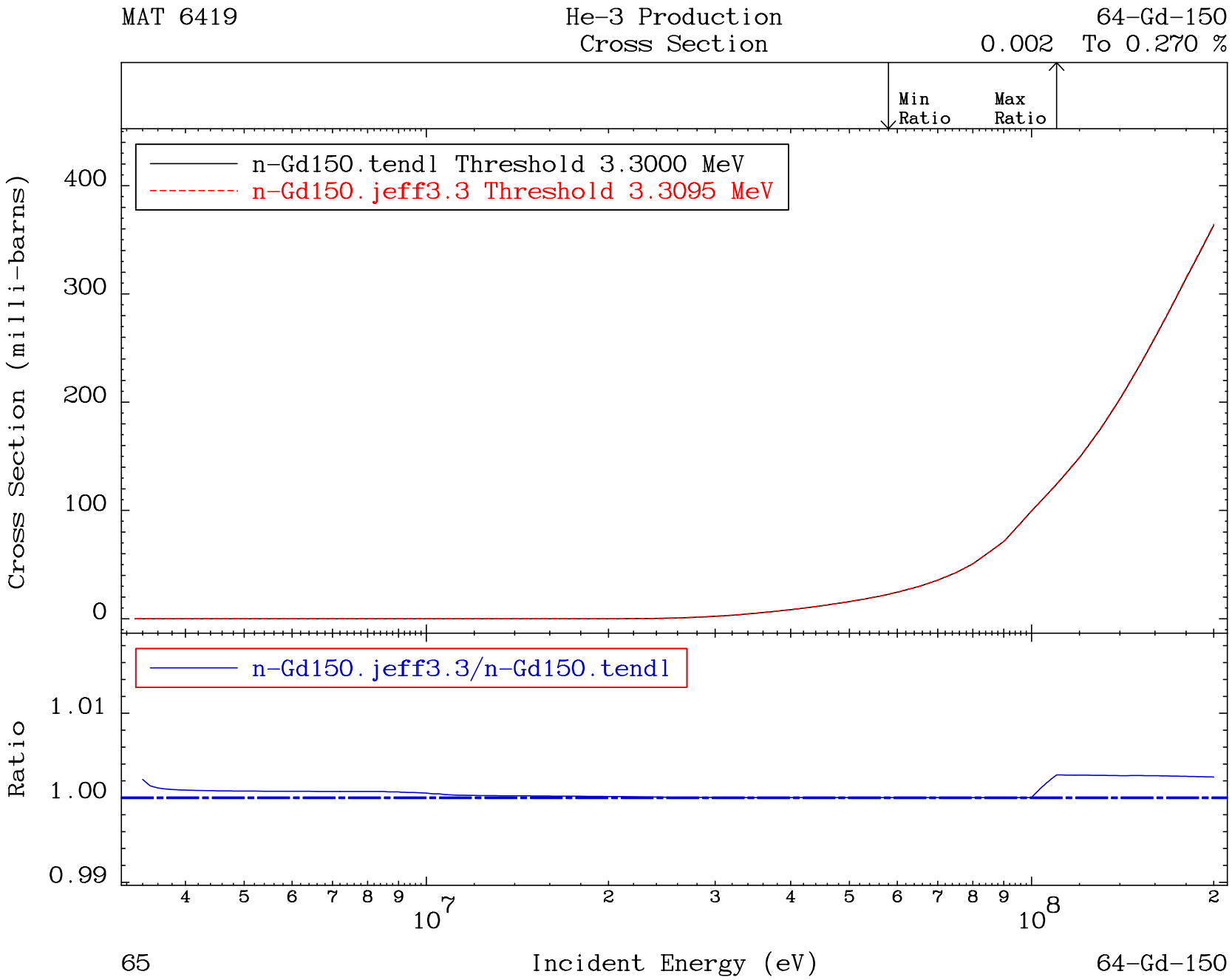

MAT 6419
(n,p) t
Cross Section
64-Gd-150
-0.054 To 0.027 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 10.737 MeV
n-Gd150.jeff3.3 Threshold 10.737 MeV
Cross Section (micro-barns)
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
60
Incident Energy (eV)
64-Gd-150

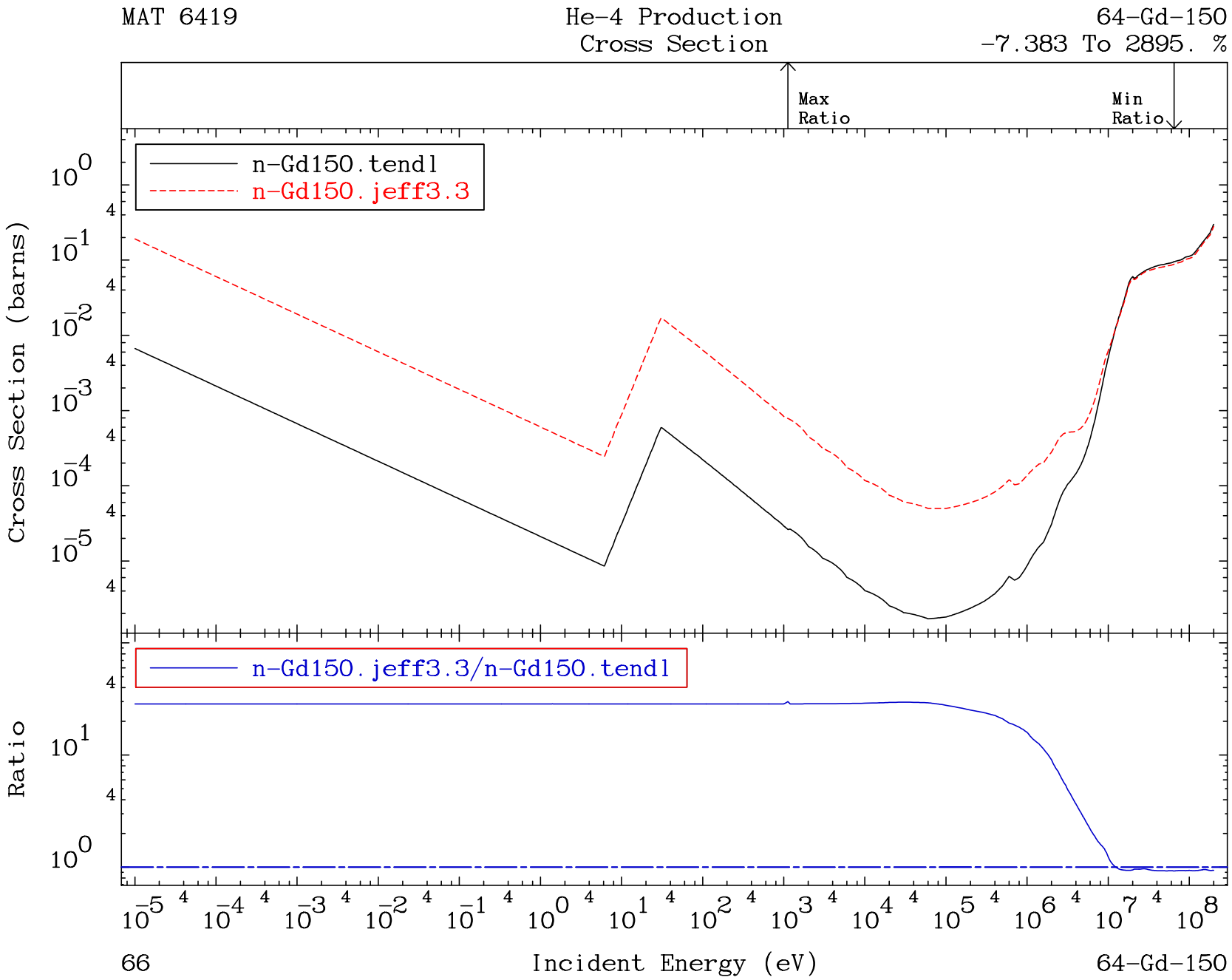

MAT 6419
(n,d) α
Cross Section
64-Gd-150
-53.07 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.9991 MeV
n-Gd150.jeff3.3 Threshold 1.9991 MeV
Cross Section (micro-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
61
Incident Energy (eV)
64-Gd-150

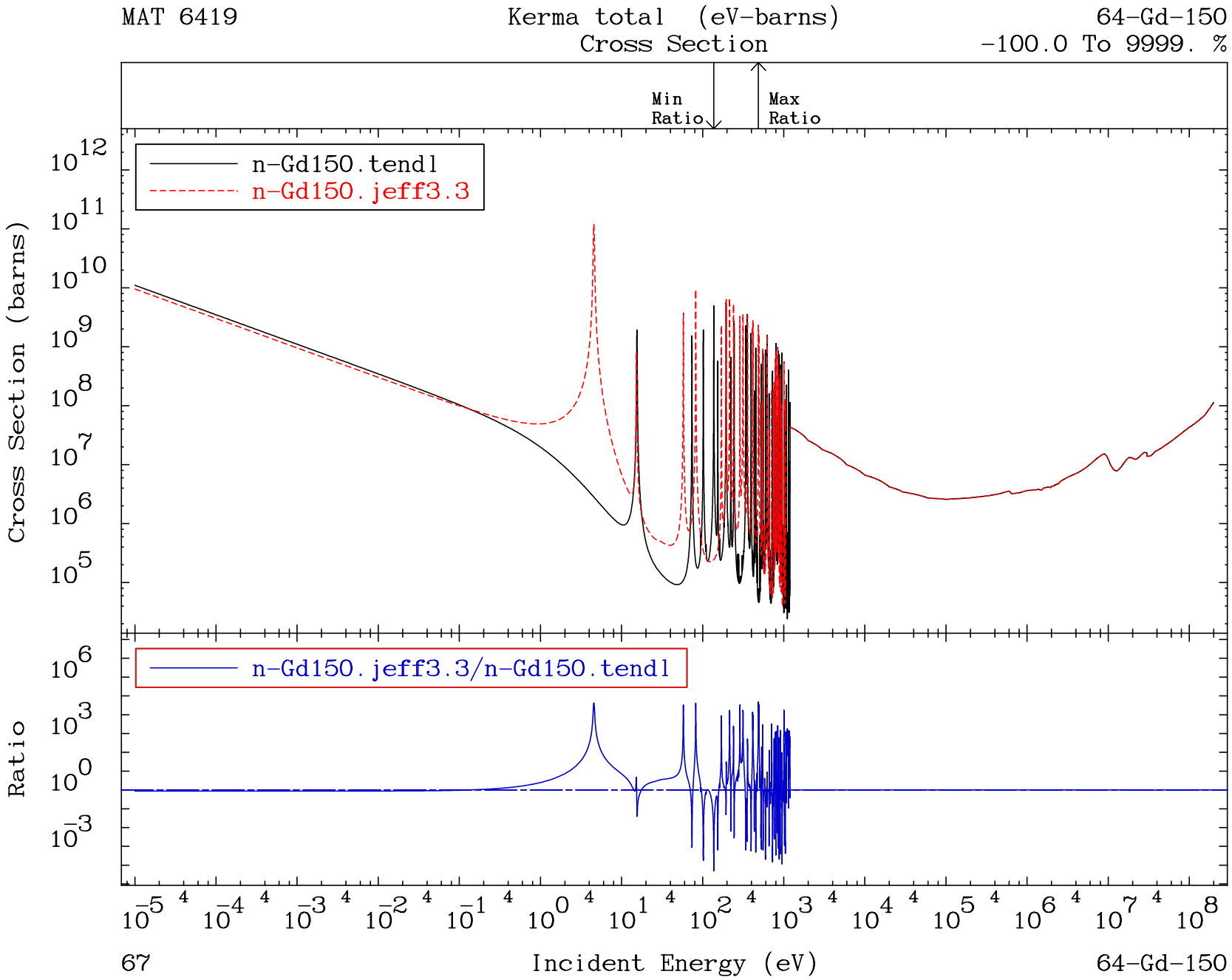

MAT 6419
Hydrogen Production
Cross Section
64-Gd-150
-5.290 To 0.541 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.1949 keV
n-Gd150.jeff3.3 Threshold 1.0578 keV
Cross Section (barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.02
1.00
0.98
0.96
10^3
10^4
10^5
10^6
10^7
10^8
62
Incident Energy (eV)
64-Gd-150

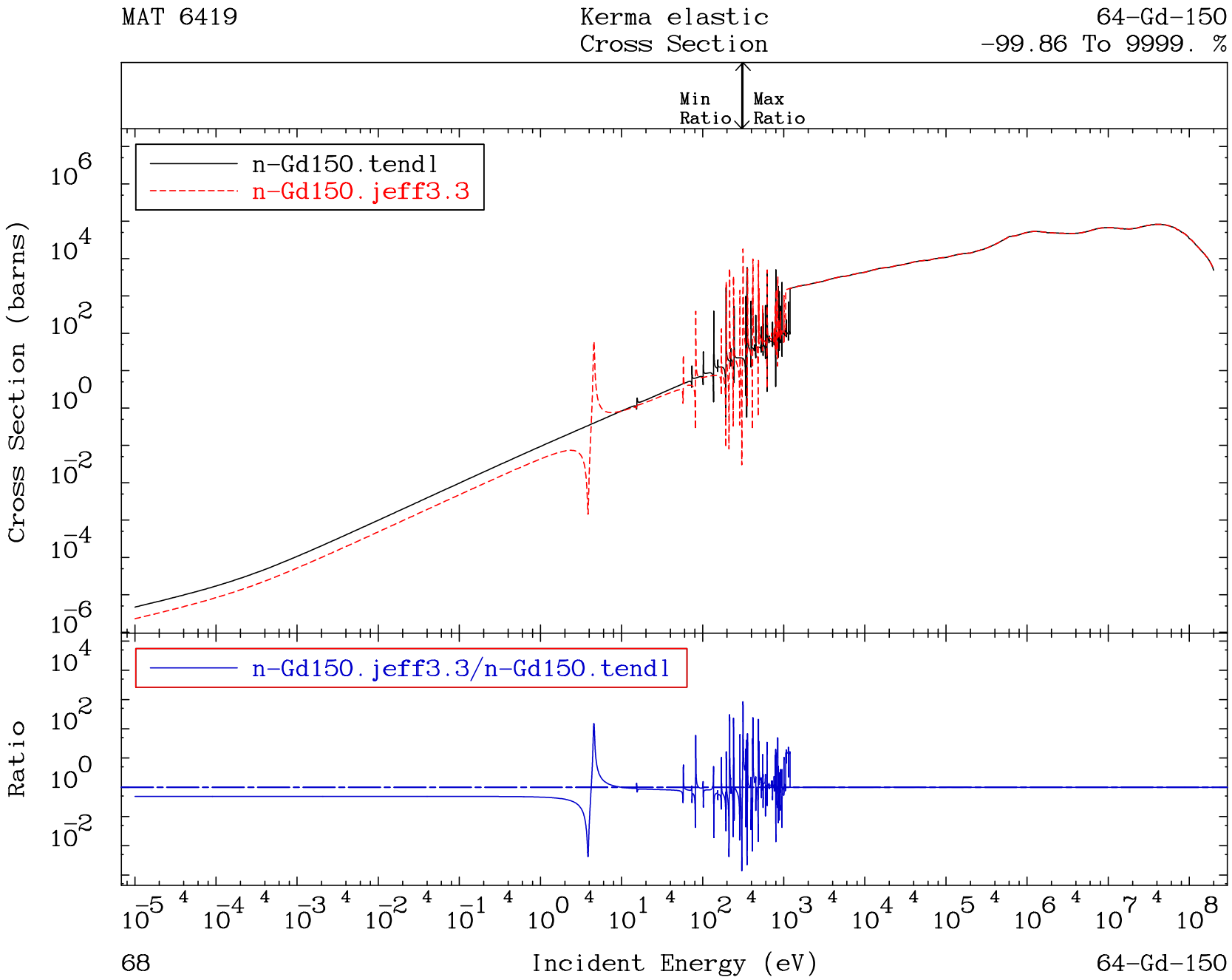

MAT 6419
Deuterium Production
Cross Section
64-Gd-150
-53.08 To 0.219 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 1.9991 MeV
n-Gd150.jeff3.3 Threshold 1.9991 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.0
0.8
0.6
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
63
Incident Energy (eV)
64-Gd-150

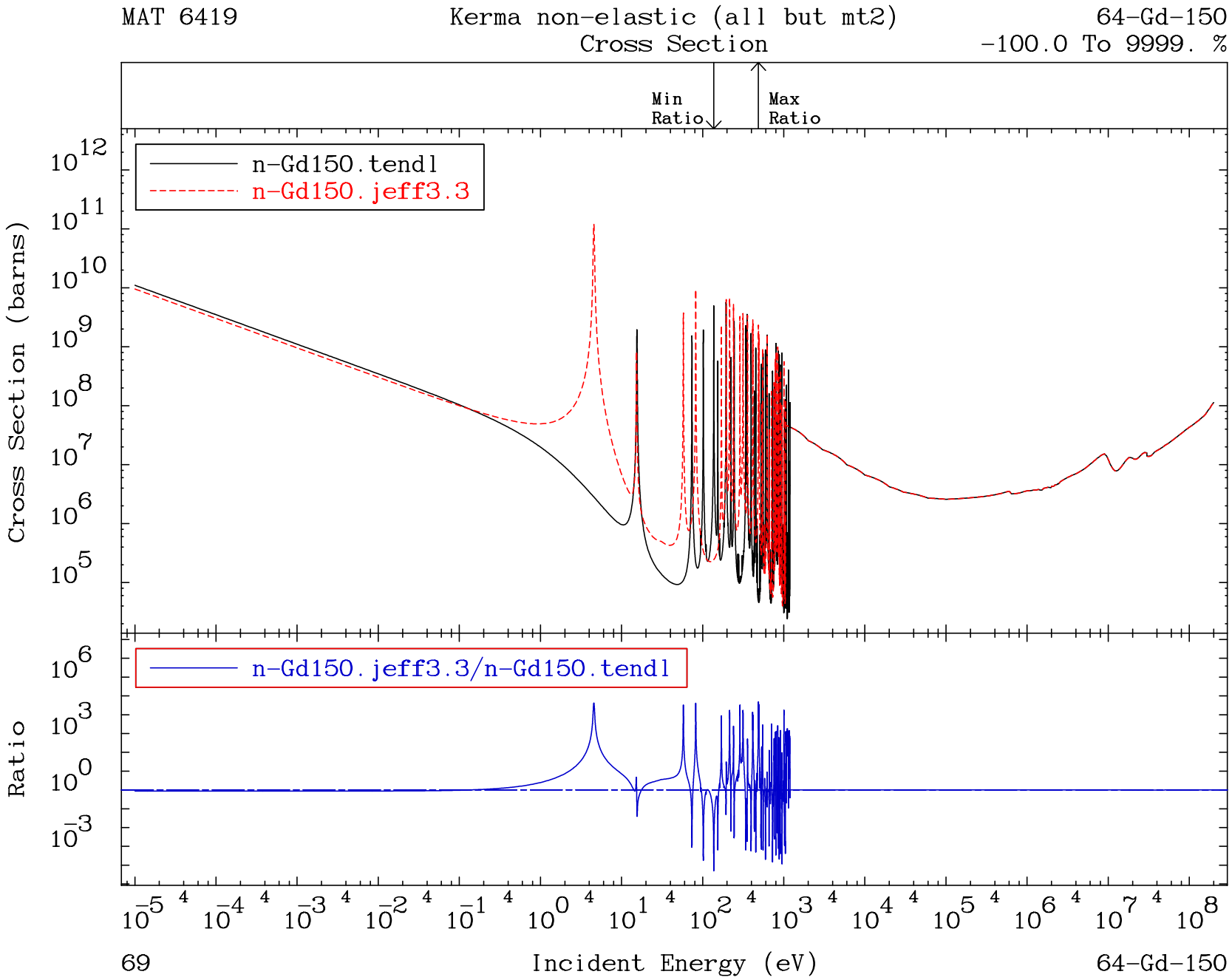

MAT 6419
Tritium Production
Cross Section
64-Gd-150
-0.309 To 3.080 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 6.2000 MeV
n-Gd150.jeff3.3 Threshold 6.3854 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.04
1.02
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
64
Incident Energy (eV)
64-Gd-150

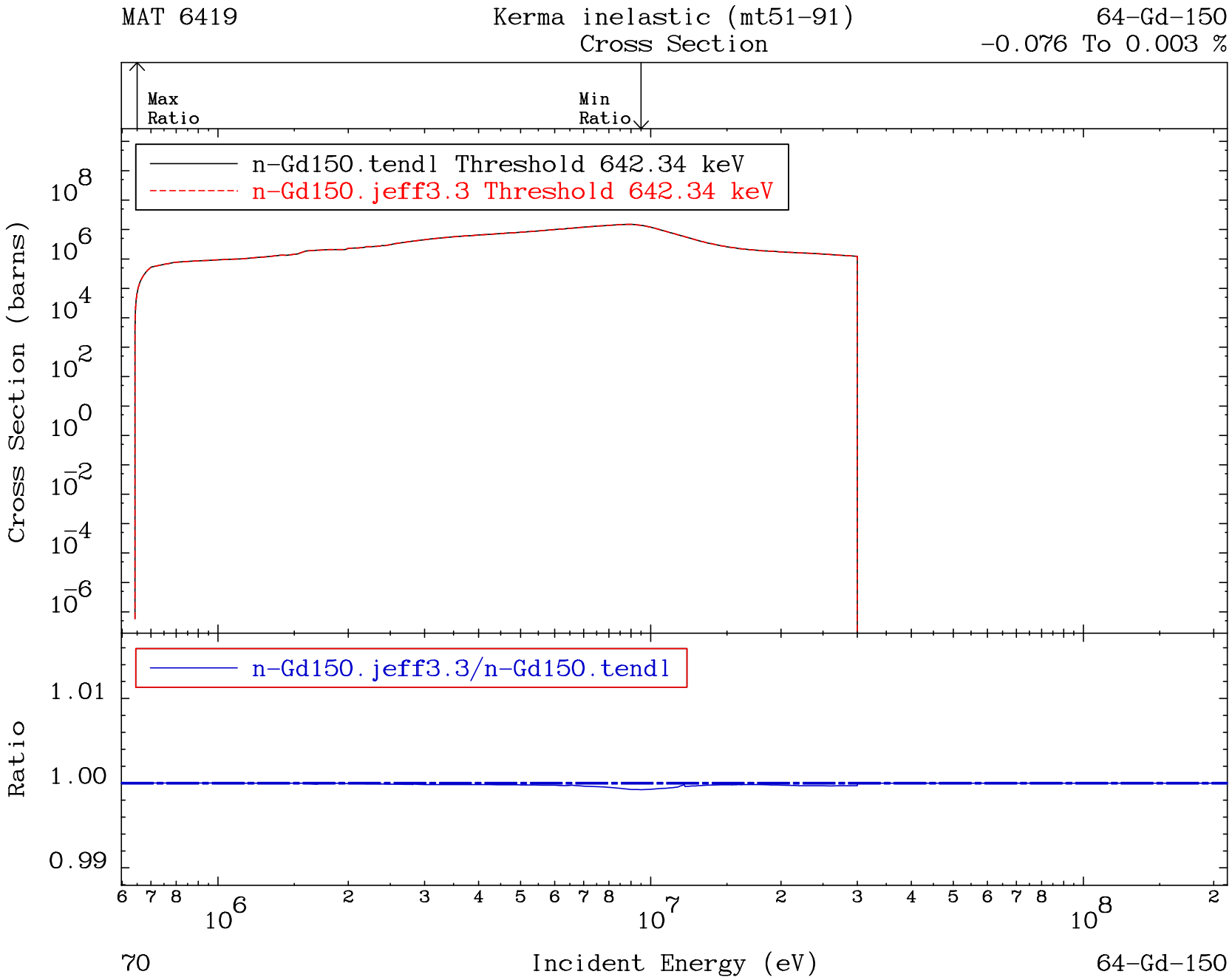

MAT 6419
He-3 Production
Cross Section
64-Gd-150
0.002 To 0.270 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 3.3000 MeV
n-Gd150.jeff3.3 Threshold 3.3095 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
65
Incident Energy (eV)
64-Gd-150

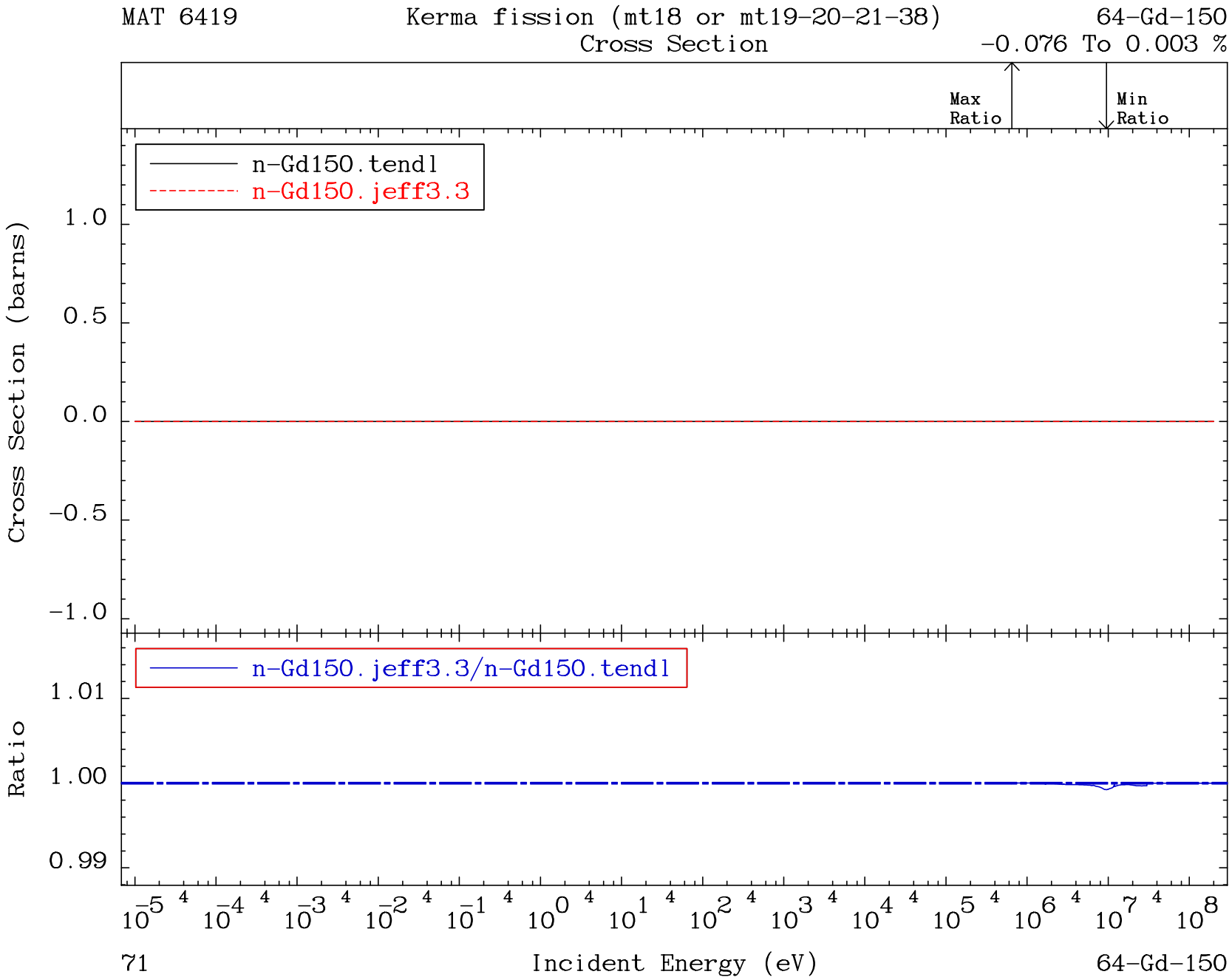

MAT 6419
He-4 Production
Cross Section
64-Gd-150
-7.383 To 2895. %
Max Ratio
Min Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
66
64-Gd-150

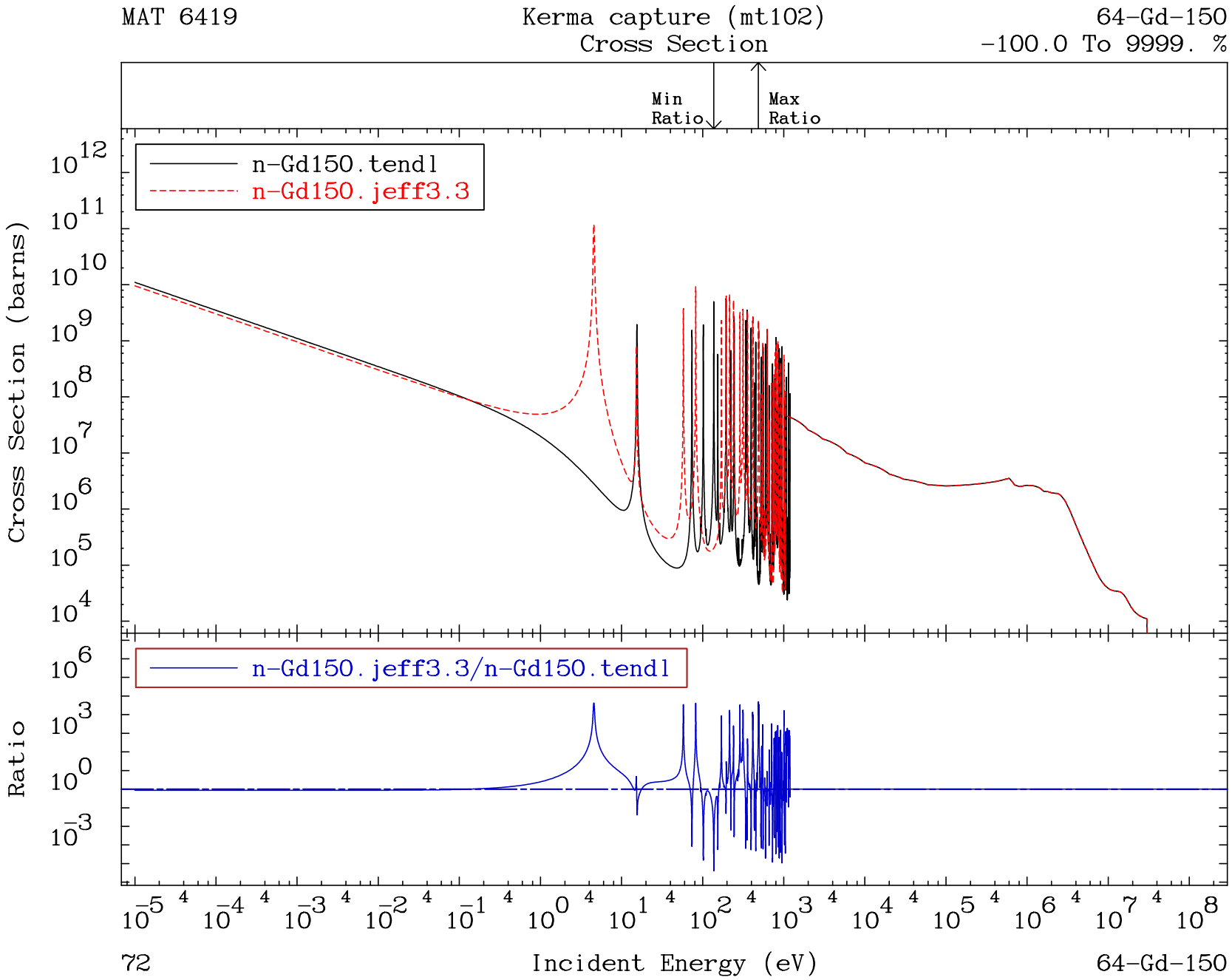

MAT 6419
Kerma total (eV-barns)
Cross Section
64-Gd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
67
Incident Energy (eV)
64-Gd-150

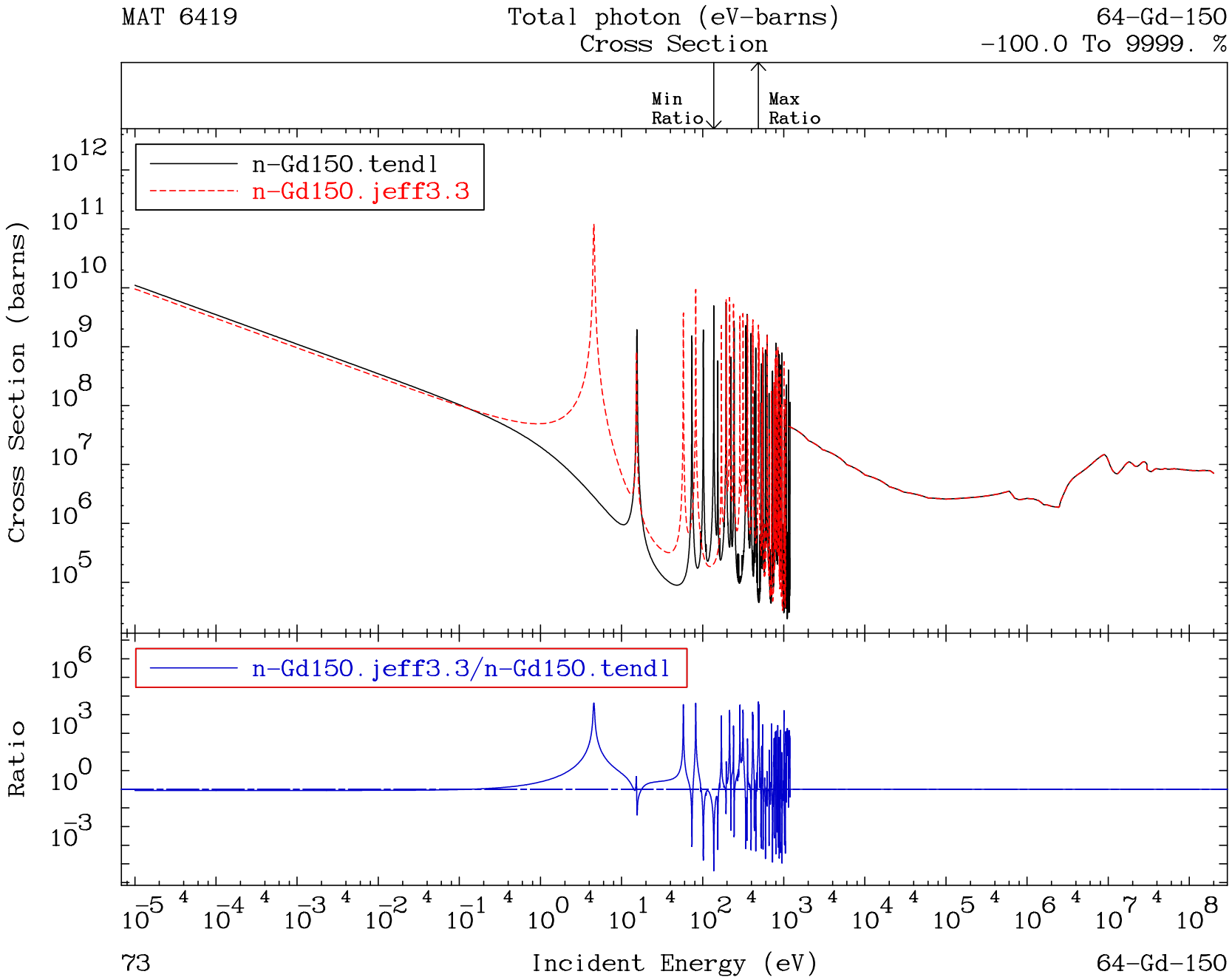

MAT 6419
Kerma elastic
Cross Section
64-Gd-150
-99.86 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
68
64-Gd-150

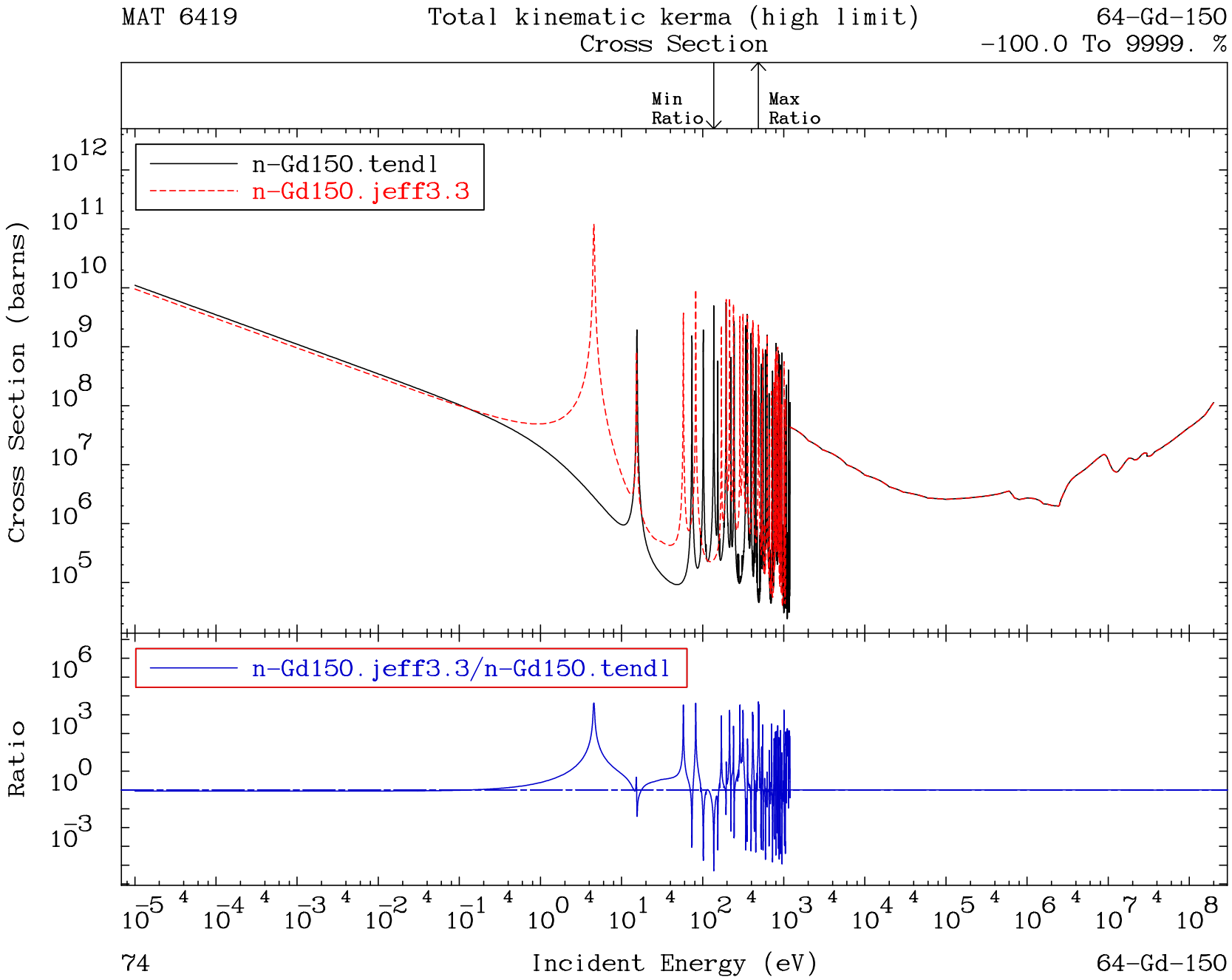

MAT 6419
Kerma non-elastic (all but mt2)
Cross Section
64-Gd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
69
Incident Energy (eV)
64-Gd-150

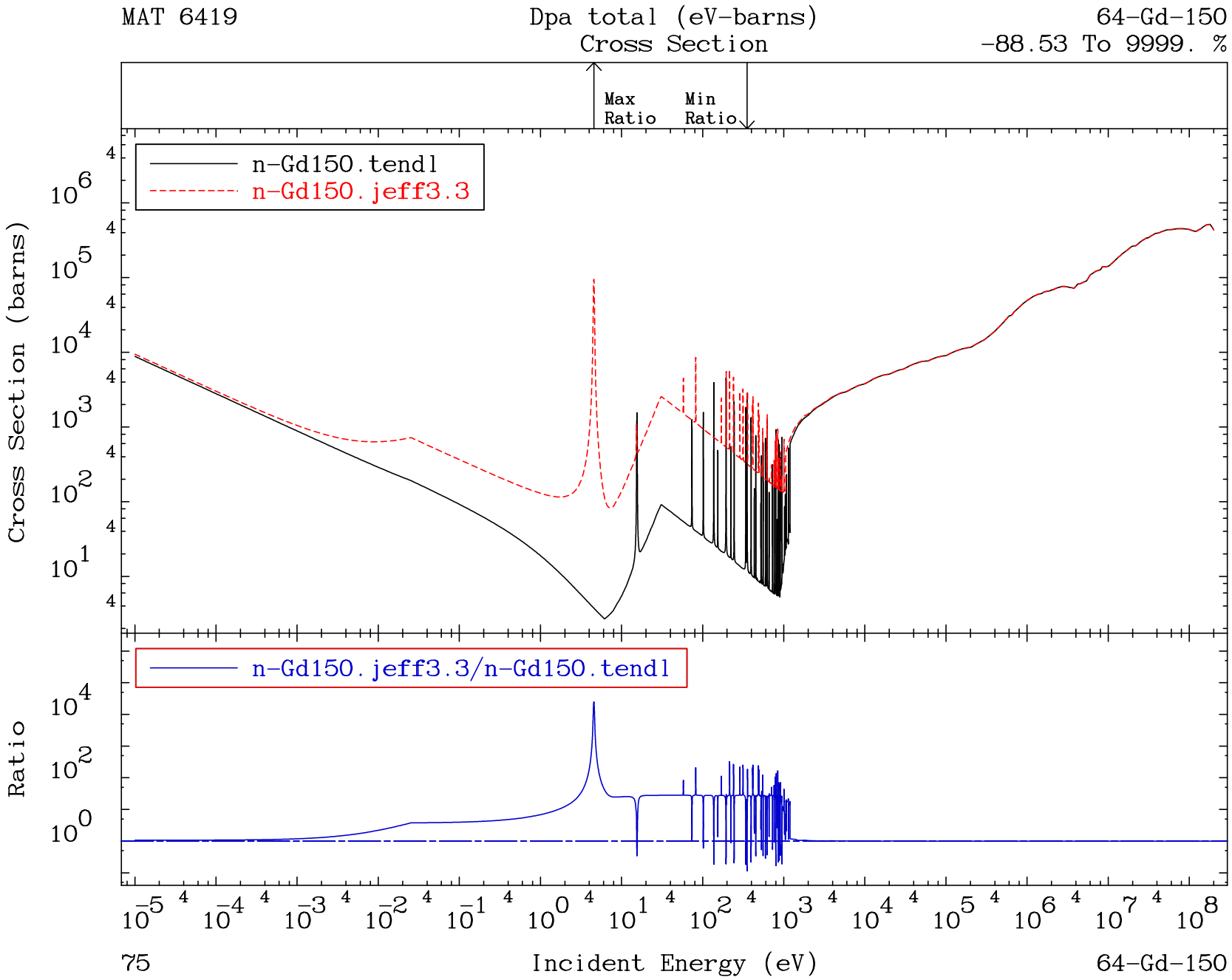

MAT 6419
Kerma inelastic (mt51-91)
Cross Section
64-Gd-150
-0.076 To 0.003 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 642.34 keV
n-Gd150.jeff3.3 Threshold 642.34 keV
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
70
64-Gd-150

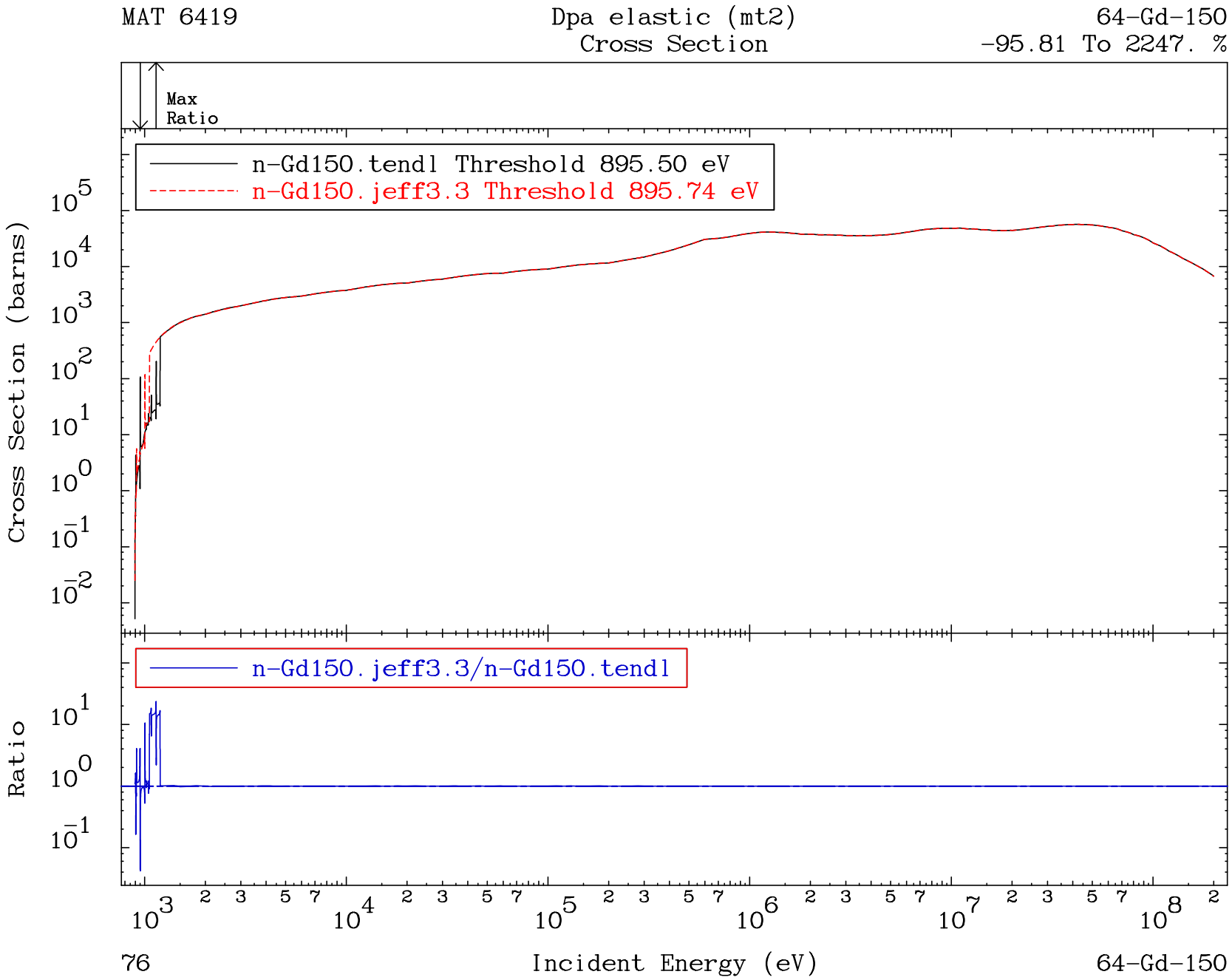

MAT 6419
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
64-Gd-150
-0.076 To 0.003 %
Max Ratio
Min Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
1.01
1.00
0.99
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
71
Incident Energy (eV)
64-Gd-150

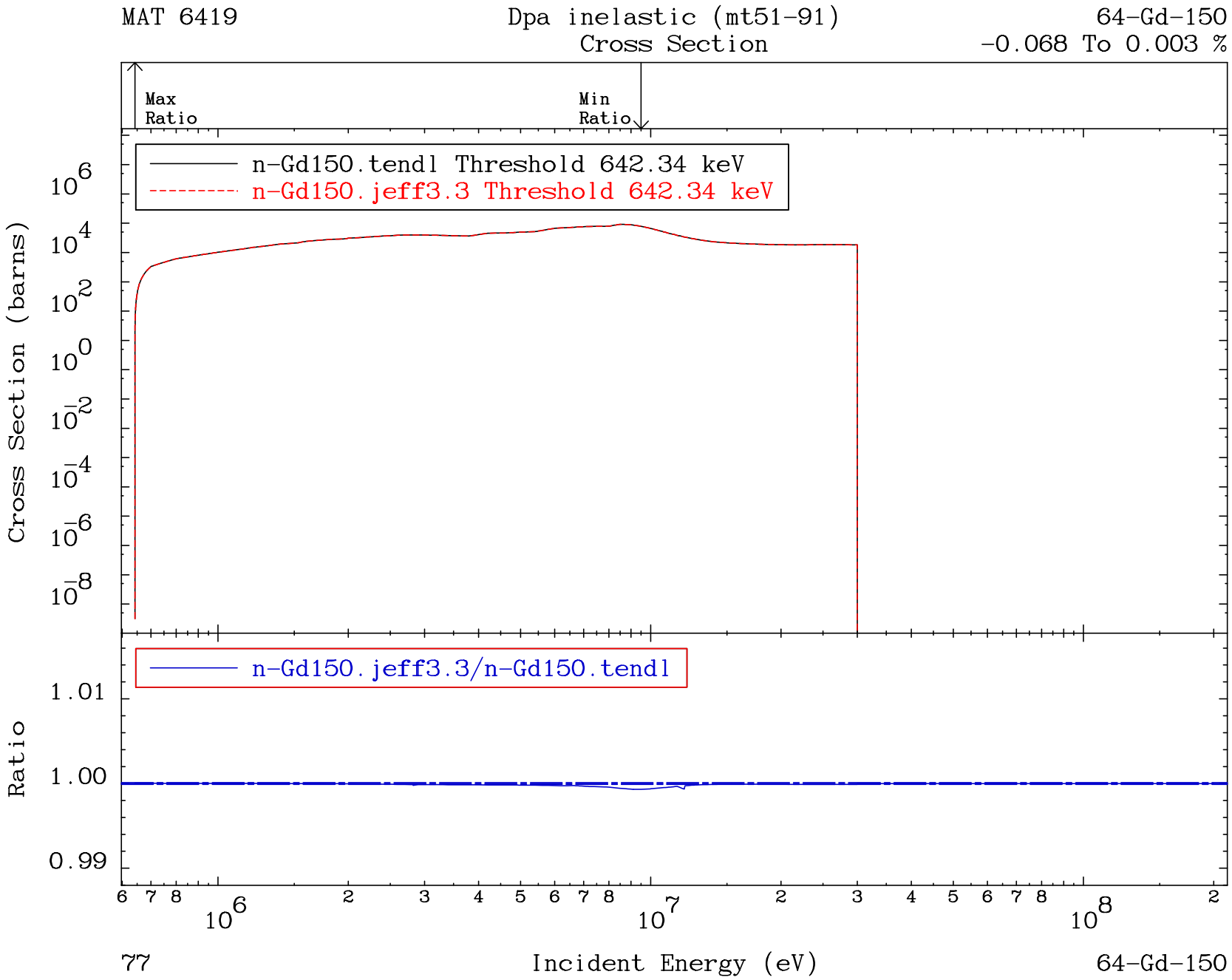

MAT 6419
Kerma capture (mt102)
Cross Section
64-Gd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
72
64-Gd-150

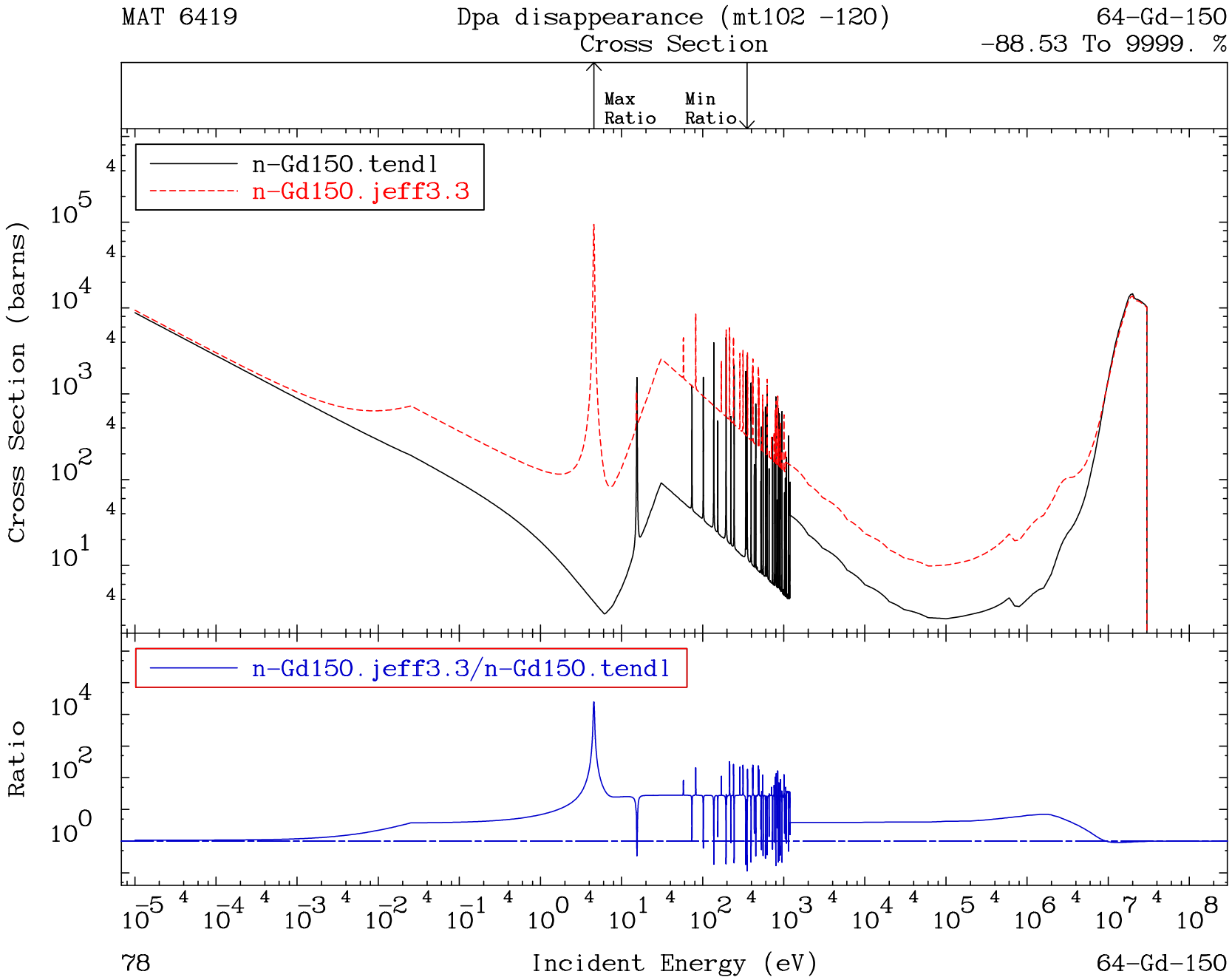

MAT 6419
Total photon (eV-barns)
Cross Section
64-Gd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
73
64-Gd-150

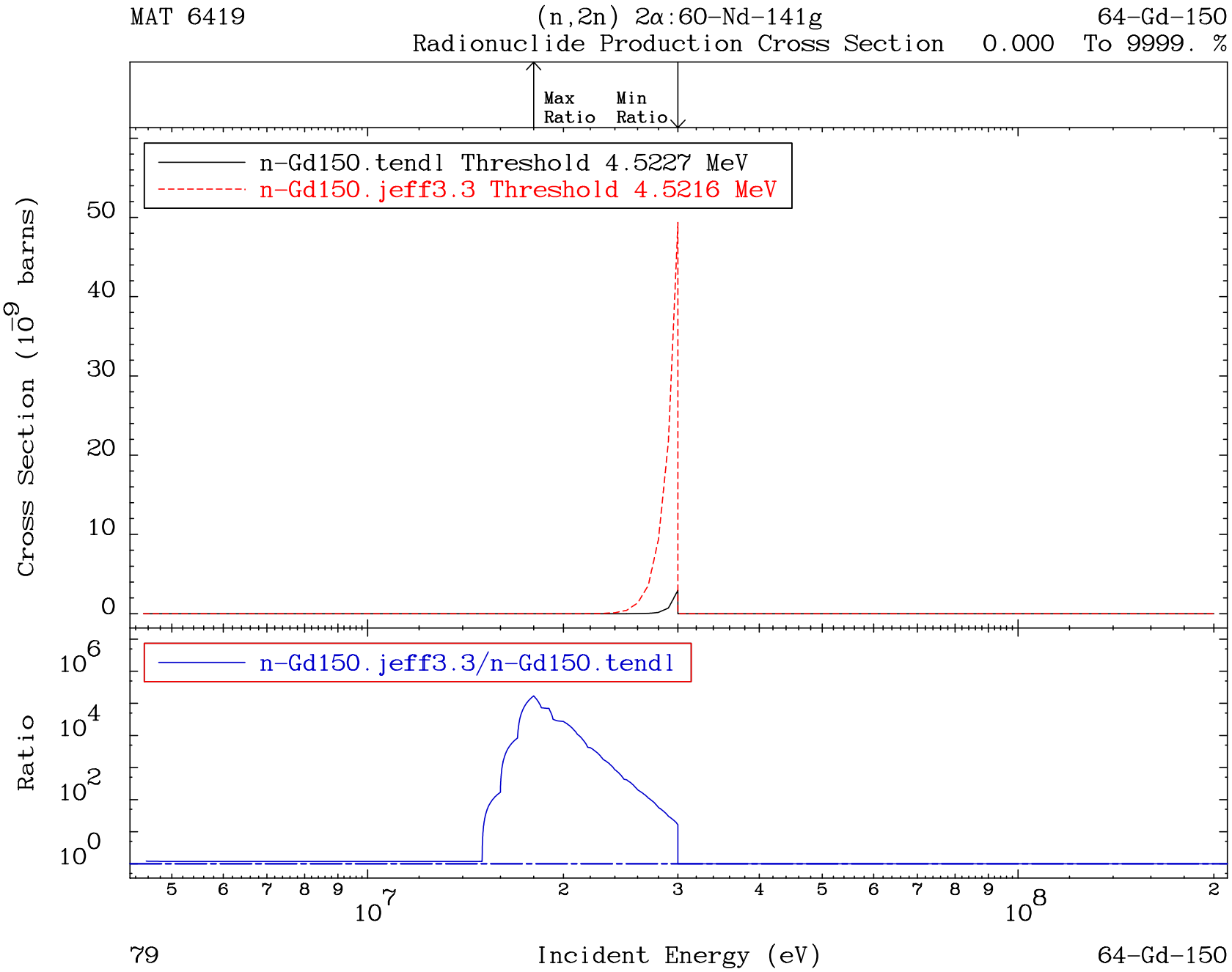

MAT 6419
Total kinematic kerma (high limit)
Cross Section
64-Gd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
74
64-Gd-150

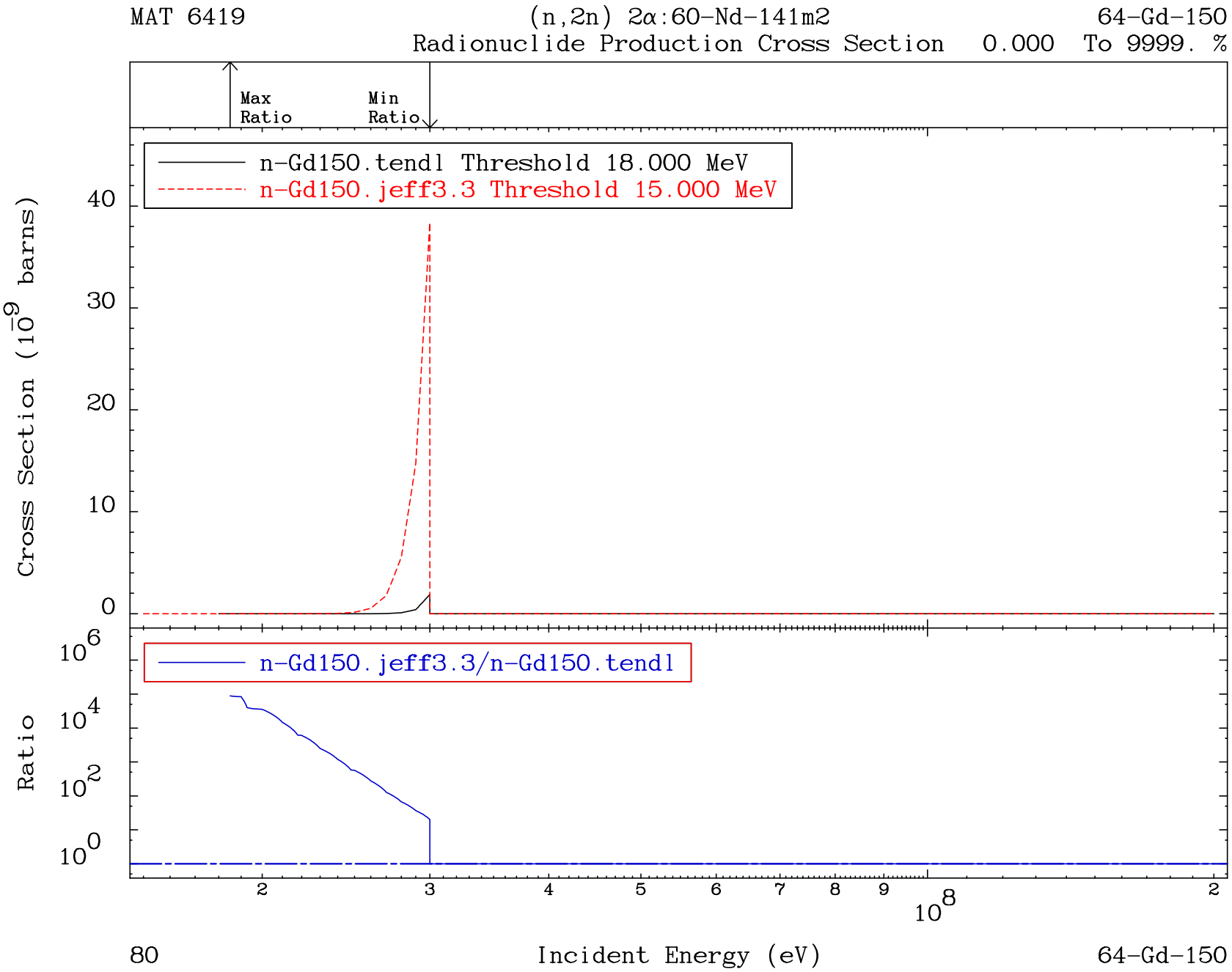

MAT 6419
Dpa total (eV-barns)
Cross Section
64-Gd-150
-88.53 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
75
64-Gd-150

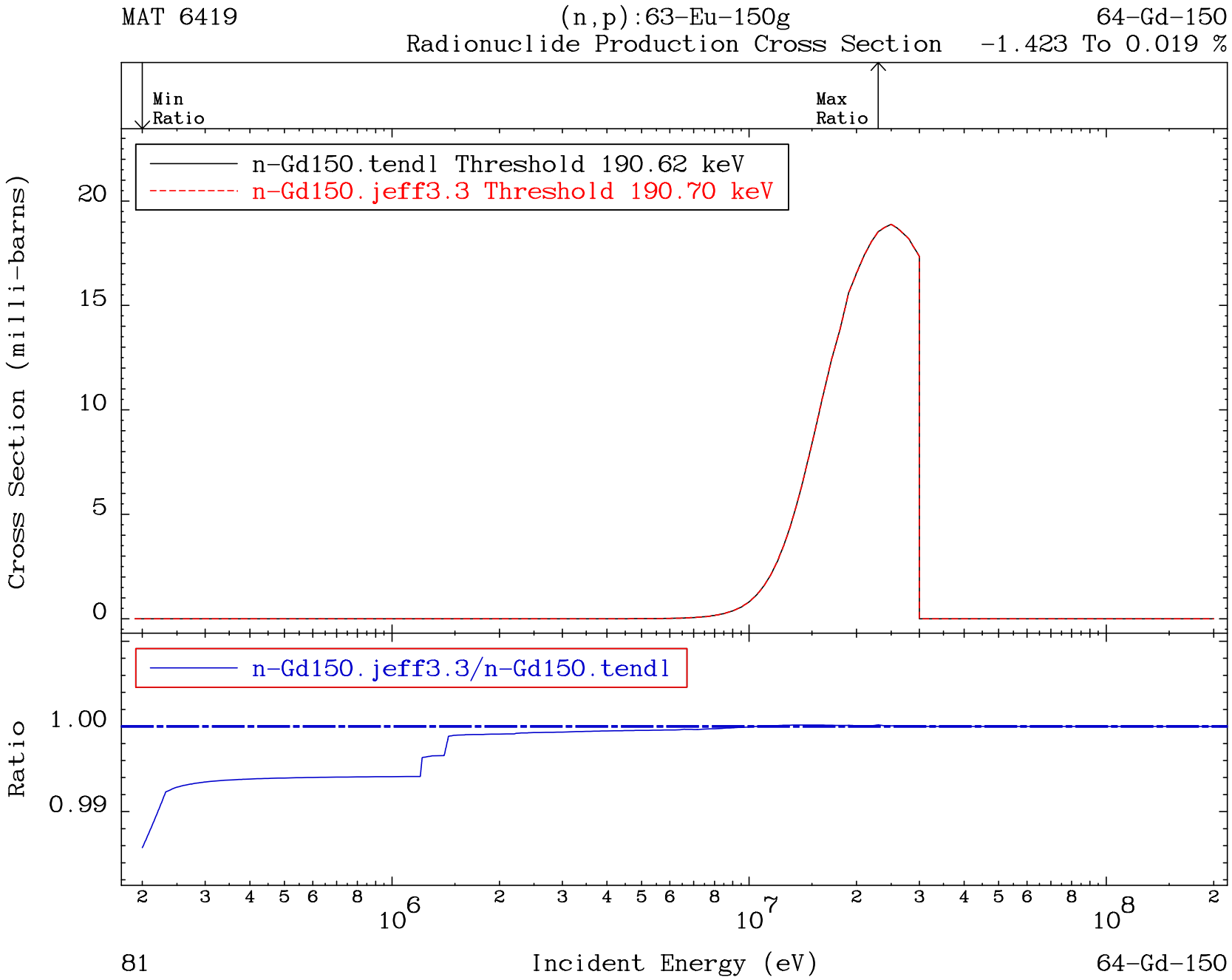

MAT 6419
Dpa elastic (mt2)
Cross Section
64-Gd-150
-95.81 To 2247. %
Max
Ratio
n-Gd150.tendl Threshold 895.50 eV
n-Gd150.jeff3.3 Threshold 895.74 eV
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
76
64-Gd-150

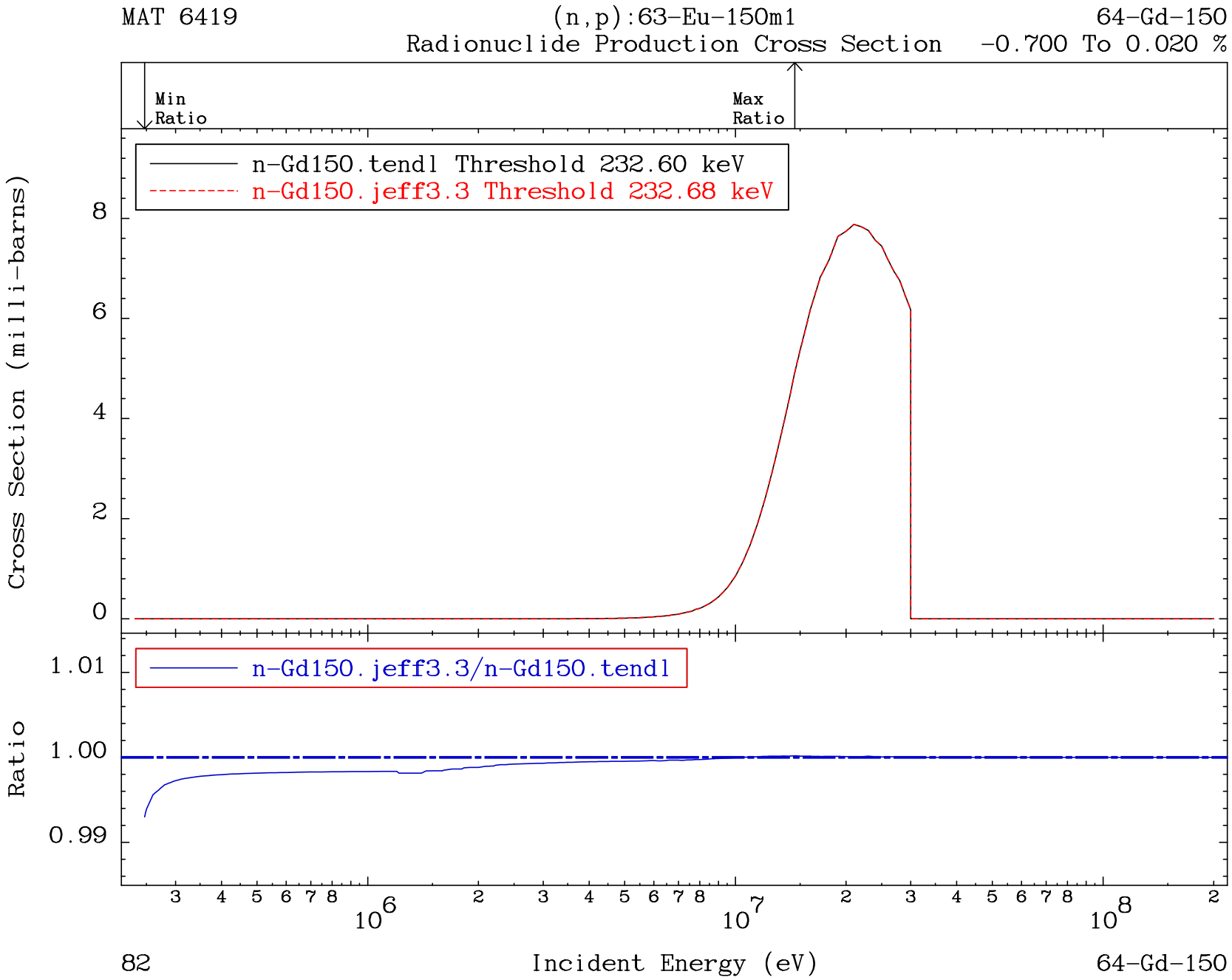

MAT 6419
Dpa inelastic (mt51-91)
Cross Section
64-Gd-150
-0.068 To 0.003 %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 642.34 keV
n-Gd150.jeff3.3 Threshold 642.34 keV
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
77
64-Gd-150


MAT 6419
Dpa disappearance (mt102 -120)
Cross Section
64-Gd-150
-88.53 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl
n-Gd150.jeff3.3
Cross Section (barns)
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
Incident Energy (eV)
78
64-Gd-150


MAT 6419
(n,2n) 2α:60-Nd-141g
64-Gd-150
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 4.5227 MeV
n-Gd150.jeff3.3 Threshold 4.5216 MeV
Cross Section (10^{-9} barns)
50
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^6
10^4
10^2
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
79
Incident Energy (eV)
64-Gd-150


MAT 6419
(n,2n) 2α:60-Nd-141m2
64-Gd-150
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd150.tendl Threshold 18.000 MeV
n-Gd150.jeff3.3 Threshold 15.000 MeV
Cross Section (10^{-9} barns)
40
30
20
10
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
10^{6}
10^{4}
10^{2}
10^{0}
2
3
4
5
6
7
8
9
10^{8}
2
80
Incident Energy (eV)
64-Gd-150


MAT 6419
(n,p):63-Eu-150g
64-Gd-150
Radionuclide Production Cross Section
-1.423 To 0.019 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 190.62 keV
n-Gd150.jeff3.3 Threshold 190.70 keV
Cross Section (milli-barns)
20
15
10
5
0
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
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
81
Incident Energy (eV)
64-Gd-150


MAT 6419
(n,p):63-Eu-150m1
64-Gd-150
Radionuclide Production Cross Section
-0.700 To 0.020 %
Min Ratio
Max Ratio
n-Gd150.tendl Threshold 232.60 keV
n-Gd150.jeff3.3 Threshold 232.68 keV
Cross Section (milli-barns)
0
2
4
6
8
n-Gd150.jeff3.3/n-Gd150.tendl
Ratio
0.99
1.00
1.01
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
82
Incident Energy (eV)
64-Gd-150