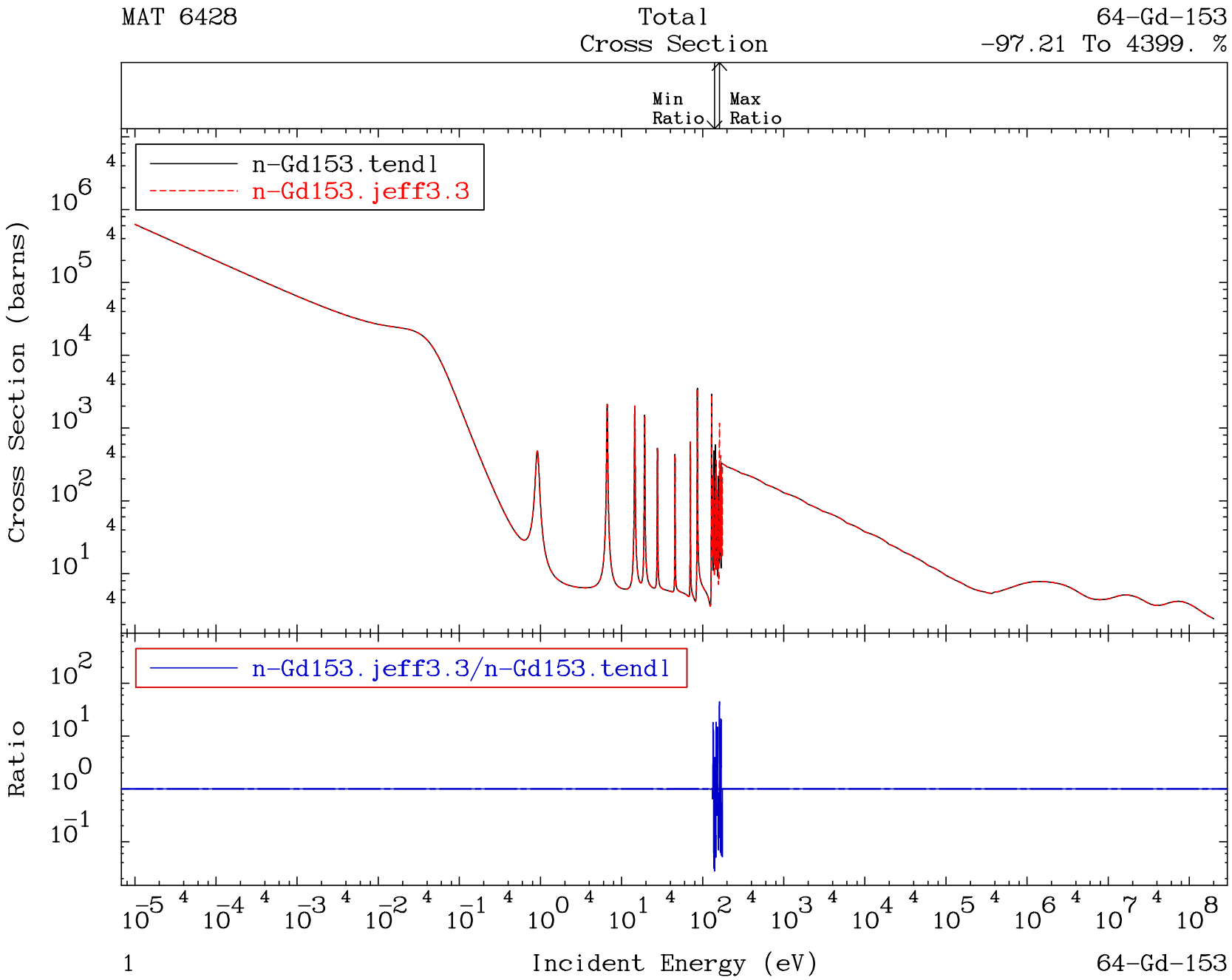
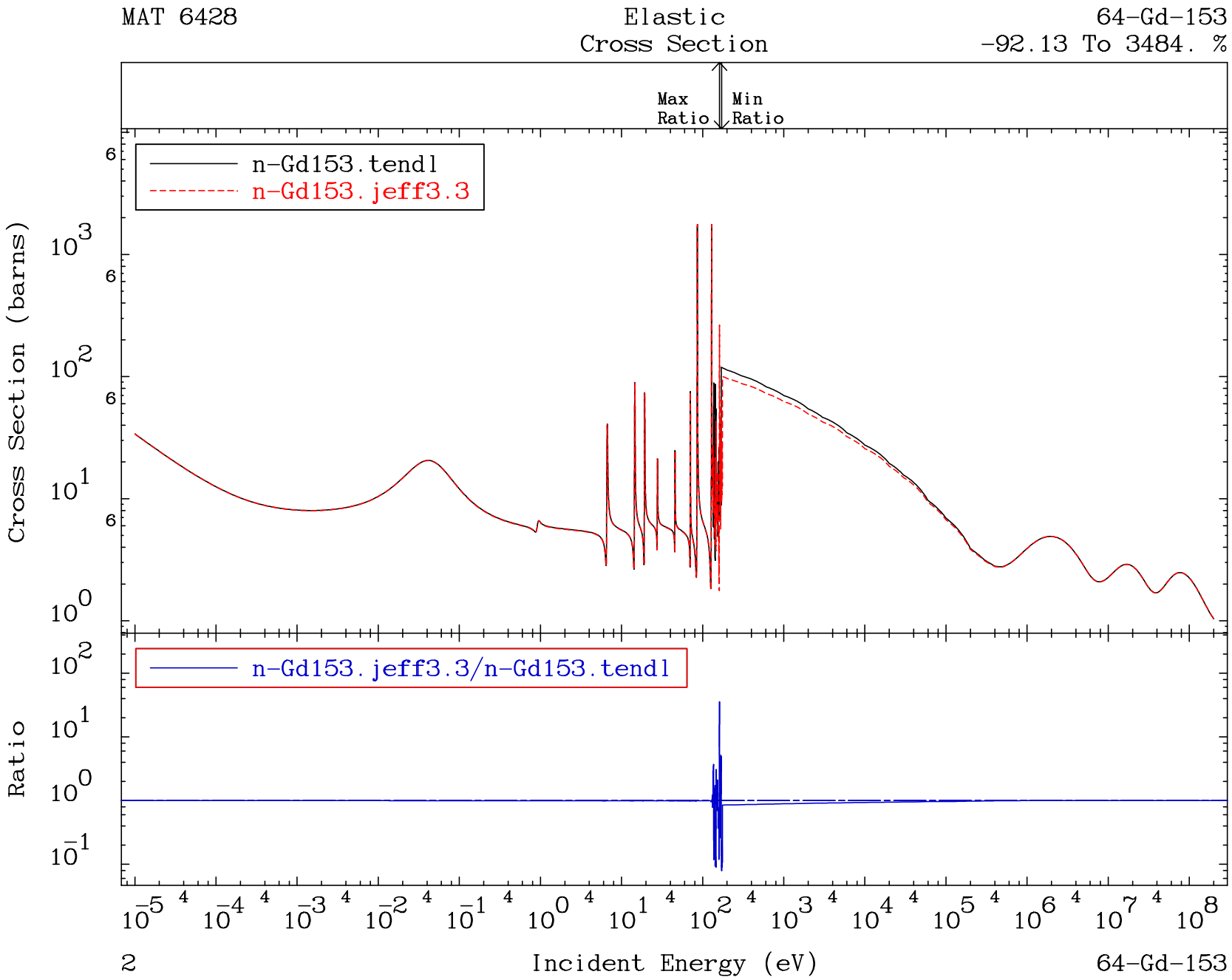
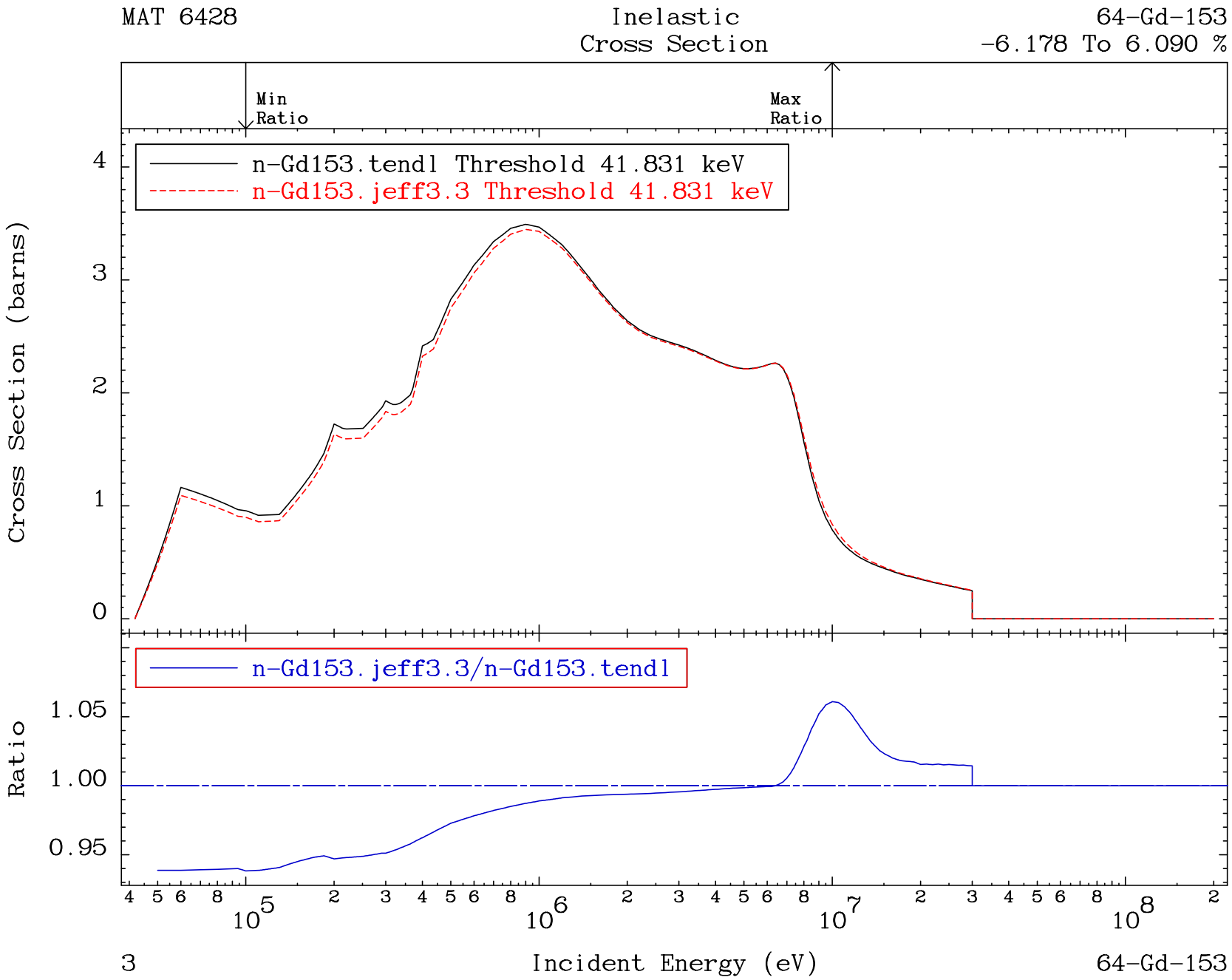
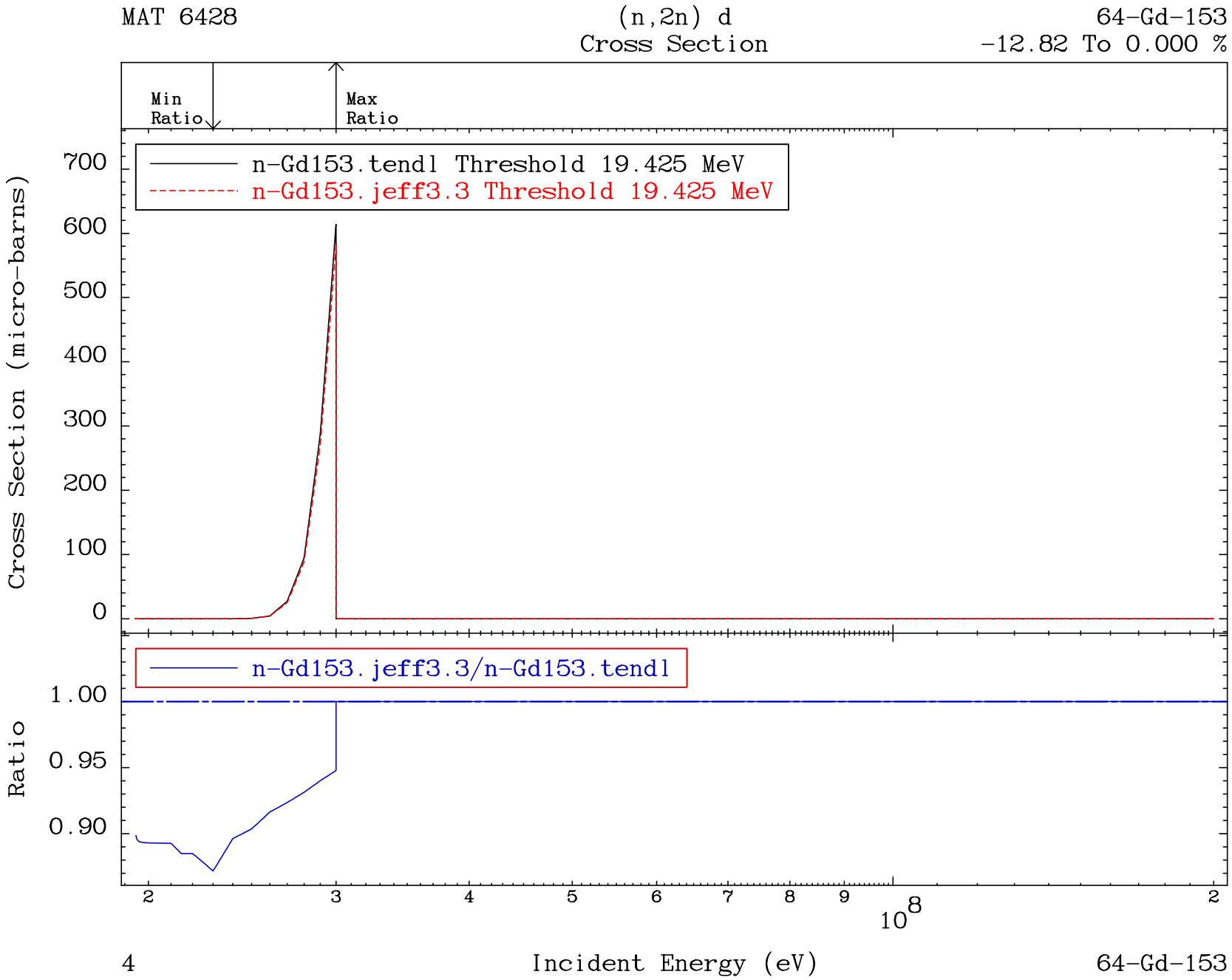
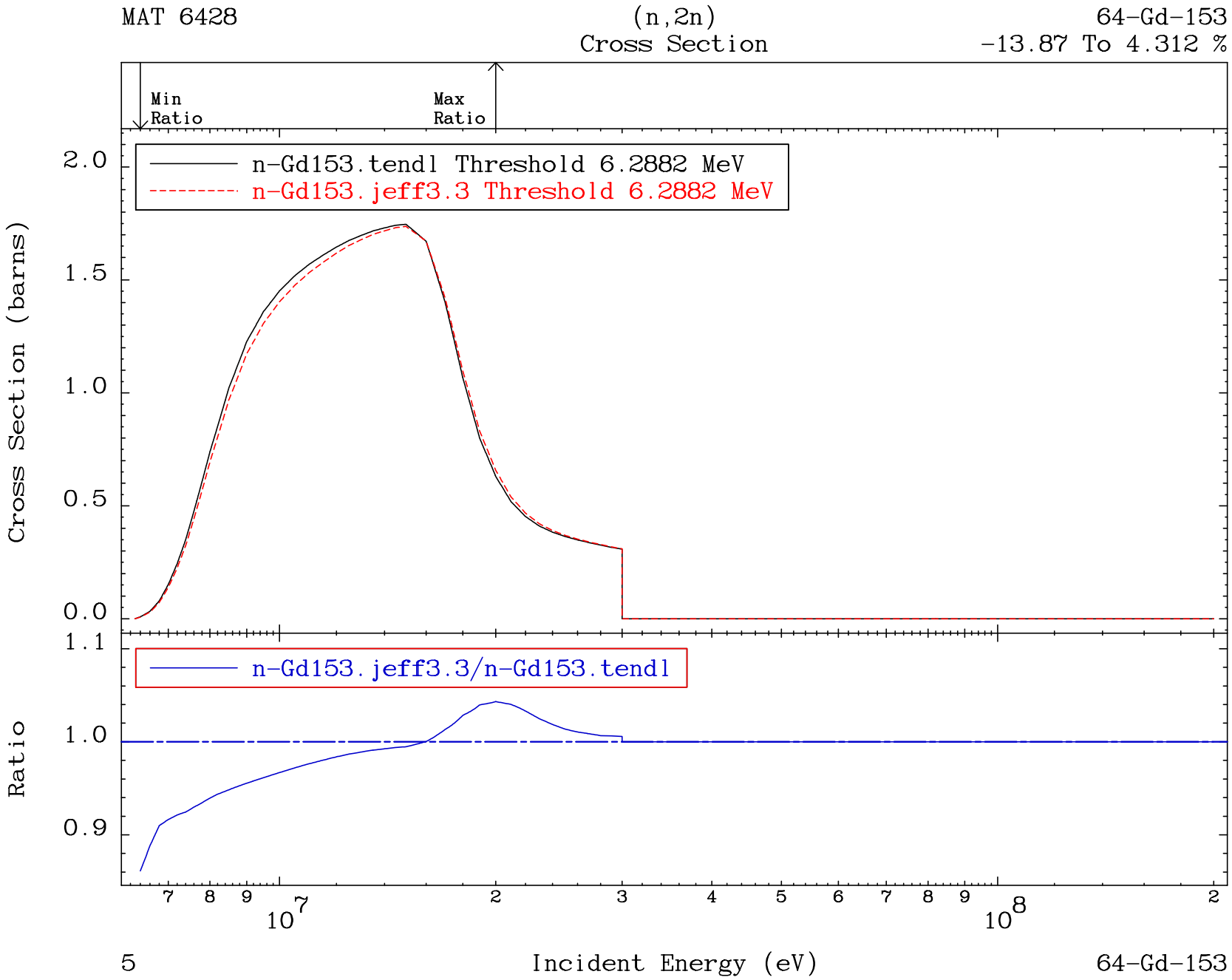
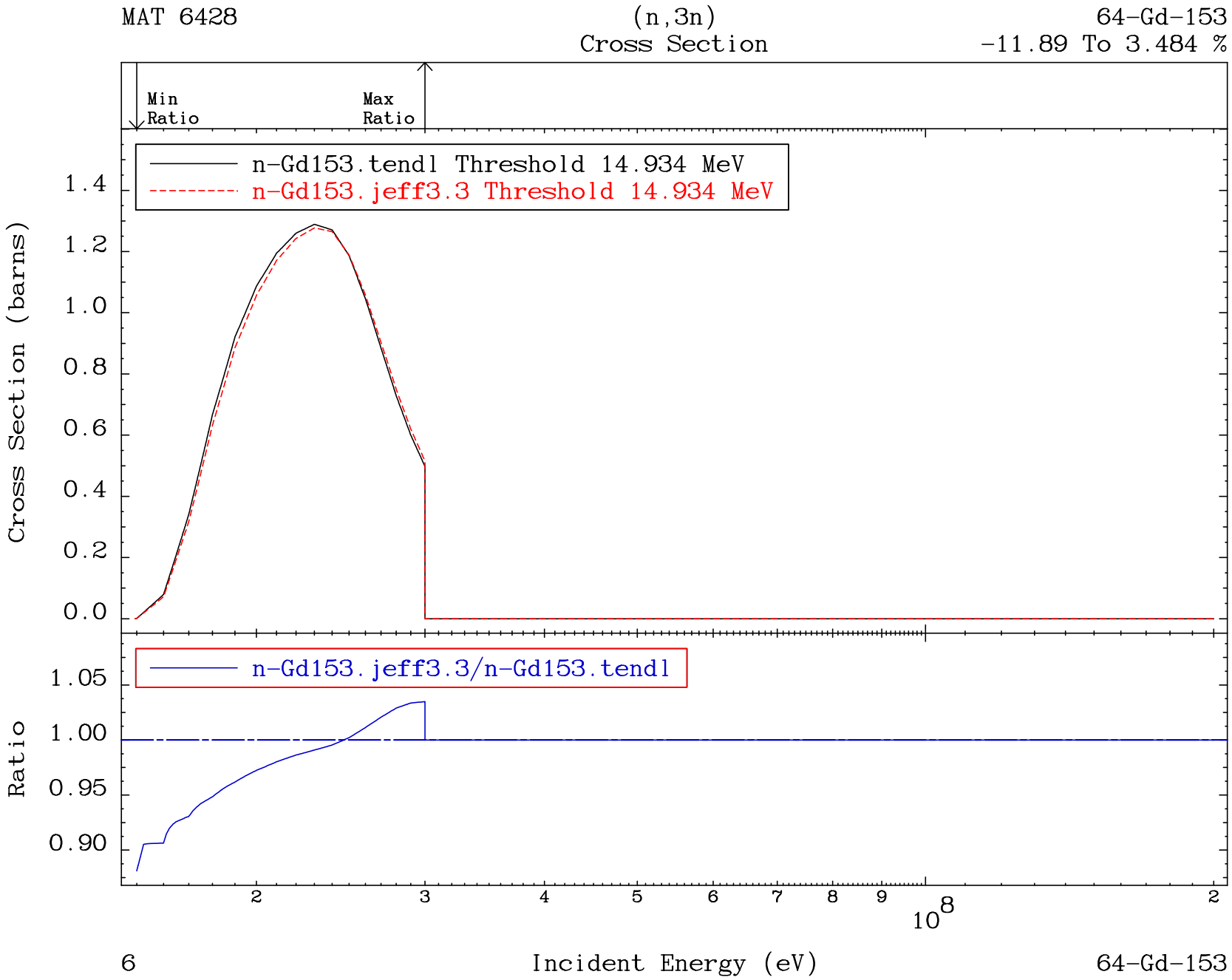

MAT 6428
Total
Cross Section
64-Gd-153
-97.21 To 4399. %
Min
Ratio
Max
Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
1
64-Gd-153

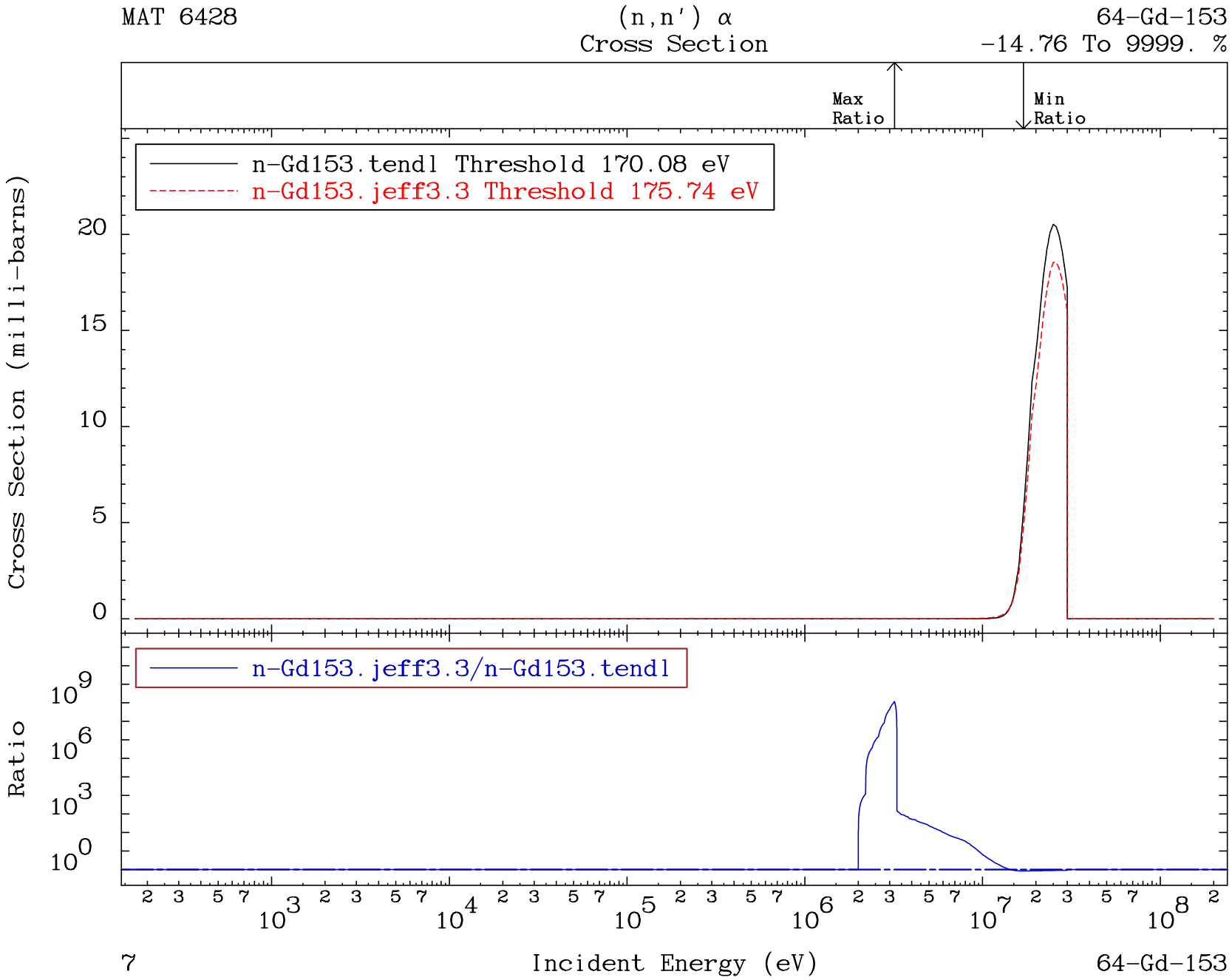

MAT 6428
Elastic
Cross Section
64-Gd-153
-92.13 To 3484. %
Max Ratio
Min Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
2
64-Gd-153

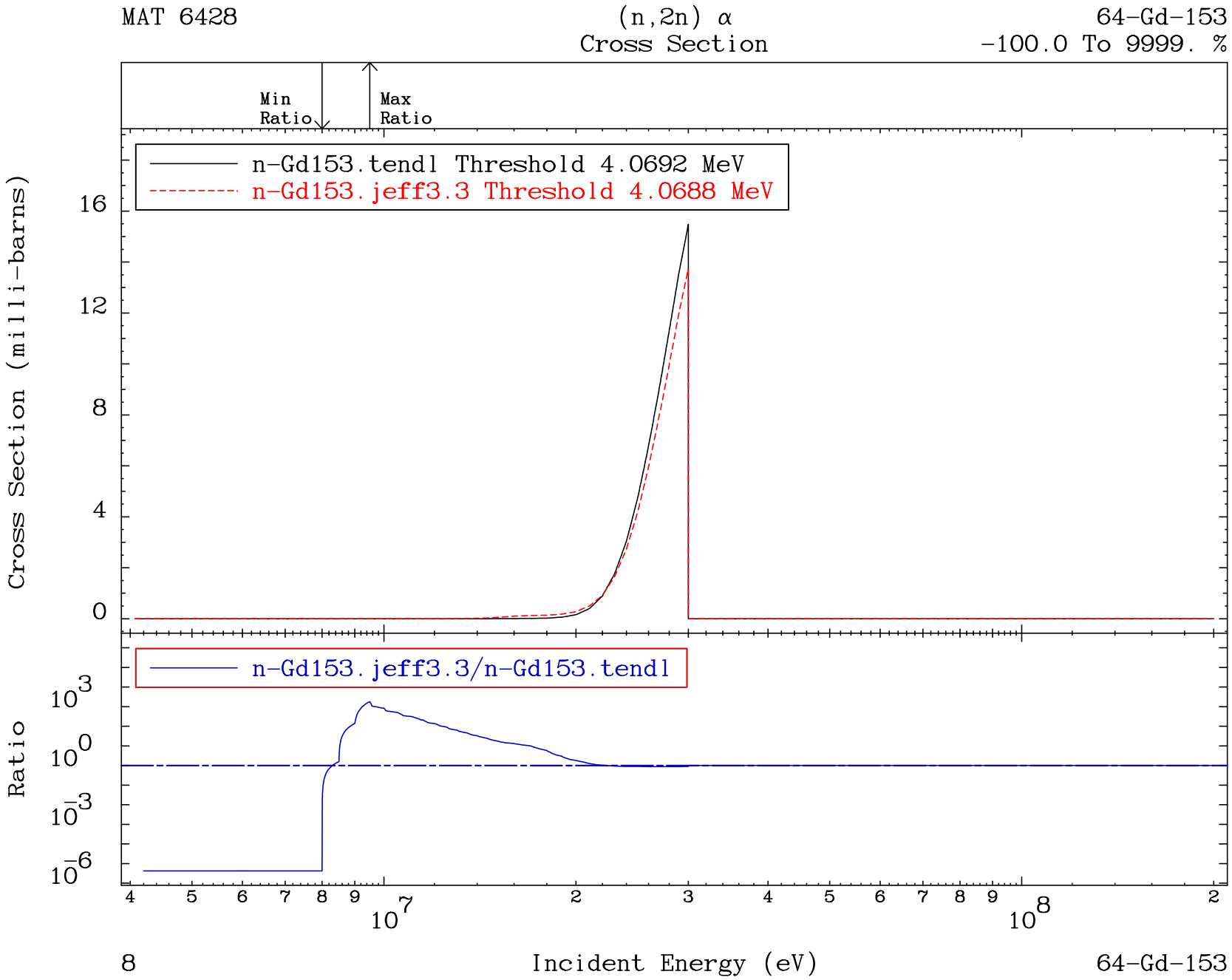

MAT 6428
Inelastic
Cross Section
64-Gd-153
-6.178 To 6.090 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 41.831 keV
n-Gd153.jeff3.3 Threshold 41.831 keV
Cross Section (barns)
0
1
2
3
4
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
0.95
1.00
1.05
4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
3
64-Gd-153

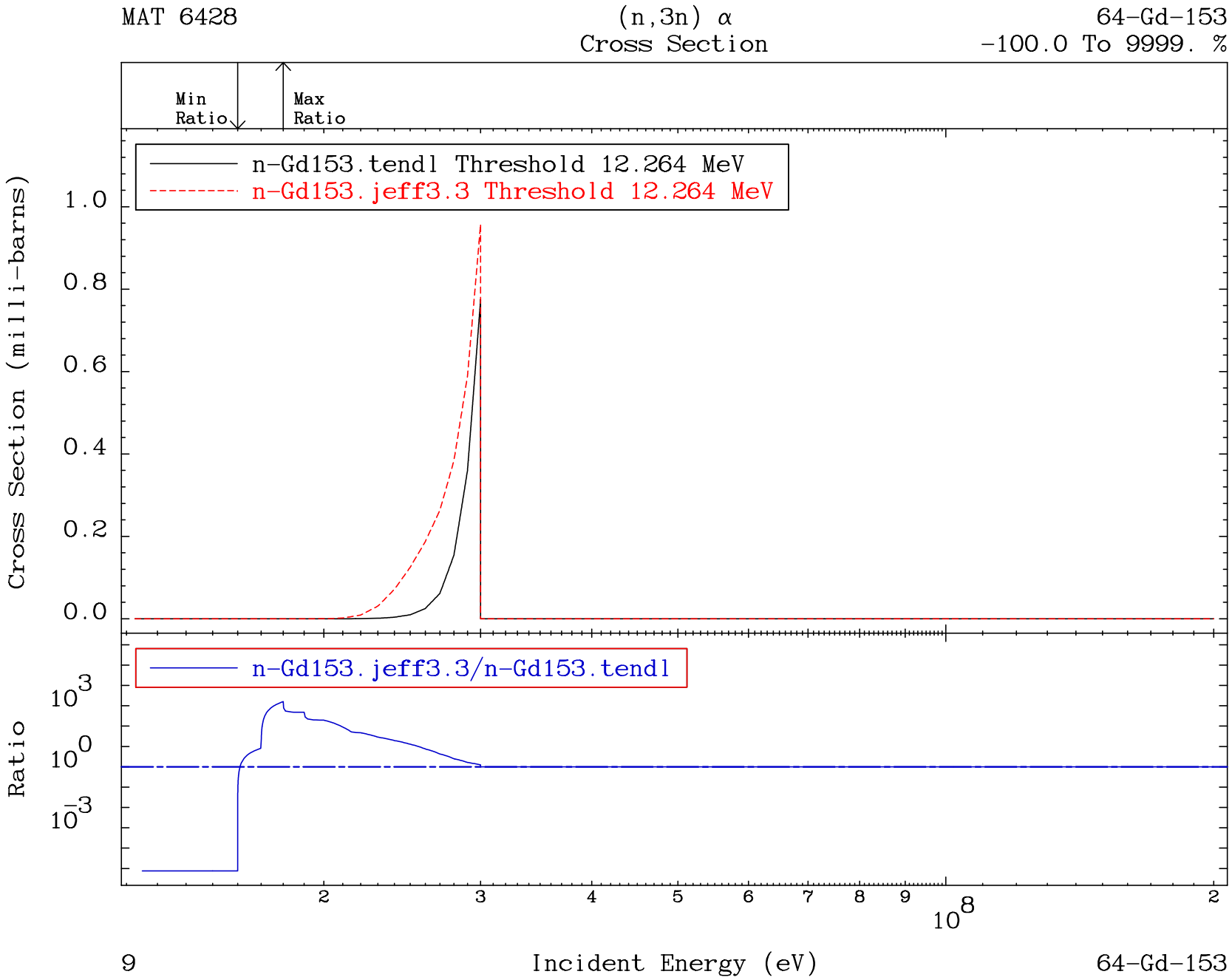

MAT 6428
(n,2n) d
Cross Section
64-Gd-153
-12.82 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 19.425 MeV
n-Gd153.jeff3.3 Threshold 19.425 MeV
Cross Section (micro-barns)
700
600
500
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
64-Gd-153

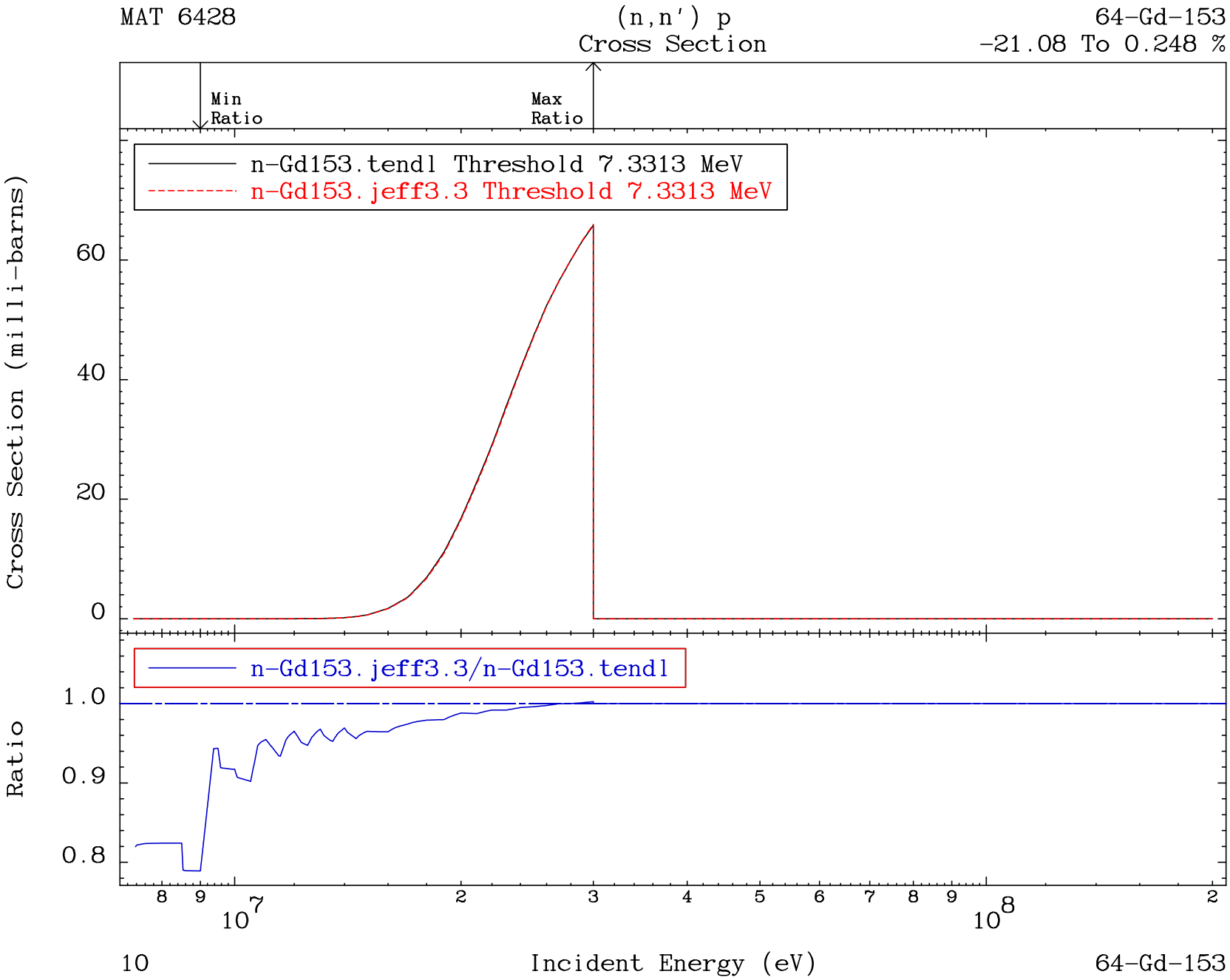

MAT 6428
(n,2n)
Cross Section
64-Gd-153
-13.87 To 4.312 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 6.2882 MeV
n-Gd153.jeff3.3 Threshold 6.2882 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.1
1.0
0.9
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
64-Gd-153

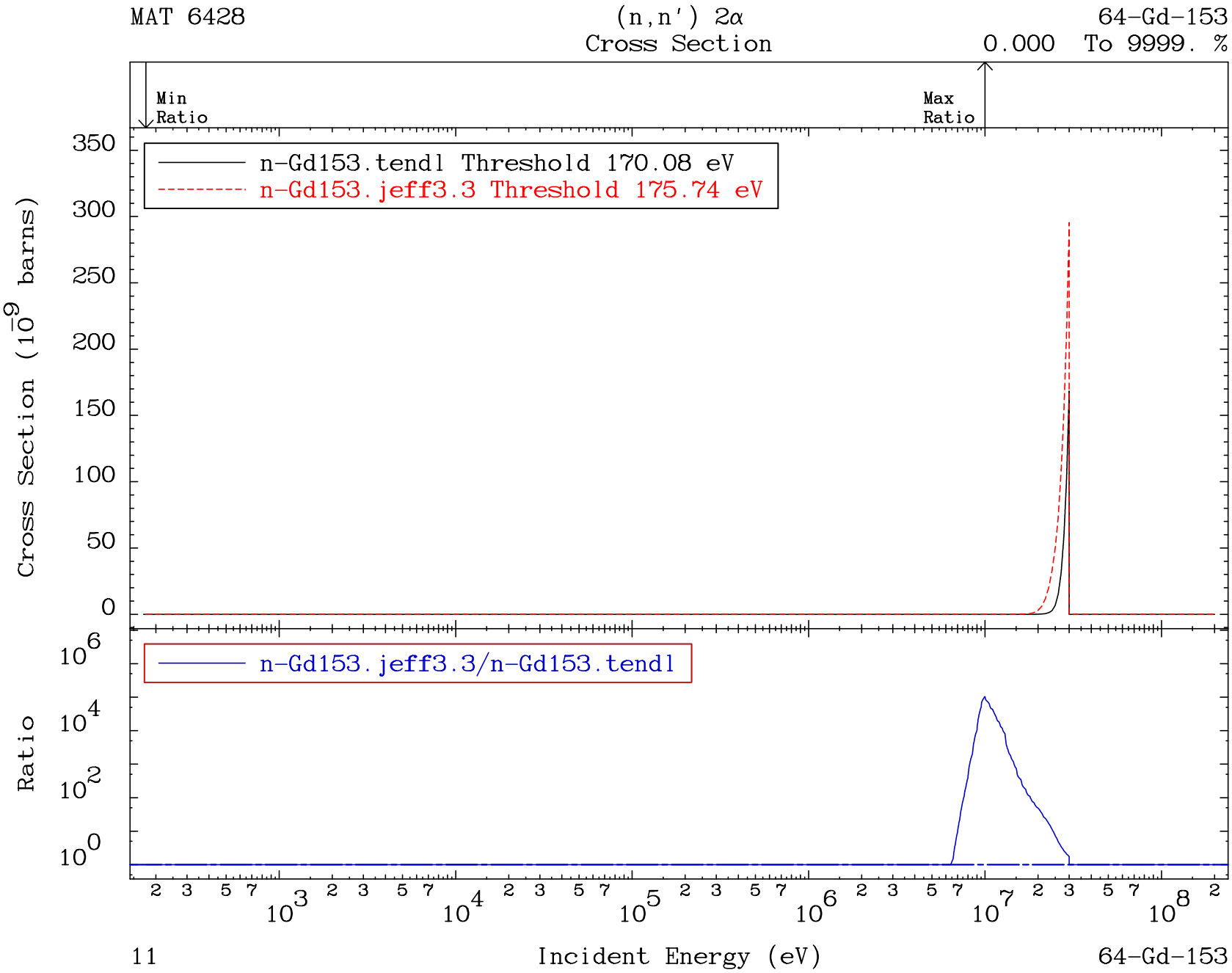

MAT 6428
(n,3n)
Cross Section
64-Gd-153
-11.89 To 3.484 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 14.934 MeV
n-Gd153.jeff3.3 Threshold 14.934 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.05
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
64-Gd-153

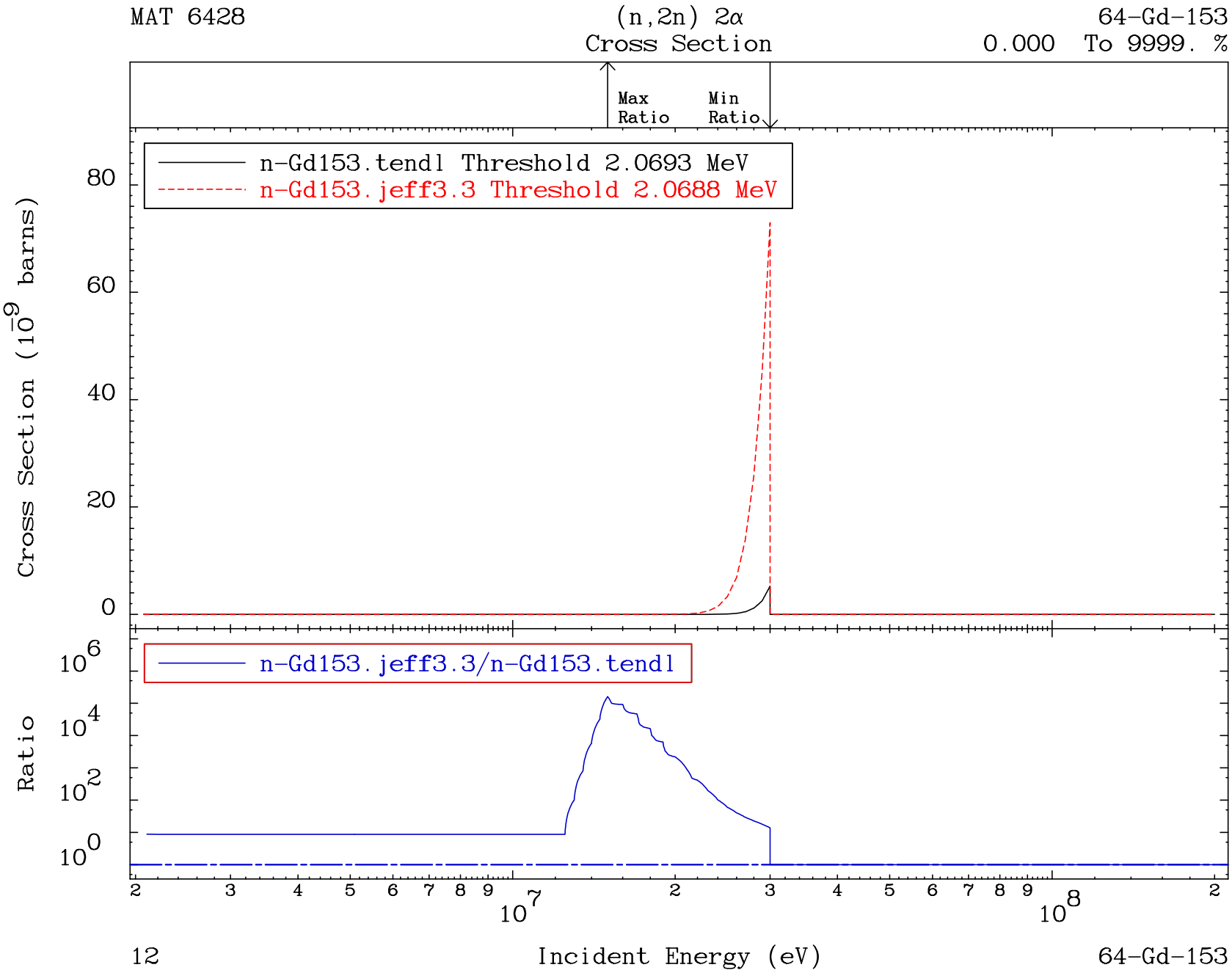

MAT 6428
(n,n') α
Cross Section
64-Gd-153
-14.76 To 9999. %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 170.08 eV
n-Gd153.jeff3.3 Threshold 175.74 eV
Cross Section (milli-barns)
0
5
10
15
20
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^0
10^3
10^6
10^9
2 3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
7
Incident Energy (eV)
64-Gd-153

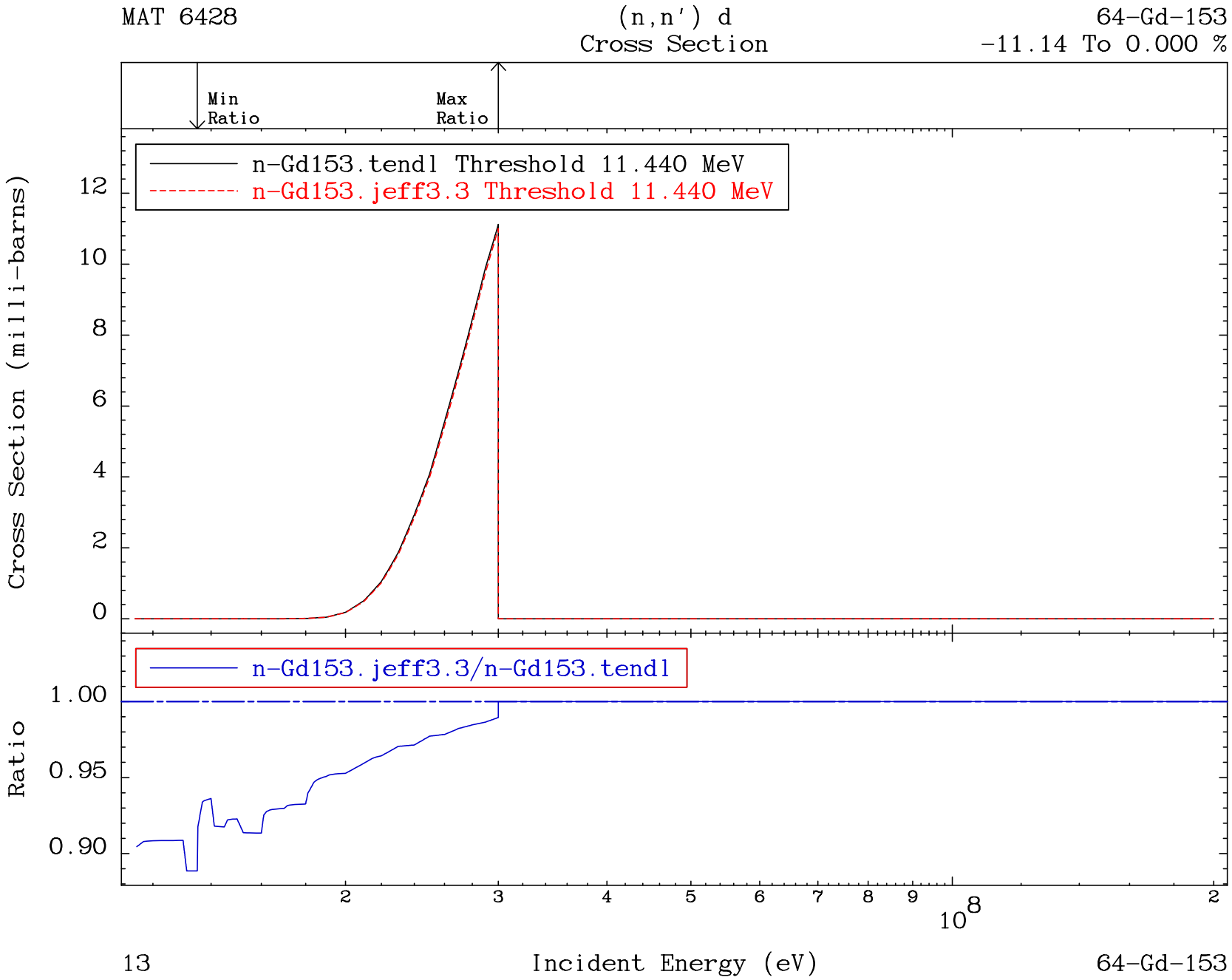

MAT 6428
(n,2n) α
Cross Section
64-Gd-153
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 4.0692 MeV
n-Gd153.jeff3.3 Threshold 4.0688 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^3
10^0
10^-3
10^-6
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
64-Gd-153

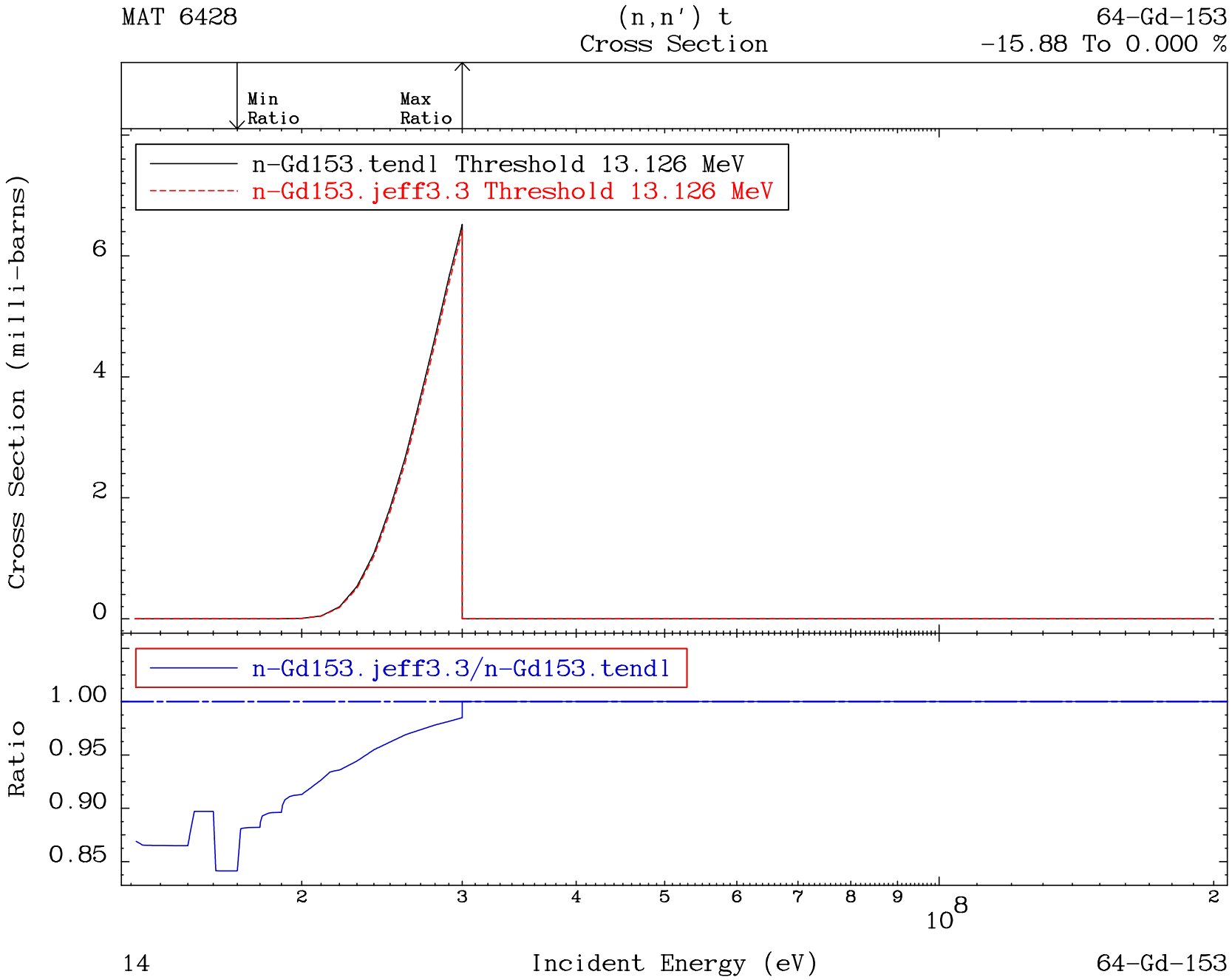

MAT 6428
(n,3n) α
Cross Section
64-Gd-153
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 12.264 MeV
n-Gd153.jeff3.3 Threshold 12.264 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^3
10^0
10^-3
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
64-Gd-153

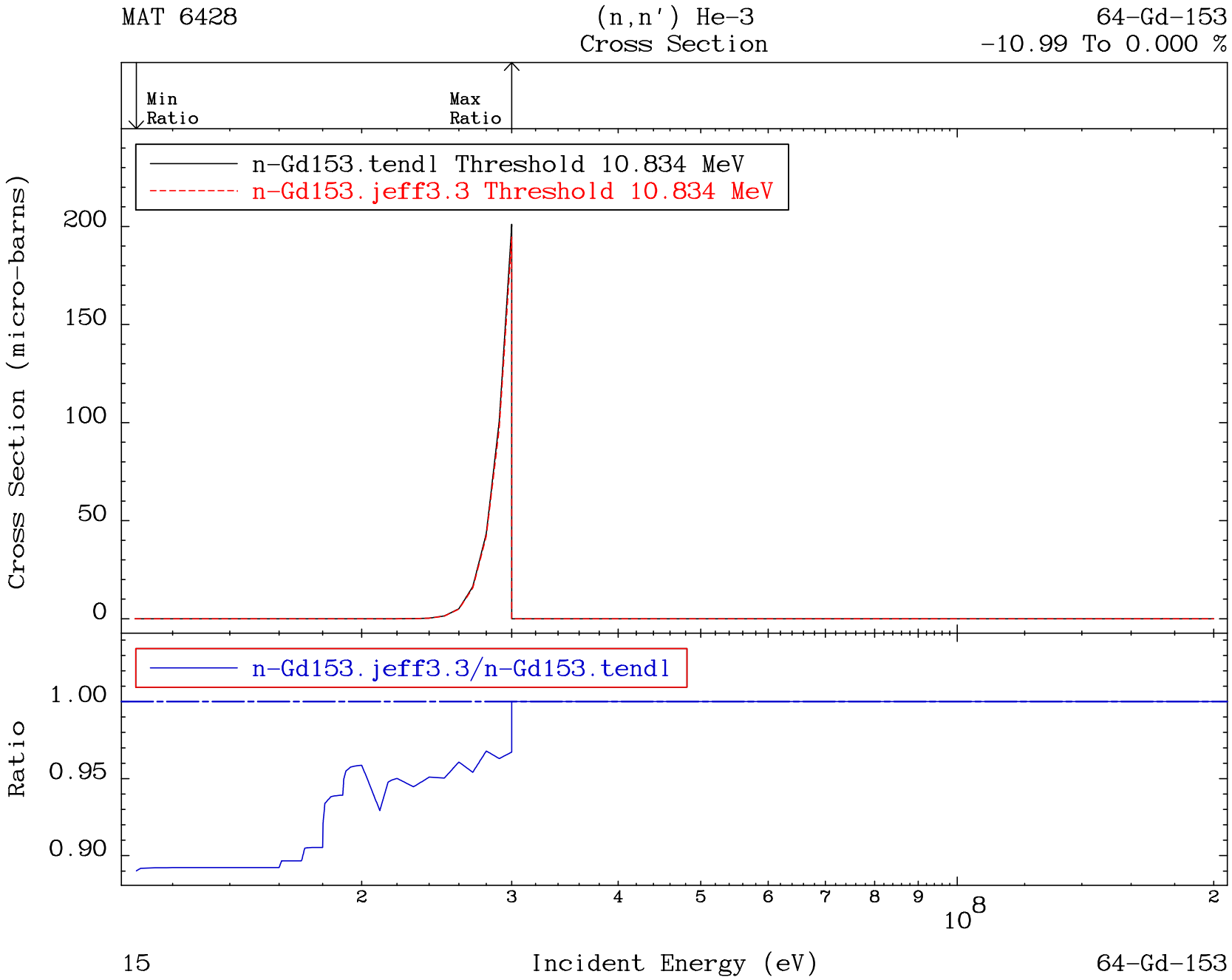

MAT 6428
(n,n') p
Cross Section
64-Gd-153
-21.08 To 0.248 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 7.3313 MeV
n-Gd153.jeff3.3 Threshold 7.3313 MeV
Cross Section (milli-barns)
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.0
0.9
0.8
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
64-Gd-153

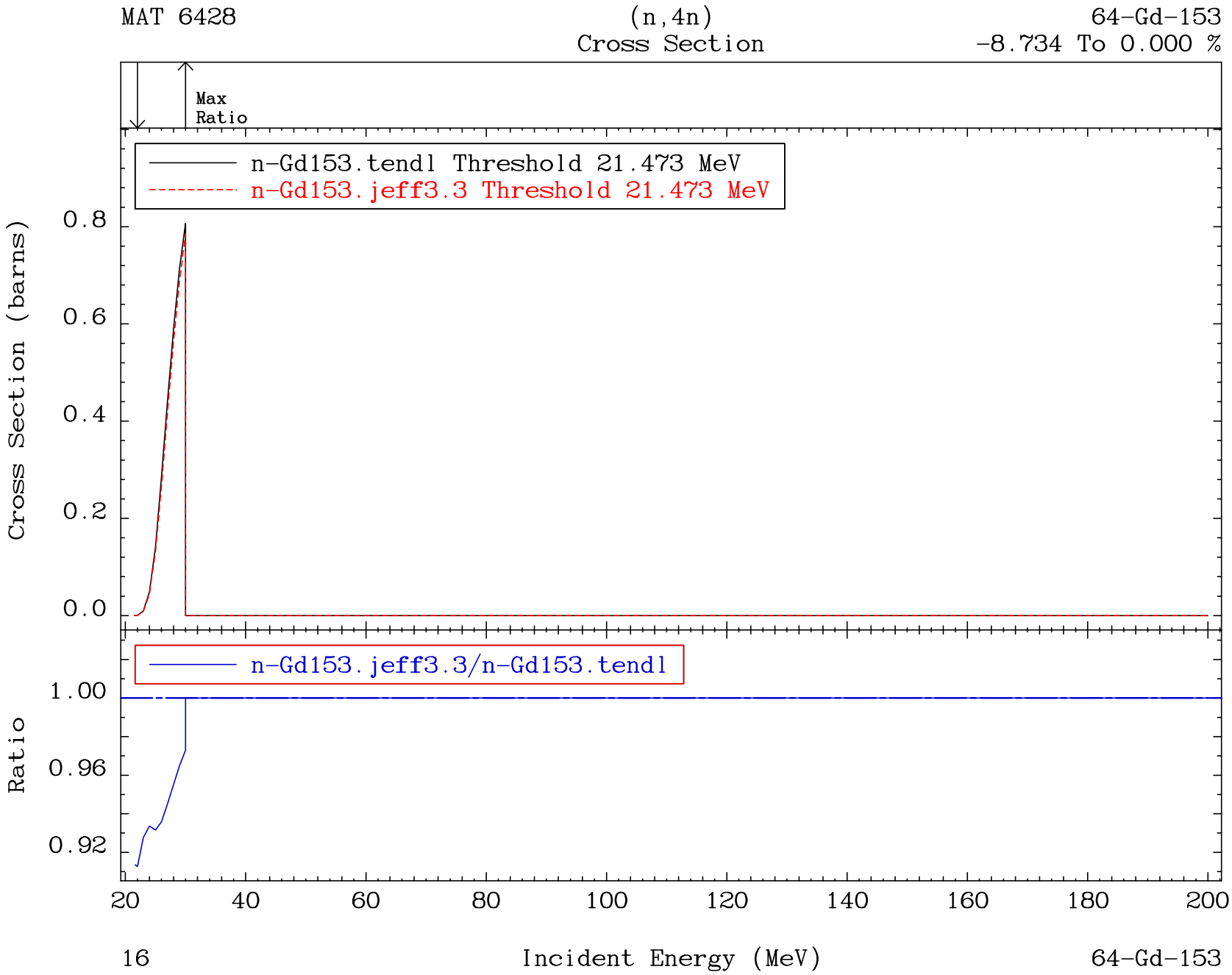

MAT 6428
(n,n') 2α
Cross Section
64-Gd-153
0.000 To 9999. %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 170.08 eV
n-Gd153.jeff3.3 Threshold 175.74 eV
Cross Section (10^-9 barns)
350
300
250
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
11
Incident Energy (eV)
64-Gd-153

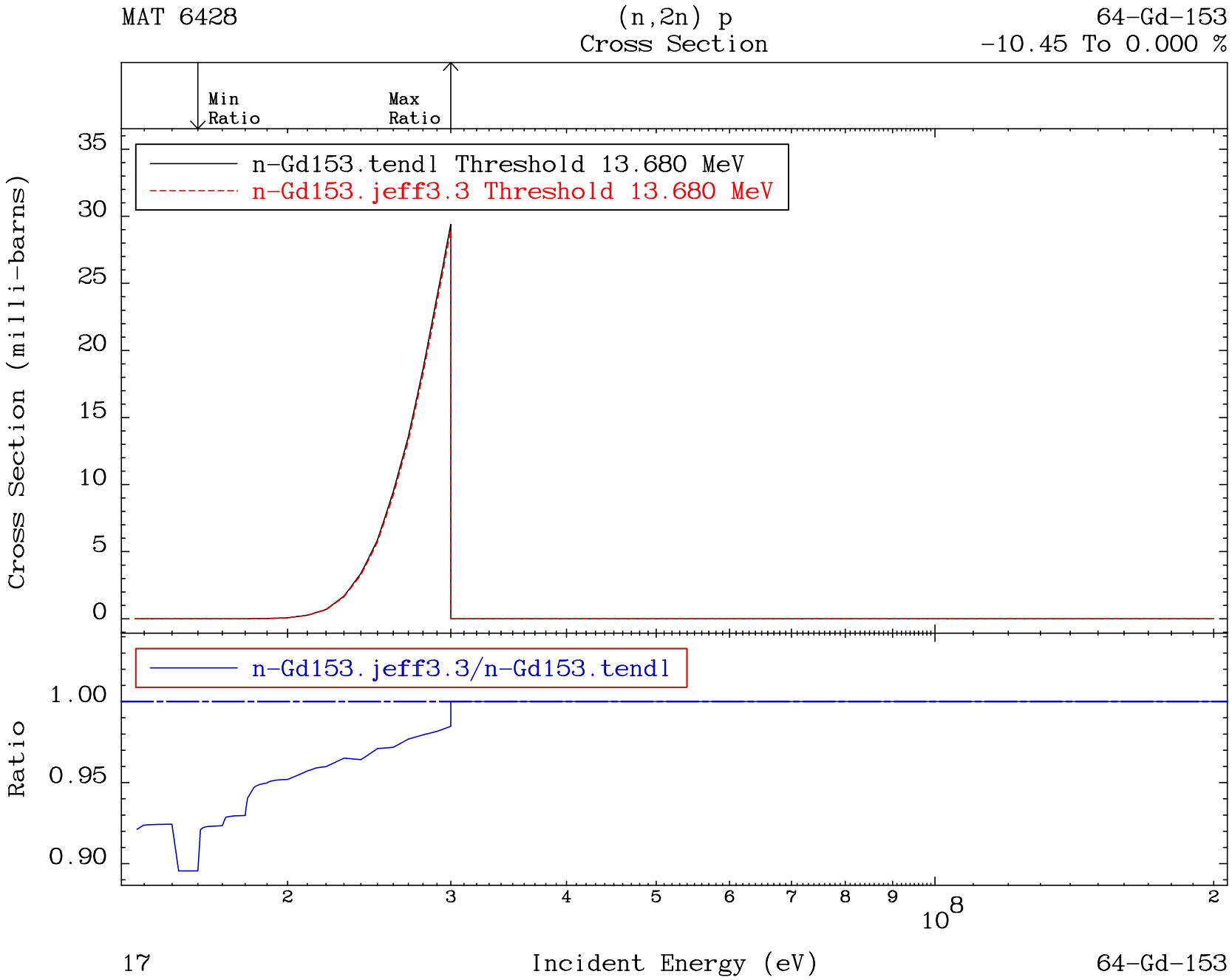

MAT 6428
(n,2n) 2α
Cross Section
64-Gd-153
0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 2.0693 MeV
n-Gd153.jeff3.3 Threshold 2.0688 MeV
Cross Section (10^-9 barns)
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
12
Incident Energy (eV)
64-Gd-153

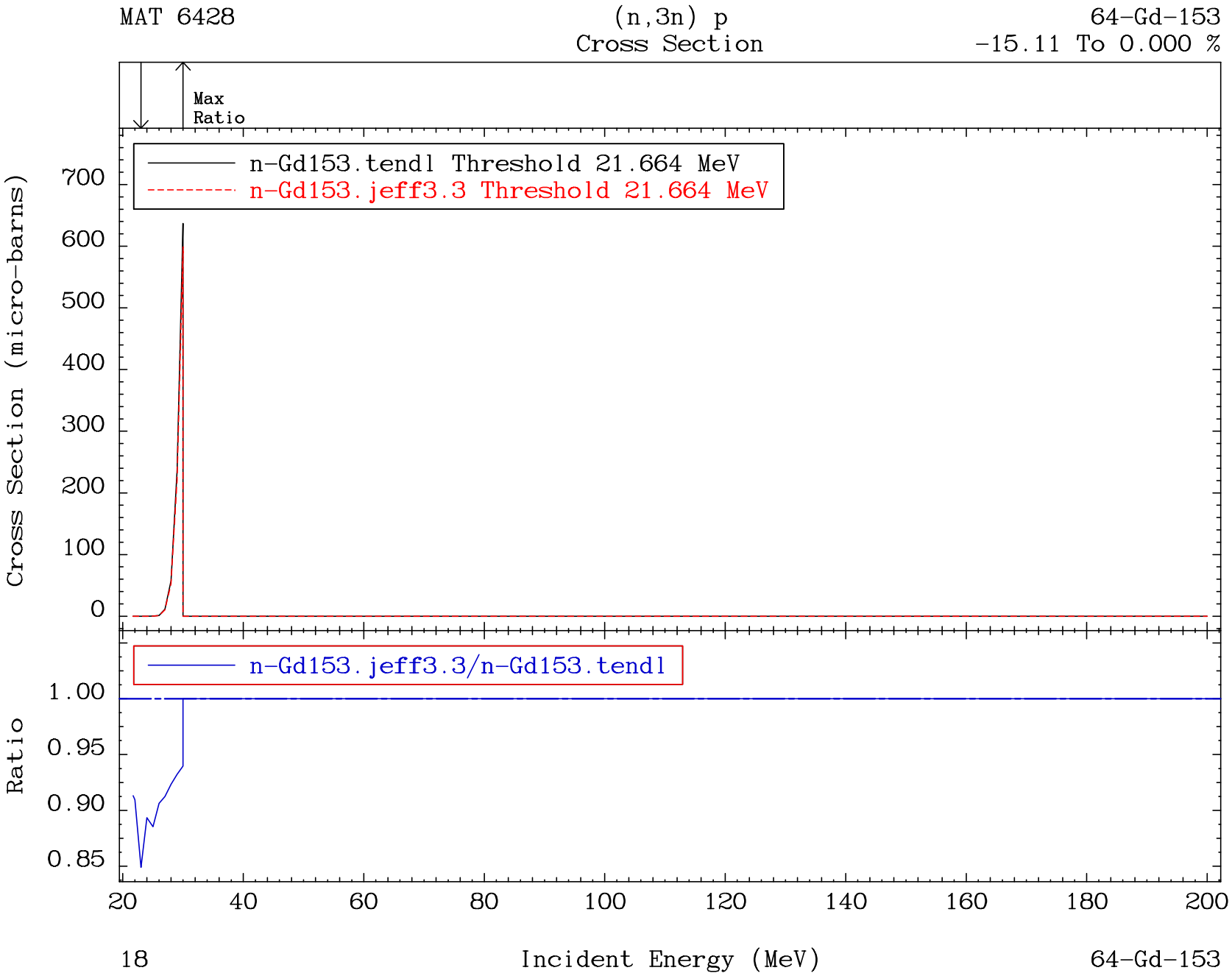

MAT 6428
(n,n') d
Cross Section
64-Gd-153
-11.14 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 11.440 MeV
n-Gd153.jeff3.3 Threshold 11.440 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
0.90
0.95
1.00
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
64-Gd-153

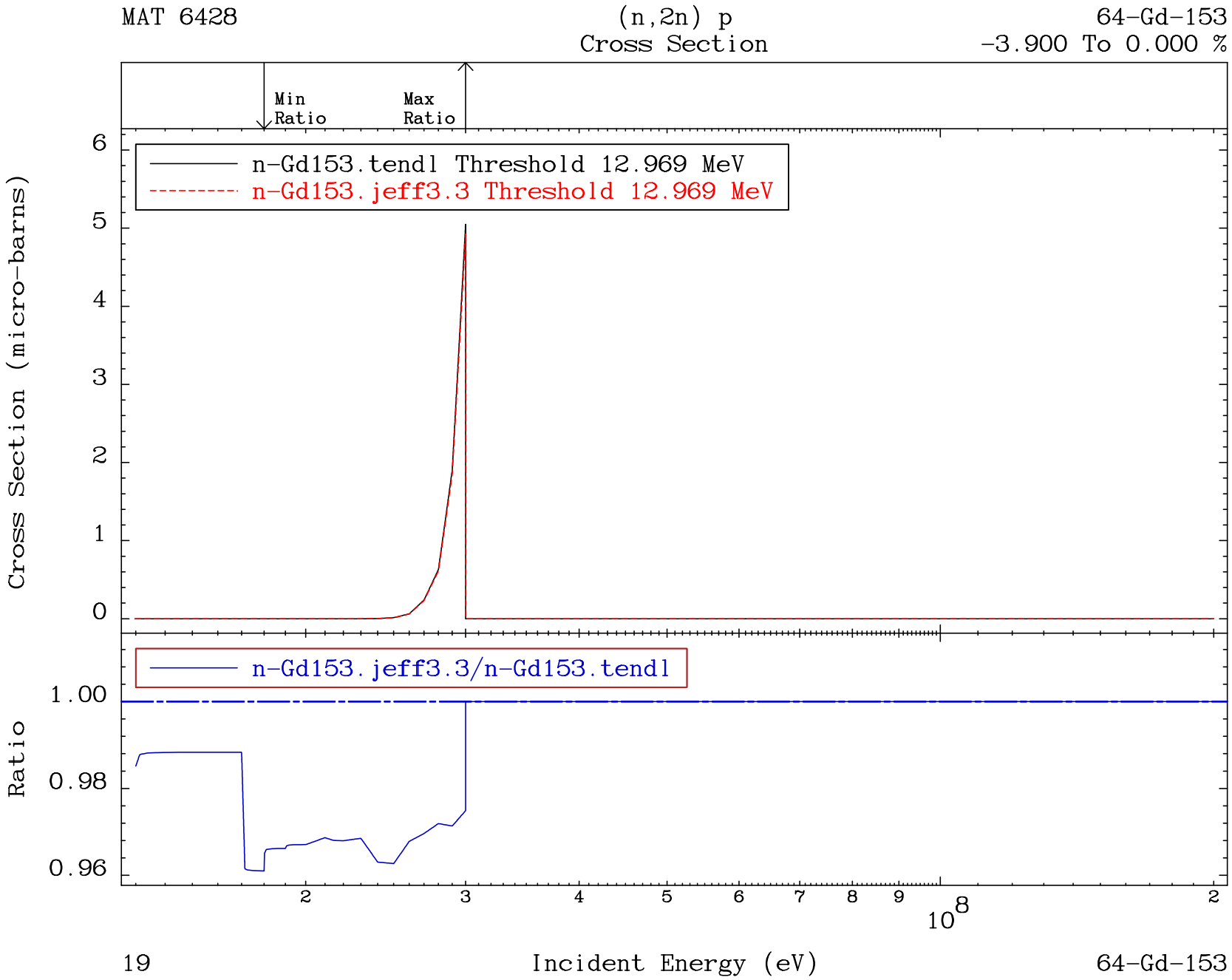

MAT 6428
(n,n') t
Cross Section
64-Gd-153
-15.88 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 13.126 MeV
n-Gd153.jeff3.3 Threshold 13.126 MeV
Cross Section (milli-barns)
0
2
4
6
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
0.85
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
64-Gd-153

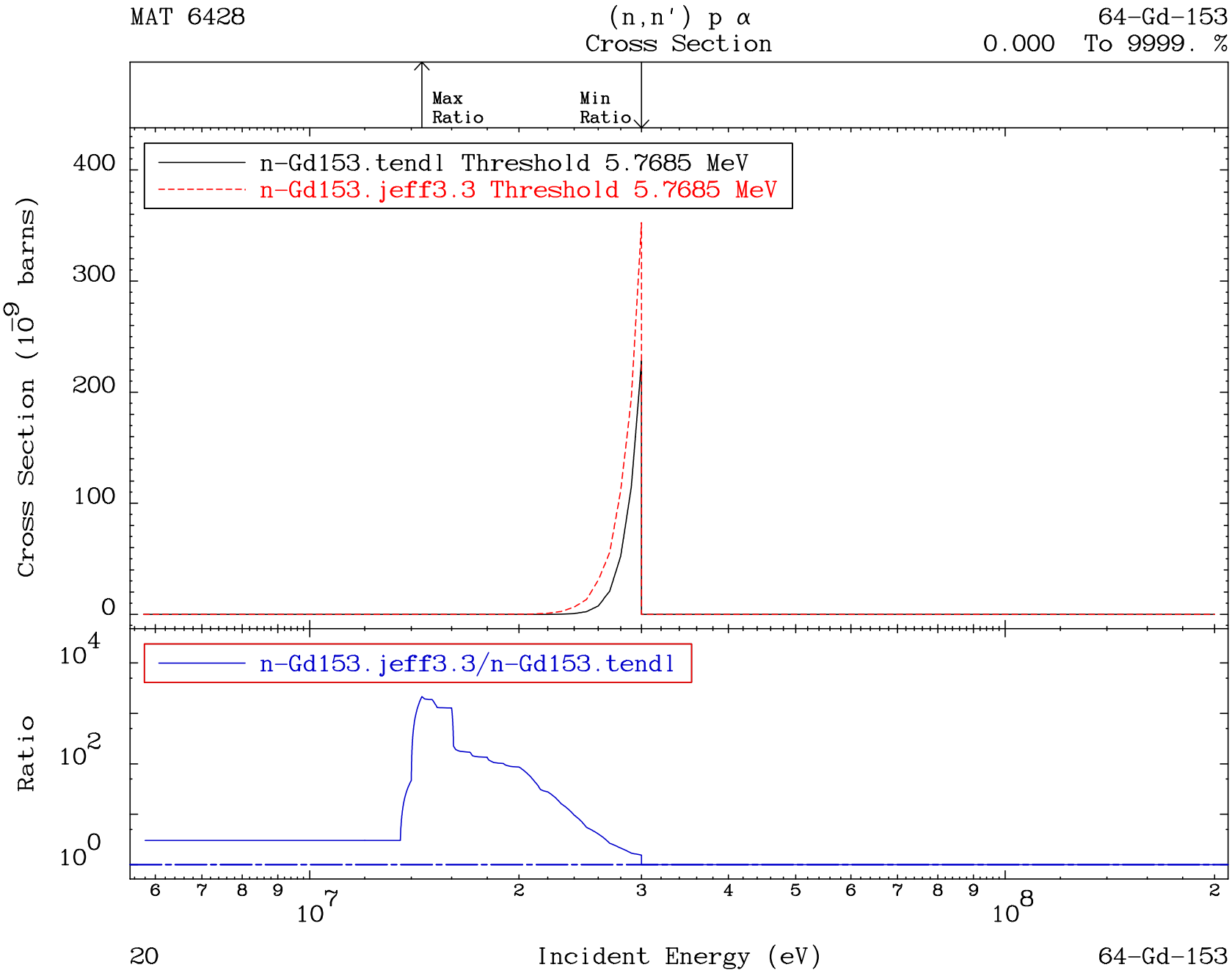

MAT 6428
(n,n') He-3
Cross Section
64-Gd-153
-10.99 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 10.834 MeV
n-Gd153.jeff3.3 Threshold 10.834 MeV
Cross Section (micro-barns)
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
64-Gd-153

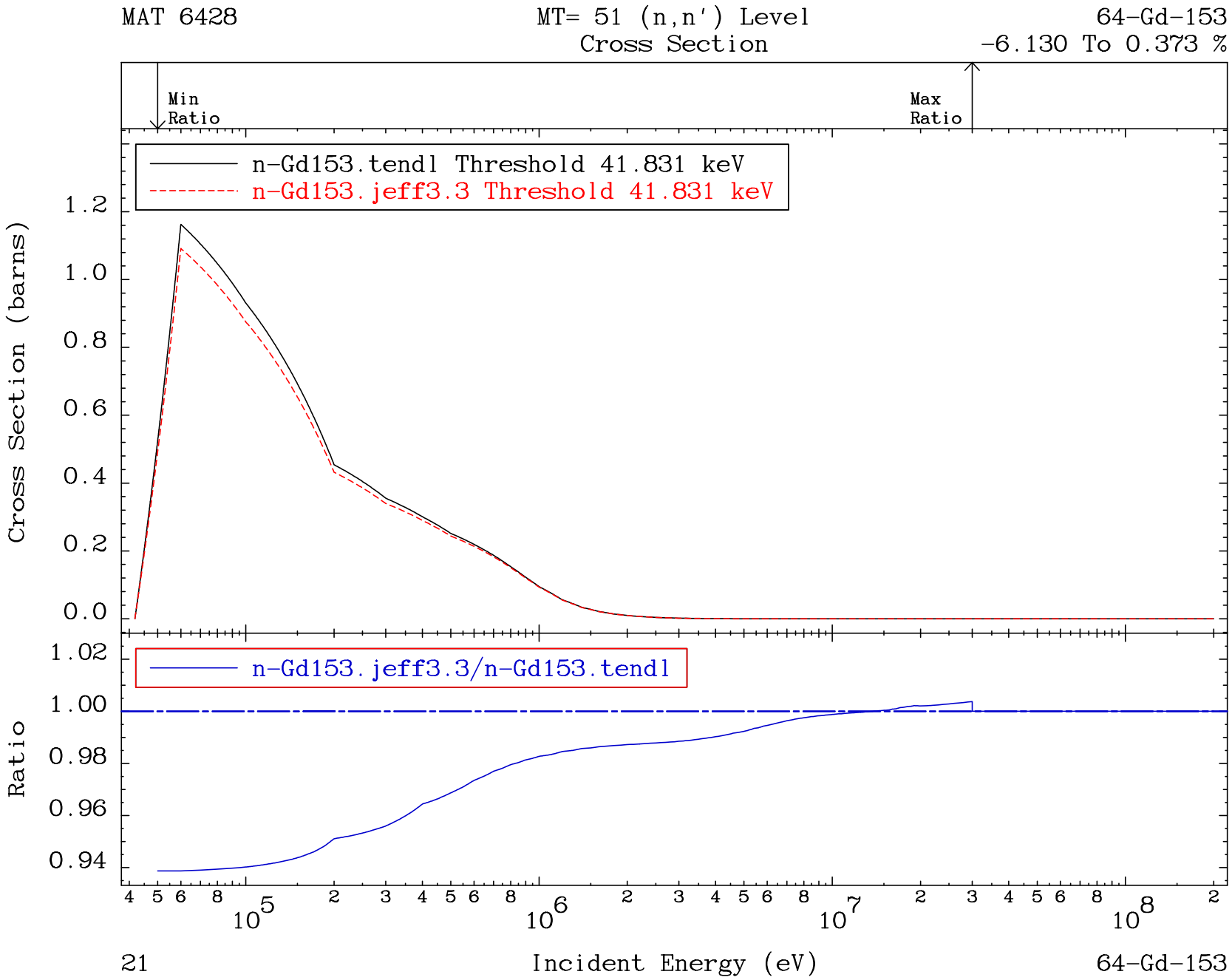

MAT 6428
(n,4n)
Cross Section
64-Gd-153
-8.734 To 0.000 %
Max
Ratio
n-Gd153.tendl Threshold 21.473 MeV
n-Gd153.jeff3.3 Threshold 21.473 MeV
Cross Section (barns)
0.8
0.6
0.4
0.2
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.96
0.92
20
40
60
80
100
120
140
160
180
200
16
Incident Energy (MeV)
64-Gd-153

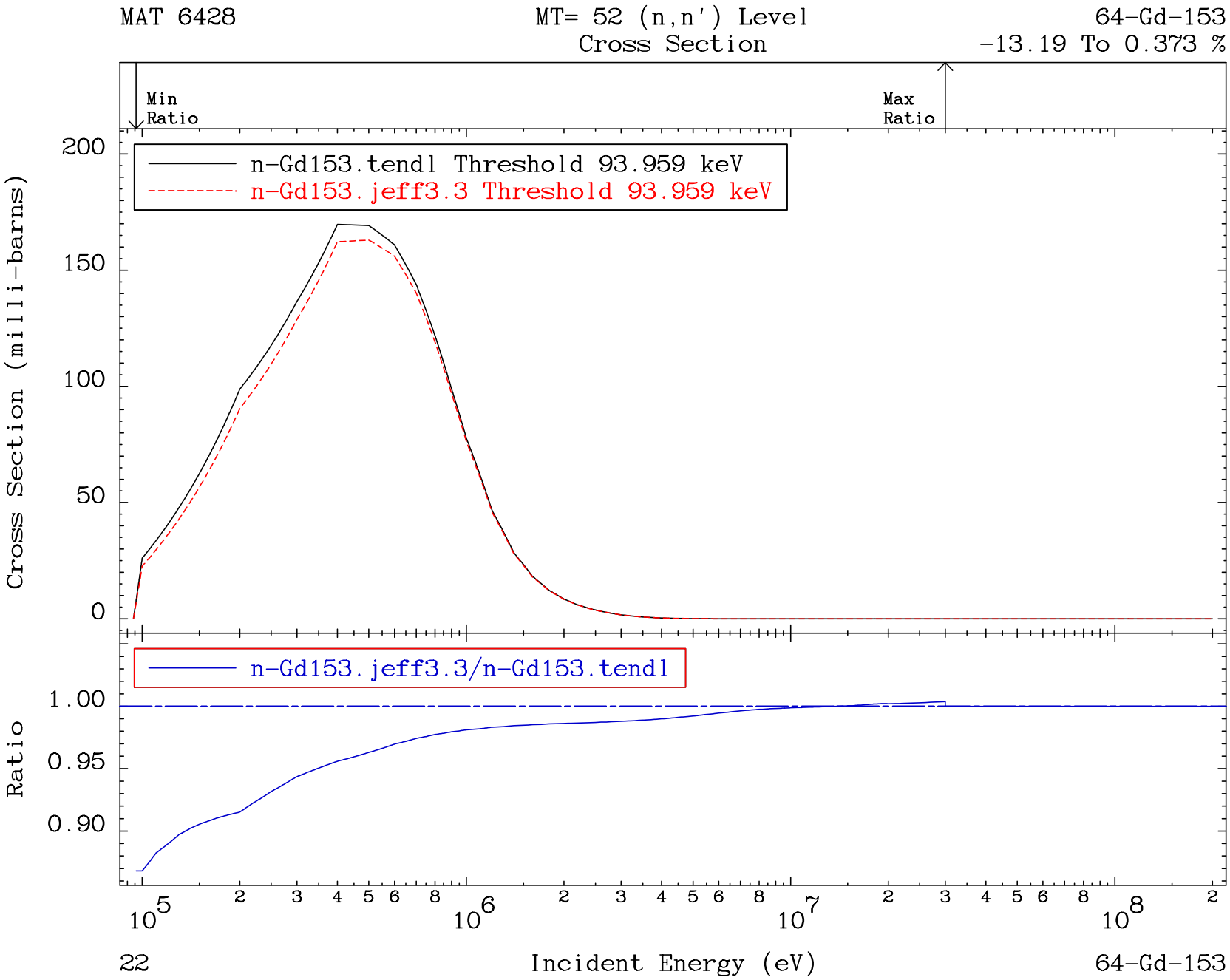

MAT 6428
(n,2n) p
Cross Section
64-Gd-153
-10.45 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 13.680 MeV
n-Gd153.jeff3.3 Threshold 13.680 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
17
Incident Energy (eV)
64-Gd-153

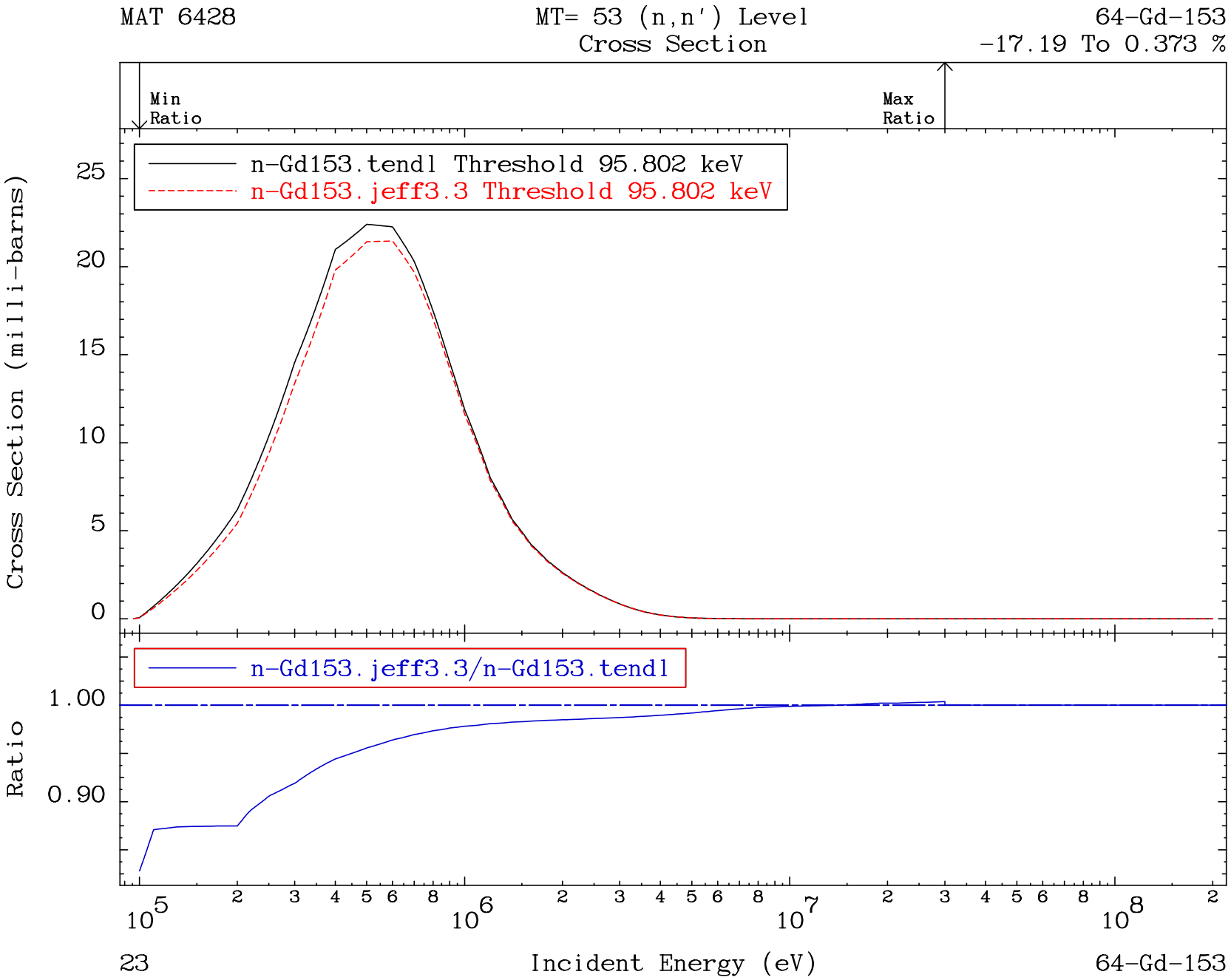

MAT 6428
(n,3n) p
Cross Section
64-Gd-153
-15.11 To 0.000 %
Max
Ratio
n-Gd153.tendl Threshold 21.664 MeV
n-Gd153.jeff3.3 Threshold 21.664 MeV
Cross Section (micro-barns)
700
600
500
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
0.85
20
40
60
80
100
120
140
160
180
200
18
Incident Energy (MeV)
64-Gd-153

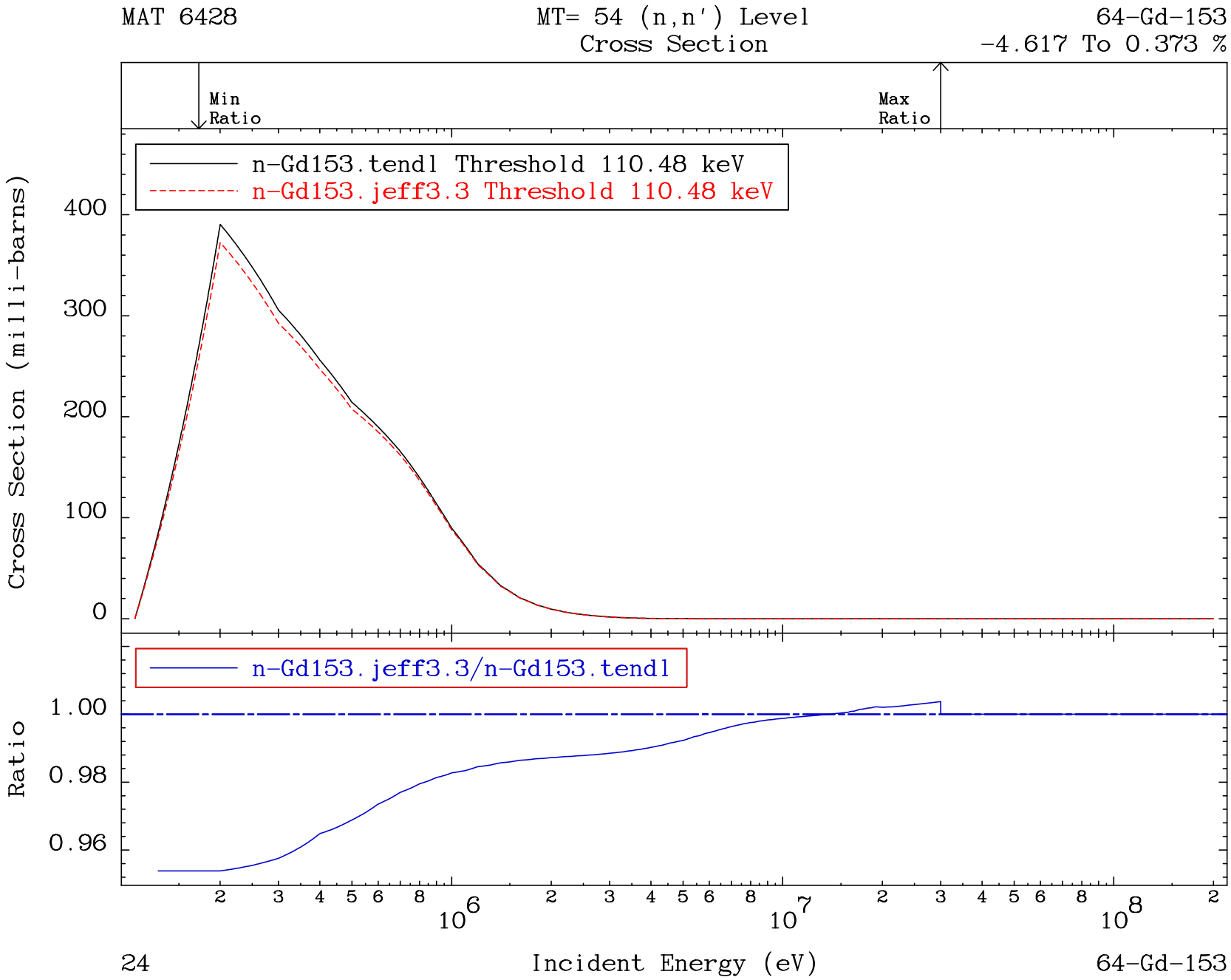

MAT 6428
(n,2n) p
Cross Section
64-Gd-153
-3.900 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 12.969 MeV
n-Gd153.jeff3.3 Threshold 12.969 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
2
3
4
5
6
7
8
9
10^8
2
19
Incident Energy (eV)
64-Gd-153

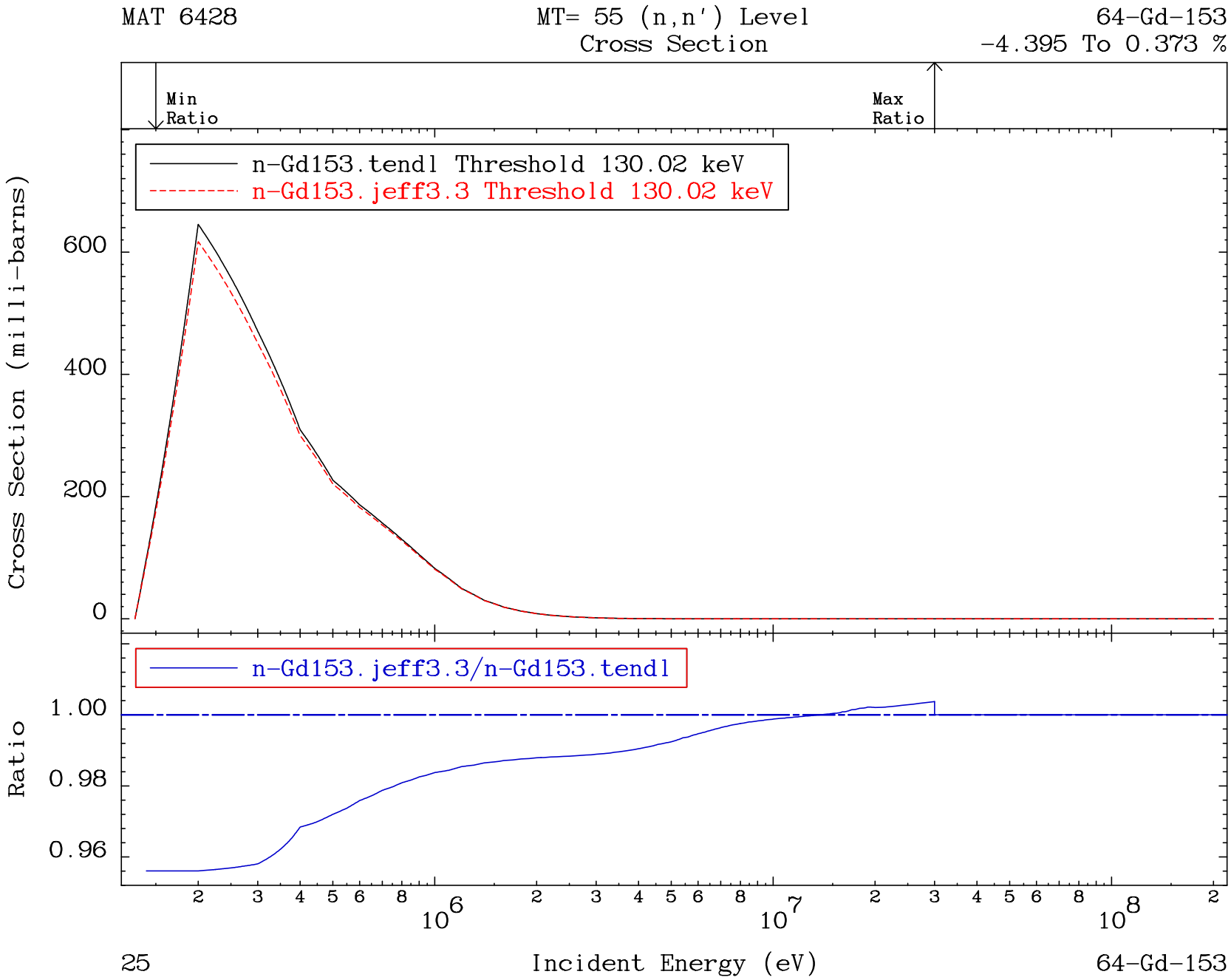

MAT 6428
(n,n') p α
Cross Section
64-Gd-153
0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 5.7685 MeV
n-Gd153.jeff3.3 Threshold 5.7685 MeV
Cross Section (10^{-9} barns)
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^4
10^2
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
64-Gd-153

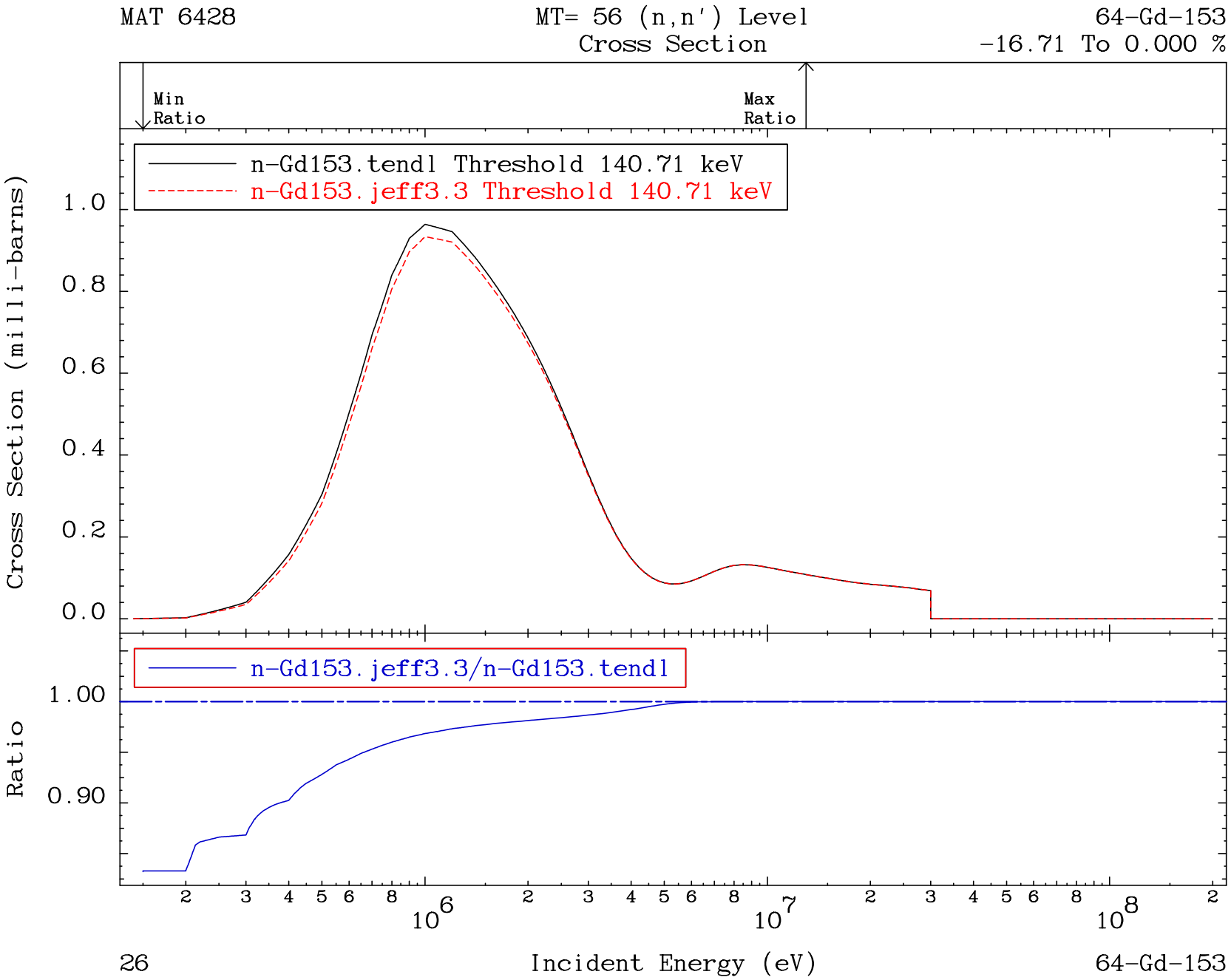

MAT 6428
MT= 51 (n,n') Level
Cross Section
64-Gd-153
-6.130 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 41.831 keV
n-Gd153.jeff3.3 Threshold 41.831 keV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.02
1.00
0.98
0.96
0.94
4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
21
Incident Energy (eV)
64-Gd-153

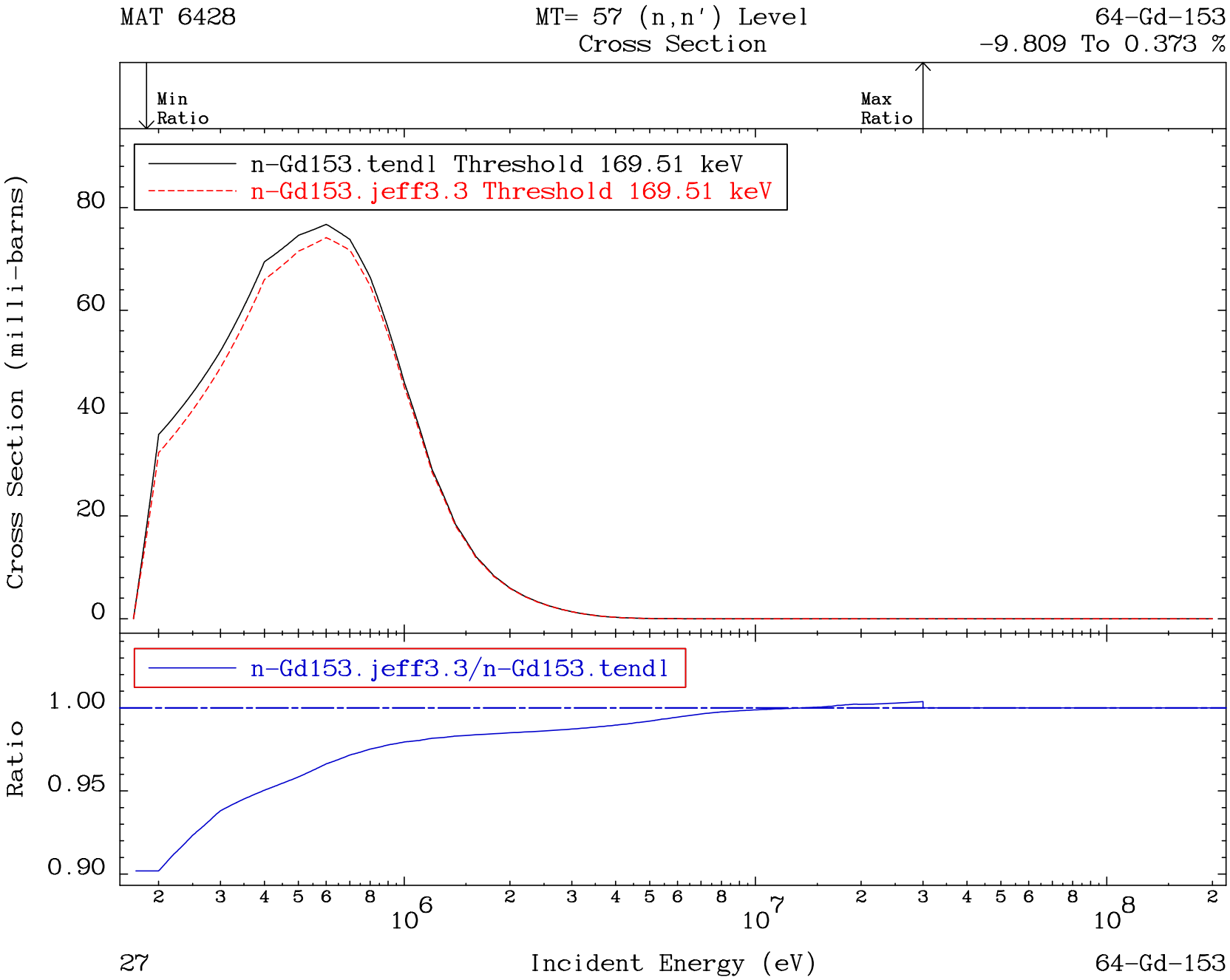

MAT 6428
MT= 52 (n,n') Level
Cross Section
64-Gd-153
-13.19 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 93.959 keV
n-Gd153.jeff3.3 Threshold 93.959 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
10^5
10^6
10^7
10^8
22
Incident Energy (eV)
64-Gd-153

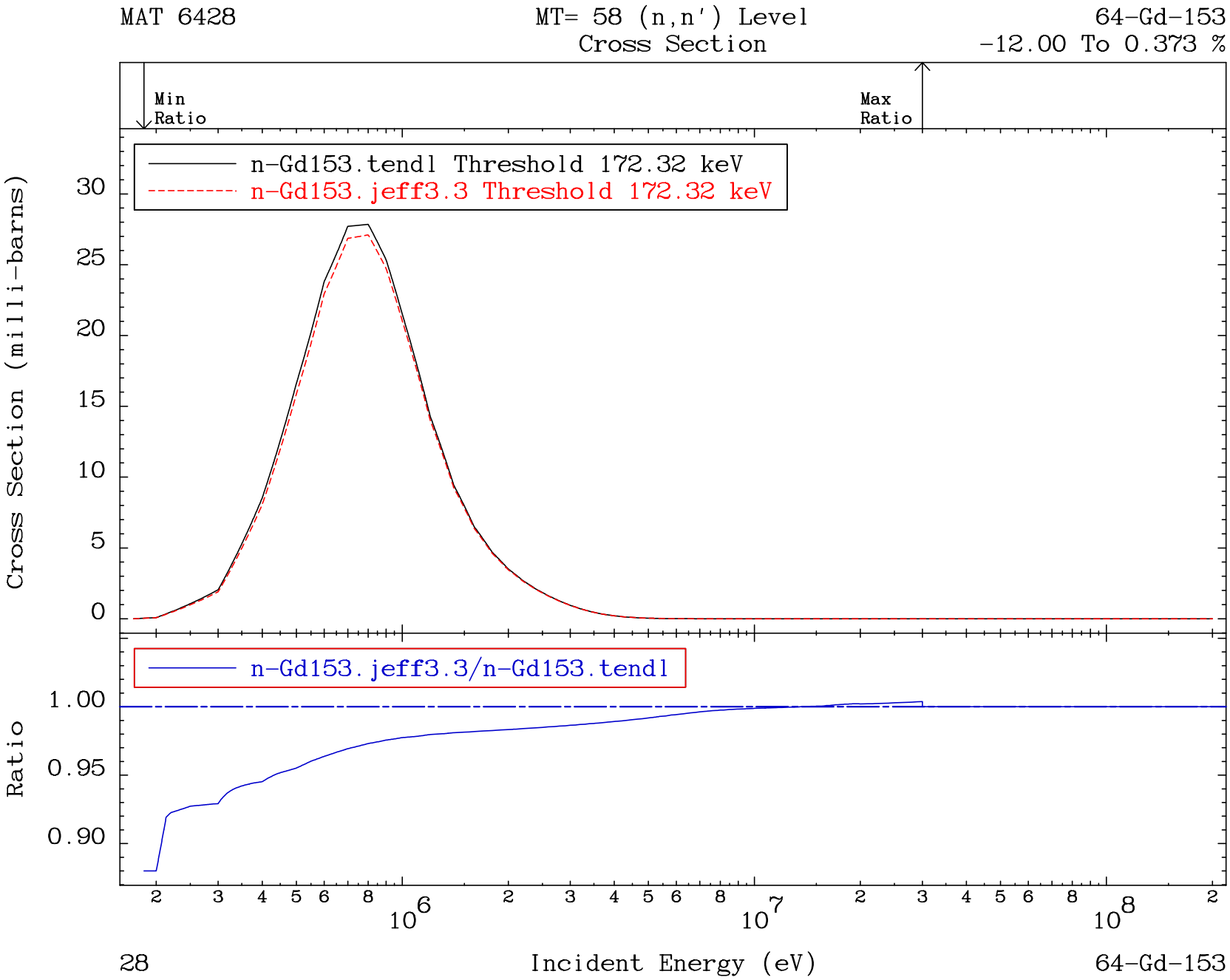

MAT 6428
MT= 53 (n,n') Level
Cross Section
64-Gd-153
-17.19 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 95.802 keV
n-Gd153.jeff3.3 Threshold 95.802 keV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.90
10^5
2 3 4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
23
Incident Energy (eV)
64-Gd-153

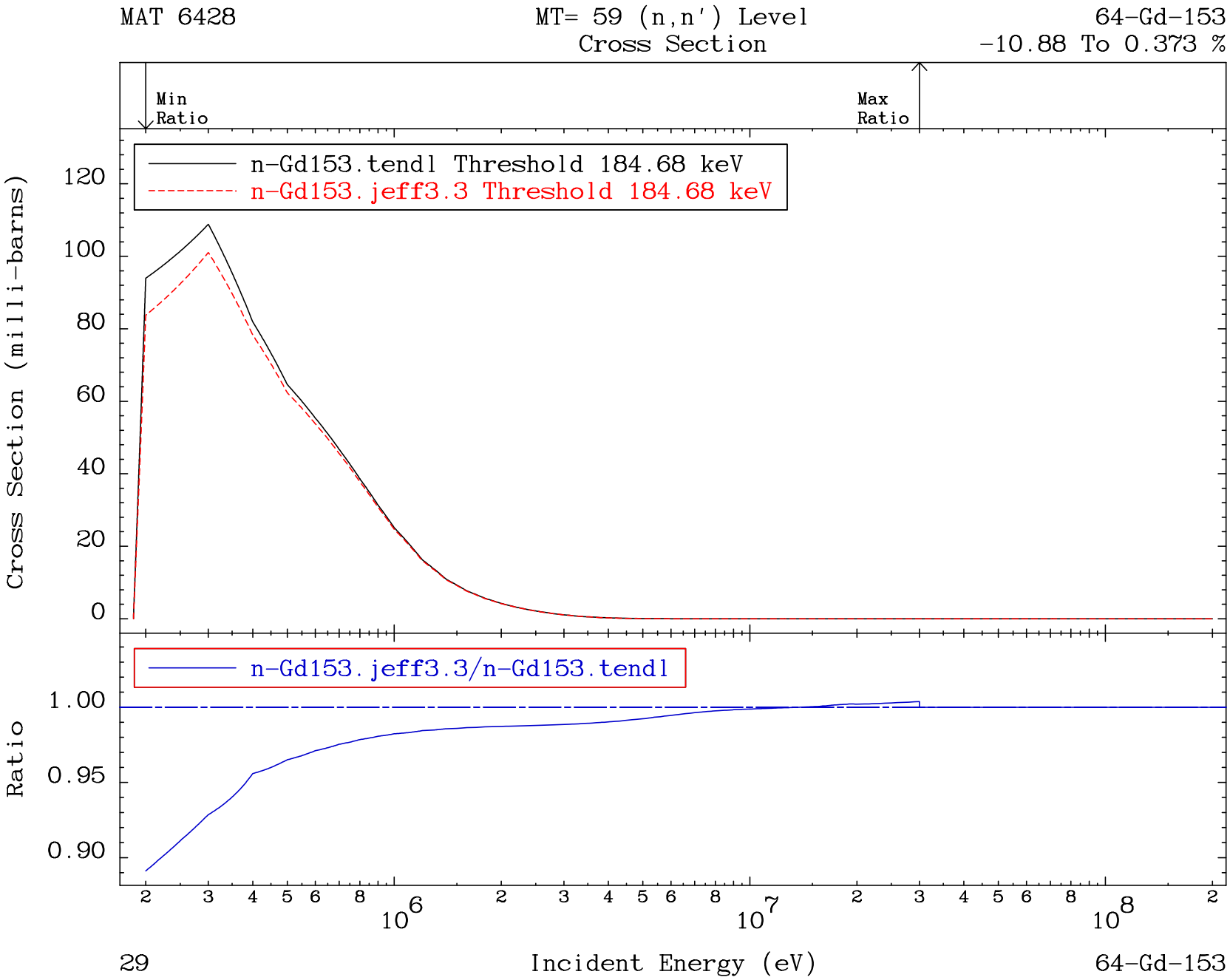

MAT 6428
MT= 54 (n,n') Level
Cross Section
64-Gd-153
-4.617 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 110.48 keV
n-Gd153.jeff3.3 Threshold 110.48 keV
Cross Section (milli-barns)
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
2 3 4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
24
Incident Energy (eV)
64-Gd-153

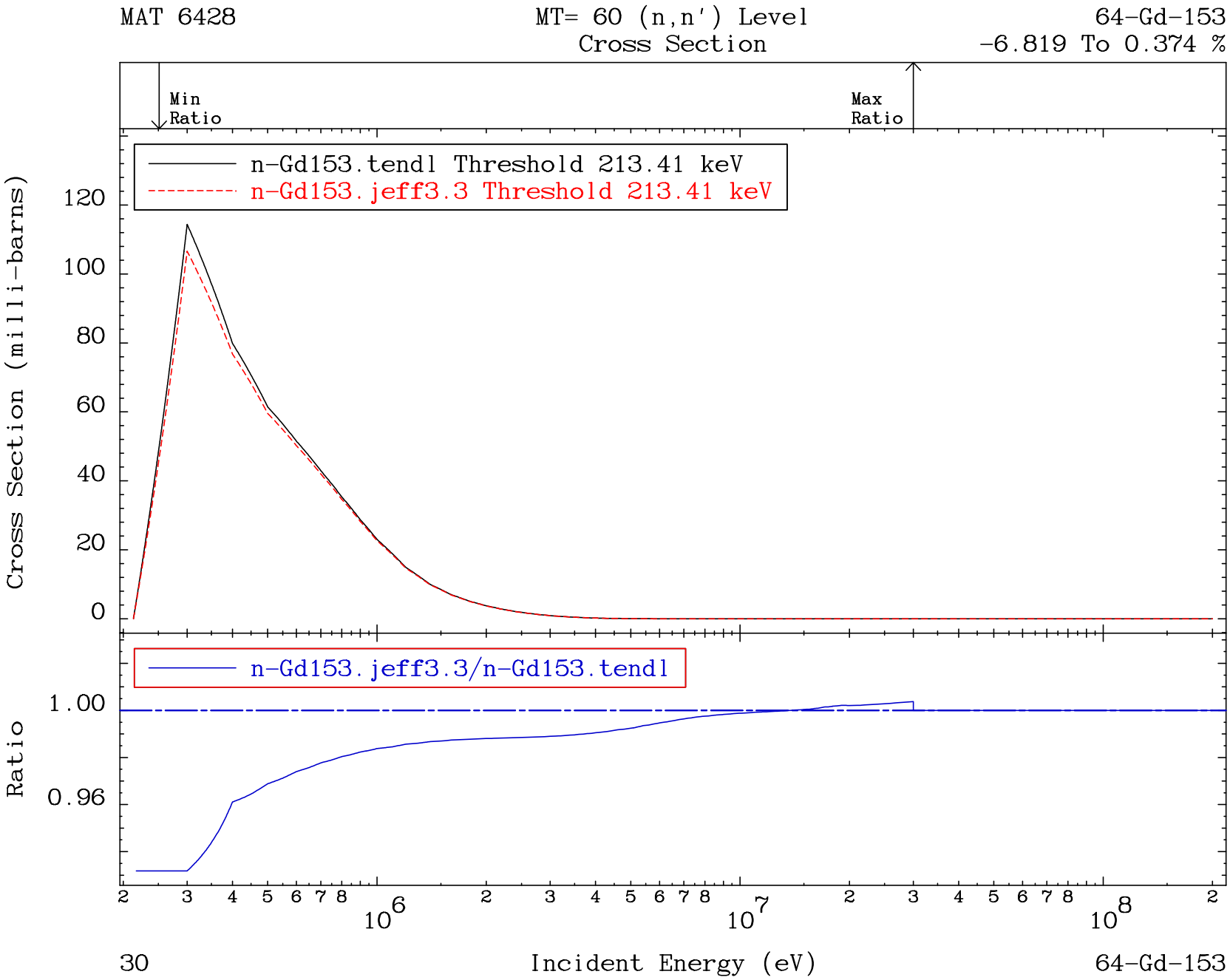

MAT 6428
MT= 55 (n,n') Level
Cross Section
64-Gd-153
-4.395 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 130.02 keV
n-Gd153.jeff3.3 Threshold 130.02 keV
Cross Section (milli-barns)
600
400
200
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
25
Incident Energy (eV)
64-Gd-153

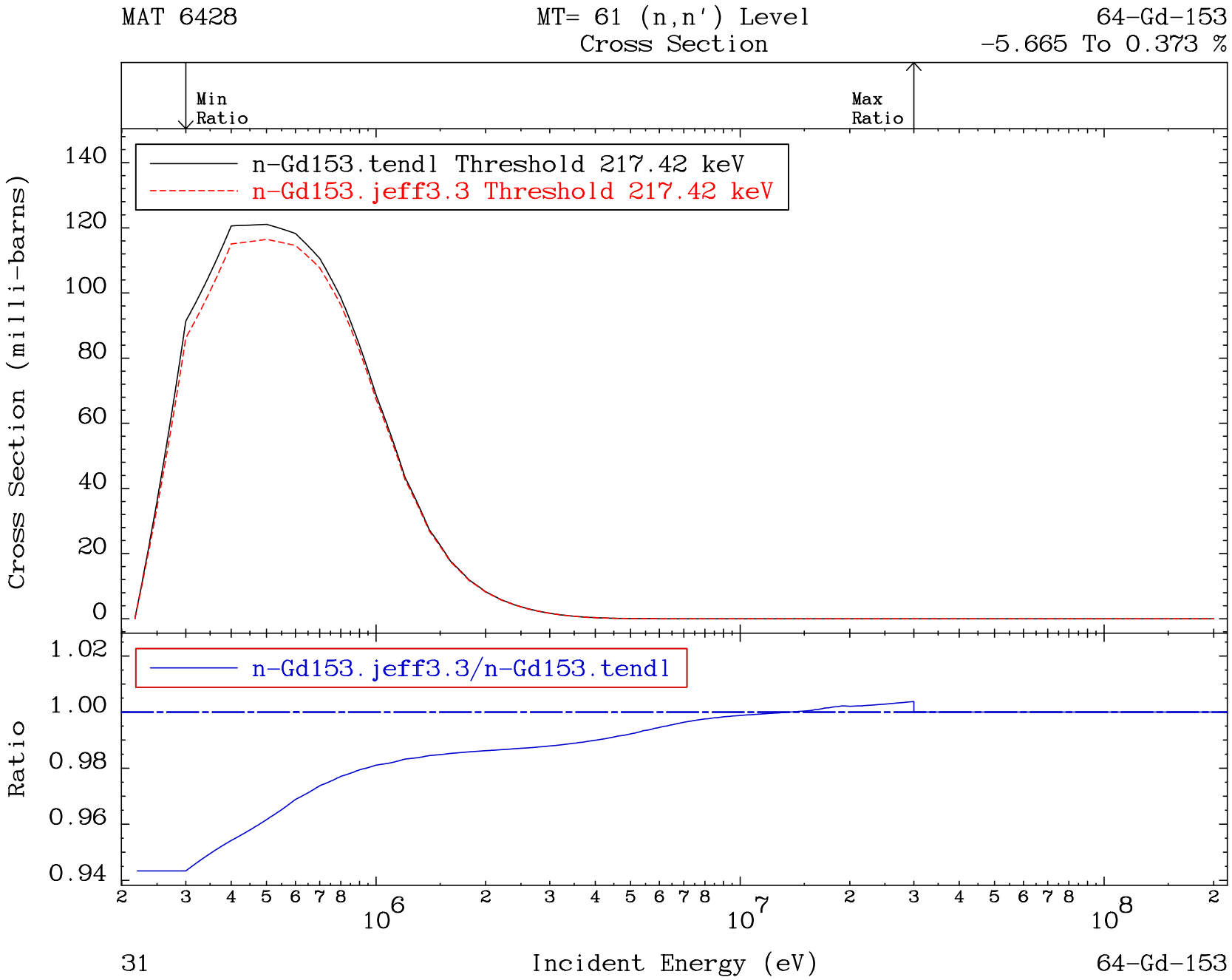

MAT 6428
MT= 56 (n,n') Level
Cross Section
64-Gd-153
-16.71 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 140.71 keV
n-Gd153.jeff3.3 Threshold 140.71 keV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.90
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
26
Incident Energy (eV)
64-Gd-153

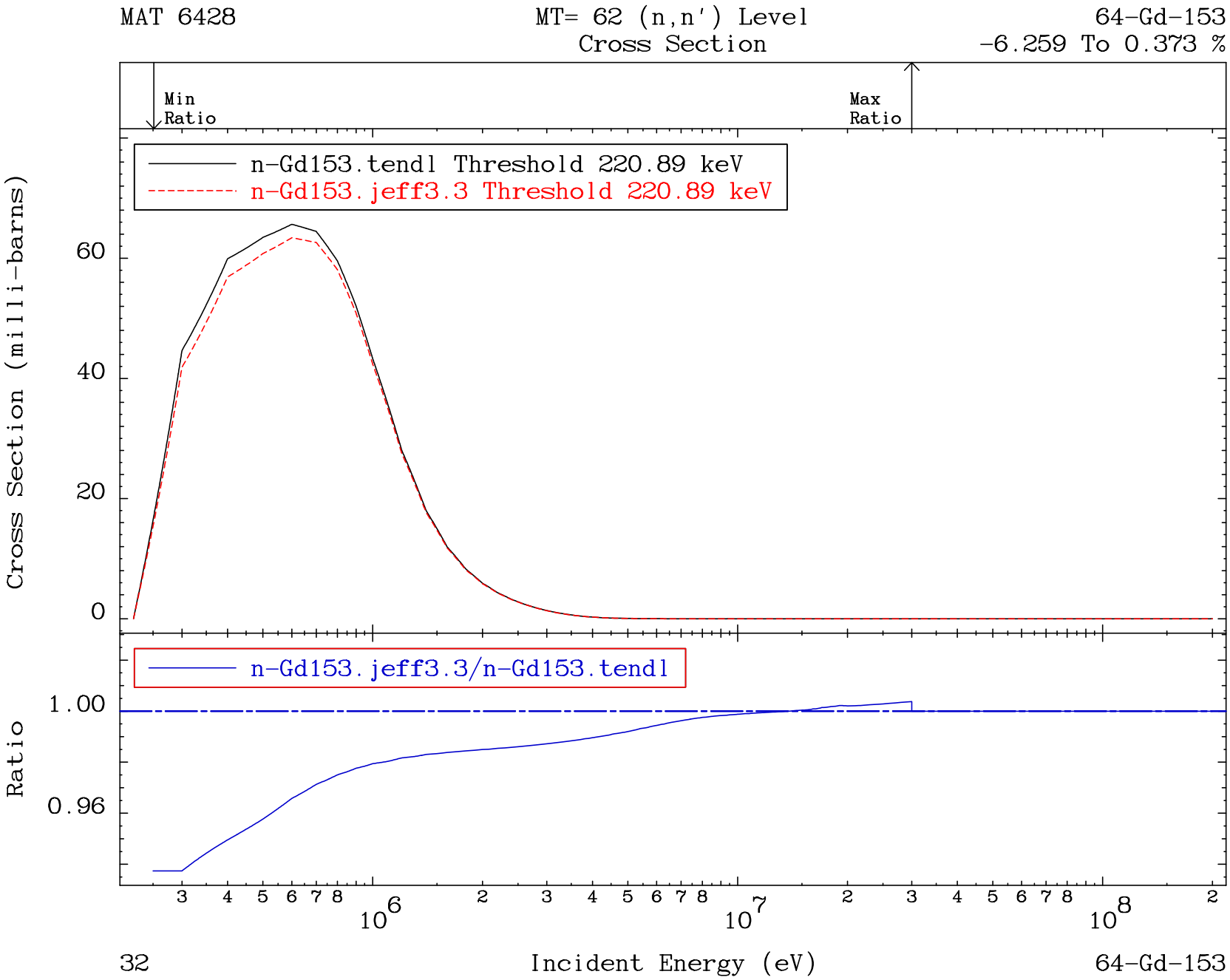

MAT 6428
MT= 57 (n,n') Level
Cross Section
64-Gd-153
-9.809 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 169.51 keV
n-Gd153.jeff3.3 Threshold 169.51 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
27
Incident Energy (eV)
64-Gd-153

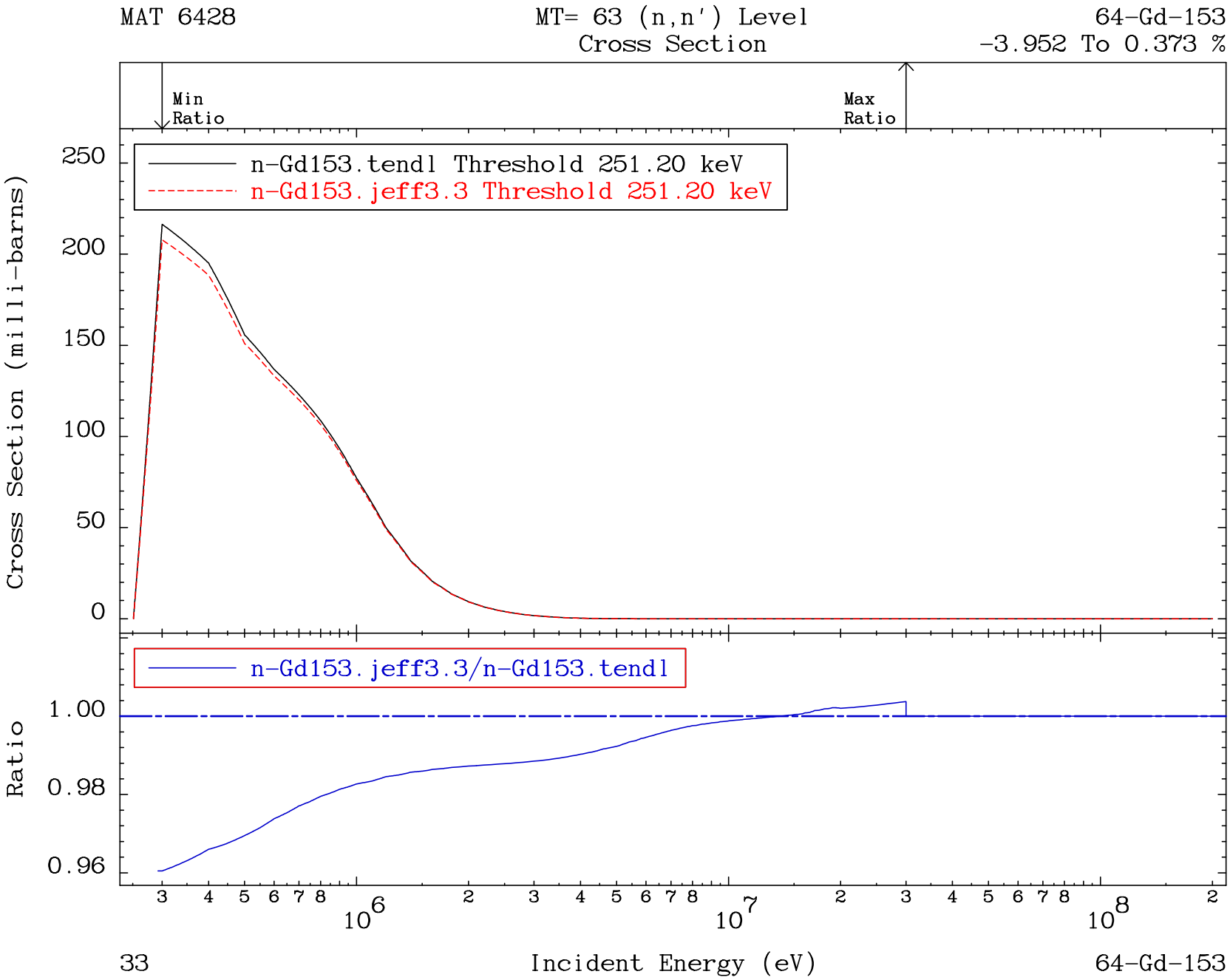

MAT 6428
MT= 58 (n,n') Level
Cross Section
64-Gd-153
-12.00 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 172.32 keV
n-Gd153.jeff3.3 Threshold 172.32 keV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
28
Incident Energy (eV)
64-Gd-153

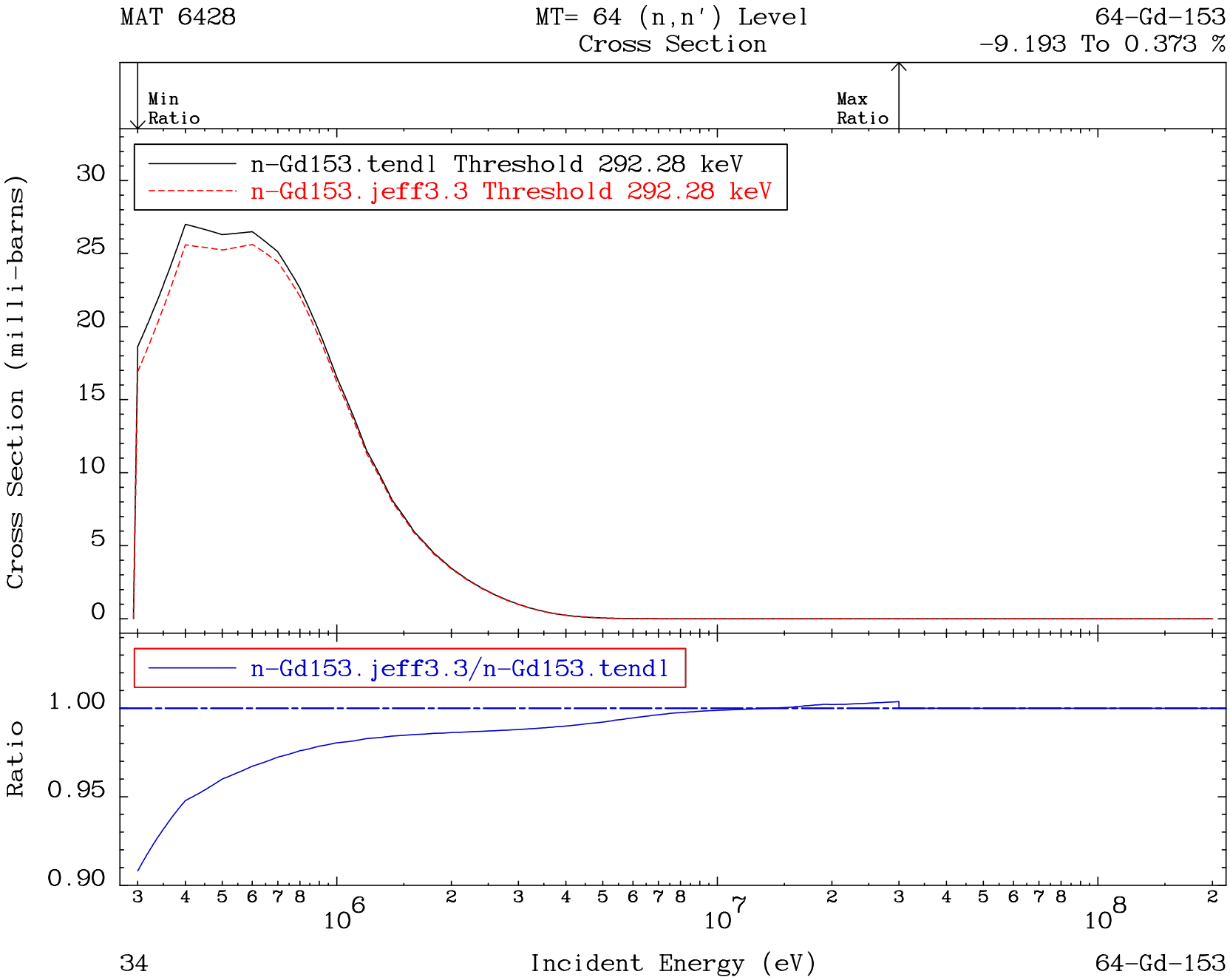

MAT 6428
MT= 59 (n,n') Level
Cross Section
64-Gd-153
-10.88 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 184.68 keV
n-Gd153.jeff3.3 Threshold 184.68 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
29
Incident Energy (eV)
64-Gd-153

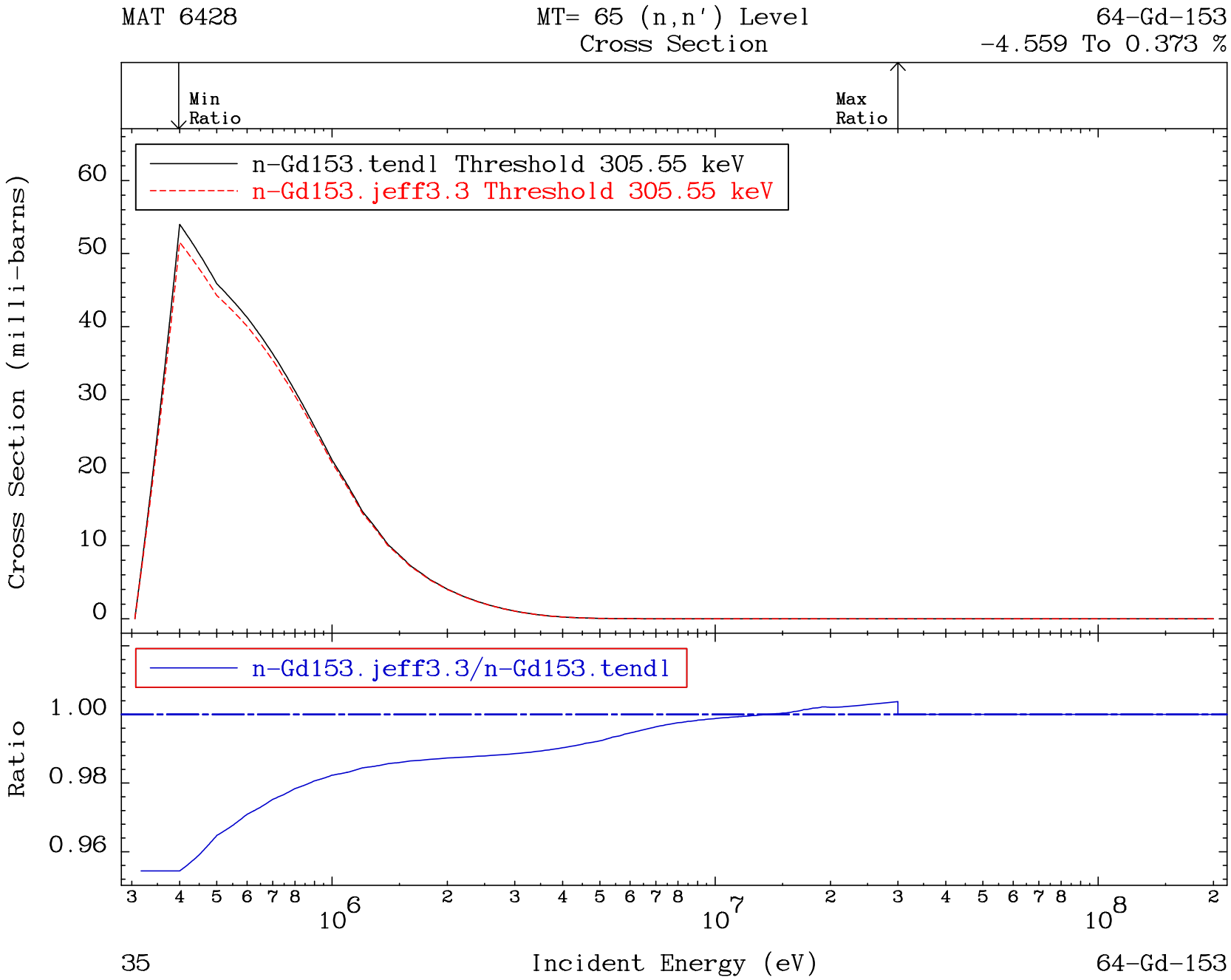

MAT 6428
MT= 60 (n,n') Level
Cross Section
64-Gd-153
-6.819 To 0.374 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 213.41 keV
n-Gd153.jeff3.3 Threshold 213.41 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.96
2 3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
64-Gd-153

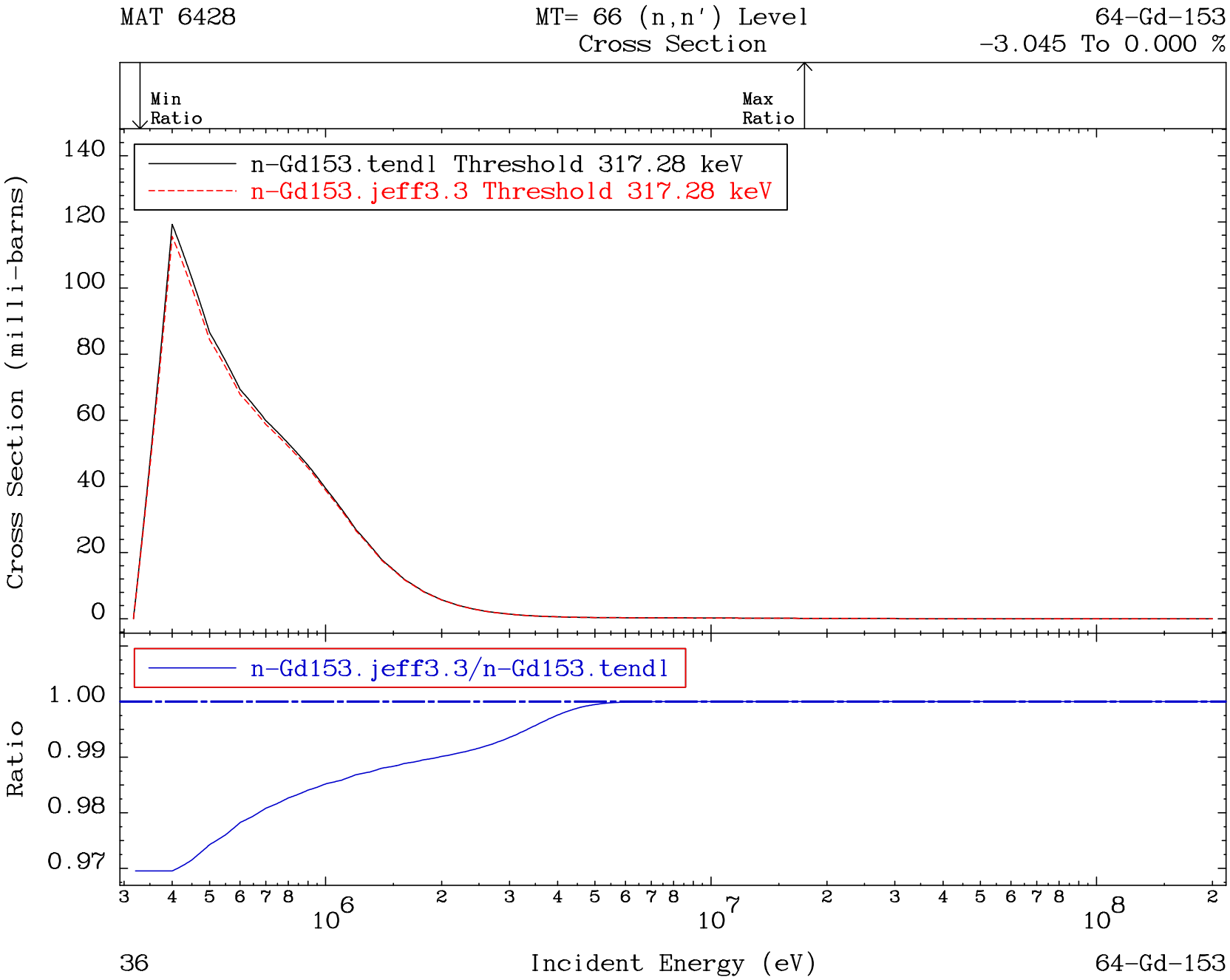

MAT 6428
MT= 61 (n,n') Level
Cross Section
64-Gd-153
-5.665 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 217.42 keV
n-Gd153.jeff3.3 Threshold 217.42 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.02
1.00
0.98
0.96
0.94
2 3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
64-Gd-153

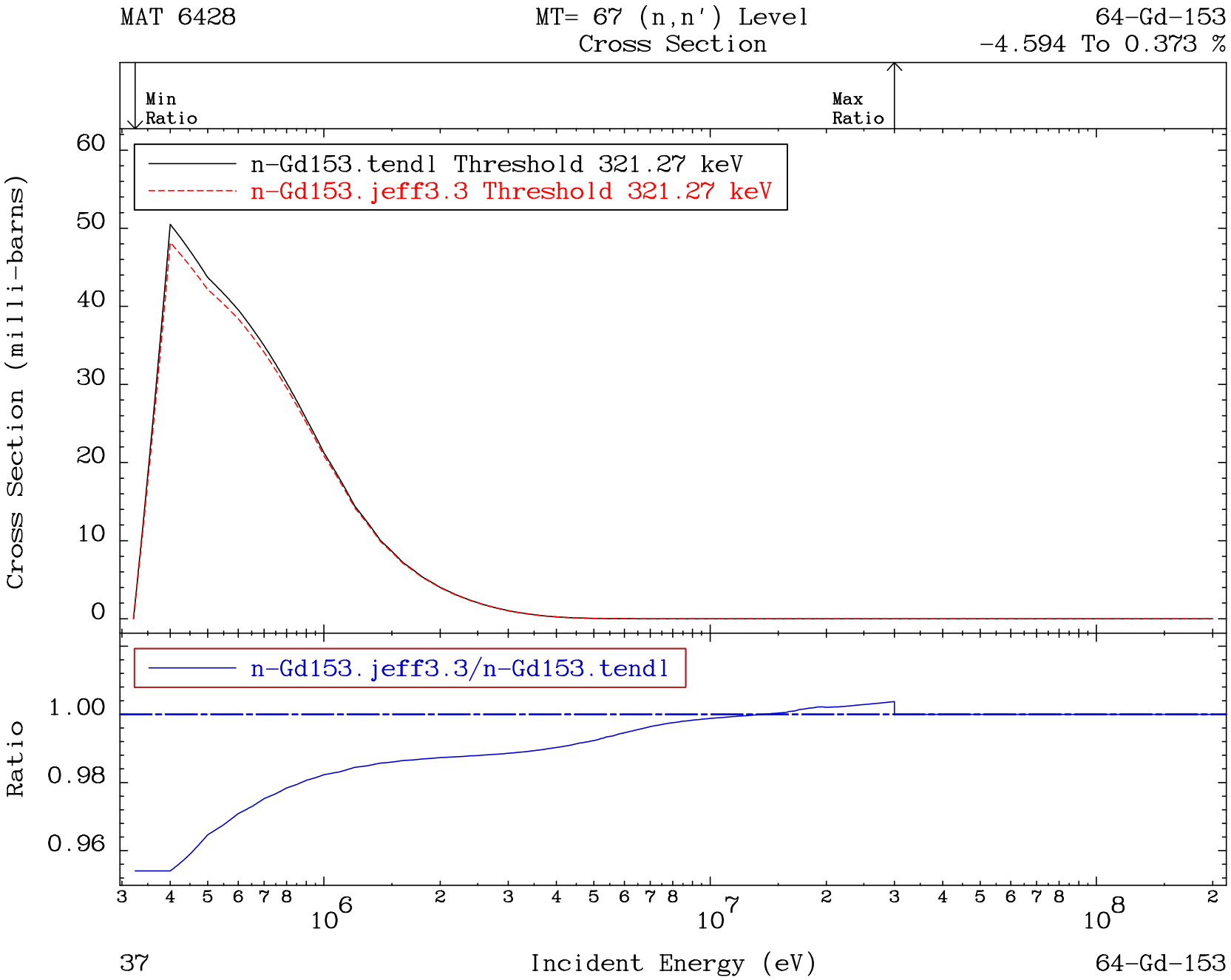

MAT 6428
MT= 62 (n,n') Level
Cross Section
64-Gd-153
-6.259 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 220.89 keV
n-Gd153.jeff3.3 Threshold 220.89 keV
Cross Section (milli-barns)
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.96
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
32
Incident Energy (eV)
64-Gd-153

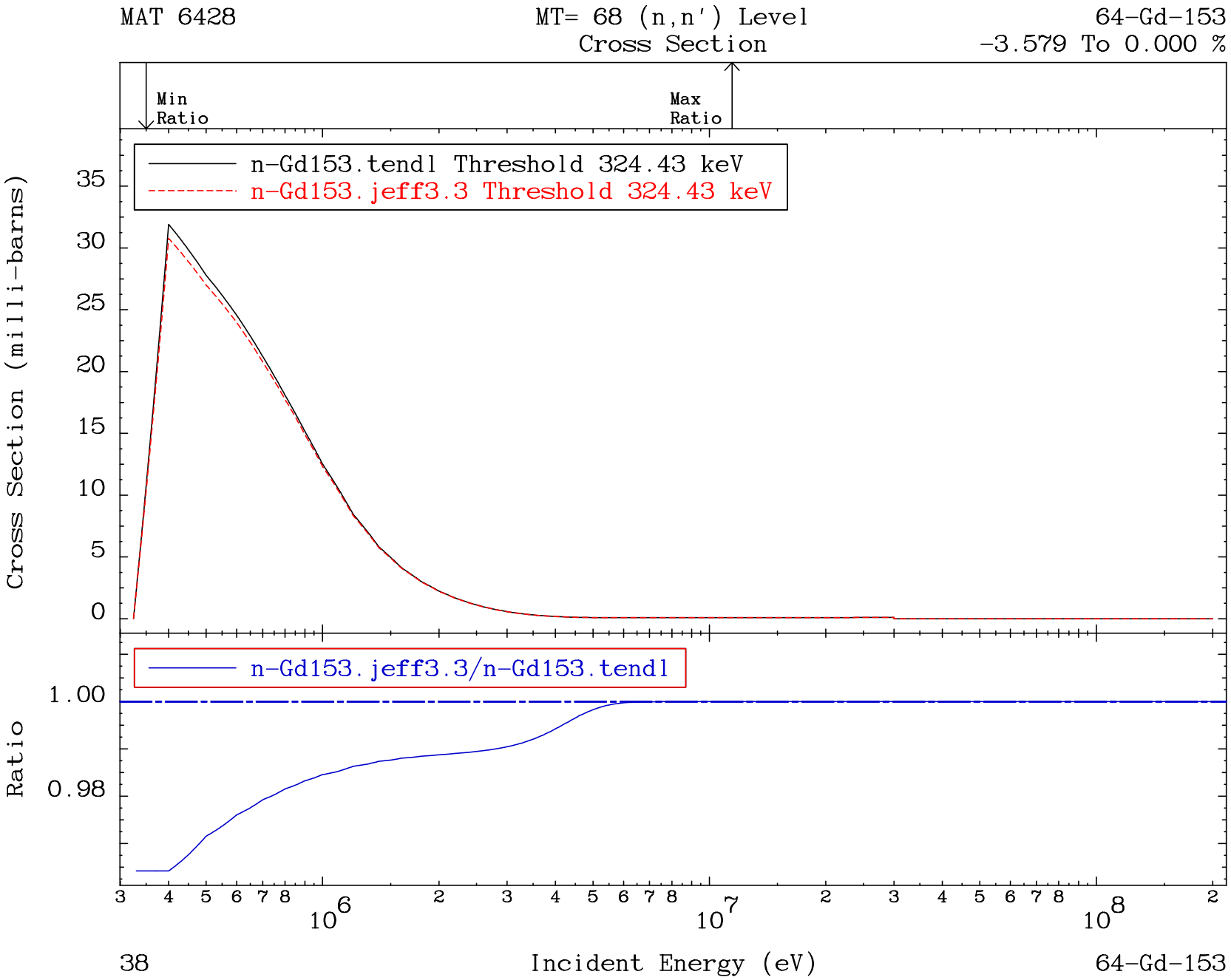

MAT 6428
MT= 63 (n,n') Level
Cross Section
64-Gd-153
-3.952 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 251.20 keV
n-Gd153.jeff3.3 Threshold 251.20 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
33
Incident Energy (eV)
64-Gd-153

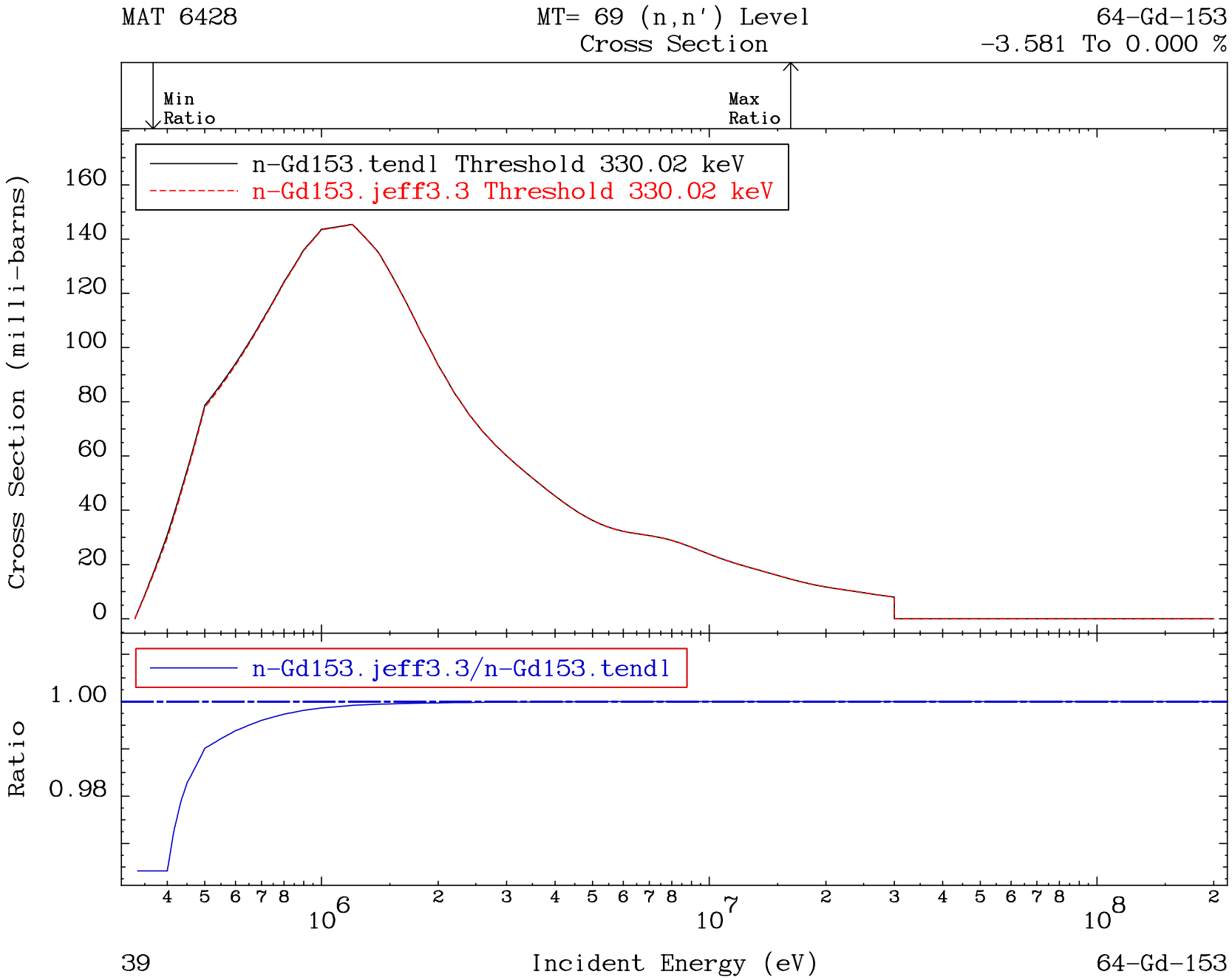

MAT 6428
MT= 64 (n,n') Level
Cross Section
64-Gd-153
-9.193 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 292.28 keV
n-Gd153.jeff3.3 Threshold 292.28 keV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
34
Incident Energy (eV)
64-Gd-153

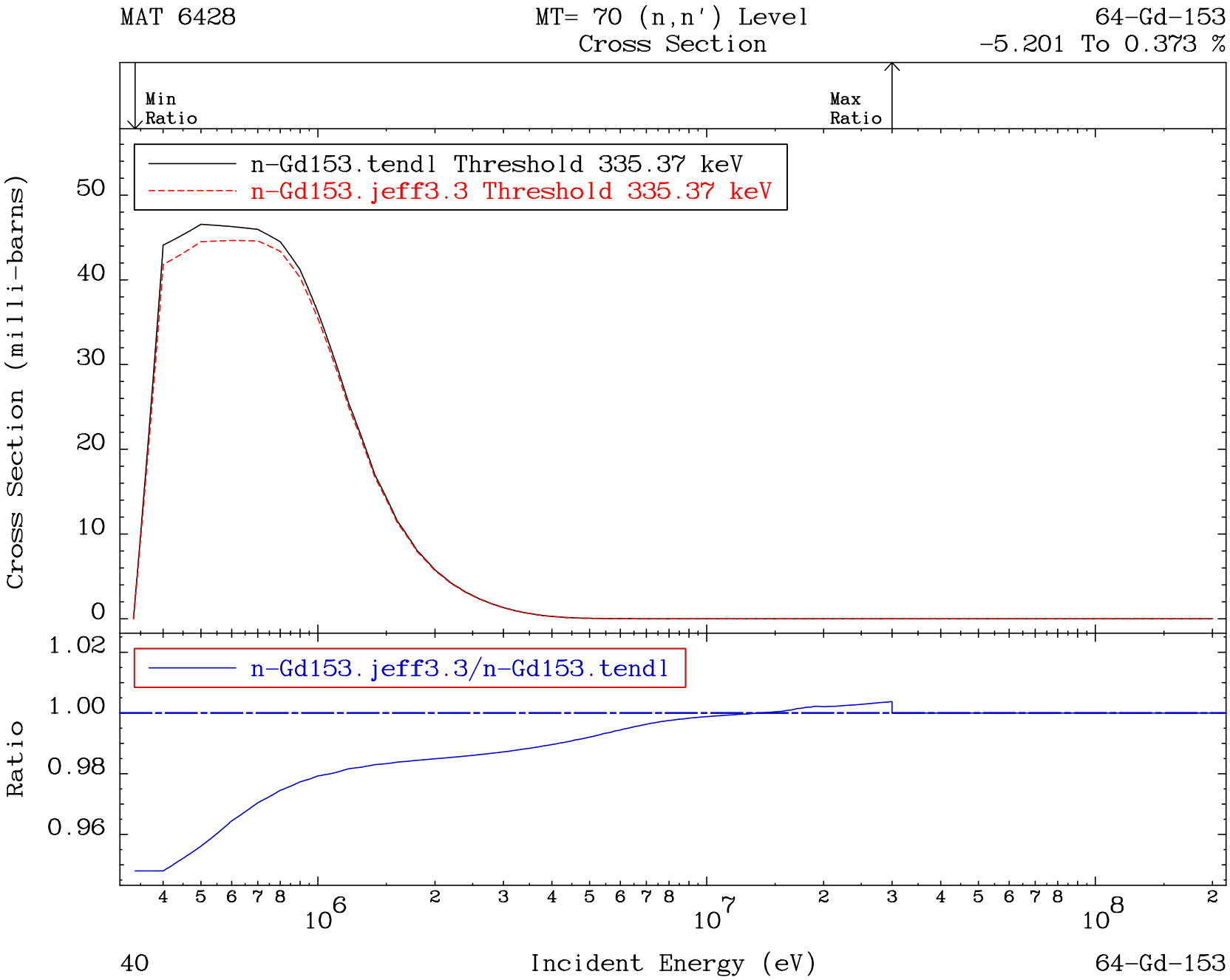

MAT 6428
MT= 65 (n,n') Level
Cross Section
64-Gd-153
-4.559 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 305.55 keV
n-Gd153.jeff3.3 Threshold 305.55 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
35
Incident Energy (eV)
64-Gd-153

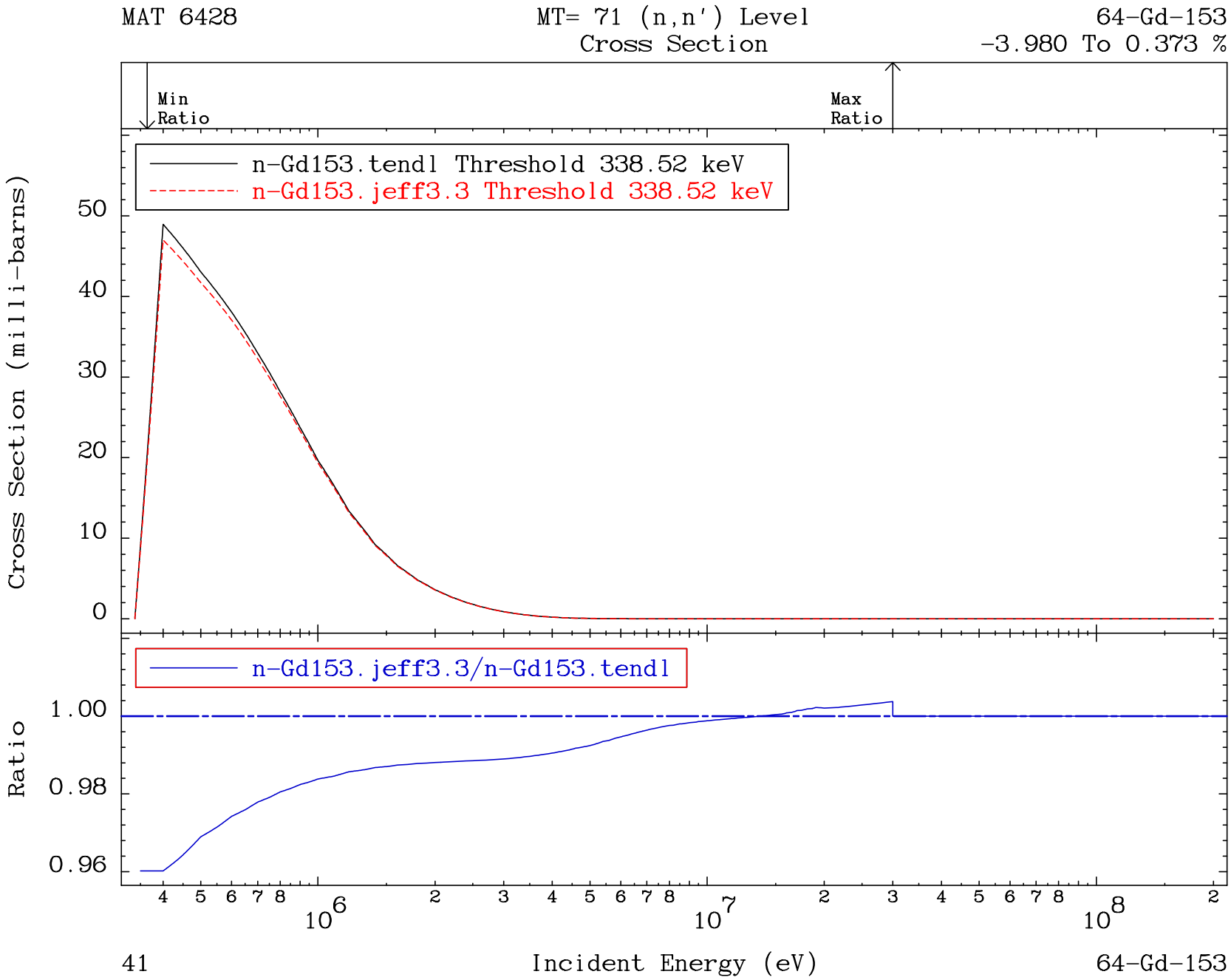

MAT 6428
MT= 66 (n,n') Level
Cross Section
64-Gd-153
-3.045 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 317.28 keV
n-Gd153.jeff3.3 Threshold 317.28 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.99
0.98
0.97
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
36
Incident Energy (eV)
64-Gd-153

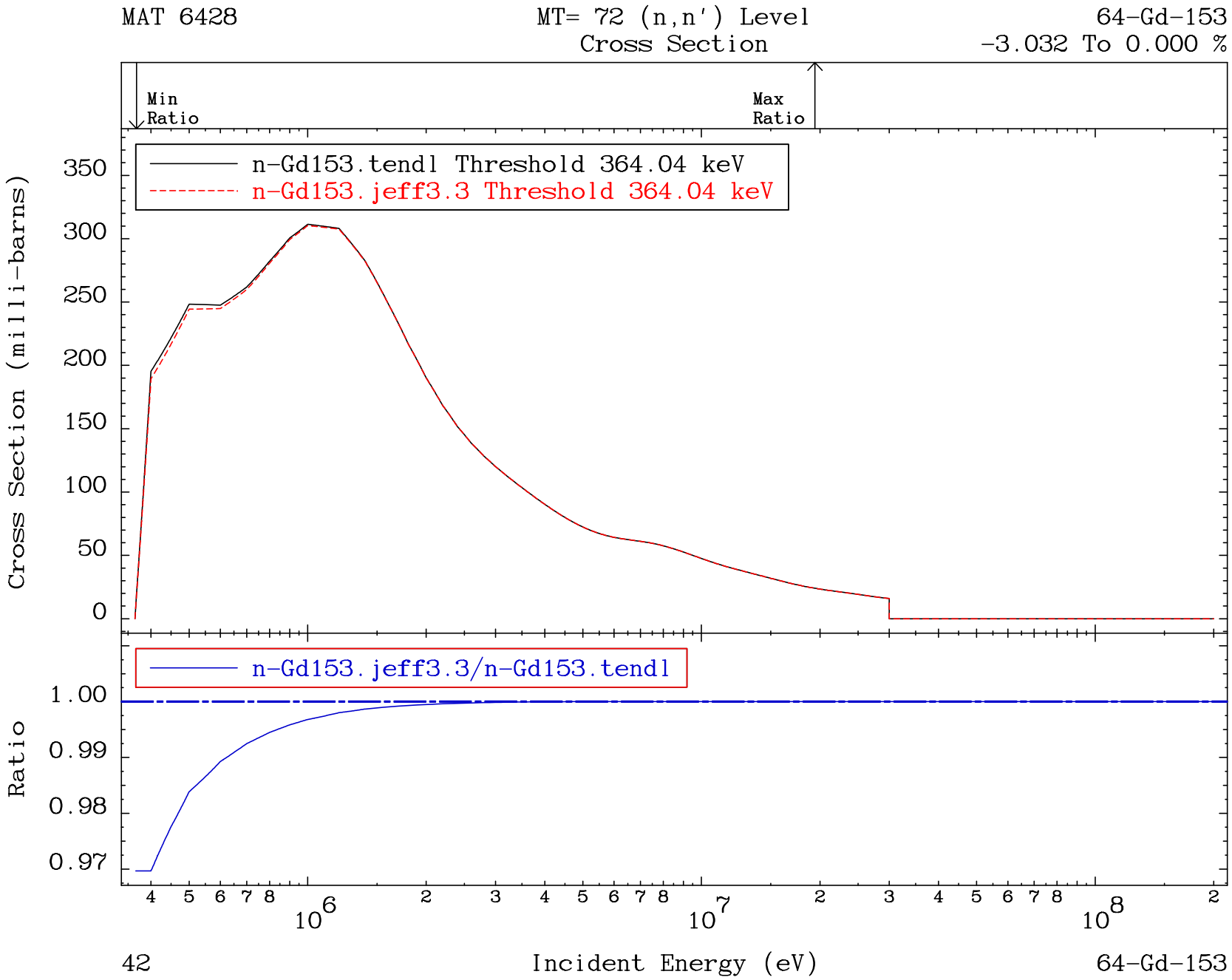

MAT 6428
MT= 67 (n,n') Level
Cross Section
64-Gd-153
-4.594 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 321.27 keV
n-Gd153.jeff3.3 Threshold 321.27 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
37
Incident Energy (eV)
64-Gd-153

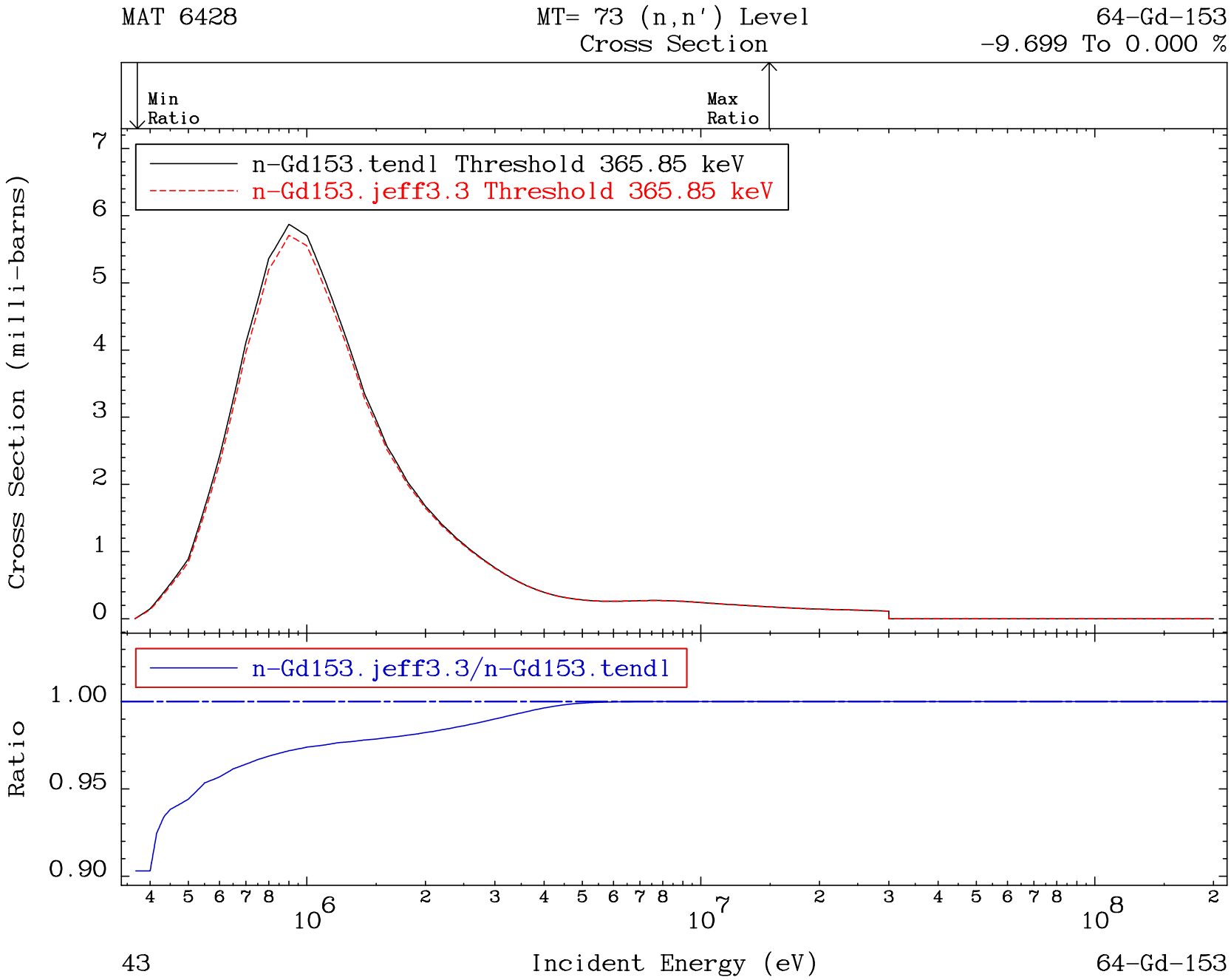

MAT 6428
MT= 68 (n,n') Level
Cross Section
64-Gd-153
-3.579 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 324.43 keV
n-Gd153.jeff3.3 Threshold 324.43 keV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
38
Incident Energy (eV)
64-Gd-153

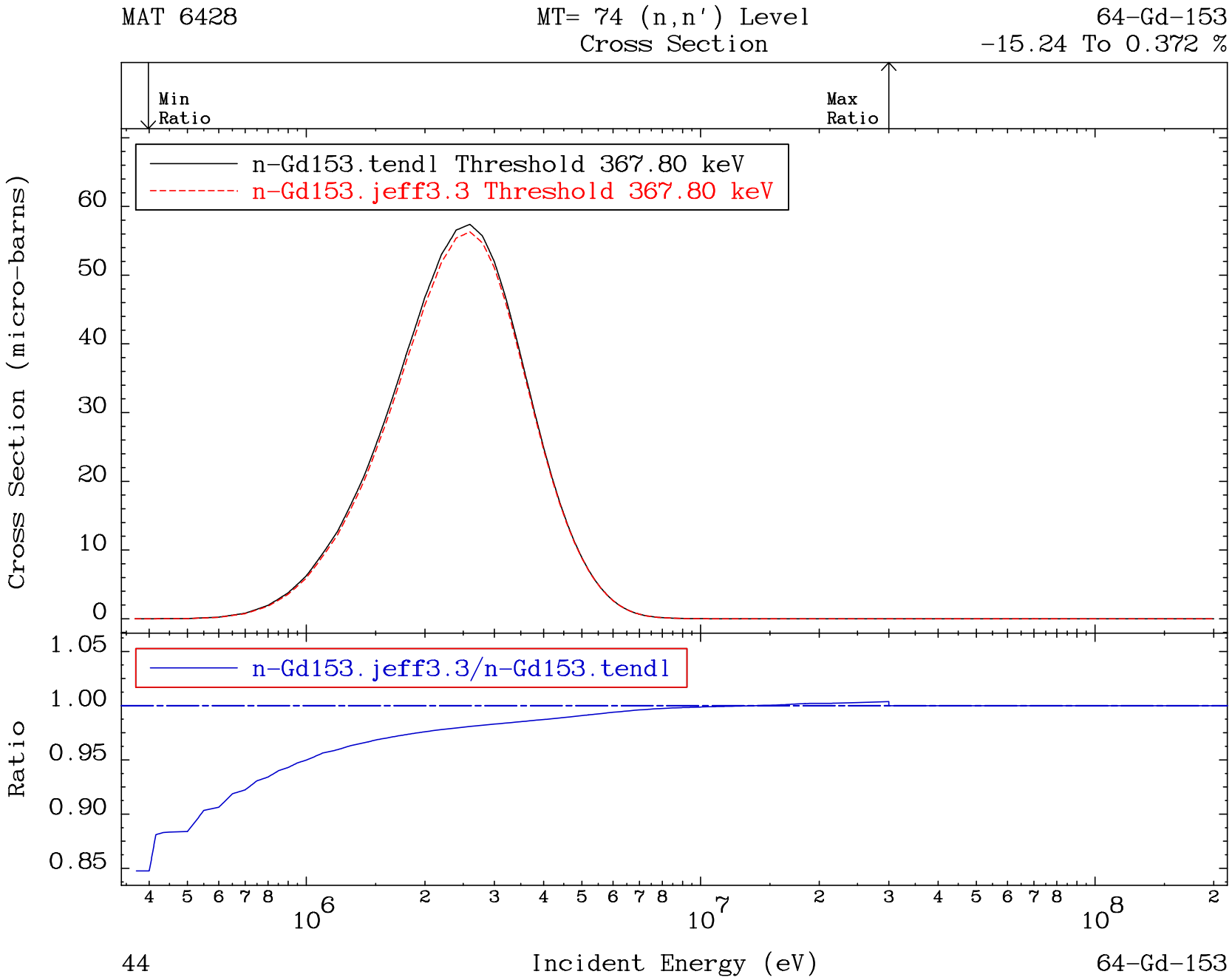

MAT 6428
MT= 69 (n,n') Level
Cross Section
64-Gd-153
-3.581 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 330.02 keV
n-Gd153.jeff3.3 Threshold 330.02 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
39
Incident Energy (eV)
64-Gd-153

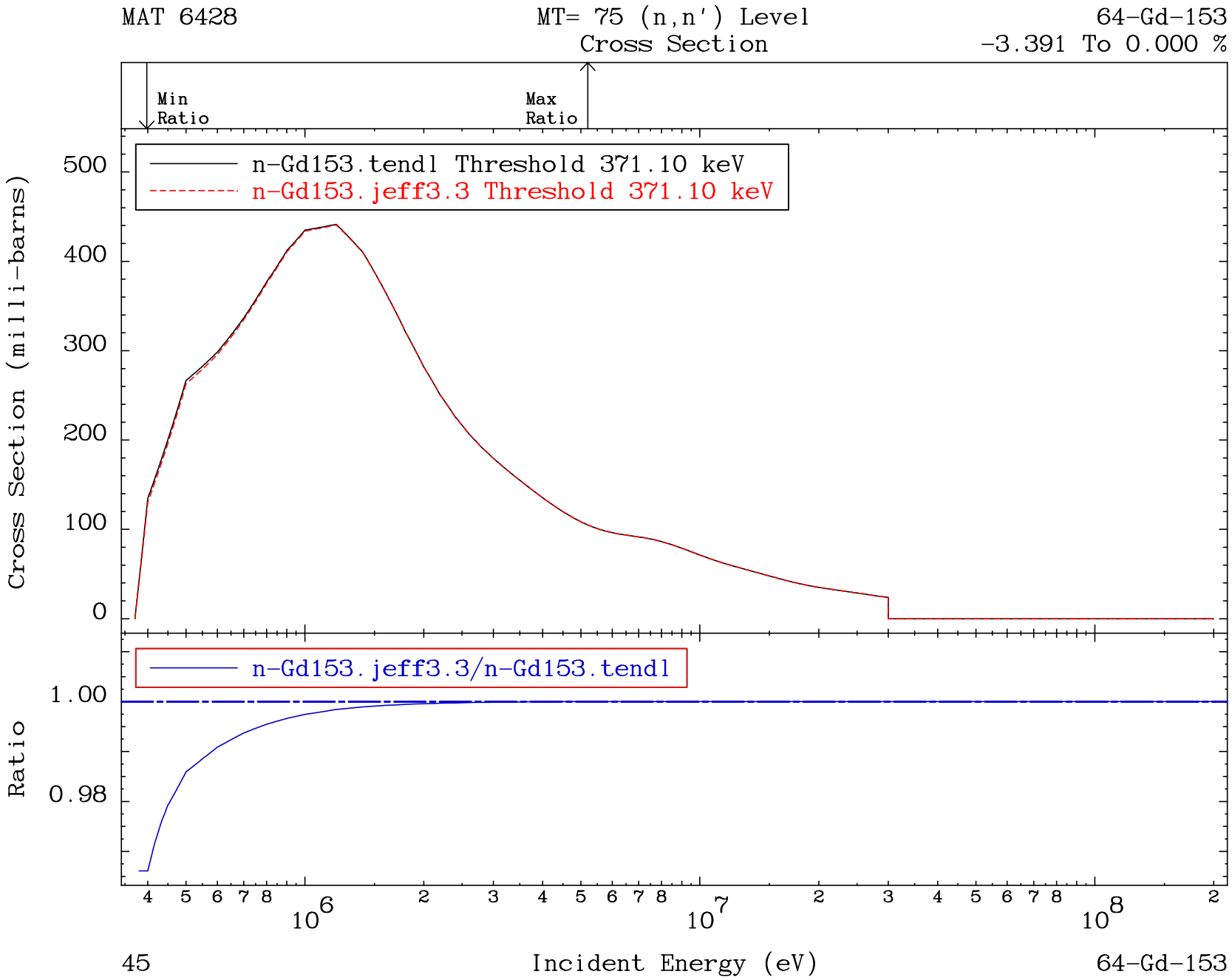

MAT 6428
MT= 70 (n,n') Level
Cross Section
64-Gd-153
-5.201 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 335.37 keV
n-Gd153.jeff3.3 Threshold 335.37 keV
Cross Section (milli-barns)
50
40
30
20
10
0
1.02
1.00
0.98
0.96
Ratio
n-Gd153.jeff3.3/n-Gd153.tendl
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
40
Incident Energy (eV)
64-Gd-153

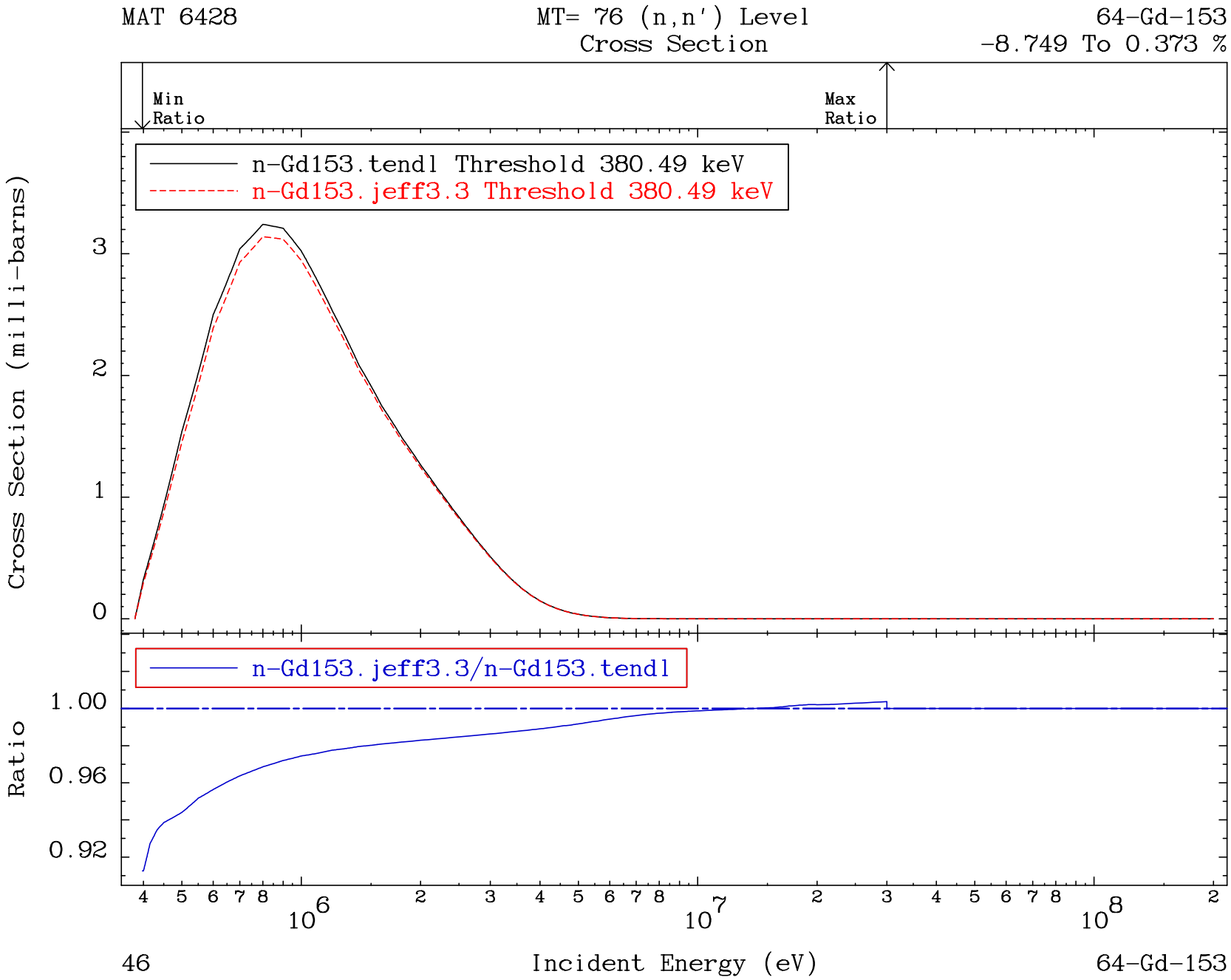

MAT 6428
MT= 71 (n,n') Level
Cross Section
64-Gd-153
-3.980 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 338.52 keV
n-Gd153.jeff3.3 Threshold 338.52 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
41
Incident Energy (eV)
64-Gd-153

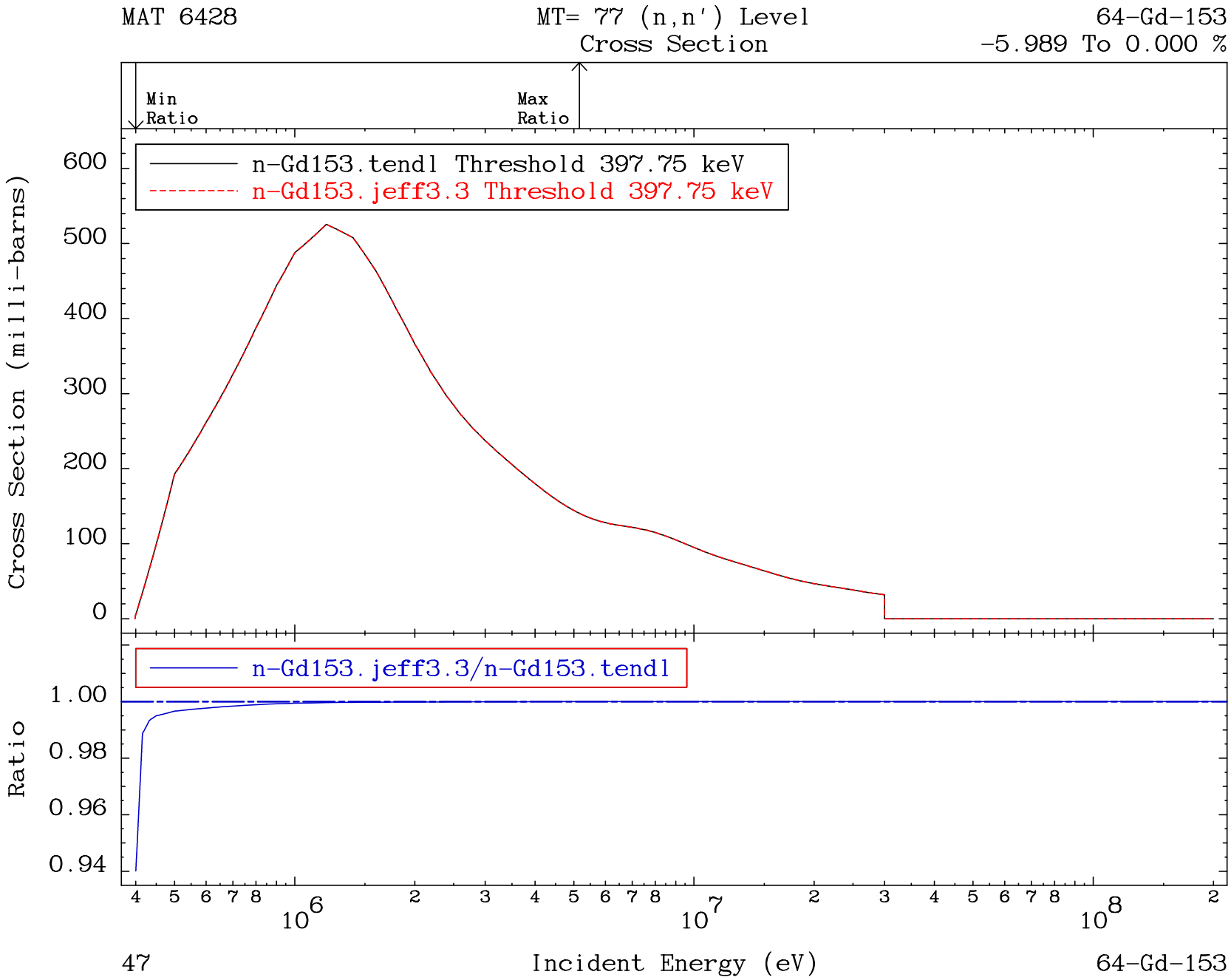

MAT 6428
MT= 72 (n,n') Level
Cross Section
64-Gd-153
-3.032 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 364.04 keV
n-Gd153.jeff3.3 Threshold 364.04 keV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.99
0.98
0.97
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
42
Incident Energy (eV)
64-Gd-153

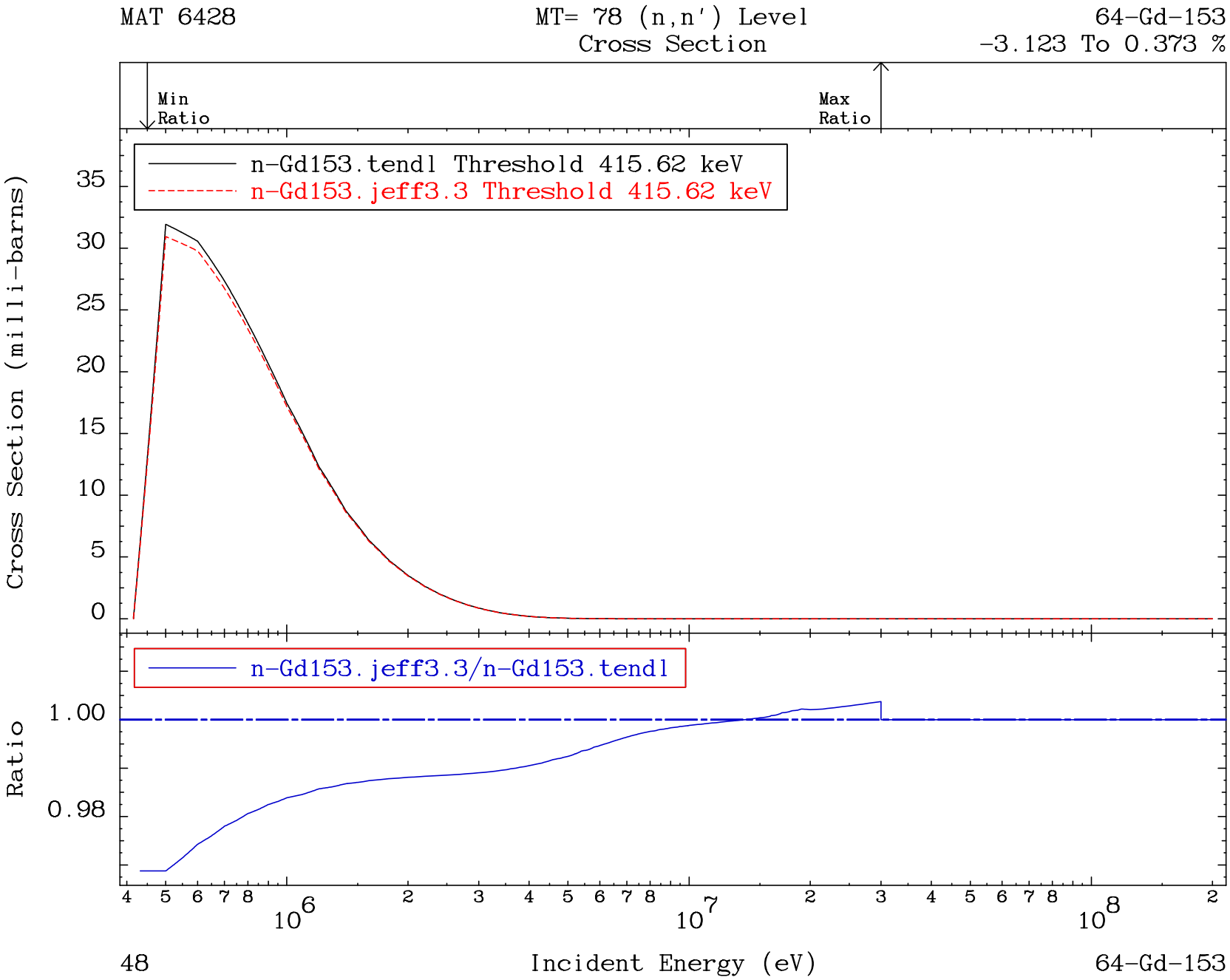

MAT 6428
MT= 73 (n,n') Level
Cross Section
64-Gd-153
-9.699 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 365.85 keV
n-Gd153.jeff3.3 Threshold 365.85 keV
Cross Section (milli-barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
43
64-Gd-153

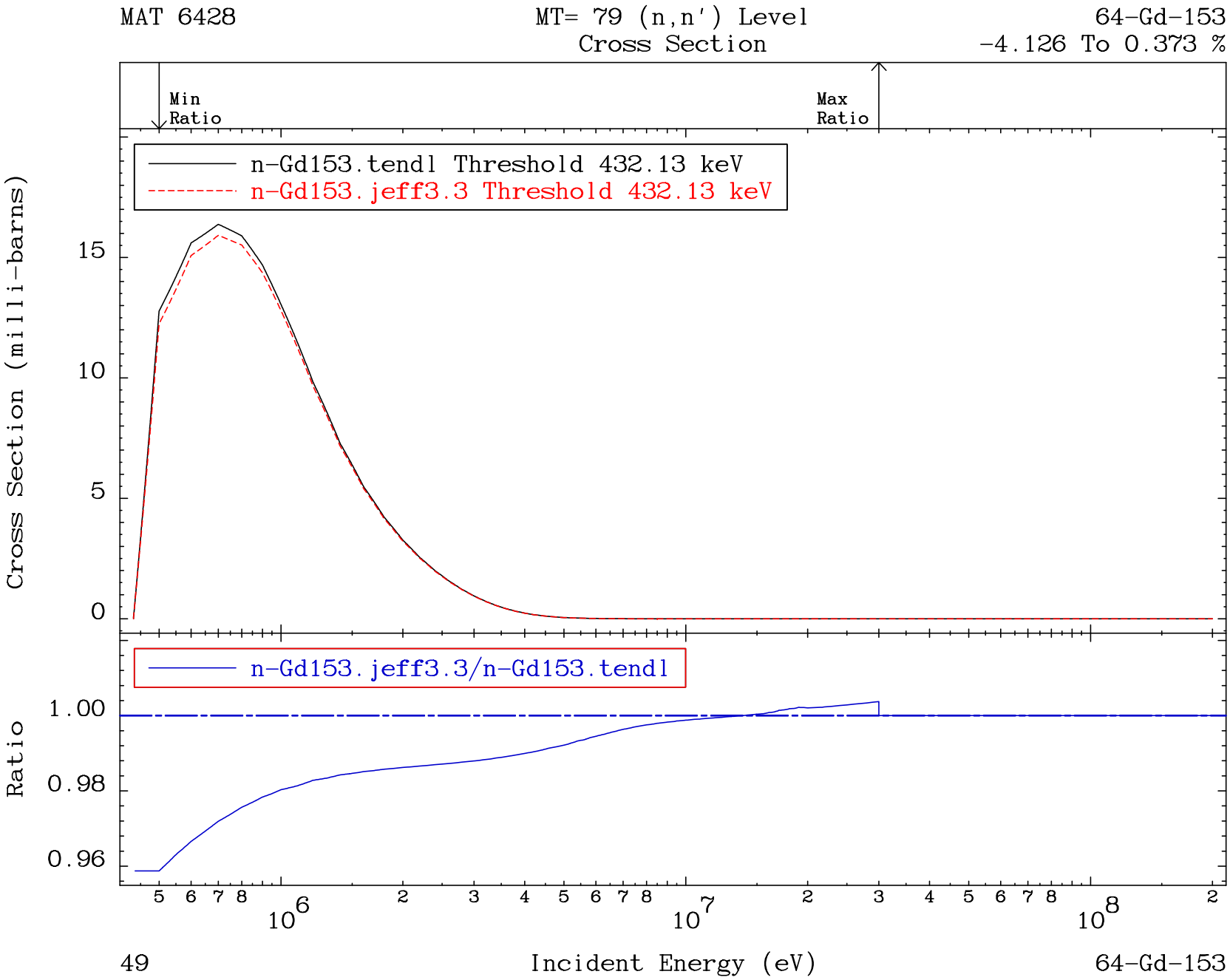

MAT 6428
MT= 74 (n,n') Level
Cross Section
64-Gd-153
-15.24 To 0.372 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 367.80 keV
n-Gd153.jeff3.3 Threshold 367.80 keV
Cross Section (micro-barns)
60
50
40
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.05
1.00
0.95
0.90
0.85
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
44
Incident Energy (eV)
64-Gd-153

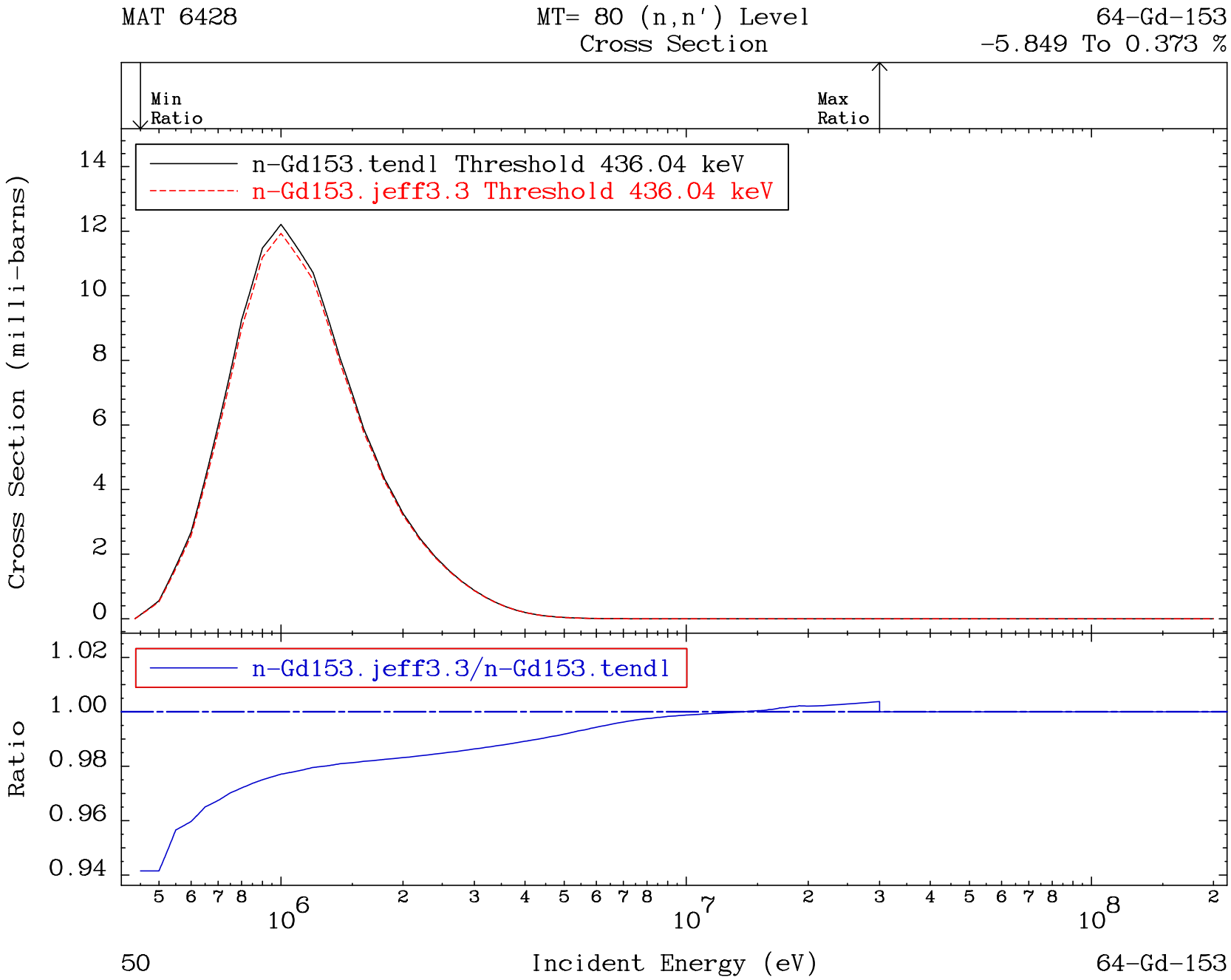

MAT 6428
MT= 75 (n,n') Level
Cross Section
64-Gd-153
-3.391 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 371.10 keV
n-Gd153.jeff3.3 Threshold 371.10 keV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
45
Incident Energy (eV)
64-Gd-153

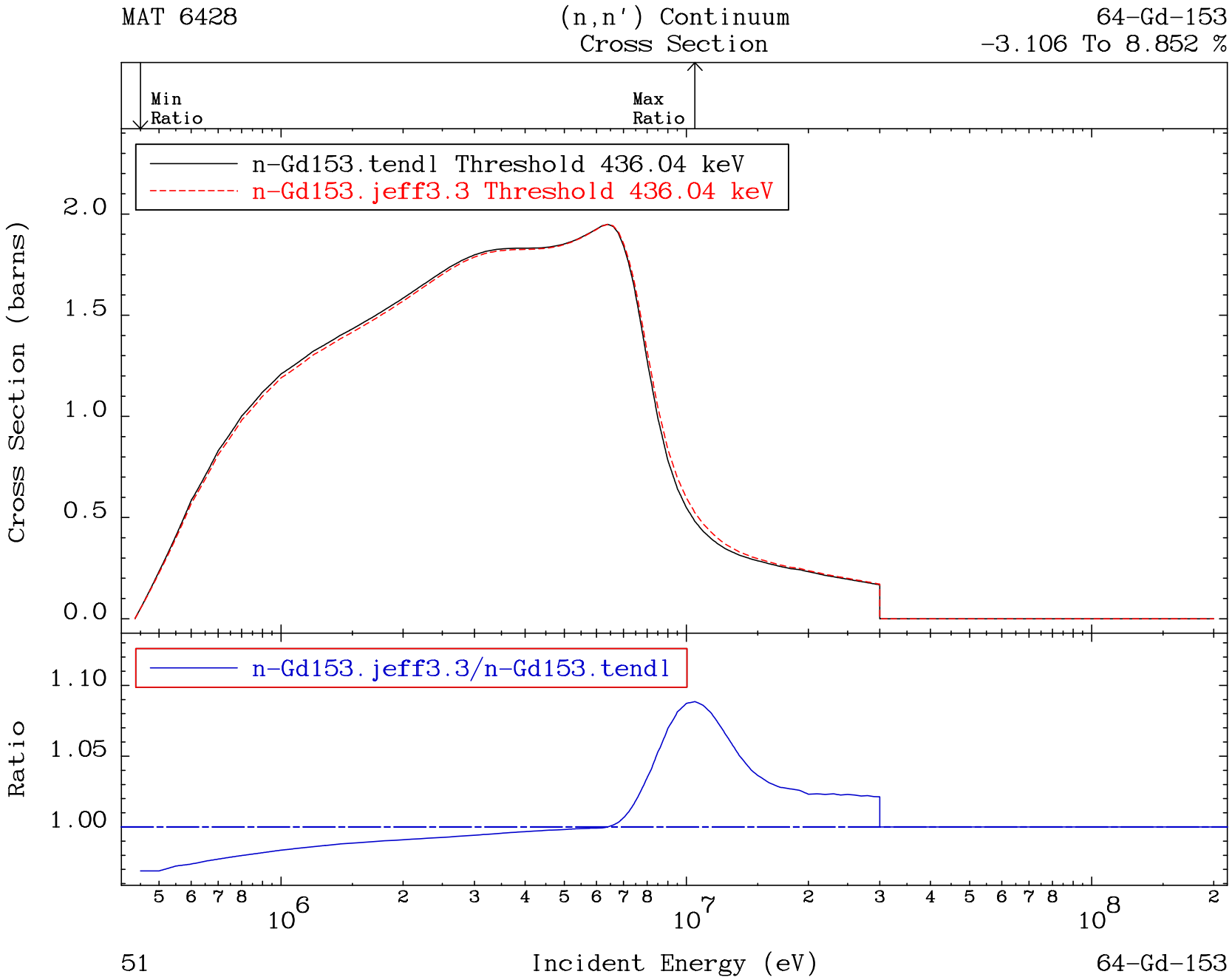

MAT 6428
MT= 76 (n,n') Level
Cross Section
64-Gd-153
-8.749 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 380.49 keV
n-Gd153.jeff3.3 Threshold 380.49 keV
Cross Section (milli-barns)
0
1
2
3
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.96
0.92
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
46
Incident Energy (eV)
64-Gd-153

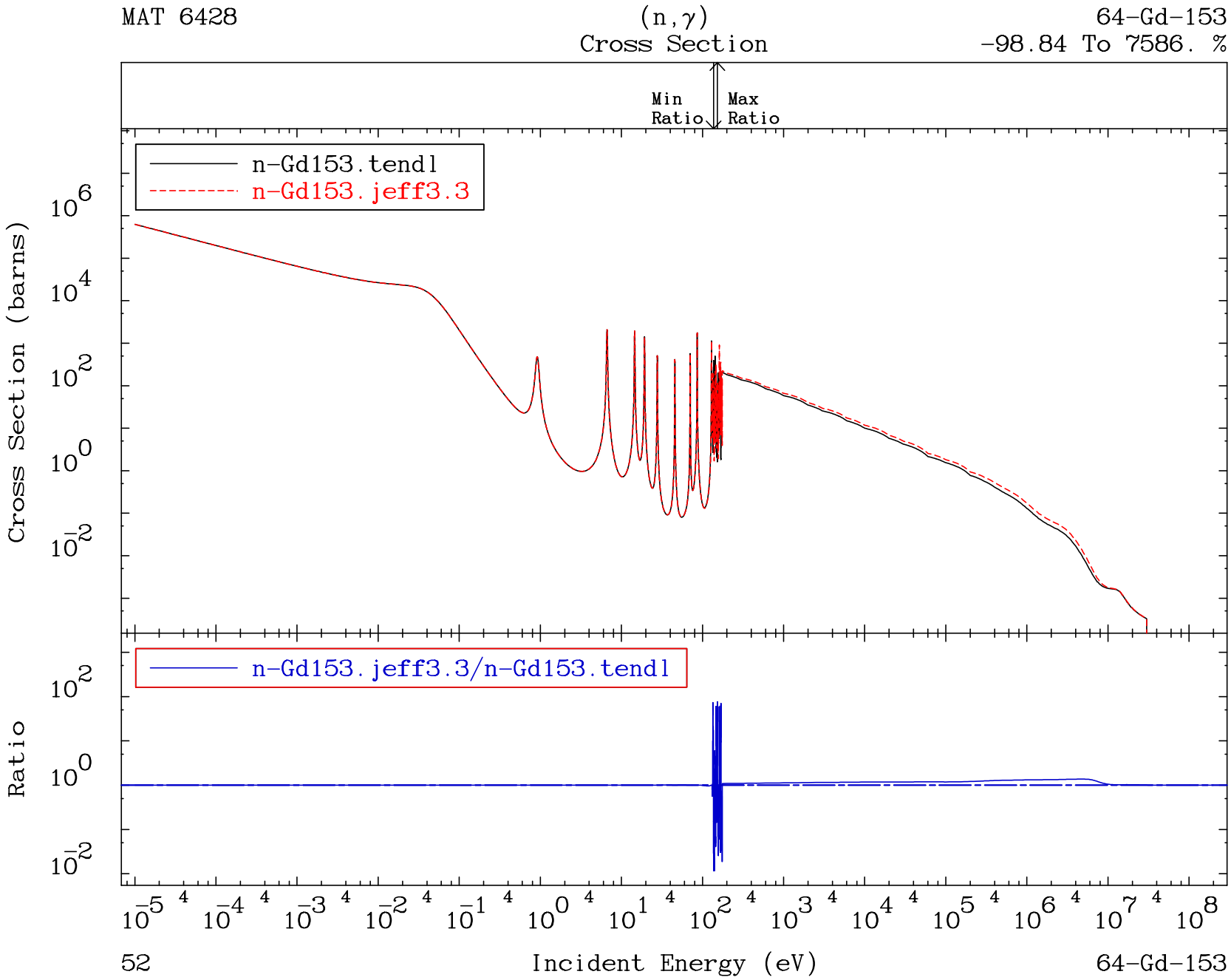

MAT 6428
MT= 77 (n,n') Level
Cross Section
64-Gd-153
-5.989 To 0.000 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 397.75 keV
n-Gd153.jeff3.3 Threshold 397.75 keV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
0.94
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
47
Incident Energy (eV)
64-Gd-153

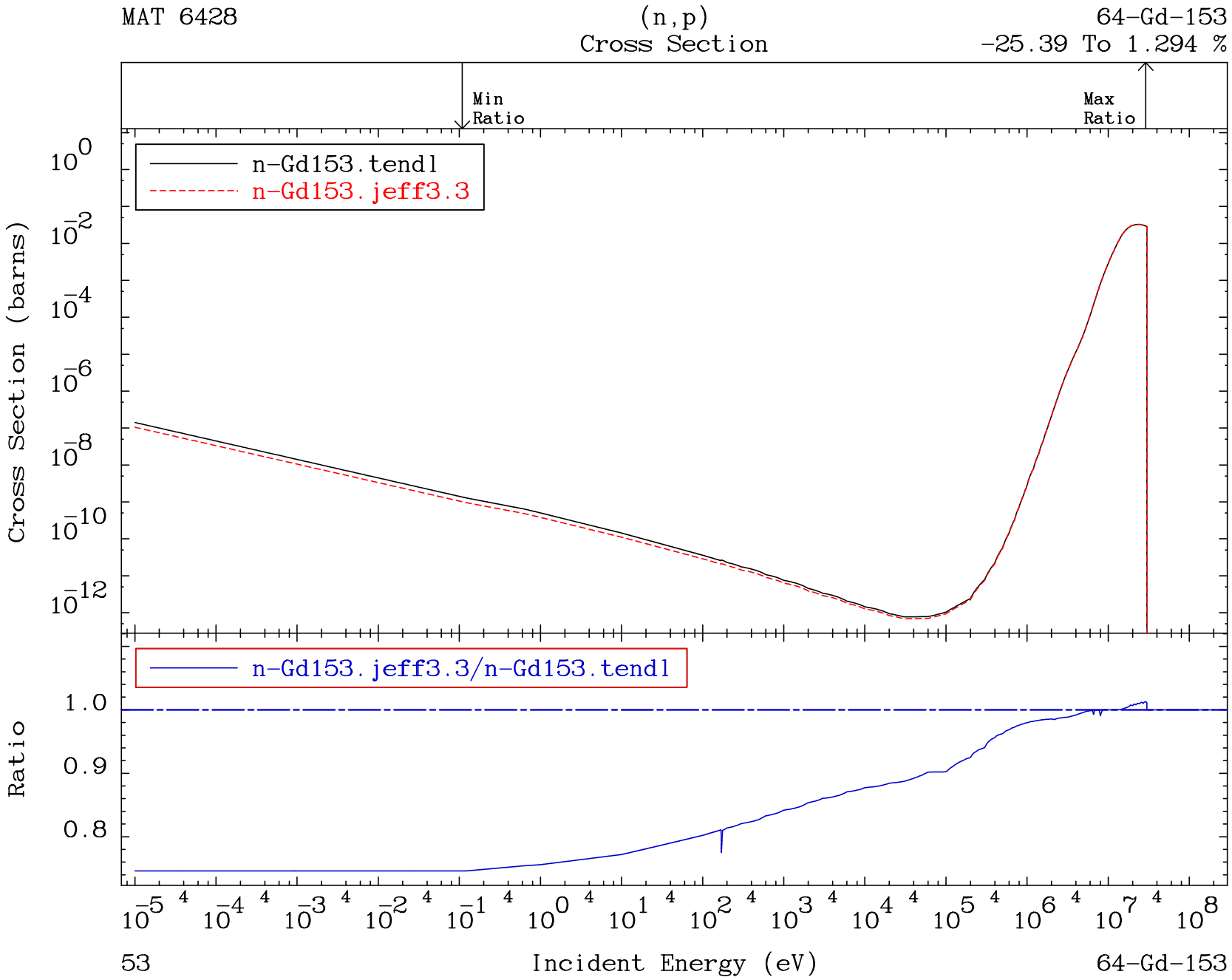

MAT 6428
MT= 78 (n,n') Level
Cross Section
64-Gd-153
-3.123 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 415.62 keV
n-Gd153.jeff3.3 Threshold 415.62 keV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
48
Incident Energy (eV)
64-Gd-153

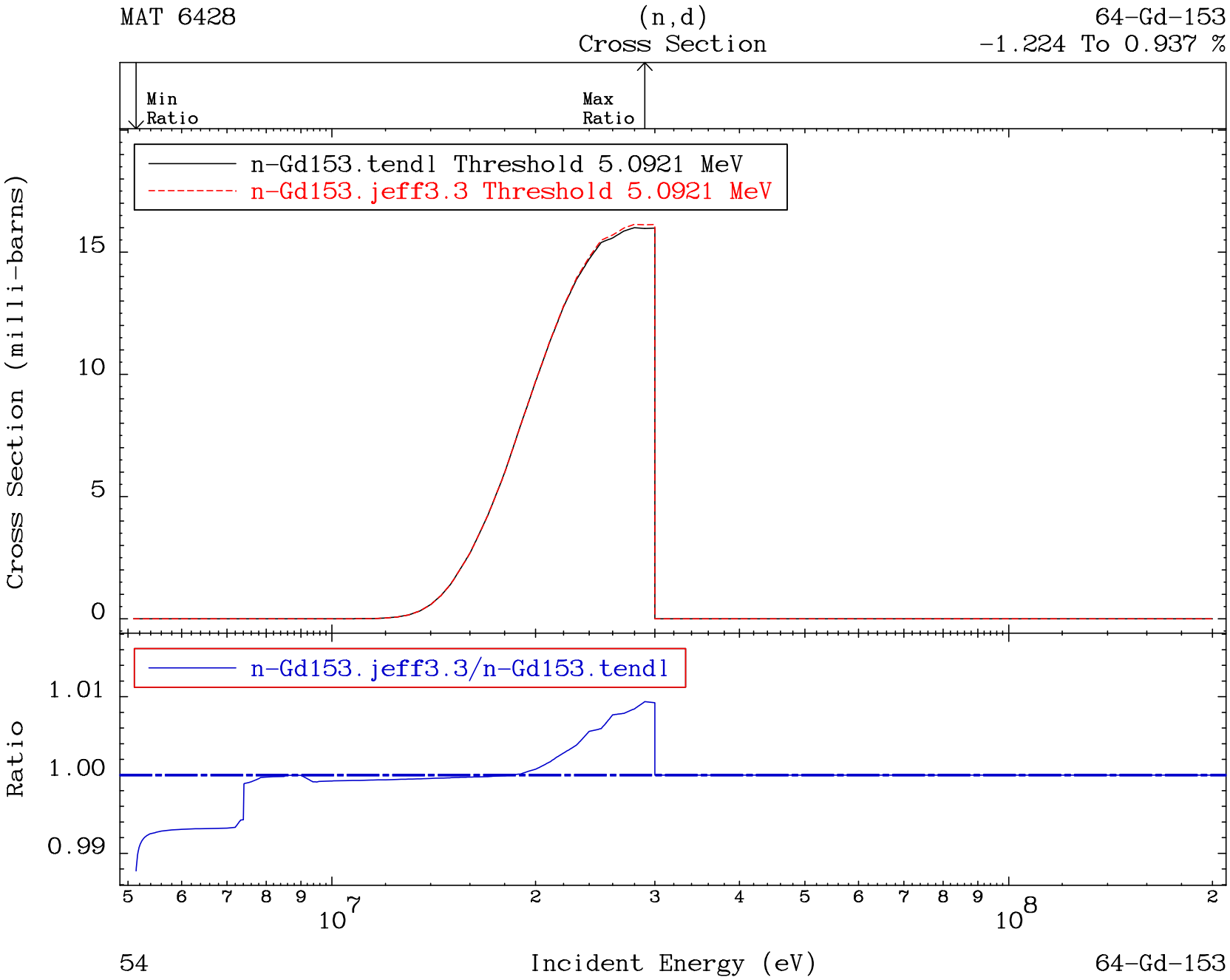

MAT 6428
MT= 79 (n,n') Level
Cross Section
64-Gd-153
-4.126 To 0.373 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 432.13 keV
n-Gd153.jeff3.3 Threshold 432.13 keV
Cross Section (milli-barns)
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.98
0.96
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
49
Incident Energy (eV)
64-Gd-153

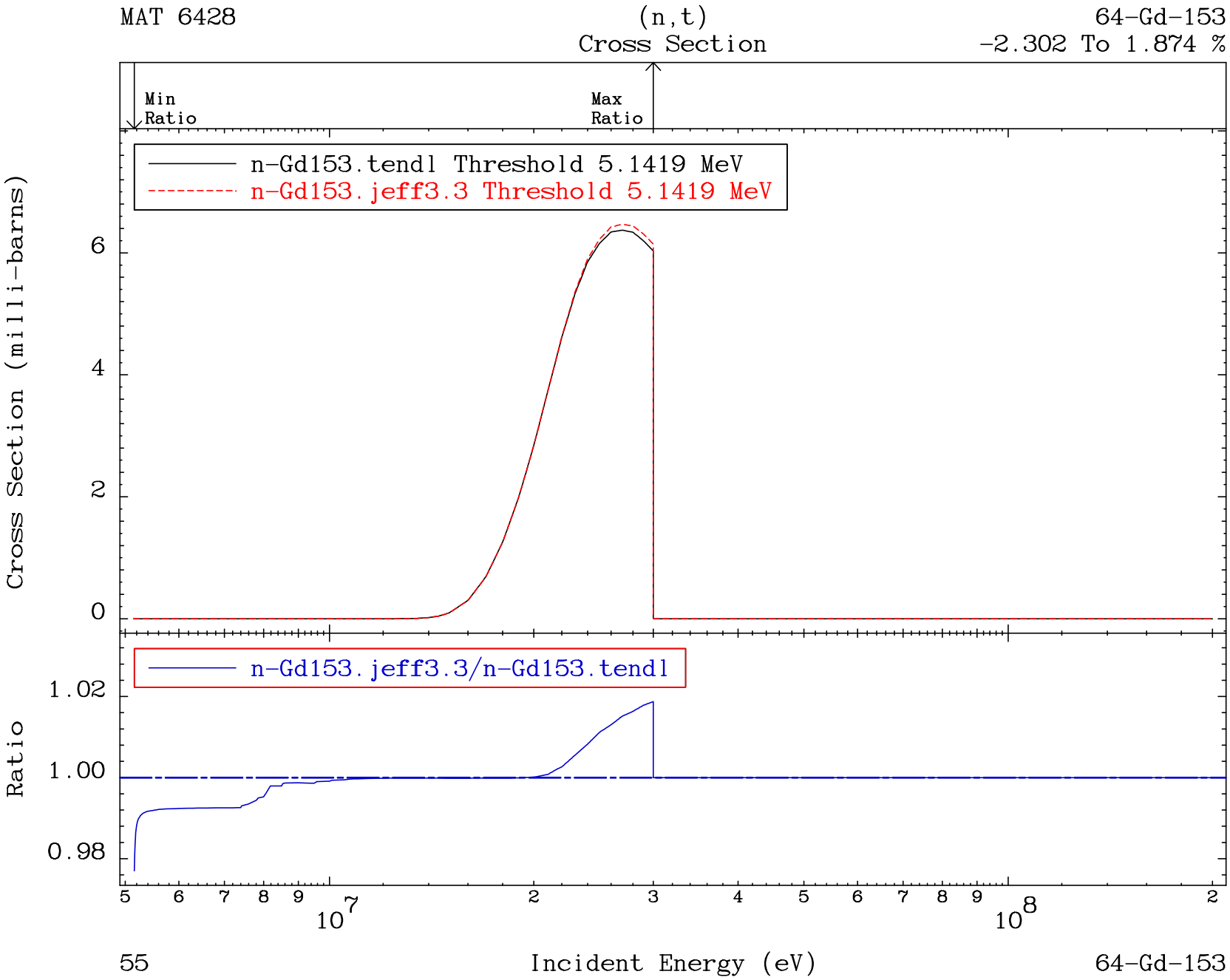

MAT 6428
MT= 80 (n,n') Level
Cross Section
64-Gd-153
-5.849 To 0.373 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 436.04 keV
n-Gd153.jeff3.3 Threshold 436.04 keV
Cross Section (milli-barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
50
64-Gd-153

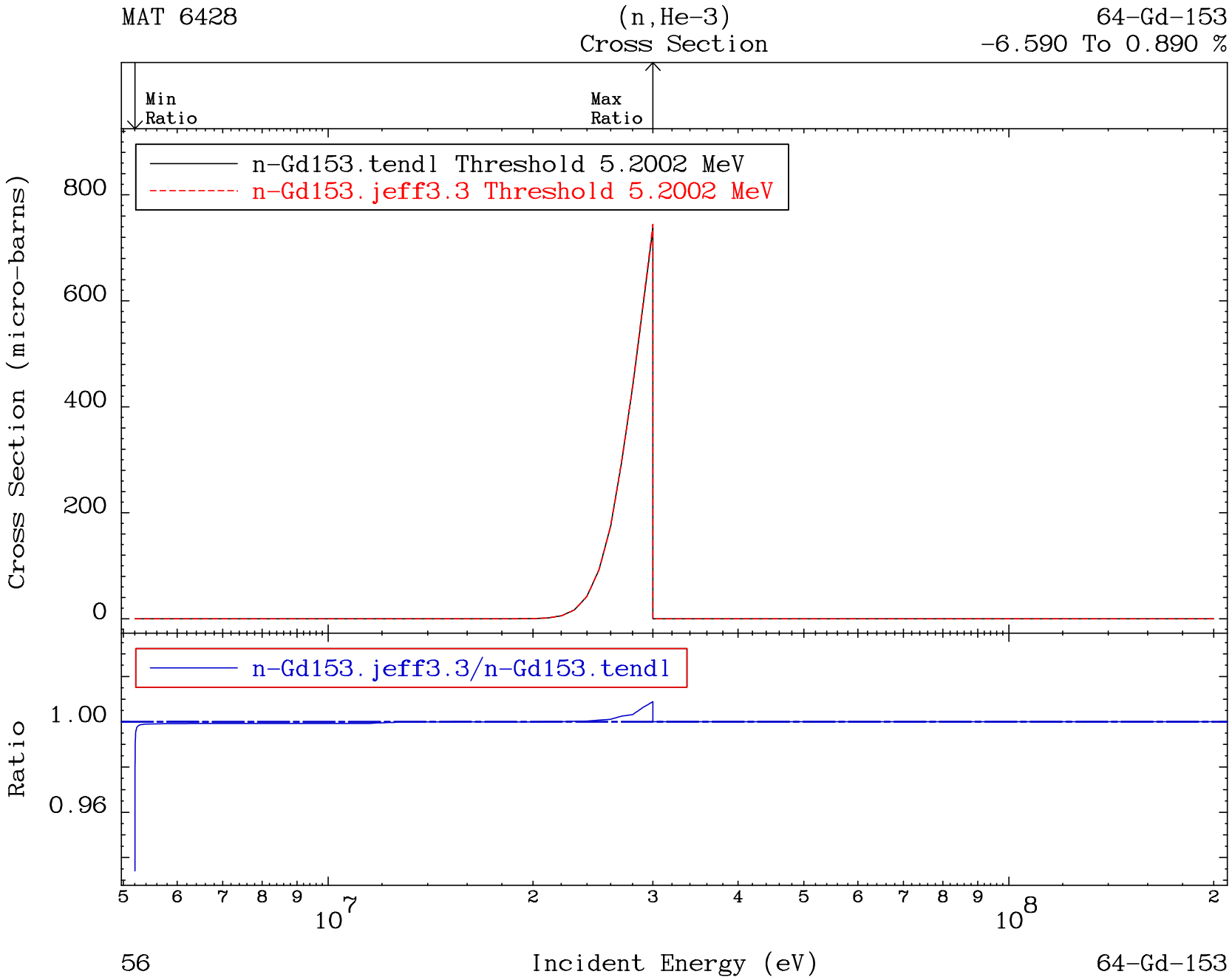

MAT 6428
(n,n') Continuum
Cross Section
64-Gd-153
-3.106 To 8.852 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 436.04 keV
n-Gd153.jeff3.3 Threshold 436.04 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.10
1.05
1.00
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
51
Incident Energy (eV)
64-Gd-153

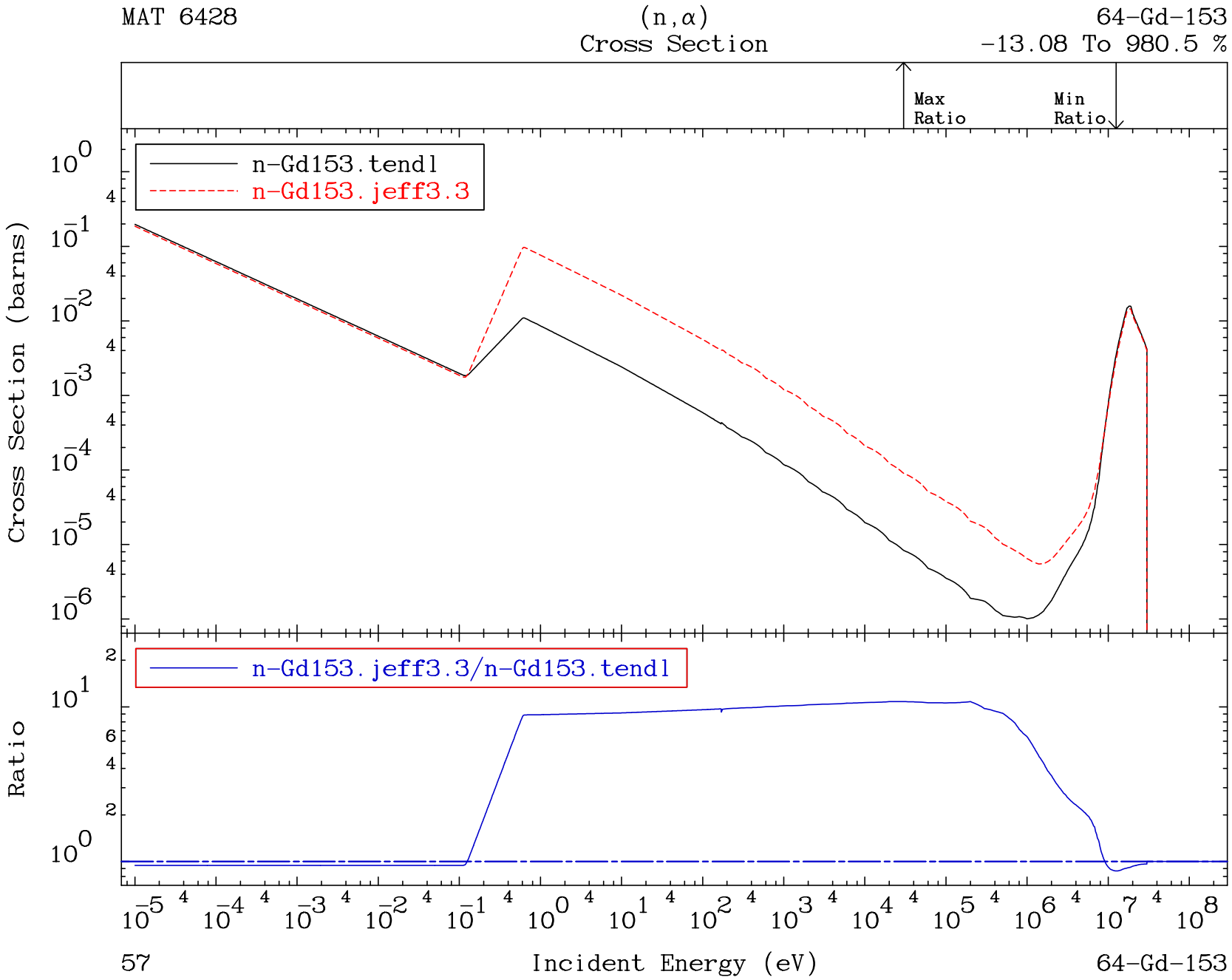

MAT 6428
(n,γ)
Cross Section
64-Gd-153
-98.84 To 7586. %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
52
64-Gd-153

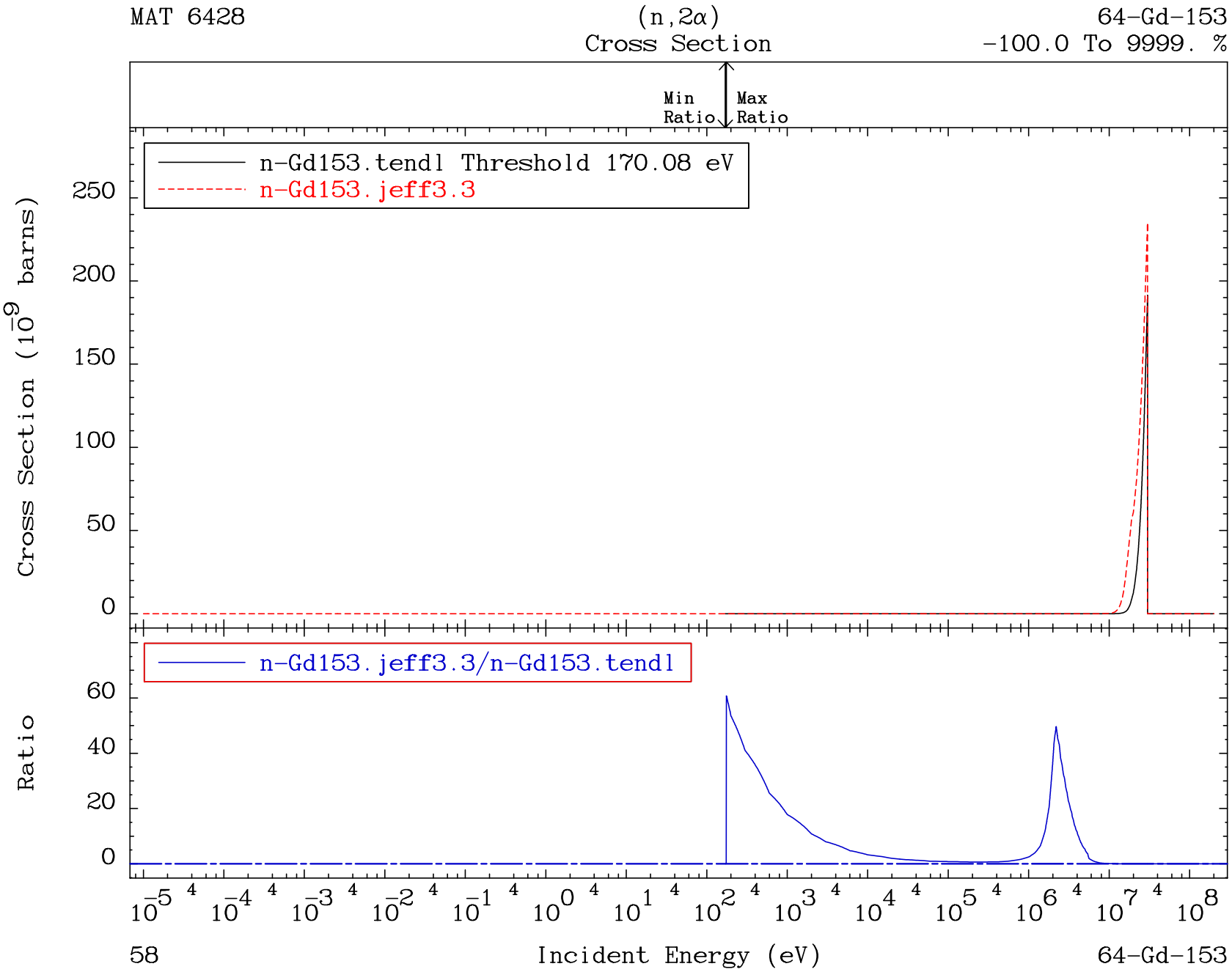

MAT 6428
(n,p)
Cross Section
64-Gd-153
-25.39 To 1.294 %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
53
64-Gd-153

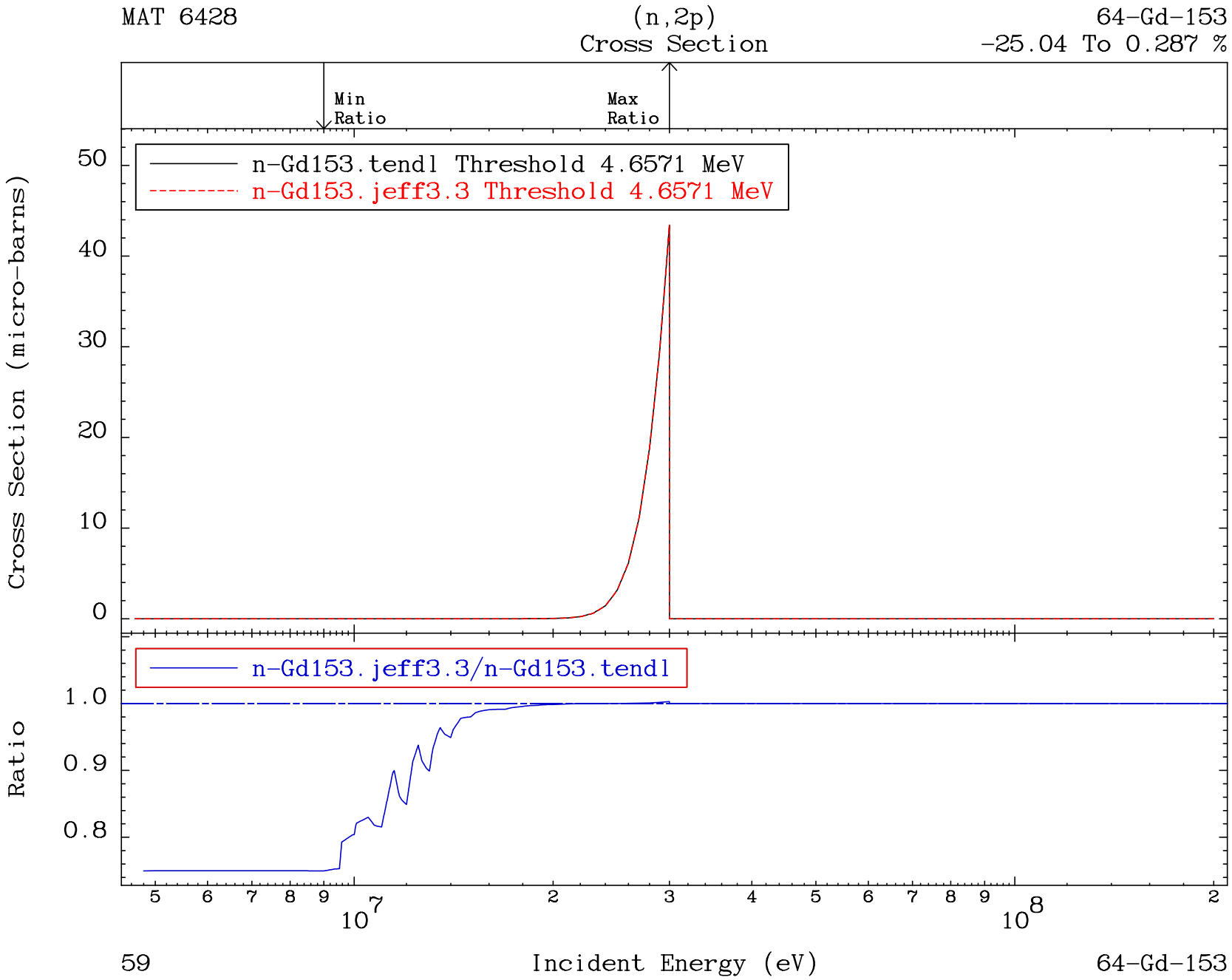

MAT 6428
(n,d)
Cross Section
64-Gd-153
-1.224 To 0.937 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 5.0921 MeV
n-Gd153.jeff3.3 Threshold 5.0921 MeV
Cross Section (milli-barns)
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
54
Incident Energy (eV)
64-Gd-153

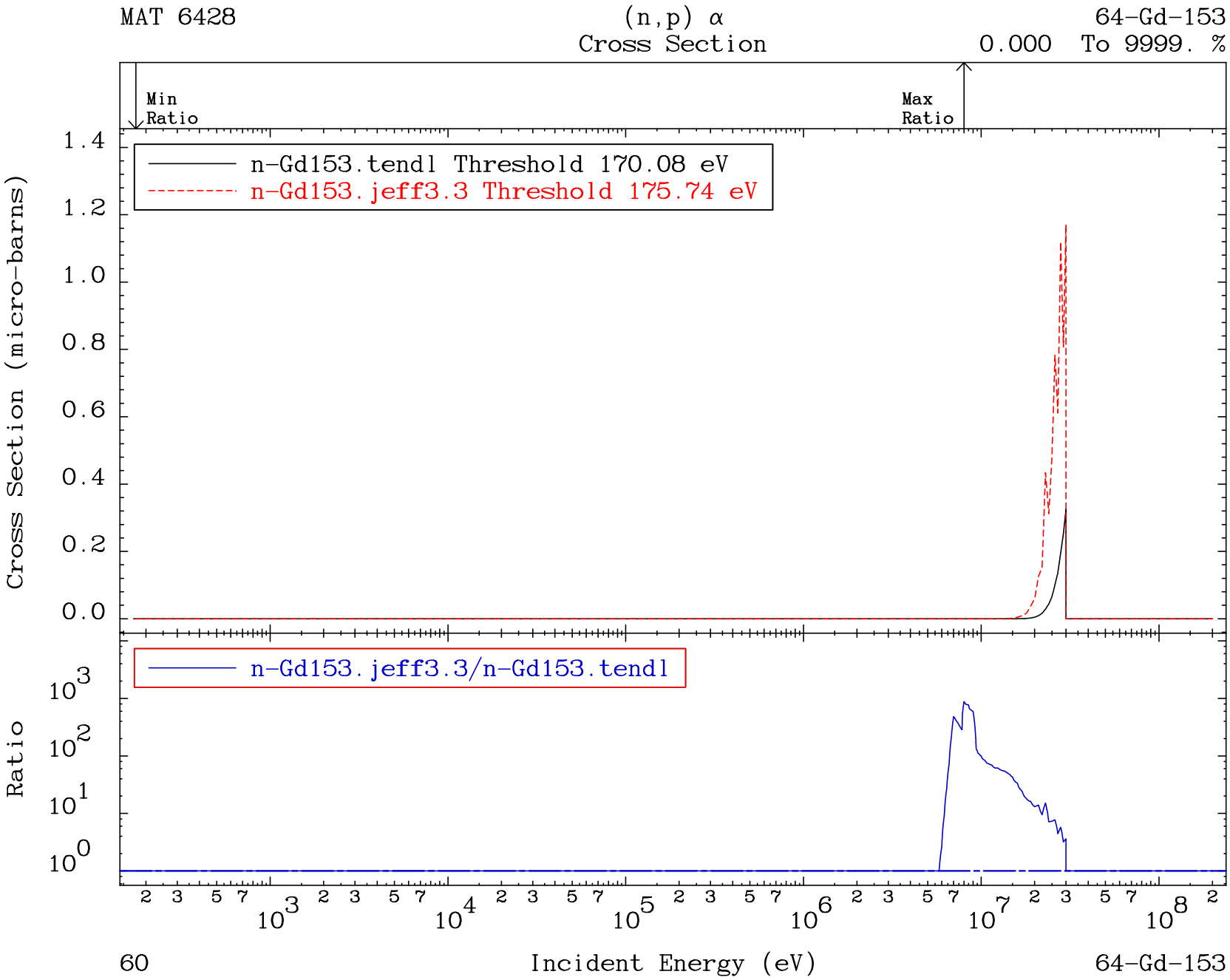

MAT 6428
(n,t)
Cross Section
64-Gd-153
-2.302 To 1.874 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 5.1419 MeV
n-Gd153.jeff3.3 Threshold 5.1419 MeV
Cross Section (milli-barns)
0
2
4
6
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
0.98
1.00
1.02
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
55
Incident Energy (eV)
64-Gd-153

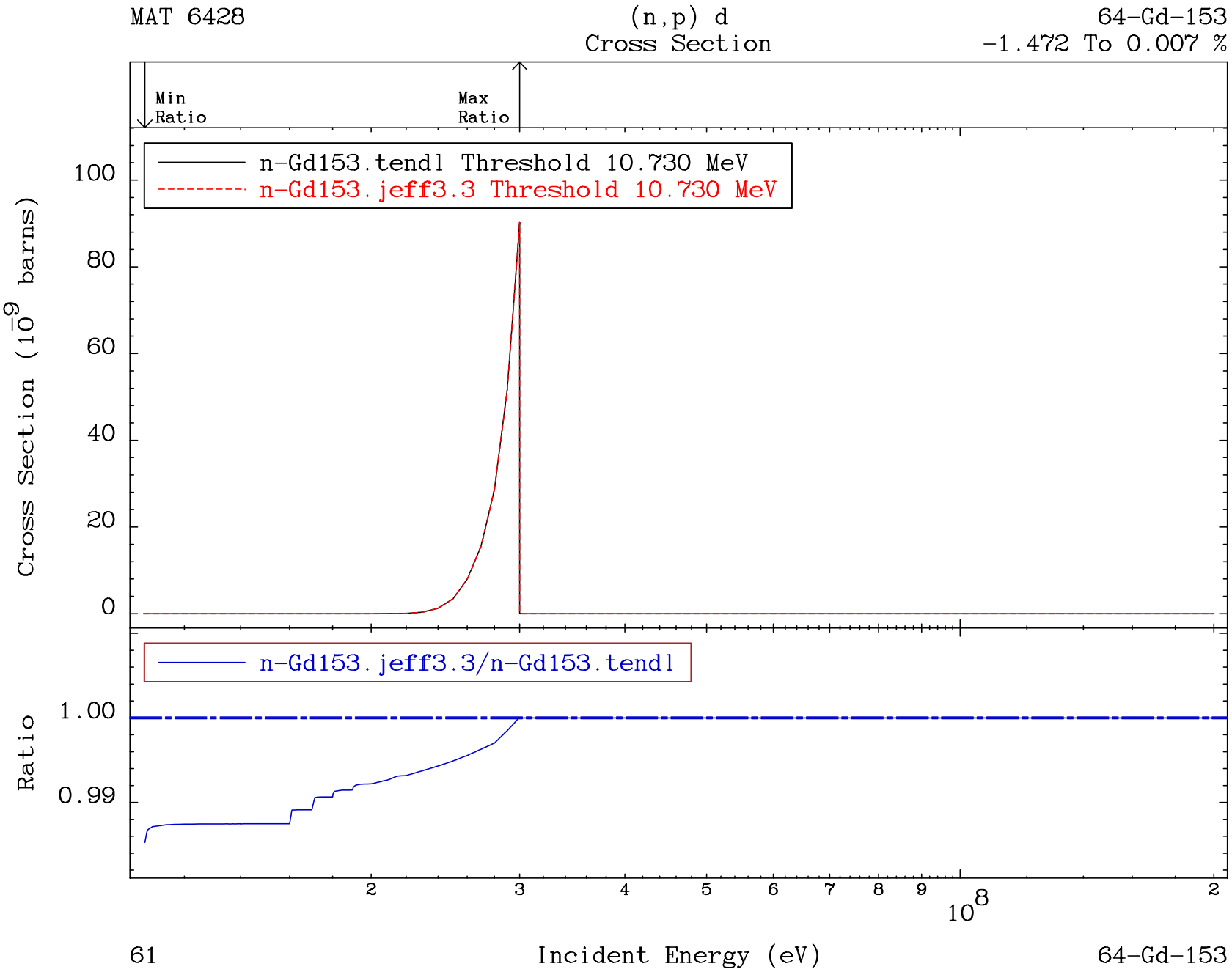

MAT 6428
(n,He-3)
Cross Section
64-Gd-153
-6.590 To 0.890 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 5.2002 MeV
n-Gd153.jeff3.3 Threshold 5.2002 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.96
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
56
Incident Energy (eV)
64-Gd-153

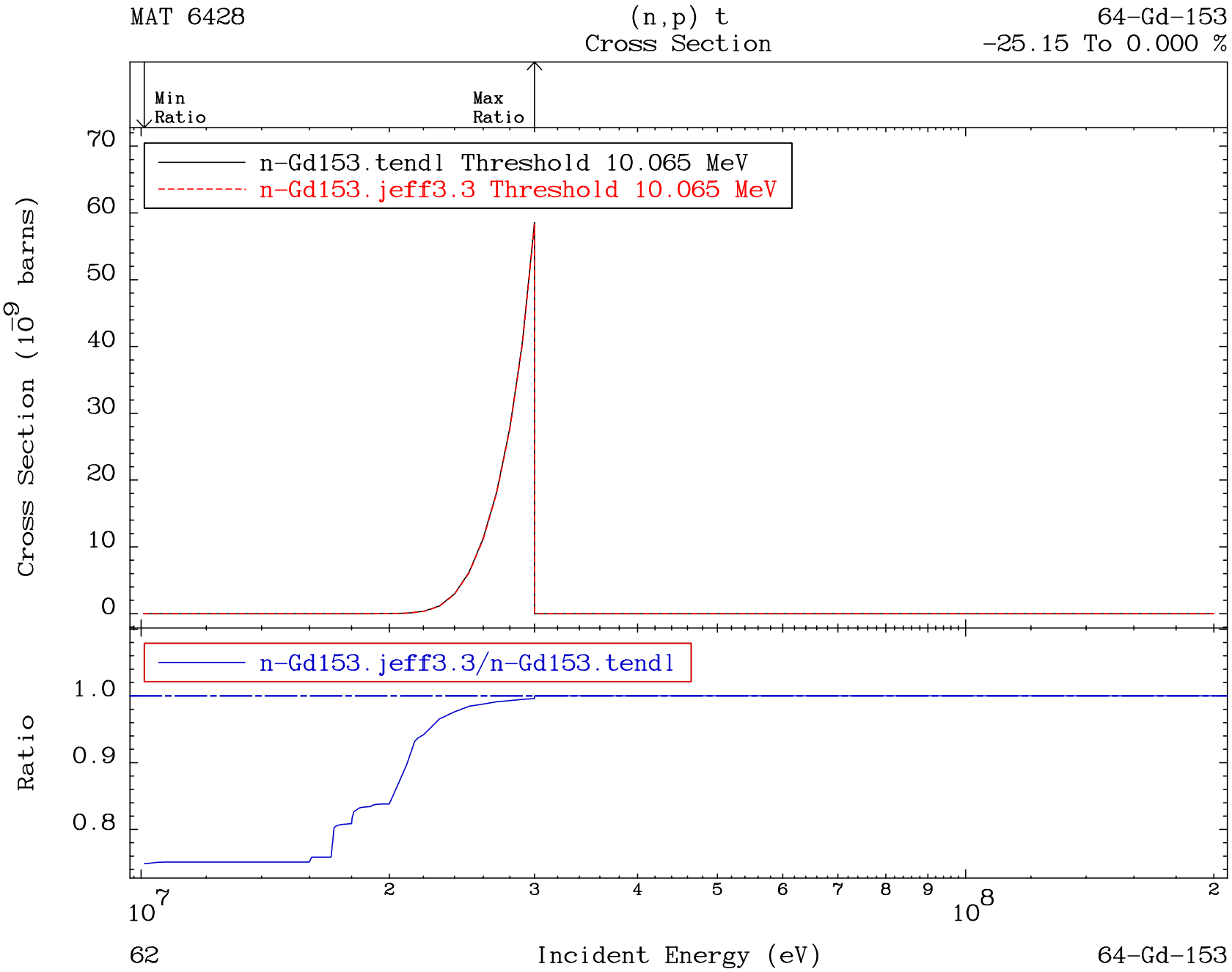

MAT 6428
(n,α)
Cross Section
64-Gd-153
-13.08 To 980.5 %
Max Ratio
Min Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
57
64-Gd-153

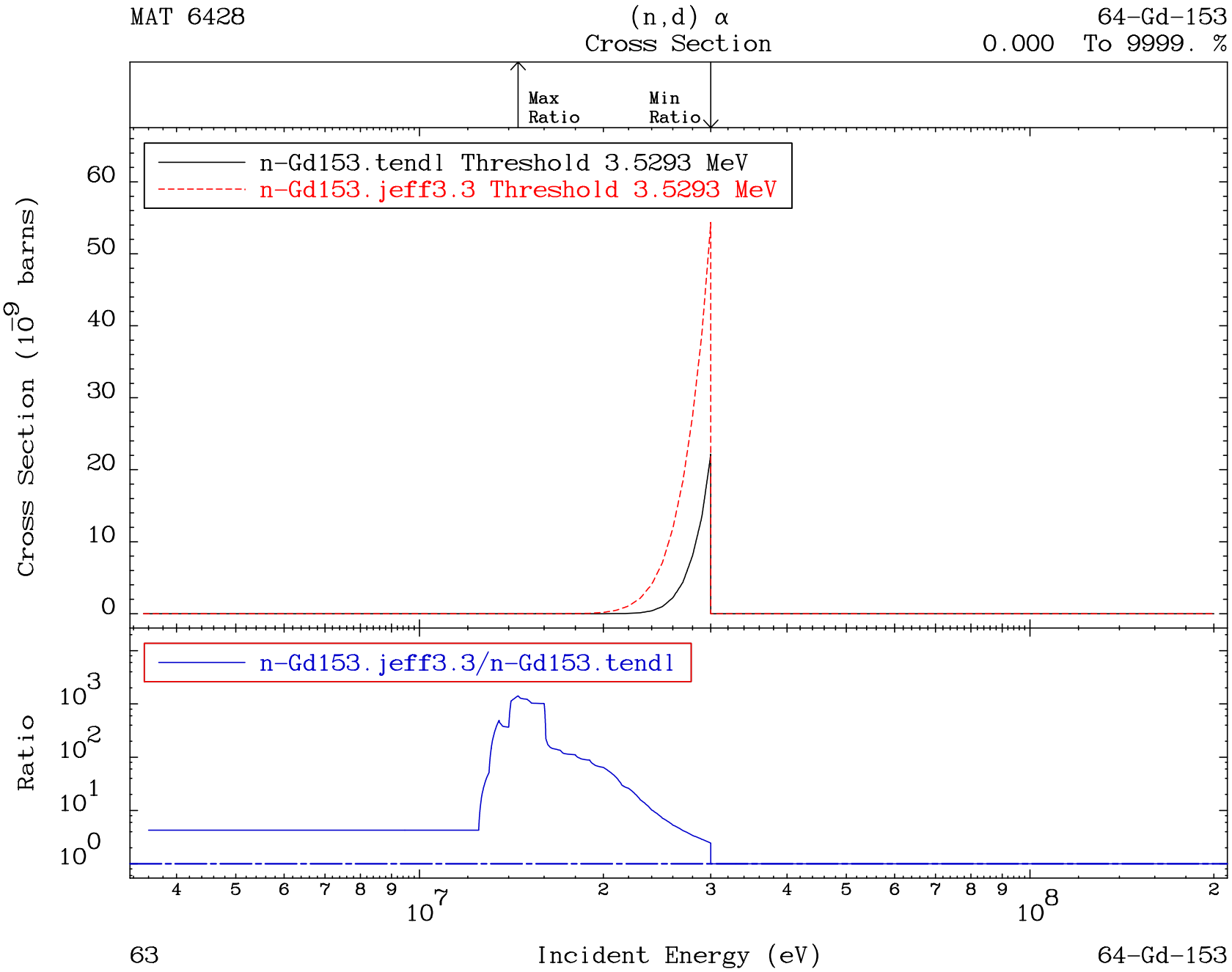

MAT 6428
(n,2α)
Cross Section
64-Gd-153
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 170.08 eV
n-Gd153.jeff3.3
Cross Section (10^{-9} barns)
250
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
60
40
20
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
58
Incident Energy (eV)
64-Gd-153

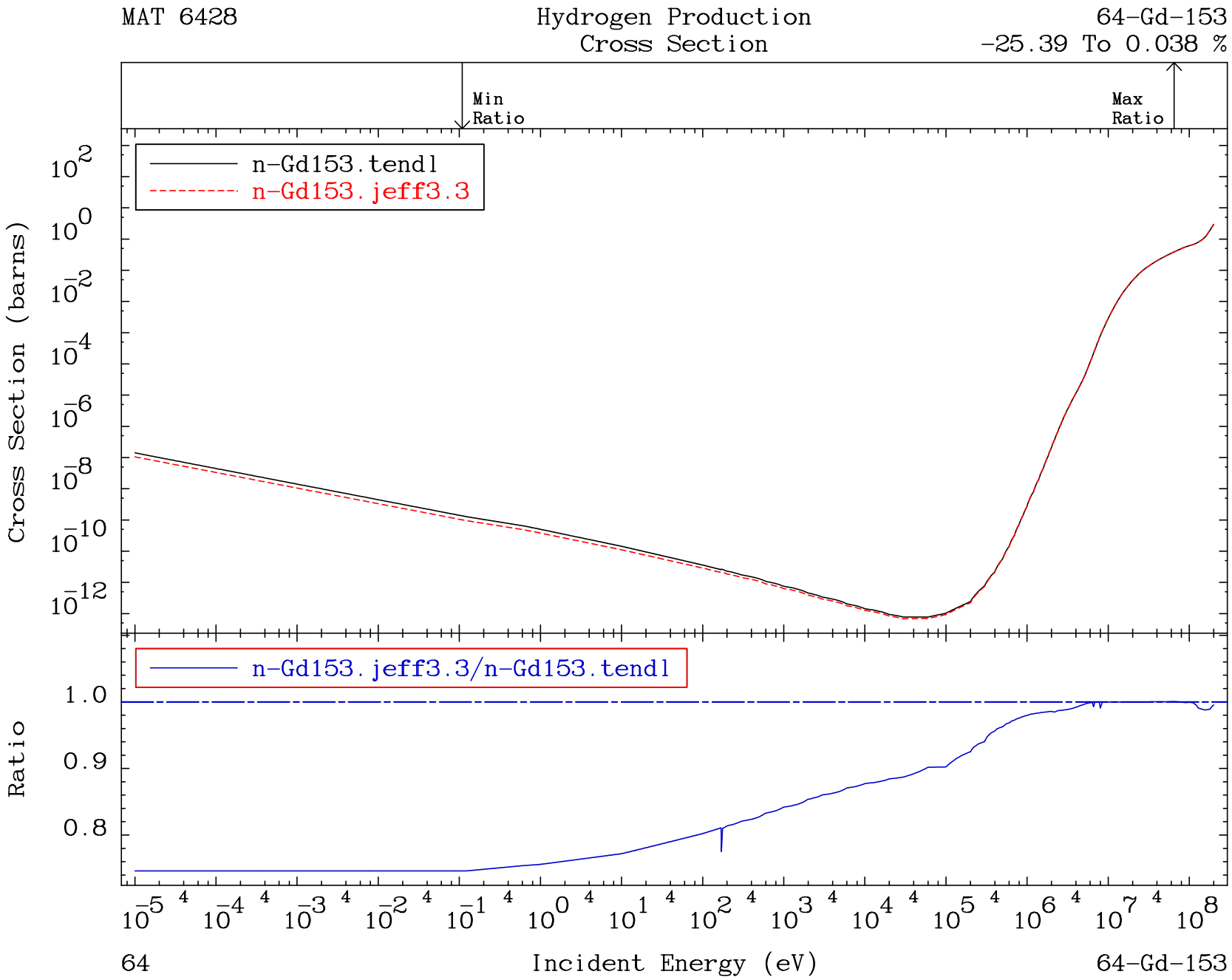

MAT 6428
(n,2p)
Cross Section
64-Gd-153
-25.04 To 0.287 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 4.6571 MeV
n-Gd153.jeff3.3 Threshold 4.6571 MeV
Cross Section (micro-barns)
50
40
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.0
0.9
0.8
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
59
Incident Energy (eV)
64-Gd-153

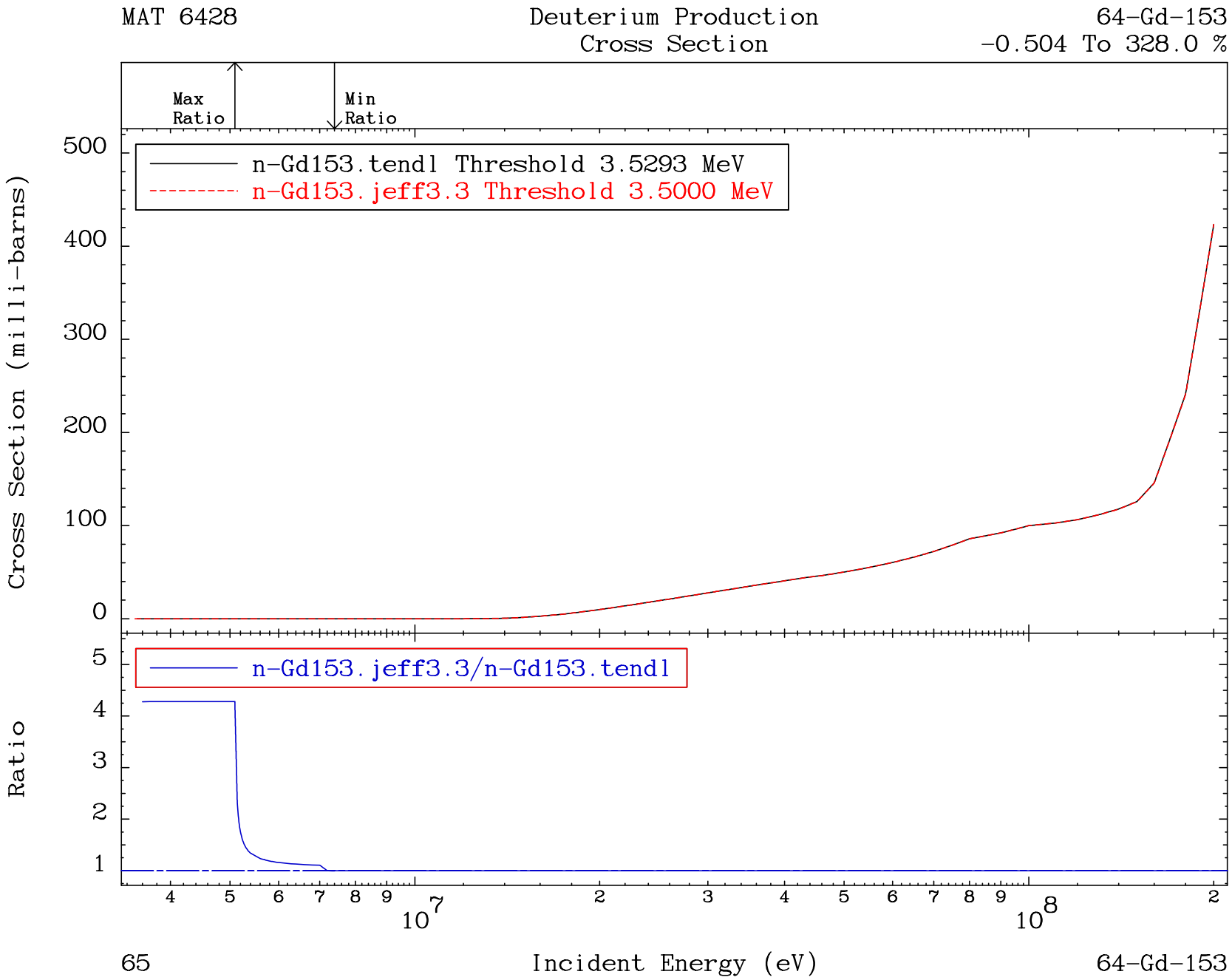

MAT 6428
(n,p) α
Cross Section
64-Gd-153
0.000 To 9999. %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 170.08 eV
n-Gd153.jeff3.3 Threshold 175.74 eV
Cross Section (micro-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^3
10^2
10^1
10^0
2 3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
60
Incident Energy (eV)
64-Gd-153

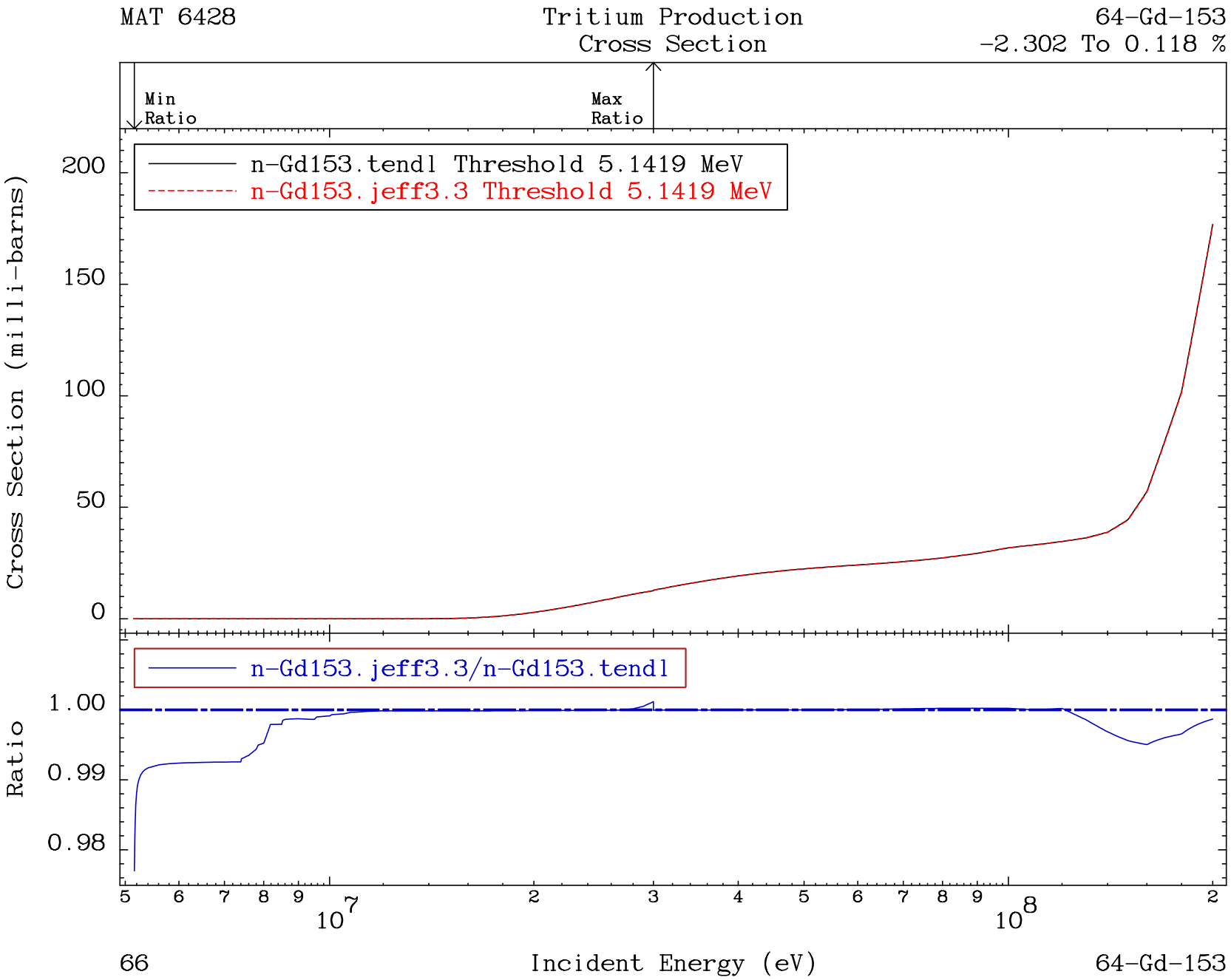

MAT 6428
(n,p) d
Cross Section
64-Gd-153
-1.472 To 0.007 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 10.730 MeV
n-Gd153.jeff3.3 Threshold 10.730 MeV
Cross Section (10^{-9} barns)
100
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
61
Incident Energy (eV)
64-Gd-153

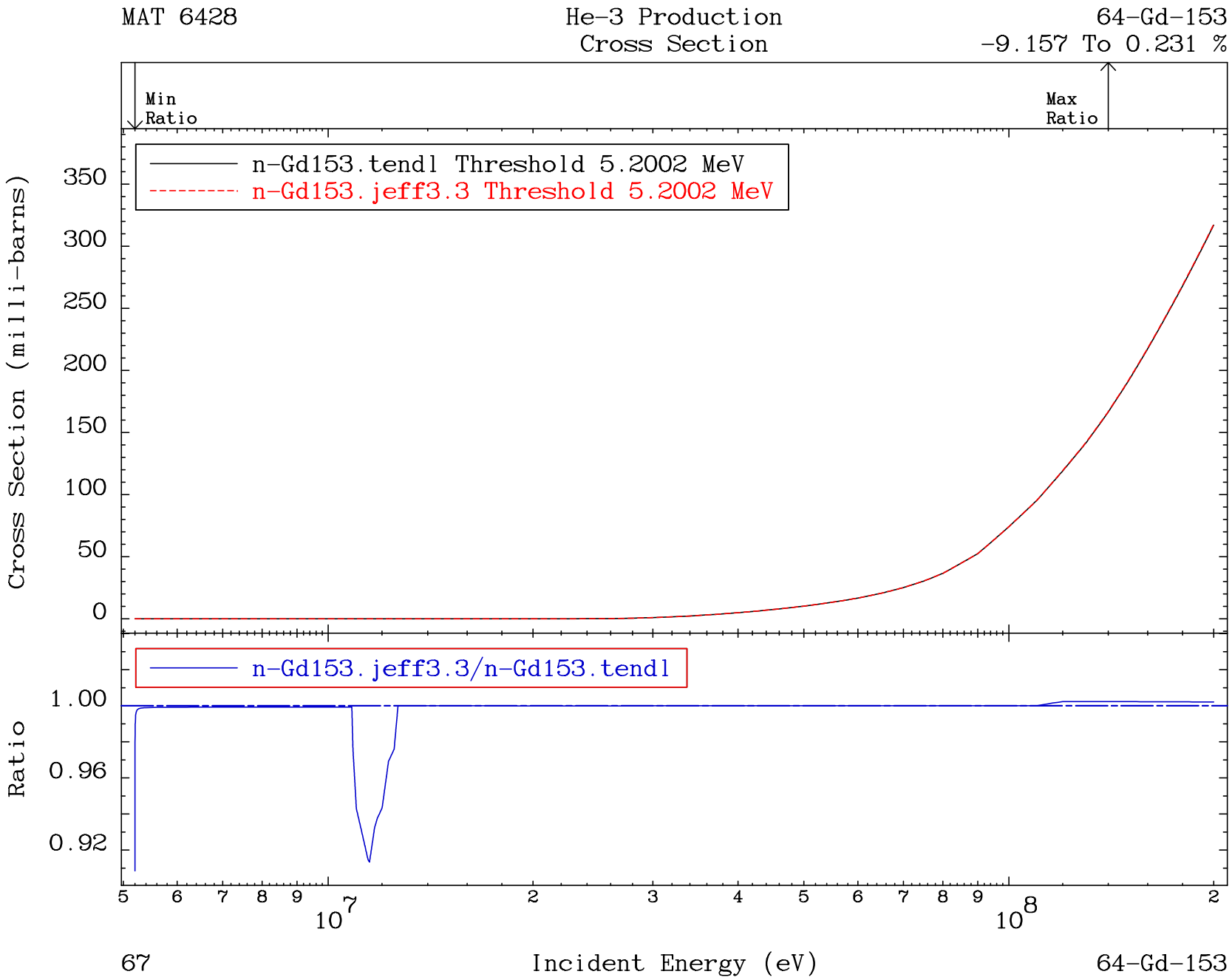

MAT 6428
(n,p) t
Cross Section
64-Gd-153
-25.15 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 10.065 MeV
n-Gd153.jeff3.3 Threshold 10.065 MeV
Cross Section (10^{-9} barns)
70
60
50
40
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.0
0.9
0.8
10^{7}
2
3
4
5
6
7
8
9
10^{8}
2
62
Incident Energy (eV)
64-Gd-153

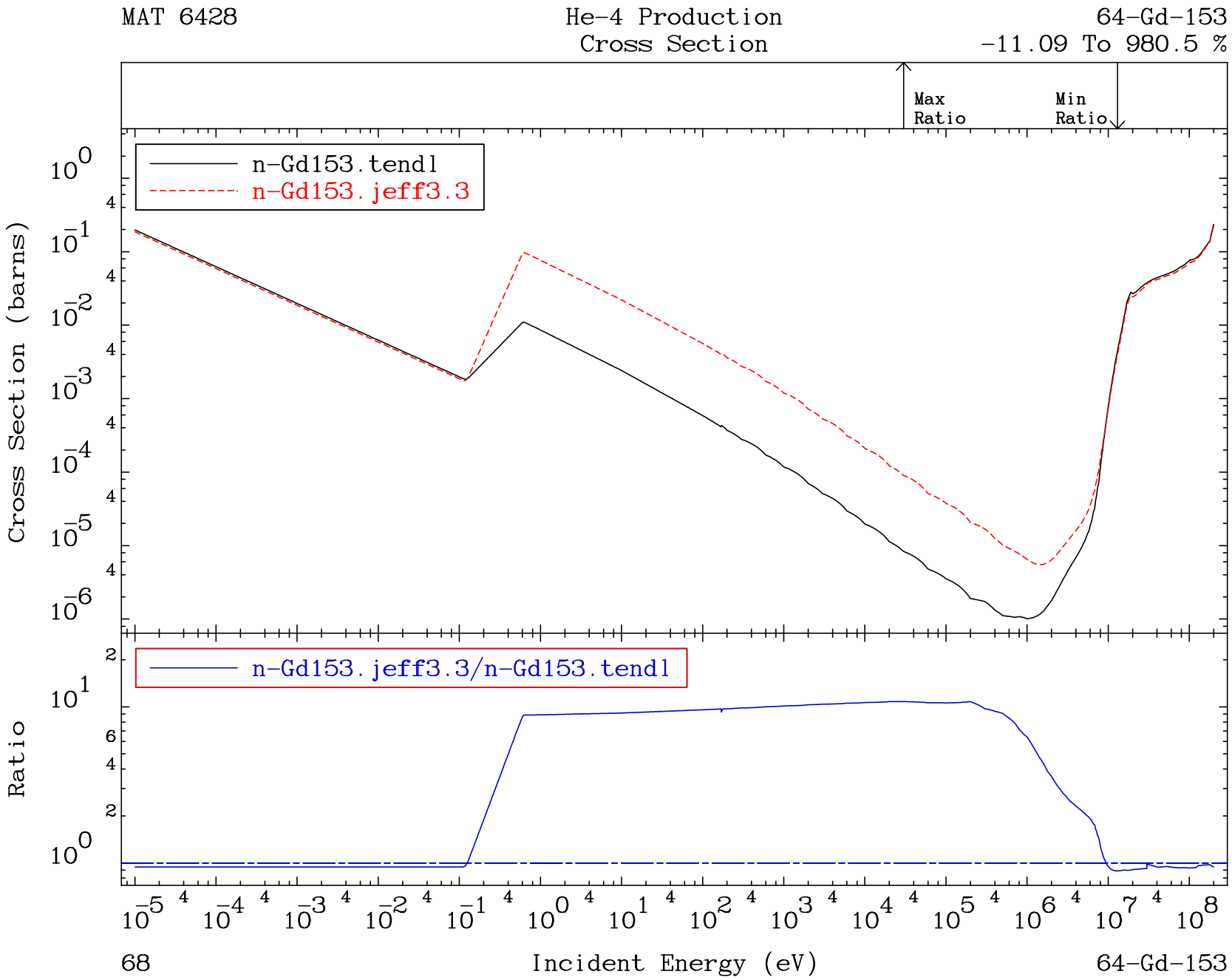

MAT 6428
(n,d) α
Cross Section
64-Gd-153
0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 3.5293 MeV
n-Gd153.jeff3.3 Threshold 3.5293 MeV
Cross Section (10^{-9} barns)
60
50
40
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^3
10^2
10^1
10^0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
63
Incident Energy (eV)
64-Gd-153

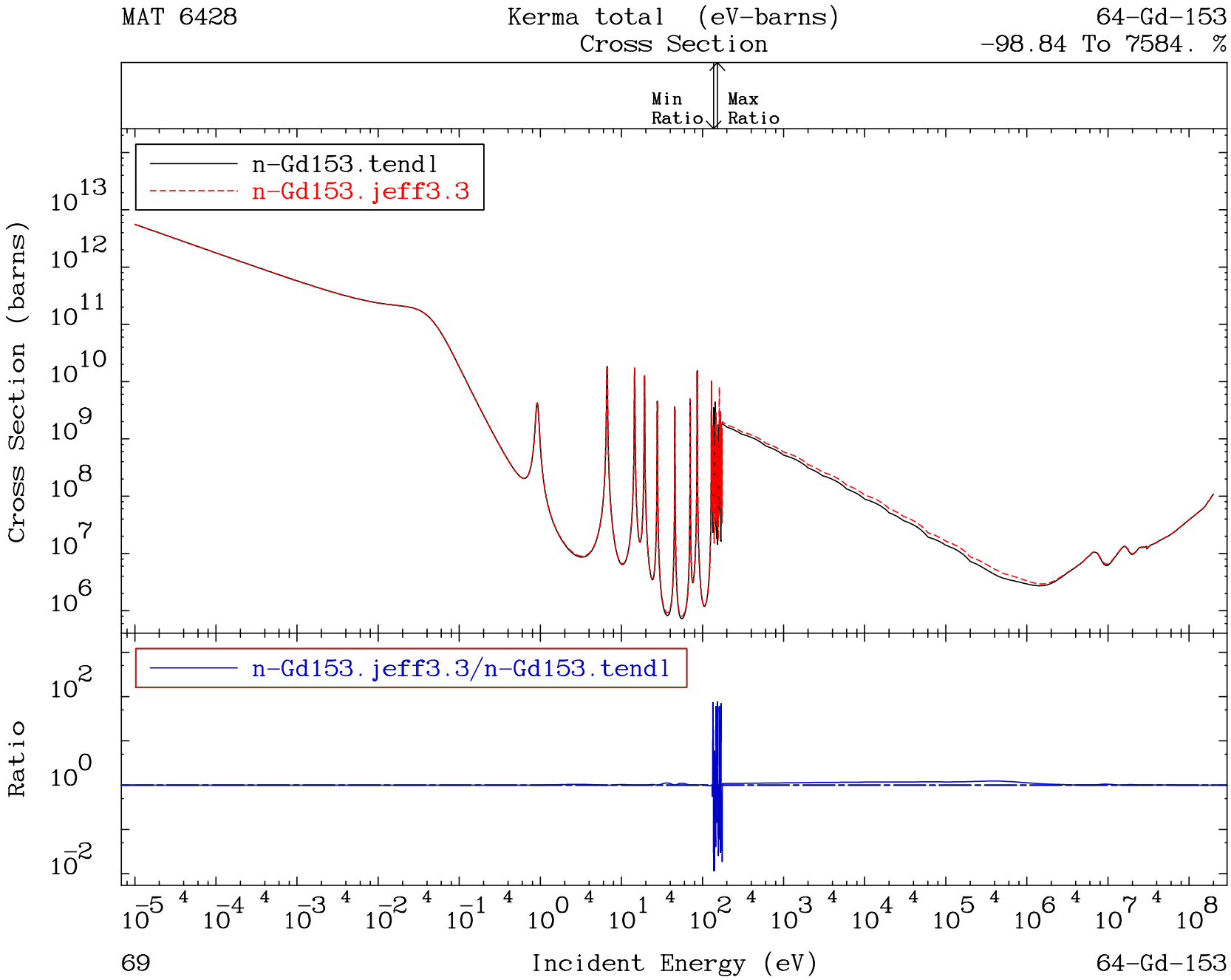

MAT 6428
Hydrogen Production
Cross Section
64-Gd-153
-25.39 To 0.038 %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
64
64-Gd-153

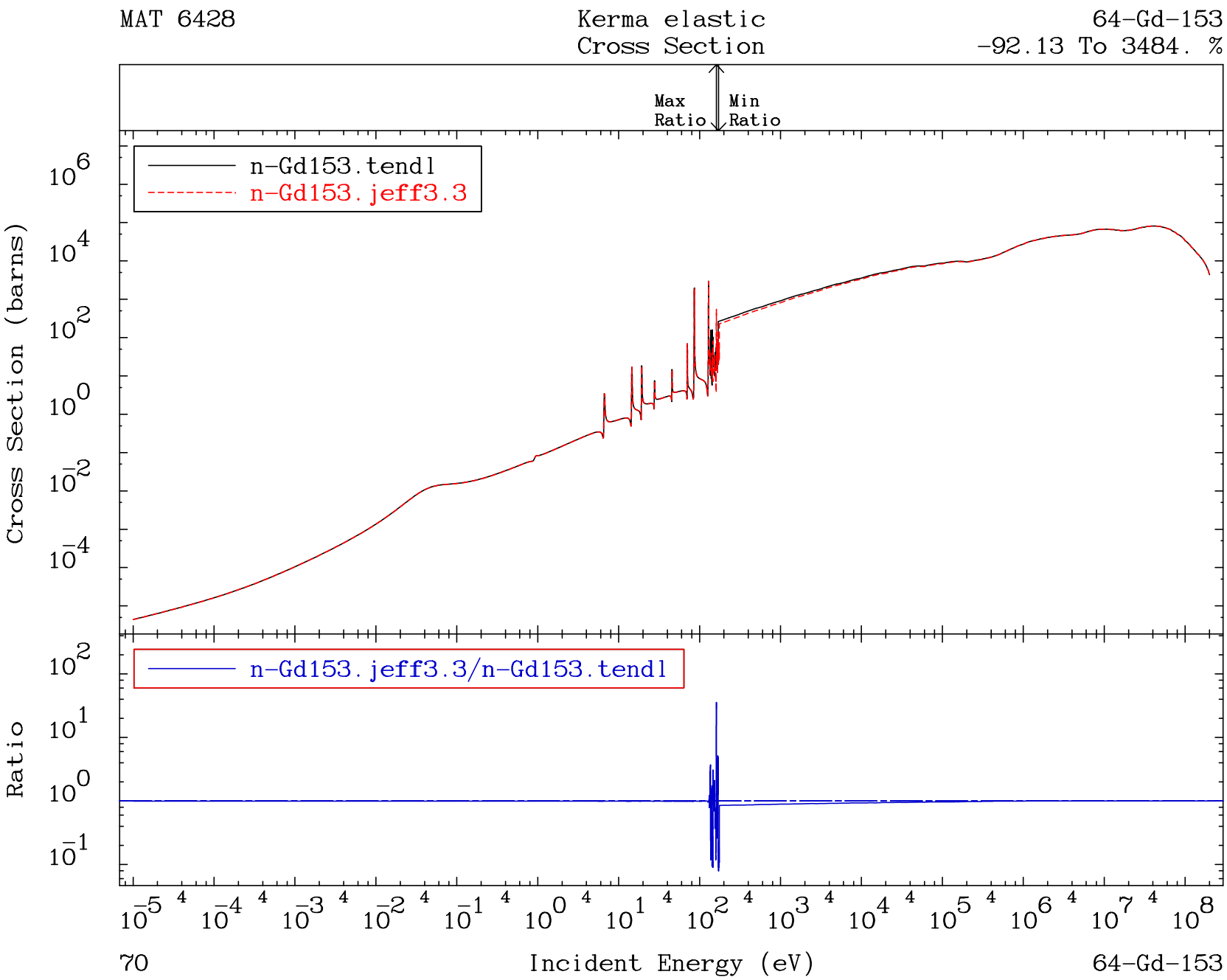

MAT 6428
Deuterium Production
Cross Section
64-Gd-153
-0.504 To 328.0 %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 3.5293 MeV
n-Gd153.jeff3.3 Threshold 3.5000 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
5
4
3
2
1
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
65
Incident Energy (eV)
64-Gd-153

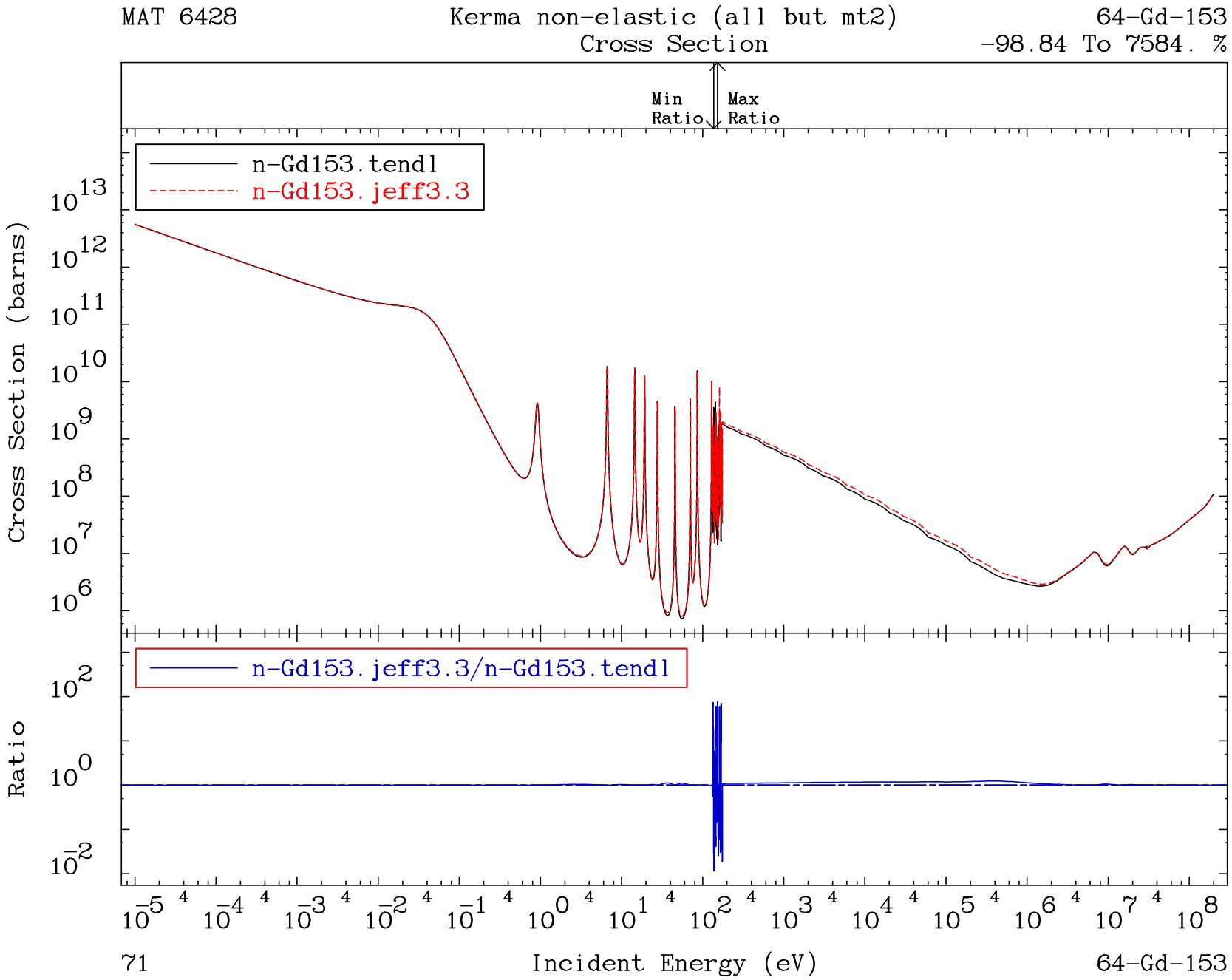

MAT 6428
Tritium Production
Cross Section
64-Gd-153
-2.302 To 0.118 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 5.1419 MeV
n-Gd153.jeff3.3 Threshold 5.1419 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.99
0.98
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
66
Incident Energy (eV)
64-Gd-153

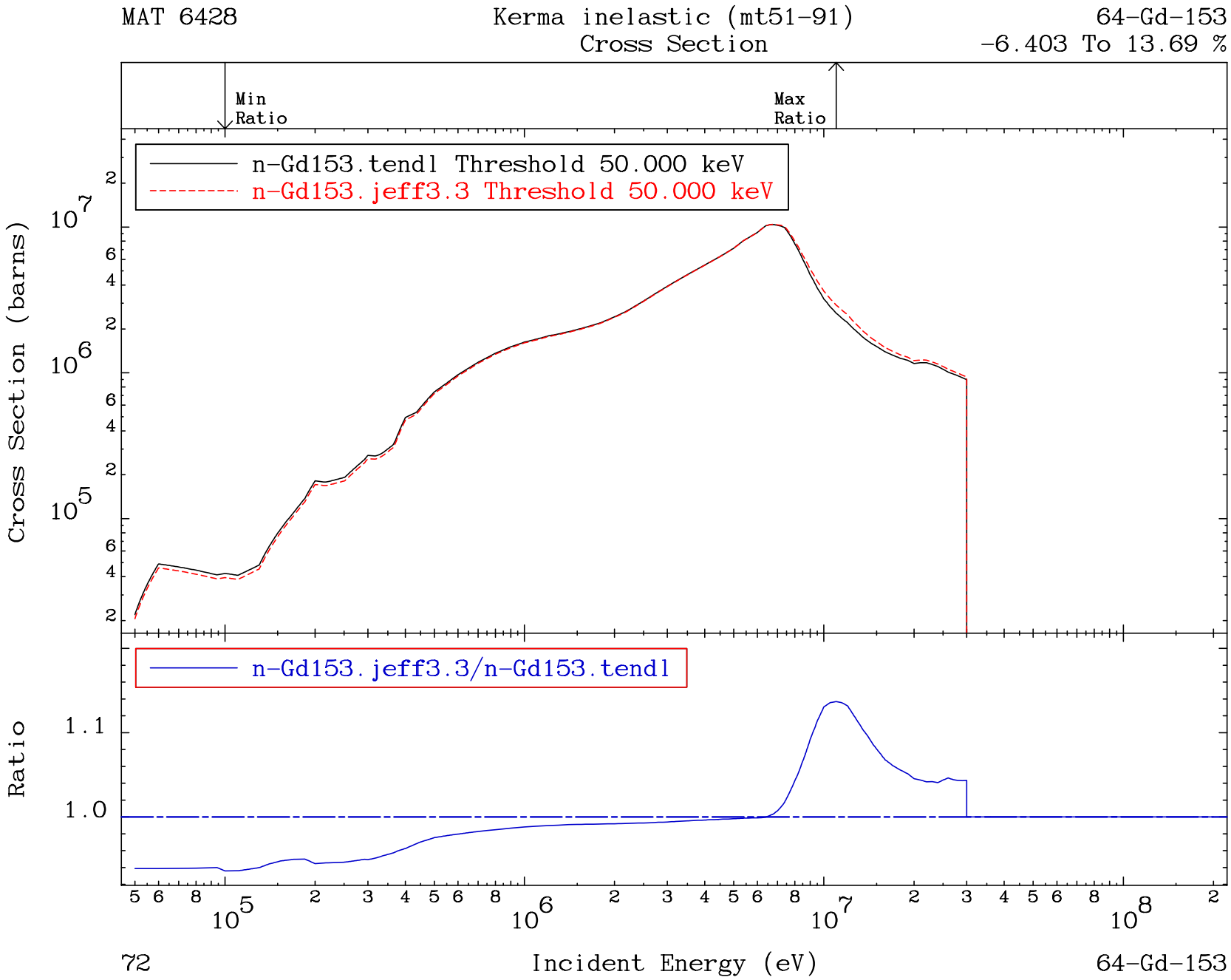

MAT 6428
He-3 Production
Cross Section
64-Gd-153
-9.157 To 0.231 %
Min
Ratio
Max
Ratio
n-Gd153.tendl Threshold 5.2002 MeV
n-Gd153.jeff3.3 Threshold 5.2002 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.96
0.92
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
67
Incident Energy (eV)
64-Gd-153

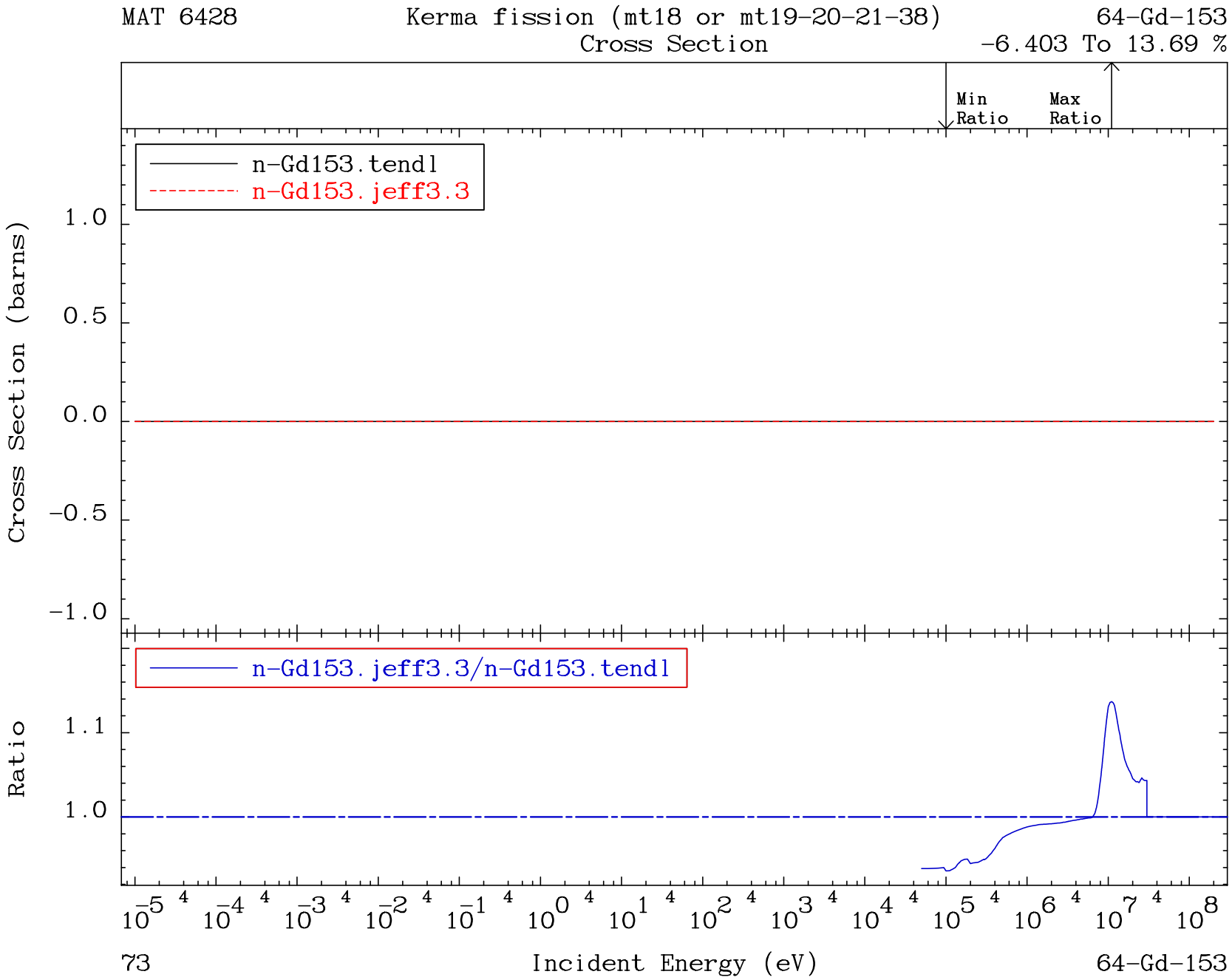

MAT 6428
He-4 Production
Cross Section
64-Gd-153
-11.09 To 980.5 %
Max Ratio
Min Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
68
64-Gd-153

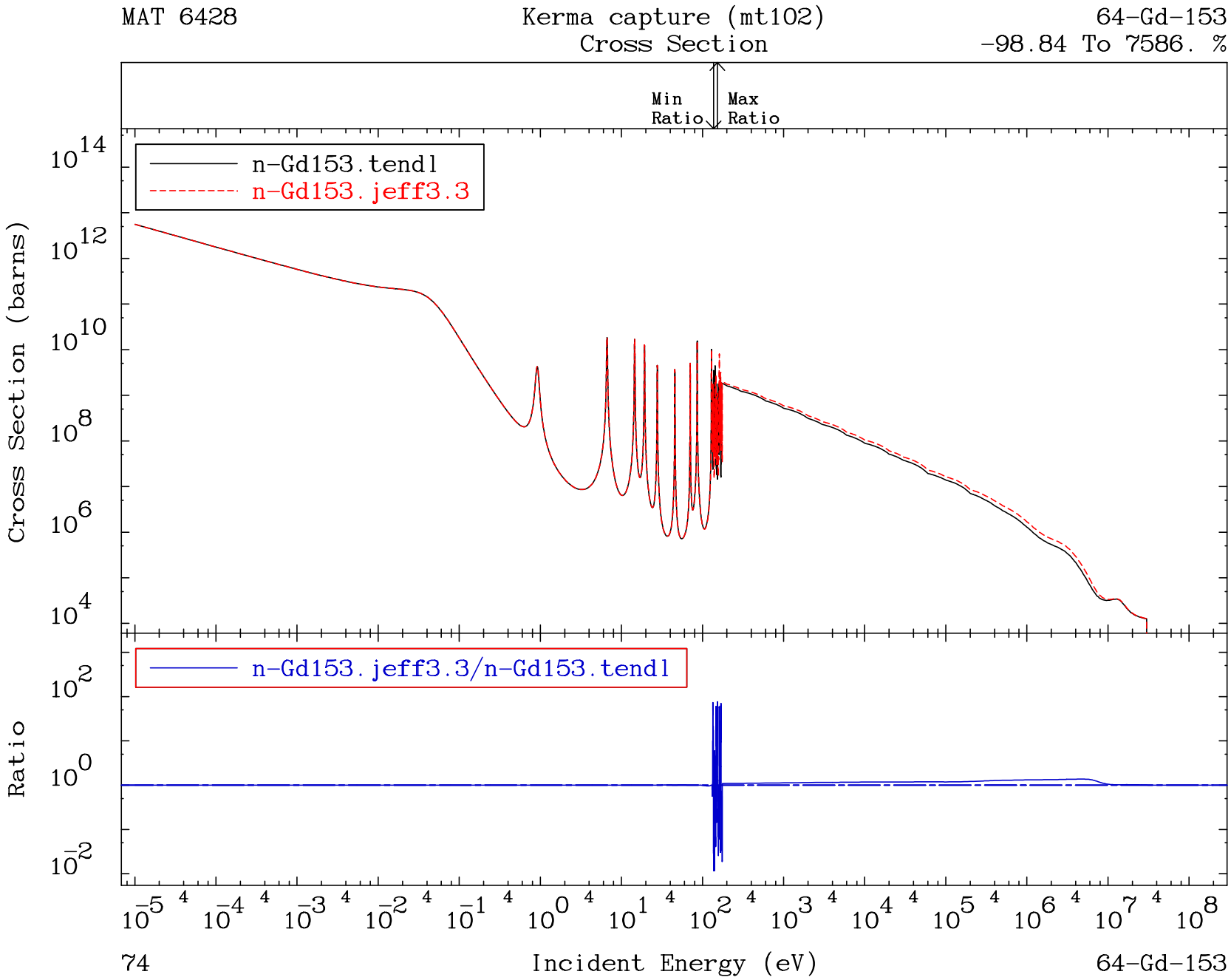

MAT 6428
Kerma total (eV-barns)
Cross Section
64-Gd-153
-98.84 To 7584. %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
69
64-Gd-153

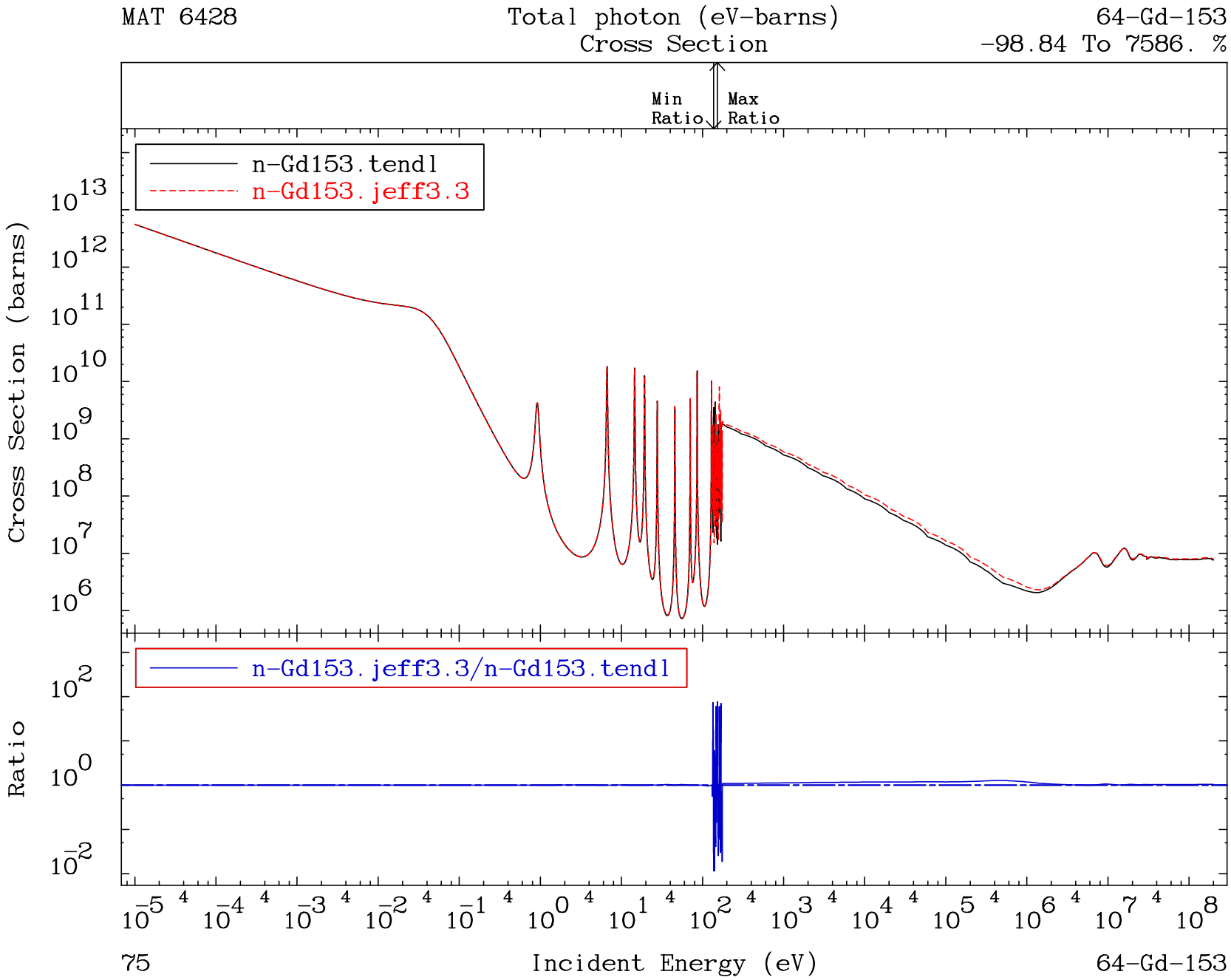

MAT 6428
Kerma elastic
Cross Section
64-Gd-153
-92.13 To 3484. %
Max Ratio
Min Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
70
64-Gd-153

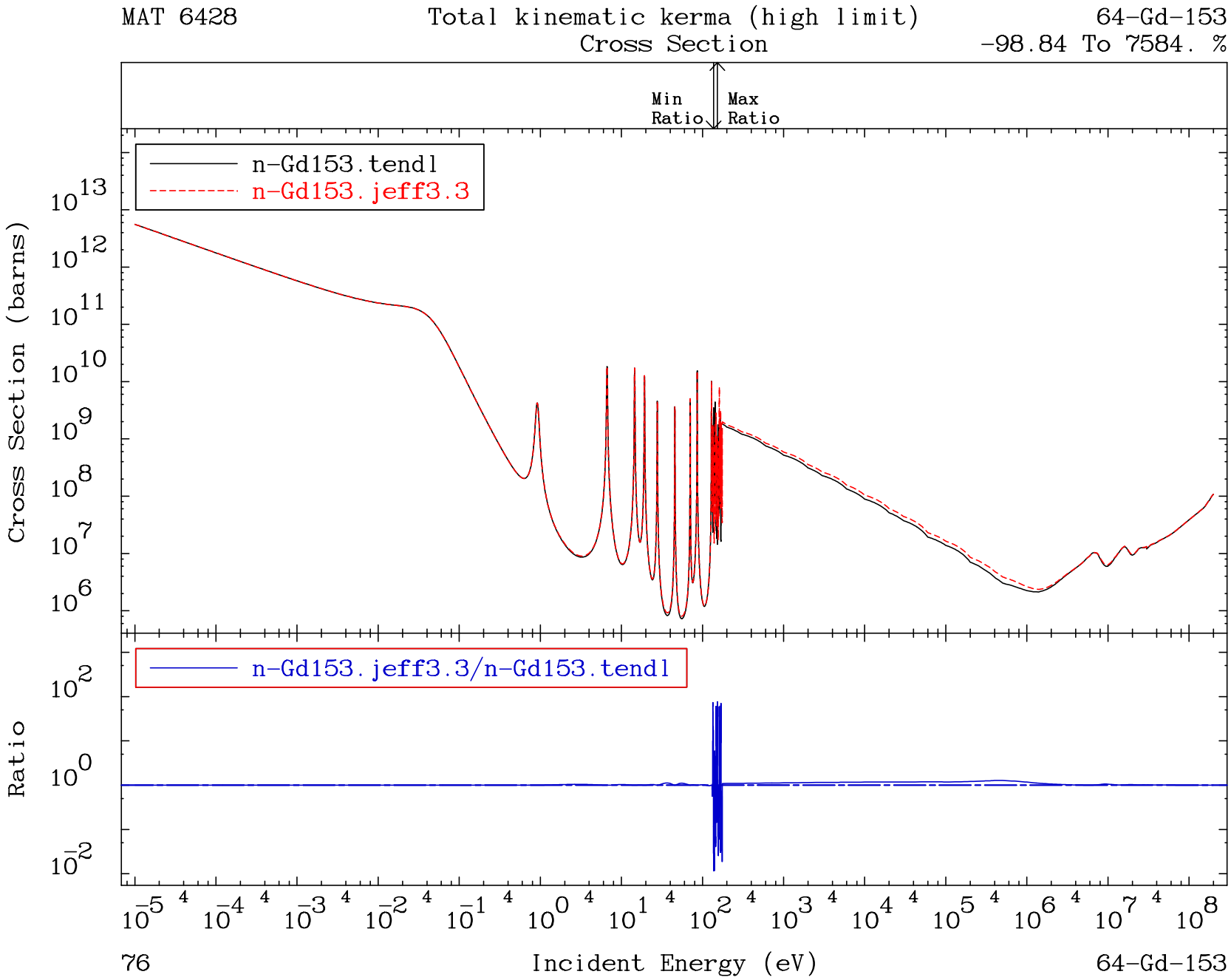

MAT 6428
Kerma non-elastic (all but mt2)
Cross Section
64-Gd-153
-98.84 To 7584. %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
71
64-Gd-153

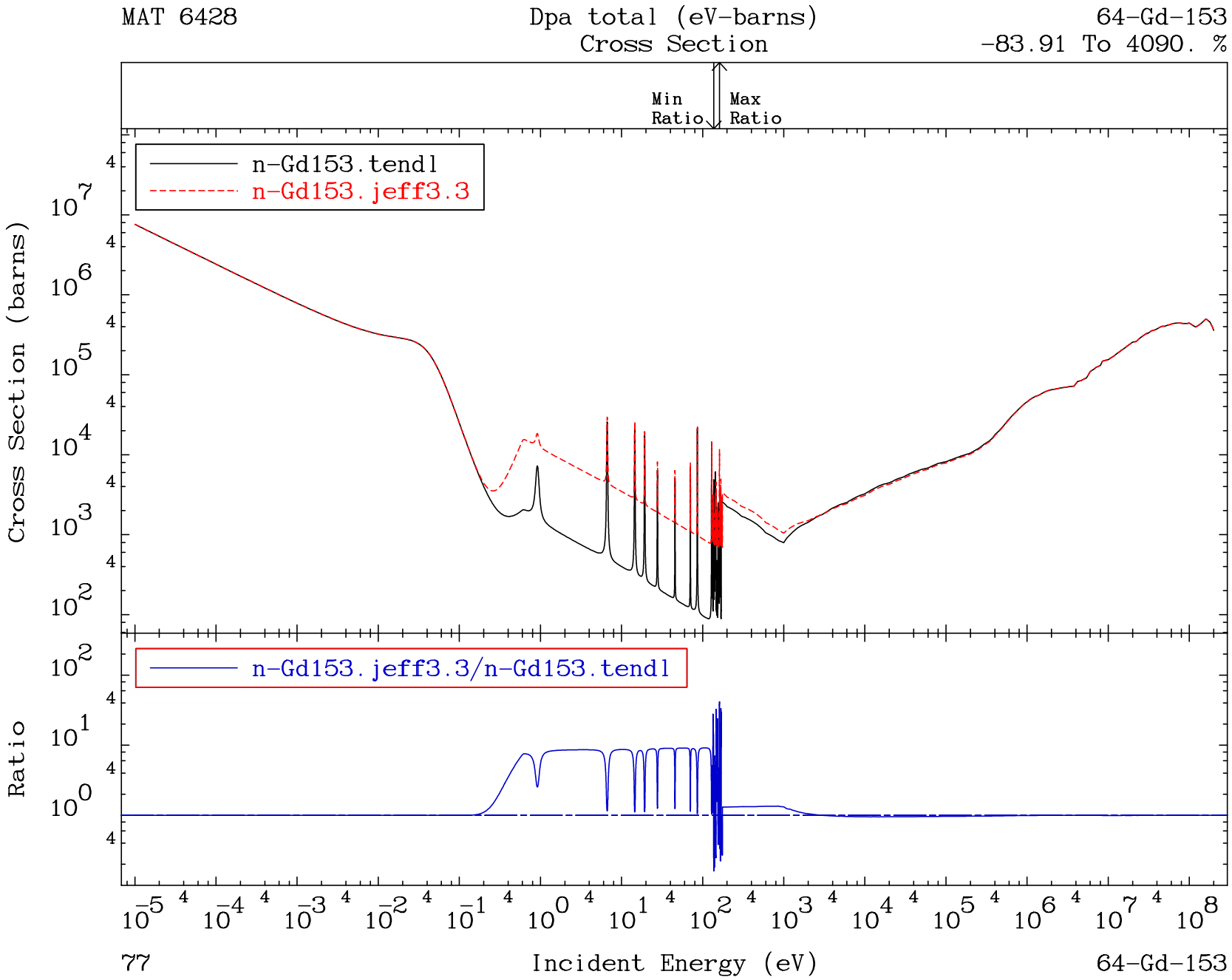

MAT 6428
Kerma inelastic (mt51-91)
Cross Section
64-Gd-153
-6.403 To 13.69 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 50.000 keV
n-Gd153.jeff3.3 Threshold 50.000 keV
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
72
64-Gd-153

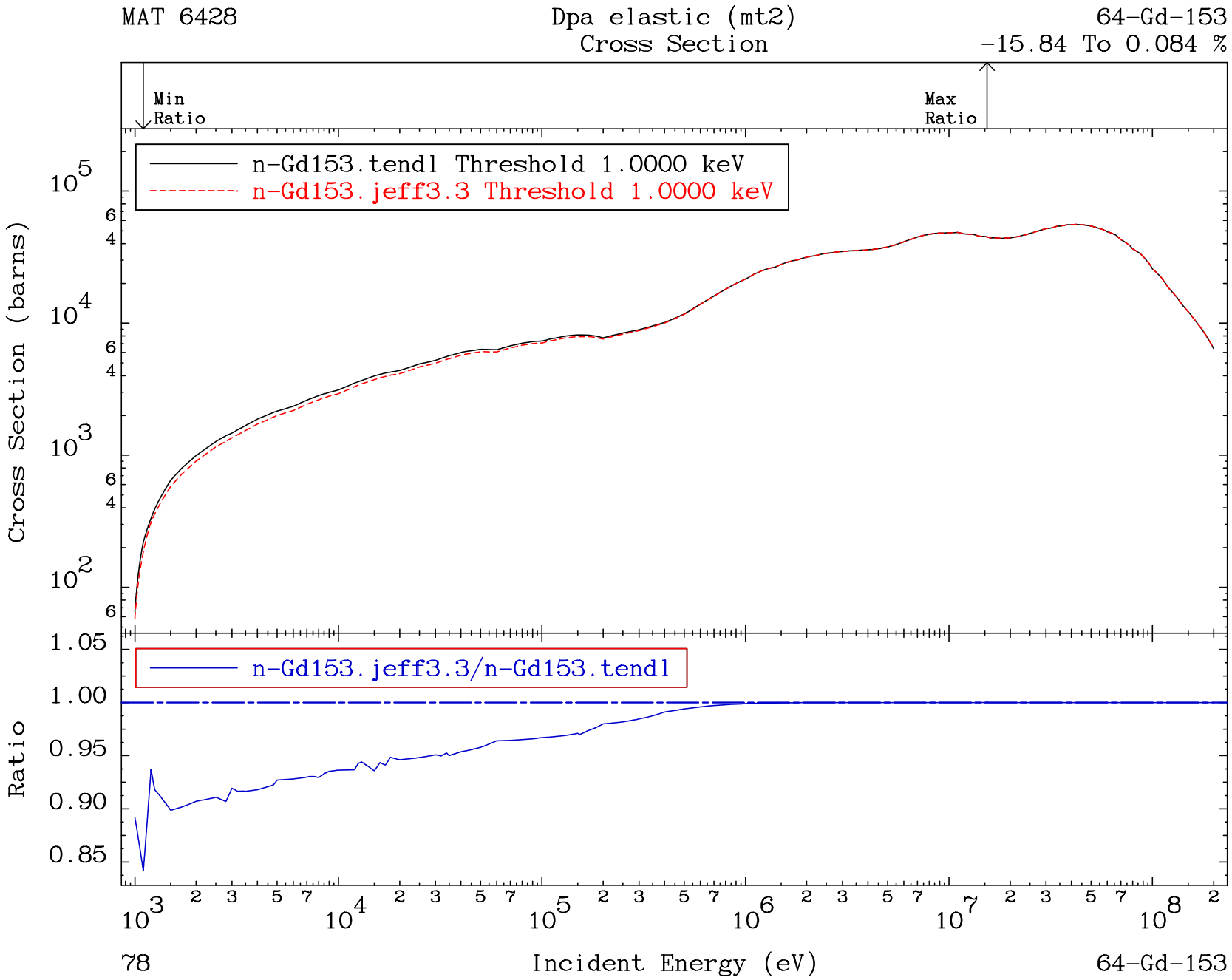

MAT 6428
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
64-Gd-153
-6.403 To 13.69 %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.1
1.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
73
Incident Energy (eV)
64-Gd-153

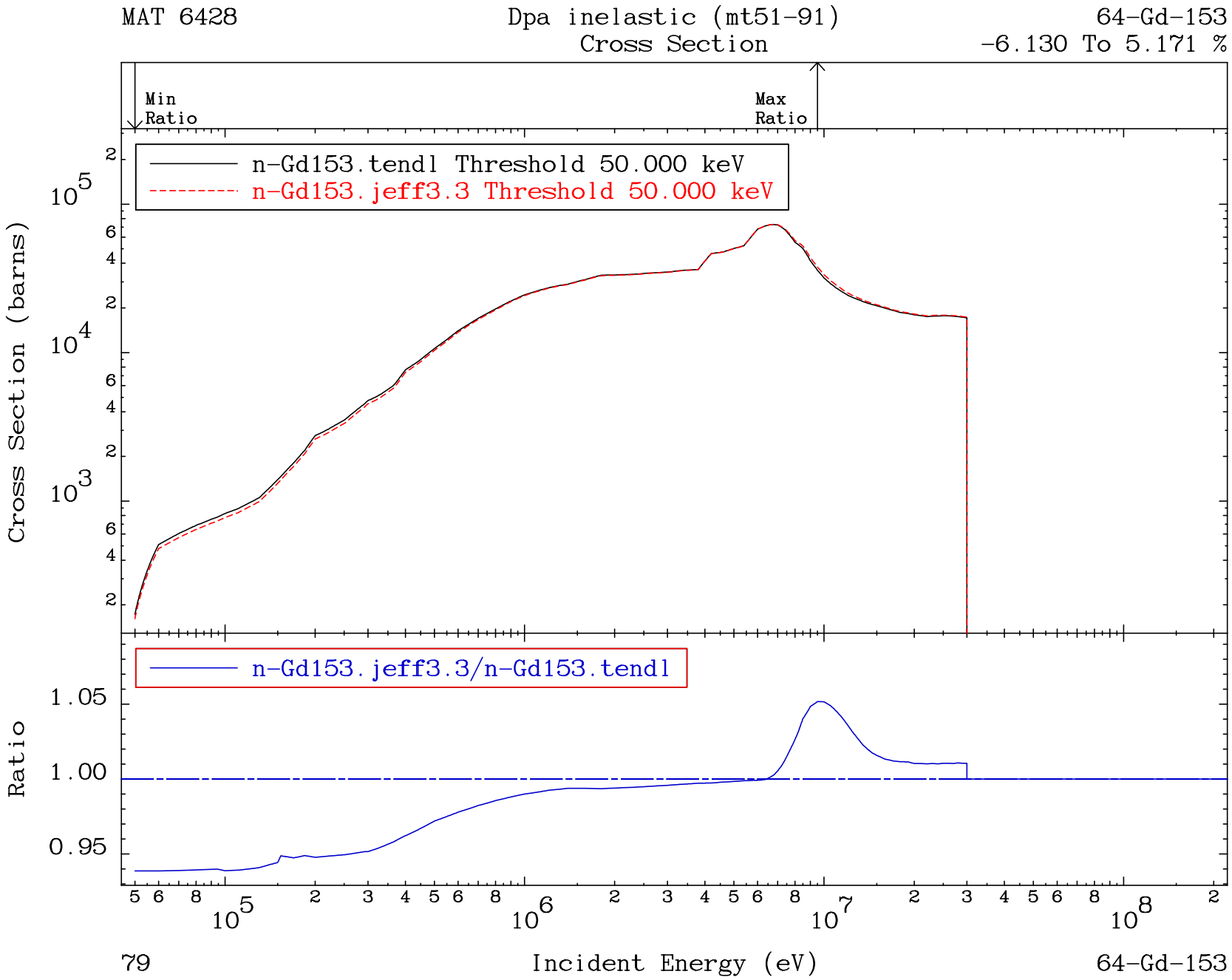

MAT 6428
Kerma capture (mt102)
Cross Section
64-Gd-153
-98.84 To 7586. %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
74
64-Gd-153

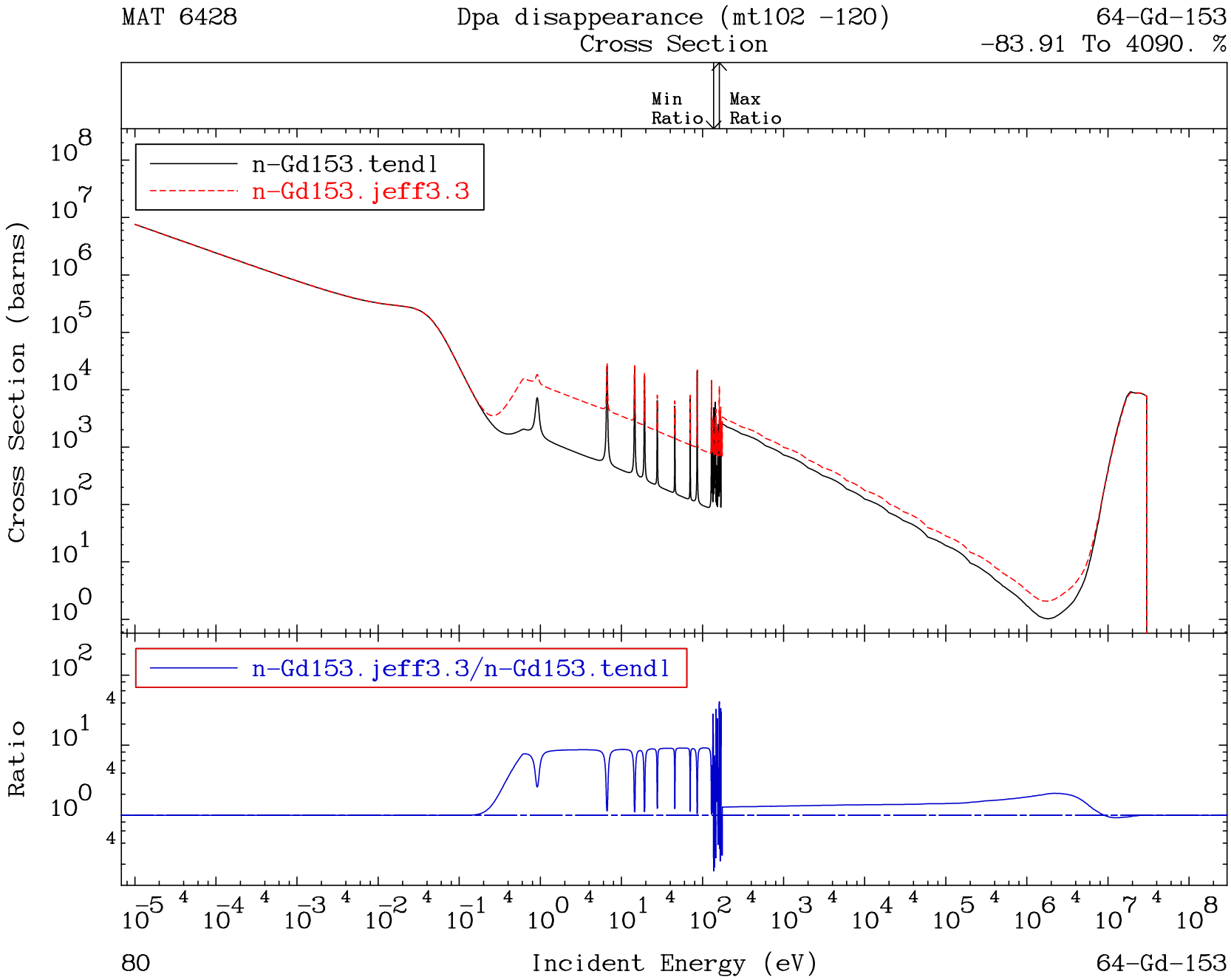

MAT 6428
Total photon (eV-barns)
Cross Section
64-Gd-153
-98.84 To 7586. %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
75
64-Gd-153

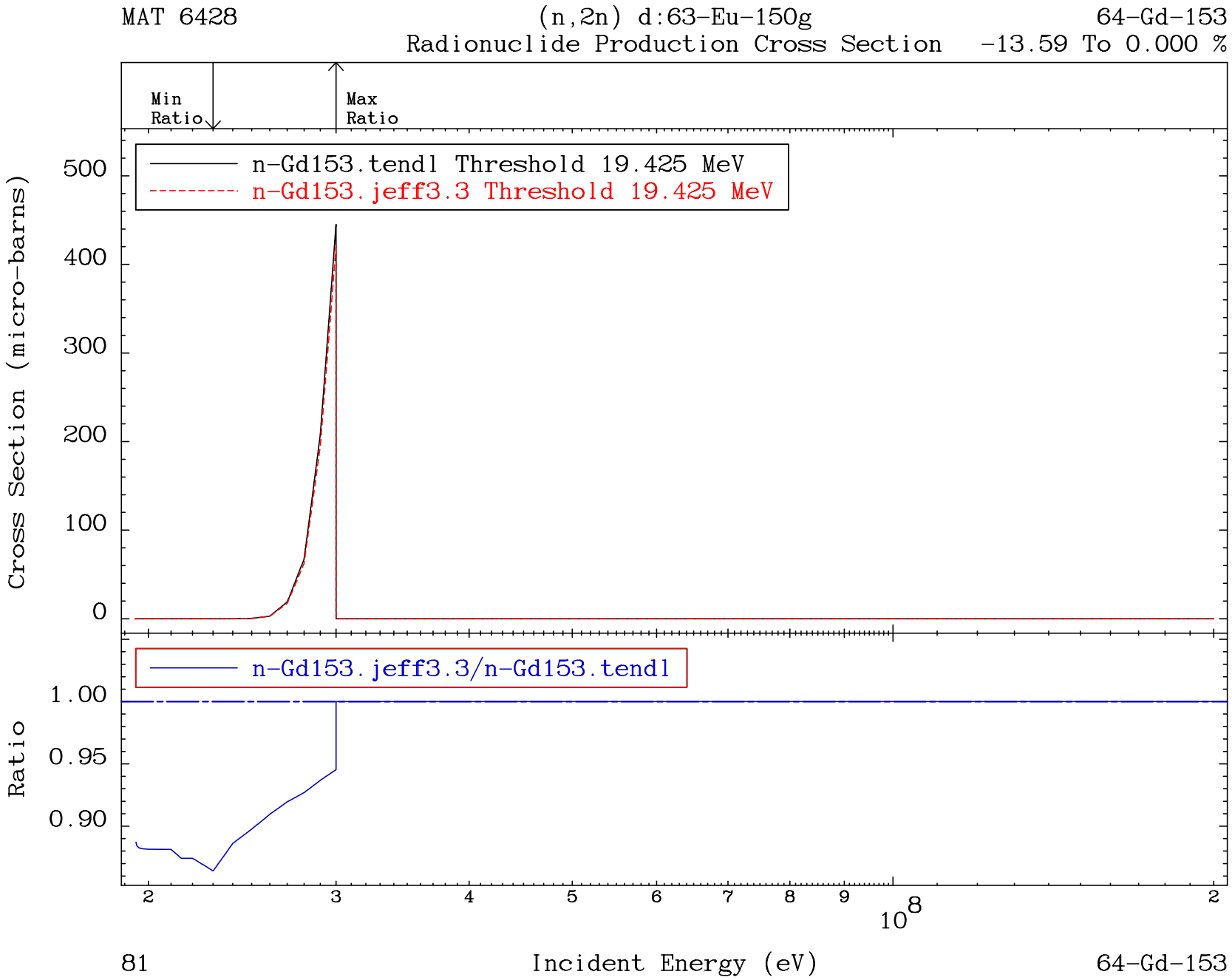

MAT 6428
Total kinematic kerma (high limit)
Cross Section
64-Gd-153
-98.84 To 7584. %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
76
64-Gd-153

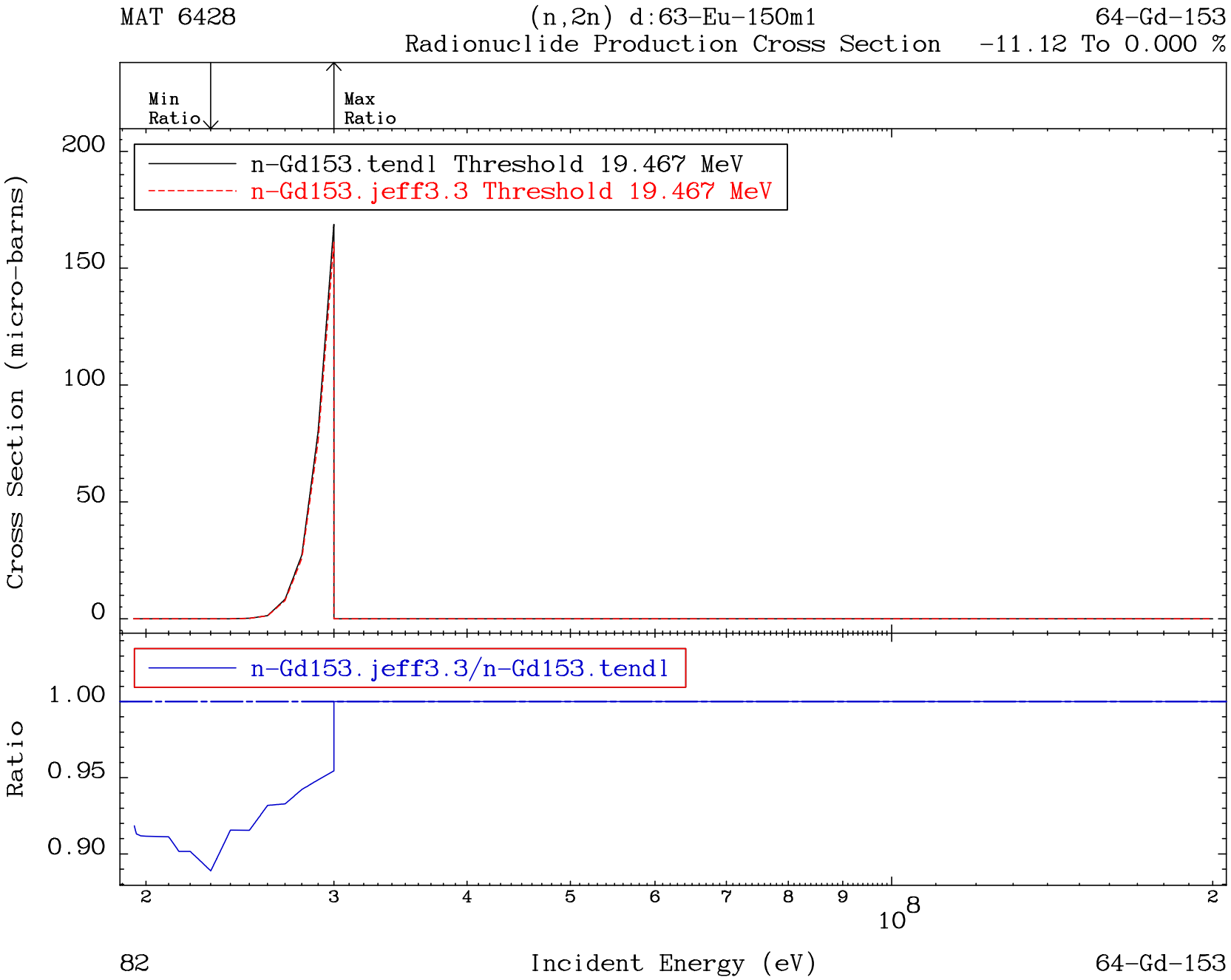

MAT 6428
Dpa total (eV-barns)
Cross Section
64-Gd-153
-83.91 To 4090. %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
77
64-Gd-153

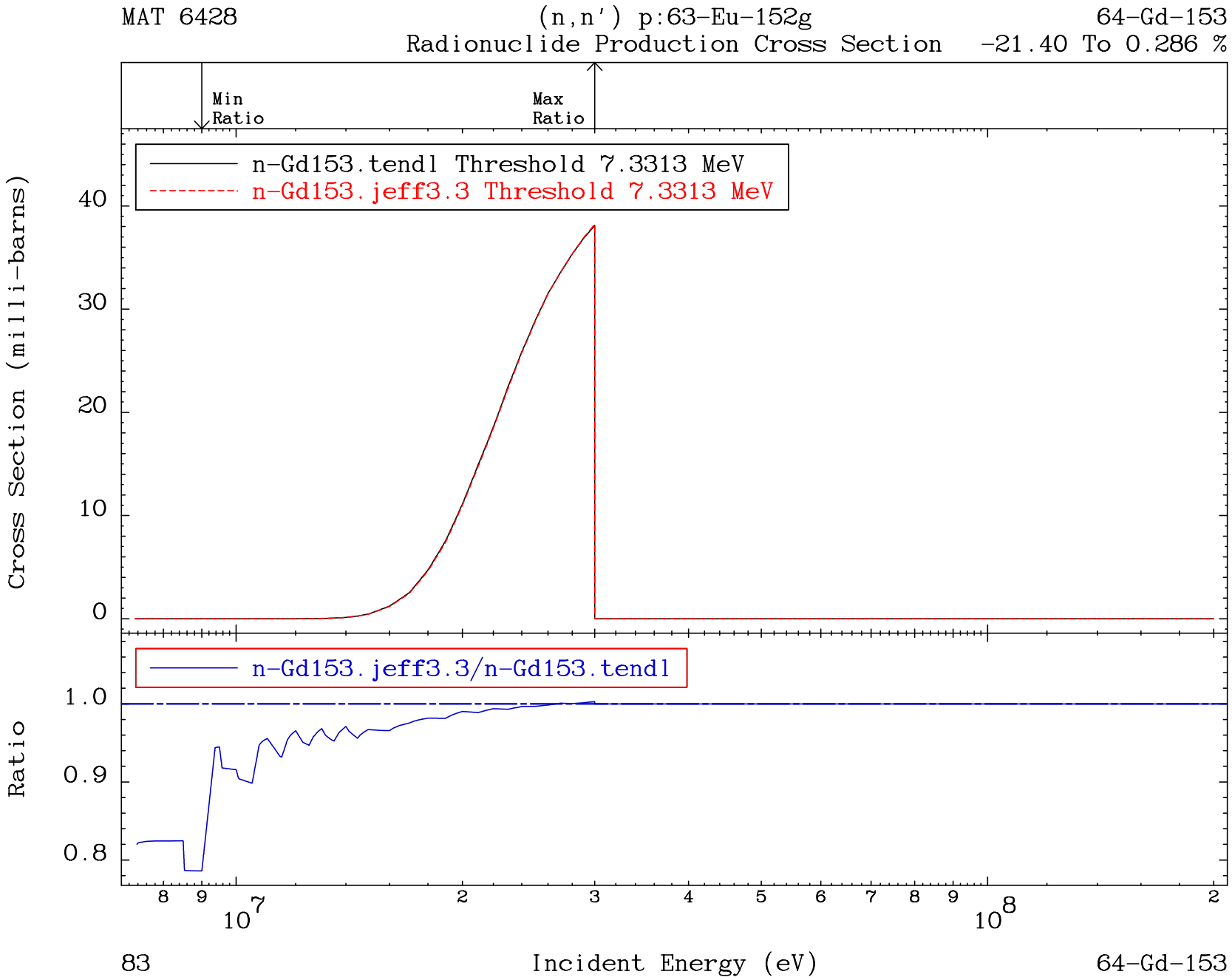

MAT 6428
Dpa elastic (mt2)
Cross Section
64-Gd-153
-15.84 To 0.084 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 1.0000 keV
n-Gd153.jeff3.3 Threshold 1.0000 keV
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
78
64-Gd-153

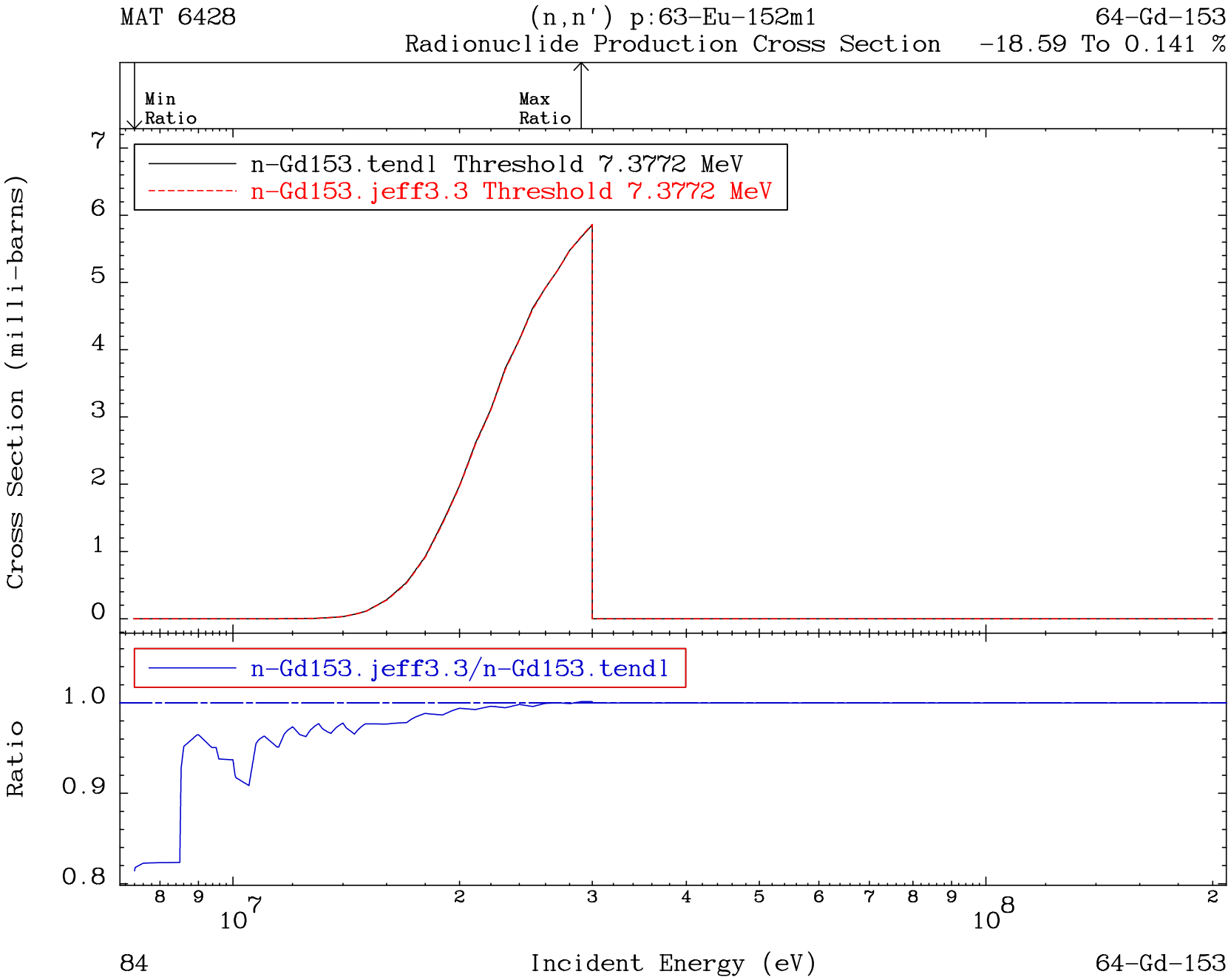

MAT 6428
Dpa inelastic (mt51-91)
Cross Section
64-Gd-153
-6.130 To 5.171 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 50.000 keV
n-Gd153.jeff3.3 Threshold 50.000 keV
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
79
64-Gd-153

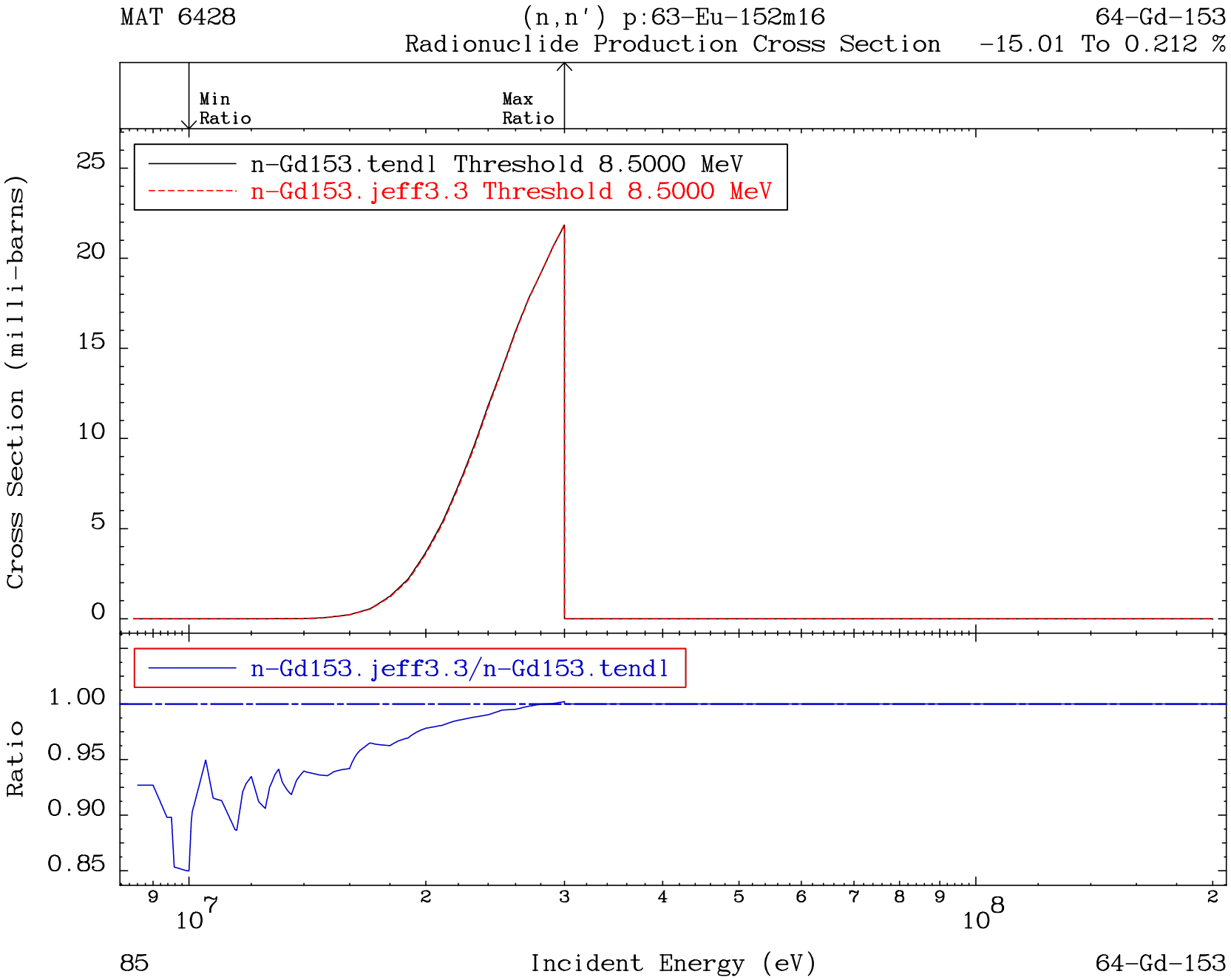

MAT 6428
Dpa disappearance (mt102 -120)
Cross Section
64-Gd-153
-83.91 To 4090. %
Min Ratio
Max Ratio
n-Gd153.tendl
n-Gd153.jeff3.3
Cross Section (barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
80
64-Gd-153

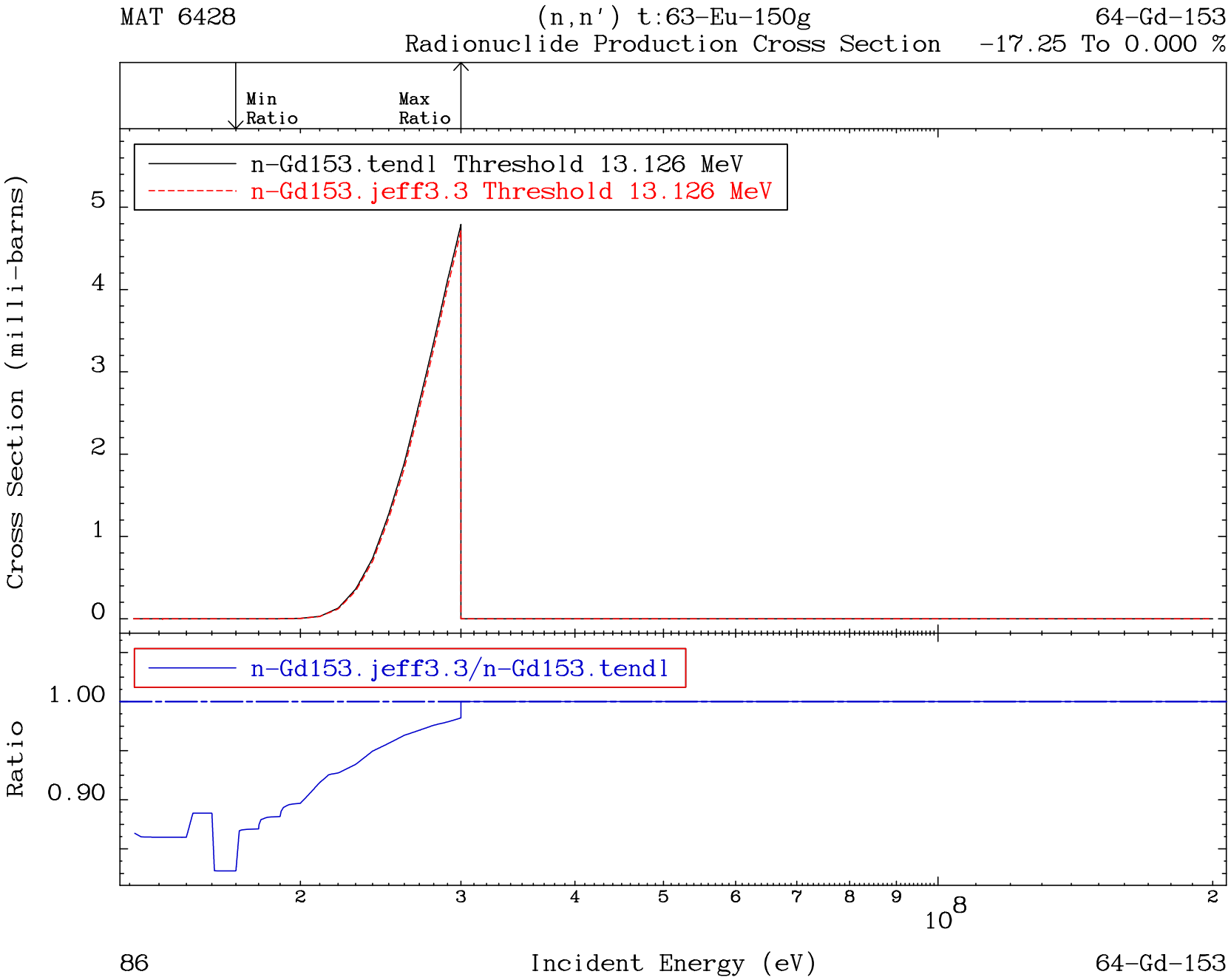

MAT 6428
(n,2n) d:63-Eu-150g
64-Gd-153
Radionuclide Production Cross Section -13.59 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 19.425 MeV
n-Gd153.jeff3.3 Threshold 19.425 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
64-Gd-153

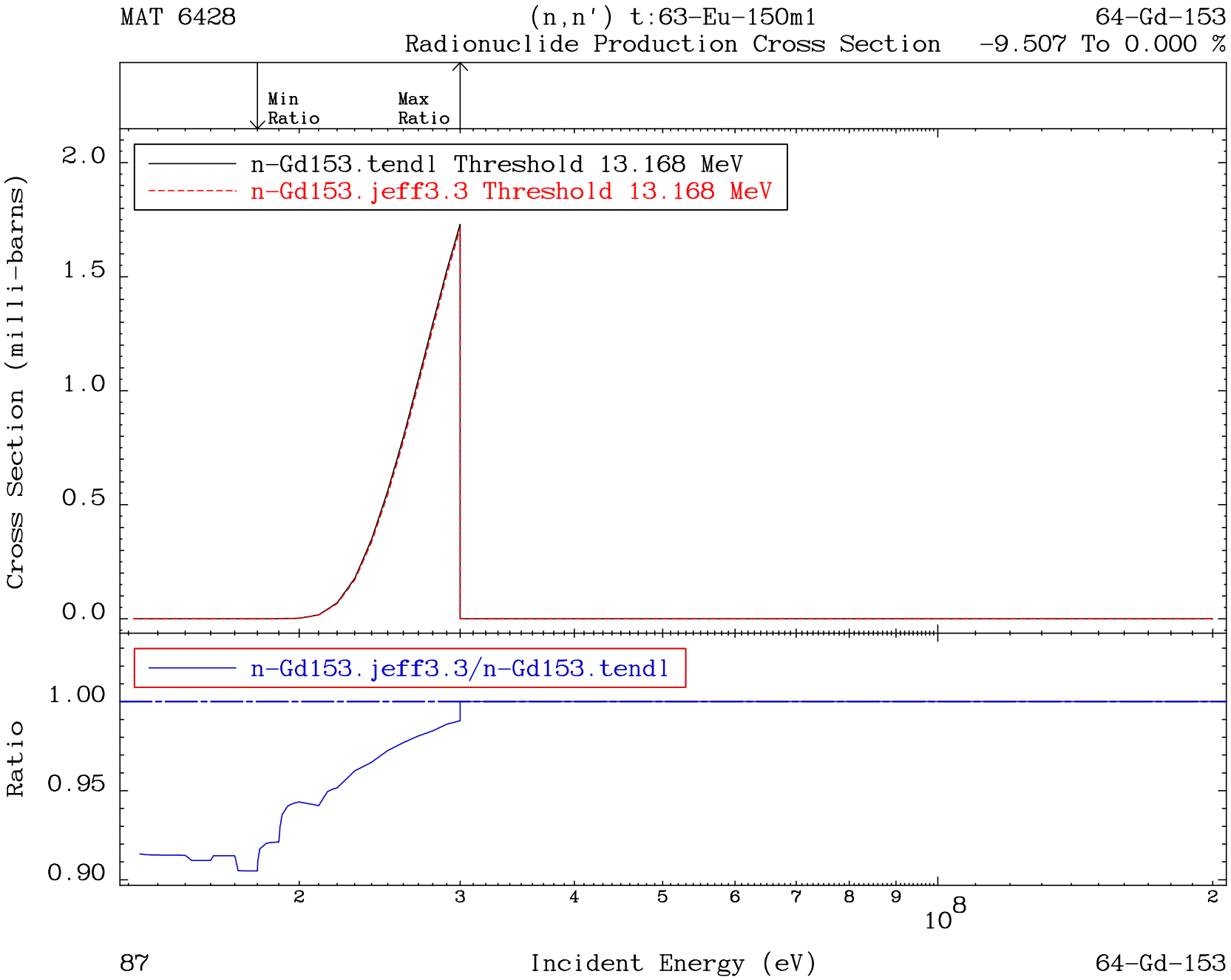

MAT 6428
(n,2n) d:63-Eu-150m1
64-Gd-153
Radionuclide Production Cross Section -11.12 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 19.467 MeV
n-Gd153.jeff3.3 Threshold 19.467 MeV
Cross Section (micro-barns)
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
82
Incident Energy (eV)
64-Gd-153

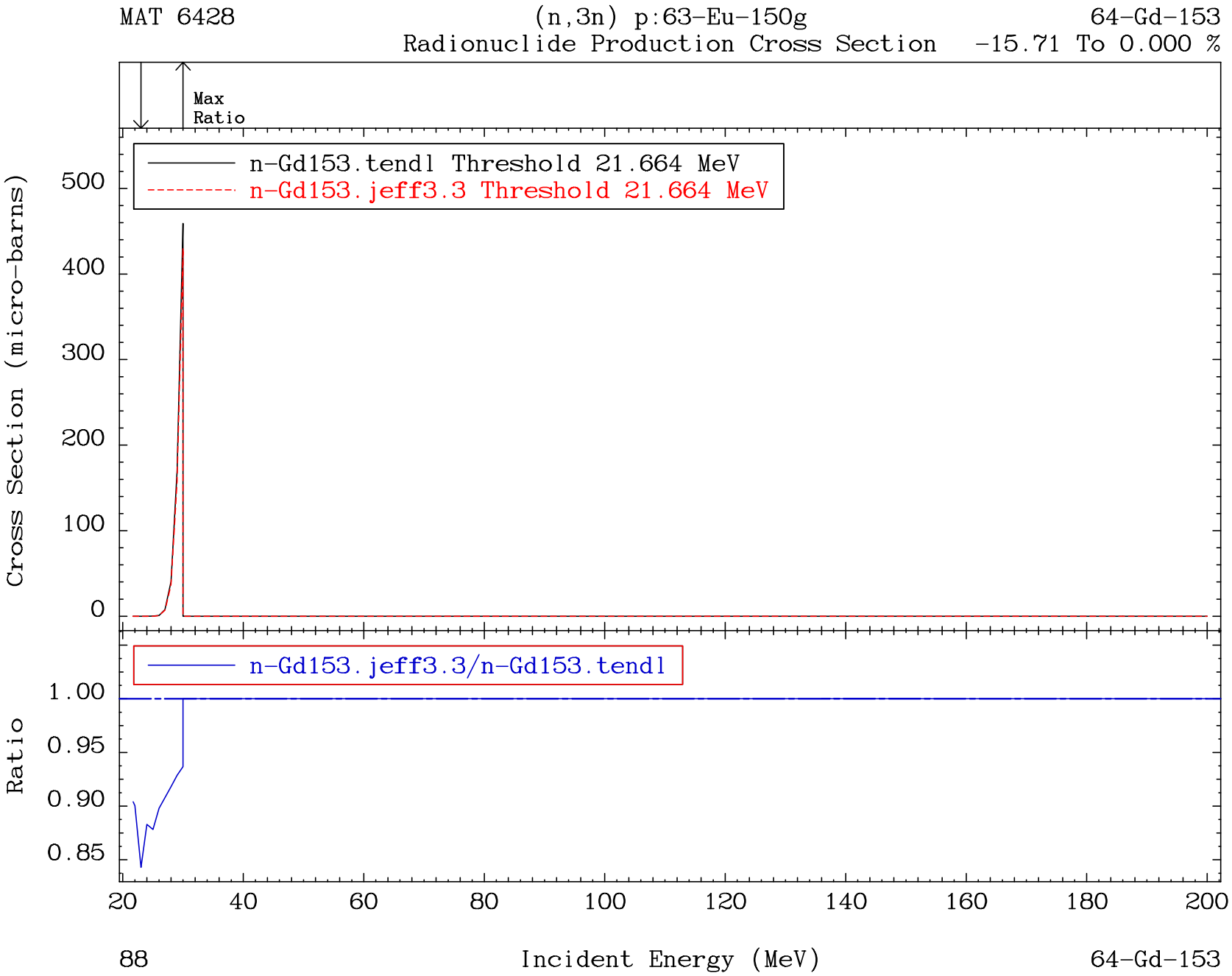

MAT 6428
(n,n') p:63-Eu-152g
64-Gd-153
Radionuclide Production Cross Section -21.40 To 0.286 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 7.3313 MeV
n-Gd153.jeff3.3 Threshold 7.3313 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.0
0.9
0.8
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
83
Incident Energy (eV)
64-Gd-153

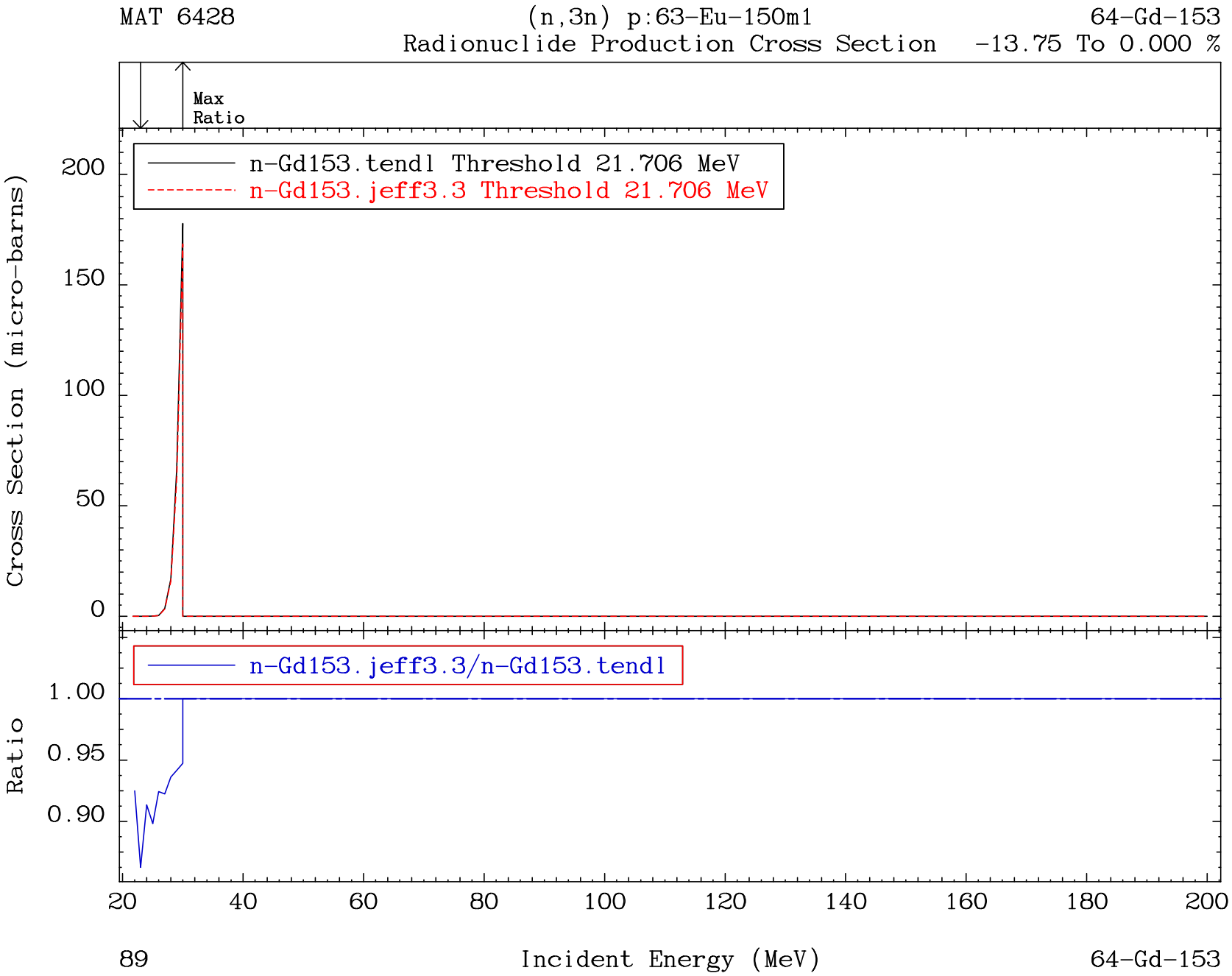

MAT 6428
(n,n') p:63-Eu-152m1
64-Gd-153
Radionuclide Production Cross Section -18.59 To 0.141 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 7.3772 MeV
n-Gd153.jeff3.3 Threshold 7.3772 MeV
Cross Section (milli-barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
84
64-Gd-153

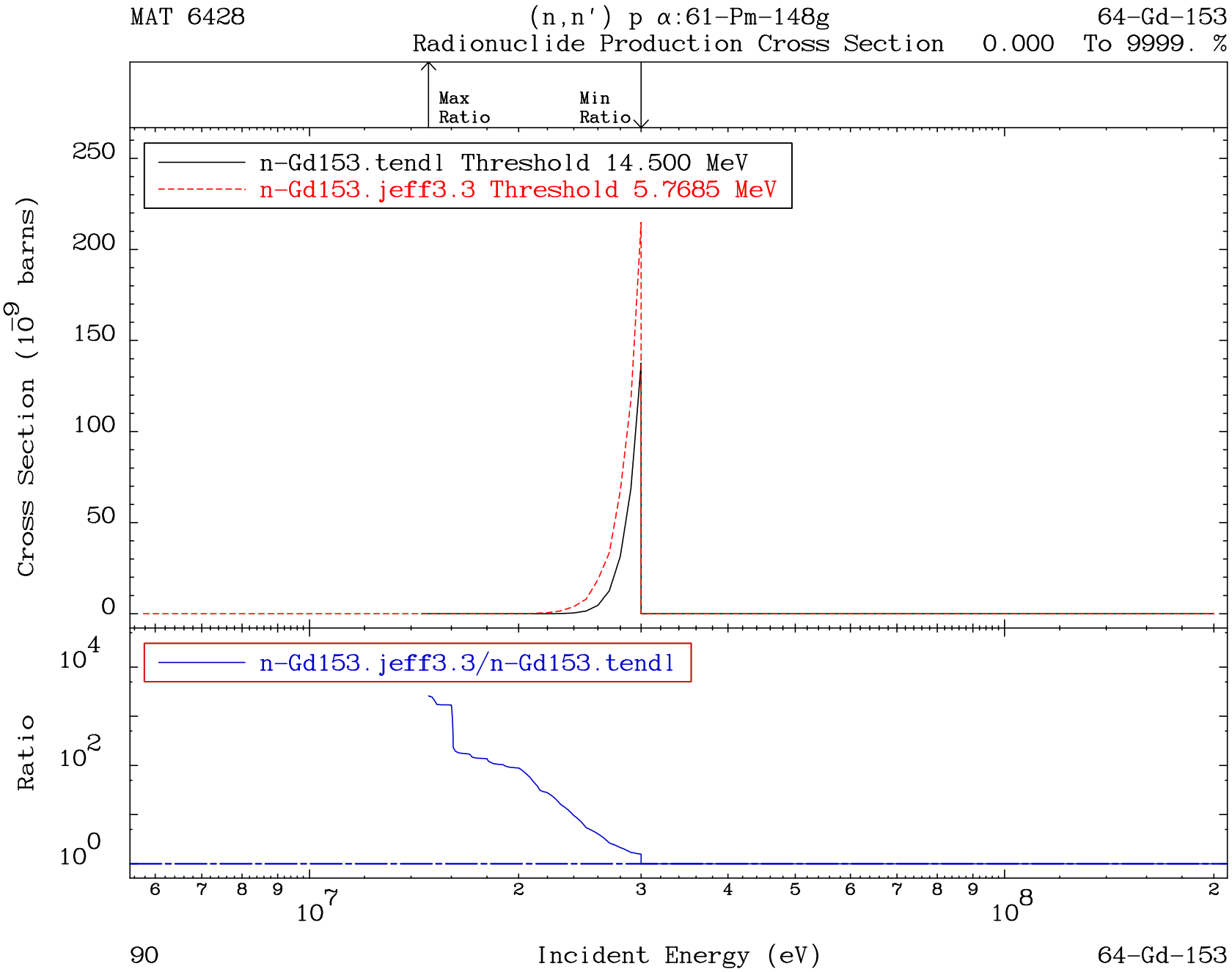

MAT 6428
(n,n') p:63-Eu-152m16
64-Gd-153
Radionuclide Production Cross Section -15.01 To 0.212 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 8.5000 MeV
n-Gd153.jeff3.3 Threshold 8.5000 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
0.85
9
10^7
2
3
4
5
6
7
8
9
10^8
2
85
Incident Energy (eV)
64-Gd-153

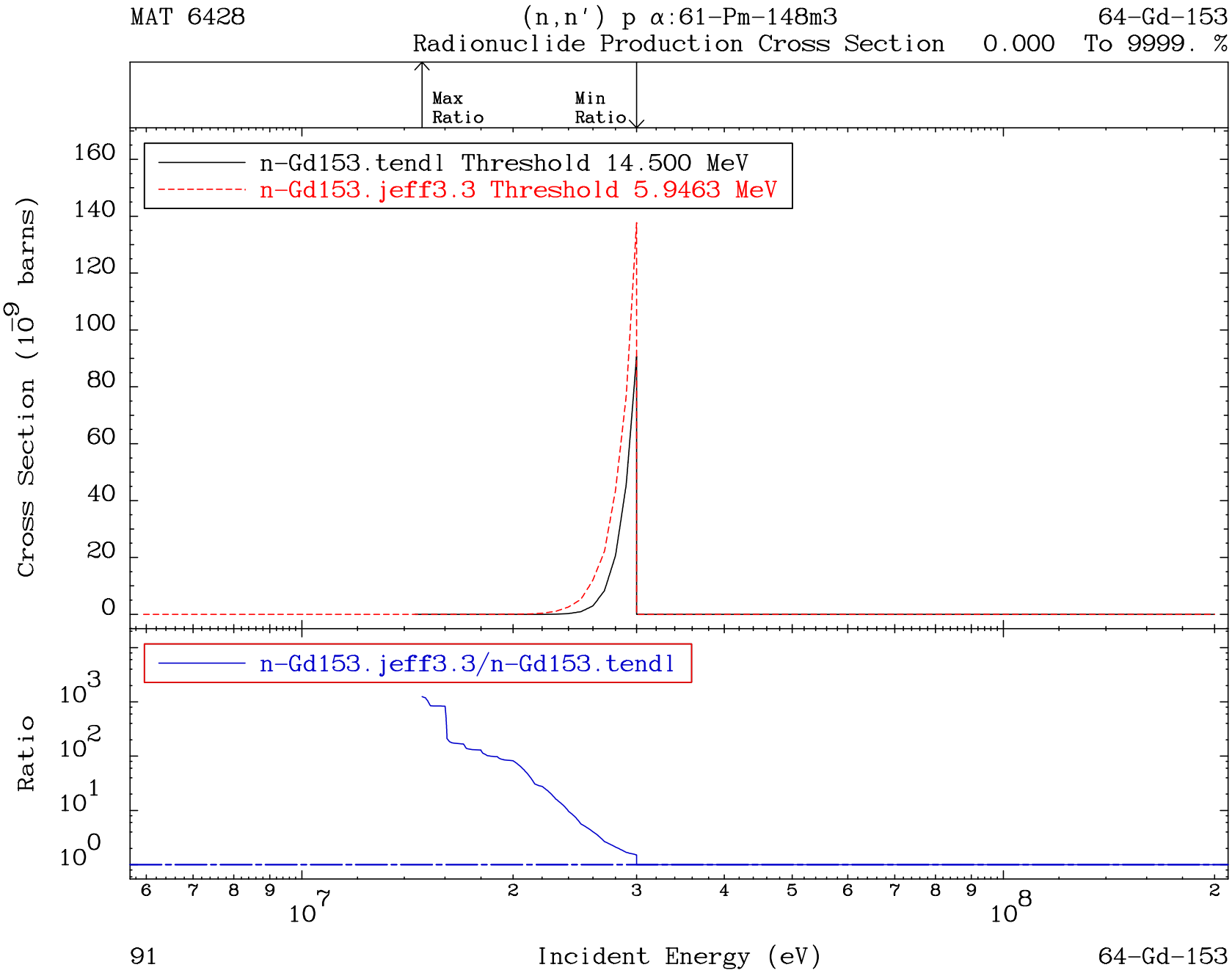

MAT 6428
(n,n') t:63-Eu-150g
64-Gd-153
Radionuclide Production Cross Section -17.25 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 13.126 MeV
n-Gd153.jeff3.3 Threshold 13.126 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.90
2
3
4
5
6
7
8
9
10^8
2
86
Incident Energy (eV)
64-Gd-153

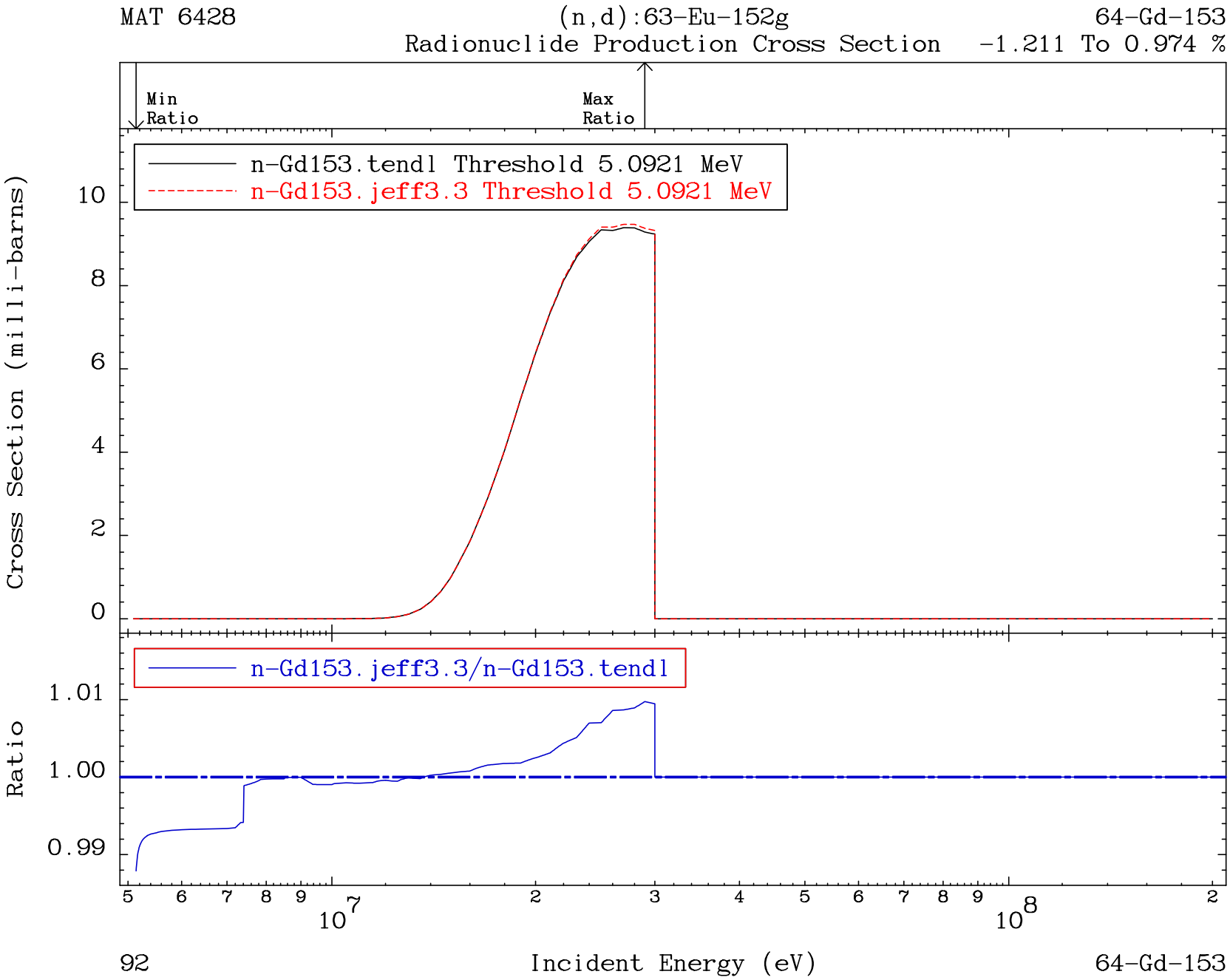

MAT 6428
(n,n') t:63-Eu-150m1
64-Gd-153
Radionuclide Production Cross Section
-9.507 To 0.000 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 13.168 MeV
n-Gd153.jeff3.3 Threshold 13.168 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
87
Incident Energy (eV)
64-Gd-153

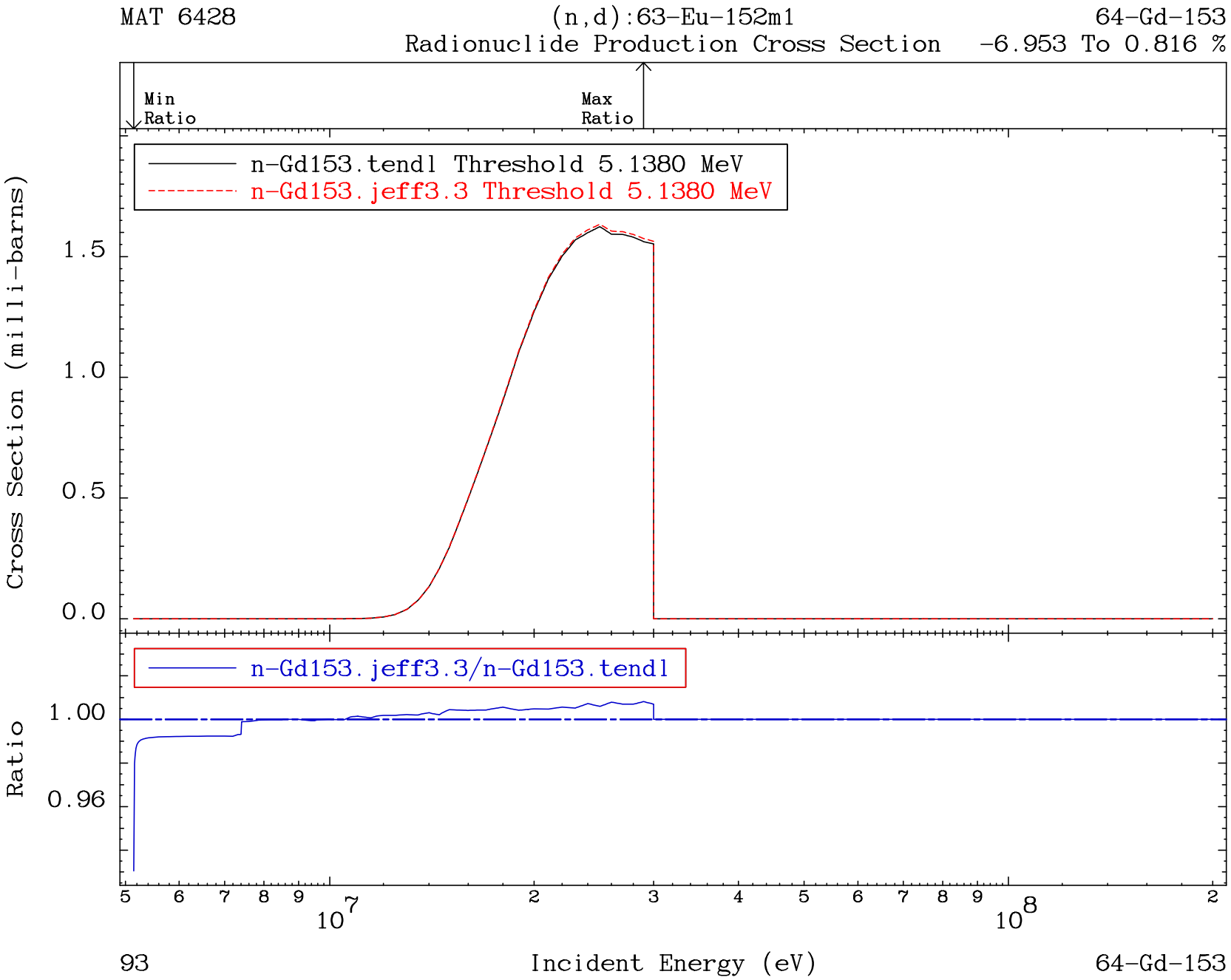

MAT 6428
(n,3n) p:63-Eu-150g
64-Gd-153
Radionuclide Production Cross Section -15.71 To 0.000 %
Max
Ratio
n-Gd153.tendl Threshold 21.664 MeV
n-Gd153.jeff3.3 Threshold 21.664 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
0.85
20
40
60
80
100
120
140
160
180
200
88
Incident Energy (MeV)
64-Gd-153

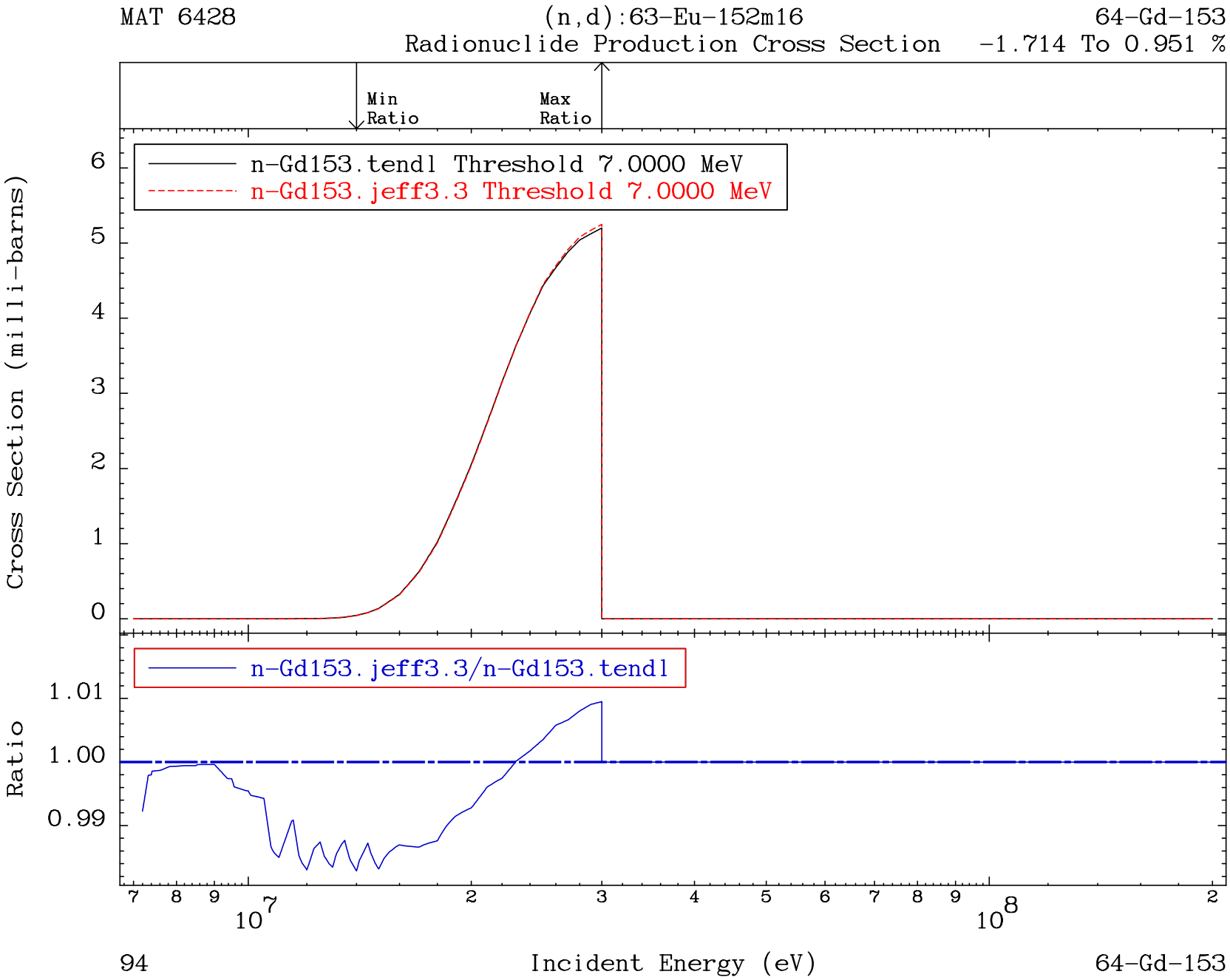

MAT 6428
(n,3n) p:63-Eu-150m1
64-Gd-153
Radionuclide Production Cross Section -13.75 To 0.000 %
Max
Ratio
n-Gd153.tendl Threshold 21.706 MeV
n-Gd153.jeff3.3 Threshold 21.706 MeV
Cross Section (micro-barns)
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.95
0.90
20
40
60
80
100
120
140
160
180
200
89
Incident Energy (MeV)
64-Gd-153

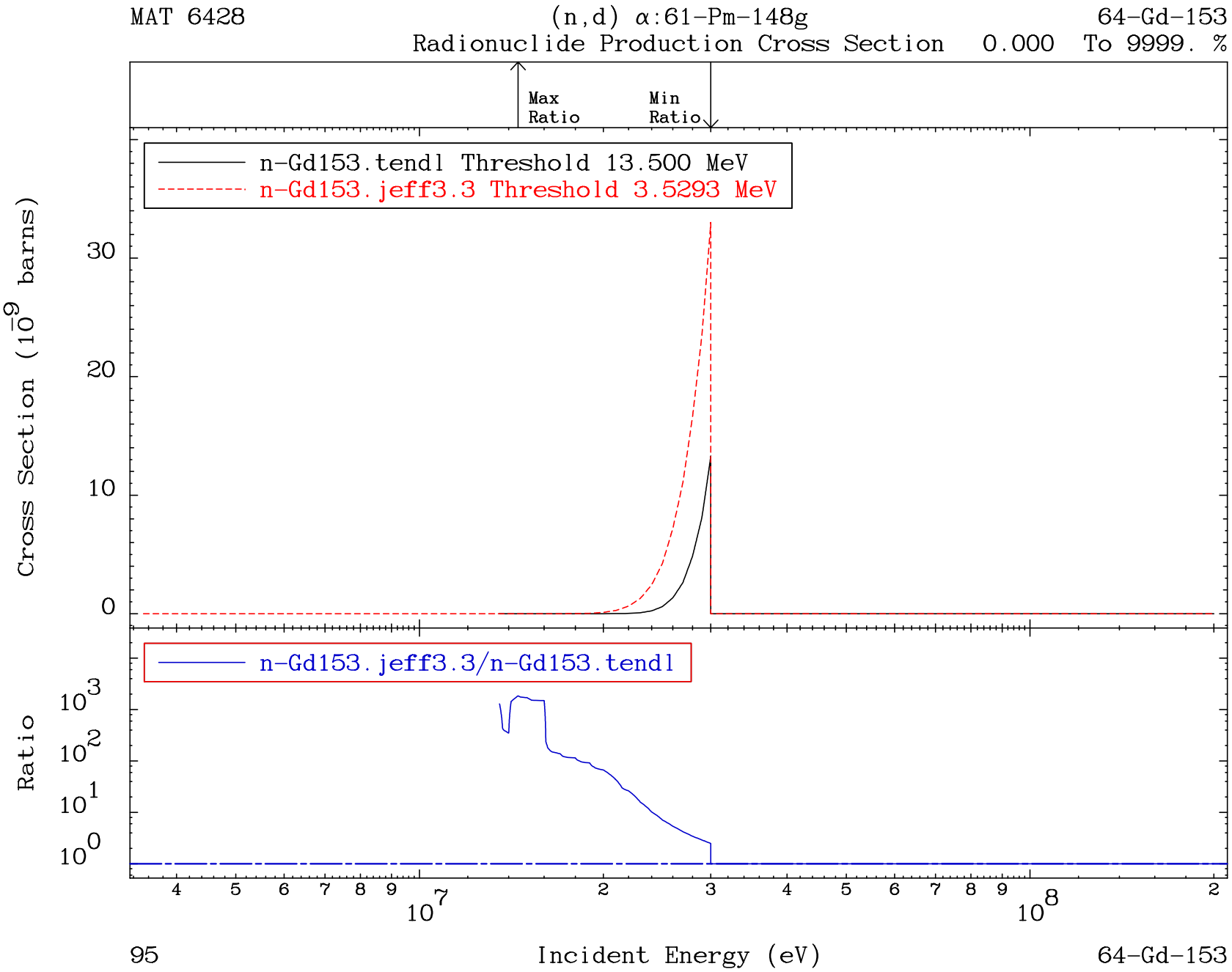

MAT 6428
(n,n') p α:61-Pm-148g
64-Gd-153
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 14.500 MeV
n-Gd153.jeff3.3 Threshold 5.7685 MeV
Cross Section (10^{-9} barns)
250
200
150
100
50
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^4
10^2
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
90
Incident Energy (eV)
64-Gd-153

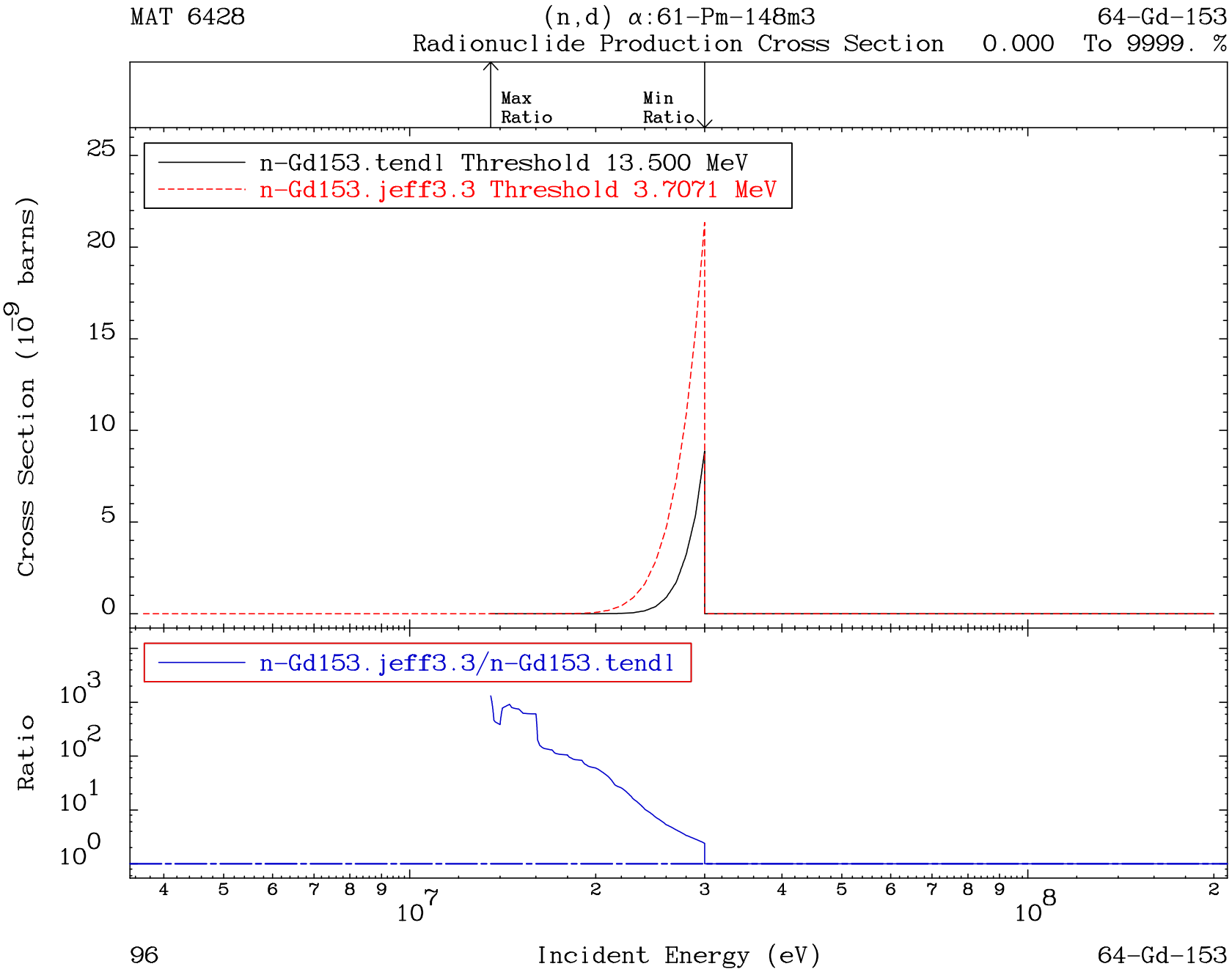

MAT 6428
(n,n') p α:61-Pm-148m3
64-Gd-153
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 14.500 MeV
n-Gd153.jeff3.3 Threshold 5.9463 MeV
Cross Section (10^{-9} barns)
160
140
120
100
80
60
40
20
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^3
10^2
10^1
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
91
Incident Energy (eV)
64-Gd-153


MAT 6428
(n,d):63-Eu-152g
64-Gd-153
Radionuclide Production Cross Section -1.211 To 0.974 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 5.0921 MeV
n-Gd153.jeff3.3 Threshold 5.0921 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Gd153.jeff3.3/n-Gd153.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
92
Incident Energy (eV)
64-Gd-153


MAT 6428
(n,d):63-Eu-152m1
64-Gd-153
Radionuclide Production Cross Section -6.953 To 0.816 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 5.1380 MeV
n-Gd153.jeff3.3 Threshold 5.1380 MeV
Cross Section (milli-barns)
1.5
1.0
0.5
0.0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
1.00
0.96
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
93
Incident Energy (eV)
64-Gd-153


MAT 6428
(n,d):63-Eu-152m16
64-Gd-153
Radionuclide Production Cross Section -1.714 To 0.951 %
Min Ratio
Max Ratio
n-Gd153.tendl Threshold 7.0000 MeV
n-Gd153.jeff3.3 Threshold 7.0000 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
0.99
1.00
1.01
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
94
Incident Energy (eV)
64-Gd-153


MAT 6428
(n,d) α:61-Pm-148g
64-Gd-153
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 13.500 MeV
n-Gd153.jeff3.3 Threshold 3.5293 MeV
Cross Section (10^{-9} barns)
30
20
10
0
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
10^3
10^2
10^1
10^0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
95
Incident Energy (eV)
64-Gd-153


MAT 6428
(n,d) α:61-Pm-148m3
64-Gd-153
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
n-Gd153.tendl Threshold 13.500 MeV
n-Gd153.jeff3.3 Threshold 3.7071 MeV
Cross Section (10^{-9} barns)
n-Gd153.jeff3.3/n-Gd153.tendl
Ratio
Incident Energy (eV)
96
64-Gd-153