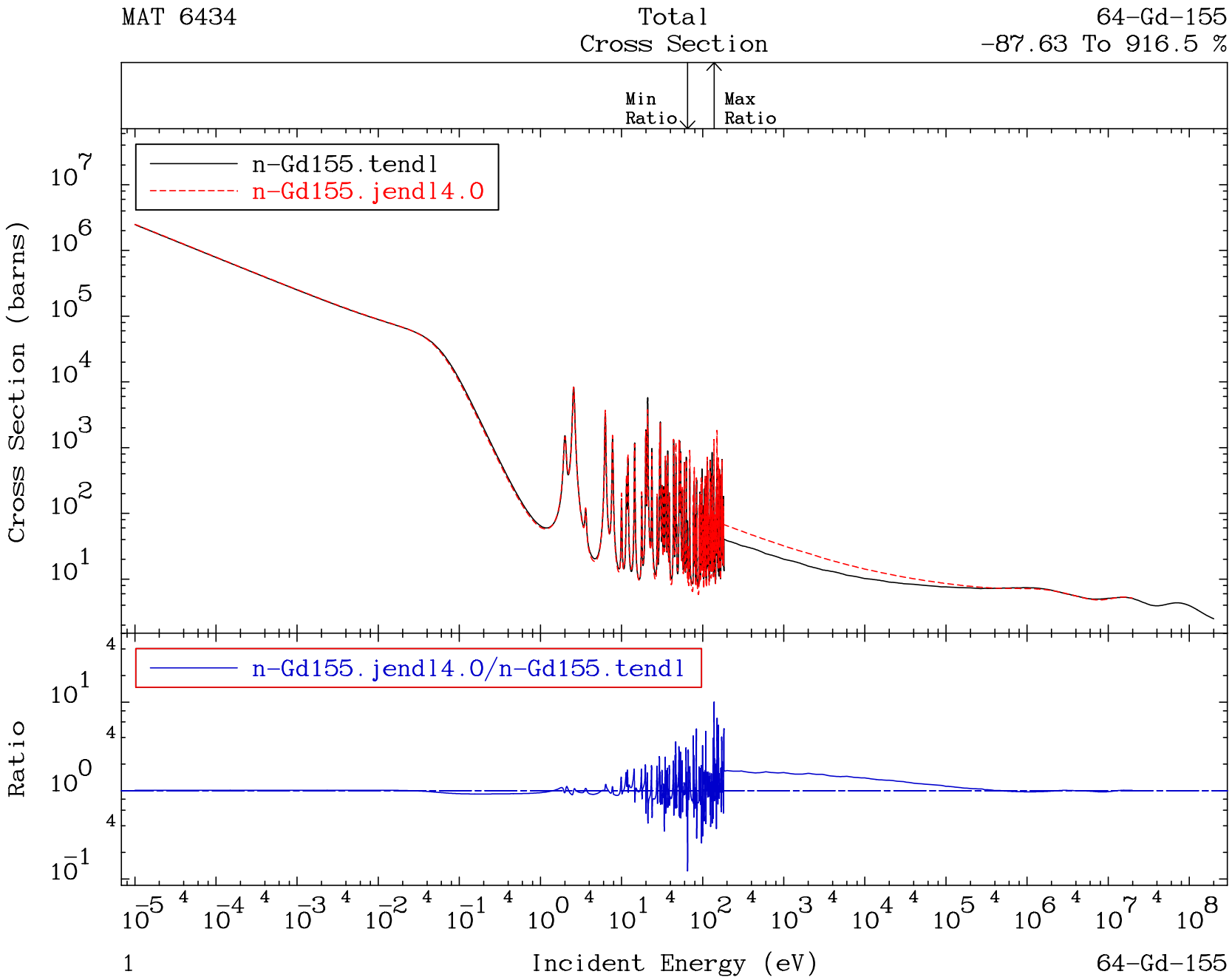
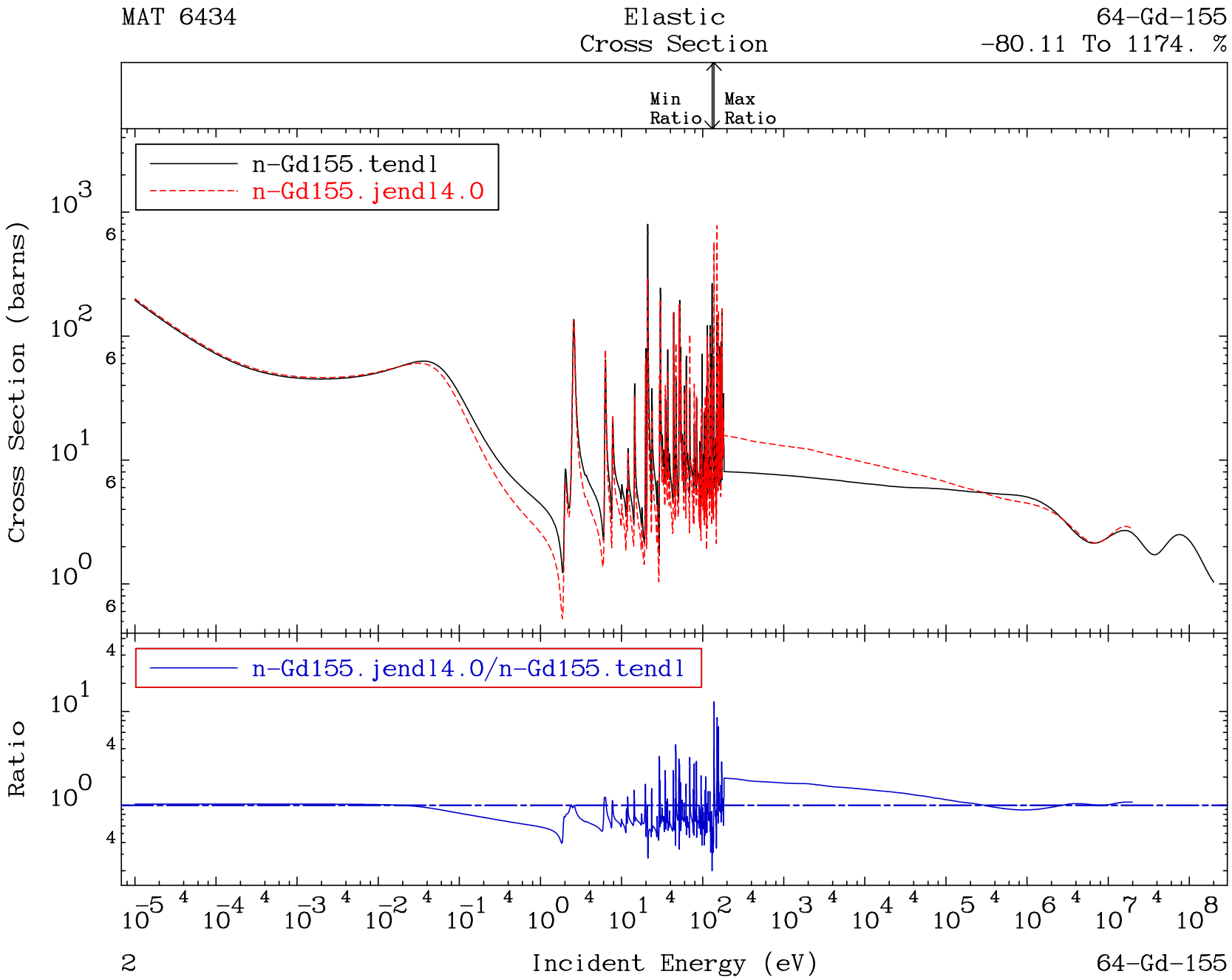
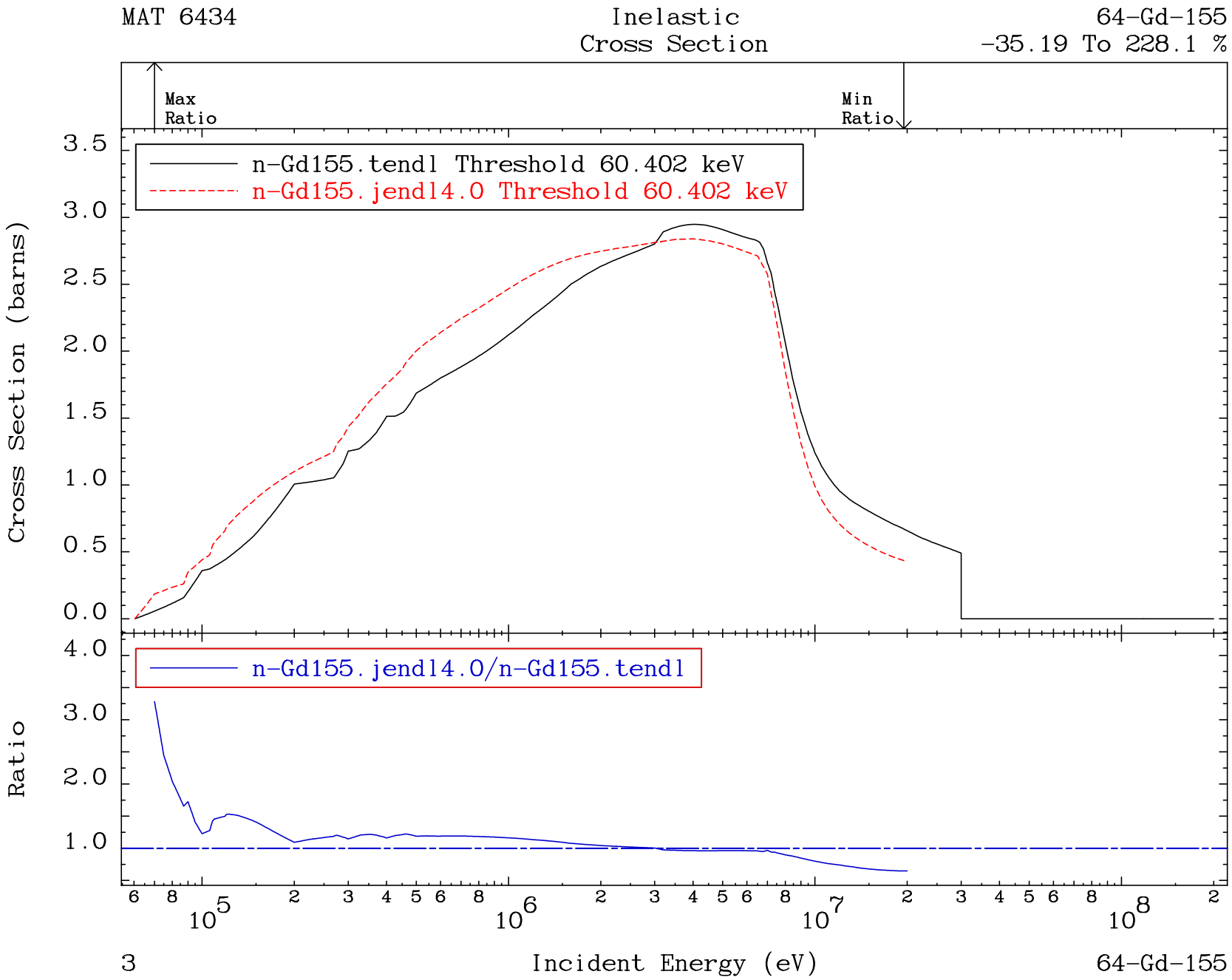
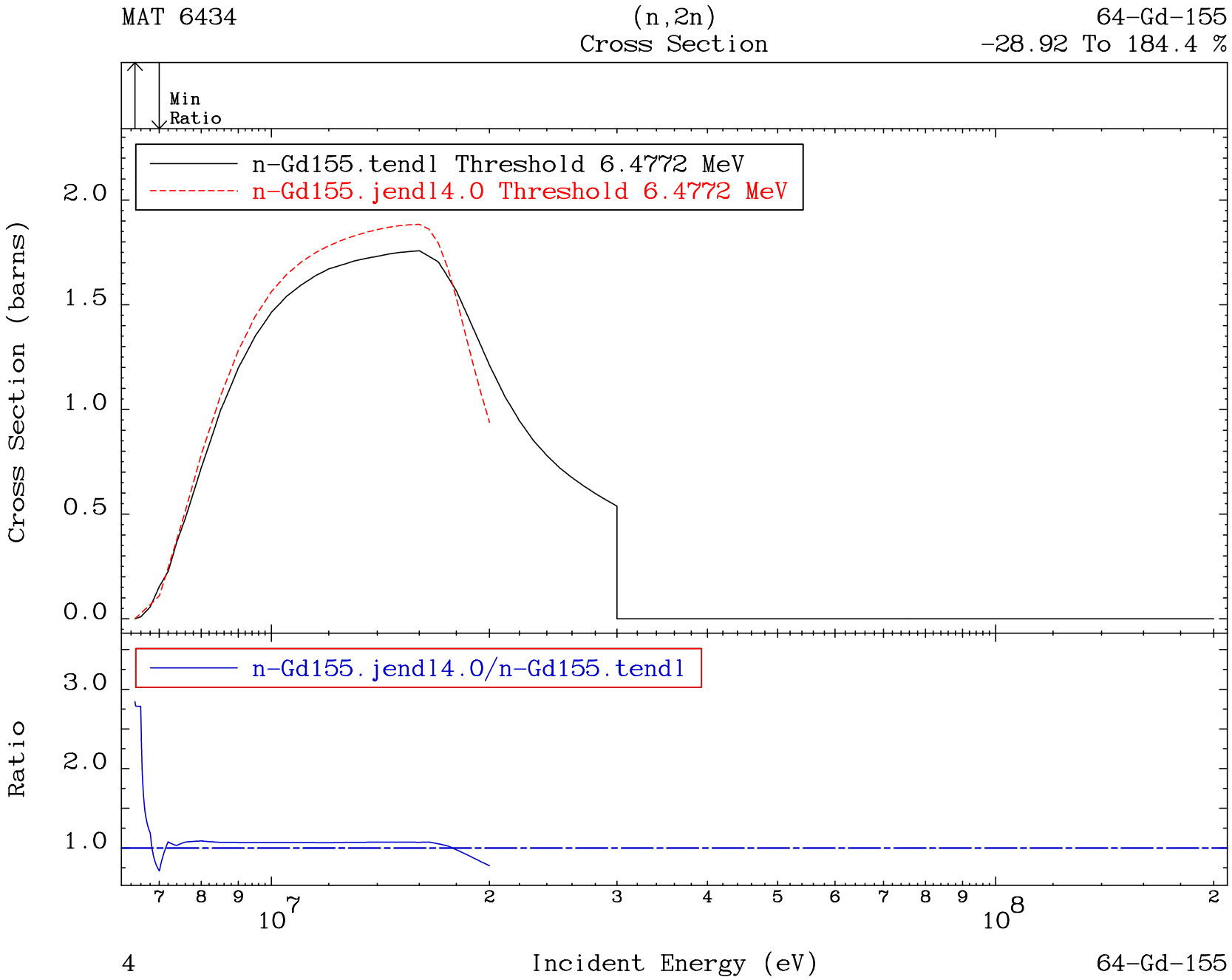
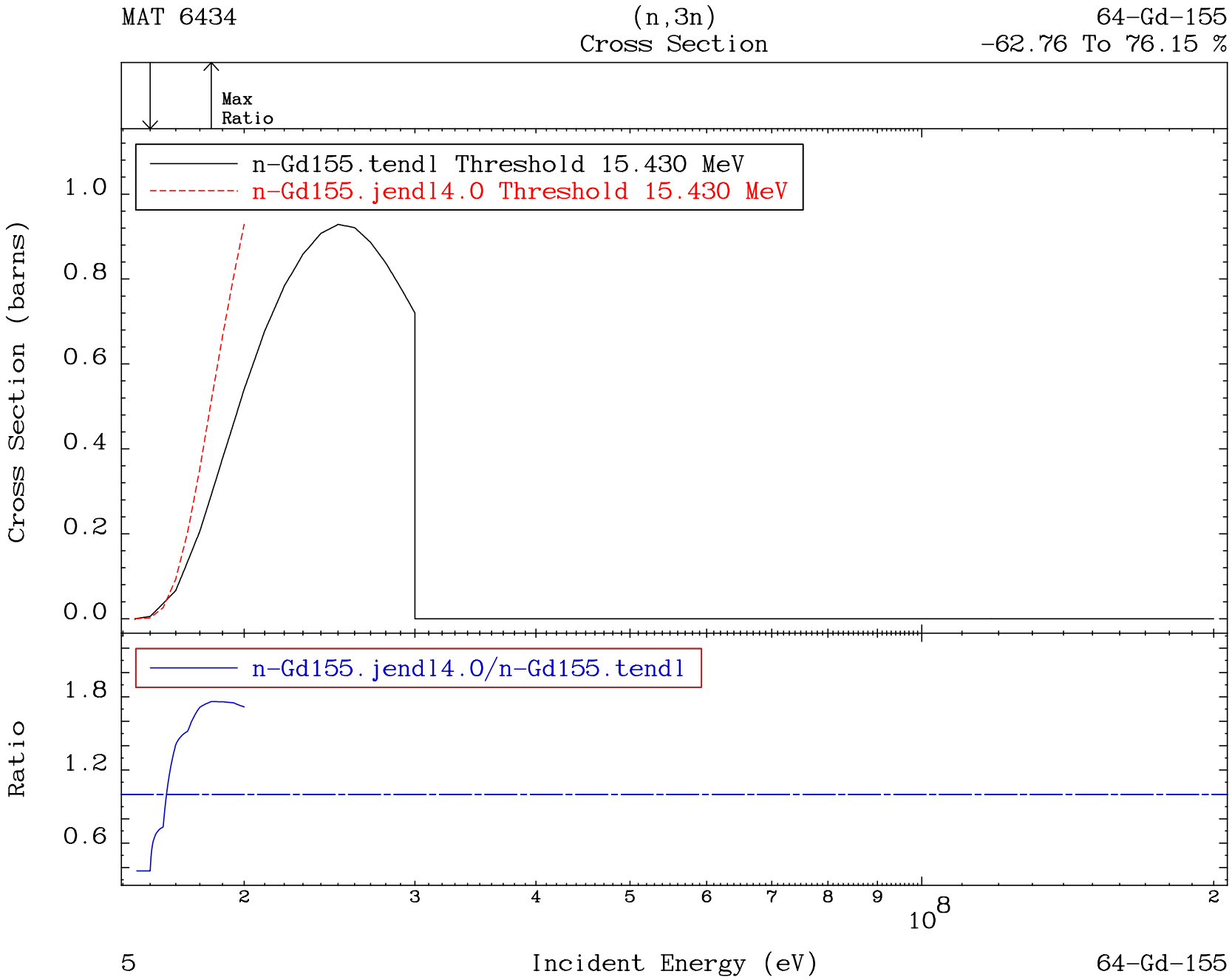
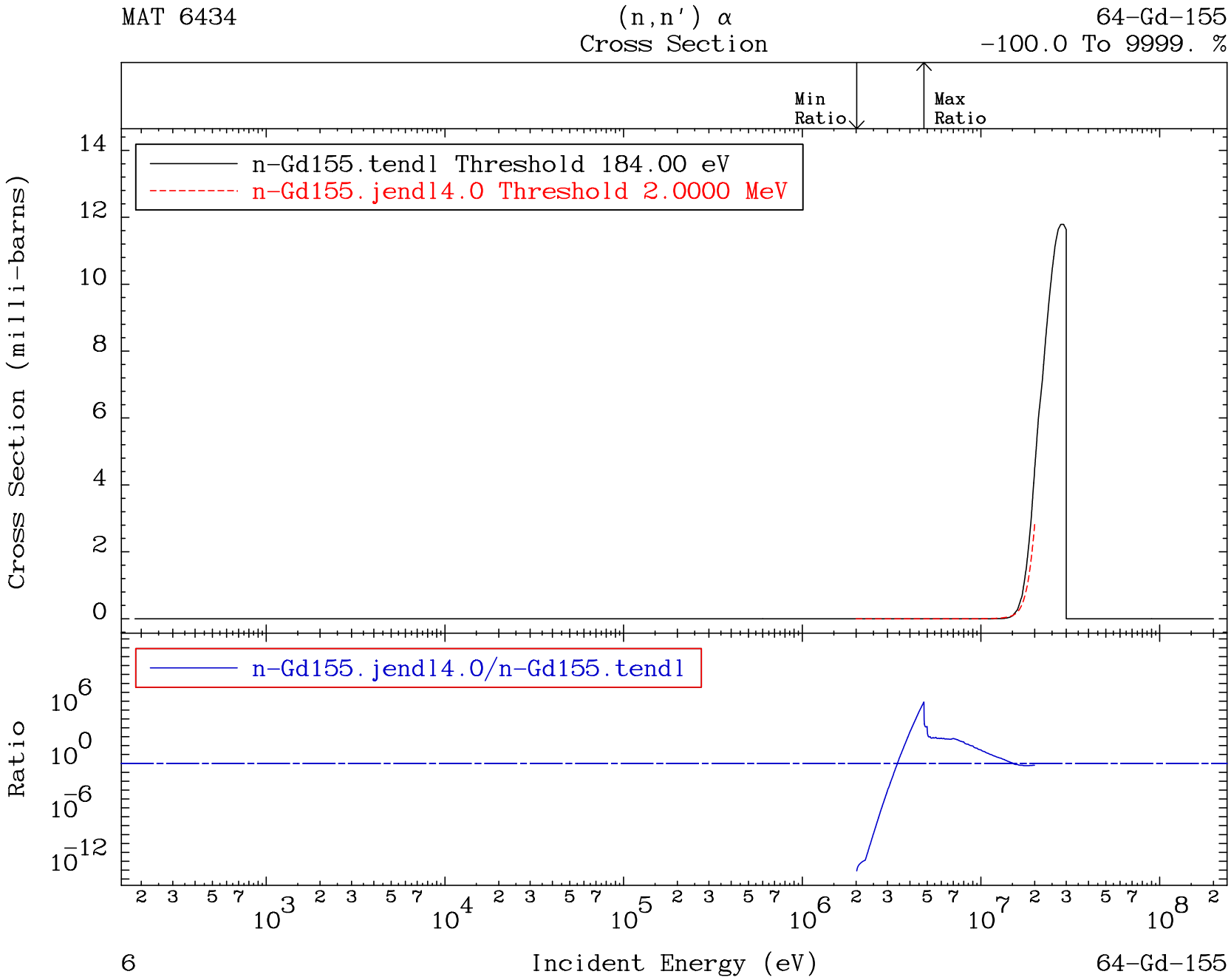

MAT 6434
Total
Cross Section
64-Gd-155
-87.63 To 916.5 %
Min
Ratio
Max
Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
1
64-Gd-155

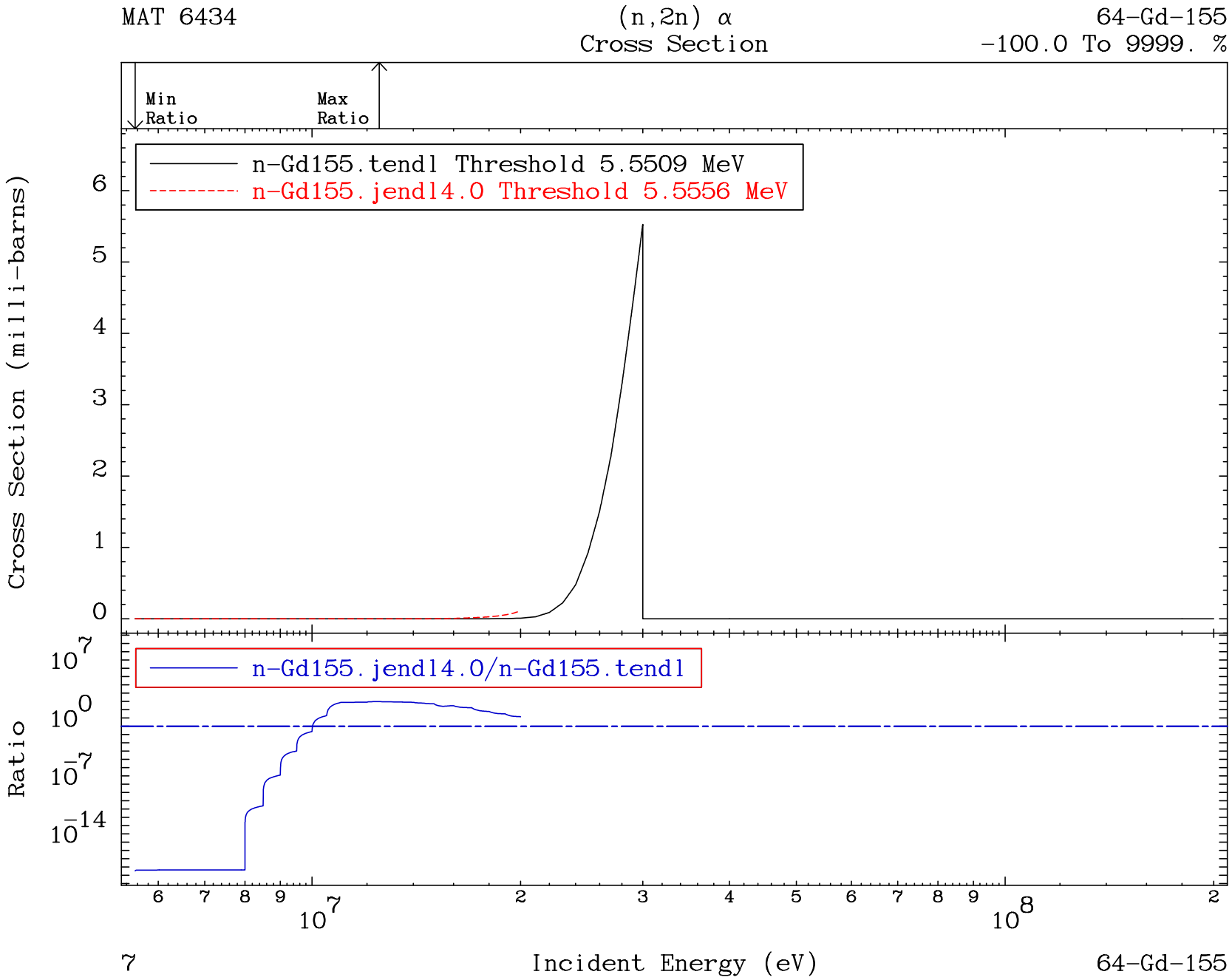

MAT 6434
Elastic
Cross Section
64-Gd-155
-80.11 To 1174. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
2
64-Gd-155

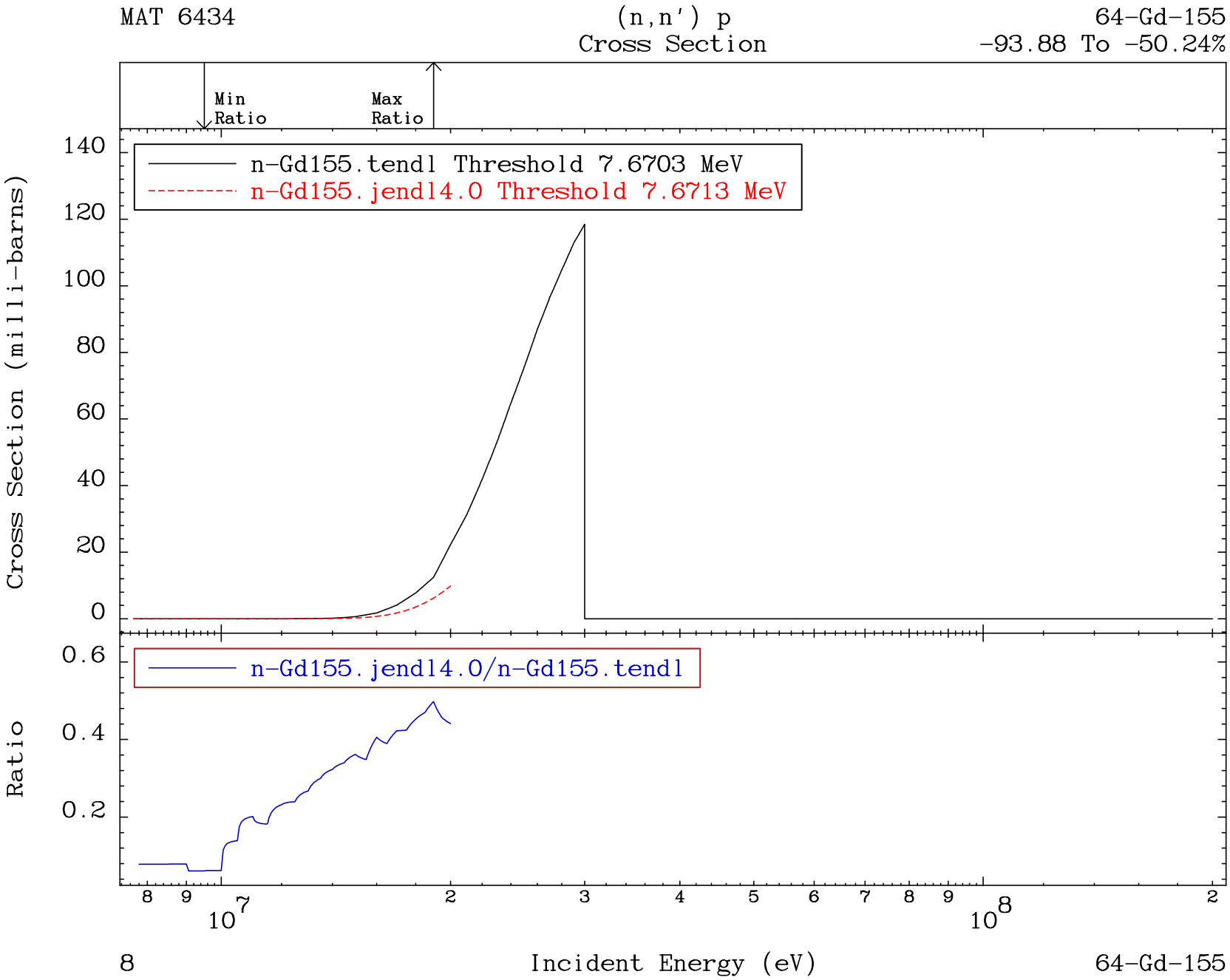

MAT 6434
Inelastic
Cross Section
64-Gd-155
-35.19 To 228.1 %
Max
Ratio
Min
Ratio
n-Gd155.tendl Threshold 60.402 keV
n-Gd155.jendl4.0 Threshold 60.402 keV
Cross Section (barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
4.0
3.0
2.0
1.0
6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
3
64-Gd-155

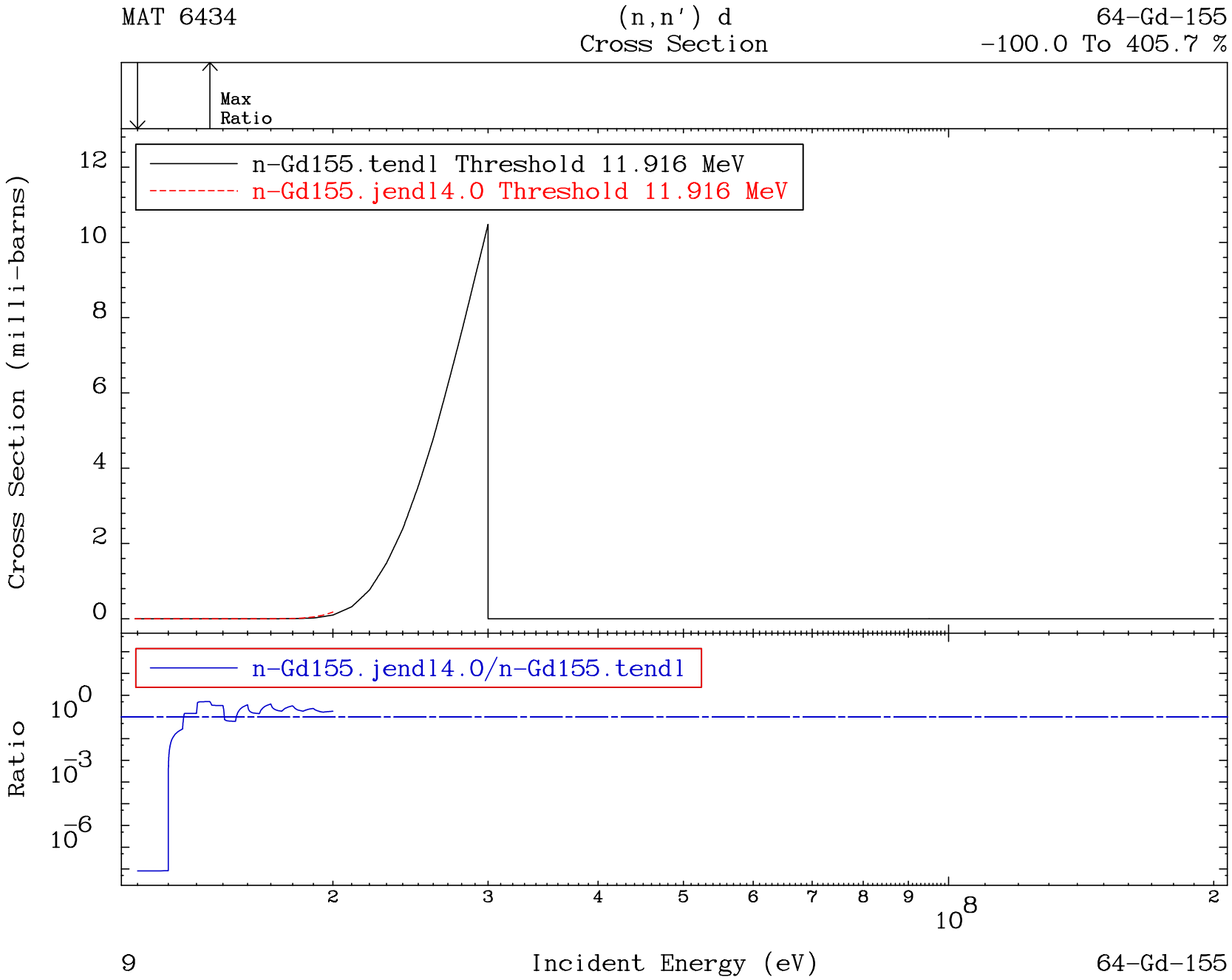

MAT 6434
(n,2n)
Cross Section
64-Gd-155
-28.92 To 184.4 %
Min
Ratio
n-Gd155.tendl Threshold 6.4772 MeV
n-Gd155.jendl4.0 Threshold 6.4772 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
3.0
2.0
1.0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
64-Gd-155

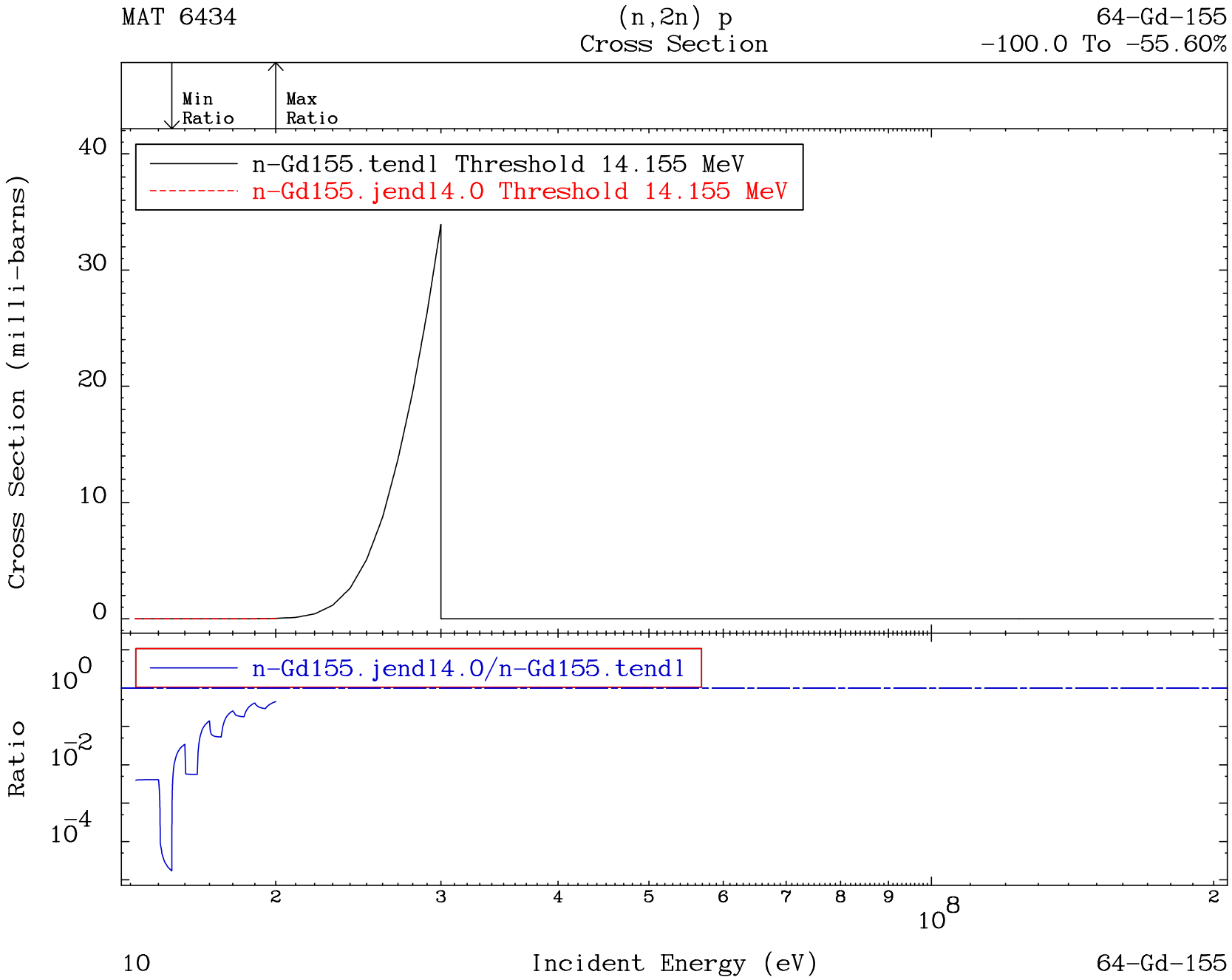

MAT 6434
(n,3n)
Cross Section
64-Gd-155
-62.76 To 76.15 %
Max
Ratio
n-Gd155.tendl Threshold 15.430 MeV
n-Gd155.jendl4.0 Threshold 15.430 MeV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
1.8
1.2
0.6
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
64-Gd-155

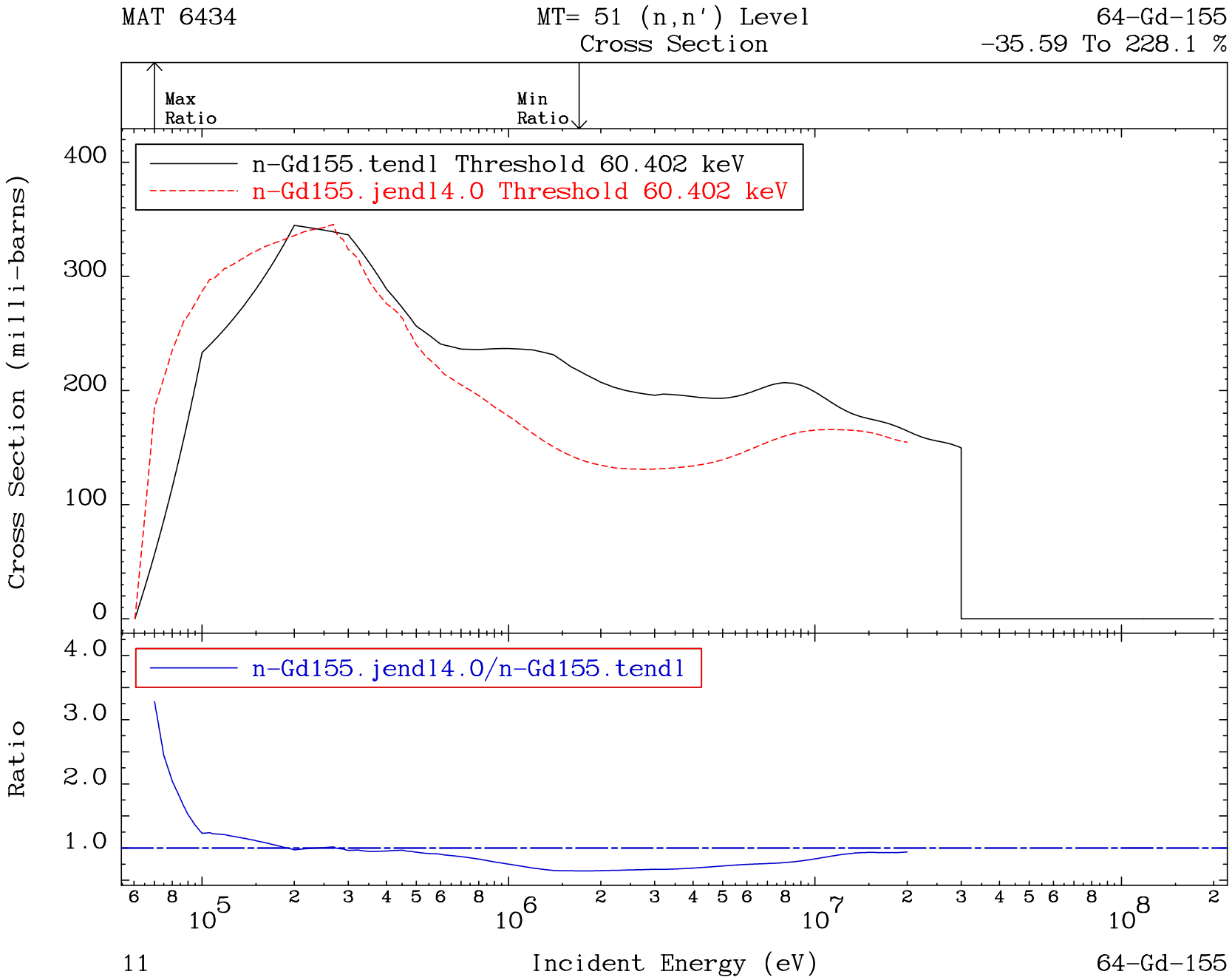

MAT 6434
(n,n') α
Cross Section
64-Gd-155
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 184.00 eV
n-Gd155.jendl4.0 Threshold 2.0000 MeV
Cross Section (milli-barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
6
64-Gd-155

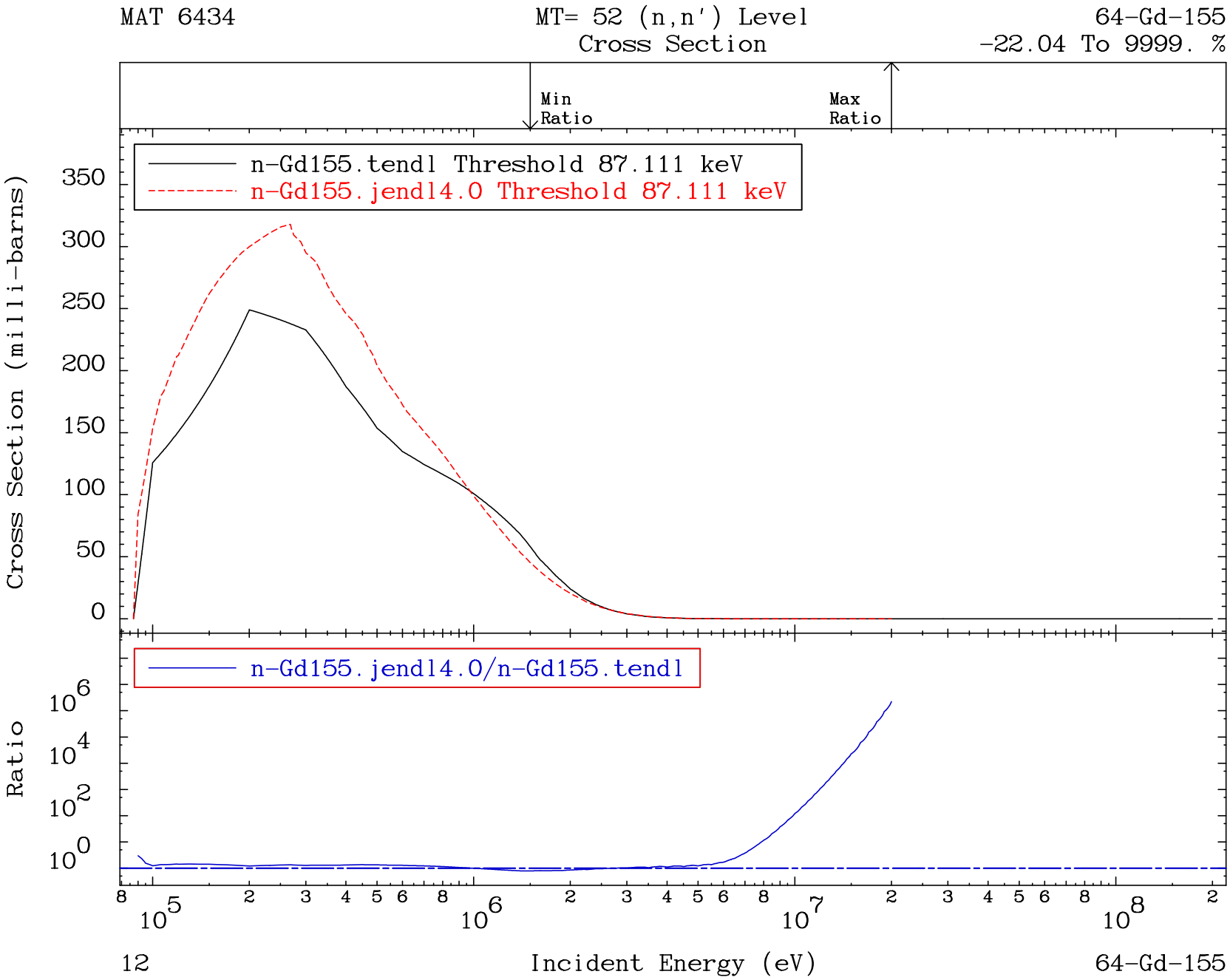

MAT 6434
(n,2n) α
Cross Section
64-Gd-155
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 5.5509 MeV
n-Gd155.jendl4.0 Threshold 5.5556 MeV
Cross Section (milli-barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
64-Gd-155

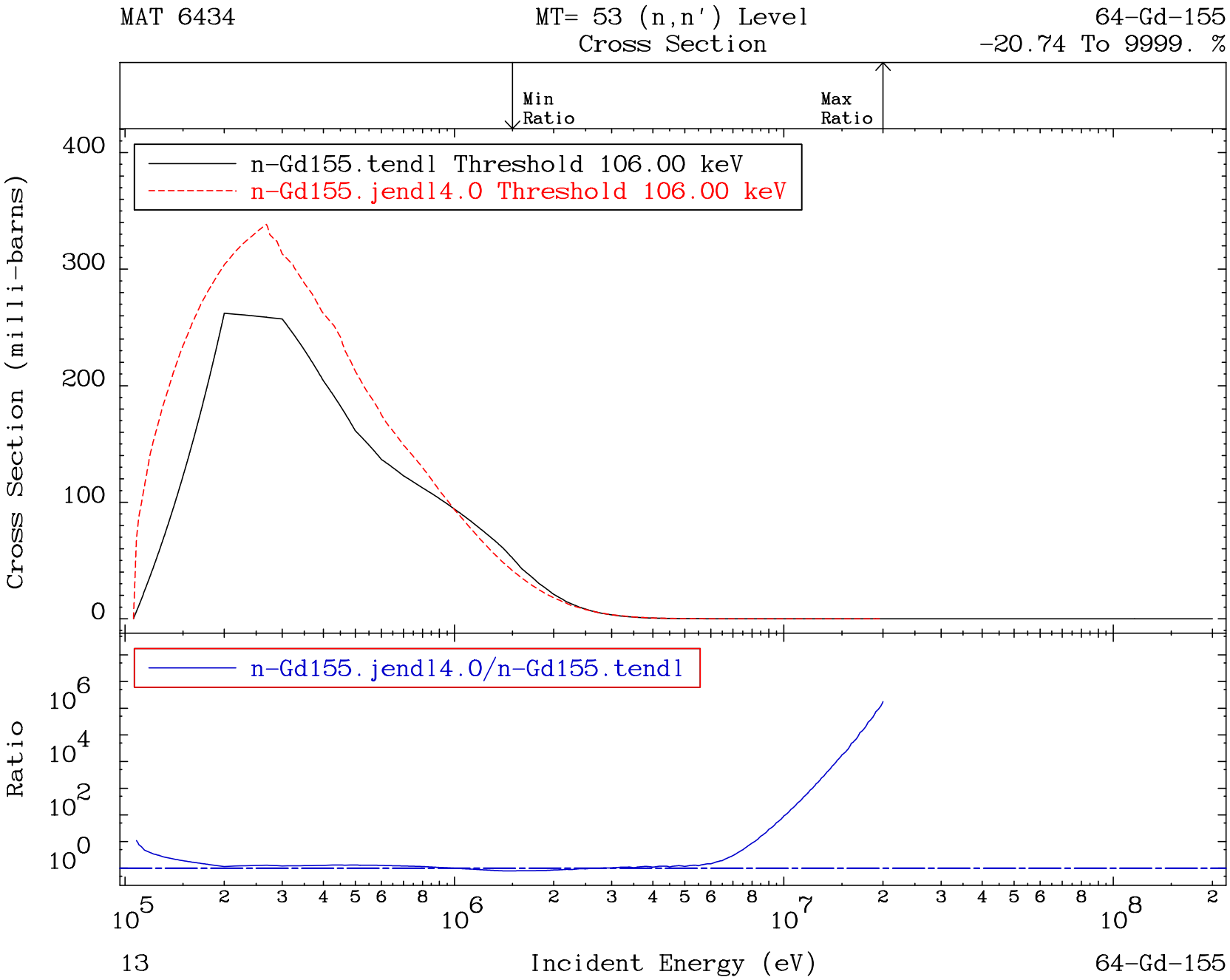

MAT 6434
(n,n') p
Cross Section
64-Gd-155
-93.88 To -50.24%
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 7.6703 MeV
n-Gd155.jendl4.0 Threshold 7.6713 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
0.6
0.4
0.2
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
64-Gd-155

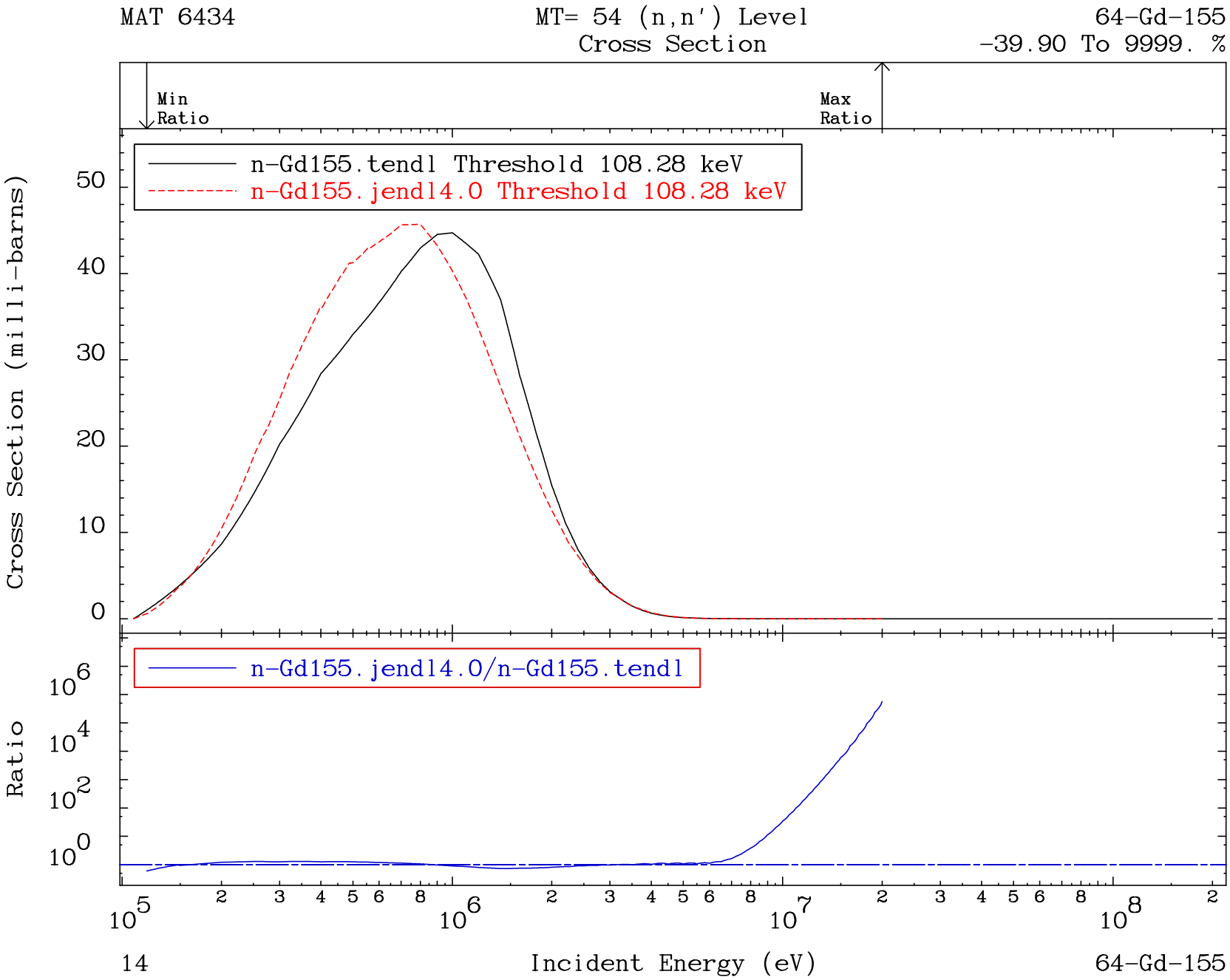

MAT 6434
(n,n') d
Cross Section
64-Gd-155
-100.0 To 405.7 %
Max
Ratio
n-Gd155.tendl Threshold 11.916 MeV
n-Gd155.jendl4.0 Threshold 11.916 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^0
10^-3
10^-6
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
64-Gd-155

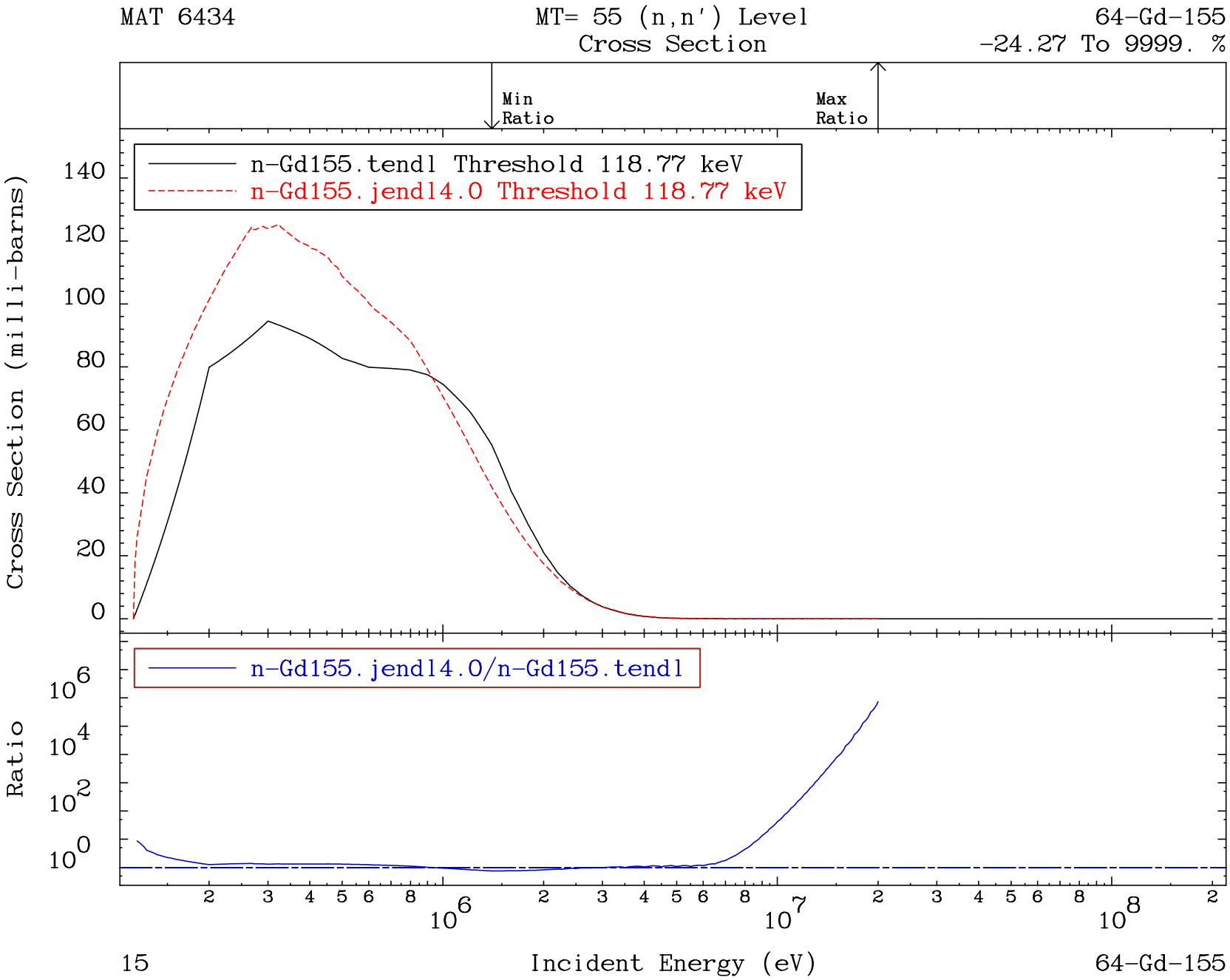

MAT 6434
(n,2n) p
Cross Section
64-Gd-155
-100.0 To -55.60%
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 14.155 MeV
n-Gd155.jendl4.0 Threshold 14.155 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^0
10^-2
10^-4
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
64-Gd-155

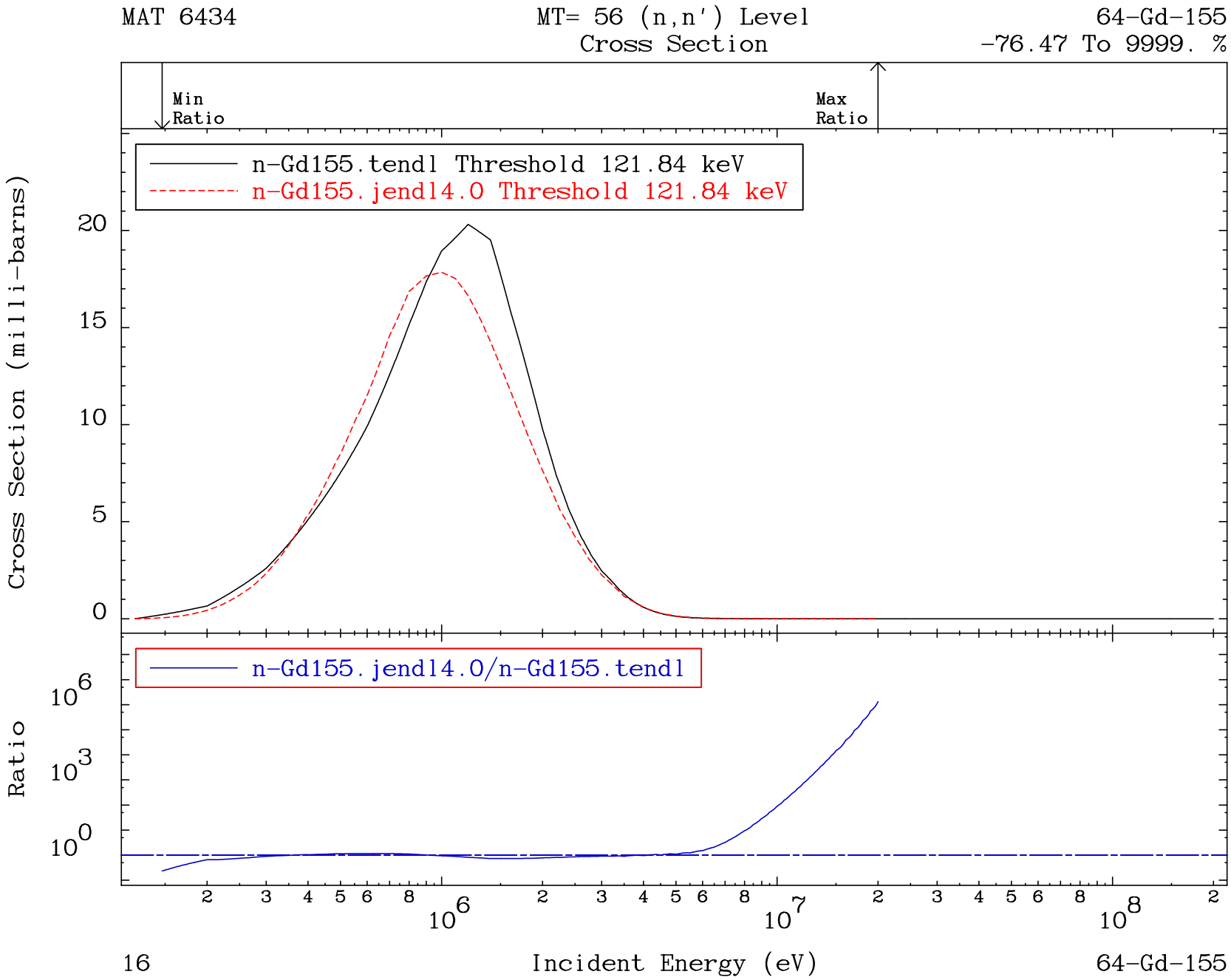

MAT 6434
MT= 51 (n,n') Level
Cross Section
64-Gd-155
-35.59 To 228.1 %
Max Ratio
Min Ratio
n-Gd155.tendl Threshold 60.402 keV
n-Gd155.jendl4.0 Threshold 60.402 keV
Cross Section (milli-barns)
400
300
200
100
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
4.0
3.0
2.0
1.0
6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
11
Incident Energy (eV)
64-Gd-155

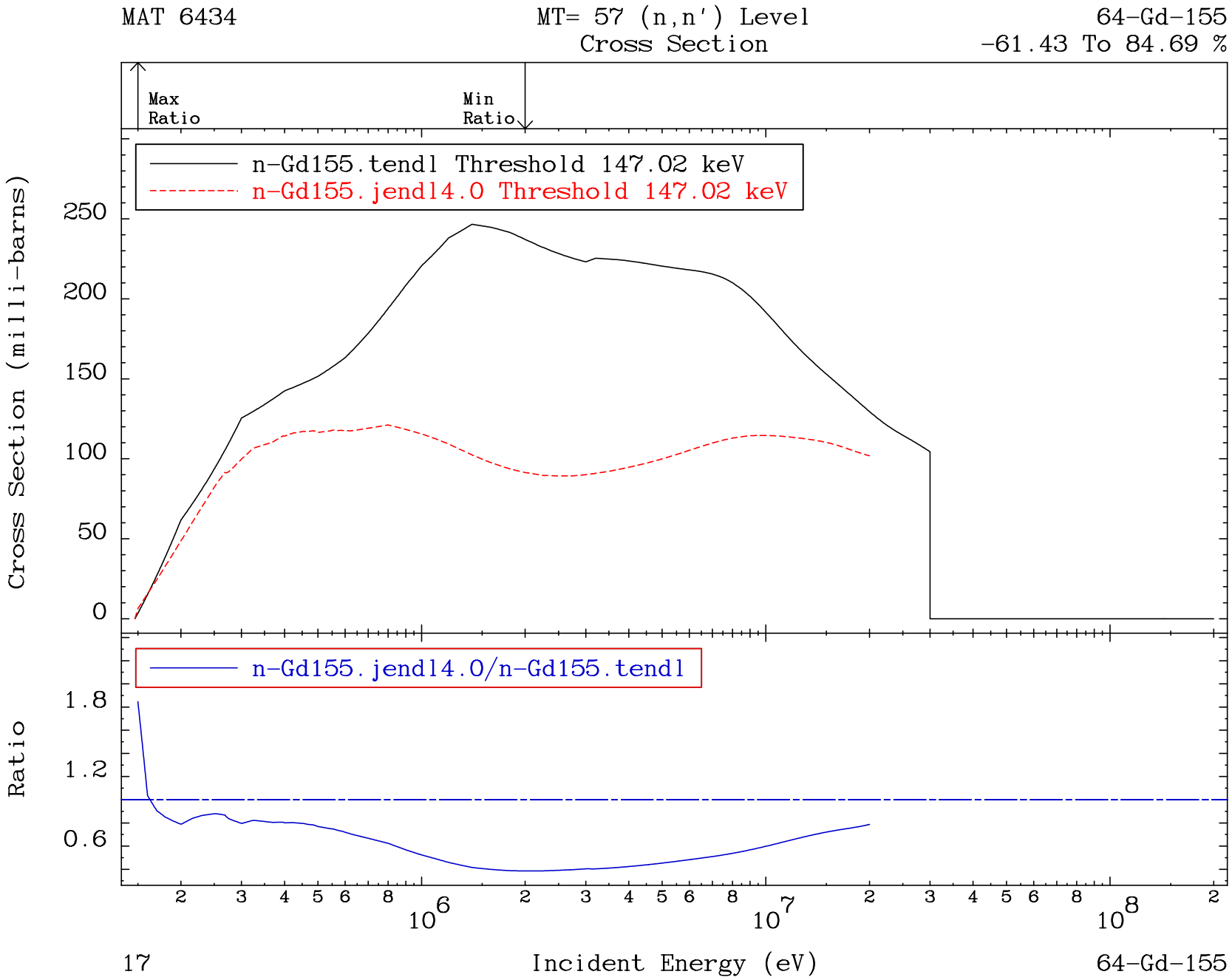

MAT 6434
MT= 52 (n,n') Level
Cross Section
64-Gd-155
-22.04 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 87.111 keV
n-Gd155.jendl4.0 Threshold 87.111 keV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
12
Incident Energy (eV)
64-Gd-155

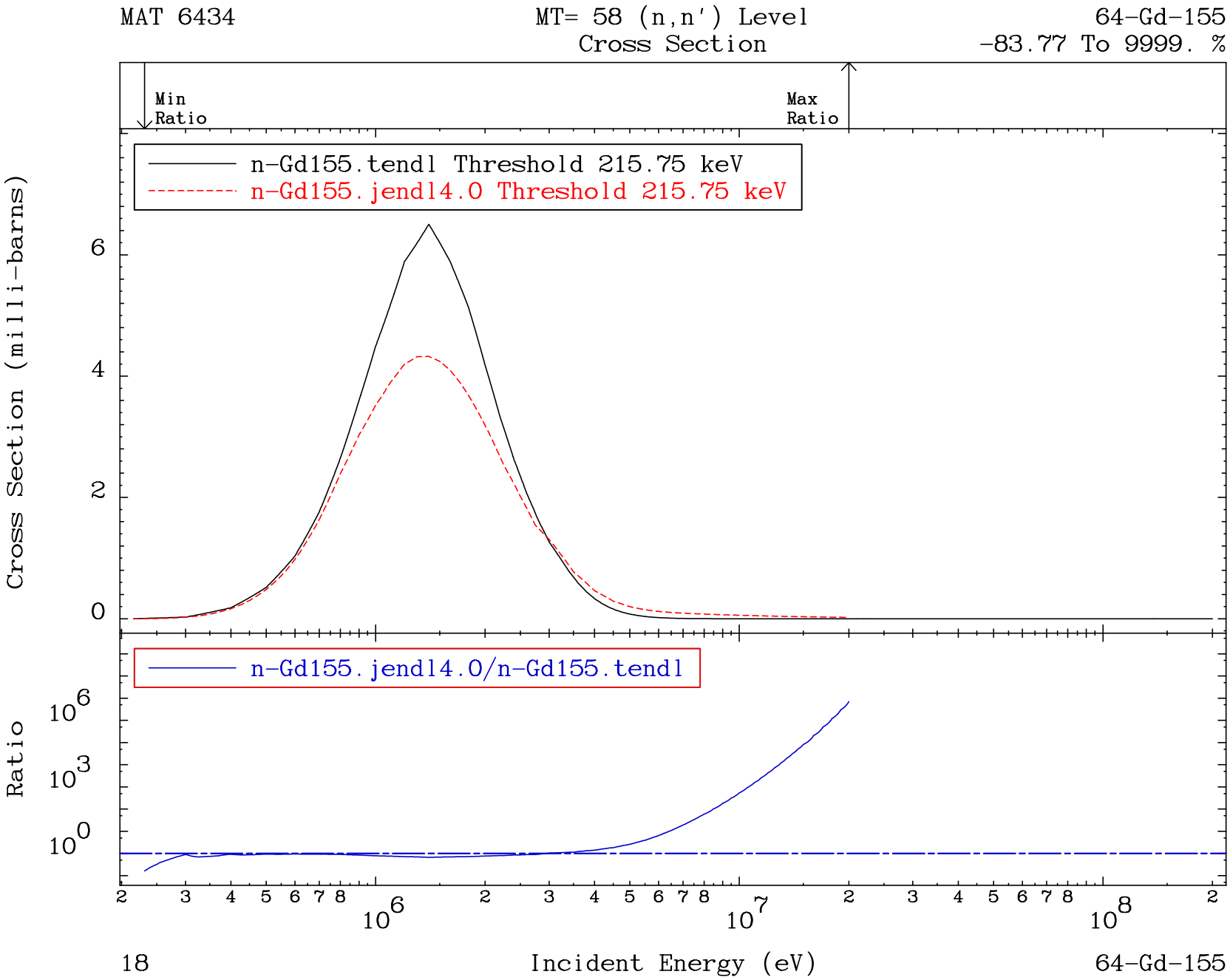

MAT 6434
MT= 53 (n,n') Level
Cross Section
64-Gd-155
-20.74 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 106.00 keV
n-Gd155.jendl4.0 Threshold 106.00 keV
Cross Section (milli-barns)
400
300
200
100
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
10^5
10^6
10^7
10^8
2
3
4
5
6
8
13
Incident Energy (eV)
64-Gd-155

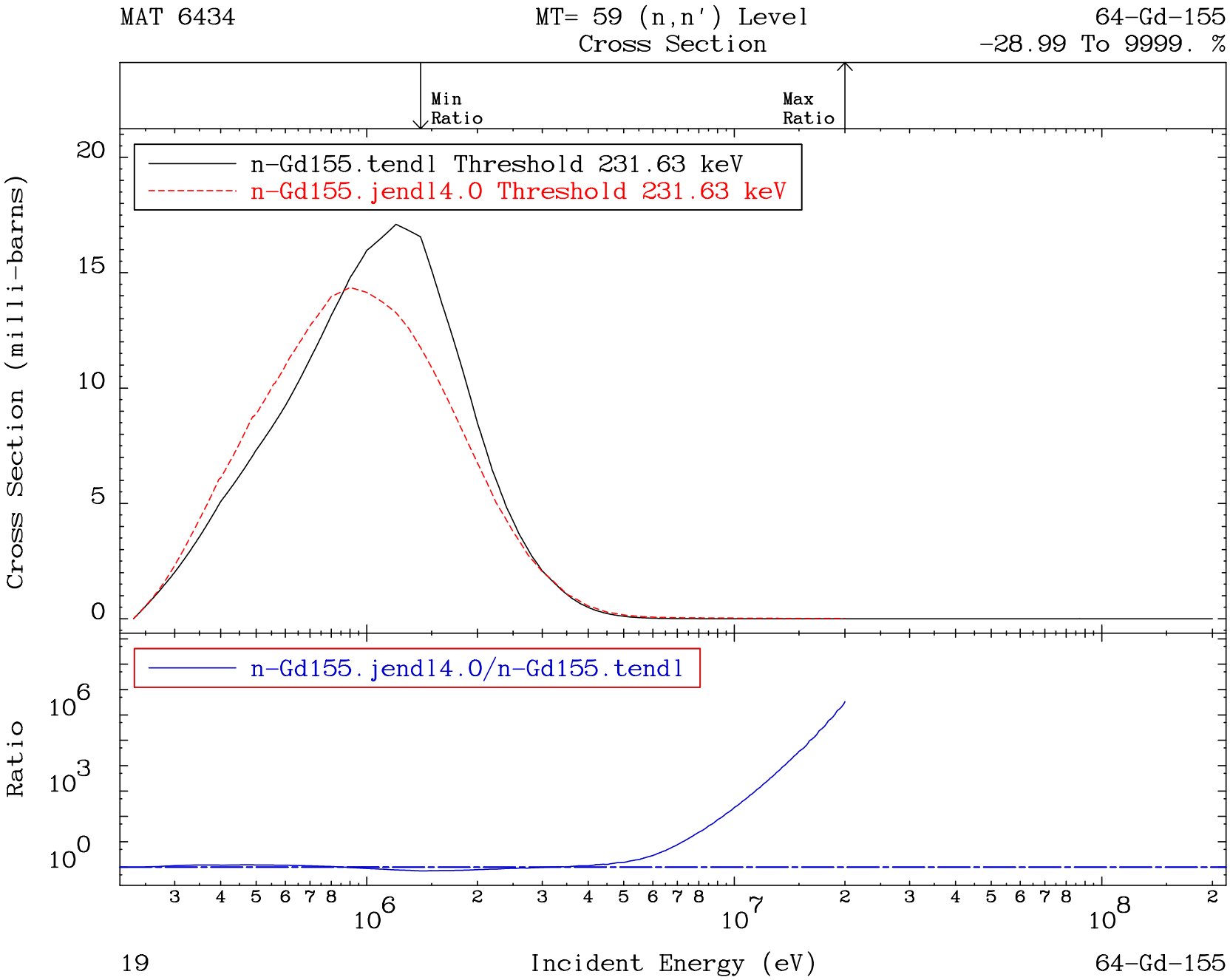

MAT 6434
MT= 54 (n,n') Level
Cross Section
64-Gd-155
-39.90 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 108.28 keV
n-Gd155.jendl4.0 Threshold 108.28 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
10^5
10^6
10^7
10^8
2 3 4 5 6 8
14
Incident Energy (eV)
64-Gd-155

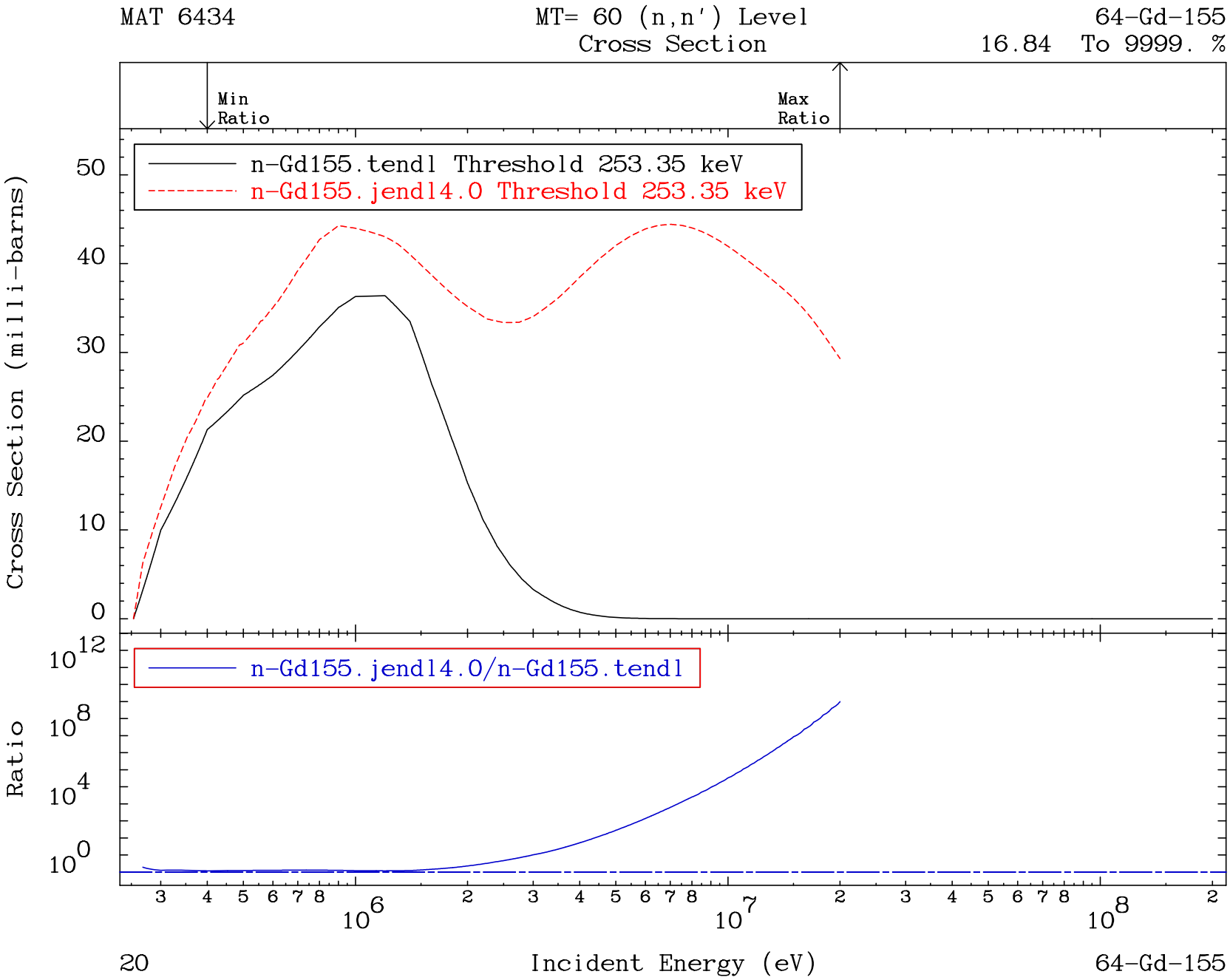

MAT 6434
MT= 55 (n,n') Level
Cross Section
64-Gd-155
-24.27 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 118.77 keV
n-Gd155.jendl4.0 Threshold 118.77 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
15
Incident Energy (eV)
64-Gd-155

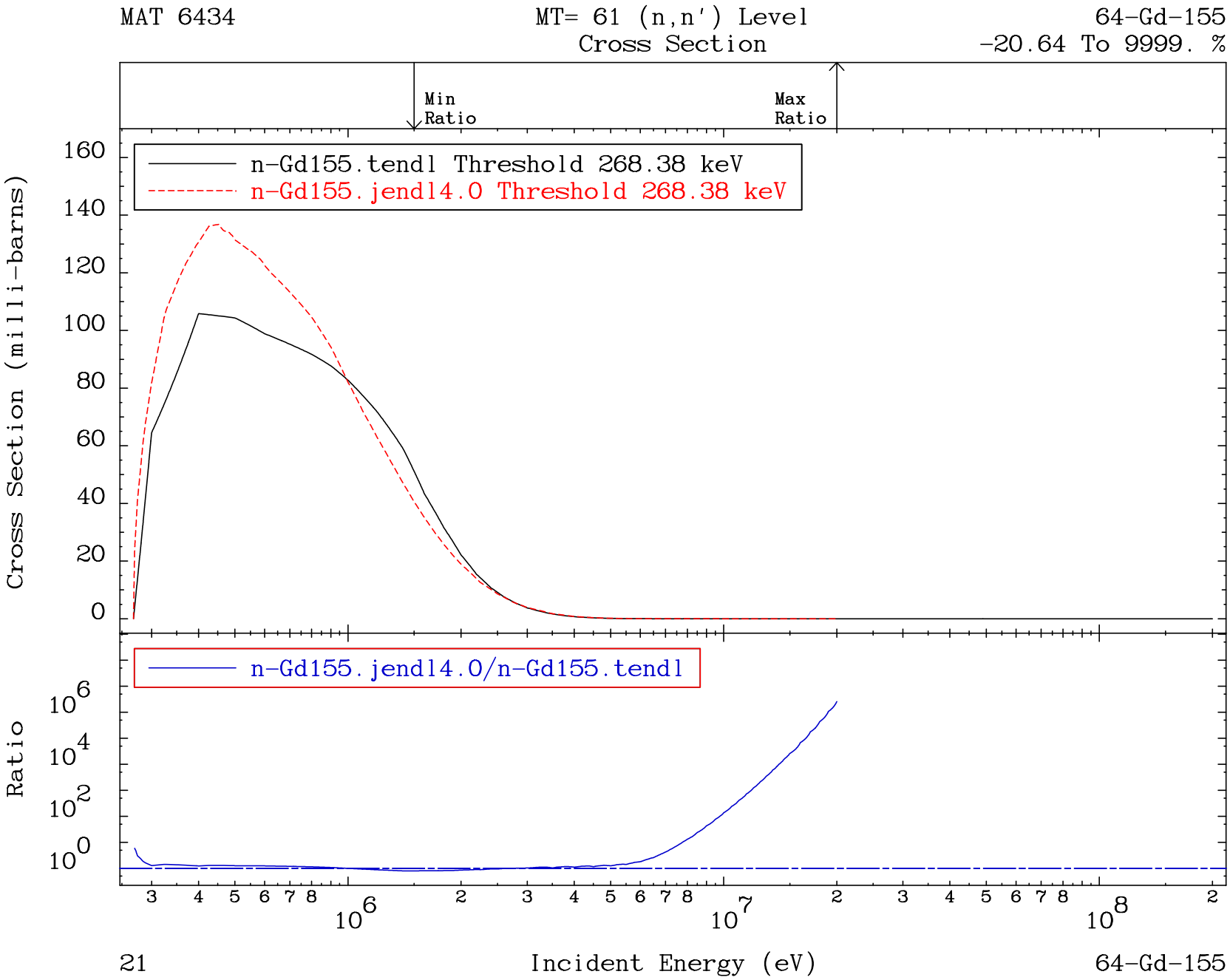

MAT 6434
MT= 56 (n,n') Level
Cross Section
64-Gd-155
-76.47 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 121.84 keV
n-Gd155.jendl4.0 Threshold 121.84 keV
Cross Section (milli-barns)
20
15
10
5
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
16
Incident Energy (eV)
64-Gd-155

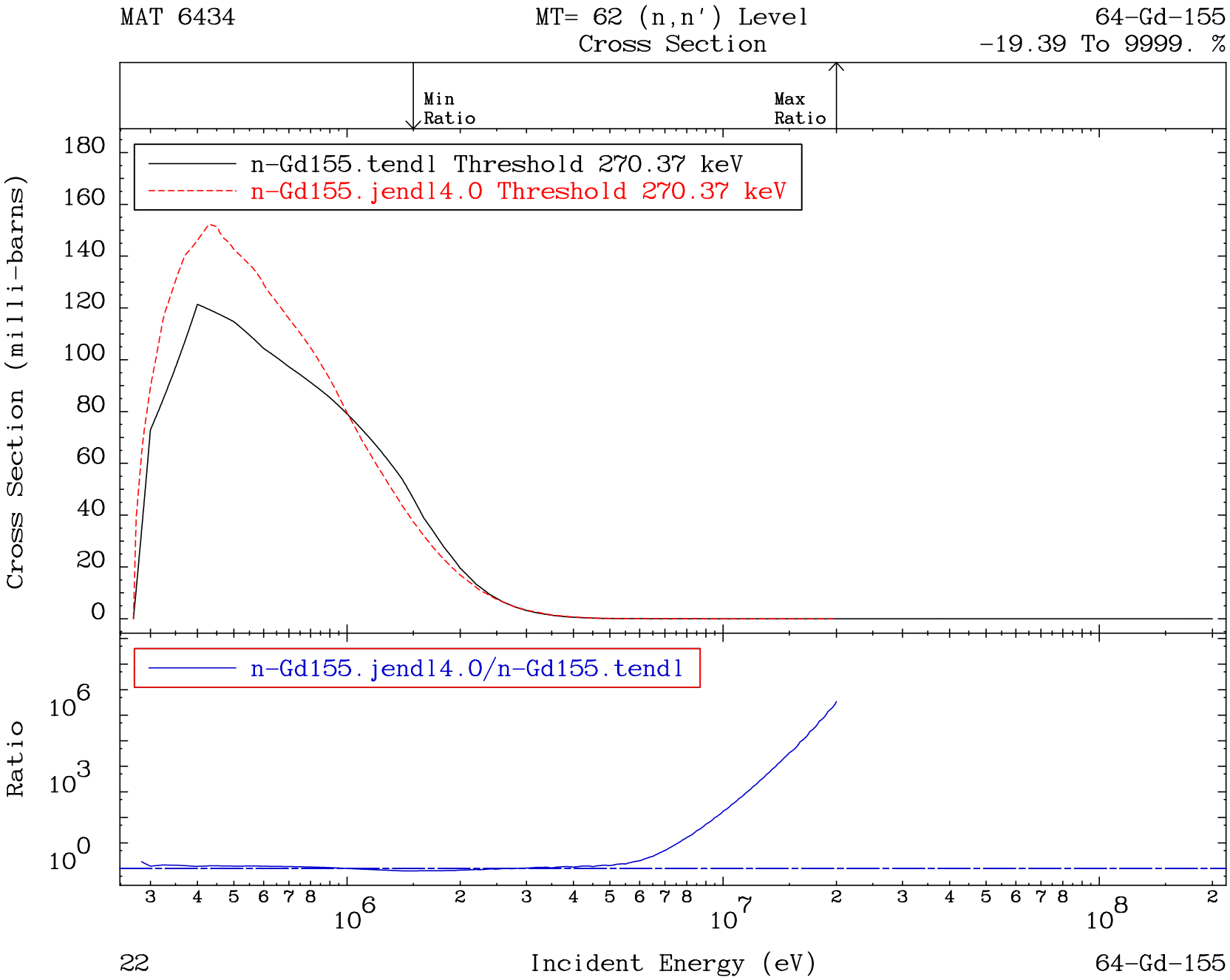

MAT 6434
MT= 57 (n,n') Level
Cross Section
64-Gd-155
-61.43 To 84.69 %
Max
Ratio
Min
Ratio
n-Gd155.tendl Threshold 147.02 keV
n-Gd155.jendl4.0 Threshold 147.02 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
1.8
1.2
0.6
2
3
4
5
6
8
10^6
10^7
10^8
17
Incident Energy (eV)
64-Gd-155

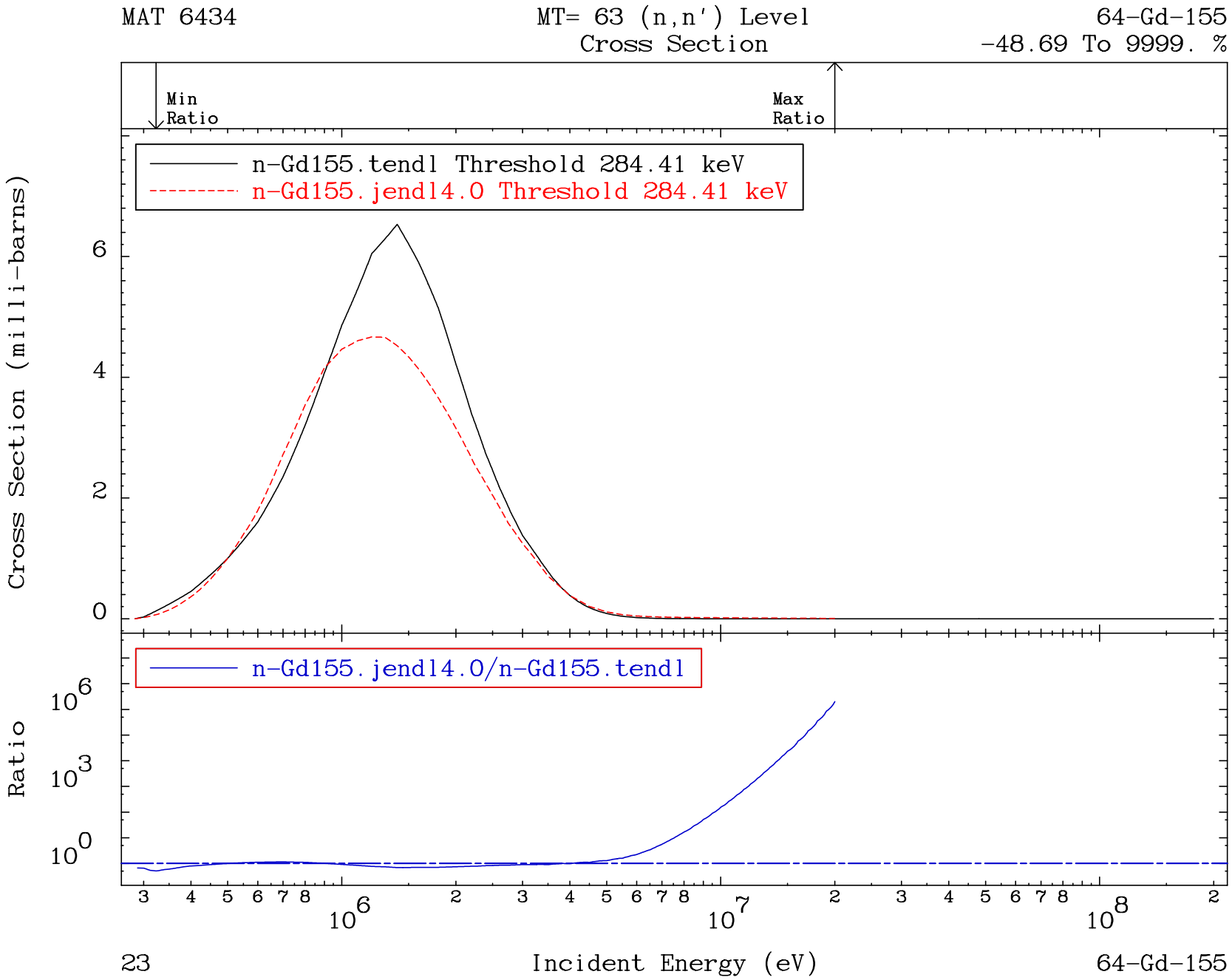

MAT 6434
MT= 58 (n,n') Level
Cross Section
64-Gd-155
-83.77 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 215.75 keV
n-Gd155.jendl4.0 Threshold 215.75 keV
Cross Section (milli-barns)
0
2
4
6
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
18
Incident Energy (eV)
64-Gd-155

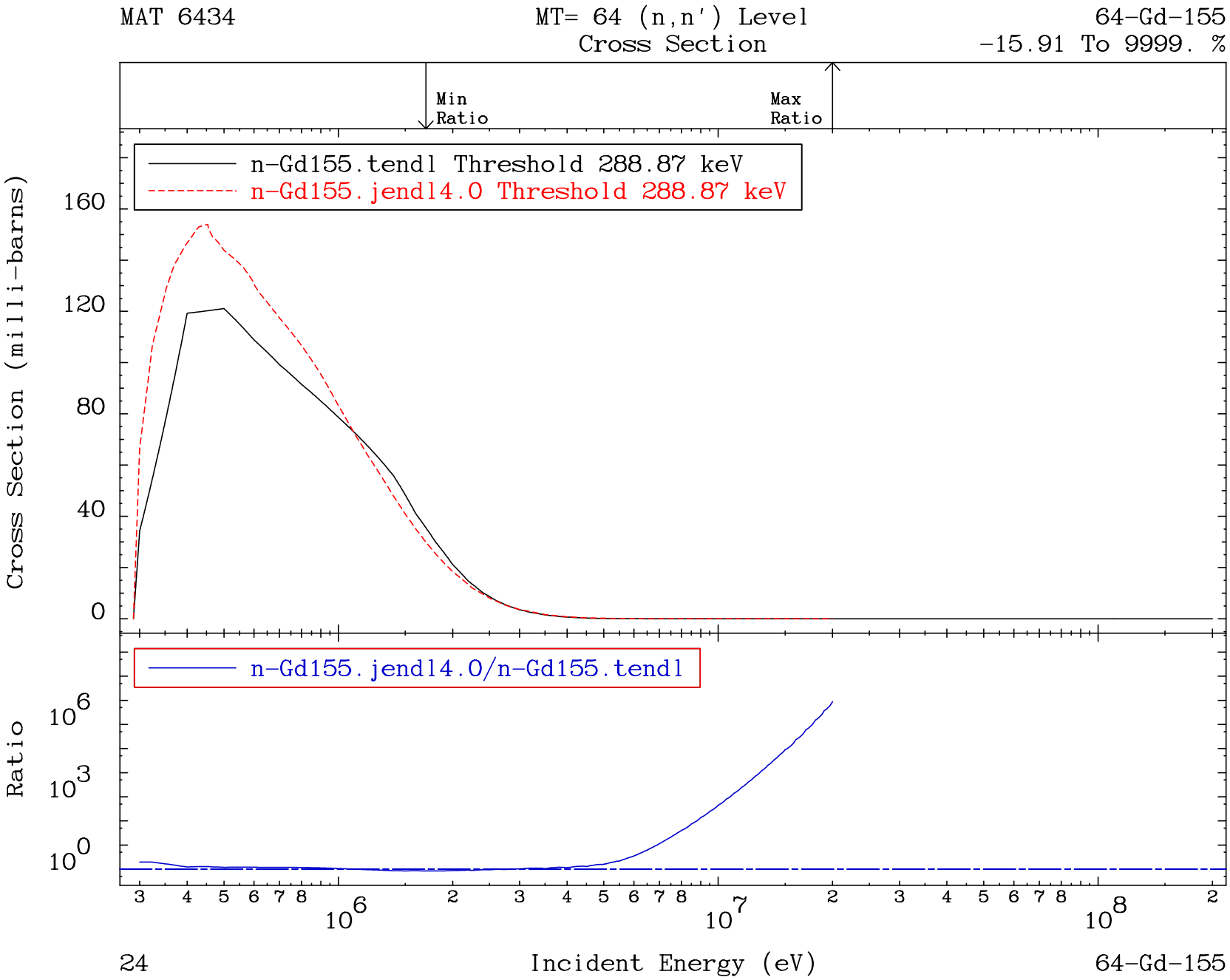

MAT 6434
MT= 59 (n,n') Level
Cross Section
64-Gd-155
-28.99 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 231.63 keV
n-Gd155.jendl4.0 Threshold 231.63 keV
Cross Section (milli-barns)
20
15
10
5
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
19
Incident Energy (eV)
64-Gd-155

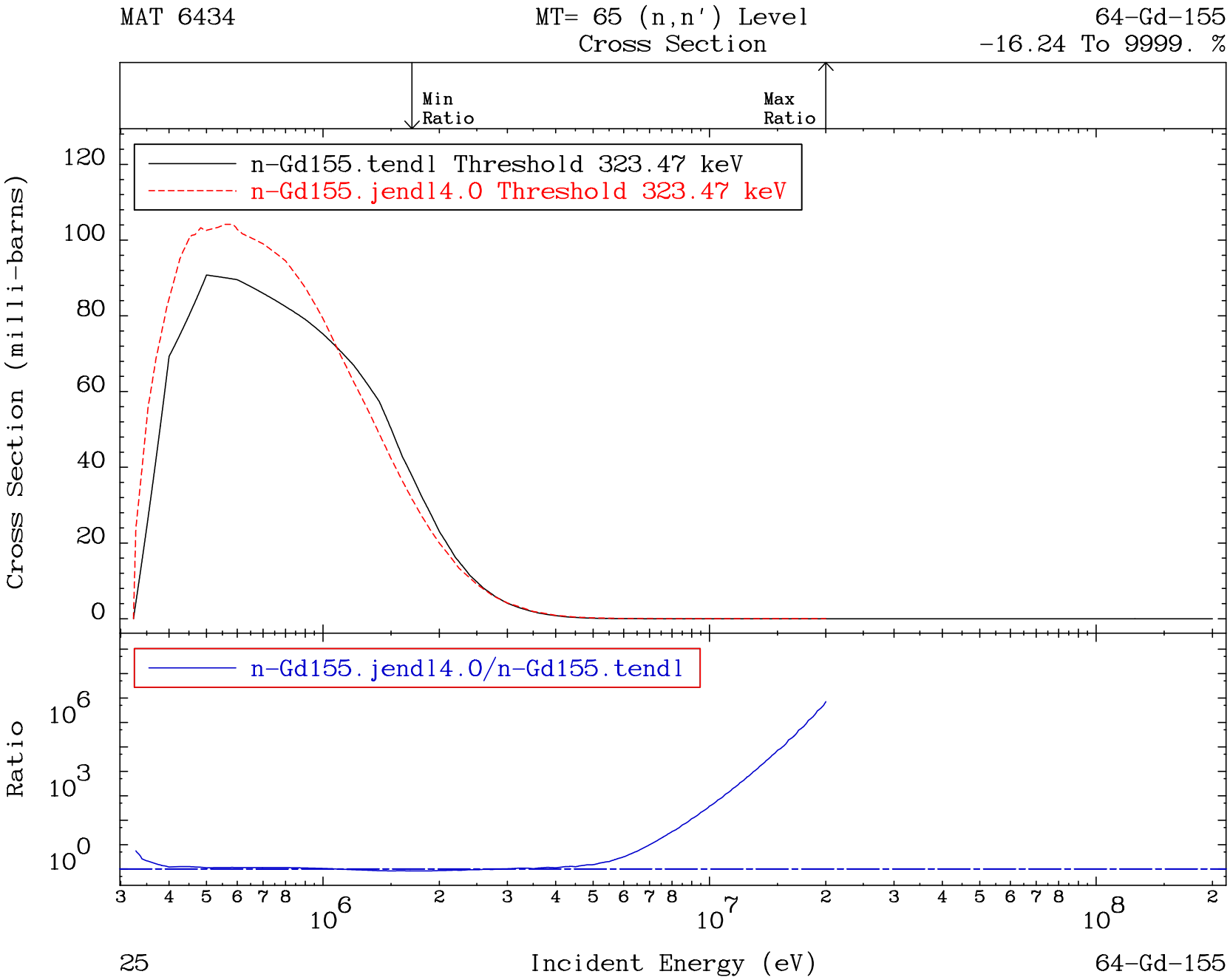

MAT 6434
MT= 60 (n,n') Level
Cross Section
64-Gd-155
16.84 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 253.35 keV
n-Gd155.jendl4.0 Threshold 253.35 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^12
10^8
10^4
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
64-Gd-155

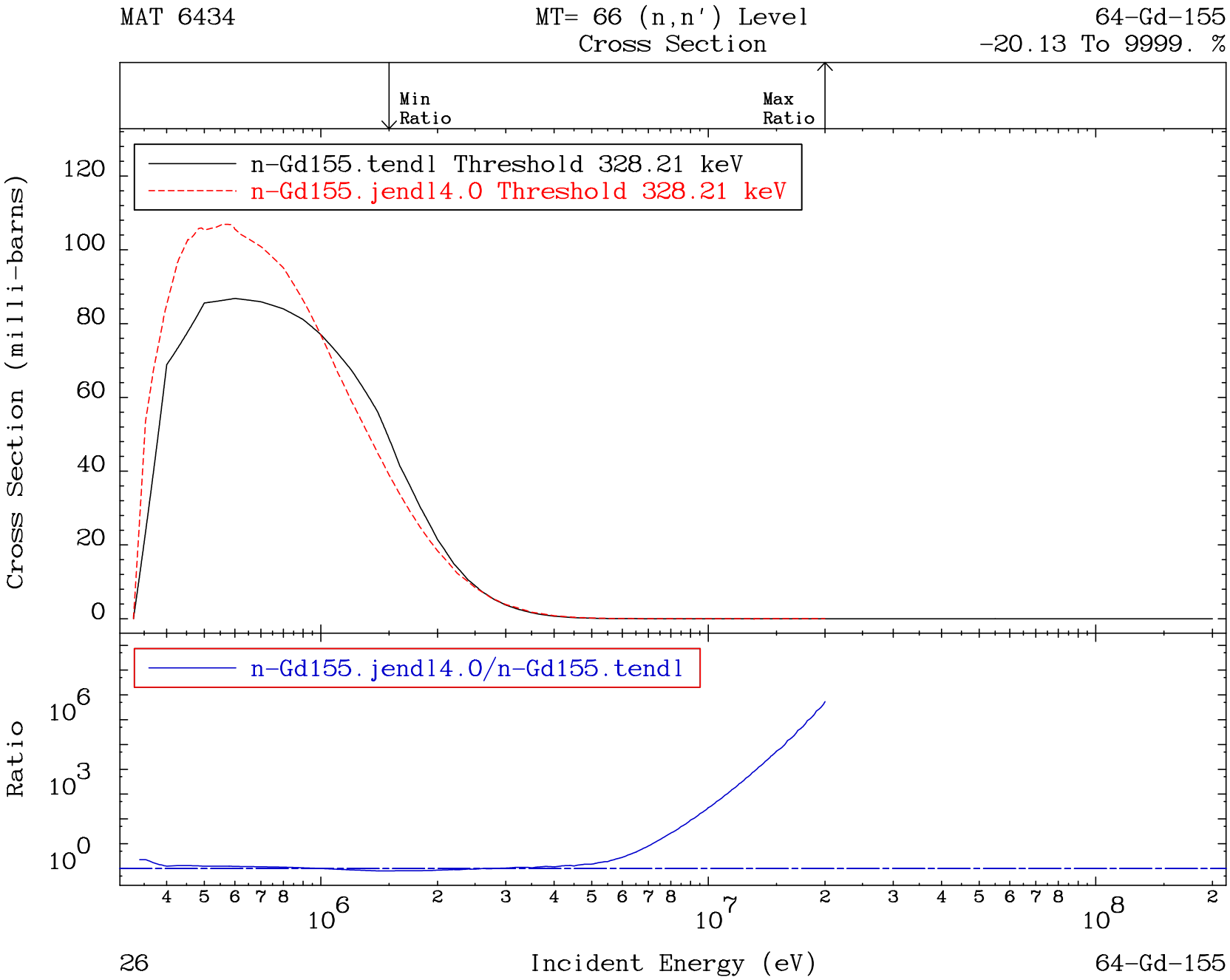

MAT 6434
MT= 61 (n,n') Level
Cross Section
64-Gd-155
-20.64 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 268.38 keV
n-Gd155.jendl4.0 Threshold 268.38 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
64-Gd-155

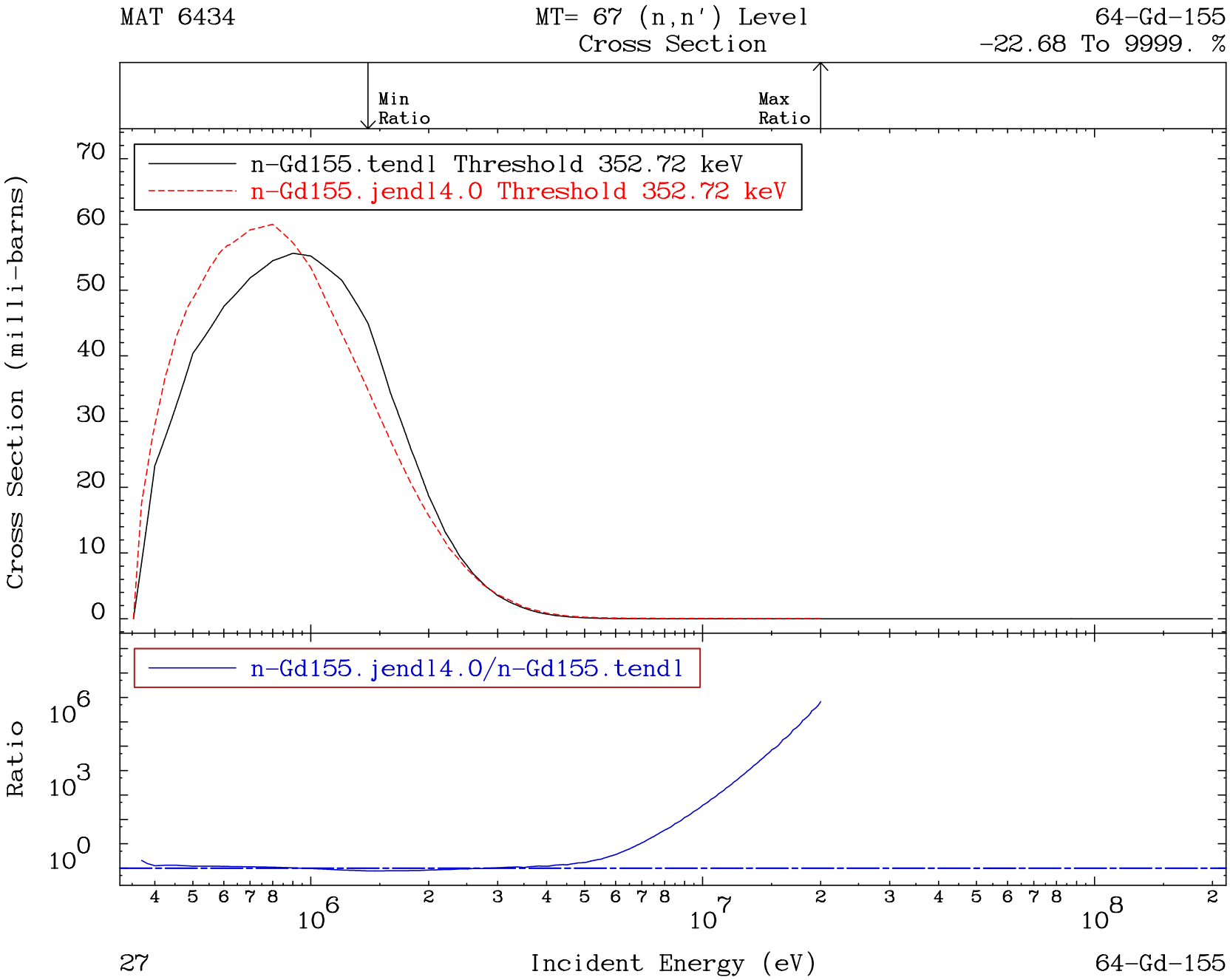

MAT 6434
MT= 62 (n,n') Level
Cross Section
64-Gd-155
-19.39 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 270.37 keV
n-Gd155.jendl4.0 Threshold 270.37 keV
Cross Section (milli-barns)
180
160
140
120
100
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
64-Gd-155

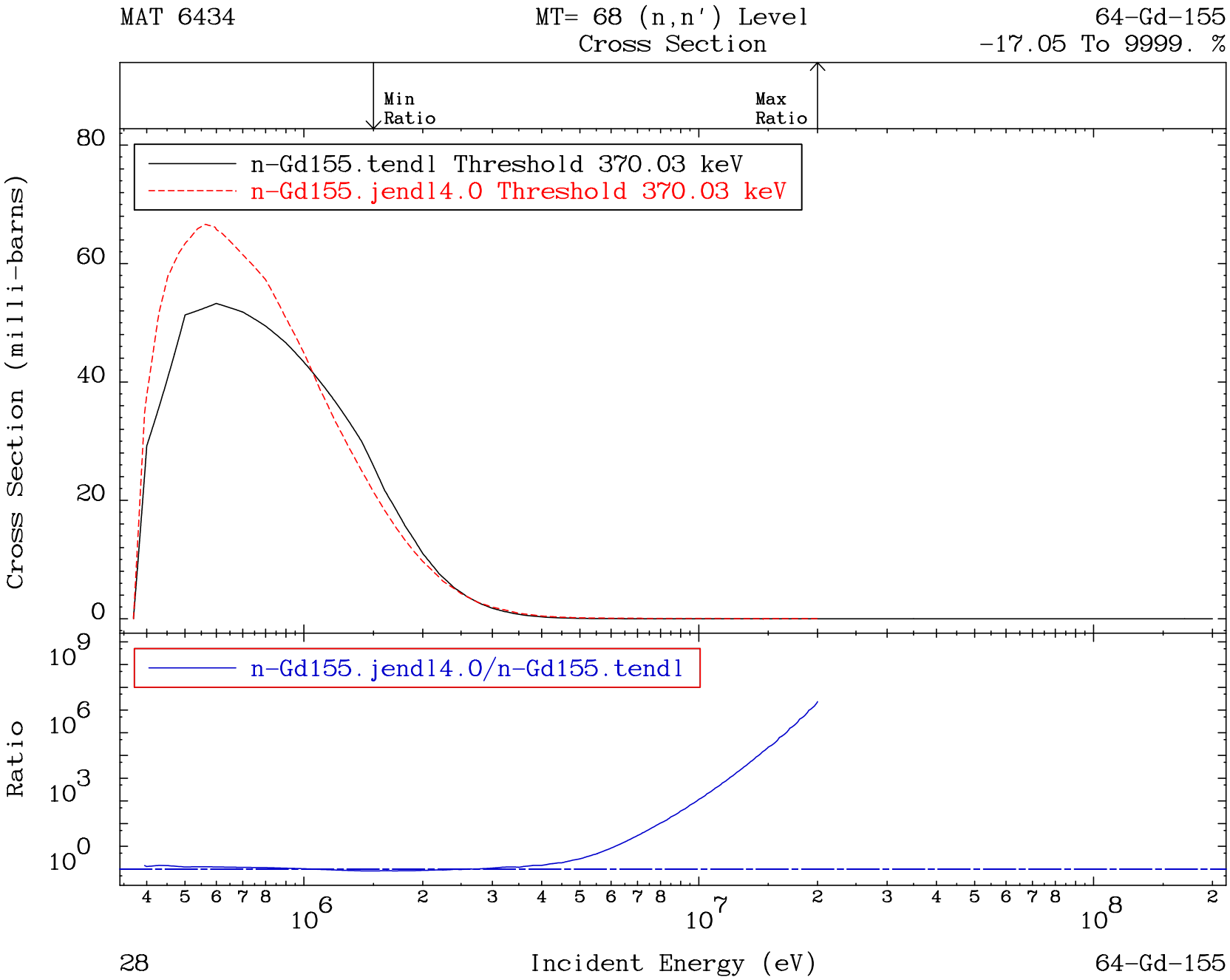

MAT 6434
MT= 63 (n,n') Level
Cross Section
64-Gd-155
-48.69 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 284.41 keV
n-Gd155.jendl4.0 Threshold 284.41 keV
Cross Section (milli-barns)
0
2
4
6
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^0
10^3
10^6
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
64-Gd-155

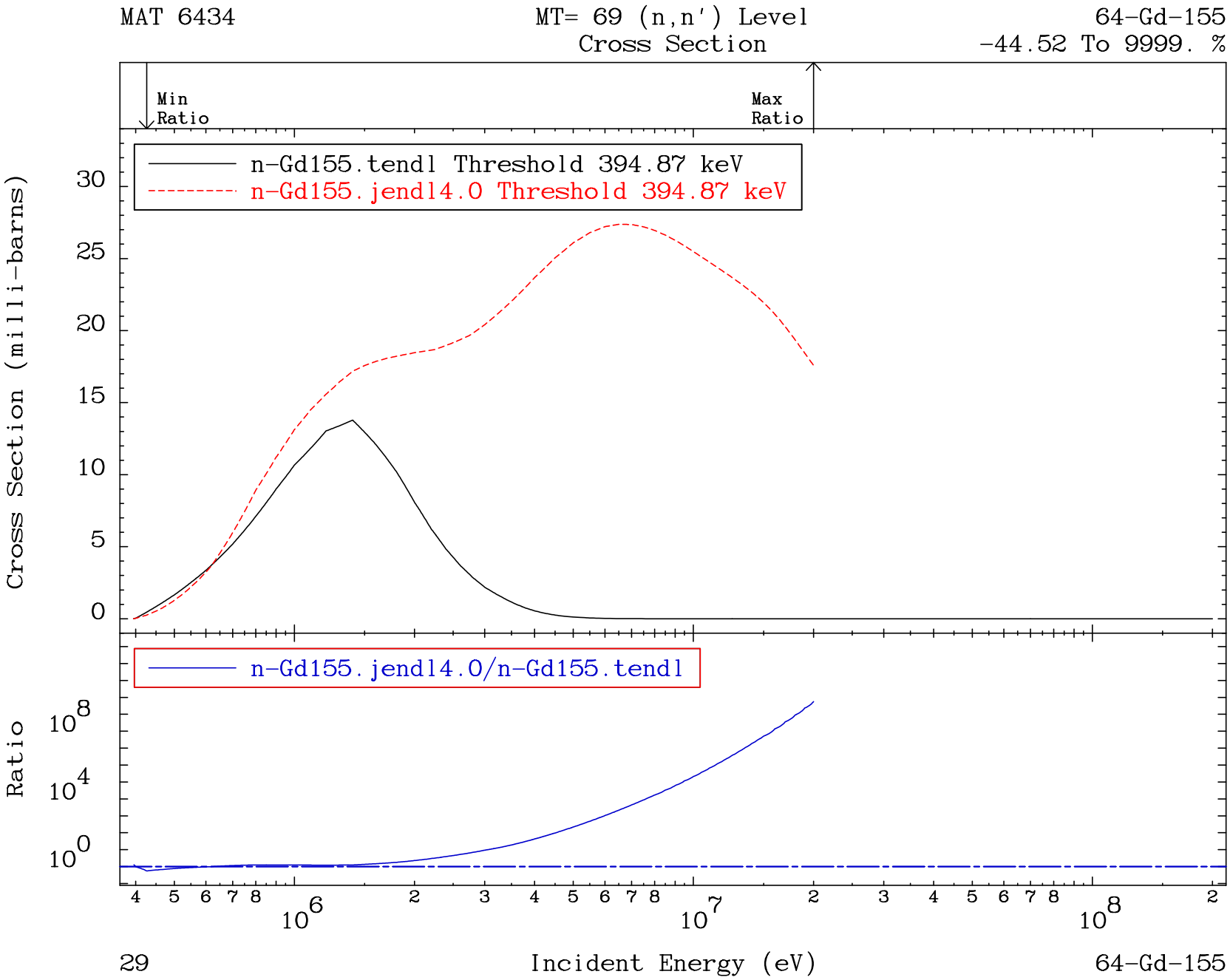

MAT 6434
MT= 64 (n,n') Level
Cross Section
64-Gd-155
-15.91 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 288.87 keV
n-Gd155.jendl4.0 Threshold 288.87 keV
Cross Section (milli-barns)
160
120
80
40
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
24
Incident Energy (eV)
64-Gd-155

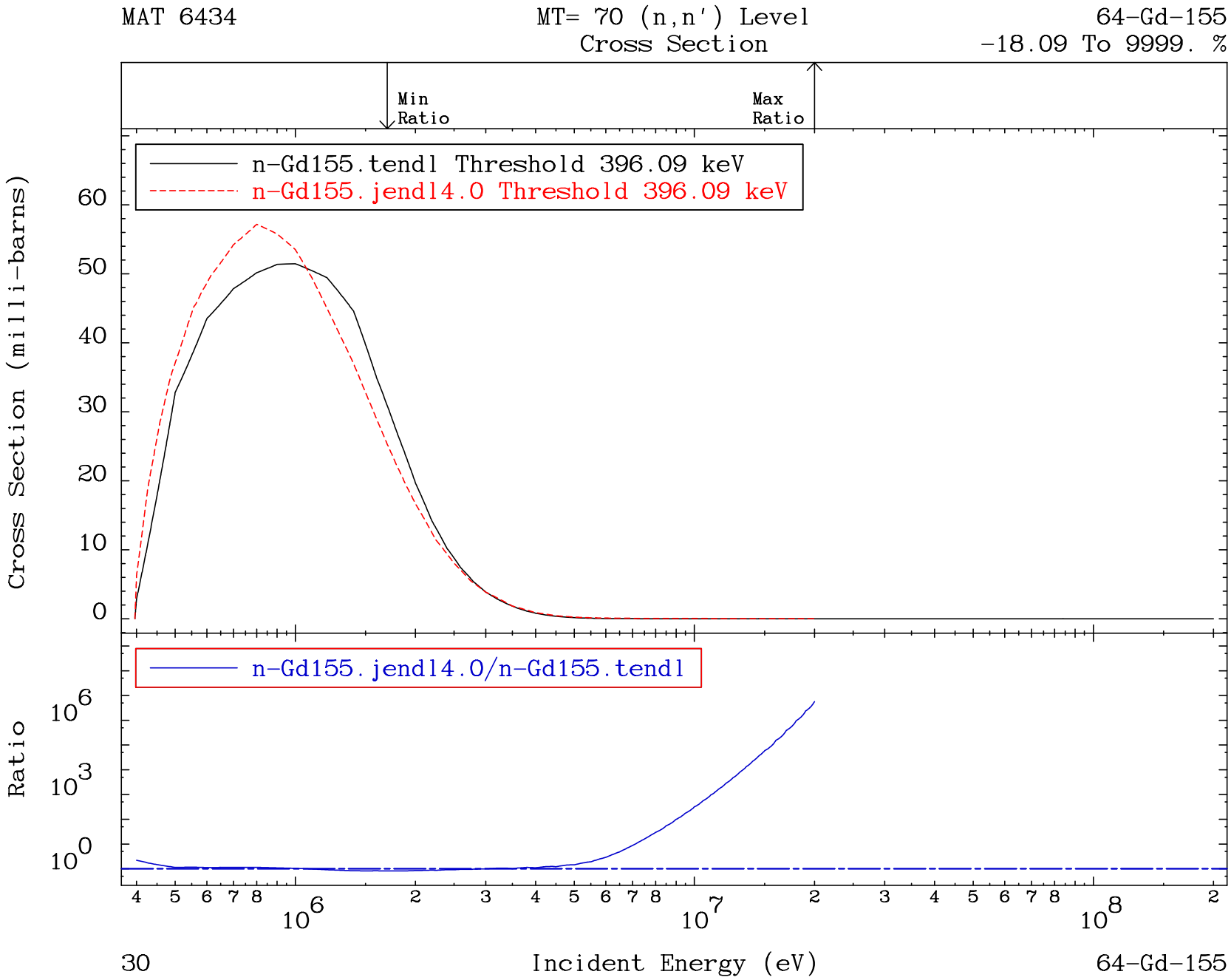

MAT 6434
MT= 65 (n,n') Level
Cross Section
64-Gd-155
-16.24 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 323.47 keV
n-Gd155.jendl4.0 Threshold 323.47 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
25
Incident Energy (eV)
64-Gd-155

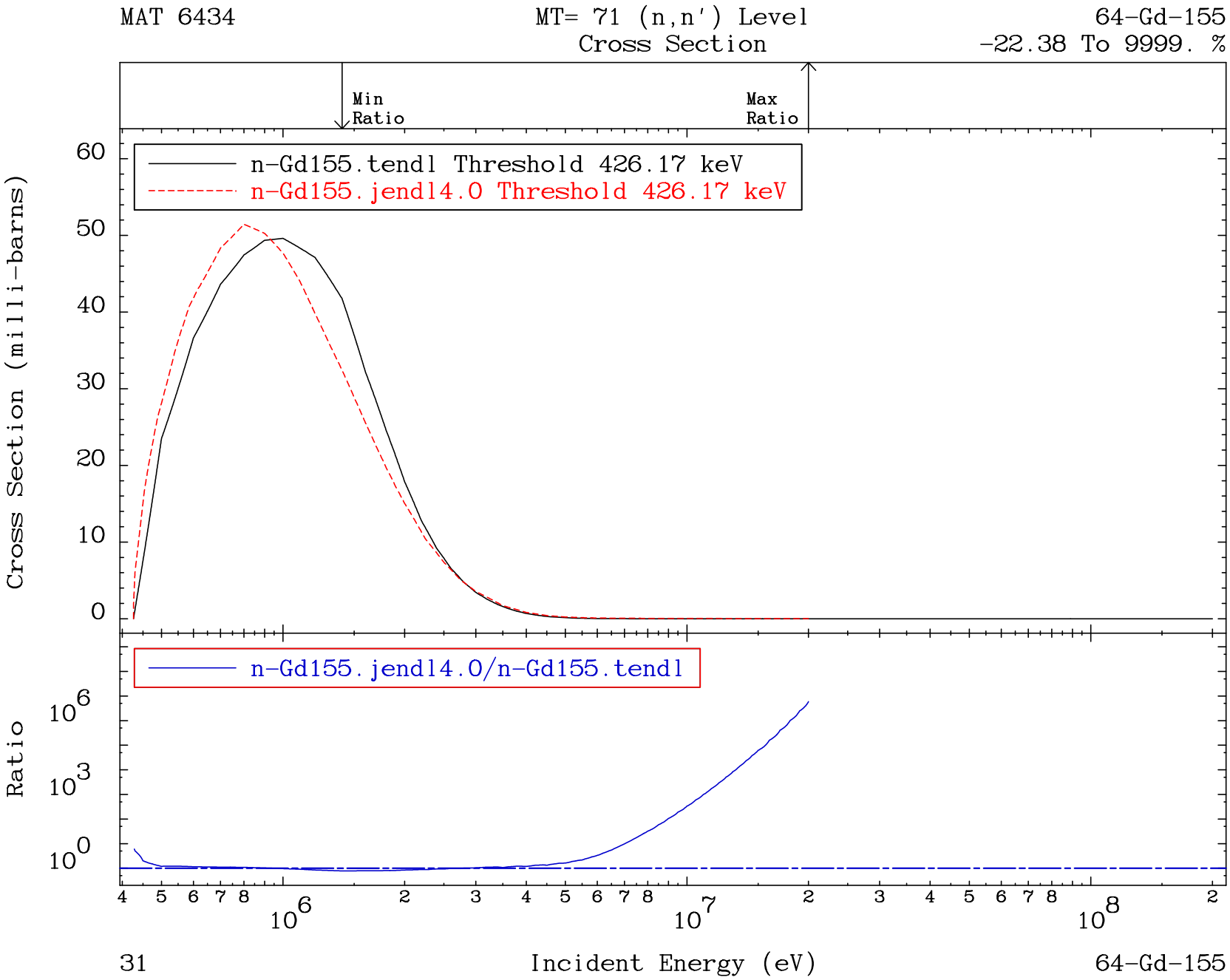

MAT 6434
MT= 66 (n,n') Level
Cross Section
64-Gd-155
-20.13 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 328.21 keV
n-Gd155.jendl4.0 Threshold 328.21 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
26
Incident Energy (eV)
64-Gd-155

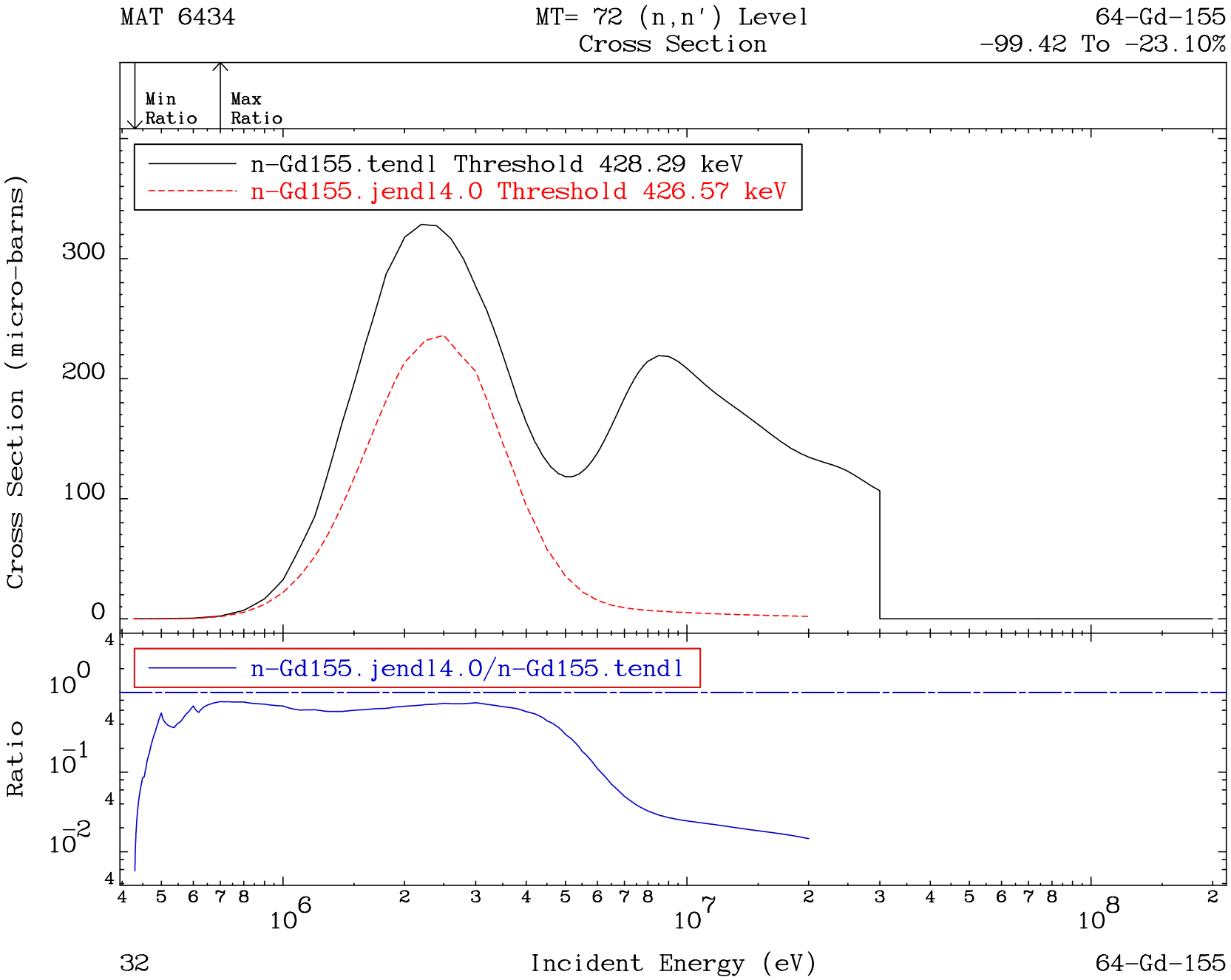

MAT 6434
MT= 67 (n,n') Level
Cross Section
64-Gd-155
-22.68 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 352.72 keV
n-Gd155.jendl4.0 Threshold 352.72 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
27
Incident Energy (eV)
64-Gd-155

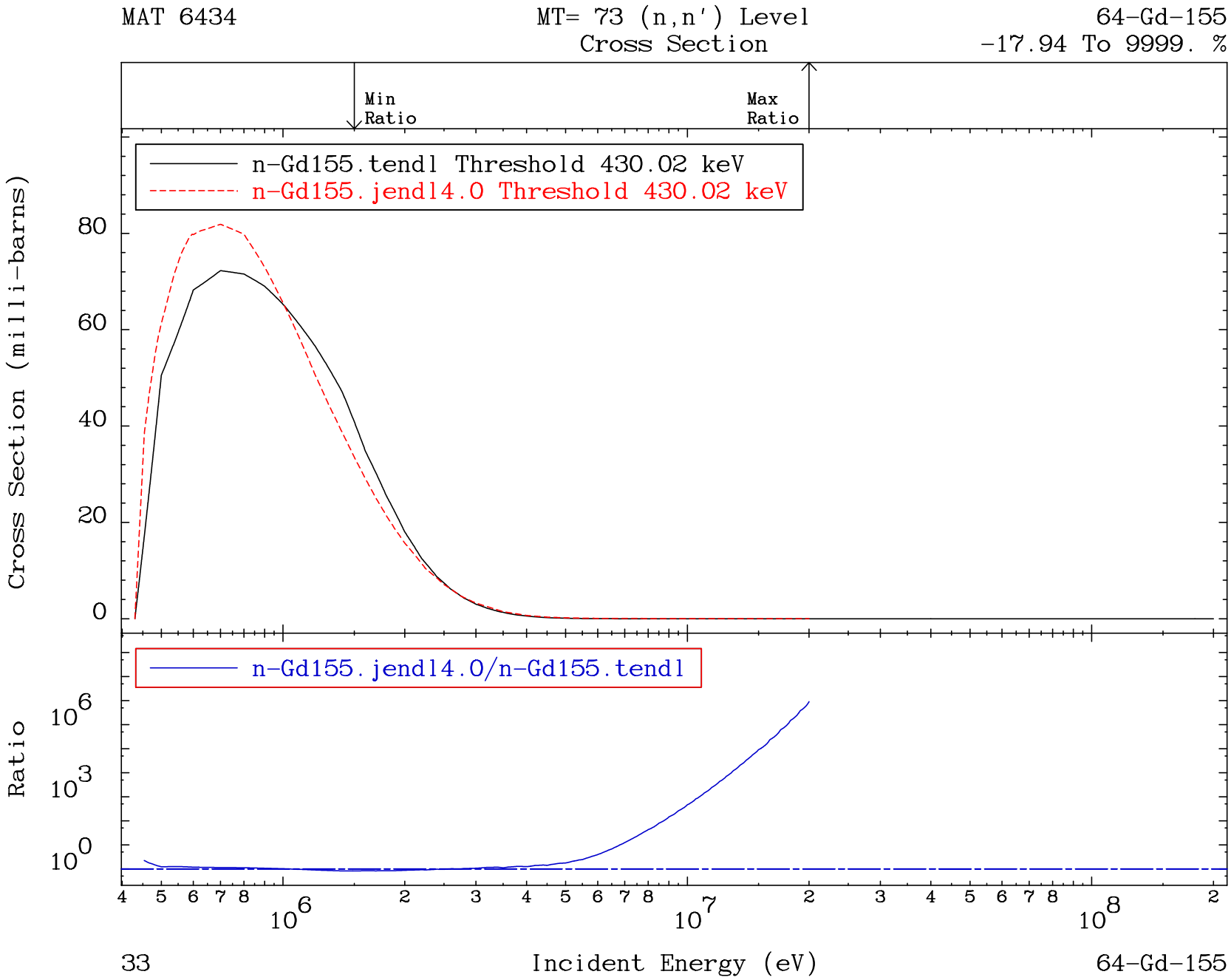

MAT 6434
MT= 68 (n,n') Level
Cross Section
64-Gd-155
-17.05 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 370.03 keV
n-Gd155.jendl4.0 Threshold 370.03 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^9
10^6
10^3
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
28
Incident Energy (eV)
64-Gd-155

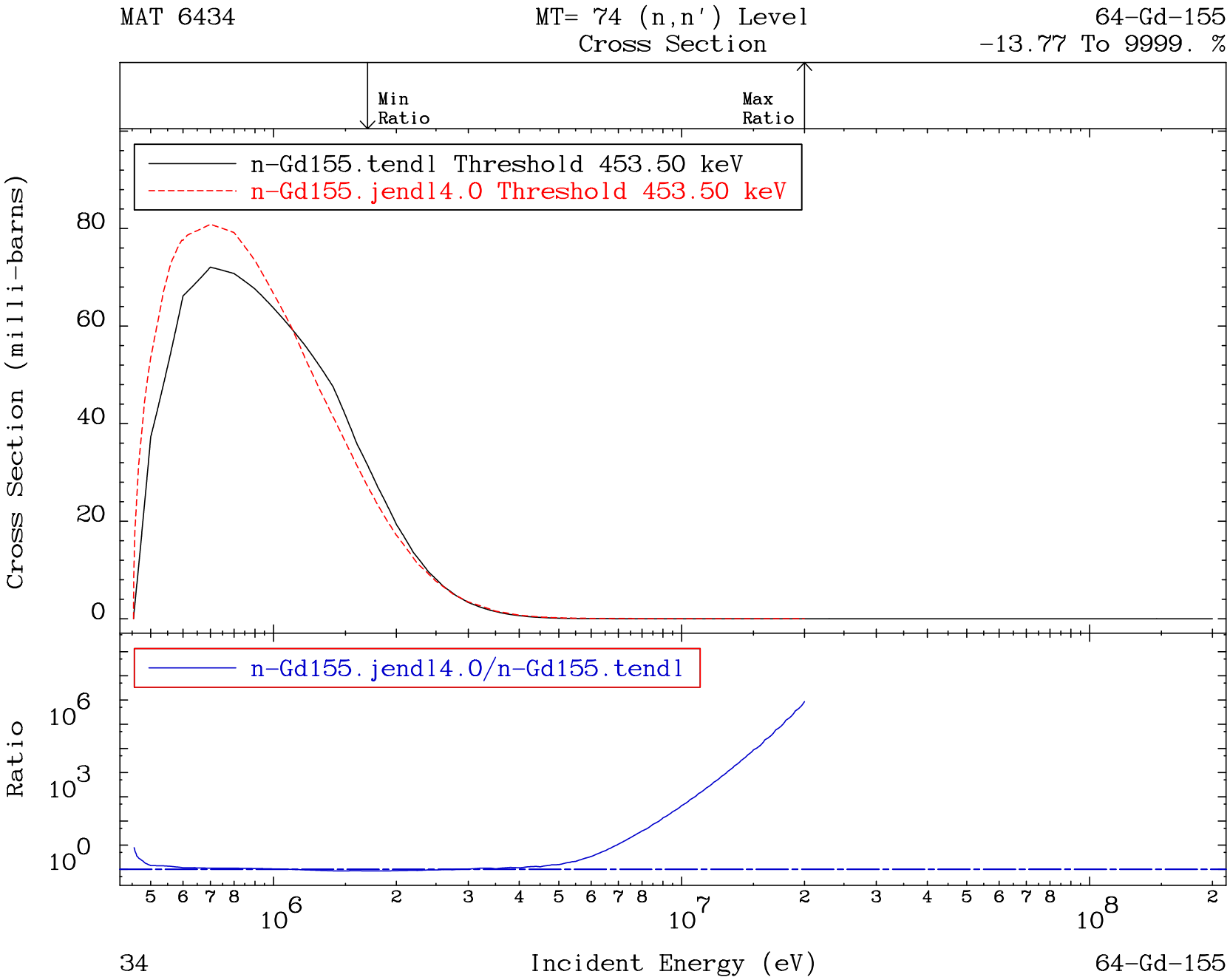

MAT 6434
MT= 69 (n,n') Level
Cross Section
64-Gd-155
-44.52 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 394.87 keV
n-Gd155.jendl4.0 Threshold 394.87 keV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^8
10^4
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
29
Incident Energy (eV)
64-Gd-155

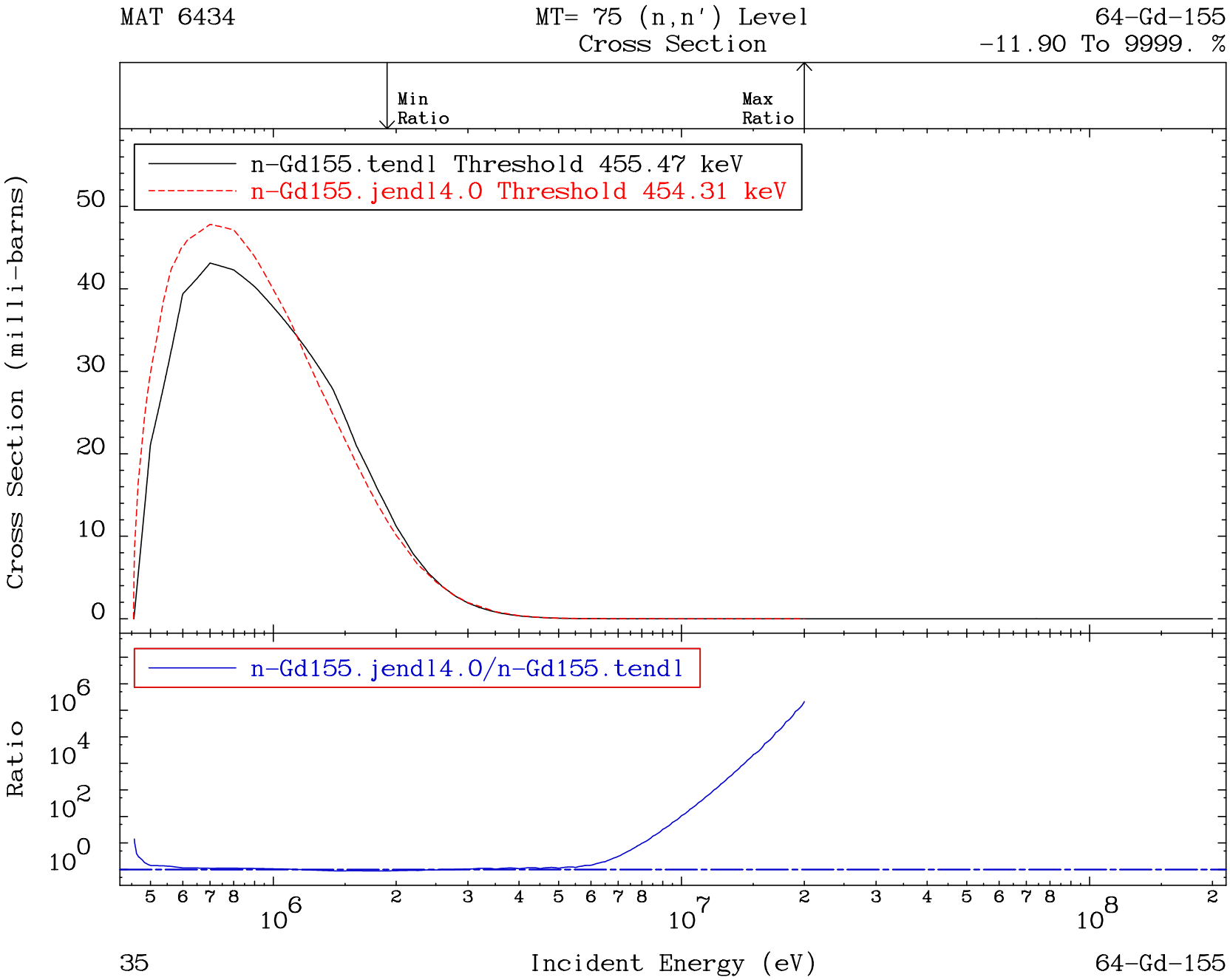

MAT 6434
MT= 70 (n,n') Level
Cross Section
64-Gd-155
-18.09 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 396.09 keV
n-Gd155.jendl4.0 Threshold 396.09 keV
Cross Section (milli-barns)
0
10
20
30
40
50
60
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^0
10^3
10^6
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
30
64-Gd-155

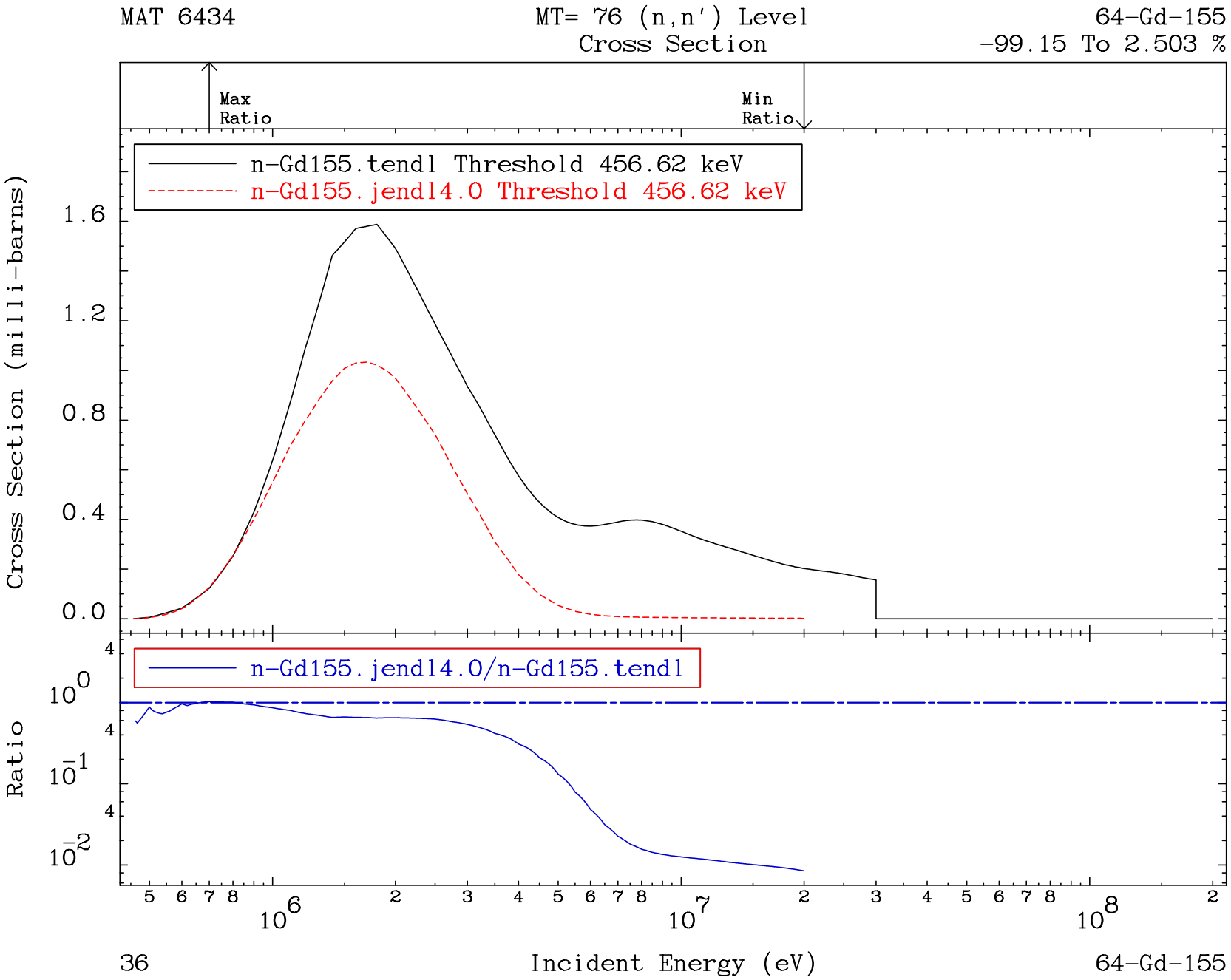

MAT 6434
MT= 71 (n,n') Level
Cross Section
64-Gd-155
-22.38 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 426.17 keV
n-Gd155.jendl4.0 Threshold 426.17 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
31
Incident Energy (eV)
64-Gd-155

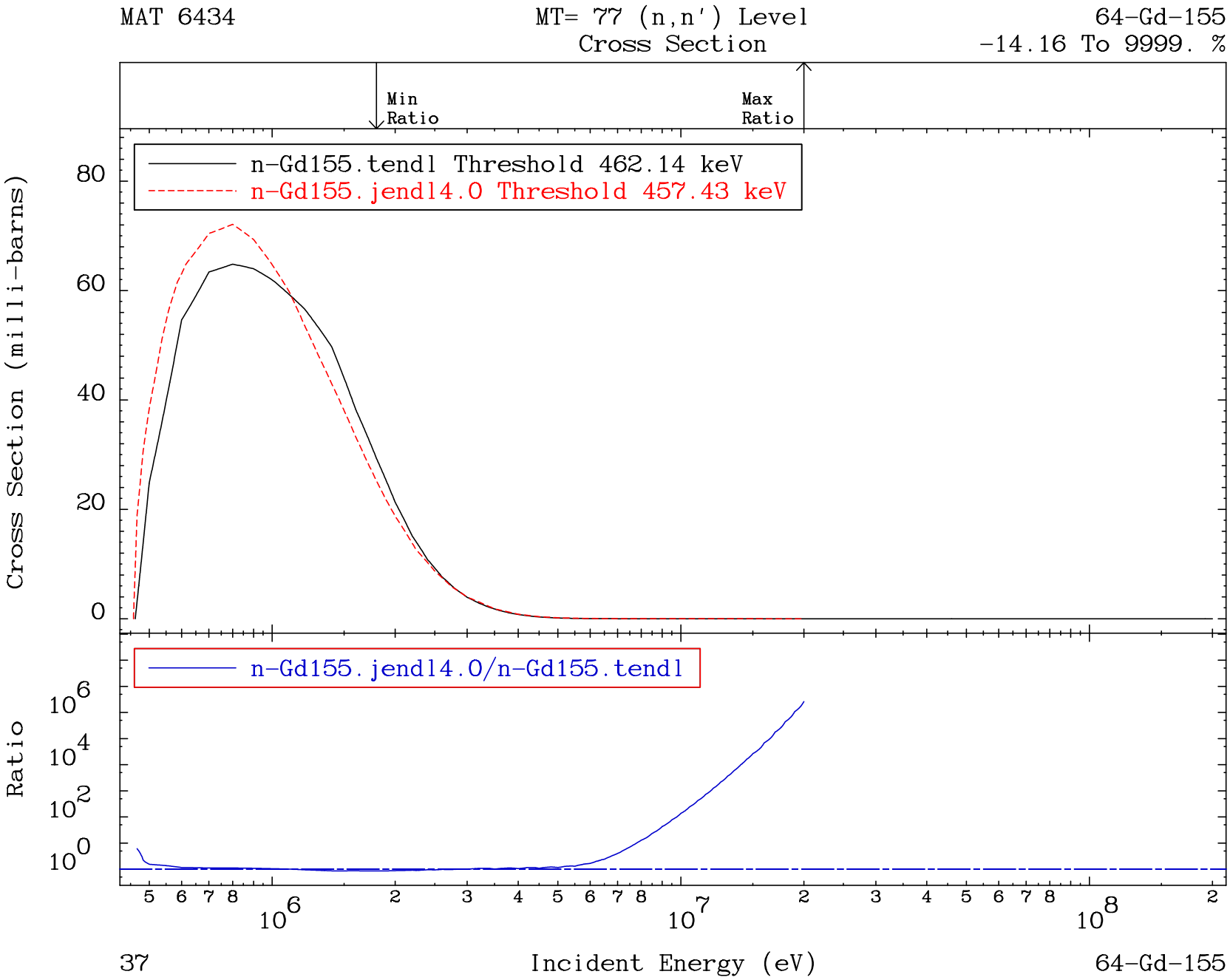

MAT 6434
MT= 72 (n,n') Level
Cross Section
64-Gd-155
-99.42 To -23.10%
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 428.29 keV
n-Gd155.jendl4.0 Threshold 426.57 keV
Cross Section (micro-barns)
300
200
100
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^0
10^-1
10^-2
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
32
Incident Energy (eV)
64-Gd-155

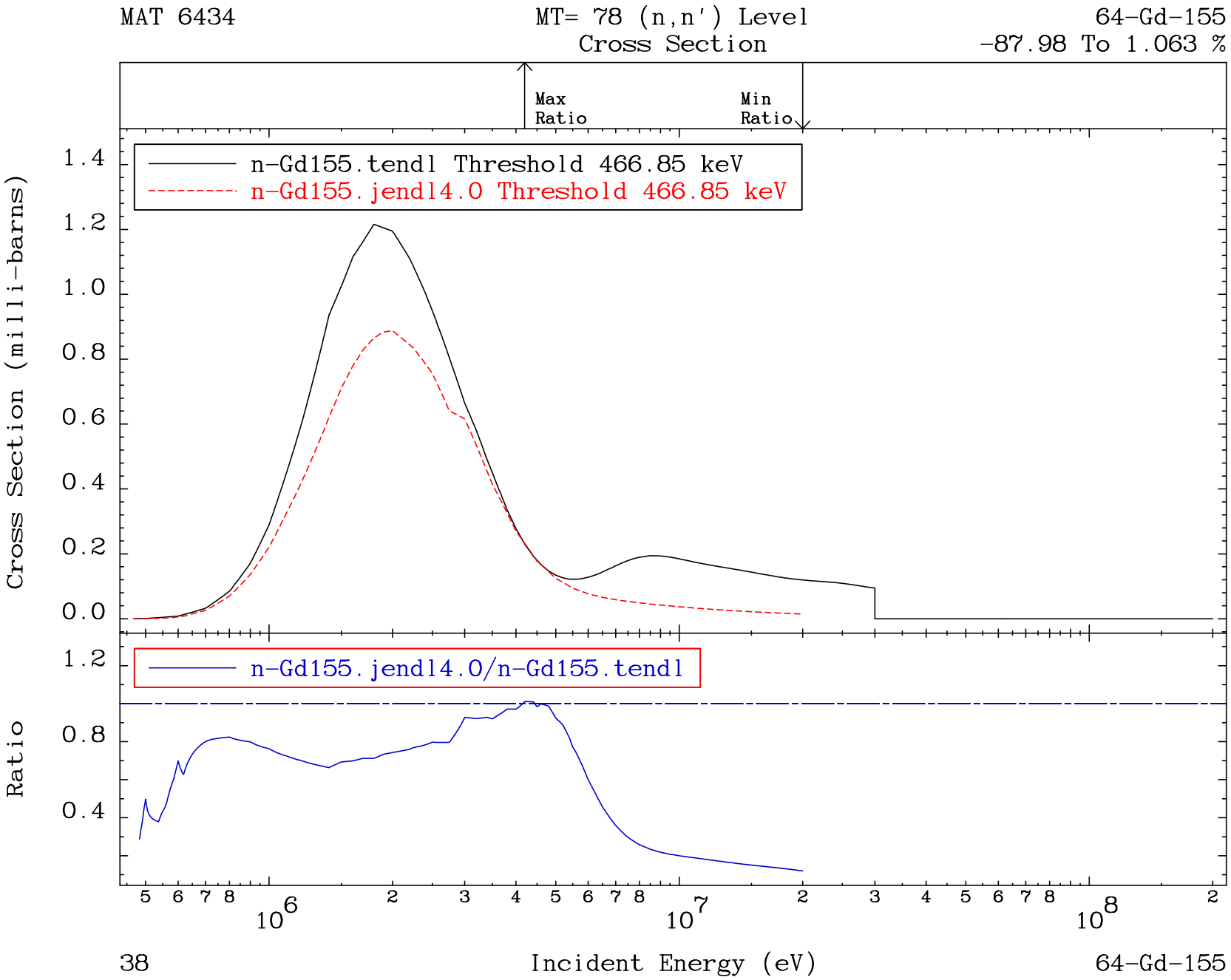

MAT 6434
MT= 73 (n,n') Level
Cross Section
64-Gd-155
-17.94 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 430.02 keV
n-Gd155.jendl4.0 Threshold 430.02 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
33
Incident Energy (eV)
64-Gd-155

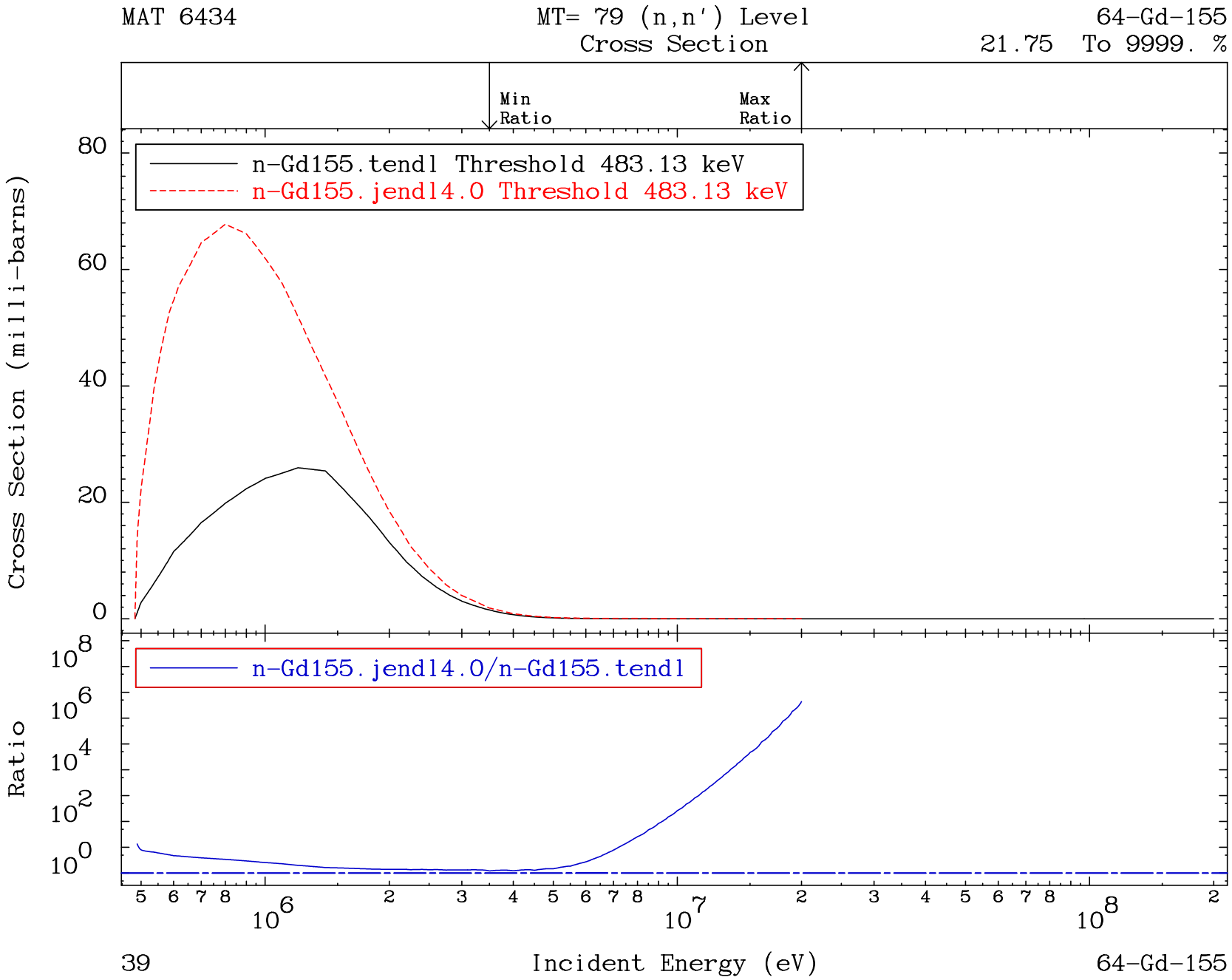

MAT 6434
MT= 74 (n,n') Level
Cross Section
64-Gd-155
-13.77 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 453.50 keV
n-Gd155.jendl4.0 Threshold 453.50 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^3
10^0
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
34
Incident Energy (eV)
64-Gd-155

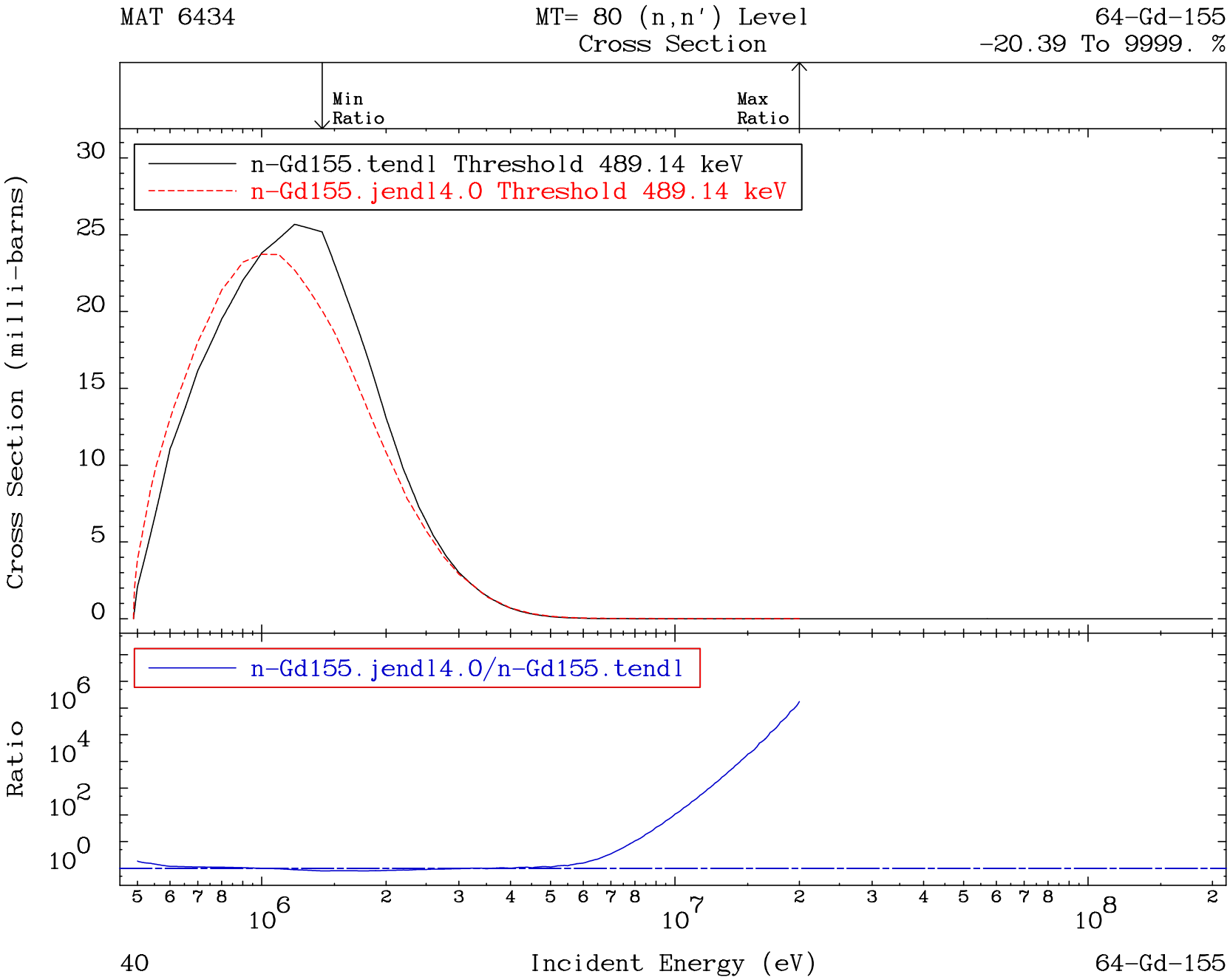

MAT 6434
MT= 75 (n,n') Level
Cross Section
64-Gd-155
-11.90 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 455.47 keV
n-Gd155.jendl4.0 Threshold 454.31 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
35
Incident Energy (eV)
64-Gd-155

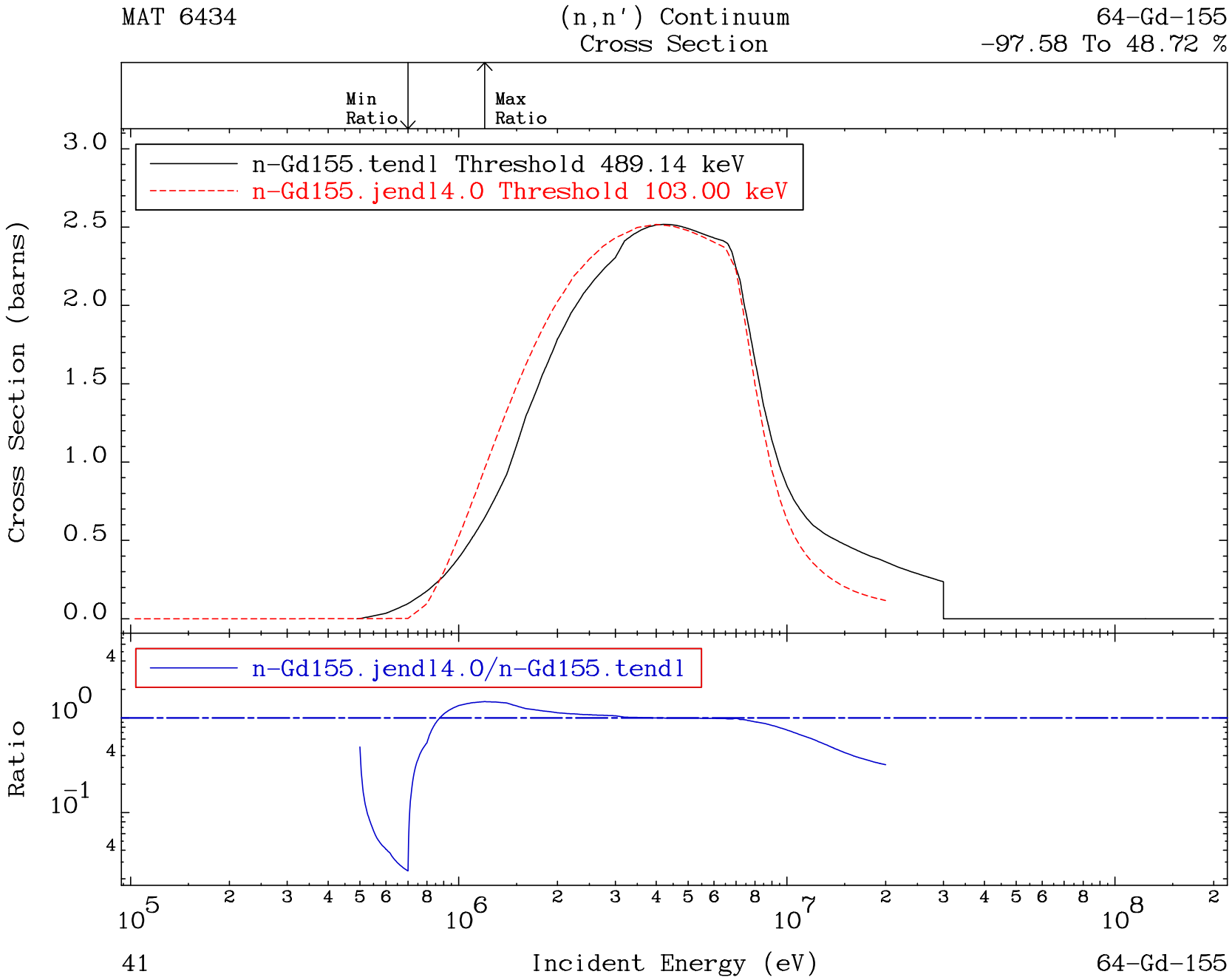

MAT 6434
MT= 76 (n,n') Level
Cross Section
64-Gd-155
-99.15 To 2.503 %
Max
Ratio
Min
Ratio
n-Gd155.tendl Threshold 456.62 keV
n-Gd155.jendl4.0 Threshold 456.62 keV
Cross Section (milli-barns)
1.6
1.2
0.8
0.4
0.0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^{0}
10^{-1}
10^{-2}
5 6 7 8
10^{6}
2 3 4 5 6 7 8
10^{7}
2 3 4 5 6 7 8
10^{8}
2
36
Incident Energy (eV)
64-Gd-155

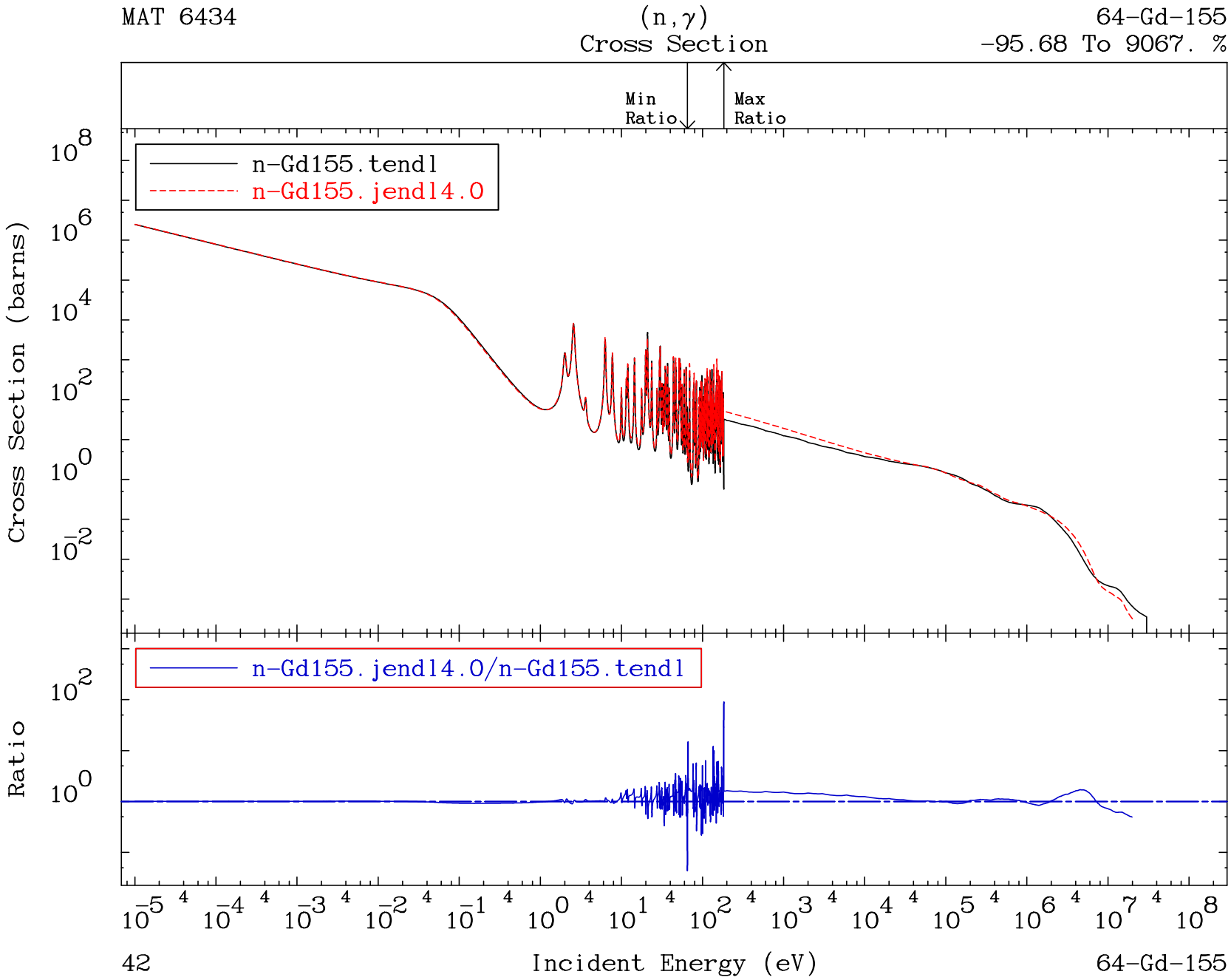

MAT 6434
MT= 77 (n,n') Level
Cross Section
64-Gd-155
-14.16 To 9999. %
Min
Ratio
Max
Ratio
n-Gd155.tendl Threshold 462.14 keV
n-Gd155.jendl4.0 Threshold 457.43 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
37
Incident Energy (eV)
64-Gd-155

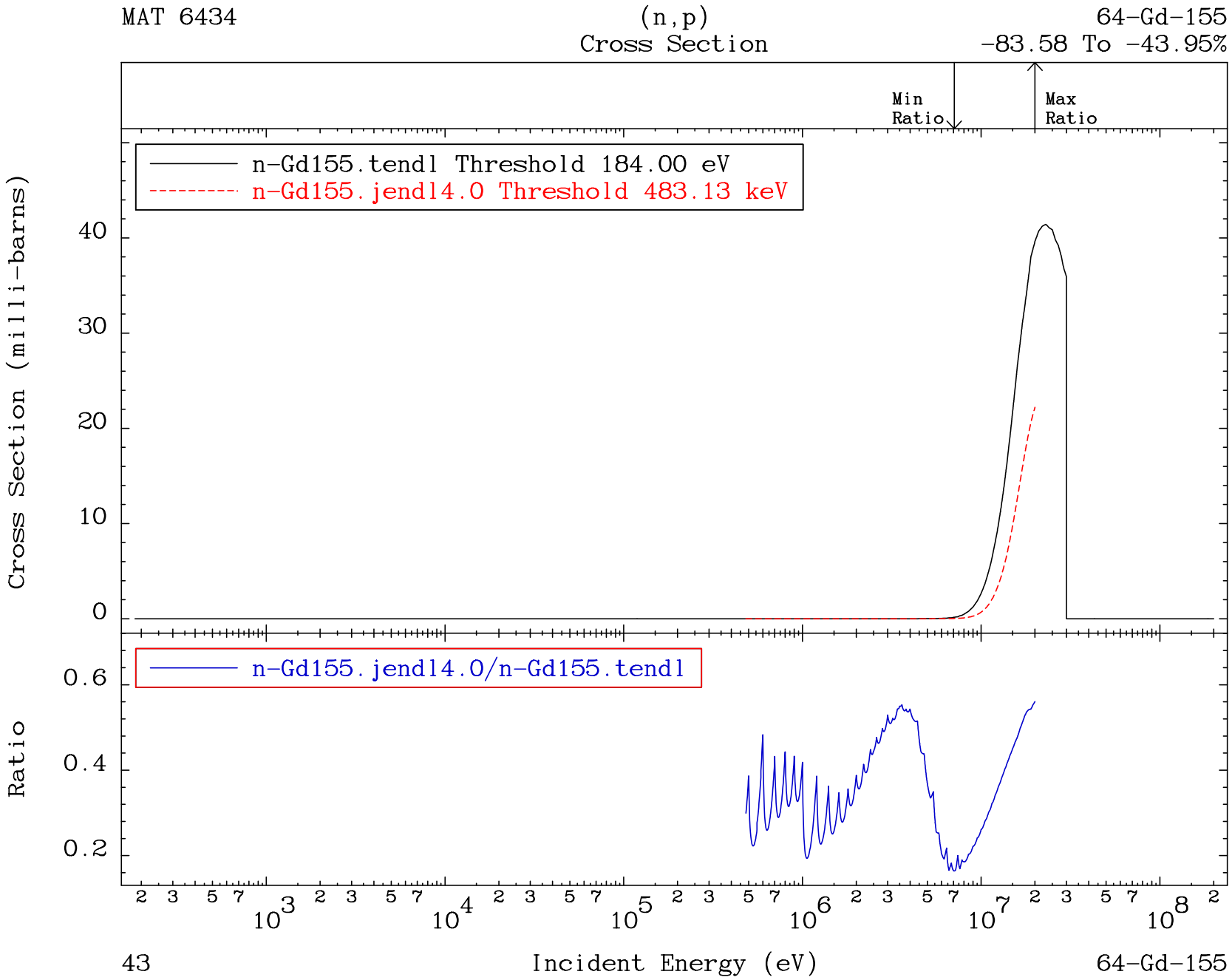

MAT 6434
MT= 78 (n,n') Level
Cross Section
64-Gd-155
-87.98 To 1.063 %
Max
Ratio
Min
Ratio
n-Gd155.tendl Threshold 466.85 keV
n-Gd155.jendl4.0 Threshold 466.85 keV
Cross Section (milli-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
1.2
0.8
0.4
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
38
Incident Energy (eV)
64-Gd-155

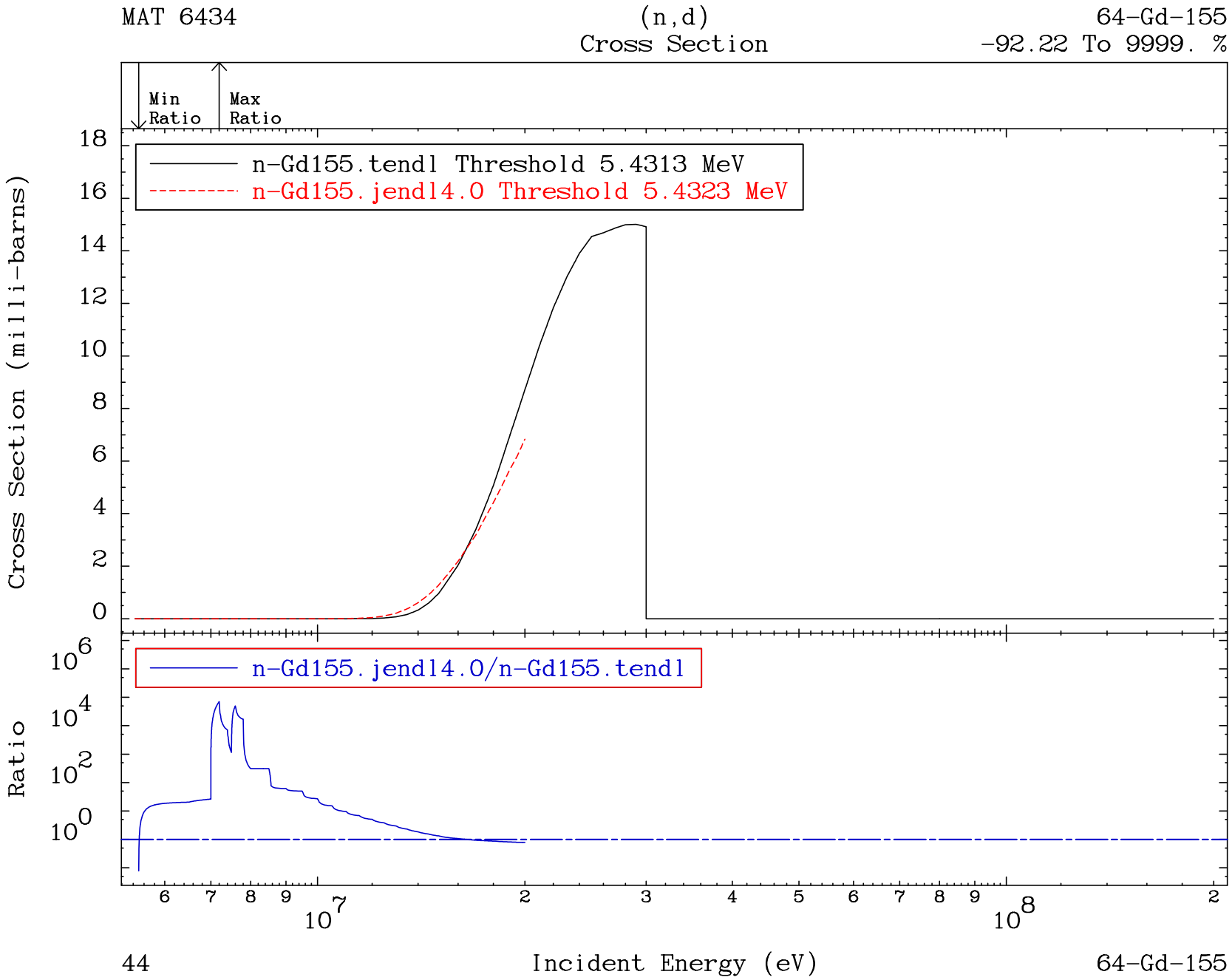

MAT 6434
MT= 79 (n,n') Level
Cross Section
64-Gd-155
21.75 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 483.13 keV
n-Gd155.jendl4.0 Threshold 483.13 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^8
10^6
10^4
10^2
10^0
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
39
Incident Energy (eV)
64-Gd-155

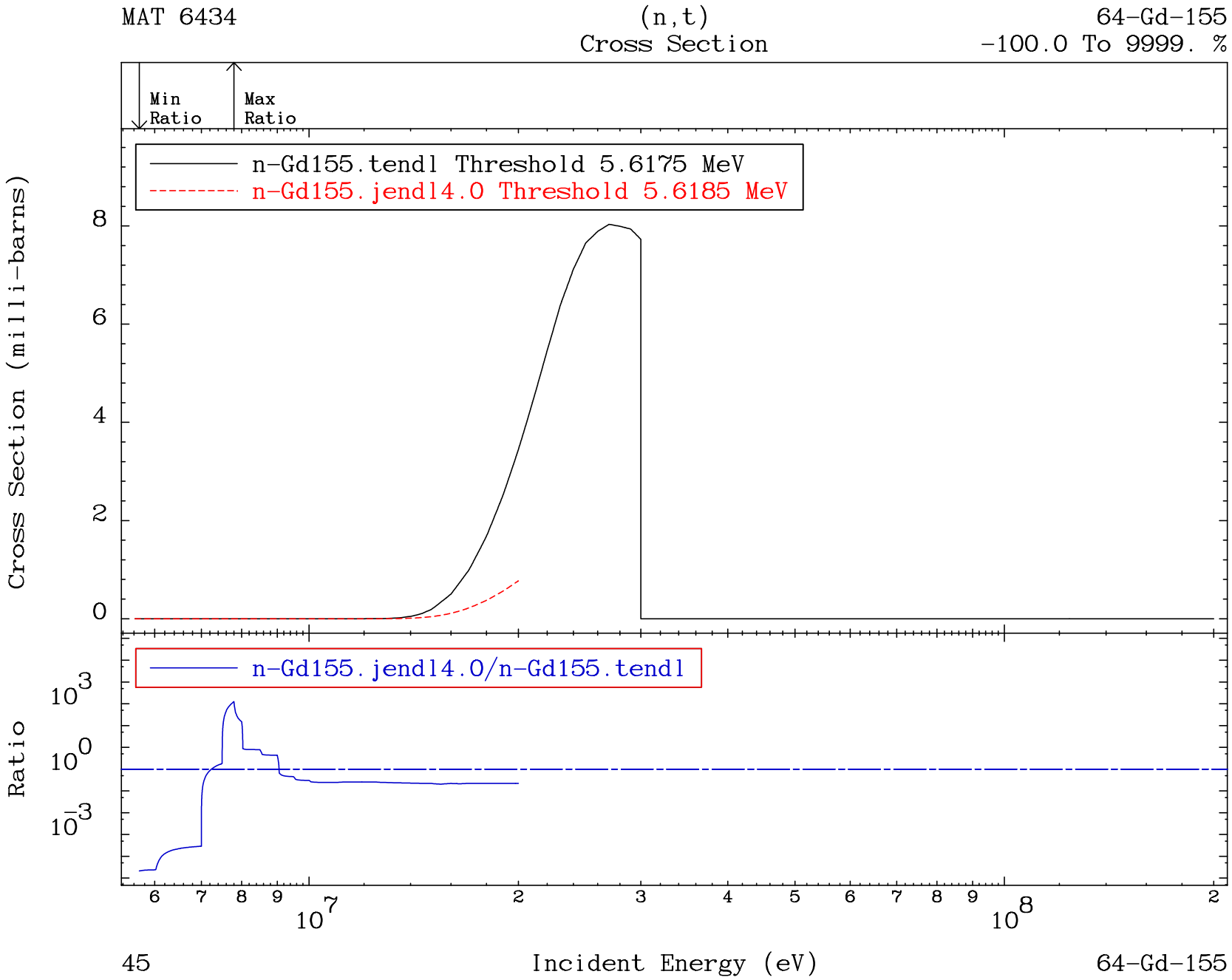

MAT 6434
MT= 80 (n,n') Level
Cross Section
64-Gd-155
-20.39 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 489.14 keV
n-Gd155.jendl4.0 Threshold 489.14 keV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
40
Incident Energy (eV)
64-Gd-155

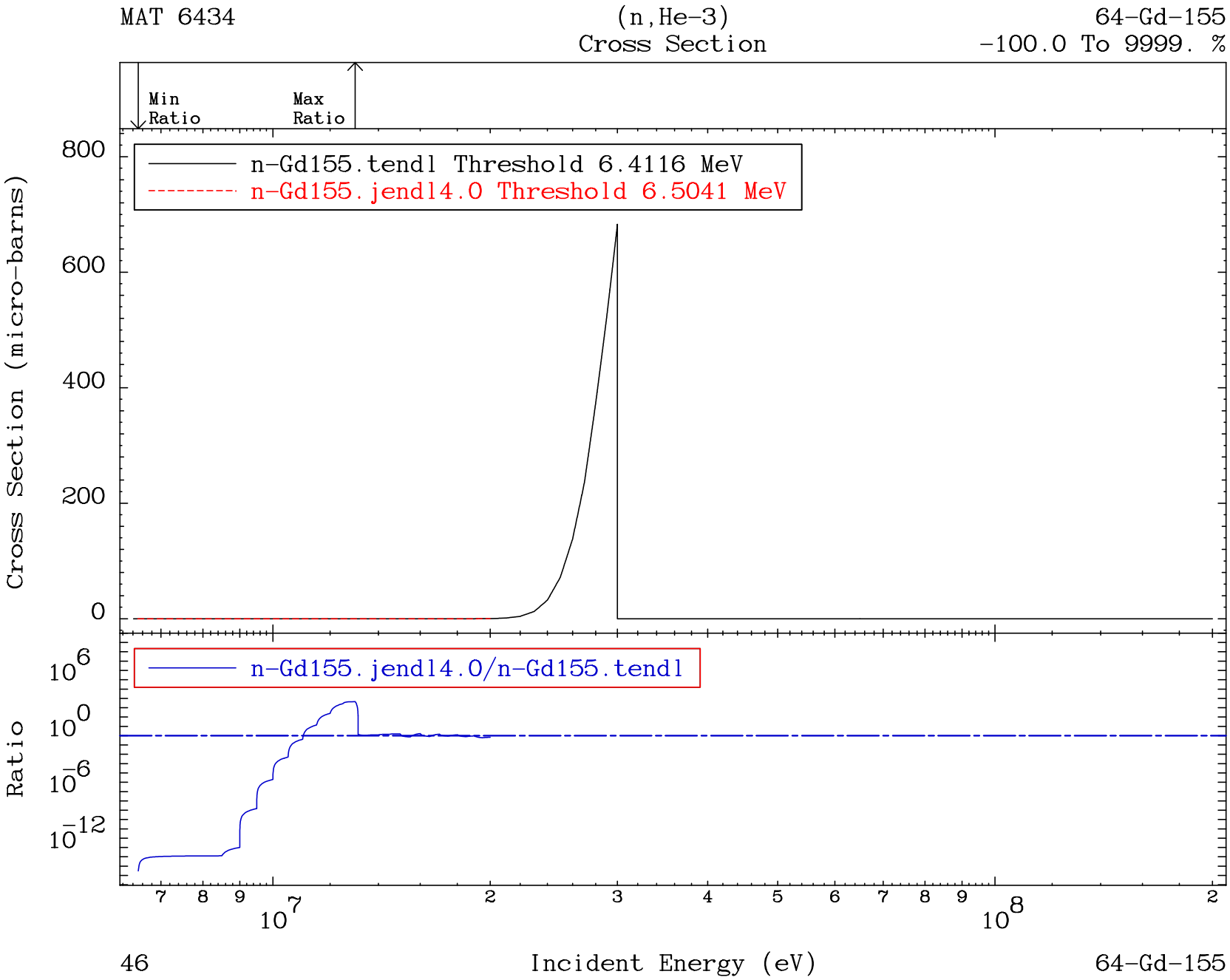

MAT 6434
(n,n') Continuum
Cross Section
64-Gd-155
-97.58 To 48.72 %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 489.14 keV
n-Gd155.jendl4.0 Threshold 103.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^0
10^-1
10^5
10^6
10^7
10^8
Incident Energy (eV)
41
64-Gd-155

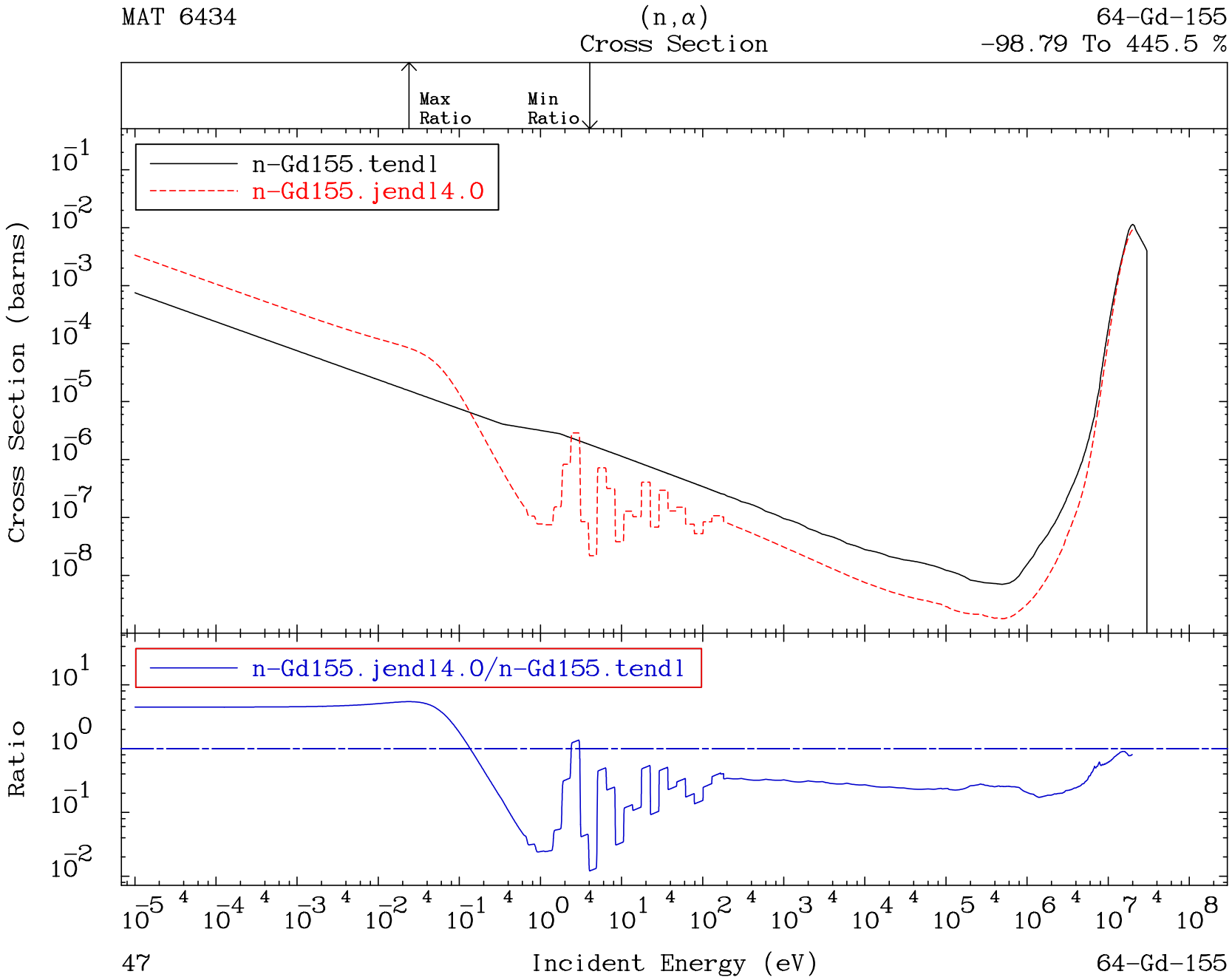

MAT 6434
(n,γ)
Cross Section
64-Gd-155
-95.68 To 9067. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
42
64-Gd-155

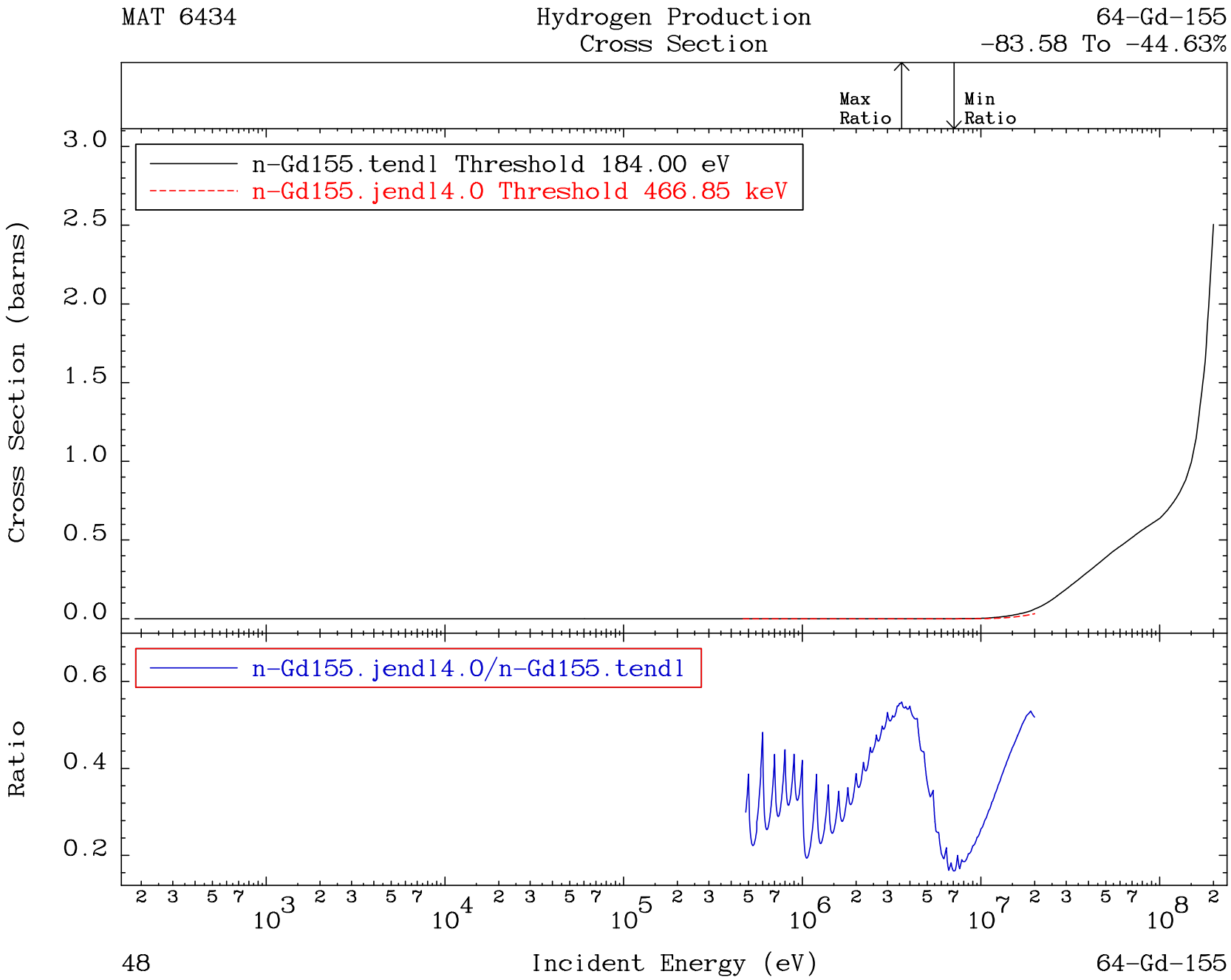

MAT 6434
(n,p)
Cross Section
64-Gd-155
-83.58 To -43.95%
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 184.00 eV
n-Gd155.jendl4.0 Threshold 483.13 keV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
0.6
0.4
0.2
2 3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
43
Incident Energy (eV)
64-Gd-155

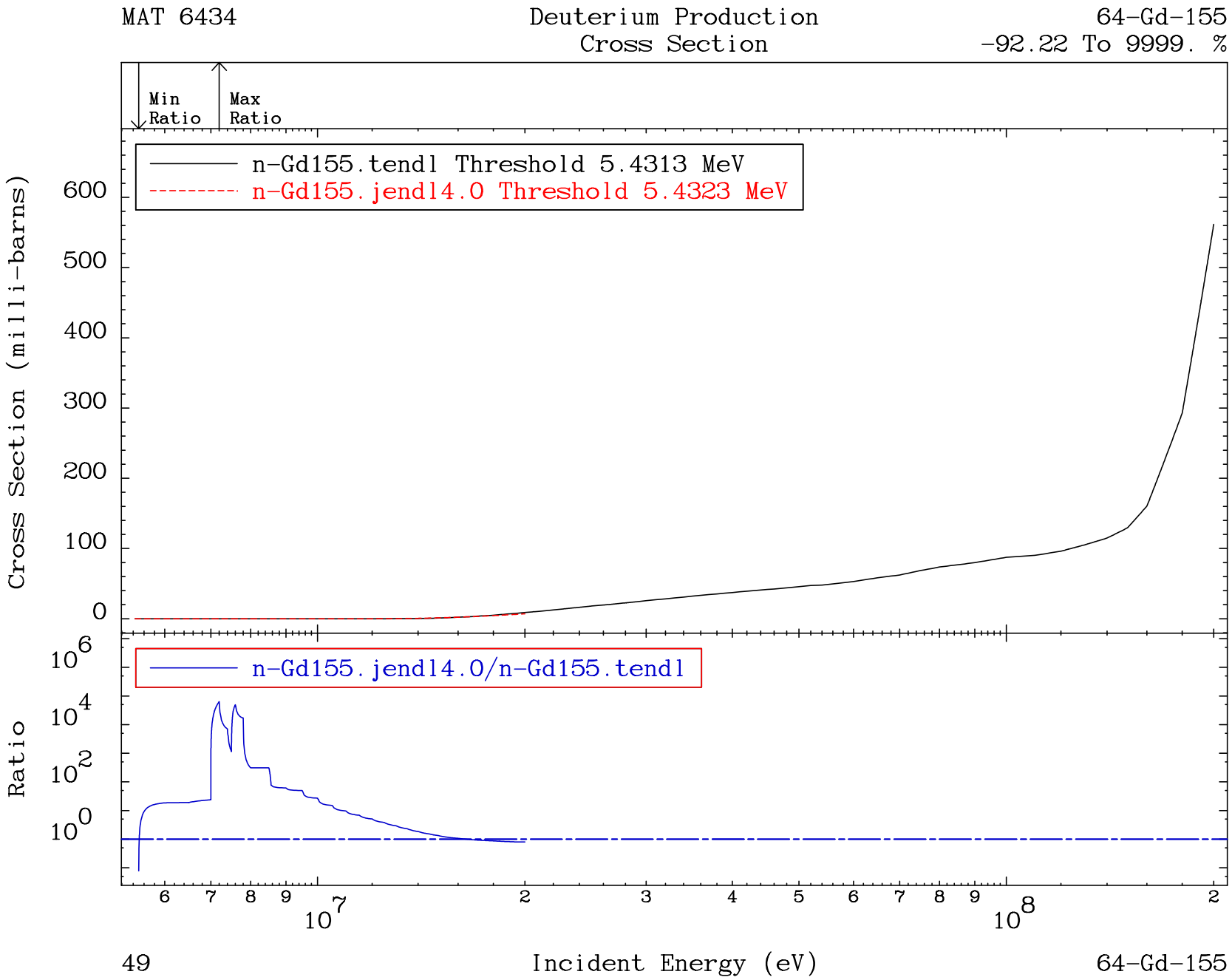

MAT 6434
(n,d)
Cross Section
64-Gd-155
-92.22 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 5.4313 MeV
n-Gd155.jendl4.0 Threshold 5.4323 MeV
Cross Section (milli-barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
44
64-Gd-155

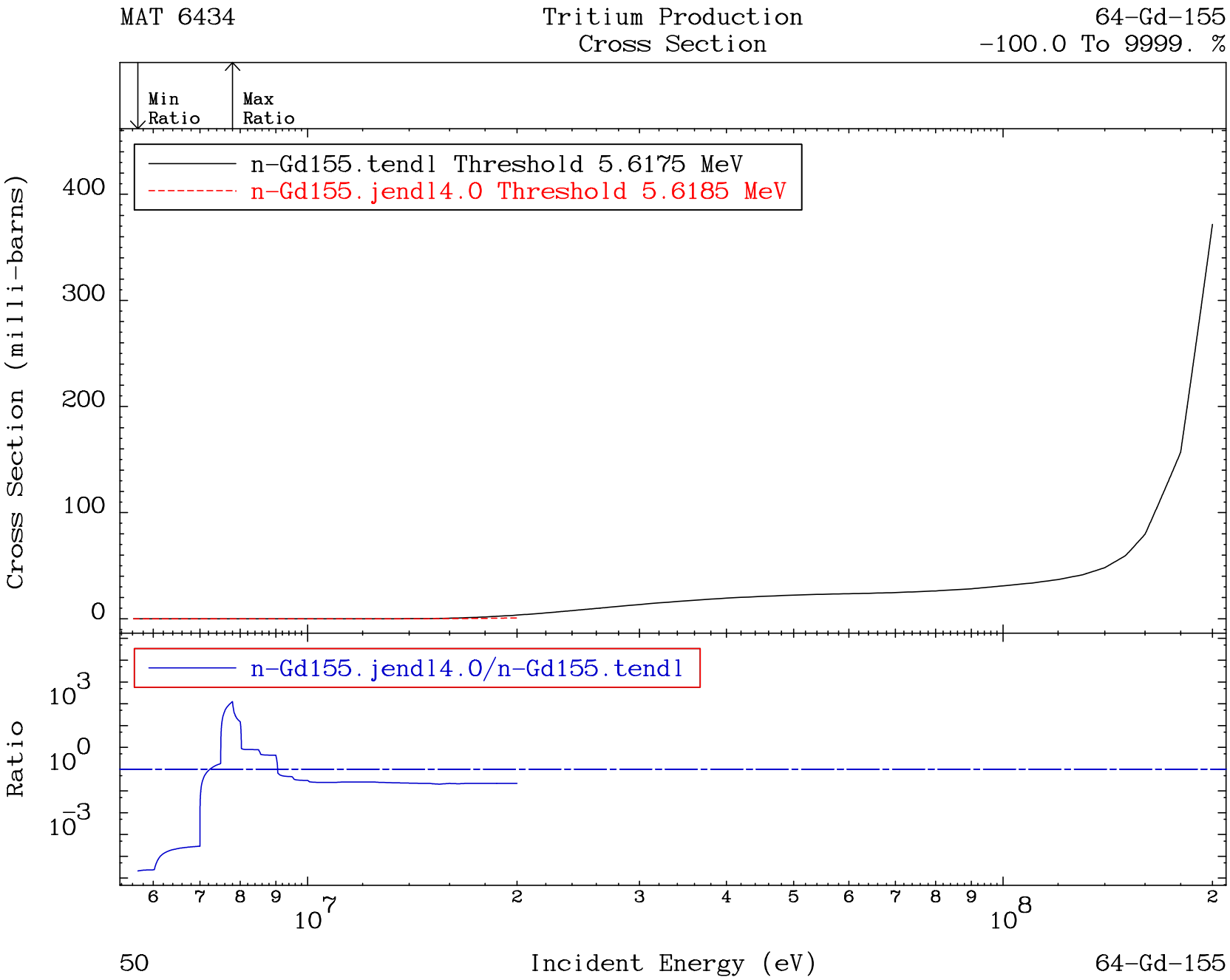

MAT 6434
(n,t)
Cross Section
64-Gd-155
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 5.6175 MeV
n-Gd155.jendl4.0 Threshold 5.6185 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^3
10^0
10^-3
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
64-Gd-155

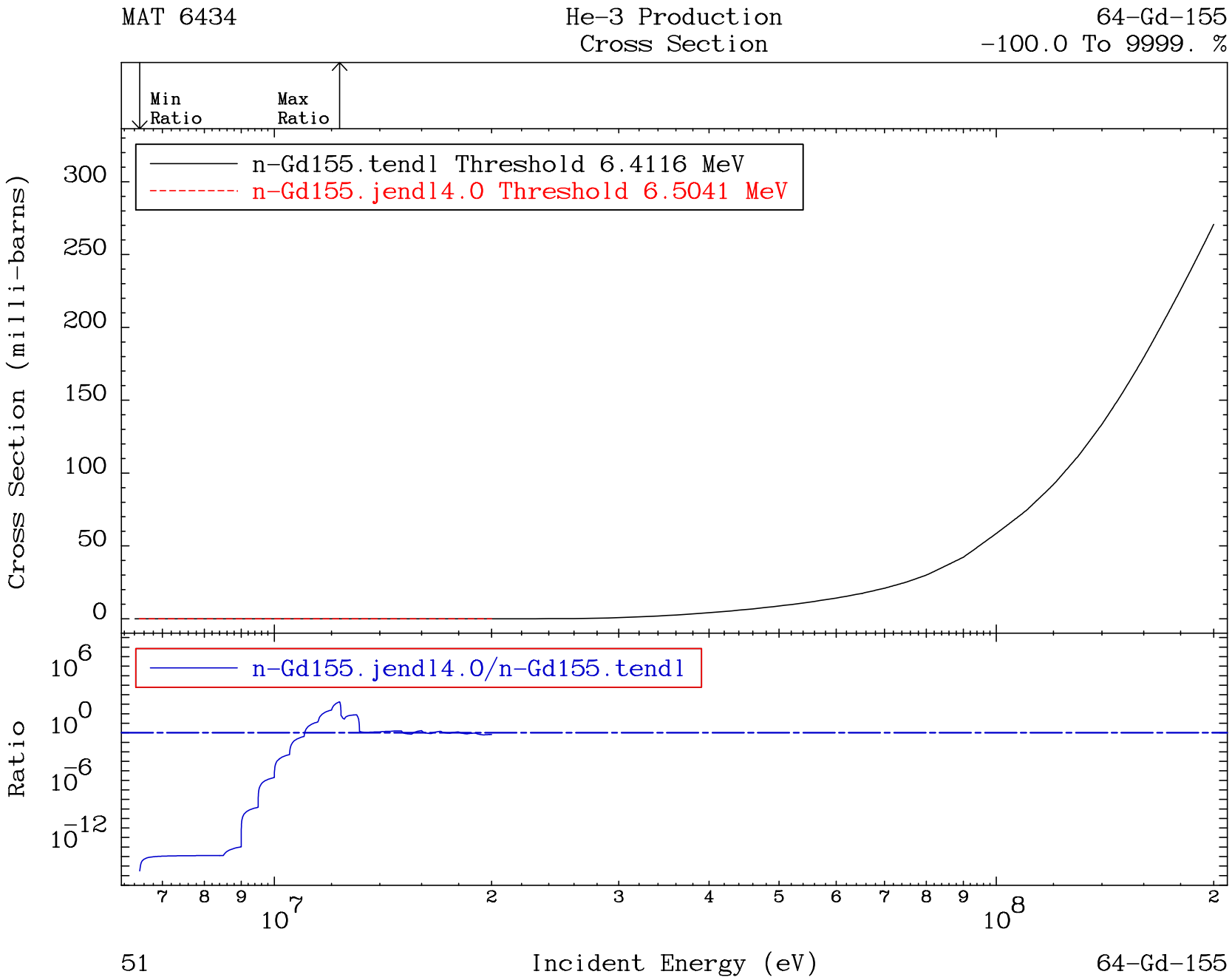

MAT 6434
(n,He-3)
Cross Section
64-Gd-155
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 6.4116 MeV
n-Gd155.jendl4.0 Threshold 6.5041 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^0
10^-6
10^-12
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
64-Gd-155

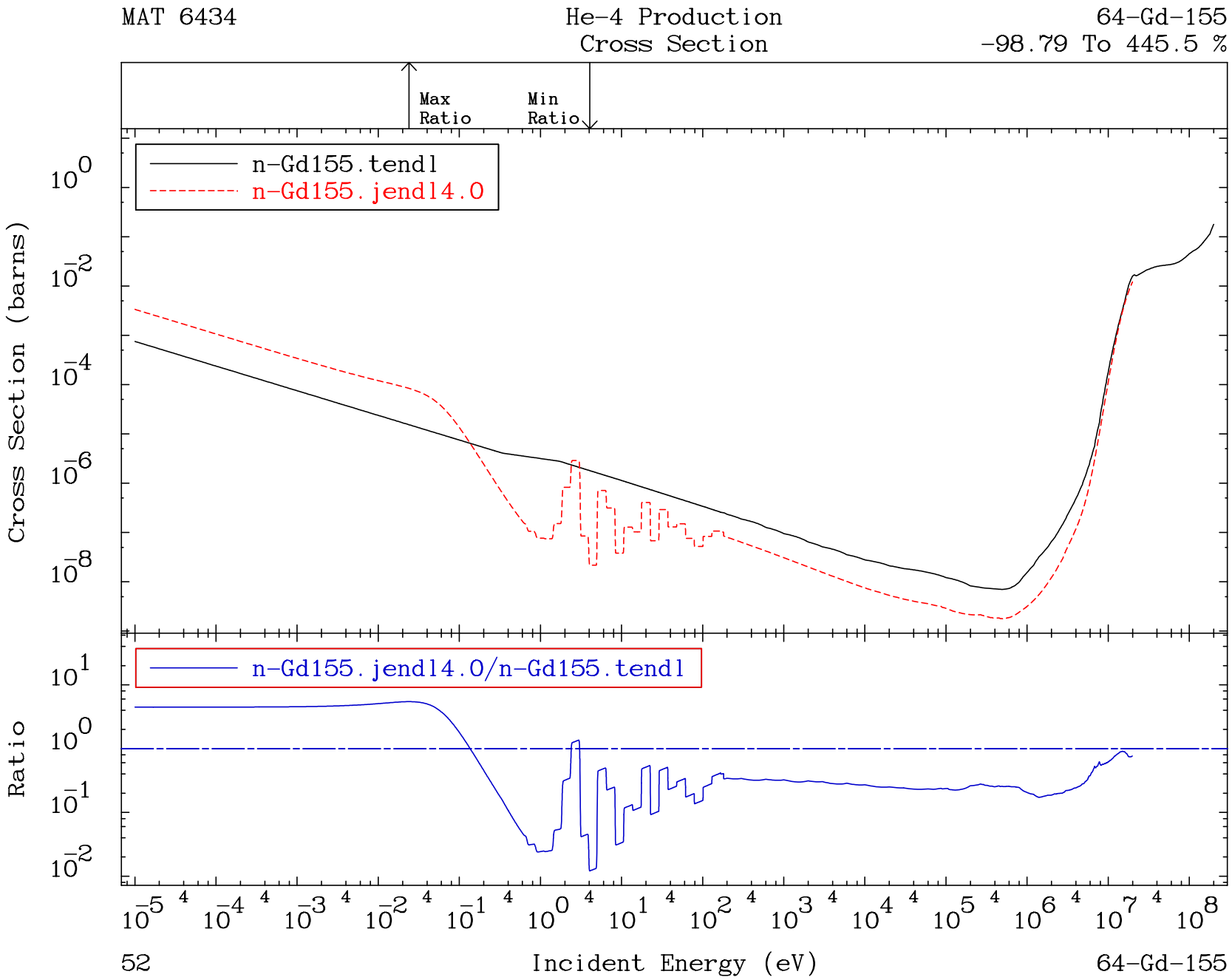

MAT 6434
(n,α)
Cross Section
64-Gd-155
-98.79 To 445.5 %
Max Ratio
Min Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
47
64-Gd-155

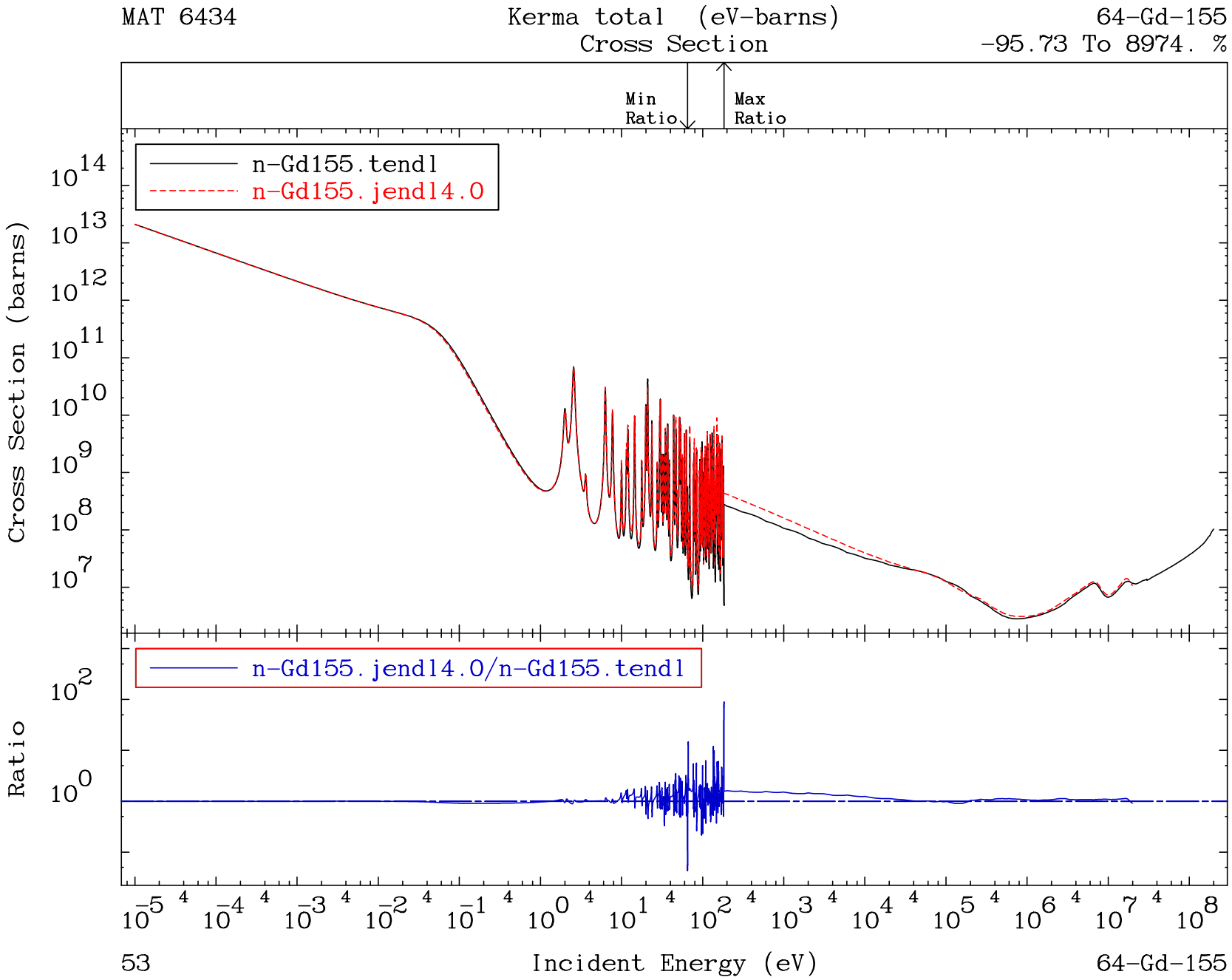

MAT 6434
Hydrogen Production
Cross Section
64-Gd-155
-83.58 To -44.63%
Max Ratio
Min Ratio
n-Gd155.tendl Threshold 184.00 eV
n-Gd155.jendl4.0 Threshold 466.85 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
0.6
0.4
0.2
2 3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
48
Incident Energy (eV)
64-Gd-155

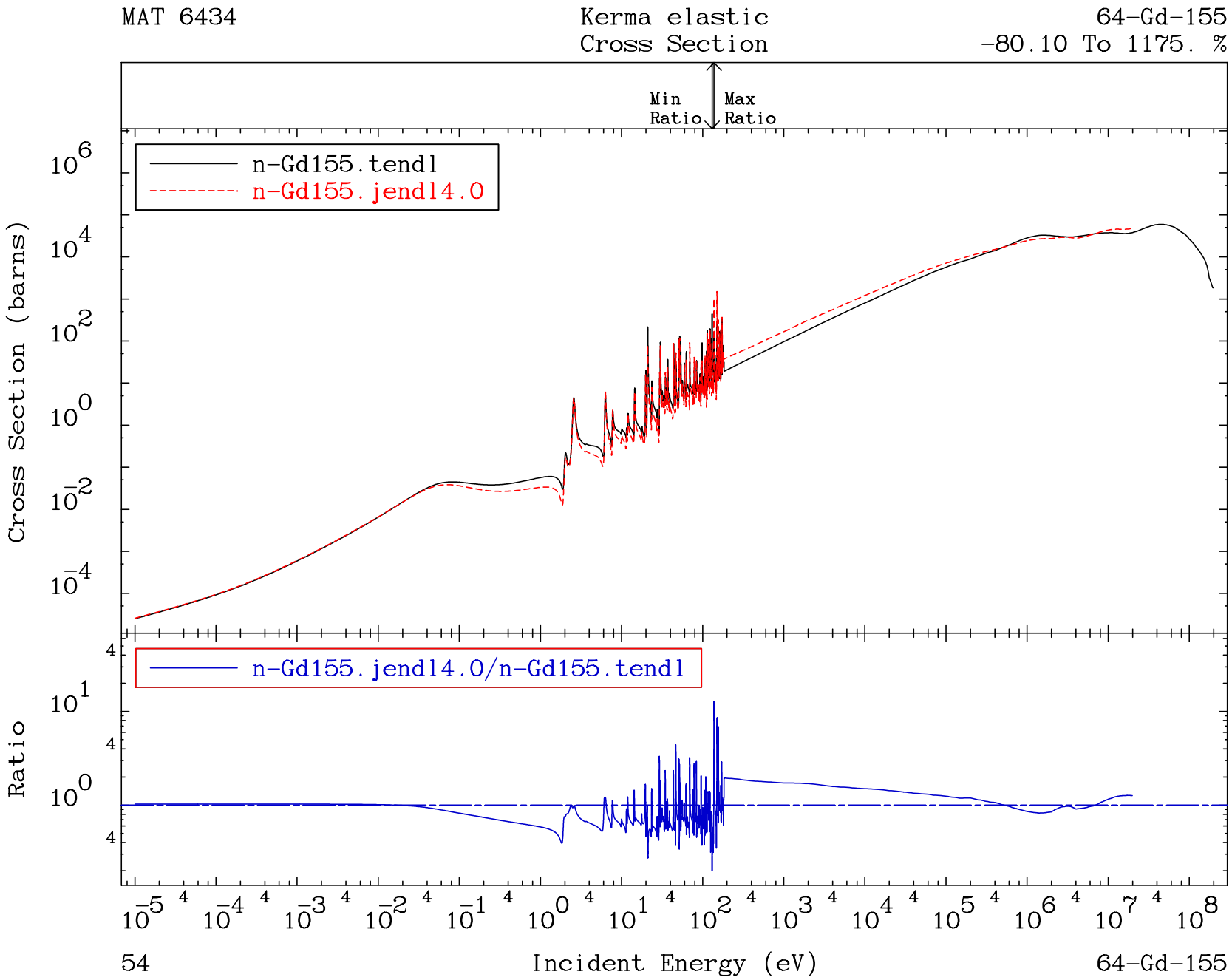

MAT 6434
Deuterium Production
Cross Section
64-Gd-155
-92.22 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 5.4313 MeV
n-Gd155.jendl4.0 Threshold 5.4323 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^4
10^2
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
49
Incident Energy (eV)
64-Gd-155

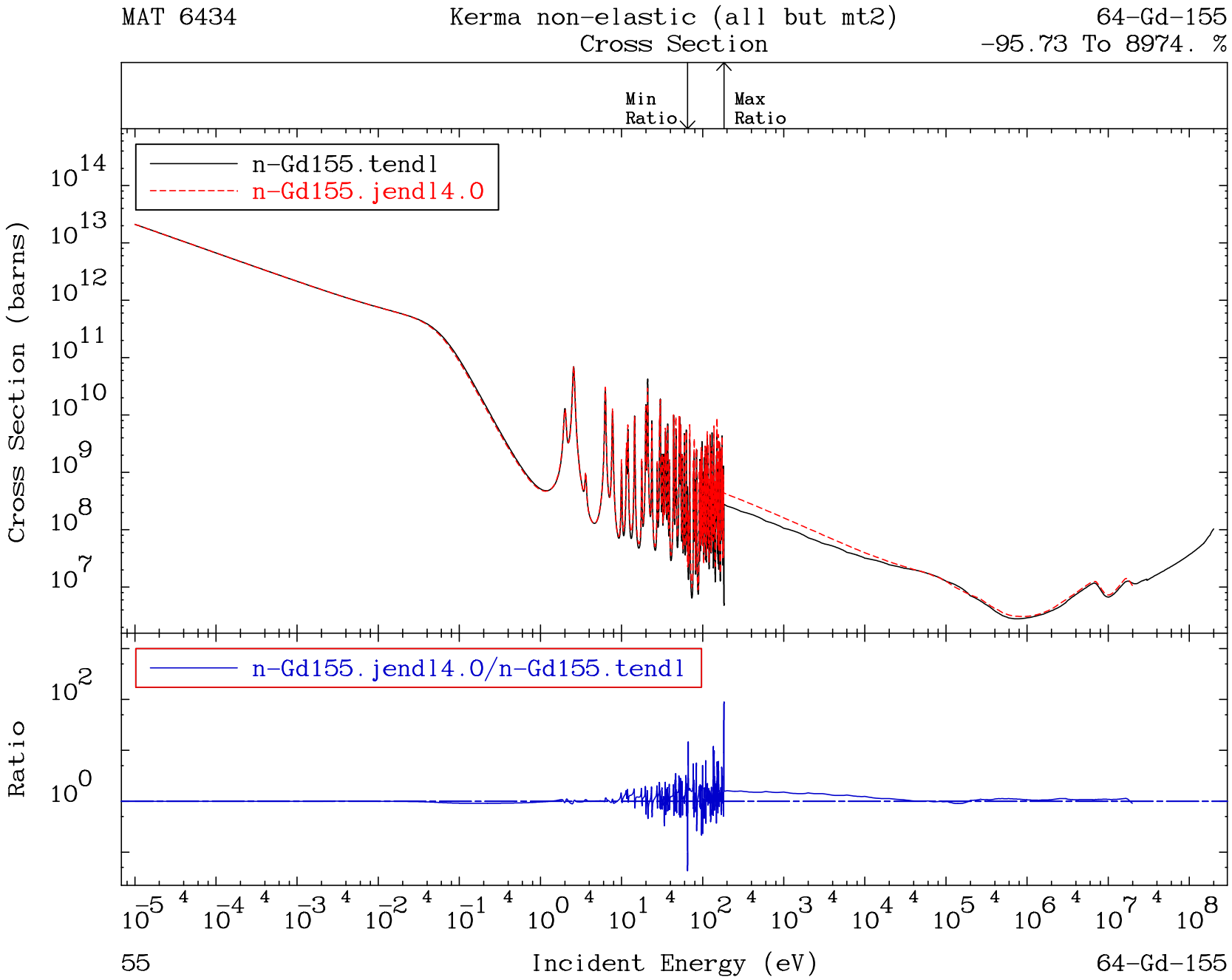

MAT 6434
Tritium Production
Cross Section
64-Gd-155
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 5.6175 MeV
n-Gd155.jendl4.0 Threshold 5.6185 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^3
10^0
10^-3
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
50
Incident Energy (eV)
64-Gd-155

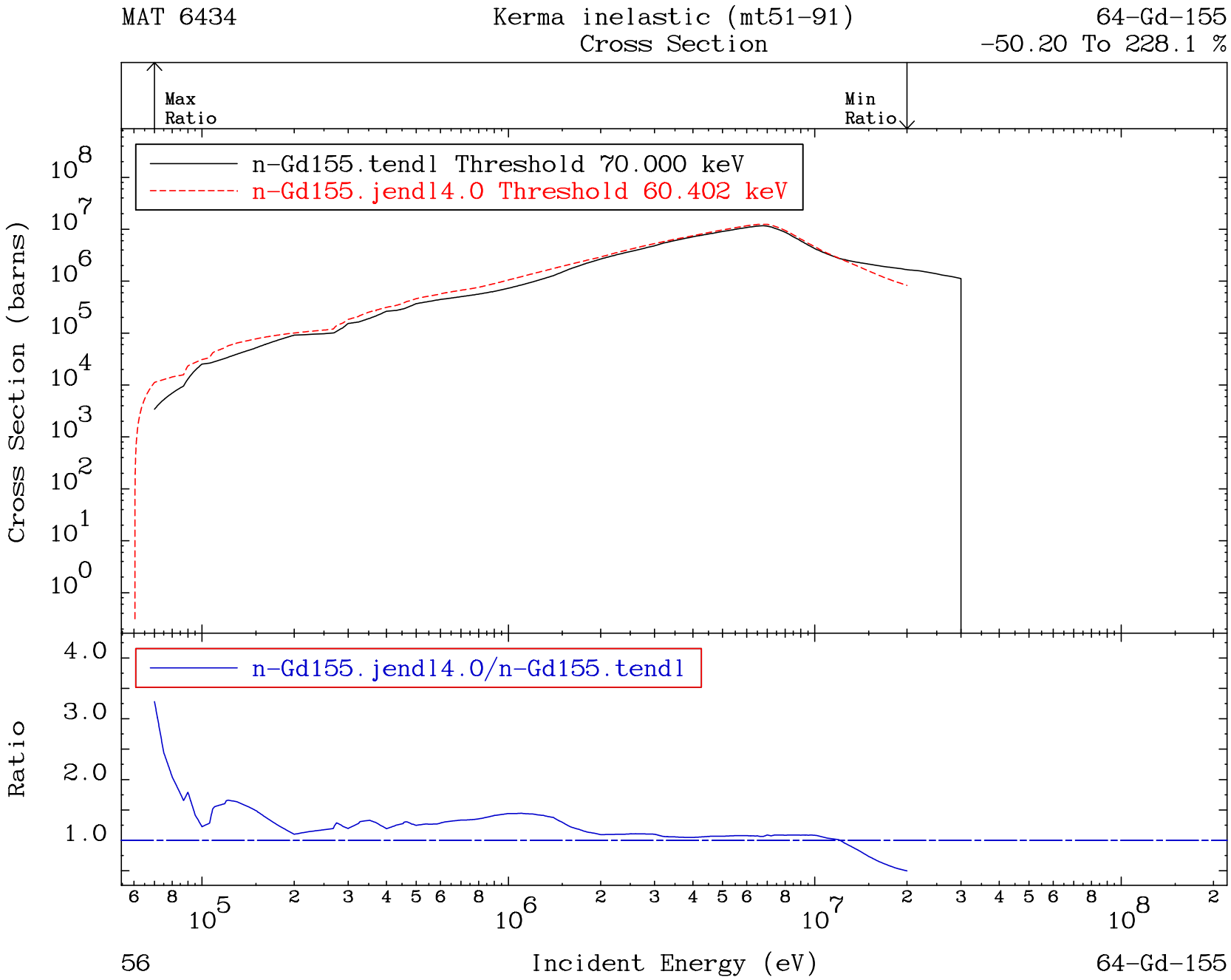

MAT 6434
He-3 Production
Cross Section
64-Gd-155
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl Threshold 6.4116 MeV
n-Gd155.jendl4.0 Threshold 6.5041 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
10^6
10^0
10^-6
10^-12
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
51
Incident Energy (eV)
64-Gd-155

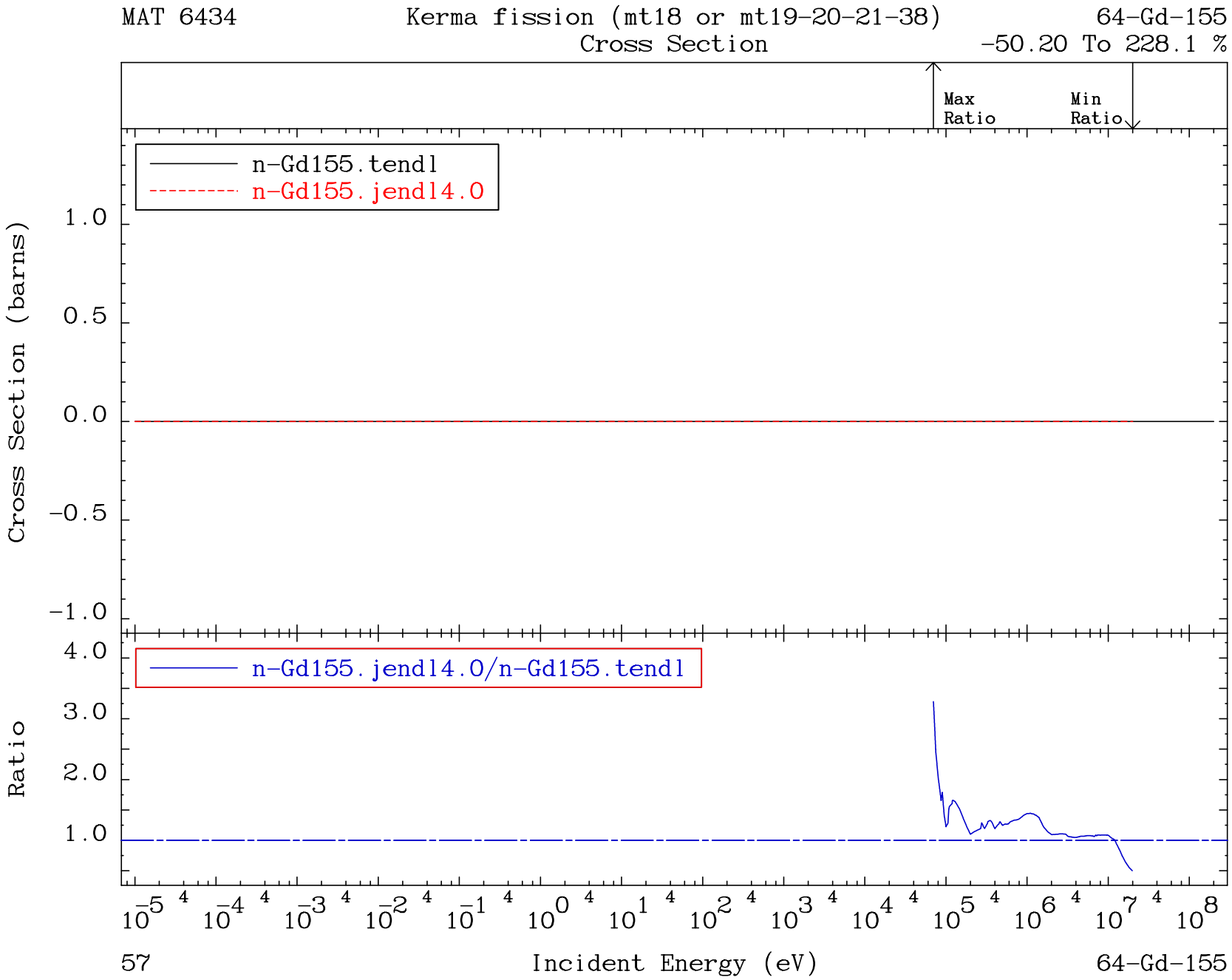

MAT 6434
He-4 Production
Cross Section
64-Gd-155
-98.79 To 445.5 %
Max Ratio
Min Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
52
64-Gd-155

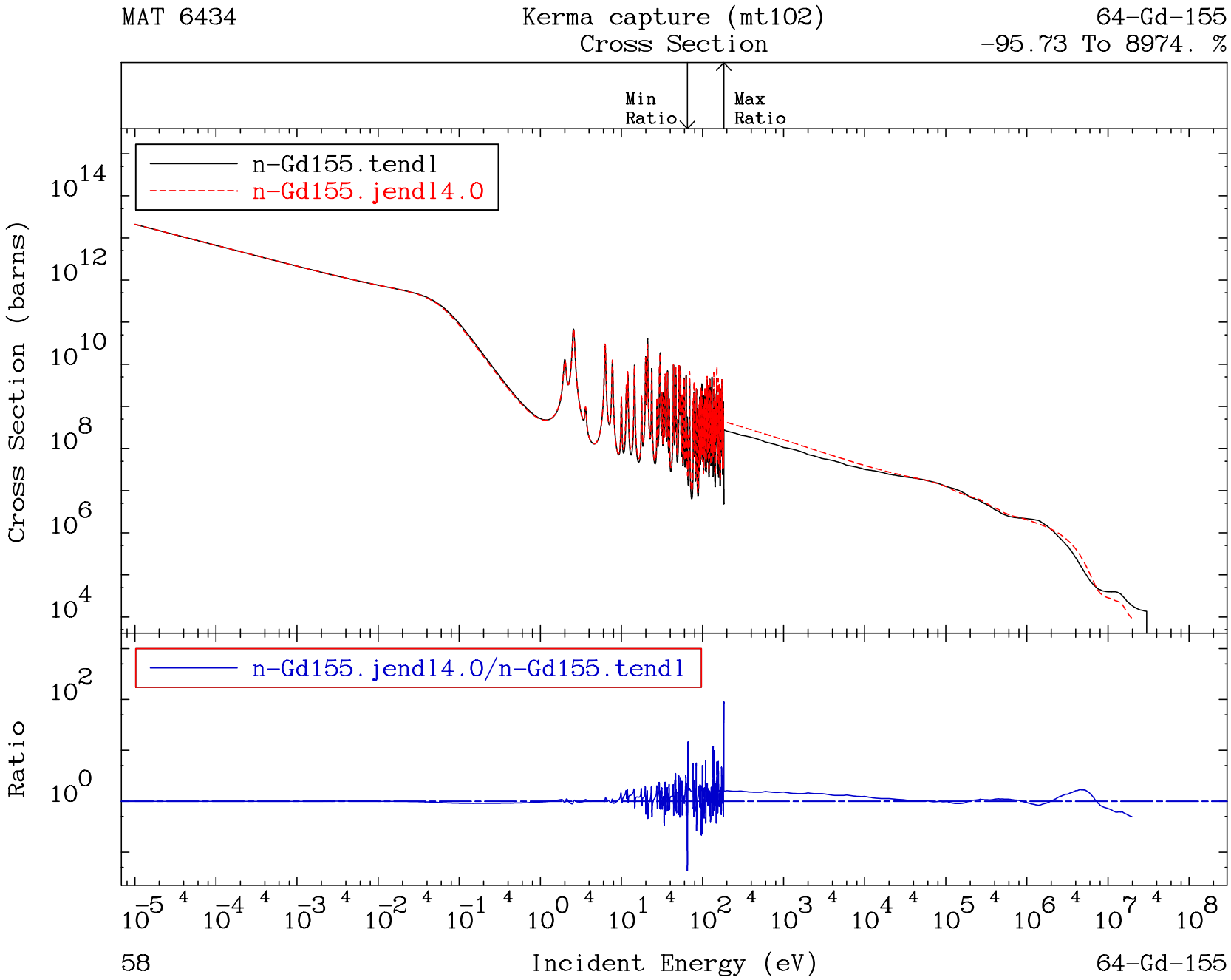

MAT 6434
Kerma total (eV-barns)
Cross Section
64-Gd-155
-95.73 To 8974. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
53
64-Gd-155

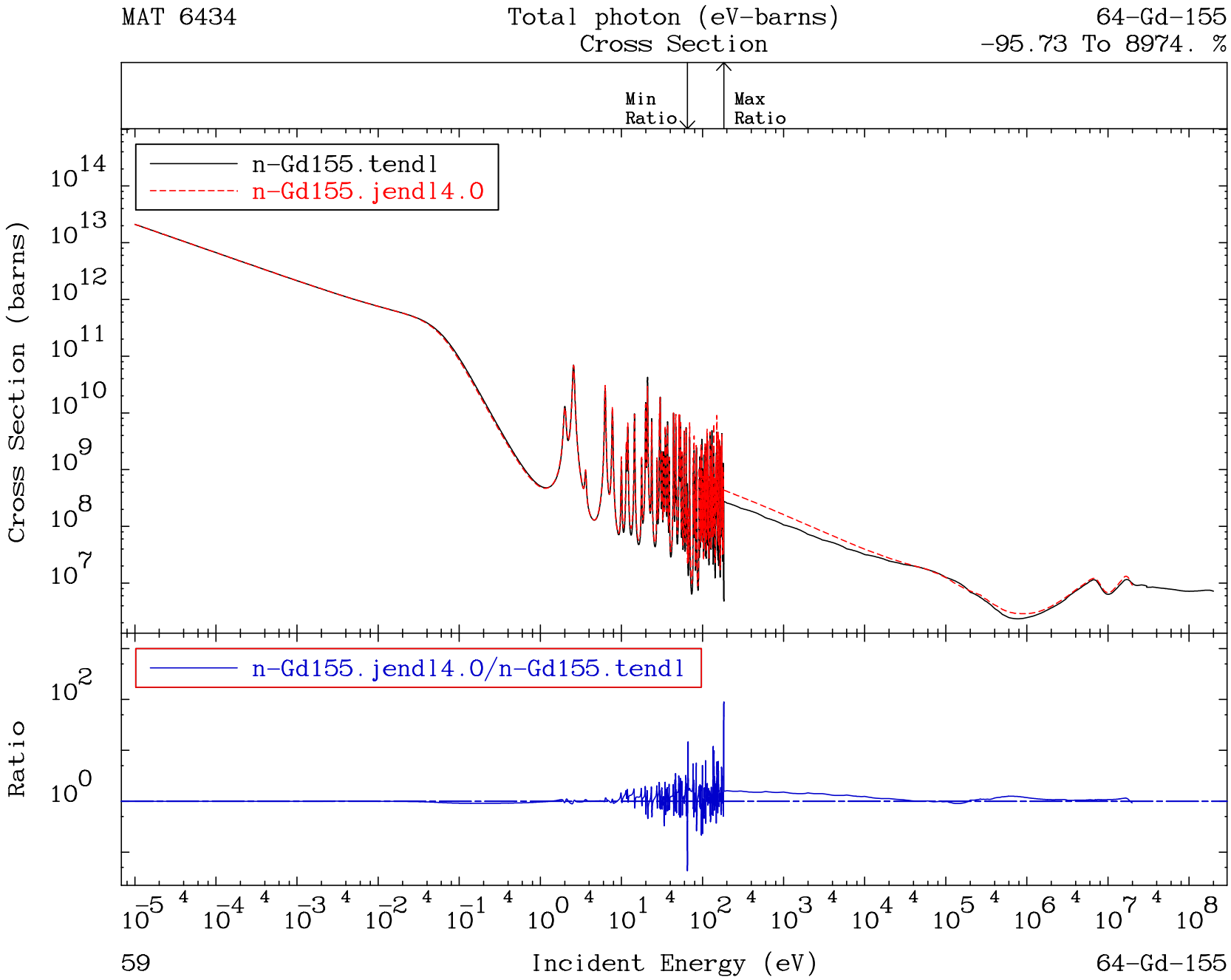

MAT 6434
Kerma elastic
Cross Section
64-Gd-155
-80.10 To 1175. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
54
64-Gd-155

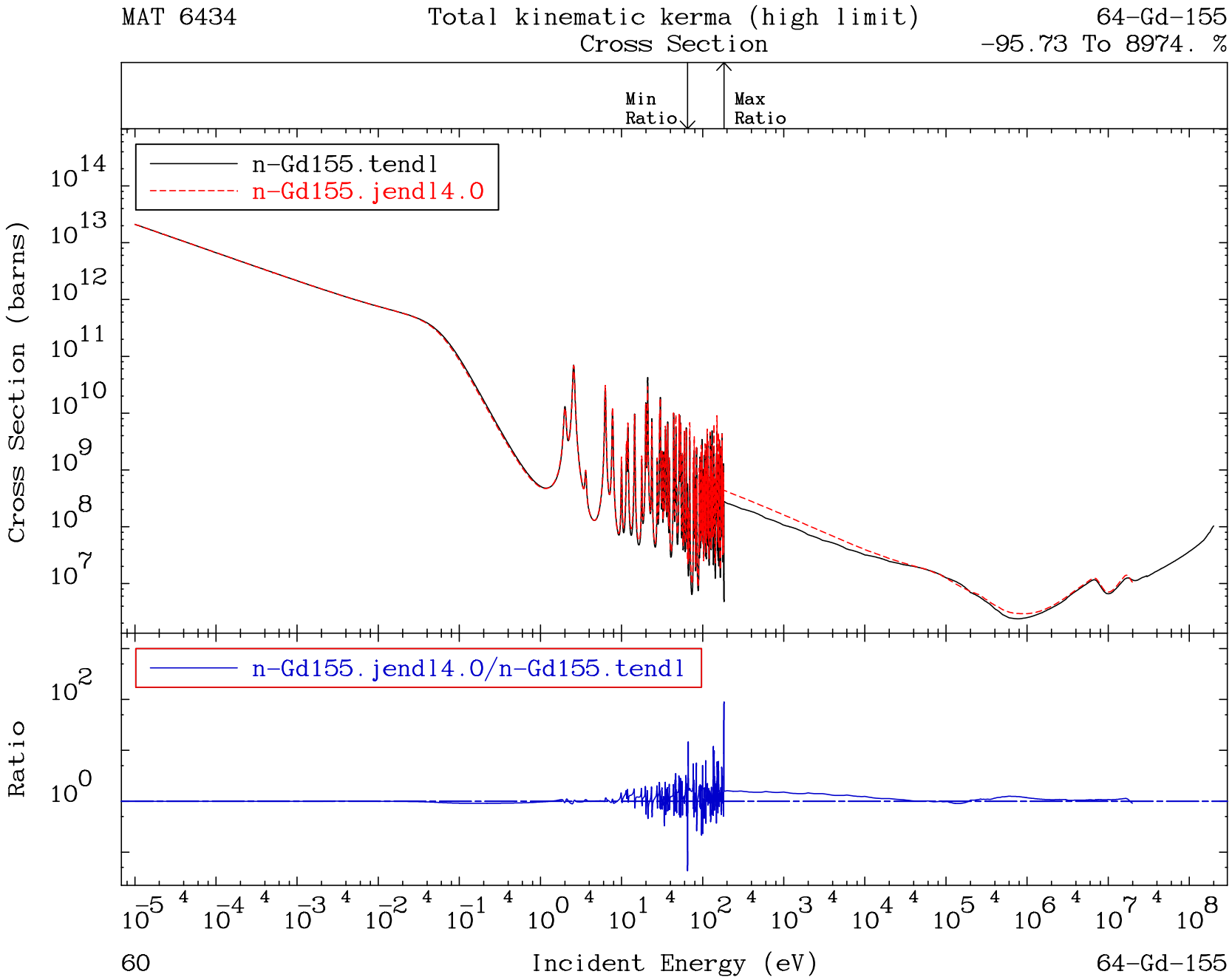

MAT 6434
Kerma non-elastic (all but mt2)
Cross Section
64-Gd-155
-95.73 To 8974. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
55
64-Gd-155

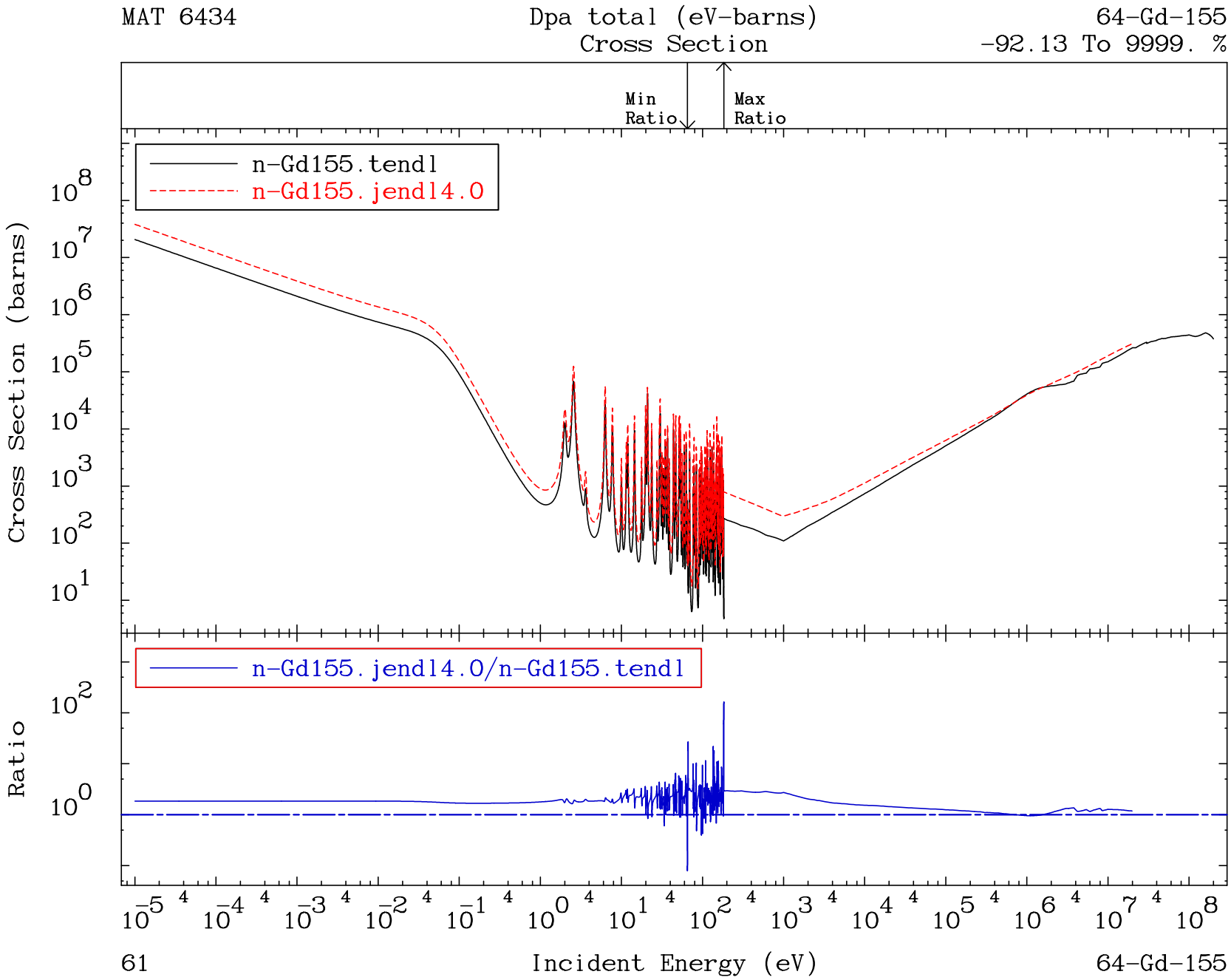

MAT 6434
Kerma inelastic (mt51-91)
Cross Section
64-Gd-155
-50.20 To 228.1 %
Max Ratio
Min Ratio
n-Gd155.tendl Threshold 70.000 keV
n-Gd155.jendl4.0 Threshold 60.402 keV
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
56
64-Gd-155

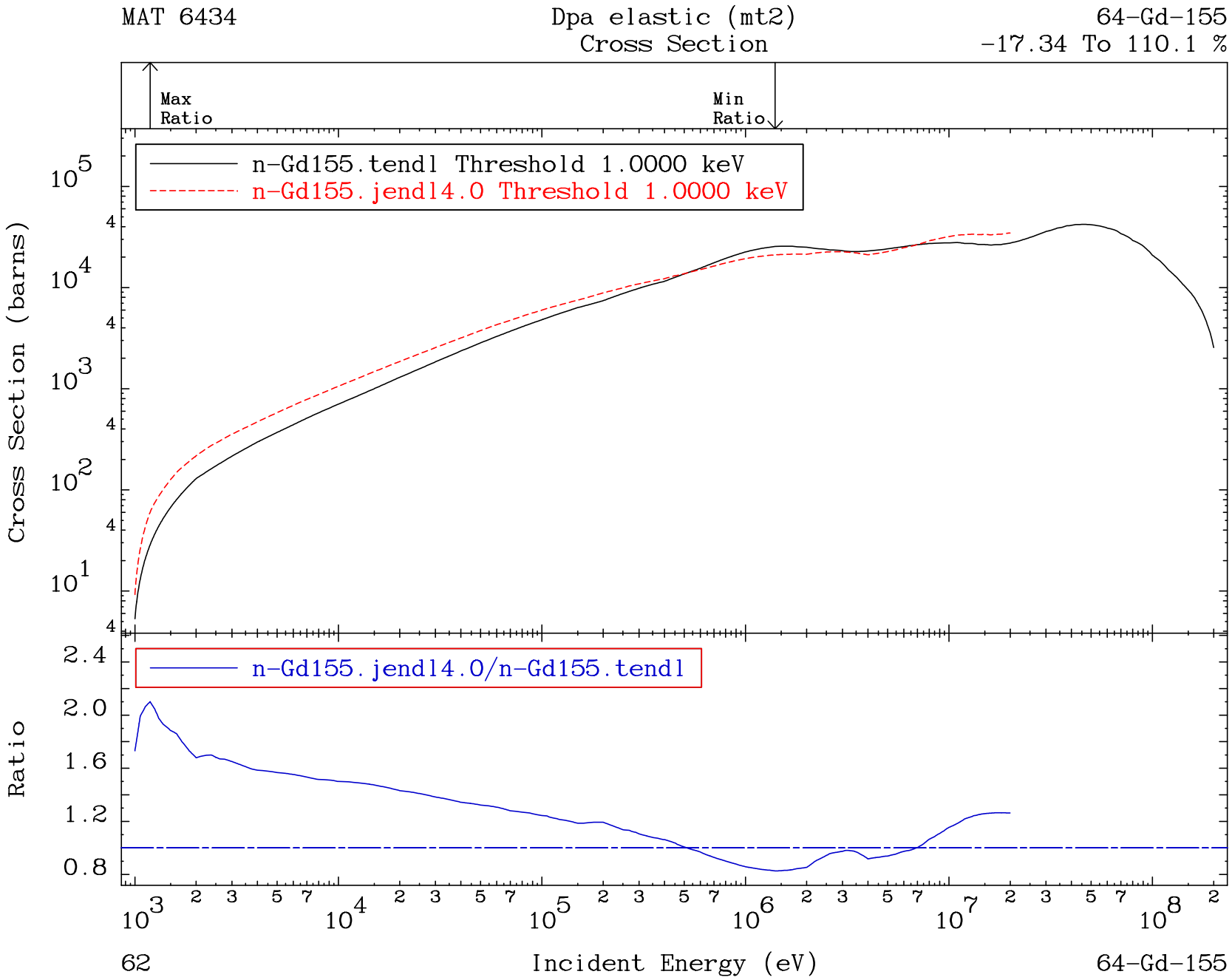

MAT 6434
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
64-Gd-155
-50.20 To 228.1 %
Max Ratio
Min Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
4.0
3.0
2.0
1.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
57
Incident Energy (eV)
64-Gd-155

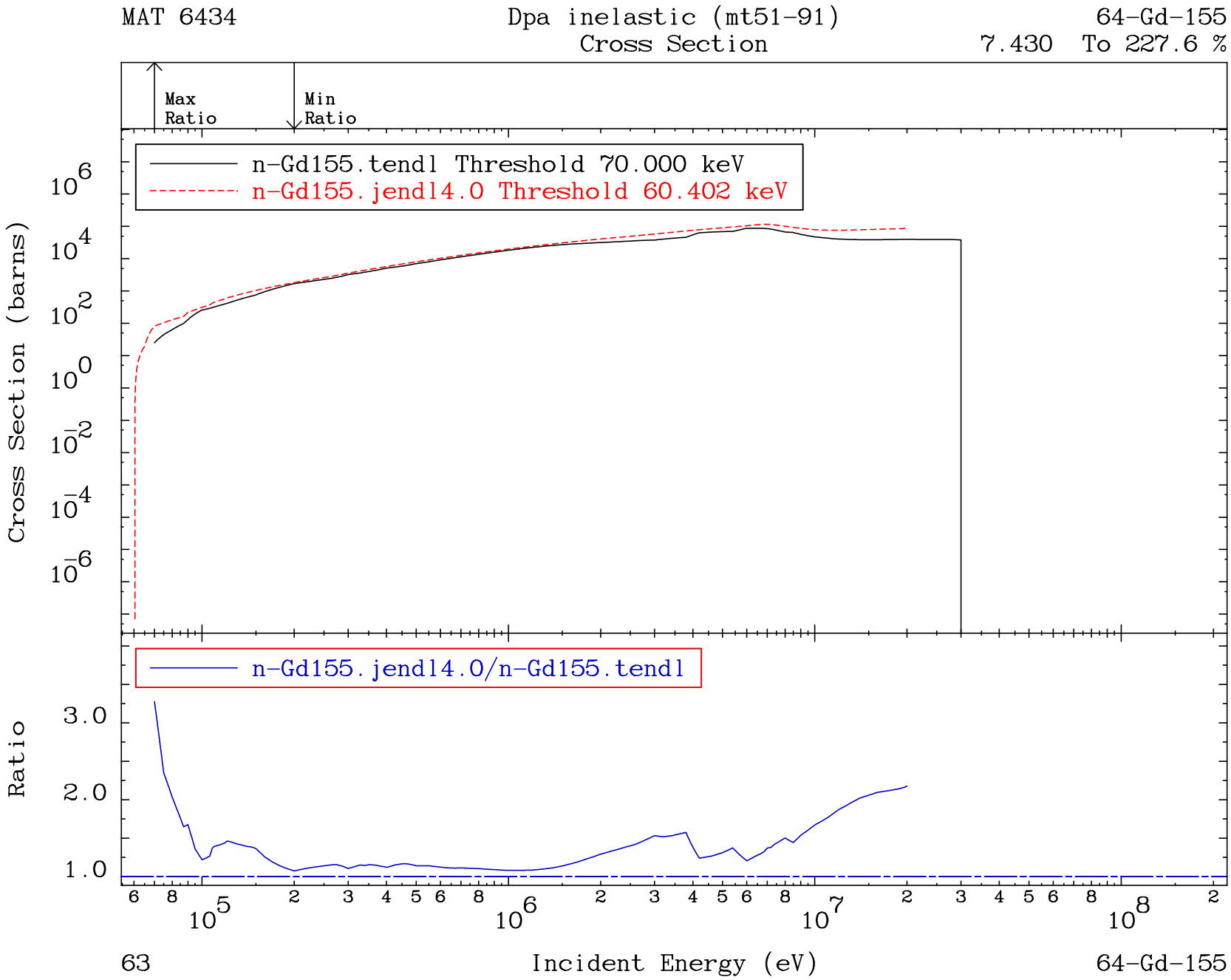

MAT 6434
Kerma capture (mt102)
Cross Section
64-Gd-155
-95.73 To 8974. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
58
64-Gd-155

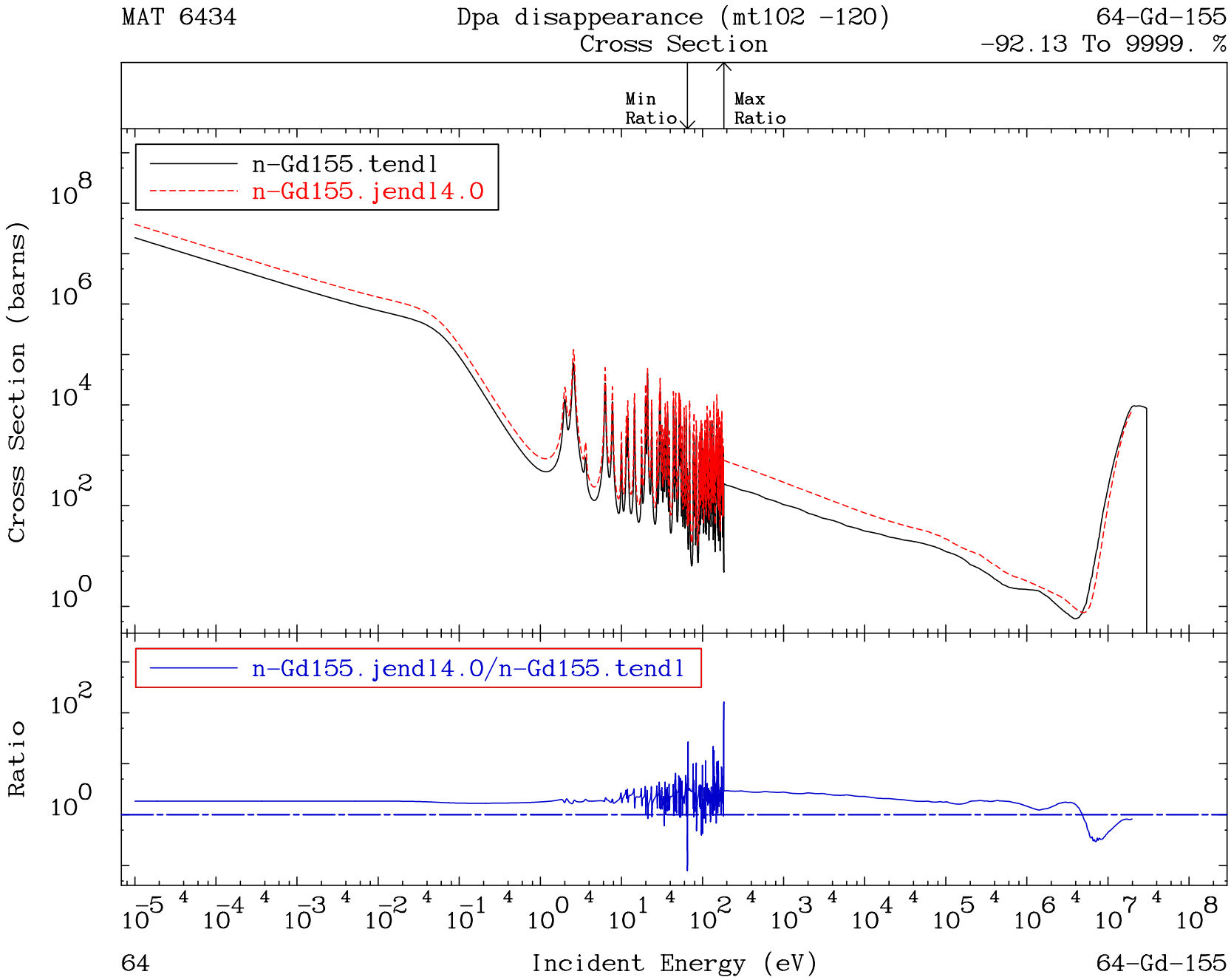

MAT 6434
Total photon (eV-barns)
Cross Section
64-Gd-155
-95.73 To 8974. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
59
64-Gd-155


MAT 6434
Total kinematic kerma (high limit)
Cross Section
64-Gd-155
-95.73 To 8974. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
60
64-Gd-155


MAT 6434
Dpa total (eV-barns)
Cross Section
64-Gd-155
-92.13 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
61
64-Gd-155


MAT 6434
Dpa elastic (mt2)
Cross Section
64-Gd-155
-17.34 To 110.1 %
Max Ratio
Min Ratio
n-Gd155.tendl Threshold 1.0000 keV
n-Gd155.jendl4.0 Threshold 1.0000 keV
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
62
64-Gd-155


MAT 6434
Dpa inelastic (mt51-91)
Cross Section
64-Gd-155
7.430 To 227.6 %
Max Ratio
Min Ratio
n-Gd155.tendl Threshold 70.000 keV
n-Gd155.jendl4.0 Threshold 60.402 keV
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
63
64-Gd-155


MAT 6434
Dpa disappearance (mt102 -120)
Cross Section
64-Gd-155
-92.13 To 9999. %
Min Ratio
Max Ratio
n-Gd155.tendl
n-Gd155.jendl4.0
Cross Section (barns)
n-Gd155.jendl4.0/n-Gd155.tendl
Ratio
Incident Energy (eV)
64
64-Gd-155