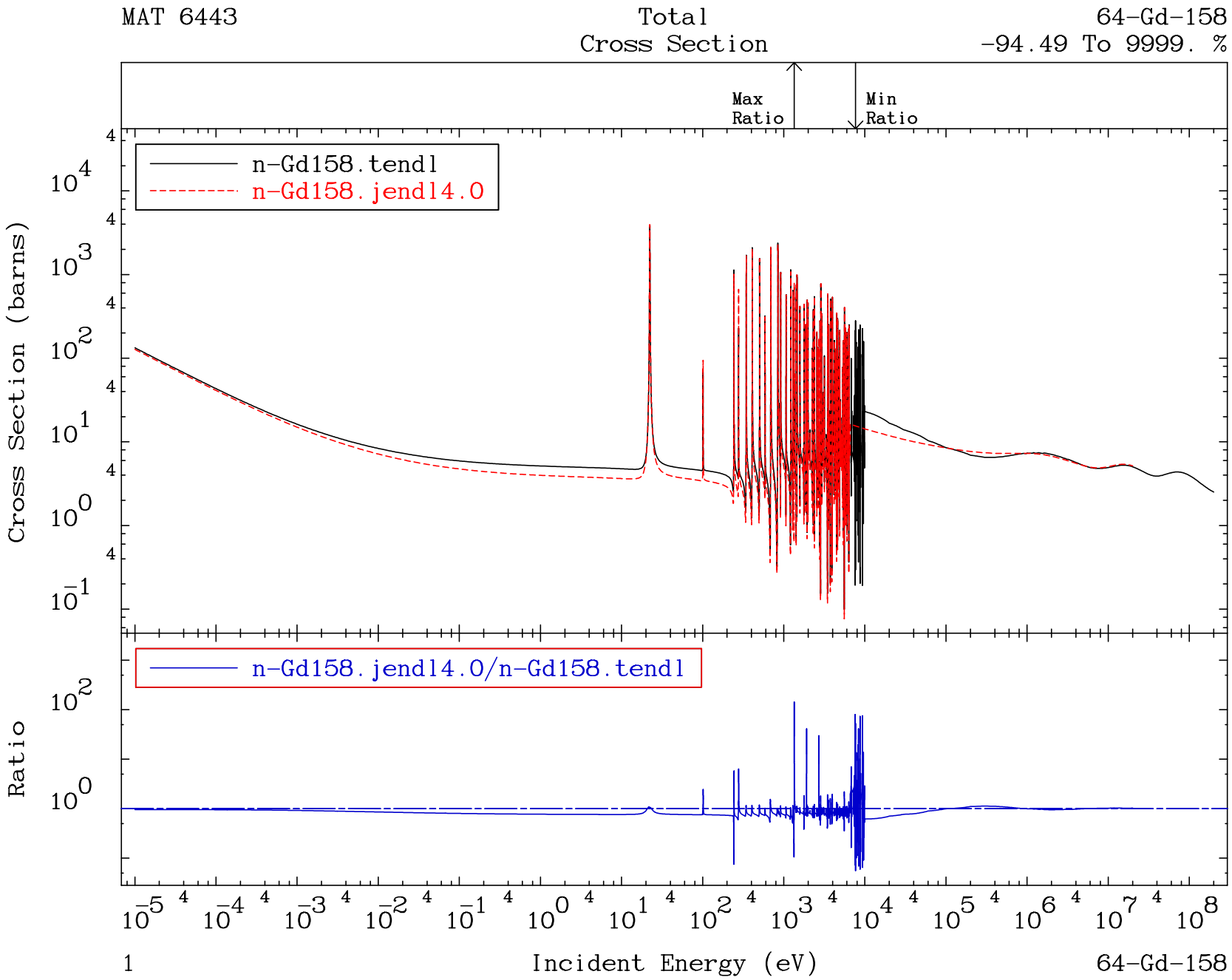
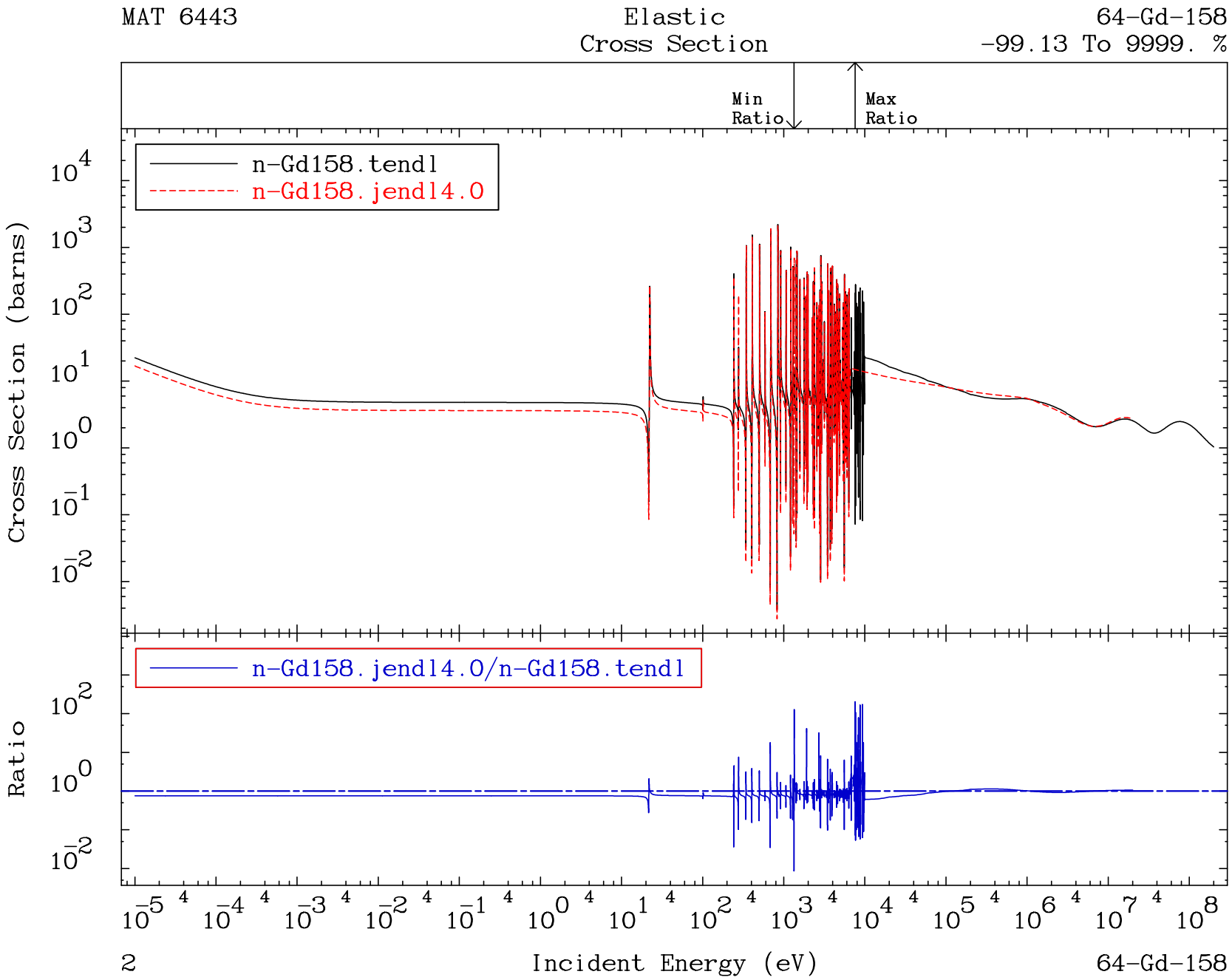
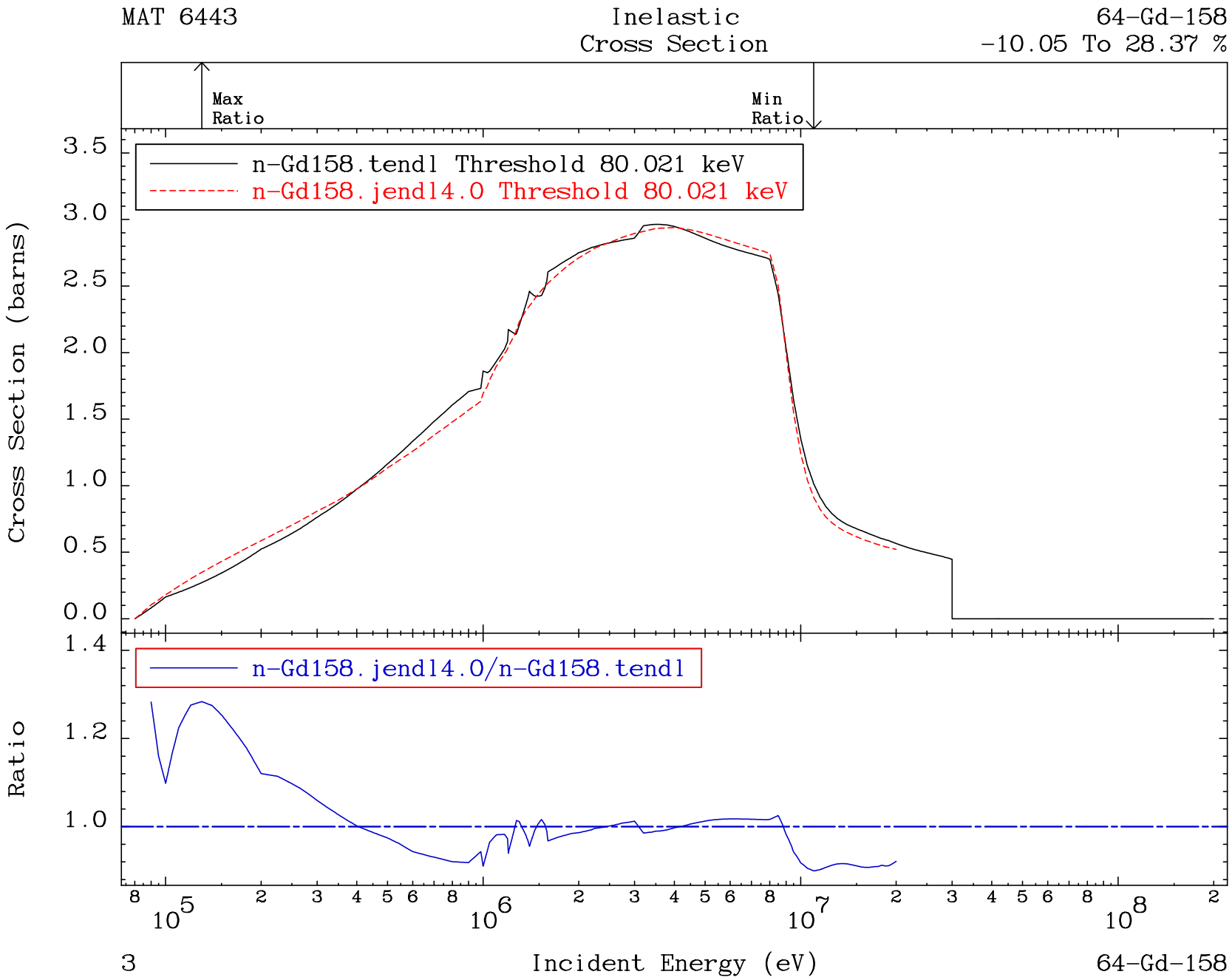
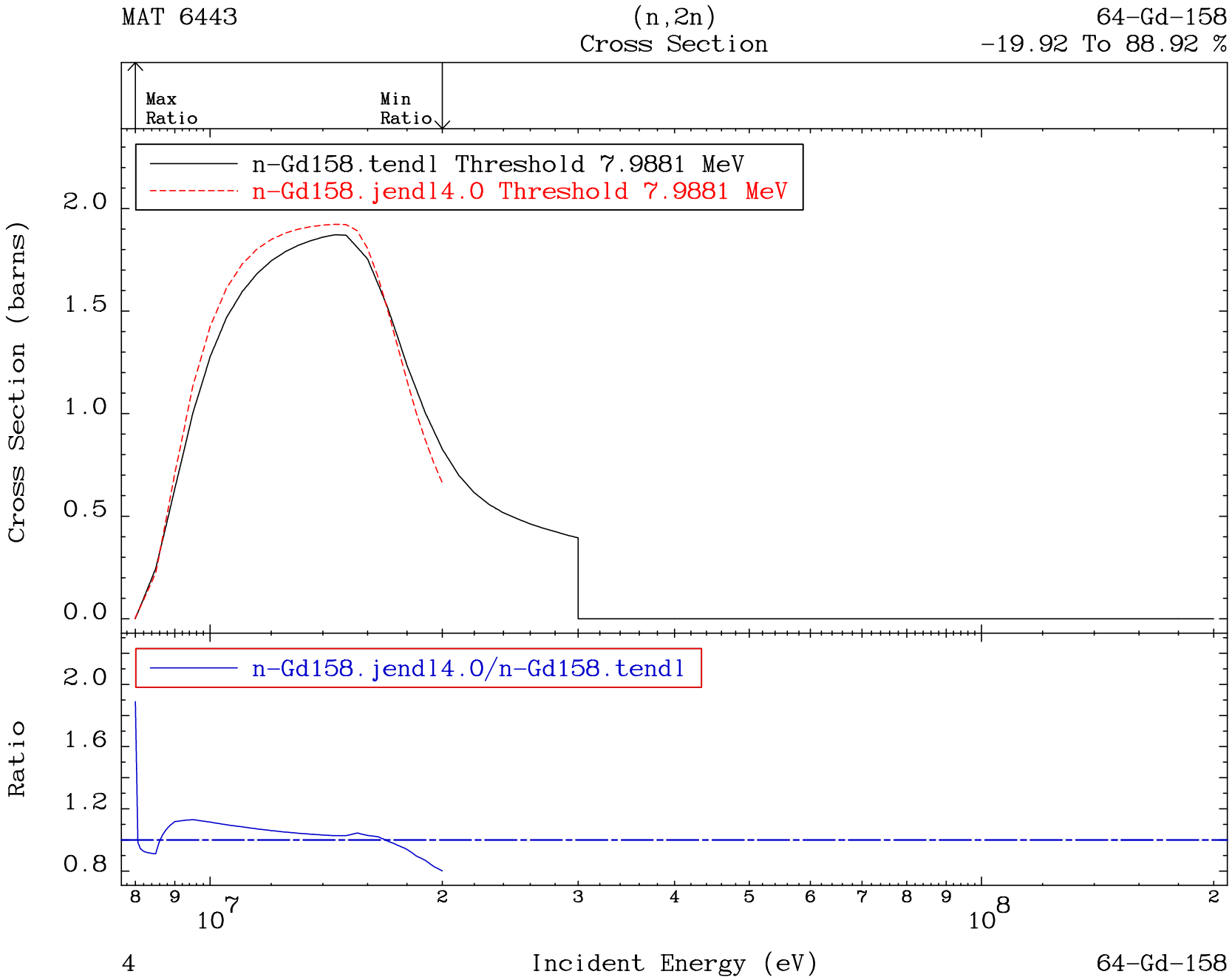
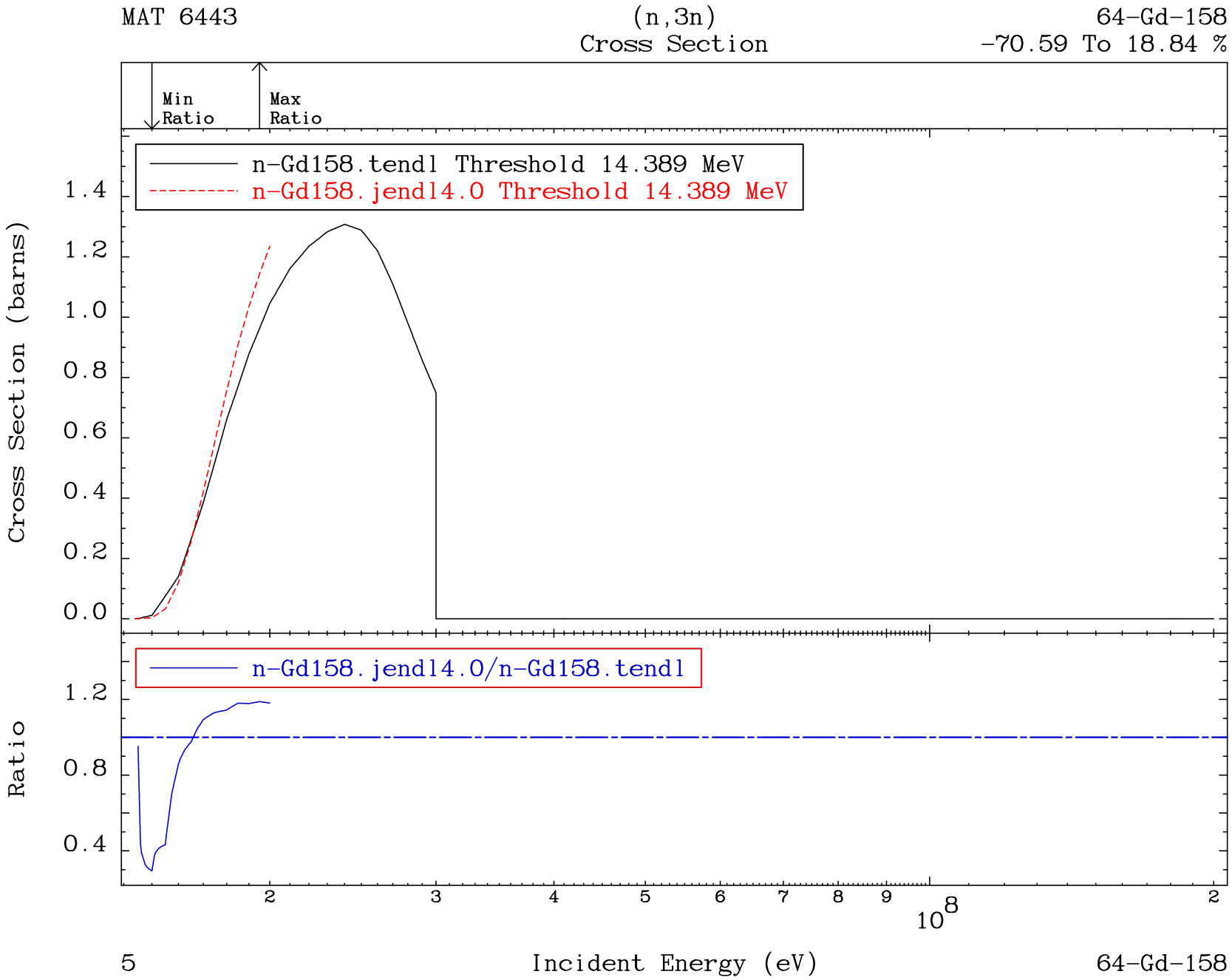
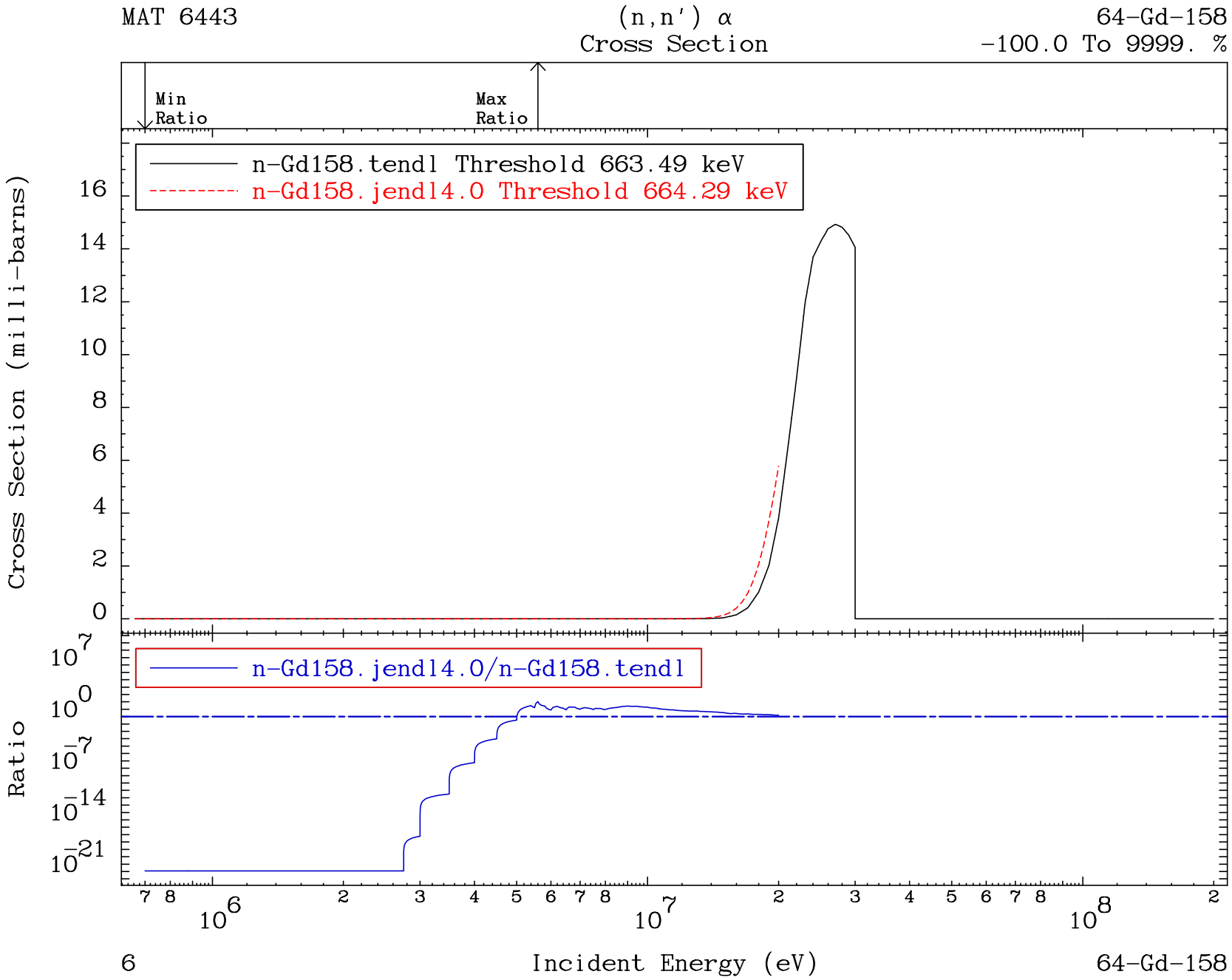

MAT 6443
Total
Cross Section
64-Gd-158
-94.49 To 9999. %
Max
Ratio
Min
Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
1
64-Gd-158

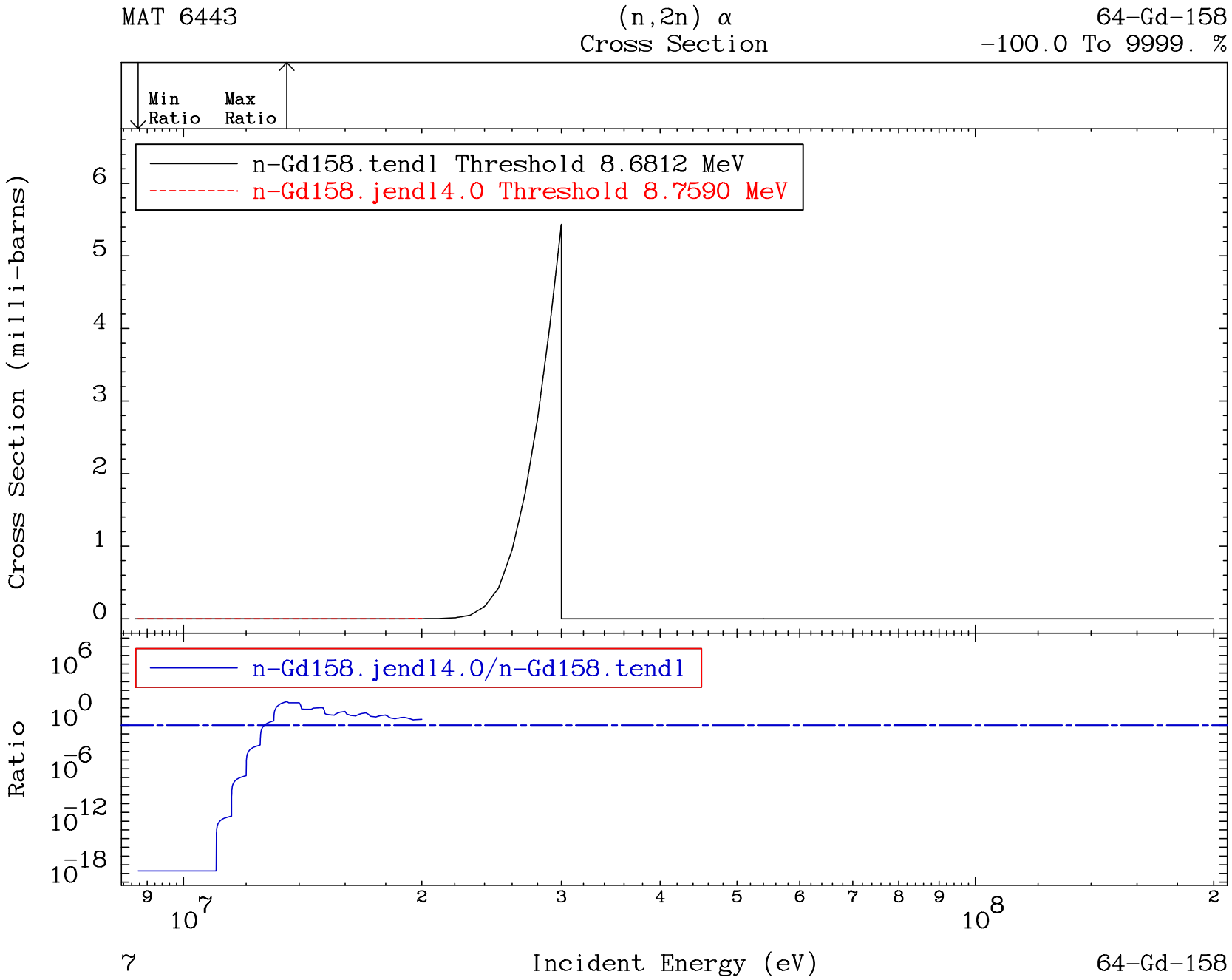

MAT 6443
Elastic
Cross Section
64-Gd-158
-99.13 To 9999. %
Min
Ratio
Max
Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
2
64-Gd-158

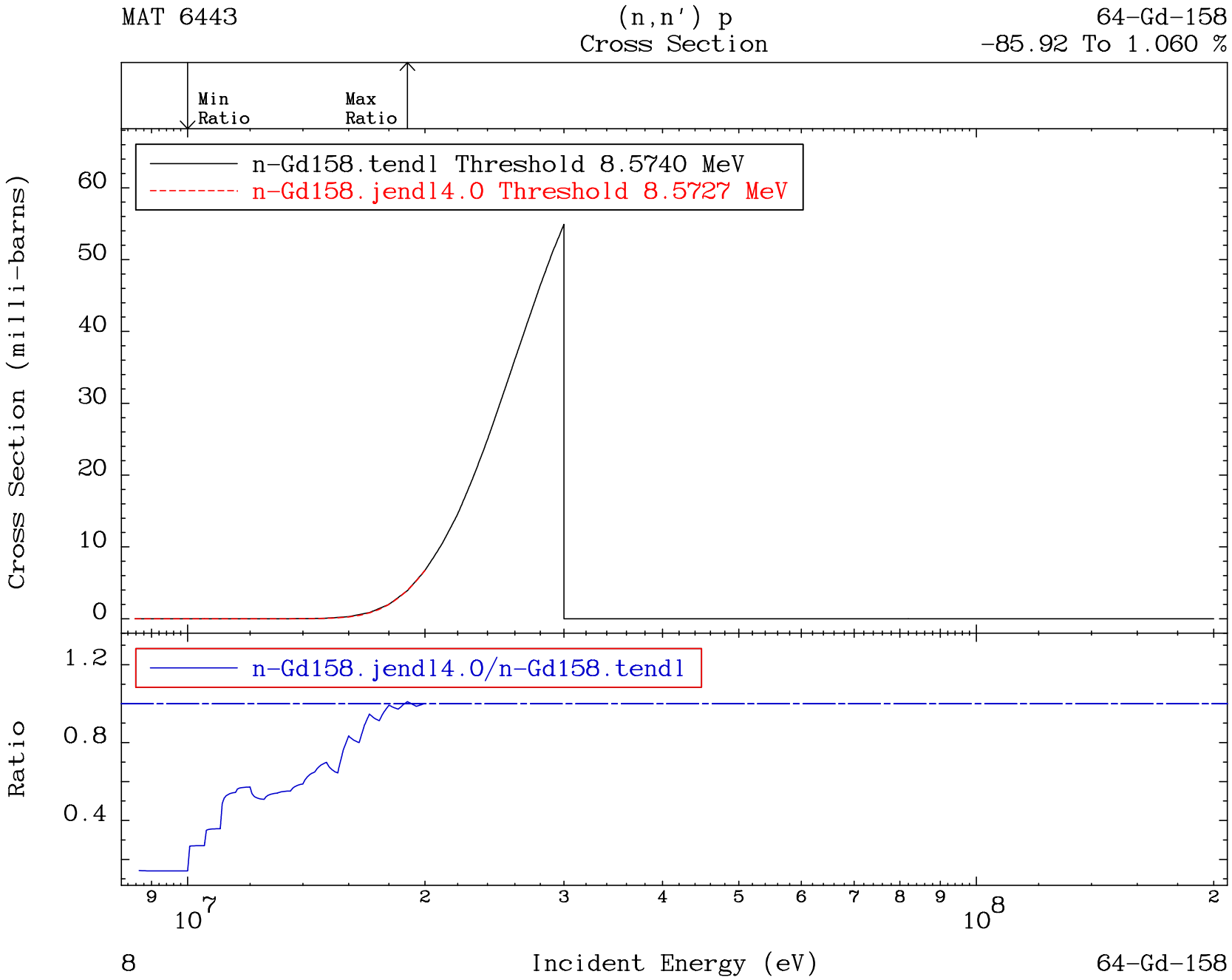

MAT 6443
Inelastic
Cross Section
64-Gd-158
-10.05 To 28.37 %
Max
Ratio
Min
Ratio
n-Gd158.tendl Threshold 80.021 keV
n-Gd158.jendl4.0 Threshold 80.021 keV
Cross Section (barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
1.4
1.2
1.0
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
3
Incident Energy (eV)
64-Gd-158

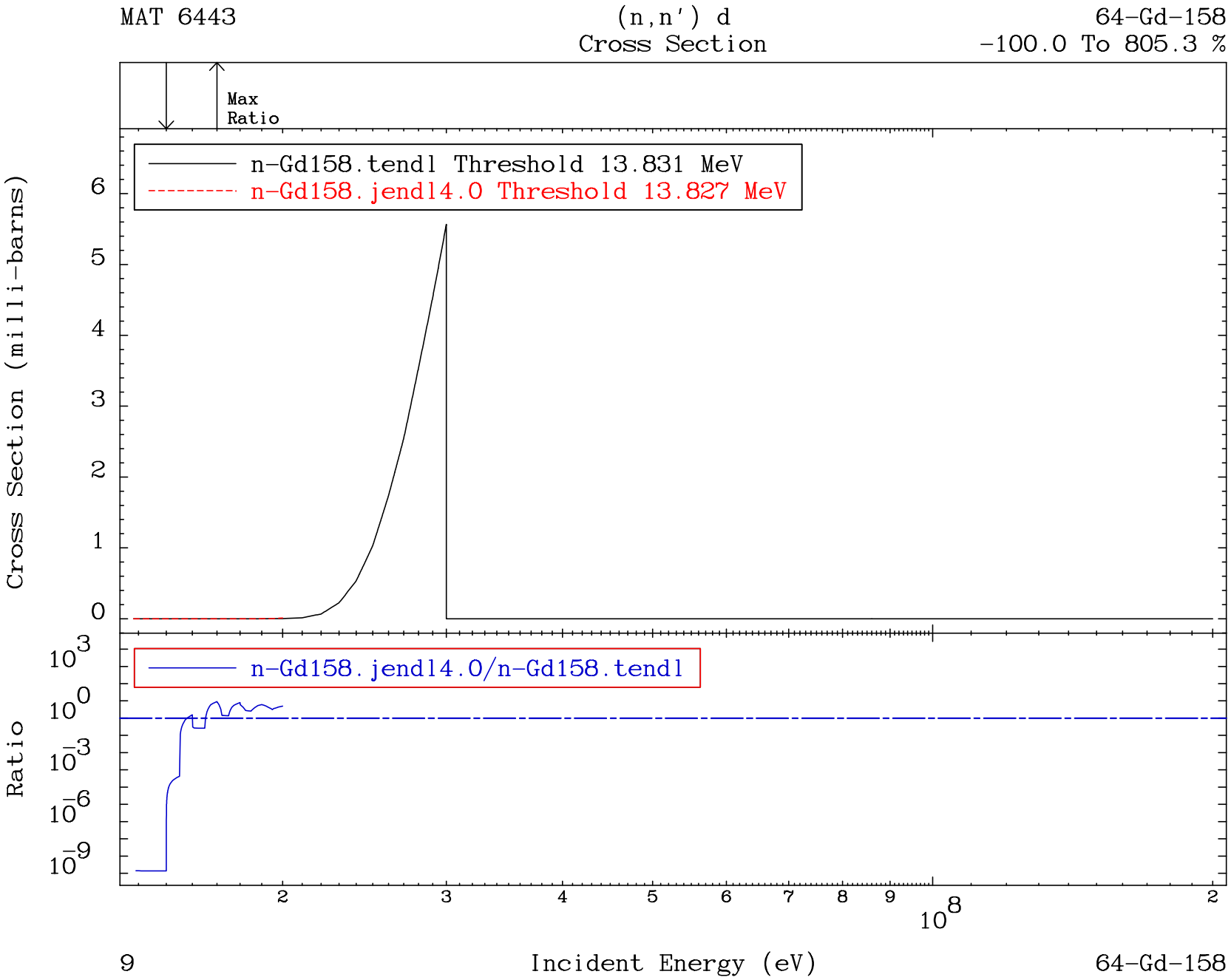

MAT 6443
(n,2n)
Cross Section
64-Gd-158
-19.92 To 88.92 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 7.9881 MeV
n-Gd158.jendl4.0 Threshold 7.9881 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
2.0
1.6
1.2
0.8
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
64-Gd-158

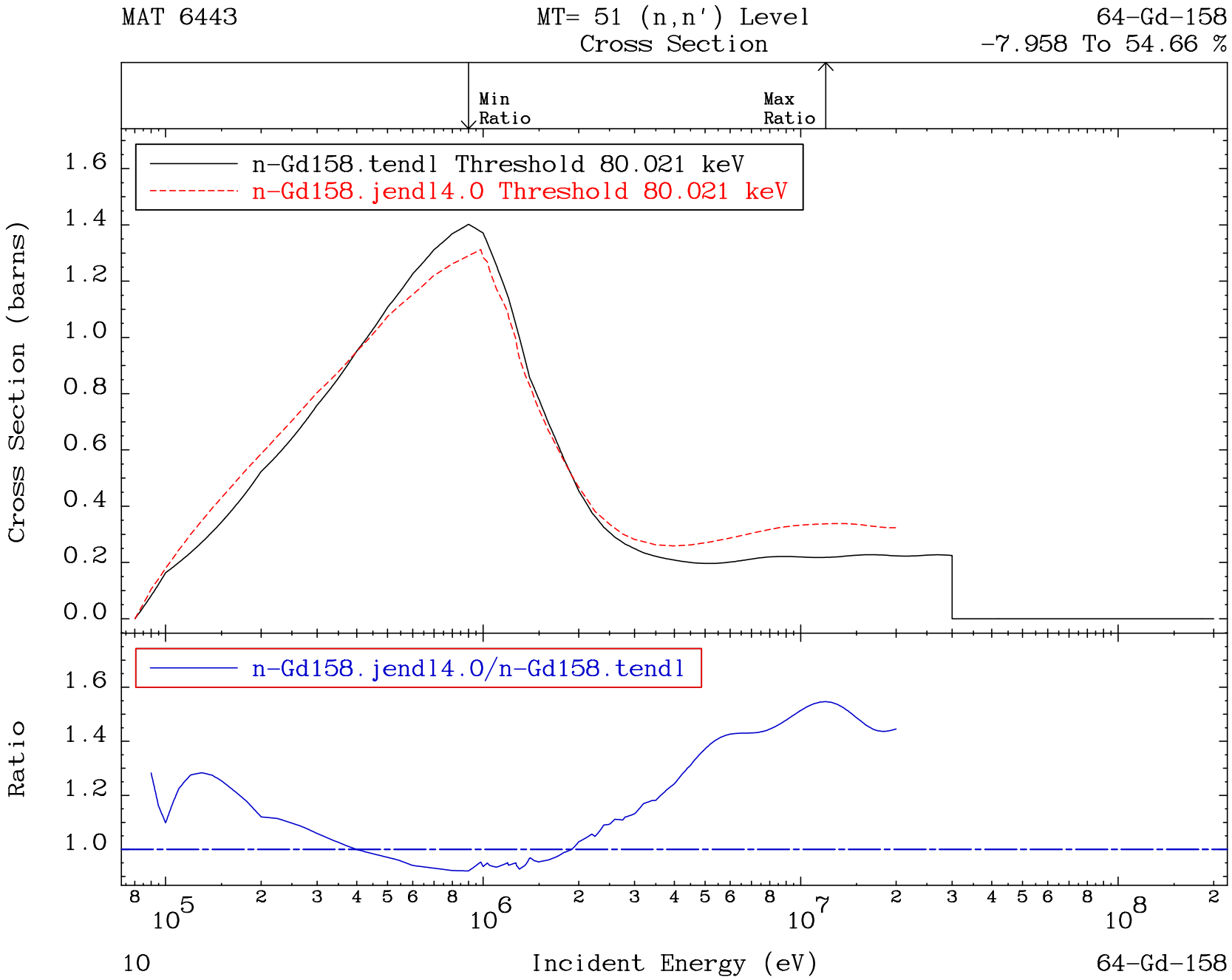

MAT 6443
(n,3n)
Cross Section
64-Gd-158
-70.59 To 18.84 %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 14.389 MeV
n-Gd158.jendl4.0 Threshold 14.389 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
64-Gd-158

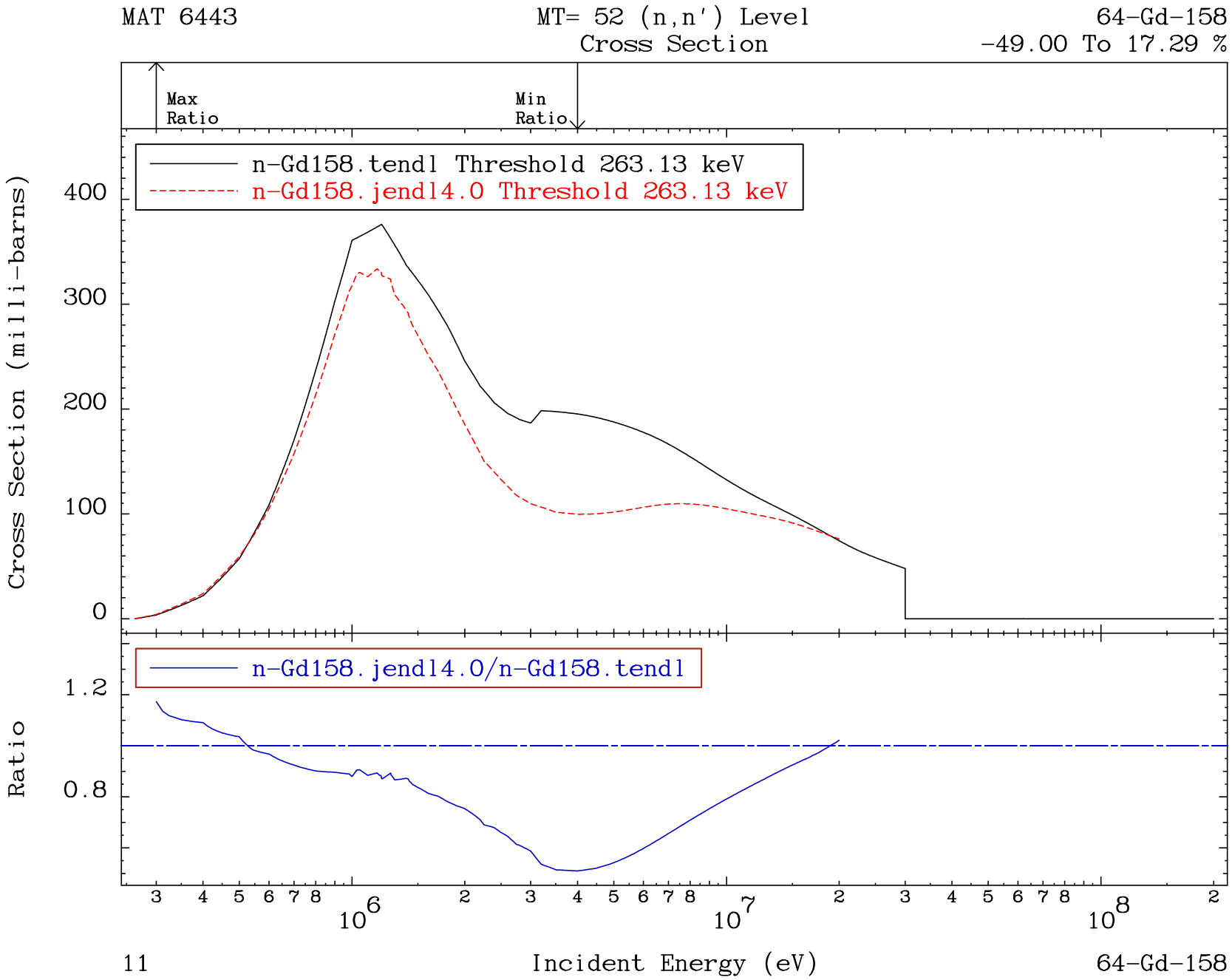

MAT 6443
(n,n') α
Cross Section
64-Gd-158
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 663.49 keV
n-Gd158.jendl4.0 Threshold 664.29 keV
Cross Section (milli-barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
6
64-Gd-158

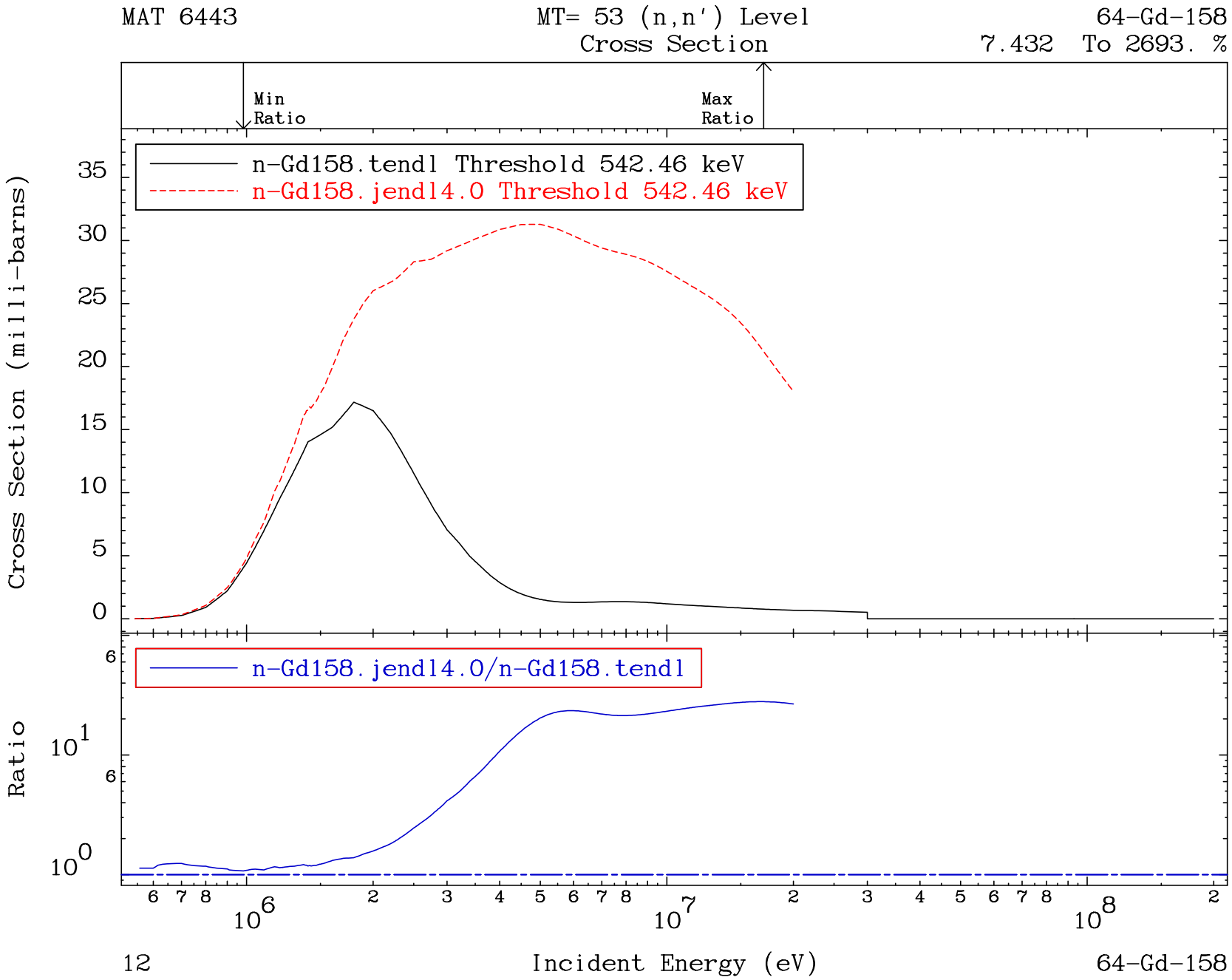

MAT 6443
(n,2n) α
Cross Section
64-Gd-158
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 8.6812 MeV
n-Gd158.jendl4.0 Threshold 8.7590 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^6
10^0
10^-6
10^-12
10^-18
9
10^7
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
64-Gd-158

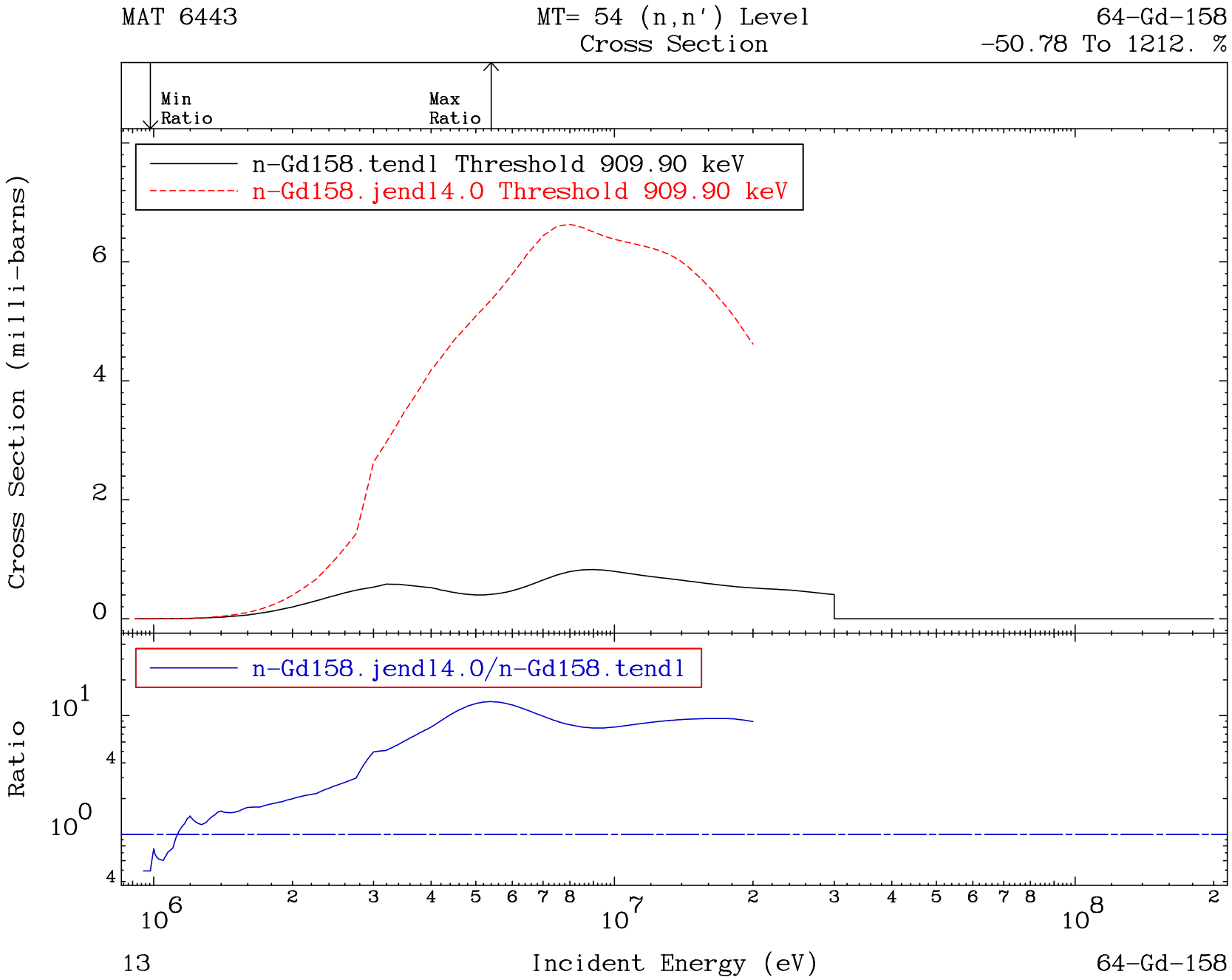

MAT 6443
(n,n') p
Cross Section
64-Gd-158
-85.92 To 1.060 %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 8.5740 MeV
n-Gd158.jendl4.0 Threshold 8.5727 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
1.2
0.8
0.4
9
10^7
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
64-Gd-158

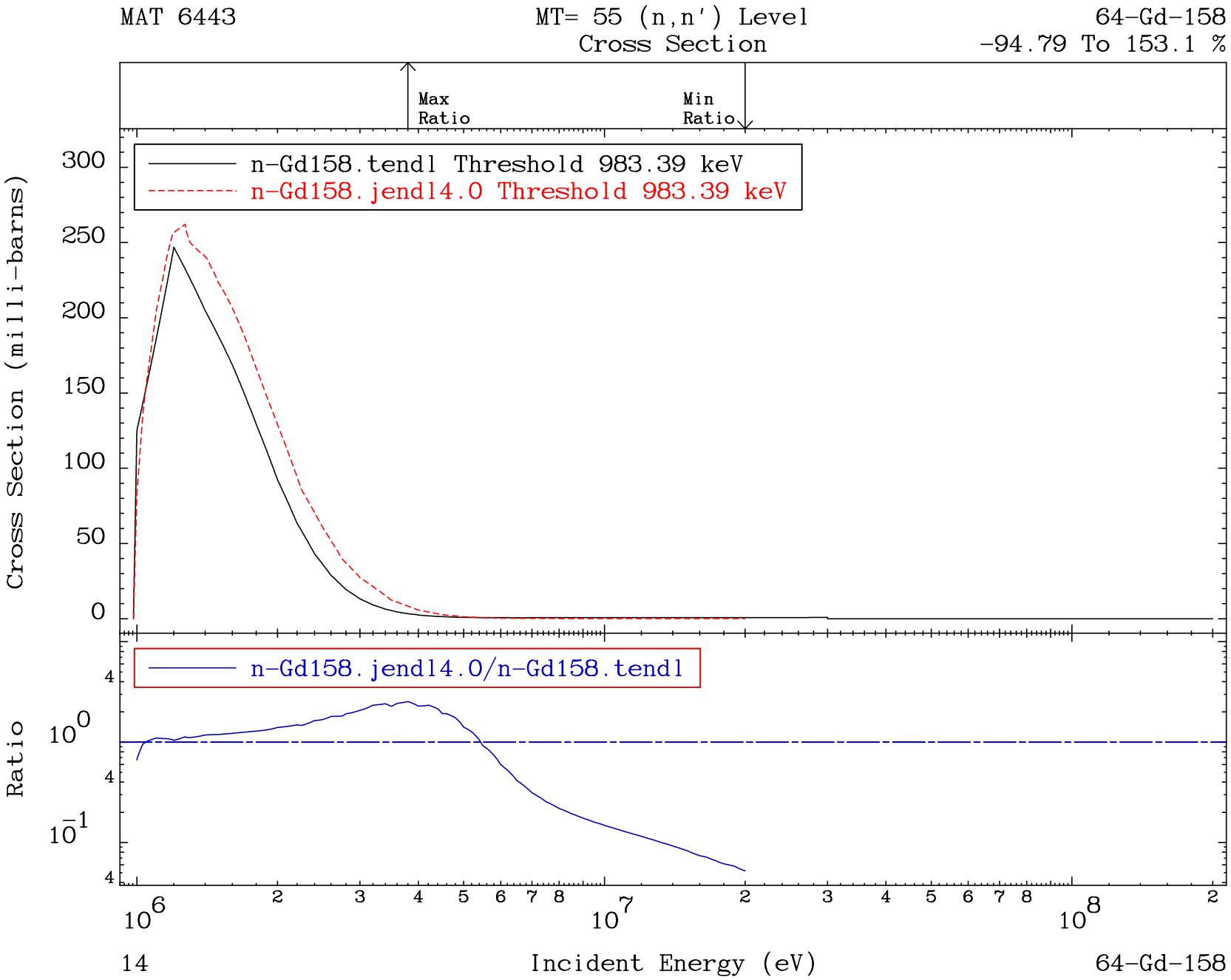

MAT 6443
(n,n') d
Cross Section
64-Gd-158
-100.0 To 805.3 %
Max
Ratio
n-Gd158.tendl Threshold 13.831 MeV
n-Gd158.jendl4.0 Threshold 13.827 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^3
10^0
10^-3
10^-6
10^-9
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
64-Gd-158

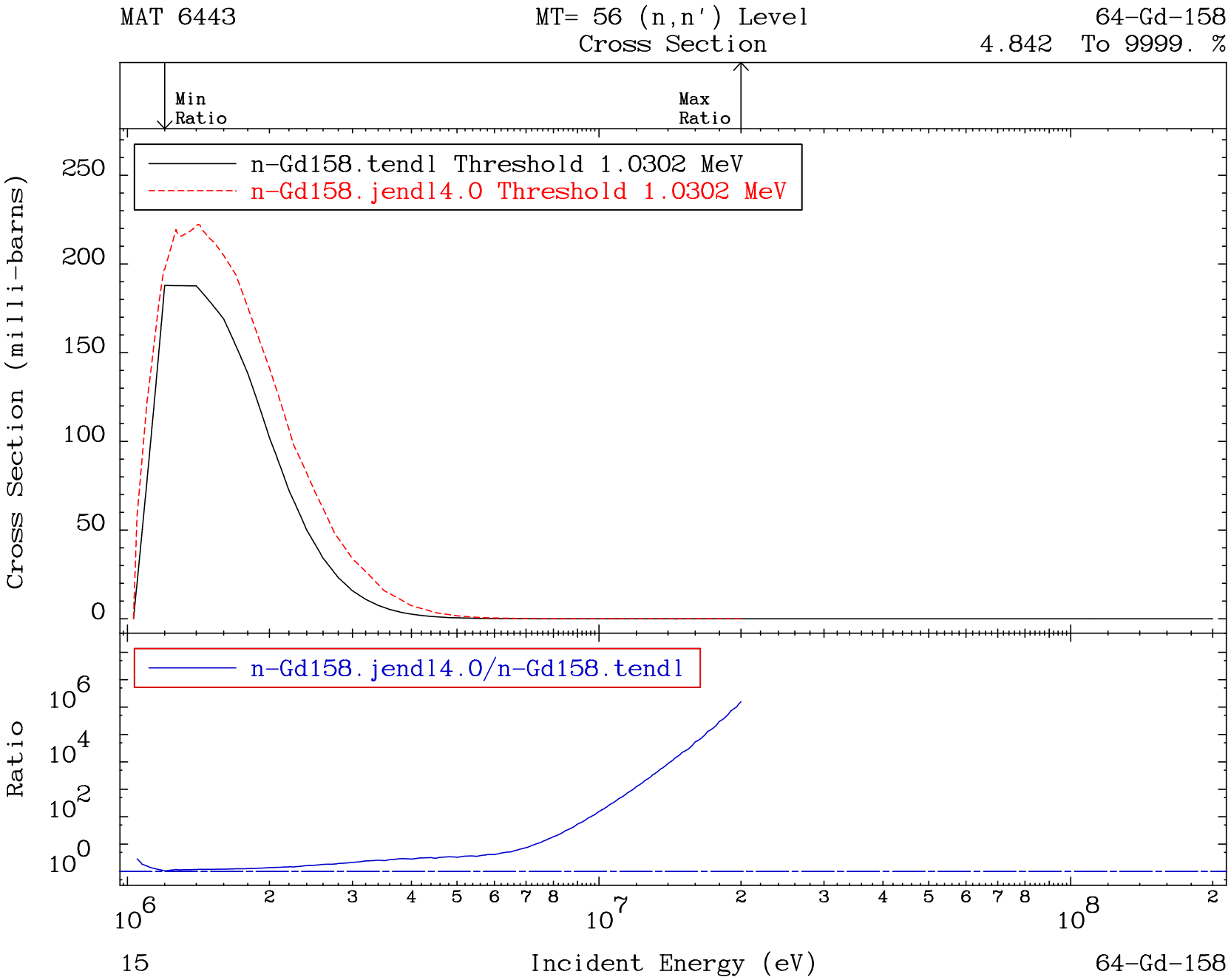

MAT 6443
MT= 51 (n,n') Level
Cross Section
64-Gd-158
-7.958 To 54.66 %
Min
Ratio
Max
Ratio
n-Gd158.tendl Threshold 80.021 keV
n-Gd158.jendl4.0 Threshold 80.021 keV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
1.6
1.4
1.2
1.0
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
10
Incident Energy (eV)
64-Gd-158

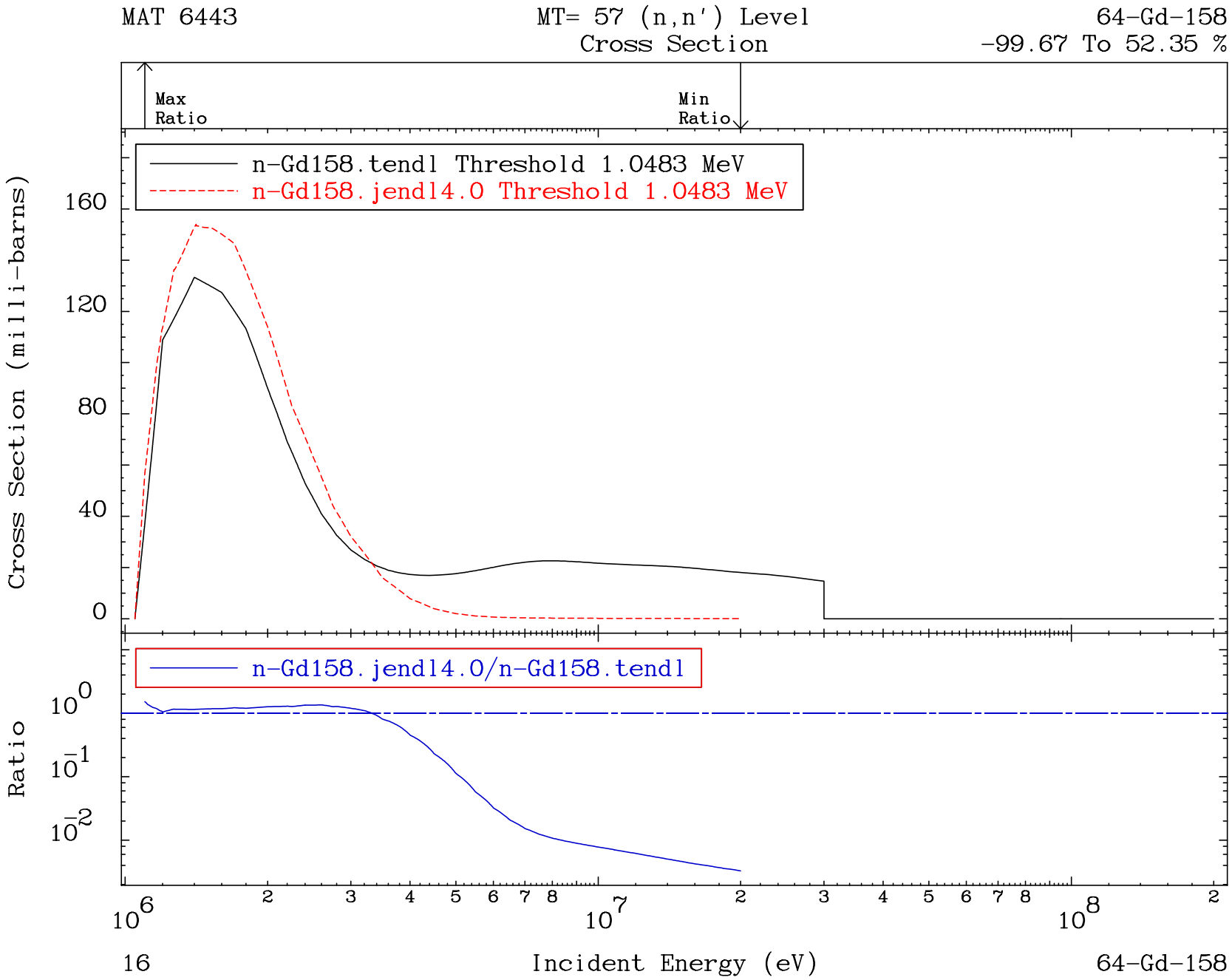

MAT 6443
MT= 52 (n,n') Level
Cross Section
64-Gd-158
-49.00 To 17.29 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 263.13 keV
n-Gd158.jendl4.0 Threshold 263.13 keV
Cross Section (milli-barns)
400
300
200
100
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
1.2
0.8
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
11
Incident Energy (eV)
64-Gd-158

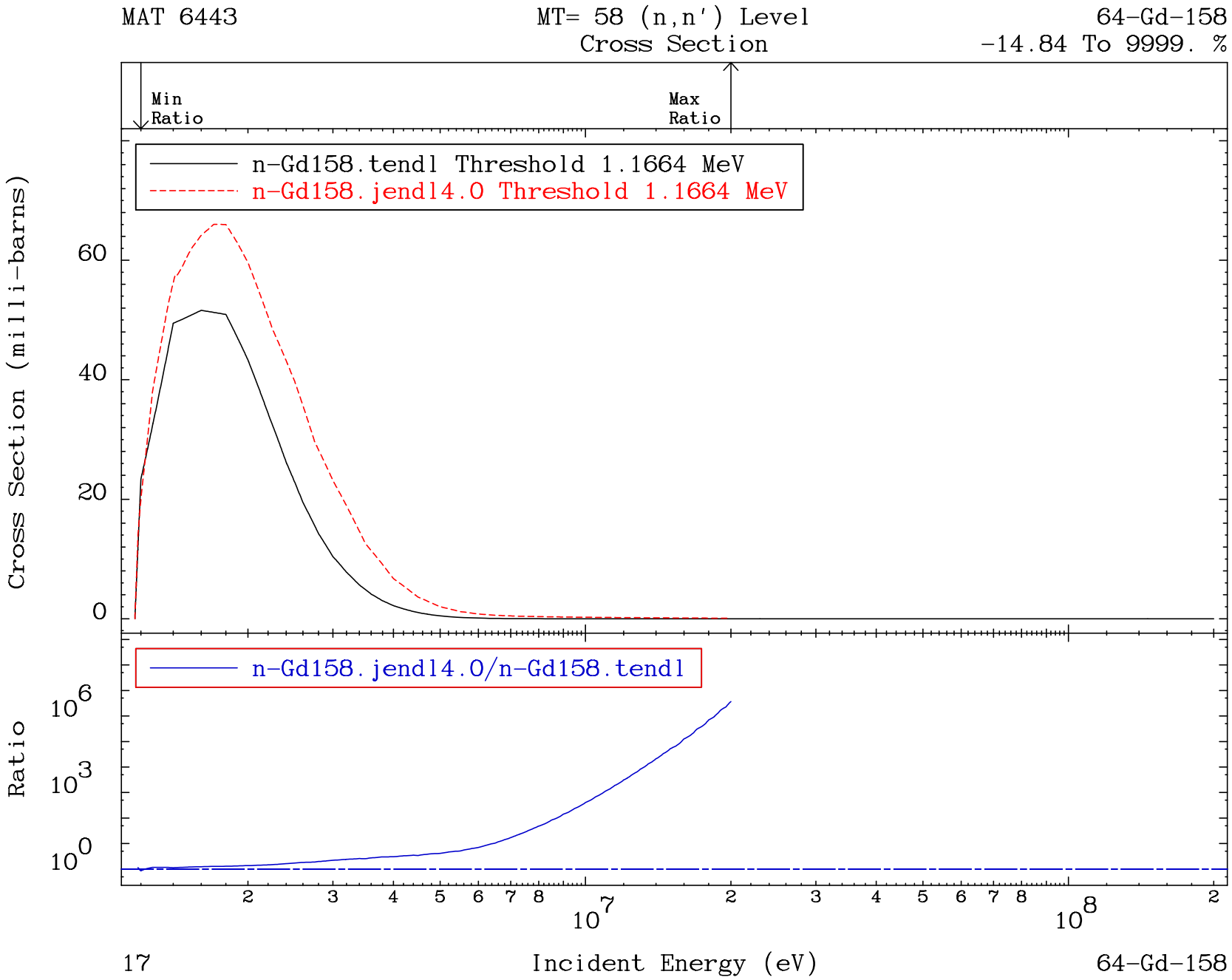

MAT 6443
MT= 53 (n,n') Level
Cross Section
64-Gd-158
7.432 To 2693. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 542.46 keV
n-Gd158.jendl4.0 Threshold 542.46 keV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^1
10^0
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
12
Incident Energy (eV)
64-Gd-158

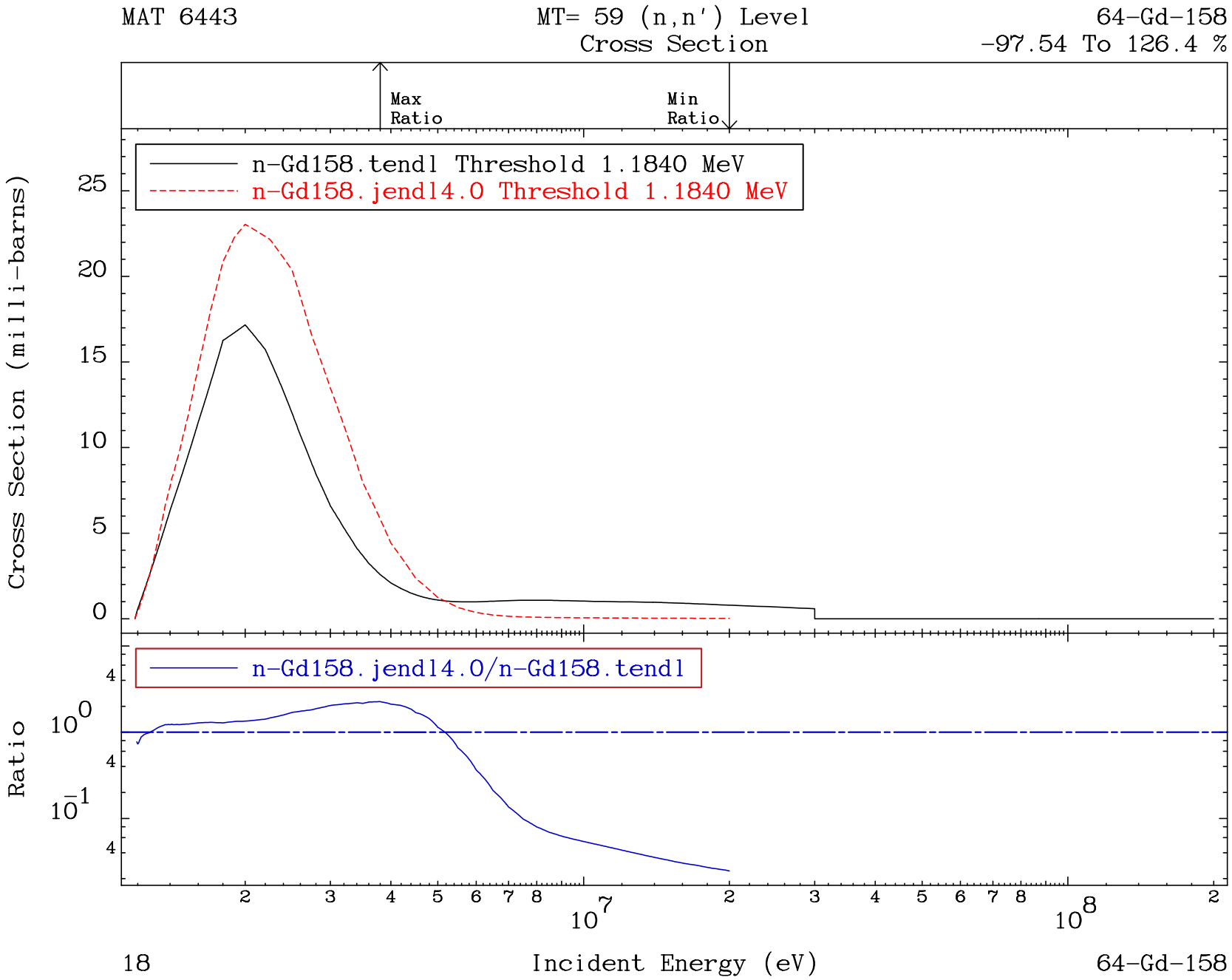

MAT 6443
MT= 54 (n,n') Level
Cross Section
64-Gd-158
-50.78 To 1212. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 909.90 keV
n-Gd158.jendl4.0 Threshold 909.90 keV
Cross Section (milli-barns)
0
2
4
6
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^1
4
10^0
4
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
13
Incident Energy (eV)
64-Gd-158

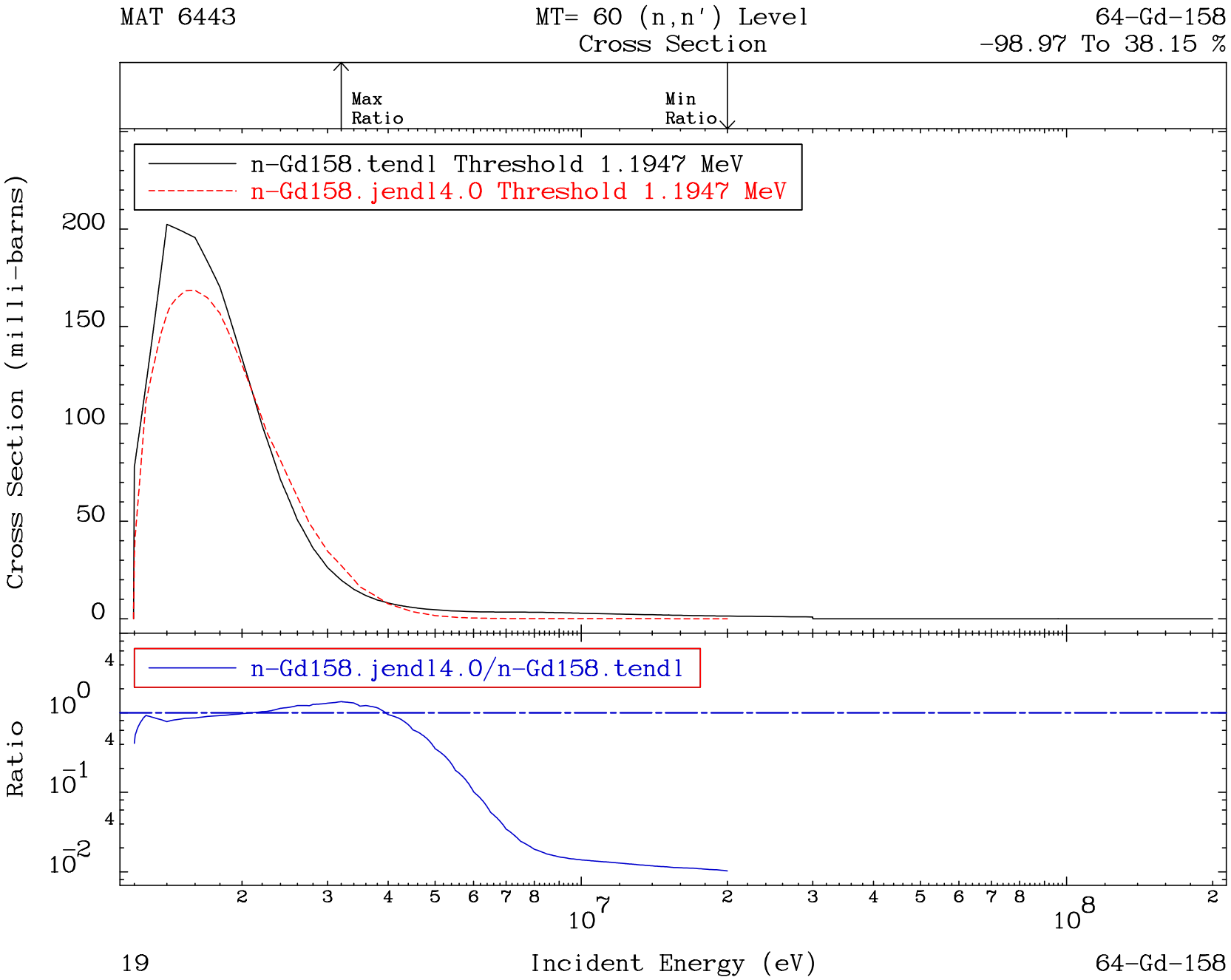

MAT 6443
MT= 55 (n,n') Level
Cross Section
64-Gd-158
-94.79 To 153.1 %
Max
Ratio
Min
Ratio
n-Gd158.tendl Threshold 983.39 keV
n-Gd158.jendl4.0 Threshold 983.39 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
4
10^0
4
10^-1
4
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
14
Incident Energy (eV)
64-Gd-158

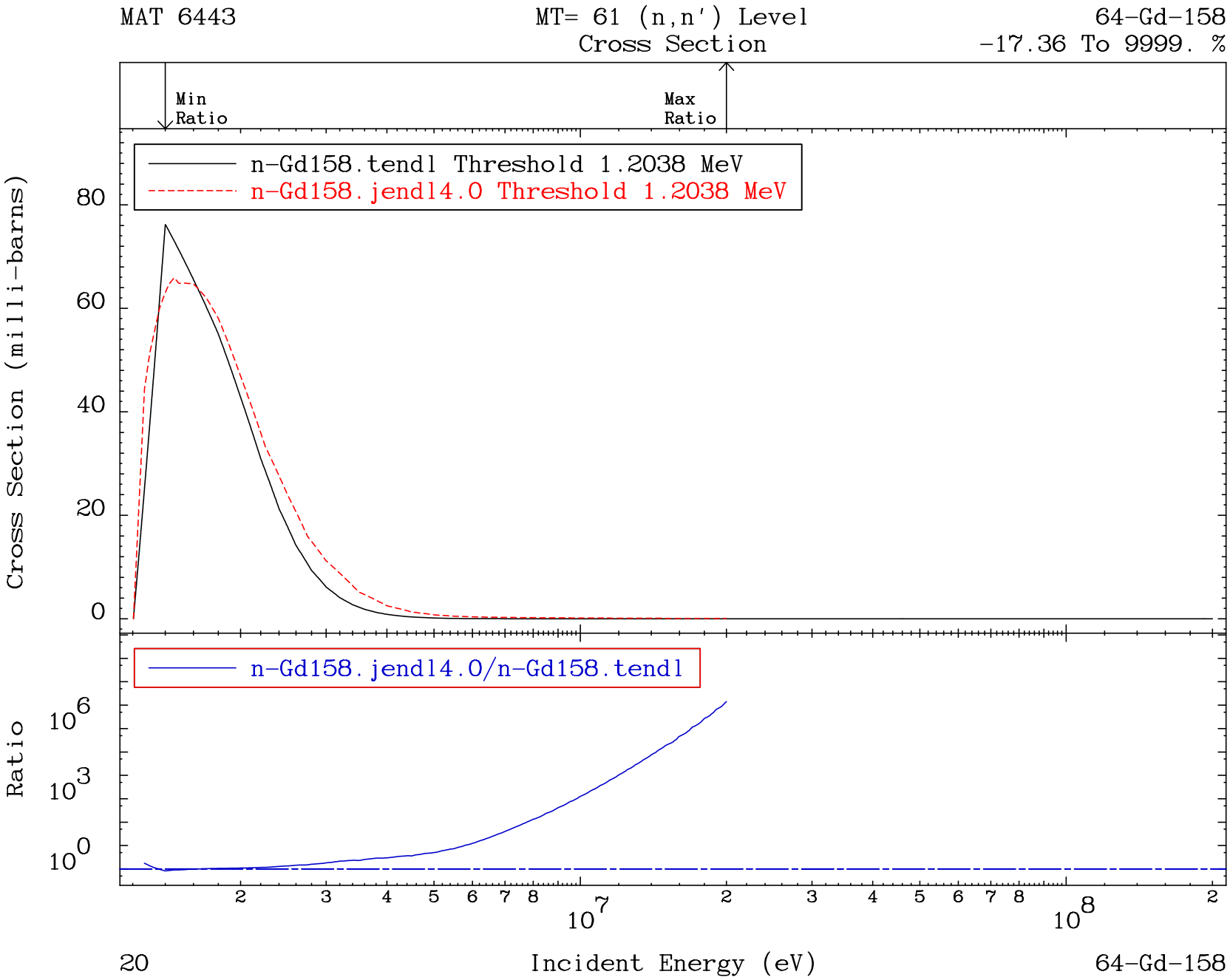

MAT 6443
MT= 56 (n,n') Level
Cross Section
64-Gd-158
4.842 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 1.0302 MeV
n-Gd158.jendl4.0 Threshold 1.0302 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^6
10^4
10^2
10^0
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
64-Gd-158

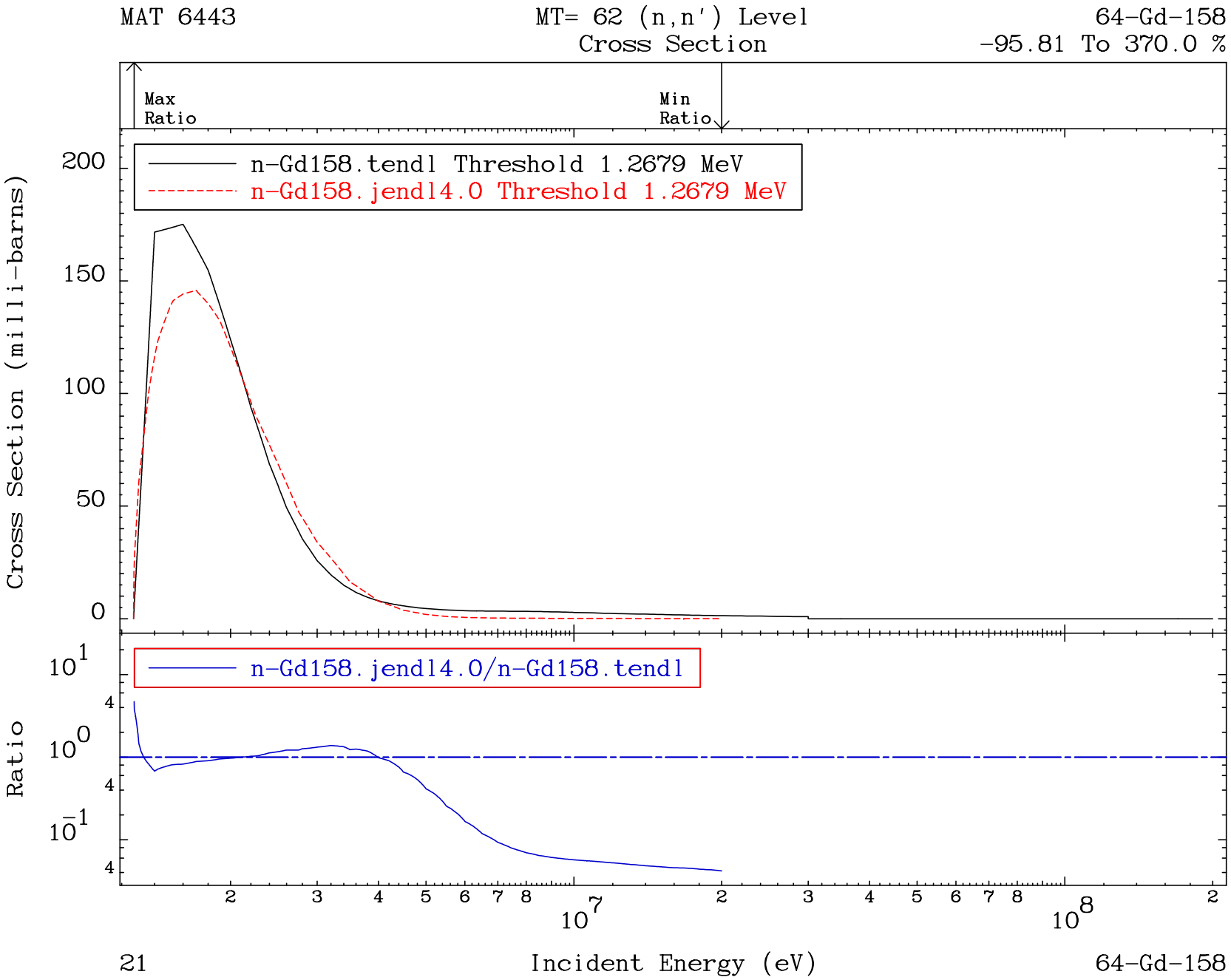

MAT 6443
MT= 57 (n,n') Level
Cross Section
64-Gd-158
-99.67 To 52.35 %
Max
Ratio
Min
Ratio
n-Gd158.tendl Threshold 1.0483 MeV
n-Gd158.jendl4.0 Threshold 1.0483 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^-1
10^-2
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
16
Incident Energy (eV)
64-Gd-158

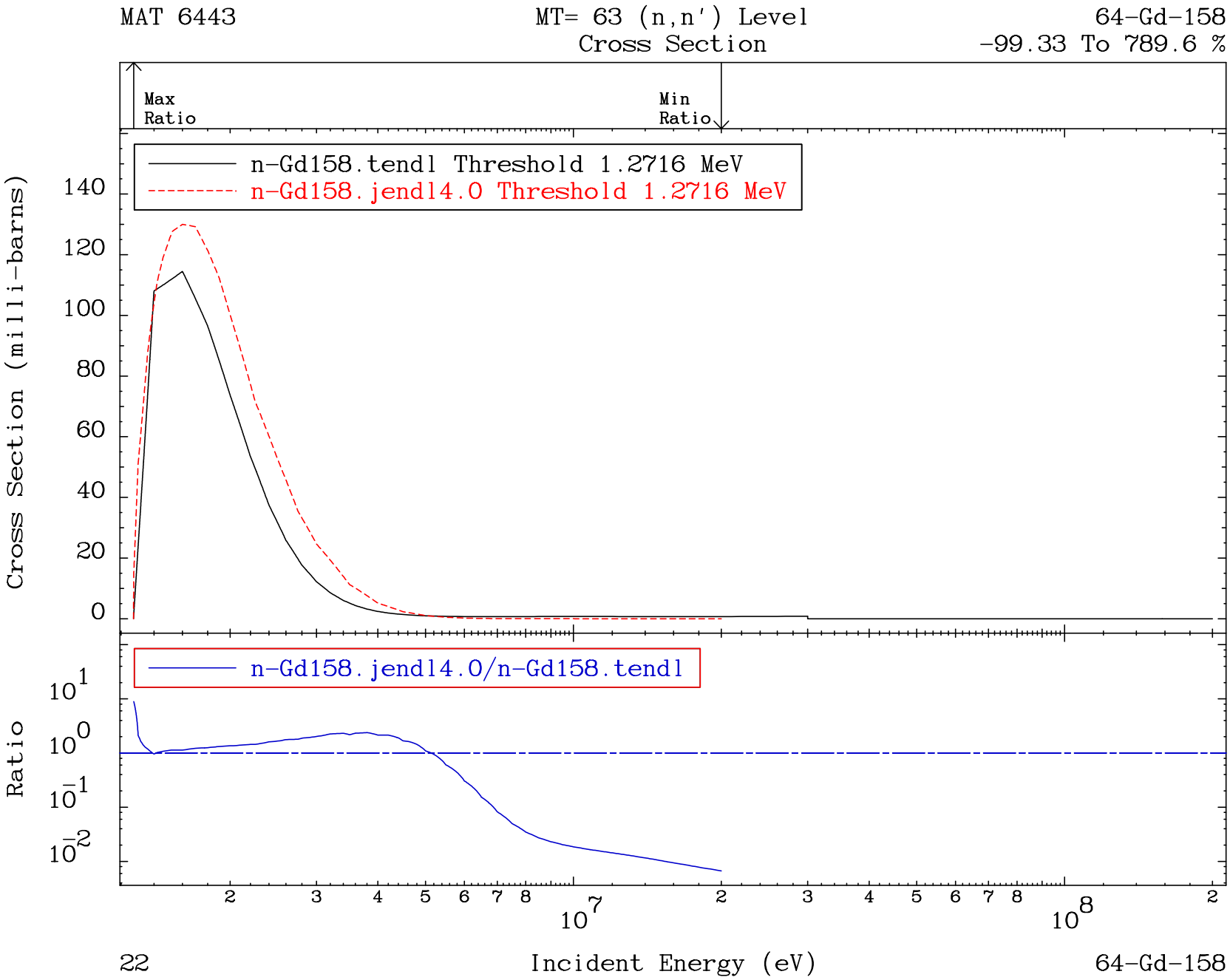

MAT 6443
MT= 58 (n,n') Level
Cross Section
64-Gd-158
-14.84 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 1.1664 MeV
n-Gd158.jendl4.0 Threshold 1.1664 MeV
Cross Section (milli-barns)
0
20
40
60
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^3
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
64-Gd-158

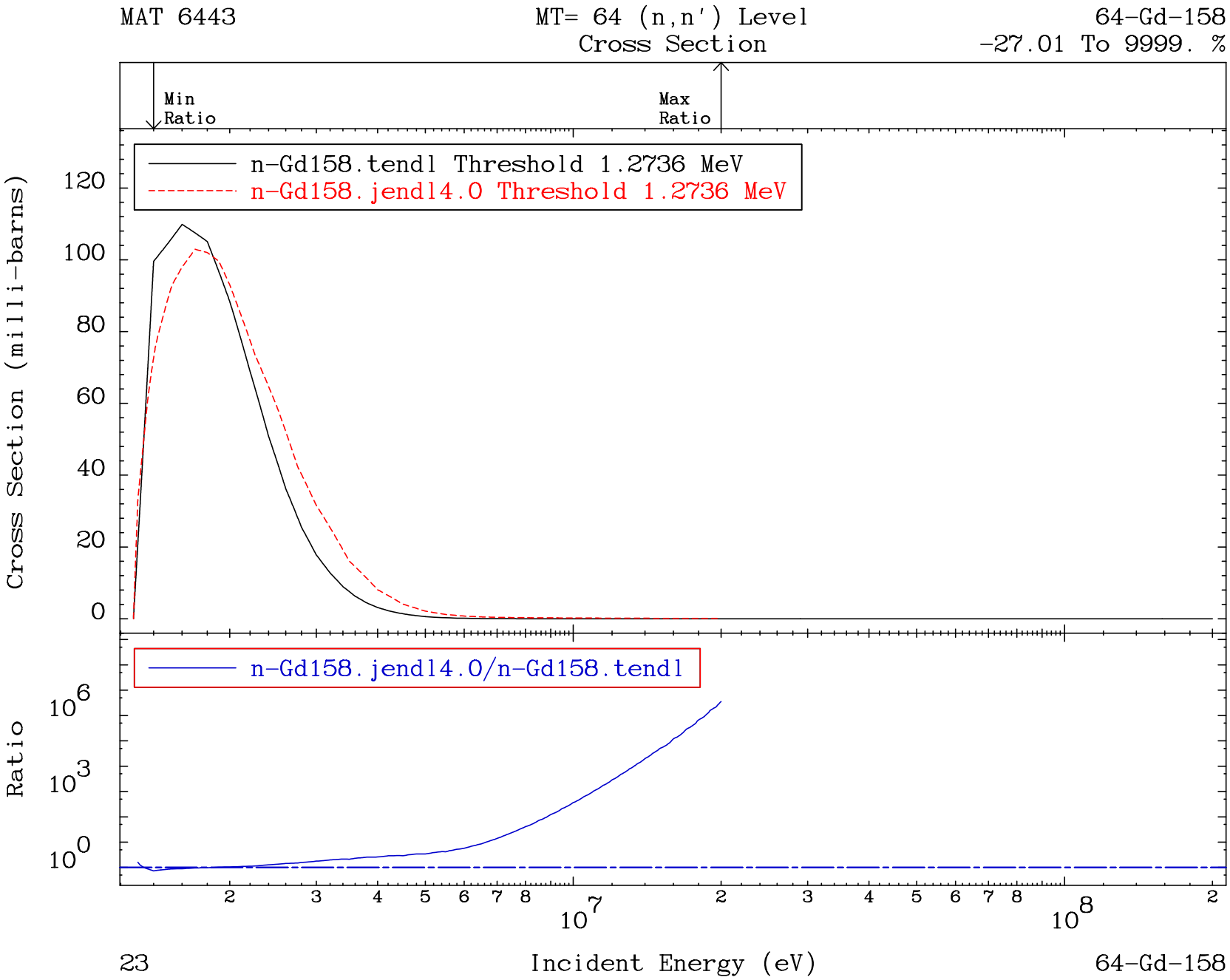

MAT 6443
MT= 59 (n,n') Level
Cross Section
64-Gd-158
-97.54 To 126.4 %
Max
Ratio
Min
Ratio
n-Gd158.tendl Threshold 1.1840 MeV
n-Gd158.jendl4.0 Threshold 1.1840 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^-1
2
3
4
5
6
7
8
10^7
10^8
18
Incident Energy (eV)
64-Gd-158

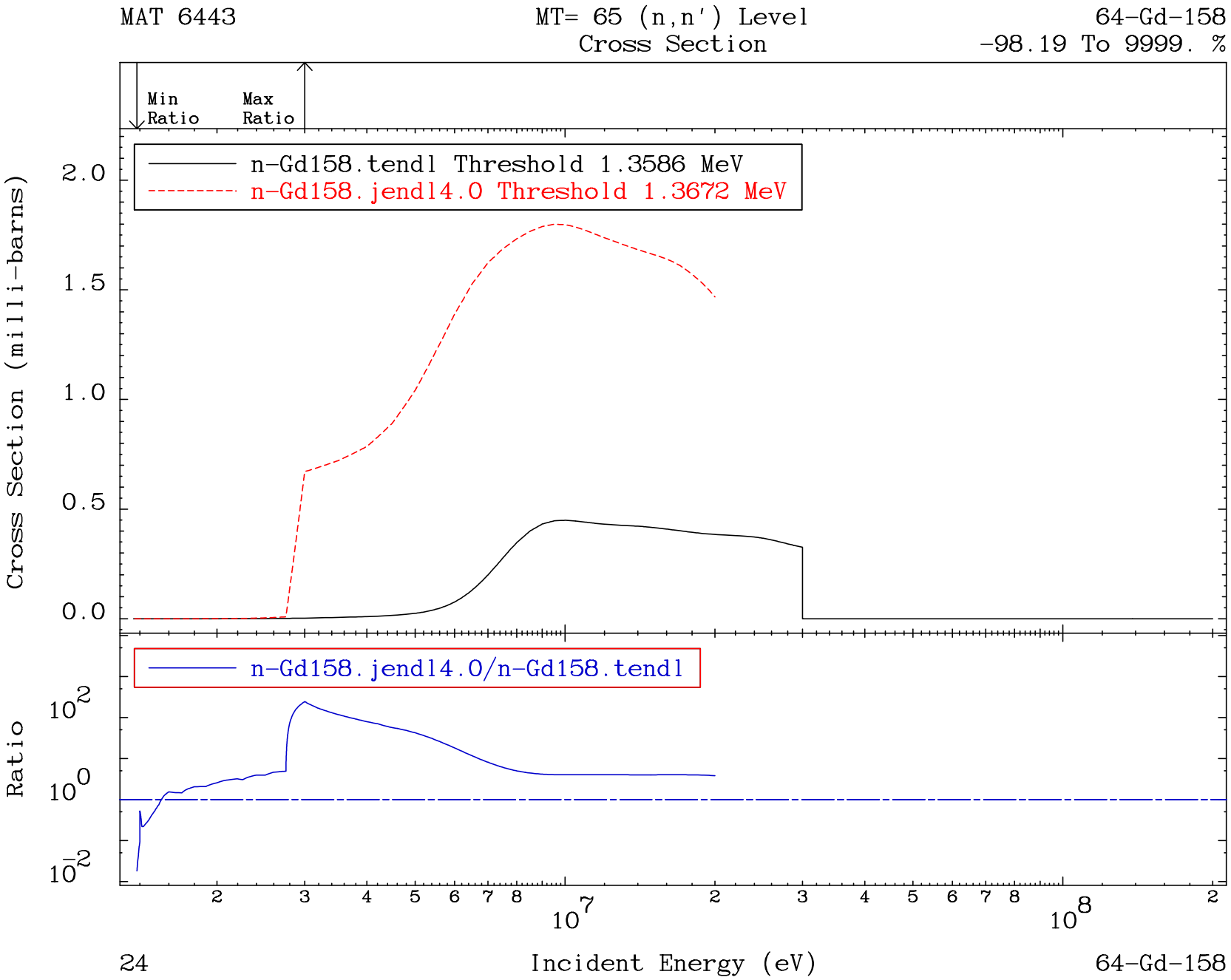

MAT 6443
MT= 60 (n,n') Level
Cross Section
64-Gd-158
-98.97 To 38.15 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 1.1947 MeV
n-Gd158.jendl4.0 Threshold 1.1947 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^{0}
10^{-1}
10^{-2}
2 3 4 5 6 7 8 10^{7} 2 3 4 5 6 7 8 10^{8} 2
19
Incident Energy (eV)
64-Gd-158

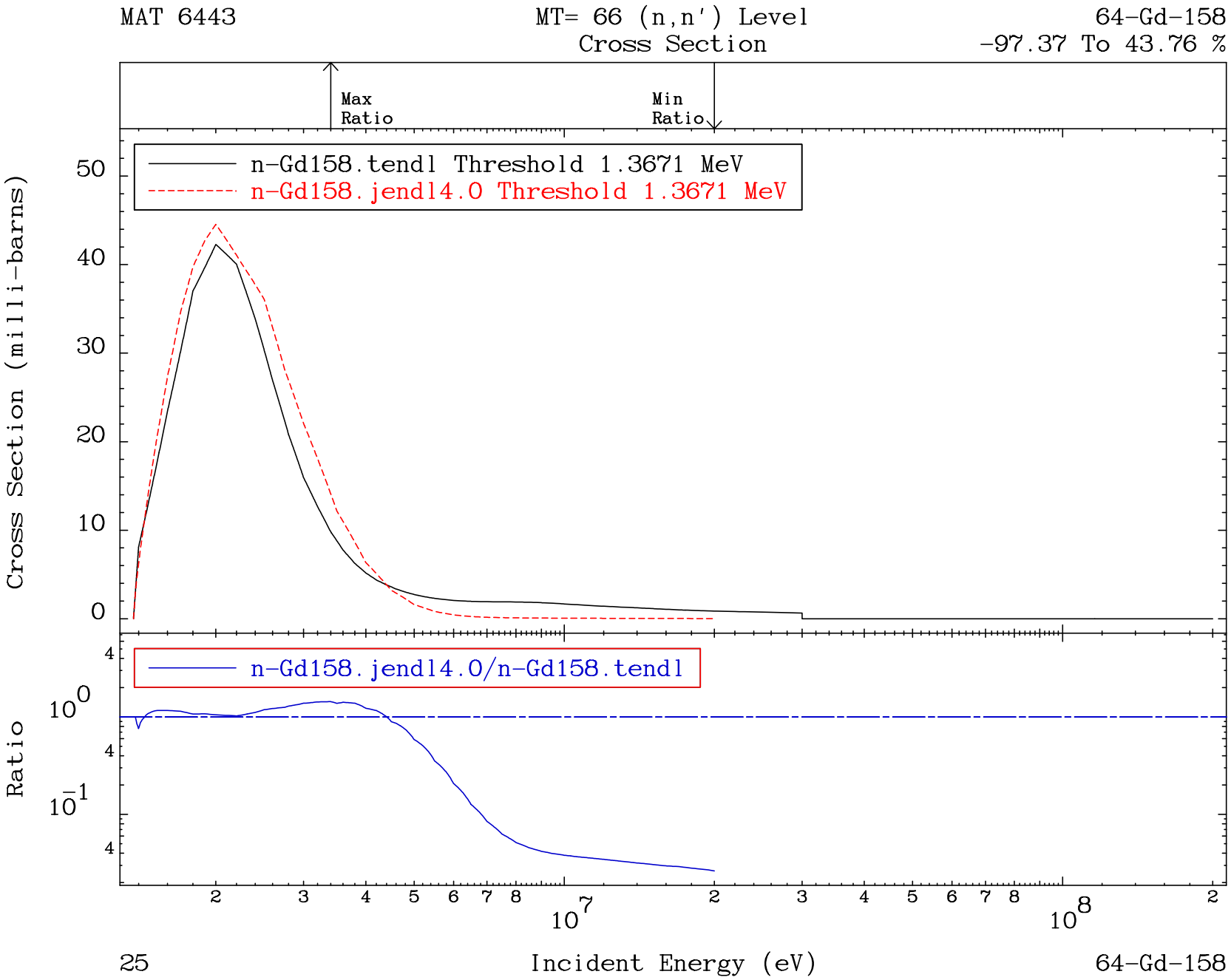

MAT 6443
MT= 61 (n,n') Level
Cross Section
64-Gd-158
-17.36 To 9999. %
Min
Ratio
Max
Ratio
n-Gd158.tendl Threshold 1.2038 MeV
n-Gd158.jendl4.0 Threshold 1.2038 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^6
10^3
10^0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
20
Incident Energy (eV)
64-Gd-158

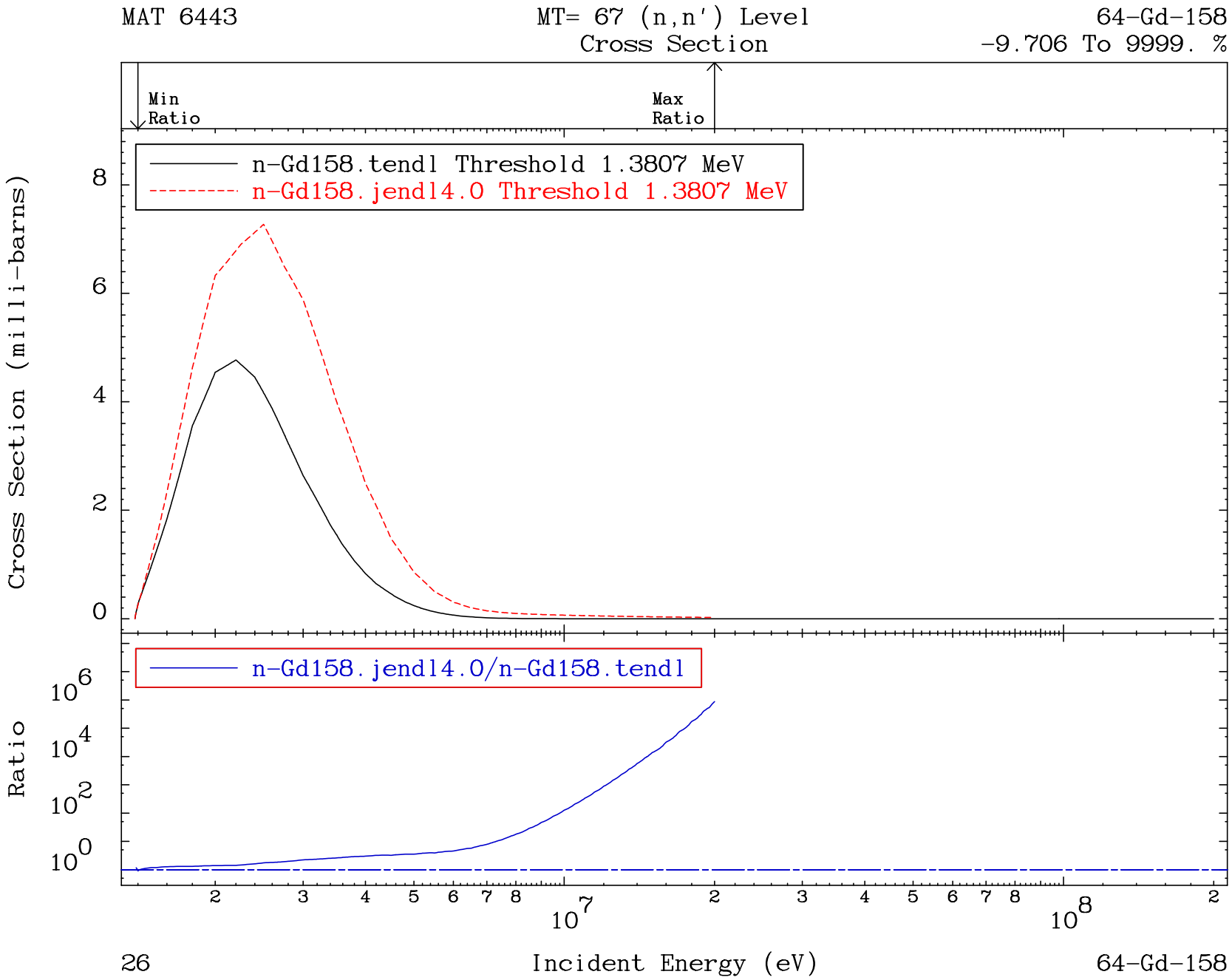

MAT 6443
MT= 62 (n,n') Level
Cross Section
64-Gd-158
-95.81 To 370.0 %
Max
Ratio
Min
Ratio
n-Gd158.tendl Threshold 1.2679 MeV
n-Gd158.jendl4.0 Threshold 1.2679 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^1
10^0
10^-1
2
3
4
5
6
7
8
10^7
10^8
21
Incident Energy (eV)
64-Gd-158

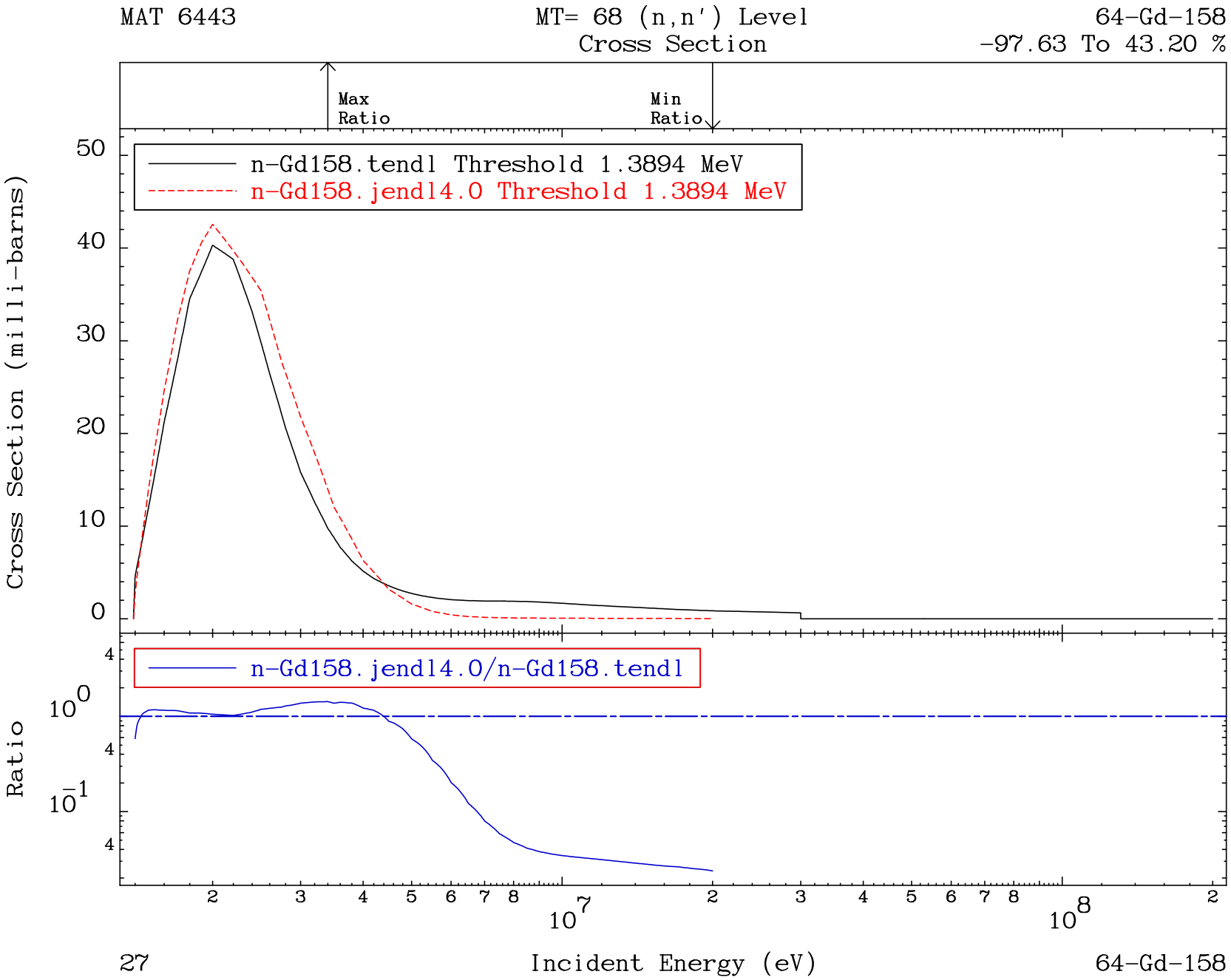

MAT 6443
MT= 63 (n,n') Level
Cross Section
64-Gd-158
-99.33 To 789.6 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 1.2716 MeV
n-Gd158.jendl4.0 Threshold 1.2716 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^1
10^0
10^-1
10^-2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
64-Gd-158

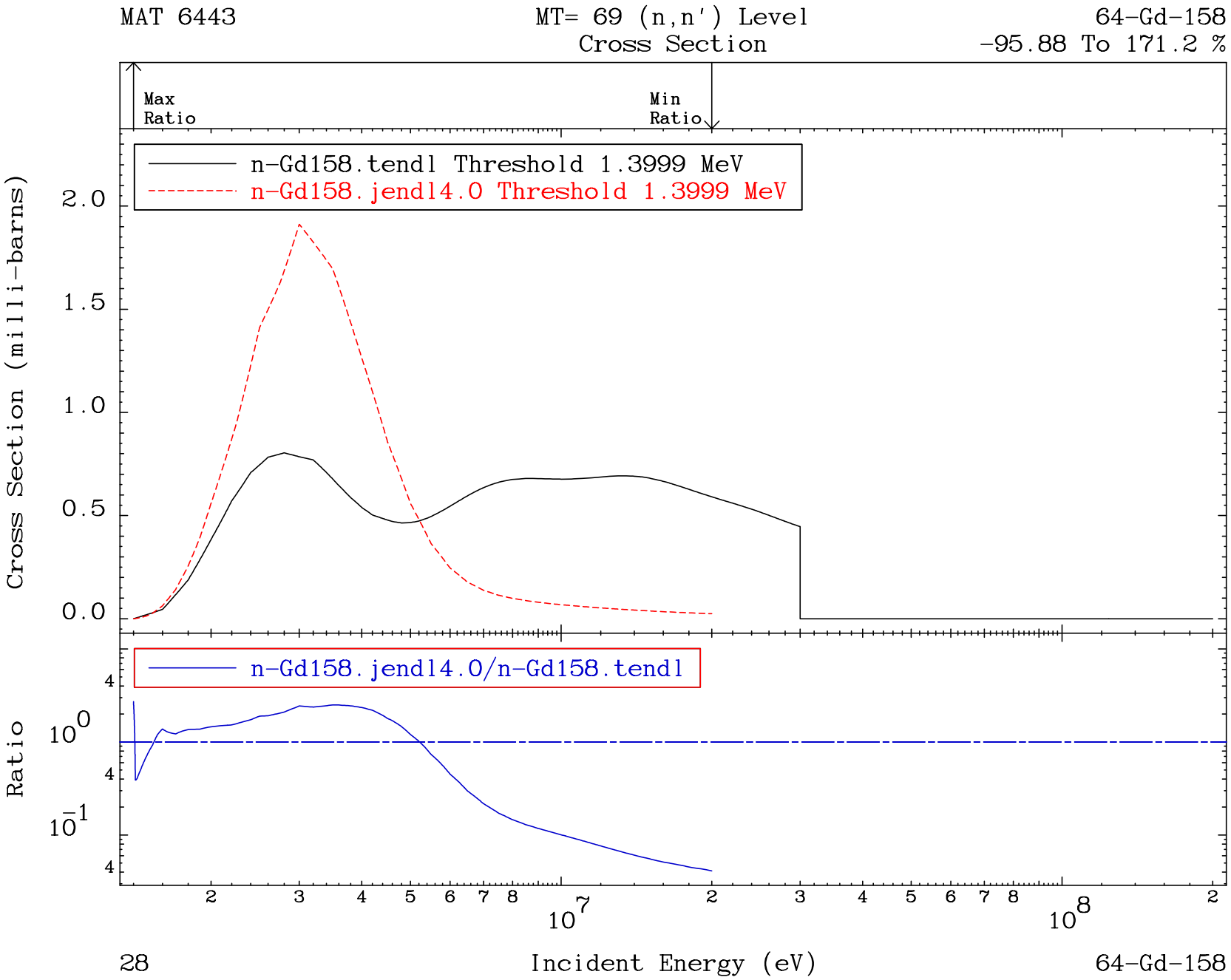

MAT 6443
MT= 64 (n,n') Level
Cross Section
64-Gd-158
-27.01 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 1.2736 MeV
n-Gd158.jendl4.0 Threshold 1.2736 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
64-Gd-158

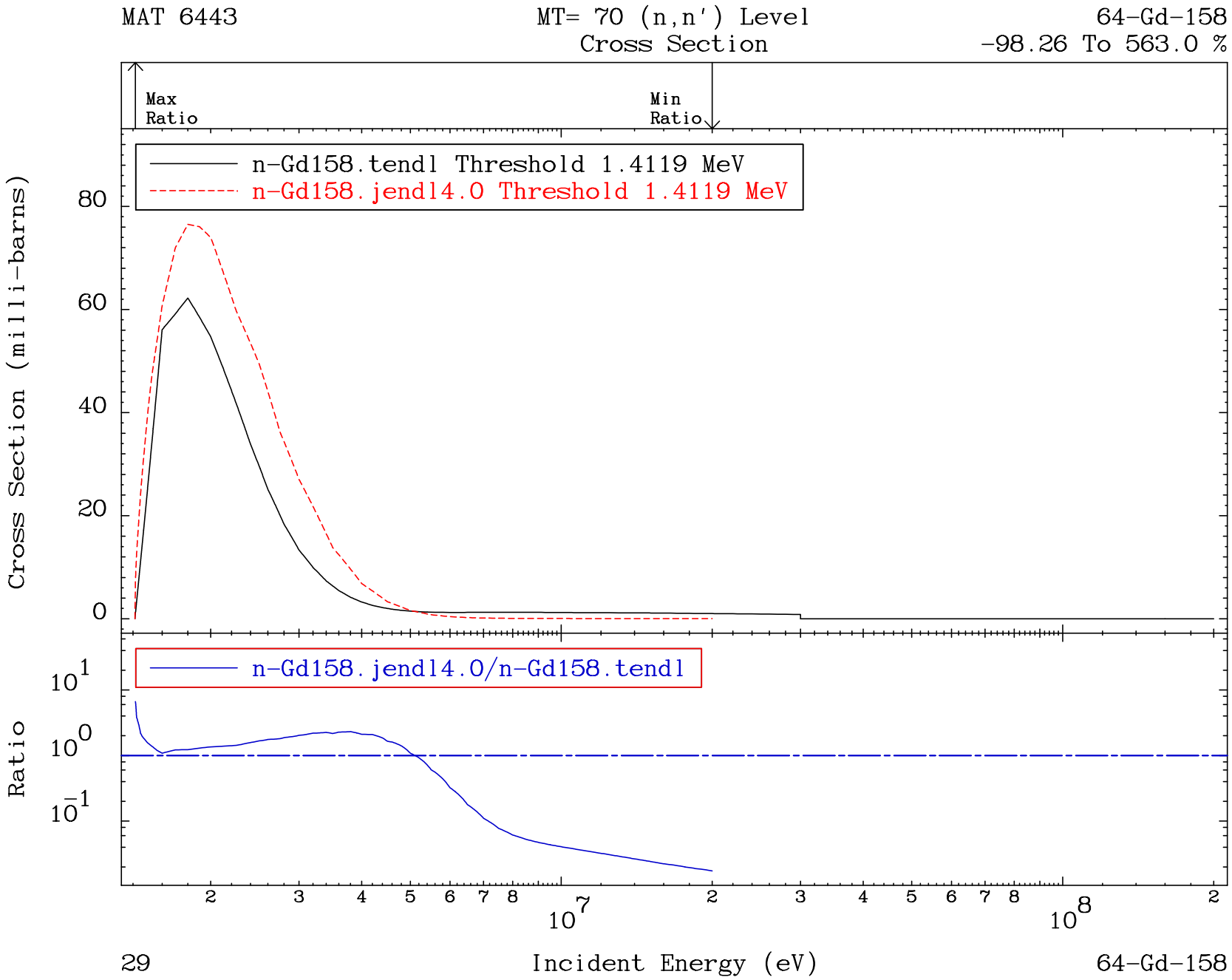

MAT 6443
MT= 65 (n,n') Level
Cross Section
64-Gd-158
-98.19 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 1.3586 MeV
n-Gd158.jendl4.0 Threshold 1.3672 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^2
10^0
10^-2
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
24
Incident Energy (eV)
64-Gd-158

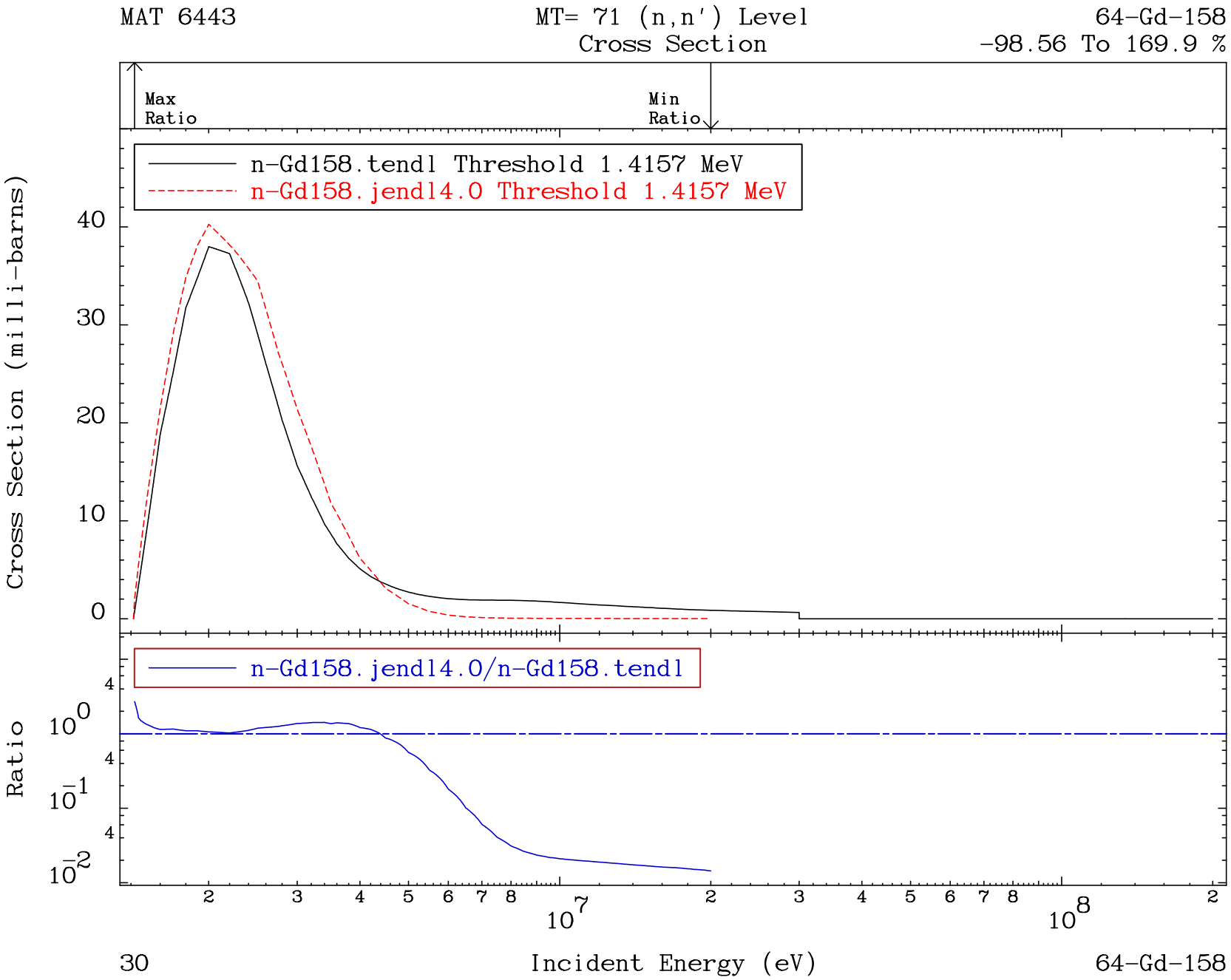

MAT 6443
MT= 66 (n,n') Level
Cross Section
64-Gd-158
-97.37 To 43.76 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 1.3671 MeV
n-Gd158.jendl4.0 Threshold 1.3671 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^-1
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
25
Incident Energy (eV)
64-Gd-158

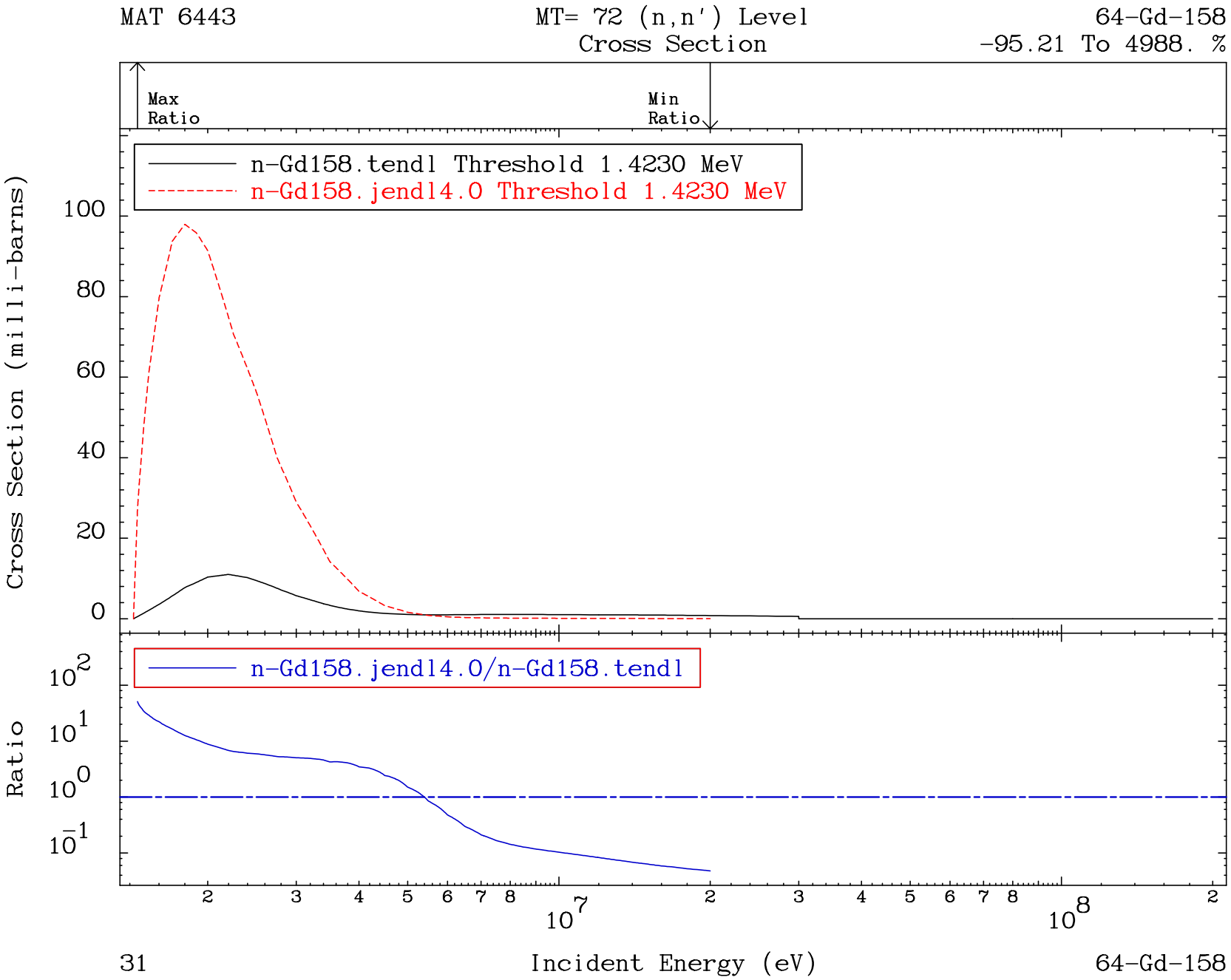

MAT 6443
MT= 67 (n,n') Level
Cross Section
64-Gd-158
-9.706 To 9999. %
Min
Ratio
Max
Ratio
n-Gd158.tendl Threshold 1.3807 MeV
n-Gd158.jendl4.0 Threshold 1.3807 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^2
10^4
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
26
Incident Energy (eV)
64-Gd-158

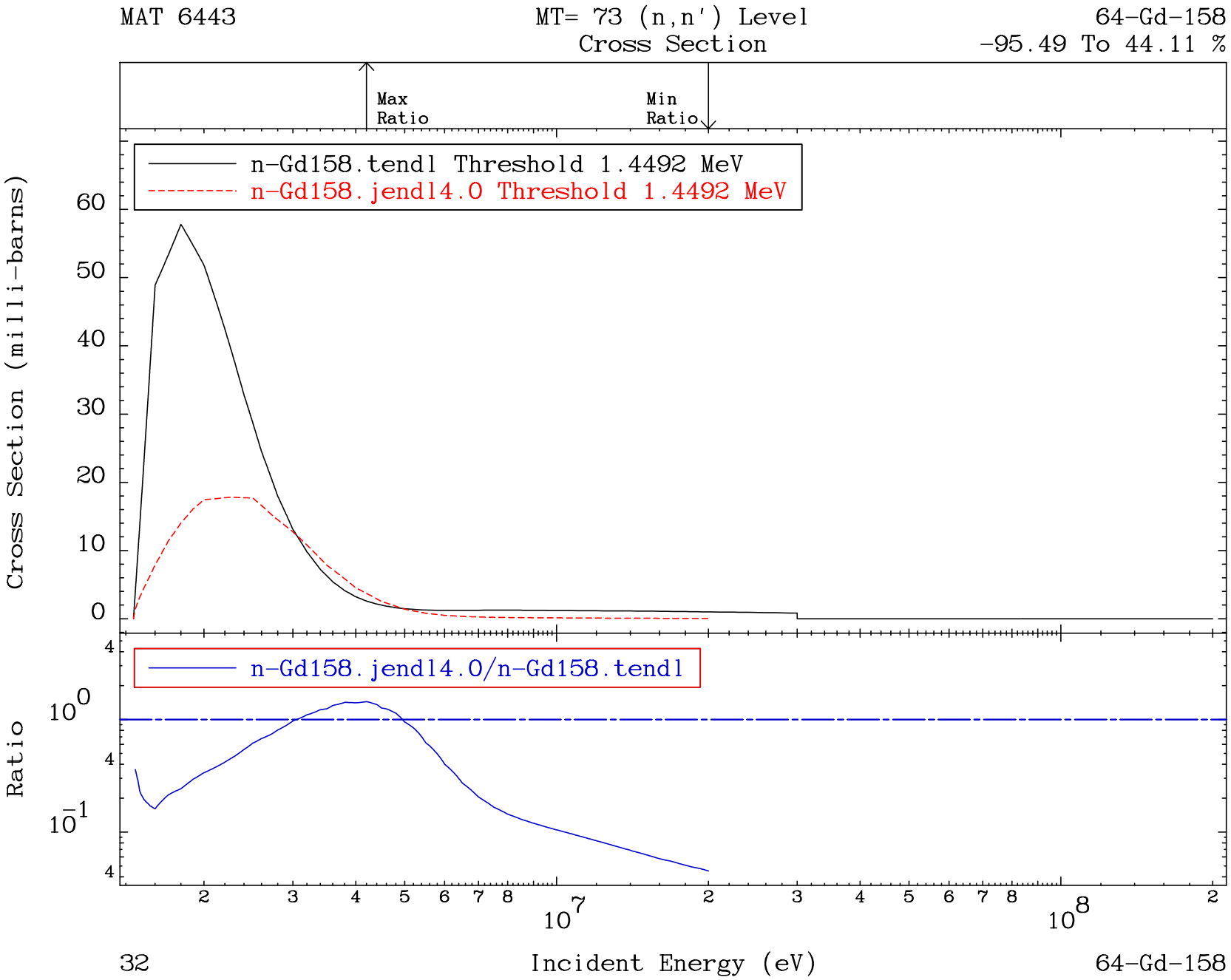

MAT 6443
MT= 68 (n,n') Level
Cross Section
64-Gd-158
-97.63 To 43.20 %
Max
Ratio
Min
Ratio
n-Gd158.tendl Threshold 1.3894 MeV
n-Gd158.jendl4.0 Threshold 1.3894 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^-1
2
3
4
5
6
7
8
10^7
10^8
27
Incident Energy (eV)
64-Gd-158

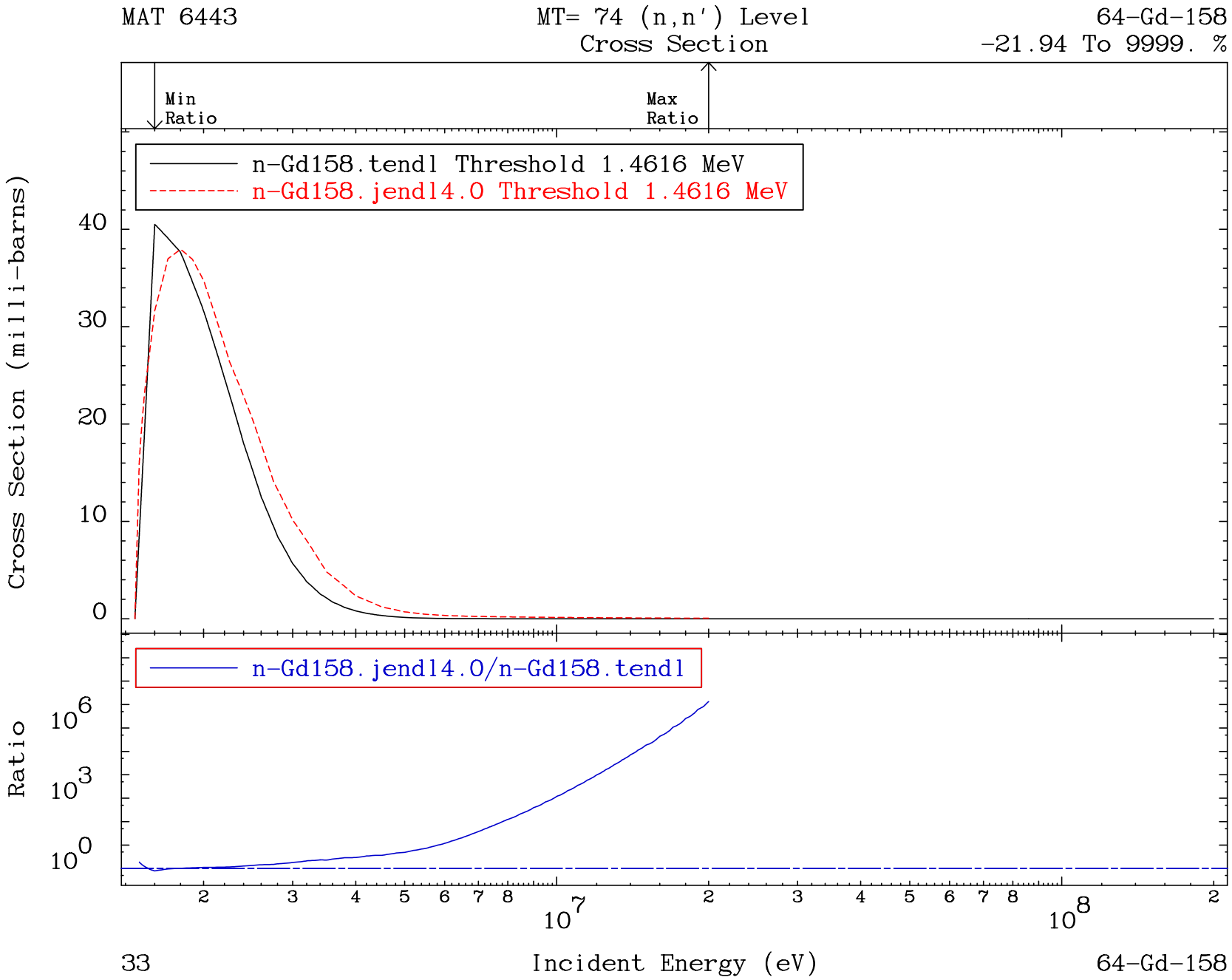

MAT 6443
MT= 69 (n,n') Level
Cross Section
64-Gd-158
-95.88 To 171.2 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 1.3999 MeV
n-Gd158.jendl4.0 Threshold 1.3999 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^-1
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
28
Incident Energy (eV)
64-Gd-158

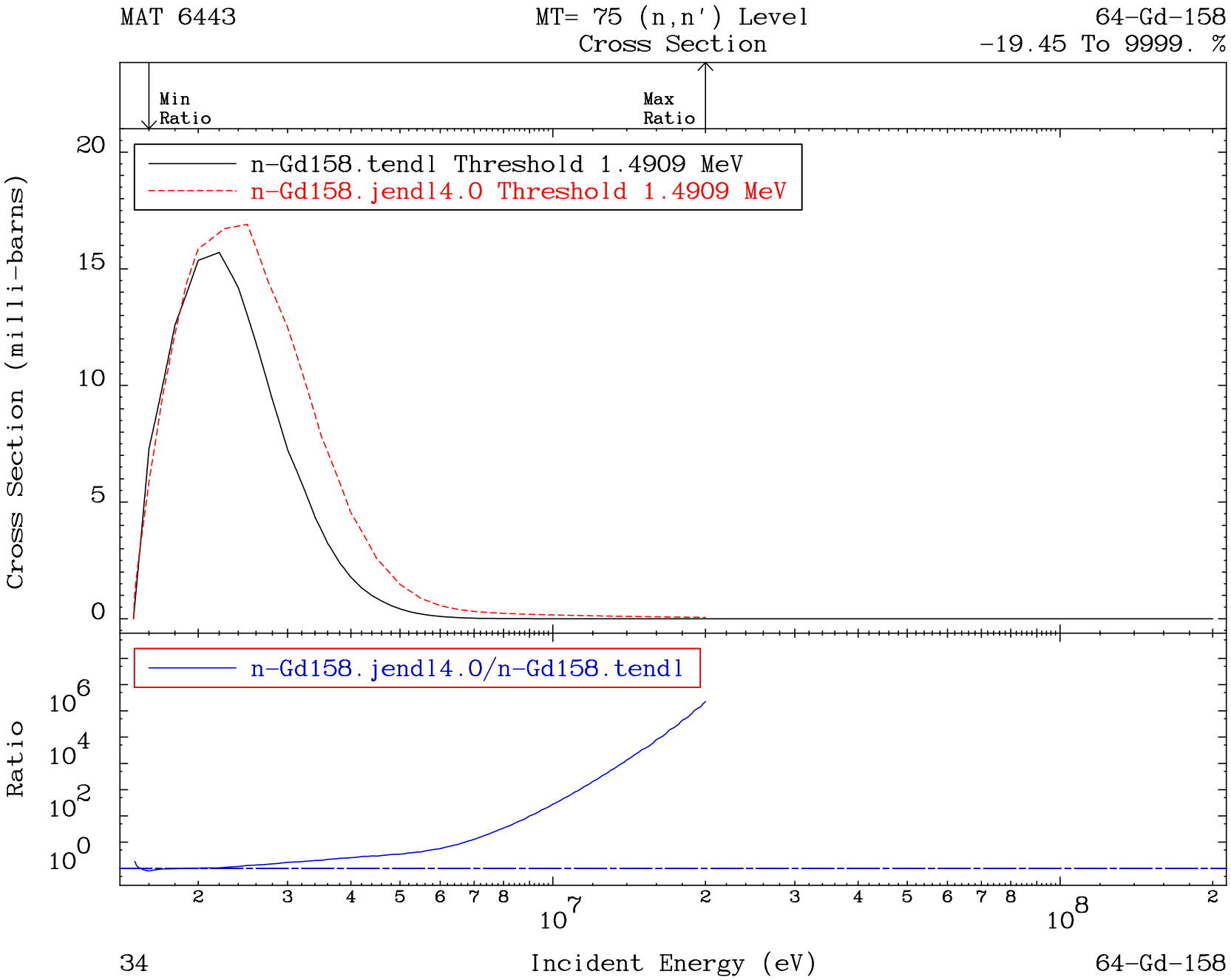

MAT 6443
MT= 70 (n,n') Level
Cross Section
64-Gd-158
-98.26 To 563.0 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 1.4119 MeV
n-Gd158.jendl4.0 Threshold 1.4119 MeV
Cross Section (milli-barns)
0
20
40
60
80
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^{1}
10^{0}
10^{-1}
2 3 4 5 6 7 8 10^{7} 2 3 4 5 6 7 8 10^{8} 2
29
Incident Energy (eV)
64-Gd-158

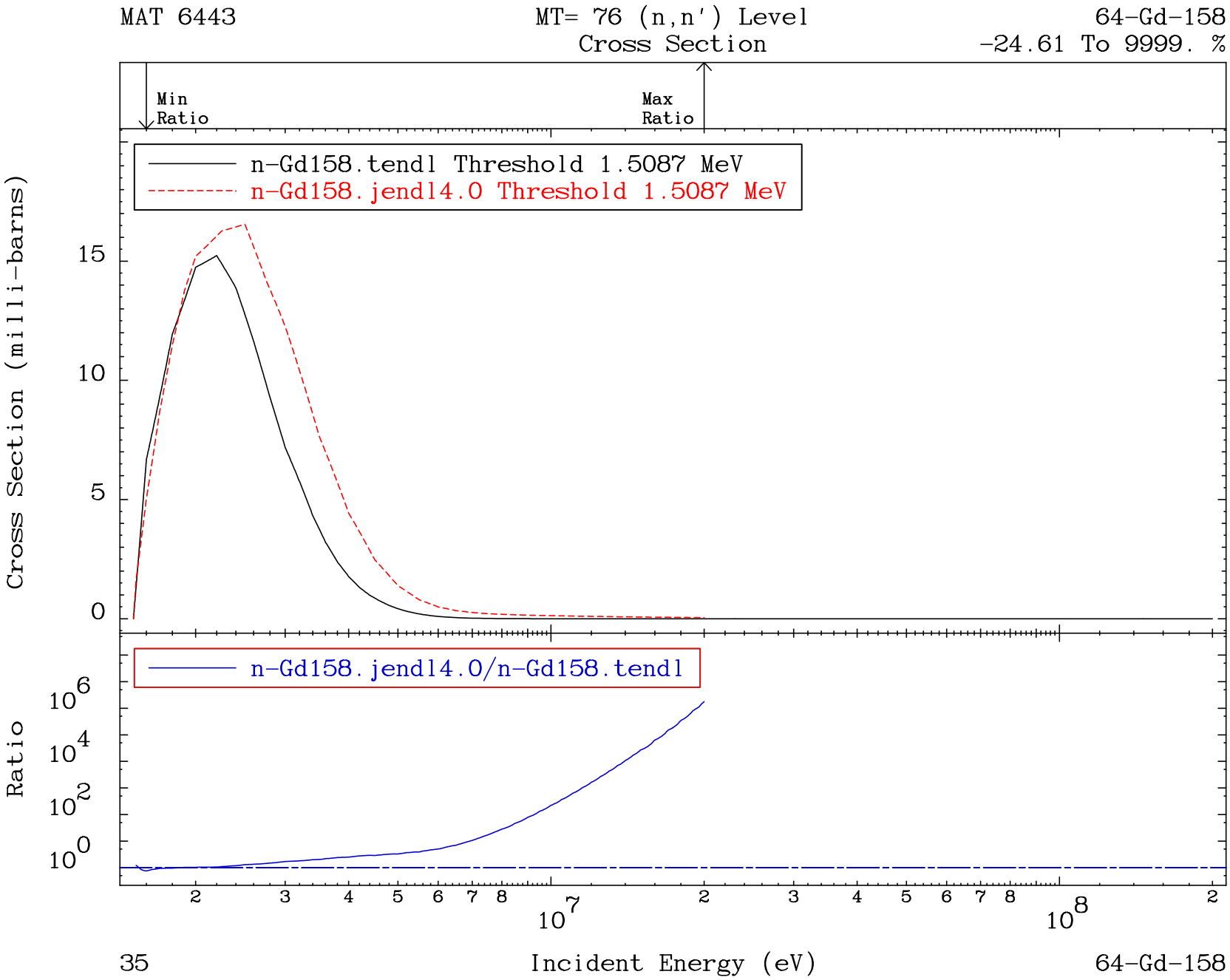

MAT 6443
MT= 71 (n,n') Level
Cross Section
64-Gd-158
-98.56 To 169.9 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 1.4157 MeV
n-Gd158.jendl4.0 Threshold 1.4157 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^-1
10^-2
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
30
Incident Energy (eV)
64-Gd-158

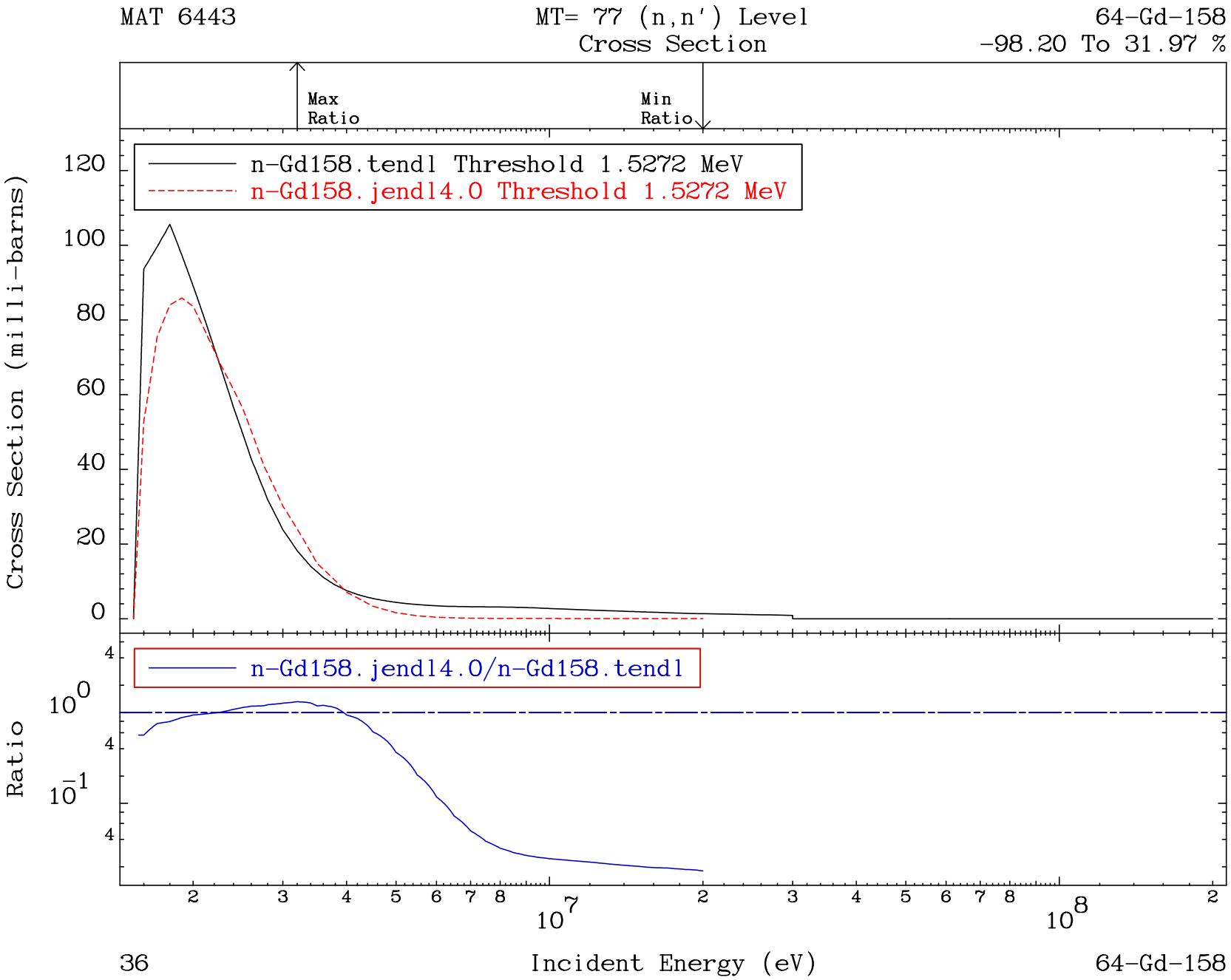

MAT 6443
MT= 72 (n,n') Level
Cross Section
64-Gd-158
-95.21 To 4988. %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 1.4230 MeV
n-Gd158.jendl4.0 Threshold 1.4230 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^2
10^1
10^0
10^-1
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
64-Gd-158

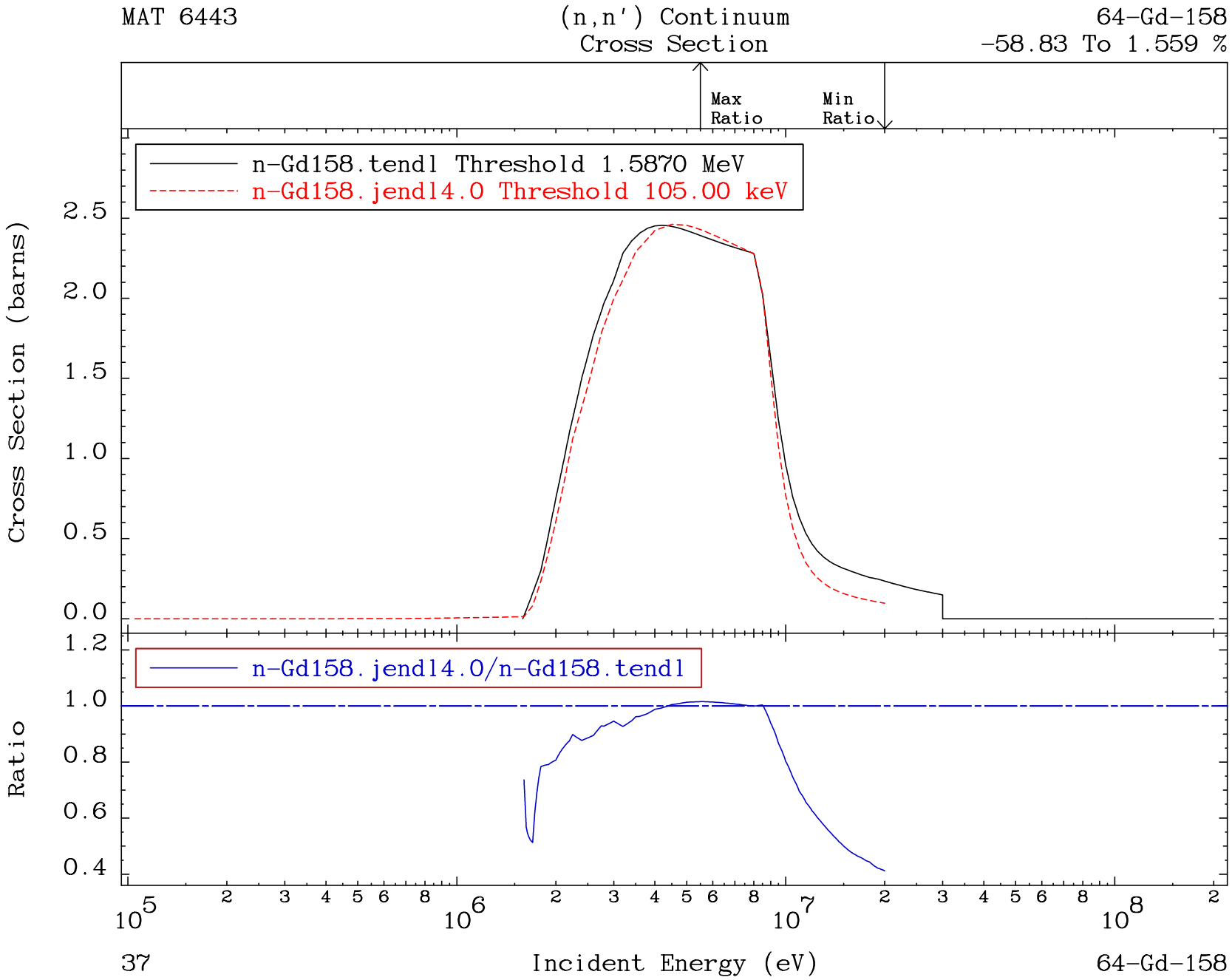

MAT 6443
MT= 73 (n,n') Level
Cross Section
64-Gd-158
-95.49 To 44.11 %
Max
Ratio
Min
Ratio
n-Gd158.tendl Threshold 1.4492 MeV
n-Gd158.jendl4.0 Threshold 1.4492 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^0
10^-1
4
2
3
4
5
6
7
8
10^7
10^8
32
Incident Energy (eV)
64-Gd-158

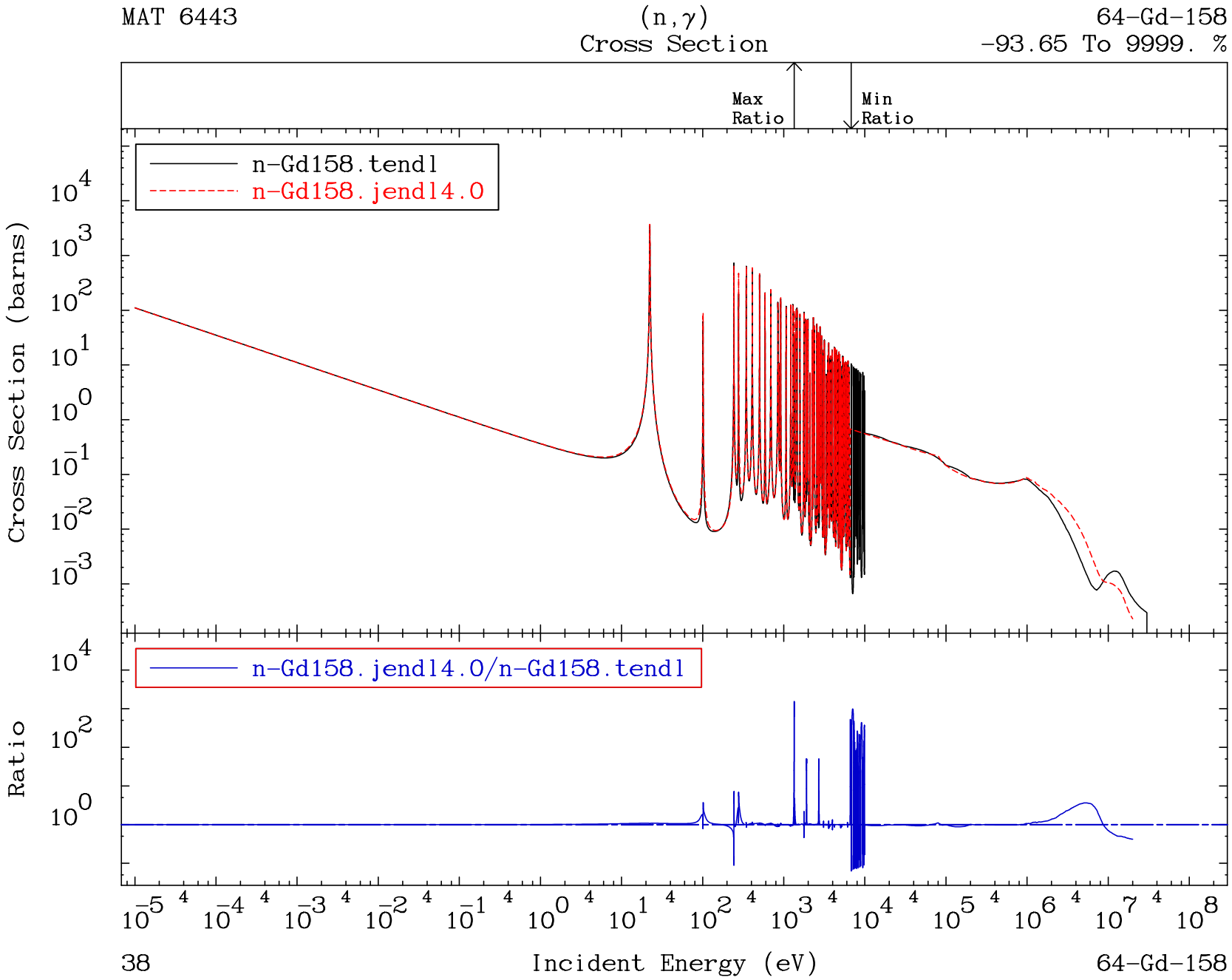

MAT 6443
MT= 74 (n,n') Level
Cross Section
64-Gd-158
-21.94 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 1.4616 MeV
n-Gd158.jendl4.0 Threshold 1.4616 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
33
Incident Energy (eV)
64-Gd-158

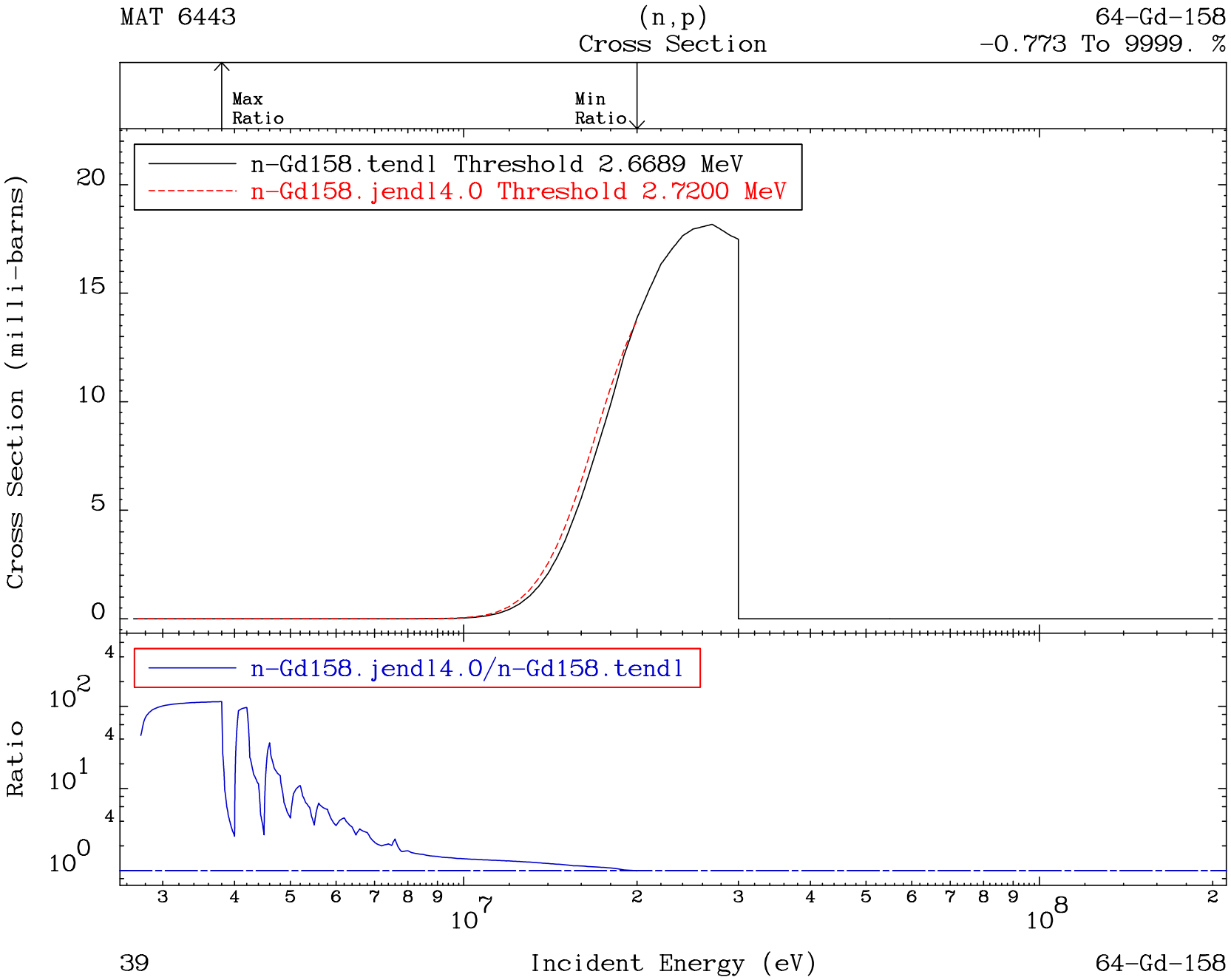

MAT 6443
MT= 75 (n,n') Level
Cross Section
64-Gd-158
-19.45 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 1.4909 MeV
n-Gd158.jendl4.0 Threshold 1.4909 MeV
Cross Section (milli-barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
34
64-Gd-158

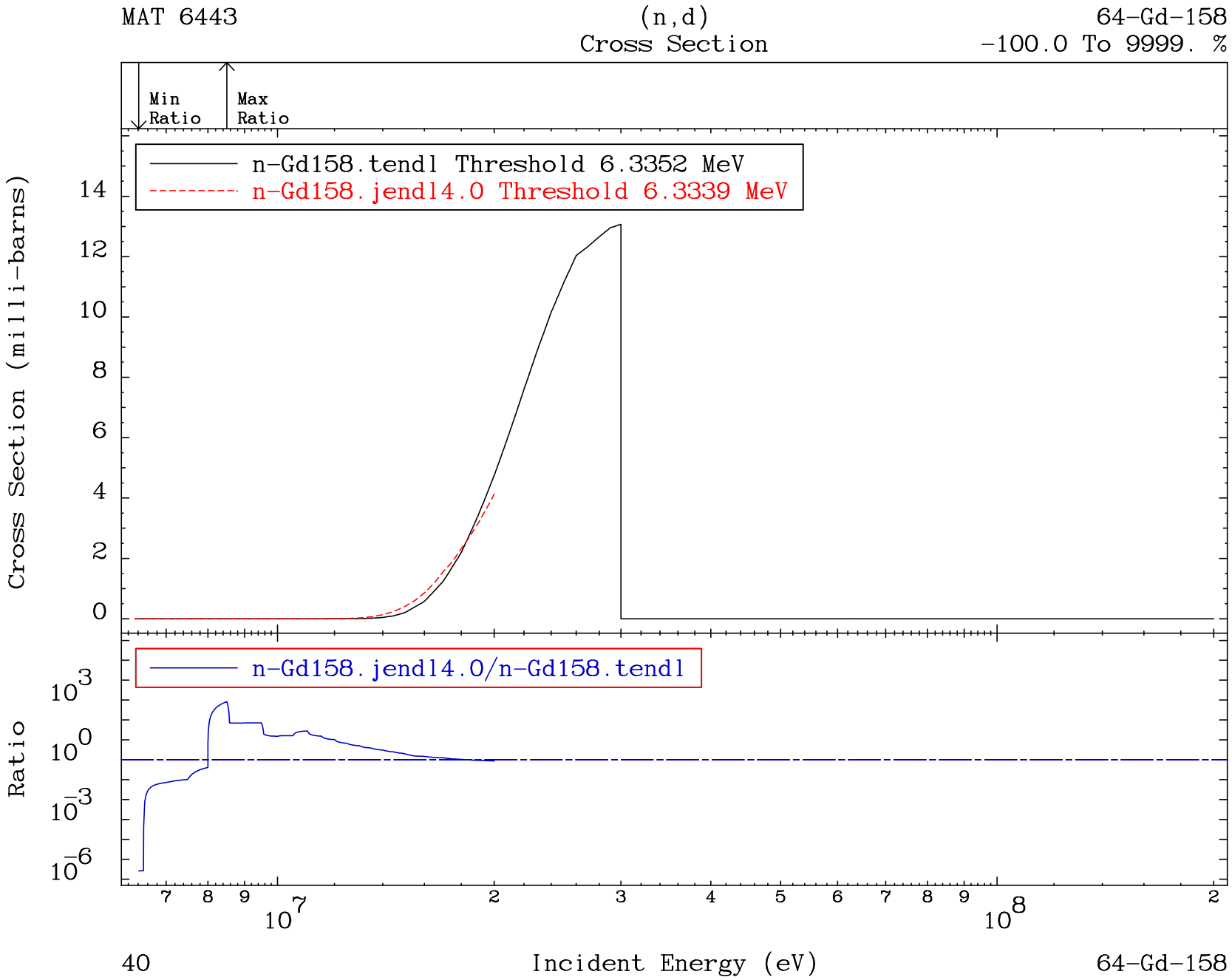

MAT 6443
MT= 76 (n,n') Level
Cross Section
64-Gd-158
-24.61 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 1.5087 MeV
n-Gd158.jendl4.0 Threshold 1.5087 MeV
Cross Section (milli-barns)
15
10
5
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
35
Incident Energy (eV)
64-Gd-158

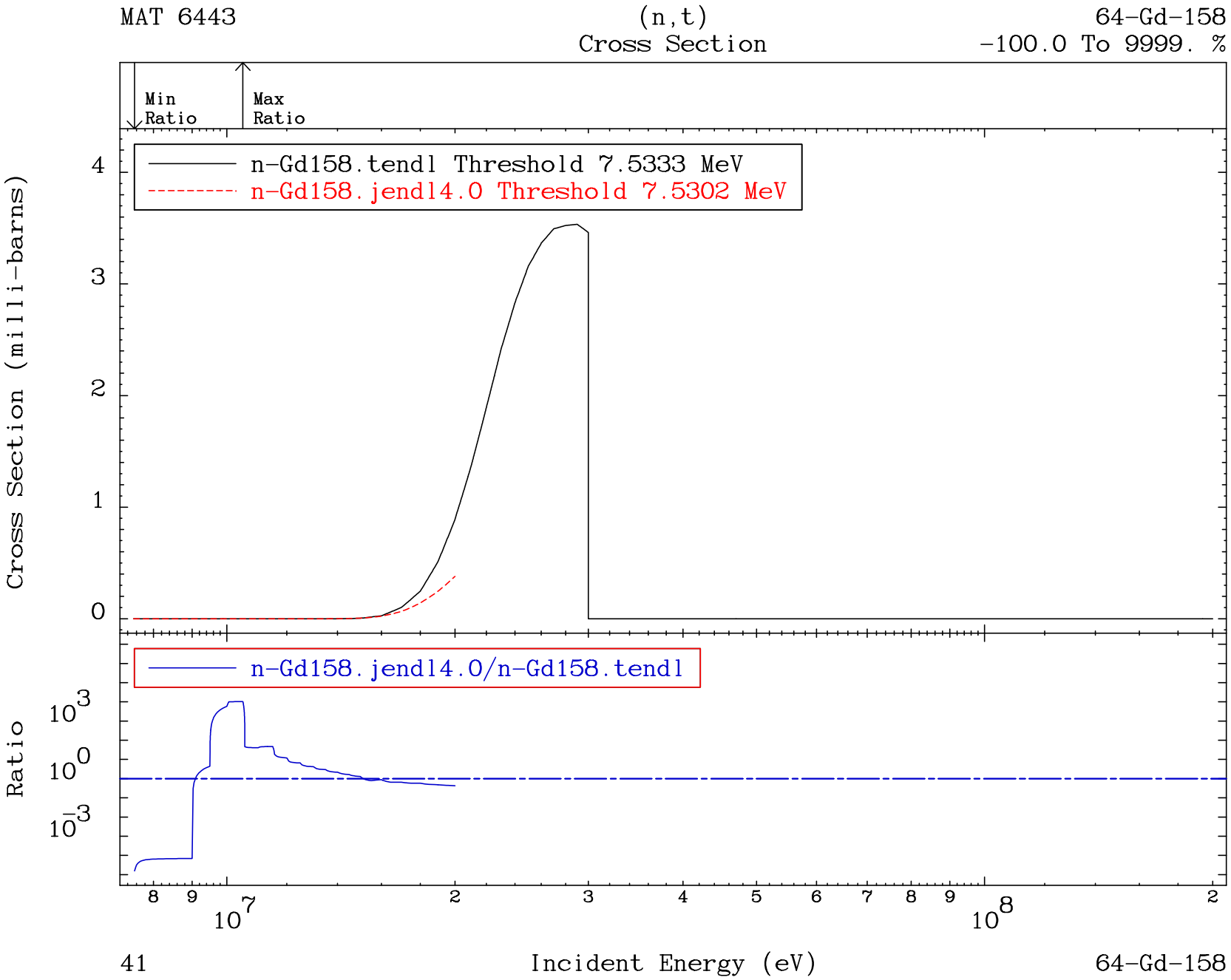

MAT 6443
MT= 77 (n,n') Level
Cross Section
64-Gd-158
-98.20 To 31.97 %
Max
Ratio
Min
Ratio
n-Gd158.tendl Threshold 1.5272 MeV
n-Gd158.jendl4.0 Threshold 1.5272 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^{0}
10^{-1}
4
2
3
4
5
6
7
8
10^{7}
10^{8}
36
Incident Energy (eV)
64-Gd-158

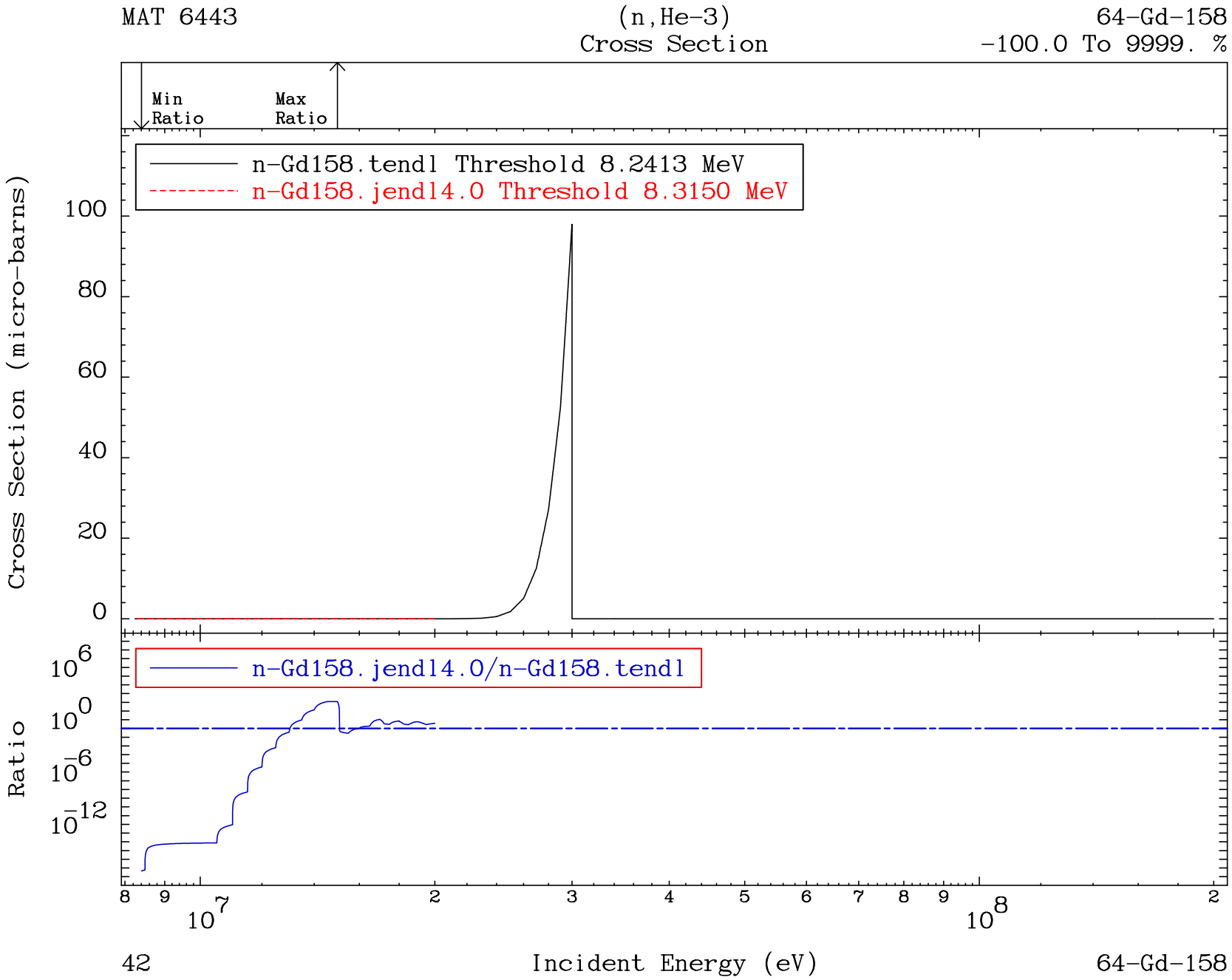

MAT 6443
(n,n') Continuum
Cross Section
64-Gd-158
-58.83 To 1.559 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 1.5870 MeV
n-Gd158.jendl4.0 Threshold 105.00 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
1.2
1.0
0.8
0.6
0.4
10^5
2 3 4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
37
Incident Energy (eV)
64-Gd-158

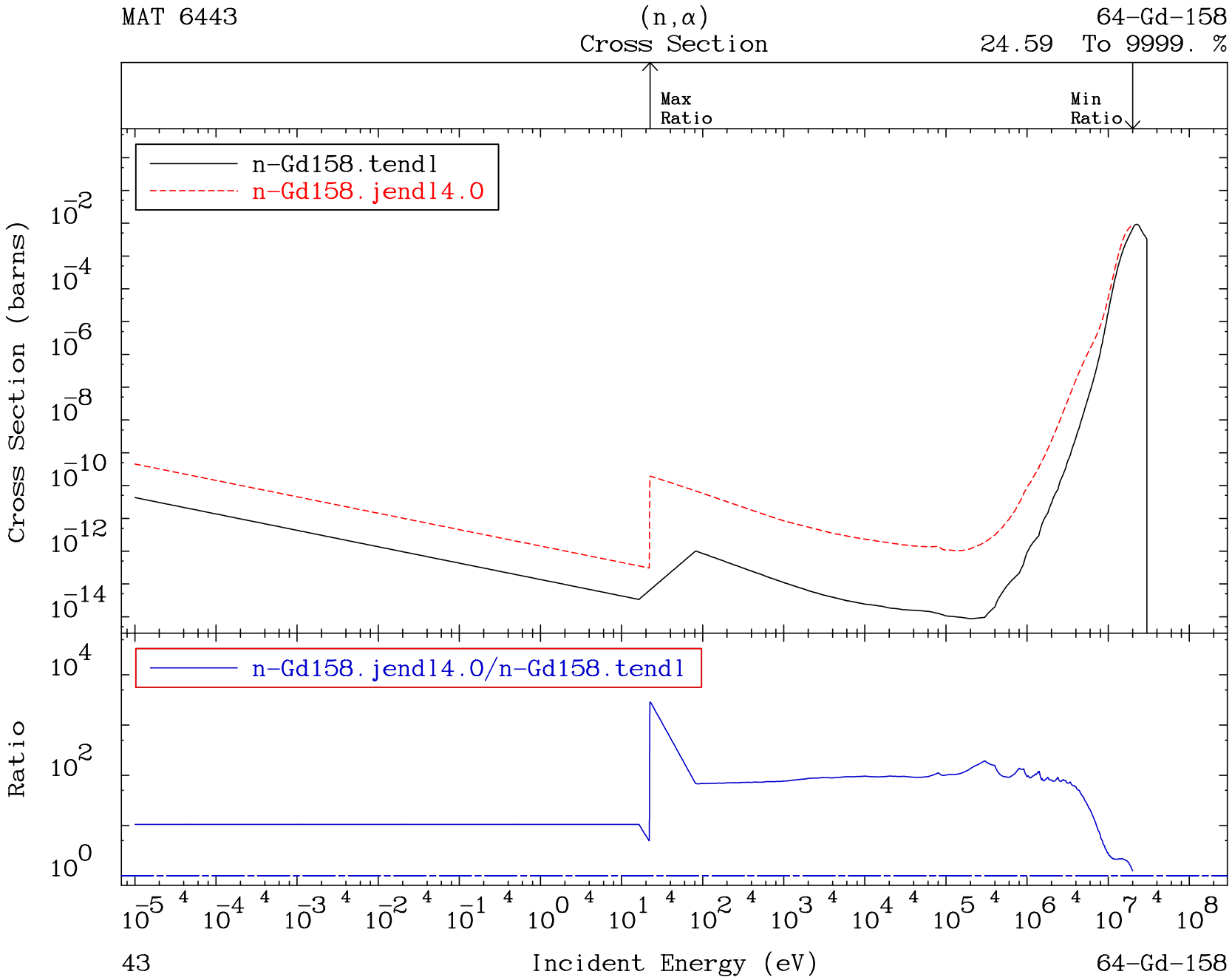

MAT 6443
(n,γ)
Cross Section
64-Gd-158
-93.65 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
38
64-Gd-158

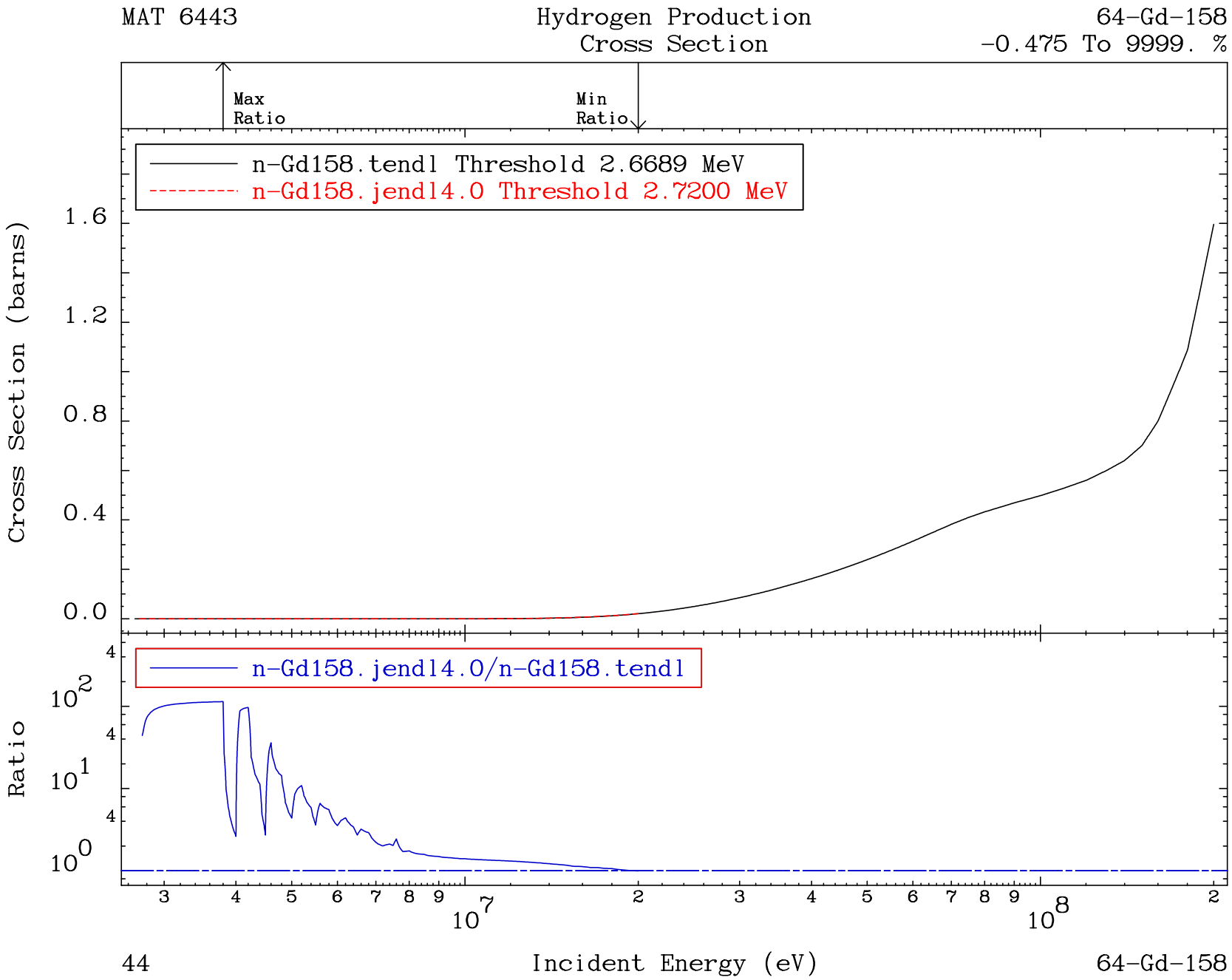

MAT 6443
(n,p)
Cross Section
64-Gd-158
-0.773 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 2.6689 MeV
n-Gd158.jendl4.0 Threshold 2.7200 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
39
Incident Energy (eV)
64-Gd-158

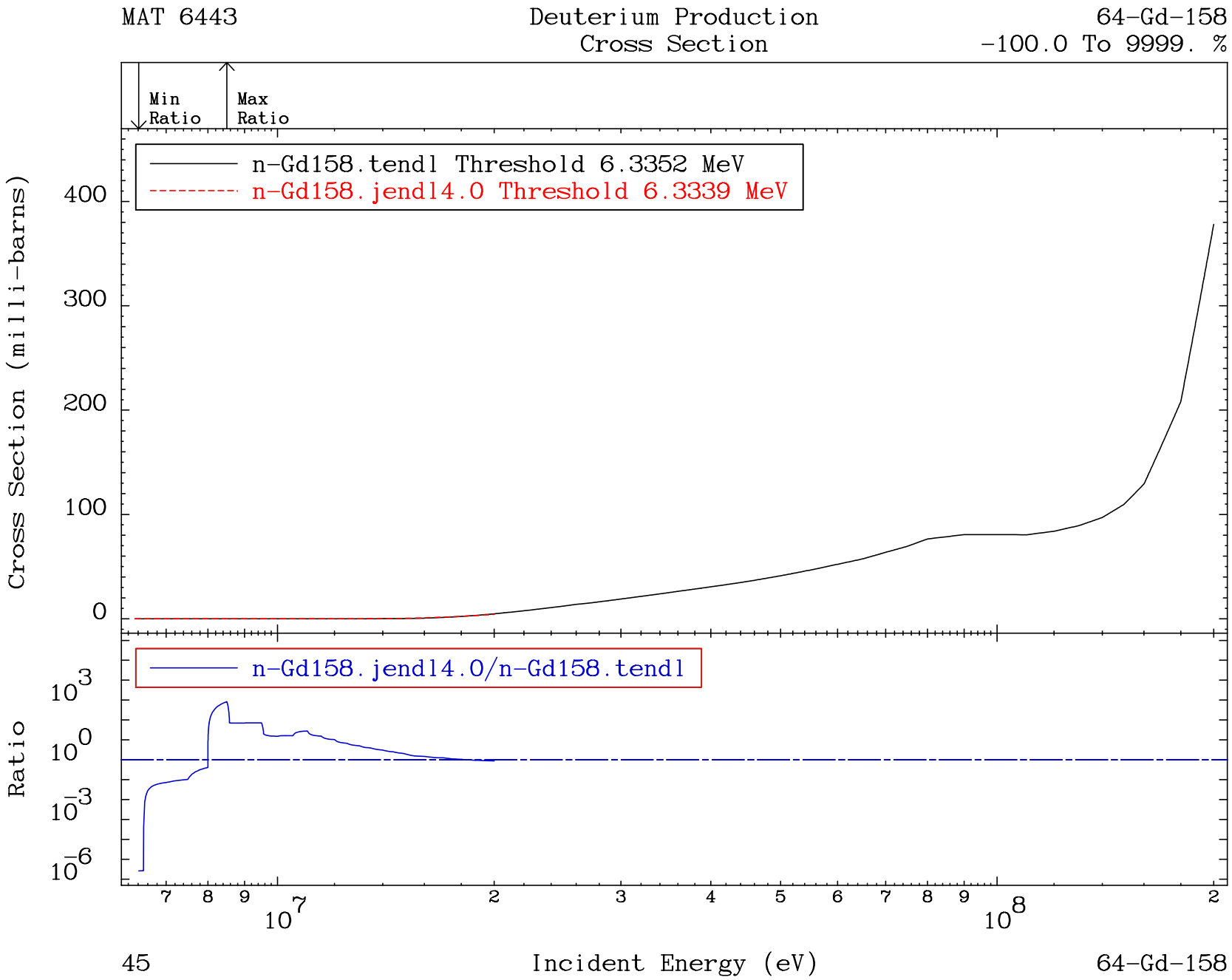

MAT 6443
(n,d)
Cross Section
64-Gd-158
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 6.3352 MeV
n-Gd158.jendl4.0 Threshold 6.3339 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^3
10^0
10^-3
10^-6
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
64-Gd-158

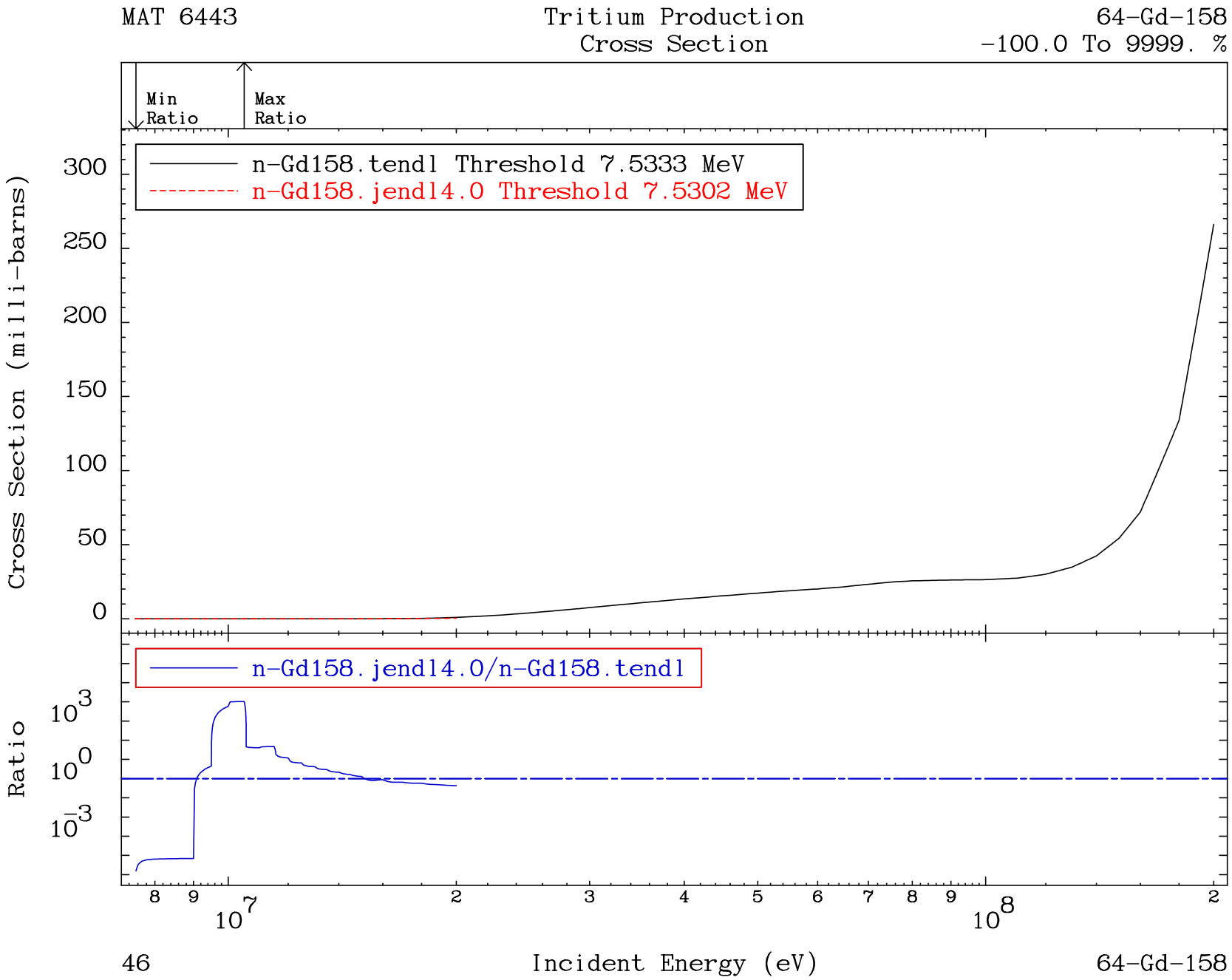

MAT 6443
(n,t)
Cross Section
64-Gd-158
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 7.5333 MeV
n-Gd158.jendl4.0 Threshold 7.5302 MeV
Cross Section (milli-barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
41
64-Gd-158

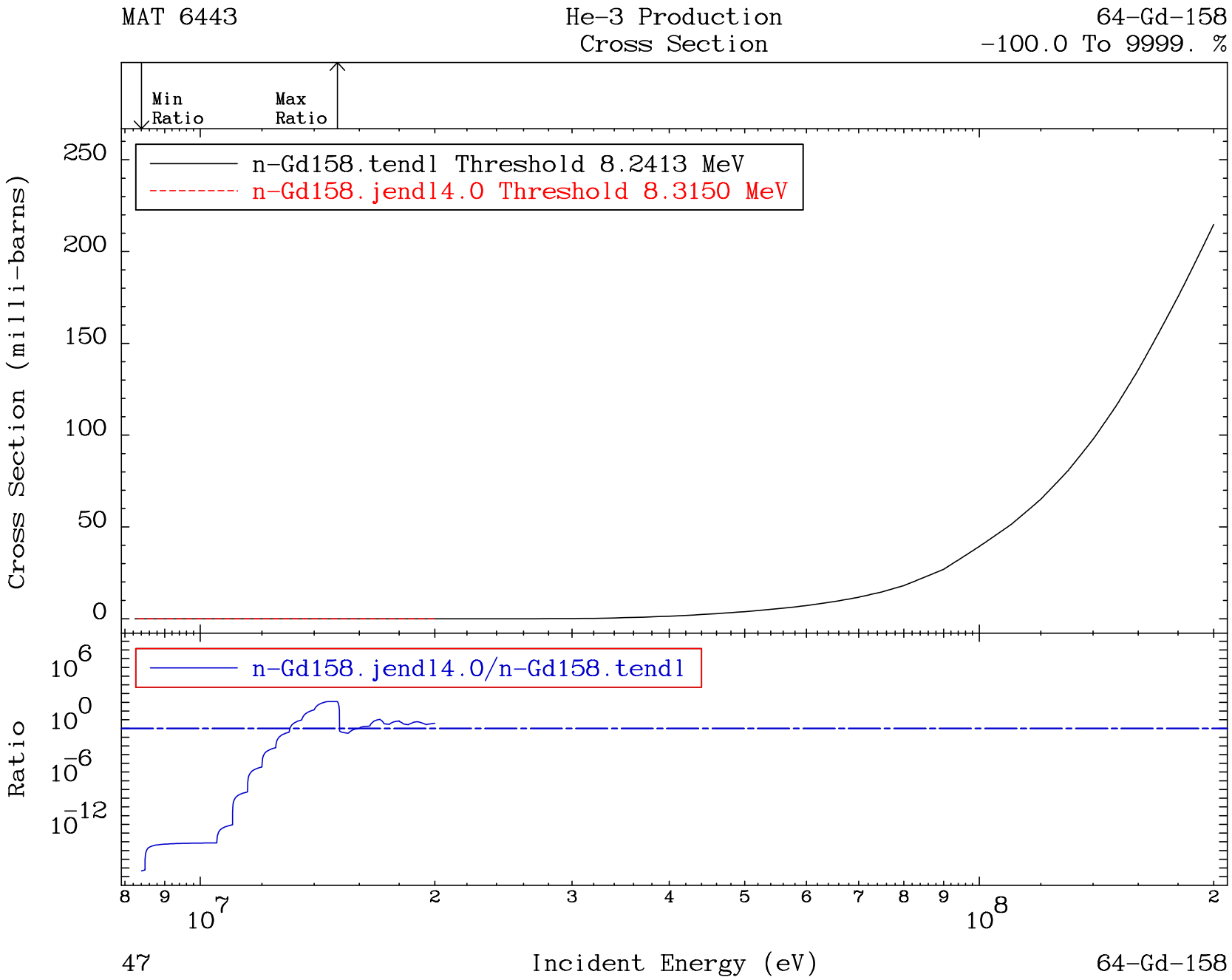

MAT 6443
(n,He-3)
Cross Section
64-Gd-158
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 8.2413 MeV
n-Gd158.jendl4.0 Threshold 8.3150 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^6
10^0
10^-6
10^-12
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
42
Incident Energy (eV)
64-Gd-158

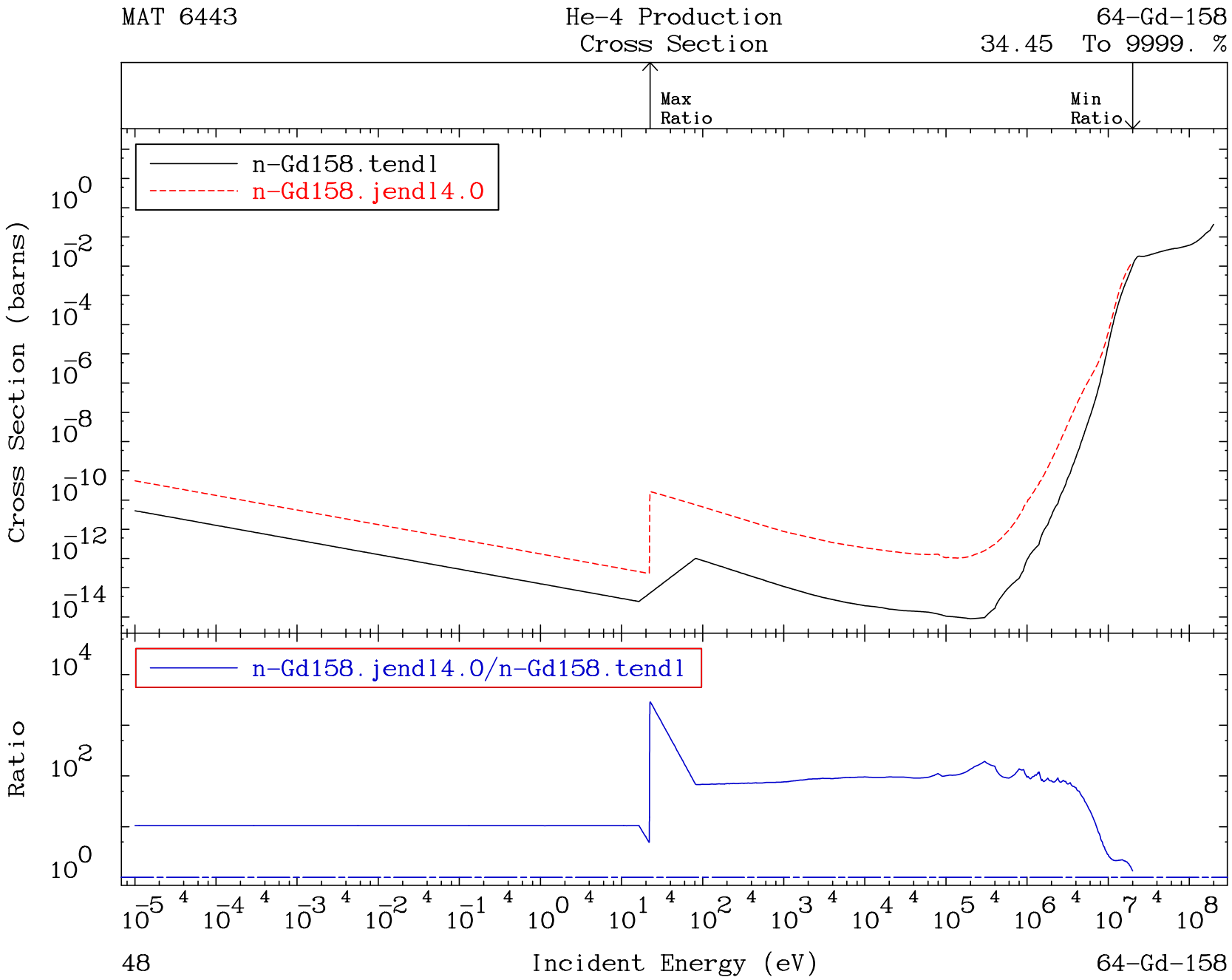

MAT 6443
(n,α)
Cross Section
64-Gd-158
24.59 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
43
64-Gd-158

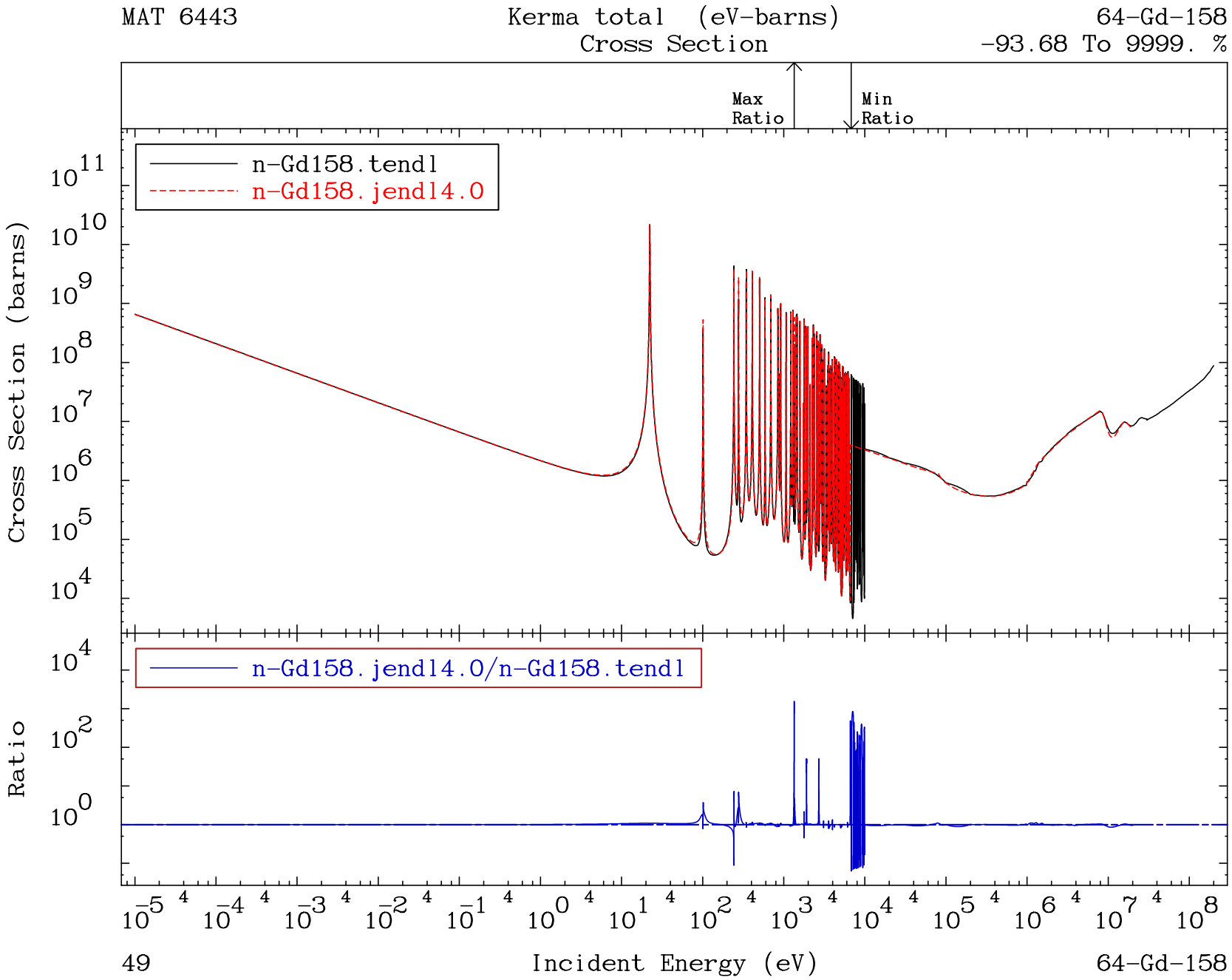

MAT 6443
Hydrogen Production
Cross Section
64-Gd-158
-0.475 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 2.6689 MeV
n-Gd158.jendl4.0 Threshold 2.7200 MeV
Cross Section (barns)
1.6
1.2
0.8
0.4
0.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
64-Gd-158

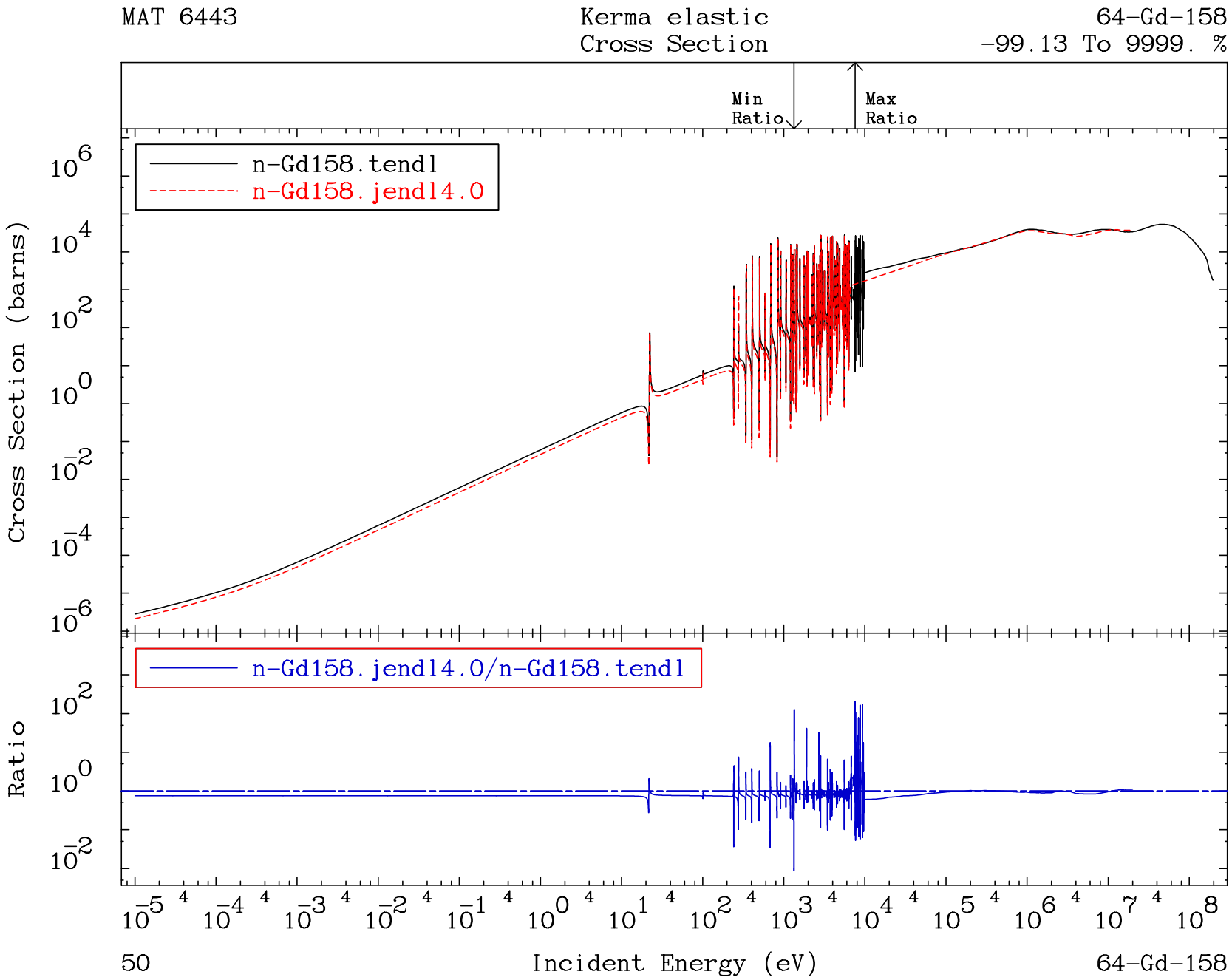

MAT 6443
Deuterium Production
Cross Section
64-Gd-158
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 6.3352 MeV
n-Gd158.jendl4.0 Threshold 6.3339 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^3
10^0
10^-3
10^-6
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
64-Gd-158

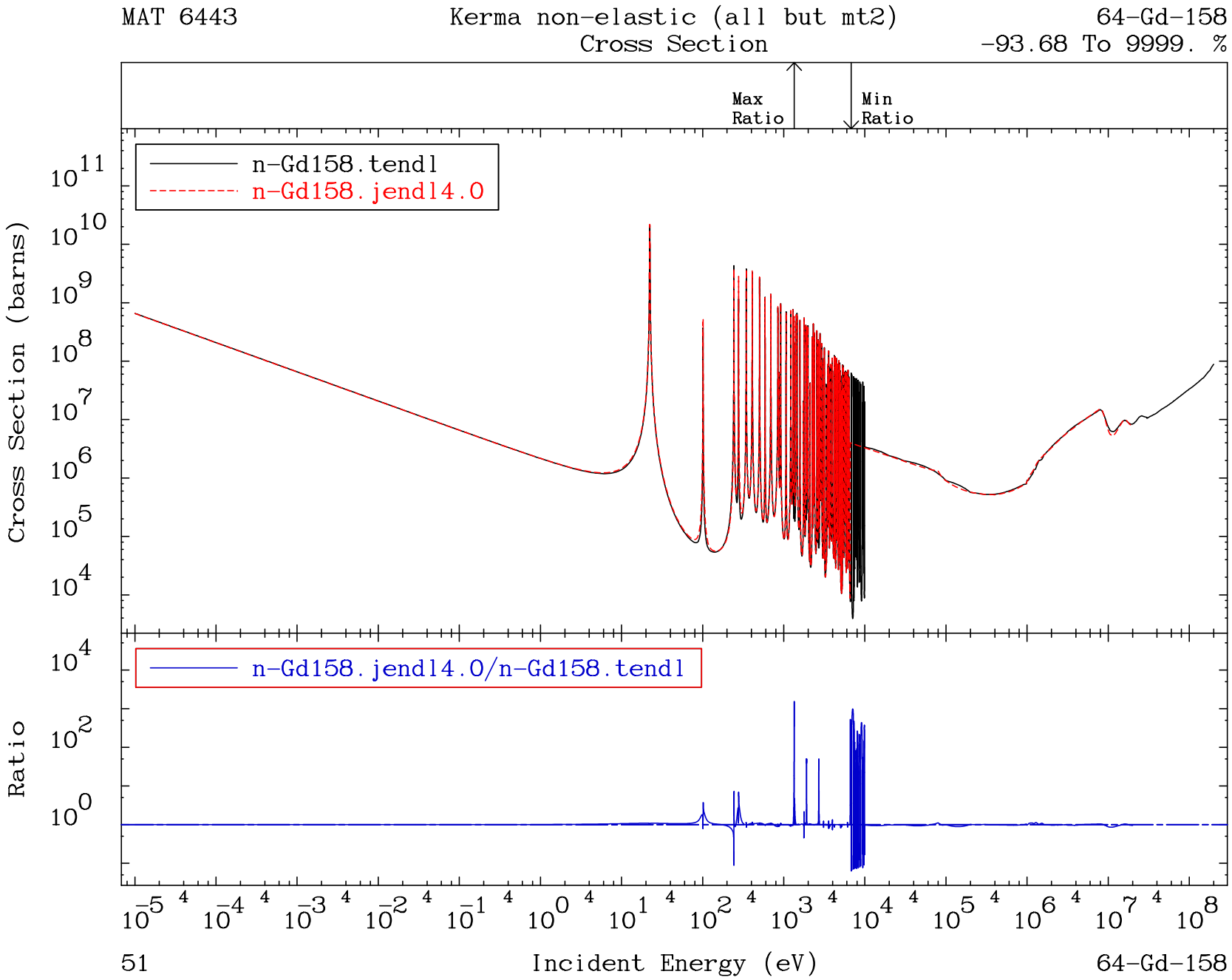

MAT 6443
Tritium Production
Cross Section
64-Gd-158
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 7.5333 MeV
n-Gd158.jendl4.0 Threshold 7.5302 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^3
10^0
10^-3
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
64-Gd-158

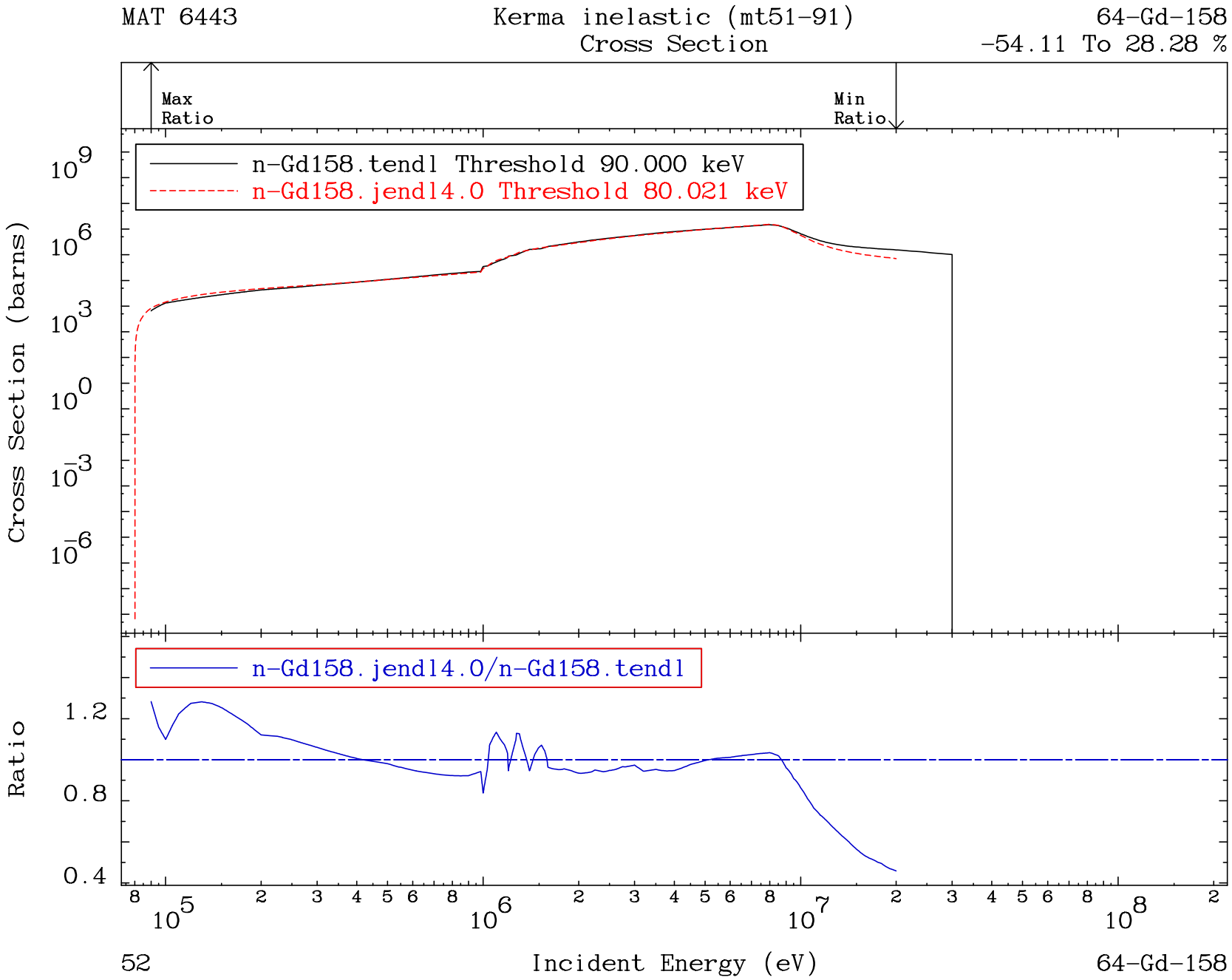

MAT 6443
He-3 Production
Cross Section
64-Gd-158
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 8.2413 MeV
n-Gd158.jendl4.0 Threshold 8.3150 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
10^6
10^0
10^-6
10^-12
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
47
Incident Energy (eV)
64-Gd-158

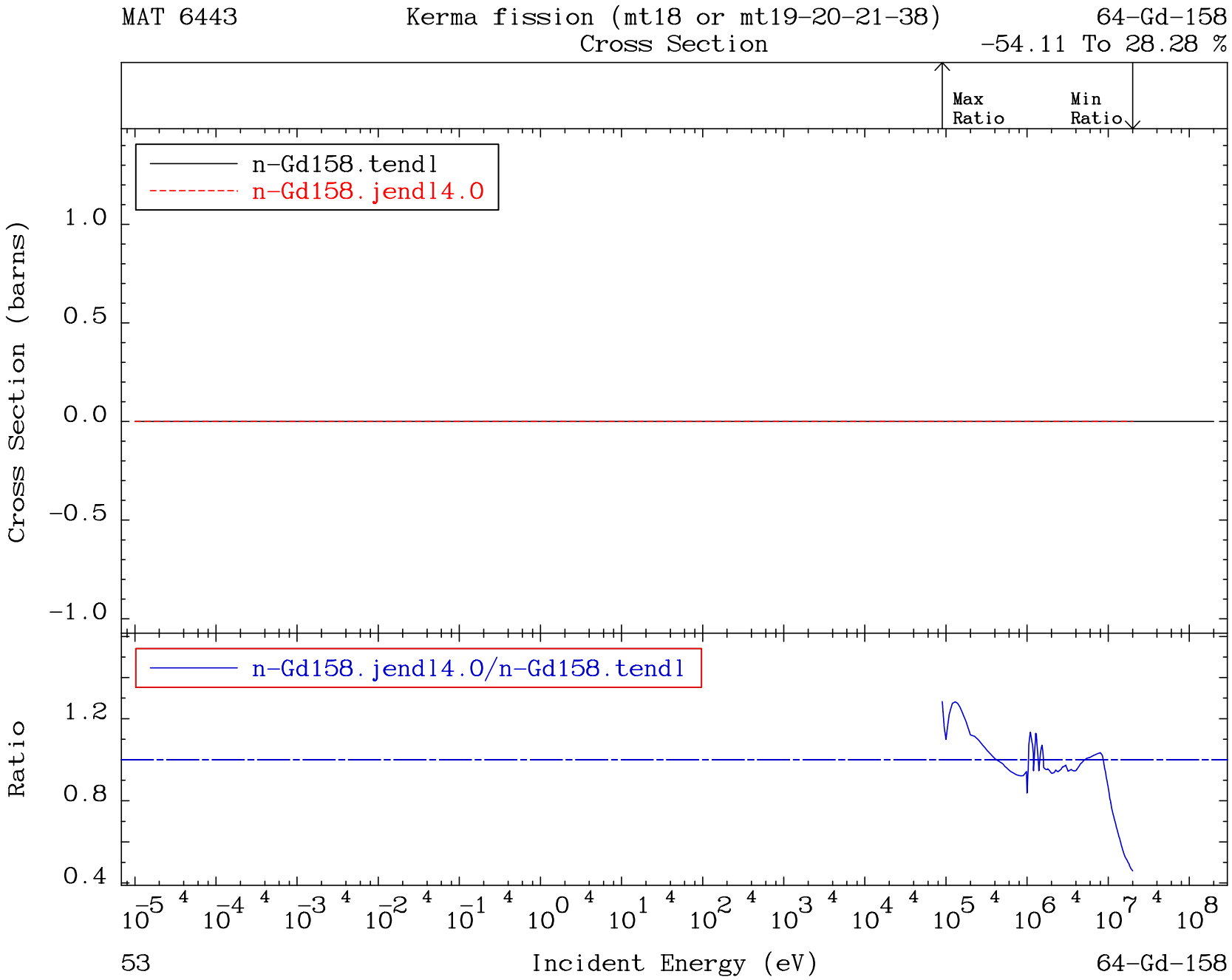

MAT 6443
He-4 Production
Cross Section
64-Gd-158
34.45 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
48
64-Gd-158

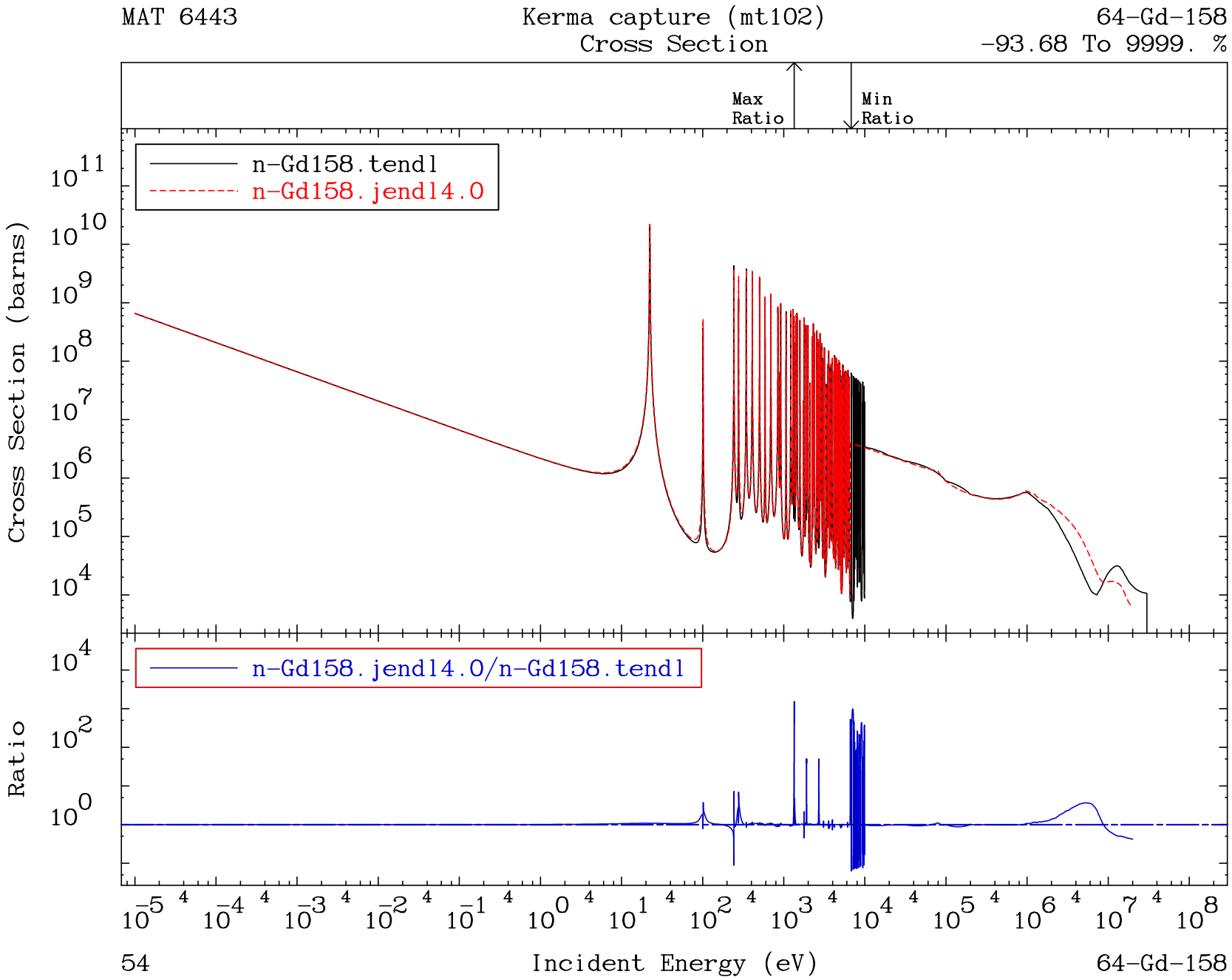

MAT 6443
Kerma total (eV-barns)
Cross Section
64-Gd-158
-93.68 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
49
64-Gd-158

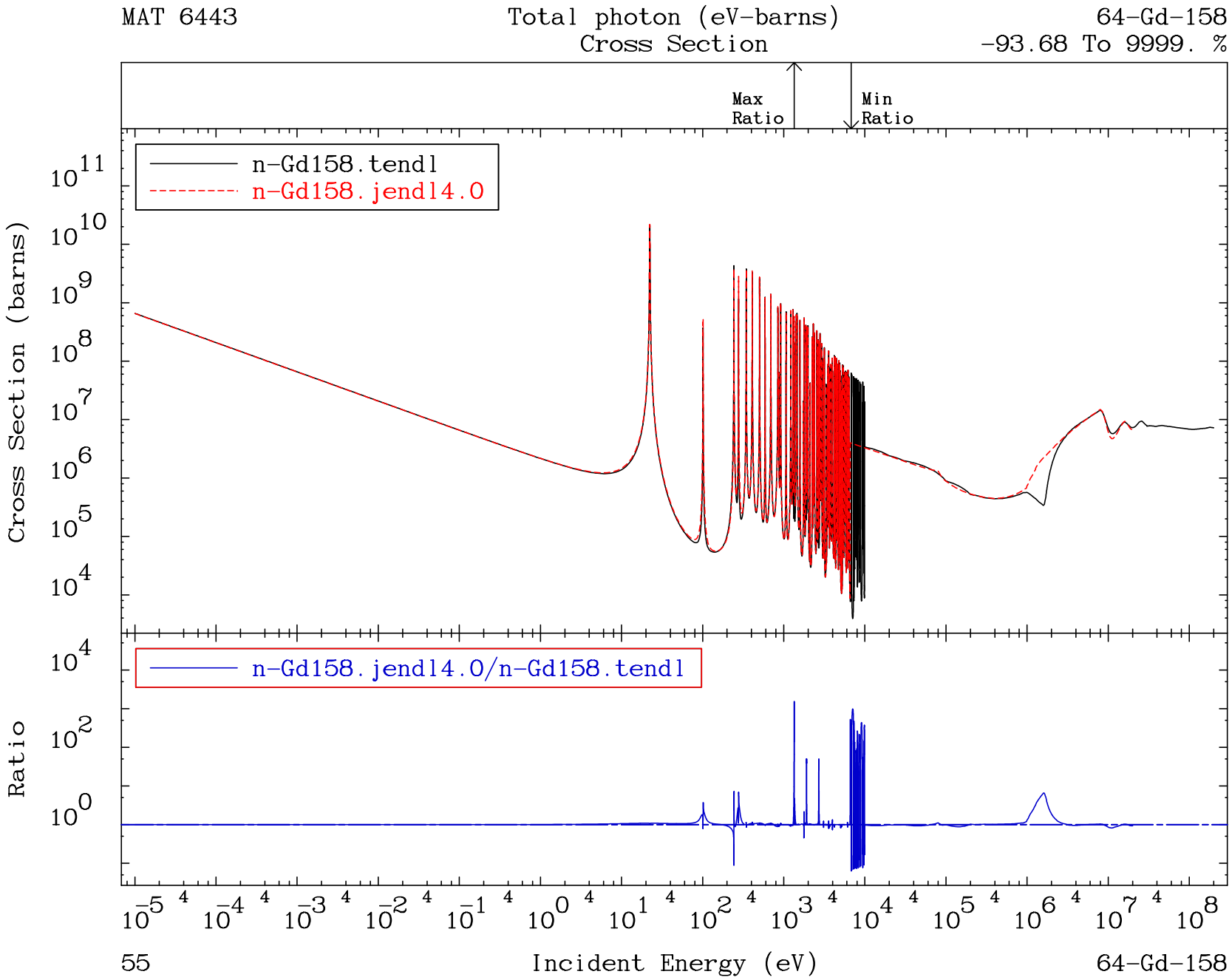

MAT 6443
Kerma elastic
Cross Section
64-Gd-158
-99.13 To 9999. %
Min
Ratio
Max
Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
50
64-Gd-158

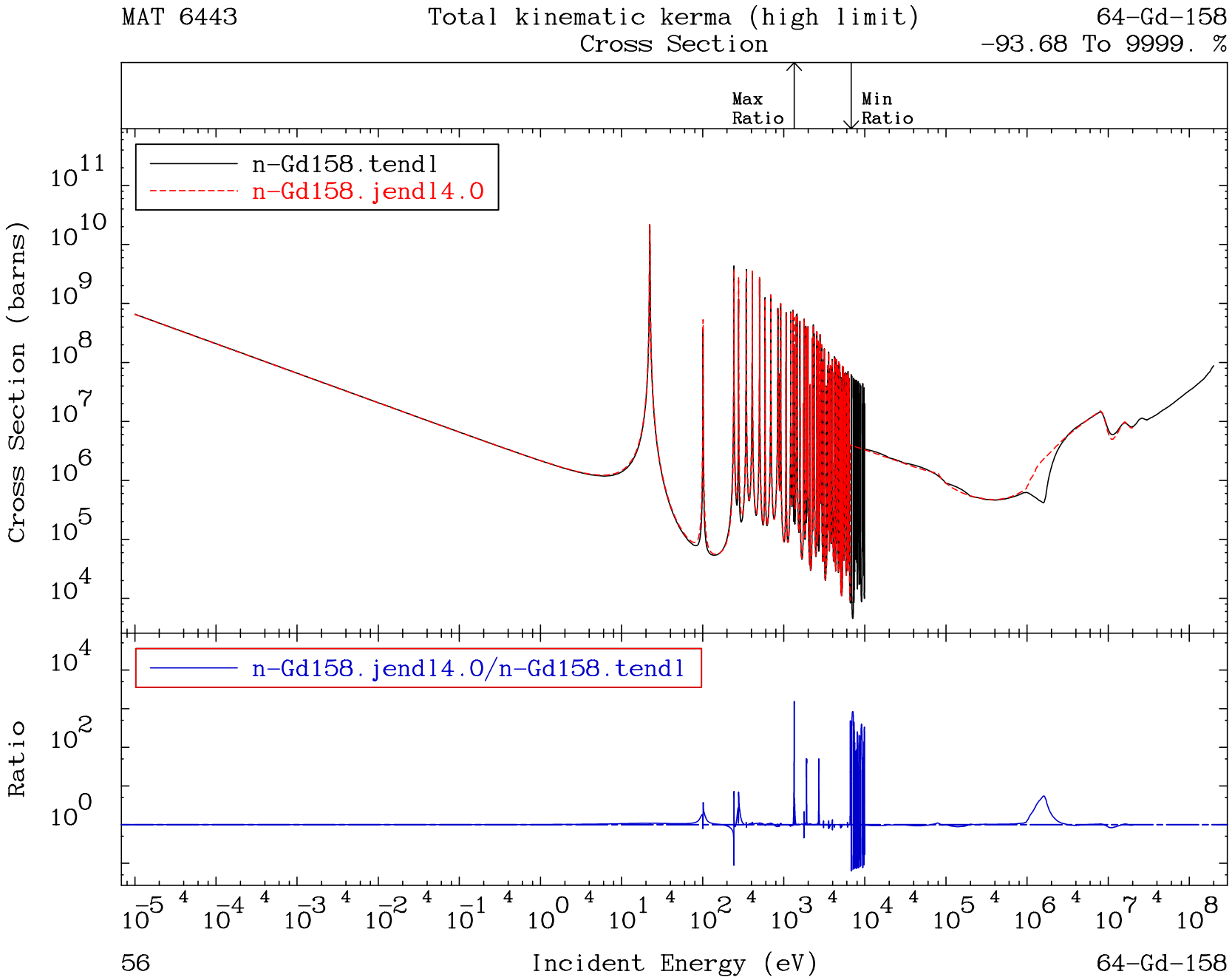

MAT 6443
Kerma non-elastic (all but mt2)
Cross Section
64-Gd-158
-93.68 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
51
64-Gd-158

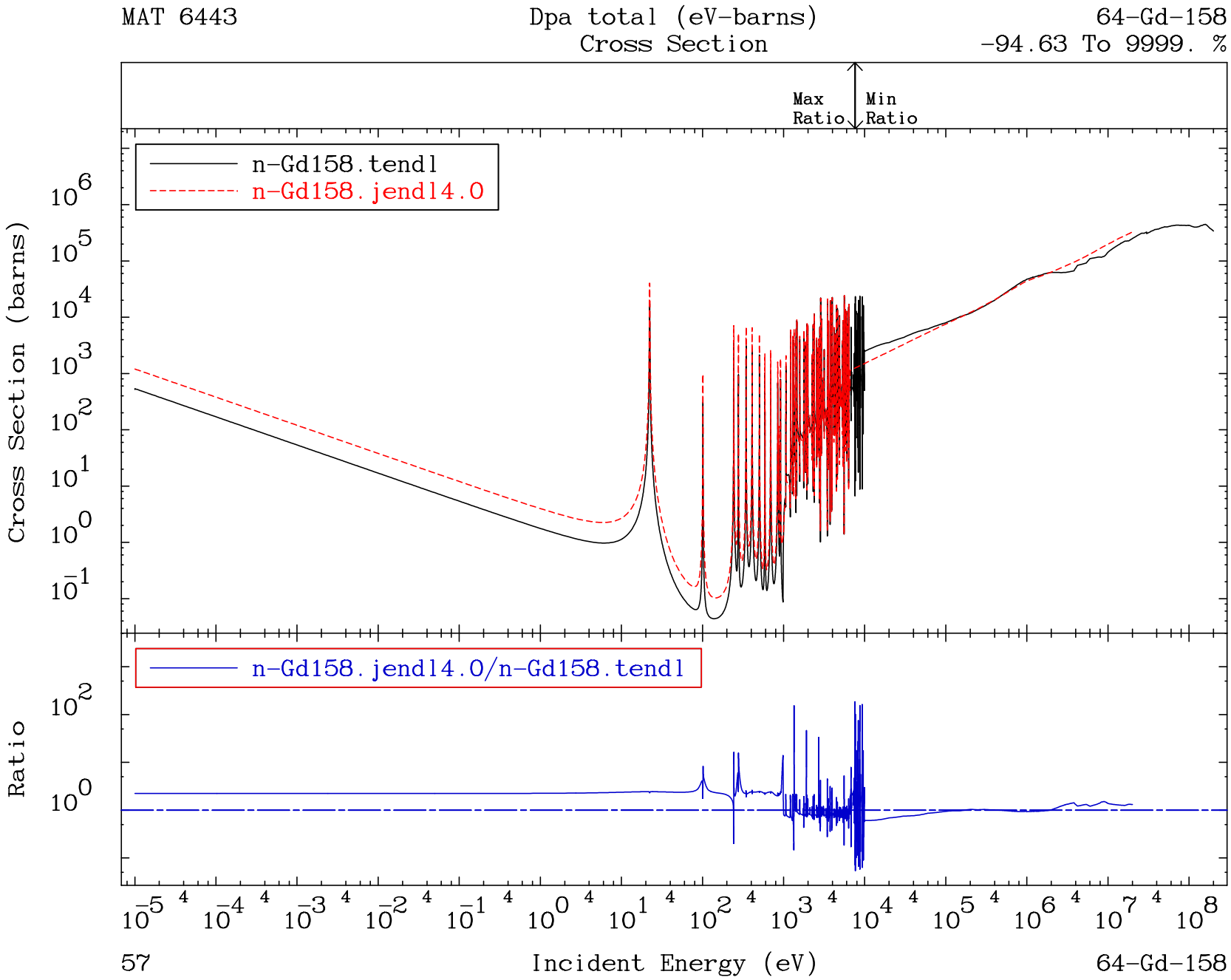

MAT 6443
Kerma inelastic (mt51-91)
Cross Section
64-Gd-158
-54.11 To 28.28 %
Max Ratio
Min Ratio
n-Gd158.tendl Threshold 90.000 keV
n-Gd158.jendl4.0 Threshold 80.021 keV
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
52
64-Gd-158

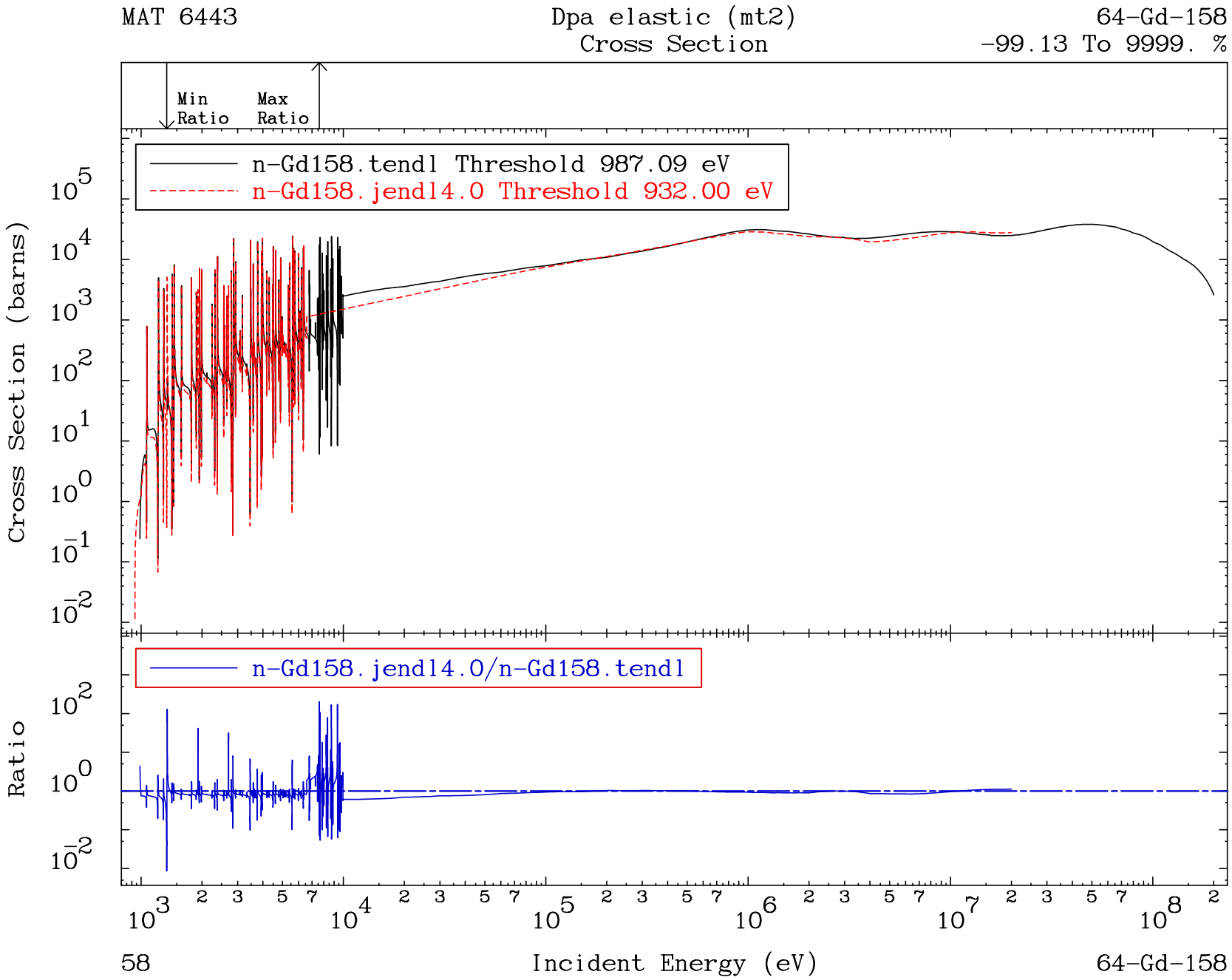

MAT 6443
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
64-Gd-158
-54.11 To 28.28 %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
1.2
0.8
0.4
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
53
Incident Energy (eV)
64-Gd-158

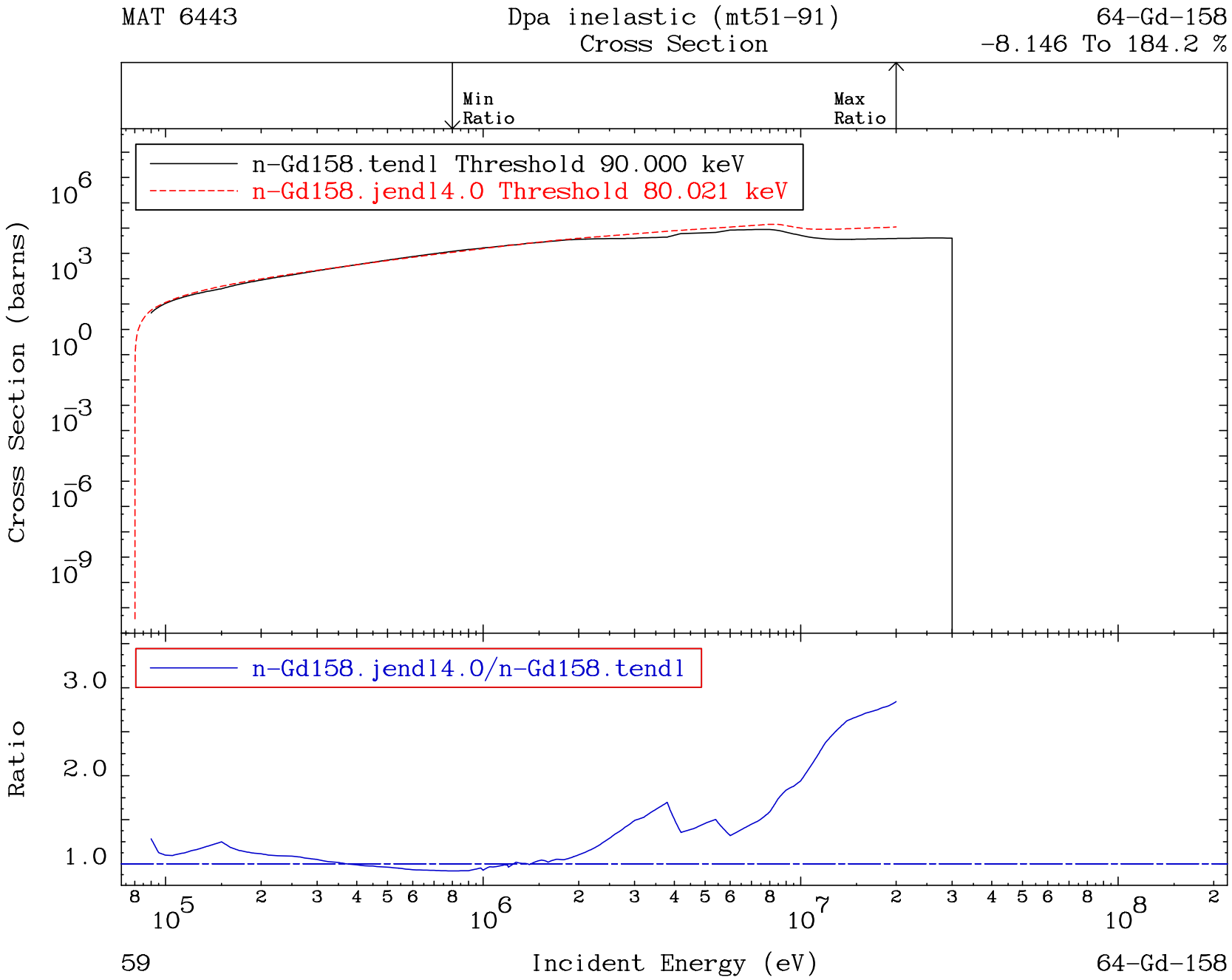

MAT 6443
Kerma capture (mt102)
Cross Section
64-Gd-158
-93.68 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
54
Incident Energy (eV)
64-Gd-158

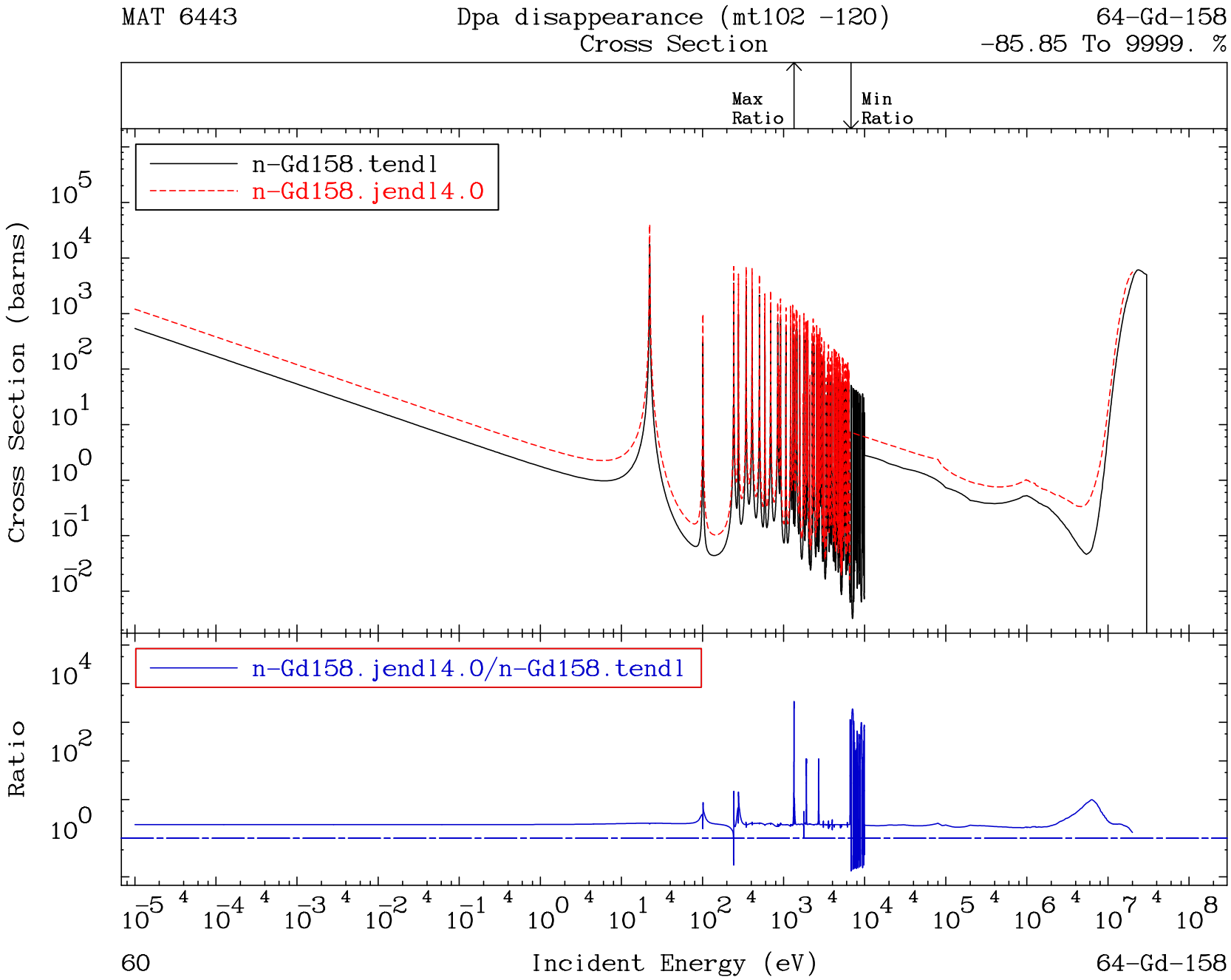

MAT 6443
Total photon (eV-barns)
Cross Section
64-Gd-158
-93.68 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
55
64-Gd-158


MAT 6443
Total kinematic kerma (high limit)
Cross Section
64-Gd-158
-93.68 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
56
64-Gd-158


MAT 6443
Dpa total (eV-barns)
Cross Section
64-Gd-158
-94.63 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
57
64-Gd-158


MAT 6443
Dpa elastic (mt2)
Cross Section
64-Gd-158
-99.13 To 9999. %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 987.09 eV
n-Gd158.jendl4.0 Threshold 932.00 eV
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
58
64-Gd-158


MAT 6443
Dpa inelastic (mt51-91)
Cross Section
64-Gd-158
-8.146 To 184.2 %
Min Ratio
Max Ratio
n-Gd158.tendl Threshold 90.000 keV
n-Gd158.jendl4.0 Threshold 80.021 keV
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
59
64-Gd-158


MAT 6443
Dpa disappearance (mt102 -120)
Cross Section
64-Gd-158
-85.85 To 9999. %
Max Ratio
Min Ratio
n-Gd158.tendl
n-Gd158.jendl4.0
Cross Section (barns)
n-Gd158.jendl4.0/n-Gd158.tendl
Ratio
Incident Energy (eV)
60
64-Gd-158