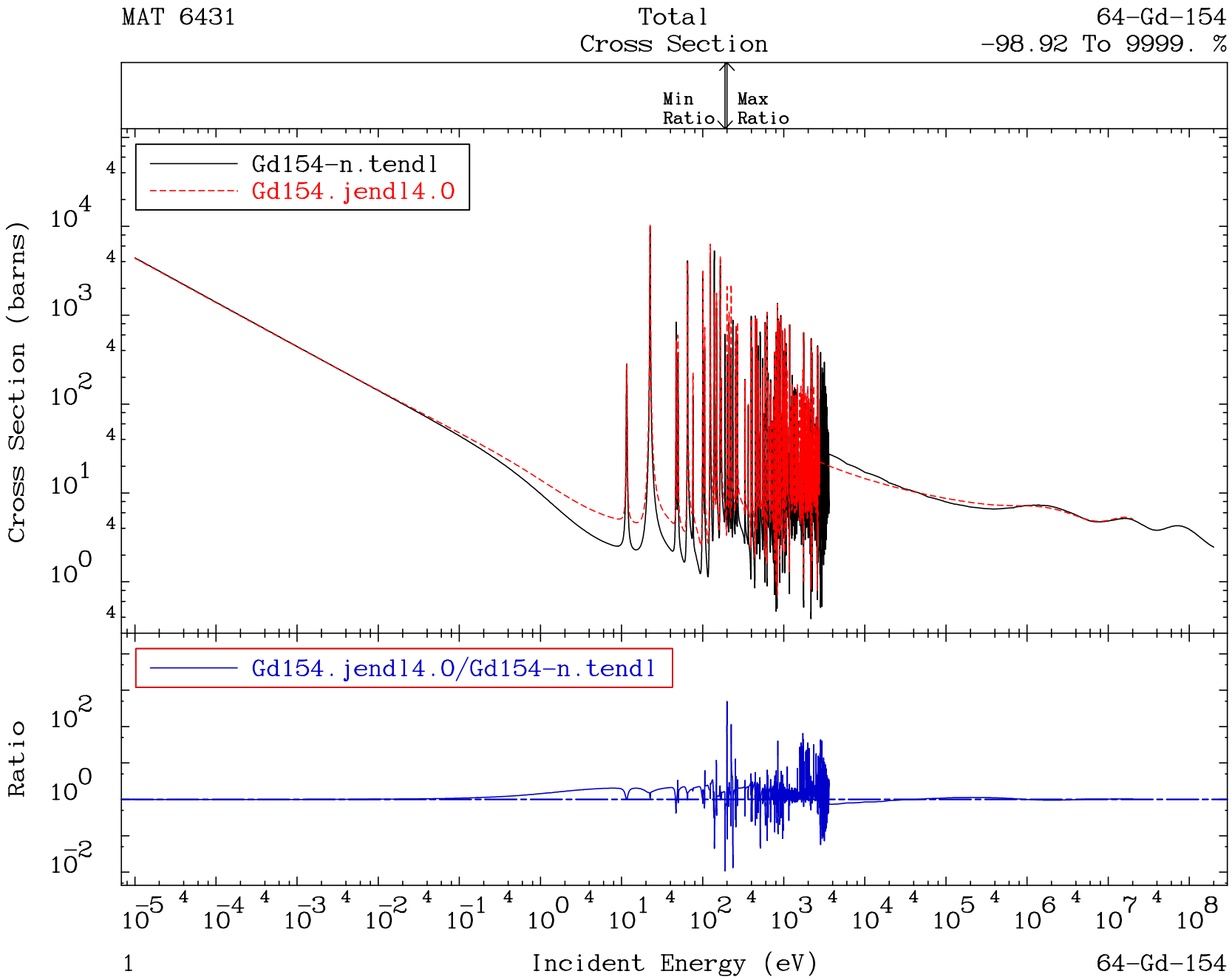
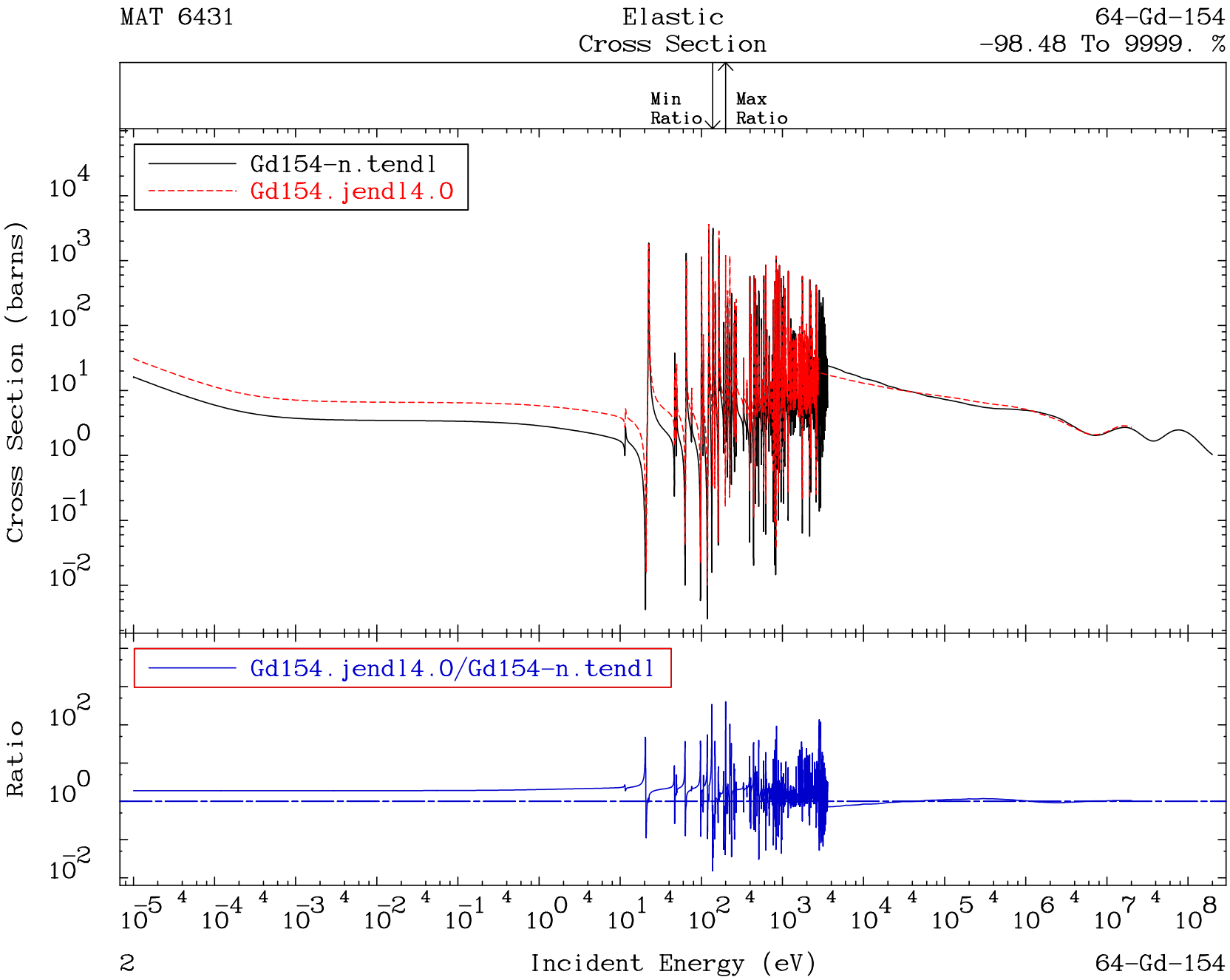
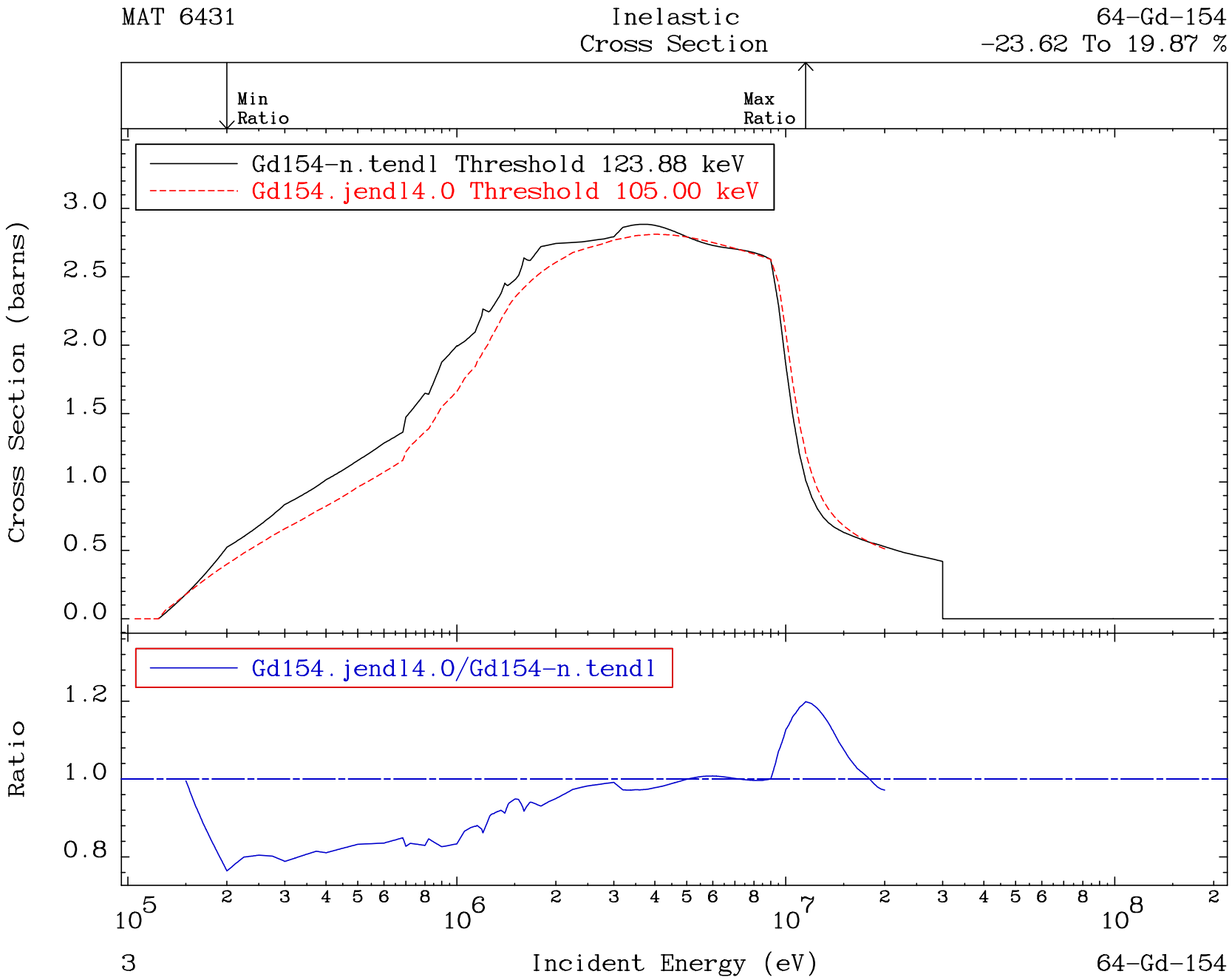
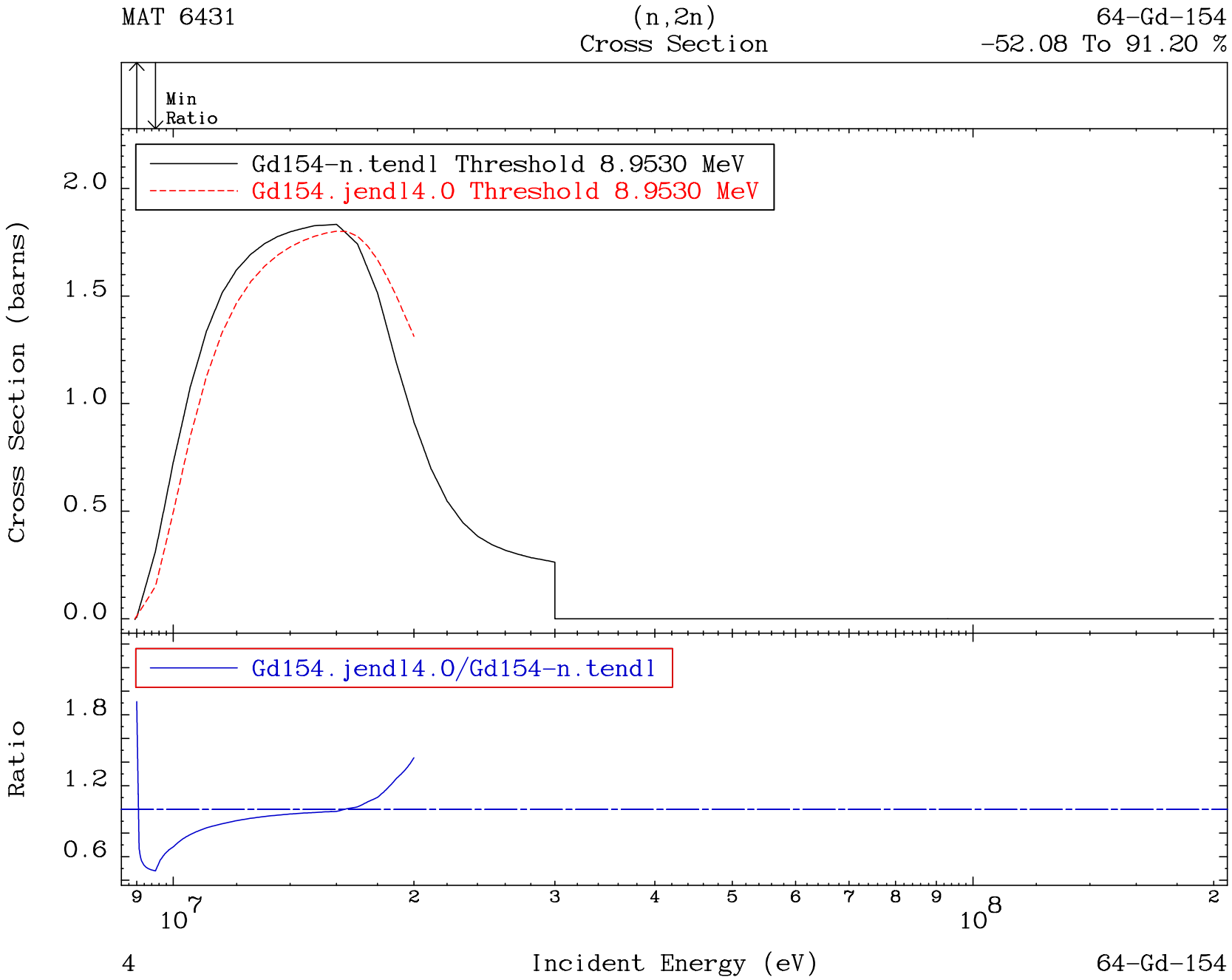
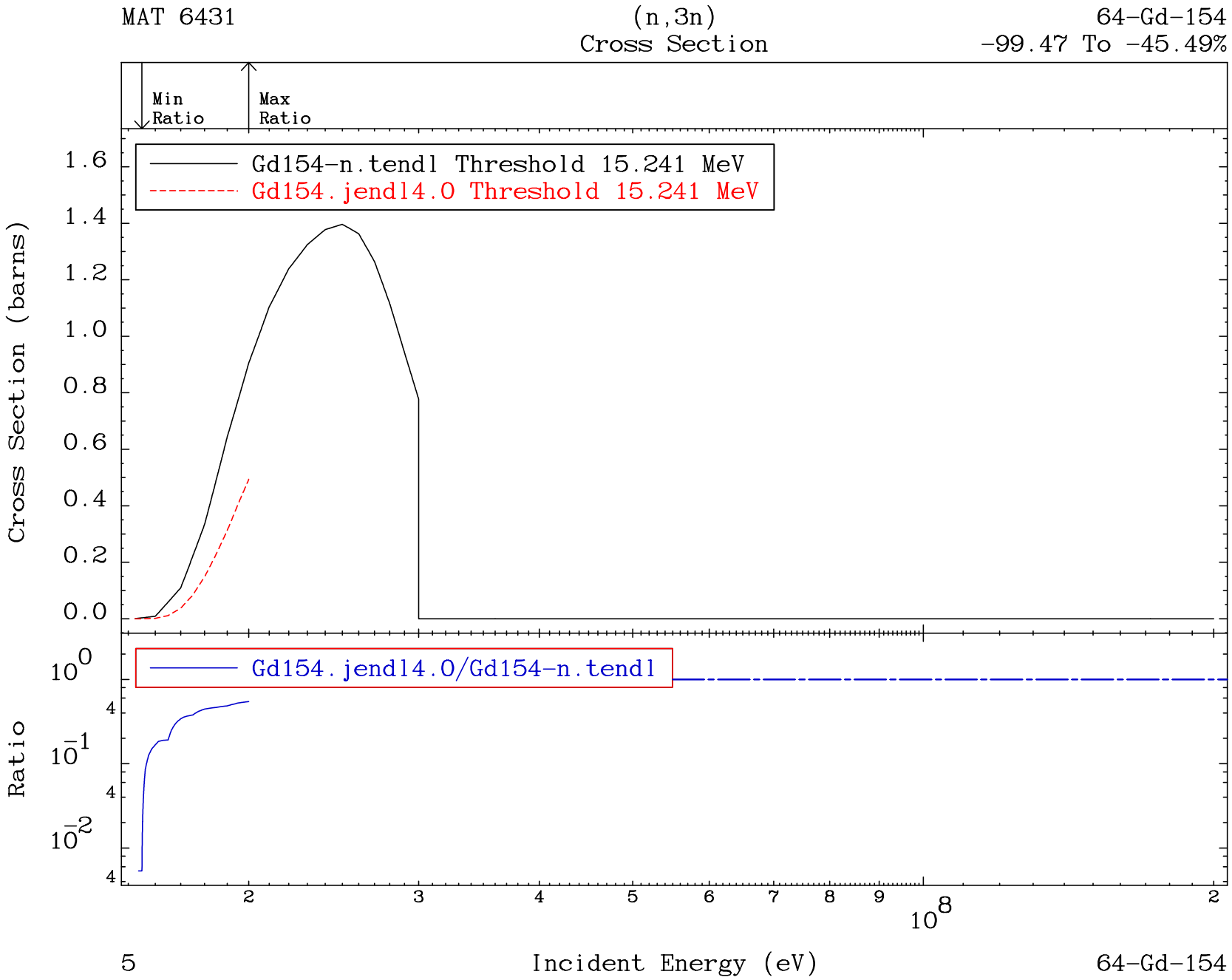
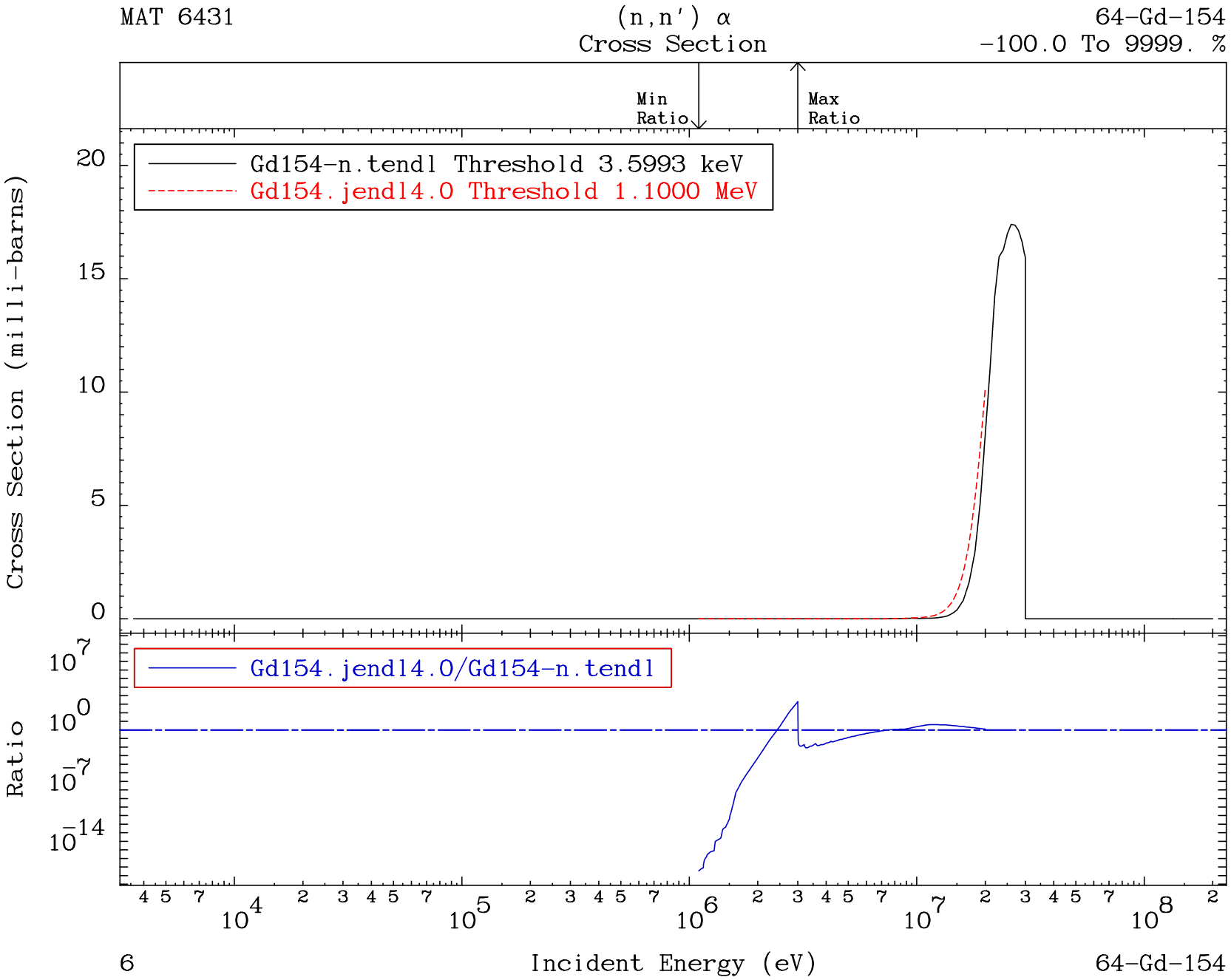

MAT 6431
Total
Cross Section
64-Gd-154
-98.92 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
1
64-Gd-154

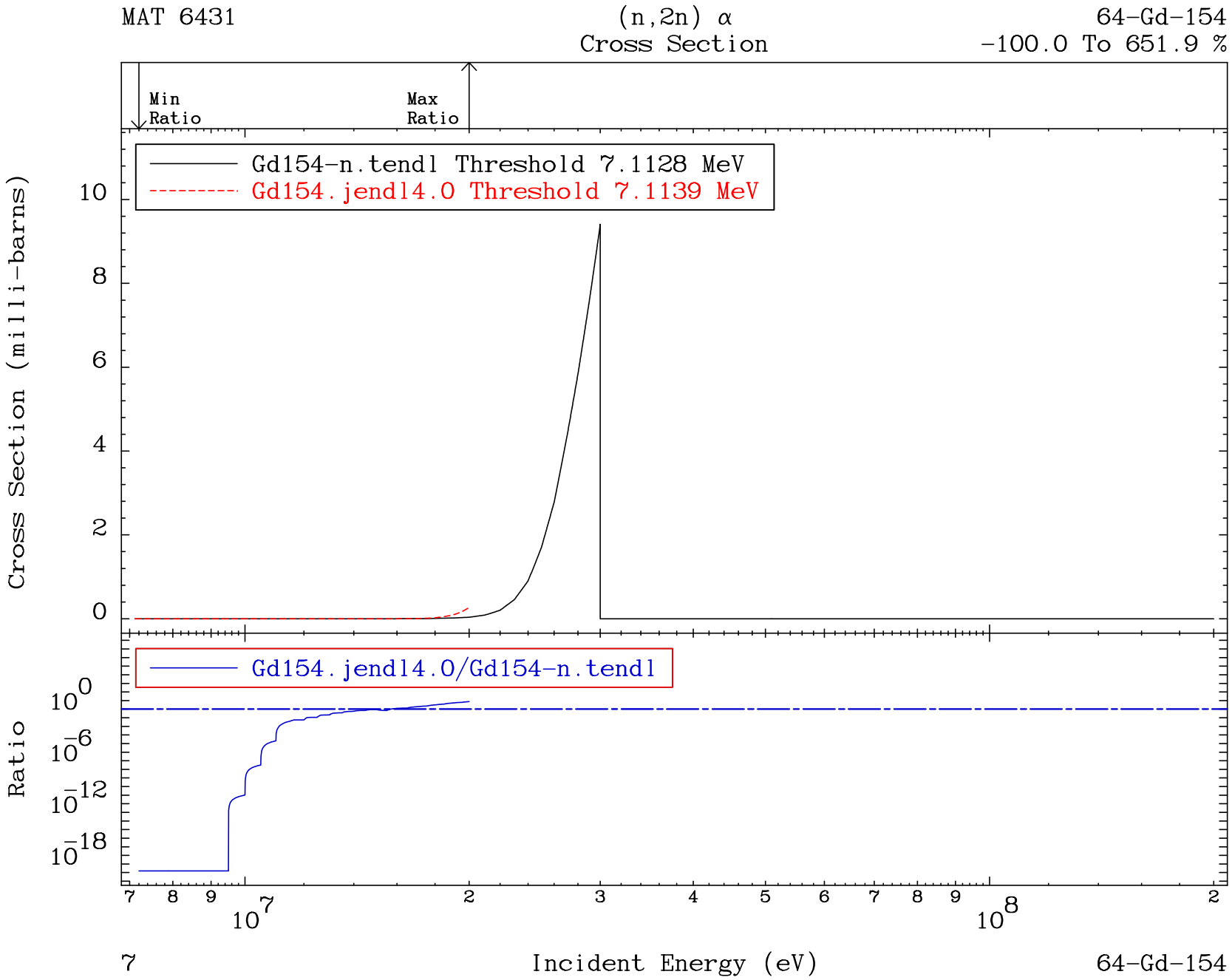

MAT 6431
Elastic
Cross Section
64-Gd-154
-98.48 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
2
64-Gd-154

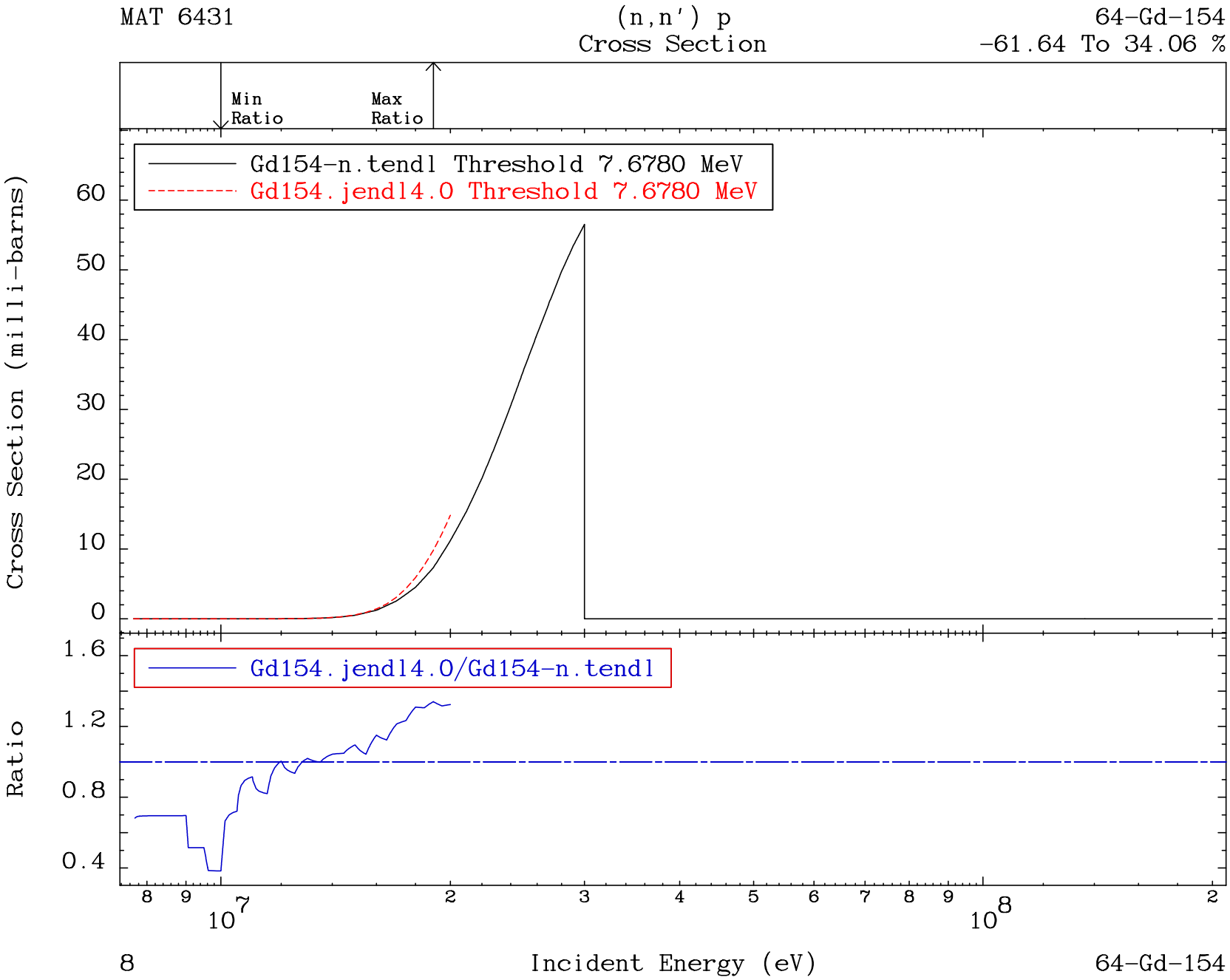

MAT 6431
Inelastic
Cross Section
64-Gd-154
-23.62 To 19.87 %
Min
Ratio
Max
Ratio
Gd154-n.tendl Threshold 123.88 keV
Gd154.jendl4.0 Threshold 105.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
1.2
1.0
0.8
10^5
10^6
10^7
10^8
Incident Energy (eV)
3
64-Gd-154

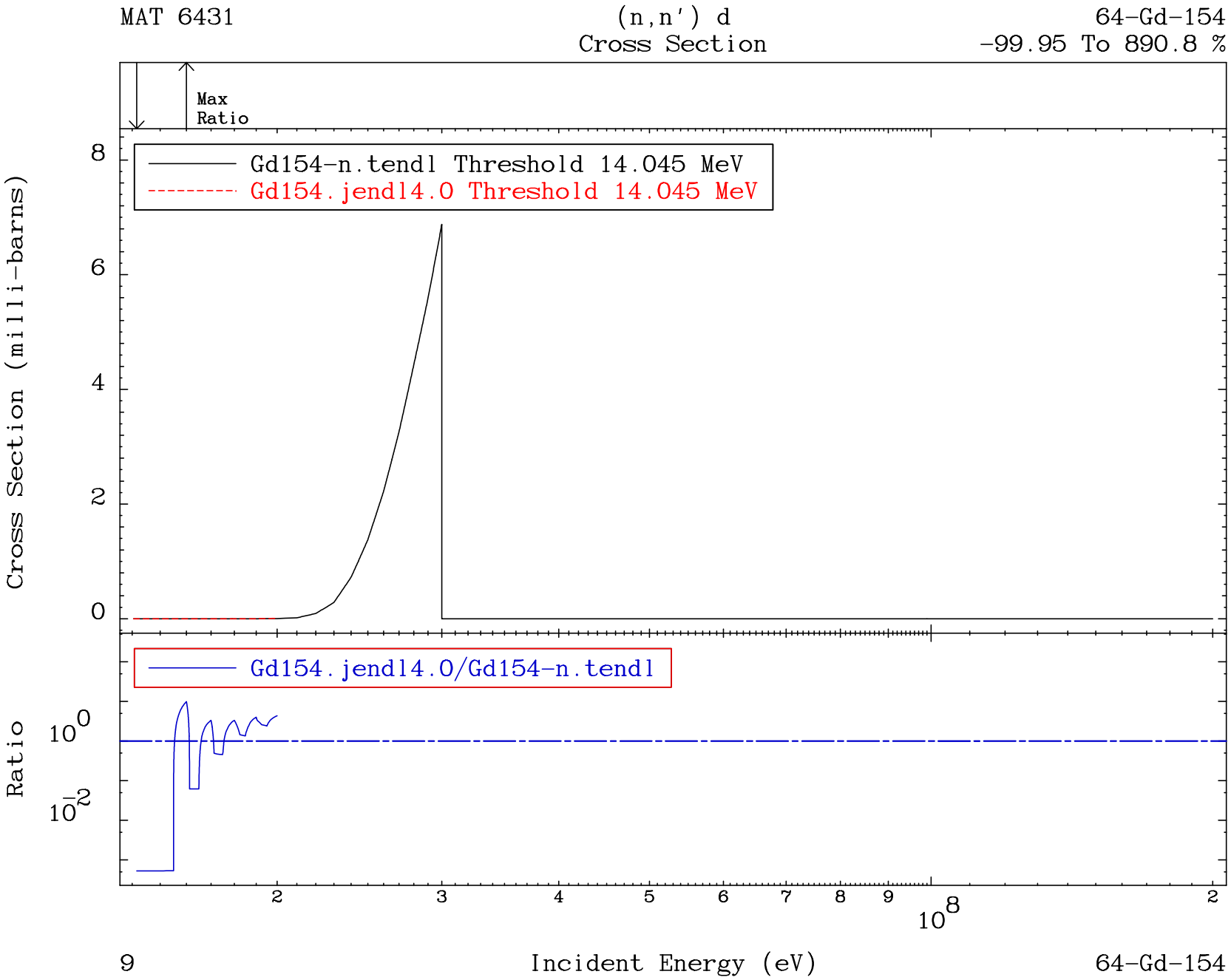

MAT 6431
(n,2n)
Cross Section
64-Gd-154
-52.08 To 91.20 %
Min
Ratio
Gd154-n.tendl Threshold 8.9530 MeV
Gd154.jendl4.0 Threshold 8.9530 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
1.8
1.2
0.6
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
64-Gd-154

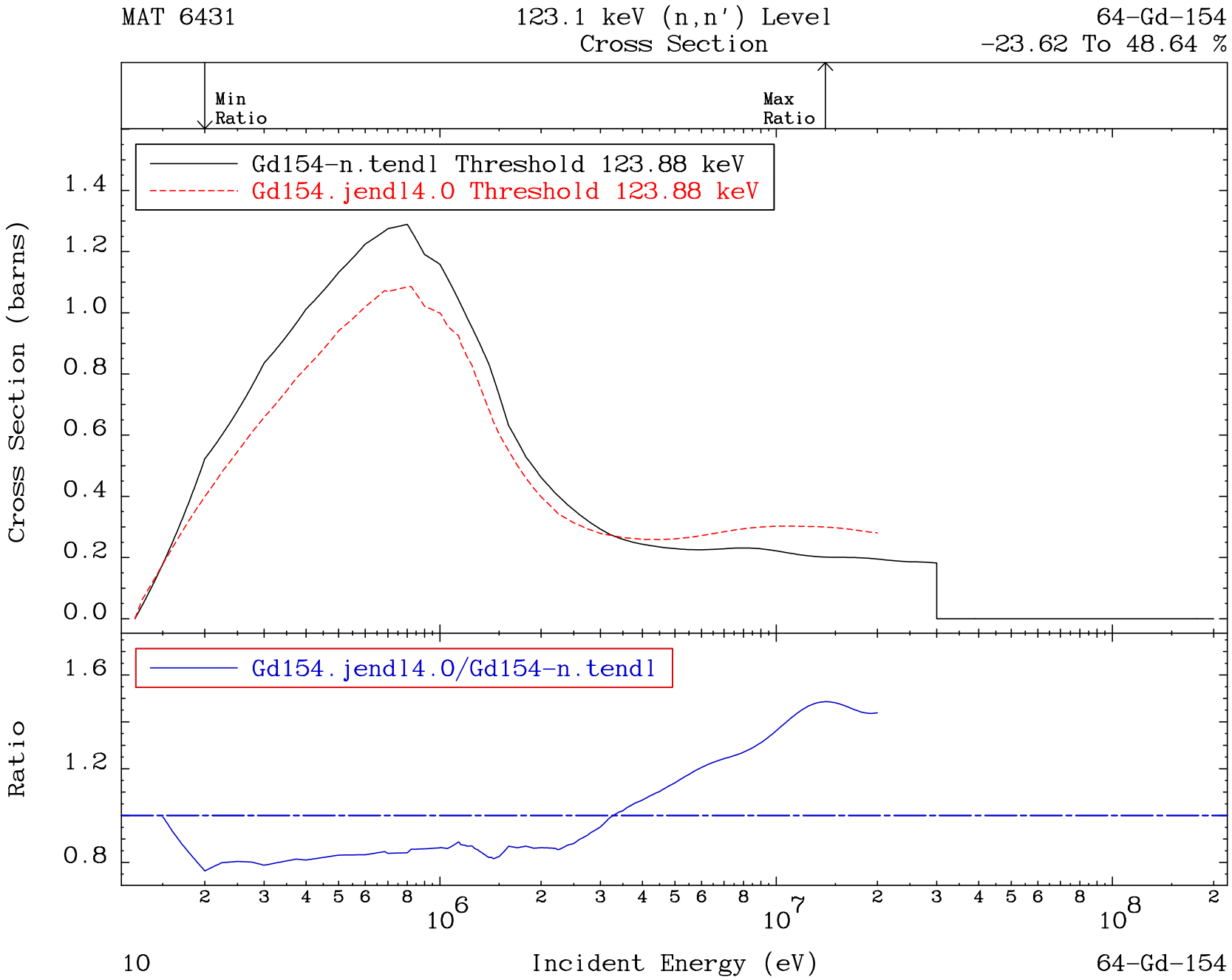

MAT 6431
(n,3n)
Cross Section
64-Gd-154
-99.47 To -45.49%
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 15.241 MeV
Gd154.jendl4.0 Threshold 15.241 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^0
10^-1
10^-2
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
64-Gd-154

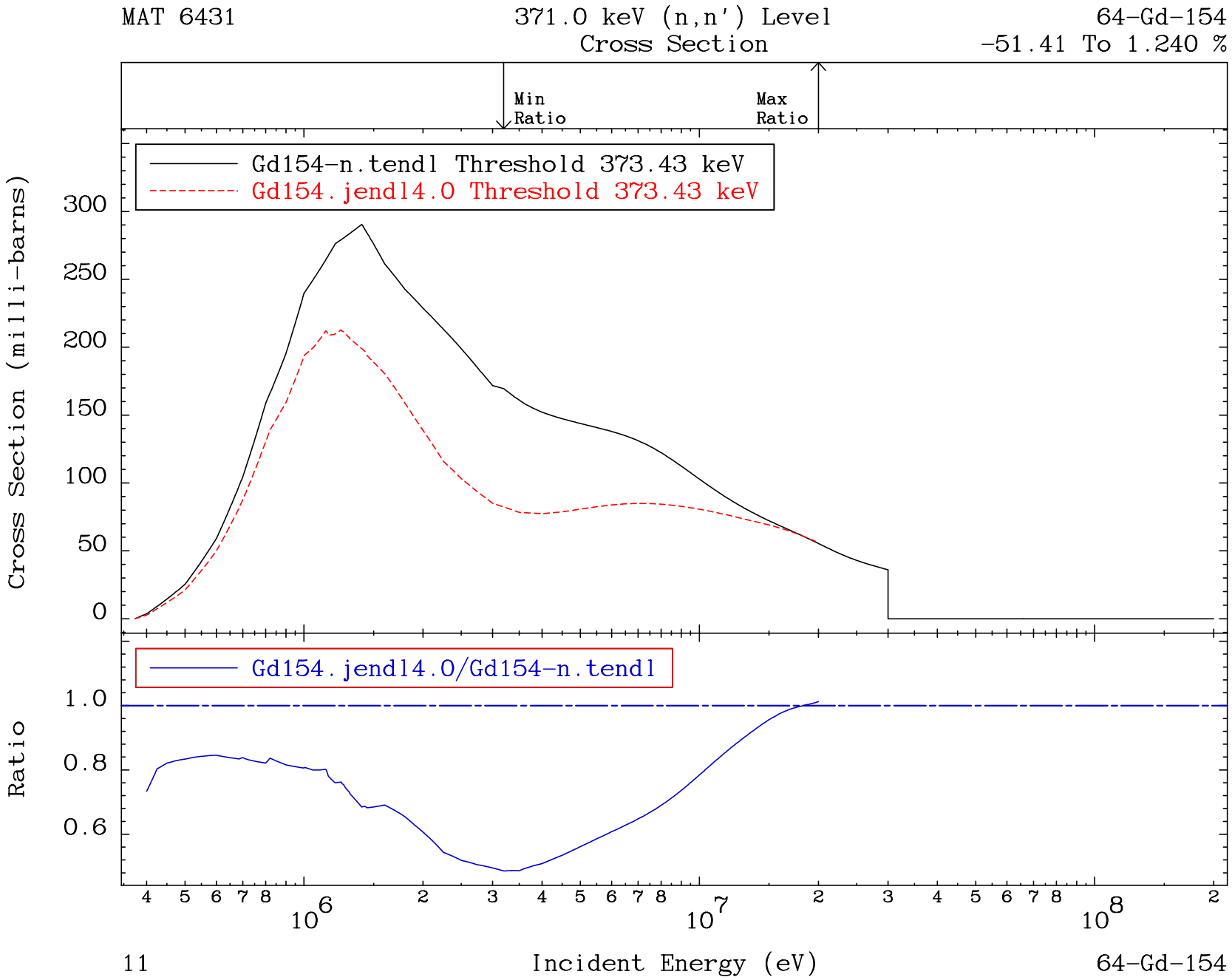

MAT 6431
(n,n') α
Cross Section
64-Gd-154
-100.0 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 3.5993 keV
Gd154.jendl4.0 Threshold 1.1000 MeV
Cross Section (milli-barns)
20
15
10
5
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^7
10^0
10^-7
10^-14
4 5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
6
Incident Energy (eV)
64-Gd-154

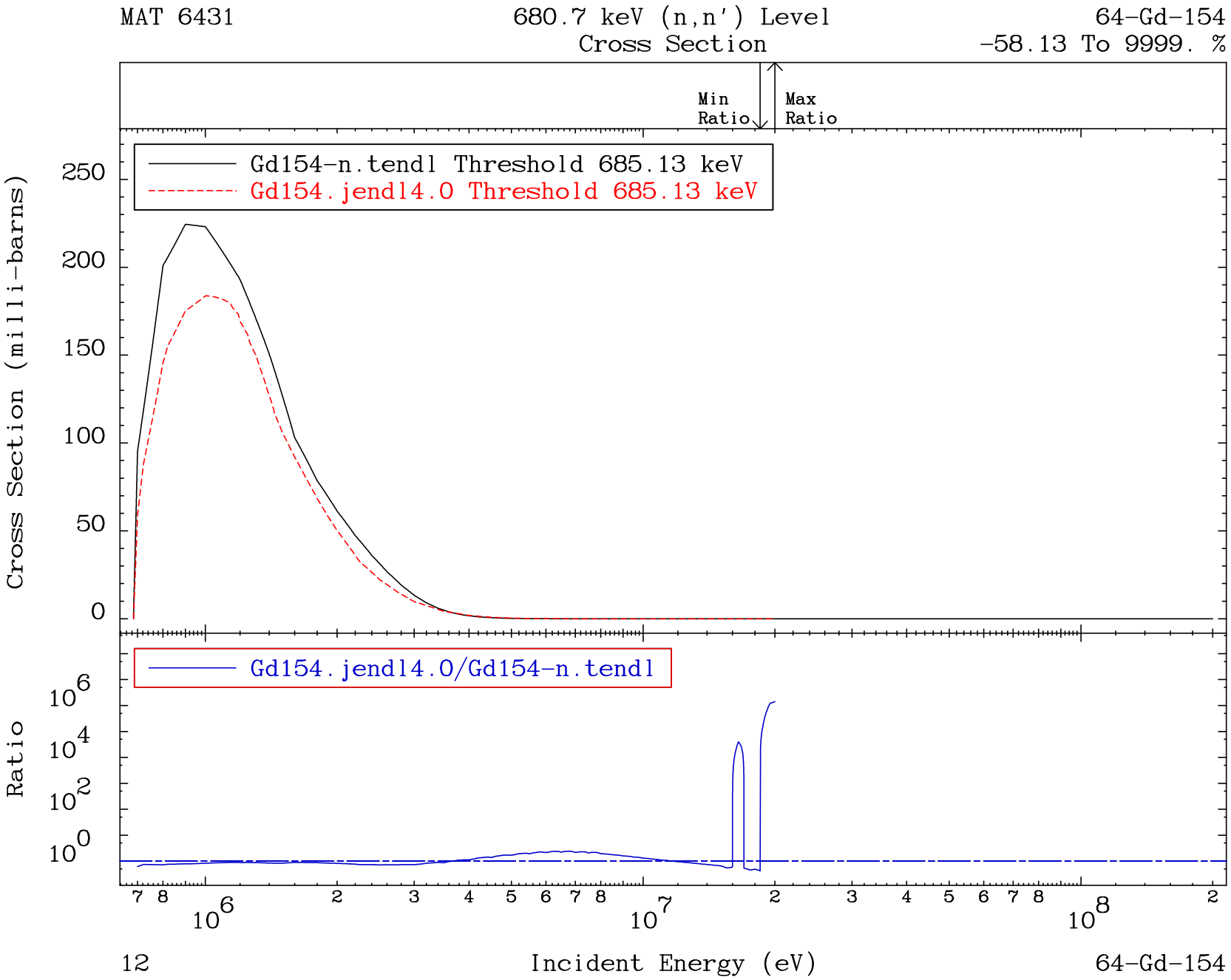

MAT 6431
(n,2n) α
Cross Section
64-Gd-154
-100.0 To 651.9 %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 7.1128 MeV
Gd154.jendl4.0 Threshold 7.1139 MeV
Cross Section (milli-barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
64-Gd-154

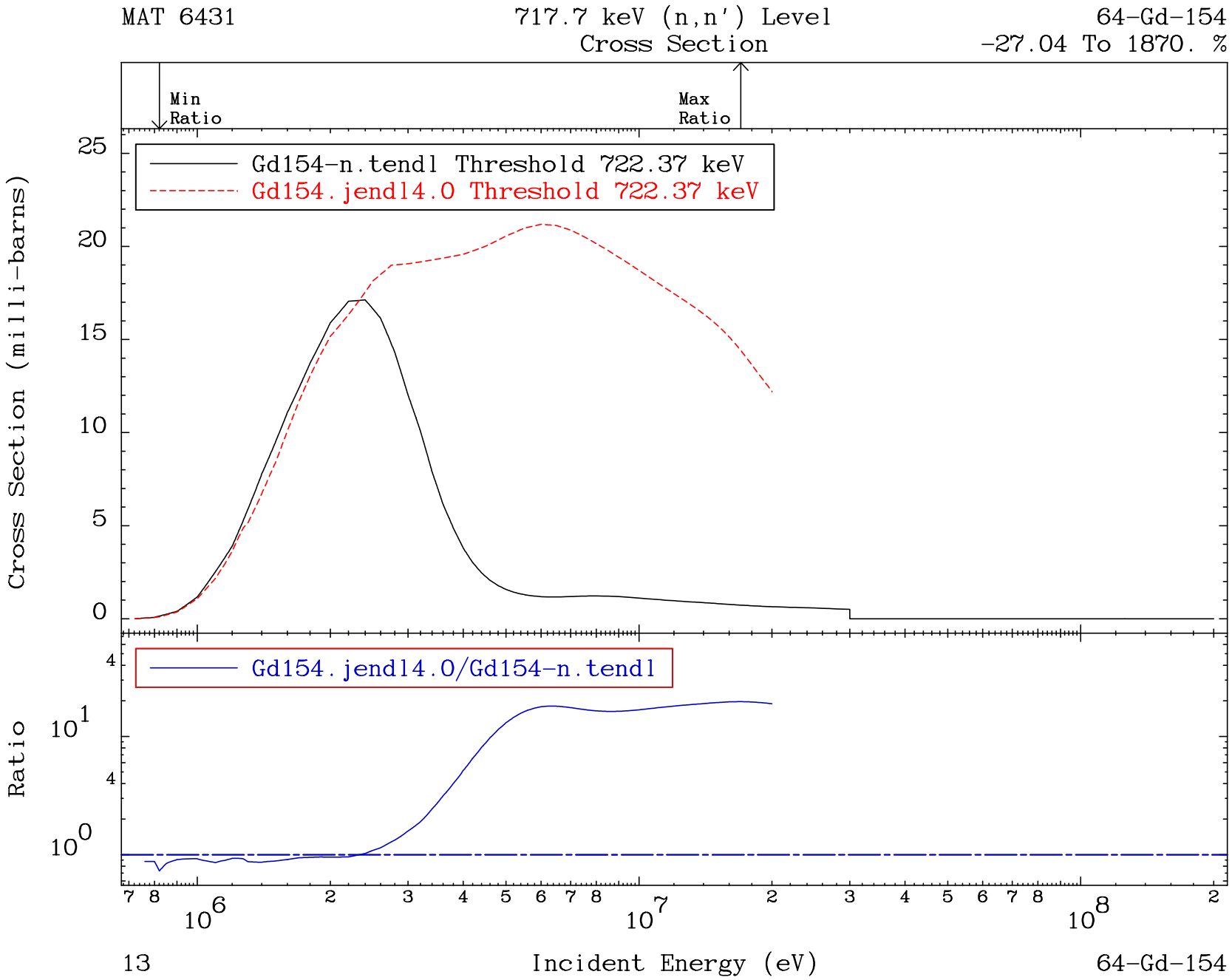

MAT 6431
(n,n') p
Cross Section
64-Gd-154
-61.64 To 34.06 %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 7.6780 MeV
Gd154.jendl4.0 Threshold 7.6780 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
1.6
1.2
0.8
0.4
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
64-Gd-154

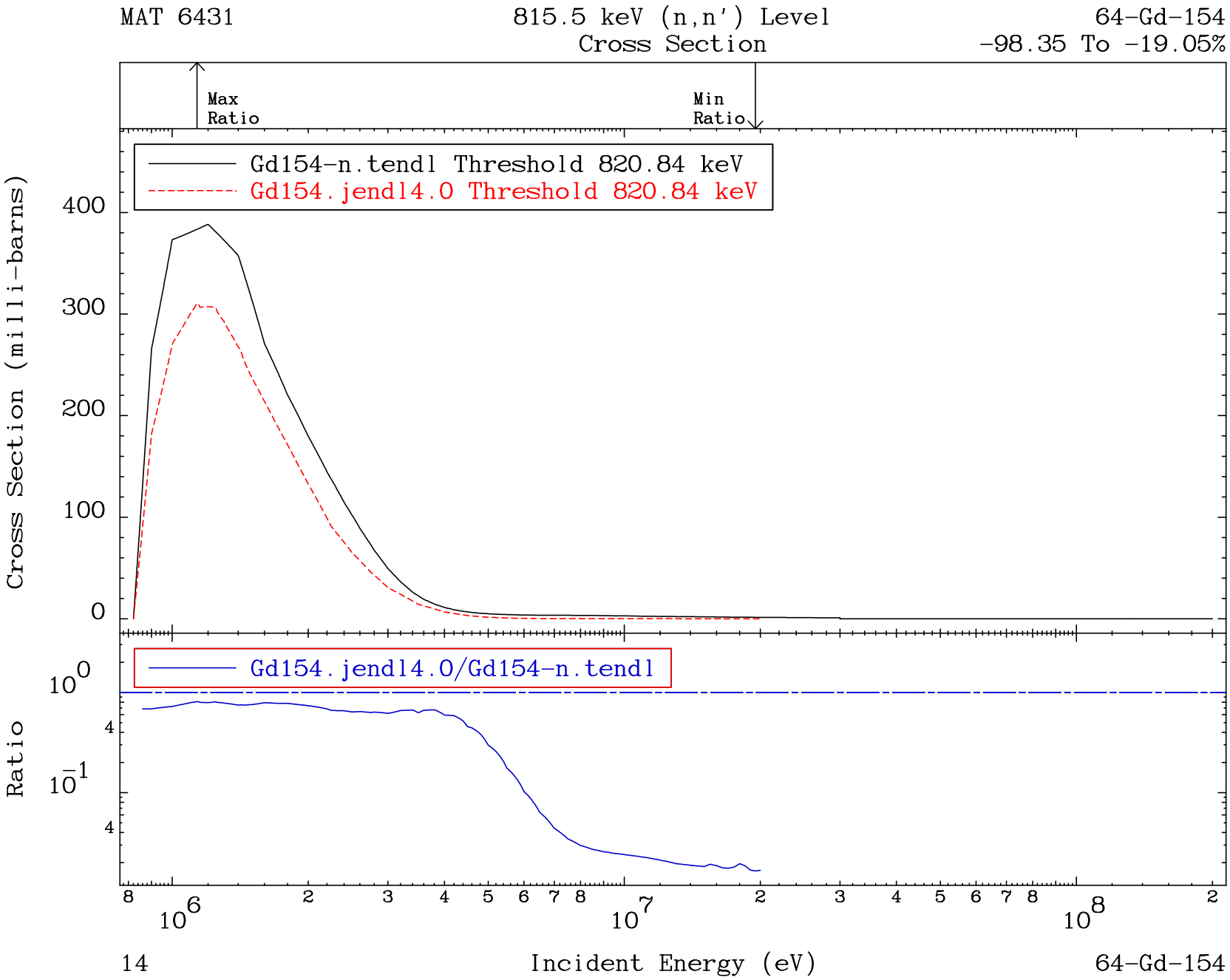

MAT 6431
(n,n') d
Cross Section
64-Gd-154
-99.95 To 890.8 %
Max
Ratio
Gd154-n.tendl Threshold 14.045 MeV
Gd154.jendl4.0 Threshold 14.045 MeV
Cross Section (milli-barns)
0
2
4
6
8
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^{0}
10^{-2}
2
3
4
5
6
7
8
9
10^{8}
2
9
Incident Energy (eV)
64-Gd-154

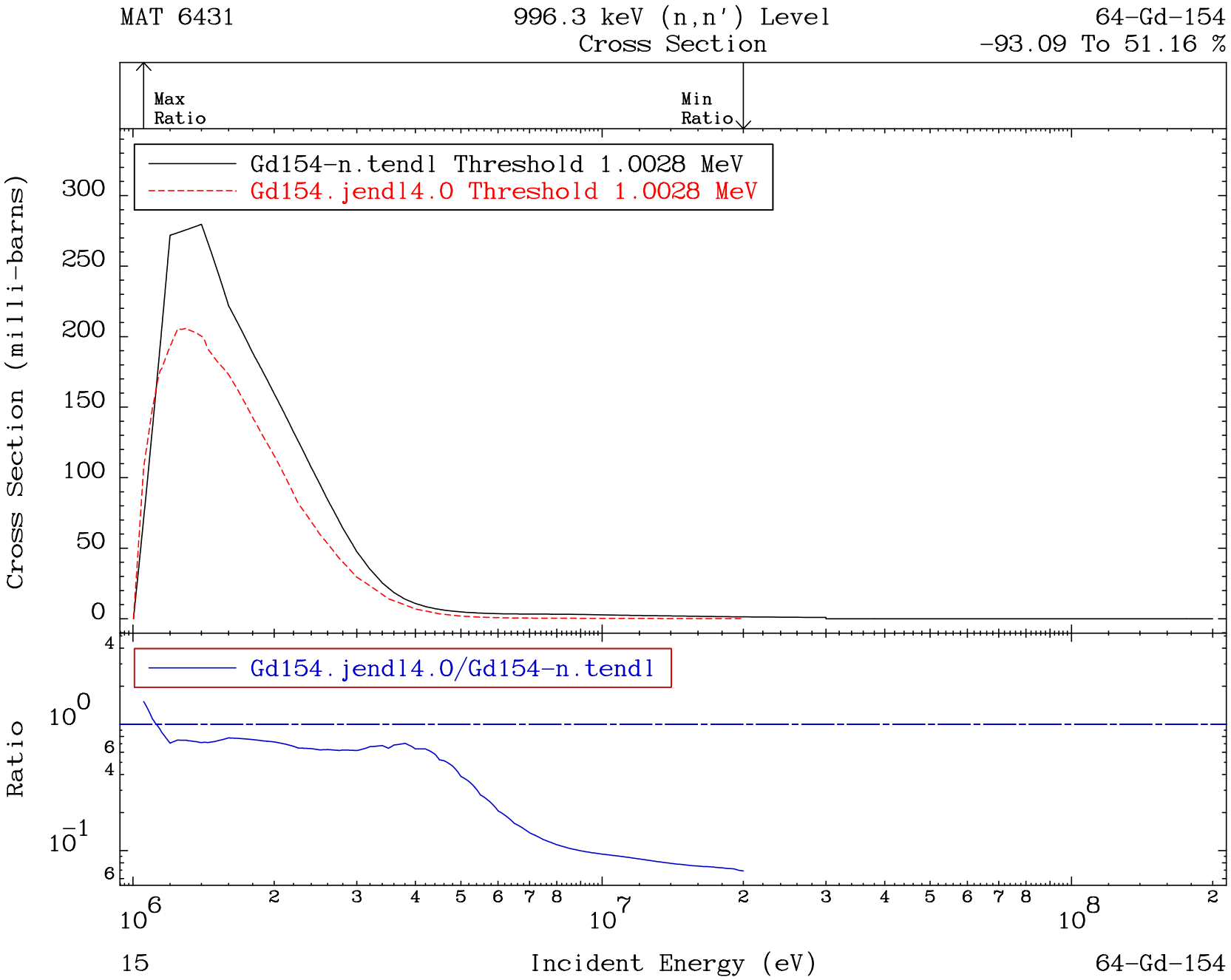

MAT 6431
123.1 keV (n,n') Level
Cross Section
64-Gd-154
-23.62 To 48.64 %
Min
Ratio
Max
Ratio
Gd154-n.tendl Threshold 123.88 keV
Gd154.jendl4.0 Threshold 123.88 keV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
1.6
1.2
0.8
2
3
4
5
6
8
10^6
10^7
10^8
10
Incident Energy (eV)
64-Gd-154

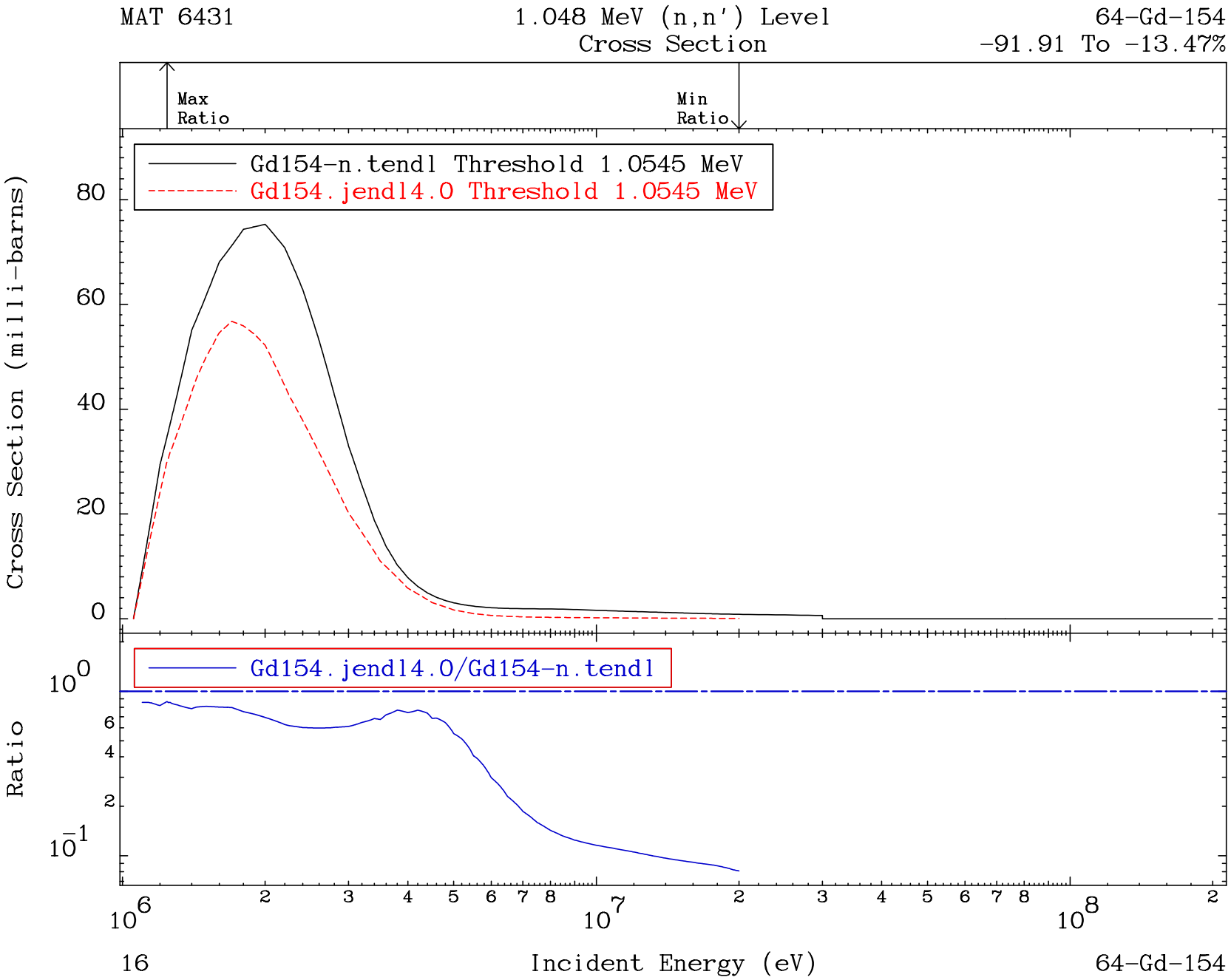

MAT 6431
371.0 keV (n,n') Level
Cross Section
64-Gd-154
-51.41 To 1.240 %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 373.43 keV
Gd154.jendl4.0 Threshold 373.43 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
1.0
0.8
0.6
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
11
Incident Energy (eV)
64-Gd-154

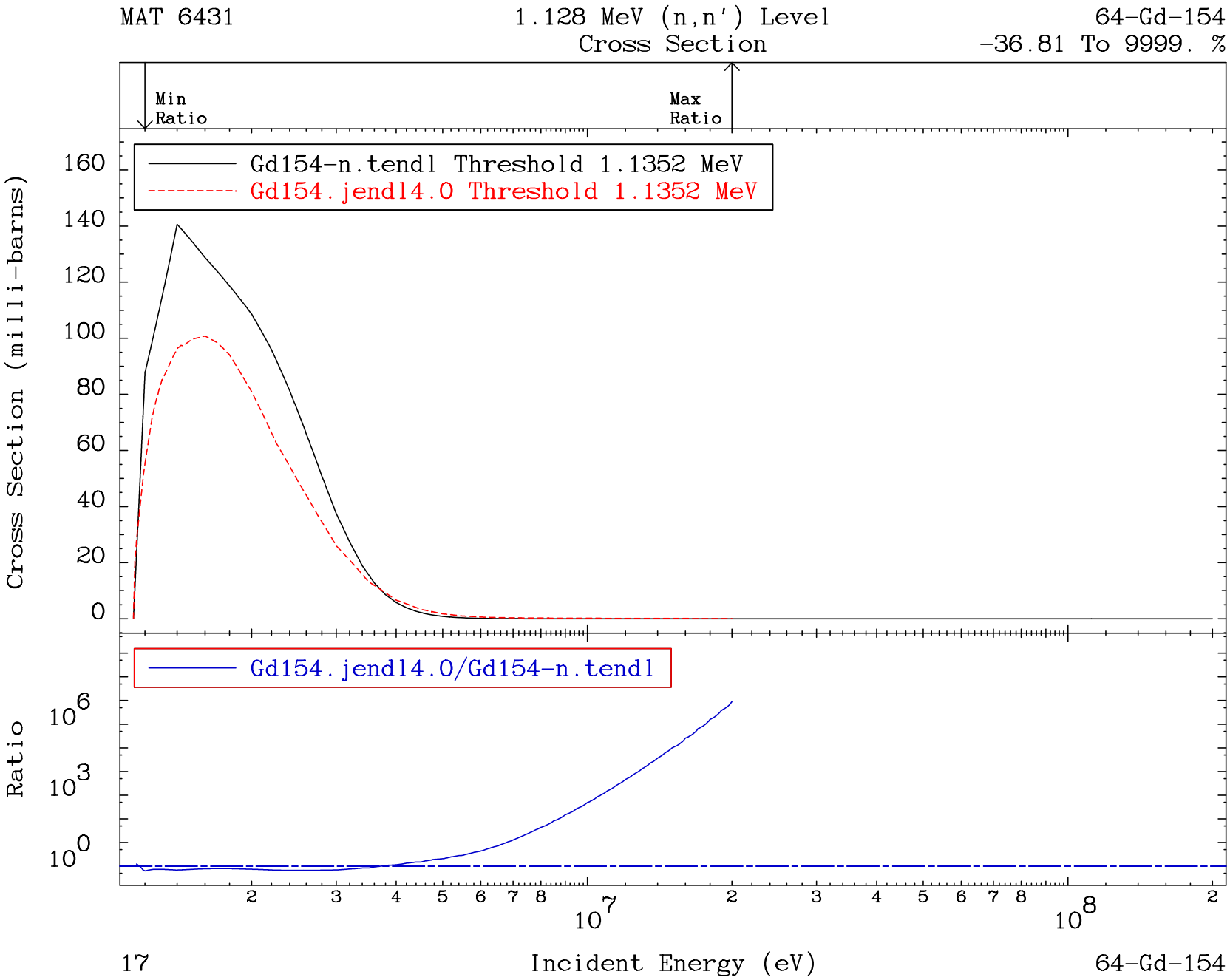

MAT 6431
680.7 keV (n,n') Level
Cross Section
64-Gd-154
-58.13 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 685.13 keV
Gd154.jendl4.0 Threshold 685.13 keV
Cross Section (milli-barns)
250
200
150
100
50
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^4
10^2
10^0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
12
Incident Energy (eV)
64-Gd-154

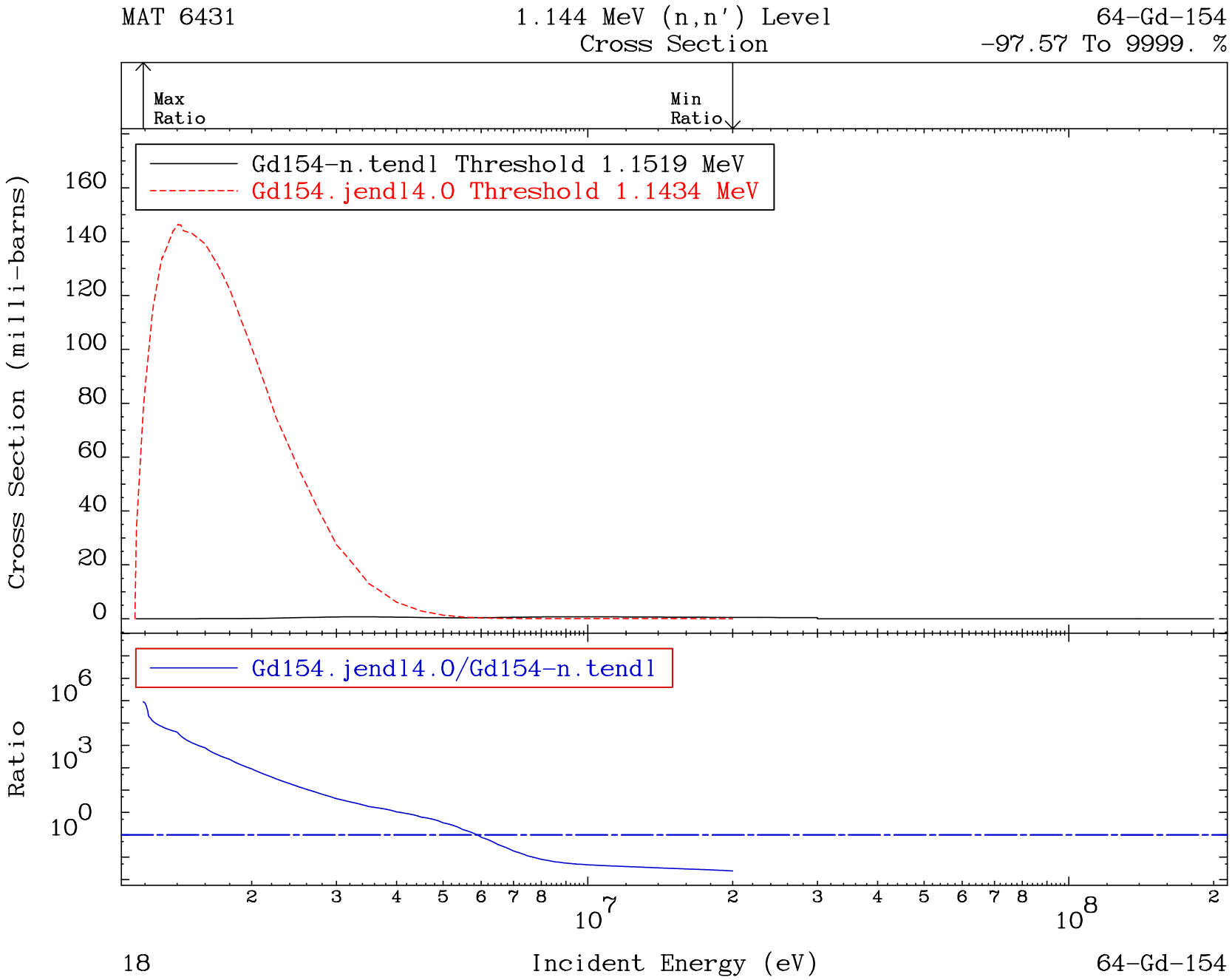

MAT 6431
717.7 keV (n,n') Level
Cross Section
64-Gd-154
-27.04 To 1870. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 722.37 keV
Gd154.jendl4.0 Threshold 722.37 keV
Cross Section (milli-barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
13
64-Gd-154

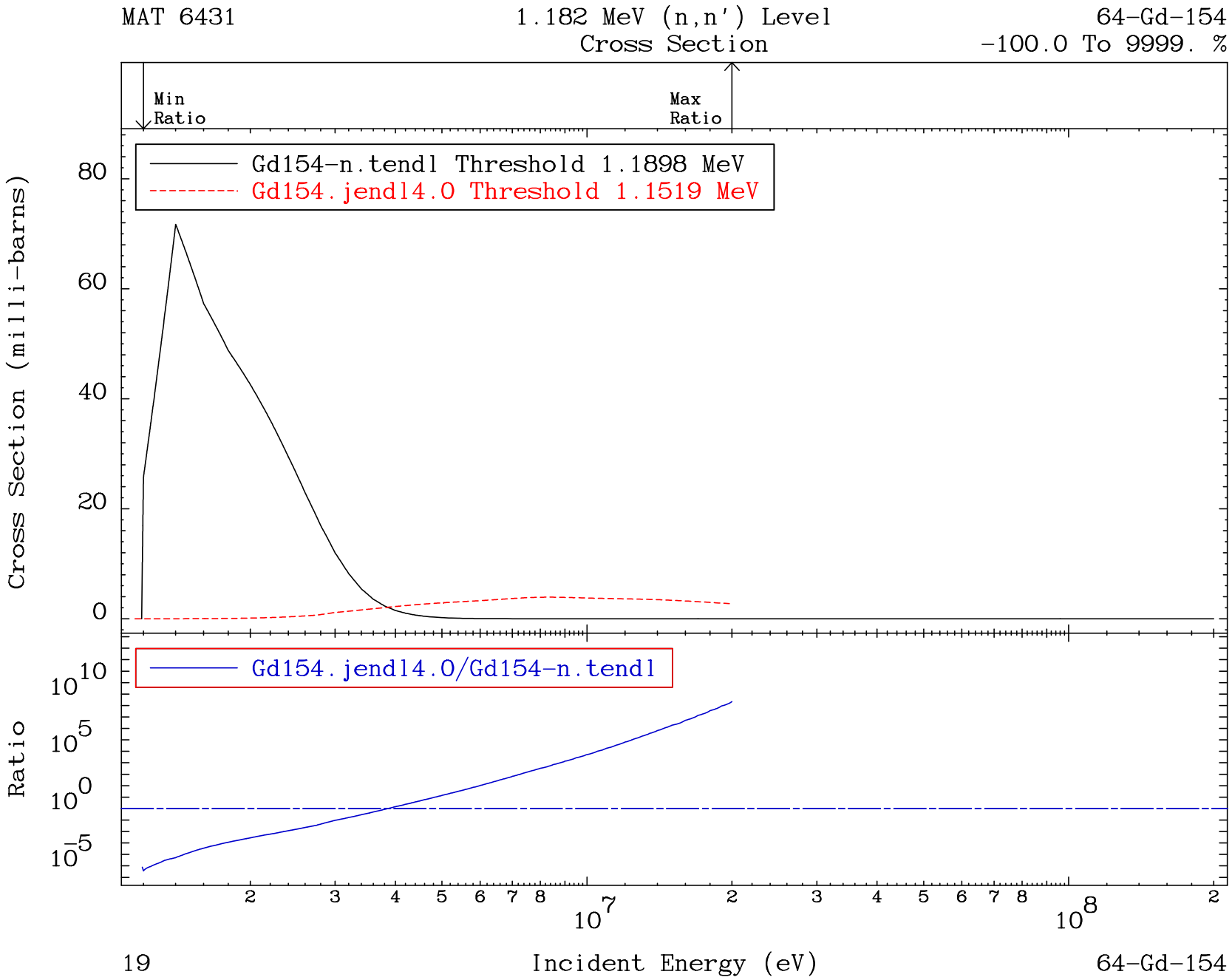

MAT 6431
815.5 keV (n,n') Level
Cross Section
64-Gd-154
-98.35 To -19.05%
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 820.84 keV
Gd154.jendl4.0 Threshold 820.84 keV
Cross Section (milli-barns)
400
300
200
100
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^0
4
10^-1
4
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
14
Incident Energy (eV)
64-Gd-154

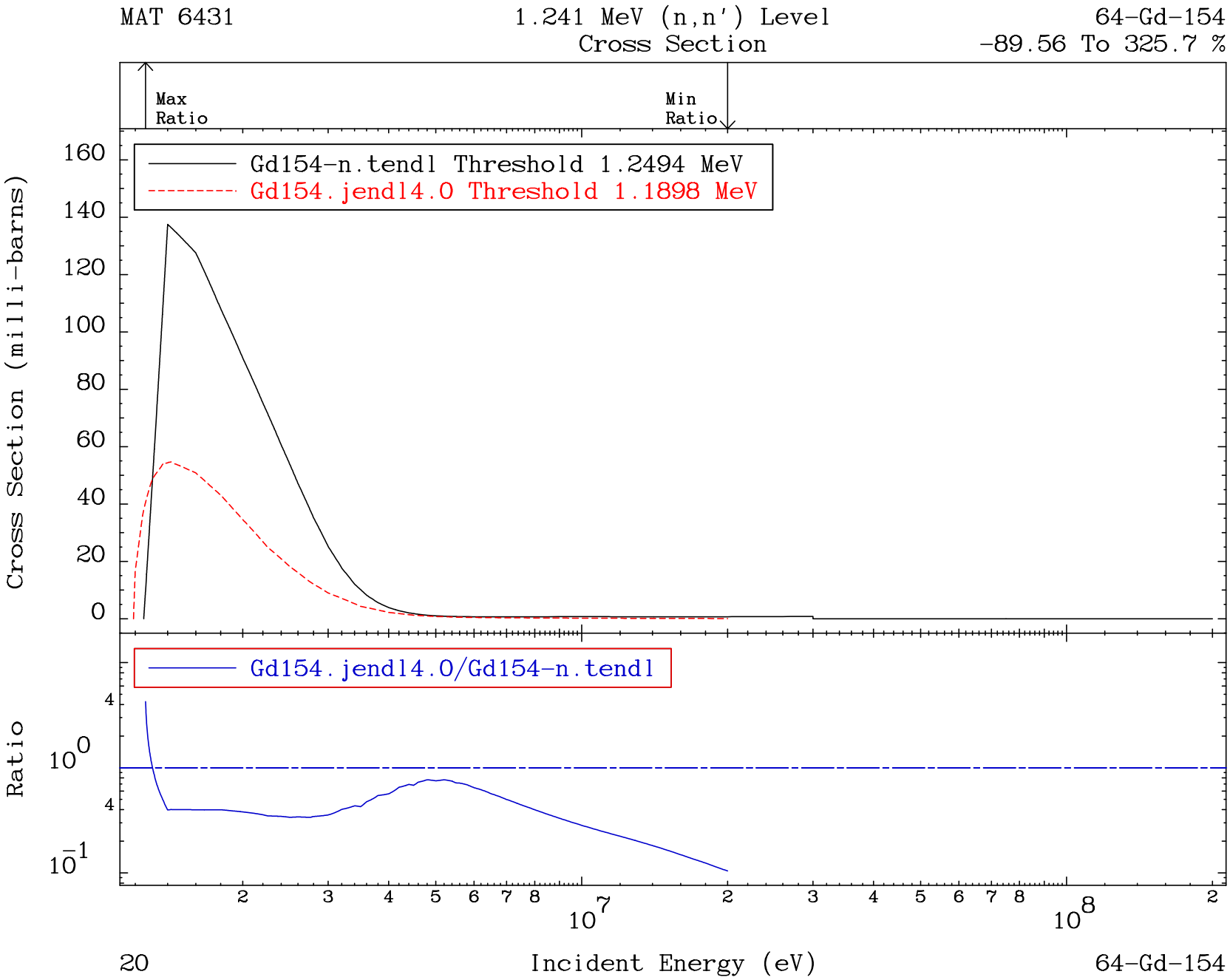

MAT 6431
996.3 keV (n,n') Level
Cross Section
64-Gd-154
-93.09 To 51.16 %
Max
Ratio
Min
Ratio
Gd154-n.tendl Threshold 1.0028 MeV
Gd154.jendl4.0 Threshold 1.0028 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
4
10^0
6
4
10^{-1}
6
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
15
Incident Energy (eV)
64-Gd-154

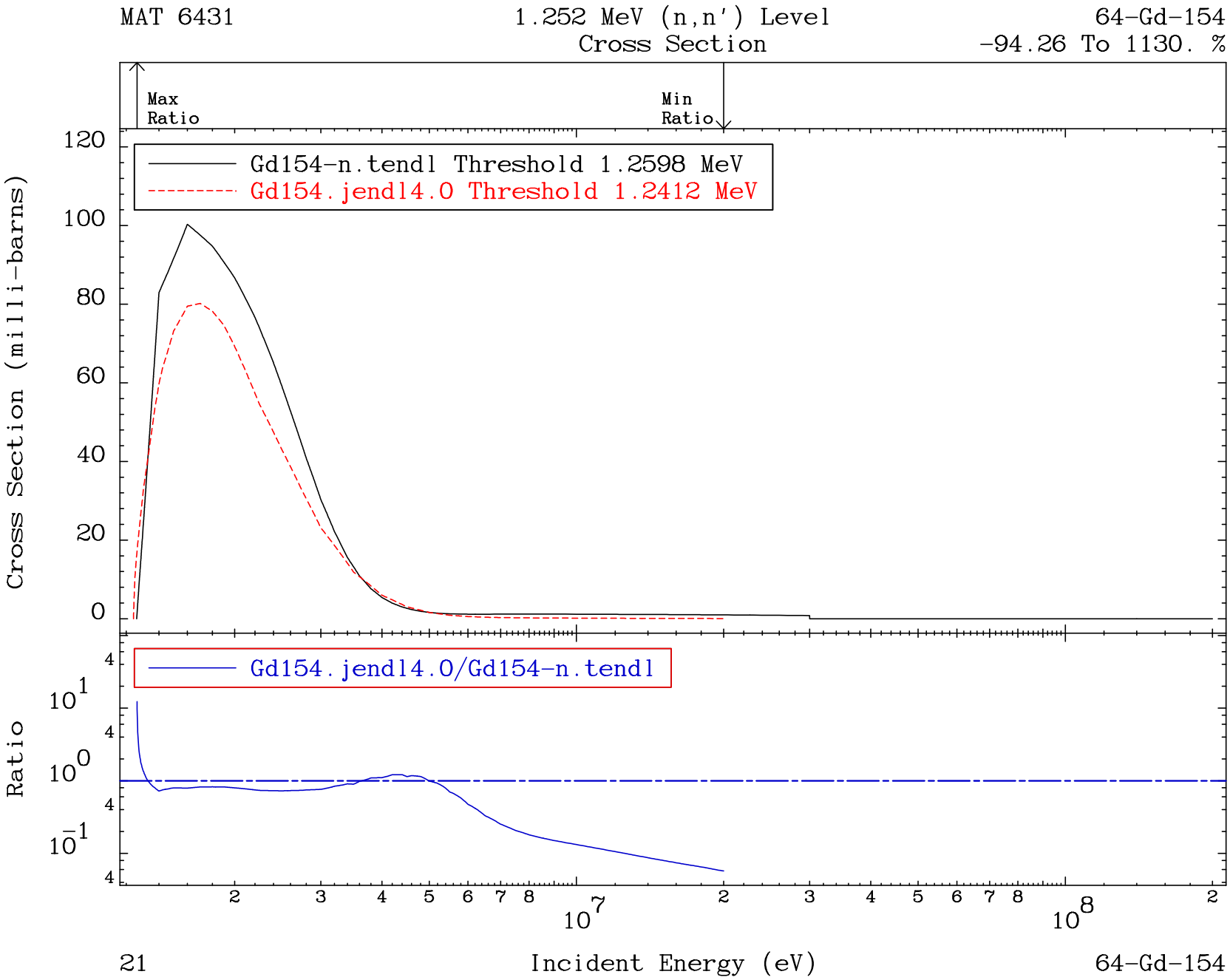

MAT 6431
1.048 MeV (n,n') Level
Cross Section
64-Gd-154
-91.91 To -13.47%
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.0545 MeV
Gd154.jendl4.0 Threshold 1.0545 MeV
Cross Section (milli-barns)
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^0
6
4
2
10^-1
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
16
Incident Energy (eV)
64-Gd-154

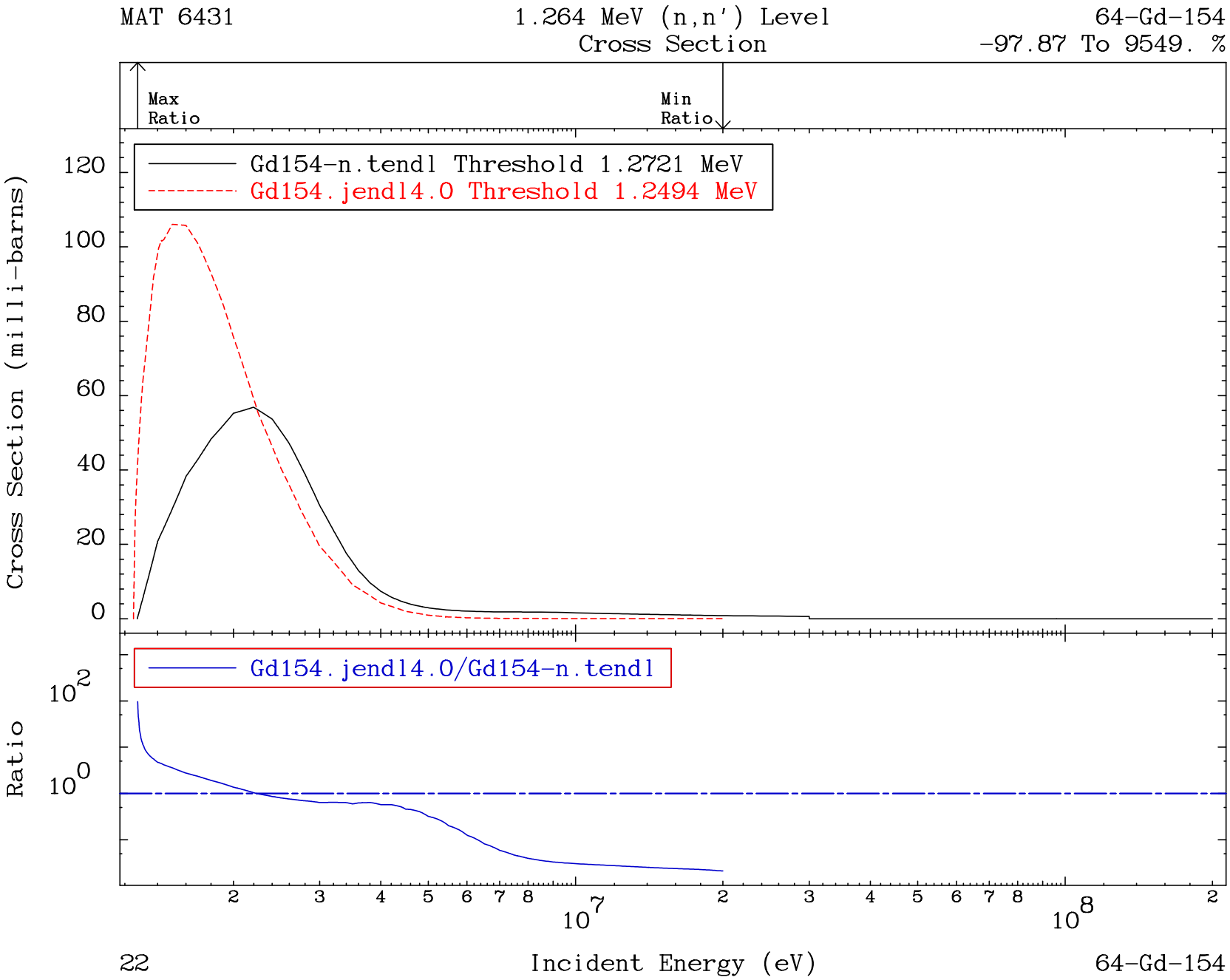

MAT 6431
1.128 MeV (n,n') Level
Cross Section
64-Gd-154
-36.81 To 9999. %
Min
Ratio
Max
Ratio
Gd154-n.tendl Threshold 1.1352 MeV
Gd154.jendl4.0 Threshold 1.1352 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^3
10^0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
17
Incident Energy (eV)
64-Gd-154

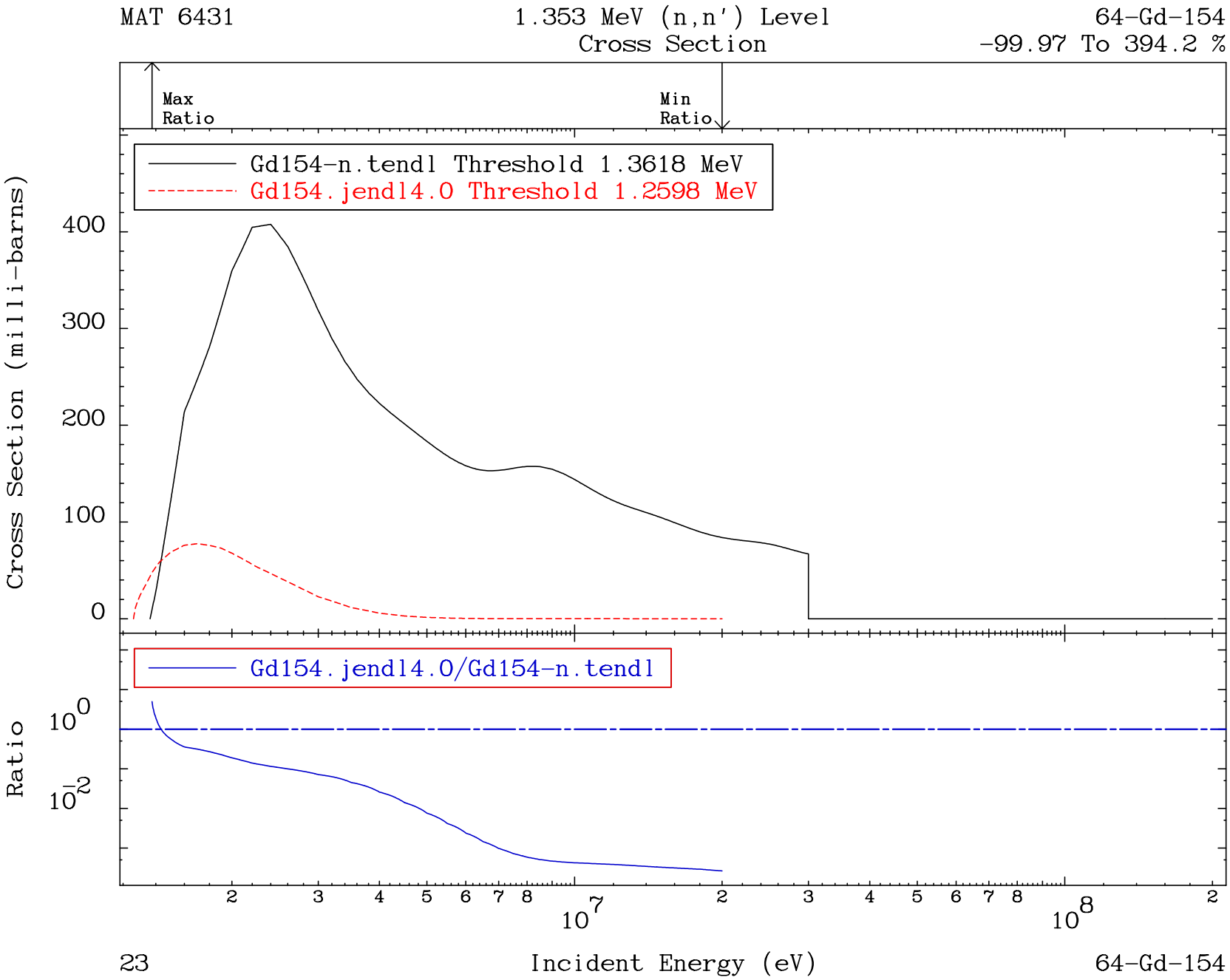

MAT 6431
1.144 MeV (n,n') Level
Cross Section
64-Gd-154
-97.57 To 9999. %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.1519 MeV
Gd154.jendl4.0 Threshold 1.1434 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
18
Incident Energy (eV)
64-Gd-154

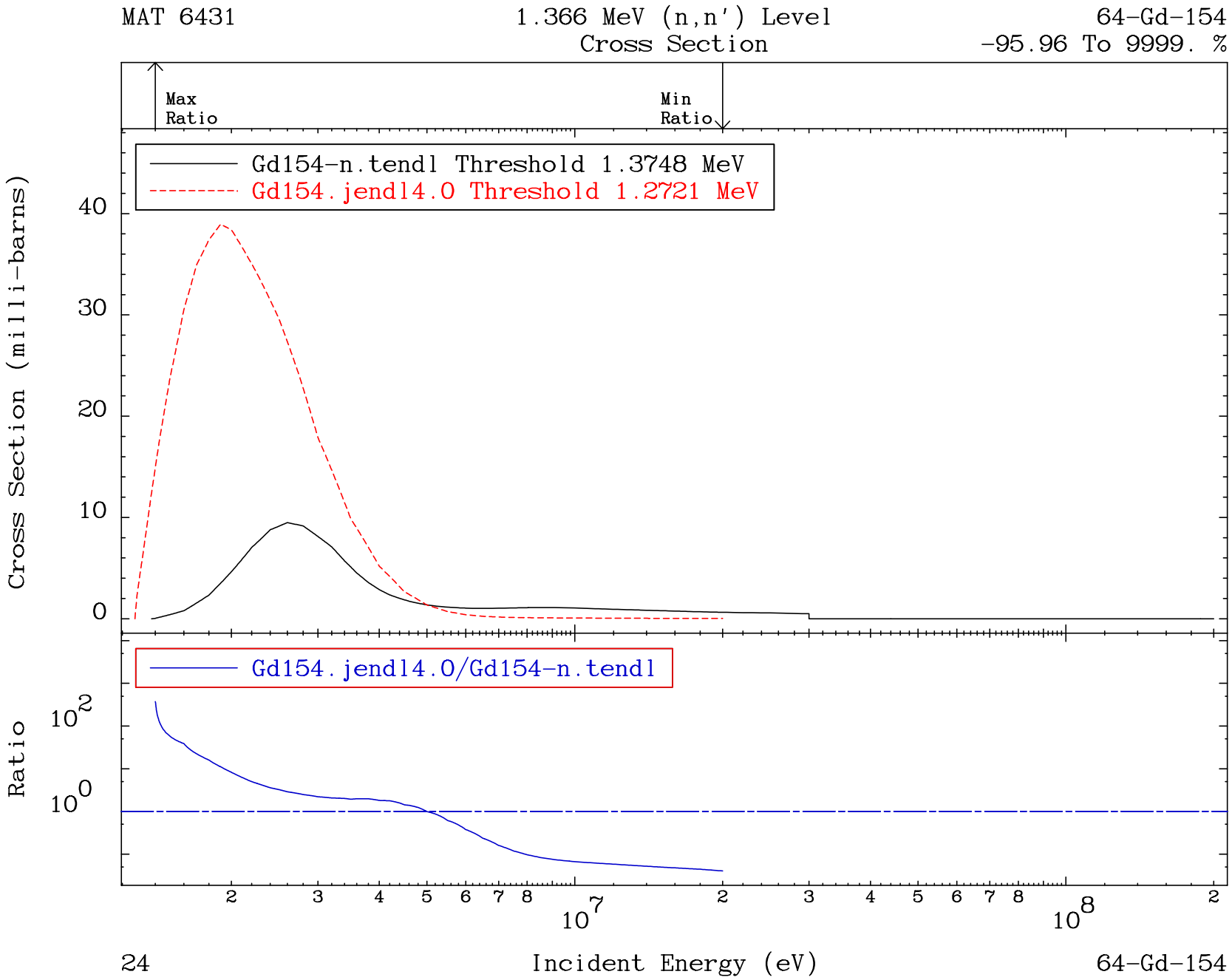

MAT 6431
1.182 MeV (n,n') Level
Cross Section
64-Gd-154
-100.0 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 1.1898 MeV
Gd154.jendl4.0 Threshold 1.1519 MeV
Cross Section (milli-barns)
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^10
10^5
10^0
10^-5
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
19
Incident Energy (eV)
64-Gd-154

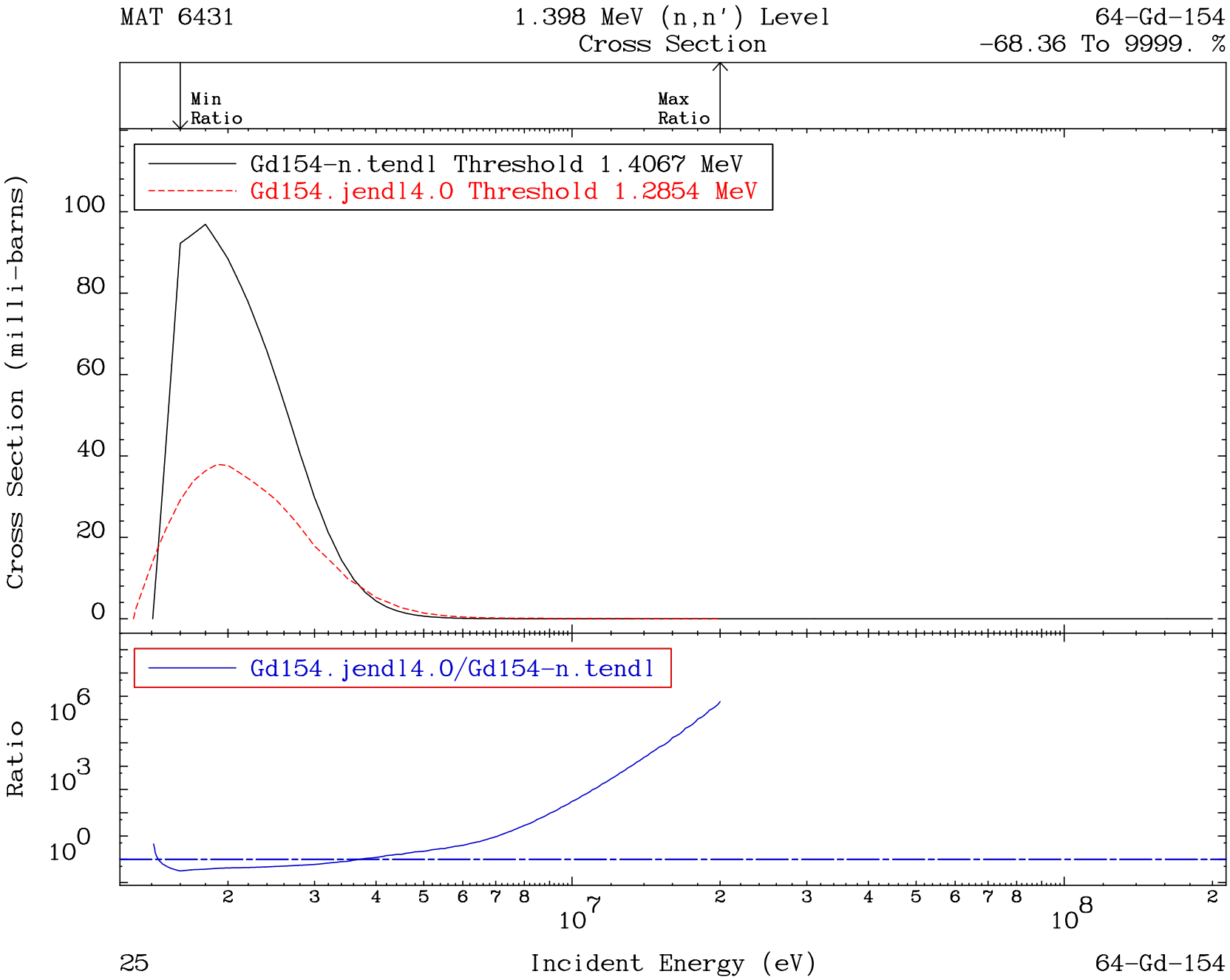

MAT 6431
1.241 MeV (n,n') Level
Cross Section
64-Gd-154
-89.56 To 325.7 %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.2494 MeV
Gd154.jendl4.0 Threshold 1.1898 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
4
10^0
4
10^{-1}
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
64-Gd-154

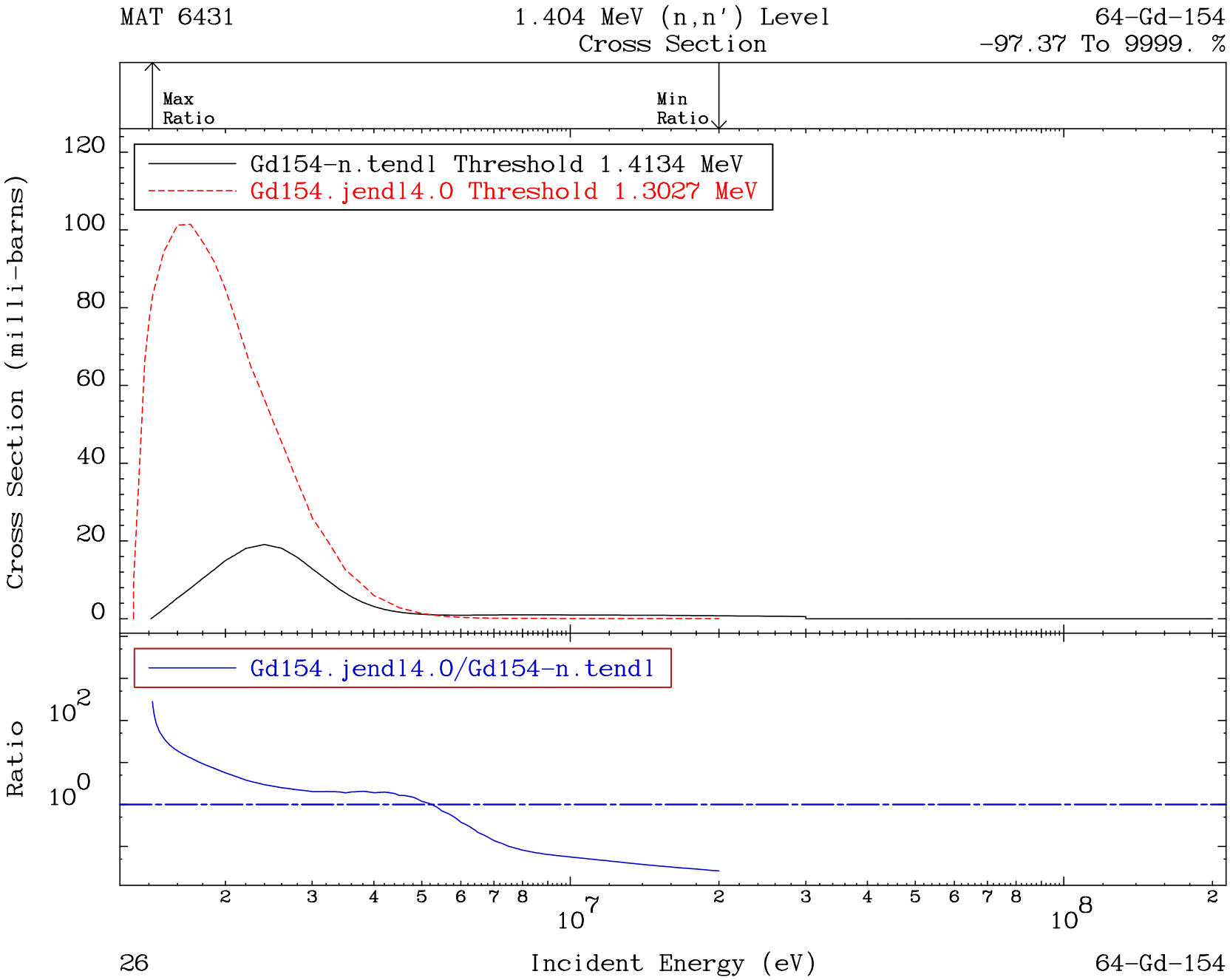

MAT 6431
1.252 MeV (n,n') Level
Cross Section
64-Gd-154
-94.26 To 1130. %
Max
Ratio
Min
Ratio
Gd154-n.tendl Threshold 1.2598 MeV
Gd154.jendl4.0 Threshold 1.2412 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^{1}
10^{0}
10^{-1}
2 3 4 5 6 7 8 10^{7} 2 3 4 5 6 7 8 10^{8} 2
21
Incident Energy (eV)
64-Gd-154

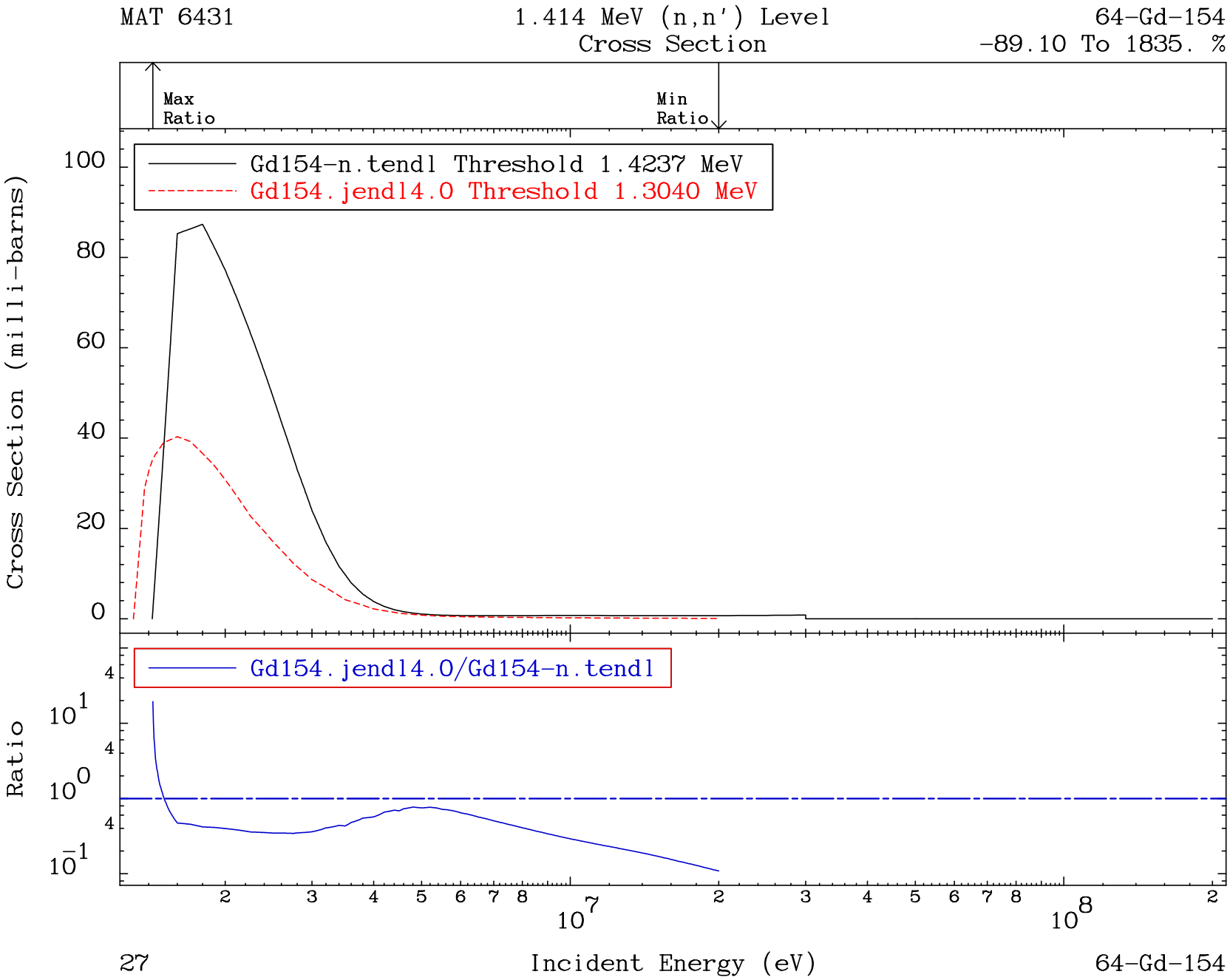

MAT 6431
1.264 MeV (n,n') Level
Cross Section
64-Gd-154
-97.87 To 9549. %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.2721 MeV
Gd154.jendl4.0 Threshold 1.2494 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^2
10^0
2
3
4
5
6
7
8
10^7
10^8
22
Incident Energy (eV)
64-Gd-154

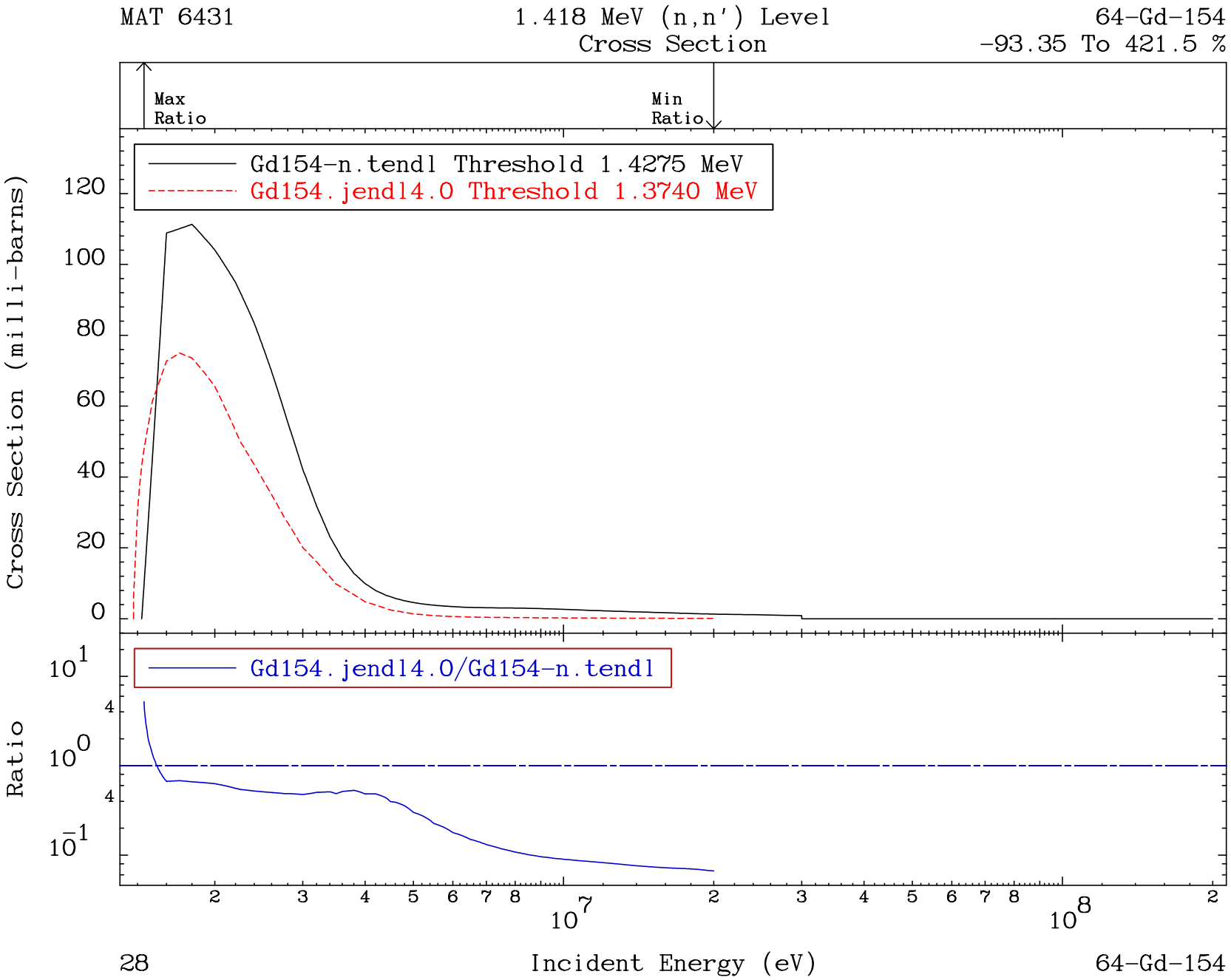

MAT 6431
1.353 MeV (n,n') Level
Cross Section
64-Gd-154
-99.97 To 394.2 %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.3618 MeV
Gd154.jendl4.0 Threshold 1.2598 MeV
Cross Section (milli-barns)
400
300
200
100
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^0
10^-2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
64-Gd-154

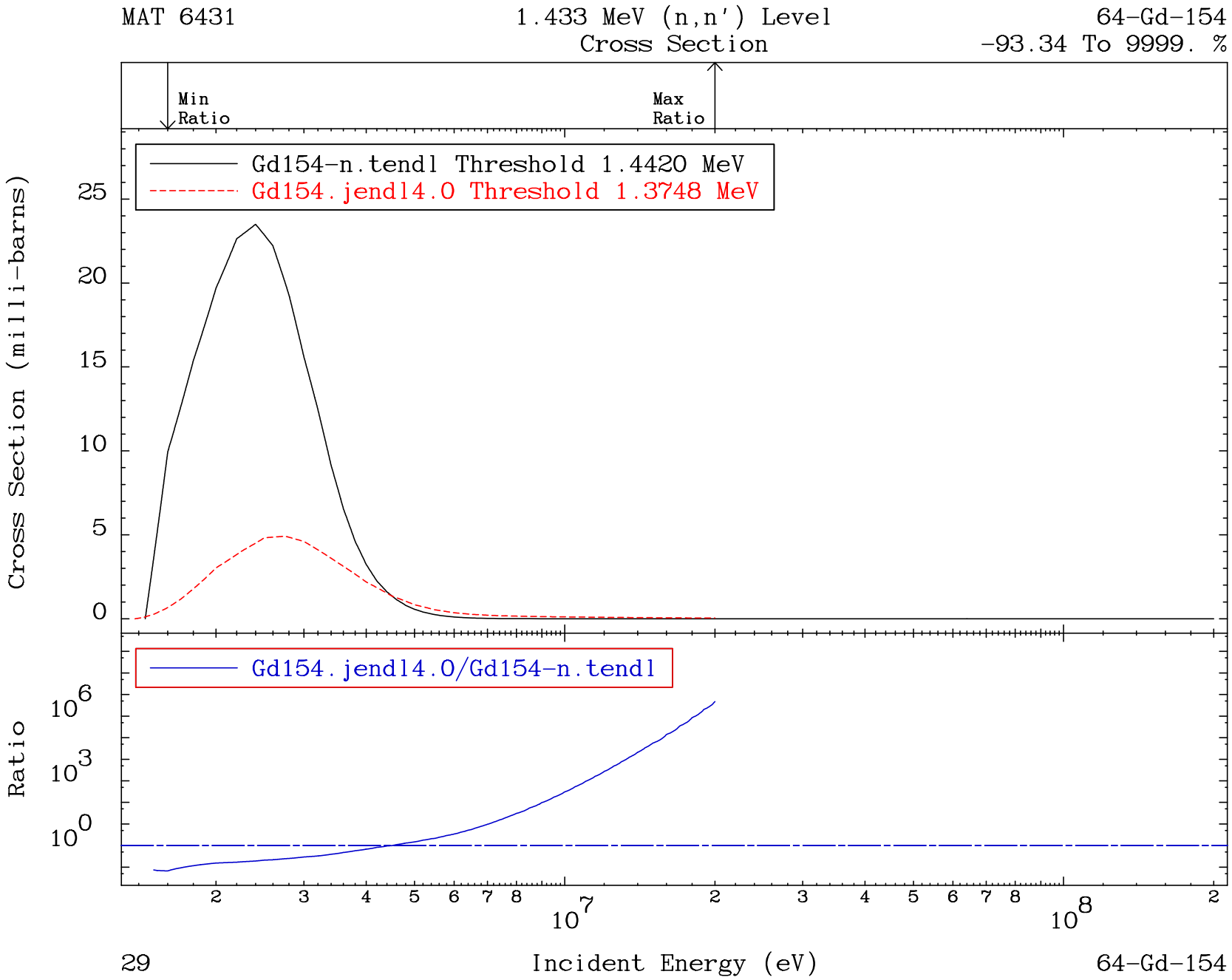

MAT 6431
1.366 MeV (n,n') Level
Cross Section
64-Gd-154
-95.96 To 9999. %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.3748 MeV
Gd154.jendl4.0 Threshold 1.2721 MeV
Cross Section (milli-barns)
40
30
20
10
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
64-Gd-154

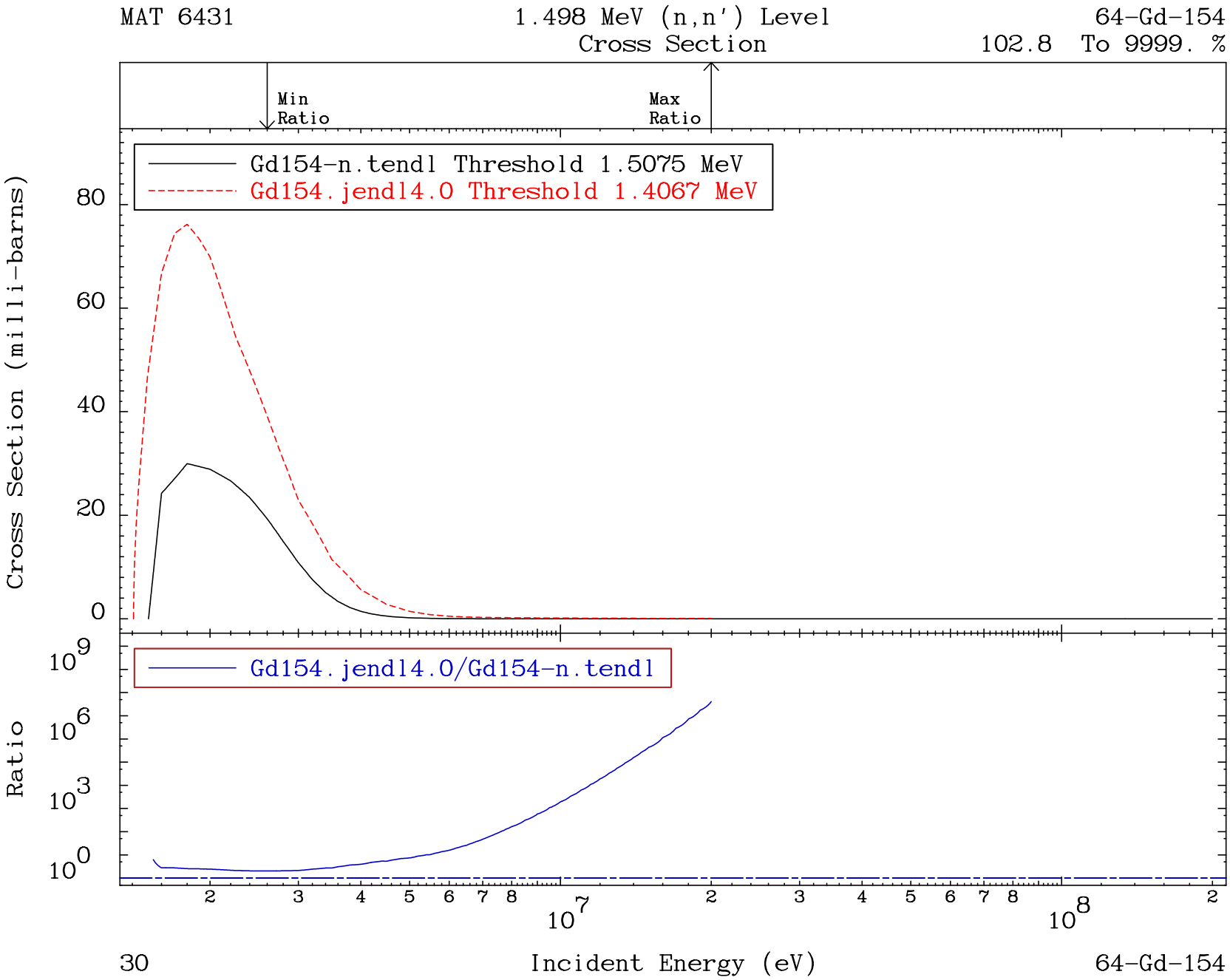

MAT 6431
1.398 MeV (n,n') Level
Cross Section
64-Gd-154
-68.36 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 1.4067 MeV
Gd154.jendl4.0 Threshold 1.2854 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
64-Gd-154

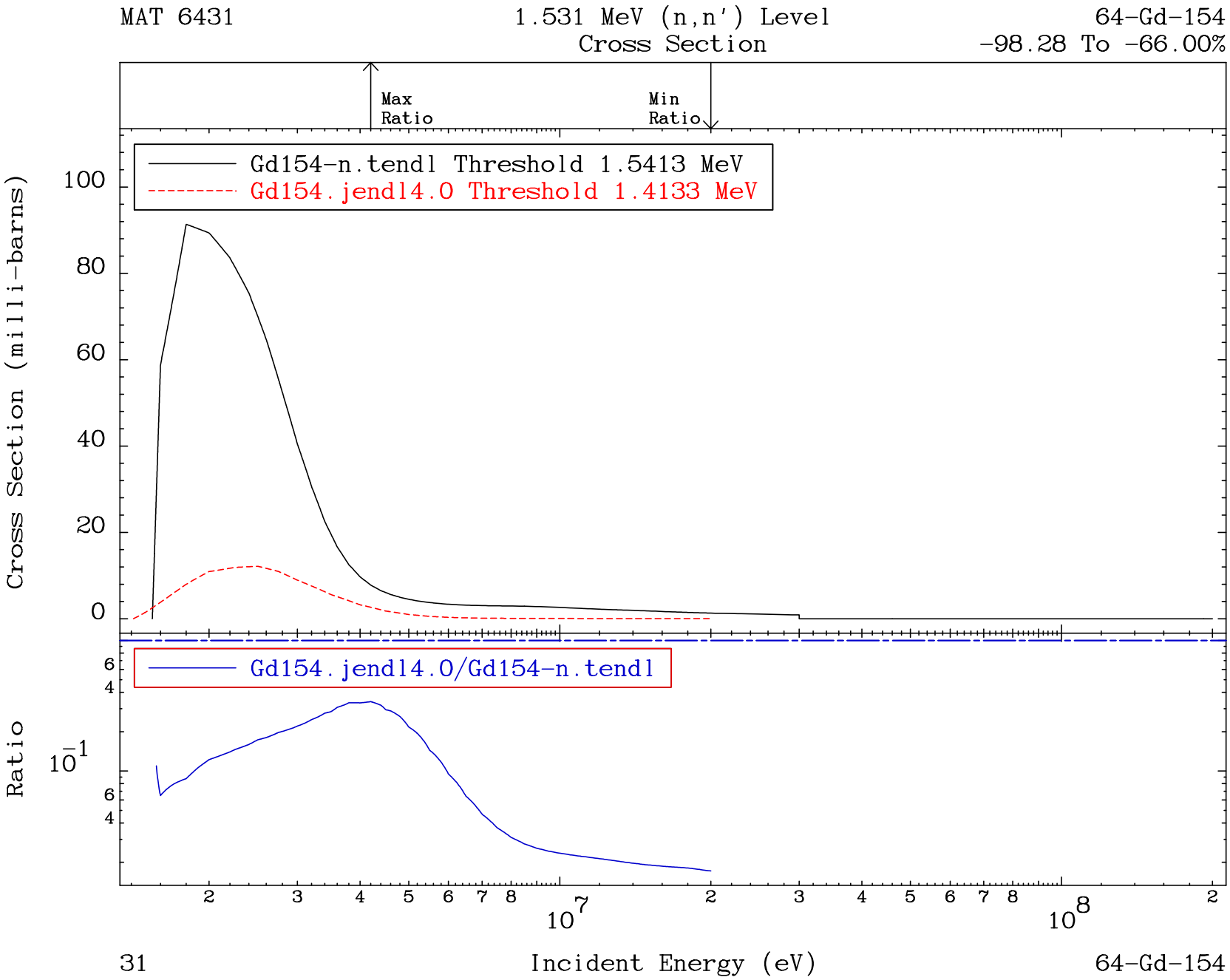

MAT 6431
1.404 MeV (n,n') Level
Cross Section
64-Gd-154
-97.37 To 9999. %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.4134 MeV
Gd154.jendl4.0 Threshold 1.3027 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
26
Incident Energy (eV)
64-Gd-154

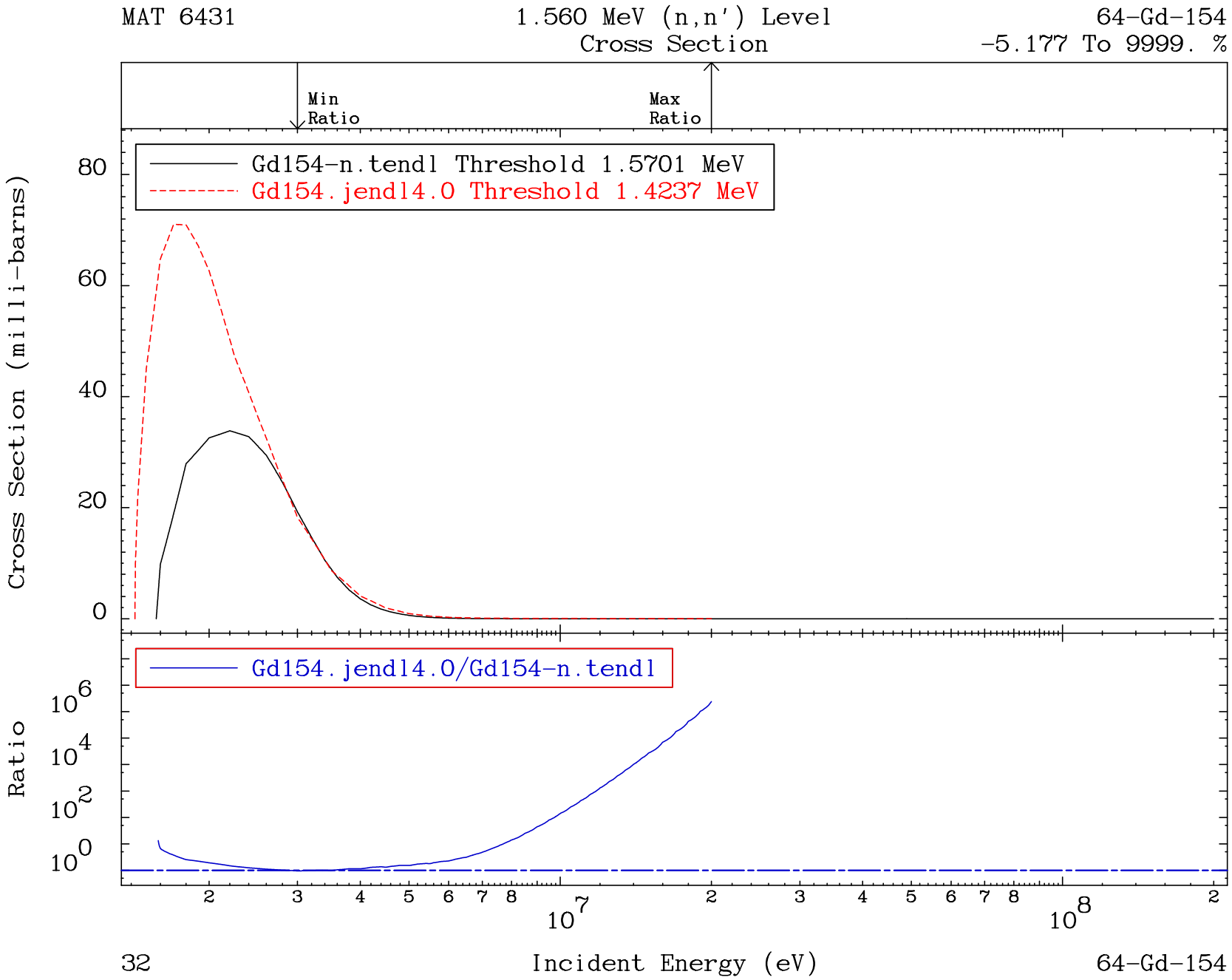

MAT 6431
1.414 MeV (n,n') Level
Cross Section
64-Gd-154
-89.10 To 1835. %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.4237 MeV
Gd154.jendl4.0 Threshold 1.3040 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^{1}
10^{0}
10^{-1}
2 3 4 5 6 7 8
10^{7}
2 3 4 5 6 7 8
10^{8}
2
27
Incident Energy (eV)
64-Gd-154

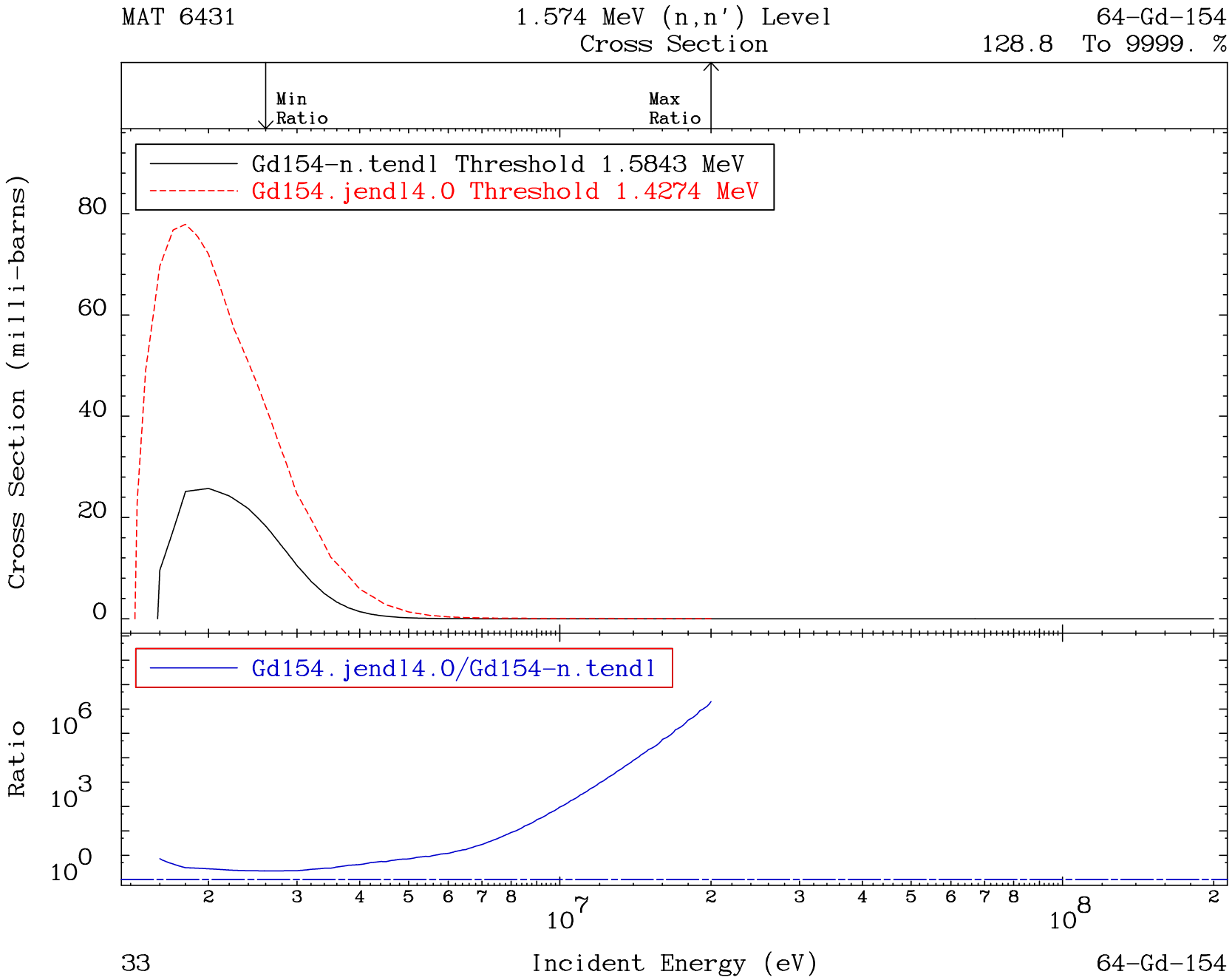

MAT 6431
1.418 MeV (n,n') Level
Cross Section
64-Gd-154
-93.35 To 421.5 %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.4275 MeV
Gd154.jendl4.0 Threshold 1.3740 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^1
10^0
10^-1
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
28
Incident Energy (eV)
64-Gd-154

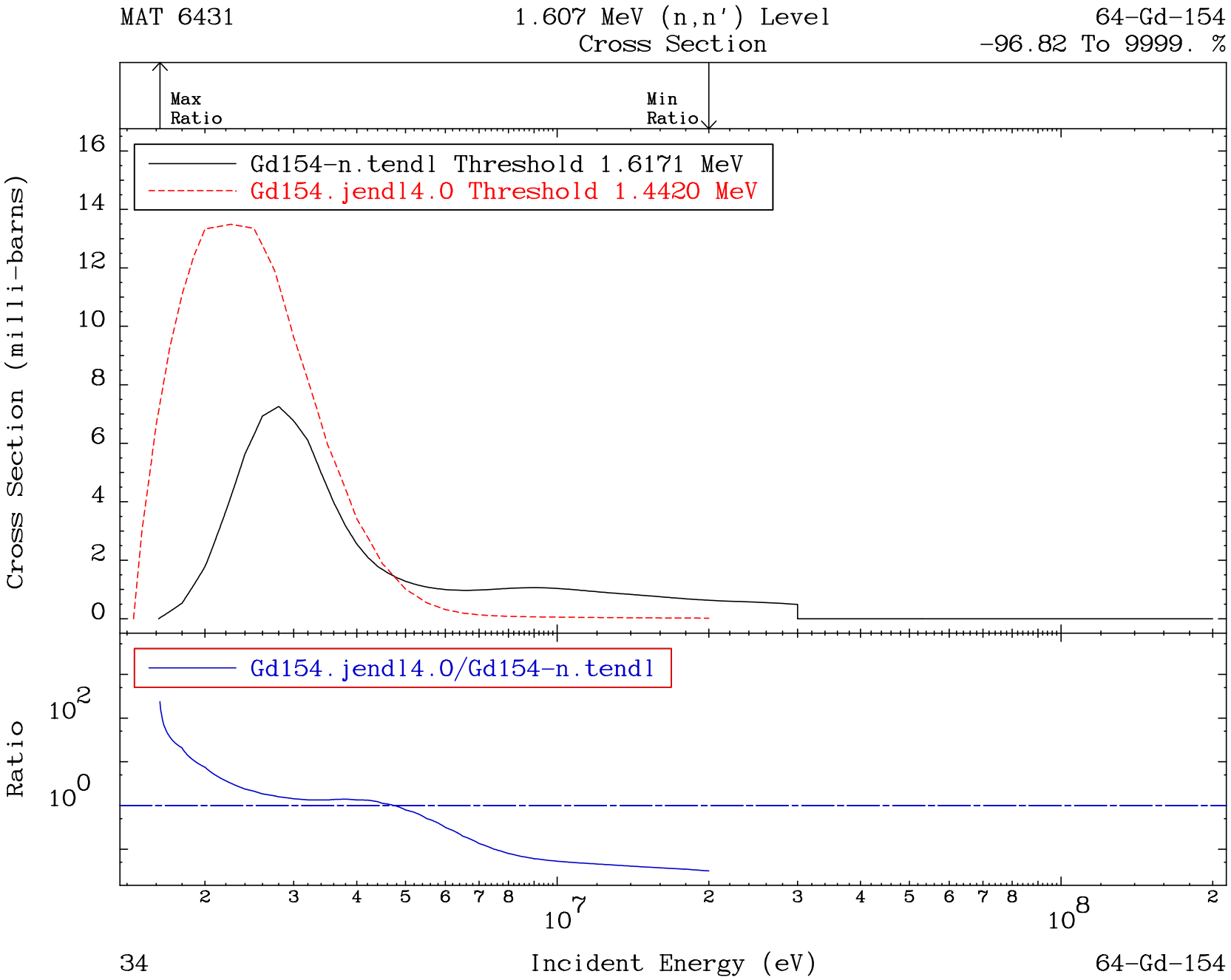

MAT 6431
1.433 MeV (n,n') Level
Cross Section
64-Gd-154
-93.34 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 1.4420 MeV
Gd154.jendl4.0 Threshold 1.3748 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
29
Incident Energy (eV)
64-Gd-154

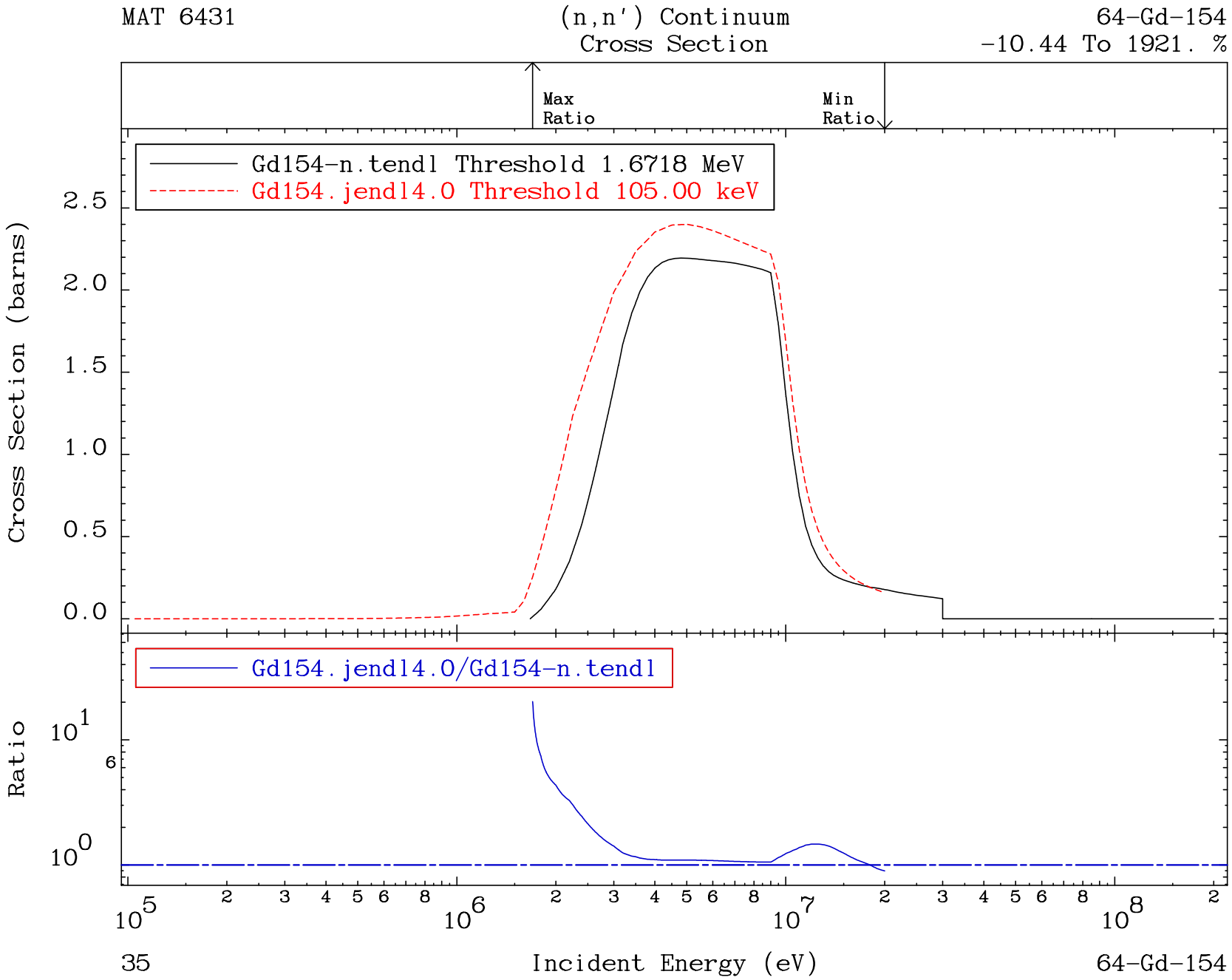

MAT 6431
1.498 MeV (n,n') Level
Cross Section
64-Gd-154
102.8 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 1.5075 MeV
Gd154.jendl4.0 Threshold 1.4067 MeV
Cross Section (milli-barns)
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^9
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
64-Gd-154

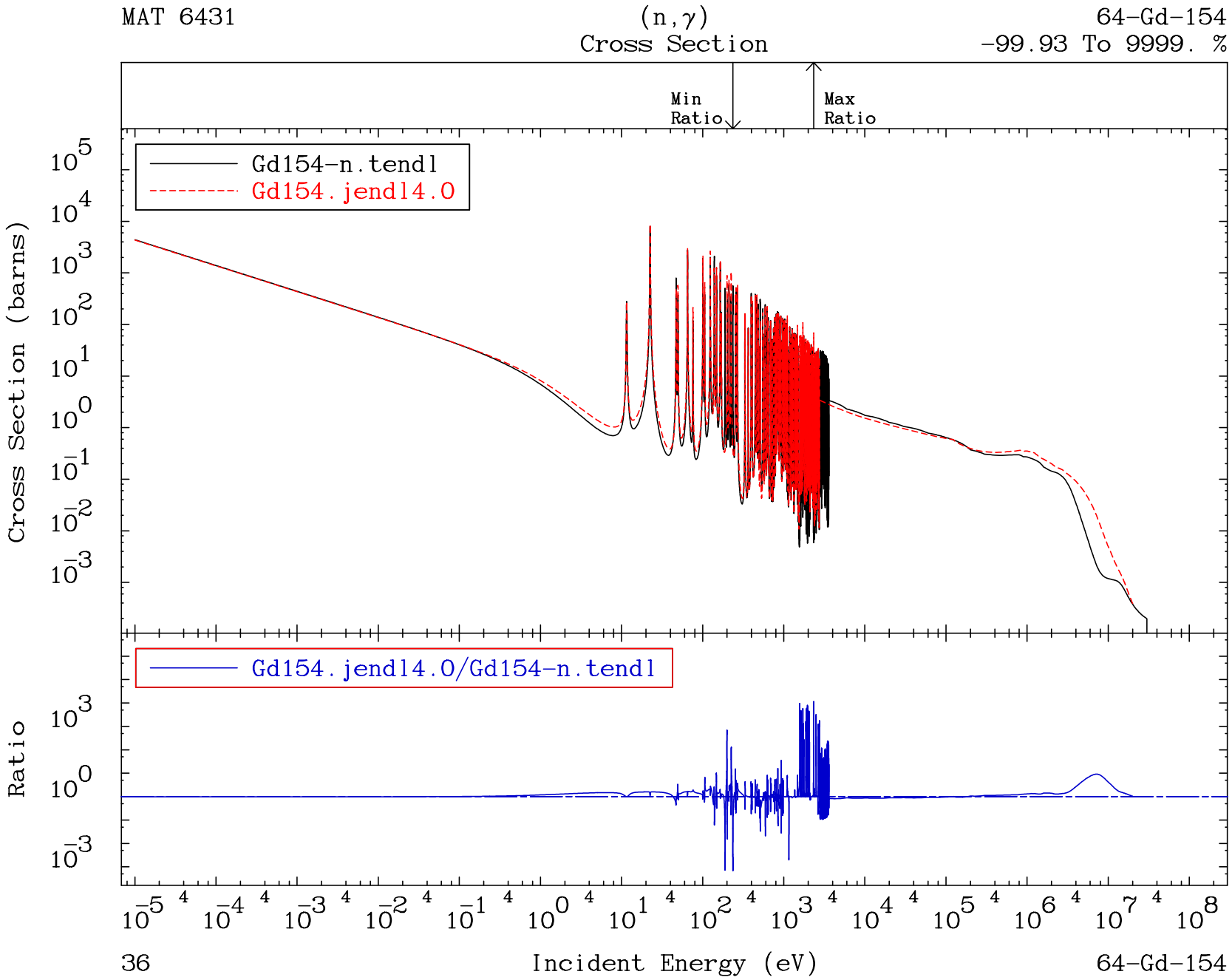

MAT 6431
1.531 MeV (n,n') Level
Cross Section
64-Gd-154
-98.28 To -66.00%
Max
Ratio
Min
Ratio
Gd154-n.tendl Threshold 1.5413 MeV
Gd154.jendl4.0 Threshold 1.4133 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
6
4
10^{-1}
6
4
2
3
4
5
6
7
8
10^{7}
2
3
4
5
6
7
8
10^{8}
2
31
Incident Energy (eV)
64-Gd-154

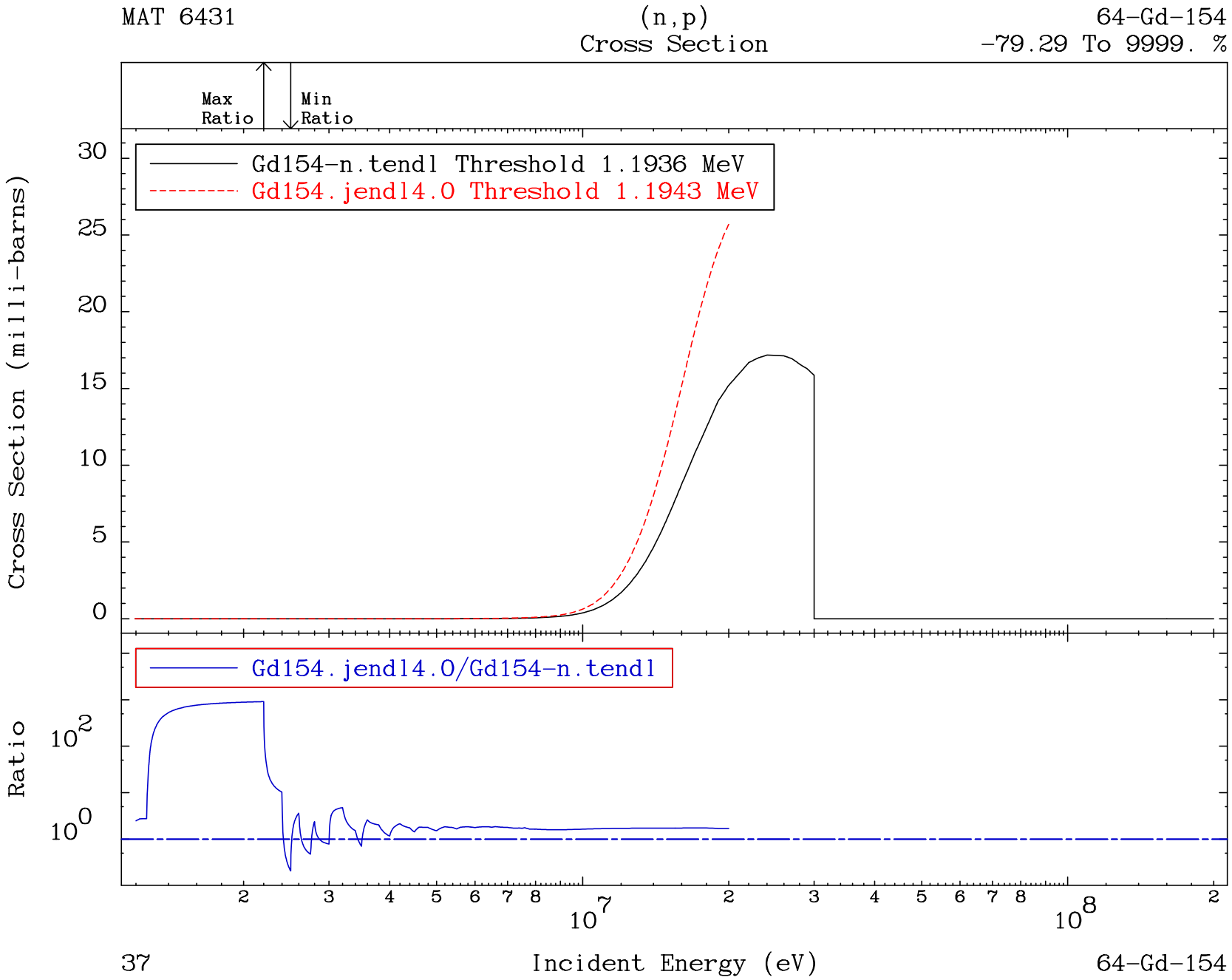

MAT 6431
1.560 MeV (n,n') Level
Cross Section
64-Gd-154
-5.177 To 9999. %
Min
Ratio
Max
Ratio
Gd154-n.tendl Threshold 1.5701 MeV
Gd154.jendl4.0 Threshold 1.4237 MeV
Cross Section (milli-barns)
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^4
10^2
10^0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
32
Incident Energy (eV)
64-Gd-154

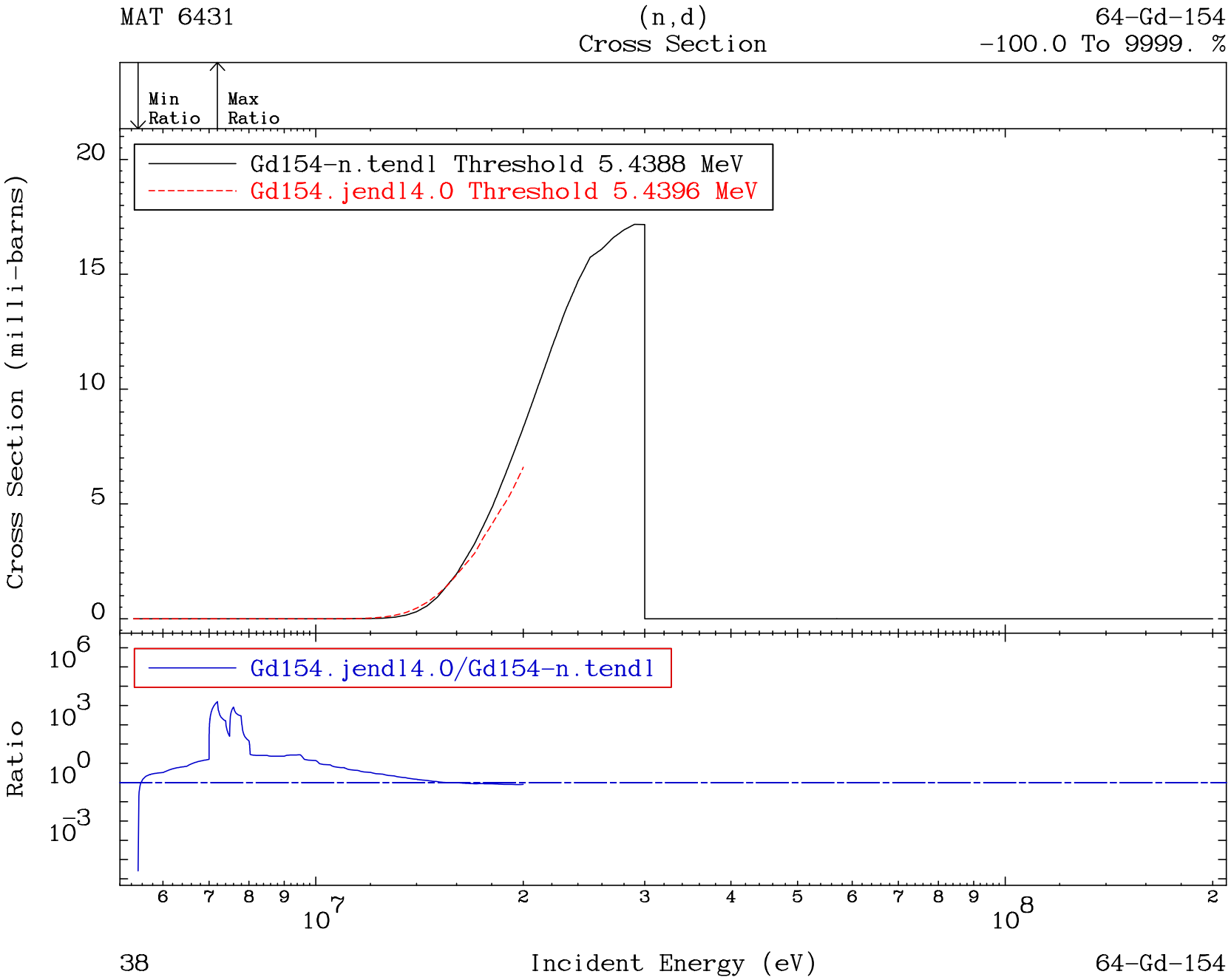

MAT 6431
1.574 MeV (n,n') Level
Cross Section
64-Gd-154
128.8 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 1.5843 MeV
Gd154.jendl4.0 Threshold 1.4274 MeV
Cross Section (milli-barns)
80
60
40
20
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
33
Incident Energy (eV)
64-Gd-154

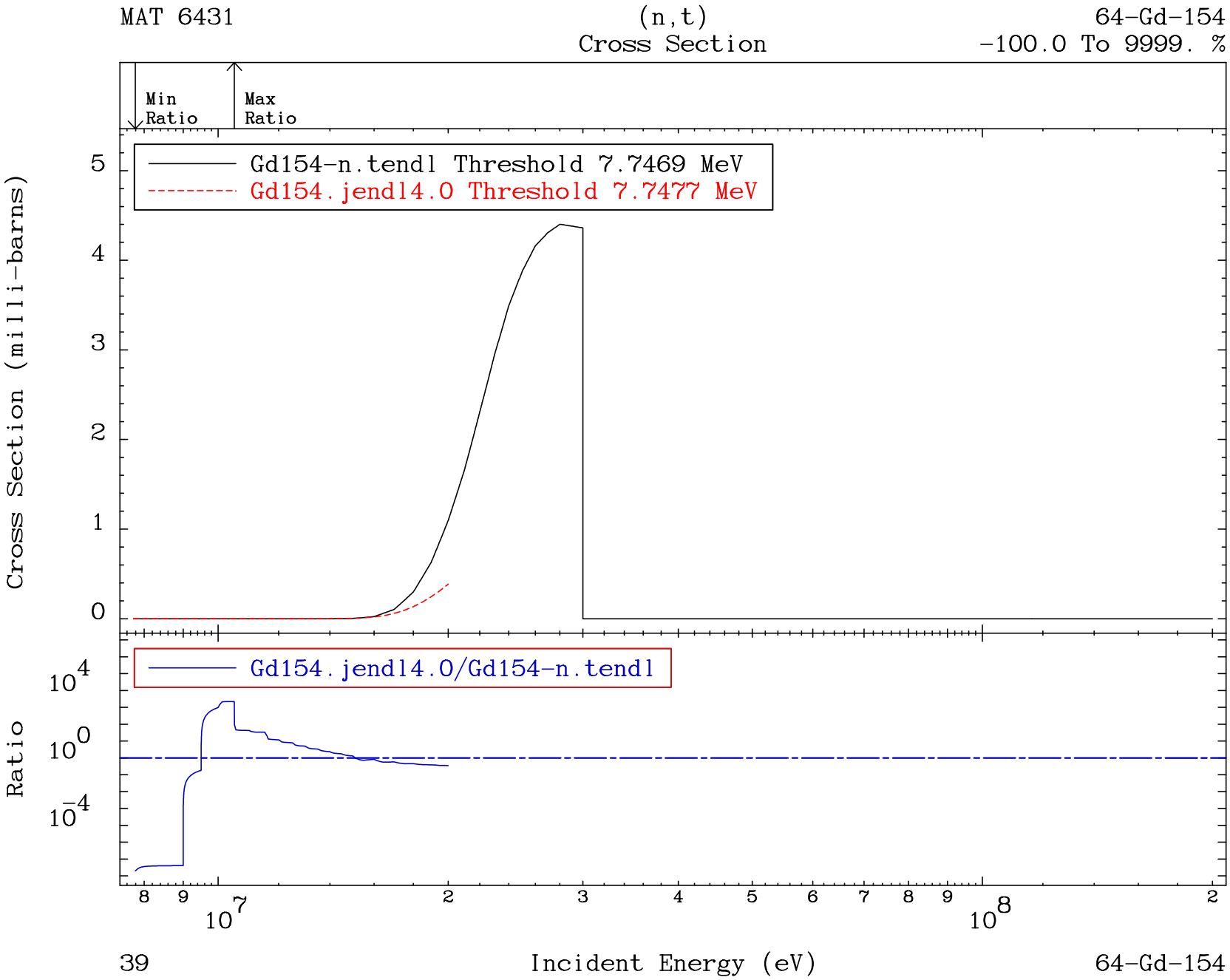

MAT 6431
1.607 MeV (n,n') Level
Cross Section
64-Gd-154
-96.82 To 9999. %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.6171 MeV
Gd154.jendl4.0 Threshold 1.4420 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^2
10^0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
34
Incident Energy (eV)
64-Gd-154

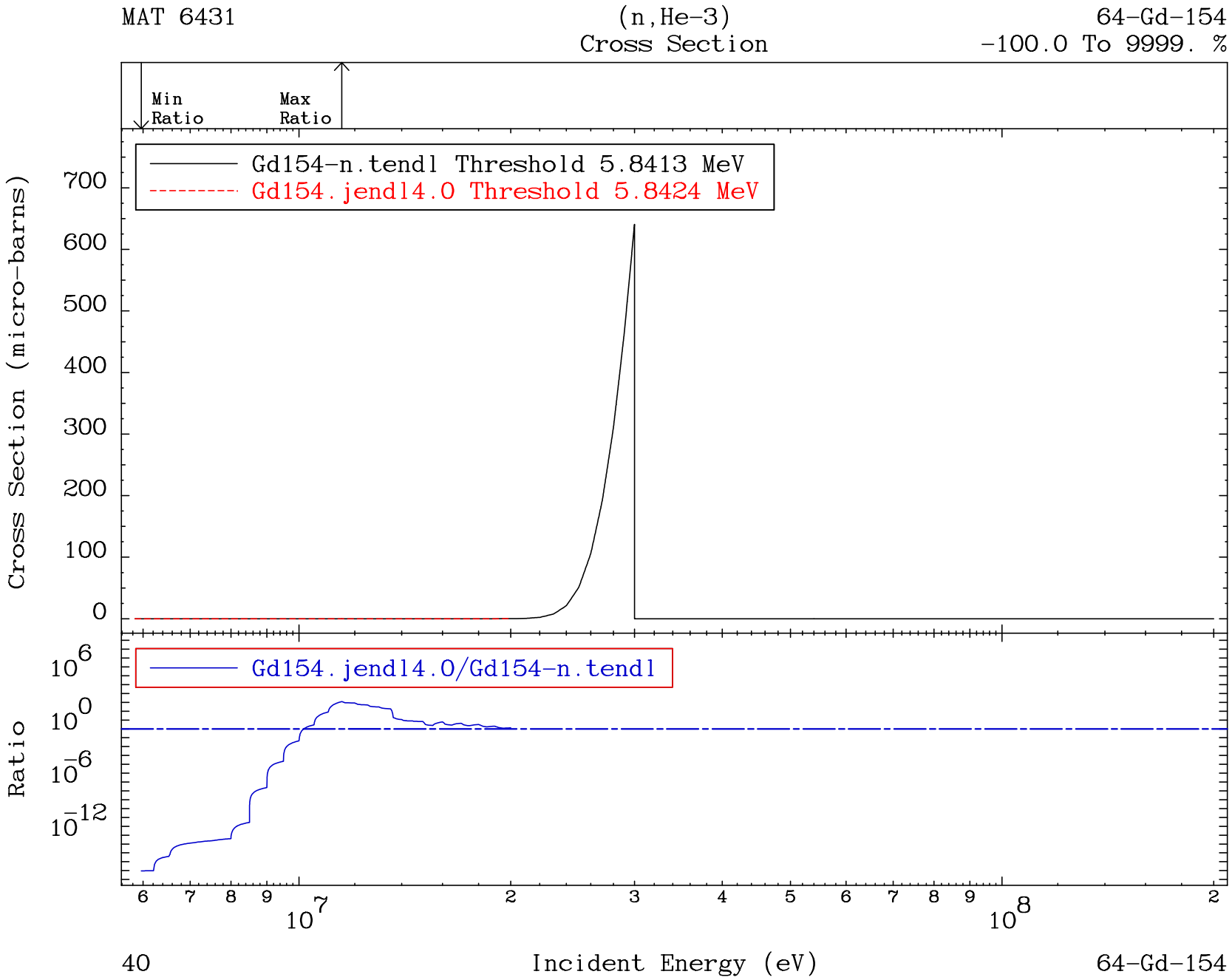

MAT 6431
(n,n') Continuum
Cross Section
64-Gd-154
-10.44 To 1921. %
Max
Ratio
Min
Ratio
Gd154-n.tendl Threshold 1.6718 MeV
Gd154.jendl4.0 Threshold 105.00 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^1
6
10^0
10^5
2 3 4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
35
Incident Energy (eV)
64-Gd-154

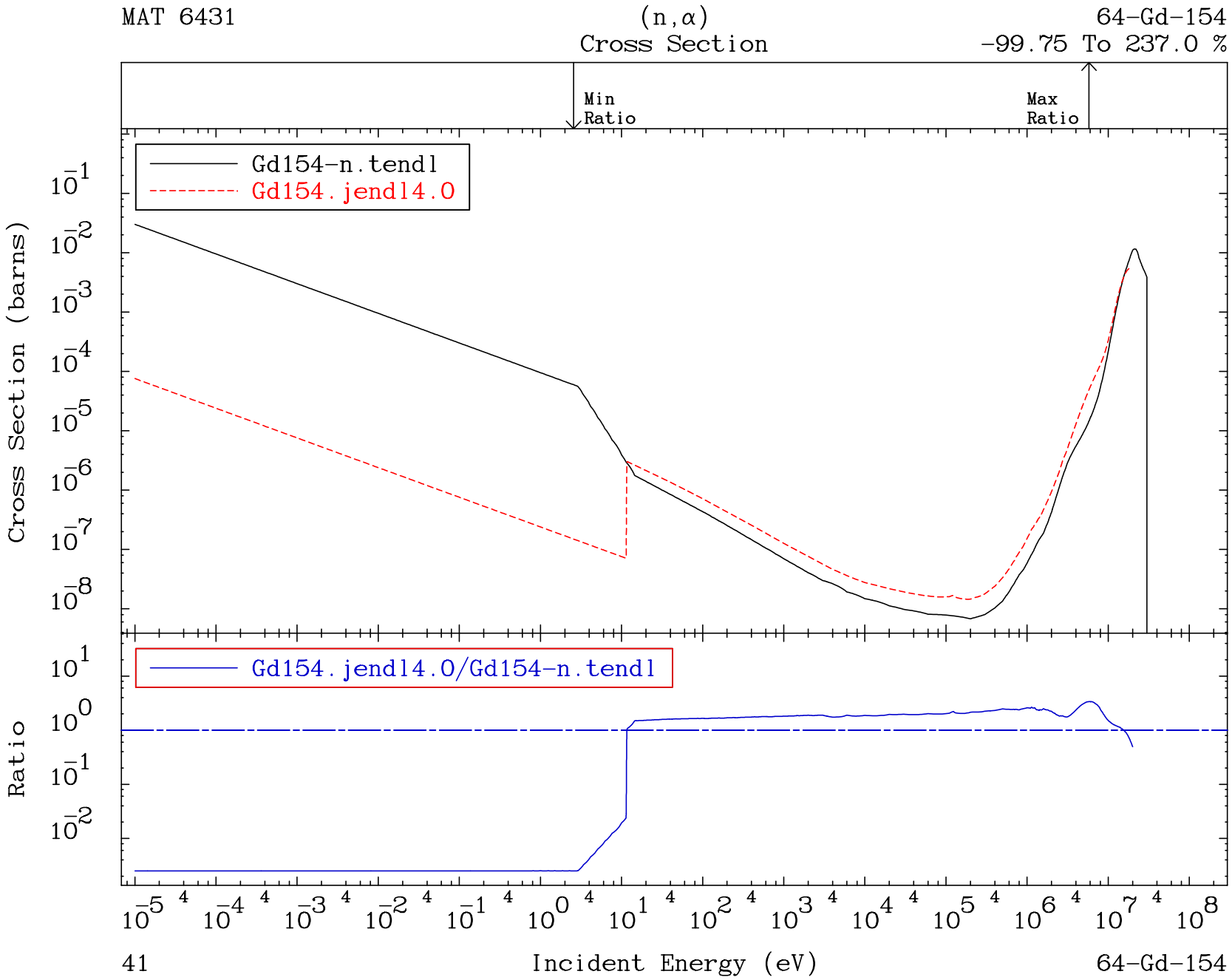

MAT 6431
(n,γ)
Cross Section
64-Gd-154
-99.93 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
36
64-Gd-154

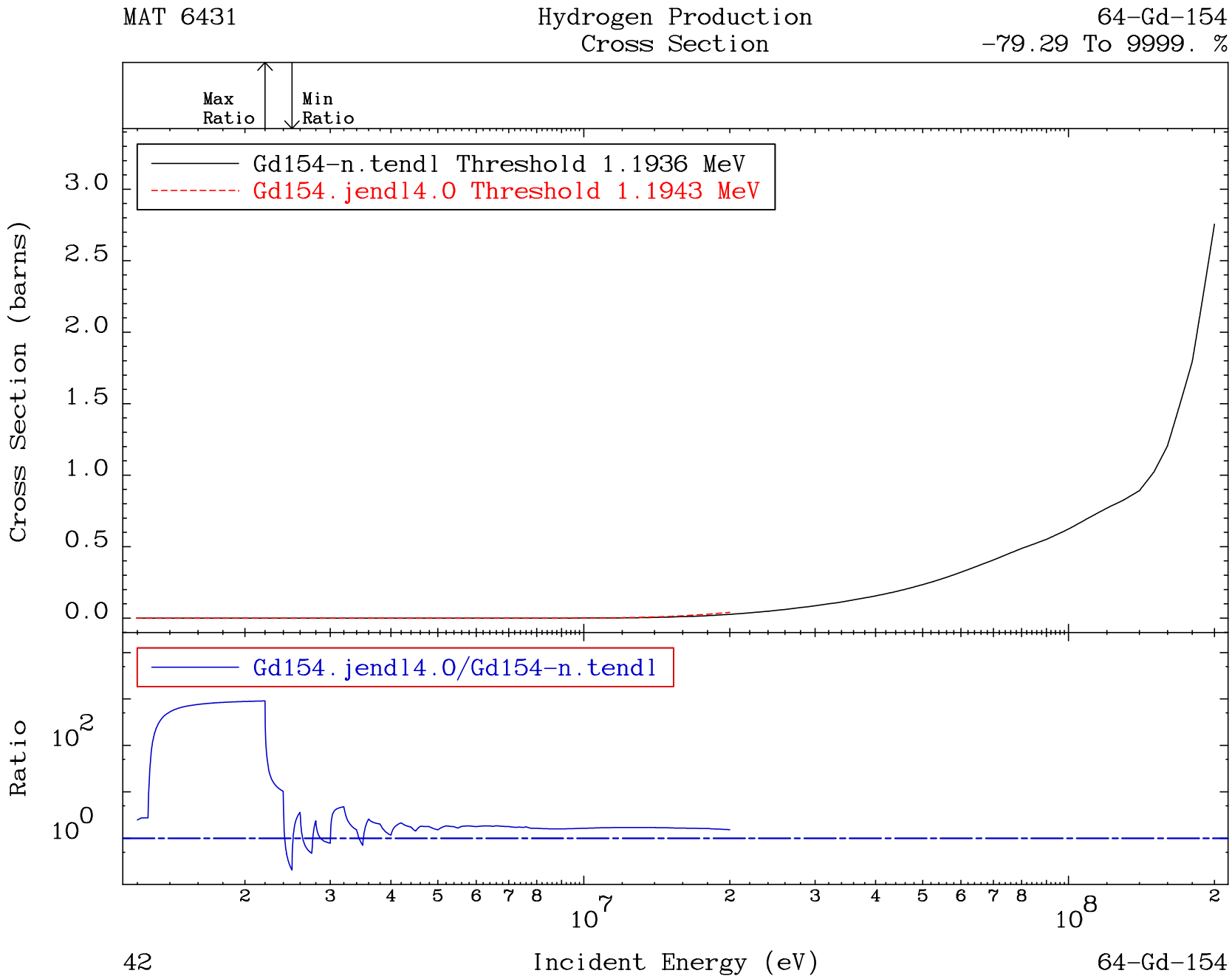

MAT 6431
(n,p)
Cross Section
64-Gd-154
-79.29 To 9999. %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.1936 MeV
Gd154.jendl4.0 Threshold 1.1943 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
37
Incident Energy (eV)
64-Gd-154

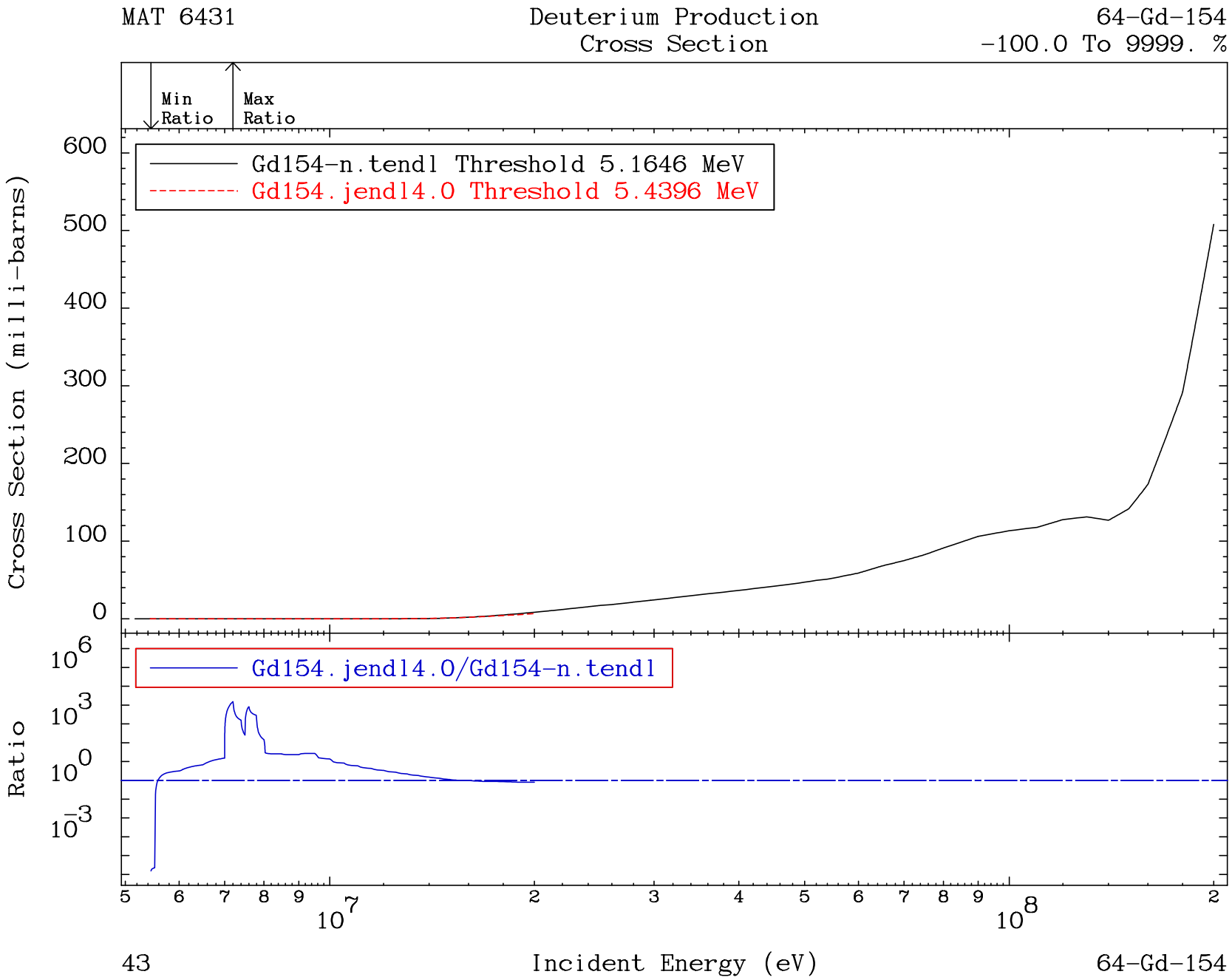

MAT 6431
(n,d)
Cross Section
64-Gd-154
-100.0 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 5.4388 MeV
Gd154.jendl4.0 Threshold 5.4396 MeV
Cross Section (milli-barns)
20
15
10
5
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^3
10^0
10^-3
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
38
Incident Energy (eV)
64-Gd-154

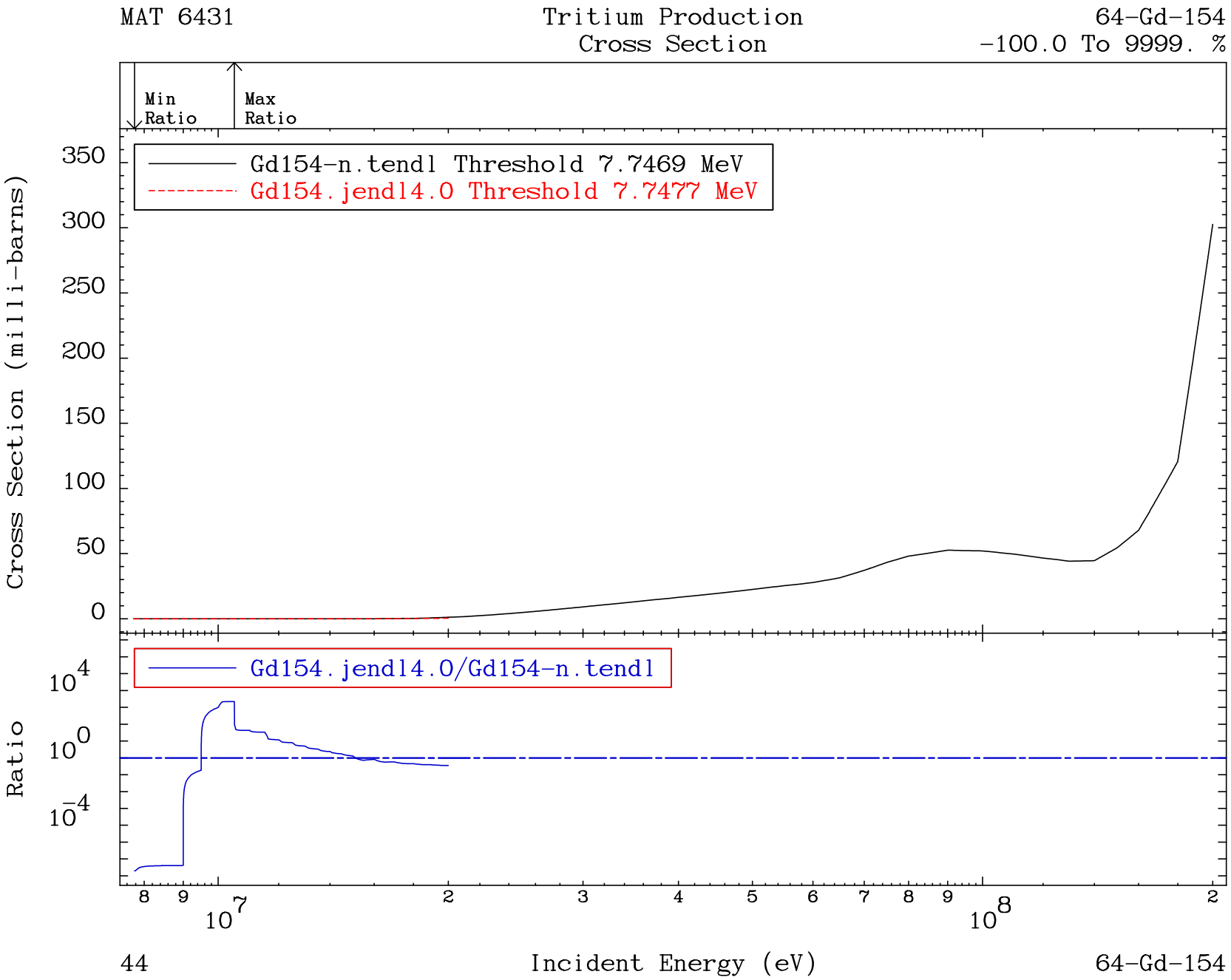

MAT 6431
(n,t)
Cross Section
64-Gd-154
-100.0 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 7.7469 MeV
Gd154.jendl4.0 Threshold 7.7477 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^4
10^0
10^-4
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
39
Incident Energy (eV)
64-Gd-154

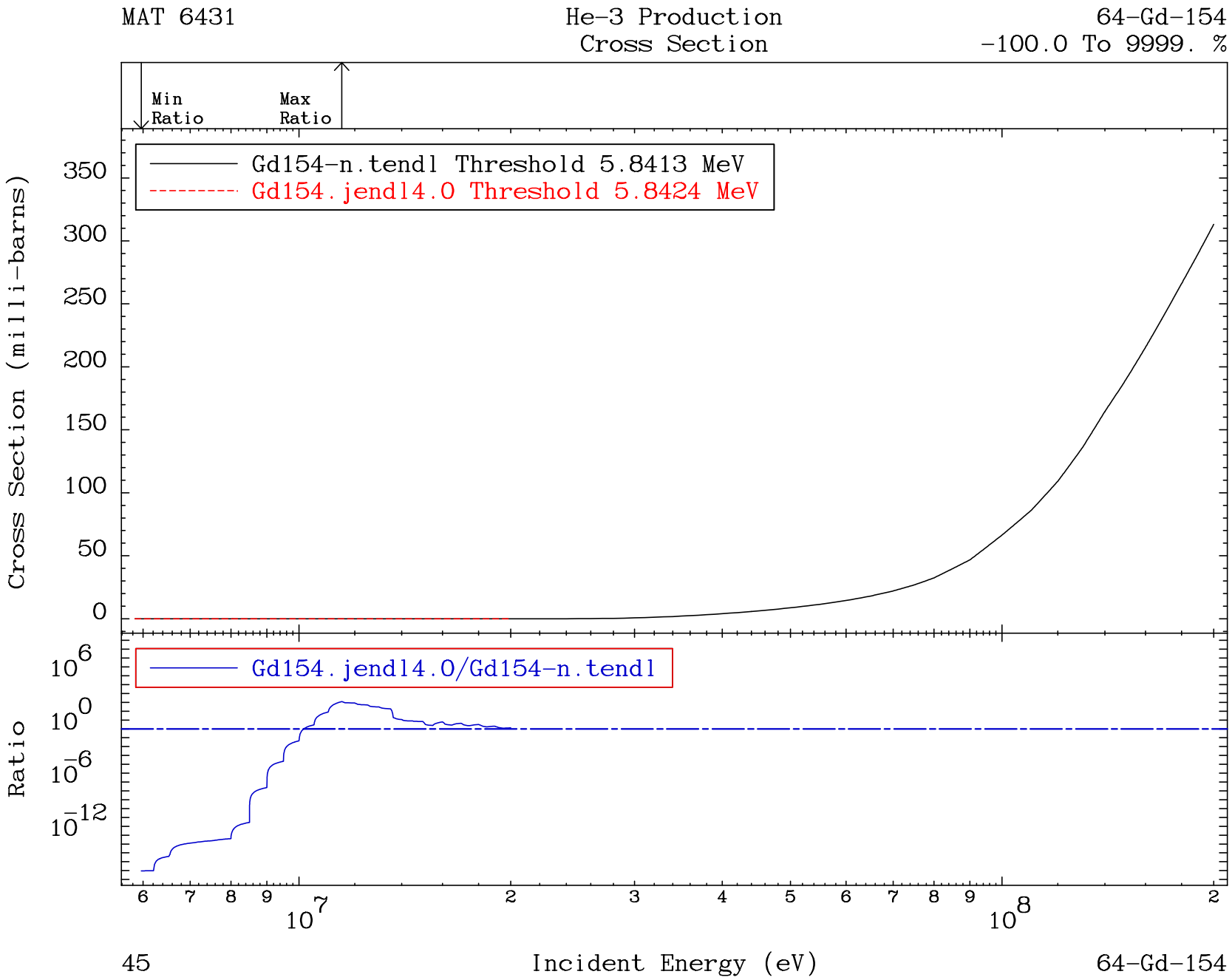

MAT 6431
(n,He-3)
Cross Section
64-Gd-154
-100.0 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 5.8413 MeV
Gd154.jendl4.0 Threshold 5.8424 MeV
Cross Section (micro-barns)
700
600
500
400
300
200
100
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^0
10^-6
10^-12
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
64-Gd-154

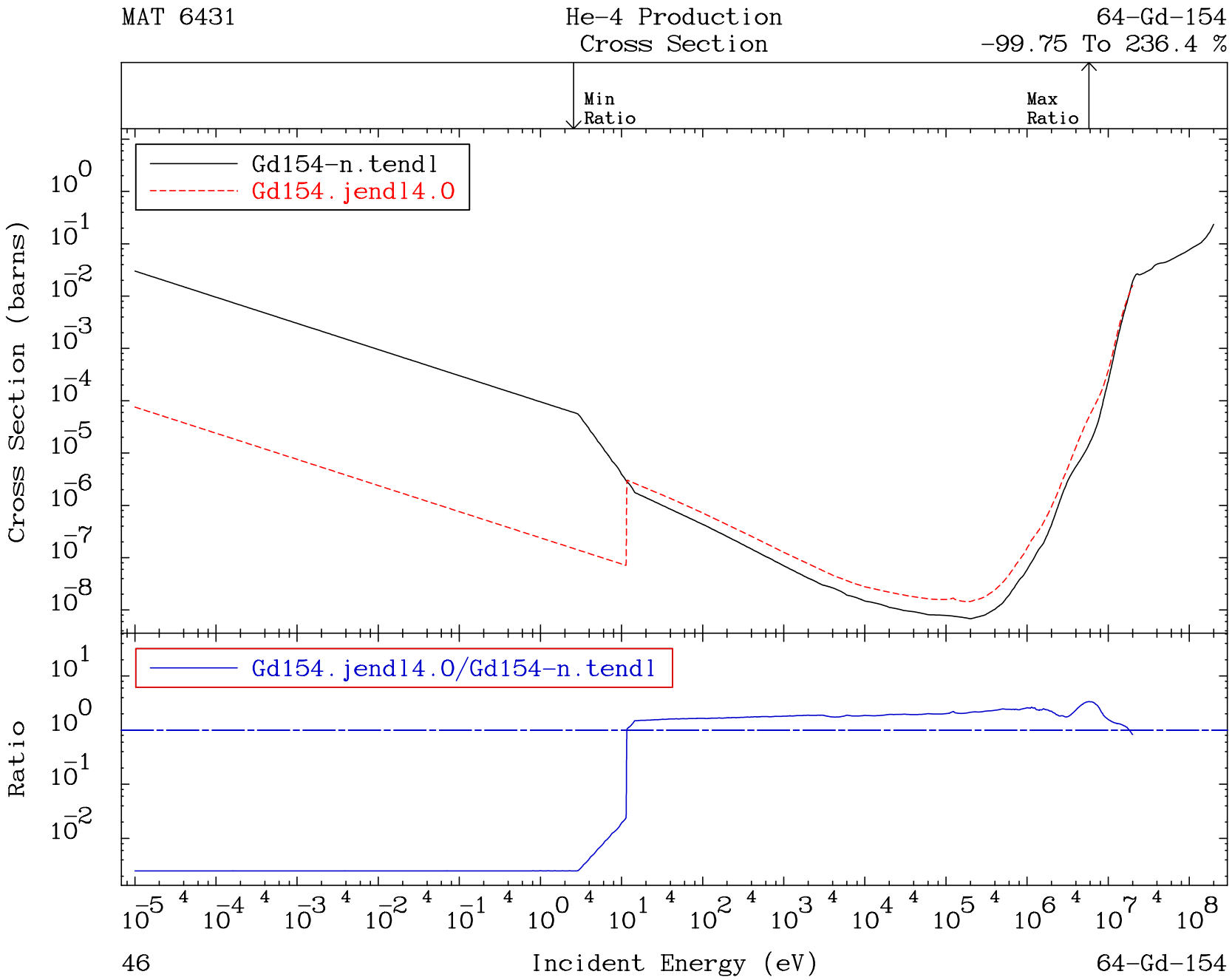

MAT 6431
(n,α)
Cross Section
64-Gd-154
-99.75 To 237.0 %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
41
64-Gd-154

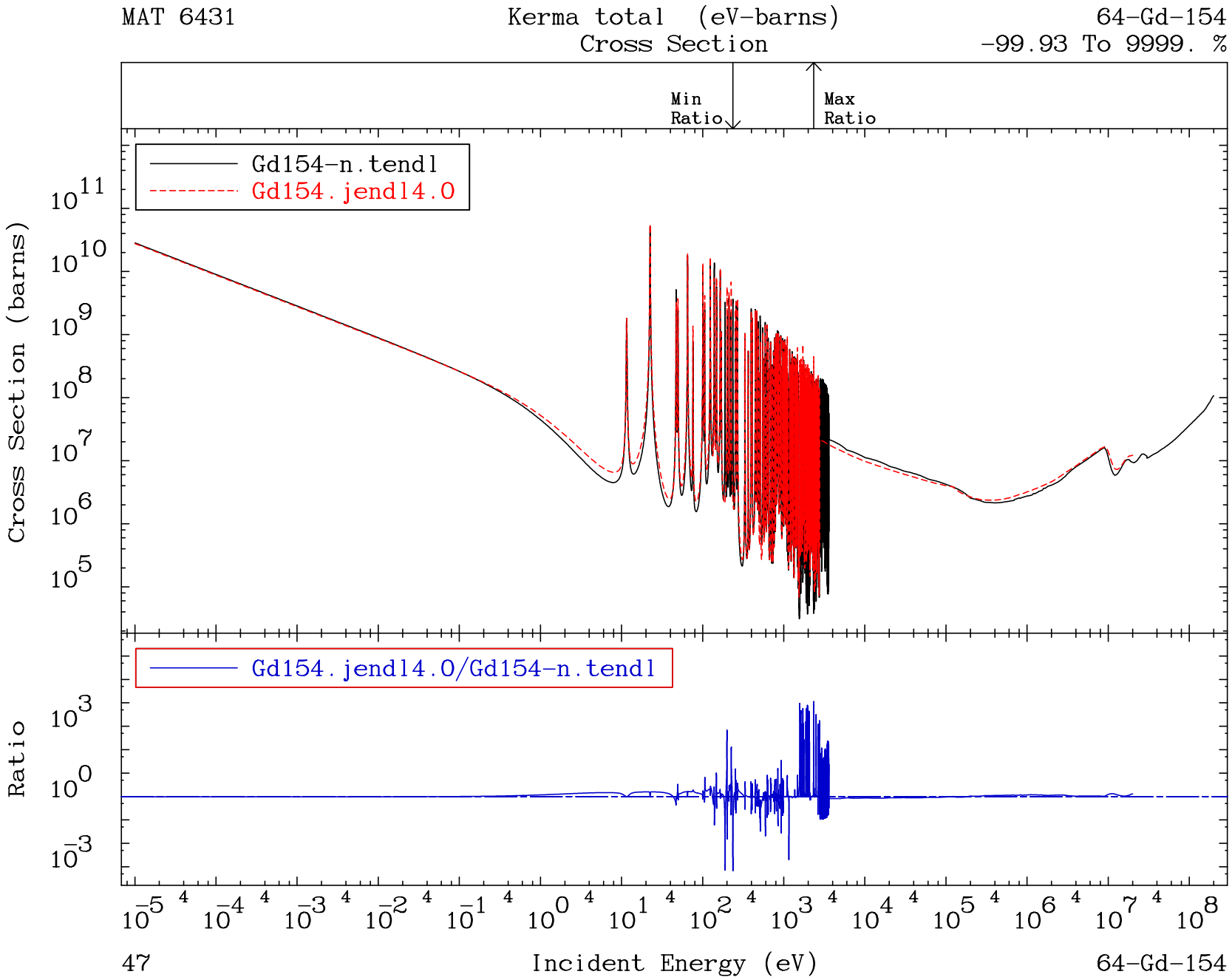

MAT 6431
Hydrogen Production
Cross Section
64-Gd-154
-79.29 To 9999. %
Max Ratio
Min Ratio
Gd154-n.tendl Threshold 1.1936 MeV
Gd154.jendl4.0 Threshold 1.1943 MeV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
42
Incident Energy (eV)
64-Gd-154

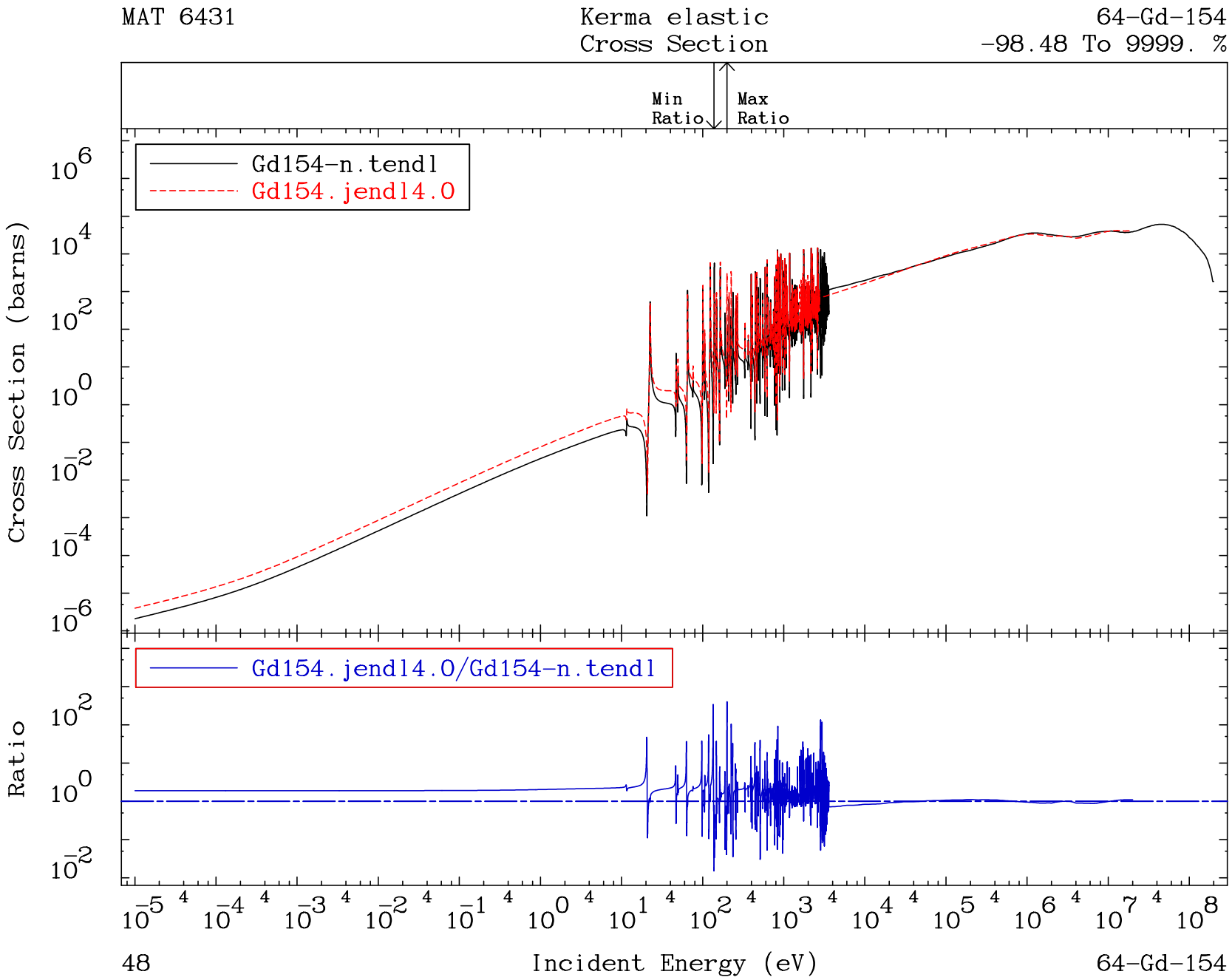

MAT 6431
Deuterium Production
Cross Section
64-Gd-154
-100.0 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 5.1646 MeV
Gd154.jendl4.0 Threshold 5.4396 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^3
10^0
10^-3
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
43
Incident Energy (eV)
64-Gd-154

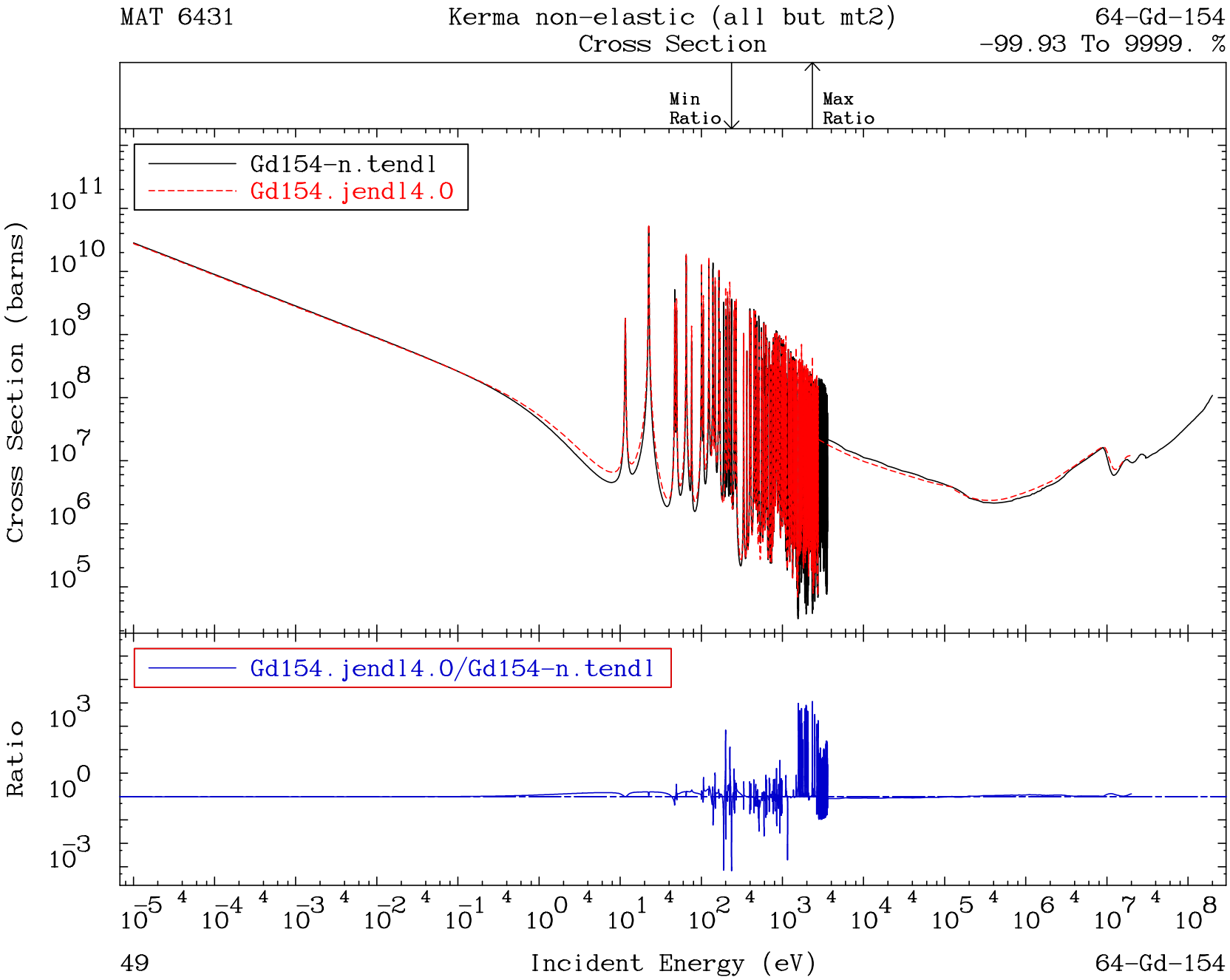

MAT 6431
Tritium Production
Cross Section
64-Gd-154
-100.0 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 7.7469 MeV
Gd154.jendl4.0 Threshold 7.7477 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^4
10^0
10^-4
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
64-Gd-154

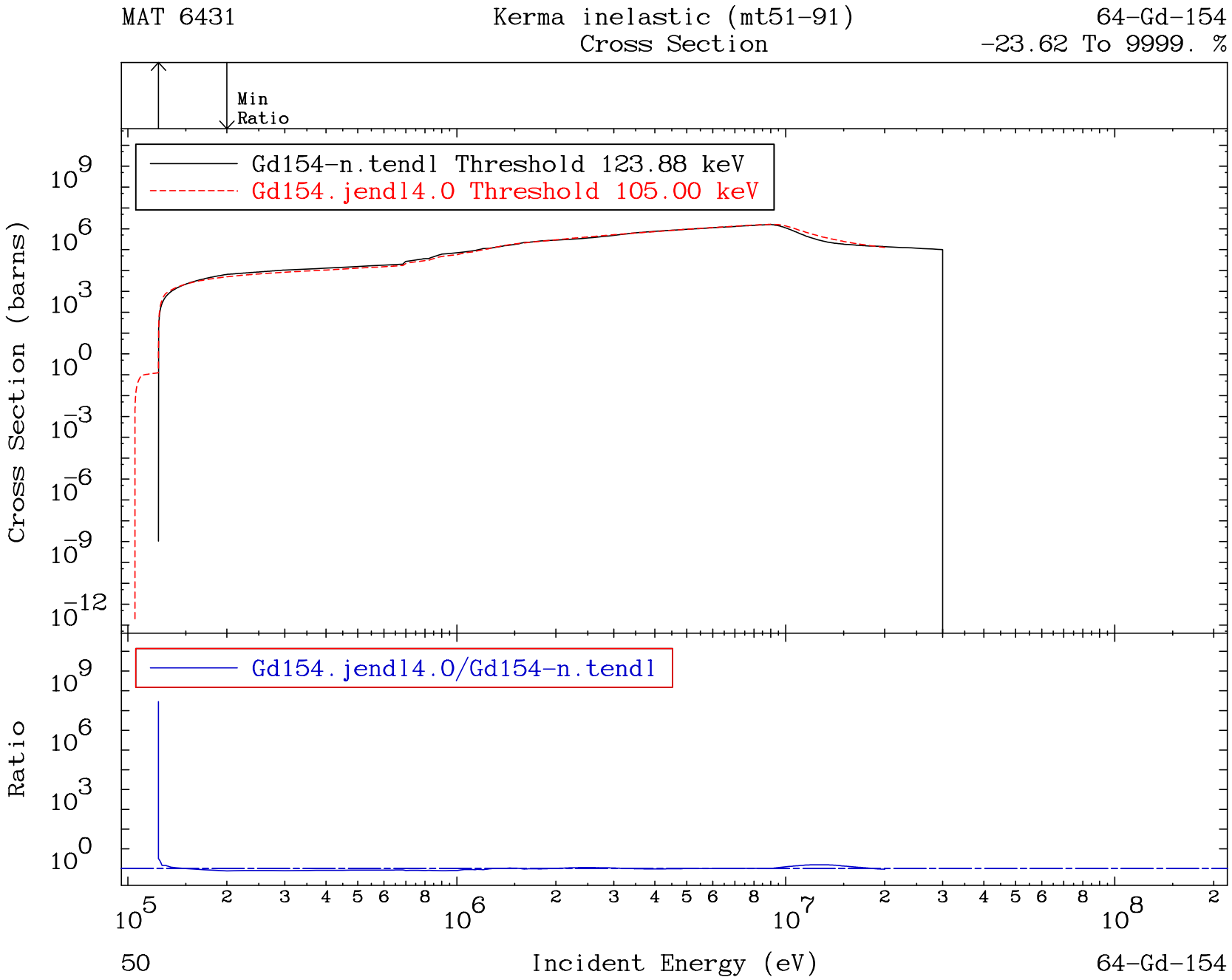

MAT 6431
He-3 Production
Cross Section
64-Gd-154
-100.0 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 5.8413 MeV
Gd154.jendl4.0 Threshold 5.8424 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^6
10^0
10^-6
10^-12
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
64-Gd-154

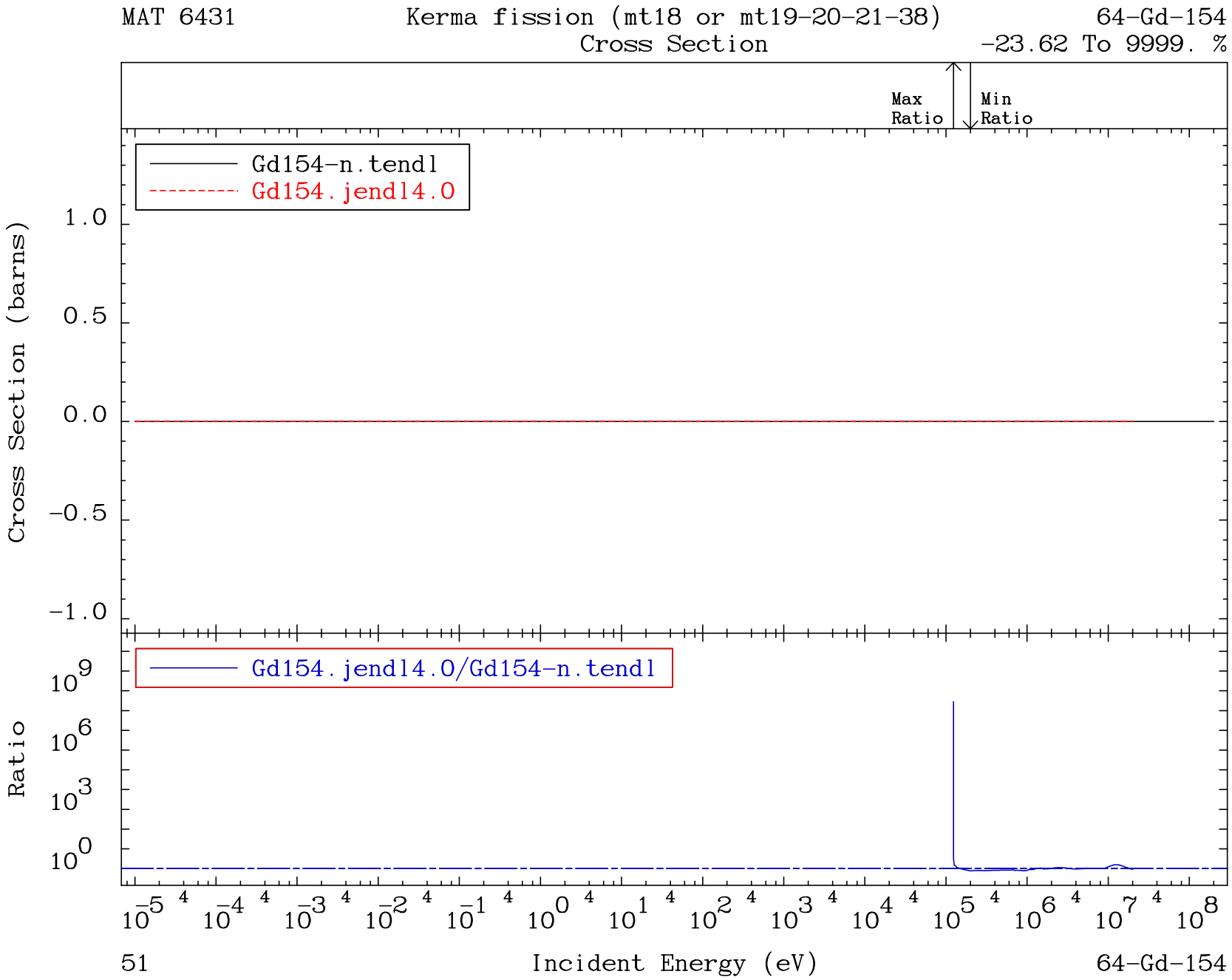

MAT 6431
He-4 Production
Cross Section
64-Gd-154
-99.75 To 236.4 %
Min
Ratio
Max
Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
46
64-Gd-154

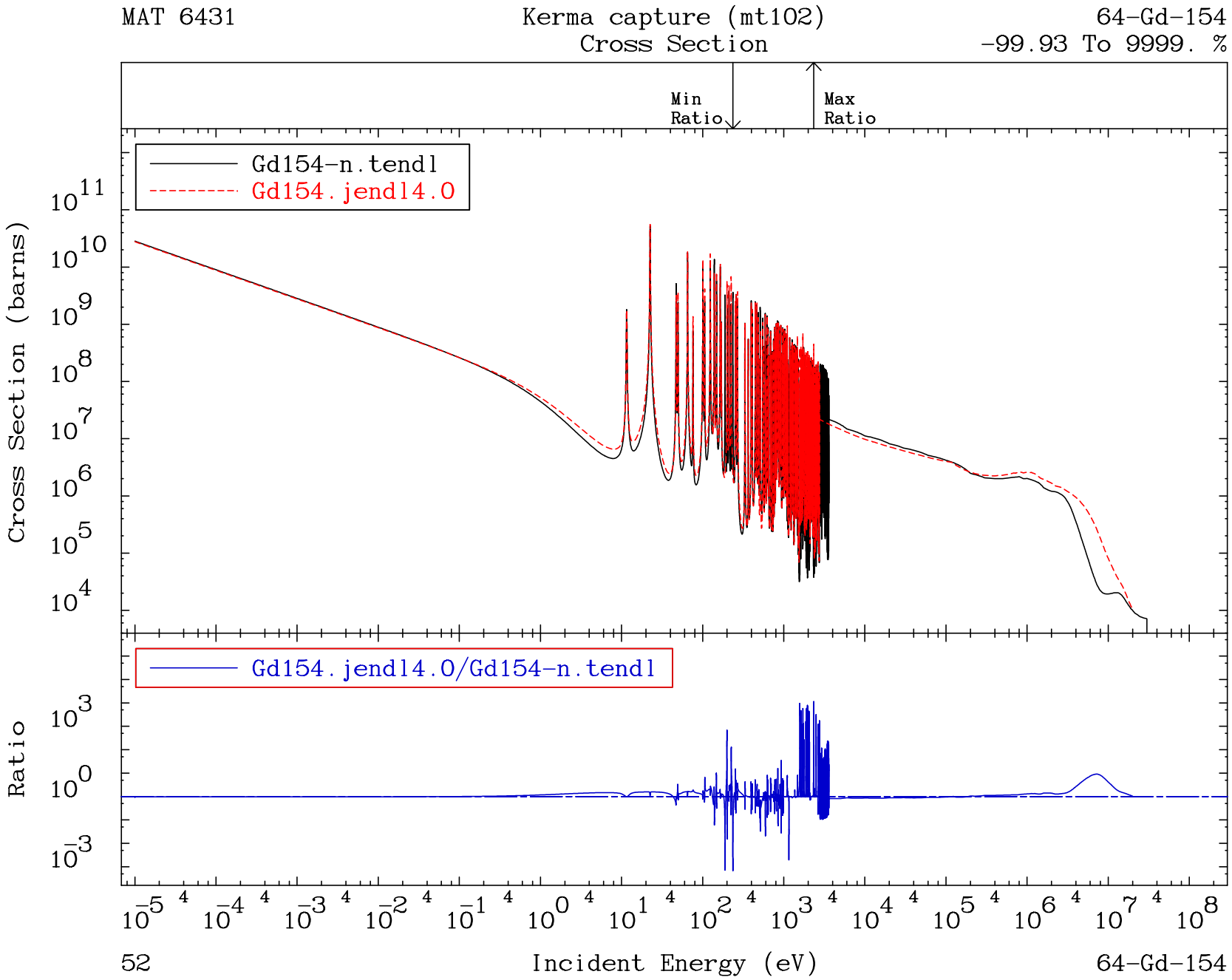

MAT 6431
Kerma total (eV-barns)
Cross Section
64-Gd-154
-99.93 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
47
64-Gd-154

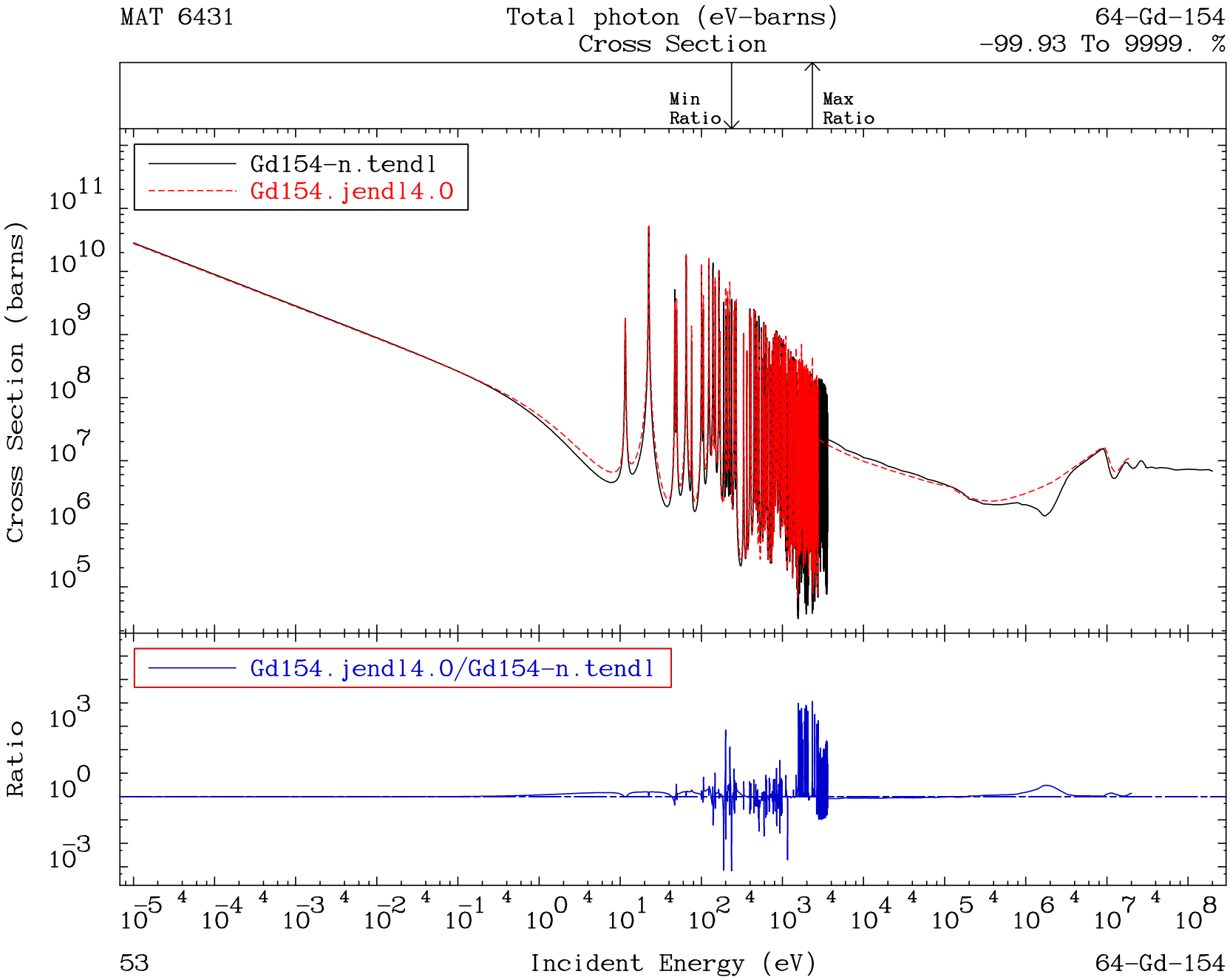

MAT 6431
Kerma elastic
Cross Section
64-Gd-154
-98.48 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
48
64-Gd-154

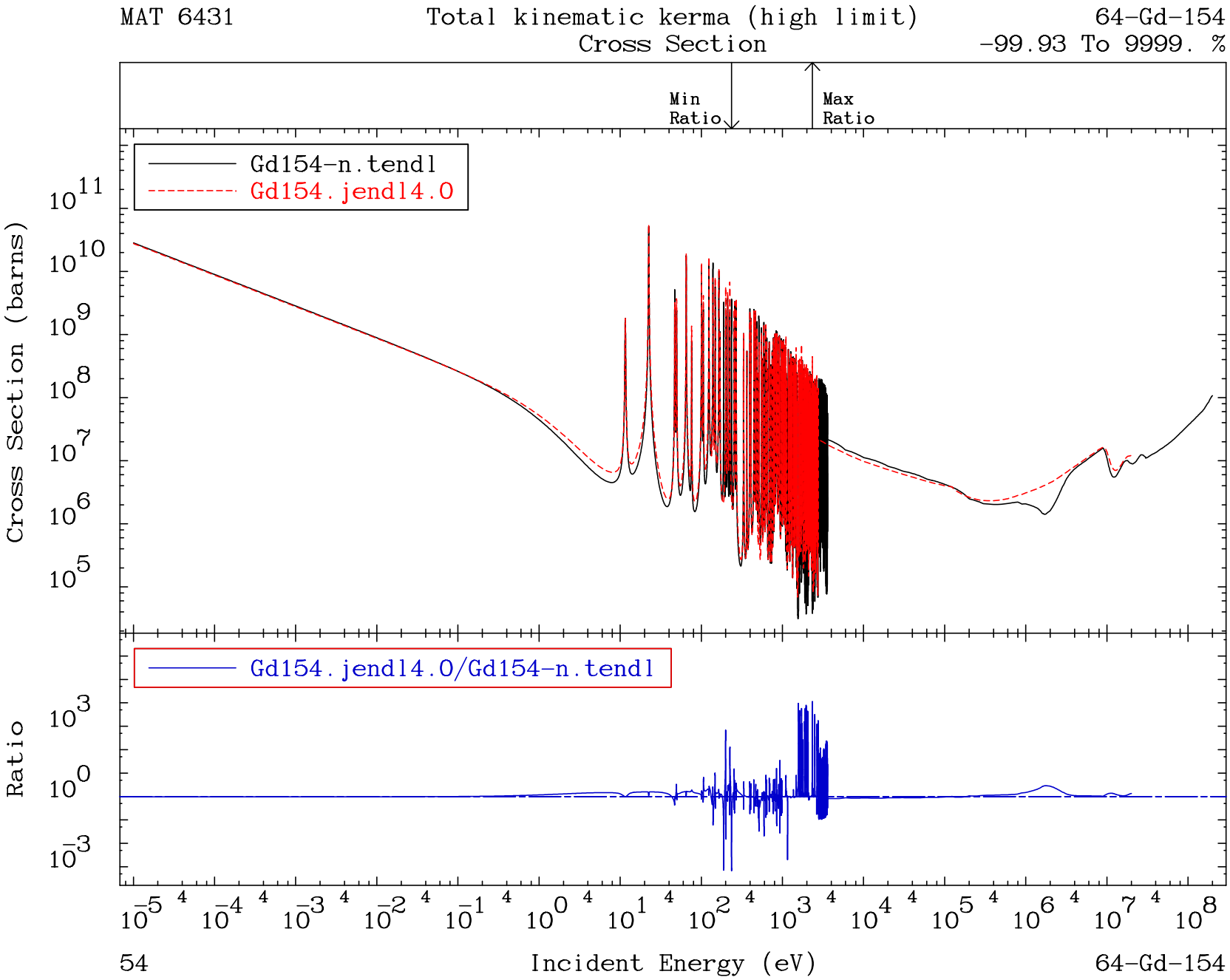

MAT 6431
Kerma non-elastic (all but mt2)
Cross Section
64-Gd-154
-99.93 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
49
64-Gd-154

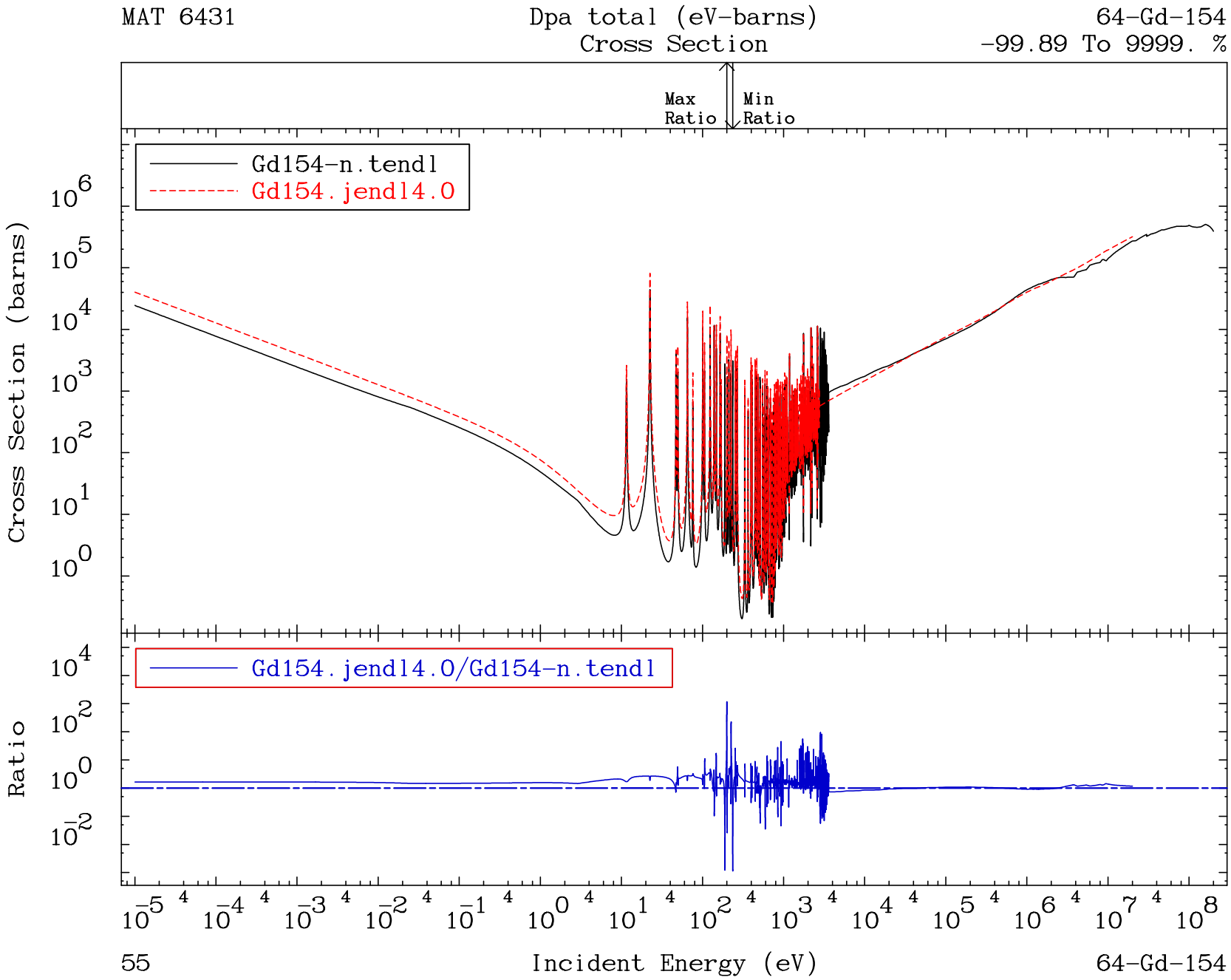

MAT 6431
Kerma inelastic (mt51-91)
Cross Section
64-Gd-154
-23.62 To 9999. %
Min
Ratio
Gd154-n.tendl Threshold 123.88 keV
Gd154.jendl4.0 Threshold 105.00 keV
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
50
64-Gd-154

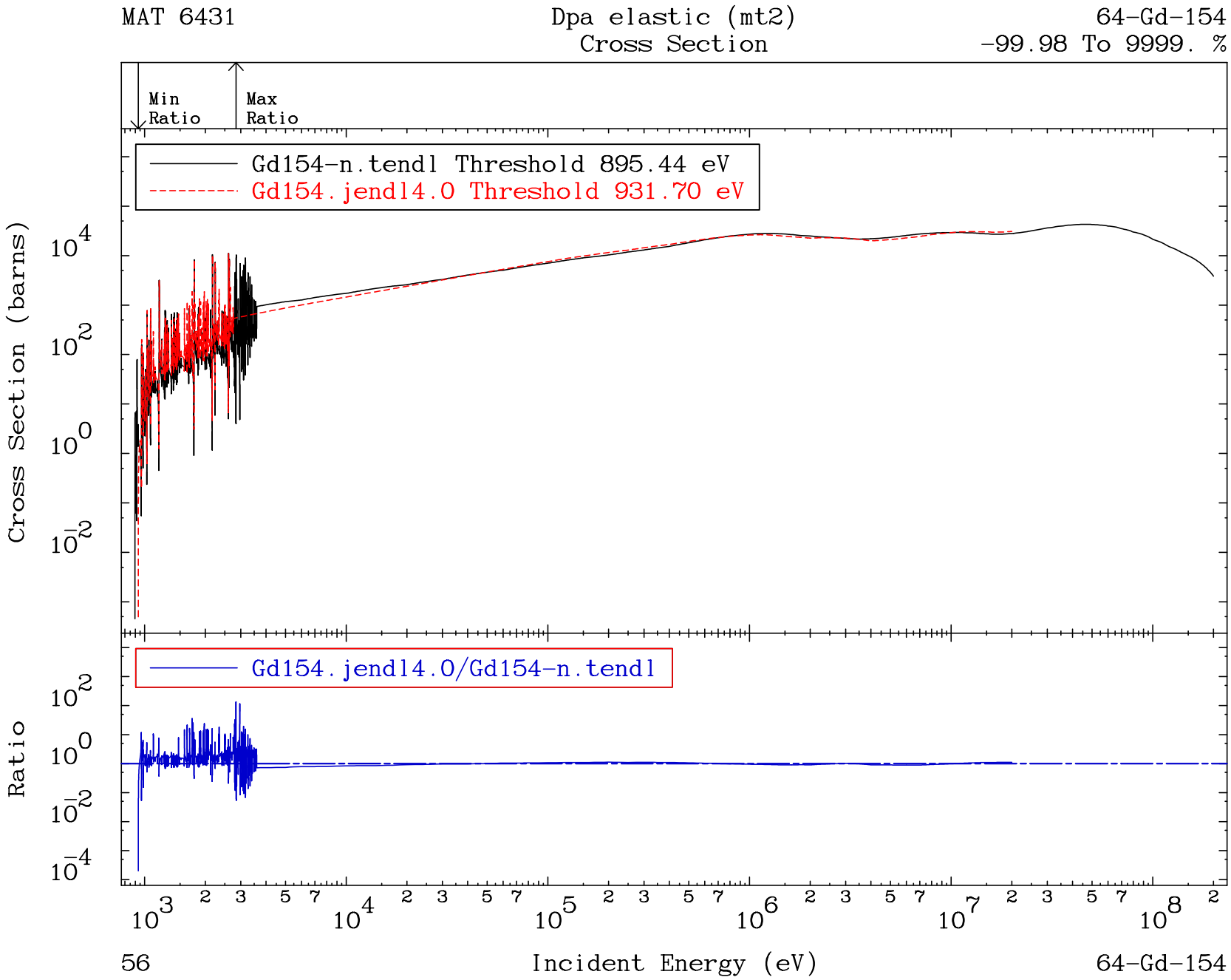

MAT 6431
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
64-Gd-154
-23.62 To 9999. %
Max Ratio
Min Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
Gd154.jendl4.0/Gd154-n.tendl
Ratio
10^9
10^6
10^3
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
51
Incident Energy (eV)
64-Gd-154

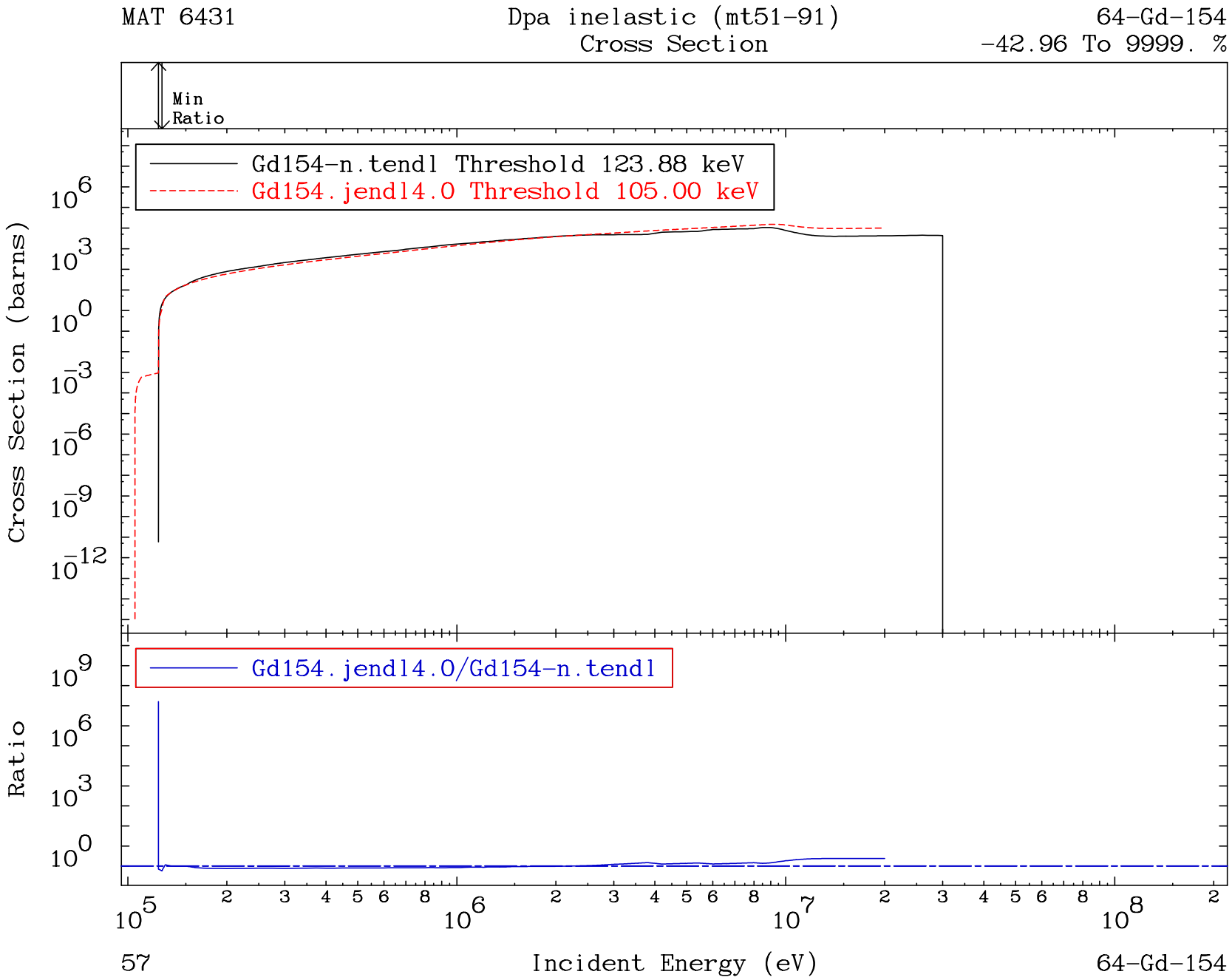

MAT 6431
Kerma capture (mt102)
Cross Section
64-Gd-154
-99.93 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
52
64-Gd-154

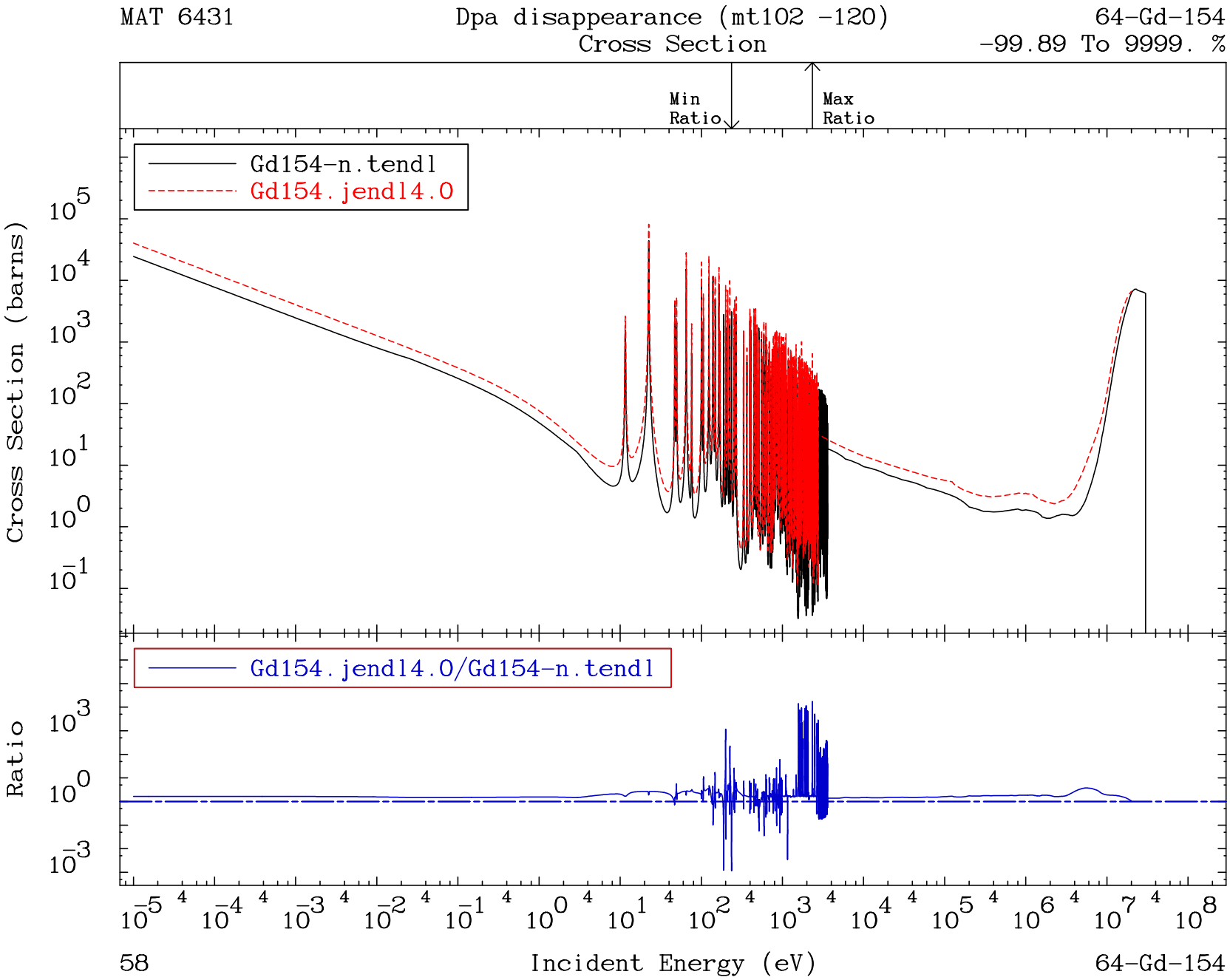

MAT 6431
Total photon (eV-barns)
Cross Section
64-Gd-154
-99.93 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
53
64-Gd-154


MAT 6431
Total kinematic kerma (high limit)
Cross Section
64-Gd-154
-99.93 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
54
64-Gd-154


MAT 6431
Dpa total (eV-barns)
Cross Section
64-Gd-154
-99.89 To 9999. %
Max Ratio
Min Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
55
64-Gd-154


MAT 6431
Dpa elastic (mt2)
Cross Section
64-Gd-154
-99.98 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl Threshold 895.44 eV
Gd154.jendl4.0 Threshold 931.70 eV
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
56
64-Gd-154


MAT 6431
Dpa inelastic (mt51-91)
Cross Section
64-Gd-154
-42.96 To 9999. %
Min
Ratio
Gd154-n.tendl Threshold 123.88 keV
Gd154.jendl4.0 Threshold 105.00 keV
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
57
64-Gd-154


MAT 6431
Dpa disappearance (mt102 -120)
Cross Section
64-Gd-154
-99.89 To 9999. %
Min Ratio
Max Ratio
Gd154-n.tendl
Gd154.jendl4.0
Cross Section (barns)
Gd154.jendl4.0/Gd154-n.tendl
Ratio
Incident Energy (eV)
58
64-Gd-154