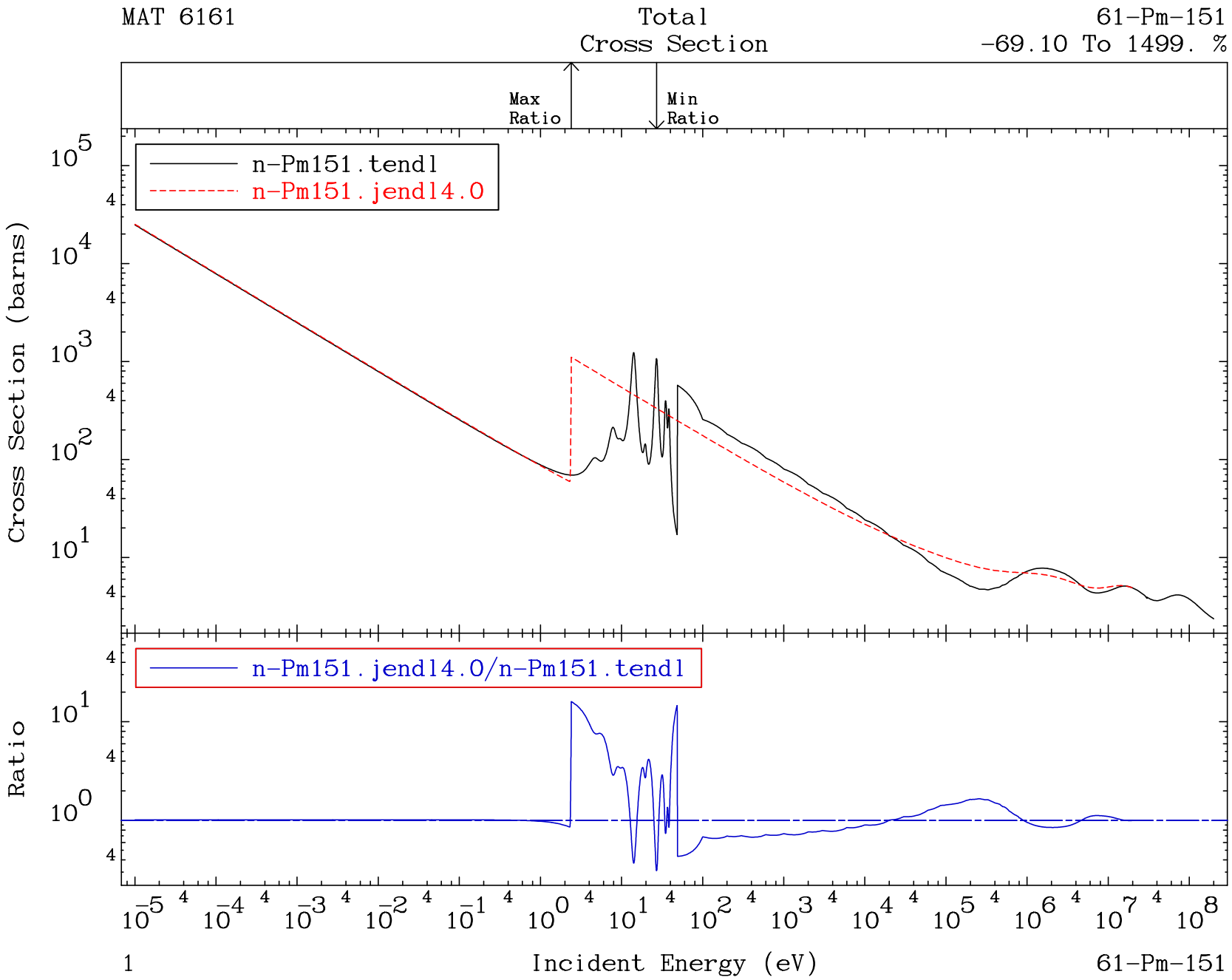
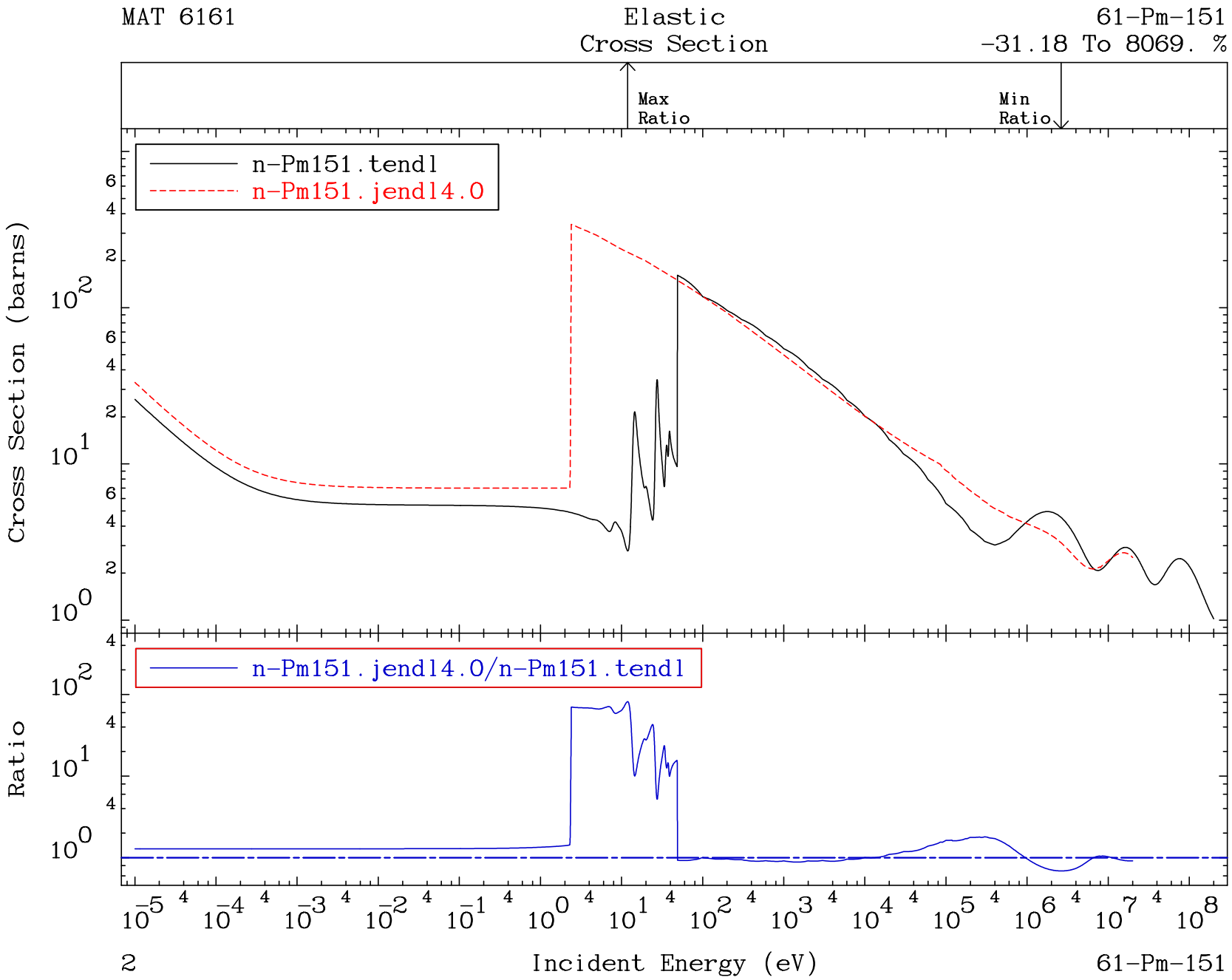
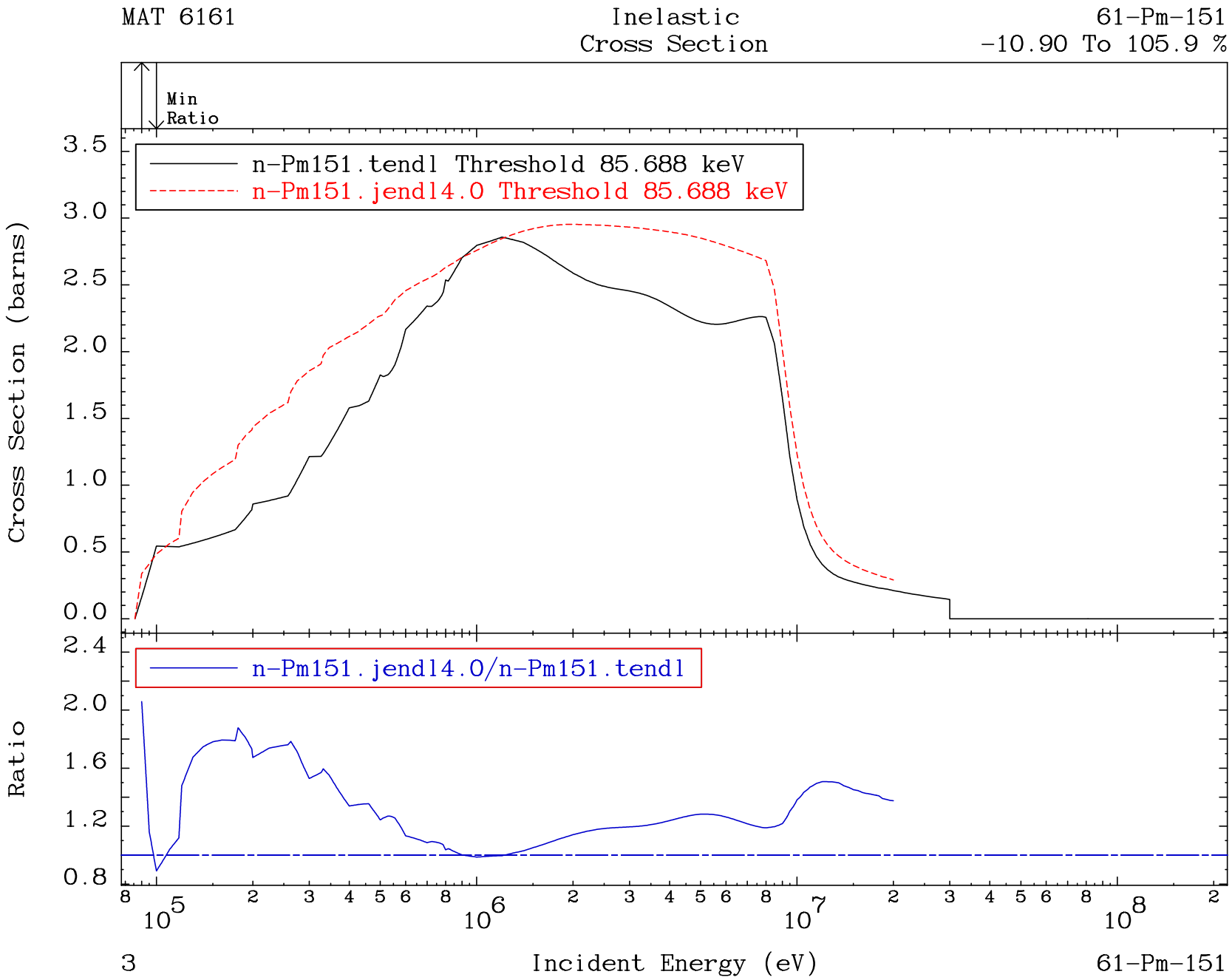
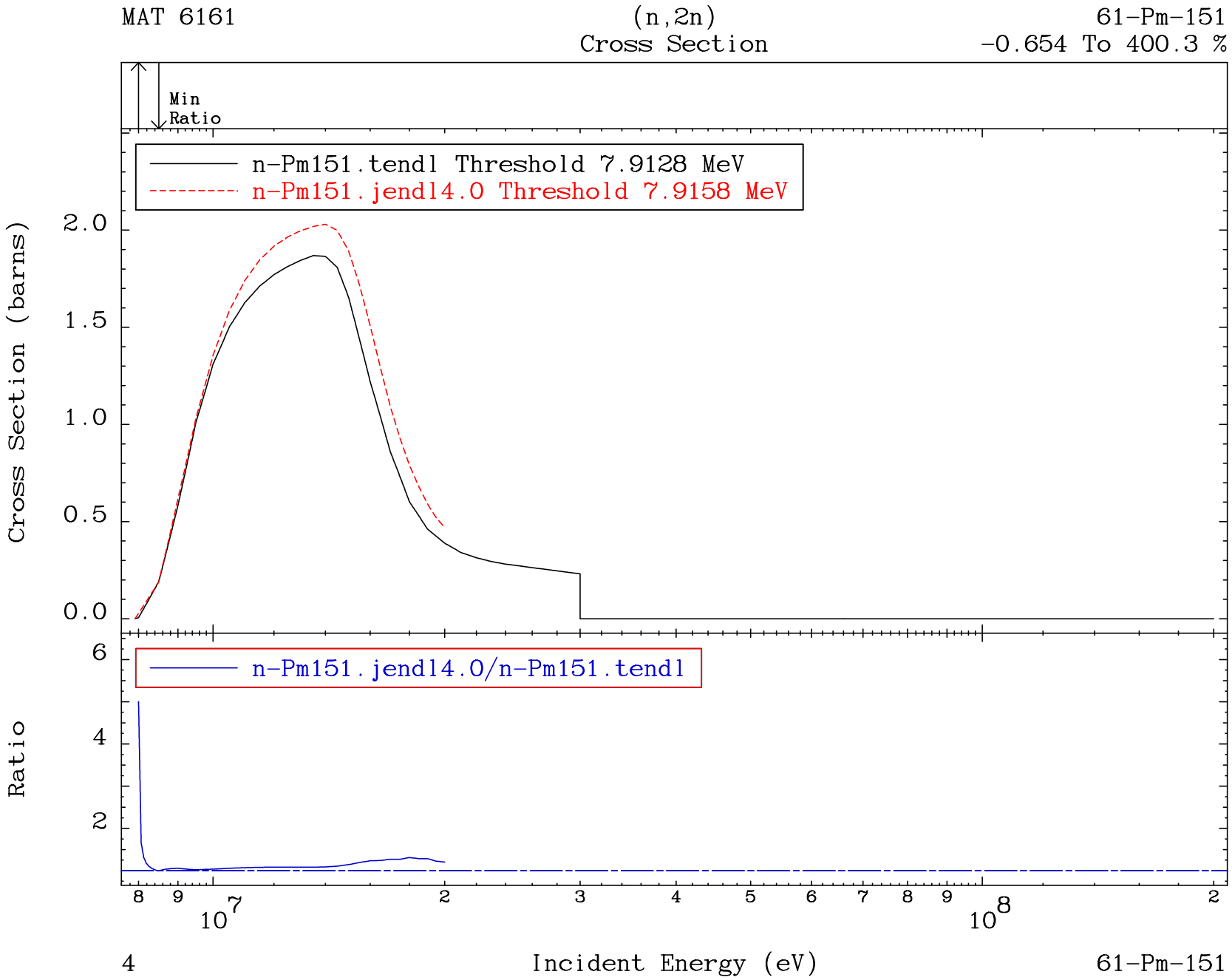
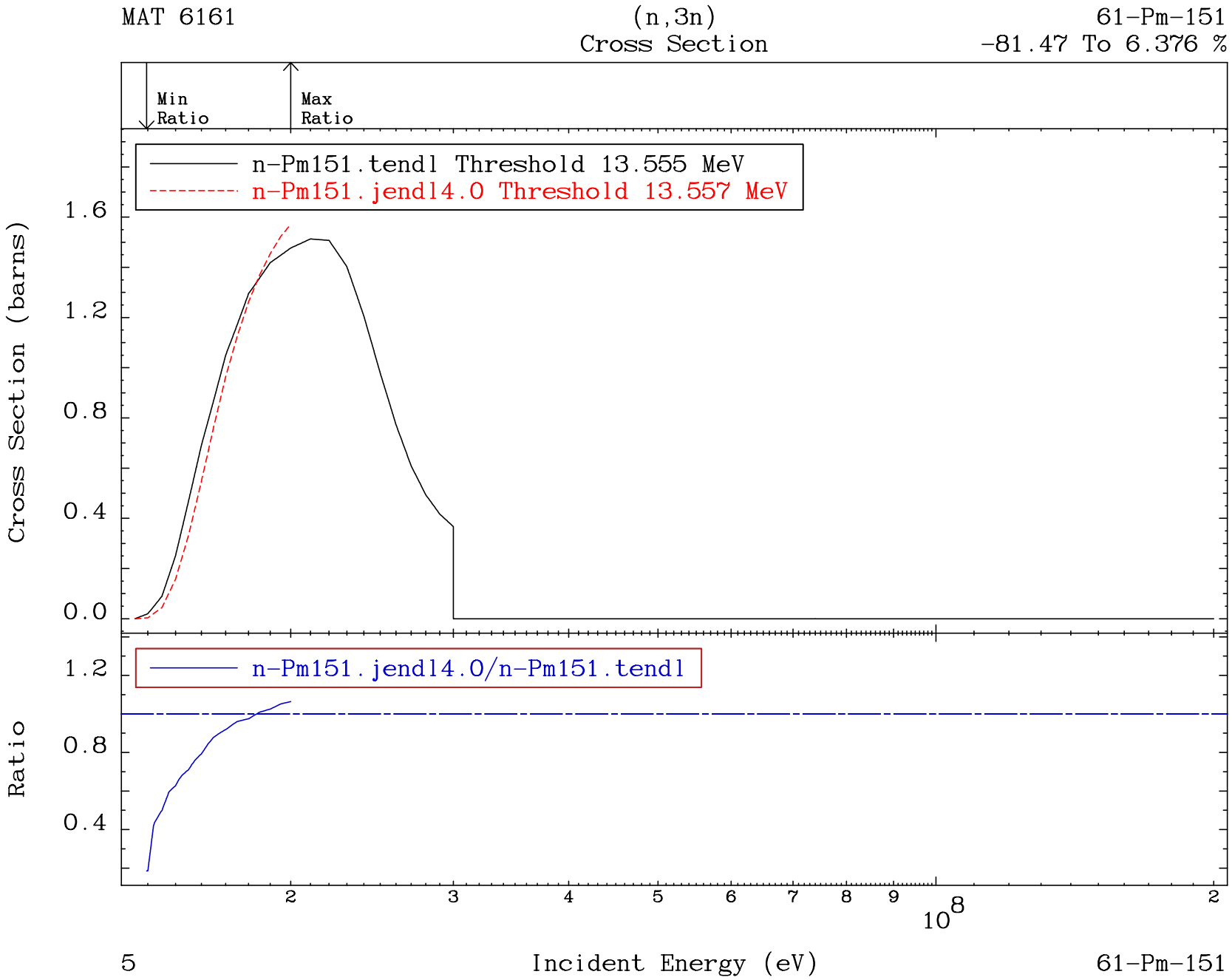
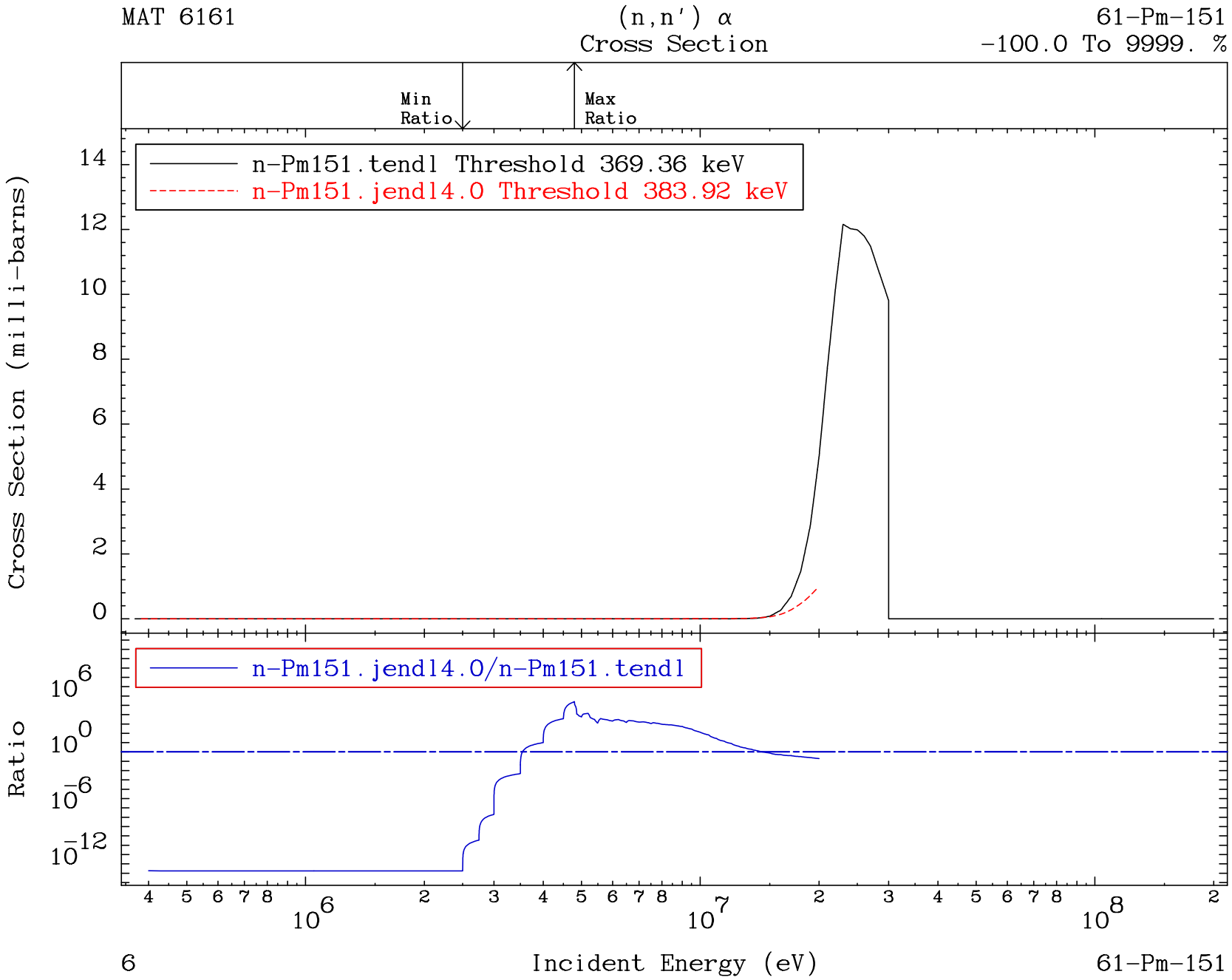

MAT 6161
Total
Cross Section
61-Pm-151
-69.10 To 1499. %
Max
Ratio
Min
Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
1
61-Pm-151

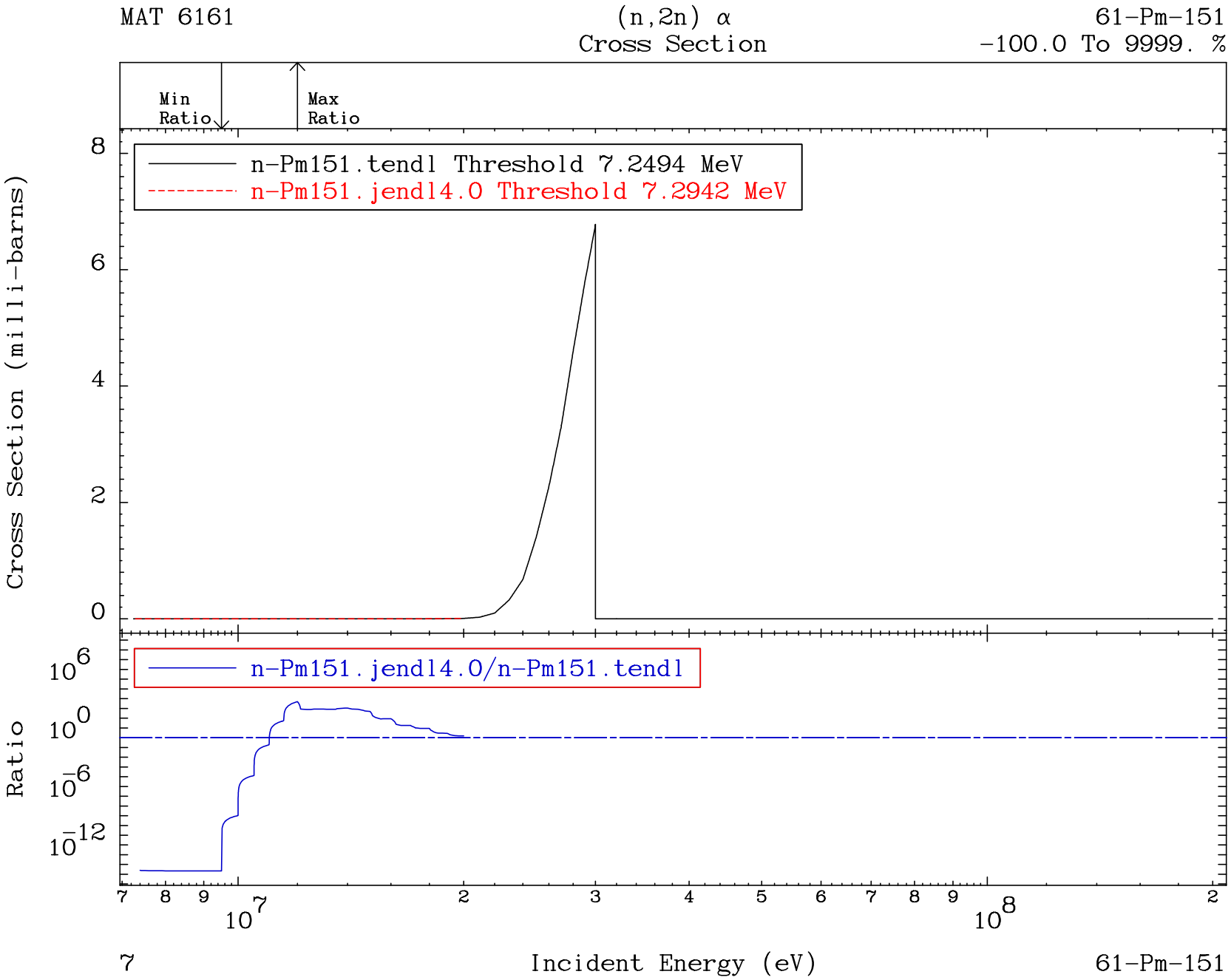

MAT 6161
Elastic
Cross Section
61-Pm-151
-31.18 To 8069. %
Max
Ratio
Min
Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
2
61-Pm-151

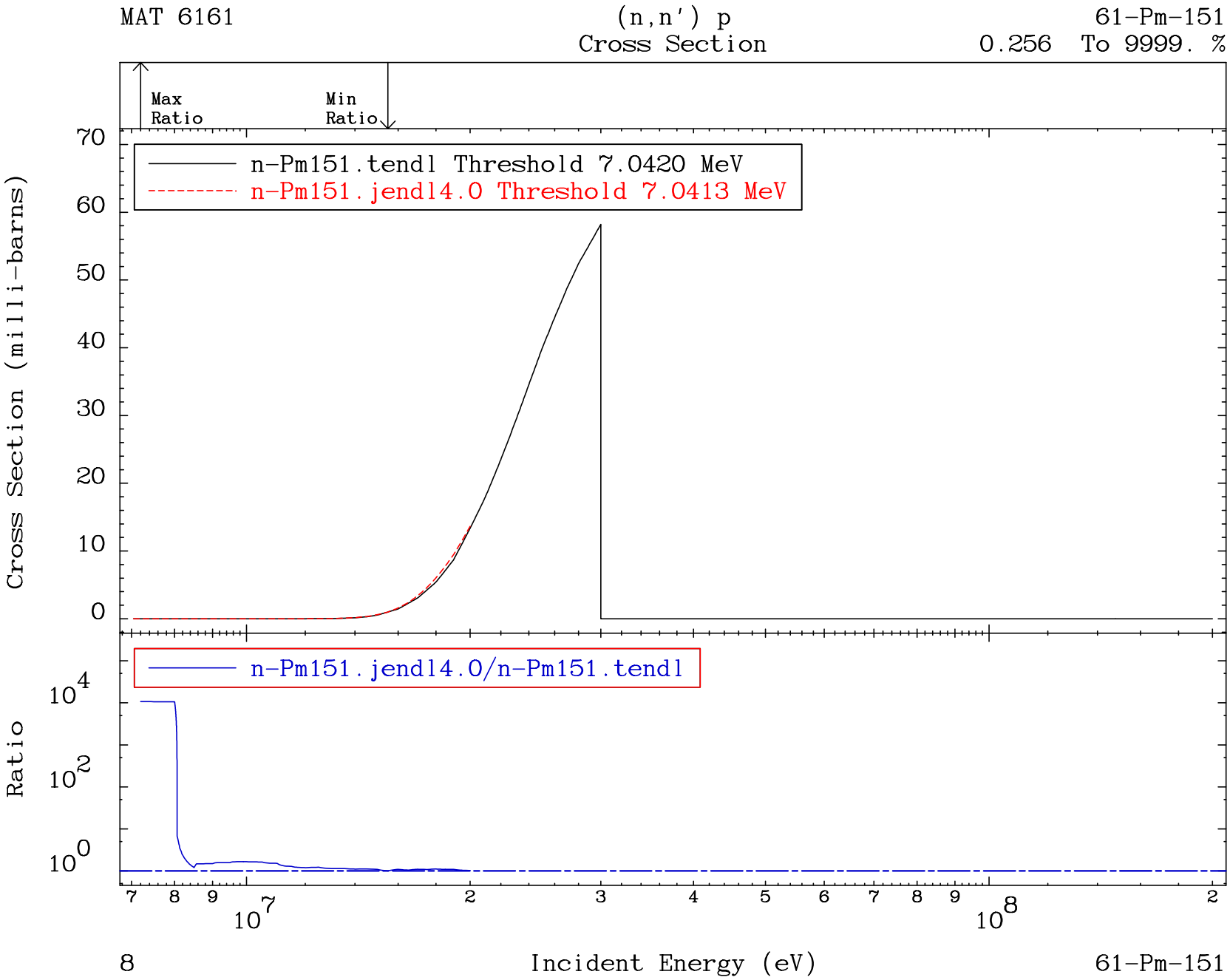

MAT 6161
Inelastic
Cross Section
61-Pm-151
-10.90 To 105.9 %
Min
Ratio
n-Pm151.tendl Threshold 85.688 keV
n-Pm151.jendl4.0 Threshold 85.688 keV
Cross Section (barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
2.4
2.0
1.6
1.2
0.8
8
2
3
4
5
6
8
10^5
10^6
10^7
10^8
3
Incident Energy (eV)
61-Pm-151

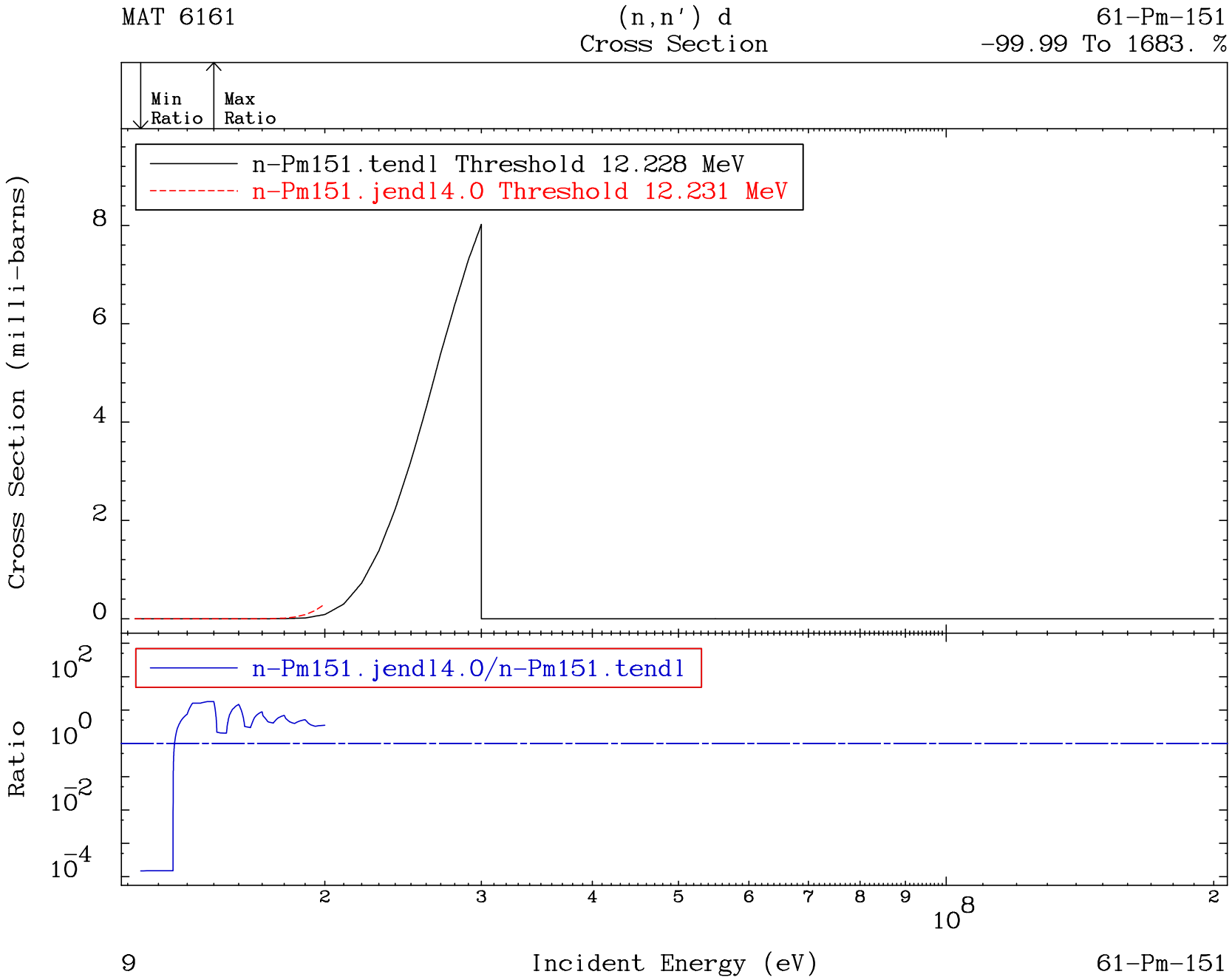

MAT 6161
(n,2n)
Cross Section
61-Pm-151
-0.654 To 400.3 %
Min
Ratio
n-Pm151.tendl Threshold 7.9128 MeV
n-Pm151.jendl4.0 Threshold 7.9158 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
6
4
2
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
61-Pm-151

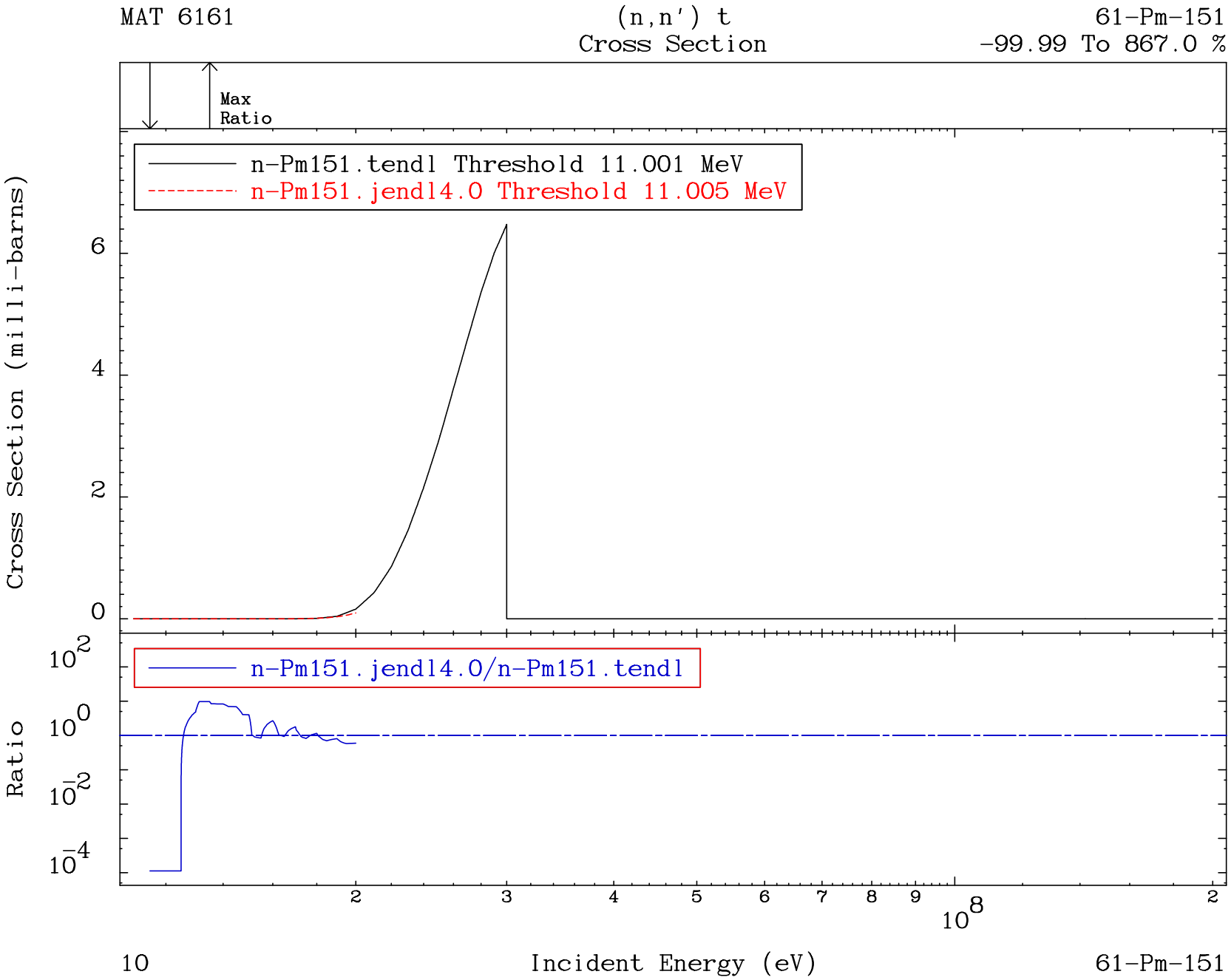

MAT 6161
(n,3n)
Cross Section
61-Pm-151
-81.47 To 6.376 %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 13.555 MeV
n-Pm151.jendl4.0 Threshold 13.557 MeV
Cross Section (barns)
1.6
1.2
0.8
0.4
0.0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
61-Pm-151

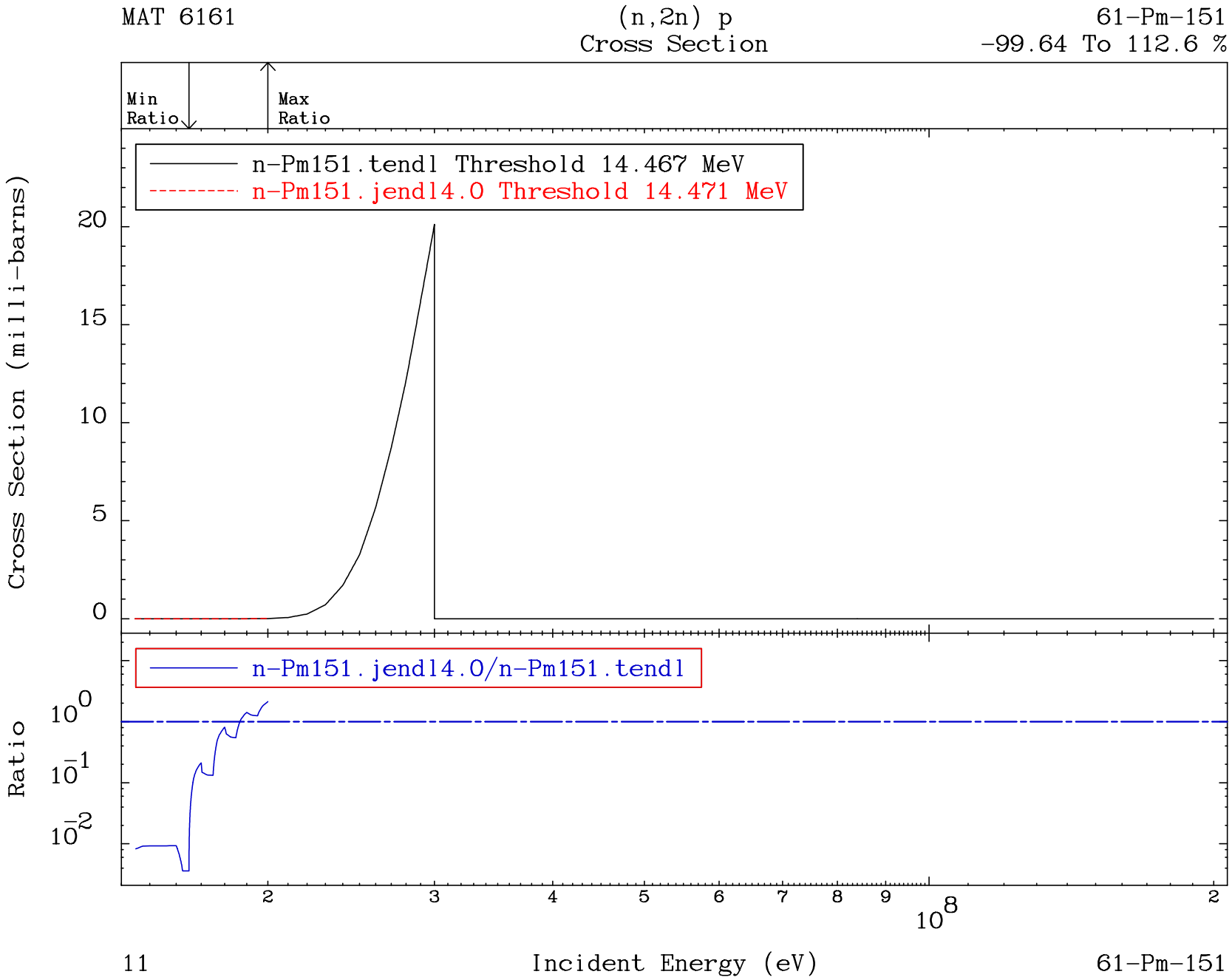

MAT 6161
(n,n') α
Cross Section
61-Pm-151
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 369.36 keV
n-Pm151.jendl4.0 Threshold 383.92 keV
Cross Section (milli-barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
6
61-Pm-151

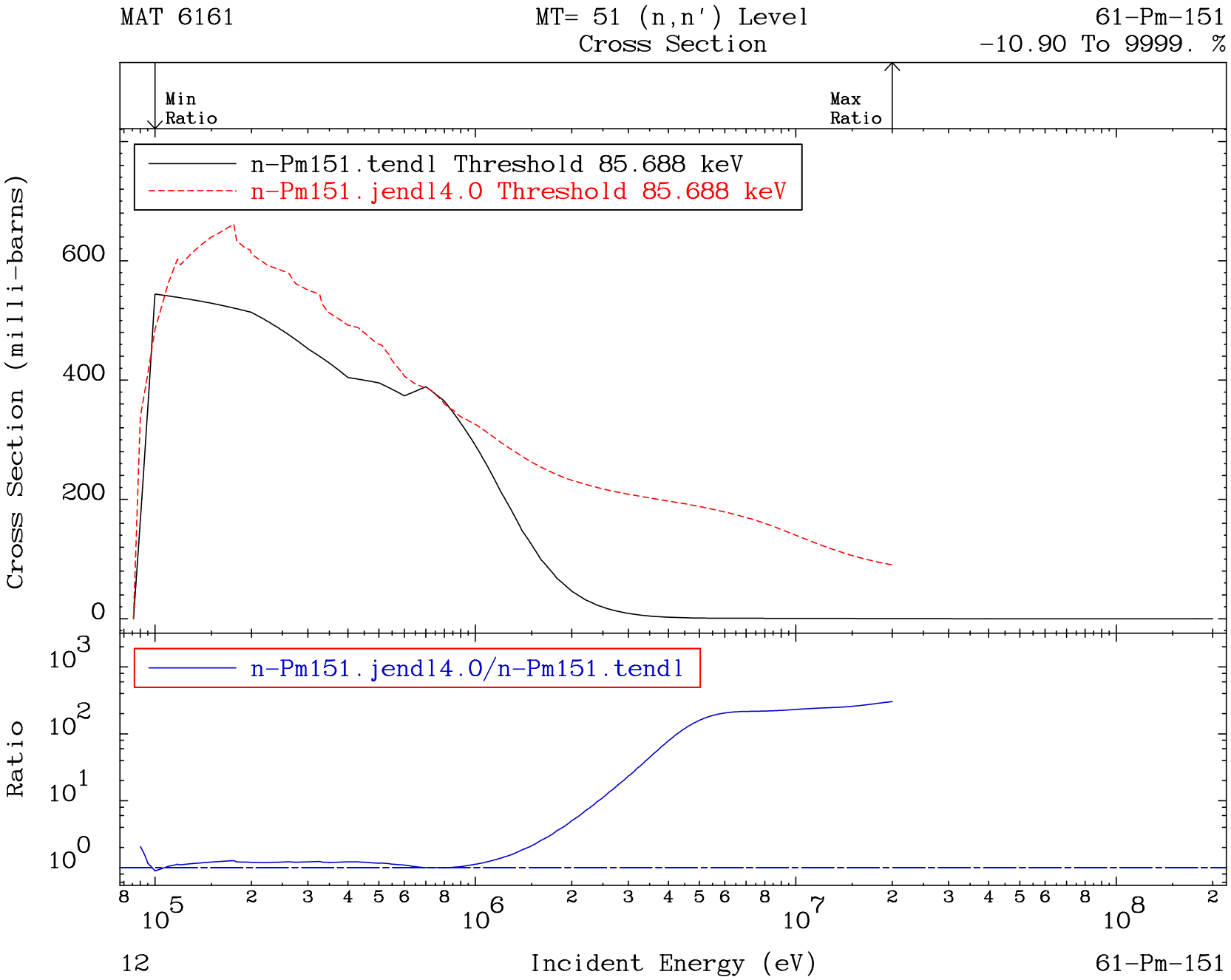

MAT 6161
(n,2n) α
Cross Section
61-Pm-151
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 7.2494 MeV
n-Pm151.jendl4.0 Threshold 7.2942 MeV
Cross Section (milli-barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
61-Pm-151

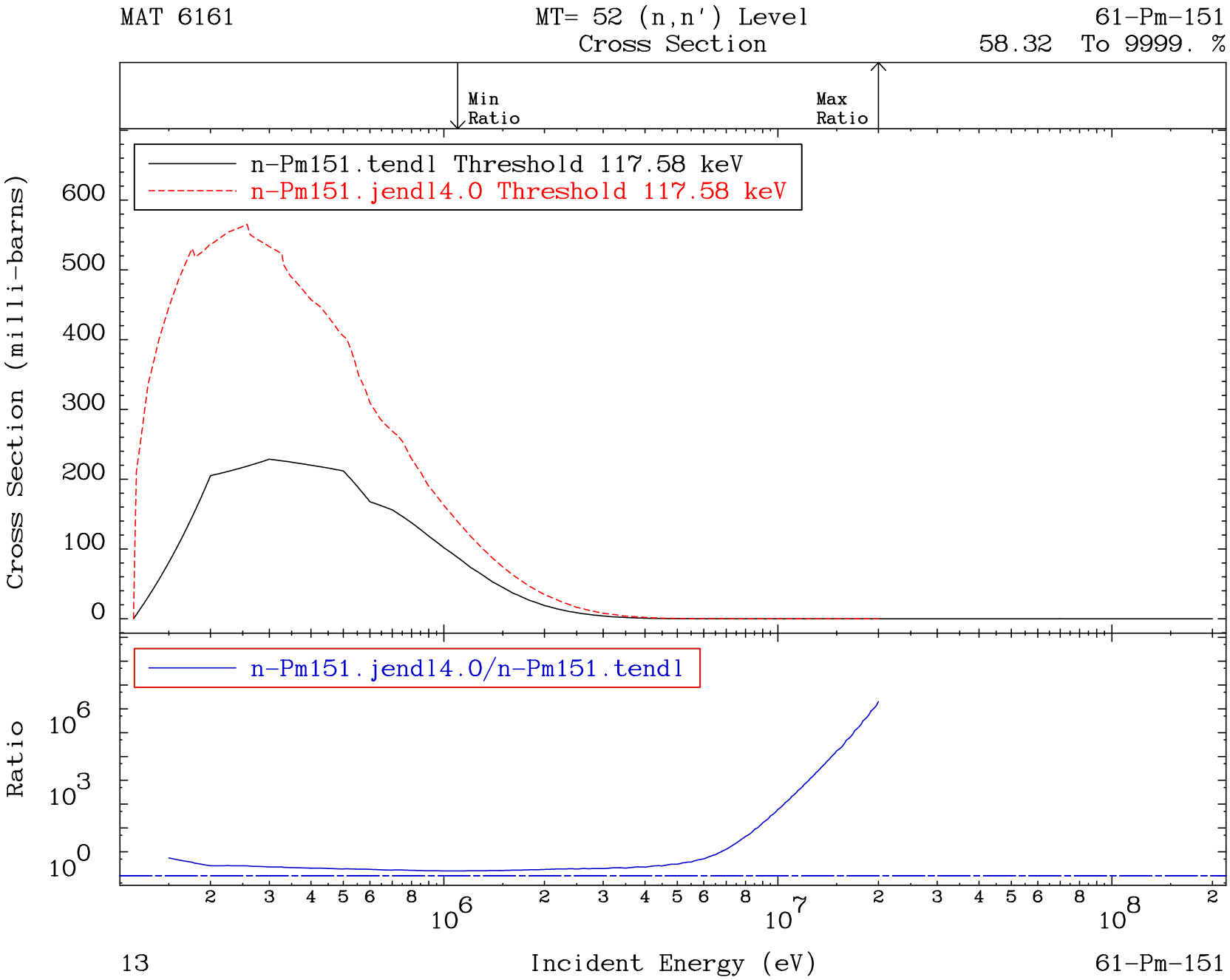

MAT 6161
(n,n') p
Cross Section
61-Pm-151
0.256 To 9999. %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 7.0420 MeV
n-Pm151.jendl4.0 Threshold 7.0413 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^4
10^2
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
61-Pm-151

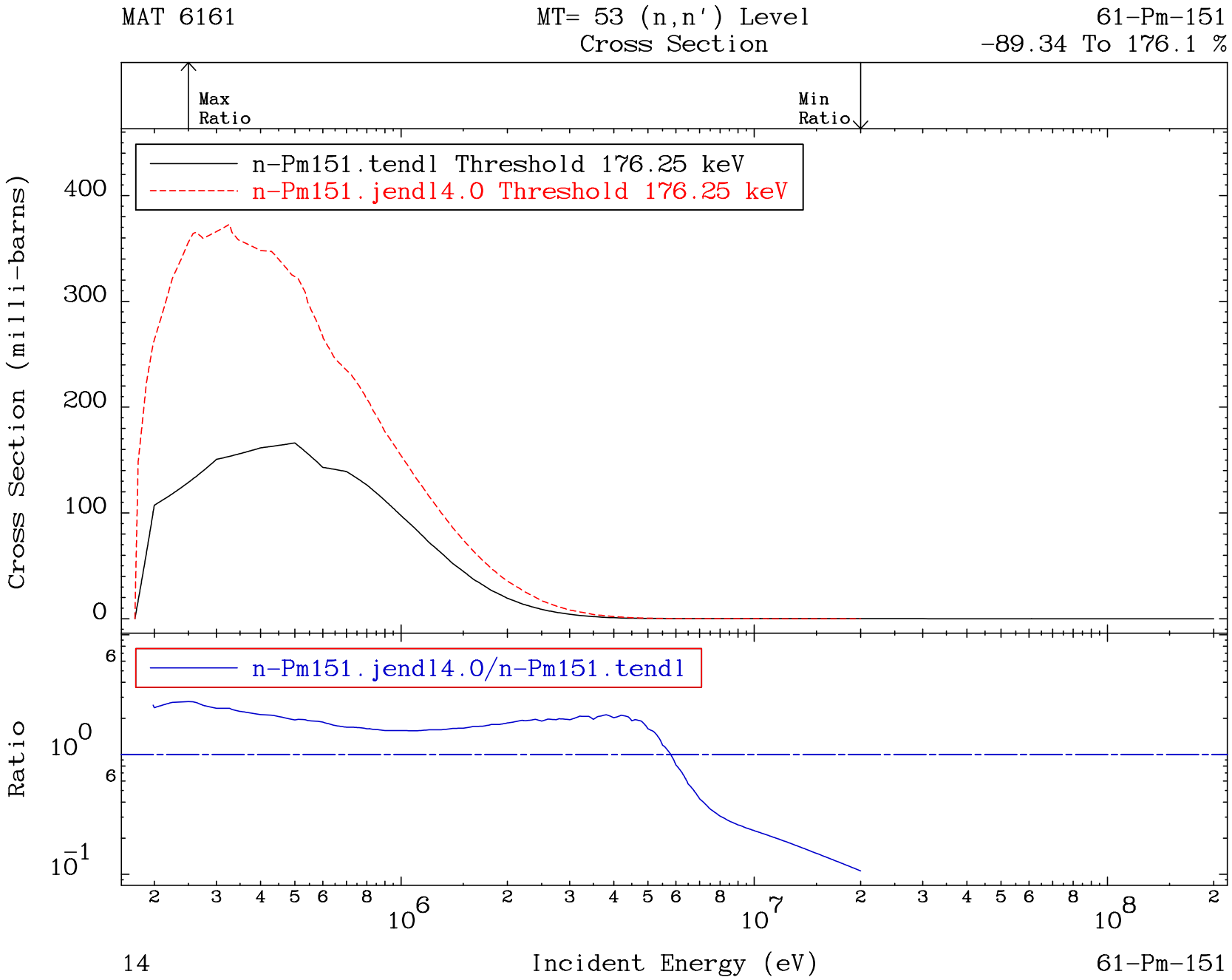

MAT 6161
(n,n') d
Cross Section
61-Pm-151
-99.99 To 1683. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 12.228 MeV
n-Pm151.jendl4.0 Threshold 12.231 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^{2}
10^{0}
10^{-2}
10^{-4}
2
3
4
5
6
7
8
9
10^{8}
2
9
Incident Energy (eV)
61-Pm-151

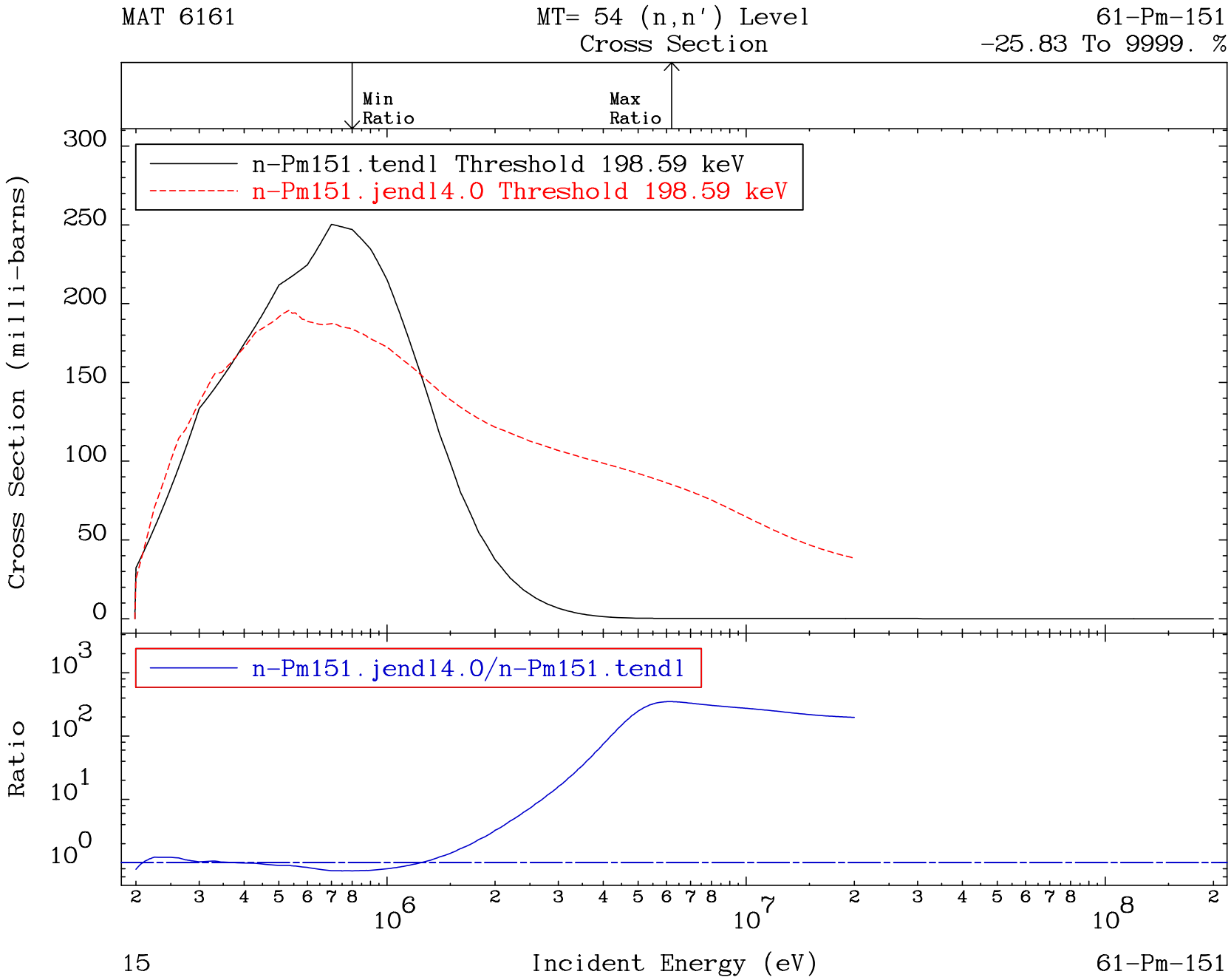

MAT 6161
(n,n') t
Cross Section
61-Pm-151
-99.99 To 867.0 %
Max
Ratio
n-Pm151.tendl Threshold 11.001 MeV
n-Pm151.jendl4.0 Threshold 11.005 MeV
Cross Section (milli-barns)
0
2
4
6
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^2
10^0
10^-2
10^-4
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
61-Pm-151

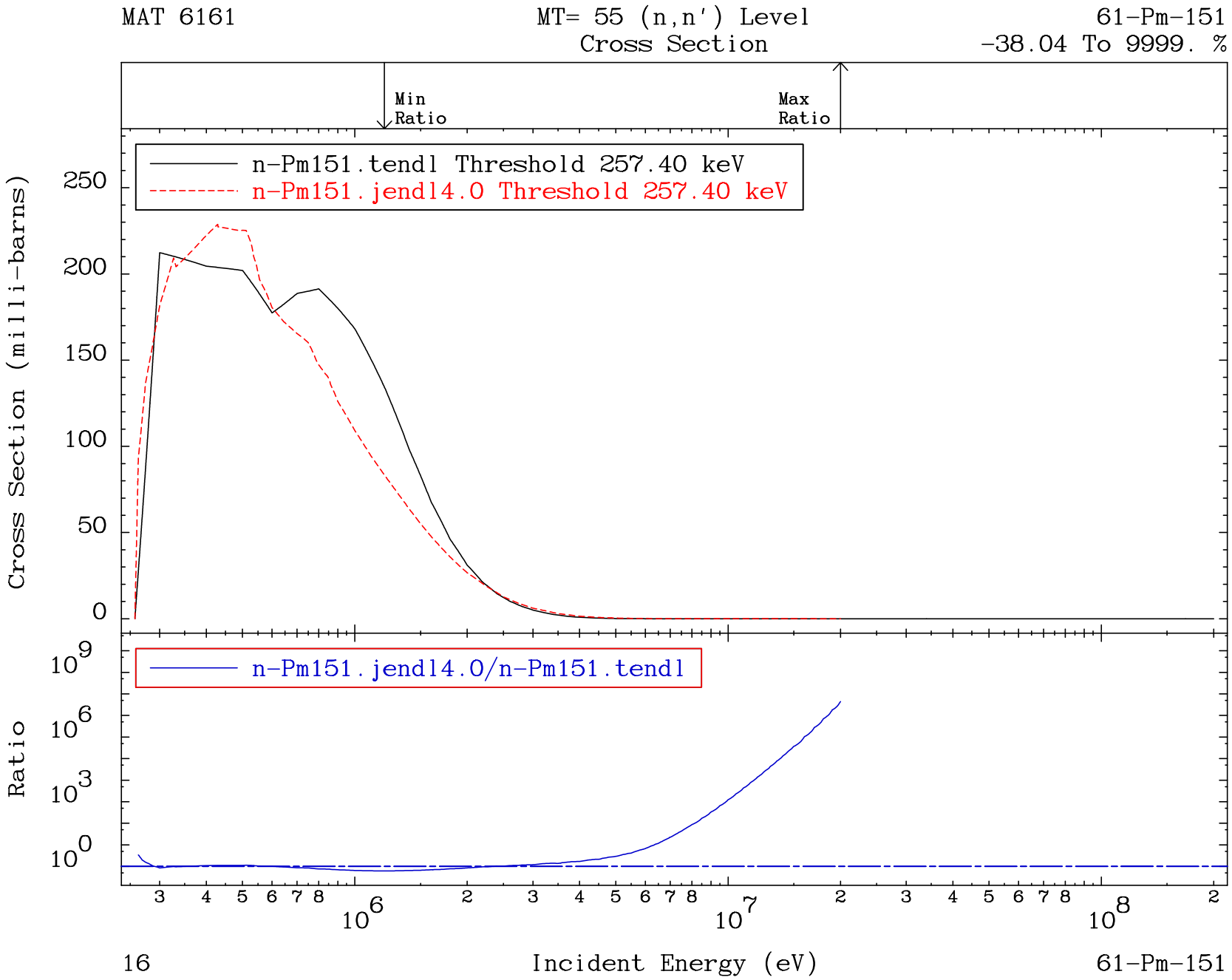

MAT 6161
(n,2n) p
Cross Section
61-Pm-151
-99.64 To 112.6 %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 14.467 MeV
n-Pm151.jendl4.0 Threshold 14.471 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^0
10^-1
10^-2
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
61-Pm-151

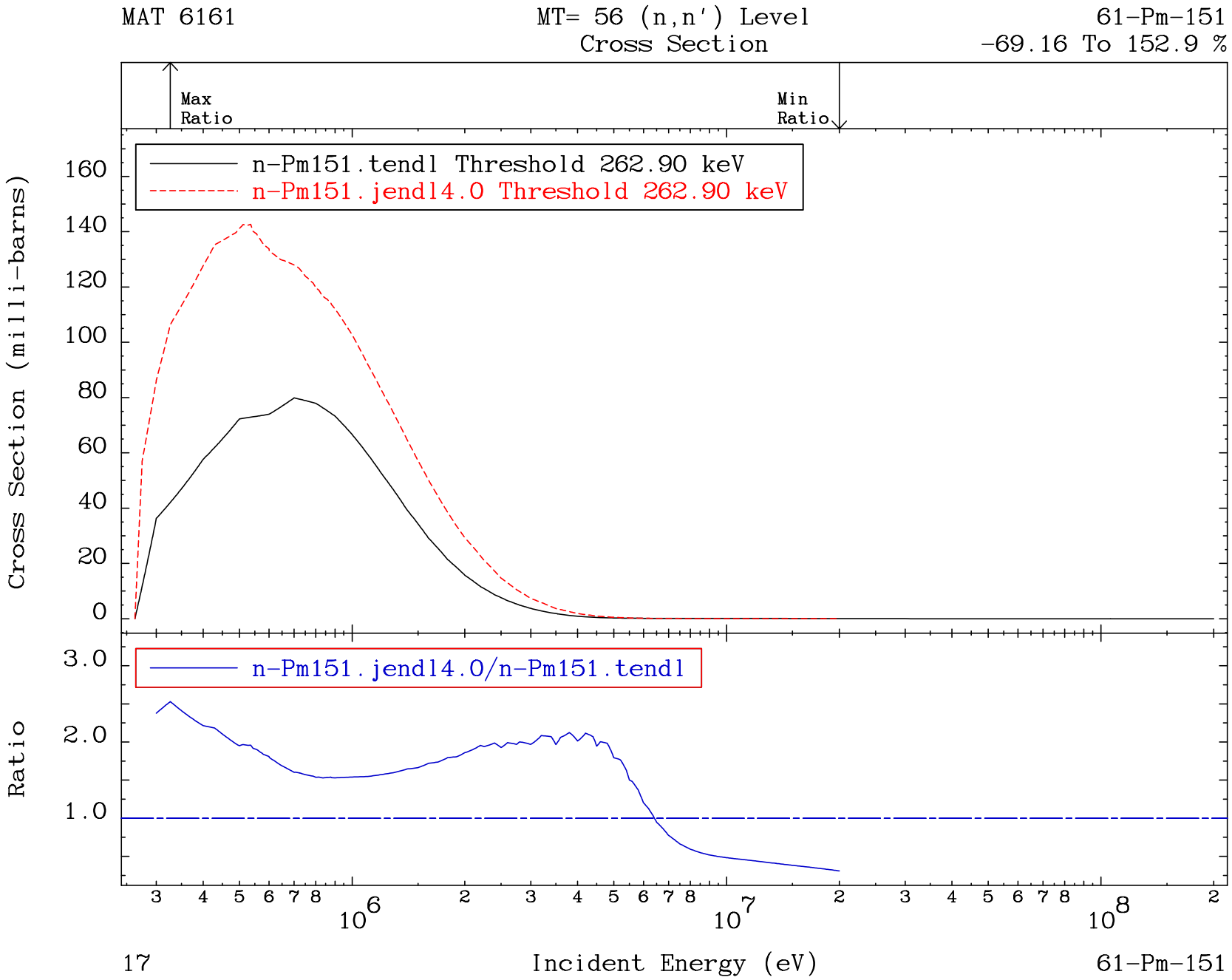

MAT 6161
MT= 51 (n,n') Level
Cross Section
61-Pm-151
-10.90 To 9999. %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 85.688 keV
n-Pm151.jendl4.0 Threshold 85.688 keV
Cross Section (milli-barns)
600
400
200
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^3
10^2
10^1
10^0
8
2
3
4
5
6
8
10^5
10^6
10^7
10^8
12
Incident Energy (eV)
61-Pm-151

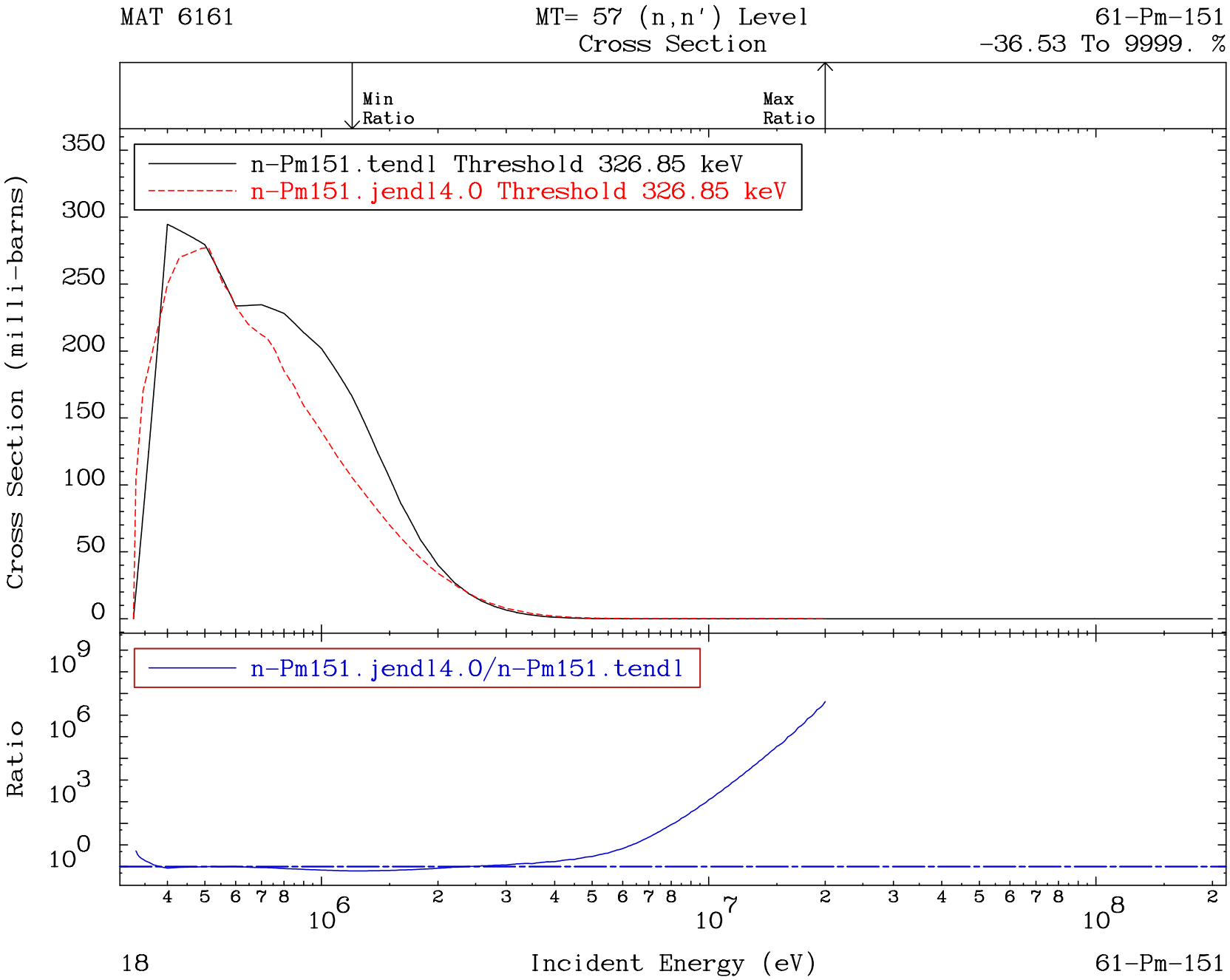

MAT 6161
MT= 52 (n,n') Level
Cross Section
61-Pm-151
58.32 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 117.58 keV
n-Pm151.jendl4.0 Threshold 117.58 keV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
13
Incident Energy (eV)
61-Pm-151

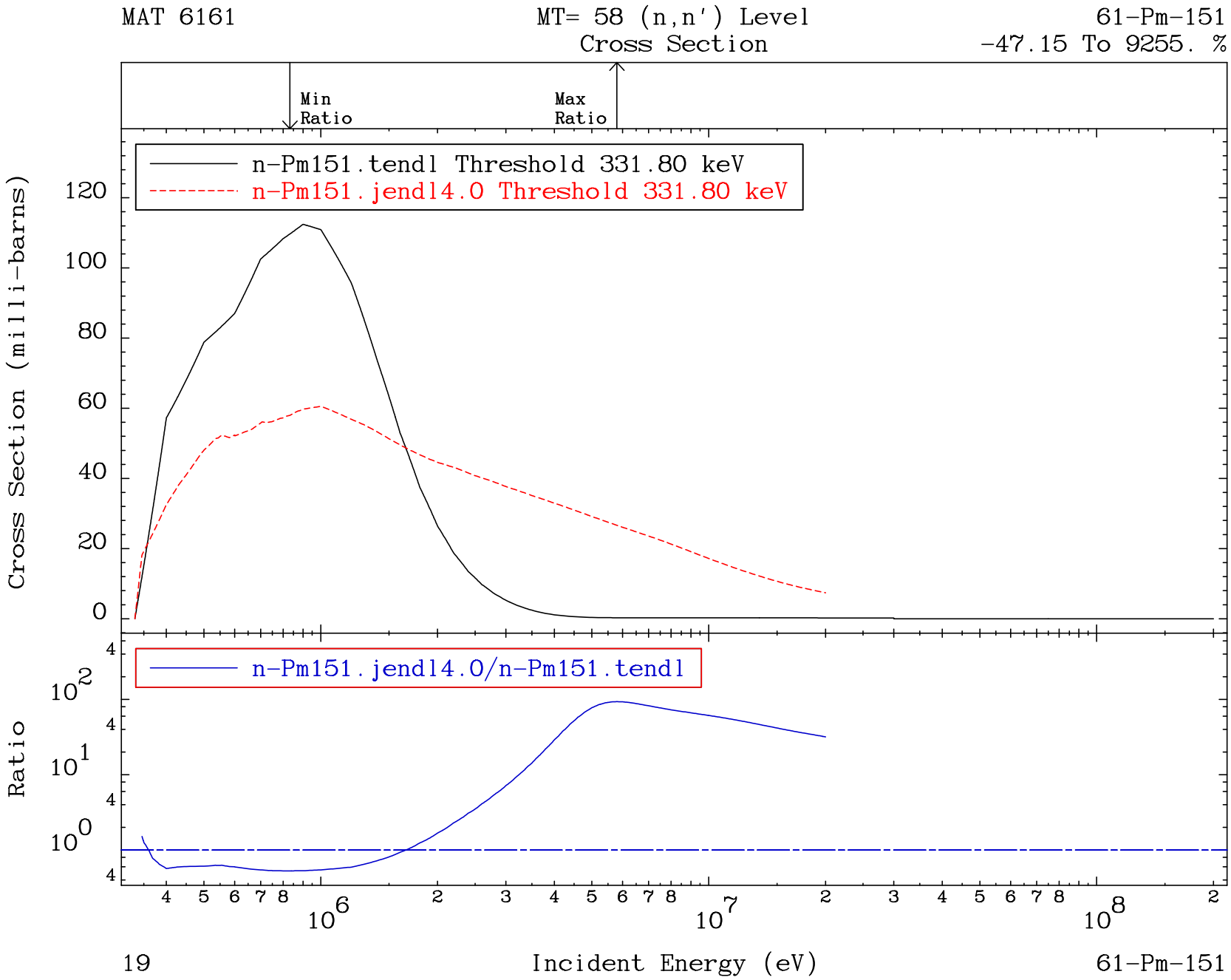

MAT 6161
MT= 53 (n,n') Level
Cross Section
61-Pm-151
-89.34 To 176.1 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 176.25 keV
n-Pm151.jendl4.0 Threshold 176.25 keV
Cross Section (milli-barns)
400
300
200
100
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
6
10^0
6
10^{-1}
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
14
Incident Energy (eV)
61-Pm-151

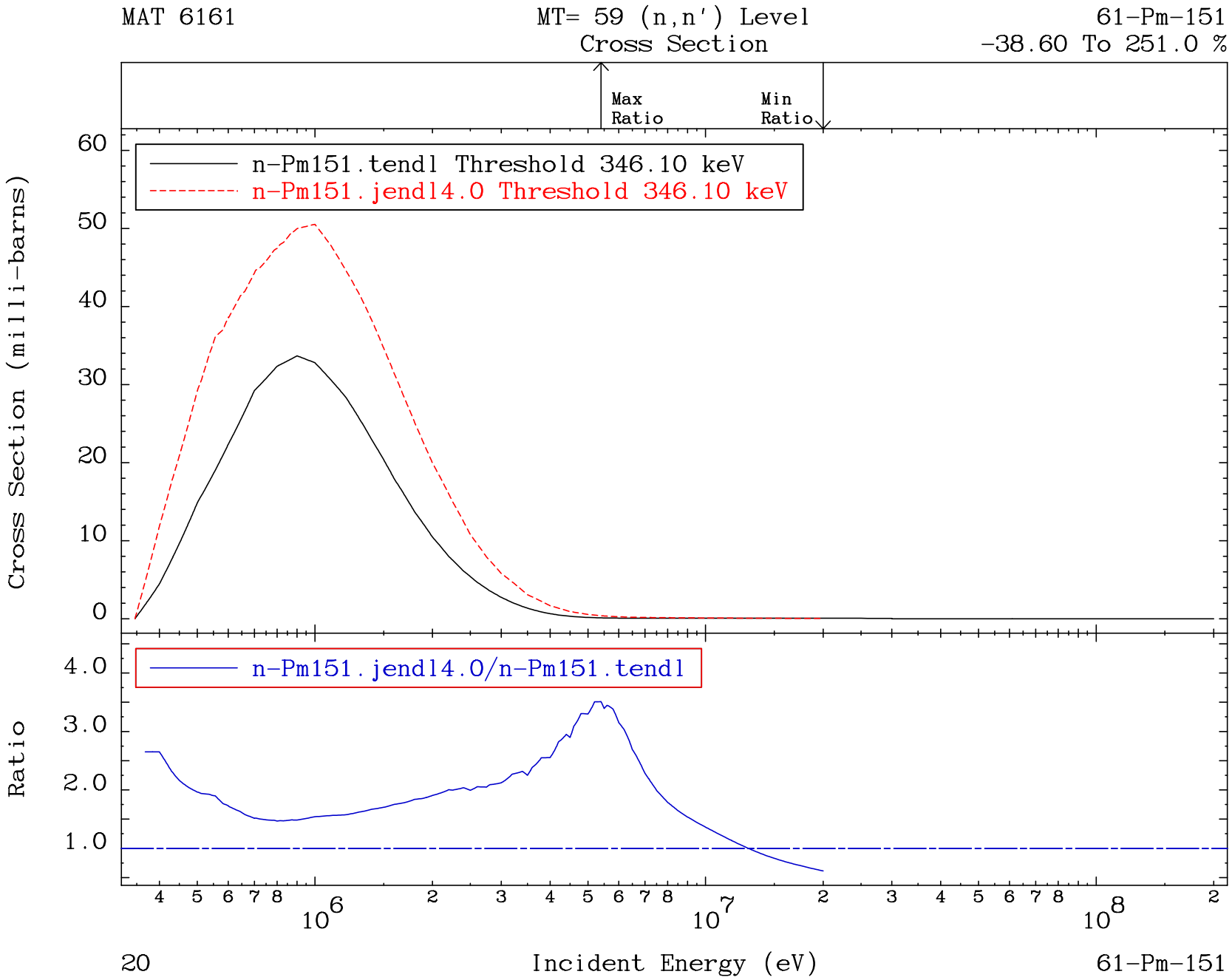

MAT 6161
MT= 54 (n,n') Level
Cross Section
61-Pm-151
-25.83 To 9999. %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 198.59 keV
n-Pm151.jendl4.0 Threshold 198.59 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^3
10^2
10^1
10^0
2 3 4 5 6 7 8
10^6
10^7
10^8
15
Incident Energy (eV)
61-Pm-151

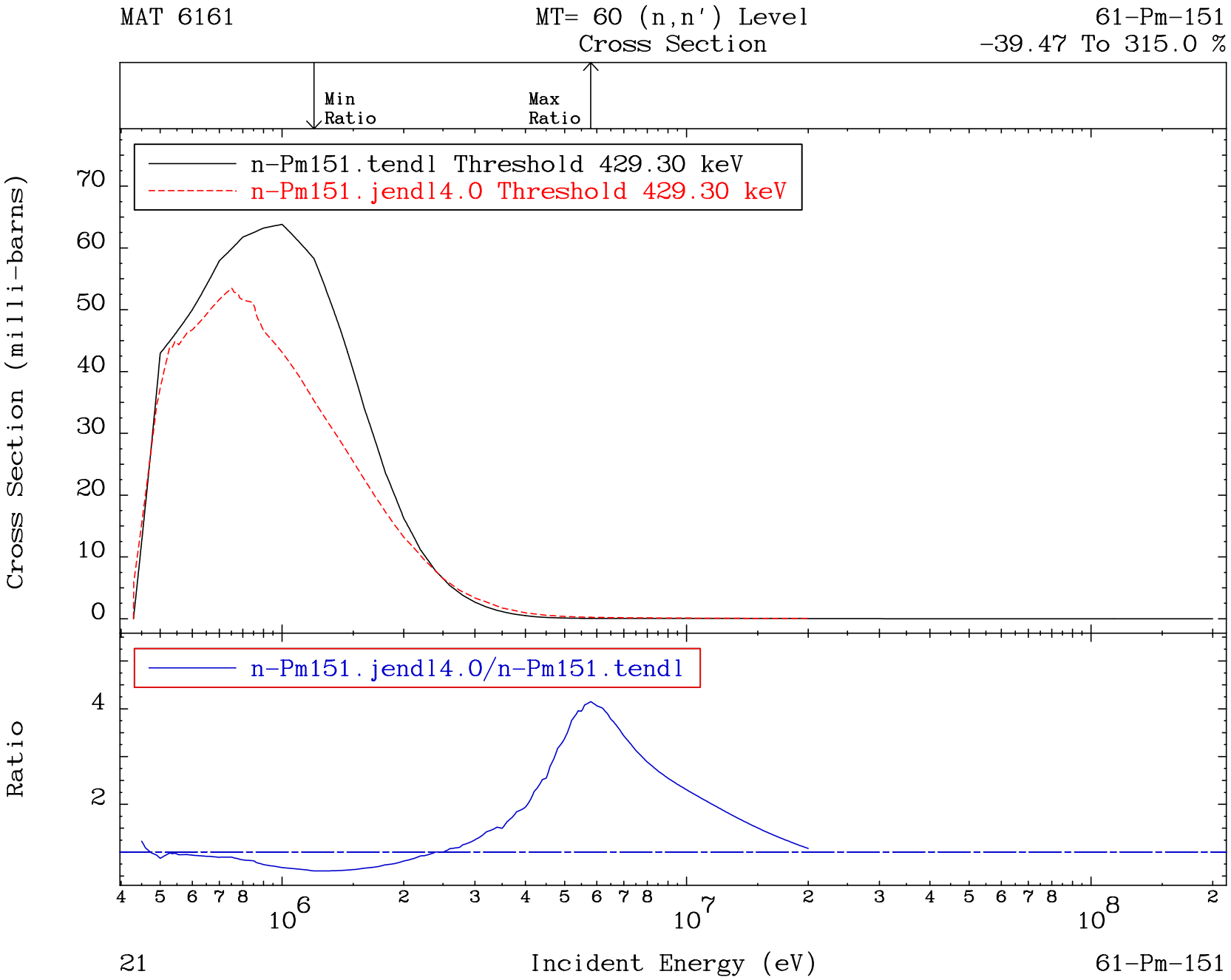

MAT 6161
MT= 55 (n,n') Level
Cross Section
61-Pm-151
-38.04 To 9999. %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 257.40 keV
n-Pm151.jendl4.0 Threshold 257.40 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^9
10^6
10^3
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
16
Incident Energy (eV)
61-Pm-151

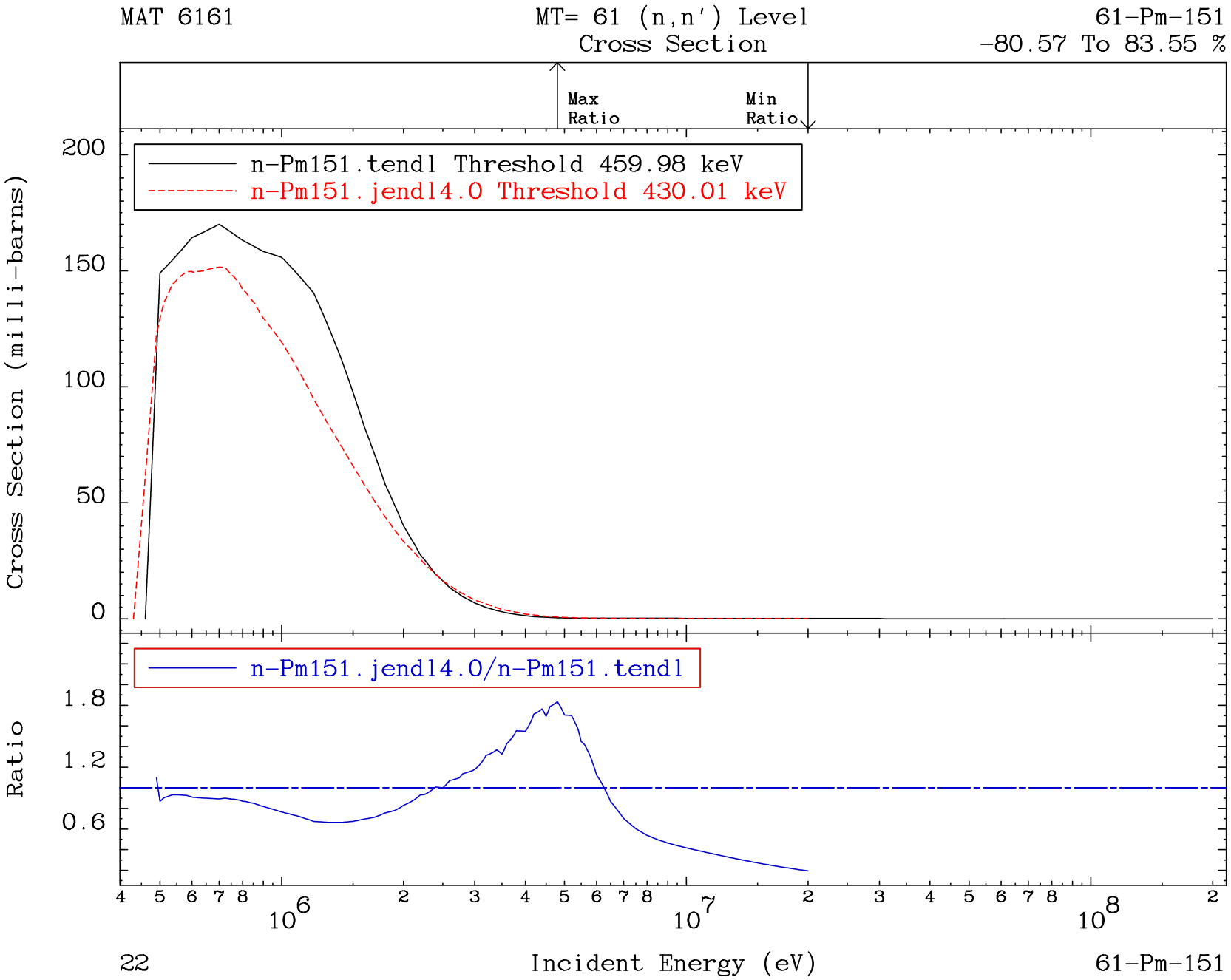

MAT 6161
MT= 56 (n,n') Level
Cross Section
61-Pm-151
-69.16 To 152.9 %
Max
Ratio
Min
Ratio
n-Pm151.tendl Threshold 262.90 keV
n-Pm151.jendl4.0 Threshold 262.90 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
3.0
2.0
1.0
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
61-Pm-151

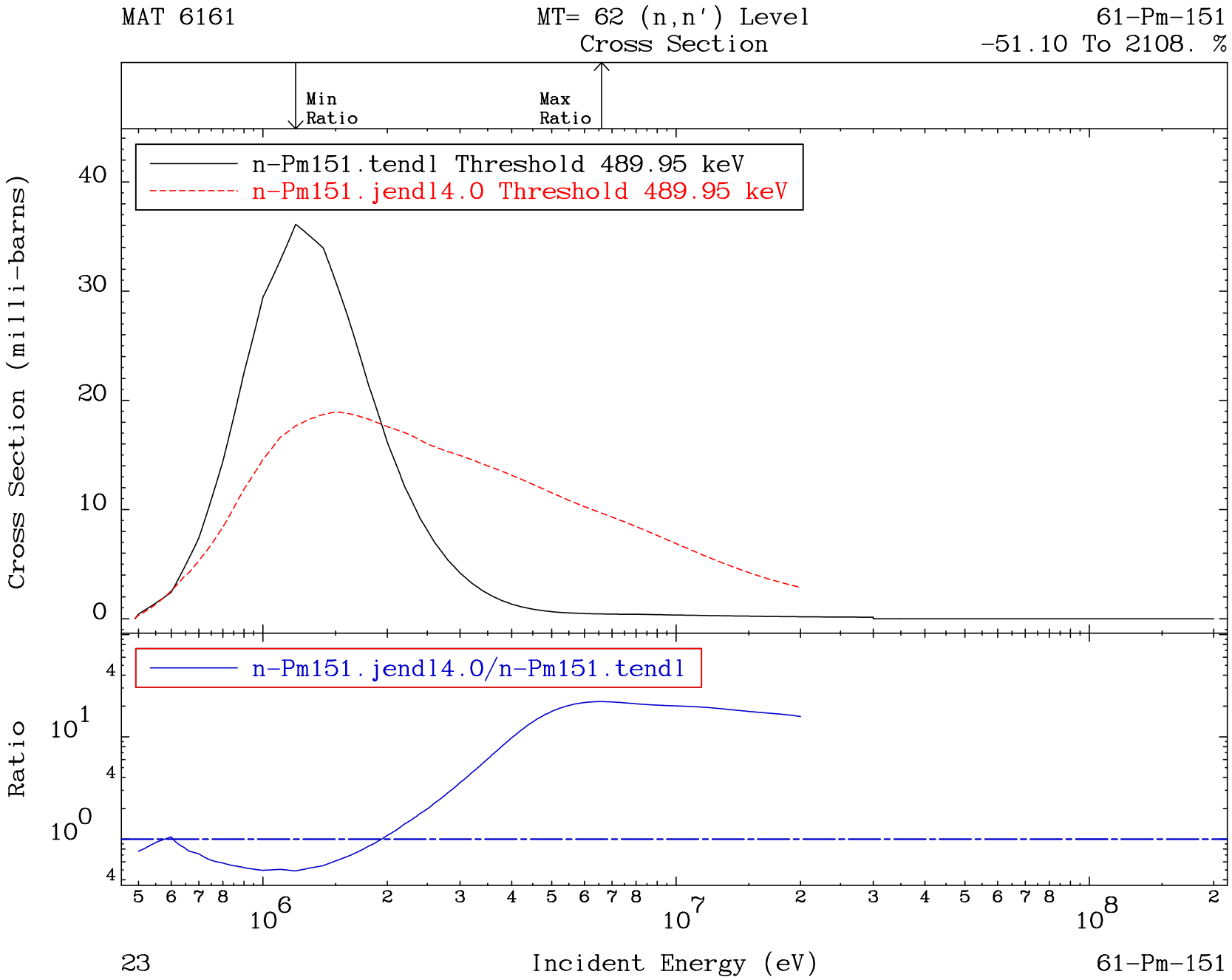

MAT 6161
MT= 57 (n,n') Level
Cross Section
61-Pm-151
-36.53 To 9999. %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 326.85 keV
n-Pm151.jendl4.0 Threshold 326.85 keV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^9
10^6
10^3
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
18
Incident Energy (eV)
61-Pm-151

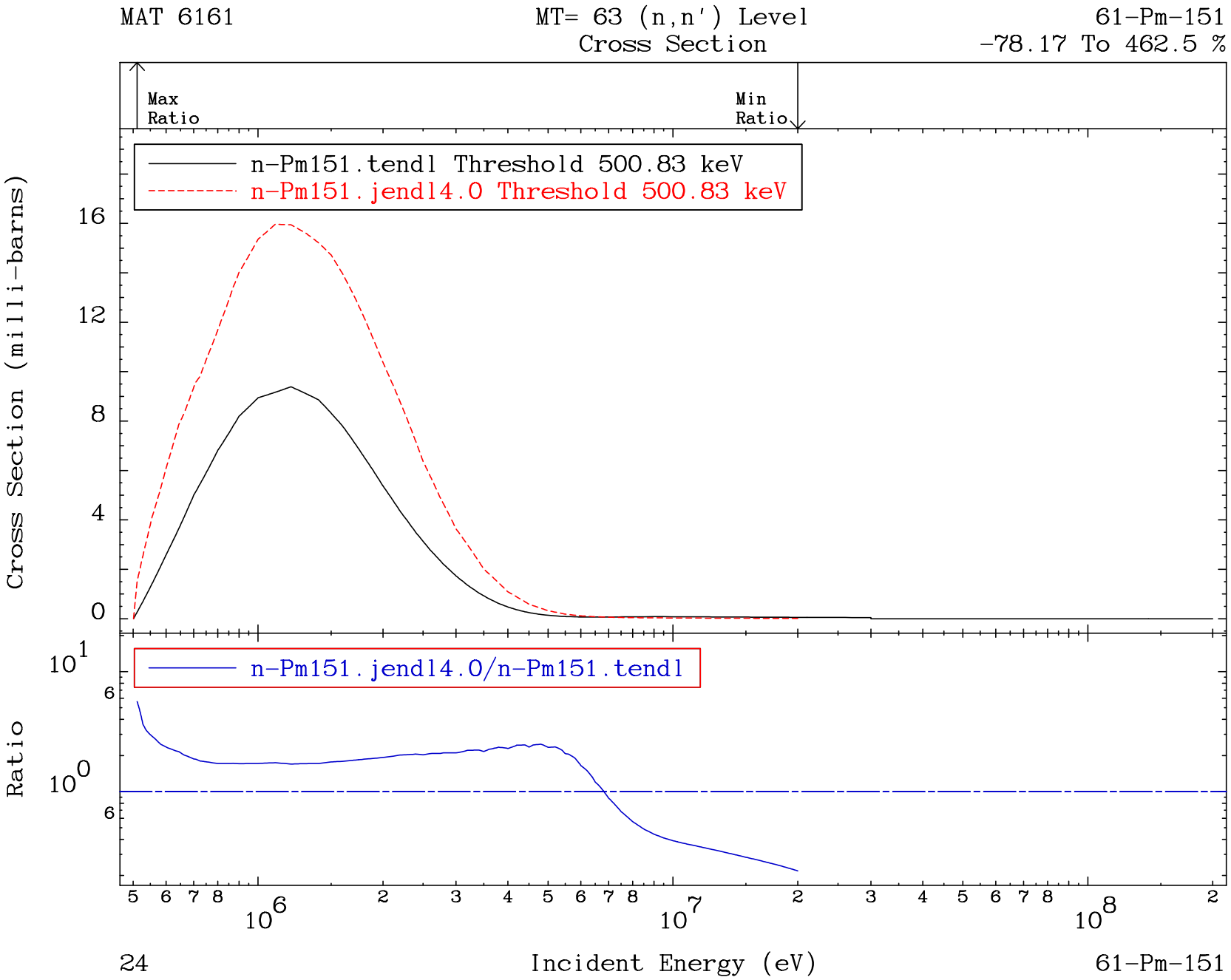

MAT 6161
MT= 58 (n,n') Level
Cross Section
61-Pm-151
-47.15 To 9255. %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 331.80 keV
n-Pm151.jendl4.0 Threshold 331.80 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^2
10^1
10^0
4
10^6
10^7
10^8
Incident Energy (eV)
19
61-Pm-151

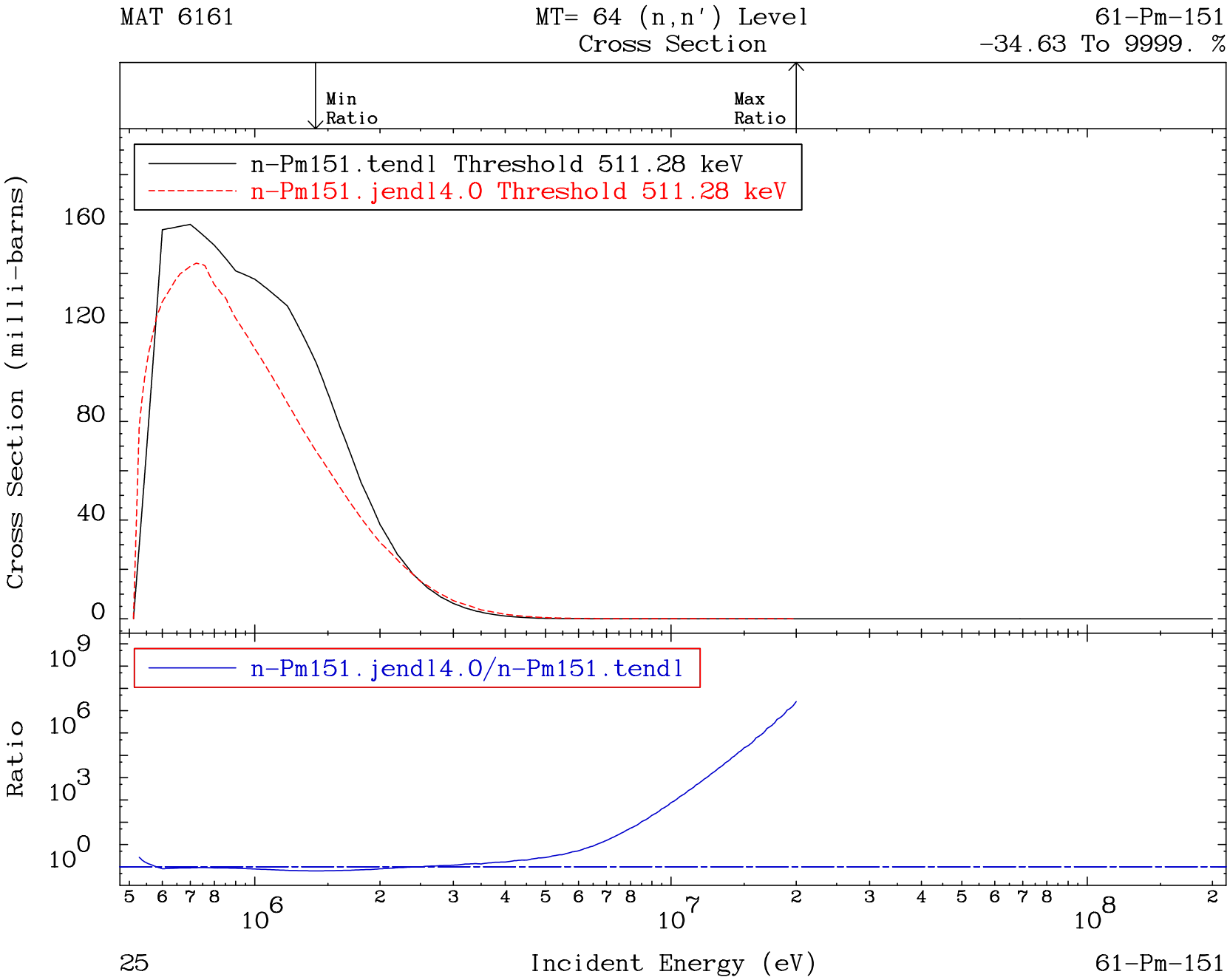

MAT 6161
MT= 59 (n,n') Level
Cross Section
61-Pm-151
-38.60 To 251.0 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 346.10 keV
n-Pm151.jendl4.0 Threshold 346.10 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
4.0
3.0
2.0
1.0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
20
Incident Energy (eV)
61-Pm-151

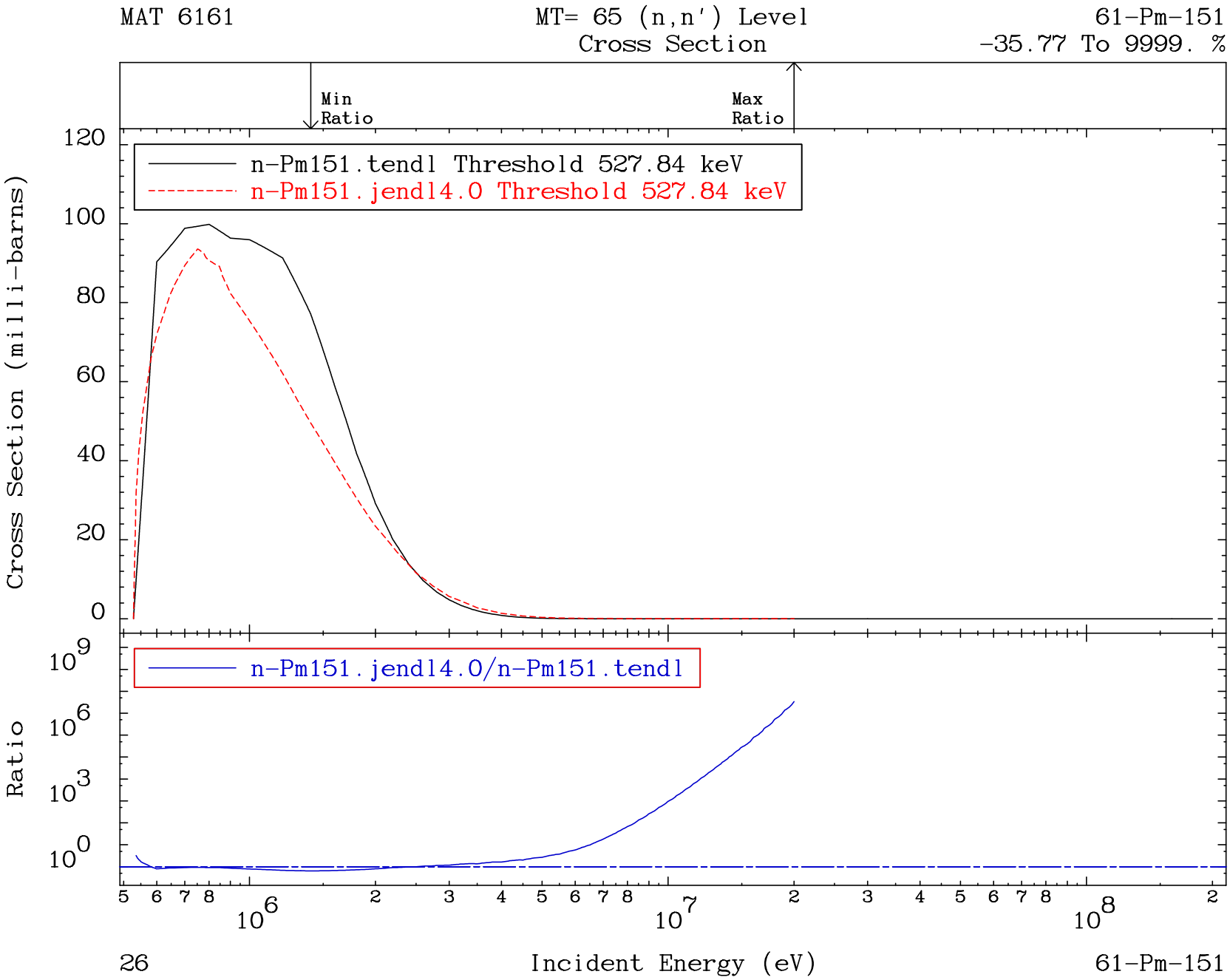

MAT 6161
MT= 60 (n,n') Level
Cross Section
61-Pm-151
-39.47 To 315.0 %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 429.30 keV
n-Pm151.jendl4.0 Threshold 429.30 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
4
2
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
21
Incident Energy (eV)
61-Pm-151

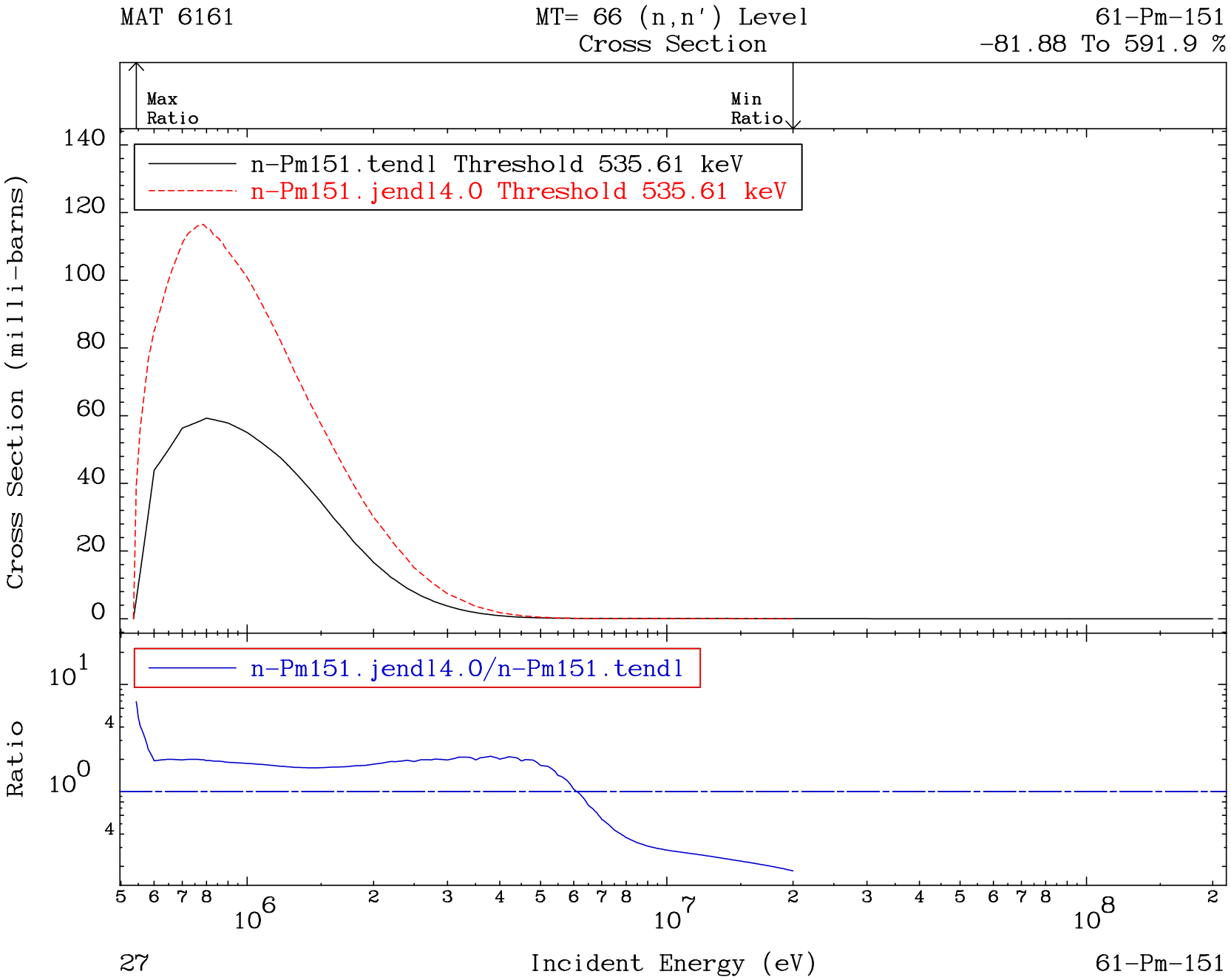

MAT 6161
MT= 61 (n,n') Level
Cross Section
61-Pm-151
-80.57 To 83.55 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 459.98 keV
n-Pm151.jendl4.0 Threshold 430.01 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
1.8
1.2
0.6
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
61-Pm-151

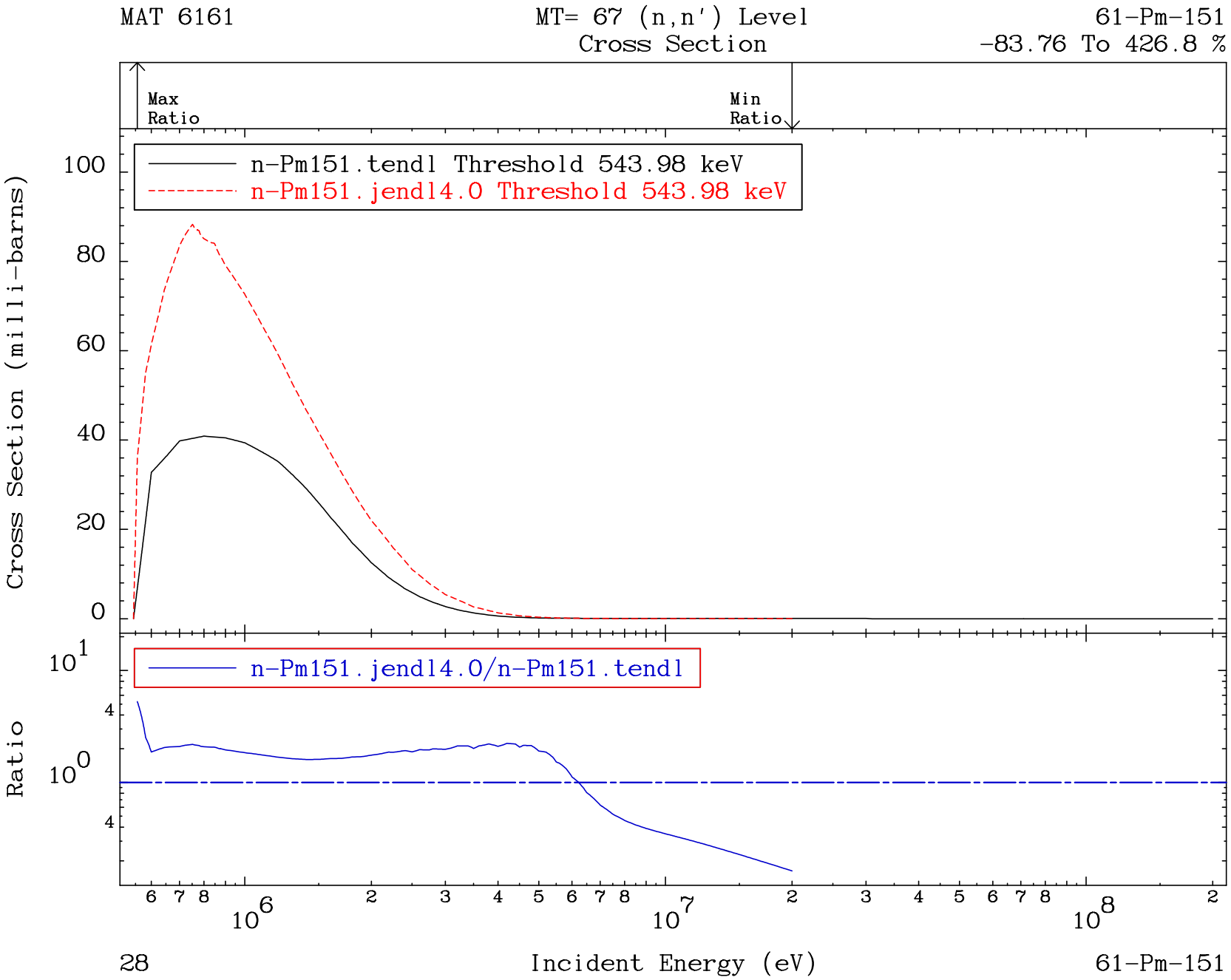

MAT 6161
MT= 62 (n,n') Level
Cross Section
61-Pm-151
-51.10 To 2108. %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 489.95 keV
n-Pm151.jendl4.0 Threshold 489.95 keV
Cross Section (milli-barns)
40
30
20
10
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^1
10^0
4
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
61-Pm-151

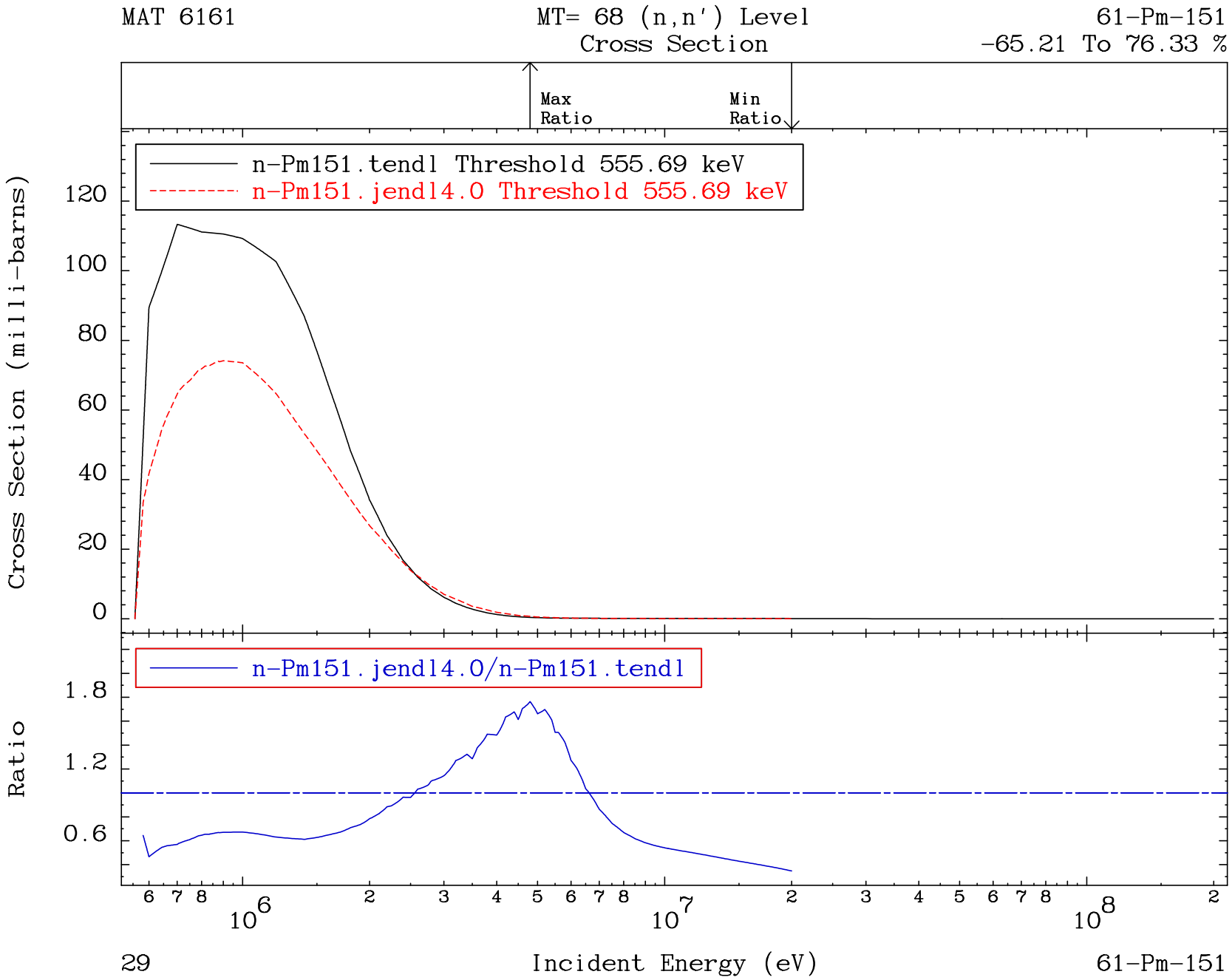

MAT 6161
MT= 63 (n,n') Level
Cross Section
61-Pm-151
-78.17 To 462.5 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 500.83 keV
n-Pm151.jendl4.0 Threshold 500.83 keV
Cross Section (milli-barns)
16
12
8
4
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^1
10^0
6
6
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
61-Pm-151

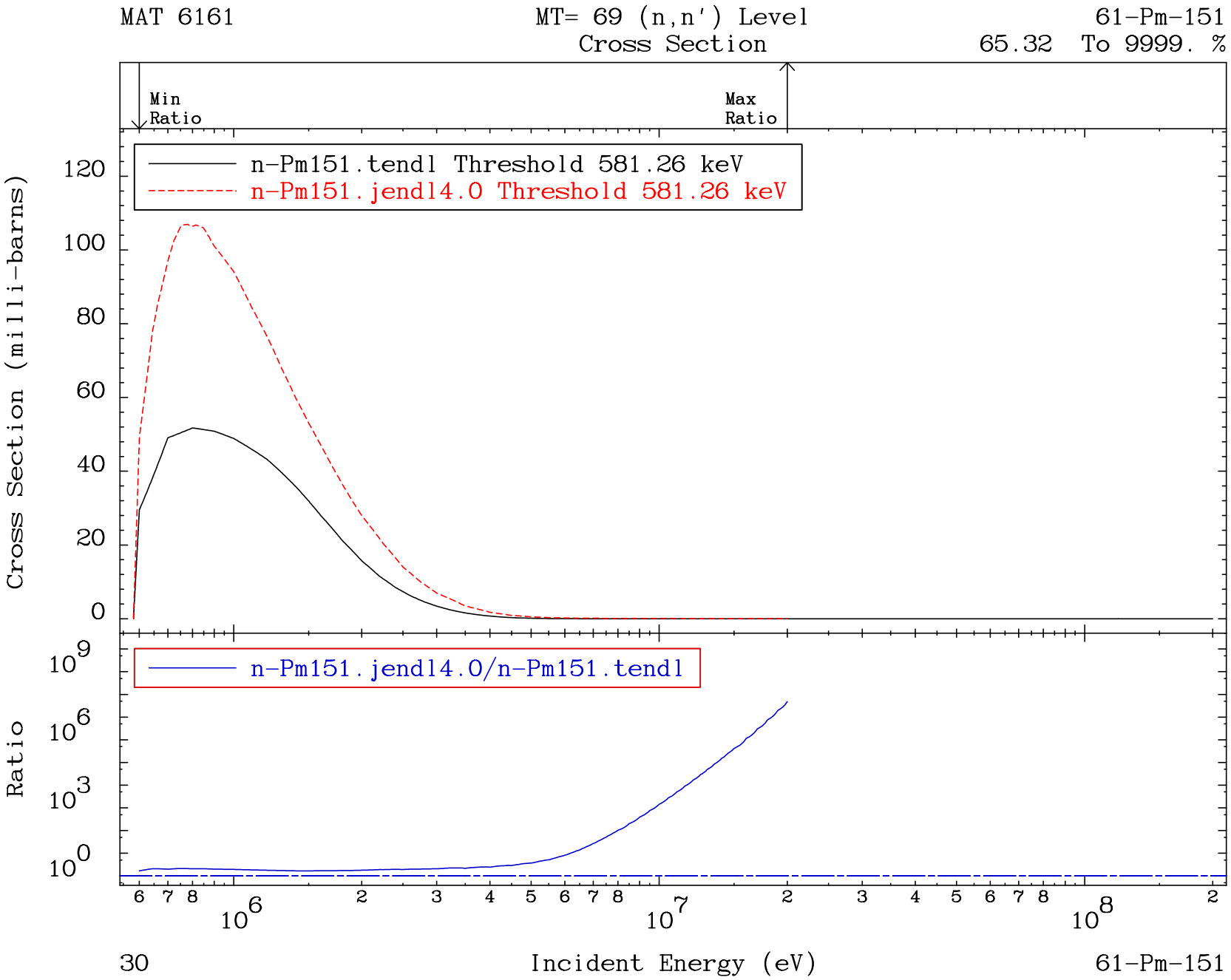

MAT 6161
MT= 64 (n,n') Level
Cross Section
61-Pm-151
-34.63 To 9999. %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 511.28 keV
n-Pm151.jendl4.0 Threshold 511.28 keV
Cross Section (milli-barns)
160
120
80
40
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^9
10^6
10^3
10^0
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
25
Incident Energy (eV)
61-Pm-151

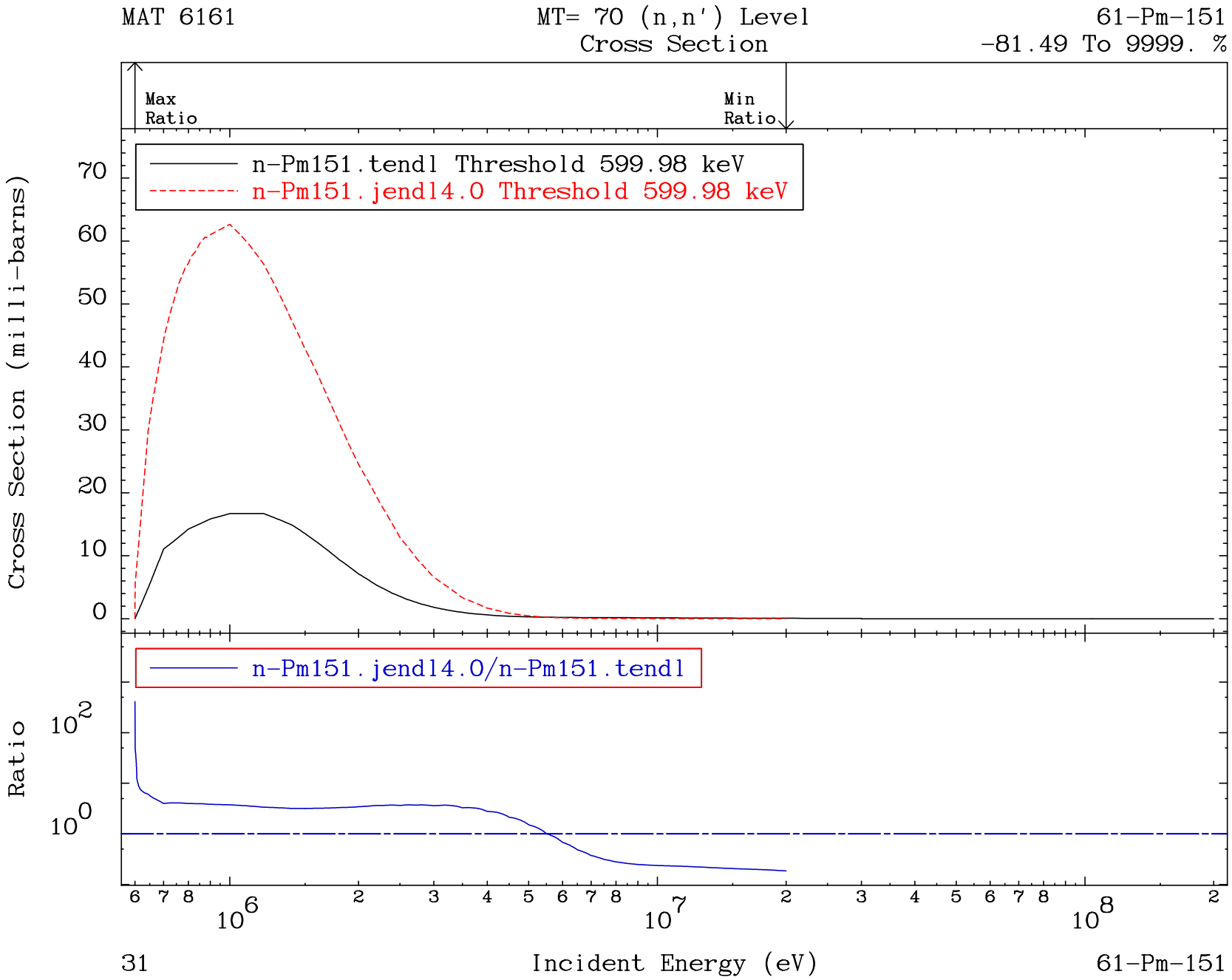

MAT 6161
MT= 65 (n,n') Level
Cross Section
61-Pm-151
-35.77 To 9999. %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 527.84 keV
n-Pm151.jendl4.0 Threshold 527.84 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^9
10^6
10^3
10^0
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
26
Incident Energy (eV)
61-Pm-151

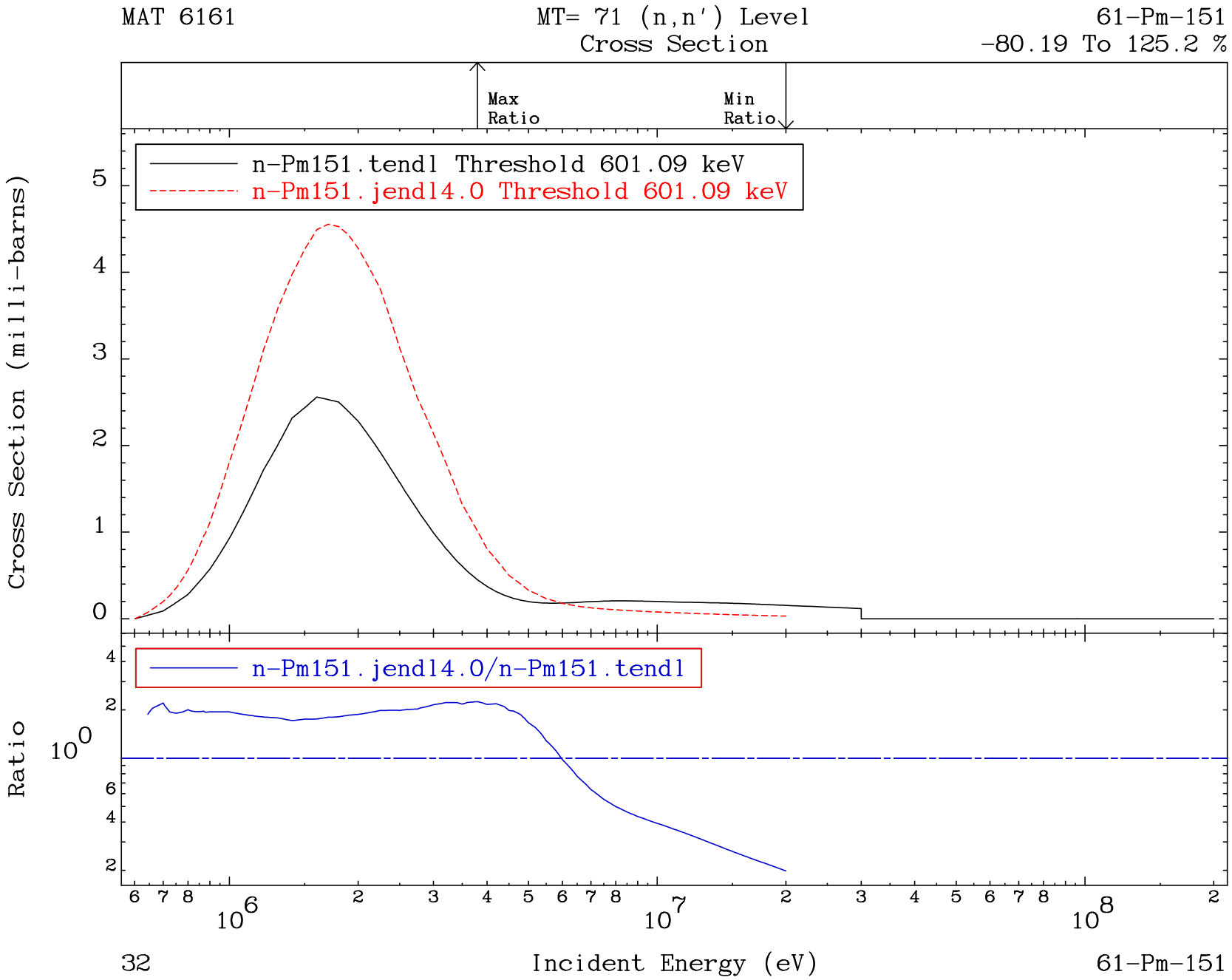

MAT 6161
MT= 66 (n,n') Level
Cross Section
61-Pm-151
-81.88 To 591.9 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 535.61 keV
n-Pm151.jendl4.0 Threshold 535.61 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^1
10^0
4
4
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
27
Incident Energy (eV)
61-Pm-151

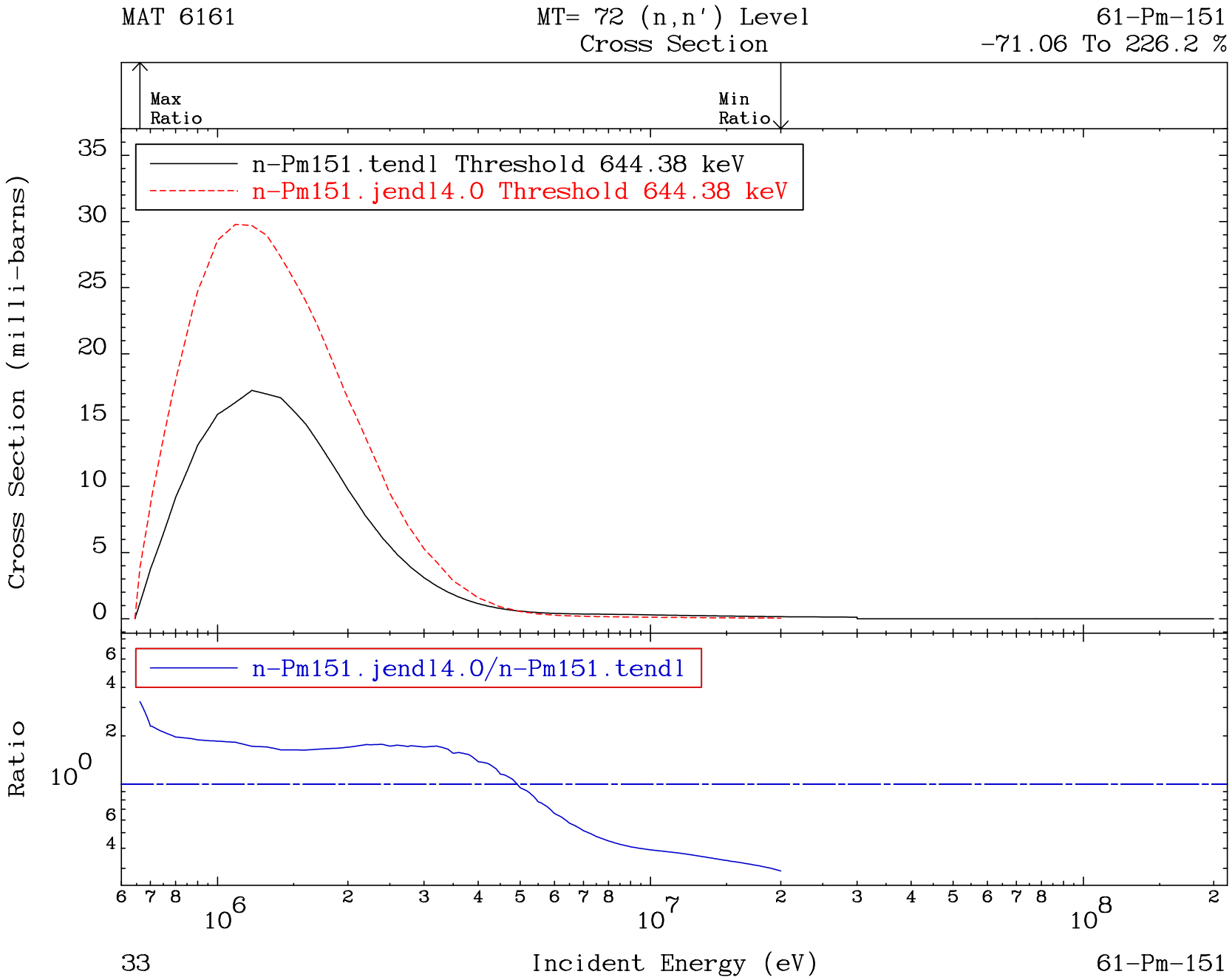

MAT 6161
MT= 67 (n,n') Level
Cross Section
61-Pm-151
-83.76 To 426.8 %
Max
Ratio
Min
Ratio
n-Pm151.tendl Threshold 543.98 keV
n-Pm151.jendl4.0 Threshold 543.98 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^1
10^0
4
4
6 7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
28
Incident Energy (eV)
61-Pm-151

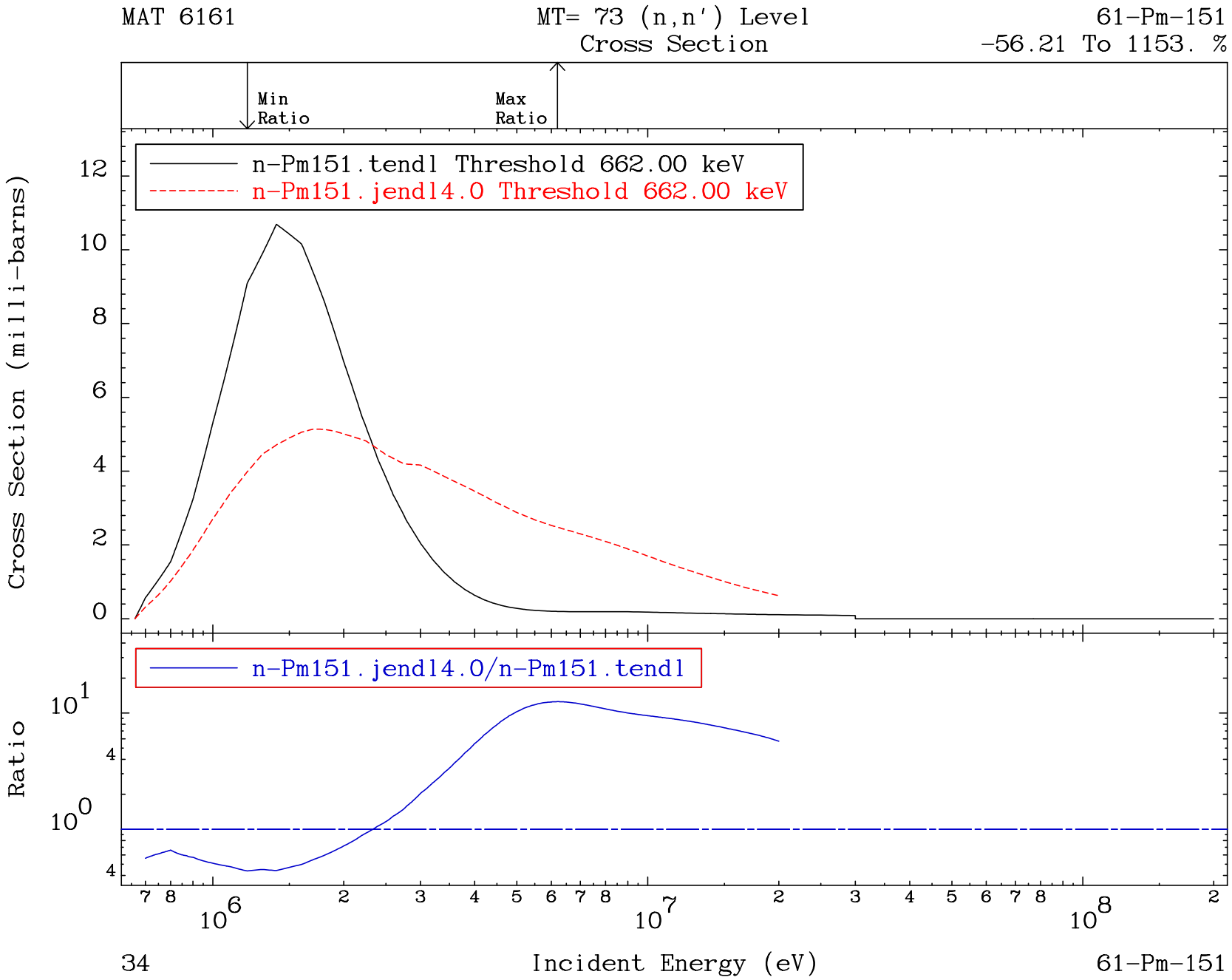

MAT 6161
MT= 68 (n,n') Level
Cross Section
61-Pm-151
-65.21 To 76.33 %
Max
Ratio
Min
Ratio
n-Pm151.tendl Threshold 555.69 keV
n-Pm151.jendl4.0 Threshold 555.69 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
1.8
1.2
0.6
6 7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
29
Incident Energy (eV)
61-Pm-151

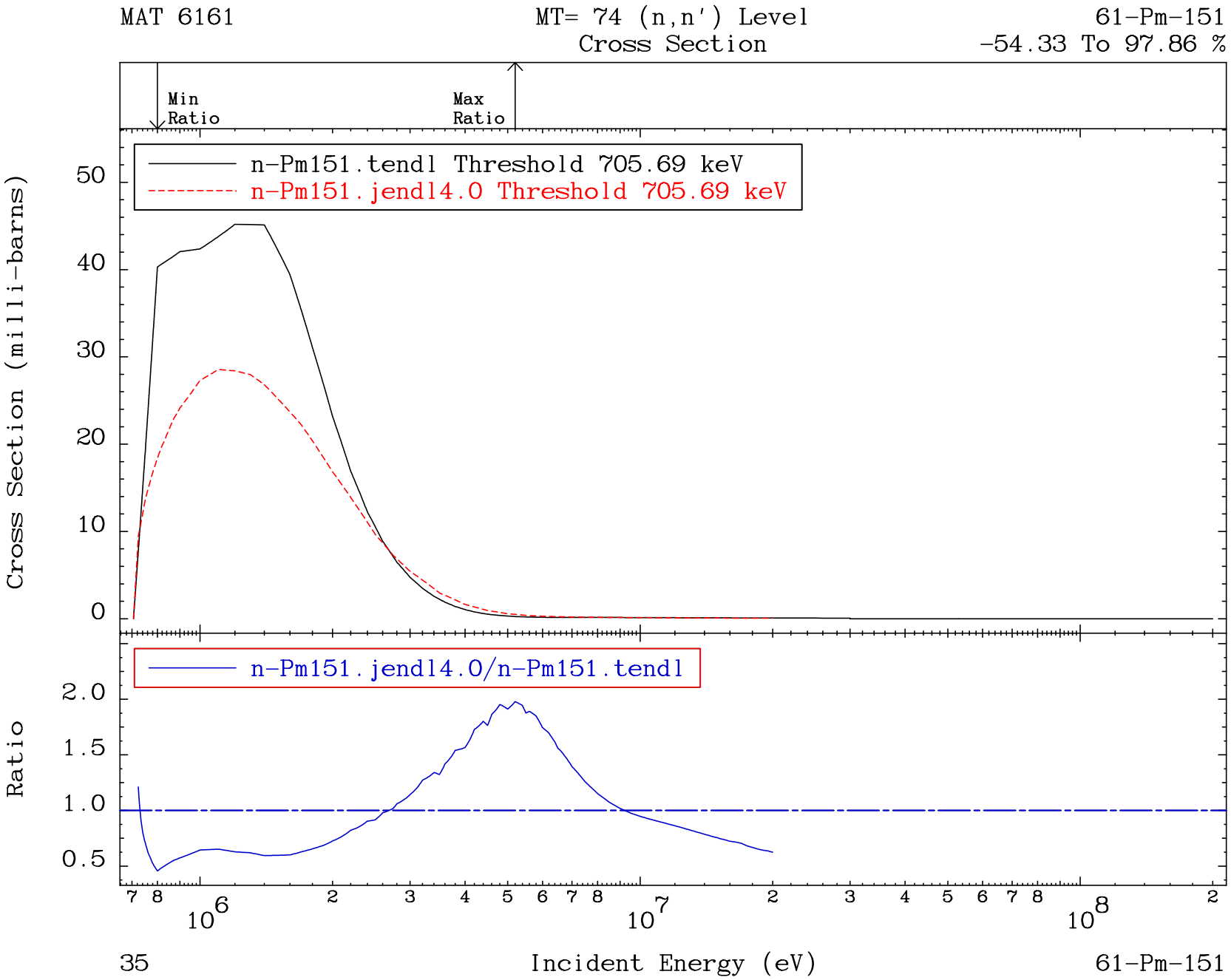

MAT 6161
MT= 69 (n,n') Level
Cross Section
61-Pm-151
65.32 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 581.26 keV
n-Pm151.jendl4.0 Threshold 581.26 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^9
10^6
10^3
10^0
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
30
Incident Energy (eV)
61-Pm-151

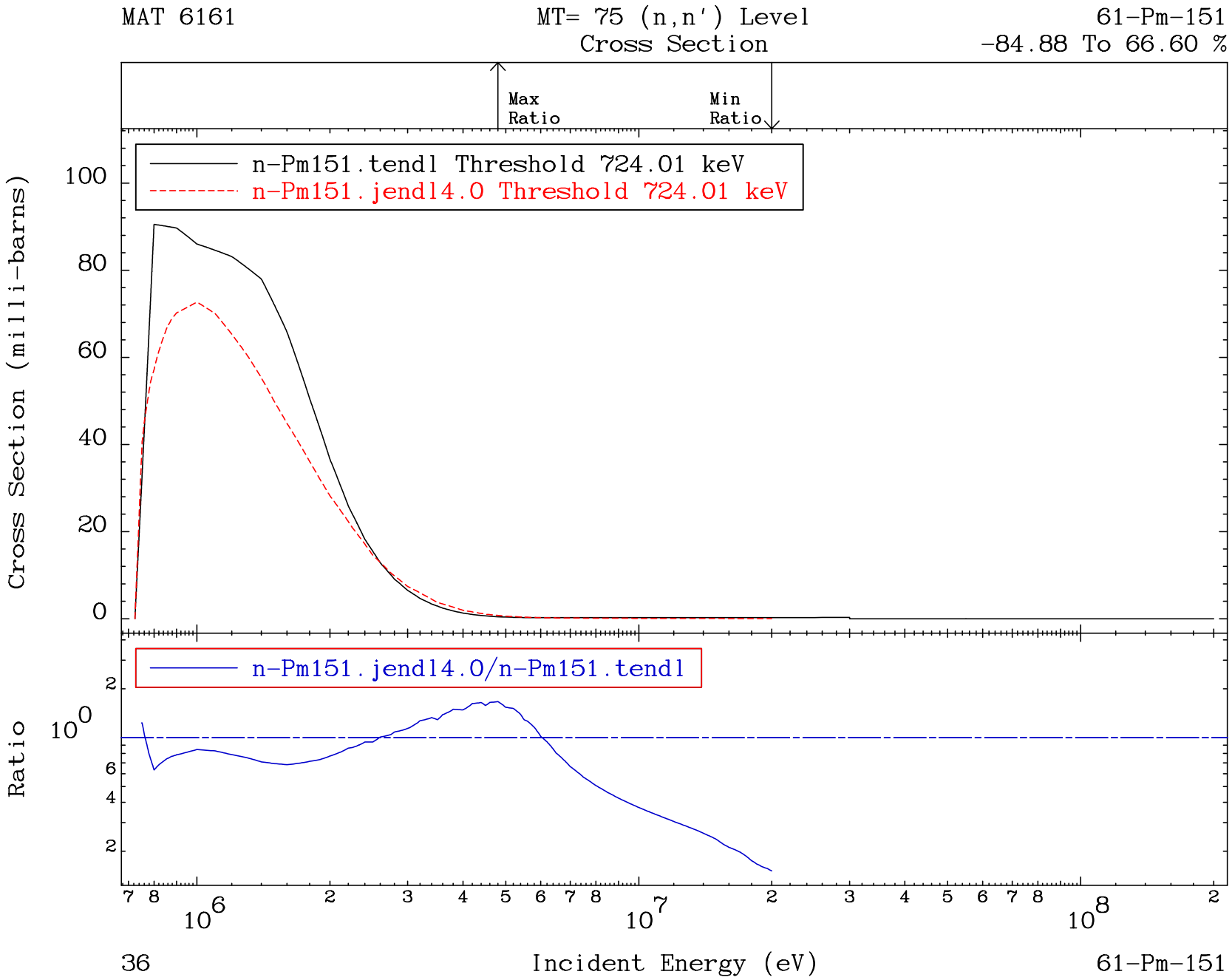

MAT 6161
MT= 70 (n,n') Level
Cross Section
61-Pm-151
-81.49 To 9999. %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 599.98 keV
n-Pm151.jendl4.0 Threshold 599.98 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^2
10^0
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
61-Pm-151

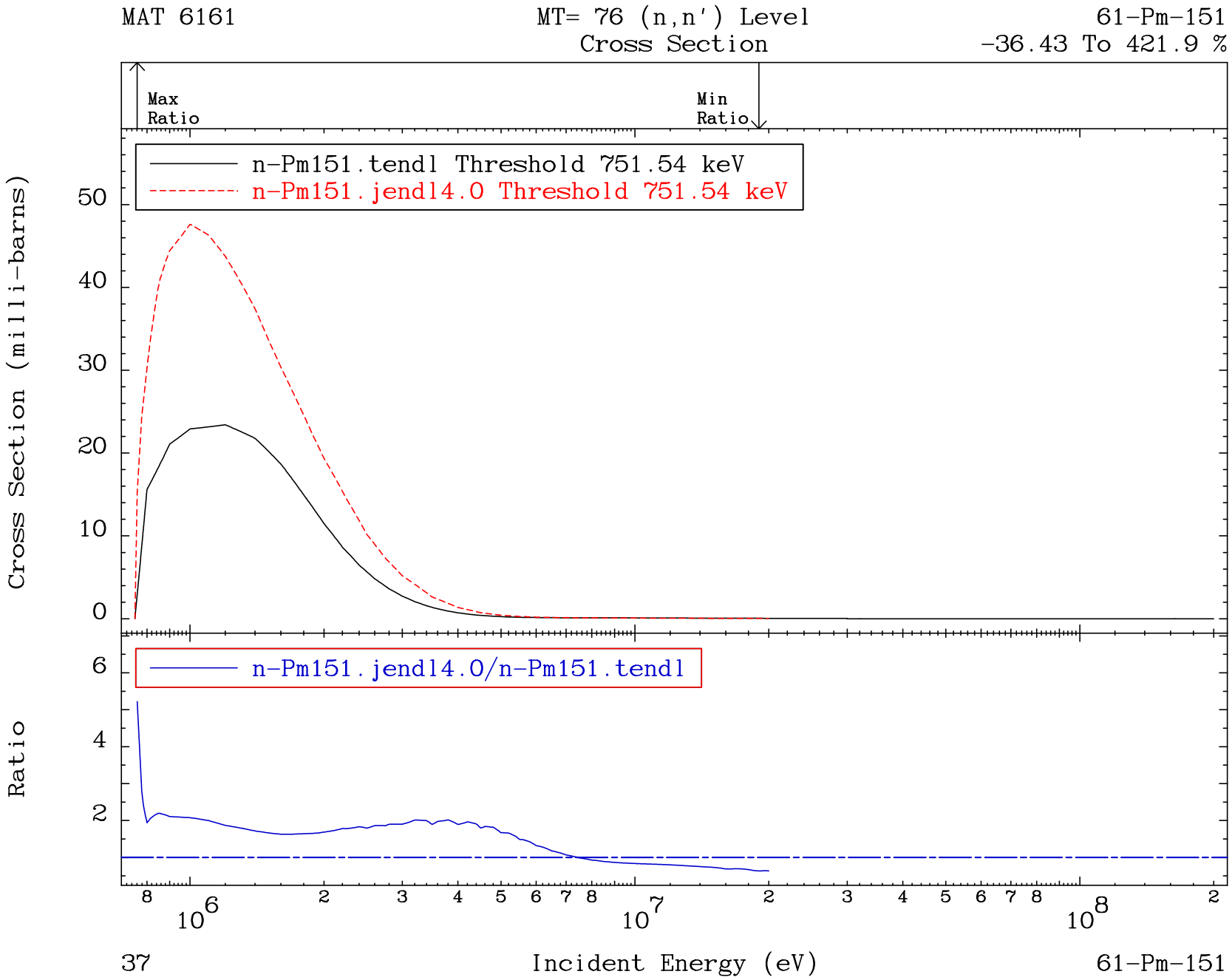

MAT 6161
MT= 71 (n,n') Level
Cross Section
61-Pm-151
-80.19 To 125.2 %
Max
Ratio
Min
Ratio
n-Pm151.tendl Threshold 601.09 keV
n-Pm151.jendl4.0 Threshold 601.09 keV
Cross Section (milli-barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
32
61-Pm-151

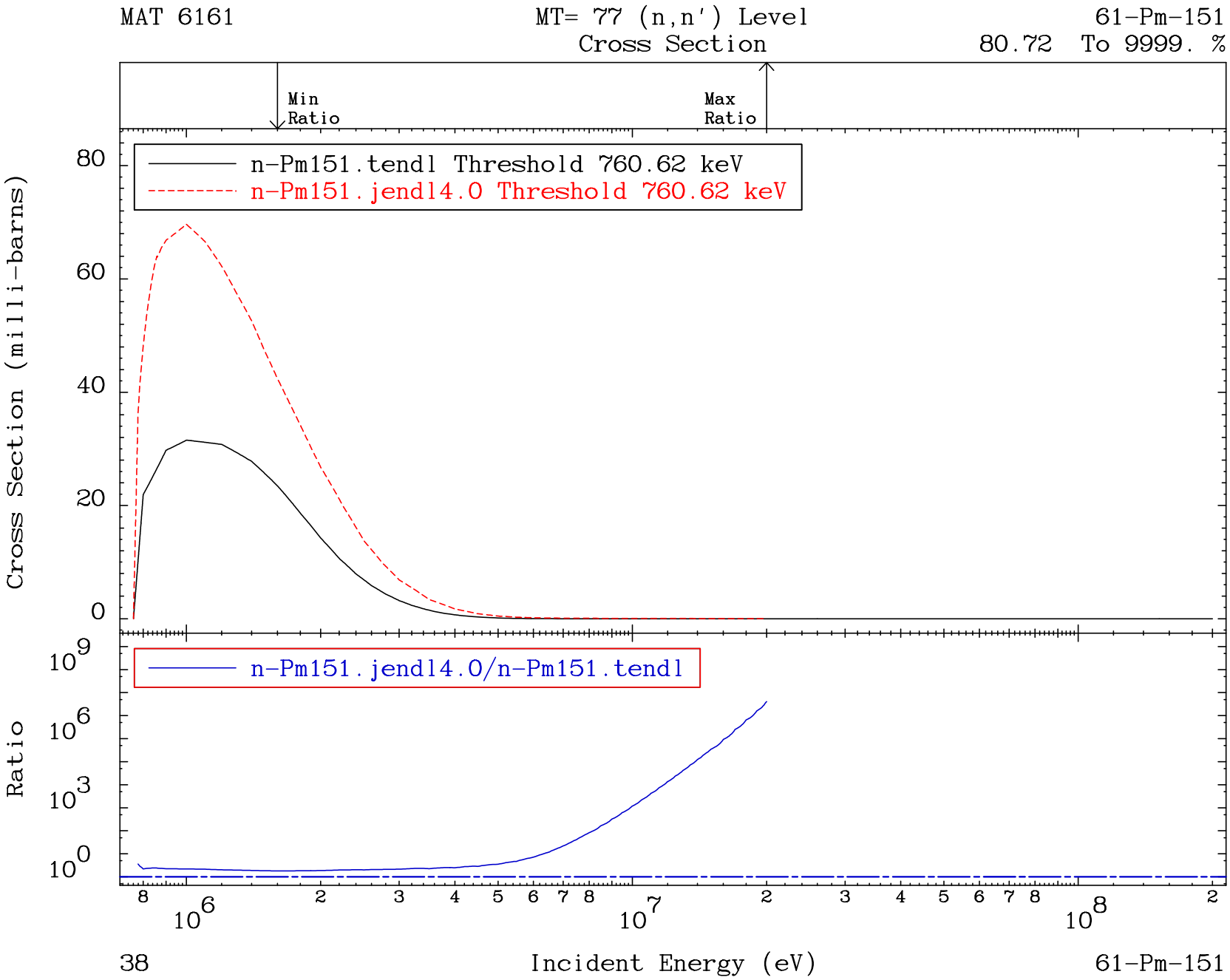

MAT 6161
MT= 72 (n,n') Level
Cross Section
61-Pm-151
-71.06 To 226.2 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 644.38 keV
n-Pm151.jendl4.0 Threshold 644.38 keV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^0
6
4
2
6
4
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
33
Incident Energy (eV)
61-Pm-151

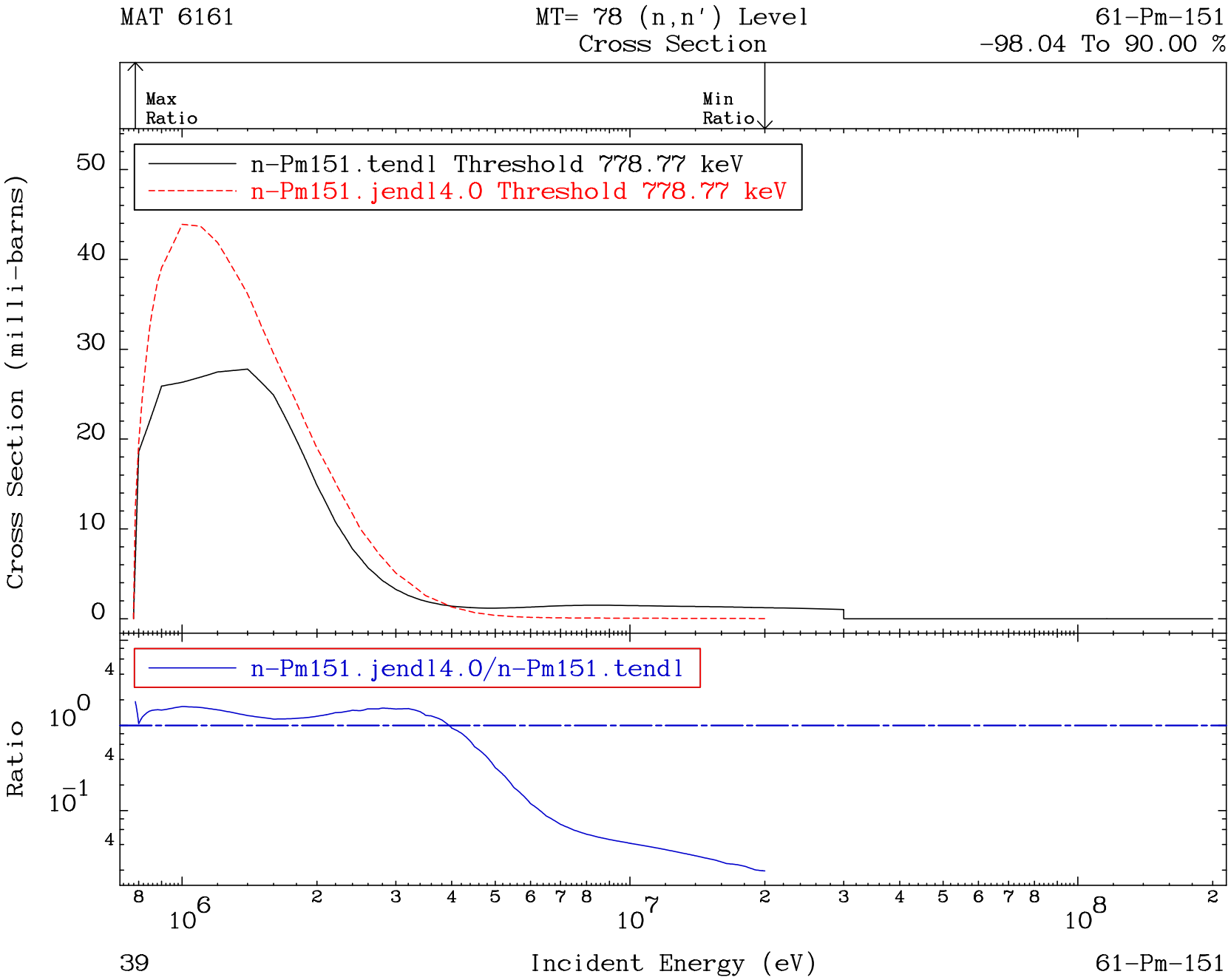

MAT 6161
MT= 73 (n,n') Level
Cross Section
61-Pm-151
-56.21 To 1153. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 662.00 keV
n-Pm151.jendl4.0 Threshold 662.00 keV
Cross Section (milli-barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
34
61-Pm-151

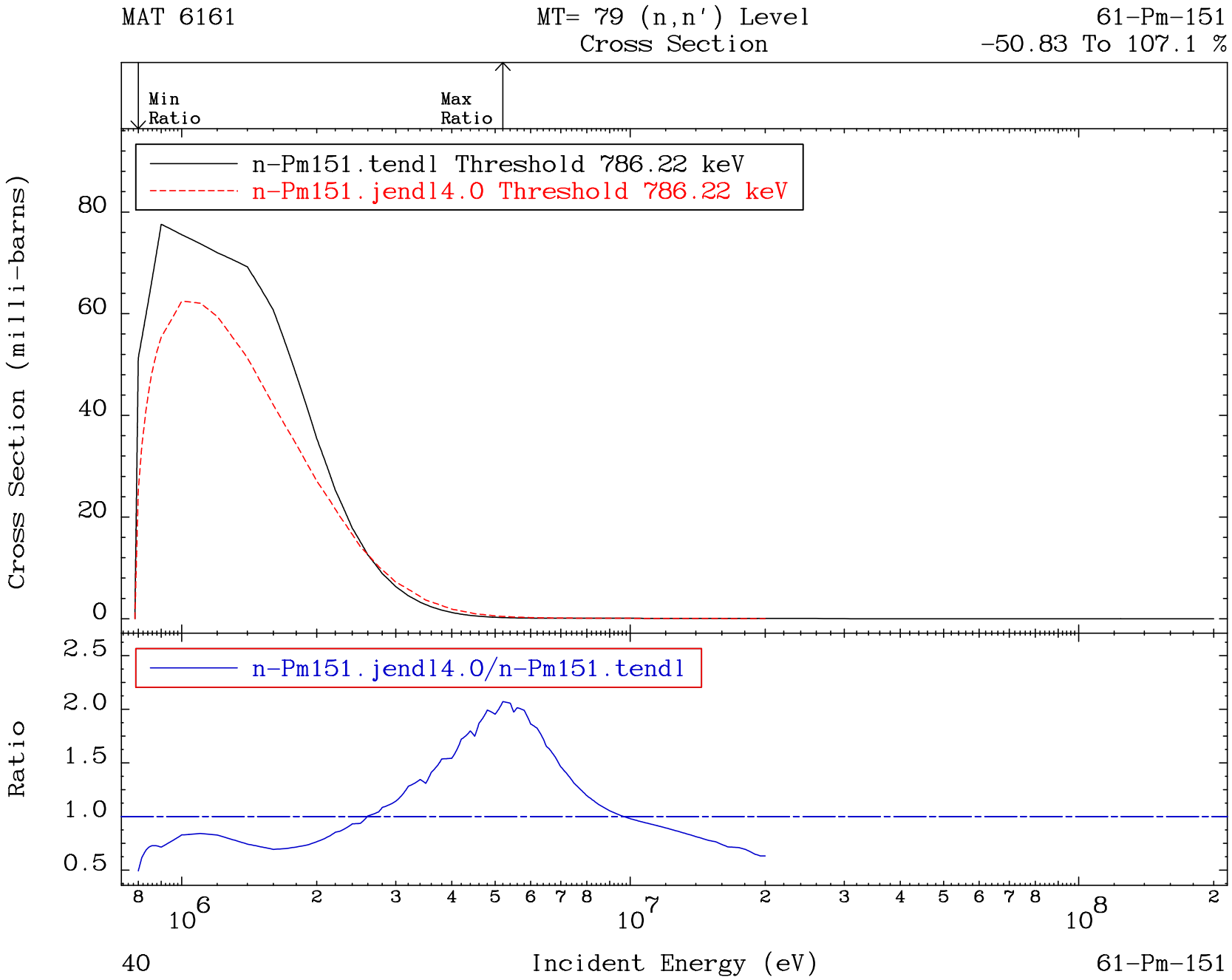

MAT 6161
MT= 74 (n,n') Level
Cross Section
61-Pm-151
-54.33 To 97.86 %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 705.69 keV
n-Pm151.jendl4.0 Threshold 705.69 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
2.0
1.5
1.0
0.5
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
35
Incident Energy (eV)
61-Pm-151

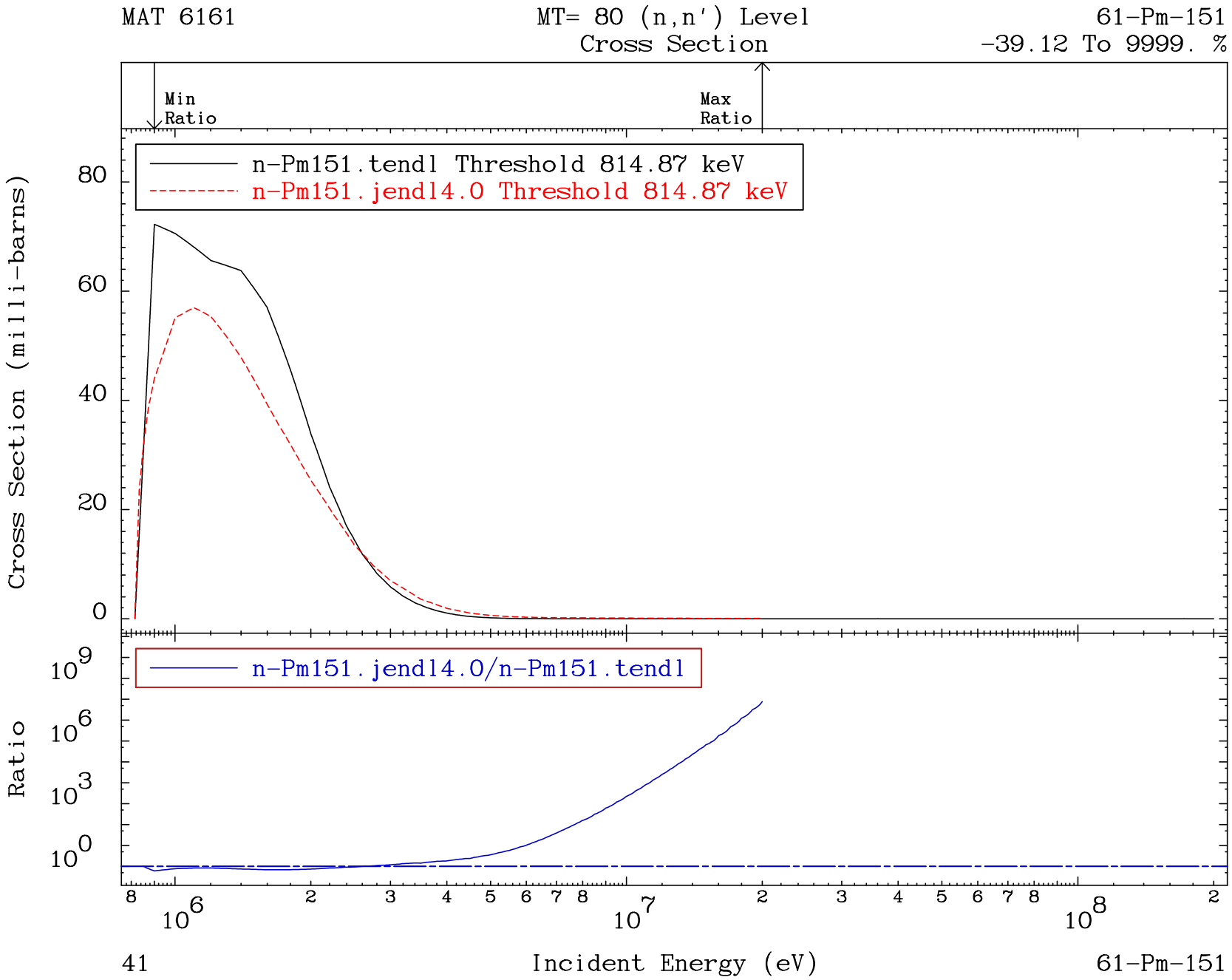

MAT 6161
MT= 75 (n,n') Level
Cross Section
61-Pm-151
-84.88 To 66.60 %
Max
Ratio
Min
Ratio
n-Pm151.tendl Threshold 724.01 keV
n-Pm151.jendl4.0 Threshold 724.01 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^0
2
6
4
2
7 8
10^6
2
3
4
5
6
7 8
10^7
2
3
4
5
6
7 8
10^8
2
36
Incident Energy (eV)
61-Pm-151

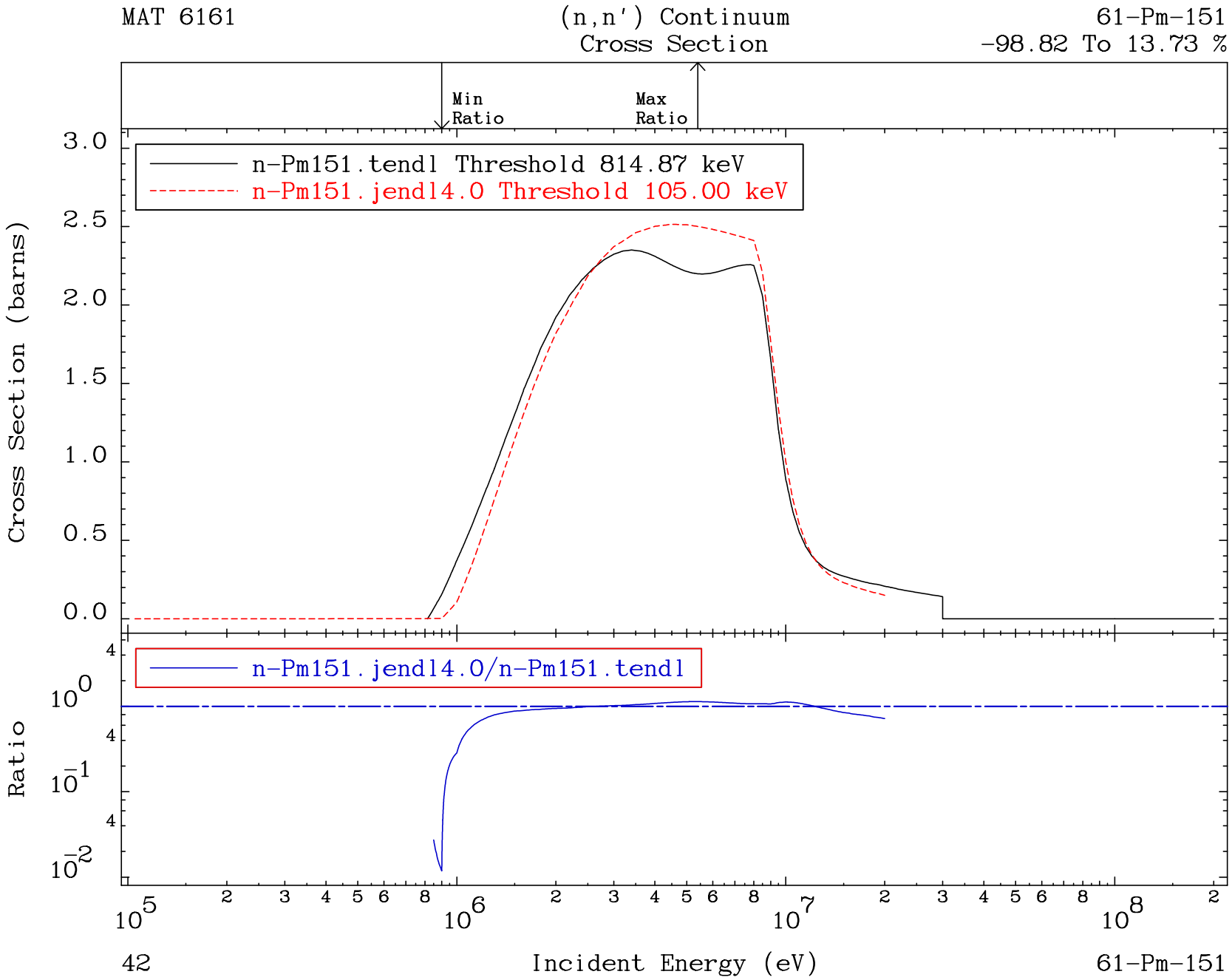

MAT 6161
MT= 76 (n,n') Level
Cross Section
61-Pm-151
-36.43 To 421.9 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 751.54 keV
n-Pm151.jendl4.0 Threshold 751.54 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
6
4
2
8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
37
Incident Energy (eV)
61-Pm-151

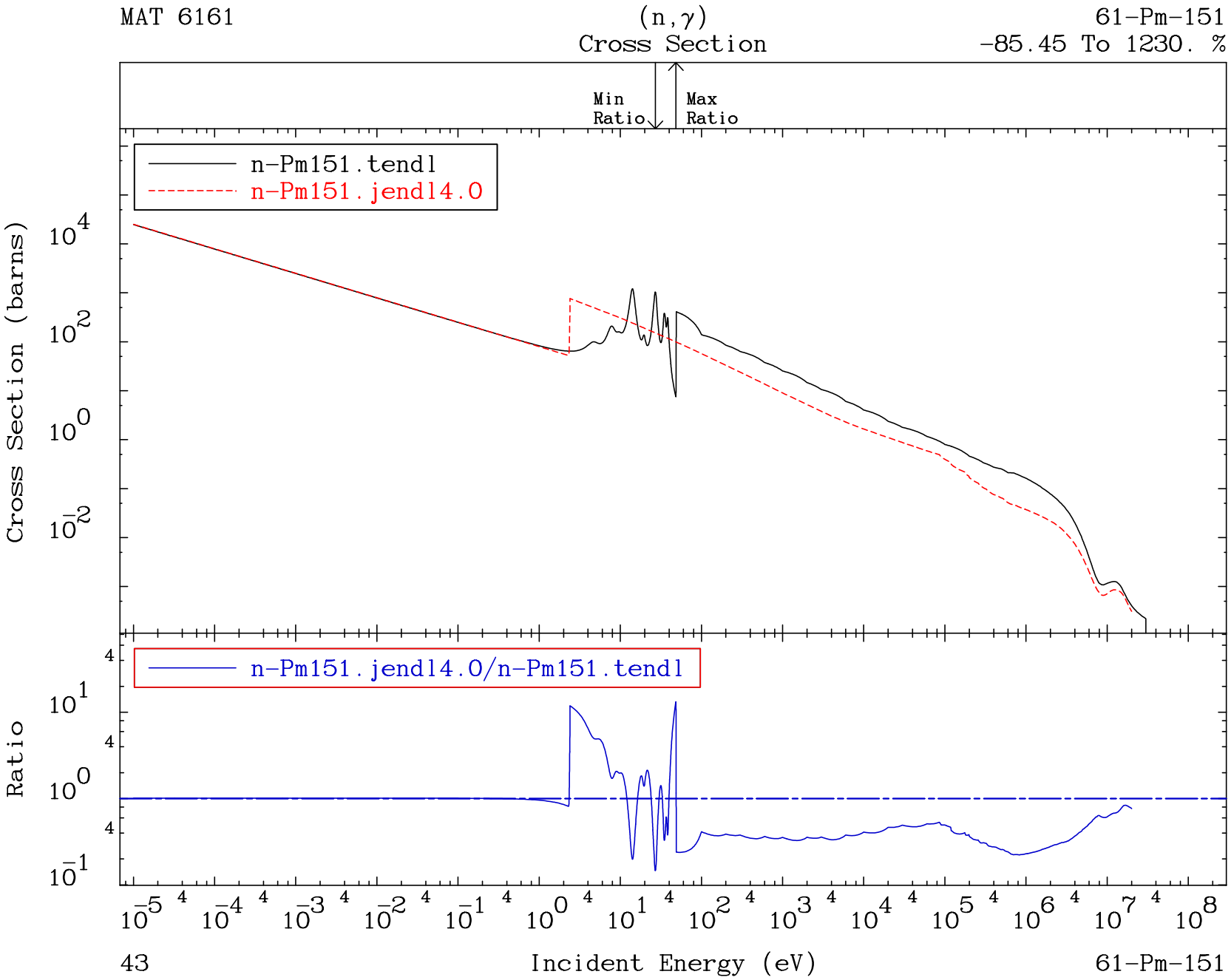

MAT 6161
MT= 77 (n,n') Level
Cross Section
61-Pm-151
80.72 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 760.62 keV
n-Pm151.jendl4.0 Threshold 760.62 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^9
10^6
10^3
10^0
8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
38
Incident Energy (eV)
61-Pm-151

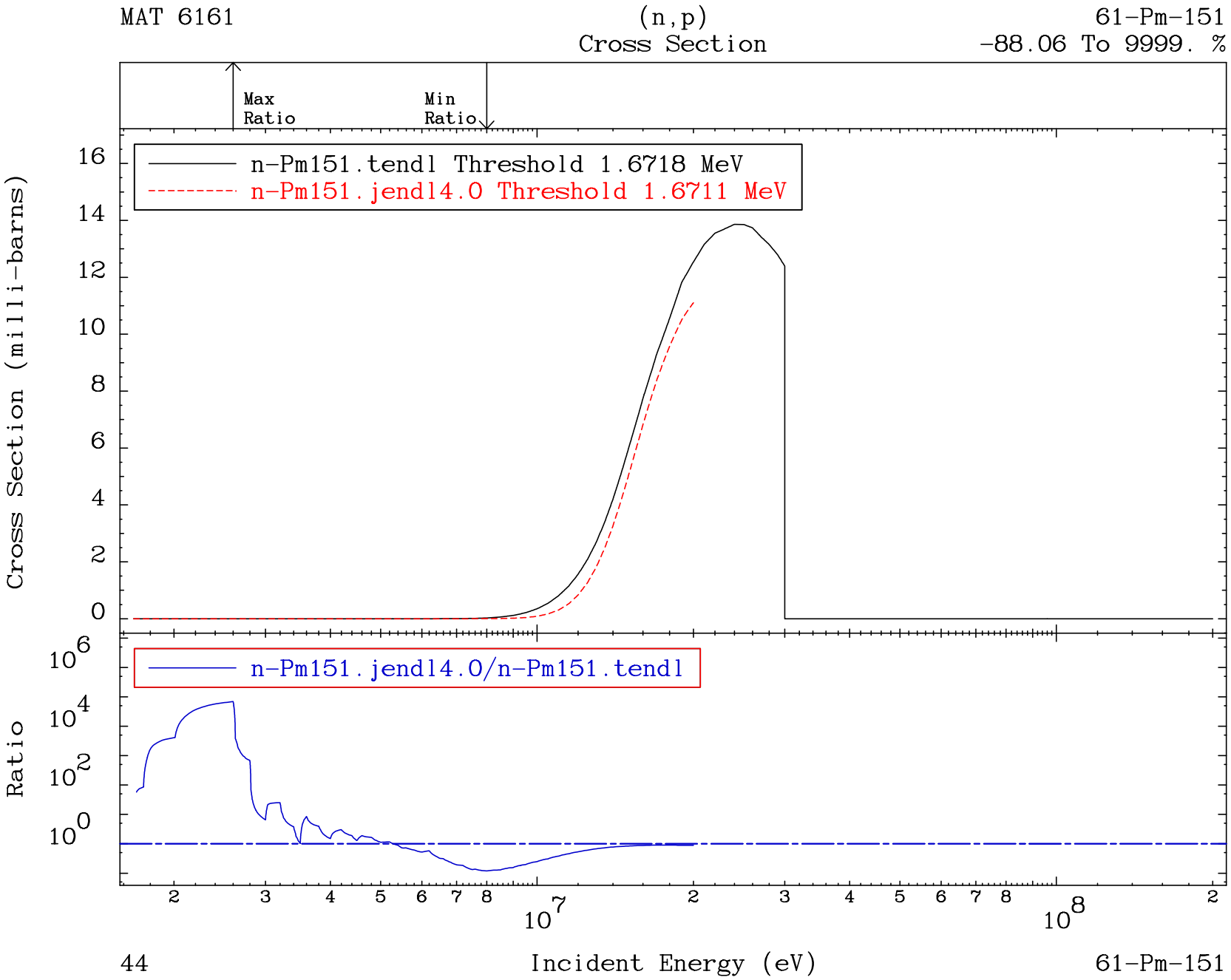

MAT 6161
MT= 78 (n,n') Level
Cross Section
61-Pm-151
-98.04 To 90.00 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 778.77 keV
n-Pm151.jendl4.0 Threshold 778.77 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^{0}
10^{-1}
10^{6}
10^{7}
10^{8}
Incident Energy (eV)
39
61-Pm-151

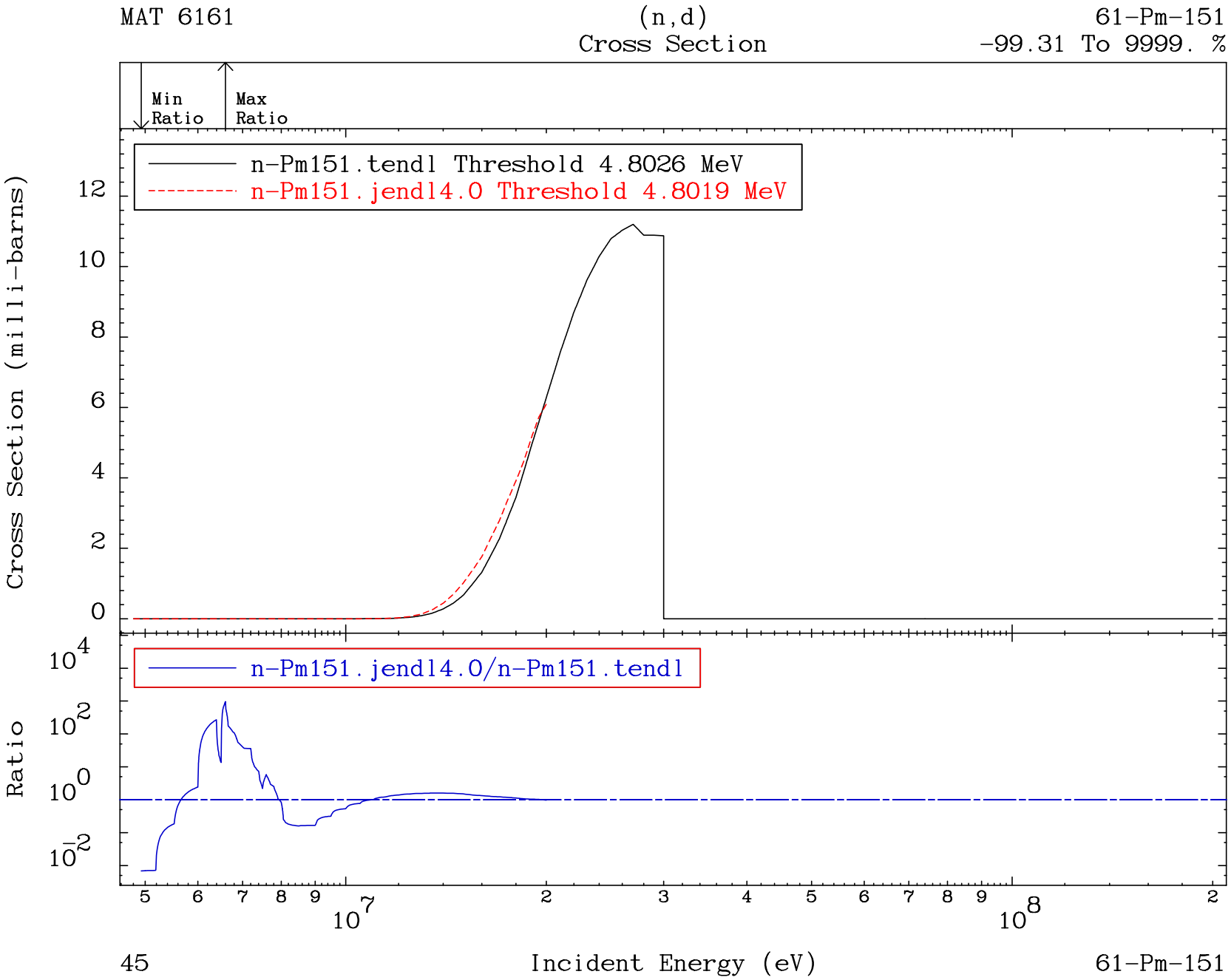

MAT 6161
MT= 79 (n,n') Level
Cross Section
61-Pm-151
-50.83 To 107.1 %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 786.22 keV
n-Pm151.jendl4.0 Threshold 786.22 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
2.5
2.0
1.5
1.0
0.5
8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
40
Incident Energy (eV)
61-Pm-151

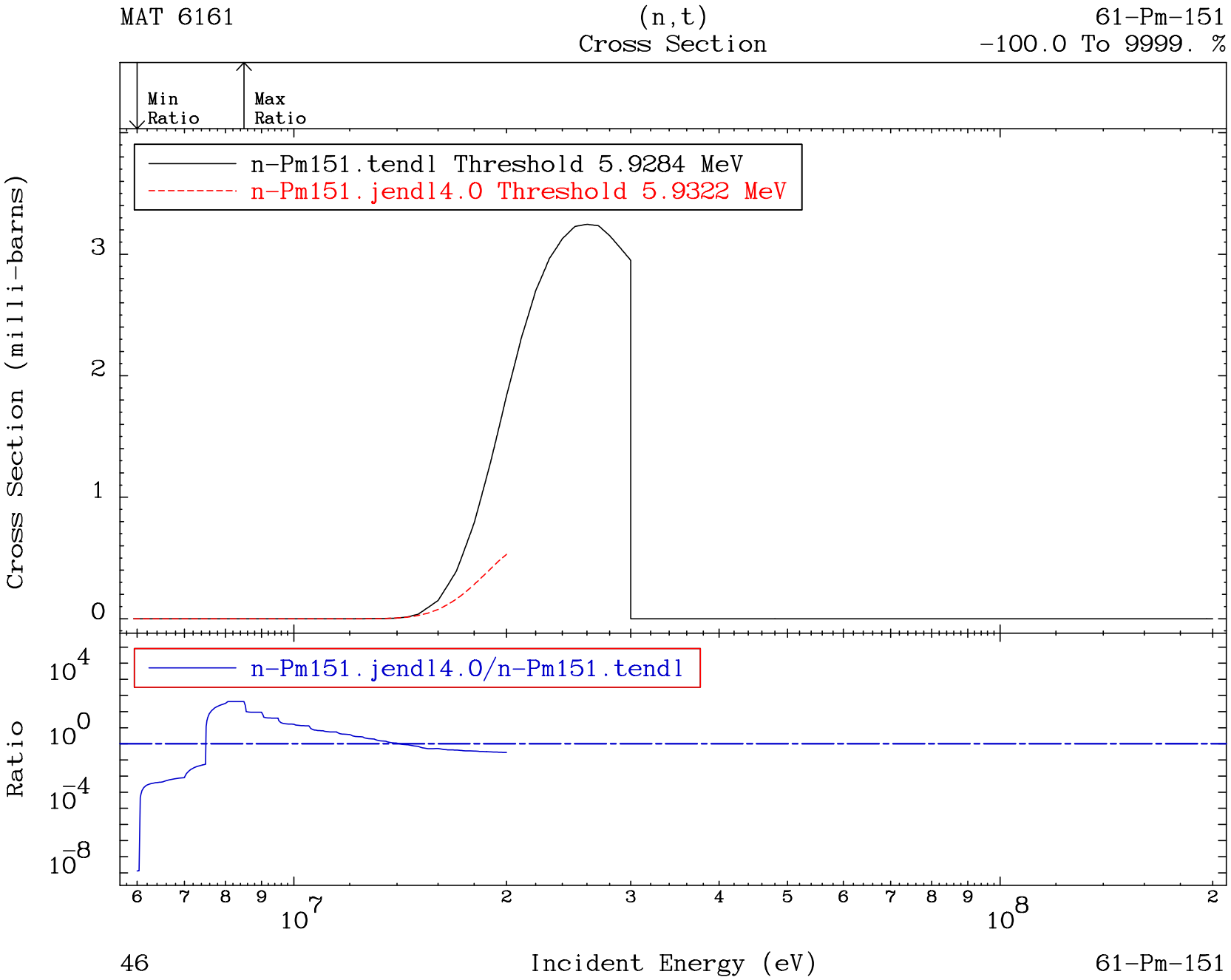

MAT 6161
MT= 80 (n,n') Level
Cross Section
61-Pm-151
-39.12 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 814.87 keV
n-Pm151.jendl4.0 Threshold 814.87 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^9
10^6
10^3
10^0
8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
41
Incident Energy (eV)
61-Pm-151

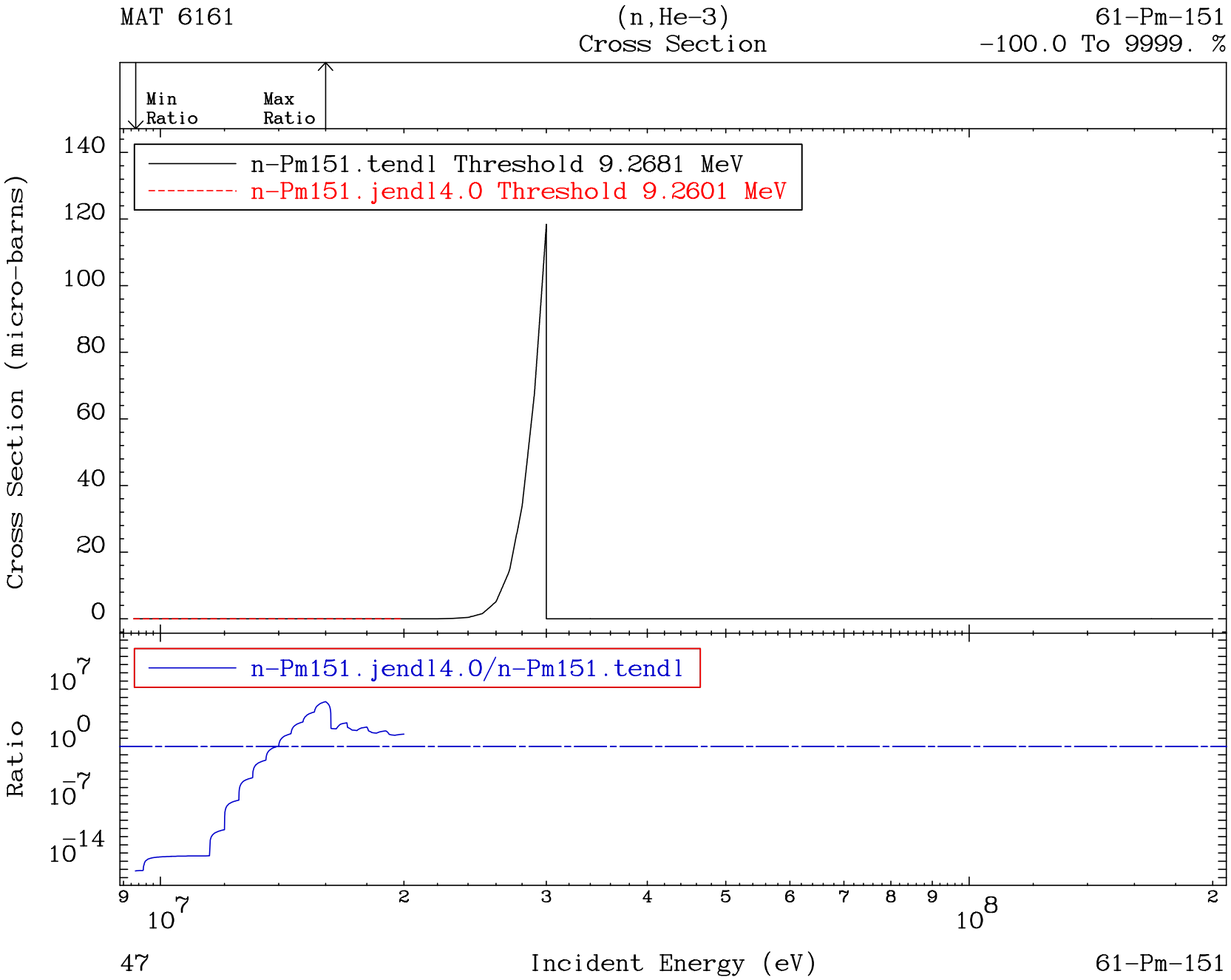

MAT 6161
(n,n') Continuum
Cross Section
61-Pm-151
-98.82 To 13.73 %
Min
Ratio
Max
Ratio
n-Pm151.tendl Threshold 814.87 keV
n-Pm151.jendl4.0 Threshold 105.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^0
10^-1
10^-2
10^5
10^6
10^7
10^8
Incident Energy (eV)
42
61-Pm-151

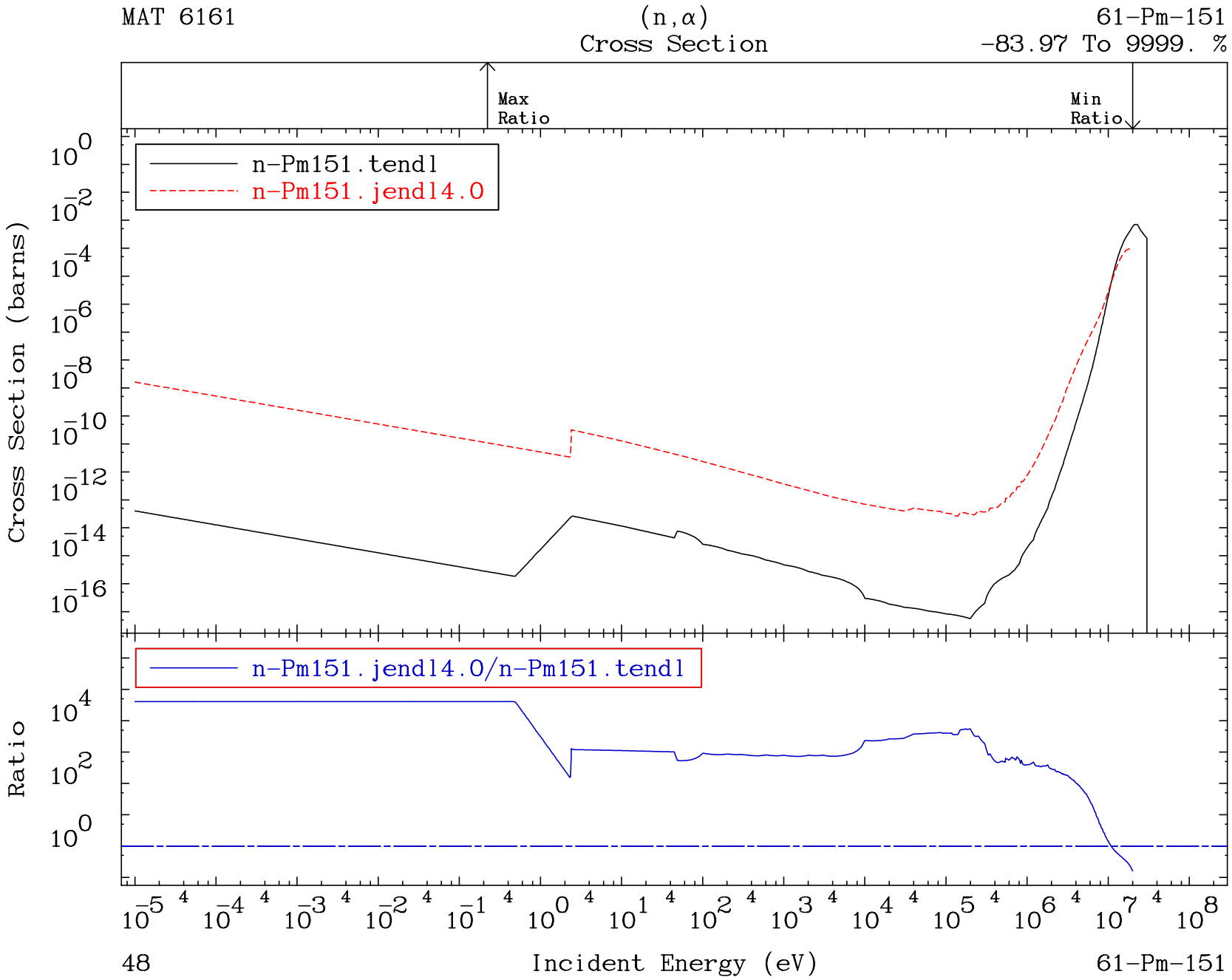

MAT 6161
(n,γ)
Cross Section
61-Pm-151
-85.45 To 1230. %
Min Ratio
Max Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
43
61-Pm-151

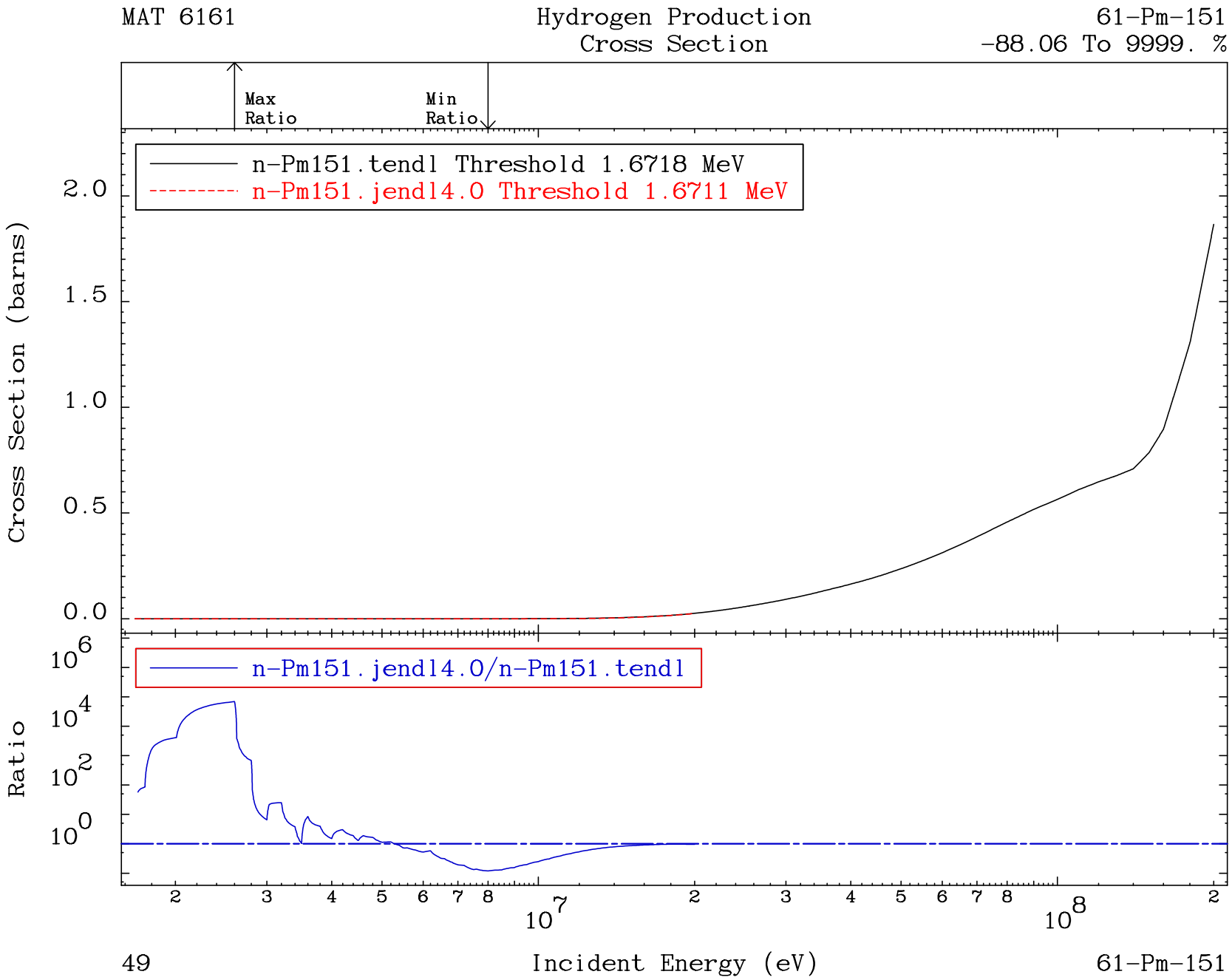

MAT 6161
(n,p)
Cross Section
61-Pm-151
-88.06 To 9999. %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 1.6718 MeV
n-Pm151.jendl4.0 Threshold 1.6711 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
16
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^0
10^2
10^4
10^6
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
44
Incident Energy (eV)
61-Pm-151

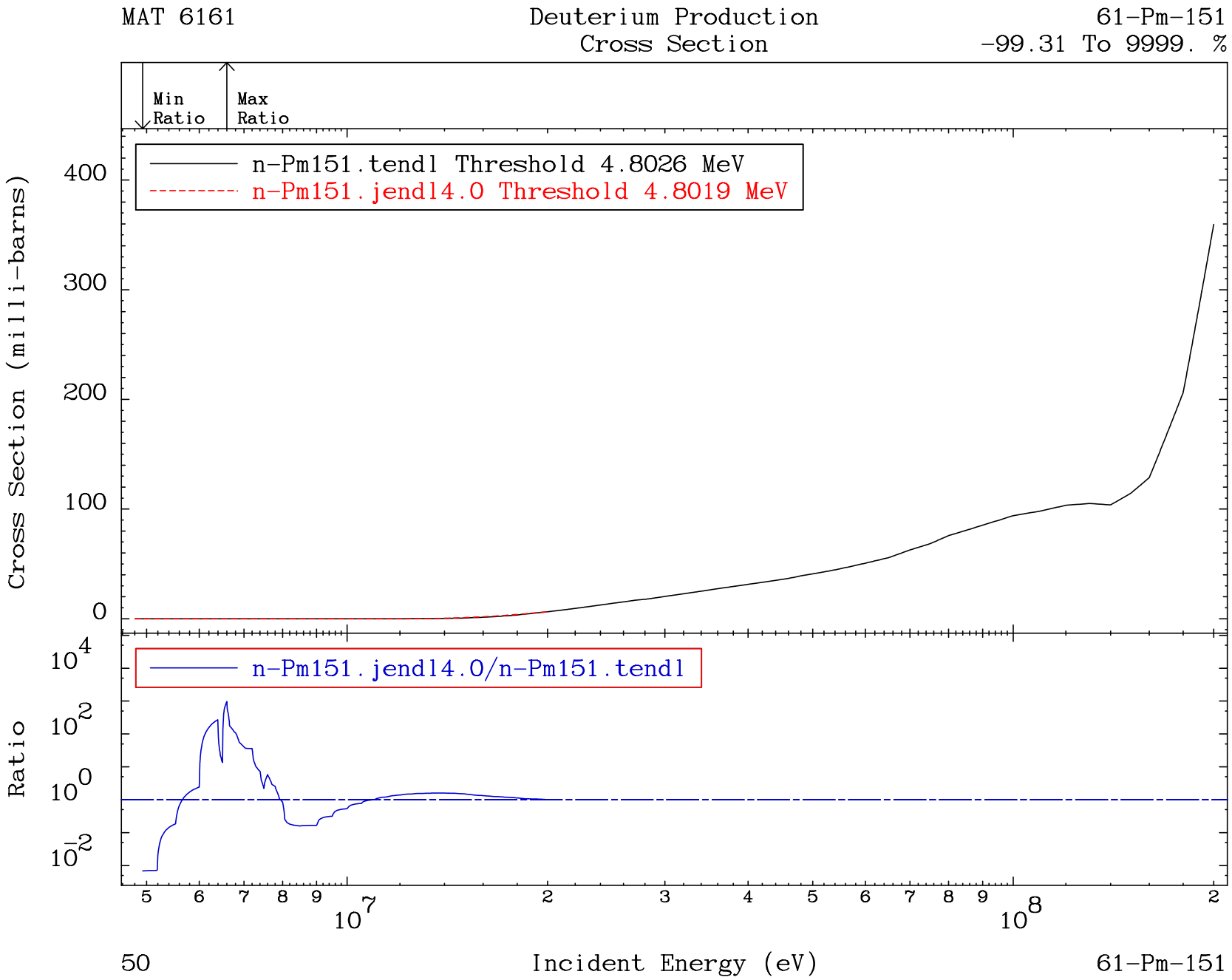

MAT 6161
(n,d)
Cross Section
61-Pm-151
-99.31 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 4.8026 MeV
n-Pm151.jendl4.0 Threshold 4.8019 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^{4}
10^{2}
10^{0}
10^{-2}
5 6 7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
45
Incident Energy (eV)
61-Pm-151

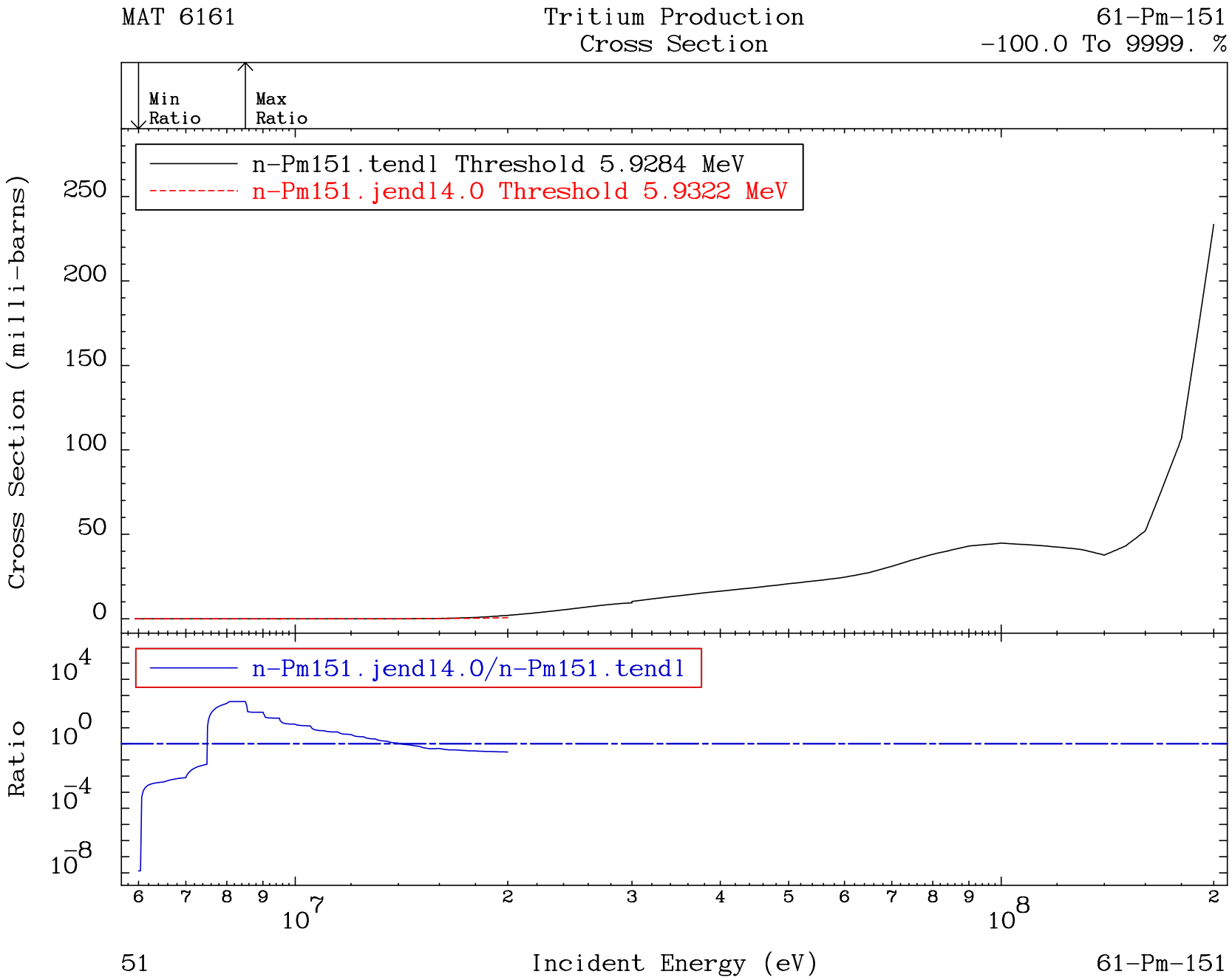

MAT 6161
(n,t)
Cross Section
61-Pm-151
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 5.9284 MeV
n-Pm151.jendl4.0 Threshold 5.9322 MeV
Cross Section (milli-barns)
0
1
2
3
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^4
10^0
10^-4
10^-8
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
61-Pm-151

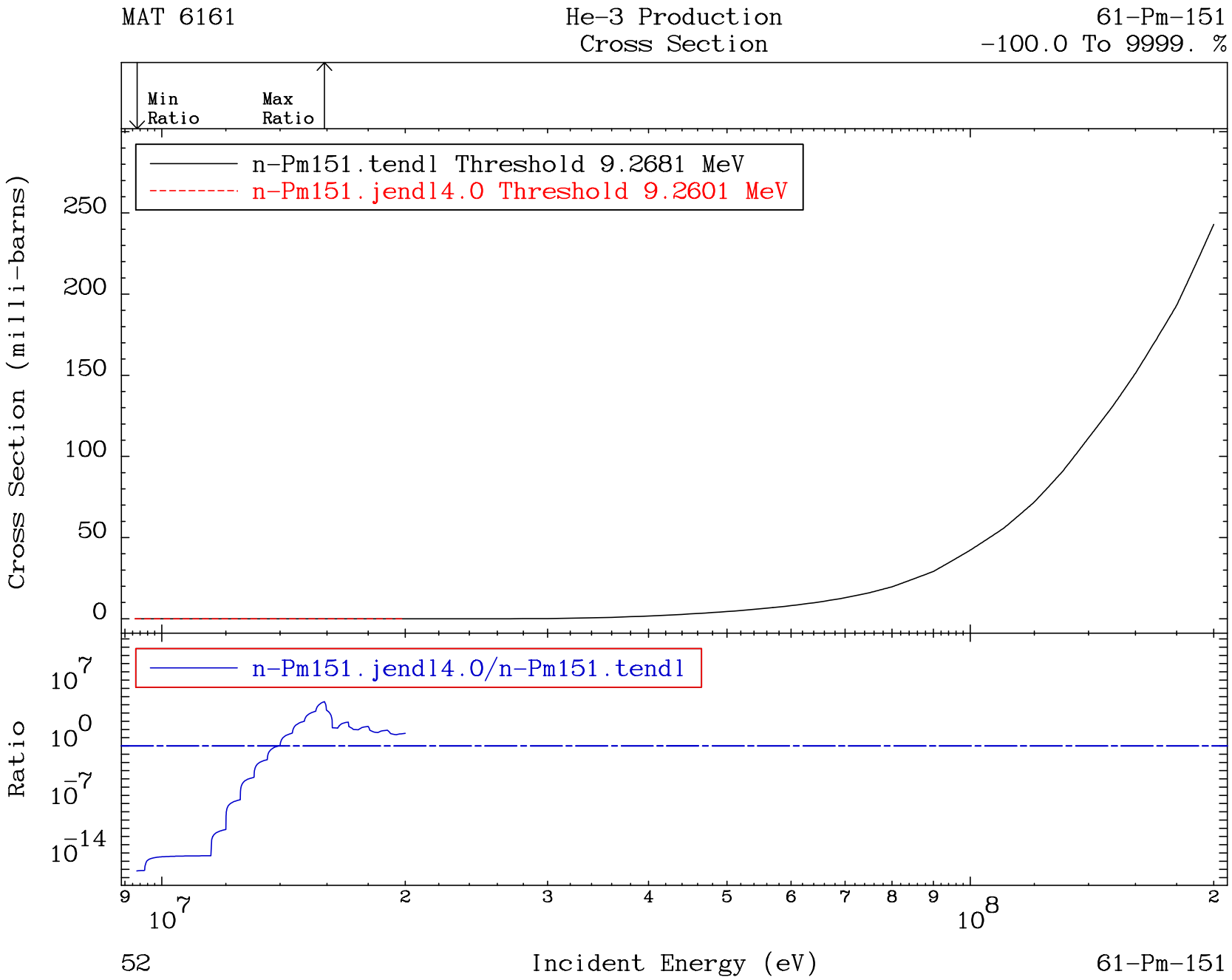

MAT 6161
(n,He-3)
Cross Section
61-Pm-151
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 9.2681 MeV
n-Pm151.jendl4.0 Threshold 9.2601 MeV
Cross Section (micro-barns)
140
120
100
80
60
40
20
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^7
10^0
10^-7
10^-14
9
10^7
2
3
4
5
6
7
8
9
10^8
2
47
Incident Energy (eV)
61-Pm-151

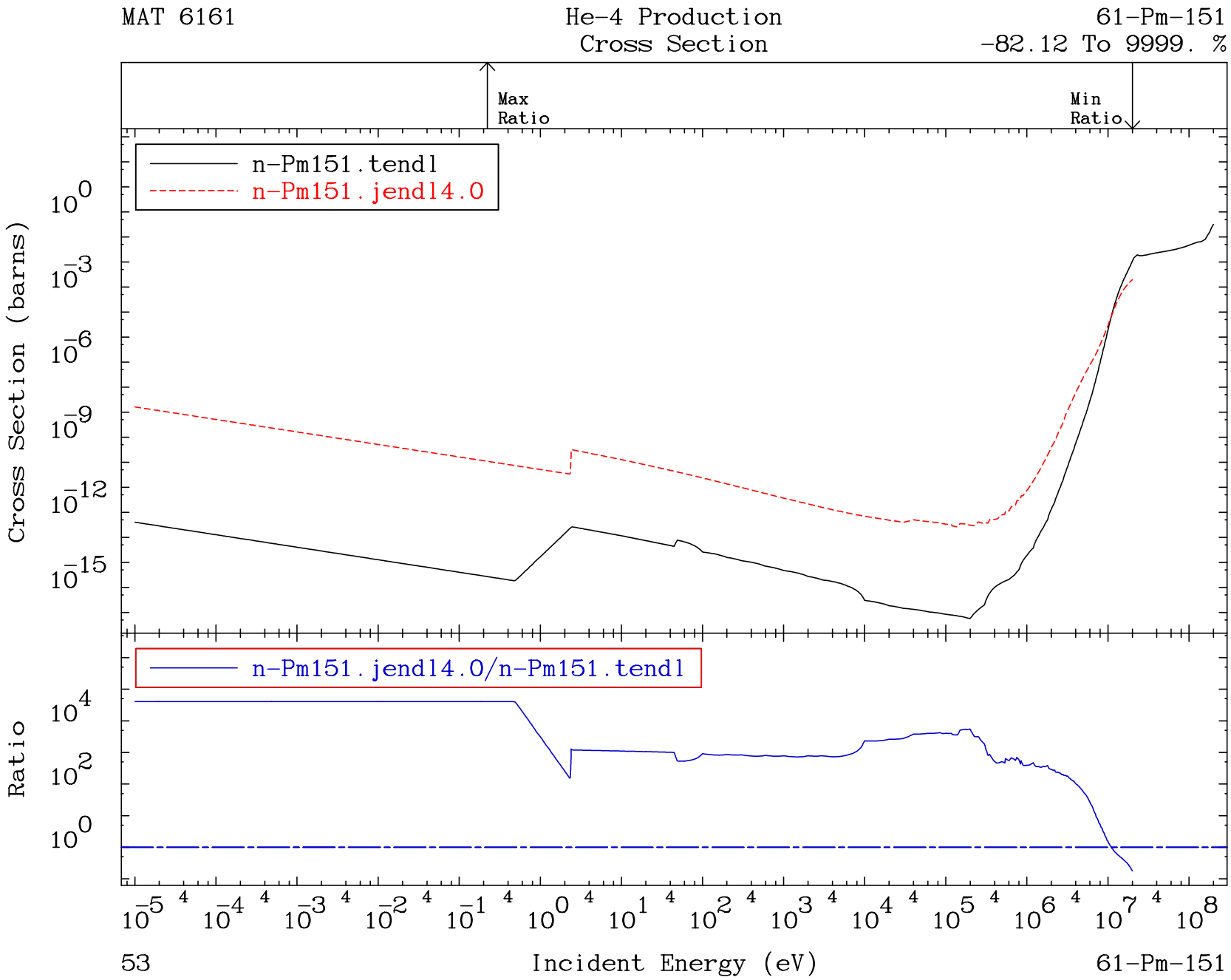

MAT 6161
(n,α)
Cross Section
61-Pm-151
-83.97 To 9999. %
Max Ratio
Min Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
48
Incident Energy (eV)
61-Pm-151

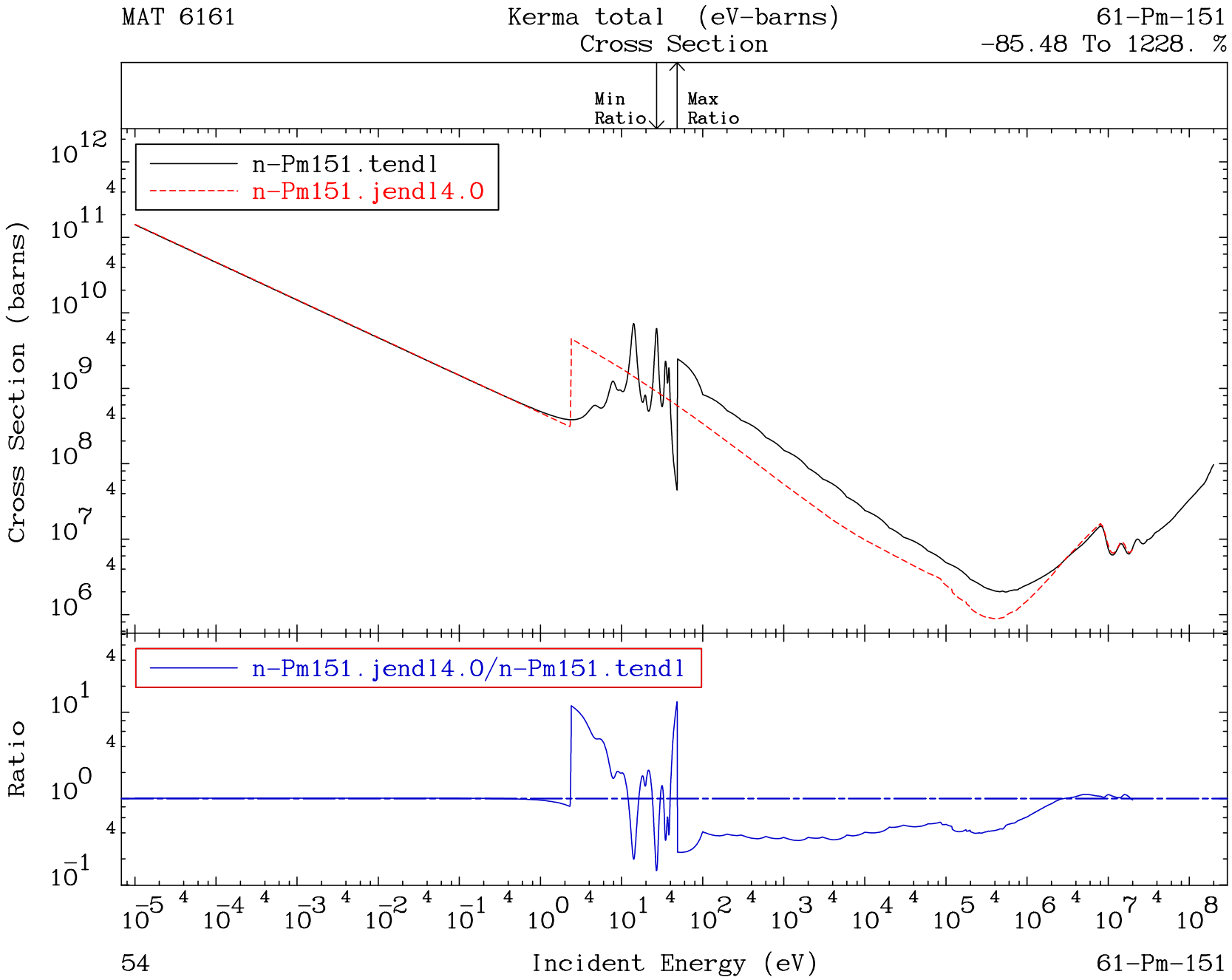

MAT 6161
Hydrogen Production
Cross Section
61-Pm-151
-88.06 To 9999. %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 1.6718 MeV
n-Pm151.jendl4.0 Threshold 1.6711 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
49
Incident Energy (eV)
61-Pm-151

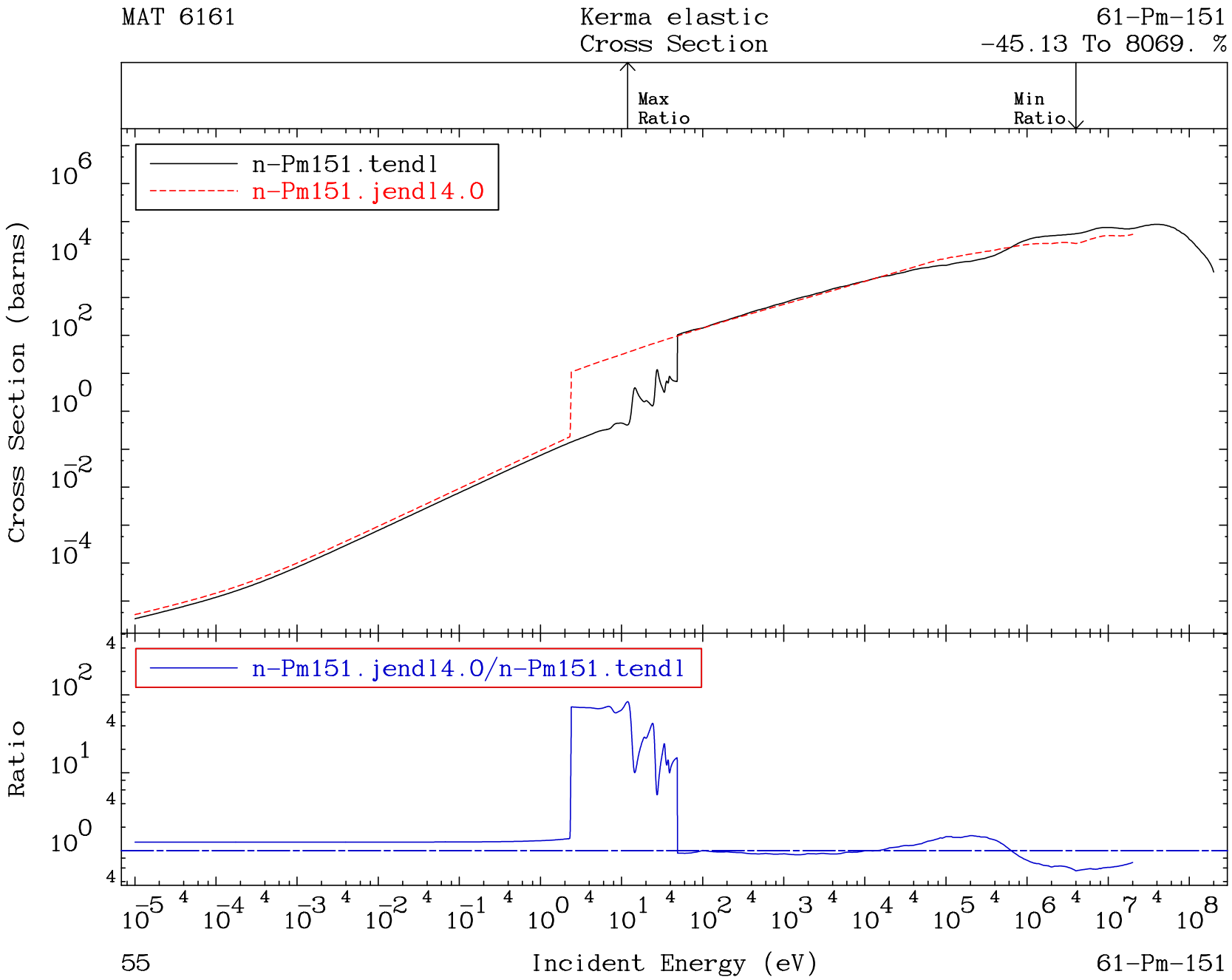

MAT 6161
Deuterium Production
Cross Section
61-Pm-151
-99.31 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 4.8026 MeV
n-Pm151.jendl4.0 Threshold 4.8019 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^4
10^2
10^0
10^-2
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
50
Incident Energy (eV)
61-Pm-151

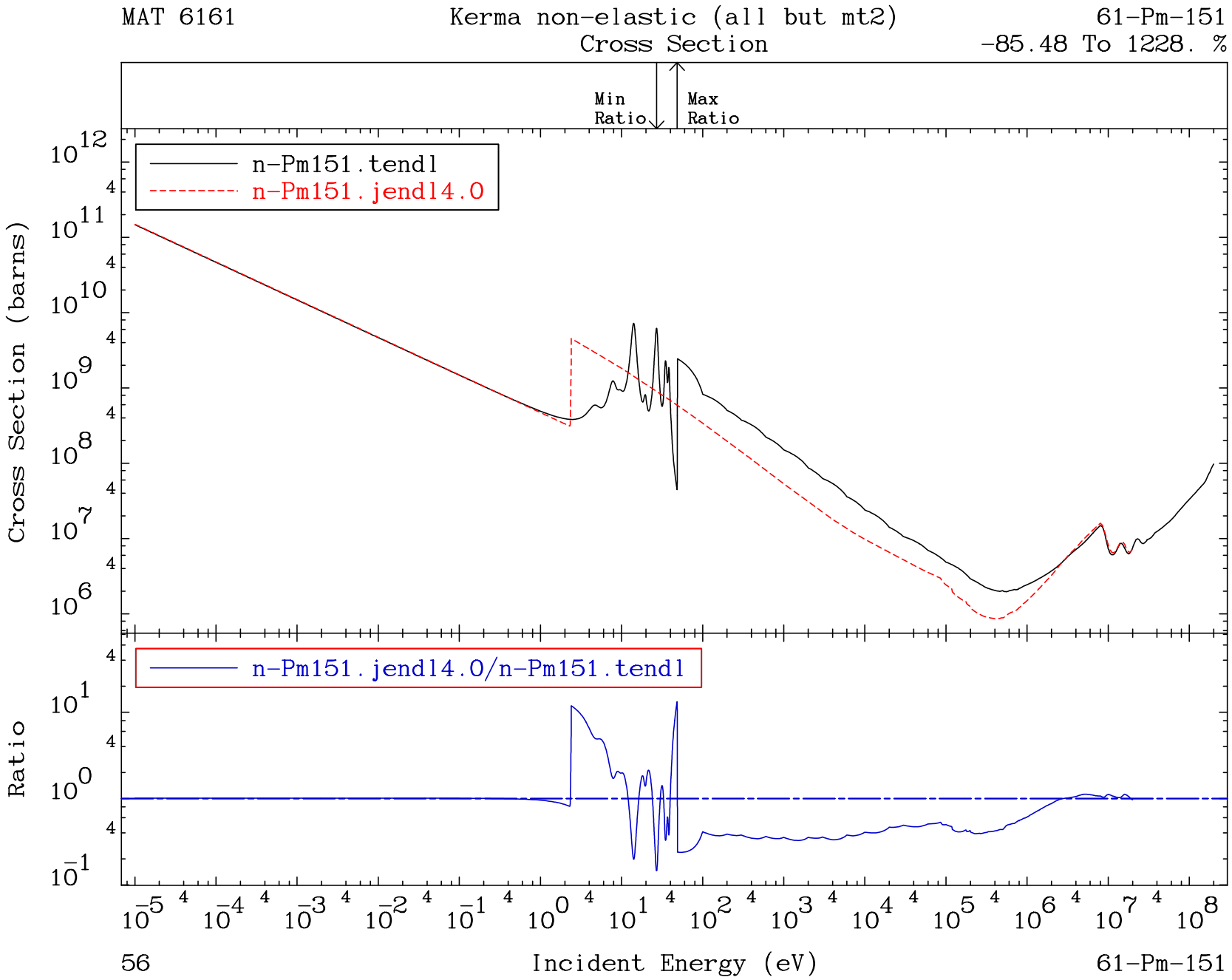

MAT 6161
Tritium Production
Cross Section
61-Pm-151
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 5.9284 MeV
n-Pm151.jendl4.0 Threshold 5.9322 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^4
10^0
10^-4
10^-8
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
51
Incident Energy (eV)
61-Pm-151

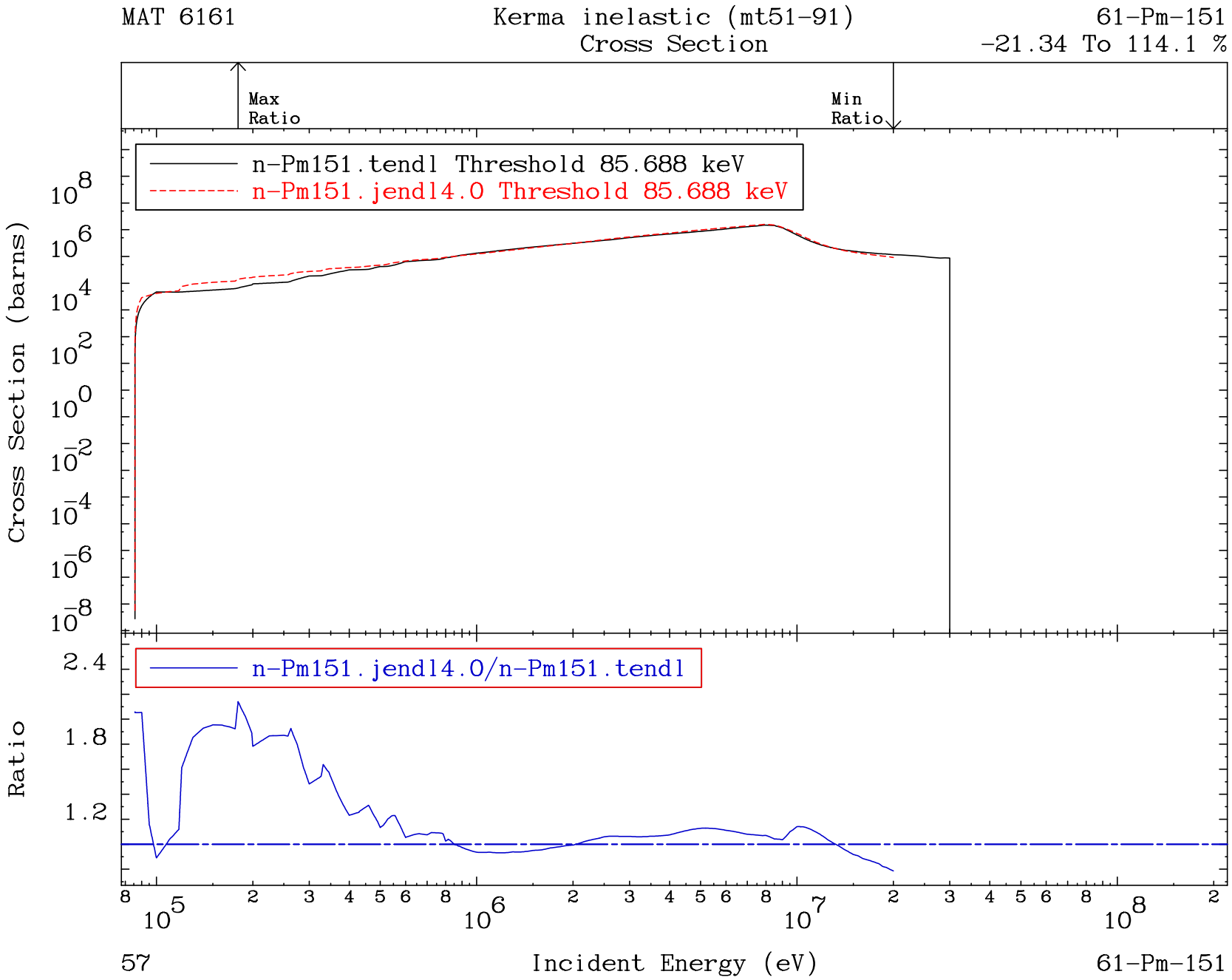

MAT 6161
He-3 Production
Cross Section
61-Pm-151
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 9.2681 MeV
n-Pm151.jendl4.0 Threshold 9.2601 MeV
Cross Section (milli-barns)
0
50
100
150
200
250
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
10^7
10^0
10^-7
10^-14
9
10^7
2
3
4
5
6
7
8
9
10^8
2
52
Incident Energy (eV)
61-Pm-151

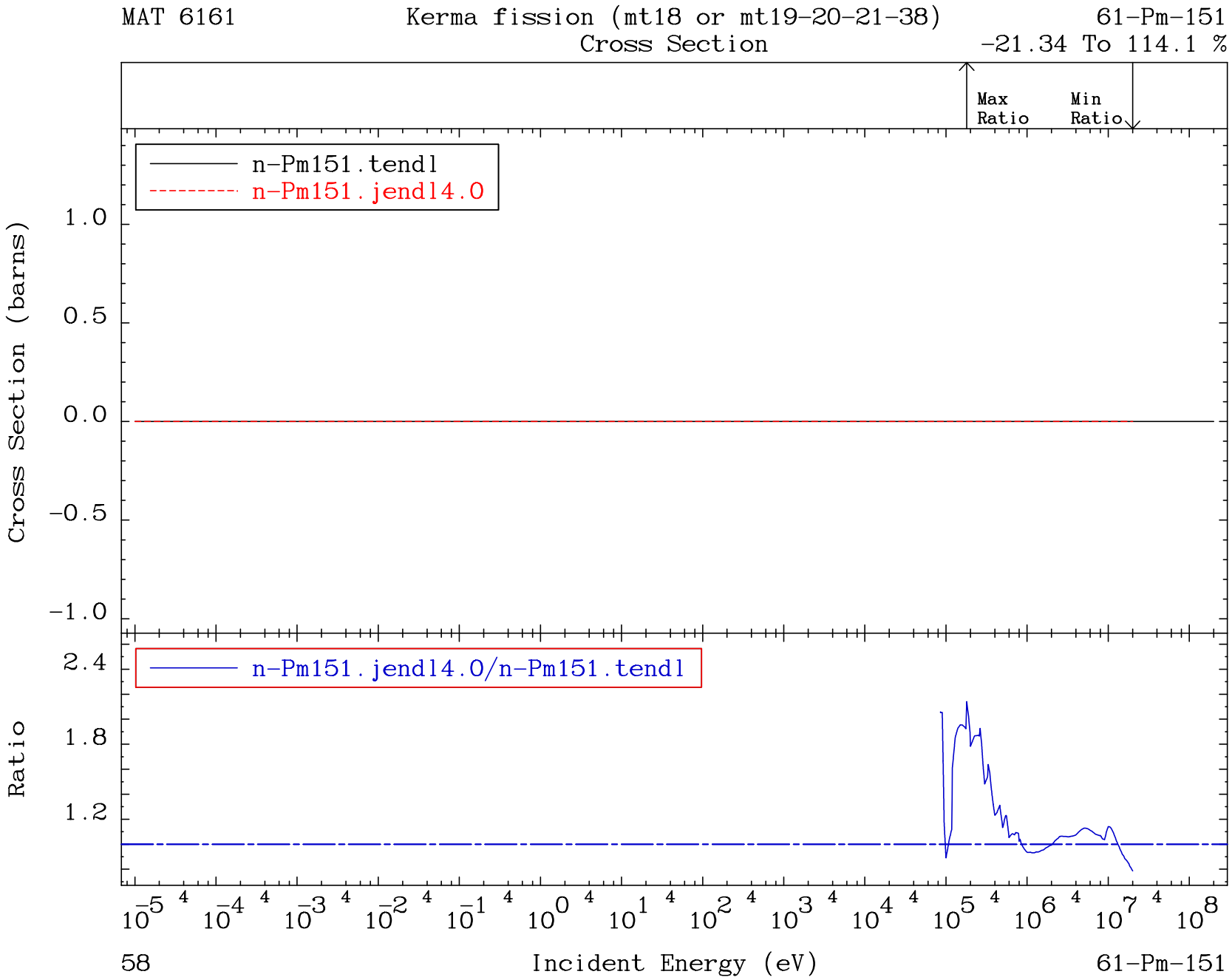

MAT 6161
He-4 Production
Cross Section
61-Pm-151
-82.12 To 9999. %
Max Ratio
Min Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
53
61-Pm-151

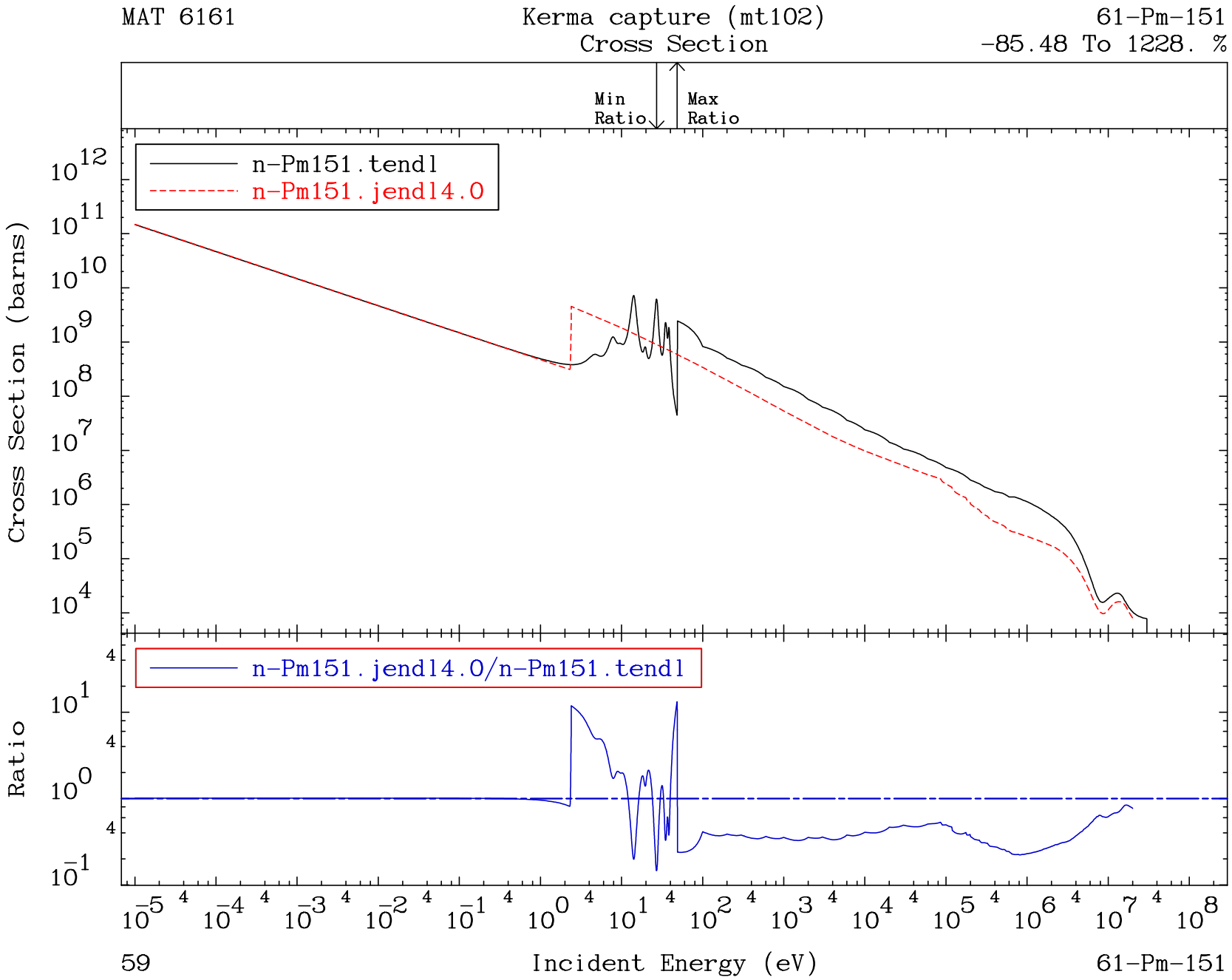

MAT 6161
Kerma total (eV-barns)
Cross Section
61-Pm-151
-85.48 To 1228. %
Min Ratio
Max Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
54
Incident Energy (eV)
61-Pm-151

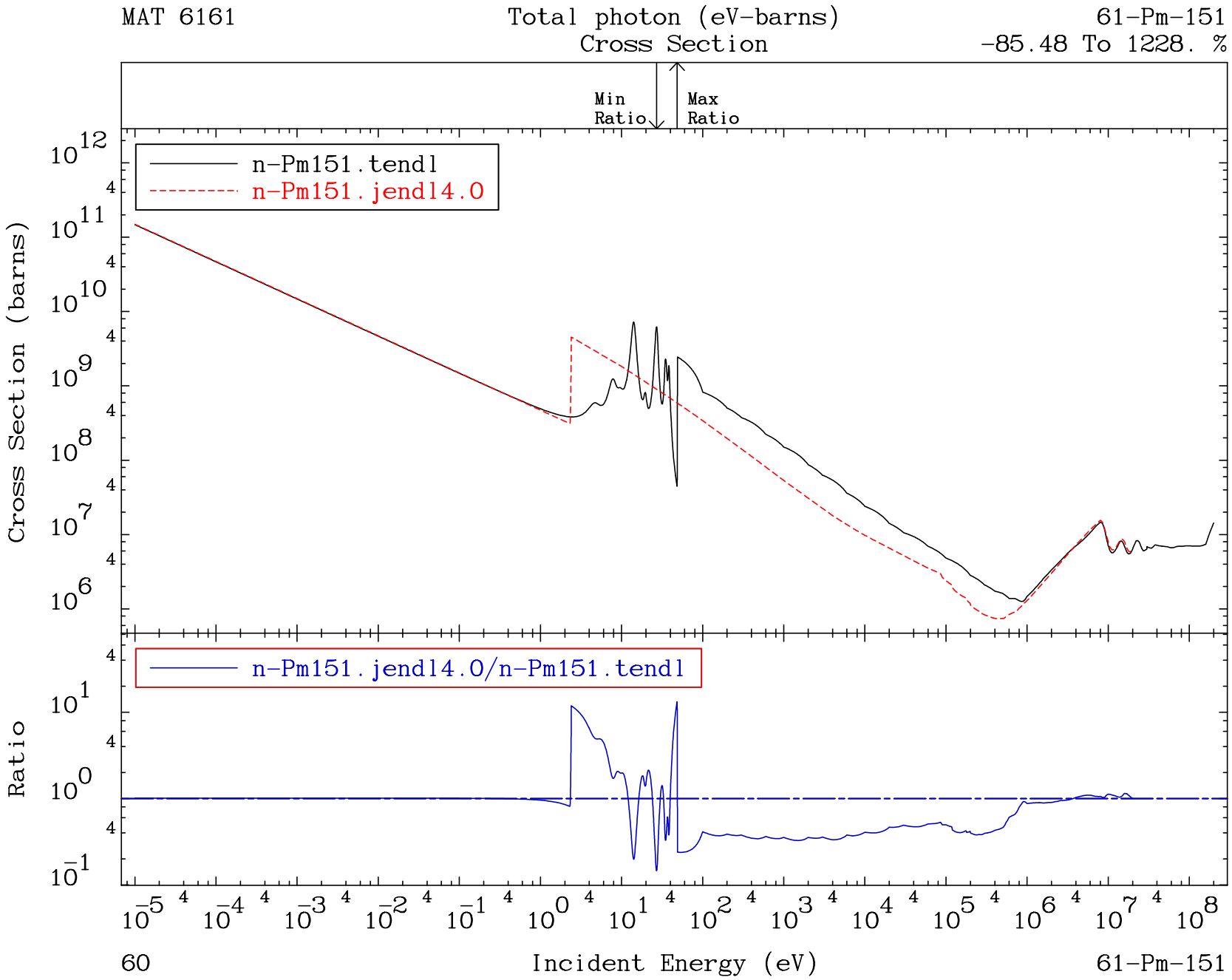

MAT 6161
Kerma elastic
Cross Section
61-Pm-151
-45.13 To 8069. %
Max
Ratio
Min
Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
55
61-Pm-151

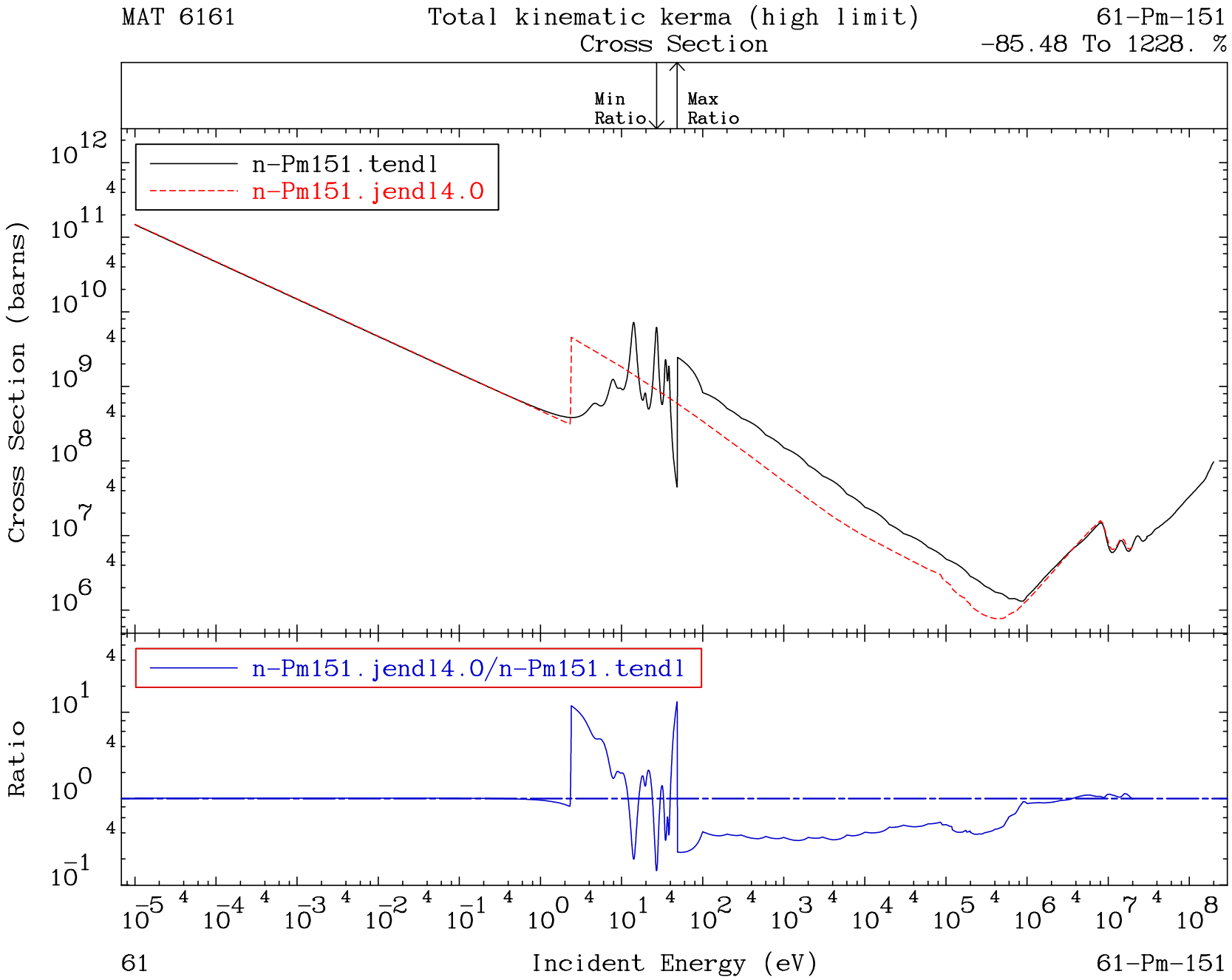

MAT 6161
Kerma non-elastic (all but mt2)
Cross Section
61-Pm-151
-85.48 To 1228. %
Min Ratio
Max Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
56
61-Pm-151

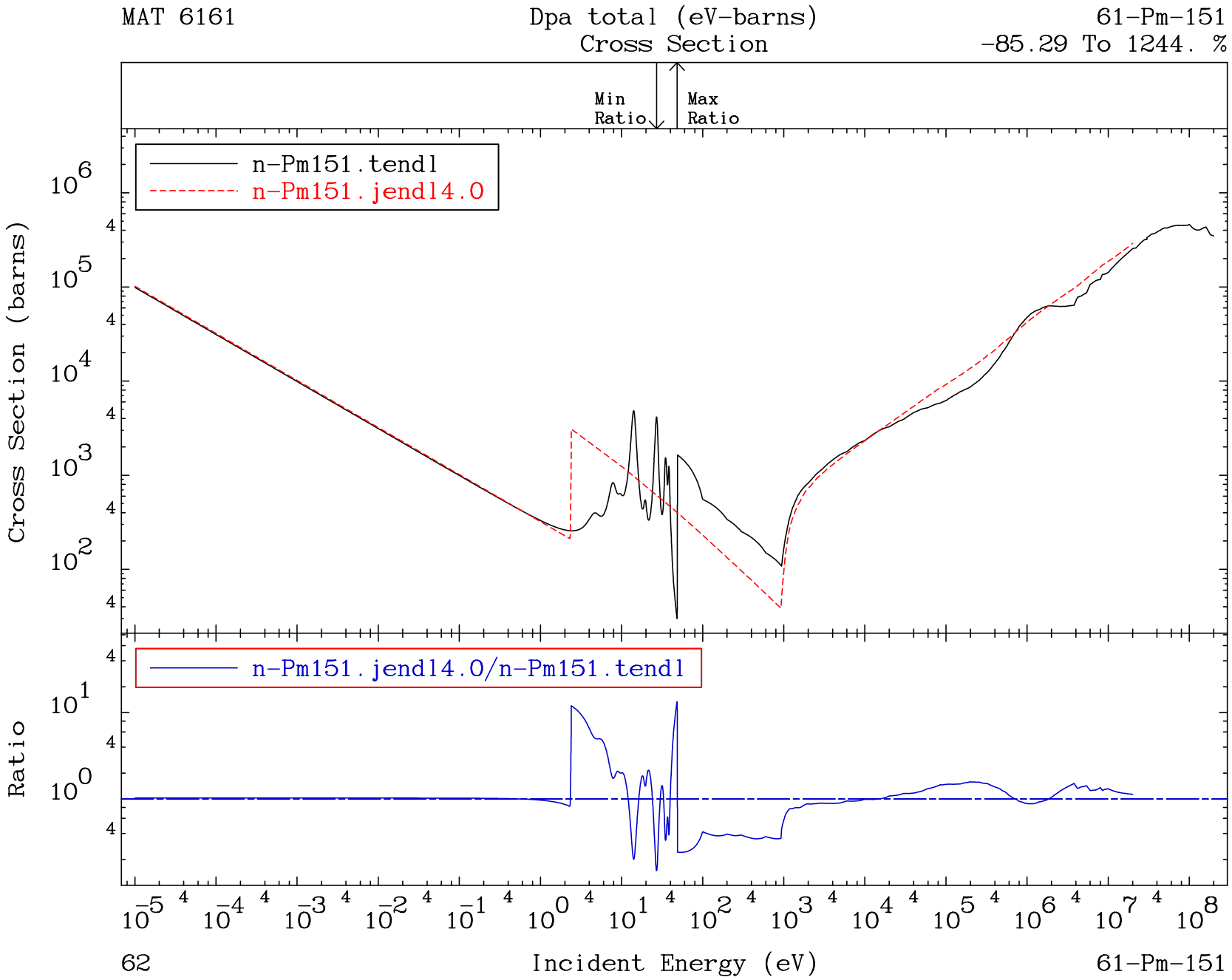

MAT 6161
Kerma inelastic (mt51-91)
Cross Section
61-Pm-151
-21.34 To 114.1 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 85.688 keV
n-Pm151.jendl4.0 Threshold 85.688 keV
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
57
61-Pm-151

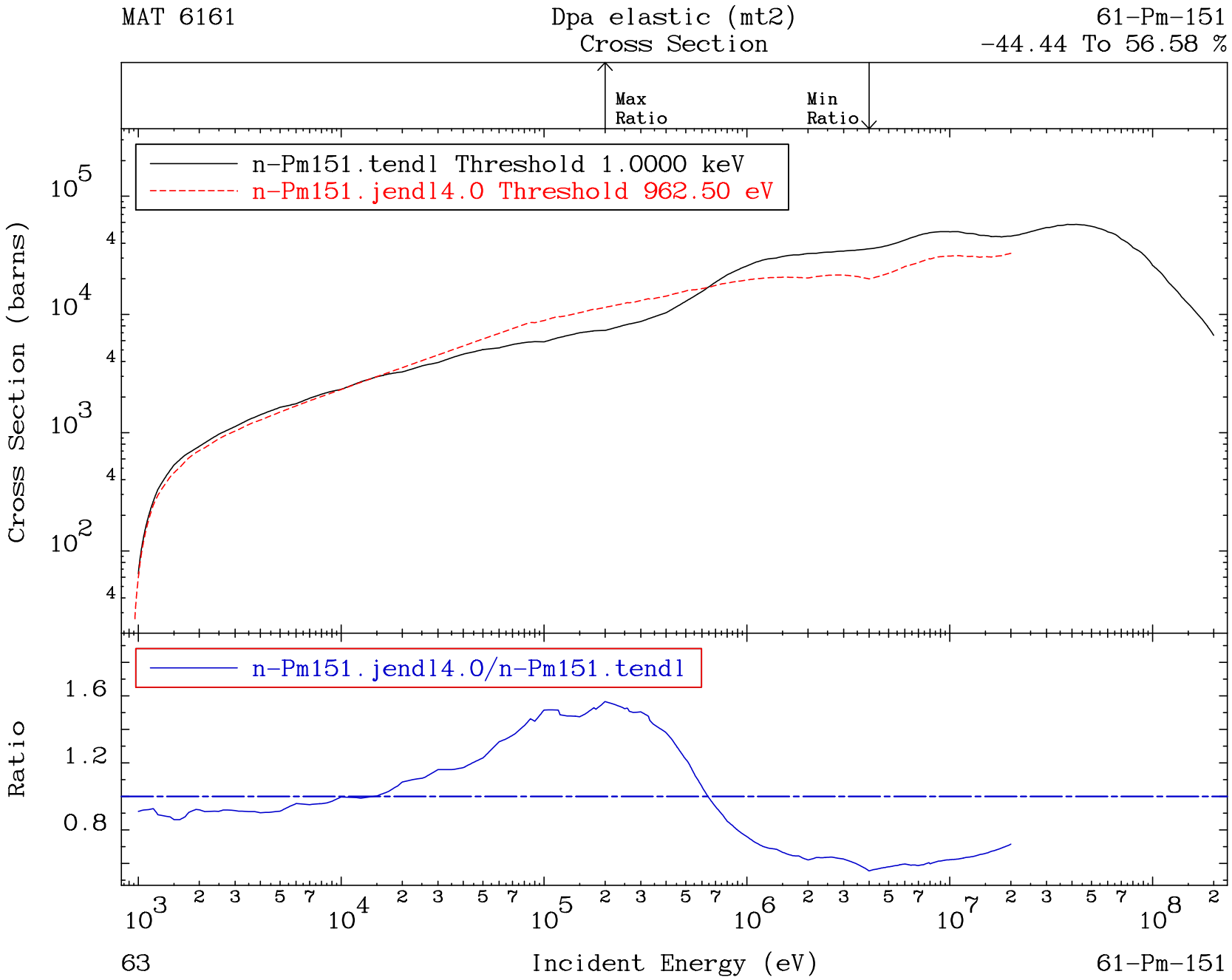

MAT 6161
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
61-Pm-151
-21.34 To 114.1 %
Max Ratio
Min Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
2.4
1.8
1.2
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
58
Incident Energy (eV)
61-Pm-151

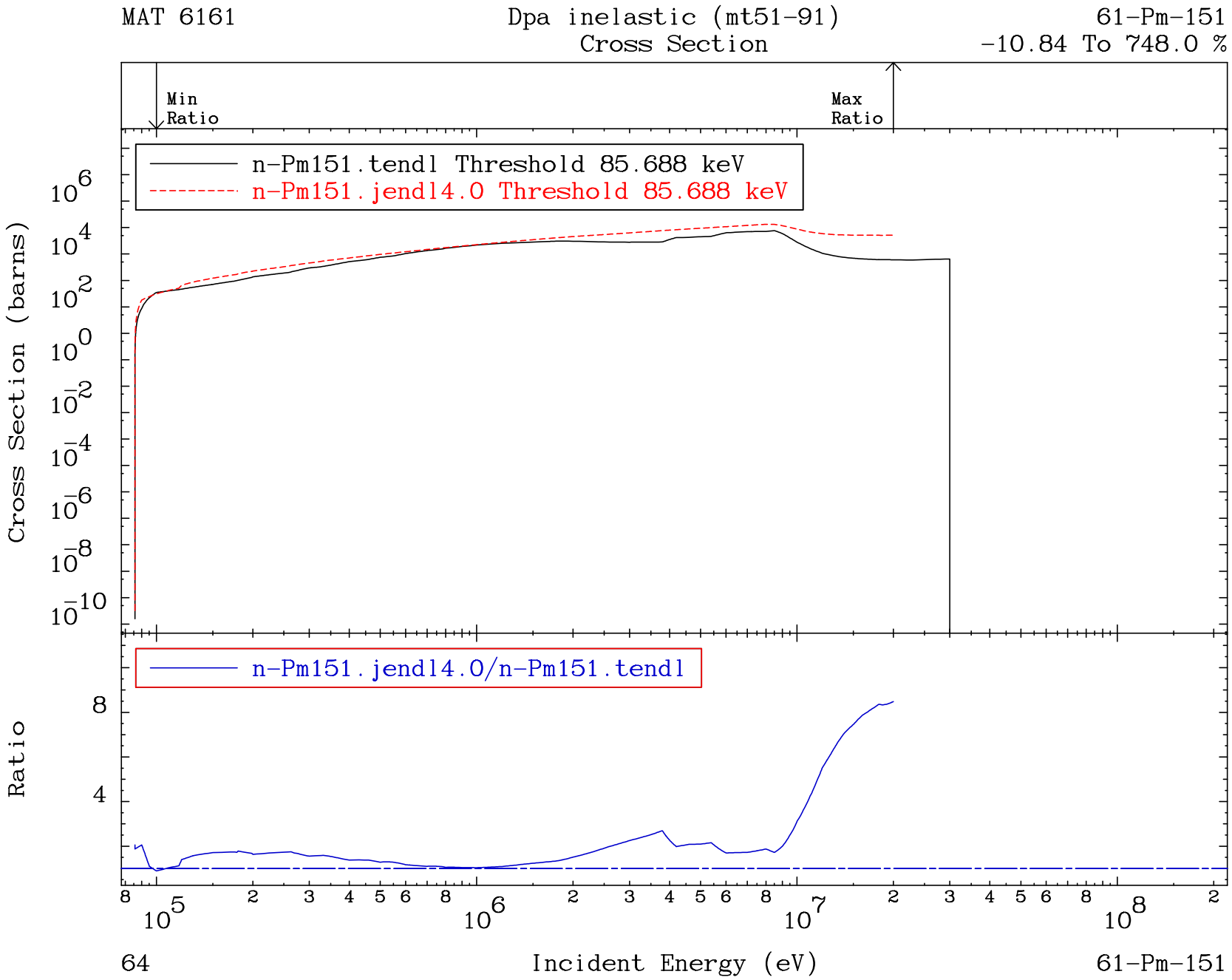

MAT 6161
Kerma capture (mt102)
Cross Section
61-Pm-151
-85.48 To 1228. %
Min Ratio
Max Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
59
Incident Energy (eV)
61-Pm-151

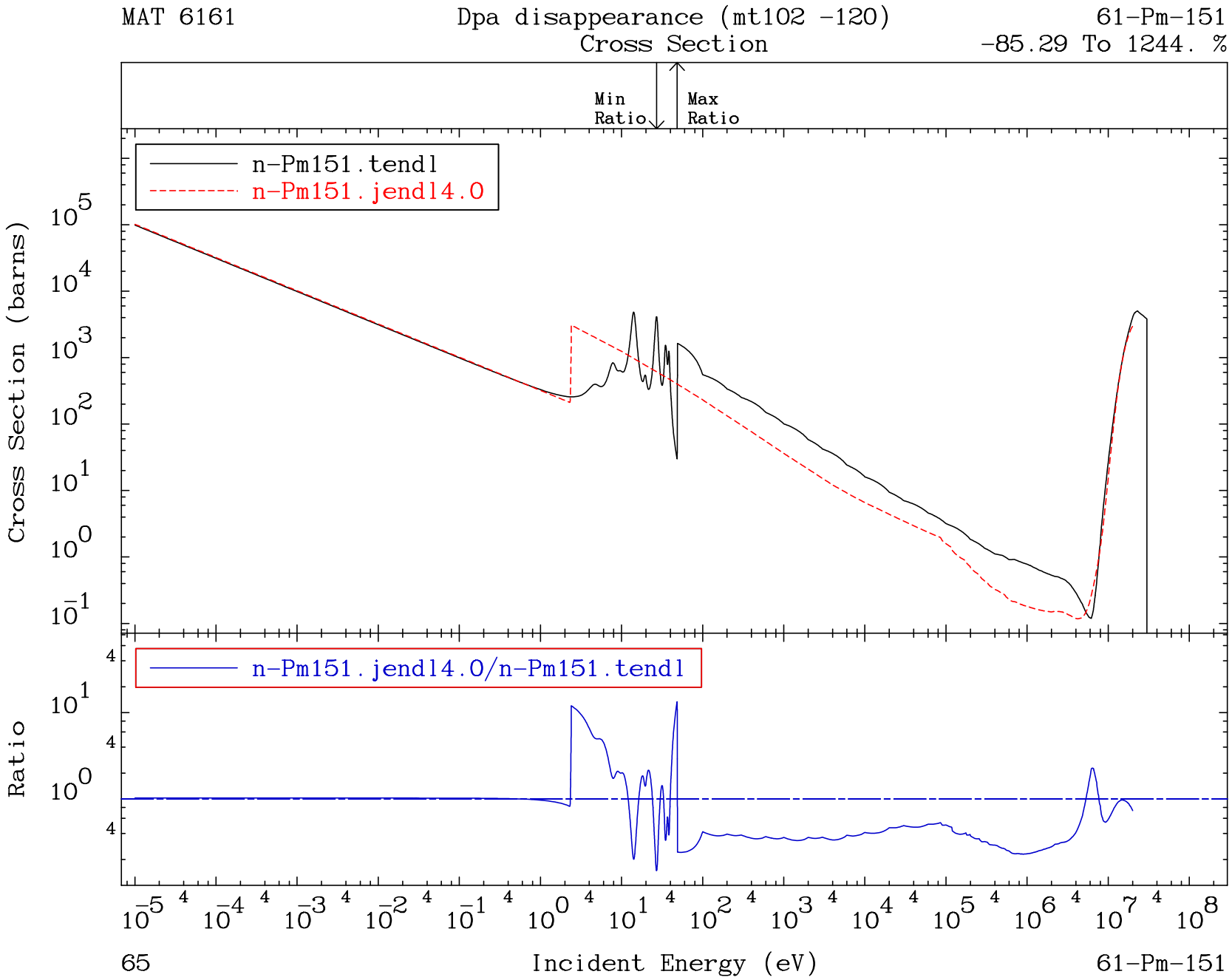

MAT 6161
Total photon (eV-barns)
Cross Section
61-Pm-151
-85.48 To 1228. %
Min Ratio
Max Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
60
61-Pm-151


MAT 6161
Total kinematic kerma (high limit)
Cross Section
61-Pm-151
-85.48 To 1228. %
Min Ratio
Max Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
61
61-Pm-151


MAT 6161
Dpa total (eV-barns)
Cross Section
61-Pm-151
-85.29 To 1244. %
Min Ratio
Max Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
62
61-Pm-151


MAT 6161
Dpa elastic (mt2)
Cross Section
61-Pm-151
-44.44 To 56.58 %
Max Ratio
Min Ratio
n-Pm151.tendl Threshold 1.0000 keV
n-Pm151.jendl4.0 Threshold 962.50 eV
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
63
61-Pm-151


MAT 6161
Dpa inelastic (mt51-91)
Cross Section
61-Pm-151
-10.84 To 748.0 %
Min Ratio
Max Ratio
n-Pm151.tendl Threshold 85.688 keV
n-Pm151.jendl4.0 Threshold 85.688 keV
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
64
61-Pm-151


MAT 6161
Dpa disappearance (mt102 -120)
Cross Section
61-Pm-151
-85.29 To 1244. %
Min Ratio
Max Ratio
n-Pm151.tendl
n-Pm151.jendl4.0
Cross Section (barns)
n-Pm151.jendl4.0/n-Pm151.tendl
Ratio
Incident Energy (eV)
65
61-Pm-151