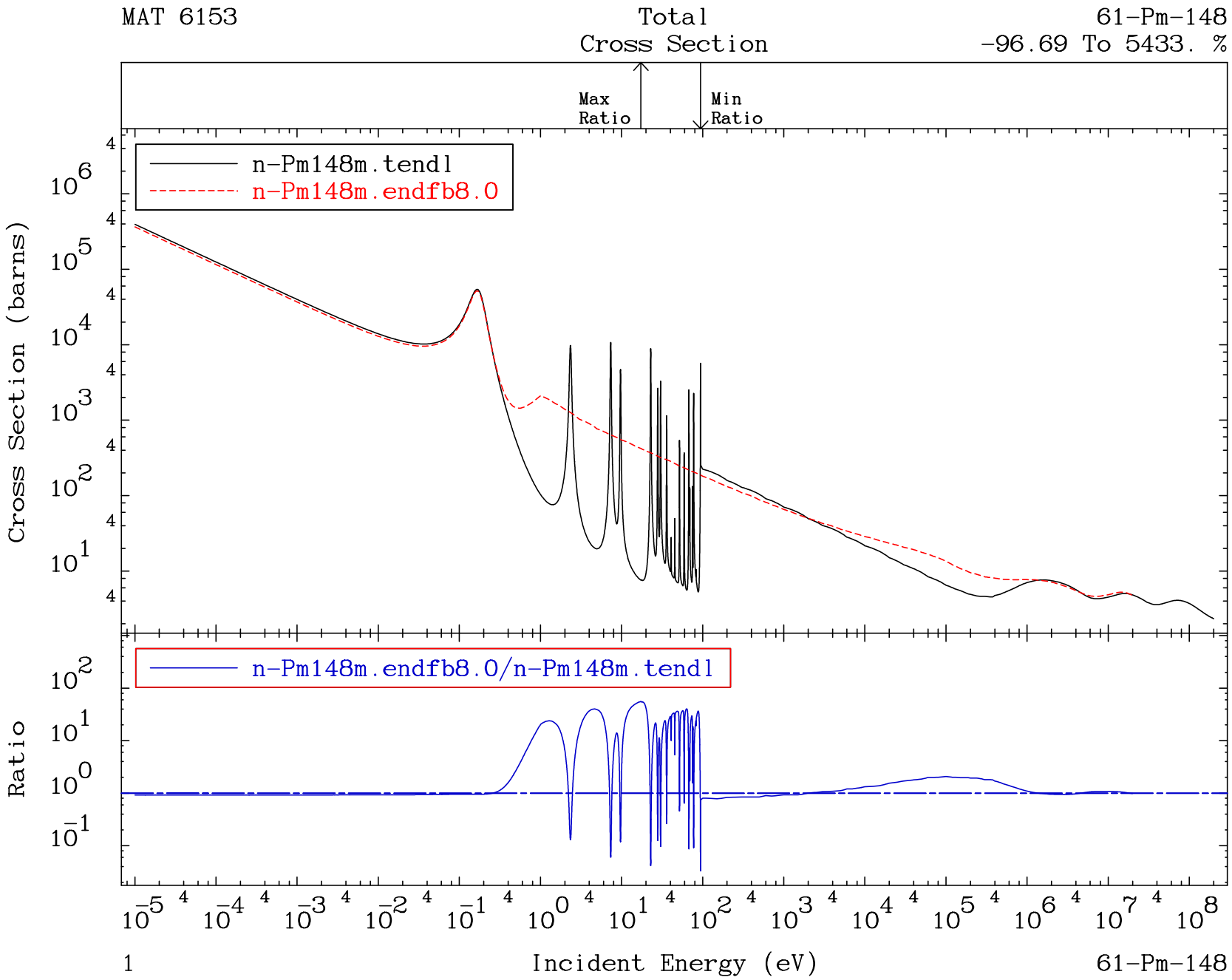
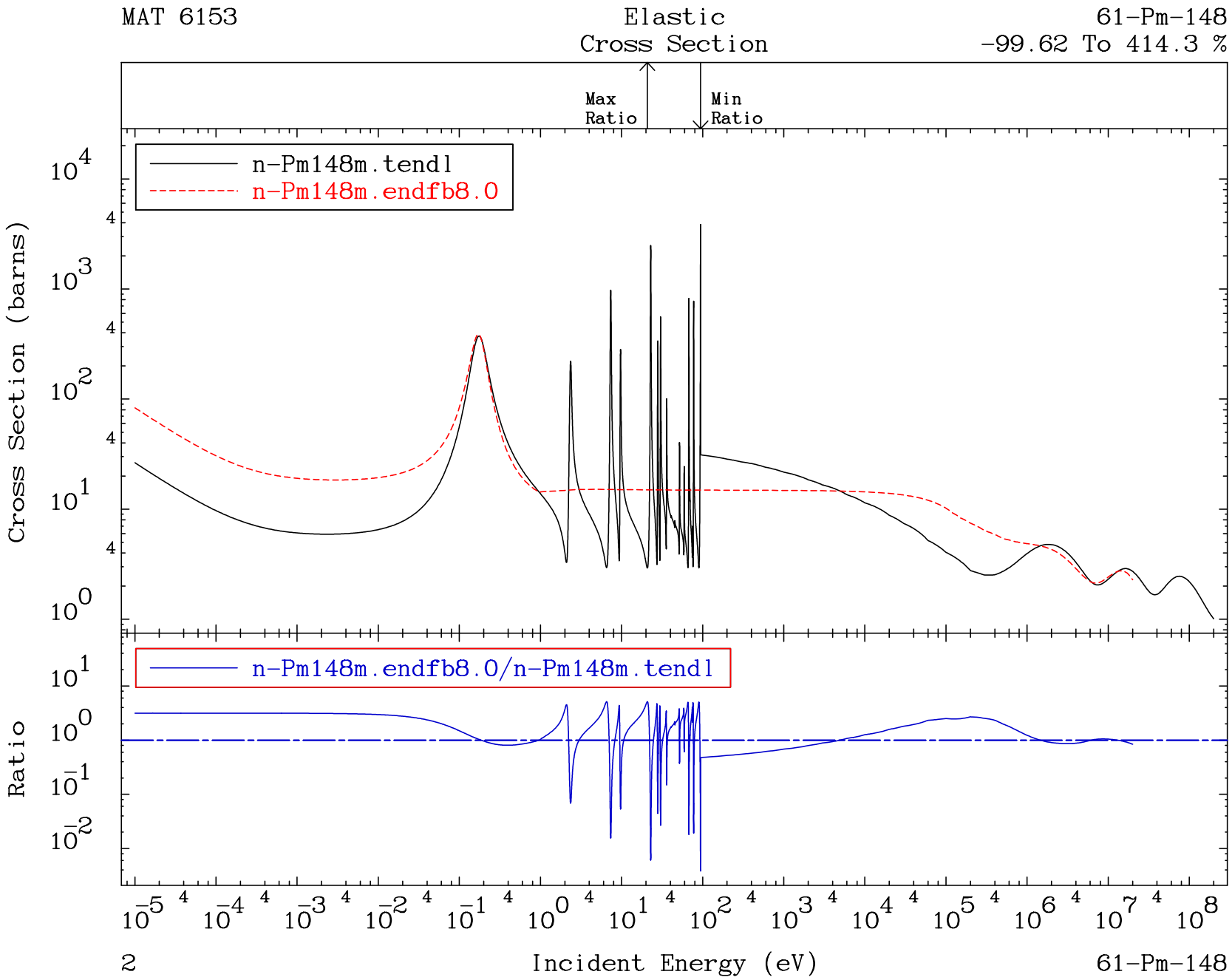
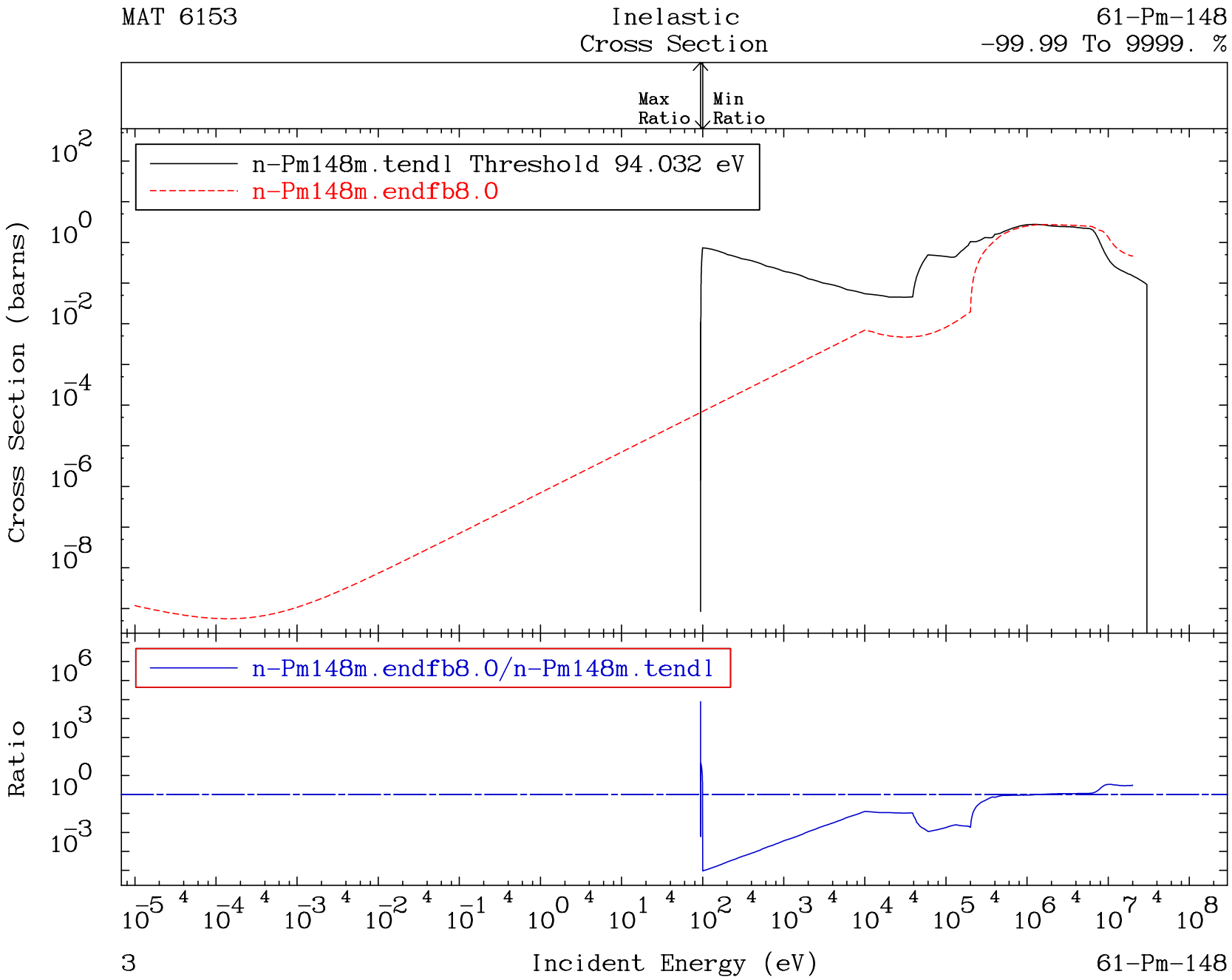
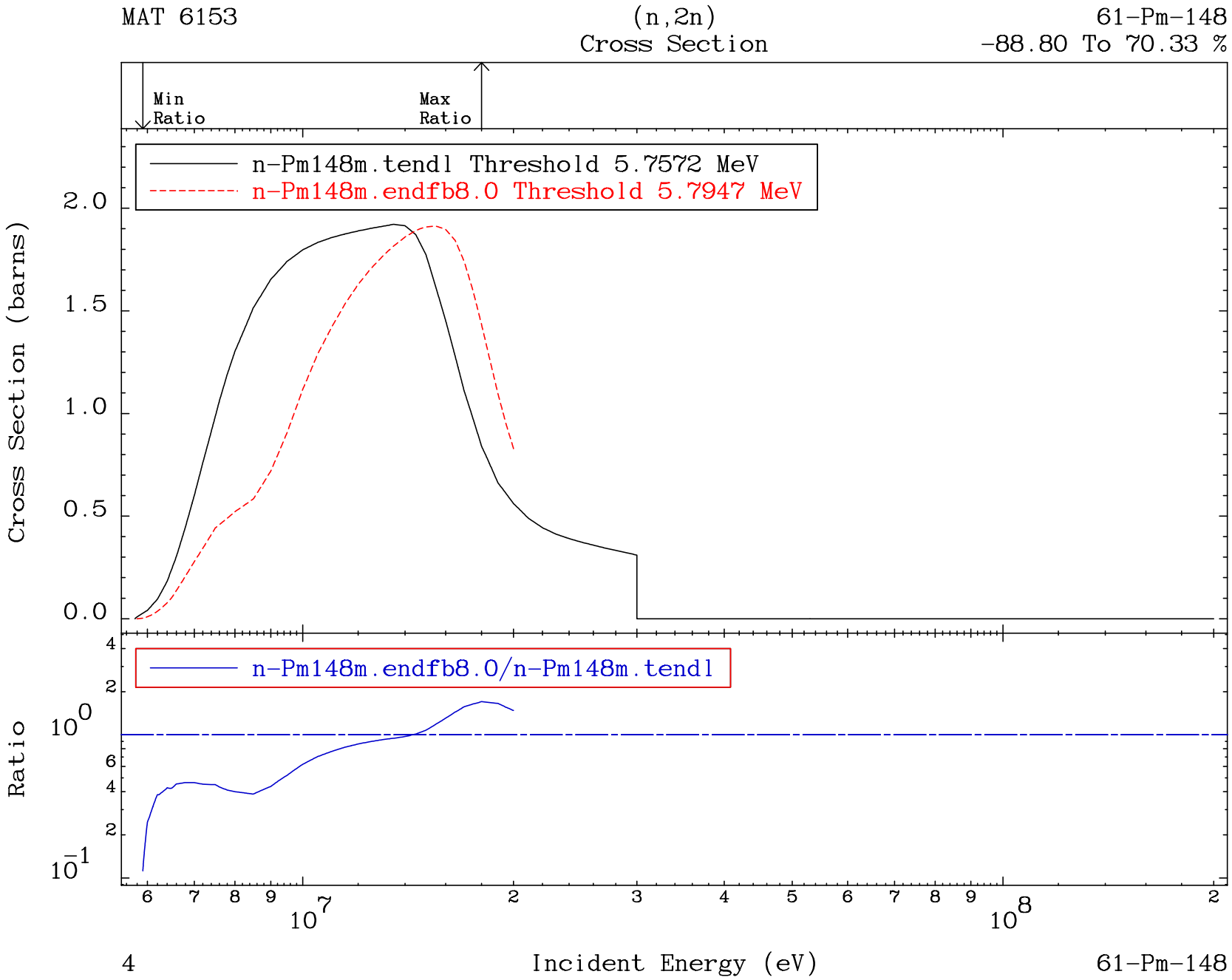
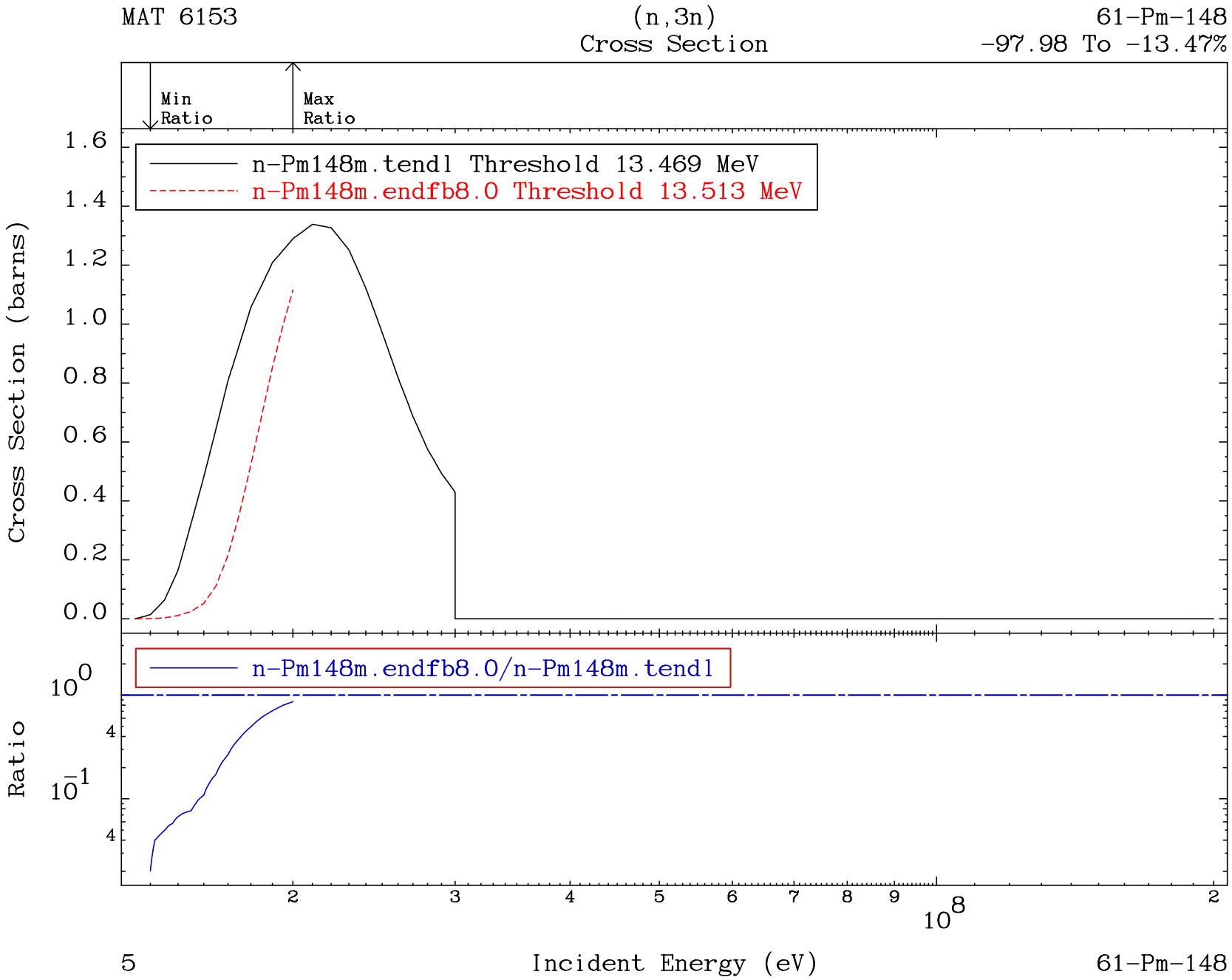
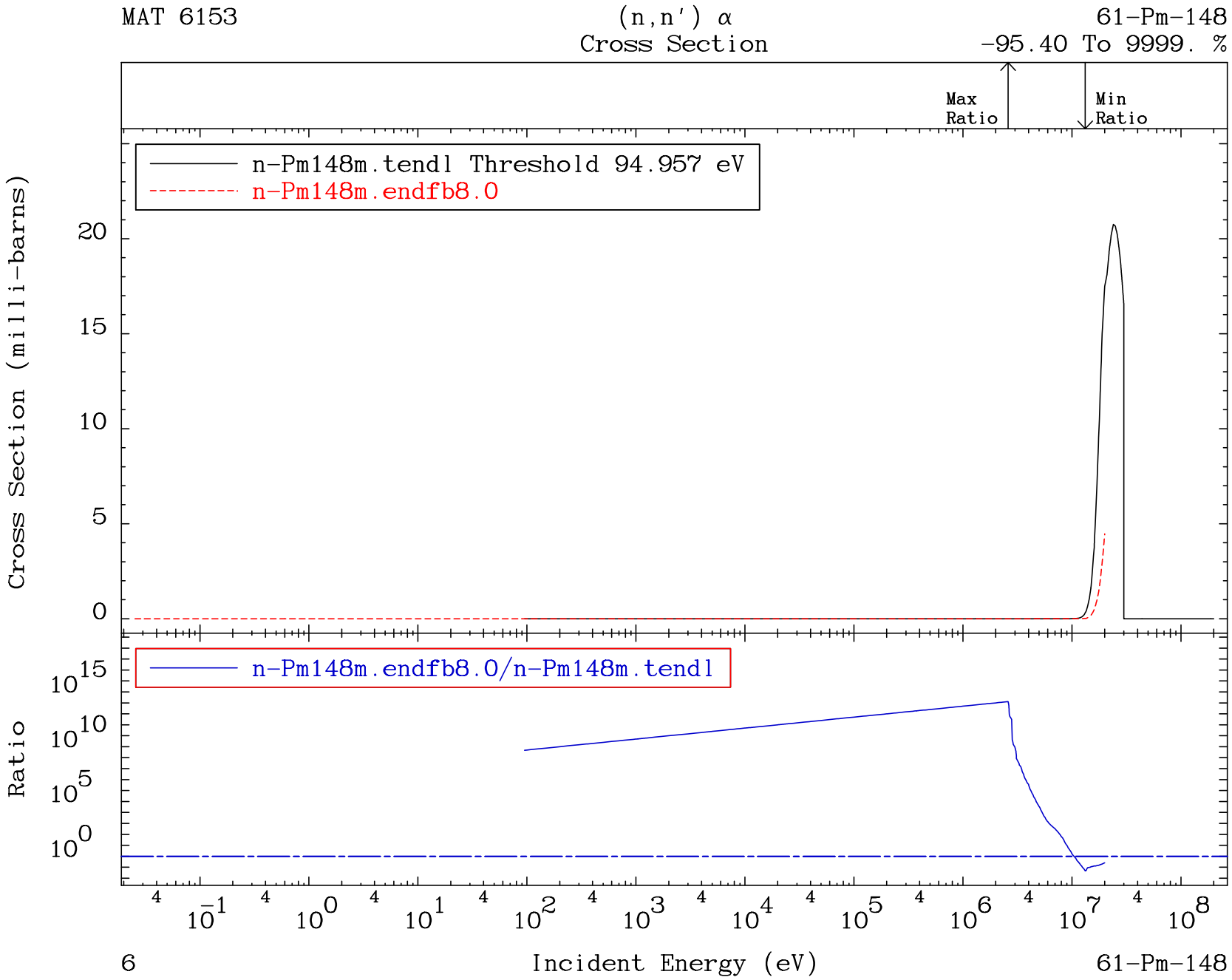

MAT 6153
Total
Cross Section
61-Pm-148
-96.69 To 5433. %
Max
Ratio
Min
Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
1
61-Pm-148

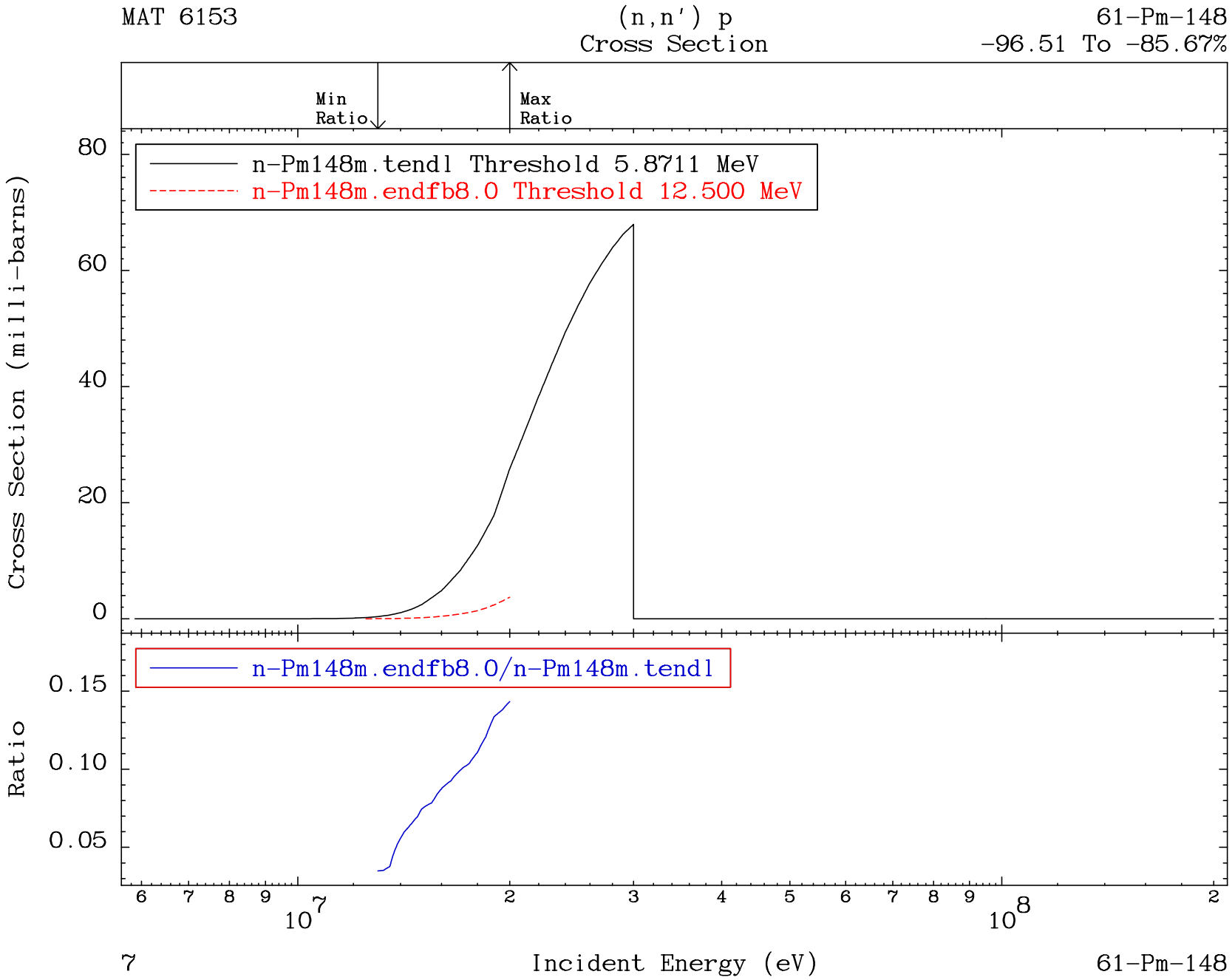

MAT 6153
Elastic
Cross Section
61-Pm-148
-99.62 To 414.3 %
Max
Ratio
Min
Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
2
61-Pm-148

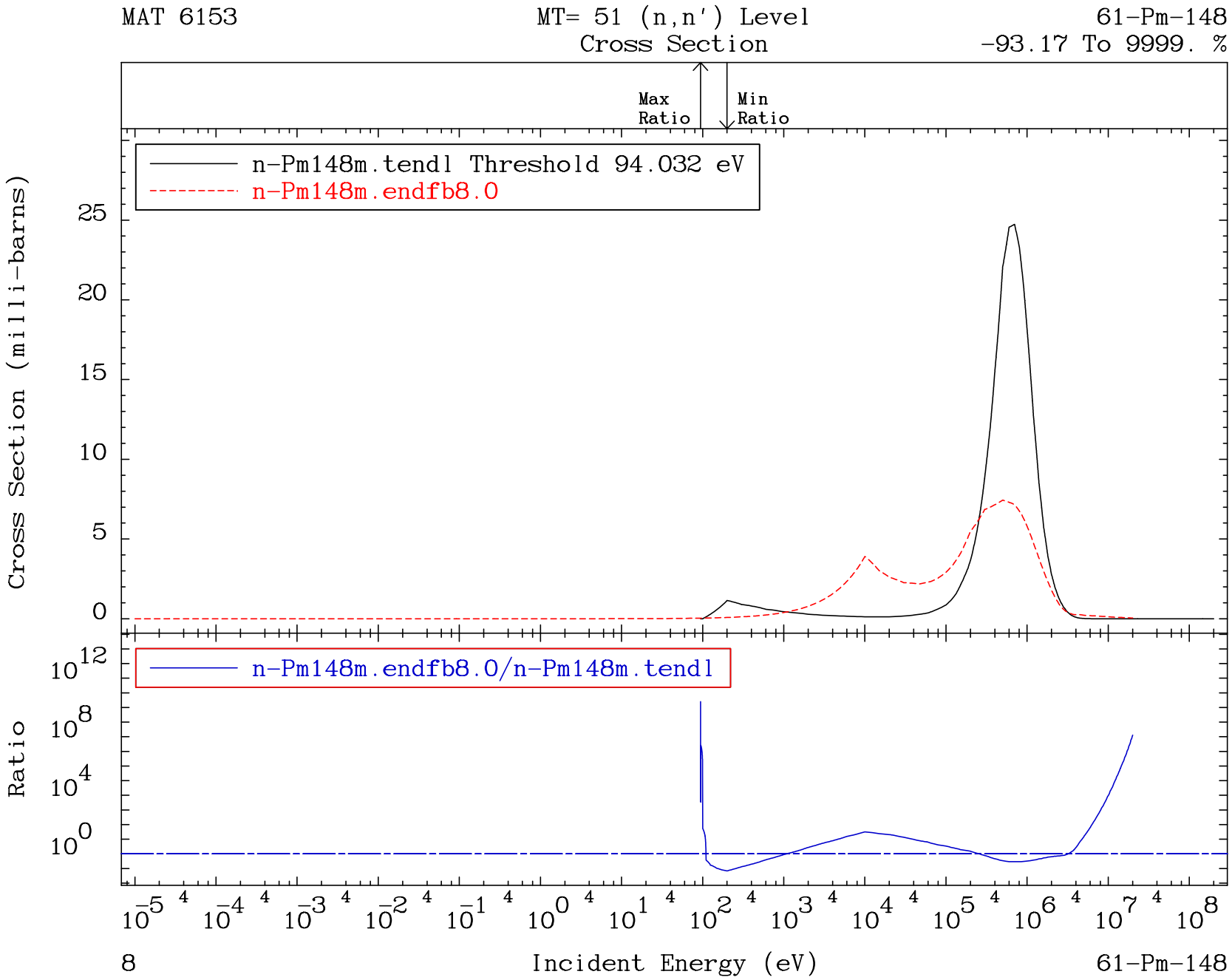

MAT 6153
Inelastic
Cross Section
61-Pm-148
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Pm148m.tendl Threshold 94.032 eV
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
3
61-Pm-148

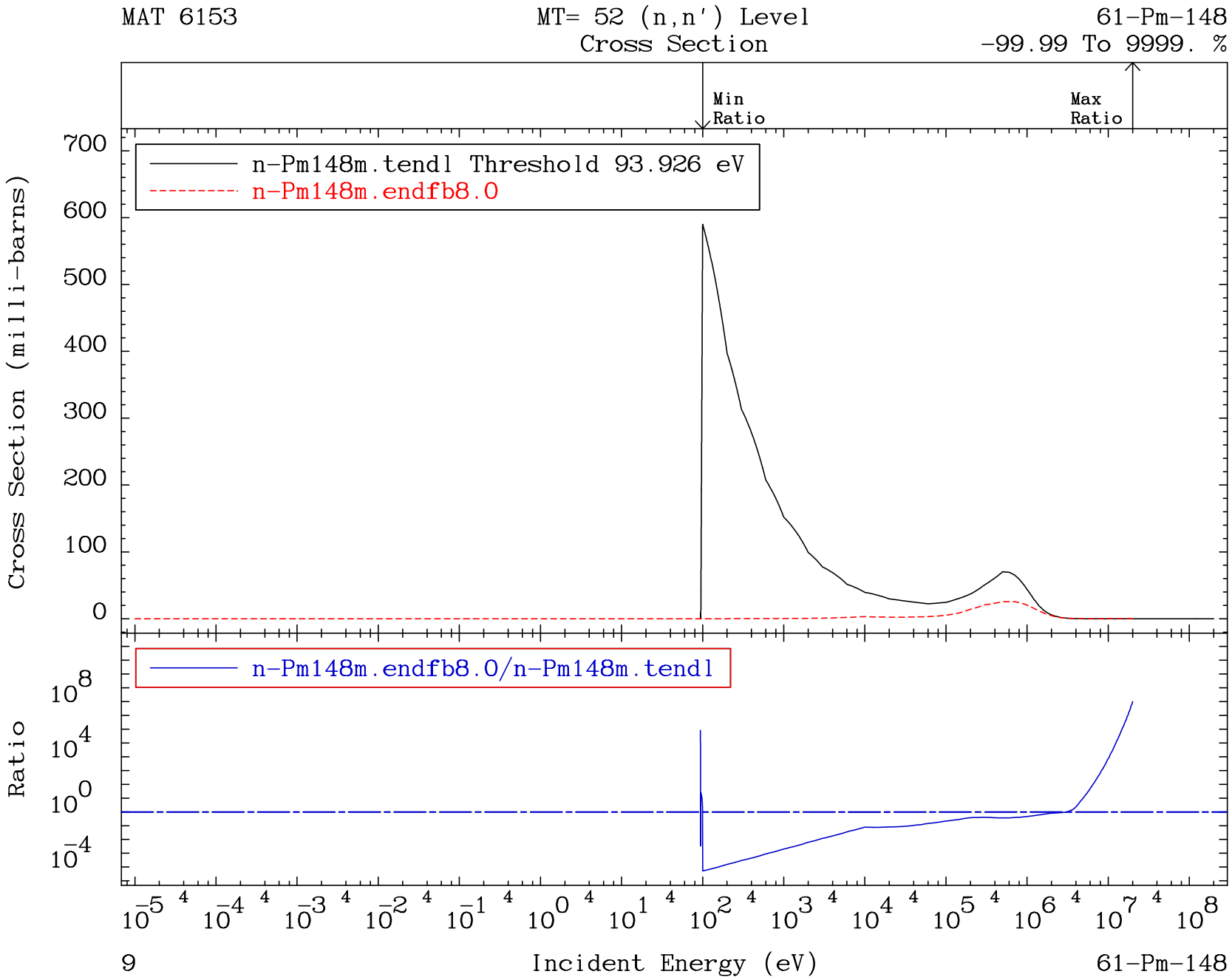

MAT 6153
(n,2n)
Cross Section
61-Pm-148
-88.80 To 70.33 %
Min Ratio
Max Ratio
n-Pm148m.tendl Threshold 5.7572 MeV
n-Pm148m.endfb8.0 Threshold 5.7947 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^0
10^-1
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
4
61-Pm-148

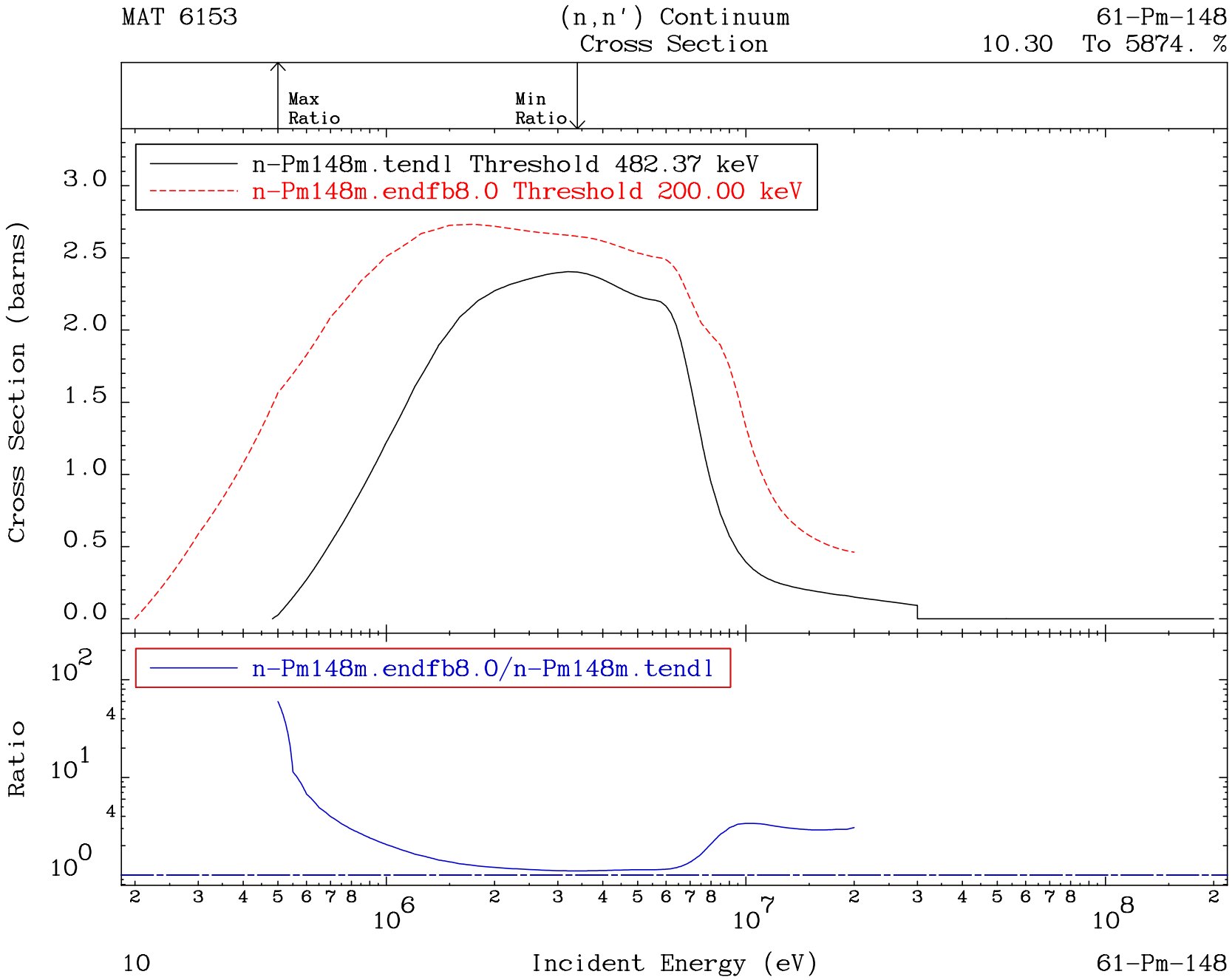

MAT 6153
(n,3n)
Cross Section
61-Pm-148
-97.98 To -13.47%
Min Ratio
Max Ratio
n-Pm148m.tendl Threshold 13.469 MeV
n-Pm148m.endfb8.0 Threshold 13.513 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^0
10^-1
4
4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
61-Pm-148

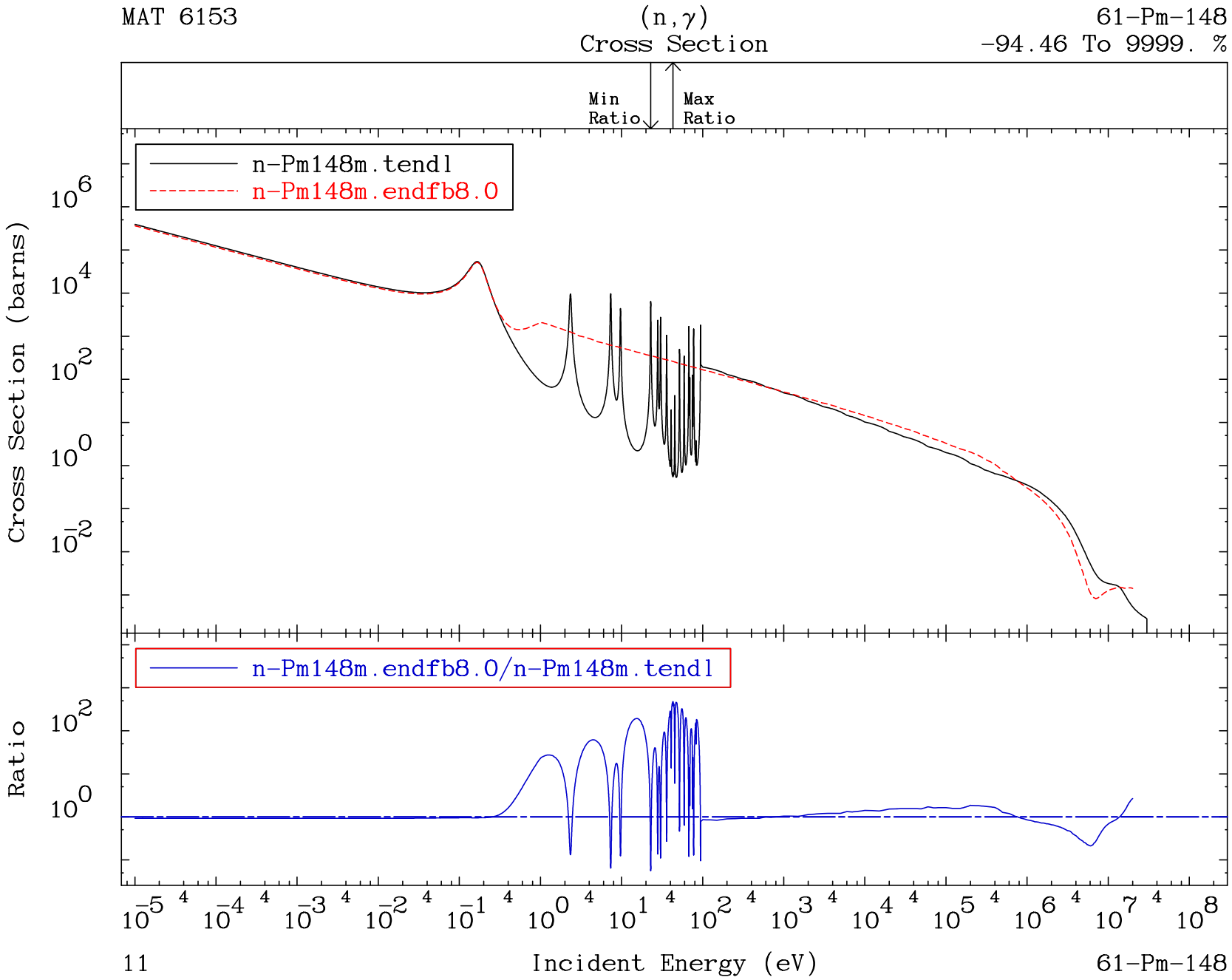

MAT 6153
(n,n') α
Cross Section
61-Pm-148
-95.40 To 9999. %
Max Ratio
Min Ratio
n-Pm148m.tendl Threshold 94.957 eV
n-Pm148m.endfb8.0
Cross Section (milli-barns)
20
15
10
5
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^15
10^10
10^5
10^0
10^-1
10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7
10^8
6
Incident Energy (eV)
61-Pm-148

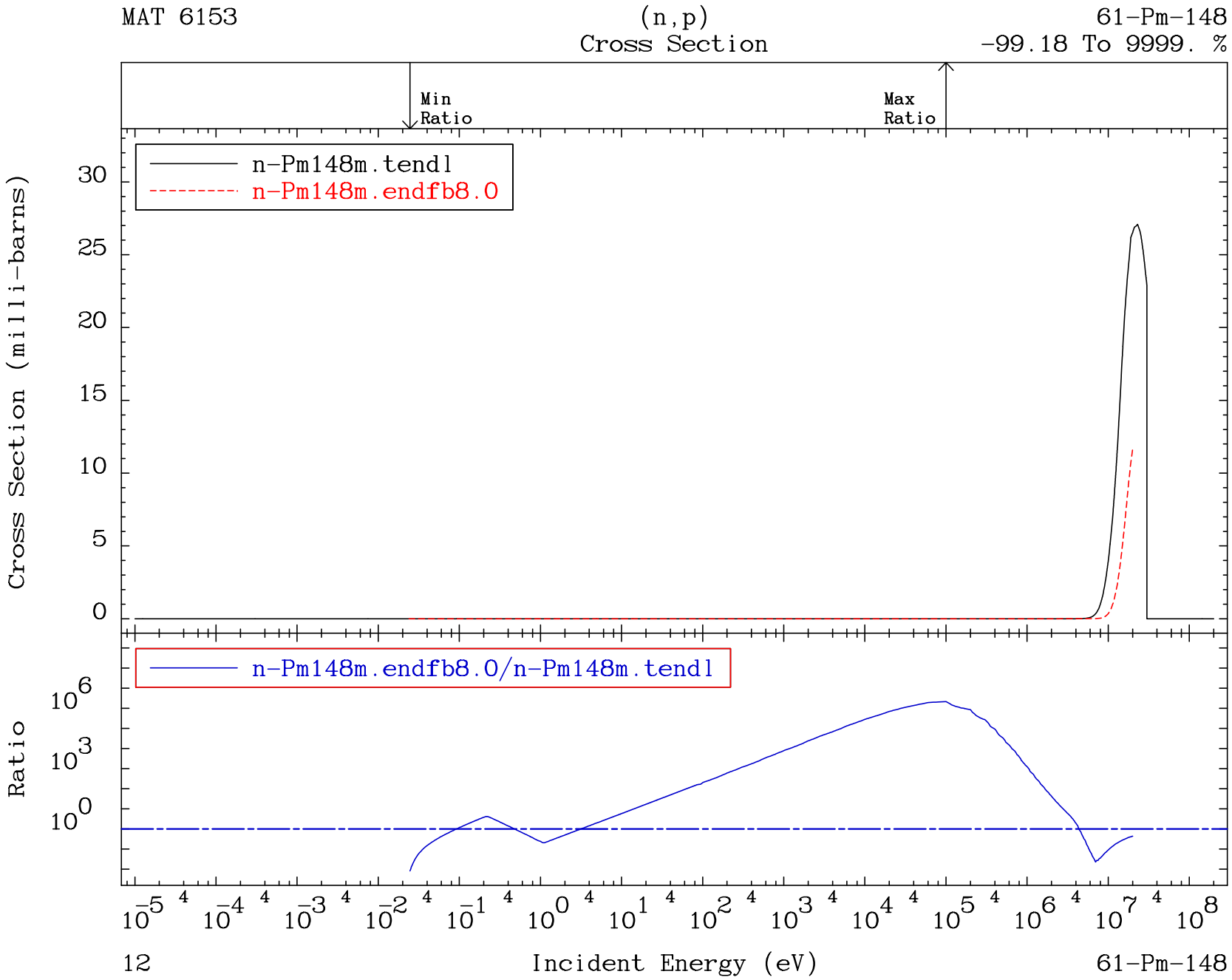

MAT 6153
(n,n') p
Cross Section
61-Pm-148
-96.51 To -85.67%
Min Ratio
Max Ratio
n-Pm148m.tendl Threshold 5.8711 MeV
n-Pm148m.endfb8.0 Threshold 12.500 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
0.15
0.10
0.05
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
61-Pm-148

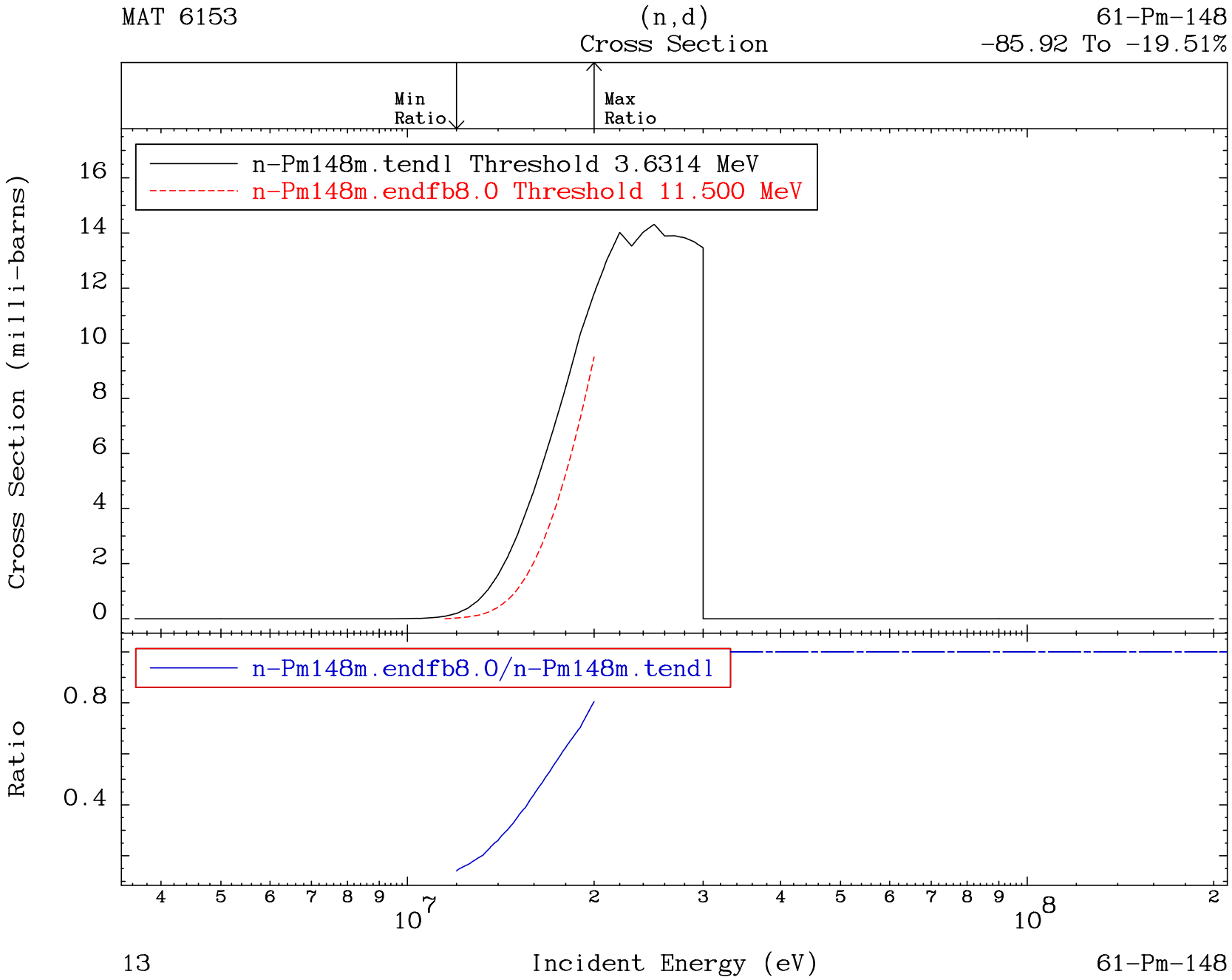

MAT 6153
MT= 51 (n,n') Level
Cross Section
61-Pm-148
-93.17 To 9999. %
Max Ratio
Min Ratio
n-Pm148m.tendl Threshold 94.032 eV
n-Pm148m.endfb8.0
Cross Section (milli-barns)
25
20
15
10
5
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^12
10^8
10^4
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
8
Incident Energy (eV)
61-Pm-148

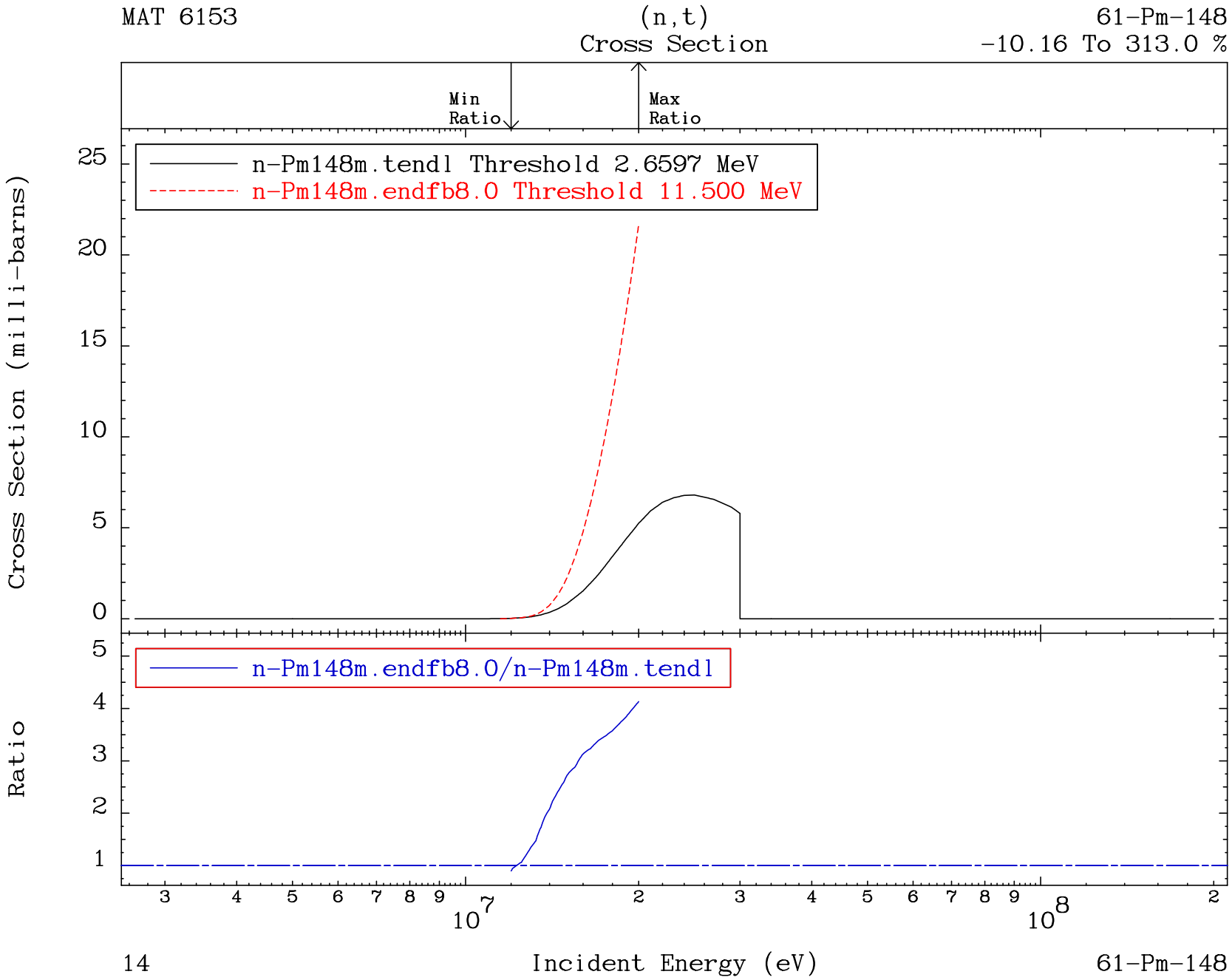

MAT 6153
MT= 52 (n,n') Level
Cross Section
61-Pm-148
-99.99 To 9999. %
Min
Ratio
Max
Ratio
n-Pm148m.tendl Threshold 93.926 eV
n-Pm148m.endfb8.0
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^8
10^4
10^0
10^-4
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
9
Incident Energy (eV)
61-Pm-148

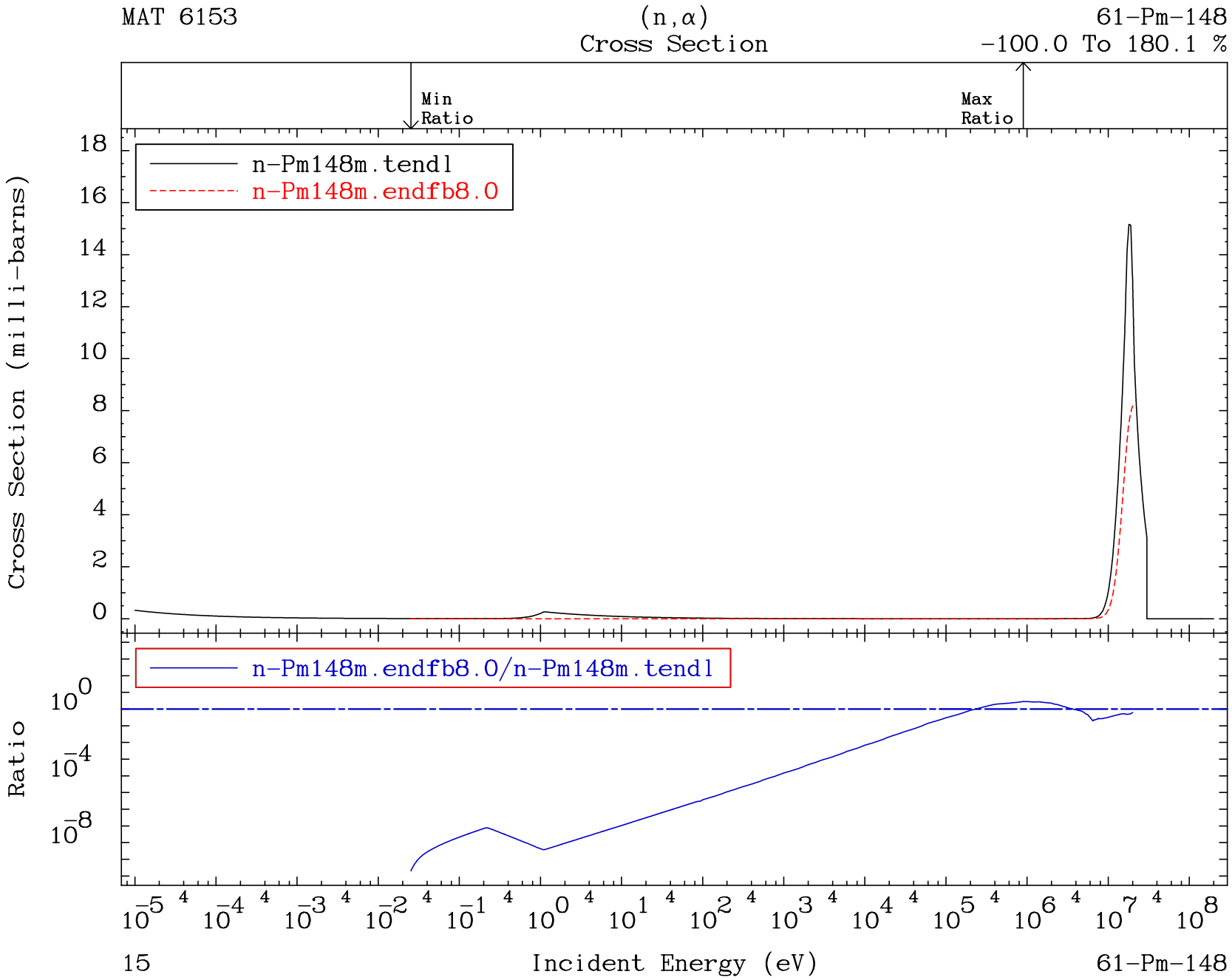

MAT 6153
(n,n') Continuum
Cross Section
61-Pm-148
10.30 To 5874. %
Max Ratio
Min Ratio
n-Pm148m.tendl Threshold 482.37 keV
n-Pm148m.endfb8.0 Threshold 200.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^2
4
10^1
4
10^0
2 3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
10
Incident Energy (eV)
61-Pm-148

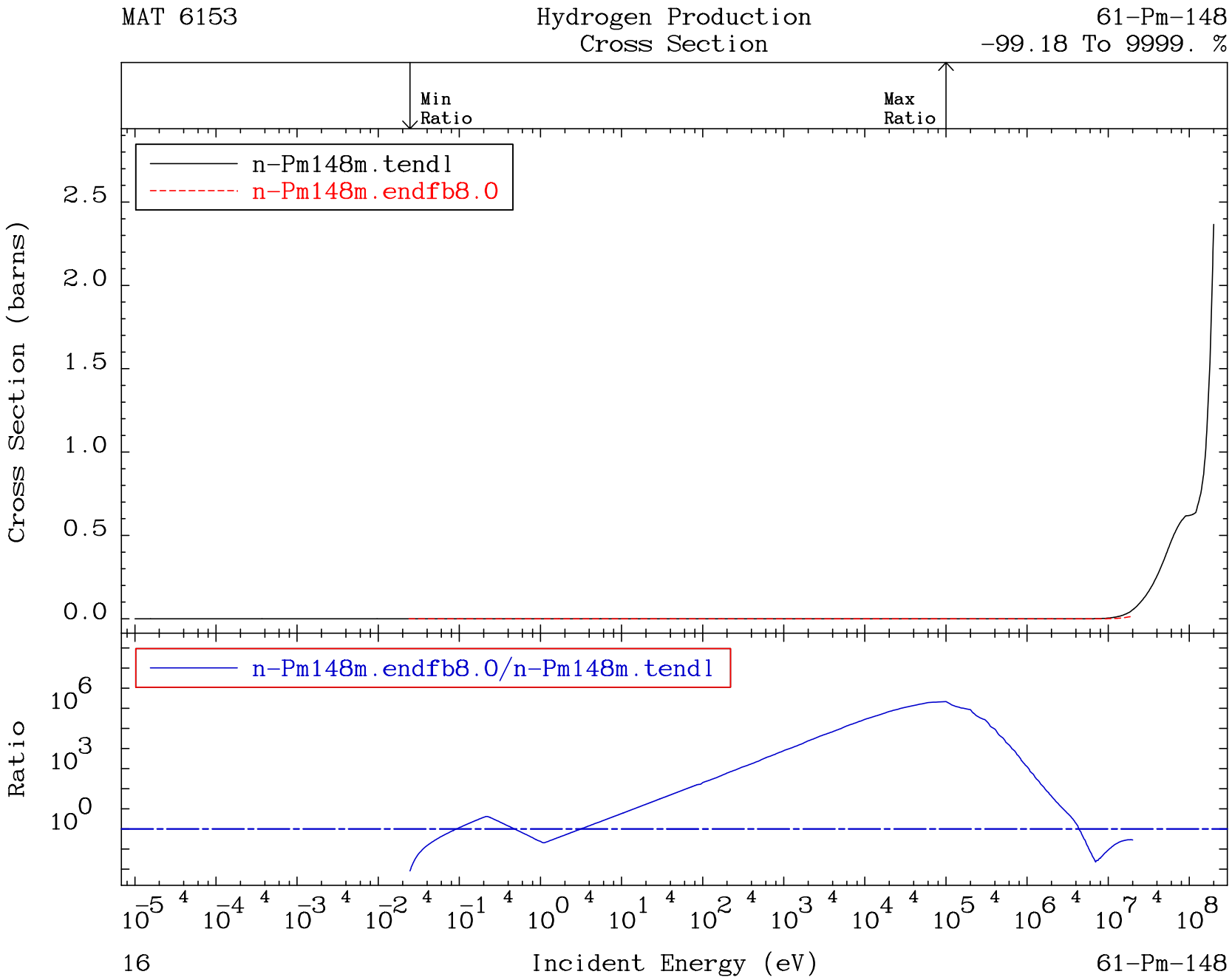

MAT 6153
(n,γ)
Cross Section
61-Pm-148
-94.46 To 9999. %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
11
61-Pm-148

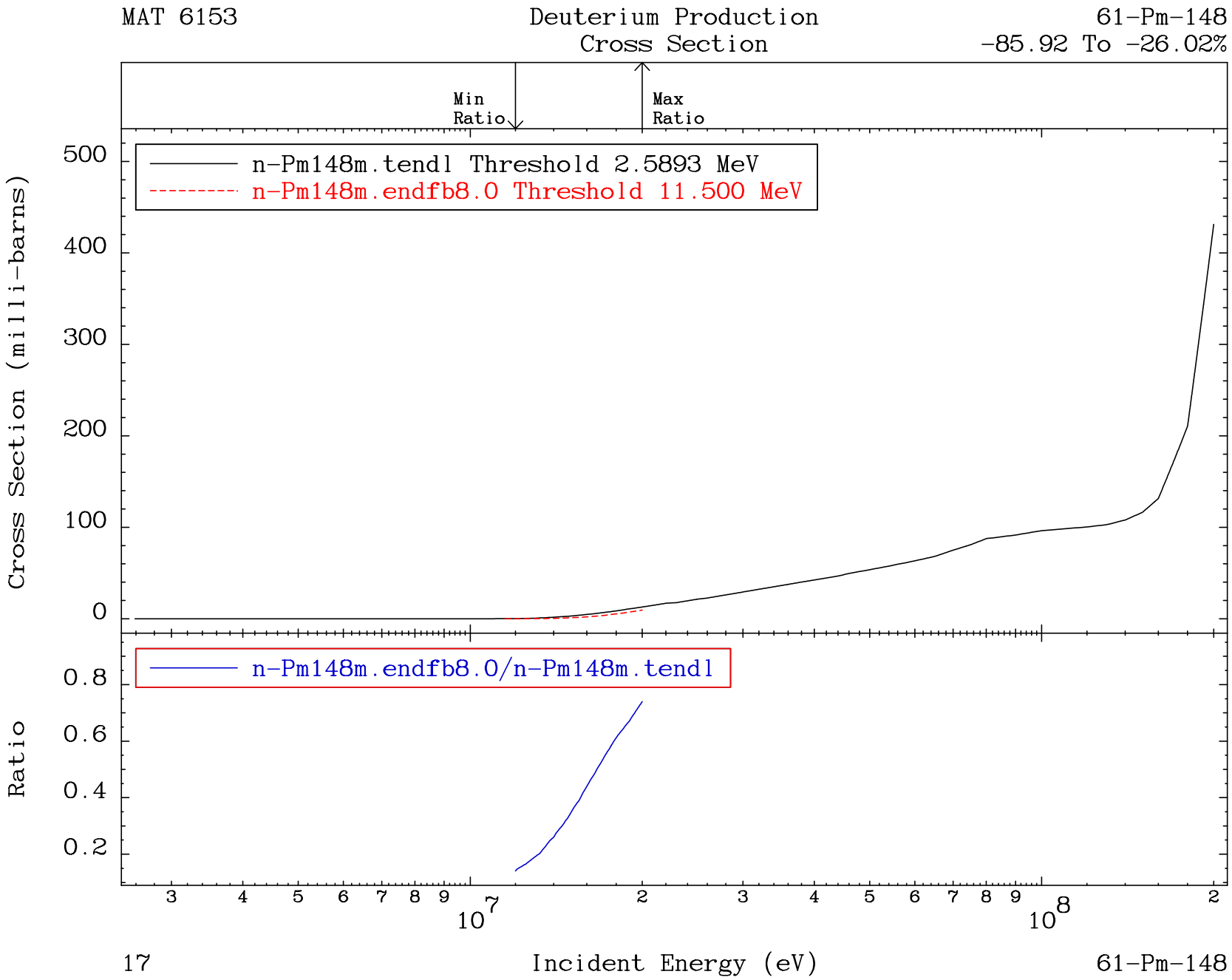

MAT 6153
(n,p)
Cross Section
61-Pm-148
-99.18 To 9999. %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^6
10^3
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
12
Incident Energy (eV)
61-Pm-148

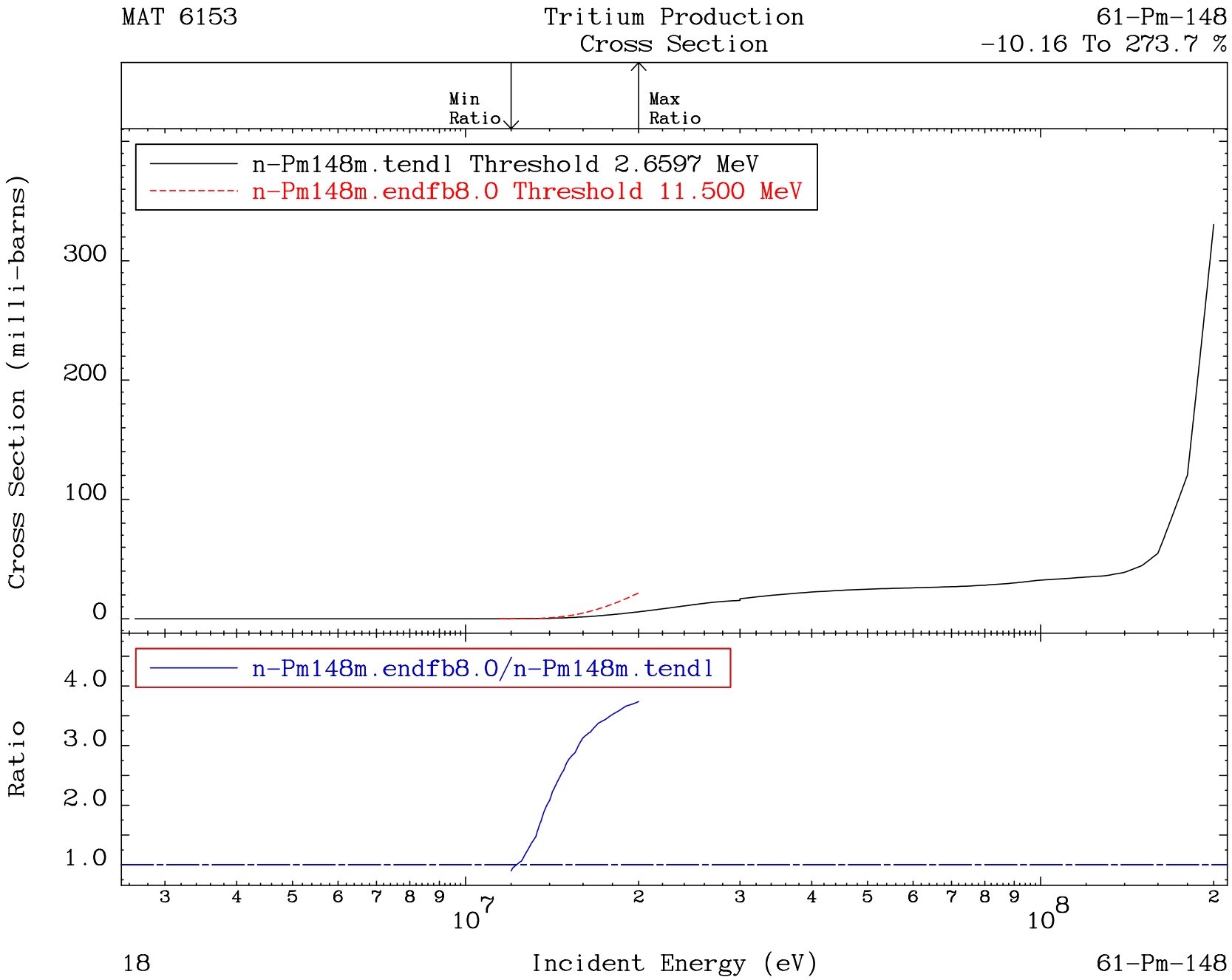

MAT 6153
(n,d)
Cross Section
61-Pm-148
-85.92 To -19.51%
Min Ratio
Max Ratio
n-Pm148m.tendl Threshold 3.6314 MeV
n-Pm148m.endfb8.0 Threshold 11.500 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
0.8
0.4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
13
Incident Energy (eV)
61-Pm-148

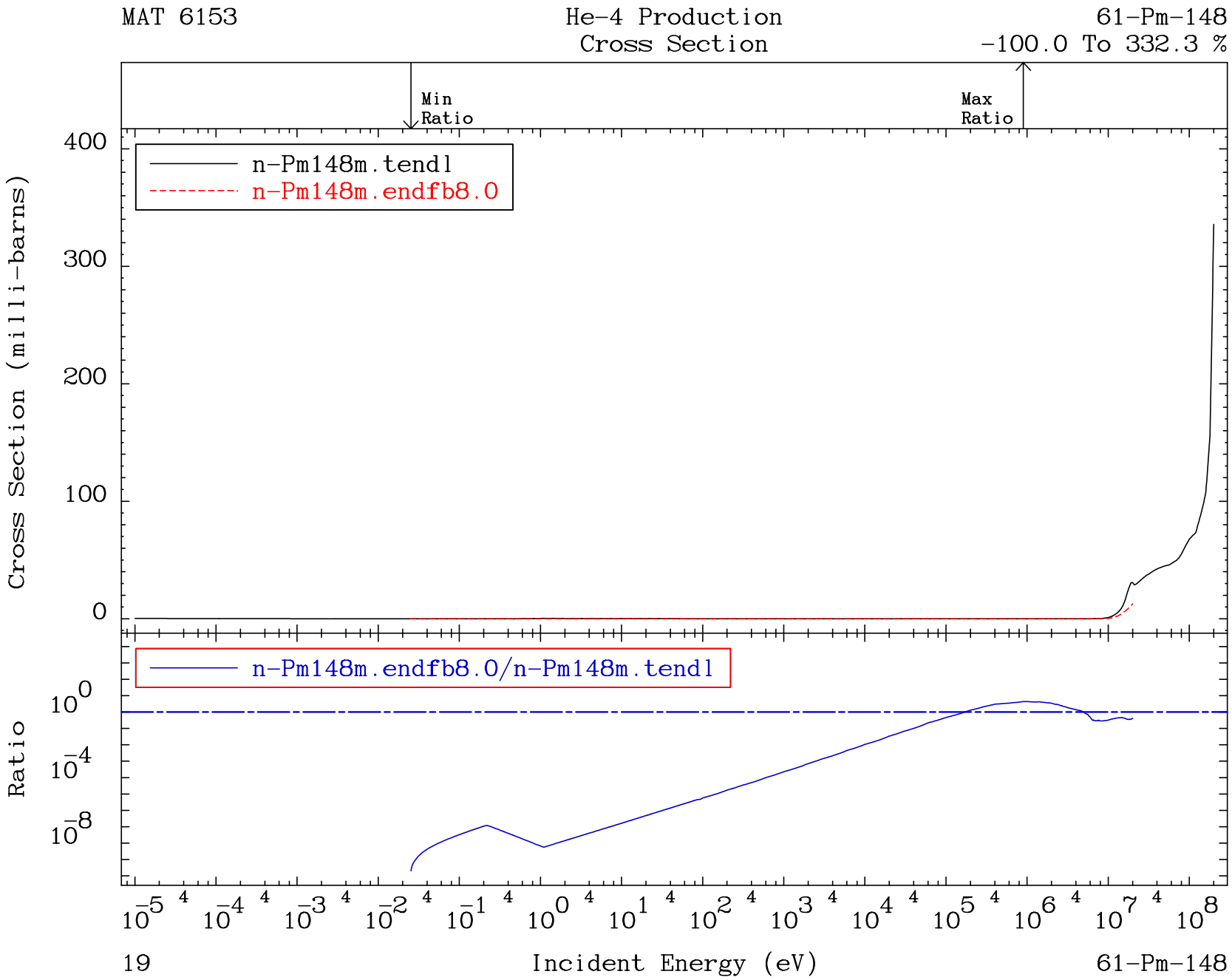

MAT 6153
(n,t)
Cross Section
61-Pm-148
-10.16 To 313.0 %
Min Ratio
Max Ratio
n-Pm148m.tendl Threshold 2.6597 MeV
n-Pm148m.endfb8.0 Threshold 11.500 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
5
4
3
2
1
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
14
Incident Energy (eV)
61-Pm-148

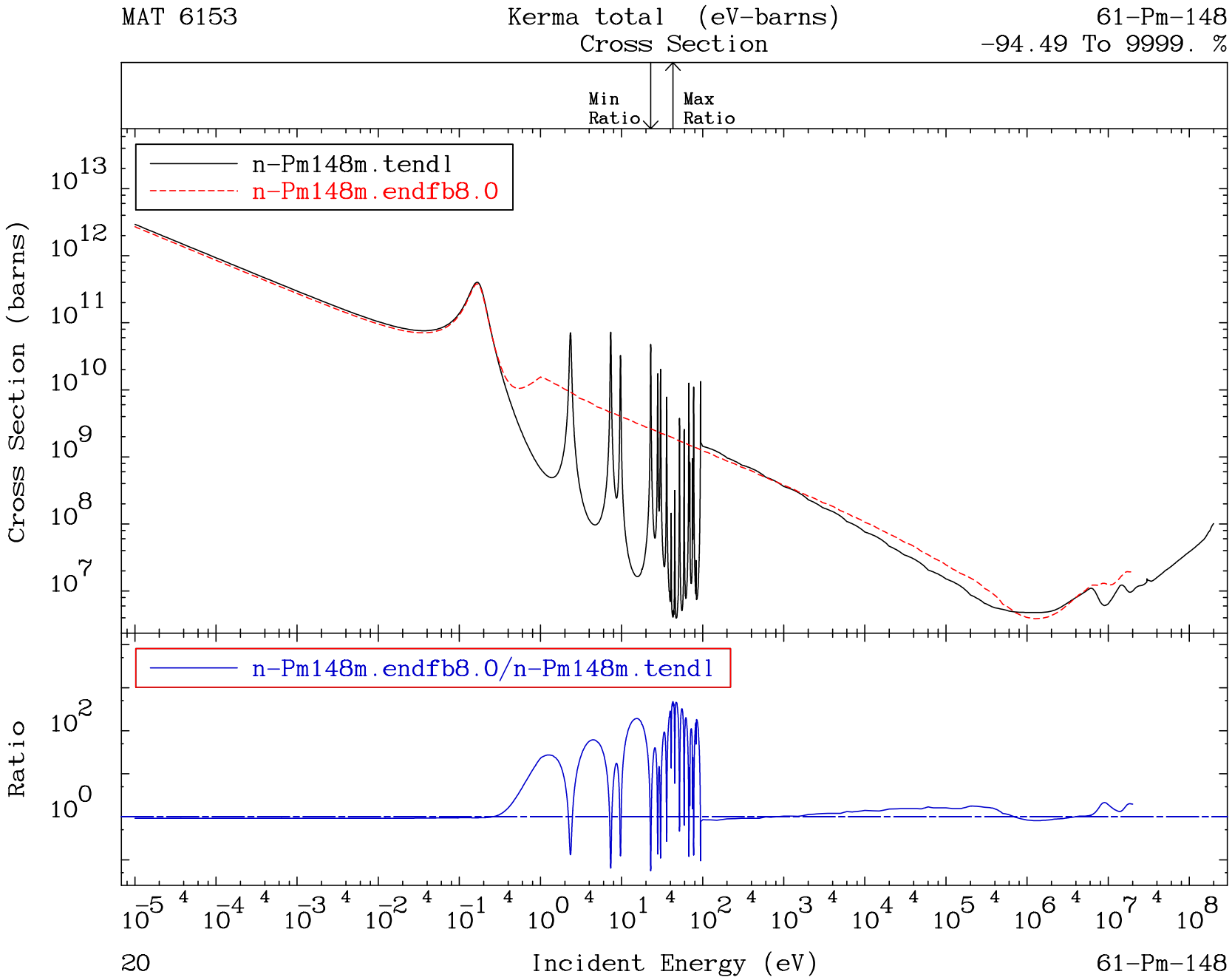

MAT 6153
(n,α)
Cross Section
61-Pm-148
-100.0 To 180.1 %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
16
18
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^0
10^-4
10^-8
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7
10^8
15
Incident Energy (eV)
61-Pm-148

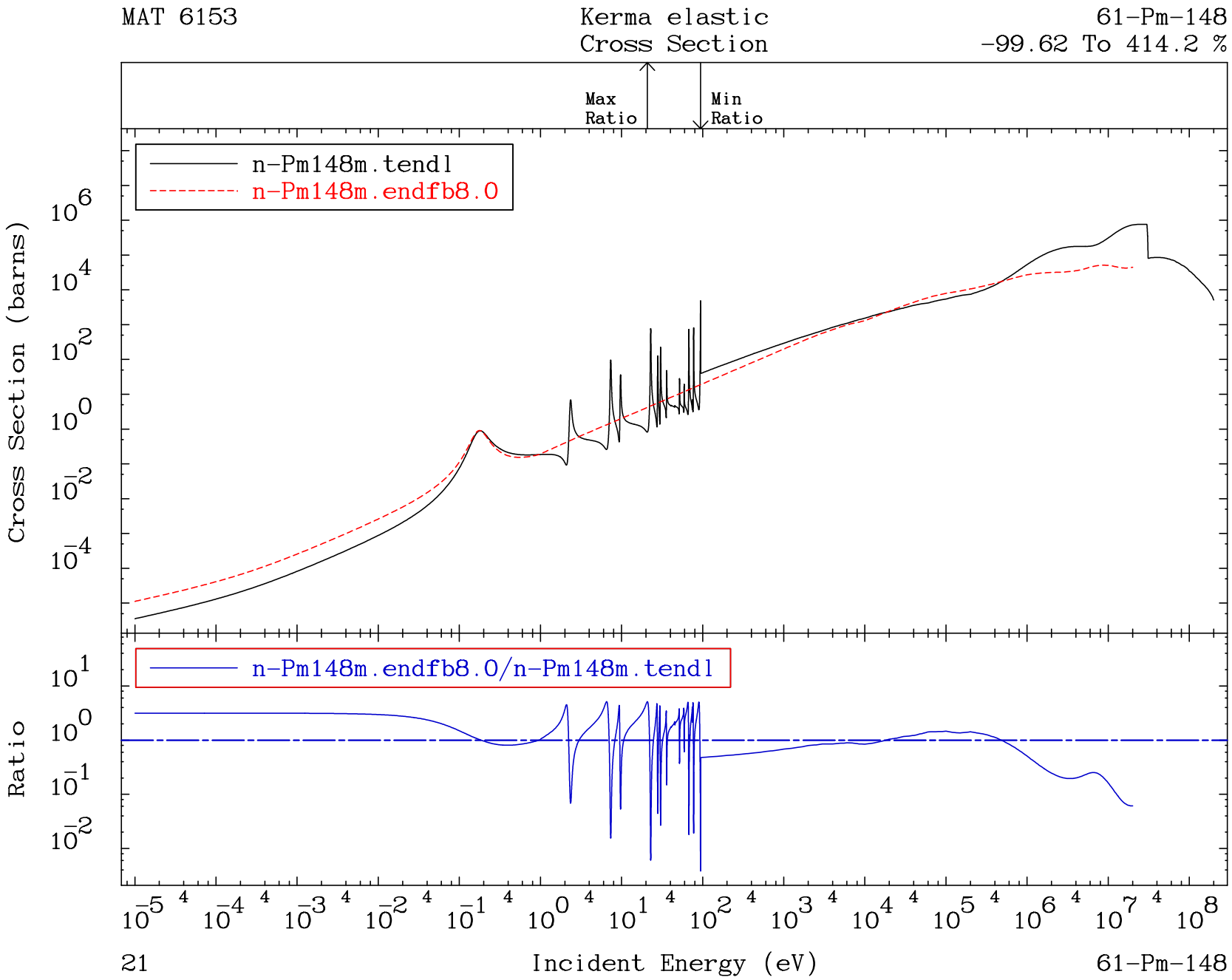

MAT 6153
Hydrogen Production
Cross Section
61-Pm-148
-99.18 To 9999. %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^6
10^3
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
16
Incident Energy (eV)
61-Pm-148

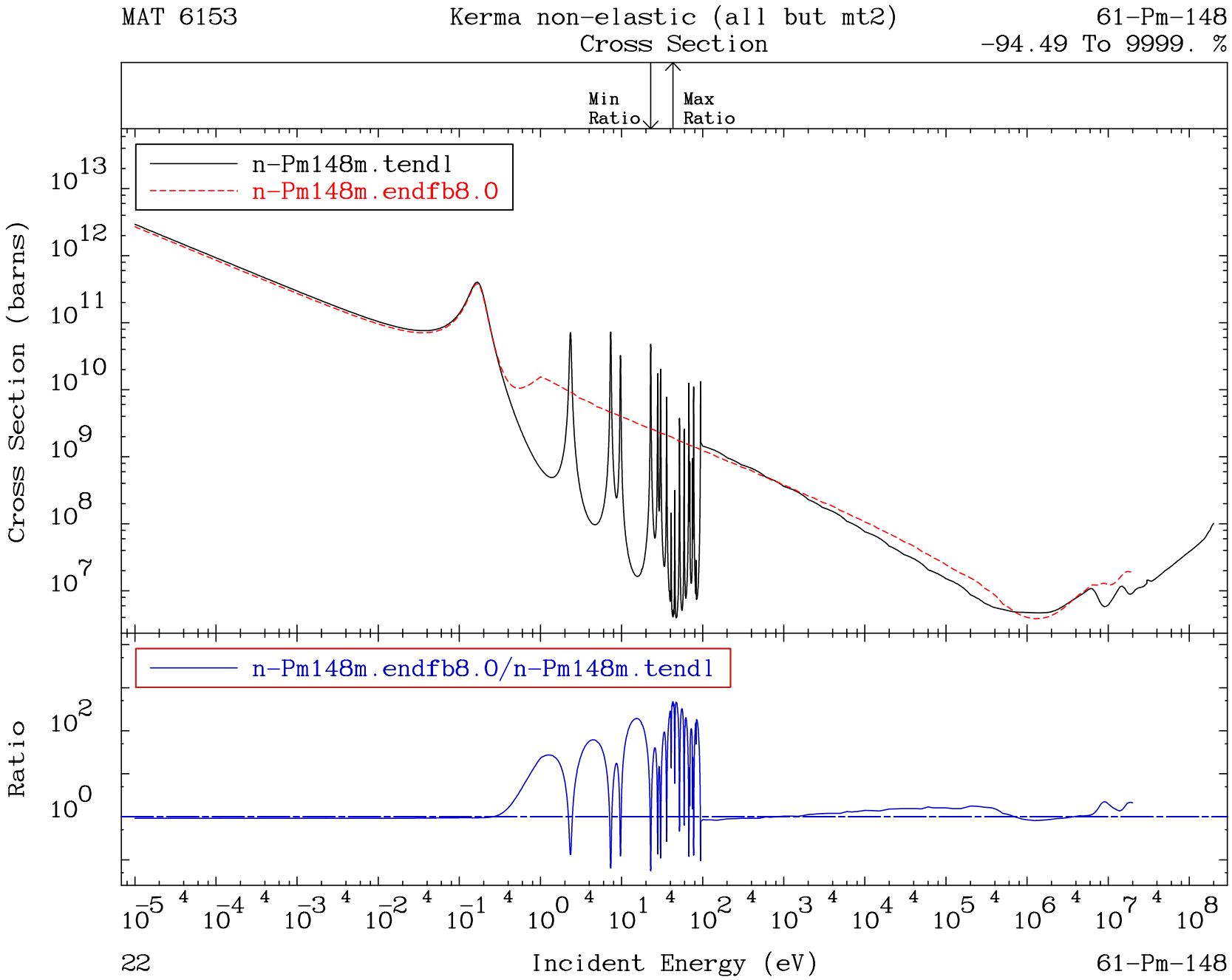

MAT 6153
Deuterium Production
Cross Section
61-Pm-148
-85.92 To -26.02%
Min
Ratio
Max
Ratio
n-Pm148m.tendl Threshold 2.5893 MeV
n-Pm148m.endfb8.0 Threshold 11.500 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
0.8
0.6
0.4
0.2
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
17
Incident Energy (eV)
61-Pm-148

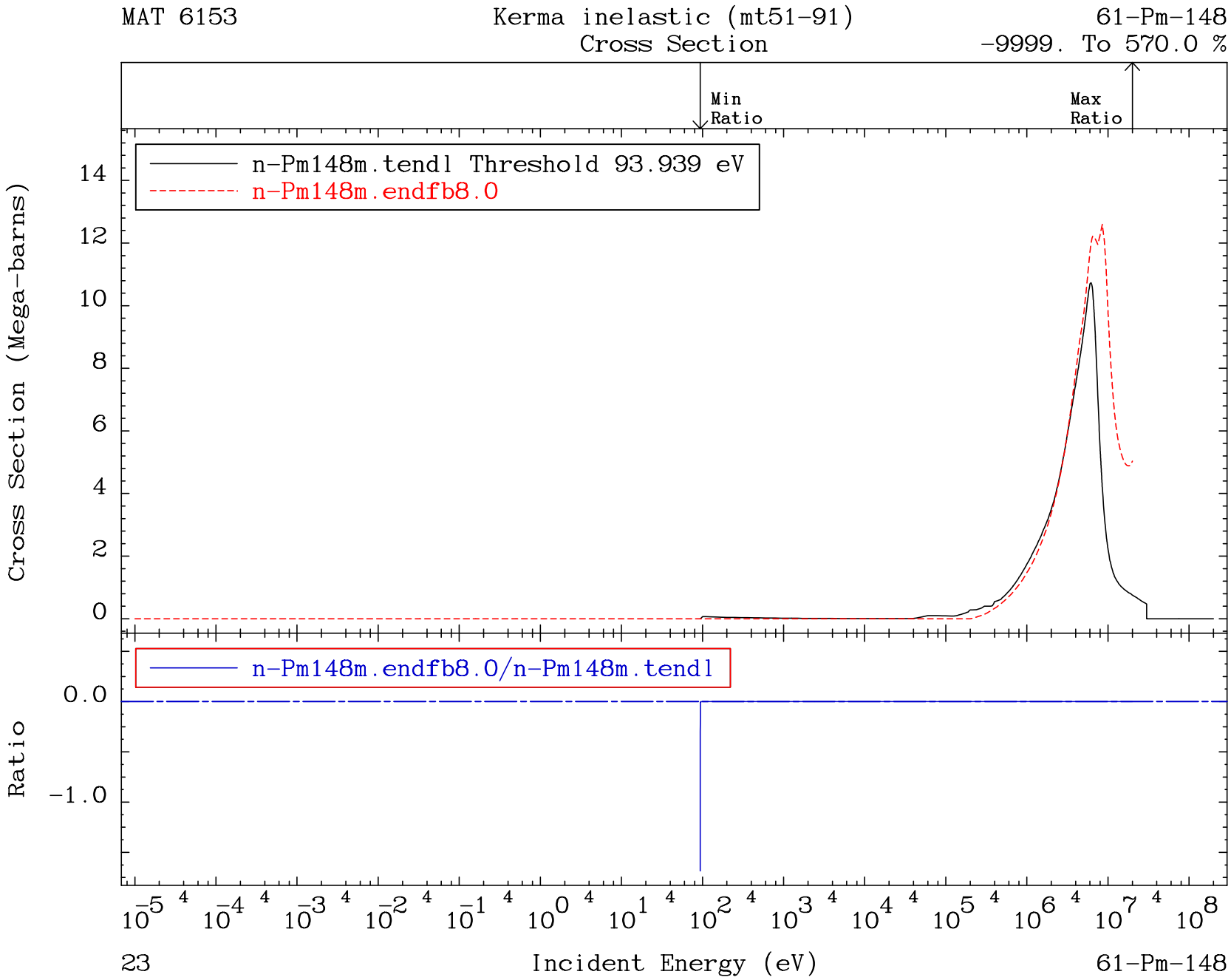

MAT 6153
Tritium Production
Cross Section
61-Pm-148
-10.16 To 273.7 %
Min Ratio
Max Ratio
n-Pm148m.tendl Threshold 2.6597 MeV
n-Pm148m.endfb8.0 Threshold 11.500 MeV
Cross Section (milli-barns)
300
200
100
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
4.0
3.0
2.0
1.0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
61-Pm-148

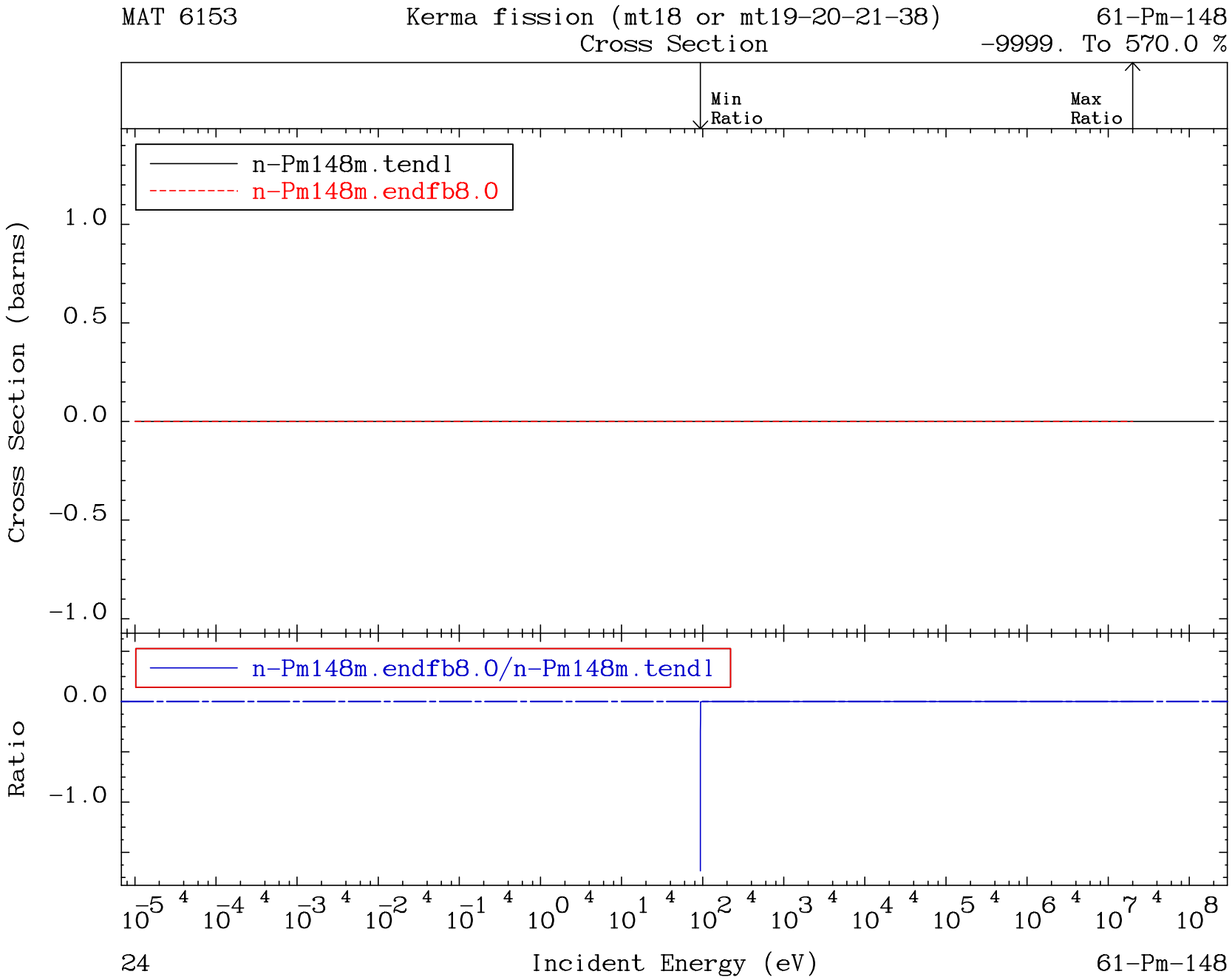

MAT 6153
He-4 Production
Cross Section
61-Pm-148
-100.0 To 332.3 %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (milli-barns)
400
300
200
100
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^0
10^-4
10^-8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
19
Incident Energy (eV)
61-Pm-148

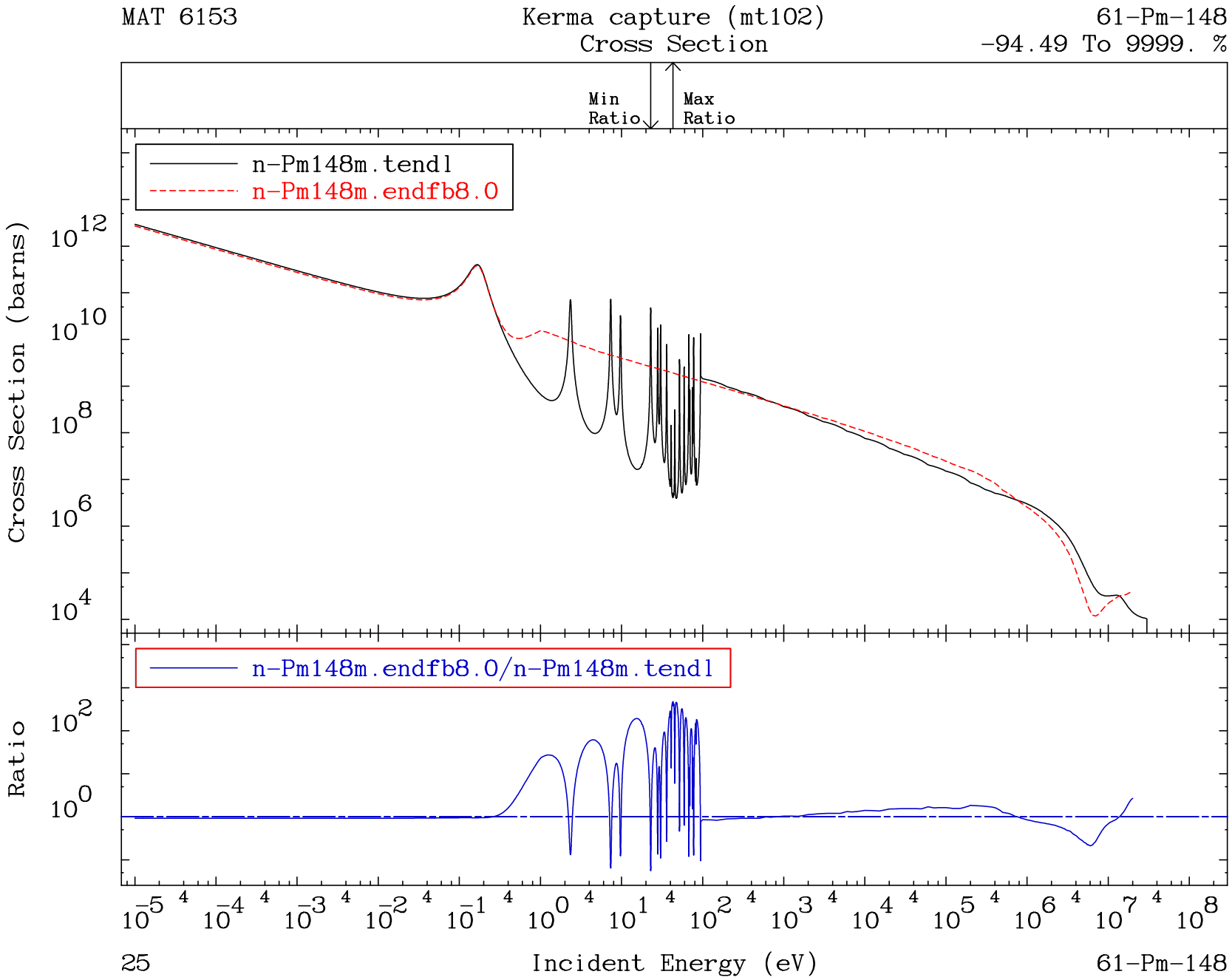

MAT 6153
Kerma total (eV-barns)
Cross Section
61-Pm-148
-94.49 To 9999. %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
20
61-Pm-148

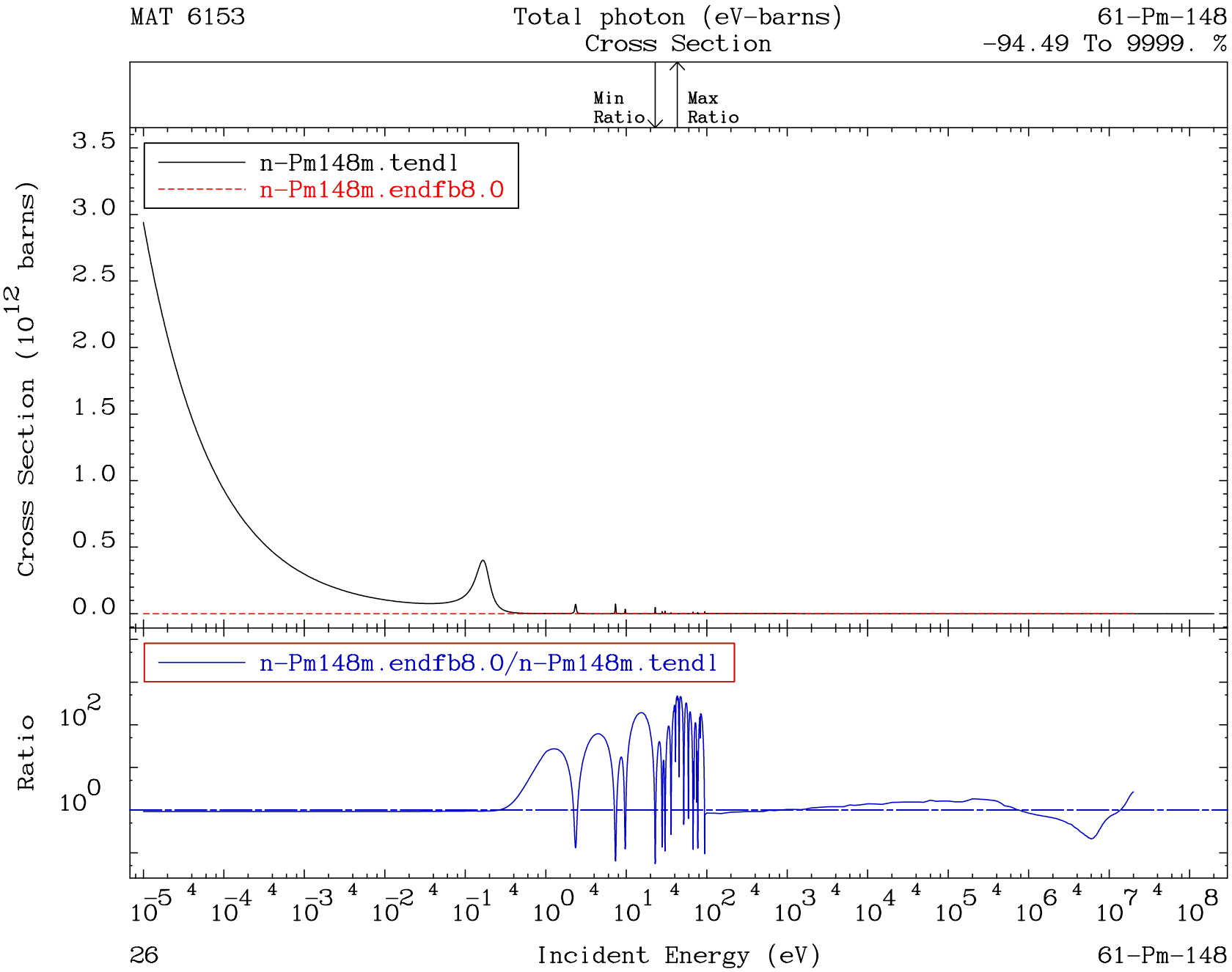

MAT 6153
Kerma elastic
Cross Section
61-Pm-148
-99.62 To 414.2 %
Max
Ratio
Min
Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
21
61-Pm-148

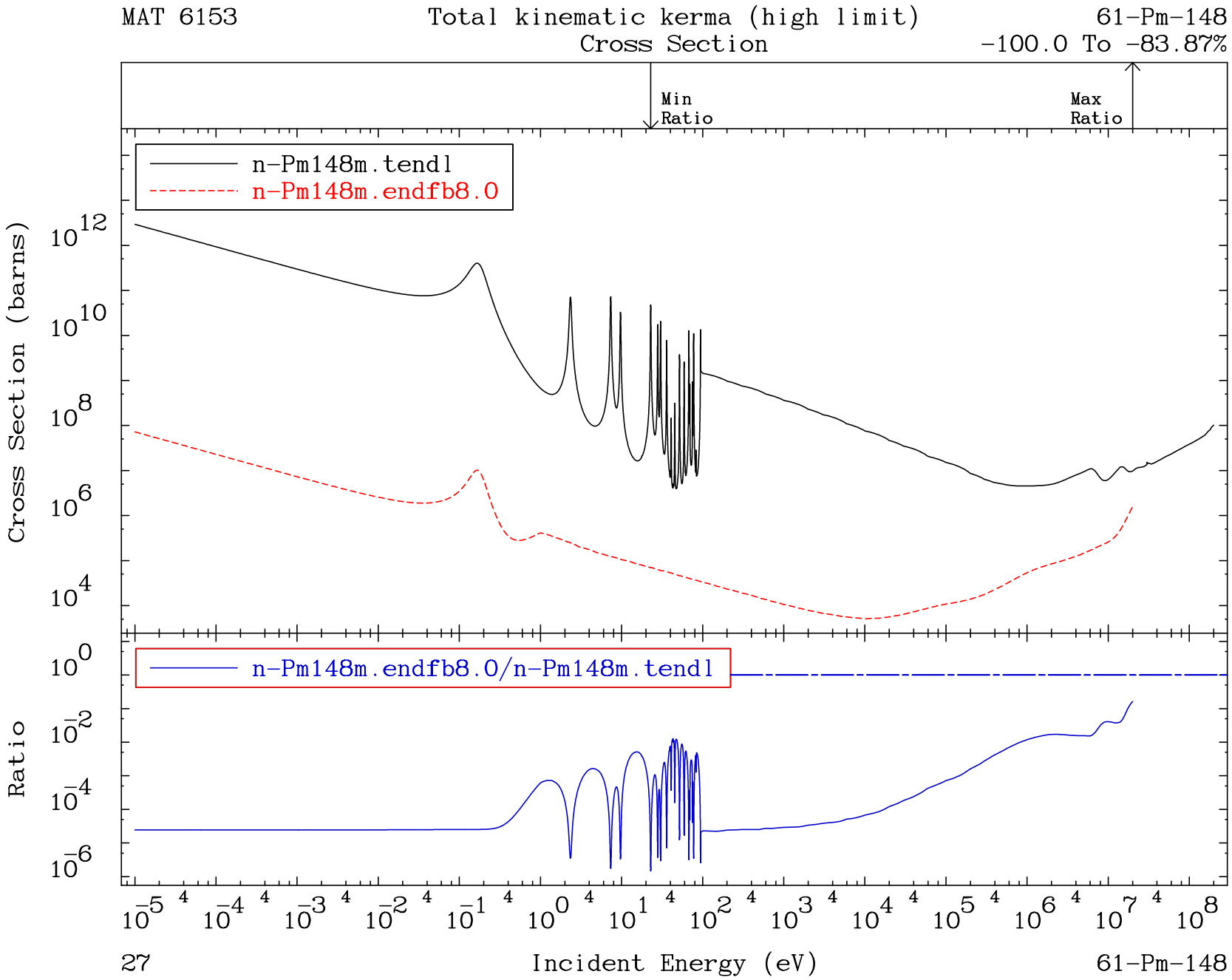

MAT 6153
Kerma non-elastic (all but mt2)
Cross Section
61-Pm-148
-94.49 To 9999. %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
22
61-Pm-148

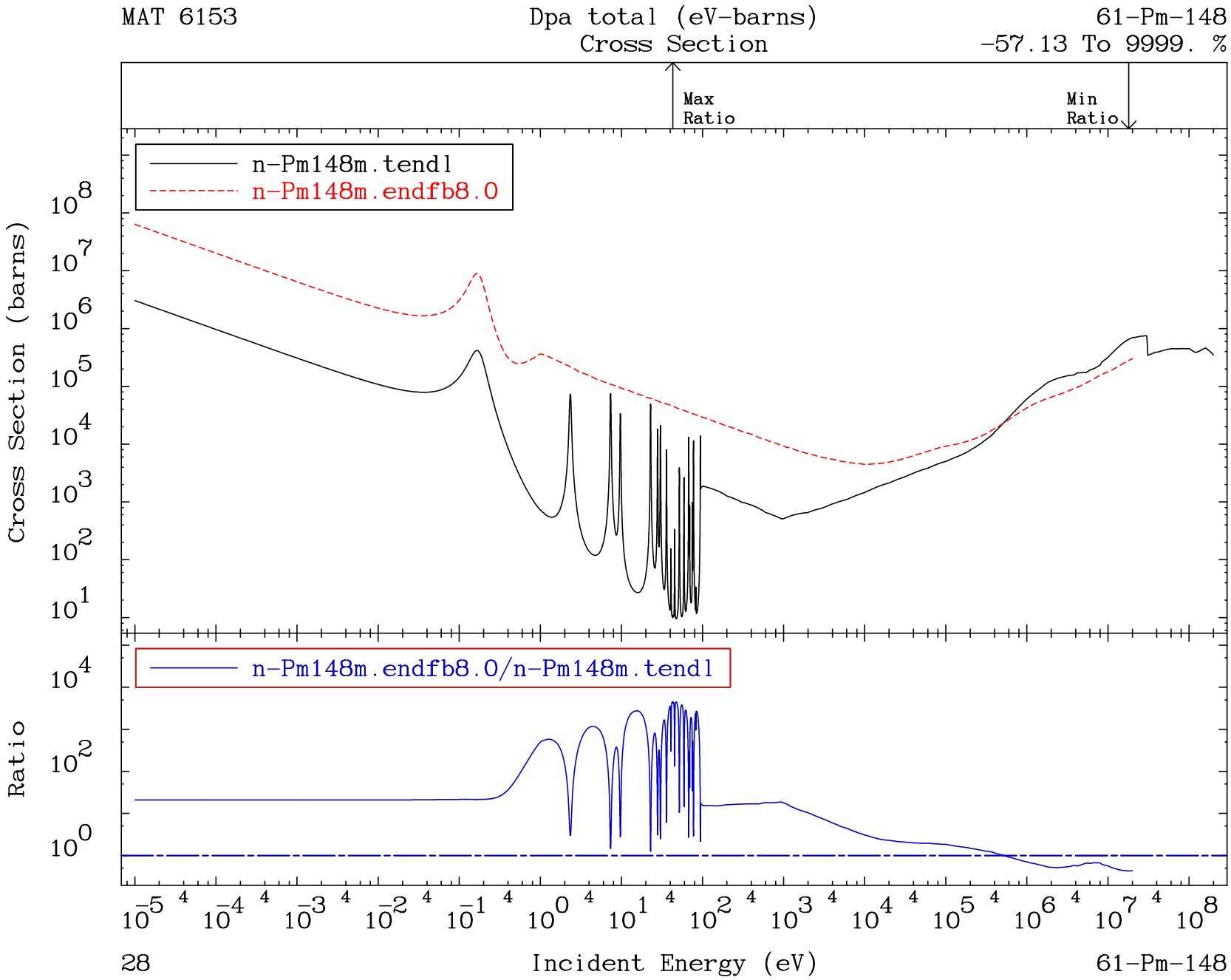

MAT 6153
Kerma inelastic (mt51-91)
Cross Section
61-Pm-148
-9999. To 570.0 %
Min Ratio
Max Ratio
n-Pm148m.tendl Threshold 93.939 eV
n-Pm148m.endfb8.0
Cross Section (Mega-barns)
14
12
10
8
6
4
2
0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
0.0
-1.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
23
Incident Energy (eV)
61-Pm-148

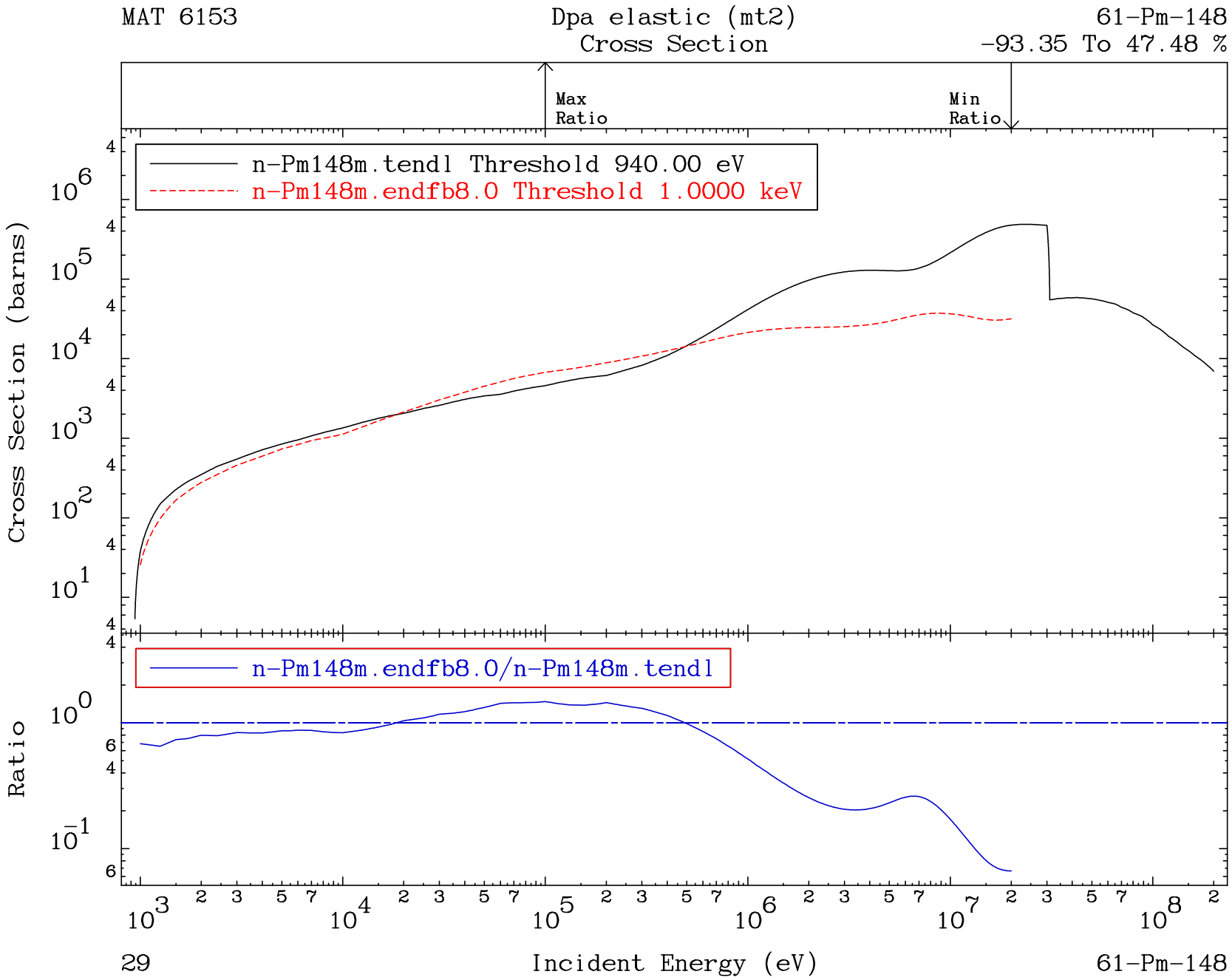

MAT 6153
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
61-Pm-148
-9999. To 570.0 %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
0.0
-1.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
24
Incident Energy (eV)
61-Pm-148

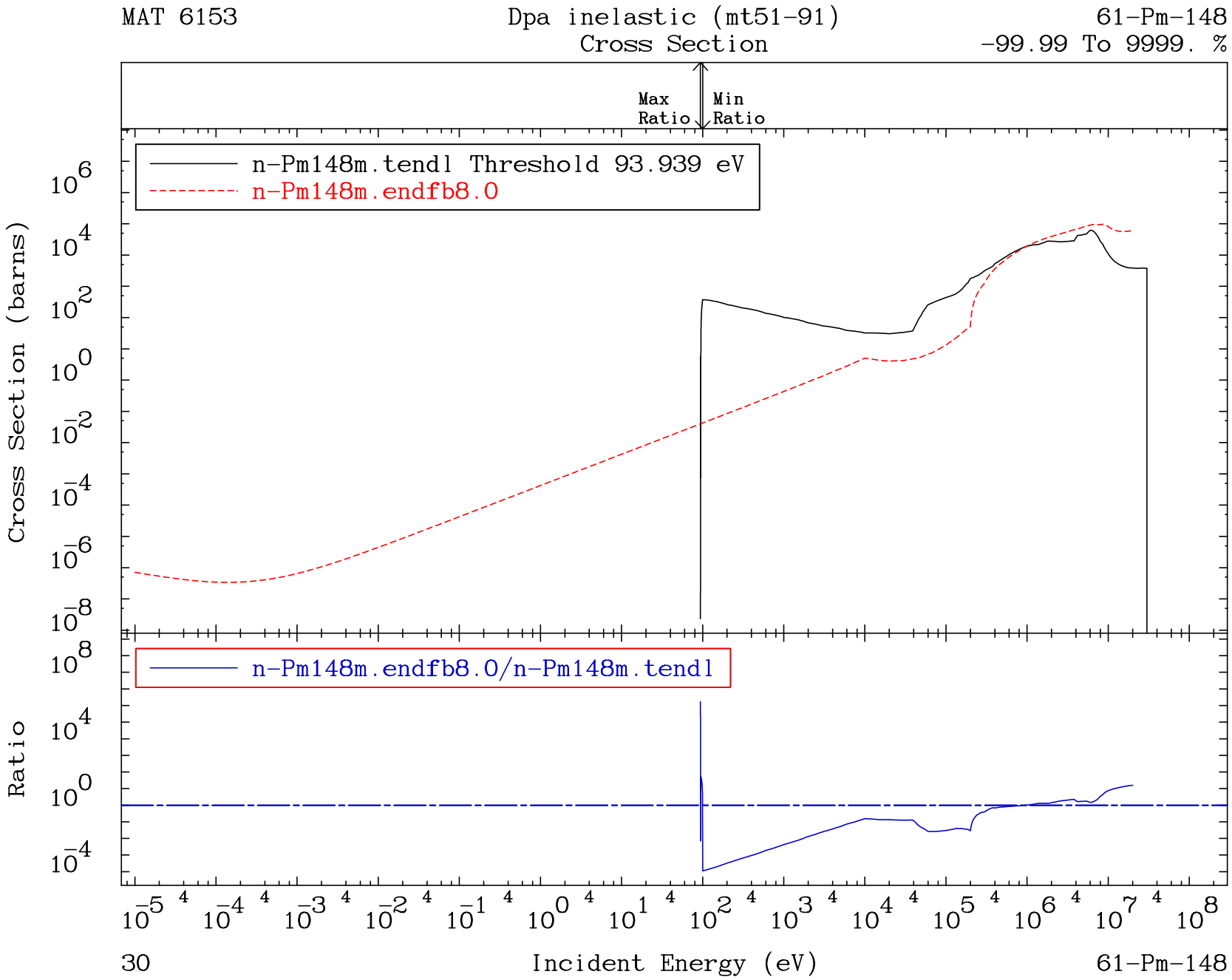

MAT 6153
Kerma capture (mt102)
Cross Section
61-Pm-148
-94.49 To 9999. %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
Ratio
n-Pm148m.endfb8.0/n-Pm148m.tendl
Incident Energy (eV)
25
61-Pm-148

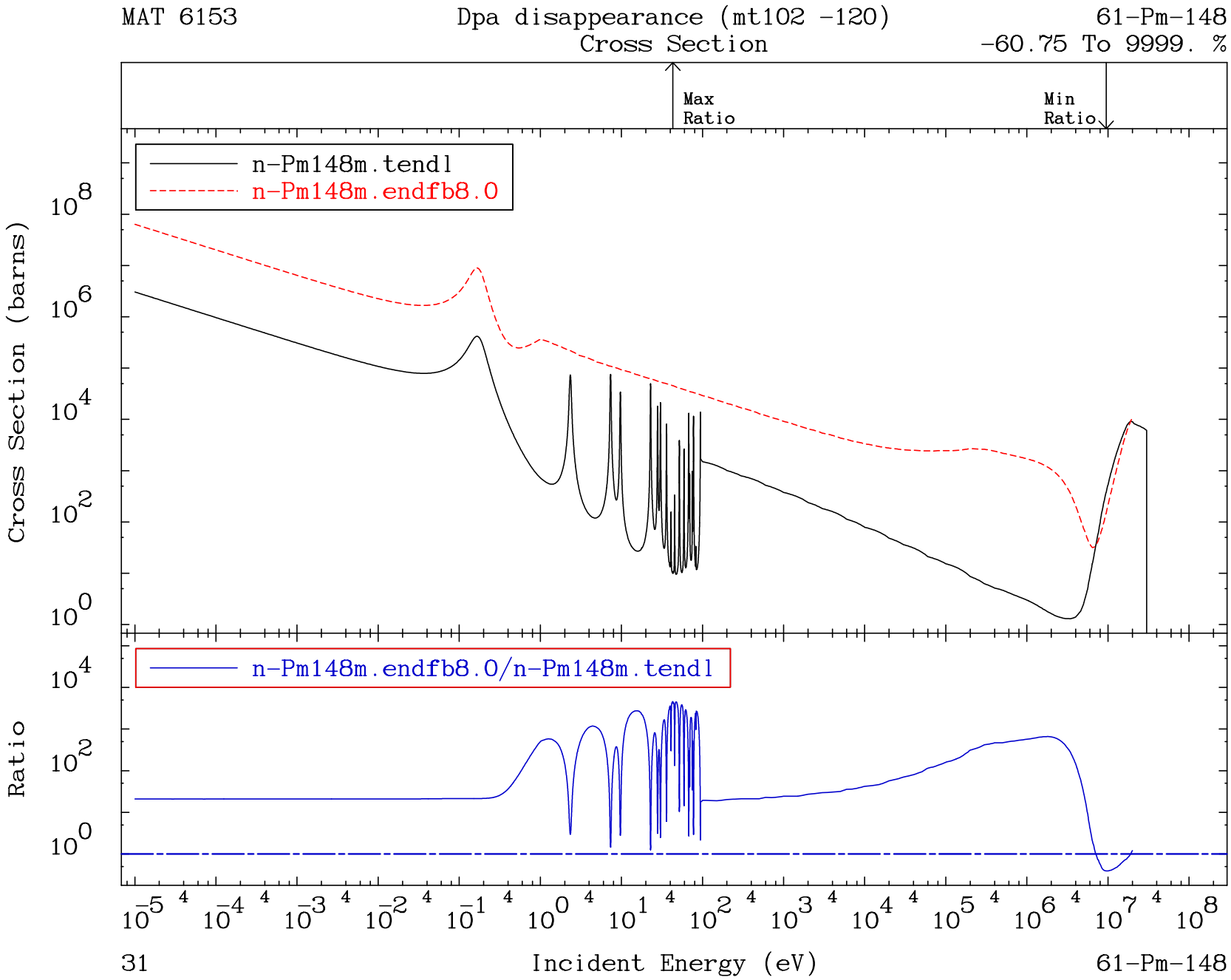

MAT 6153
Total photon (eV-barns)
Cross Section
61-Pm-148
-94.49 To 9999. %
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (10^{12} barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^{2}
10^{0}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
26
Incident Energy (eV)
61-Pm-148


MAT 6153
Total kinematic kerma (high limit)
Cross Section
61-Pm-148
-100.0 To -83.87%
Min Ratio
Max Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
10^12
10^10
10^8
10^6
10^4
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
10^0
10^-2
10^-4
10^-6
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
27
Incident Energy (eV)
61-Pm-148


MAT 6153
Dpa total (eV-barns)
Cross Section
61-Pm-148
-57.13 To 9999. %
Max Ratio
Min Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
28
61-Pm-148


MAT 6153
Dpa elastic (mt2)
Cross Section
61-Pm-148
-93.35 To 47.48 %
Max
Ratio
Min
Ratio
n-Pm148m.tendl Threshold 940.00 eV
n-Pm148m.endfb8.0 Threshold 1.0000 keV
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
29
61-Pm-148


MAT 6153
Dpa inelastic (mt51-91)
Cross Section
61-Pm-148
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Pm148m.tendl Threshold 93.939 eV
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
30
61-Pm-148


MAT 6153
Dpa disappearance (mt102 -120)
Cross Section
61-Pm-148
-60.75 To 9999. %
Max Ratio
Min Ratio
n-Pm148m.tendl
n-Pm148m.endfb8.0
Cross Section (barns)
n-Pm148m.endfb8.0/n-Pm148m.tendl
Ratio
Incident Energy (eV)
31
61-Pm-148