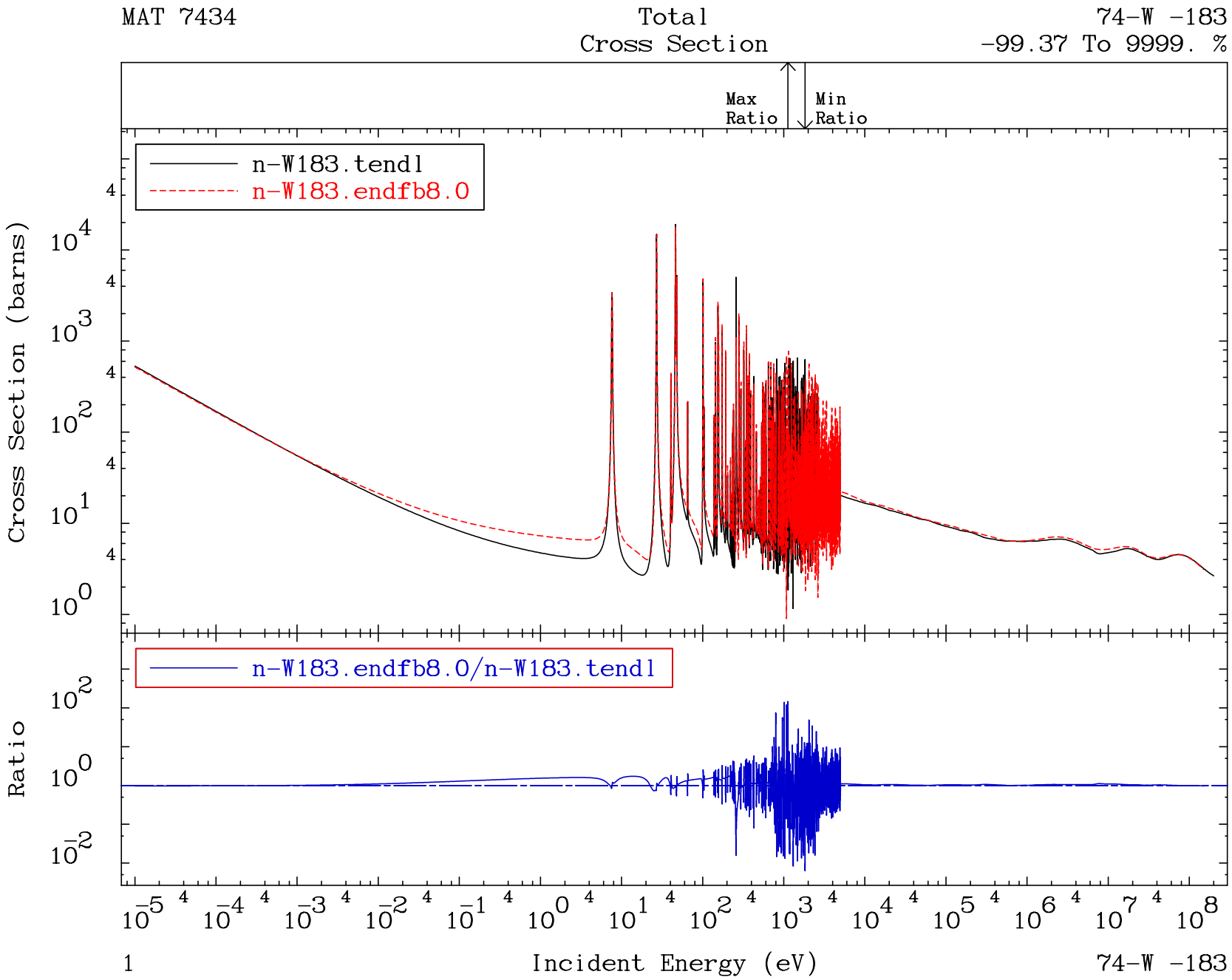
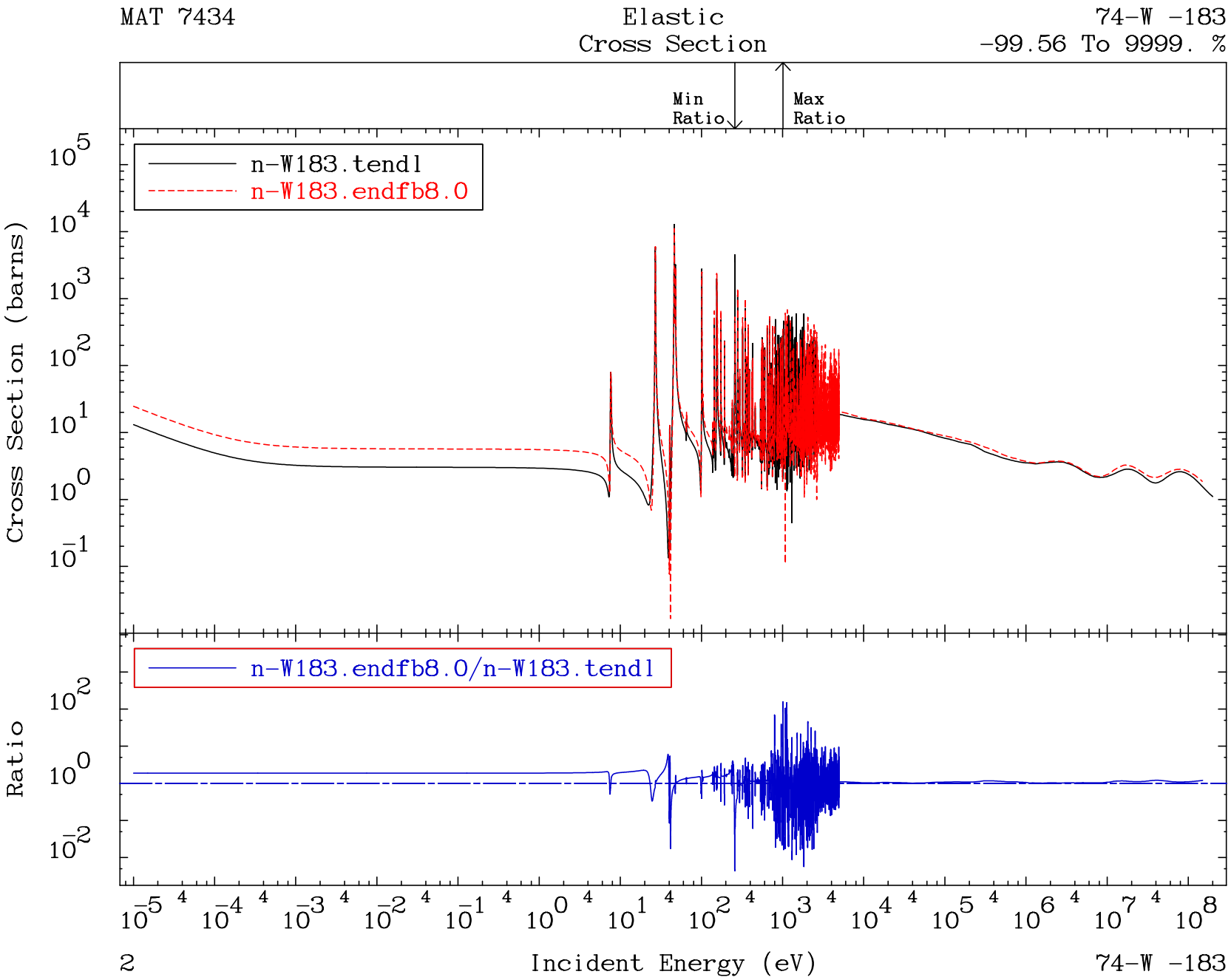
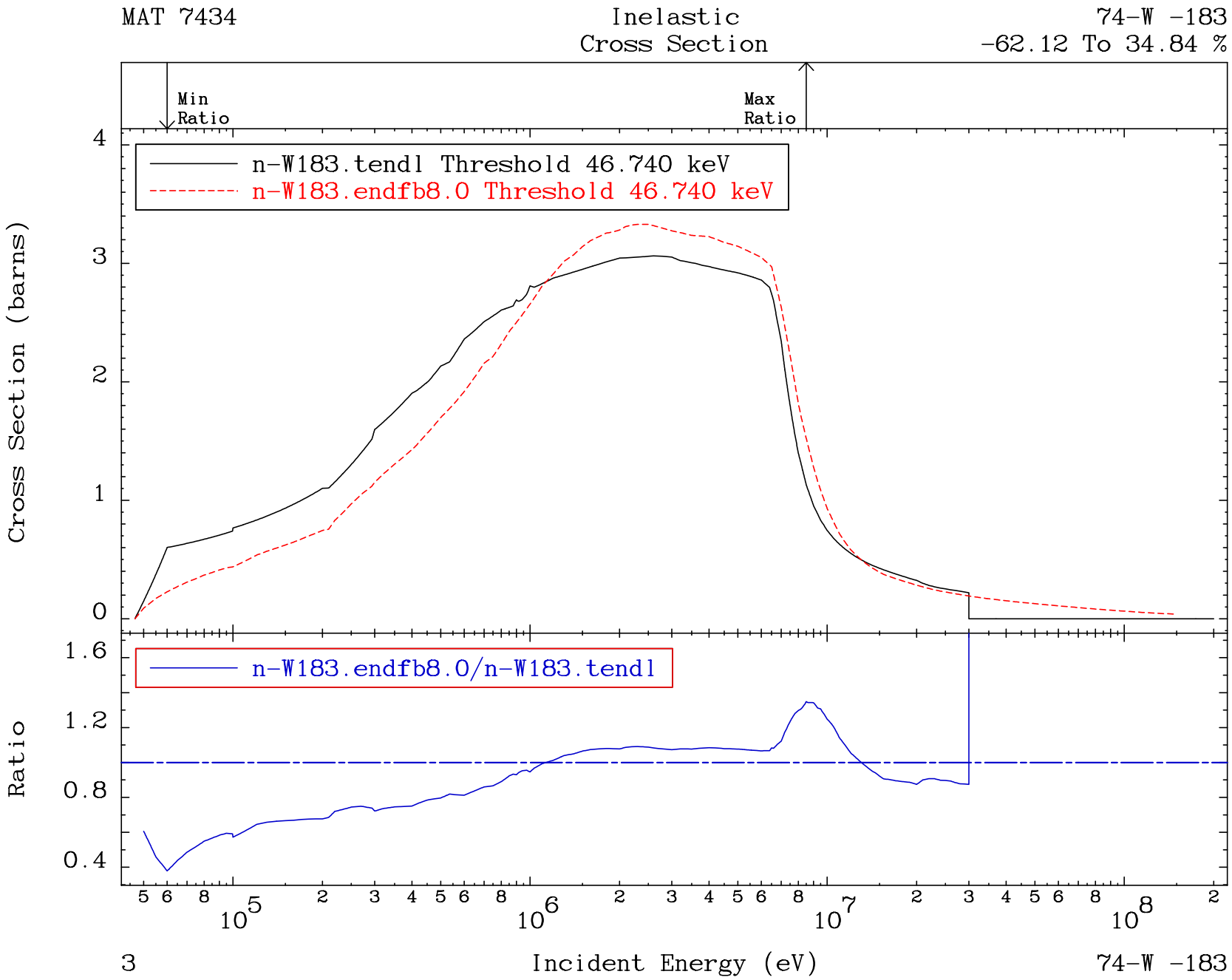
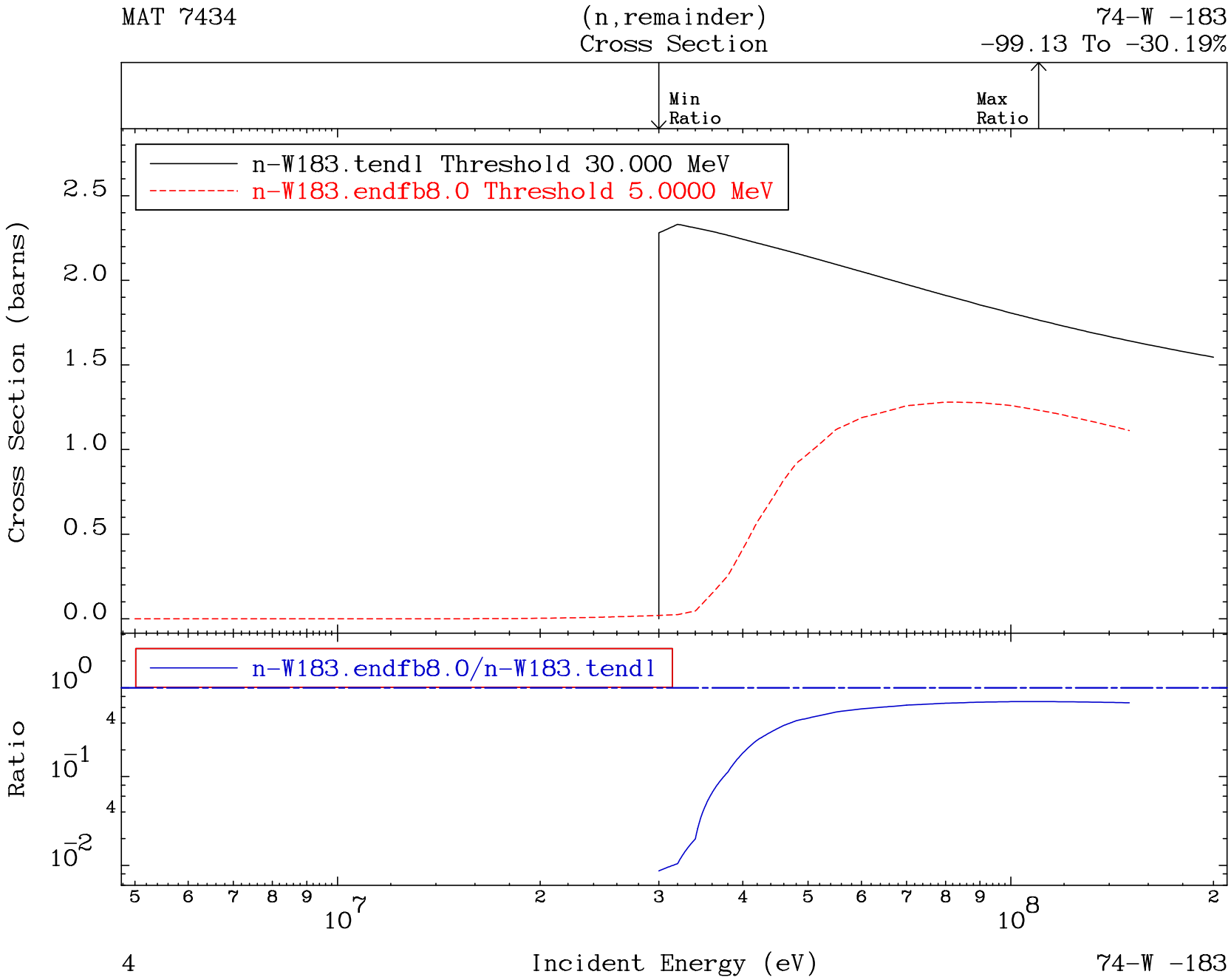
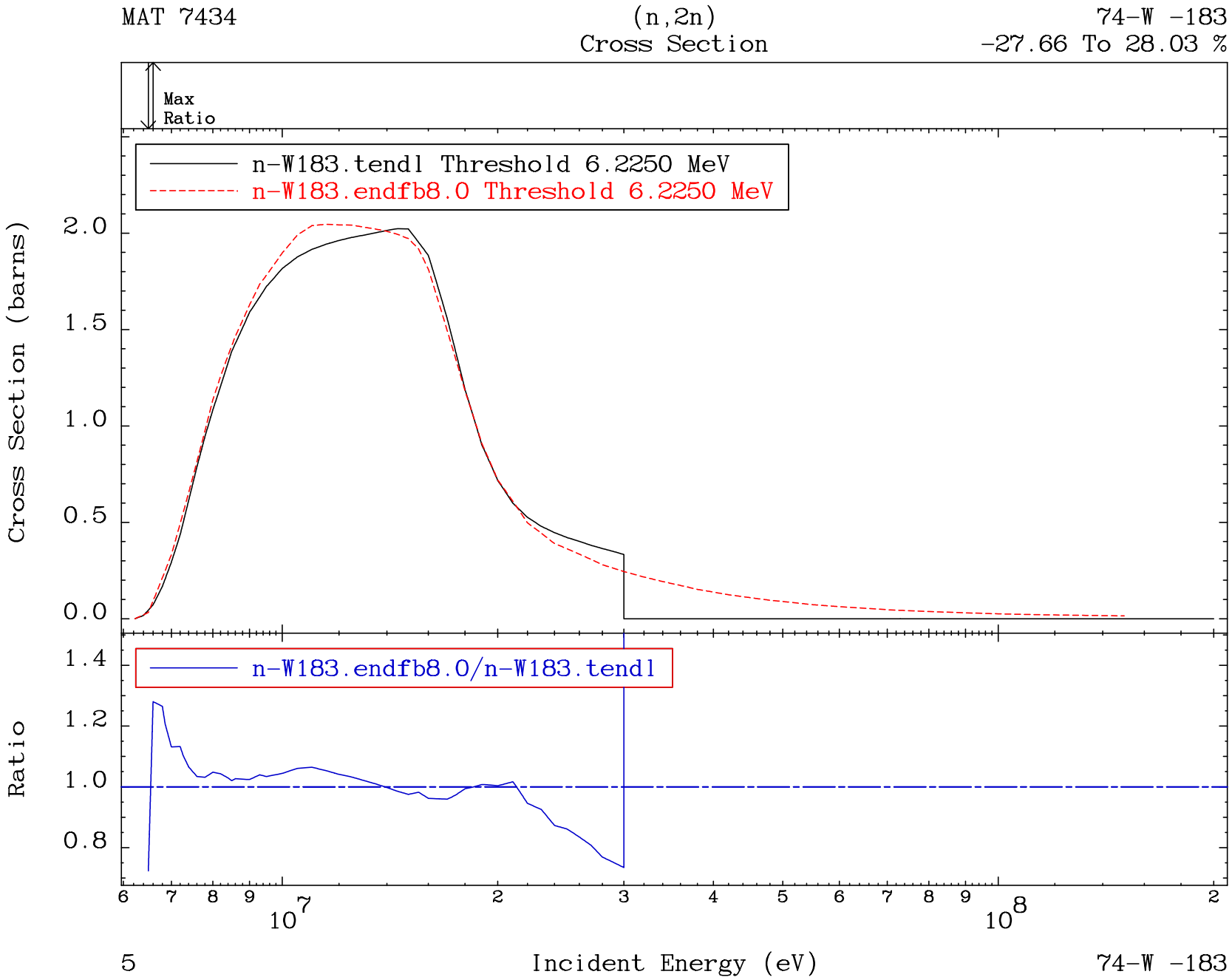
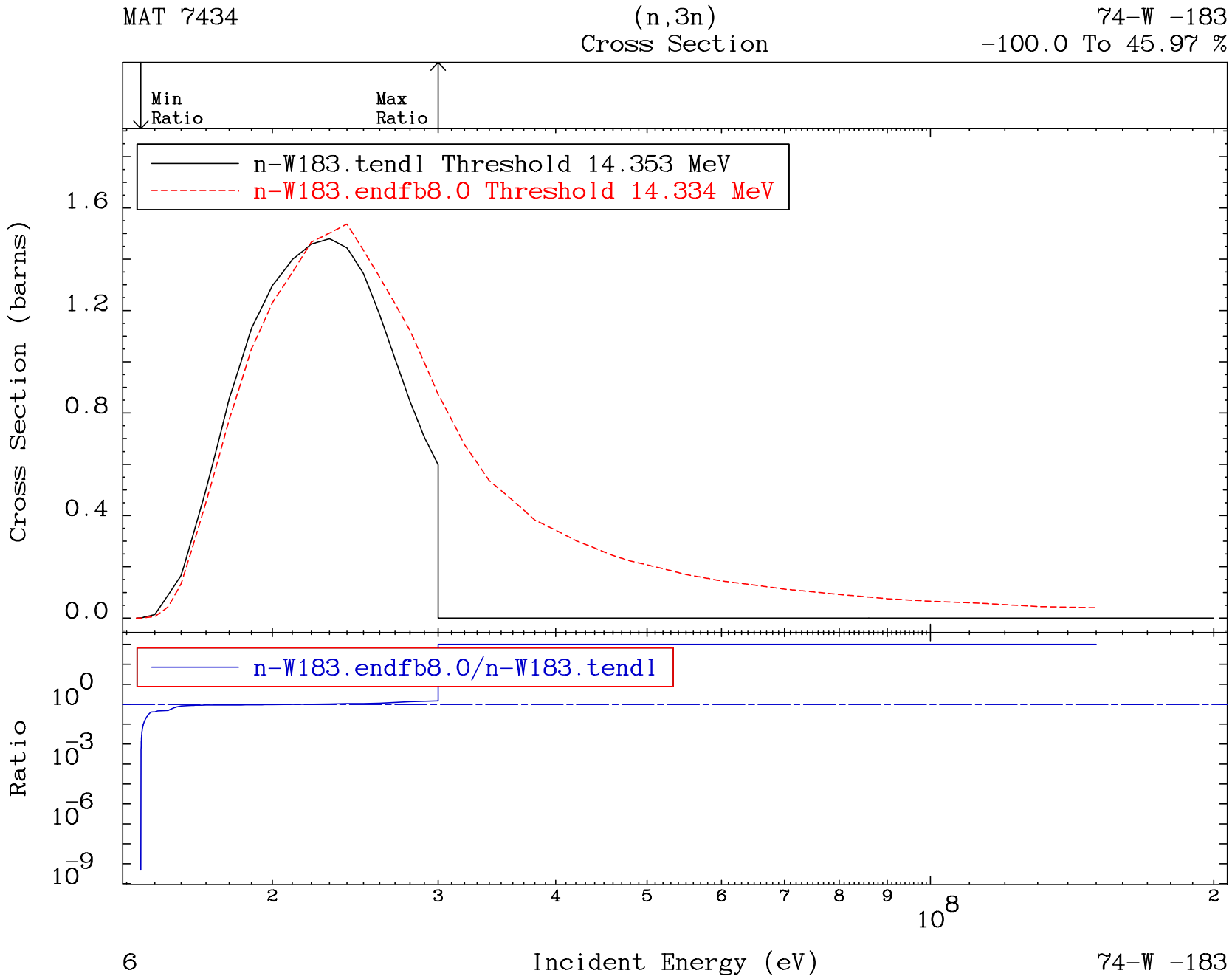

MAT 7434
Total
Cross Section
74-W -183
-99.37 To 9999. %
Max
Ratio
Min
Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
1
74-W -183

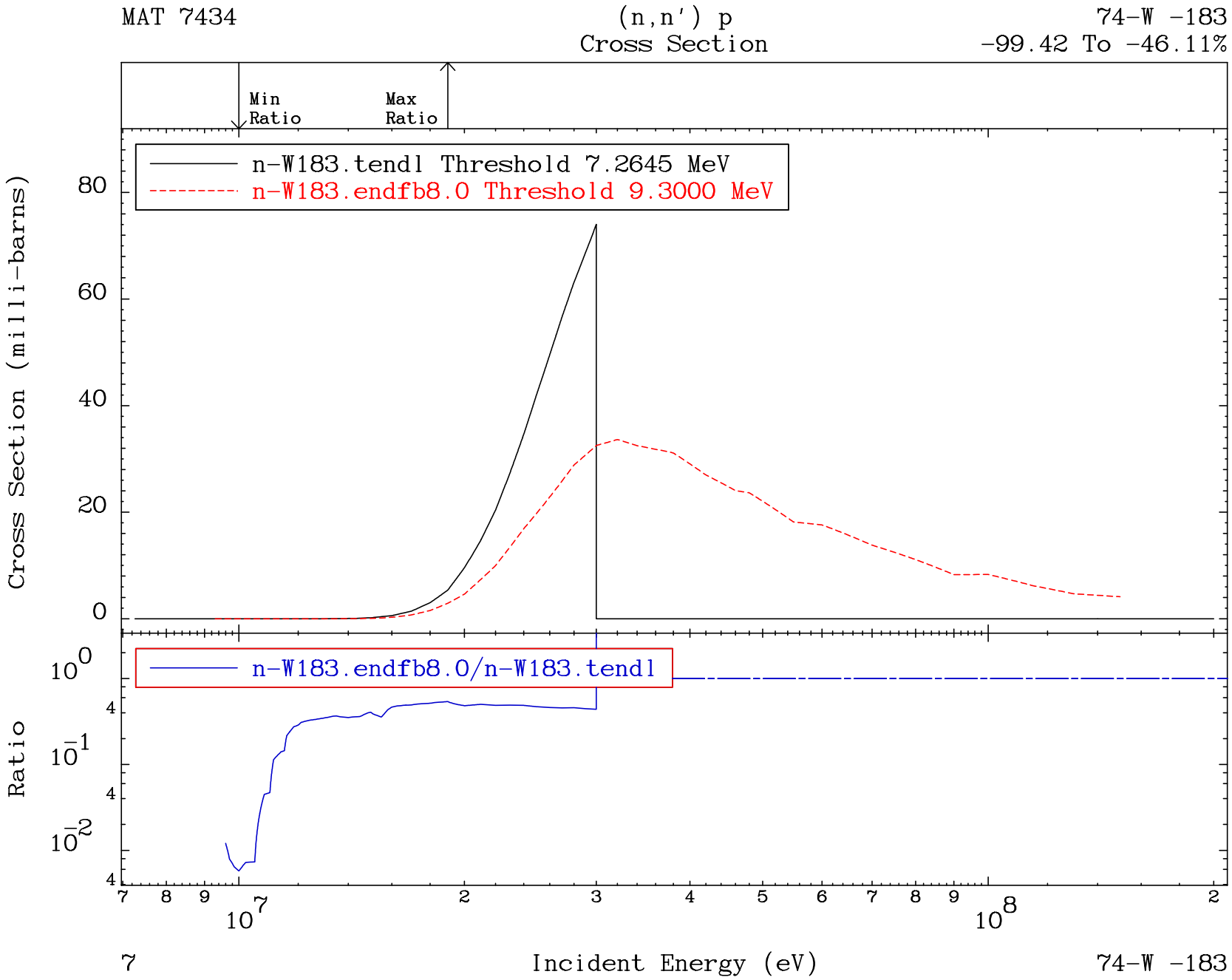

MAT 7434
Elastic
Cross Section
74-W -183
-99.56 To 9999. %
Min
Ratio
Max
Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
2
74-W -183

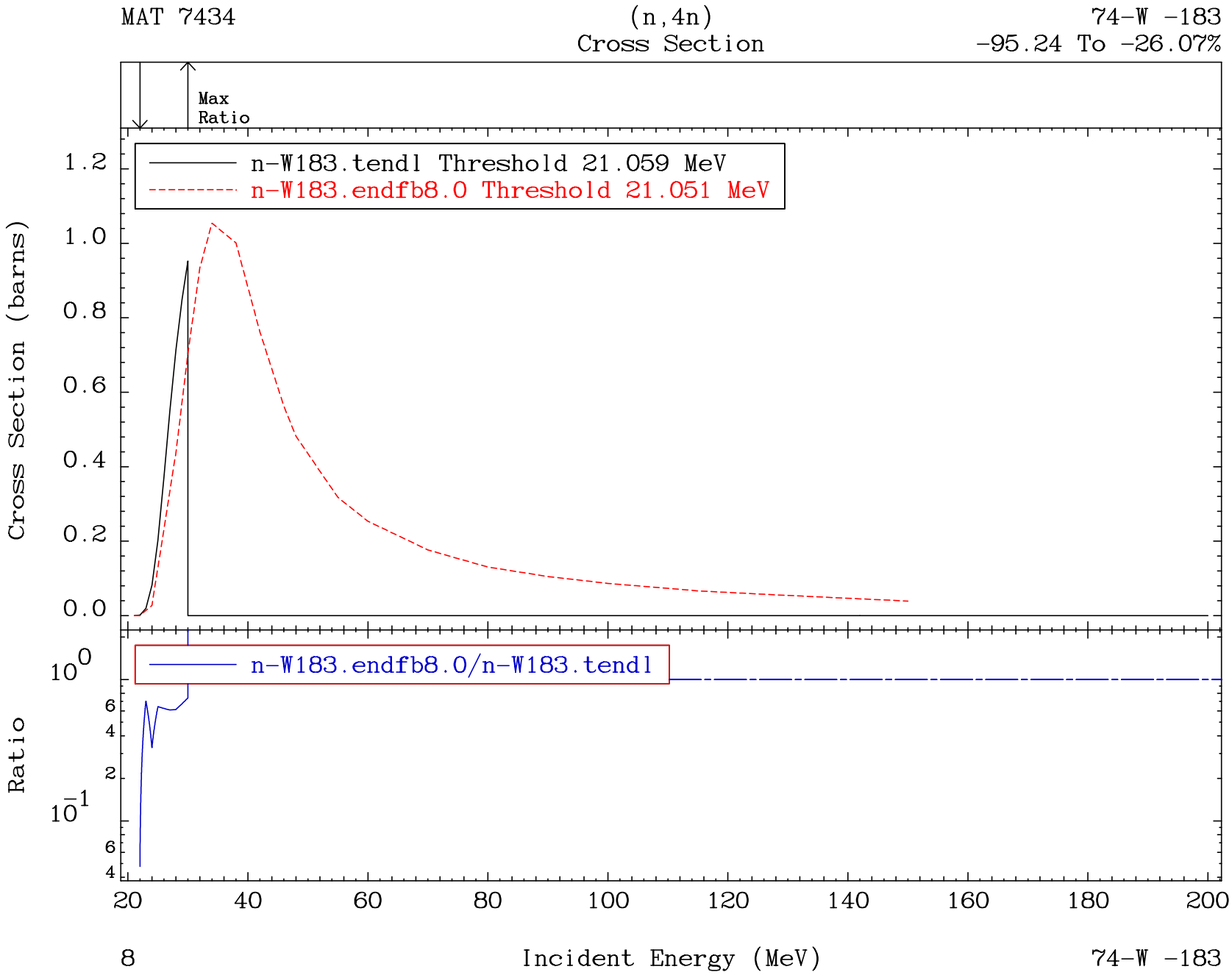

MAT 7434
Inelastic
Cross Section
74-W -183
-62.12 To 34.84 %
Min
Ratio
Max
Ratio
n-W183.tendl Threshold 46.740 keV
n-W183.endfb8.0 Threshold 46.740 keV
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
3
74-W -183

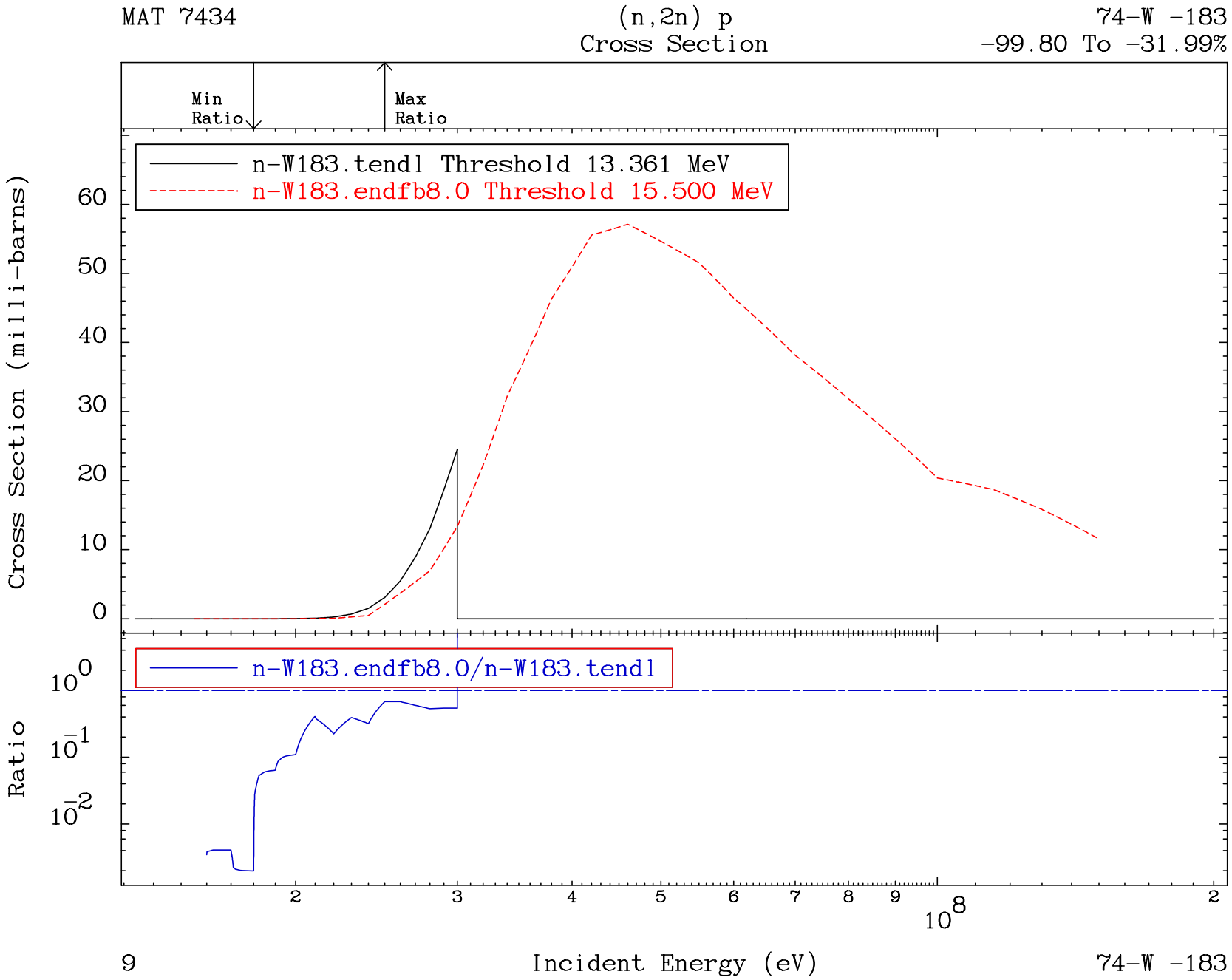

MAT 7434
(n,remainder)
Cross Section
74-W -183
-99.13 To -30.19%
Min
Ratio
Max
Ratio
n-W183.tendl Threshold 30.000 MeV
n-W183.endfb8.0 Threshold 5.0000 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-1
10^-2
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
74-W -183

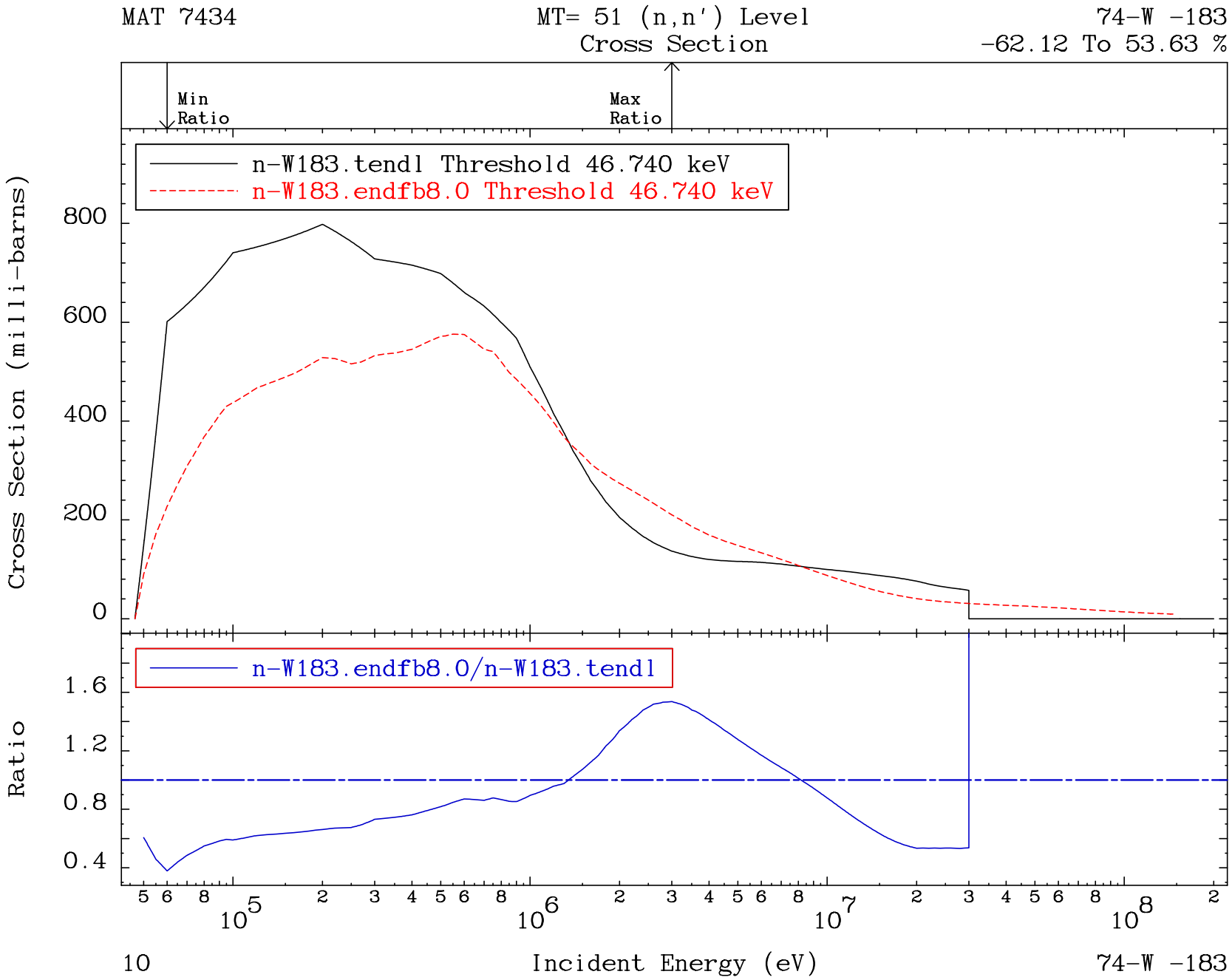

MAT 7434
(n,2n)
Cross Section
74-W -183
-27.66 To 28.03 %
Max
Ratio
n-W183.tendl Threshold 6.2250 MeV
n-W183.endfb8.0 Threshold 6.2250 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-W183.endfb8.0/n-W183.tendl
Ratio
1.4
1.2
1.0
0.8
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
74-W -183

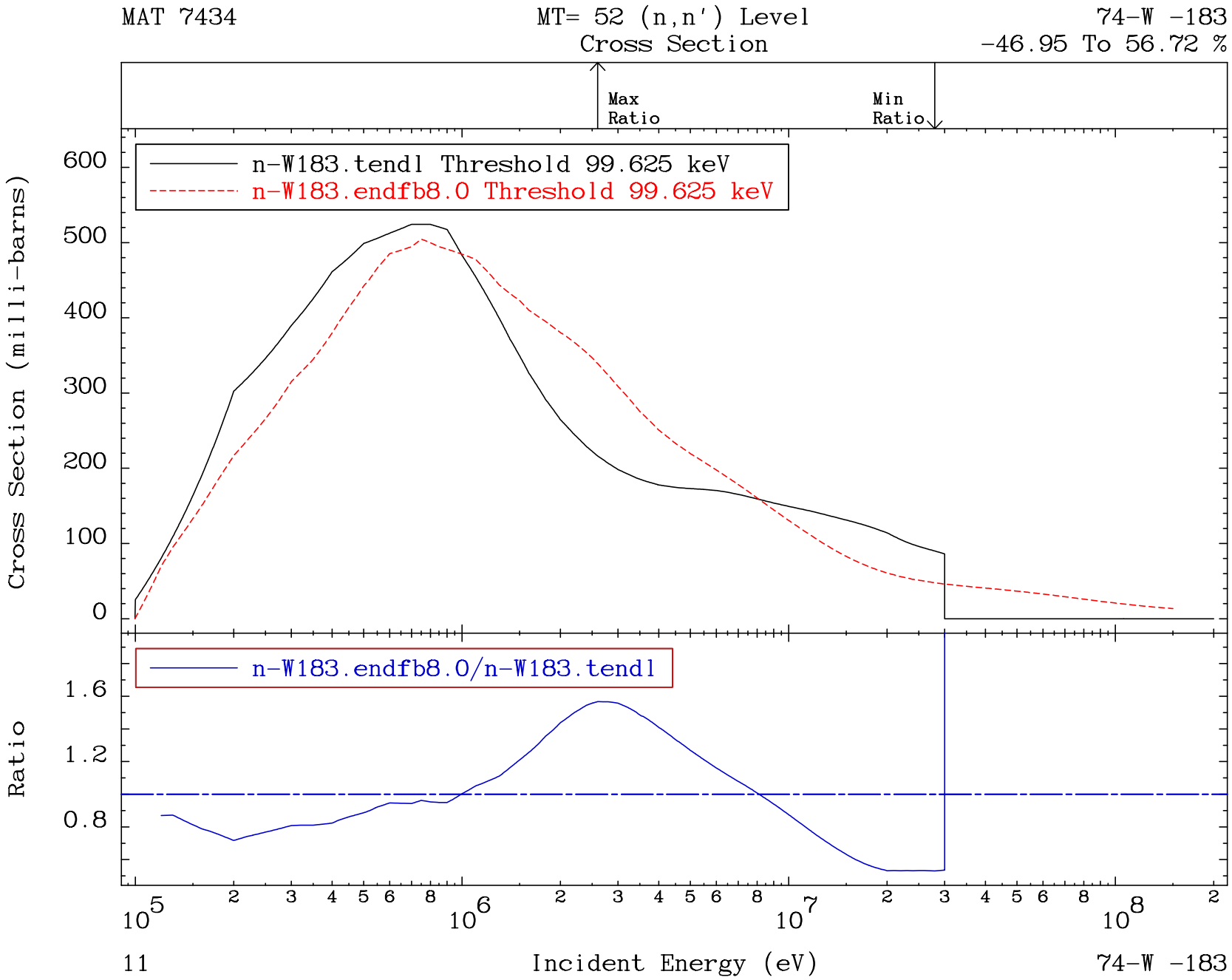

MAT 7434
(n,3n)
Cross Section
74-W -183
-100.0 To 45.97 %
Min Ratio
Max Ratio
n-W183.tendl Threshold 14.353 MeV
n-W183.endfb8.0 Threshold 14.334 MeV
Cross Section (barns)
1.6
1.2
0.8
0.4
0.0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-3
10^-6
10^-9
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
74-W -183

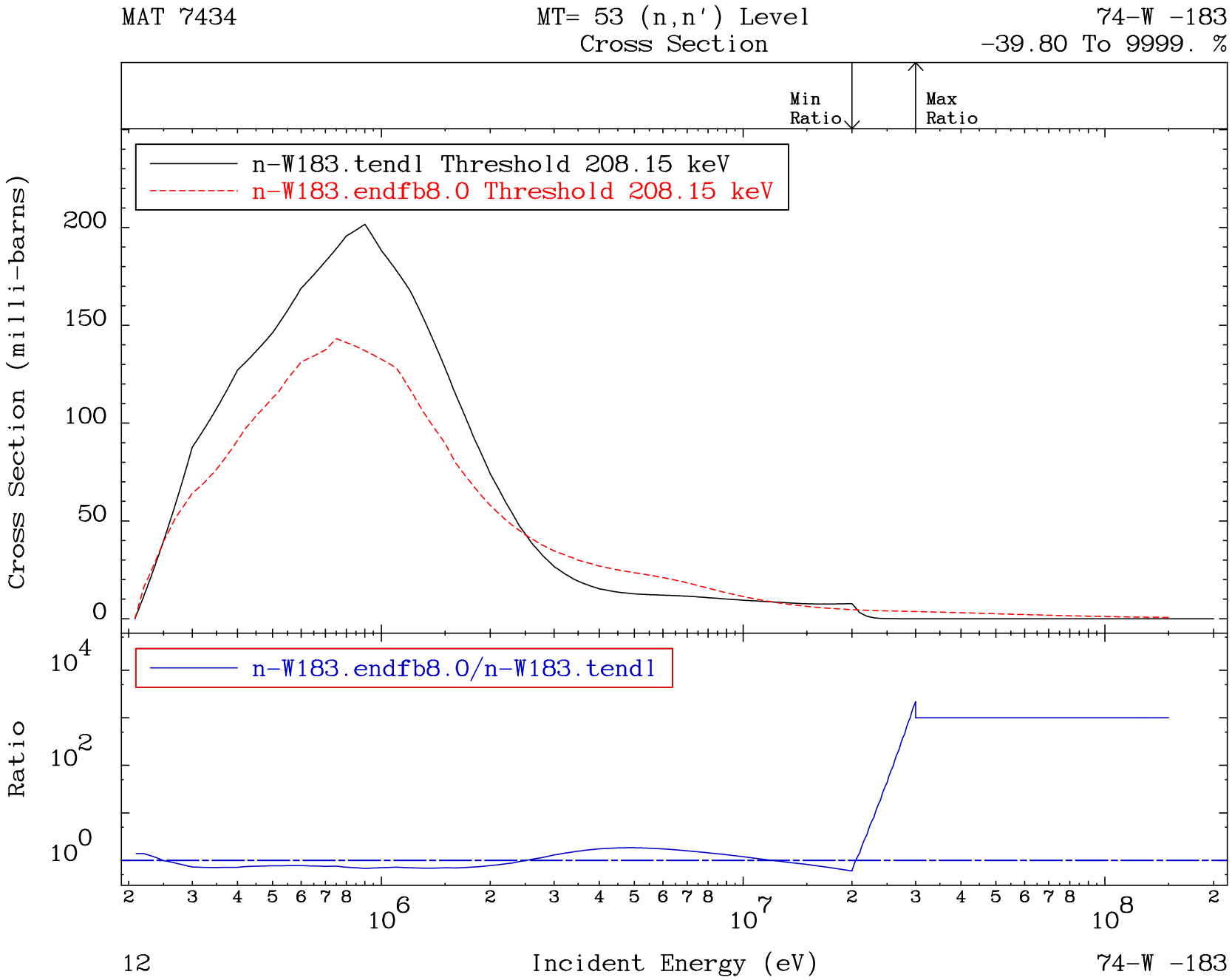

MAT 7434
(n,n') p
Cross Section
74-W -183
-99.42 To -46.11%
Min Ratio
Max Ratio
n-W183.tendl Threshold 7.2645 MeV
n-W183.endfb8.0 Threshold 9.3000 MeV
Cross Section (milli-barns)
0
20
40
60
80
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-1
10^-2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
74-W -183

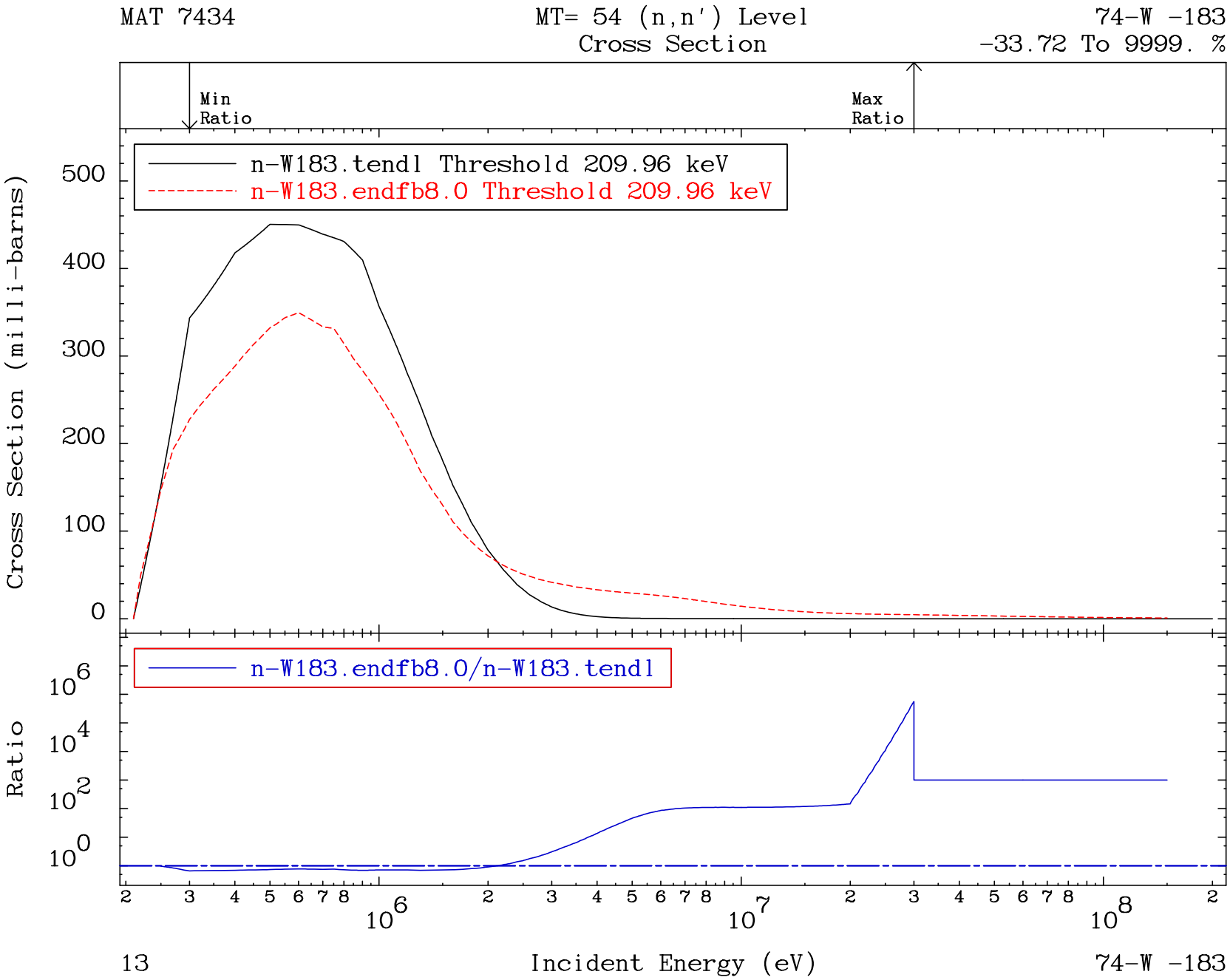

MAT 7434
(n,4n)
Cross Section
74-W -183
-95.24 To -26.07%
Max
Ratio
n-W183.tendl Threshold 21.059 MeV
n-W183.endfb8.0 Threshold 21.051 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
6
4
2
10^-1
6
4
20
40
60
80
100
120
140
160
180
200
8
Incident Energy (MeV)
74-W -183

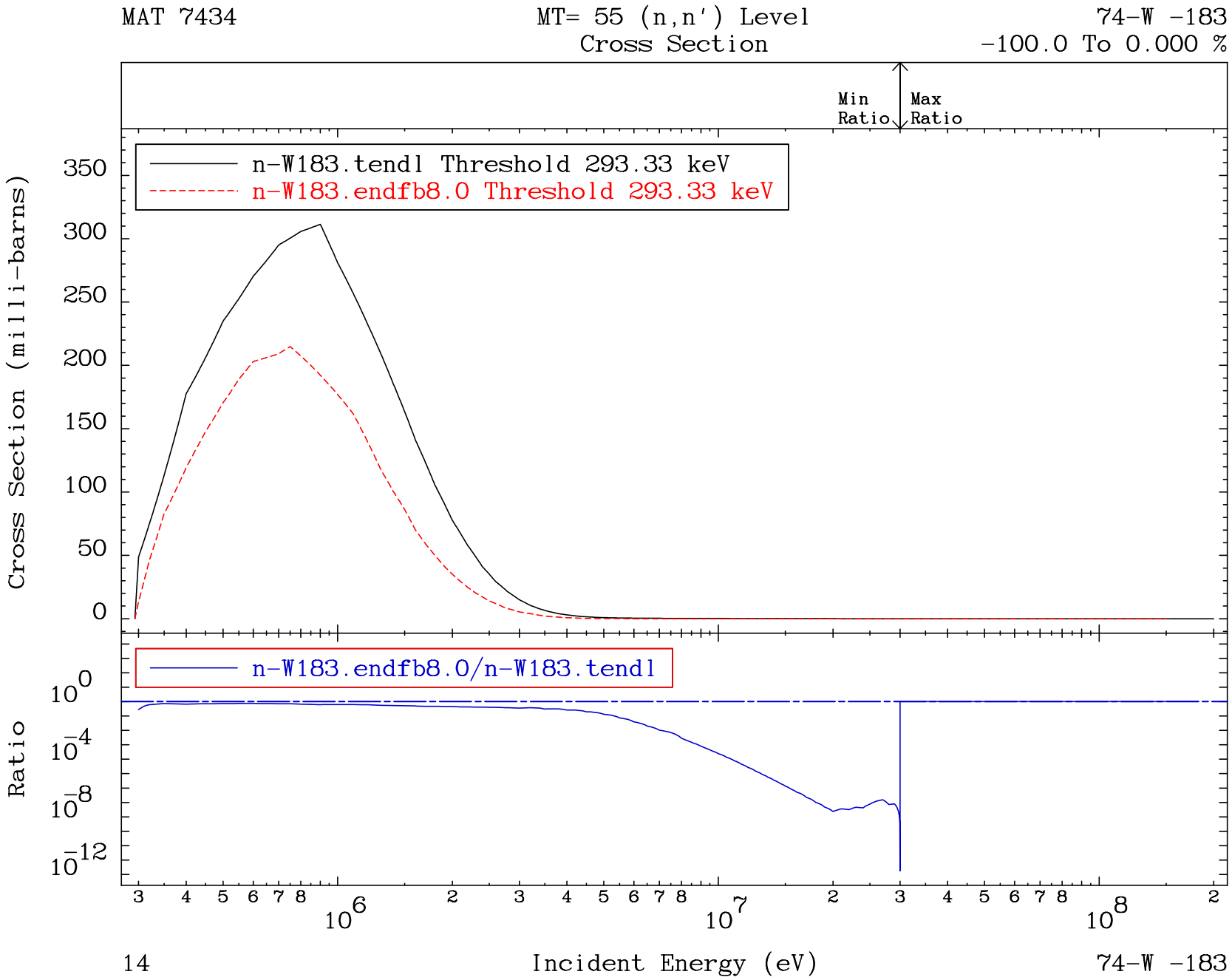

MAT 7434
(n,2n) p
Cross Section
74-W -183
-99.80 To -31.99%
Min Ratio
Max Ratio
n-W183.tendl Threshold 13.361 MeV
n-W183.endfb8.0 Threshold 15.500 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-1
10^-2
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
74-W -183

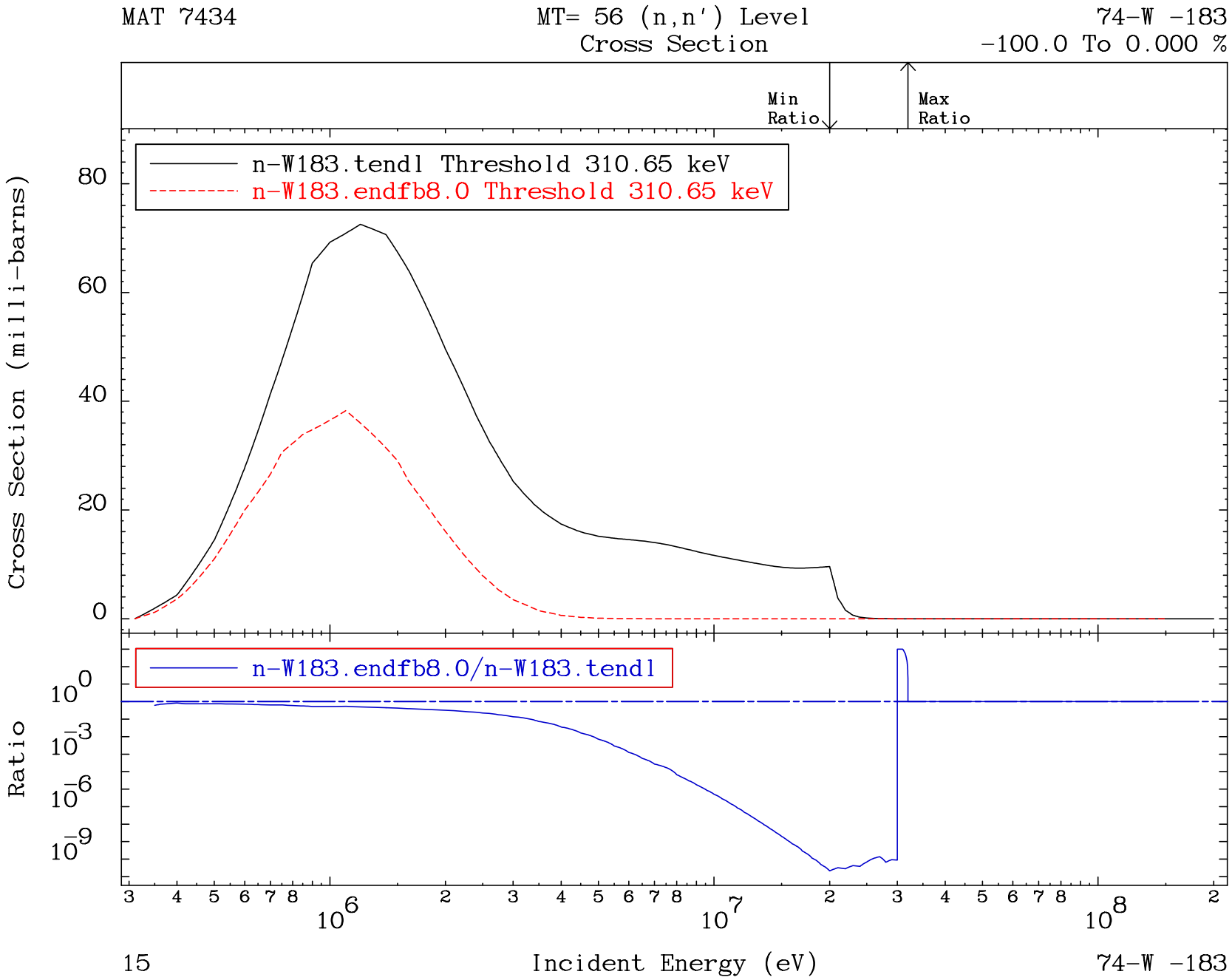

MAT 7434
MT= 51 (n,n') Level
Cross Section
74-W -183
-62.12 To 53.63 %
Min
Ratio
Max
Ratio
n-W183.tendl Threshold 46.740 keV
n-W183.endfb8.0 Threshold 46.740 keV
Cross Section (milli-barns)
800
600
400
200
0
n-W183.endfb8.0/n-W183.tendl
Ratio
1.6
1.2
0.8
0.4
5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
10
Incident Energy (eV)
74-W -183

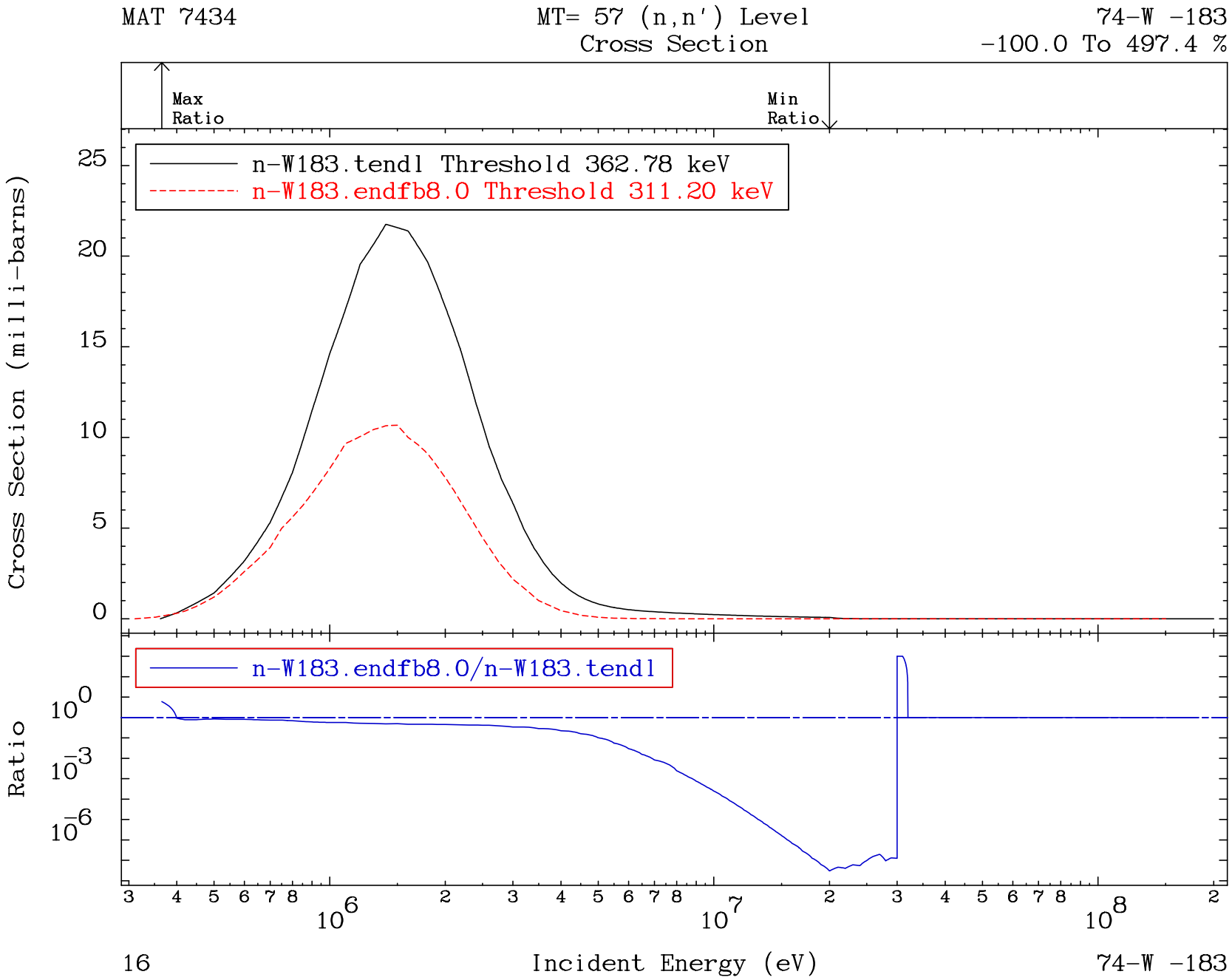

MAT 7434
MT= 52 (n,n') Level
Cross Section
74-W -183
-46.95 To 56.72 %
Max
Ratio
Min
Ratio
n-W183.tendl Threshold 99.625 keV
n-W183.endfb8.0 Threshold 99.625 keV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-W183.endfb8.0/n-W183.tendl
Ratio
1.6
1.2
0.8
10^5
10^6
10^7
10^8
11
Incident Energy (eV)
74-W -183

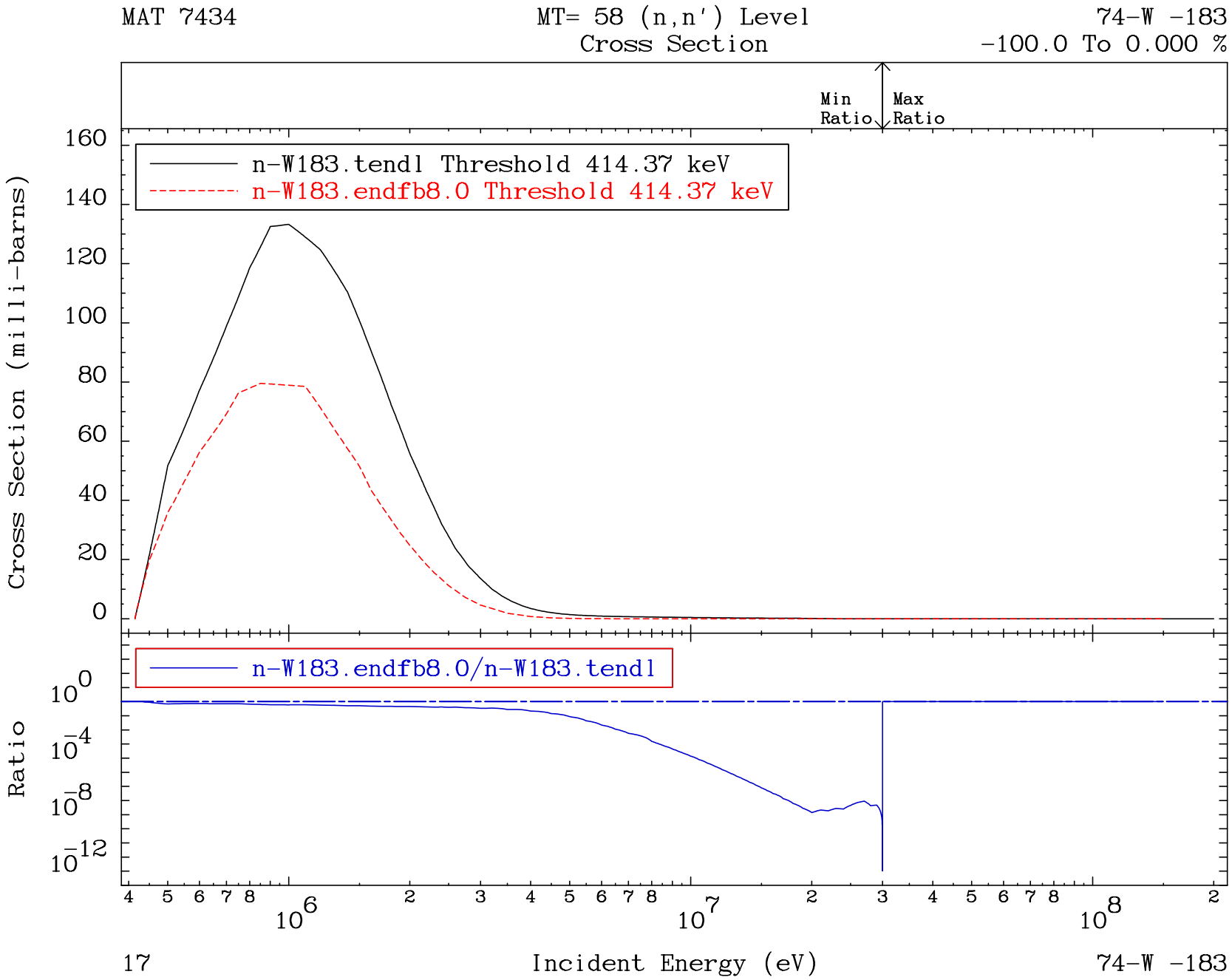

MAT 7434
MT= 53 (n,n') Level
Cross Section
74-W -183
-39.80 To 9999. %
Min
Ratio
Max
Ratio
n-W183.tendl Threshold 208.15 keV
n-W183.endfb8.0 Threshold 208.15 keV
Cross Section (milli-barns)
200
150
100
50
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^4
10^2
10^0
2 3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
74-W -183

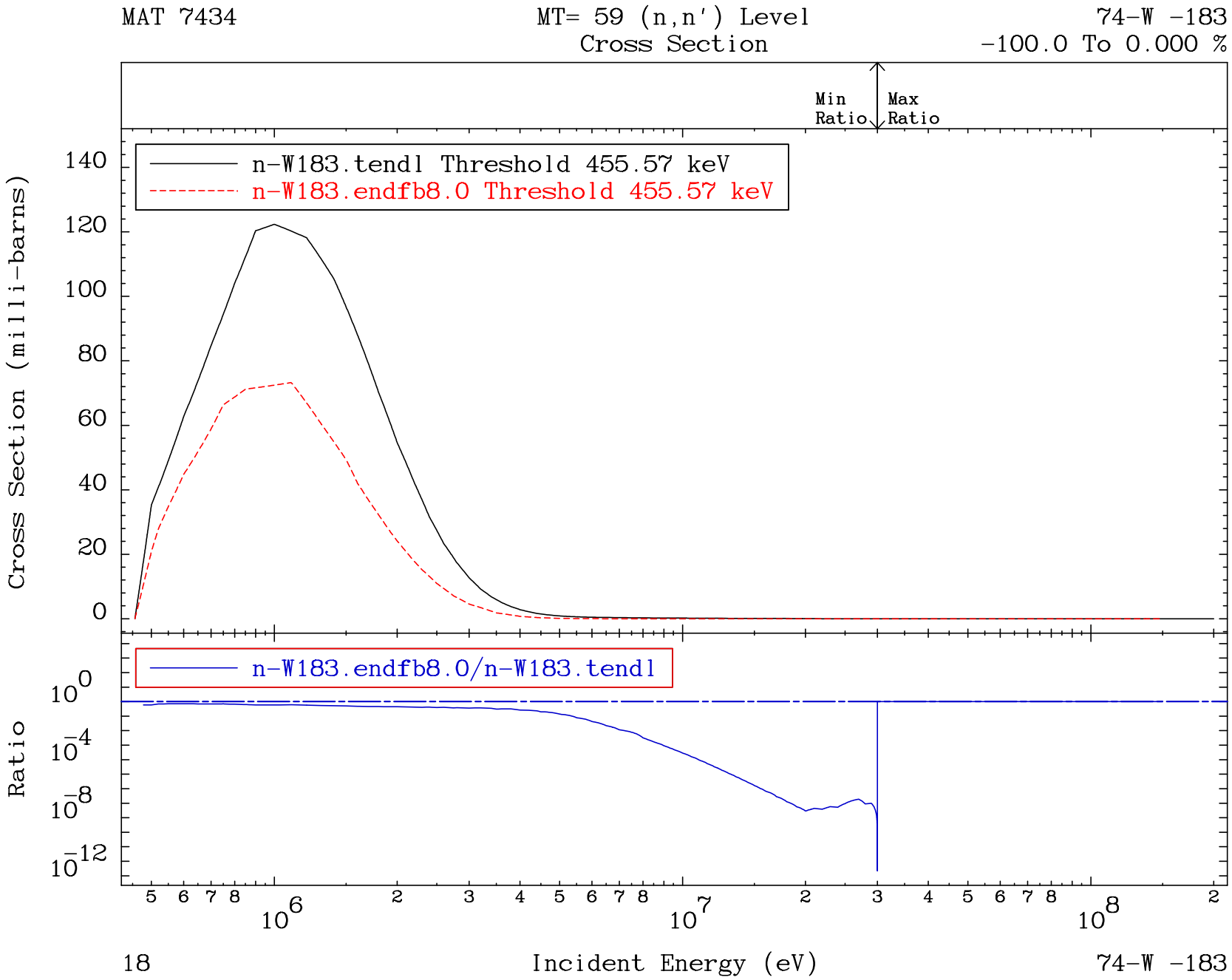

MAT 7434
MT= 54 (n,n') Level
Cross Section
74-W -183
-33.72 To 9999. %
Min
Ratio
Max
Ratio
n-W183.tendl Threshold 209.96 keV
n-W183.endfb8.0 Threshold 209.96 keV
Cross Section (milli-barns)
500
400
300
200
100
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
74-W -183

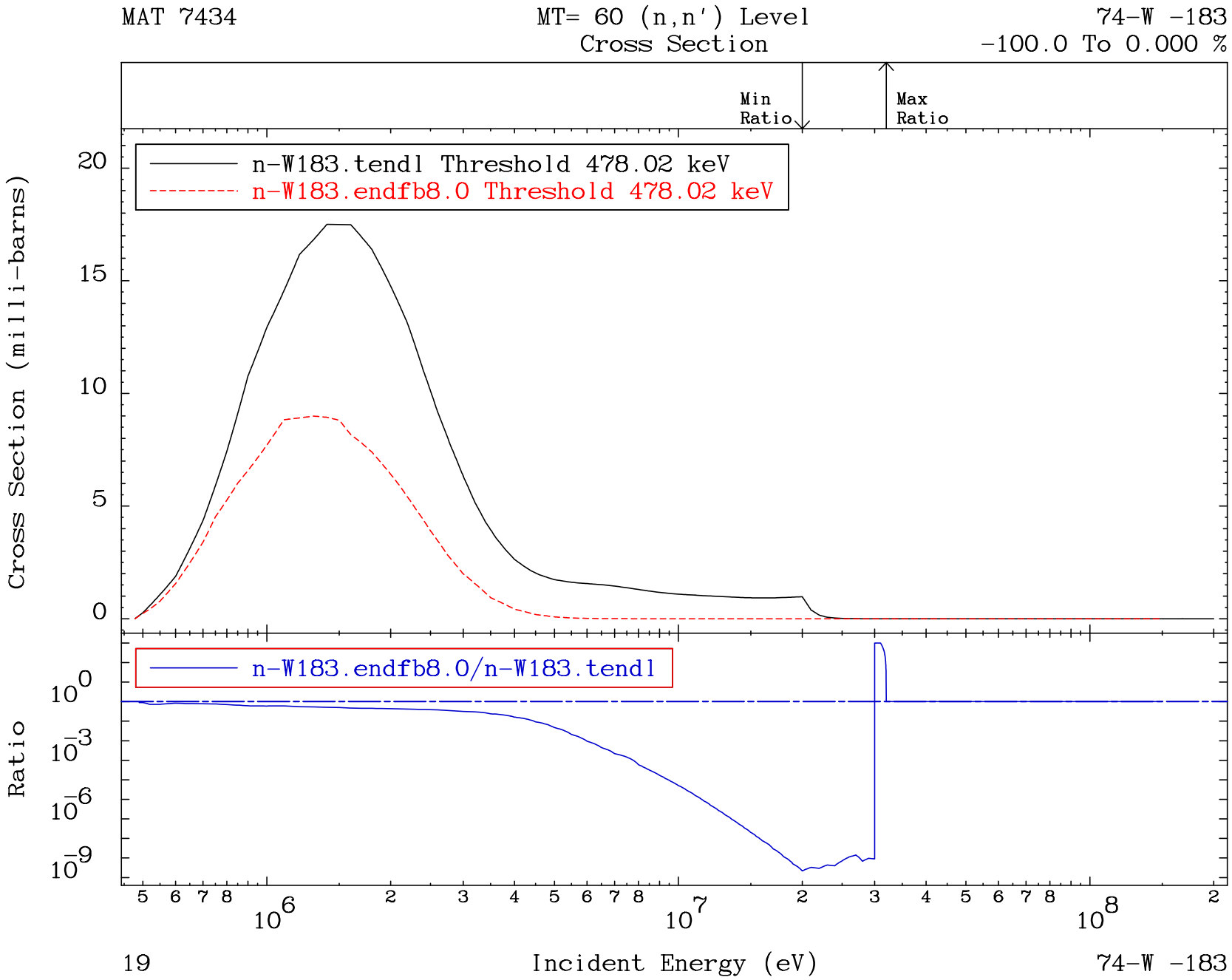

MAT 7434
MT= 55 (n,n') Level
Cross Section
74-W -183
-100.0 To 0.000 %
Min Ratio
Max Ratio
n-W183.tendl Threshold 293.33 keV
n-W183.endfb8.0 Threshold 293.33 keV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-4
10^-8
10^-12
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
14
Incident Energy (eV)
74-W -183

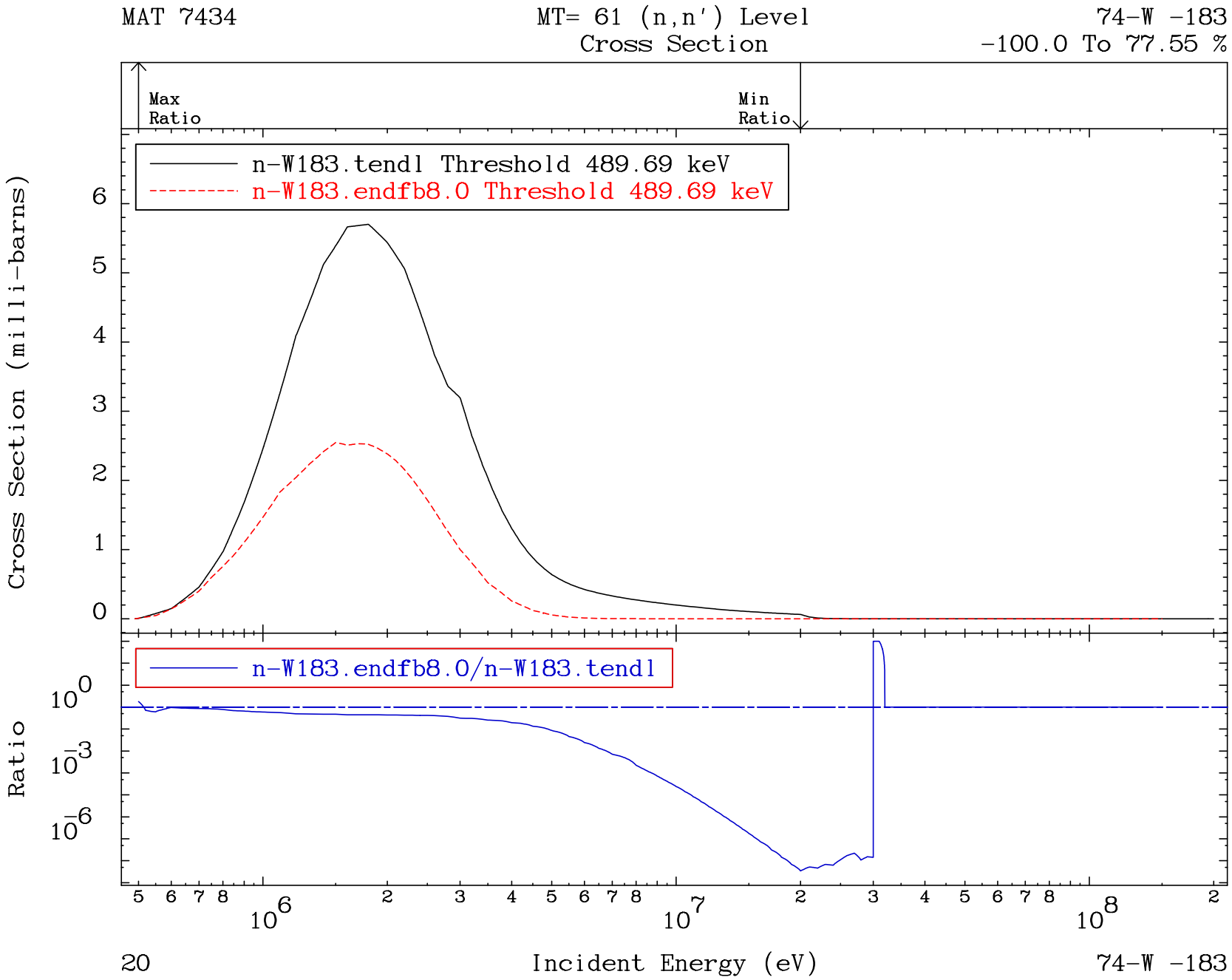

MAT 7434
MT= 56 (n,n') Level
Cross Section
74-W -183
-100.0 To 0.000 %
Min
Ratio
Max
Ratio
n-W183.tendl Threshold 310.65 keV
n-W183.endfb8.0 Threshold 310.65 keV
Cross Section (milli-barns)
80
60
40
20
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-3
10^-6
10^-9
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
15
Incident Energy (eV)
74-W -183

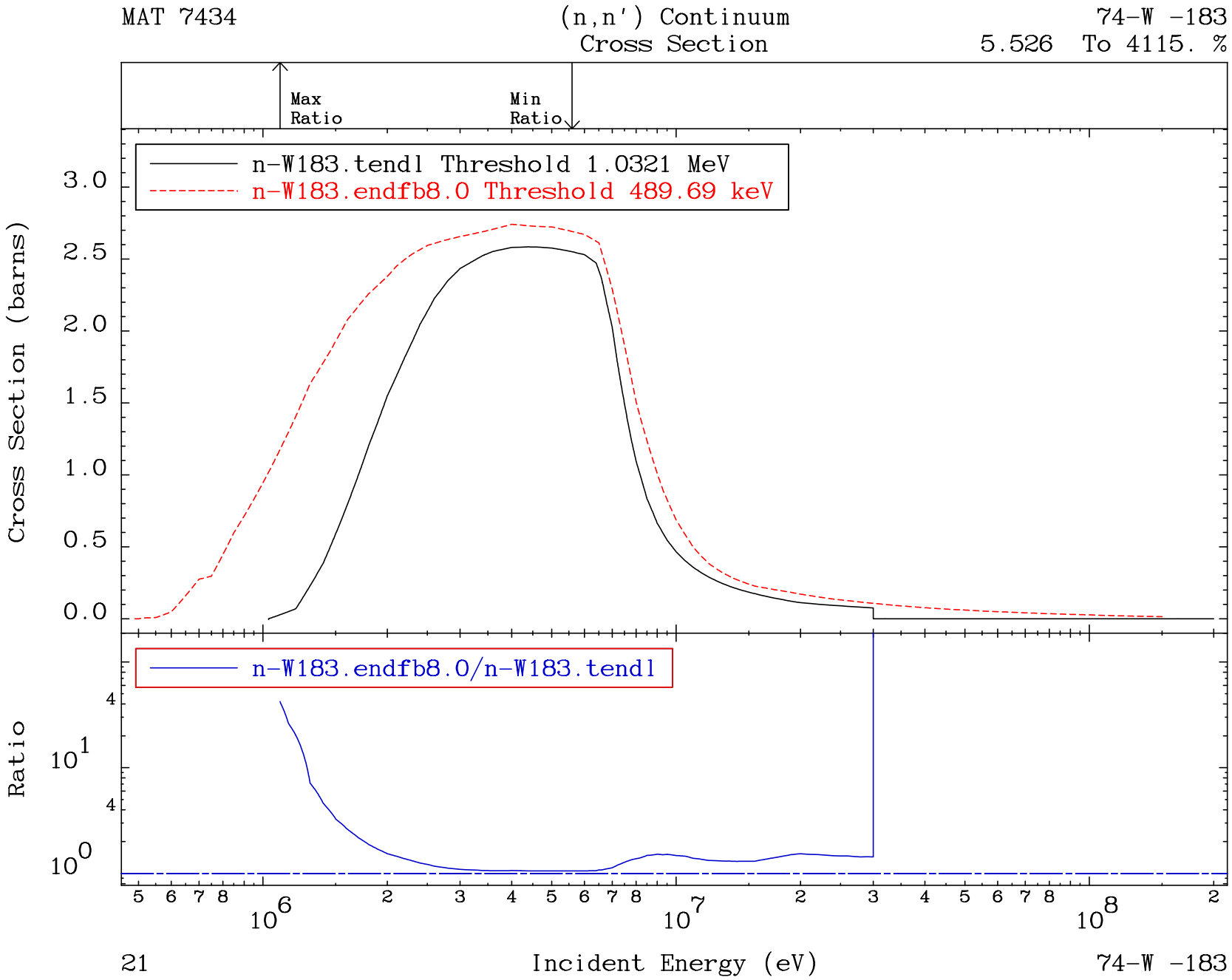

MAT 7434
MT= 57 (n,n') Level
Cross Section
74-W -183
-100.0 To 497.4 %
Max
Ratio
Min
Ratio
n-W183.tendl Threshold 362.78 keV
n-W183.endfb8.0 Threshold 311.20 keV
Cross Section (milli-barns)
25
20
15
10
5
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-3
10^-6
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
16
Incident Energy (eV)
74-W -183

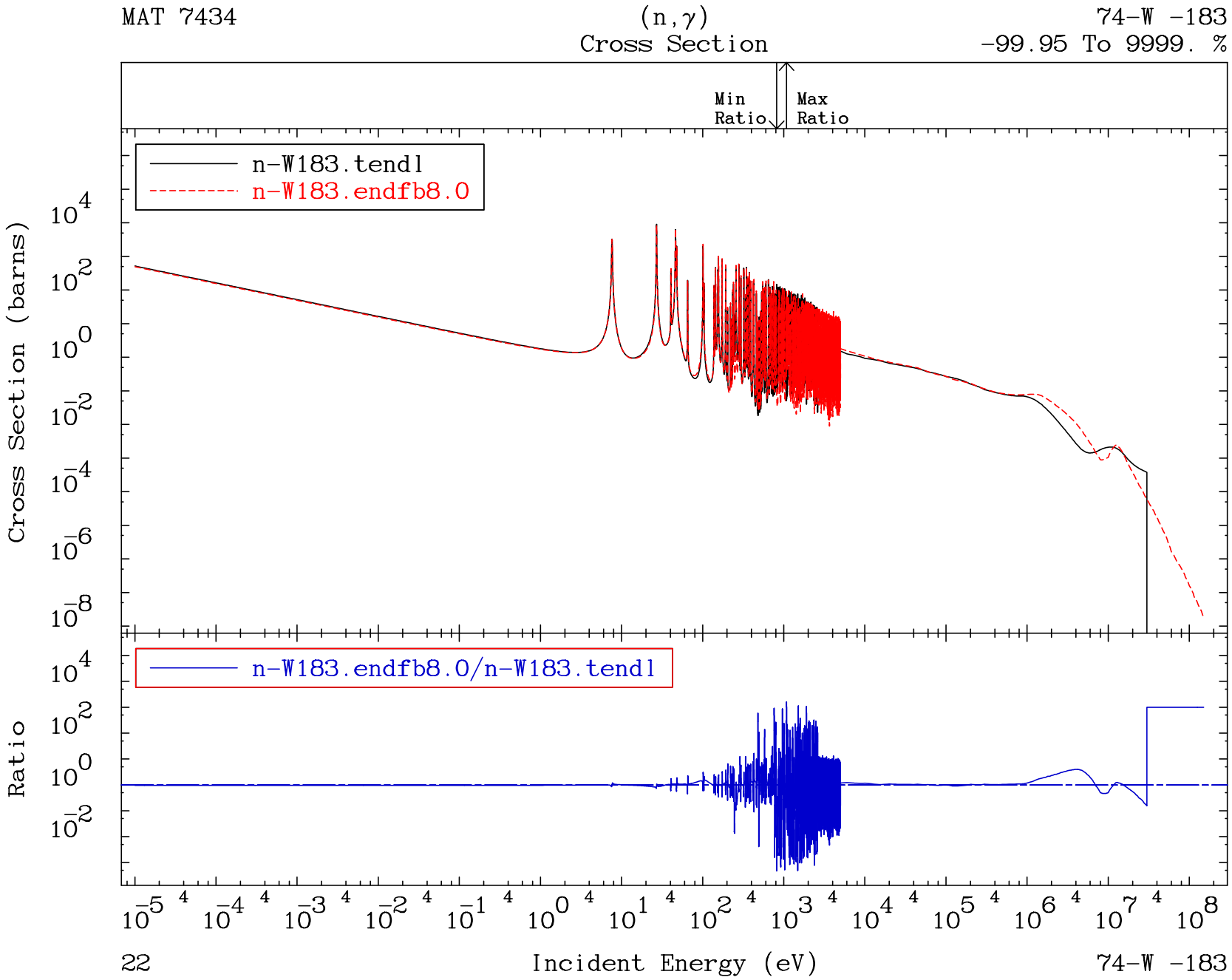

MAT 7434
MT= 58 (n,n') Level
Cross Section
74-W -183
-100.0 To 0.000 %
Min Ratio
Max Ratio
n-W183.tendl Threshold 414.37 keV
n-W183.endfb8.0 Threshold 414.37 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-4
10^-8
10^-12
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
17
Incident Energy (eV)
74-W -183

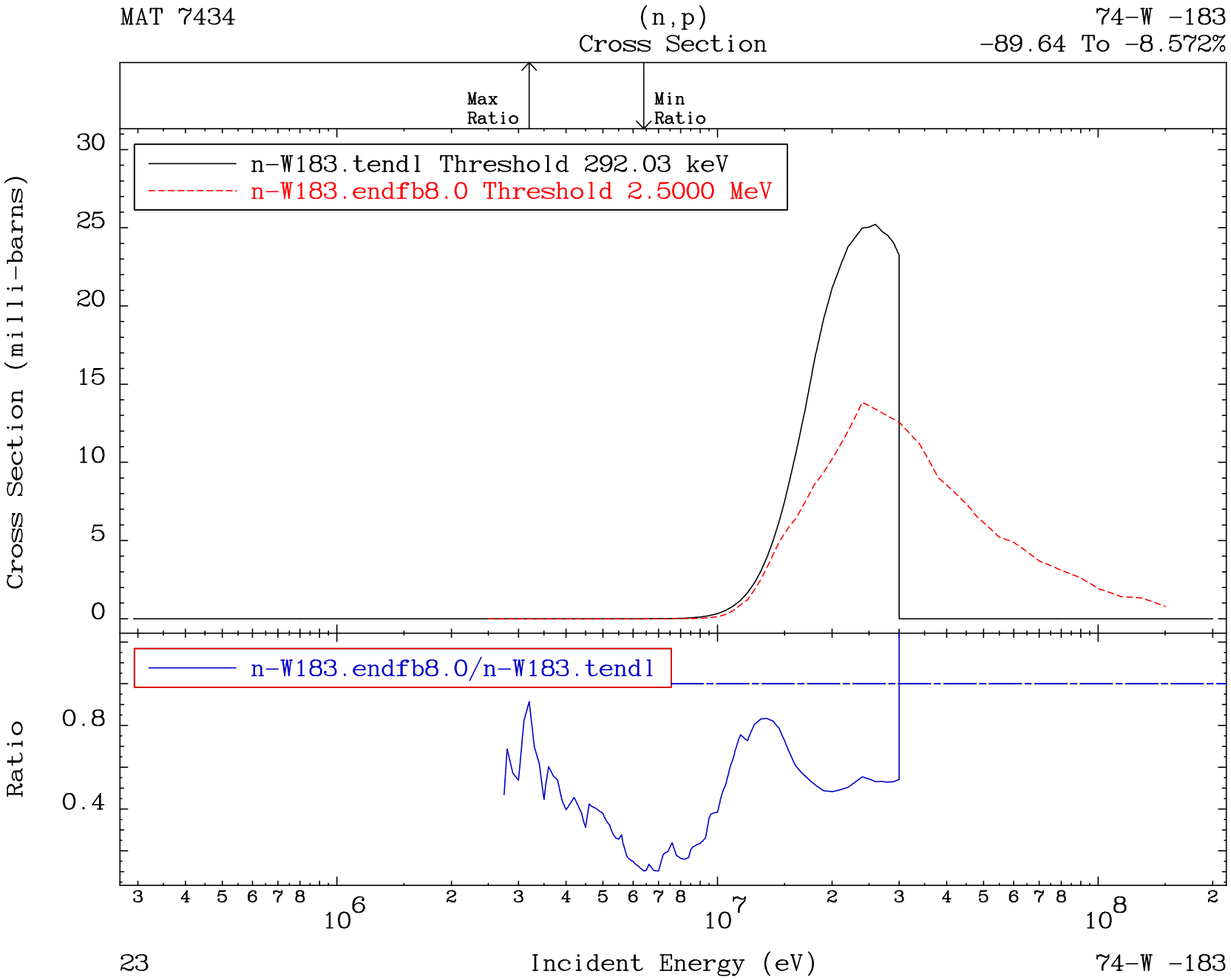

MAT 7434
MT= 59 (n,n') Level
Cross Section
74-W -183
-100.0 To 0.000 %
Min Ratio
Max Ratio
n-W183.tendl Threshold 455.57 keV
n-W183.endfb8.0 Threshold 455.57 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-4
10^-8
10^-12
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
18
Incident Energy (eV)
74-W -183

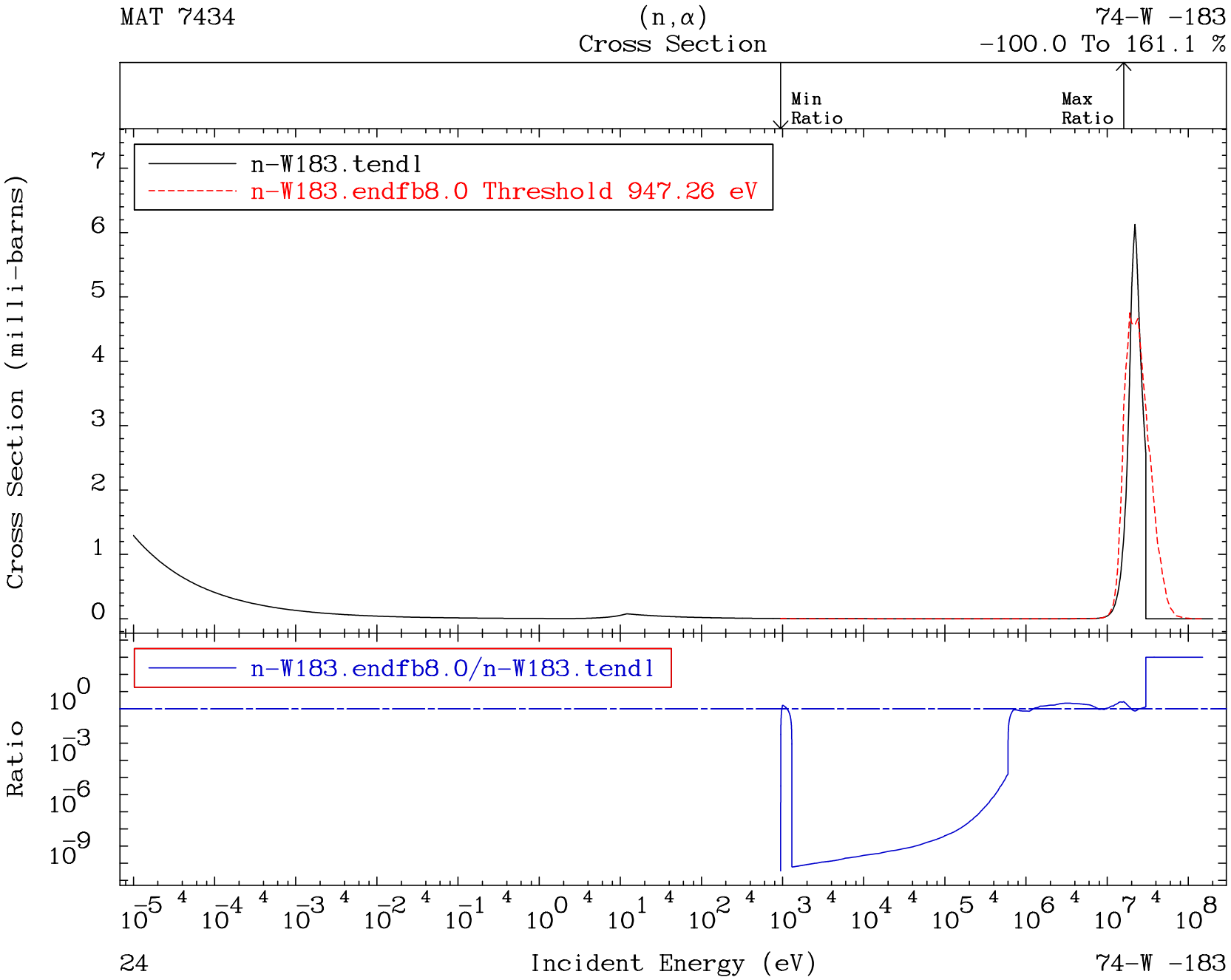

MAT 7434
MT= 60 (n,n') Level
Cross Section
74-W -183
-100.0 To 0.000 %
Min Ratio
Max Ratio
n-W183.tendl Threshold 478.02 keV
n-W183.endfb8.0 Threshold 478.02 keV
Cross Section (milli-barns)
20
15
10
5
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-3
10^-6
10^-9
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
19
Incident Energy (eV)
74-W -183

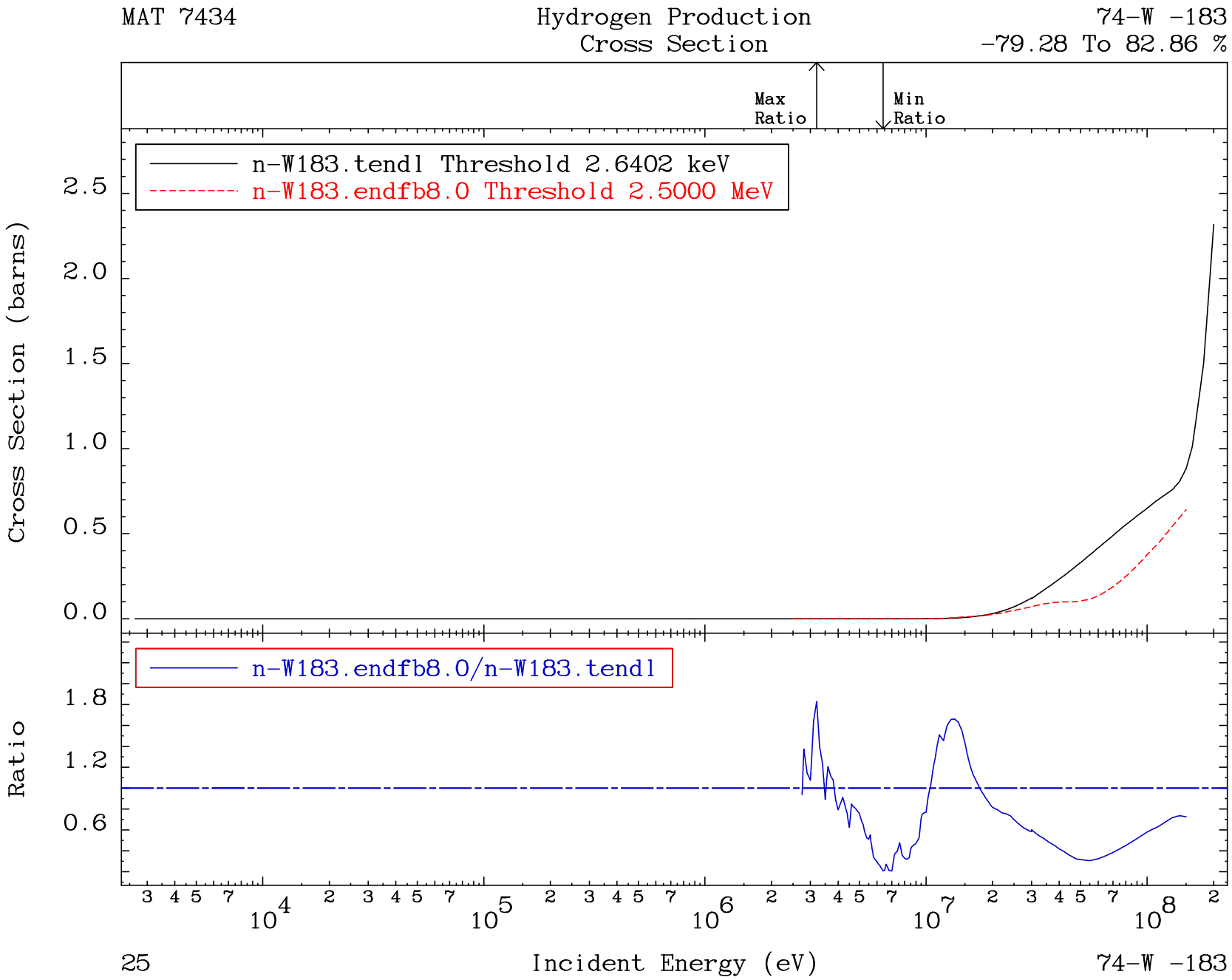

MAT 7434
MT= 61 (n,n') Level
Cross Section
74-W -183
-100.0 To 77.55 %
Max
Ratio
Min
Ratio
n-W183.tendl Threshold 489.69 keV
n-W183.endfb8.0 Threshold 489.69 keV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-3
10^-6
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
20
Incident Energy (eV)
74-W -183

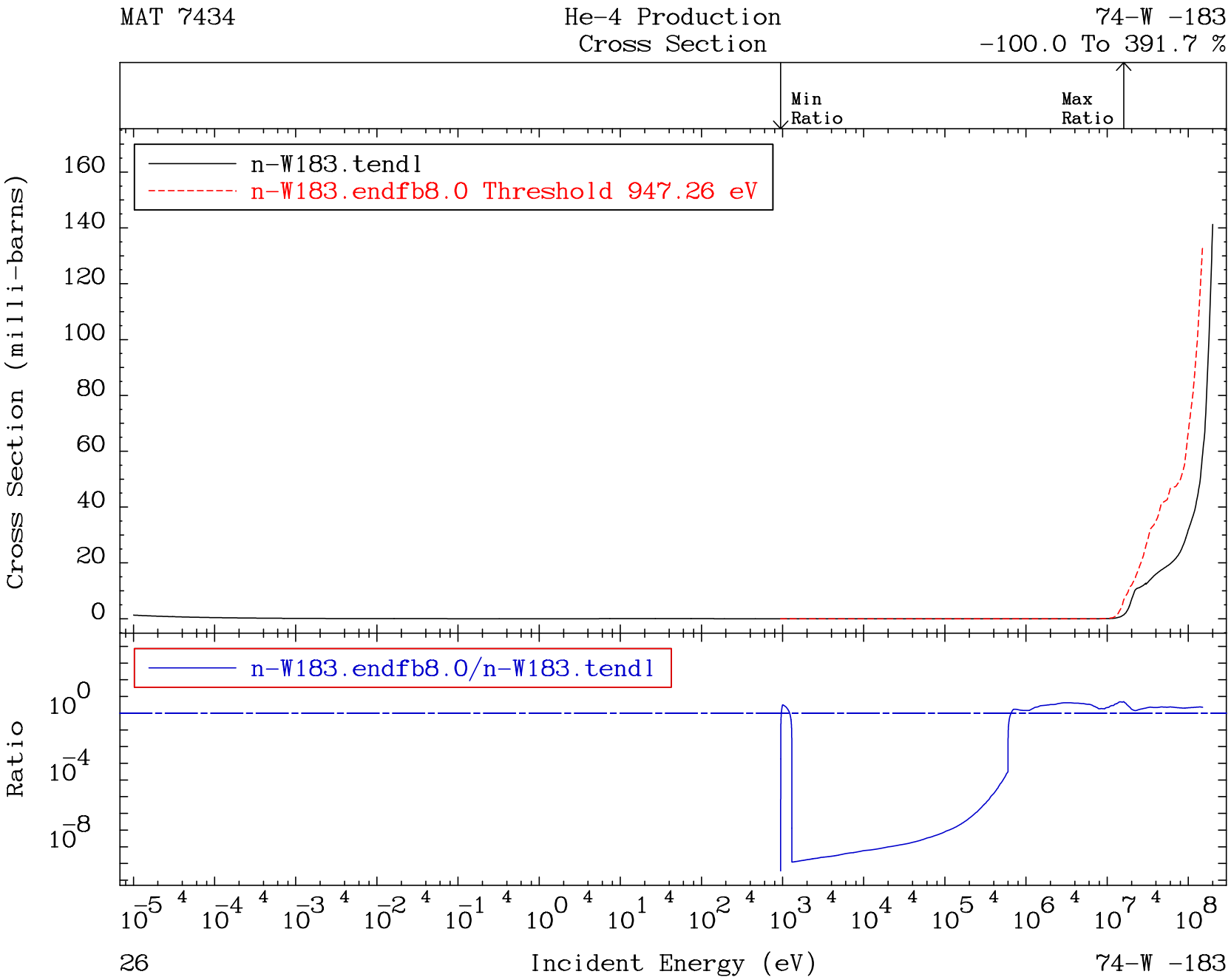

MAT 7434
(n,n') Continuum
Cross Section
74-W -183
5.526 To 4115. %
Max Ratio
Min Ratio
n-W183.tendl Threshold 1.0321 MeV
n-W183.endfb8.0 Threshold 489.69 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^1
10^0
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
74-W -183

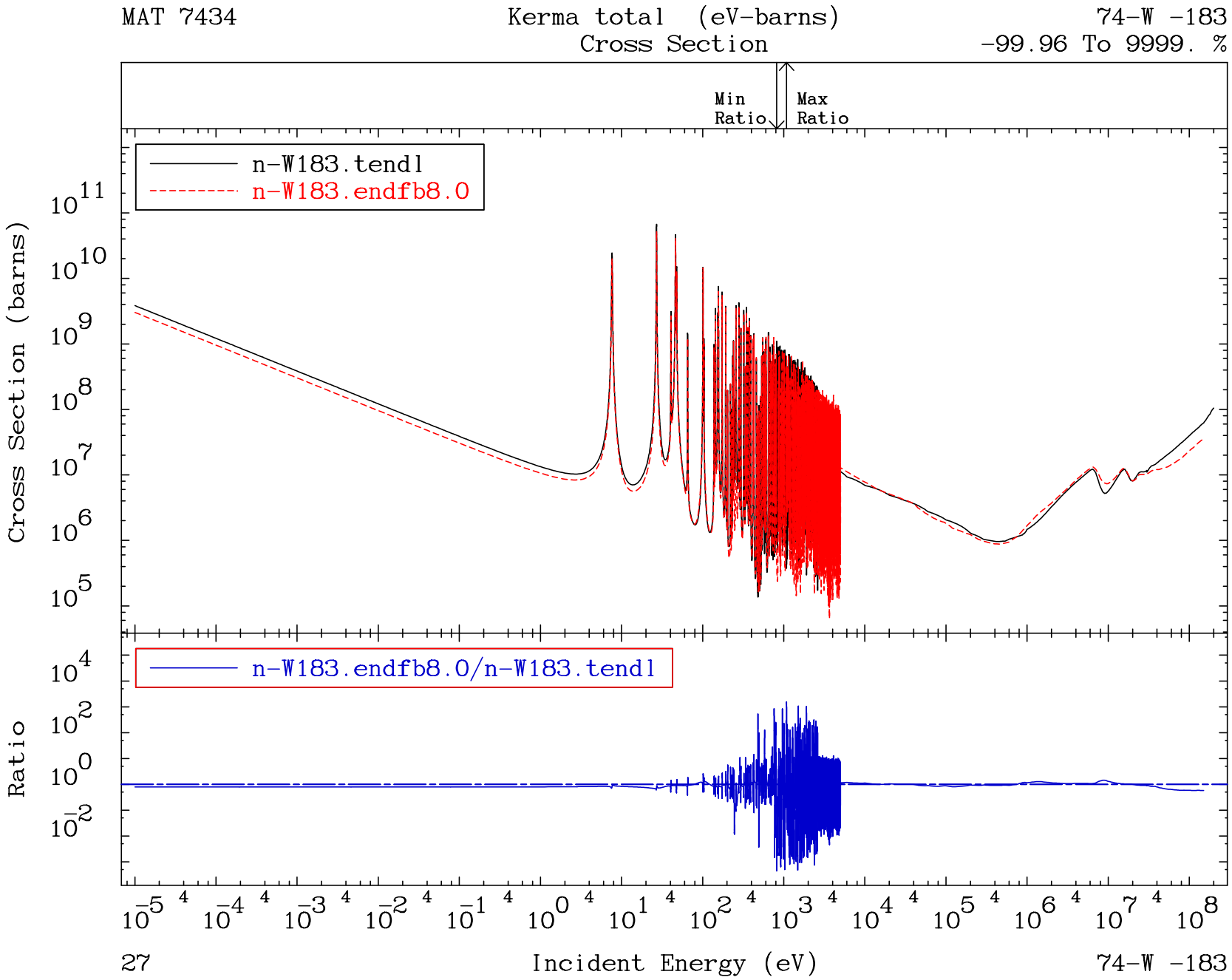

MAT 7434
(n,γ)
Cross Section
74-W -183
-99.95 To 9999. %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
22
74-W -183

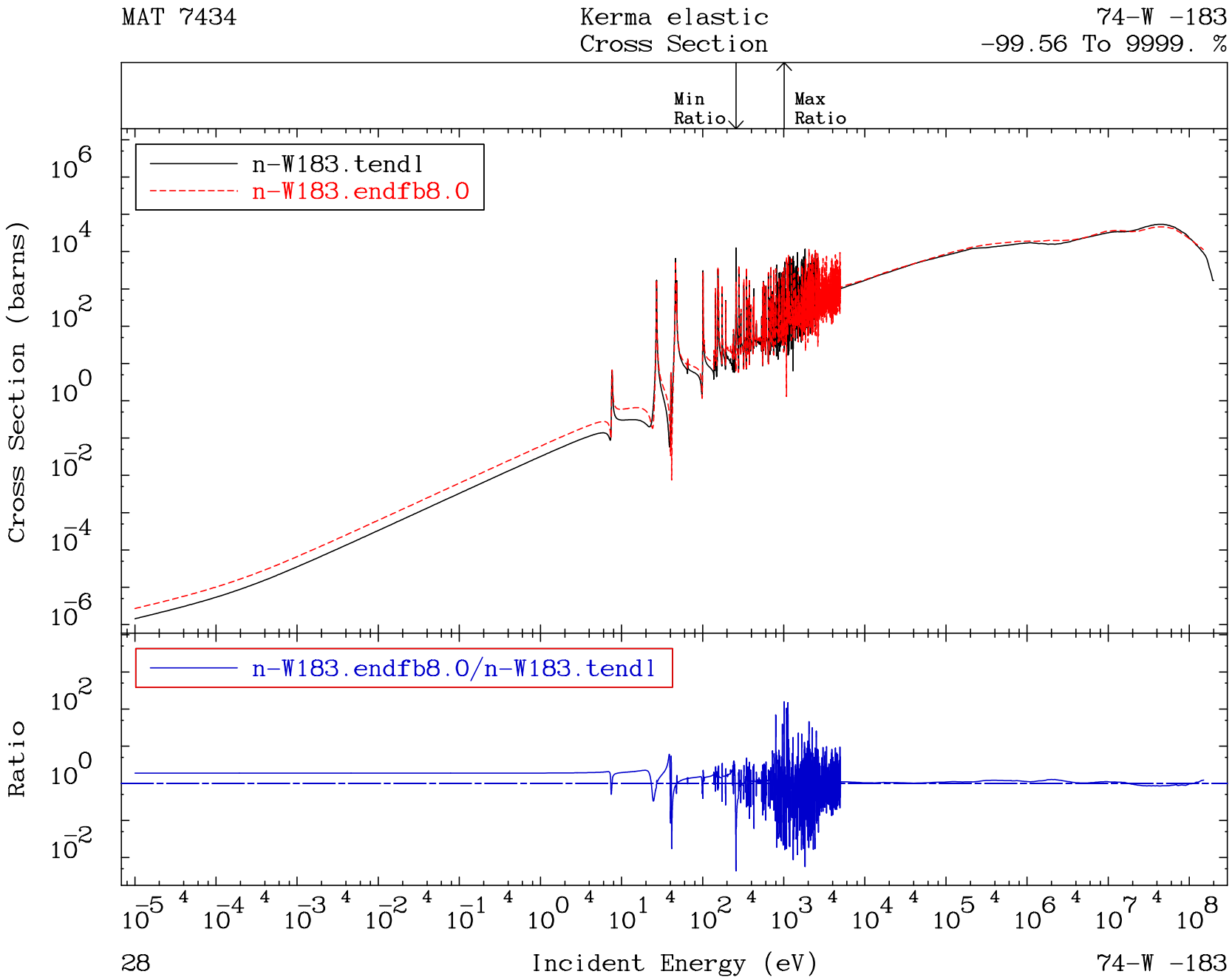

MAT 7434
(n,p)
Cross Section
74-W -183
-89.64 To -8.572%
Max Ratio
Min Ratio
n-W183.tendl Threshold 292.03 keV
n-W183.endfb8.0 Threshold 2.5000 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-W183.endfb8.0/n-W183.tendl
Ratio
0.8
0.4
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
74-W -183

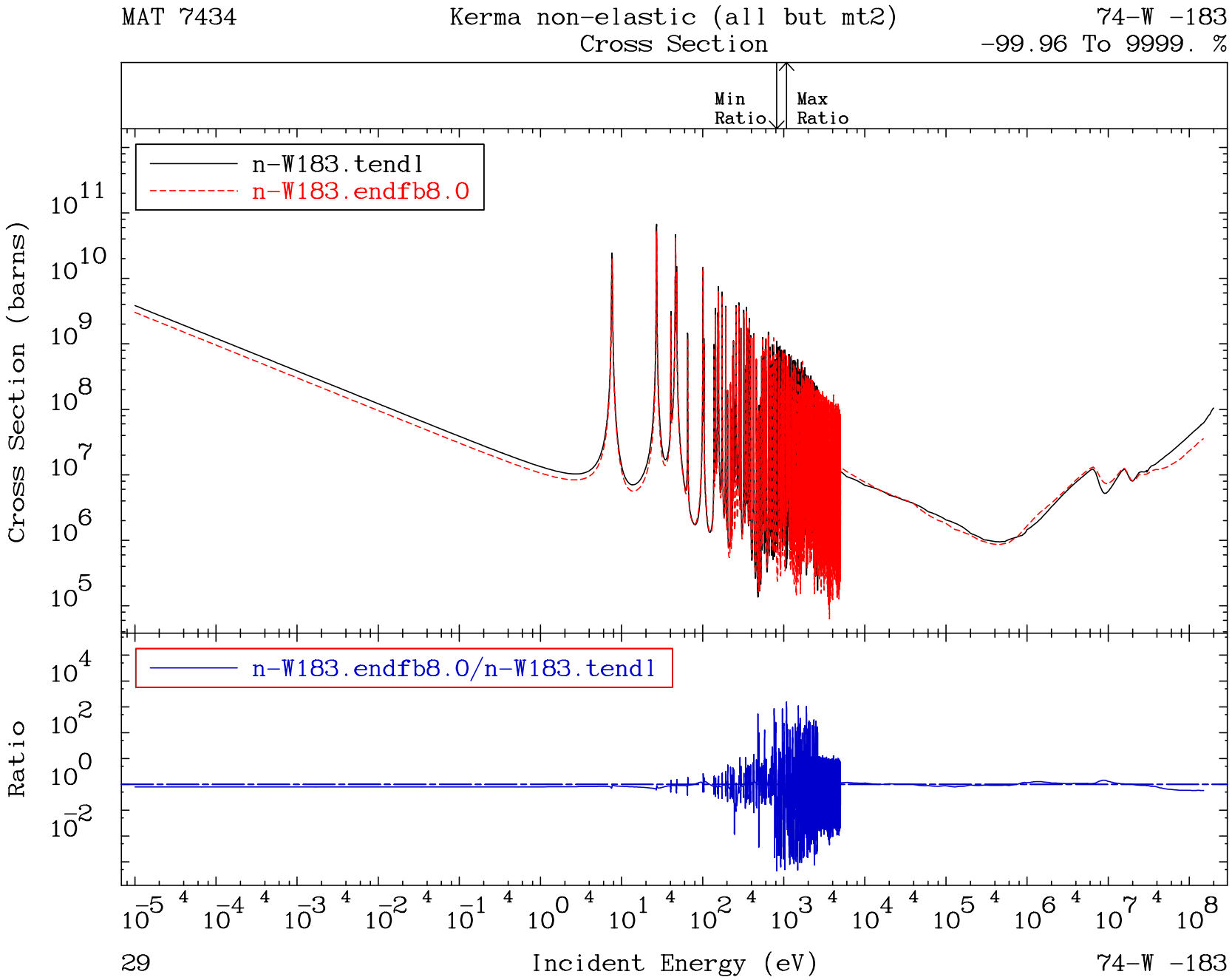

MAT 7434
(n,α)
Cross Section
74-W -183
-100.0 To 161.1 %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0 Threshold 947.26 eV
Cross Section (milli-barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
24
74-W -183

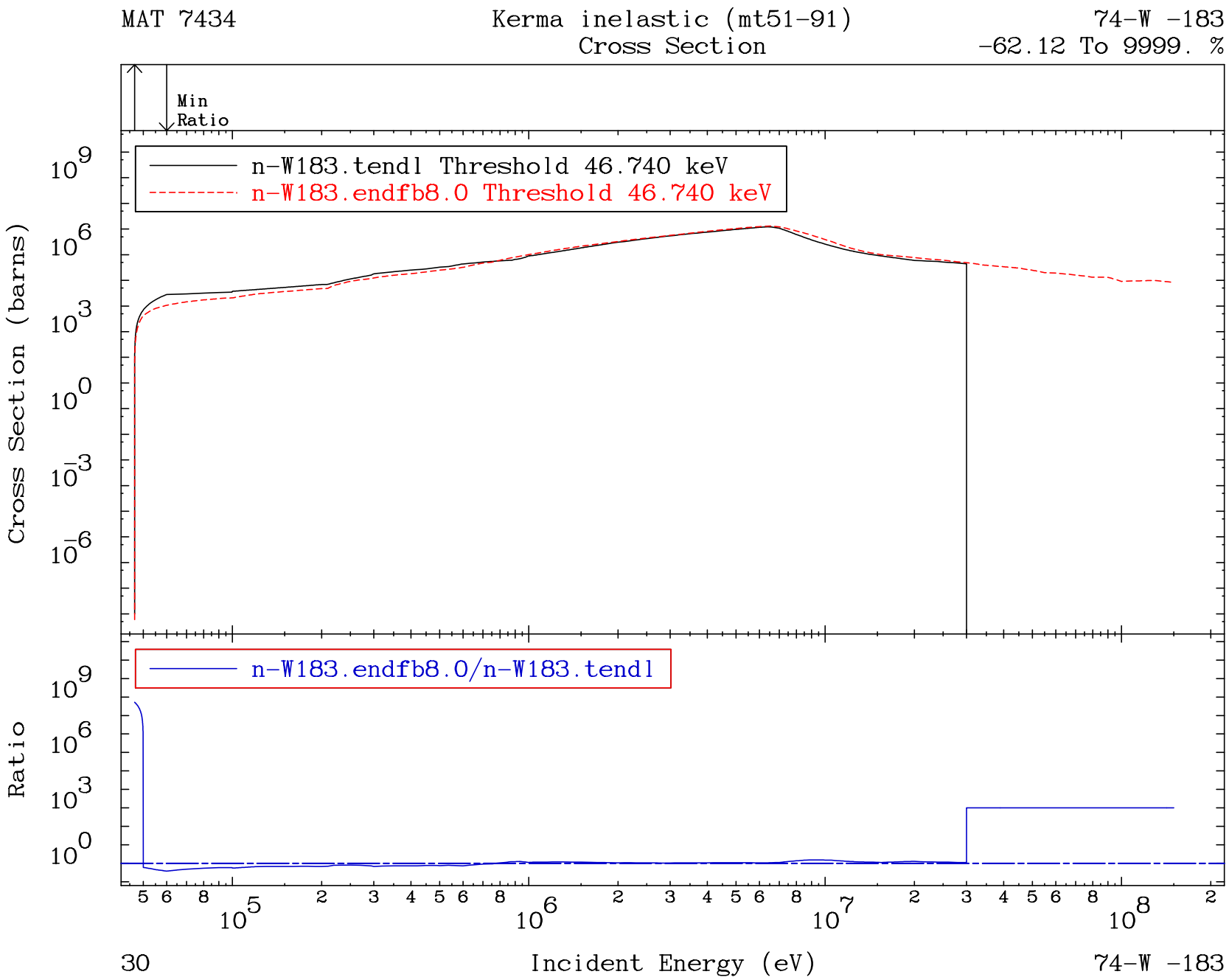

MAT 7434
Hydrogen Production
Cross Section
74-W -183
-79.28 To 82.86 %
Max Ratio
Min Ratio
n-W183.tendl Threshold 2.6402 keV
n-W183.endfb8.0 Threshold 2.5000 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-W183.endfb8.0/n-W183.tendl
Ratio
1.8
1.2
0.6
3 4 5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
25
Incident Energy (eV)
74-W -183

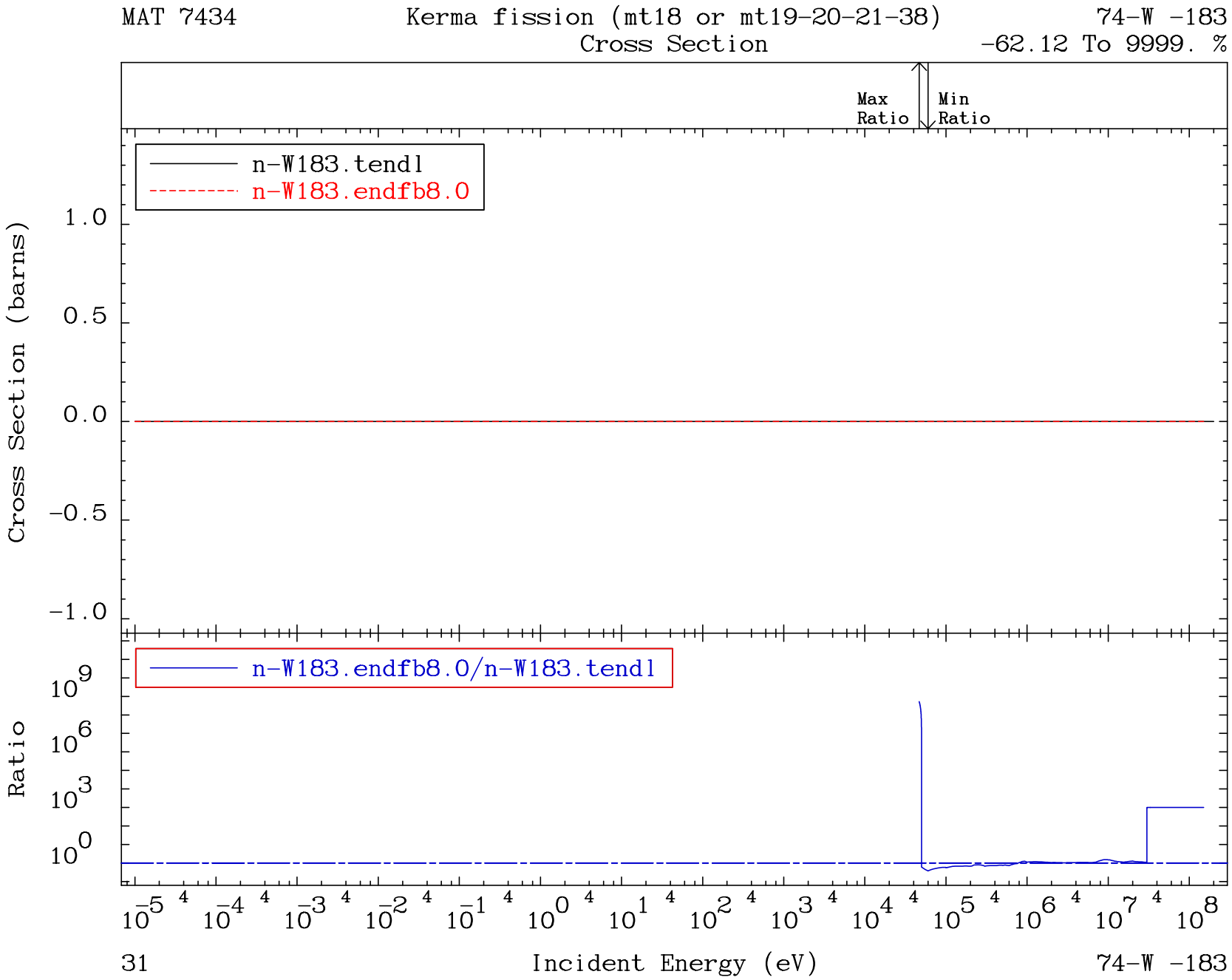

MAT 7434
He-4 Production
Cross Section
74-W -183
-100.0 To 391.7 %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0 Threshold 947.26 eV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-4
10^-8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
26
Incident Energy (eV)
74-W -183

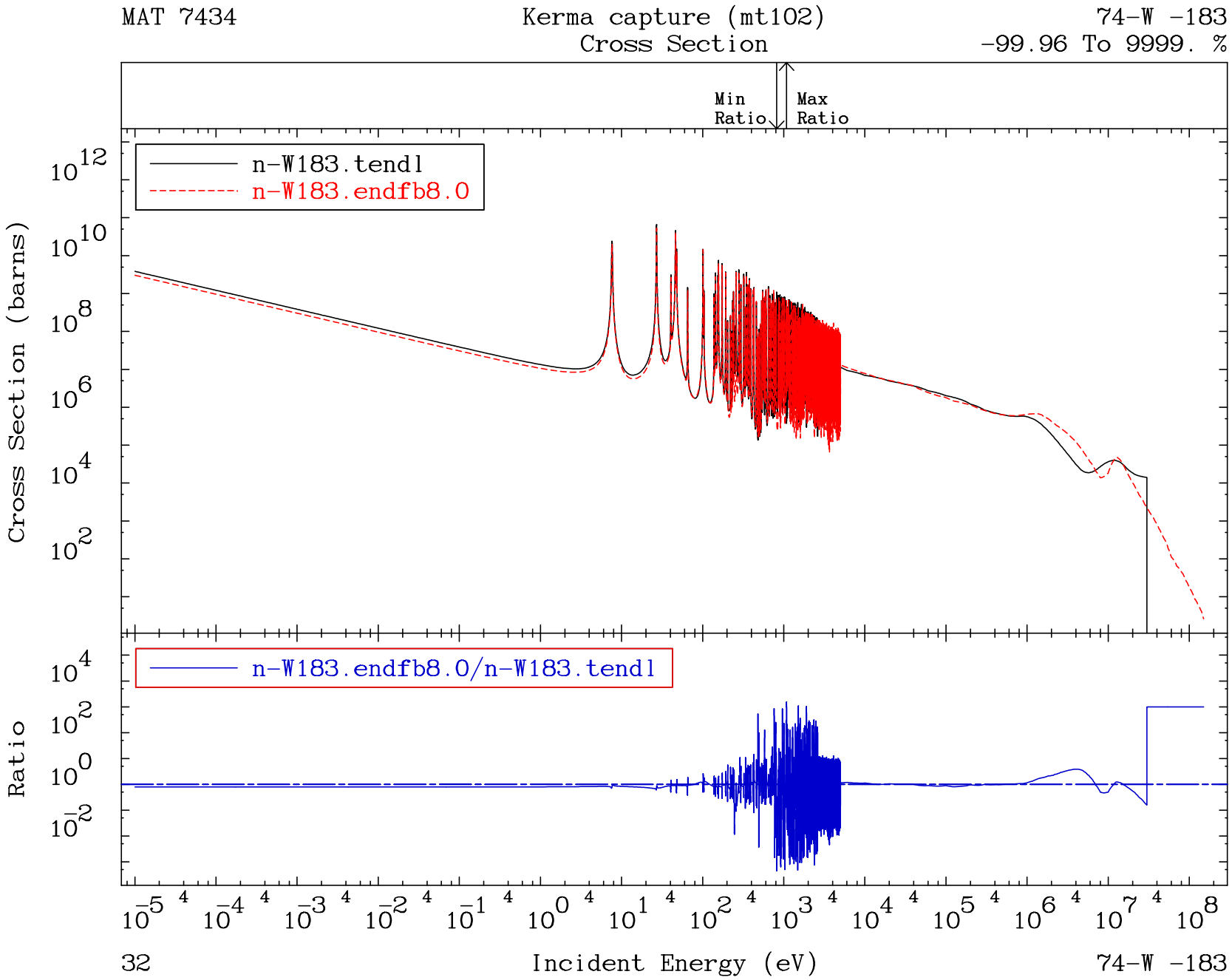

MAT 7434
Kerma total (eV-barns)
Cross Section
74-W -183
-99.96 To 9999. %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
Ratio
n-W183.endfb8.0/n-W183.tendl
Incident Energy (eV)
27
74-W -183

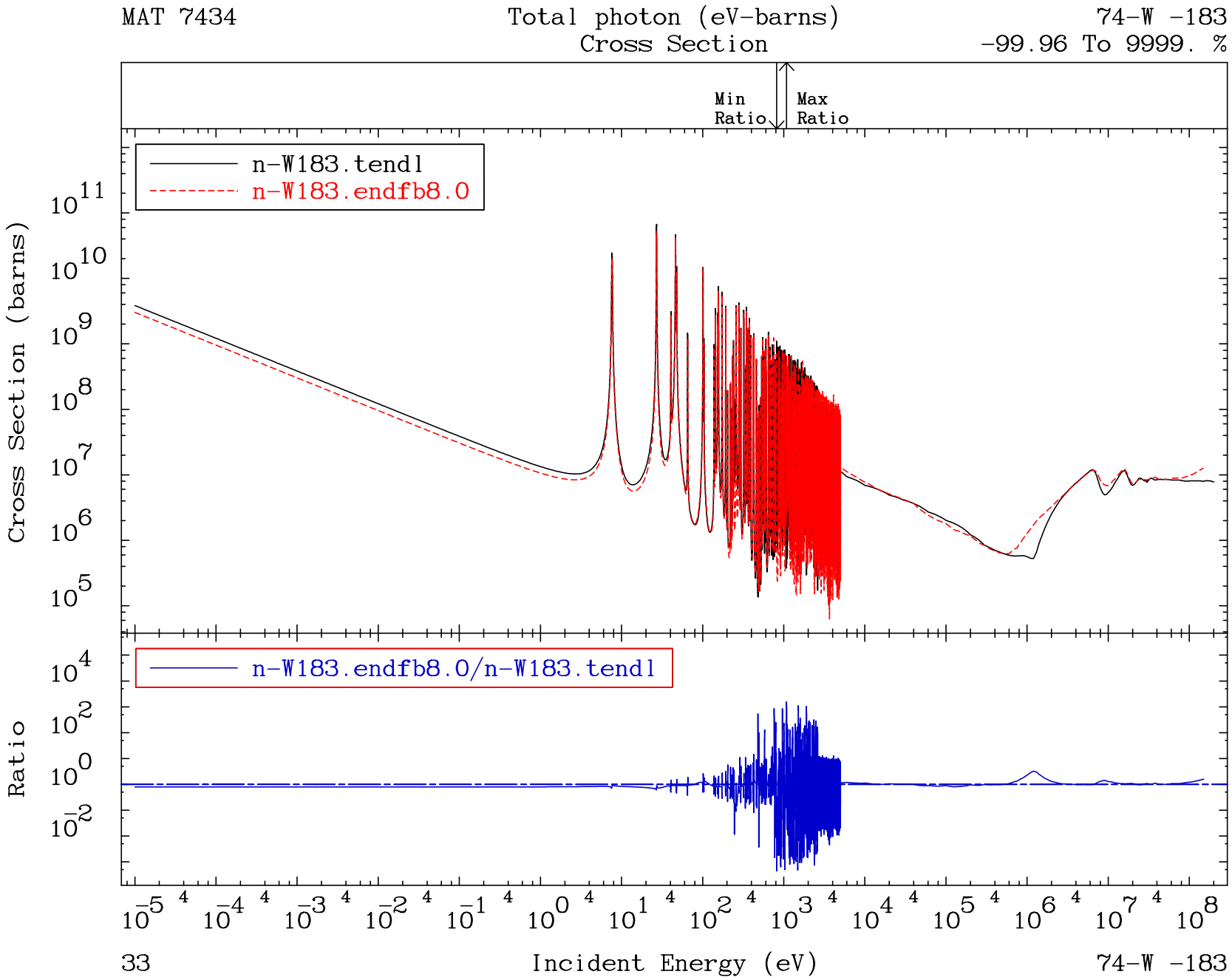

MAT 7434
Kerma elastic
Cross Section
74-W -183
-99.56 To 9999. %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
28
74-W -183

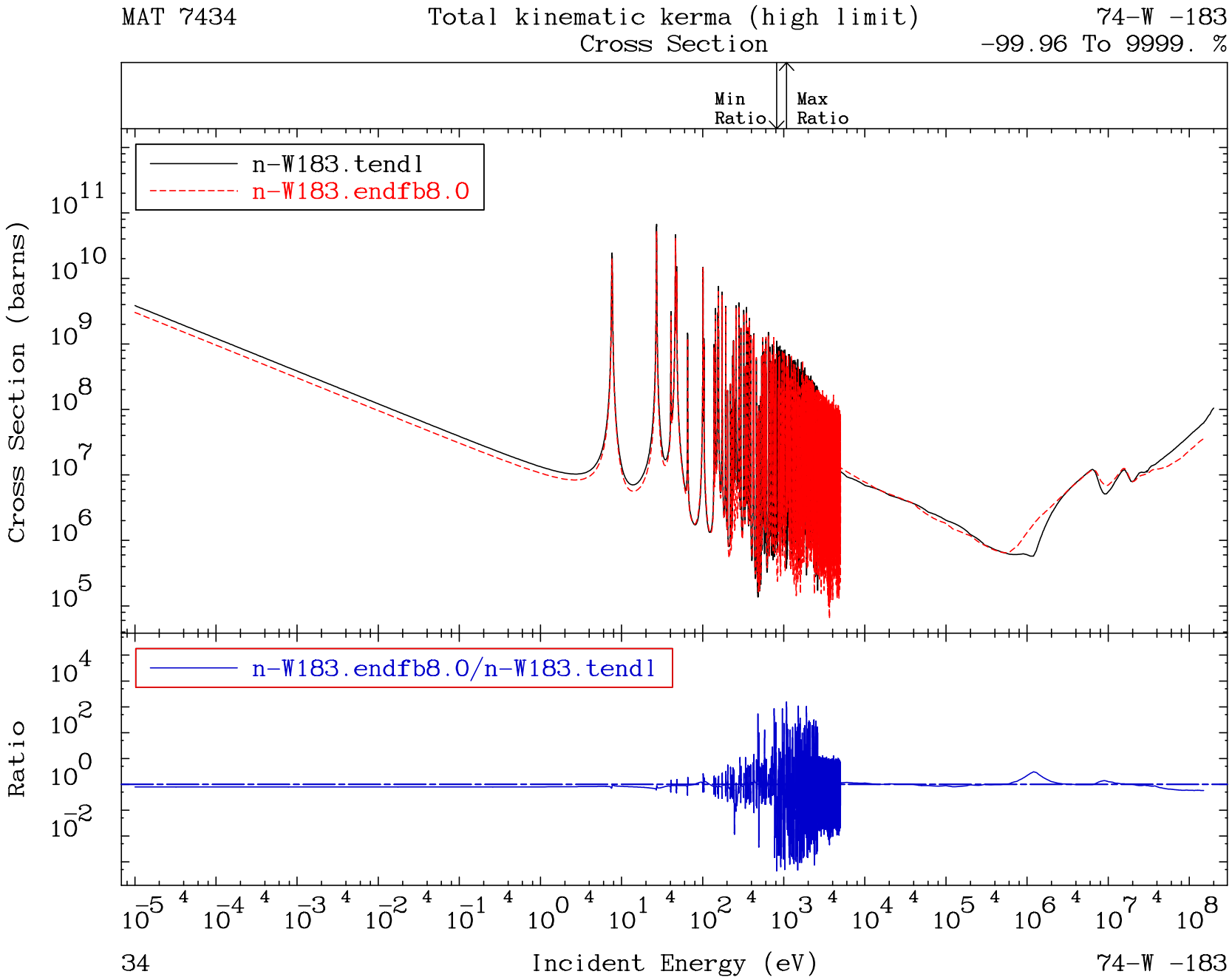

MAT 7434
Kerma non-elastic (all but mt2)
Cross Section
74-W -183
-99.96 To 9999. %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
29
74-W -183

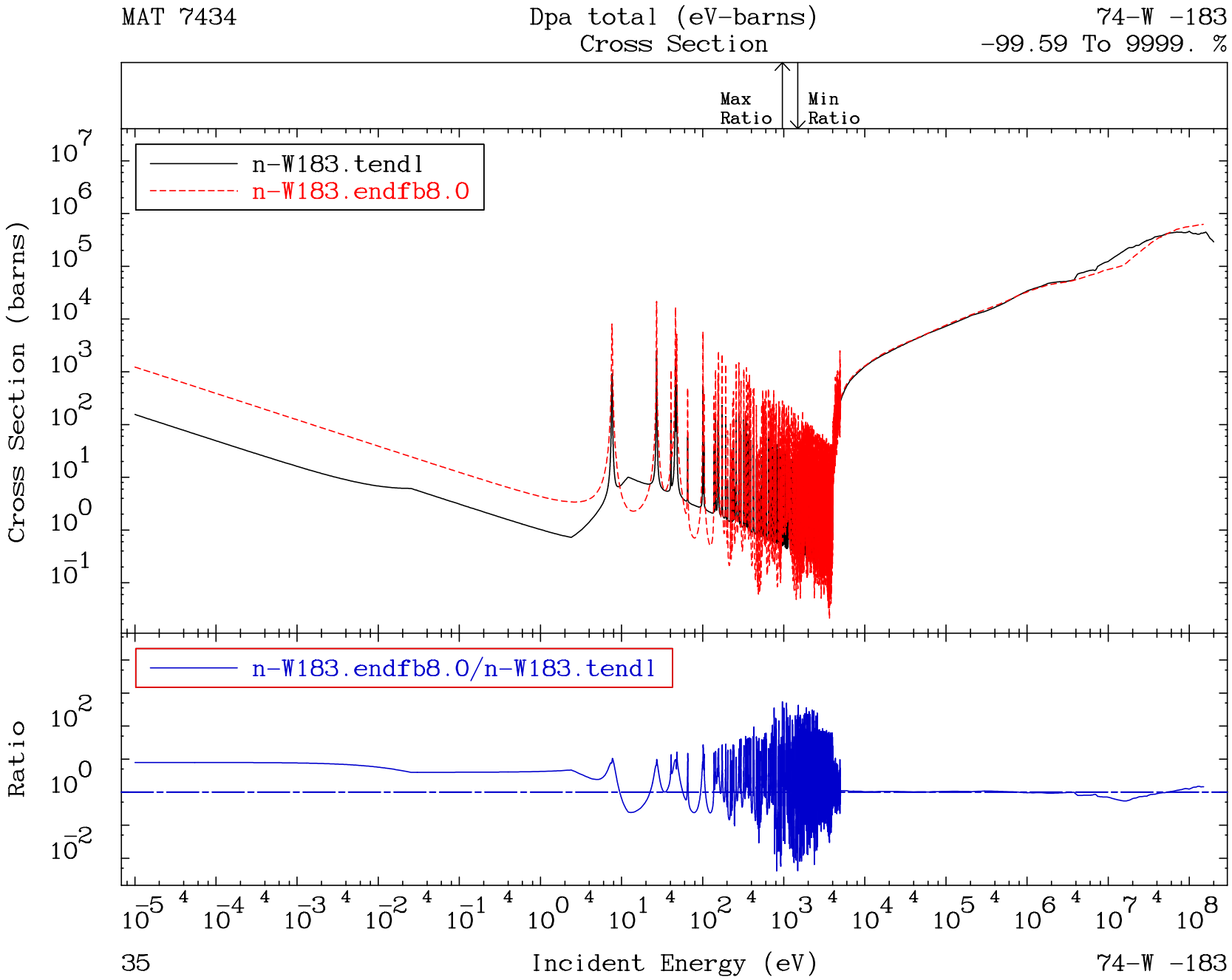

MAT 7434
Kerma inelastic (mt51-91)
Cross Section
74-W -183
-62.12 To 9999. %
Min
Ratio
n-W183.tendl Threshold 46.740 keV
n-W183.endfb8.0 Threshold 46.740 keV
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
30
74-W -183

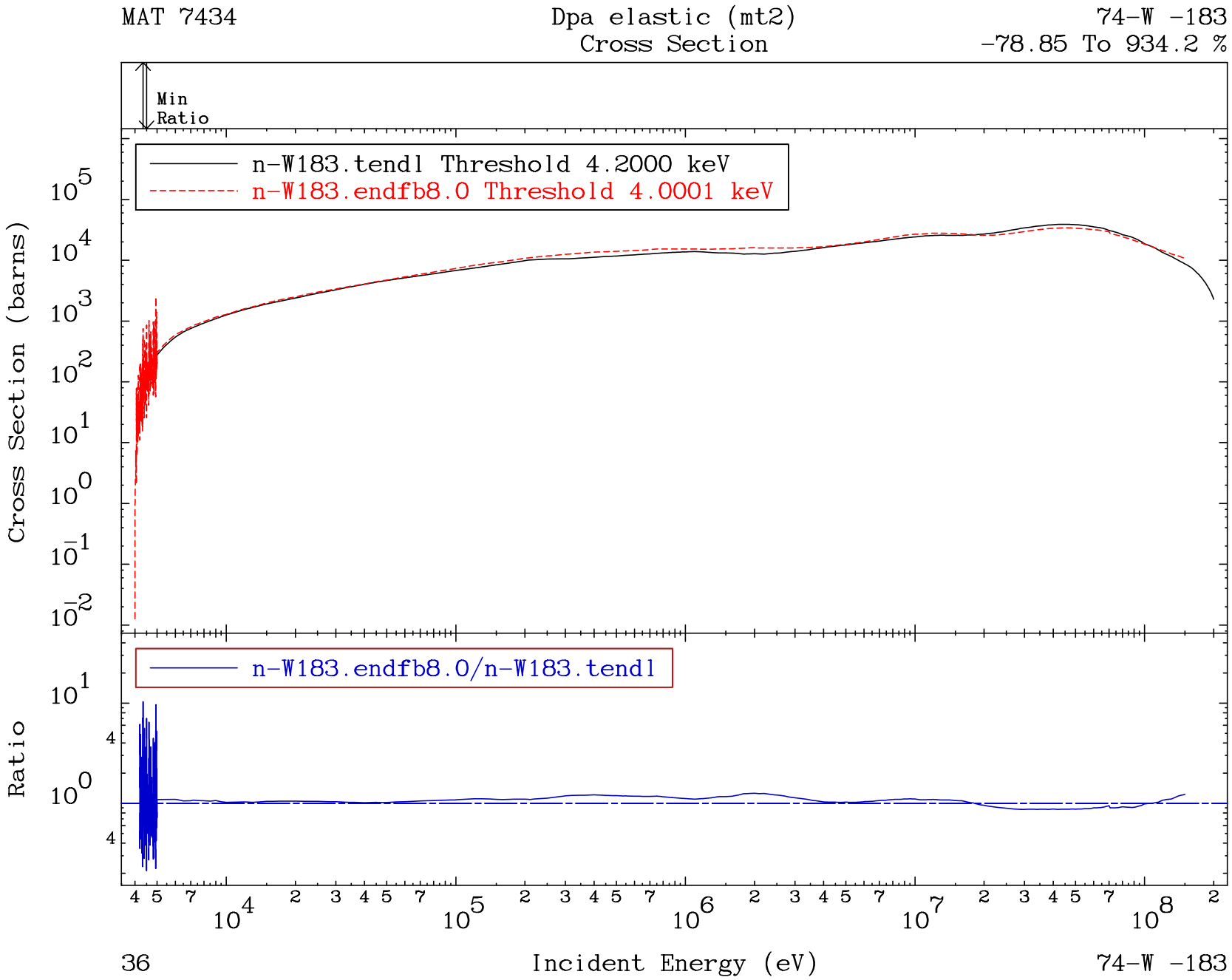

MAT 7434
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
74-W -183
-62.12 To 9999. %
Max Ratio
Min Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^9
10^6
10^3
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
31
Incident Energy (eV)
74-W -183

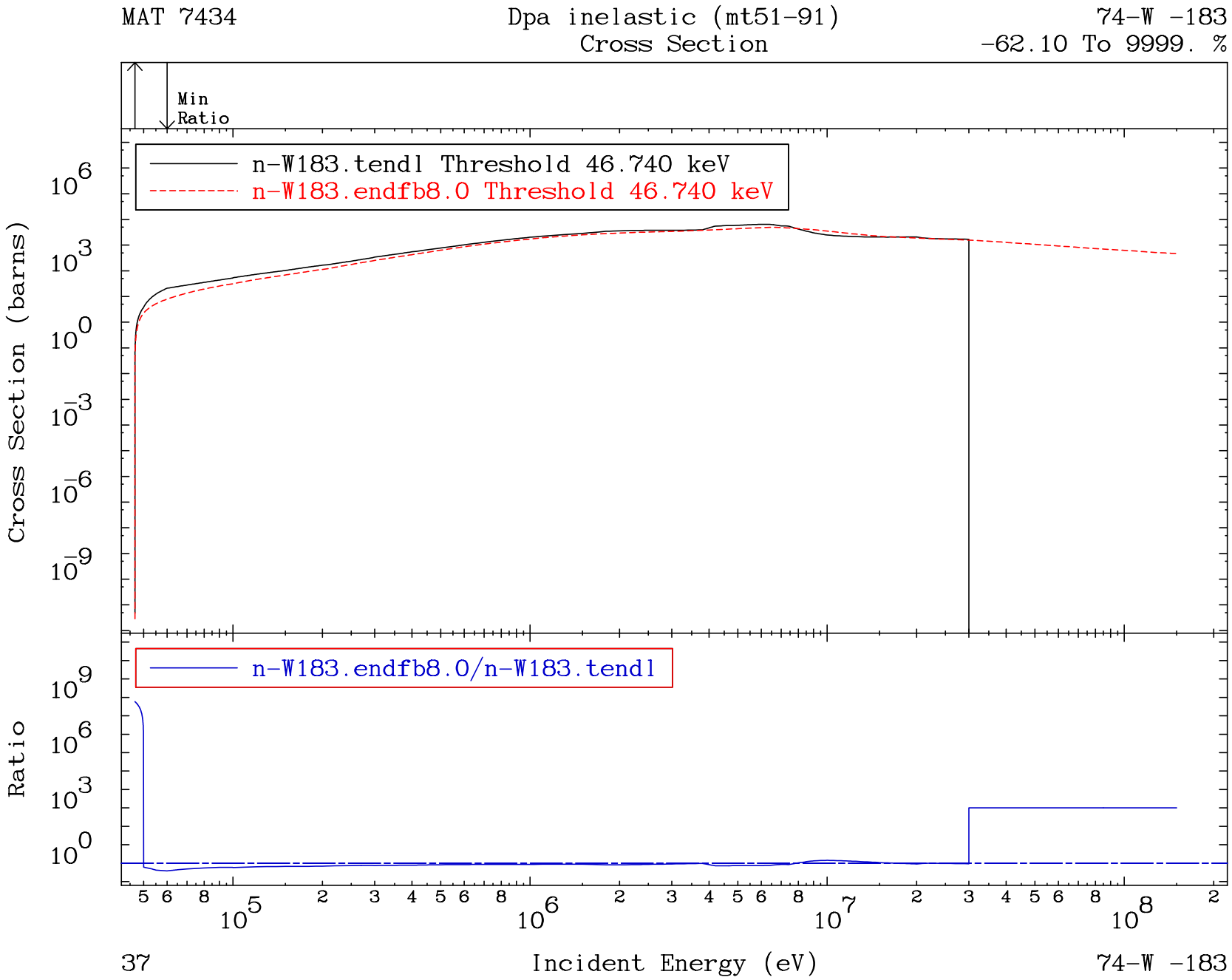

MAT 7434
Kerma capture (mt102)
Cross Section
74-W -183
-99.96 To 9999. %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
Ratio
n-W183.endfb8.0/n-W183.tendl
Incident Energy (eV)
32
74-W -183

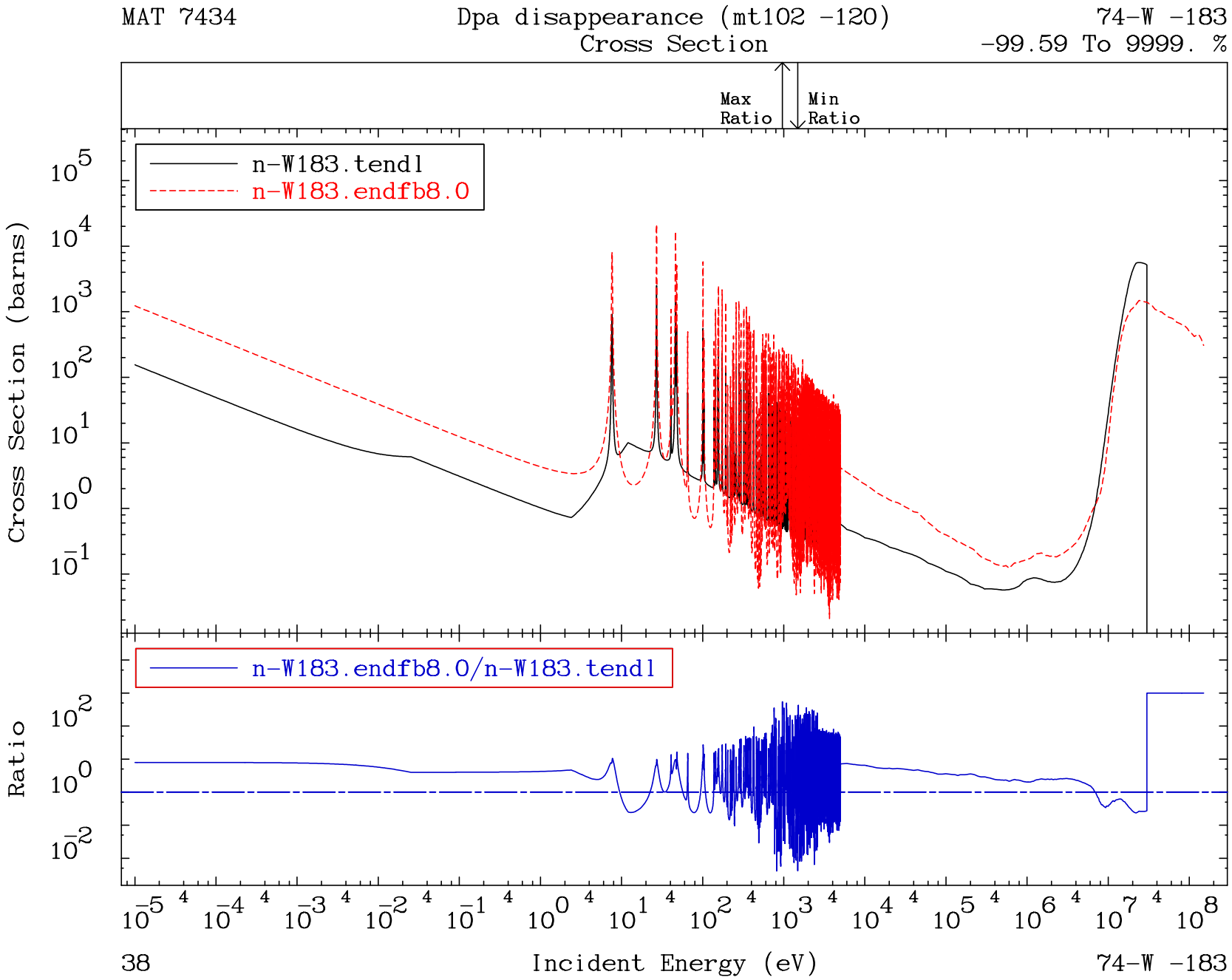

MAT 7434
Total photon (eV-barns)
Cross Section
74-W -183
-99.96 To 9999. %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
33
74-W -183

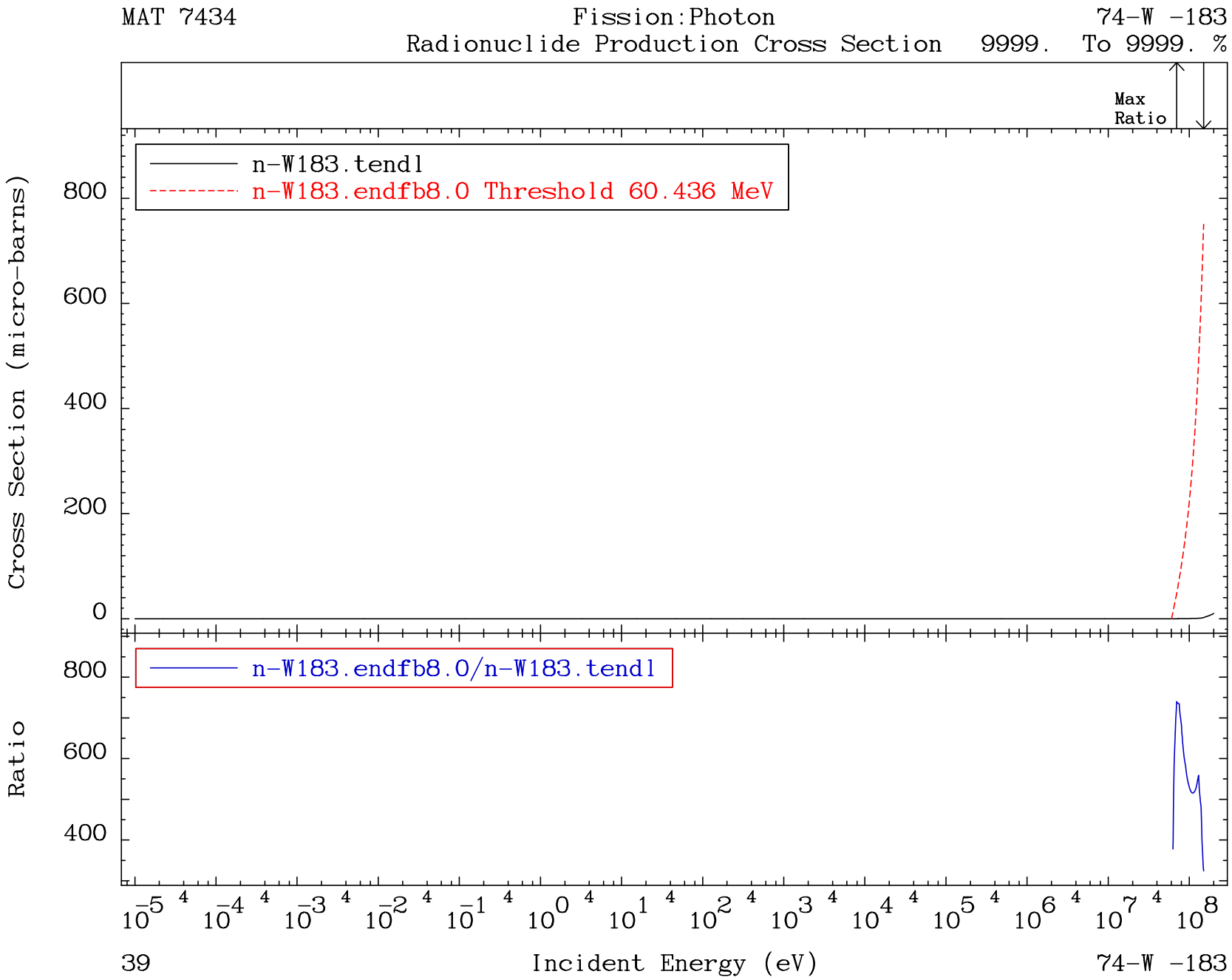

MAT 7434
Total kinematic kerma (high limit)
Cross Section
74-W -183
-99.96 To 9999. %
Min Ratio
Max Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
34
74-W -183

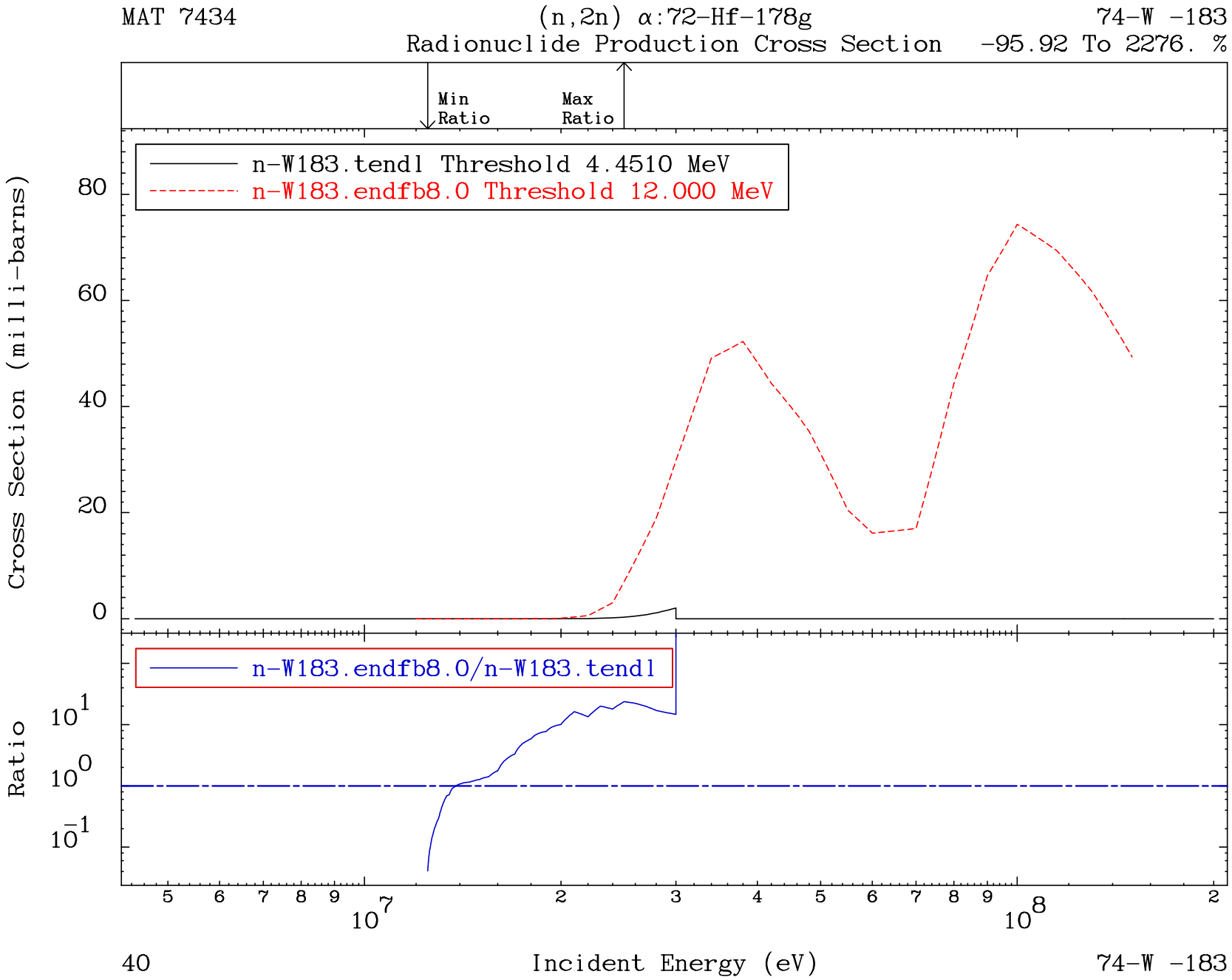

MAT 7434
Dpa total (eV-barns)
Cross Section
74-W -183
-99.59 To 9999. %
Max Ratio
Min Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
35
Incident Energy (eV)
74-W -183

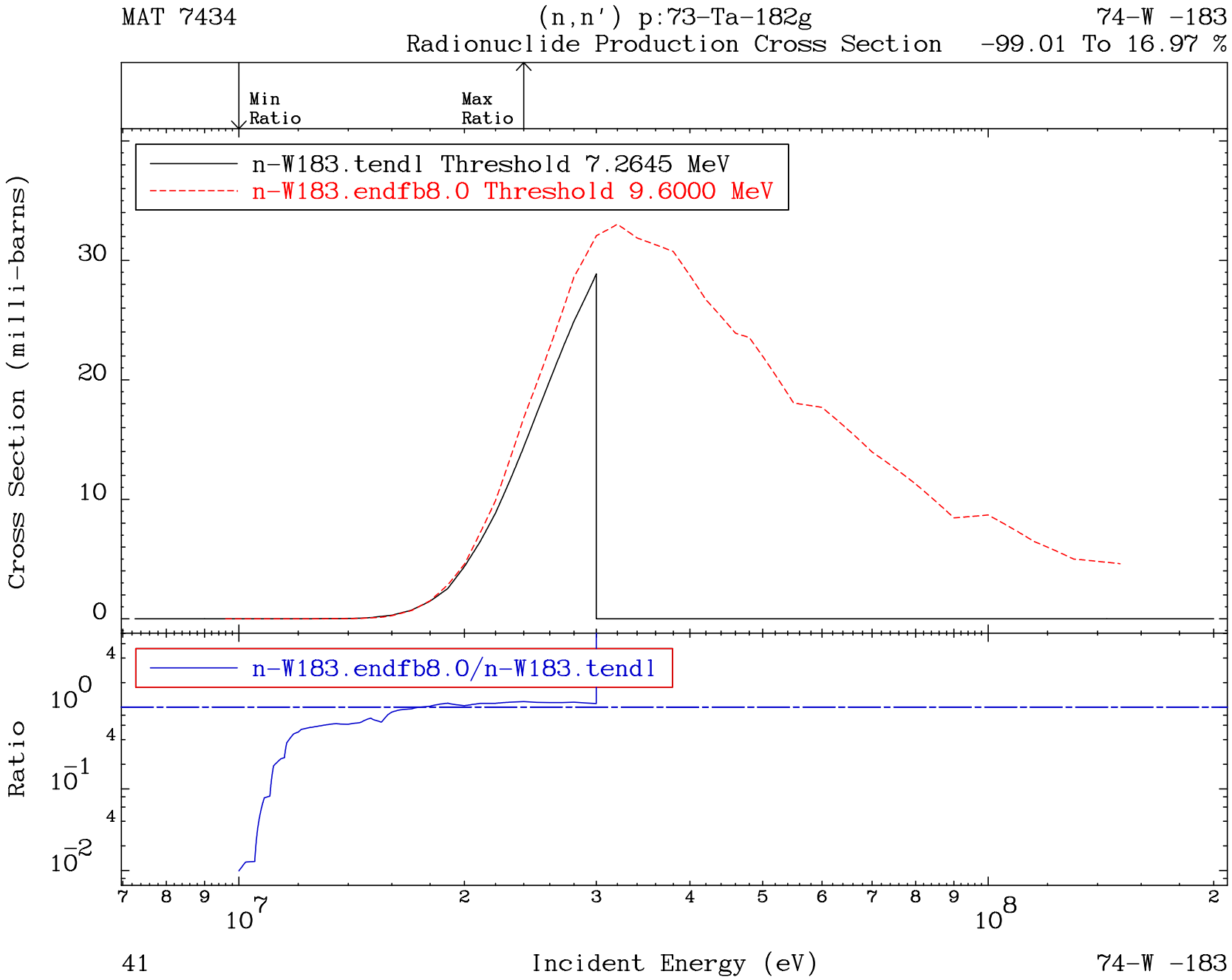

MAT 7434
Dpa elastic (mt2)
Cross Section
74-W -183
-78.85 To 934.2 %
Min
Ratio
n-W183.tendl Threshold 4.2000 keV
n-W183.endfb8.0 Threshold 4.0001 keV
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
36
74-W -183

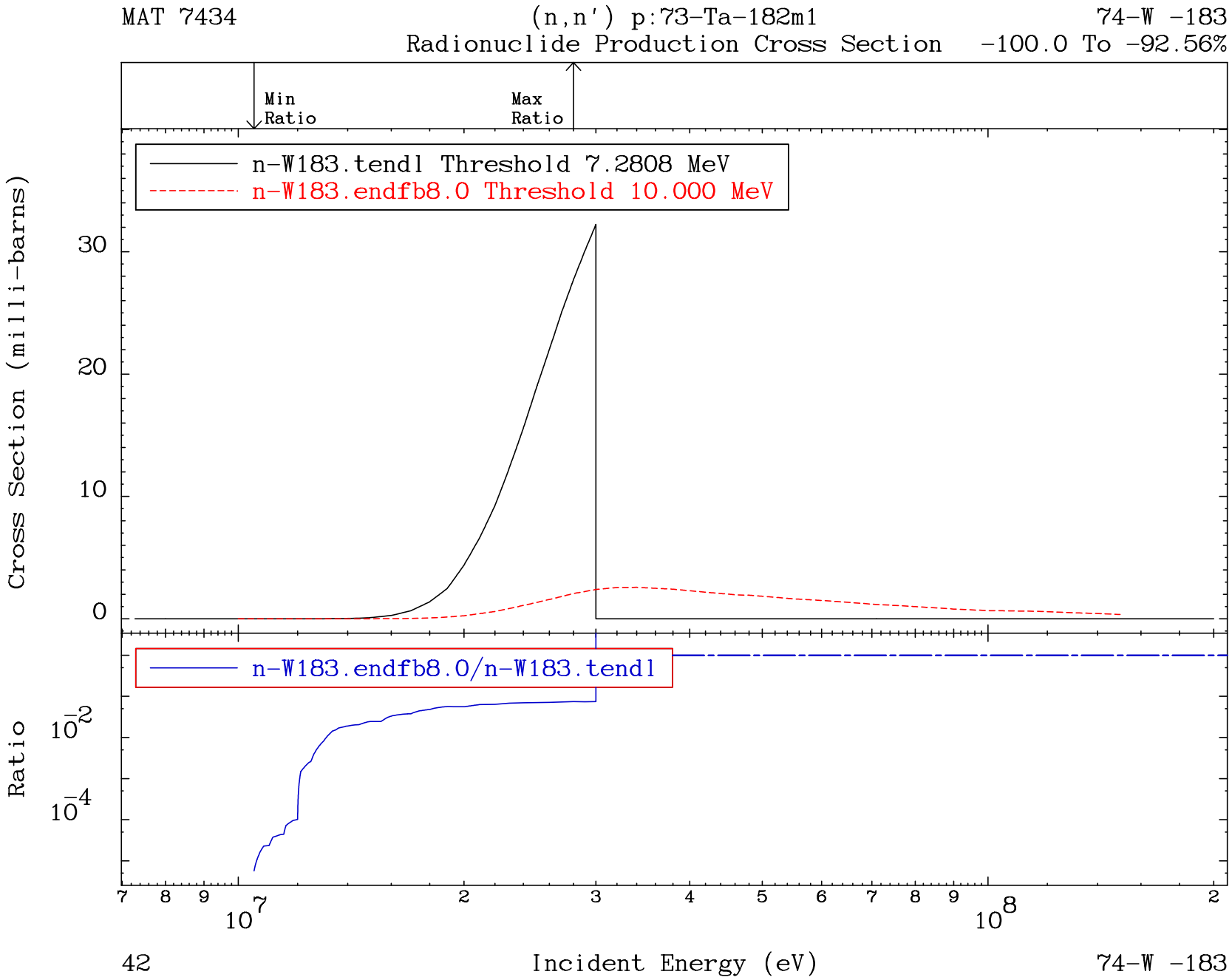

MAT 7434
Dpa inelastic (mt51-91)
Cross Section
74-W -183
-62.10 To 9999. %
Min
Ratio
n-W183.tendl Threshold 46.740 keV
n-W183.endfb8.0 Threshold 46.740 keV
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
37
74-W -183

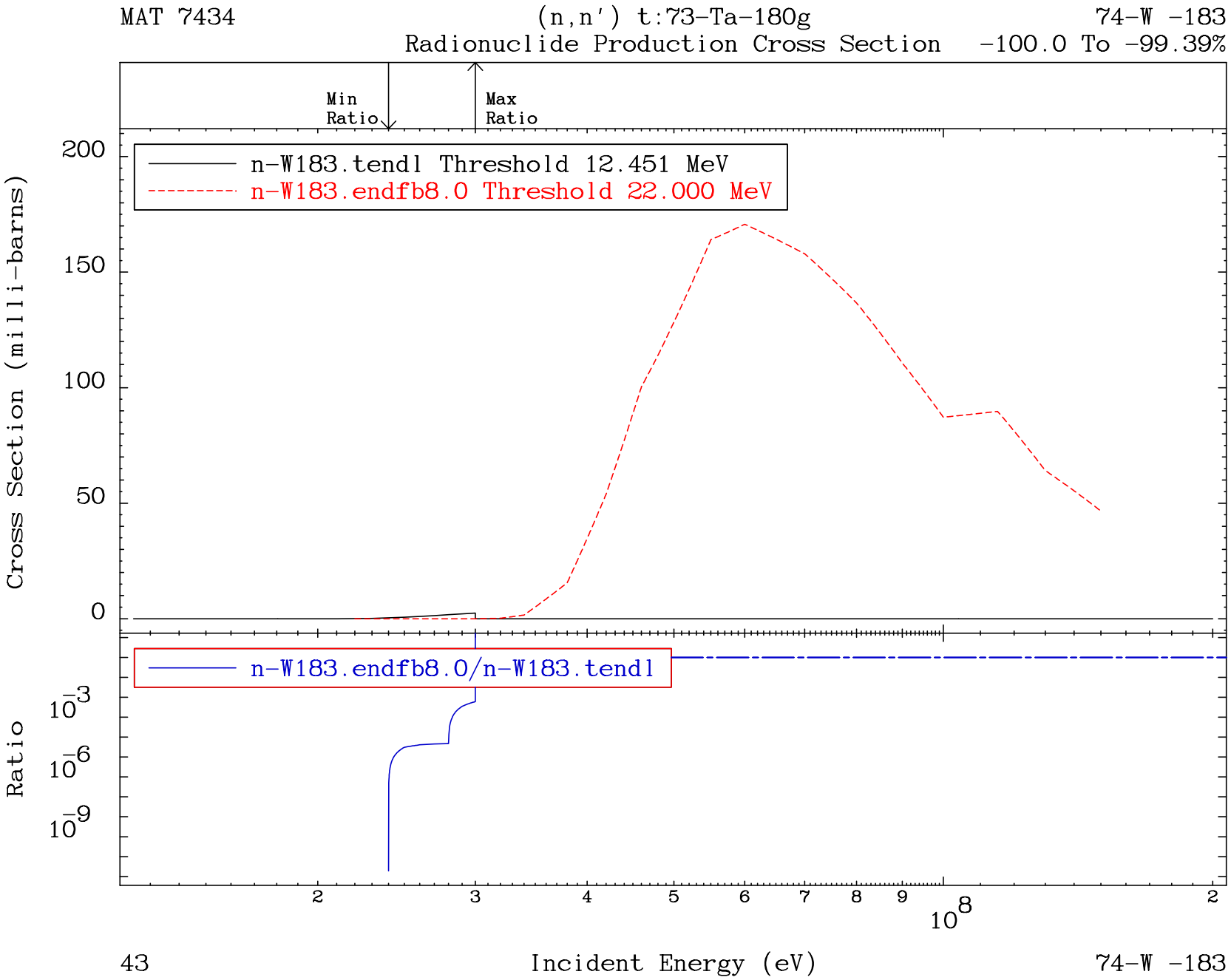

MAT 7434
Dpa disappearance (mt102 -120)
Cross Section
74-W -183
-99.59 To 9999. %
Max Ratio
Min Ratio
n-W183.tendl
n-W183.endfb8.0
Cross Section (barns)
n-W183.endfb8.0/n-W183.tendl
Ratio
Incident Energy (eV)
38
74-W -183

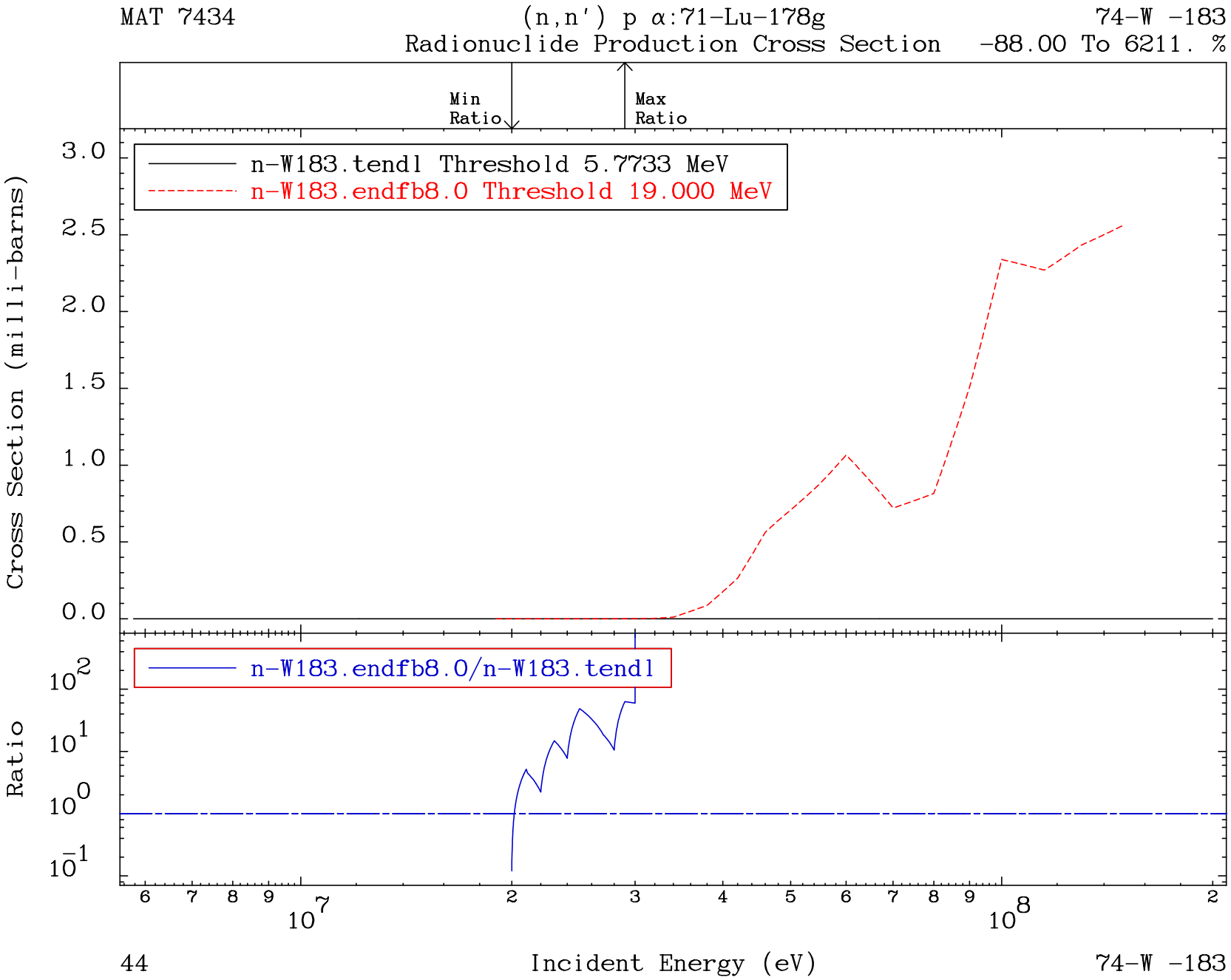

MAT 7434
Fission:Photon
74-W -183
Radionuclide Production Cross Section 9999. To 9999. %
Max Ratio
n-W183.tendl
n-W183.endfb8.0 Threshold 60.436 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-W183.endfb8.0/n-W183.tendl
Ratio
800
600
400
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
39
Incident Energy (eV)
74-W -183

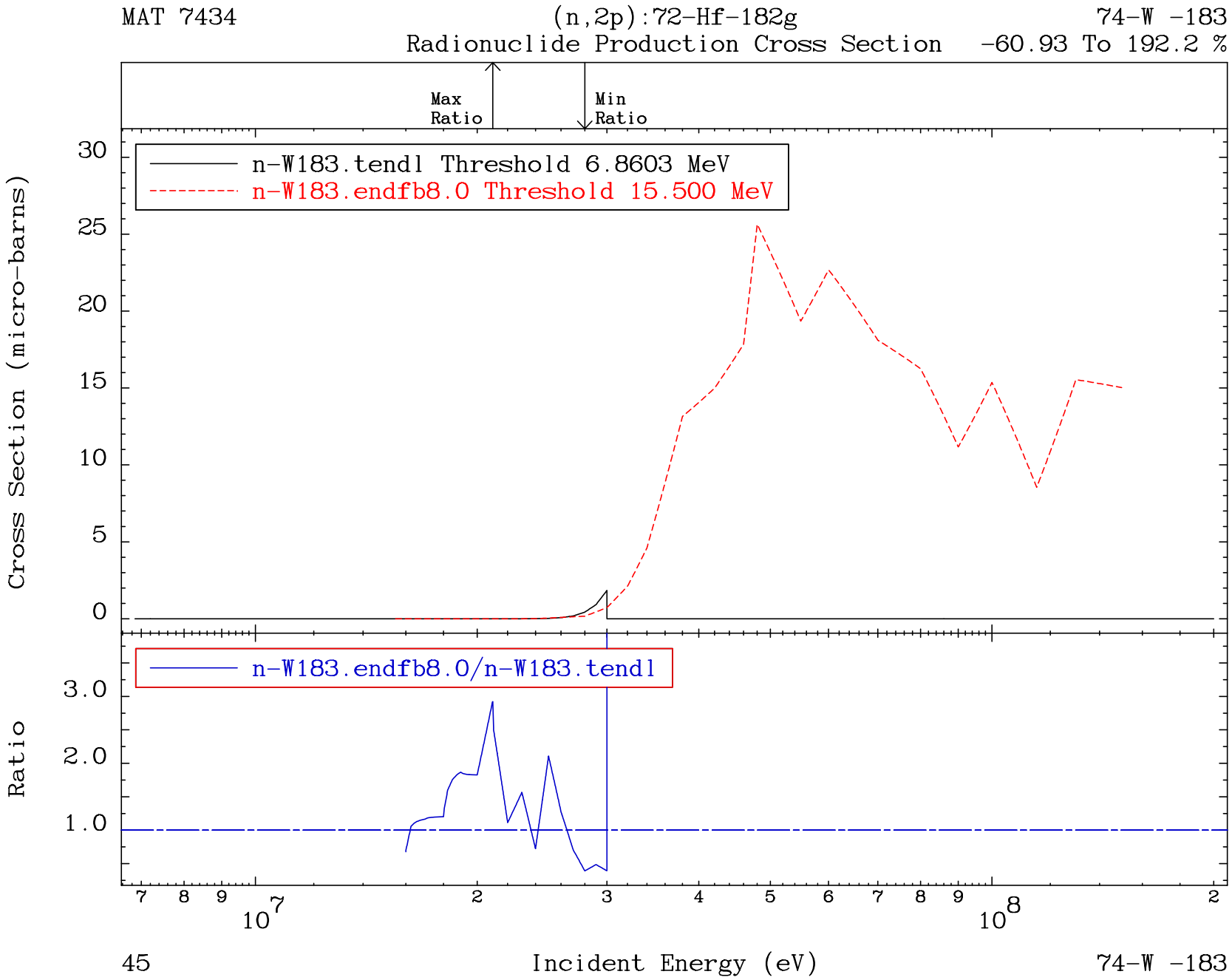

MAT 7434
(n,2n) α:72-Hf-178g
74-W -183
Radionuclide Production Cross Section -95.92 To 2276. %
Min Ratio
Max Ratio
n-W183.tendl Threshold 4.4510 MeV
n-W183.endfb8.0 Threshold 12.000 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^1
10^0
10^-1
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
74-W -183


MAT 7434
(n,n') p:73-Ta-182g
74-W -183
Radionuclide Production Cross Section -99.01 To 16.97 %
Min Ratio
Max Ratio
n-W183.tendl Threshold 7.2645 MeV
n-W183.endfb8.0 Threshold 9.6000 MeV
Cross Section (milli-barns)
0
10
20
30
n-W183.endfb8.0/n-W183.tendl
Ratio
10^0
10^-1
10^-2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
41
Incident Energy (eV)
74-W -183


MAT 7434
(n,n') p:73-Ta-182m1
74-W -183
Radionuclide Production Cross Section -100.0 To -92.56%
Min Ratio
Max Ratio
n-W183.tendl Threshold 7.2808 MeV
n-W183.endfb8.0 Threshold 10.000 MeV
Cross Section (milli-barns)
30
20
10
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^-2
10^-4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
42
Incident Energy (eV)
74-W -183


MAT 7434
(n,n') t:73-Ta-180g
74-W -183
Radionuclide Production Cross Section
-100.0 To -99.39%
Min Ratio
Max Ratio
n-W183.tendl Threshold 12.451 MeV
n-W183.endfb8.0 Threshold 22.000 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-W183.endfb8.0/n-W183.tendl
Ratio
10-3
10-6
10-9
2
3
4
5
6
7
8
9
10 8
2
43
Incident Energy (eV)
74-W -183


MAT 7434
(n,n') p α:71-Lu-178g
74-W -183
Radionuclide Production Cross Section -88.00 To 6211. %
Min Ratio
Max Ratio
n-W183.tendl Threshold 5.7733 MeV
n-W183.endfb8.0 Threshold 19.000 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-W183.endfb8.0/n-W183.tendl
Ratio
10^2
10^1
10^0
10^-1
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
74-W -183


MAT 7434
(n,2p):72-Hf-182g
74-W -183
Radionuclide Production Cross Section -60.93 To 192.2 %
Max Ratio
Min Ratio
n-W183.tendl Threshold 6.8603 MeV
n-W183.endfb8.0 Threshold 15.500 MeV
Cross Section (micro-barns)
30
25
20
15
10
5
0
n-W183.endfb8.0/n-W183.tendl
Ratio
3.0
2.0
1.0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
74-W -183