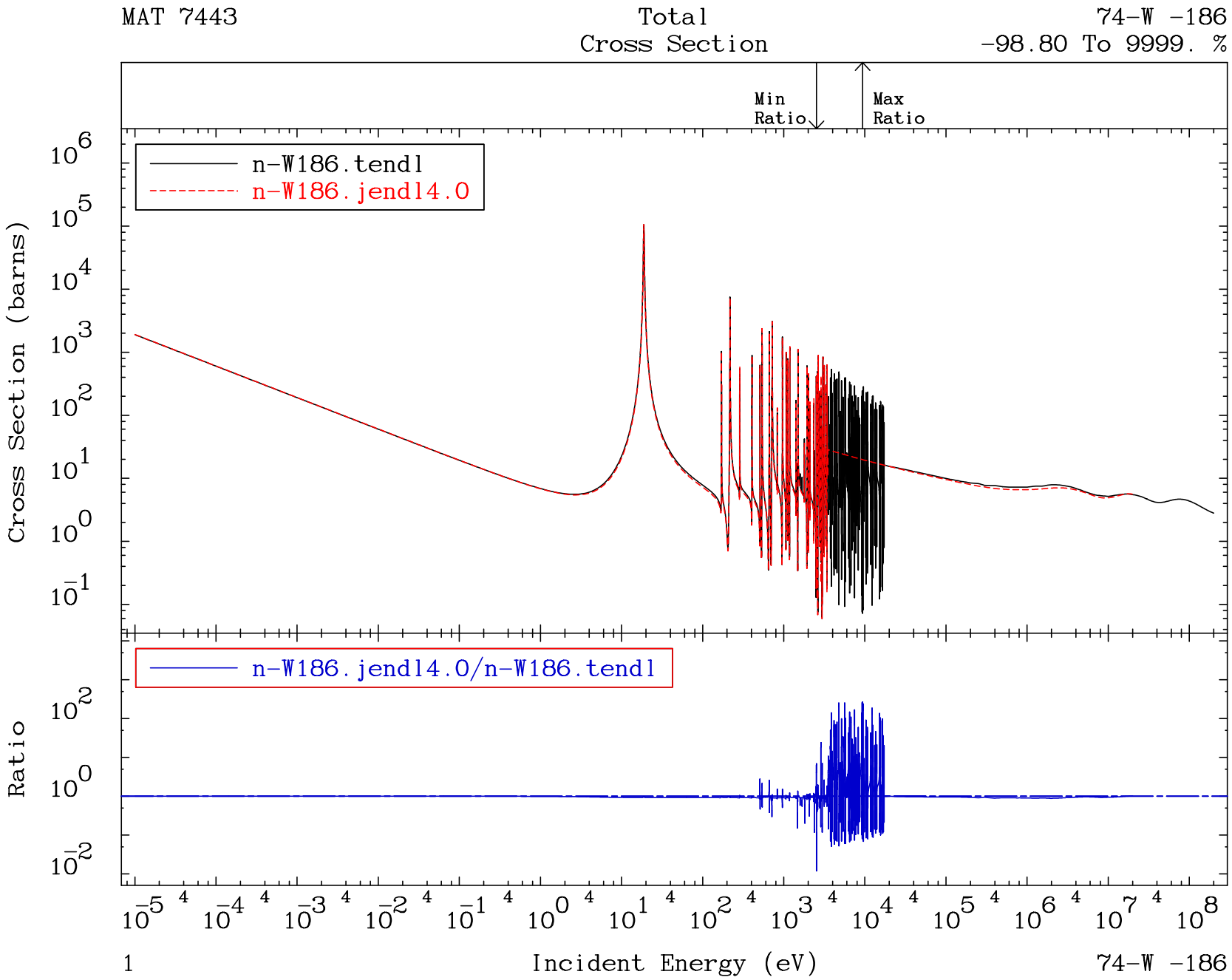
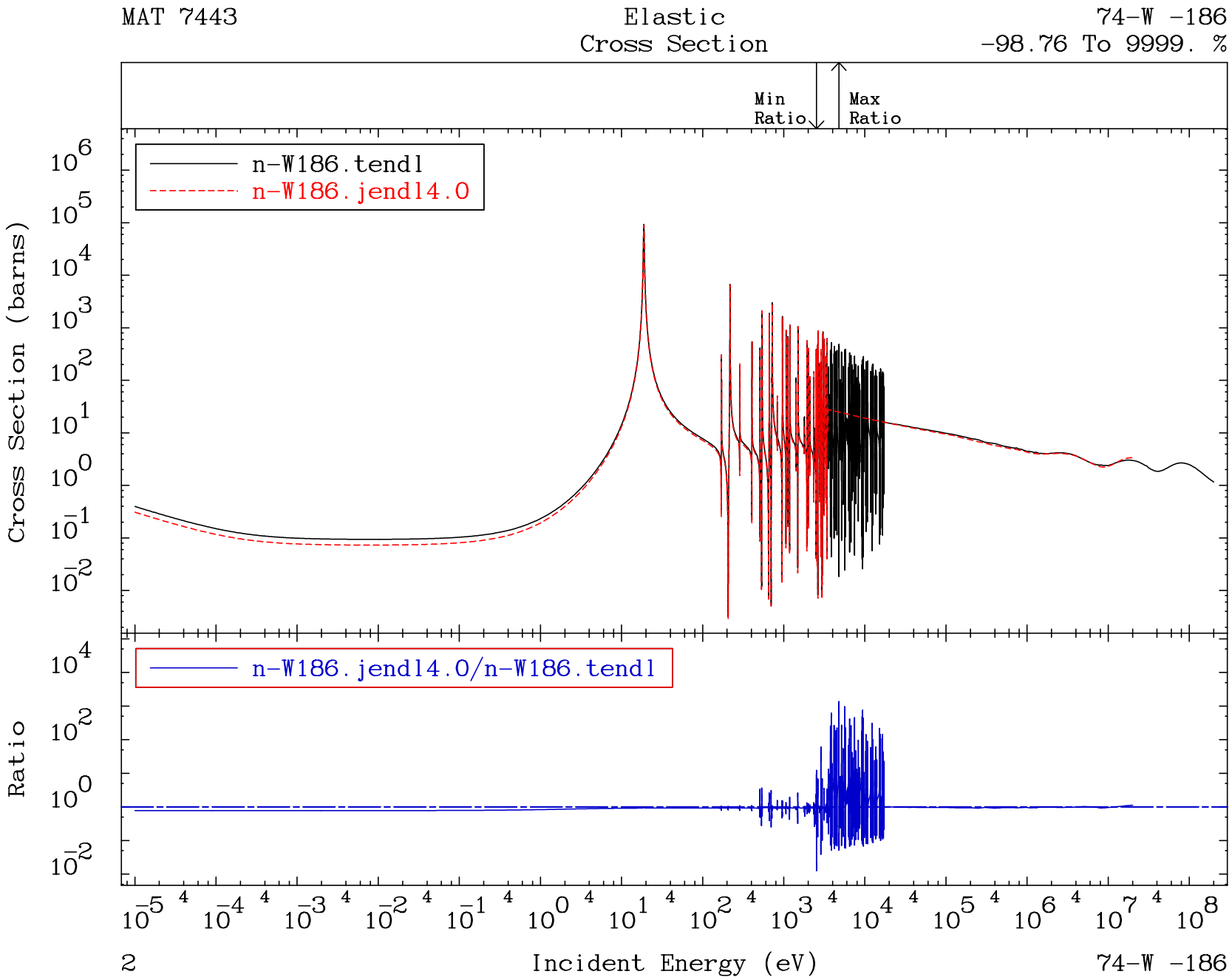
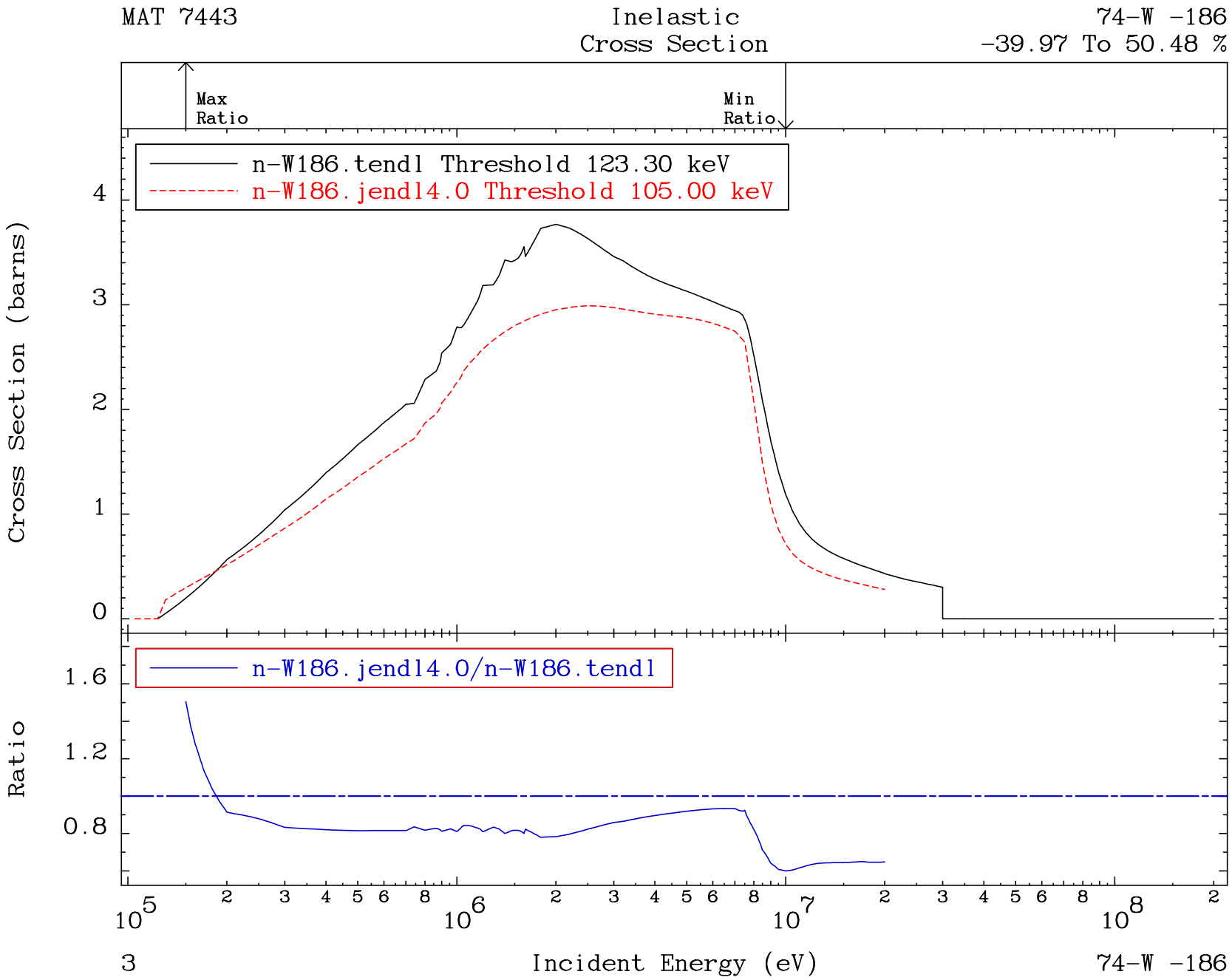
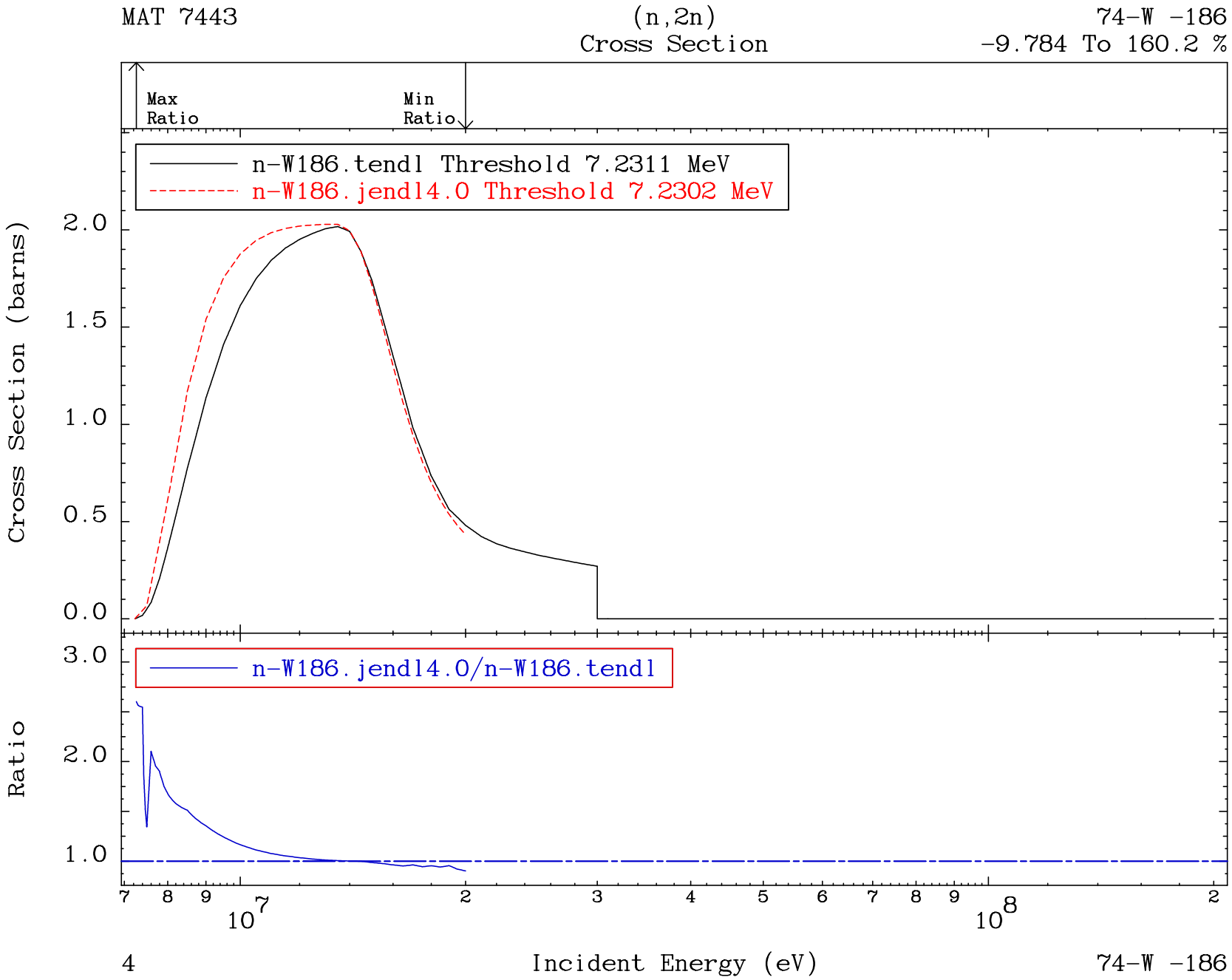
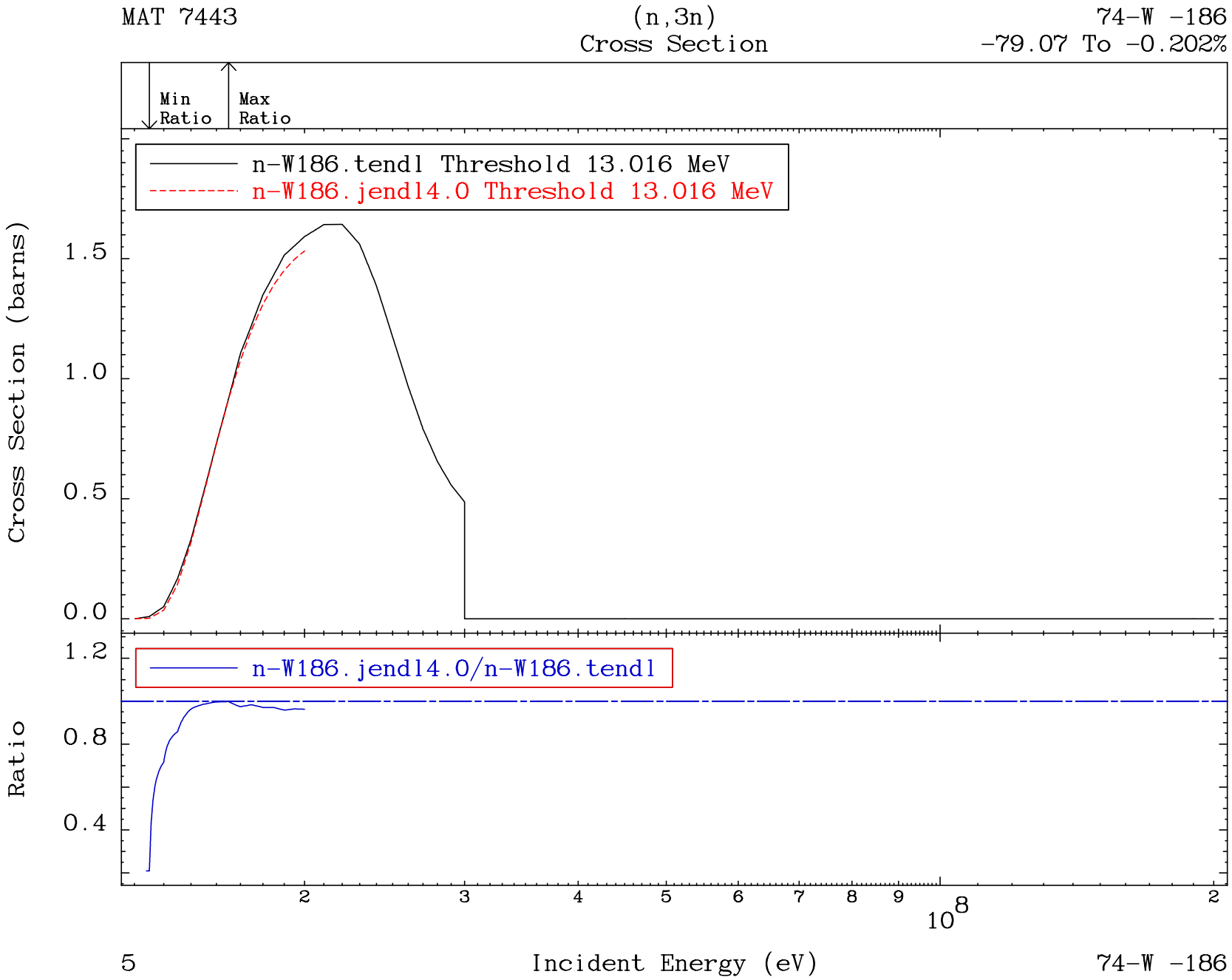
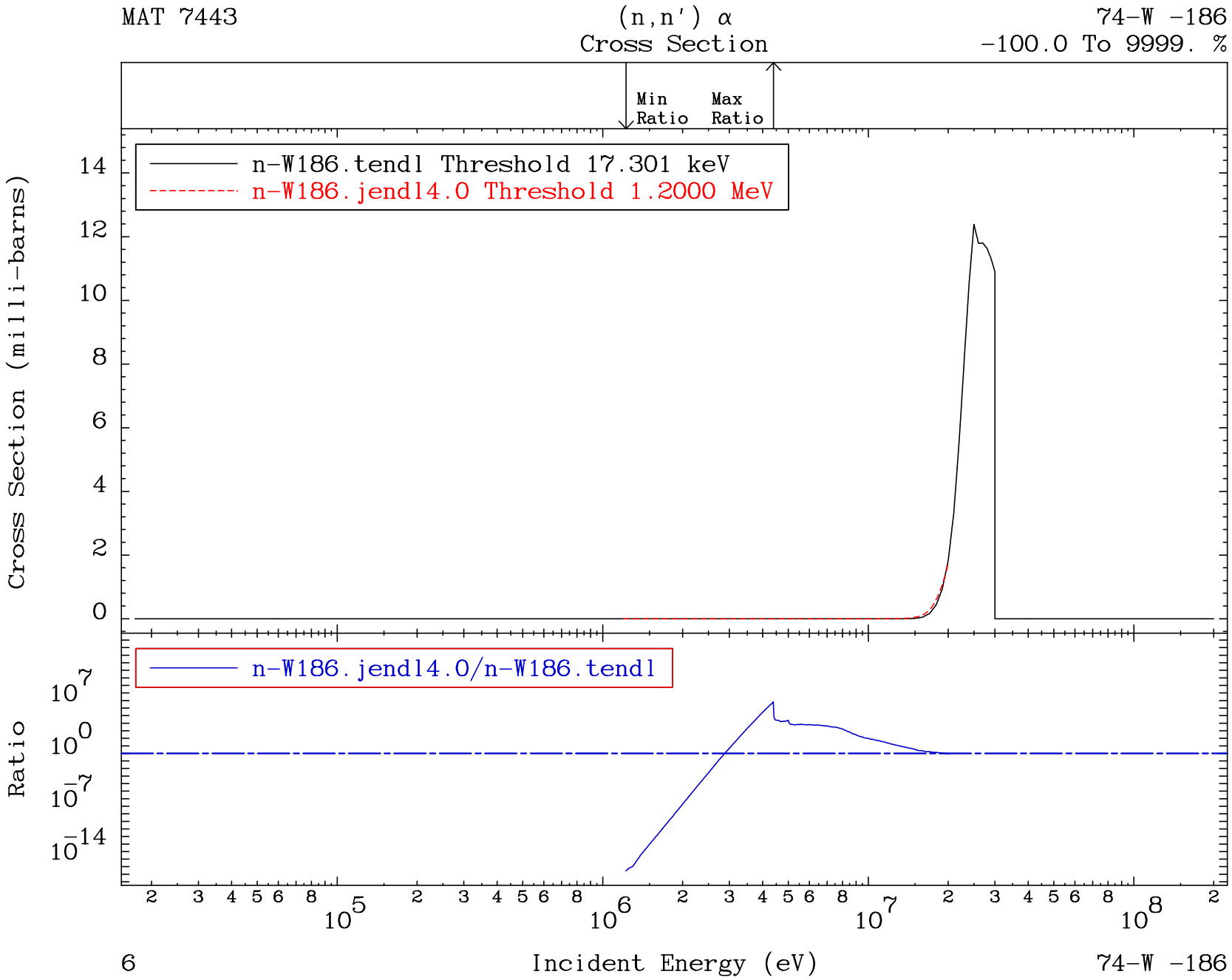

MAT 7443
Total
Cross Section
74-W -186
-98.80 To 9999. %
Min
Ratio
Max
Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
1
74-W -186

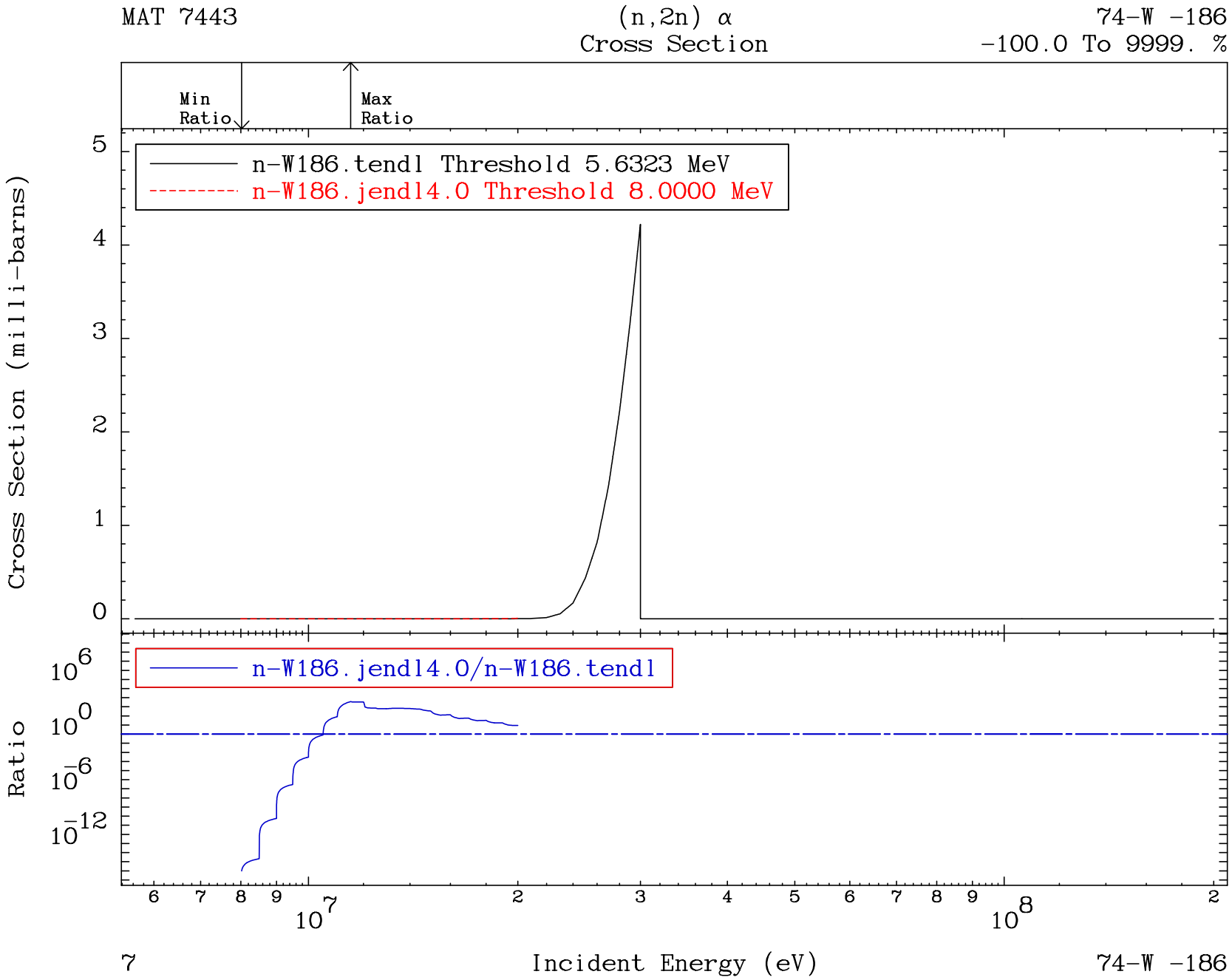

MAT 7443
Elastic
Cross Section
74-W -186
-98.76 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
2
74-W -186

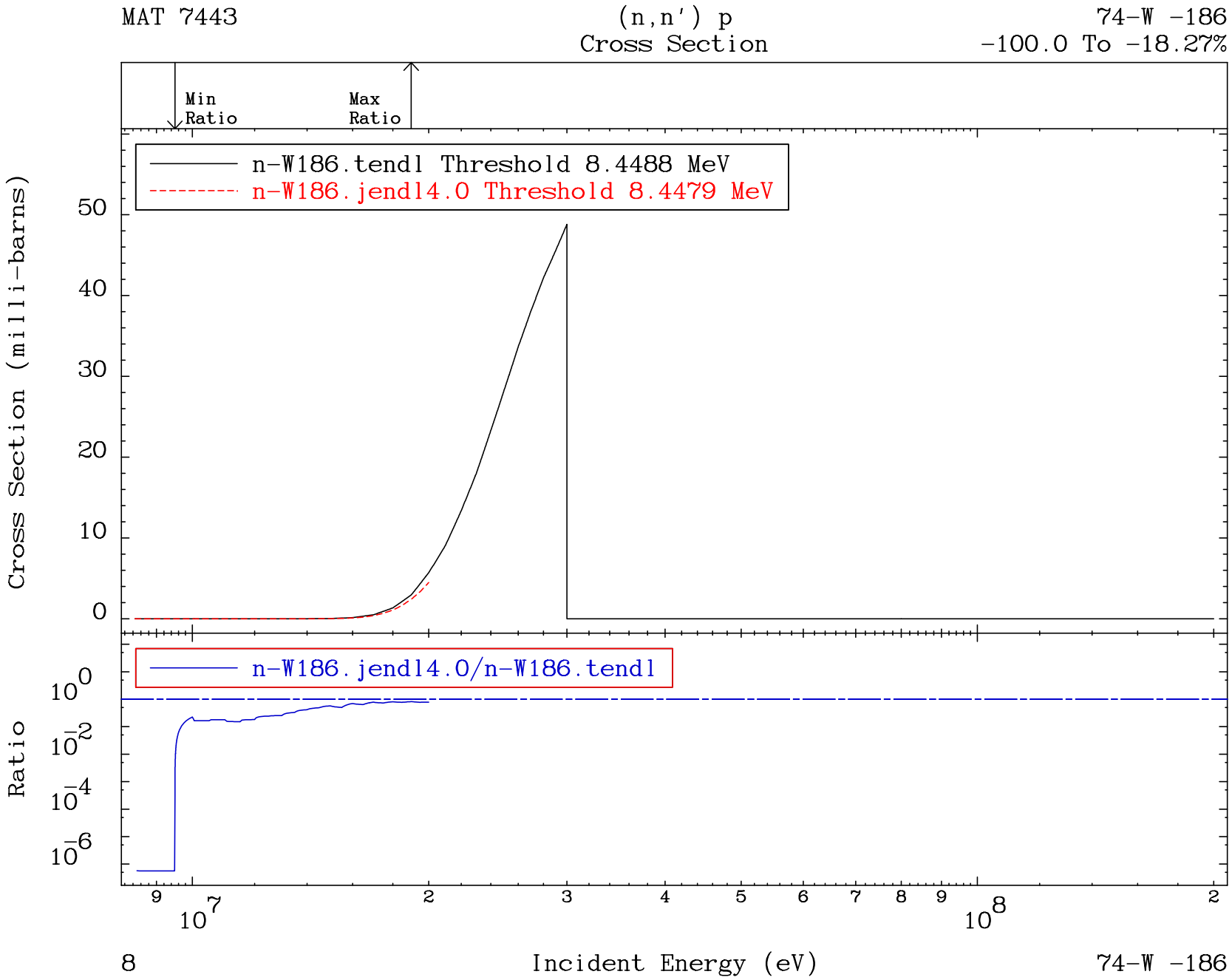

MAT 7443
Inelastic
Cross Section
74-W -186
-39.97 To 50.48 %
Max
Ratio
Min
Ratio
n-W186.tendl Threshold 123.30 keV
n-W186.jendl4.0 Threshold 105.00 keV
Cross Section (barns)
0
1
2
3
4
n-W186.jendl4.0/n-W186.tendl
Ratio
0.8
1.2
1.6
10^5
10^6
10^7
10^8
Incident Energy (eV)
3
74-W -186

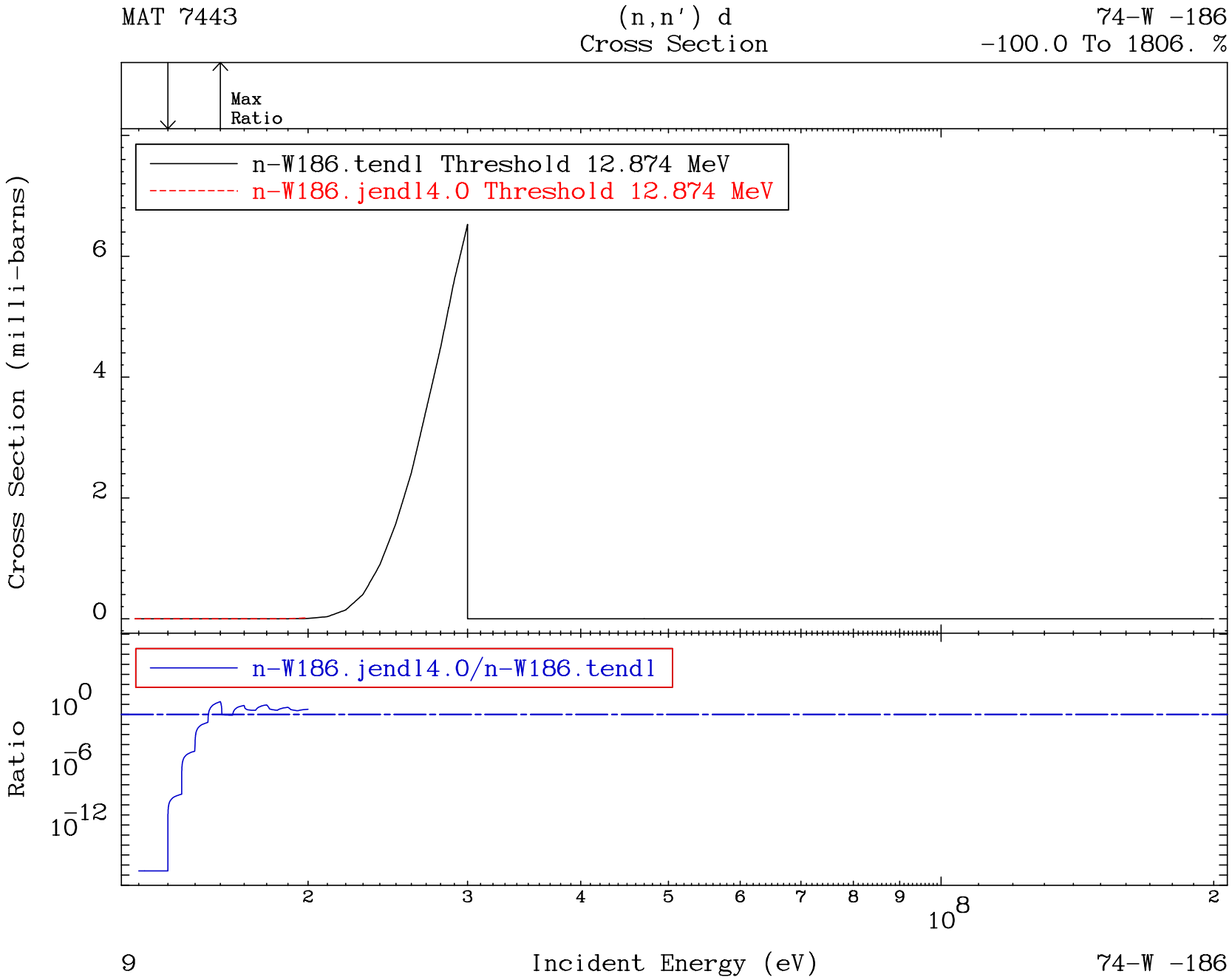

MAT 7443
(n,2n)
Cross Section
74-W -186
-9.784 To 160.2 %
Max Ratio
Min Ratio
n-W186.tendl Threshold 7.2311 MeV
n-W186.jendl4.0 Threshold 7.2302 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-W186.jendl4.0/n-W186.tendl
Ratio
3.0
2.0
1.0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
74-W -186

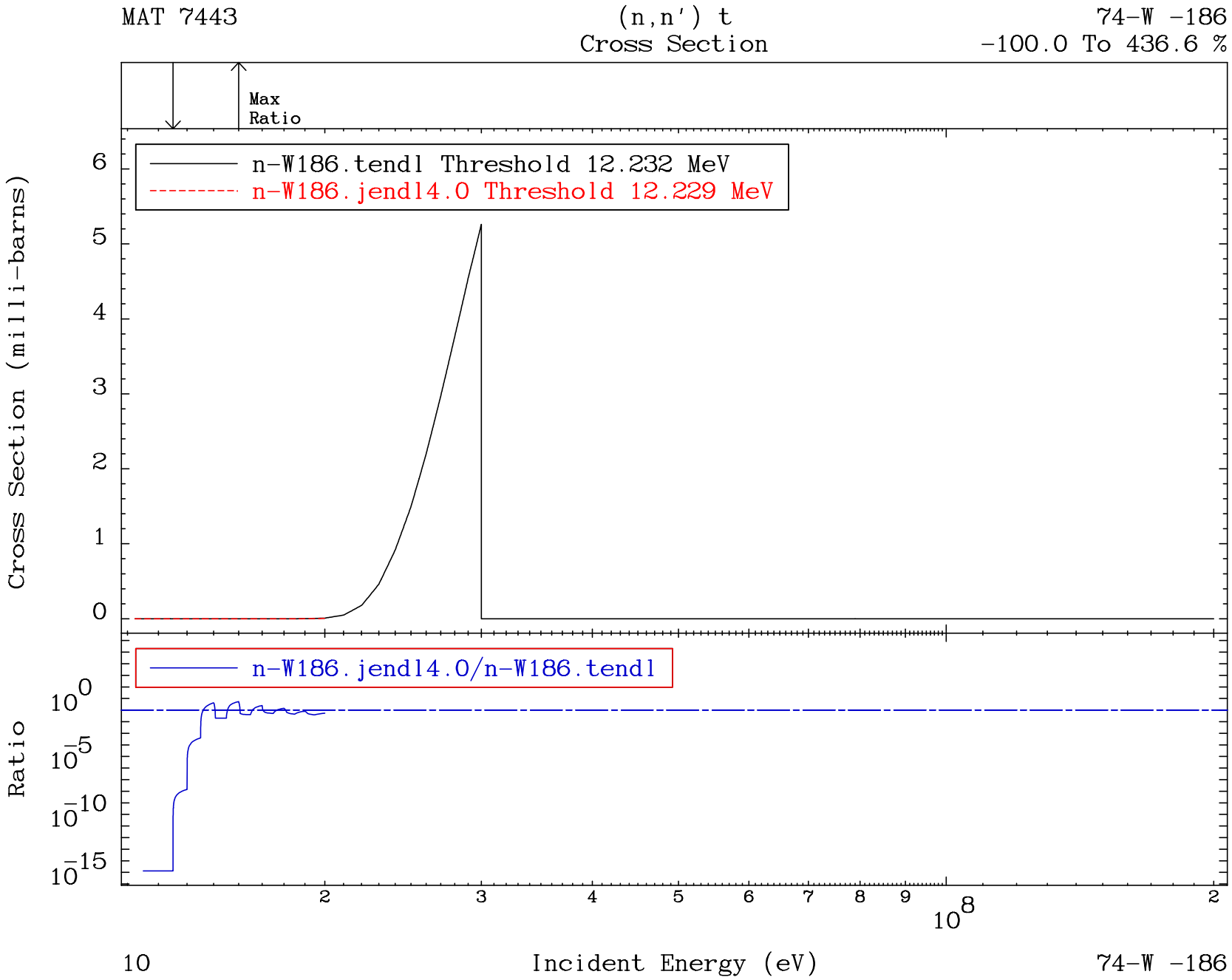

MAT 7443
(n,3n)
Cross Section
74-W -186
-79.07 To -0.202%
Min Ratio
Max Ratio
n-W186.tendl Threshold 13.016 MeV
n-W186.jendl4.0 Threshold 13.016 MeV
Cross Section (barns)
1.5
1.0
0.5
0.0
1.2
0.8
0.4
Ratio
n-W186.jendl4.0/n-W186.tendl
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
74-W -186

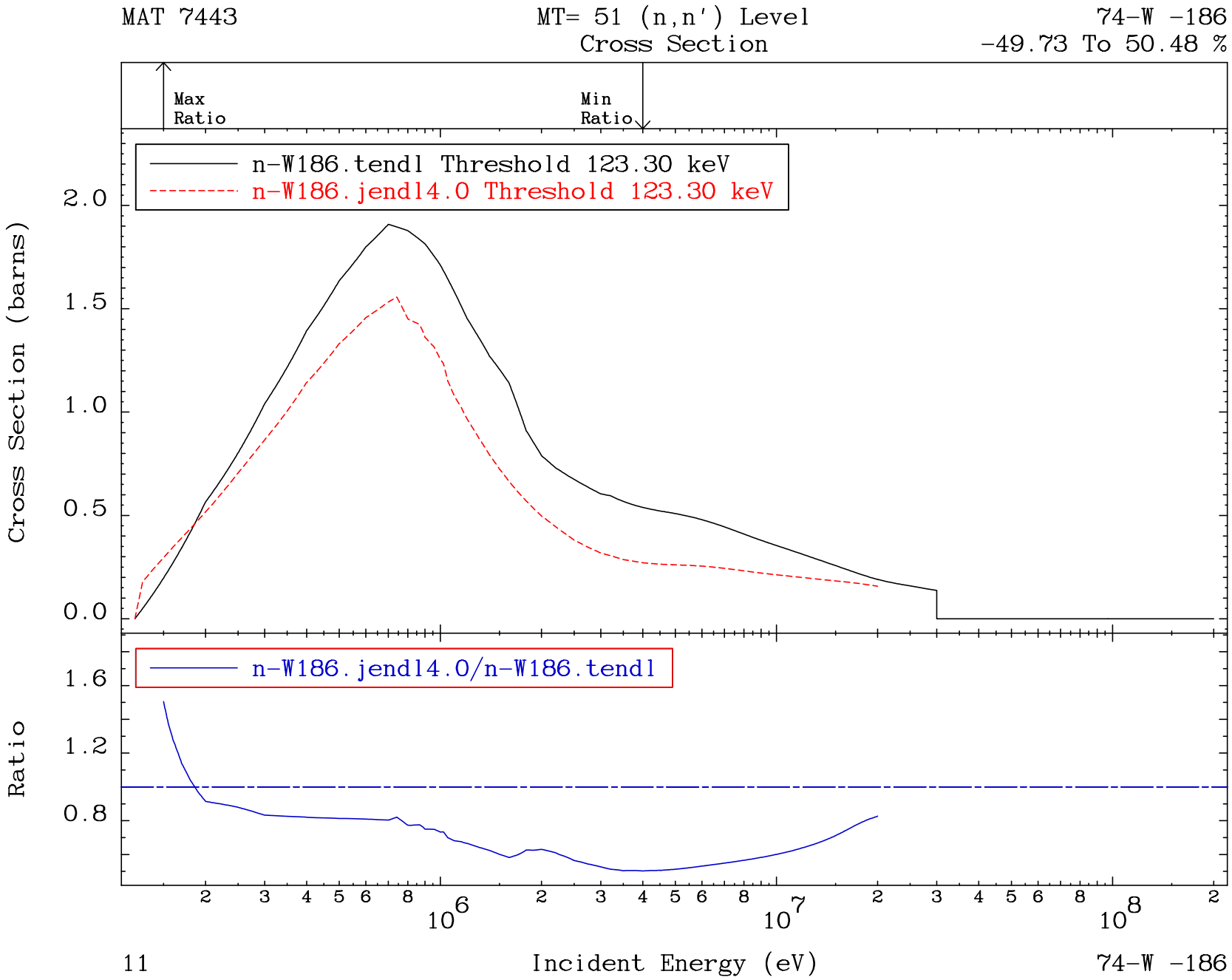

MAT 7443
(n,n') α
Cross Section
74-W -186
-100.0 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 17.301 keV
n-W186.jendl4.0 Threshold 1.2000 MeV
Cross Section (milli-barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
6
74-W -186

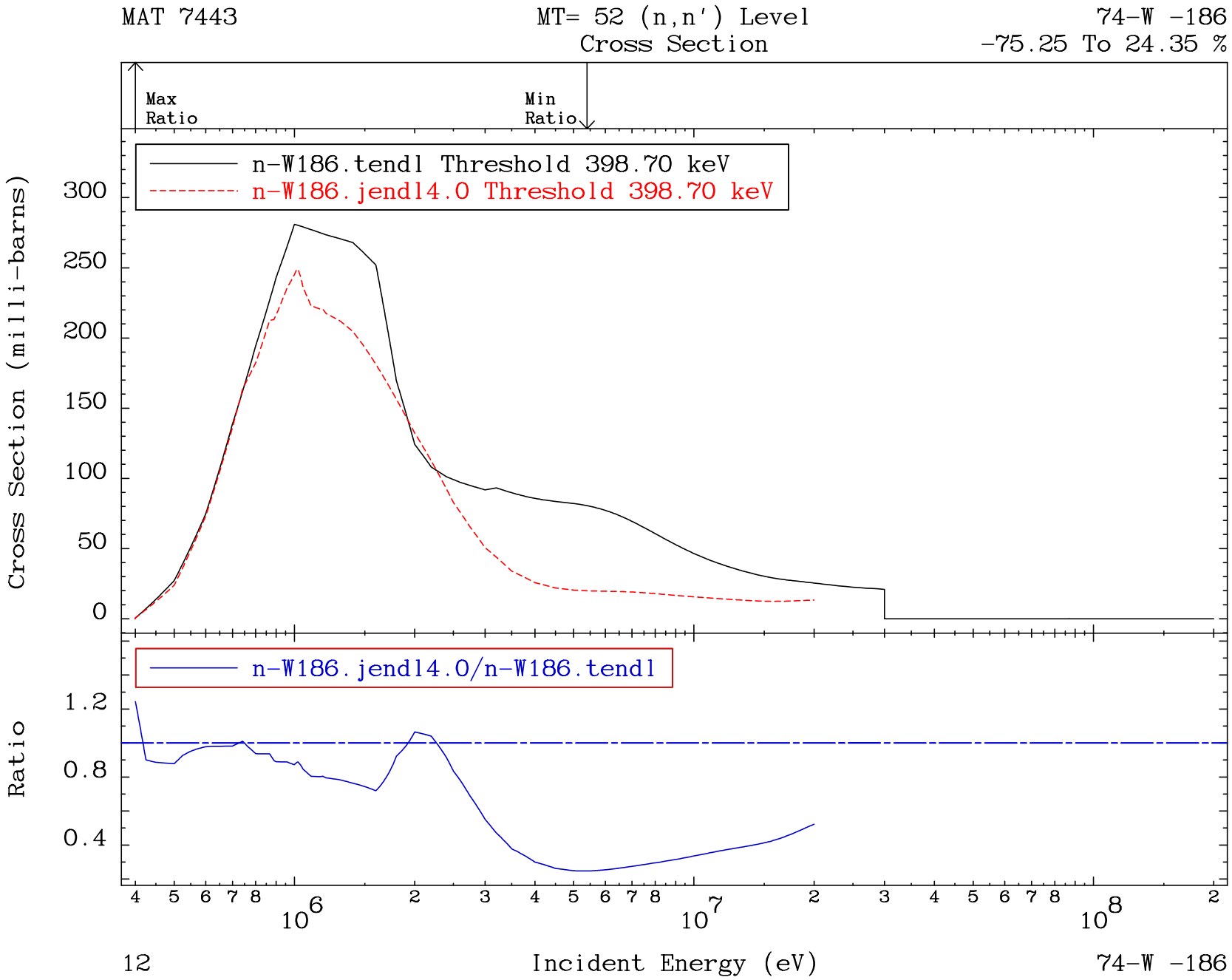

MAT 7443
(n,2n) α
Cross Section
74-W -186
-100.0 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 5.6323 MeV
n-W186.jendl4.0 Threshold 8.0000 MeV
Cross Section (milli-barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
7
74-W -186

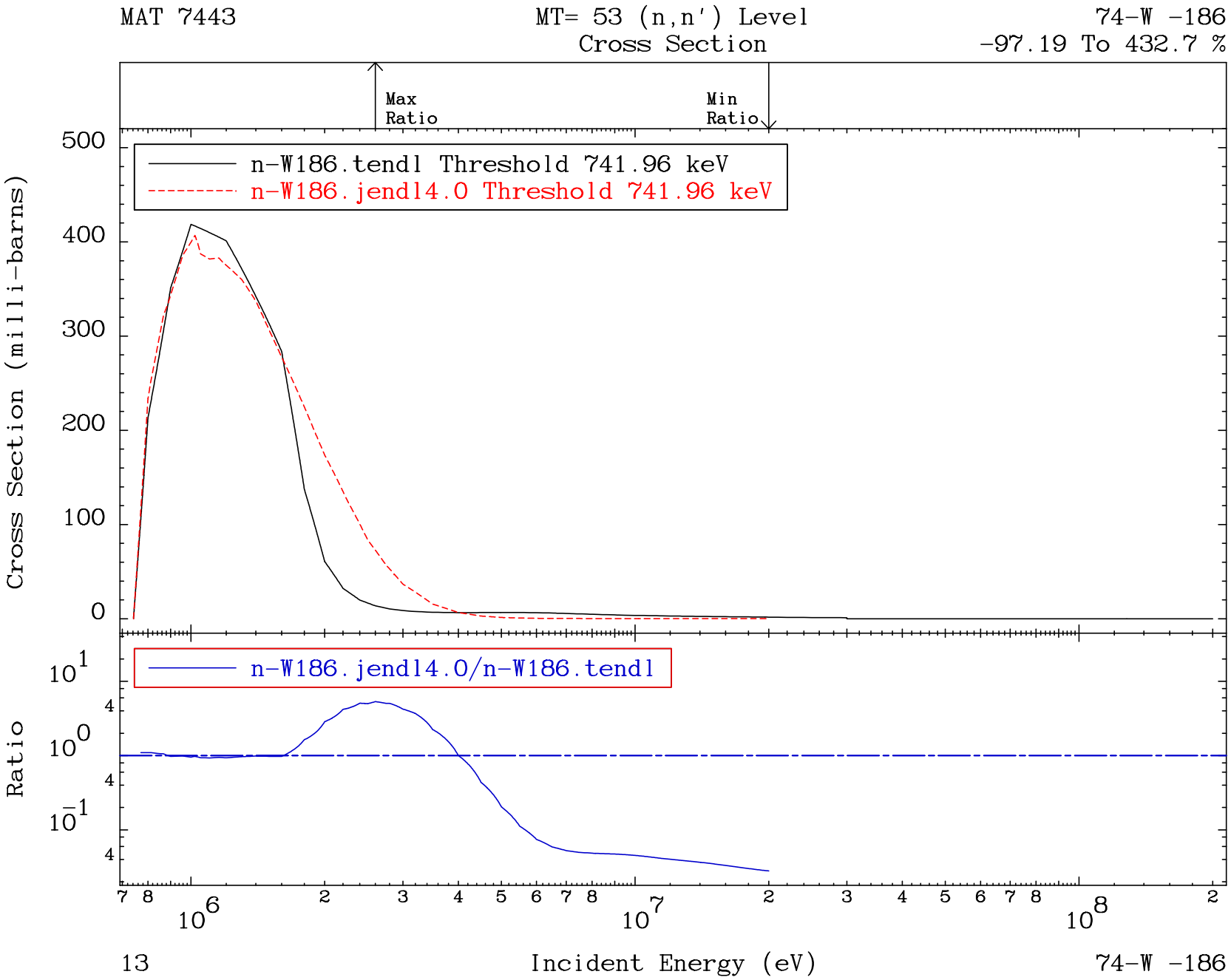

MAT 7443
(n,n') p
Cross Section
74-W -186
-100.0 To -18.27%
Min Ratio
Max Ratio
n-W186.tendl Threshold 8.4488 MeV
n-W186.jendl4.0 Threshold 8.4479 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^0
10^-2
10^-4
10^-6
9
10^7
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
74-W -186

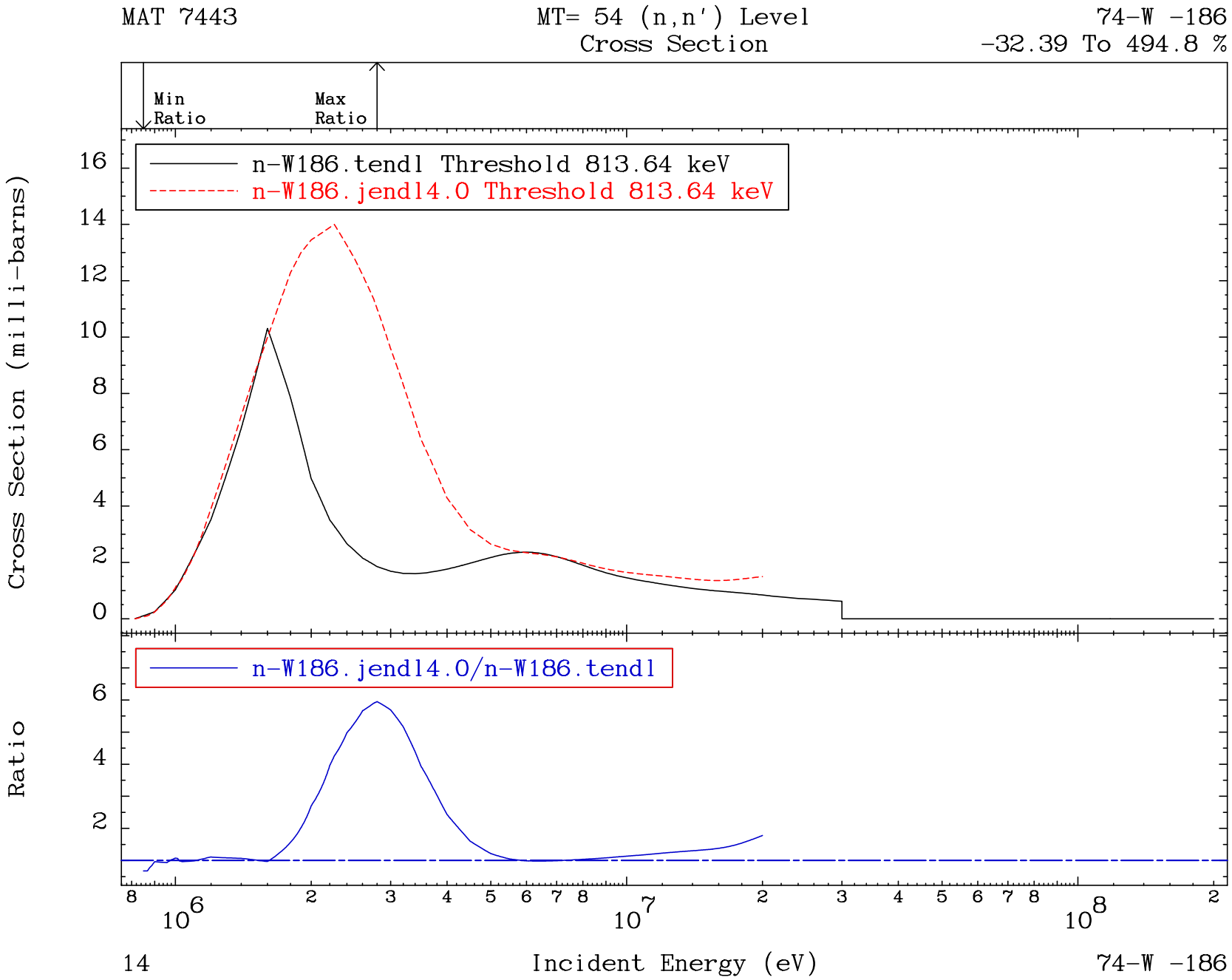

MAT 7443
(n,n') d
Cross Section
74-W -186
-100.0 To 1806. %
Max
Ratio
n-W186.tendl Threshold 12.874 MeV
n-W186.jendl4.0 Threshold 12.874 MeV
Cross Section (milli-barns)
0
2
4
6
n-W186.jendl4.0/n-W186.tendl
Ratio
10^0
10^-6
10^-12
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
74-W -186

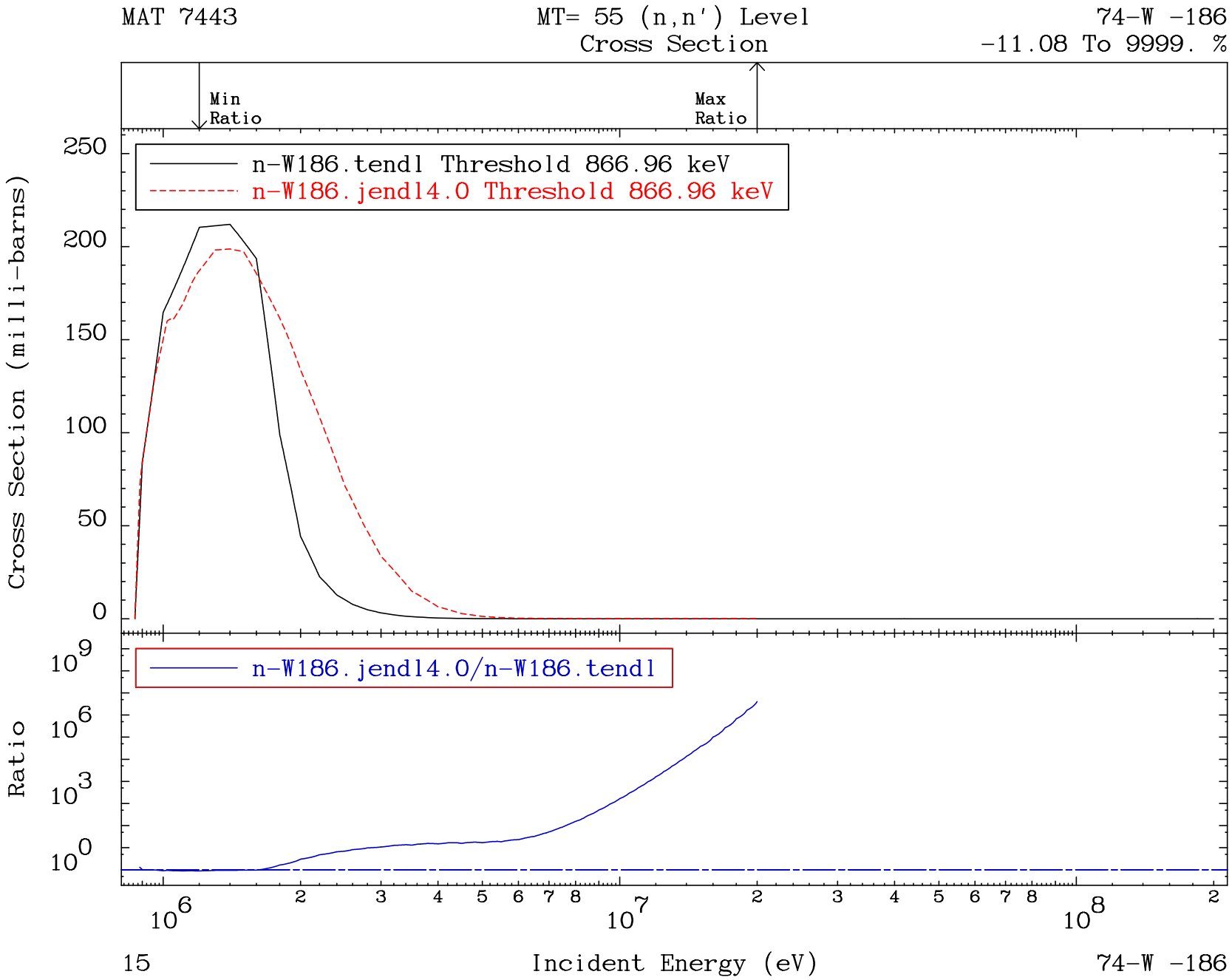

MAT 7443
(n,n') t
Cross Section
74-W -186
-100.0 To 436.6 %
Max
Ratio
n-W186.tendl Threshold 12.232 MeV
n-W186.jendl4.0 Threshold 12.229 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-W186.jendl4.0/n-W186.tendl
Ratio
10^0
10^-5
10^-10
10^-15
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
74-W -186

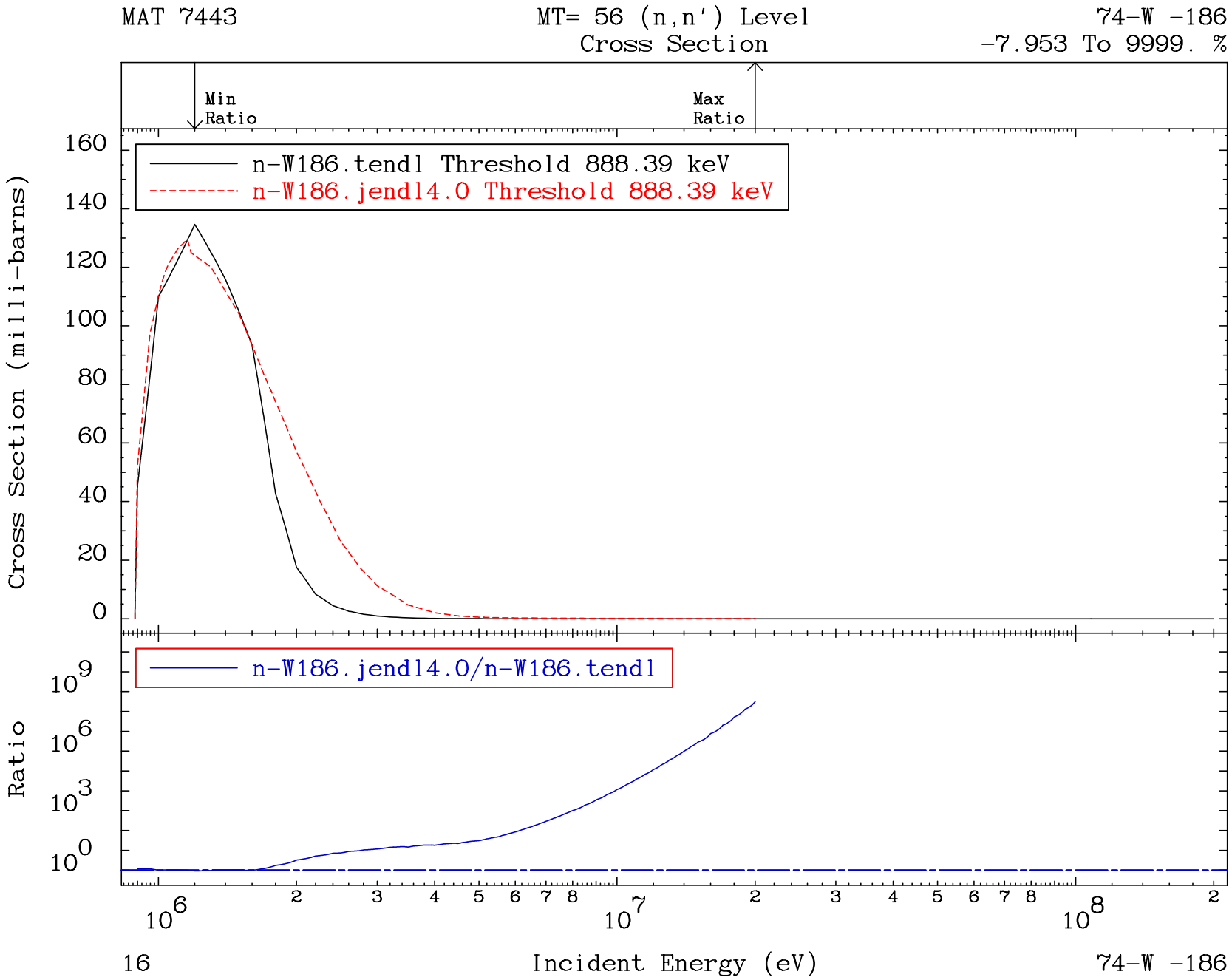

MAT 7443
MT= 51 (n,n') Level
Cross Section
74-W -186
-49.73 To 50.48 %
Max
Ratio
Min
Ratio
n-W186.tendl Threshold 123.30 keV
n-W186.jendl4.0 Threshold 123.30 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-W186.jendl4.0/n-W186.tendl
Ratio
1.6
1.2
0.8
2
3
4
5
6
8
10^6
10^7
10^8
11
Incident Energy (eV)
74-W -186

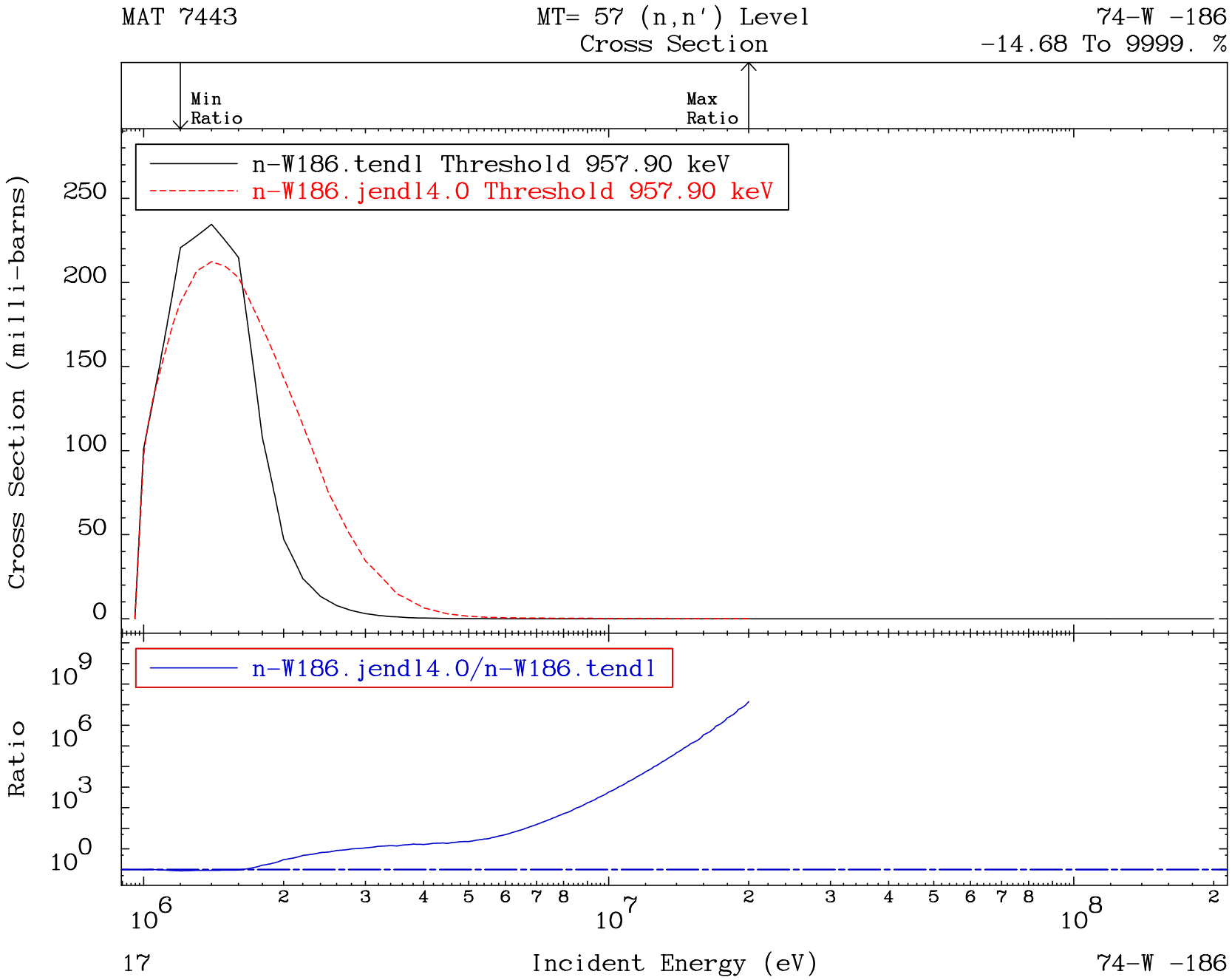

MAT 7443
MT= 52 (n,n') Level
Cross Section
74-W -186
-75.25 To 24.35 %
Max Ratio
Min Ratio
n-W186.tendl Threshold 398.70 keV
n-W186.jendl4.0 Threshold 398.70 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-W186.jendl4.0/n-W186.tendl
Ratio
1.2
0.8
0.4
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
12
Incident Energy (eV)
74-W -186

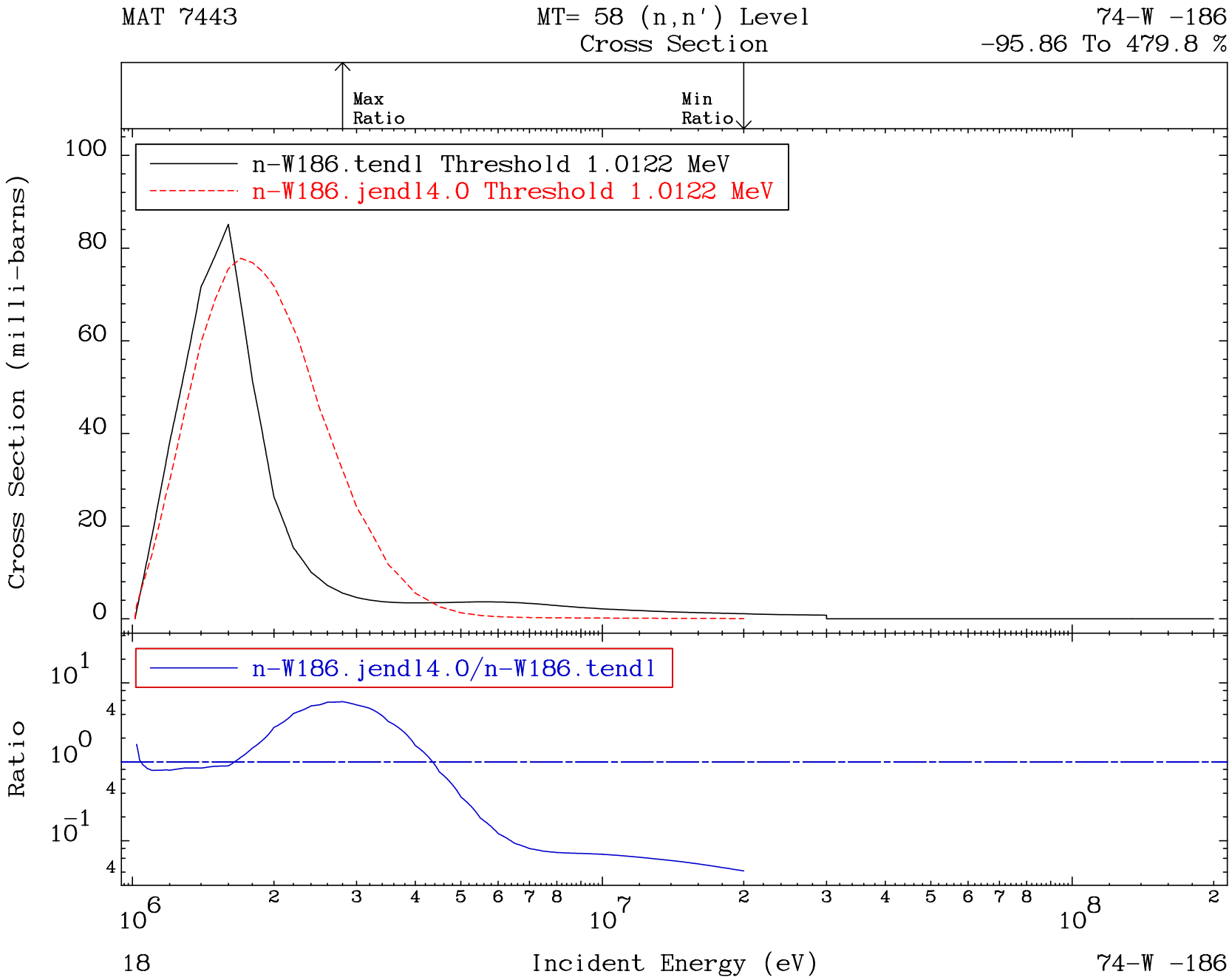

MAT 7443
MT= 53 (n,n') Level
Cross Section
74-W -186
-97.19 To 432.7 %
Max
Ratio
Min
Ratio
n-W186.tendl Threshold 741.96 keV
n-W186.jendl4.0 Threshold 741.96 keV
Cross Section (milli-barns)
500
400
300
200
100
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^1
10^0
10^-1
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
13
Incident Energy (eV)
74-W -186

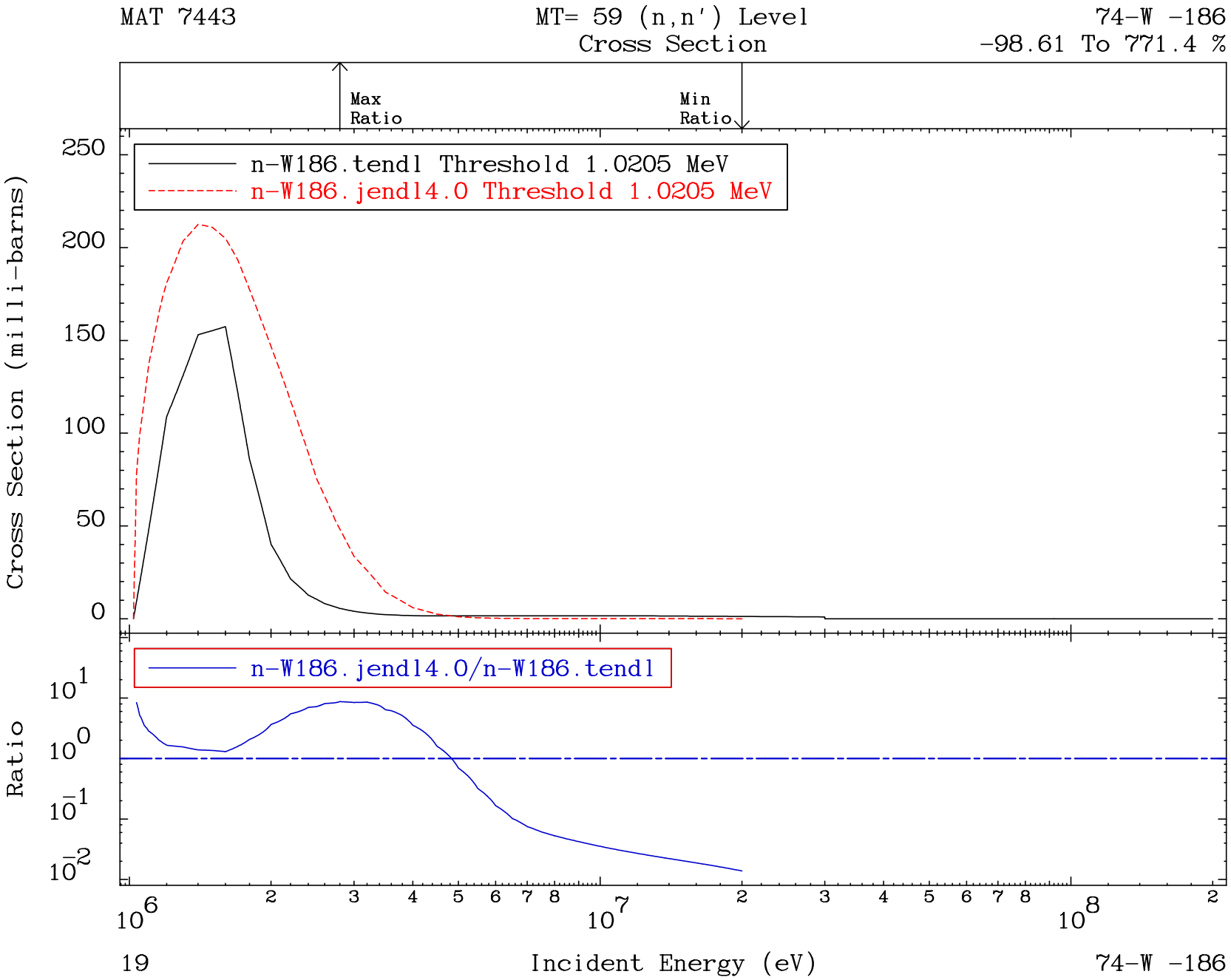

MAT 7443
MT= 54 (n,n') Level
Cross Section
74-W -186
-32.39 To 494.8 %
Min Ratio
Max Ratio
n-W186.tendl Threshold 813.64 keV
n-W186.jendl4.0 Threshold 813.64 keV
Cross Section (milli-barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
14
74-W -186

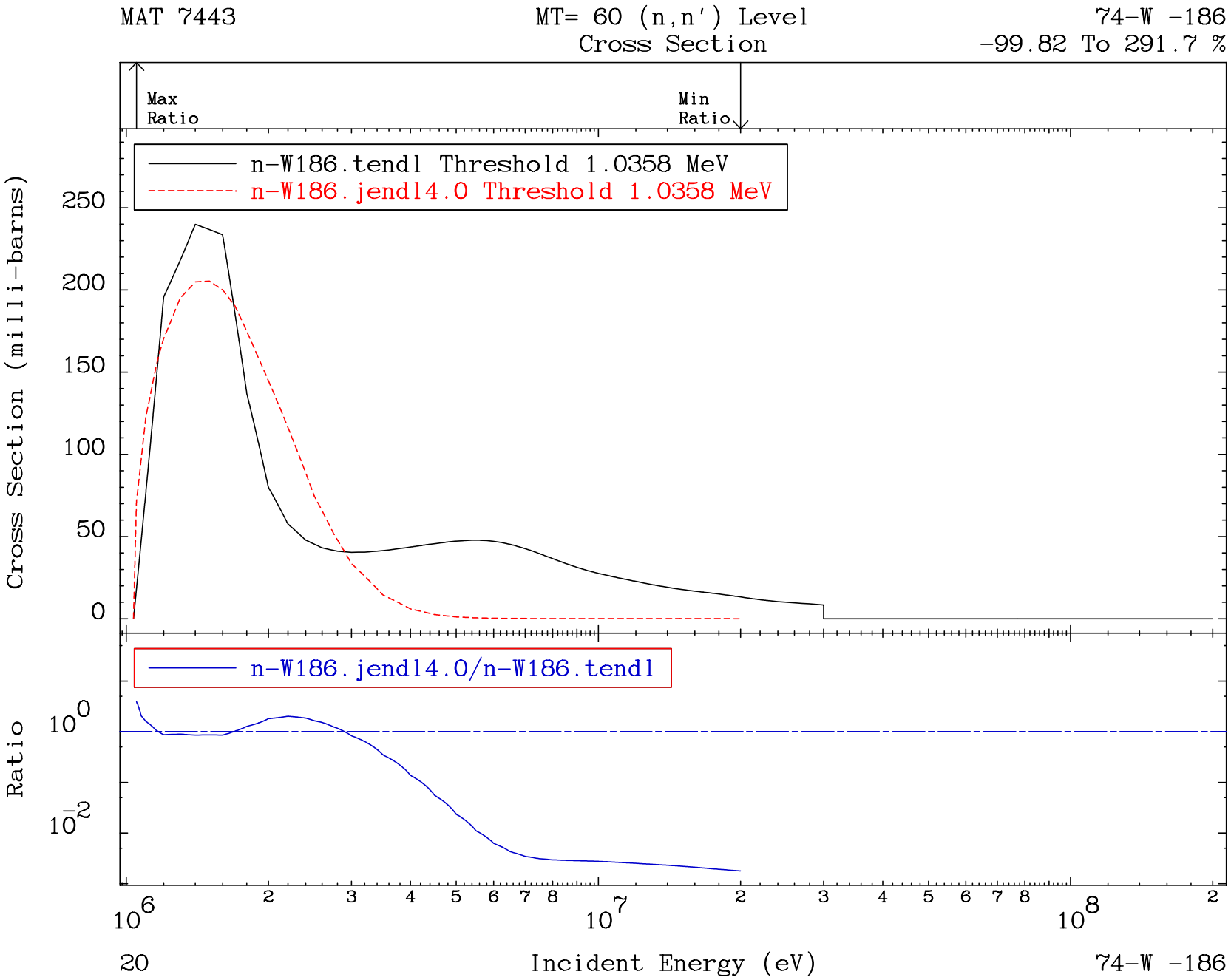

MAT 7443
MT= 55 (n,n') Level
Cross Section
74-W -186
-11.08 To 9999. %
Min
Ratio
Max
Ratio
n-W186.tendl Threshold 866.96 keV
n-W186.jendl4.0 Threshold 866.96 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^9
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
15
Incident Energy (eV)
74-W -186

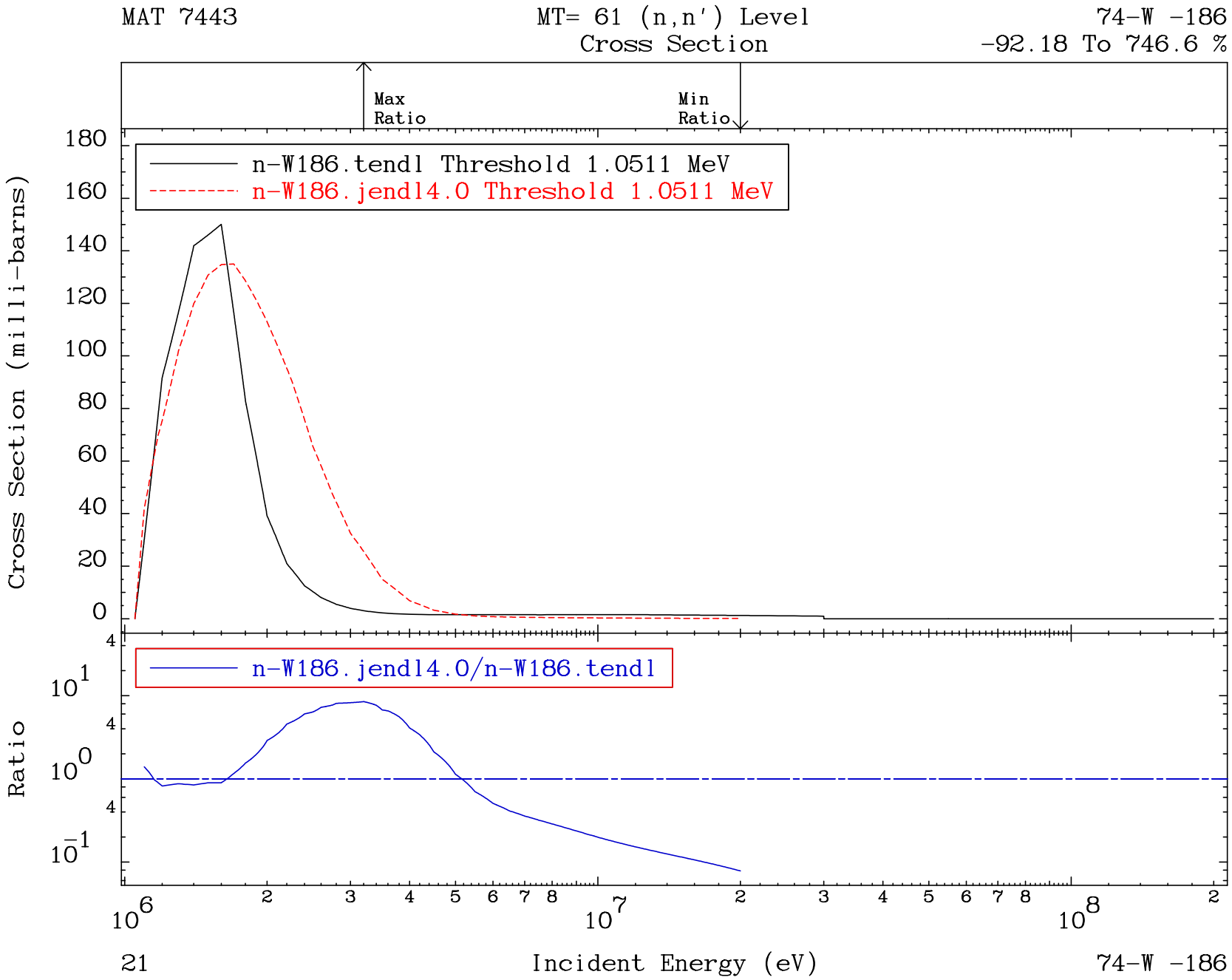

MAT 7443
MT= 56 (n,n') Level
Cross Section
74-W -186
-7.953 To 9999. %
Min
Ratio
Max
Ratio
n-W186.tendl Threshold 888.39 keV
n-W186.jendl4.0 Threshold 888.39 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^9
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
16
Incident Energy (eV)
74-W -186

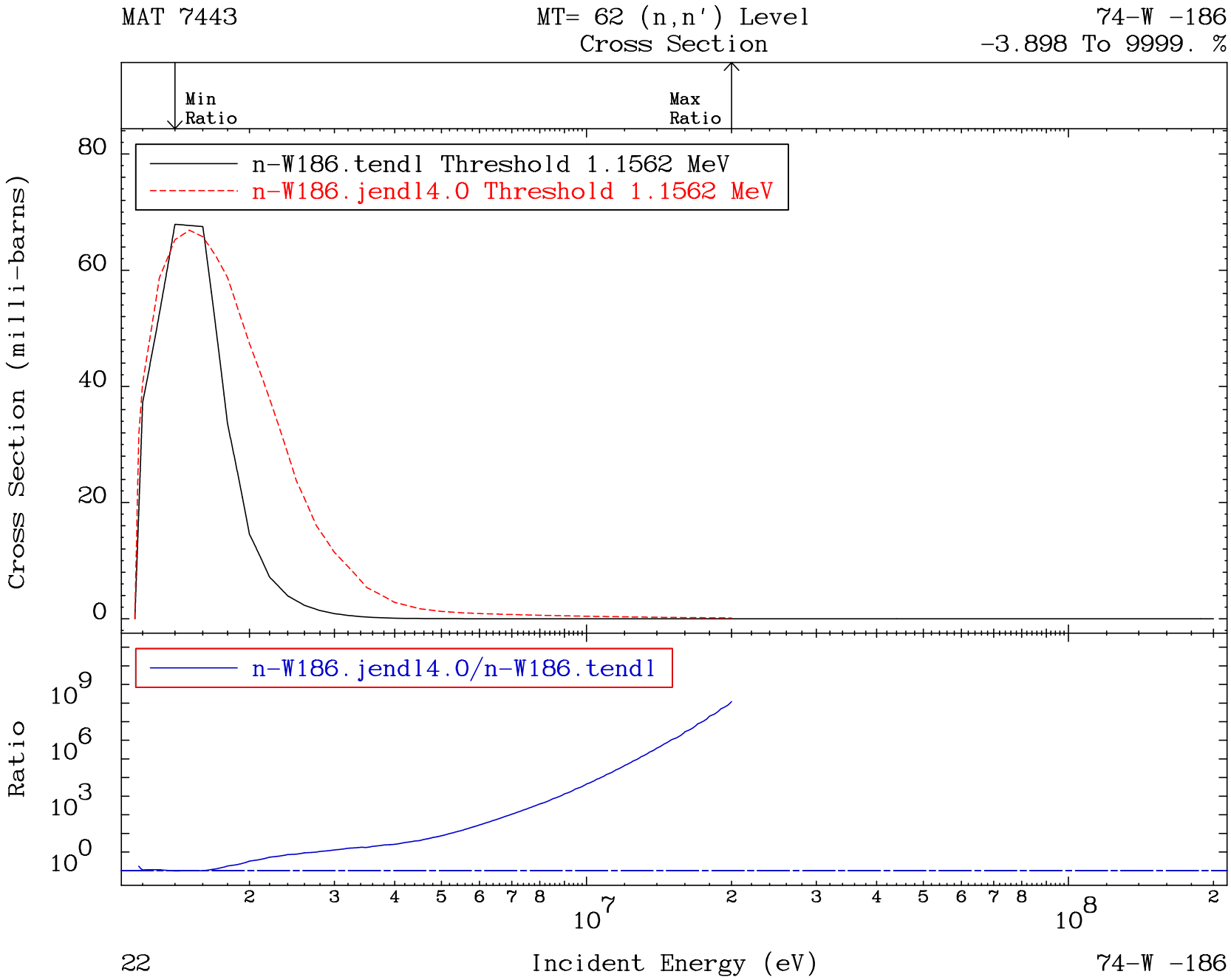

MAT 7443
MT= 57 (n,n') Level
Cross Section
74-W -186
-14.68 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 957.90 keV
n-W186.jendl4.0 Threshold 957.90 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^9
10^6
10^3
10^0
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
74-W -186

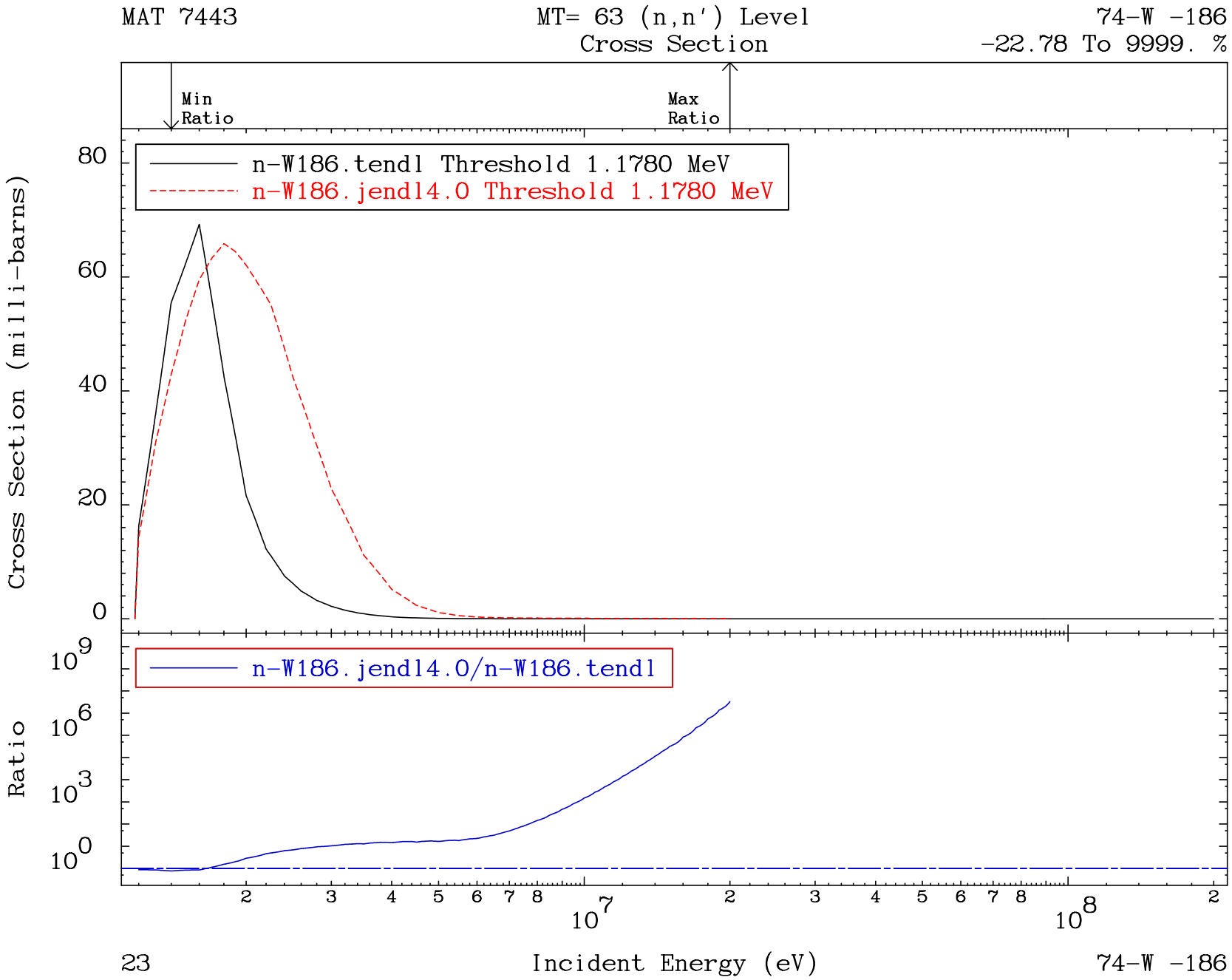

MAT 7443
MT= 58 (n,n') Level
Cross Section
74-W -186
-95.86 To 479.8 %
Max
Ratio
Min
Ratio
n-W186.tendl Threshold 1.0122 MeV
n-W186.jendl4.0 Threshold 1.0122 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^1
10^0
10^-1
10^6
10^7
10^8
Incident Energy (eV)
18
74-W -186

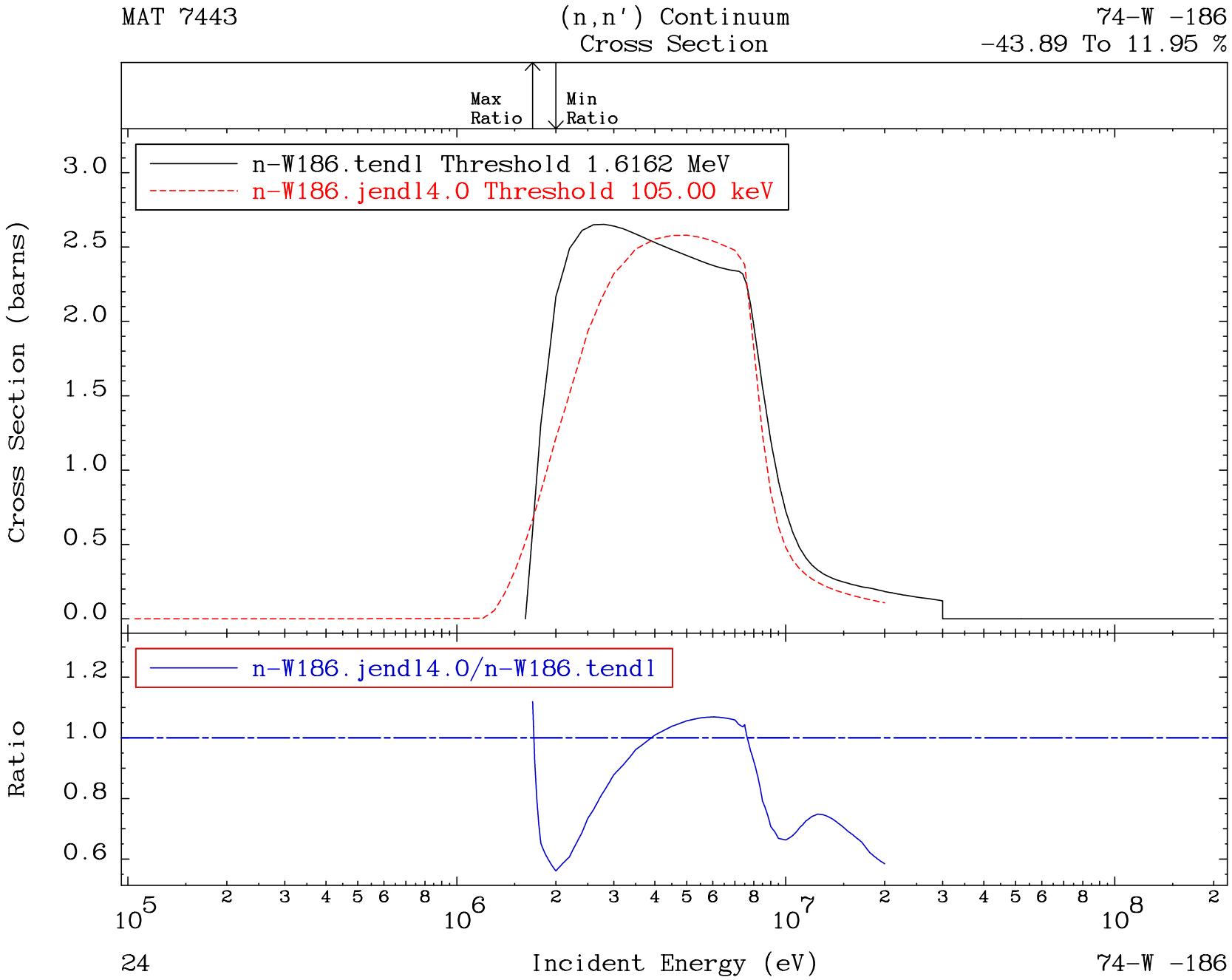

MAT 7443
MT= 59 (n,n') Level
Cross Section
74-W -186
-98.61 To 771.4 %
Max
Ratio
Min
Ratio
n-W186.tendl Threshold 1.0205 MeV
n-W186.jendl4.0 Threshold 1.0205 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^1
10^0
10^-1
10^-2
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
19
Incident Energy (eV)
74-W -186

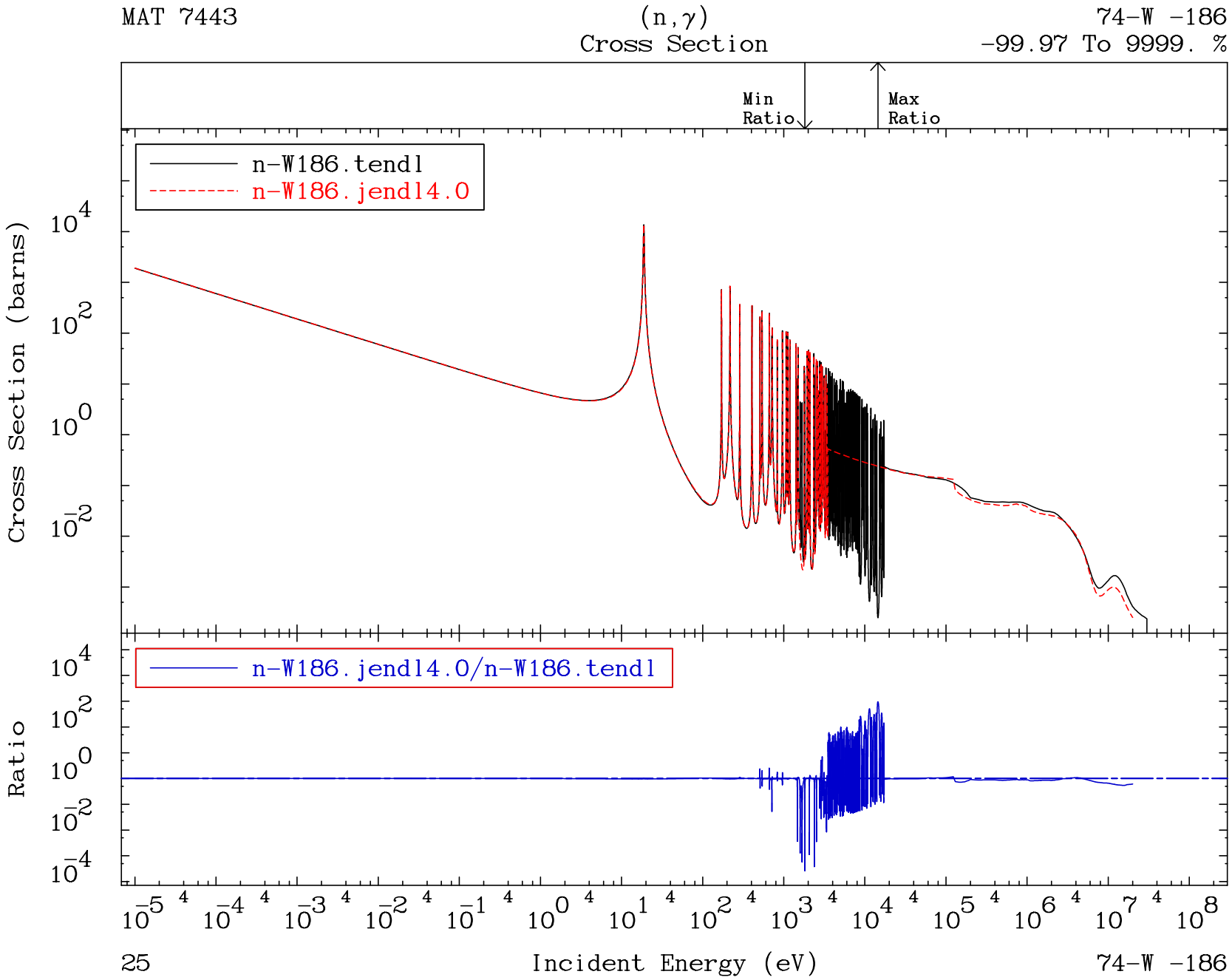

MAT 7443
MT= 60 (n,n') Level
Cross Section
74-W -186
-99.82 To 291.7 %
Max Ratio
Min Ratio
n-W186.tendl Threshold 1.0358 MeV
n-W186.jendl4.0 Threshold 1.0358 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^0
10^-2
10^6
10^7
10^8
Incident Energy (eV)
20
74-W -186

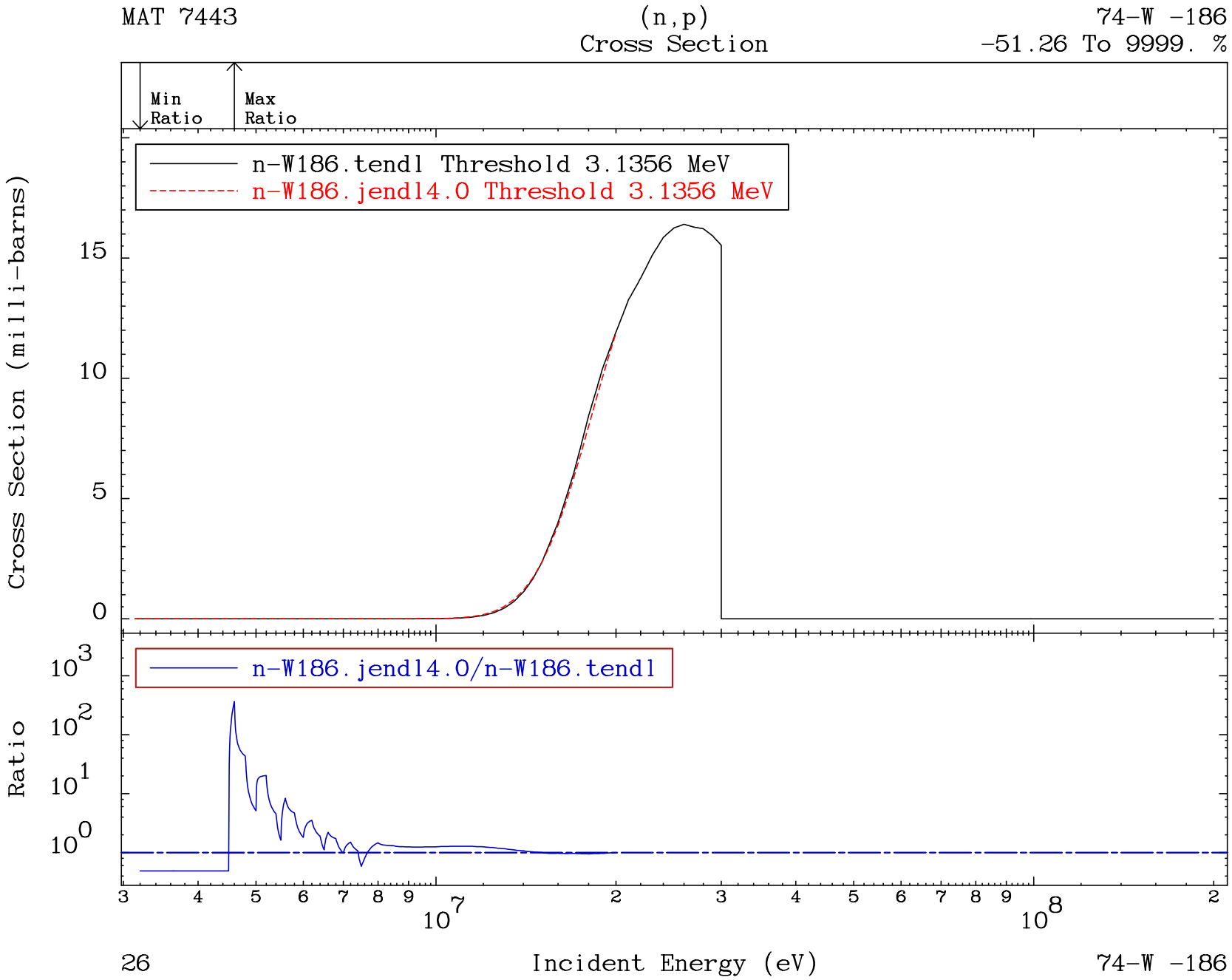

MAT 7443
MT= 61 (n,n') Level
Cross Section
74-W -186
-92.18 To 746.6 %
Max
Ratio
Min
Ratio
n-W186.tendl Threshold 1.0511 MeV
n-W186.jendl4.0 Threshold 1.0511 MeV
Cross Section (milli-barns)
180
160
140
120
100
80
60
40
20
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^1
10^0
10^-1
10^6
10^7
10^8
2
3
4
5
6
7
8
21
Incident Energy (eV)
74-W -186

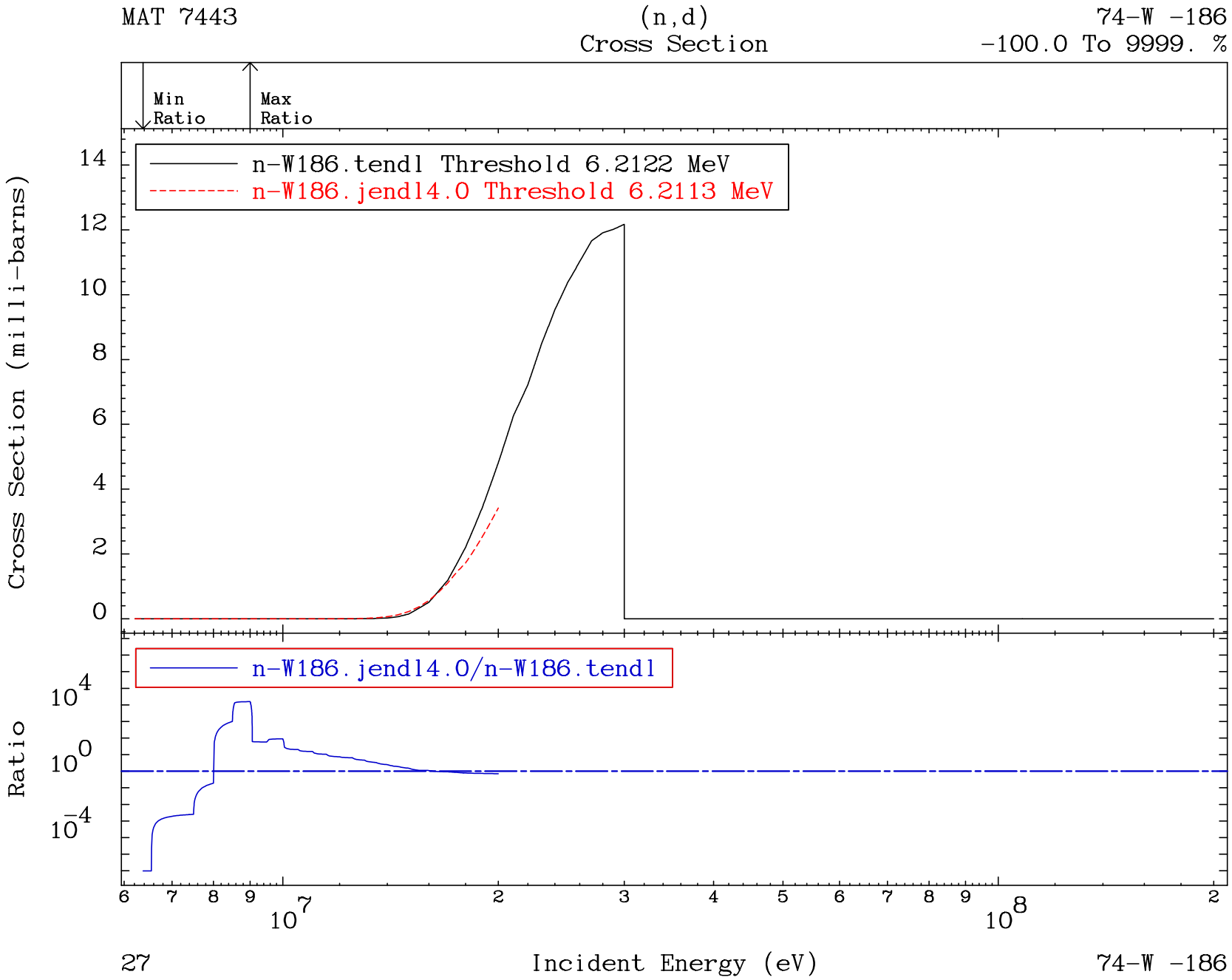

MAT 7443
MT= 62 (n,n') Level
Cross Section
74-W -186
-3.898 To 9999. %
Min
Ratio
Max
Ratio
n-W186.tendl Threshold 1.1562 MeV
n-W186.jendl4.0 Threshold 1.1562 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^9
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
74-W -186

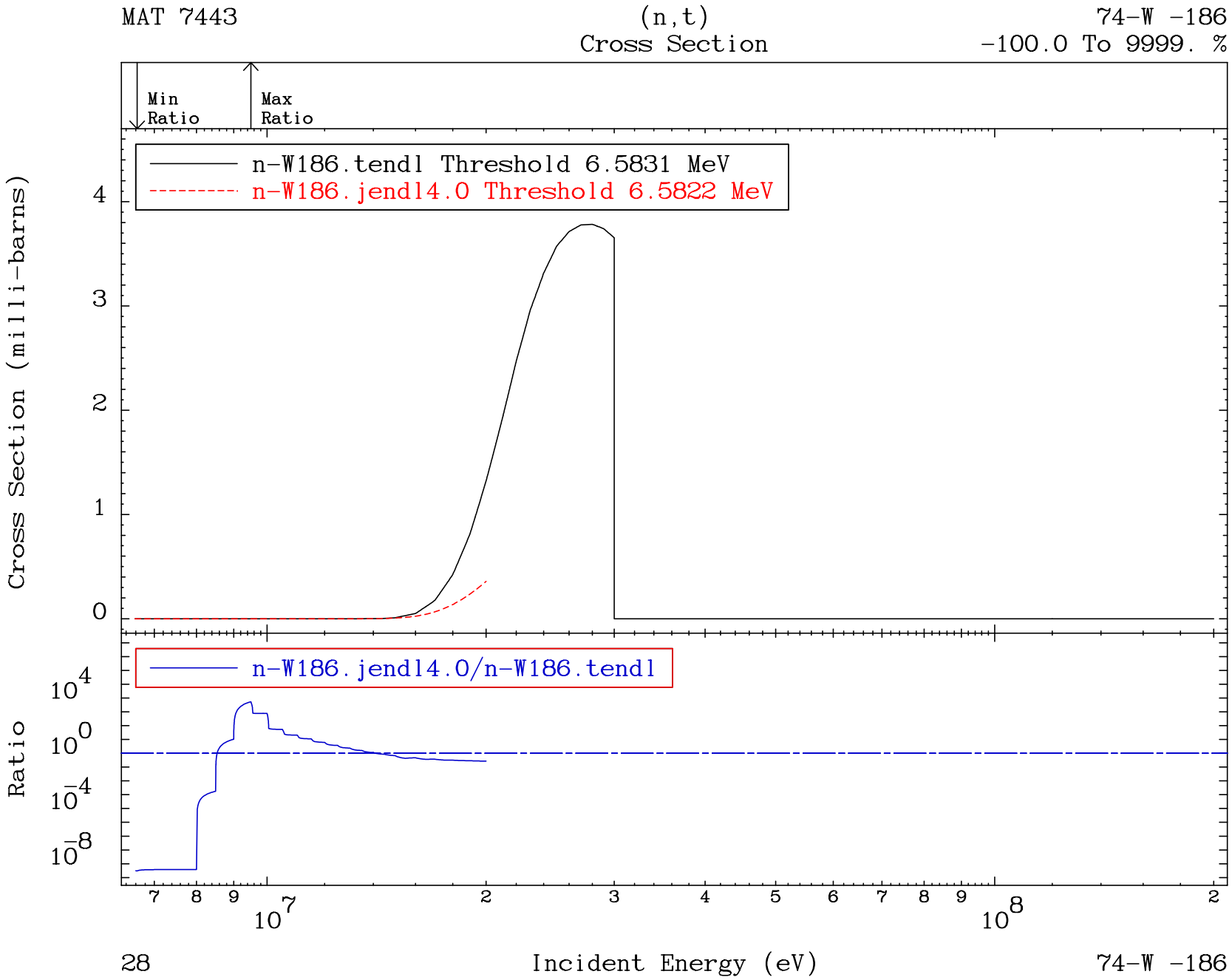

MAT 7443
MT= 63 (n,n') Level
Cross Section
74-W -186
-22.78 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 1.1780 MeV
n-W186.jendl4.0 Threshold 1.1780 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^9
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
74-W -186

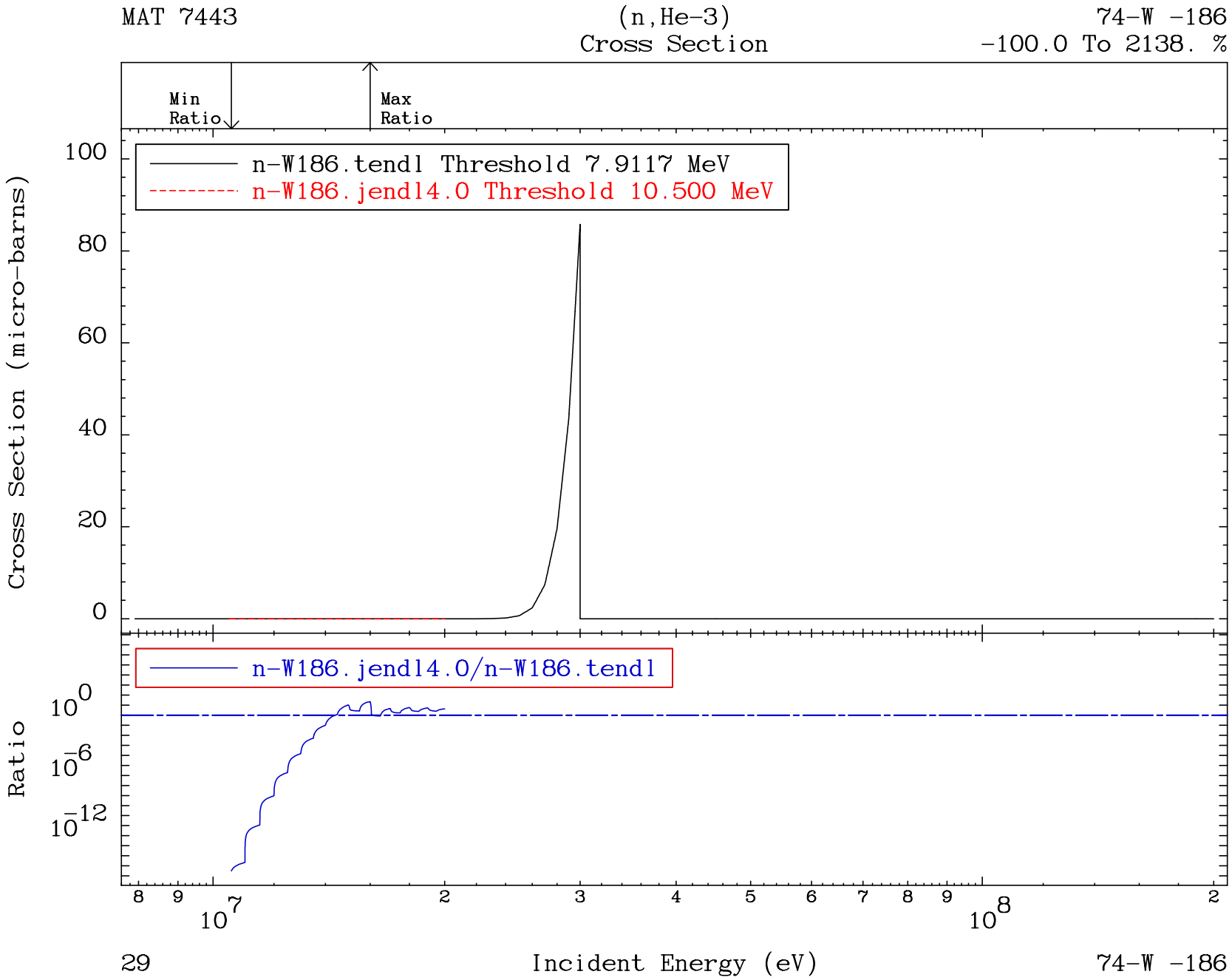

MAT 7443
(n,n') Continuum
Cross Section
74-W -186
-43.89 To 11.95 %
Max Ratio
Min Ratio
n-W186.tendl Threshold 1.6162 MeV
n-W186.jendl4.0 Threshold 105.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-W186.jendl4.0/n-W186.tendl
Ratio
1.2
1.0
0.8
0.6
10^5
10^6
10^7
10^8
24
Incident Energy (eV)
74-W -186

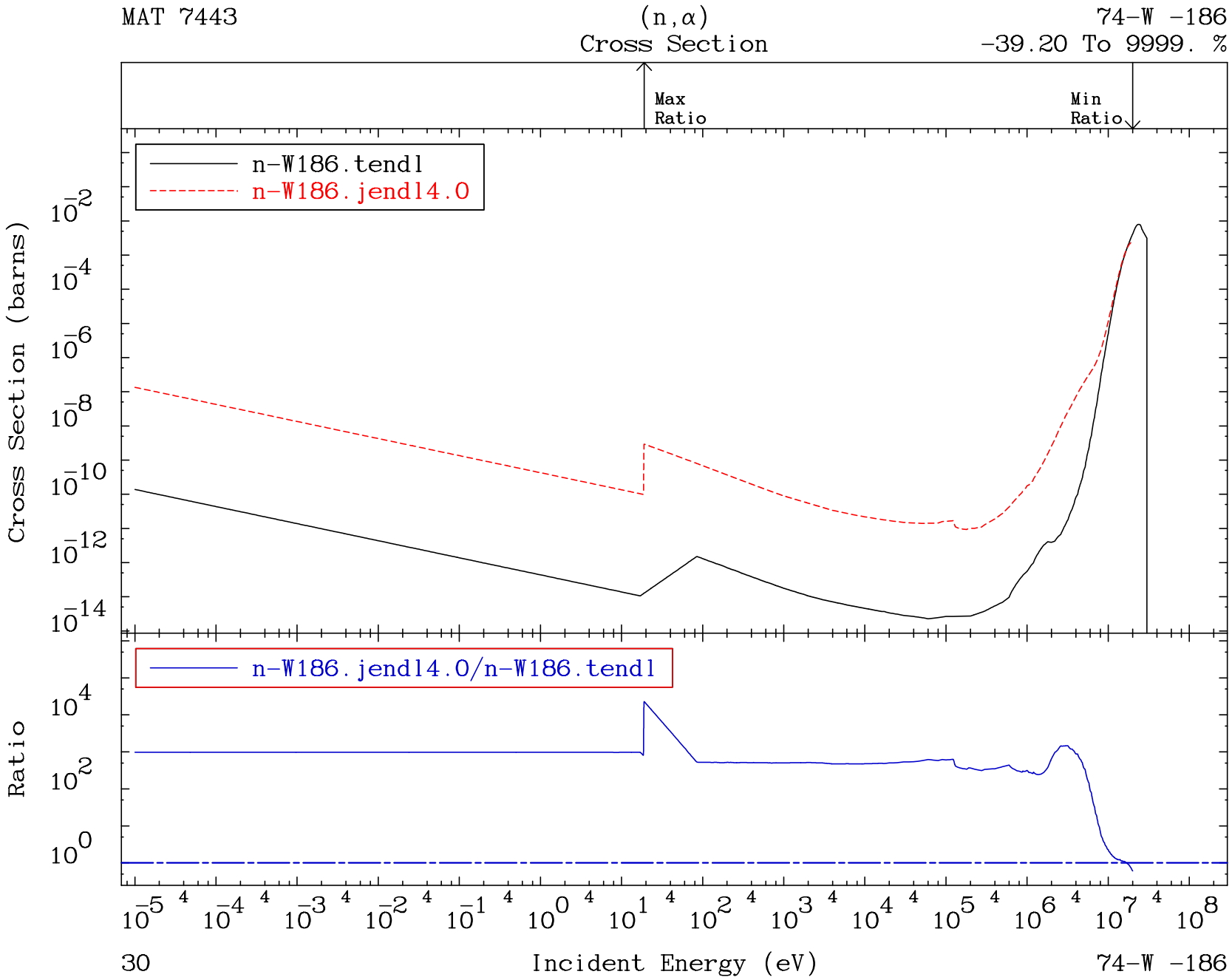

MAT 7443
(n,γ)
Cross Section
74-W -186
-99.97 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
25
74-W -186

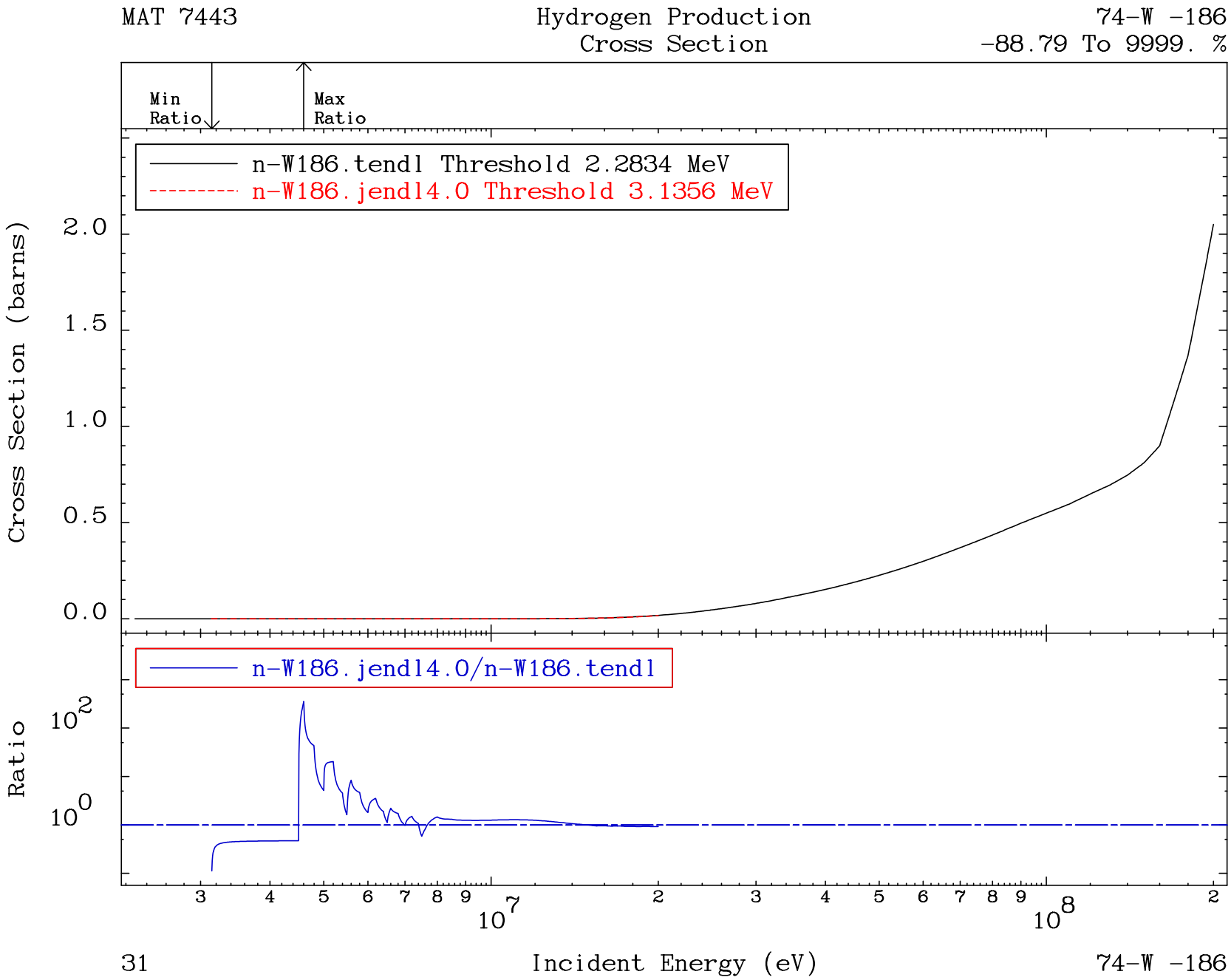

MAT 7443
(n,p)
Cross Section
74-W -186
-51.26 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 3.1356 MeV
n-W186.jendl4.0 Threshold 3.1356 MeV
Cross Section (milli-barns)
15
10
5
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
74-W -186

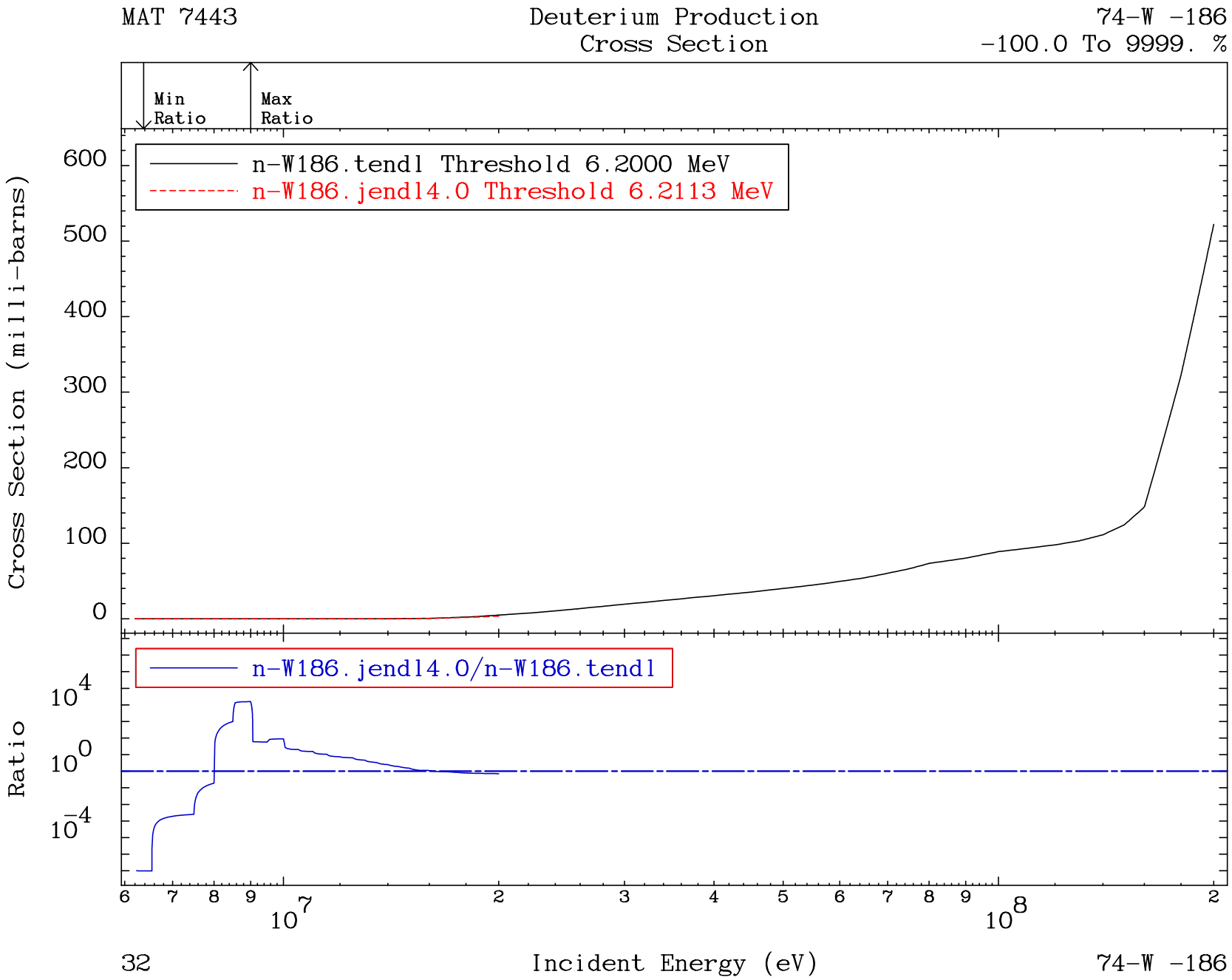

MAT 7443
(n,d)
Cross Section
74-W -186
-100.0 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 6.2122 MeV
n-W186.jendl4.0 Threshold 6.2113 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^4
10^0
10^-4
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
74-W -186

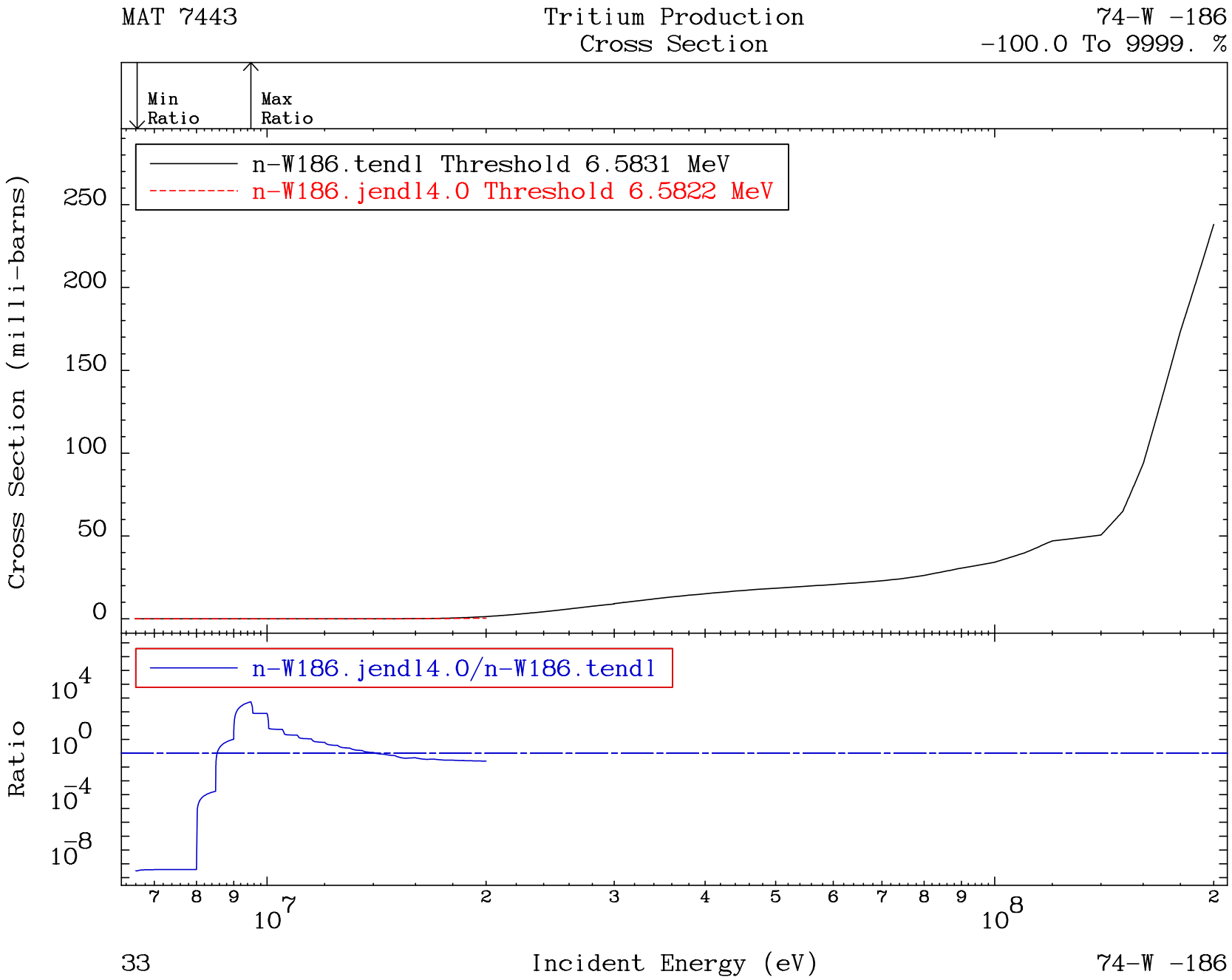

MAT 7443
(n,t)
Cross Section
74-W -186
-100.0 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 6.5831 MeV
n-W186.jendl4.0 Threshold 6.5822 MeV
Cross Section (milli-barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
28
74-W -186

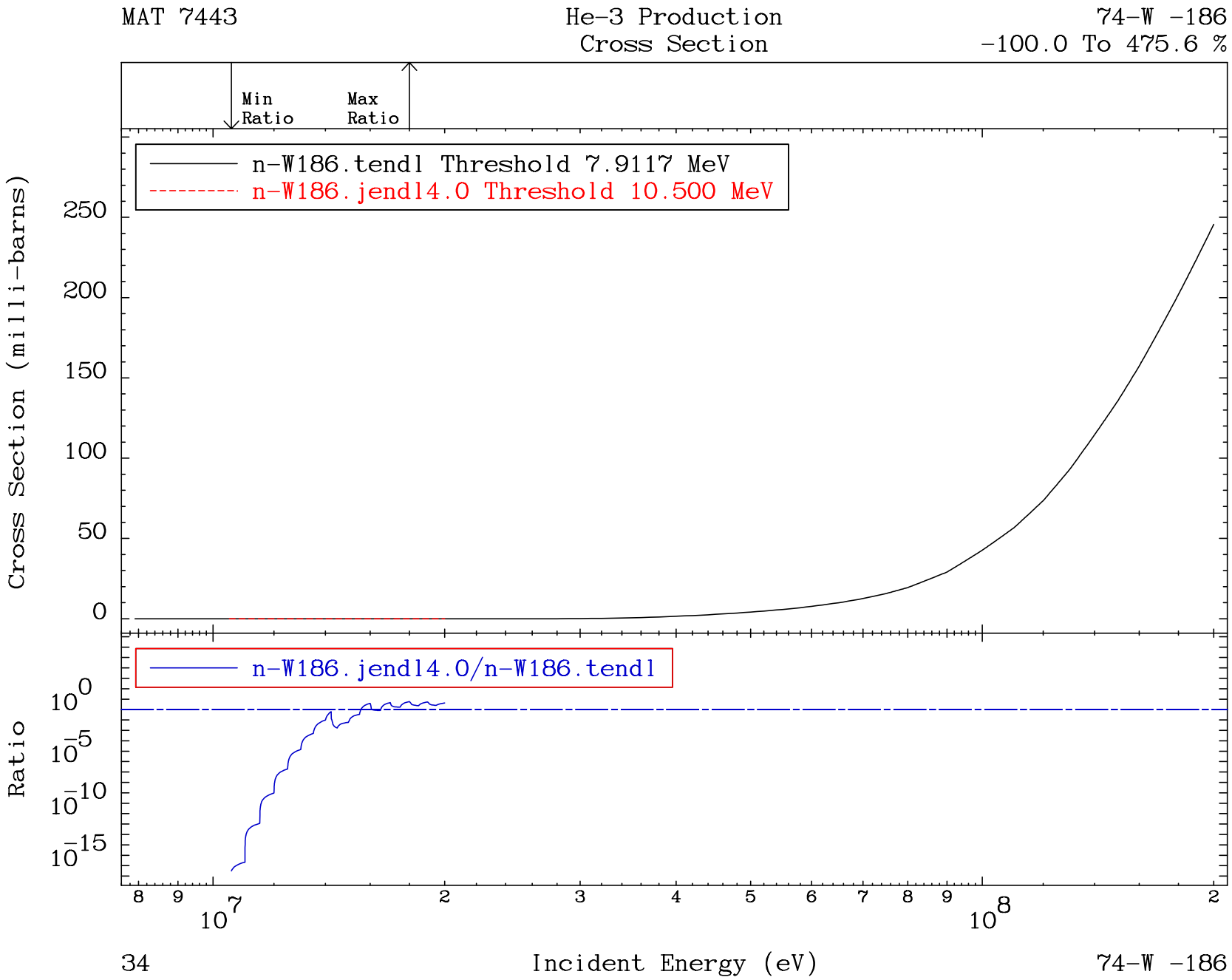

MAT 7443
(n,He-3)
Cross Section
74-W -186
-100.0 To 2138. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 7.9117 MeV
n-W186.jendl4.0 Threshold 10.500 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^0
10^-6
10^-12
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
29
Incident Energy (eV)
74-W -186

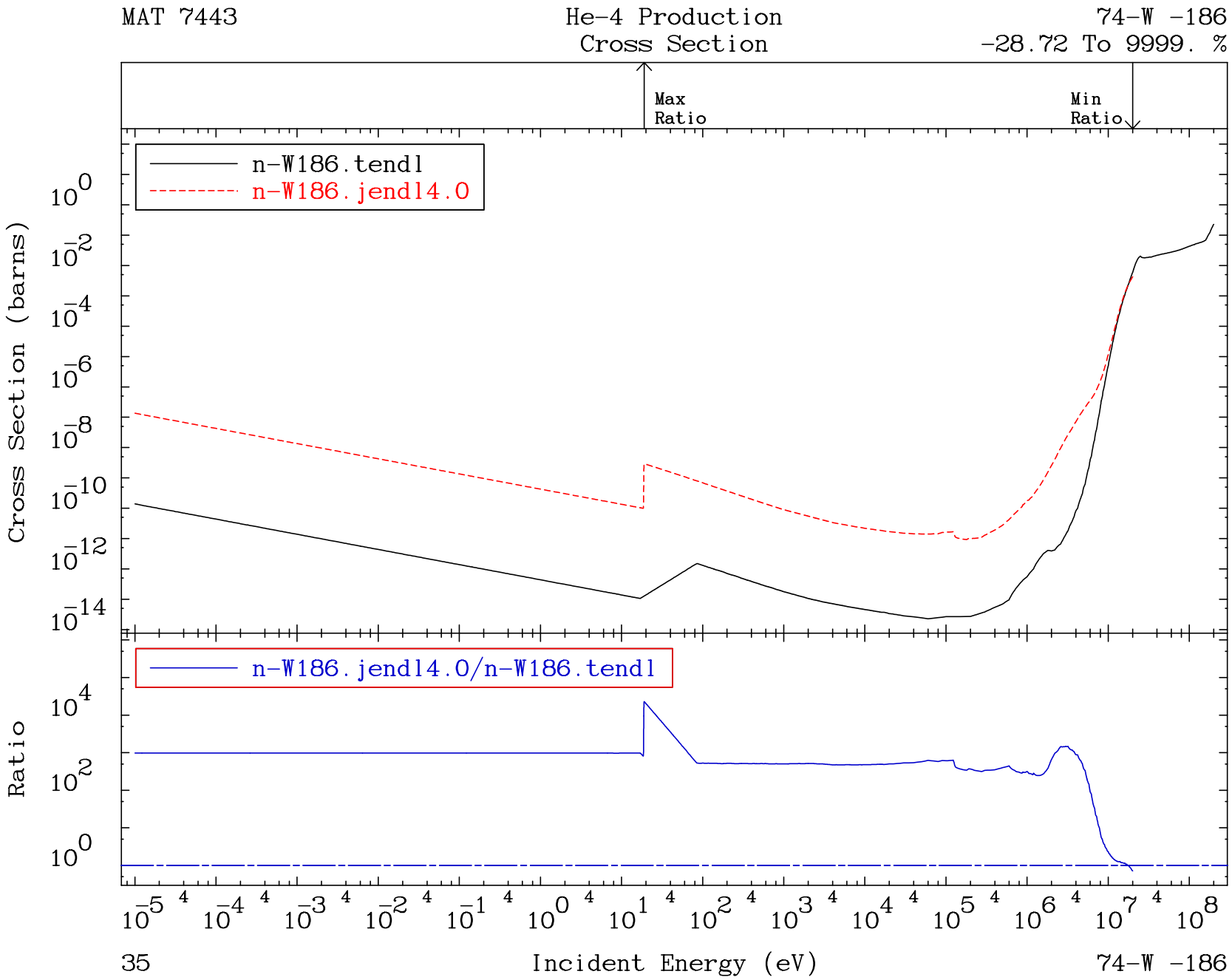

MAT 7443
(n,α)
Cross Section
74-W -186
-39.20 To 9999. %
Max Ratio
Min Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
10^-2
10^-4
10^-6
10^-8
10^-10
10^-12
10^-14
n-W186.jendl4.0/n-W186.tendl
Ratio
10^4
10^2
10^0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
30
Incident Energy (eV)
74-W -186

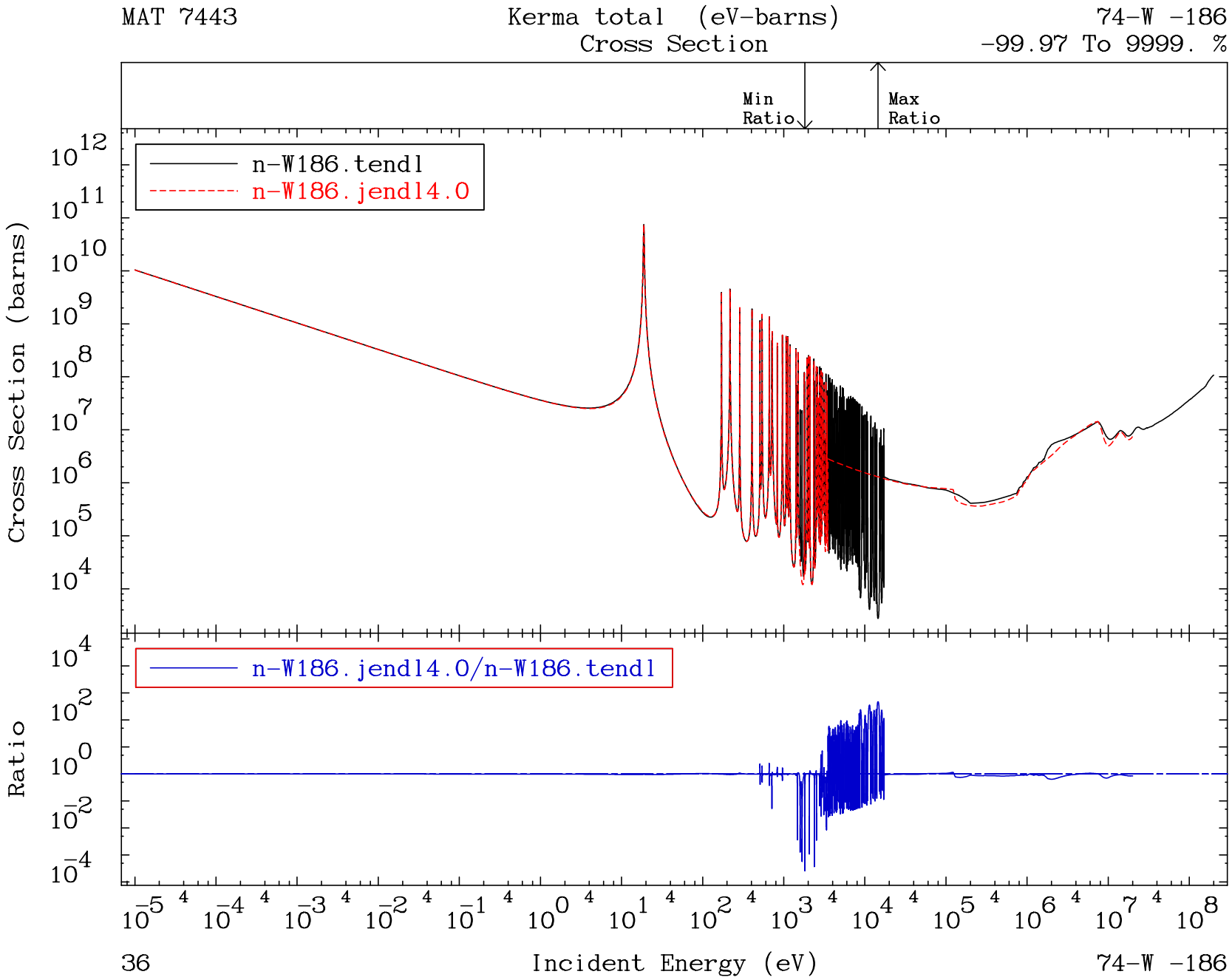

MAT 7443
Hydrogen Production
Cross Section
74-W -186
-88.79 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 2.2834 MeV
n-W186.jendl4.0 Threshold 3.1356 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^2
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
31
Incident Energy (eV)
74-W -186

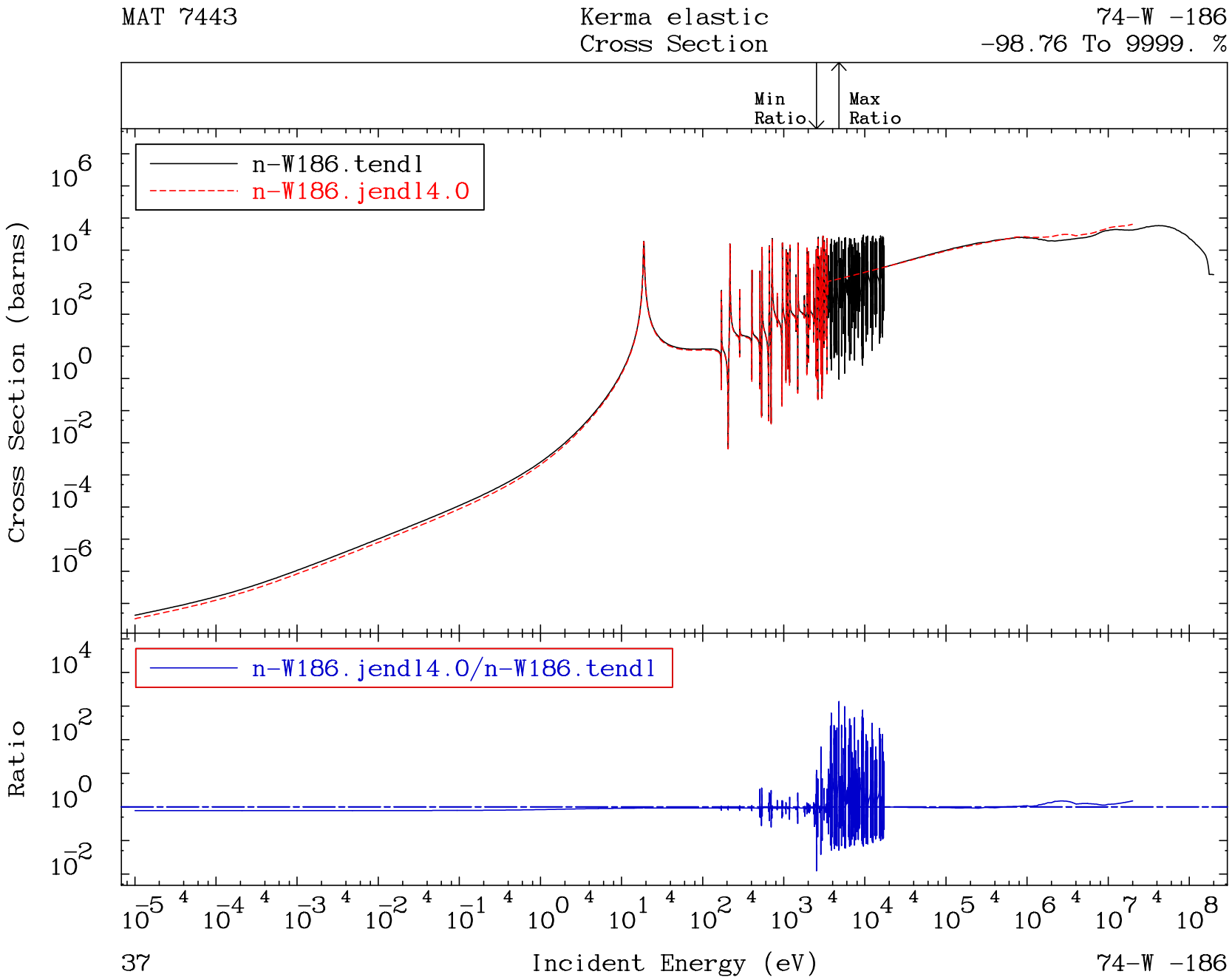

MAT 7443
Deuterium Production
Cross Section
74-W -186
-100.0 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 6.2000 MeV
n-W186.jendl4.0 Threshold 6.2113 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^4
10^0
10^-4
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
32
Incident Energy (eV)
74-W -186

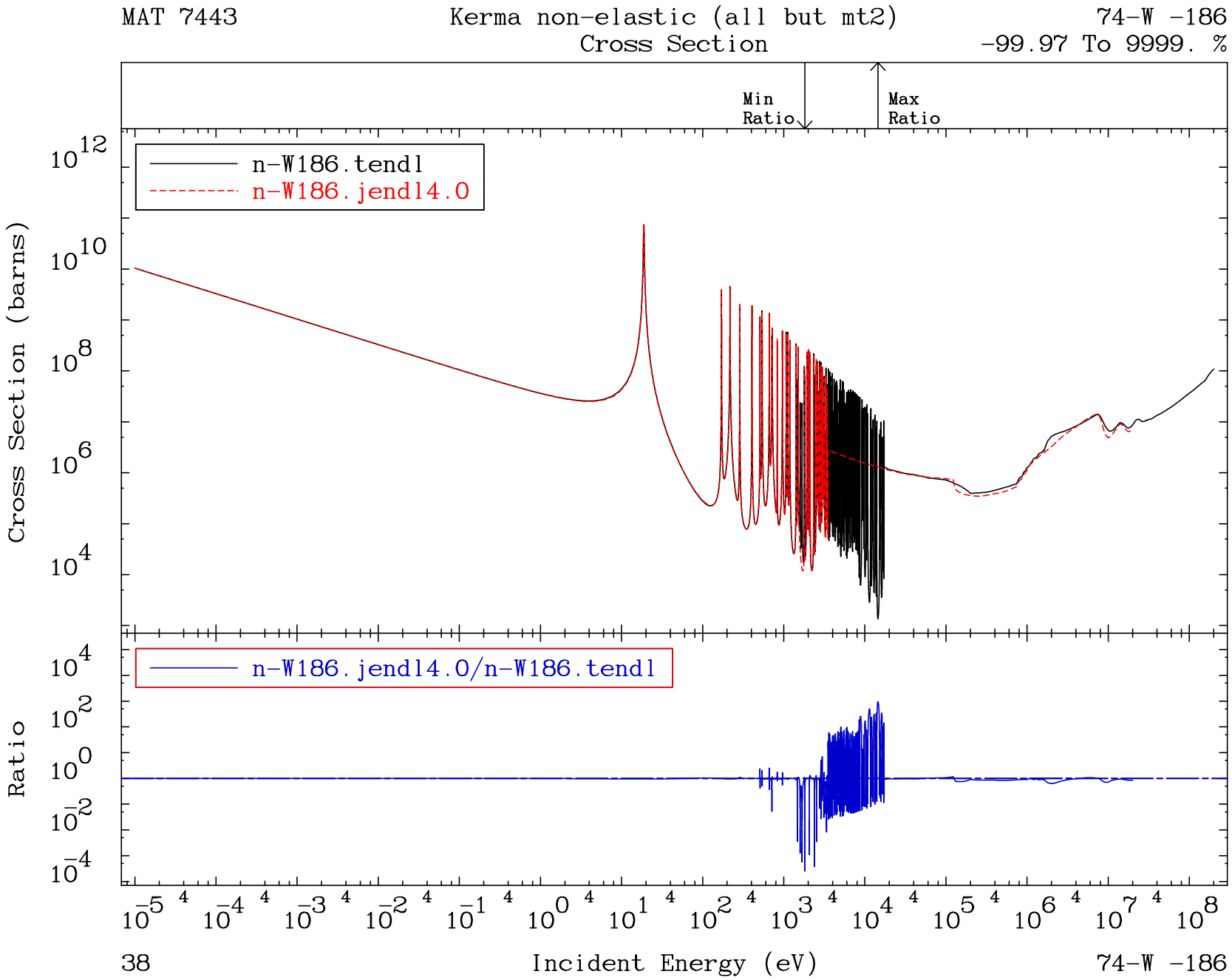

MAT 7443
Tritium Production
Cross Section
74-W -186
-100.0 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl Threshold 6.5831 MeV
n-W186.jendl4.0 Threshold 6.5822 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^4
10^0
10^-4
10^-8
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
33
Incident Energy (eV)
74-W -186

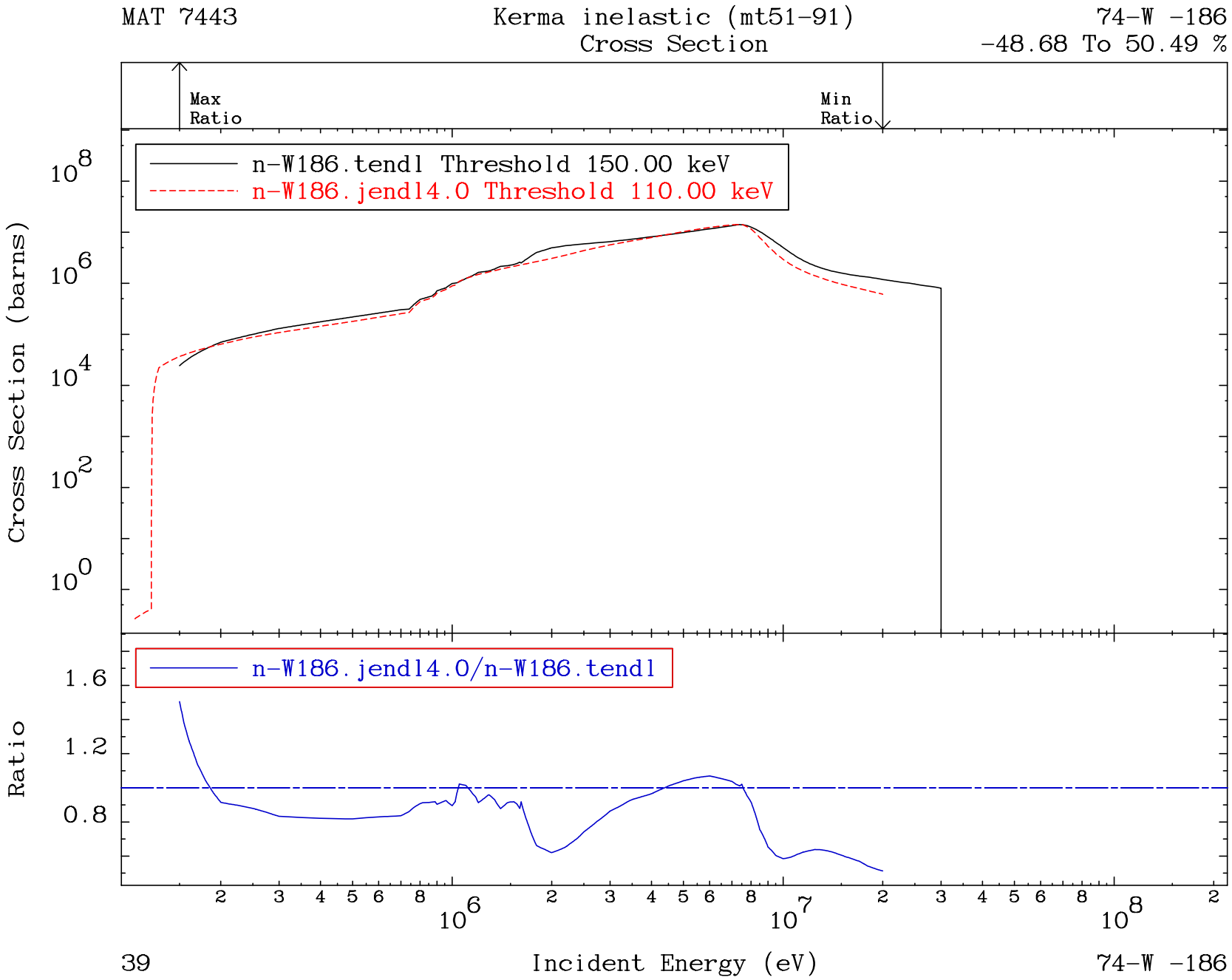

MAT 7443
He-3 Production
Cross Section
74-W -186
-100.0 To 475.6 %
Min Ratio
Max Ratio
n-W186.tendl Threshold 7.9117 MeV
n-W186.jendl4.0 Threshold 10.500 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-W186.jendl4.0/n-W186.tendl
Ratio
10^0
10^-5
10^-10
10^-15
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
34
Incident Energy (eV)
74-W -186

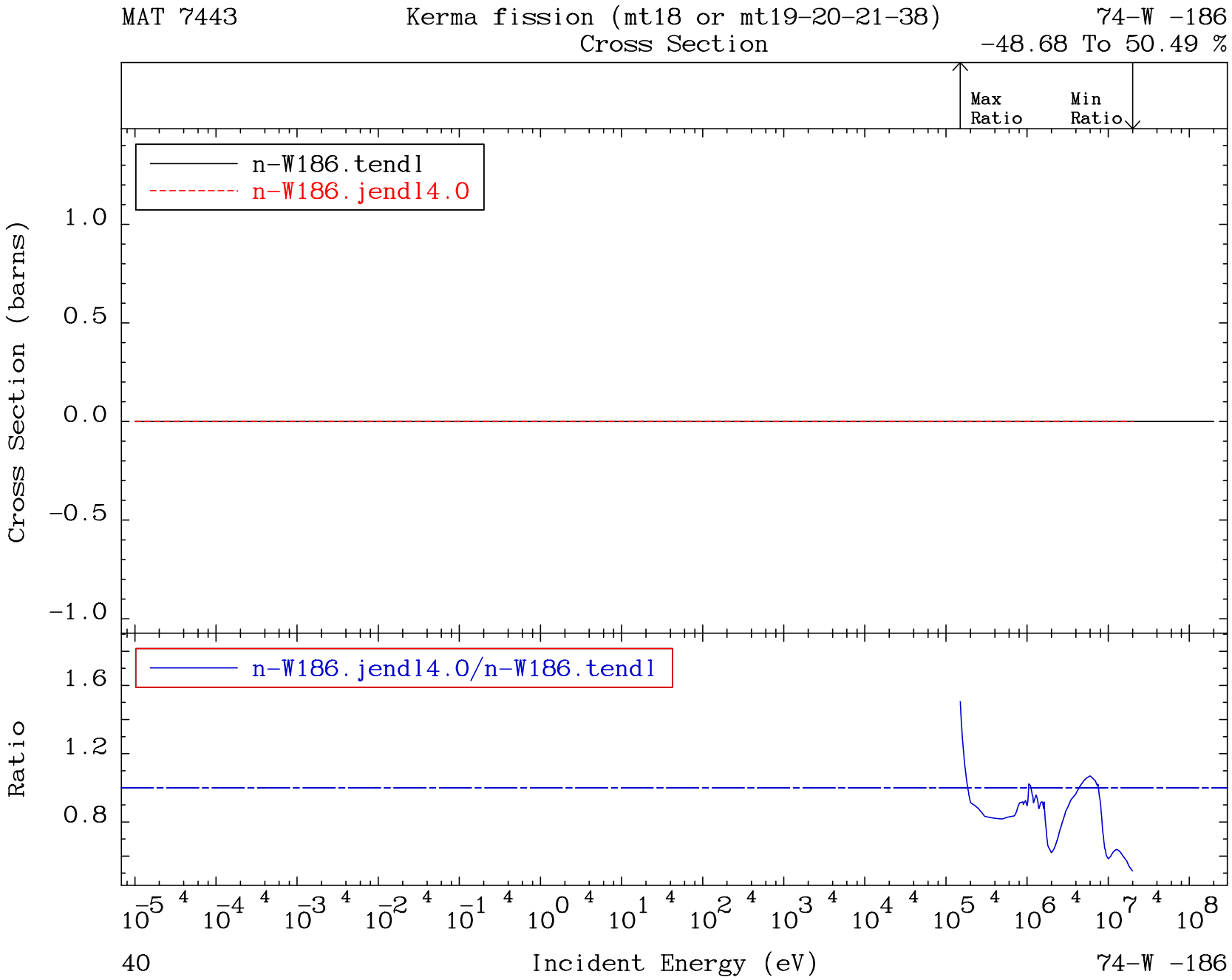

MAT 7443
He-4 Production
Cross Section
74-W -186
-28.72 To 9999. %
Max
Ratio
Min
Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
35
74-W -186

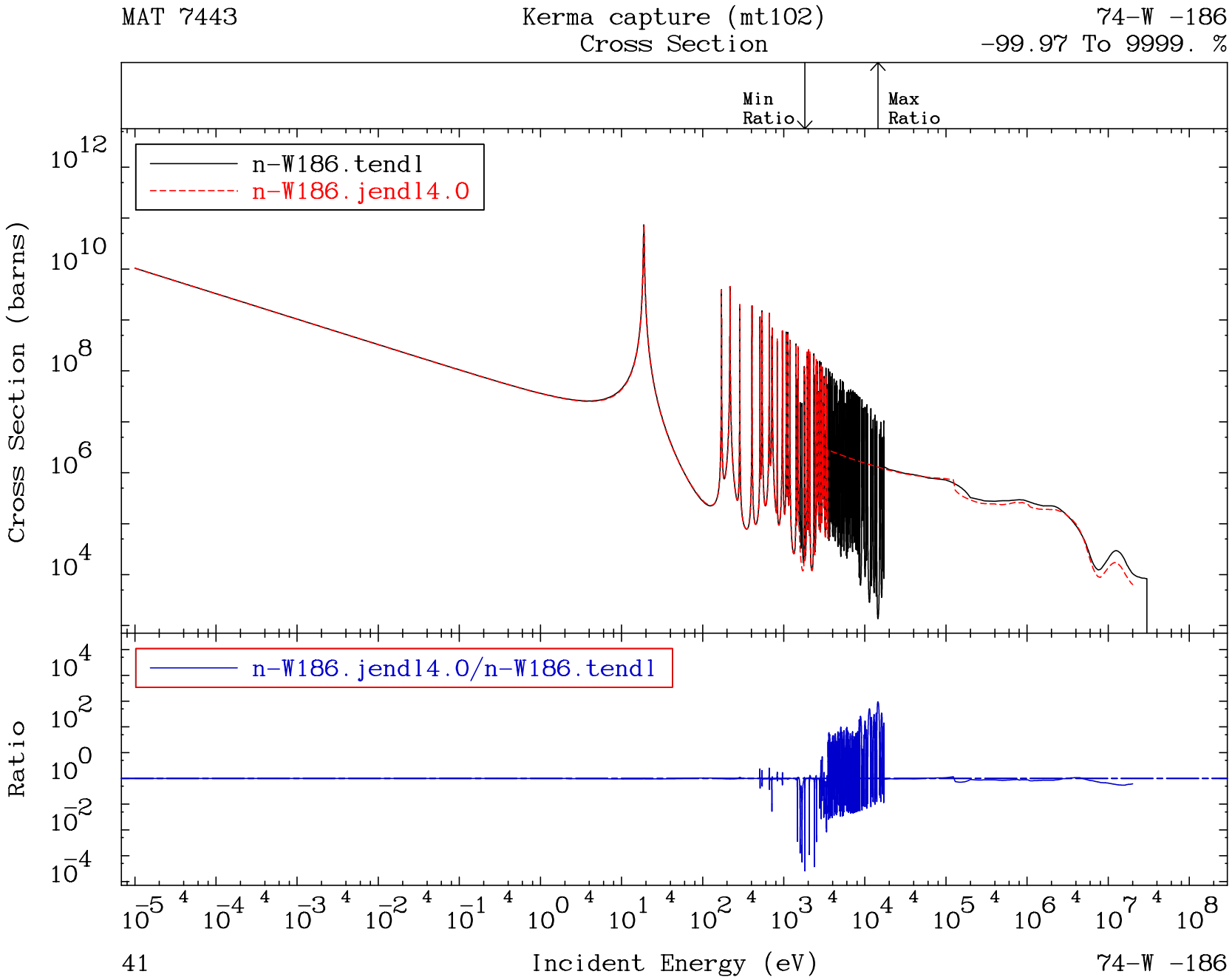

MAT 7443
Kerma total (eV-barns)
Cross Section
74-W -186
-99.97 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
36
74-W -186

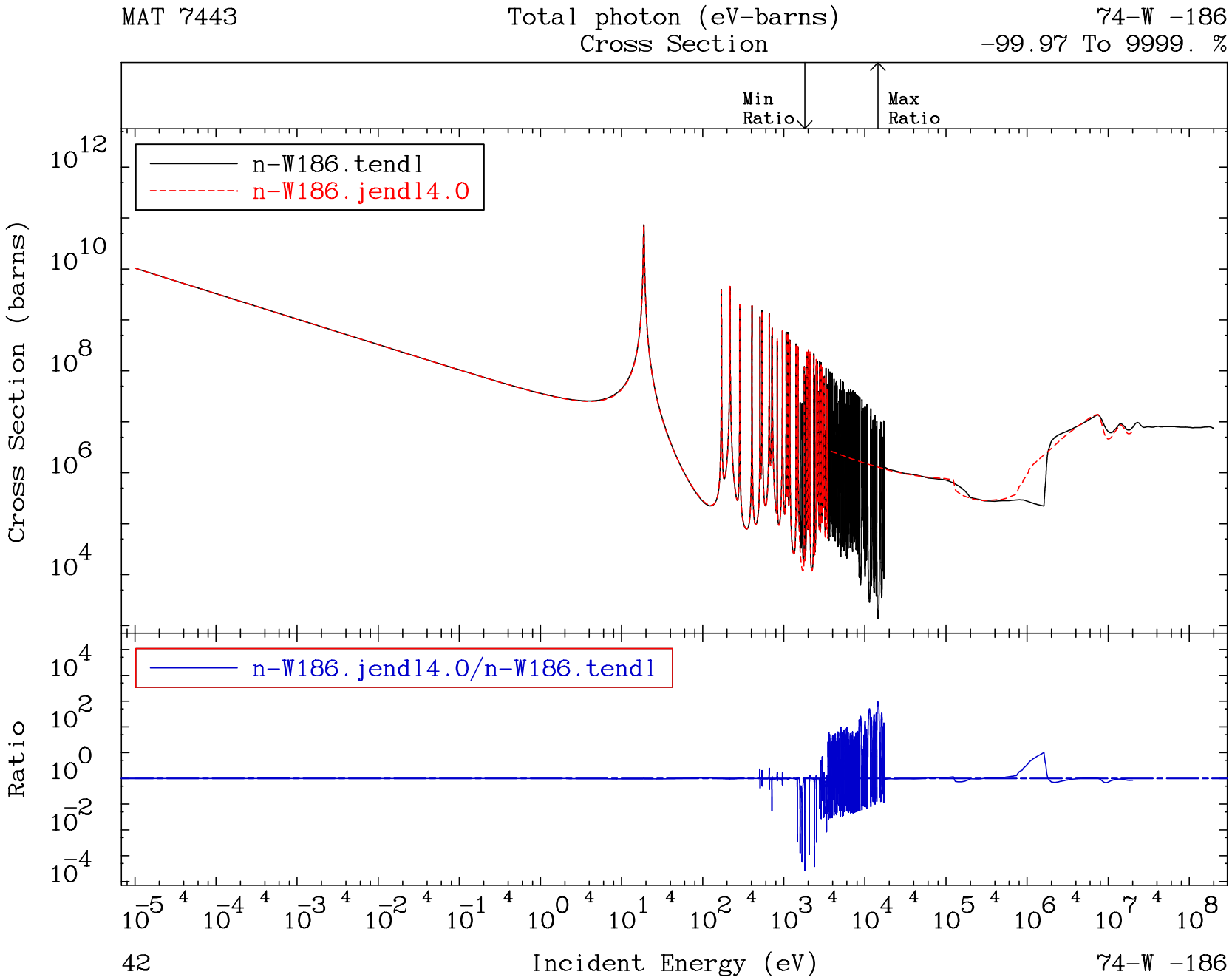

MAT 7443
Kerma elastic
Cross Section
74-W -186
-98.76 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
37
74-W -186

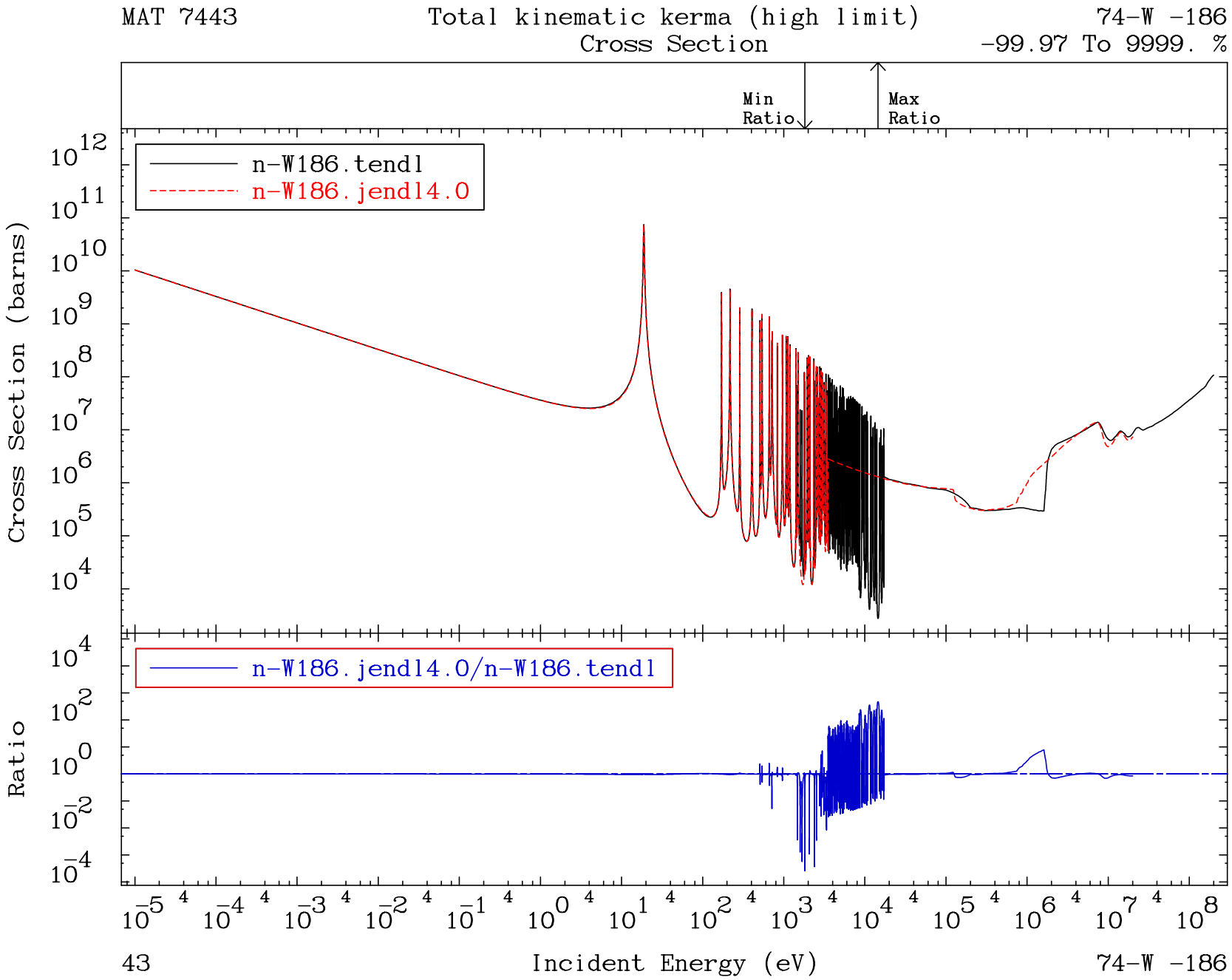

MAT 7443
Kerma non-elastic (all but mt2)
Cross Section
74-W -186
-99.97 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
38
74-W -186

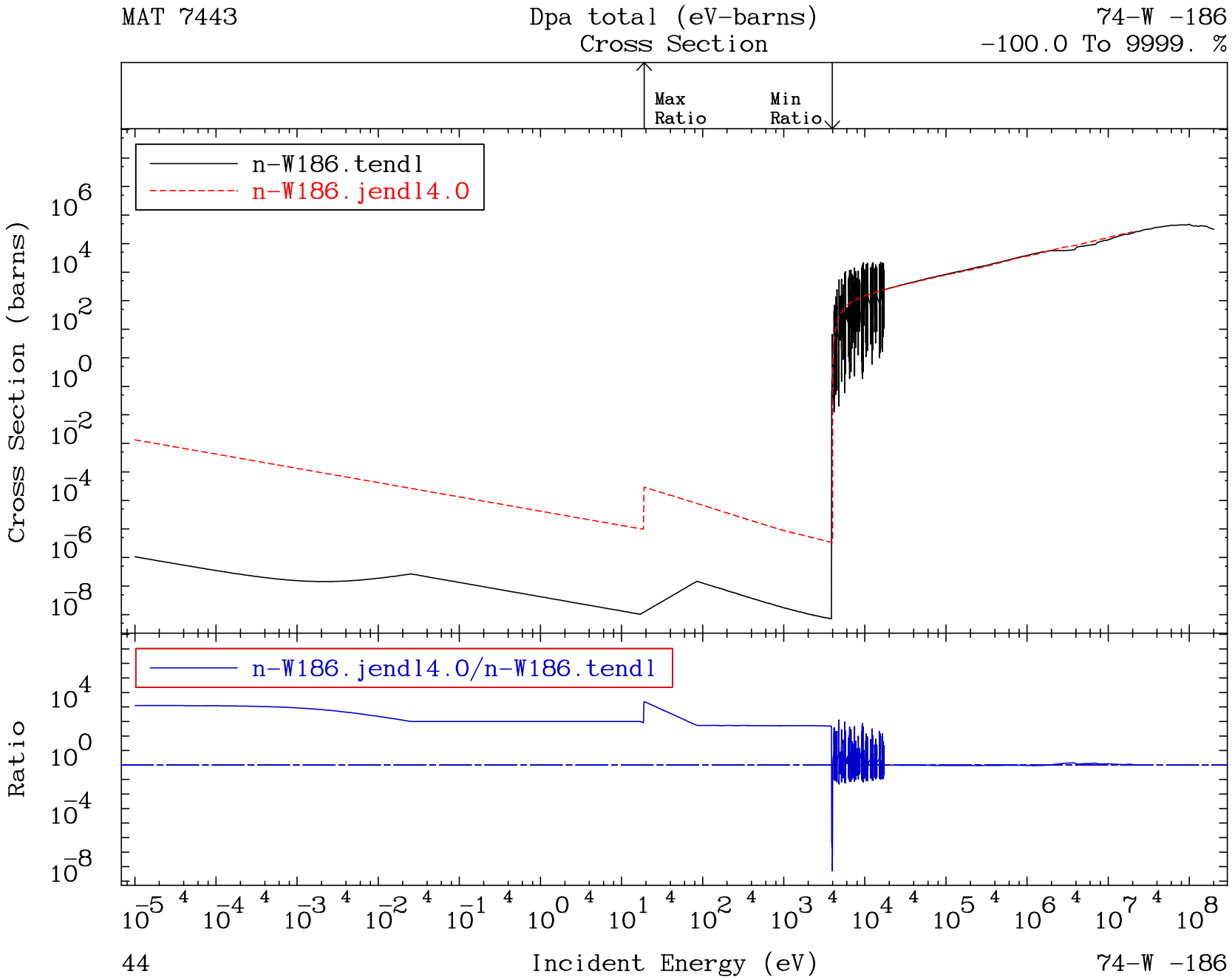

MAT 7443
Kerma inelastic (mt51-91)
Cross Section
74-W -186
-48.68 To 50.49 %
Max Ratio
Min Ratio
n-W186.tendl Threshold 150.00 keV
n-W186.jendl4.0 Threshold 110.00 keV
Cross Section (barns)
10^8
10^6
10^4
10^2
10^0
n-W186.jendl4.0/n-W186.tendl
Ratio
1.6
1.2
0.8
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
39
Incident Energy (eV)
74-W -186

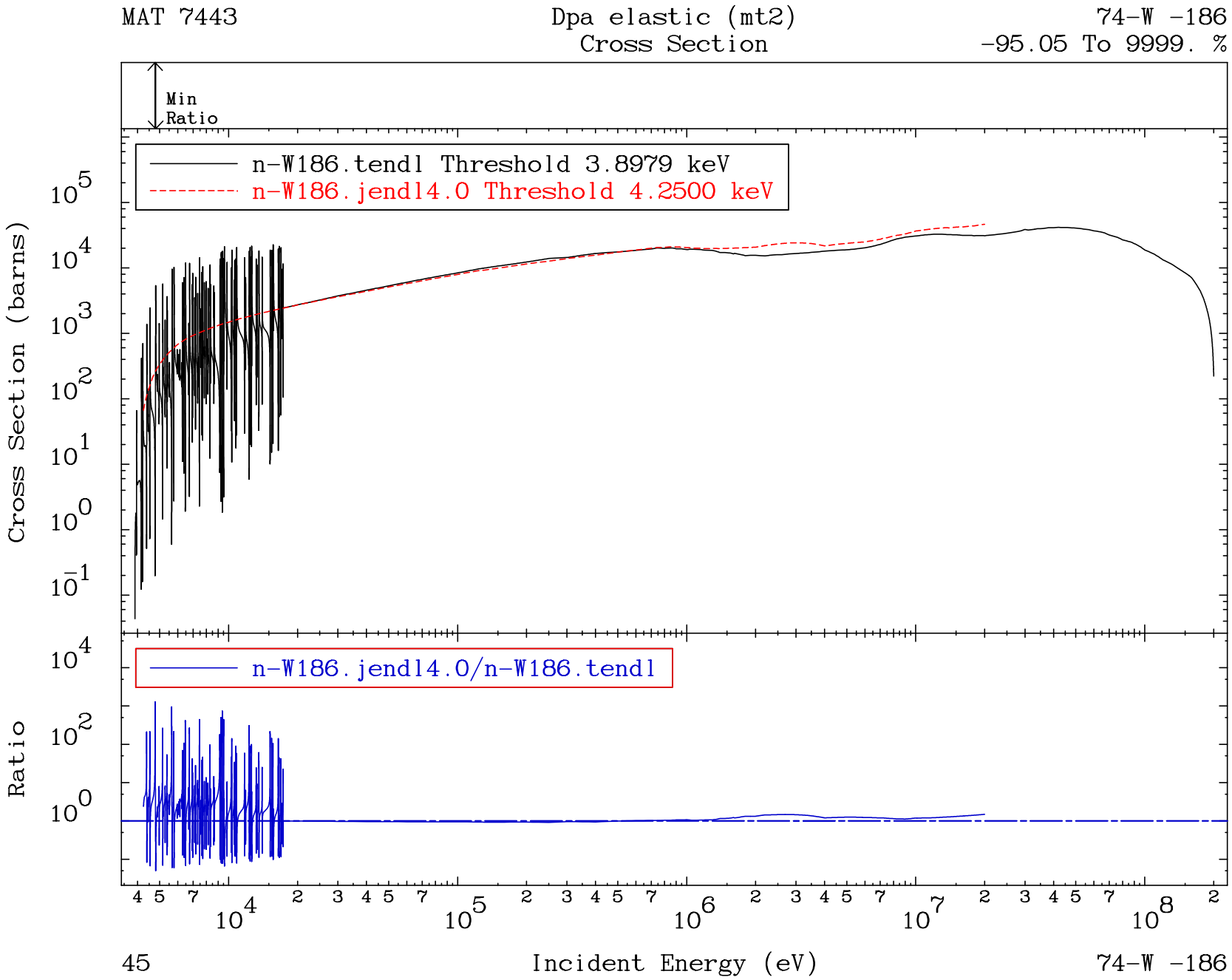

MAT 7443
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
74-W -186
-48.68 To 50.49 %
Max Ratio
Min Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-W186.jendl4.0/n-W186.tendl
Ratio
1.6
1.2
0.8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
40
Incident Energy (eV)
74-W -186

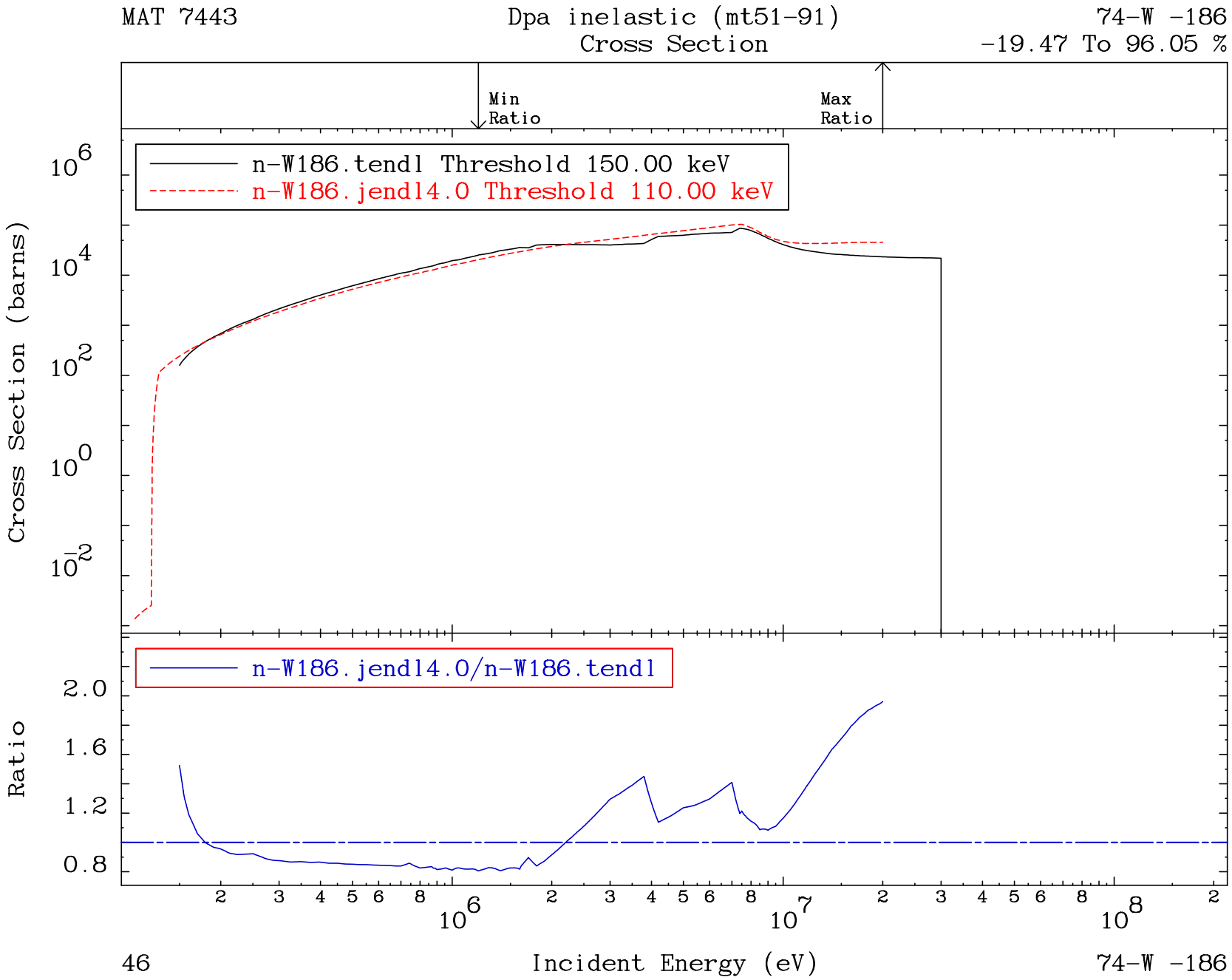

MAT 7443
Kerma capture (mt102)
Cross Section
74-W -186
-99.97 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
Ratio
n-W186.jendl4.0/n-W186.tendl
Incident Energy (eV)
41
74-W -186

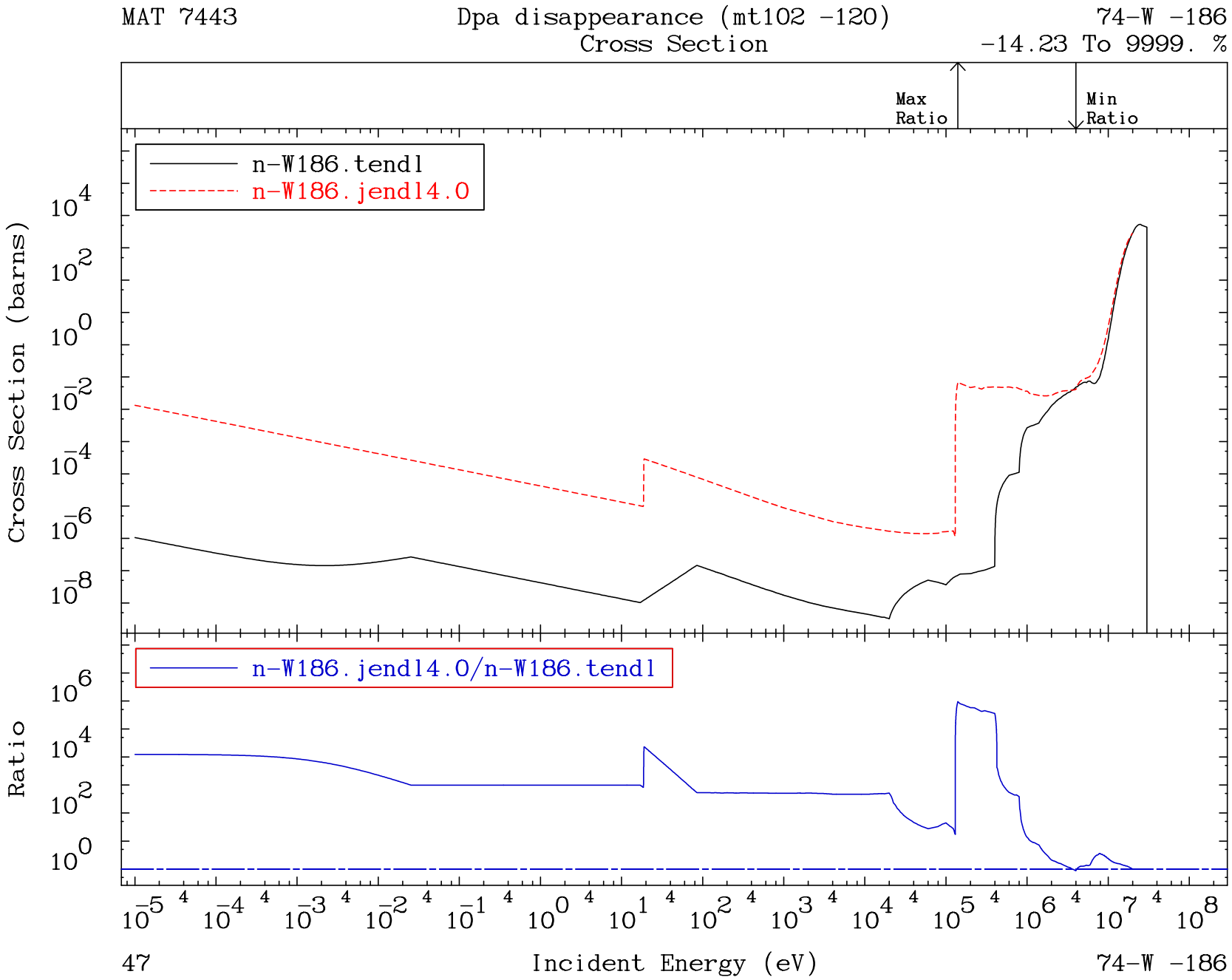

MAT 7443
Total photon (eV-barns)
Cross Section
74-W -186
-99.97 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
42
74-W -186


MAT 7443
Total kinematic kerma (high limit)
Cross Section
74-W -186
-99.97 To 9999. %
Min Ratio
Max Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
43
74-W -186


MAT 7443
Dpa total (eV-barns)
Cross Section
74-W -186
-100.0 To 9999. %
Max Ratio
Min Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
44
74-W -186


MAT 7443
Dpa elastic (mt2)
Cross Section
74-W -186
-95.05 To 9999. %
Min
Ratio
n-W186.tendl Threshold 3.8979 keV
n-W186.jendl4.0 Threshold 4.2500 keV
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
45
74-W -186


MAT 7443
Dpa inelastic (mt51-91)
Cross Section
74-W -186
-19.47 To 96.05 %
Min Ratio
Max Ratio
n-W186.tendl Threshold 150.00 keV
n-W186.jendl4.0 Threshold 110.00 keV
Cross Section (barns)
10^6
10^4
10^2
10^0
10^-2
n-W186.jendl4.0/n-W186.tendl
Ratio
2.0
1.6
1.2
0.8
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
46
Incident Energy (eV)
74-W -186


MAT 7443
Dpa disappearance (mt102 -120)
Cross Section
74-W -186
-14.23 To 9999. %
Max Ratio
Min Ratio
n-W186.tendl
n-W186.jendl4.0
Cross Section (barns)
n-W186.jendl4.0/n-W186.tendl
Ratio
Incident Energy (eV)
47
74-W -186