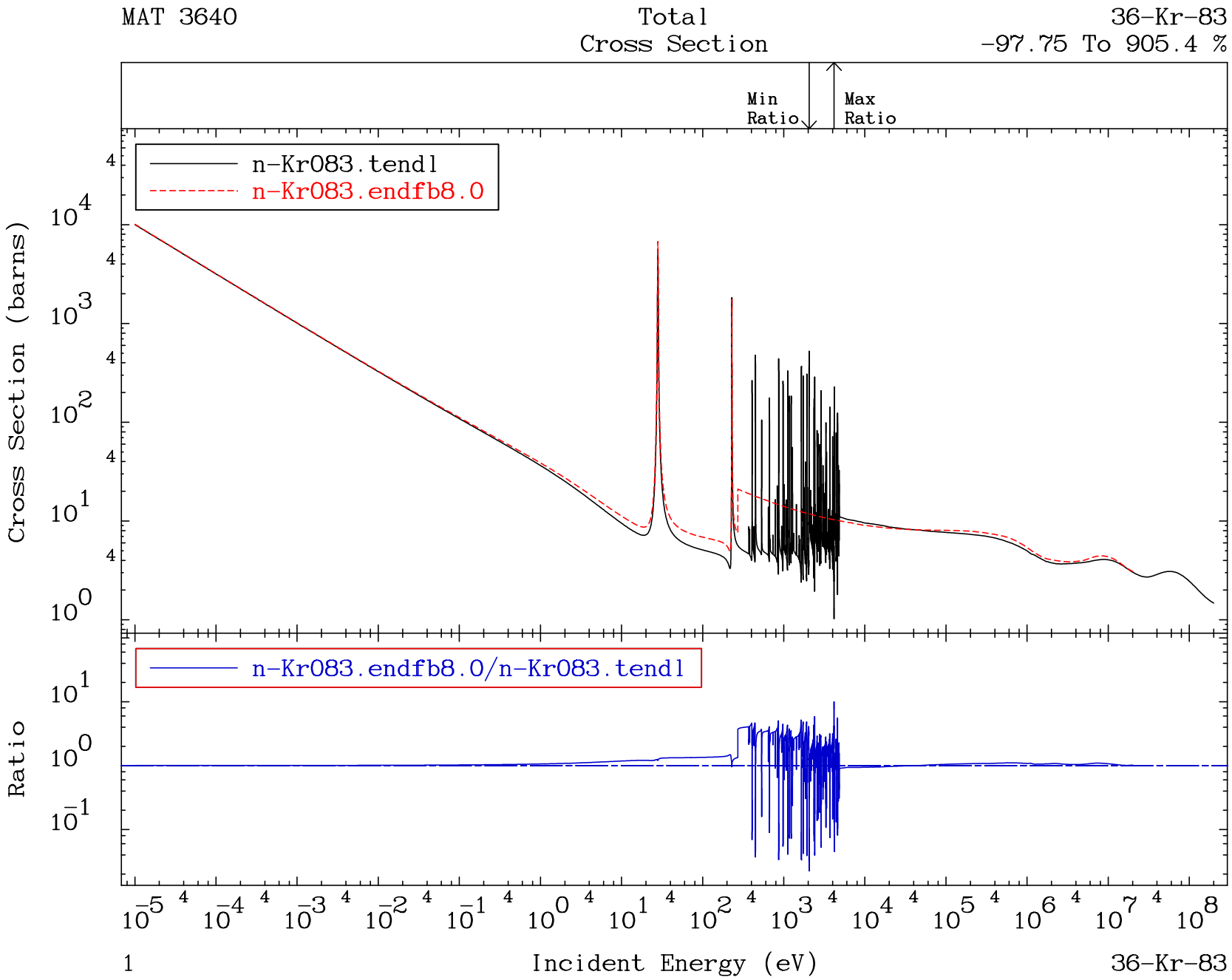
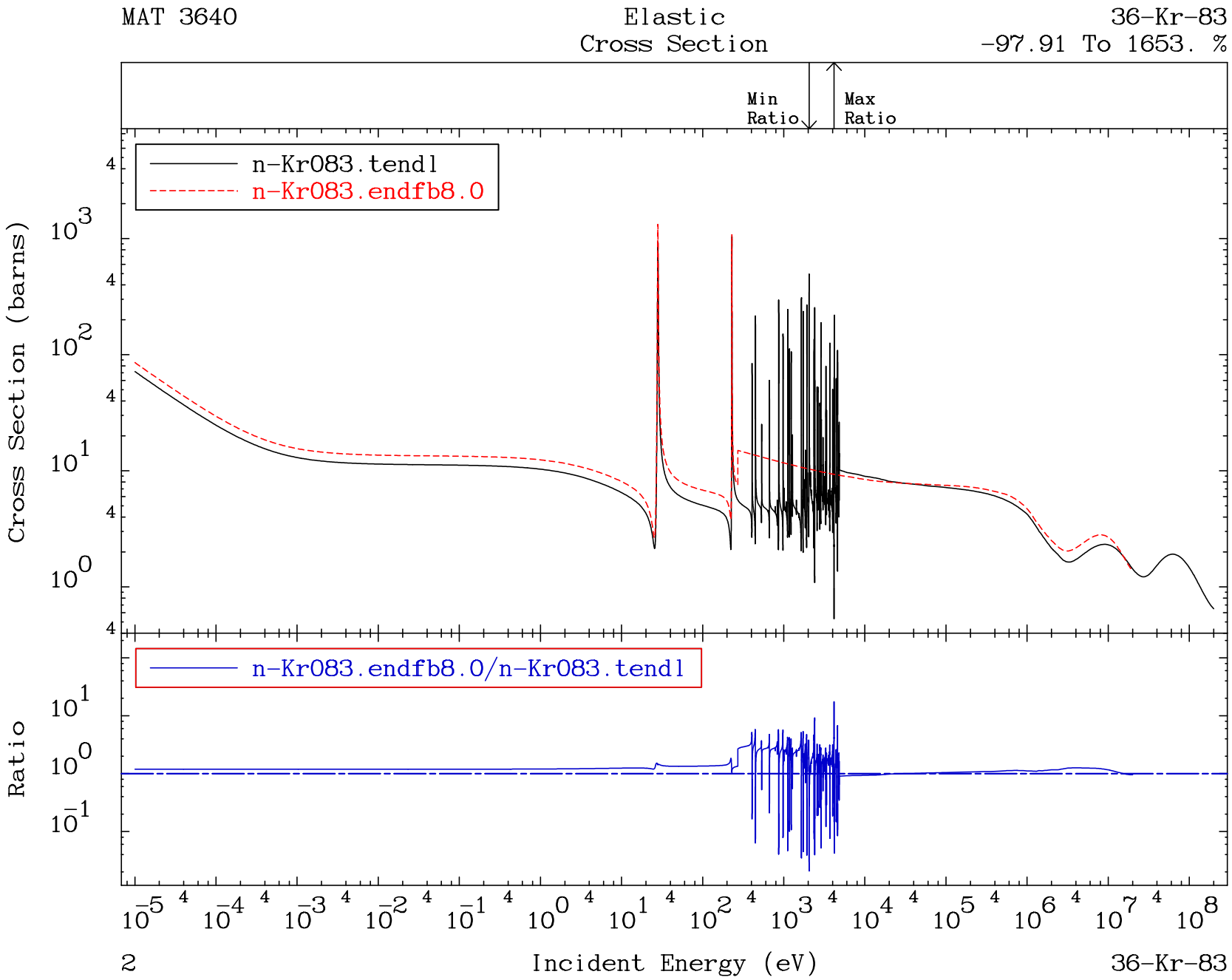
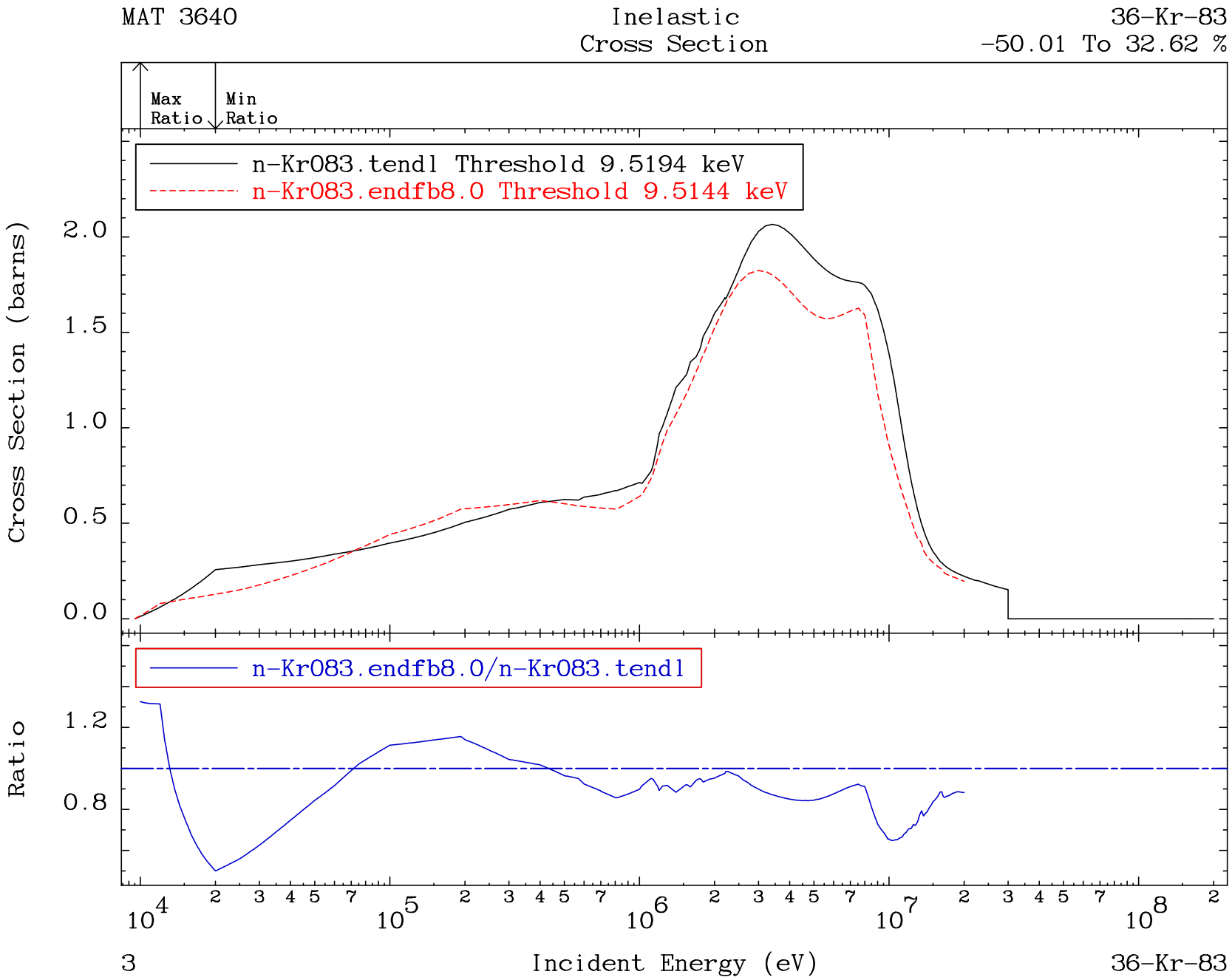
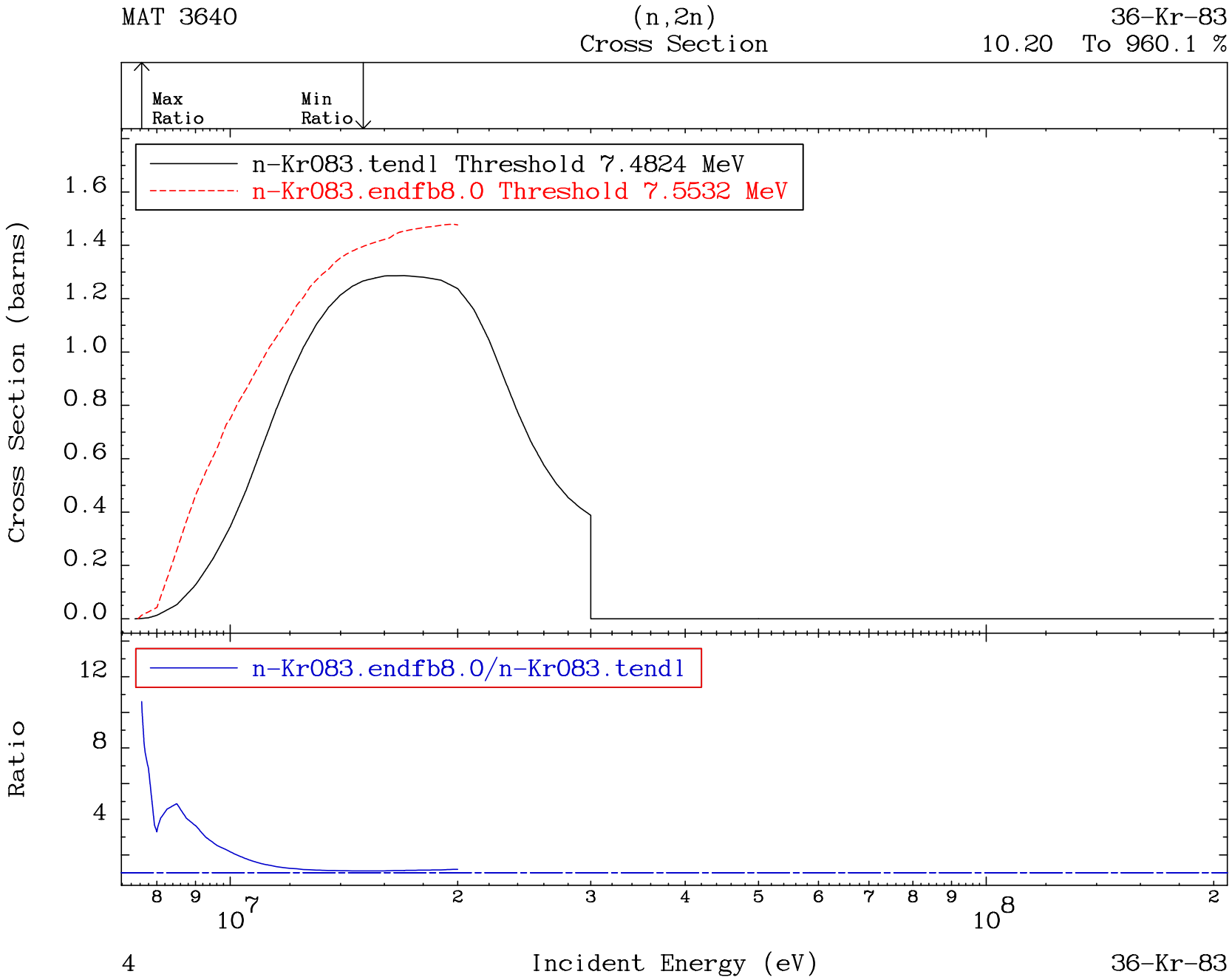
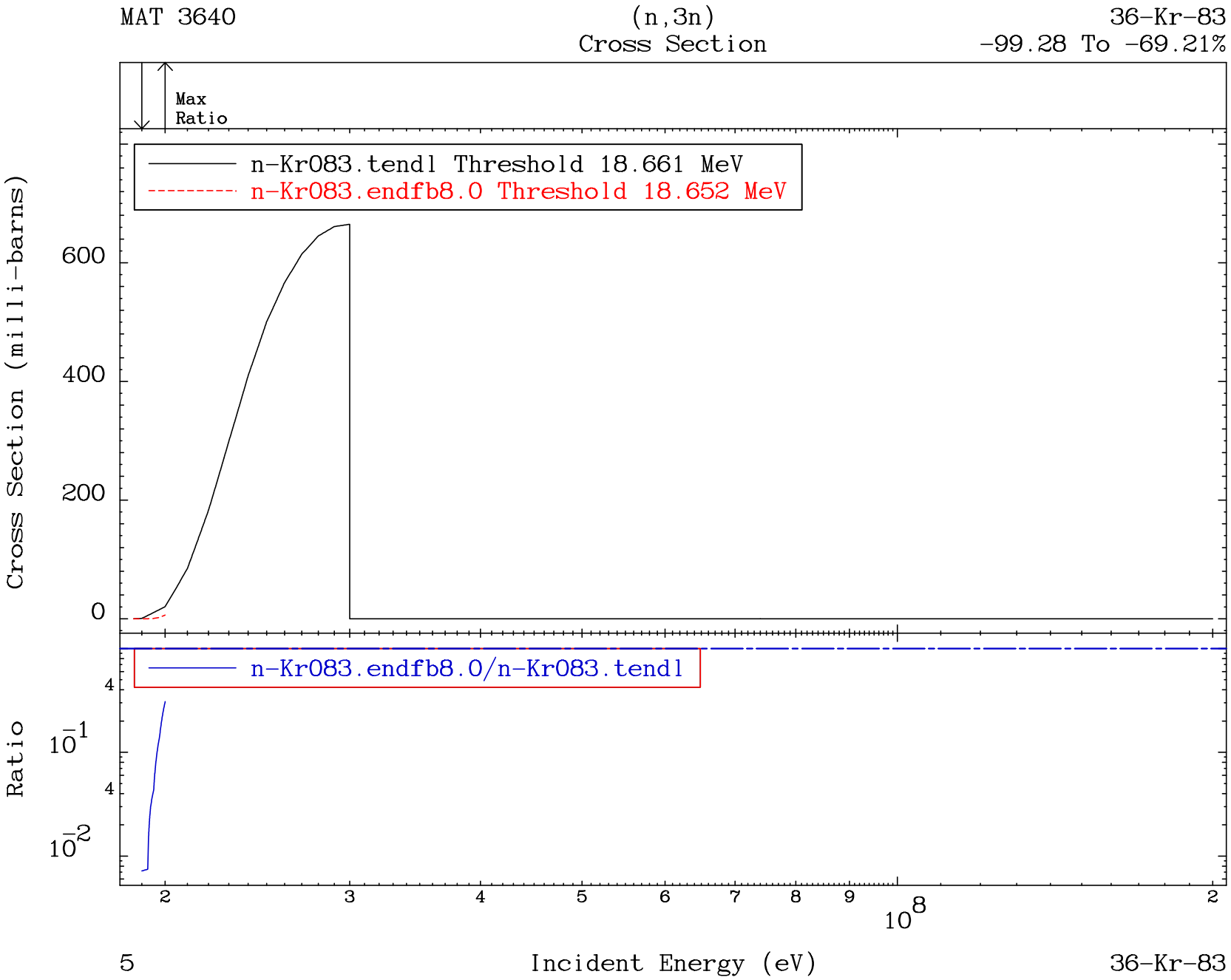
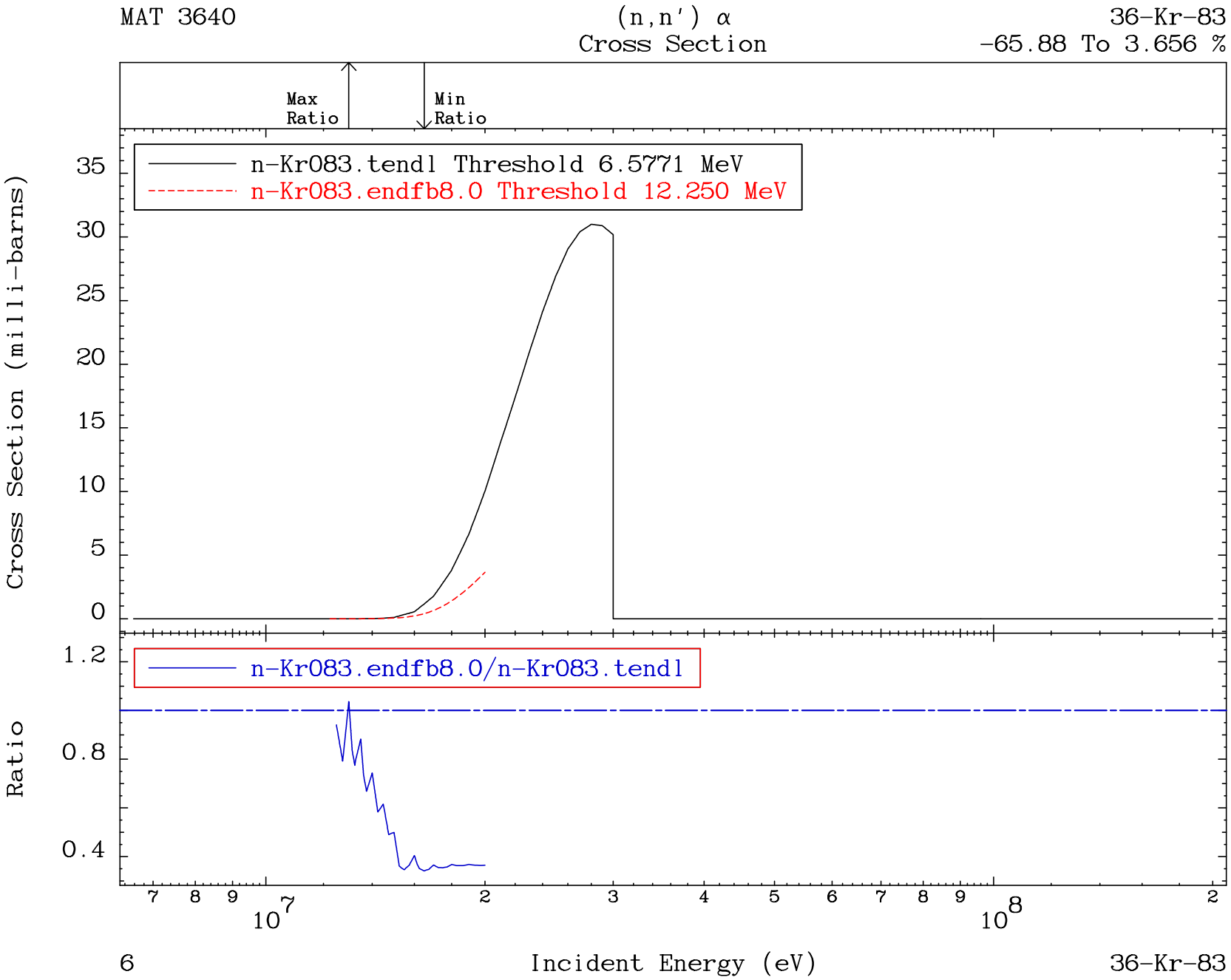

MAT 3640
Total
Cross Section
36-Kr-83
-97.75 To 905.4 %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
1
36-Kr-83

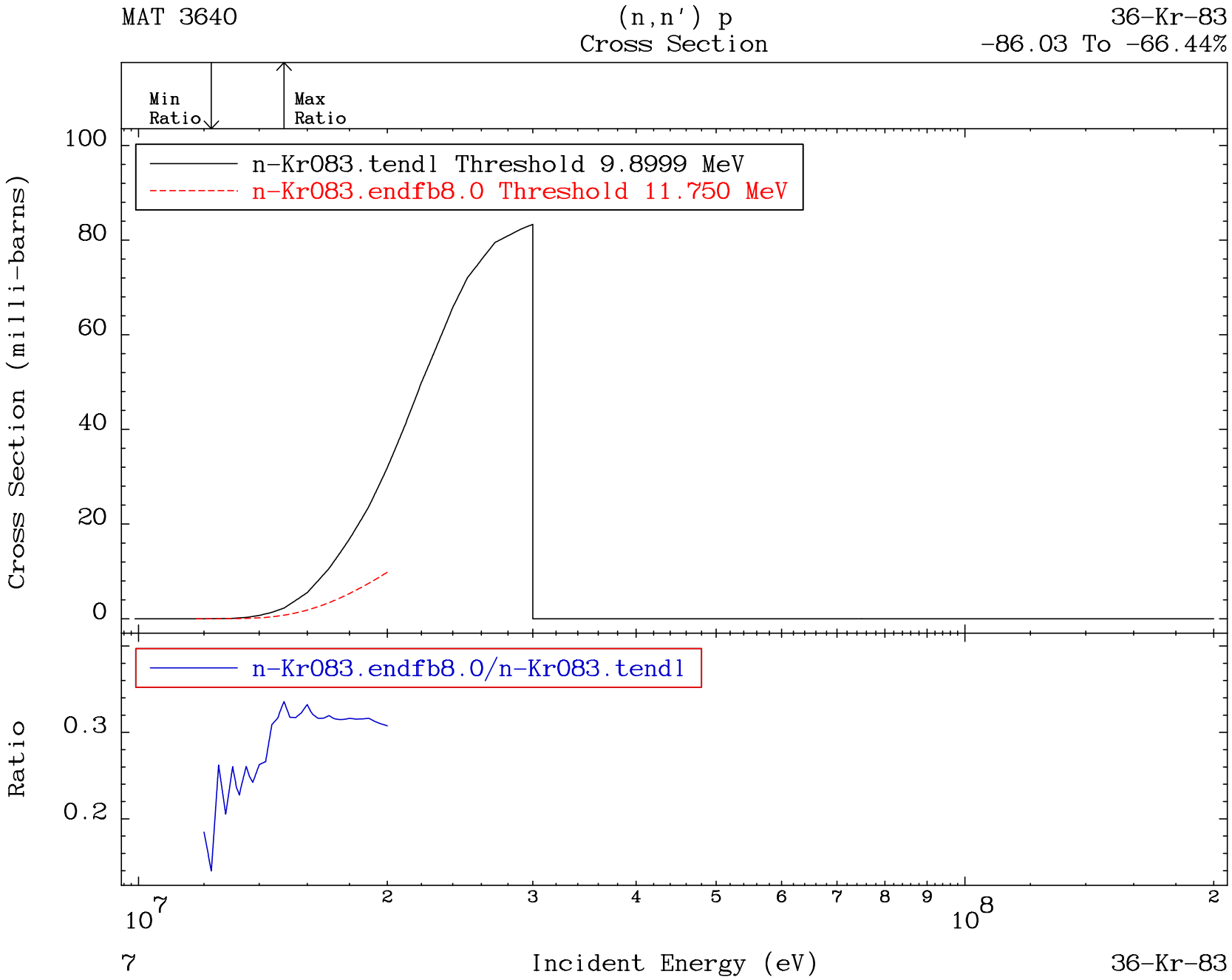

MAT 3640
Elastic
Cross Section
36-Kr-83
-97.91 To 1653. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
2
36-Kr-83

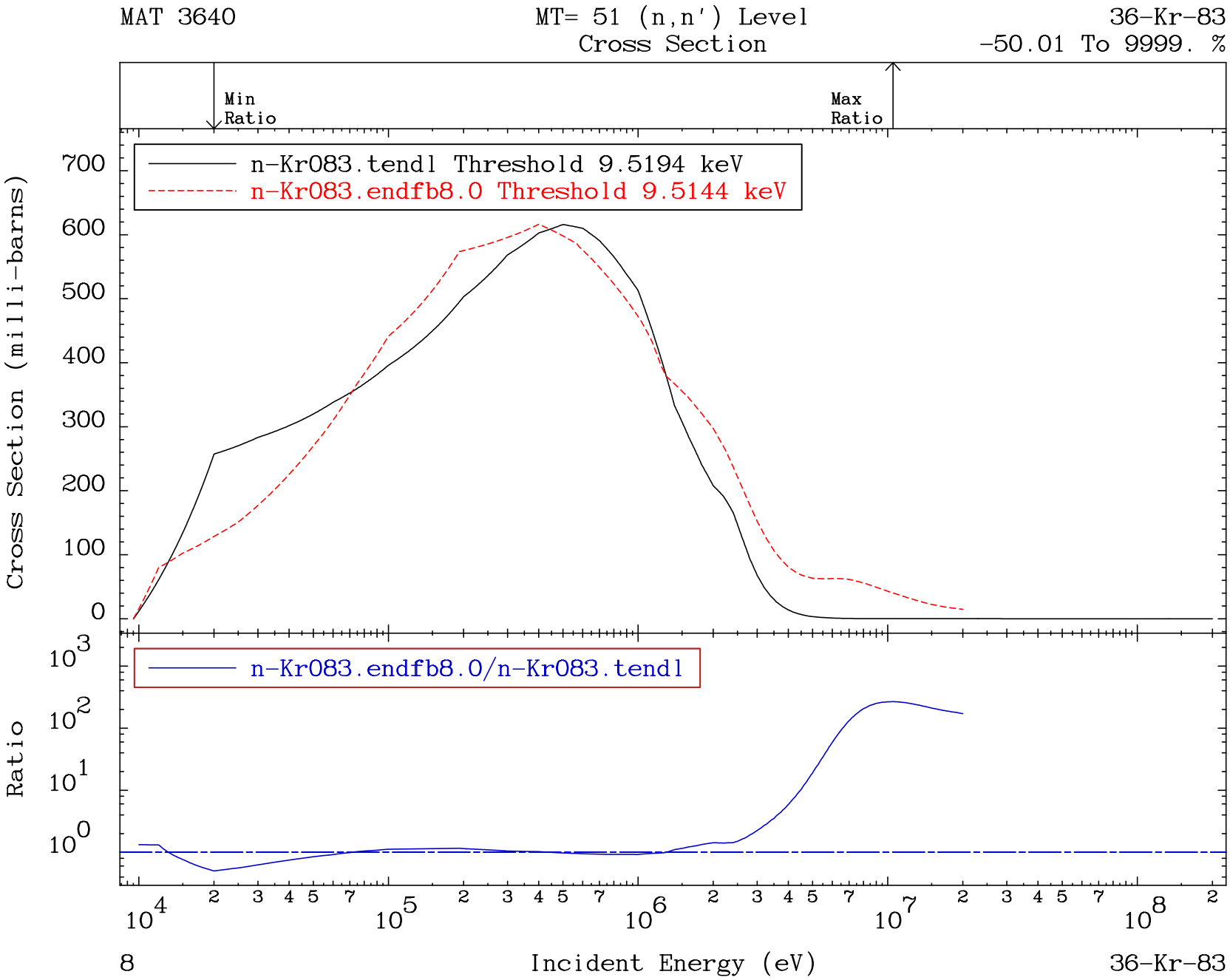

MAT 3640
Inelastic
Cross Section
36-Kr-83
-50.01 To 32.62 %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 9.5194 keV
n-Kr083.endfb8.0 Threshold 9.5144 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
1.2
0.8
10^4
2 3 4 5 7
10^5
2 3 4 5 7
10^6
2 3 4 5 7
10^7
2 3 4 5 7
10^8
2
3
Incident Energy (eV)
36-Kr-83

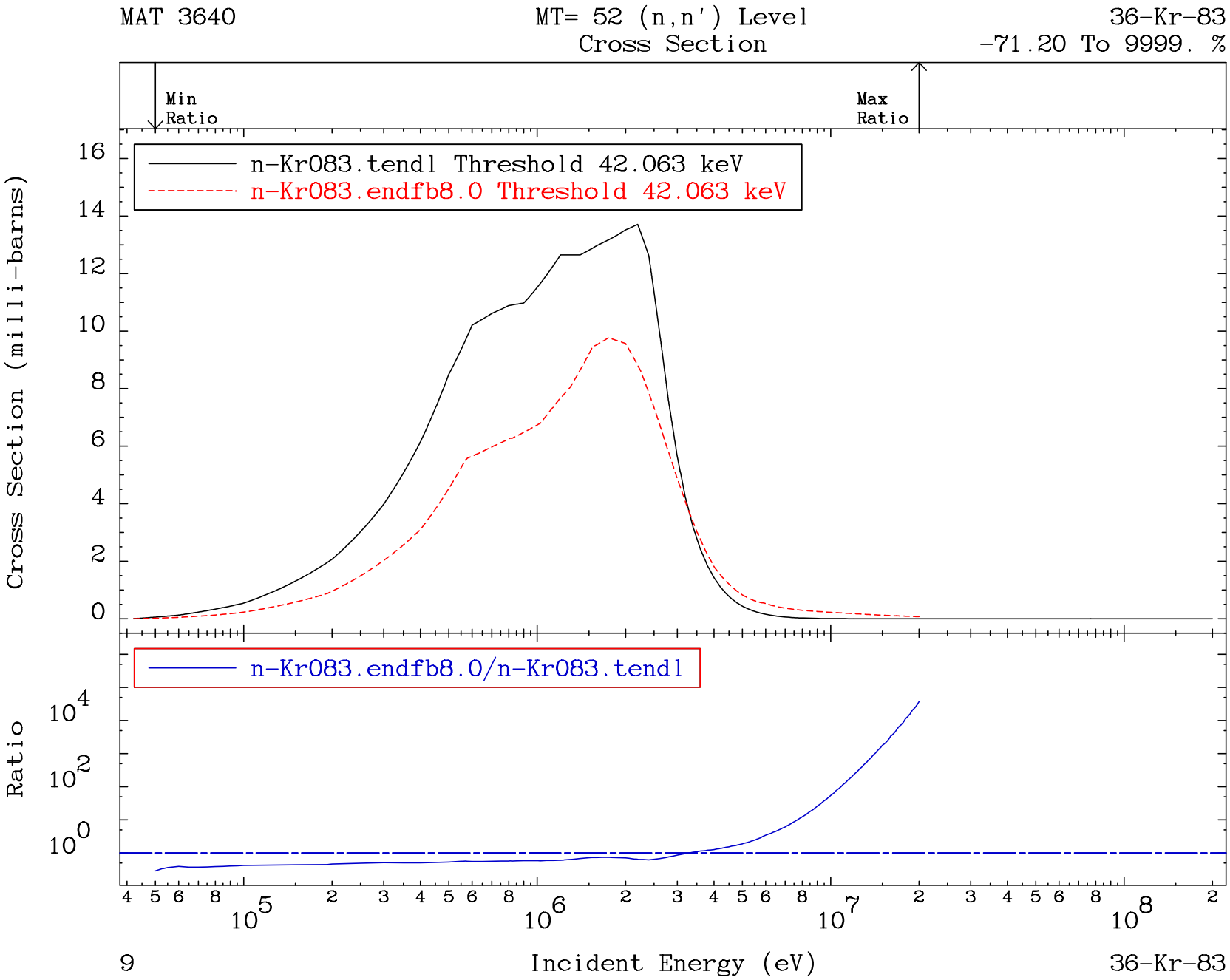

MAT 3640
(n,2n)
Cross Section
36-Kr-83
10.20 To 960.1 %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 7.4824 MeV
n-Kr083.endfb8.0 Threshold 7.5532 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
12
8
4
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
36-Kr-83

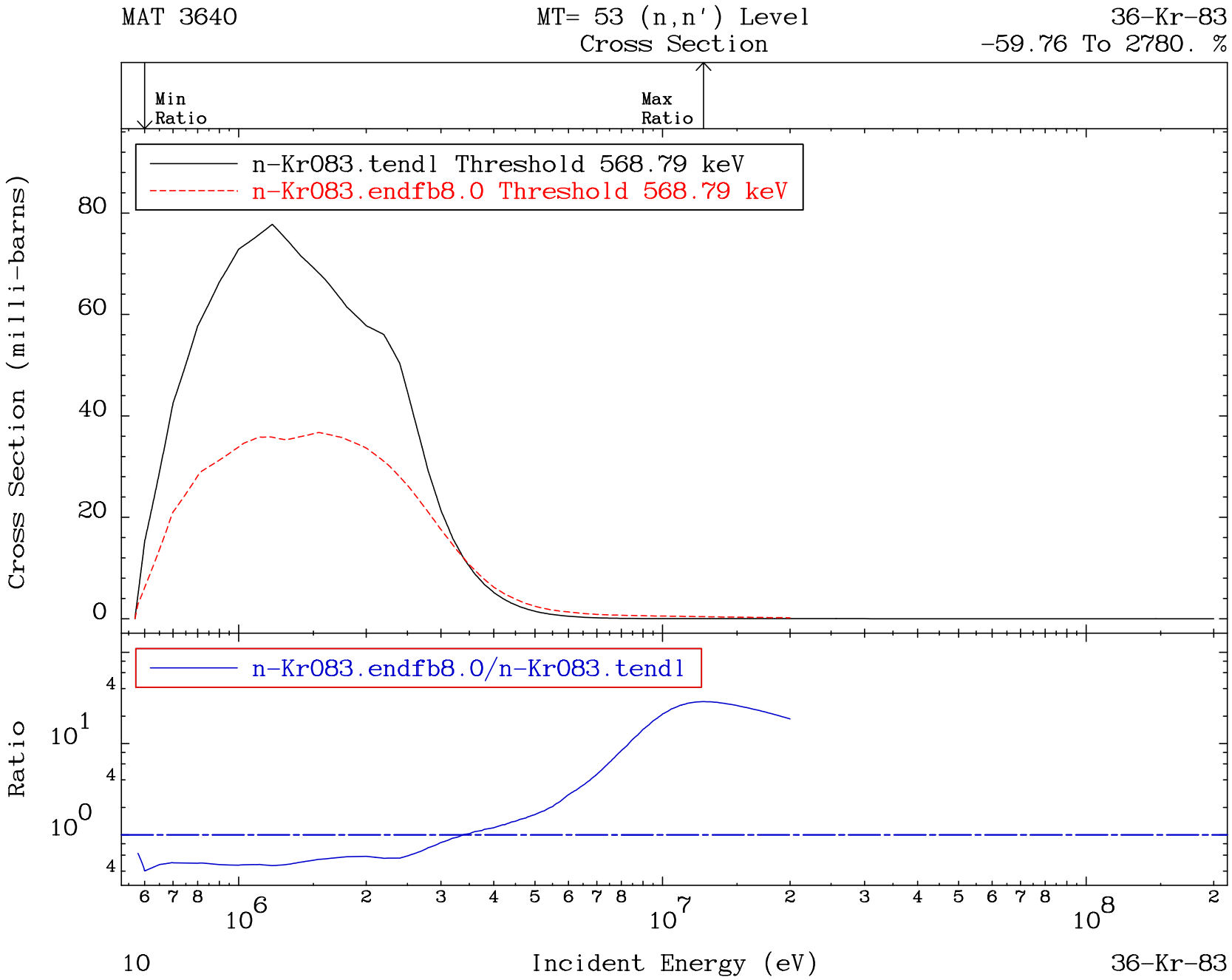

MAT 3640
(n,3n)
Cross Section
36-Kr-83
-99.28 To -69.21%
Max
Ratio
n-Kr083.tendl Threshold 18.661 MeV
n-Kr083.endfb8.0 Threshold 18.652 MeV
Cross Section (milli-barns)
600
400
200
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
4
10^{-1}
4
10^{-2}
2
3
4
5
6
7
8
9
10^{8}
2
5
Incident Energy (eV)
36-Kr-83

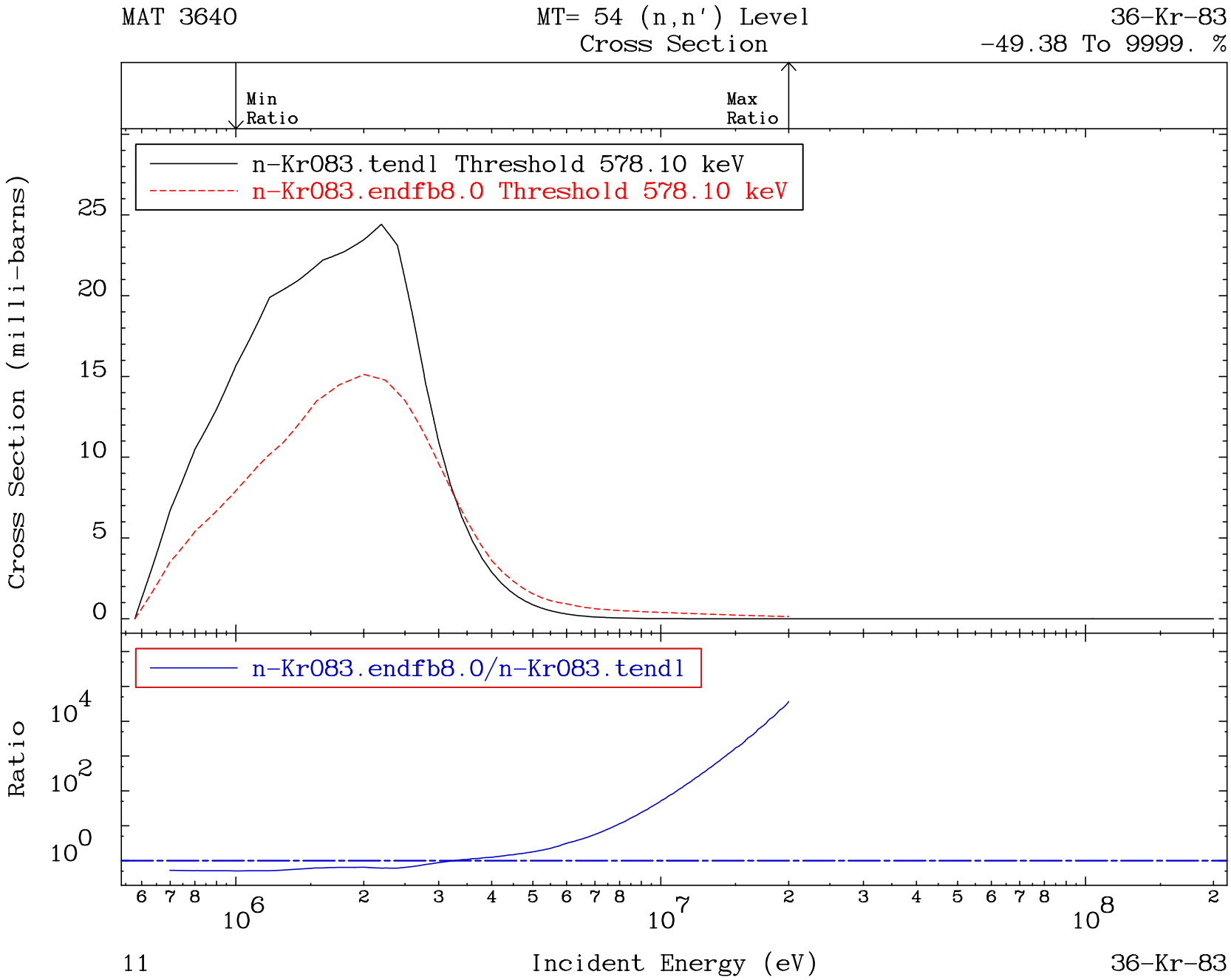

MAT 3640
(n,n') α
Cross Section
36-Kr-83
-65.88 To 3.656 %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 6.5771 MeV
n-Kr083.endfb8.0 Threshold 12.250 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
1.2
0.8
0.4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
6
Incident Energy (eV)
36-Kr-83

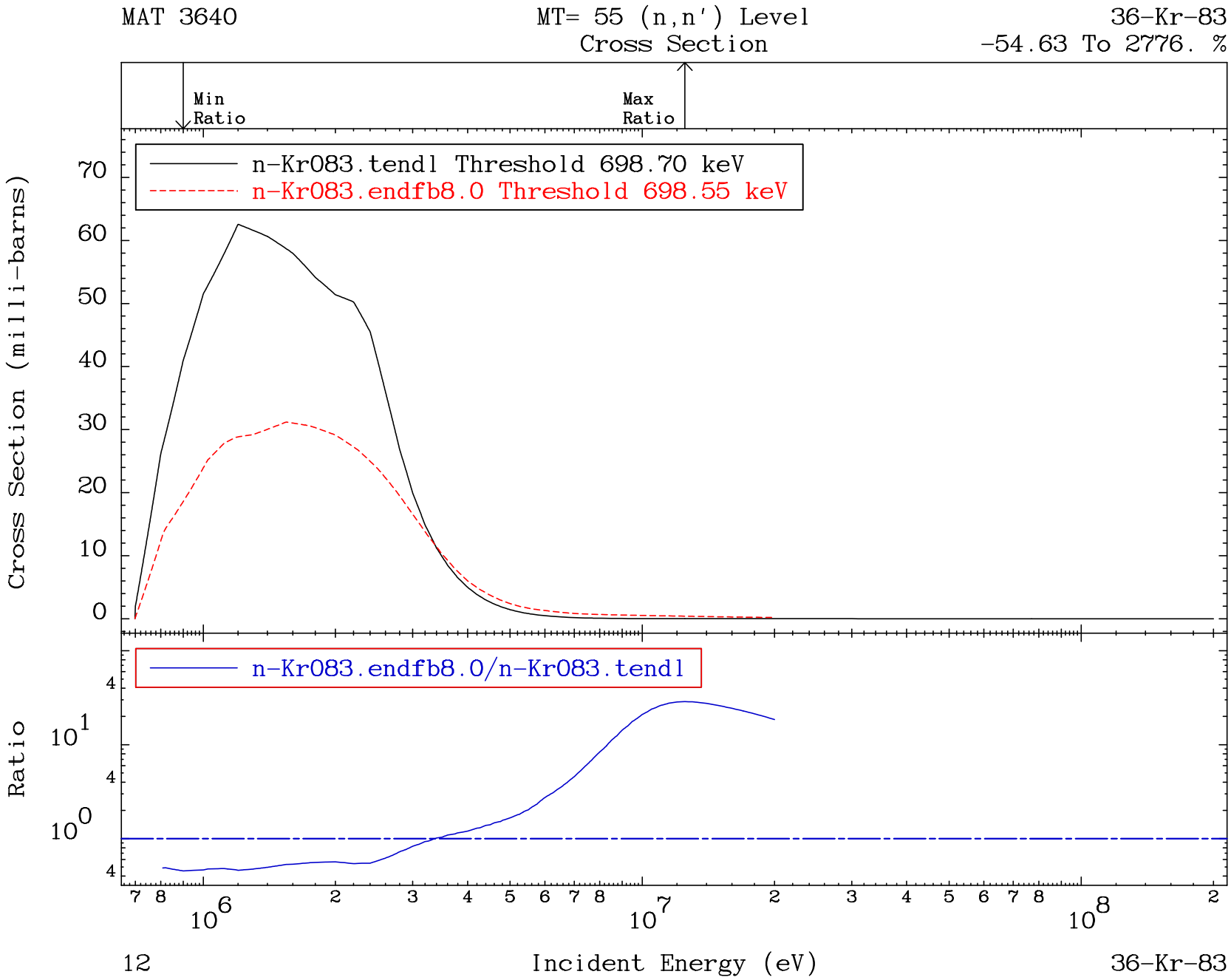

MAT 3640
(n,n') p
Cross Section
36-Kr-83
-86.03 To -66.44%
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 9.8999 MeV
n-Kr083.endfb8.0 Threshold 11.750 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
0.3
0.2
10^7
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
36-Kr-83

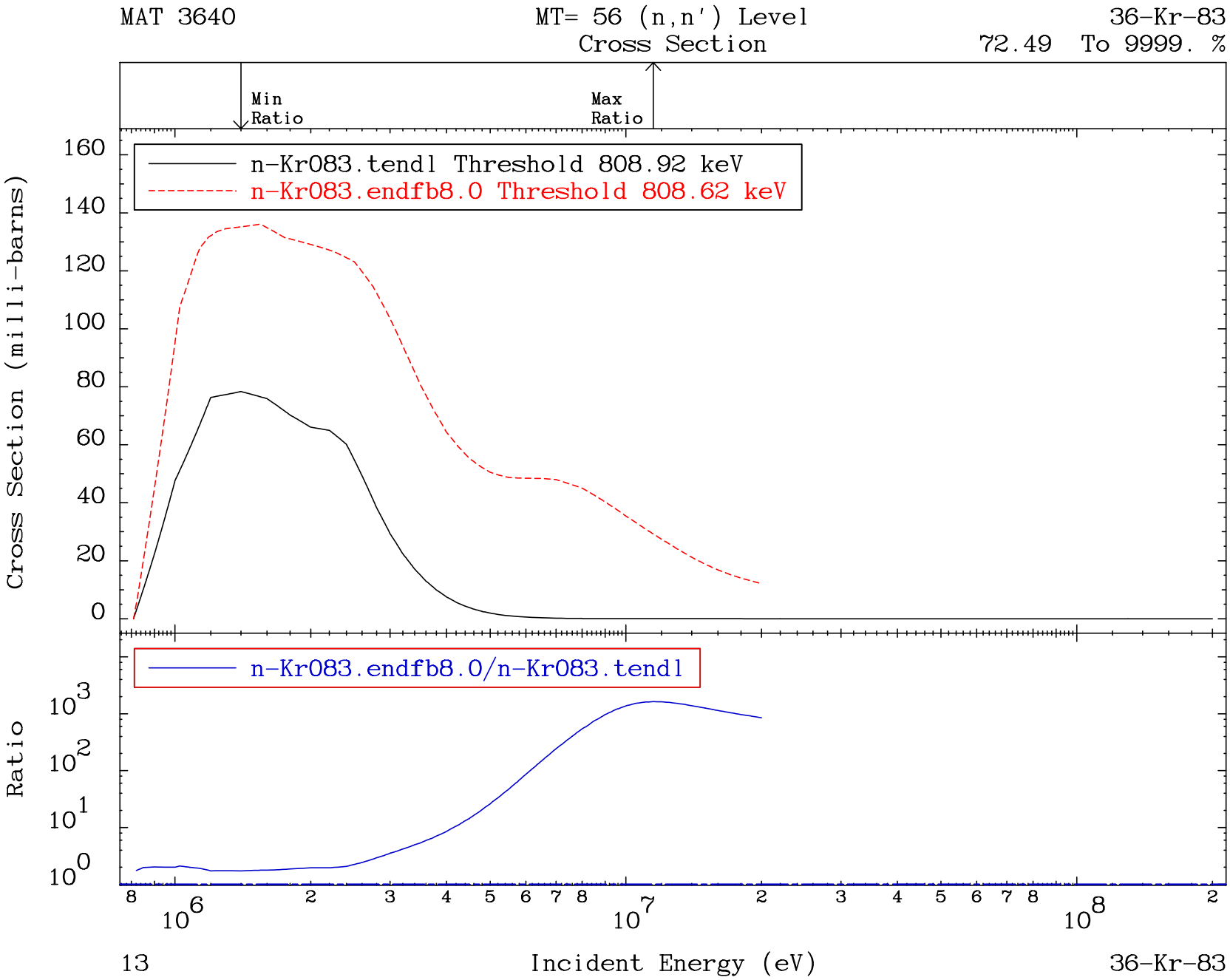

MAT 3640
MT= 51 (n,n') Level
Cross Section
36-Kr-83
-50.01 To 9999. %
Min
Ratio
Max
Ratio
n-Kr083.tendl Threshold 9.5194 keV
n-Kr083.endfb8.0 Threshold 9.5144 keV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^3
10^2
10^1
10^0
10^4
10^5
10^6
10^7
10^8
Incident Energy (eV)
8
36-Kr-83

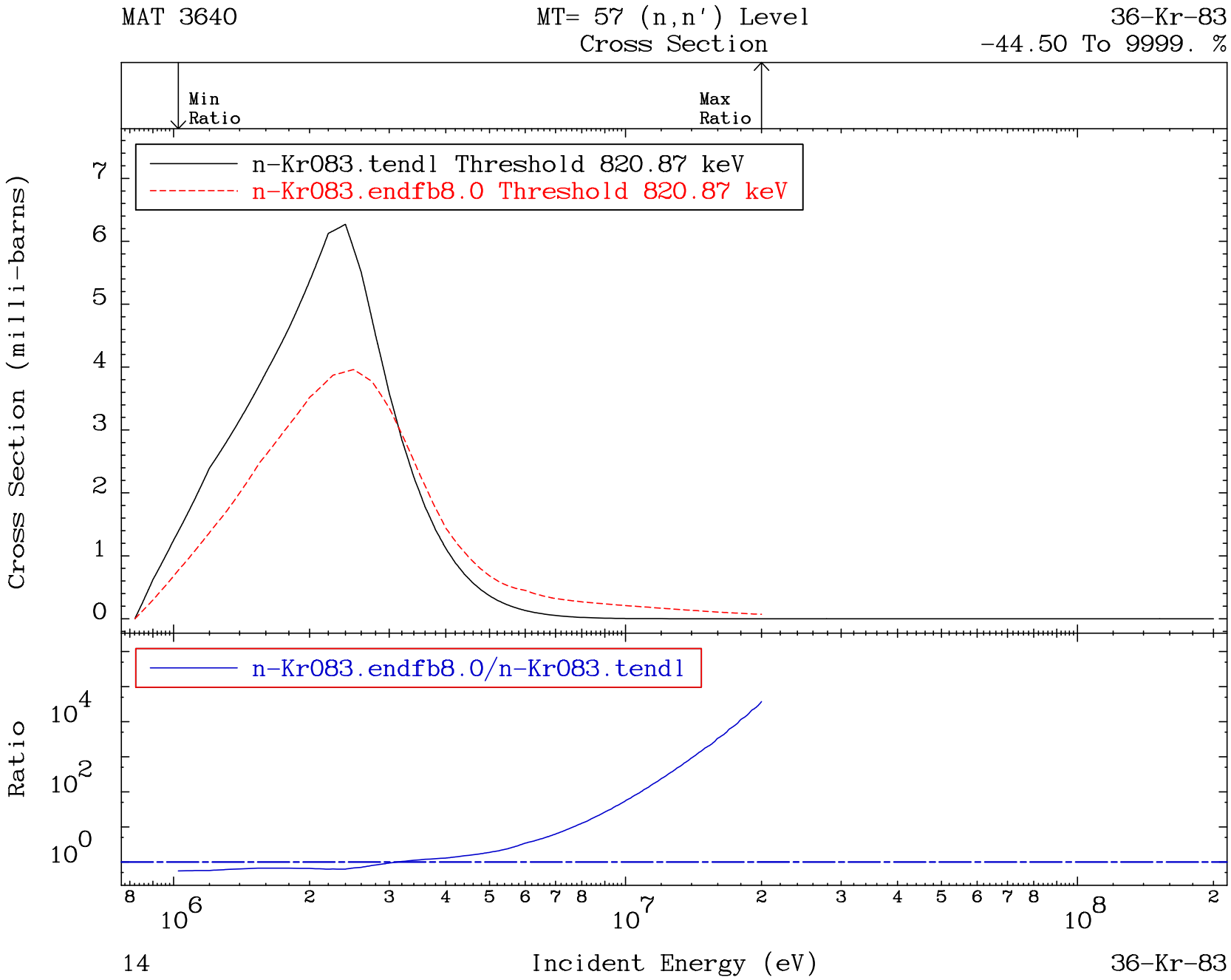

MAT 3640
MT= 52 (n,n') Level
Cross Section
36-Kr-83
-71.20 To 9999. %
Min
Ratio
Max
Ratio
n-Kr083.tendl Threshold 42.063 keV
n-Kr083.endfb8.0 Threshold 42.063 keV
Cross Section (milli-barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
9
36-Kr-83

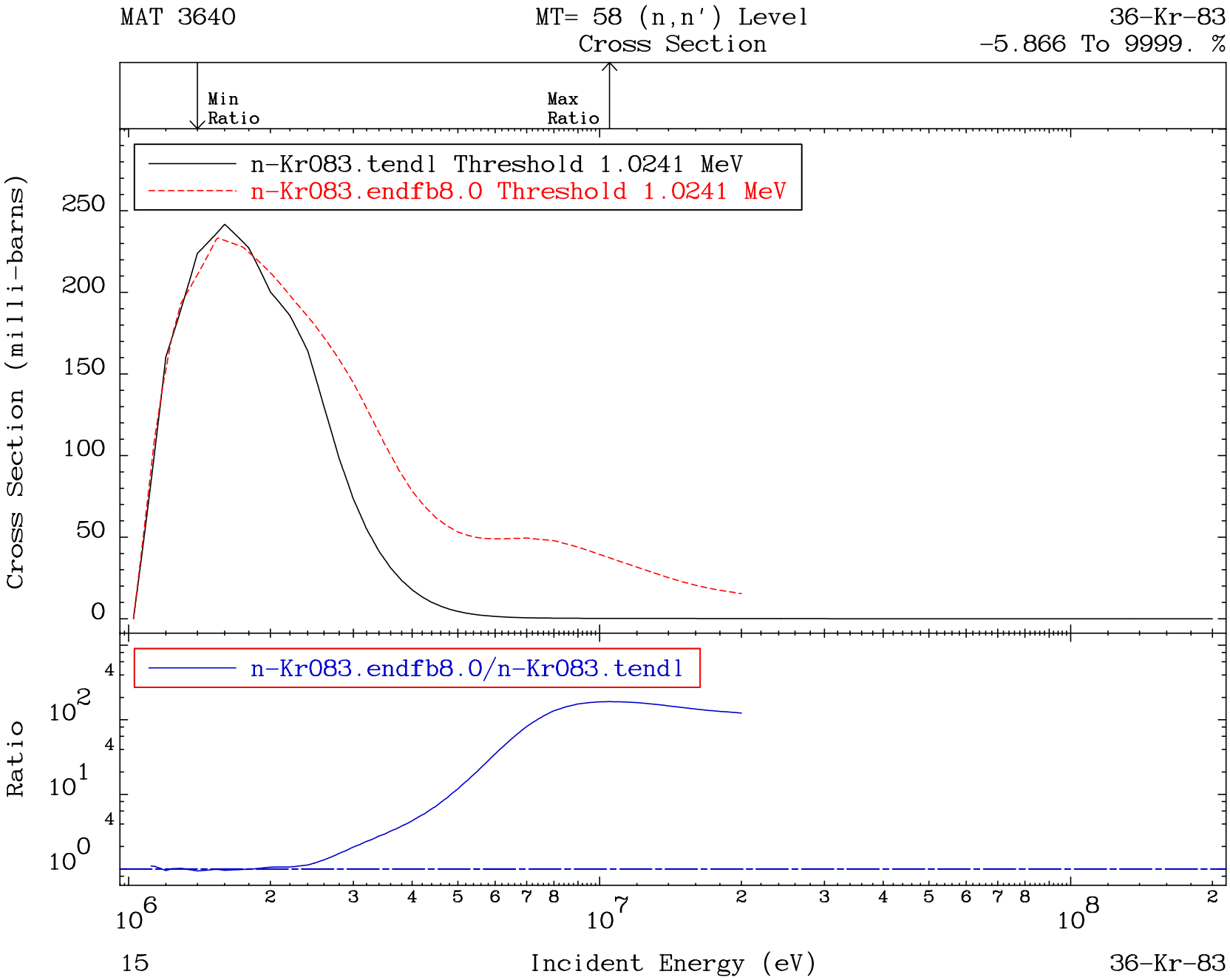

MAT 3640
MT= 53 (n,n') Level
Cross Section
36-Kr-83
-59.76 To 2780. %
Min
Ratio
Max
Ratio
n-Kr083.tendl Threshold 568.79 keV
n-Kr083.endfb8.0 Threshold 568.79 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^1
10^0
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
10
Incident Energy (eV)
36-Kr-83

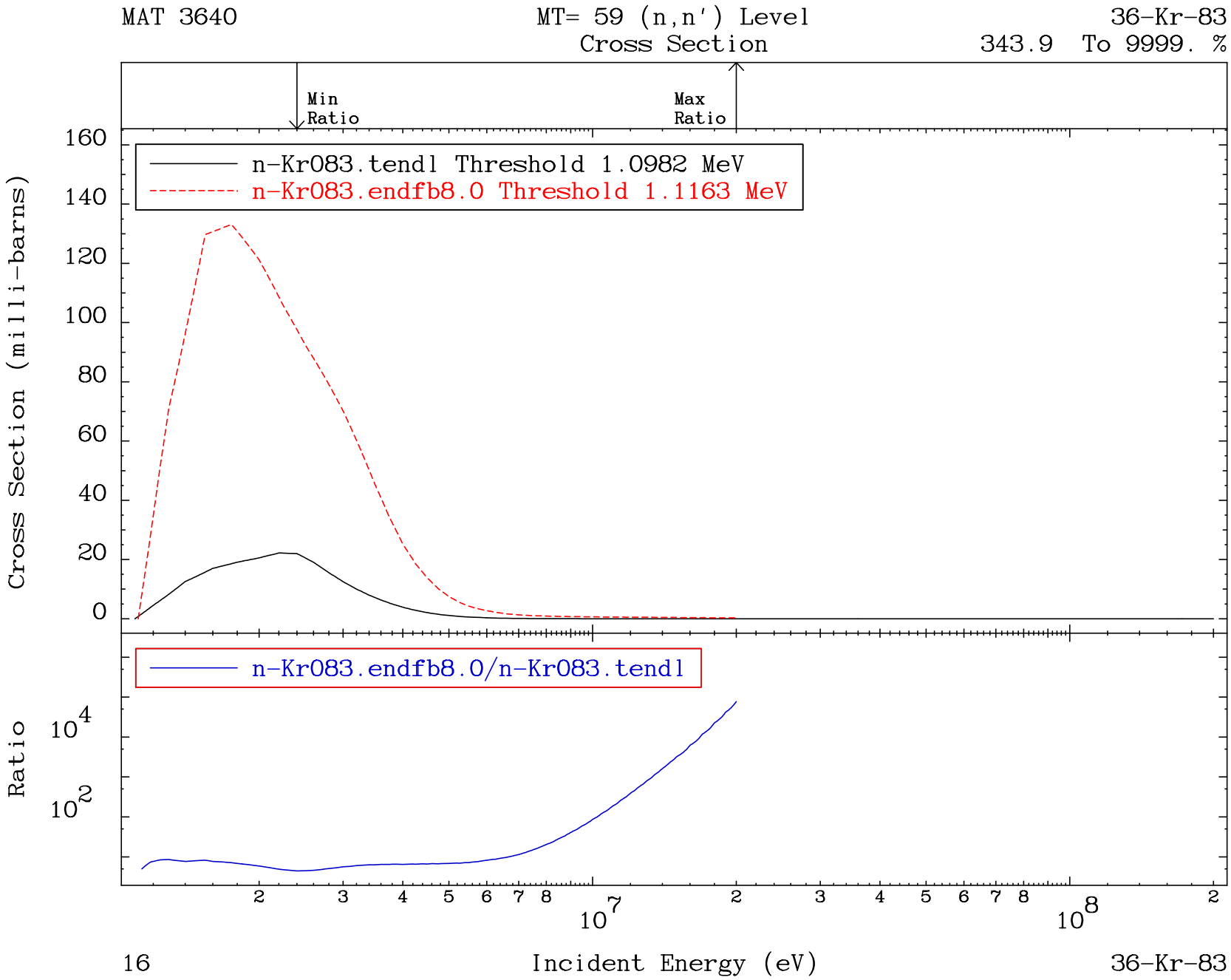

MAT 3640
MT= 54 (n,n') Level
Cross Section
36-Kr-83
-49.38 To 9999. %
Min
Ratio
Max
Ratio
n-Kr083.tendl Threshold 578.10 keV
n-Kr083.endfb8.0 Threshold 578.10 keV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^4
10^2
10^0
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
36-Kr-83

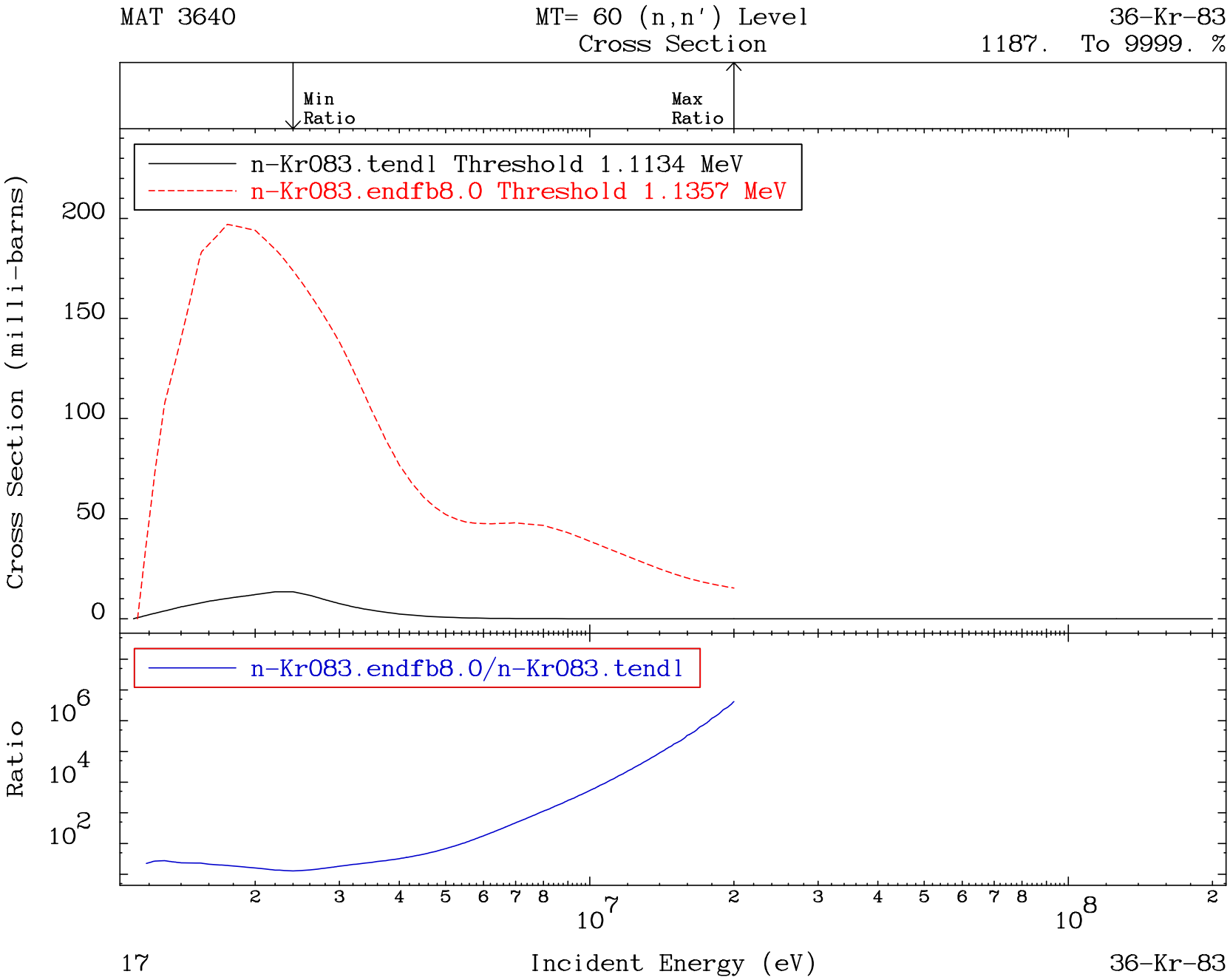

MAT 3640
MT= 55 (n,n') Level
Cross Section
36-Kr-83
-54.63 To 2776. %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 698.70 keV
n-Kr083.endfb8.0 Threshold 698.55 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^1
10^0
4
7 8
10^6
2
3
4
5
6
7 8
10^7
2
3
4
5
6
7 8
10^8
2
12
Incident Energy (eV)
36-Kr-83

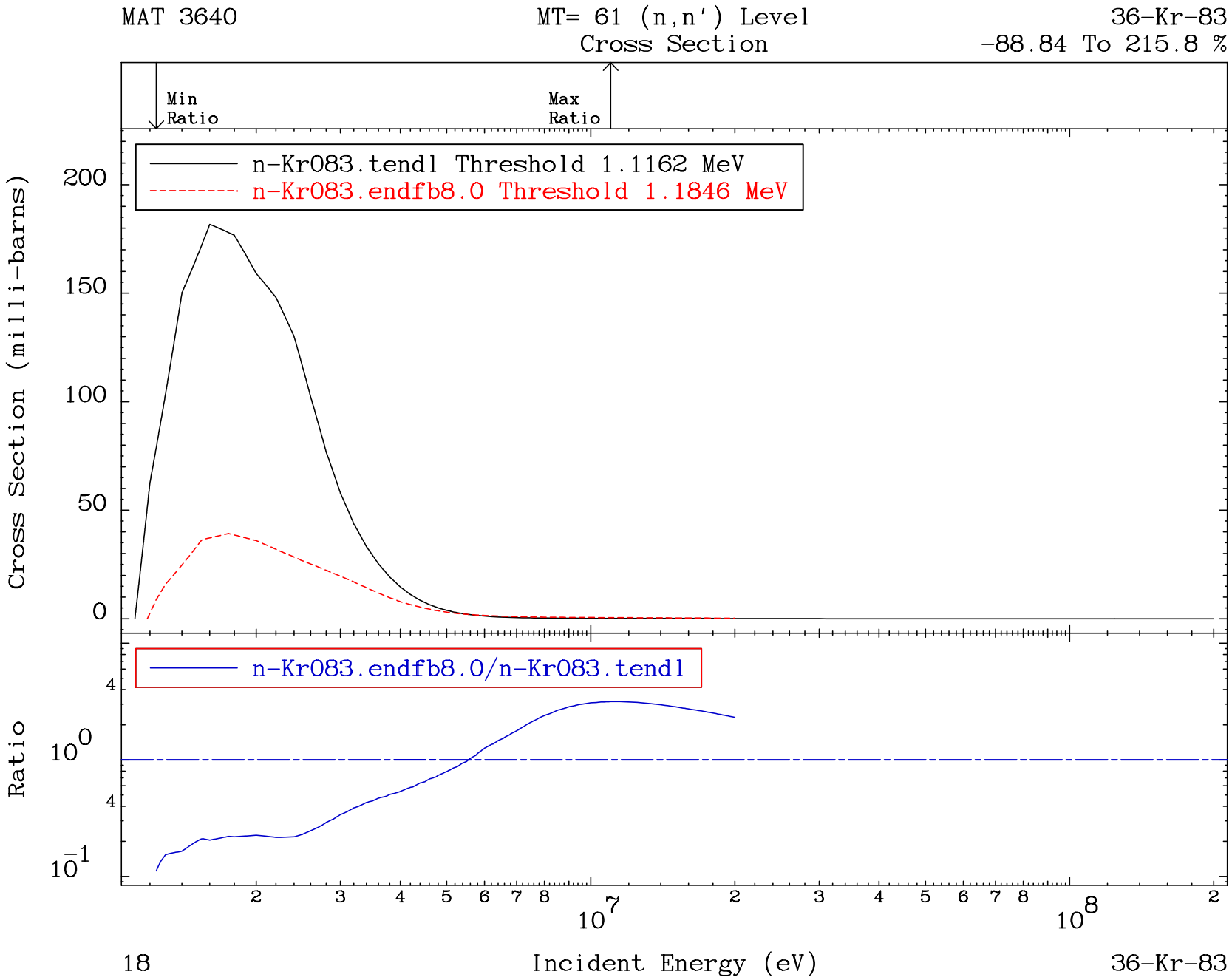

MAT 3640
MT= 56 (n,n') Level
Cross Section
36-Kr-83
72.49 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 808.92 keV
n-Kr083.endfb8.0 Threshold 808.62 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^3
10^2
10^1
10^0
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
13
Incident Energy (eV)
36-Kr-83

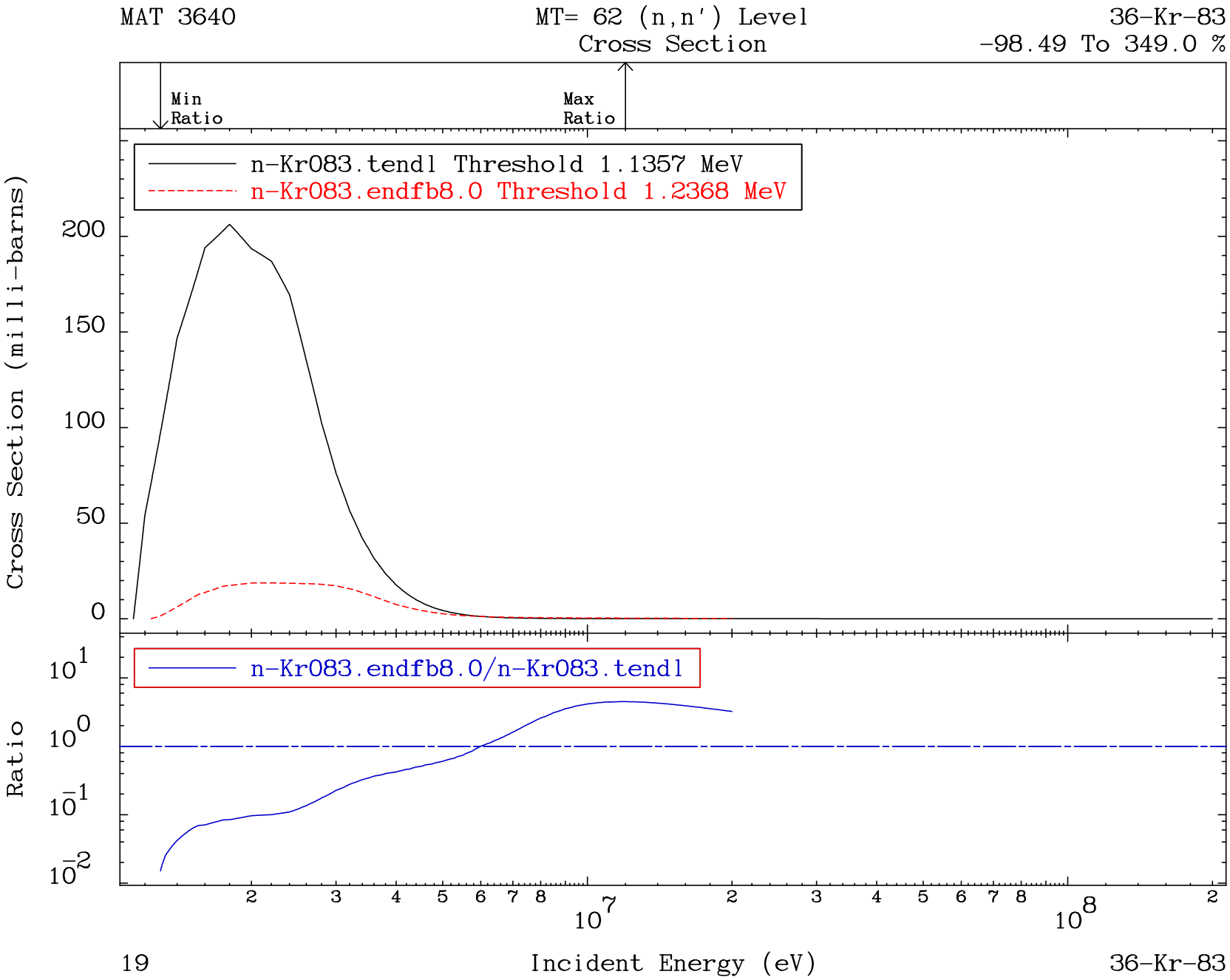

MAT 3640
MT= 57 (n,n') Level
Cross Section
36-Kr-83
-44.50 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 820.87 keV
n-Kr083.endfb8.0 Threshold 820.87 keV
Cross Section (milli-barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
14
36-Kr-83

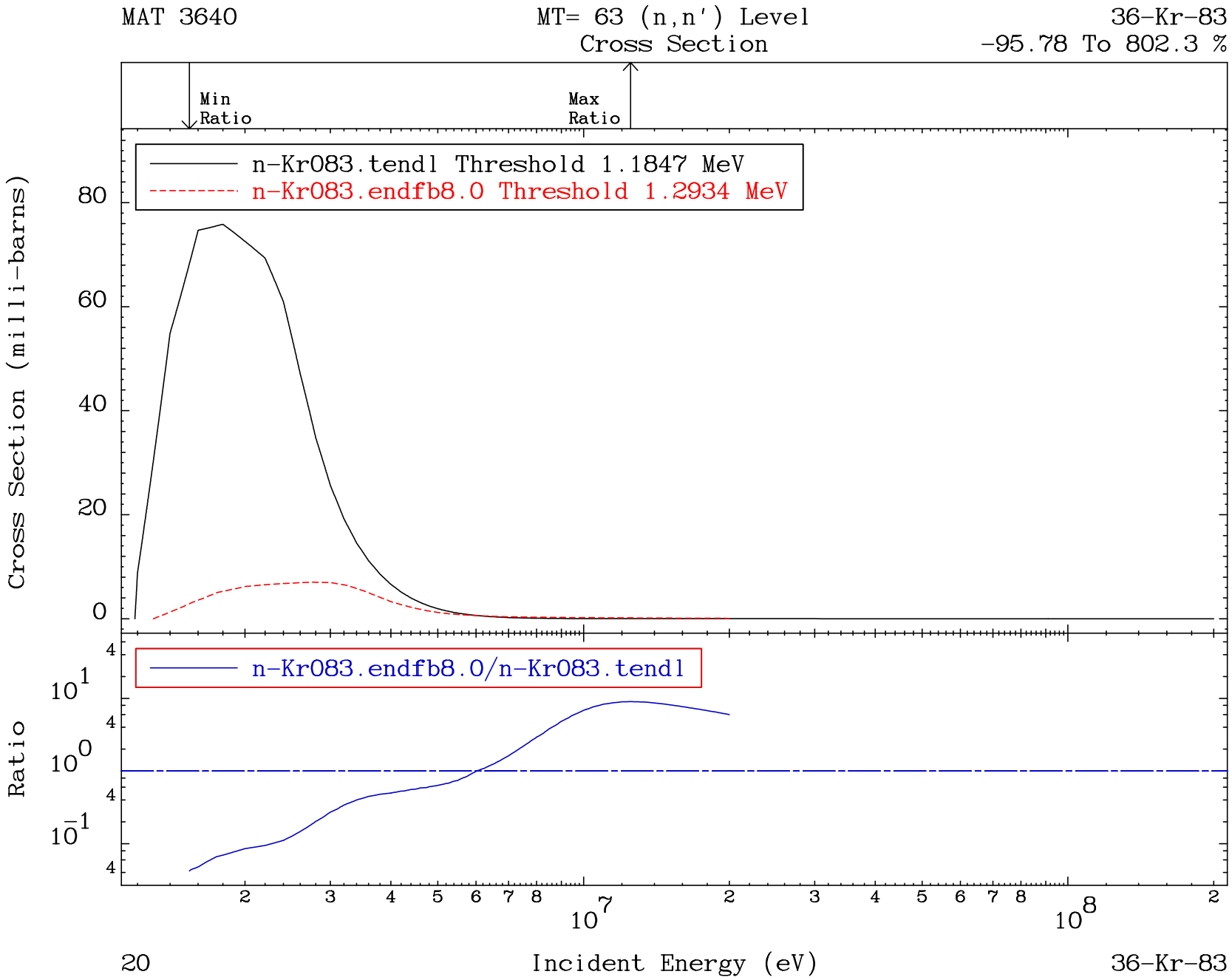

MAT 3640
MT= 58 (n,n') Level
Cross Section
36-Kr-83
-5.866 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 1.0241 MeV
n-Kr083.endfb8.0 Threshold 1.0241 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^2
10^1
10^0
10^6
10^7
10^8
15
Incident Energy (eV)
36-Kr-83

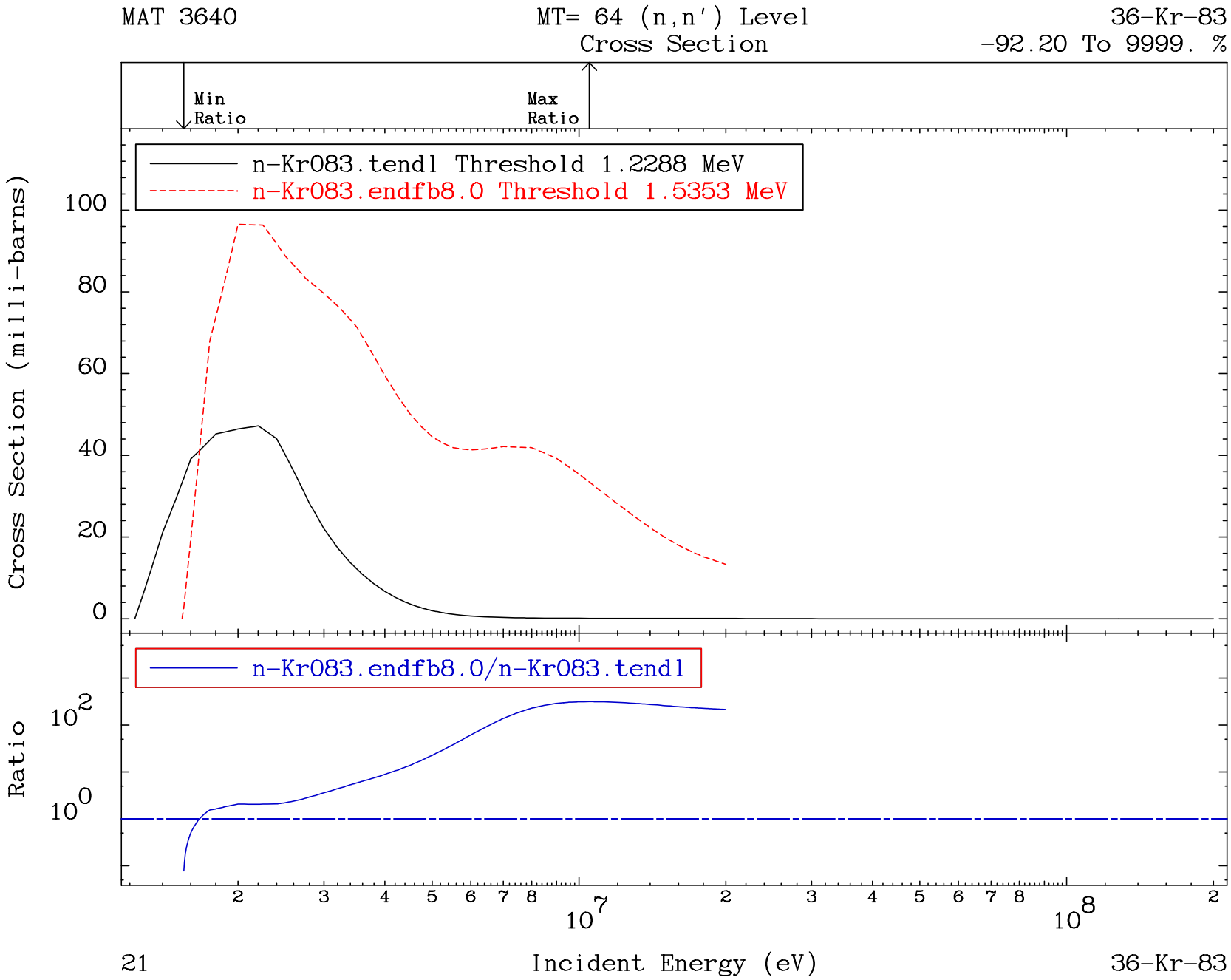

MAT 3640
MT= 59 (n,n') Level
Cross Section
36-Kr-83
343.9 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 1.0982 MeV
n-Kr083.endfb8.0 Threshold 1.1163 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^4
10^2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
16
Incident Energy (eV)
36-Kr-83

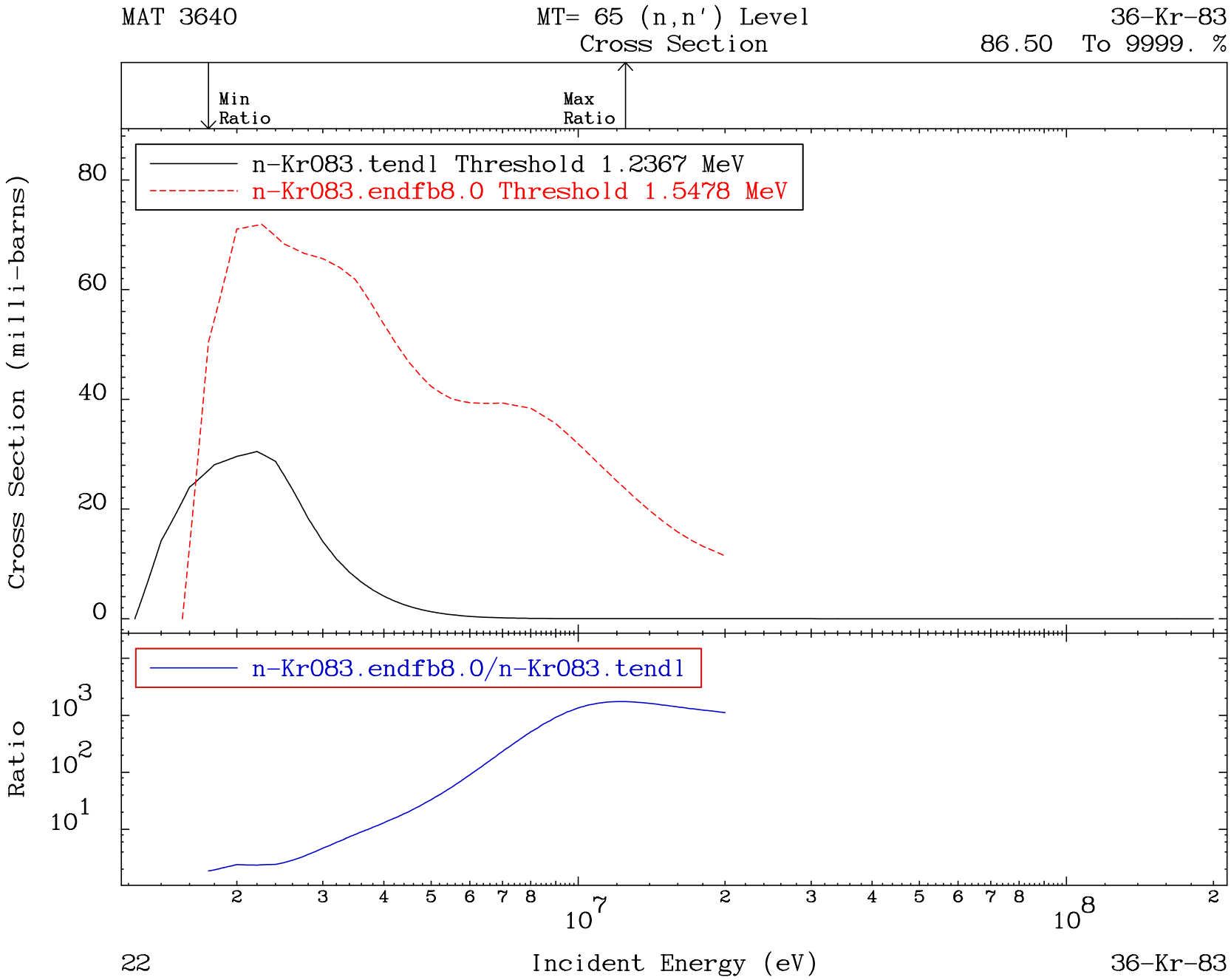

MAT 3640
MT= 60 (n,n') Level
Cross Section
36-Kr-83
1187. To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 1.1134 MeV
n-Kr083.endfb8.0 Threshold 1.1357 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^6
10^4
10^2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
36-Kr-83

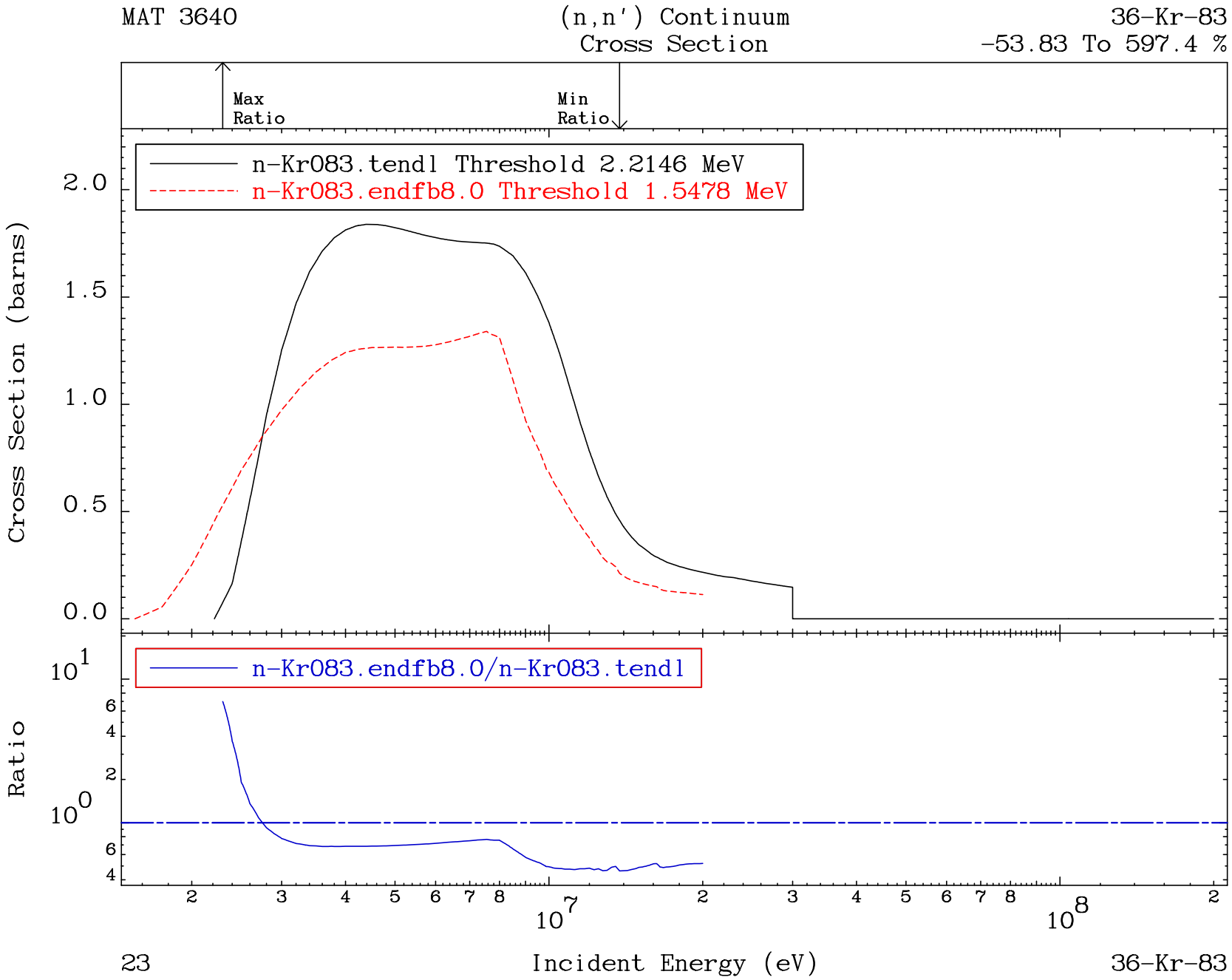

MAT 3640
MT= 61 (n,n') Level
Cross Section
36-Kr-83
-88.84 To 215.8 %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 1.1162 MeV
n-Kr083.endfb8.0 Threshold 1.1846 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^0
10^-1
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
18
Incident Energy (eV)
36-Kr-83

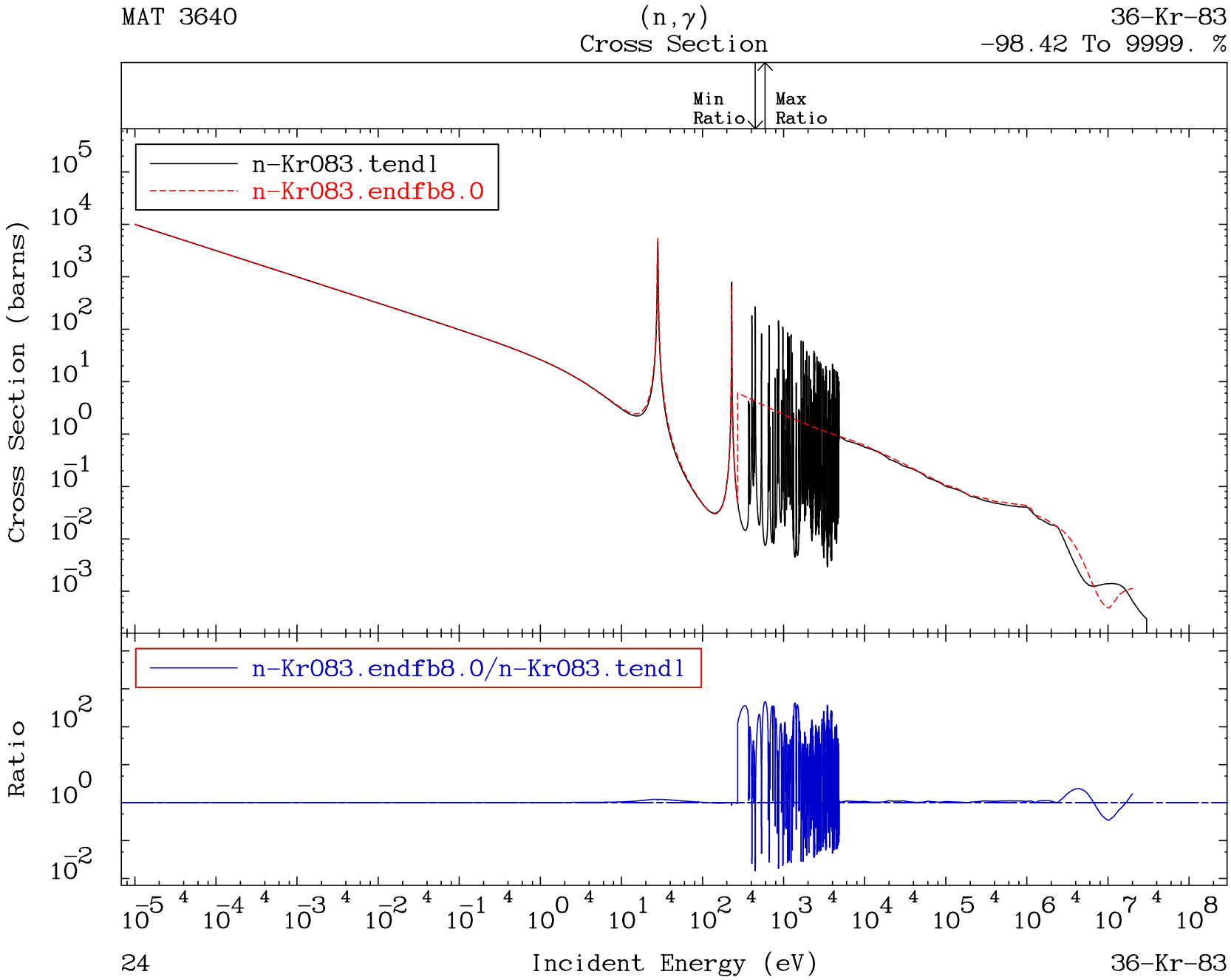

MAT 3640
MT= 62 (n,n') Level
Cross Section
36-Kr-83
-98.49 To 349.0 %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 1.1357 MeV
n-Kr083.endfb8.0 Threshold 1.2368 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^1
10^0
10^-1
10^-2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
19
Incident Energy (eV)
36-Kr-83

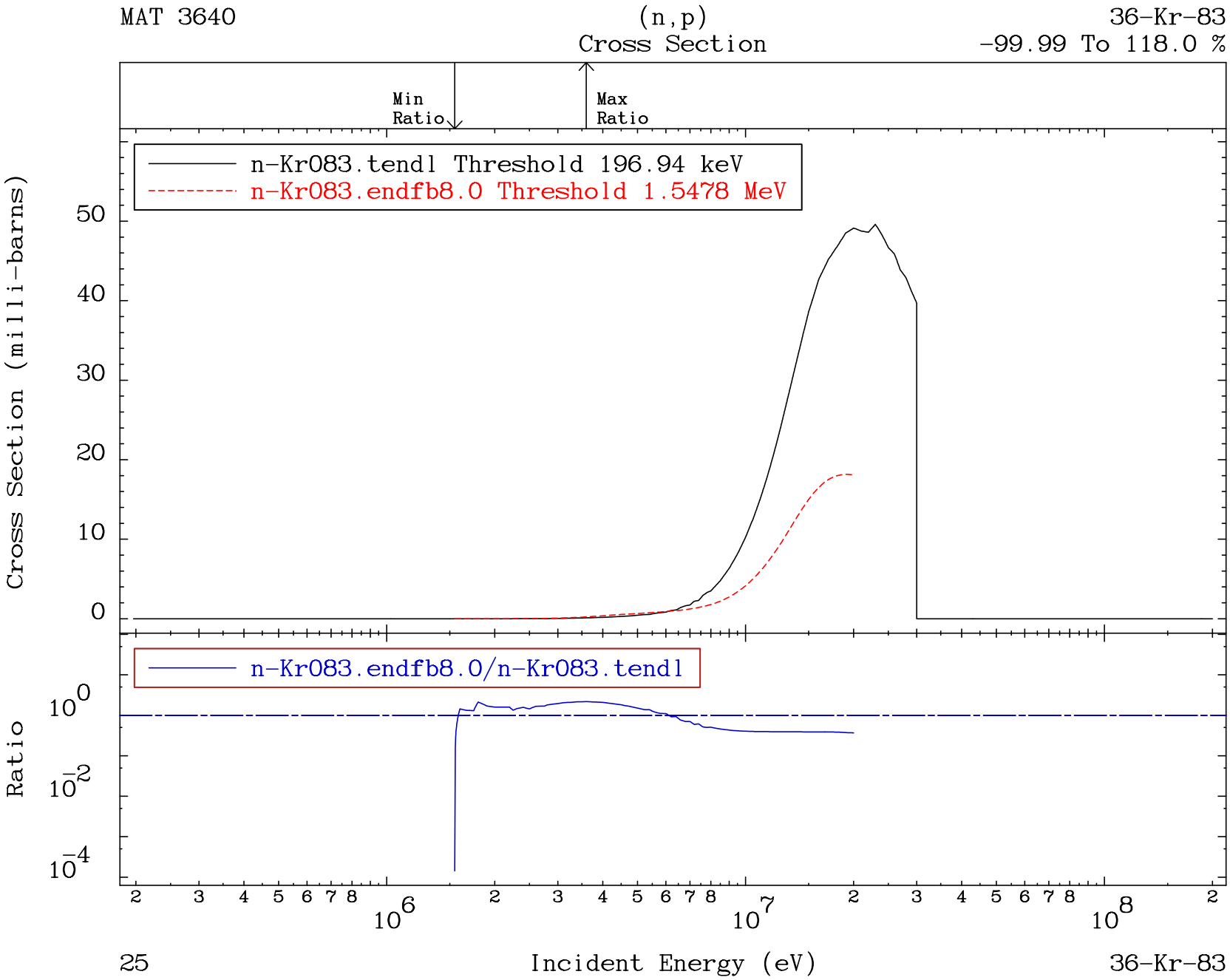

MAT 3640
MT= 63 (n,n') Level
Cross Section
36-Kr-83
-95.78 To 802.3 %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 1.1847 MeV
n-Kr083.endfb8.0 Threshold 1.2934 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^1
10^0
10^-1
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
20
Incident Energy (eV)
36-Kr-83

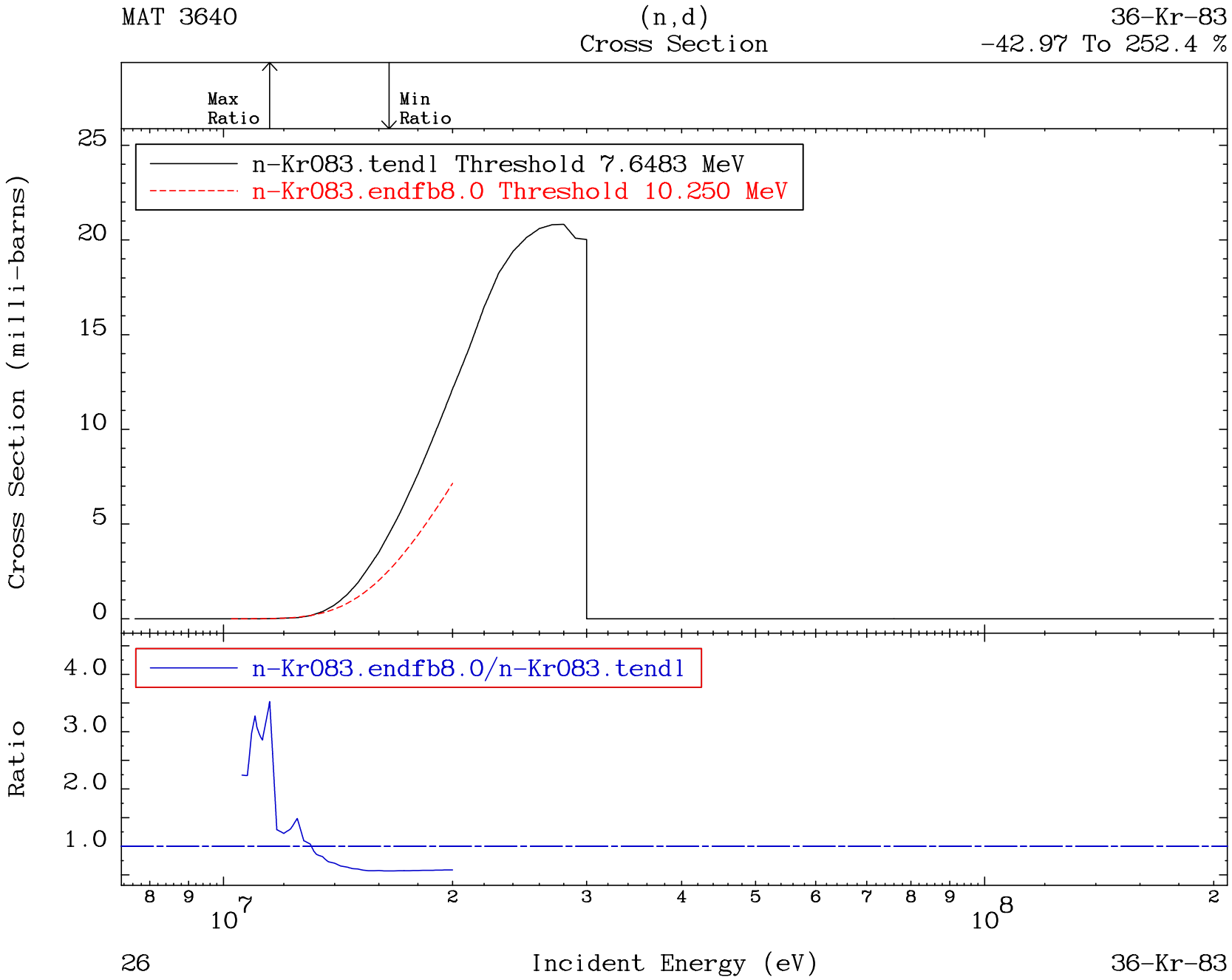

MAT 3640
MT= 64 (n,n') Level
Cross Section
36-Kr-83
-92.20 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 1.2288 MeV
n-Kr083.endfb8.0 Threshold 1.5353 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
36-Kr-83

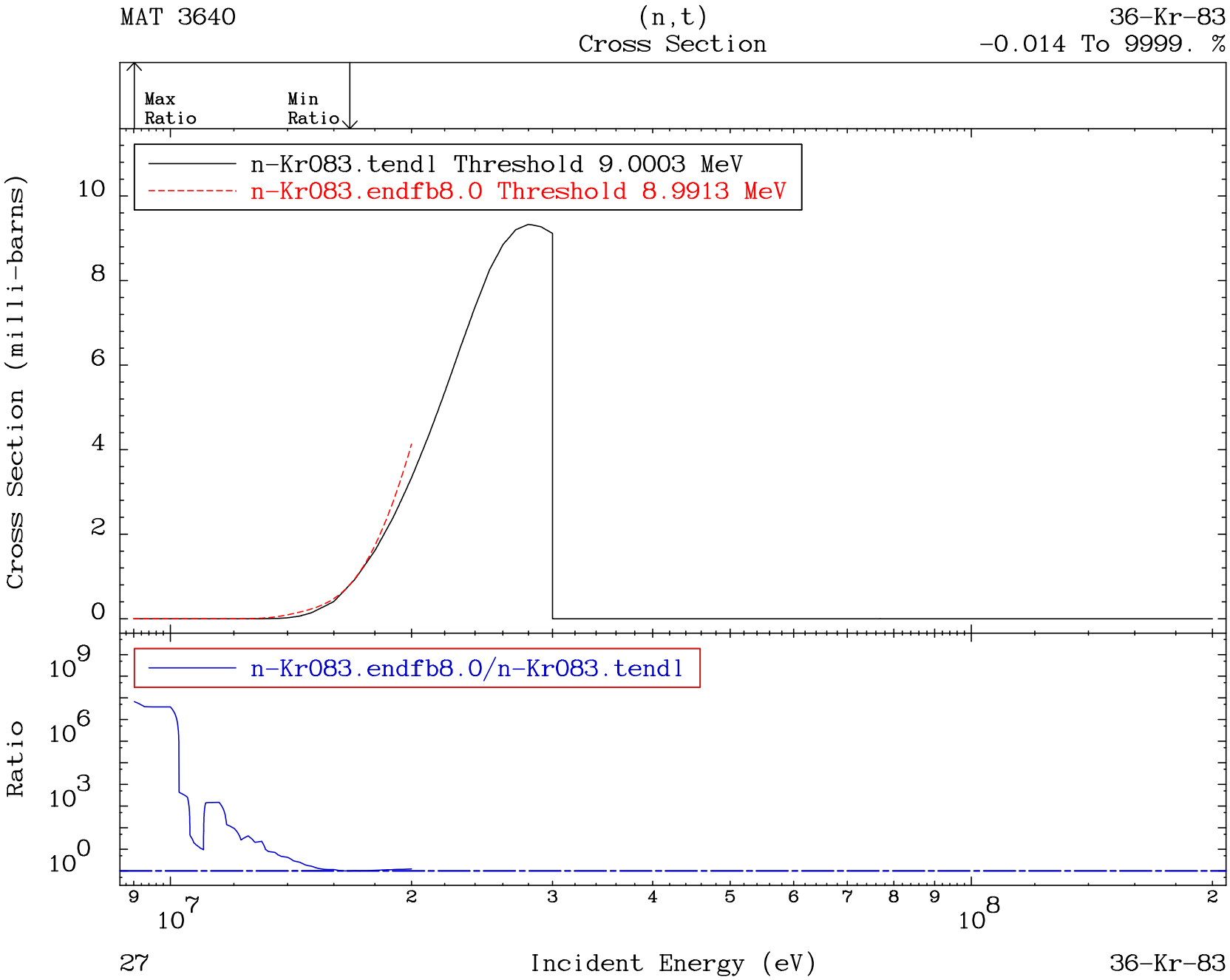

MAT 3640
MT= 65 (n,n') Level
Cross Section
36-Kr-83
86.50 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 1.2367 MeV
n-Kr083.endfb8.0 Threshold 1.5478 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^3
10^2
10^1
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
36-Kr-83

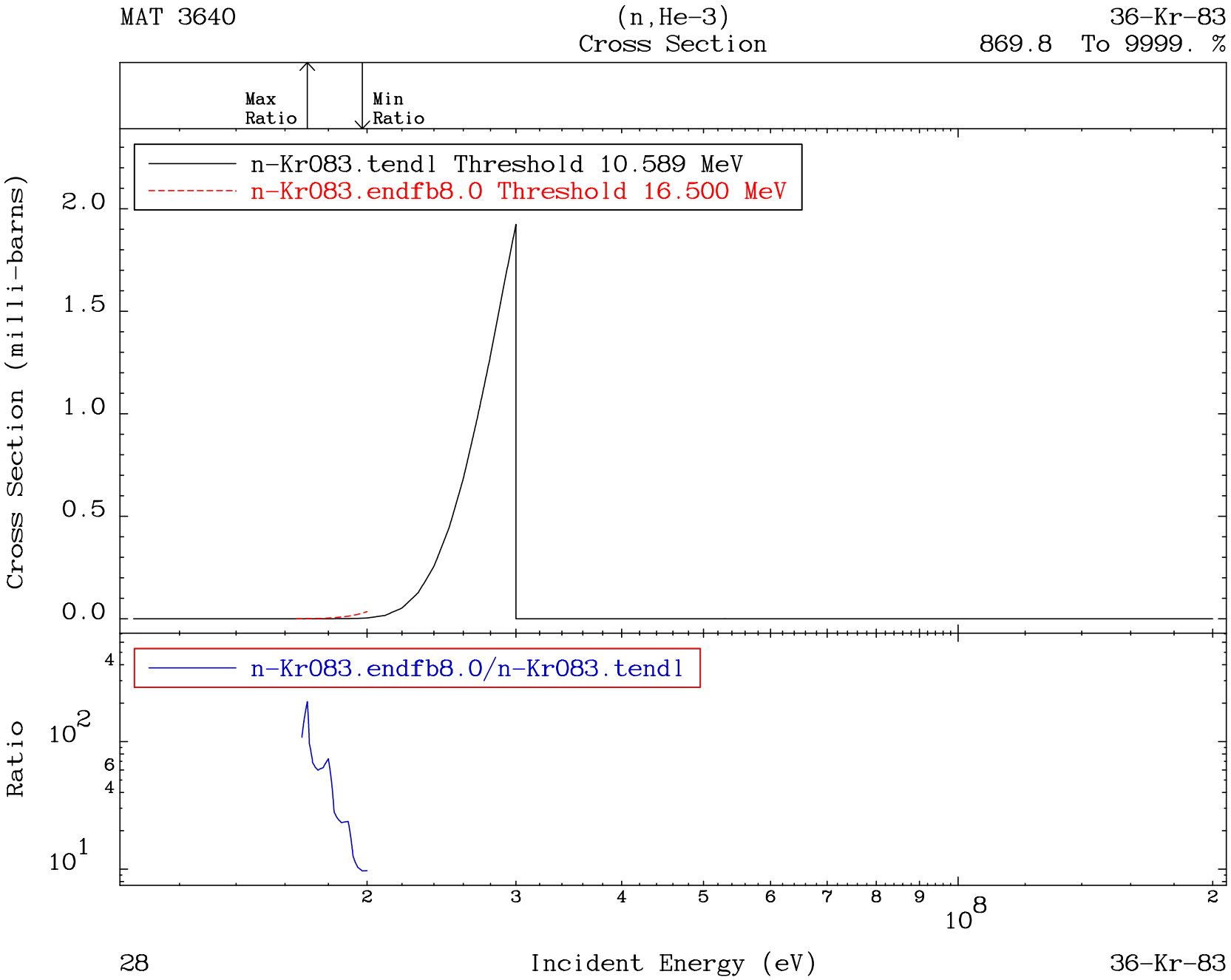

MAT 3640
(n,n') Continuum
Cross Section
36-Kr-83
-53.83 To 597.4 %
Max
Ratio
Min
Ratio
n-Kr083.tendl Threshold 2.2146 MeV
n-Kr083.endfb8.0 Threshold 1.5478 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^1
10^0
6
4
2
6
4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
36-Kr-83

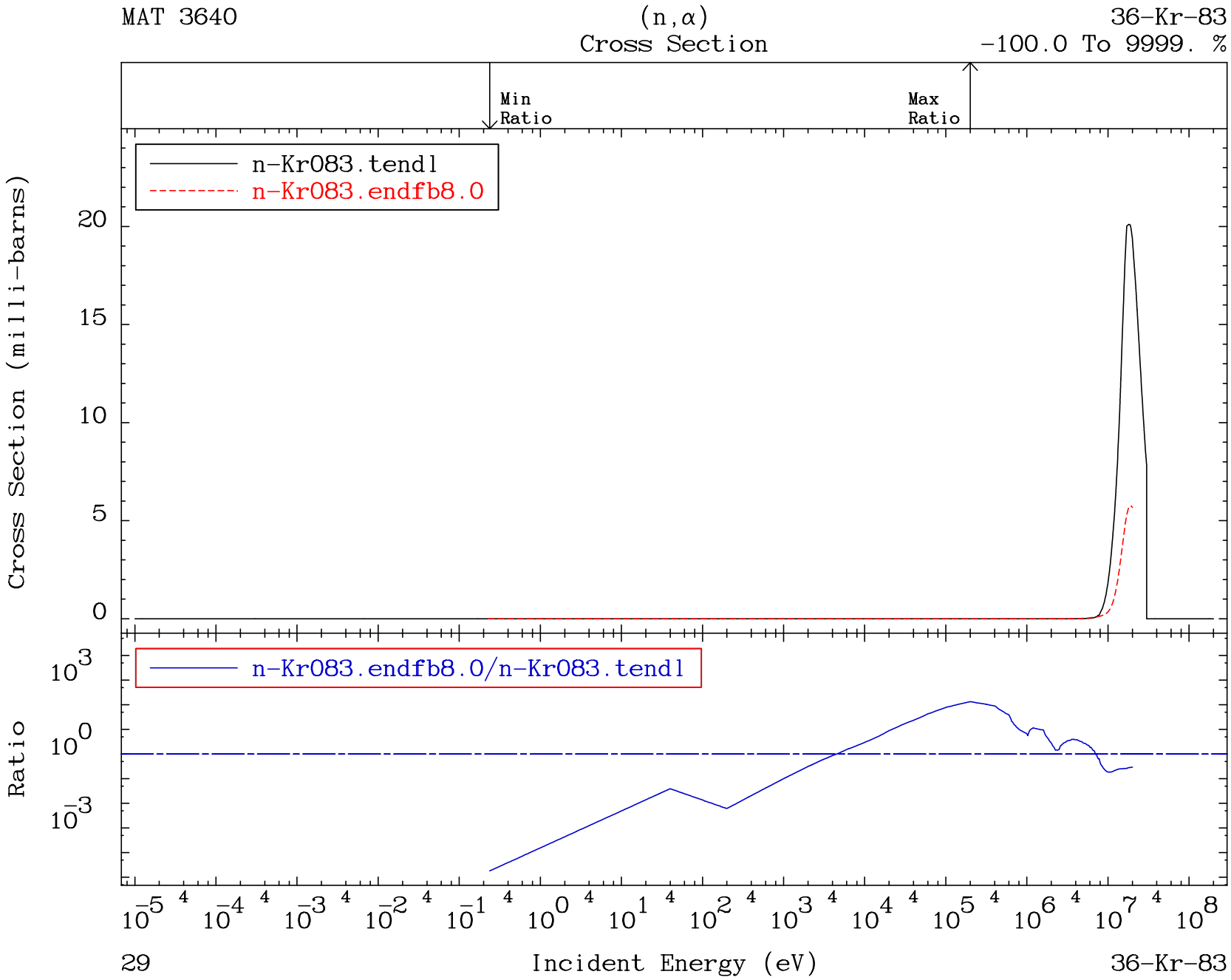

MAT 3640
(n,γ)
Cross Section
36-Kr-83
-98.42 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
24
36-Kr-83

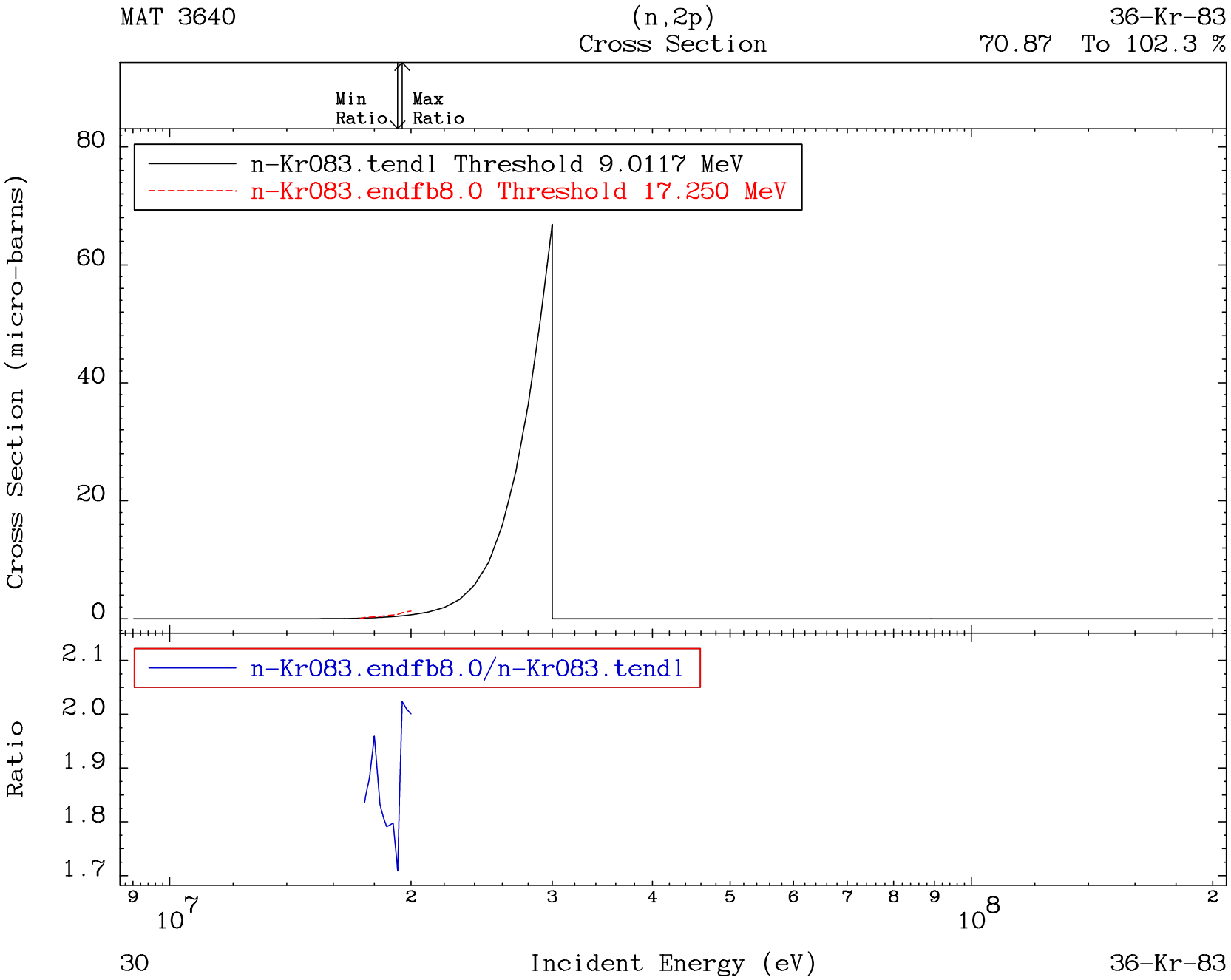

MAT 3640
(n,p)
Cross Section
36-Kr-83
-99.99 To 118.0 %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 196.94 keV
n-Kr083.endfb8.0 Threshold 1.5478 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^0
10^-2
10^-4
2 3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
36-Kr-83

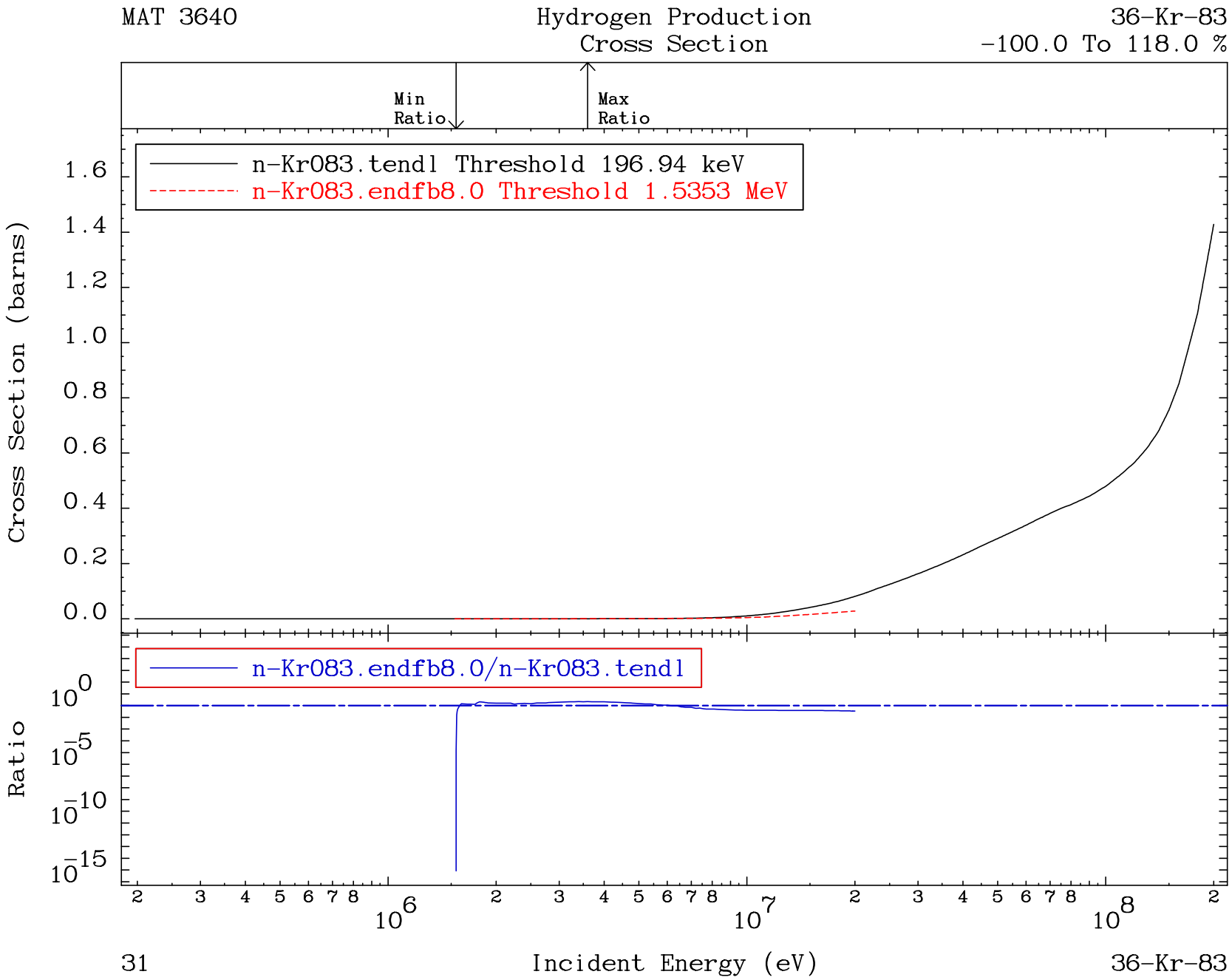

MAT 3640
(n,d)
Cross Section
36-Kr-83
-42.97 To 252.4 %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 7.6483 MeV
n-Kr083.endfb8.0 Threshold 10.250 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
4.0
3.0
2.0
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
36-Kr-83

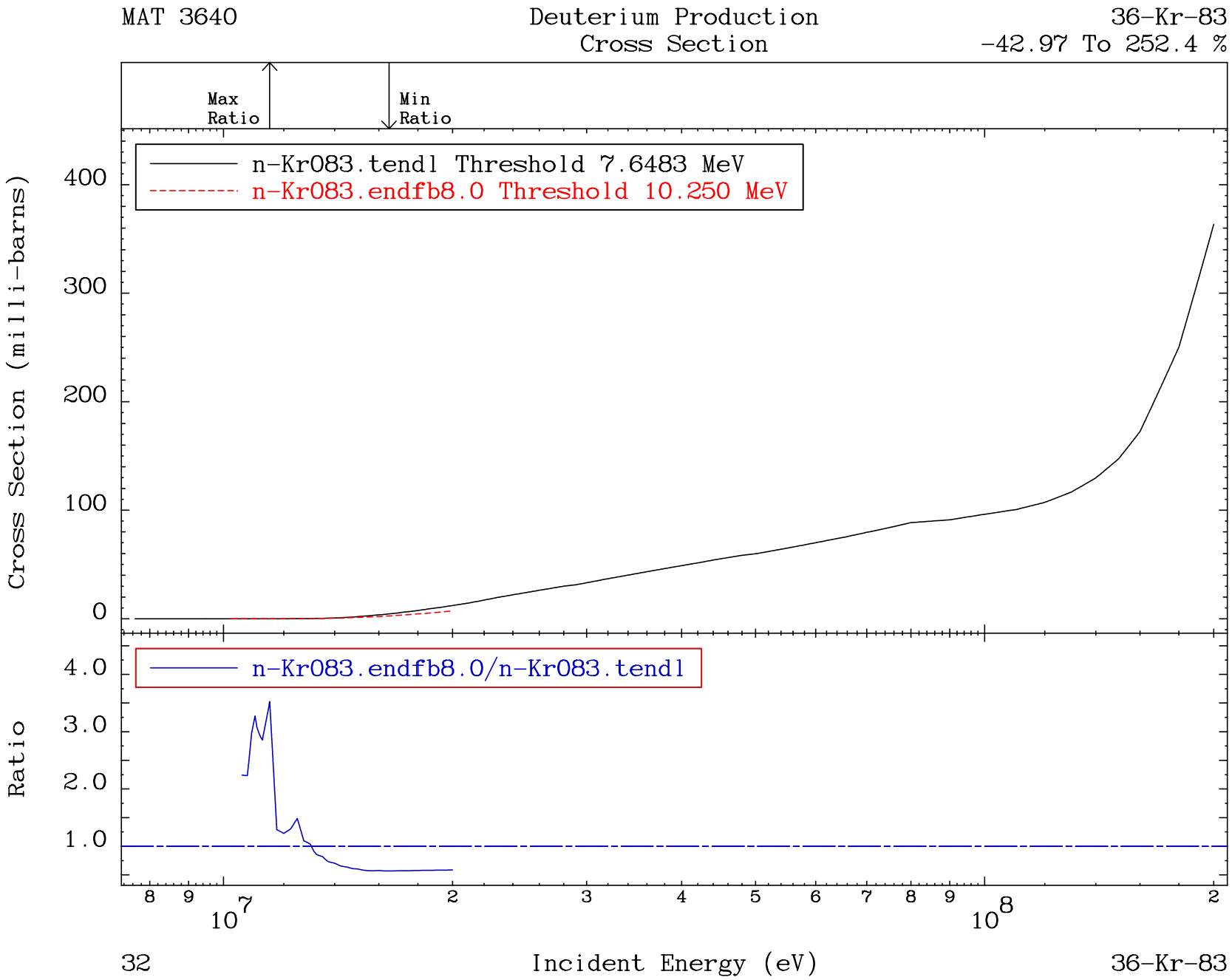

MAT 3640
(n,t)
Cross Section
36-Kr-83
-0.014 To 9999. %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 9.0003 MeV
n-Kr083.endfb8.0 Threshold 8.9913 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^9
10^6
10^3
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
27
Incident Energy (eV)
36-Kr-83

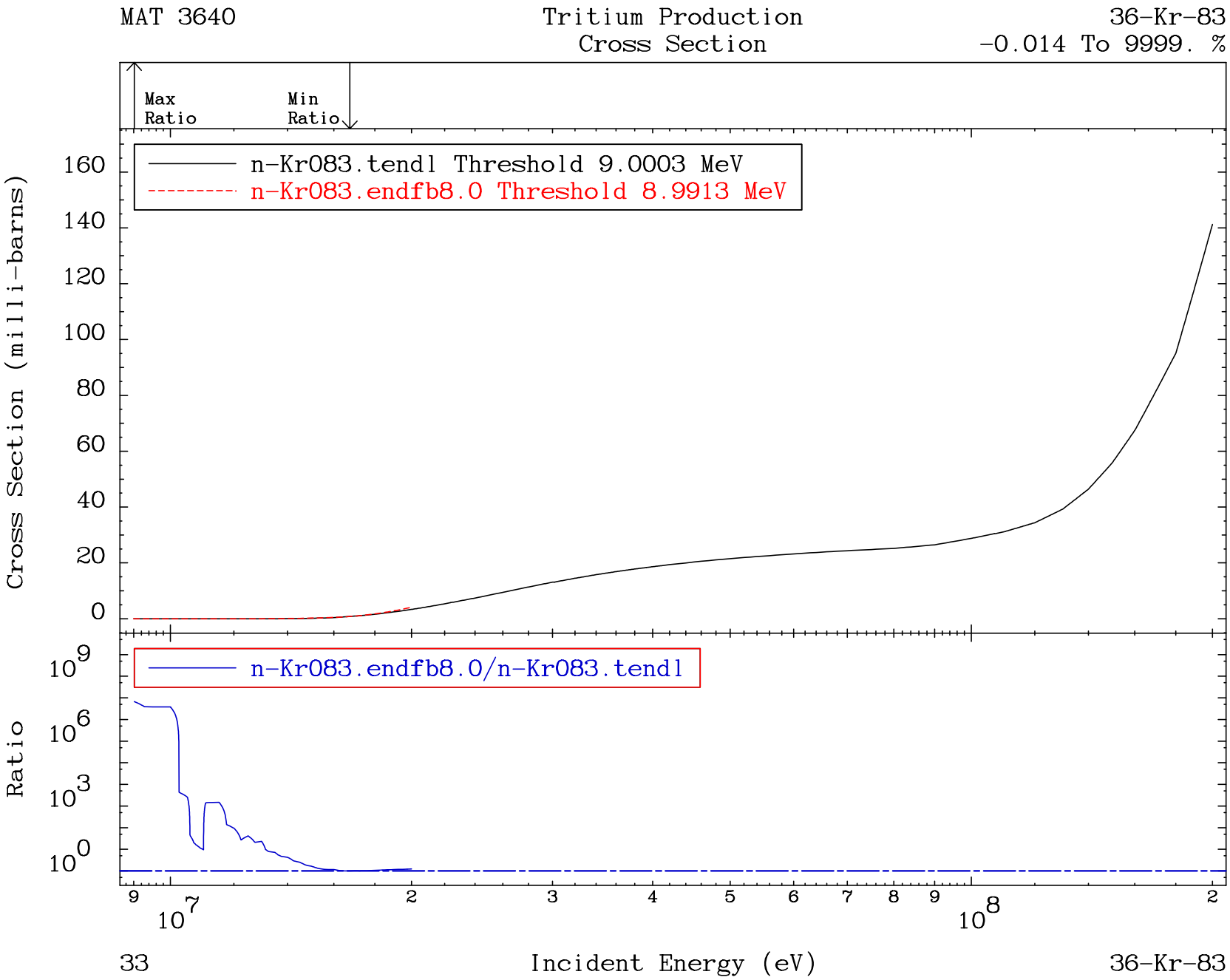

MAT 3640
(n,He-3)
Cross Section
36-Kr-83
869.8 To 9999. %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 10.589 MeV
n-Kr083.endfb8.0 Threshold 16.500 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^2
6
4
10^1
2
3
4
5
6
7
8
9
10^8
2
28
Incident Energy (eV)
36-Kr-83

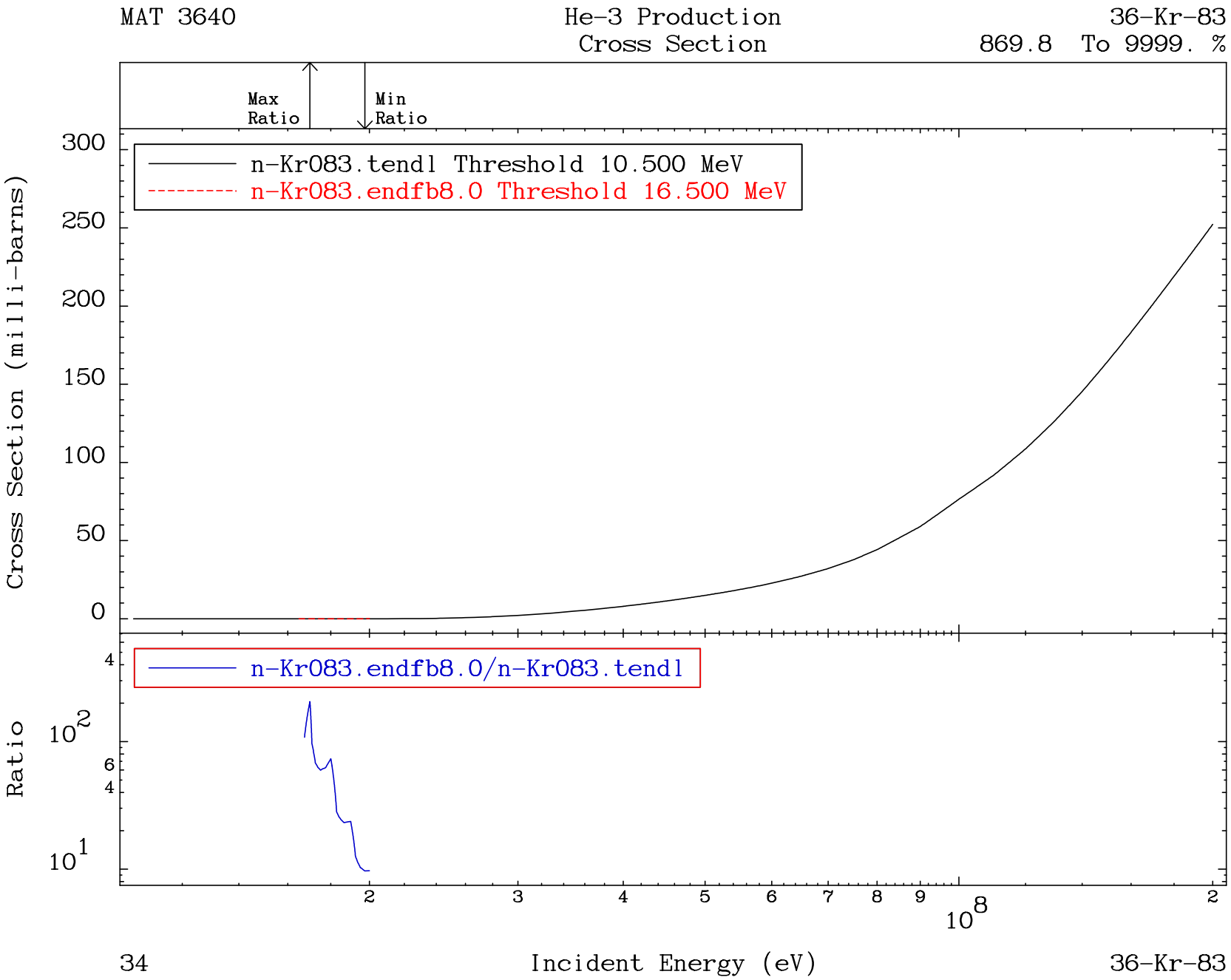

MAT 3640
(n,α)
Cross Section
36-Kr-83
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (milli-barns)
20
15
10
5
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^3
10^0
10^-3
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7
10^8
29
Incident Energy (eV)
36-Kr-83

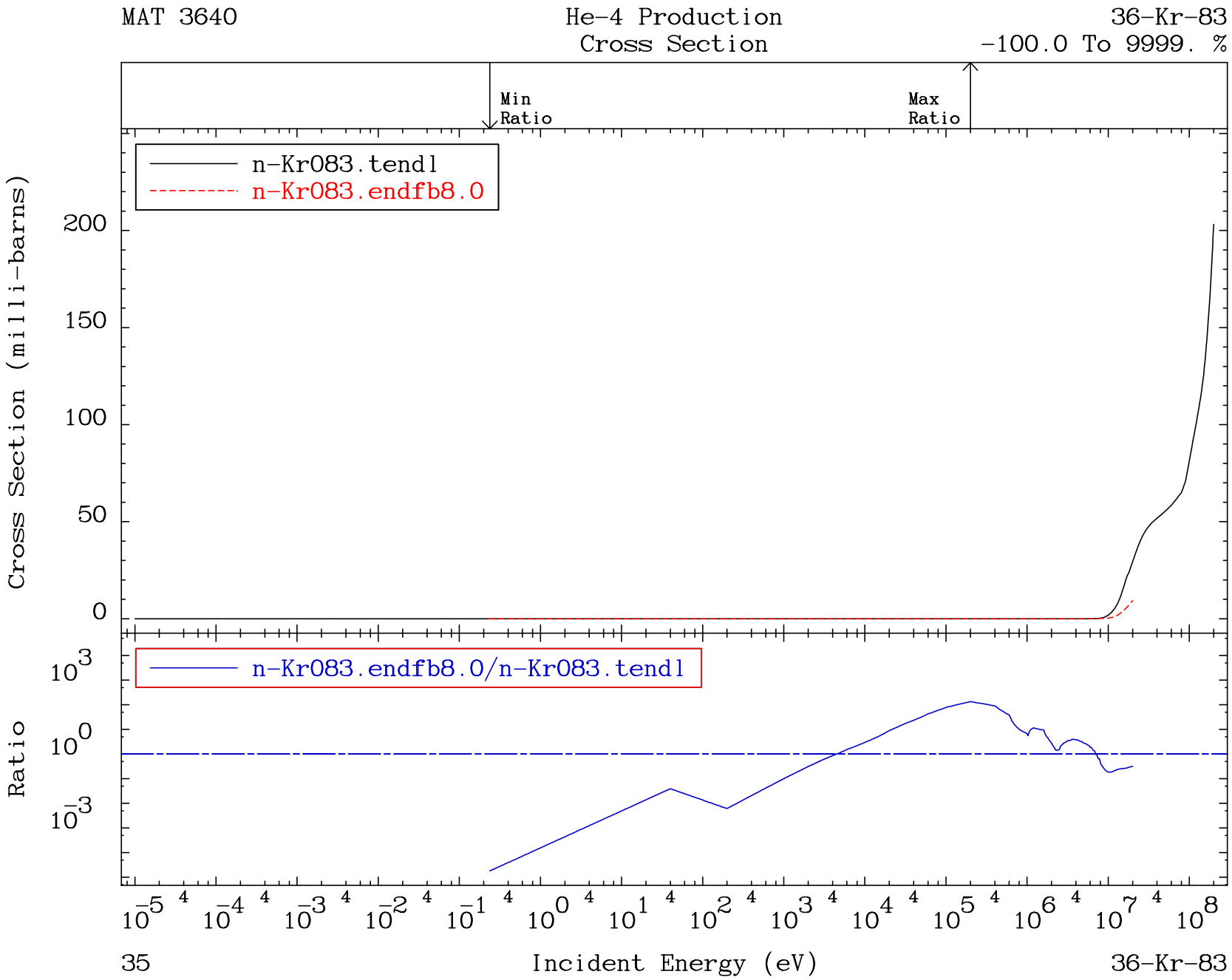

MAT 3640
(n,2p)
Cross Section
36-Kr-83
70.87 To 102.3 %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 9.0117 MeV
n-Kr083.endfb8.0 Threshold 17.250 MeV
Cross Section (micro-barns)
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
2.1
2.0
1.9
1.8
1.7
9
10^7
2
3
4
5
6
7
8
9
10^8
2
30
Incident Energy (eV)
36-Kr-83

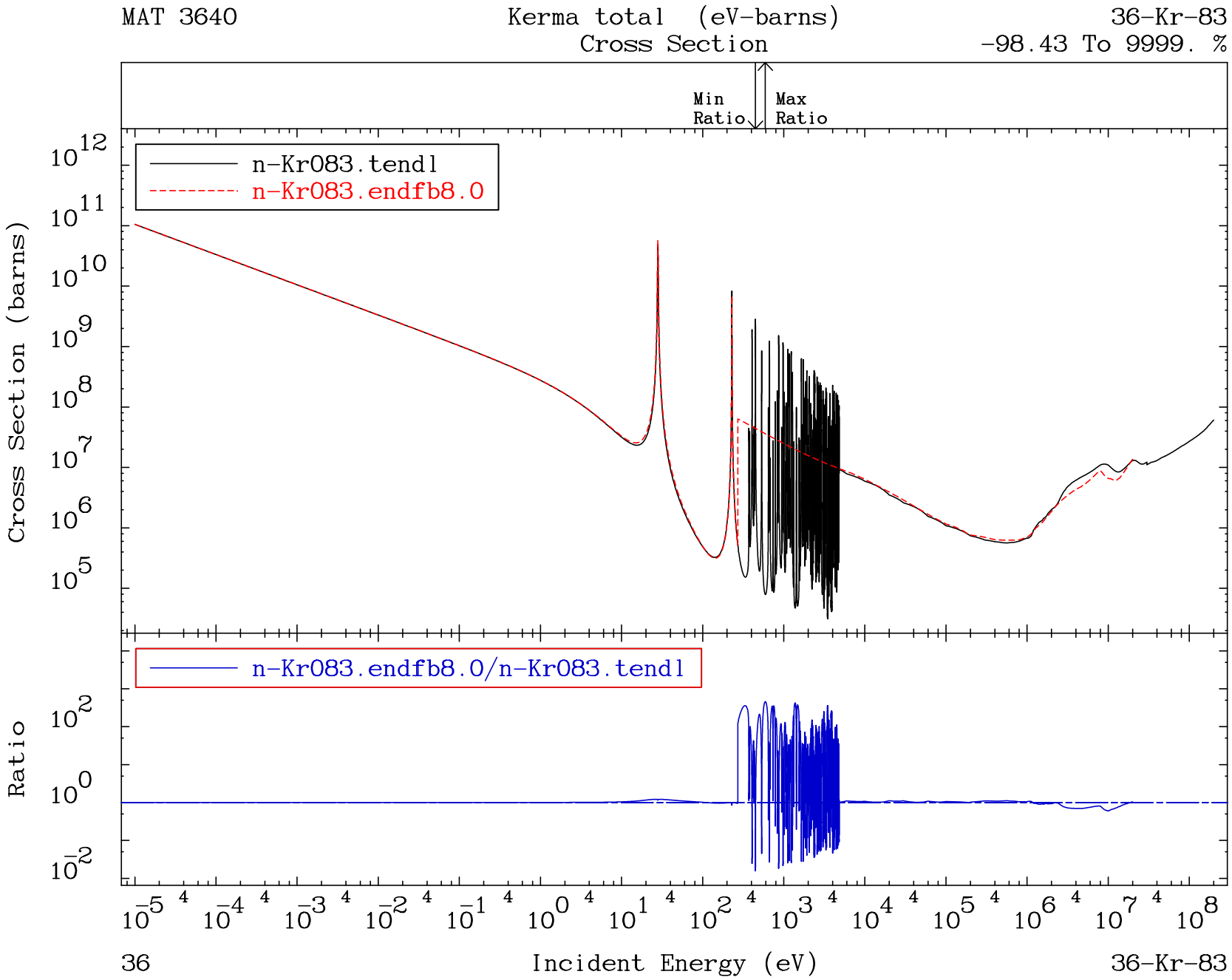

MAT 3640
Hydrogen Production
Cross Section
36-Kr-83
-100.0 To 118.0 %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 196.94 keV
n-Kr083.endfb8.0 Threshold 1.5353 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^0
10^-5
10^-10
10^-15
2 3 4 5 6 7 8
10^6
10^7
10^8
31
Incident Energy (eV)
36-Kr-83

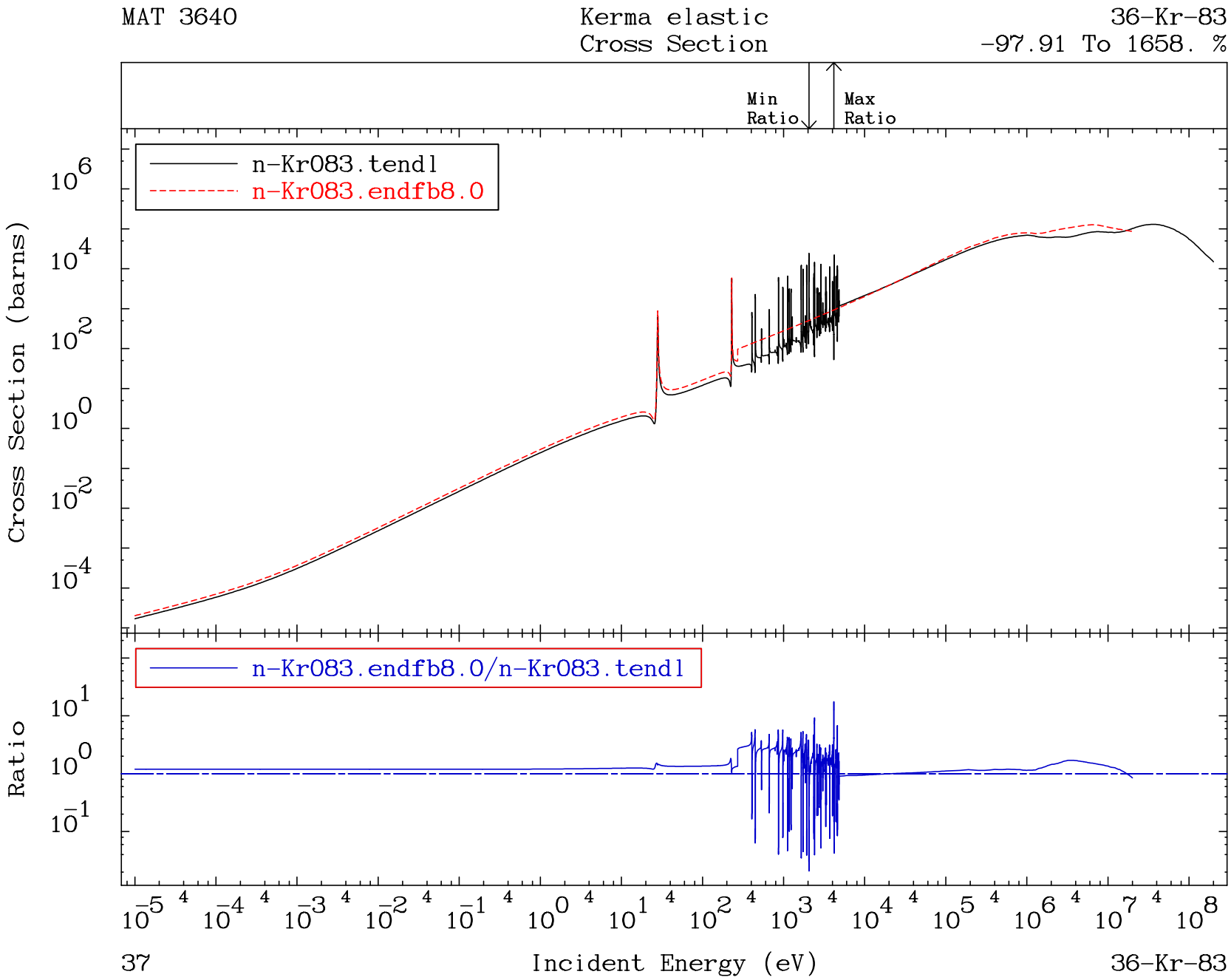

MAT 3640
Deuterium Production
Cross Section
36-Kr-83
-42.97 To 252.4 %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 7.6483 MeV
n-Kr083.endfb8.0 Threshold 10.250 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
4.0
3.0
2.0
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
32
Incident Energy (eV)
36-Kr-83

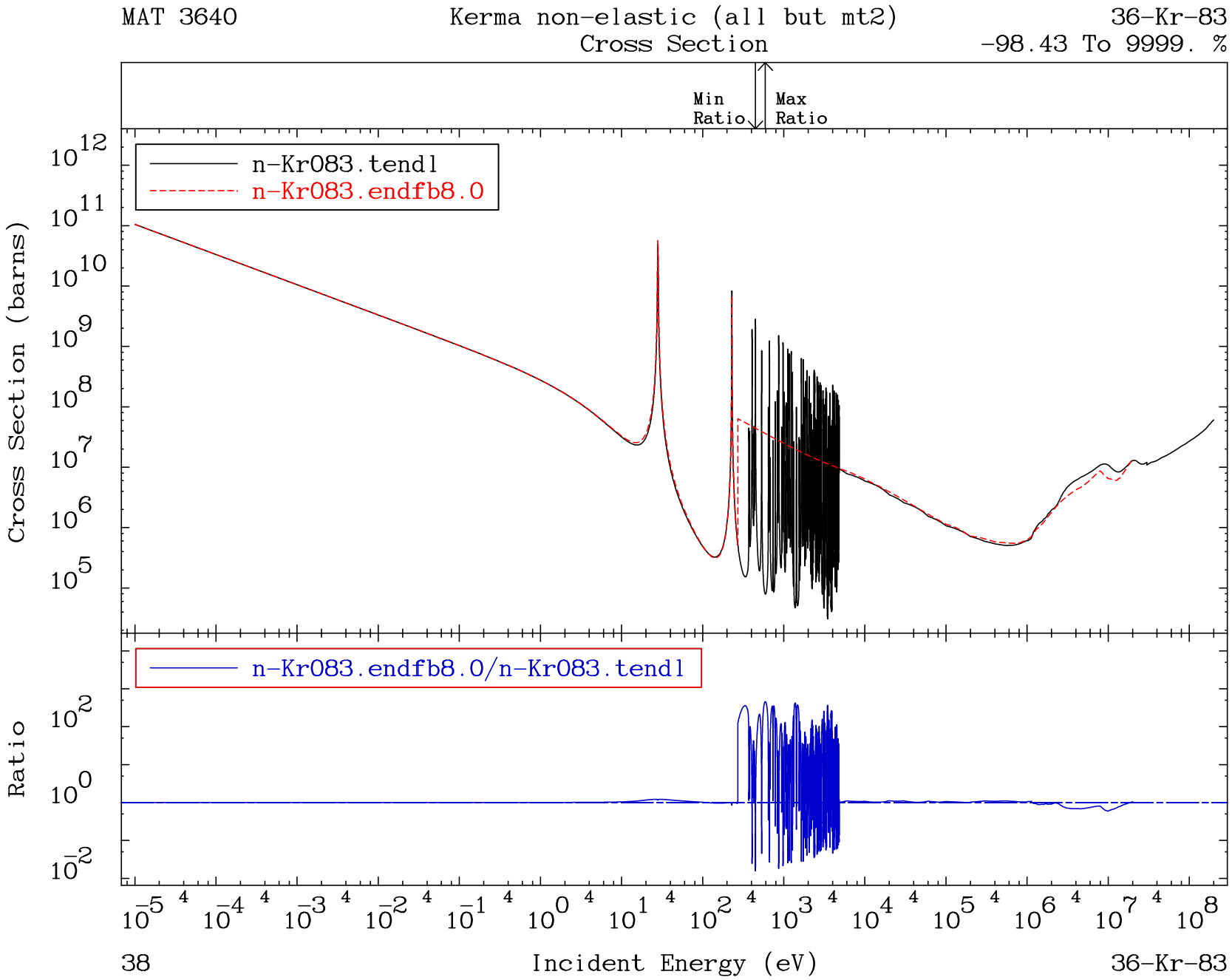

MAT 3640
Tritium Production
Cross Section
36-Kr-83
-0.014 To 9999. %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 9.0003 MeV
n-Kr083.endfb8.0 Threshold 8.9913 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^9
10^6
10^3
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
33
Incident Energy (eV)
36-Kr-83

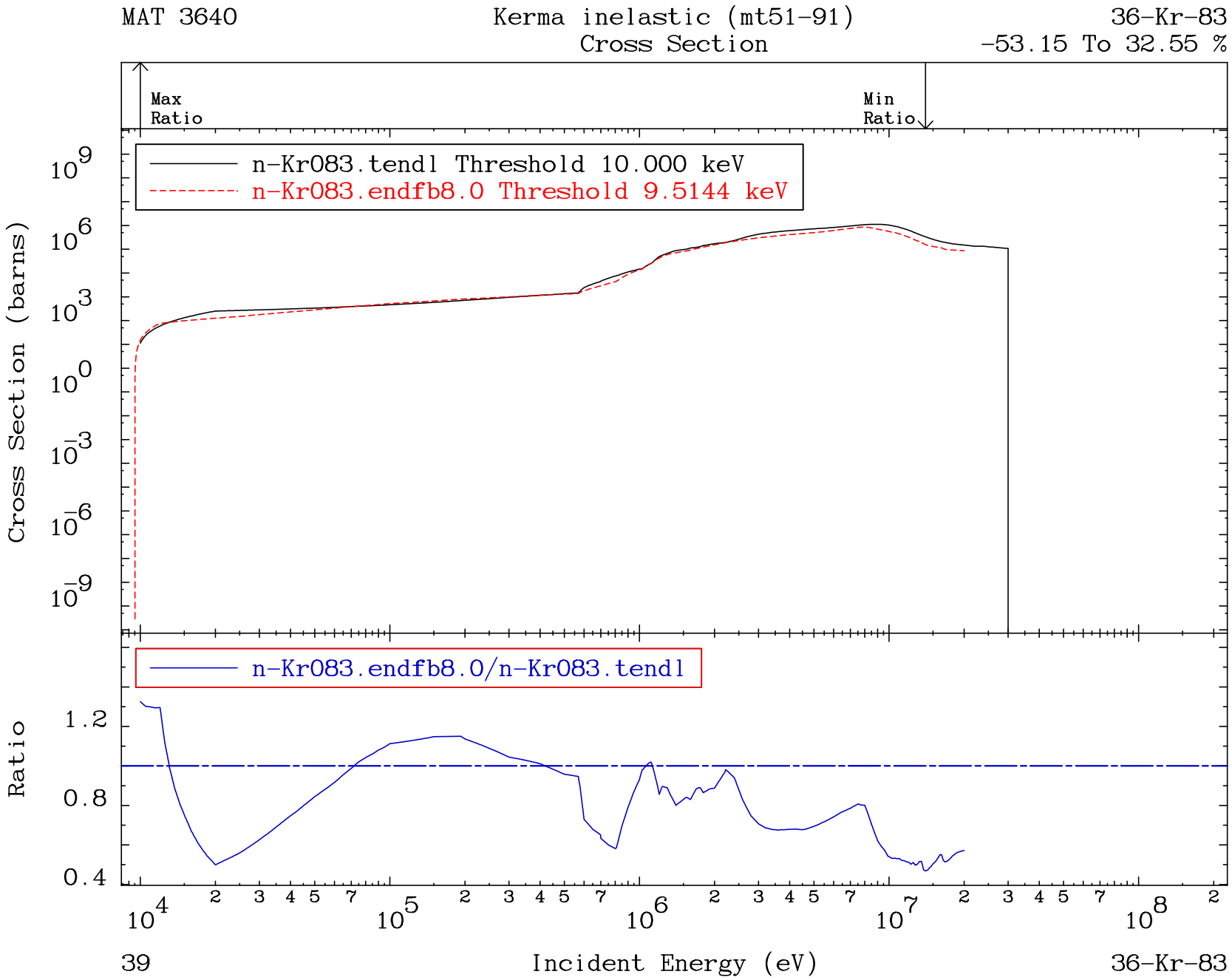

MAT 3640
He-3 Production
Cross Section
36-Kr-83
869.8 To 9999. %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 10.500 MeV
n-Kr083.endfb8.0 Threshold 16.500 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
4
10^2
6
4
10^1
2
3
4
5
6
7
8
9
10^8
2
34
Incident Energy (eV)
36-Kr-83

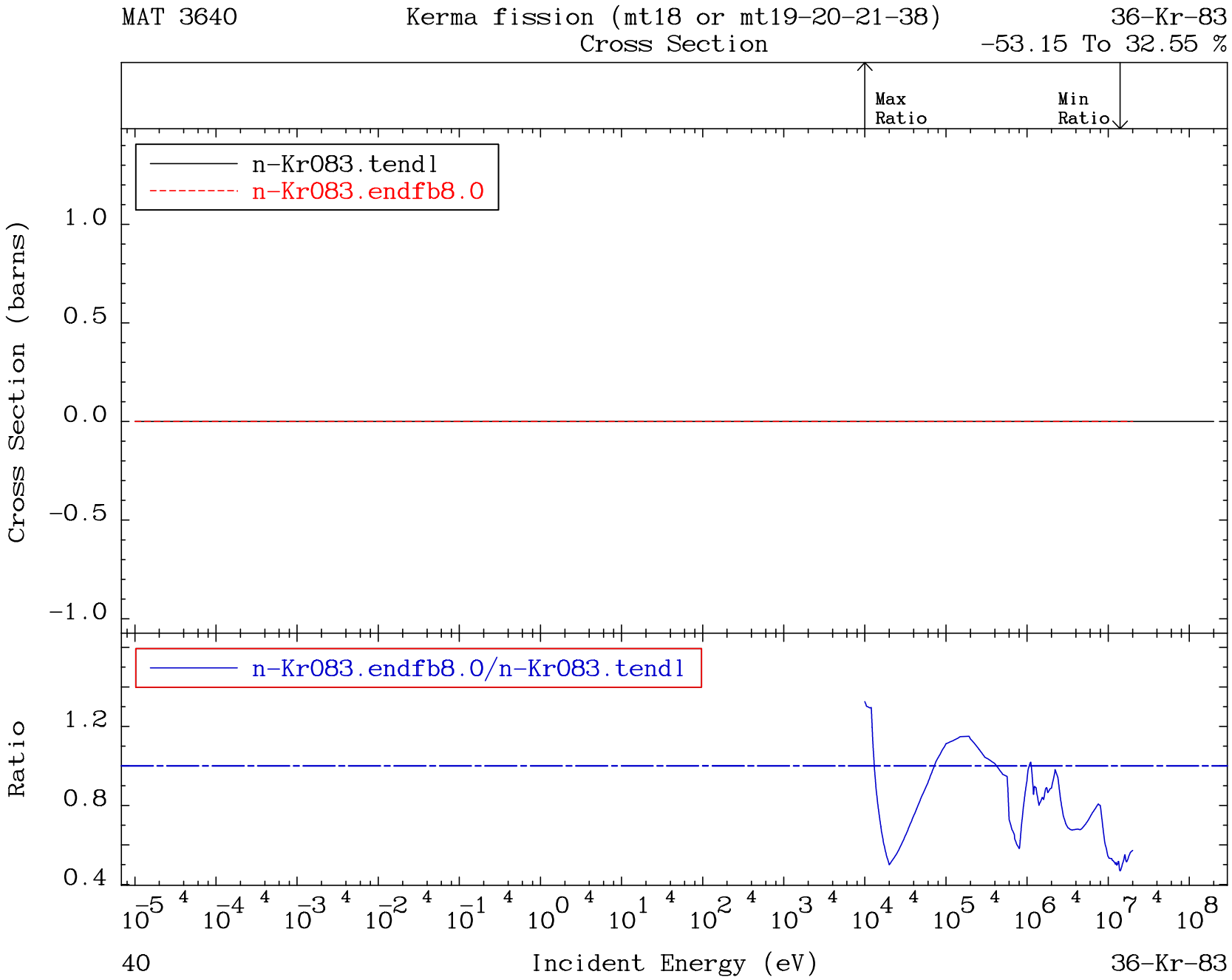

MAT 3640
He-4 Production
Cross Section
36-Kr-83
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (milli-barns)
200
150
100
50
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^3
10^0
10^-3
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
35
Incident Energy (eV)
36-Kr-83

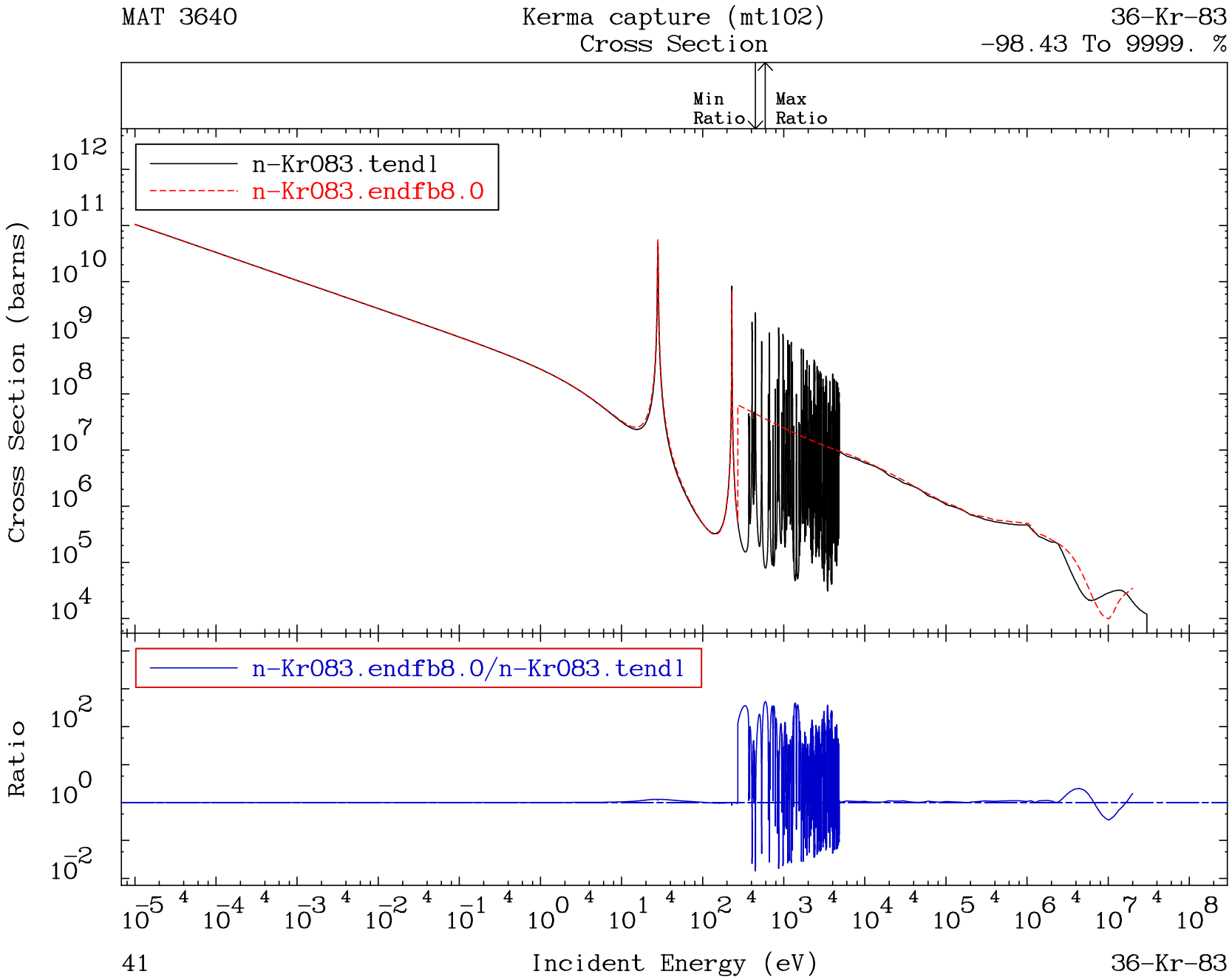

MAT 3640
Kerma total (eV-barns)
Cross Section
36-Kr-83
-98.43 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
36
36-Kr-83

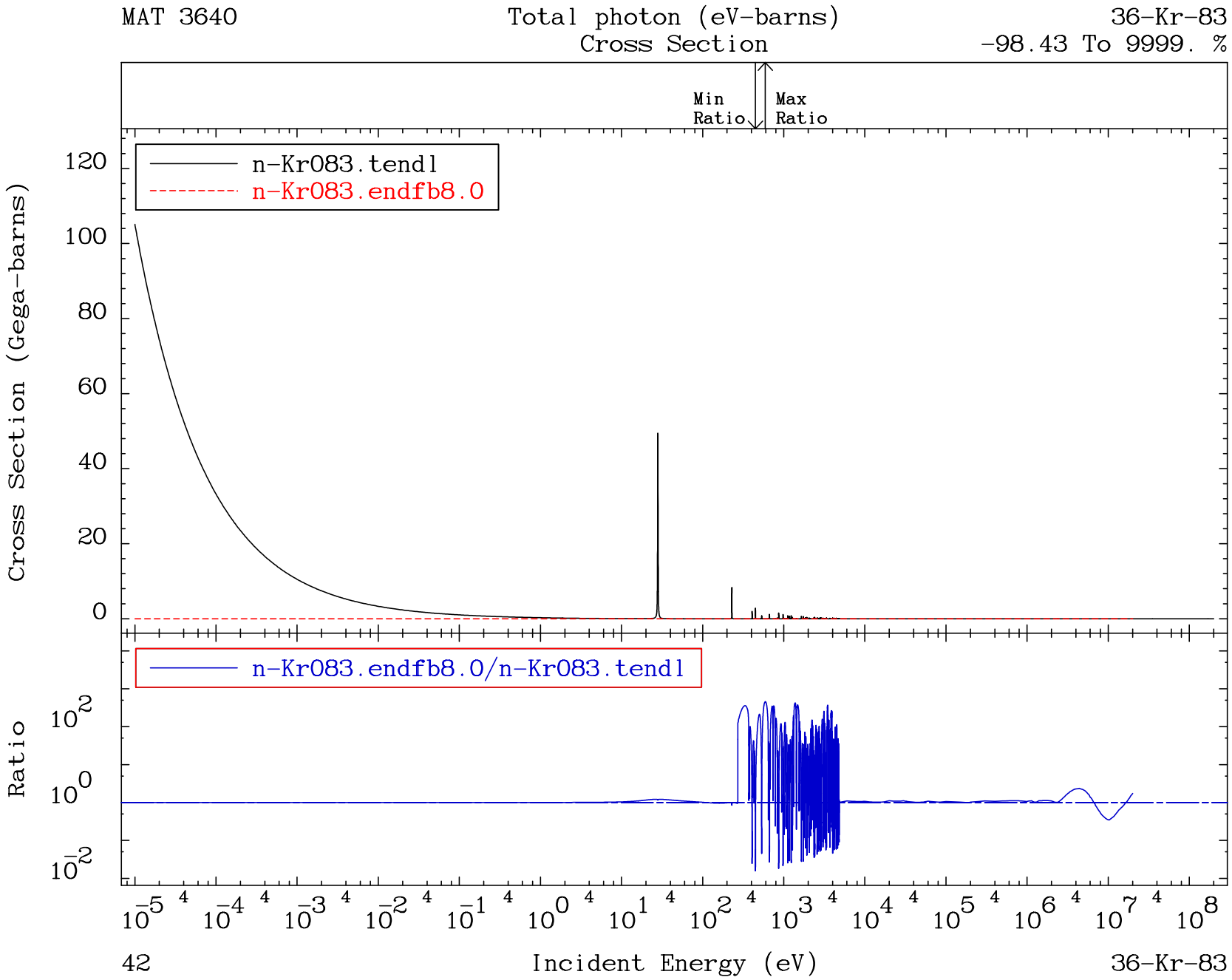

MAT 3640
Kerma elastic
Cross Section
36-Kr-83
-97.91 To 1658. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
37
36-Kr-83

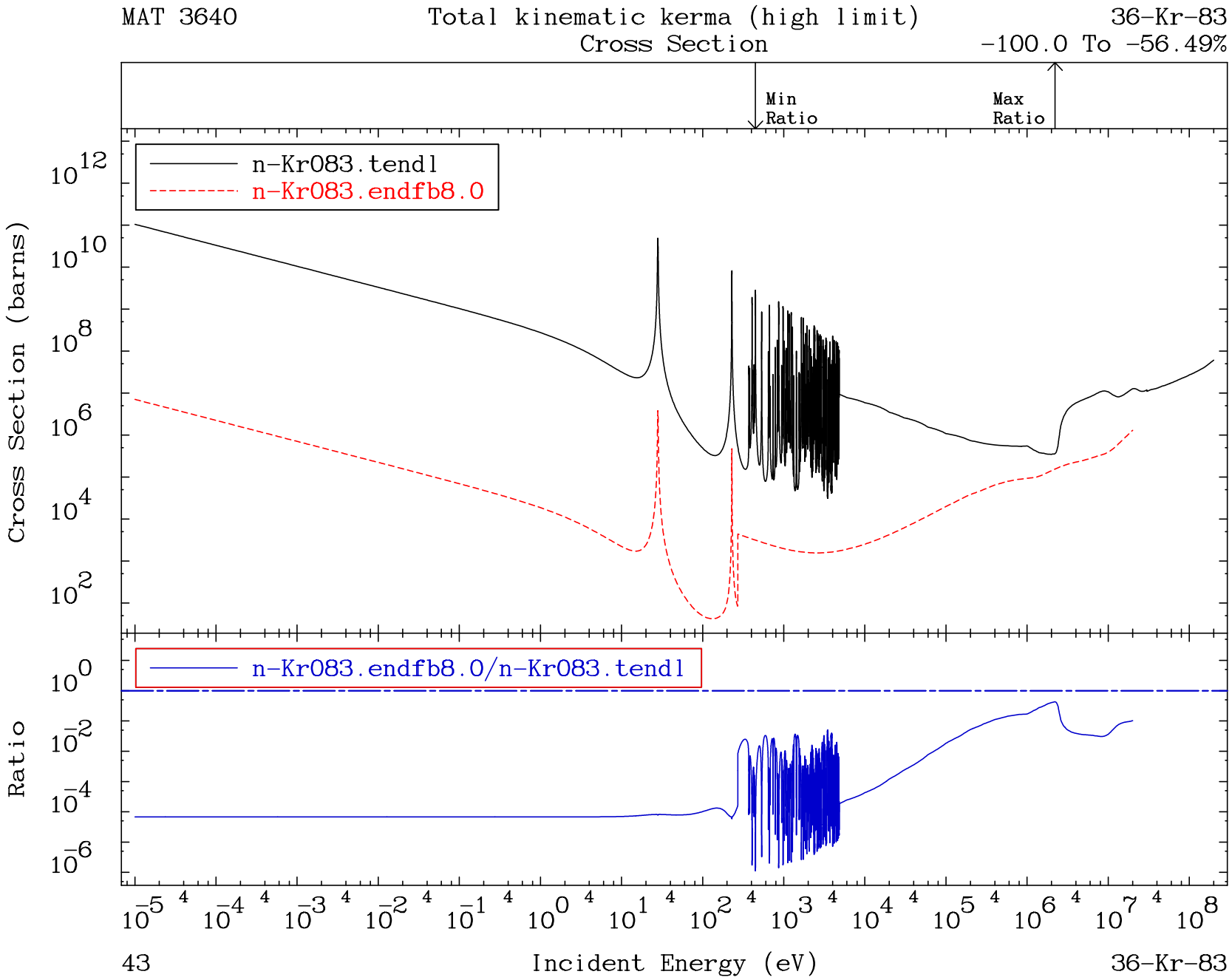

MAT 3640
Kerma non-elastic (all but mt2)
Cross Section
36-Kr-83
-98.43 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
38
36-Kr-83

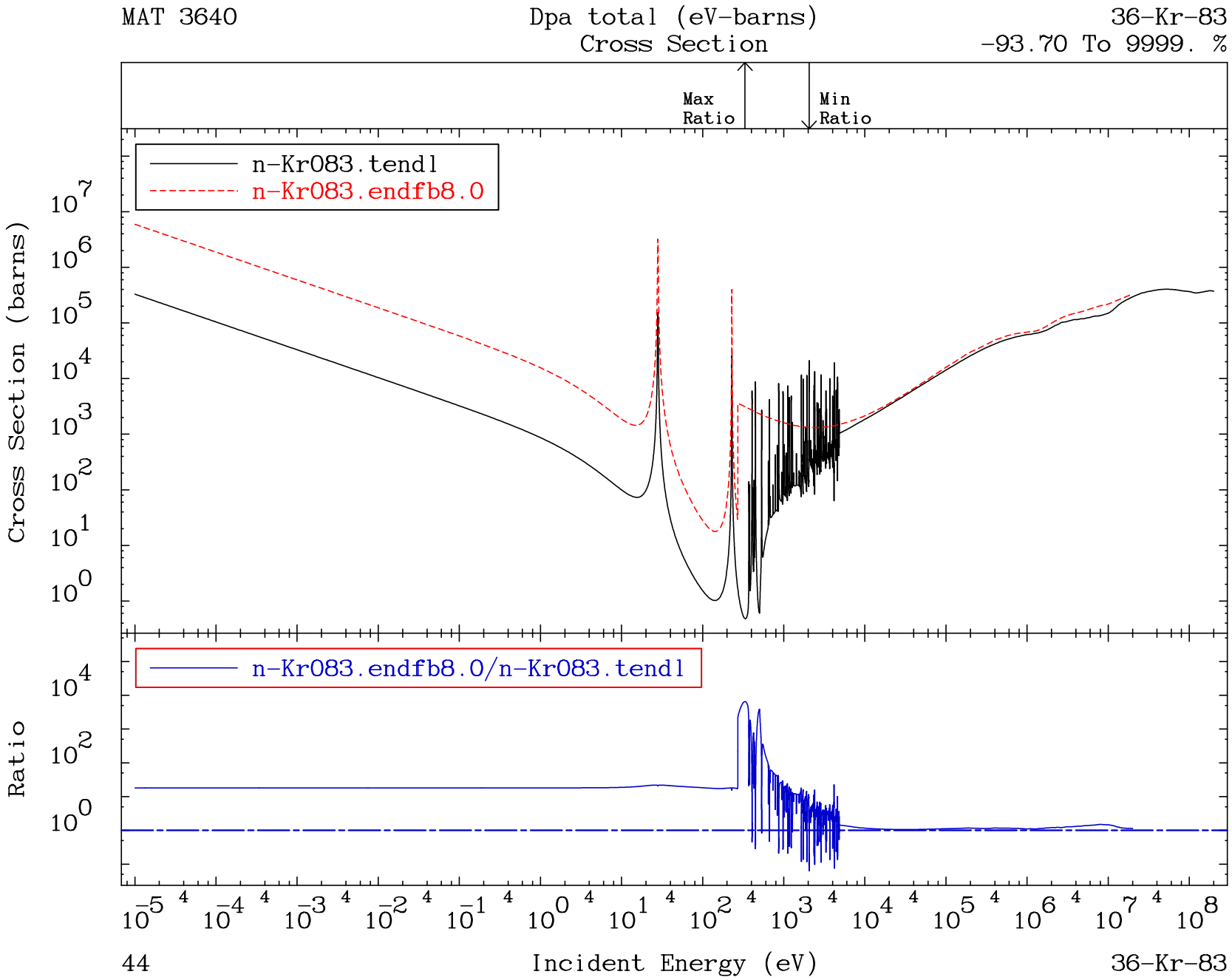

MAT 3640
Kerma inelastic (mt51-91)
Cross Section
36-Kr-83
-53.15 To 32.55 %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 10.000 keV
n-Kr083.endfb8.0 Threshold 9.5144 keV
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
39
36-Kr-83

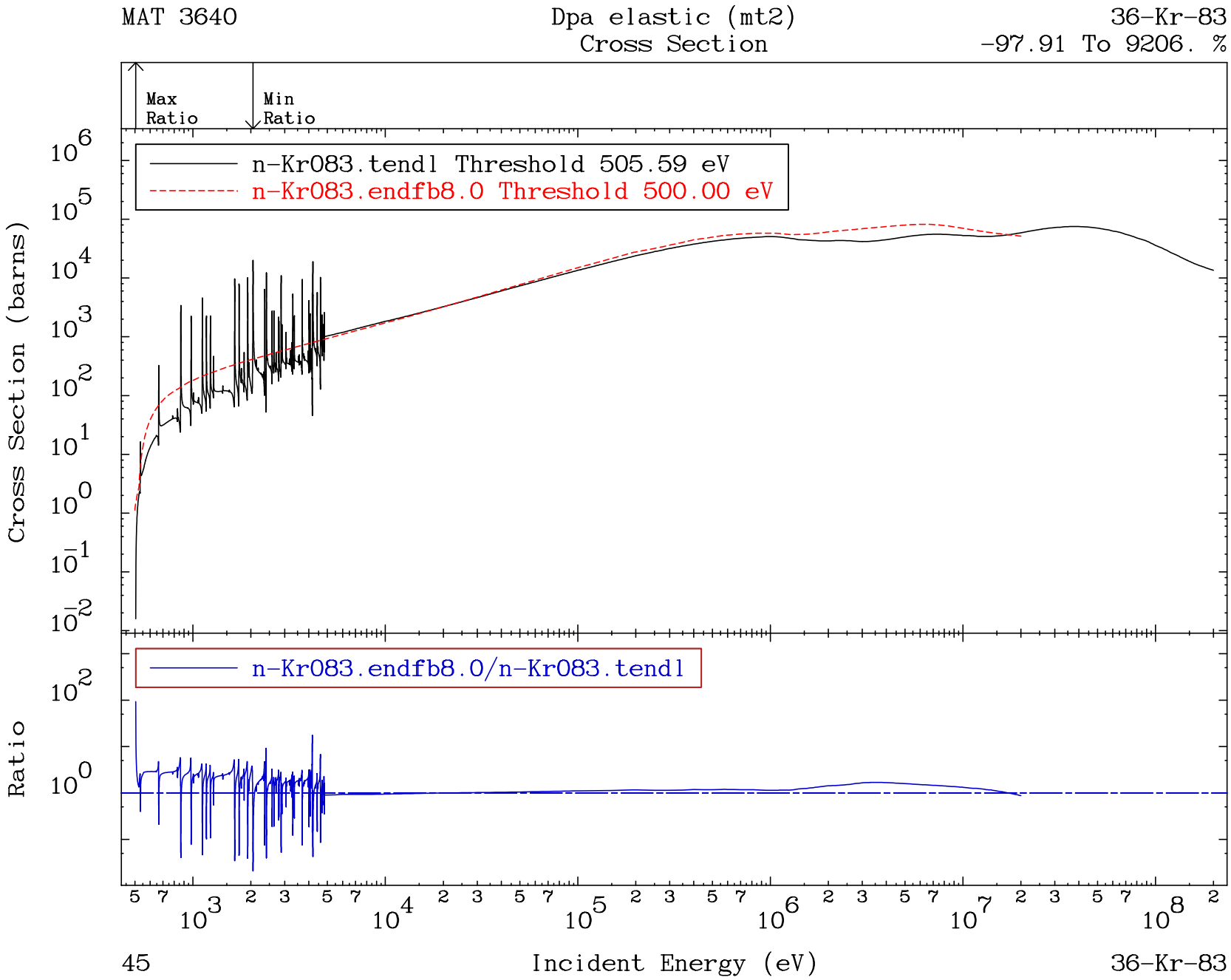

MAT 3640
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
36-Kr-83
-53.15 To 32.55 %
Max Ratio
Min Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
1.2
0.8
0.4
10-5 10-4 10-3 10-2 10-1 100 101 102 103 104 105 106 107 108
40
Incident Energy (eV)
36-Kr-83

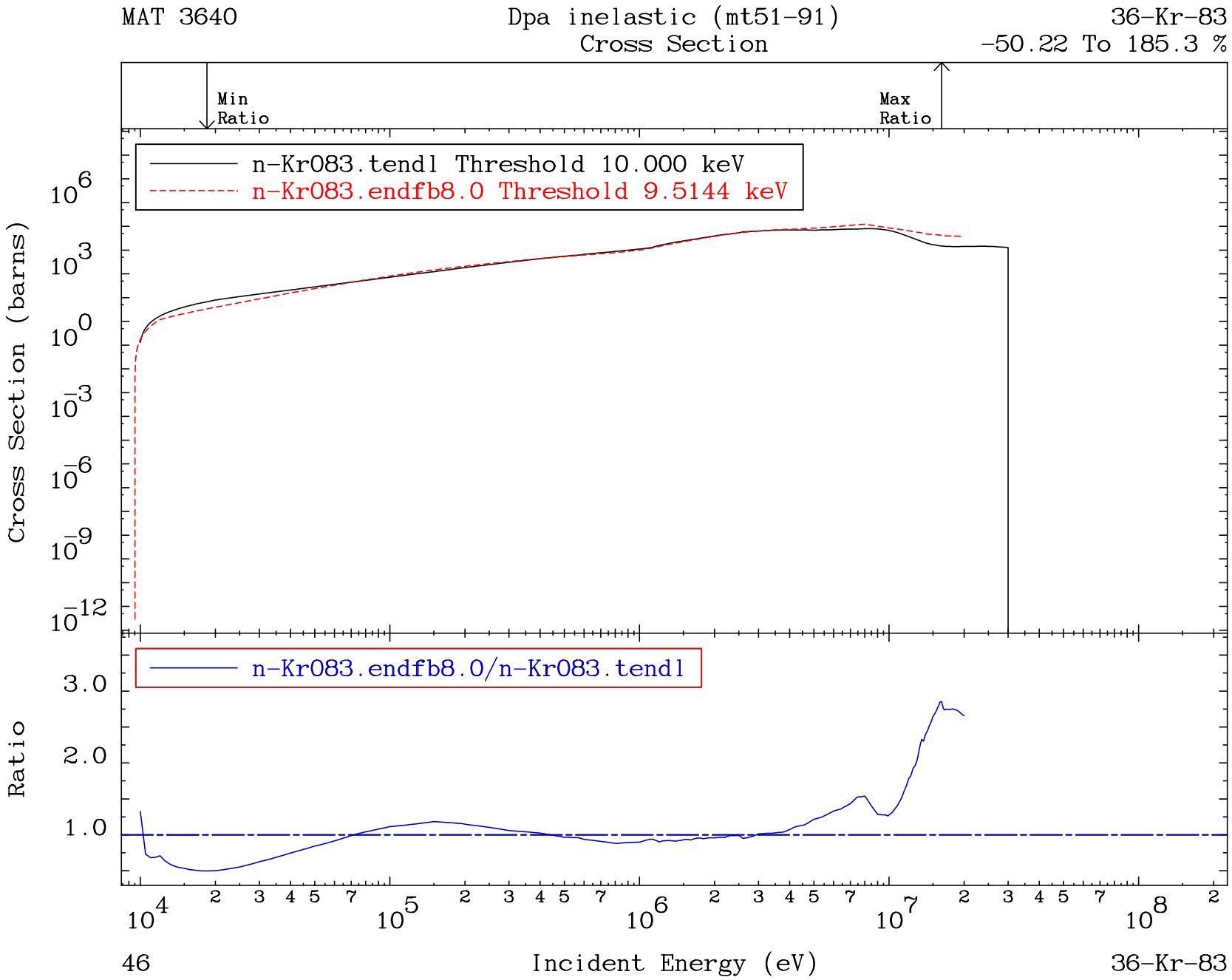

MAT 3640
Kerma capture (mt102)
Cross Section
36-Kr-83
-98.43 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
41
Incident Energy (eV)
36-Kr-83

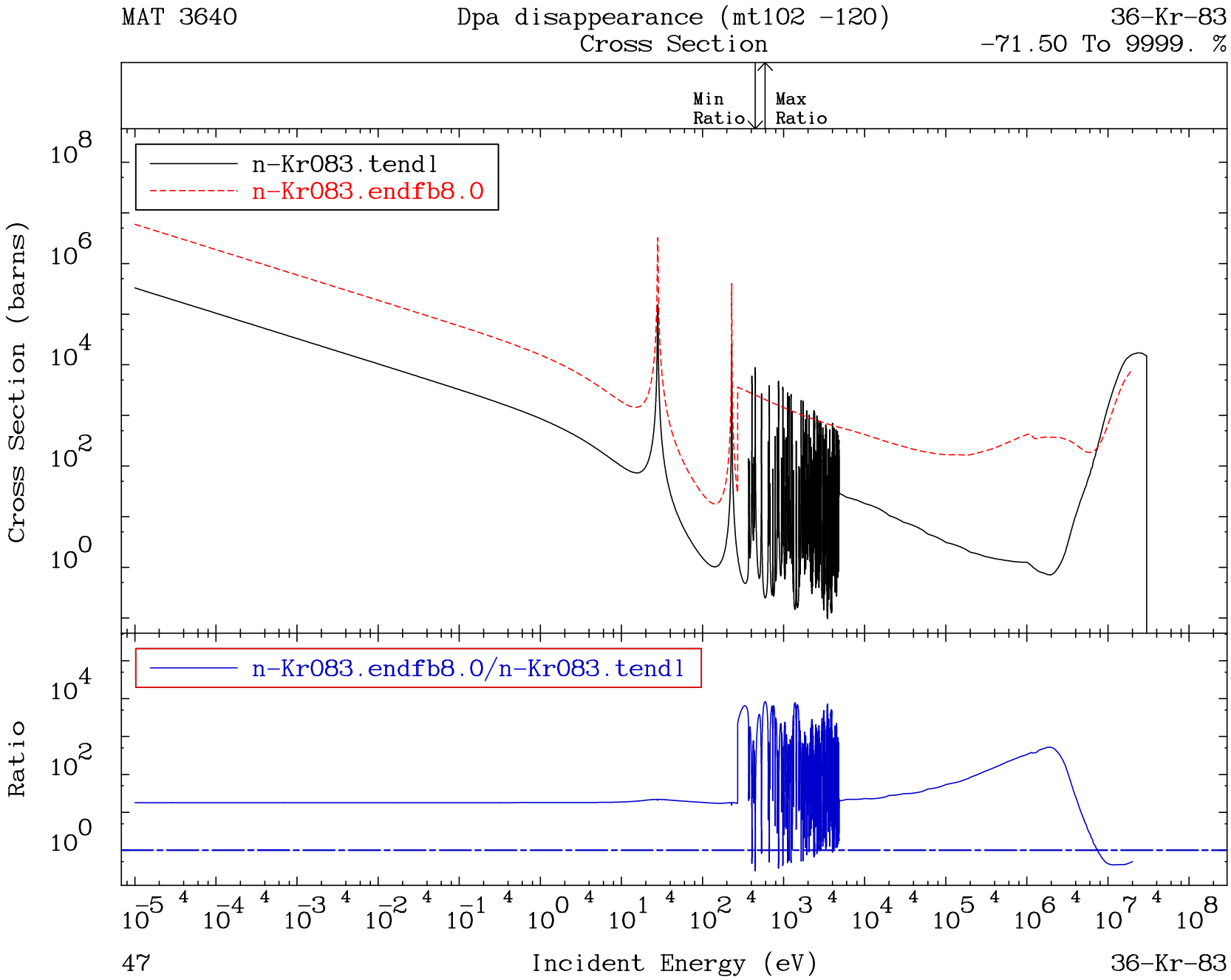

MAT 3640
Total photon (eV-barns)
Cross Section
36-Kr-83
-98.43 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (Giga-barns)
120
100
80
60
40
20
0
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
10^2
10^0
10^-2
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
42
Incident Energy (eV)
36-Kr-83


MAT 3640
Total kinematic kerma (high limit)
Cross Section
36-Kr-83
-100.0 To -56.49%
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
43
36-Kr-83


MAT 3640
Dpa total (eV-barns)
Cross Section
36-Kr-83
-93.70 To 9999. %
Max Ratio
Min Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
44
36-Kr-83


MAT 3640
Dpa elastic (mt2)
Cross Section
36-Kr-83
-97.91 To 9206. %
Max Ratio
Min Ratio
n-Kr083.tendl Threshold 505.59 eV
n-Kr083.endfb8.0 Threshold 500.00 eV
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
45
36-Kr-83


MAT 3640
Dpa inelastic (mt51-91)
Cross Section
36-Kr-83
-50.22 To 185.3 %
Min Ratio
Max Ratio
n-Kr083.tendl Threshold 10.000 keV
n-Kr083.endfb8.0 Threshold 9.5144 keV
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
46
36-Kr-83


MAT 3640
Dpa disappearance (mt102 -120)
Cross Section
36-Kr-83
-71.50 To 9999. %
Min Ratio
Max Ratio
n-Kr083.tendl
n-Kr083.endfb8.0
Cross Section (barns)
n-Kr083.endfb8.0/n-Kr083.tendl
Ratio
Incident Energy (eV)
47
36-Kr-83