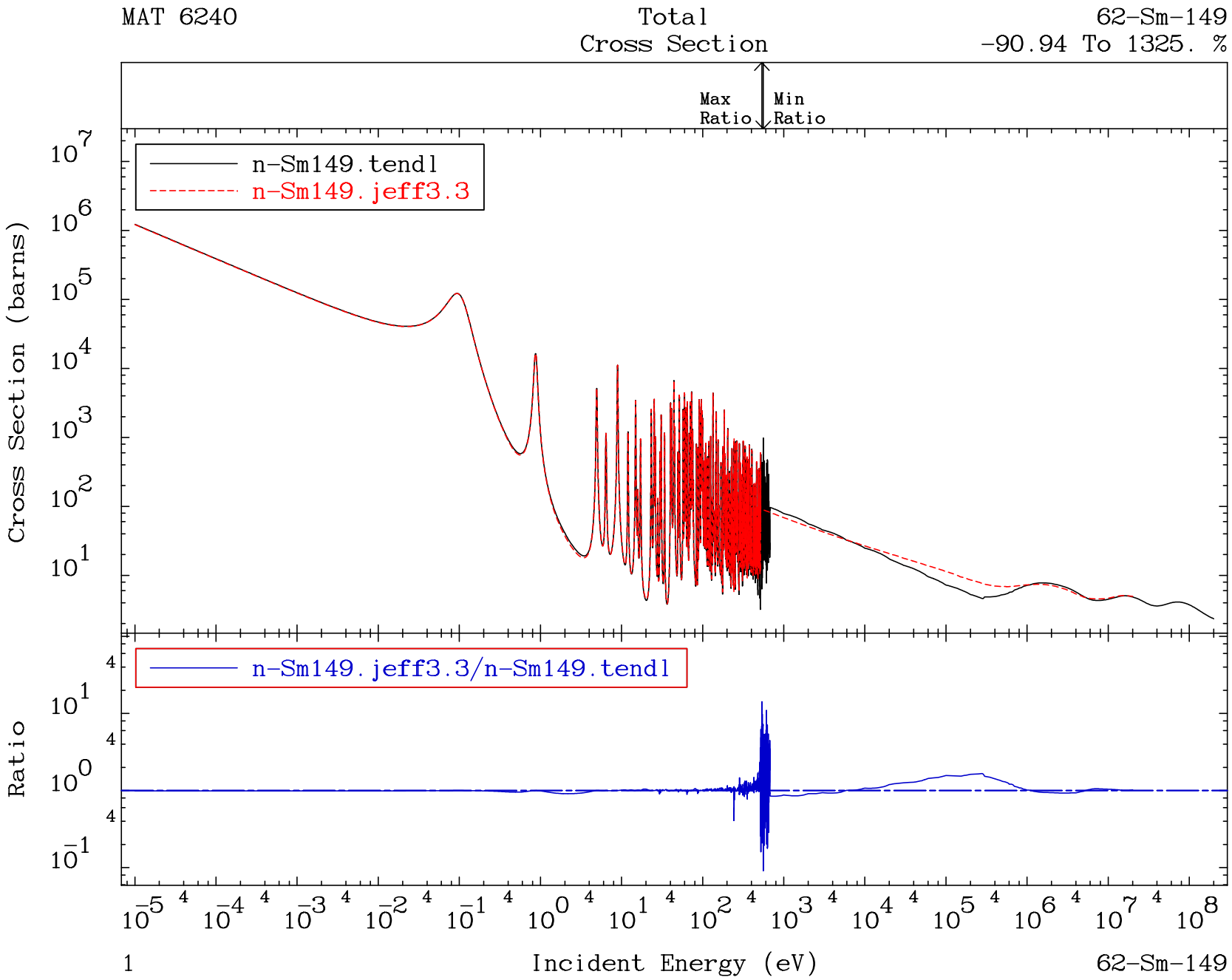
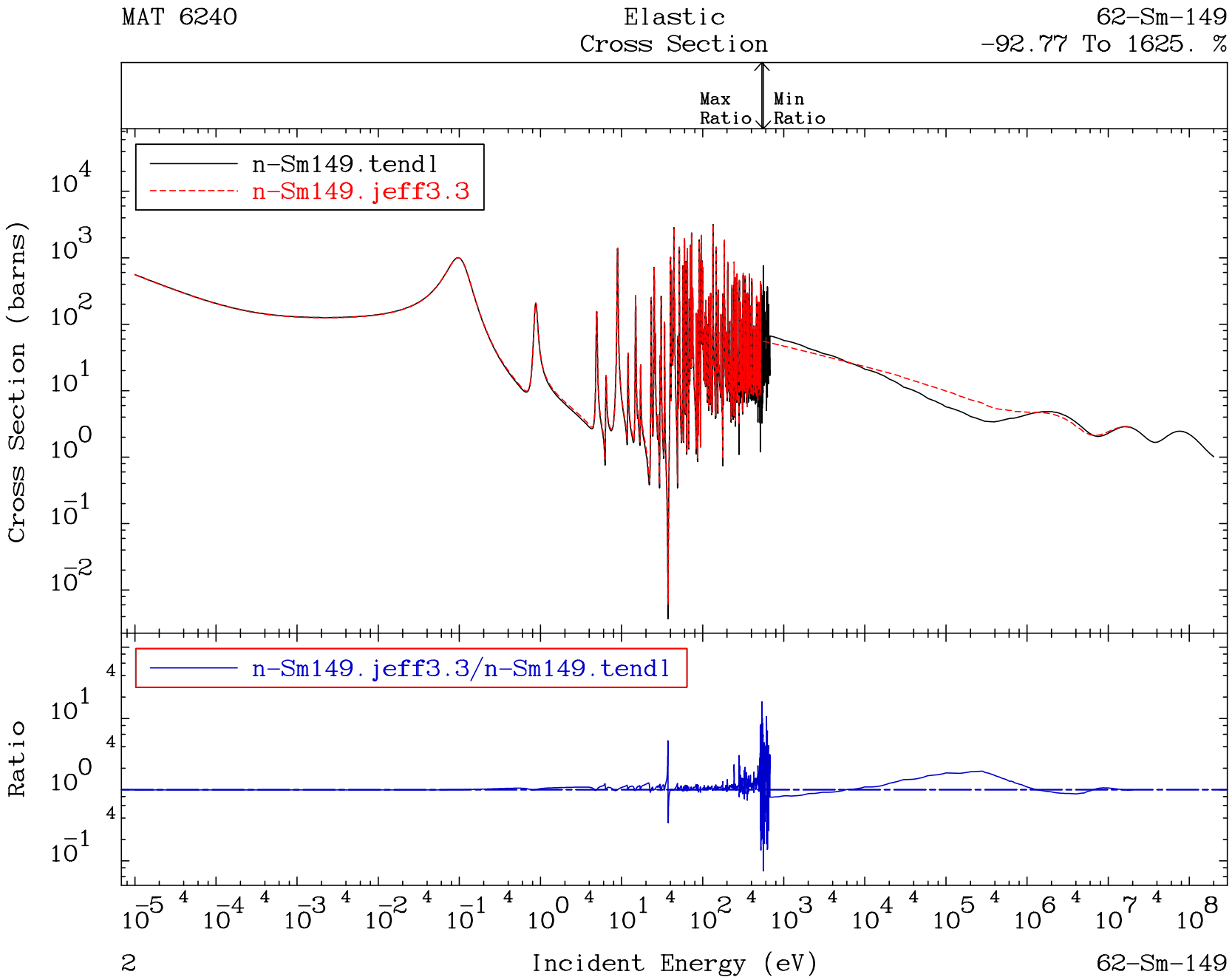
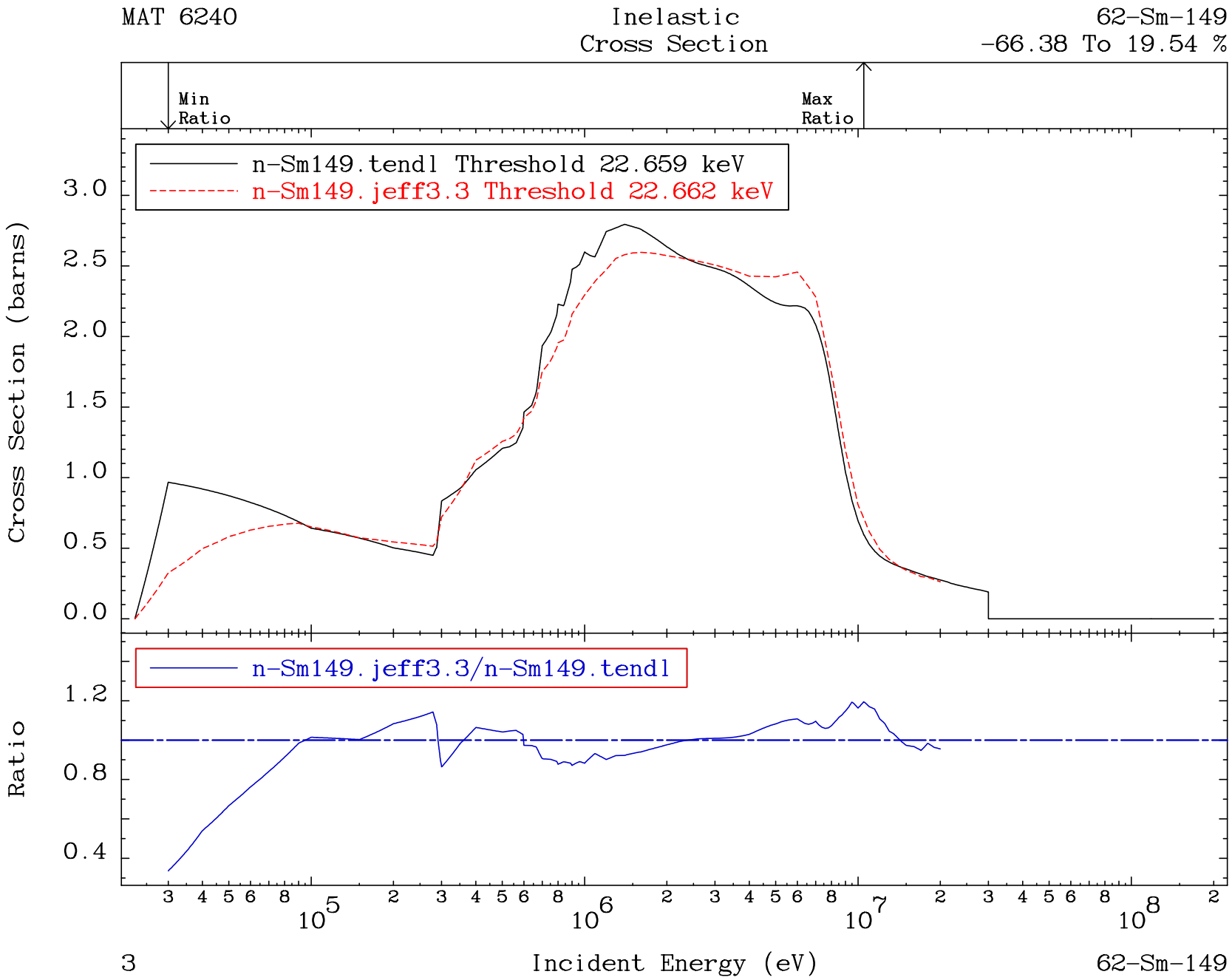
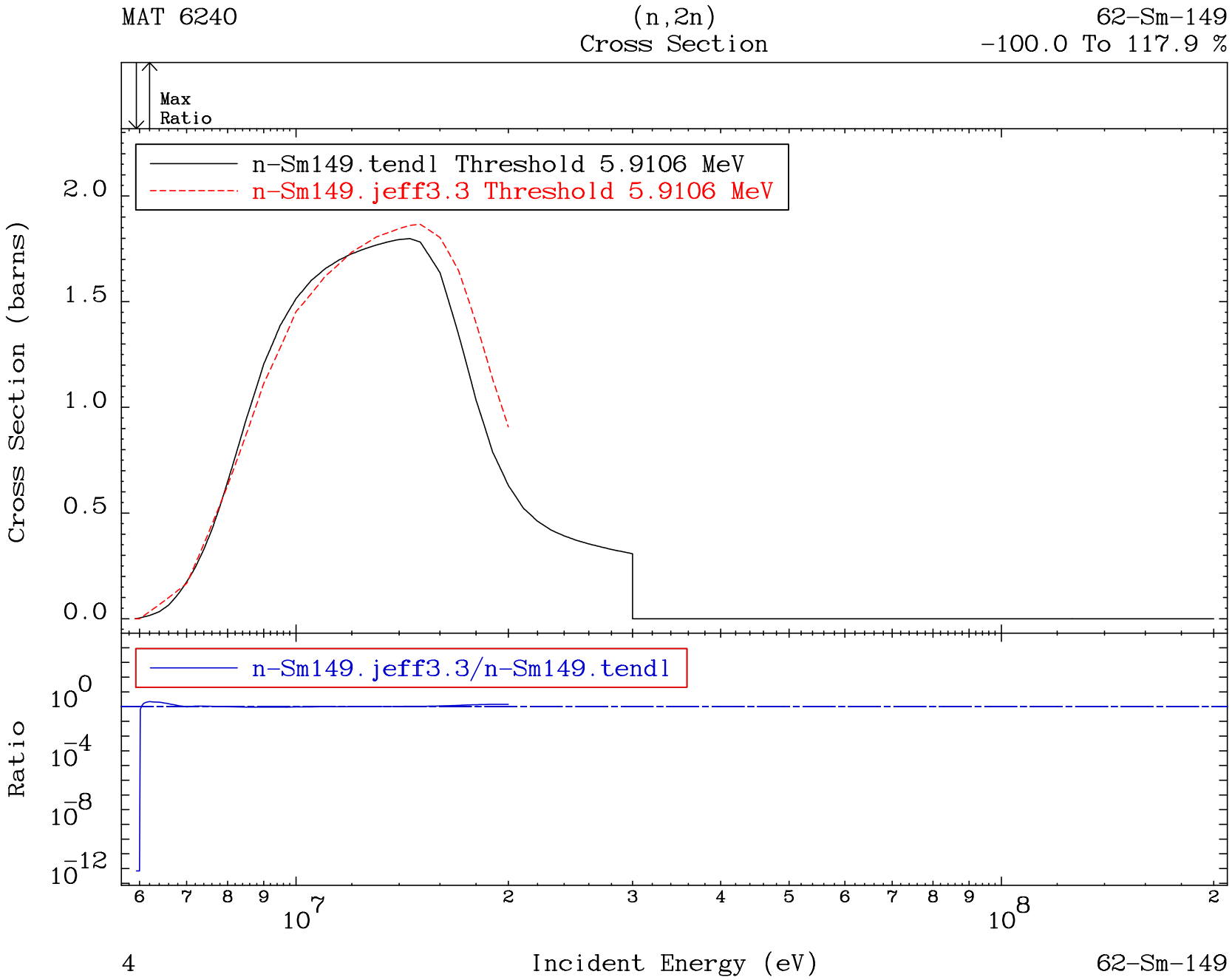
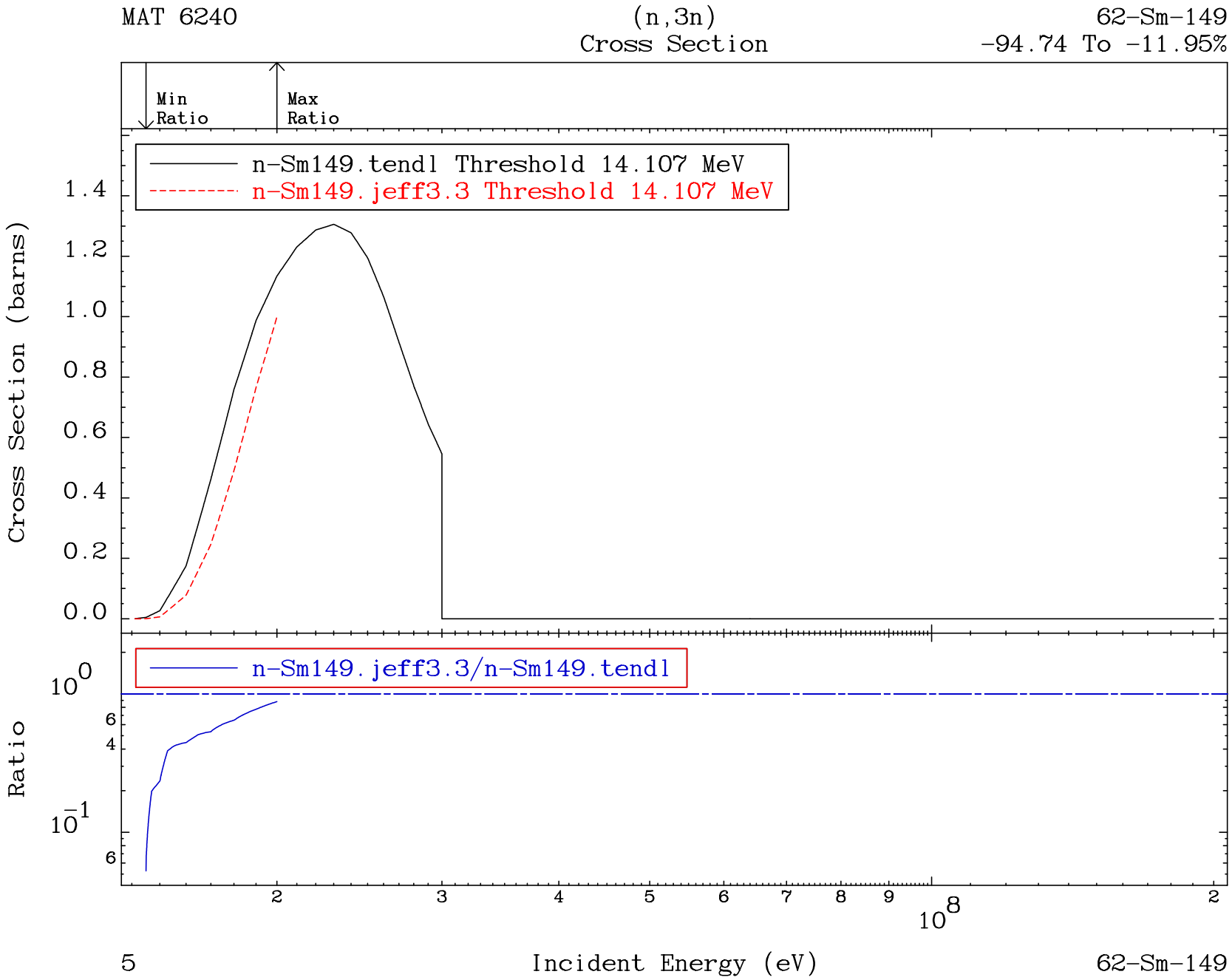
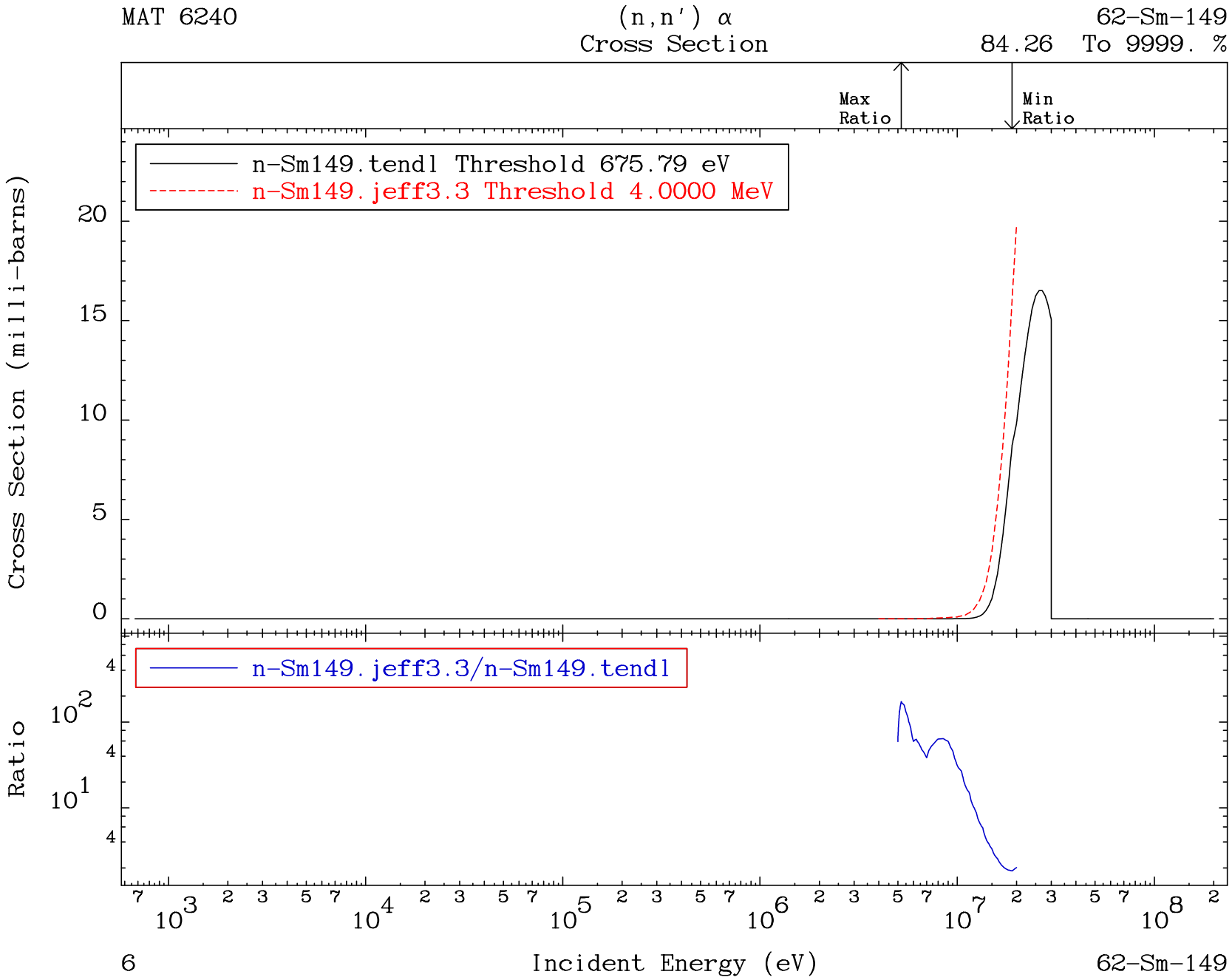

MAT 6240
Total
Cross Section
62-Sm-149
-90.94 To 1325. %
Max Ratio
Min Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
1
62-Sm-149

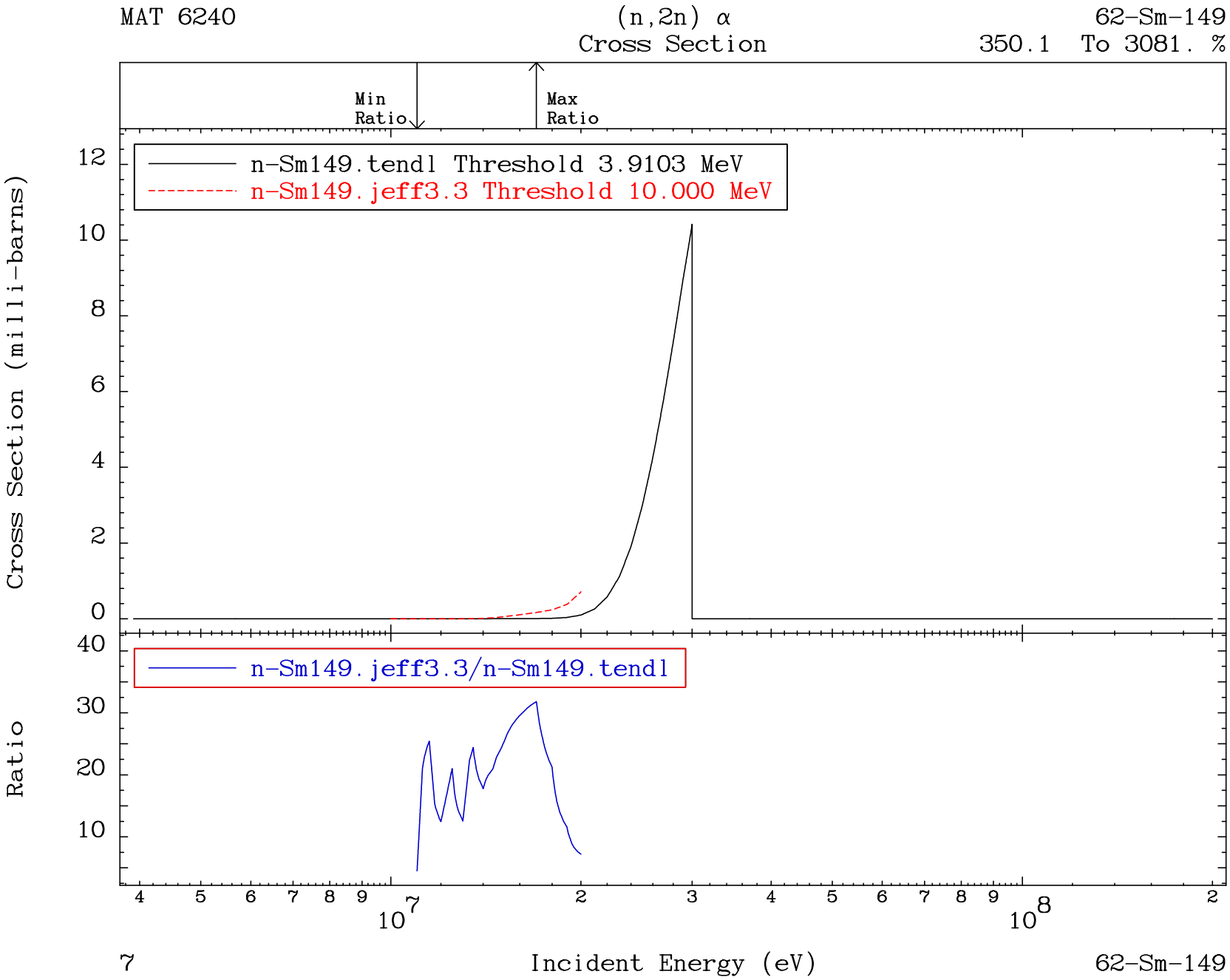

MAT 6240
Elastic
Cross Section
62-Sm-149
-92.77 To 1625. %
Max Ratio
Min Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
2
62-Sm-149

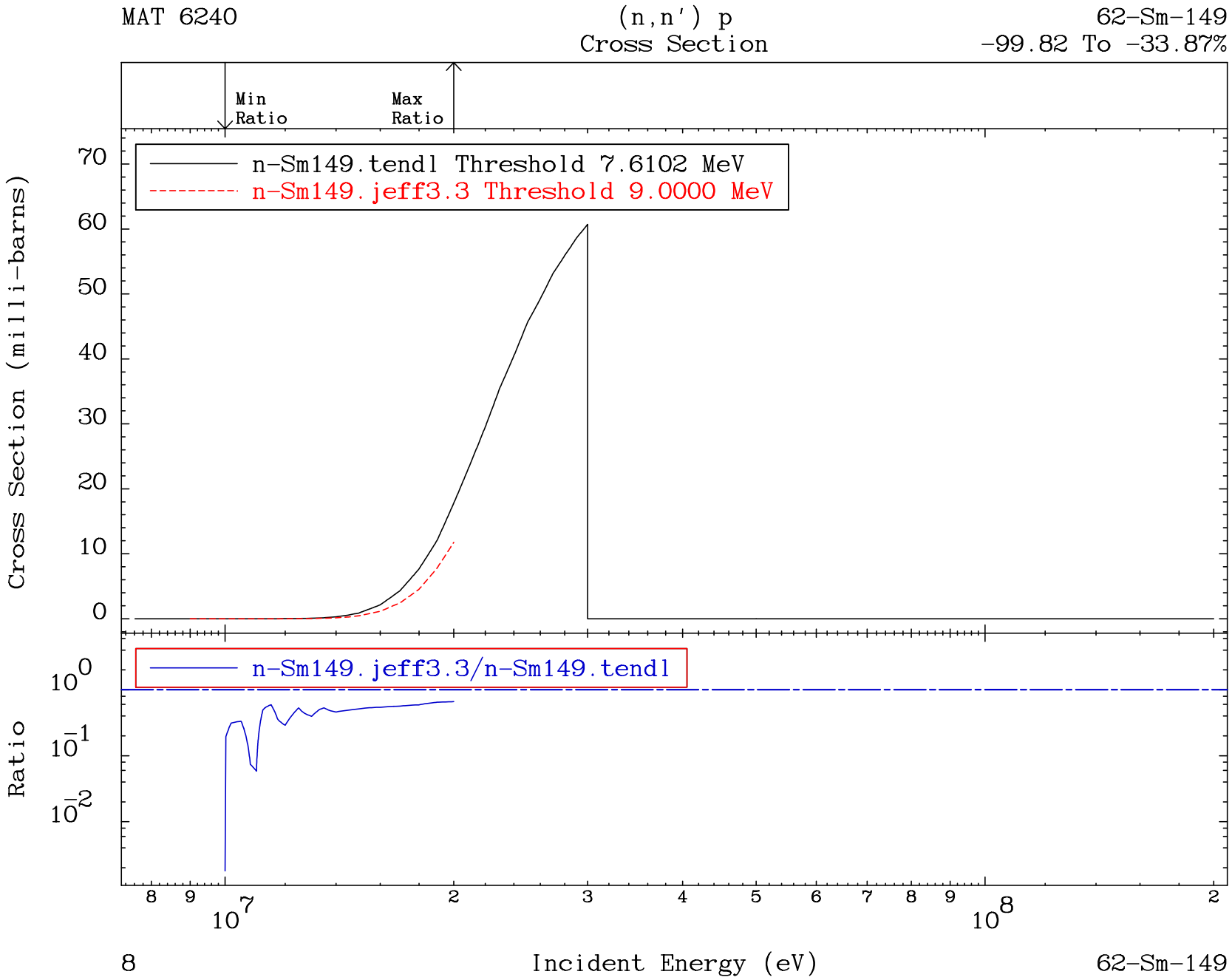

MAT 6240
Inelastic
Cross Section
62-Sm-149
-66.38 To 19.54 %
Min
Ratio
Max
Ratio
n-Sm149.tendl Threshold 22.659 keV
n-Sm149.jeff3.3 Threshold 22.662 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
1.2
0.8
0.4
3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
62-Sm-149

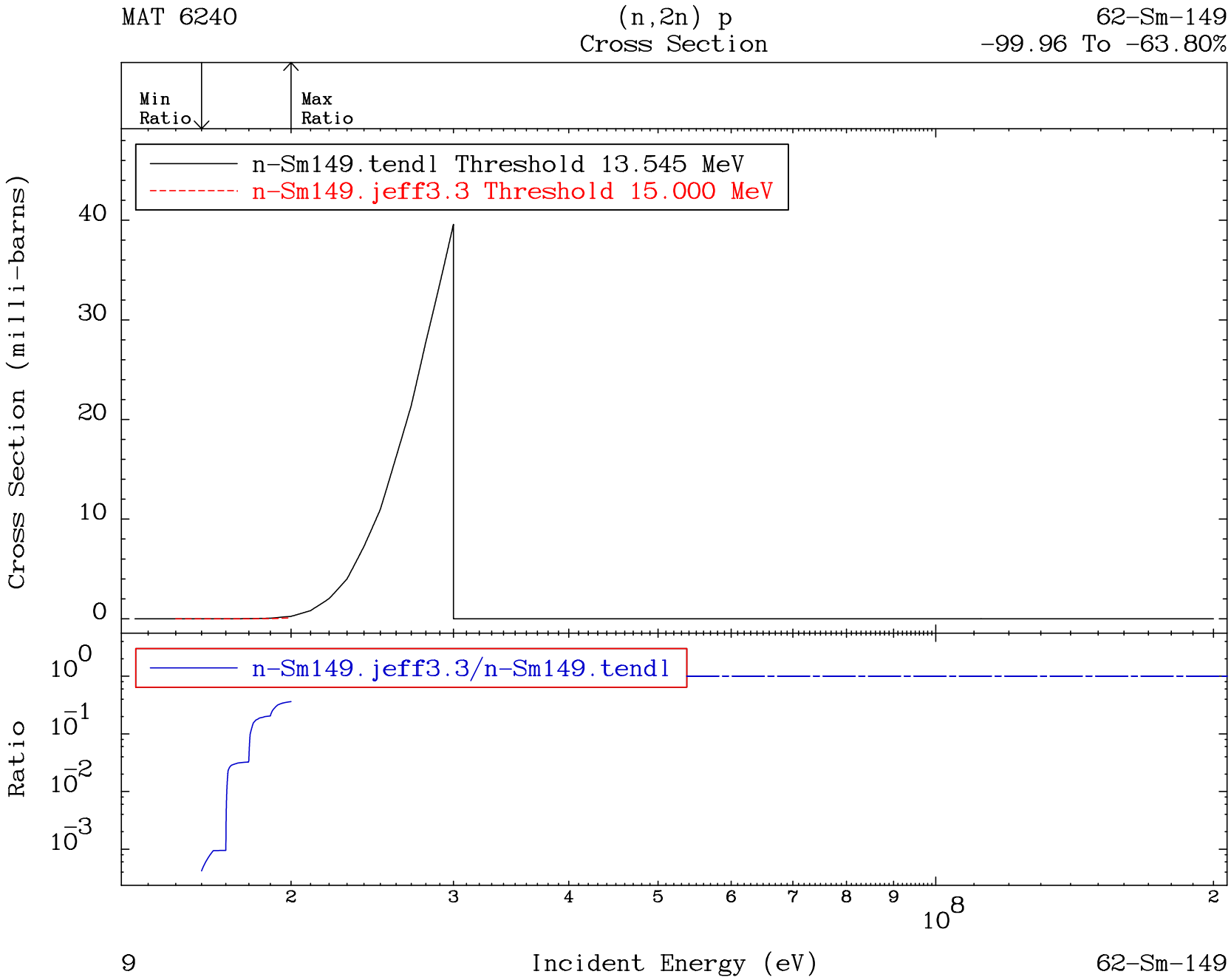

MAT 6240
(n,2n)
Cross Section
62-Sm-149
-100.0 To 117.9 %
Max
Ratio
n-Sm149.tendl Threshold 5.9106 MeV
n-Sm149.jeff3.3 Threshold 5.9106 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-4
10^-8
10^-12
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
62-Sm-149

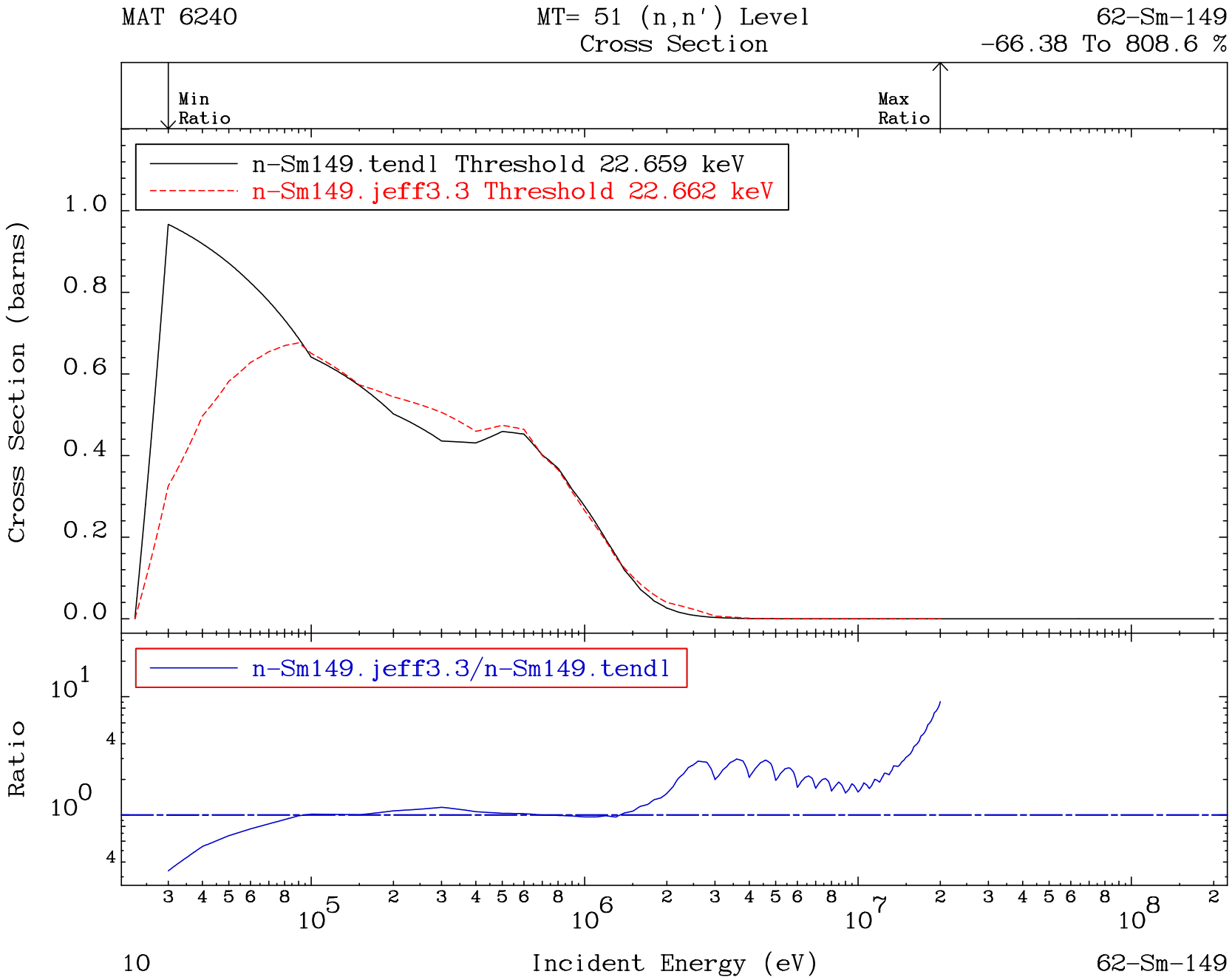

MAT 6240
(n,3n)
Cross Section
62-Sm-149
-94.74 To -11.95%
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 14.107 MeV
n-Sm149.jeff3.3 Threshold 14.107 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
6
4
10^-1
6
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
62-Sm-149

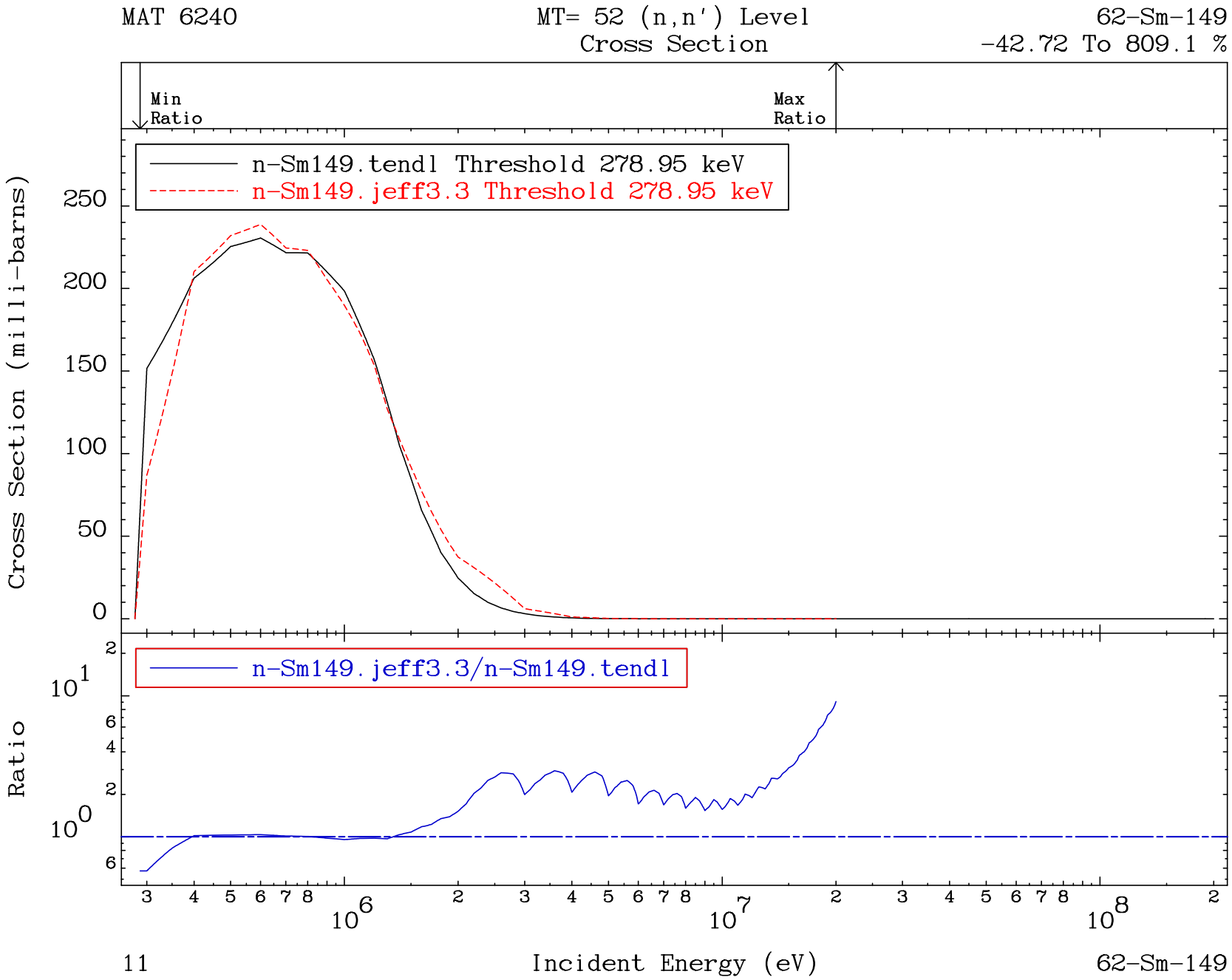

MAT 6240
(n,n') α
Cross Section
62-Sm-149
84.26 To 9999. %
Max Ratio
Min Ratio
n-Sm149.tendl Threshold 675.79 eV
n-Sm149.jeff3.3 Threshold 4.0000 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^2
10^1
10^3
10^4
10^5
10^6
10^7
10^8
6
Incident Energy (eV)
62-Sm-149

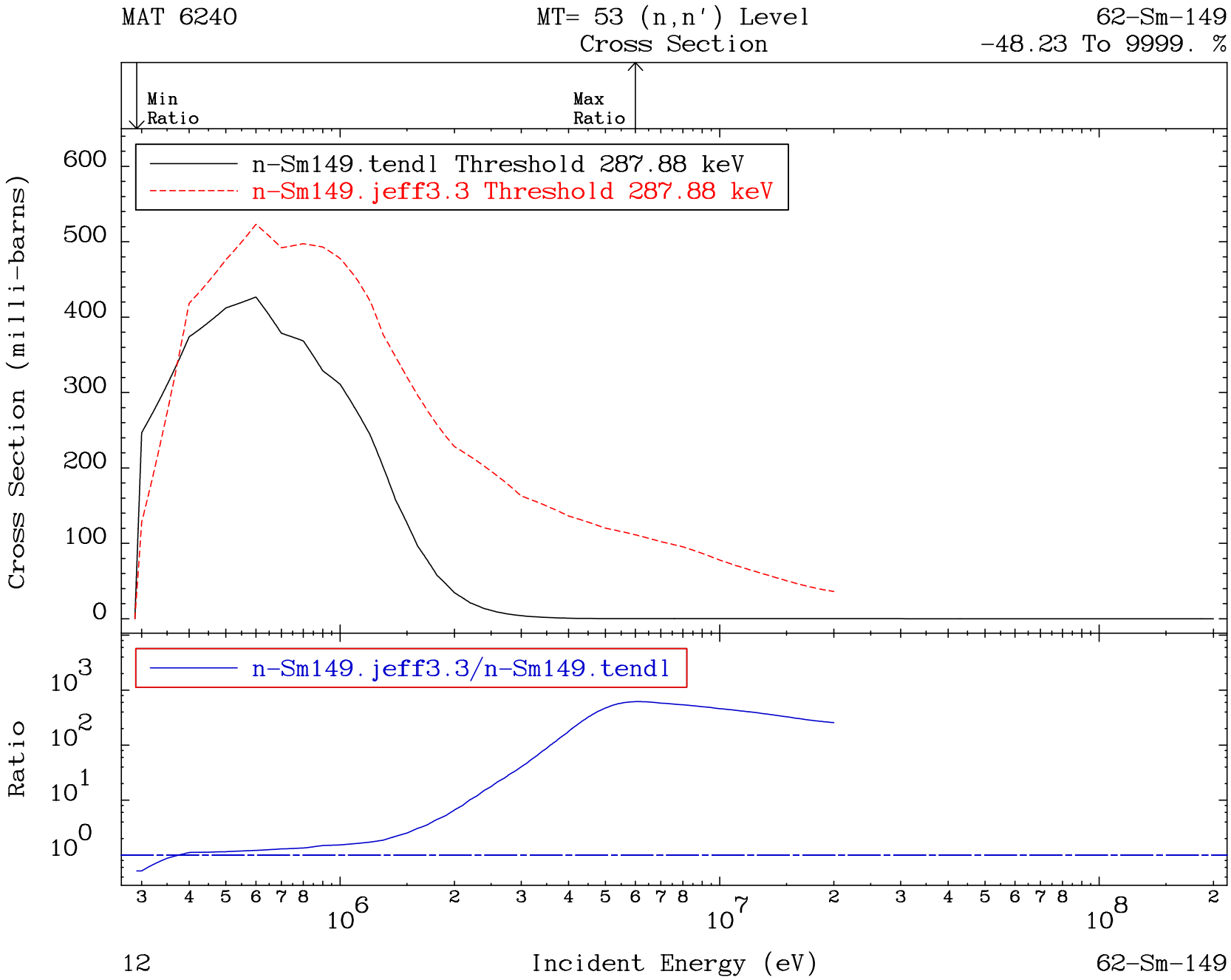

MAT 6240
(n,2n) α
Cross Section
62-Sm-149
350.1 To 3081. %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 3.9103 MeV
n-Sm149.jeff3.3 Threshold 10.000 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10
20
30
40
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
7
62-Sm-149

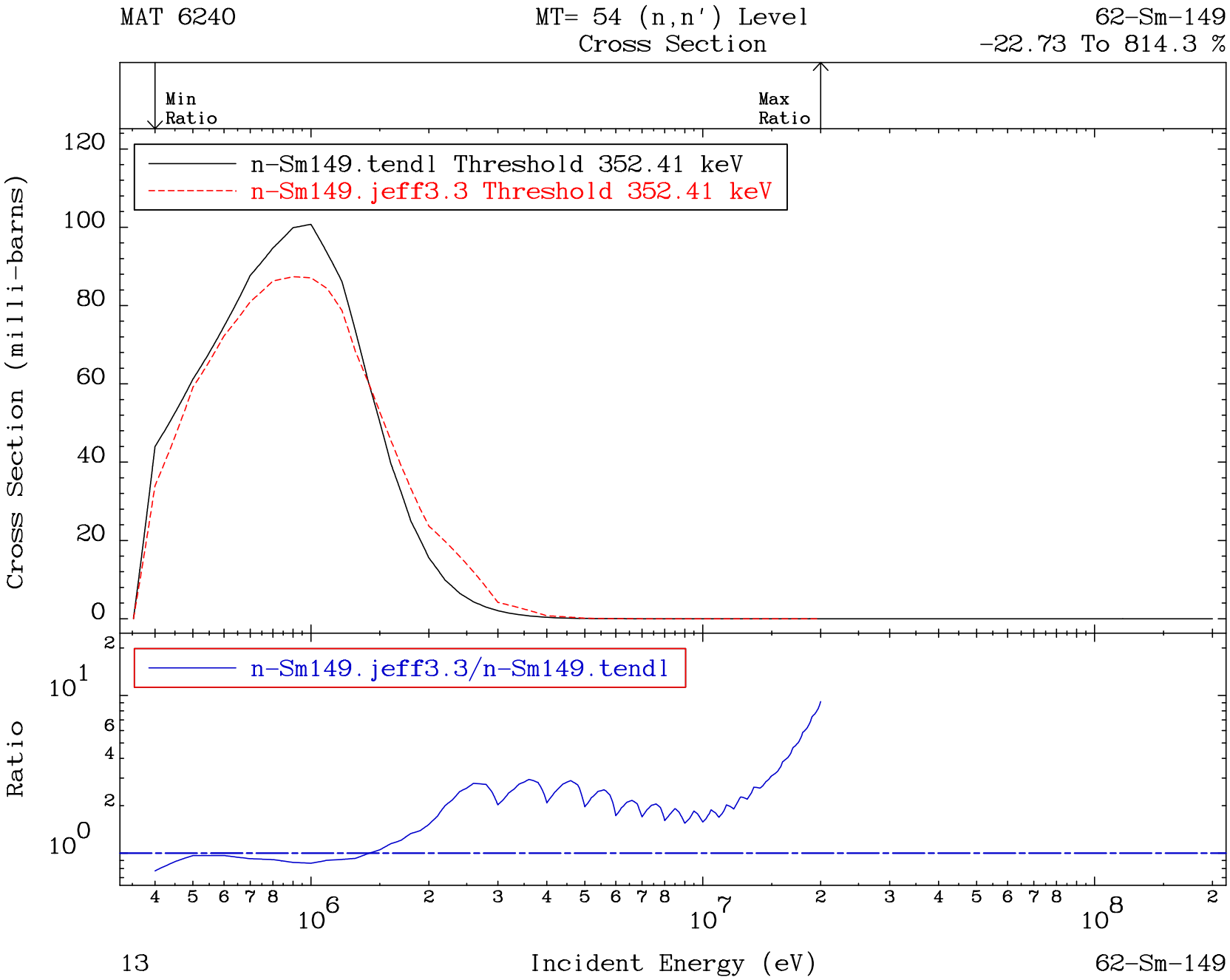

MAT 6240
(n,n') p
Cross Section
62-Sm-149
-99.82 To -33.87%
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 7.6102 MeV
n-Sm149.jeff3.3 Threshold 9.0000 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-1
10^-2
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
62-Sm-149

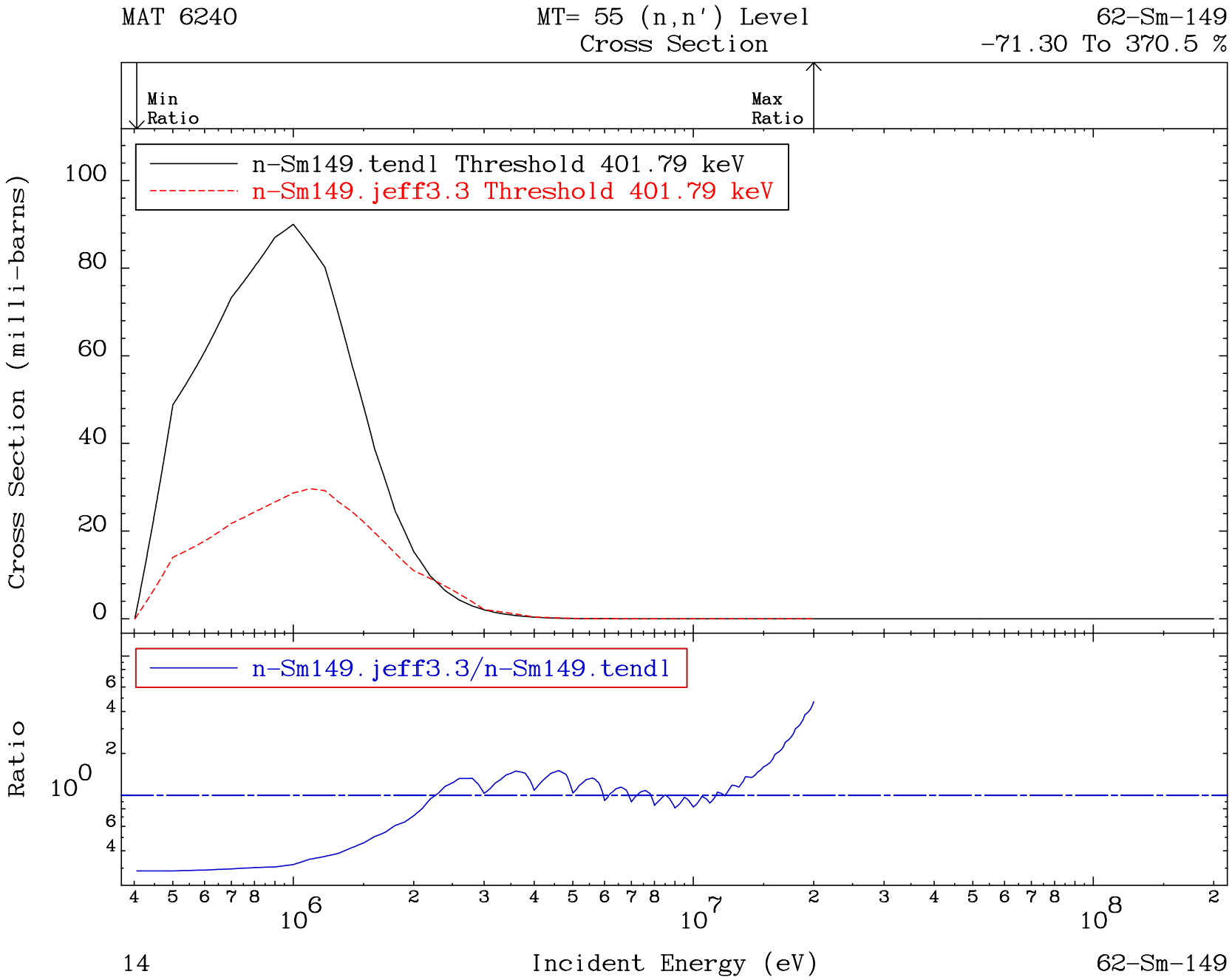

MAT 6240
(n,2n) p
Cross Section
62-Sm-149
-99.96 To -63.80%
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 13.545 MeV
n-Sm149.jeff3.3 Threshold 15.000 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-1
10^-2
10^-3
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
62-Sm-149

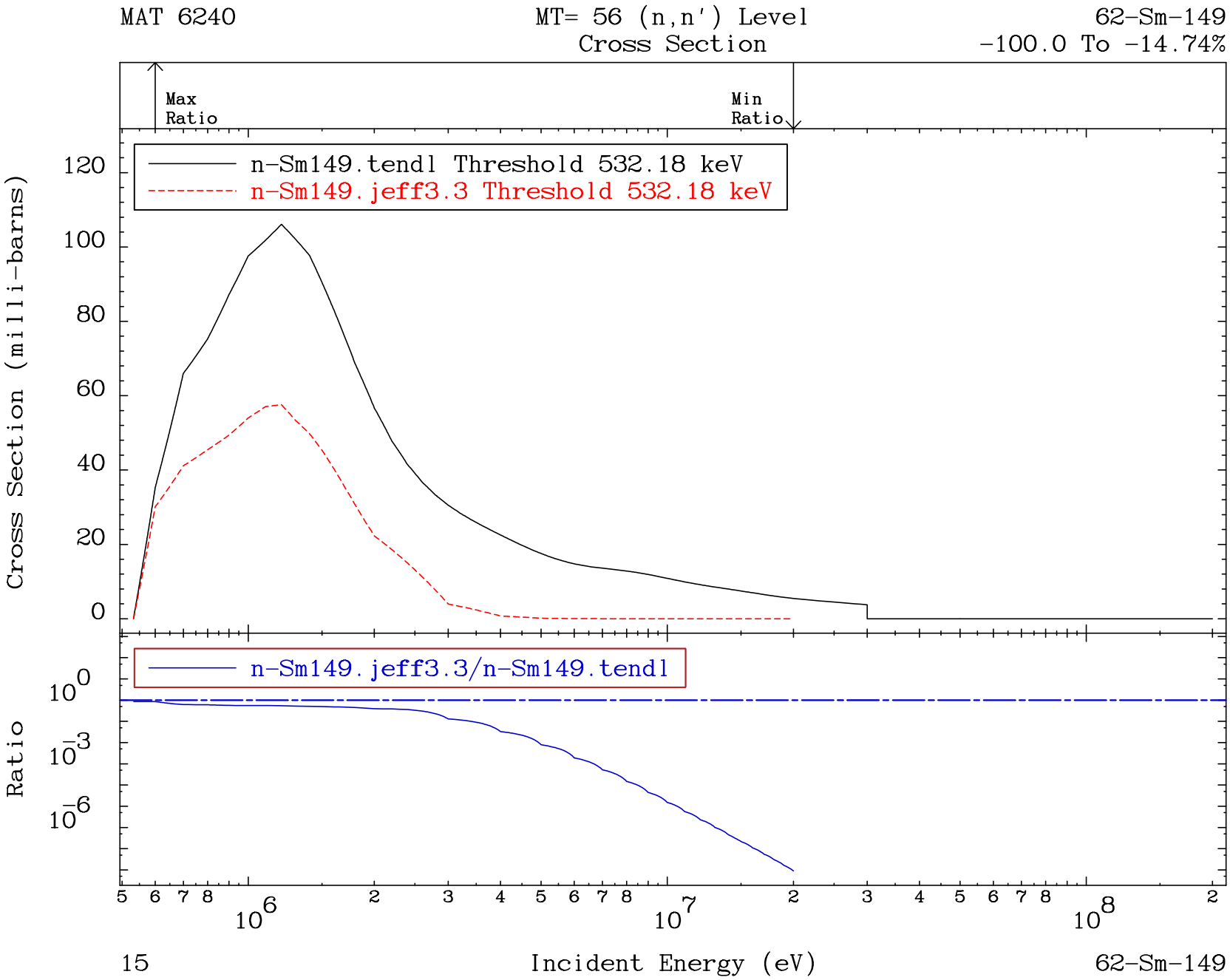

MAT 6240
MT= 51 (n,n') Level
Cross Section
62-Sm-149
-66.38 To 808.6 %
Min
Ratio
Max
Ratio
n-Sm149.tendl Threshold 22.659 keV
n-Sm149.jeff3.3 Threshold 22.662 keV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^1
10^0
4
4
3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
10
Incident Energy (eV)
62-Sm-149

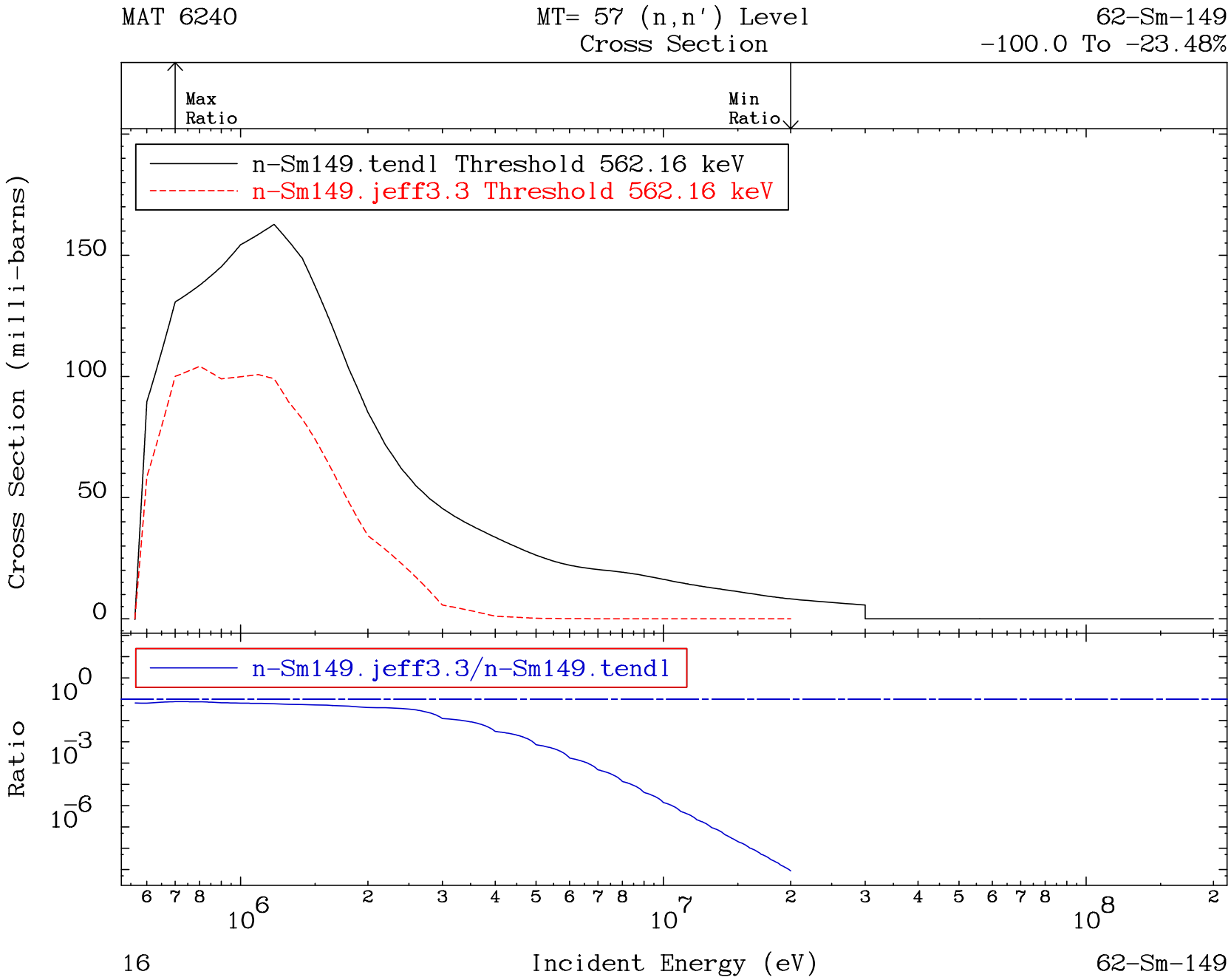

MAT 6240
MT= 52 (n,n') Level
Cross Section
62-Sm-149
-42.72 To 809.1 %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 278.95 keV
n-Sm149.jeff3.3 Threshold 278.95 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^1
10^0
10^6
10^7
10^8
Incident Energy (eV)
11
62-Sm-149

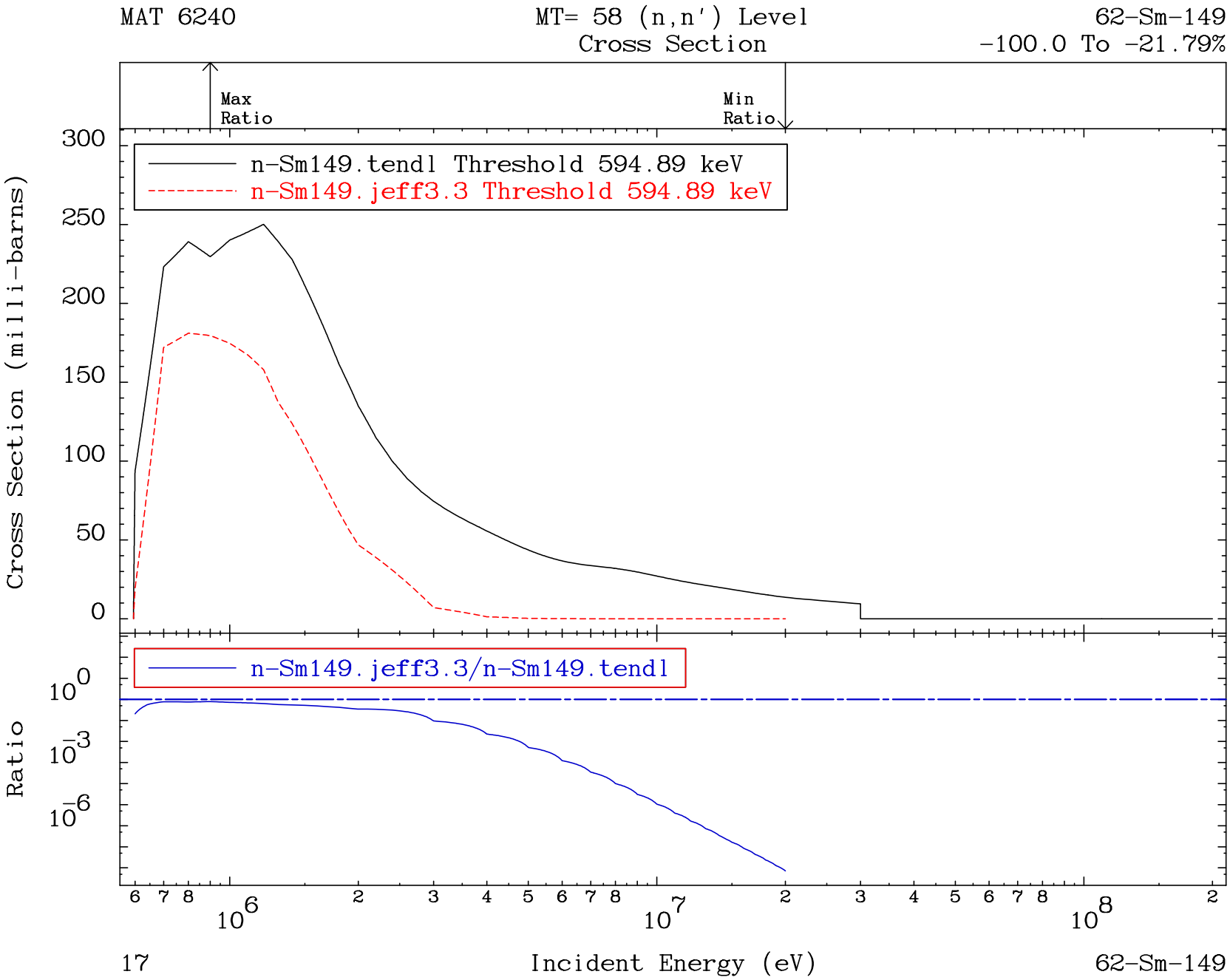

MAT 6240
MT= 53 (n,n') Level
Cross Section
62-Sm-149
-48.23 To 9999. %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 287.88 keV
n-Sm149.jeff3.3 Threshold 287.88 keV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
12
Incident Energy (eV)
62-Sm-149

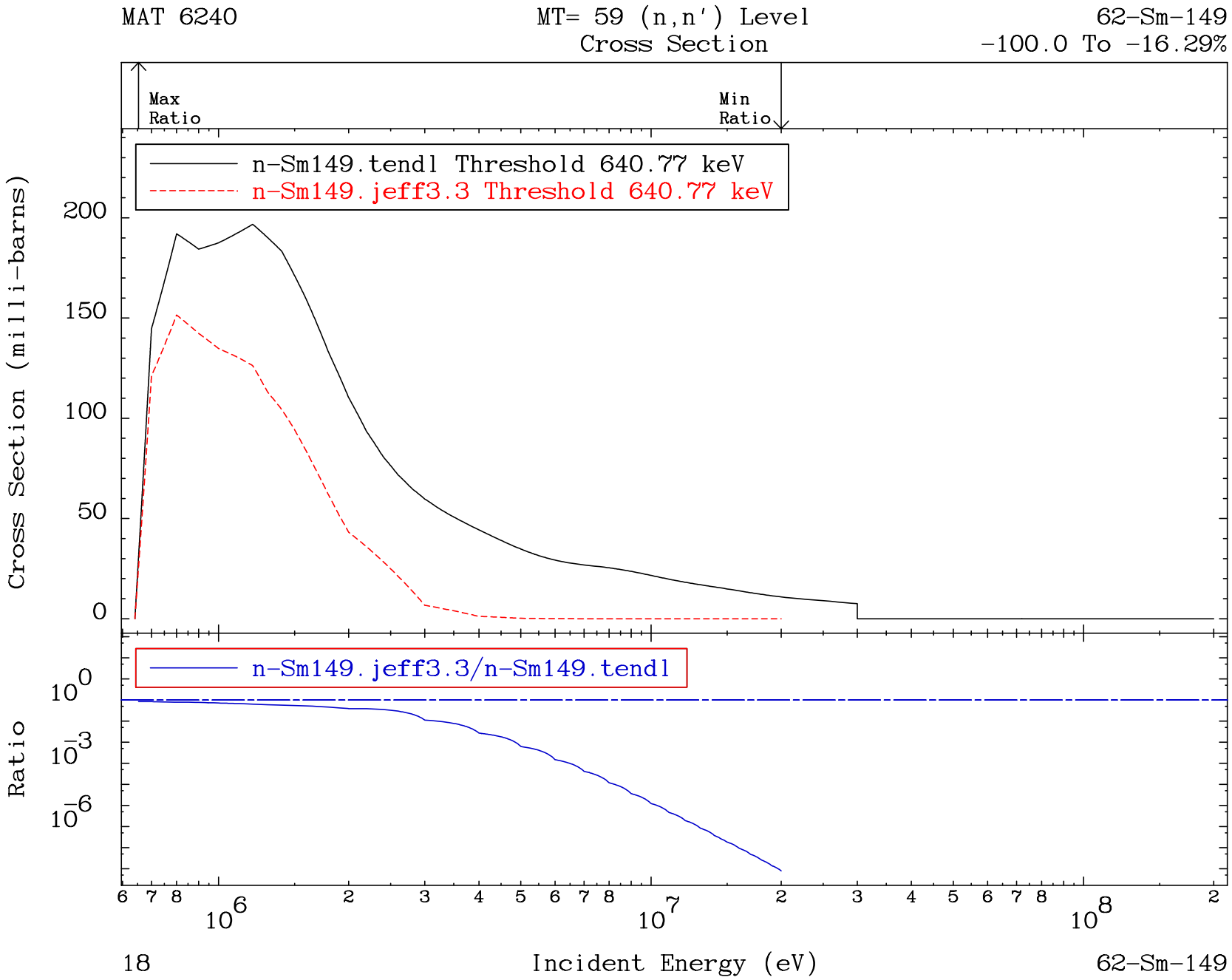

MAT 6240
MT= 54 (n,n') Level
Cross Section
62-Sm-149
-22.73 To 814.3 %
Min
Ratio
Max
Ratio
n-Sm149.tendl Threshold 352.41 keV
n-Sm149.jeff3.3 Threshold 352.41 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
2
10^1
6
4
2
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
62-Sm-149

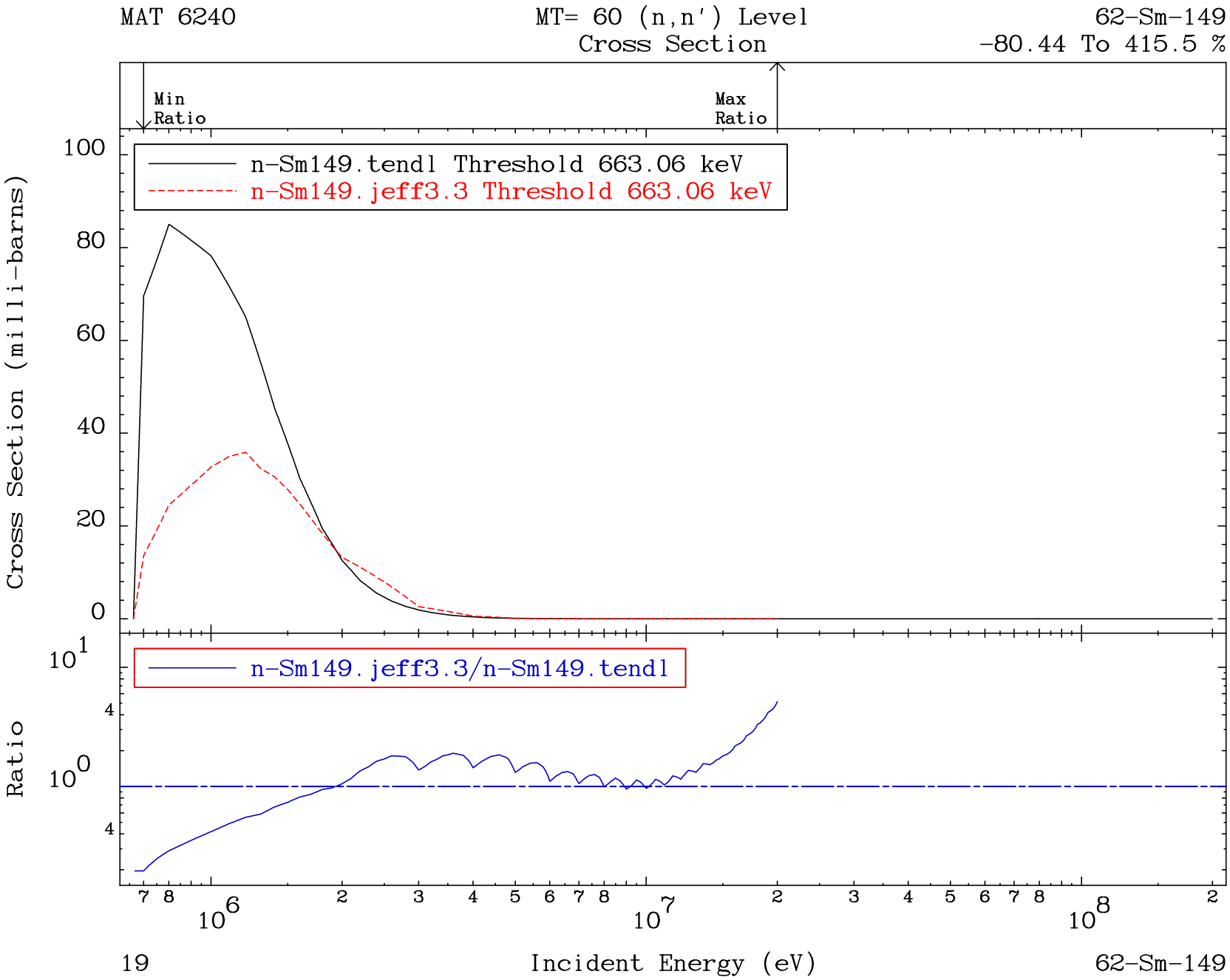

MAT 6240
MT= 55 (n,n') Level
Cross Section
62-Sm-149
-71.30 To 370.5 %
Min
Ratio
Max
Ratio
n-Sm149.tendl Threshold 401.79 keV
n-Sm149.jeff3.3 Threshold 401.79 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
6
4
2
10^0
6
4
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
14
Incident Energy (eV)
62-Sm-149

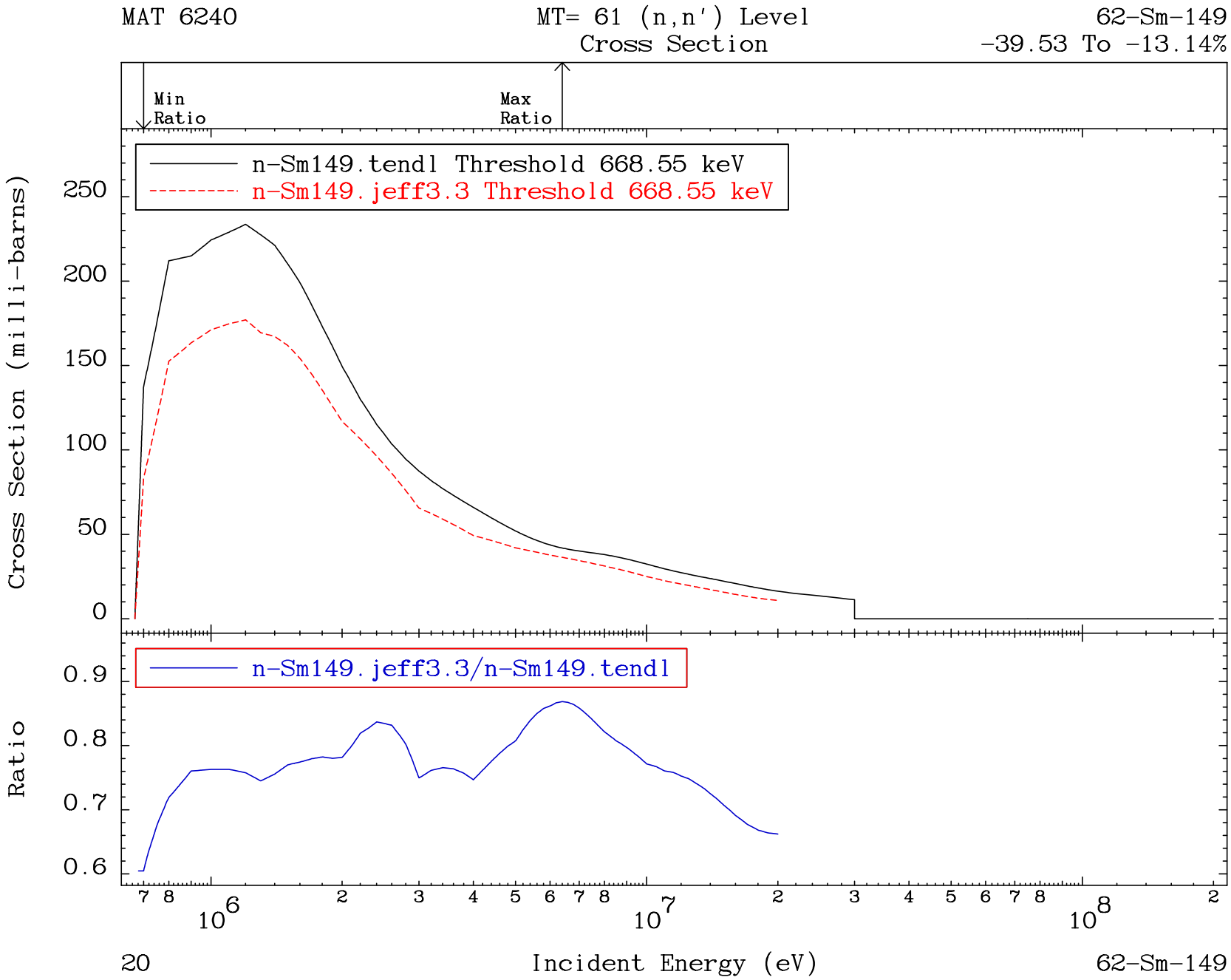

MAT 6240
MT= 56 (n,n') Level
Cross Section
62-Sm-149
-100.0 To -14.74%
Max
Ratio
Min
Ratio
n-Sm149.tendl Threshold 532.18 keV
n-Sm149.jeff3.3 Threshold 532.18 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-3
10^-6
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
15
Incident Energy (eV)
62-Sm-149

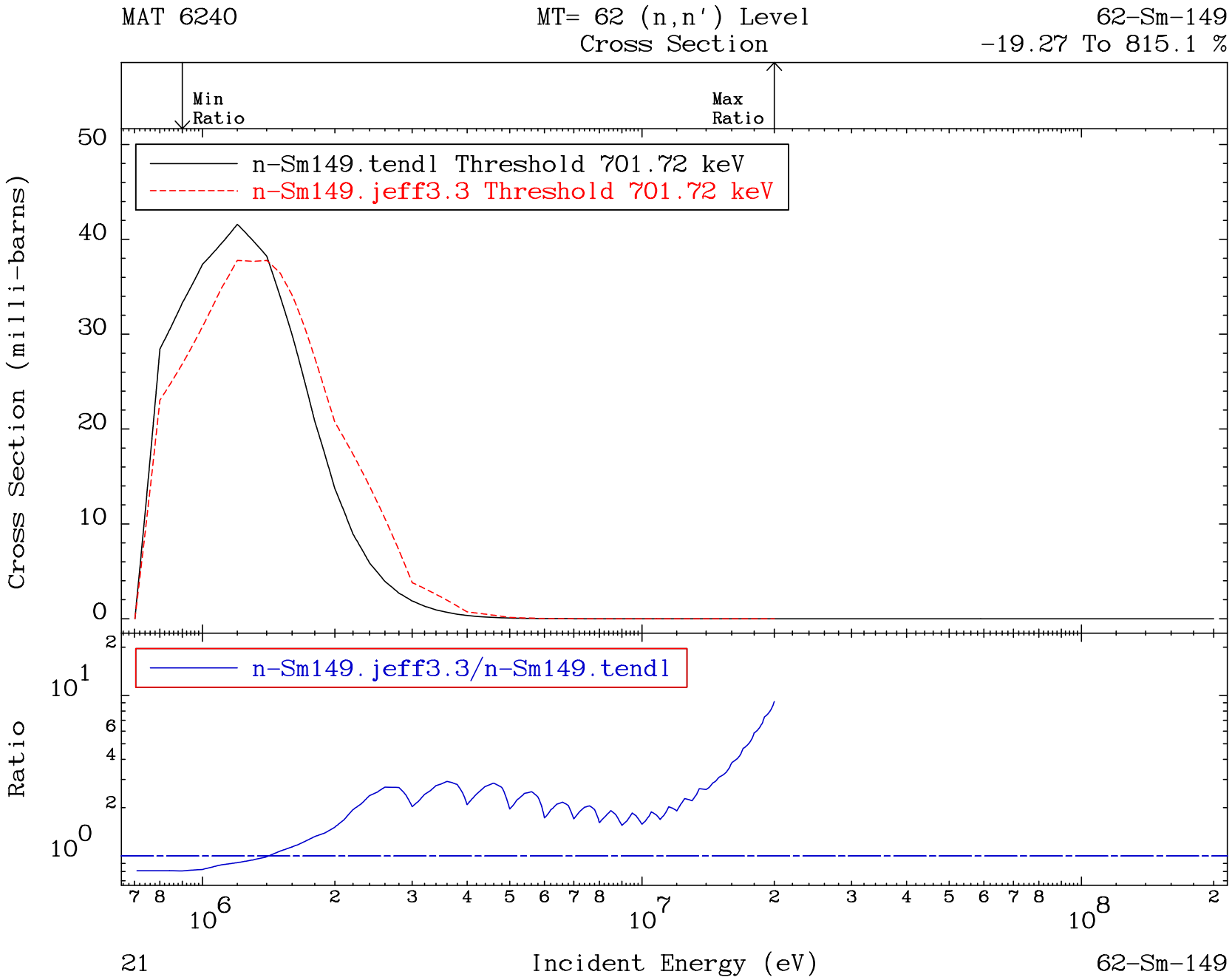

MAT 6240
MT= 57 (n,n') Level
Cross Section
62-Sm-149
-100.0 To -23.48%
Max
Ratio
Min
Ratio
n-Sm149.tendl Threshold 562.16 keV
n-Sm149.jeff3.3 Threshold 562.16 keV
Cross Section (milli-barns)
150
100
50
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-3
10^-6
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
16
Incident Energy (eV)
62-Sm-149

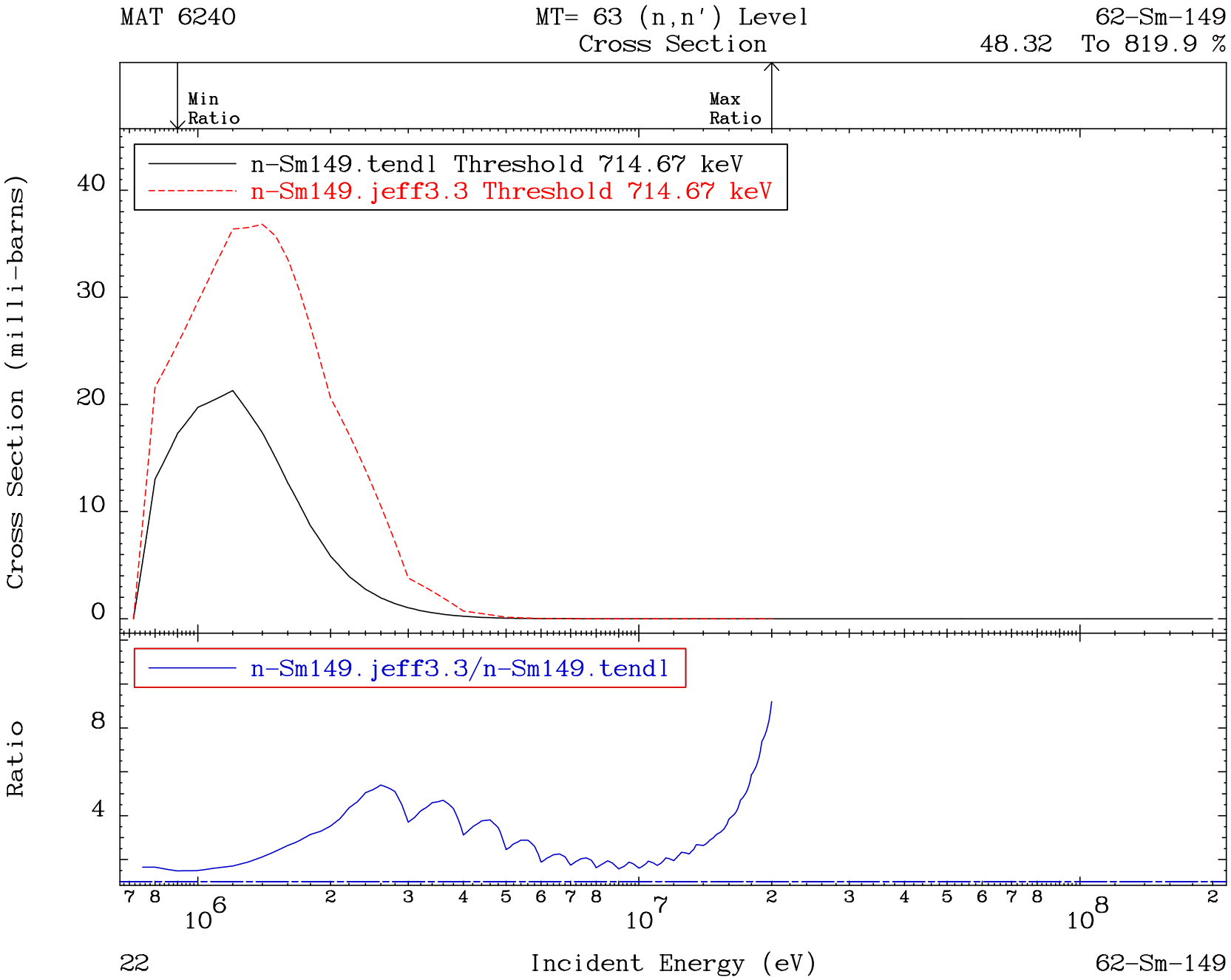

MAT 6240
MT= 58 (n,n') Level
Cross Section
62-Sm-149
-100.0 To -21.79%
Max
Ratio
Min
Ratio
n-Sm149.tendl Threshold 594.89 keV
n-Sm149.jeff3.3 Threshold 594.89 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-3
10^-6
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
62-Sm-149

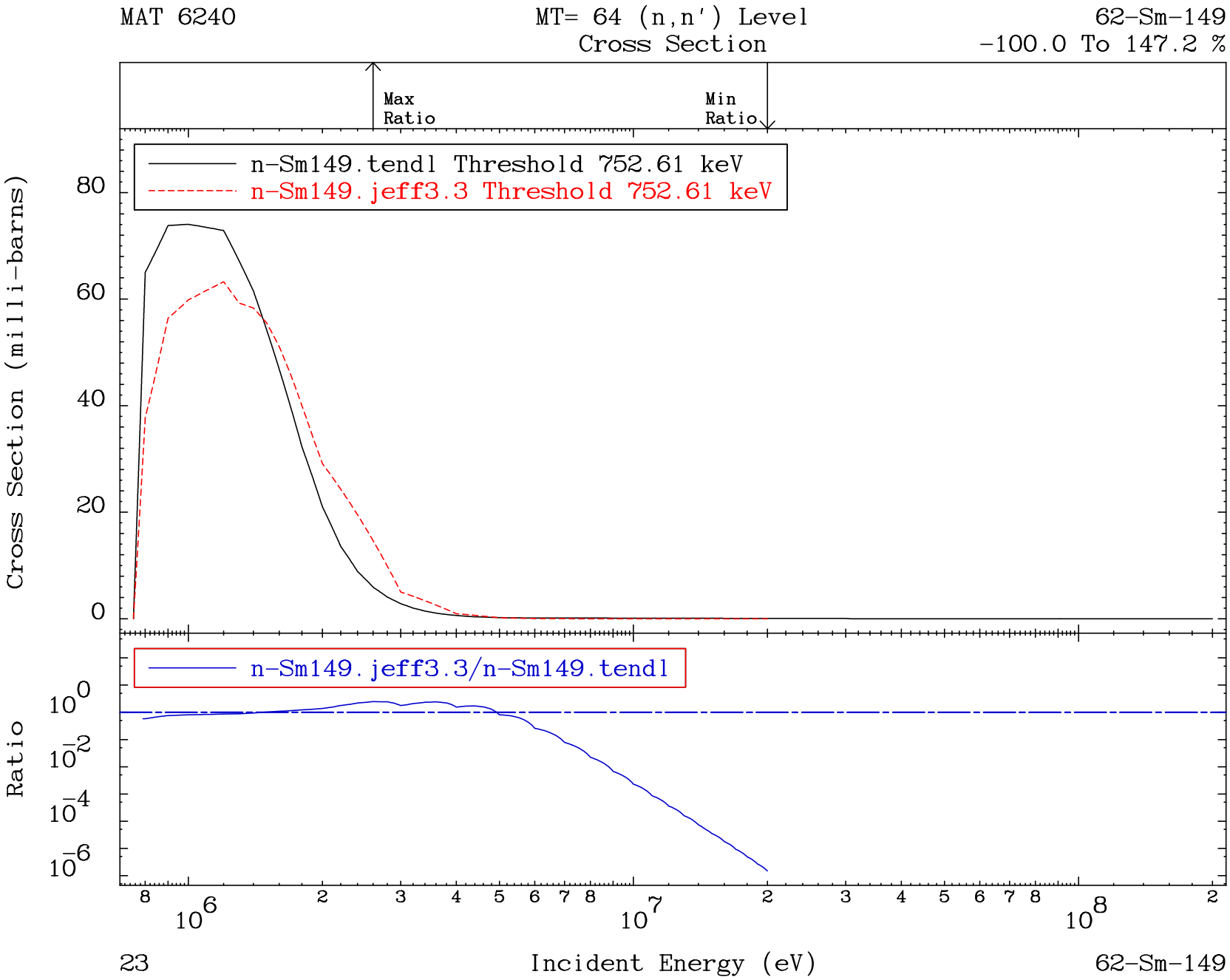

MAT 6240
MT= 59 (n,n') Level
Cross Section
62-Sm-149
-100.0 To -16.29%
Max Ratio
Min Ratio
n-Sm149.tendl Threshold 640.77 keV
n-Sm149.jeff3.3 Threshold 640.77 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-3
10^-6
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
18
Incident Energy (eV)
62-Sm-149

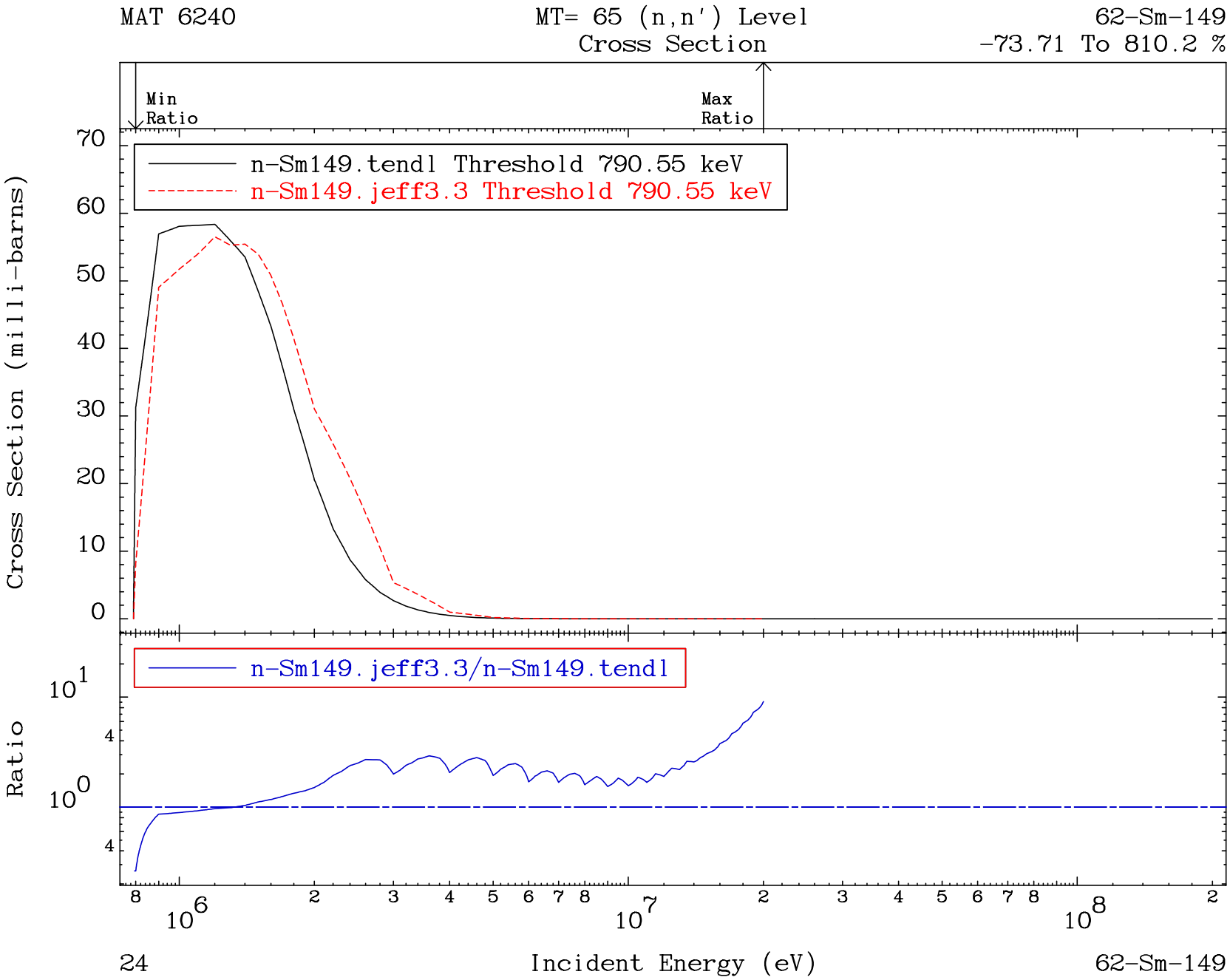

MAT 6240
MT= 60 (n,n') Level
Cross Section
62-Sm-149
-80.44 To 415.5 %
Min
Ratio
Max
Ratio
n-Sm149.tendl Threshold 663.06 keV
n-Sm149.jeff3.3 Threshold 663.06 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^1
10^0
4
4
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
19
Incident Energy (eV)
62-Sm-149

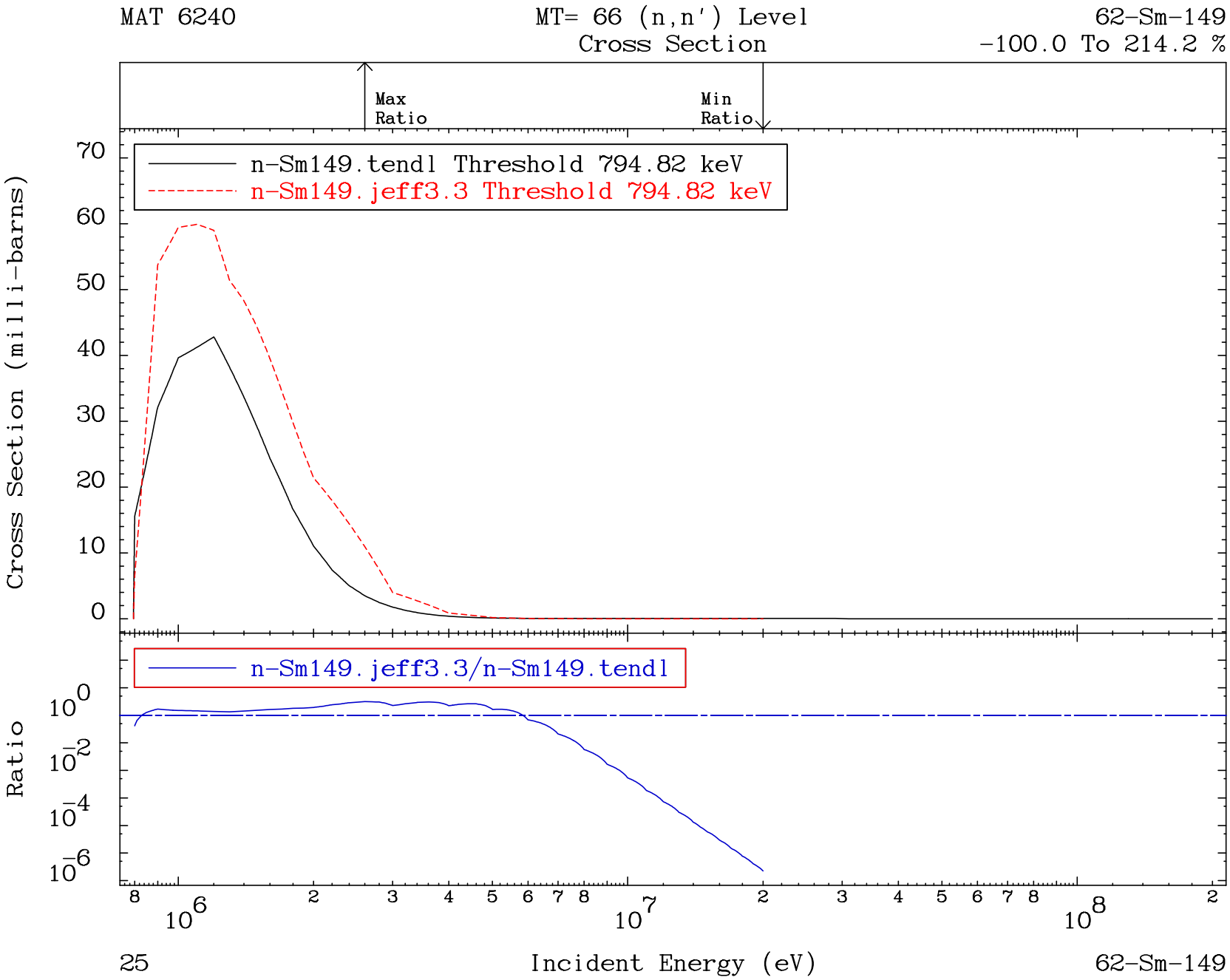

MAT 6240
MT= 61 (n,n') Level
Cross Section
62-Sm-149
-39.53 To -13.14%
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 668.55 keV
n-Sm149.jeff3.3 Threshold 668.55 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
0.9
0.8
0.7
0.6
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
62-Sm-149

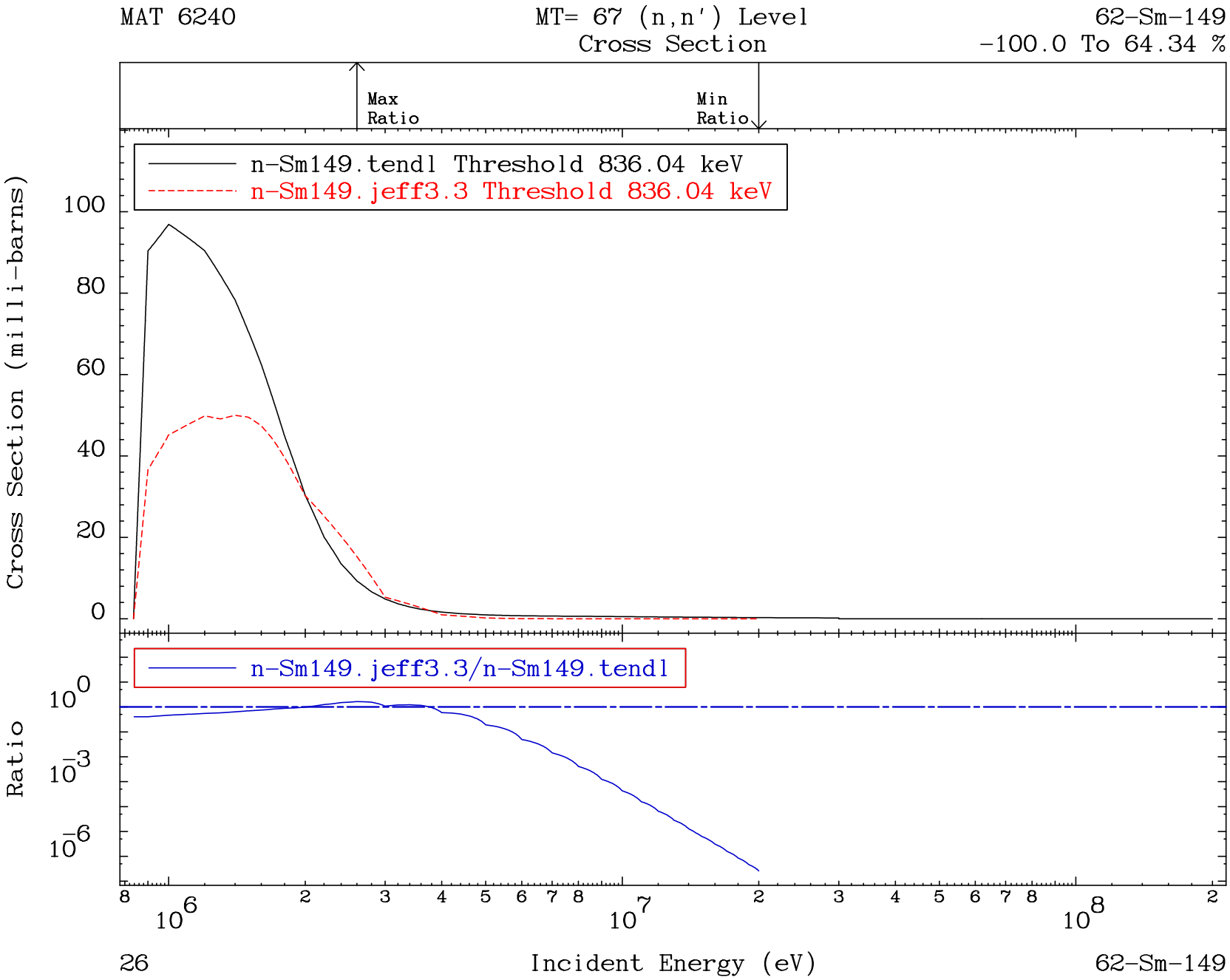

MAT 6240
MT= 62 (n,n') Level
Cross Section
62-Sm-149
-19.27 To 815.1 %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 701.72 keV
n-Sm149.jeff3.3 Threshold 701.72 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
2
10^1
6
4
2
10^0
7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
62-Sm-149

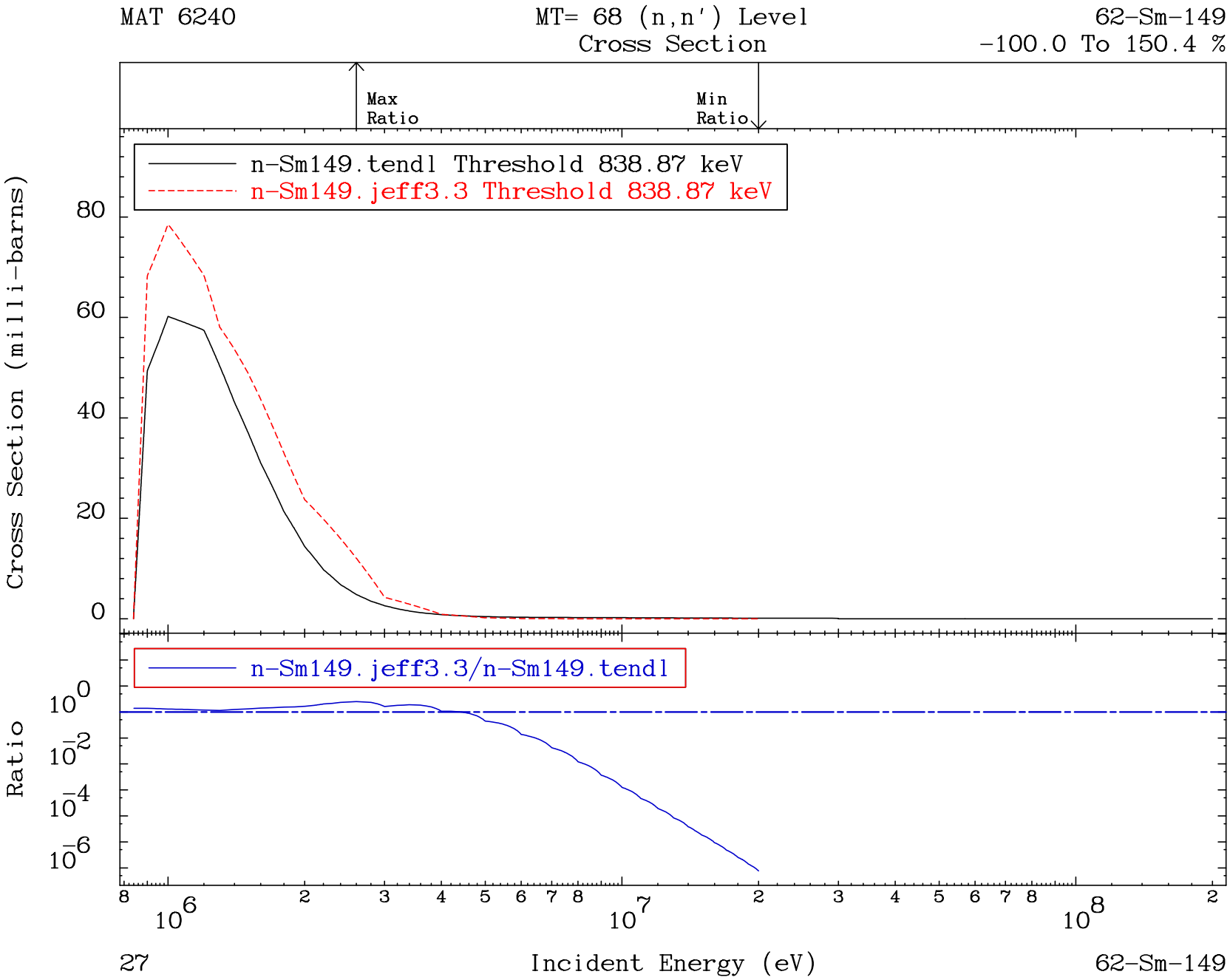

MAT 6240
MT= 63 (n,n') Level
Cross Section
62-Sm-149
48.32 To 819.9 %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 714.67 keV
n-Sm149.jeff3.3 Threshold 714.67 keV
Cross Section (milli-barns)
40
30
20
10
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
8
4
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
62-Sm-149

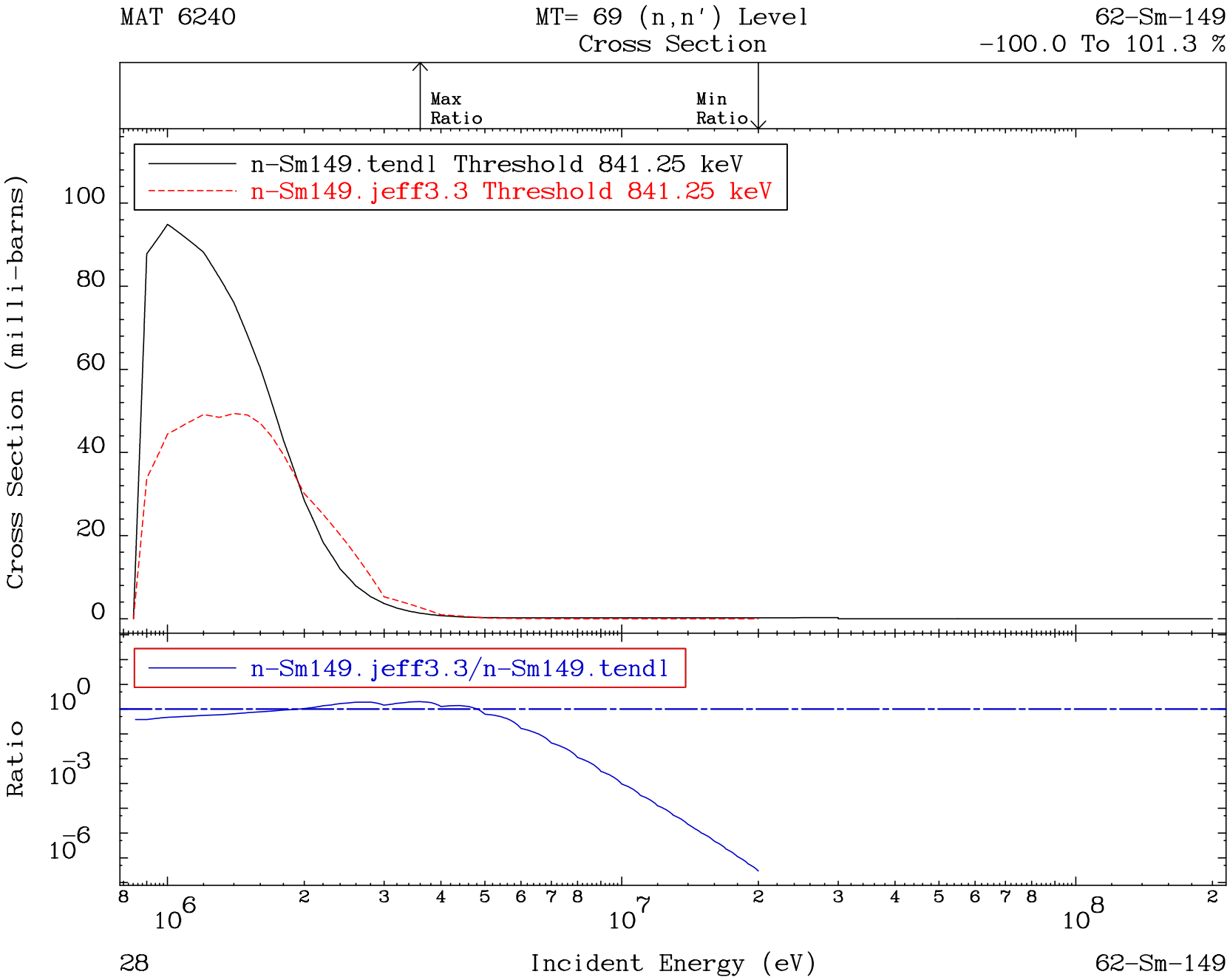

MAT 6240
MT= 64 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 147.2 %
Max
Ratio
Min
Ratio
n-Sm149.tendl Threshold 752.61 keV
n-Sm149.jeff3.3 Threshold 752.61 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-2
10^-4
10^-6
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
23
Incident Energy (eV)
62-Sm-149

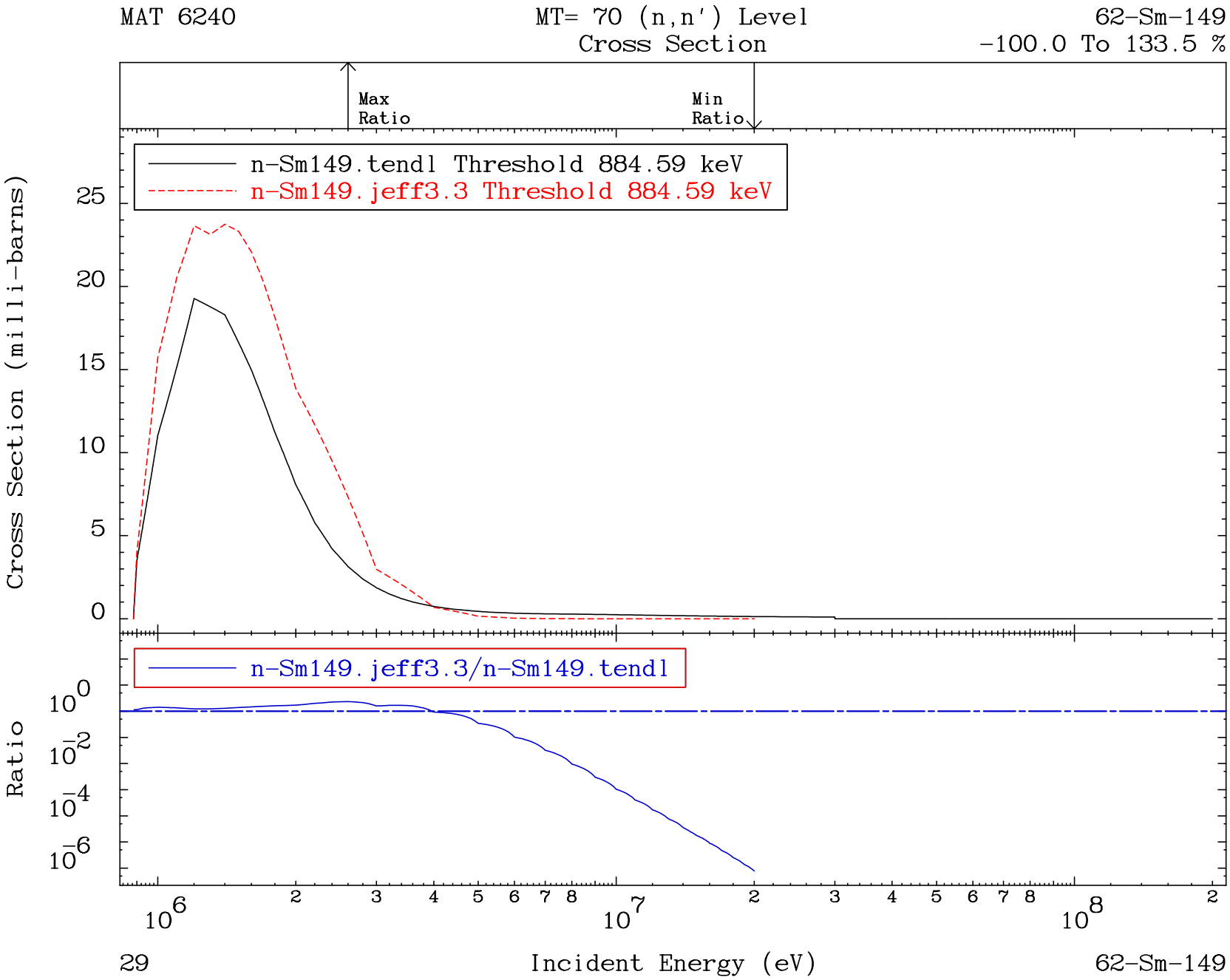

MAT 6240
MT= 65 (n,n') Level
Cross Section
62-Sm-149
-73.71 To 810.2 %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 790.55 keV
n-Sm149.jeff3.3 Threshold 790.55 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^1
4
10^0
4
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
24
Incident Energy (eV)
62-Sm-149

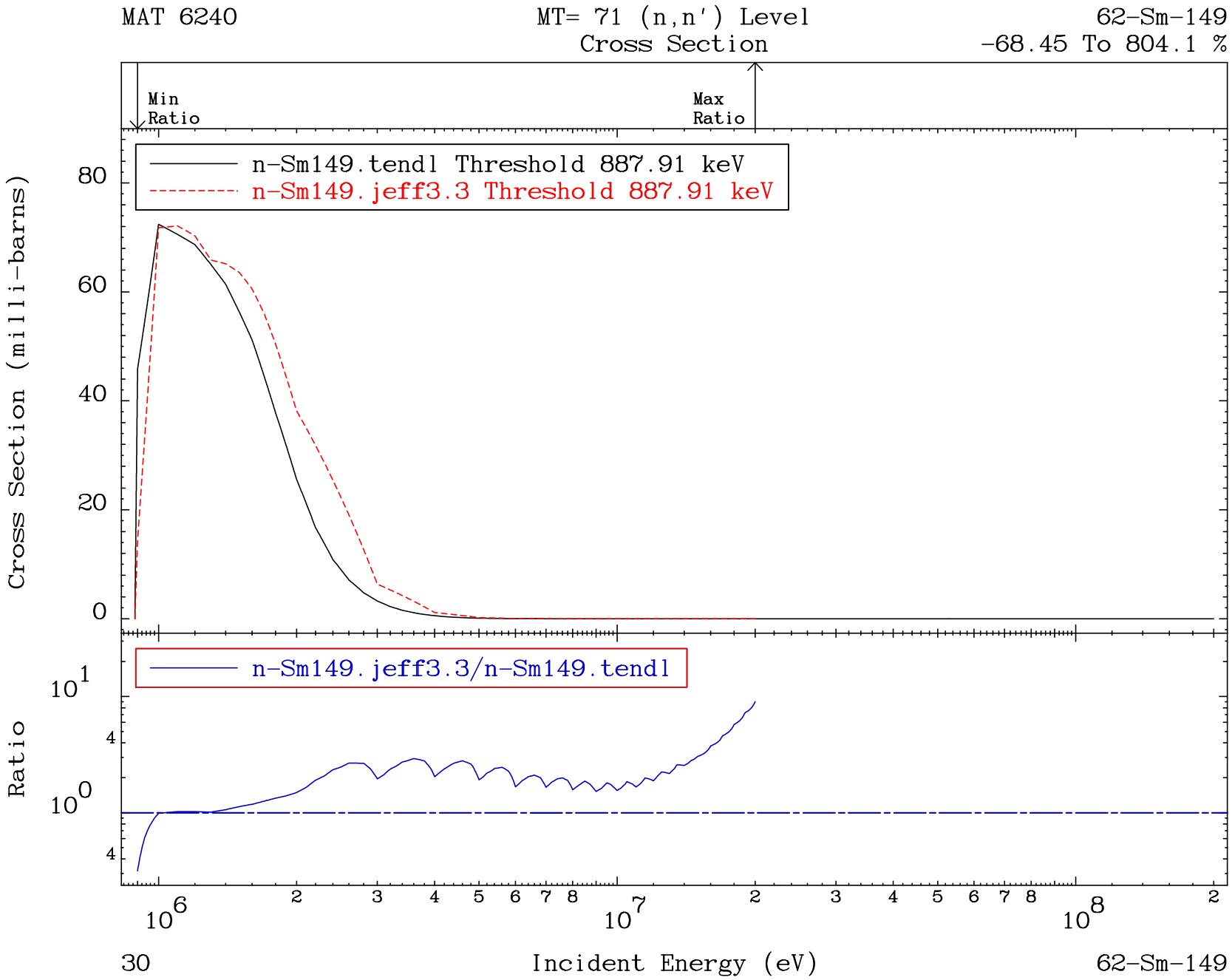

MAT 6240
MT= 66 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 214.2 %
Max
Ratio
Min
Ratio
n-Sm149.tendl Threshold 794.82 keV
n-Sm149.jeff3.3 Threshold 794.82 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-2
10^-4
10^-6
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
25
Incident Energy (eV)
62-Sm-149

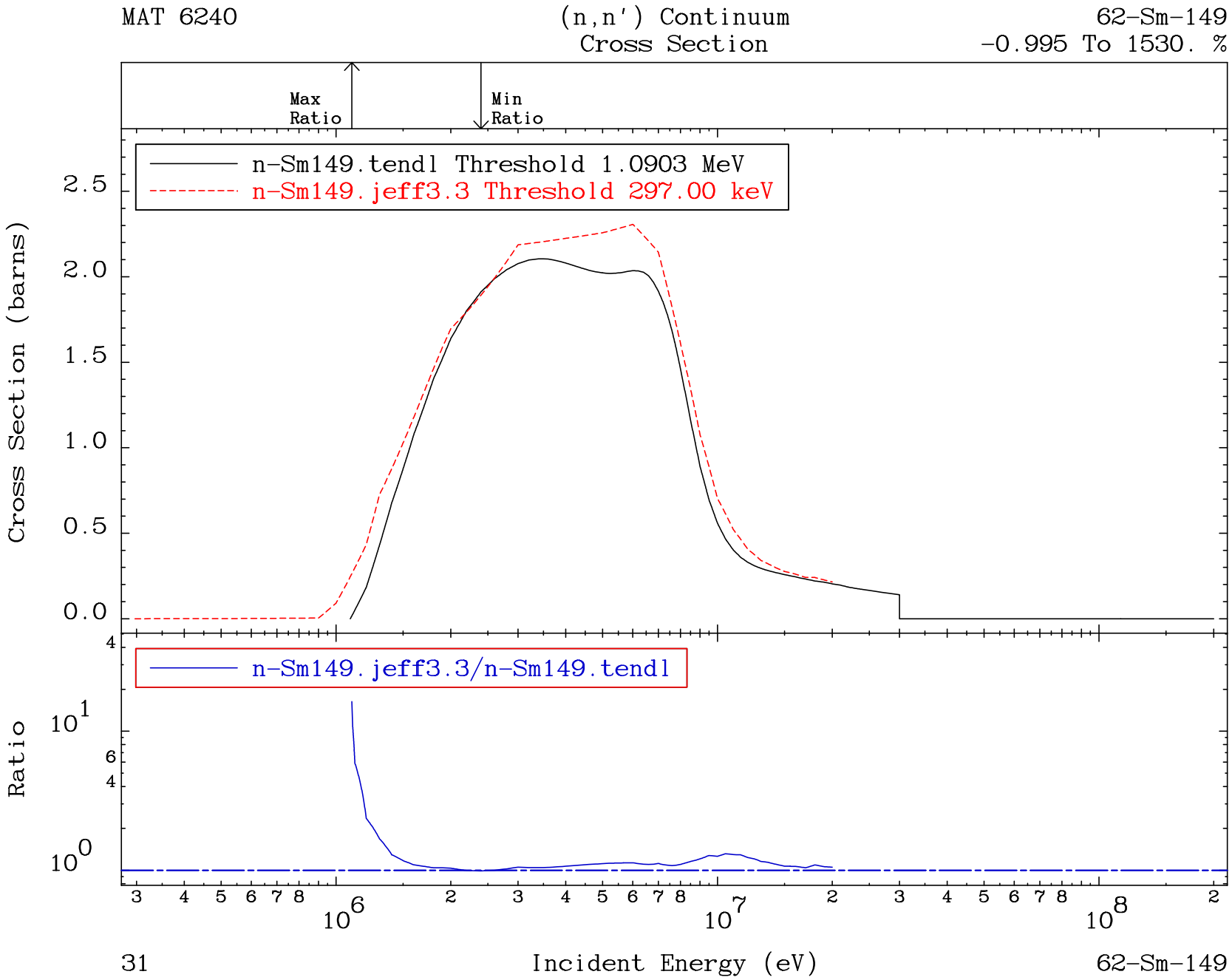

MAT 6240
MT= 67 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 64.34 %
Max
Ratio
Min
Ratio
n-Sm149.tendl Threshold 836.04 keV
n-Sm149.jeff3.3 Threshold 836.04 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-3
10^-6
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
62-Sm-149

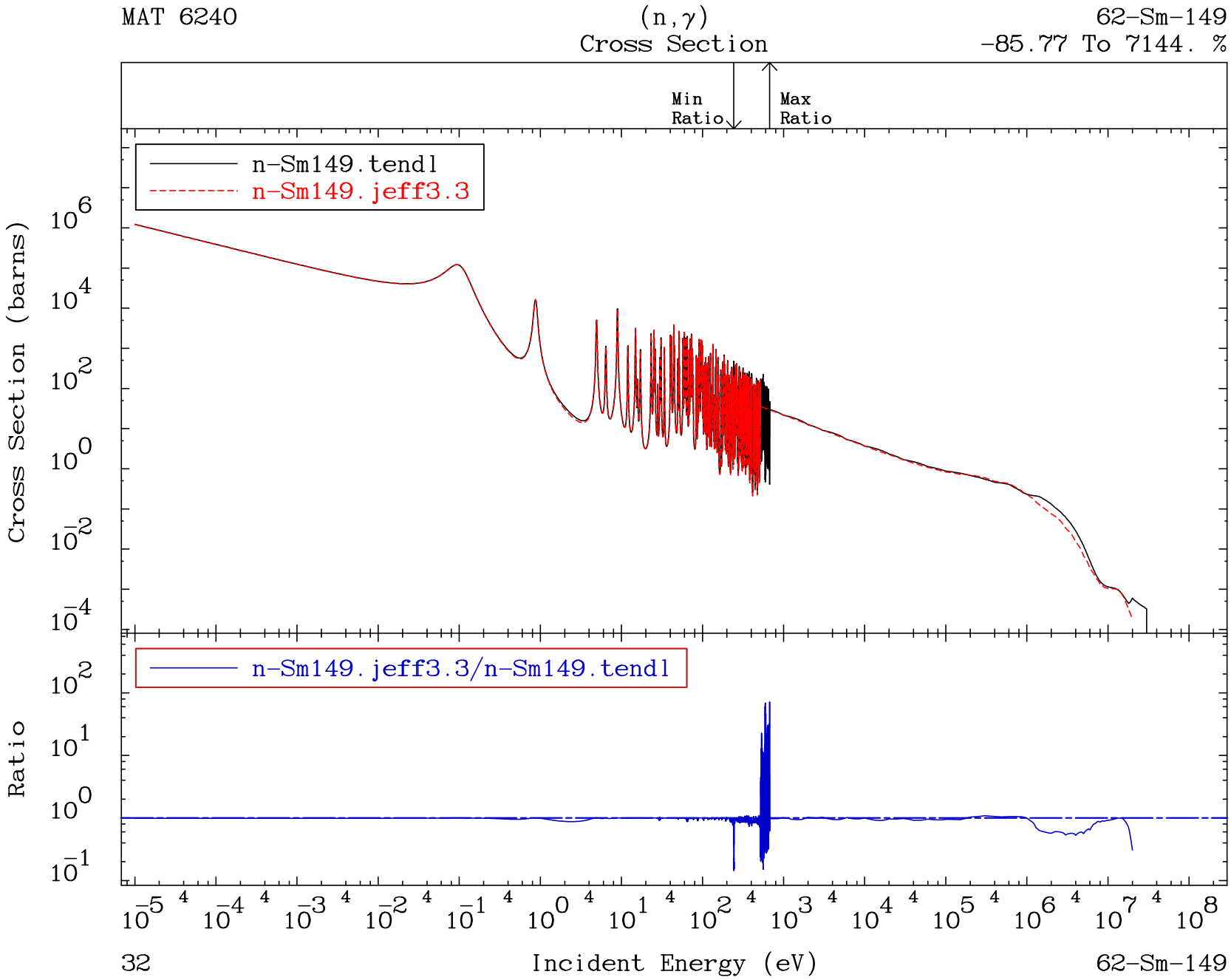

MAT 6240
MT= 68 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 150.4 %
Max
Ratio
Min
Ratio
n-Sm149.tendl Threshold 838.87 keV
n-Sm149.jeff3.3 Threshold 838.87 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-2
10^-4
10^-6
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
27
Incident Energy (eV)
62-Sm-149

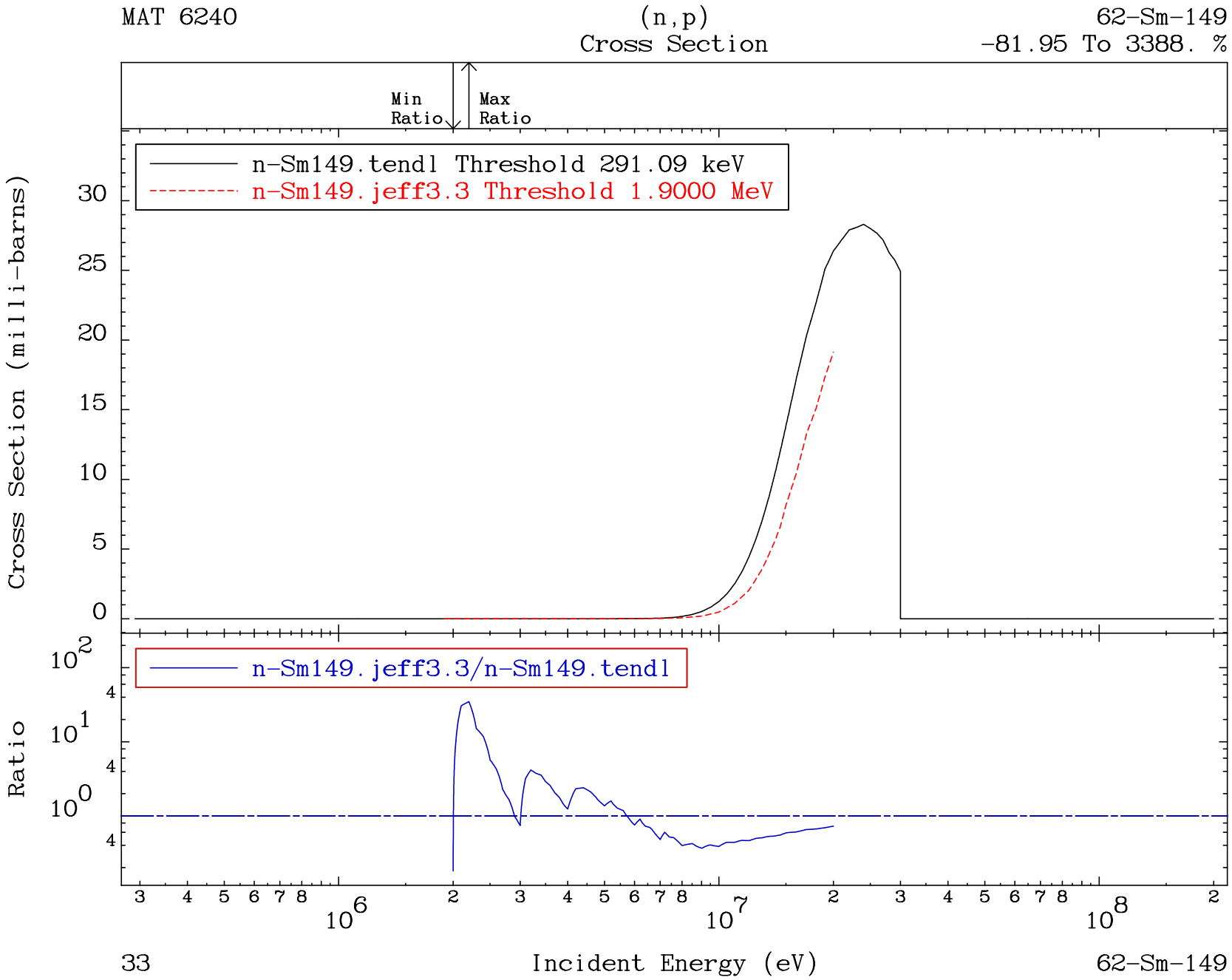

MAT 6240
MT= 69 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 101.3 %
Max
Ratio
Min
Ratio
n-Sm149.tendl Threshold 841.25 keV
n-Sm149.jeff3.3 Threshold 841.25 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^0
10^-3
10^-6
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
28
Incident Energy (eV)
62-Sm-149

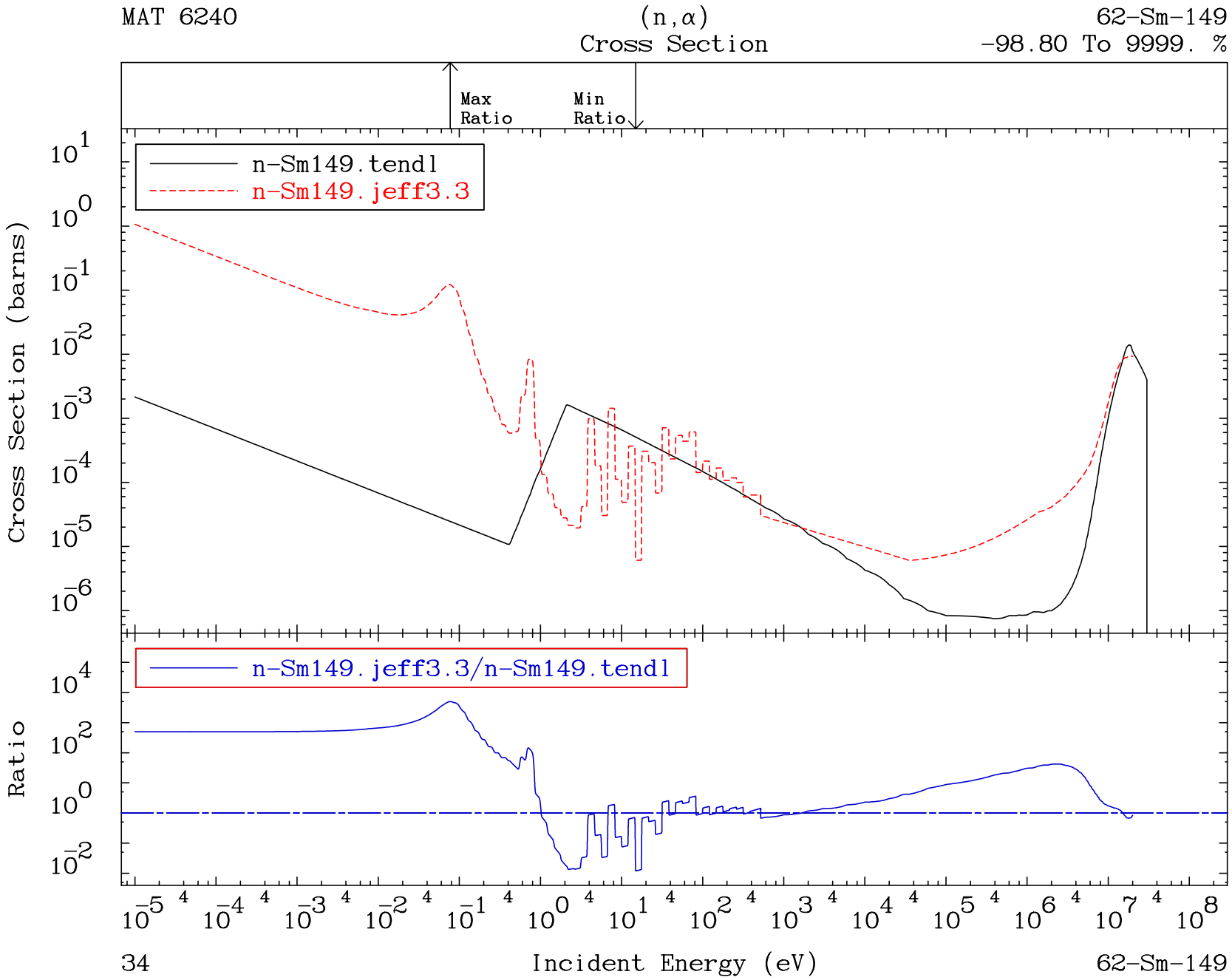

MAT 6240
MT= 70 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 133.5 %
Max Ratio
Min Ratio
n-Sm149.tendl Threshold 884.59 keV
n-Sm149.jeff3.3 Threshold 884.59 keV
Cross Section (milli-barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
29
62-Sm-149

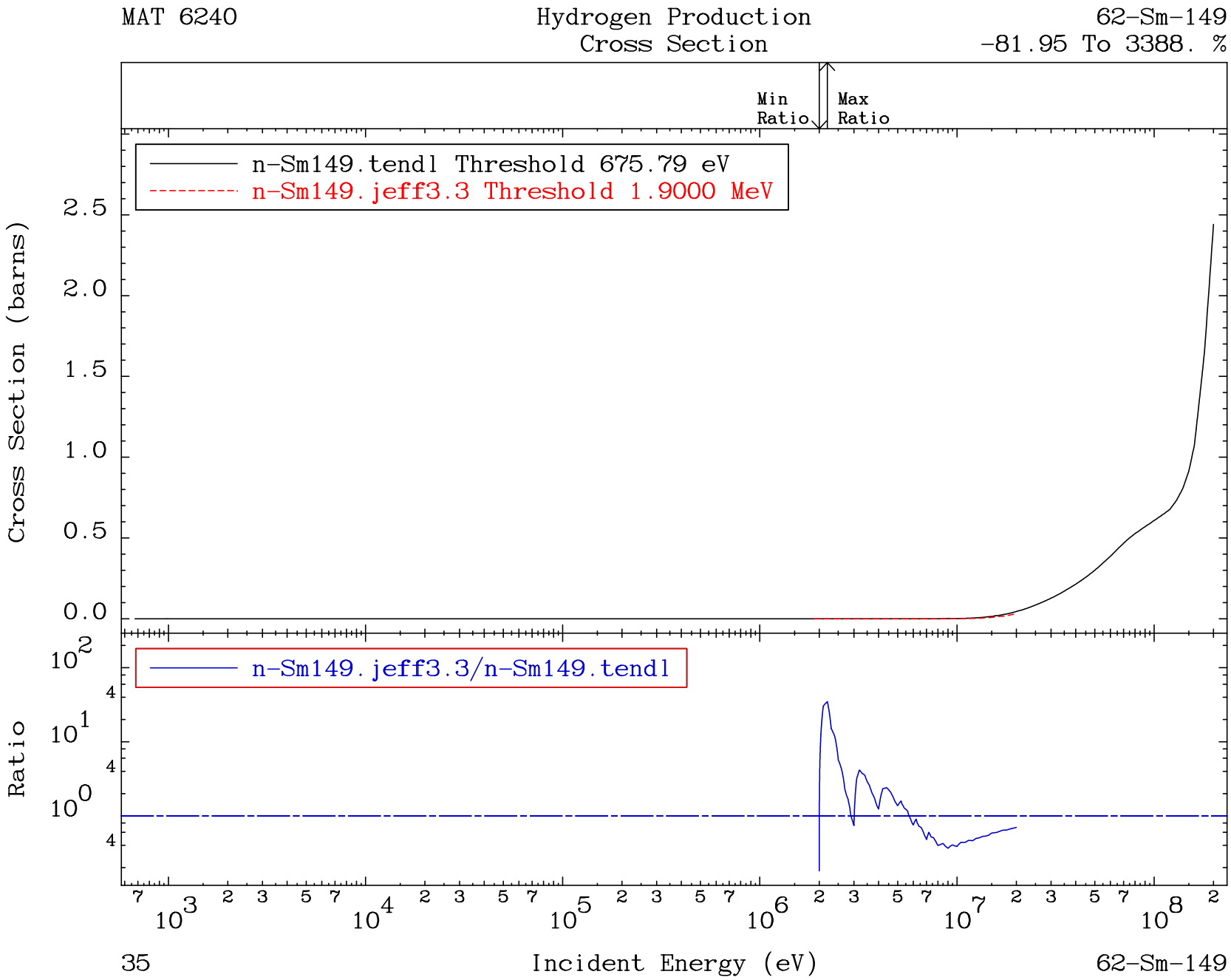

MAT 6240
MT= 71 (n,n') Level
Cross Section
62-Sm-149
-68.45 To 804.1 %
Min
Ratio
Max
Ratio
n-Sm149.tendl Threshold 887.91 keV
n-Sm149.jeff3.3 Threshold 887.91 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^1
4
10^0
4
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
62-Sm-149

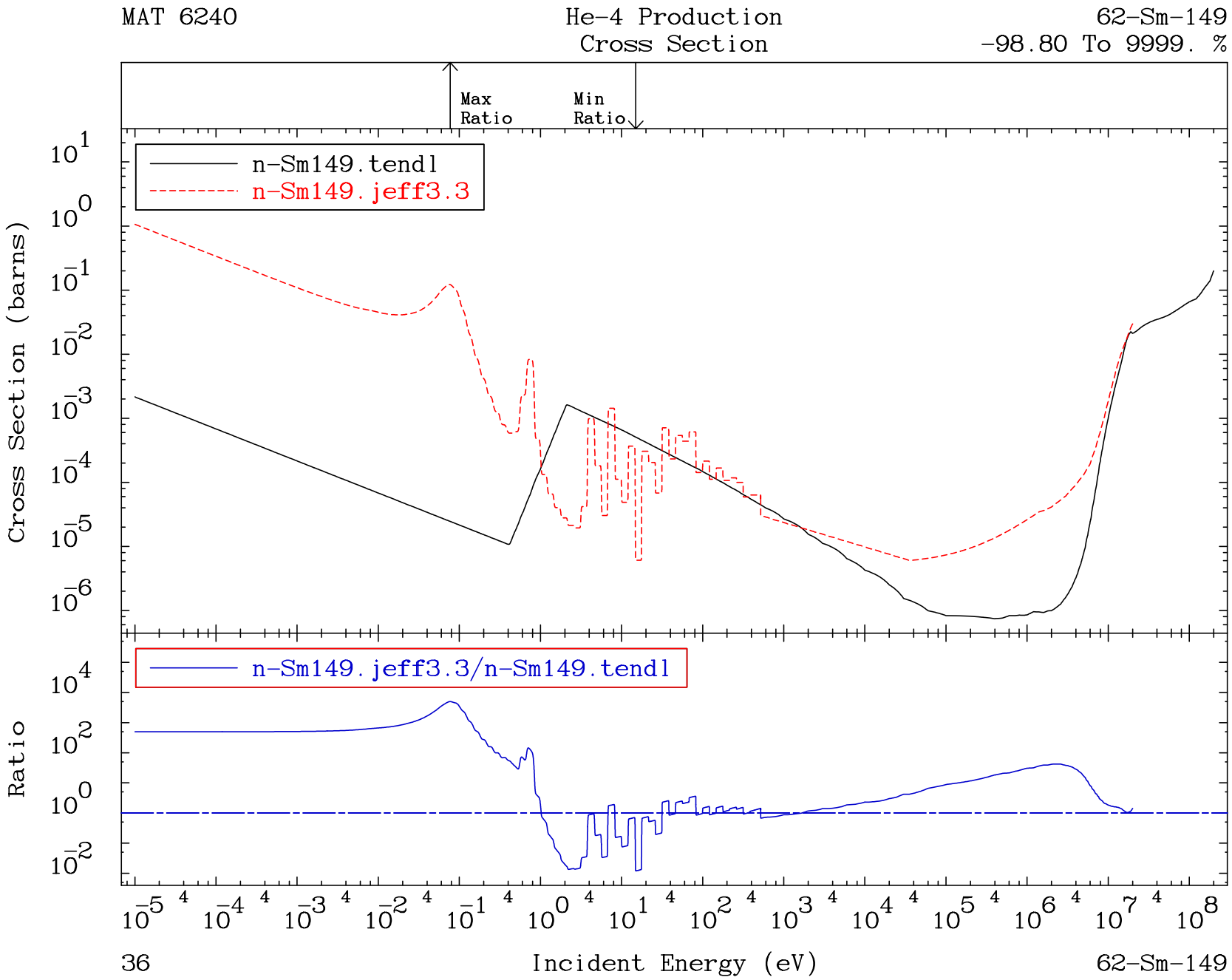

MAT 6240
(n,n') Continuum
Cross Section
62-Sm-149
-0.995 To 1530. %
Max Ratio
Min Ratio
n-Sm149.tendl Threshold 1.0903 MeV
n-Sm149.jeff3.3 Threshold 297.00 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
4
10^1
6
4
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
62-Sm-149

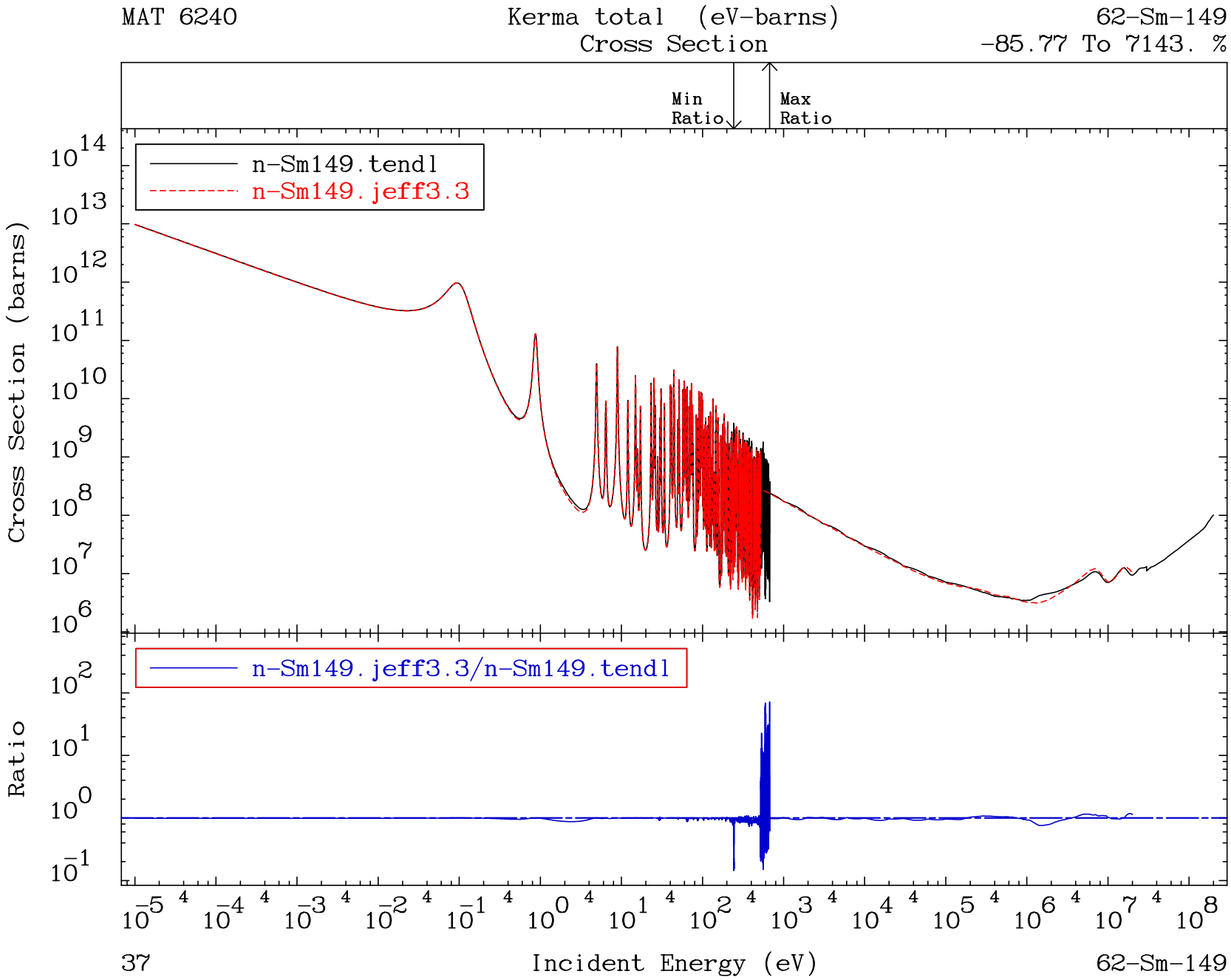

MAT 6240
(n,γ)
Cross Section
62-Sm-149
-85.77 To 7144. %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
32
62-Sm-149

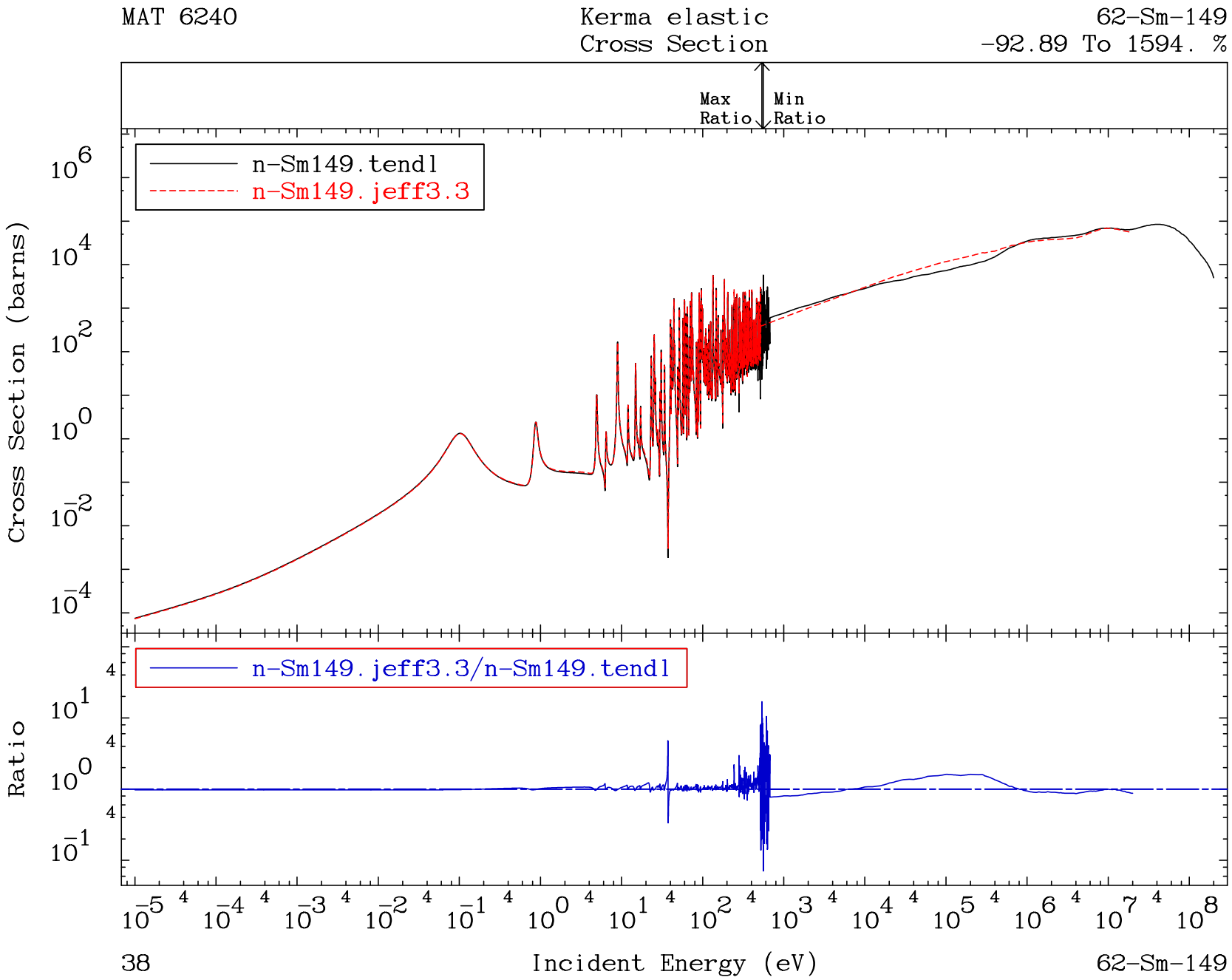

MAT 6240
(n,p)
Cross Section
62-Sm-149
-81.95 To 3388. %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 291.09 keV
n-Sm149.jeff3.3 Threshold 1.9000 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^2
10^1
10^0
4
4
4
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
33
Incident Energy (eV)
62-Sm-149

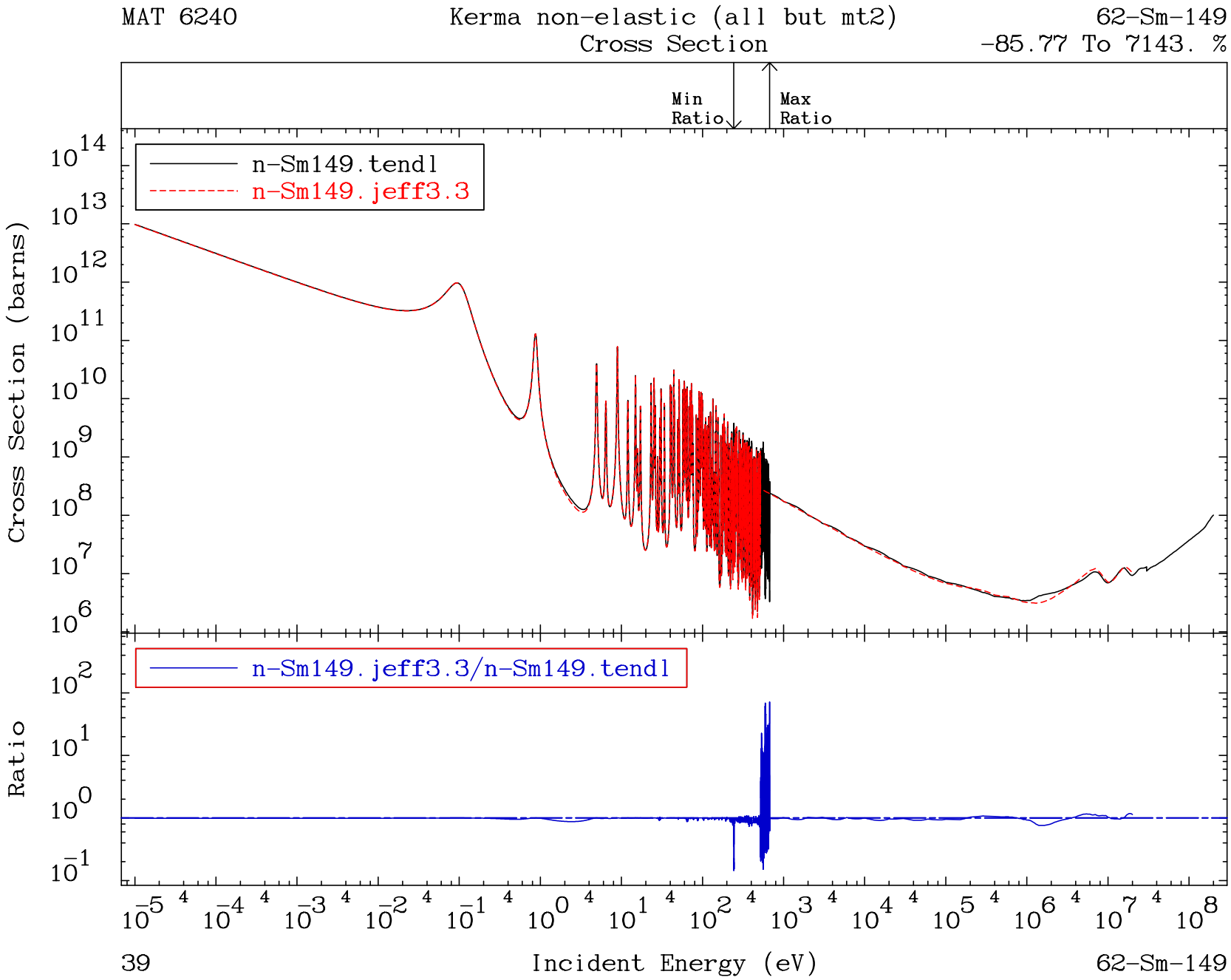

MAT 6240
(n,α)
Cross Section
62-Sm-149
-98.80 To 9999. %
Max Ratio
Min Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
34
Incident Energy (eV)
62-Sm-149

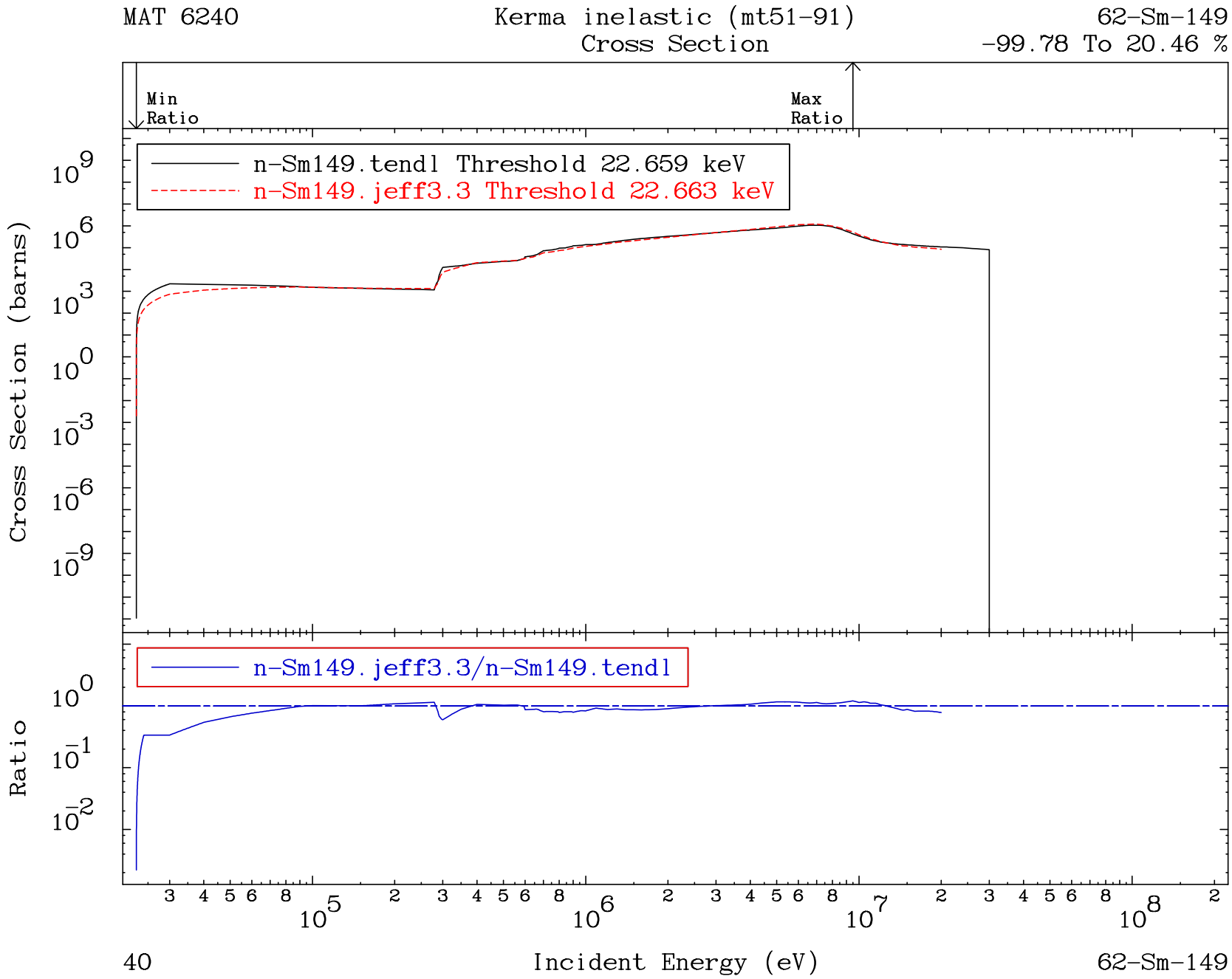

MAT 6240
Hydrogen Production
Cross Section
62-Sm-149
-81.95 To 3388. %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 675.79 eV
n-Sm149.jeff3.3 Threshold 1.9000 MeV
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
35
62-Sm-149

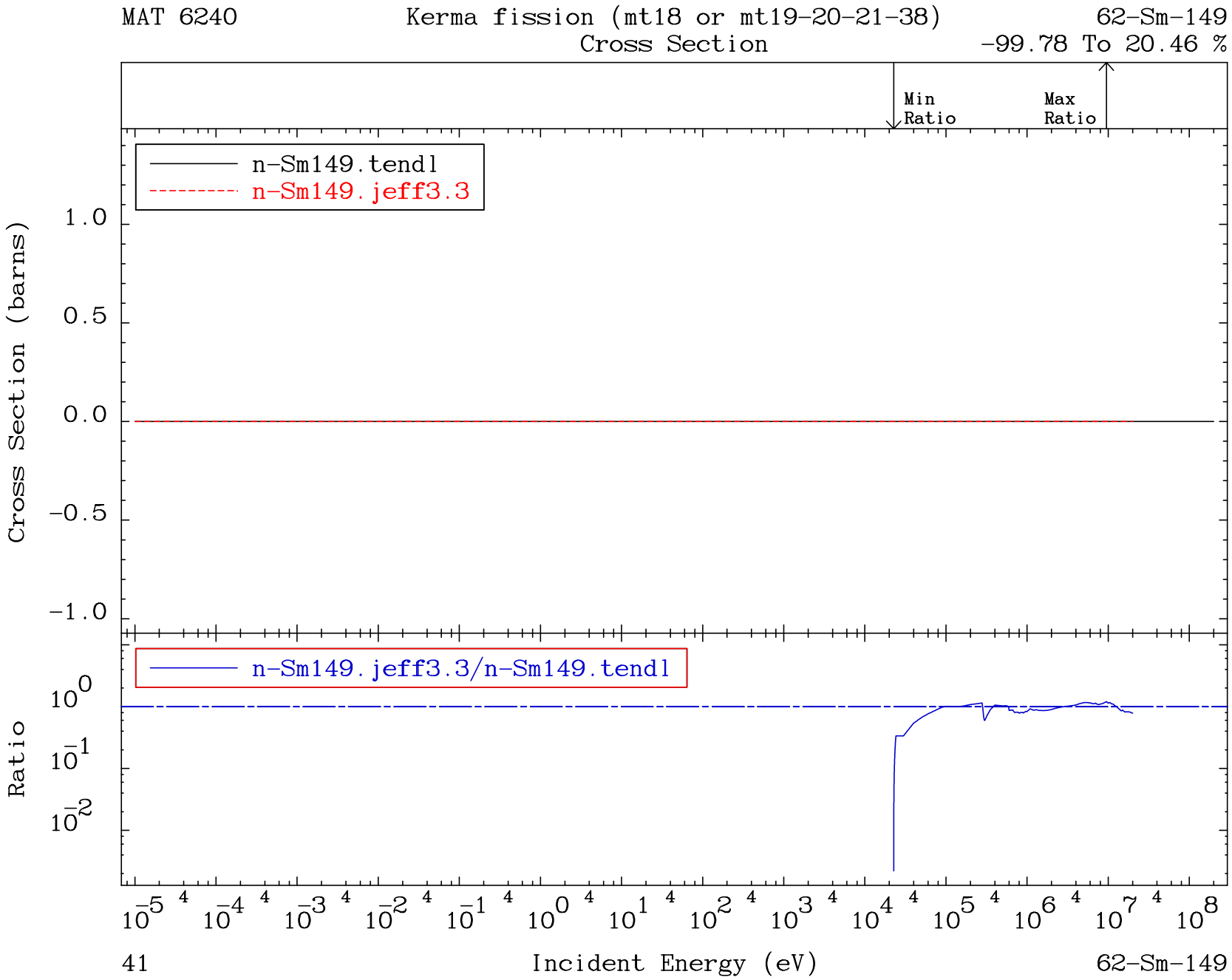

MAT 6240
He-4 Production
Cross Section
62-Sm-149
-98.80 To 9999. %
Max Ratio
Min Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
36
62-Sm-149

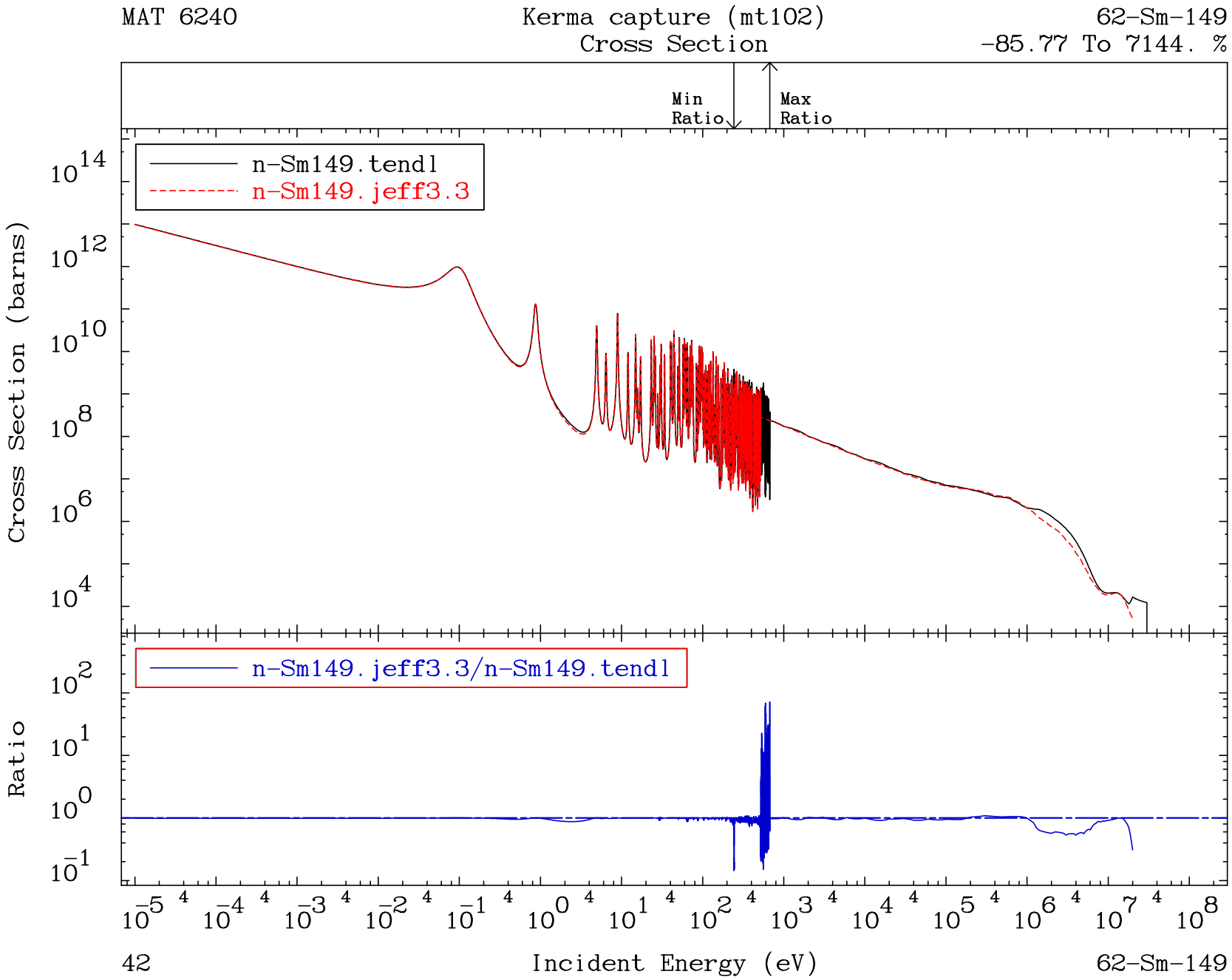

MAT 6240
Kerma total (eV-barns)
Cross Section
62-Sm-149
-85.77 To 7143. %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
37
Incident Energy (eV)
62-Sm-149

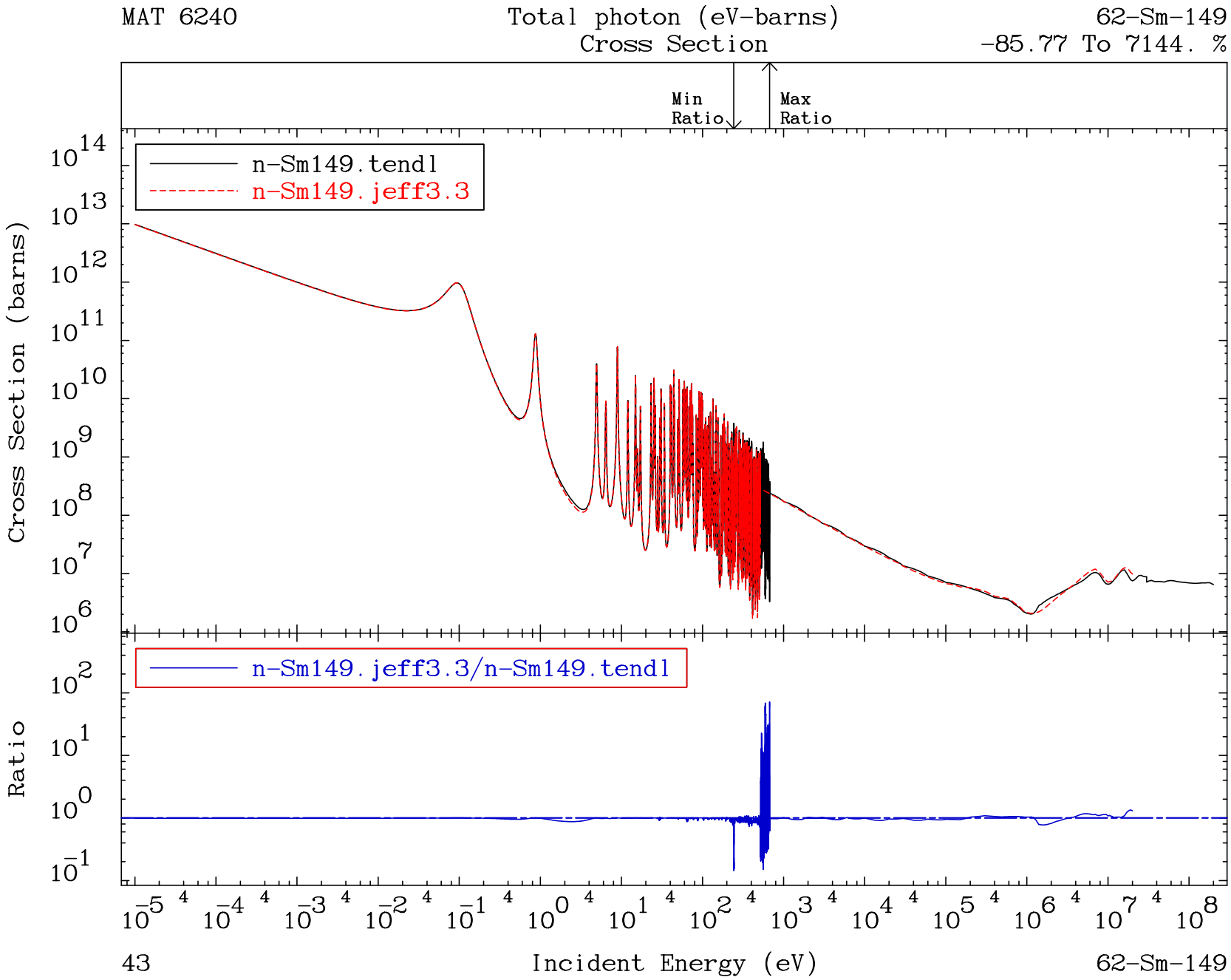

MAT 6240
Kerma elastic
Cross Section
62-Sm-149
-92.89 To 1594. %
Max Ratio
Min Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
38
62-Sm-149

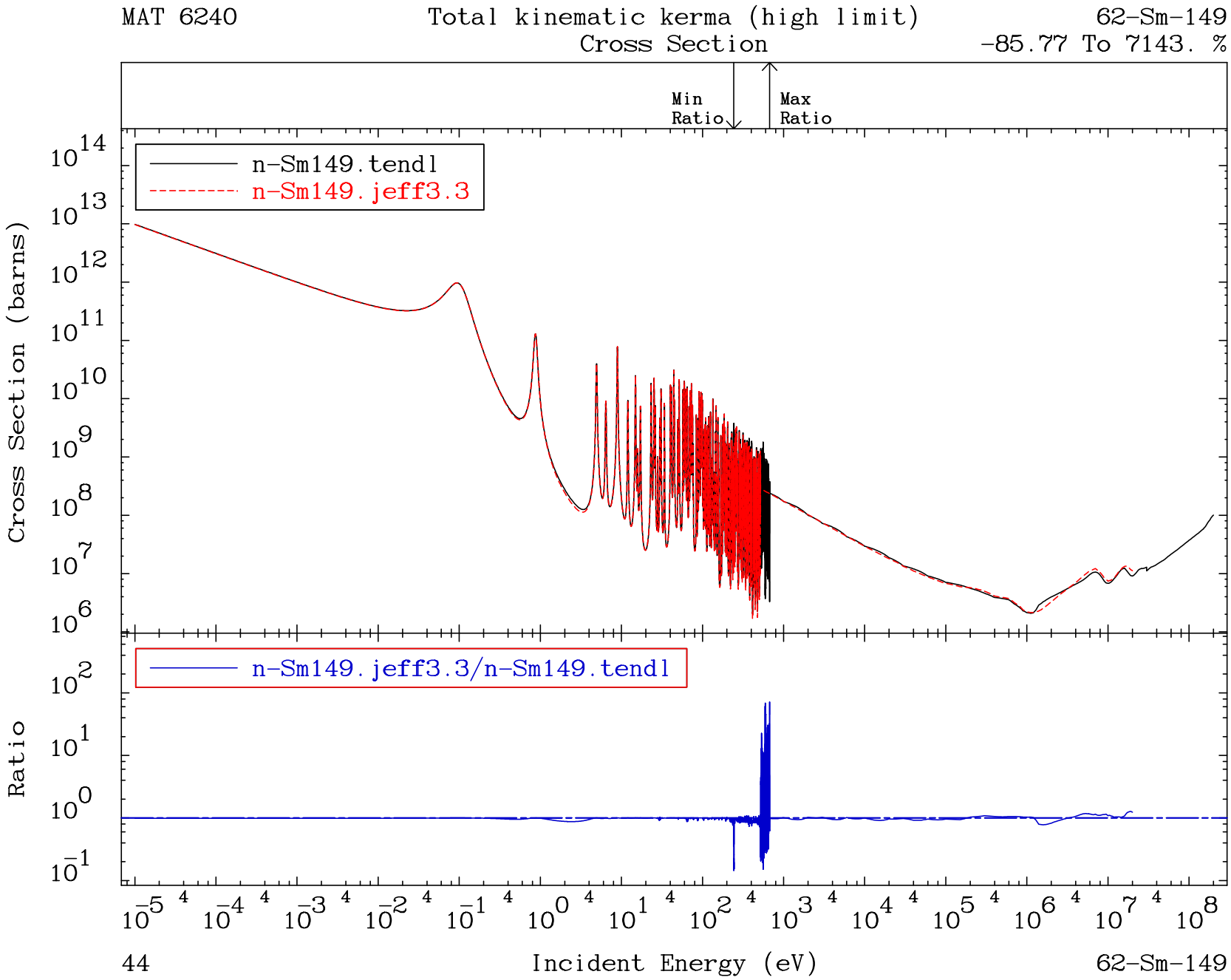

MAT 6240
Kerma non-elastic (all but mt2)
Cross Section
62-Sm-149
-85.77 To 7143. %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
39
62-Sm-149

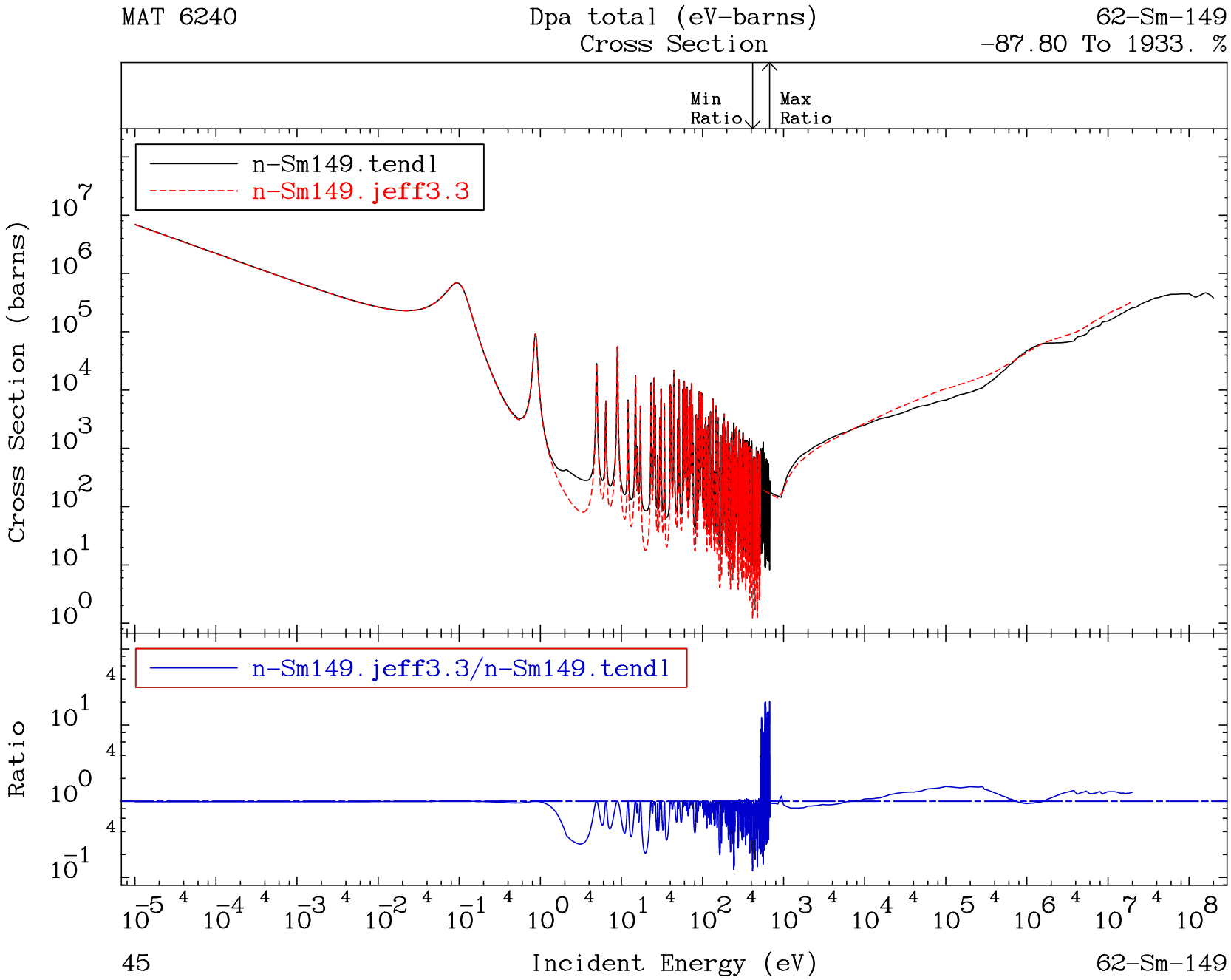

MAT 6240
Kerma inelastic (mt51-91)
Cross Section
62-Sm-149
-99.78 To 20.46 %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 22.659 keV
n-Sm149.jeff3.3 Threshold 22.663 keV
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
40
62-Sm-149

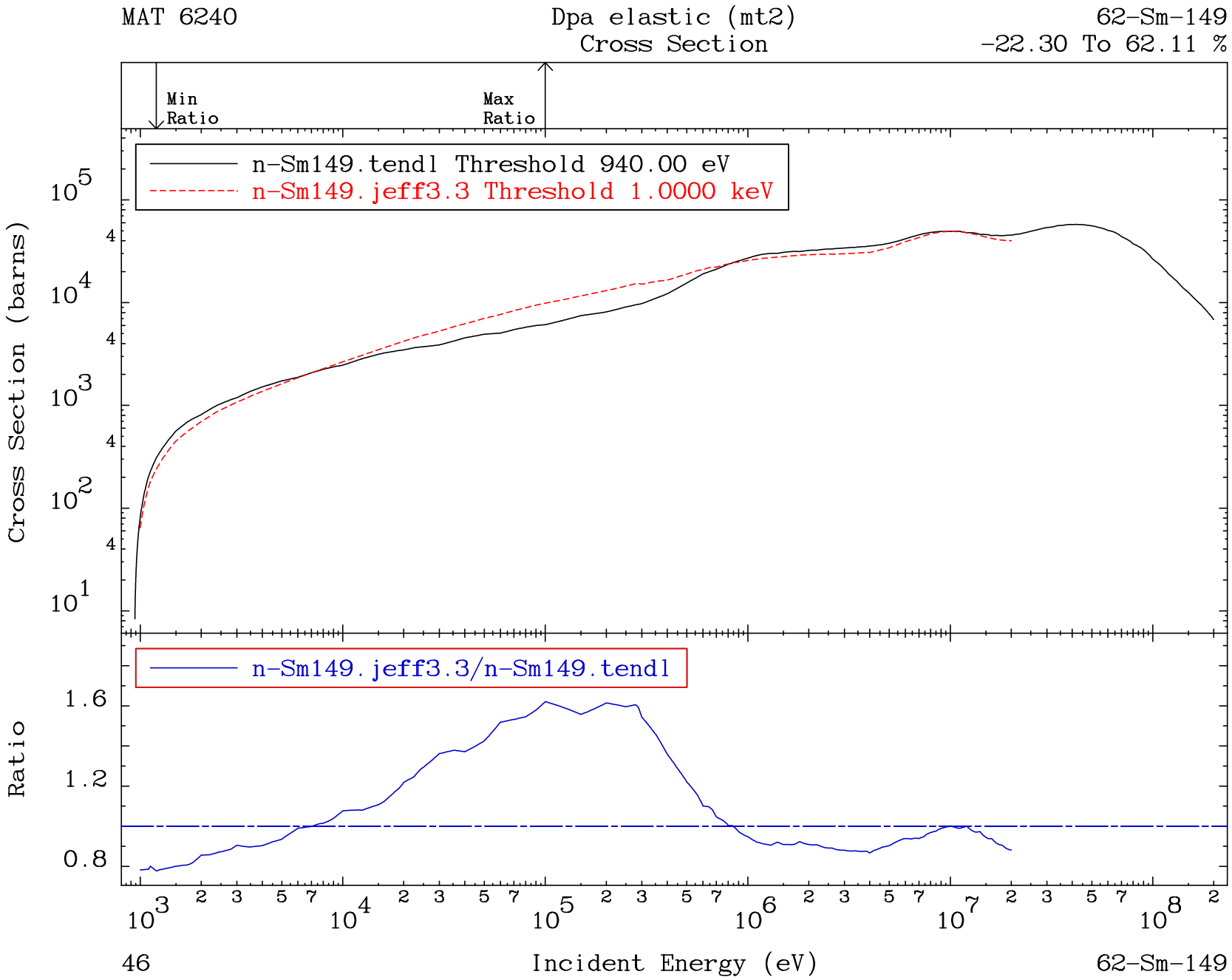

MAT 6240
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
62-Sm-149
-99.78 To 20.46 %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
10^{0}
10^{-1}
10^{-2}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
41
Incident Energy (eV)
62-Sm-149

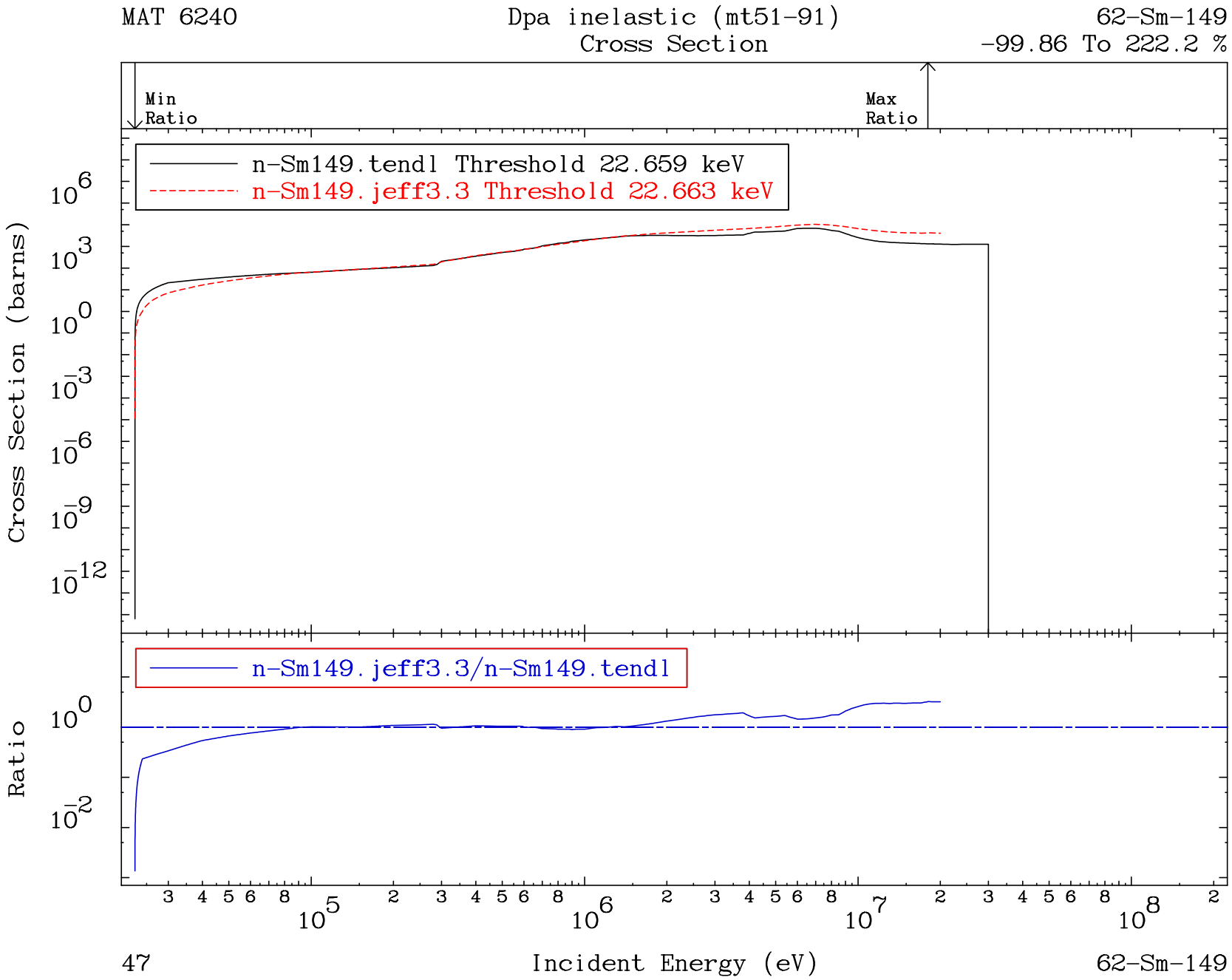

MAT 6240
Kerma capture (mt102)
Cross Section
62-Sm-149
-85.77 To 7144. %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
42
62-Sm-149

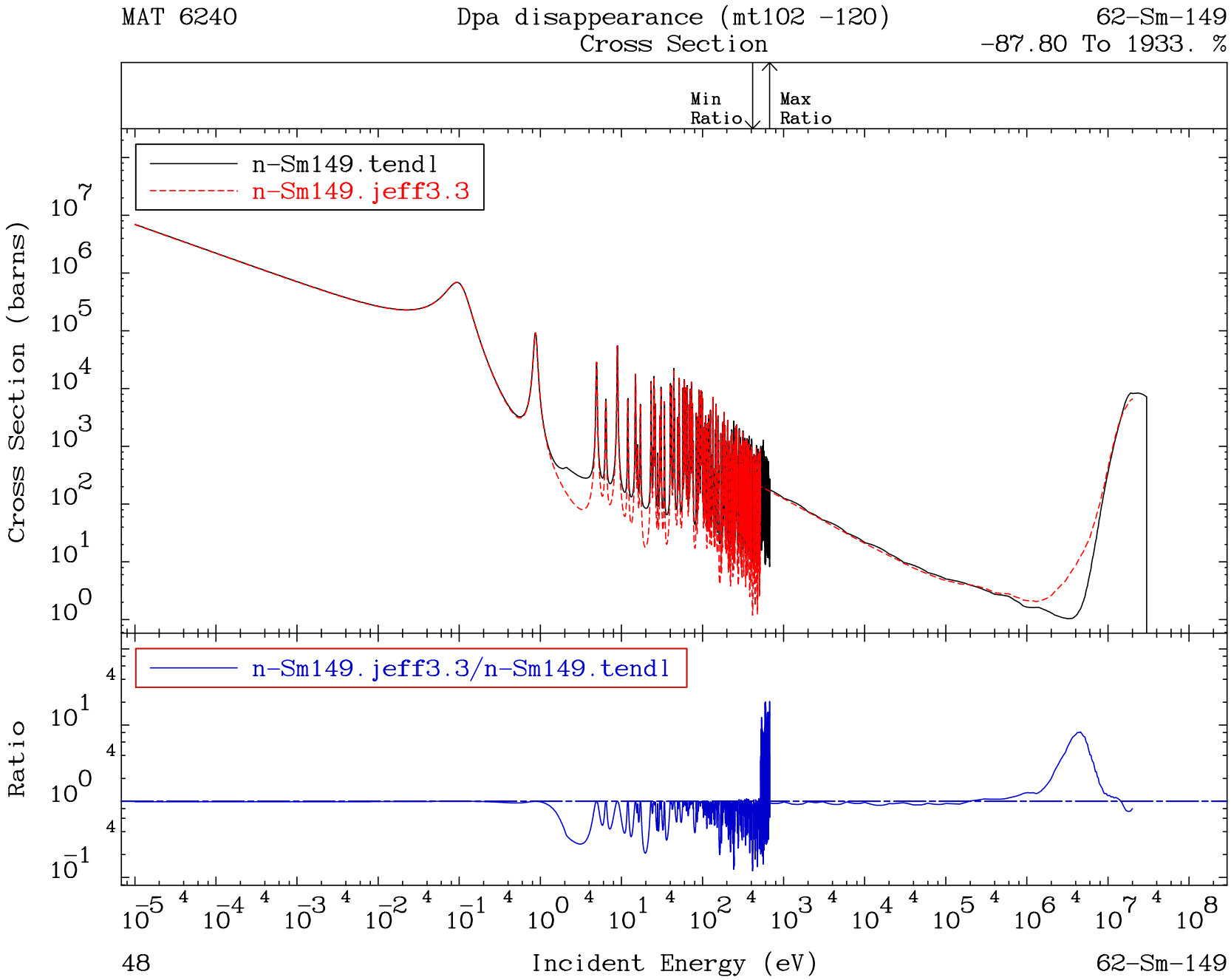

MAT 6240
Total photon (eV-barns)
Cross Section
62-Sm-149
-85.77 To 7144. %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
43
62-Sm-149


MAT 6240
Total kinematic kerma (high limit)
Cross Section
62-Sm-149
-85.77 To 7143. %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
44
62-Sm-149


MAT 6240
Dpa total (eV-barns)
Cross Section
62-Sm-149
-87.80 To 1933. %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
45
62-Sm-149


MAT 6240
Dpa elastic (mt2)
Cross Section
62-Sm-149
-22.30 To 62.11 %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 940.00 eV
n-Sm149.jeff3.3 Threshold 1.0000 keV
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
46
62-Sm-149


MAT 6240
Dpa inelastic (mt51-91)
Cross Section
62-Sm-149
-99.86 To 222.2 %
Min Ratio
Max Ratio
n-Sm149.tendl Threshold 22.659 keV
n-Sm149.jeff3.3 Threshold 22.663 keV
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
47
62-Sm-149


MAT 6240
Dpa disappearance (mt102 -120)
Cross Section
62-Sm-149
-87.80 To 1933. %
Min Ratio
Max Ratio
n-Sm149.tendl
n-Sm149.jeff3.3
Cross Section (barns)
n-Sm149.jeff3.3/n-Sm149.tendl
Ratio
Incident Energy (eV)
48
62-Sm-149