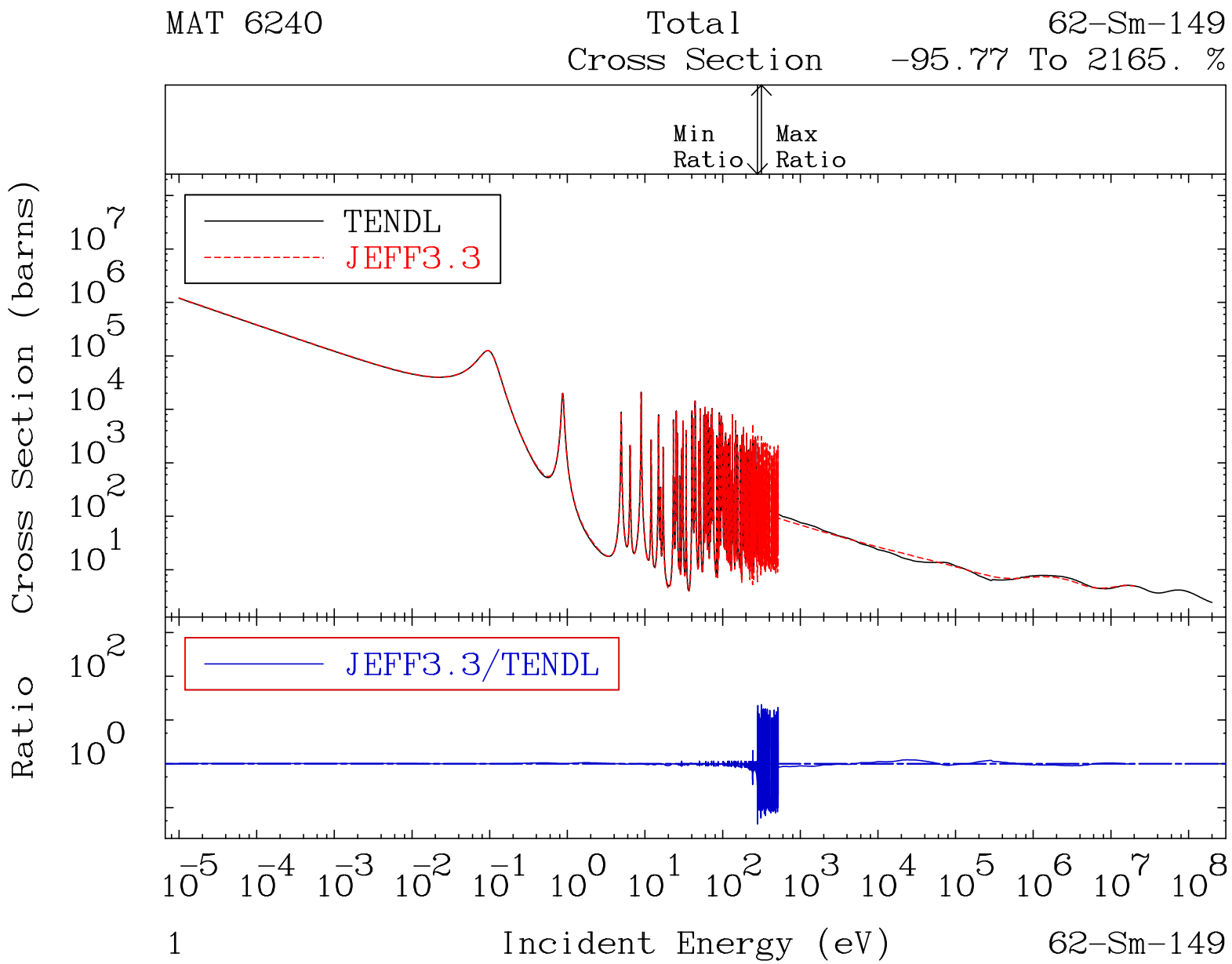
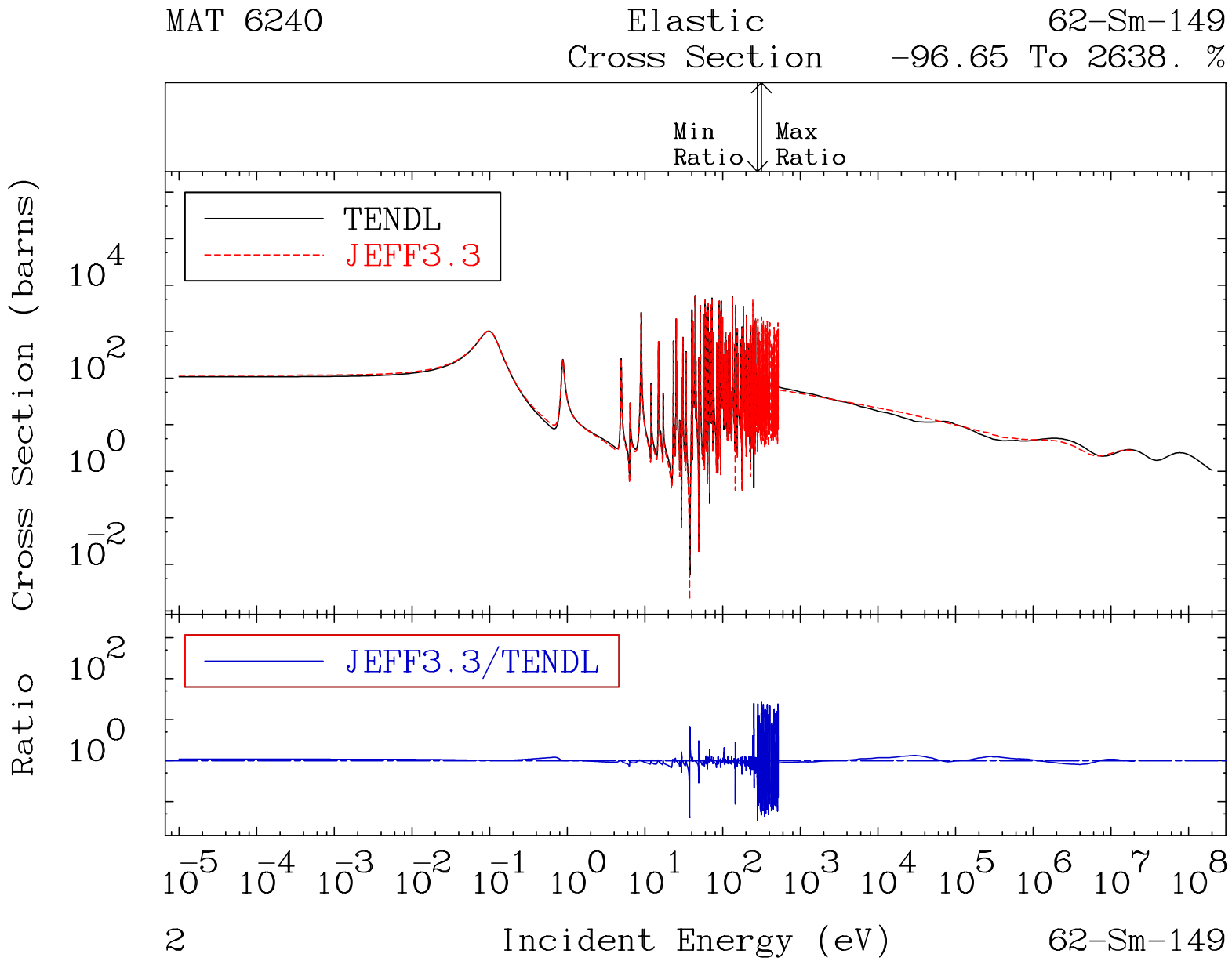
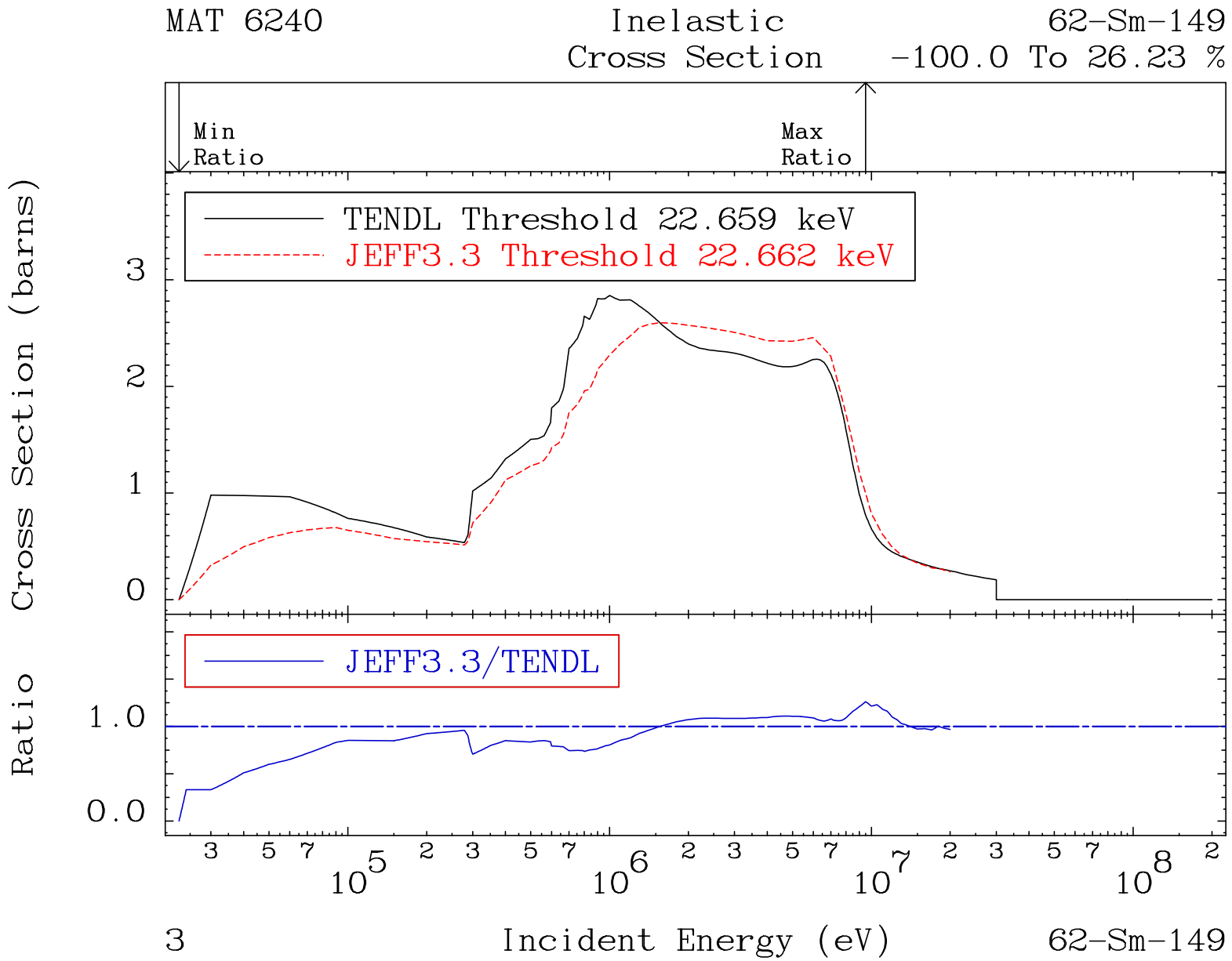
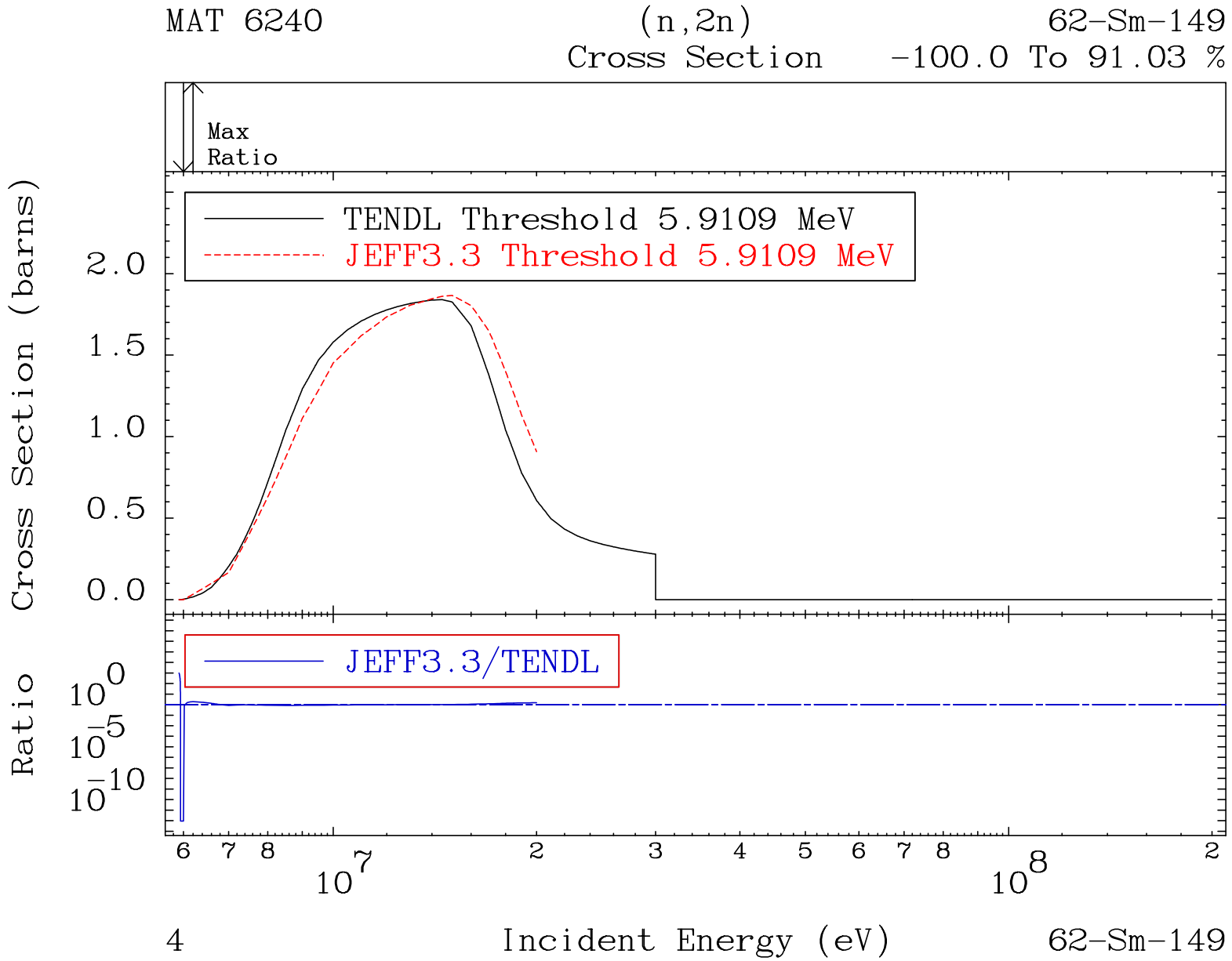
Program Complot
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

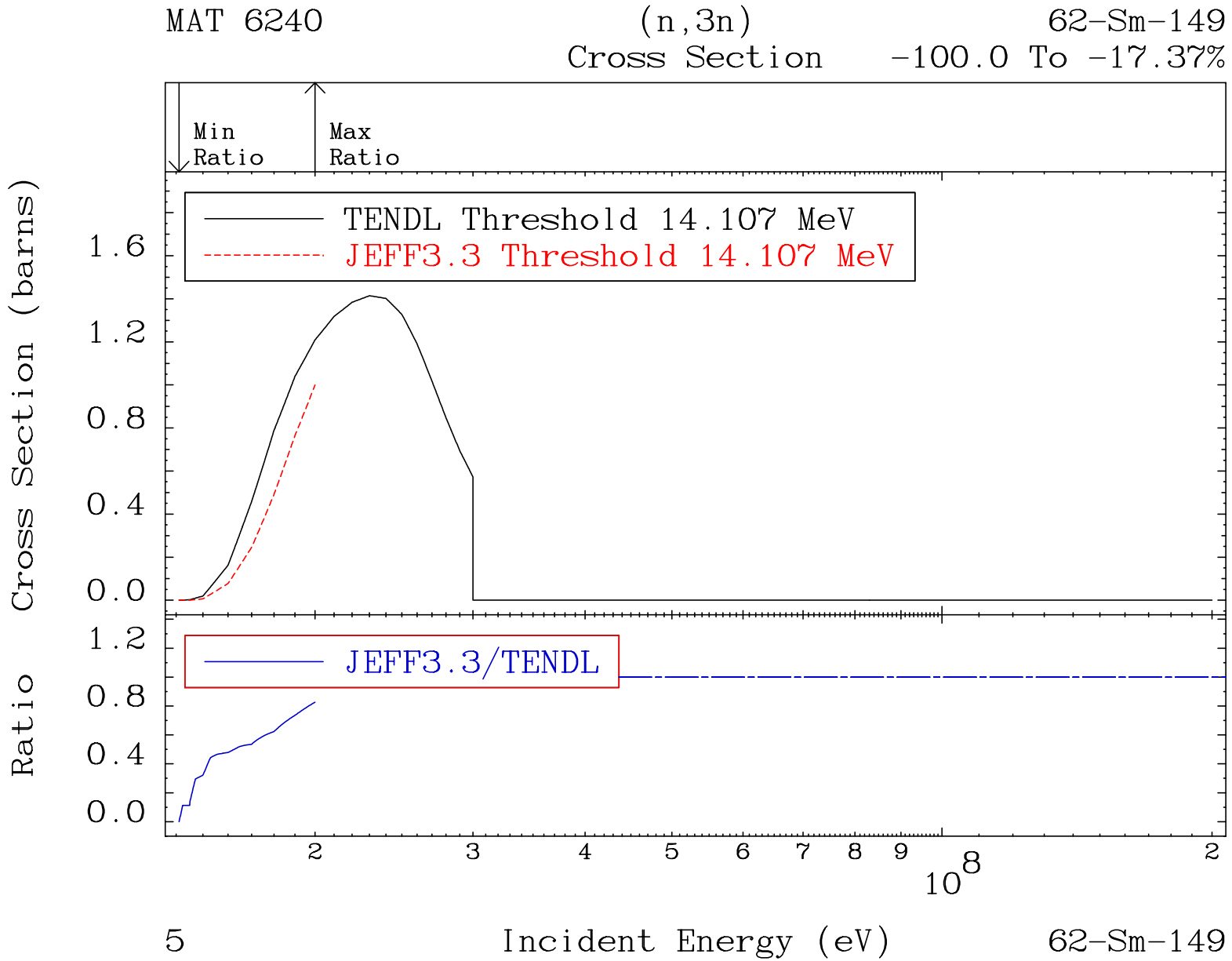
Press Mouse Button to Start

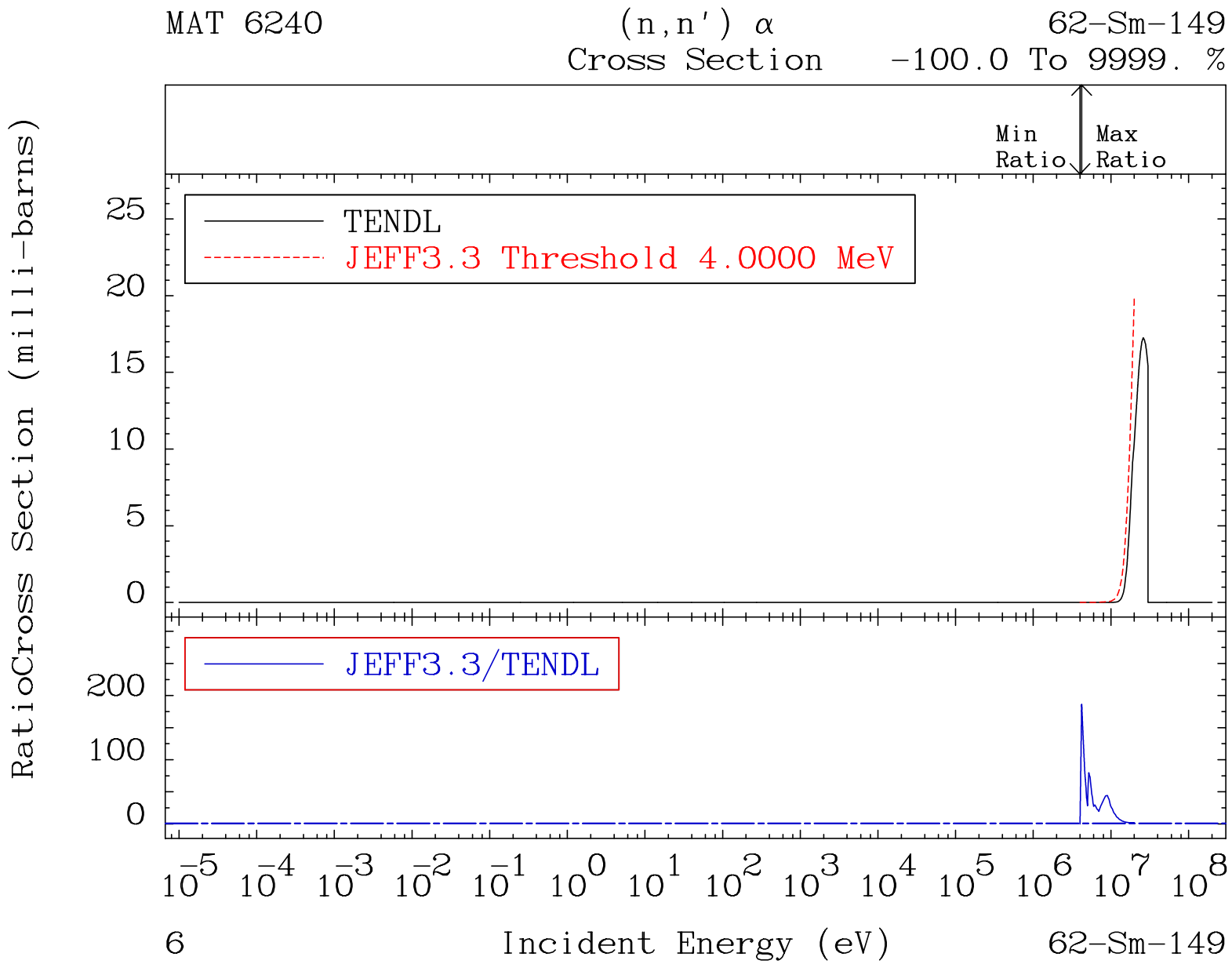

MAT 6240
Total
Cross Section
62-Sm-149
-95.77 To 2165. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
62-Sm-149
1

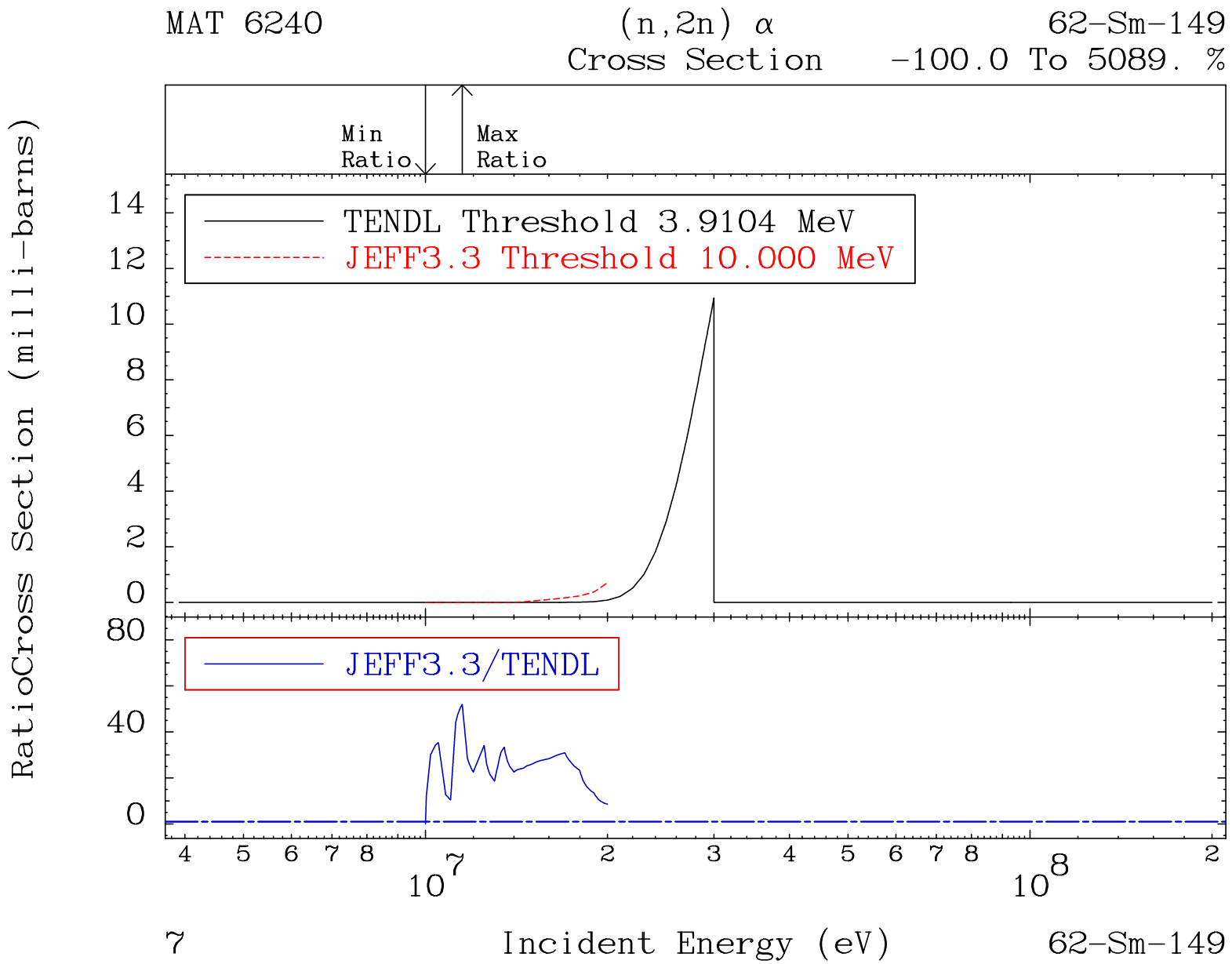

MAT 6240
Elastic
Cross Section
62-Sm-149
-96.65 To 2638. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
62-Sm-149
2

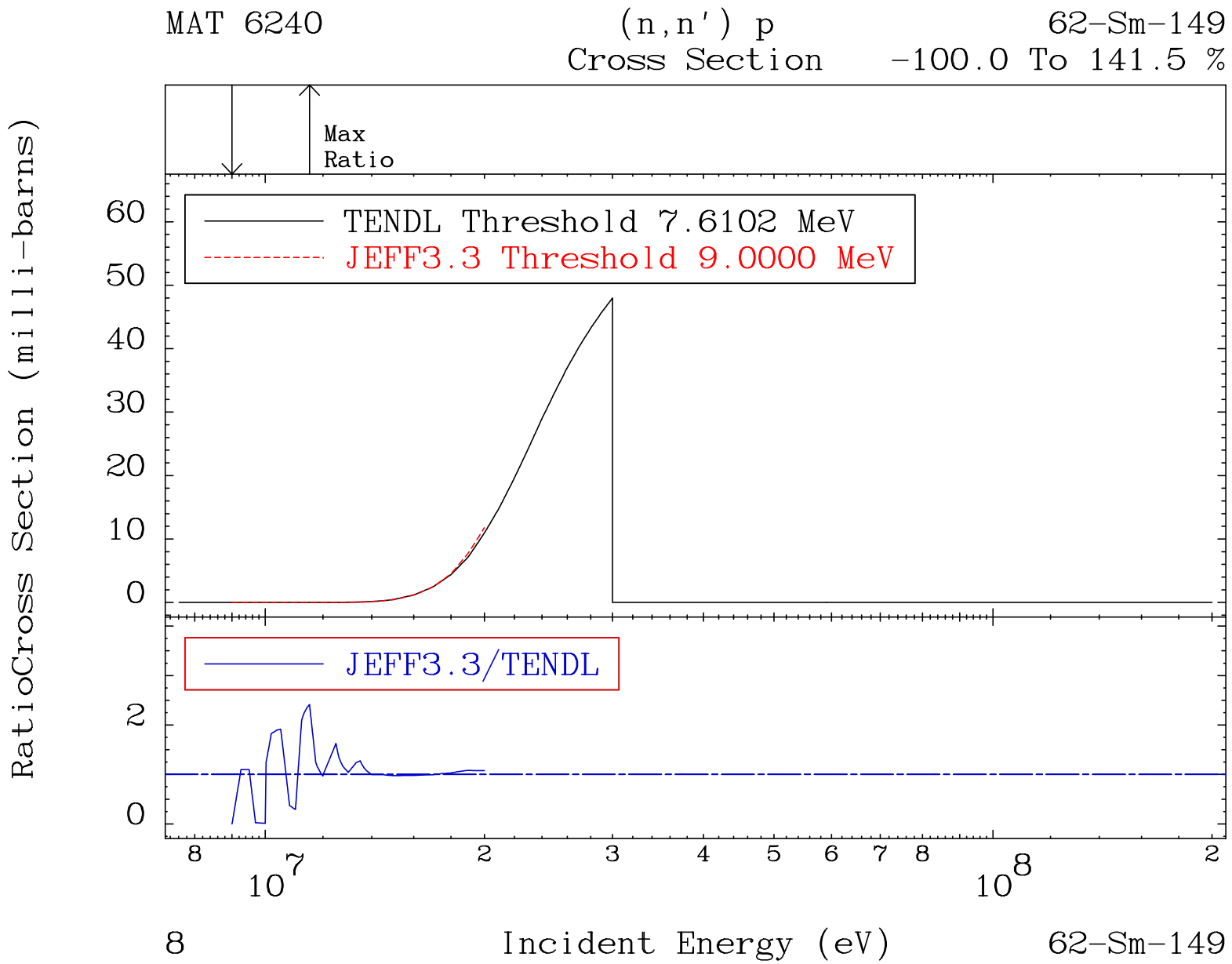

MAT 6240
Inelastic
Cross Section
62-Sm-149
-100.0 To 26.23 %
Min
Ratio
Max
Ratio
TENDL Threshold 22.659 keV
JEFF3.3 Threshold 22.662 keV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
3
62-Sm-149

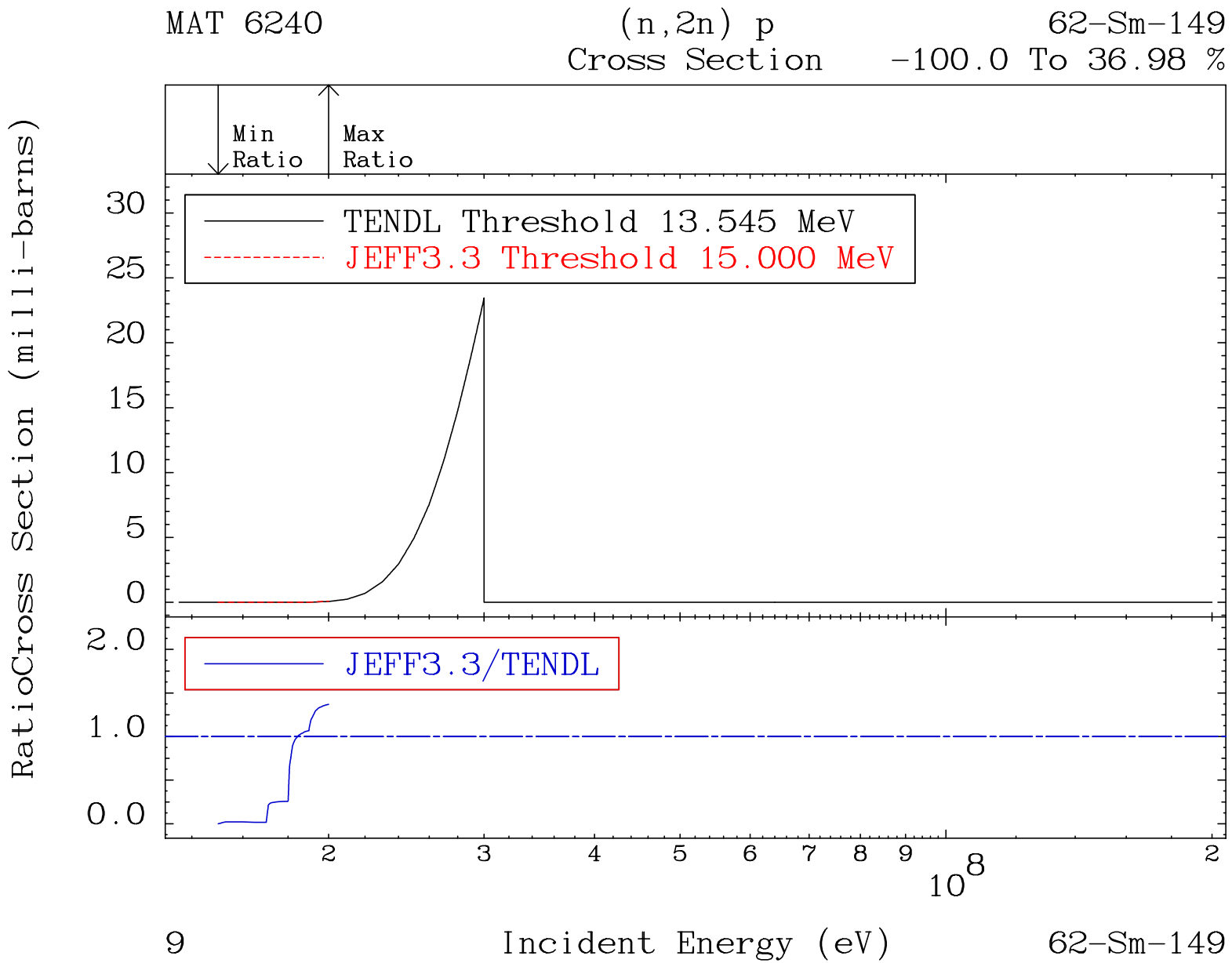

MAT 6240
(n,2n)
Cross Section
62-Sm-149
-100.0 To 91.03 %
Max
Ratio
TENDL Threshold 5.9109 MeV
JEFF3.3 Threshold 5.9109 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^0
10^-5
10^-10
6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
4
Incident Energy (eV)
62-Sm-149

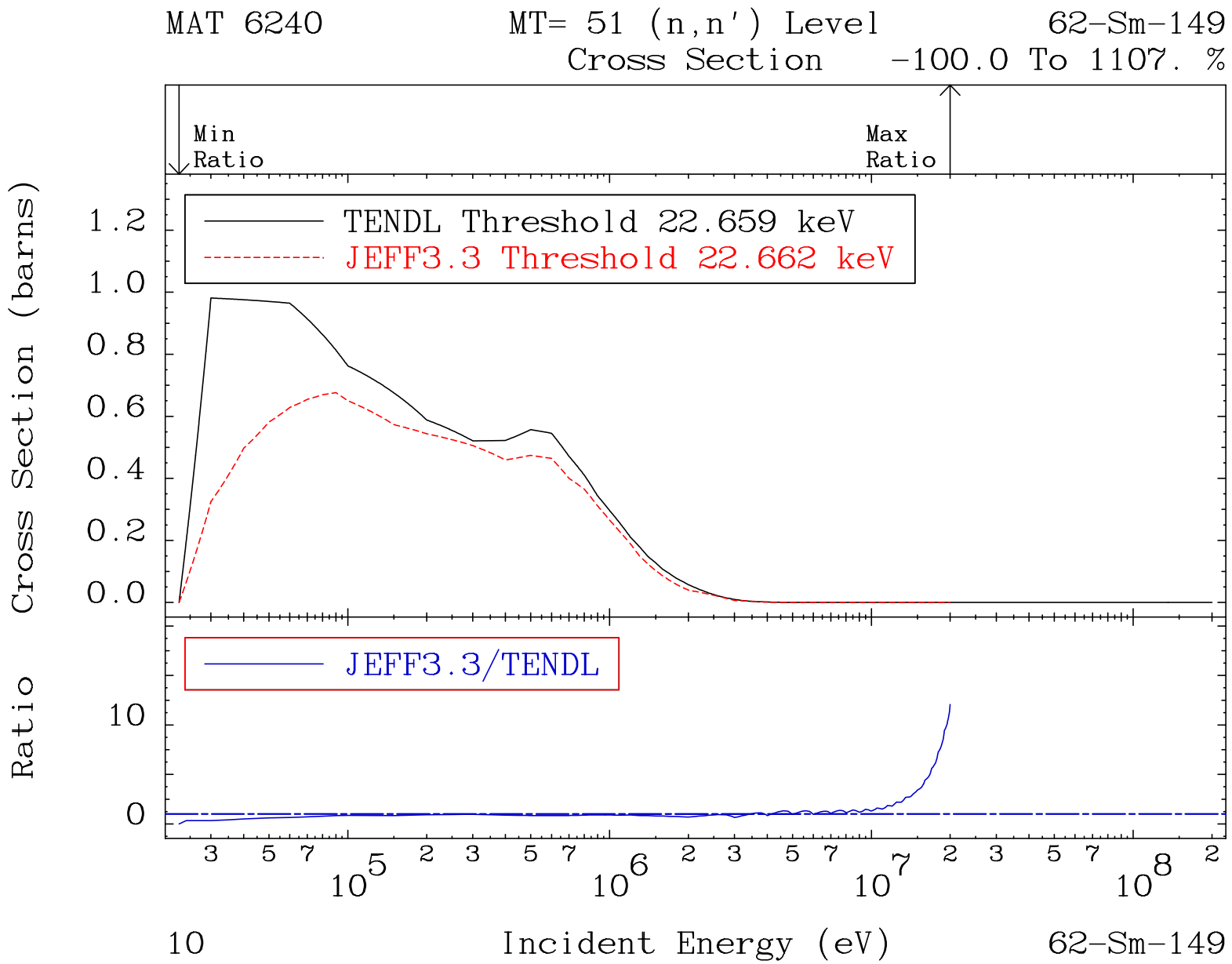

MAT 6240
(n,3n)
Cross Section
62-Sm-149
-100.0 To -17.37%
Min Ratio
Max Ratio
TENDL Threshold 14.107 MeV
JEFF3.3 Threshold 14.107 MeV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.6
1.2
0.8
0.4
0.0
2
3
4
5
6
7
8
9
10^8
Incident Energy (eV)
5
62-Sm-149

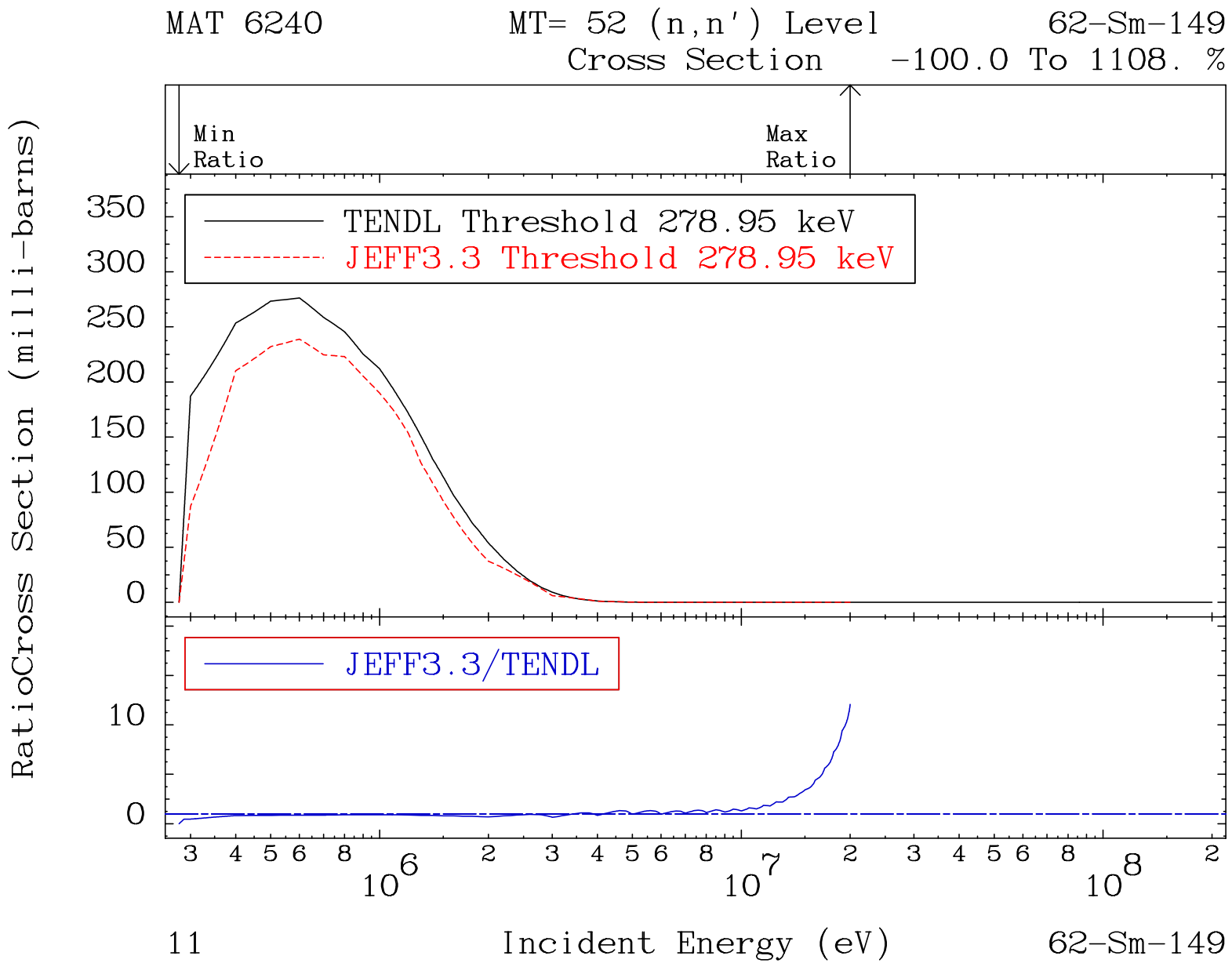

MAT 6240
(n,n') α
Cross Section
62-Sm-149
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3 Threshold 4.0000 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
200
100
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
6
Incident Energy (eV)
62-Sm-149

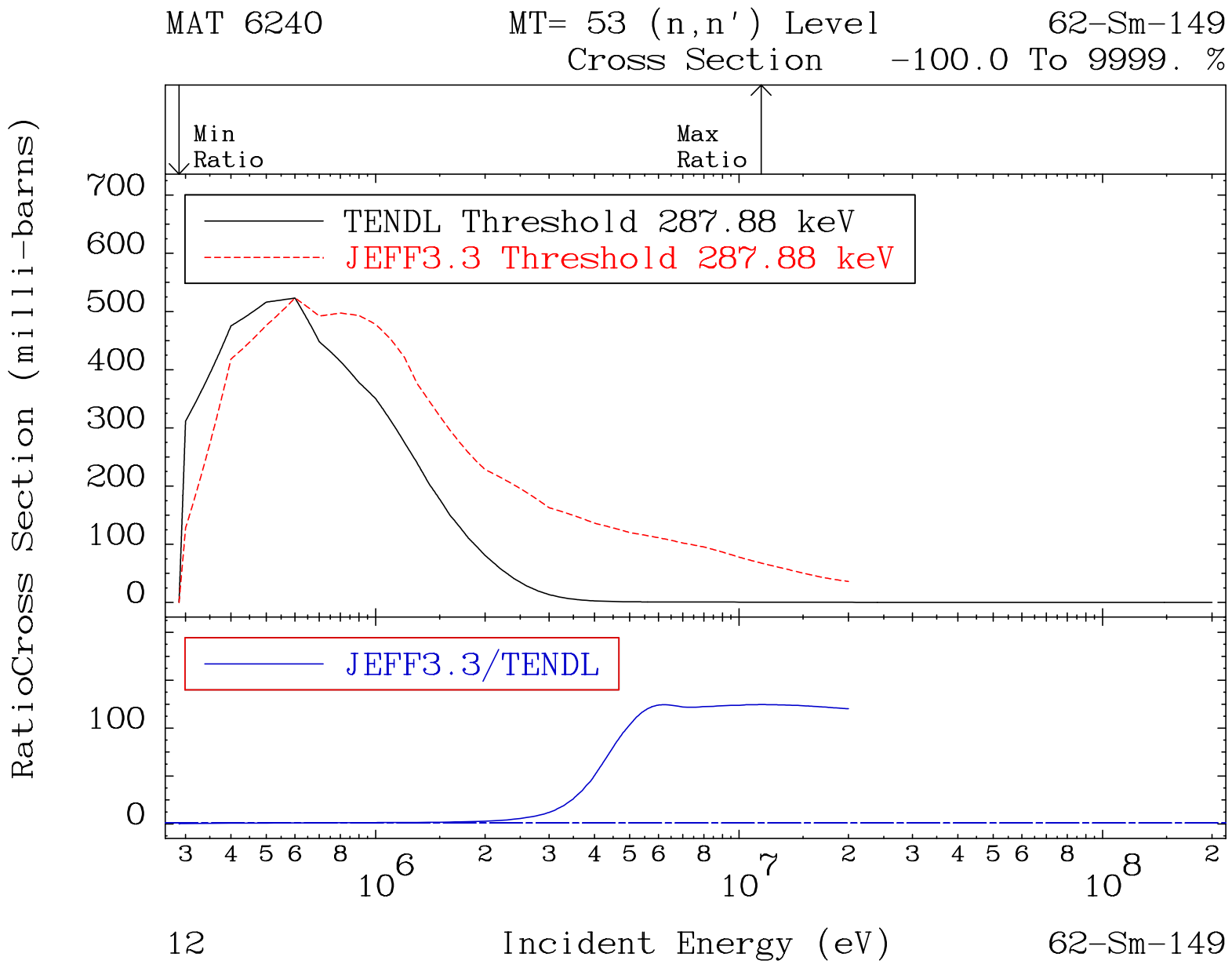

MAT 6240
(n,2n) α
62-Sm-149
Cross Section
-100.0 To 5089. %
Min Ratio
Max Ratio
TENDL Threshold 3.9104 MeV
JEFF3.3 Threshold 10.000 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
14
12
10
8
6
4
2
0
80
40
0
4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
7
Incident Energy (eV)
62-Sm-149

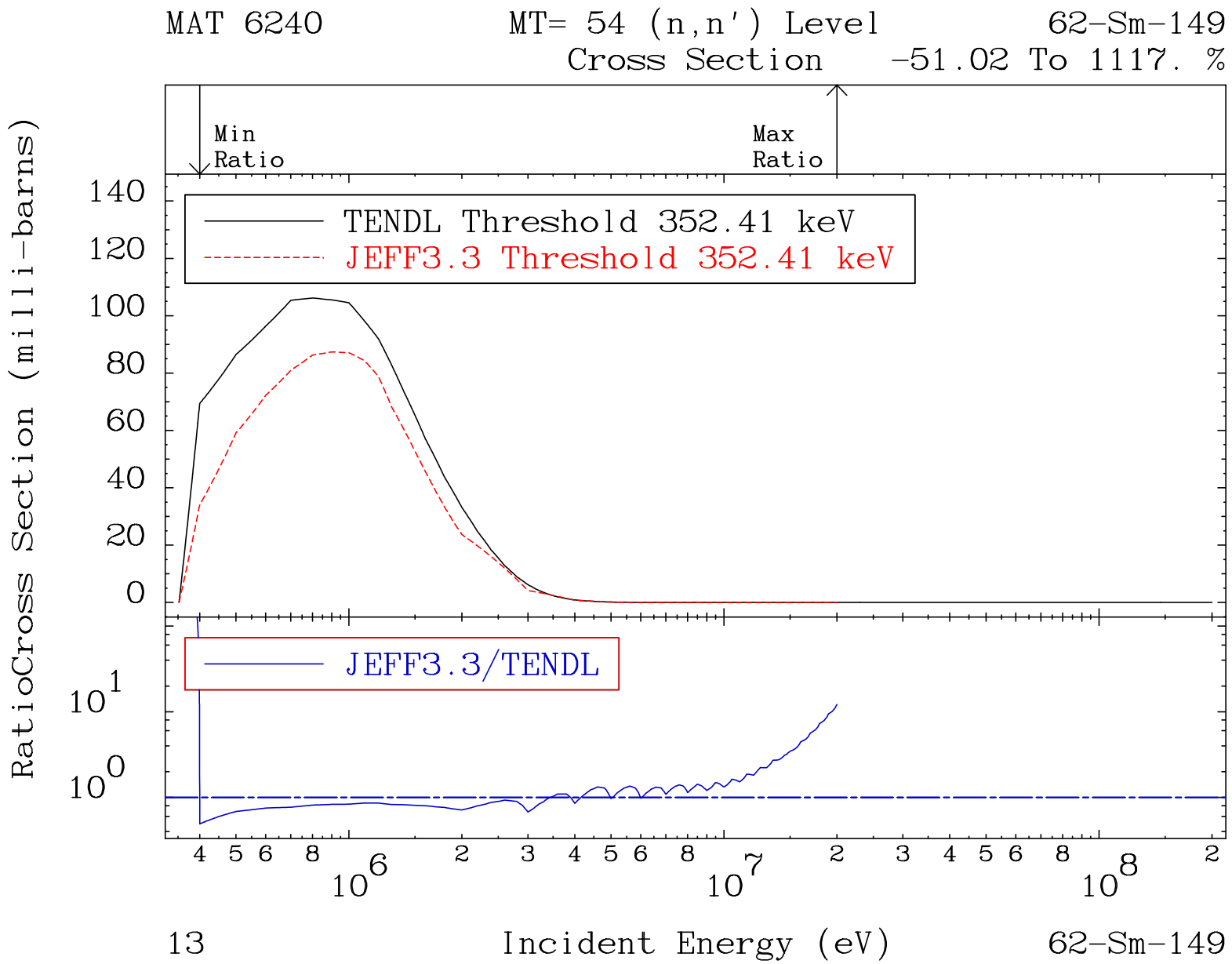

MAT 6240
(n,n') p
Cross Section
62-Sm-149
-100.0 To 141.5 %
Max
Ratio
TENDL Threshold 7.6102 MeV
JEFF3.3 Threshold 9.0000 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
60
50
40
30
20
10
0
2
0
8
10^7
2
3
4
5
6
7
8
10^8
2
8
Incident Energy (eV)
62-Sm-149

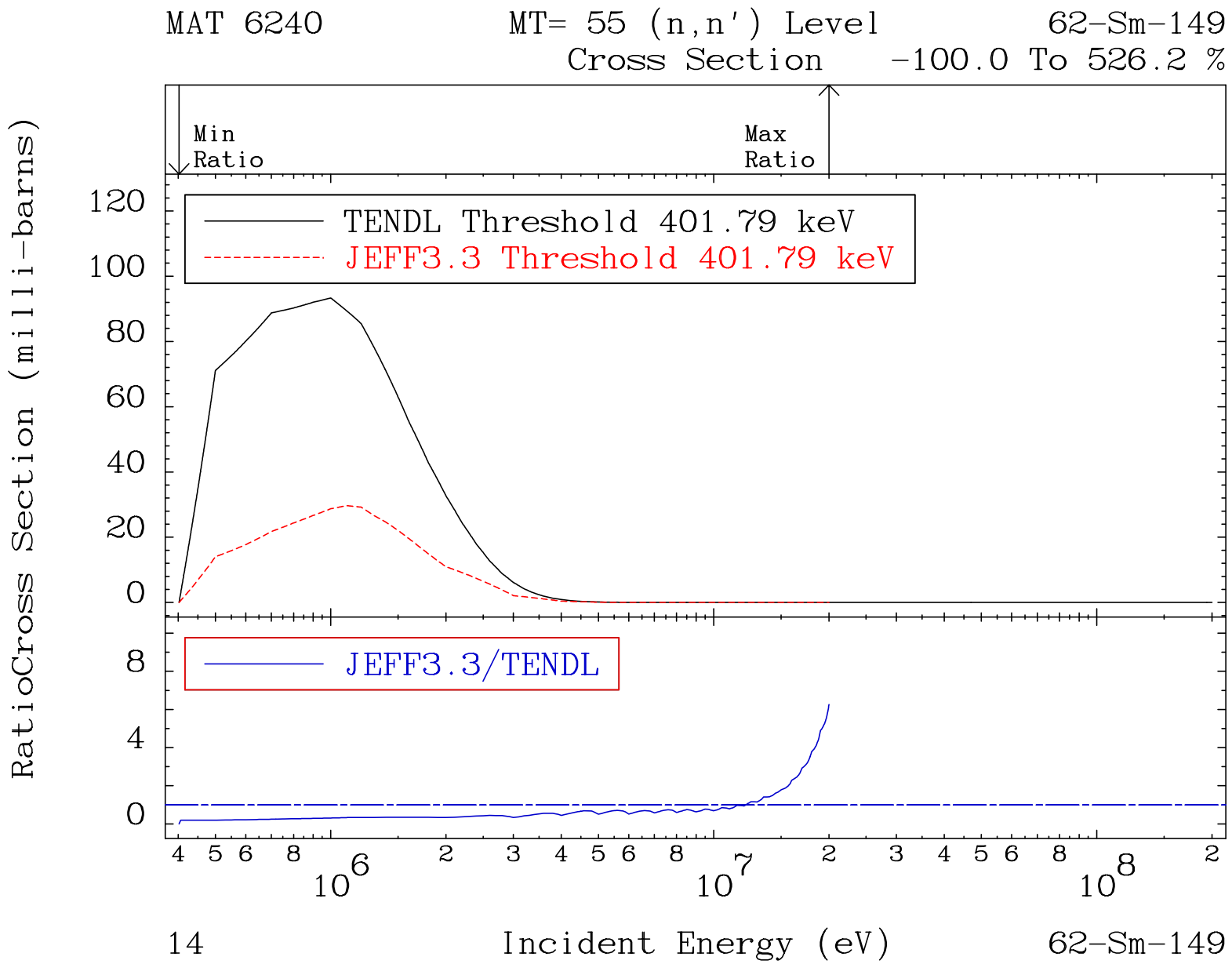

MAT 6240
(n,2n) p
Cross Section
62-Sm-149
-100.0 To 36.98 %
Min Ratio
Max Ratio
TENDL Threshold 13.545 MeV
JEFF3.3 Threshold 15.000 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
2.0
1.0
0.0
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
62-Sm-149

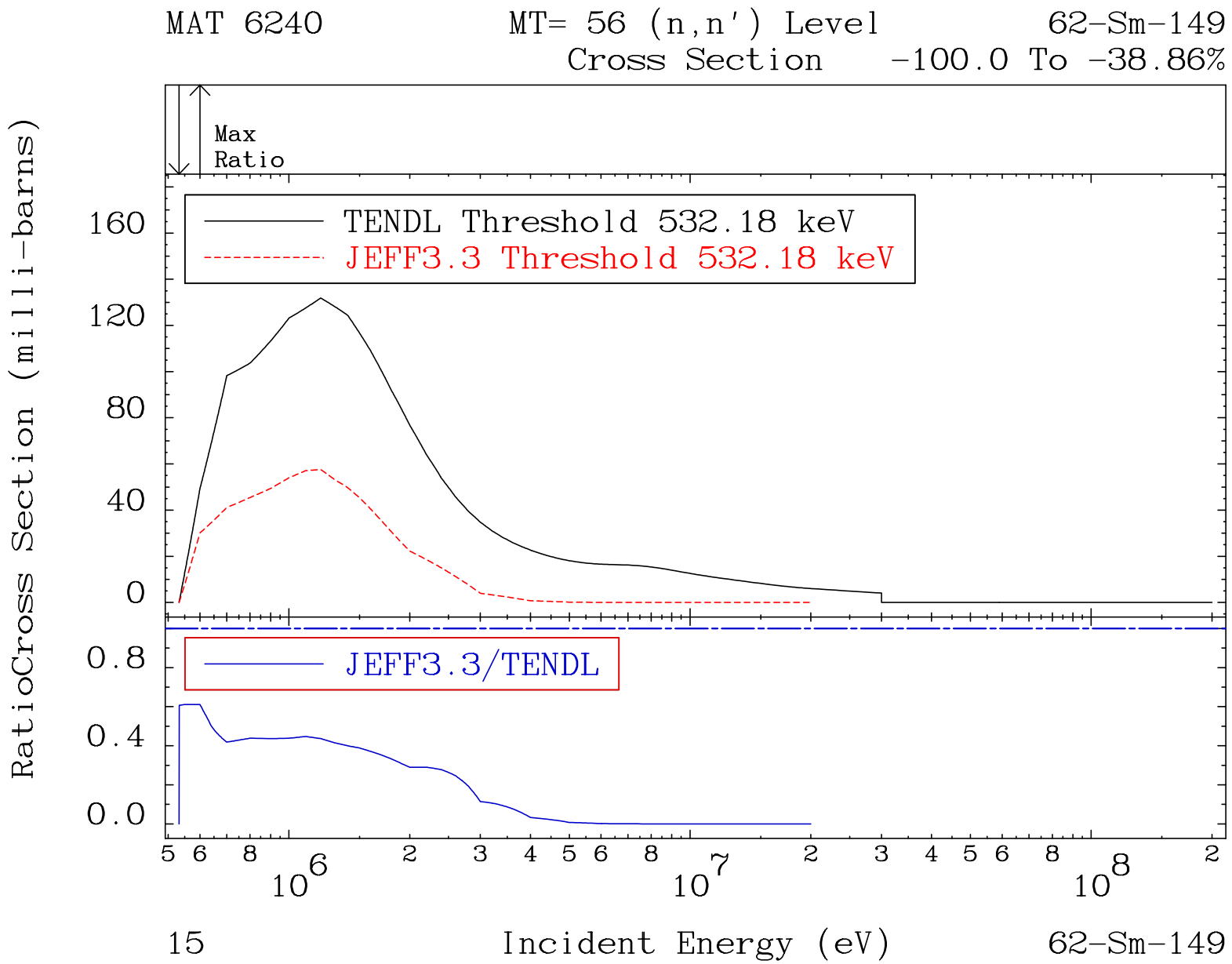

MAT 6240
MT= 51 (n,n') Level
62-Sm-149
Cross Section -100.0 To 1107. %
Min Ratio
Max Ratio
TENDL Threshold 22.659 keV
JEFF3.3 Threshold 22.662 keV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.2
1.0
0.8
0.6
0.4
0.2
0.0
10
0
3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
10
Incident Energy (eV)
62-Sm-149

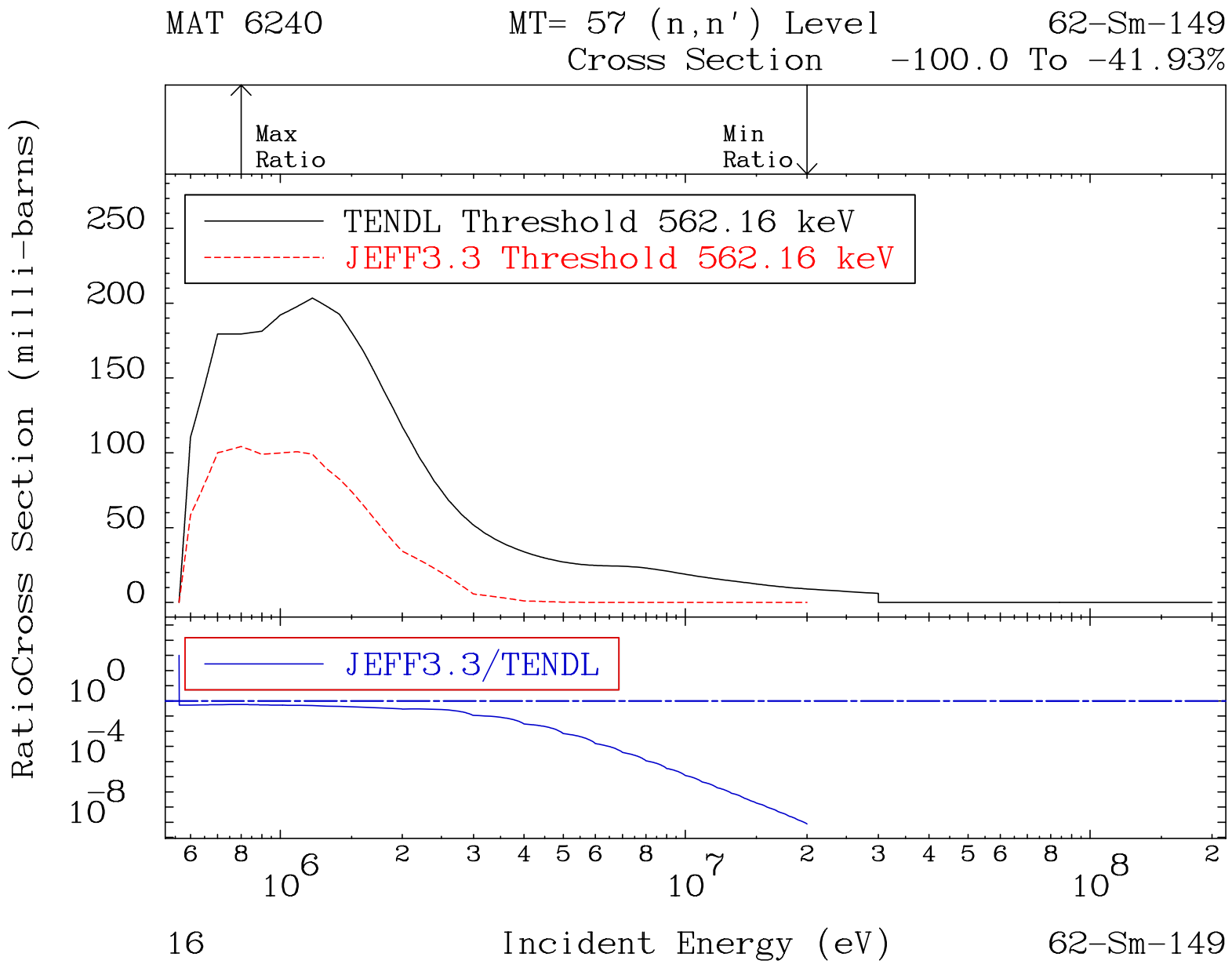

MAT 6240
MT= 52 (n,n') Level
62-Sm-149
Cross Section
-100.0 To 1108. %
Min Ratio
Max Ratio
TENDL Threshold 278.95 keV
JEFF3.3 Threshold 278.95 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
350
300
250
200
150
100
50
0
10
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
11
Incident Energy (eV)
62-Sm-149

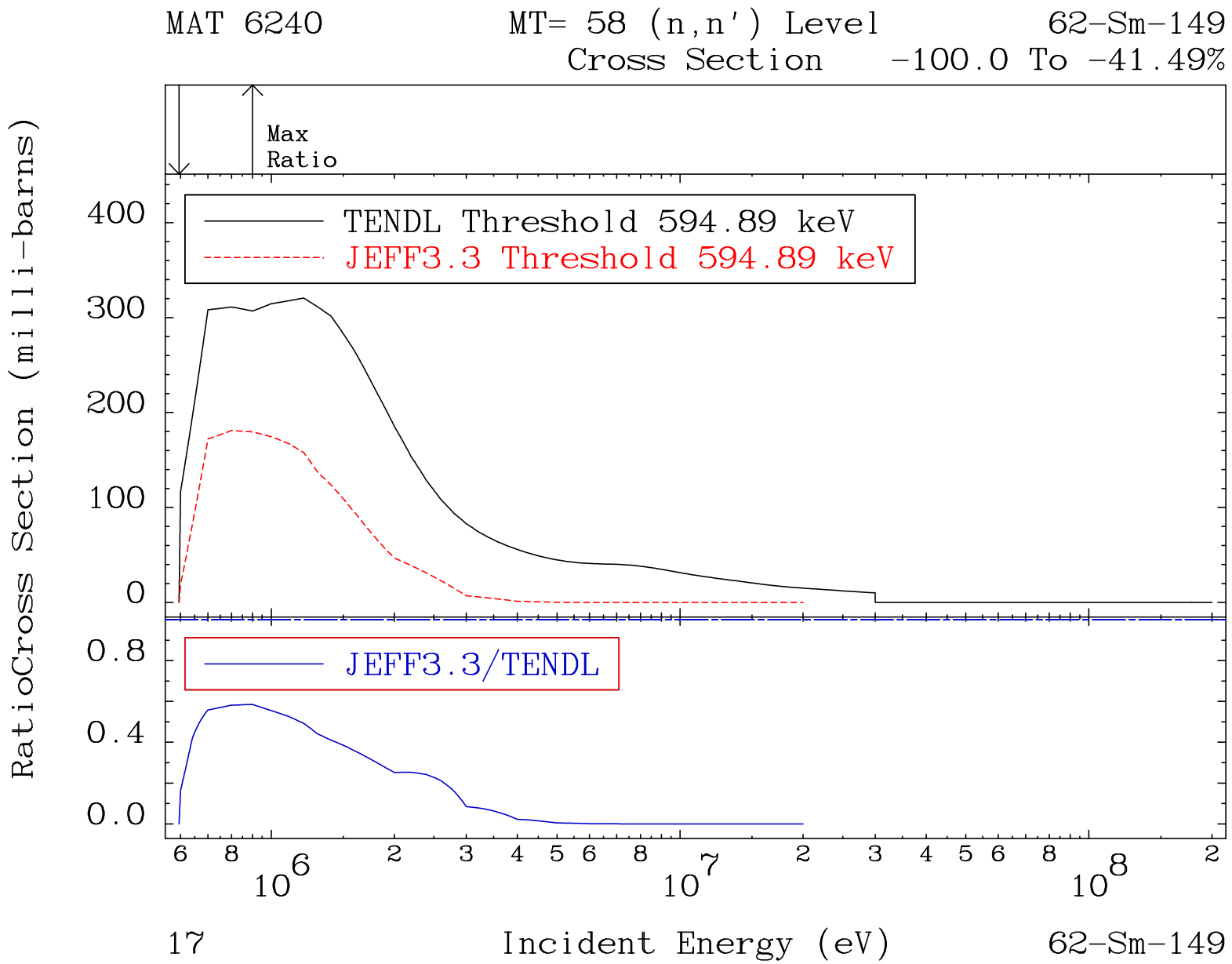

MAT 6240
MT= 53 (n,n') Level
62-Sm-149
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 287.88 keV
JEFF3.3 Threshold 287.88 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
700
600
500
400
300
200
100
0
100
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
12
Incident Energy (eV)
62-Sm-149

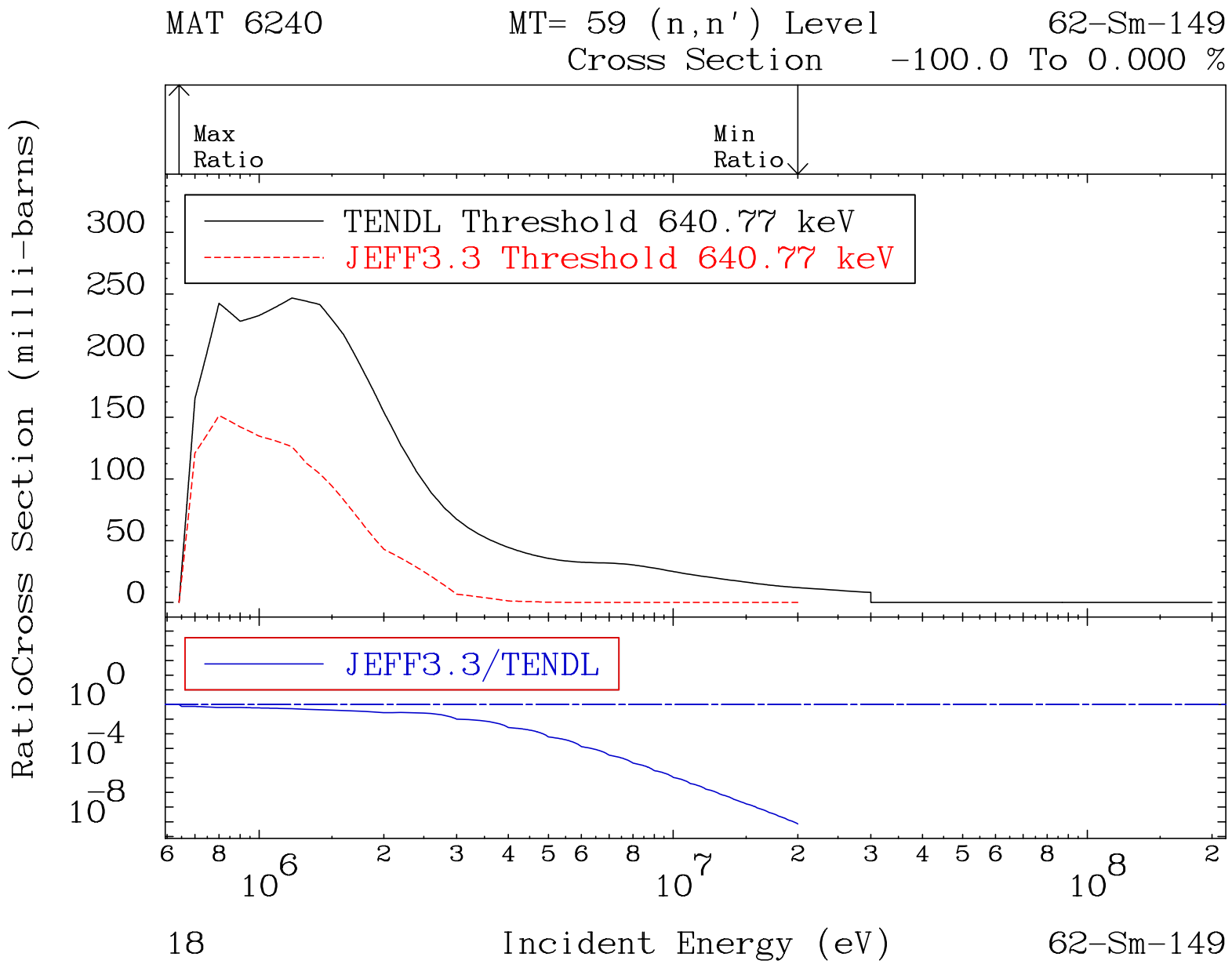

MAT 6240
MT= 54 (n,n') Level
62-Sm-149
Cross Section -51.02 To 1117. %
Min Ratio
Max Ratio
TENDL Threshold 352.41 keV
JEFF3.3 Threshold 352.41 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
13
62-Sm-149

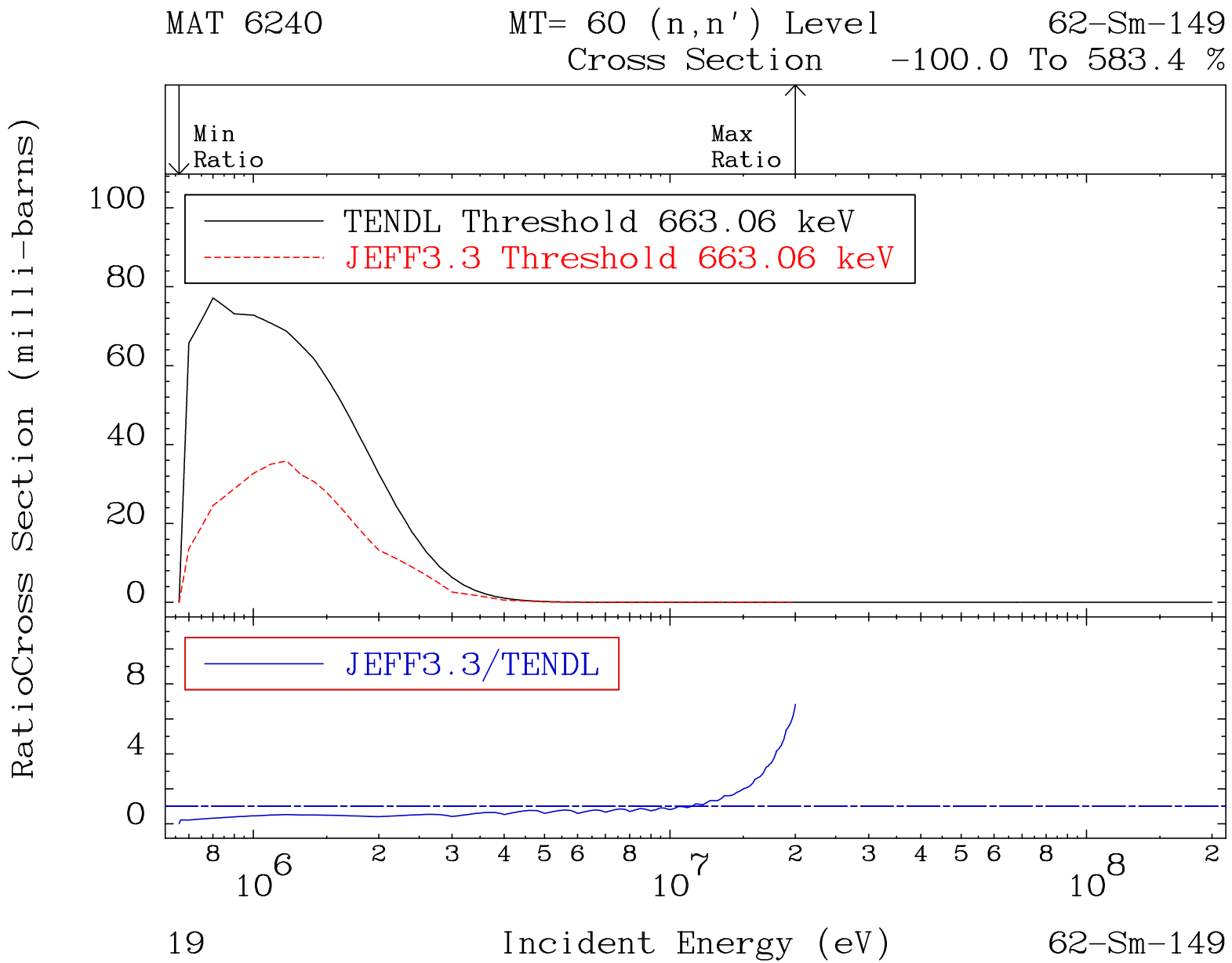

MAT 6240
MT= 55 (n,n') Level
62-Sm-149
Cross Section
-100.0 To 526.2 %
Min Ratio
Max Ratio
TENDL Threshold 401.79 keV
JEFF3.3 Threshold 401.79 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
120
100
80
60
40
20
0
8
4
0
4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
14
Incident Energy (eV)
62-Sm-149

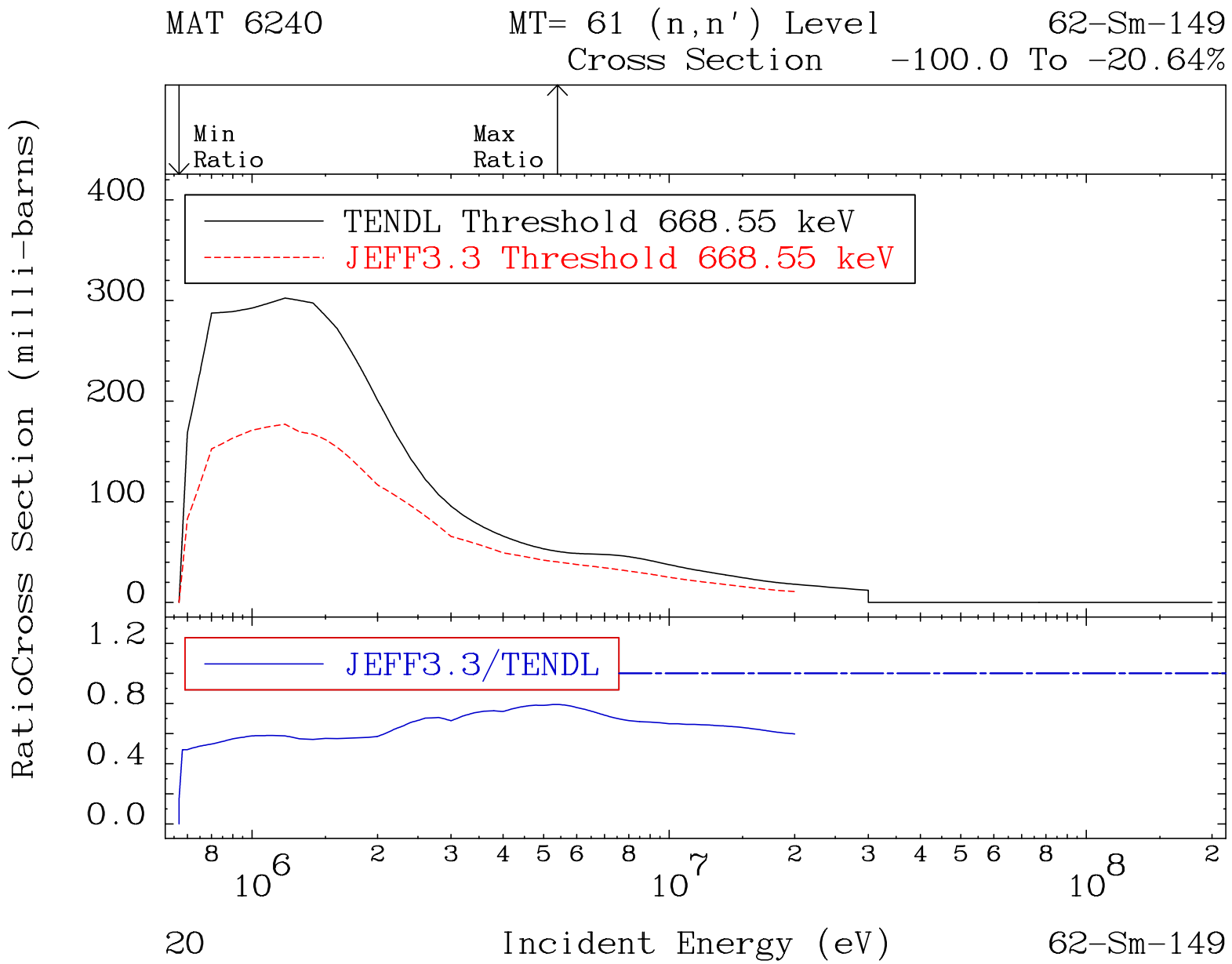

MAT 6240
MT= 56 (n,n') Level
Cross Section
62-Sm-149
-100.0 To -38.86%
Max
Ratio
TENDL Threshold 532.18 keV
JEFF3.3 Threshold 532.18 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
0.8
0.4
0.0
5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
15
Incident Energy (eV)
62-Sm-149

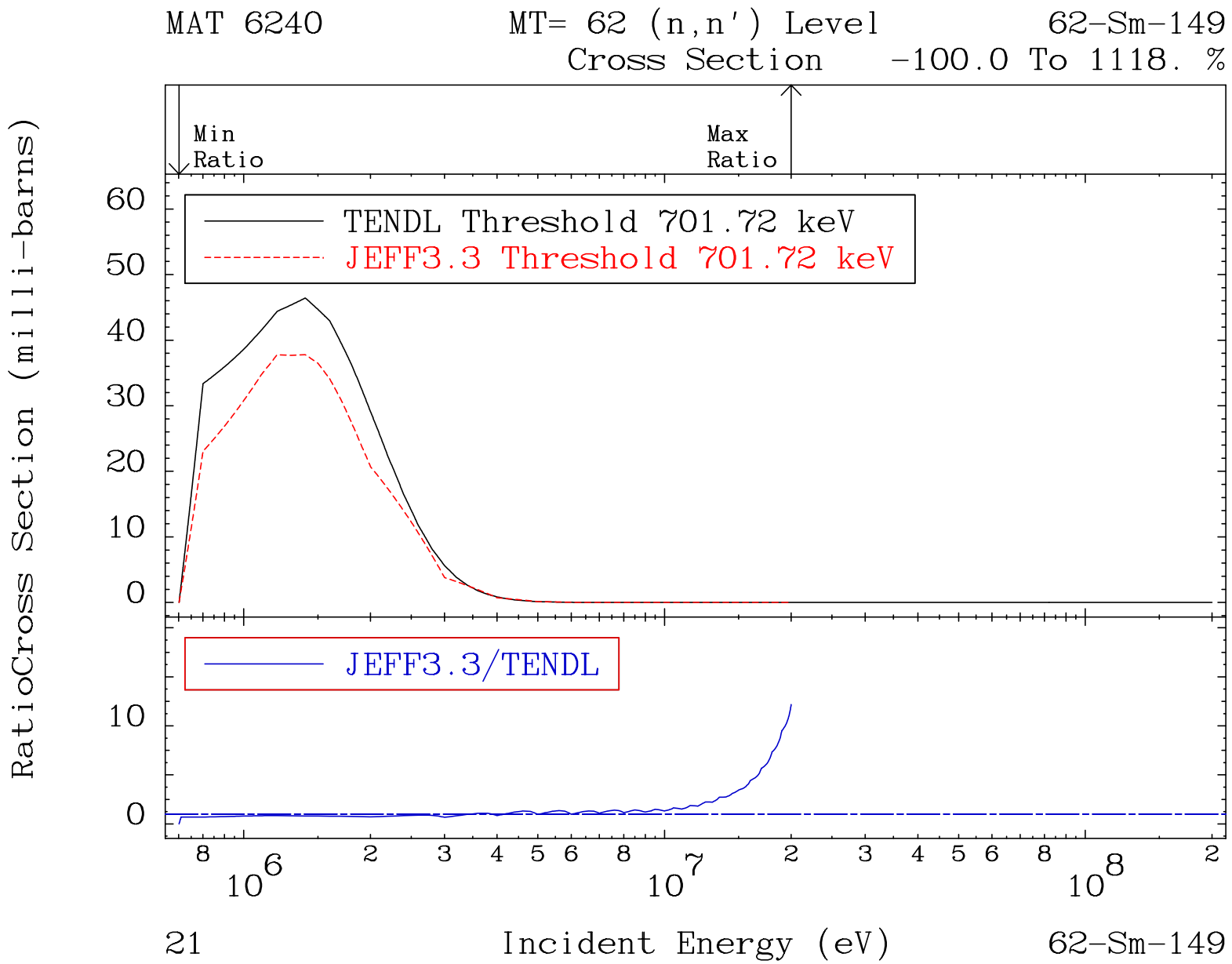

MAT 6240
MT= 57 (n,n') Level
62-Sm-149
Cross Section -100.0 To -41.93%
Max Ratio
Min Ratio
TENDL Threshold 562.16 keV
JEFF3.3 Threshold 562.16 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
10^{0}
10^{-4}
10^{-8}
6 8 10^{6} 2 3 4 5 6 8 10^{7} 2 3 4 5 6 8 10^{8} 2
Incident Energy (eV)
16
62-Sm-149

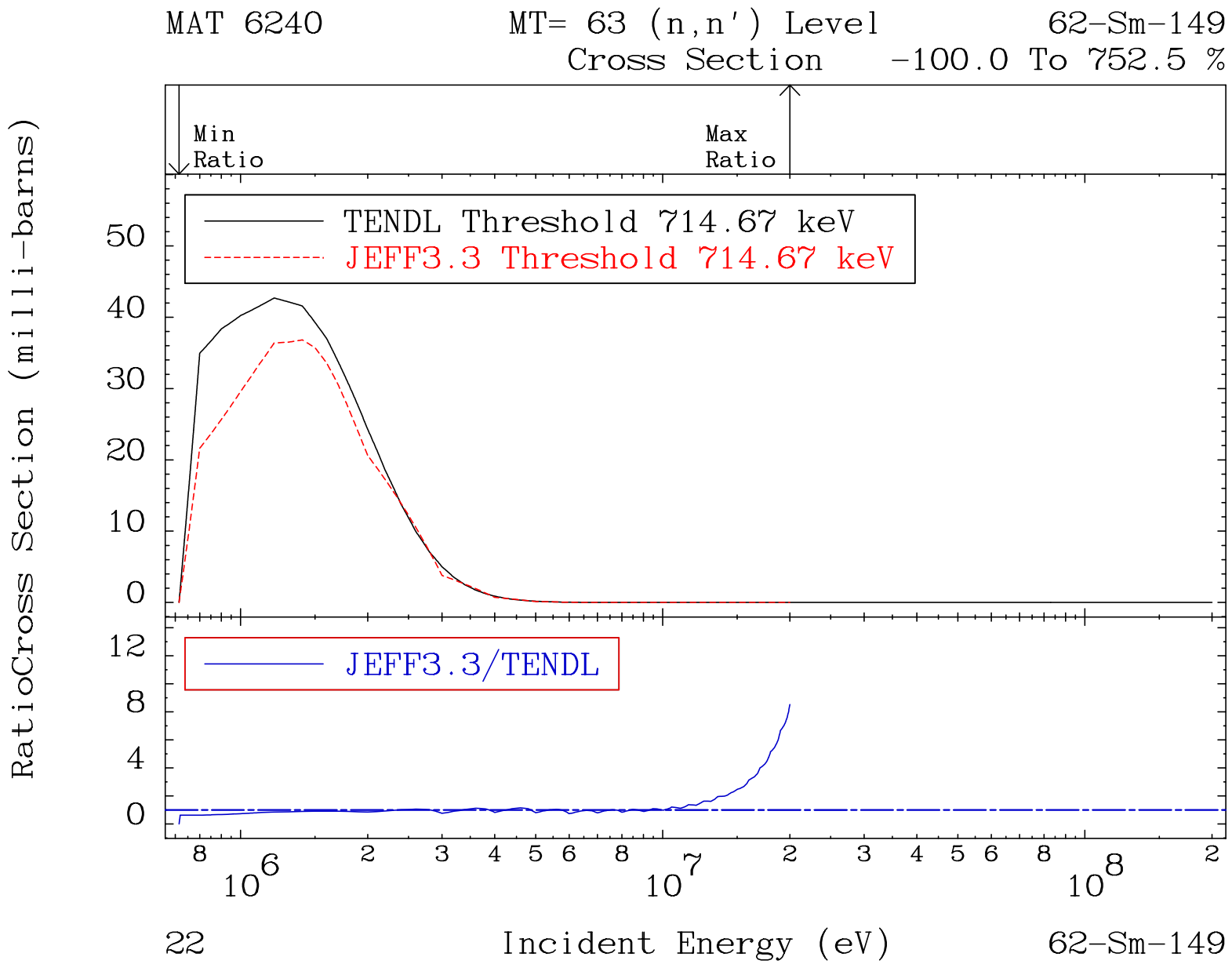

MAT 6240
MT= 58 (n,n') Level
62-Sm-149
Cross Section
-100.0 To -41.49%
Max
Ratio
TENDL Threshold 594.89 keV
JEFF3.3 Threshold 594.89 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
0.8
0.4
0.0
6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
17
Incident Energy (eV)
62-Sm-149

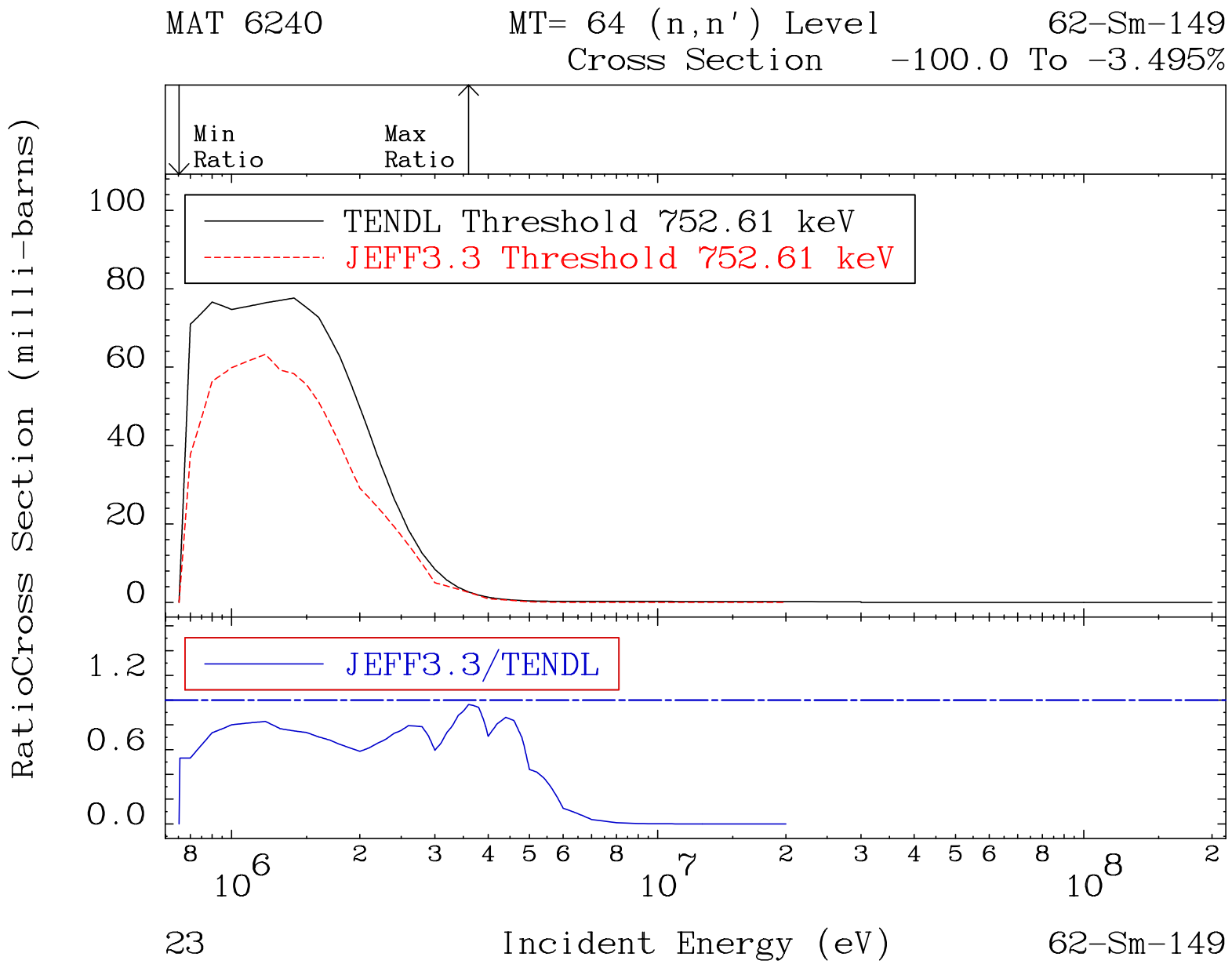

MAT 6240
MT= 59 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 0.000 %
Max Ratio
Min Ratio
TENDL Threshold 640.77 keV
JEFF3.3 Threshold 640.77 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
300
250
200
150
100
50
0
10^{0}
10^{-4}
10^{-8}
6 8 10^{6} 2 3 4 5 6 8 10^{7} 2 3 4 5 6 8 10^{8} 2
Incident Energy (eV)
18
62-Sm-149

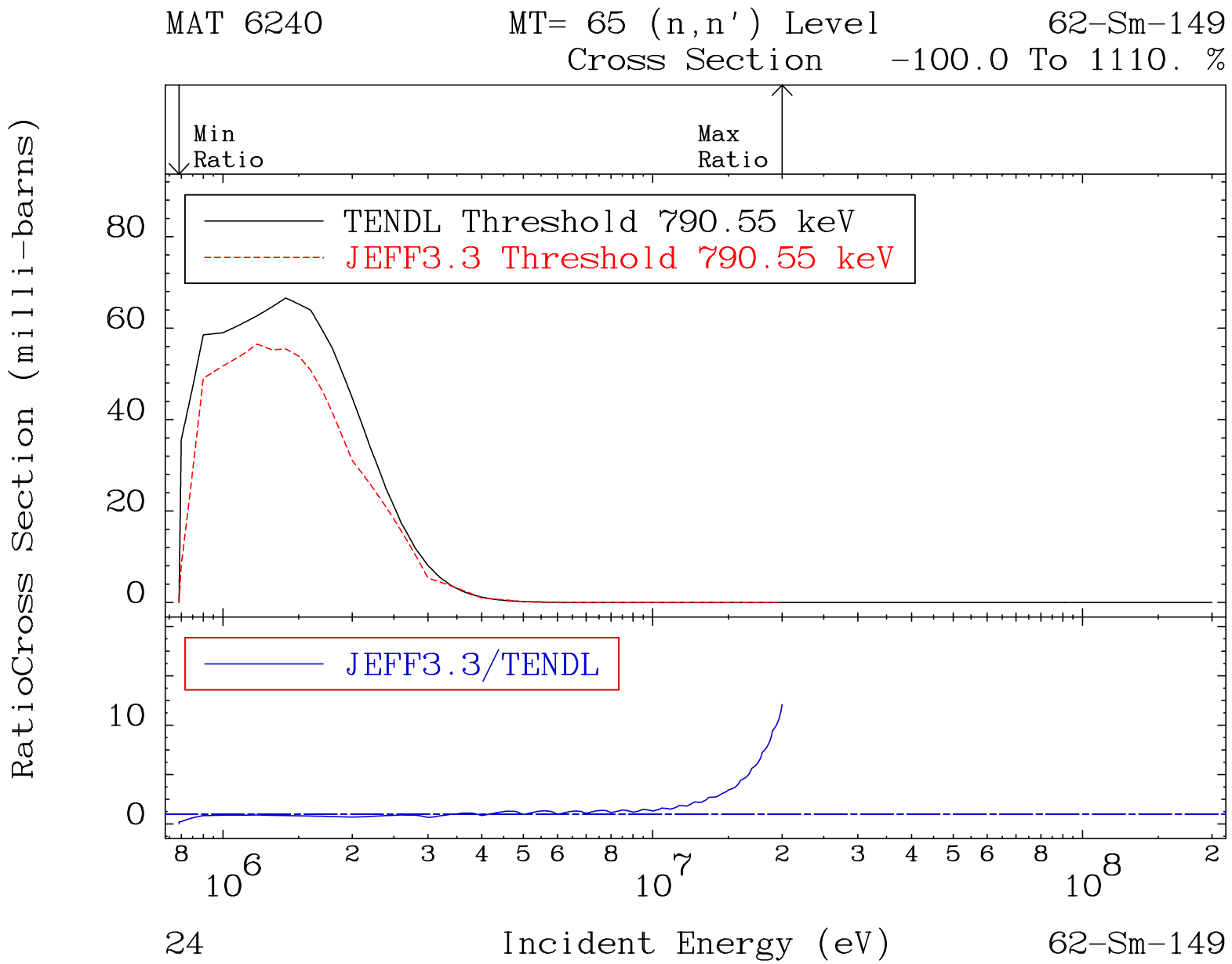

MAT 6240
MT= 60 (n,n') Level
62-Sm-149
Cross Section -100.0 To 583.4 %
Min Ratio
Max Ratio
TENDL Threshold 663.06 keV
JEFF3.3 Threshold 663.06 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
8
4
0
8 2 3 4 5 6 8 2 3 4 5 6 8 2
10^6 10^7 10^8
19
Incident Energy (eV)
62-Sm-149

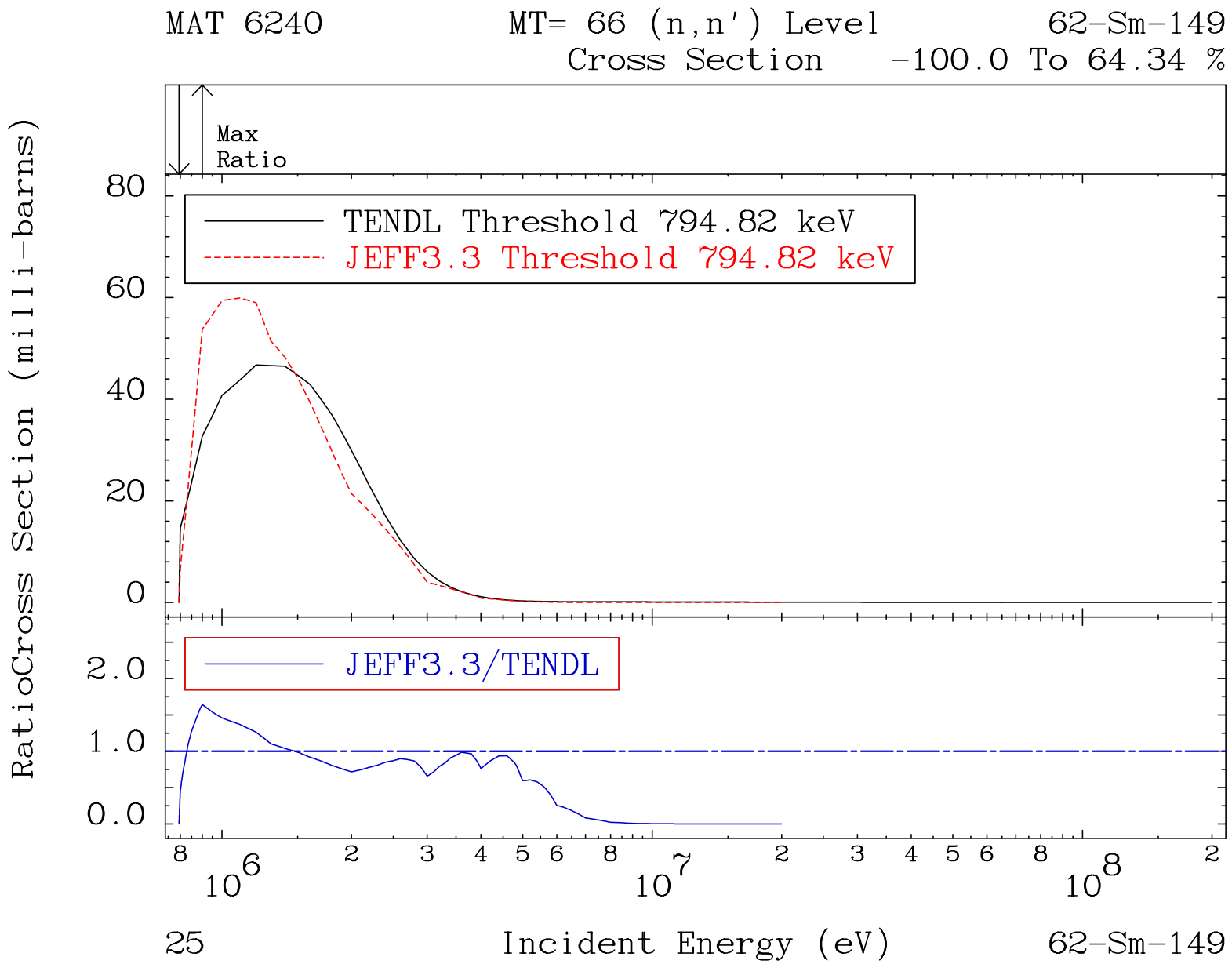

MAT 6240
MT= 61 (n,n') Level
62-Sm-149
Cross Section -100.0 To -20.64%
Min Ratio
Max Ratio
TENDL Threshold 668.55 keV
JEFF3.3 Threshold 668.55 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
1.2
0.8
0.4
0.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
20
Incident Energy (eV)
62-Sm-149

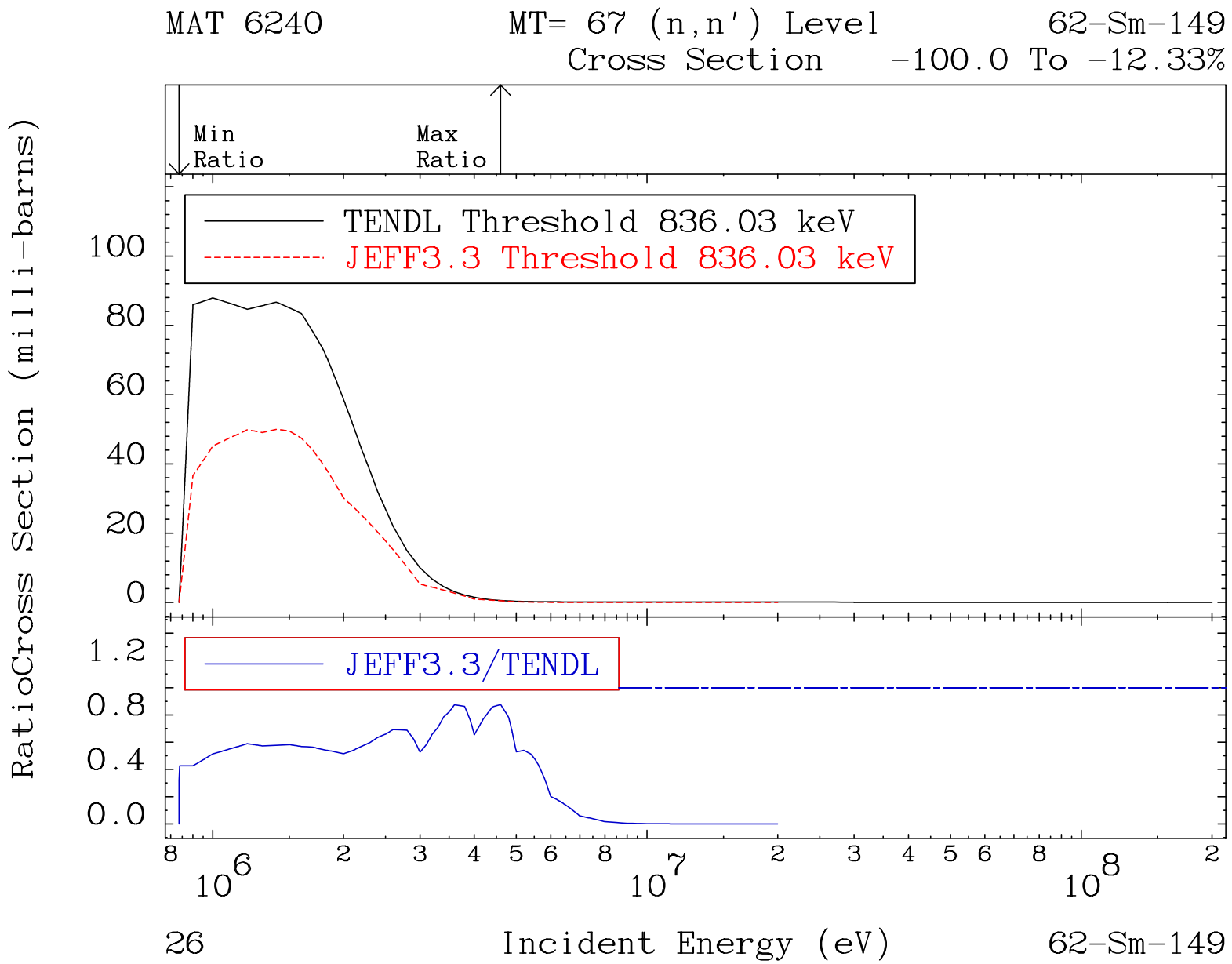

MAT 6240
MT= 62 (n,n') Level
62-Sm-149
Cross Section
-100.0 To 1118. %
Min Ratio
Max Ratio
TENDL Threshold 701.72 keV
JEFF3.3 Threshold 701.72 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
21
62-Sm-149

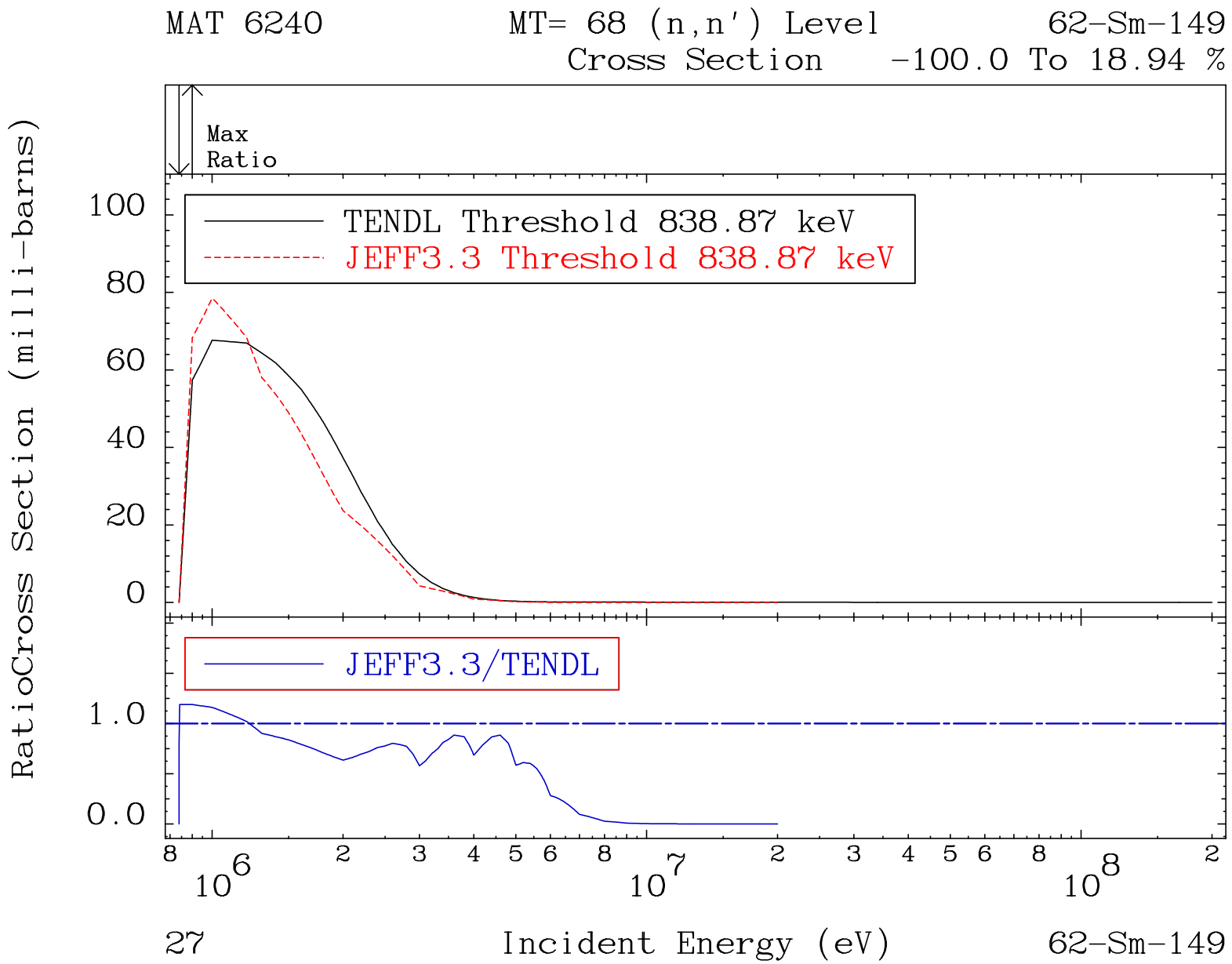

MAT 6240
MT= 63 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 752.5 %
Min Ratio
Max Ratio
TENDL Threshold 714.67 keV
JEFF3.3 Threshold 714.67 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
22
62-Sm-149

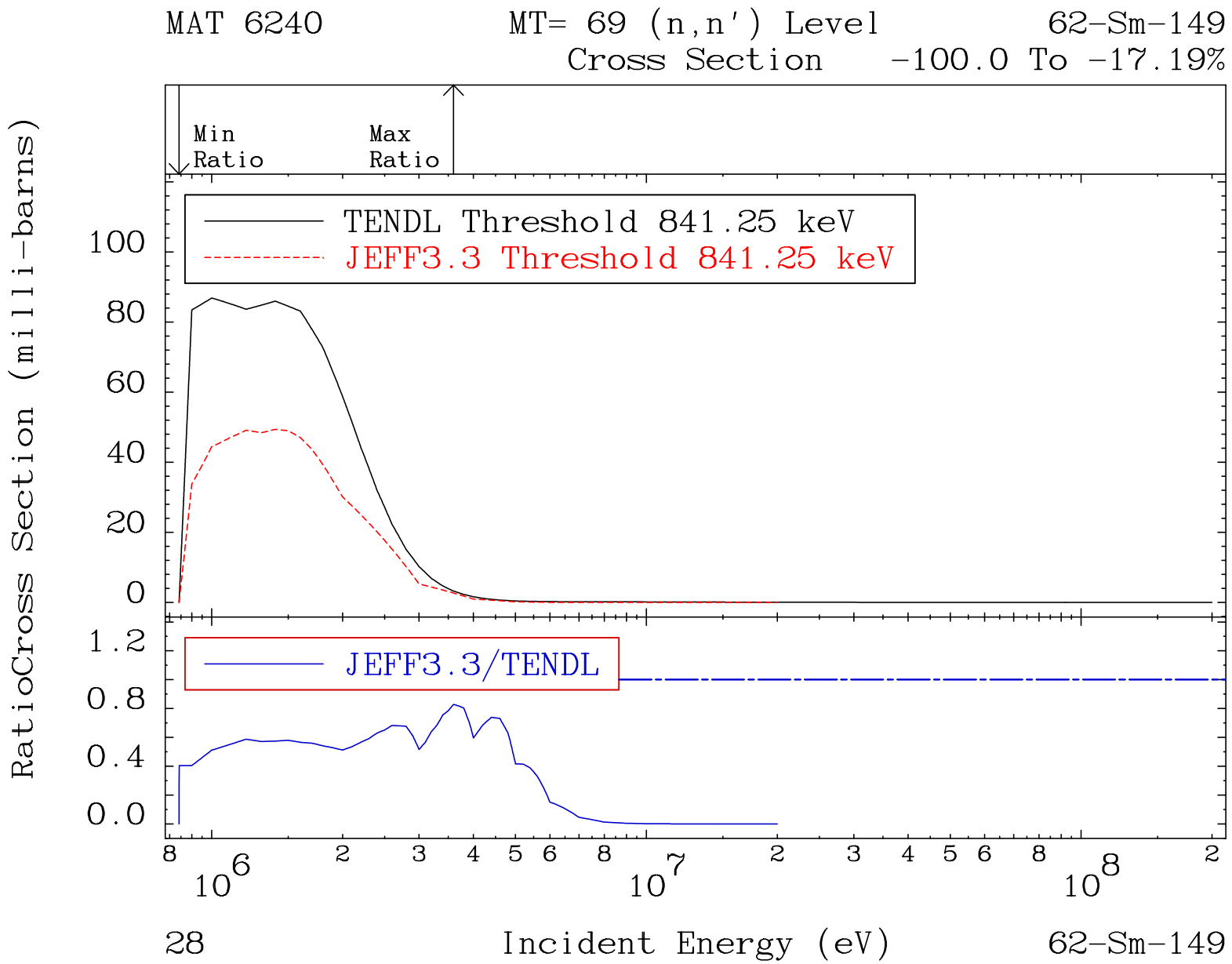

MAT 6240
MT= 64 (n,n') Level
62-Sm-149
Cross Section -100.0 To -3.495%
Min Ratio
Max Ratio
TENDL Threshold 752.61 keV
JEFF3.3 Threshold 752.61 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
1.2
0.6
0.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
23
Incident Energy (eV)
62-Sm-149

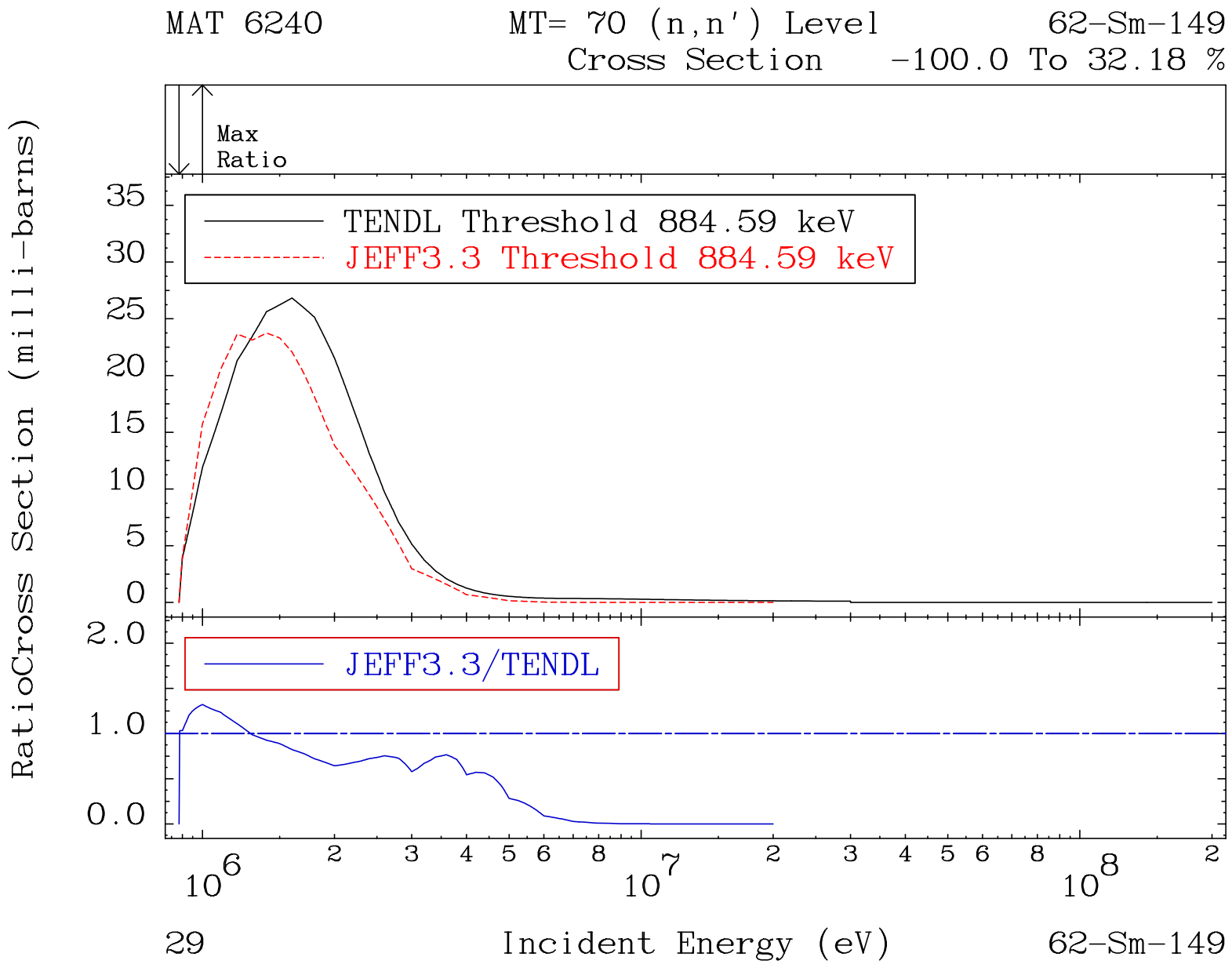

MAT 6240
MT= 65 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 1110. %
Min Ratio
Max Ratio
TENDL Threshold 790.55 keV
JEFF3.3 Threshold 790.55 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
10
0
8
2
3
4
5
6
8
10^6
10^7
10^8
24
Incident Energy (eV)
62-Sm-149

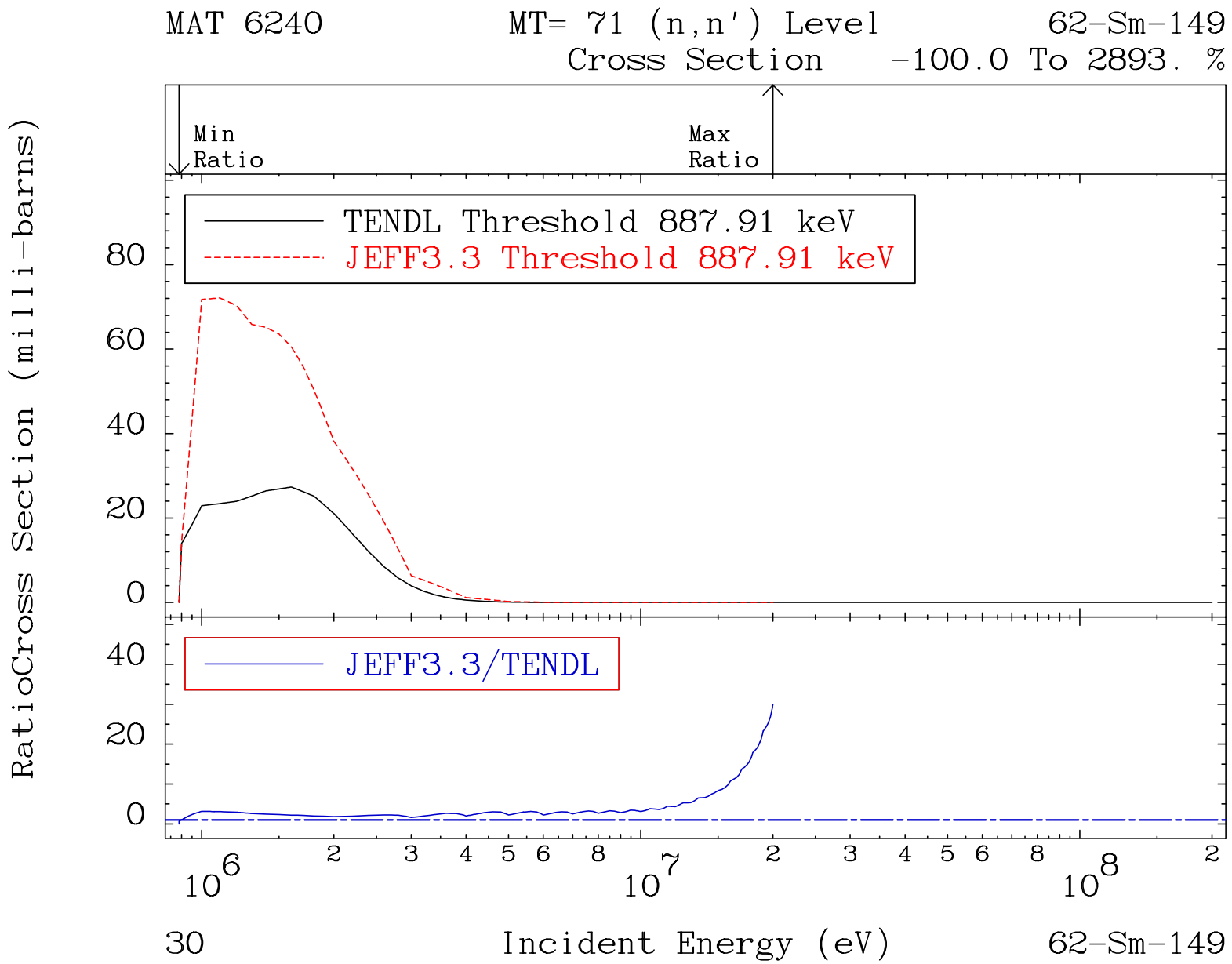

MAT 6240
MT= 66 (n,n') Level
Cross Section
62-Sm-149
-100.0 To 64.34 %
Max
Ratio
TENDL Threshold 794.82 keV
JEFF3.3 Threshold 794.82 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
2.0
1.0
0.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
25
Incident Energy (eV)
62-Sm-149

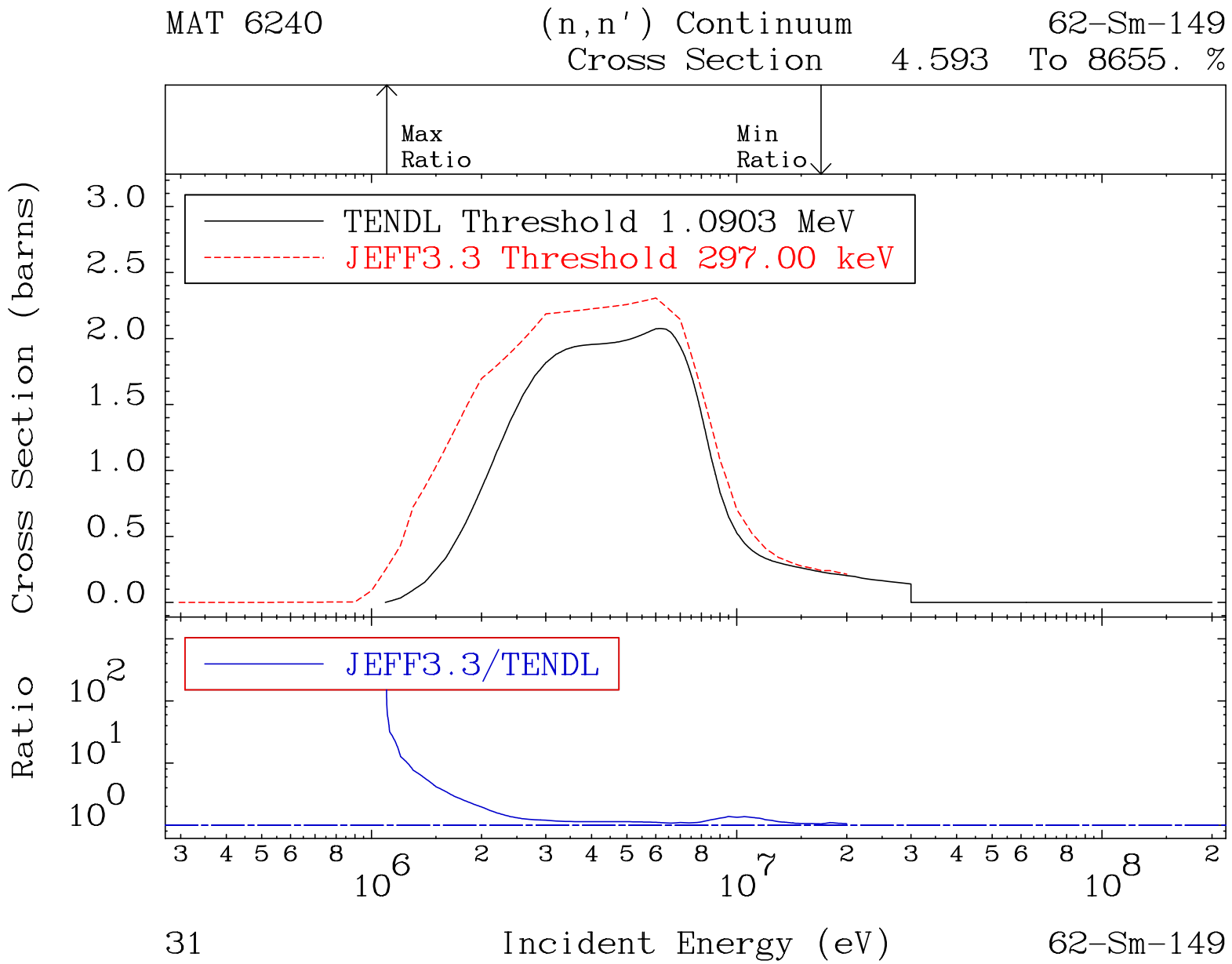

MAT 6240
MT= 67 (n,n') Level
62-Sm-149
Cross Section -100.0 To -12.33%
Min Ratio
Max Ratio
TENDL Threshold 836.03 keV
JEFF3.3 Threshold 836.03 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
1.2
0.8
0.4
0.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
26
Incident Energy (eV)
62-Sm-149

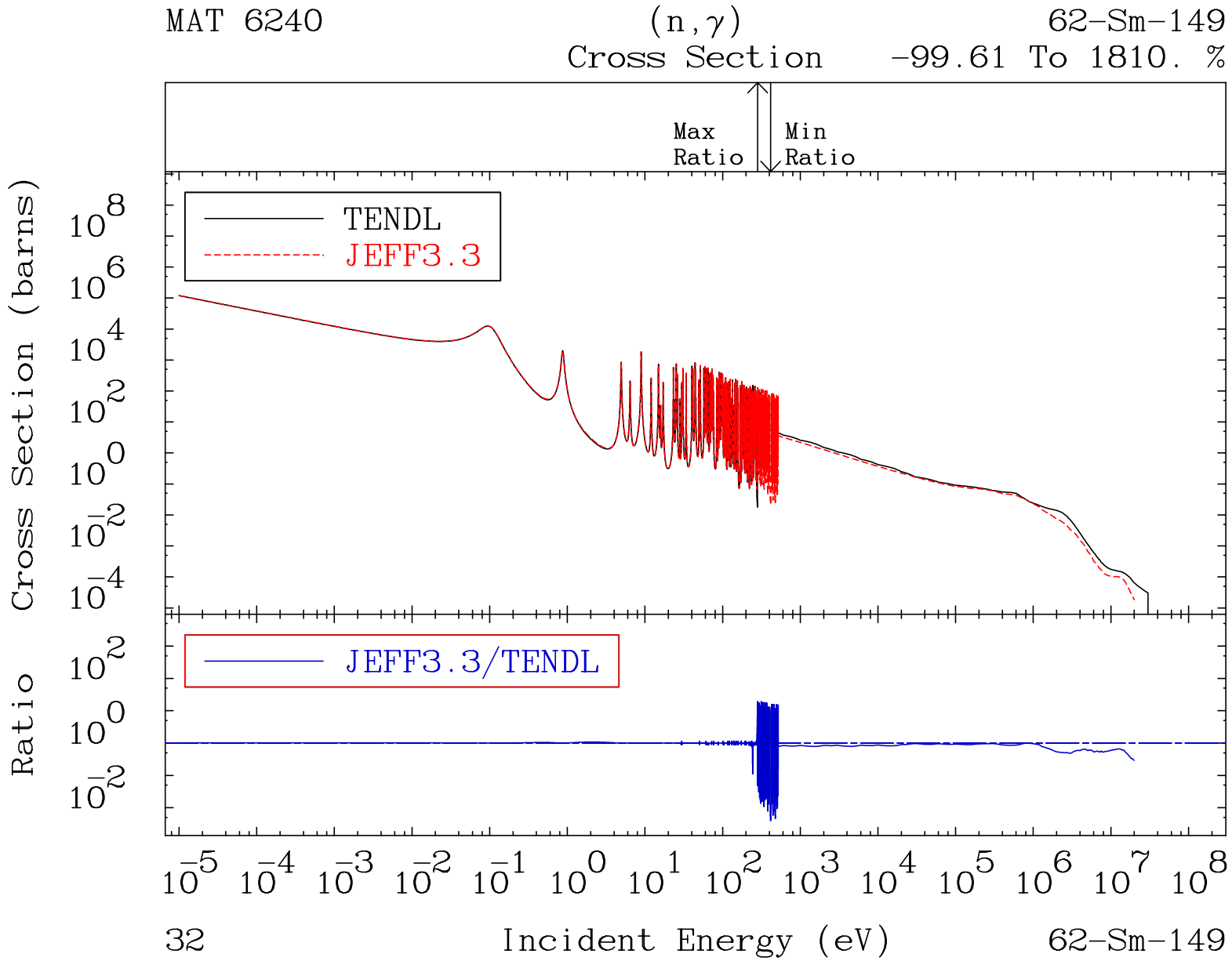

MAT 6240
MT= 68 (n,n') Level
62-Sm-149
Cross Section
-100.0 To 18.94 %
Max
Ratio
TENDL Threshold 838.87 keV
JEFF3.3 Threshold 838.87 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
1.0
0.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
27
Incident Energy (eV)
62-Sm-149

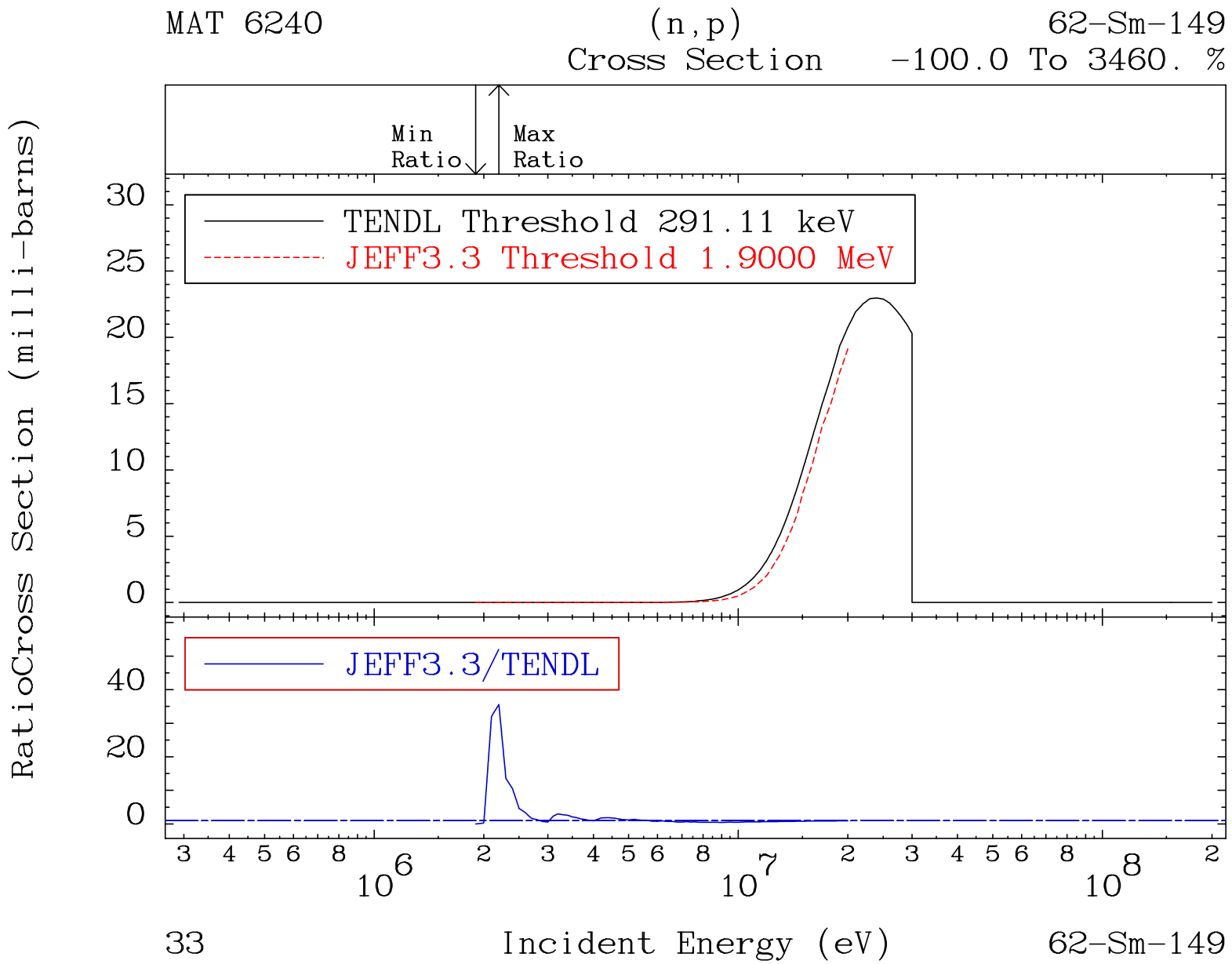

MAT 6240
MT= 69 (n,n') Level
62-Sm-149
Cross Section -100.0 To -17.19%
Min Ratio
Max Ratio
TENDL Threshold 841.25 keV
JEFF3.3 Threshold 841.25 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
1.2
0.8
0.4
0.0
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
28
Incident Energy (eV)
62-Sm-149

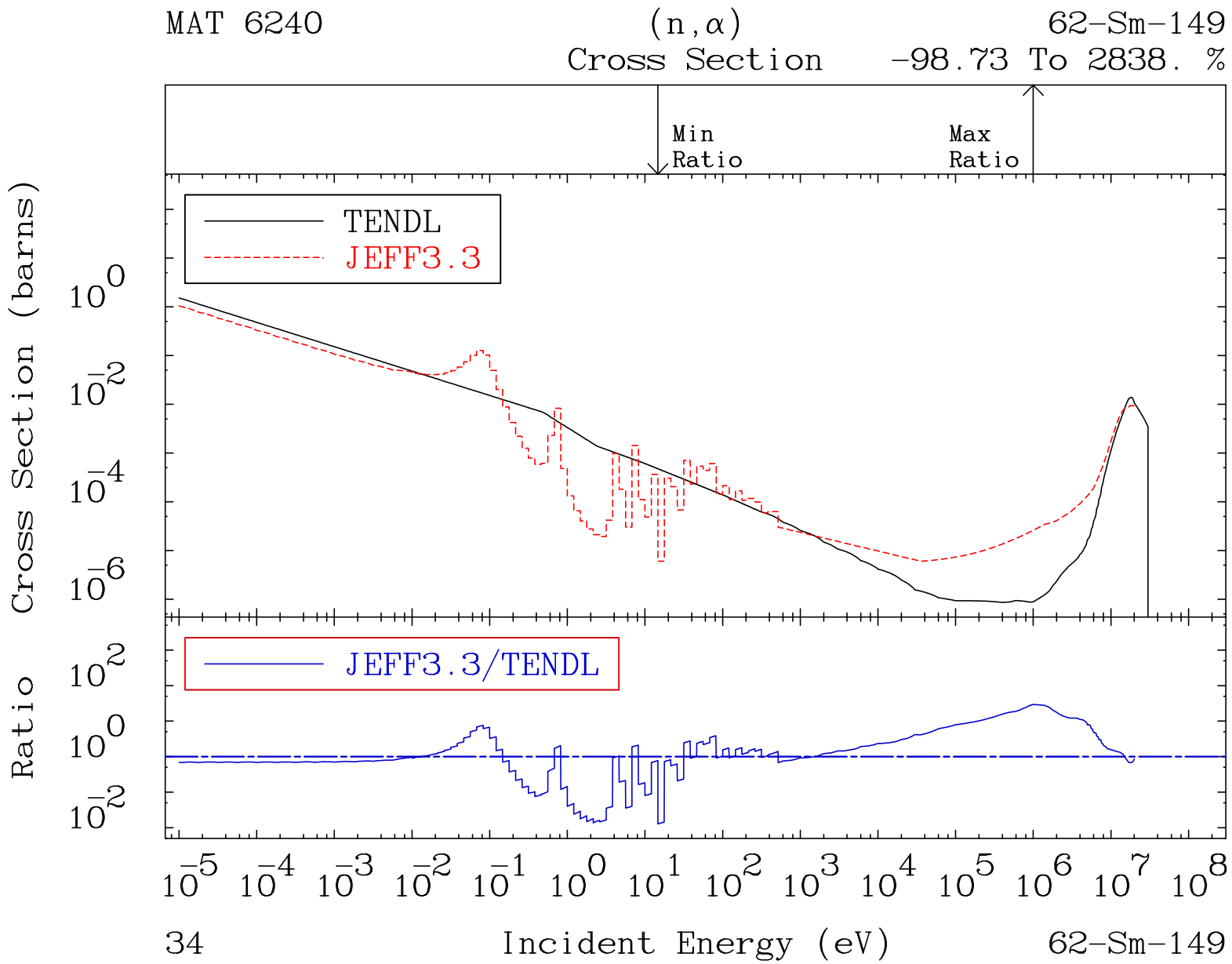

MAT 6240
MT= 70 (n,n') Level
62-Sm-149
Cross Section
-100.0 To 32.18 %
Max
Ratio
TENDL Threshold 884.59 keV
JEFF3.3 Threshold 884.59 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
35
30
25
20
15
10
5
0
2.0
1.0
0.0
2
3
4
5
6
8
10^6
10^7
10^8
29
Incident Energy (eV)
62-Sm-149

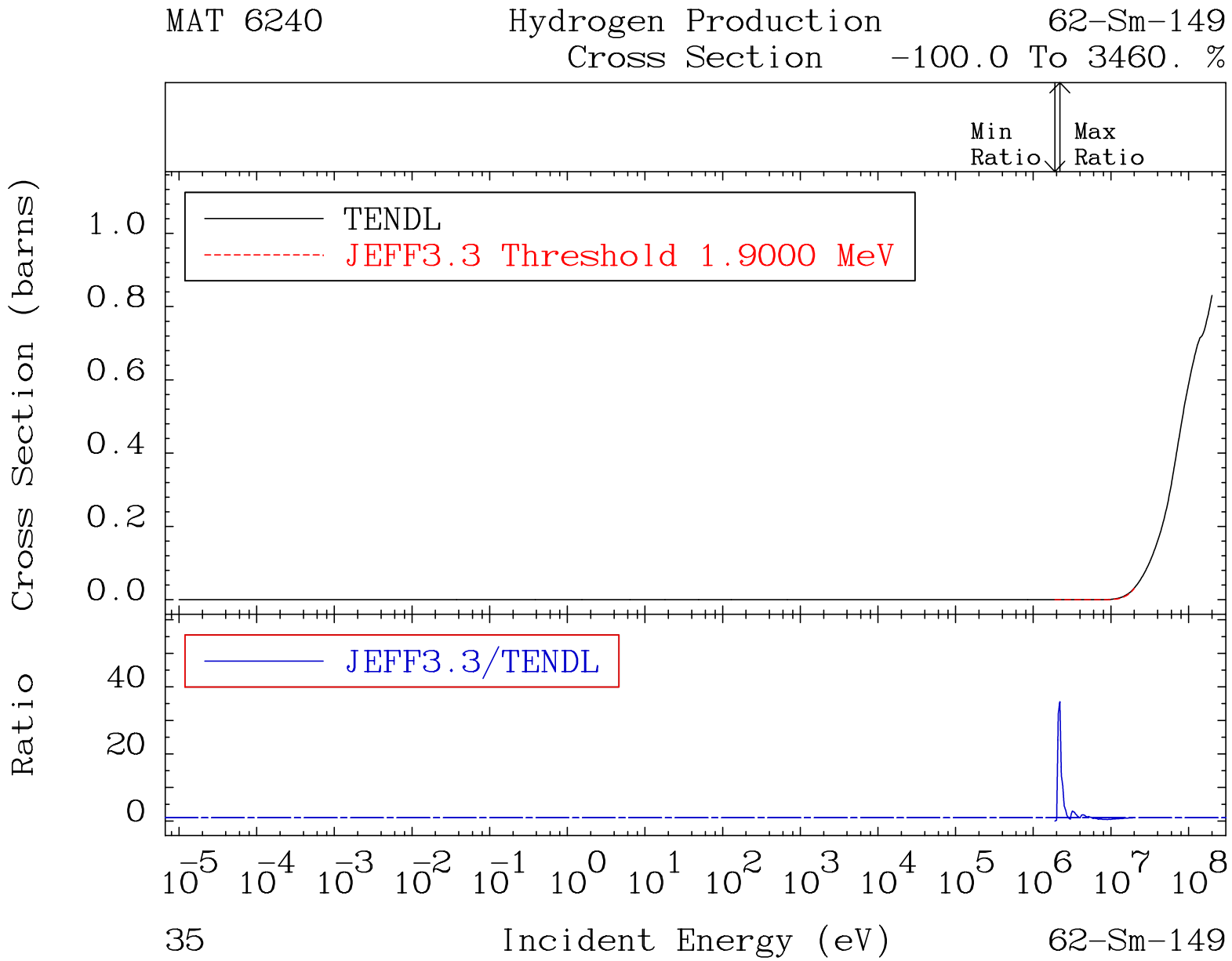

MAT 6240
MT= 71 (n,n') Level
62-Sm-149
Cross Section -100.0 To 2893. %
Min Ratio
Max Ratio
TENDL Threshold 887.91 keV
JEFF3.3 Threshold 887.91 keV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
40
20
0
10^6
10^7
10^8
2 3 4 5 6 8
30
Incident Energy (eV)
62-Sm-149

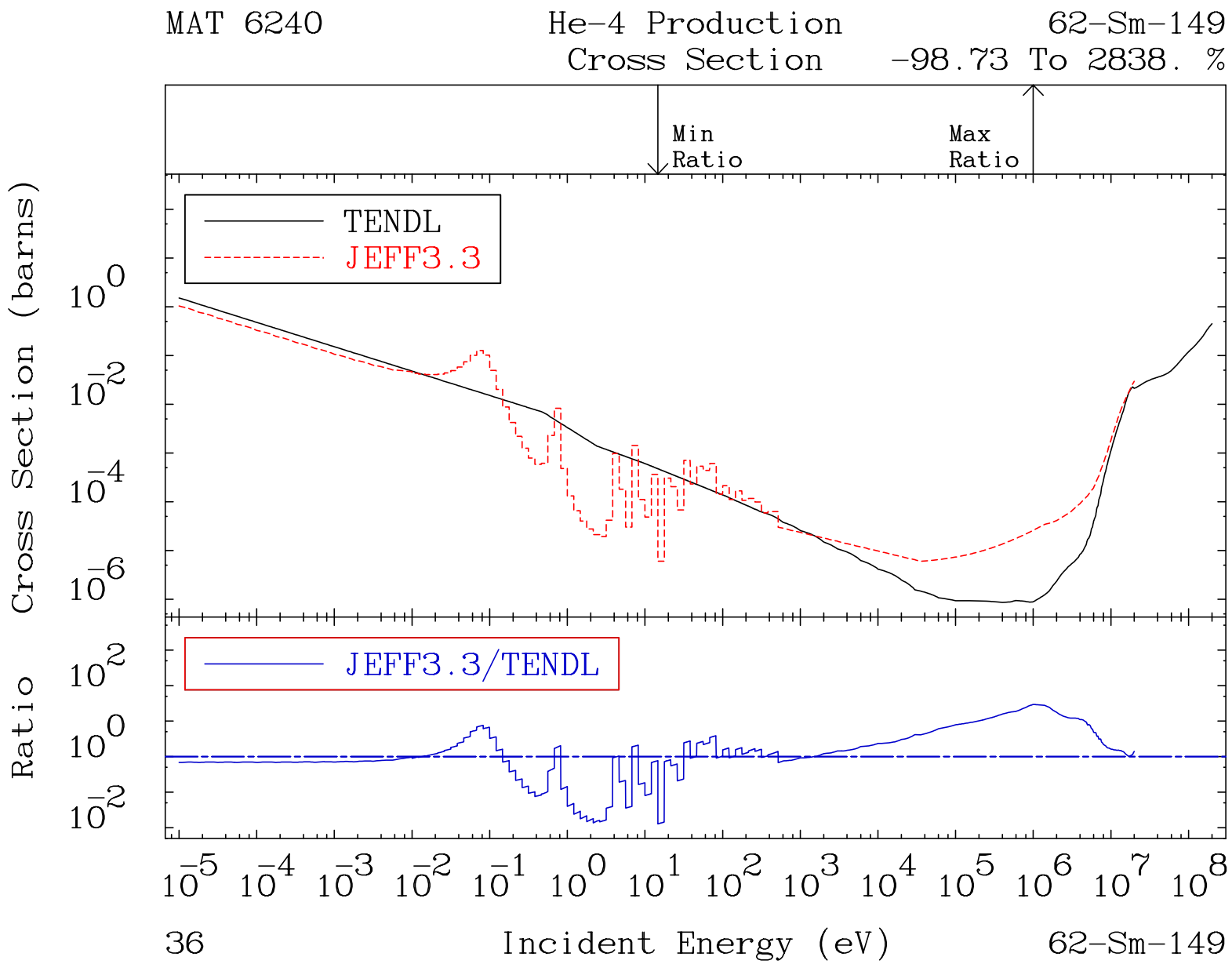

MAT 6240
(n,n') Continuum
Cross Section
62-Sm-149
4.593 To 8655. %
Max Ratio
Min Ratio
TENDL Threshold 1.0903 MeV
JEFF3.3 Threshold 297.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
31
Incident Energy (eV)
62-Sm-149

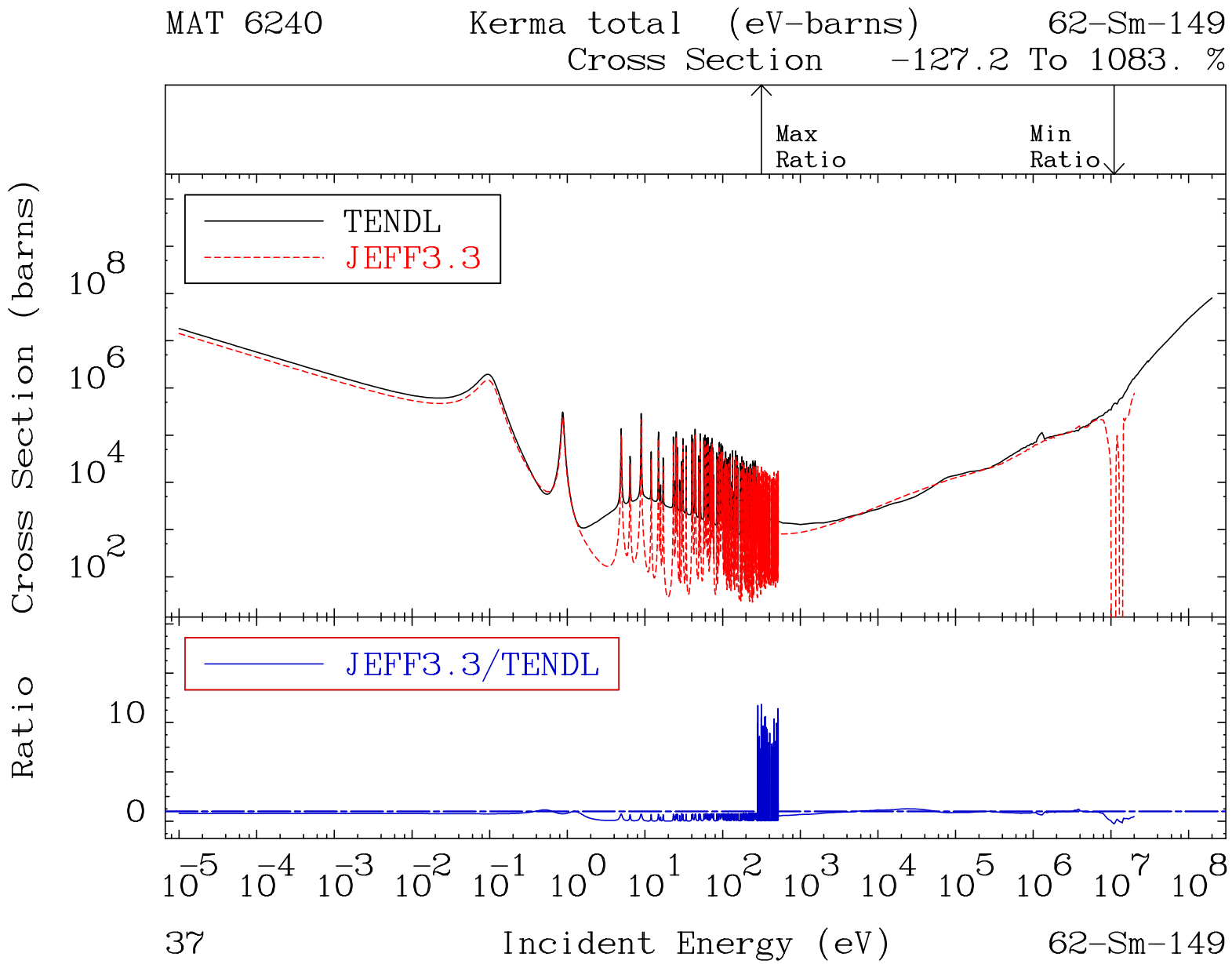

MAT 6240
(n,γ)
Cross Section
62-Sm-149
-99.61 To 1810. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
32
62-Sm-149

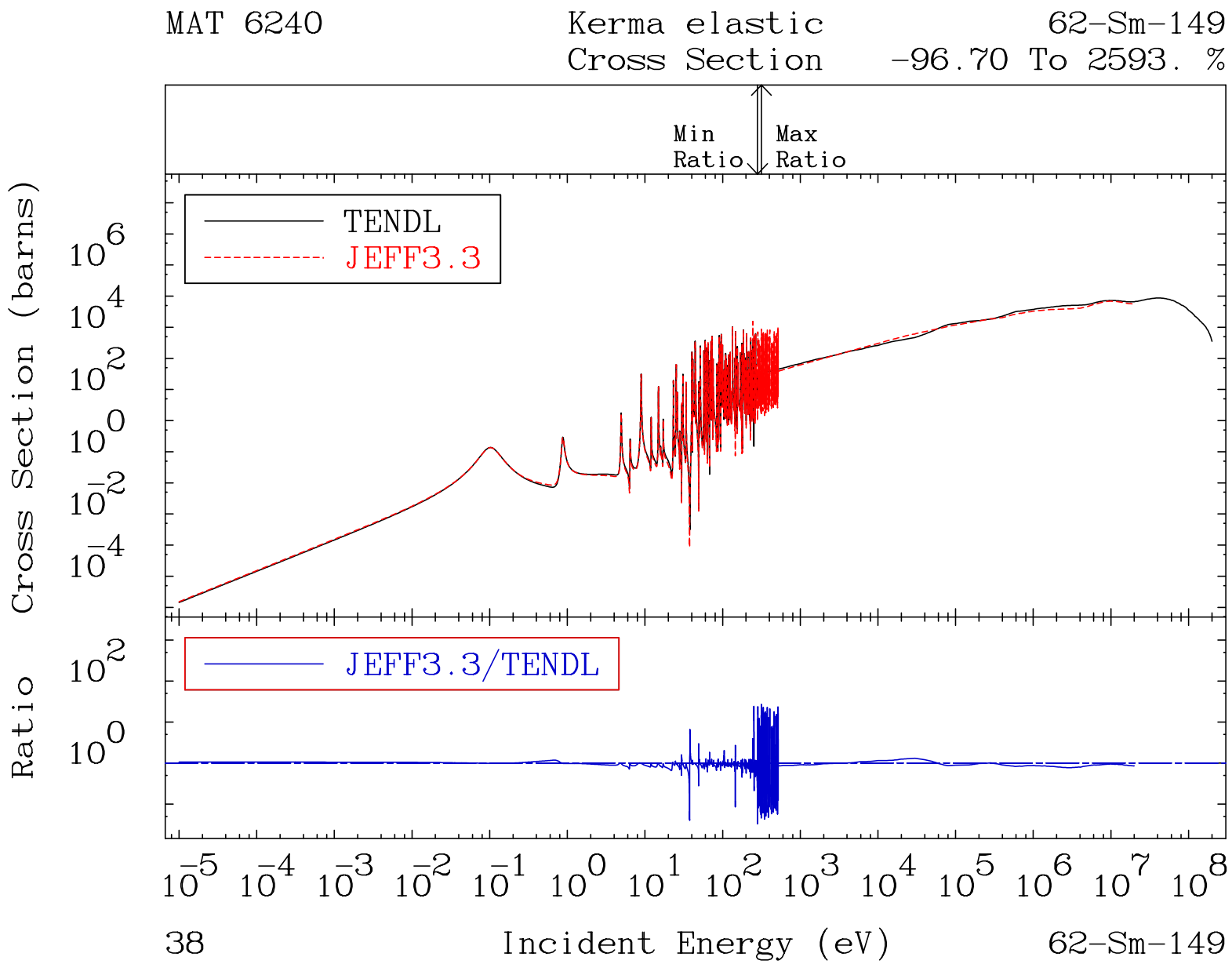

MAT 6240
(n,p)
62-Sm-149
Cross Section
-100.0 To 3460. %
Min Ratio
Max Ratio
TENDL Threshold 291.11 keV
JEFF3.3 Threshold 1.9000 MeV
JEFF3.3/TENDL
RatioCross Section (milli-barns)
30
25
20
15
10
5
0
40
20
0
3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
33
Incident Energy (eV)
62-Sm-149

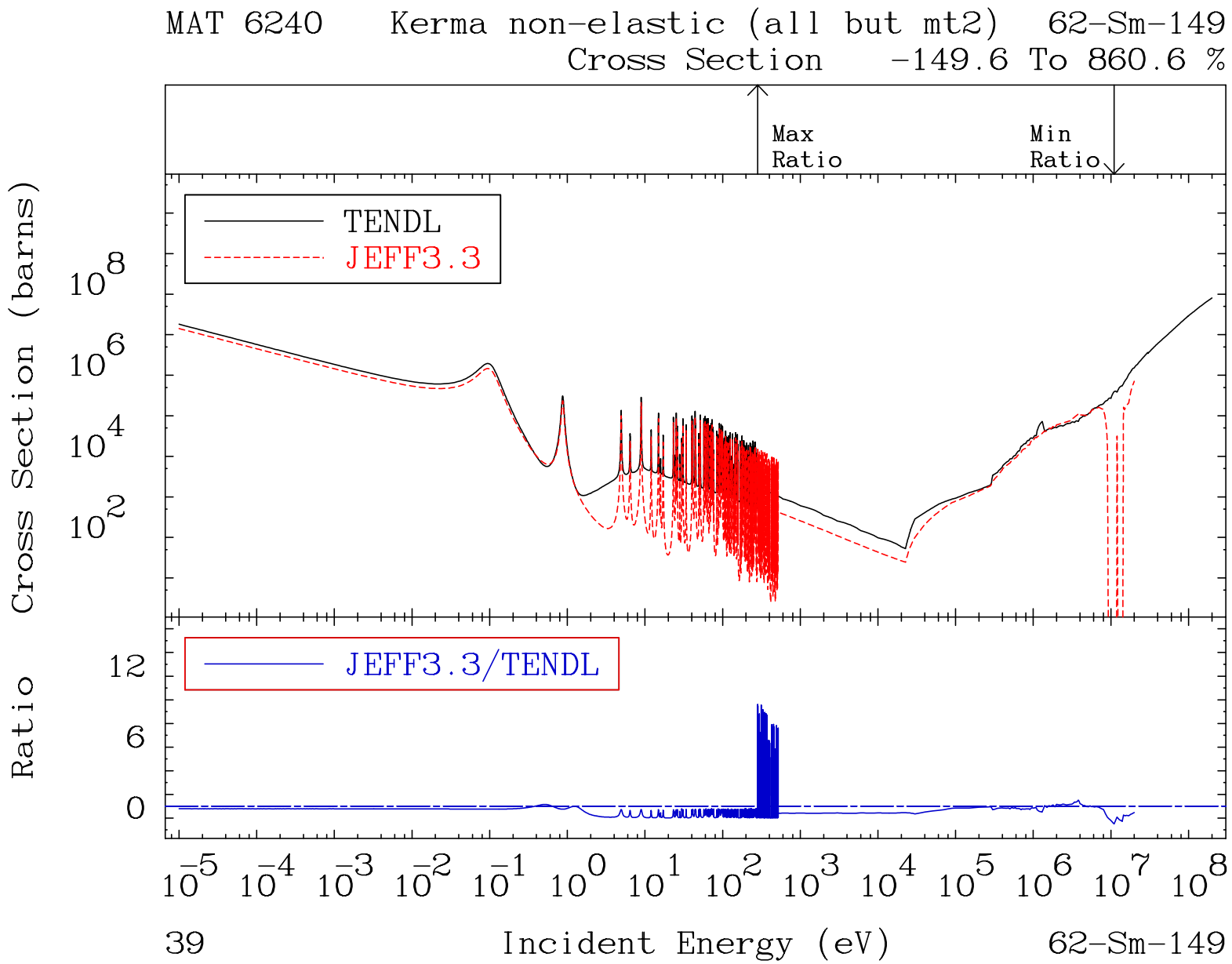

MAT 6240
(n,α)
Cross Section
62-Sm-149
-98.73 To 2838. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
34
62-Sm-149

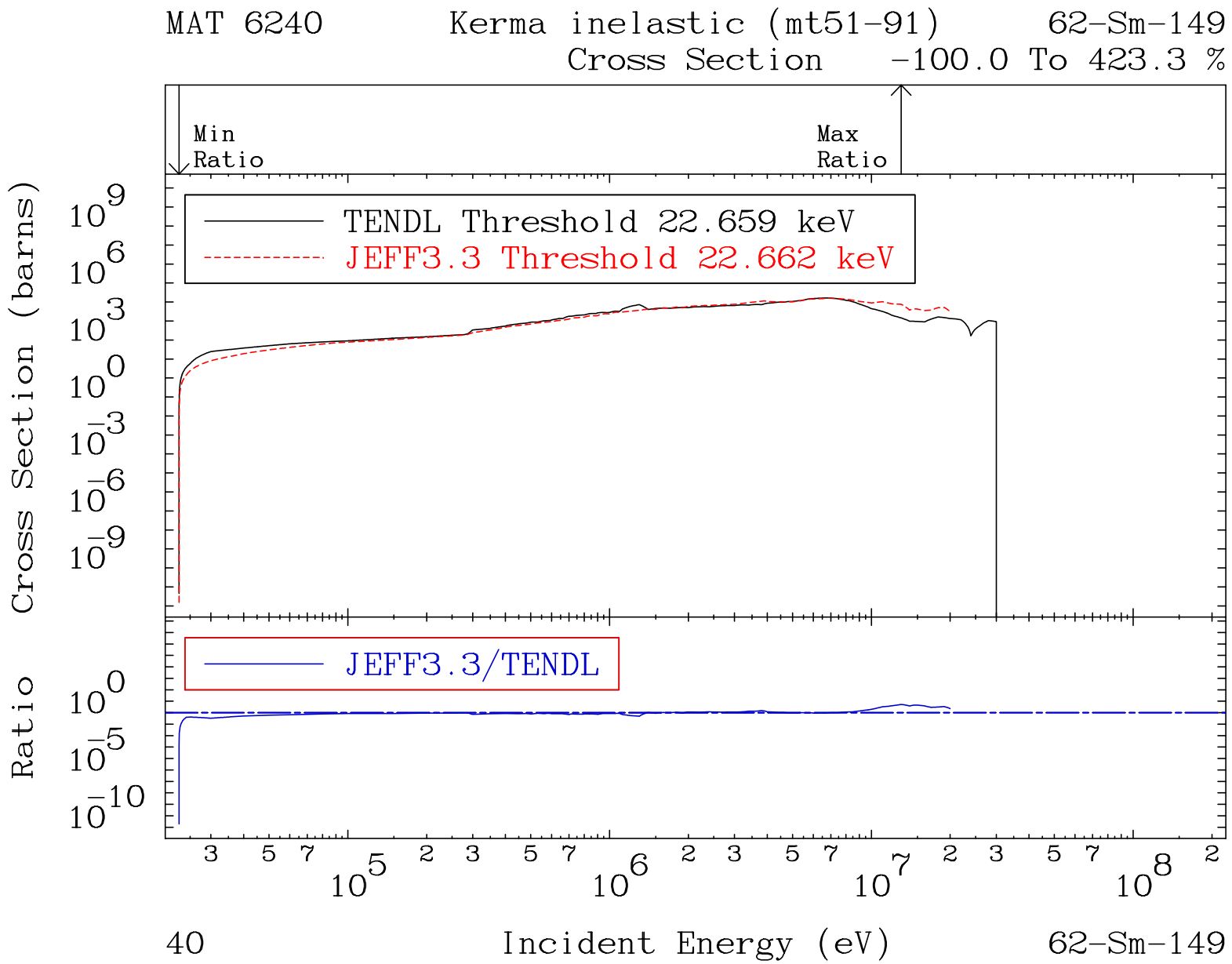

MAT 6240
Hydrogen Production
62-Sm-149
Cross Section
-100.0 To 3460. %
Min Ratio
Max Ratio
TENDL
JEFF3.3 Threshold 1.9000 MeV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
40
20
0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
35
Incident Energy (eV)
62-Sm-149

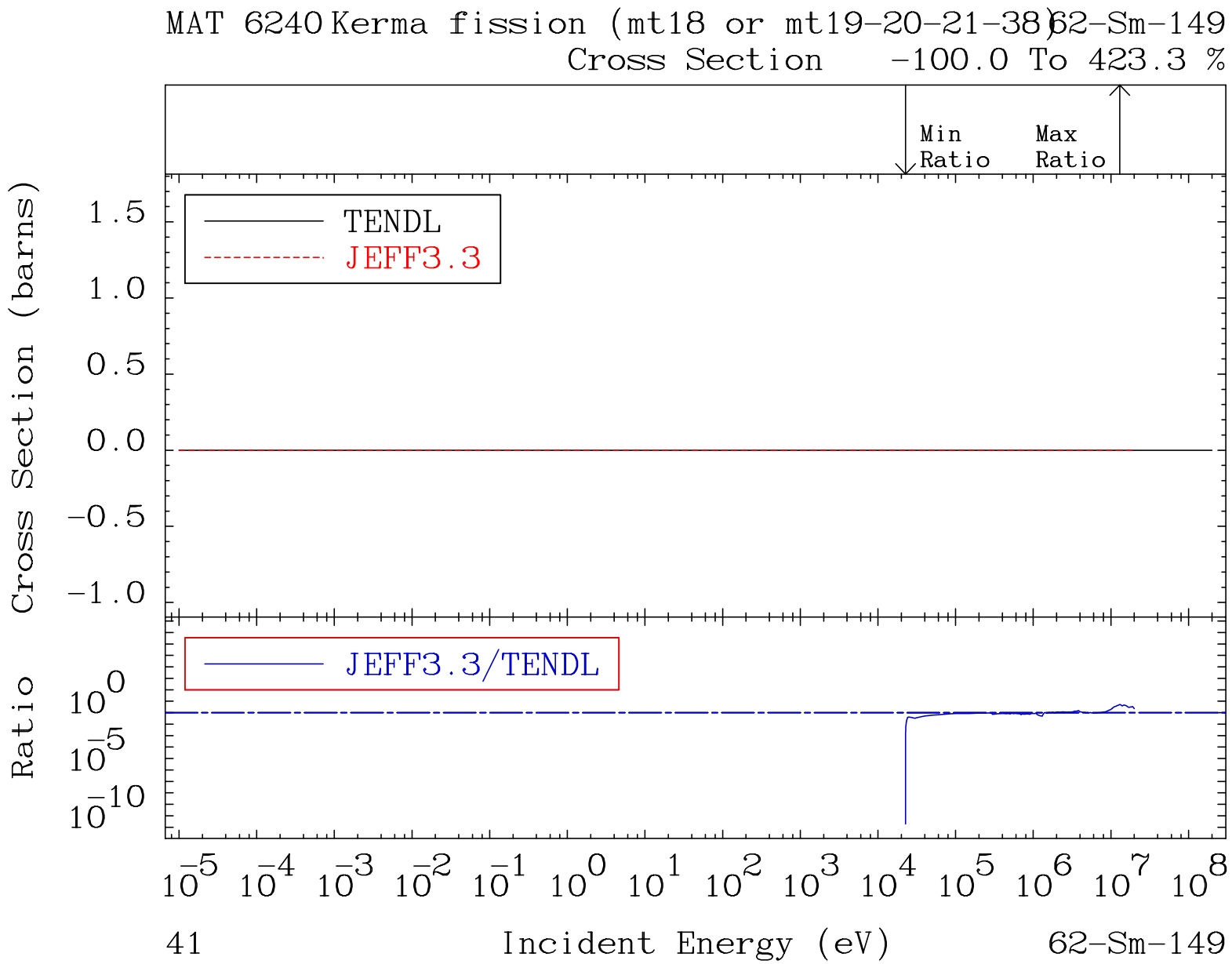

MAT 6240
He-4 Production
Cross Section
62-Sm-149
-98.73 To 2838. %
Min
Ratio
Max
Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
36
62-Sm-149

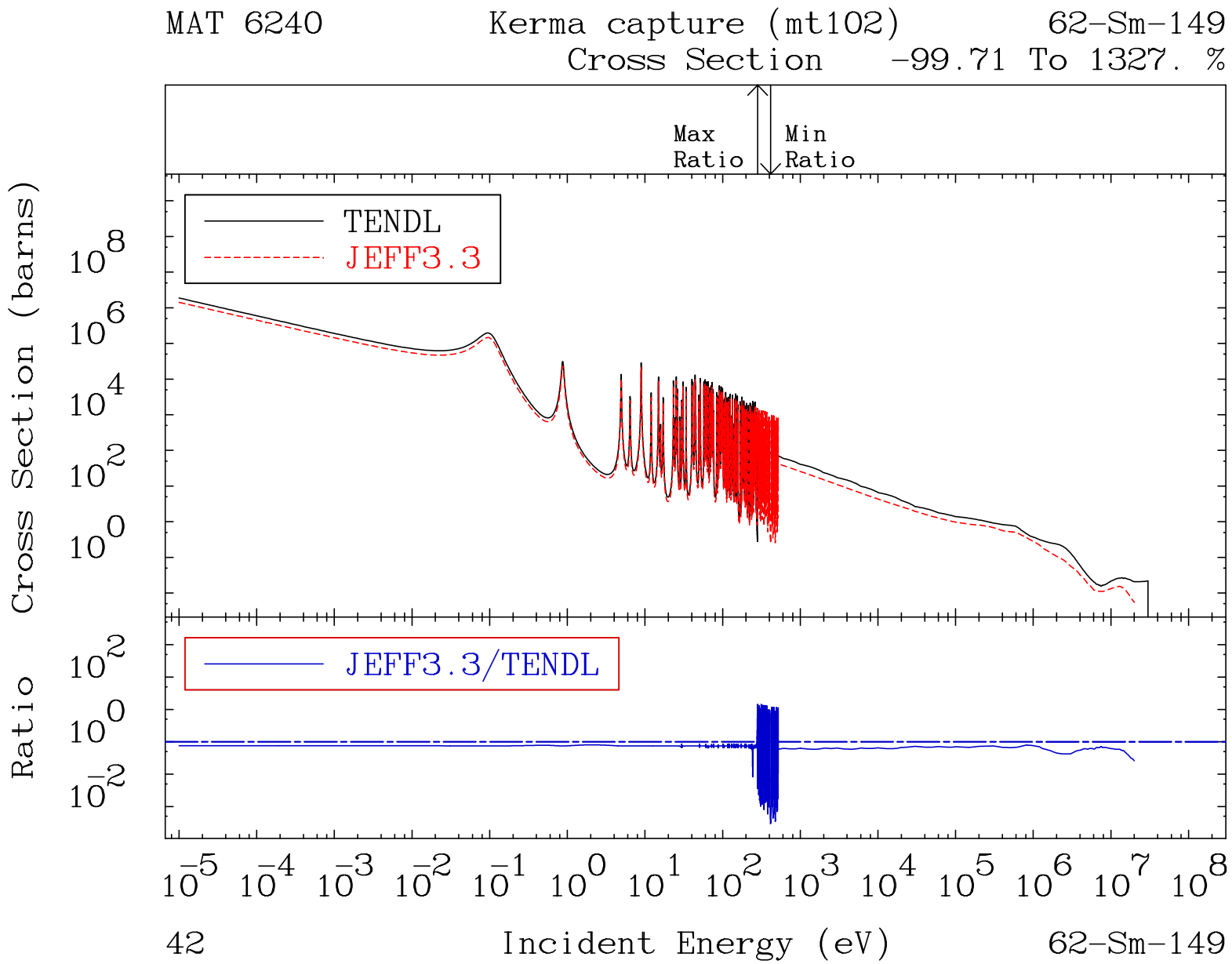

MAT 6240
Kerma total (eV-barns)
62-Sm-149
Cross Section -127.2 To 1083. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
37
62-Sm-149

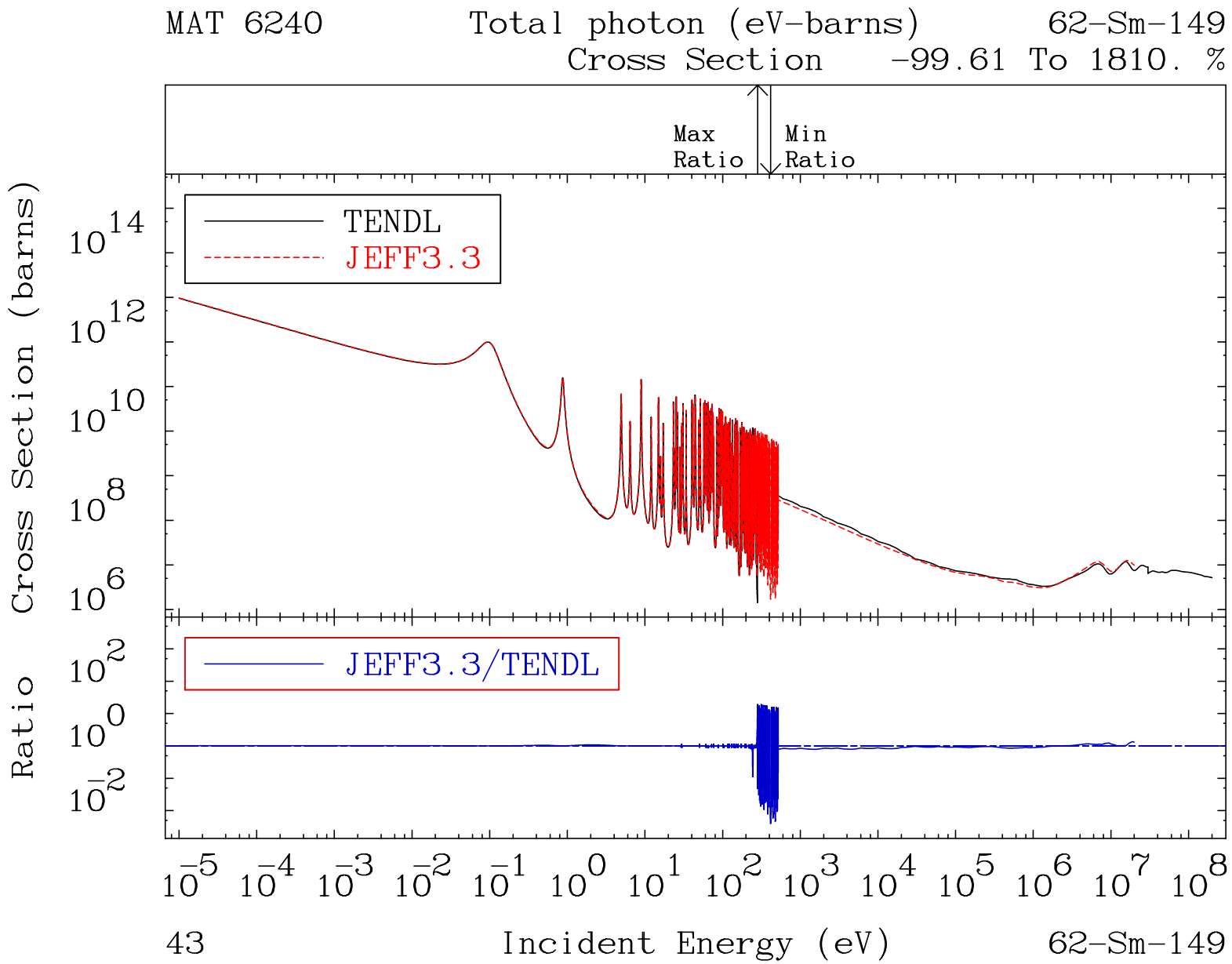

MAT 6240
Kerma elastic
Cross Section
62-Sm-149
-96.70 To 2593. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
38
62-Sm-149

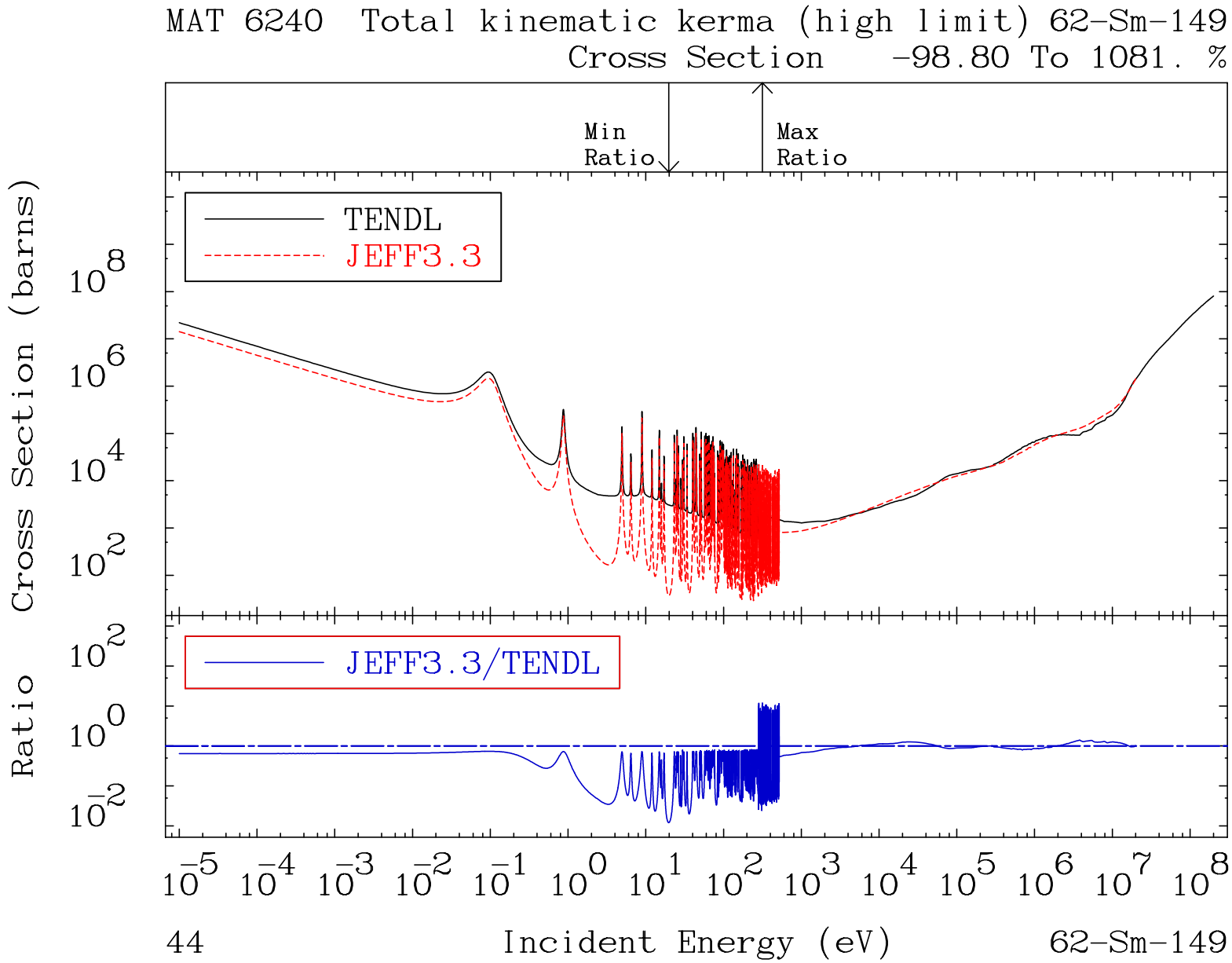

MAT 6240 Kerma non-elastic (all but mt2) 62-Sm-149
Cross Section -149.6 To 860.6 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
39
62-Sm-149

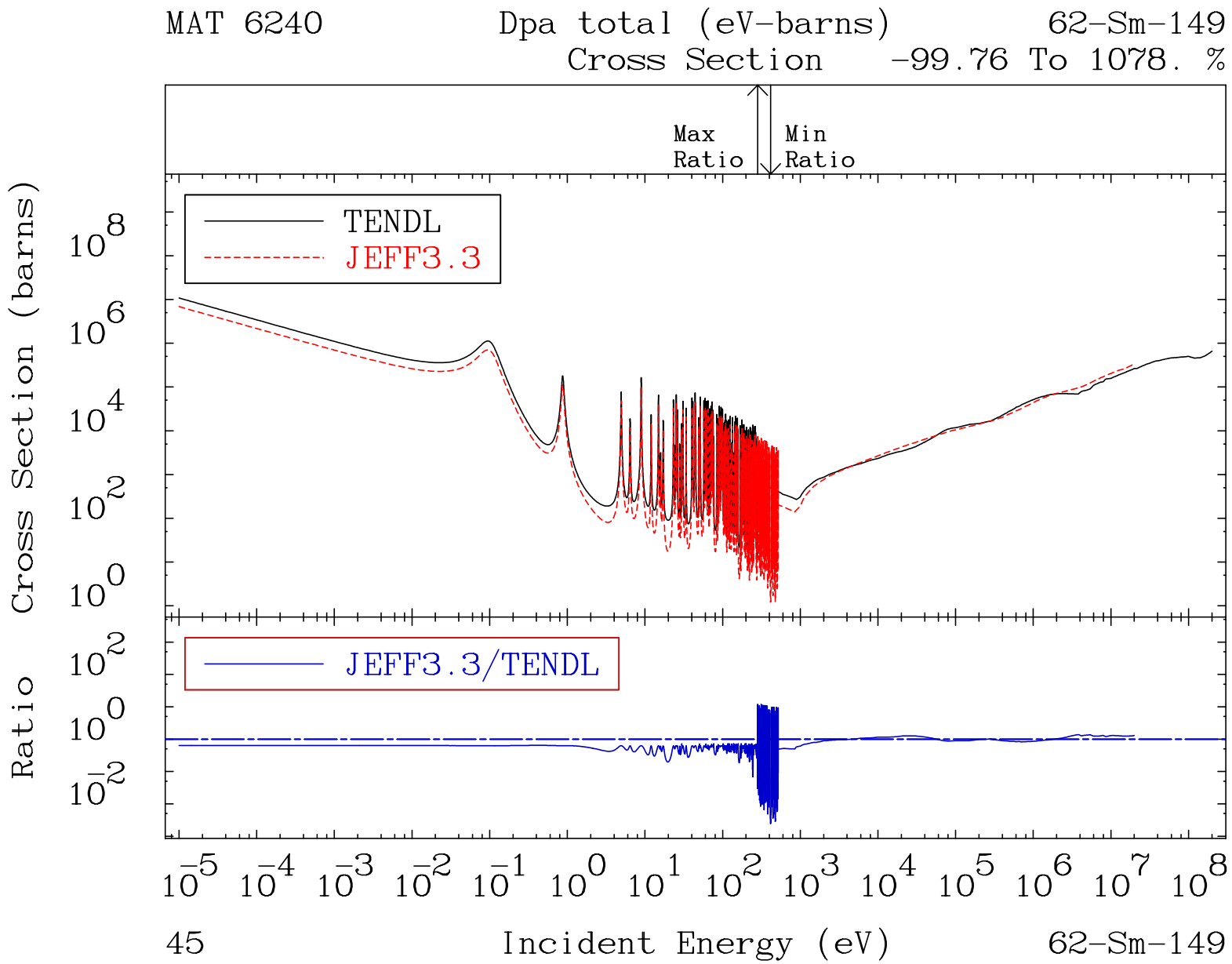

MAT 6240
Kerma inelastic (mt51-91)
62-Sm-149
Cross Section -100.0 To 423.3 %
Min Ratio
Max Ratio
TENDL Threshold 22.659 keV
JEFF3.3 Threshold 22.662 keV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
40
62-Sm-149

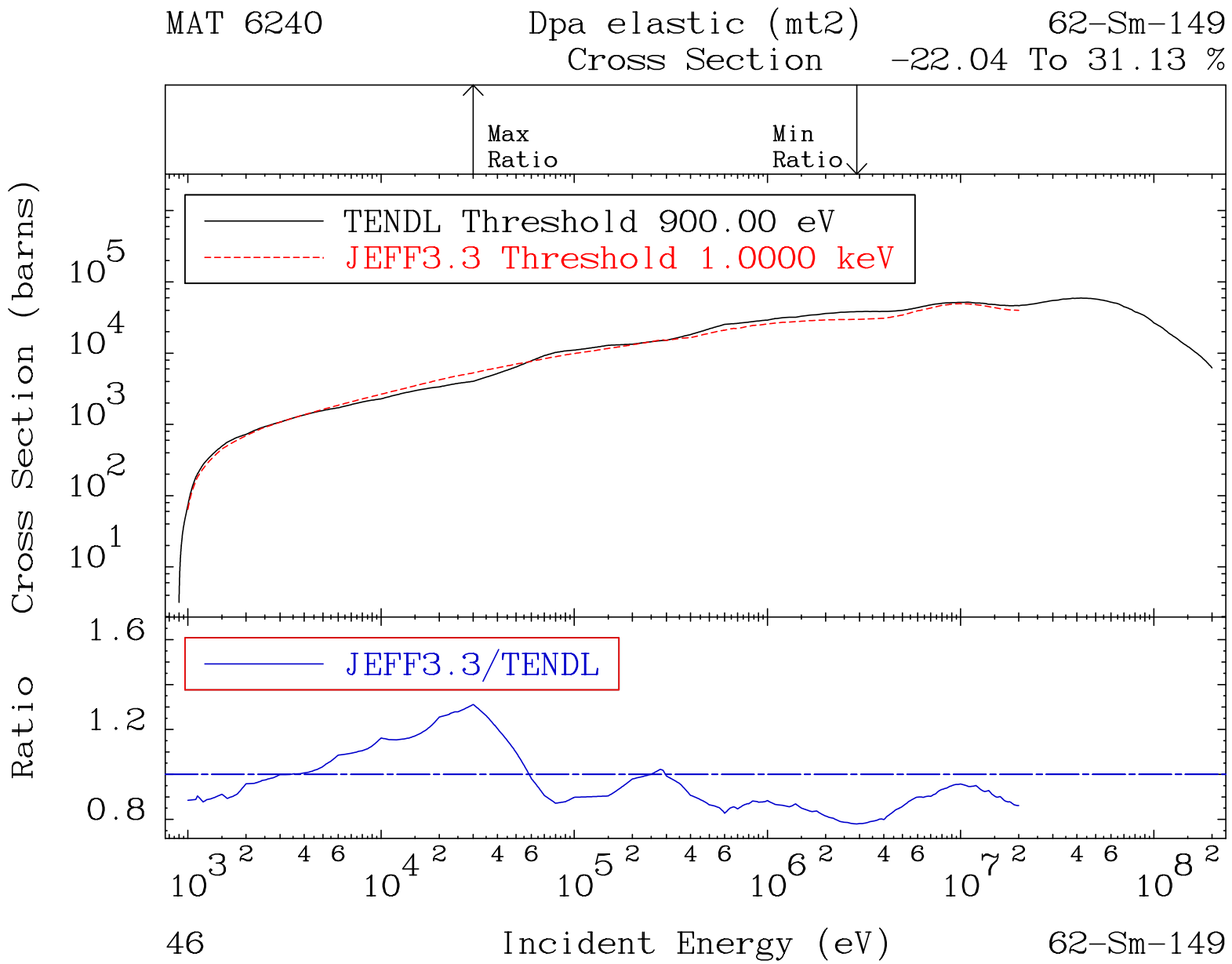

MAT 6240 Kerma fission (mt18 or mt19-20-21-38) 62-Sm-149
Cross Section -100.0 To 423.3 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{0}
10^{-5}
10^{-10}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
41
Incident Energy (eV)
62-Sm-149

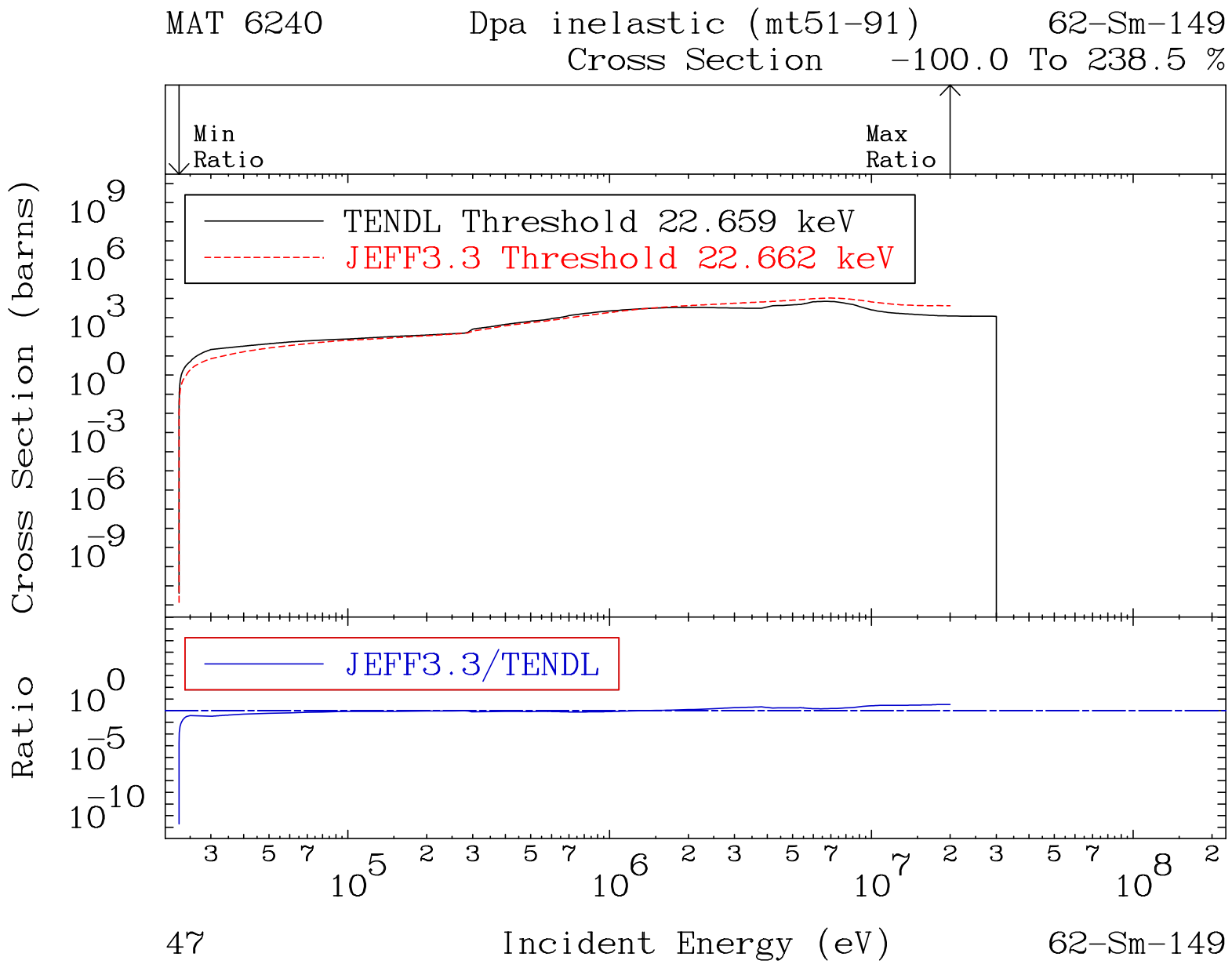

MAT 6240
Kerma capture (mt102)
62-Sm-149
Cross Section -99.71 To 1327. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
42
62-Sm-149

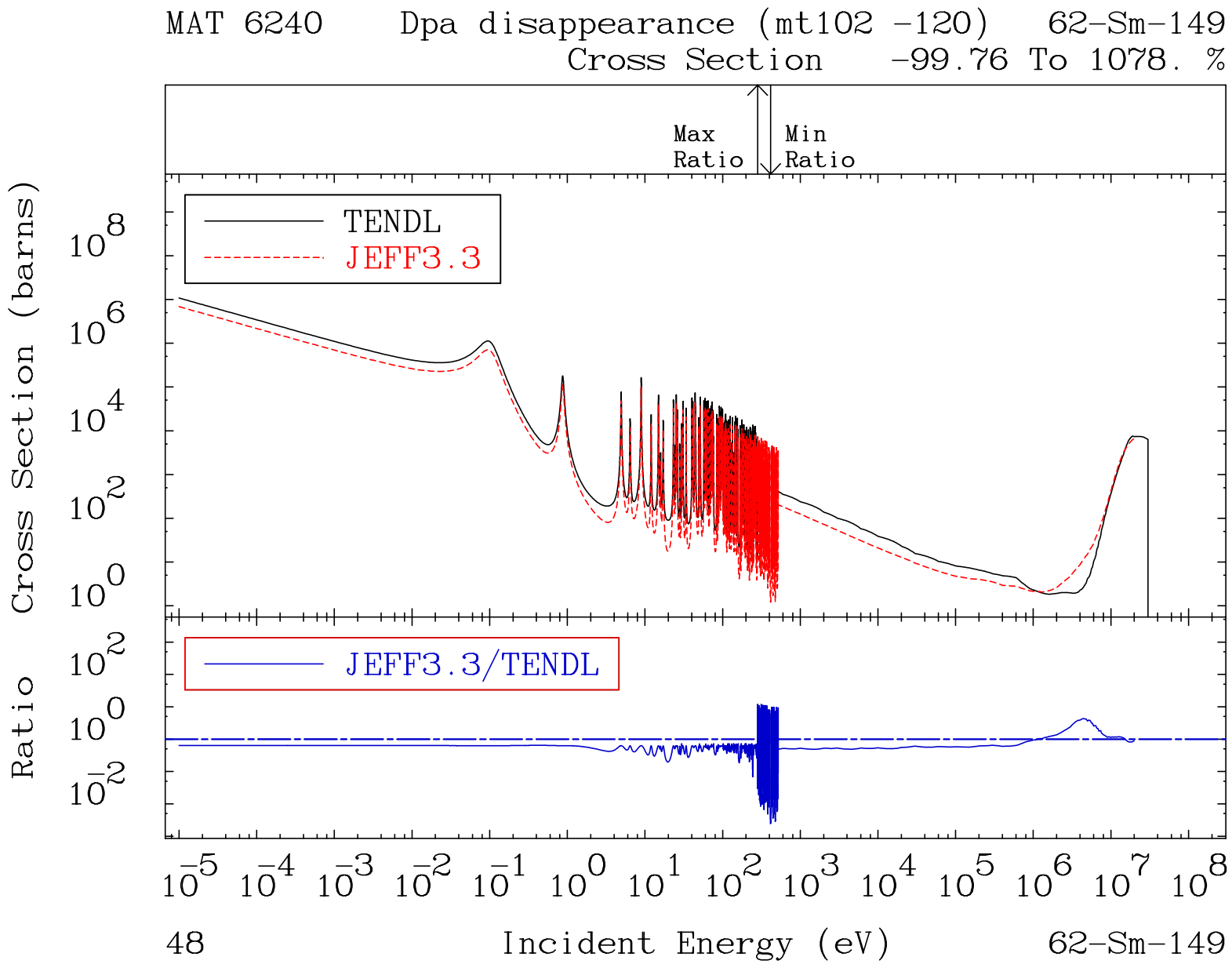

MAT 6240
Total photon (eV-barns)
62-Sm-149
Cross Section -99.61 To 1810. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
43
62-Sm-149


MAT 6240 Total kinematic kerma (high limit) 62-Sm-149
Cross Section -98.80 To 1081. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
44
62-Sm-149


MAT 6240
Dpa total (eV-barns)
62-Sm-149
Cross Section -99.76 To 1078. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
45
62-Sm-149


MAT 6240
Dpa elastic (mt2)
Cross Section
62-Sm-149
-22.04 To 31.13 %
Max Ratio
Min Ratio
TENDL Threshold 900.00 eV
JEFF3.3 Threshold 1.0000 keV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
46
62-Sm-149


MAT 6240
Dpa inelastic (mt51-91)
62-Sm-149
Cross Section -100.0 To 238.5 %
Min Ratio
Max Ratio
TENDL Threshold 22.659 keV
JEFF3.3 Threshold 22.662 keV
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
47
62-Sm-149


MAT 6240 Dpa disappearance (mt102 -120) 62-Sm-149
Cross Section -99.76 To 1078. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
48
62-Sm-149