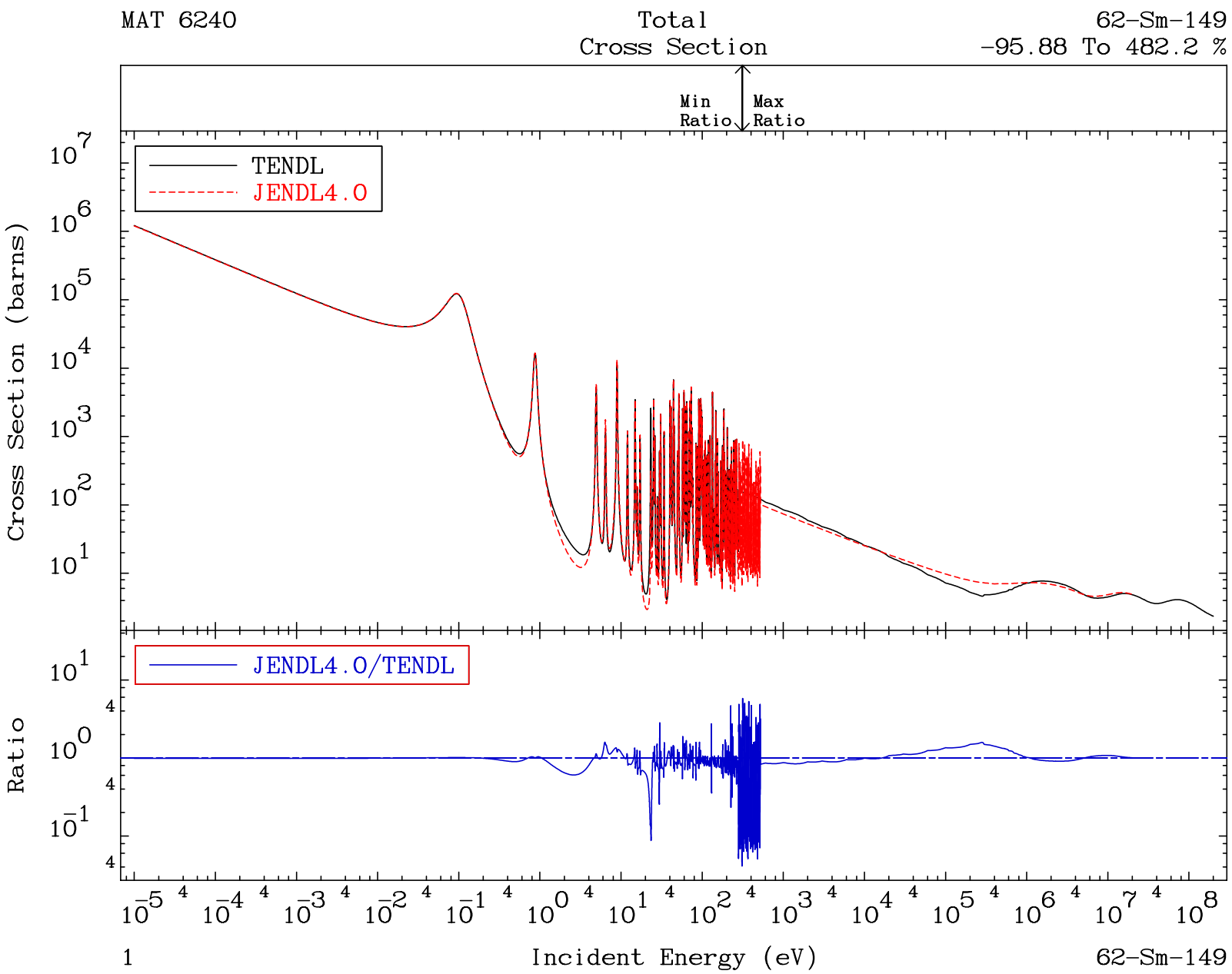
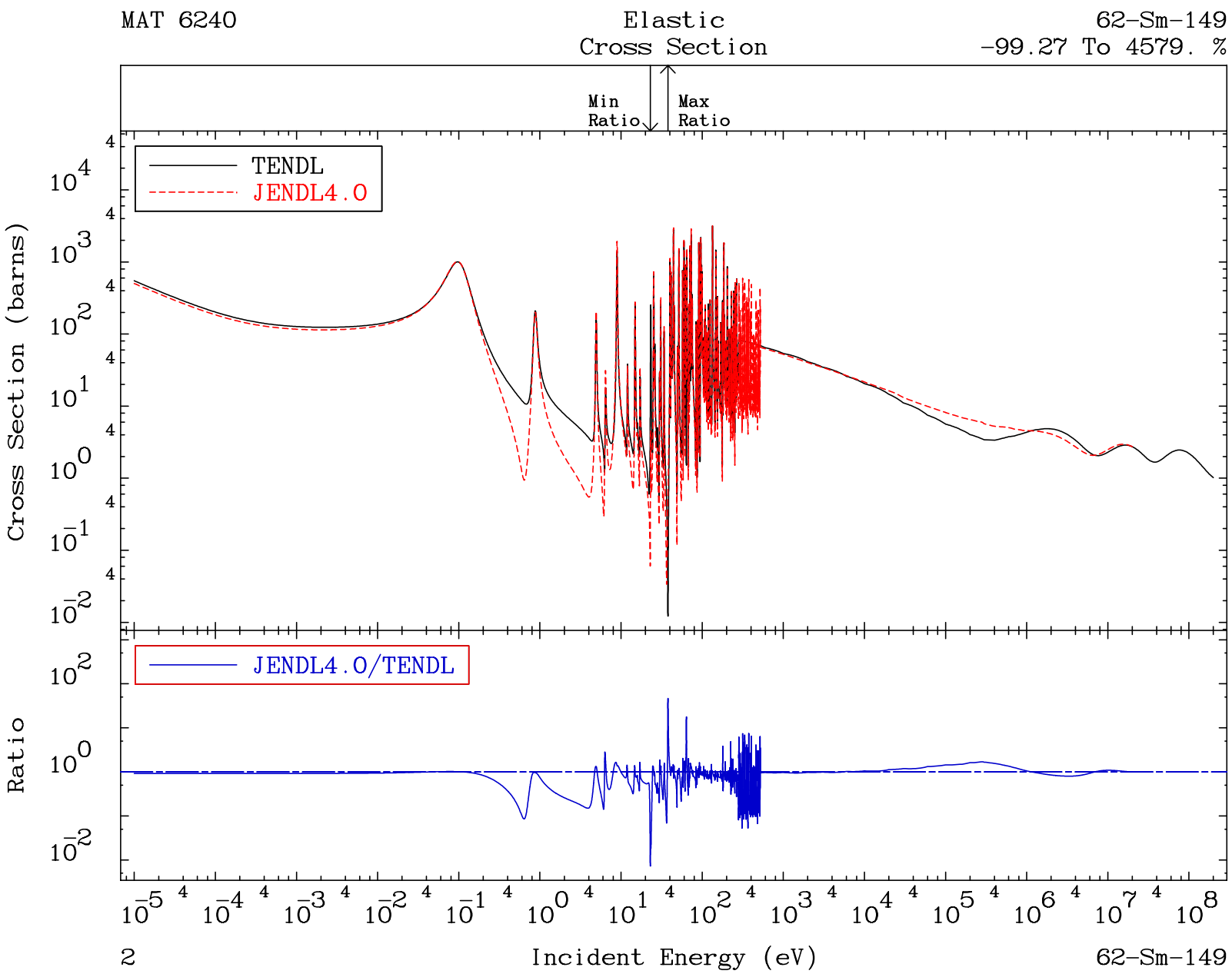
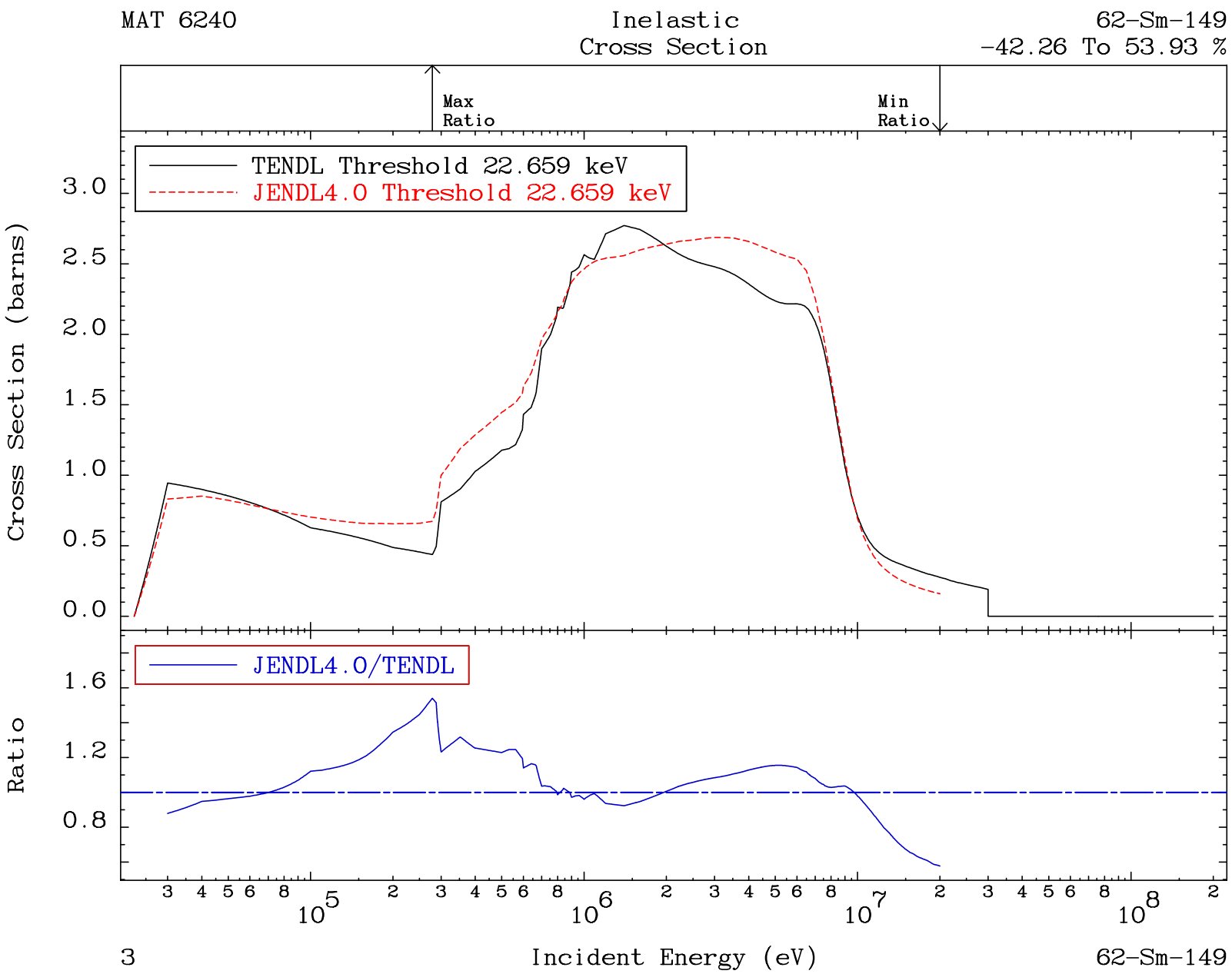
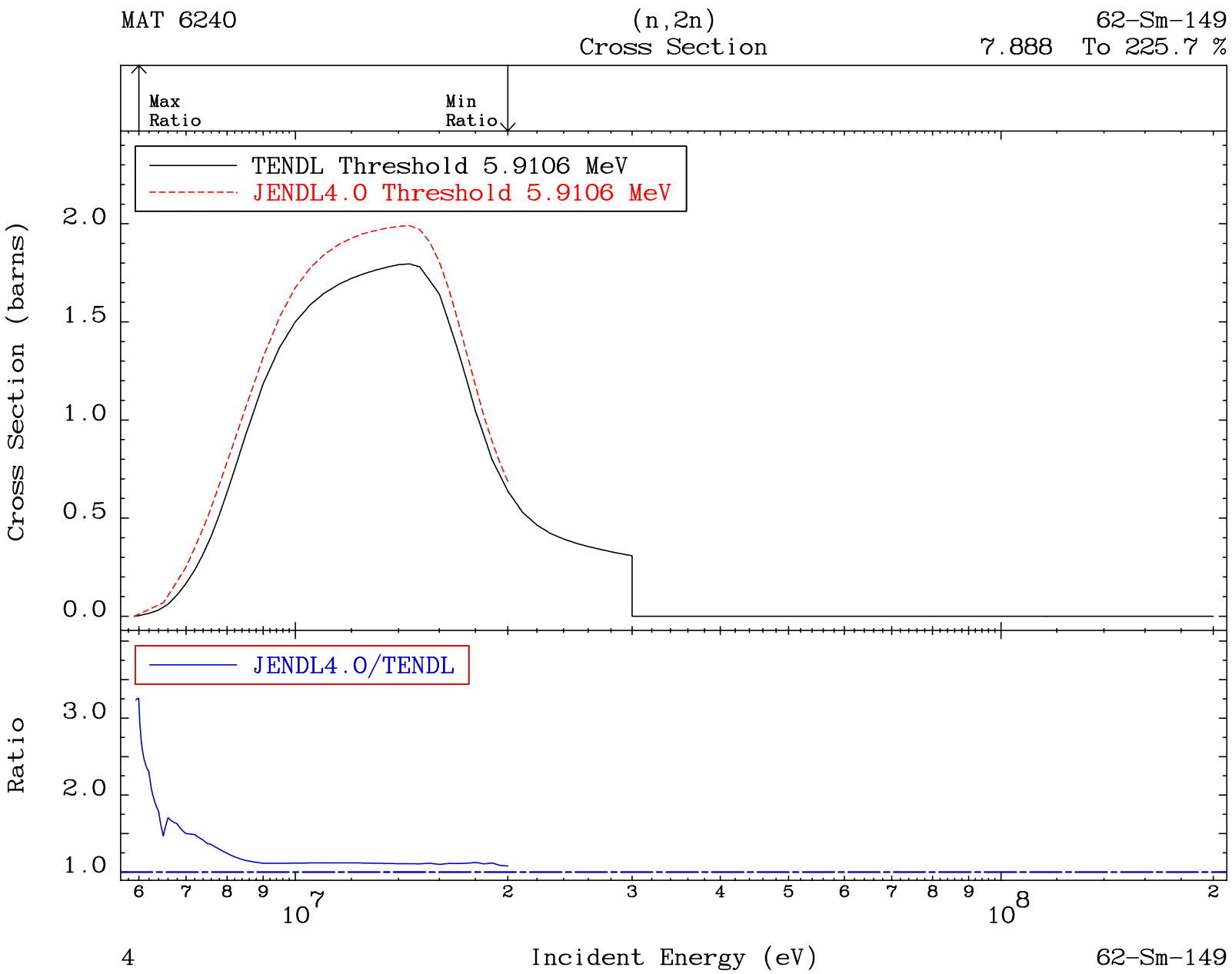
Program Complot
(Version 2018-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

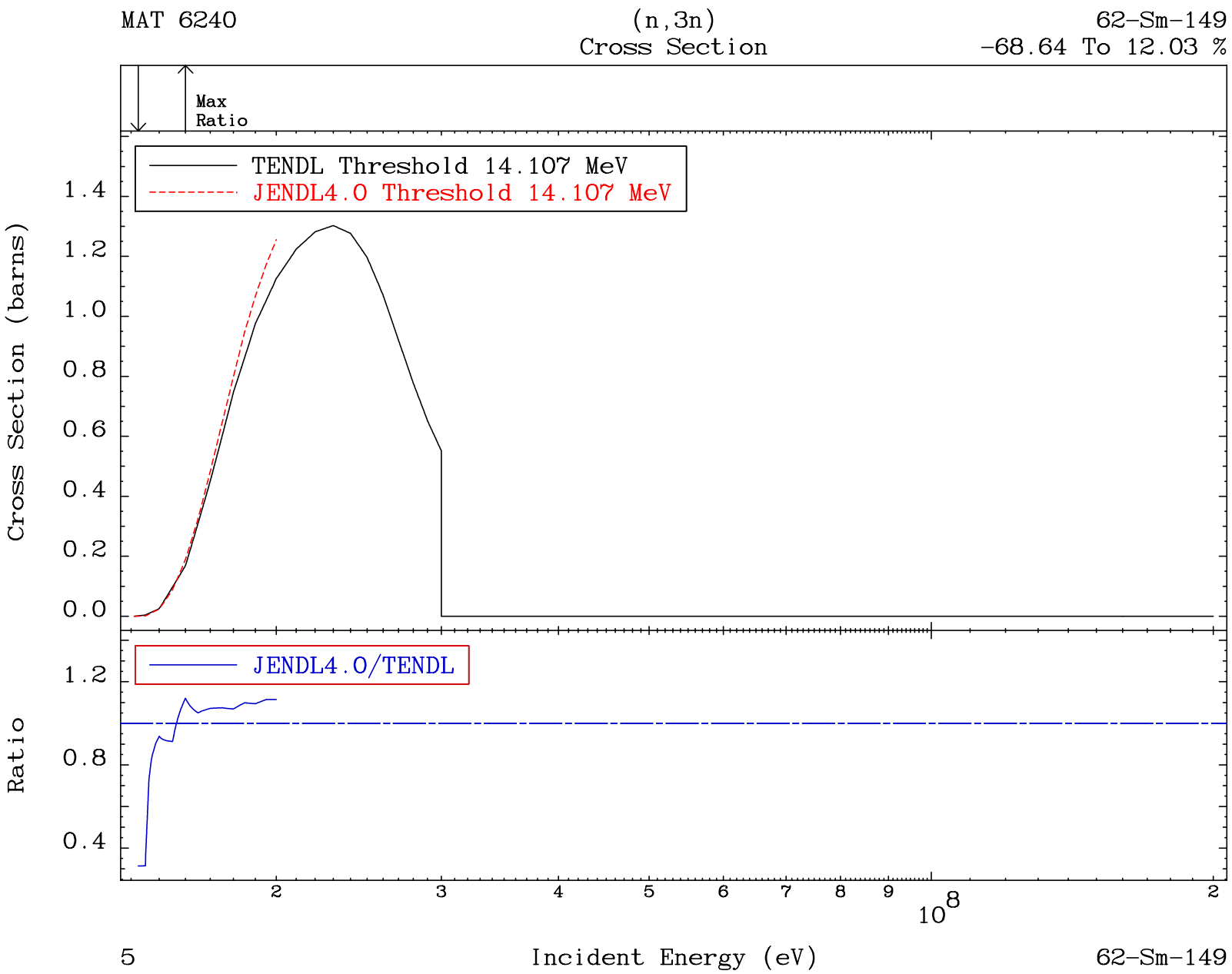
Press Mouse Button to Start

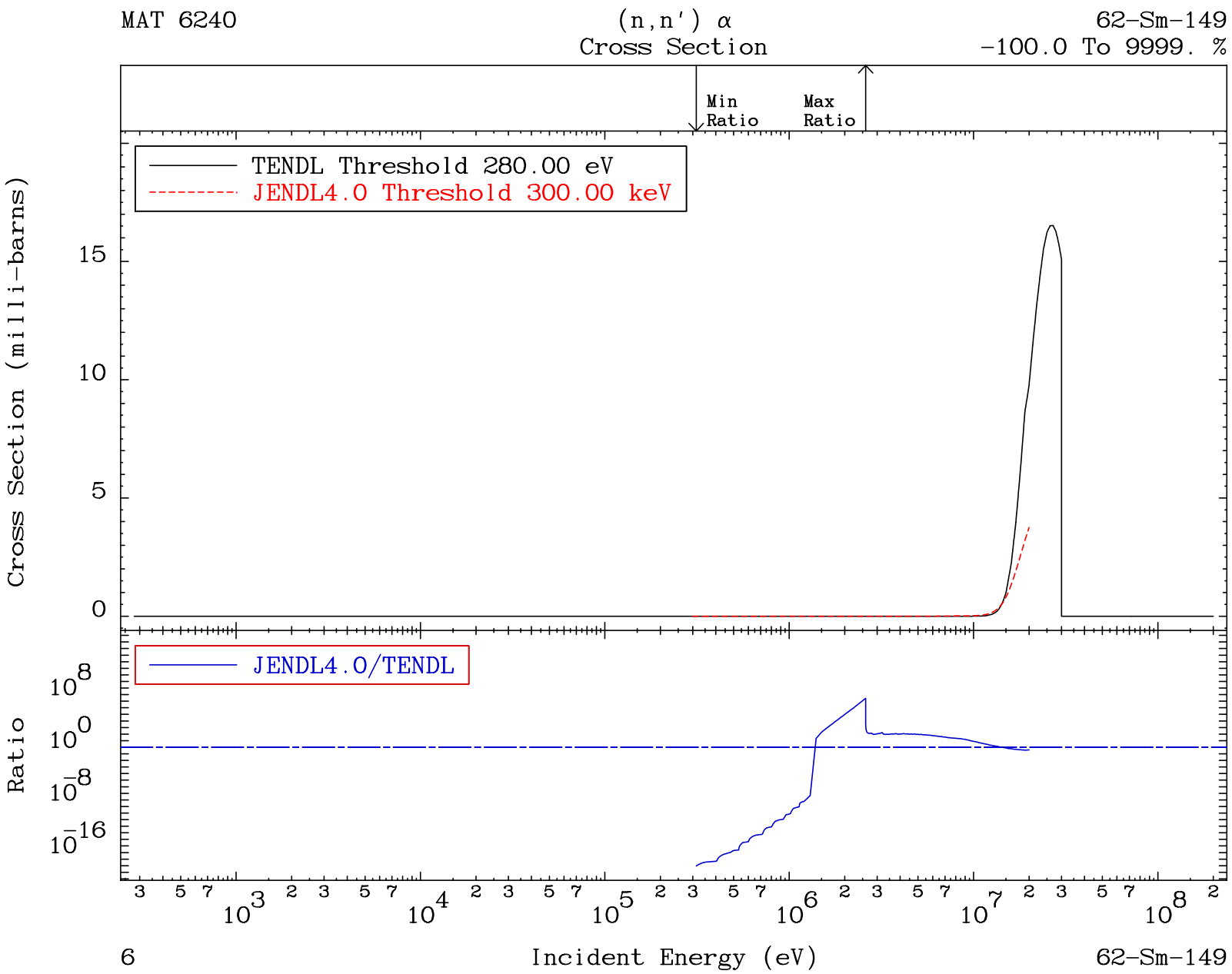

MAT 6240
Total
Cross Section
62-Sm-149
-95.88 To 482.2 %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
62-Sm-149

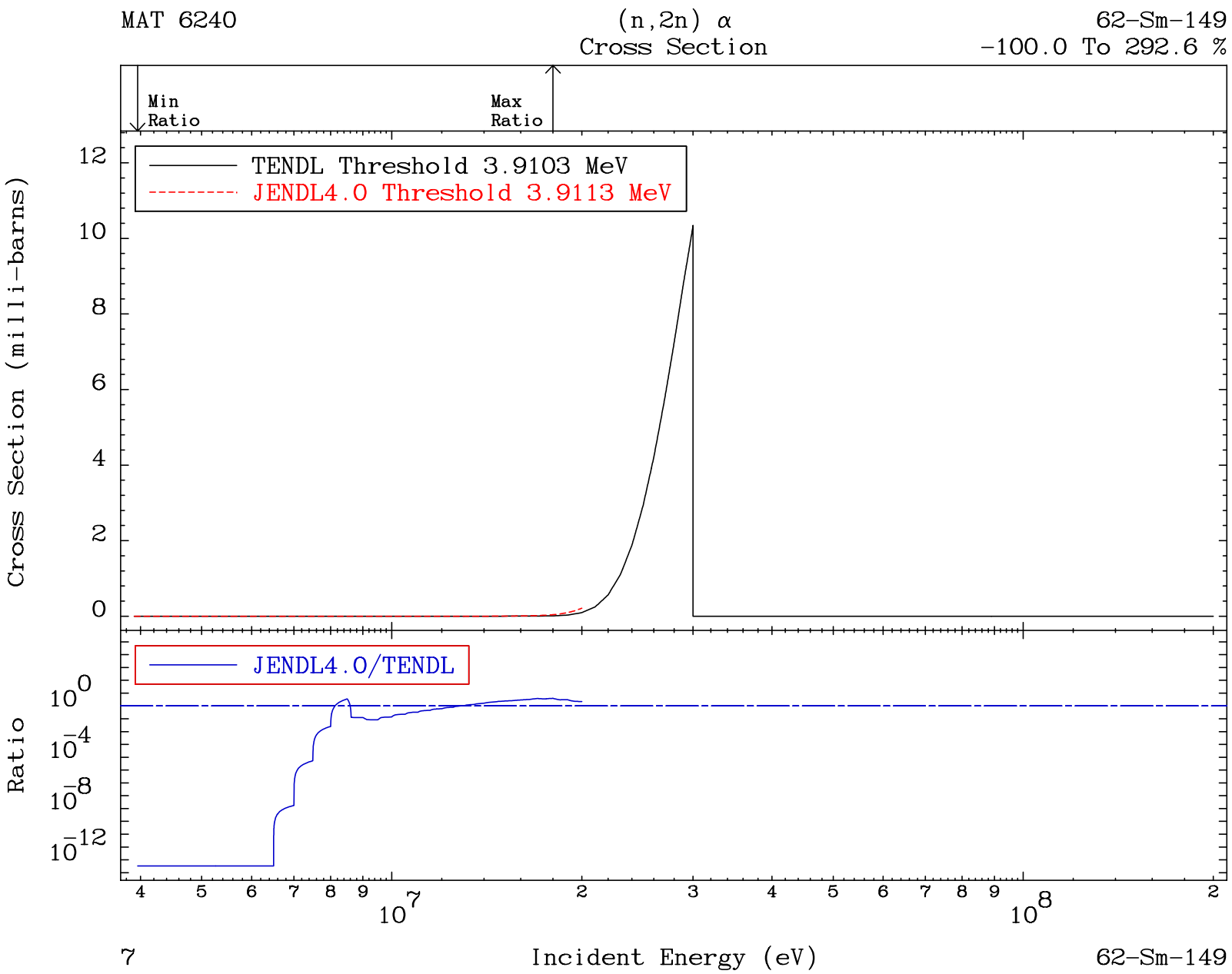

MAT 6240
Elastic
Cross Section
62-Sm-149
-99.27 To 4579. %
Min
Ratio
Max
Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
62-Sm-149
2

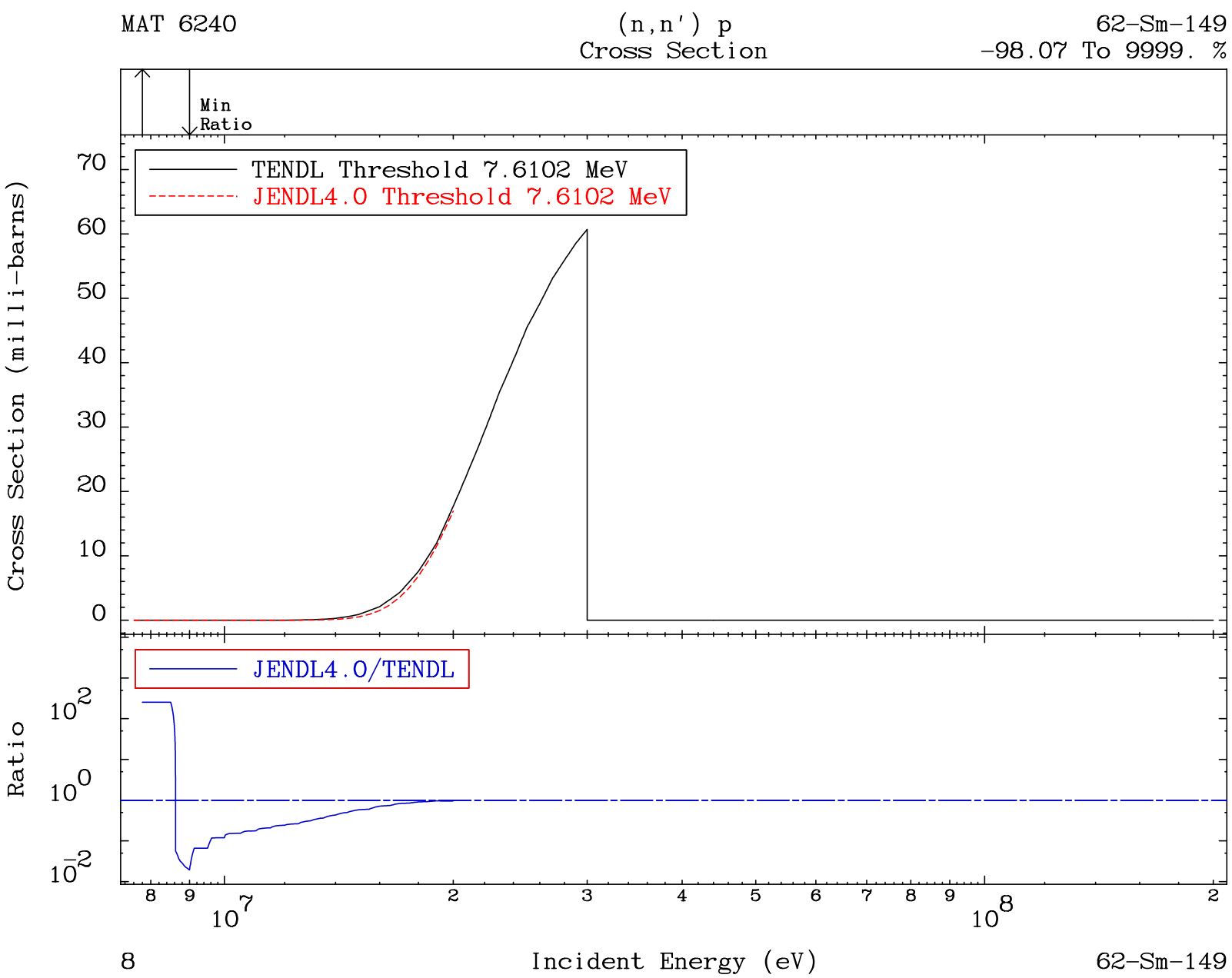

MAT 6240
Inelastic
Cross Section
62-Sm-149
-42.26 To 53.93 %
Max
Ratio
Min
Ratio
TENDL Threshold 22.659 keV
JENDL4.0 Threshold 22.659 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
1.6
1.2
0.8
3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
62-Sm-149

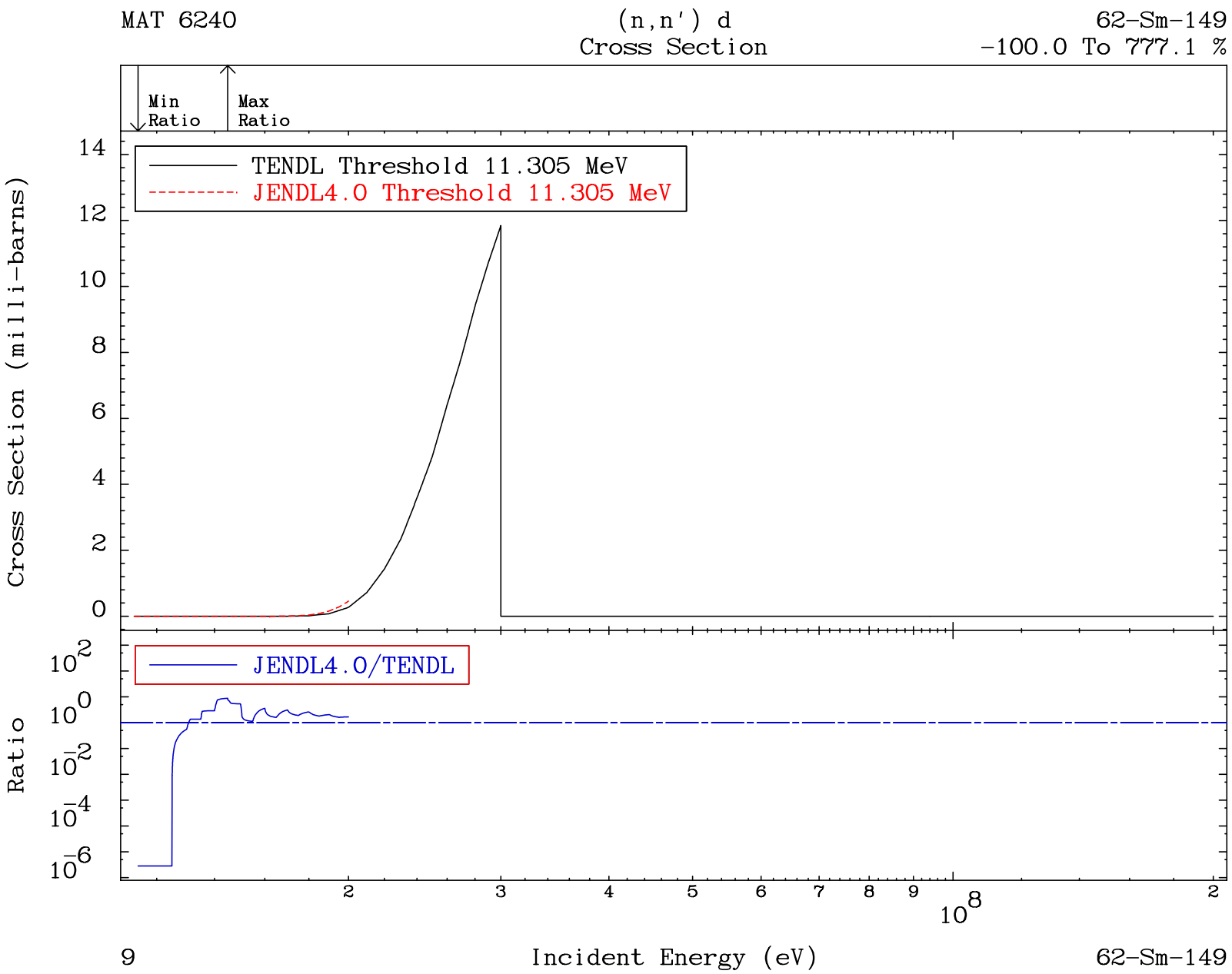

MAT 6240
(n,2n)
Cross Section
62-Sm-149
7.888 To 225.7 %
Max Ratio
Min Ratio
TENDL Threshold 5.9106 MeV
JENDL4.0 Threshold 5.9106 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
3.0
2.0
1.0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
62-Sm-149

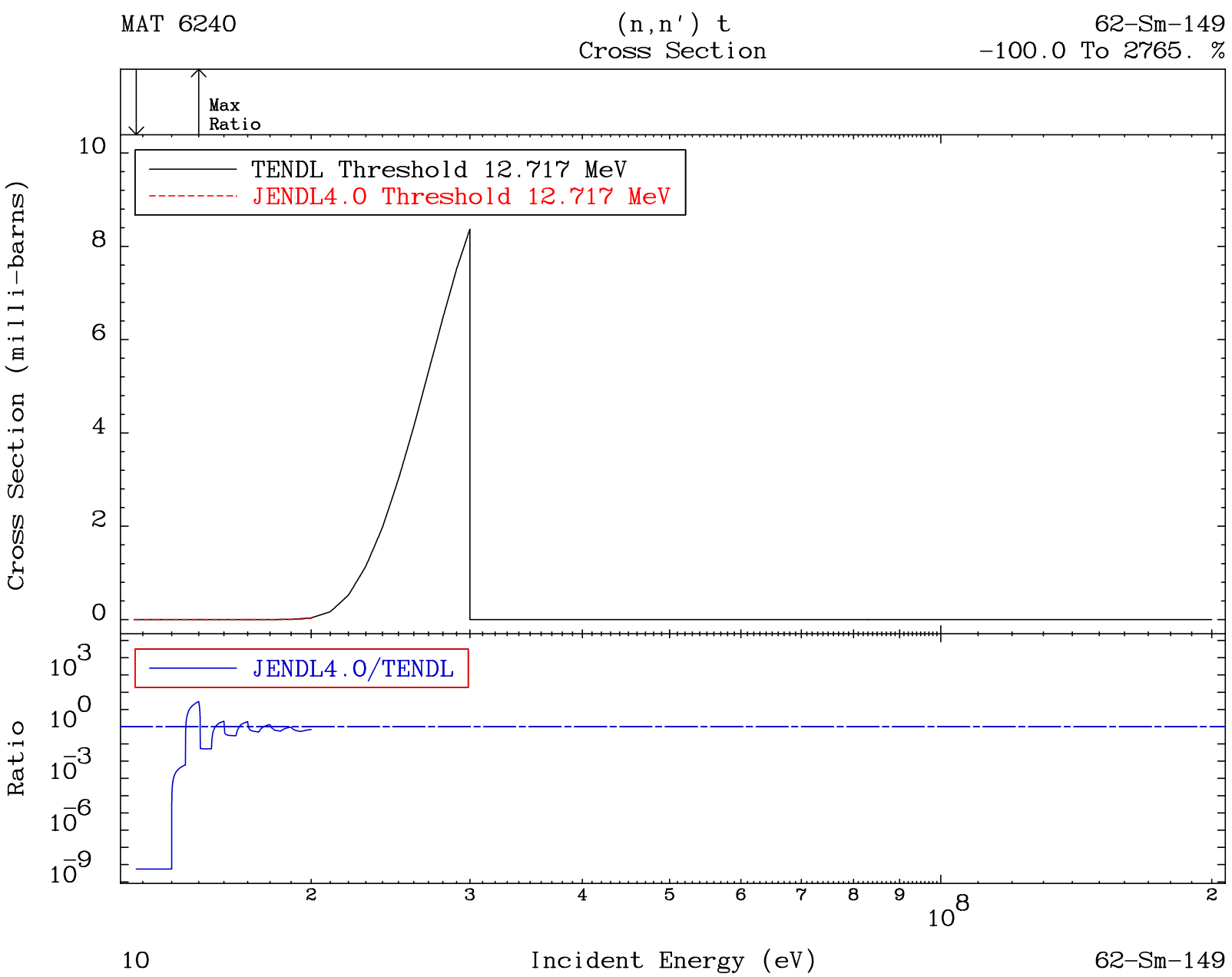

MAT 6240
(n,3n)
Cross Section
62-Sm-149
-68.64 To 12.03 %
Max
Ratio
TENDL Threshold 14.107 MeV
JENDL4.0 Threshold 14.107 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
62-Sm-149

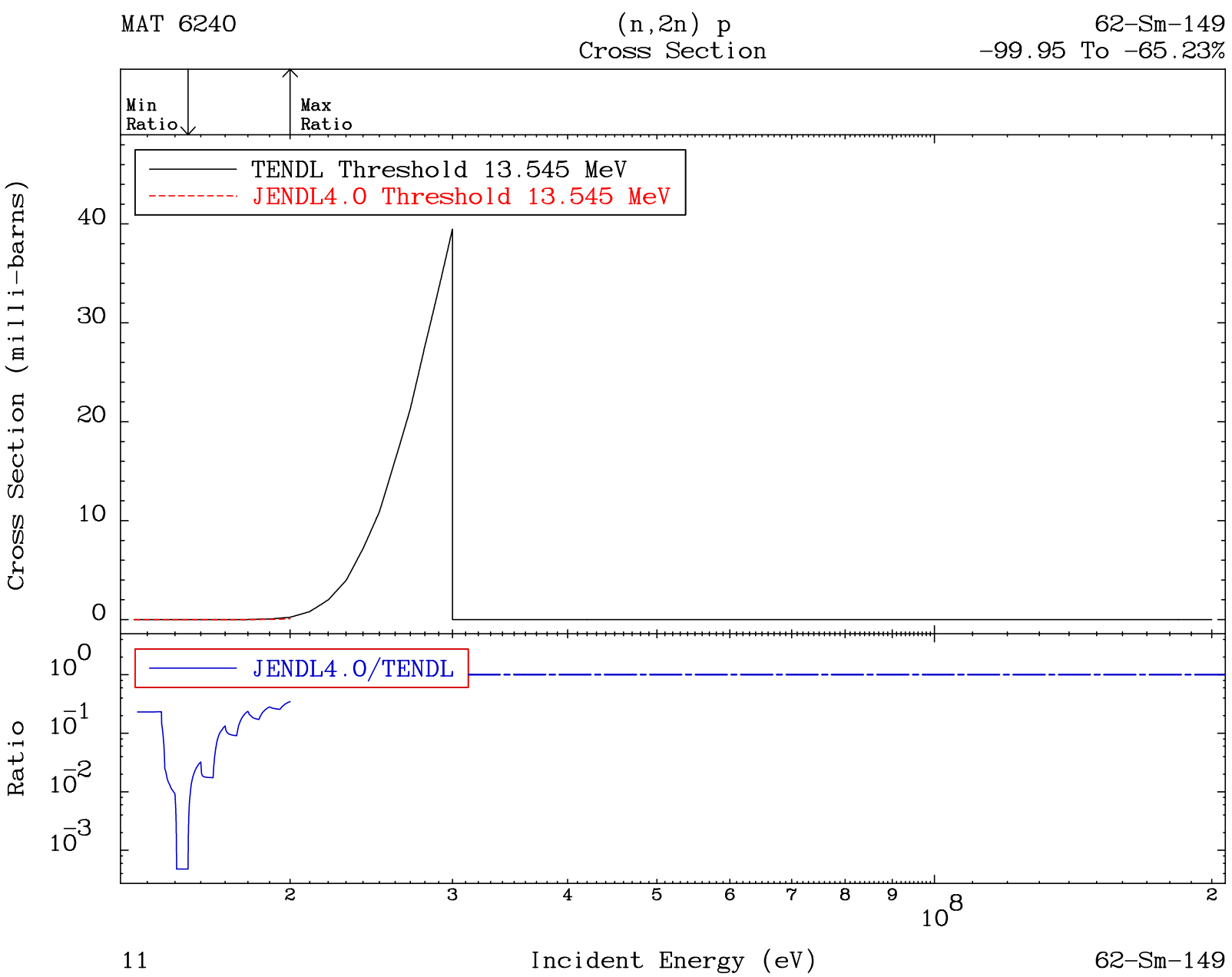

MAT 6240
(n,n') α
Cross Section
62-Sm-149
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 280.00 eV
JENDL4.0 Threshold 300.00 keV
Cross Section (milli-barns)
15
10
5
0
JENDL4.0/TENDL
Ratio
10^8
10^0
10^-8
10^-16
3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
6
Incident Energy (eV)
62-Sm-149

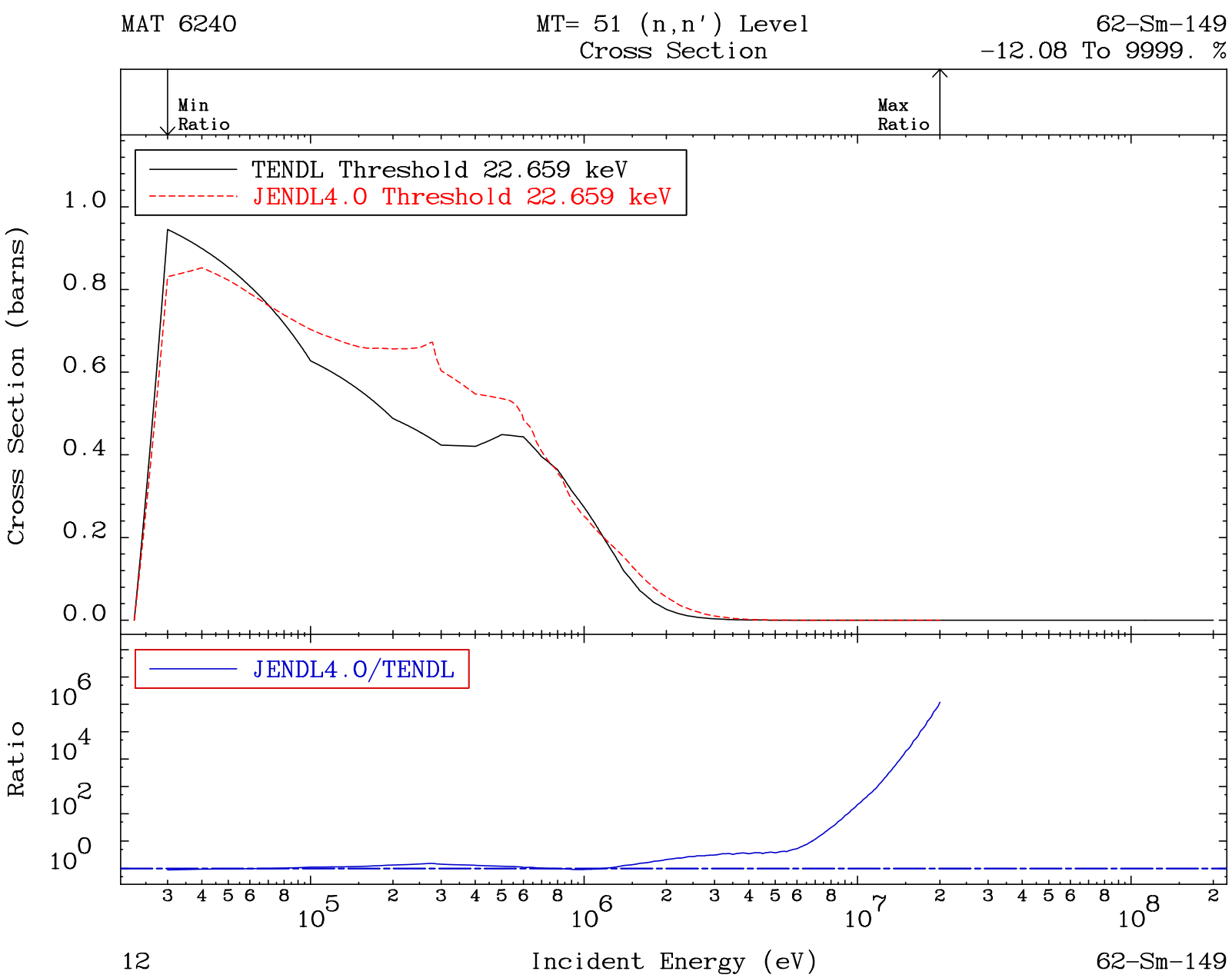

MAT 6240
(n,2n) α
Cross Section
62-Sm-149
-100.0 To 292.6 %
Min Ratio
Max Ratio
TENDL Threshold 3.9103 MeV
JENDL4.0 Threshold 3.9113 MeV
Cross Section (milli-barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
7
62-Sm-149

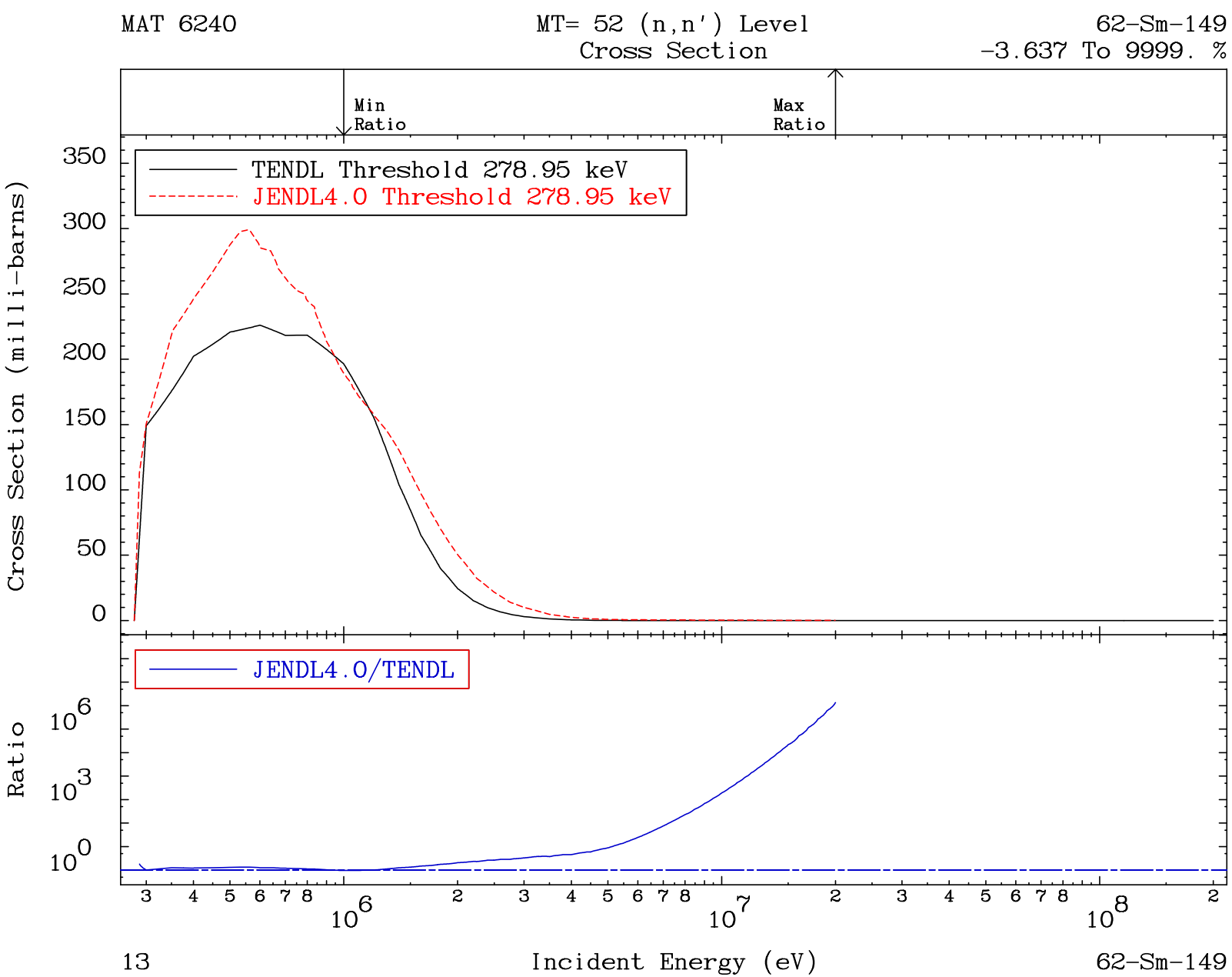

MAT 6240
(n,n') p
Cross Section
62-Sm-149
-98.07 To 9999. %
Min
Ratio
TENDL Threshold 7.6102 MeV
JENDL4.0 Threshold 7.6102 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^2
10^0
10^-2
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
62-Sm-149

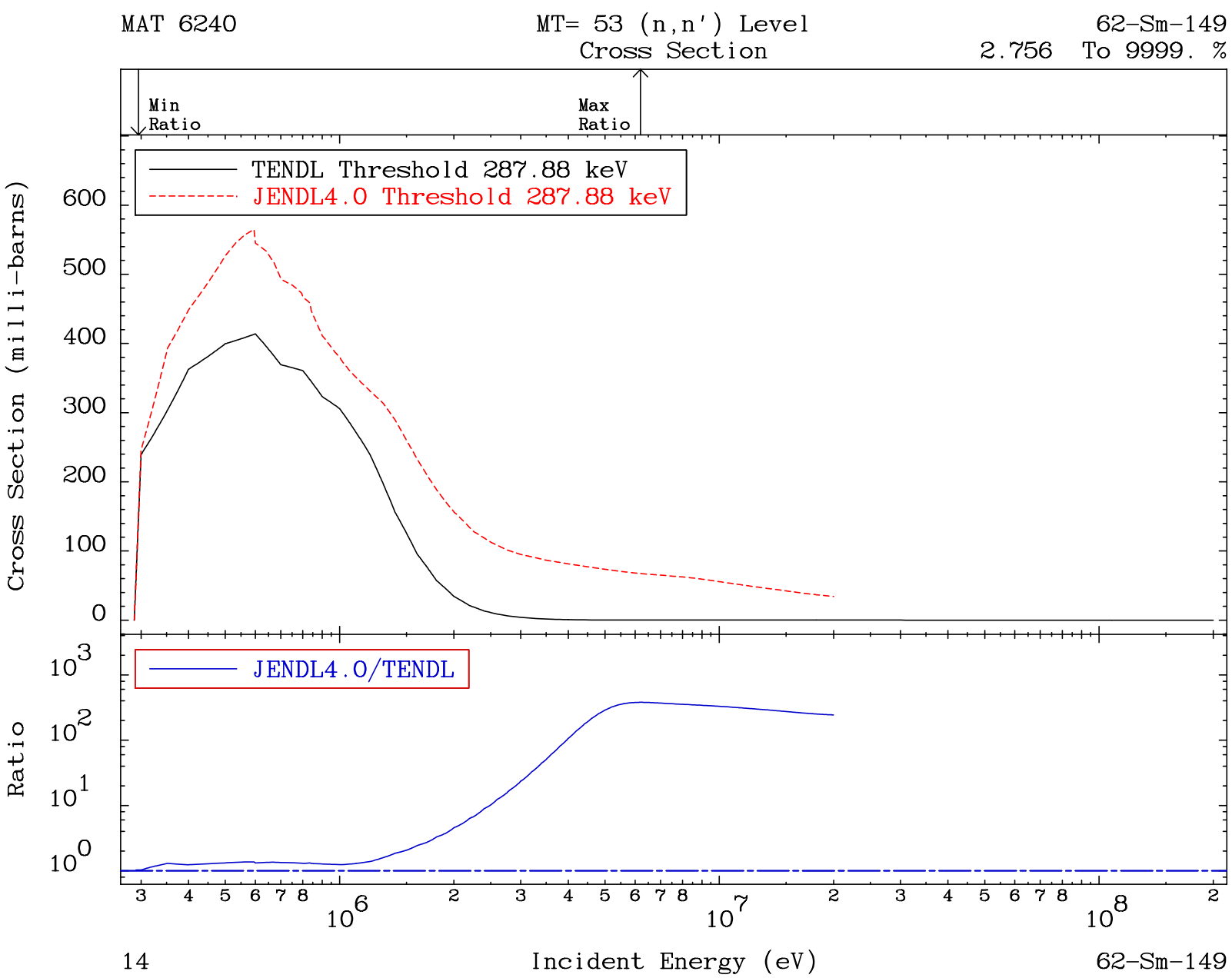

MAT 6240
(n,n') d
Cross Section
62-Sm-149
-100.0 To 777.1 %
Min Ratio
Max Ratio
TENDL Threshold 11.305 MeV
JENDL4.0 Threshold 11.305 MeV
Cross Section (milli-barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
9
62-Sm-149

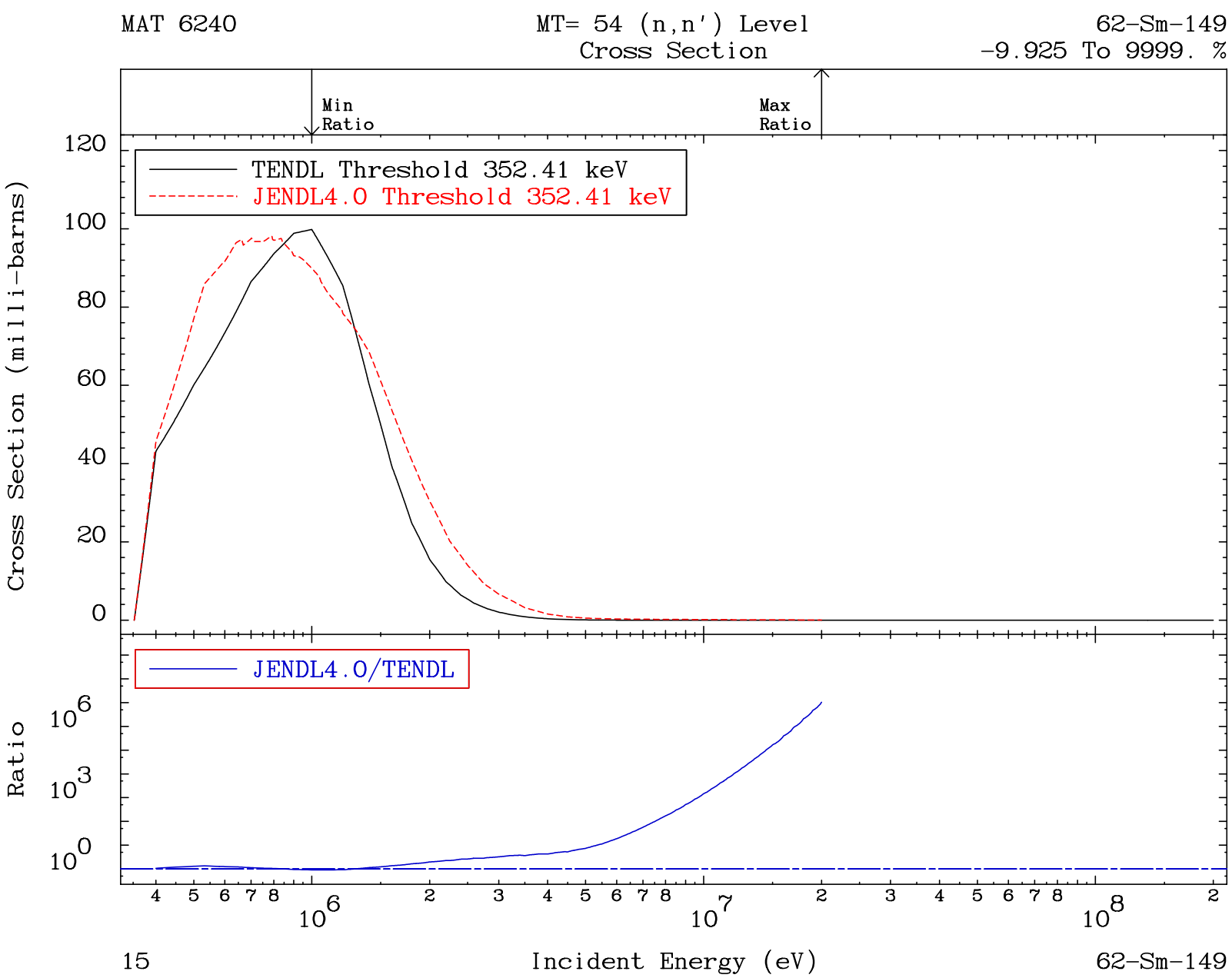

MAT 6240
(n,n') t
Cross Section
62-Sm-149
-100.0 To 2765. %
Max
Ratio
TENDL Threshold 12.717 MeV
JENDL4.0 Threshold 12.717 MeV
Cross Section (milli-barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
10
62-Sm-149

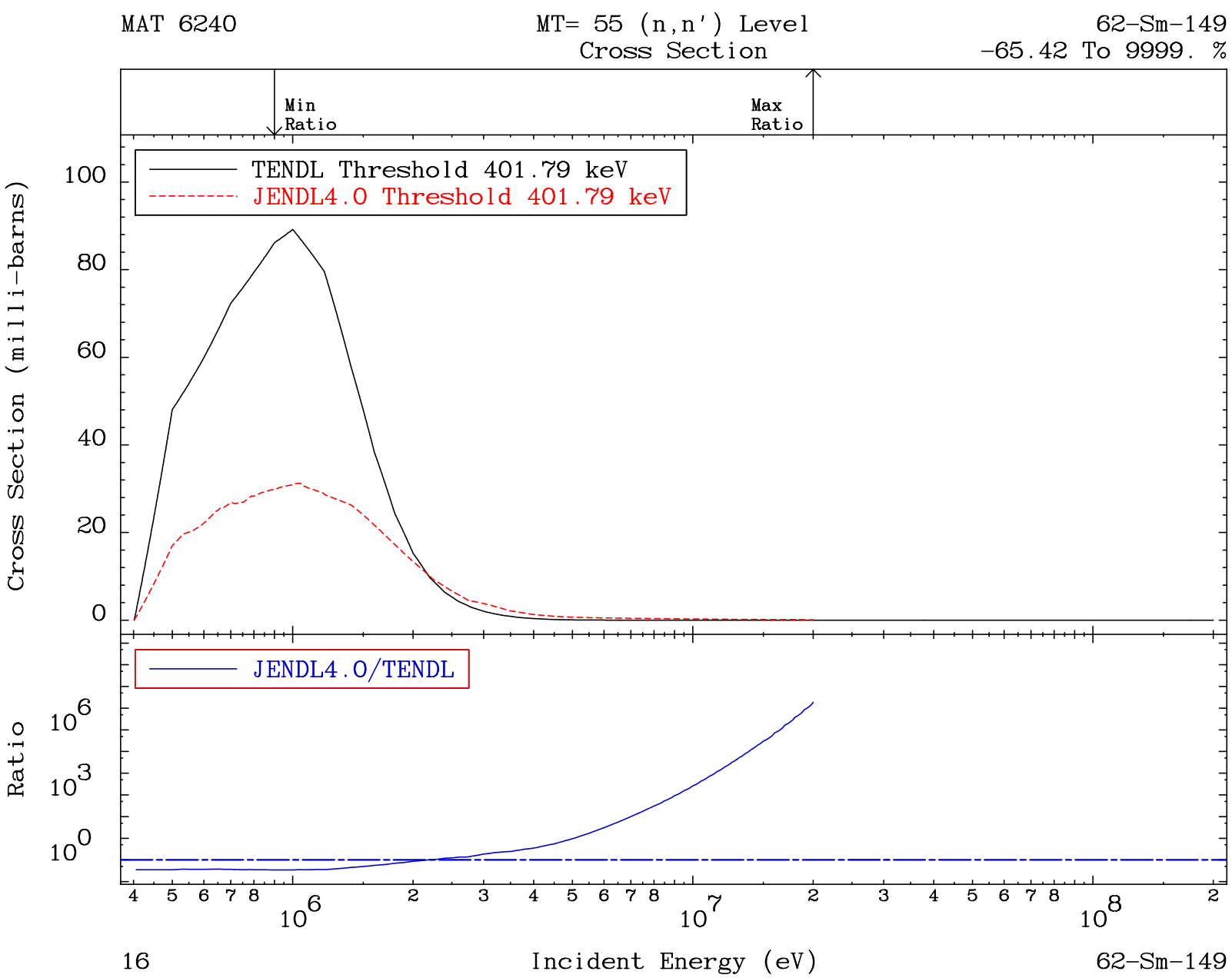

MAT 6240
(n,2n) p
Cross Section
62-Sm-149
-99.95 To -65.23%
Min Ratio
Max Ratio
TENDL Threshold 13.545 MeV
JENDL4.0 Threshold 13.545 MeV
Cross Section (milli-barns)
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
10^-3
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
62-Sm-149

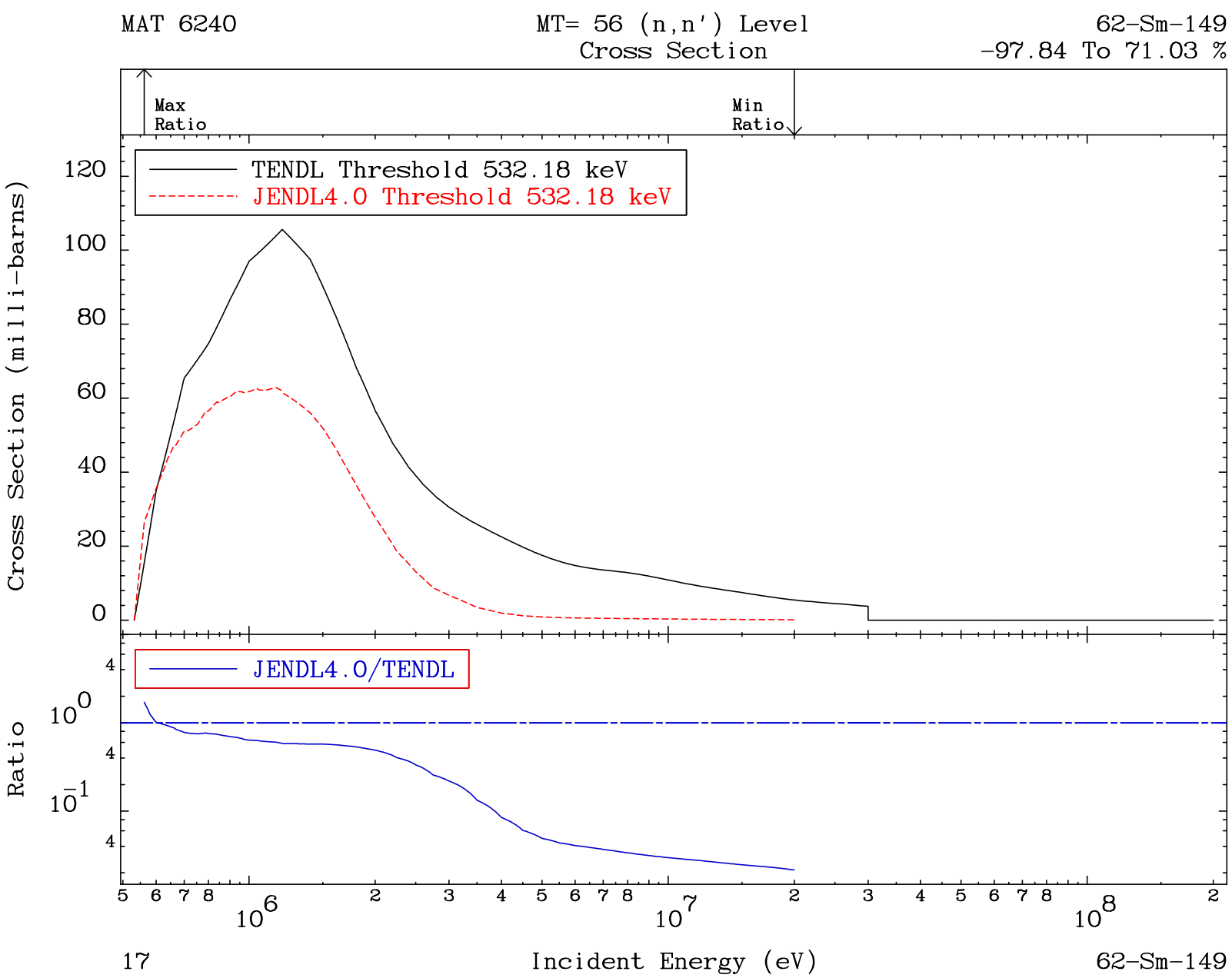

MAT 6240
MT= 51 (n,n') Level
Cross Section
62-Sm-149
-12.08 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 22.659 keV
JENDL4.0 Threshold 22.659 keV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
10^6
10^4
10^2
10^0
3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
12
Incident Energy (eV)
62-Sm-149

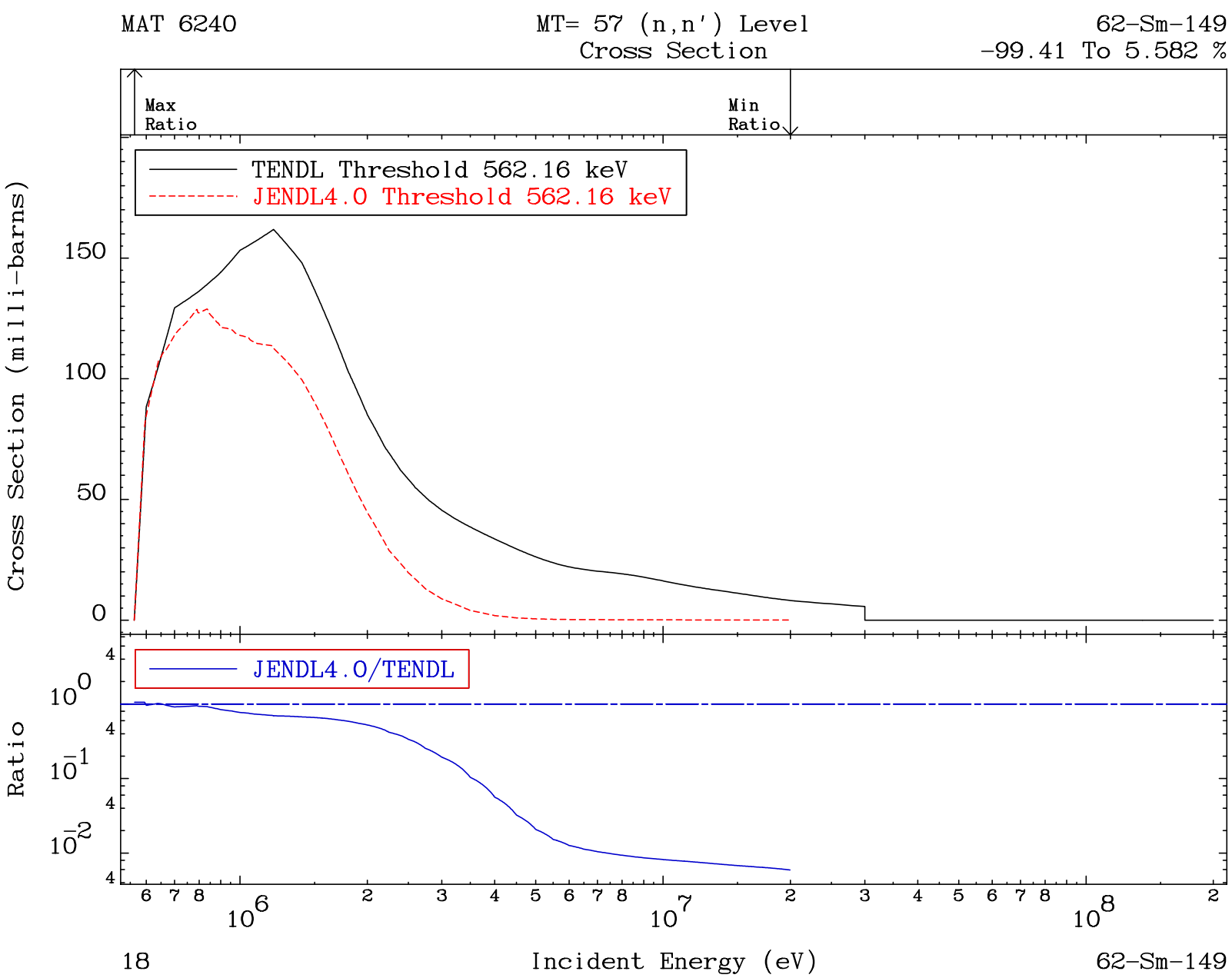

MAT 6240
MT= 52 (n,n') Level
Cross Section
62-Sm-149
-3.637 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 278.95 keV
JENDL4.0 Threshold 278.95 keV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
62-Sm-149

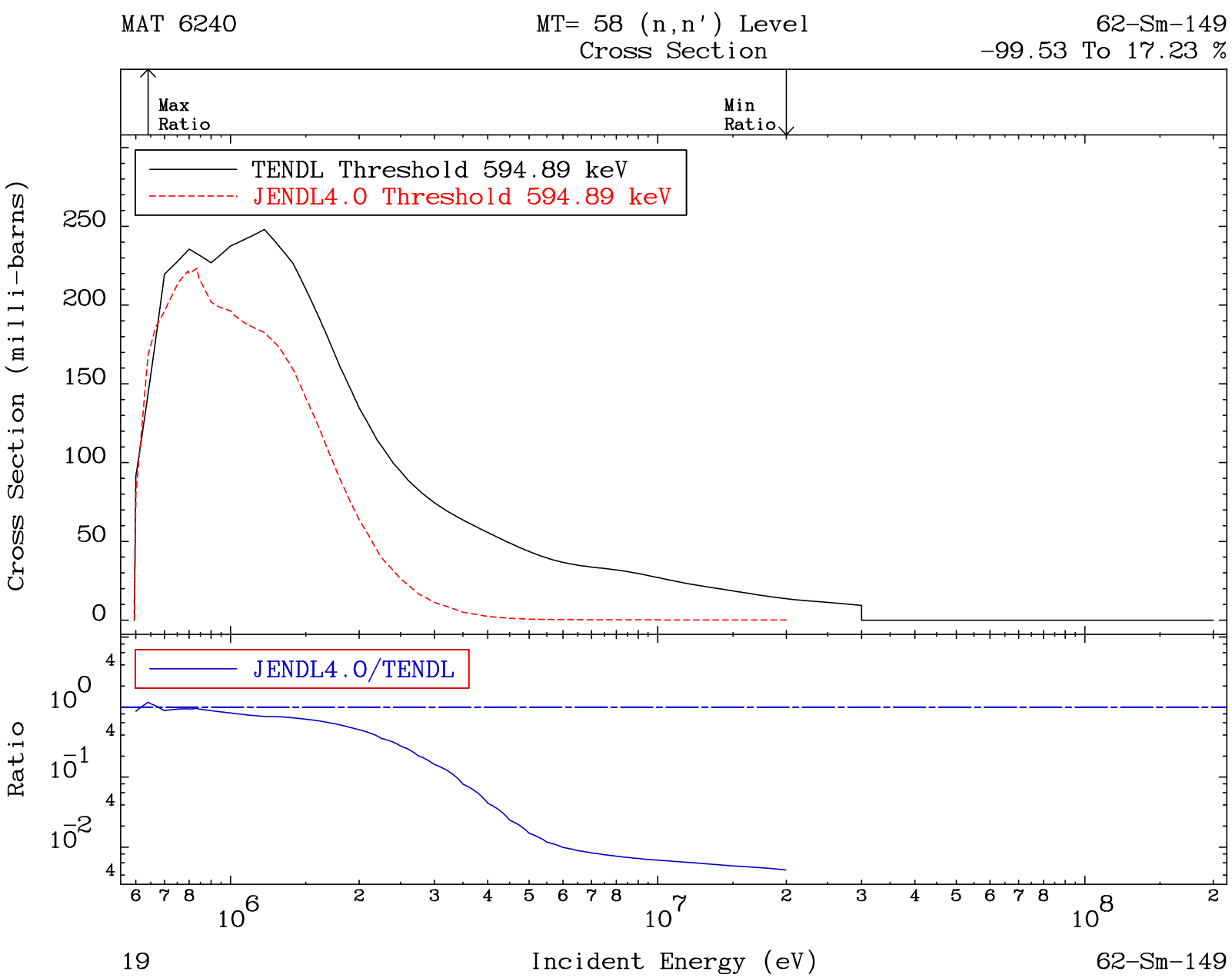

MAT 6240
MT= 53 (n,n') Level
Cross Section
62-Sm-149
2.756 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 287.88 keV
JENDL4.0 Threshold 287.88 keV
Cross Section (milli-barns)
600
500
400
300
200
100
0
JENDL4.0/TENDL
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
14
Incident Energy (eV)
62-Sm-149

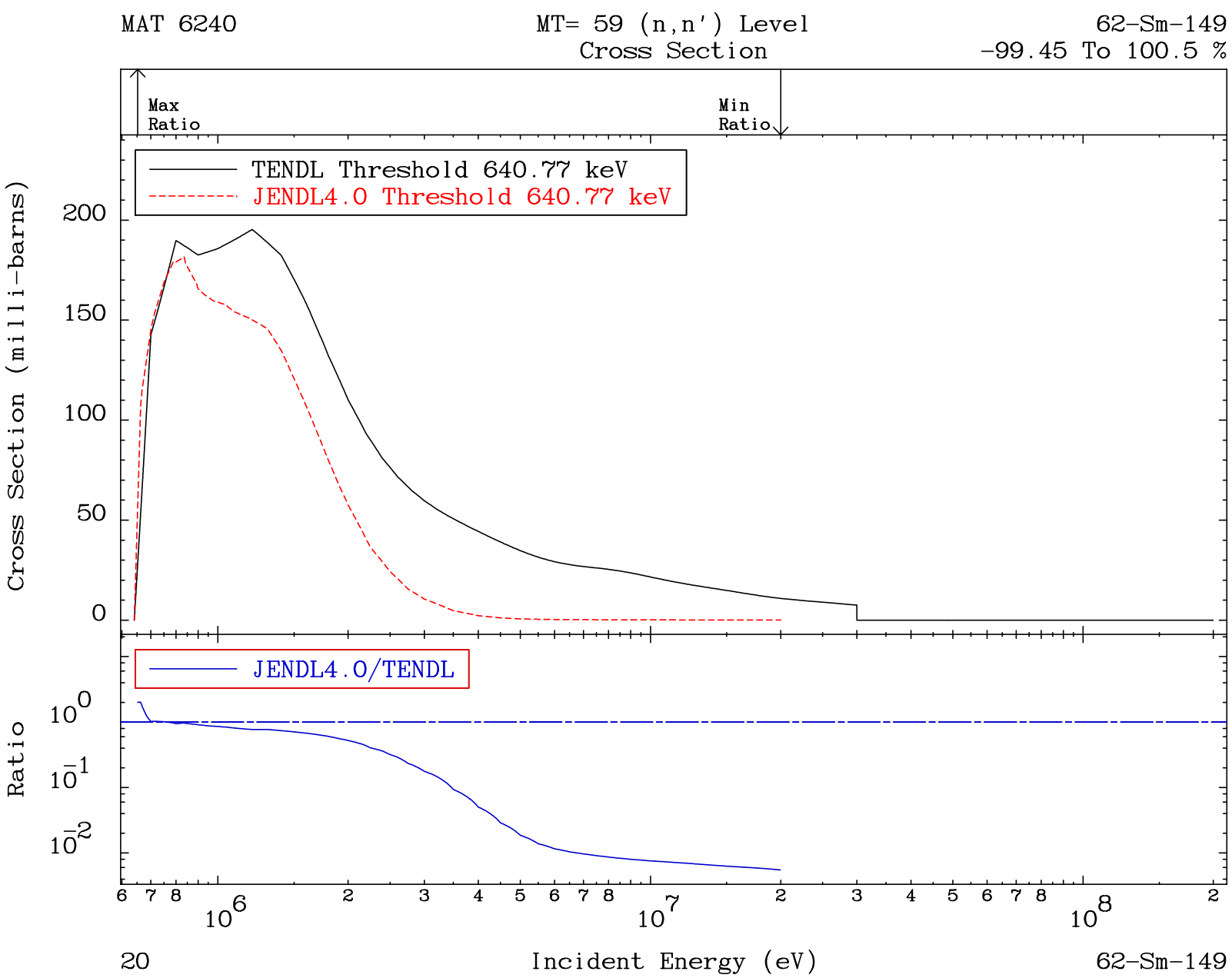

MAT 6240
MT= 54 (n,n') Level
Cross Section
62-Sm-149
-9.925 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 352.41 keV
JENDL4.0 Threshold 352.41 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
15
Incident Energy (eV)
62-Sm-149

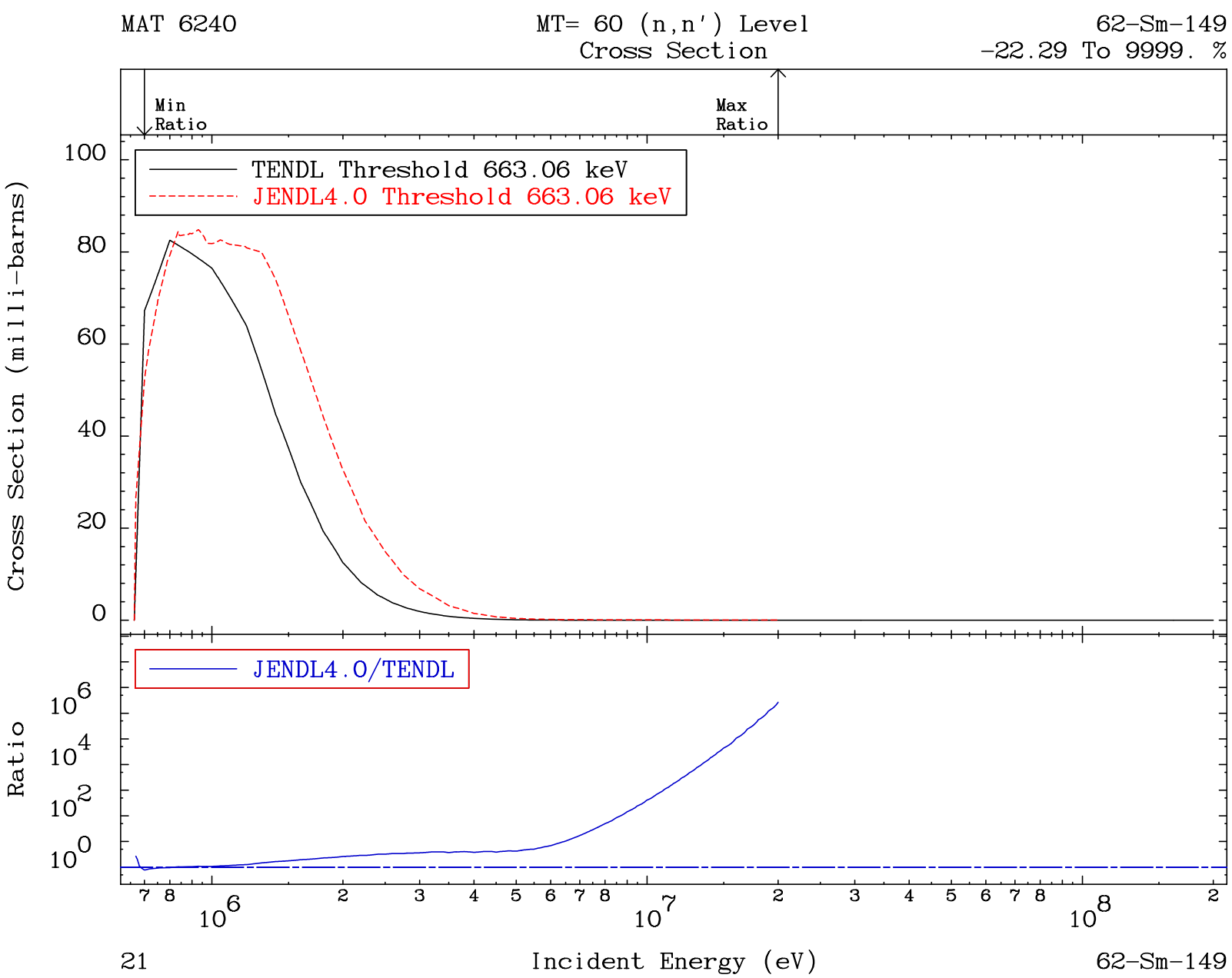

MAT 6240
MT= 55 (n,n') Level
Cross Section
62-Sm-149
-65.42 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 401.79 keV
JENDL4.0 Threshold 401.79 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
16
Incident Energy (eV)
62-Sm-149

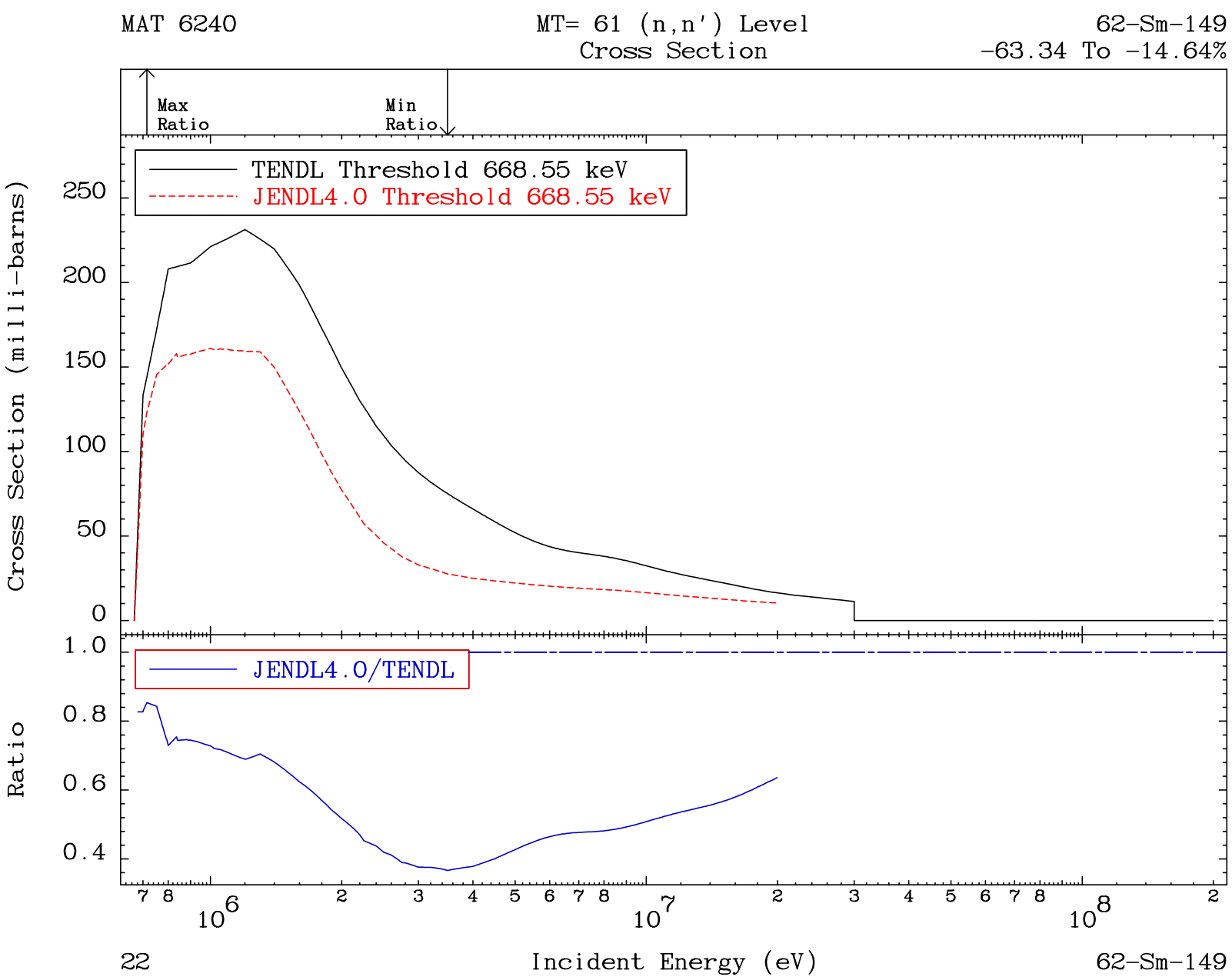

MAT 6240
MT= 56 (n,n') Level
Cross Section
62-Sm-149
-97.84 To 71.03 %
Max
Ratio
Min
Ratio
TENDL Threshold 532.18 keV
JENDL4.0 Threshold 532.18 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
17
Incident Energy (eV)
62-Sm-149

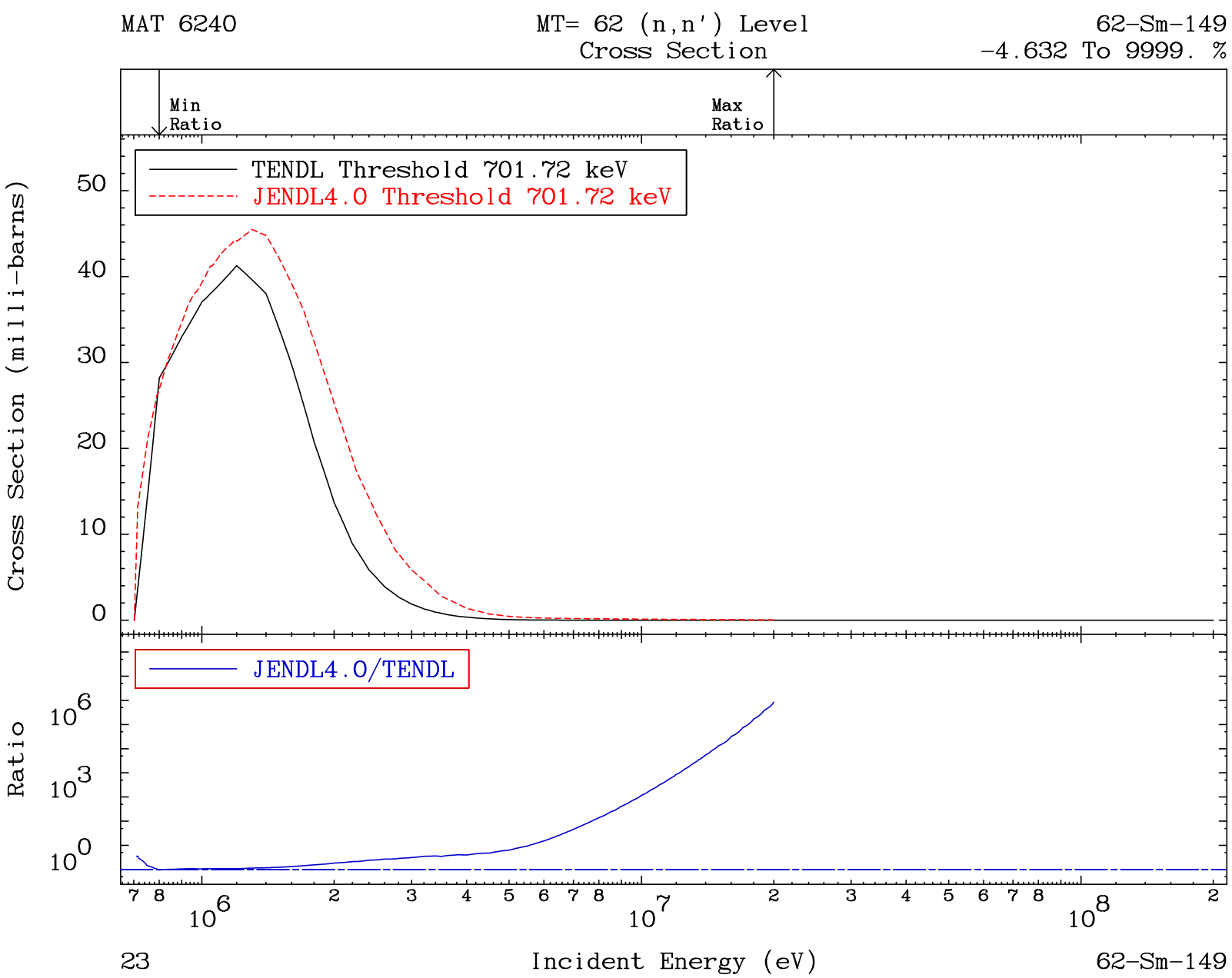

MAT 6240
MT= 57 (n,n') Level
Cross Section
62-Sm-149
-99.41 To 5.582 %
Max
Ratio
Min
Ratio
TENDL Threshold 562.16 keV
JENDL4.0 Threshold 562.16 keV
Cross Section (milli-barns)
150
100
50
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
18
Incident Energy (eV)
62-Sm-149

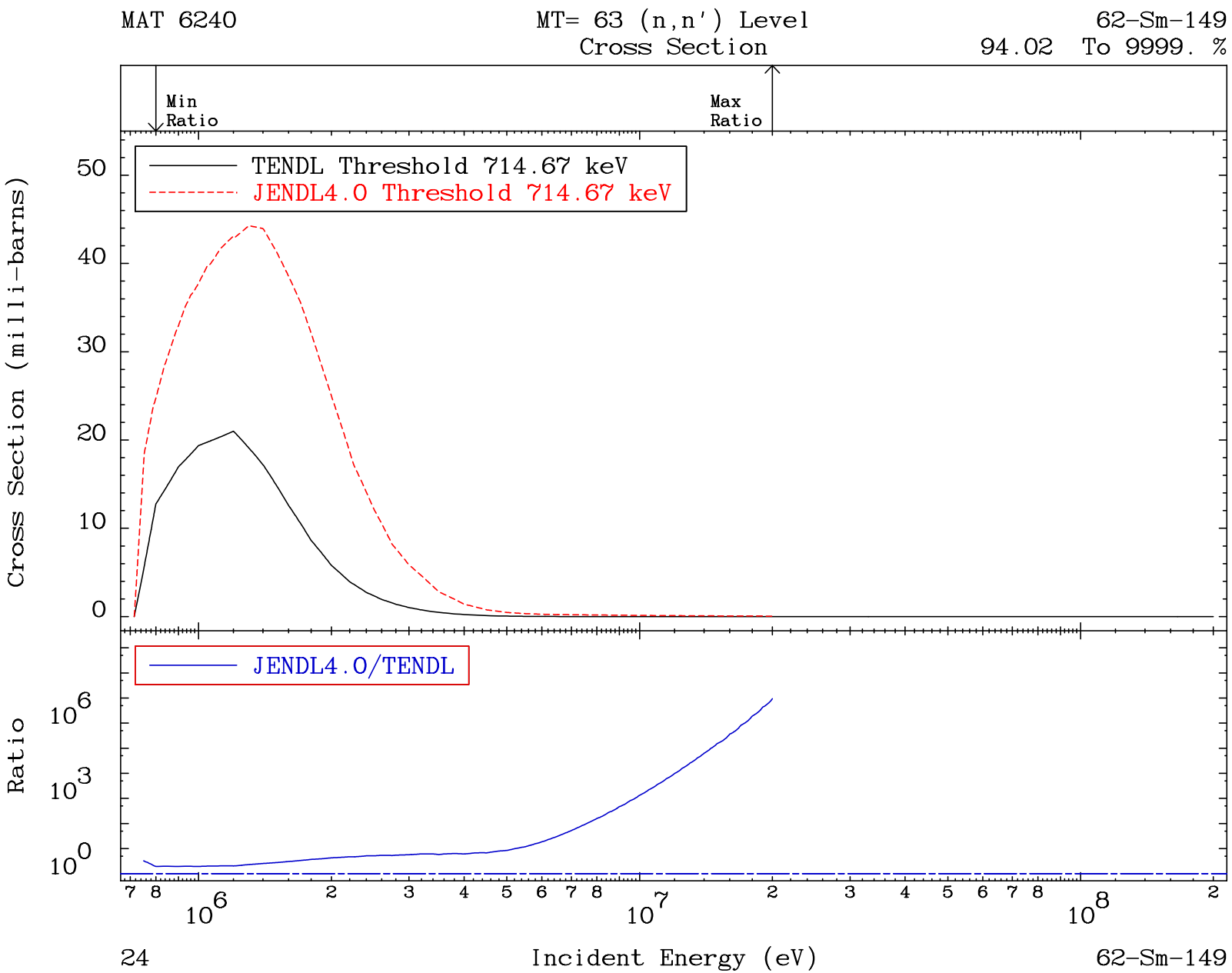

MAT 6240
MT= 58 (n,n') Level
Cross Section
62-Sm-149
-99.53 To 17.23 %
Max
Ratio
Min
Ratio
TENDL Threshold 594.89 keV
JENDL4.0 Threshold 594.89 keV
Cross Section (milli-barns)
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
10^6
10^7
10^8
Incident Energy (eV)
19
62-Sm-149

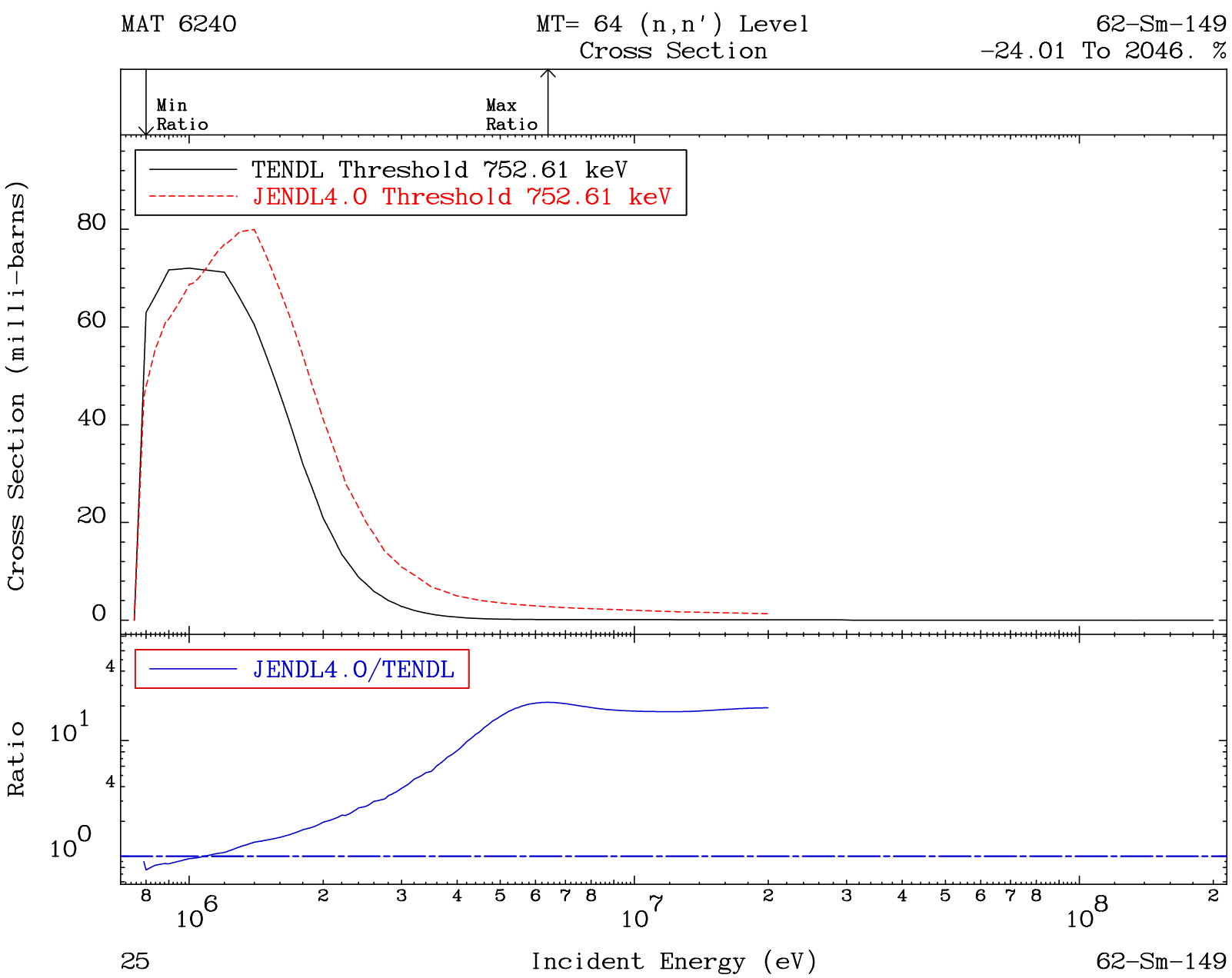

MAT 6240
MT= 59 (n,n') Level
Cross Section
62-Sm-149
-99.45 To 100.5 %
Max
Ratio
Min
Ratio
TENDL Threshold 640.77 keV
JENDL4.0 Threshold 640.77 keV
Cross Section (milli-barns)
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
20
Incident Energy (eV)
62-Sm-149

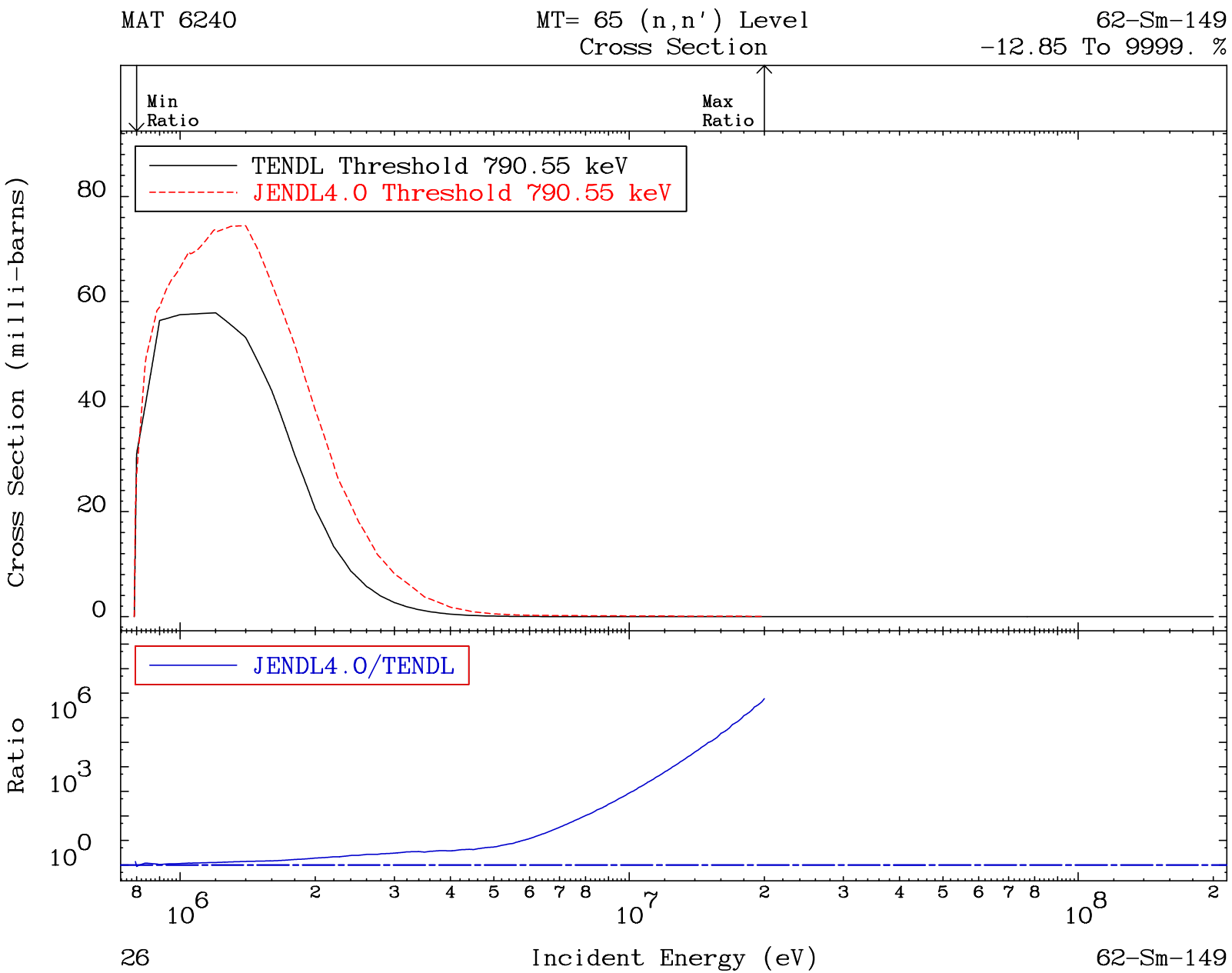

MAT 6240
MT= 60 (n,n') Level
Cross Section
62-Sm-149
-22.29 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 663.06 keV
JENDL4.0 Threshold 663.06 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^6
10^4
10^2
10^0
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
21
Incident Energy (eV)
62-Sm-149

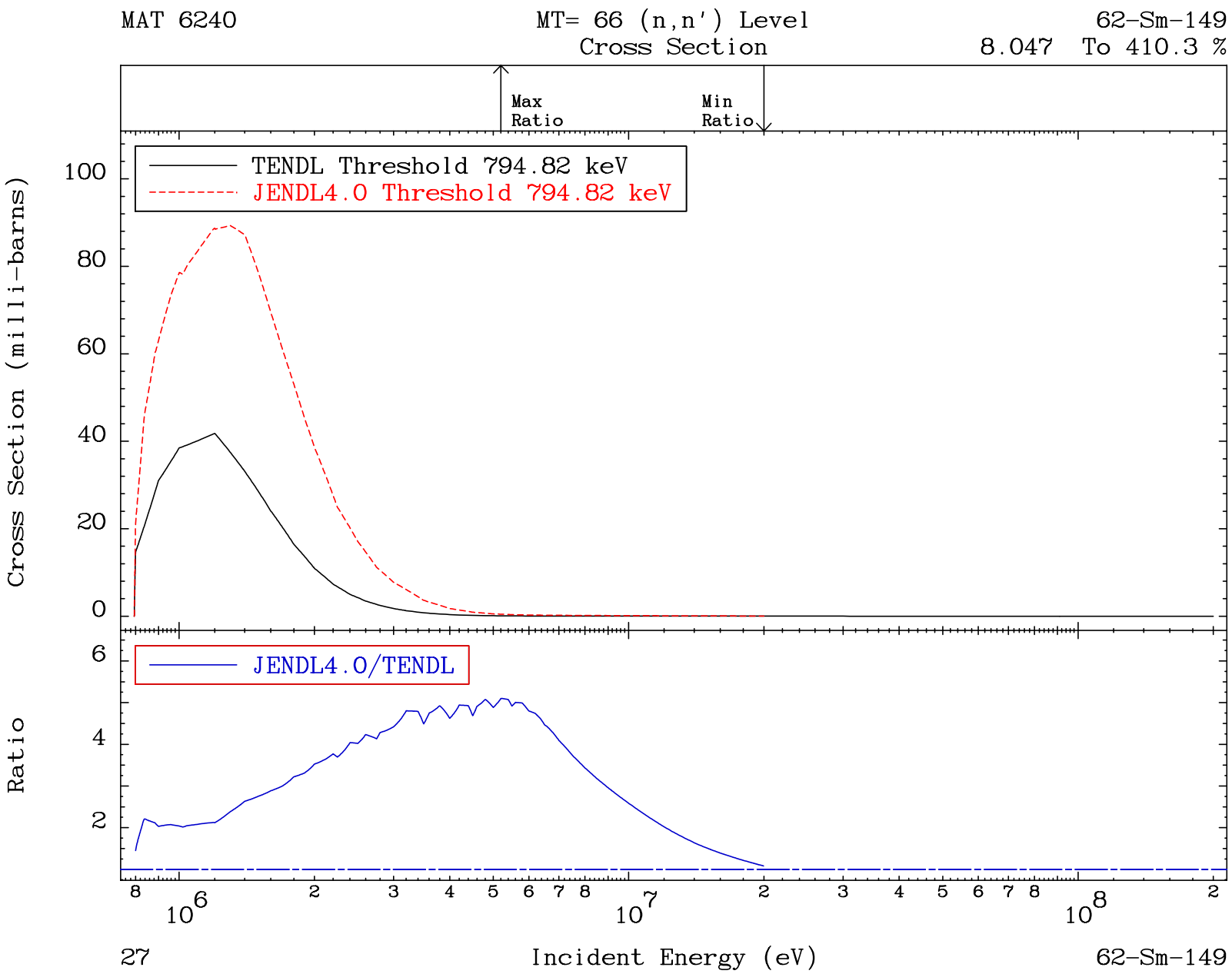

MAT 6240
MT= 61 (n,n') Level
Cross Section
62-Sm-149
-63.34 To -14.64%
Max Ratio
Min Ratio
TENDL Threshold 668.55 keV
JENDL4.0 Threshold 668.55 keV
Cross Section (milli-barns)
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
1.0
0.8
0.6
0.4
7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
62-Sm-149

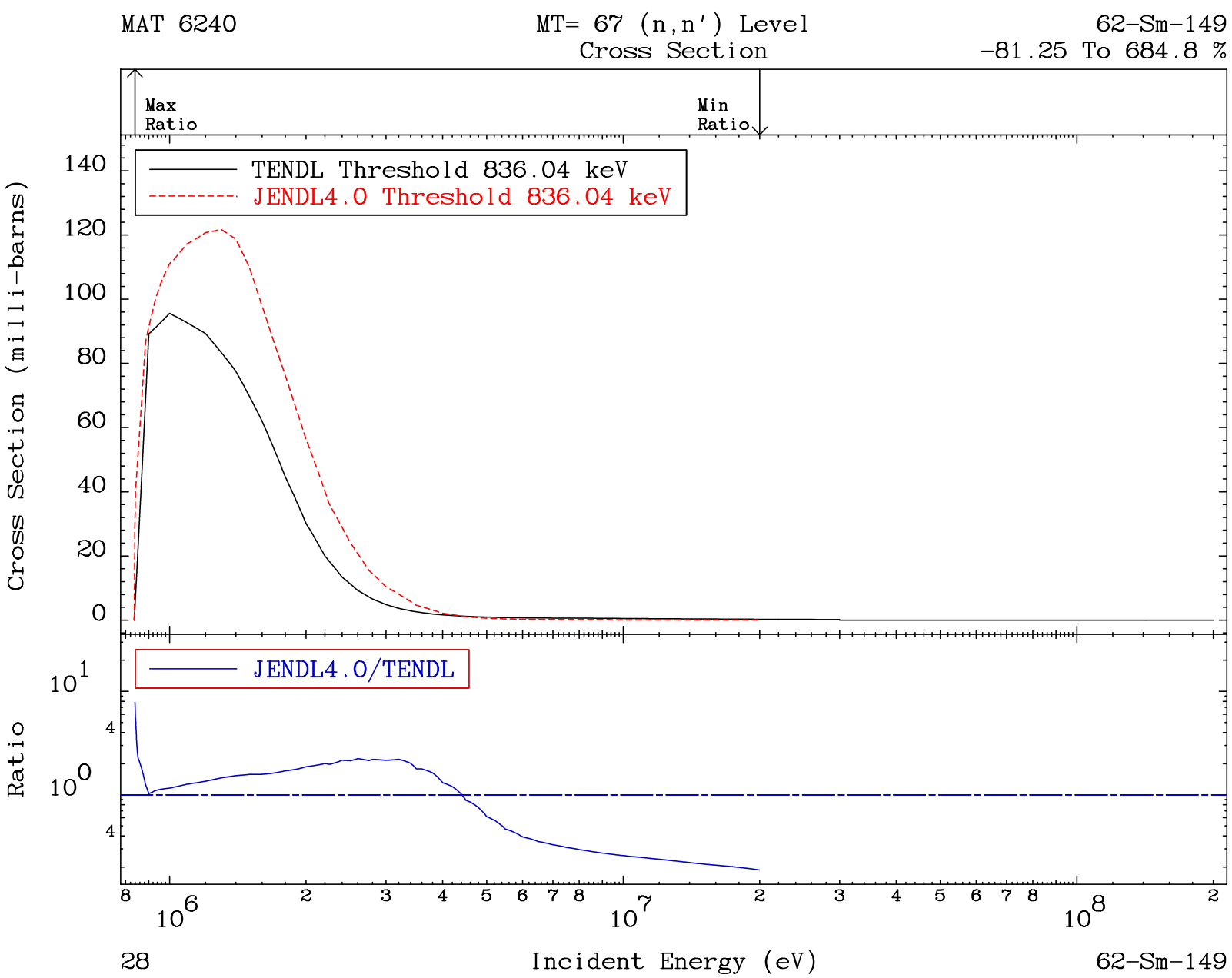

MAT 6240
MT= 62 (n,n') Level
Cross Section
62-Sm-149
-4.632 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 701.72 keV
JENDL4.0 Threshold 701.72 keV
Cross Section (milli-barns)
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
23
Incident Energy (eV)
62-Sm-149

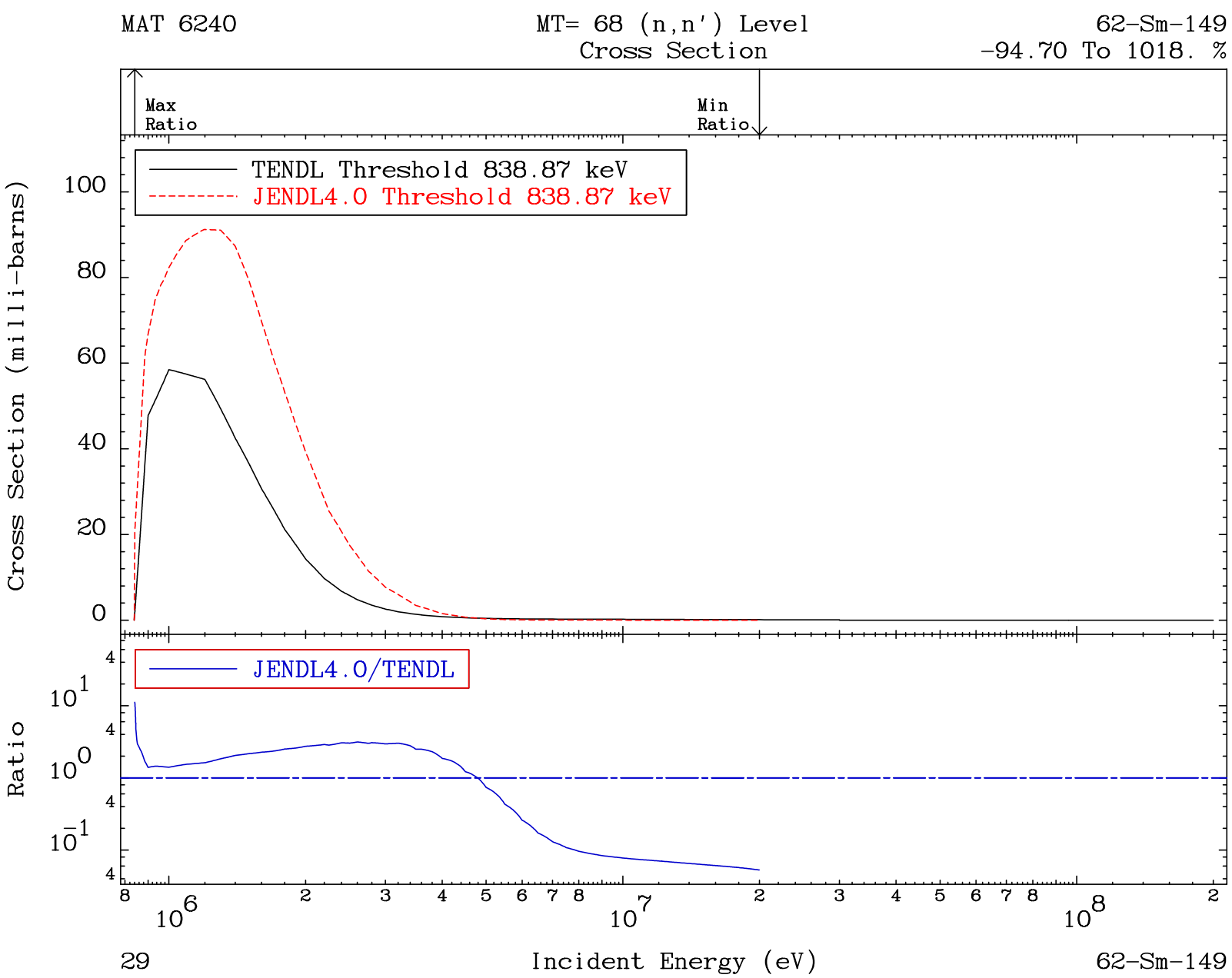

MAT 6240
MT= 63 (n,n') Level
Cross Section
62-Sm-149
94.02 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 714.67 keV
JENDL4.0 Threshold 714.67 keV
Cross Section (milli-barns)
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
24
Incident Energy (eV)
62-Sm-149

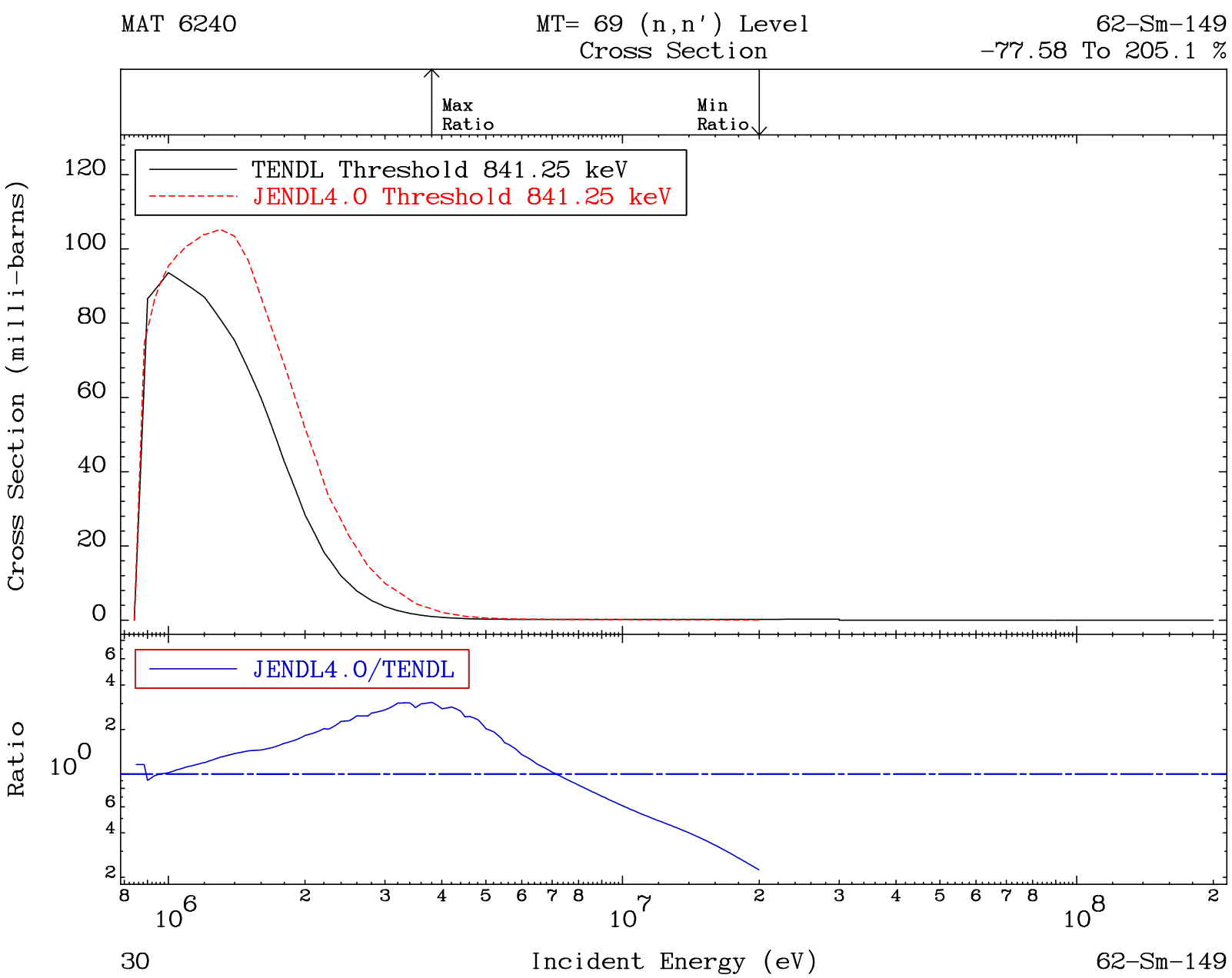

MAT 6240
MT= 64 (n,n') Level
Cross Section
62-Sm-149
-24.01 To 2046. %
Min Ratio
Max Ratio
TENDL Threshold 752.61 keV
JENDL4.0 Threshold 752.61 keV
Cross Section (milli-barns)
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^1
10^0
4
4
8
2
3
4
5
6
7
8
10^6
10^7
10^8
25
Incident Energy (eV)
62-Sm-149

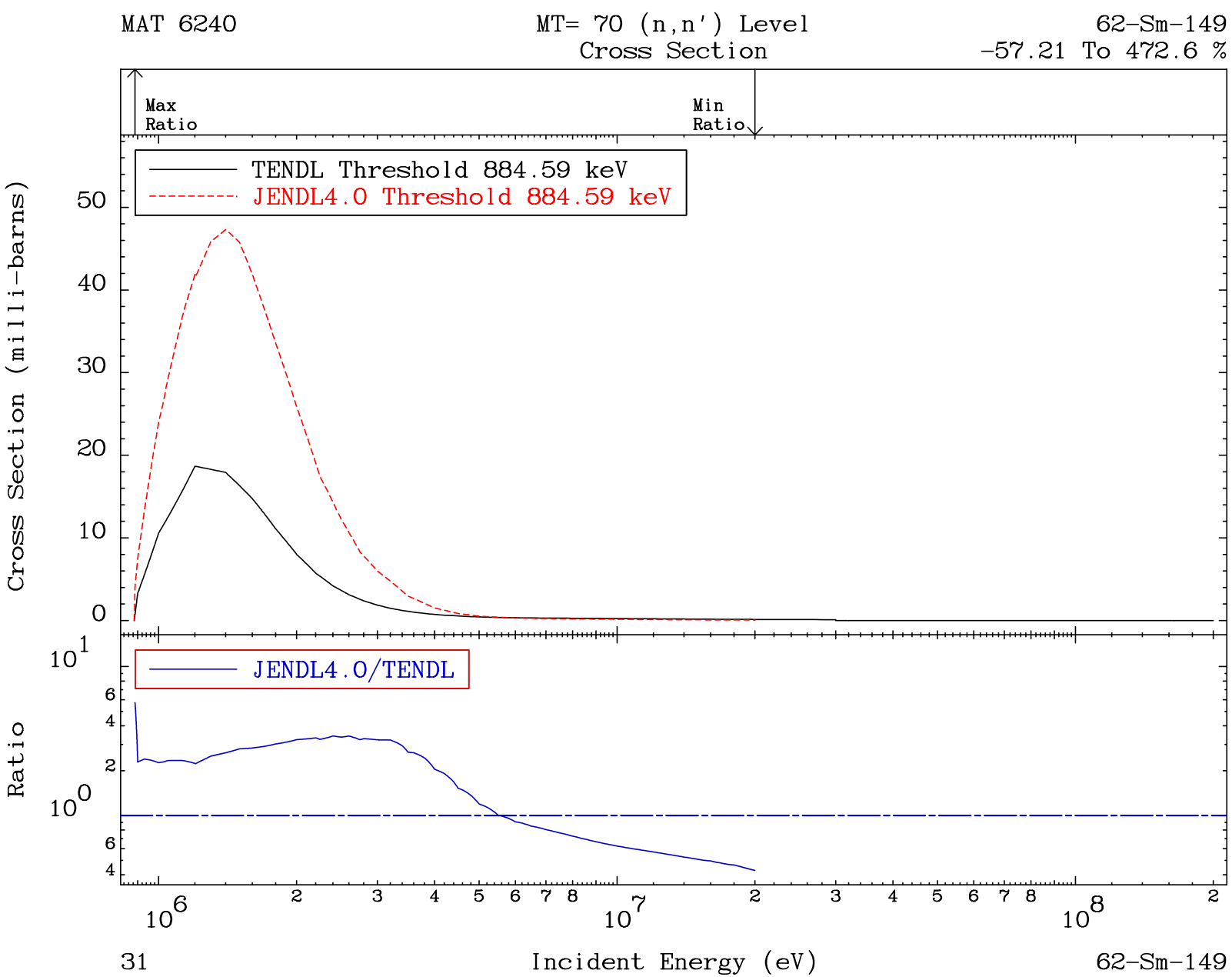

MAT 6240
MT= 65 (n,n') Level
Cross Section
62-Sm-149
-12.85 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 790.55 keV
JENDL4.0 Threshold 790.55 keV
Cross Section (milli-barns)
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
62-Sm-149

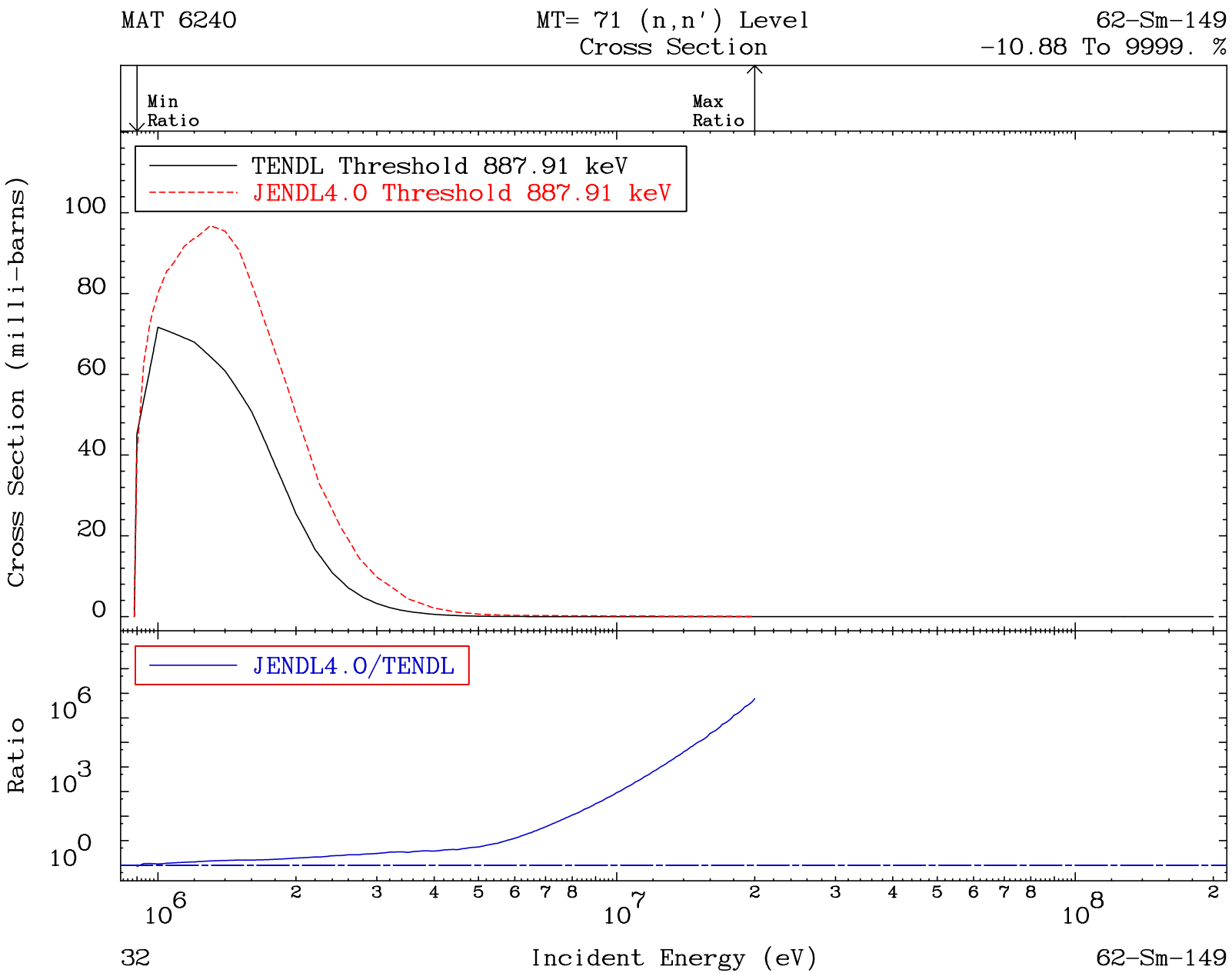

MAT 6240
MT= 66 (n,n') Level
Cross Section
62-Sm-149
8.047 To 410.3 %
Max Ratio
Min Ratio
TENDL Threshold 794.82 keV
JENDL4.0 Threshold 794.82 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
6
4
2
8
2
3
4
5
6
7
8
10^6
10^7
10^8
27
Incident Energy (eV)
62-Sm-149

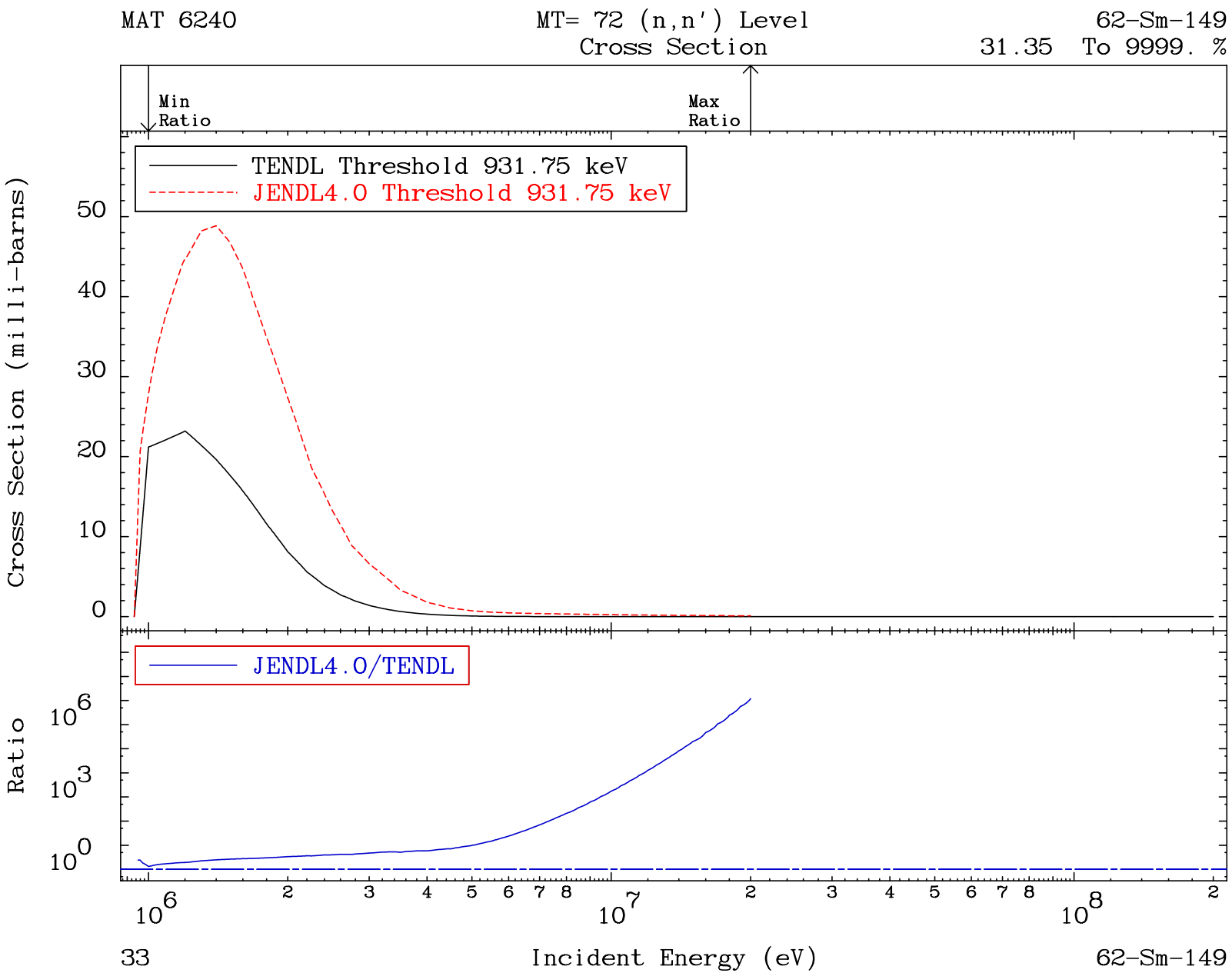

MAT 6240
MT= 67 (n,n') Level
Cross Section
62-Sm-149
-81.25 To 684.8 %
Max
Ratio
Min
Ratio
TENDL Threshold 836.04 keV
JENDL4.0 Threshold 836.04 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^1
4
10^0
4
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
28
Incident Energy (eV)
62-Sm-149

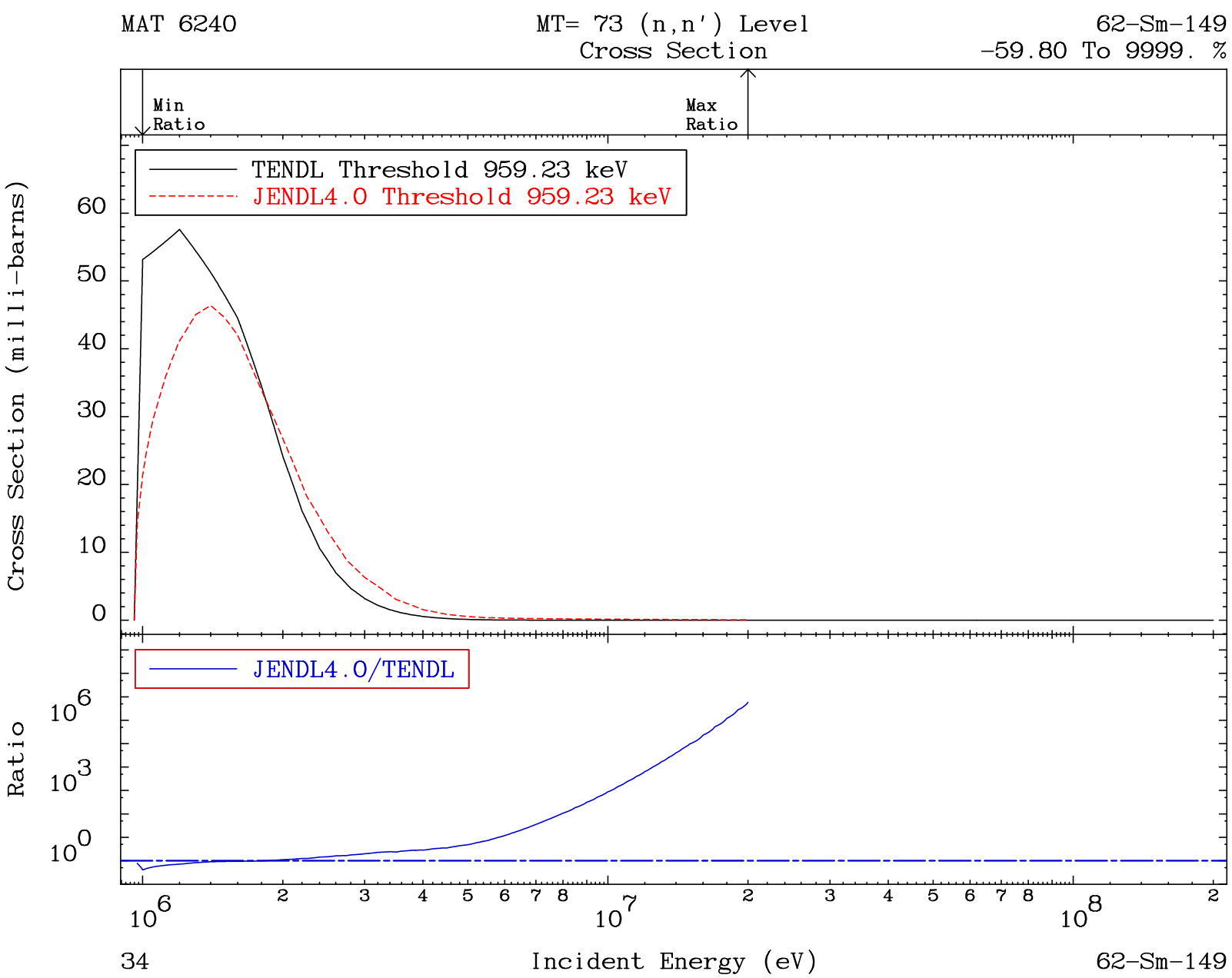

MAT 6240
MT= 68 (n,n') Level
Cross Section
62-Sm-149
-94.70 To 1018. %
Max
Ratio
Min
Ratio
TENDL Threshold 838.87 keV
JENDL4.0 Threshold 838.87 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^1
10^0
10^-1
10^6
10^7
10^8
Incident Energy (eV)
29
62-Sm-149

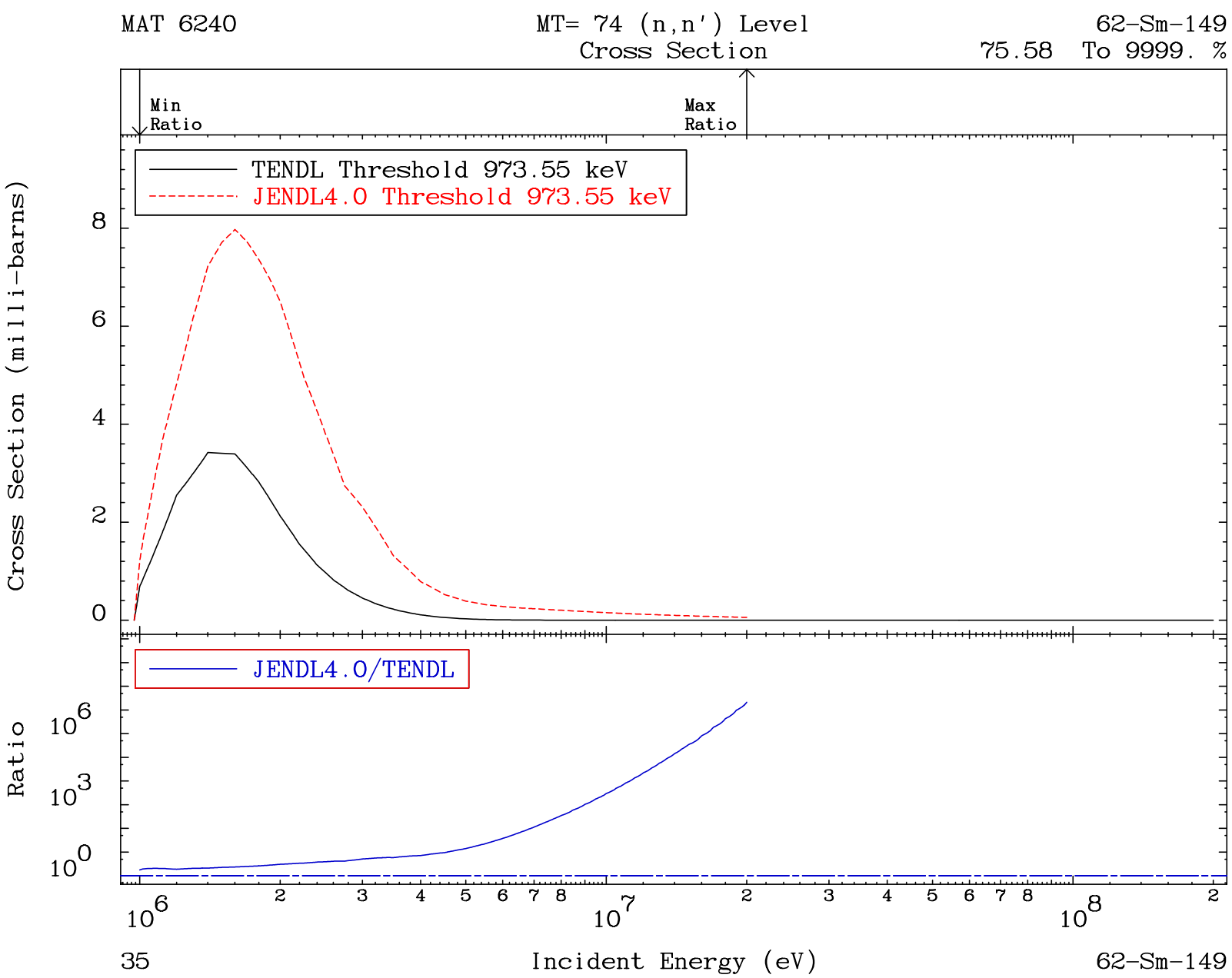

MAT 6240
MT= 69 (n,n') Level
Cross Section
62-Sm-149
-77.58 To 205.1 %
Max
Ratio
Min
Ratio
TENDL Threshold 841.25 keV
JENDL4.0 Threshold 841.25 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
6
4
2
10^0
6
4
2
8
2
3
4
5
6
7
8
10^6
10^7
10^8
30
Incident Energy (eV)
62-Sm-149

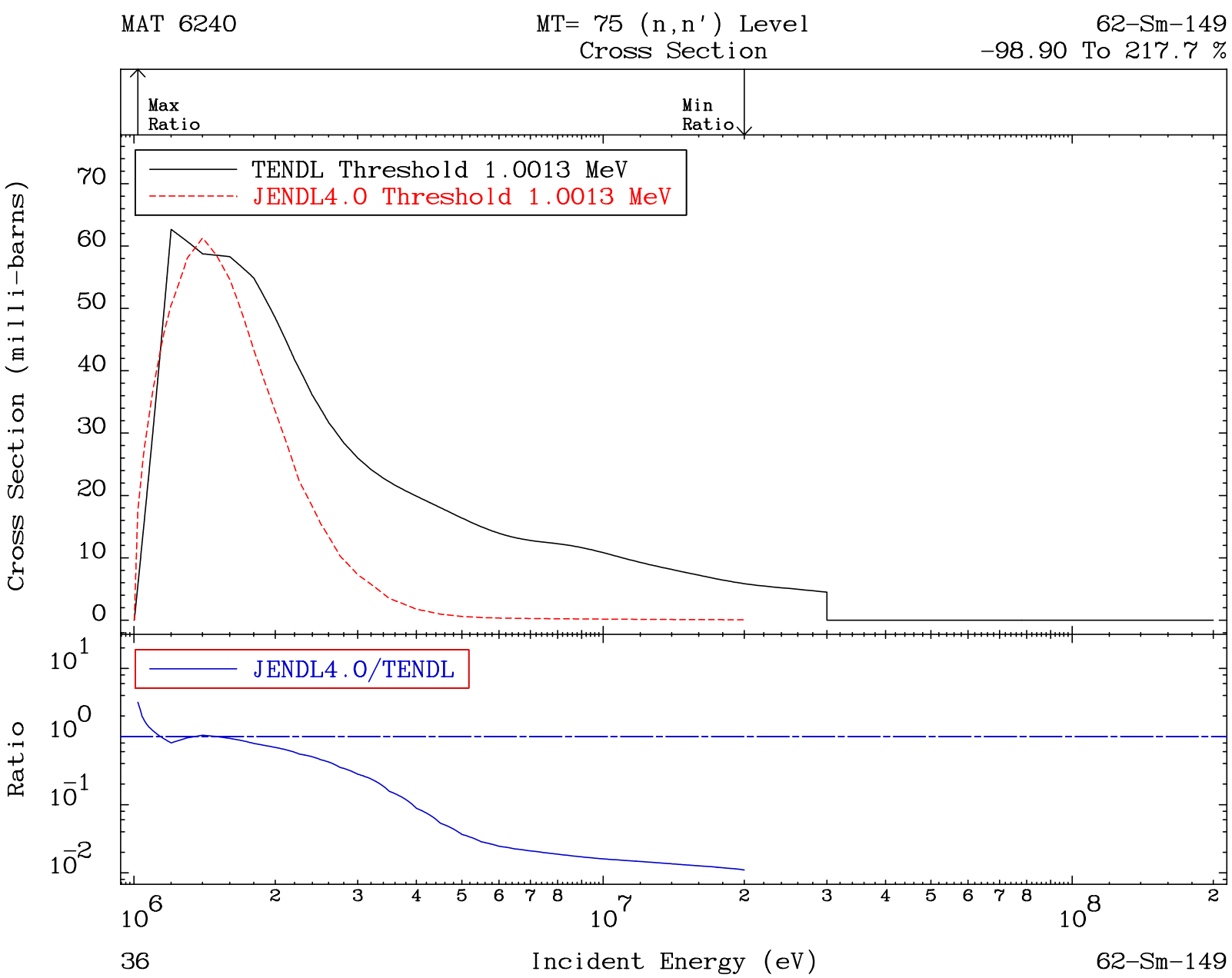

MAT 6240
MT= 70 (n,n') Level
Cross Section
62-Sm-149
-57.21 To 472.6 %
Max
Ratio
Min
Ratio
TENDL Threshold 884.59 keV
JENDL4.0 Threshold 884.59 keV
Cross Section (milli-barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
31
62-Sm-149

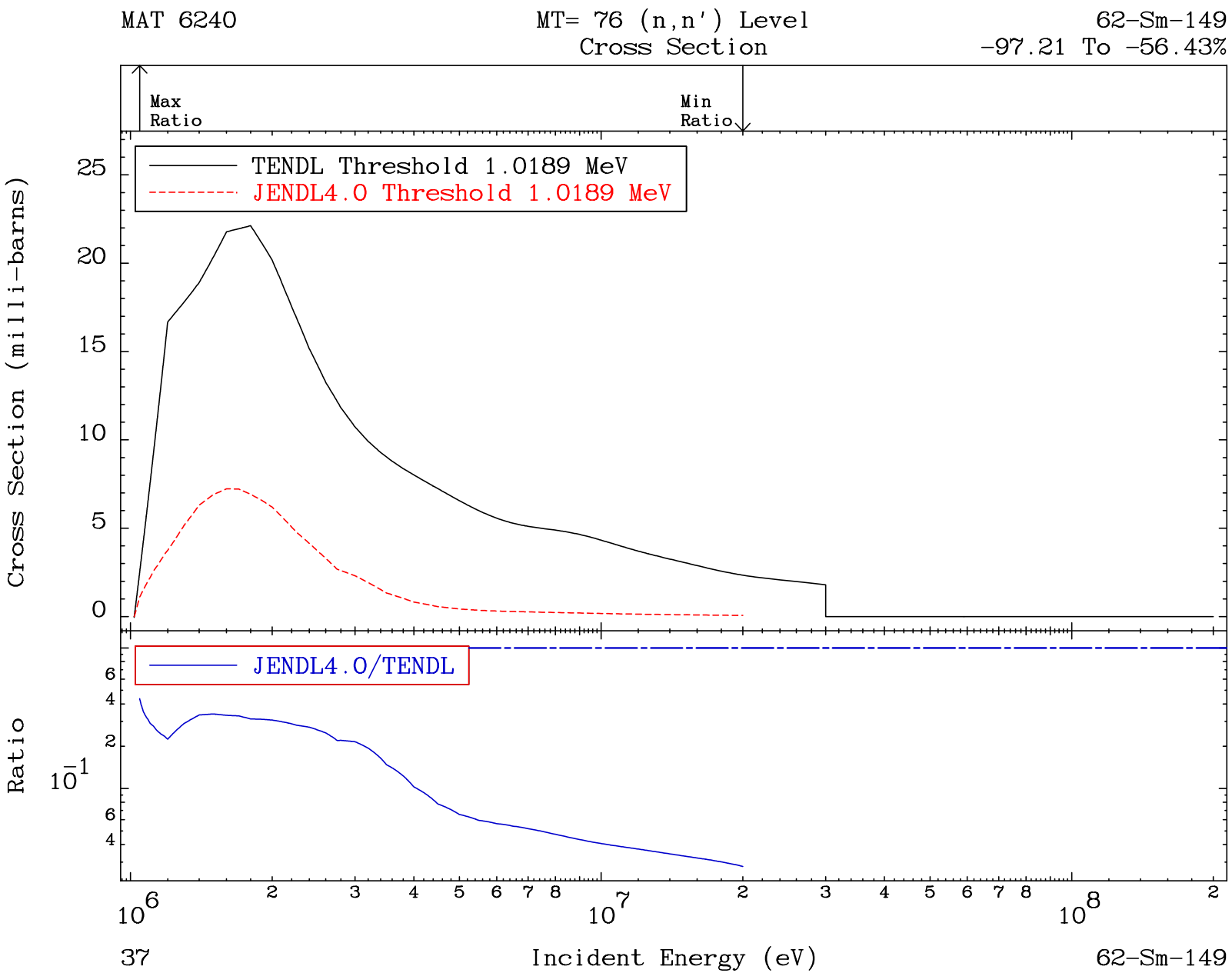

MAT 6240
MT= 71 (n,n') Level
Cross Section
62-Sm-149
-10.88 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 887.91 keV
JENDL4.0 Threshold 887.91 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
32
Incident Energy (eV)
62-Sm-149

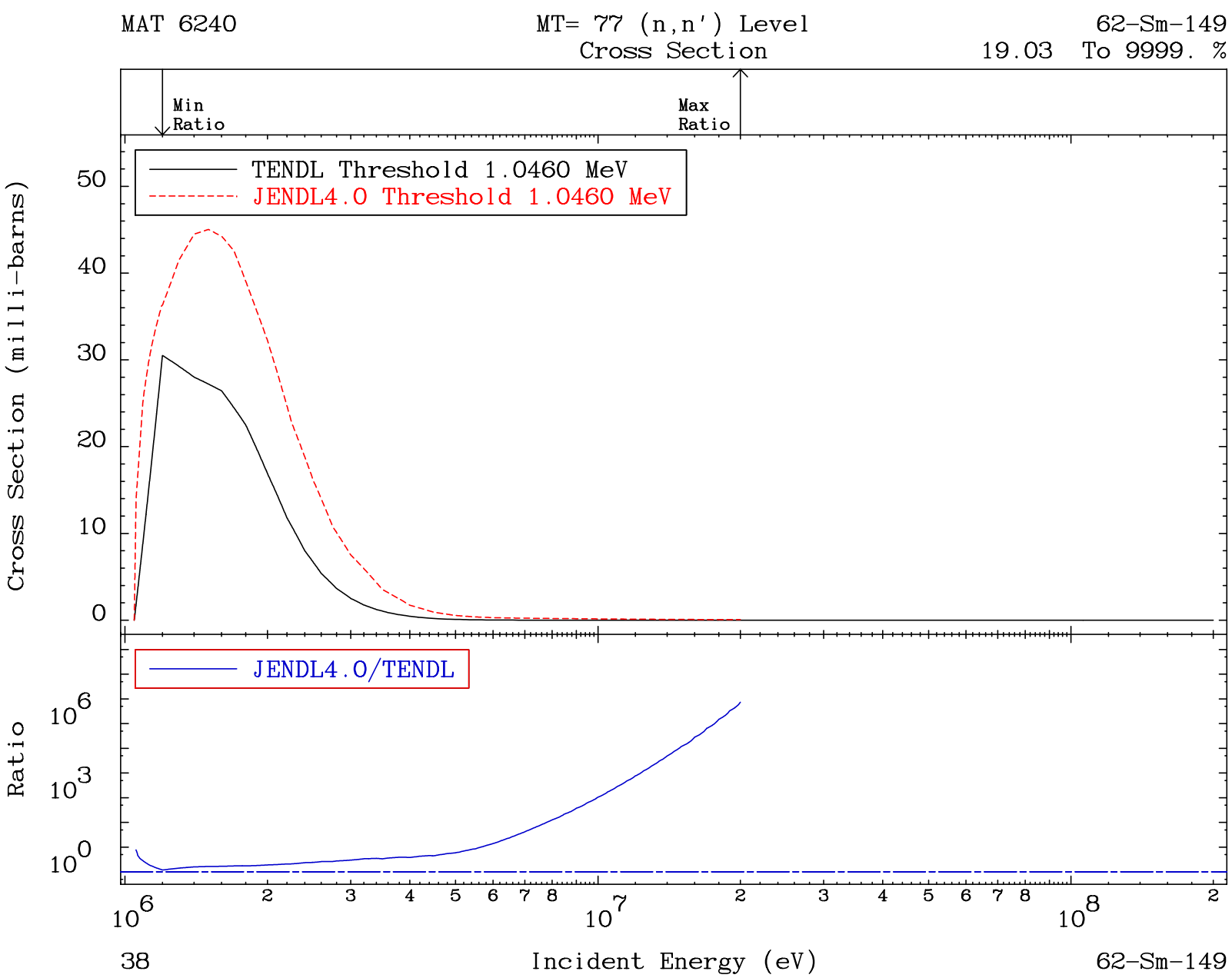

MAT 6240
MT= 72 (n,n') Level
Cross Section
62-Sm-149
31.35 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 931.75 keV
JENDL4.0 Threshold 931.75 keV
Cross Section (milli-barns)
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
33
Incident Energy (eV)
62-Sm-149

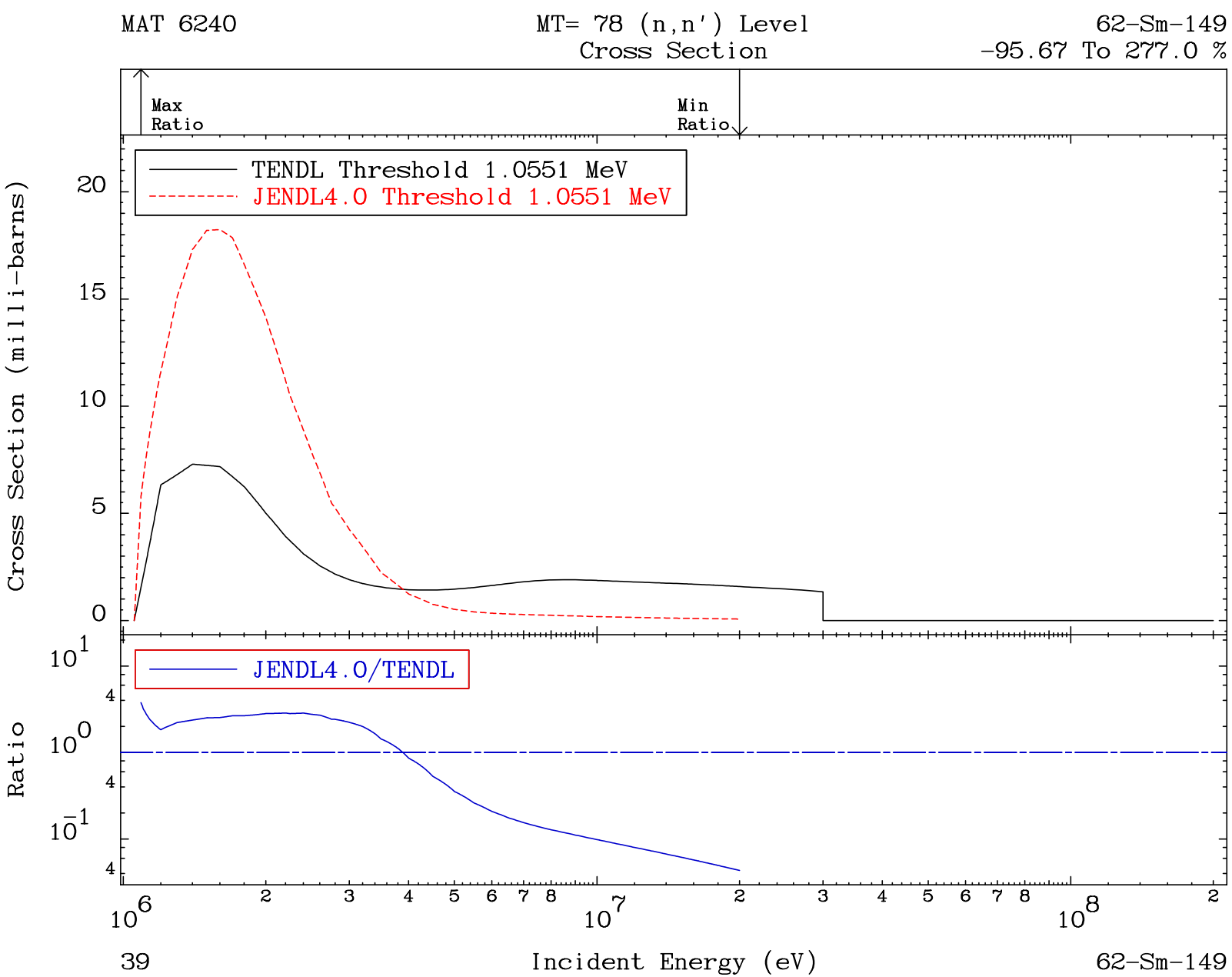

MAT 6240
MT= 73 (n,n') Level
Cross Section
62-Sm-149
-59.80 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 959.23 keV
JENDL4.0 Threshold 959.23 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
34
Incident Energy (eV)
62-Sm-149

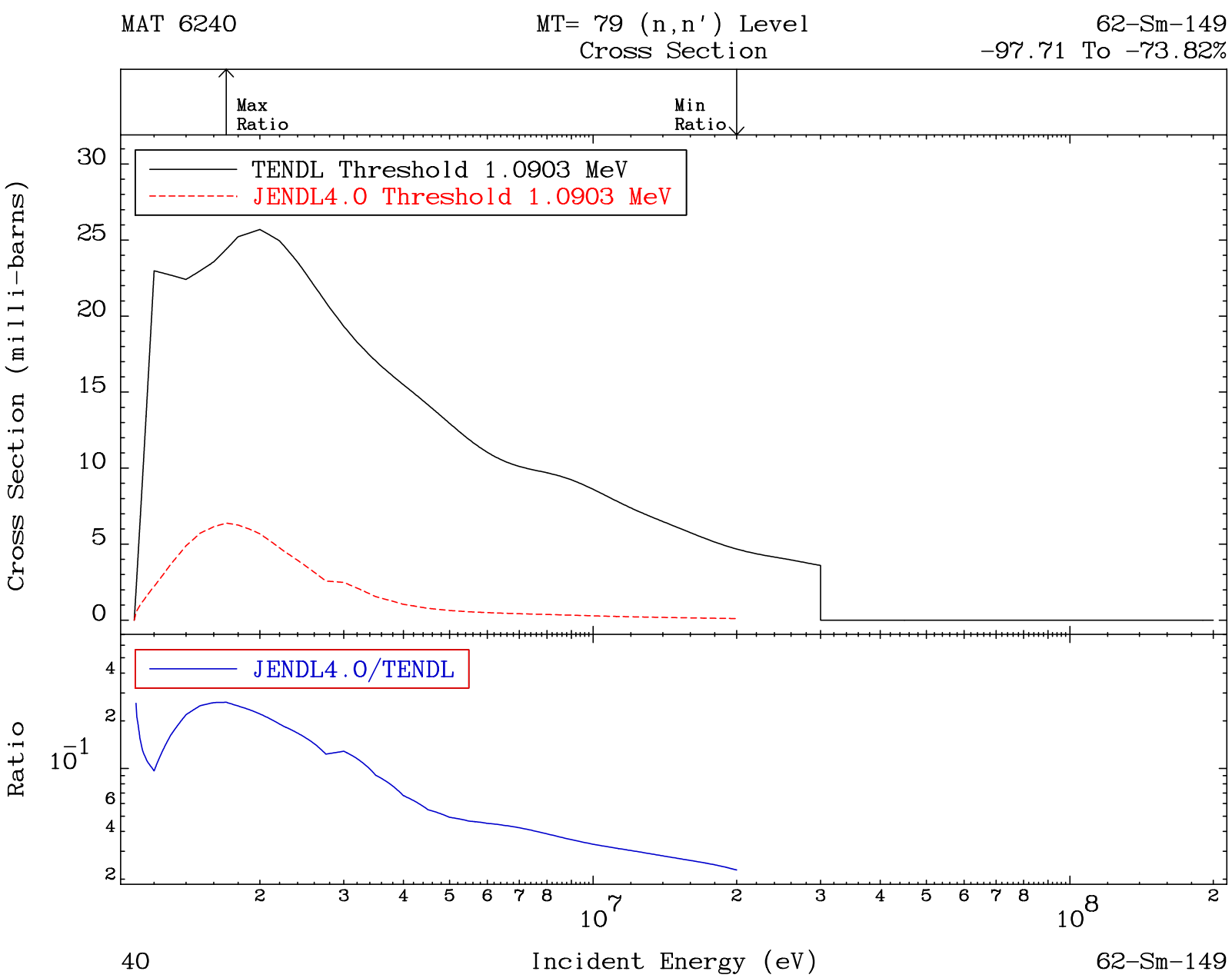

MAT 6240
MT= 74 (n,n') Level
Cross Section
62-Sm-149
75.58 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 973.55 keV
JENDL4.0 Threshold 973.55 keV
Cross Section (milli-barns)
0
2
4
6
8
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
35
Incident Energy (eV)
62-Sm-149

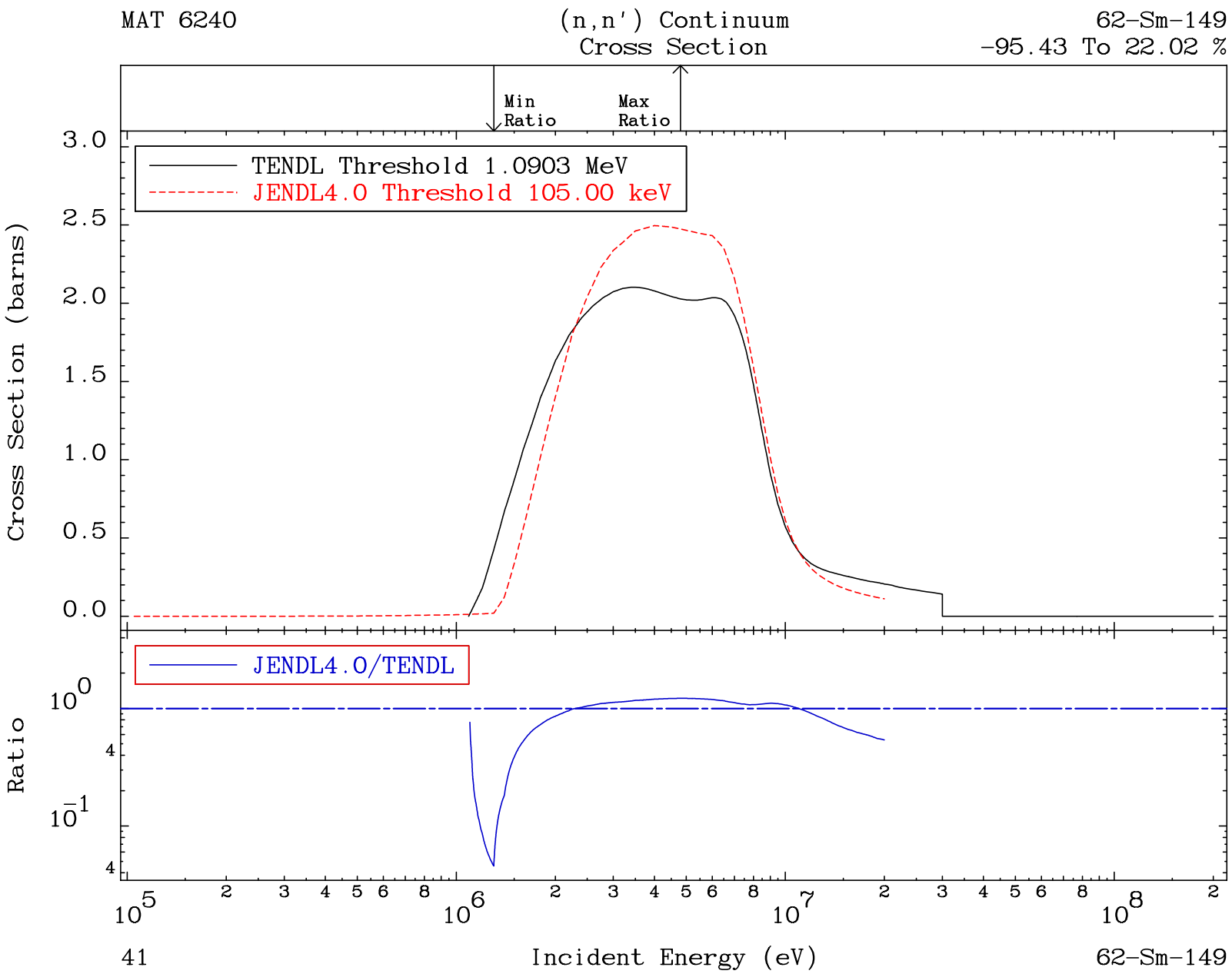

MAT 6240
MT= 75 (n,n') Level
Cross Section
62-Sm-149
-98.90 To 217.7 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.0013 MeV
JENDL4.0 Threshold 1.0013 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^1
10^0
10^-1
10^-2
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
36
Incident Energy (eV)
62-Sm-149

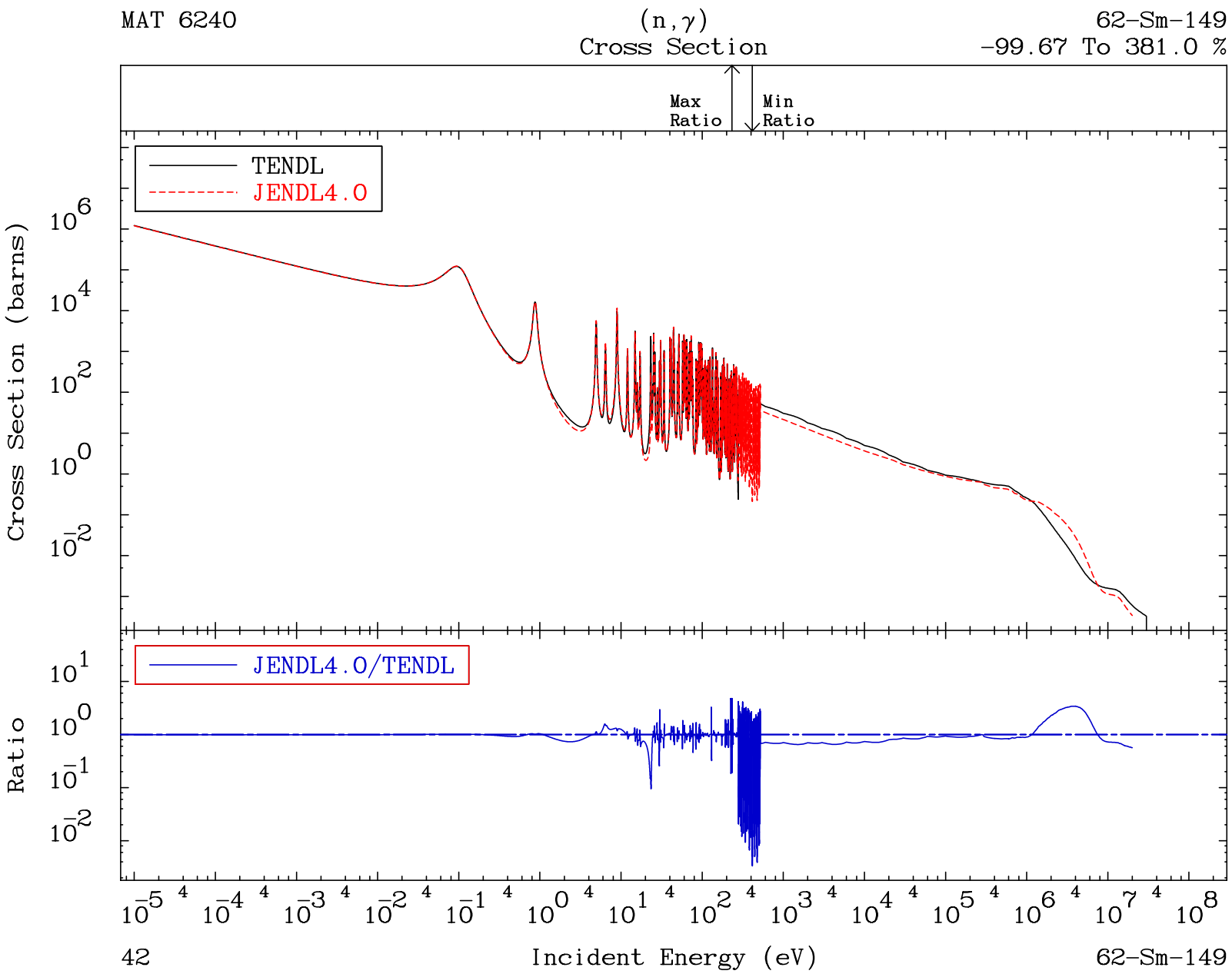

MAT 6240
MT= 76 (n,n') Level
Cross Section
62-Sm-149
-97.21 To -56.43%
Max
Ratio
Min
Ratio
TENDL Threshold 1.0189 MeV
JENDL4.0 Threshold 1.0189 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JENDL4.0/TENDL
Ratio
6
4
2
10-1
6
4
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
37
Incident Energy (eV)
62-Sm-149

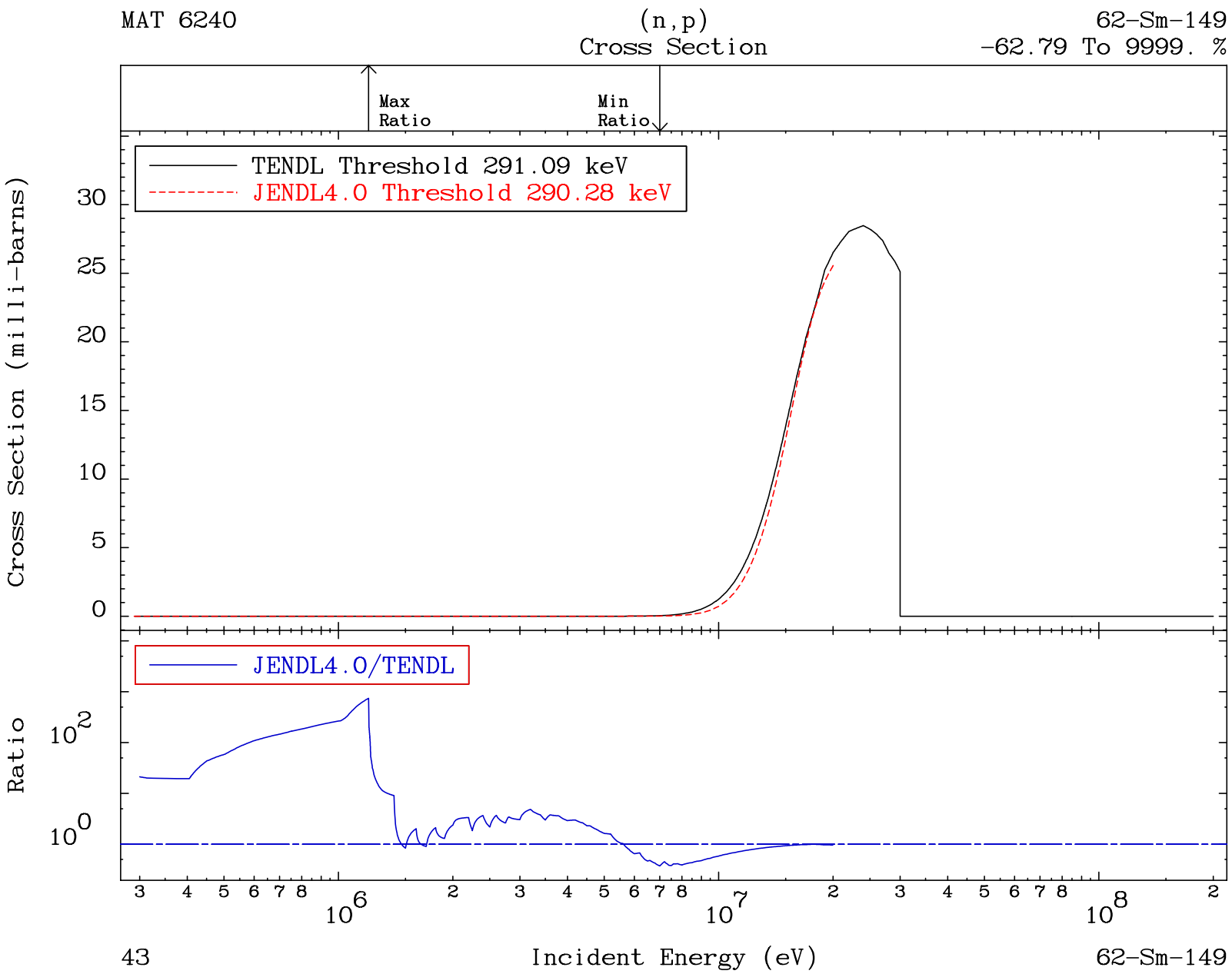

MAT 6240
MT= 77 (n,n') Level
Cross Section
62-Sm-149
19.03 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.0460 MeV
JENDL4.0 Threshold 1.0460 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
38
Incident Energy (eV)
62-Sm-149

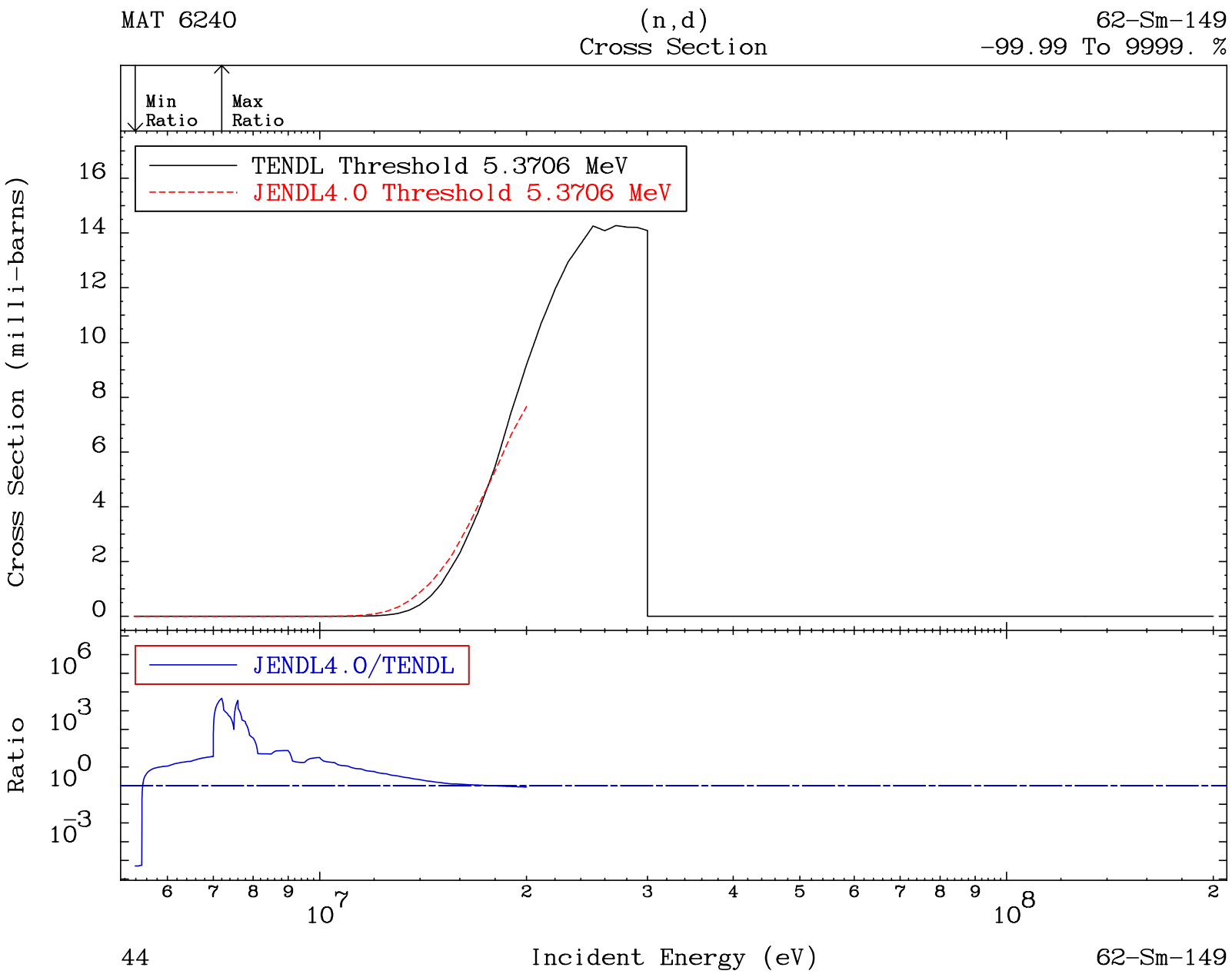

MAT 6240
MT= 78 (n,n') Level
Cross Section
62-Sm-149
-95.67 To 277.0 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.0551 MeV
JENDL4.0 Threshold 1.0551 MeV
Cross Section (milli-barns)
20
15
10
5
0
JENDL4.0/TENDL
Ratio
10^1
10^0
10^-1
4
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
39
Incident Energy (eV)
62-Sm-149

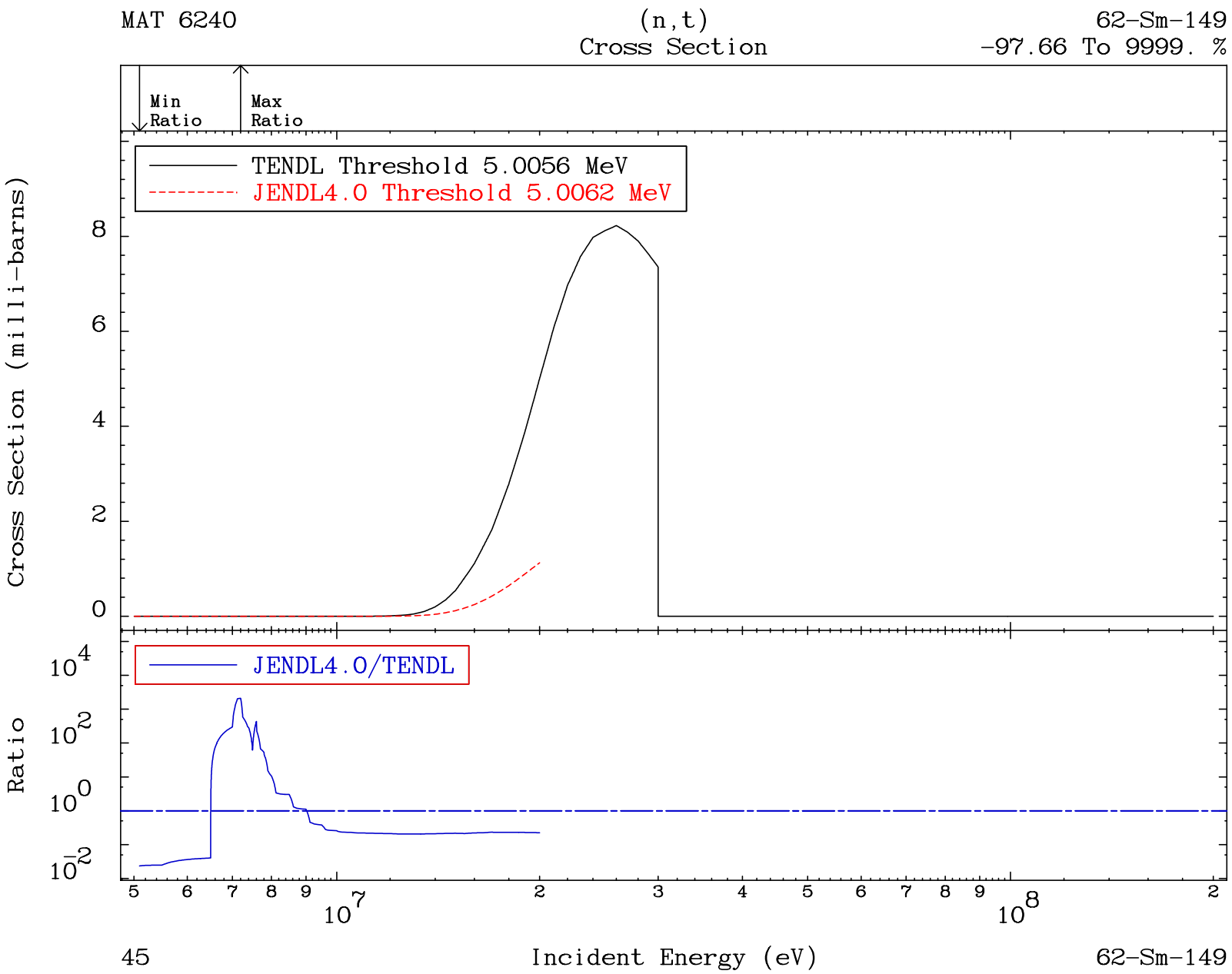

MAT 6240
MT= 79 (n,n') Level
Cross Section
62-Sm-149
-97.71 To -73.82%
Max
Ratio
Min
Ratio
TENDL Threshold 1.0903 MeV
JENDL4.0 Threshold 1.0903 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JENDL4.0/TENDL
Ratio
4
2
10-1
6
4
2
2 3 4 5 6 7 8
10 7
2 3 4 5 6 7 8
10 8
2
40
Incident Energy (eV)
62-Sm-149

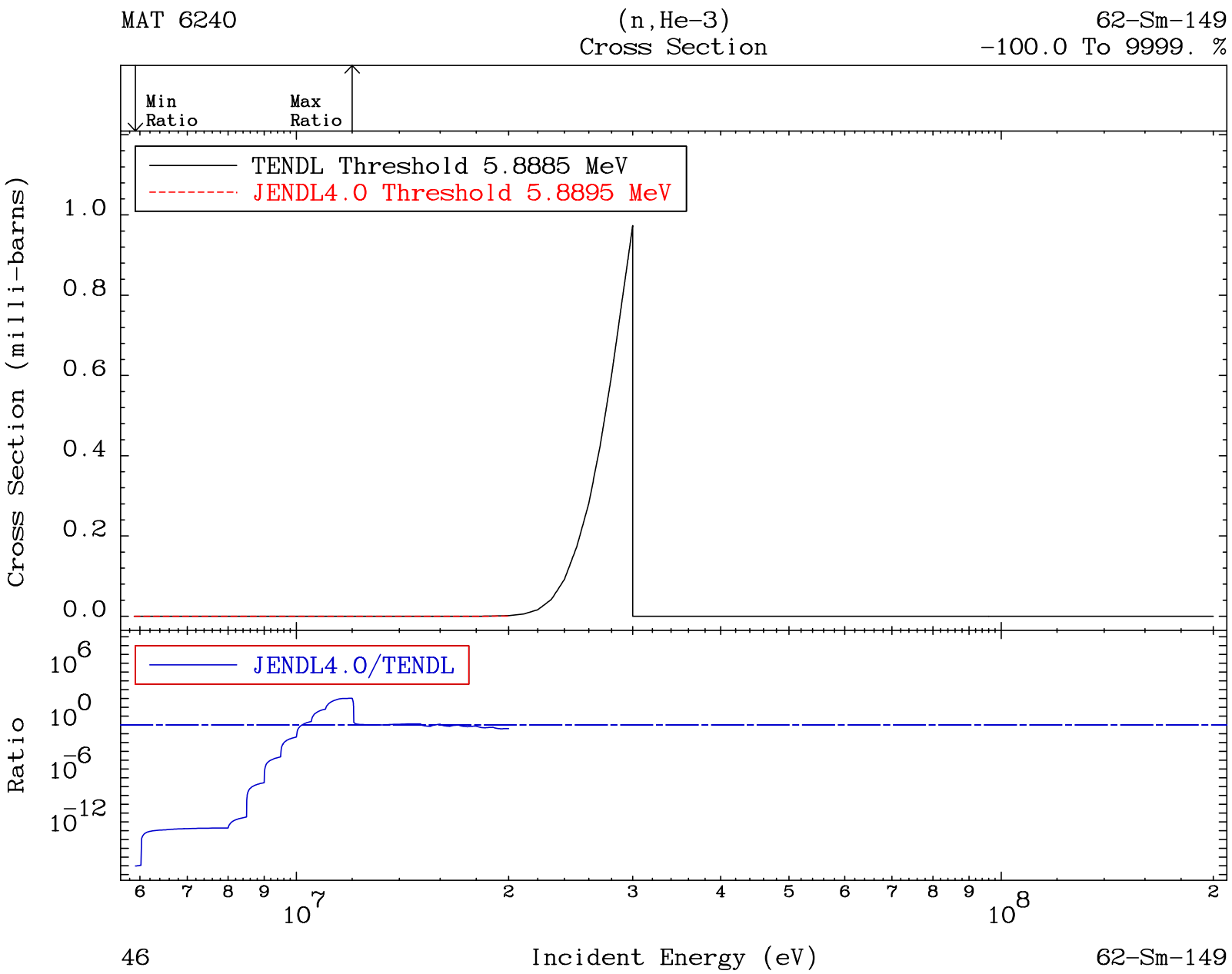

MAT 6240
(n,n') Continuum
Cross Section
62-Sm-149
-95.43 To 22.02 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.0903 MeV
JENDL4.0 Threshold 105.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^5
10^6
10^7
10^8
Incident Energy (eV)
41
62-Sm-149

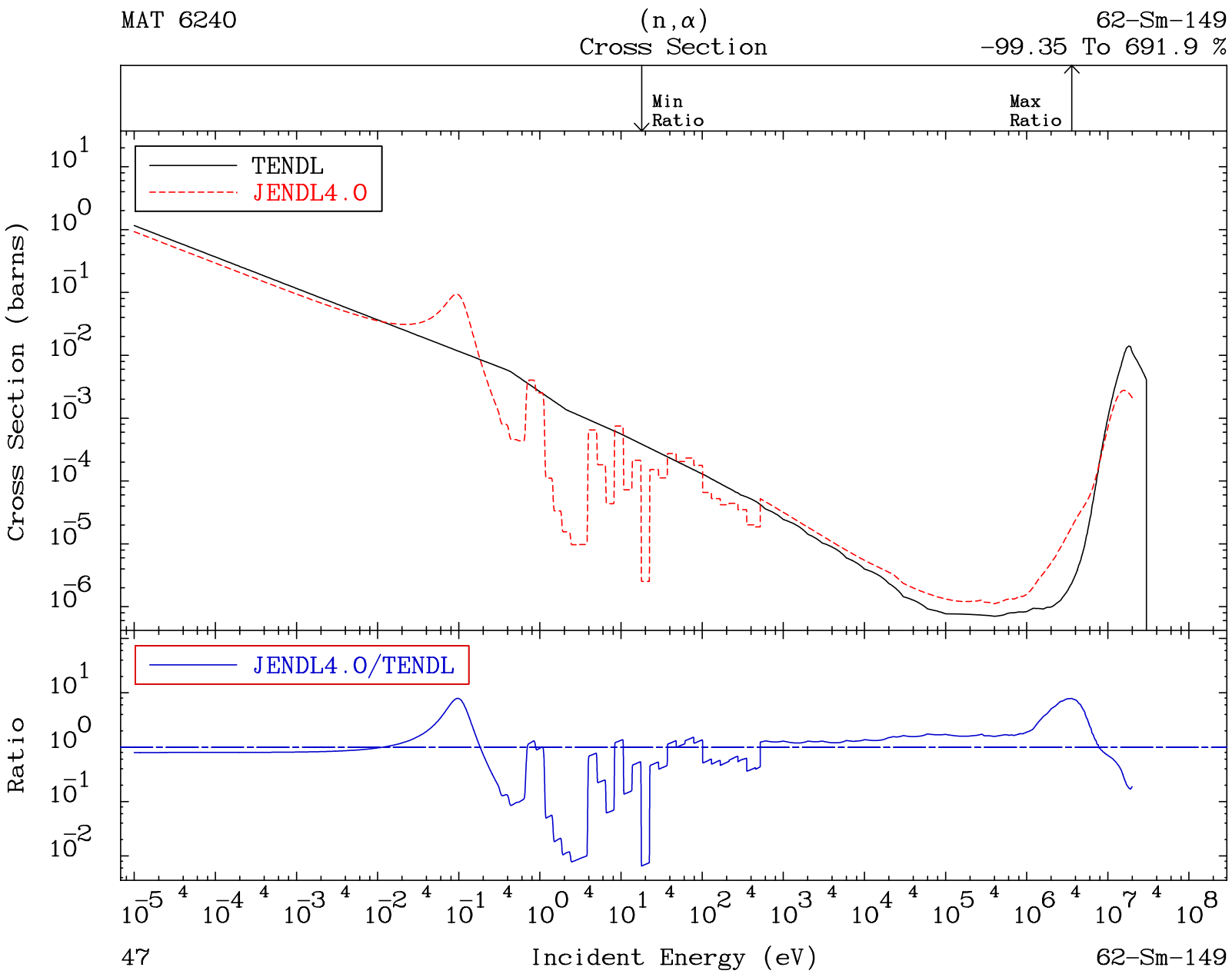

MAT 6240
(n,γ)
Cross Section
62-Sm-149
-99.67 To 381.0 %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
42
62-Sm-149

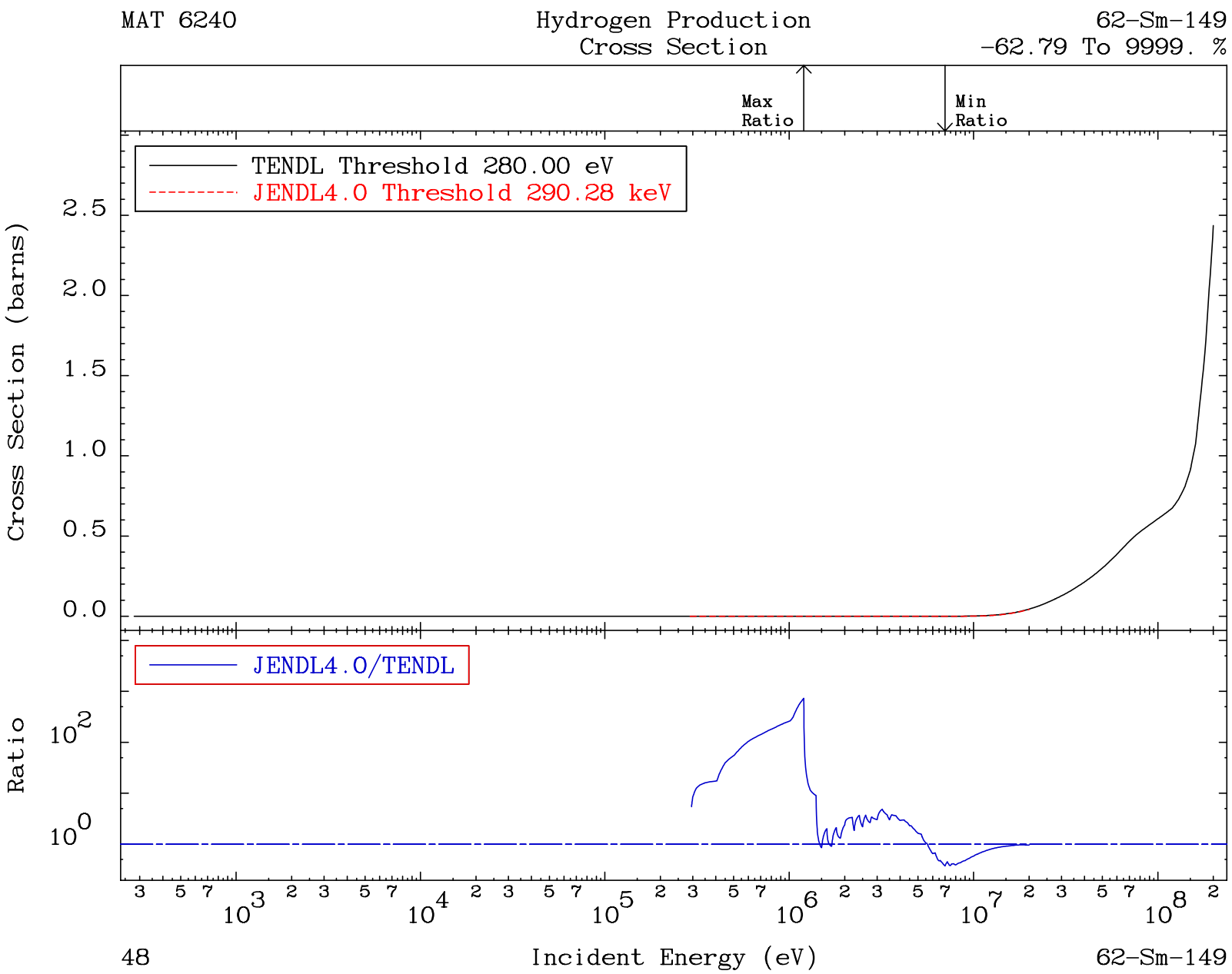

MAT 6240
(n,p)
Cross Section
62-Sm-149
-62.79 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 291.09 keV
JENDL4.0 Threshold 290.28 keV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JENDL4.0/TENDL
Ratio
10^2
10^0
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
43
Incident Energy (eV)
62-Sm-149

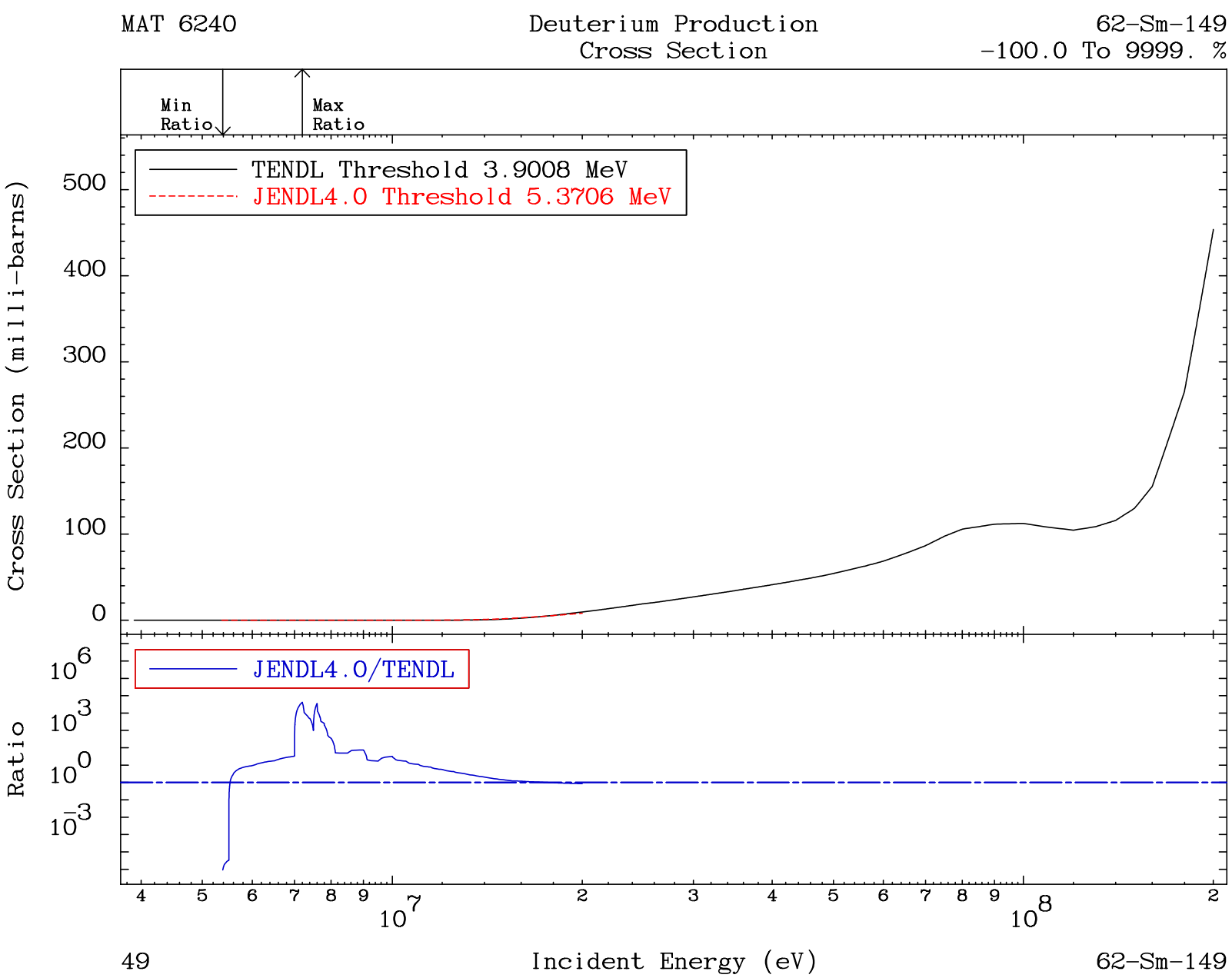

MAT 6240
(n,d)
Cross Section
62-Sm-149
-99.99 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.3706 MeV
JENDL4.0 Threshold 5.3706 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
10^-3
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
62-Sm-149

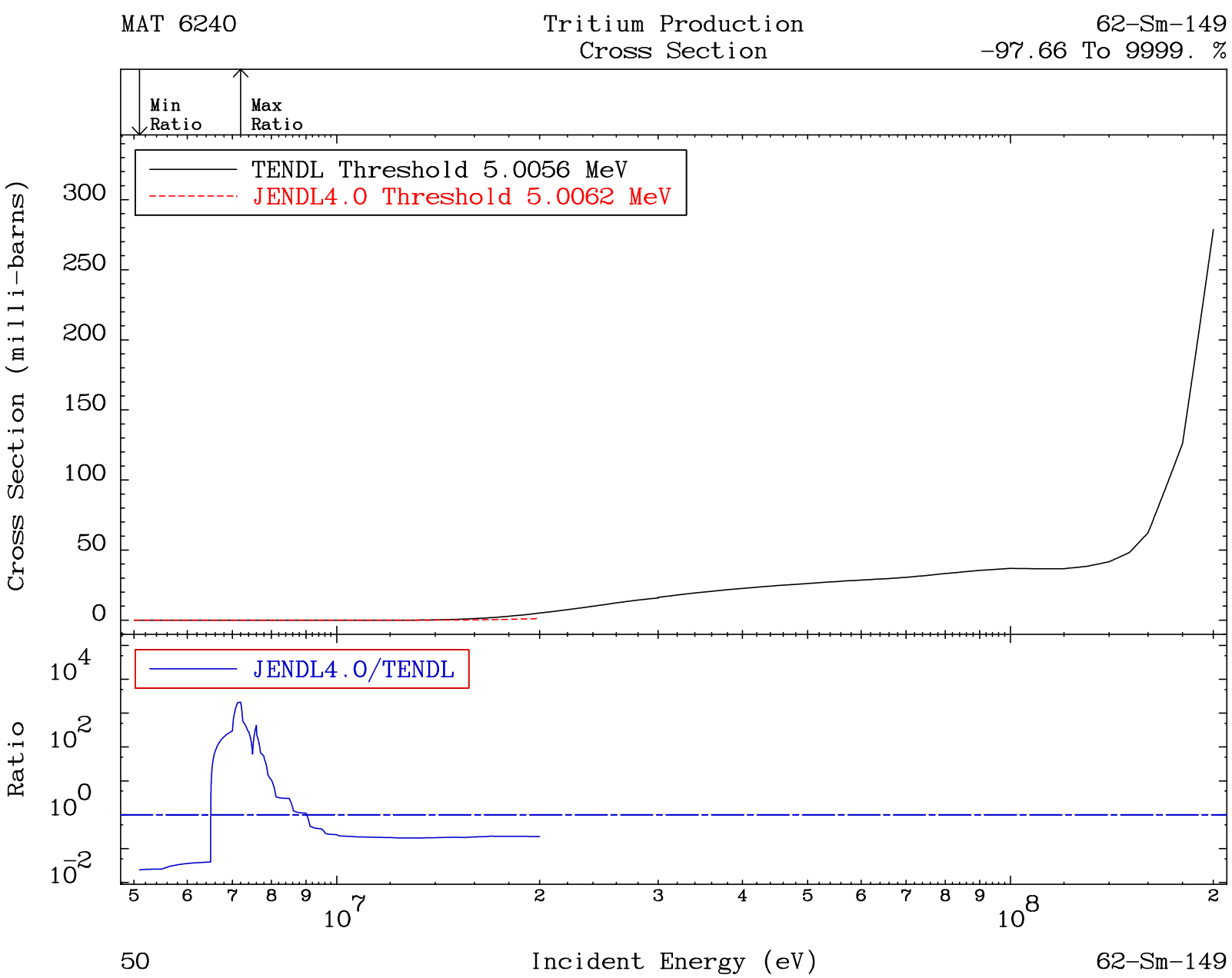

MAT 6240
(n,t)
Cross Section
62-Sm-149
-97.66 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.0056 MeV
JENDL4.0 Threshold 5.0062 MeV
Cross Section (milli-barns)
0
2
4
6
8
JENDL4.0/TENDL
Ratio
10^{4}
10^{2}
10^{0}
10^{-2}
5 6 7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
45
Incident Energy (eV)
62-Sm-149

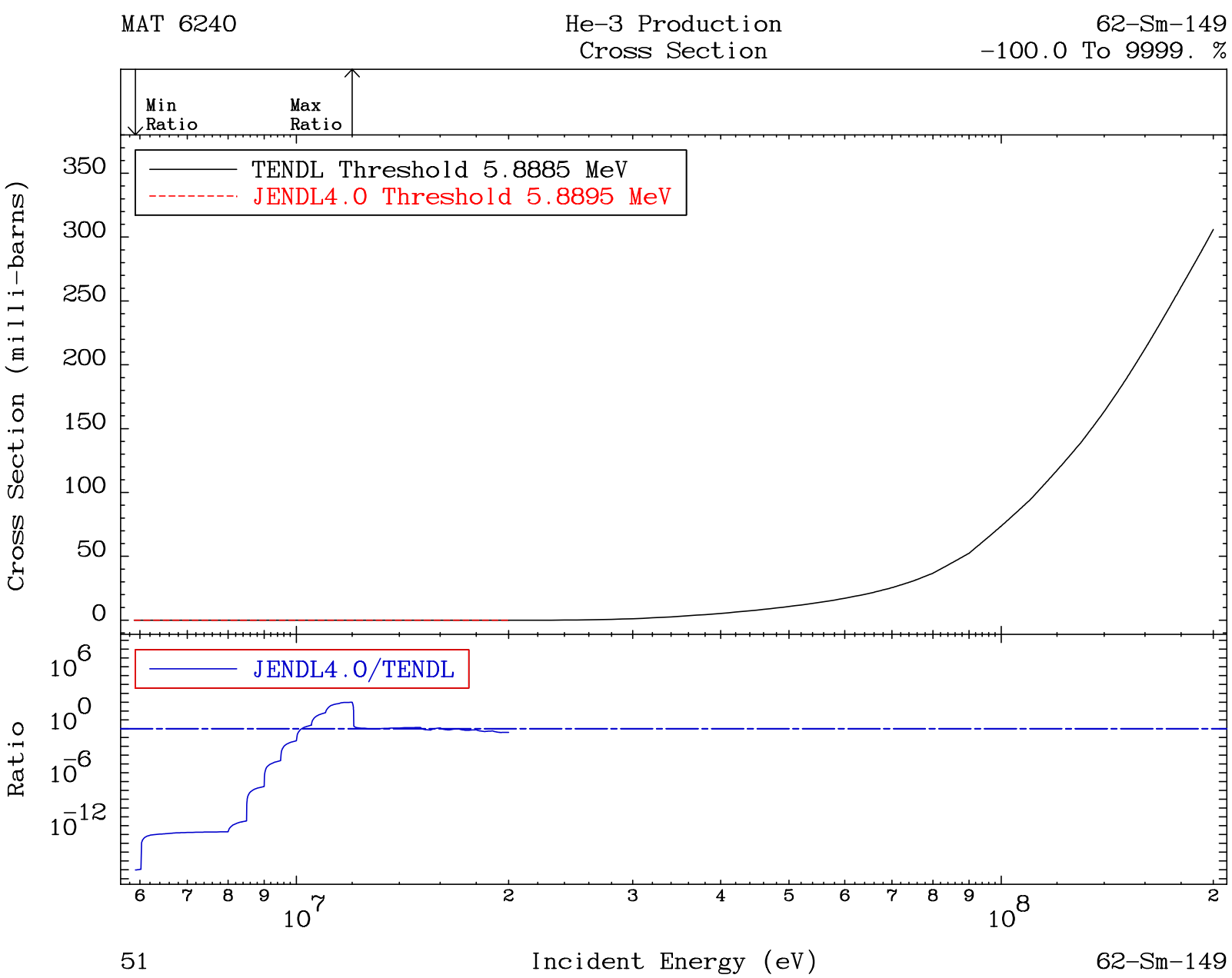

MAT 6240
(n,He-3)
Cross Section
62-Sm-149
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.8885 MeV
JENDL4.0 Threshold 5.8895 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
10^6
10^0
10^-6
10^-12
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
62-Sm-149

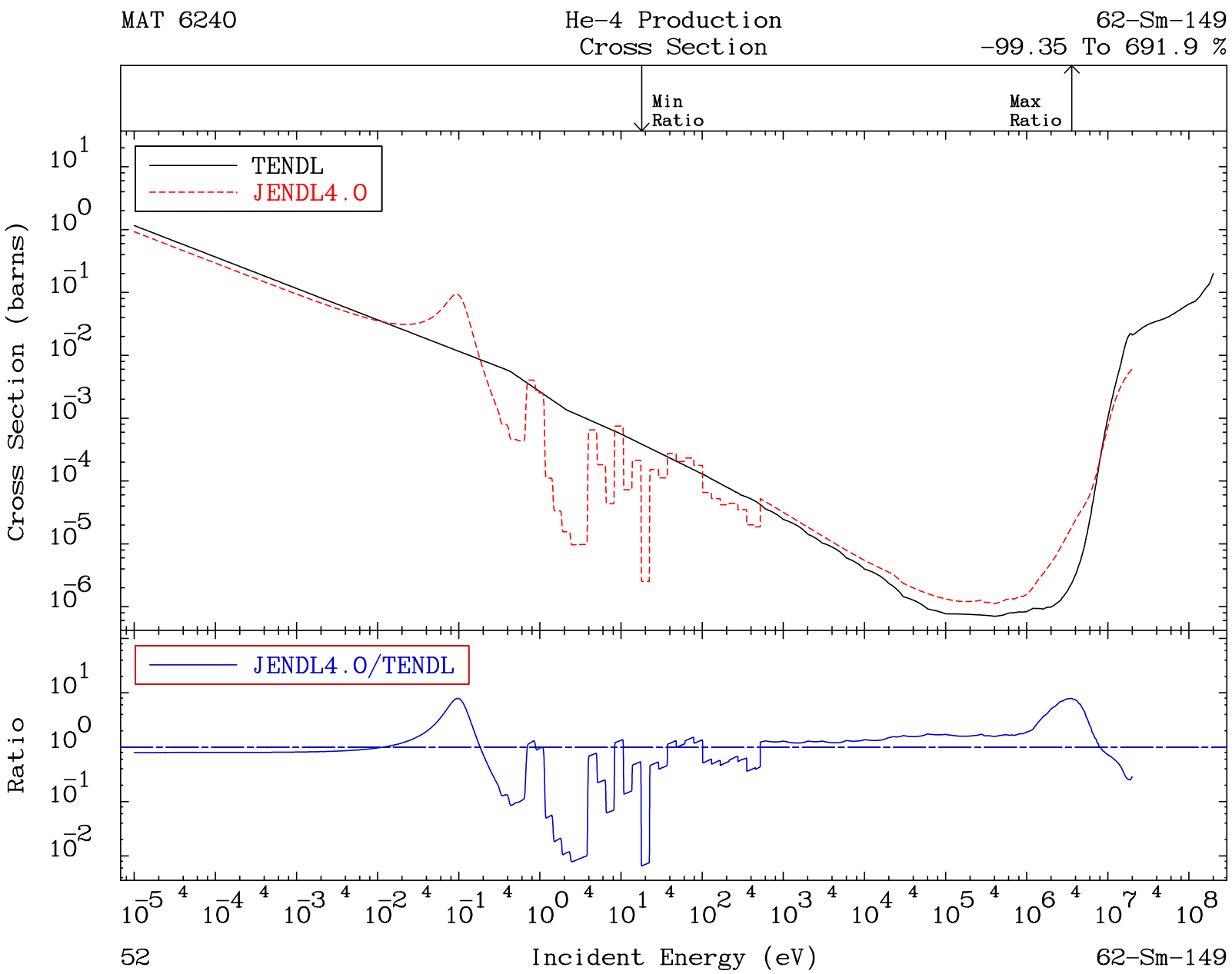

MAT 6240
(n,α)
Cross Section
62-Sm-149
-99.35 To 691.9 %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
47
62-Sm-149

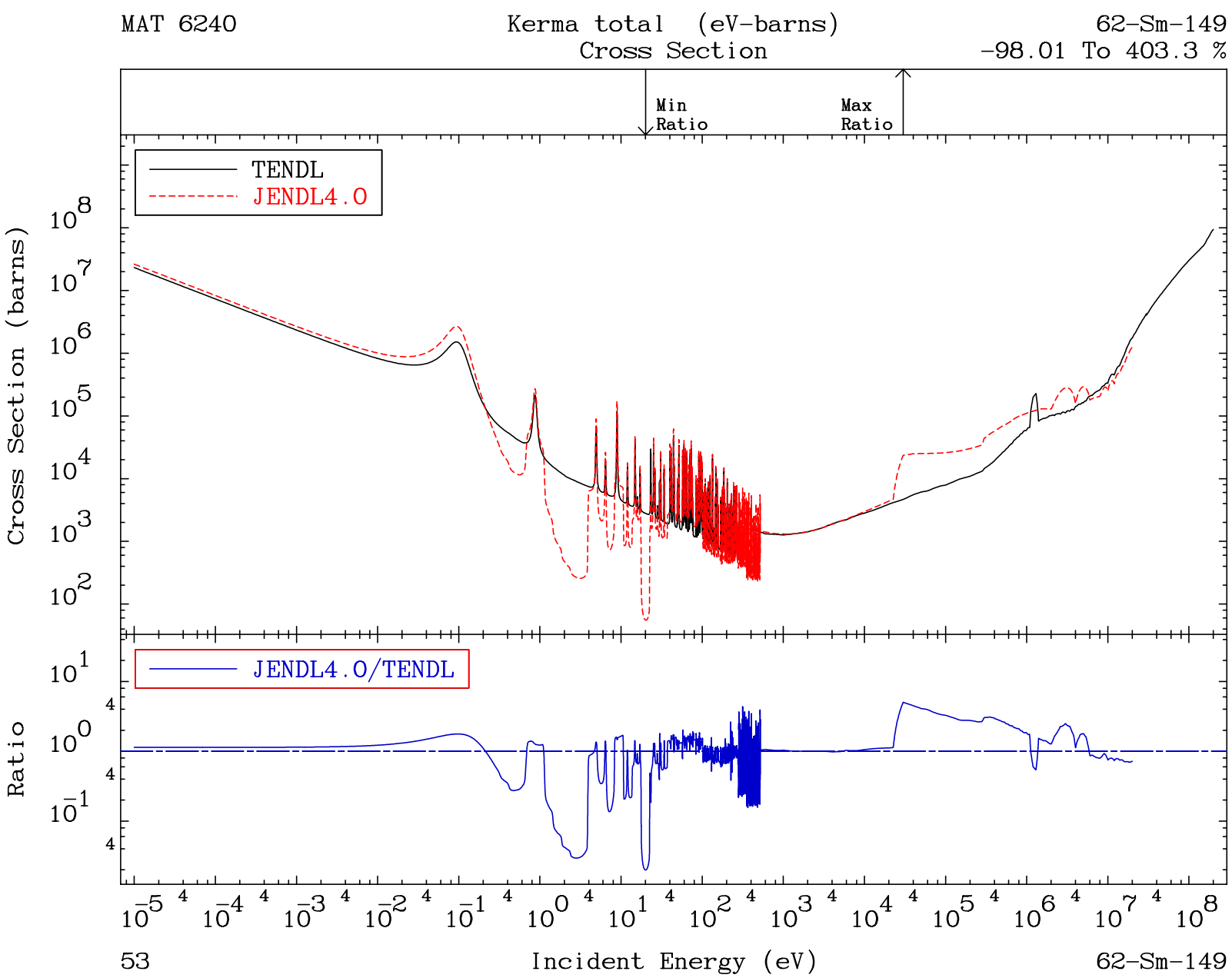

MAT 6240
Hydrogen Production
Cross Section
62-Sm-149
-62.79 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 280.00 eV
JENDL4.0 Threshold 290.28 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
10^2
10^0
3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
48
Incident Energy (eV)
62-Sm-149

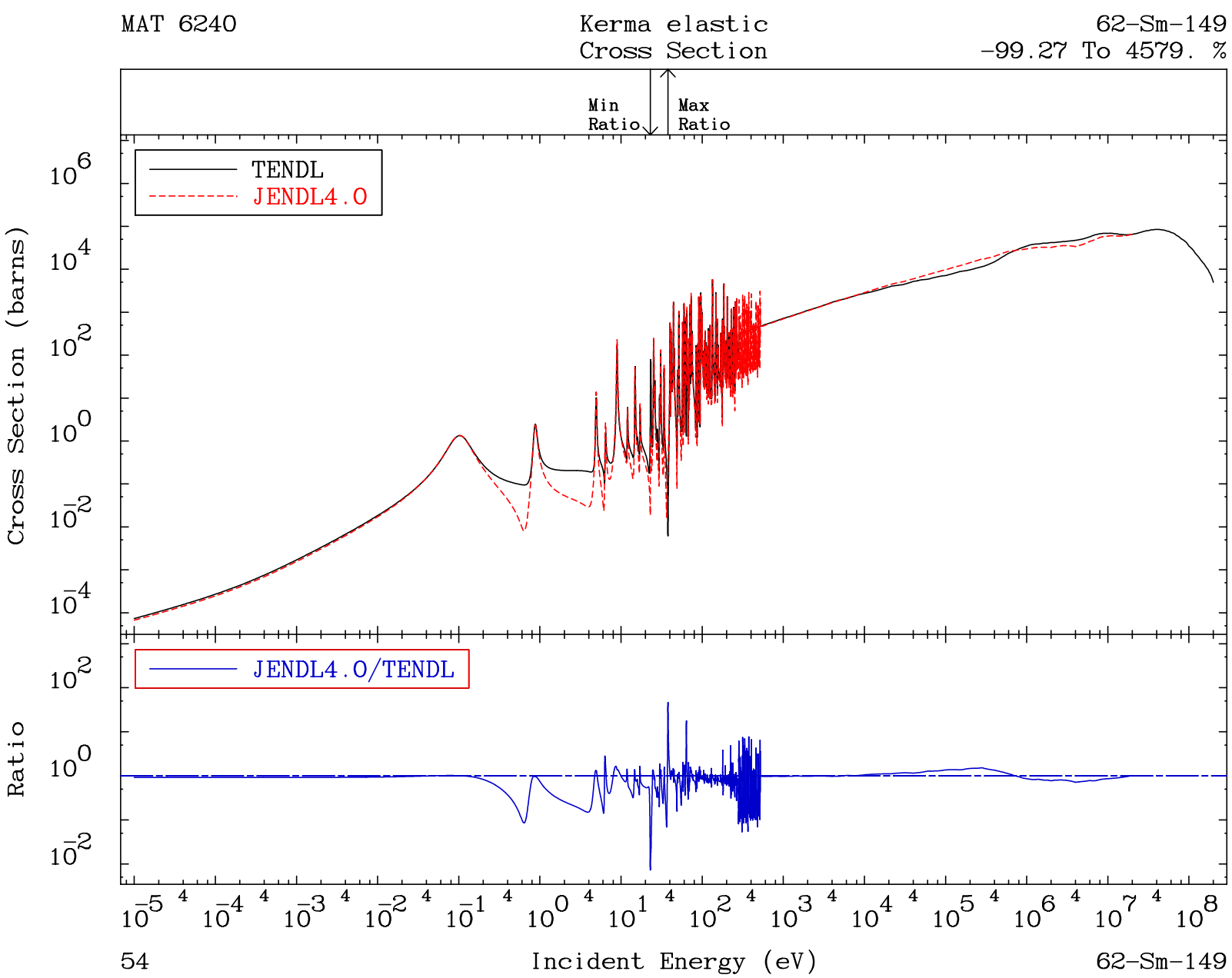

MAT 6240
Deuterium Production
Cross Section
62-Sm-149
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 3.9008 MeV
JENDL4.0 Threshold 5.3706 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
JENDL4.0/TENDL
Ratio
10^6
10^3
10^0
10^-3
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
49
Incident Energy (eV)
62-Sm-149

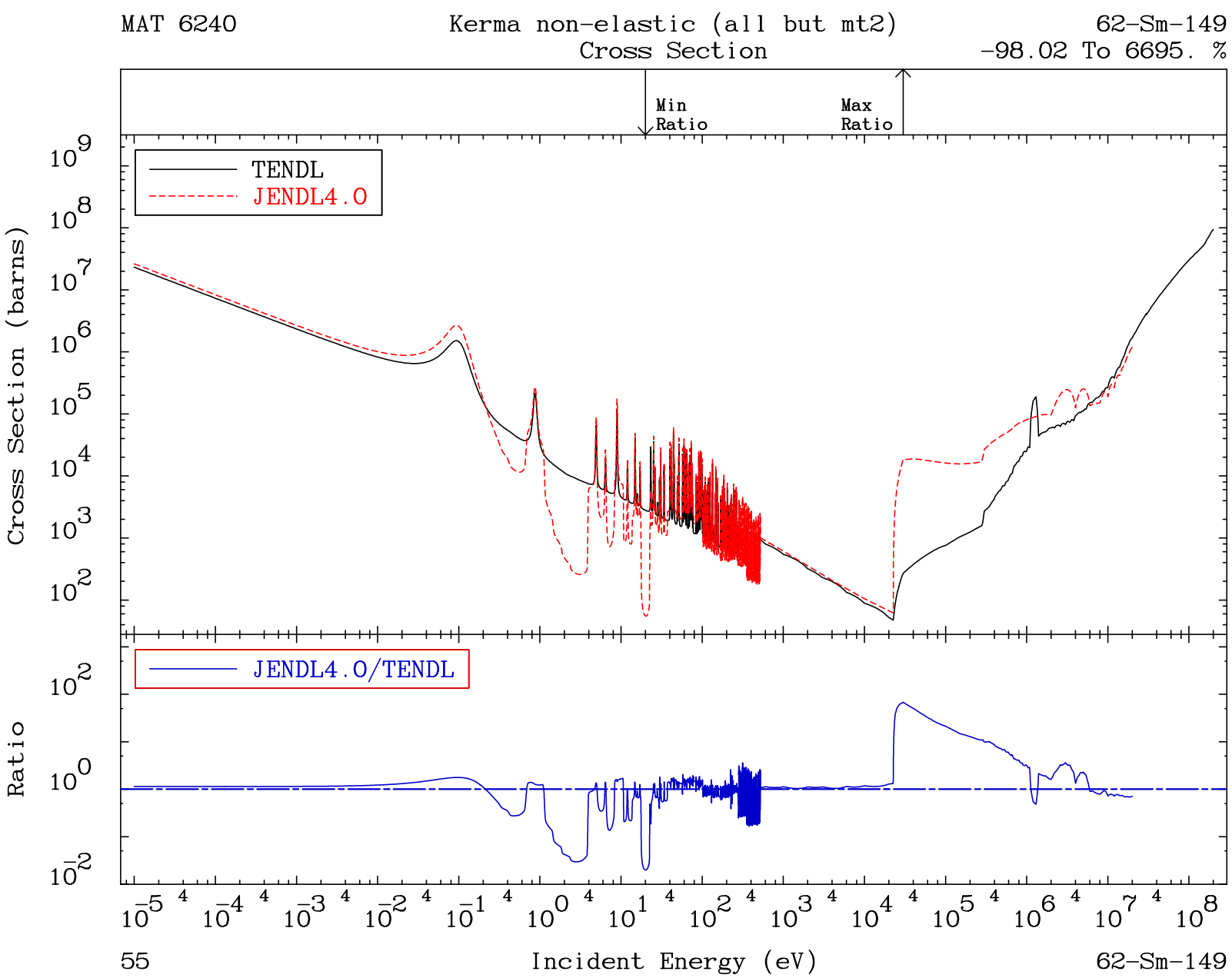

MAT 6240
Tritium Production
Cross Section
62-Sm-149
-97.66 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.0056 MeV
JENDL4.0 Threshold 5.0062 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^4
10^2
10^0
10^-2
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
50
Incident Energy (eV)
62-Sm-149

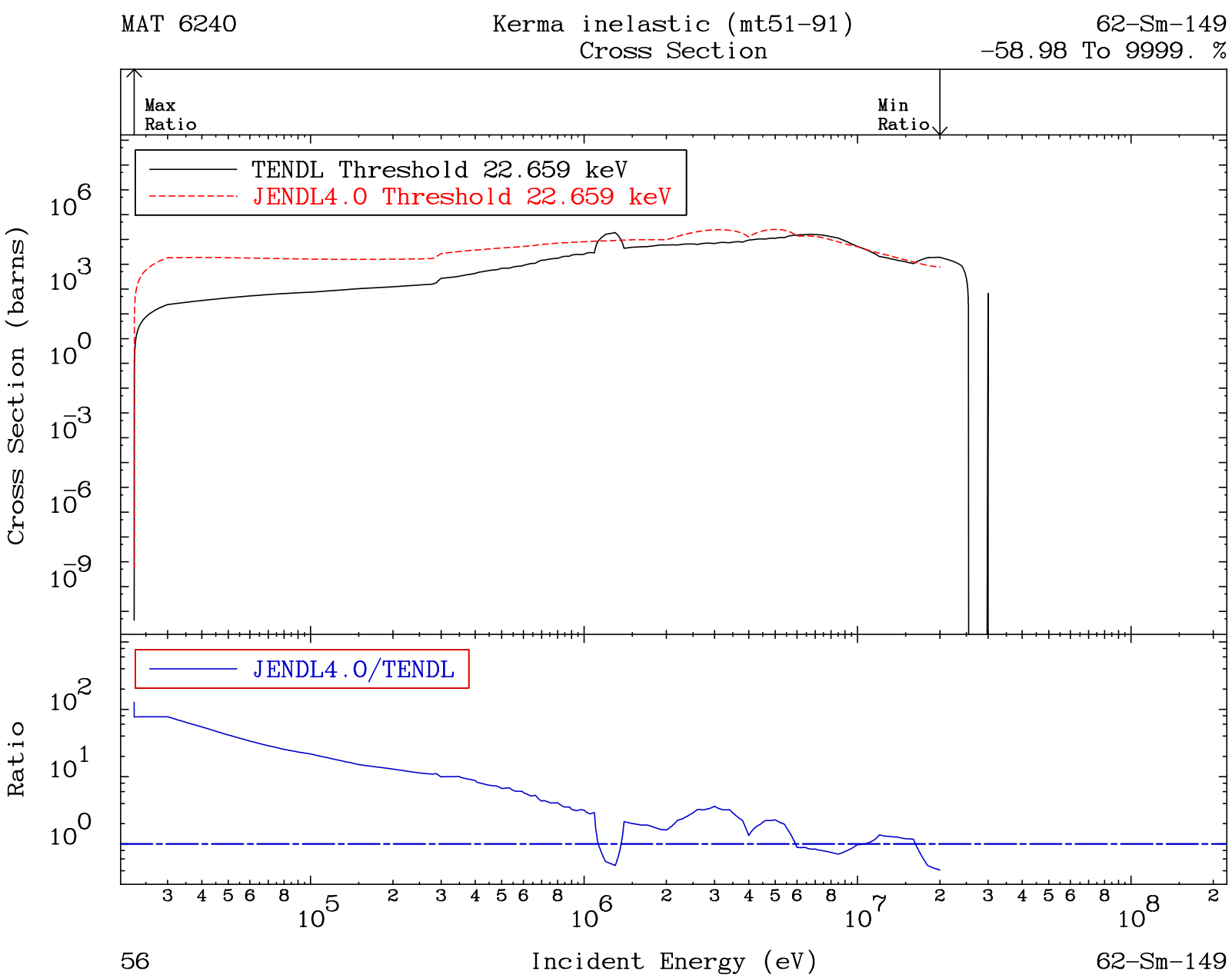

MAT 6240
He-3 Production
Cross Section
62-Sm-149
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.8885 MeV
JENDL4.0 Threshold 5.8895 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^6
10^0
10^-6
10^-12
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
51
Incident Energy (eV)
62-Sm-149

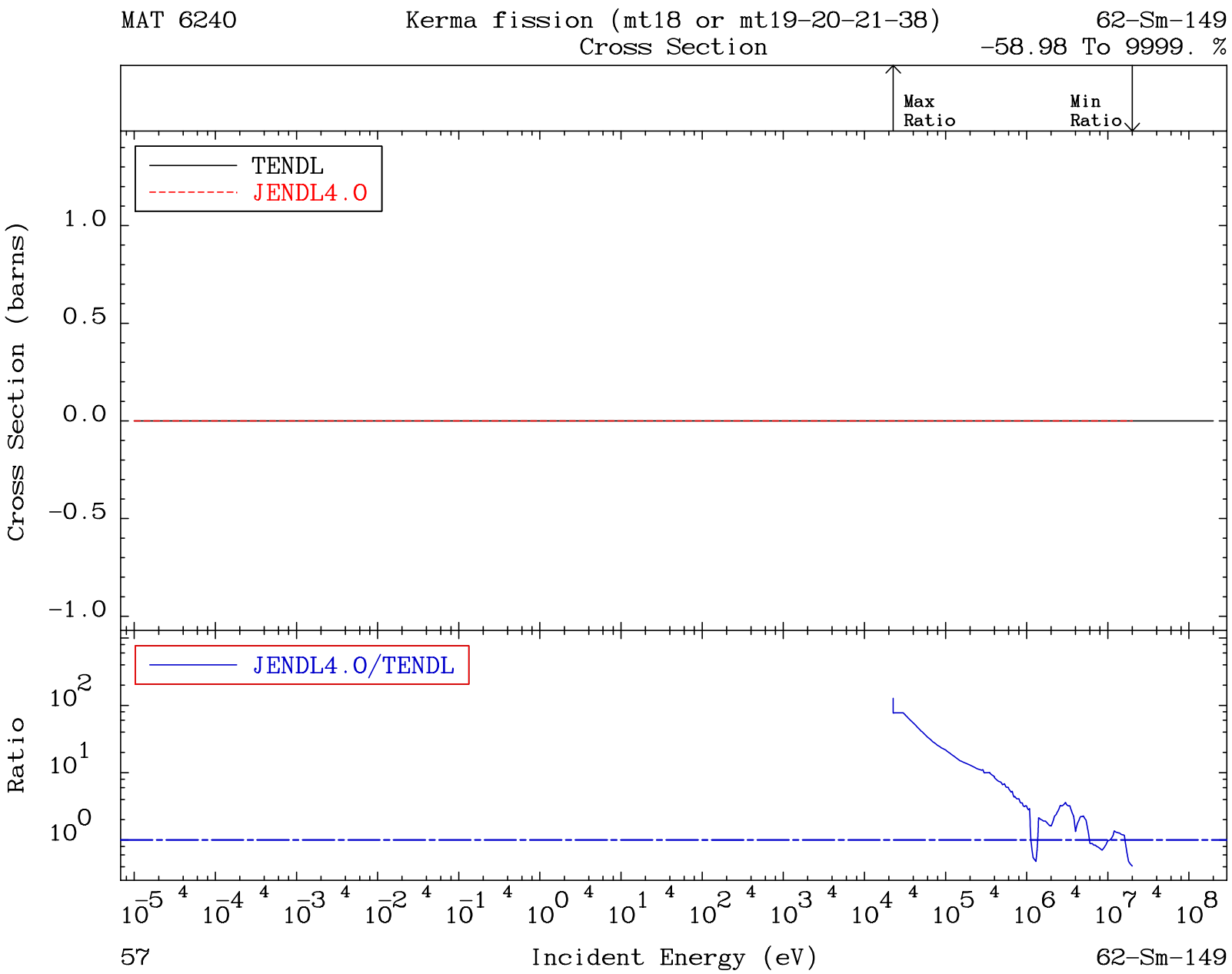

MAT 6240
He-4 Production
Cross Section
62-Sm-149
-99.35 To 691.9 %
Min
Ratio
Max
Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
52
62-Sm-149

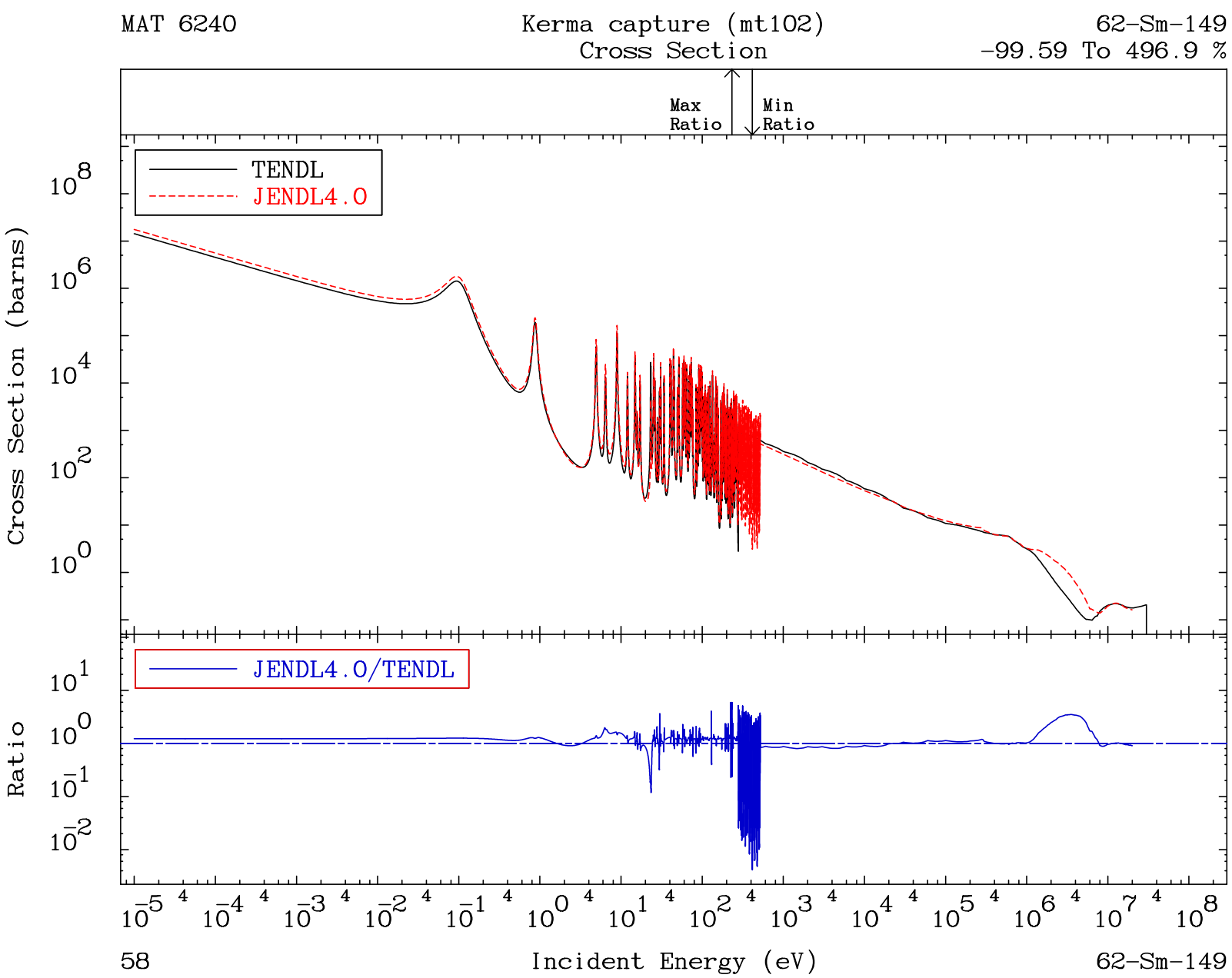

MAT 6240
Kerma total (eV-barns)
Cross Section
62-Sm-149
-98.01 To 403.3 %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
53
62-Sm-149

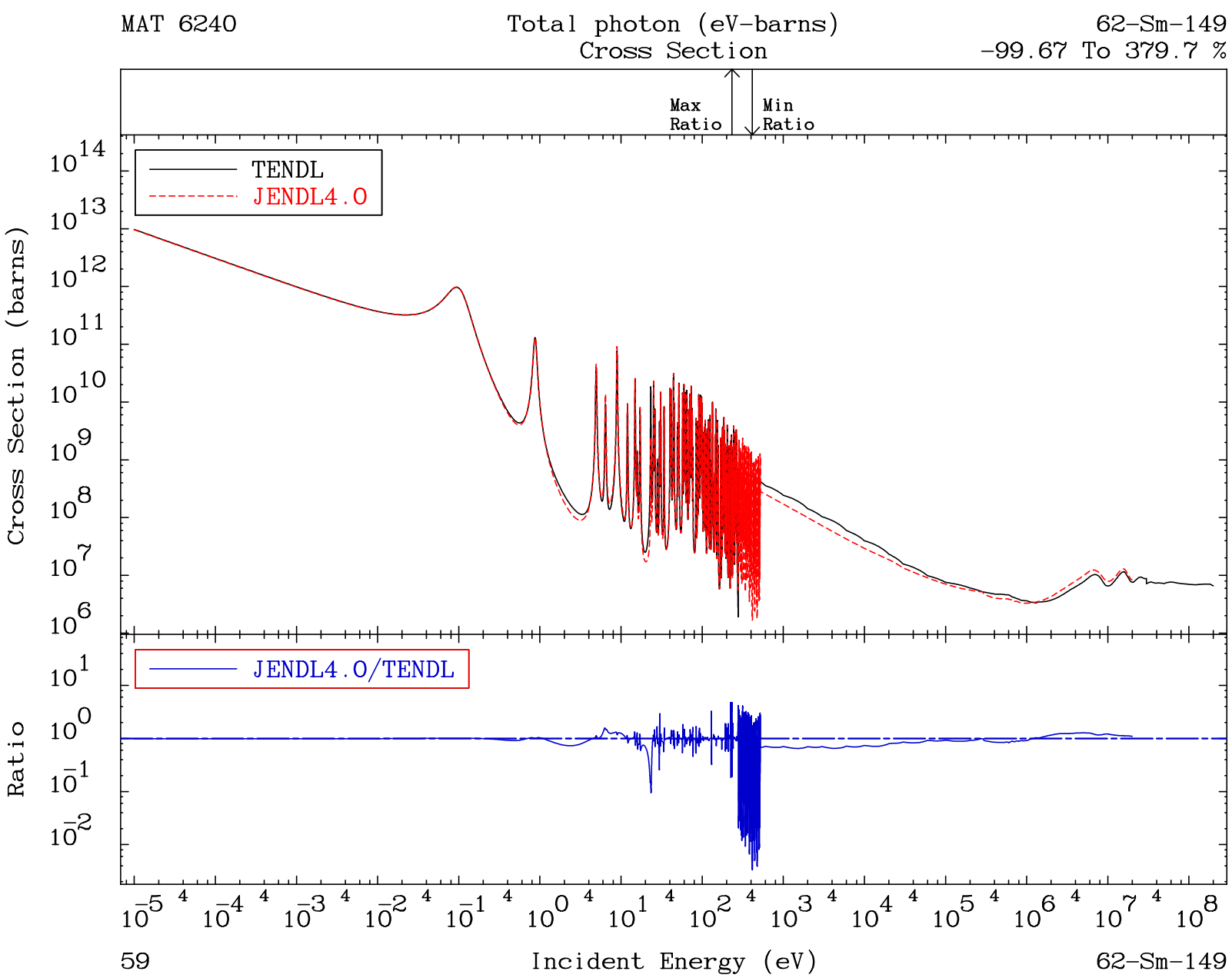

MAT 6240
Kerma elastic
Cross Section
62-Sm-149
-99.27 To 4579. %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
54
62-Sm-149

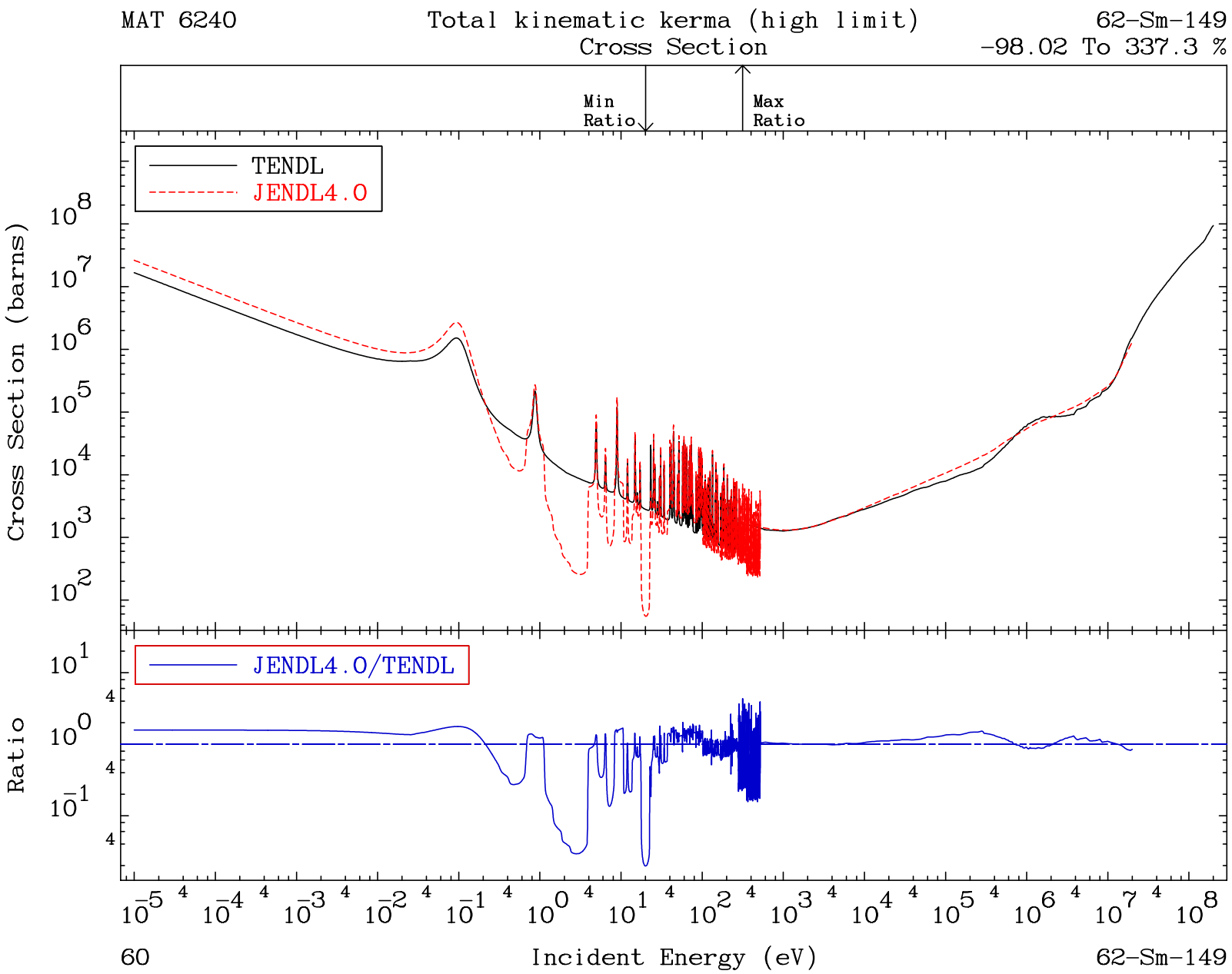

MAT 6240
Kerma non-elastic (all but mt2)
Cross Section
62-Sm-149
-98.02 To 6695. %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
55
62-Sm-149

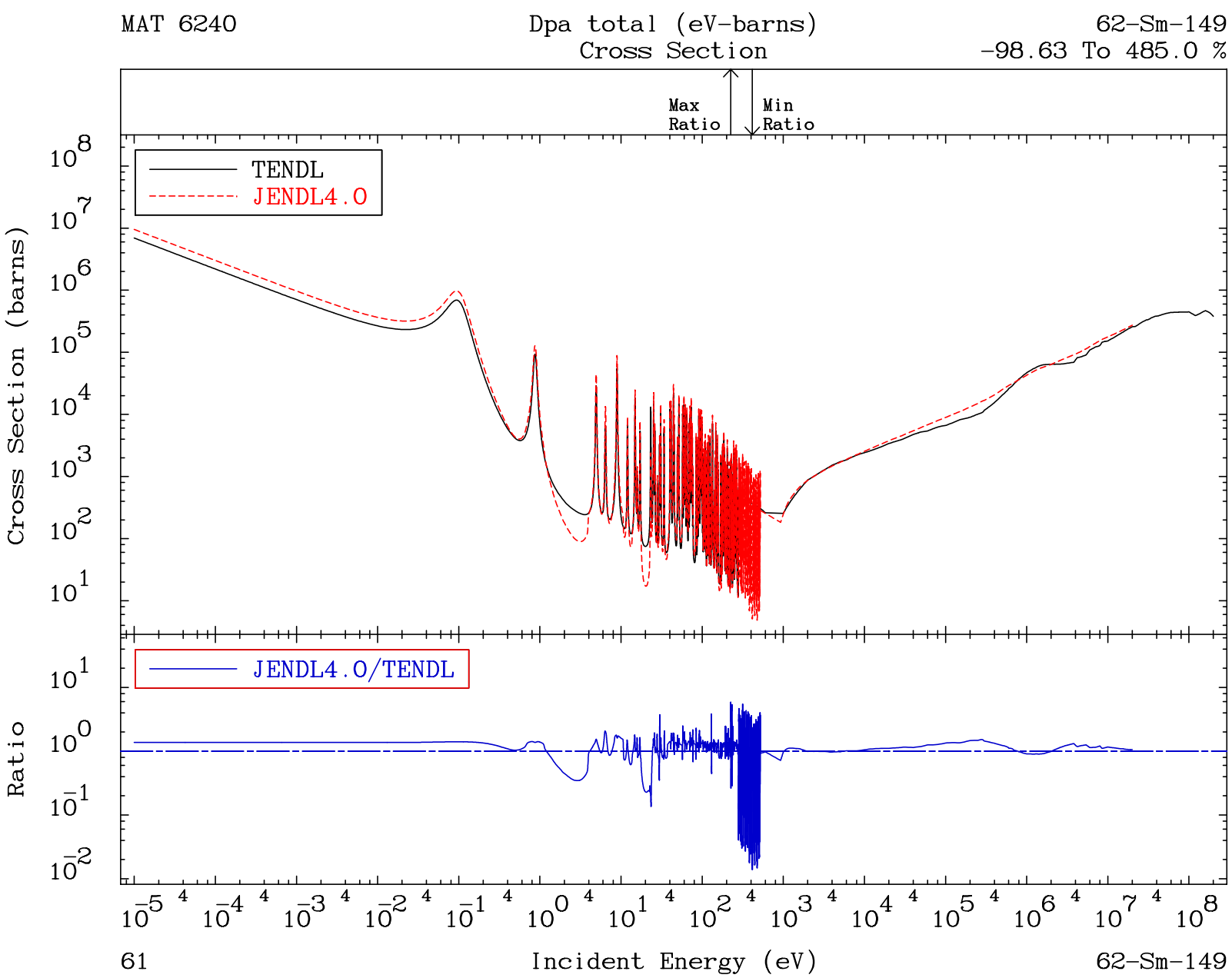

MAT 6240
Kerma inelastic (mt51-91)
Cross Section
62-Sm-149
-58.98 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 22.659 keV
JENDL4.0 Threshold 22.659 keV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
56
62-Sm-149

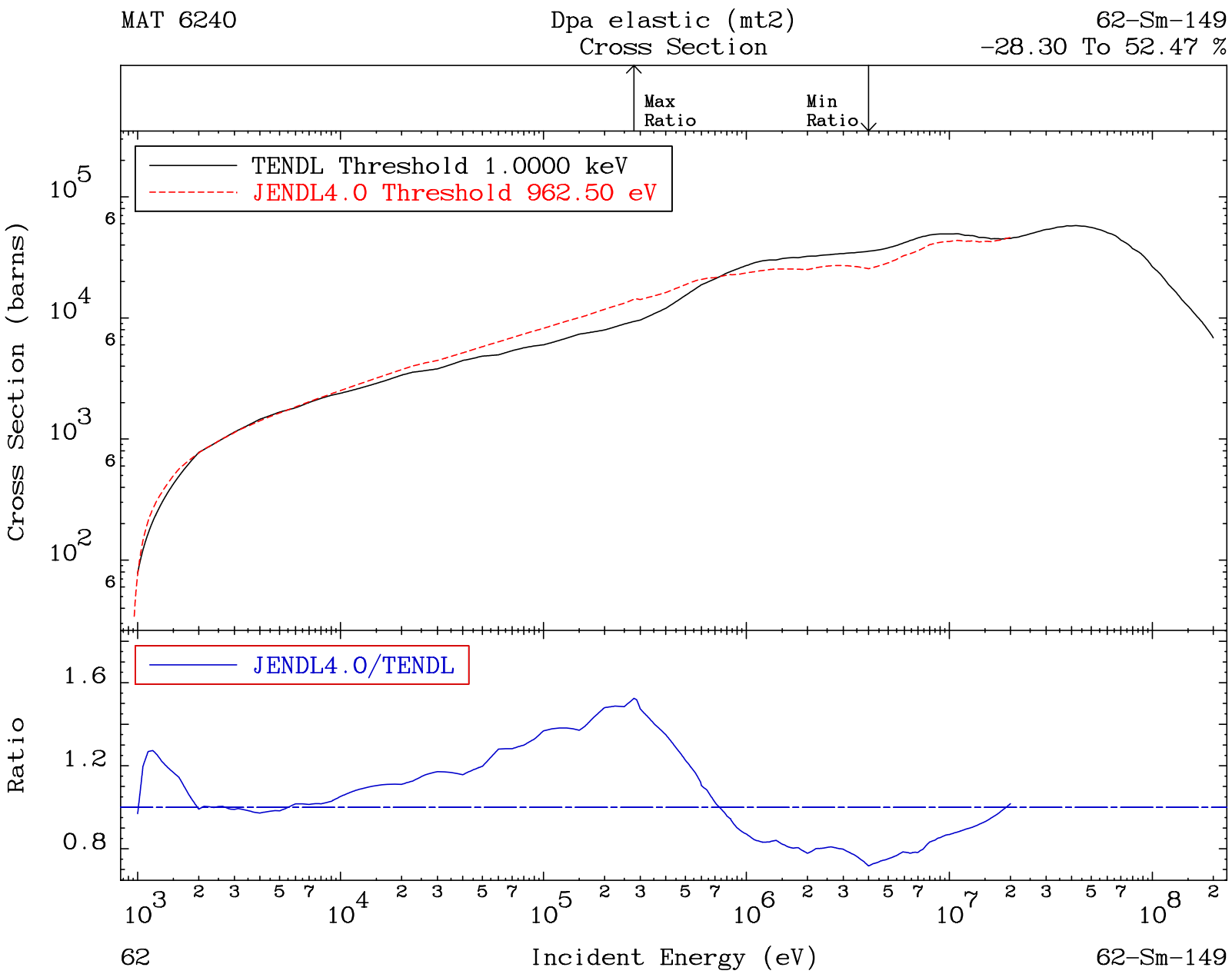

MAT 6240
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
62-Sm-149
-58.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JENDL4.0/TENDL
Ratio
10^2
10^1
10^0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
57
Incident Energy (eV)
62-Sm-149

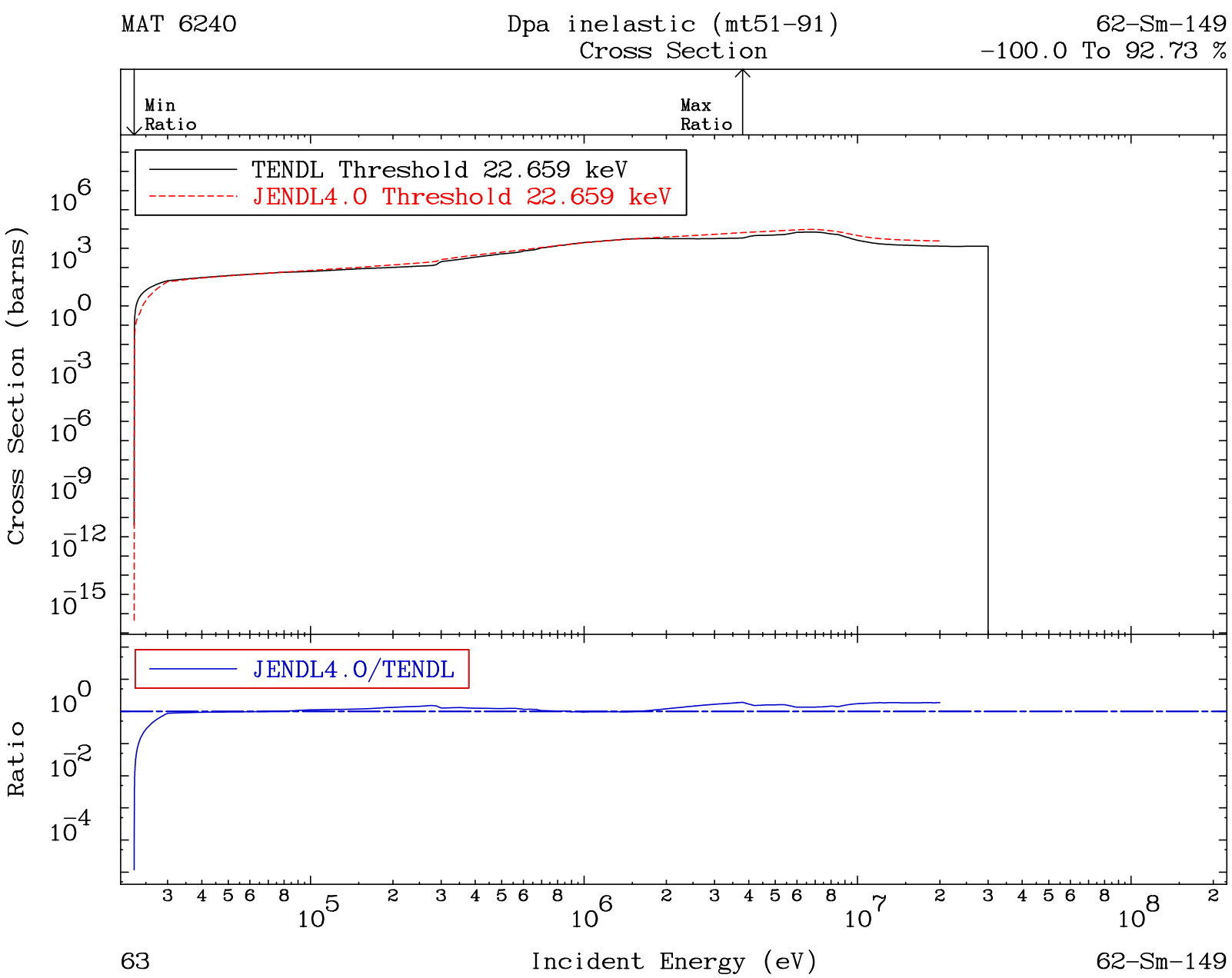

MAT 6240
Kerma capture (mt102)
Cross Section
62-Sm-149
-99.59 To 496.9 %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
58
62-Sm-149

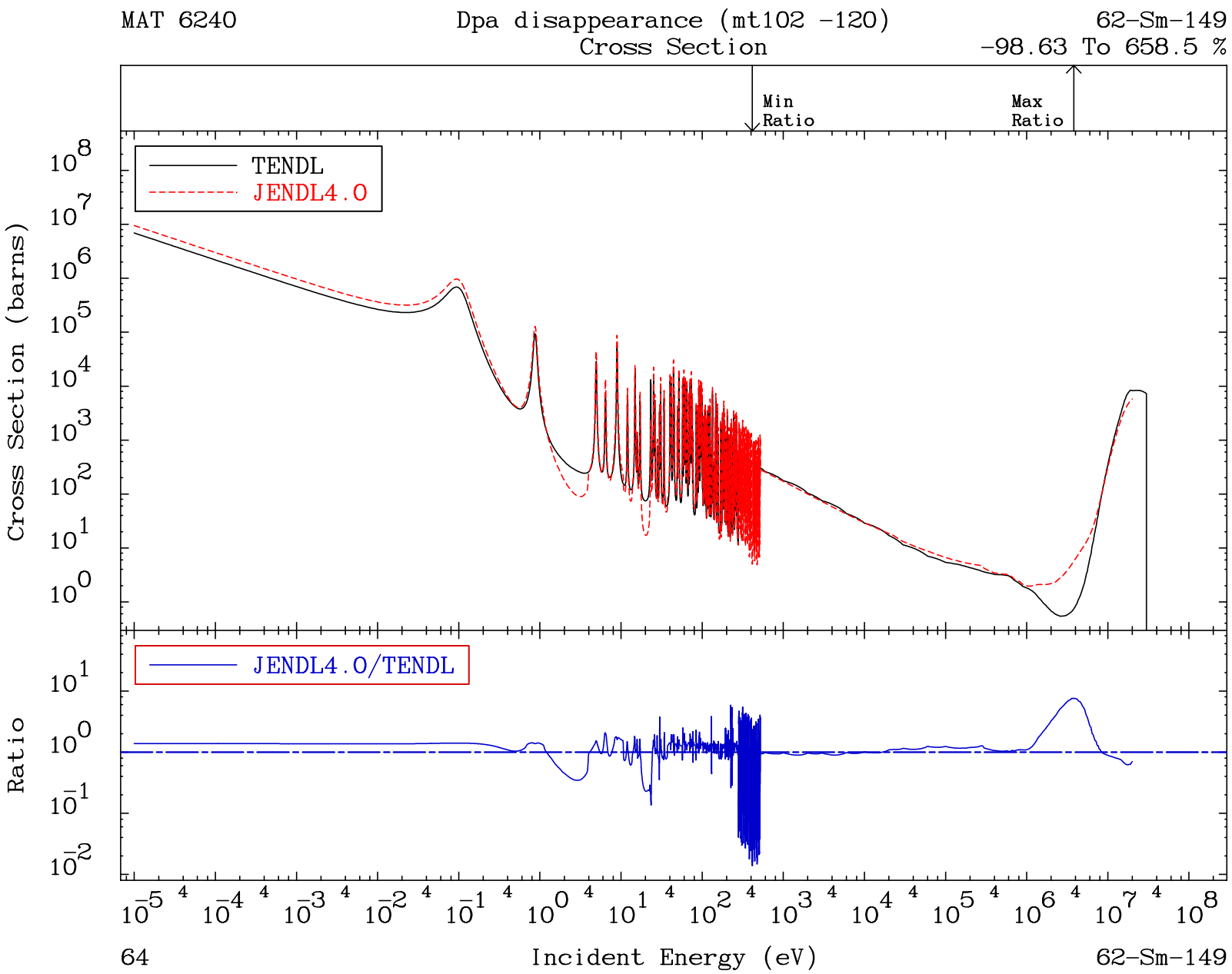

MAT 6240
Total photon (eV-barns)
Cross Section
62-Sm-149
-99.67 To 379.7 %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
59
62-Sm-149


MAT 6240
Total kinematic kerma (high limit)
Cross Section
62-Sm-149
-98.02 To 337.3 %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
60
62-Sm-149


MAT 6240
Dpa total (eV-barns)
Cross Section
62-Sm-149
-98.63 To 485.0 %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
61
62-Sm-149


MAT 6240
Dpa elastic (mt2)
Cross Section
62-Sm-149
-28.30 To 52.47 %
Max Ratio
Min Ratio
TENDL Threshold 1.0000 keV
JENDL4.0 Threshold 962.50 eV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
62
62-Sm-149


MAT 6240
Dpa inelastic (mt51-91)
Cross Section
62-Sm-149
-100.0 To 92.73 %
Min Ratio
Max Ratio
TENDL Threshold 22.659 keV
JENDL4.0 Threshold 22.659 keV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
63
62-Sm-149


MAT 6240
Dpa disappearance (mt102 -120)
Cross Section
62-Sm-149
-98.63 To 658.5 %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
64
62-Sm-149