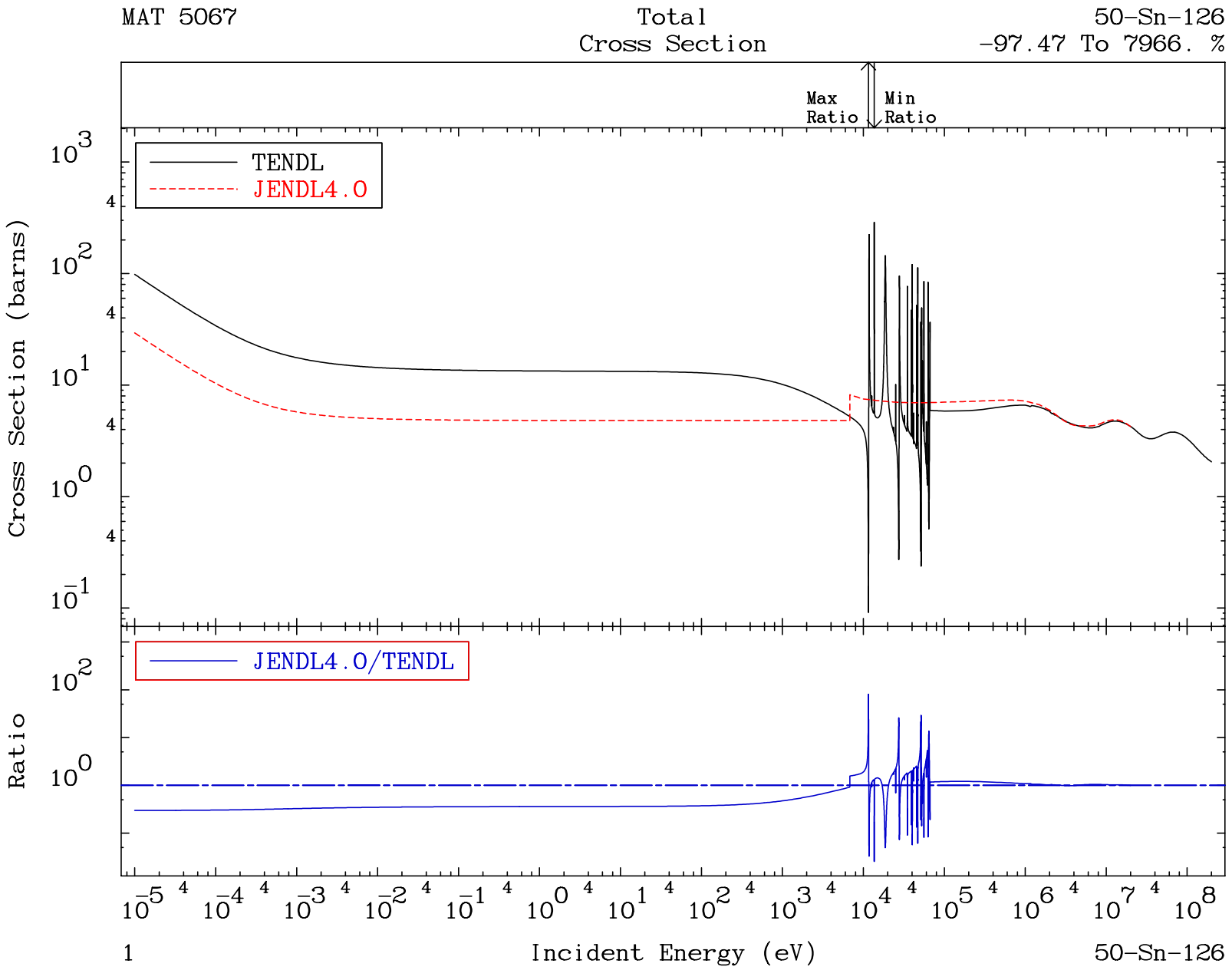
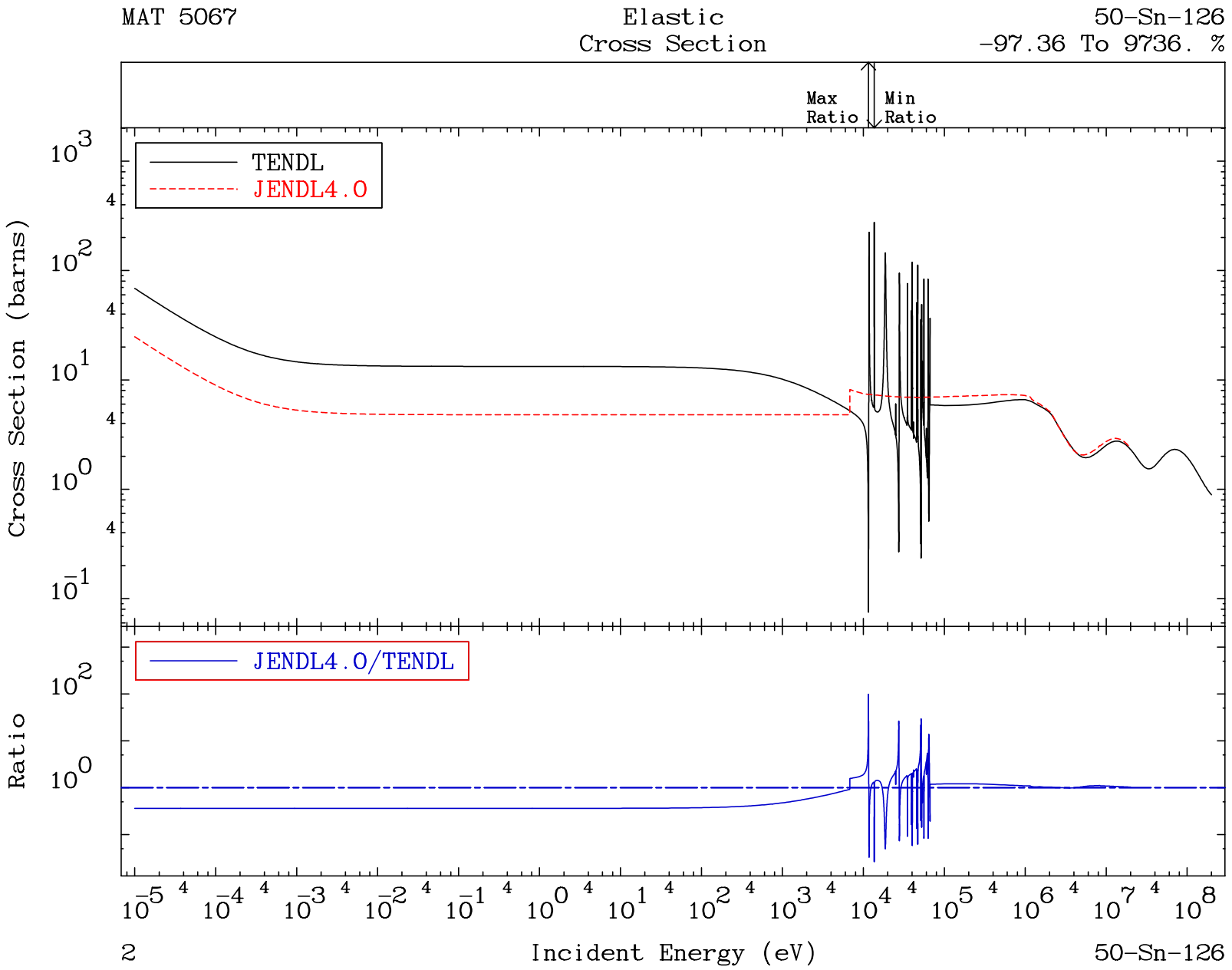
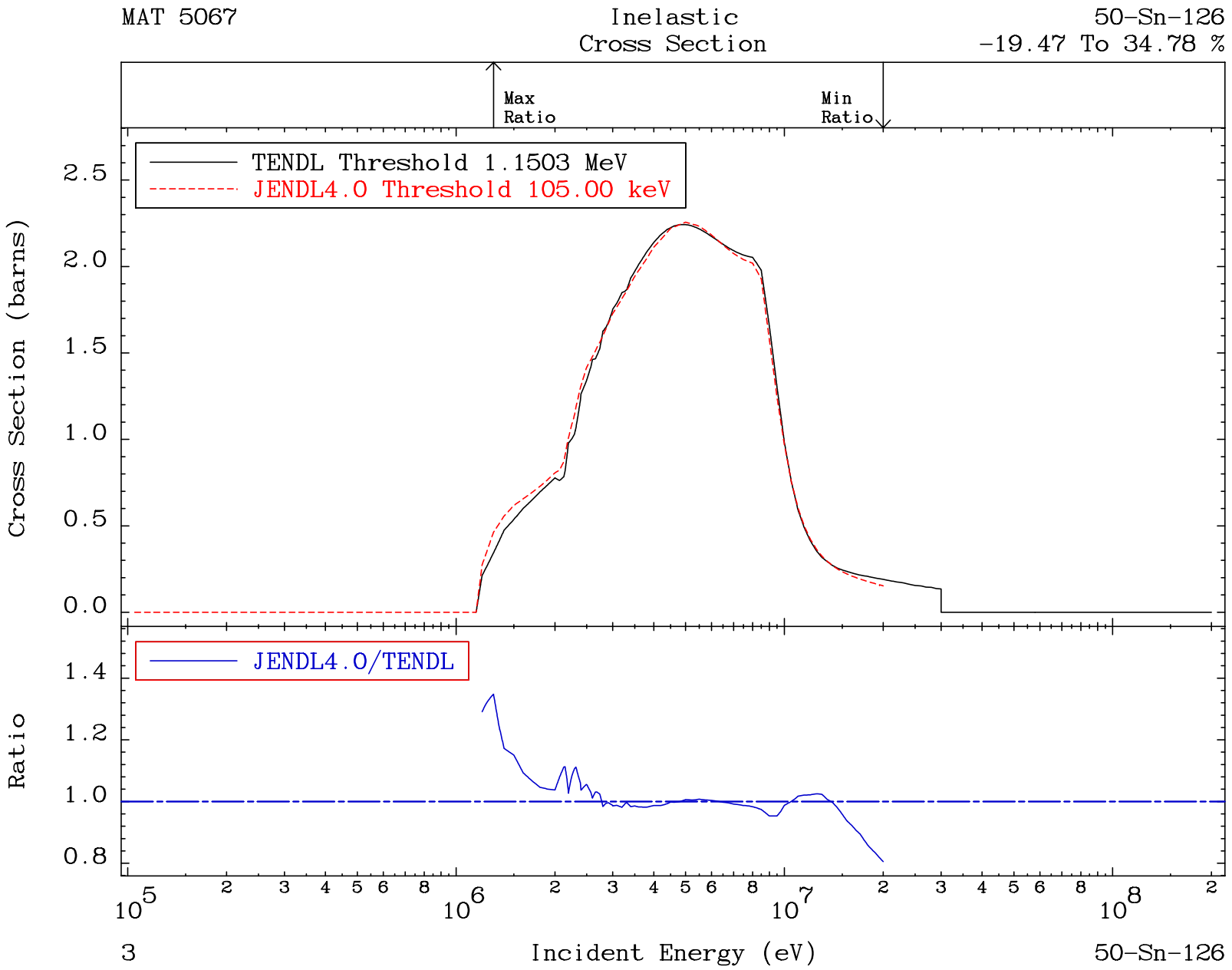
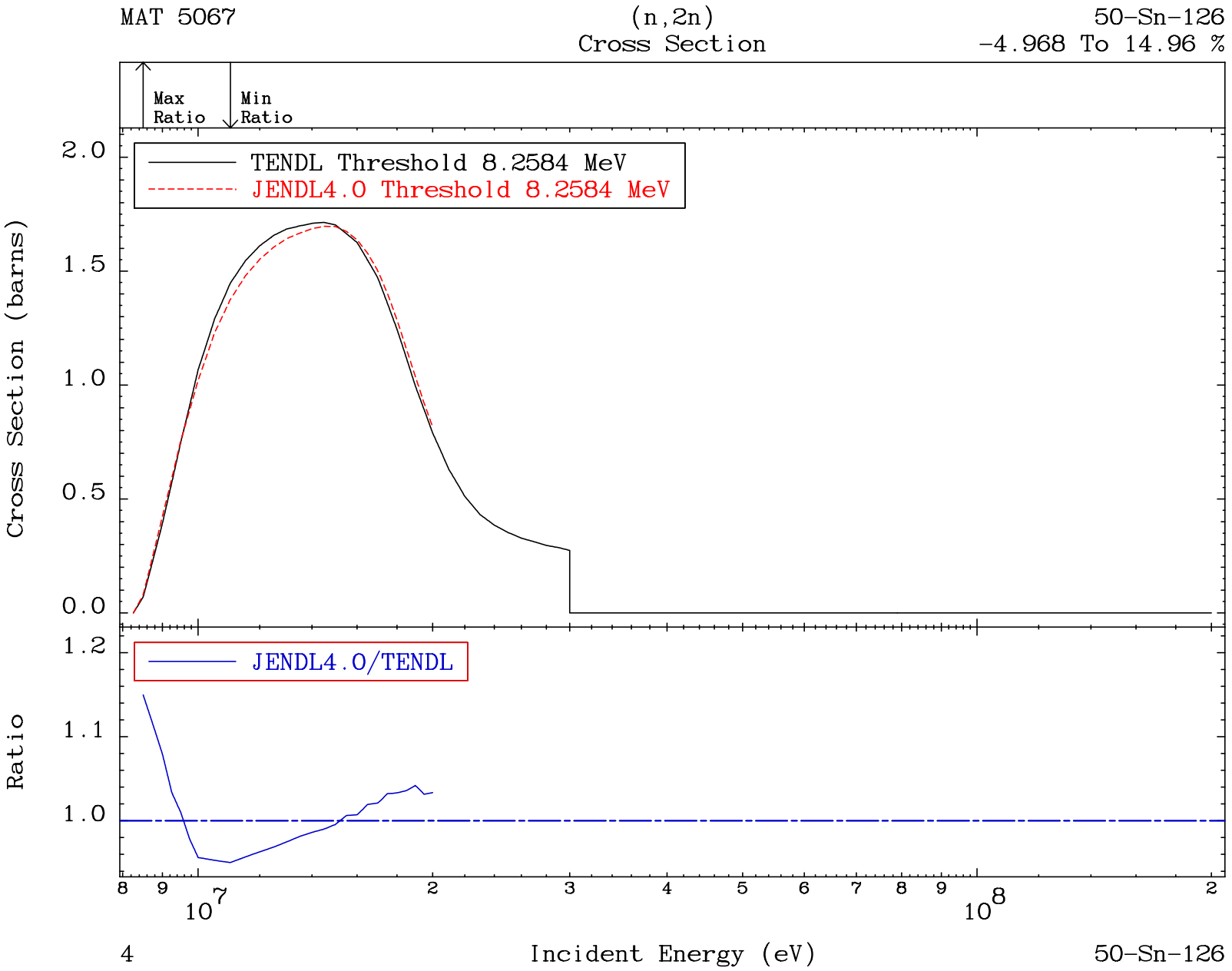
Program Complot
(Version 2018-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

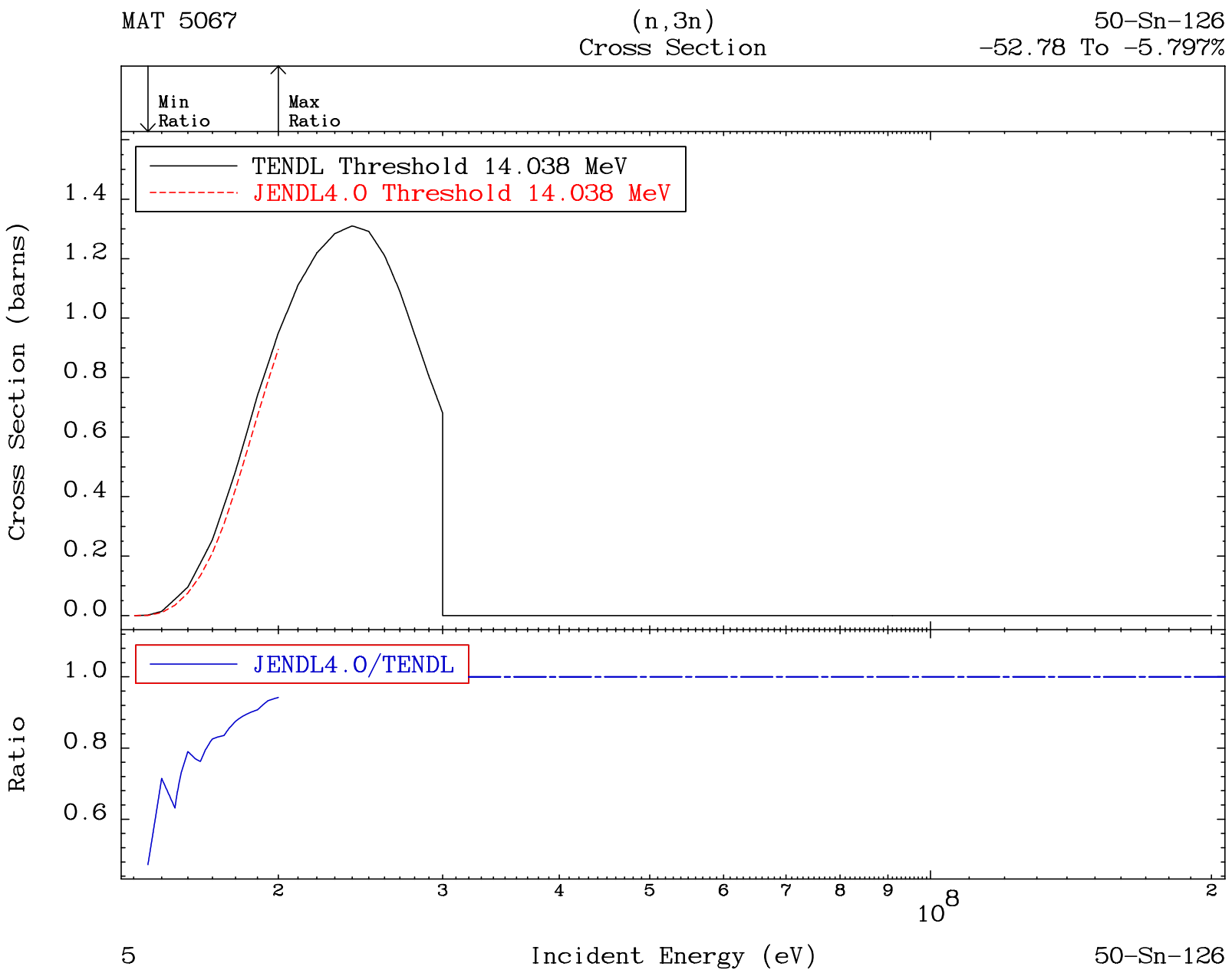
Press Mouse Button to Start

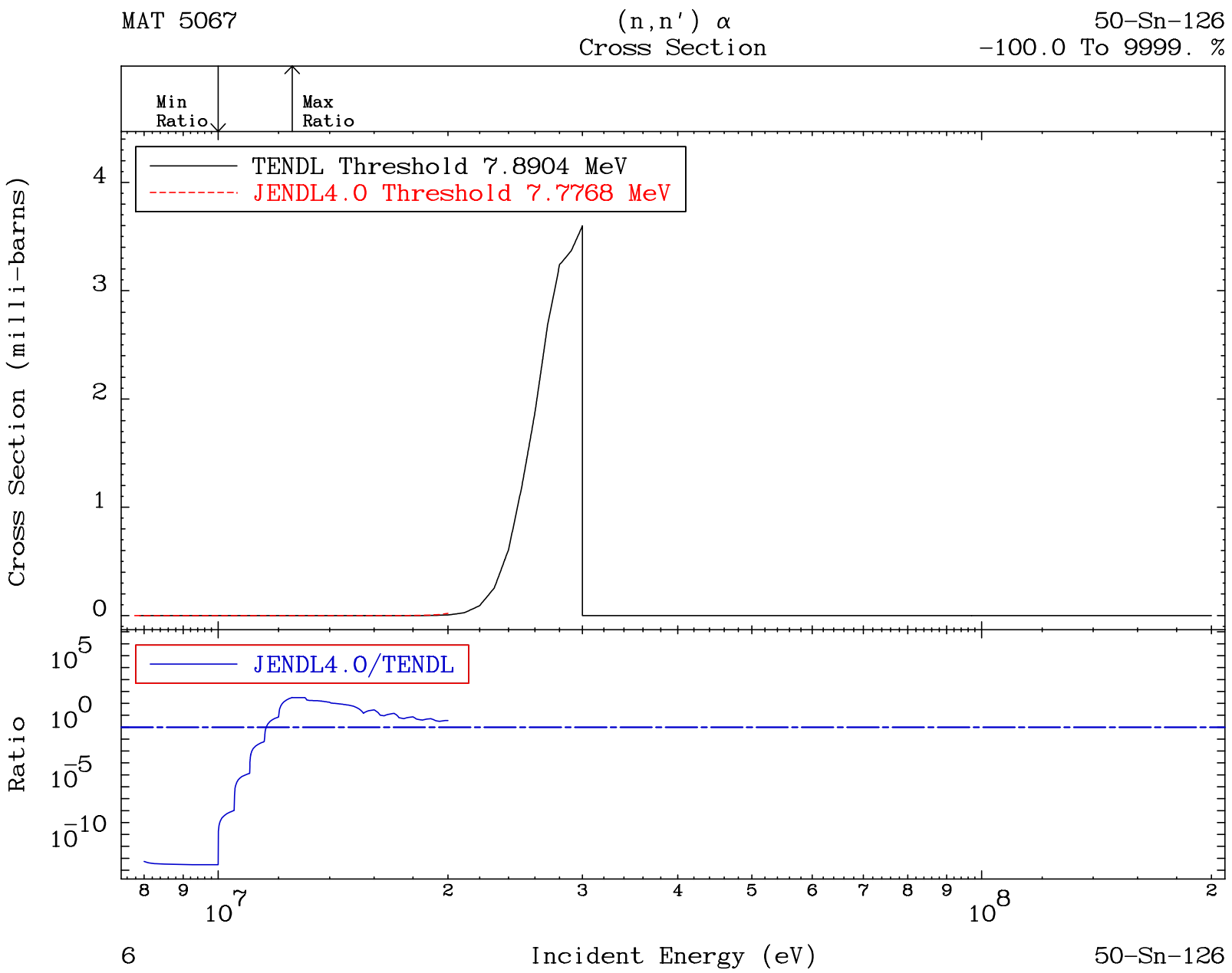

MAT 5067
Total
Cross Section
50-Sn-126
-97.47 To 7966. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
1
50-Sn-126

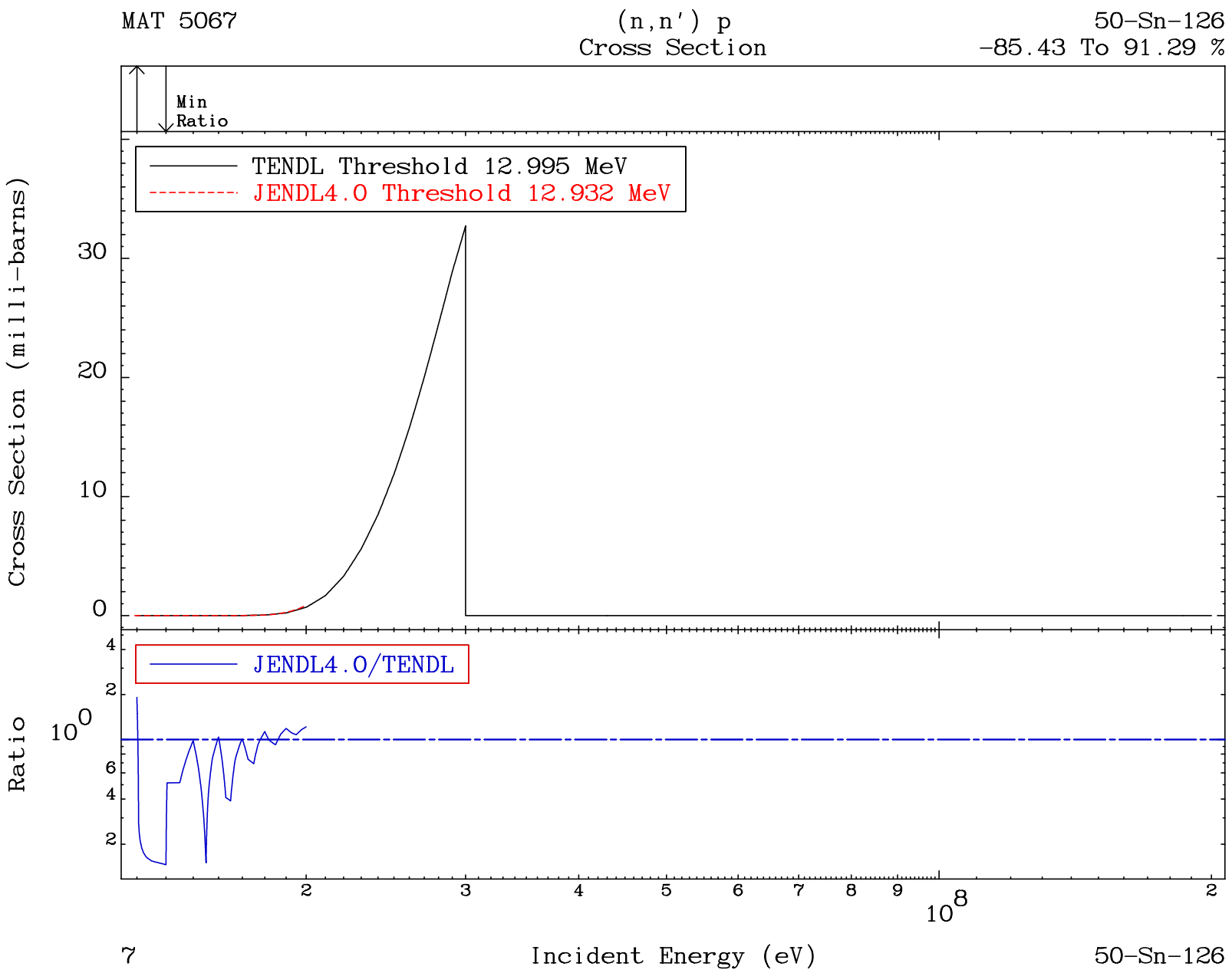

MAT 5067
Elastic
Cross Section
50-Sn-126
-97.36 To 9736. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
2
50-Sn-126

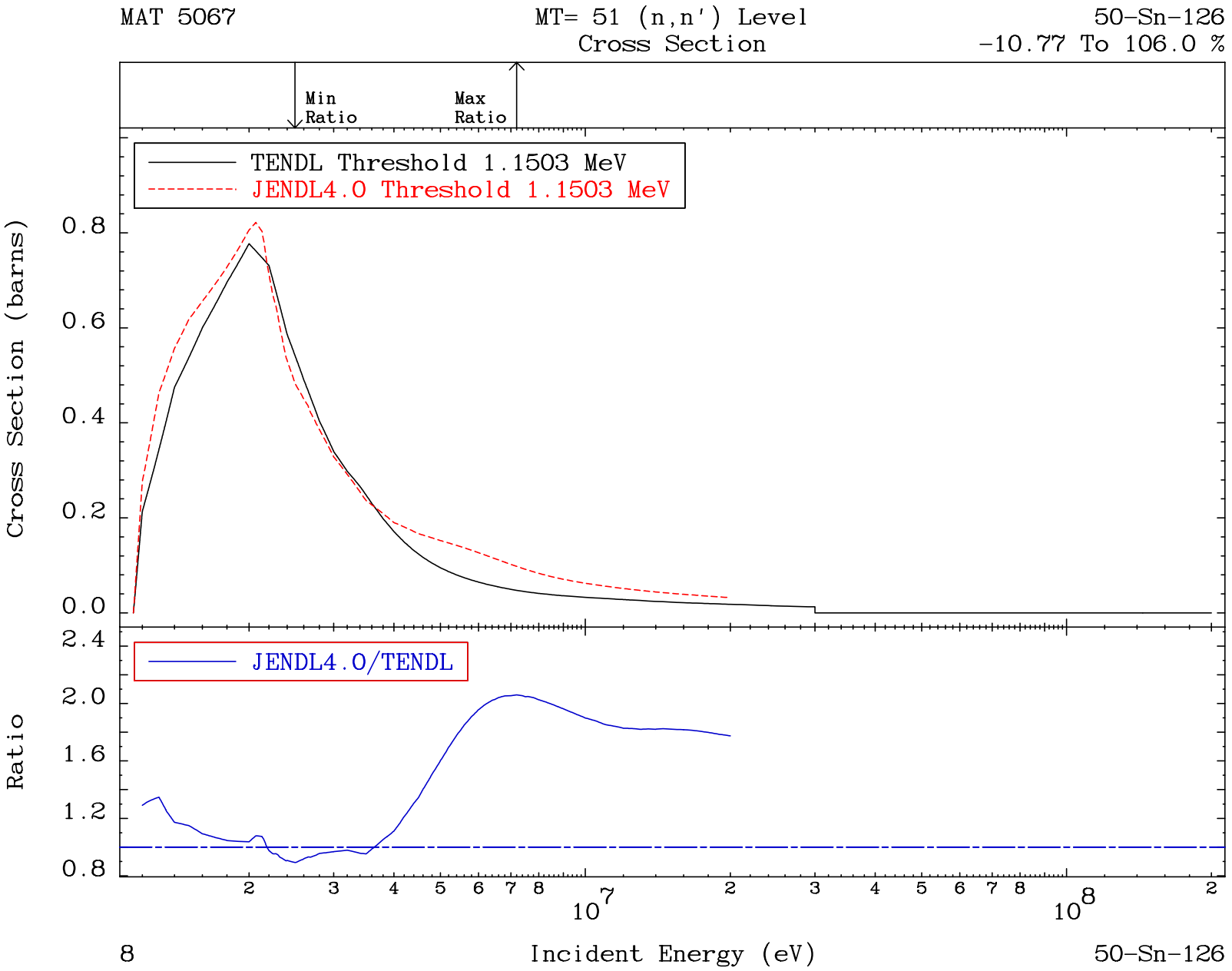

MAT 5067
Inelastic
Cross Section
50-Sn-126
-19.47 To 34.78 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.1503 MeV
JENDL4.0 Threshold 105.00 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
1.4
1.2
1.0
0.8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
3
Incident Energy (eV)
50-Sn-126

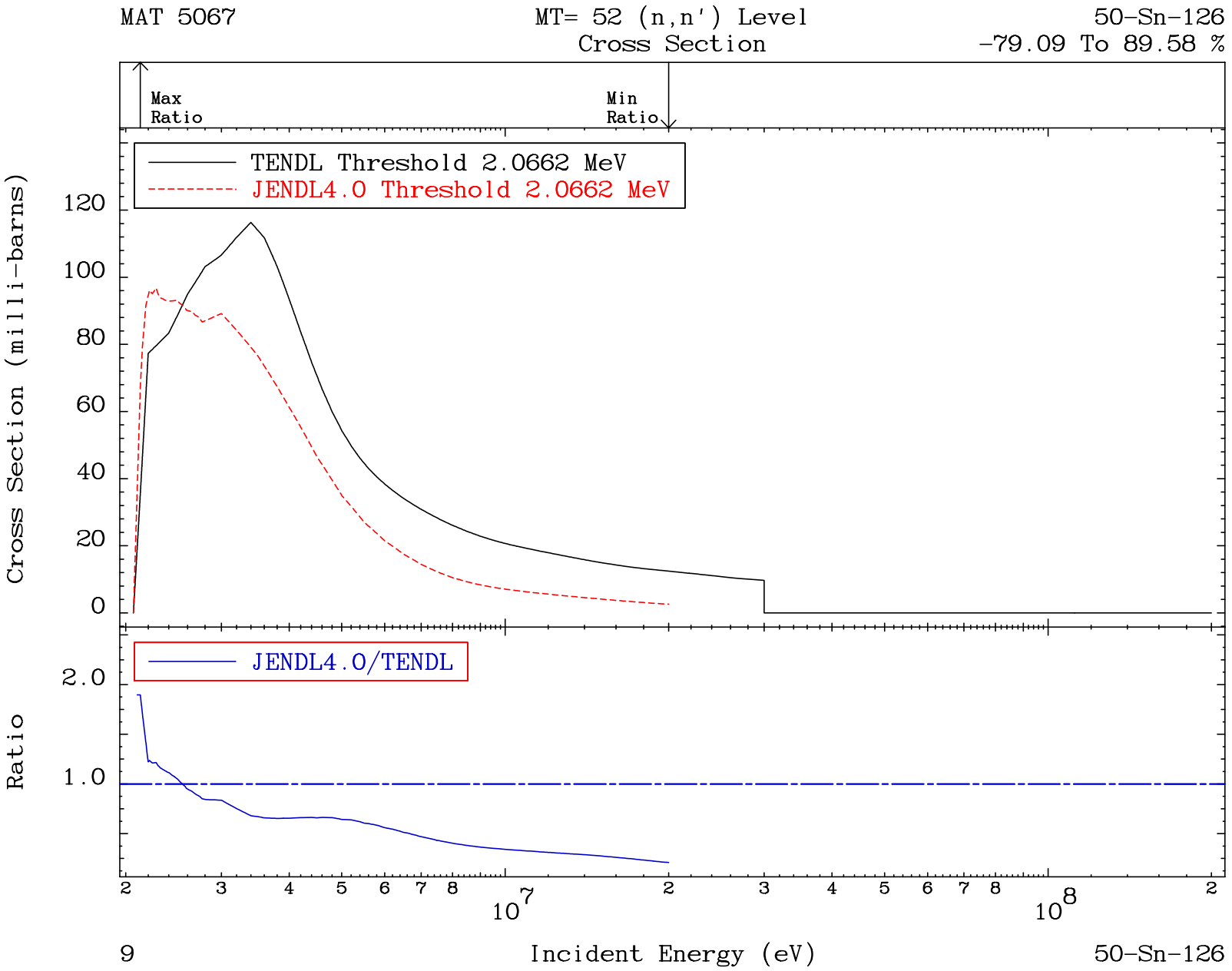

MAT 5067
(n,2n)
Cross Section
50-Sn-126
-4.968 To 14.96 %
Max Ratio
Min Ratio
TENDL Threshold 8.2584 MeV
JENDL4.0 Threshold 8.2584 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
1.2
1.1
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
4
50-Sn-126

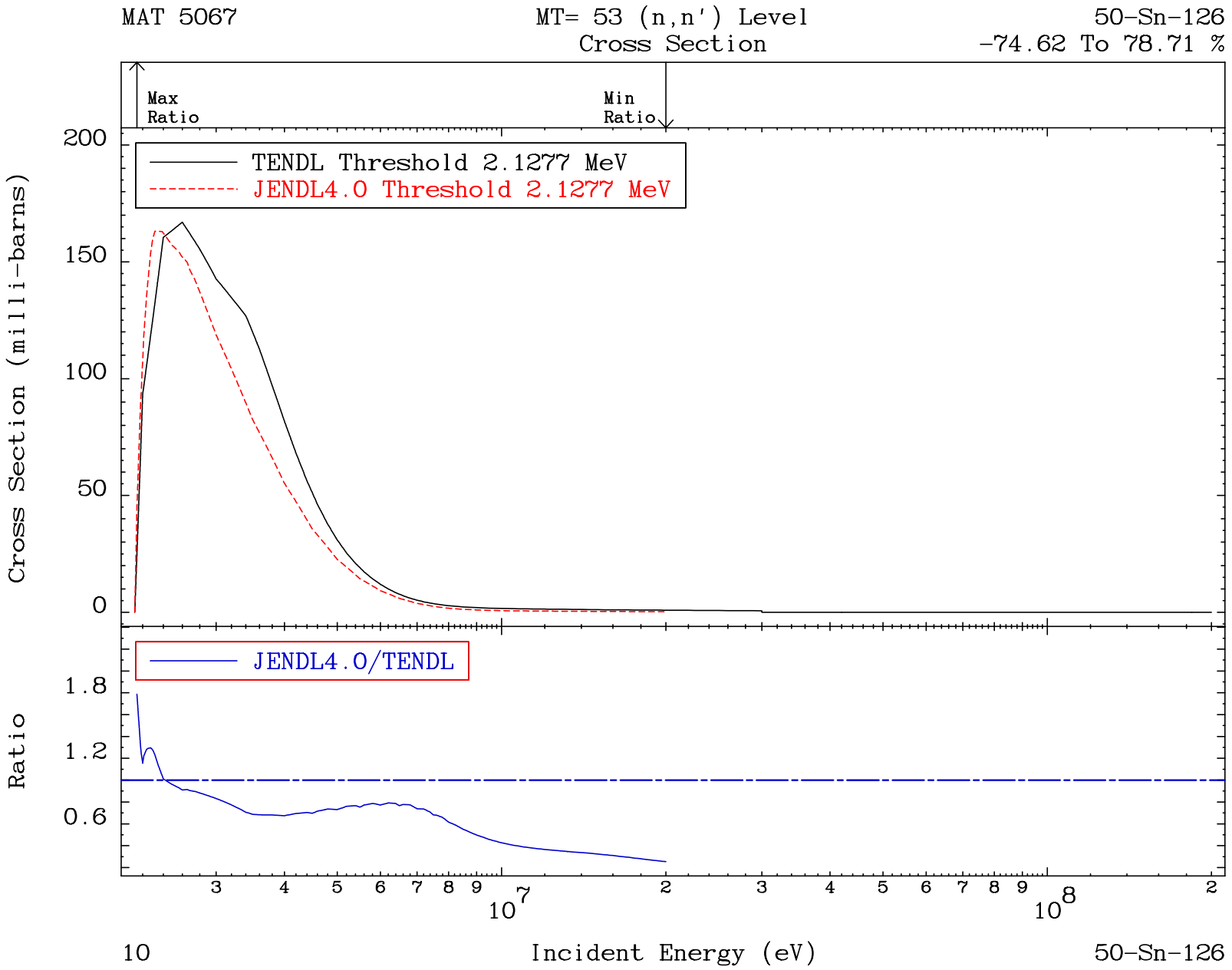

MAT 5067
(n,3n)
Cross Section
50-Sn-126
-52.78 To -5.797%
Min Ratio
Max Ratio
TENDL Threshold 14.038 MeV
JENDL4.0 Threshold 14.038 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
1.0
0.8
0.6
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
50-Sn-126

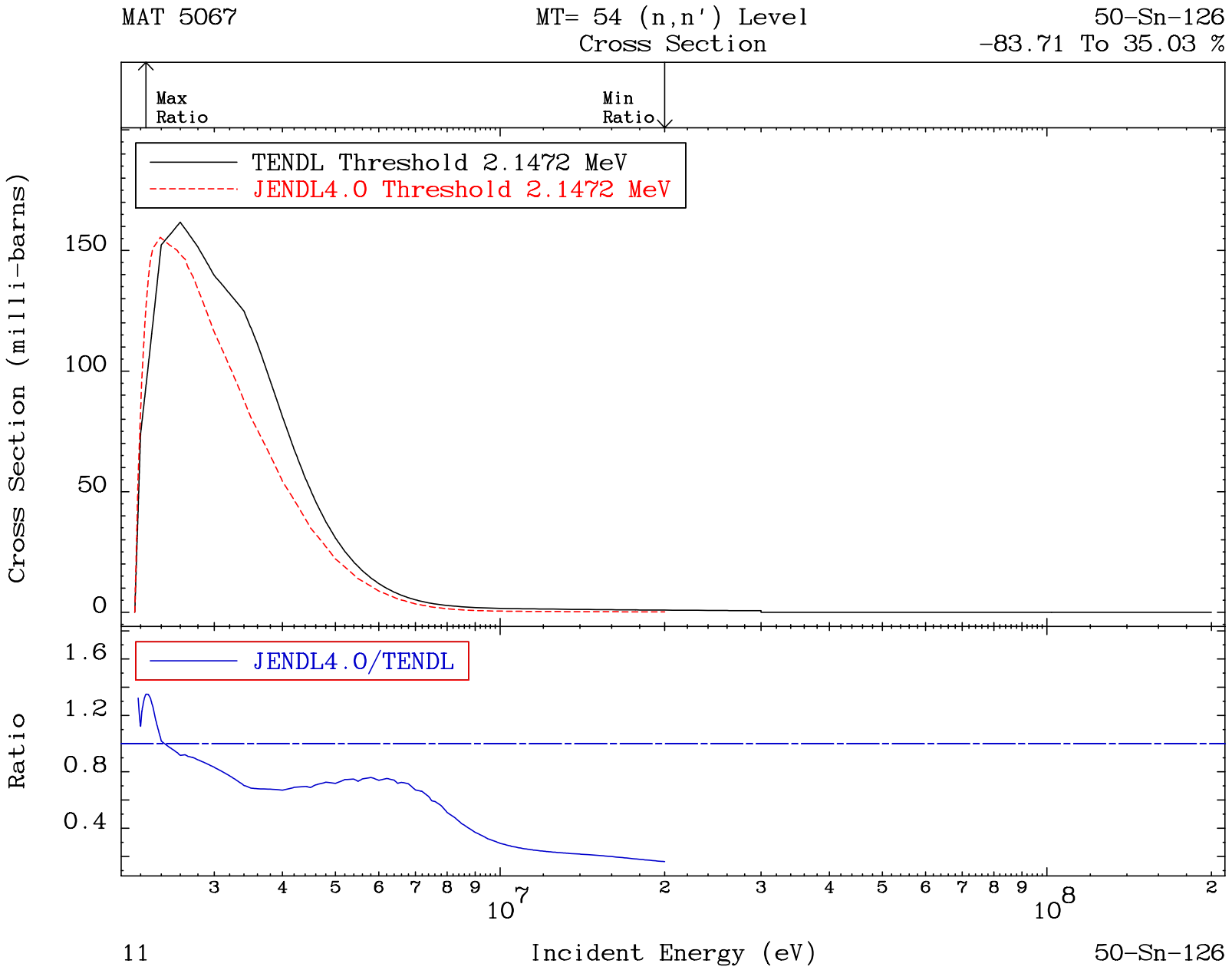

MAT 5067
(n,n') α
Cross Section
50-Sn-126
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 7.8904 MeV
JENDL4.0 Threshold 7.7768 MeV
Cross Section (milli-barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
6
50-Sn-126

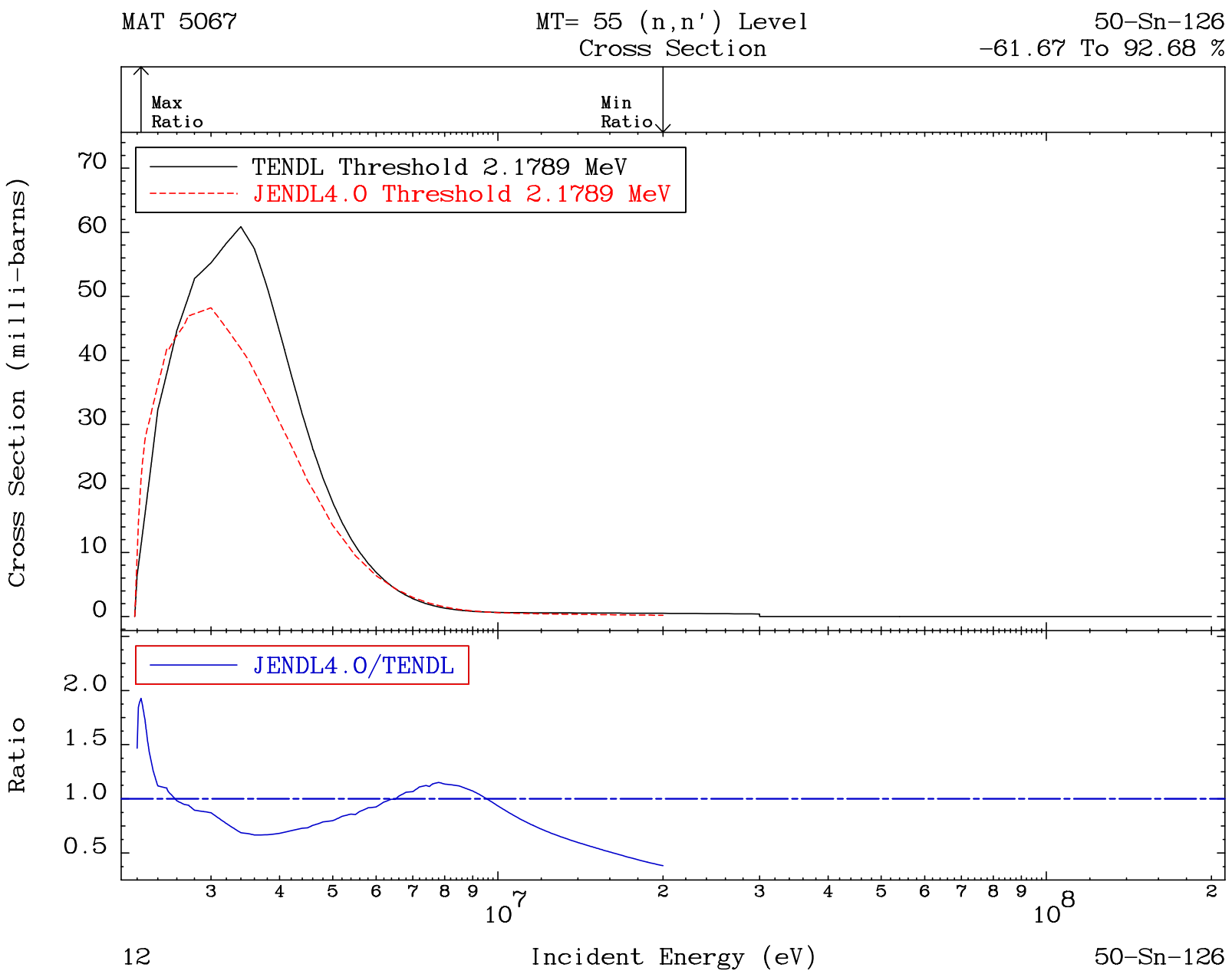

MAT 5067
(n,n') p
Cross Section
50-Sn-126
-85.43 To 91.29 %
Min
Ratio
TENDL Threshold 12.995 MeV
JENDL4.0 Threshold 12.932 MeV
Cross Section (milli-barns)
30
20
10
0
JENDL4.0/TENDL
Ratio
10^0
4
2
6
4
2
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
50-Sn-126

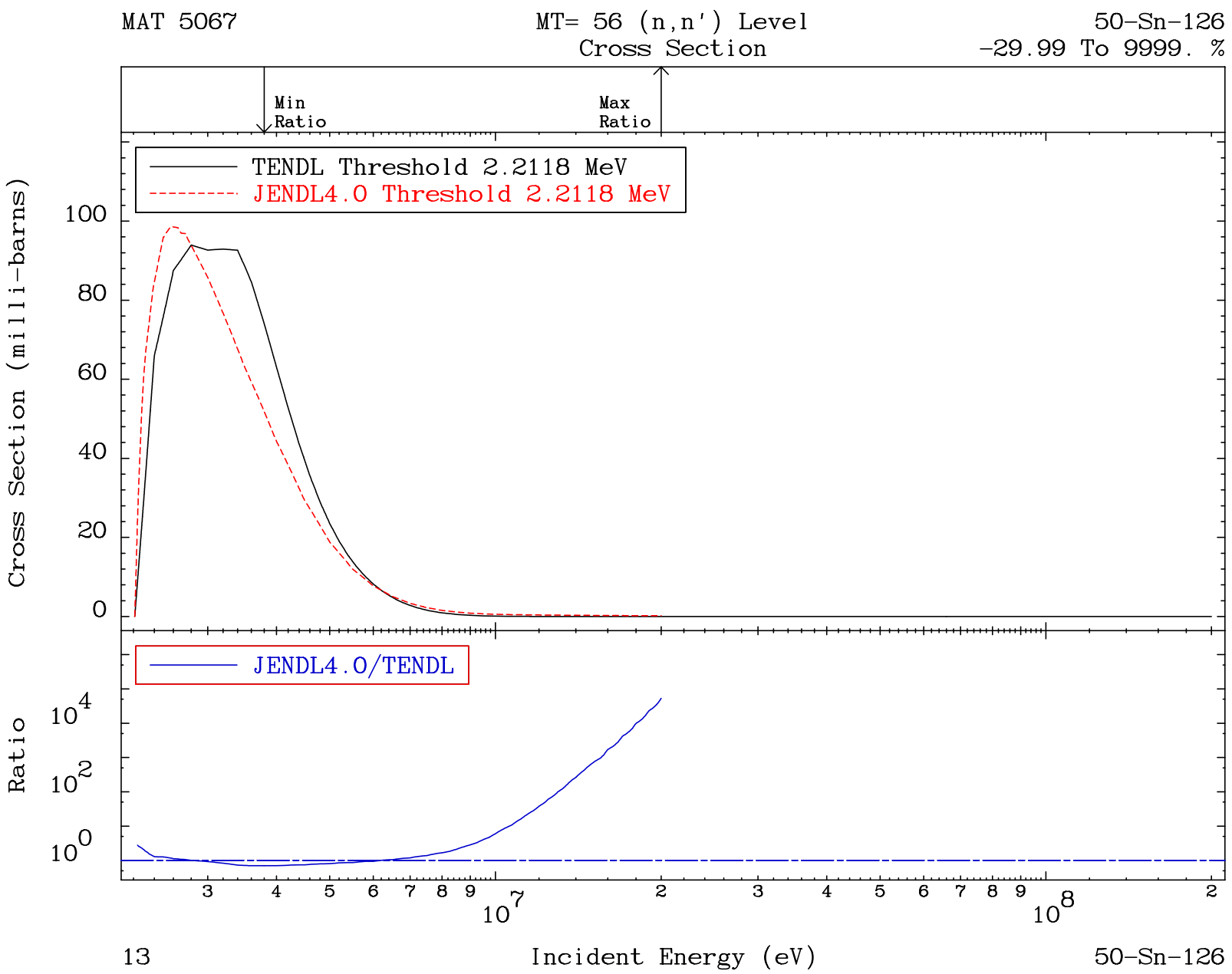

MAT 5067
MT= 51 (n,n') Level
Cross Section
50-Sn-126
-10.77 To 106.0 %
Min Ratio
Max Ratio
TENDL Threshold 1.1503 MeV
JENDL4.0 Threshold 1.1503 MeV
Cross Section (barns)
0.0
0.2
0.4
0.6
0.8
JENDL4.0/TENDL
Ratio
0.8
1.2
1.6
2.0
2.4
2
3
4
5
6
7
8
10^7
10^8
8
Incident Energy (eV)
50-Sn-126

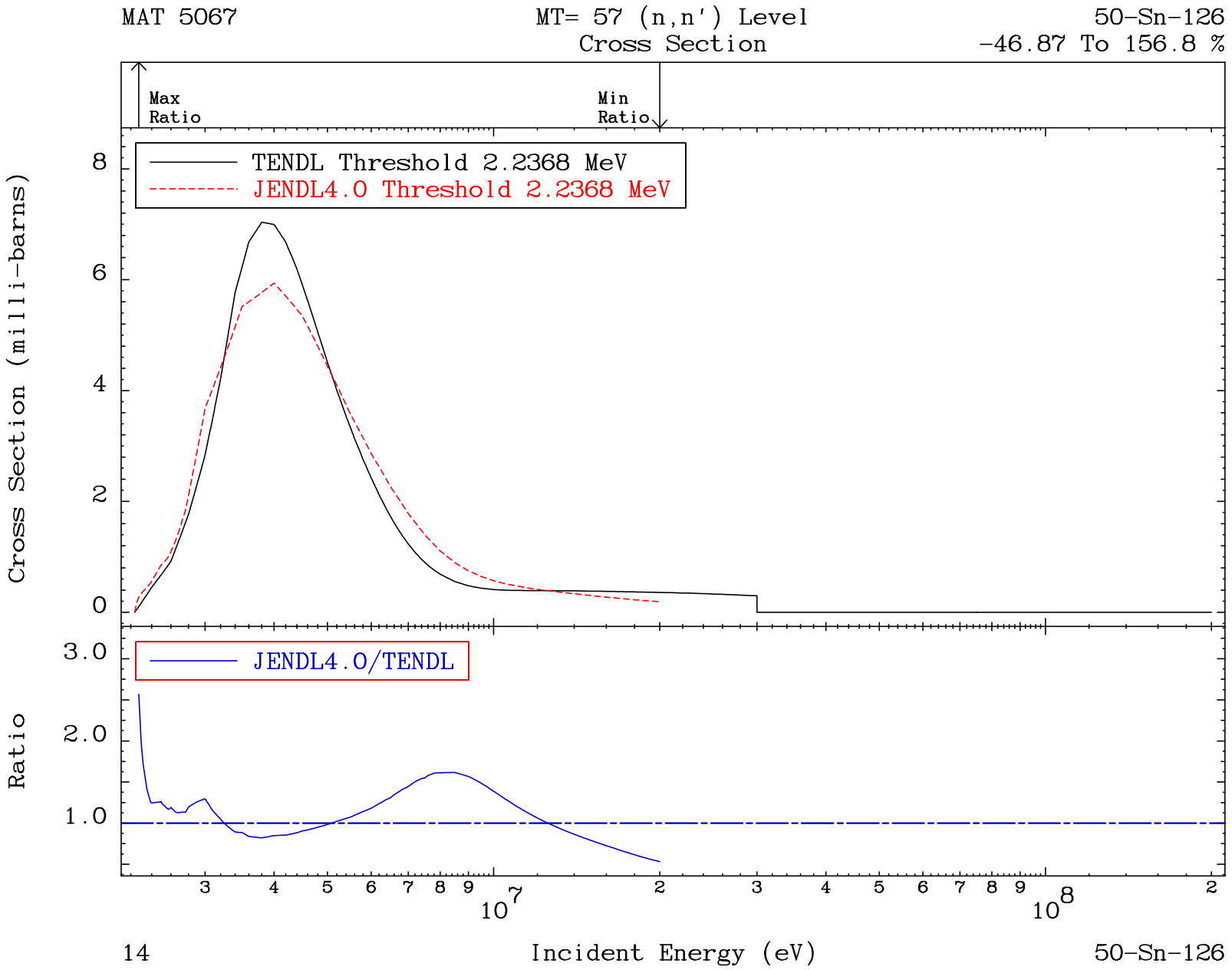

MAT 5067
MT= 52 (n,n') Level
Cross Section
50-Sn-126
-79.09 To 89.58 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.0662 MeV
JENDL4.0 Threshold 2.0662 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
2.0
1.0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
9
Incident Energy (eV)
50-Sn-126

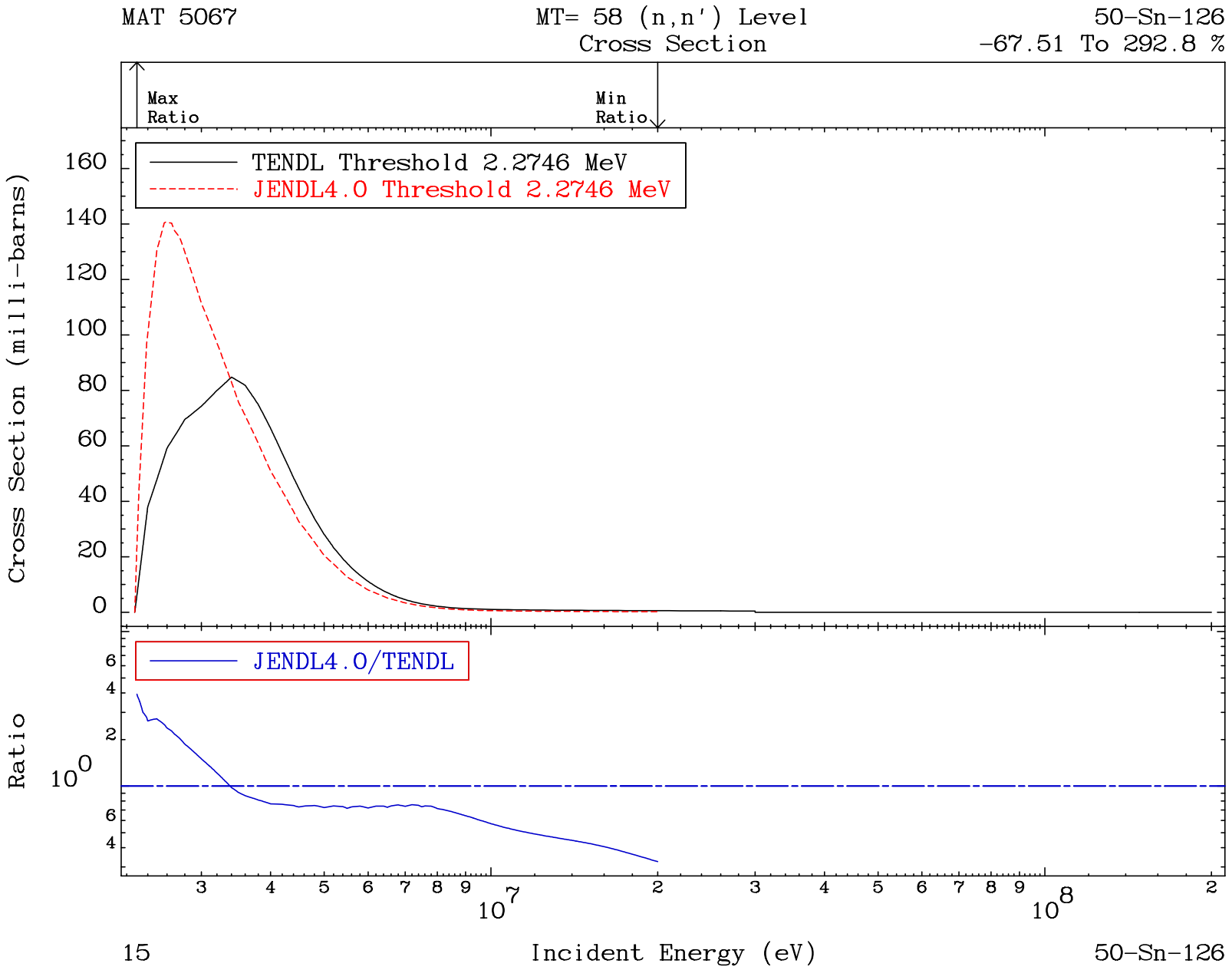

MAT 5067
MT= 53 (n,n') Level
Cross Section
50-Sn-126
-74.62 To 78.71 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.1277 MeV
JENDL4.0 Threshold 2.1277 MeV
Cross Section (milli-barns)
200
150
100
50
0
JENDL4.0/TENDL
Ratio
1.8
1.2
0.6
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
10
Incident Energy (eV)
50-Sn-126

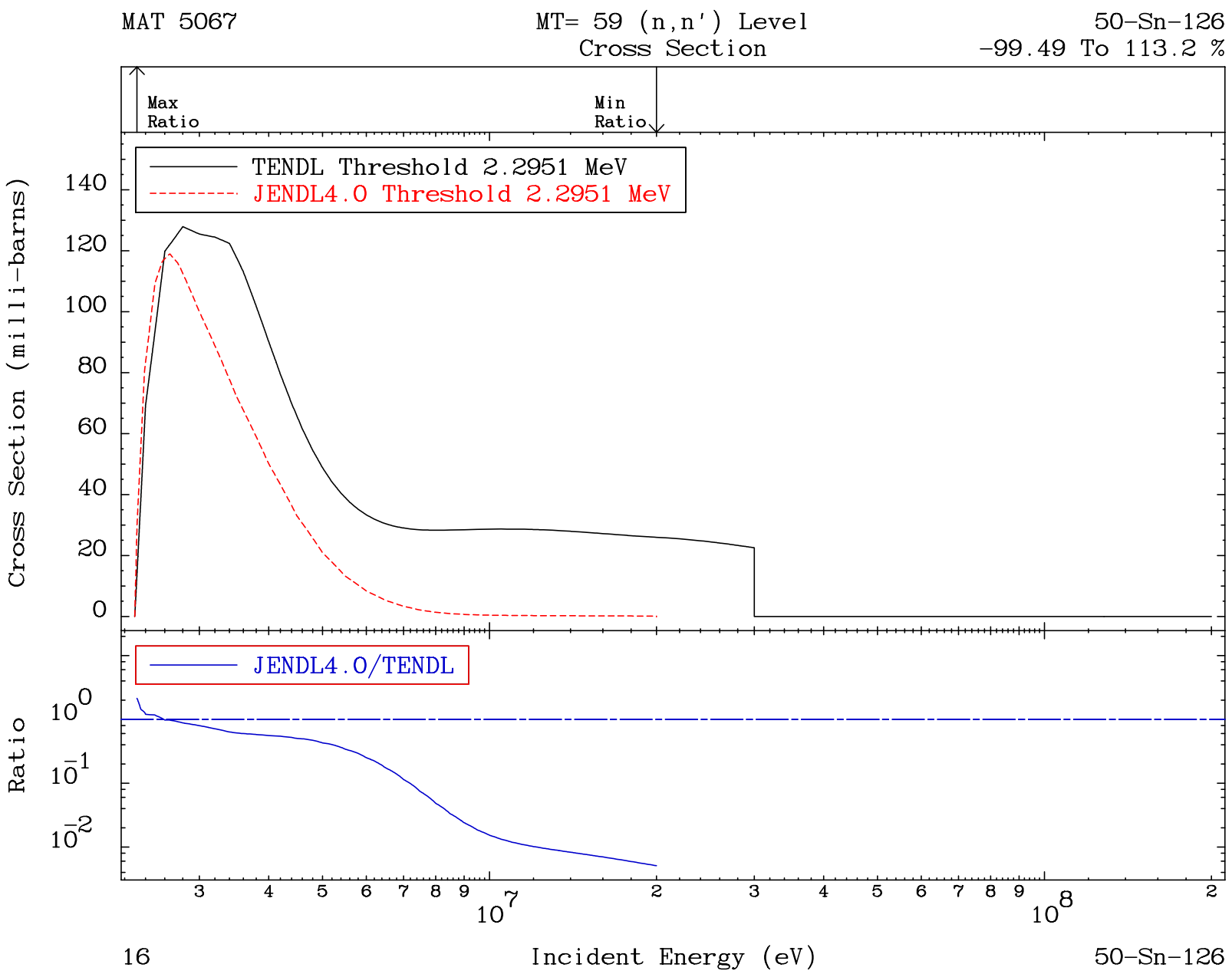

MAT 5067
MT= 54 (n,n') Level
Cross Section
50-Sn-126
-83.71 To 35.03 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.1472 MeV
JENDL4.0 Threshold 2.1472 MeV
Cross Section (milli-barns)
150
100
50
0
JENDL4.0/TENDL
Ratio
1.6
1.2
0.8
0.4
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
11
Incident Energy (eV)
50-Sn-126

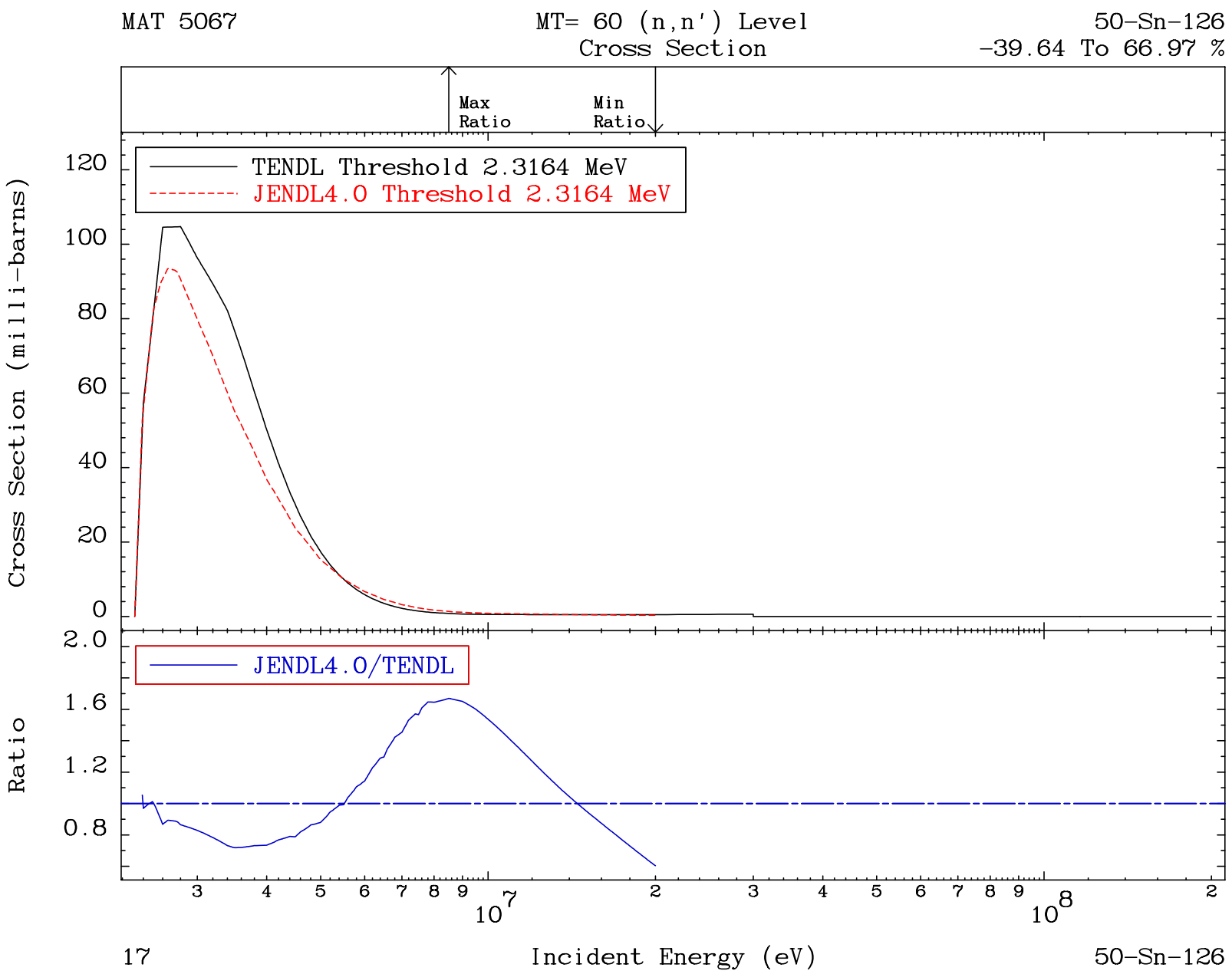

MAT 5067
MT= 55 (n,n') Level
Cross Section
50-Sn-126
-61.67 To 92.68 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.1789 MeV
JENDL4.0 Threshold 2.1789 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
2.0
1.5
1.0
0.5
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
50-Sn-126

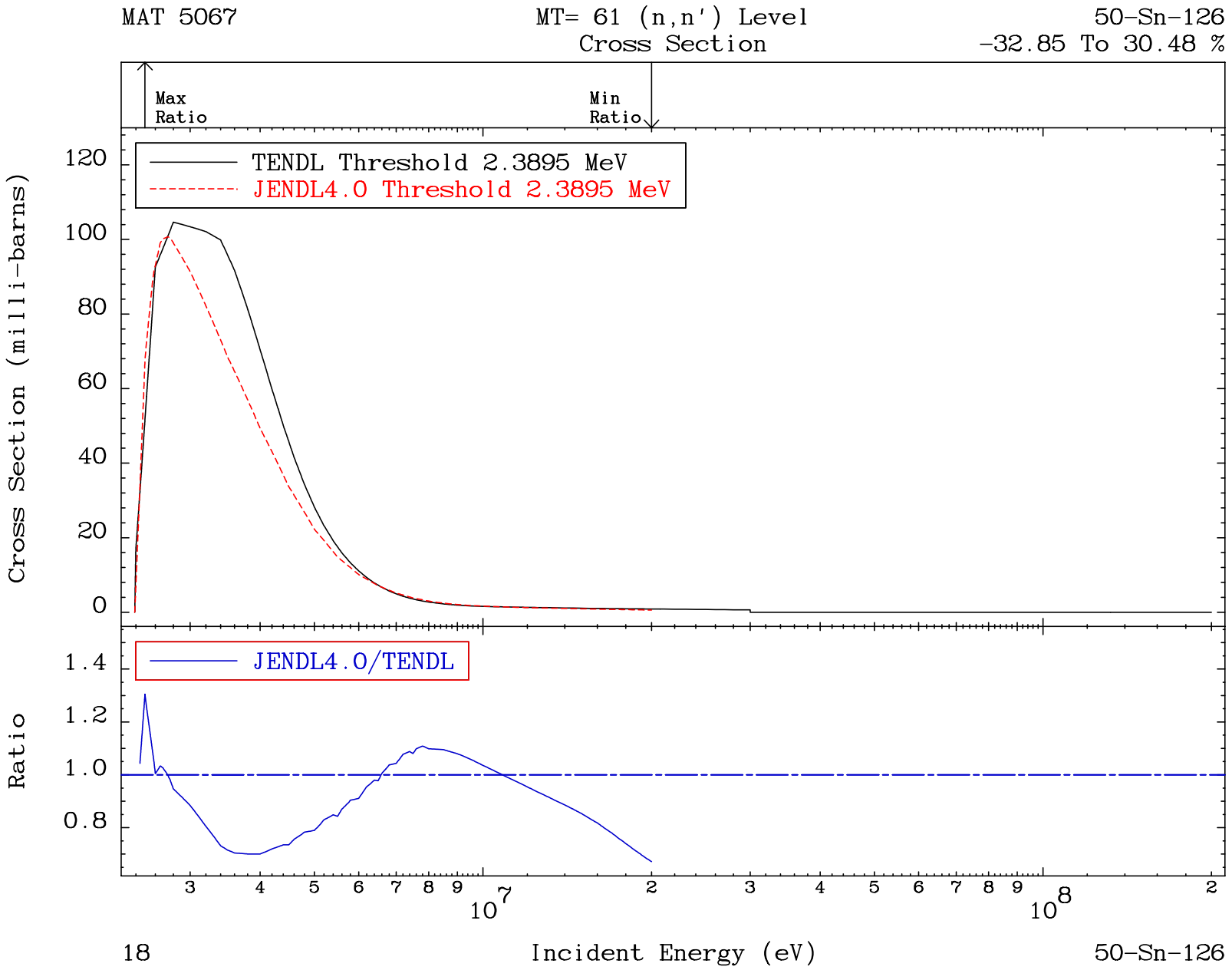

MAT 5067
MT= 56 (n,n') Level
Cross Section
50-Sn-126
-29.99 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 2.2118 MeV
JENDL4.0 Threshold 2.2118 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^4
10^2
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
13
Incident Energy (eV)
50-Sn-126

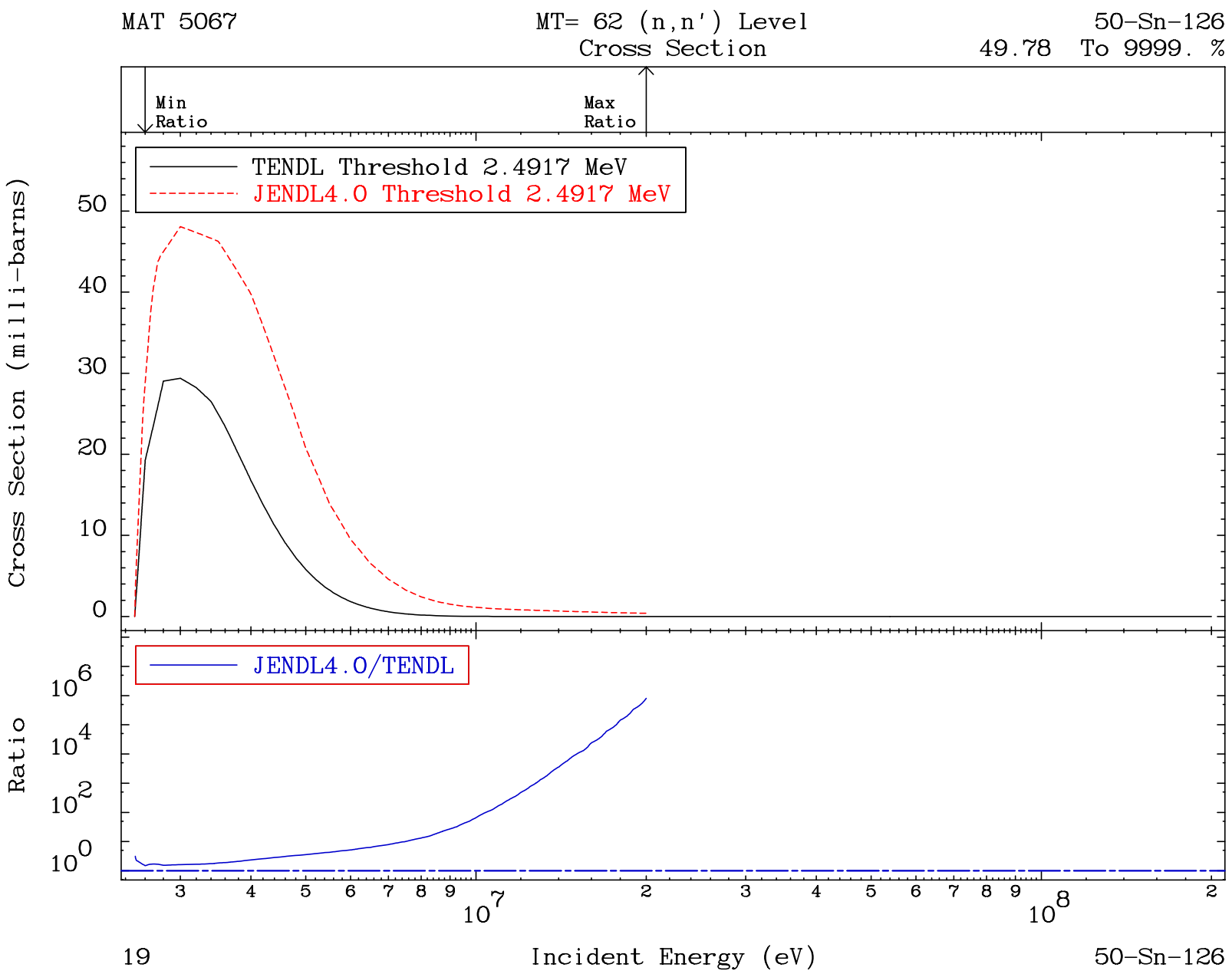

MAT 5067
MT= 57 (n,n') Level
Cross Section
50-Sn-126
-46.87 To 156.8 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.2368 MeV
JENDL4.0 Threshold 2.2368 MeV
Cross Section (milli-barns)
8
6
4
2
0
JENDL4.0/TENDL
Ratio
3.0
2.0
1.0
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
50-Sn-126

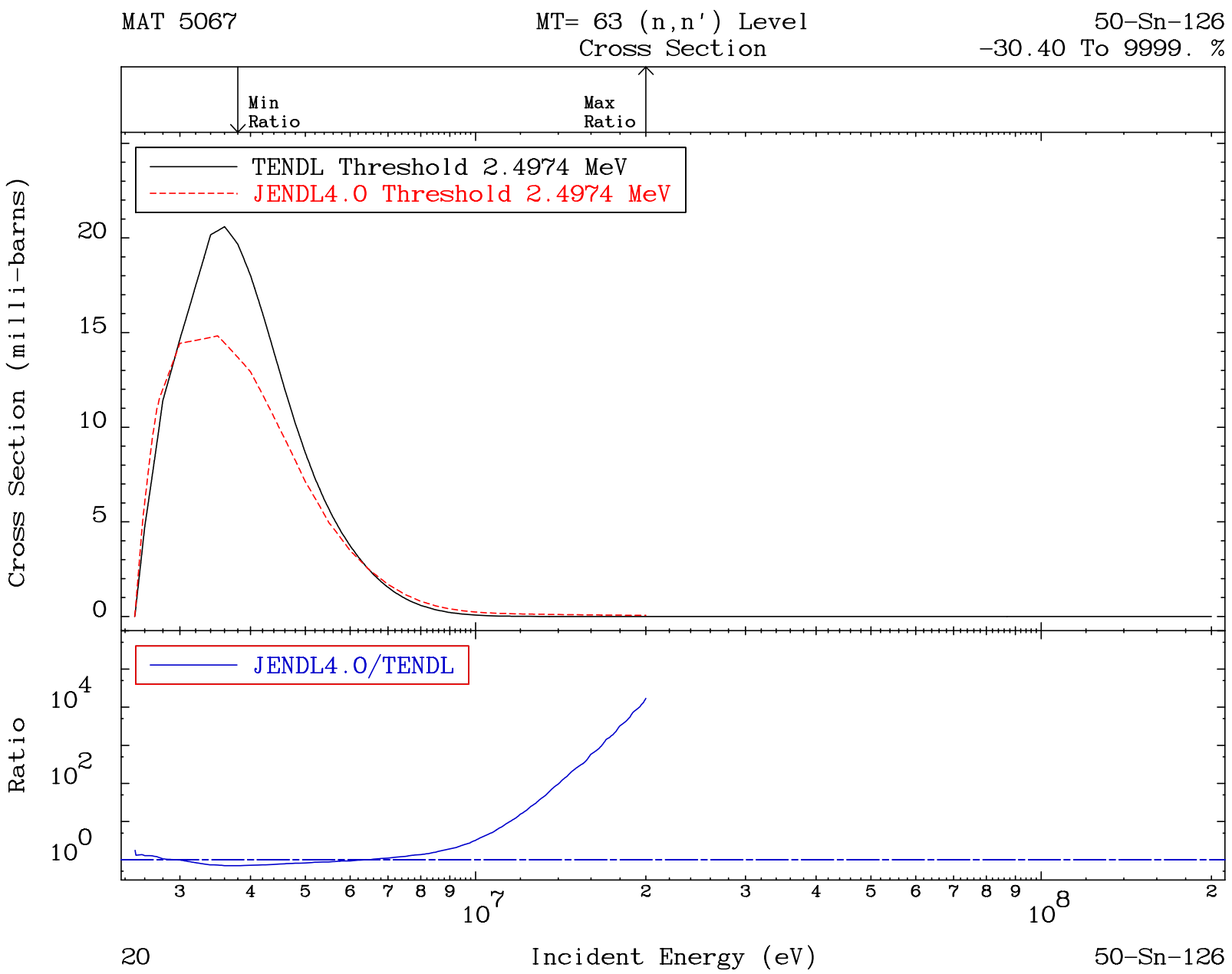

MAT 5067
MT= 58 (n,n') Level
Cross Section
50-Sn-126
-67.51 To 292.8 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.2746 MeV
JENDL4.0 Threshold 2.2746 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
6
4
2
10^0
6
4
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
50-Sn-126

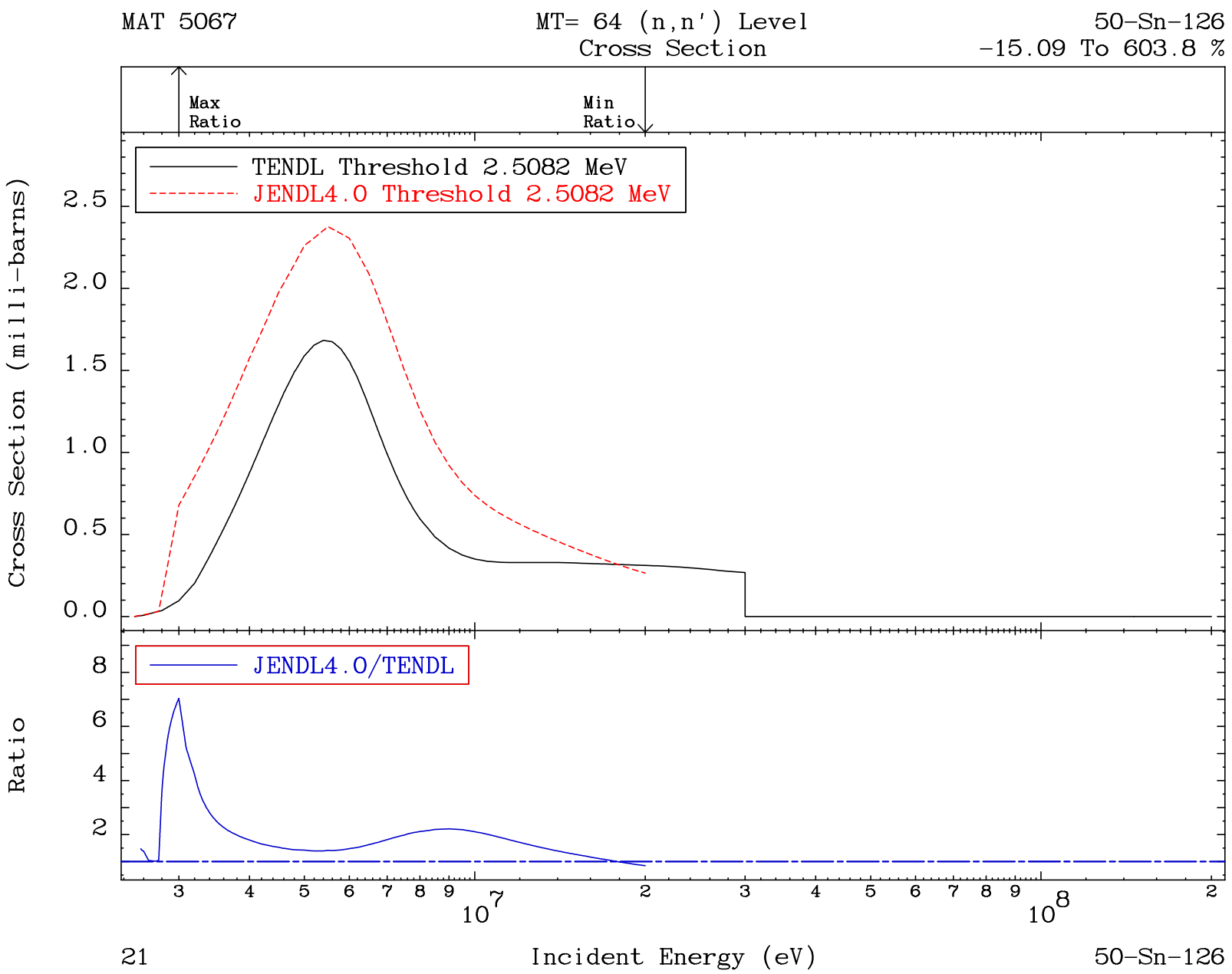

MAT 5067
MT= 59 (n,n') Level
Cross Section
50-Sn-126
-99.49 To 113.2 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.2951 MeV
JENDL4.0 Threshold 2.2951 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
50-Sn-126

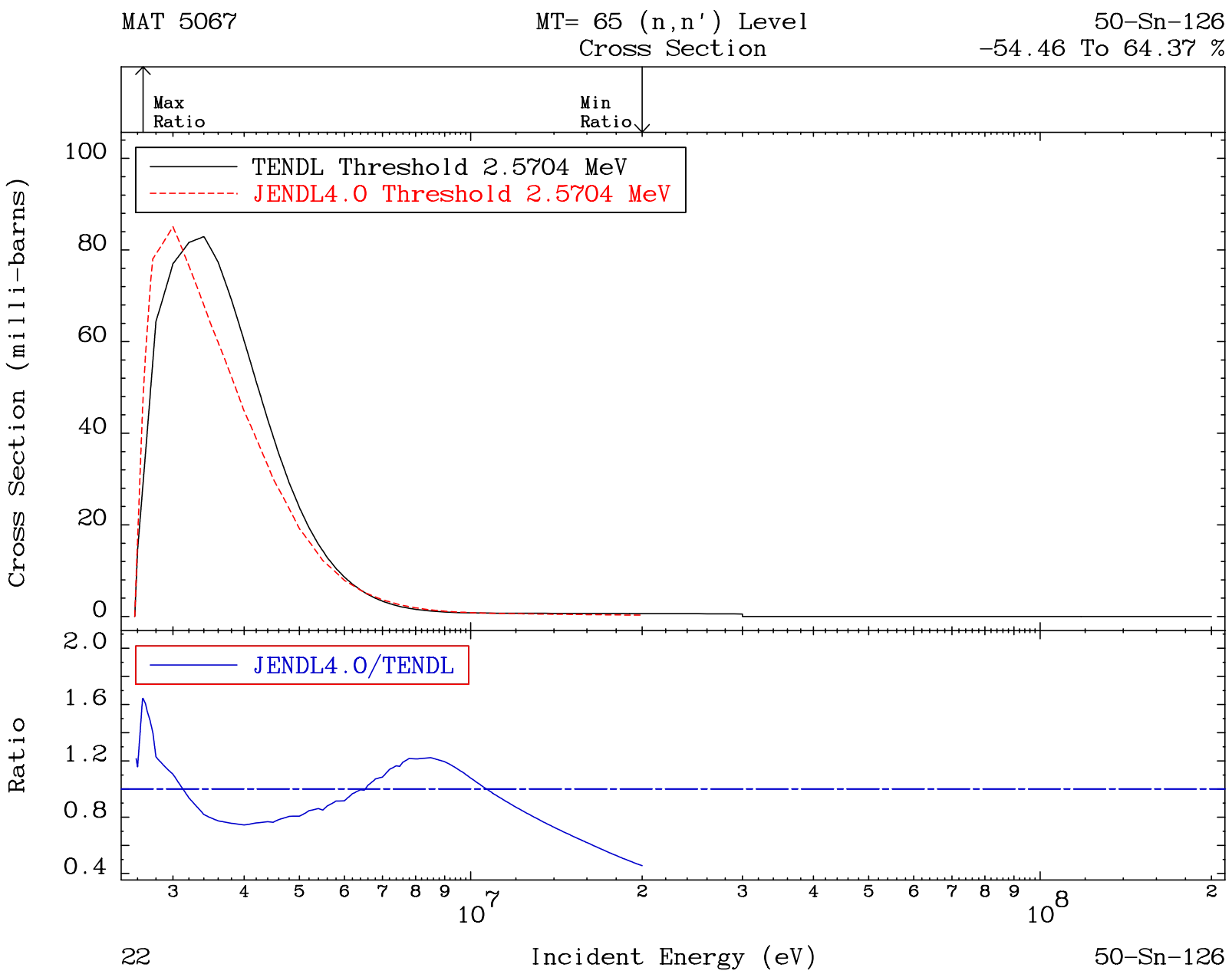

MAT 5067
MT= 60 (n,n') Level
Cross Section
50-Sn-126
-39.64 To 66.97 %
Max Ratio
Min Ratio
TENDL Threshold 2.3164 MeV
JENDL4.0 Threshold 2.3164 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
2.0
1.6
1.2
0.8
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
17
Incident Energy (eV)
50-Sn-126

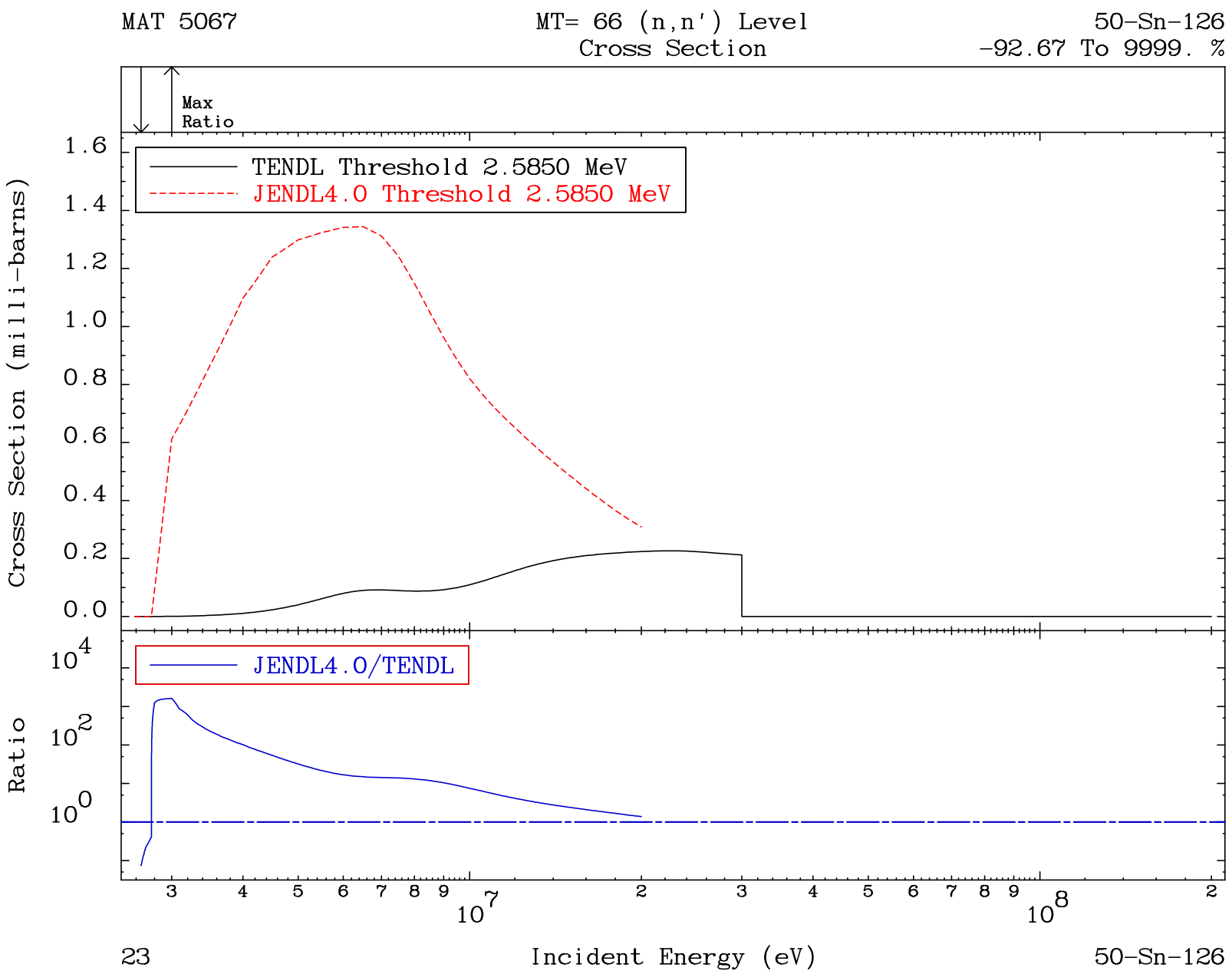

MAT 5067
MT= 61 (n,n') Level
Cross Section
50-Sn-126
-32.85 To 30.48 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.3895 MeV
JENDL4.0 Threshold 2.3895 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
1.4
1.2
1.0
0.8
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
18
Incident Energy (eV)
50-Sn-126

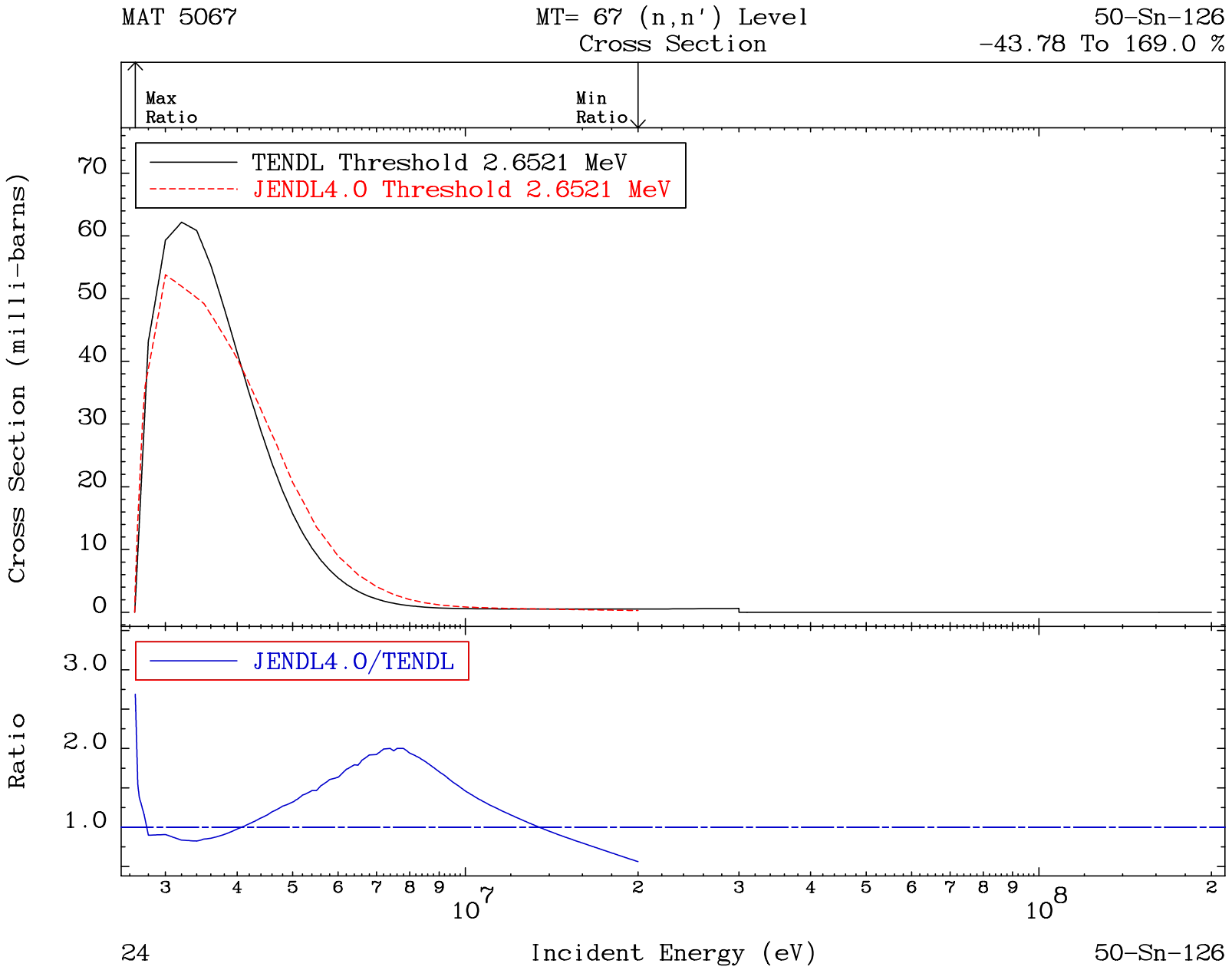

MAT 5067
MT= 62 (n,n') Level
Cross Section
50-Sn-126
49.78 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.4917 MeV
JENDL4.0 Threshold 2.4917 MeV
Cross Section (milli-barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
19
50-Sn-126

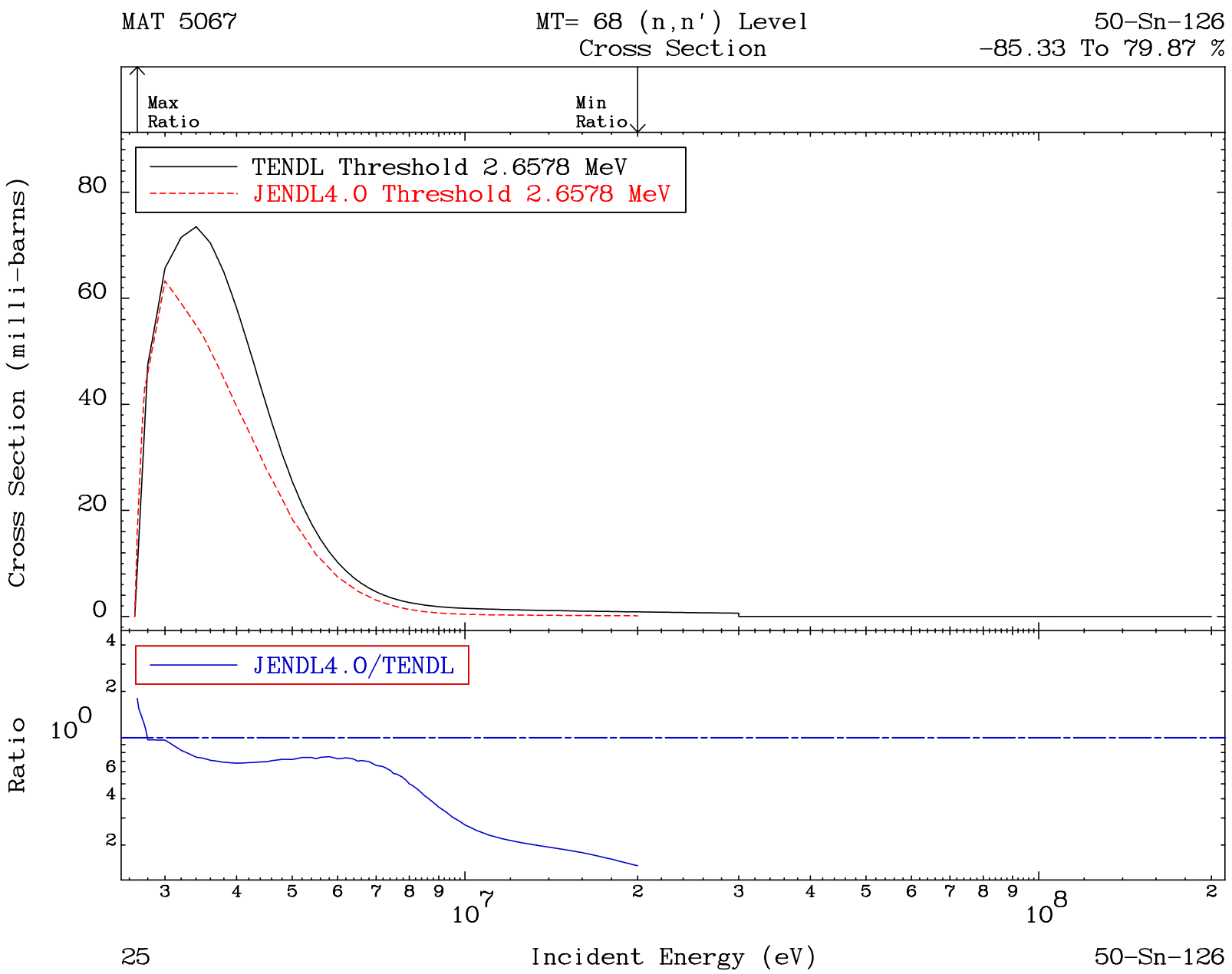

MAT 5067
MT= 63 (n,n') Level
Cross Section
50-Sn-126
-30.40 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 2.4974 MeV
JENDL4.0 Threshold 2.4974 MeV
Cross Section (milli-barns)
20
15
10
5
0
JENDL4.0/TENDL
Ratio
10^4
10^2
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
20
Incident Energy (eV)
50-Sn-126

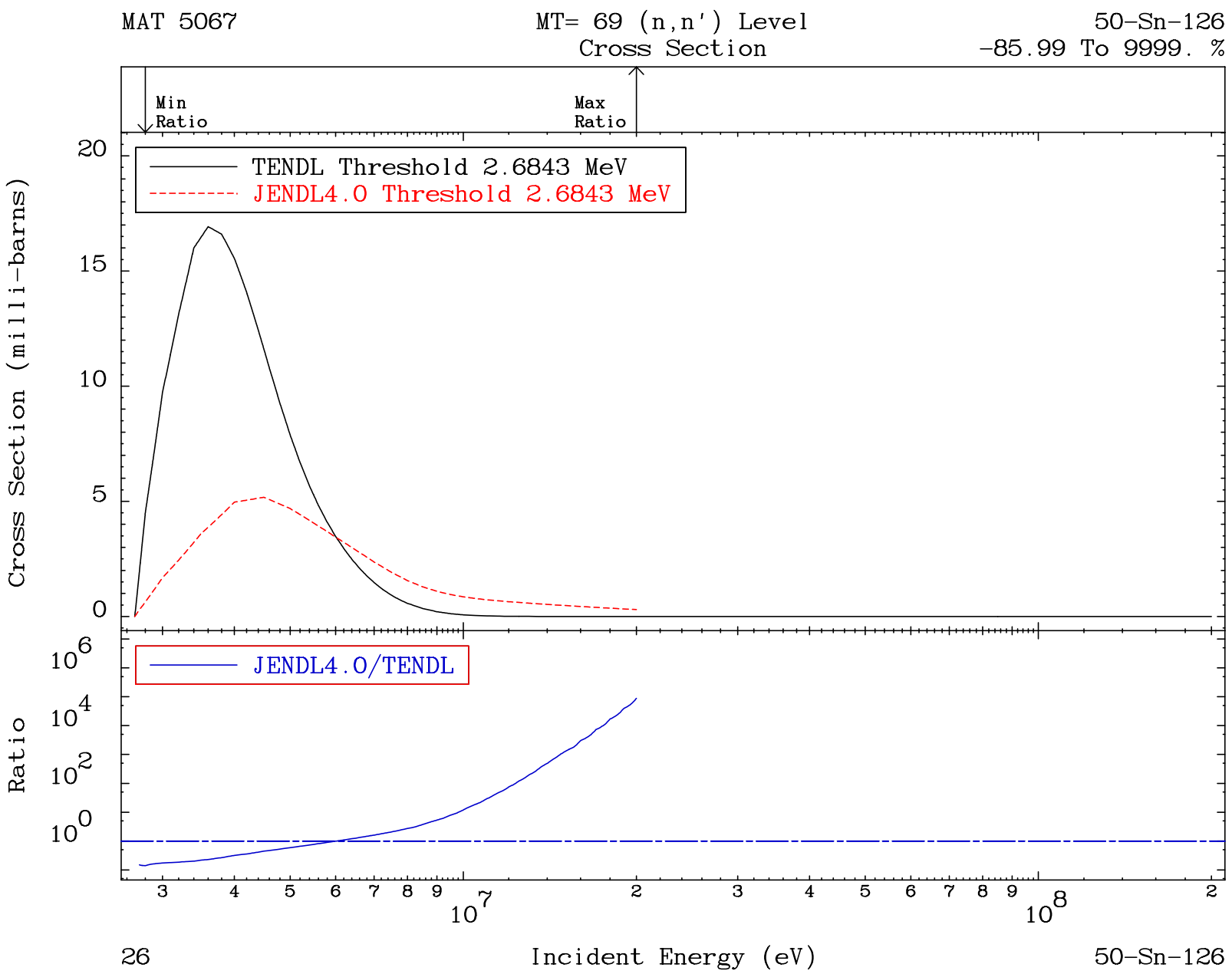

MAT 5067
MT= 64 (n,n') Level
Cross Section
50-Sn-126
-15.09 To 603.8 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.5082 MeV
JENDL4.0 Threshold 2.5082 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
8
6
4
2
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
21
Incident Energy (eV)
50-Sn-126

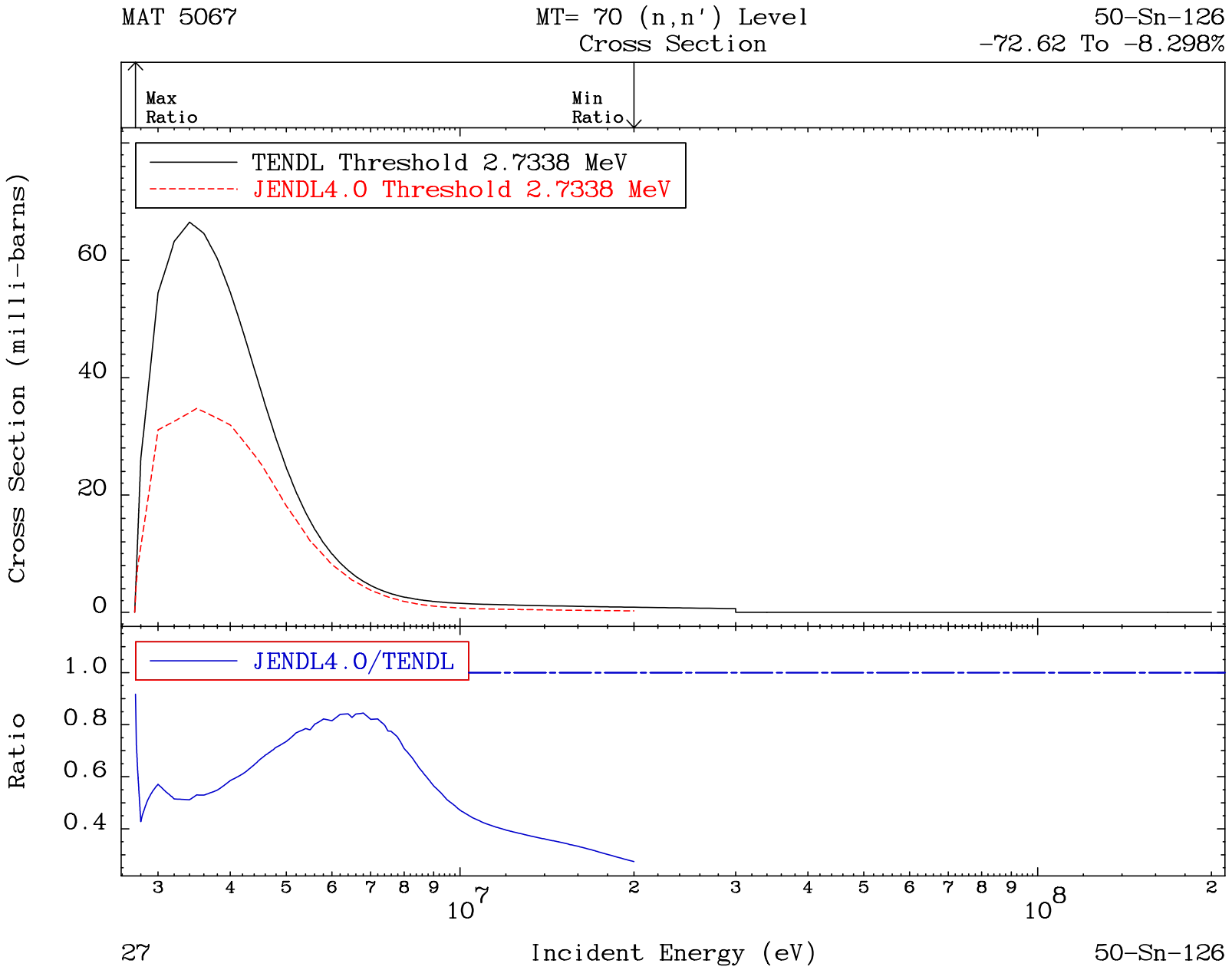

MAT 5067
MT= 65 (n,n') Level
Cross Section
50-Sn-126
-54.46 To 64.37 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.5704 MeV
JENDL4.0 Threshold 2.5704 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
2.0
1.6
1.2
0.8
0.4
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
22
Incident Energy (eV)
50-Sn-126

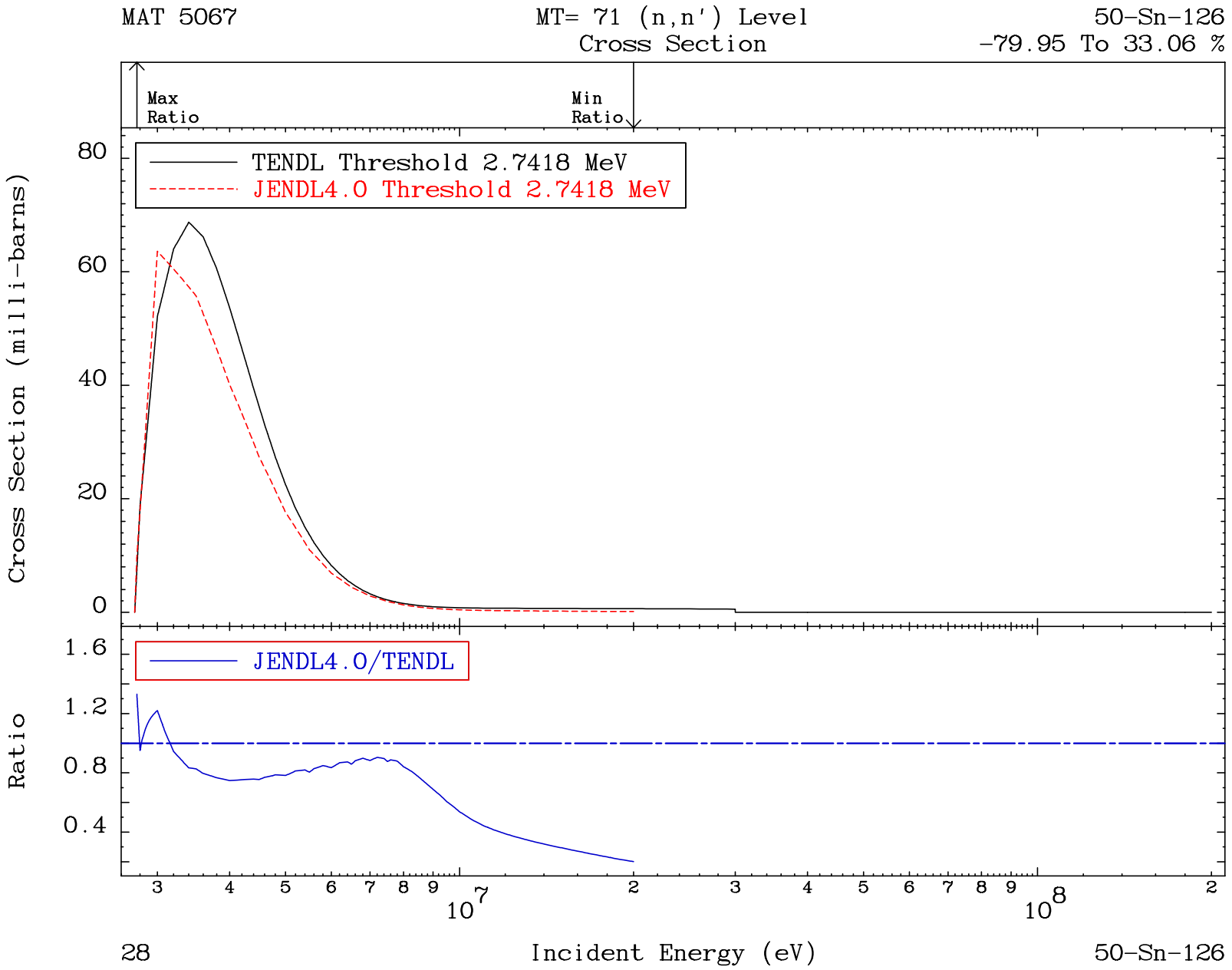

MAT 5067
MT= 66 (n,n') Level
Cross Section
50-Sn-126
-92.67 To 9999. %
Max
Ratio
TENDL Threshold 2.5850 MeV
JENDL4.0 Threshold 2.5850 MeV
Cross Section (milli-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
10^4
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
50-Sn-126

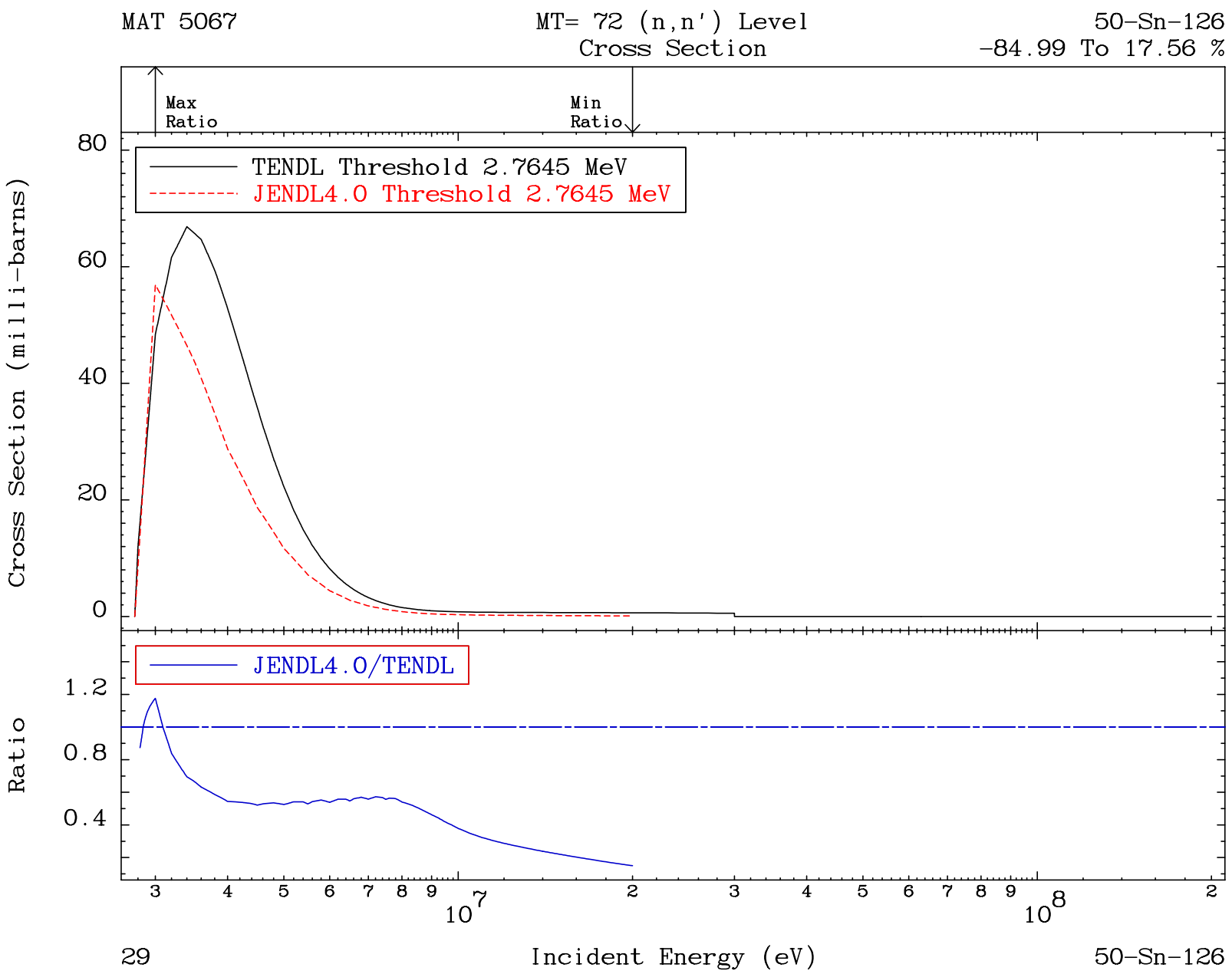

MAT 5067
MT= 67 (n,n') Level
Cross Section
50-Sn-126
-43.78 To 169.0 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.6521 MeV
JENDL4.0 Threshold 2.6521 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
3.0
2.0
1.0
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
24
Incident Energy (eV)
50-Sn-126

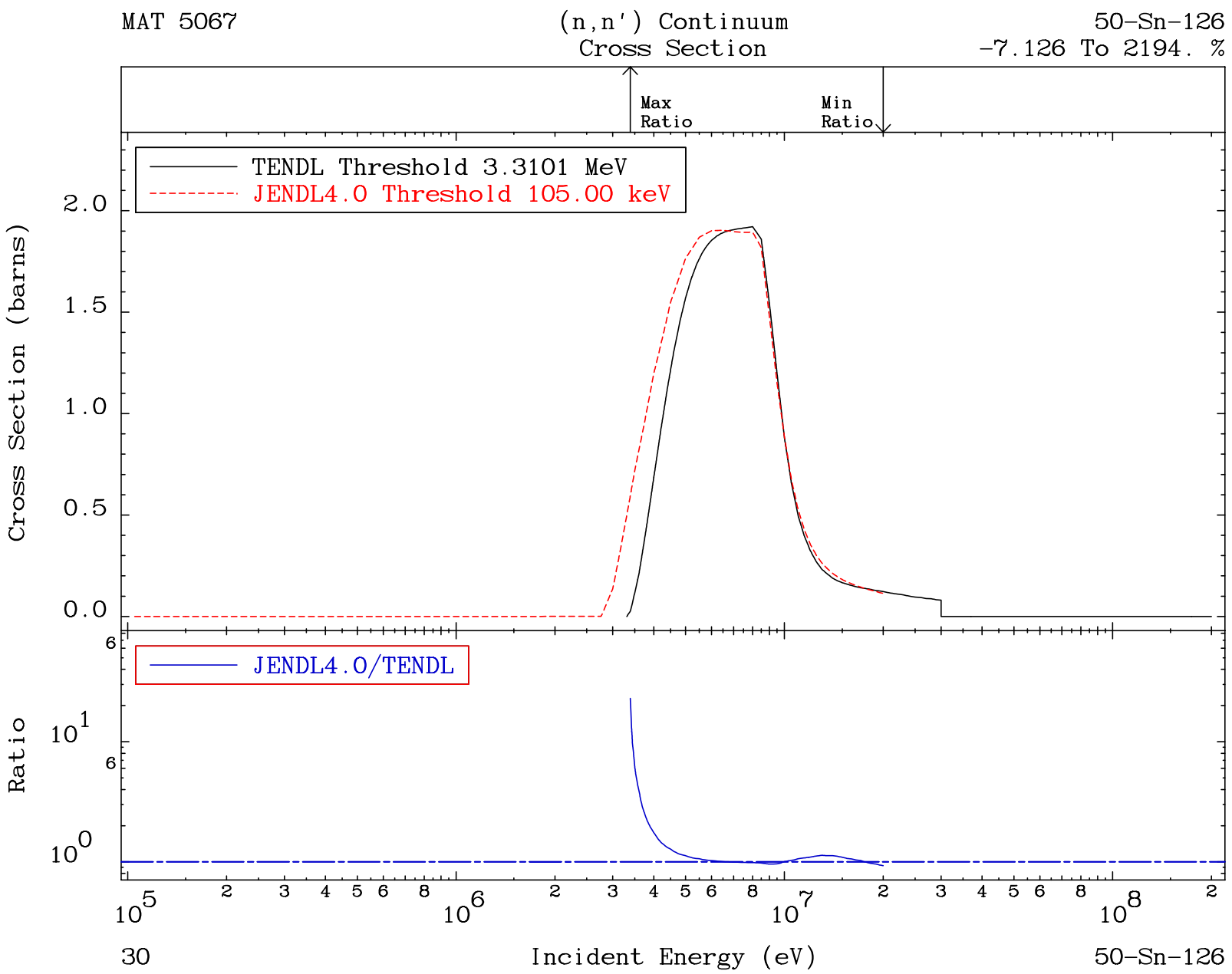

MAT 5067
MT= 68 (n,n') Level
Cross Section
50-Sn-126
-85.33 To 79.87 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.6578 MeV
JENDL4.0 Threshold 2.6578 MeV
Cross Section (milli-barns)
80
60
40
20
0
JENDL4.0/TENDL
Ratio
4
2
10^0
6
4
2
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
25
Incident Energy (eV)
50-Sn-126

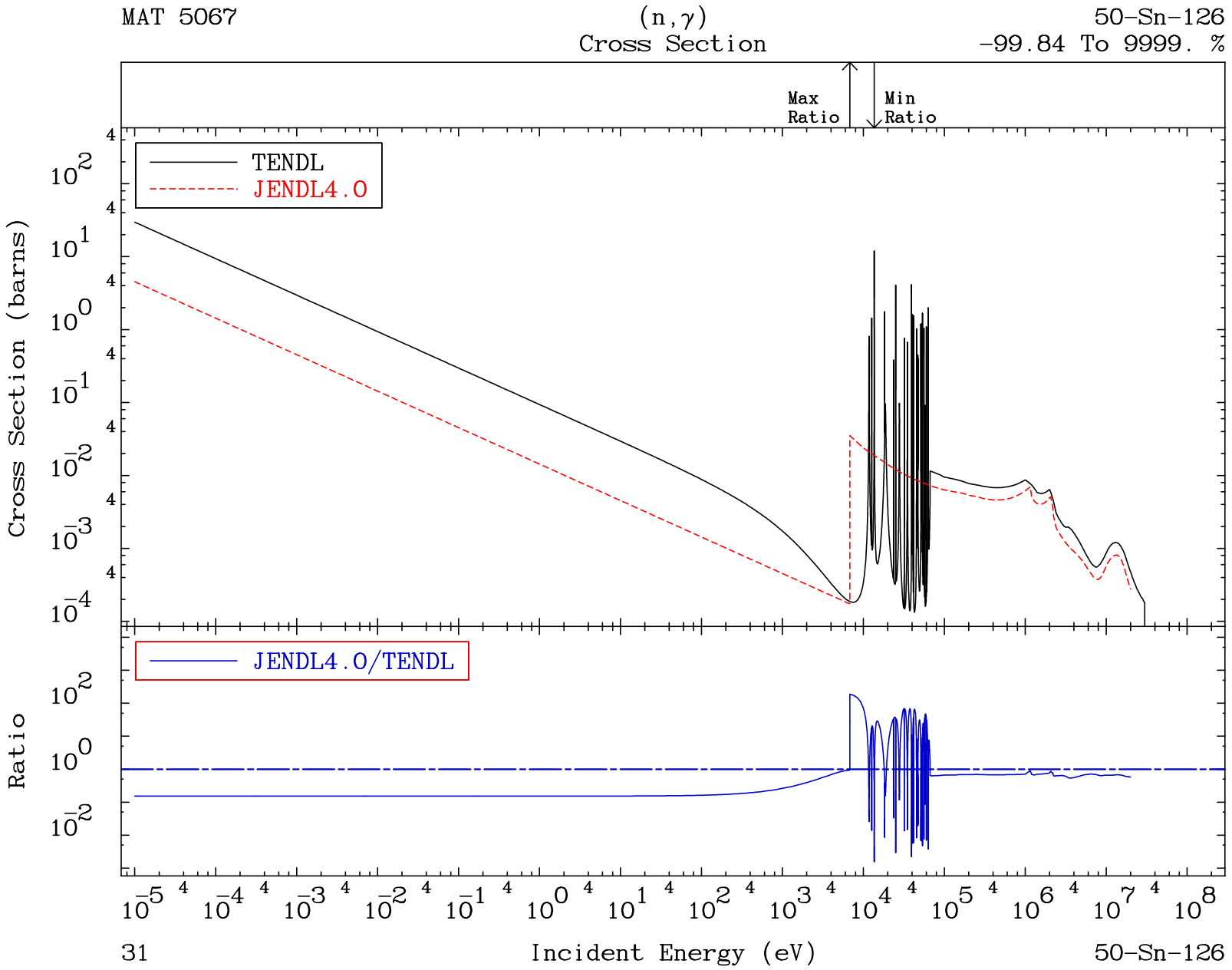

MAT 5067
MT= 69 (n,n') Level
Cross Section
50-Sn-126
-85.99 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 2.6843 MeV
JENDL4.0 Threshold 2.6843 MeV
Cross Section (milli-barns)
20
15
10
5
0
JENDL4.0/TENDL
Ratio
10^6
10^4
10^2
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
26
Incident Energy (eV)
50-Sn-126

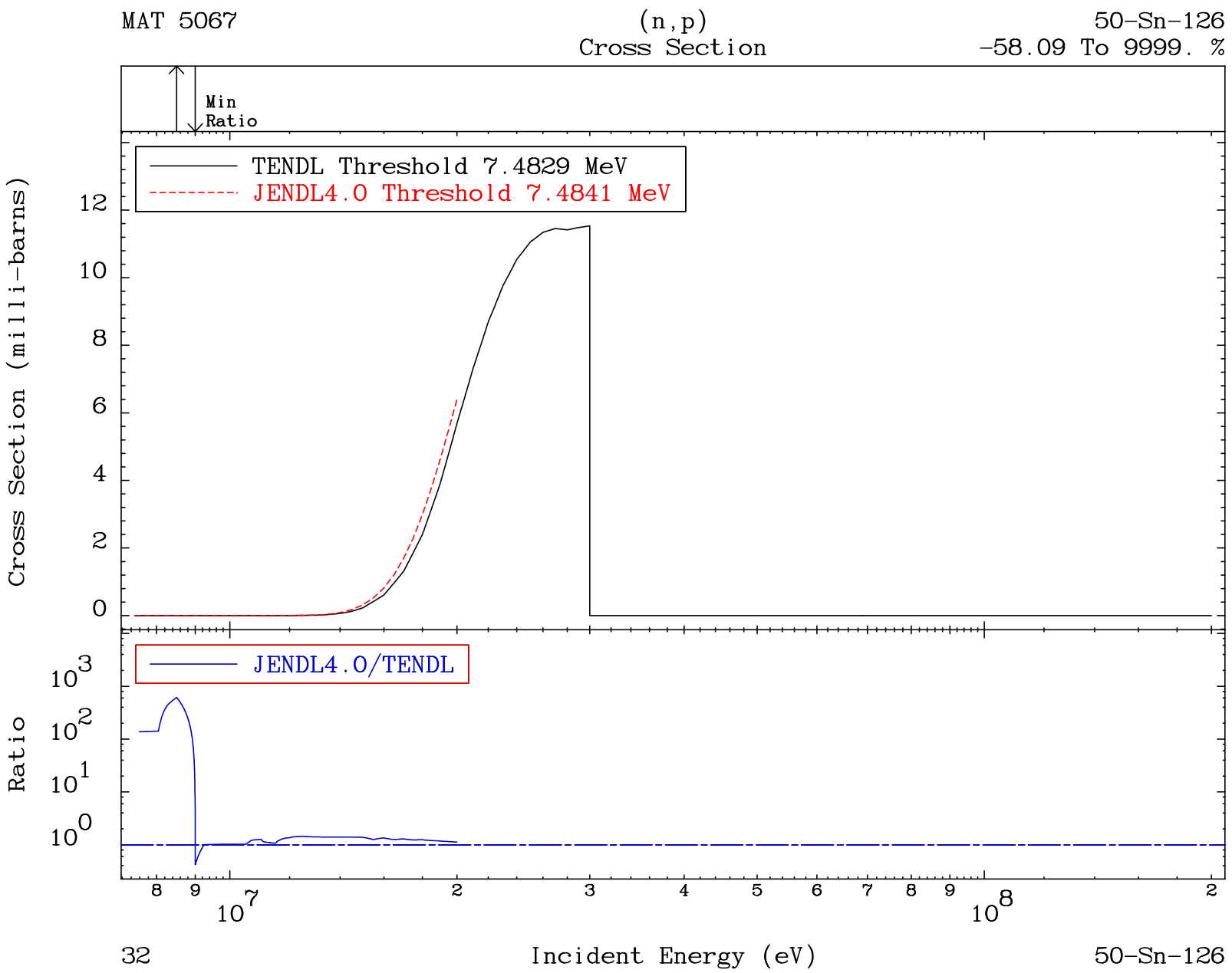

MAT 5067
MT= 70 (n,n') Level
Cross Section
50-Sn-126
-72.62 To -8.298%
Max
Ratio
Min
Ratio
TENDL Threshold 2.7338 MeV
JENDL4.0 Threshold 2.7338 MeV
Cross Section (milli-barns)
60
40
20
0
JENDL4.0/TENDL
1.0
0.8
0.6
0.4
Ratio
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
27
Incident Energy (eV)
50-Sn-126

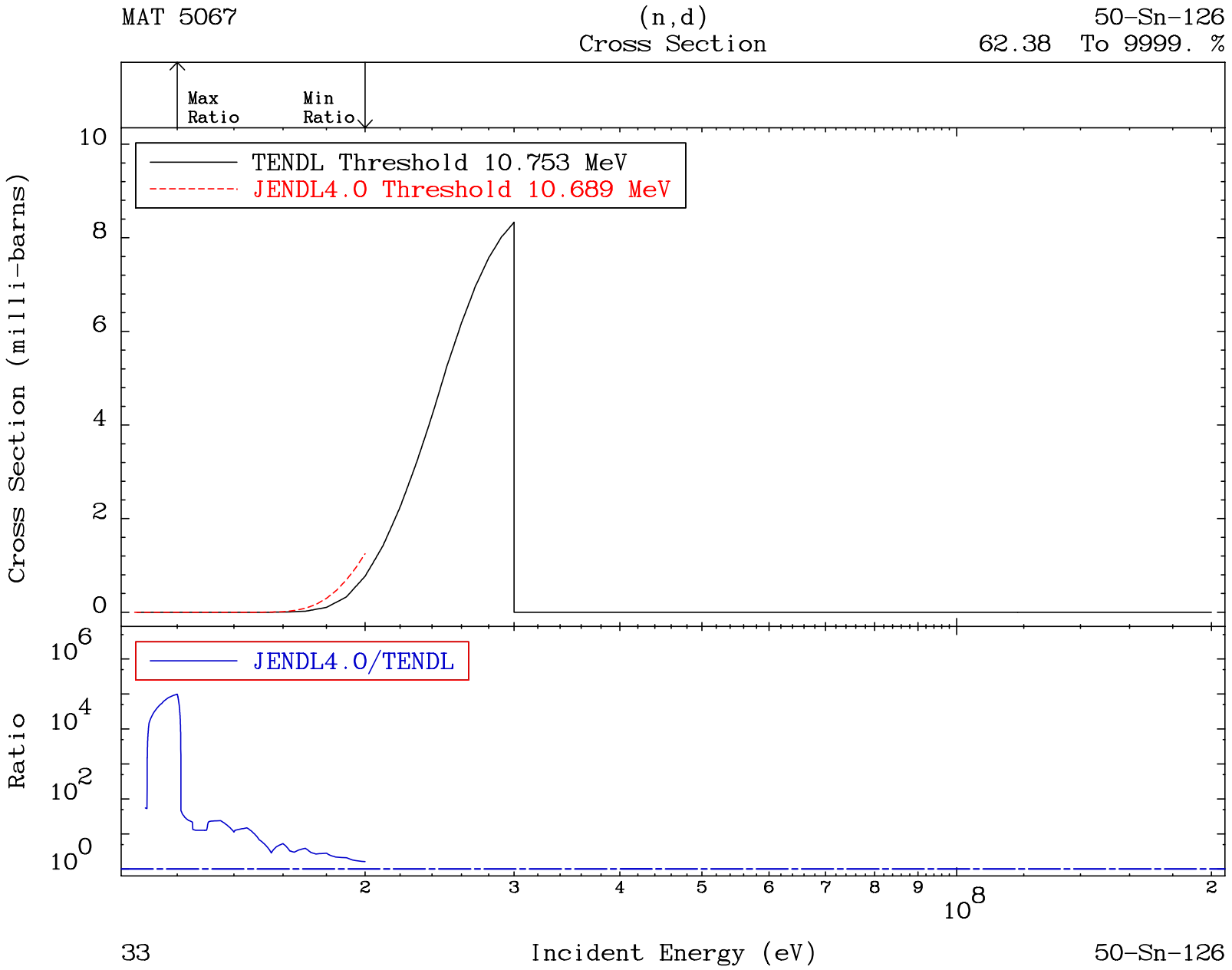

MAT 5067
MT= 71 (n,n') Level
Cross Section
50-Sn-126
-79.95 To 33.06 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.7418 MeV
JENDL4.0 Threshold 2.7418 MeV
Cross Section (milli-barns)
80
60
40
20
0
JENDL4.0/TENDL
Ratio
1.6
1.2
0.8
0.4
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
28
Incident Energy (eV)
50-Sn-126

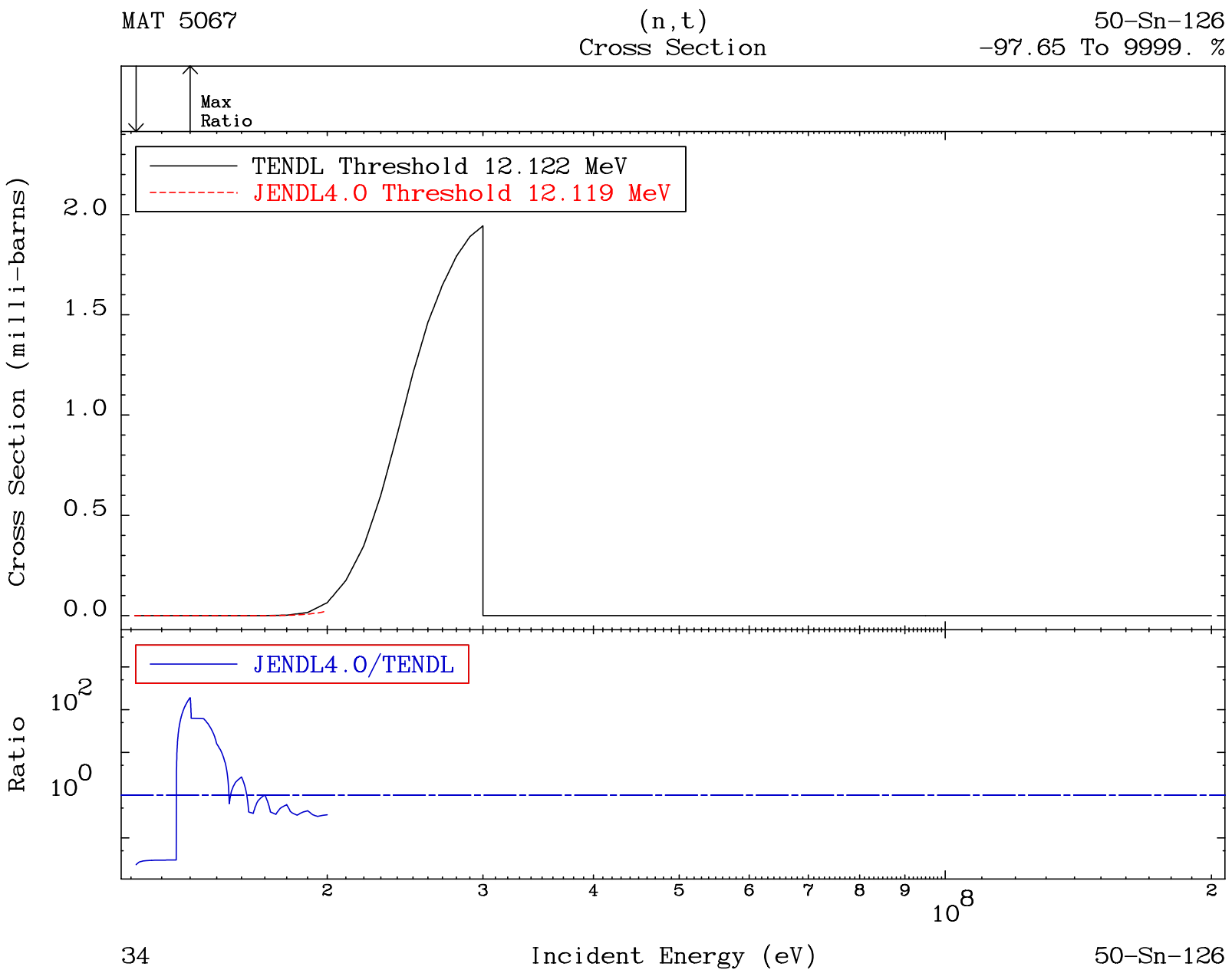

MAT 5067
MT= 72 (n,n') Level
Cross Section
50-Sn-126
-84.99 To 17.56 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.7645 MeV
JENDL4.0 Threshold 2.7645 MeV
Cross Section (milli-barns)
80
60
40
20
0
JENDL4.0/TENDL
Ratio
1.2
0.8
0.4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
29
Incident Energy (eV)
50-Sn-126

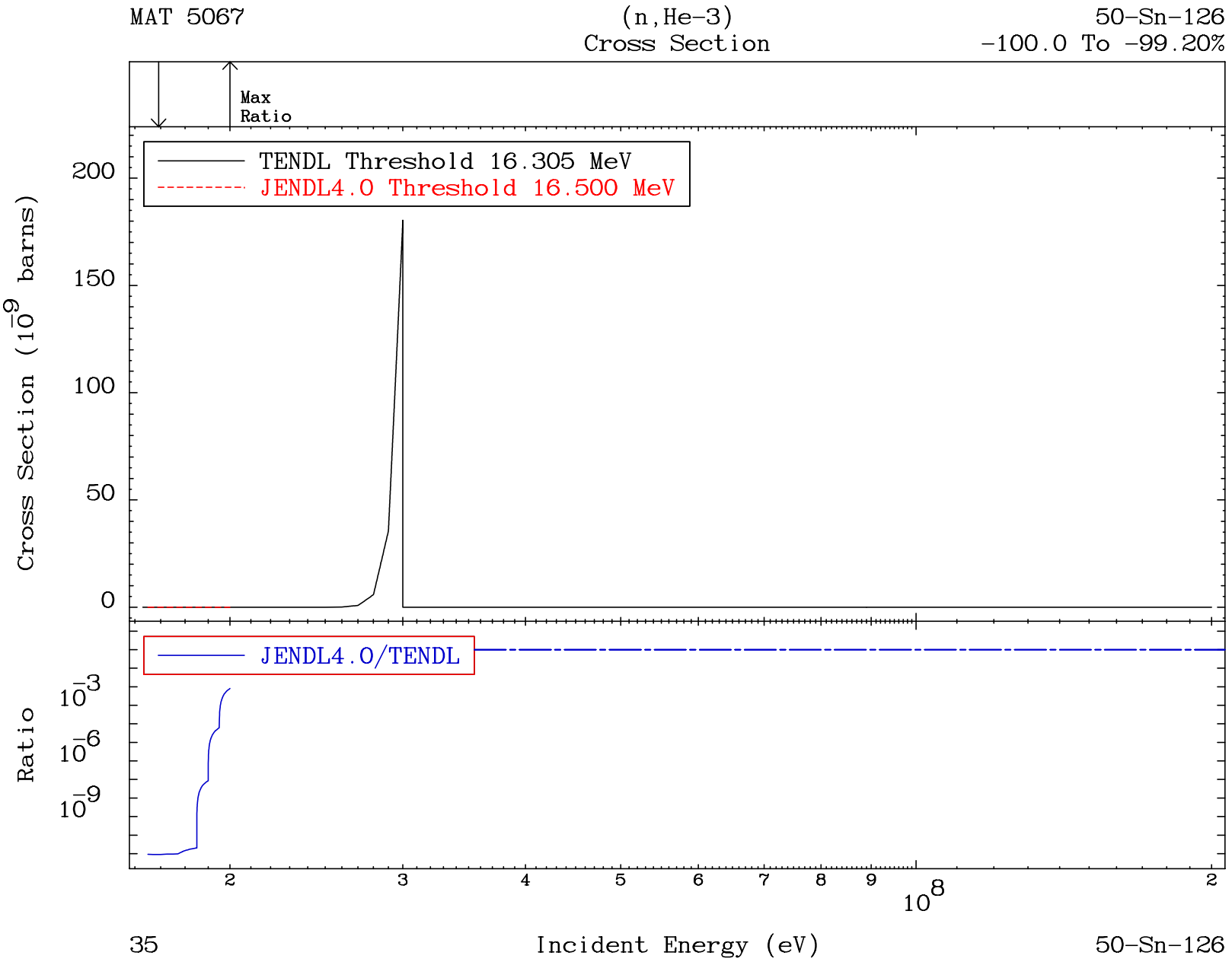

MAT 5067
(n,n') Continuum
Cross Section
50-Sn-126
-7.126 To 2194. %
Max
Ratio
Min
Ratio
TENDL Threshold 3.3101 MeV
JENDL4.0 Threshold 105.00 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
10^1
10^0
10^5
10^6
10^7
10^8
Incident Energy (eV)
30
50-Sn-126

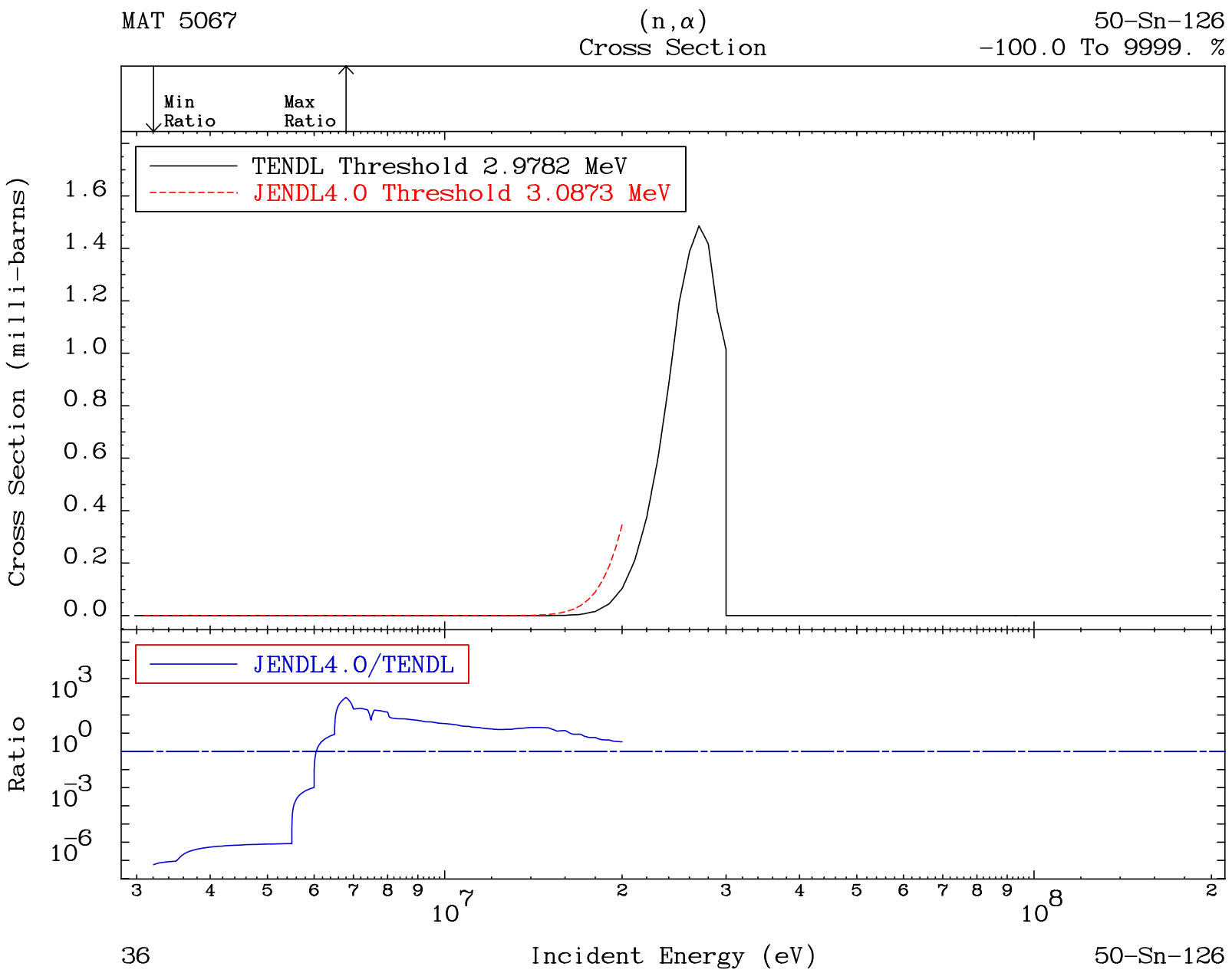

MAT 5067
(n,γ)
Cross Section
50-Sn-126
-99.84 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
31
50-Sn-126

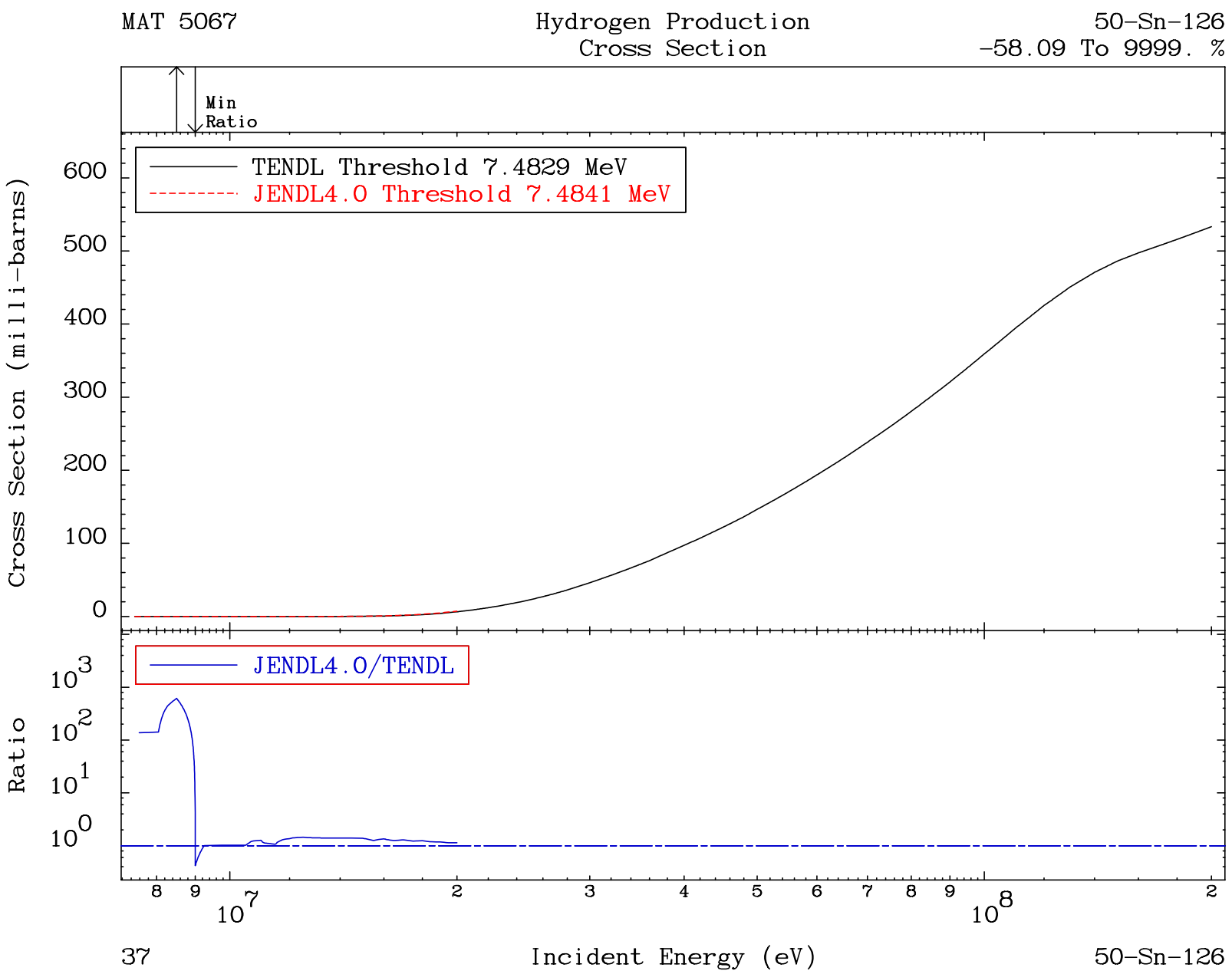

MAT 5067
(n,p)
Cross Section
50-Sn-126
-58.09 To 9999. %
Min
Ratio
TENDL Threshold 7.4829 MeV
JENDL4.0 Threshold 7.4841 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
JENDL4.0/TENDL
Ratio
10^0
10^1
10^2
10^3
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
32
Incident Energy (eV)
50-Sn-126

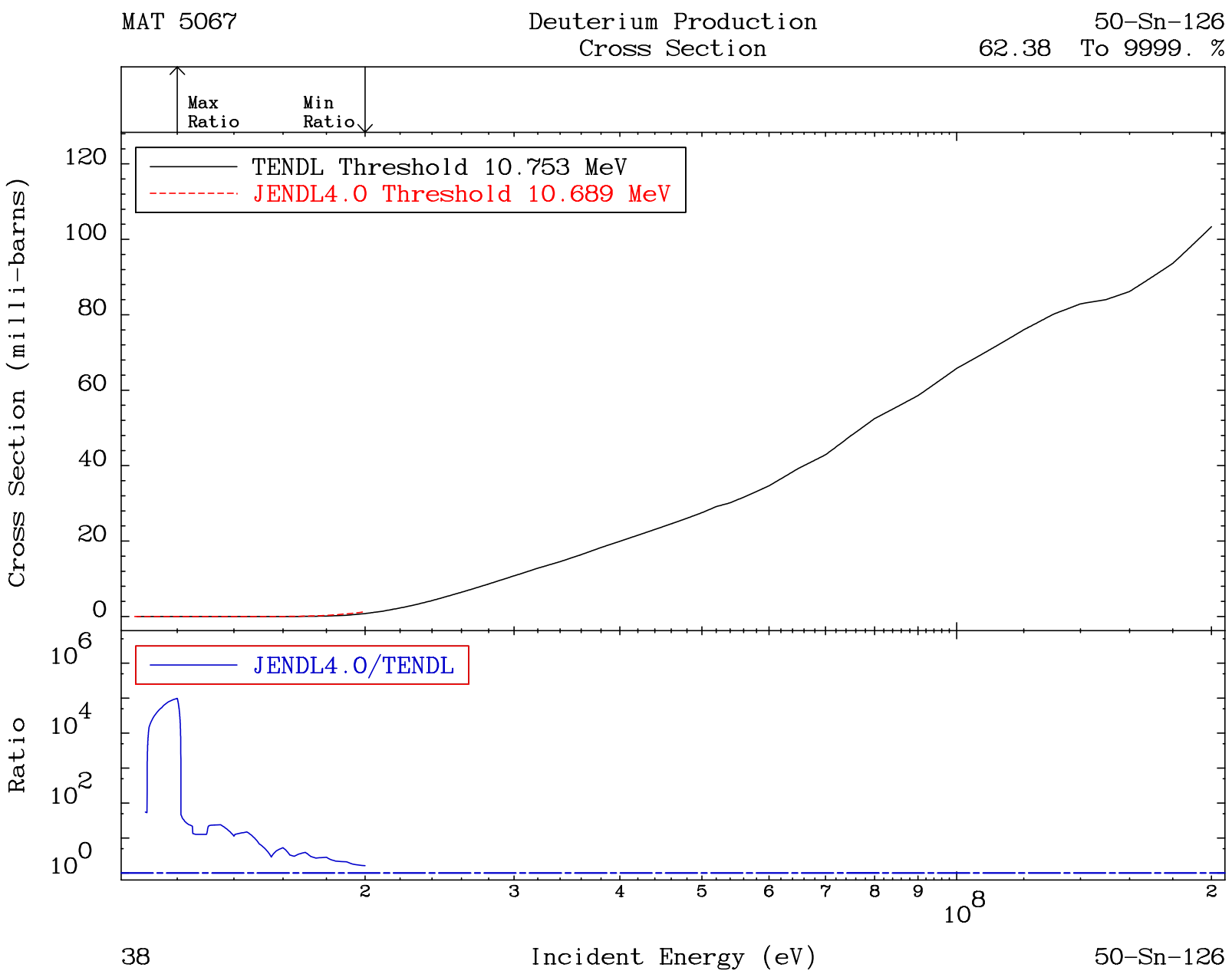

MAT 5067
(n,d)
Cross Section
50-Sn-126
62.38 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 10.753 MeV
JENDL4.0 Threshold 10.689 MeV
Cross Section (milli-barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
33
50-Sn-126

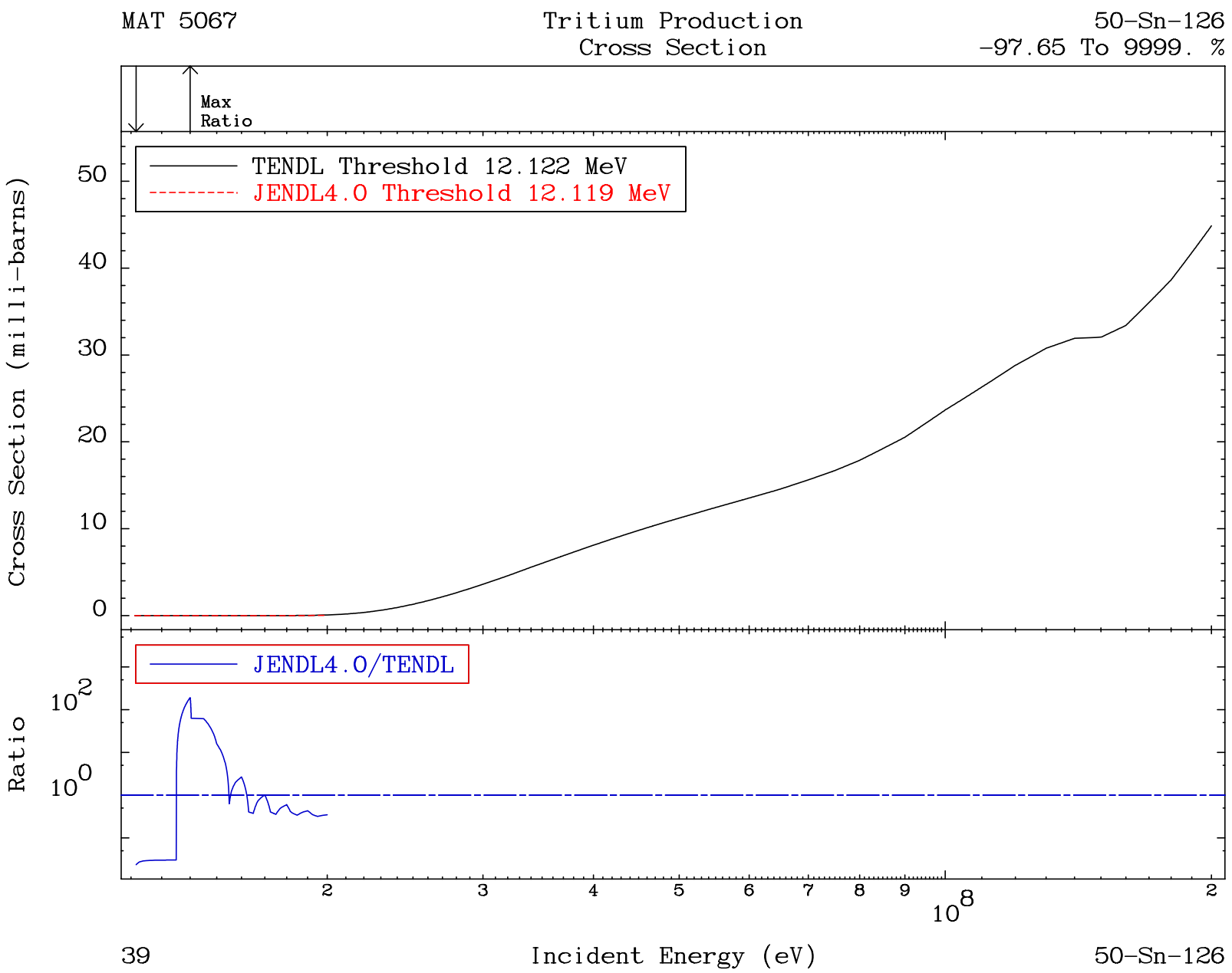

MAT 5067
(n,t)
Cross Section
50-Sn-126
-97.65 To 9999. %
Max
Ratio
TENDL Threshold 12.122 MeV
JENDL4.0 Threshold 12.119 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
34
Incident Energy (eV)
50-Sn-126

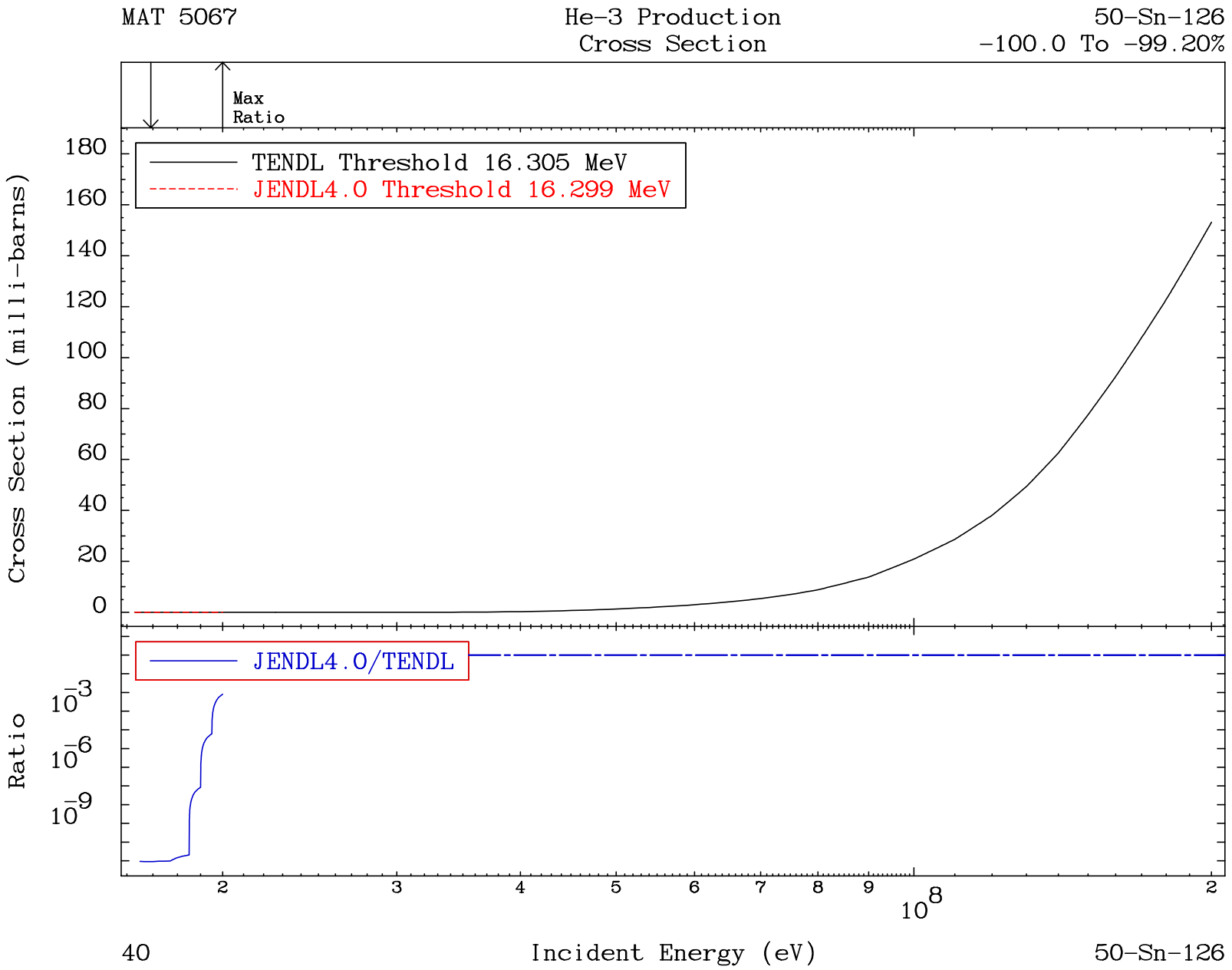

MAT 5067
(n,He-3)
Cross Section
50-Sn-126
-100.0 To -99.20%
Max
Ratio
TENDL Threshold 16.305 MeV
JENDL4.0 Threshold 16.500 MeV
Cross Section (10-9 barns)
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10-3
10-6
10-9
2
3
4
5
6
7
8
9
108
2
35
Incident Energy (eV)
50-Sn-126

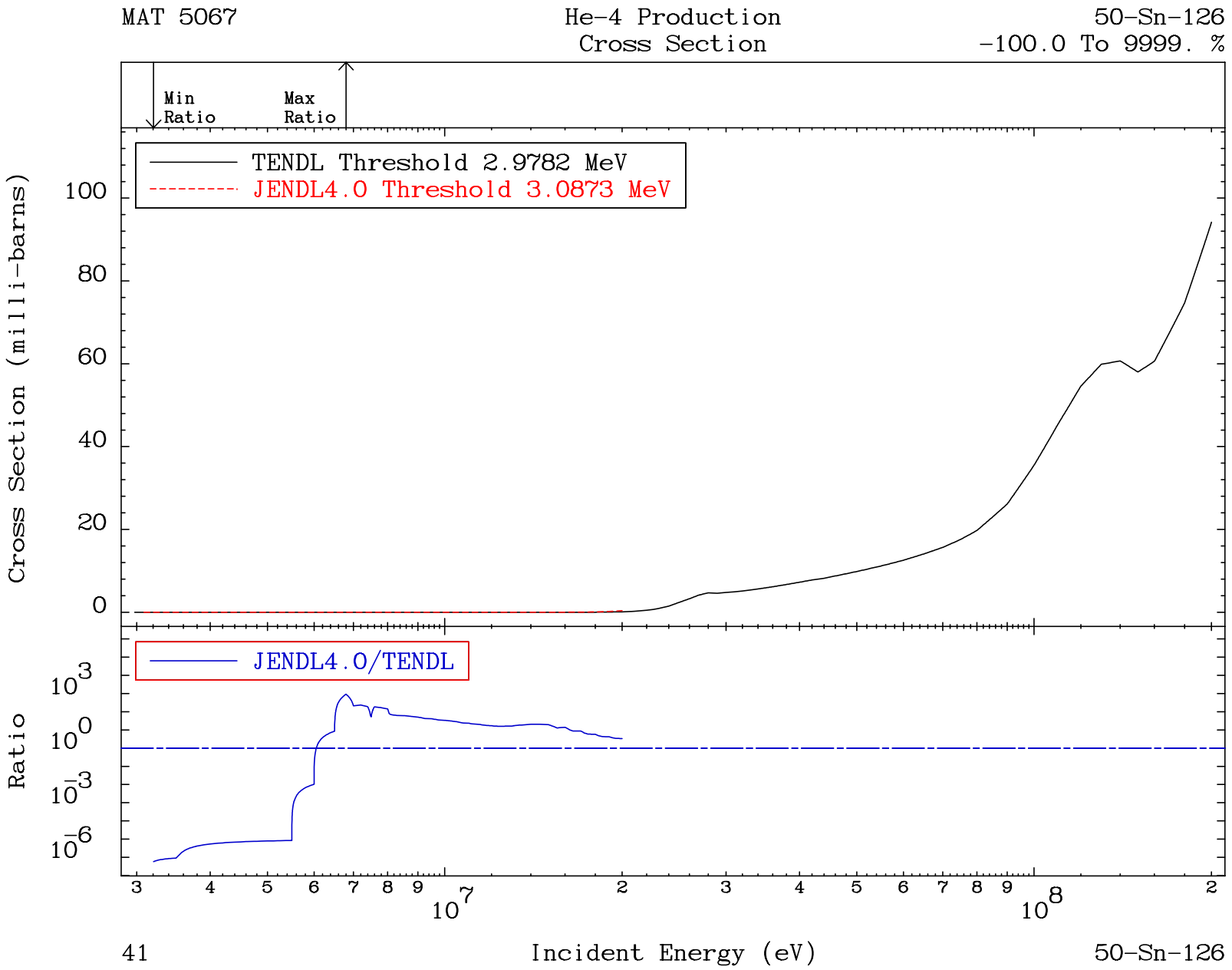

MAT 5067
(n,α)
Cross Section
50-Sn-126
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.9782 MeV
JENDL4.0 Threshold 3.0873 MeV
Cross Section (milli-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
10^3
10^0
10^-3
10^-6
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
36
Incident Energy (eV)
50-Sn-126

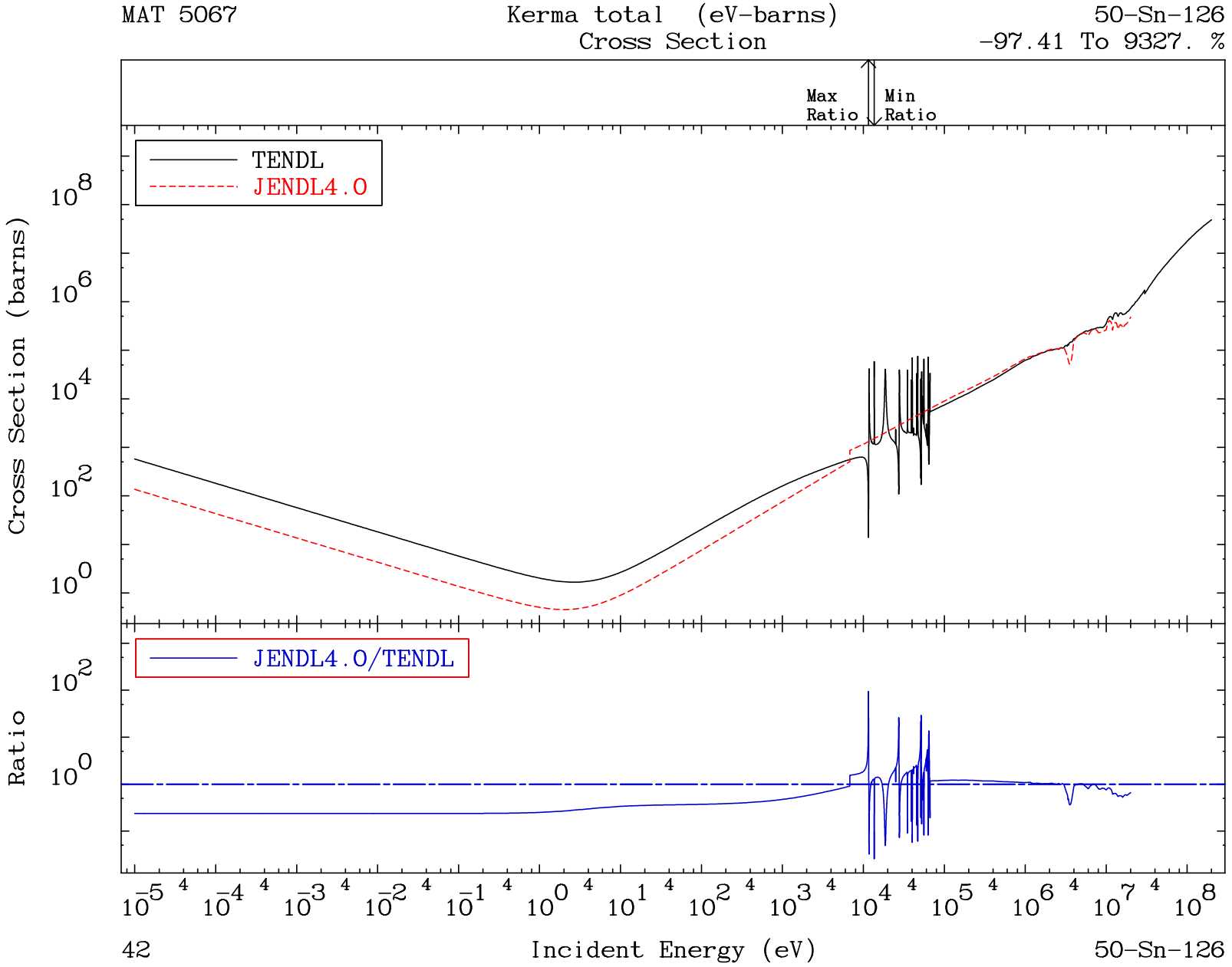

MAT 5067
Hydrogen Production
Cross Section
50-Sn-126
-58.09 To 9999. %
Min
Ratio
TENDL Threshold 7.4829 MeV
JENDL4.0 Threshold 7.4841 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
JENDL4.0/TENDL
Ratio
10^3
10^2
10^1
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
50-Sn-126

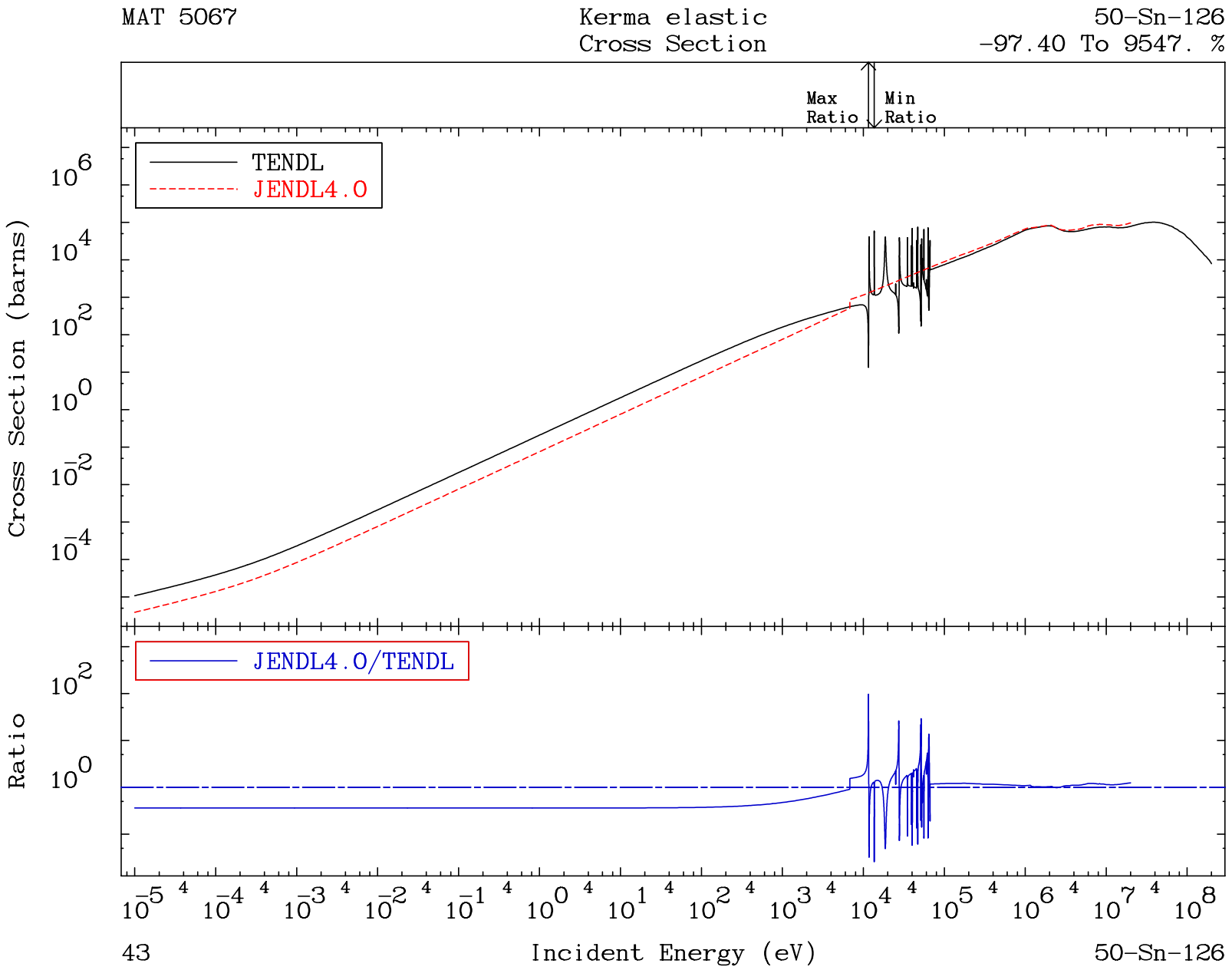

MAT 5067
Deuterium Production
Cross Section
50-Sn-126
62.38 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 10.753 MeV
JENDL4.0 Threshold 10.689 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^6
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
38
Incident Energy (eV)
50-Sn-126

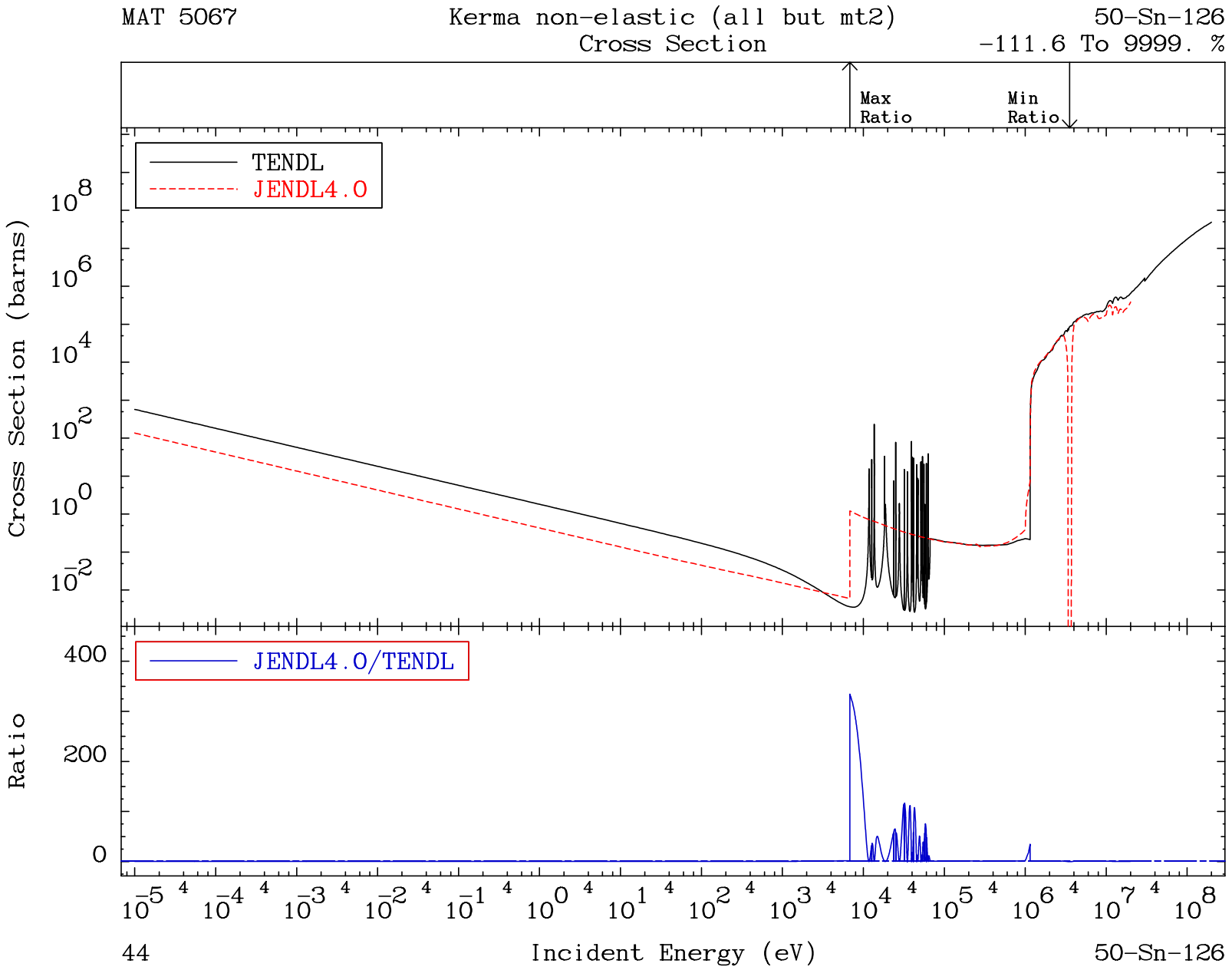

MAT 5067
Tritium Production
Cross Section
50-Sn-126
-97.65 To 9999. %
Max
Ratio
TENDL Threshold 12.122 MeV
JENDL4.0 Threshold 12.119 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
39
Incident Energy (eV)
50-Sn-126

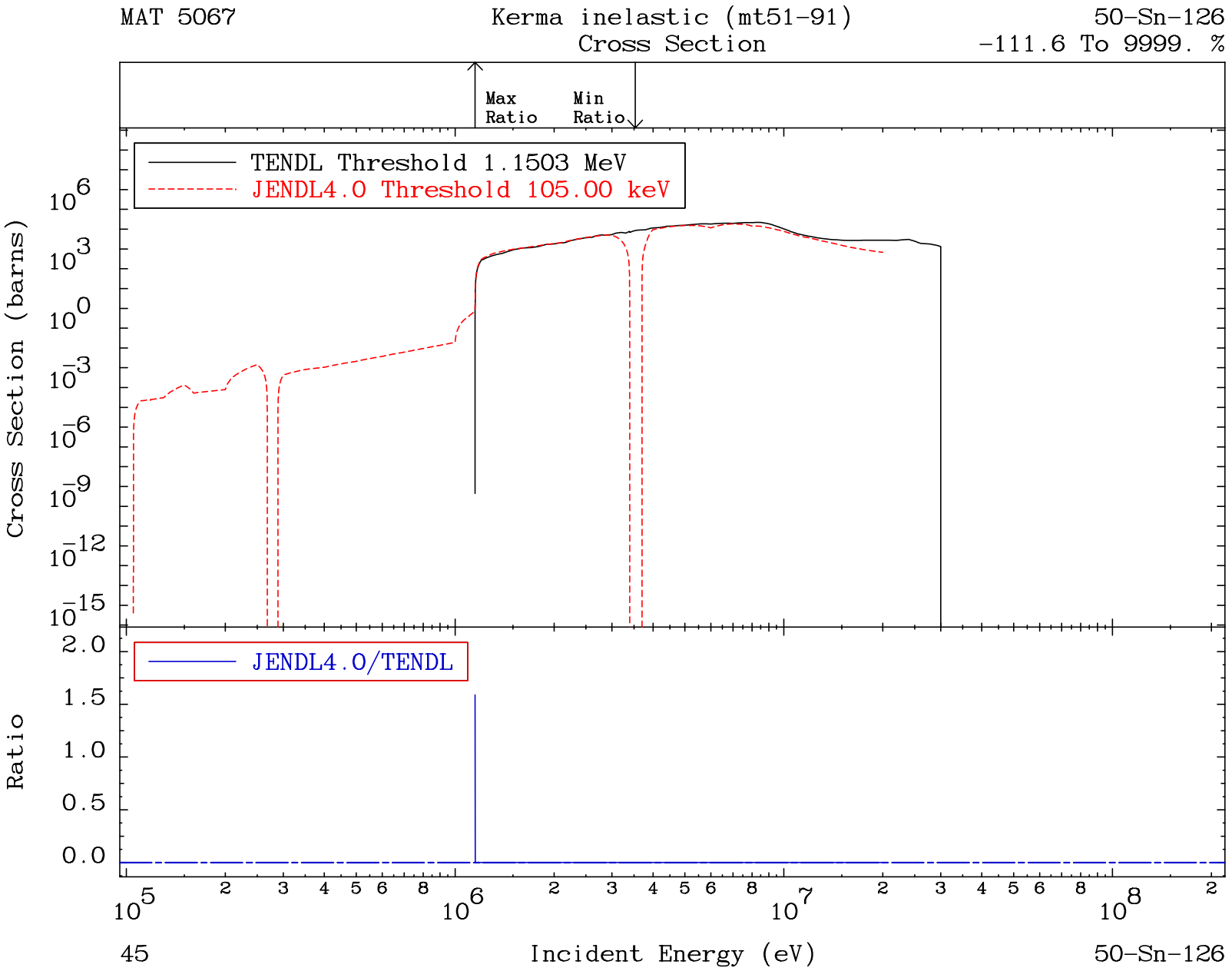

MAT 5067
He-3 Production
Cross Section
50-Sn-126
-100.0 To -99.20%
Max
Ratio
TENDL Threshold 16.305 MeV
JENDL4.0 Threshold 16.299 MeV
Cross Section (milli-barns)
180
160
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10-3
10-6
10-9
2
3
4
5
6
7
8
9
10 8
2
40
Incident Energy (eV)
50-Sn-126

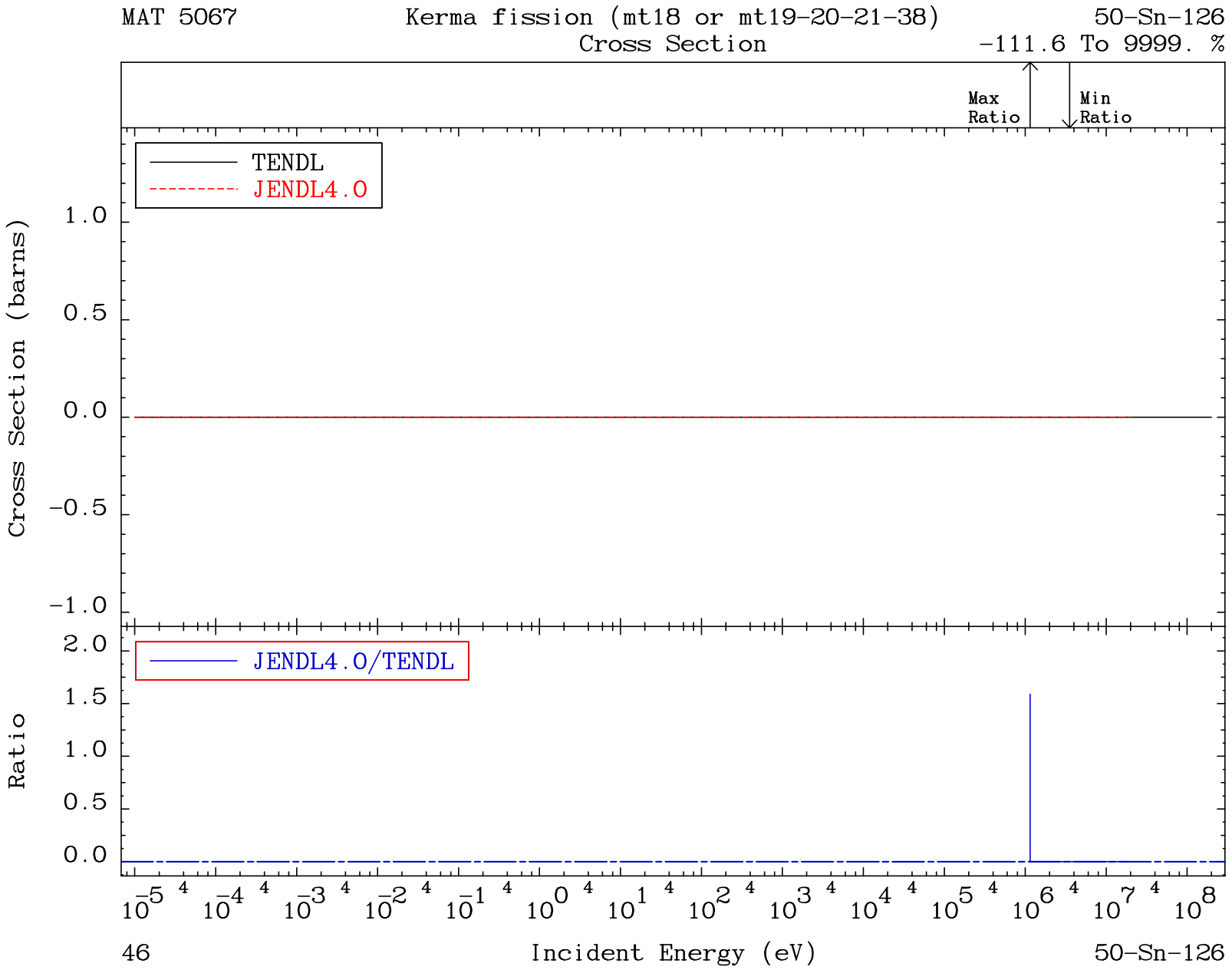

MAT 5067
He-4 Production
Cross Section
50-Sn-126
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.9782 MeV
JENDL4.0 Threshold 3.0873 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^3
10^0
10^-3
10^-6
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
41
Incident Energy (eV)
50-Sn-126

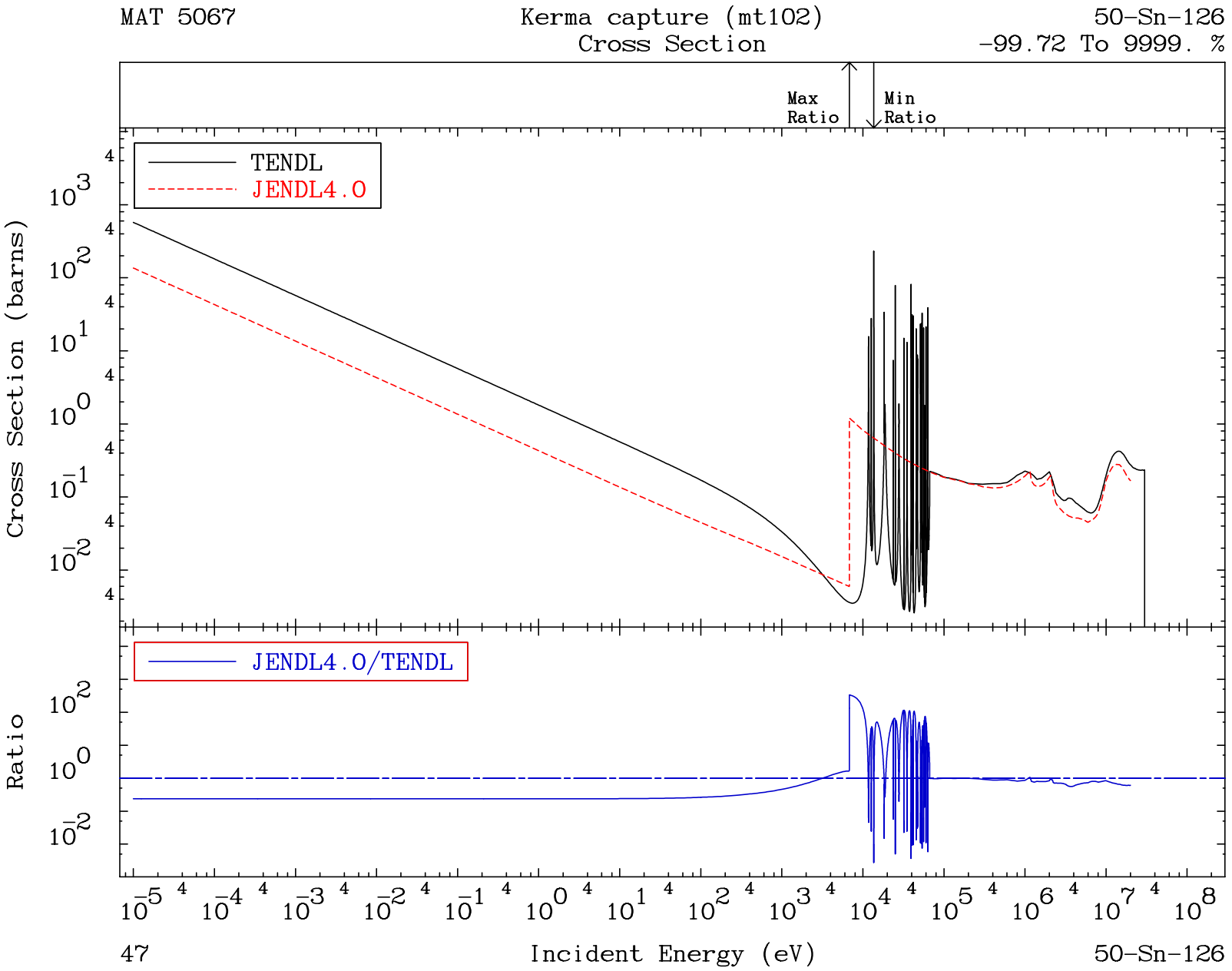

MAT 5067
Kerma total (eV-barns)
Cross Section
50-Sn-126
-97.41 To 9327. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
42
50-Sn-126

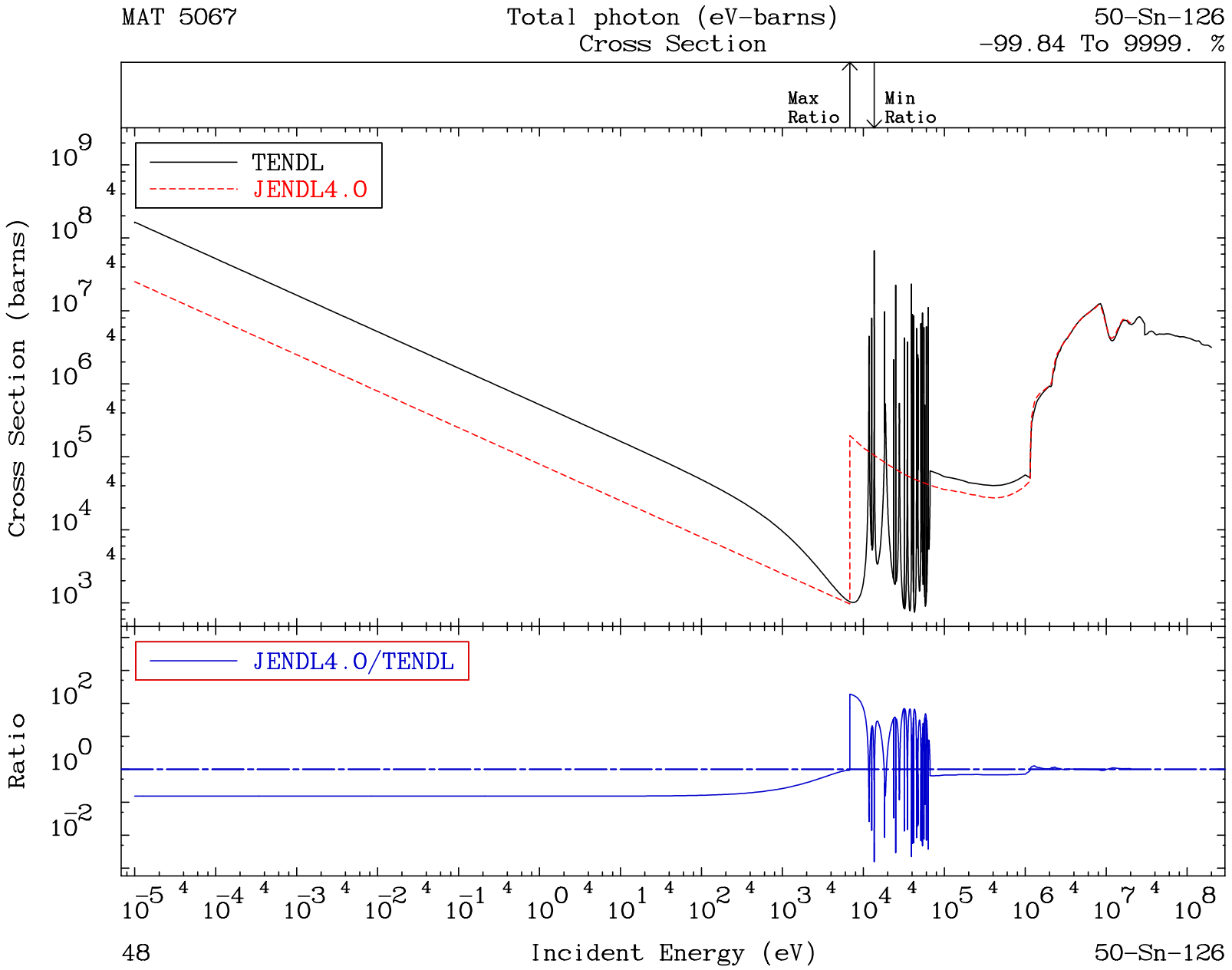

MAT 5067
Kerma elastic
Cross Section
50-Sn-126
-97.40 To 9547. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
43
50-Sn-126

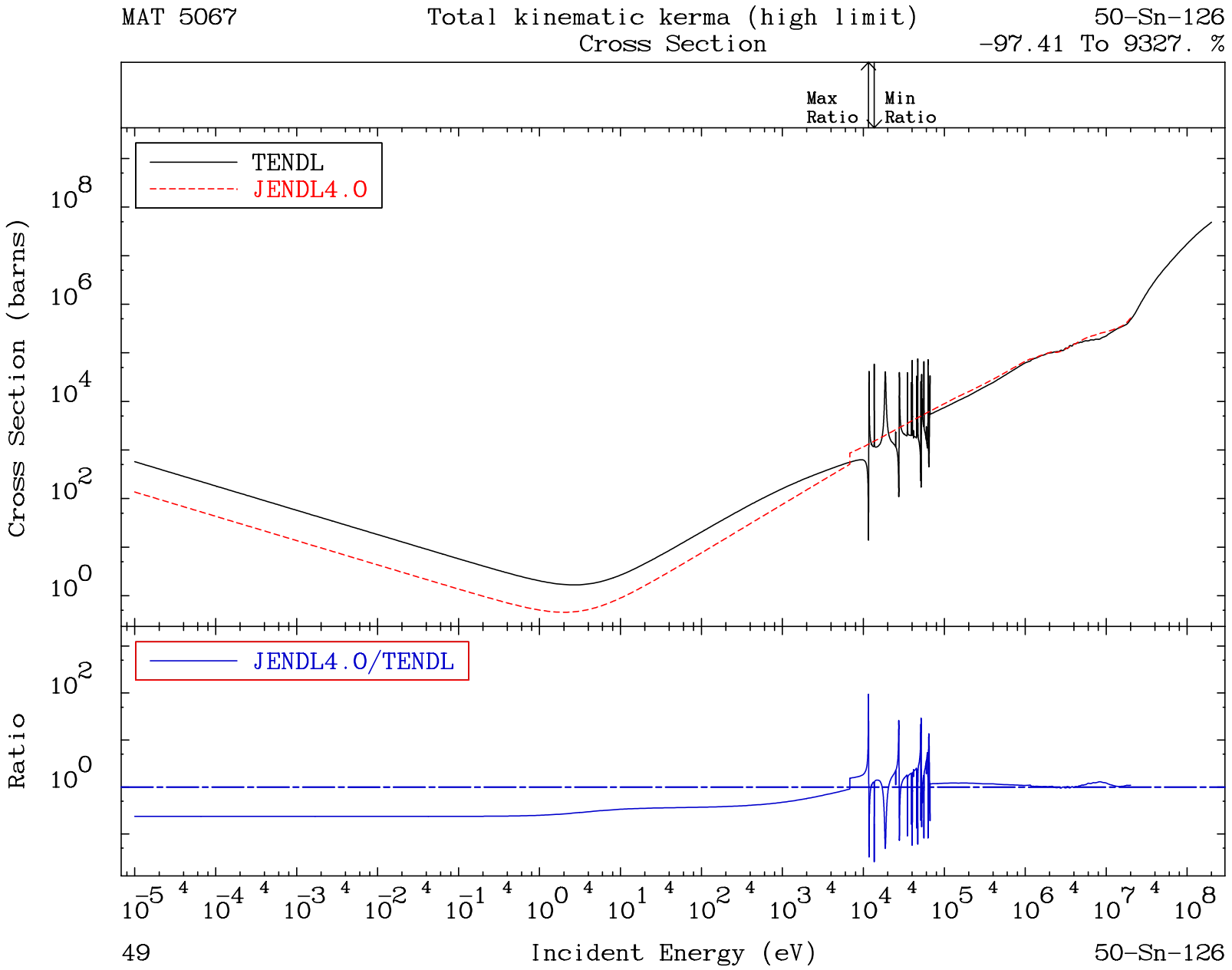

MAT 5067
Kerma non-elastic (all but mt2)
Cross Section
50-Sn-126
-111.6 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
Ratio
JENDL4.0/TENDL
Incident Energy (eV)
44
50-Sn-126

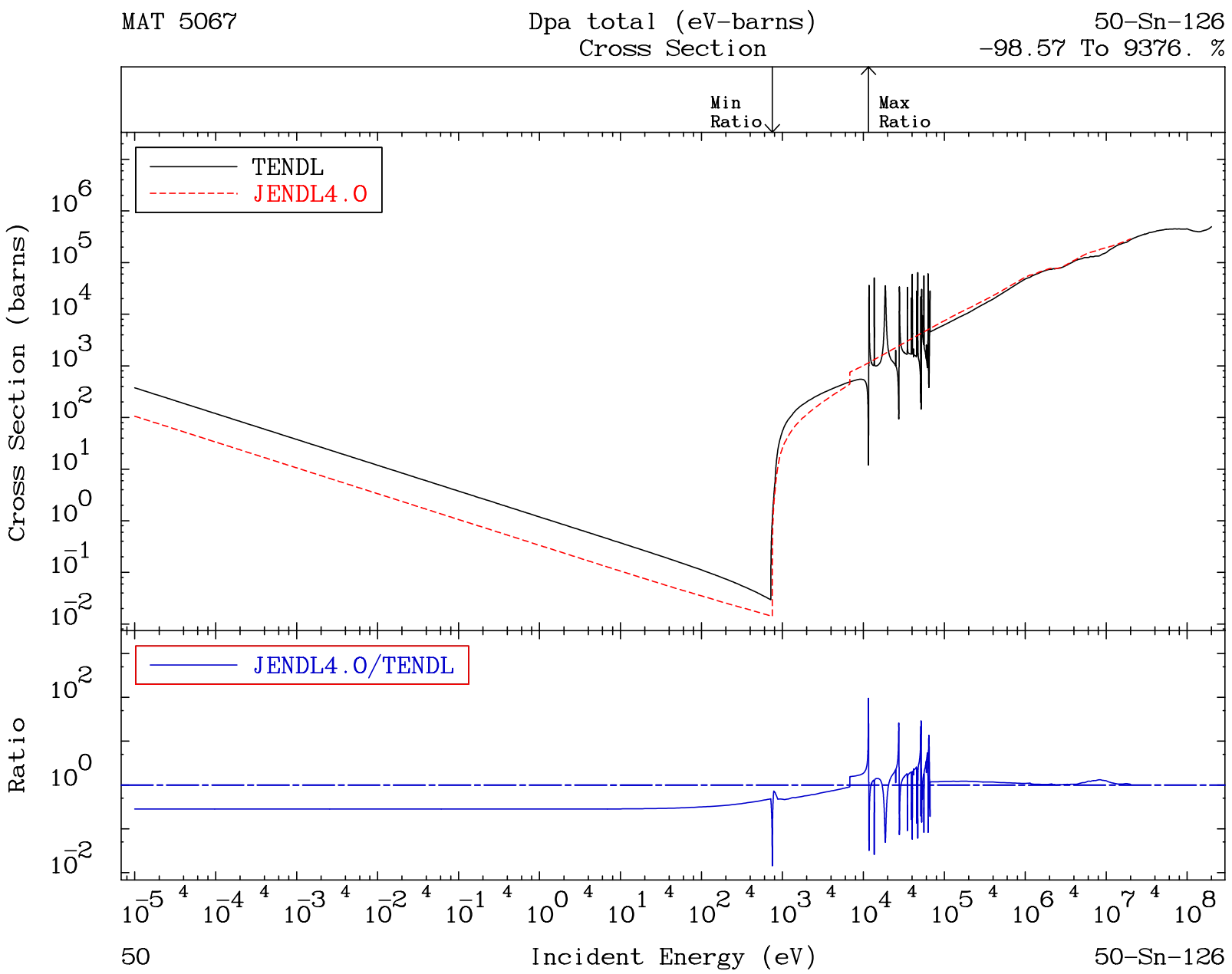

MAT 5067
Kerma inelastic (mt51-91)
Cross Section
50-Sn-126
-111.6 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.1503 MeV
JENDL4.0 Threshold 105.00 keV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
45
50-Sn-126

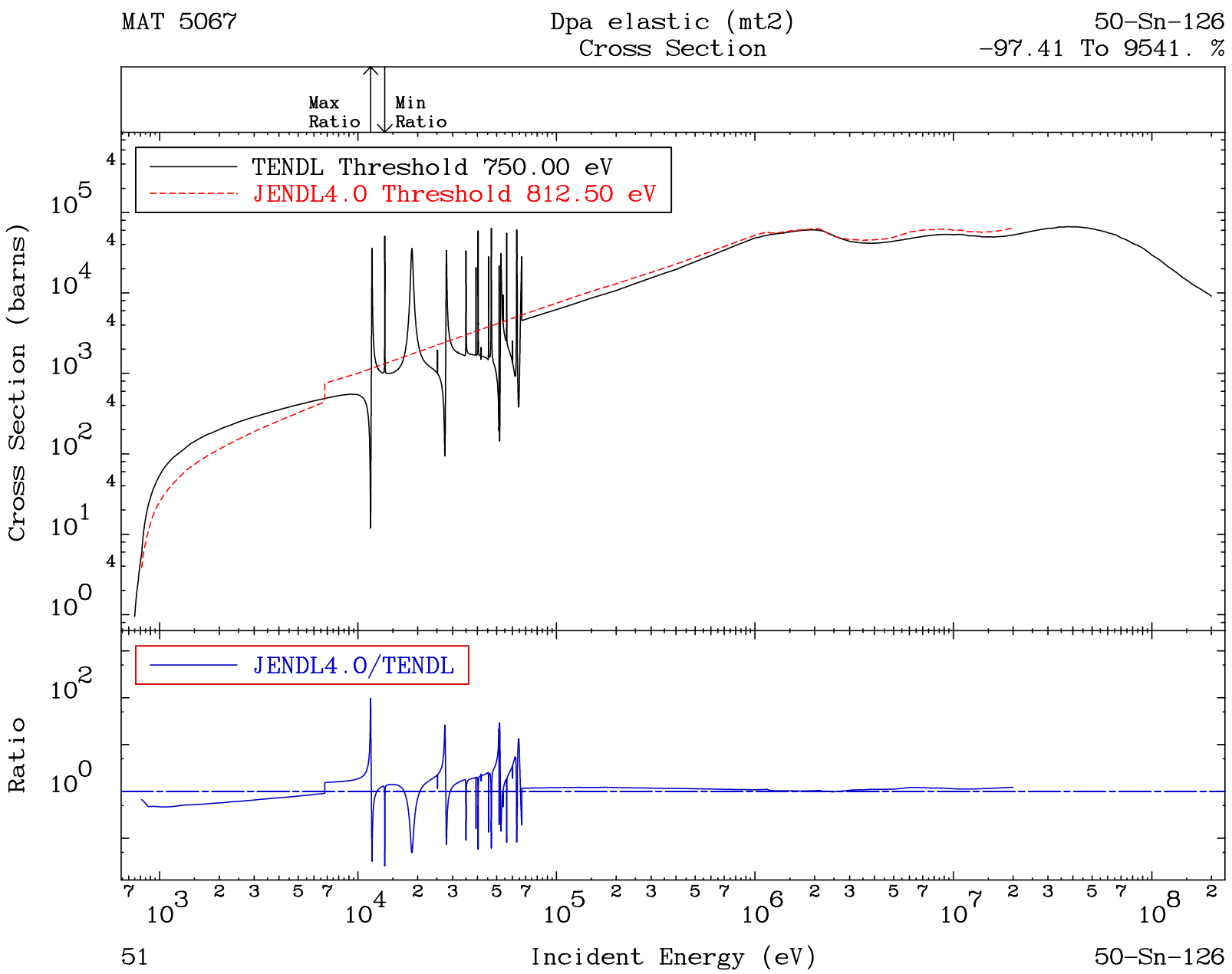

MAT 5067
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
50-Sn-126
-111.6 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JENDL4.0/TENDL
Ratio
2.0
1.5
1.0
0.5
0.0
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
46
Incident Energy (eV)
50-Sn-126

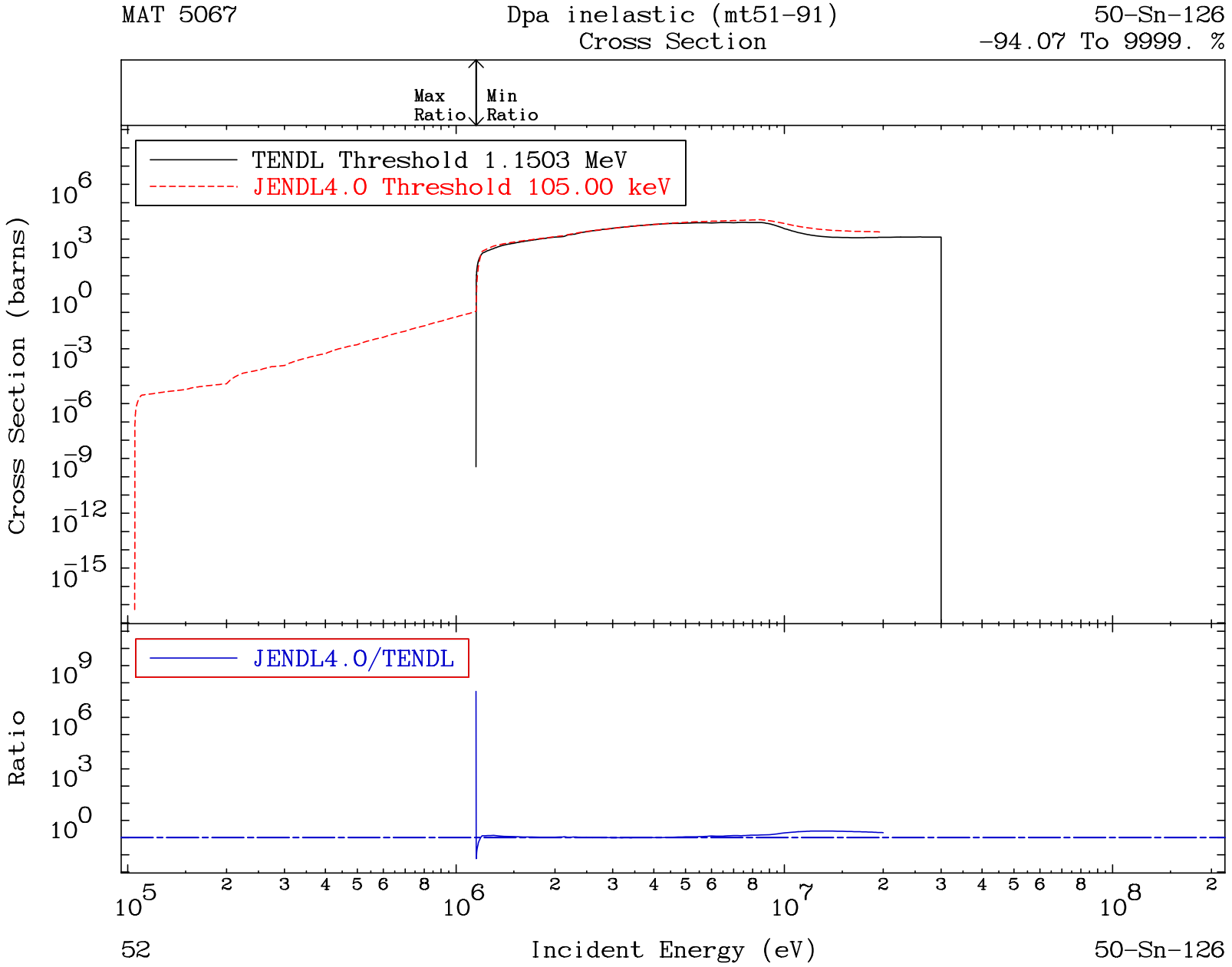

MAT 5067
Kerma capture (mt102)
Cross Section
50-Sn-126
-99.72 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
47
50-Sn-126

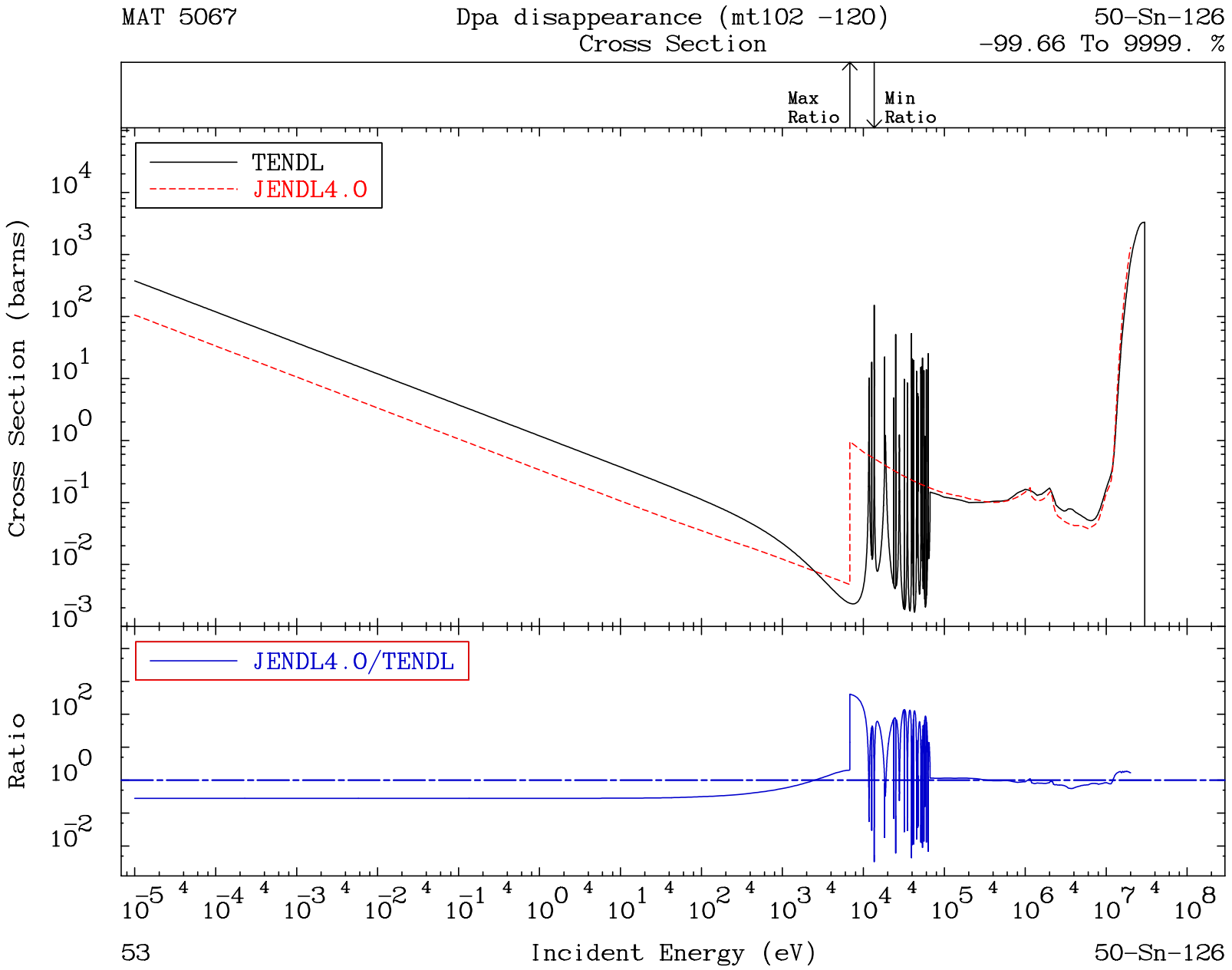

MAT 5067
Total photon (eV-barns)
Cross Section
50-Sn-126
-99.84 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
48
50-Sn-126

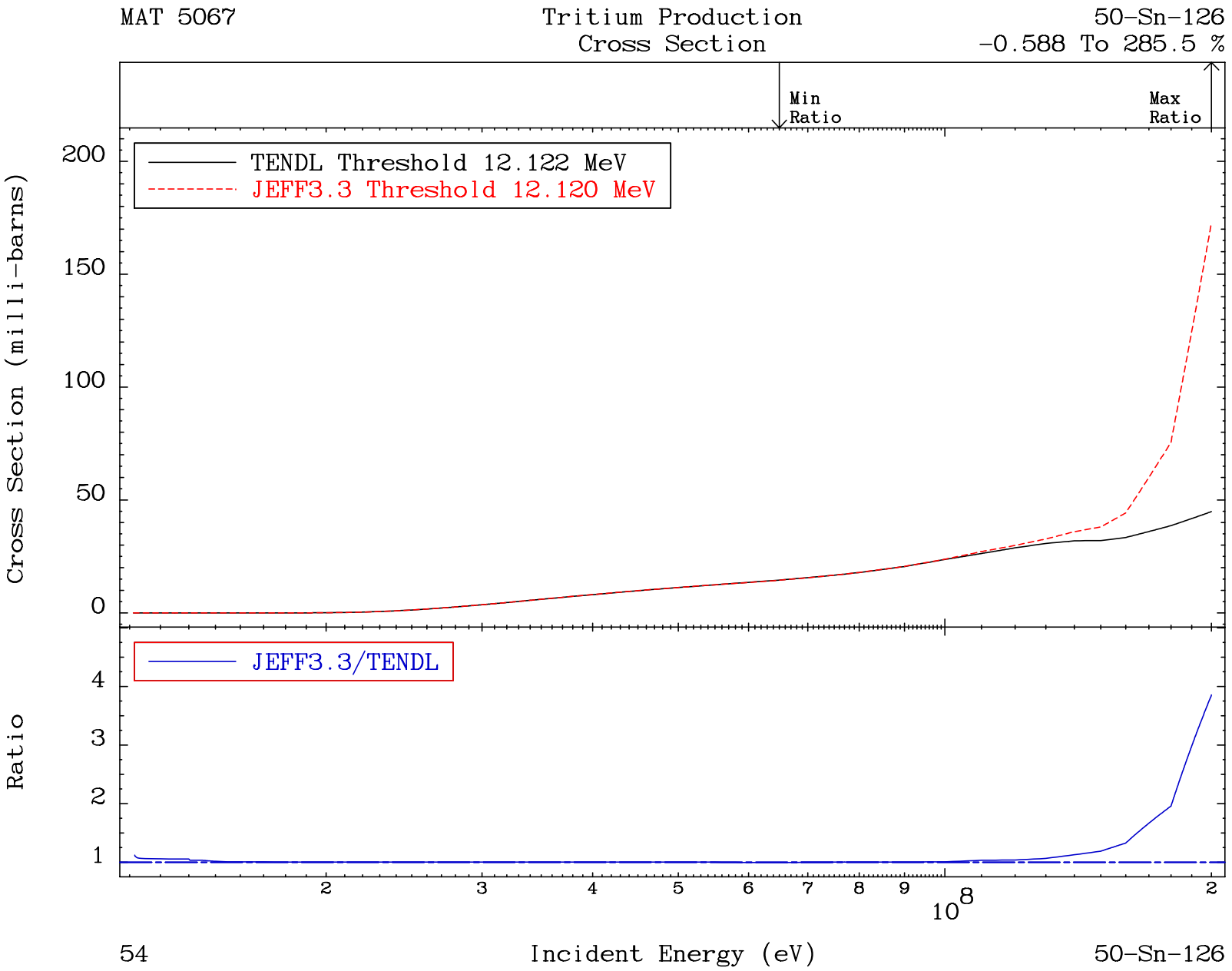

MAT 5067
Total kinematic kerma (high limit)
Cross Section
50-Sn-126
-97.41 To 9327. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
49
50-Sn-126

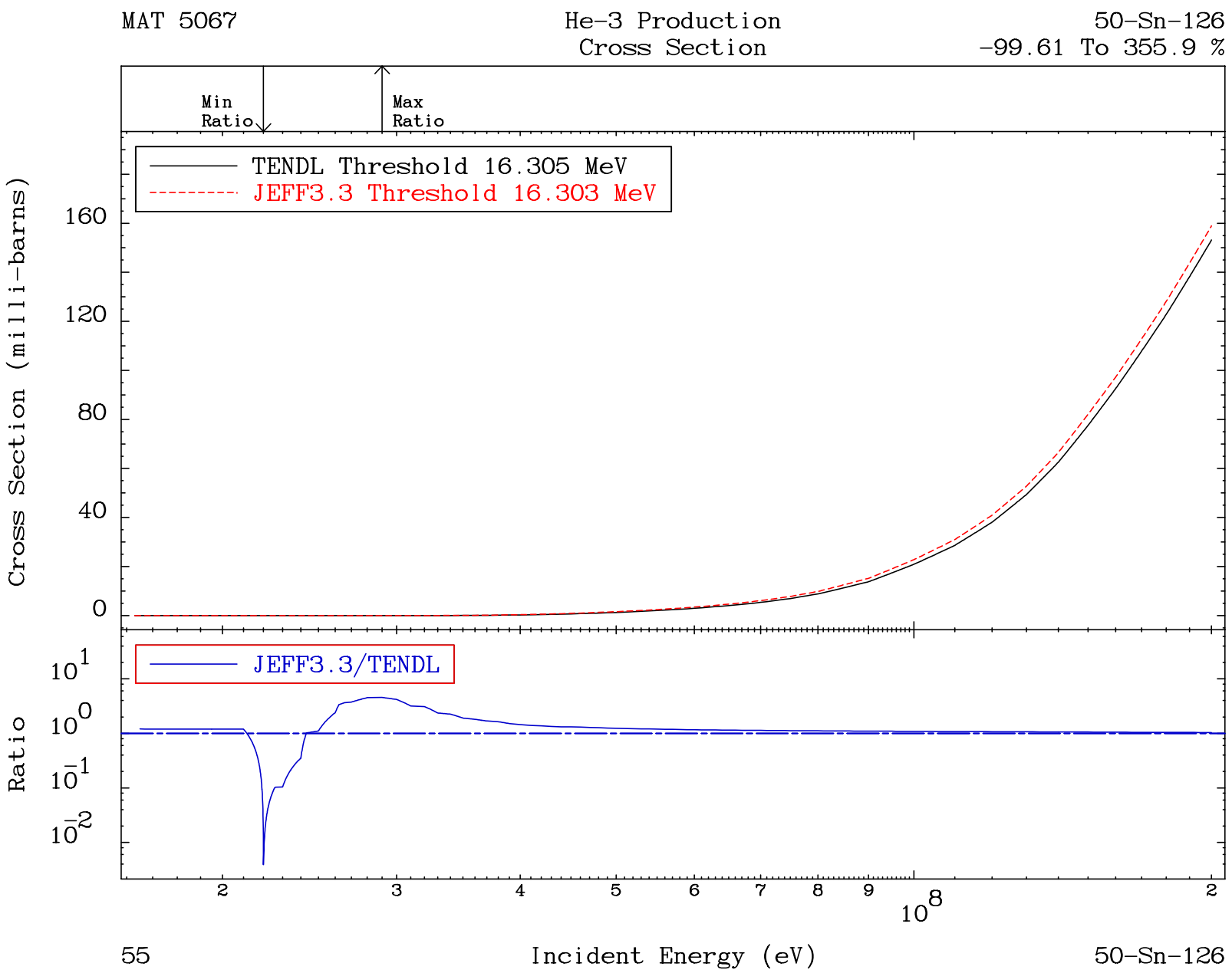

MAT 5067
Dpa total (eV-barns)
Cross Section
50-Sn-126
-98.57 To 9376. %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
50
50-Sn-126

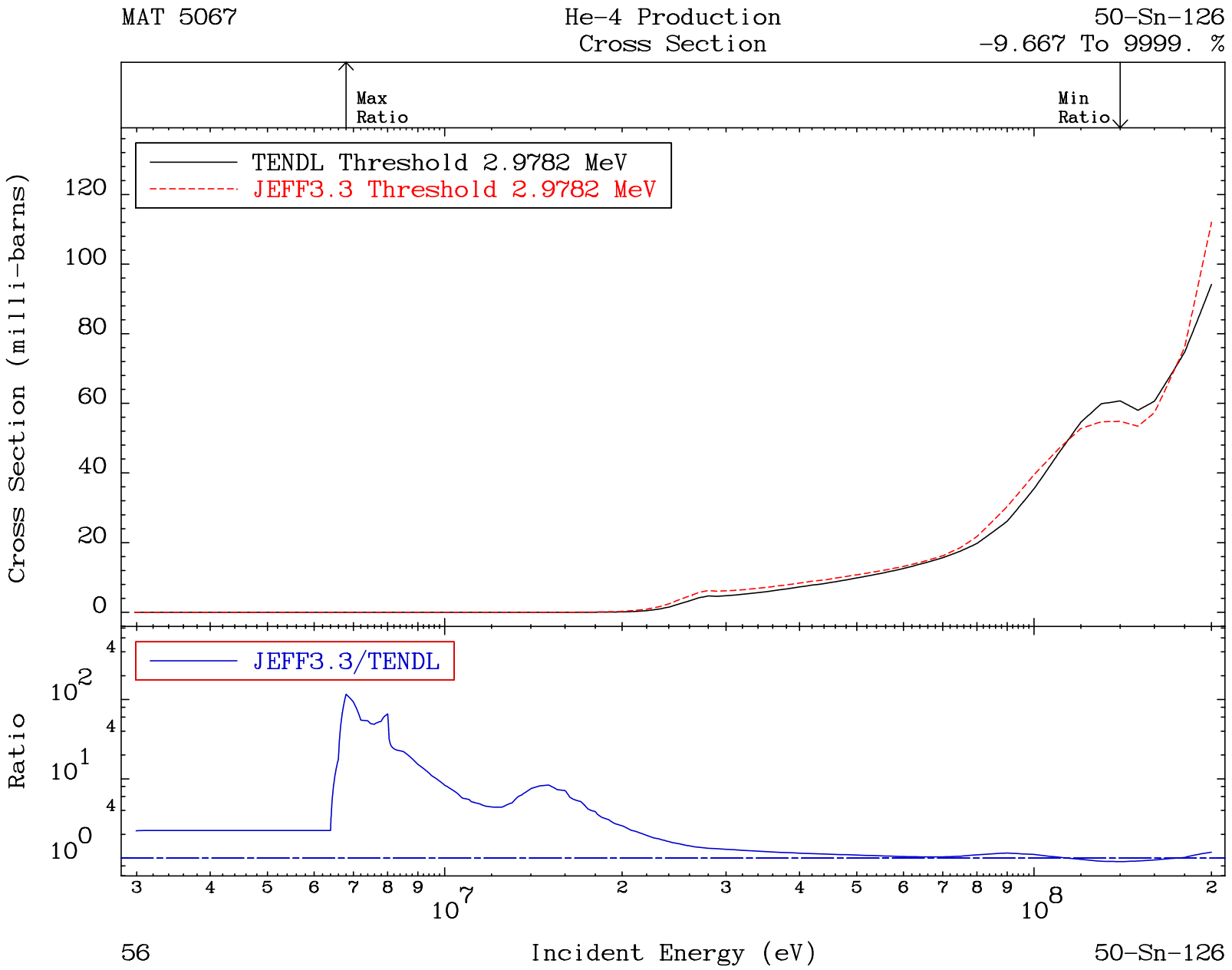

MAT 5067
Dpa elastic (mt2)
Cross Section
50-Sn-126
-97.41 To 9541. %
Max Ratio
Min Ratio
TENDL Threshold 750.00 eV
JENDL4.0 Threshold 812.50 eV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
51
50-Sn-126

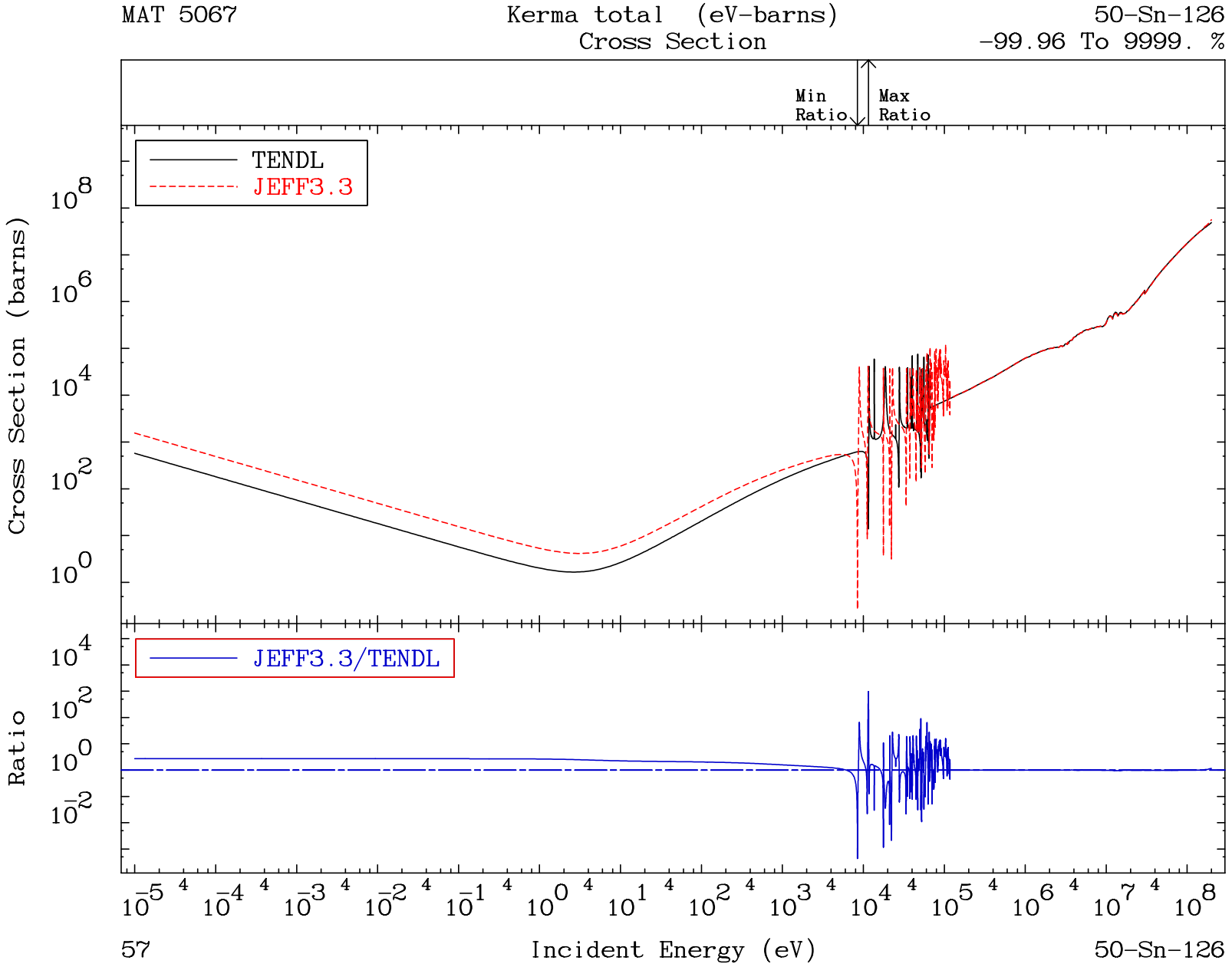

MAT 5067
Dpa inelastic (mt51-91)
Cross Section
50-Sn-126
-94.07 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.1503 MeV
JENDL4.0 Threshold 105.00 keV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
52
50-Sn-126

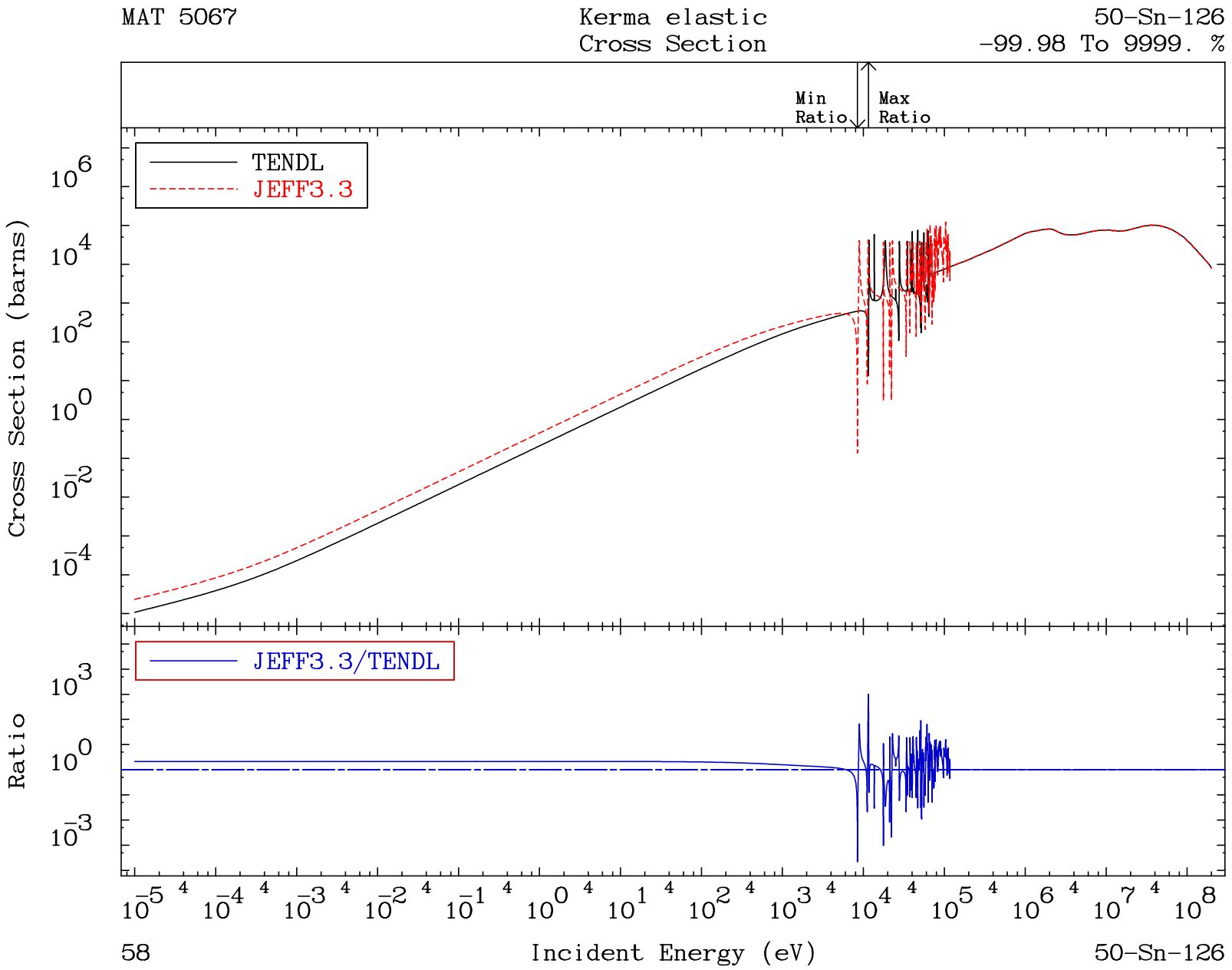

MAT 5067
Dpa disappearance (mt102 -120)
Cross Section
50-Sn-126
-99.66 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
53
50-Sn-126

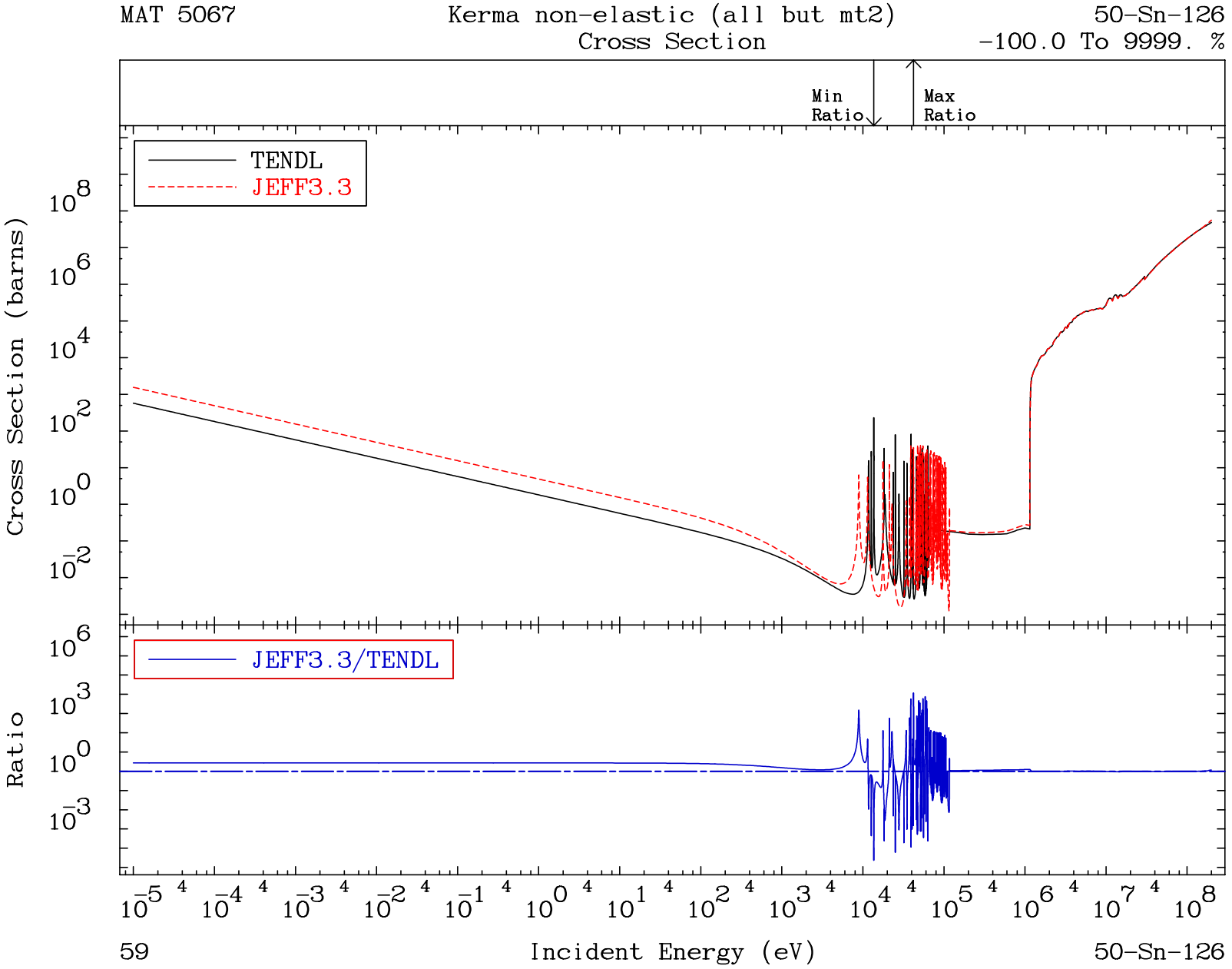

MAT 5067
Tritium Production
Cross Section
50-Sn-126
-0.588 To 285.5 %
Min
Ratio
Max
Ratio
TENDL Threshold 12.122 MeV
JEFF3.3 Threshold 12.120 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
4
3
2
1
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
50-Sn-126

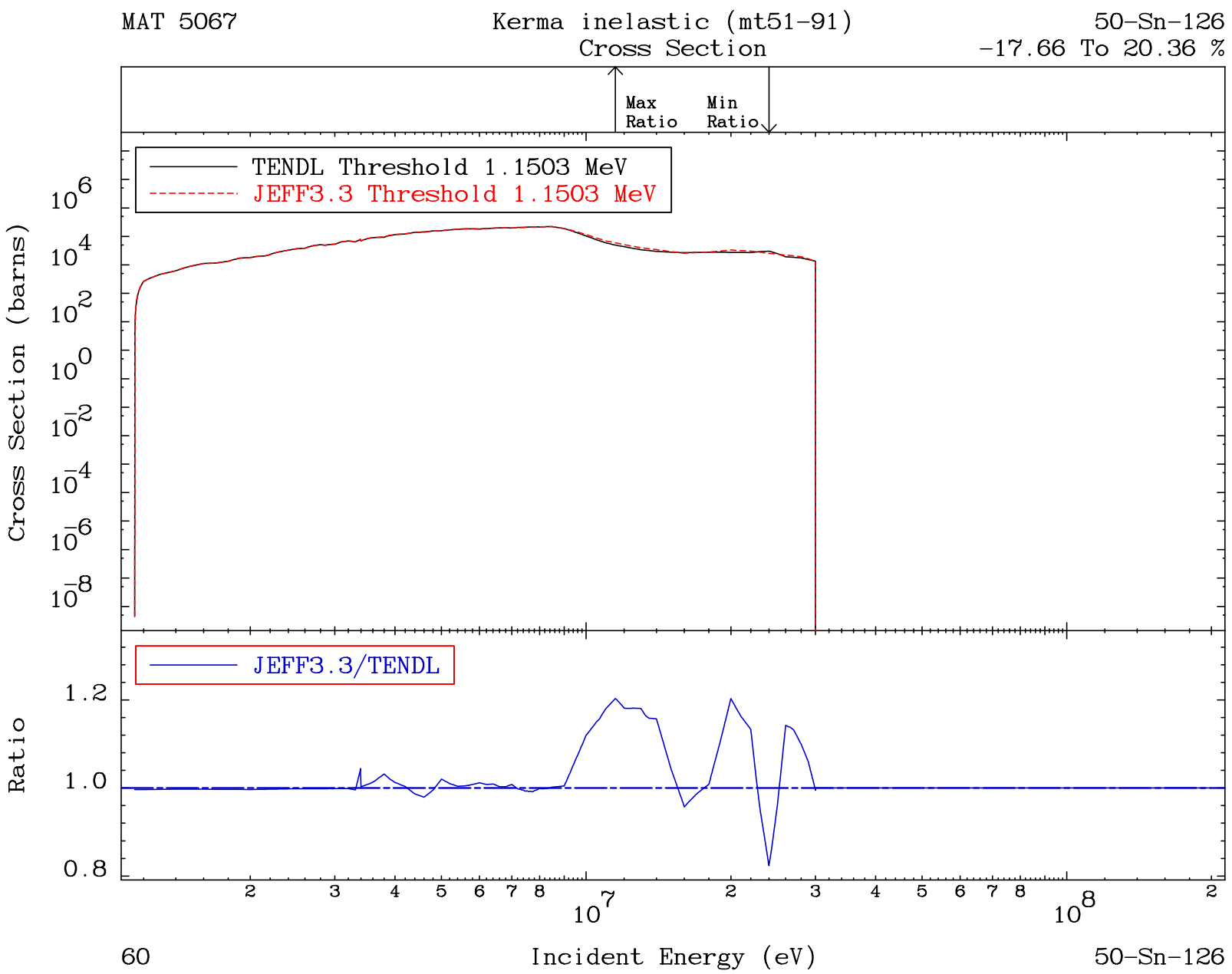

MAT 5067
He-3 Production
Cross Section
50-Sn-126
-99.61 To 355.9 %
Min Ratio
Max Ratio
TENDL Threshold 16.305 MeV
JEFF3.3 Threshold 16.303 MeV
Cross Section (milli-barns)
160
120
80
40
0
JEFF3.3/TENDL
Ratio
10^1
10^0
10^-1
10^-2
2
3
4
5
6
7
8
9
10^8
2
55
Incident Energy (eV)
50-Sn-126

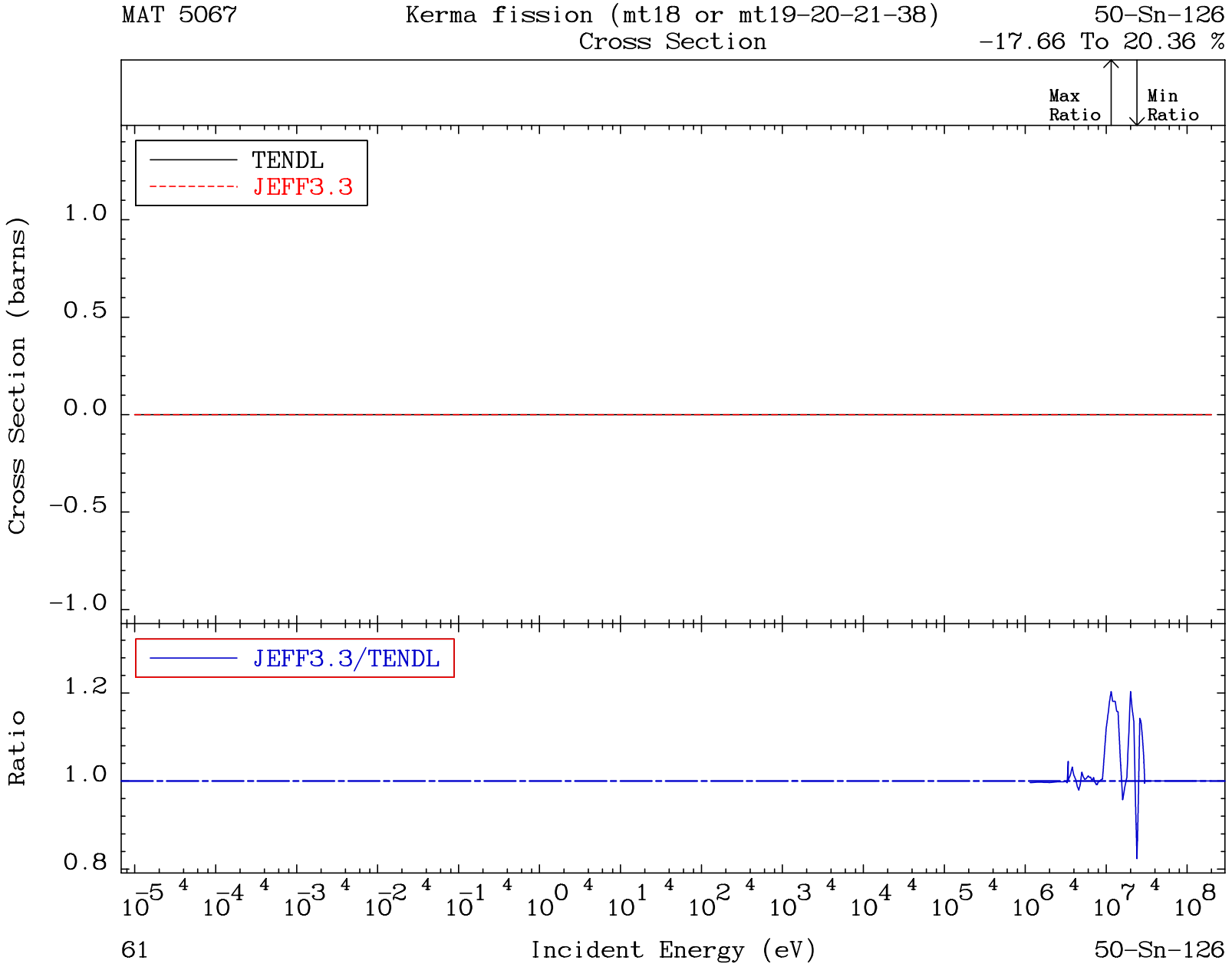

MAT 5067
He-4 Production
Cross Section
50-Sn-126
-9.667 To 9999. %
Max
Ratio
Min
Ratio
TENDL Threshold 2.9782 MeV
JEFF3.3 Threshold 2.9782 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
4
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
56
Incident Energy (eV)
50-Sn-126

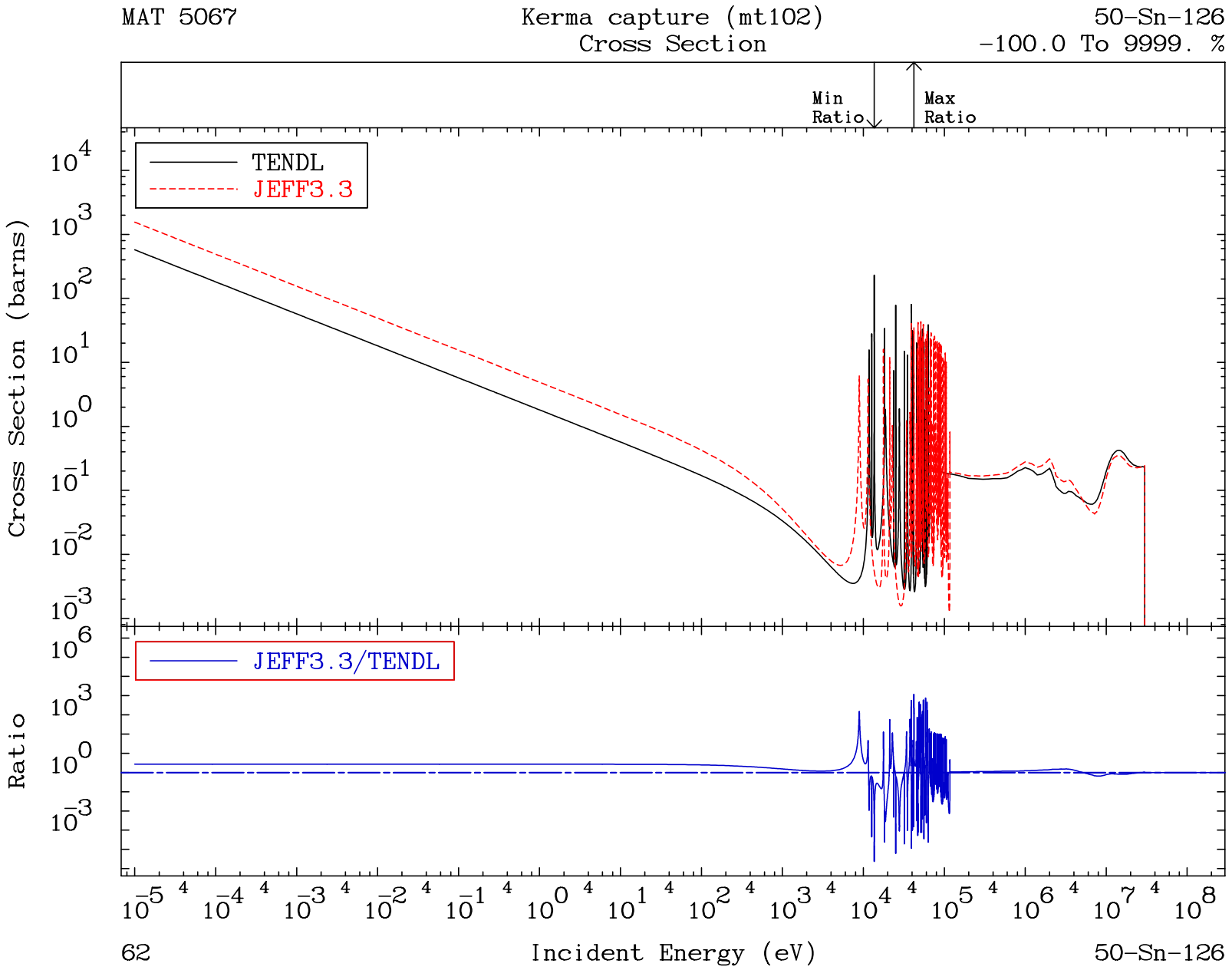

MAT 5067
Kerma total (eV-barns)
Cross Section
50-Sn-126
-99.96 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
57
50-Sn-126

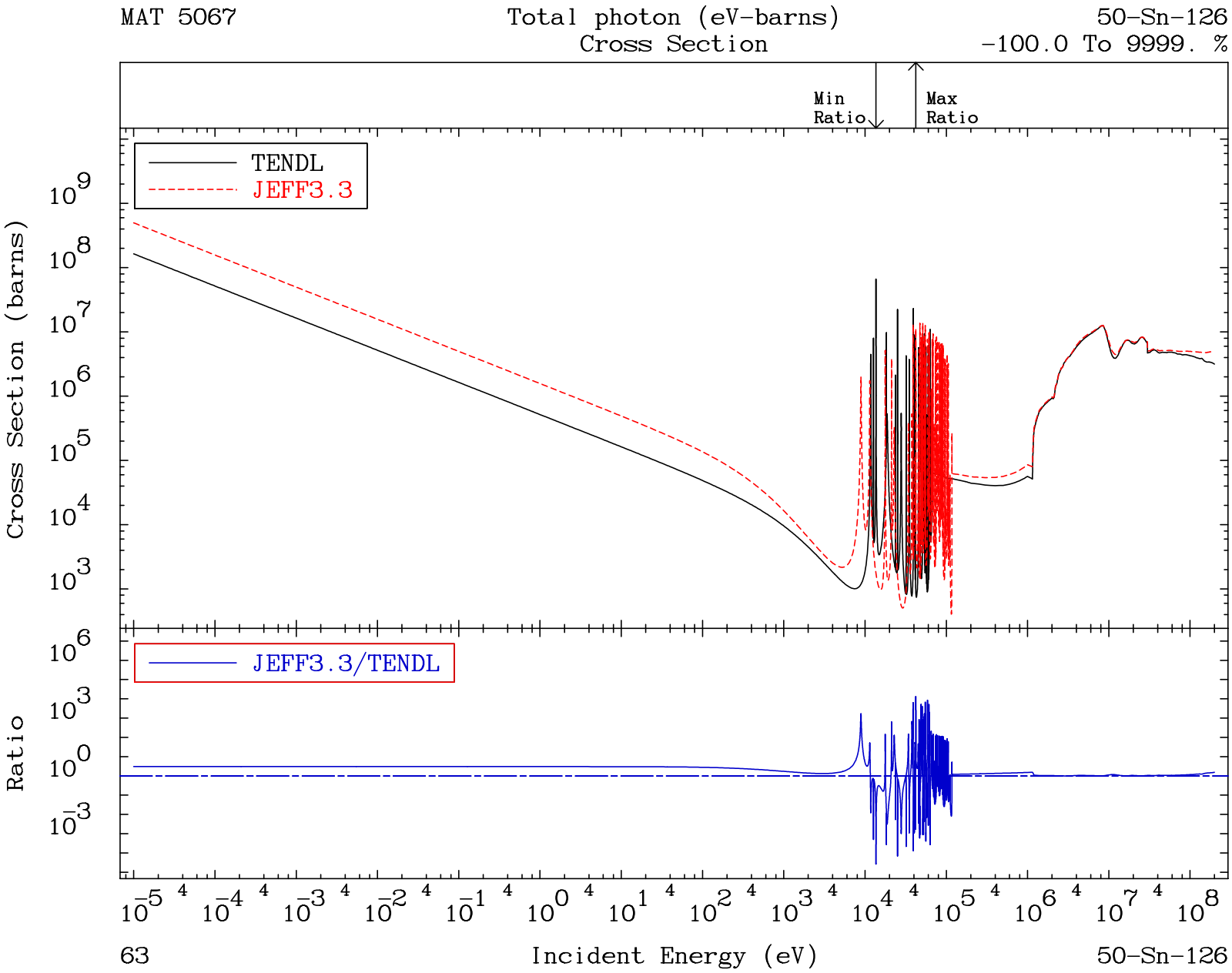

MAT 5067
Kerma elastic
Cross Section
50-Sn-126
-99.98 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
58
50-Sn-126

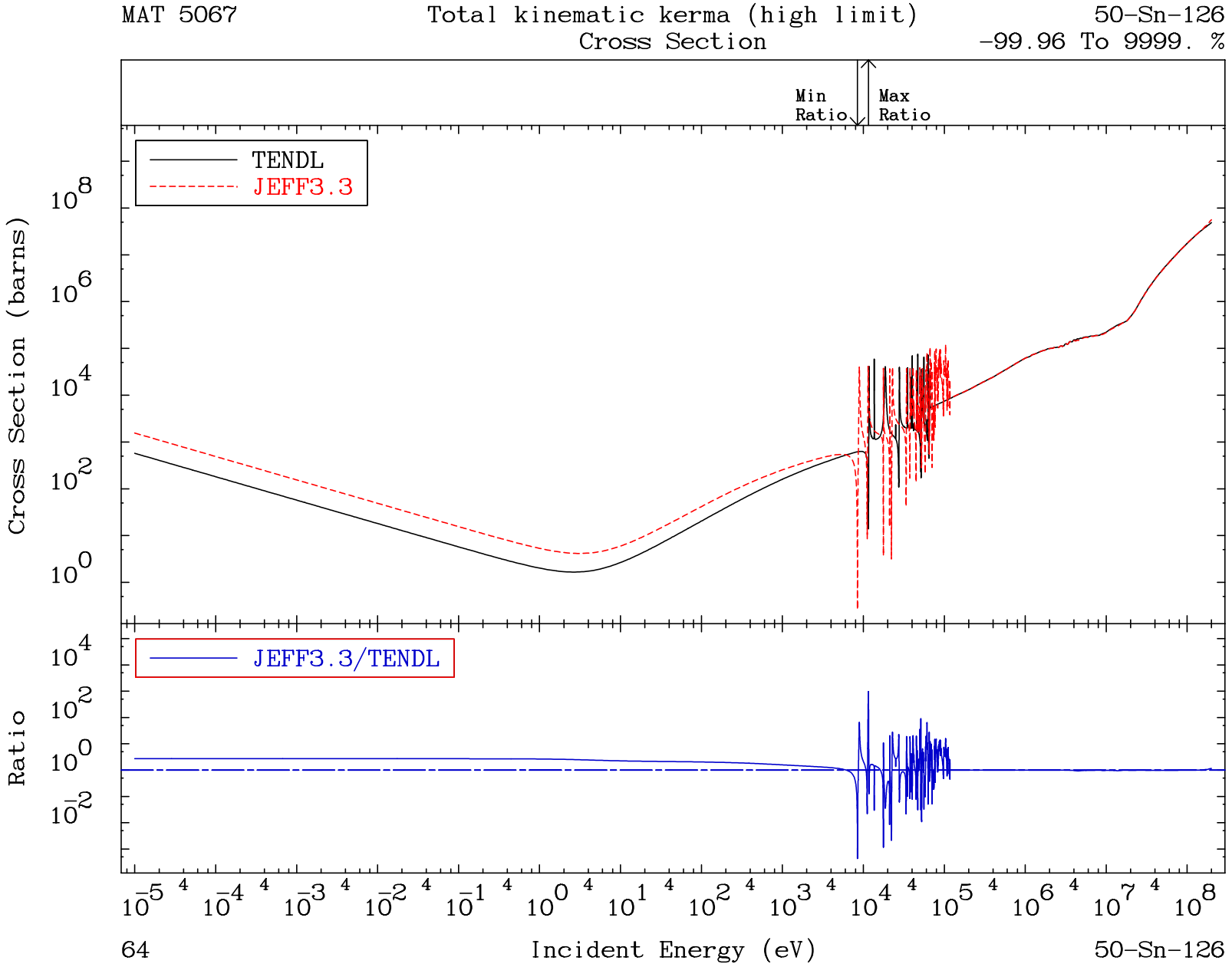

MAT 5067
Kerma non-elastic (all but mt2)
Cross Section
50-Sn-126
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
59
50-Sn-126

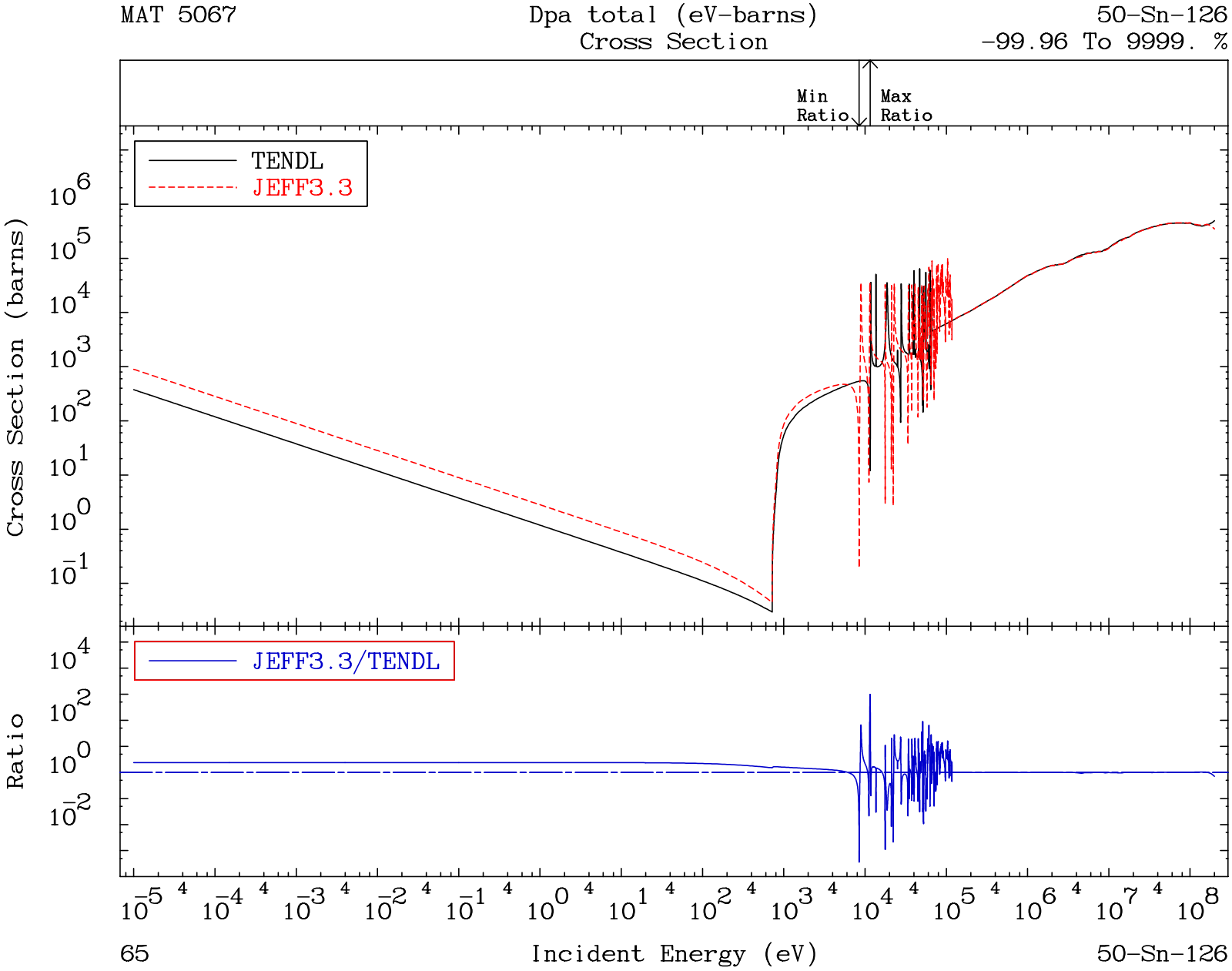

MAT 5067
Kerma inelastic (mt51-91)
Cross Section
50-Sn-126
-17.66 To 20.36 %
Max Ratio
Min Ratio
TENDL Threshold 1.1503 MeV
JEFF3.3 Threshold 1.1503 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
60
50-Sn-126

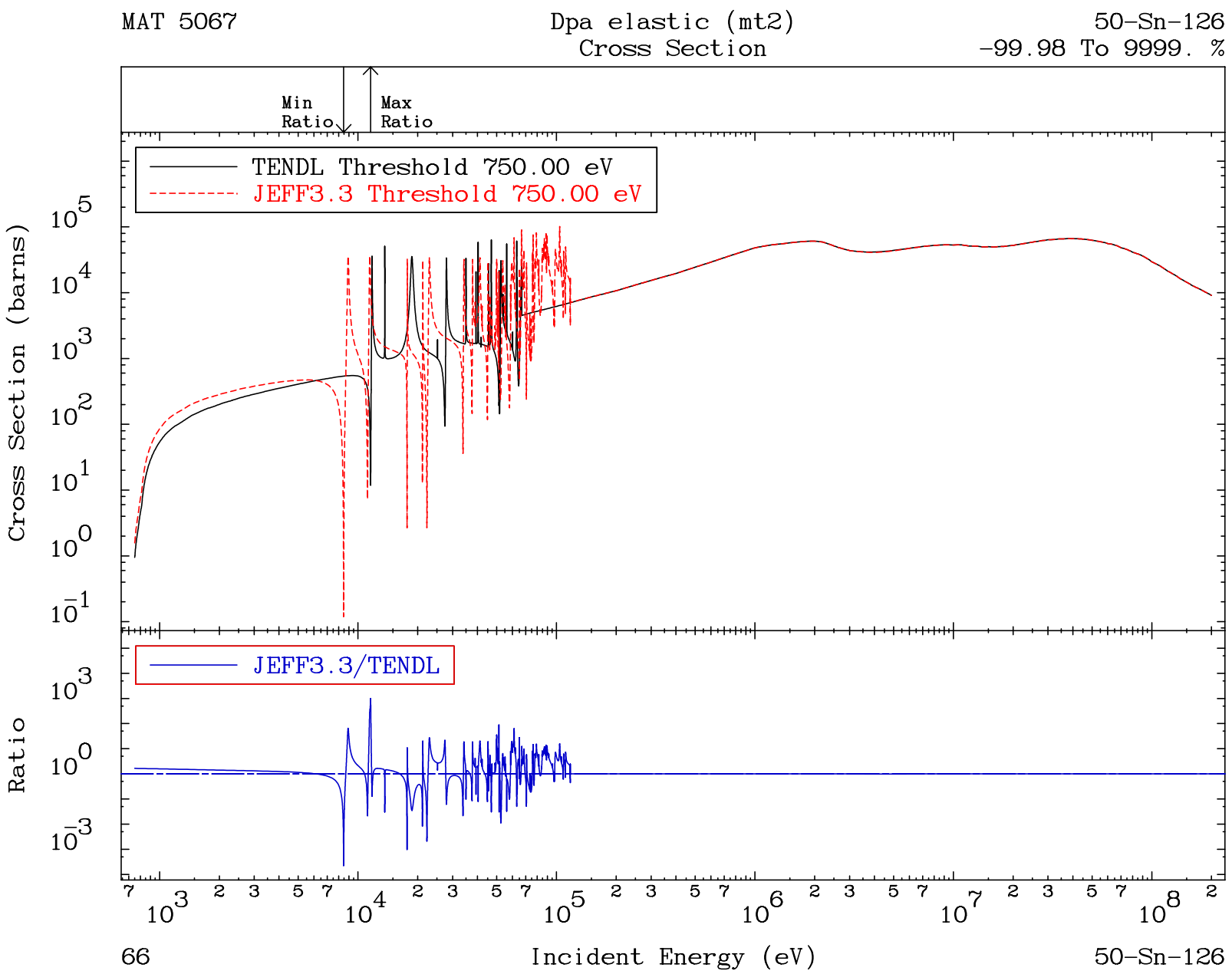

MAT 5067
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
50-Sn-126
-17.66 To 20.36 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.2
1.0
0.8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
61
Incident Energy (eV)
50-Sn-126

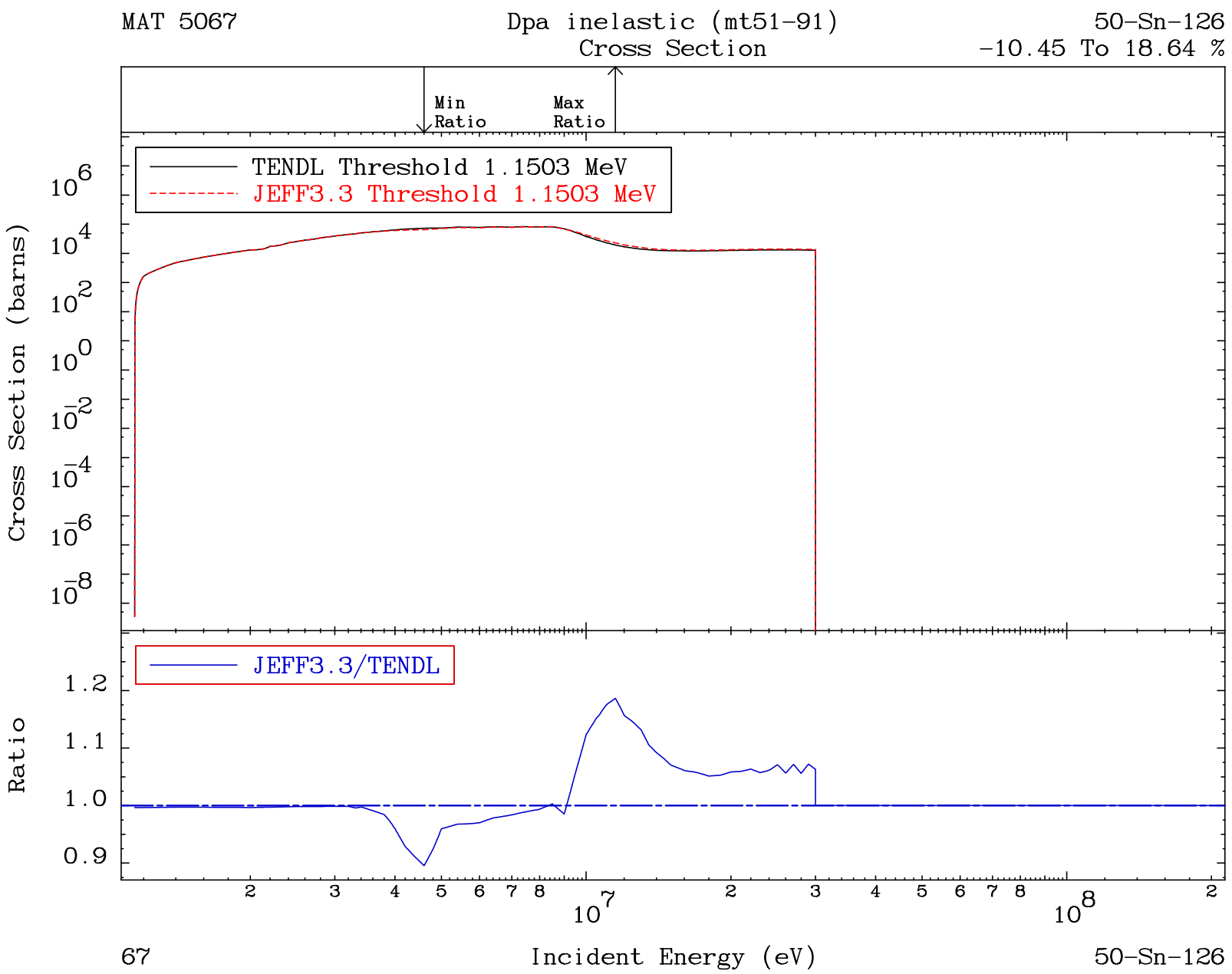

MAT 5067
Kerma capture (mt102)
Cross Section
50-Sn-126
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
62
50-Sn-126

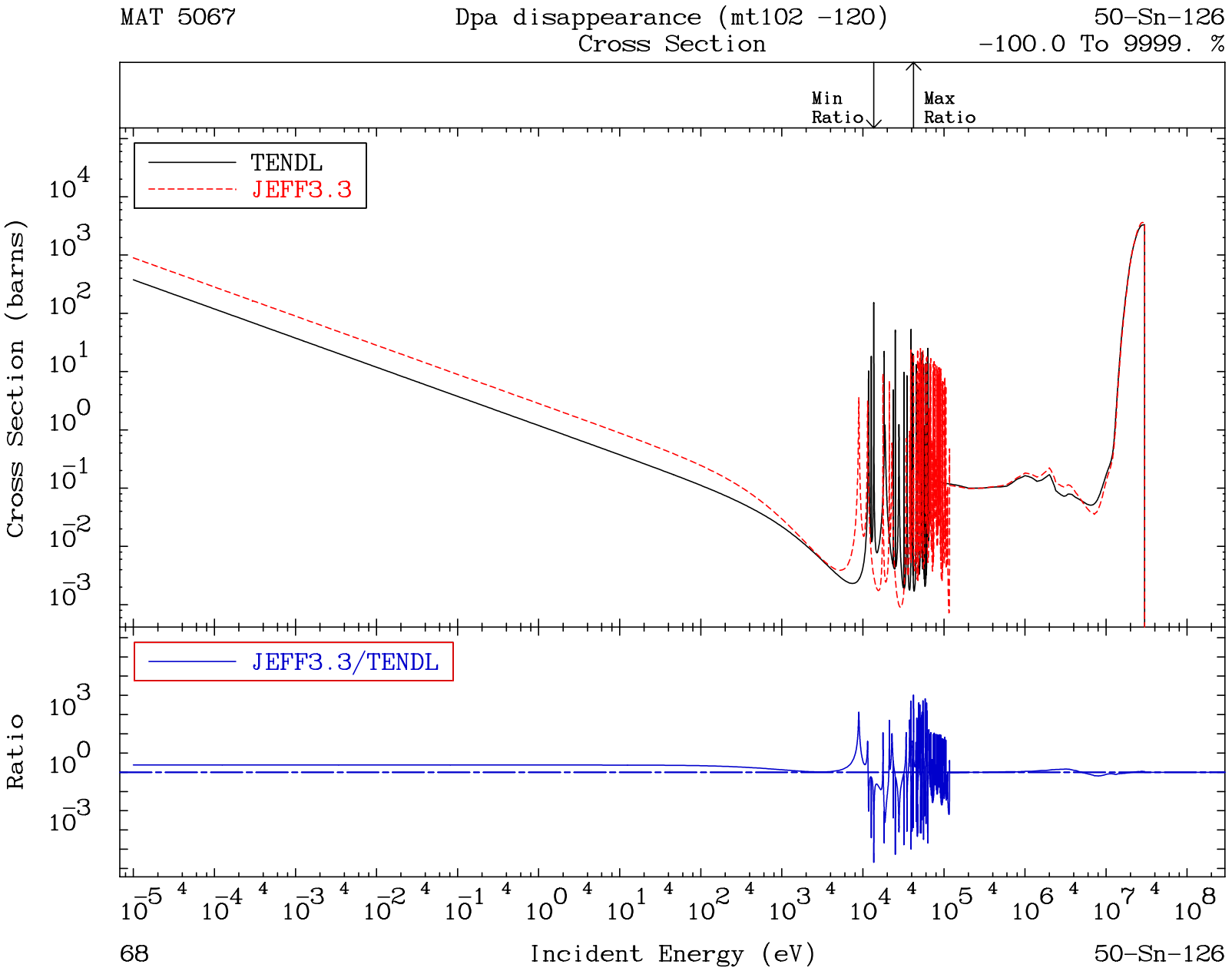

MAT 5067
Total photon (eV-barns)
Cross Section
50-Sn-126
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
63
50-Sn-126

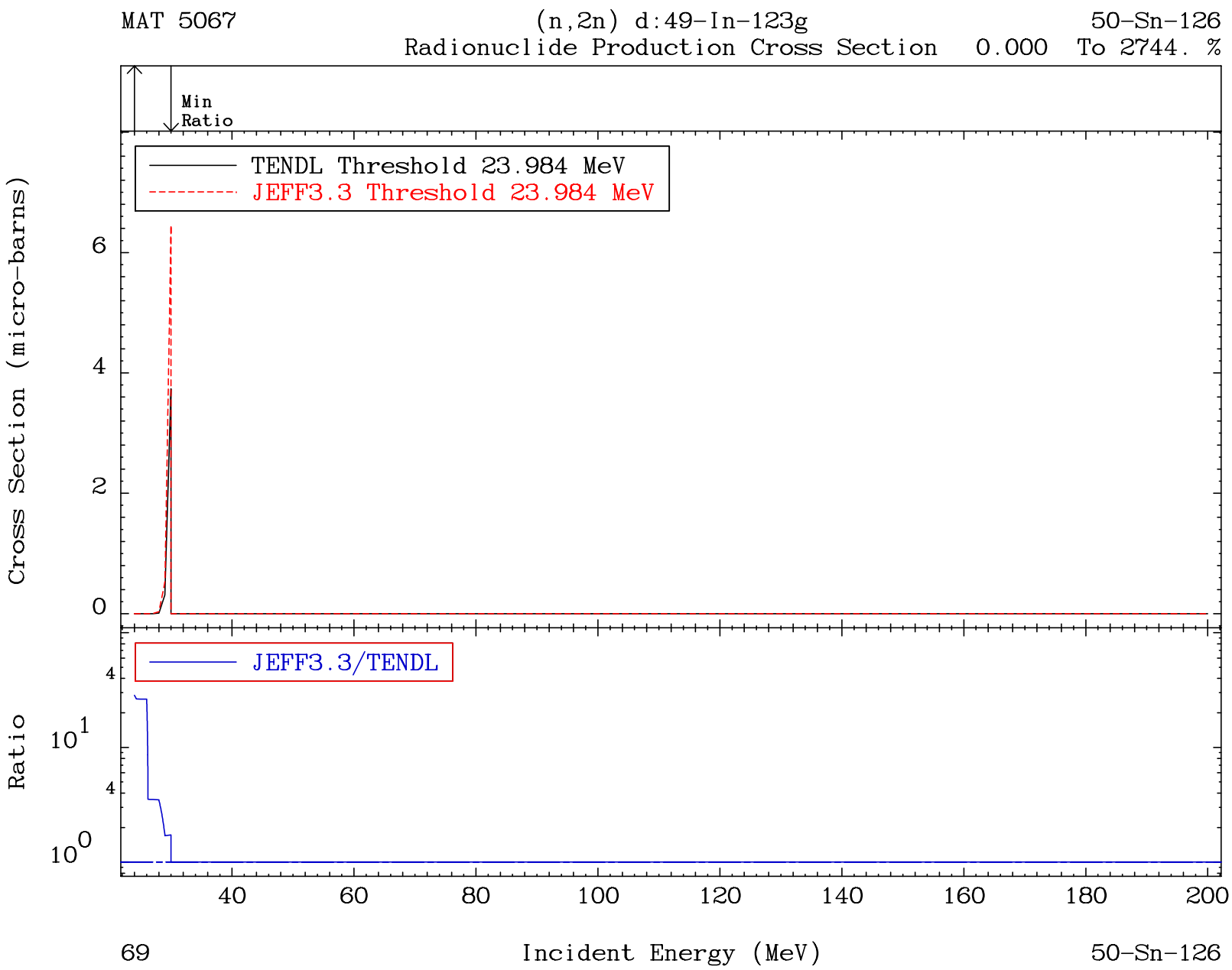

MAT 5067
Total kinematic kerma (high limit)
Cross Section
50-Sn-126
-99.96 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
64
50-Sn-126

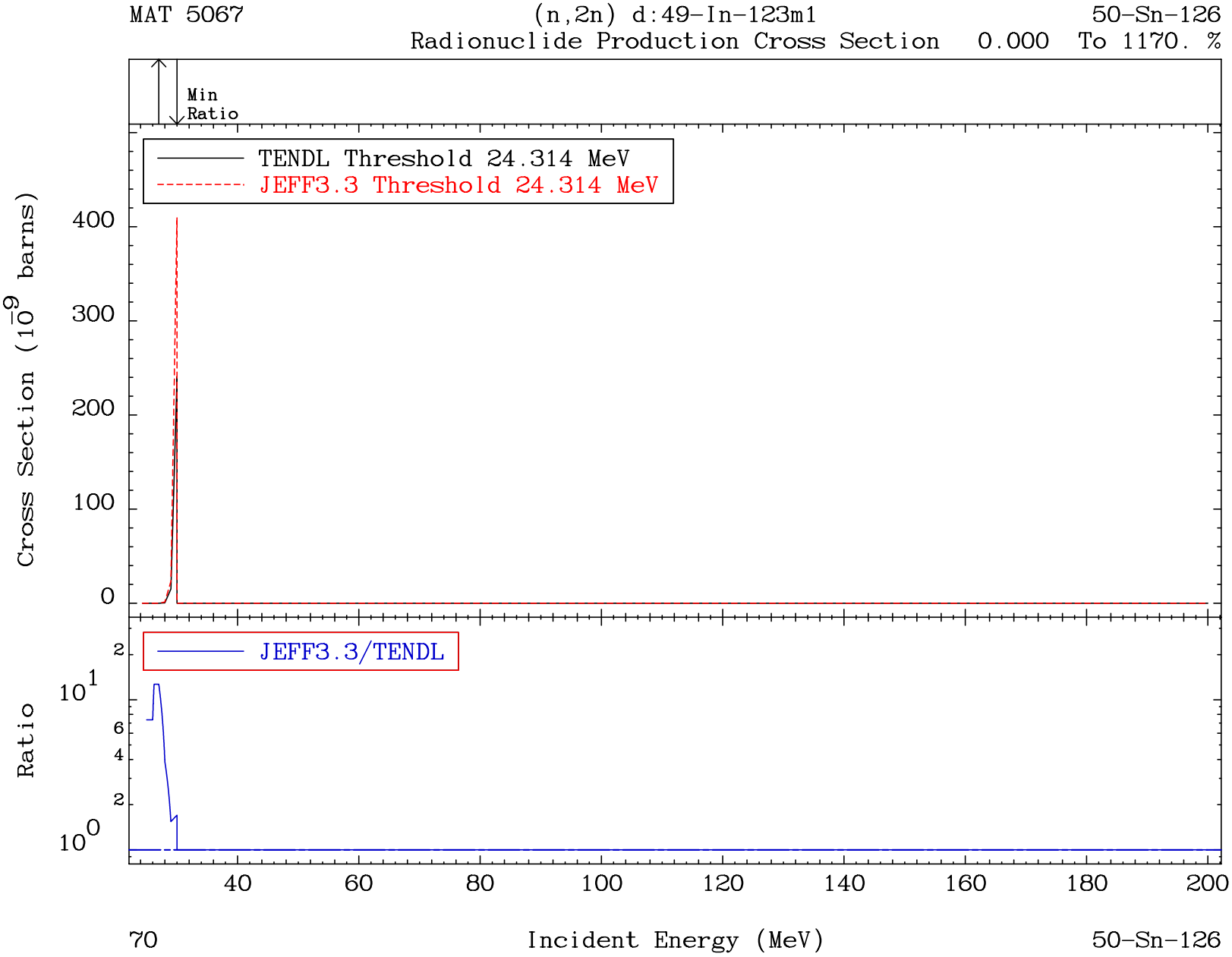

MAT 5067
Dpa total (eV-barns)
Cross Section
50-Sn-126
-99.96 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
65
50-Sn-126

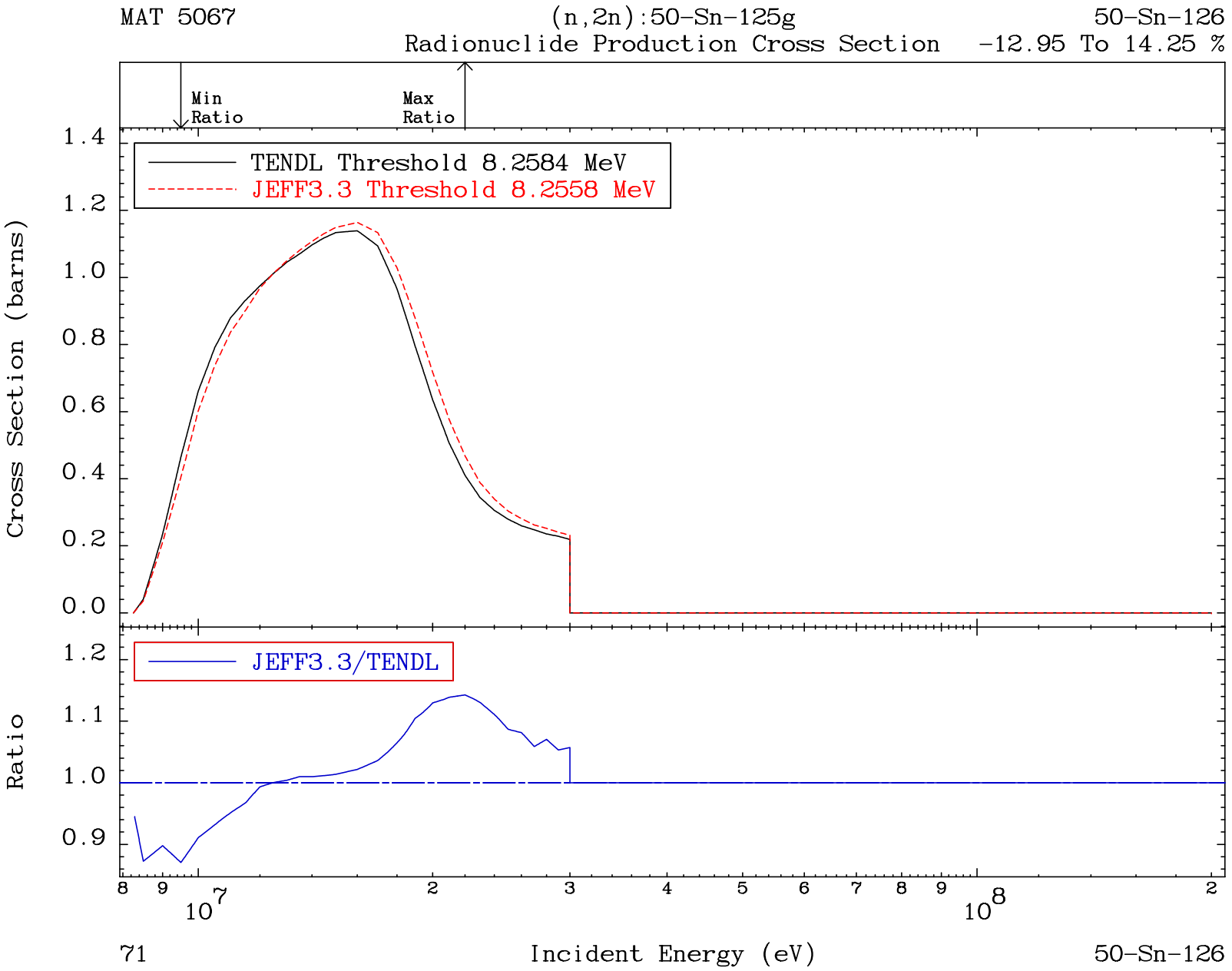

MAT 5067
Dpa elastic (mt2)
Cross Section
50-Sn-126
-99.98 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 750.00 eV
JEFF3.3 Threshold 750.00 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
66
50-Sn-126

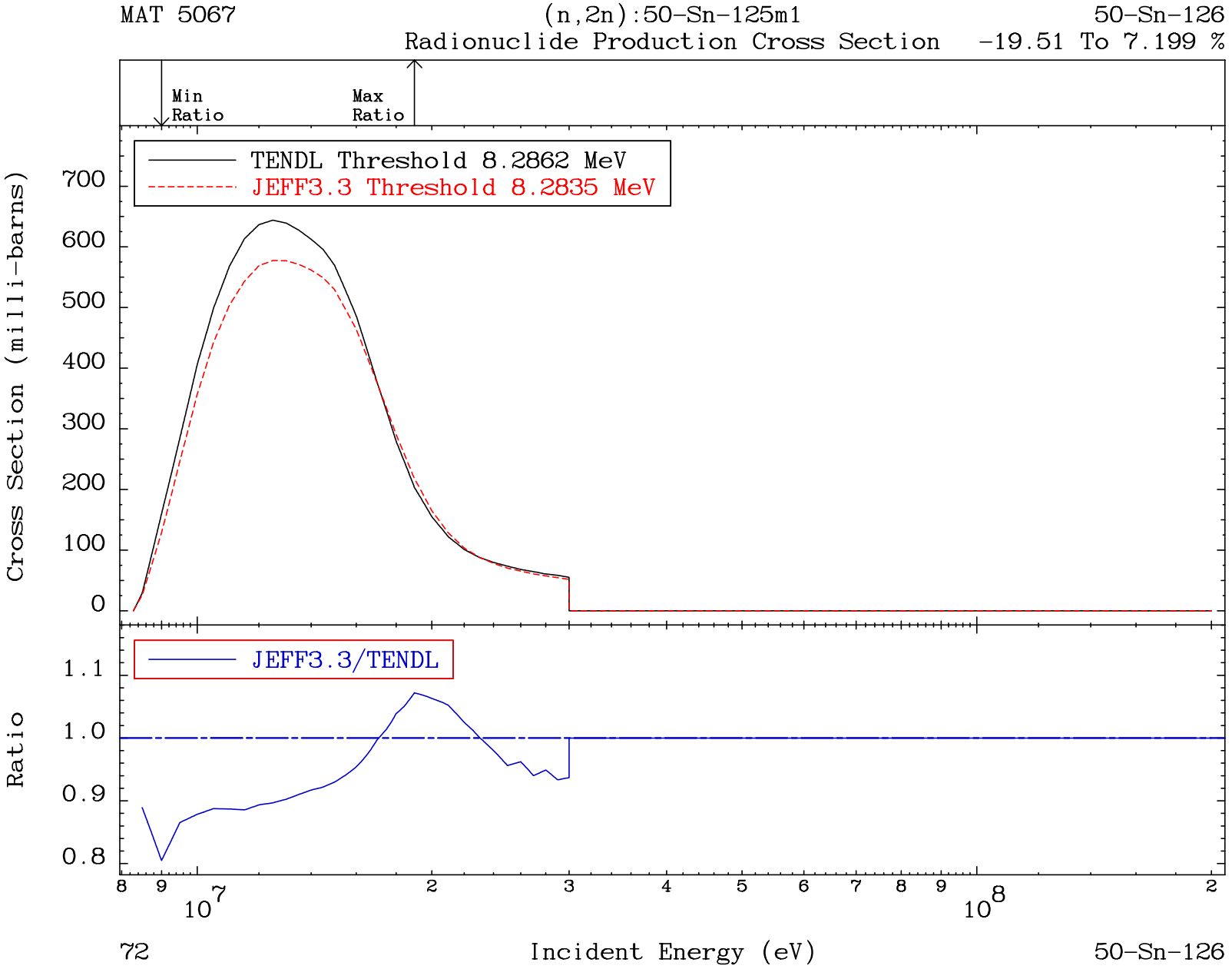

MAT 5067
Dpa inelastic (mt51-91)
Cross Section
50-Sn-126
-10.45 To 18.64 %
Min Ratio
Max Ratio
TENDL Threshold 1.1503 MeV
JEFF3.3 Threshold 1.1503 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
67
50-Sn-126

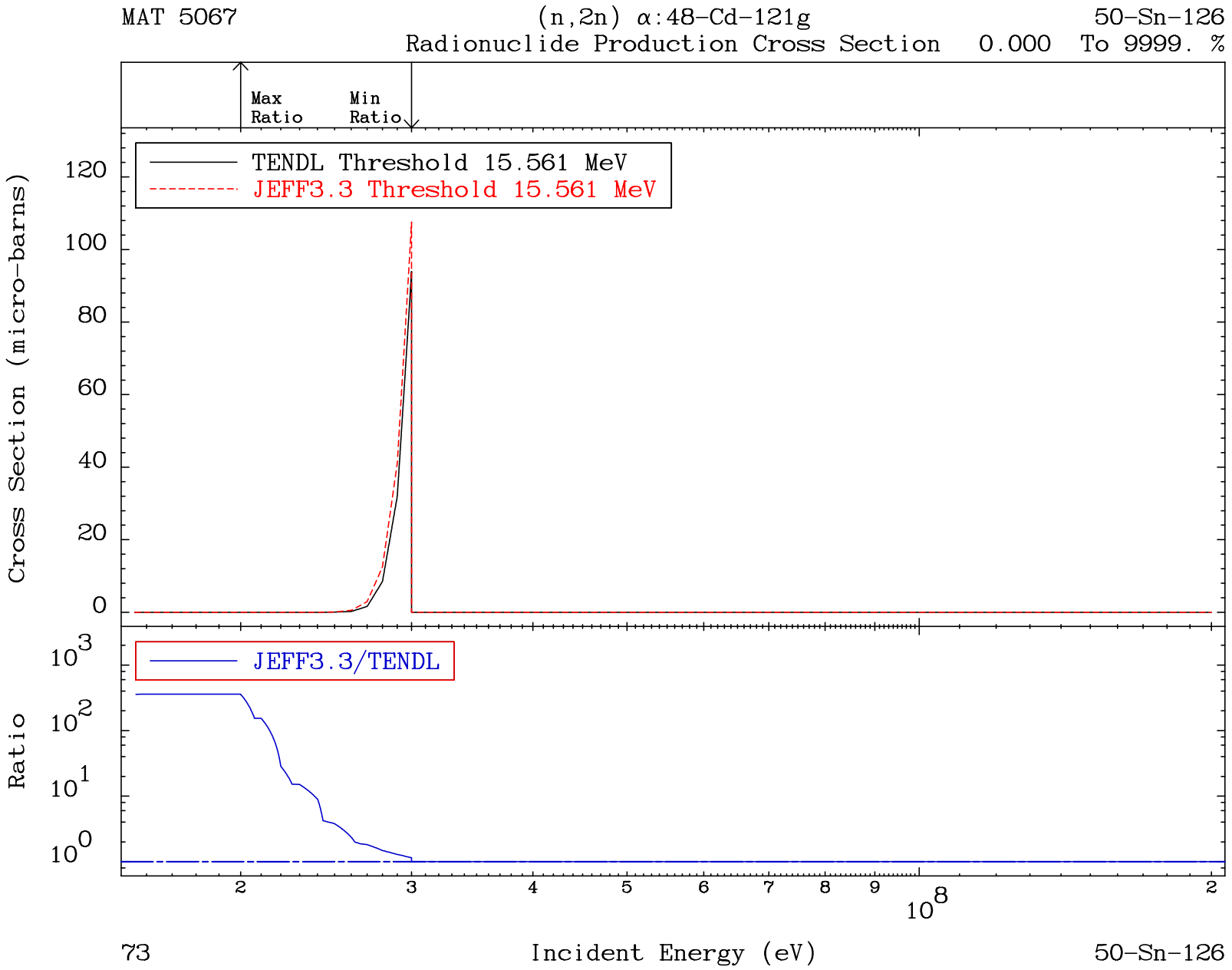

MAT 5067
Dpa disappearance (mt102 -120)
Cross Section
50-Sn-126
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
50-Sn-126

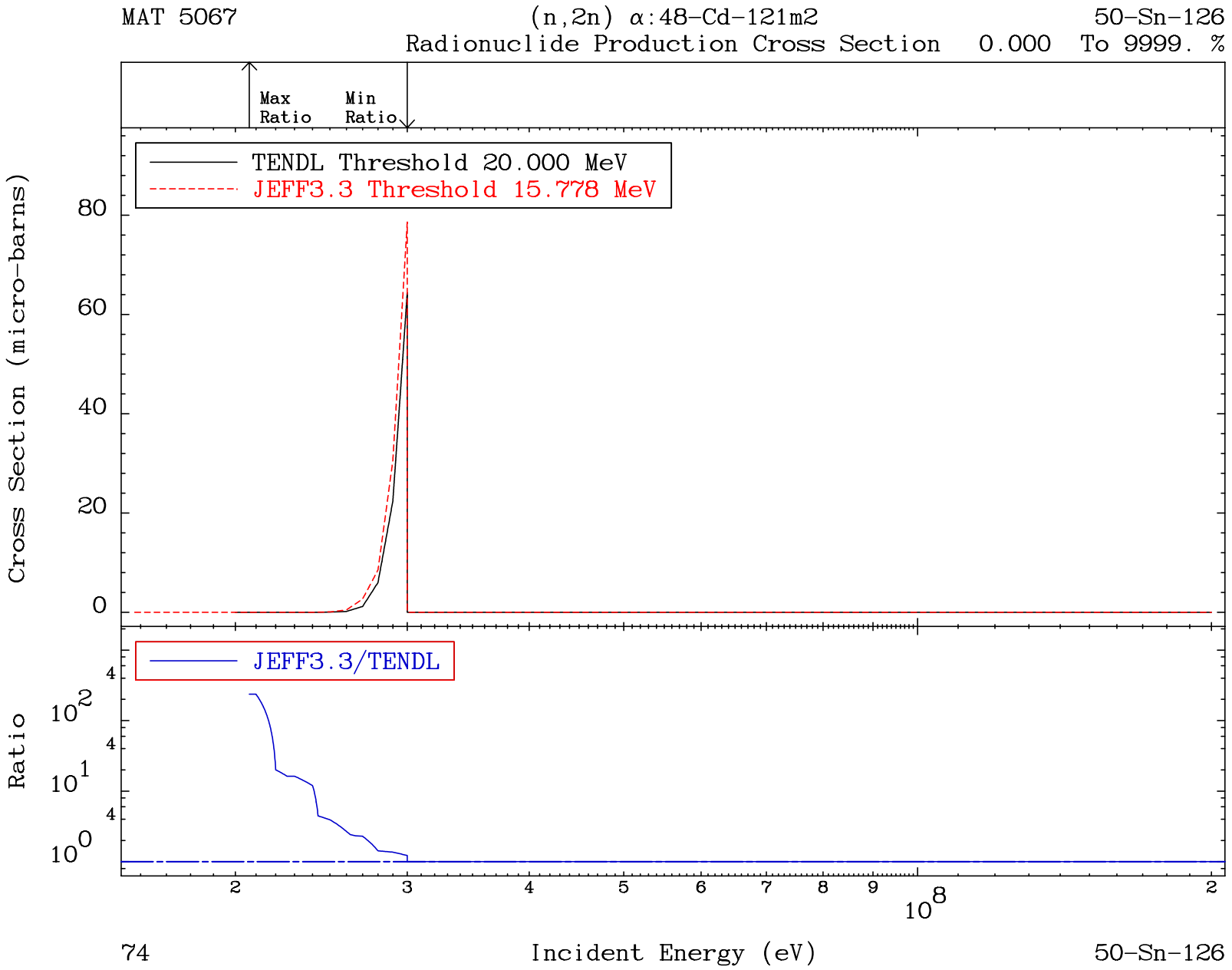

MAT 5067
(n,2n) d:49-In-123g
50-Sn-126
Radionuclide Production Cross Section 0.000 To 2744. %
Min
Ratio
TENDL Threshold 23.984 MeV
JEFF3.3 Threshold 23.984 MeV
Cross Section (micro-barns)
0
2
4
6
JEFF3.3/TENDL
Ratio
10^0
4
10^1
4
40
60
80
100
120
140
160
180
200
69
Incident Energy (MeV)
50-Sn-126

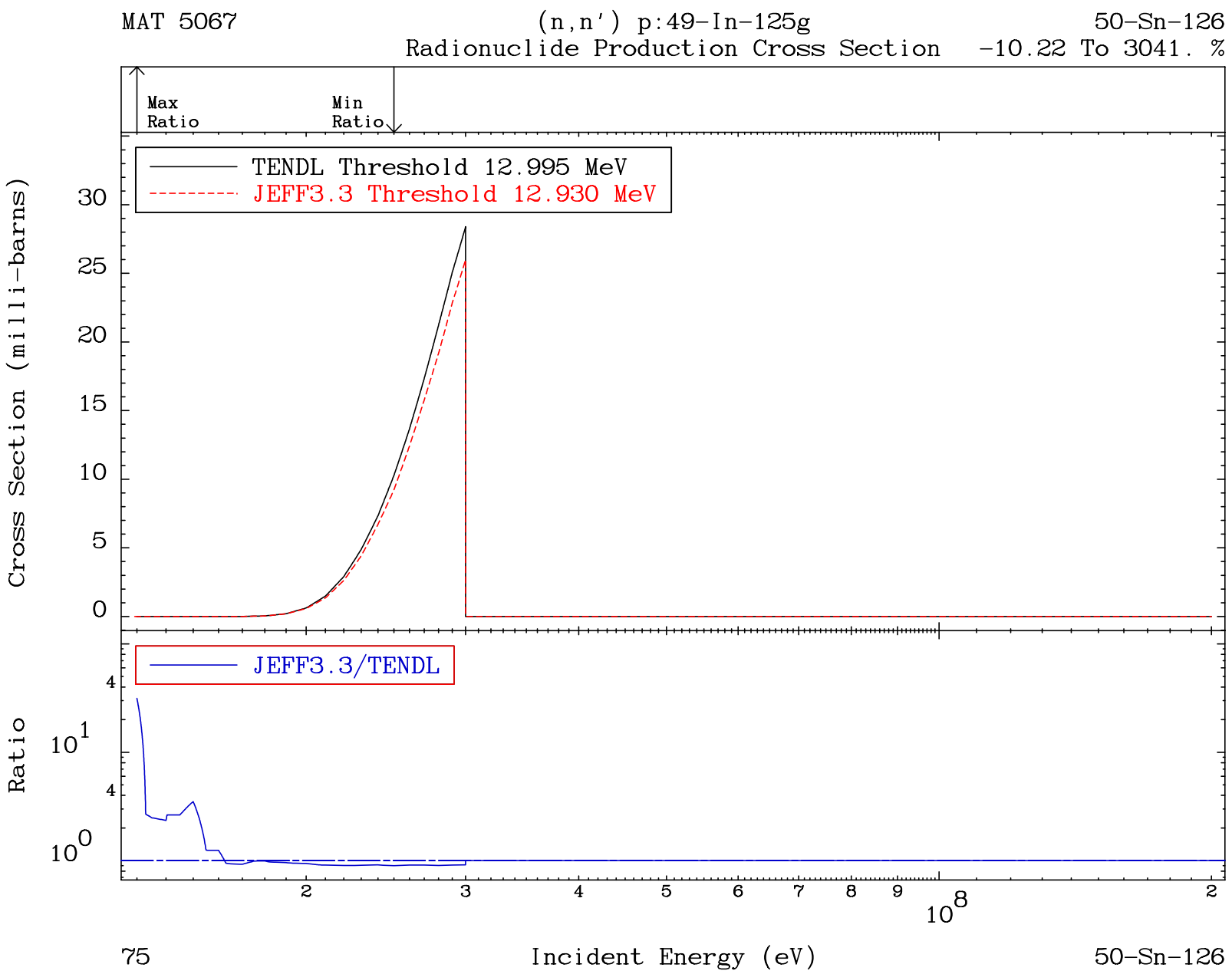

MAT 5067
(n,2n) d:49-In-123m1
50-Sn-126
Radionuclide Production Cross Section 0.000 To 1170. %
Min Ratio
TENDL Threshold 24.314 MeV
JEFF3.3 Threshold 24.314 MeV
Cross Section (10^{-9} barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^1
10^0
2
6
4
2
40
60
80
100
120
140
160
180
200
70
Incident Energy (MeV)
50-Sn-126

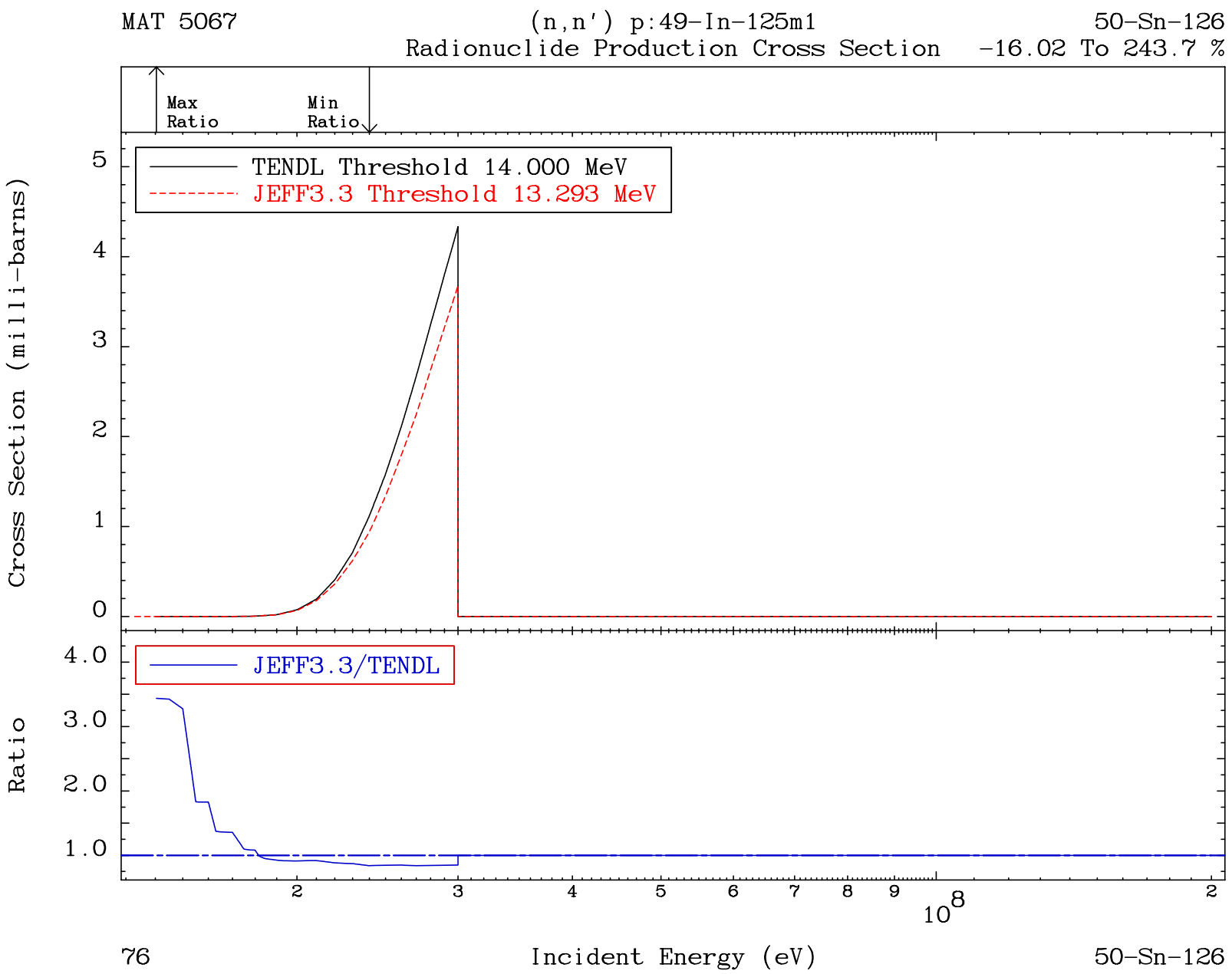

MAT 5067
(n,2n):50-Sn-125g
50-Sn-126
Radionuclide Production Cross Section
-12.95 To 14.25 %
Min Ratio
Max Ratio
TENDL Threshold 8.2584 MeV
JEFF3.3 Threshold 8.2558 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
0.9
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
71
Incident Energy (eV)
50-Sn-126

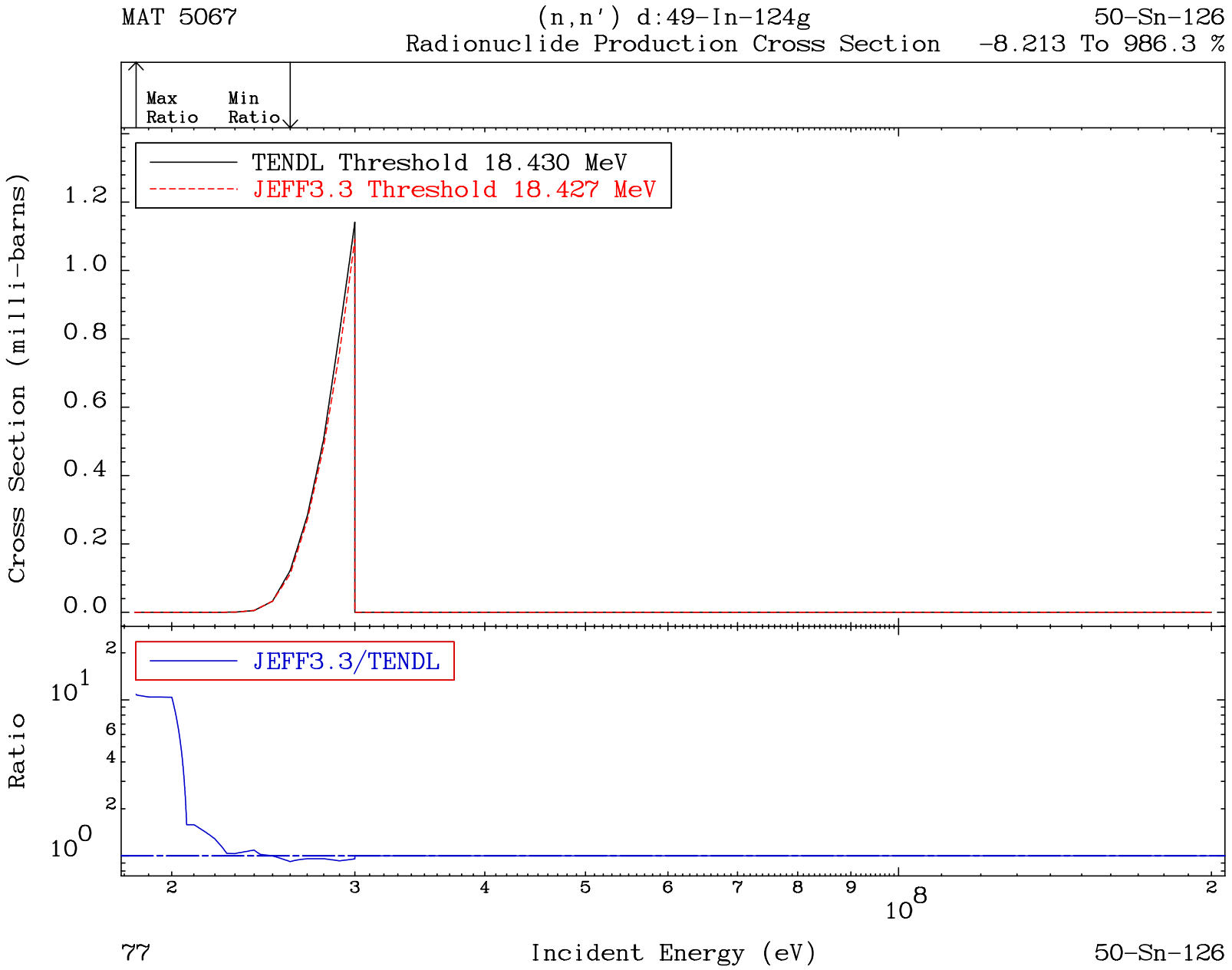

MAT 5067
(n,2n):50-Sn-125m1
50-Sn-126
Radionuclide Production Cross Section -19.51 To 7.199 %
Min Ratio
Max Ratio
TENDL Threshold 8.2862 MeV
JEFF3.3 Threshold 8.2835 MeV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
0.8
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
72
Incident Energy (eV)
50-Sn-126

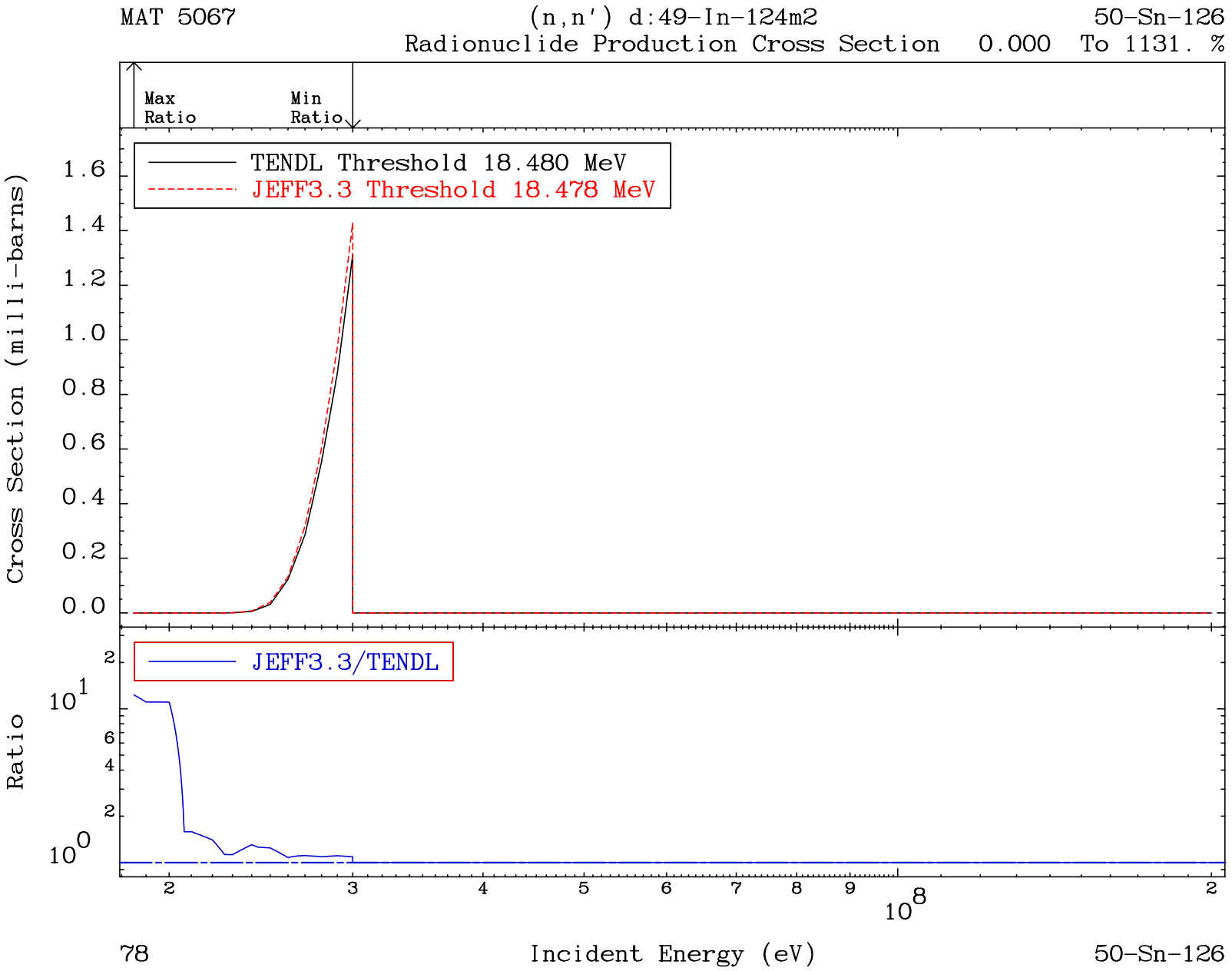

MAT 5067
(n,2n) α:48-Cd-121g
50-Sn-126
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 15.561 MeV
JEFF3.3 Threshold 15.561 MeV
Cross Section (micro-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^3
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
73
Incident Energy (eV)
50-Sn-126

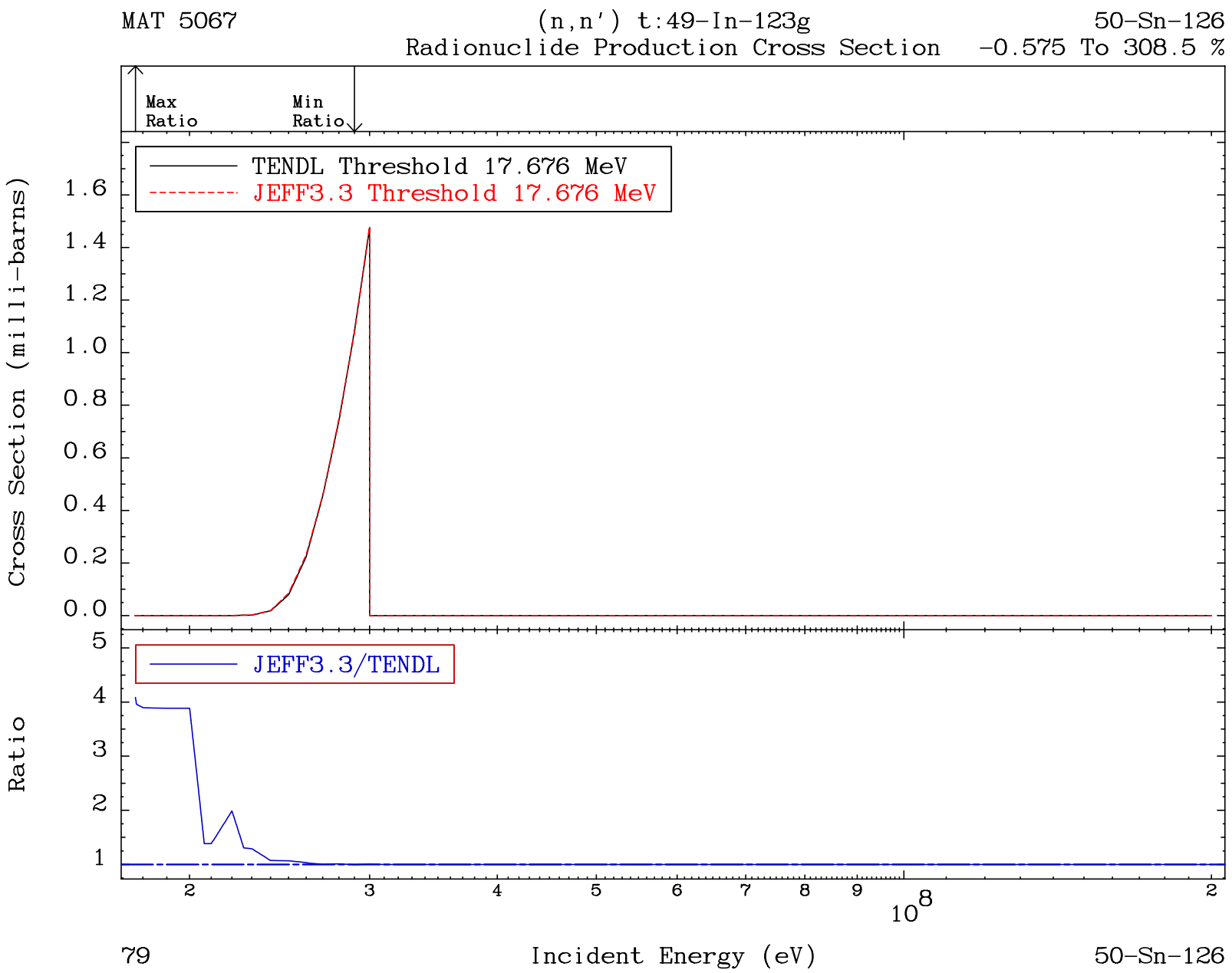

MAT 5067
(n,2n) α:48-Cd-121m2
50-Sn-126
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 20.000 MeV
JEFF3.3 Threshold 15.778 MeV
Cross Section (micro-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
74
Incident Energy (eV)
50-Sn-126

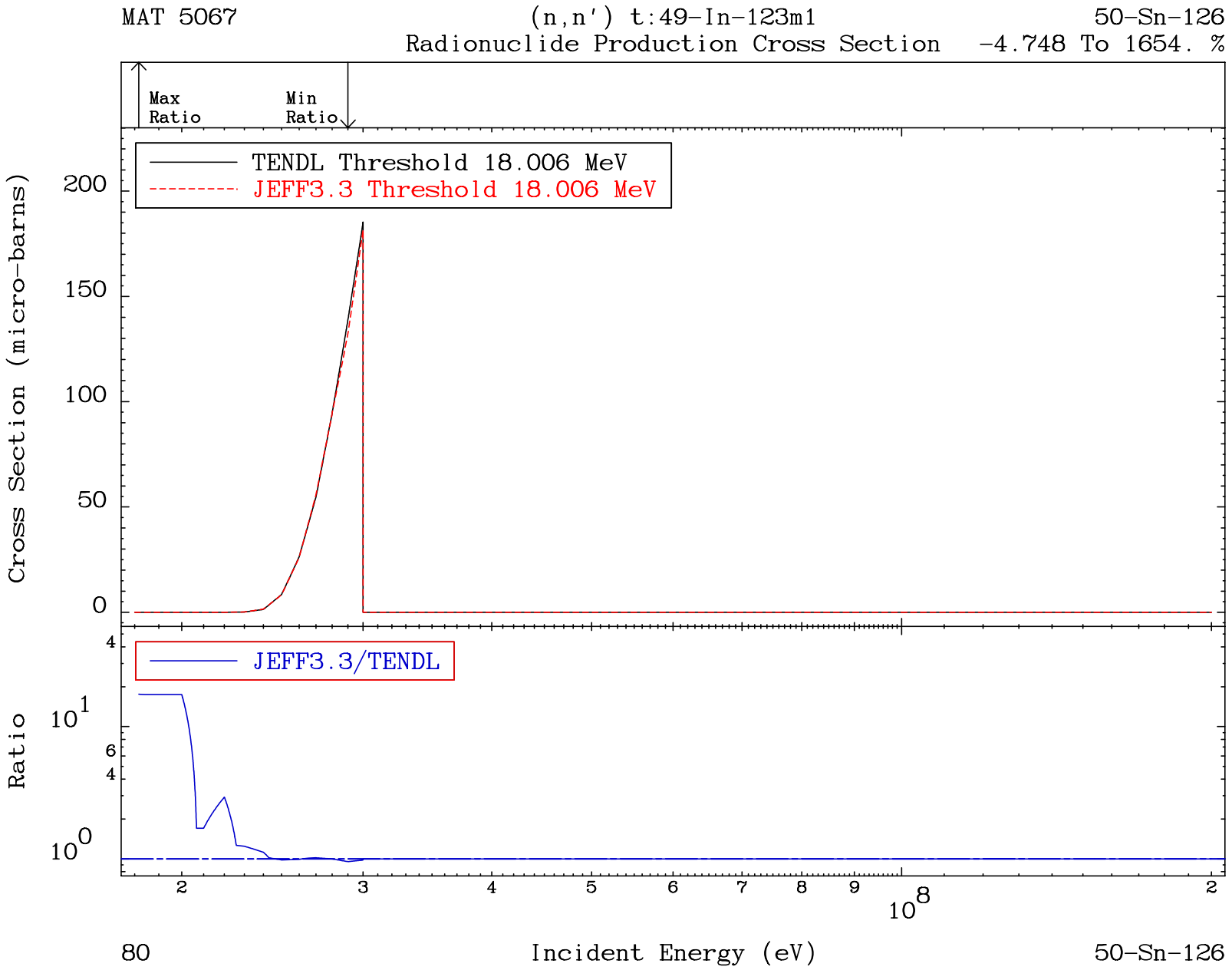

MAT 5067
(n,n') p:49-In-125g
50-Sn-126
Radionuclide Production Cross Section
-10.22 To 3041. %
Max Ratio
Min Ratio
TENDL Threshold 12.995 MeV
JEFF3.3 Threshold 12.930 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^1
4
10^0
2
3
4
5
6
7
8
9
10^8
2
75
Incident Energy (eV)
50-Sn-126

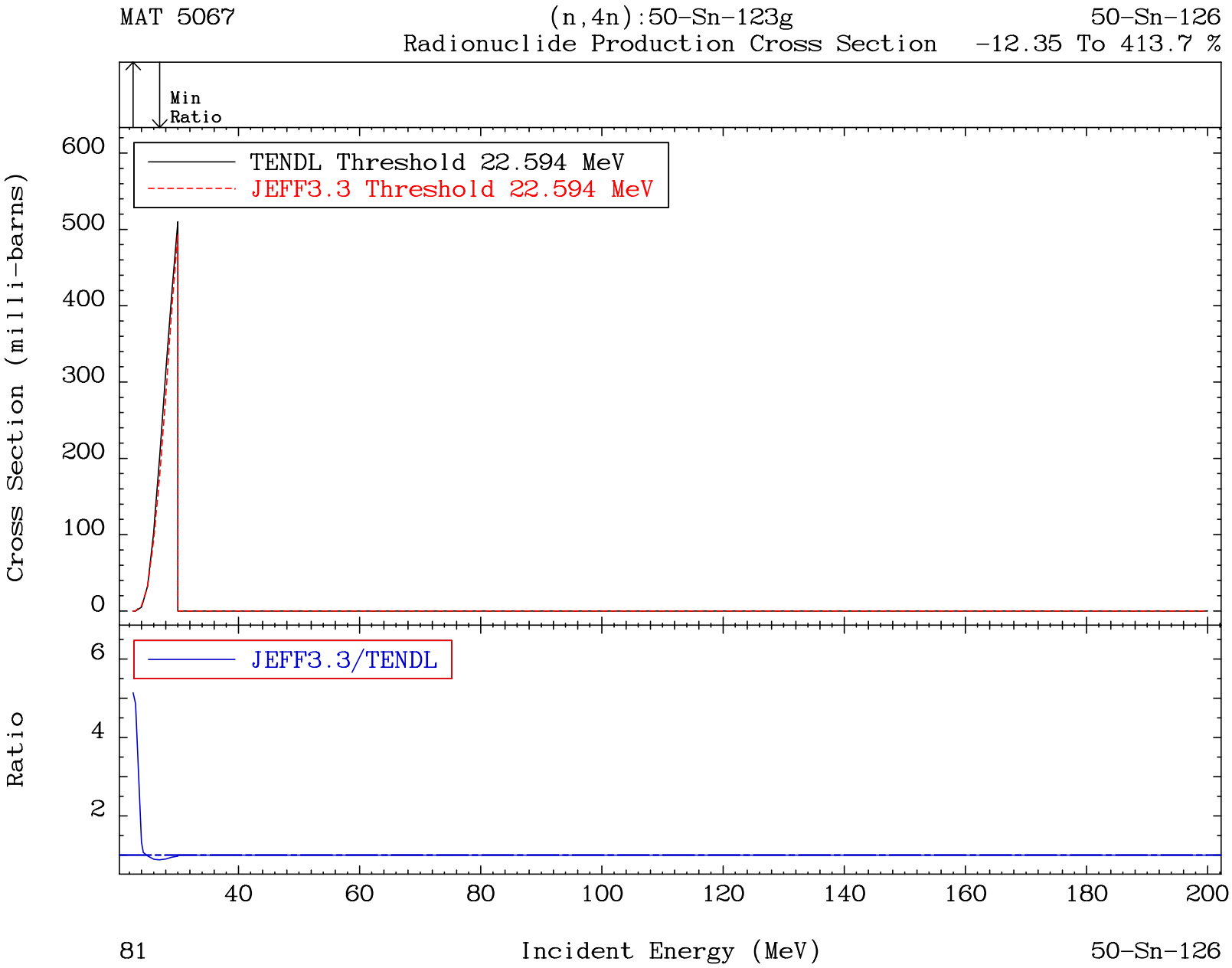

MAT 5067
(n,n') p:49-In-125m1
50-Sn-126
Radionuclide Production Cross Section -16.02 To 243.7 %
Max Ratio
Min Ratio
TENDL Threshold 14.000 MeV
JEFF3.3 Threshold 13.293 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
76
50-Sn-126

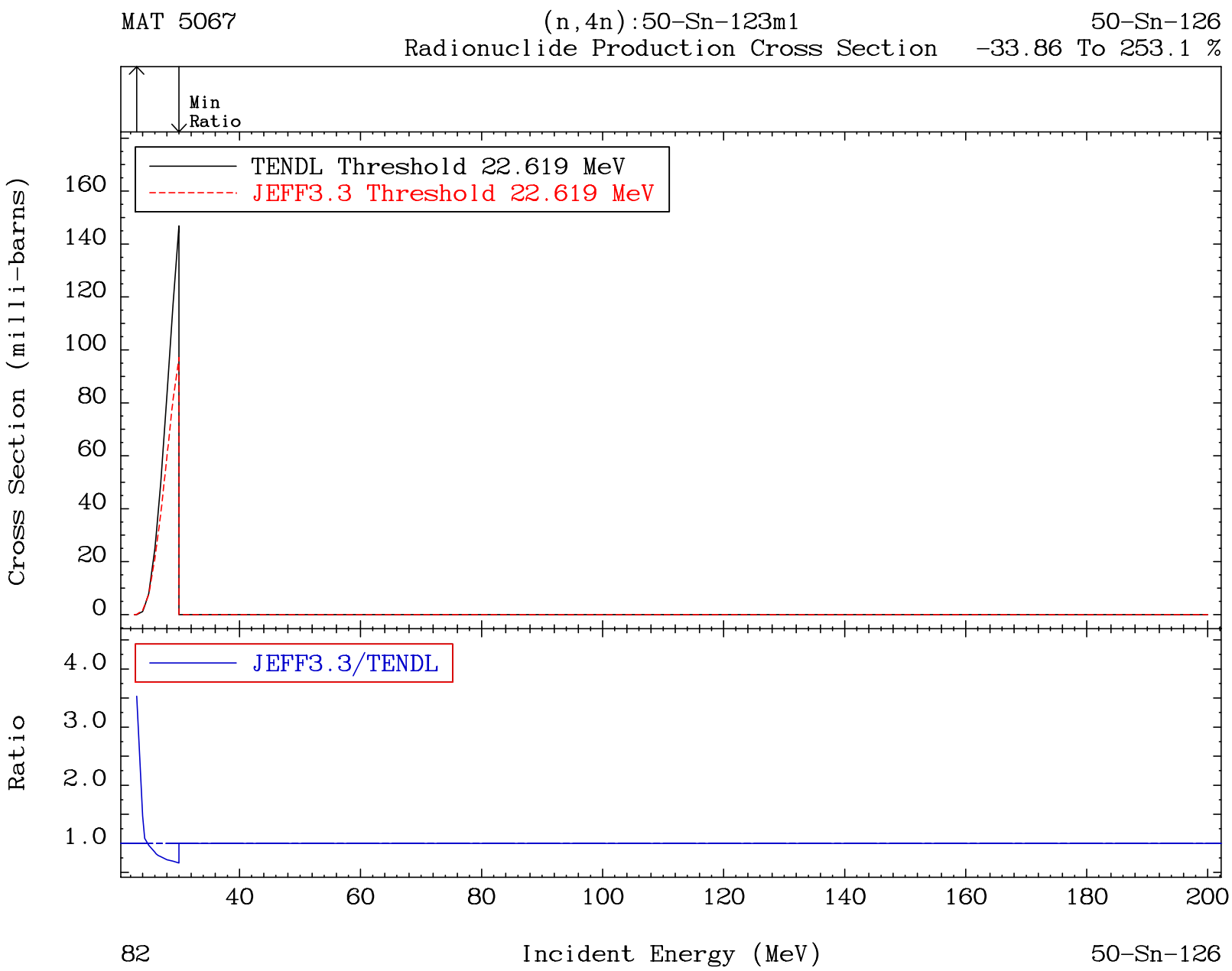

MAT 5067
(n,n') d:49-In-124g
50-Sn-126
Radionuclide Production Cross Section
-8.213 To 986.3 %
Max Ratio
Min Ratio
TENDL Threshold 18.430 MeV
JEFF3.3 Threshold 18.427 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^1
6
4
2
10^0
2
3
4
5
6
7
8
9
10^8
2
77
Incident Energy (eV)
50-Sn-126

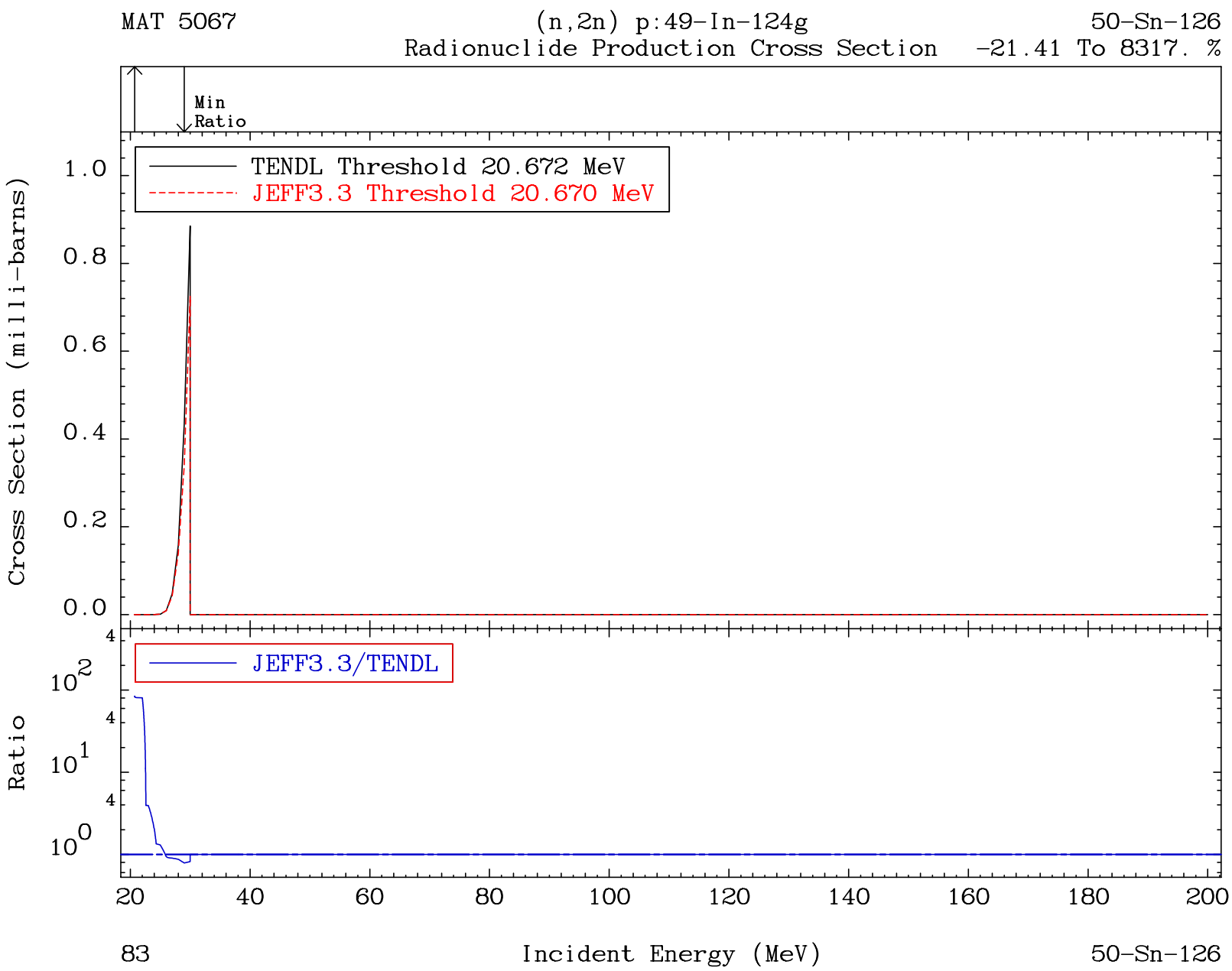

MAT 5067
(n,n') d:49-In-124m2
50-Sn-126
Radionuclide Production Cross Section 0.000 To 1131. %
Max Ratio
Min Ratio
TENDL Threshold 18.480 MeV
JEFF3.3 Threshold 18.478 MeV
Cross Section (milli-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^1
6
4
2
10^0
2
3
4
5
6
7
8
9
10^8
2
78
Incident Energy (eV)
50-Sn-126

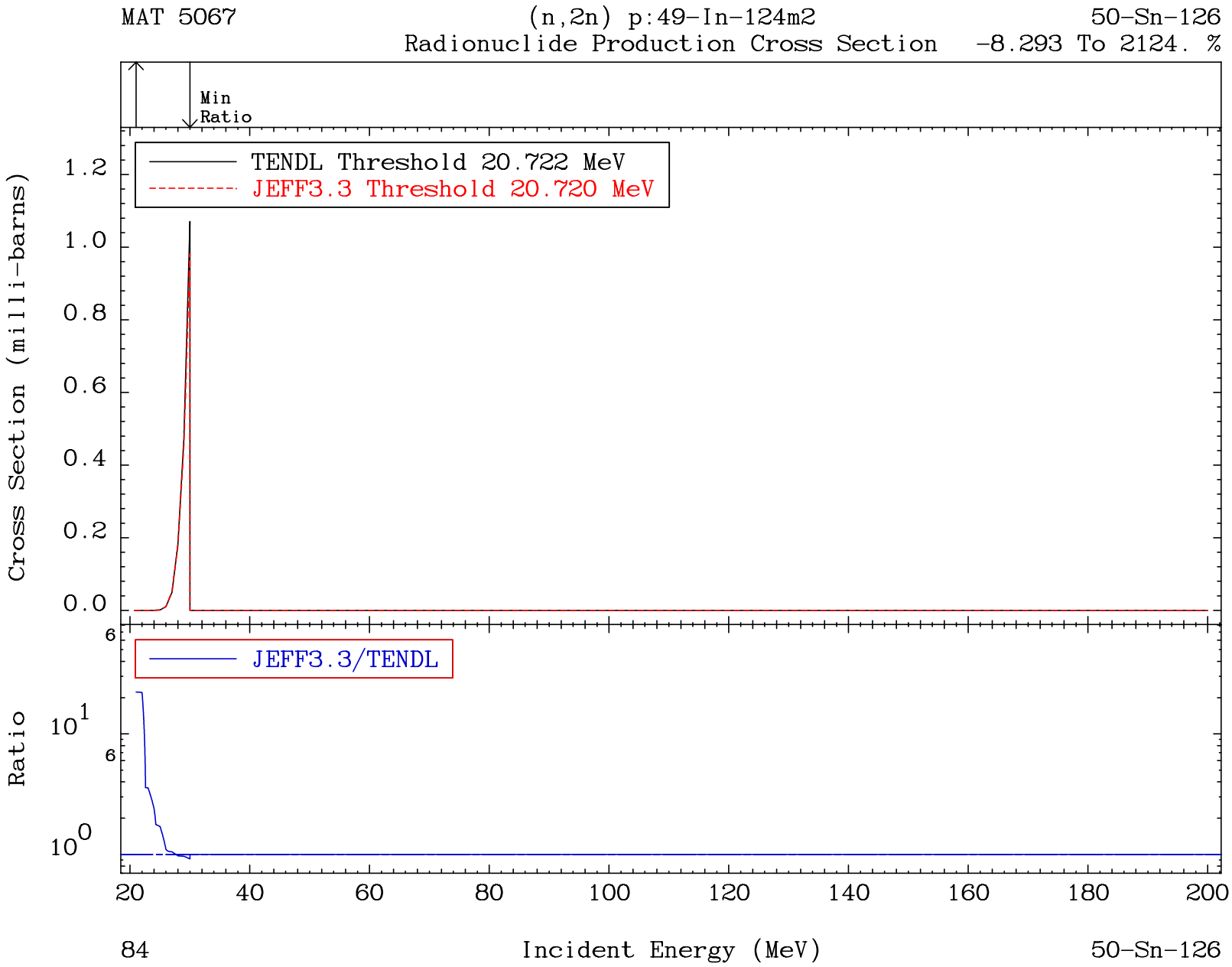

MAT 5067
(n,n') t:49-In-123g
50-Sn-126
Radionuclide Production Cross Section
-0.575 To 308.5 %
Max Ratio
Min Ratio
TENDL Threshold 17.676 MeV
JEFF3.3 Threshold 17.676 MeV
Cross Section (milli-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
5
4
3
2
1
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
50-Sn-126

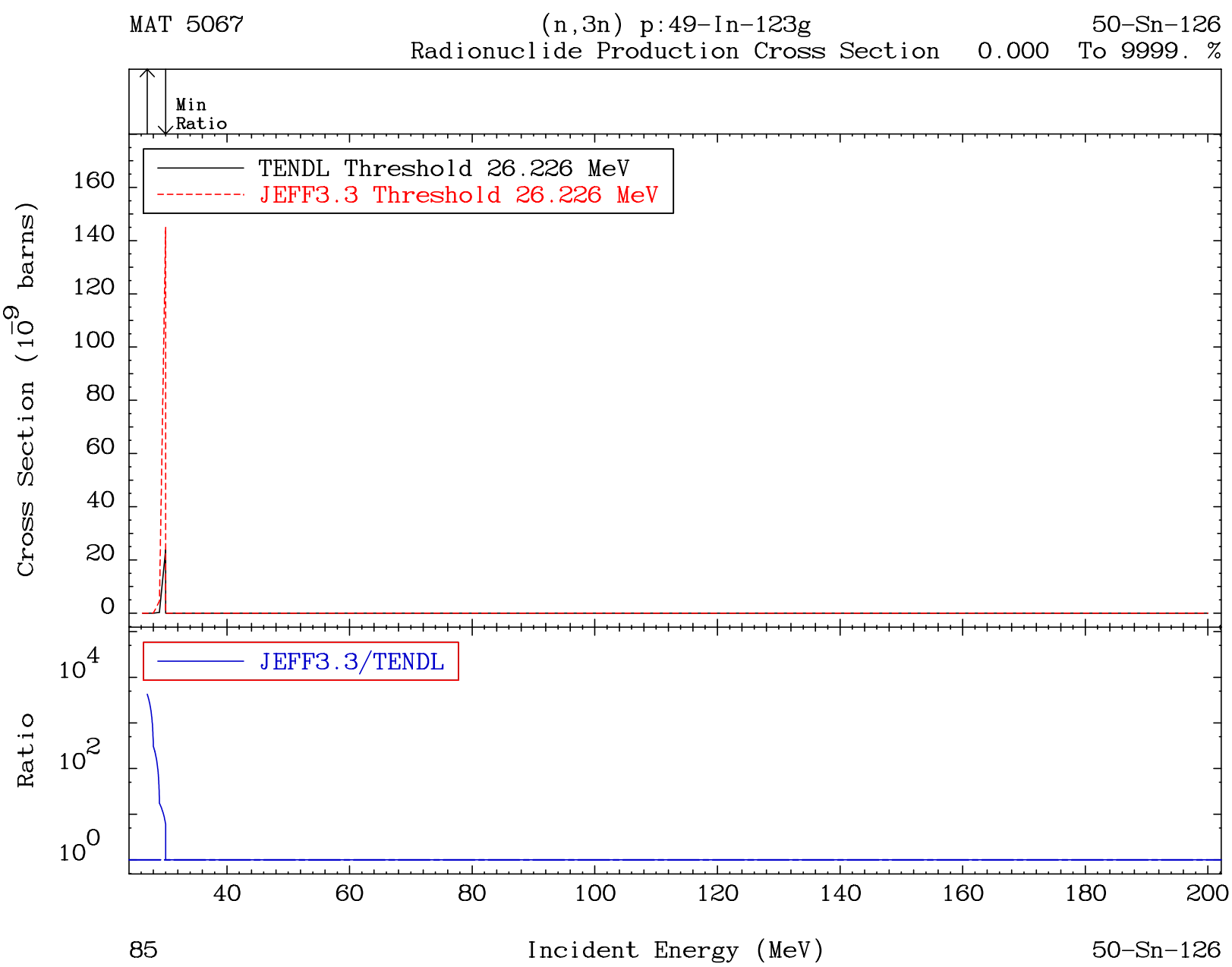

MAT 5067
(n,n') t:49-In-123m1
50-Sn-126
Radionuclide Production Cross Section -4.748 To 1654. %
Max Ratio
Min Ratio
TENDL Threshold 18.006 MeV
JEFF3.3 Threshold 18.006 MeV
Cross Section (micro-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
4
10^1
6
4
10^0
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
50-Sn-126

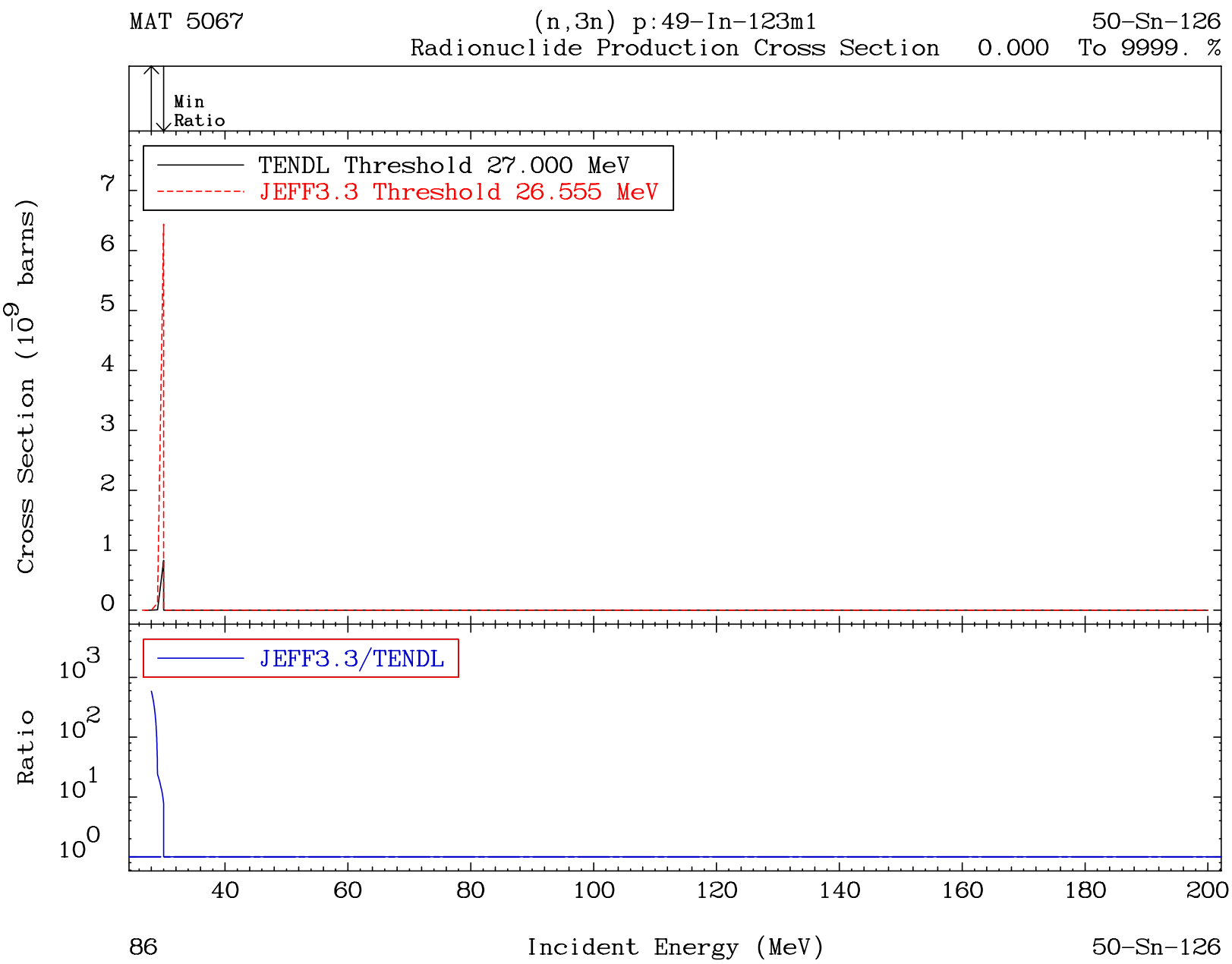

MAT 5067
(n,4n):50-Sn-123g
50-Sn-126
Radionuclide Production Cross Section -12.35 To 413.7 %
Min
Ratio
TENDL Threshold 22.594 MeV
JEFF3.3 Threshold 22.594 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
6
4
2
40
60
80
100
120
140
160
180
200
81
Incident Energy (MeV)
50-Sn-126

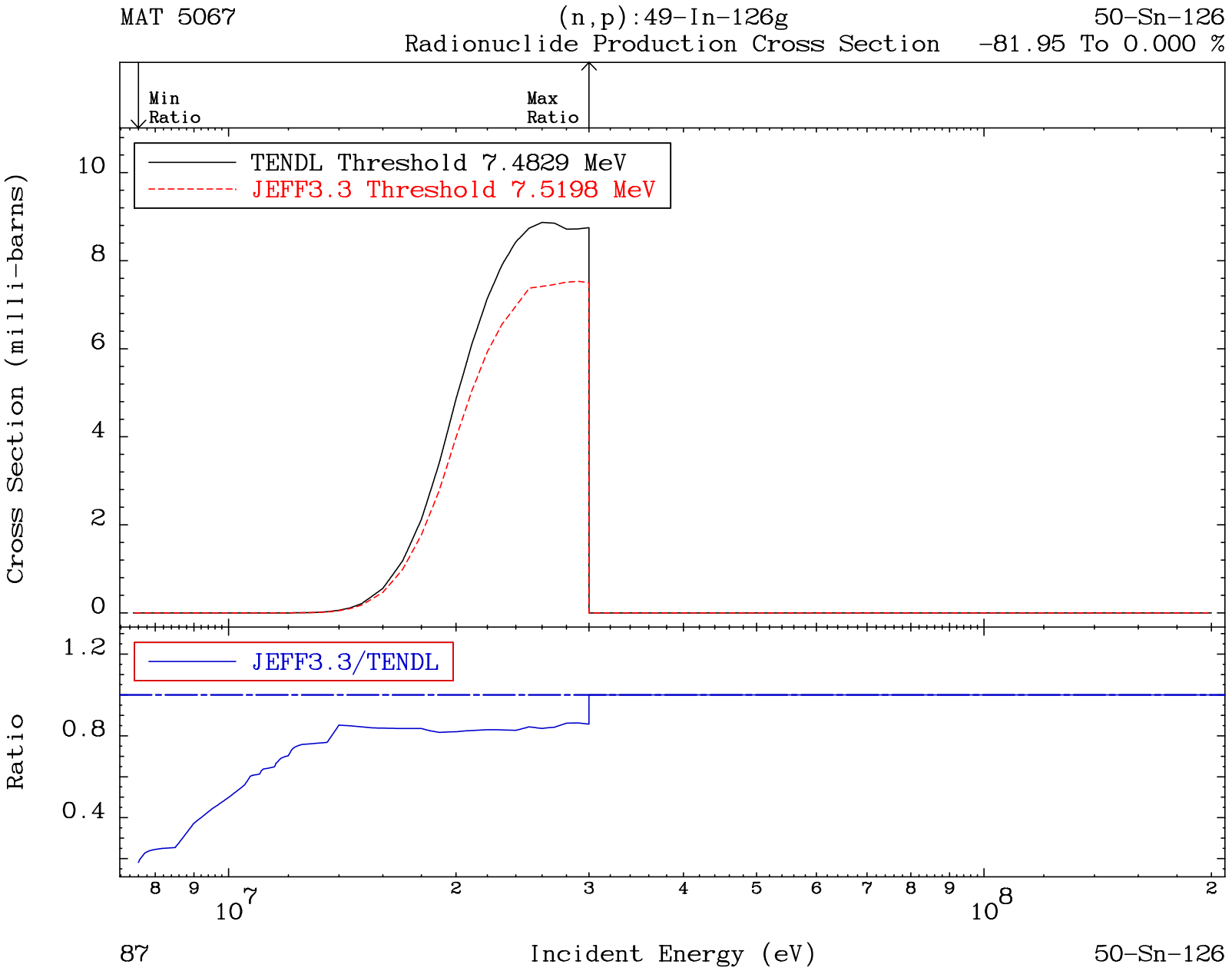

MAT 5067
(n,4n):50-Sn-123m1
50-Sn-126
Radionuclide Production Cross Section
-33.86 To 253.1 %
Min
Ratio
TENDL Threshold 22.619 MeV
JEFF3.3 Threshold 22.619 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
4.0
3.0
2.0
1.0
40
60
80
100
120
140
160
180
200
82
Incident Energy (MeV)
50-Sn-126

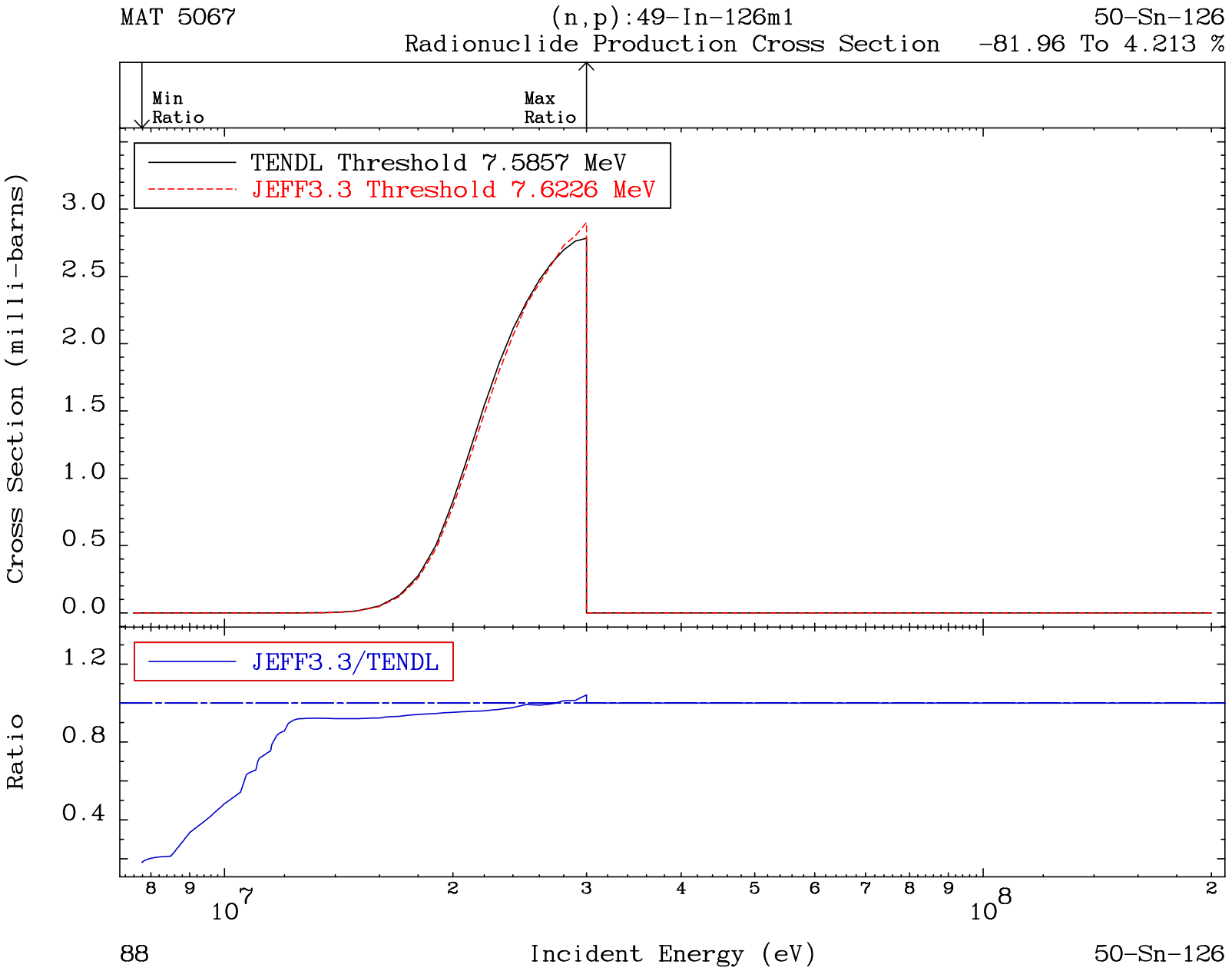

MAT 5067
(n,2n) p:49-In-124g
50-Sn-126
Radionuclide Production Cross Section
-21.41 To 8317. %
Min
Ratio
TENDL Threshold 20.672 MeV
JEFF3.3 Threshold 20.670 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
20
40
60
80
100
120
140
160
180
200
83
Incident Energy (MeV)
50-Sn-126

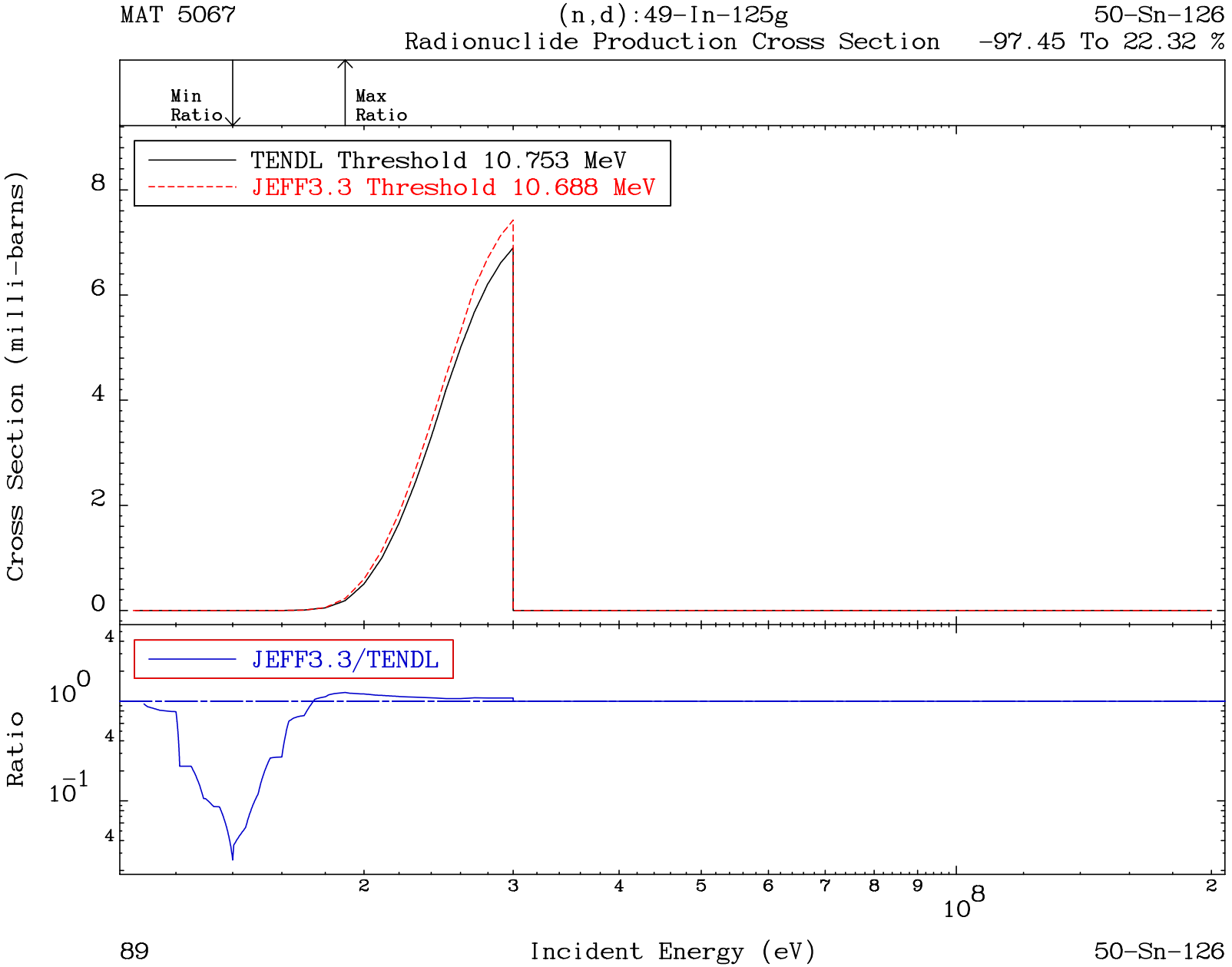

MAT 5067
(n,2n) p:49-In-124m2
50-Sn-126
Radionuclide Production Cross Section -8.293 To 2124. %
Min Ratio
TENDL Threshold 20.722 MeV
JEFF3.3 Threshold 20.720 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^1
10^0
6
6
20
40
60
80
100
120
140
160
180
200
84
Incident Energy (MeV)
50-Sn-126

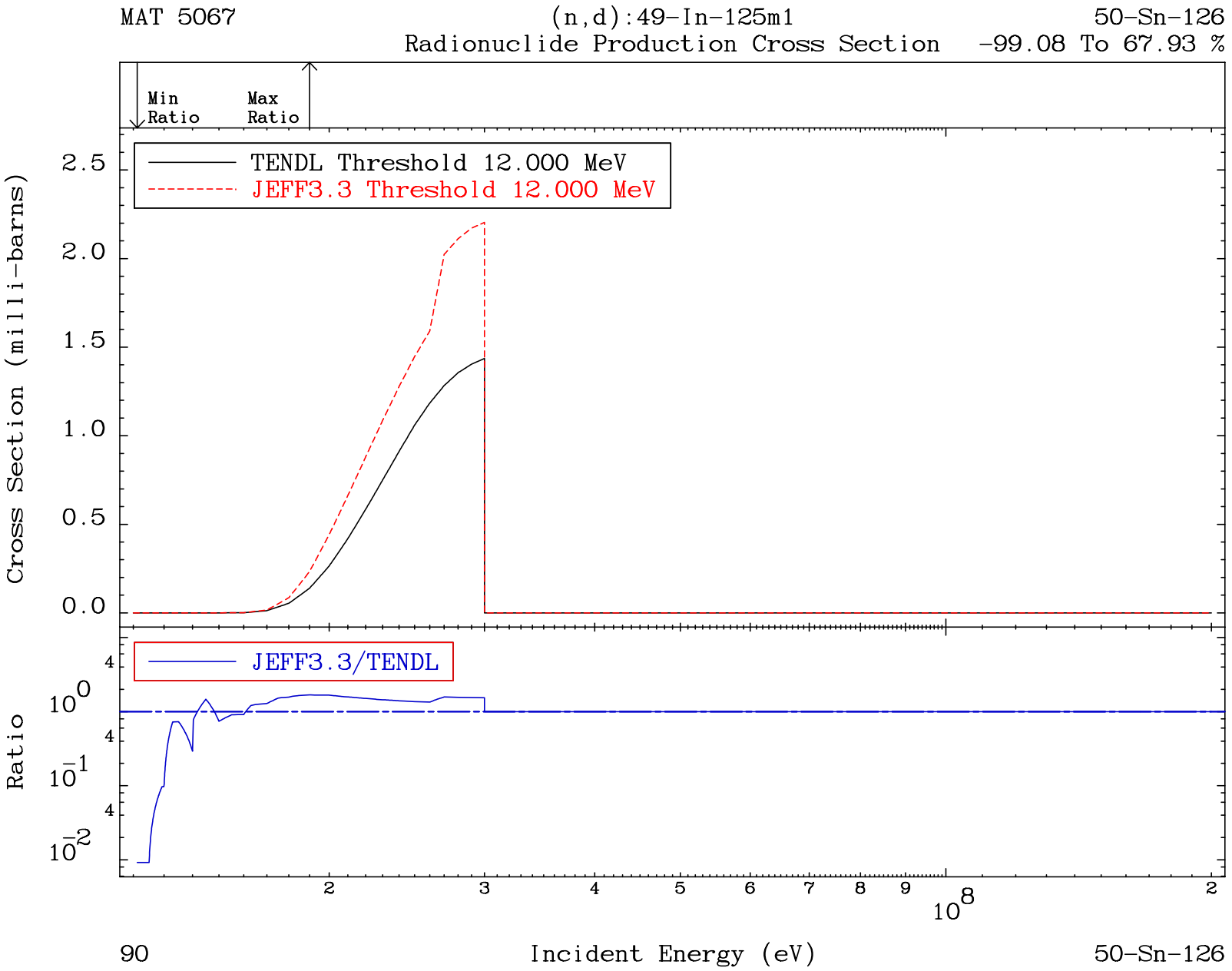

MAT 5067
(n,3n) p:49-In-123g
50-Sn-126
Radionuclide Production Cross Section 0.000 To 9999. %
Min Ratio
TENDL Threshold 26.226 MeV
JEFF3.3 Threshold 26.226 MeV
Cross Section (10^{-9} barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
40
60
80
100
120
140
160
180
200
85
Incident Energy (MeV)
50-Sn-126

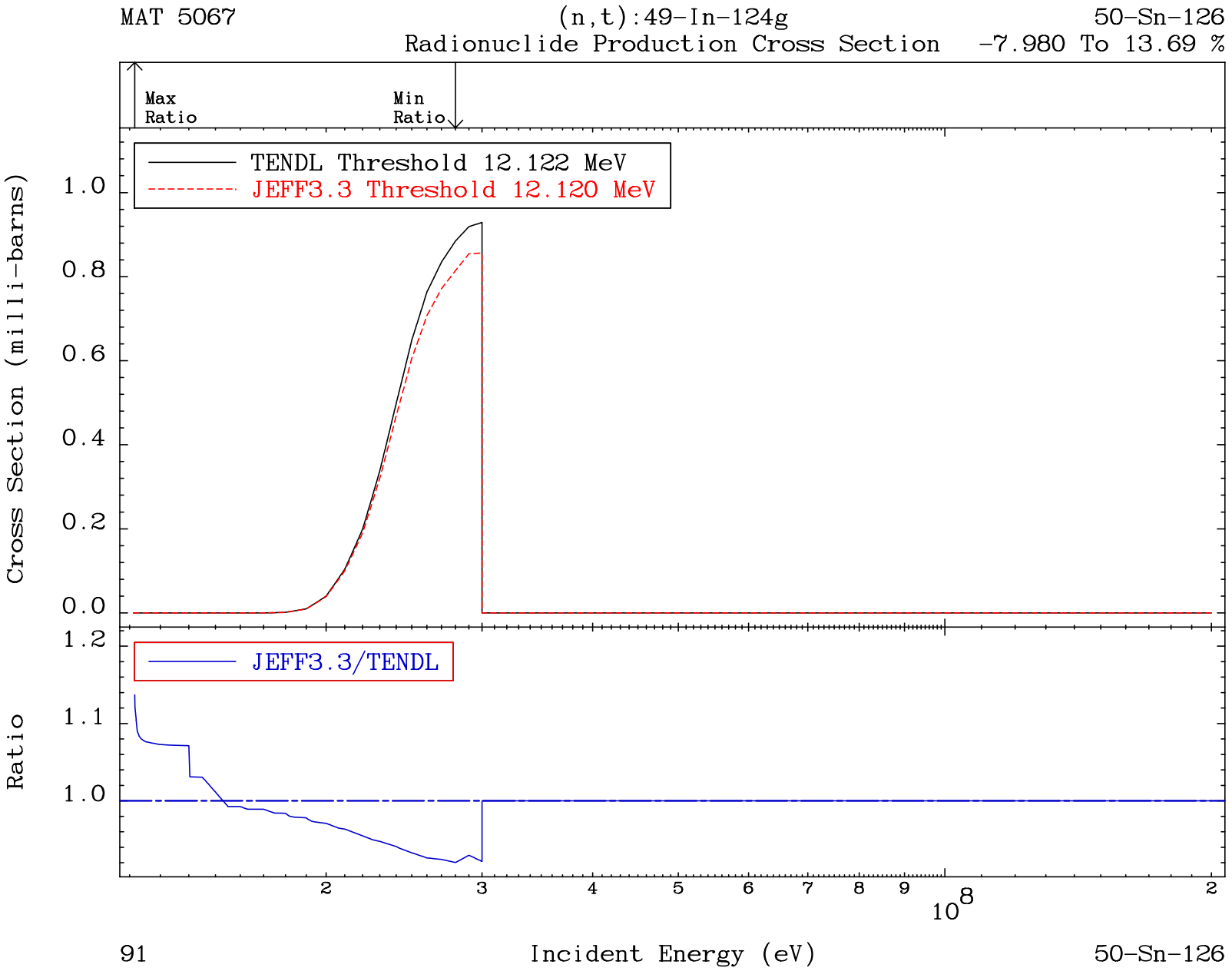

MAT 5067
(n,3n) p:49-In-123m1
50-Sn-126
Radionuclide Production Cross Section 0.000 To 9999. %
Min Ratio
TENDL Threshold 27.000 MeV
JEFF3.3 Threshold 26.555 MeV
Cross Section (10^{-9} barns)
0
1
2
3
4
5
6
7
JEFF3.3/TENDL
Ratio
10^{0}
10^{1}
10^{2}
10^{3}
40
60
80
100
120
140
160
180
200
86
Incident Energy (MeV)
50-Sn-126

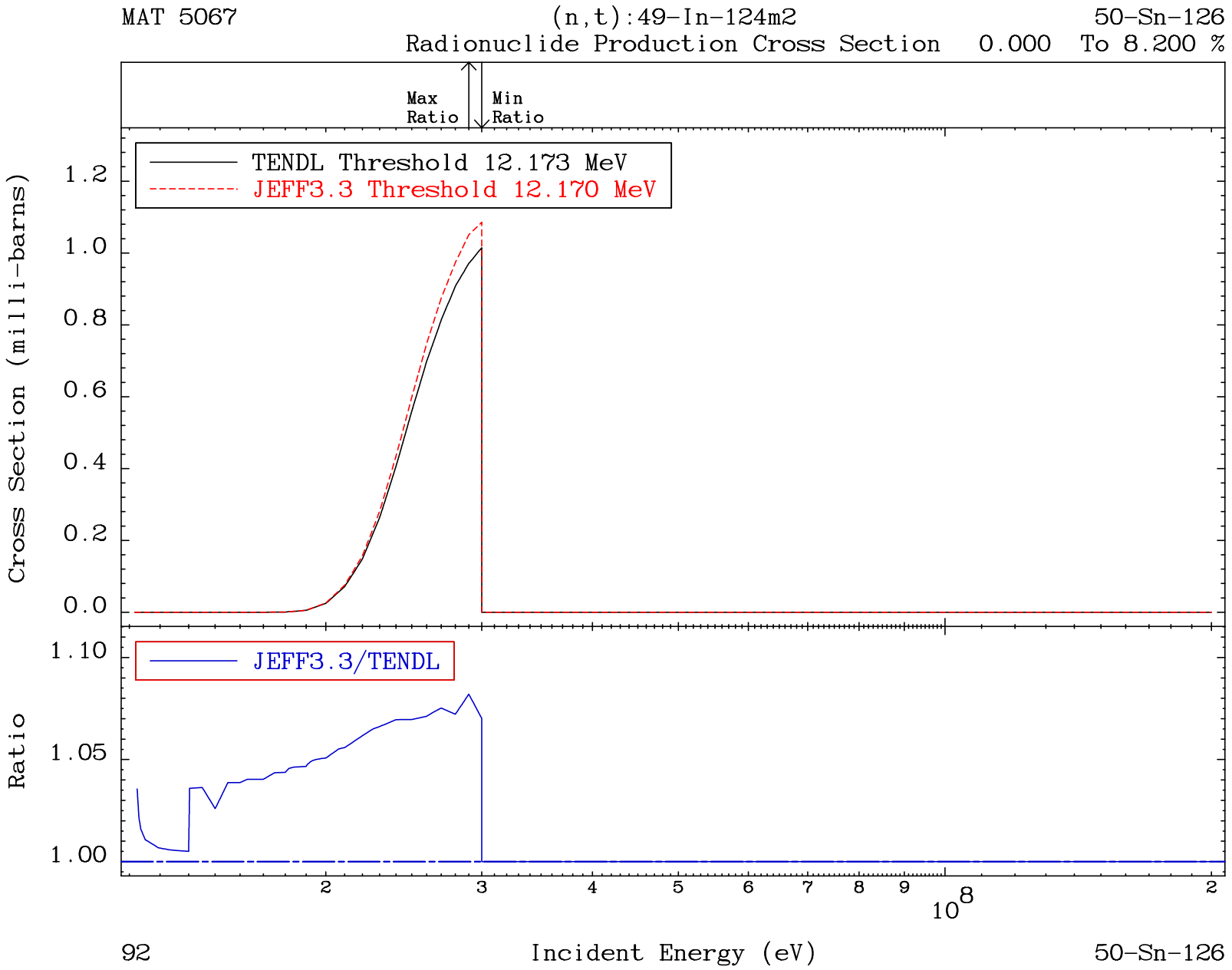

MAT 5067
(n,p):49-In-126g
50-Sn-126
Radionuclide Production Cross Section
-81.95 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 7.4829 MeV
JEFF3.3 Threshold 7.5198 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
87
50-Sn-126

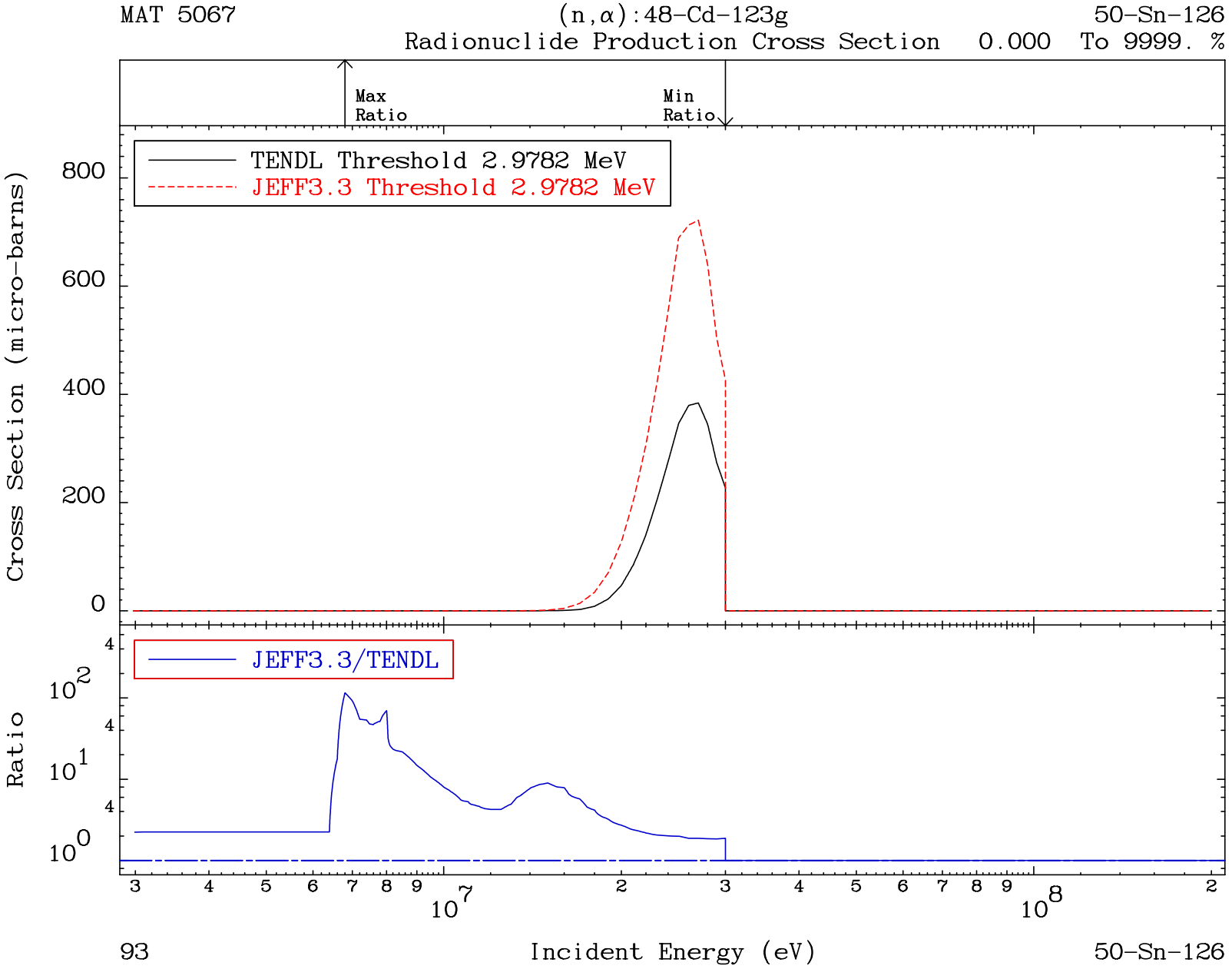

MAT 5067
(n,p):49-In-126m1
50-Sn-126
Radionuclide Production Cross Section -81.96 To 4.213 %
Min Ratio
Max Ratio
TENDL Threshold 7.5857 MeV
JEFF3.3 Threshold 7.6226 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.2
0.8
0.4
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
88
Incident Energy (eV)
50-Sn-126

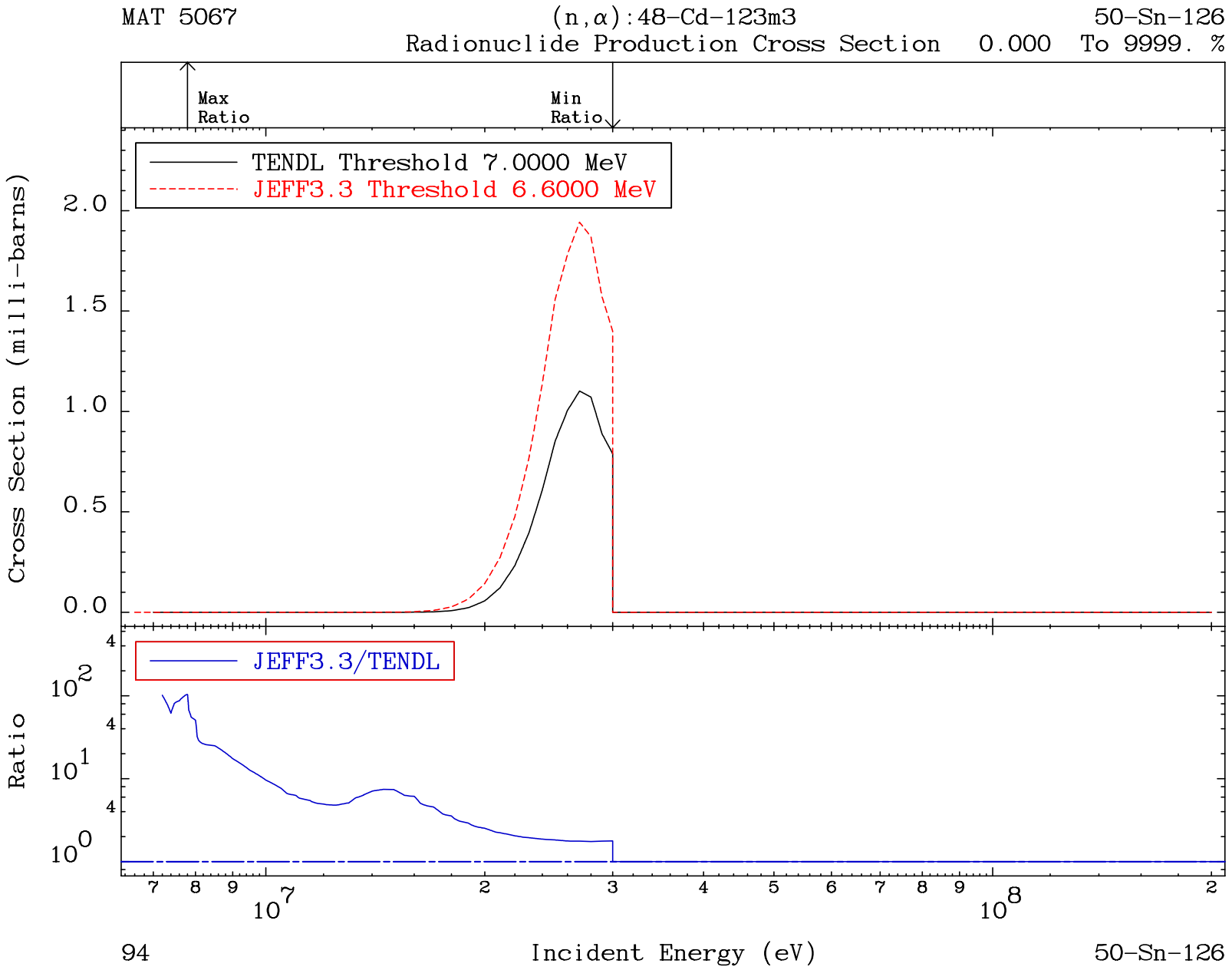

MAT 5067
(n,d):49-In-125g
50-Sn-126
Radionuclide Production Cross Section
-97.45 To 22.32 %
Min Ratio
Max Ratio
TENDL Threshold 10.753 MeV
JEFF3.3 Threshold 10.688 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
89
50-Sn-126


MAT 5067
(n,d):49-In-125m1
50-Sn-126
Radionuclide Production Cross Section
-99.08 To 67.93 %
Min Ratio
Max Ratio
TENDL Threshold 12.000 MeV
JEFF3.3 Threshold 12.000 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^0
10^-1
10^-2
2
3
4
5
6
7
8
9
10^8
2
90
Incident Energy (eV)
50-Sn-126


MAT 5067
(n,t):49-In-124g
50-Sn-126
Radionuclide Production Cross Section
-7.980 To 13.69 %
Max Ratio
Min Ratio
TENDL Threshold 12.122 MeV
JEFF3.3 Threshold 12.120 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
50-Sn-126


MAT 5067
(n,t):49-In-124m2
50-Sn-126
Radionuclide Production Cross Section 0.000 To 8.200 %
Max Ratio
Min Ratio
TENDL Threshold 12.173 MeV
JEFF3.3 Threshold 12.170 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
2
3
4
5
6
7
8
9
10^8
2
92
Incident Energy (eV)
50-Sn-126


MAT 5067
(n,α):48-Cd-123g
50-Sn-126
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 2.9782 MeV
JEFF3.3 Threshold 2.9782 MeV
Cross Section (micro-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
93
Incident Energy (eV)
50-Sn-126


MAT 5067
(n,α):48-Cd-123m3
50-Sn-126
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.0000 MeV
JEFF3.3 Threshold 6.6000 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
4
10^2
4
10^1
4
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
94
Incident Energy (eV)
50-Sn-126