Program Complot
(Version 2018-1)
by
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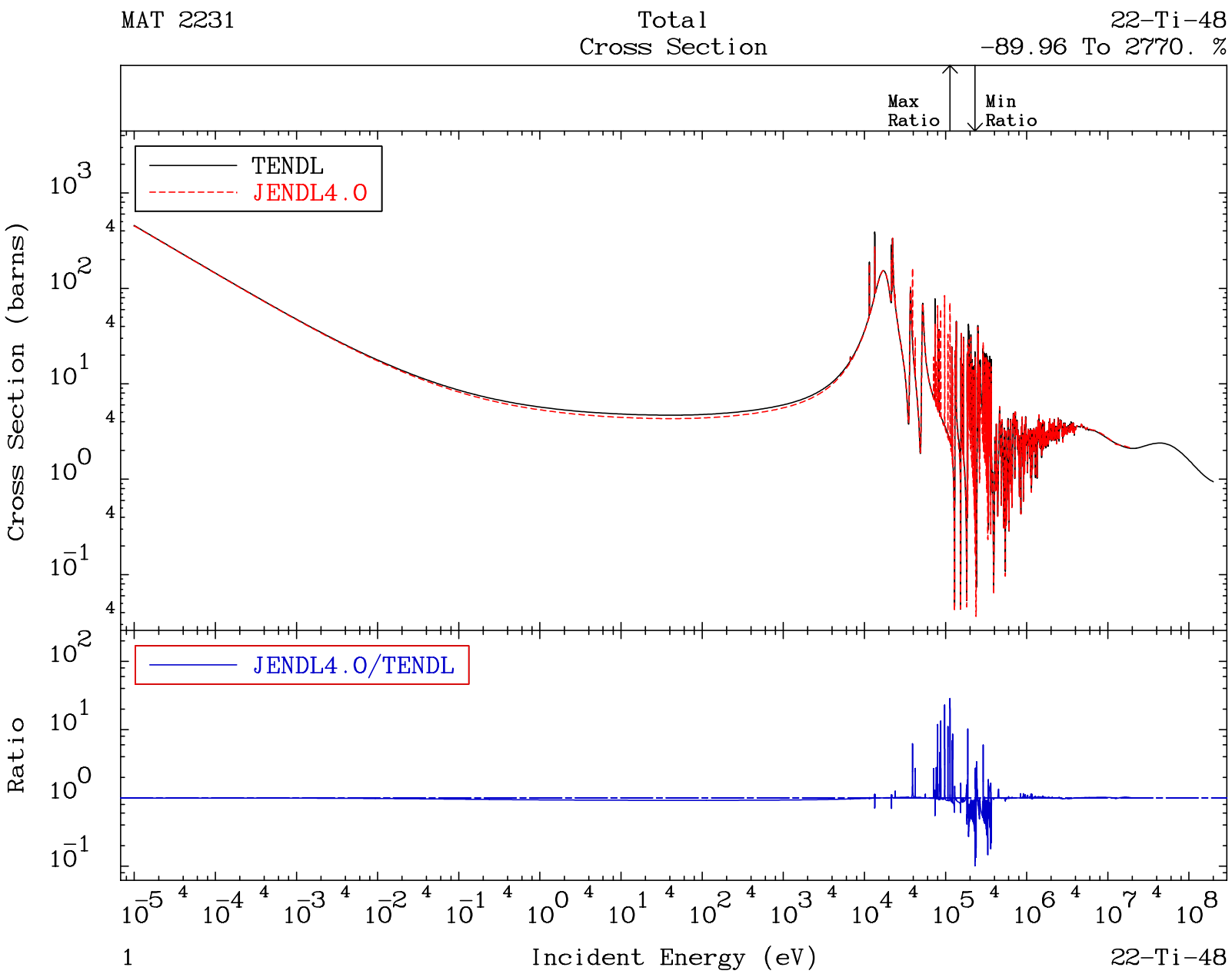
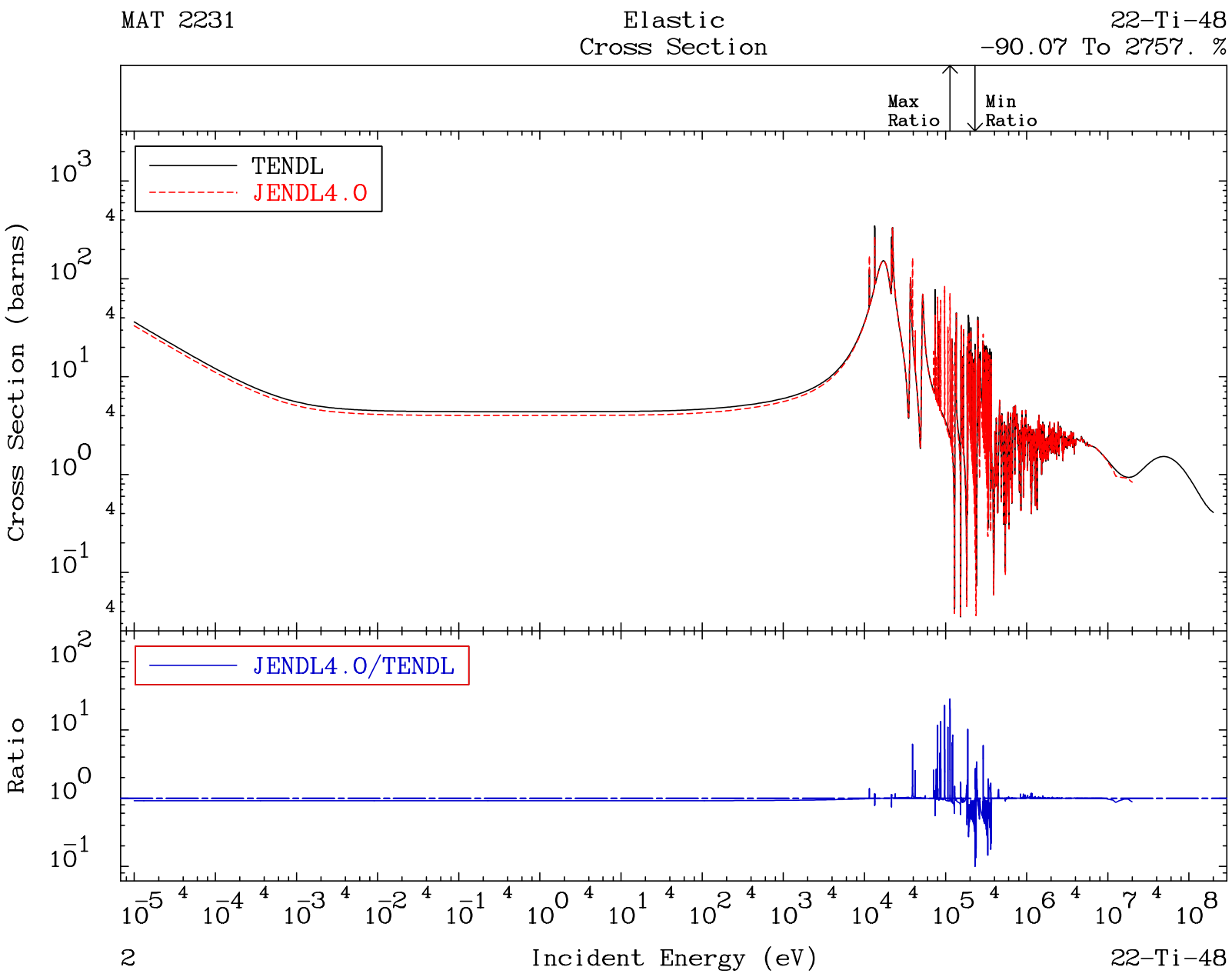
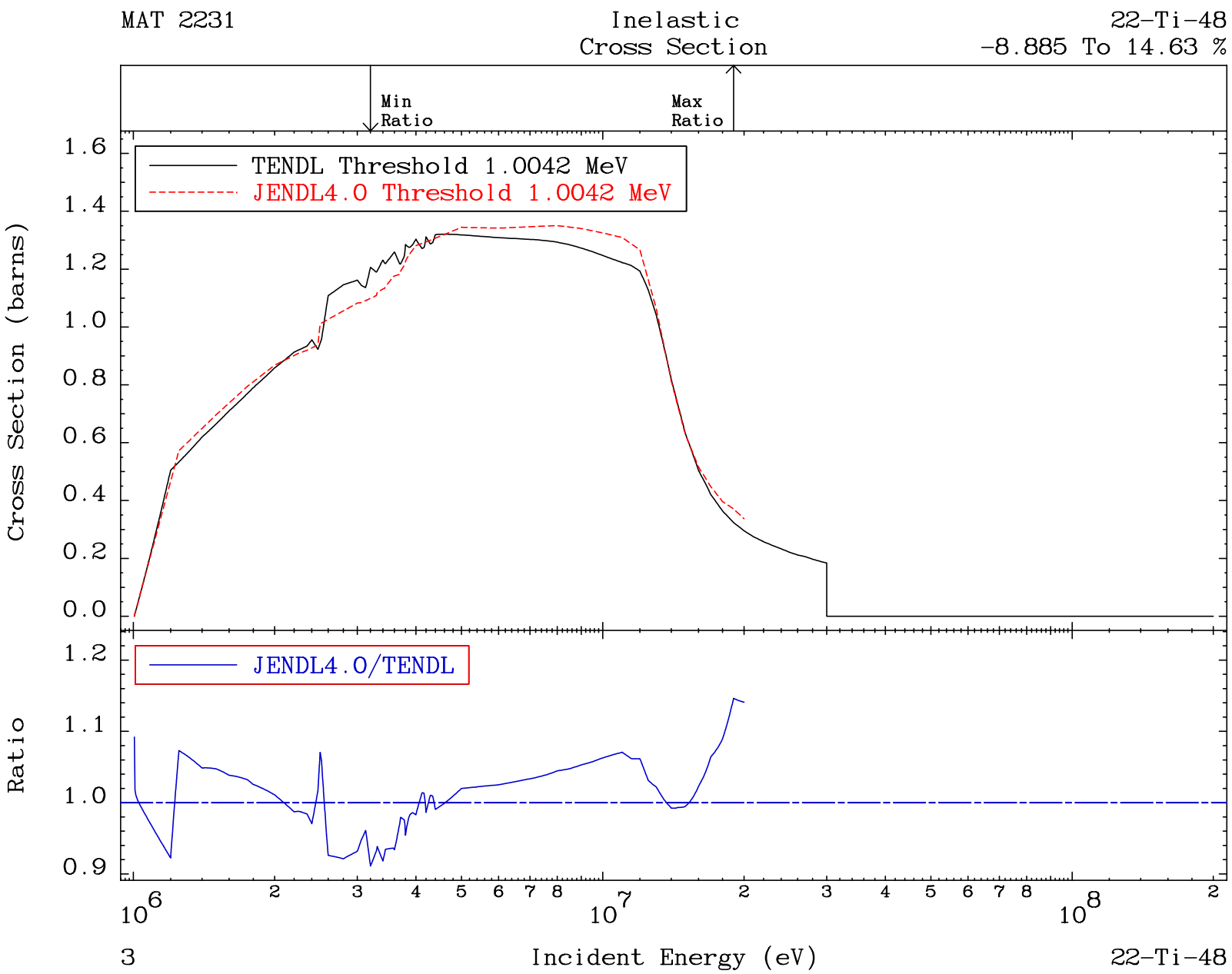
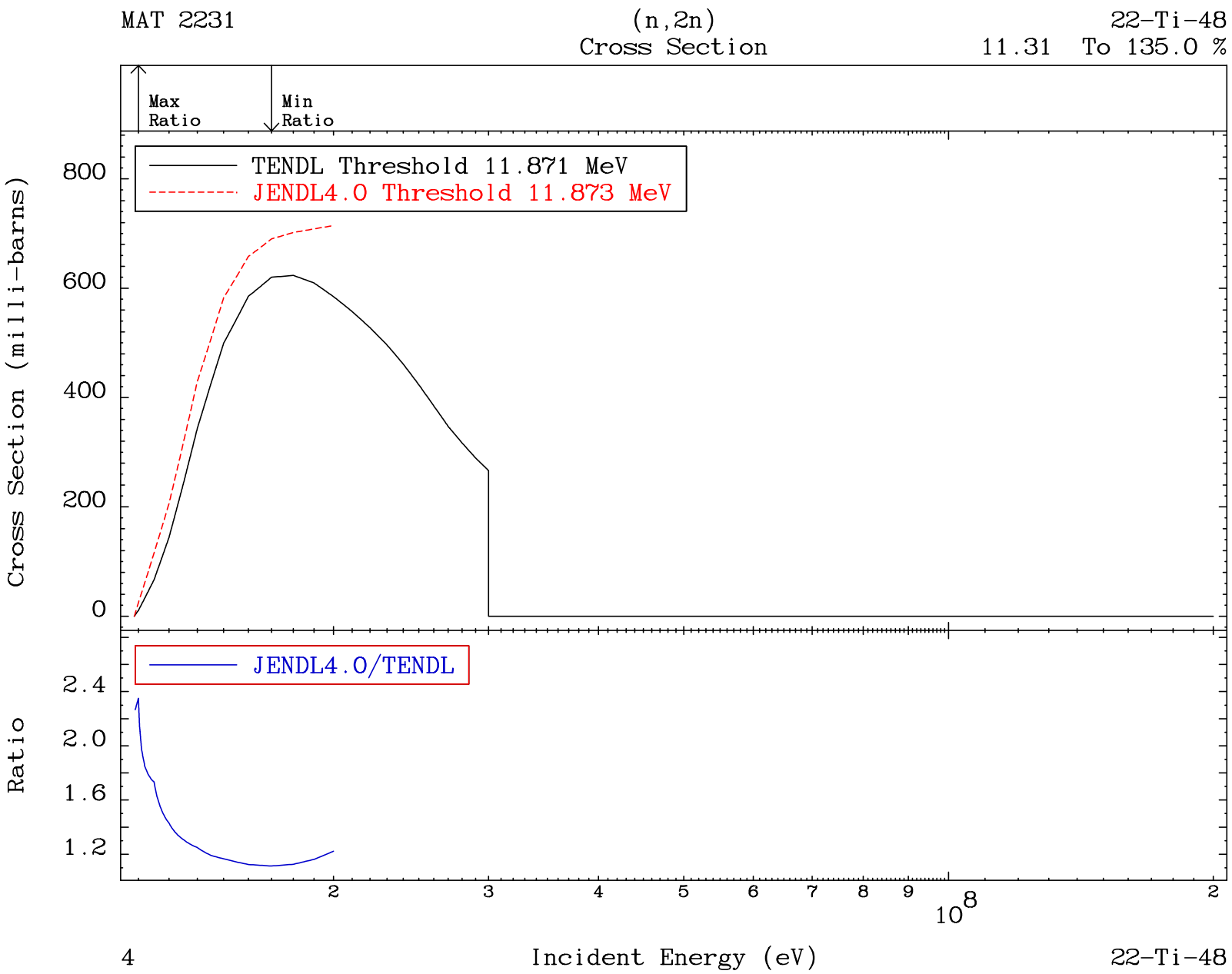
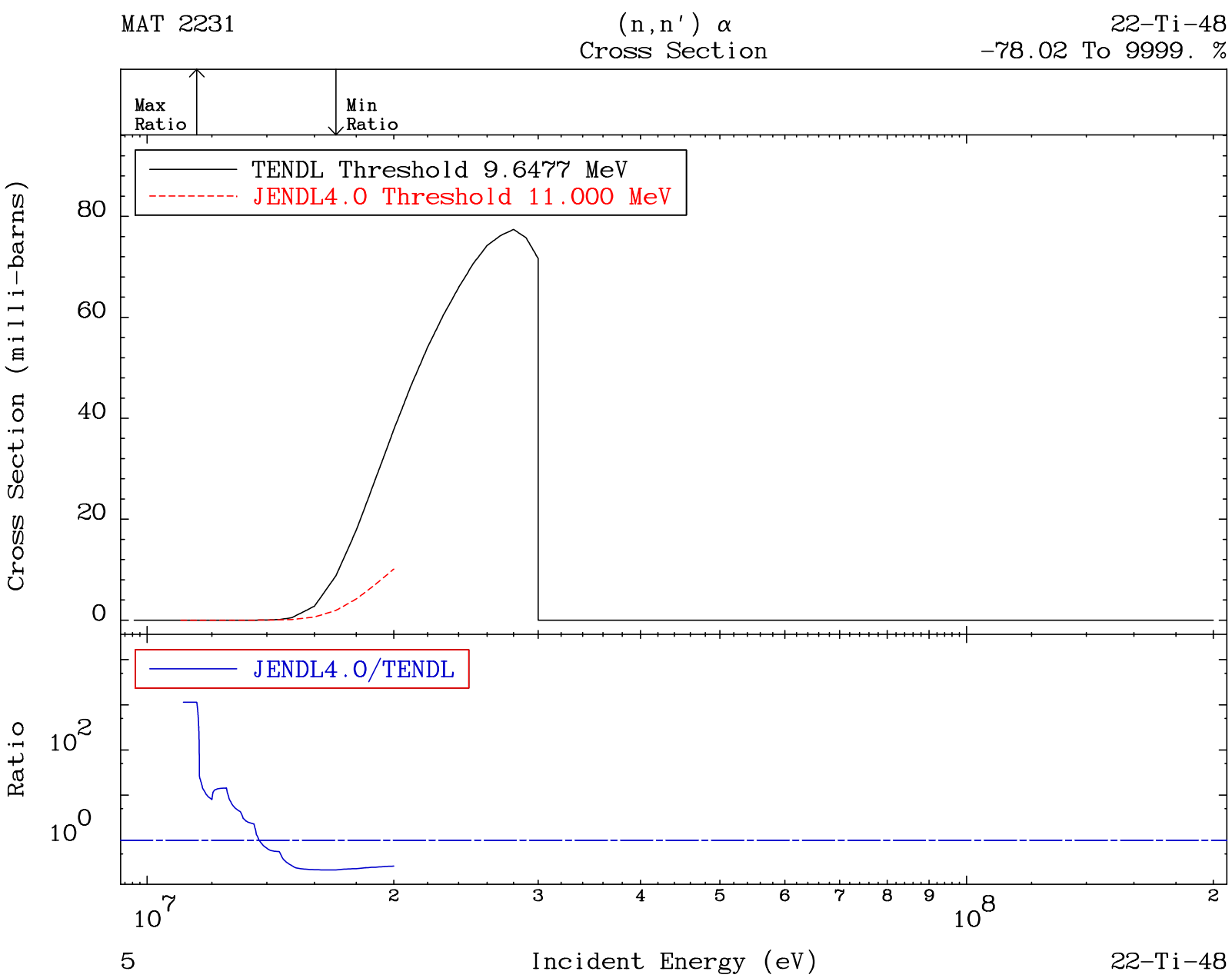
Press Mouse Button to Start

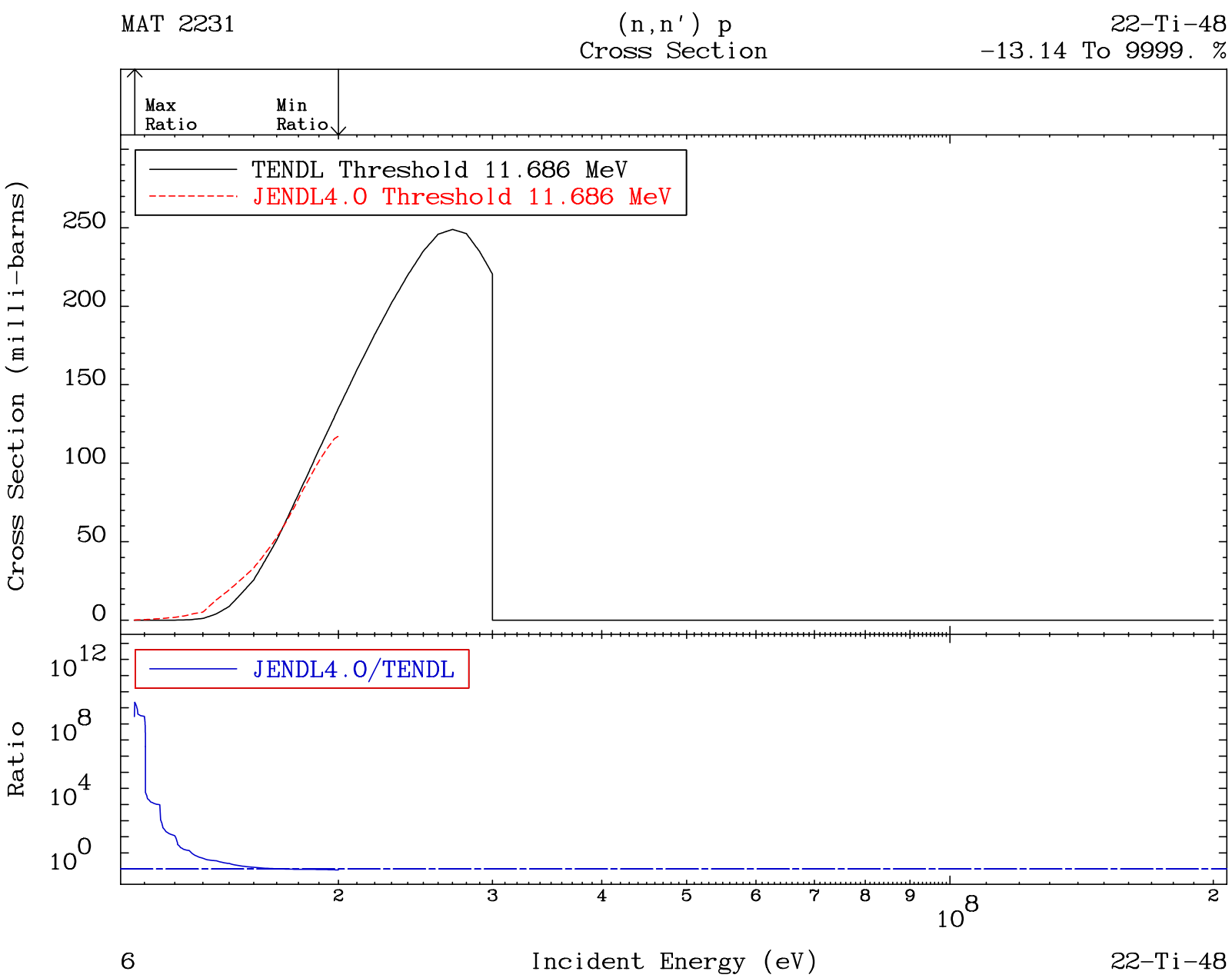

MAT 2231
Total
Cross Section
22-Ti-48
-89.96 To 2770. %
Max
Ratio
Min
Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
1
22-Ti-48

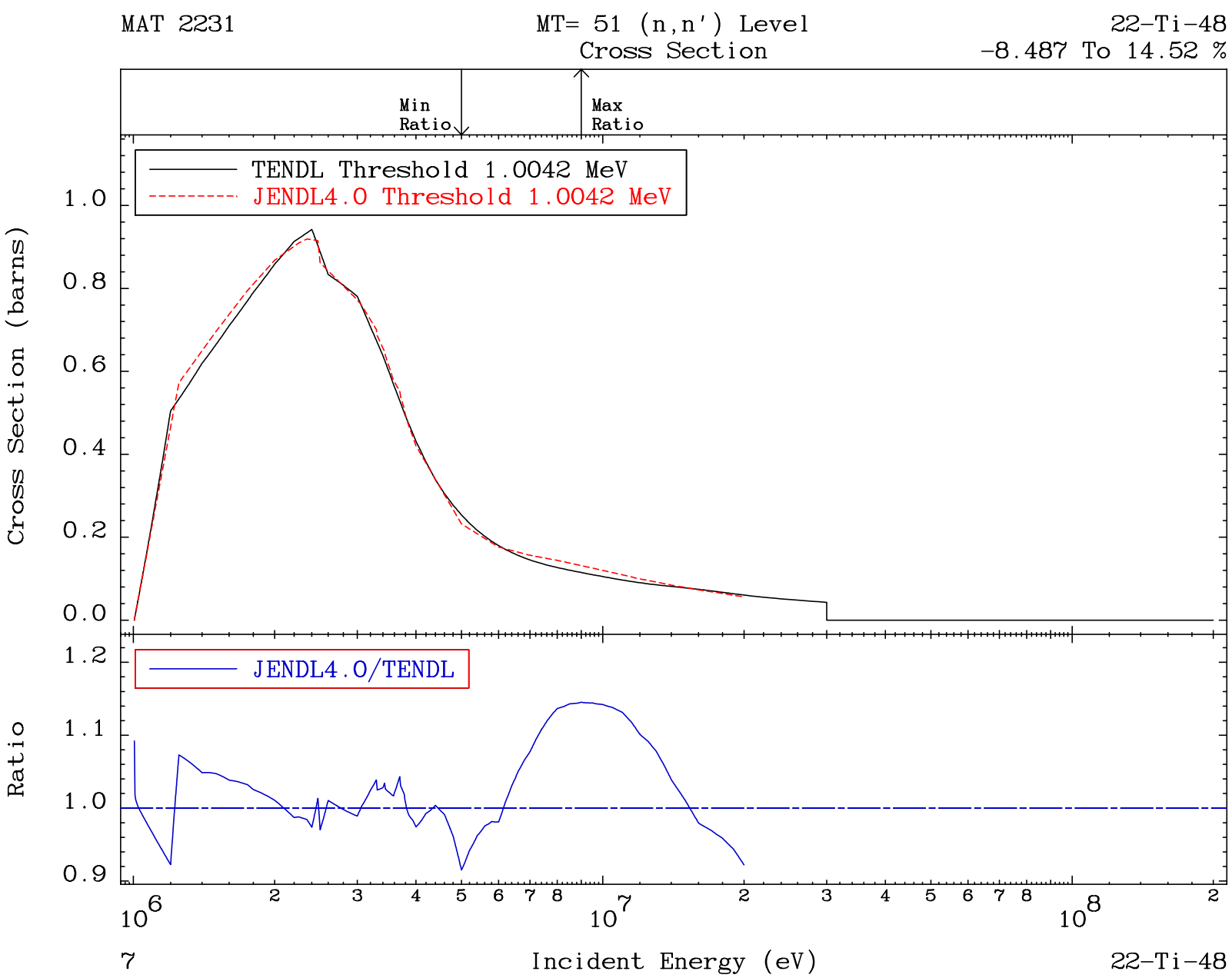

MAT 2231
Elastic
Cross Section
22-Ti-48
-90.07 To 2757. %
Max
Ratio
Min
Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
2
22-Ti-48

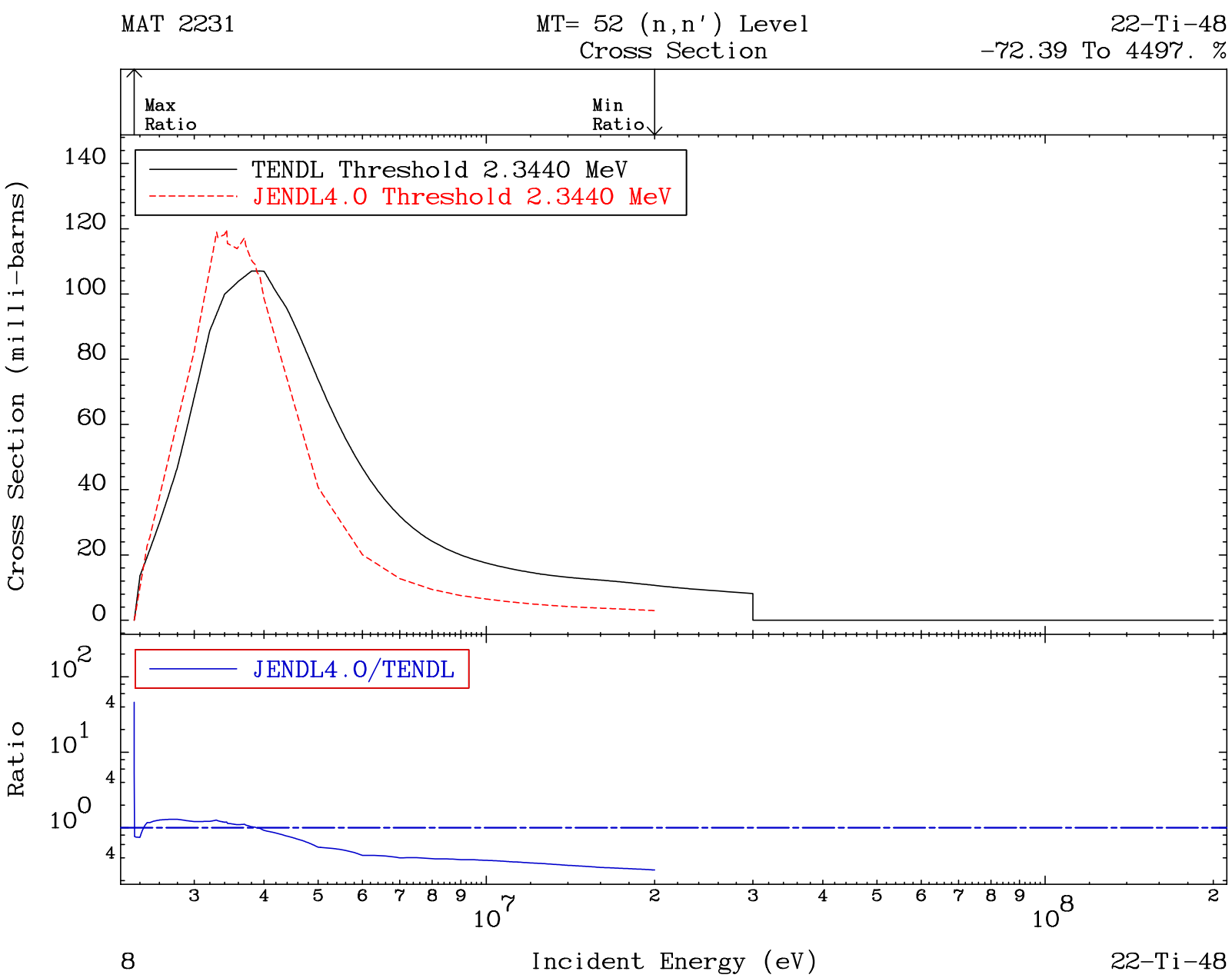

MAT 2231
Inelastic
Cross Section
22-Ti-48
-8.885 To 14.63 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.0042 MeV
JENDL4.0 Threshold 1.0042 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
1.2
1.1
1.0
0.9
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
3
Incident Energy (eV)
22-Ti-48

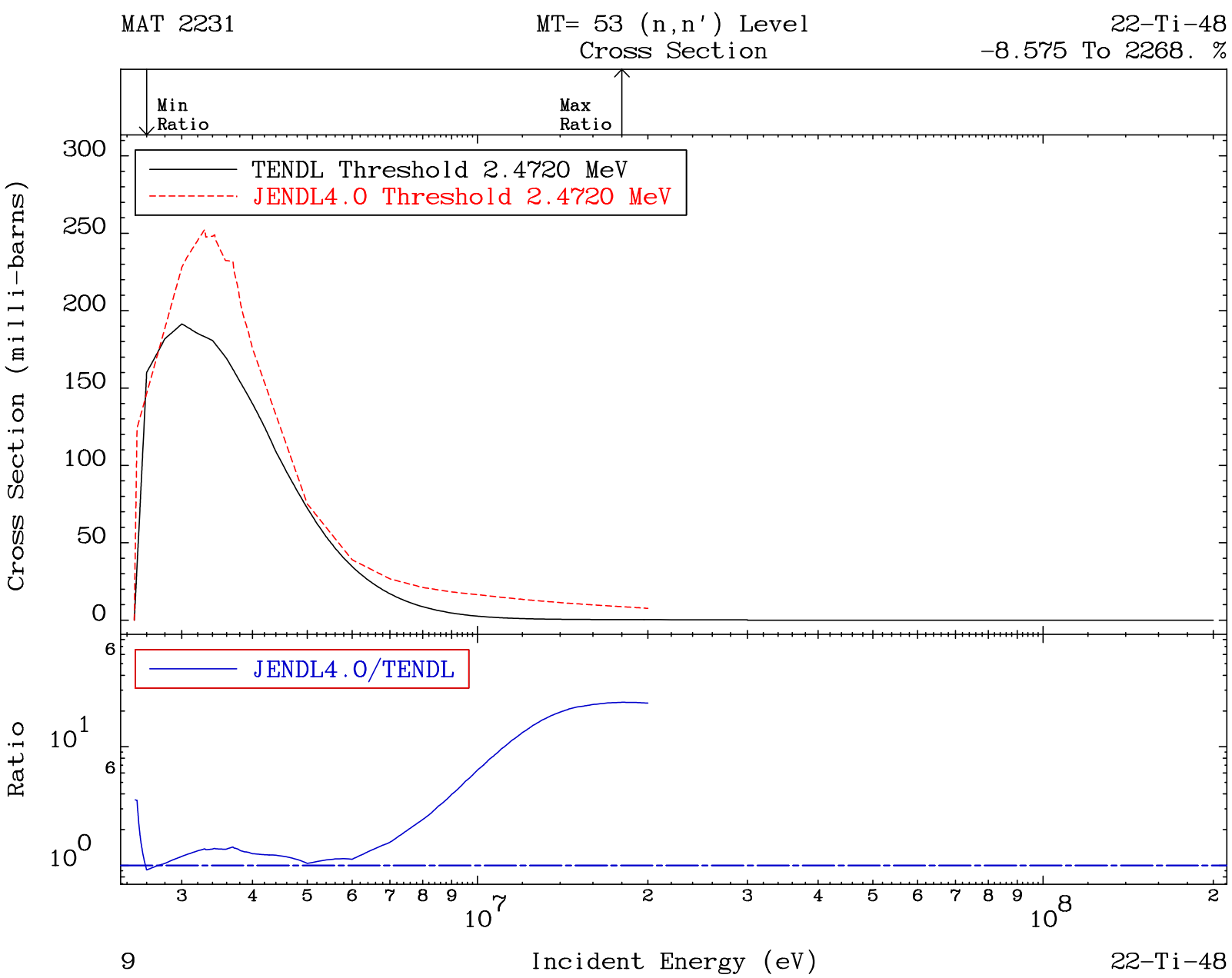

MAT 2231
(n,2n)
Cross Section
22-Ti-48
11.31 To 135.0 %
Max Ratio
Min Ratio
TENDL Threshold 11.871 MeV
JENDL4.0 Threshold 11.873 MeV
Cross Section (milli-barns)
800
600
400
200
0
JENDL4.0/TENDL
Ratio
2.4
2.0
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
22-Ti-48

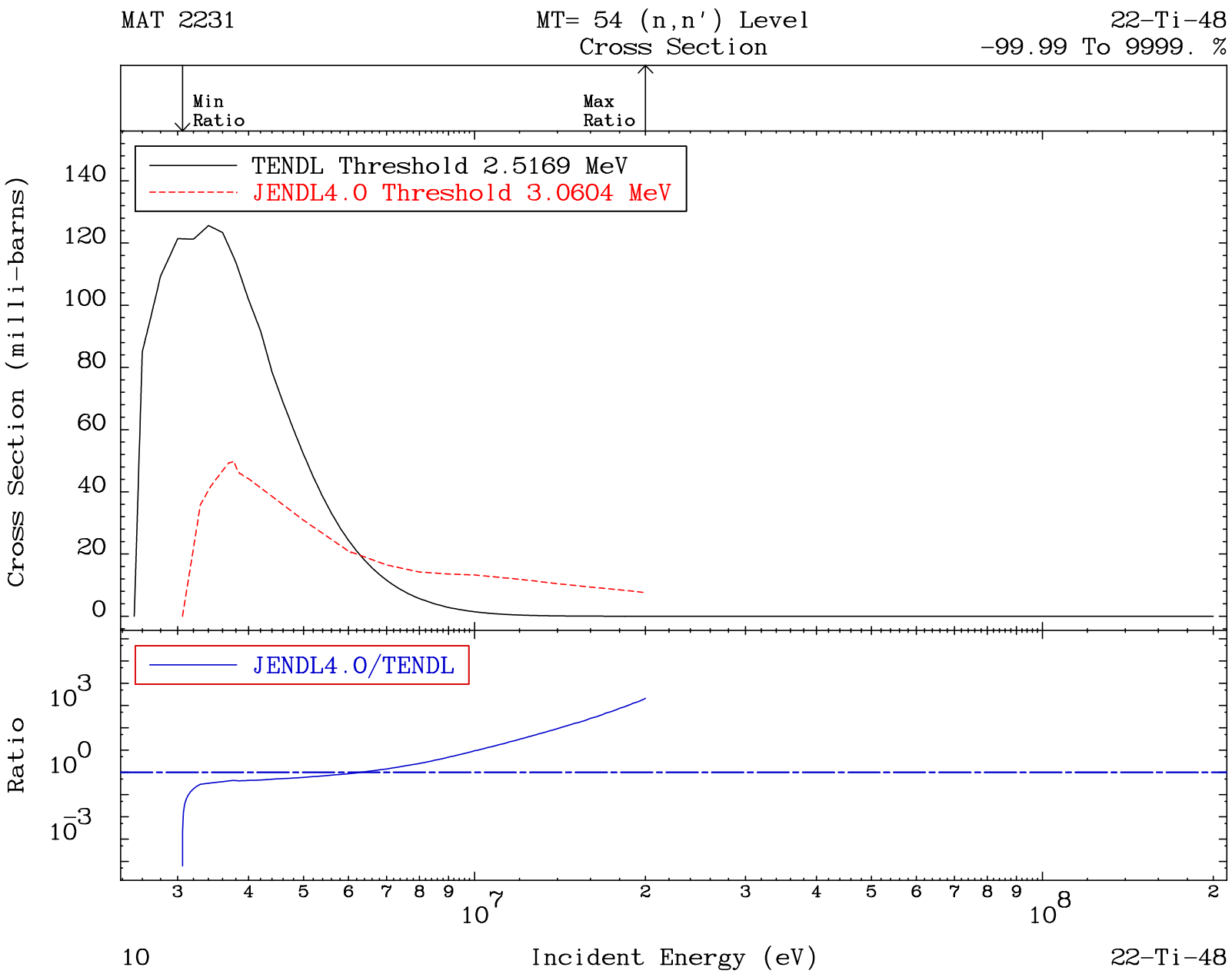

MAT 2231
(n,n') α
Cross Section
22-Ti-48
-78.02 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 9.6477 MeV
JENDL4.0 Threshold 11.000 MeV
Cross Section (milli-barns)
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^2
10^0
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
22-Ti-48

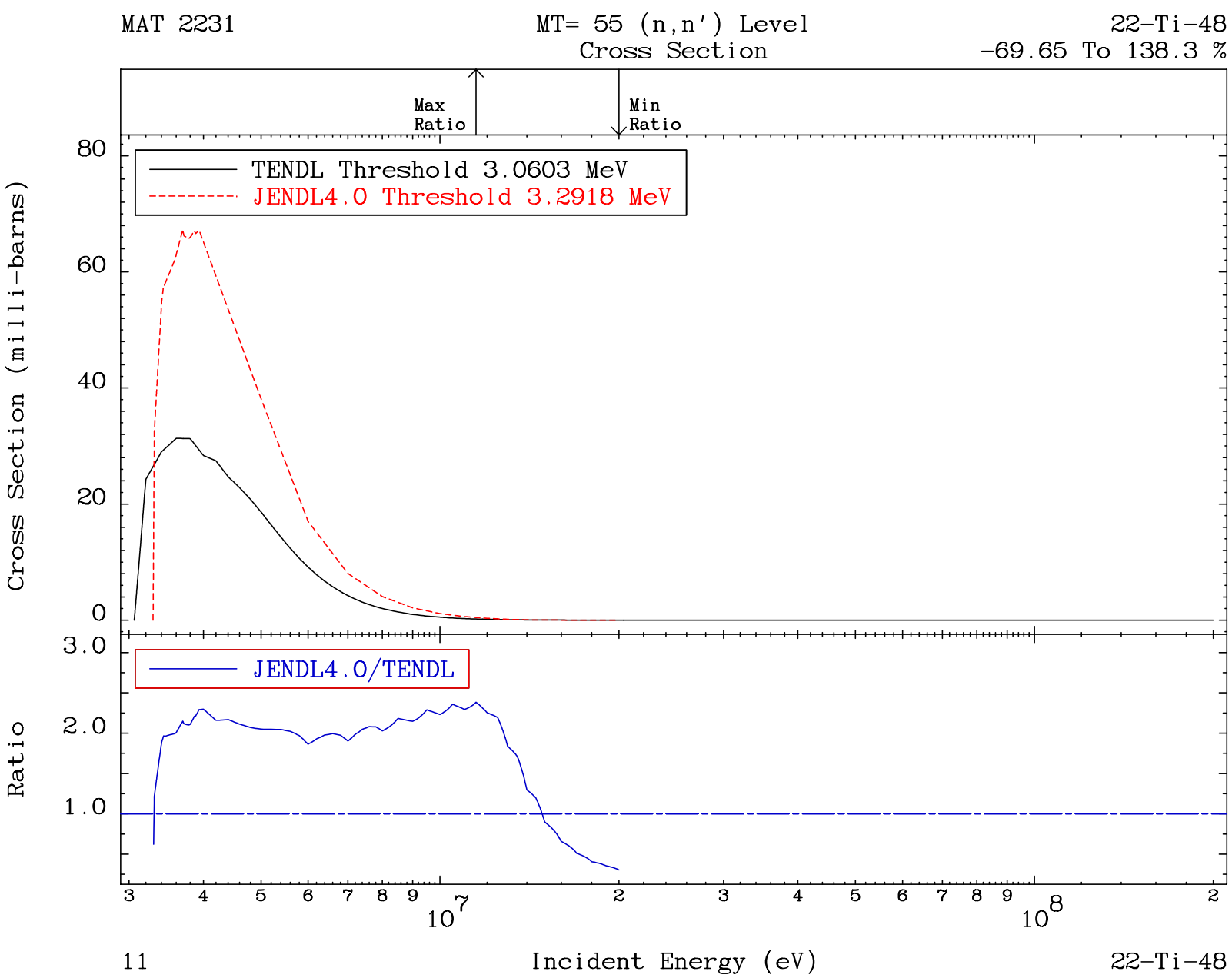

MAT 2231
(n,n') p
Cross Section
22-Ti-48
-13.14 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 11.686 MeV
JENDL4.0 Threshold 11.686 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^12
10^8
10^4
10^0
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
22-Ti-48

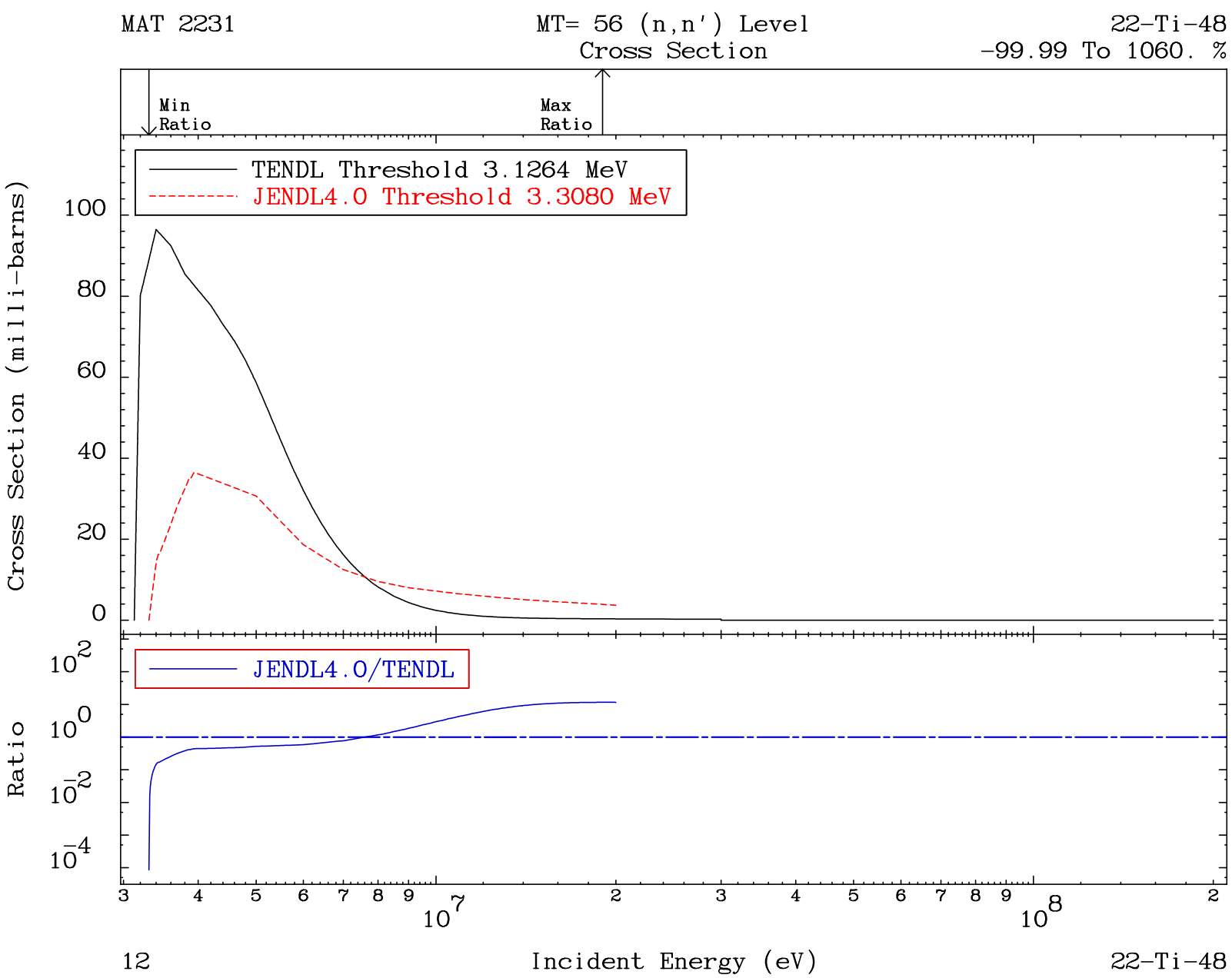

MAT 2231
MT= 51 (n,n') Level
Cross Section
22-Ti-48
-8.487 To 14.52 %
Min Ratio
Max Ratio
TENDL Threshold 1.0042 MeV
JENDL4.0 Threshold 1.0042 MeV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
1.2
1.1
1.0
0.9
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
7
Incident Energy (eV)
22-Ti-48

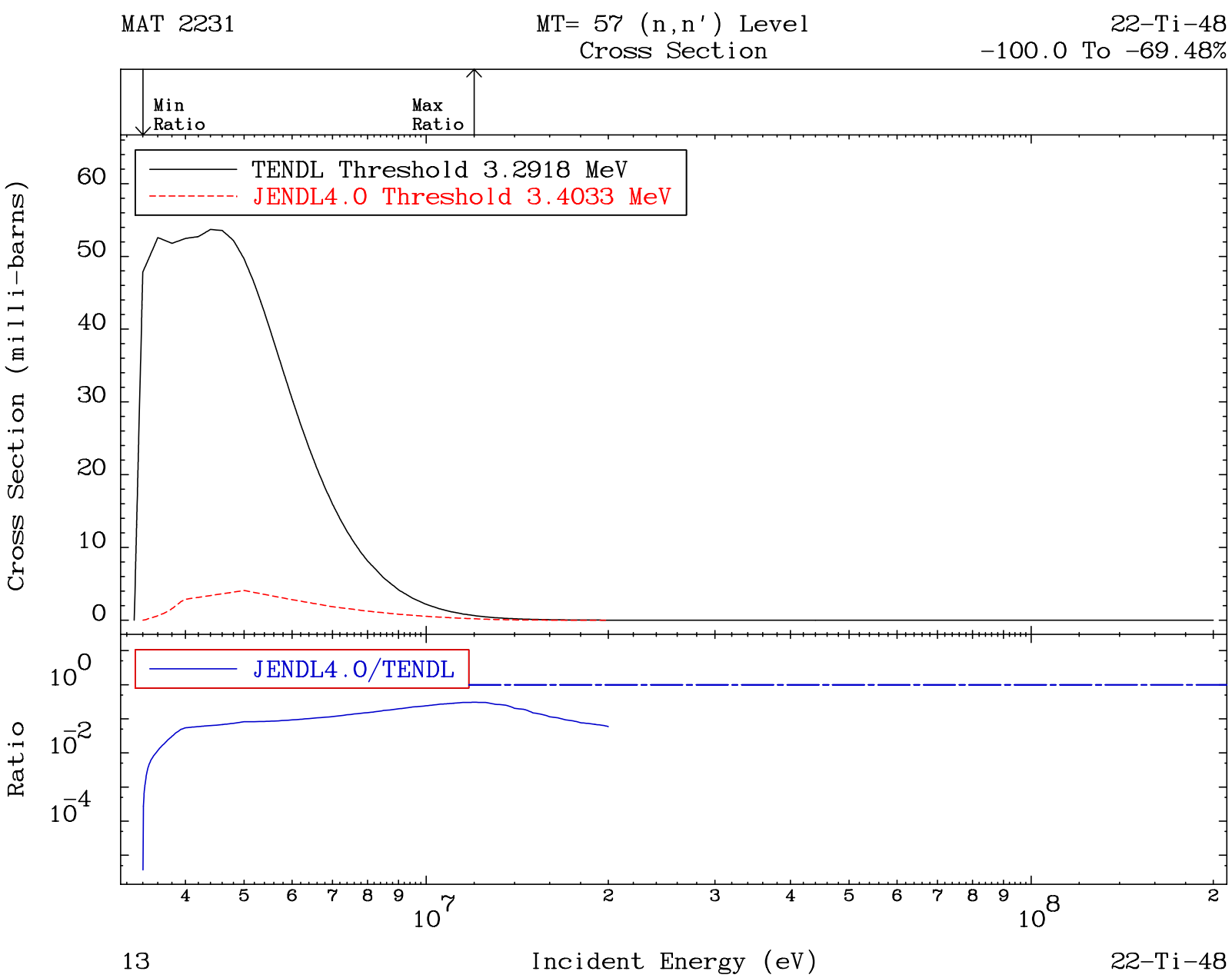

MAT 2231
MT= 52 (n,n') Level
Cross Section
22-Ti-48
-72.39 To 4497. %
Max
Ratio
Min
Ratio
TENDL Threshold 2.3440 MeV
JENDL4.0 Threshold 2.3440 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
8
Incident Energy (eV)
22-Ti-48

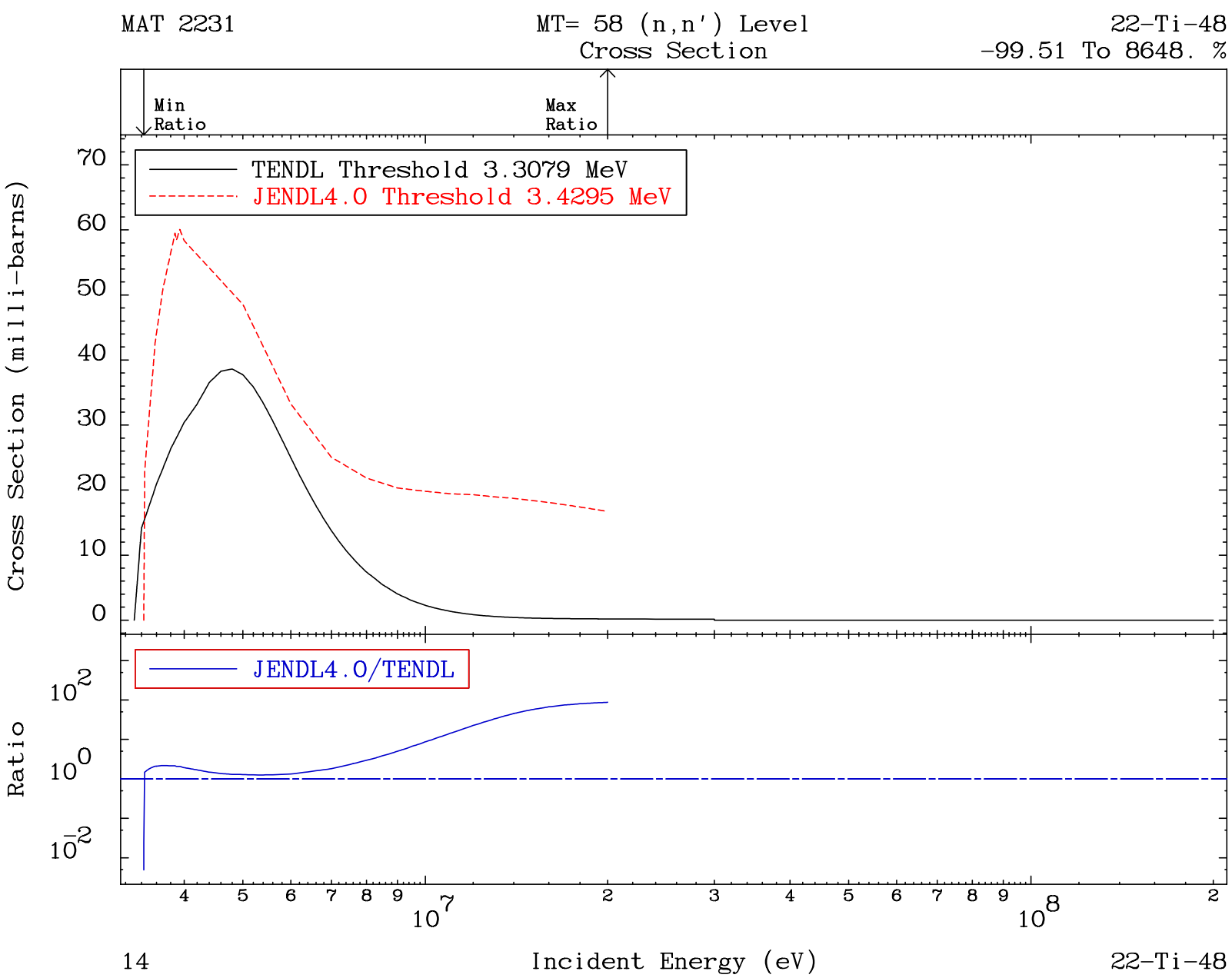

MAT 2231
MT= 53 (n,n') Level
Cross Section
22-Ti-48
-8.575 To 2268. %
Min
Ratio
Max
Ratio
TENDL Threshold 2.4720 MeV
JENDL4.0 Threshold 2.4720 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
6
10^1
6
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
9
Incident Energy (eV)
22-Ti-48

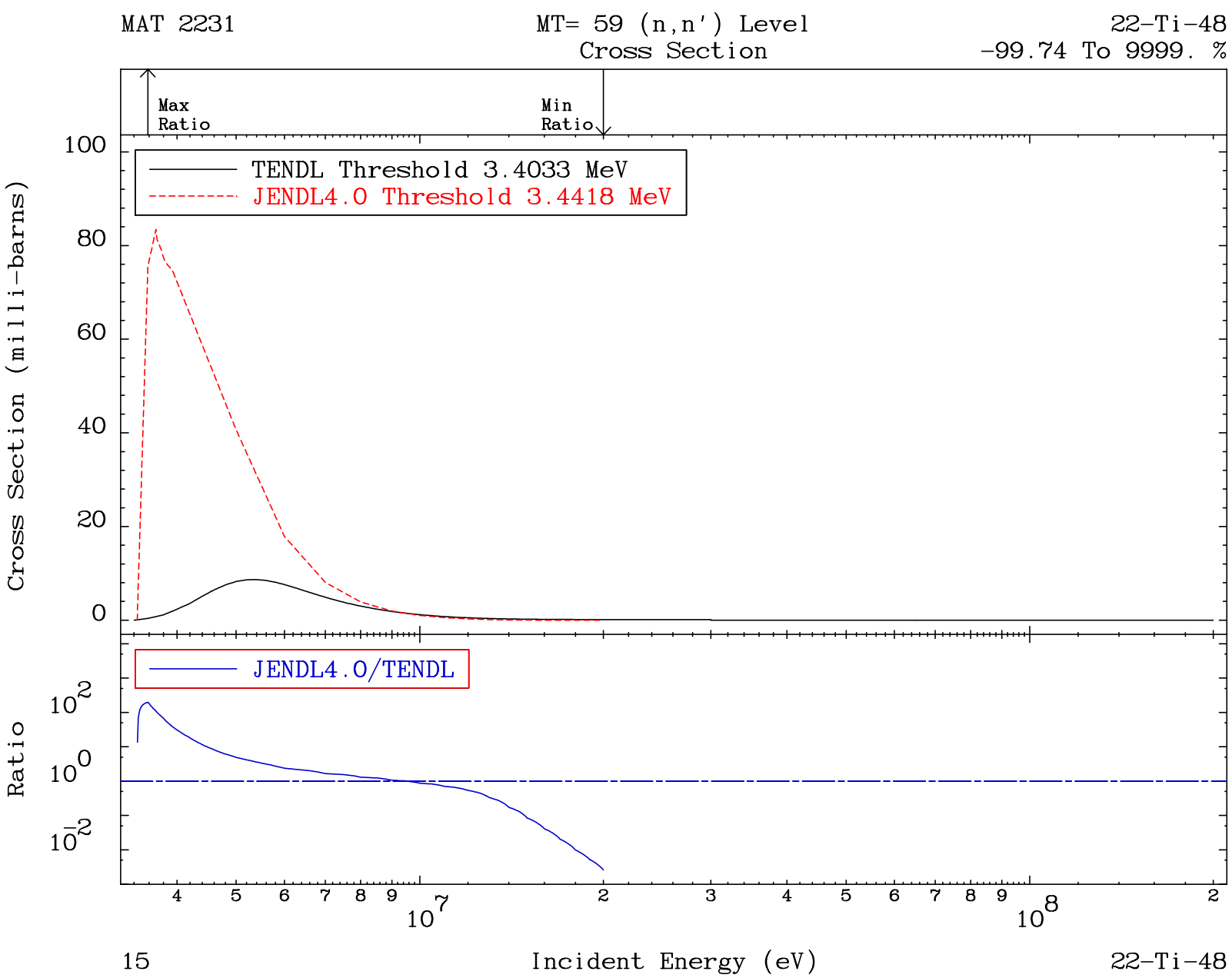

MAT 2231
MT= 54 (n,n') Level
Cross Section
22-Ti-48
-99.99 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 2.5169 MeV
JENDL4.0 Threshold 3.0604 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^3
10^0
10^-3
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
22-Ti-48

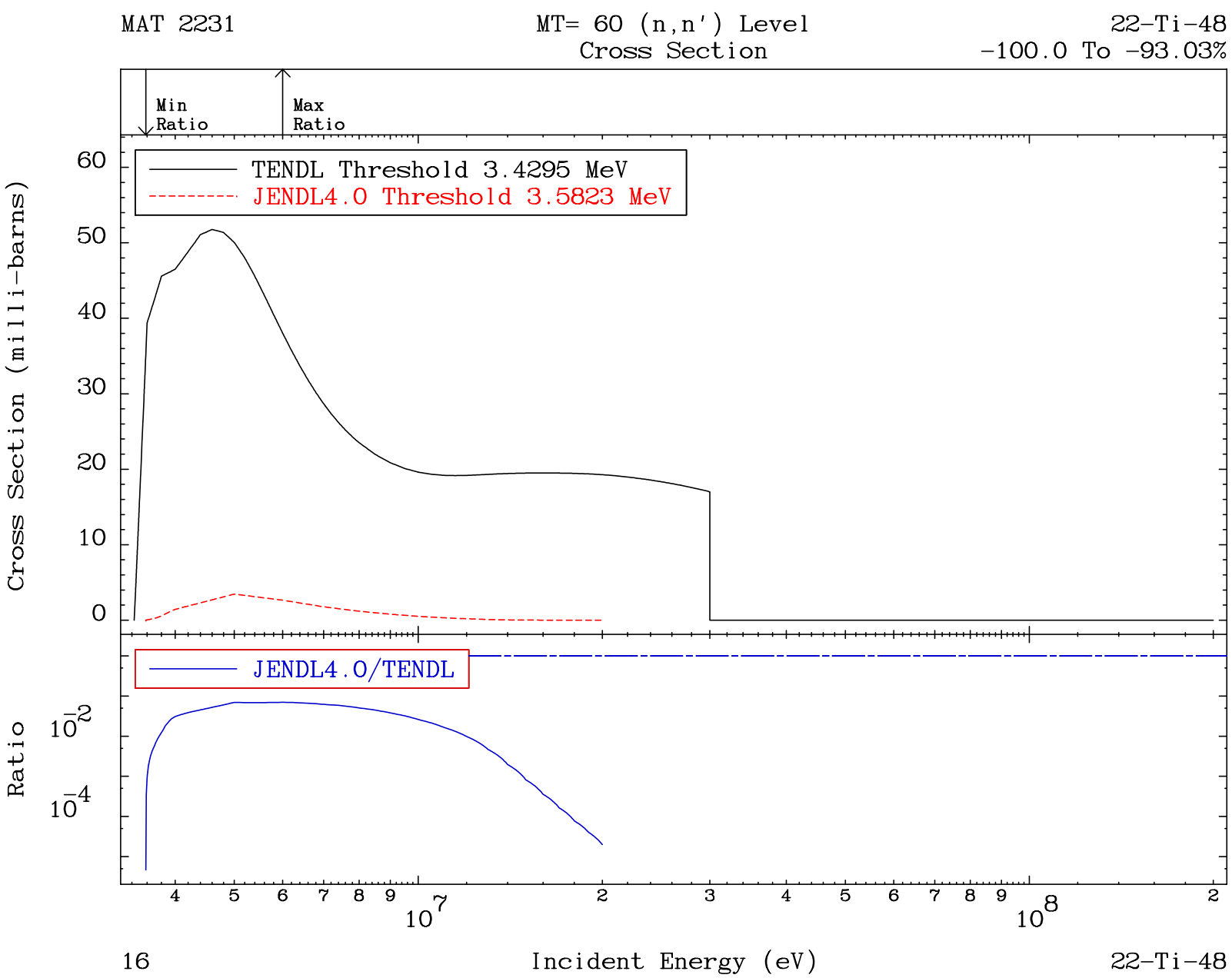

MAT 2231
MT= 55 (n,n') Level
Cross Section
22-Ti-48
-69.65 To 138.3 %
Max
Ratio
Min
Ratio
TENDL Threshold 3.0603 MeV
JENDL4.0 Threshold 3.2918 MeV
Cross Section (milli-barns)
80
60
40
20
0
JENDL4.0/TENDL
Ratio
3.0
2.0
1.0
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
22-Ti-48

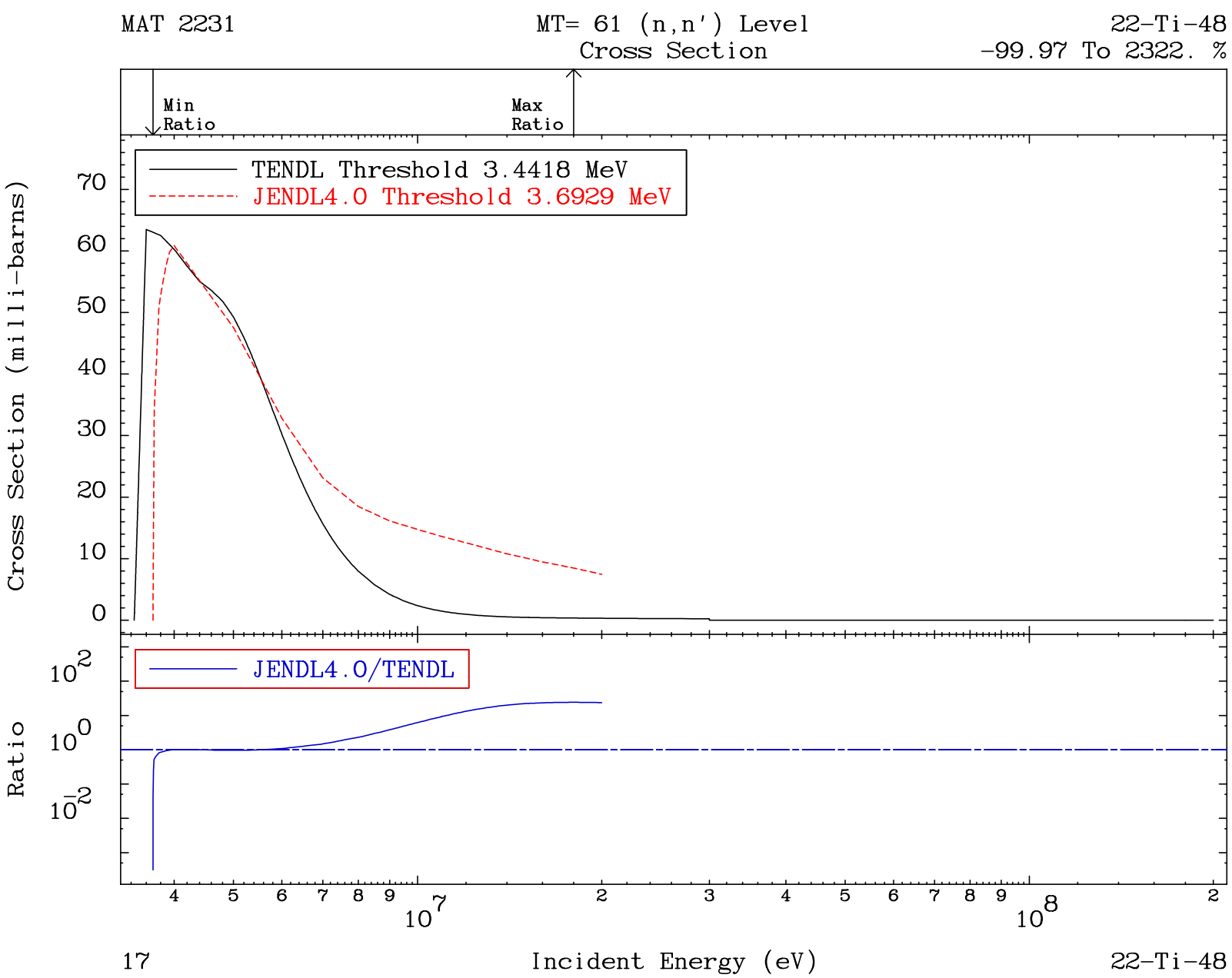

MAT 2231
MT= 56 (n,n') Level
Cross Section
22-Ti-48
-99.99 To 1060. %
Min
Ratio
Max
Ratio
TENDL Threshold 3.1264 MeV
JENDL4.0 Threshold 3.3080 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^2
10^0
10^-2
10^-4
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
12
Incident Energy (eV)
22-Ti-48

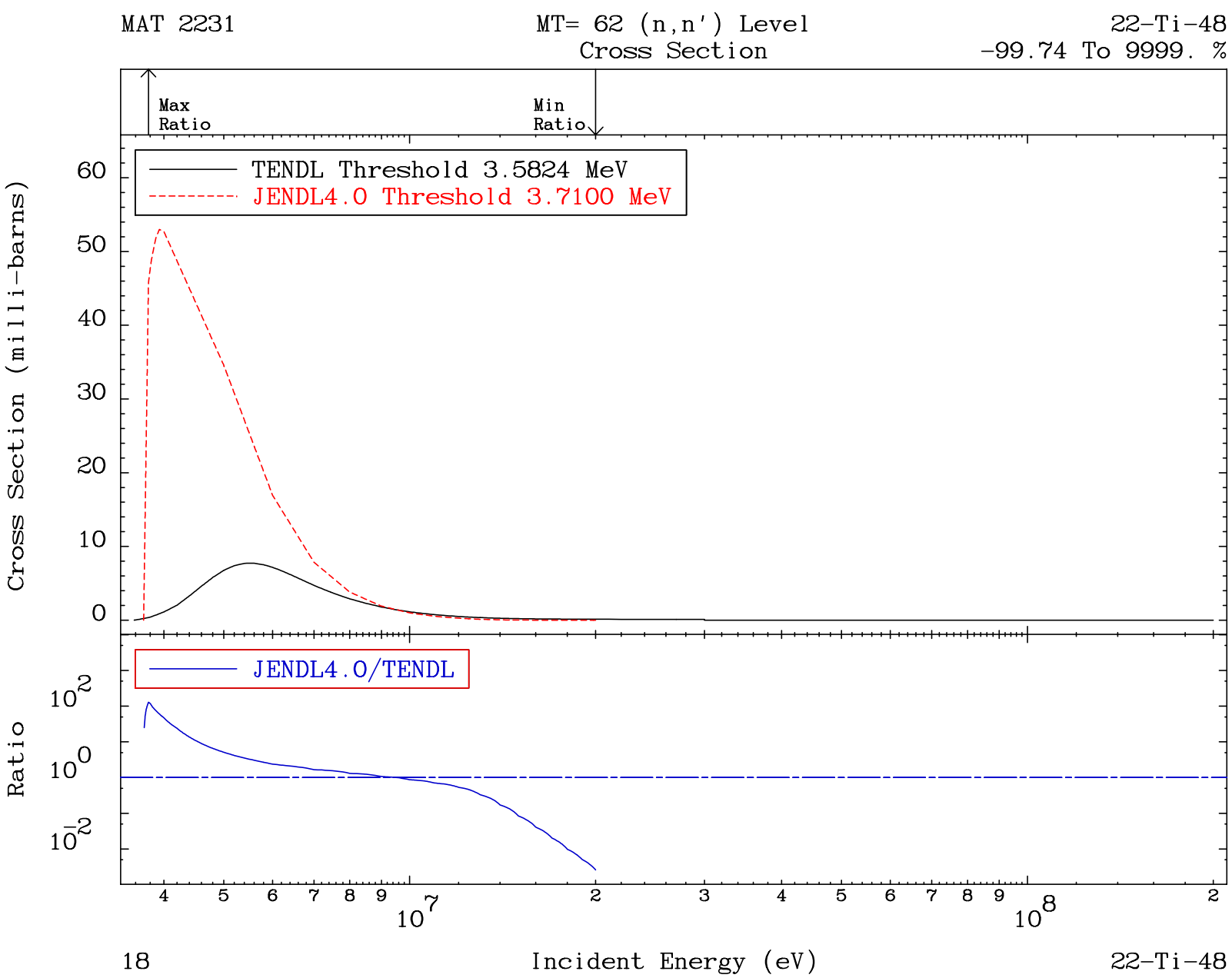

MAT 2231
MT= 57 (n,n') Level
Cross Section
22-Ti-48
-100.0 To -69.48%
Min Ratio
Max Ratio
TENDL Threshold 3.2918 MeV
JENDL4.0 Threshold 3.4033 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^0
10^-2
10^-4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
13
Incident Energy (eV)
22-Ti-48

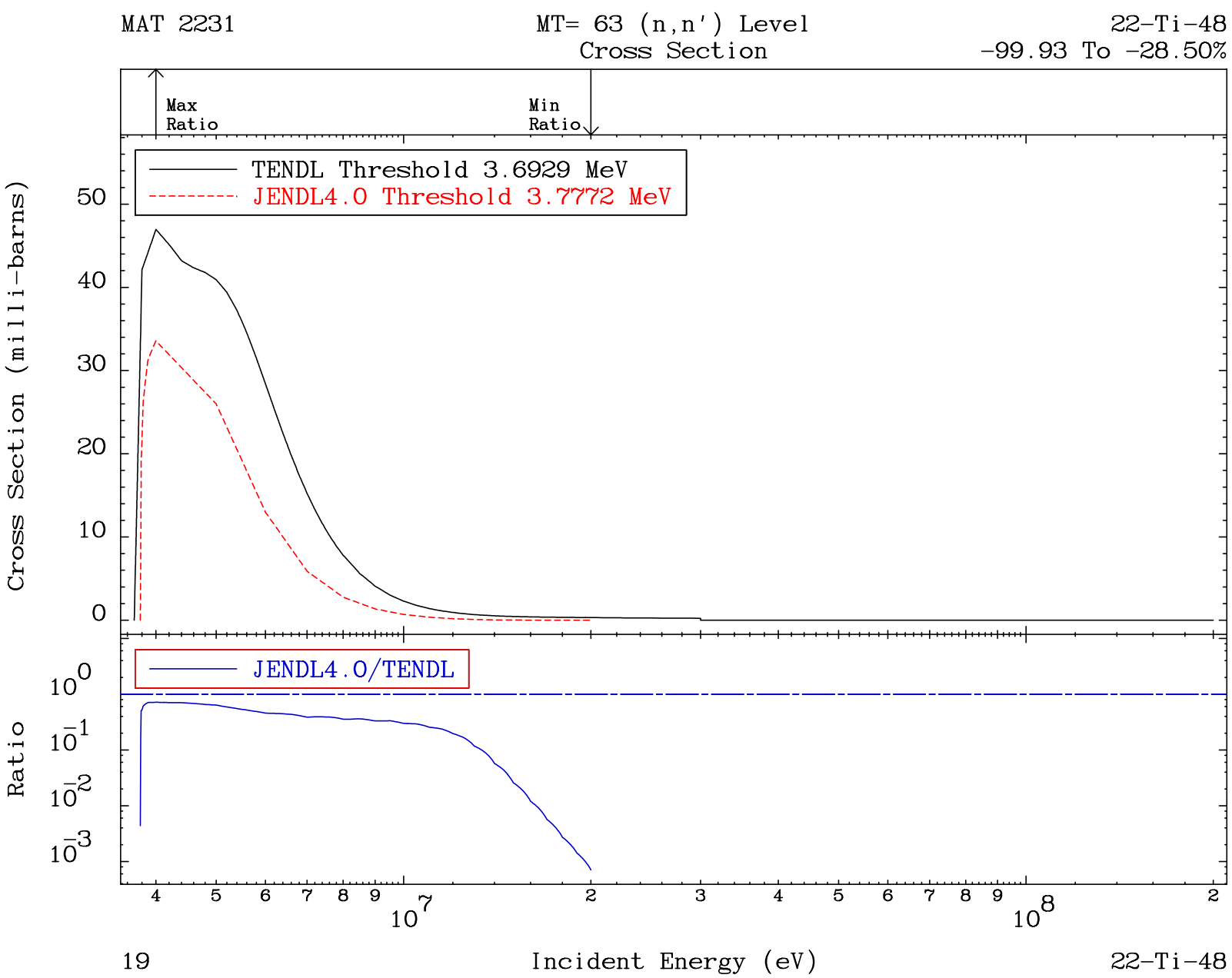

MAT 2231
MT= 58 (n,n') Level
Cross Section
22-Ti-48
-99.51 To 8648. %
Min Ratio
Max Ratio
TENDL Threshold 3.3079 MeV
JENDL4.0 Threshold 3.4295 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^2
10^0
10^-2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
14
Incident Energy (eV)
22-Ti-48

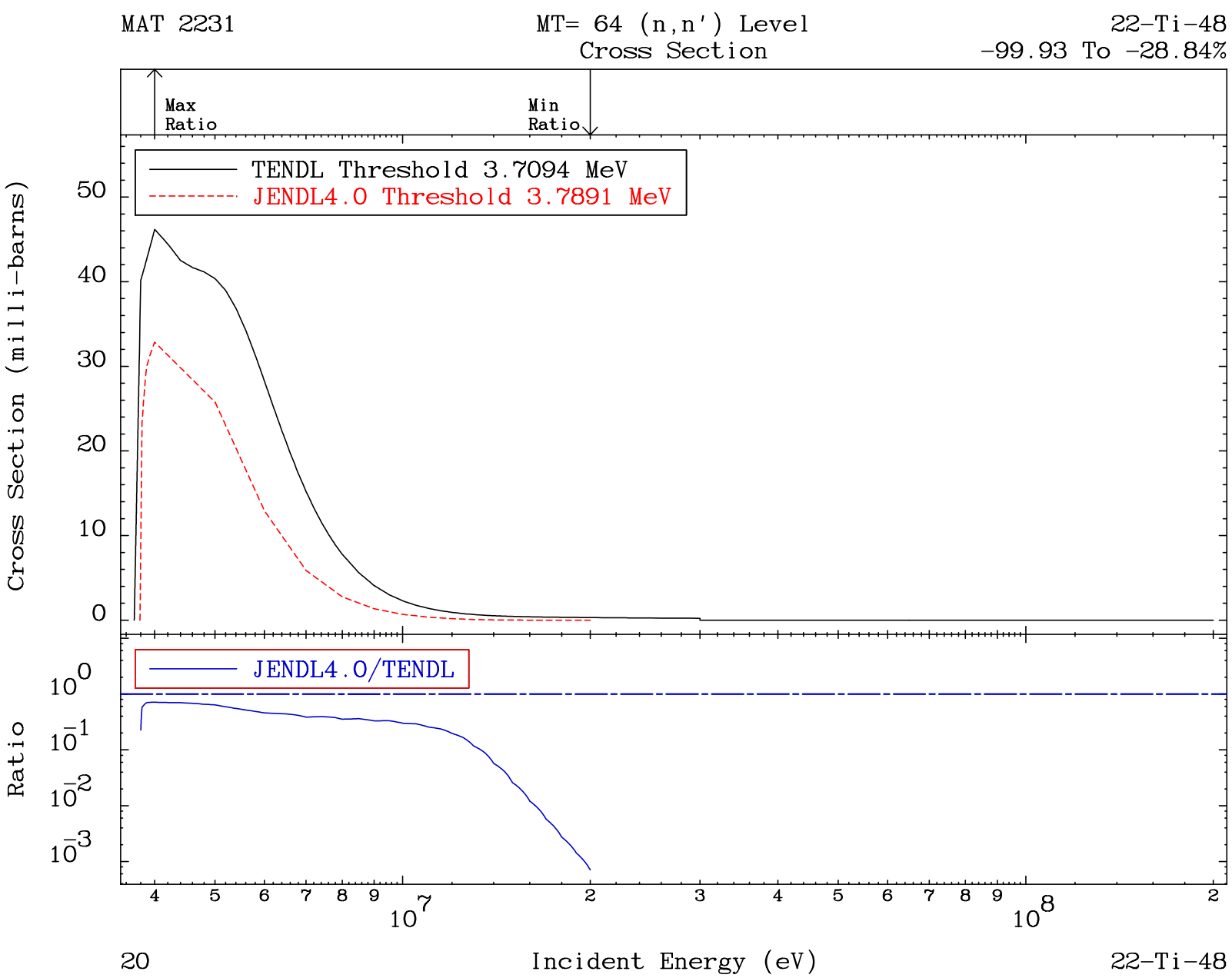

MAT 2231
MT= 59 (n,n') Level
Cross Section
22-Ti-48
-99.74 To 9999. %
Max
Ratio
Min
Ratio
TENDL Threshold 3.4033 MeV
JENDL4.0 Threshold 3.4418 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^2
10^0
10^-2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
15
Incident Energy (eV)
22-Ti-48

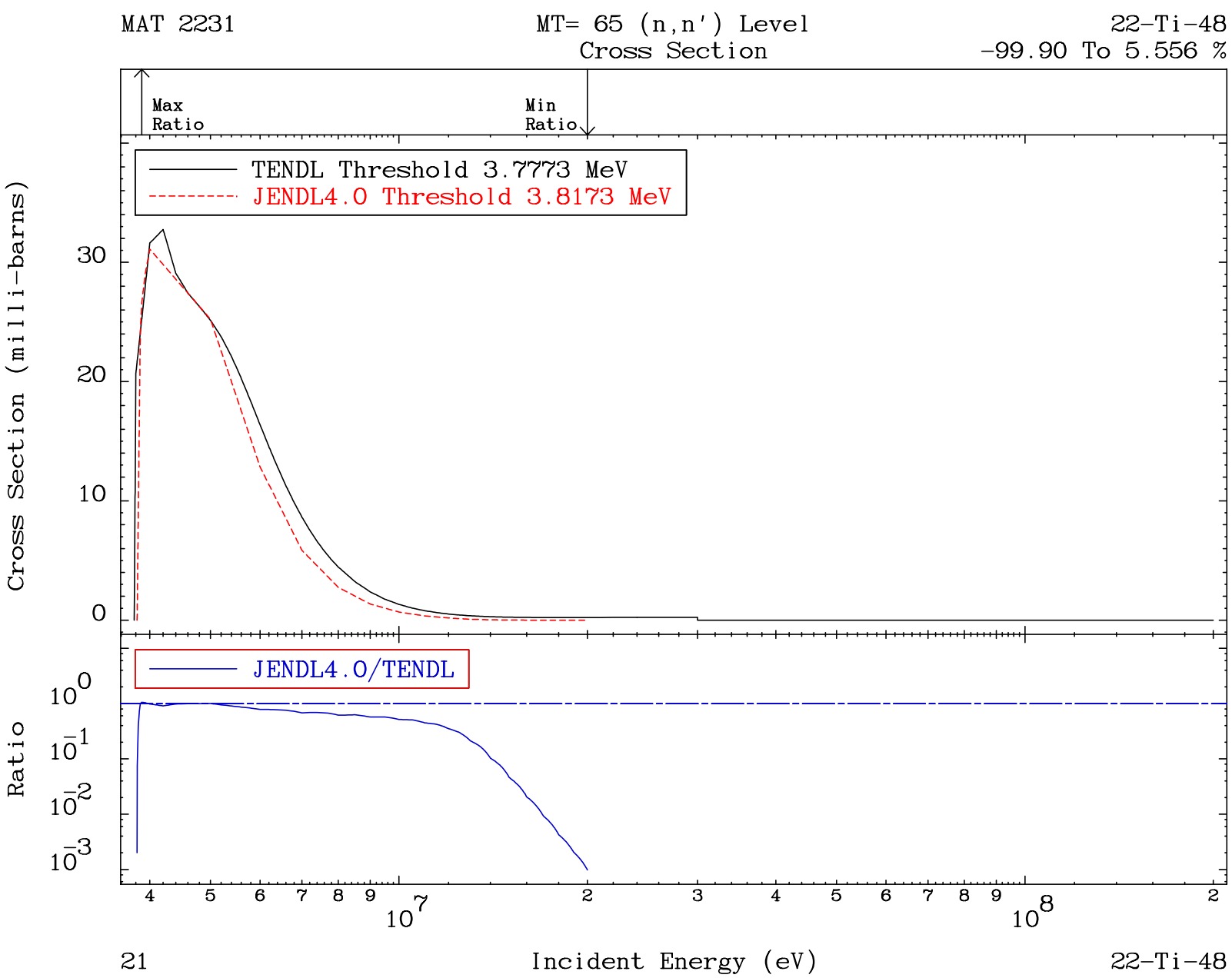

MAT 2231
MT= 60 (n,n') Level
Cross Section
22-Ti-48
-100.0 To -93.03%
Min Ratio
Max Ratio
TENDL Threshold 3.4295 MeV
JENDL4.0 Threshold 3.5823 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10-2
10-4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
22-Ti-48

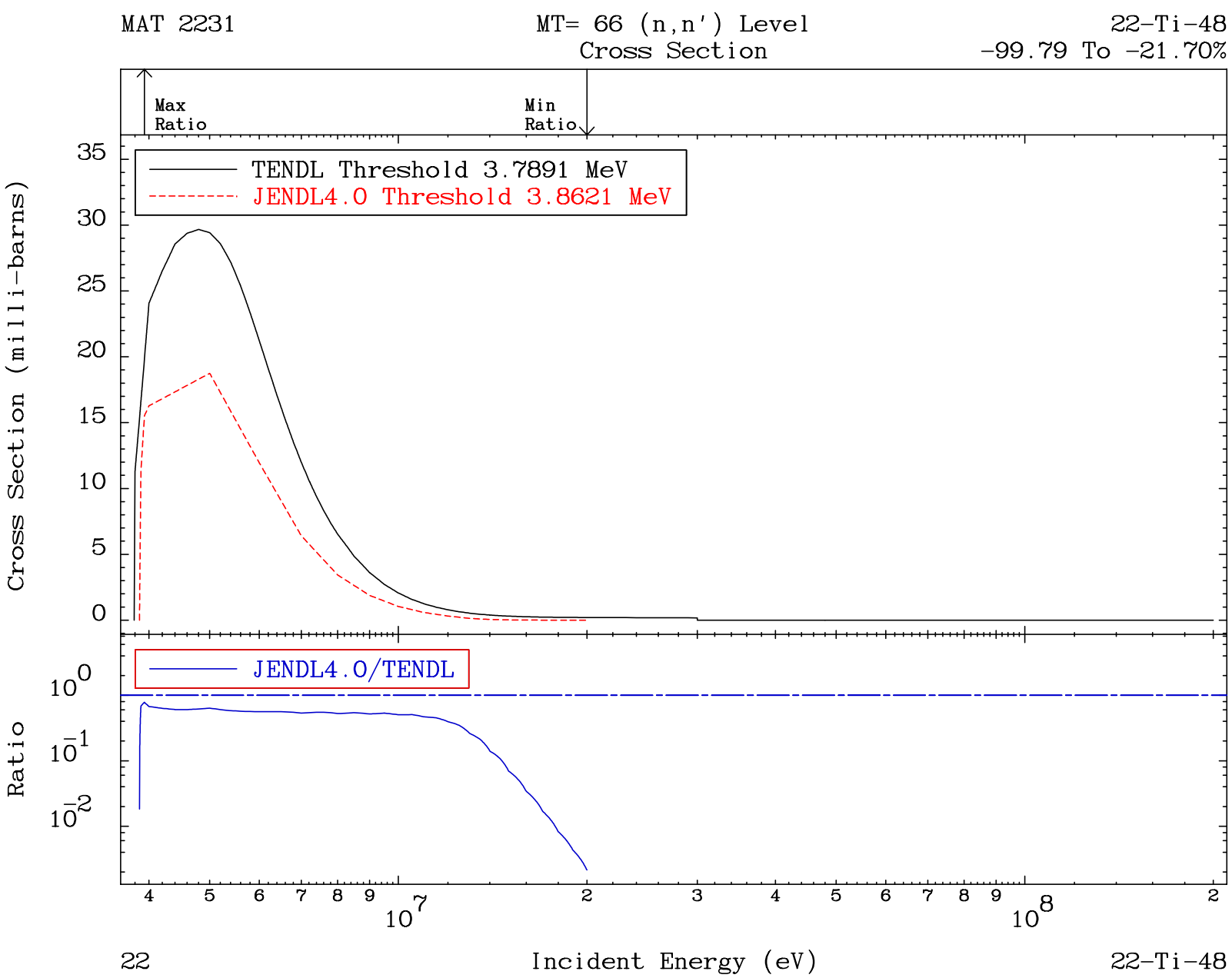

MAT 2231
MT= 61 (n,n') Level
Cross Section
22-Ti-48
-99.97 To 2322. %
Min
Ratio
Max
Ratio
TENDL Threshold 3.4418 MeV
JENDL4.0 Threshold 3.6929 MeV
Cross Section (milli-barns)
0
10
20
30
40
50
60
70
JENDL4.0/TENDL
Ratio
10^2
10^0
10^-2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
17
Incident Energy (eV)
22-Ti-48

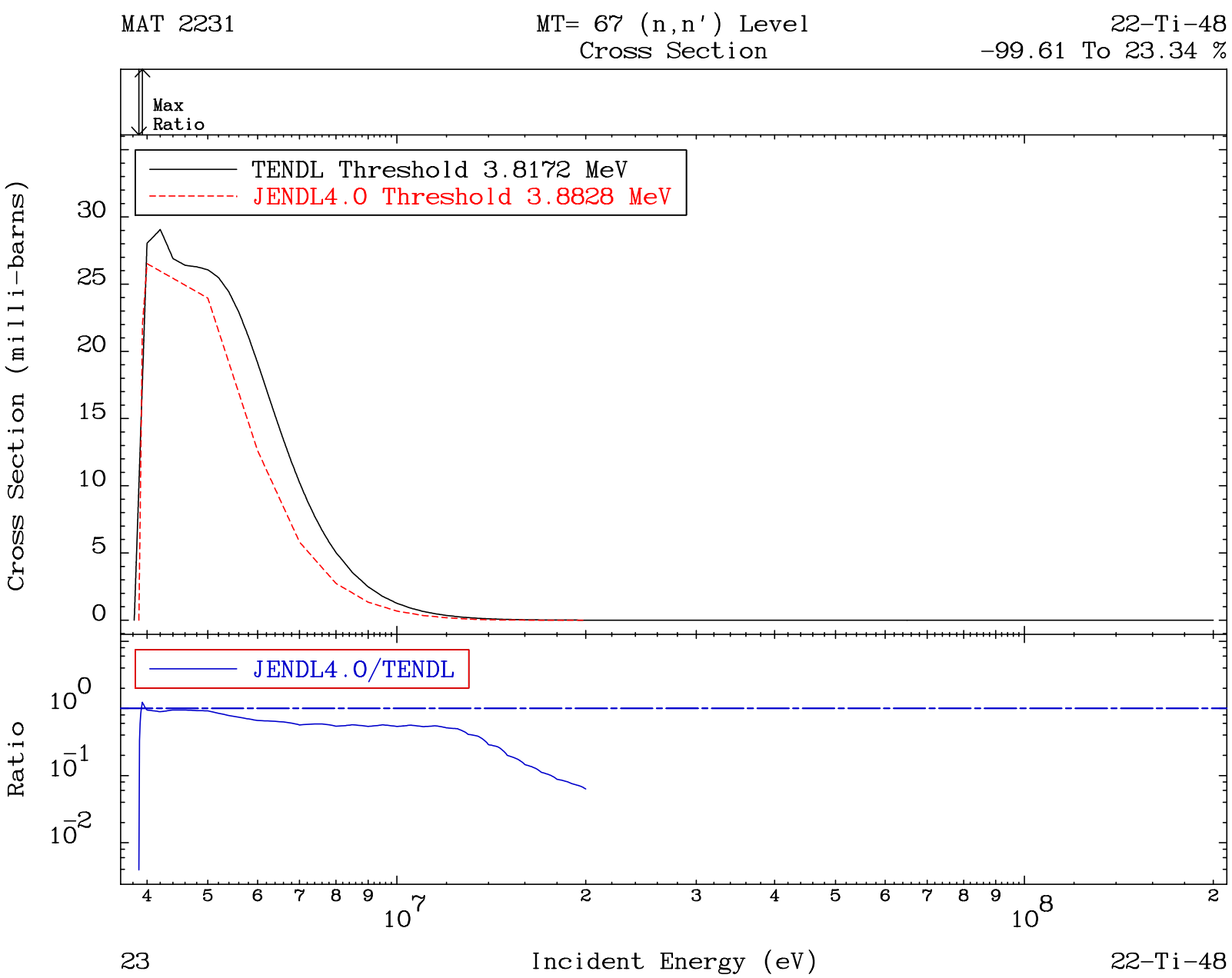

MAT 2231
MT= 62 (n,n') Level
Cross Section
22-Ti-48
-99.74 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 3.5824 MeV
JENDL4.0 Threshold 3.7100 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^2
10^0
10^-2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
22-Ti-48

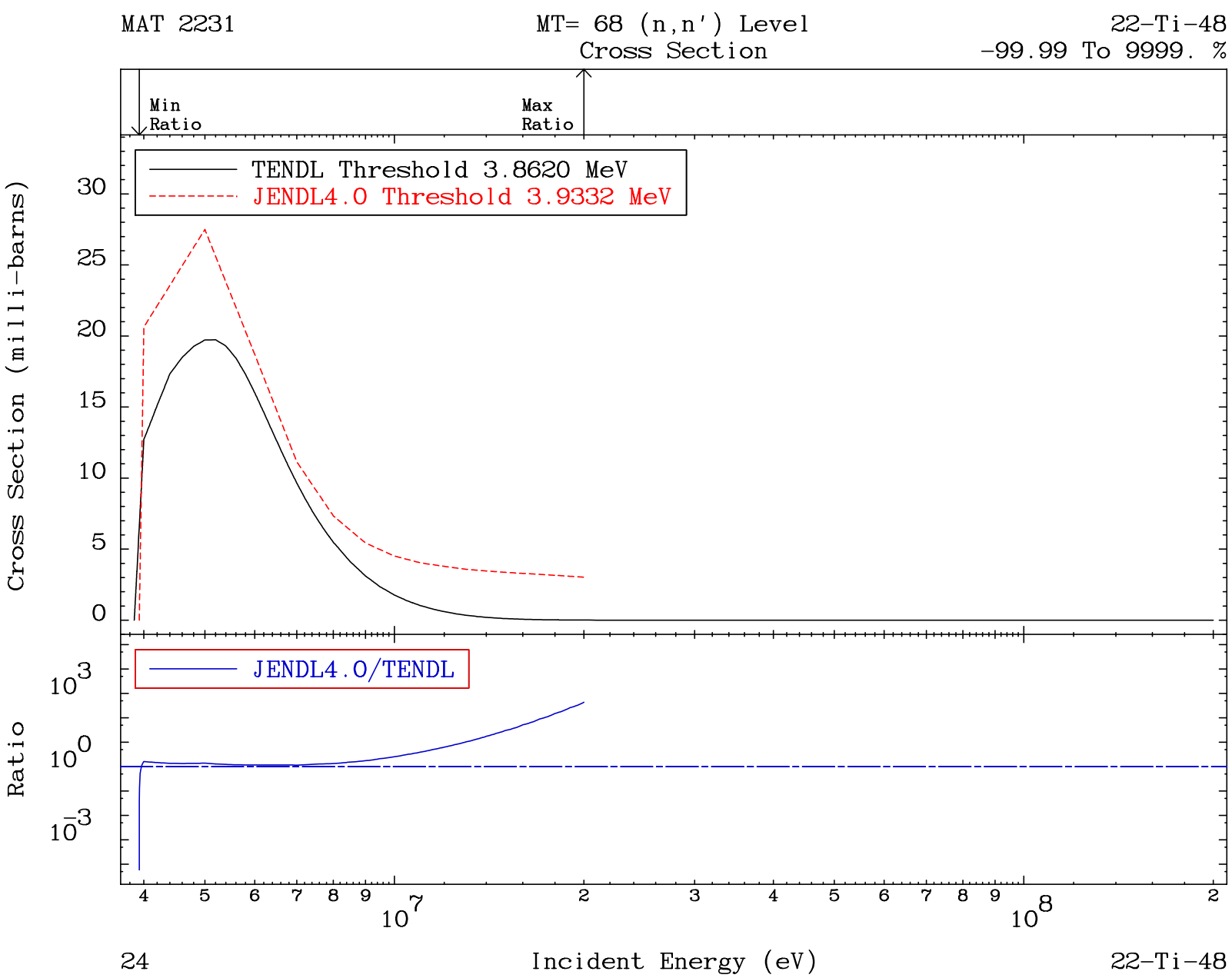

MAT 2231
MT= 63 (n,n') Level
Cross Section
22-Ti-48
-99.93 To -28.50%
Max
Ratio
Min
Ratio
TENDL Threshold 3.6929 MeV
JENDL4.0 Threshold 3.7772 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
10^-3
4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
19
Incident Energy (eV)
22-Ti-48

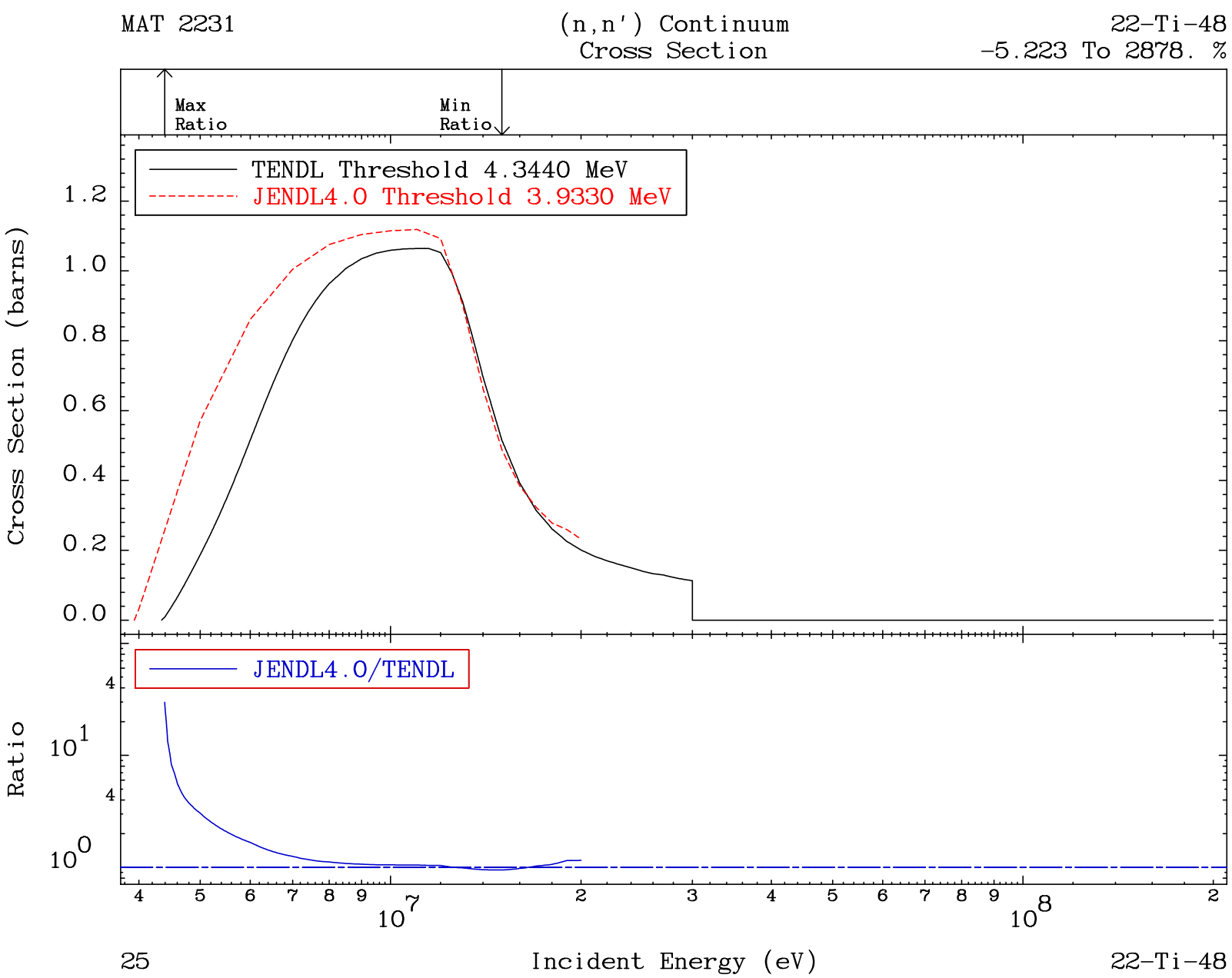

MAT 2231
MT= 64 (n,n') Level
Cross Section
22-Ti-48
-99.93 To -28.84%
Max Ratio
Min Ratio
TENDL Threshold 3.7094 MeV
JENDL4.0 Threshold 3.7891 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
10^-3
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
22-Ti-48

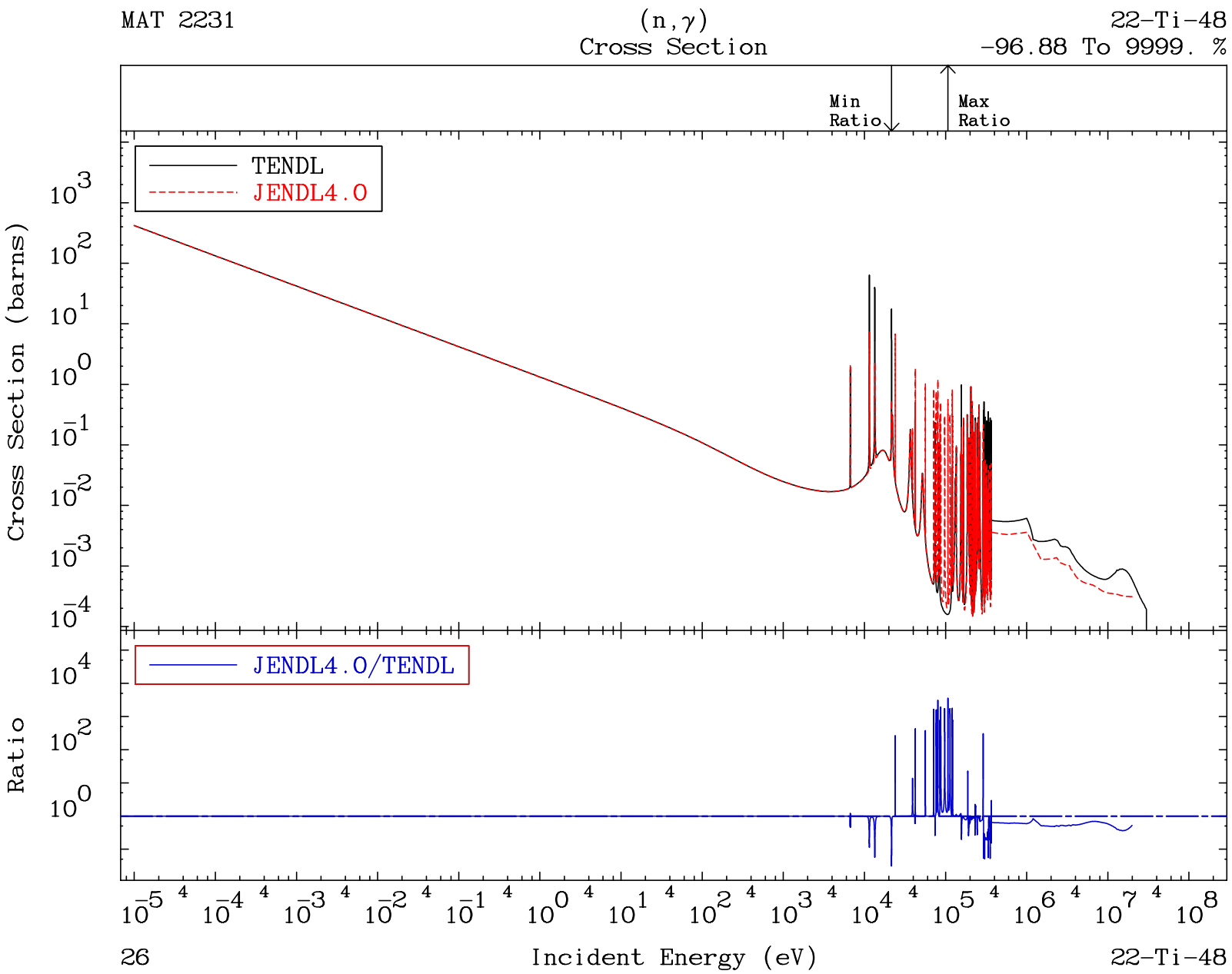

MAT 2231
MT= 65 (n,n') Level
Cross Section
22-Ti-48
-99.90 To 5.556 %
Max Ratio
Min Ratio
TENDL Threshold 3.7773 MeV
JENDL4.0 Threshold 3.8173 MeV
Cross Section (milli-barns)
30
20
10
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
10^-3
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
22-Ti-48

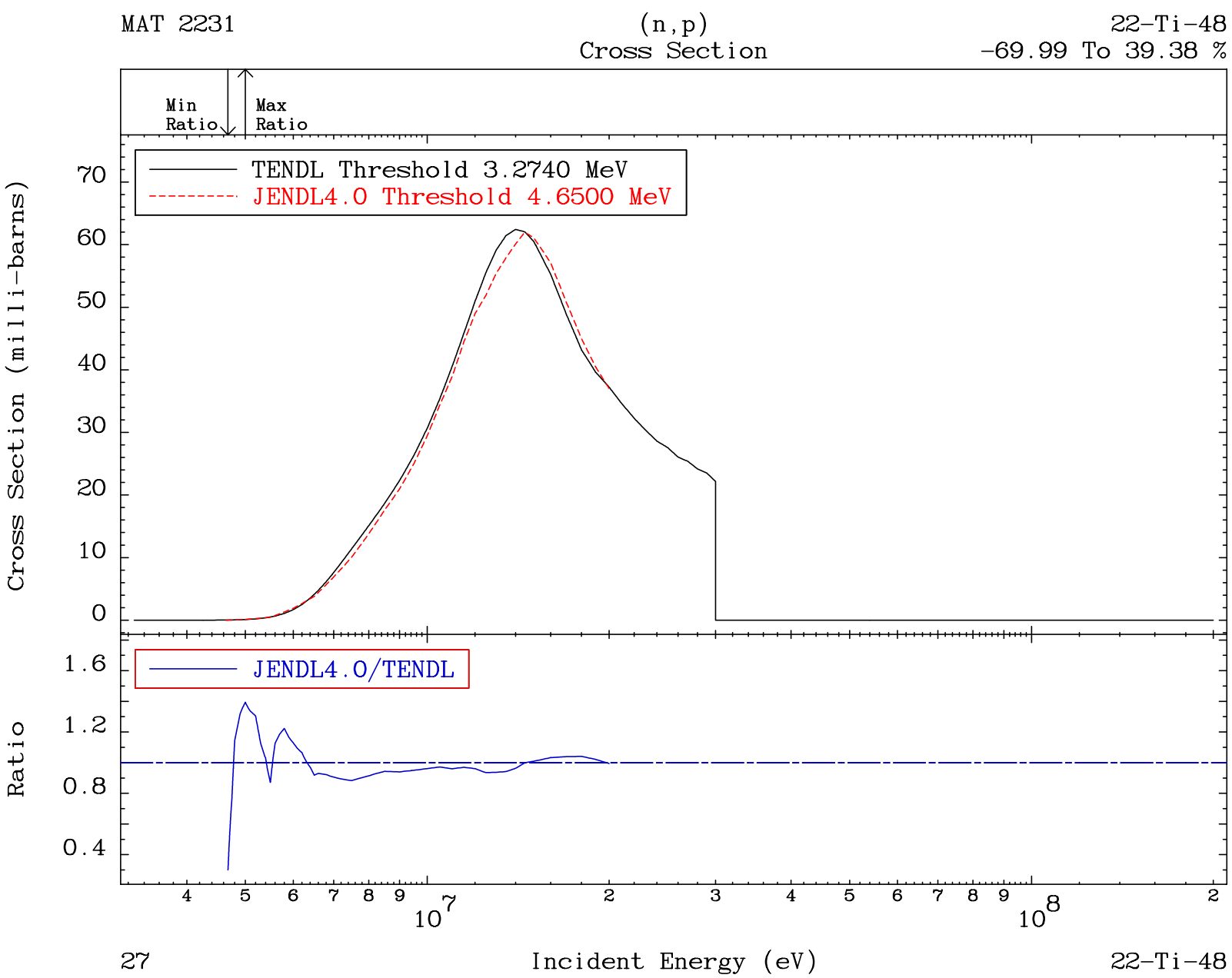

MAT 2231
MT= 66 (n,n') Level
Cross Section
22-Ti-48
-99.79 To -21.70%
Max Ratio
Min Ratio
TENDL Threshold 3.7891 MeV
JENDL4.0 Threshold 3.8621 MeV
Cross Section (milli-barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
22
22-Ti-48

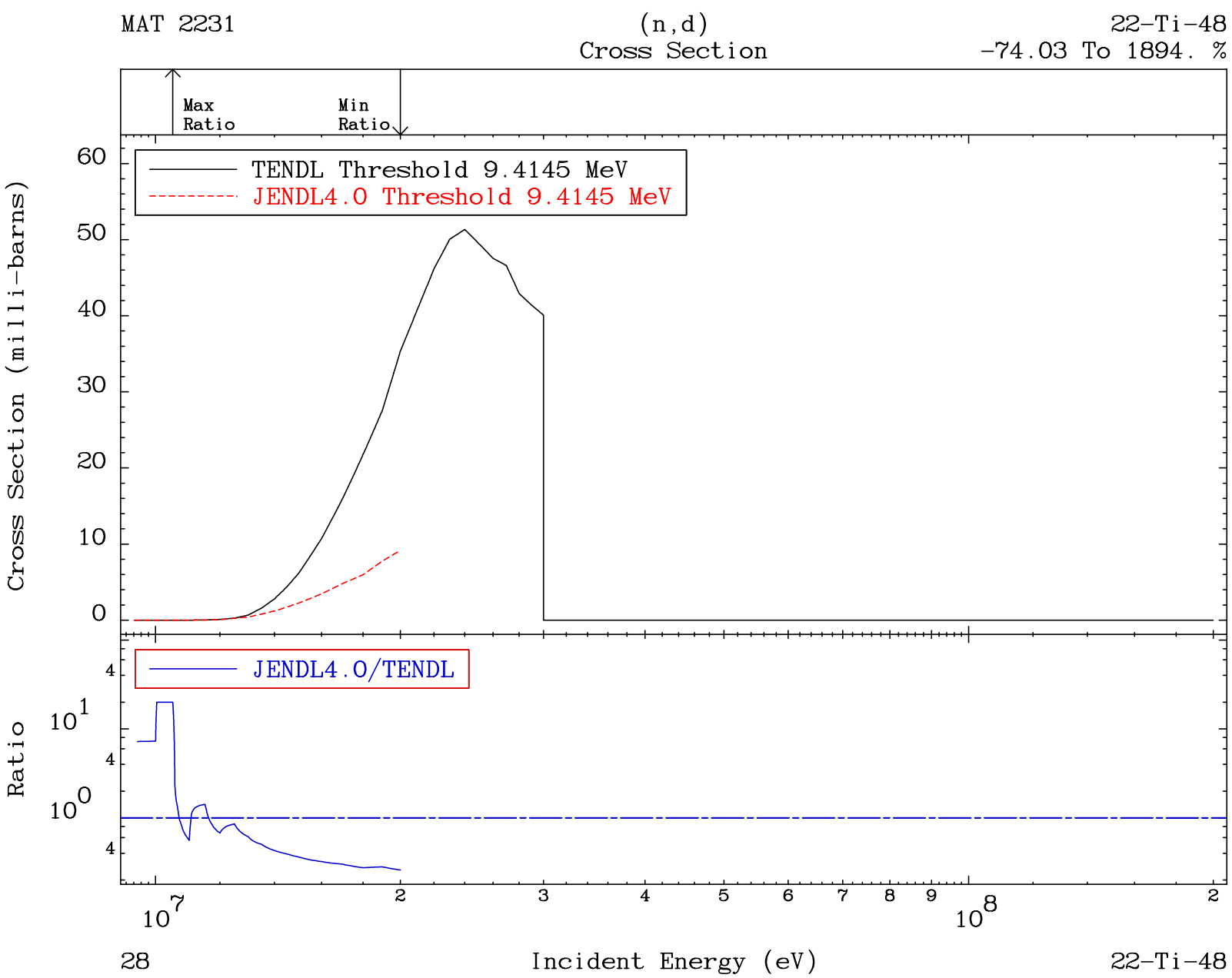

MAT 2231
MT= 67 (n,n') Level
Cross Section
22-Ti-48
-99.61 To 23.34 %
Max
Ratio
TENDL Threshold 3.8172 MeV
JENDL4.0 Threshold 3.8828 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JENDL4.0/TENDL
Ratio
10^0
10^-1
10^-2
4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
23
Incident Energy (eV)
22-Ti-48

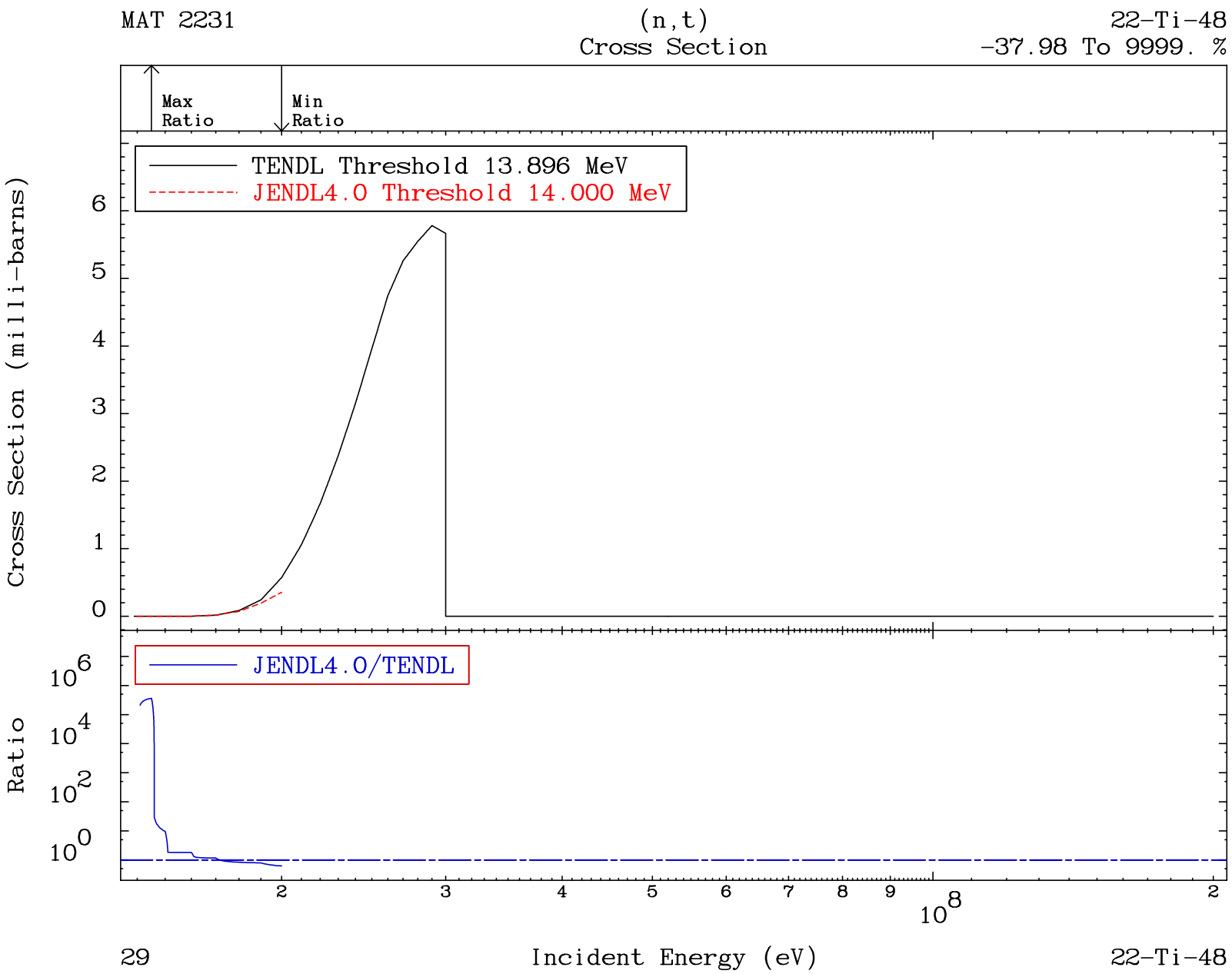

MAT 2231
MT= 68 (n,n') Level
Cross Section
22-Ti-48
-99.99 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 3.8620 MeV
JENDL4.0 Threshold 3.9332 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JENDL4.0/TENDL
Ratio
10^3
10^0
10^-3
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
22-Ti-48

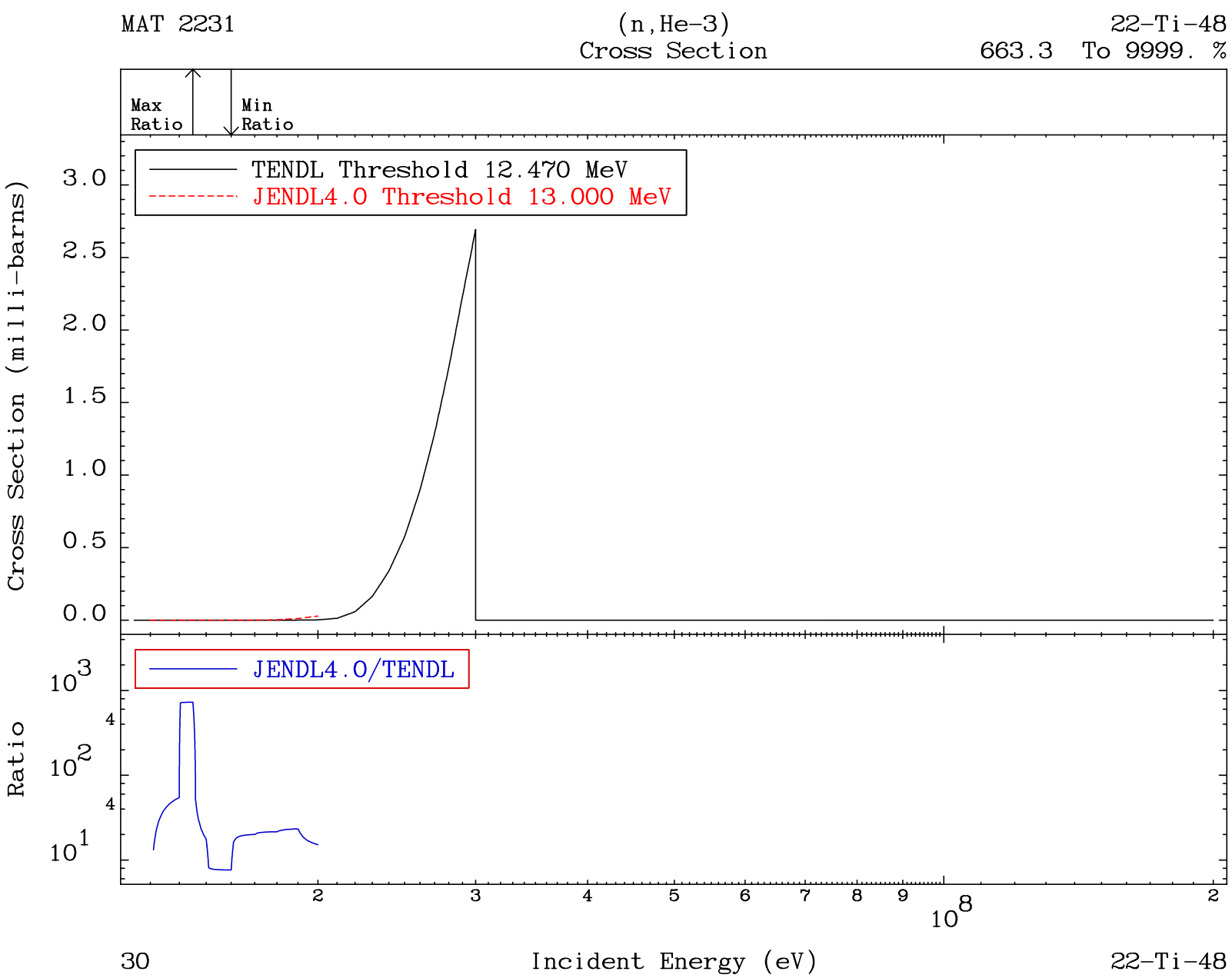

MAT 2231
(n,n') Continuum
Cross Section
22-Ti-48
-5.223 To 2878. %
Max Ratio
Min Ratio
TENDL Threshold 4.3440 MeV
JENDL4.0 Threshold 3.9330 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JENDL4.0/TENDL
Ratio
10^1
10^0
4
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
22-Ti-48

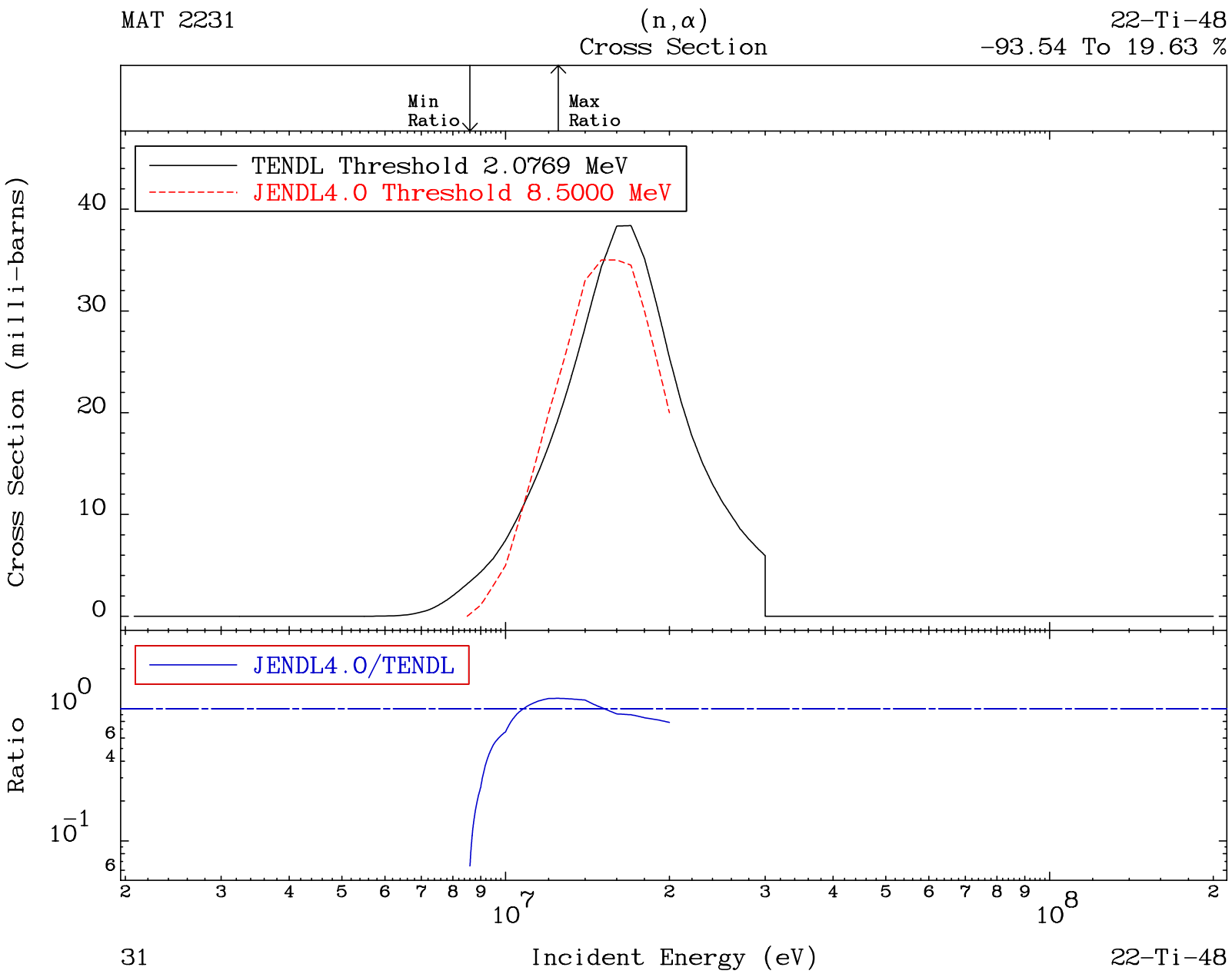

MAT 2231
(n,γ)
Cross Section
22-Ti-48
-96.88 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
26
22-Ti-48

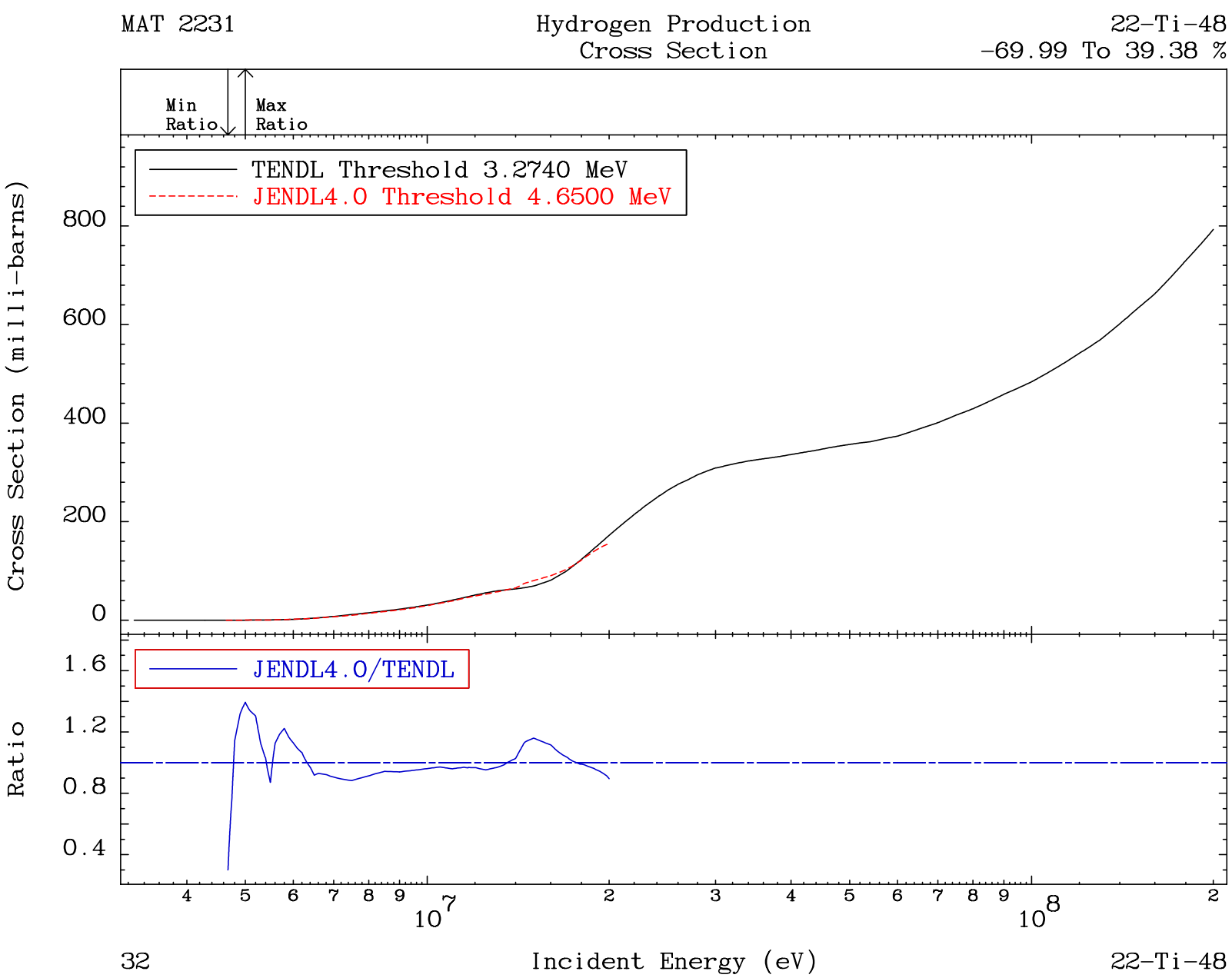

MAT 2231
(n,p)
Cross Section
22-Ti-48
-69.99 To 39.38 %
Min Ratio
Max Ratio
TENDL Threshold 3.2740 MeV
JENDL4.0 Threshold 4.6500 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
1.6
1.2
0.8
0.4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
22-Ti-48

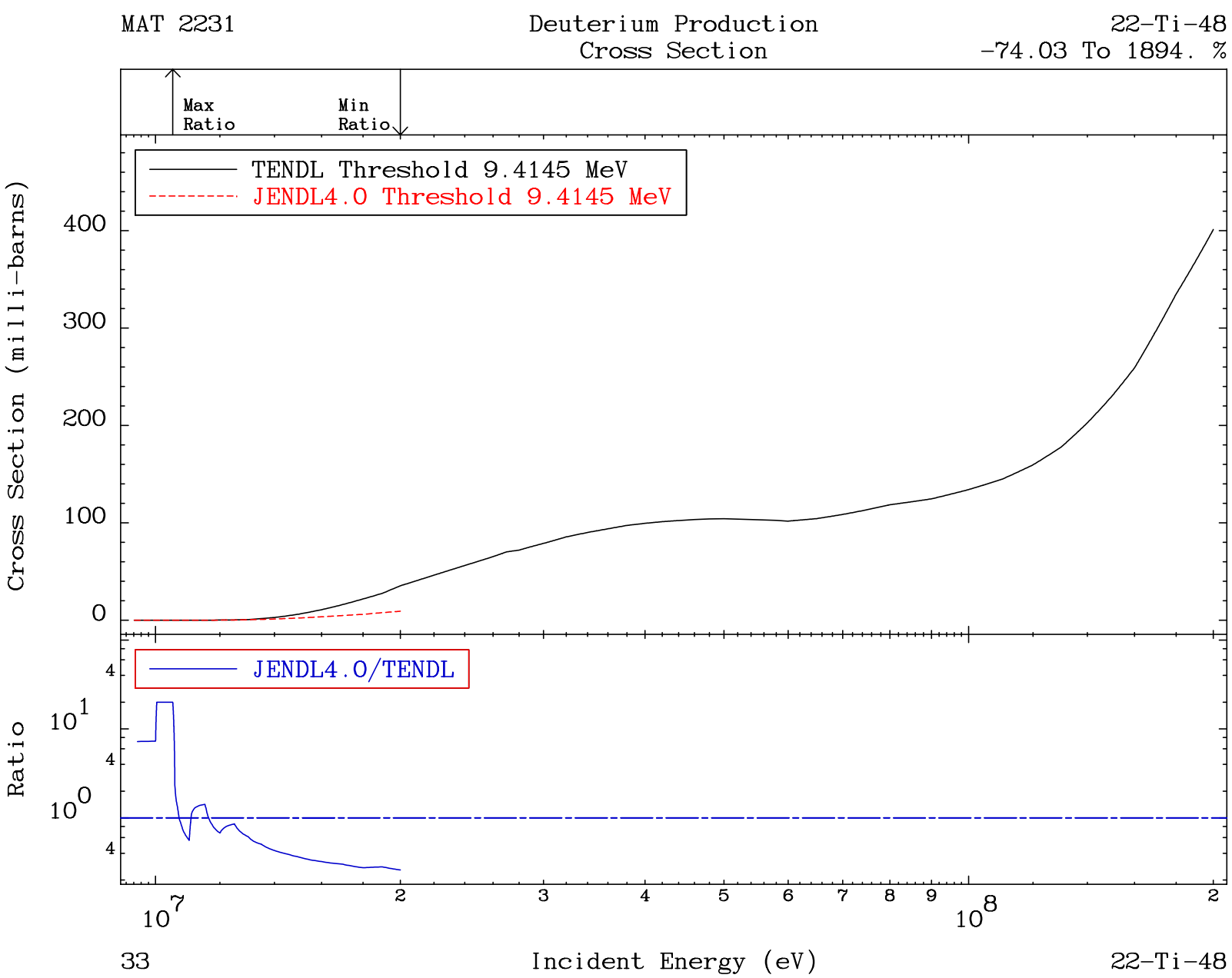

MAT 2231
(n,d)
Cross Section
22-Ti-48
-74.03 To 1894. %
Max Ratio
Min Ratio
TENDL Threshold 9.4145 MeV
JENDL4.0 Threshold 9.4145 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^1
10^0
4
4
4
10^7
2
3
4
5
6
7
8
9
10^8
2
28
Incident Energy (eV)
22-Ti-48

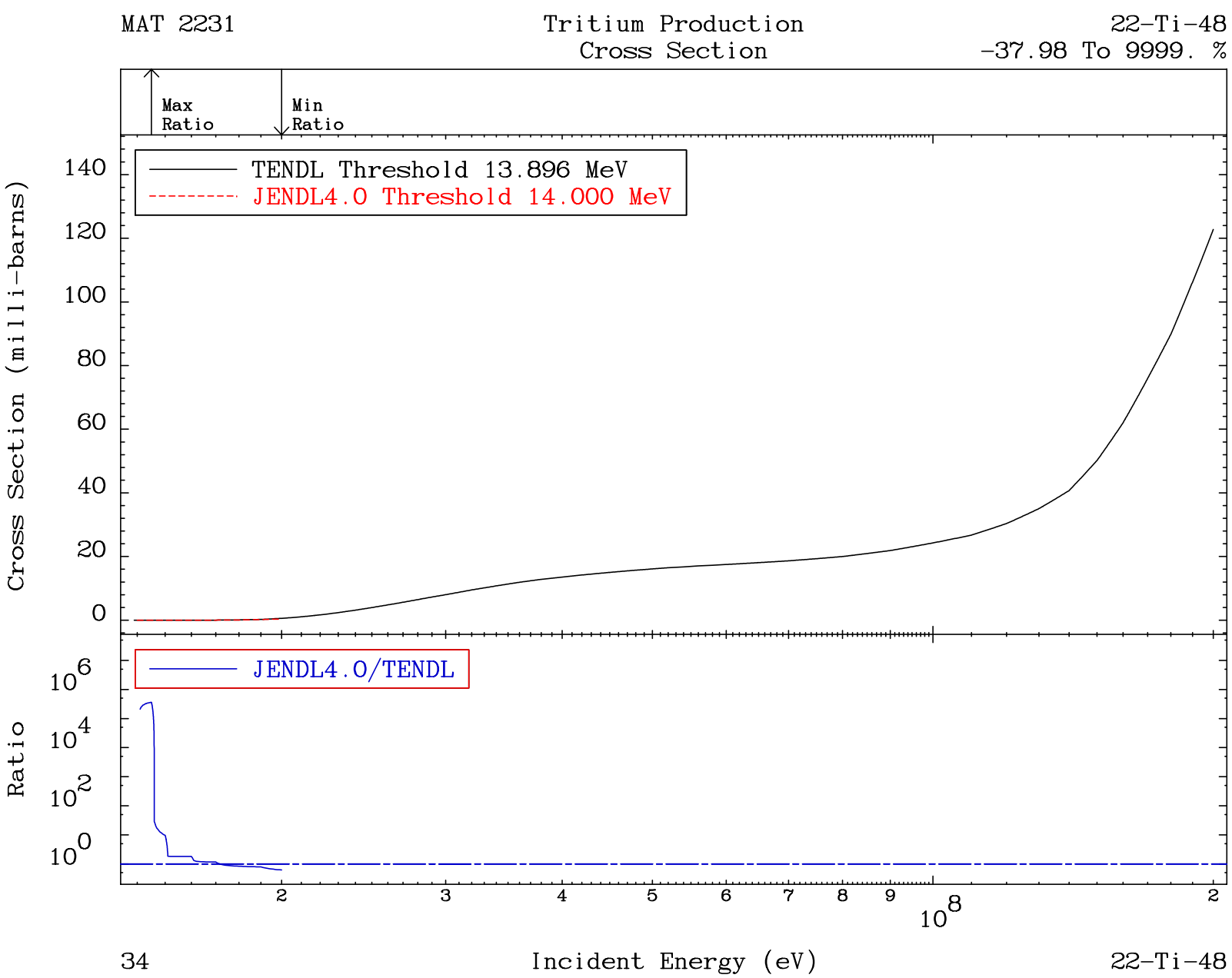

MAT 2231
(n,t)
Cross Section
22-Ti-48
-37.98 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.896 MeV
JENDL4.0 Threshold 14.000 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
JENDL4.0/TENDL
Ratio
10^6
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
29
Incident Energy (eV)
22-Ti-48

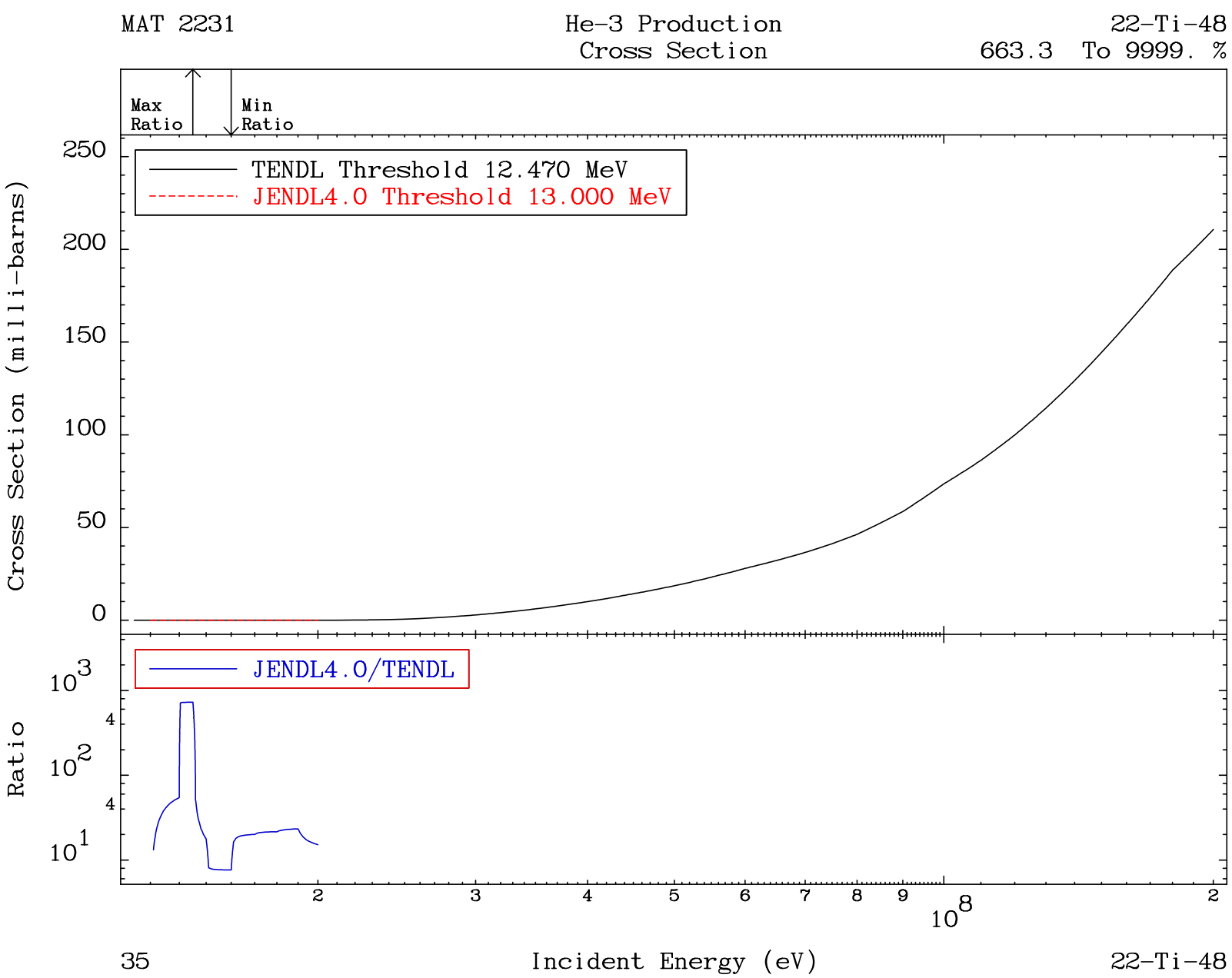

MAT 2231
(n,He-3)
Cross Section
22-Ti-48
663.3 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 12.470 MeV
JENDL4.0 Threshold 13.000 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JENDL4.0/TENDL
Ratio
10^3
10^2
10^1
2
3
4
5
6
7
8
9
10^8
2
30
Incident Energy (eV)
22-Ti-48

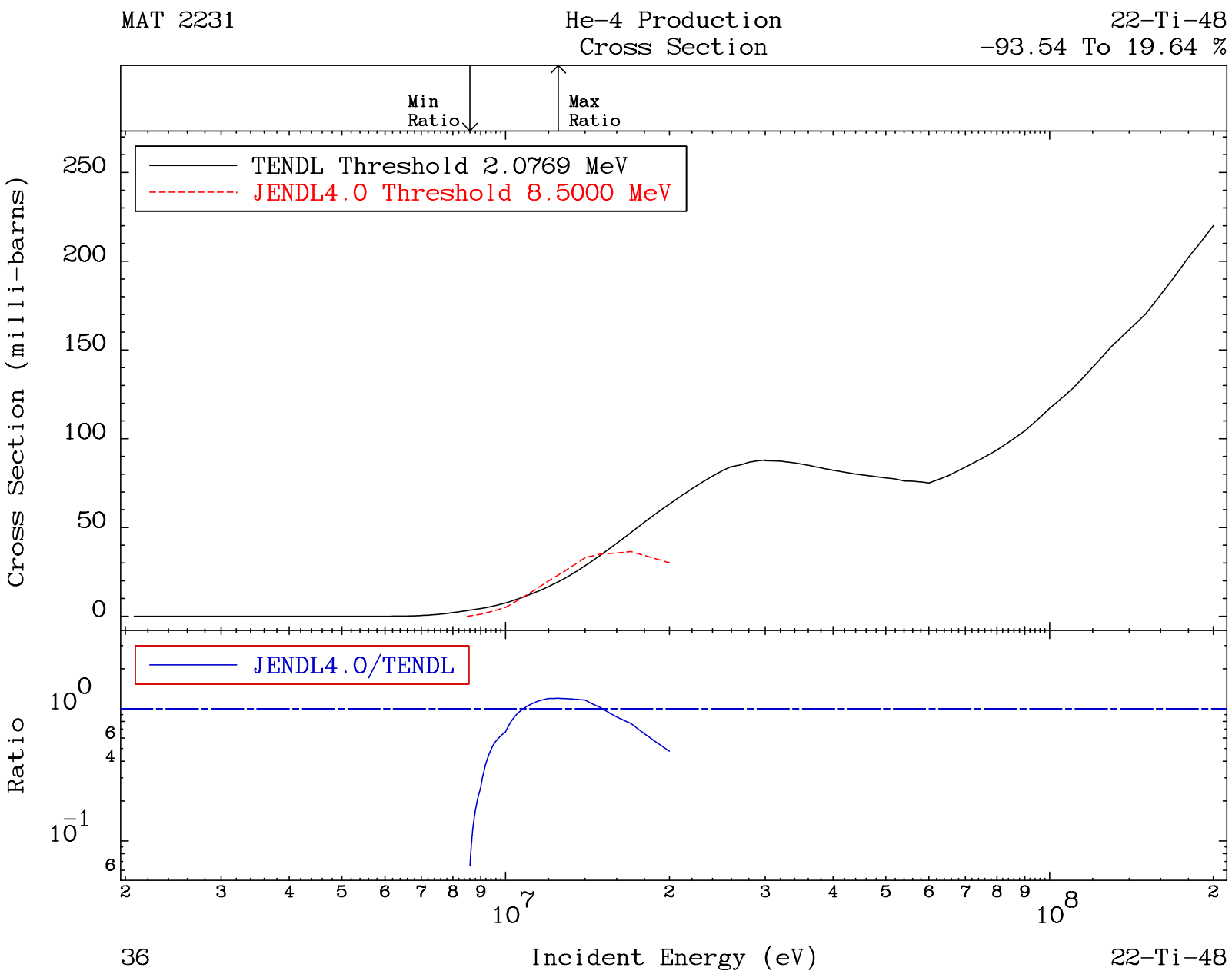

MAT 2231
(n,α)
Cross Section
22-Ti-48
-93.54 To 19.63 %
Min Ratio
Max Ratio
TENDL Threshold 2.0769 MeV
JENDL4.0 Threshold 8.5000 MeV
Cross Section (milli-barns)
40
30
20
10
0
JENDL4.0/TENDL
Ratio
10^0
6
4
10^-1
6
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
22-Ti-48

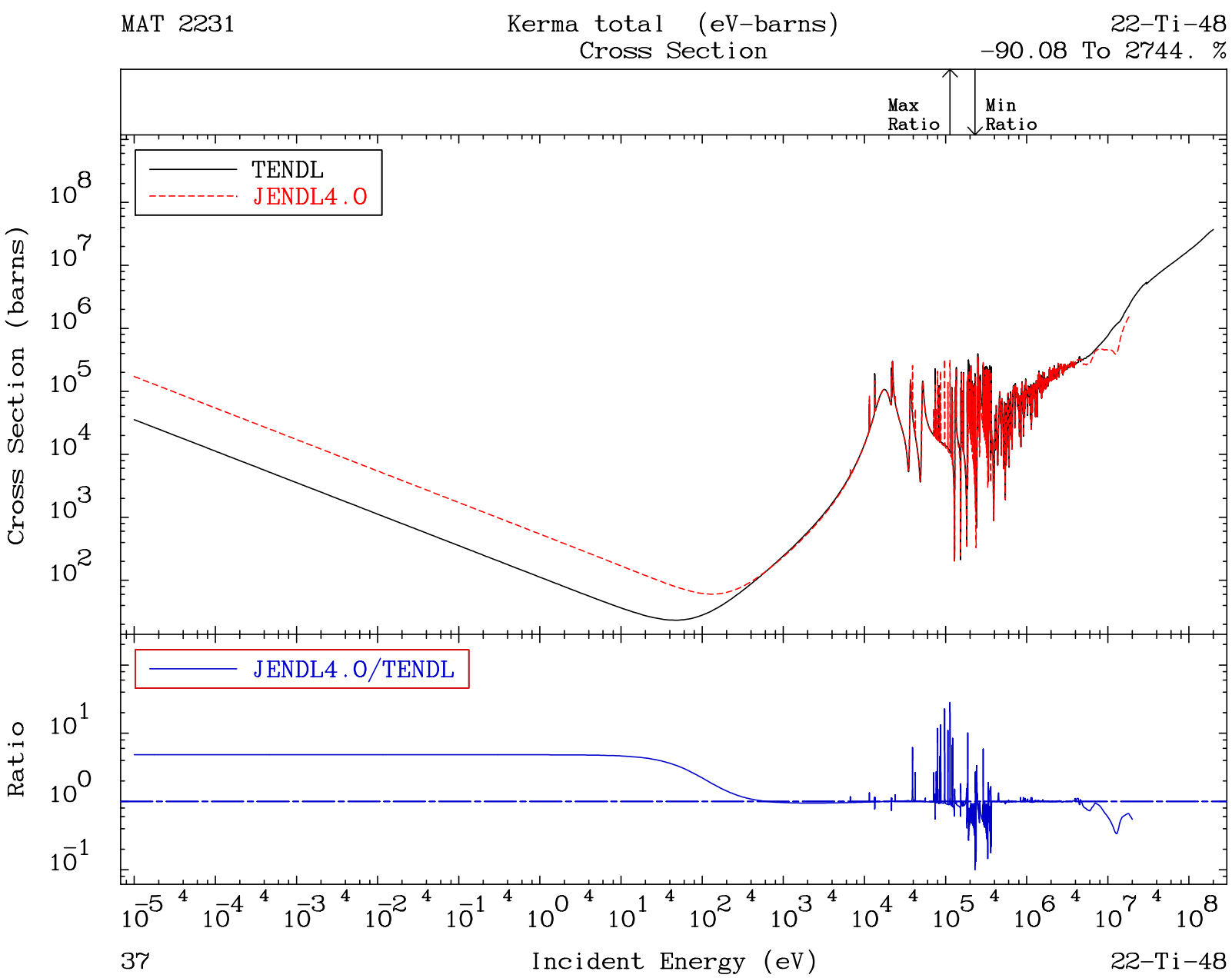

MAT 2231
Hydrogen Production
Cross Section
22-Ti-48
-69.99 To 39.38 %
Min Ratio
Max Ratio
TENDL Threshold 3.2740 MeV
JENDL4.0 Threshold 4.6500 MeV
Cross Section (milli-barns)
800
600
400
200
0
JENDL4.0/TENDL
Ratio
1.6
1.2
0.8
0.4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
32
Incident Energy (eV)
22-Ti-48

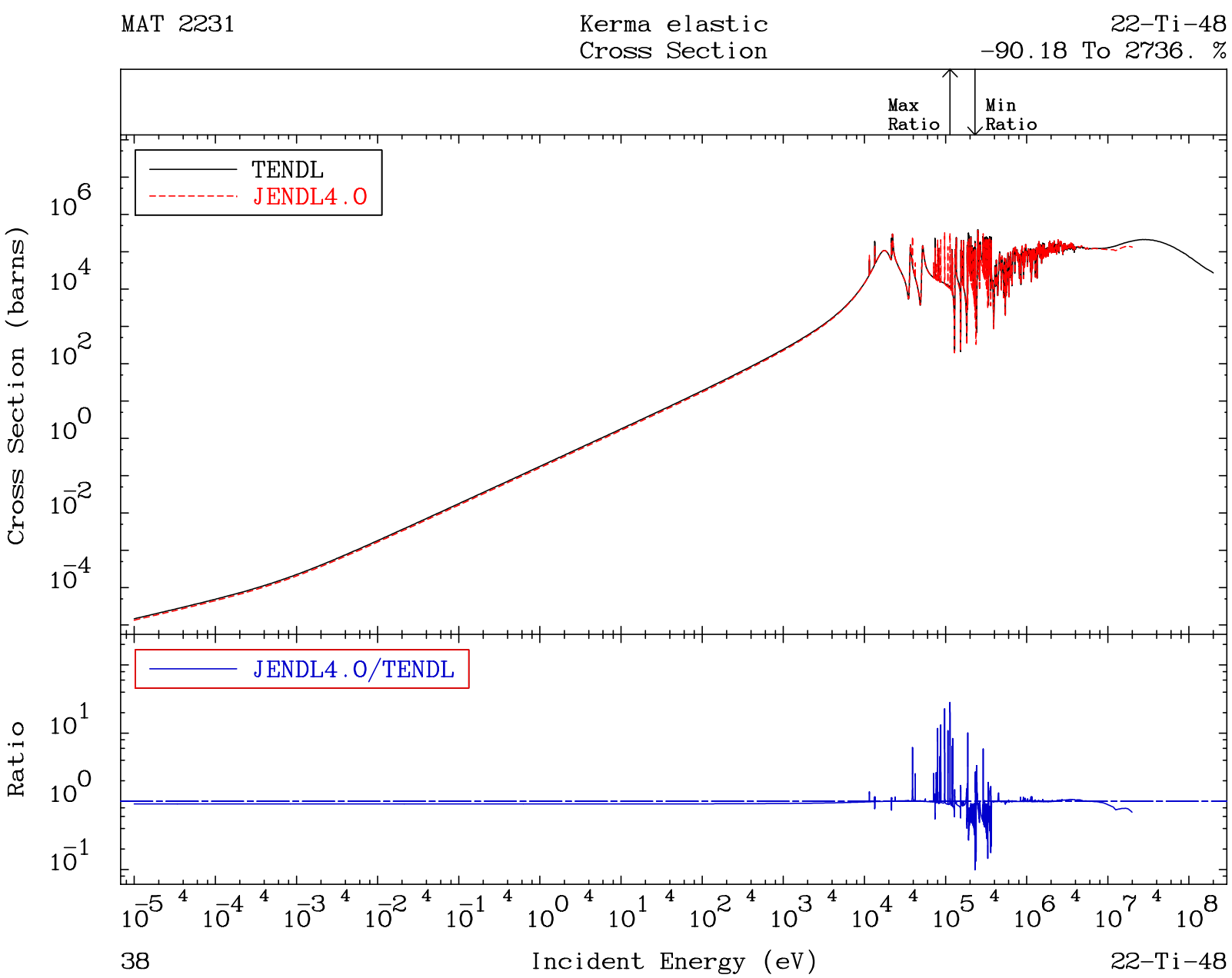

MAT 2231
Deuterium Production
Cross Section
22-Ti-48
-74.03 To 1894. %
Max Ratio
Min Ratio
TENDL Threshold 9.4145 MeV
JENDL4.0 Threshold 9.4145 MeV
Cross Section (milli-barns)
400
300
200
100
0
JENDL4.0/TENDL
Ratio
10^1
10^0
4
4
4
10^7
2
3
4
5
6
7
8
9
10^8
2
33
Incident Energy (eV)
22-Ti-48

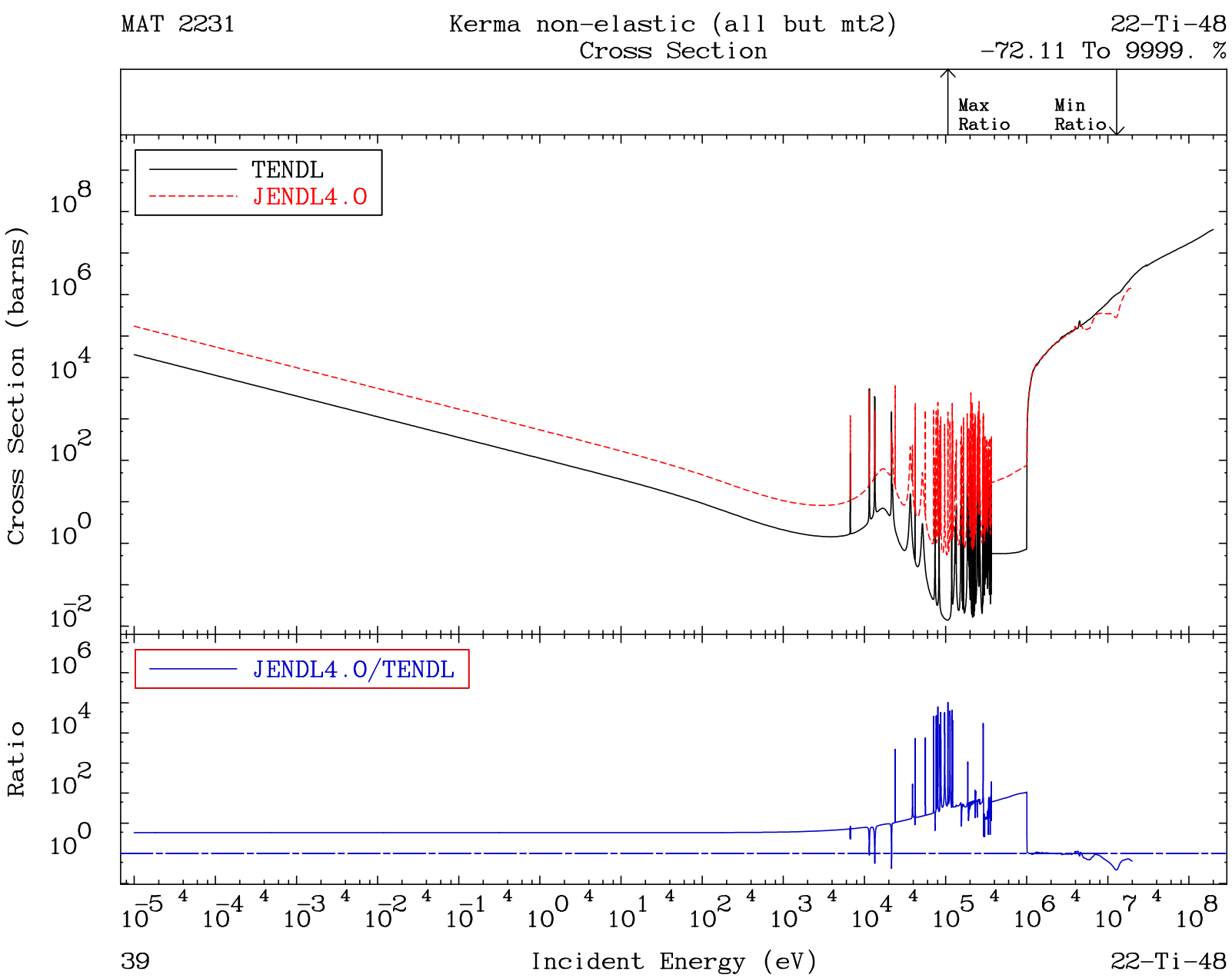

MAT 2231
Tritium Production
Cross Section
22-Ti-48
-37.98 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.896 MeV
JENDL4.0 Threshold 14.000 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JENDL4.0/TENDL
Ratio
10^6
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
34
Incident Energy (eV)
22-Ti-48

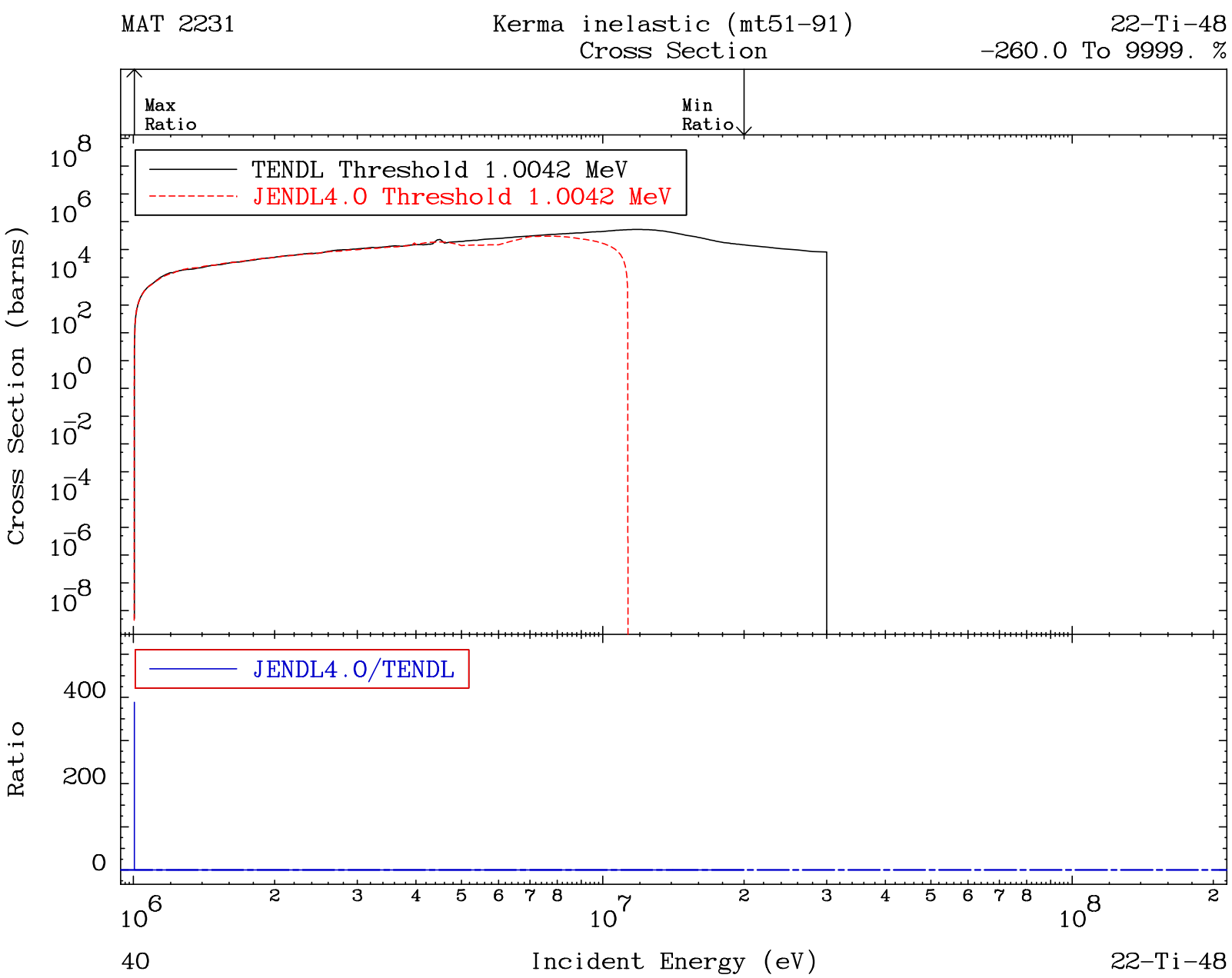

MAT 2231
He-3 Production
Cross Section
22-Ti-48
663.3 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 12.470 MeV
JENDL4.0 Threshold 13.000 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^3
4
10^2
4
10^1
2
3
4
5
6
7
8
9
10^8
2
35
Incident Energy (eV)
22-Ti-48

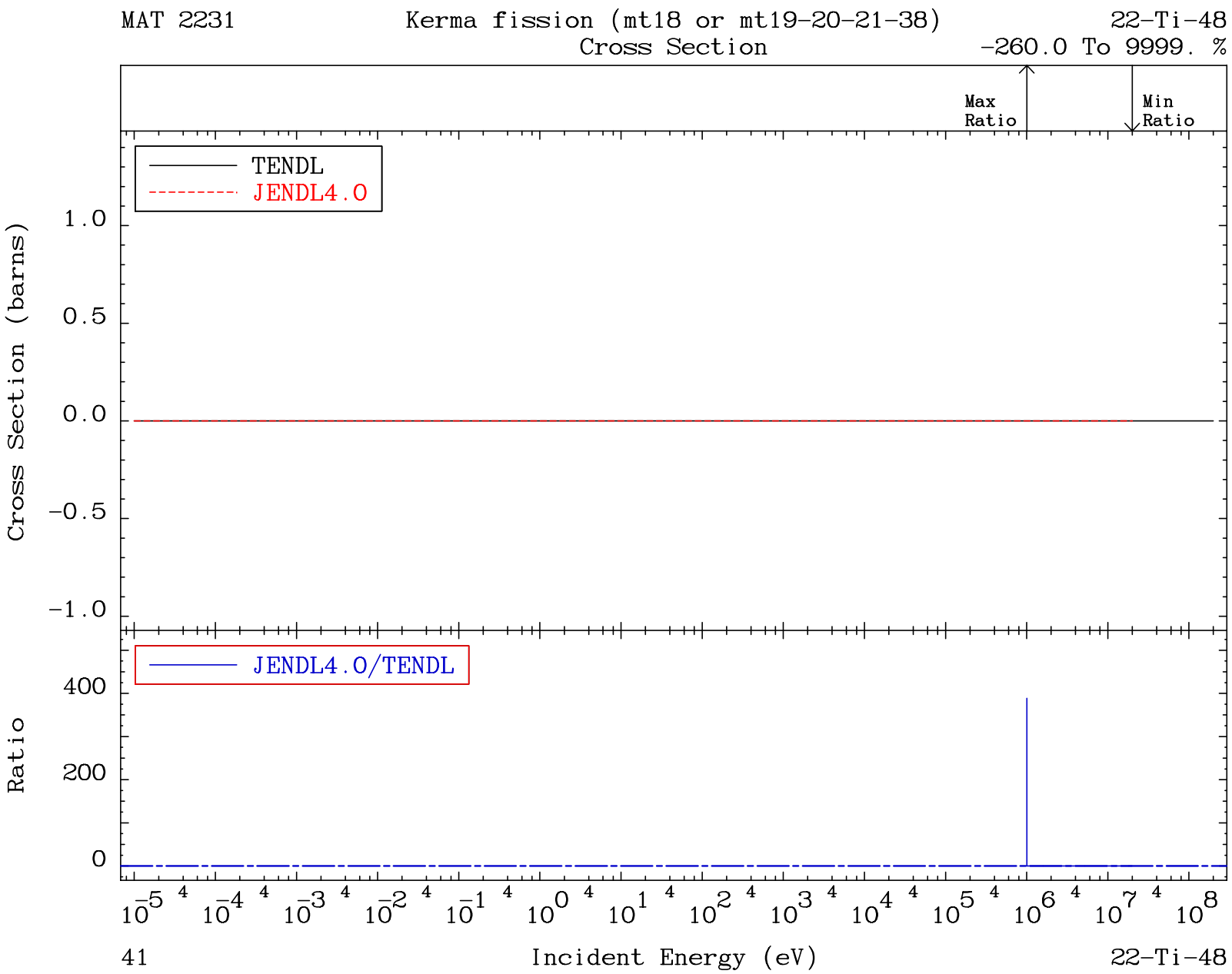

MAT 2231
He-4 Production
Cross Section
22-Ti-48
-93.54 To 19.64 %
Min Ratio
Max Ratio
TENDL Threshold 2.0769 MeV
JENDL4.0 Threshold 8.5000 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JENDL4.0/TENDL
Ratio
10^0
6
4
10^-1
6
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
36
Incident Energy (eV)
22-Ti-48

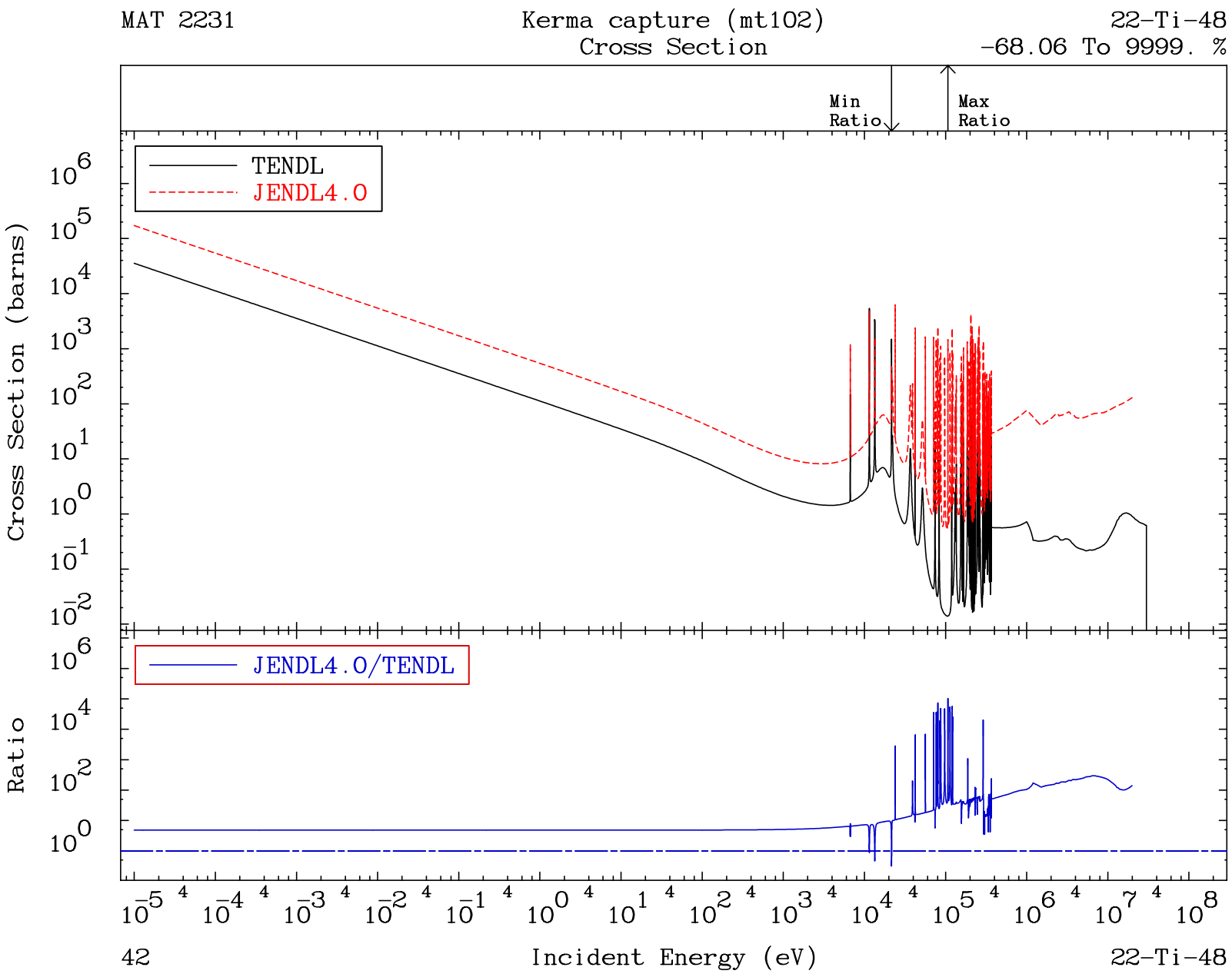

MAT 2231
Kerma total (eV-barns)
Cross Section
22-Ti-48
-90.08 To 2744. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
37
22-Ti-48

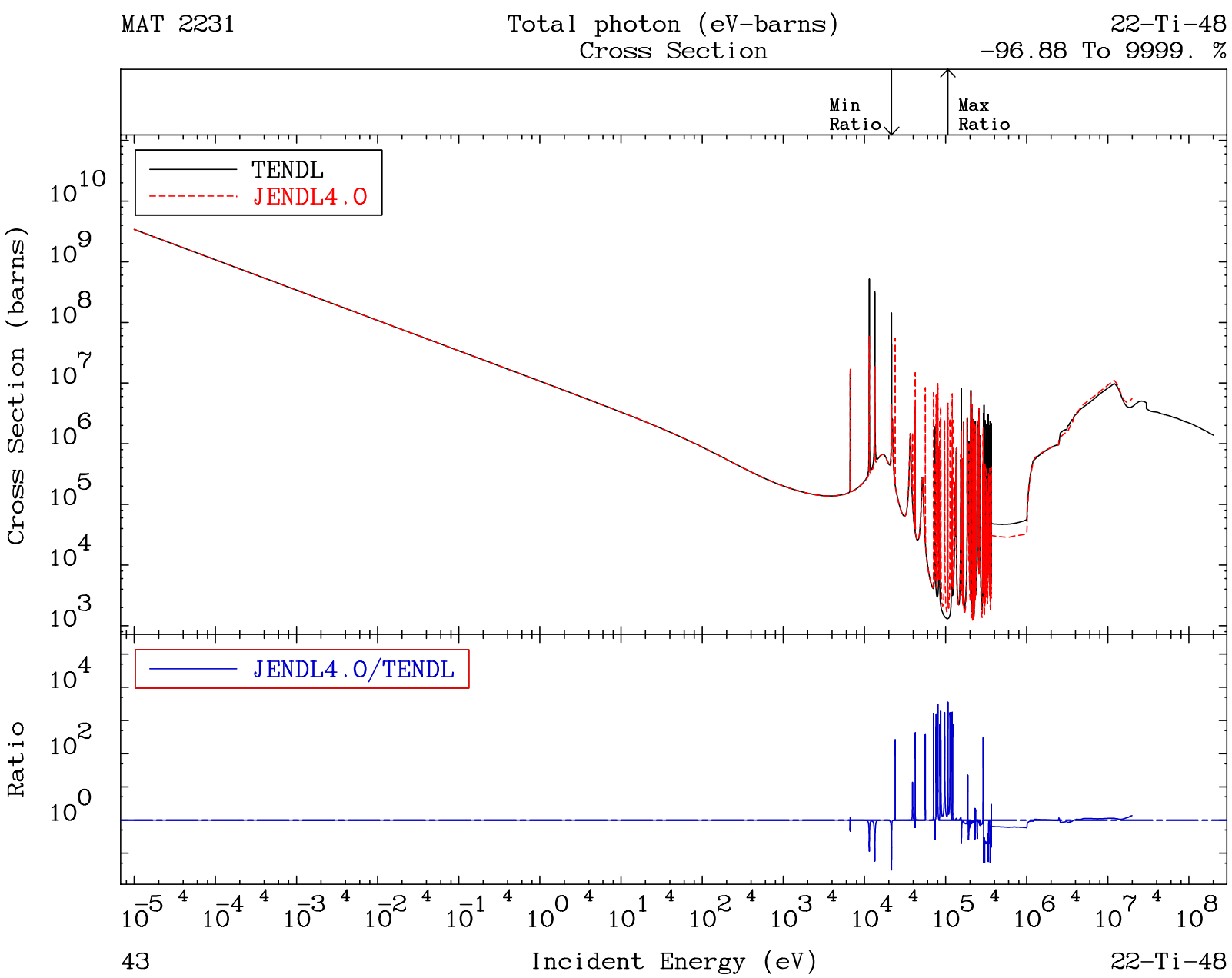

MAT 2231
Kerma elastic
Cross Section
22-Ti-48
-90.18 To 2736. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
38
22-Ti-48

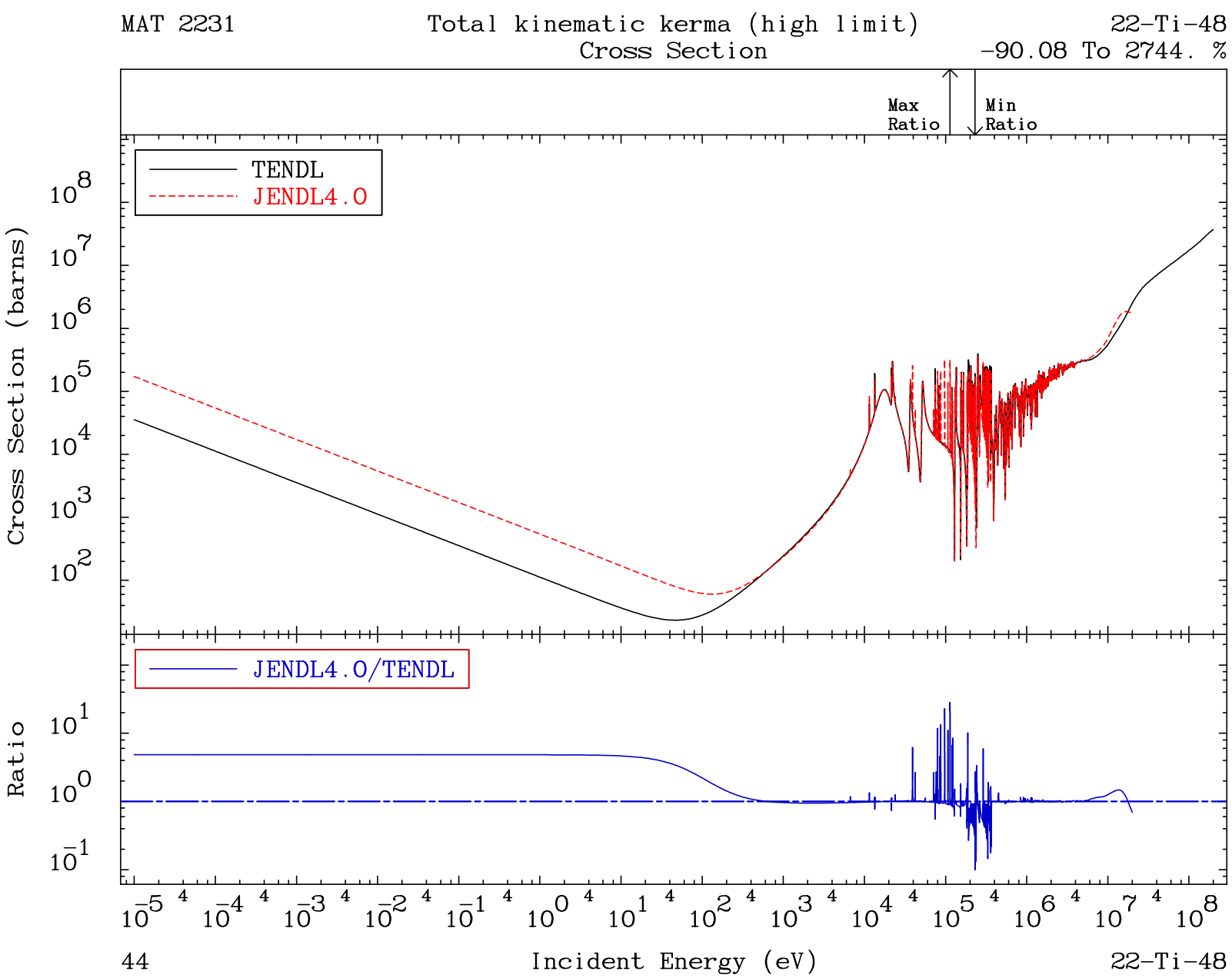

MAT 2231
Kerma non-elastic (all but mt2)
Cross Section
22-Ti-48
-72.11 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
39
22-Ti-48

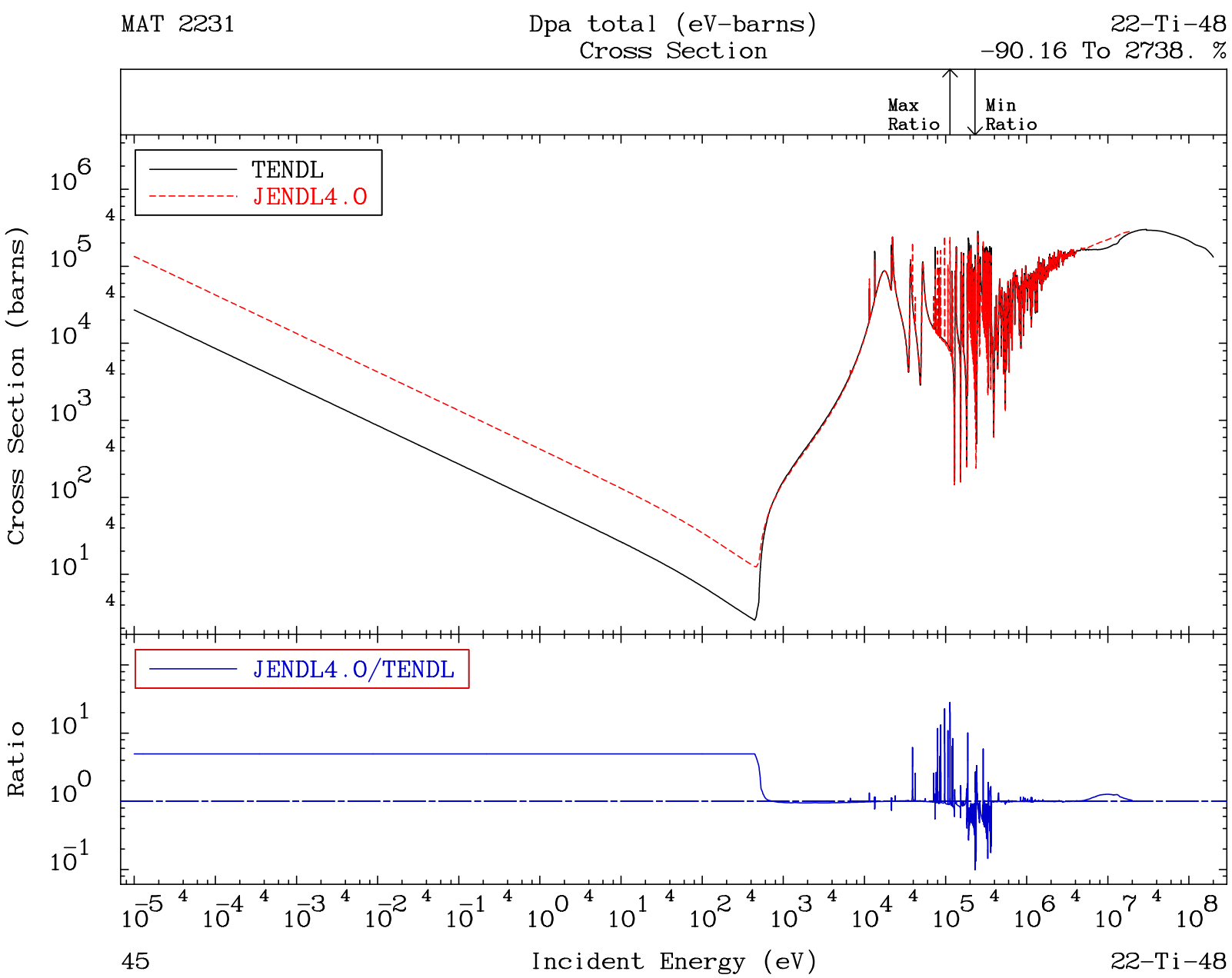

MAT 2231
Kerma inelastic (mt51-91)
Cross Section
22-Ti-48
-260.0 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.0042 MeV
JENDL4.0 Threshold 1.0042 MeV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
40
22-Ti-48

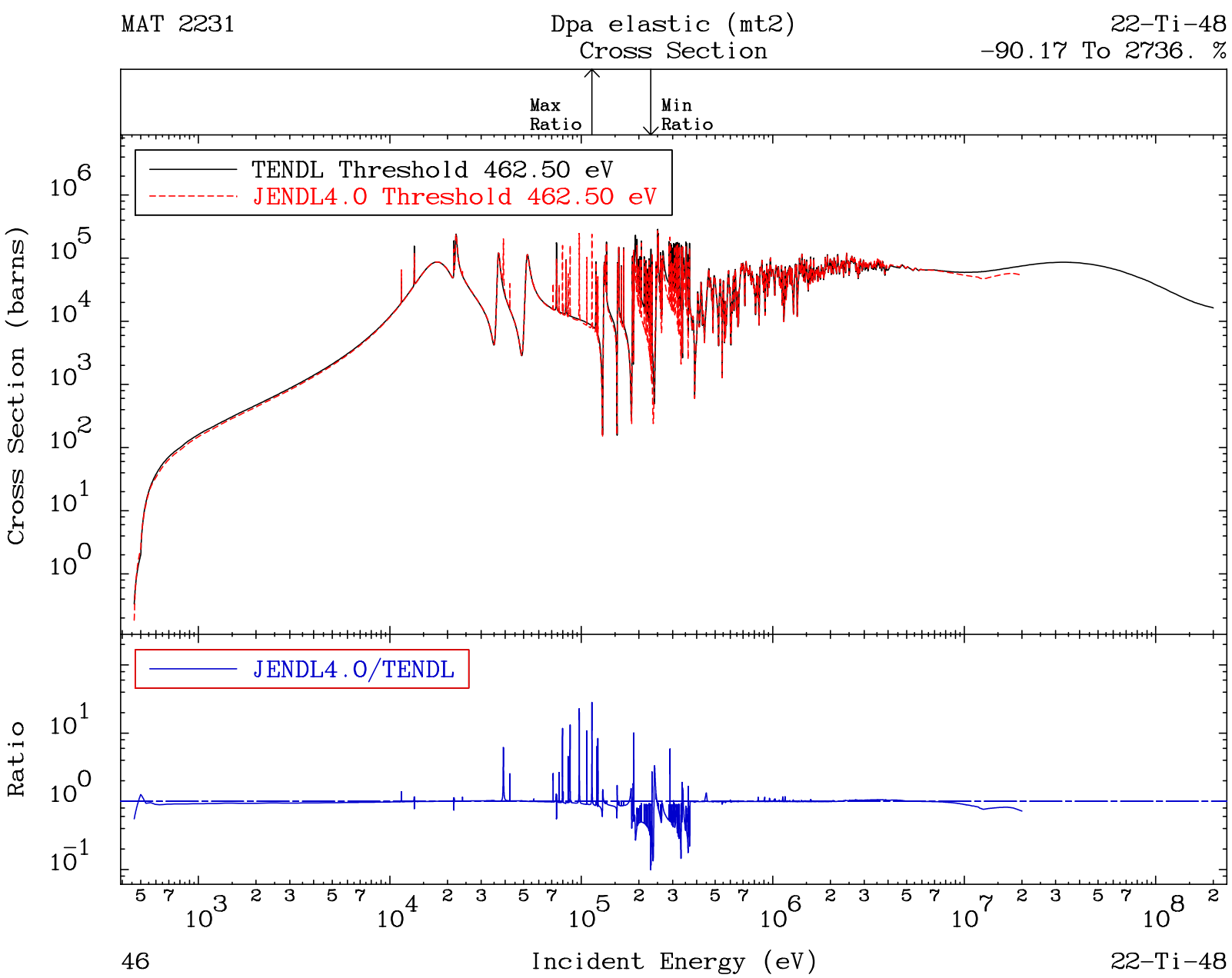

MAT 2231
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
22-Ti-48
-260.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JENDL4.0/TENDL
Ratio
400
200
0
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
41
Incident Energy (eV)
22-Ti-48

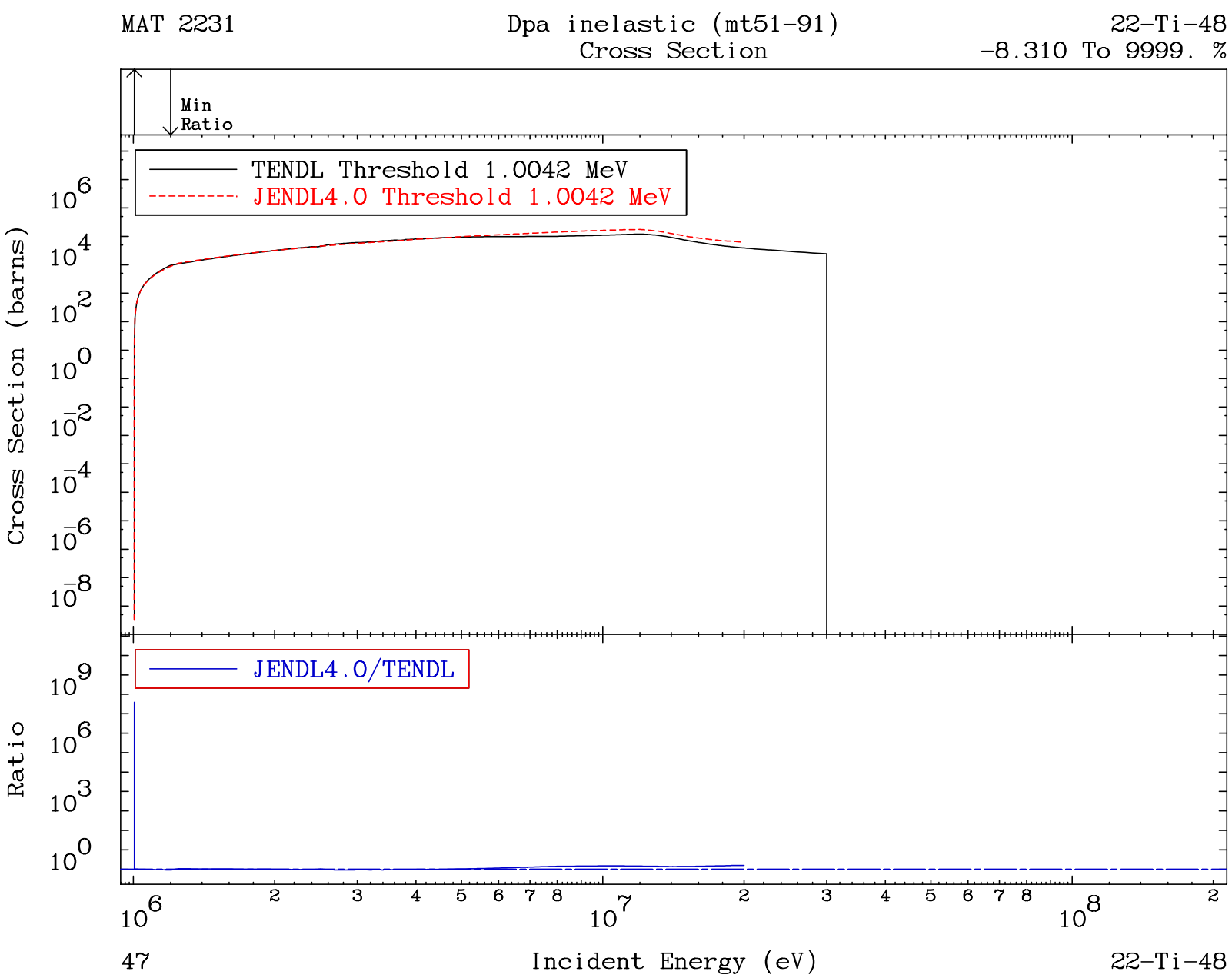

MAT 2231
Kerma capture (mt102)
Cross Section
22-Ti-48
-68.06 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
42
22-Ti-48

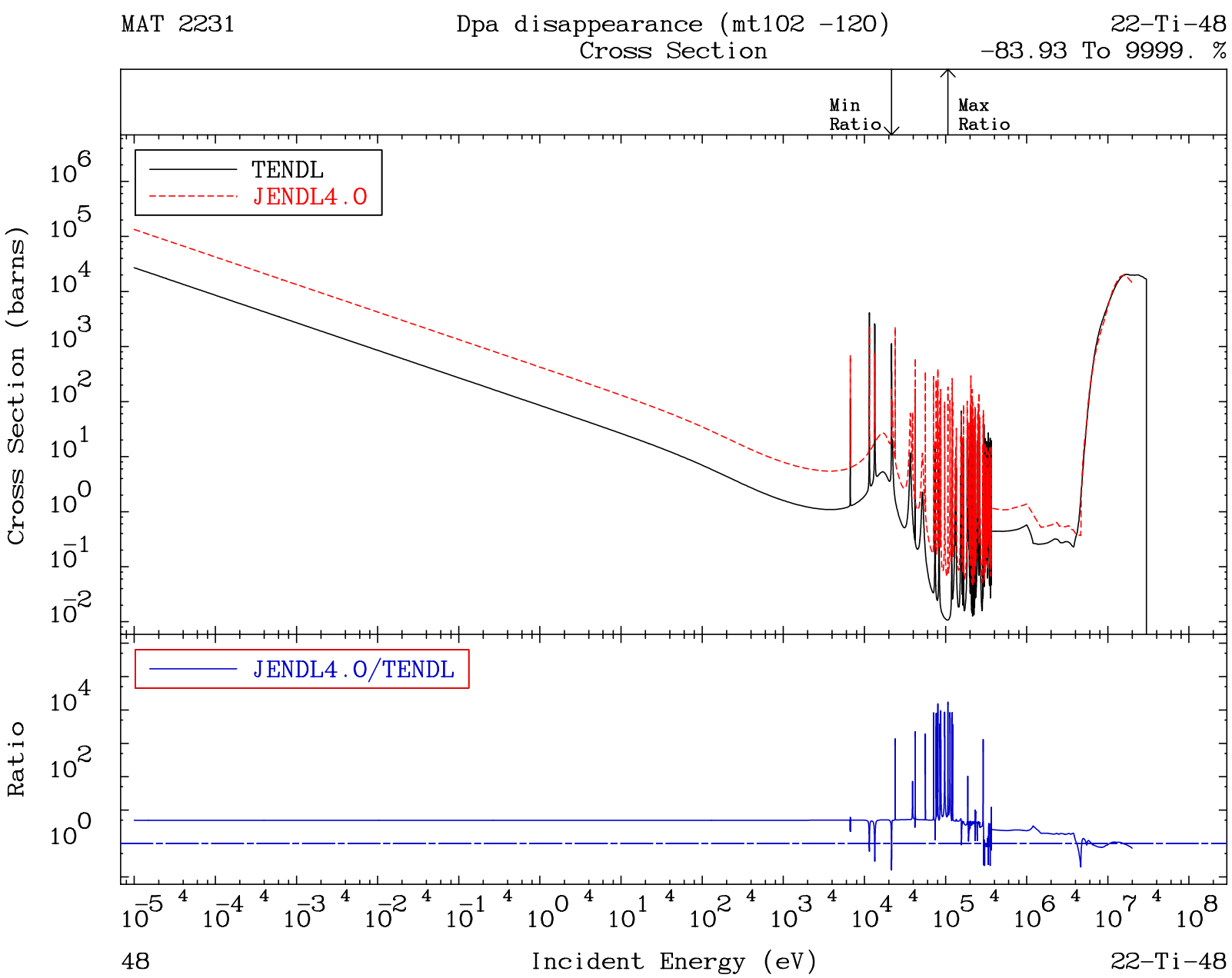

MAT 2231
Total photon (eV-barns)
Cross Section
22-Ti-48
-96.88 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
43
22-Ti-48

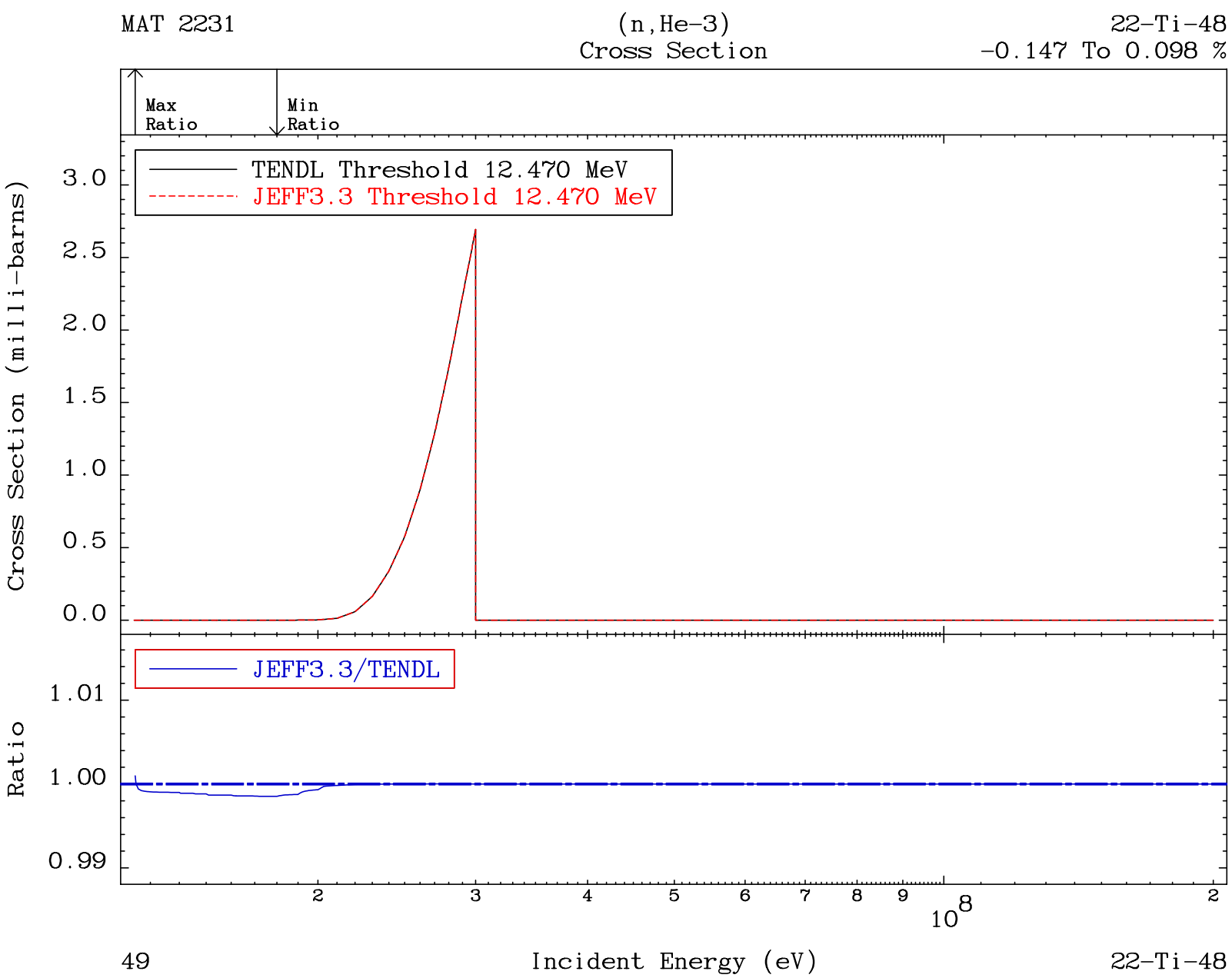

MAT 2231
Total kinematic kerma (high limit)
Cross Section
22-Ti-48
-90.08 To 2744. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
44
22-Ti-48

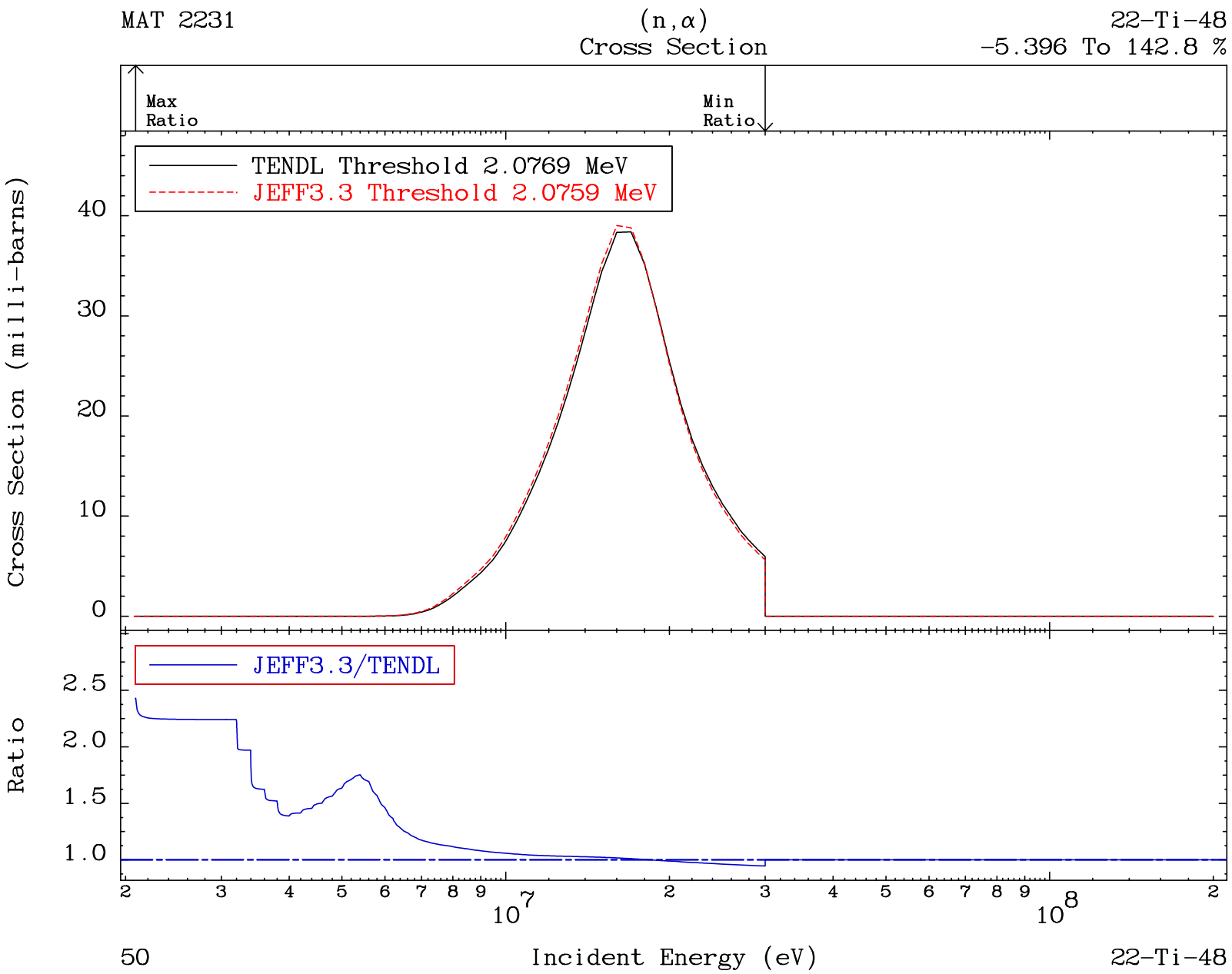

MAT 2231
Dpa total (eV-barns)
Cross Section
22-Ti-48
-90.16 To 2738. %
Max Ratio
Min Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
45
22-Ti-48

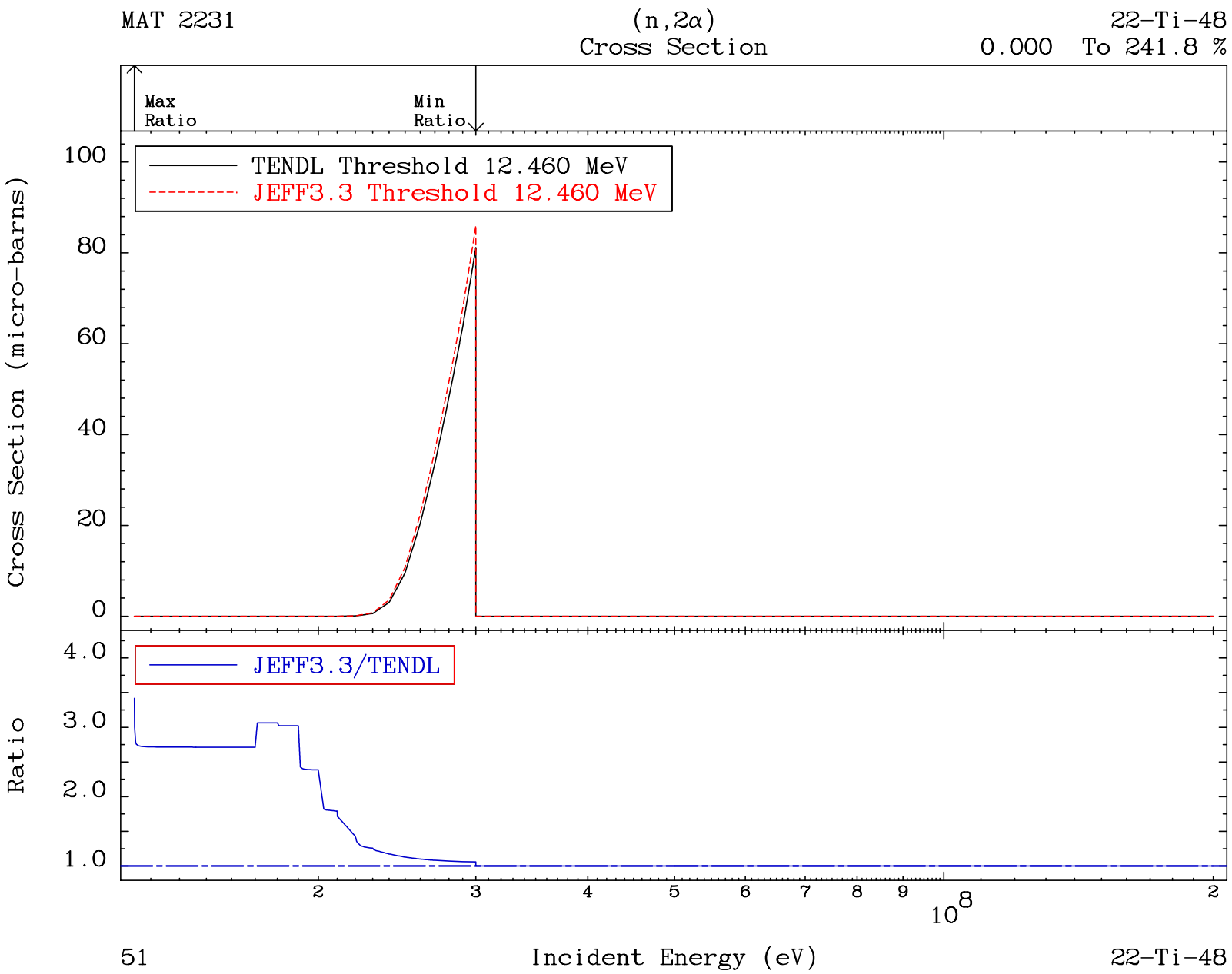

MAT 2231
Dpa elastic (mt2)
Cross Section
22-Ti-48
-90.17 To 2736. %
Max Ratio
Min Ratio
TENDL Threshold 462.50 eV
JENDL4.0 Threshold 462.50 eV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
46
22-Ti-48

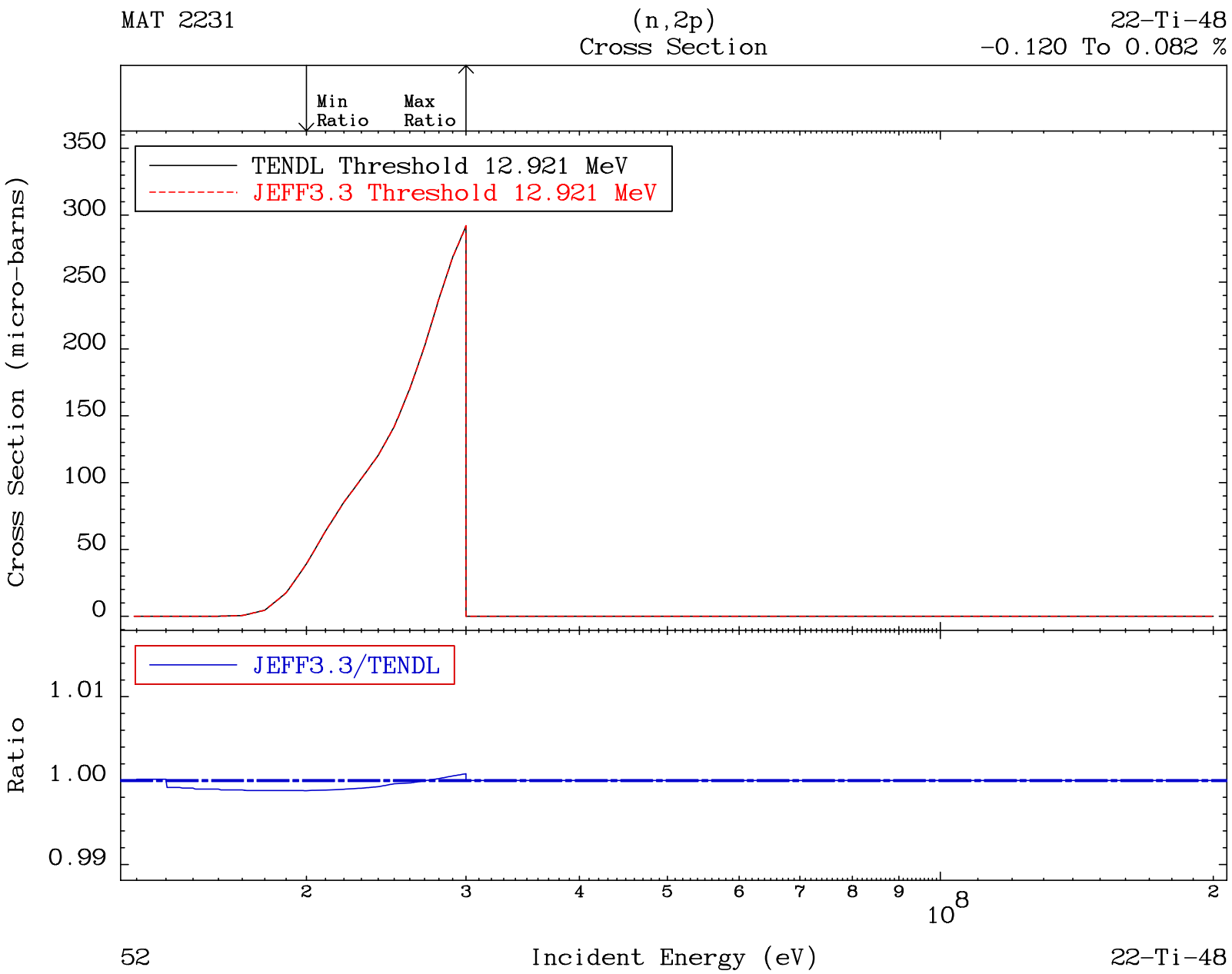

MAT 2231
Dpa inelastic (mt51-91)
Cross Section
22-Ti-48
-8.310 To 9999. %
Min
Ratio
TENDL Threshold 1.0042 MeV
JENDL4.0 Threshold 1.0042 MeV
Cross Section (barns)
JENDL4.0/TENDL
Ratio
47
Incident Energy (eV)
22-Ti-48

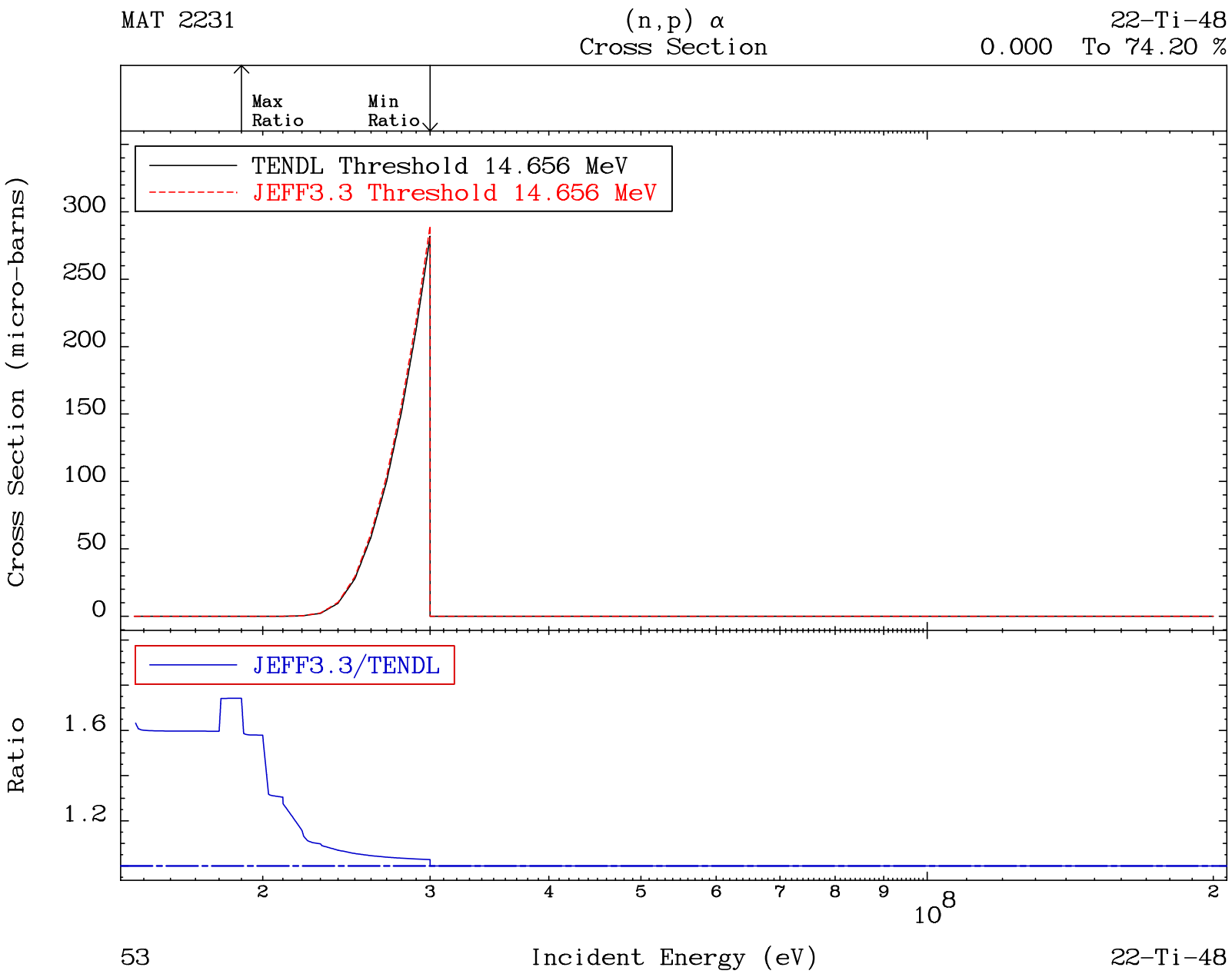

MAT 2231
Dpa disappearance (mt102 -120)
Cross Section
22-Ti-48
-83.93 To 9999. %
Min Ratio
Max Ratio
TENDL
JENDL4.0
Cross Section (barns)
JENDL4.0/TENDL
Ratio
Incident Energy (eV)
48
22-Ti-48

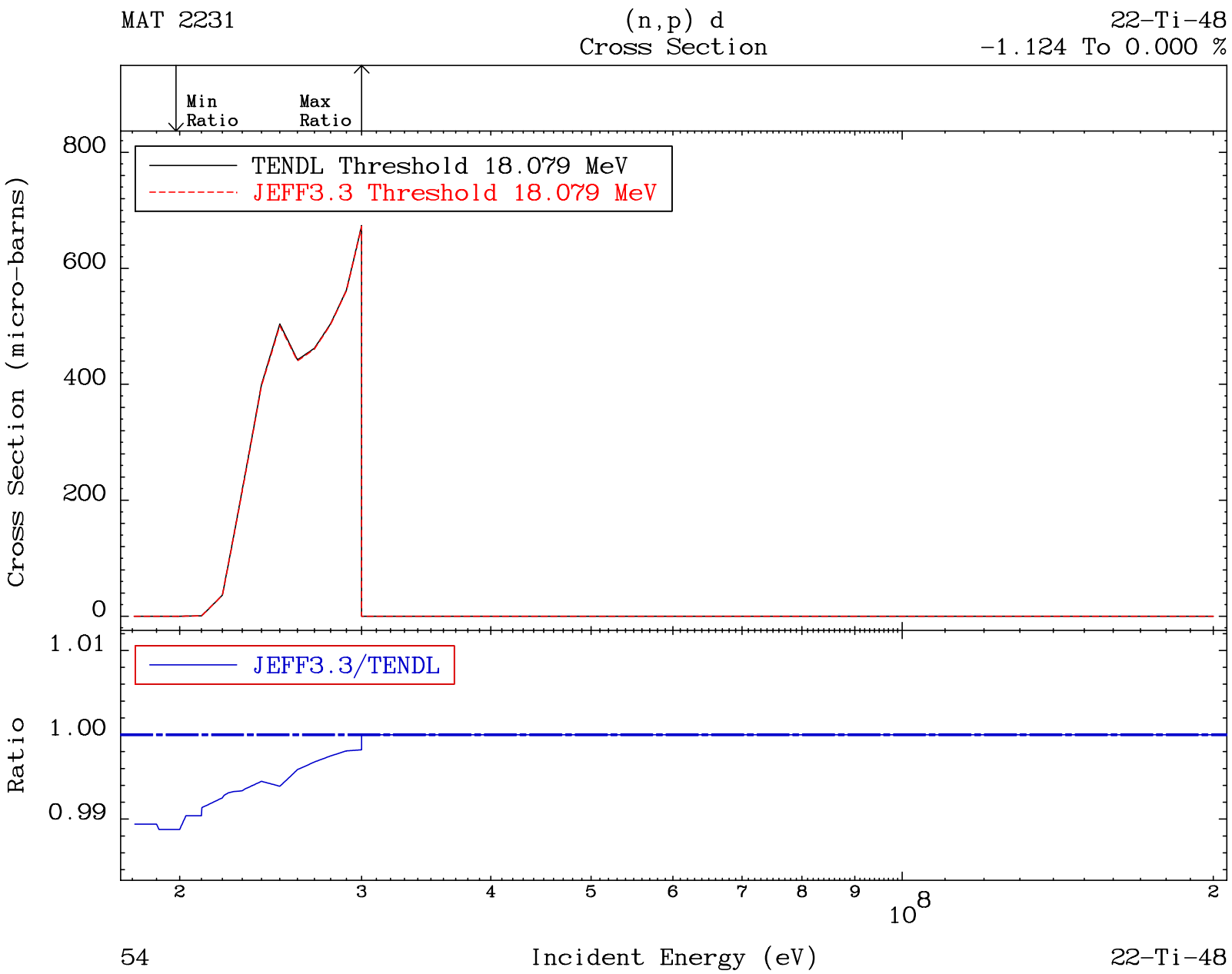

MAT 2231
(n,He-3)
Cross Section
22-Ti-48
-0.147 To 0.098 %
Max Ratio
Min Ratio
TENDL Threshold 12.470 MeV
JEFF3.3 Threshold 12.470 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
49
Incident Energy (eV)
22-Ti-48

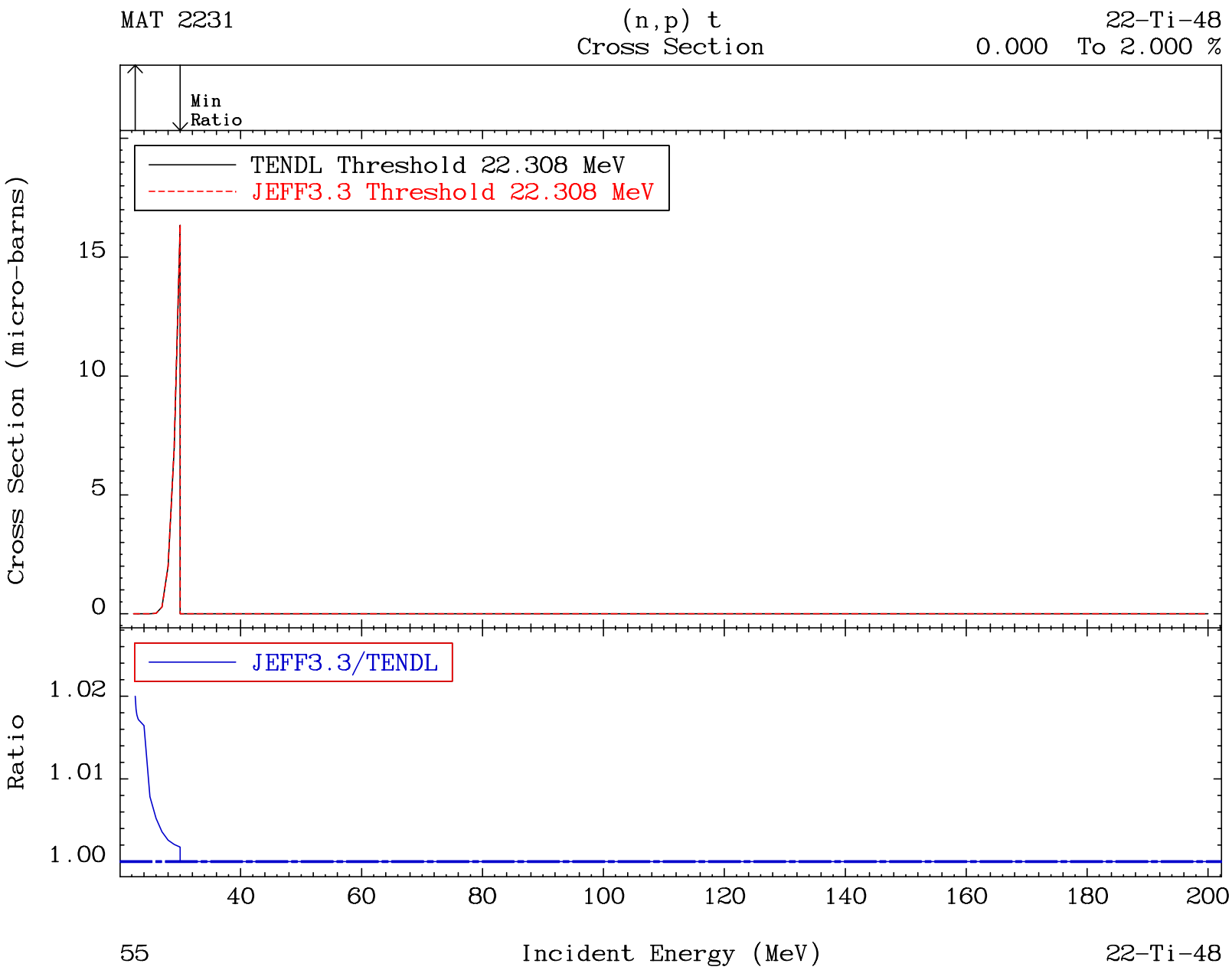

MAT 2231
(n,α)
Cross Section
22-Ti-48
-5.396 To 142.8 %
Max Ratio
Min Ratio
TENDL Threshold 2.0769 MeV
JEFF3.3 Threshold 2.0759 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
2.5
2.0
1.5
1.0
2
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
50
Incident Energy (eV)
22-Ti-48

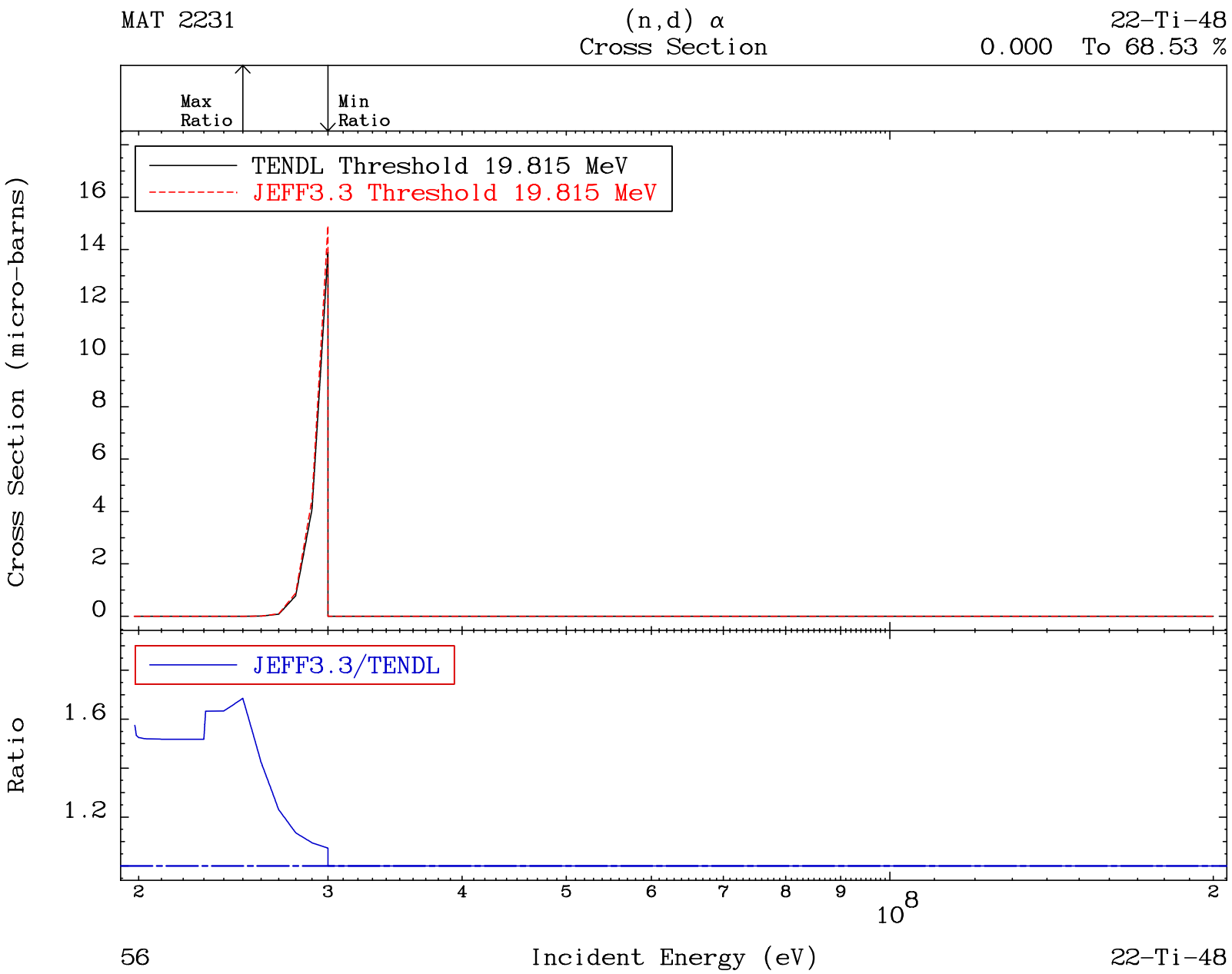

MAT 2231
(n,2α)
Cross Section
22-Ti-48
0.000 To 241.8 %
Max Ratio
Min Ratio
TENDL Threshold 12.460 MeV
JEFF3.3 Threshold 12.460 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
51
Incident Energy (eV)
22-Ti-48

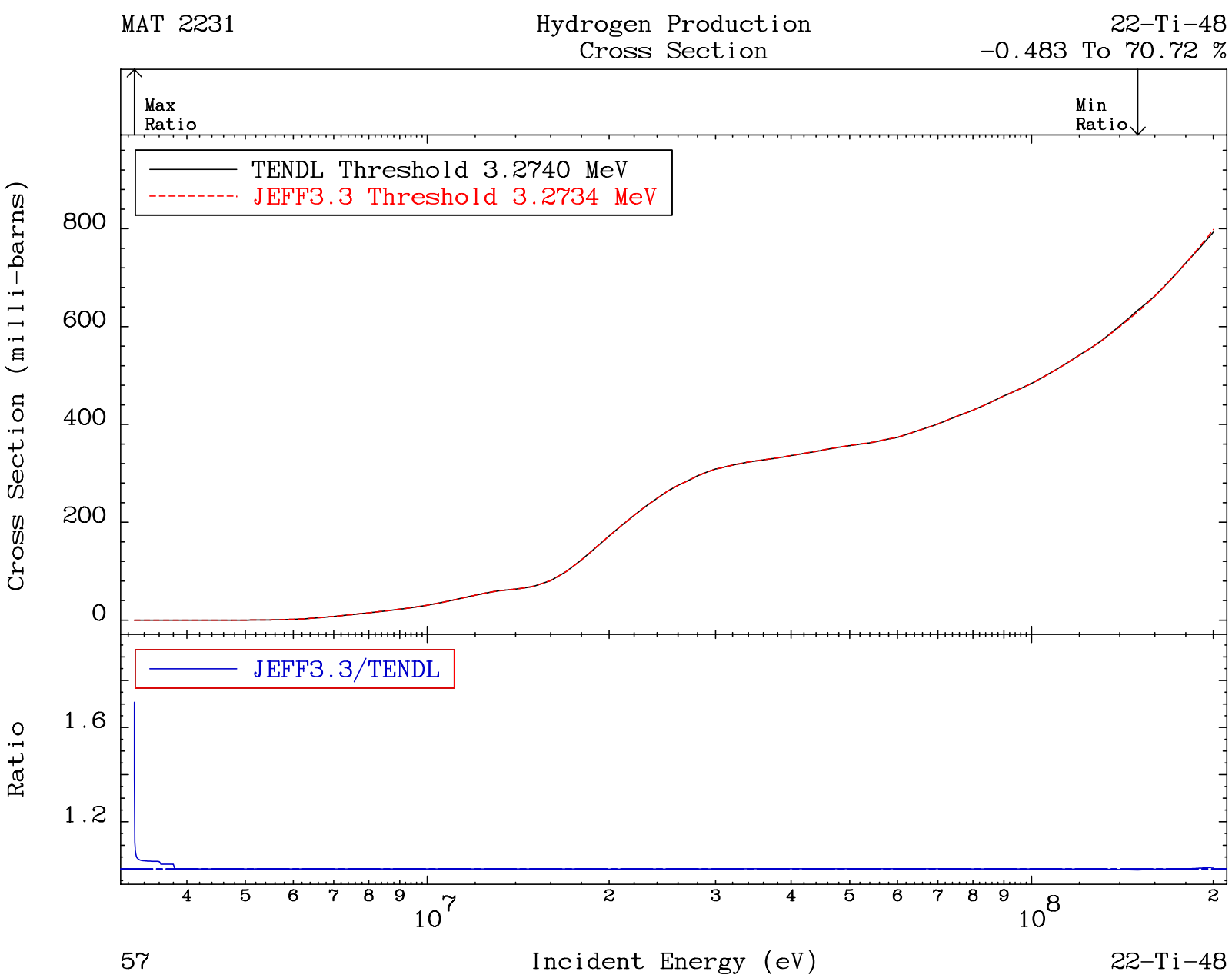

MAT 2231
(n,2p)
Cross Section
22-Ti-48
-0.120 To 0.082 %
Min Ratio
Max Ratio
TENDL Threshold 12.921 MeV
JEFF3.3 Threshold 12.921 MeV
Cross Section (micro-barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
52
Incident Energy (eV)
22-Ti-48

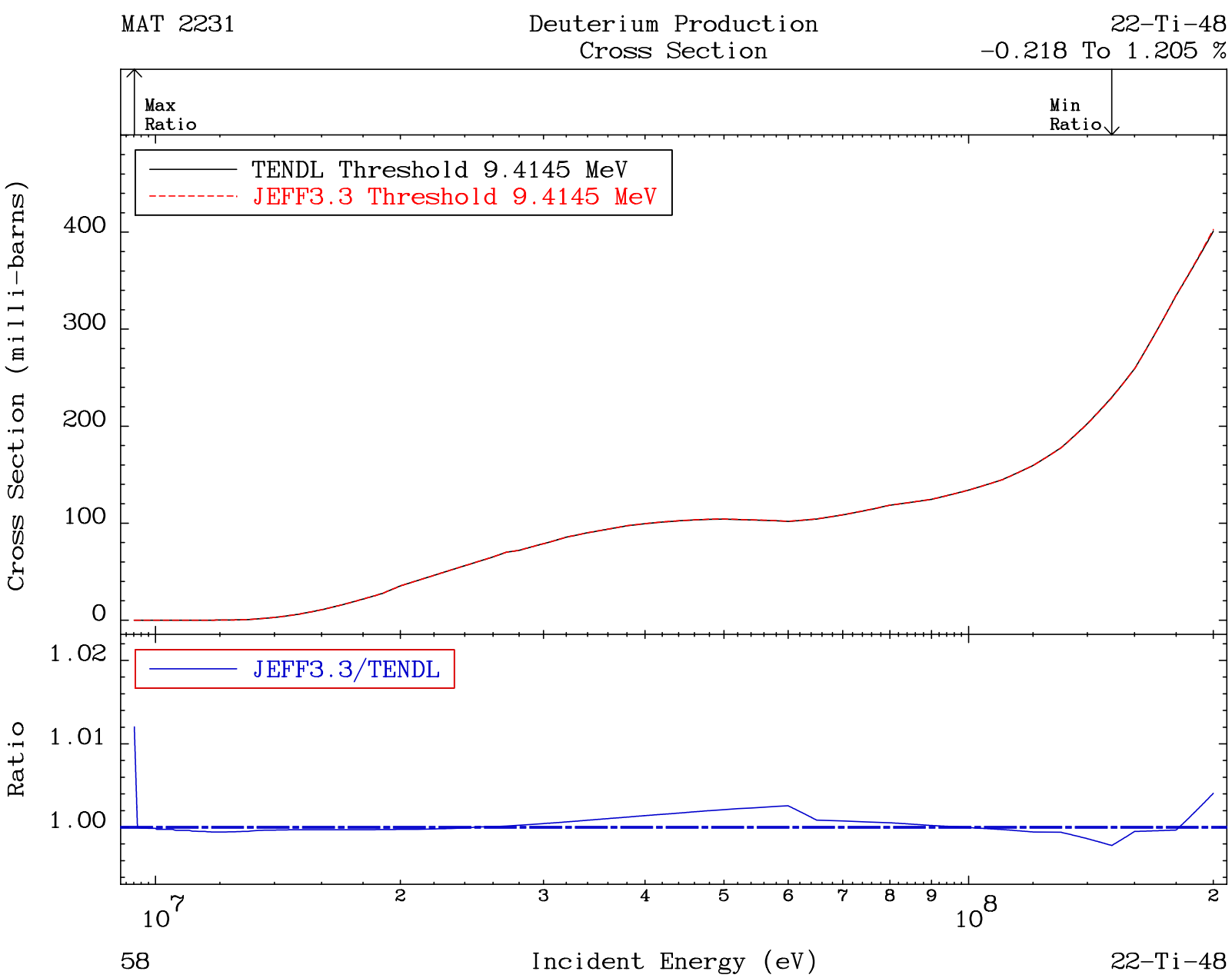

MAT 2231
(n,p) α
Cross Section
22-Ti-48
0.000 To 74.20 %
Max Ratio
Min Ratio
TENDL Threshold 14.656 MeV
JEFF3.3 Threshold 14.656 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
53
Incident Energy (eV)
22-Ti-48

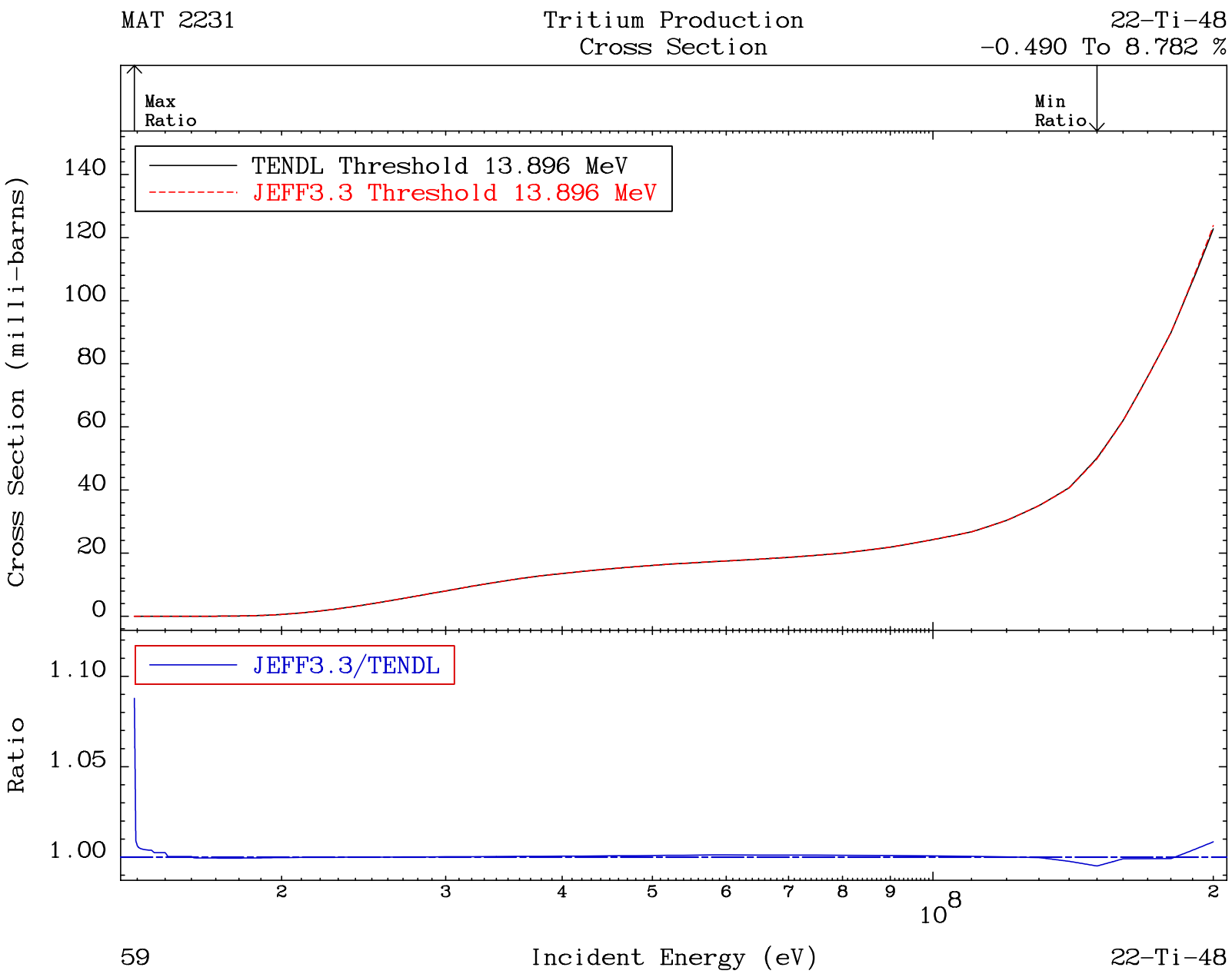

MAT 2231
(n,p) d
Cross Section
22-Ti-48
-1.124 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 18.079 MeV
JEFF3.3 Threshold 18.079 MeV
Cross Section (micro-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
22-Ti-48

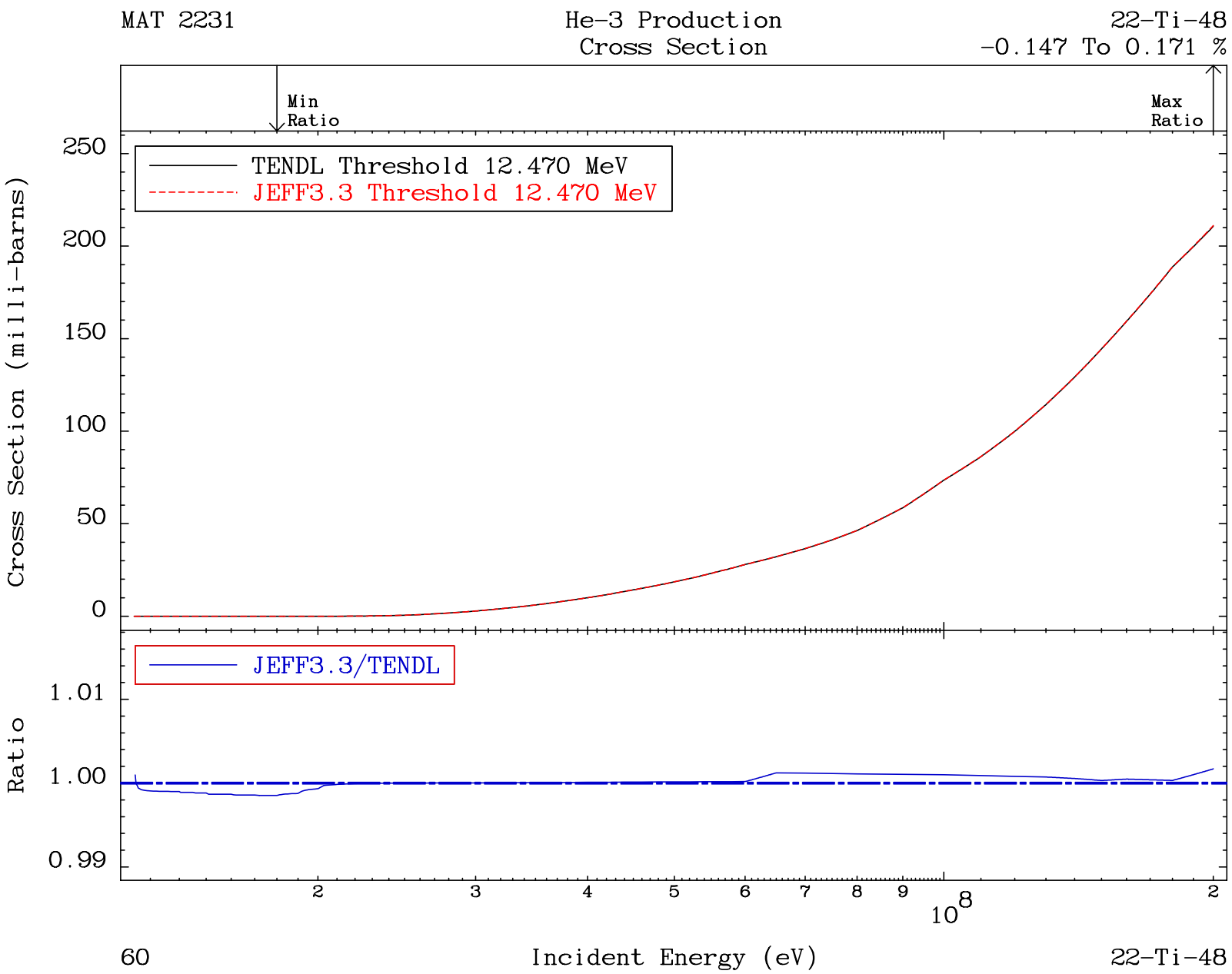

MAT 2231
(n,p) t
Cross Section
22-Ti-48
0.000 To 2.000 %
Min
Ratio
TENDL Threshold 22.308 MeV
JEFF3.3 Threshold 22.308 MeV
Cross Section (micro-barns)
15
10
5
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
40
60
80
100
120
140
160
180
200
55
Incident Energy (MeV)
22-Ti-48

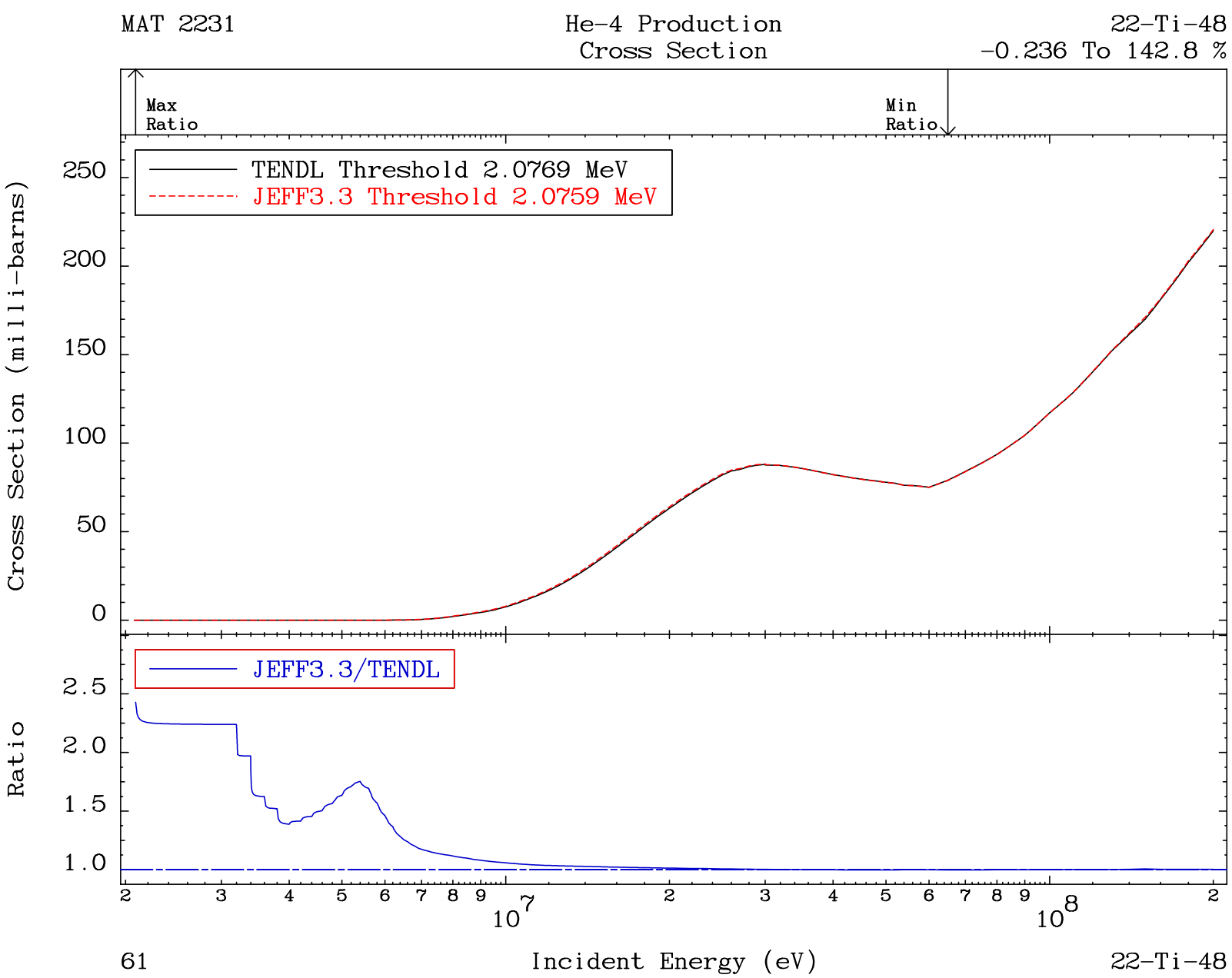

MAT 2231
(n,d) α
Cross Section
22-Ti-48
0.000 To 68.53 %
Max Ratio
Min Ratio
TENDL Threshold 19.815 MeV
JEFF3.3 Threshold 19.815 MeV
Cross Section (micro-barns)
16
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
56
Incident Energy (eV)
22-Ti-48

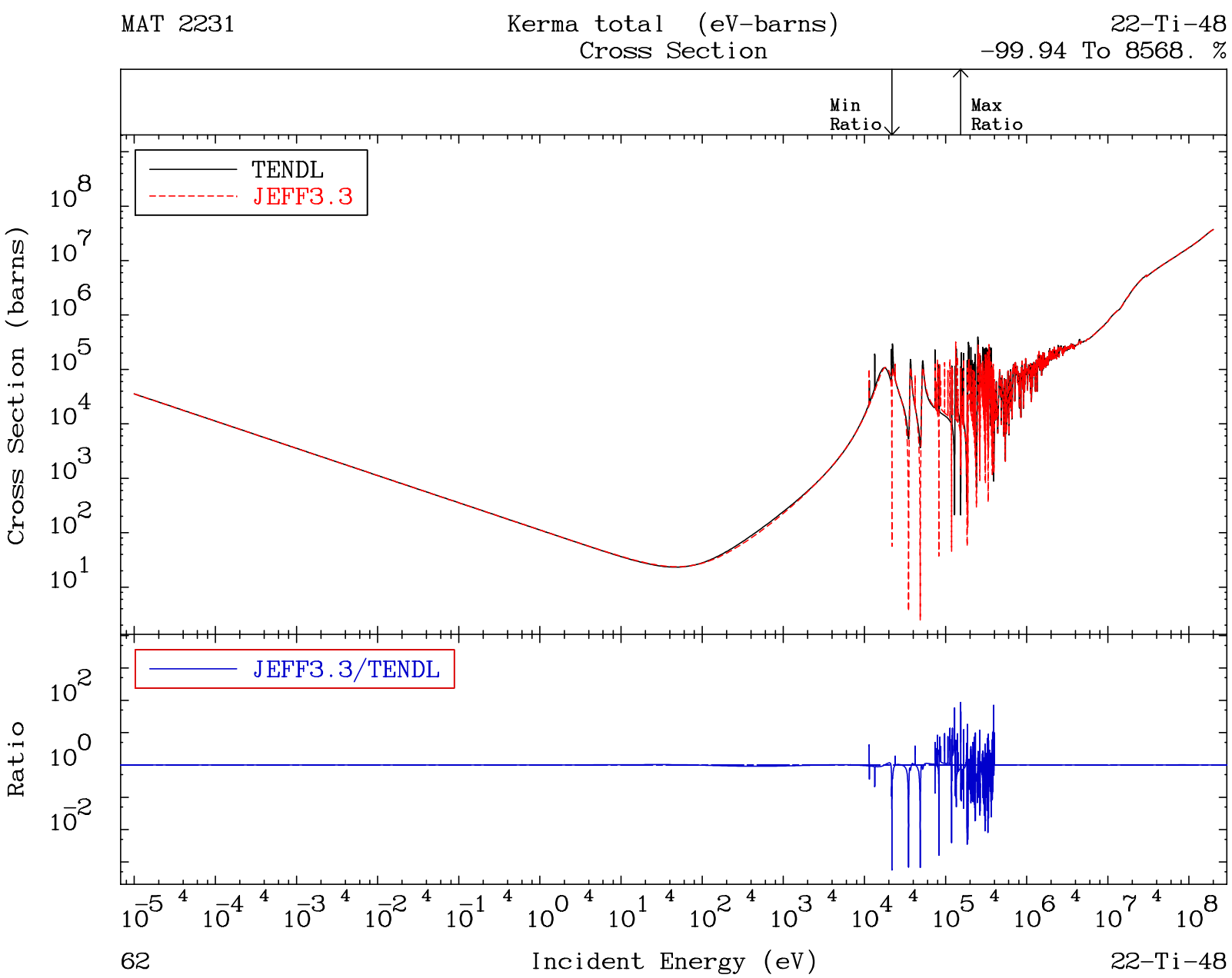

MAT 2231
Hydrogen Production
Cross Section
22-Ti-48
-0.483 To 70.72 %
Max Ratio
Min Ratio
TENDL Threshold 3.2740 MeV
JEFF3.3 Threshold 3.2734 MeV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.6
1.2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
57
Incident Energy (eV)
22-Ti-48

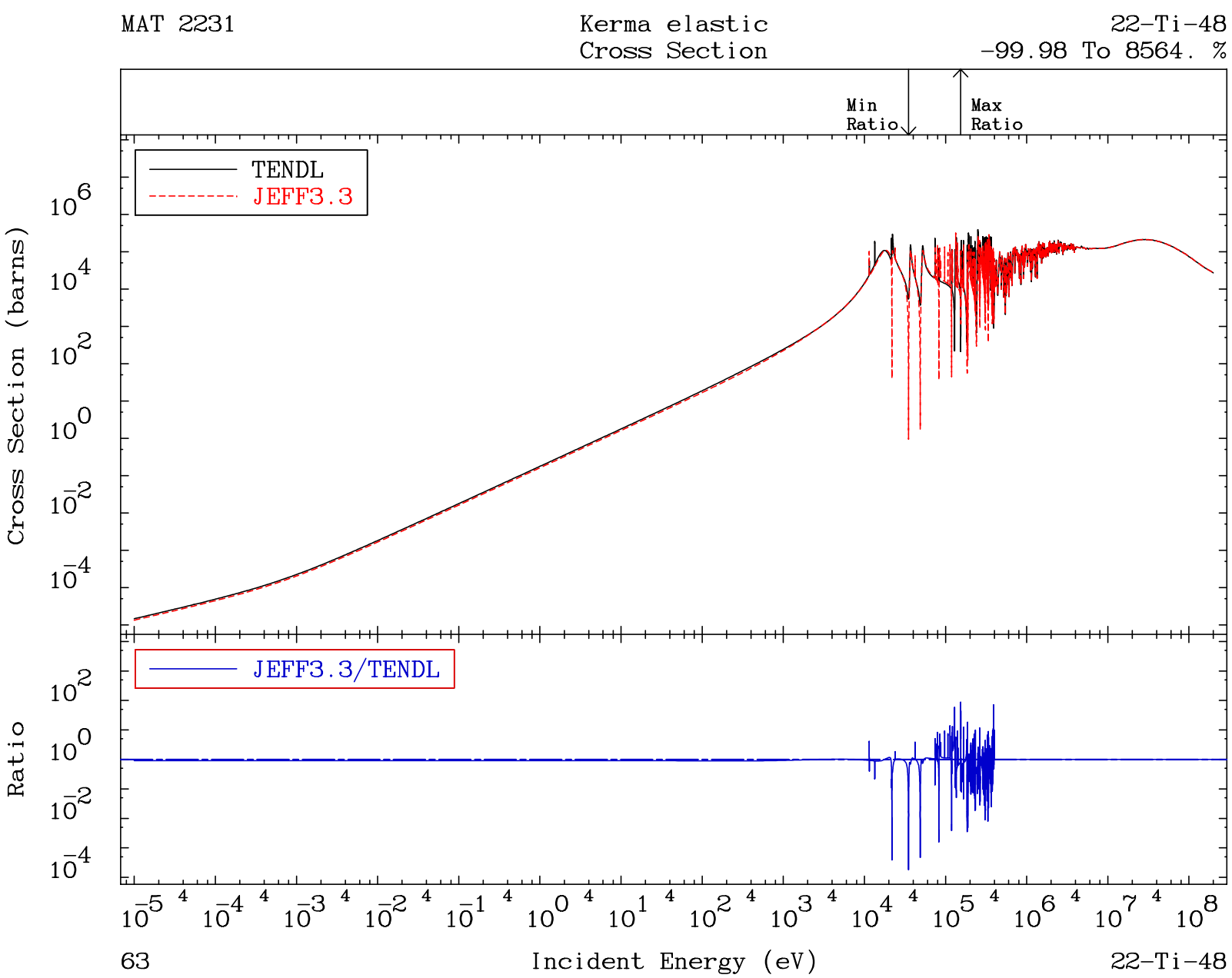

MAT 2231
Deuterium Production
Cross Section
22-Ti-48
-0.218 To 1.205 %
Max Ratio
Min Ratio
TENDL Threshold 9.4145 MeV
JEFF3.3 Threshold 9.4145 MeV
Cross Section (milli-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
10^7
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
22-Ti-48

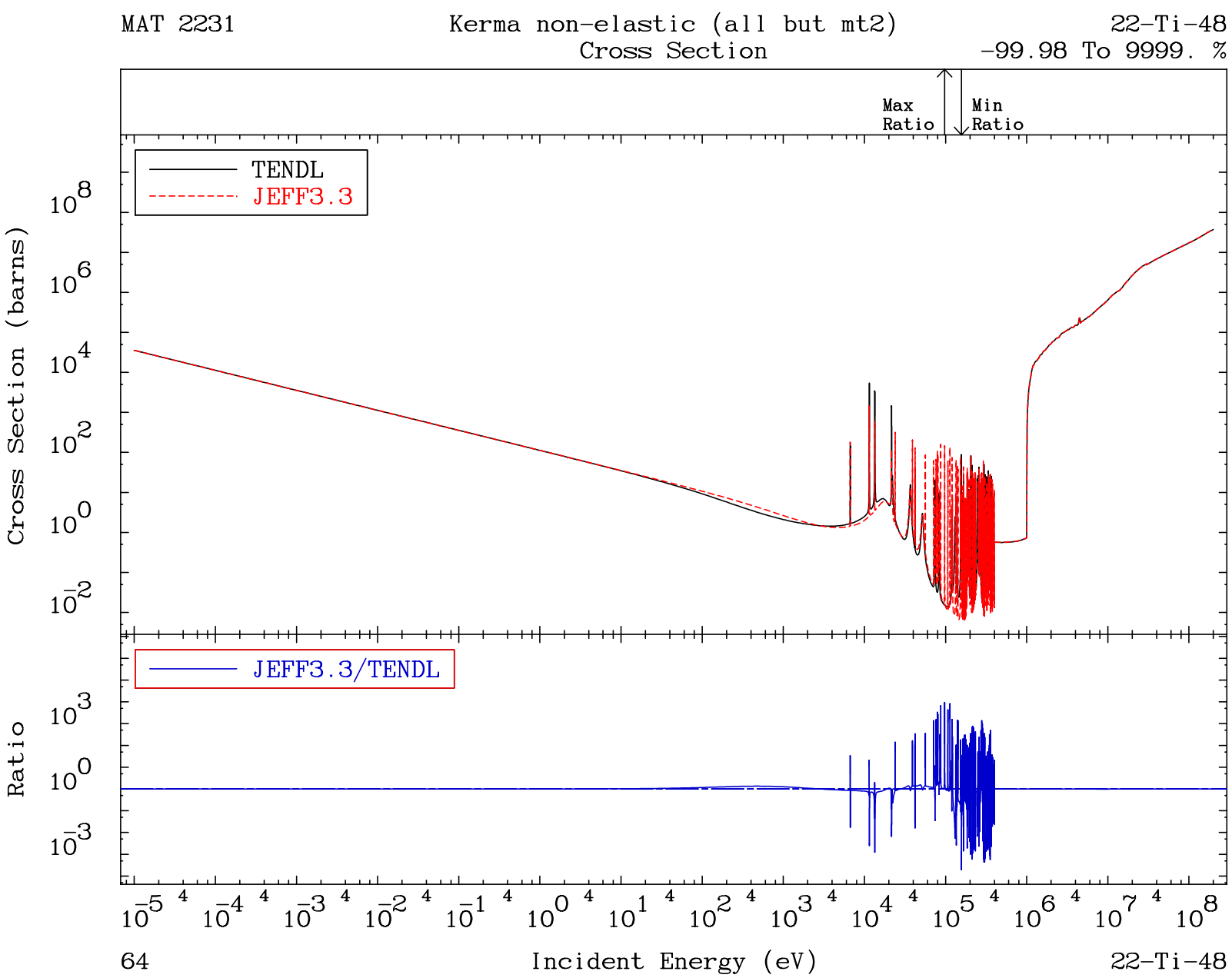

MAT 2231
Tritium Production
Cross Section
22-Ti-48
-0.490 To 8.782 %
Max
Ratio
Min
Ratio
TENDL Threshold 13.896 MeV
JEFF3.3 Threshold 13.896 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
2
3
4
5
6
7
8
9
10^8
2
59
Incident Energy (eV)
22-Ti-48

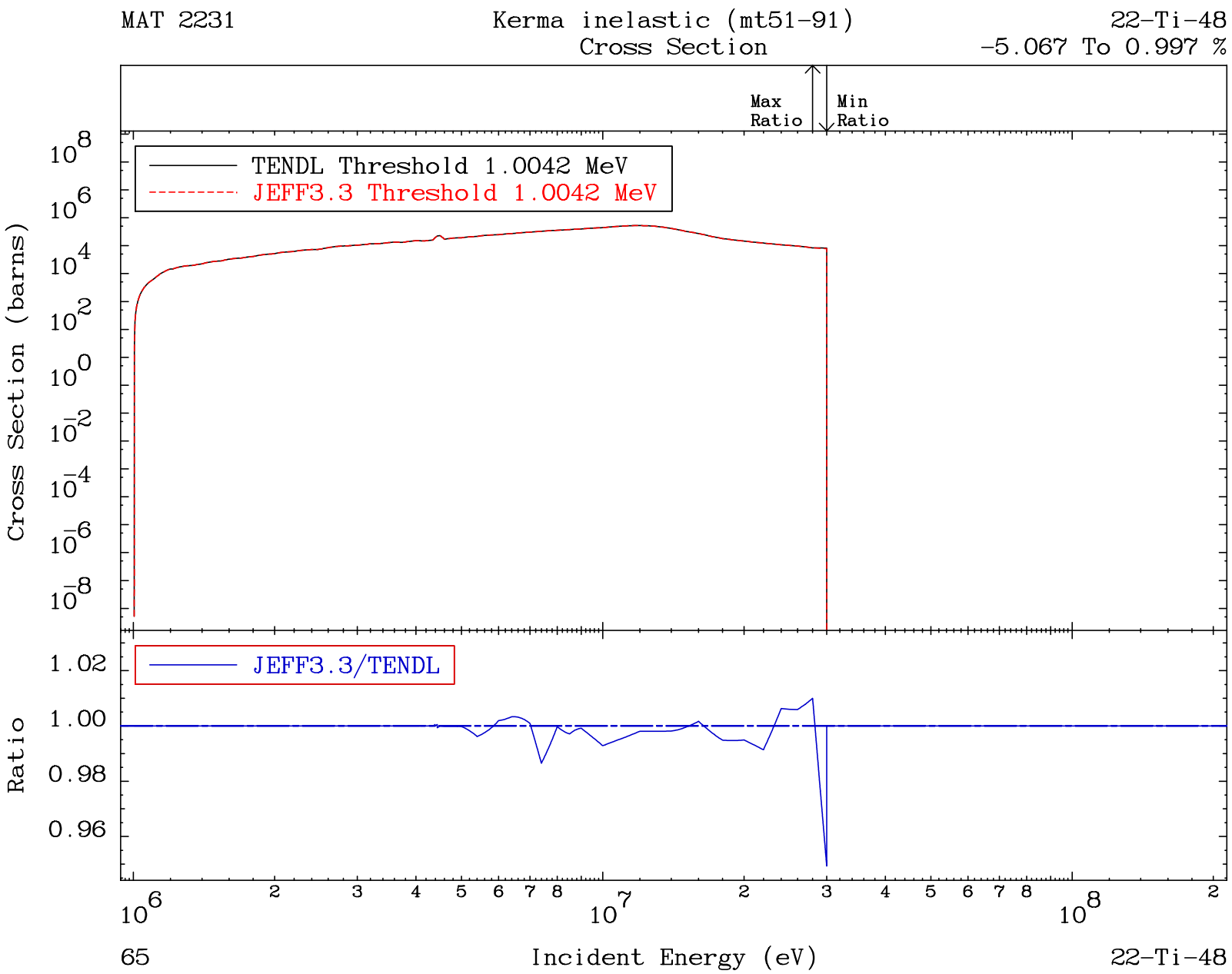

MAT 2231
He-3 Production
Cross Section
22-Ti-48
-0.147 To 0.171 %
Min
Ratio
Max
Ratio
TENDL Threshold 12.470 MeV
JEFF3.3 Threshold 12.470 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
60
Incident Energy (eV)
22-Ti-48

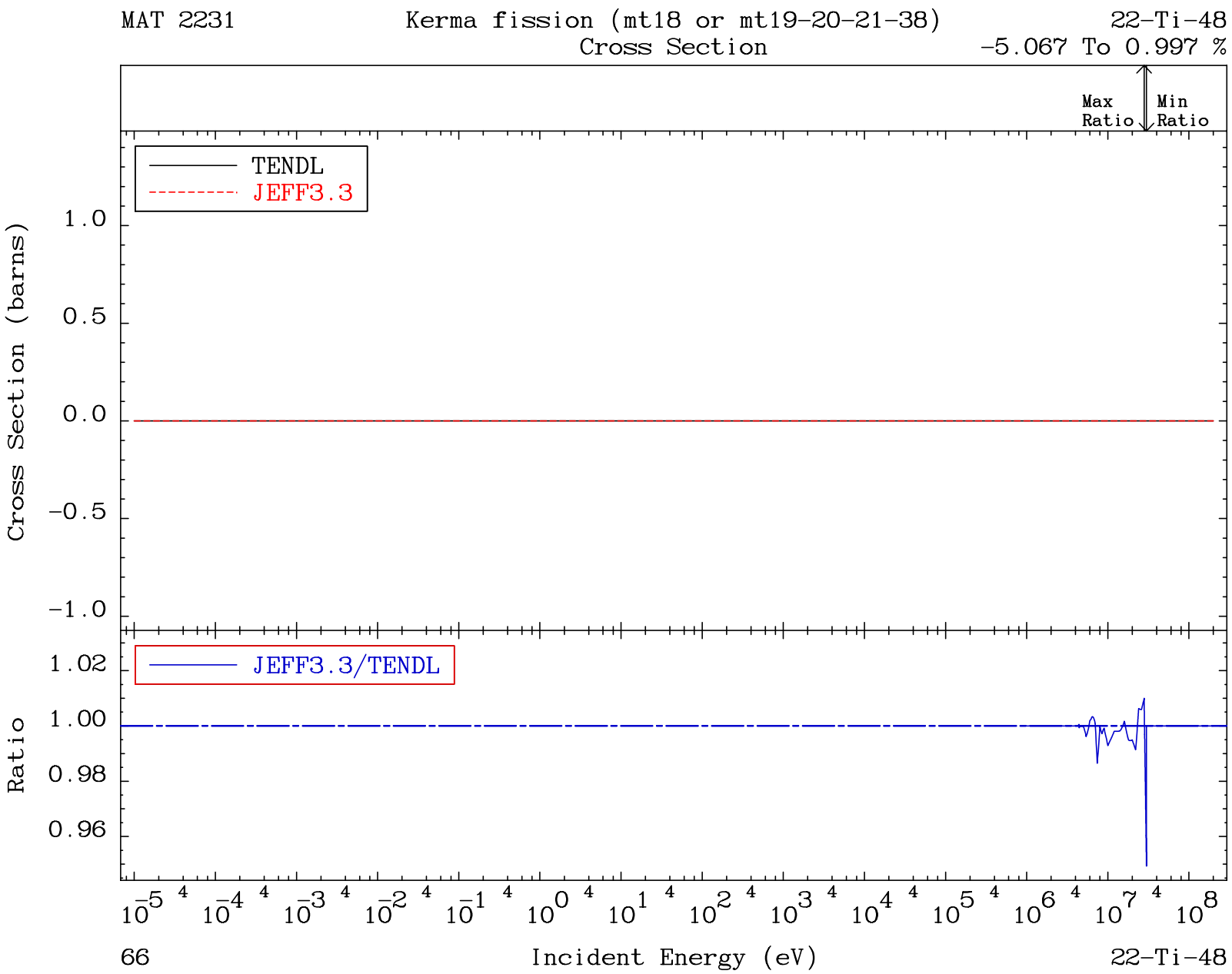

MAT 2231
He-4 Production
Cross Section
22-Ti-48
-0.236 To 142.8 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.0769 MeV
JEFF3.3 Threshold 2.0759 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
2.5
2.0
1.5
1.0
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
61
Incident Energy (eV)
22-Ti-48

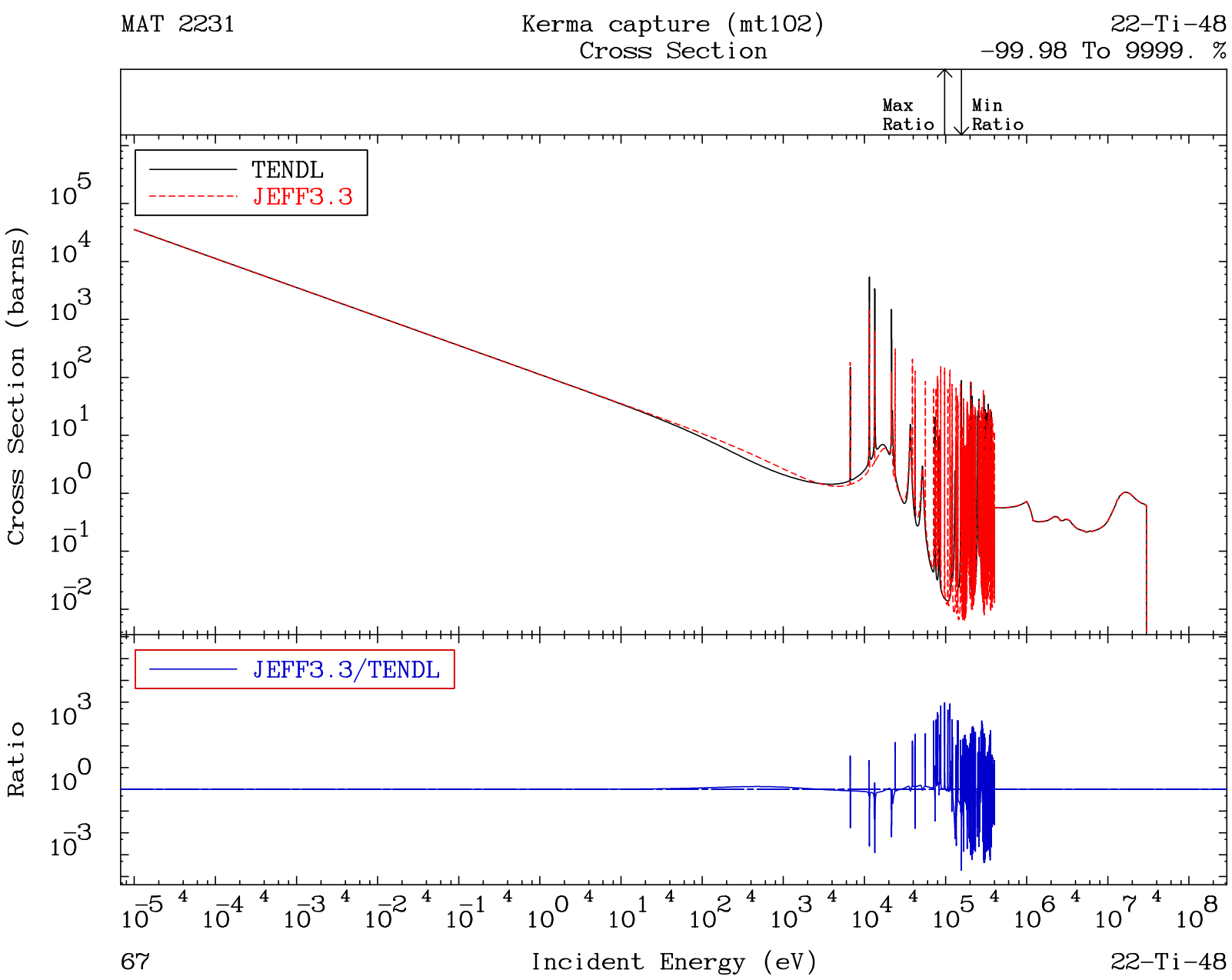

MAT 2231
Kerma total (eV-barns)
Cross Section
22-Ti-48
-99.94 To 8568. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
62
22-Ti-48

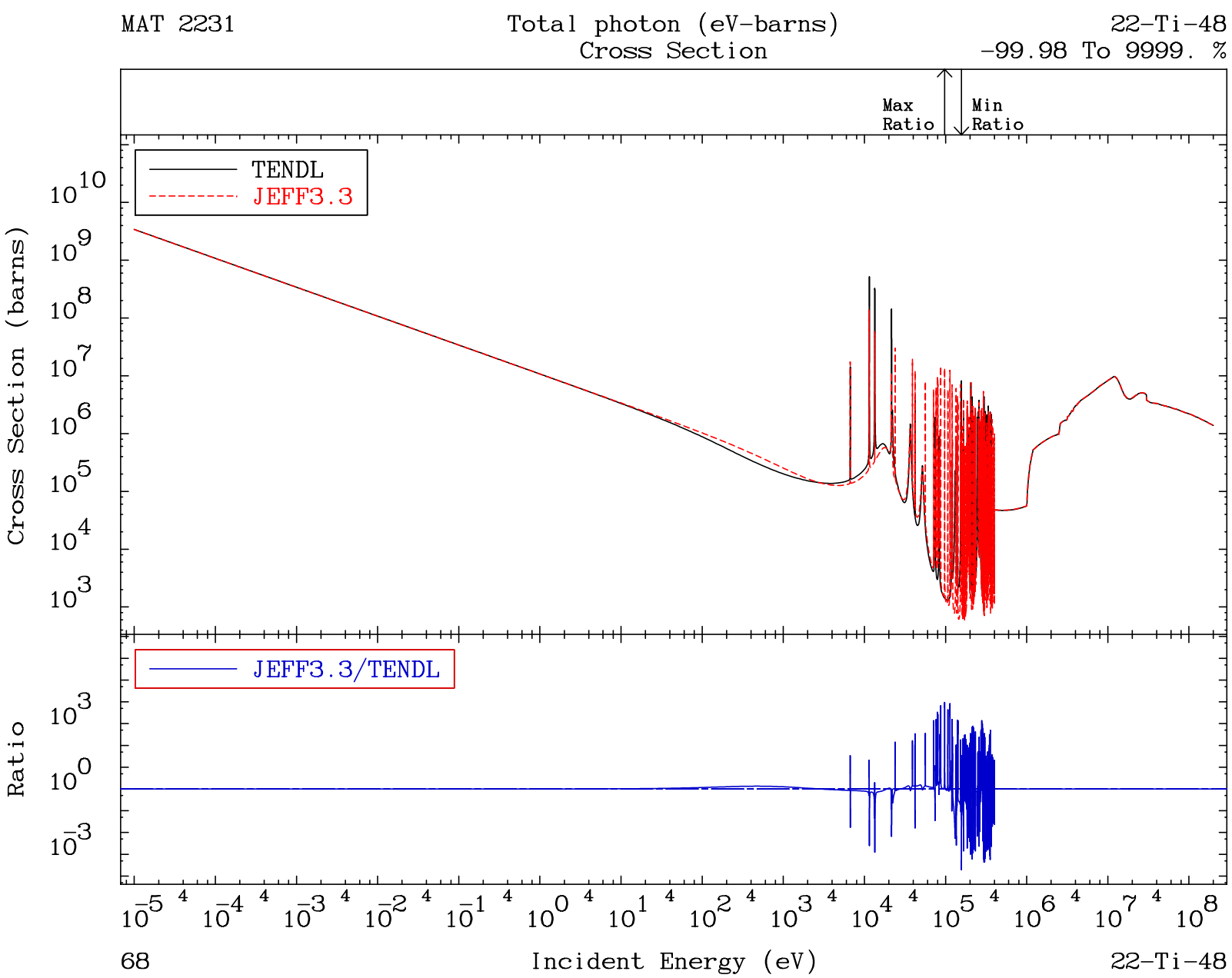

MAT 2231
Kerma elastic
Cross Section
22-Ti-48
-99.98 To 8564. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
63
22-Ti-48

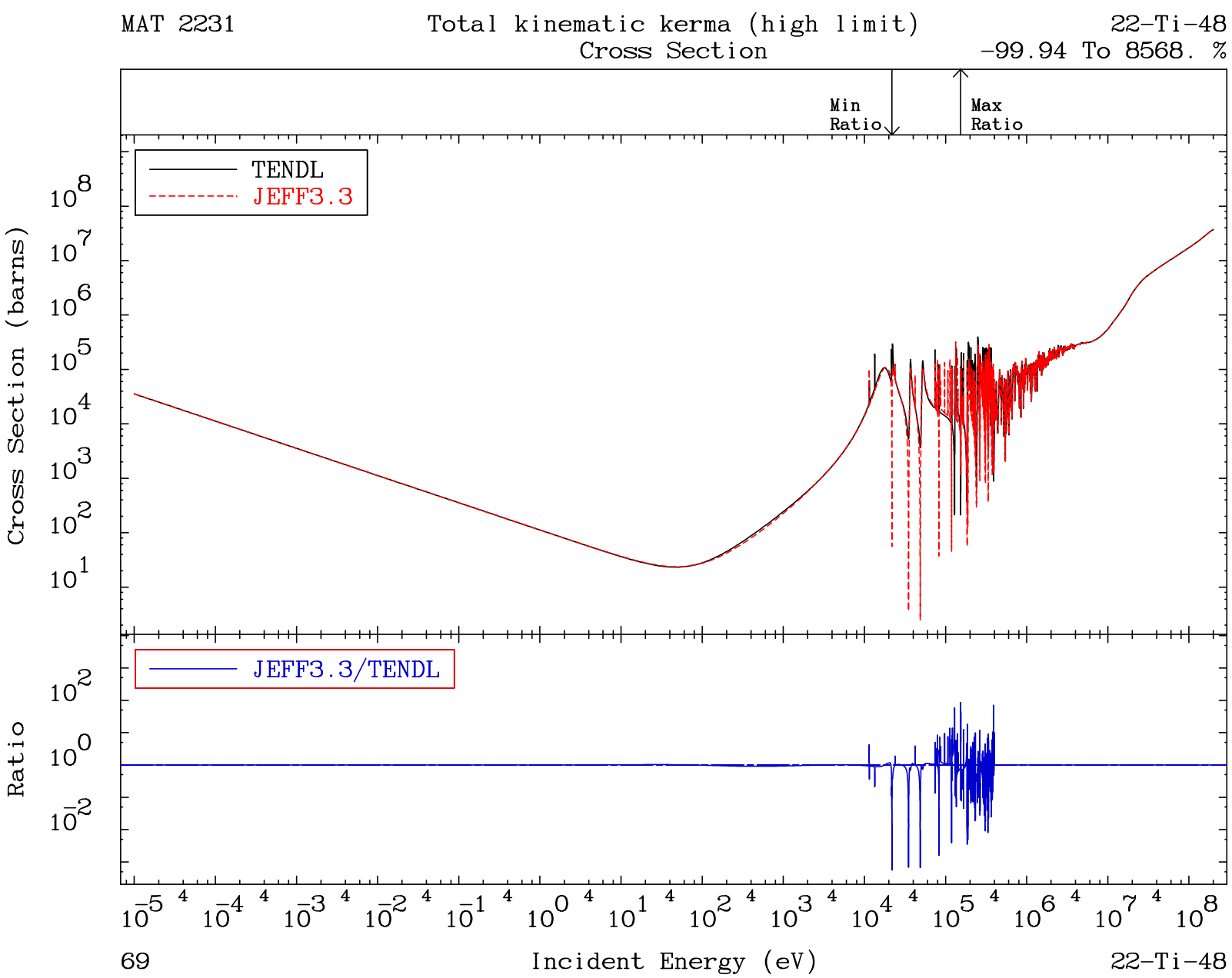

MAT 2231
Kerma non-elastic (all but mt2)
Cross Section
22-Ti-48
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
64
22-Ti-48

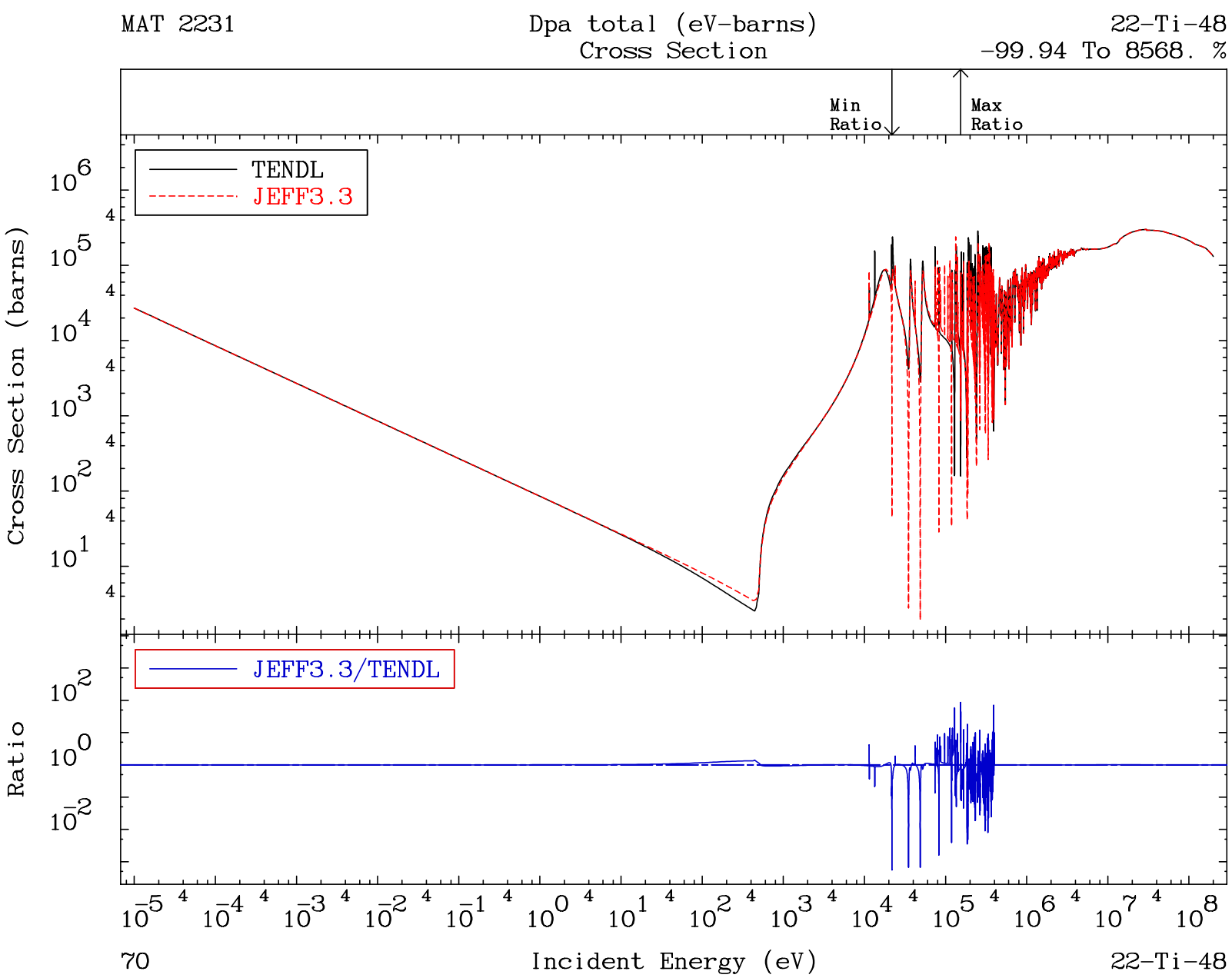

MAT 2231
Kerma inelastic (mt51-91)
Cross Section
22-Ti-48
-5.067 To 0.997 %
Max Ratio
Min Ratio
TENDL Threshold 1.0042 MeV
JEFF3.3 Threshold 1.0042 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
65
22-Ti-48

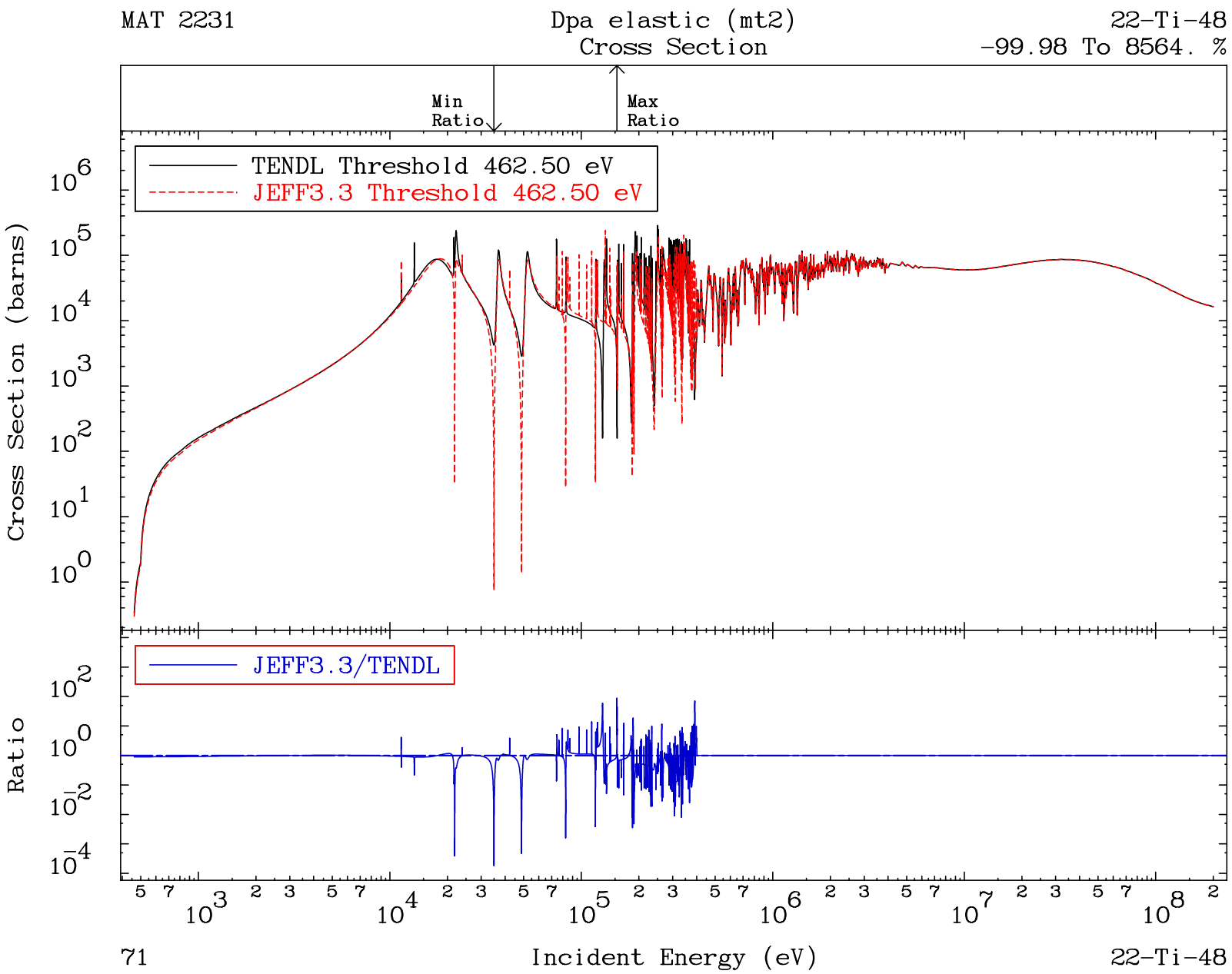

MAT 2231
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
22-Ti-48
-5.067 To 0.997 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.02
1.00
0.98
0.96
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
66
Incident Energy (eV)
22-Ti-48

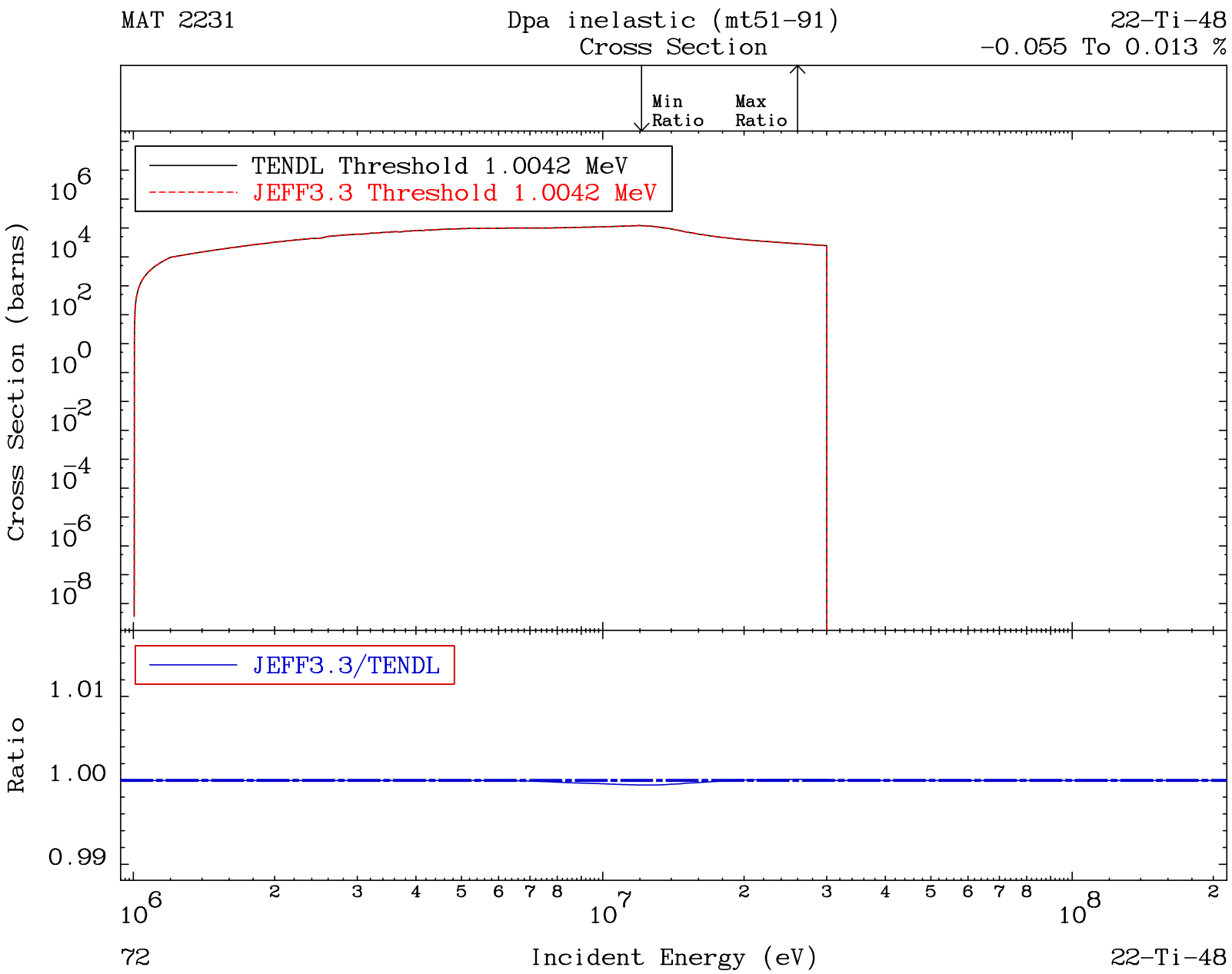

MAT 2231
Kerma capture (mt102)
Cross Section
22-Ti-48
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
67
22-Ti-48

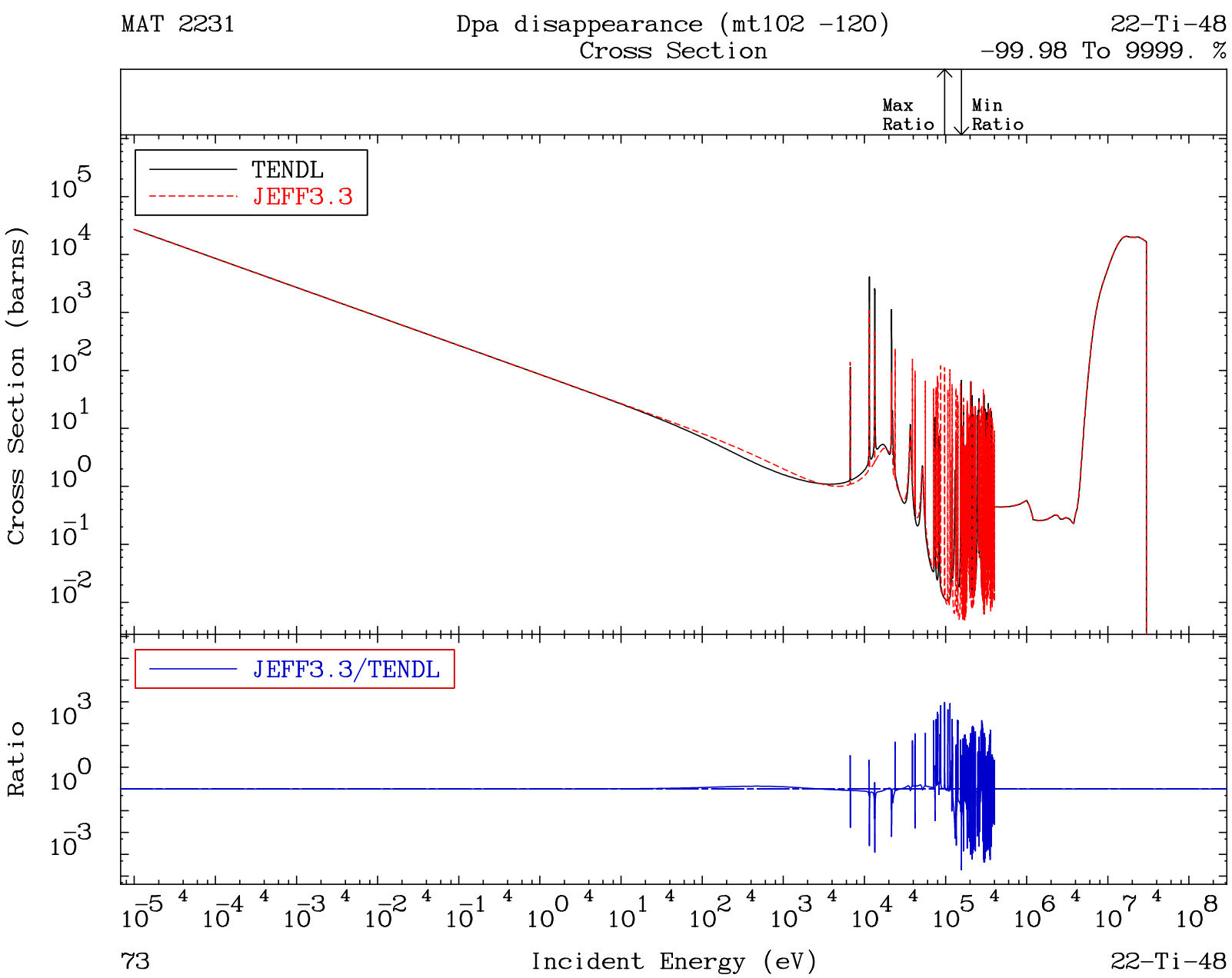

MAT 2231
Total photon (eV-barns)
Cross Section
22-Ti-48
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
22-Ti-48

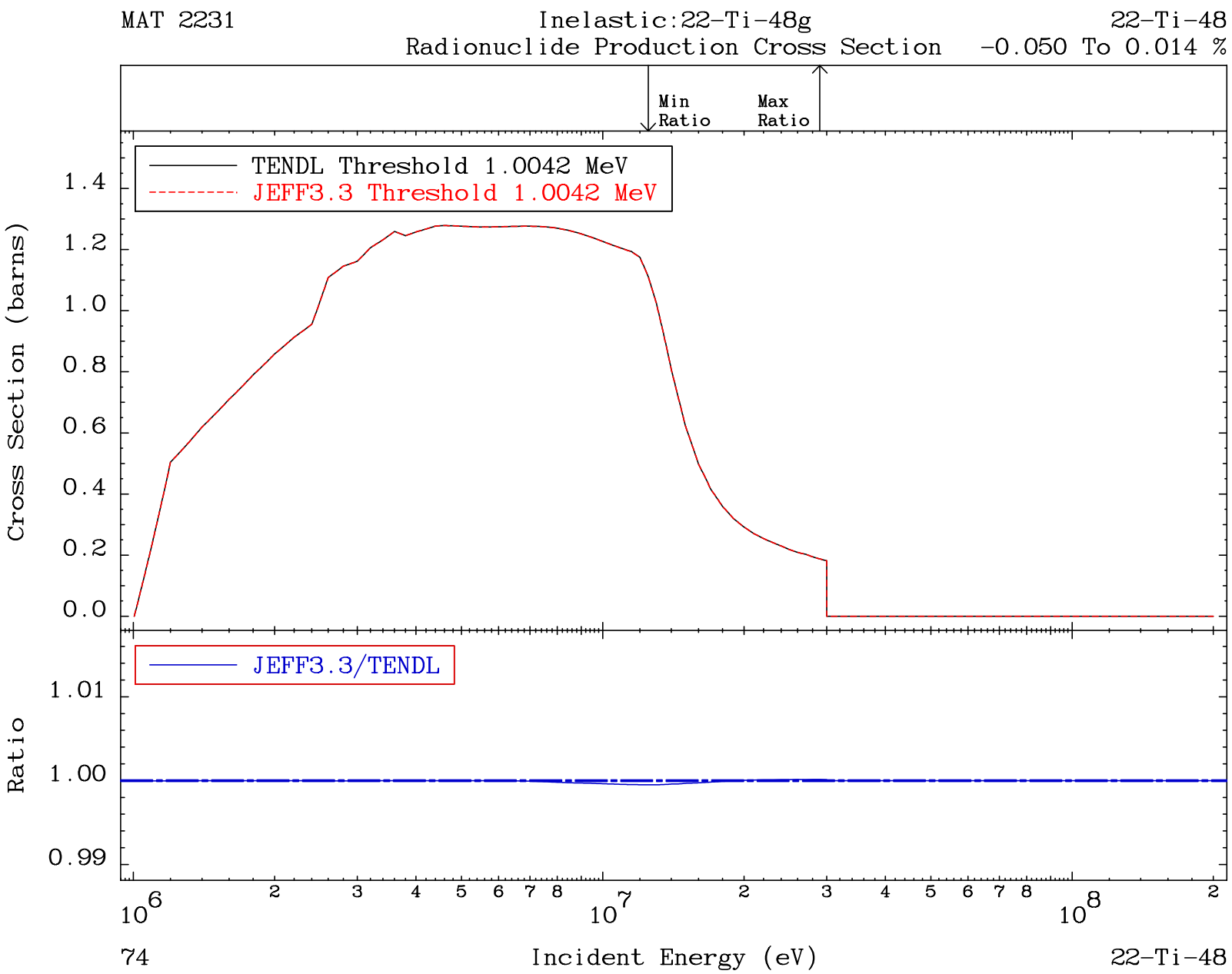

MAT 2231
Total kinematic kerma (high limit)
Cross Section
22-Ti-48
-99.94 To 8568. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
69
22-Ti-48

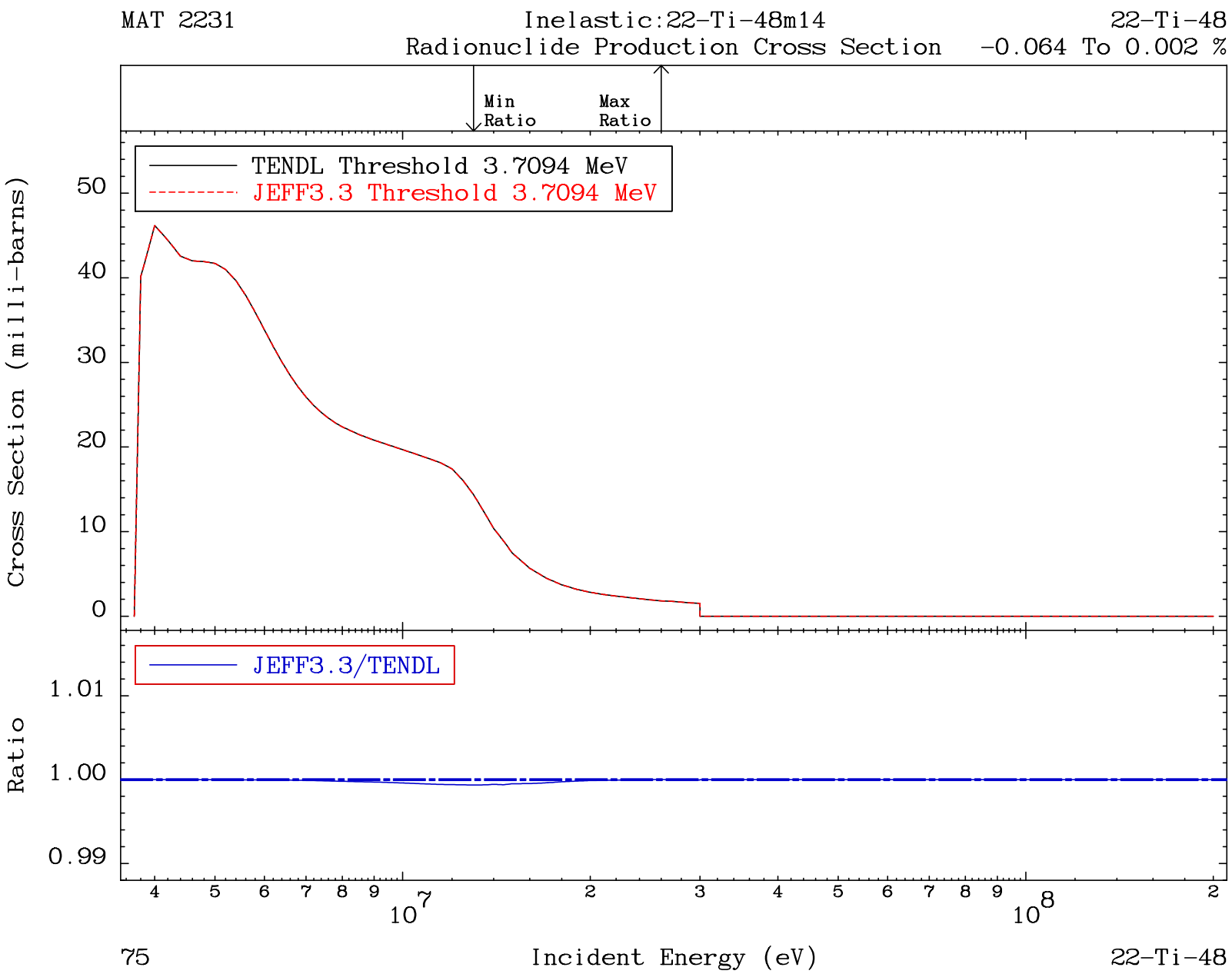

MAT 2231
Dpa total (eV-barns)
Cross Section
22-Ti-48
-99.94 To 8568. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
70
22-Ti-48

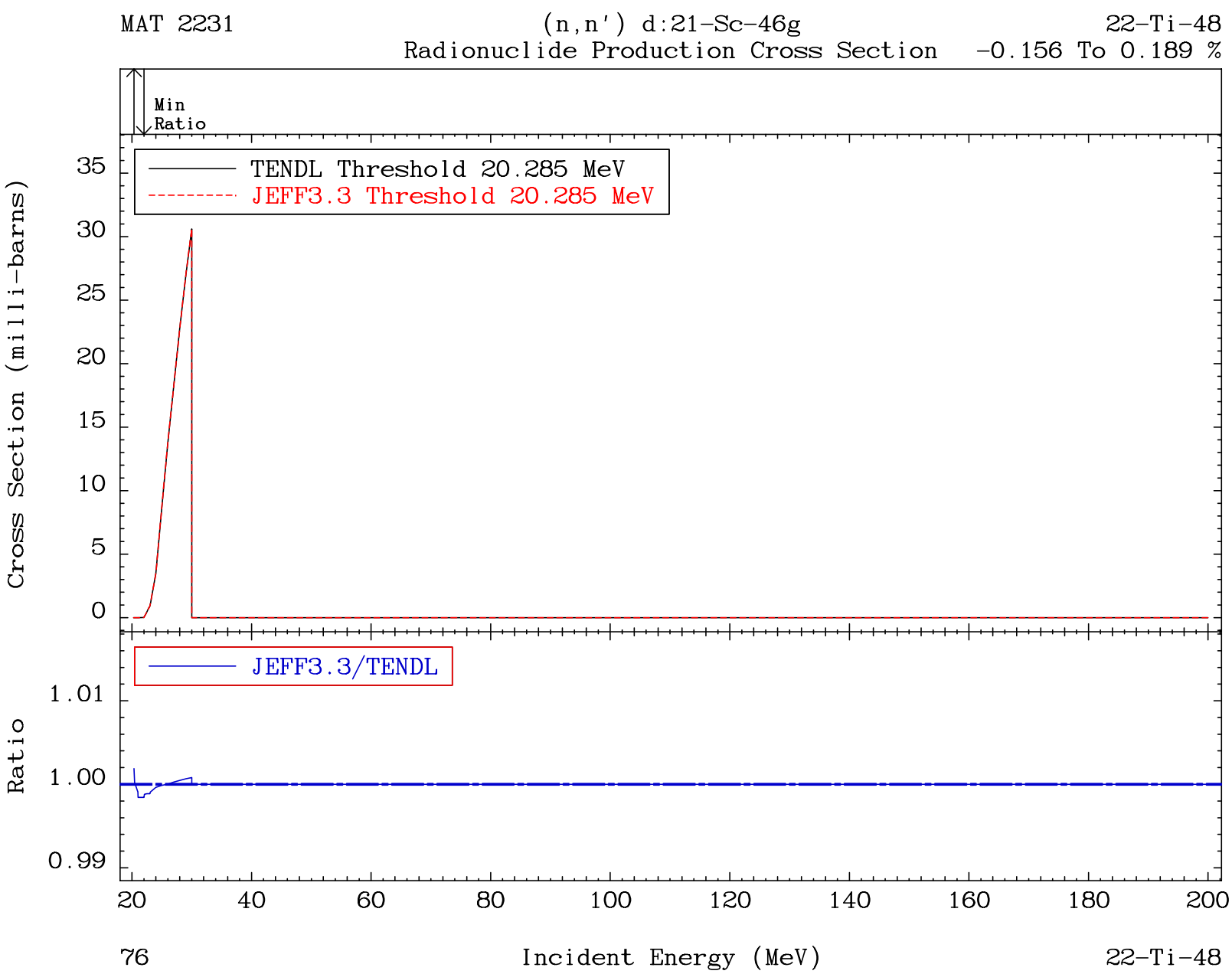

MAT 2231
Dpa elastic (mt2)
Cross Section
22-Ti-48
-99.98 To 8564. %
Min Ratio
Max Ratio
TENDL Threshold 462.50 eV
JEFF3.3 Threshold 462.50 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
71
22-Ti-48

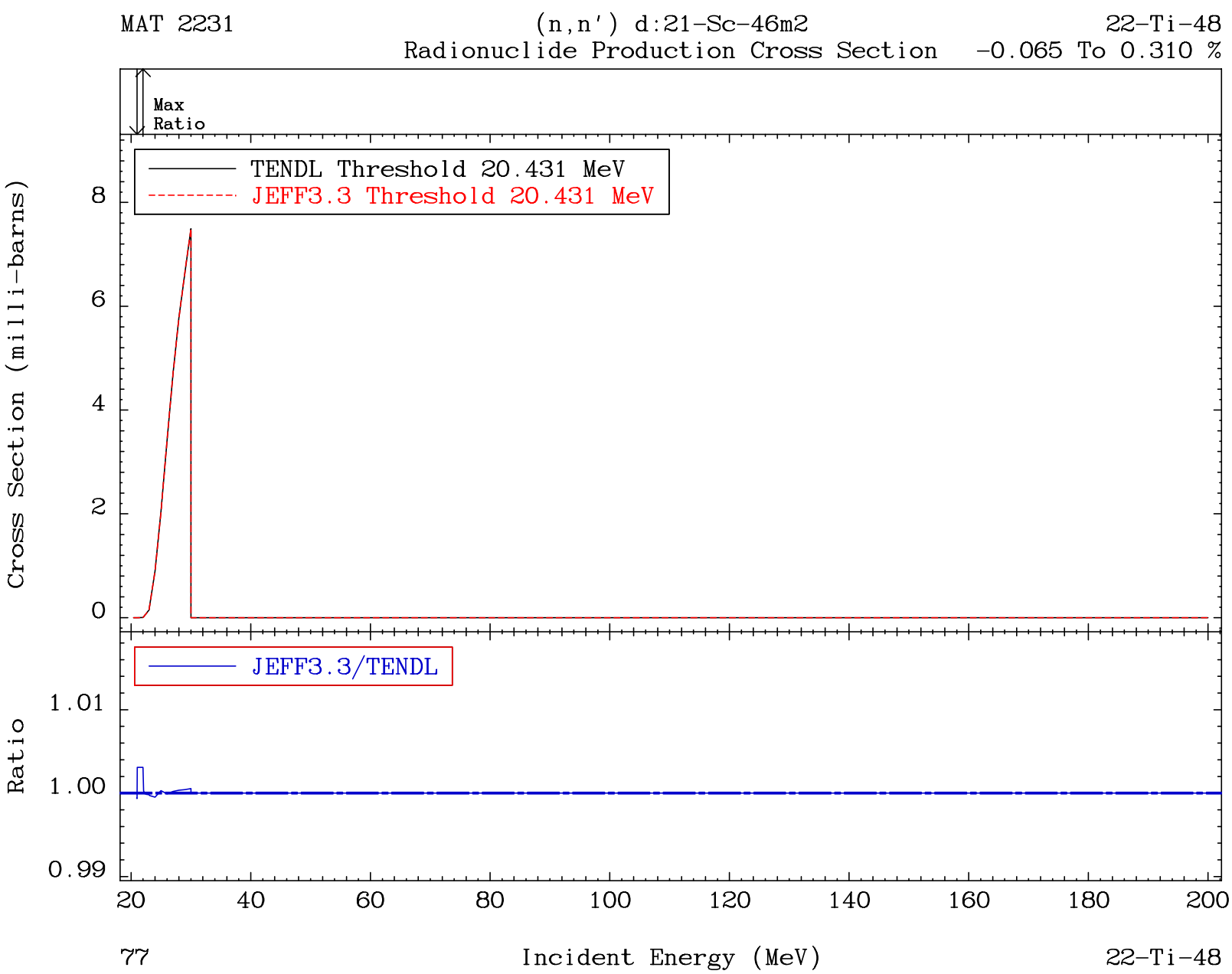

MAT 2231
Dpa inelastic (mt51-91)
Cross Section
22-Ti-48
-0.055 To 0.013 %
Min Ratio
Max Ratio
TENDL Threshold 1.0042 MeV
JEFF3.3 Threshold 1.0042 MeV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
72
22-Ti-48

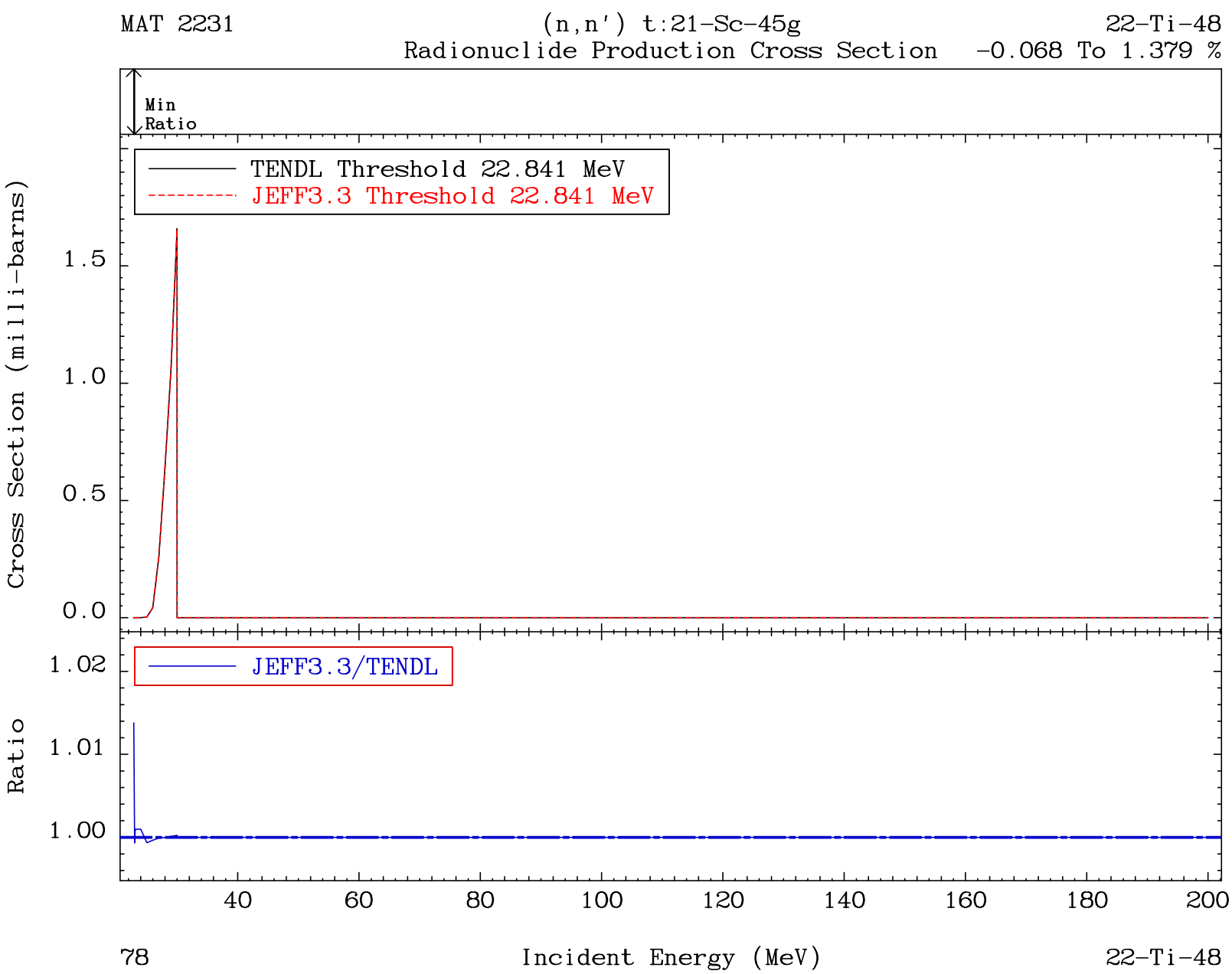

MAT 2231
Dpa disappearance (mt102 -120)
Cross Section
22-Ti-48
-99.98 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
73
22-Ti-48

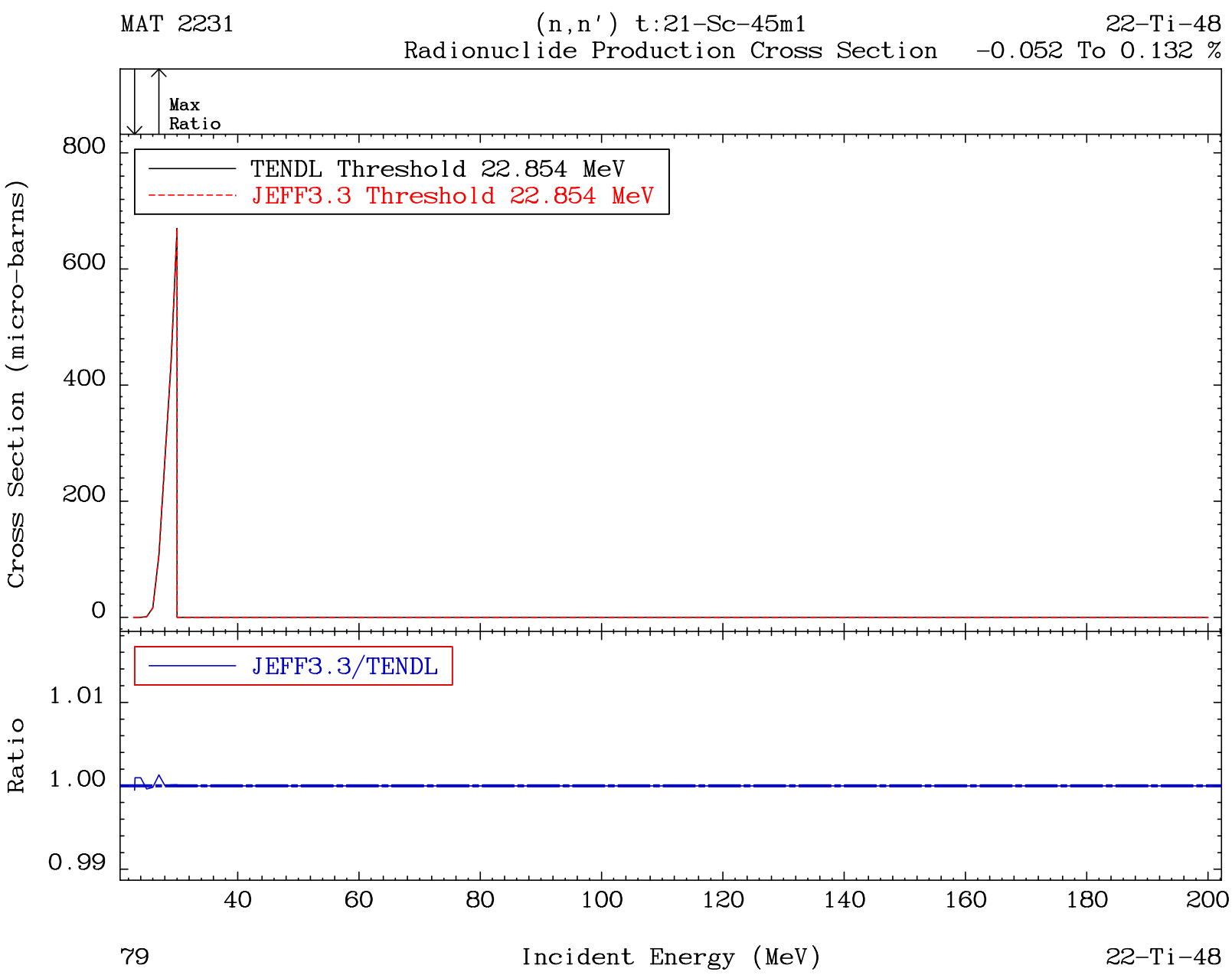

MAT 2231
Inelastic:22-Ti-48g
22-Ti-48
Radionuclide Production Cross Section
-0.050 To 0.014 %
Min Ratio
Max Ratio
TENDL Threshold 1.0042 MeV
JEFF3.3 Threshold 1.0042 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
74
Incident Energy (eV)
22-Ti-48

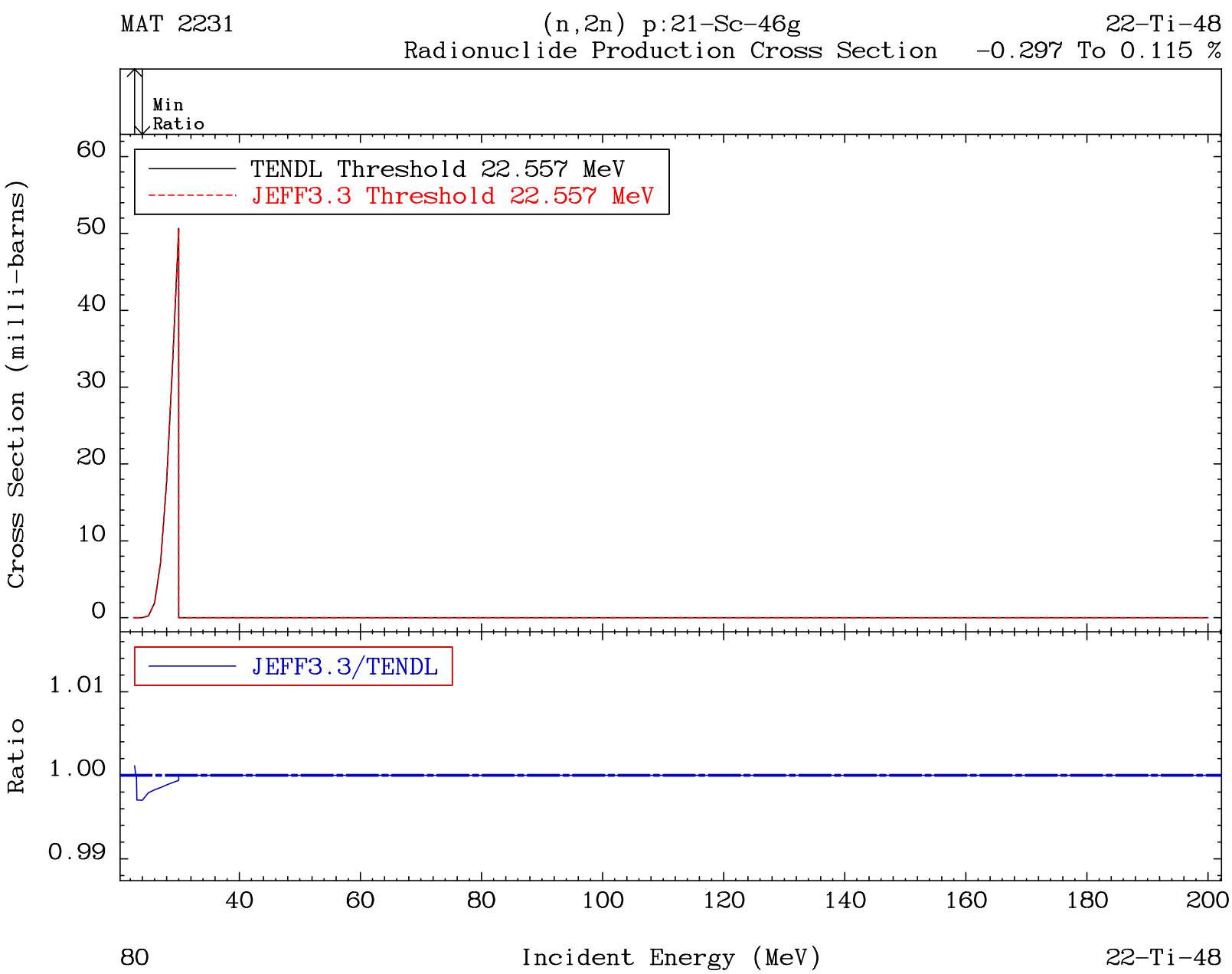

MAT 2231
Inelastic:22-Ti-48m14
22-Ti-48
Radionuclide Production Cross Section
-0.064 To 0.002 %
Min Ratio
Max Ratio
TENDL Threshold 3.7094 MeV
JEFF3.3 Threshold 3.7094 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
75
Incident Energy (eV)
22-Ti-48

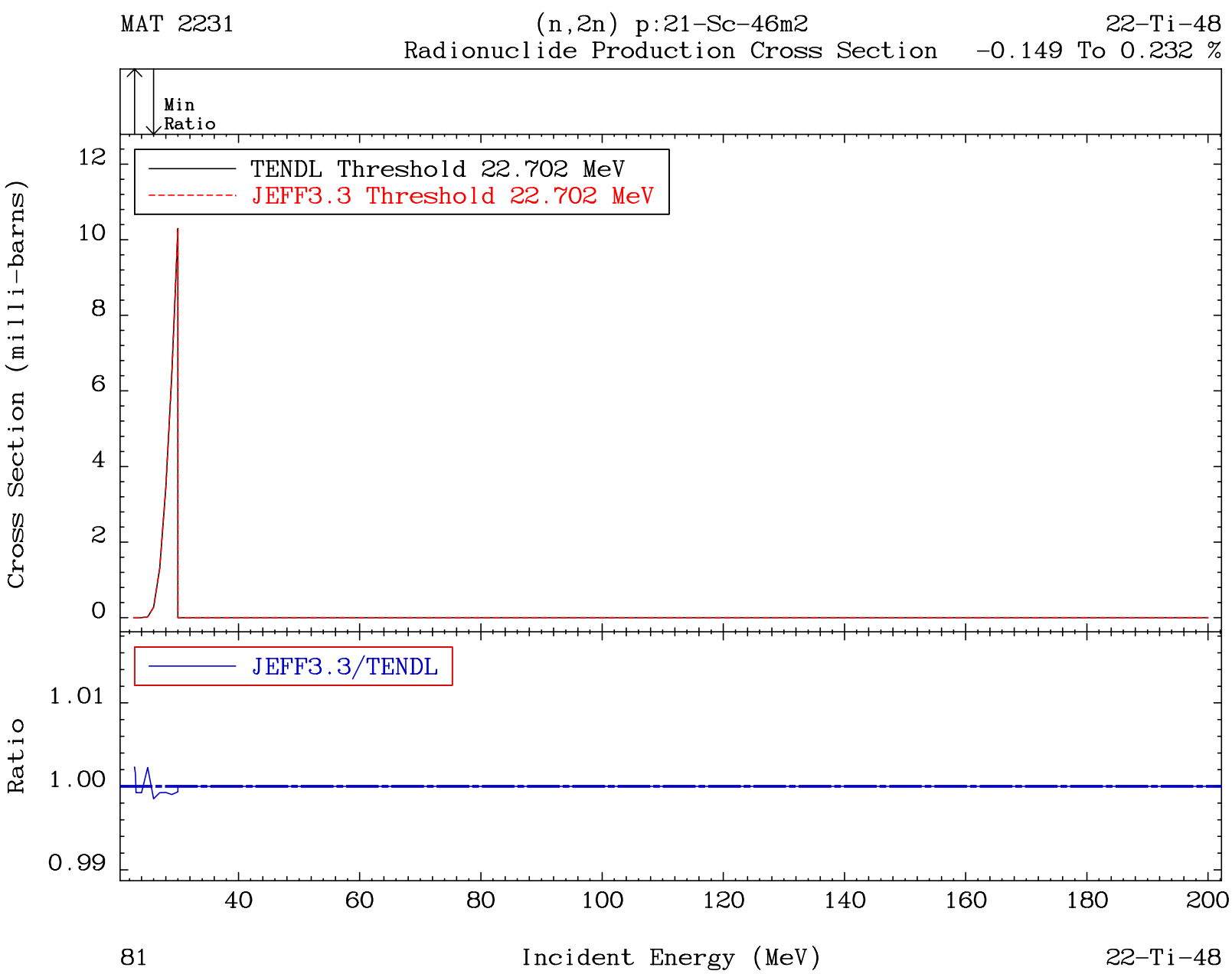

MAT 2231
(n,n') d:21-Sc-46g
22-Ti-48
Radionuclide Production Cross Section
-0.156 To 0.189 %
Min
Ratio
TENDL Threshold 20.285 MeV
JEFF3.3 Threshold 20.285 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
76
Incident Energy (MeV)
22-Ti-48

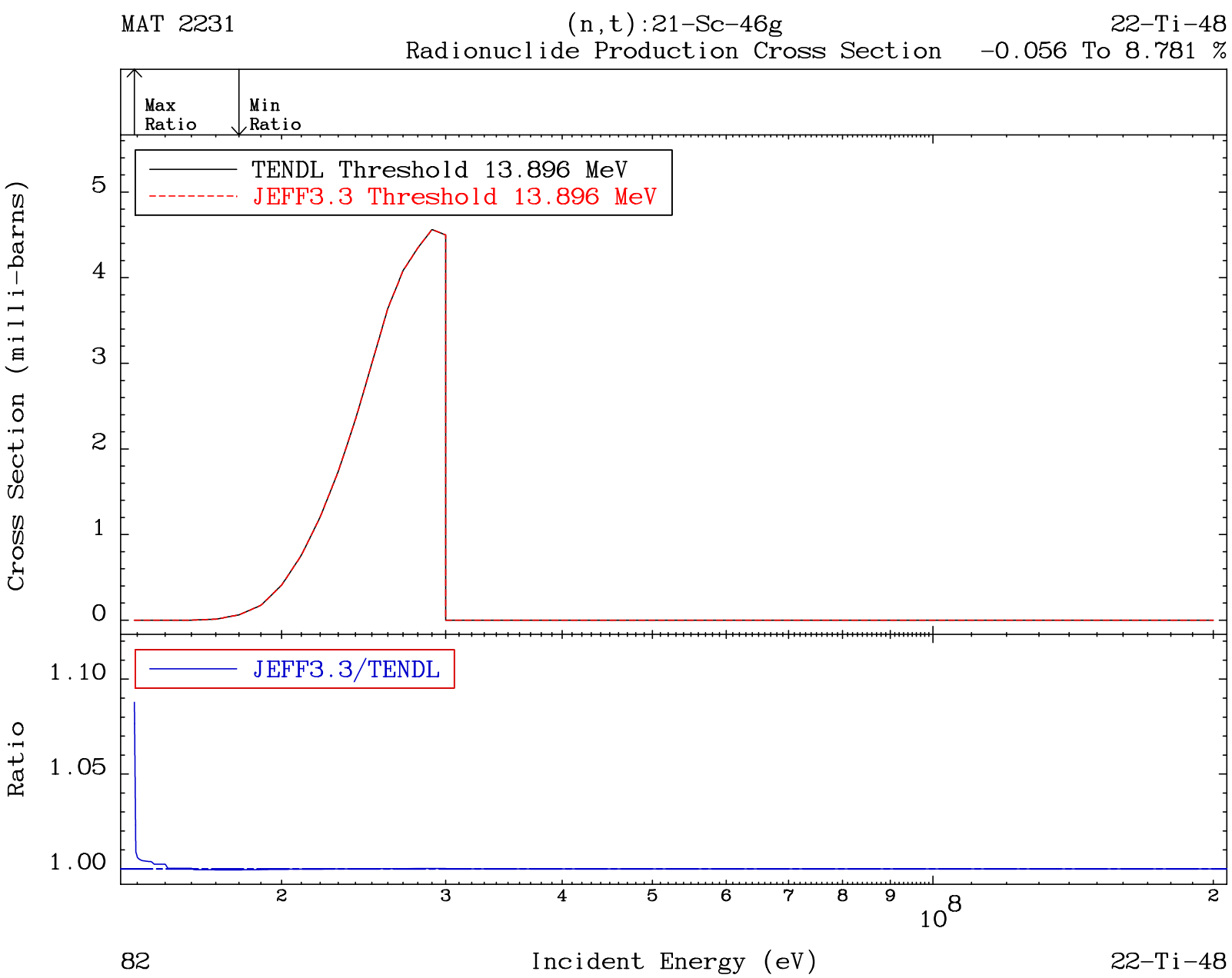

MAT 2231
(n,n') d:21-Sc-46m2
22-Ti-48
Radionuclide Production Cross Section
-0.065 To 0.310 %
Max
Ratio
TENDL Threshold 20.431 MeV
JEFF3.3 Threshold 20.431 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
0.99
1.00
1.01
20
40
60
80
100
120
140
160
180
200
77
Incident Energy (MeV)
22-Ti-48

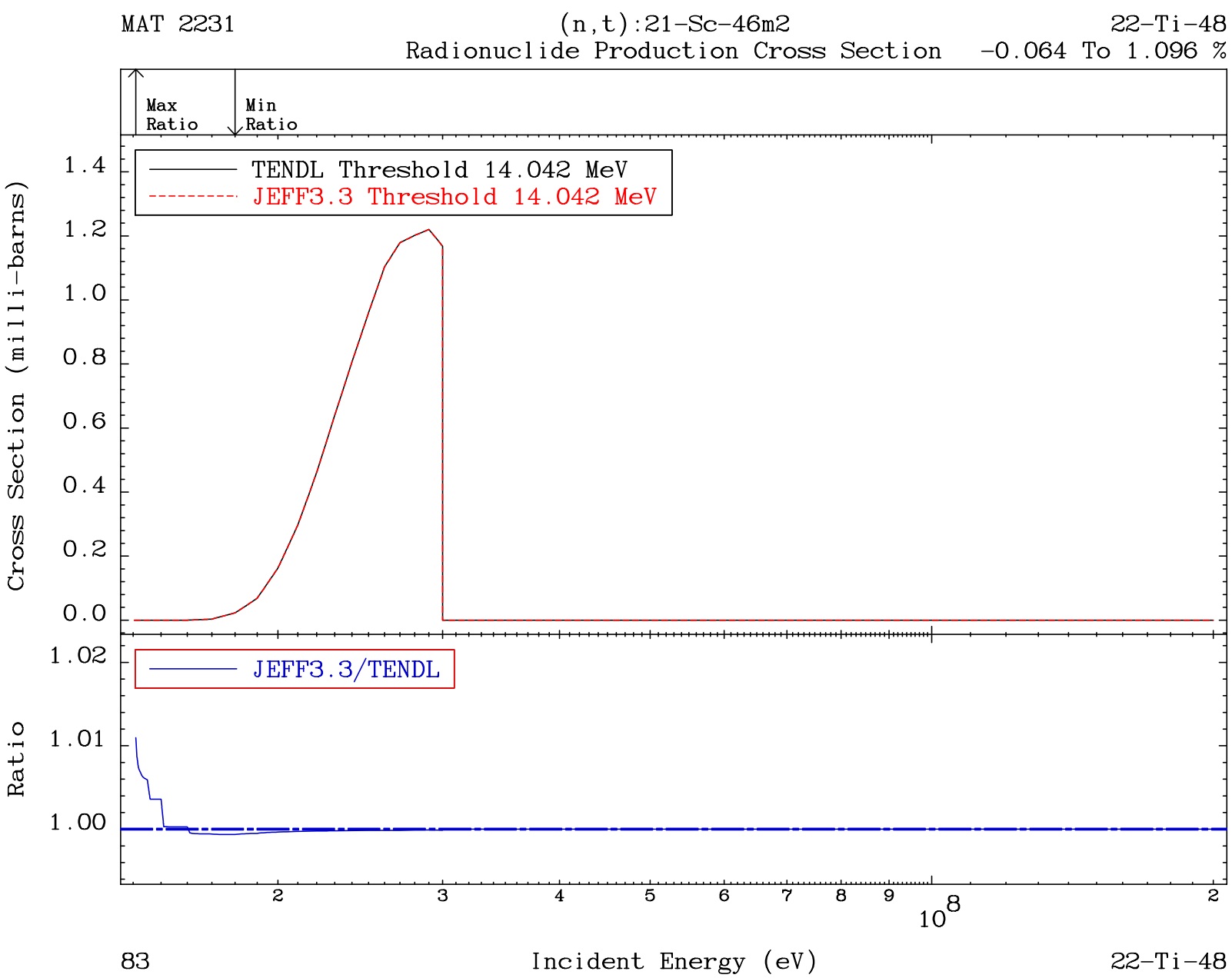

MAT 2231
(n,n') t:21-Sc-45g
22-Ti-48
Radionuclide Production Cross Section
-0.068 To 1.379 %
Min Ratio
TENDL Threshold 22.841 MeV
JEFF3.3 Threshold 22.841 MeV
Cross Section (milli-barns)
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
40
60
80
100
120
140
160
180
200
78
Incident Energy (MeV)
22-Ti-48


MAT 2231
(n,n') t:21-Sc-45m1
22-Ti-48
Radionuclide Production Cross Section
-0.052 To 0.132 %
Max
Ratio
TENDL Threshold 22.854 MeV
JEFF3.3 Threshold 22.854 MeV
Cross Section (micro-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
79
Incident Energy (MeV)
22-Ti-48


MAT 2231
(n,2n) p:21-Sc-46g
22-Ti-48
Radionuclide Production Cross Section
-0.297 To 0.115 %
Min
Ratio
TENDL Threshold 22.557 MeV
JEFF3.3 Threshold 22.557 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
80
Incident Energy (MeV)
22-Ti-48


MAT 2231
(n,2n) p:21-Sc-46m2
22-Ti-48
Radionuclide Production Cross Section
-0.149 To 0.232 %
Min
Ratio
TENDL Threshold 22.702 MeV
JEFF3.3 Threshold 22.702 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
81
Incident Energy (MeV)
22-Ti-48


MAT 2231
(n,t):21-Sc-46g
22-Ti-48
Radionuclide Production Cross Section
-0.056 To 8.781 %
Max Ratio
Min Ratio
TENDL Threshold 13.896 MeV
JEFF3.3 Threshold 13.896 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
1.00
1.05
1.10
2
3
4
5
6
7
8
9
10^8
2
82
Incident Energy (eV)
22-Ti-48


MAT 2231
(n,t):21-Sc-46m2
22-Ti-48
Radionuclide Production Cross Section
-0.064 To 1.096 %
Max Ratio
Min Ratio
TENDL Threshold 14.042 MeV
JEFF3.3 Threshold 14.042 MeV
Cross Section (milli-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
22-Ti-48