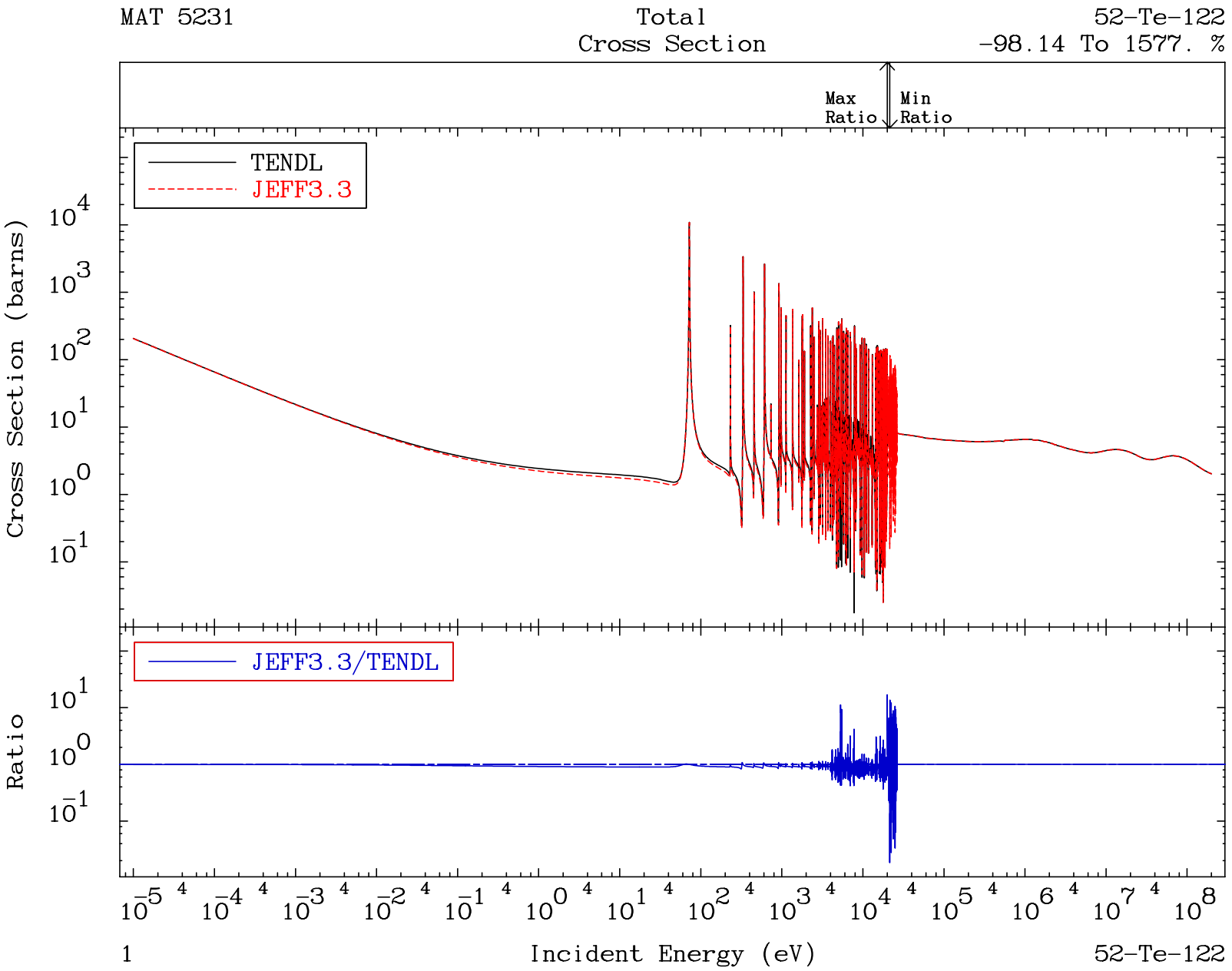
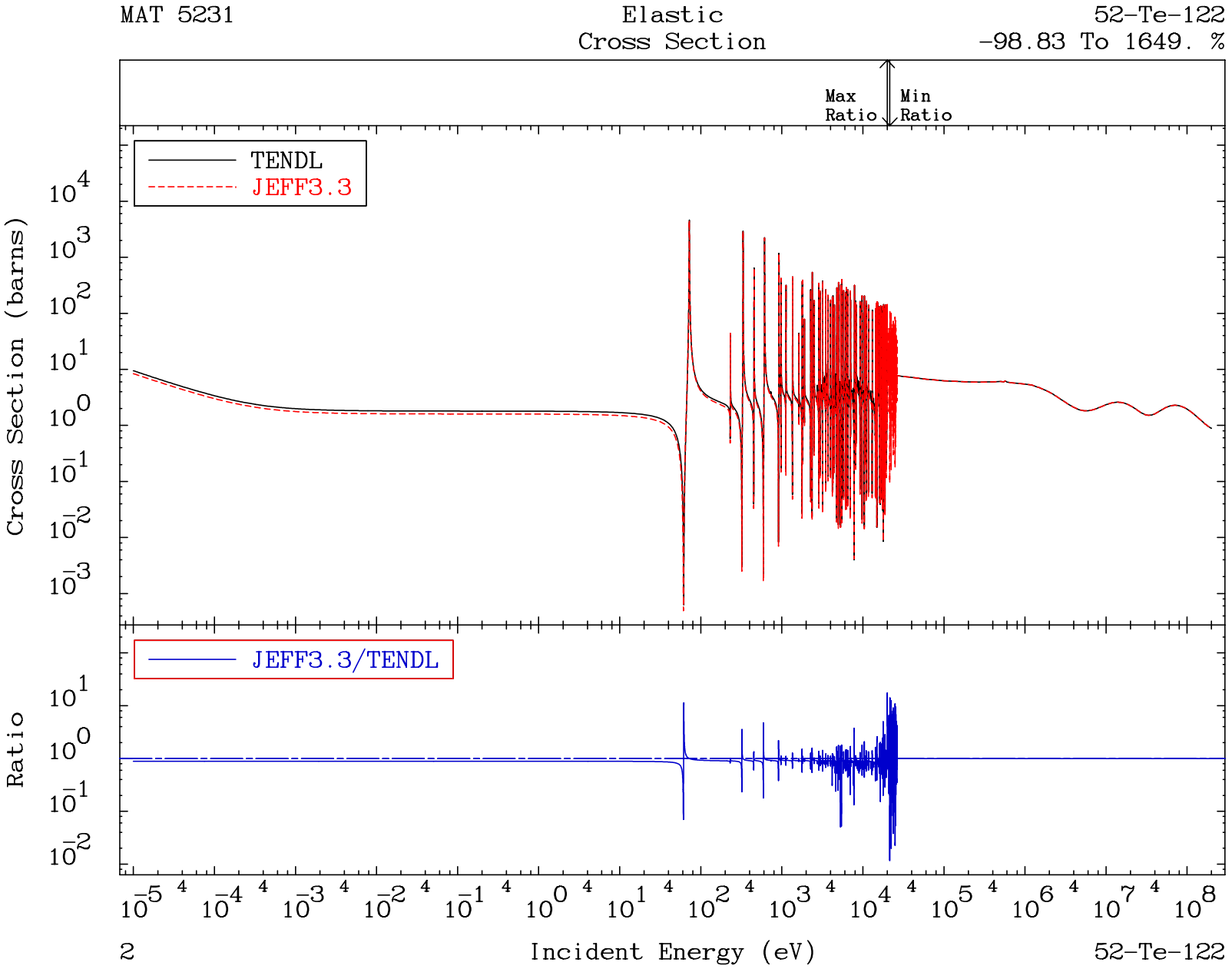
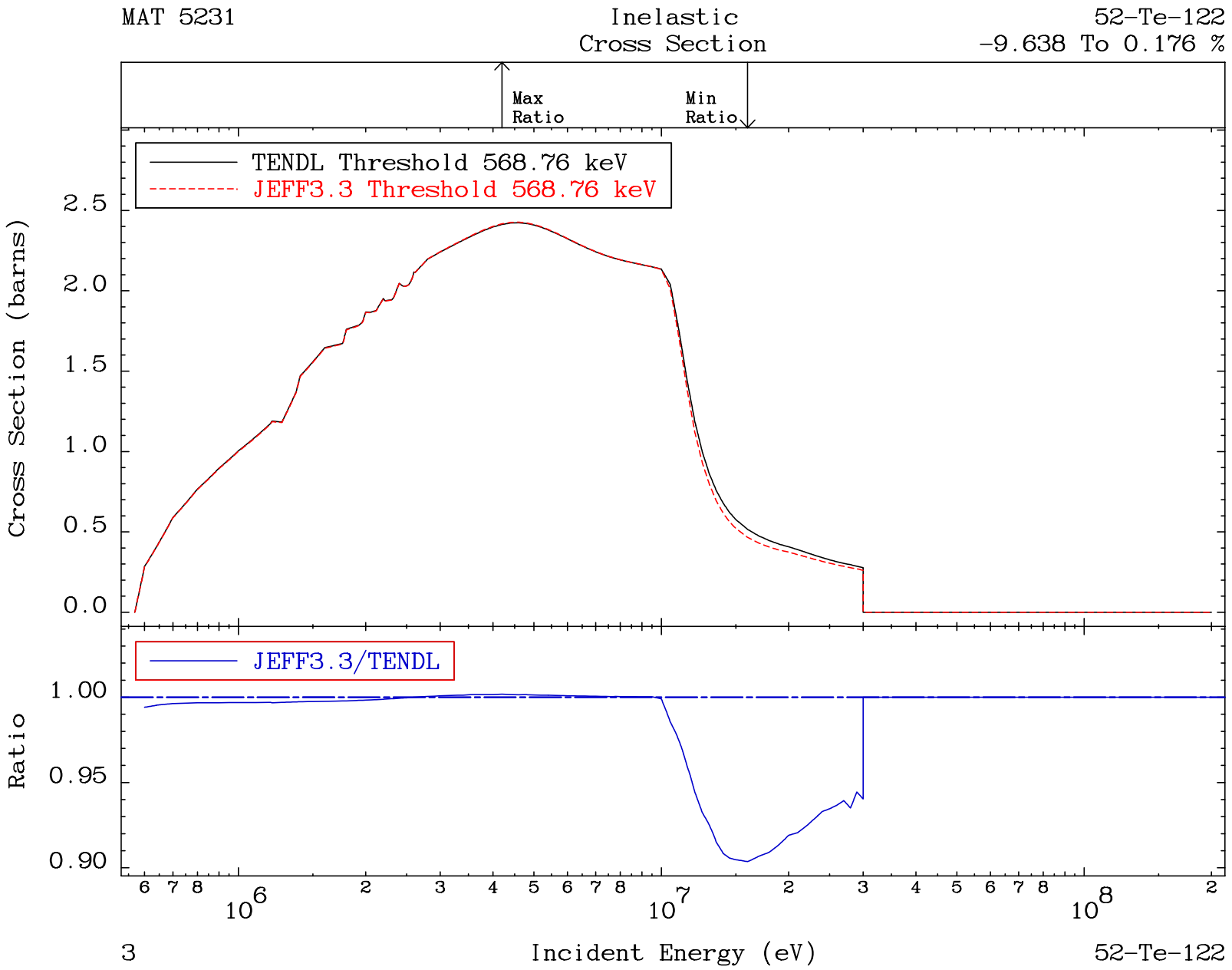
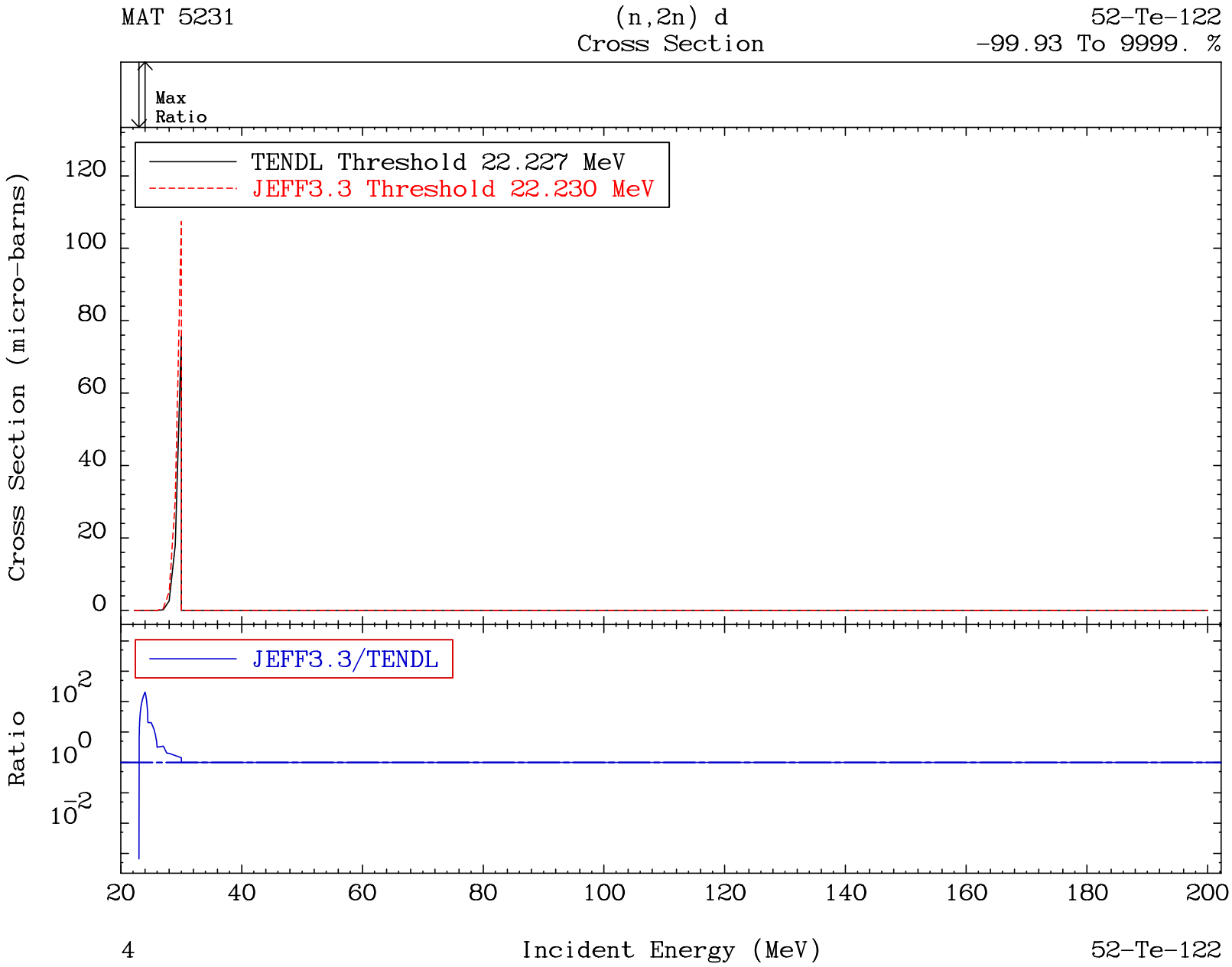
Program Complot
(Version 2018-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

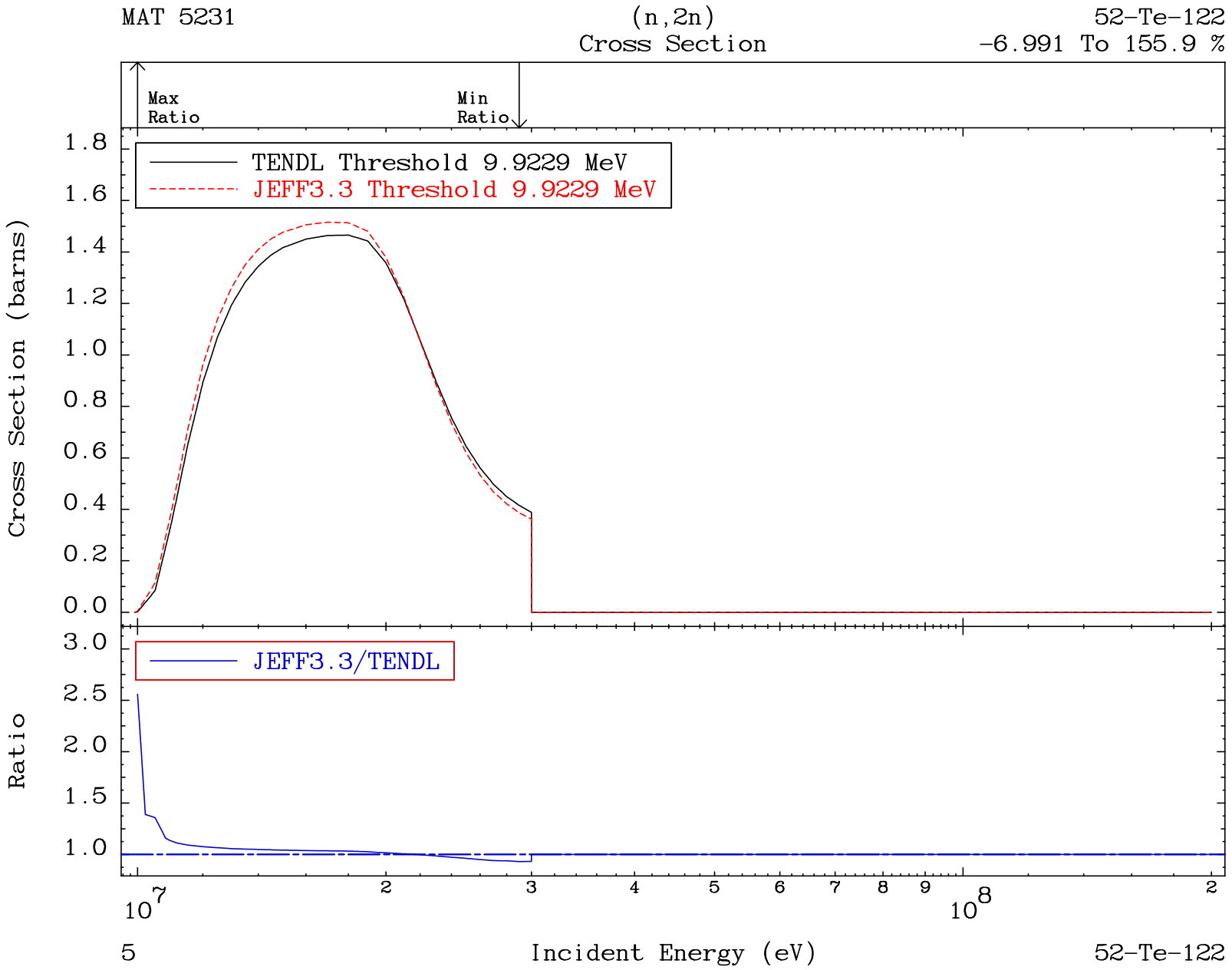
Press Mouse Button to Start

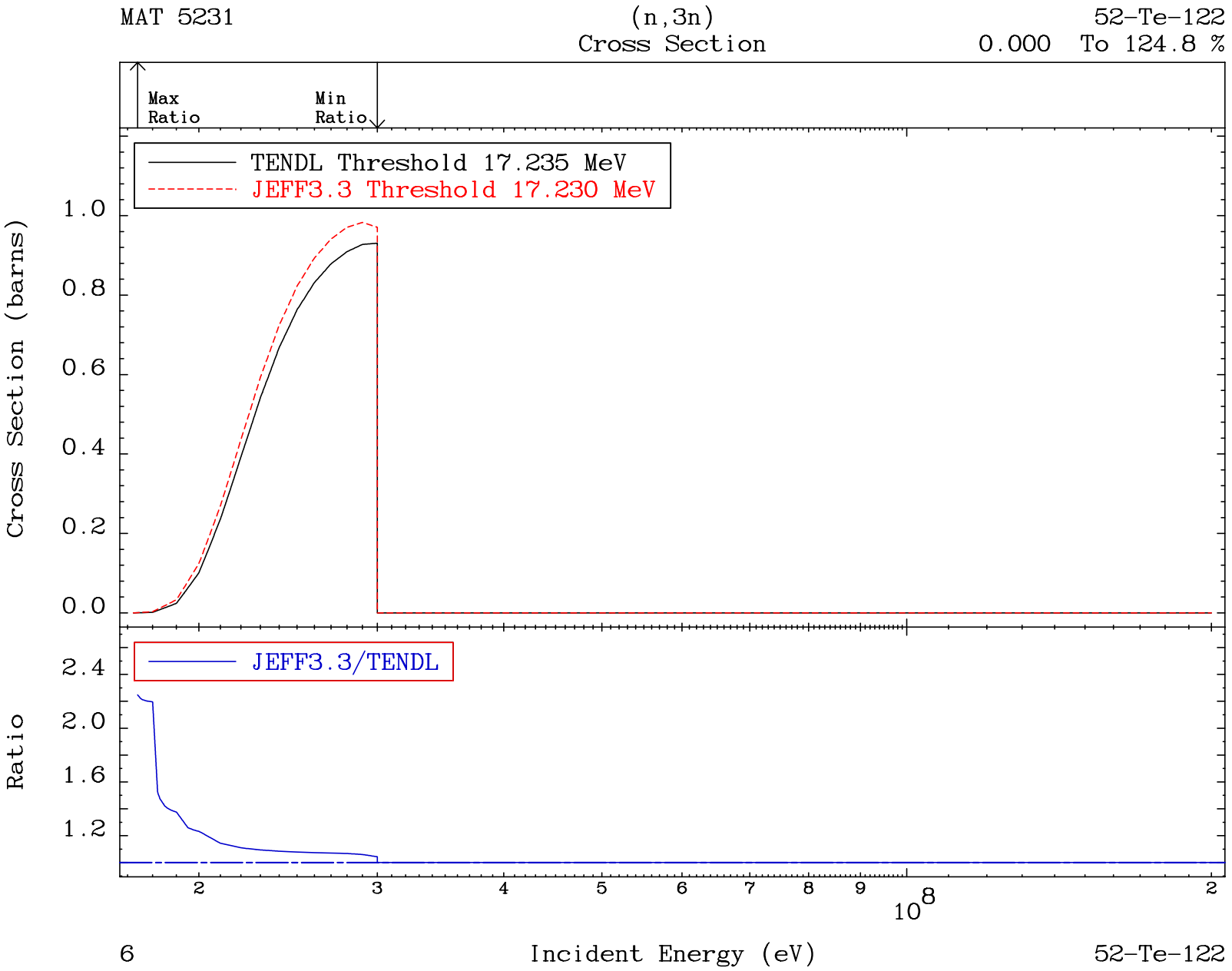

MAT 5231
Total
Cross Section
52-Te-122
-98.14 To 1577. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
1
52-Te-122

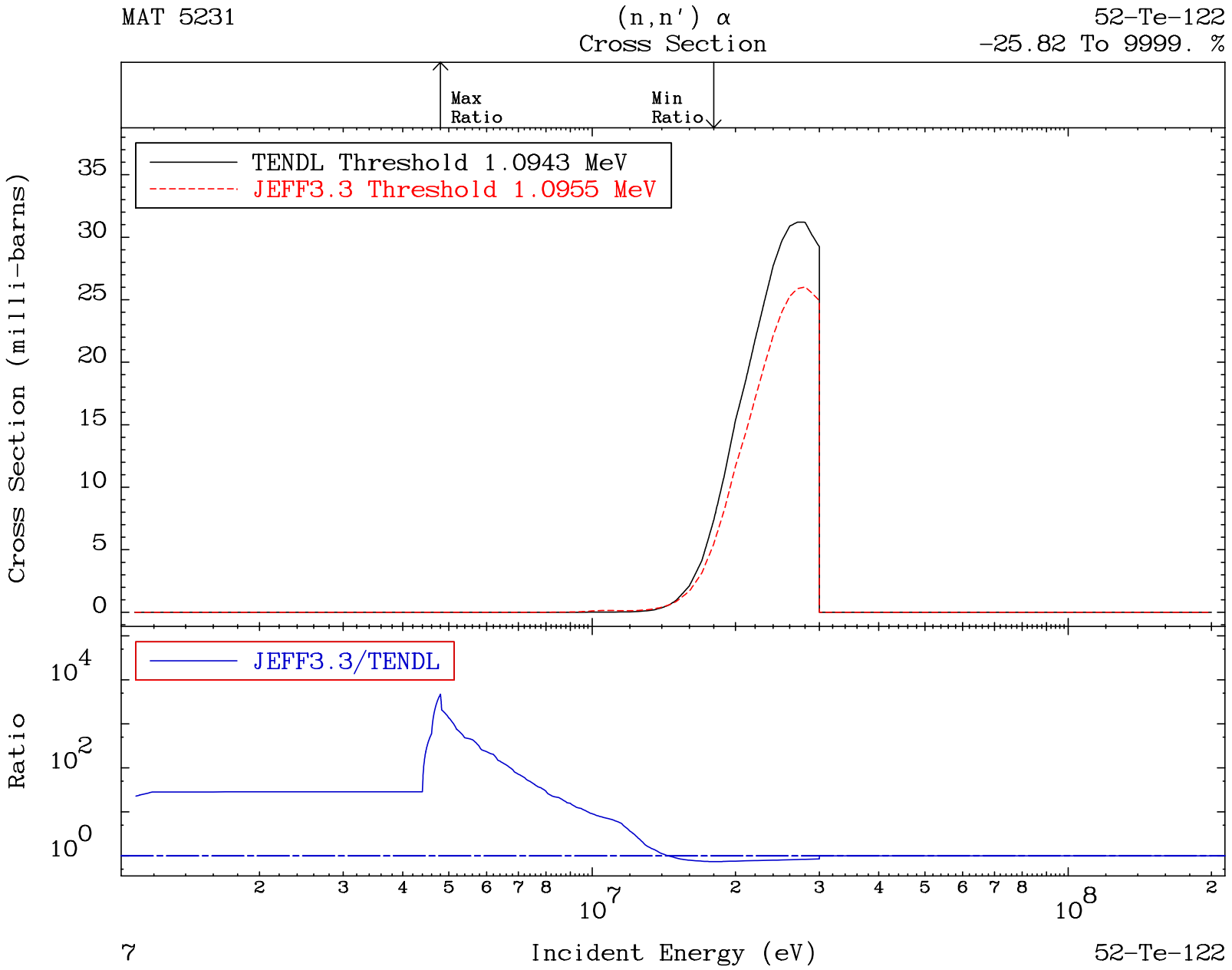

MAT 5231
Elastic
Cross Section
52-Te-122
-98.83 To 1649. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
2
52-Te-122

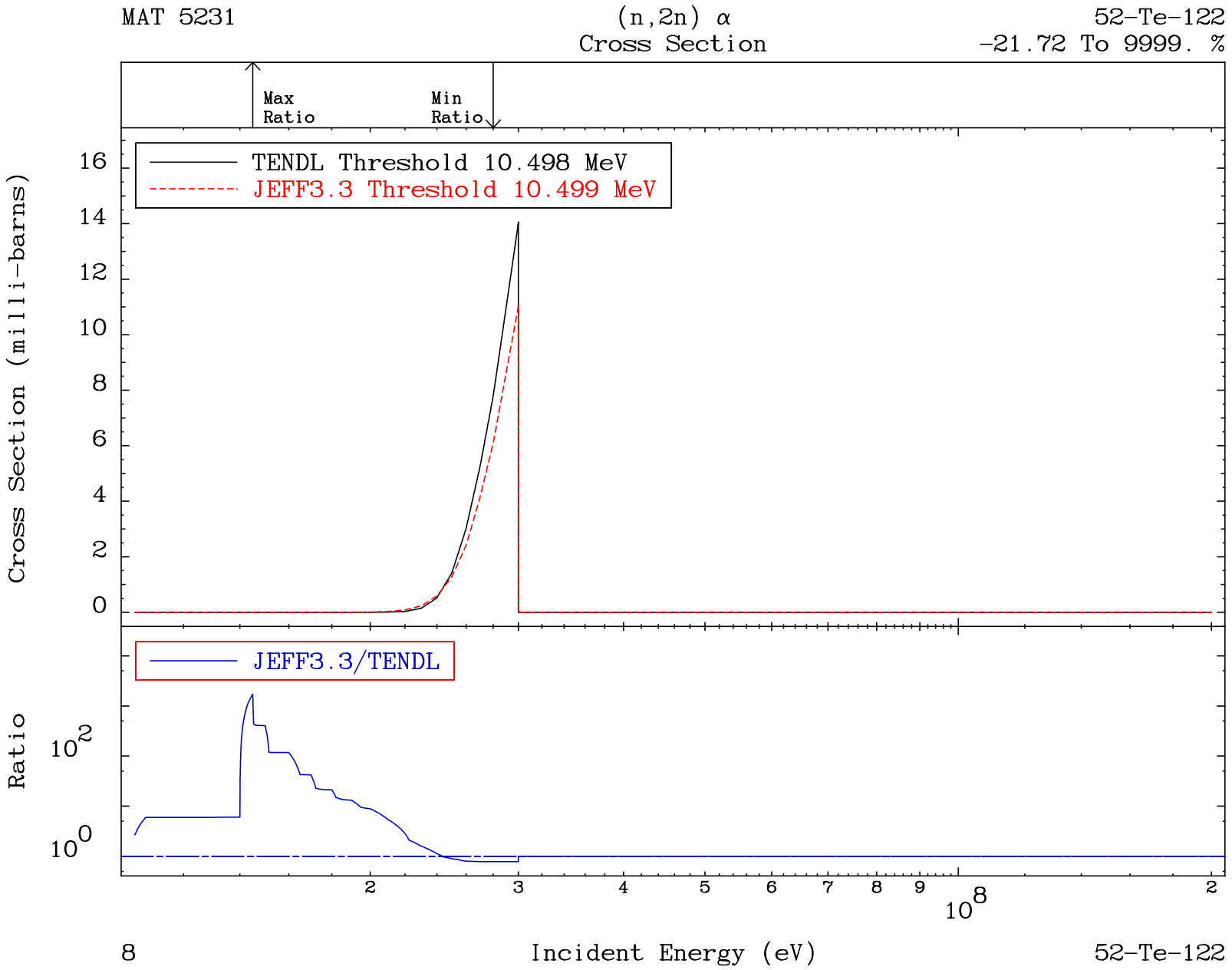

MAT 5231
Inelastic
Cross Section
52-Te-122
-9.638 To 0.176 %
Max
Ratio
Min
Ratio
TENDL Threshold 568.76 keV
JEFF3.3 Threshold 568.76 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
6 7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
3
Incident Energy (eV)
52-Te-122

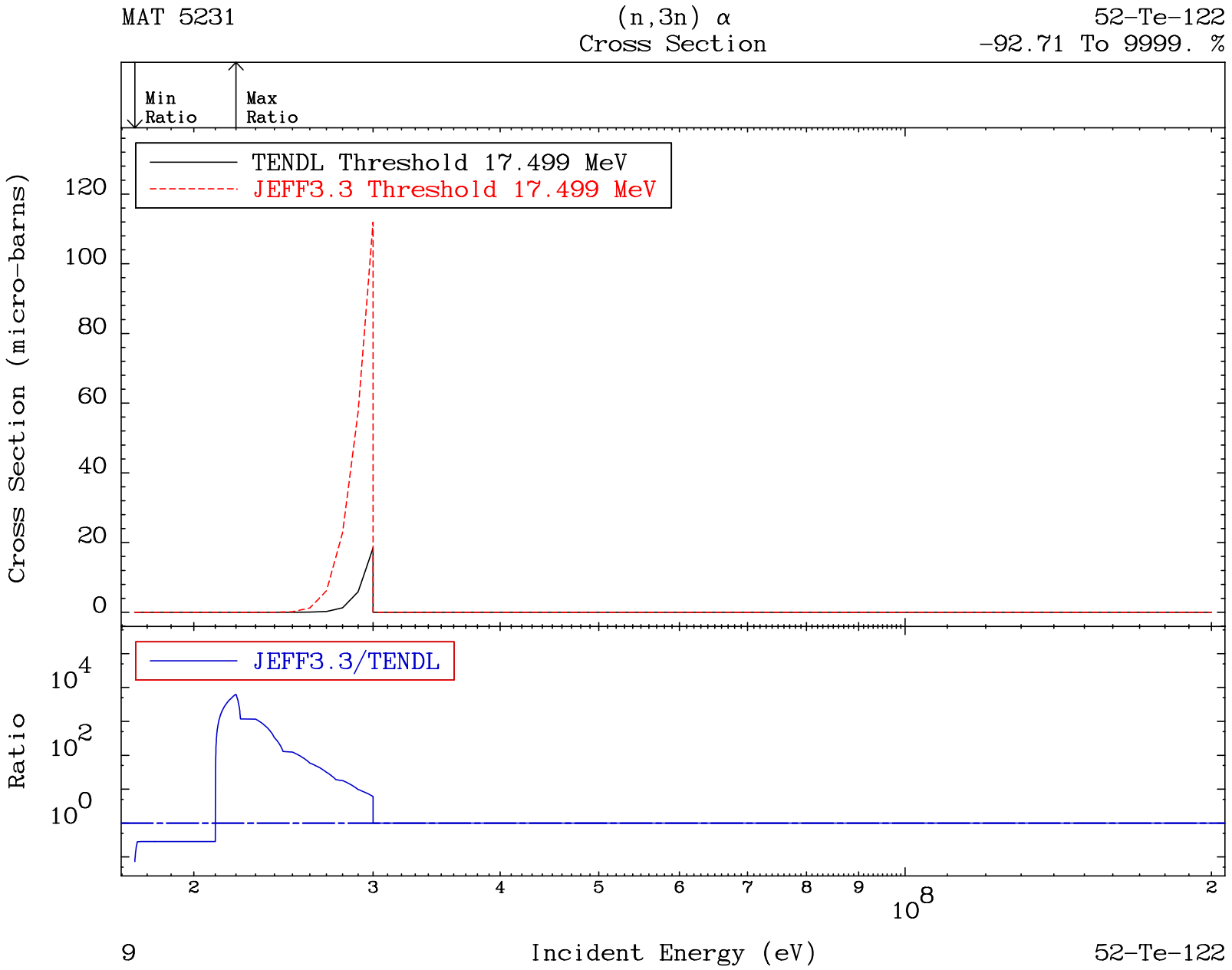

MAT 5231
(n,2n) d
Cross Section
52-Te-122
-99.93 To 9999. %
Max
Ratio
TENDL Threshold 22.227 MeV
JEFF3.3 Threshold 22.230 MeV
Cross Section (micro-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
20
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
52-Te-122

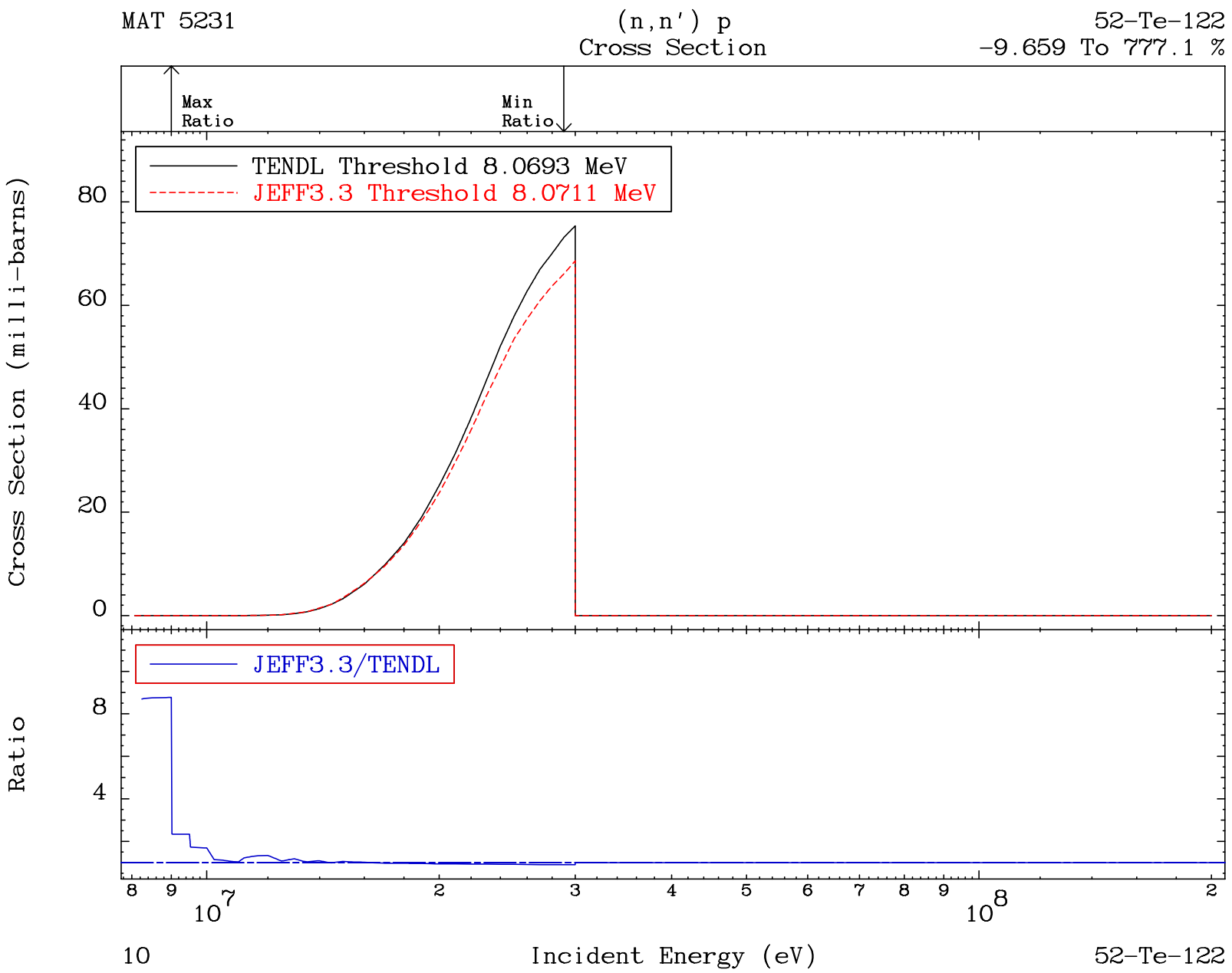

MAT 5231
(n,2n)
Cross Section
52-Te-122
-6.991 To 155.9 %
Max Ratio
Min Ratio
TENDL Threshold 9.9229 MeV
JEFF3.3 Threshold 9.9229 MeV
Cross Section (barns)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
3.0
2.5
2.0
1.5
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
52-Te-122

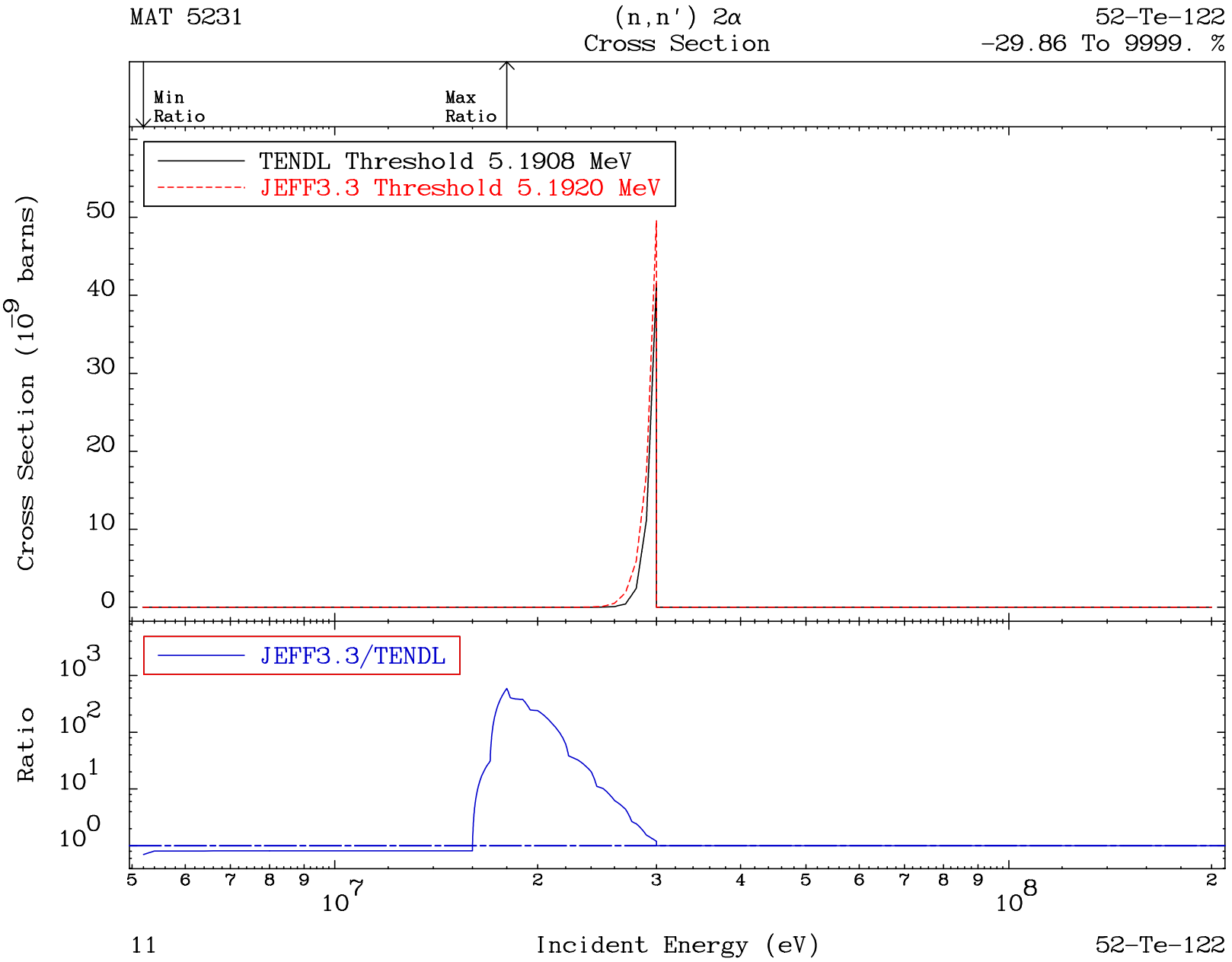

MAT 5231
(n,3n)
Cross Section
52-Te-122
0.000 To 124.8 %
Max Ratio
Min Ratio
TENDL Threshold 17.235 MeV
JEFF3.3 Threshold 17.230 MeV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
2.4
2.0
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
52-Te-122

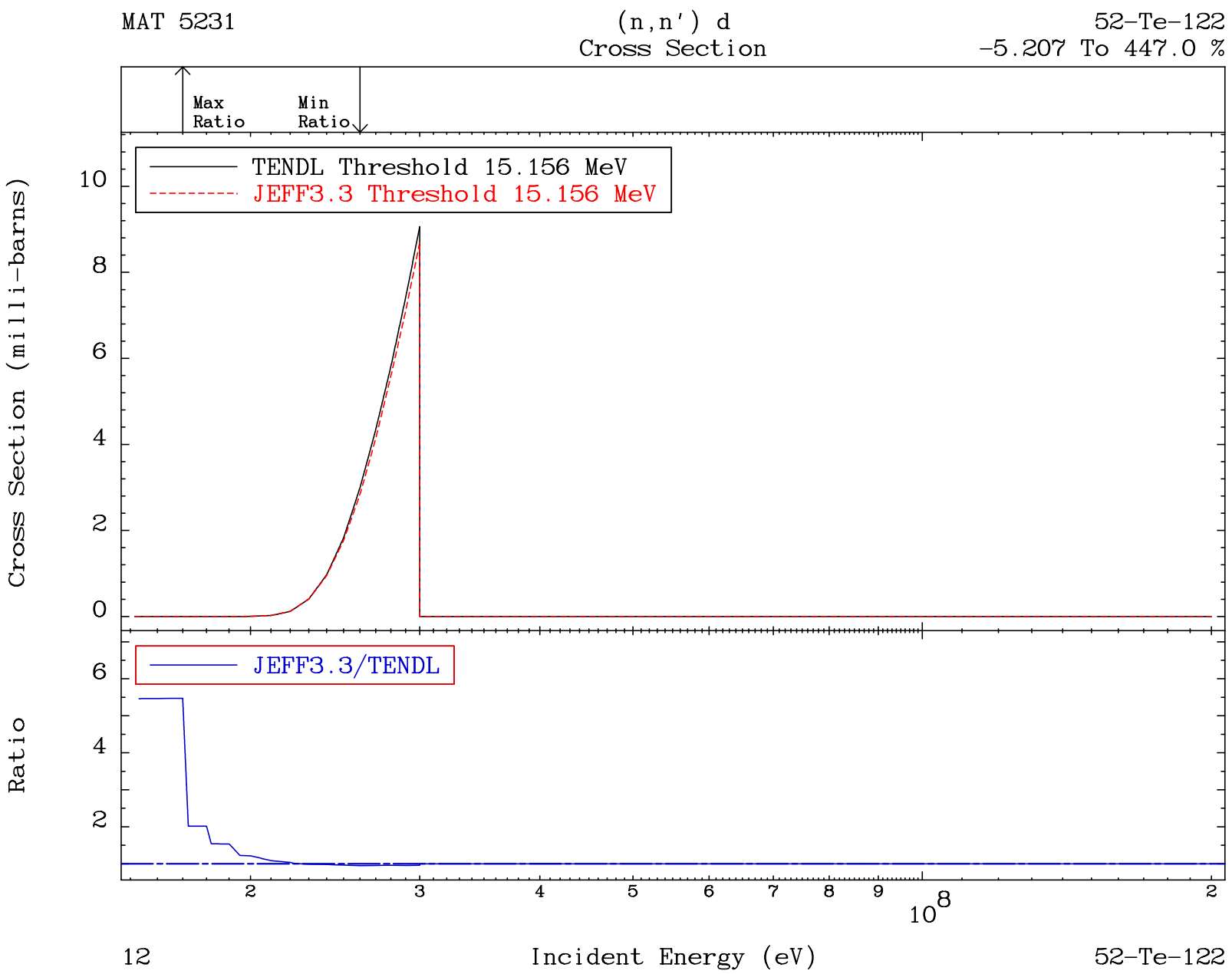

MAT 5231
(n,n') α
Cross Section
52-Te-122
-25.82 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.0943 MeV
JEFF3.3 Threshold 1.0955 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
7
52-Te-122

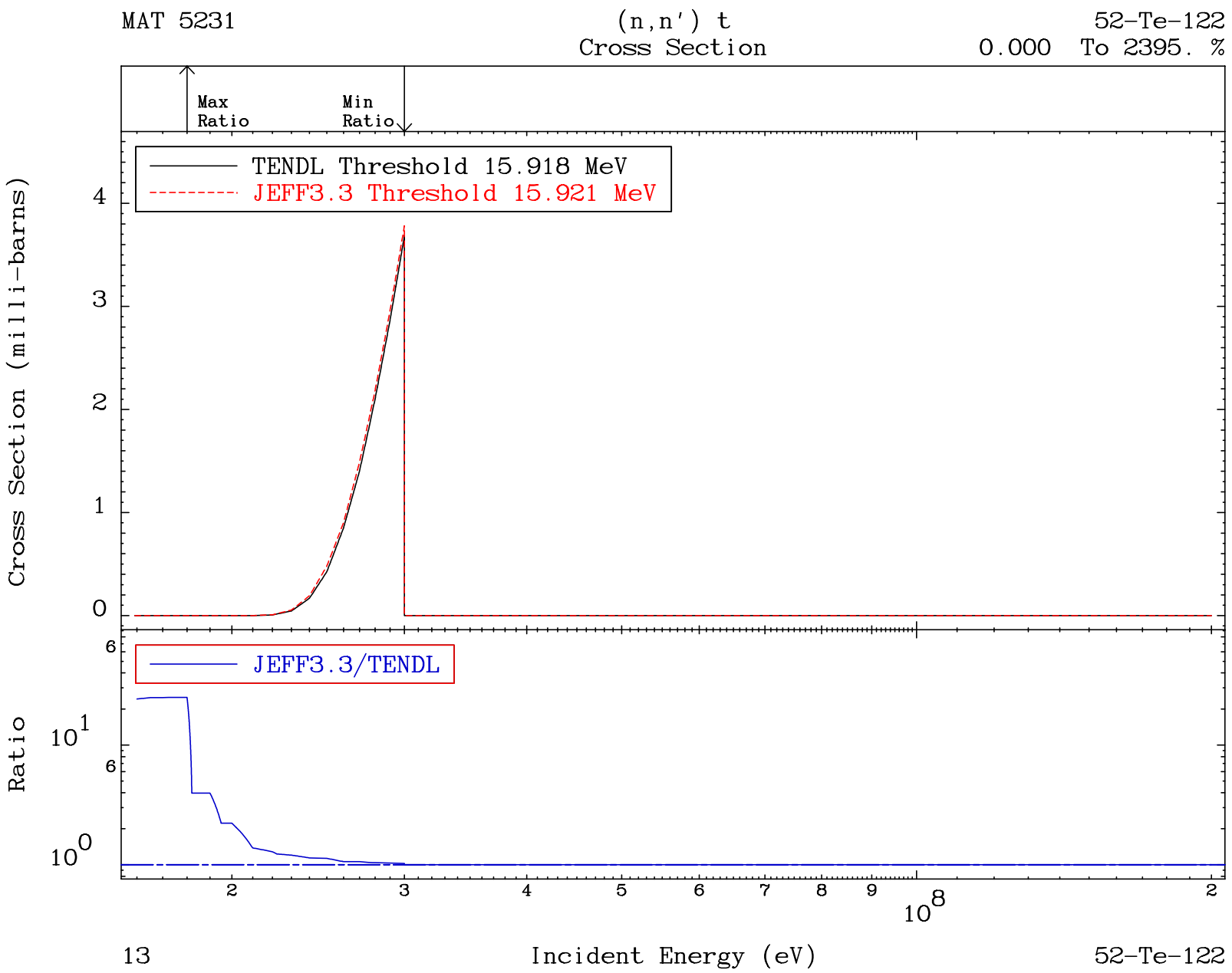

MAT 5231
(n,2n) α
Cross Section
52-Te-122
-21.72 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 10.498 MeV
JEFF3.3 Threshold 10.499 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
52-Te-122

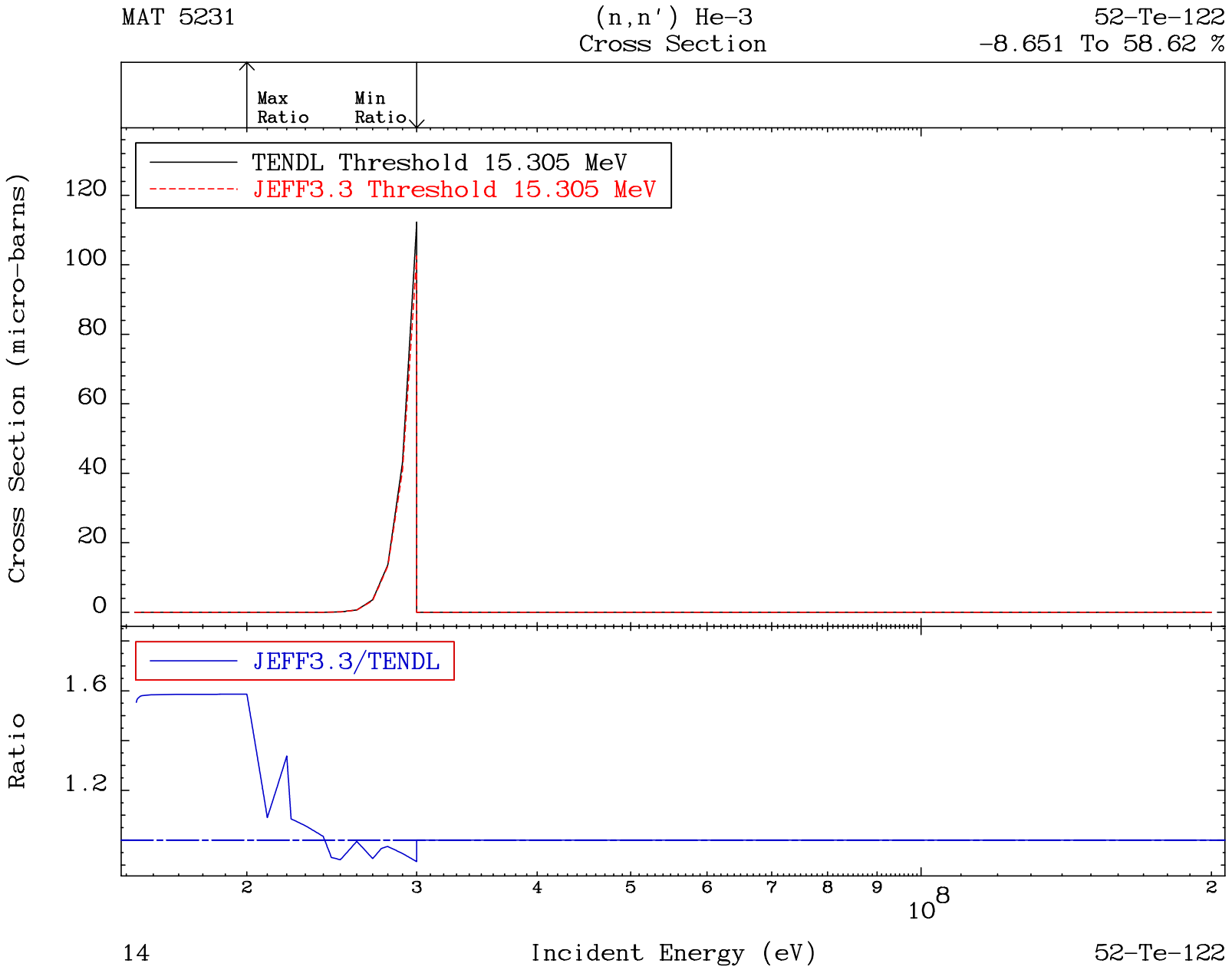

MAT 5231
(n,3n) α
Cross Section
52-Te-122
-92.71 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 17.499 MeV
JEFF3.3 Threshold 17.499 MeV
Cross Section (micro-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
52-Te-122

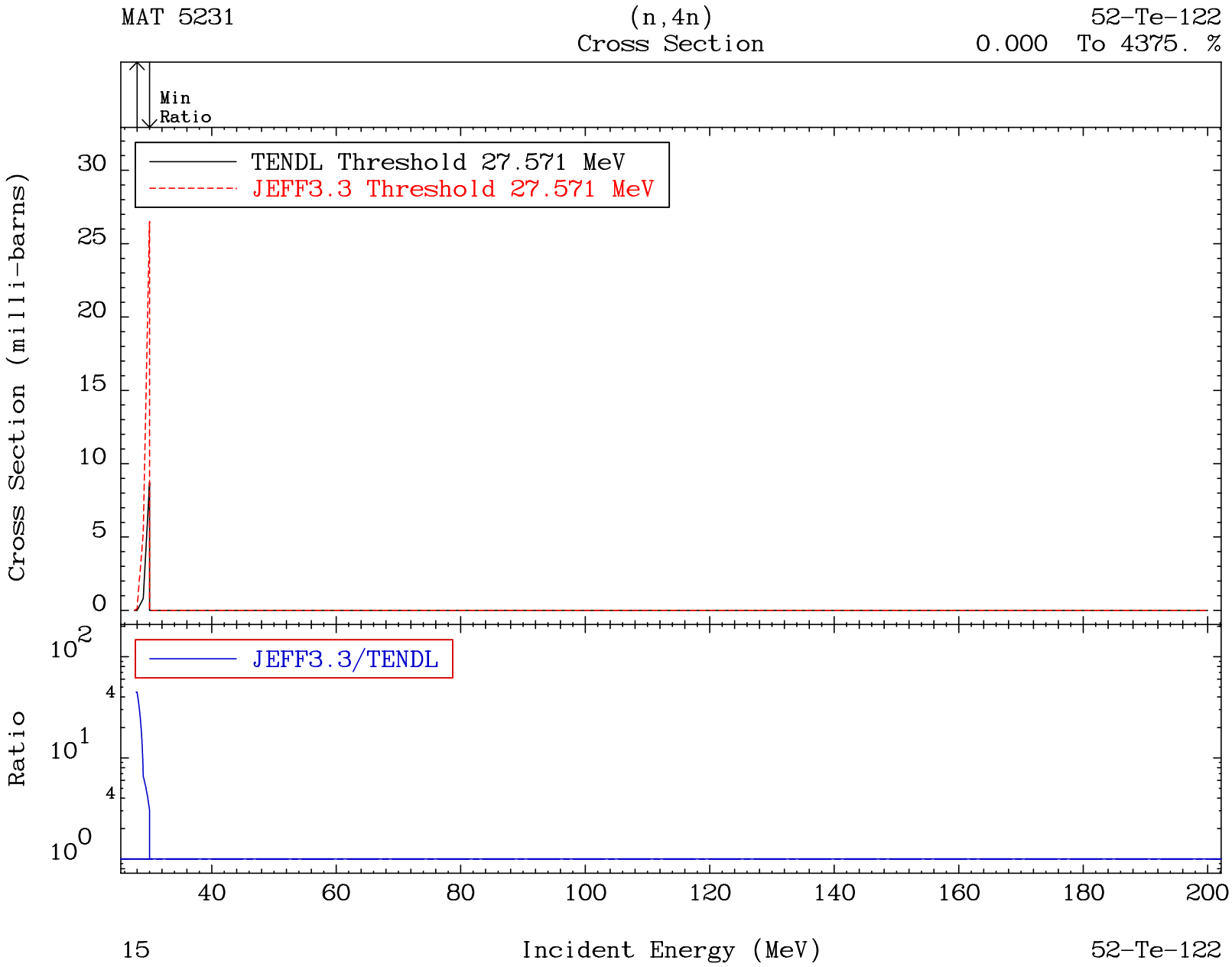

MAT 5231
(n,n') p
Cross Section
52-Te-122
-9.659 To 777.1 %
Max Ratio
Min Ratio
TENDL Threshold 8.0693 MeV
JEFF3.3 Threshold 8.0711 MeV
Cross Section (milli-barns)
0
20
40
60
80
JEFF3.3/TENDL
Ratio
4
8
10
Incident Energy (eV)
52-Te-122

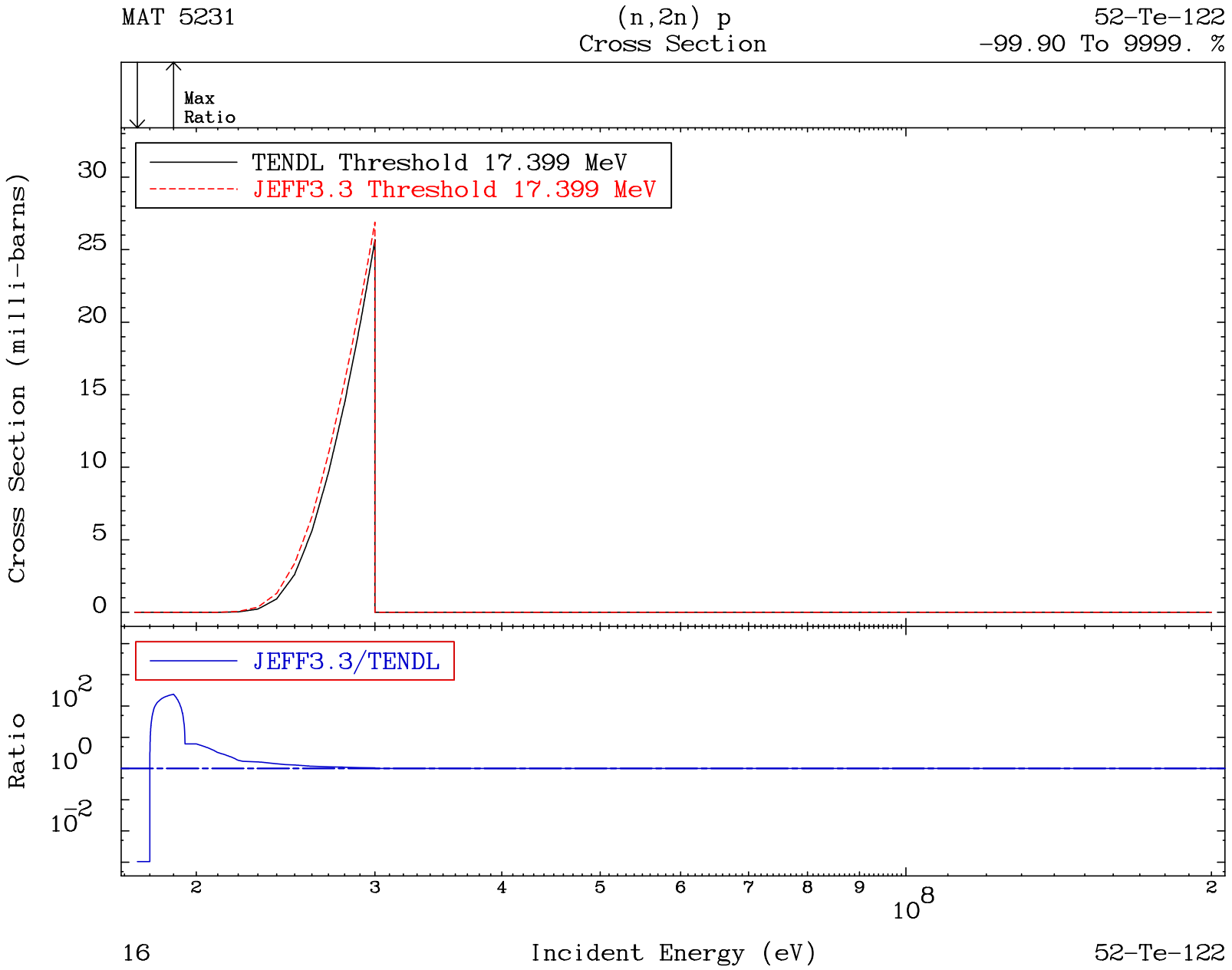

MAT 5231
(n,n') 2α
Cross Section
52-Te-122
-29.86 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 5.1908 MeV
JEFF3.3 Threshold 5.1920 MeV
Cross Section (10^{-9} barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
11
52-Te-122

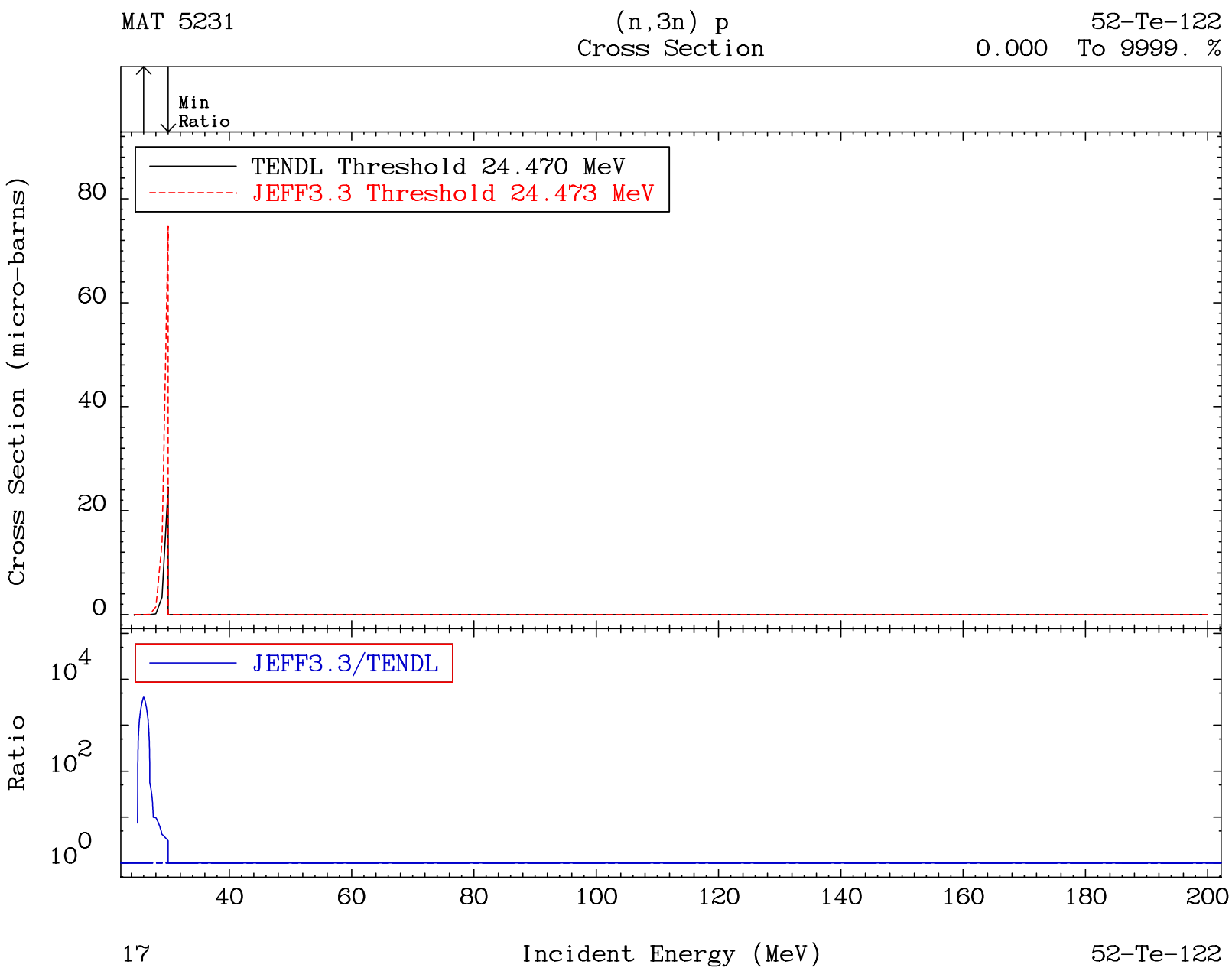

MAT 5231
(n,n') d
Cross Section
52-Te-122
-5.207 To 447.0 %
Max Ratio
Min Ratio
TENDL Threshold 15.156 MeV
JEFF3.3 Threshold 15.156 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
12
52-Te-122

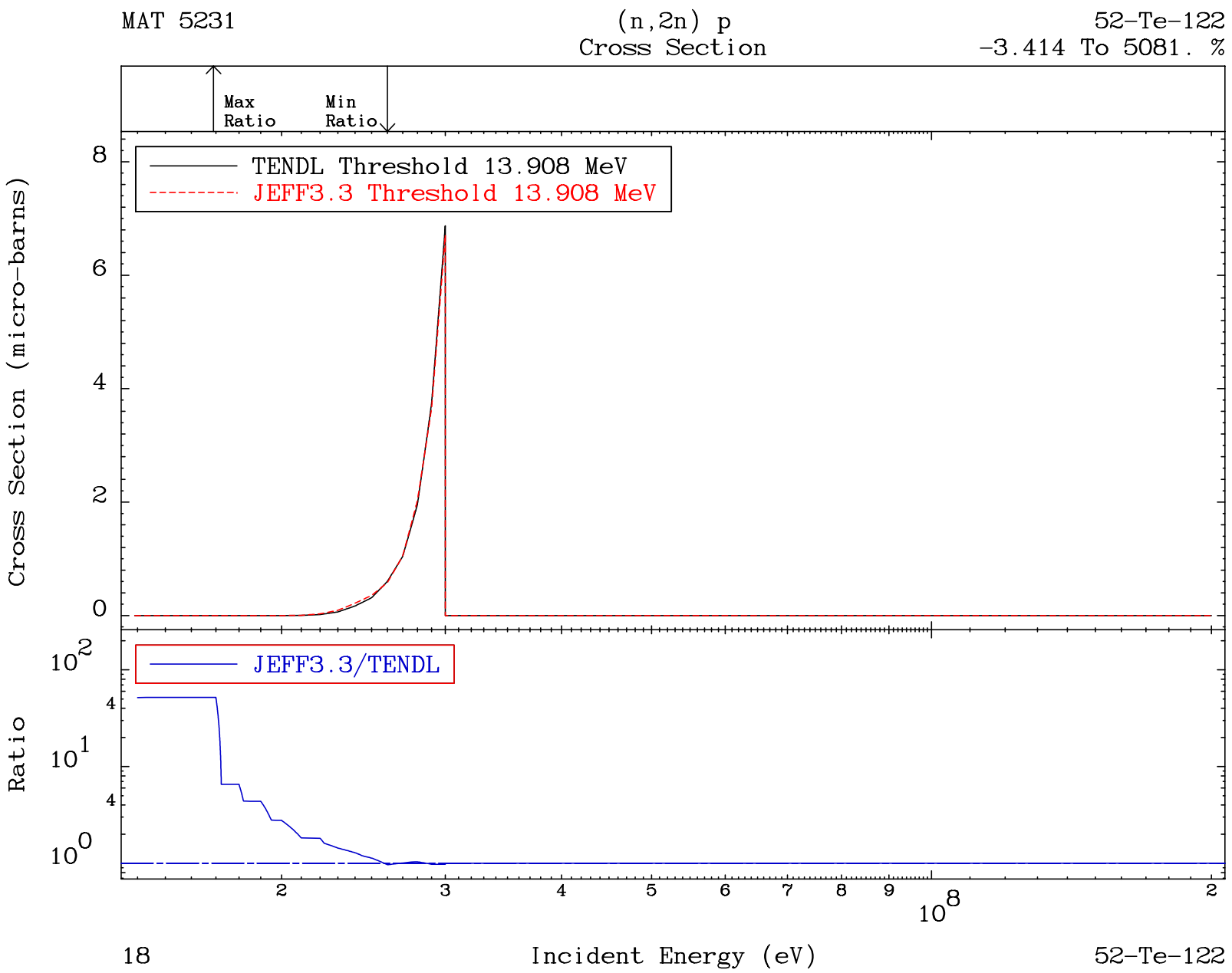

MAT 5231
(n,n') t
Cross Section
52-Te-122
0.000 To 2395. %
Max Ratio
Min Ratio
TENDL Threshold 15.918 MeV
JEFF3.3 Threshold 15.921 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
13
52-Te-122

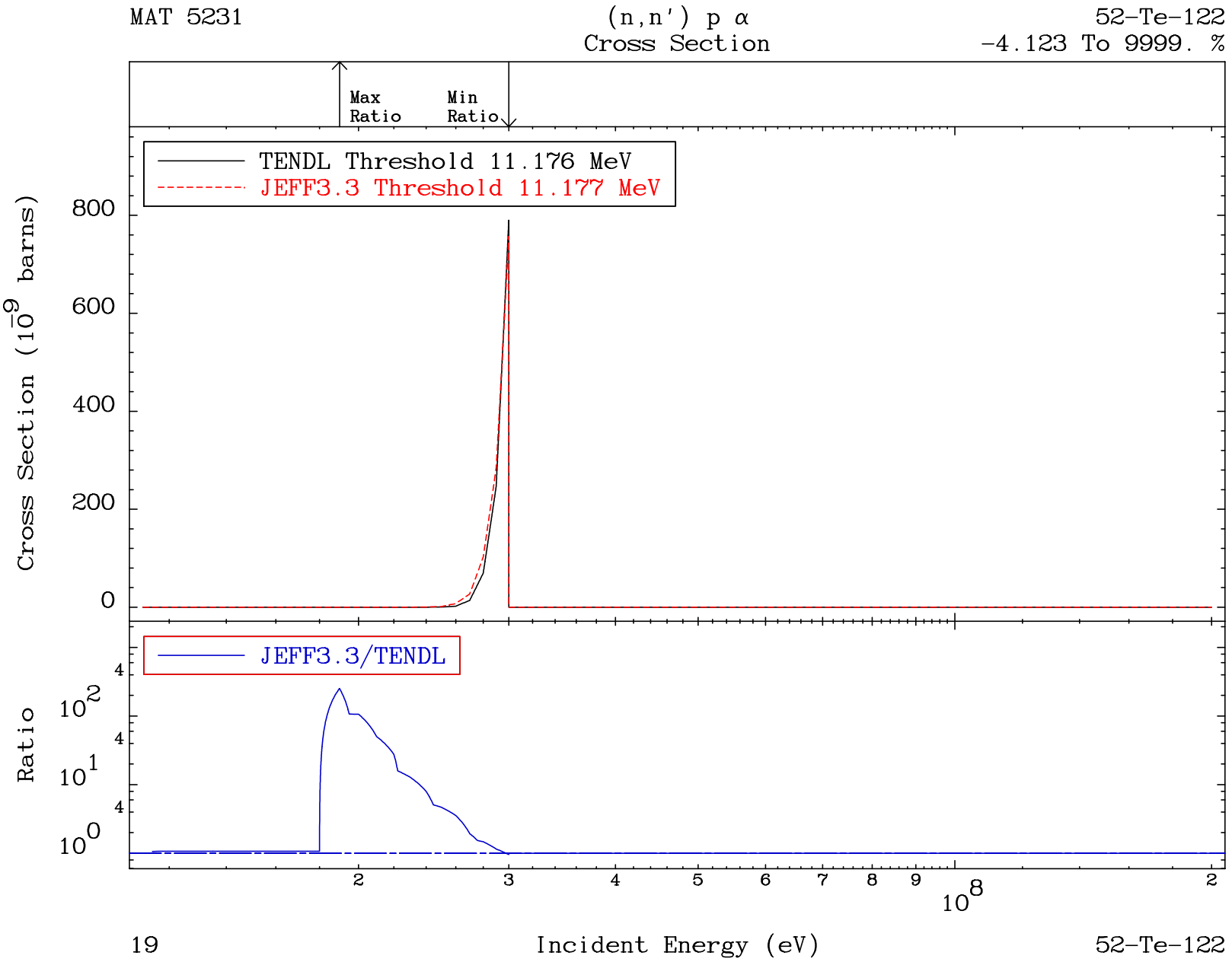

MAT 5231
(n,n') He-3
Cross Section
52-Te-122
-8.651 To 58.62 %
Max Ratio
Min Ratio
TENDL Threshold 15.305 MeV
JEFF3.3 Threshold 15.305 MeV
Cross Section (micro-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
52-Te-122

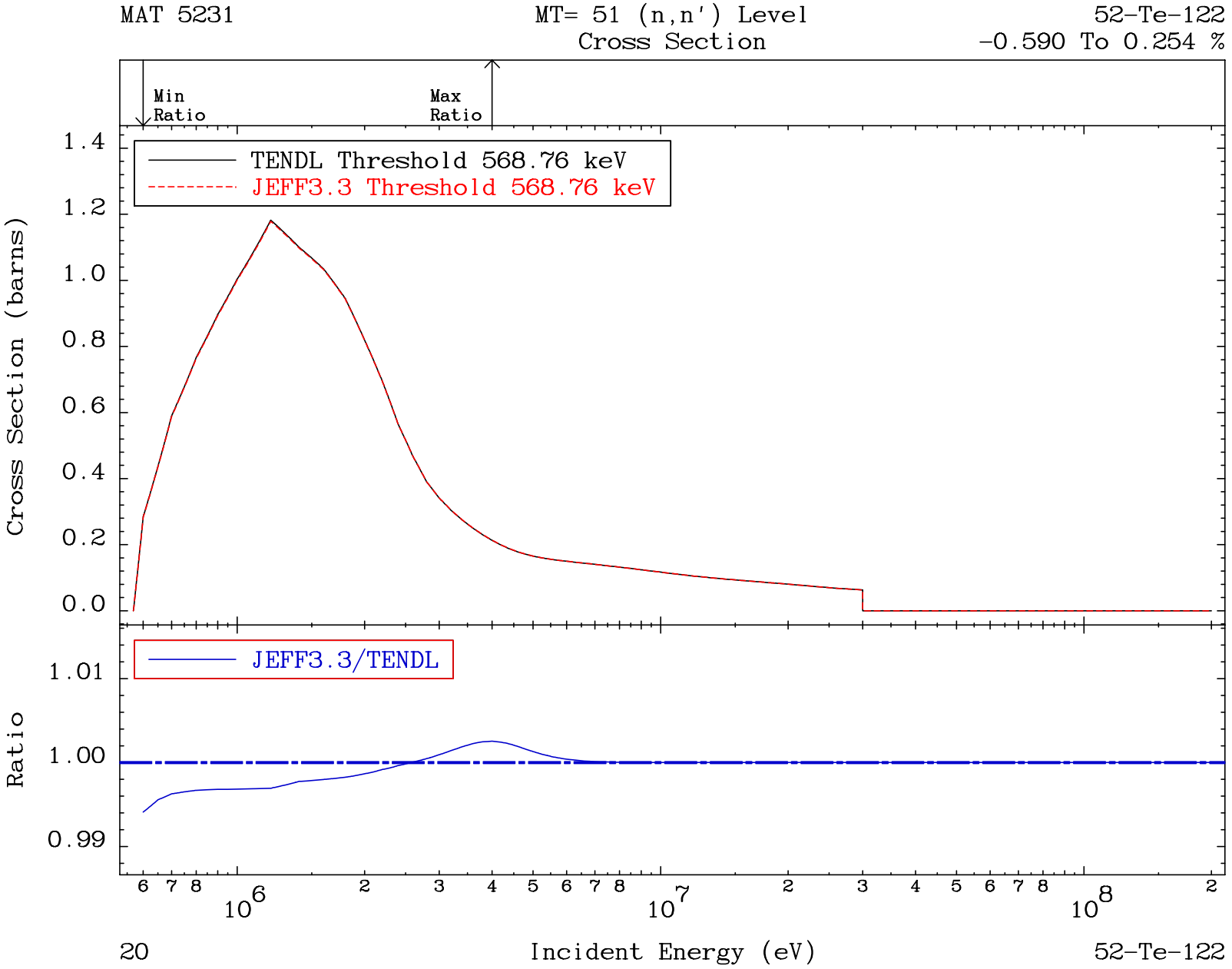

MAT 5231
(n,4n)
Cross Section
52-Te-122
0.000 To 4375. %
Min
Ratio
TENDL Threshold 27.571 MeV
JEFF3.3 Threshold 27.571 MeV
JEFF3.3/TENDL
Cross Section (milli-barns)
Ratio
Incident Energy (MeV)
15
52-Te-122

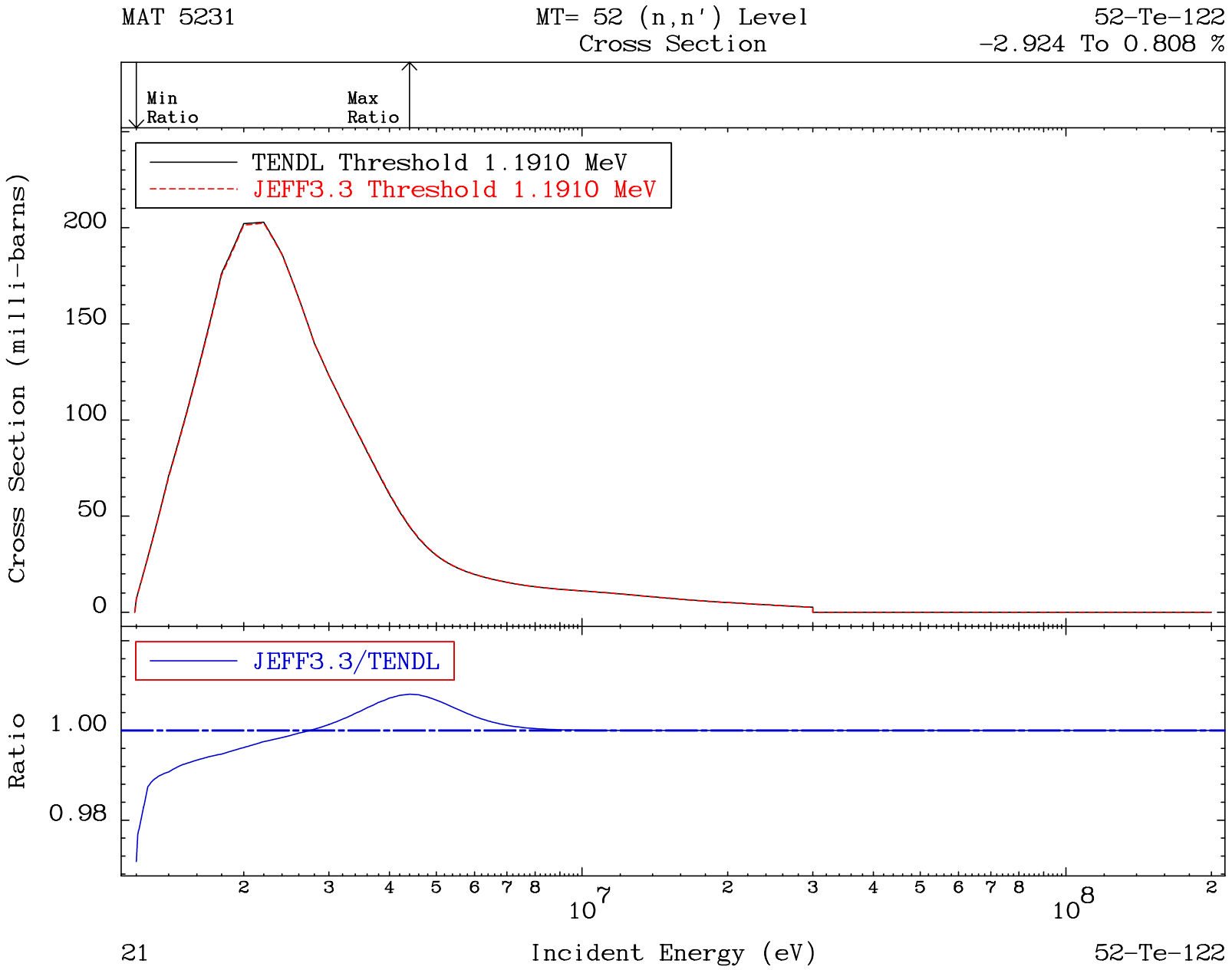

MAT 5231
(n,2n) p
Cross Section
52-Te-122
-99.90 To 9999. %
Max
Ratio
TENDL Threshold 17.399 MeV
JEFF3.3 Threshold 17.399 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
52-Te-122

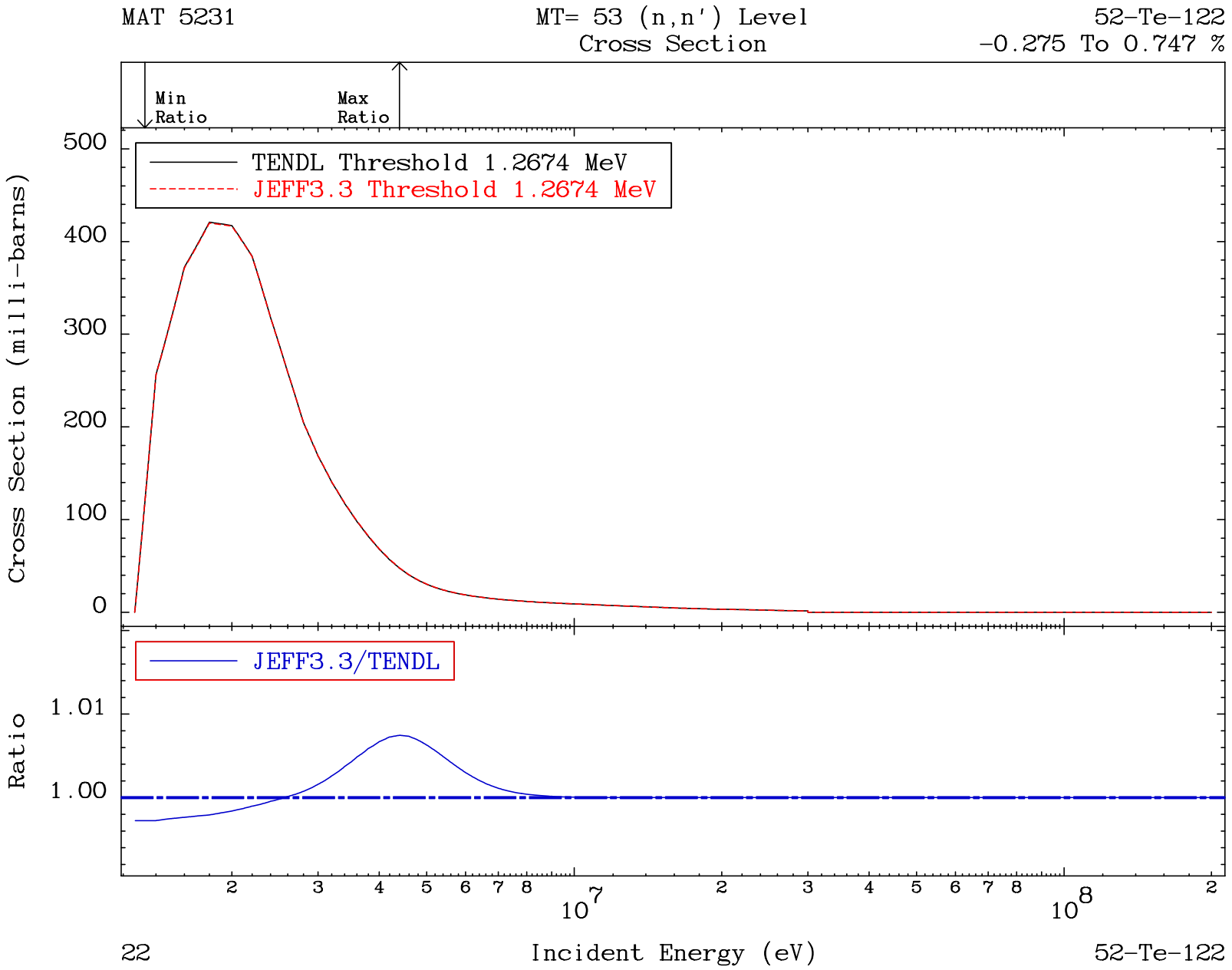

MAT 5231
(n,3n) p
Cross Section
52-Te-122
0.000 To 9999. %
Min
Ratio
TENDL Threshold 24.470 MeV
JEFF3.3 Threshold 24.473 MeV
Cross Section (micro-barns)
0
20
40
60
80
JEFF3.3/TENDL
Ratio
10^0
10^2
10^4
40
60
80
100
120
140
160
180
200
17
Incident Energy (MeV)
52-Te-122

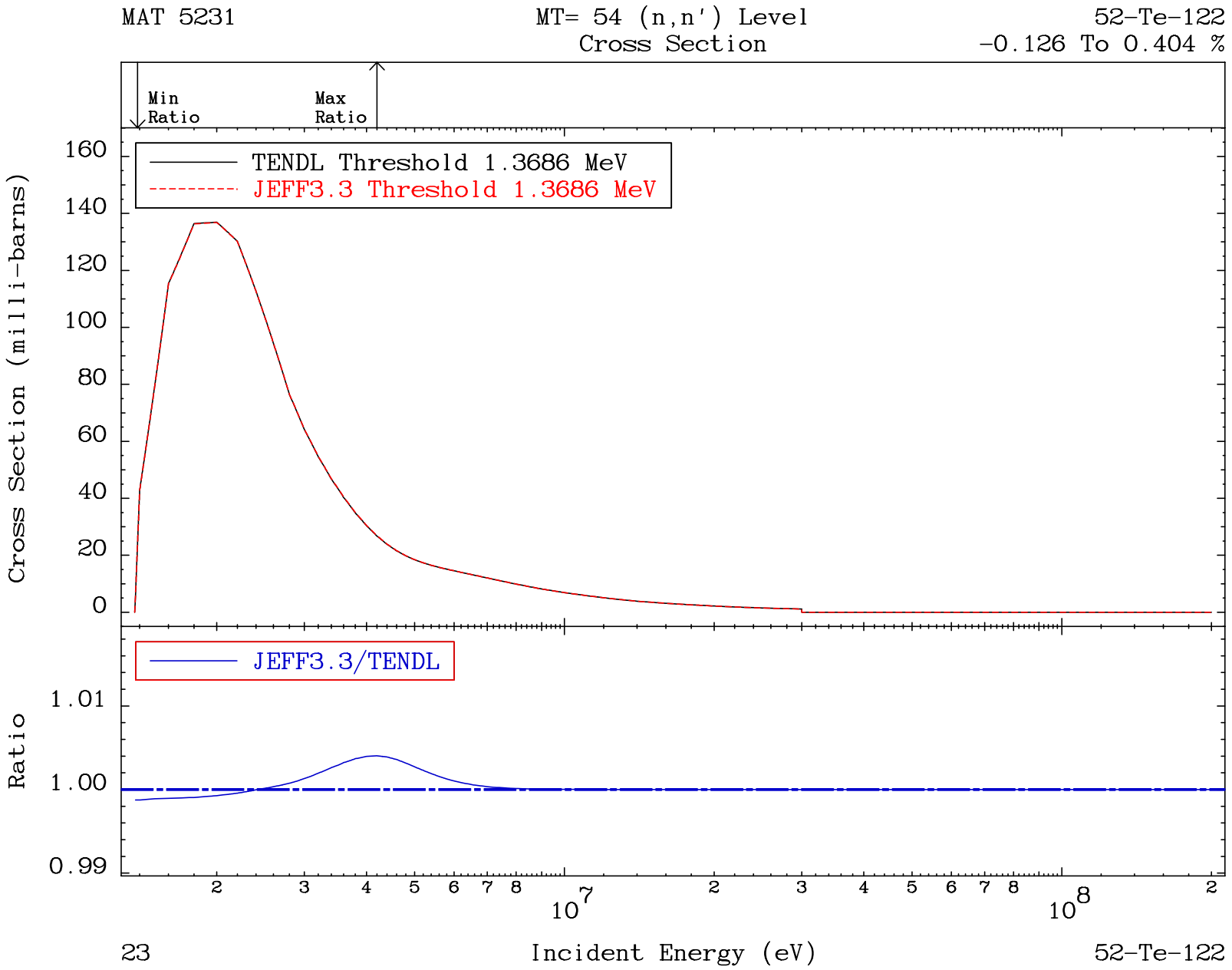

MAT 5231
(n,2n) p
Cross Section
52-Te-122
-3.414 To 5081. %
Max Ratio
Min Ratio
TENDL Threshold 13.908 MeV
JEFF3.3 Threshold 13.908 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
18
52-Te-122

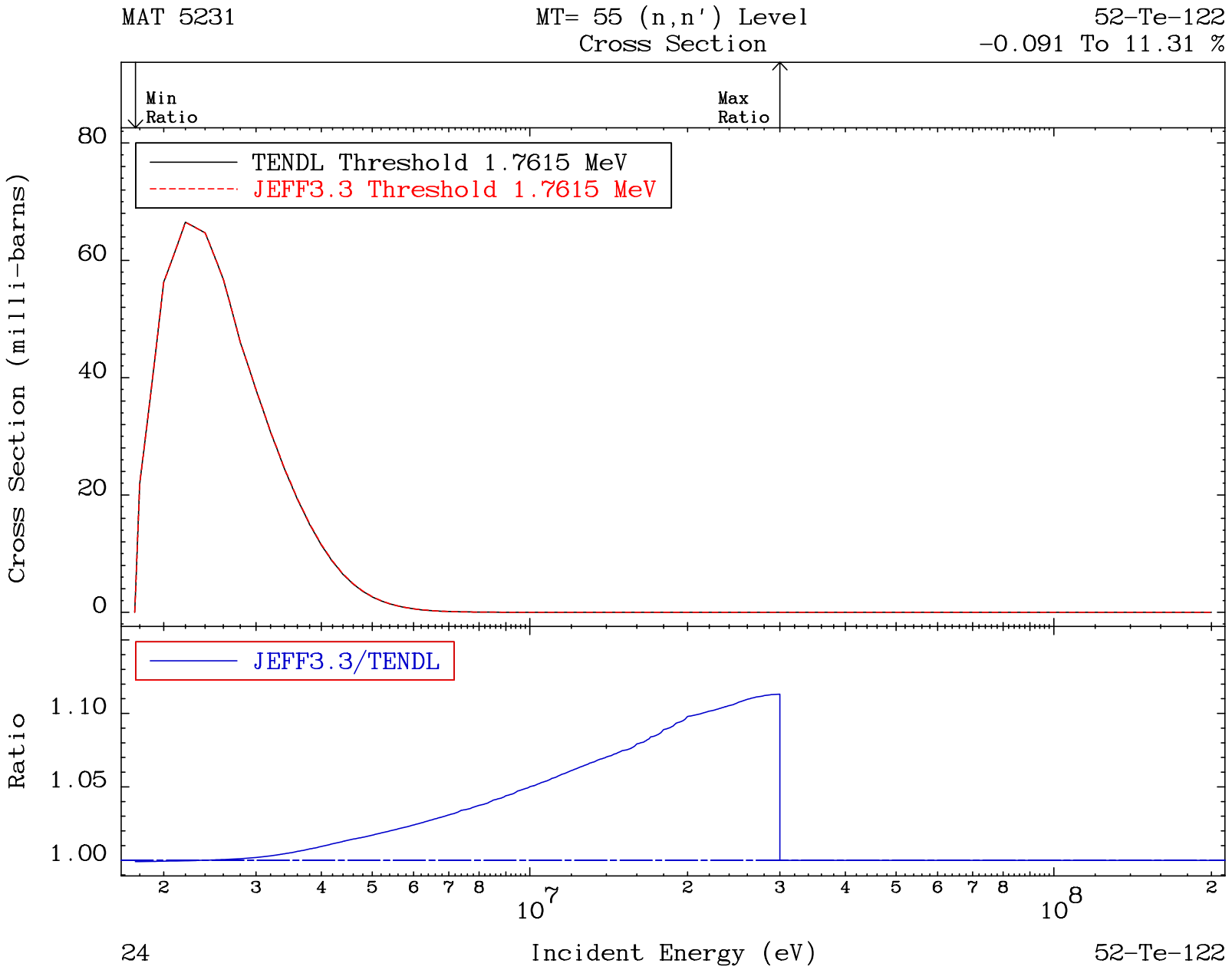

MAT 5231
(n,n') p α
Cross Section
52-Te-122
-4.123 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 11.176 MeV
JEFF3.3 Threshold 11.177 MeV
Cross Section (10^-9 barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
19
Incident Energy (eV)
52-Te-122

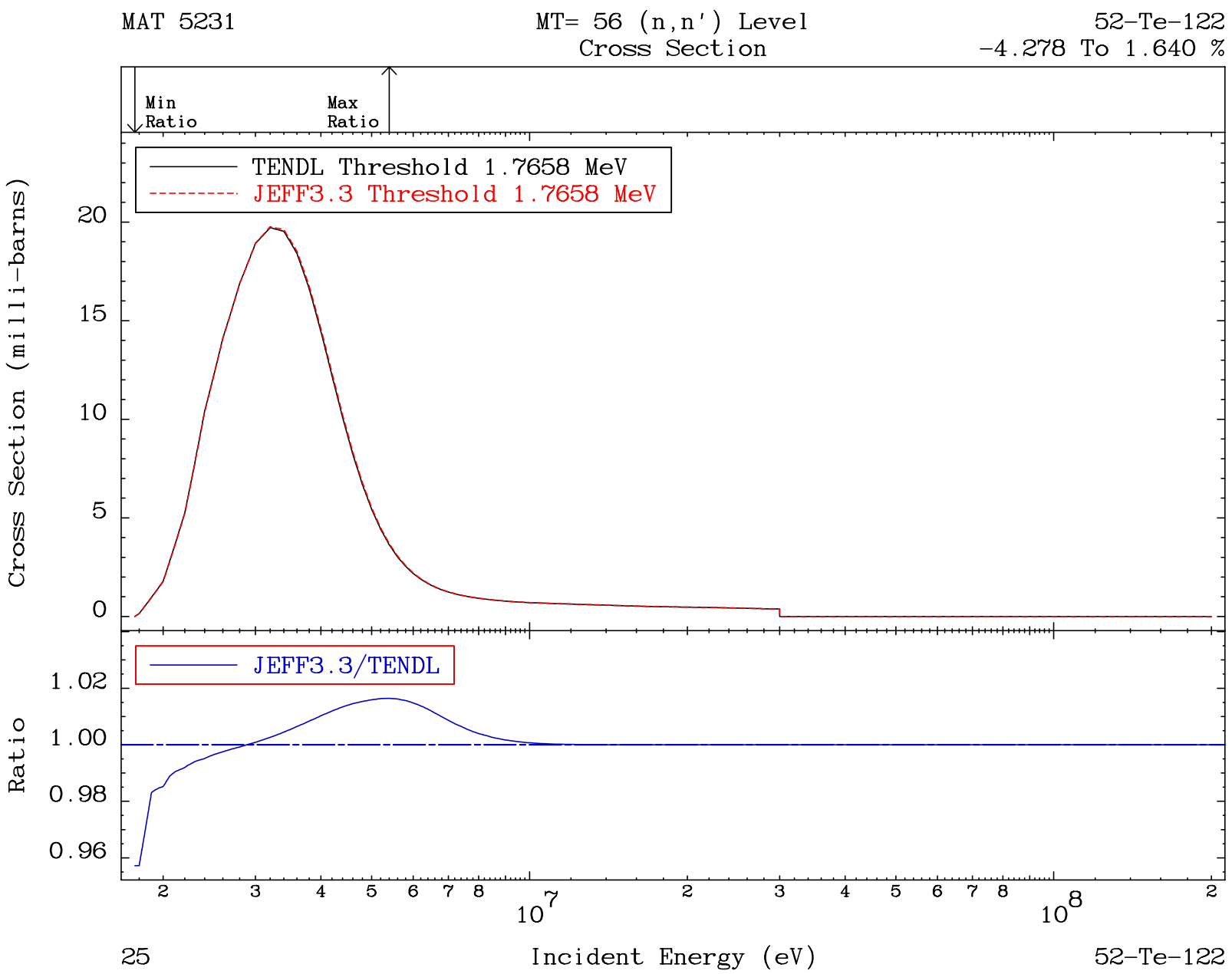

MAT 5231
MT= 51 (n,n') Level
Cross Section
52-Te-122
-0.590 To 0.254 %
Min Ratio
Max Ratio
TENDL Threshold 568.76 keV
JEFF3.3 Threshold 568.76 keV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
52-Te-122

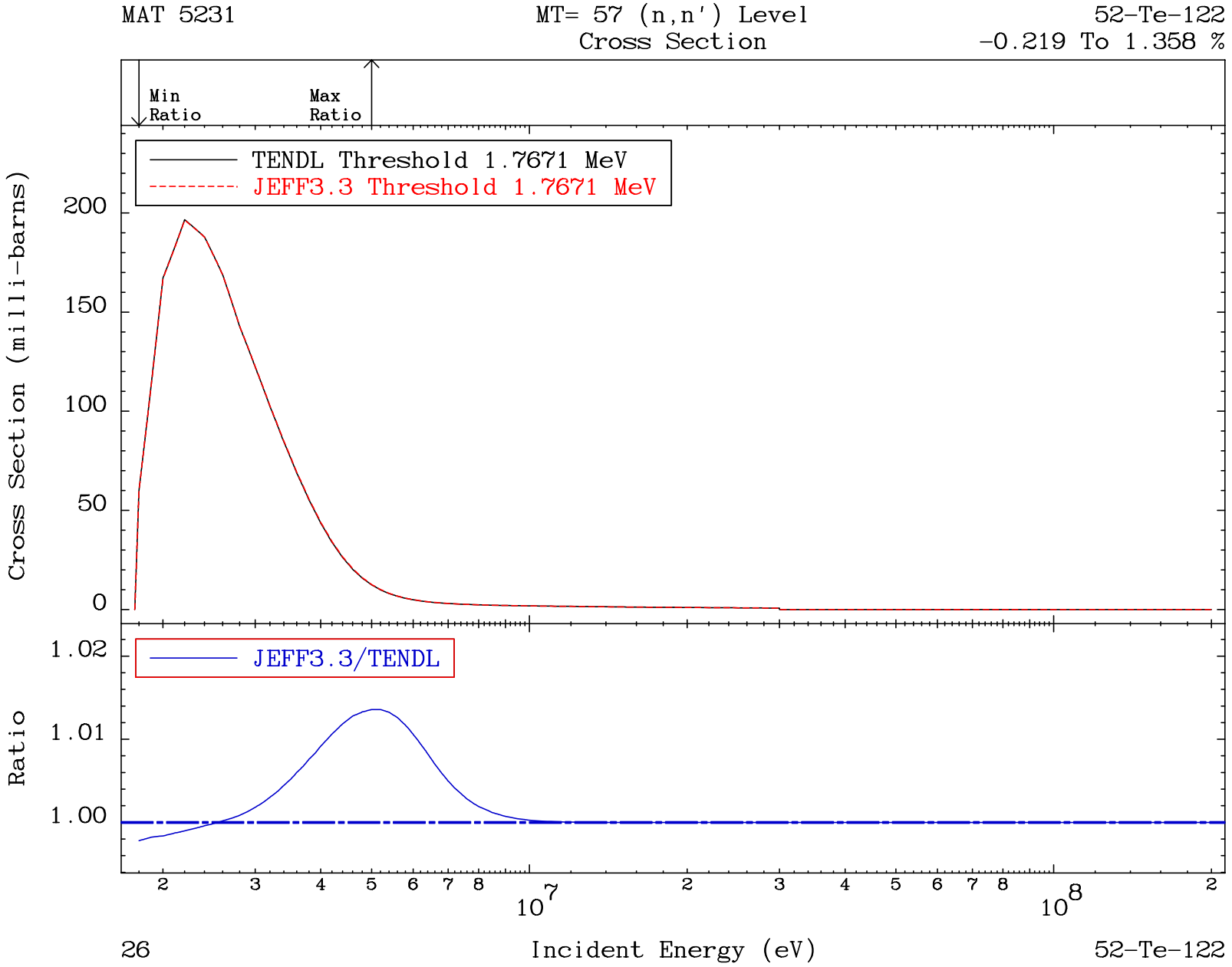

MAT 5231
MT= 52 (n,n') Level
Cross Section
52-Te-122
-2.924 To 0.808 %
Min Ratio
Max Ratio
TENDL Threshold 1.1910 MeV
JEFF3.3 Threshold 1.1910 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.98
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
52-Te-122

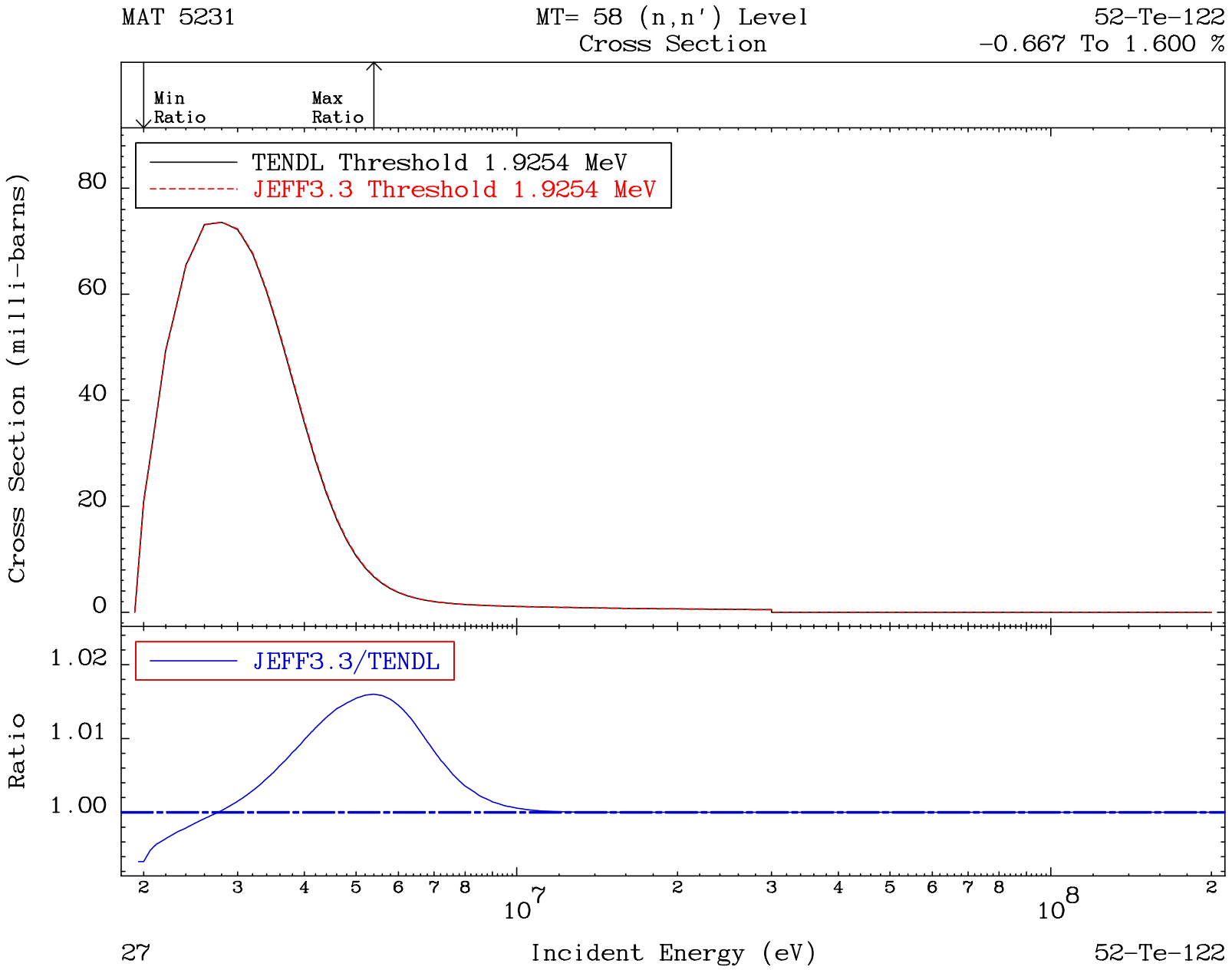

MAT 5231
MT= 53 (n,n') Level
Cross Section
52-Te-122
-0.275 To 0.747 %
Min Ratio
Max Ratio
TENDL Threshold 1.2674 MeV
JEFF3.3 Threshold 1.2674 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.01
1.00
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
52-Te-122

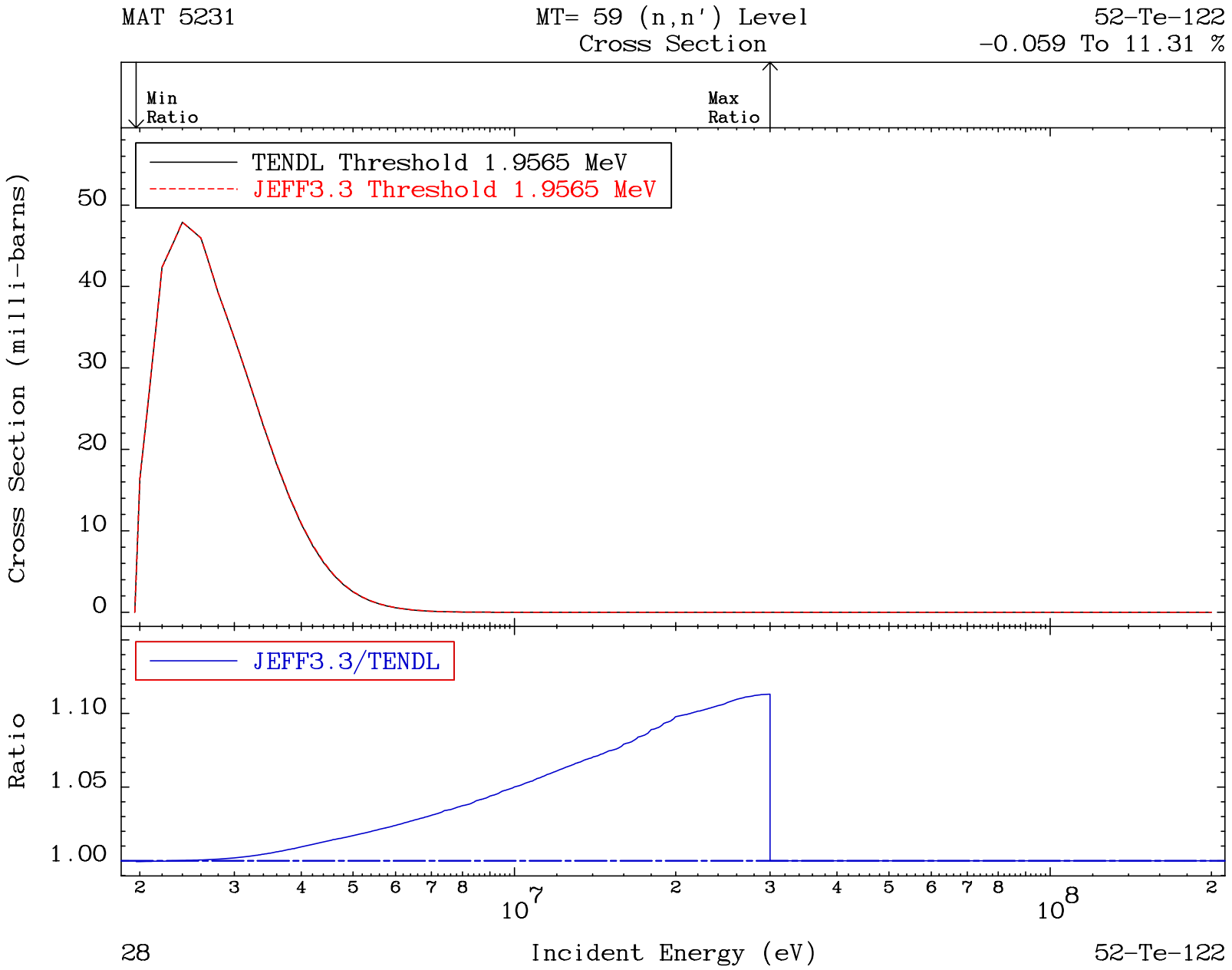

MAT 5231
MT= 54 (n,n') Level
Cross Section
52-Te-122
-0.126 To 0.404 %
Min Ratio
Max Ratio
TENDL Threshold 1.3686 MeV
JEFF3.3 Threshold 1.3686 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
52-Te-122

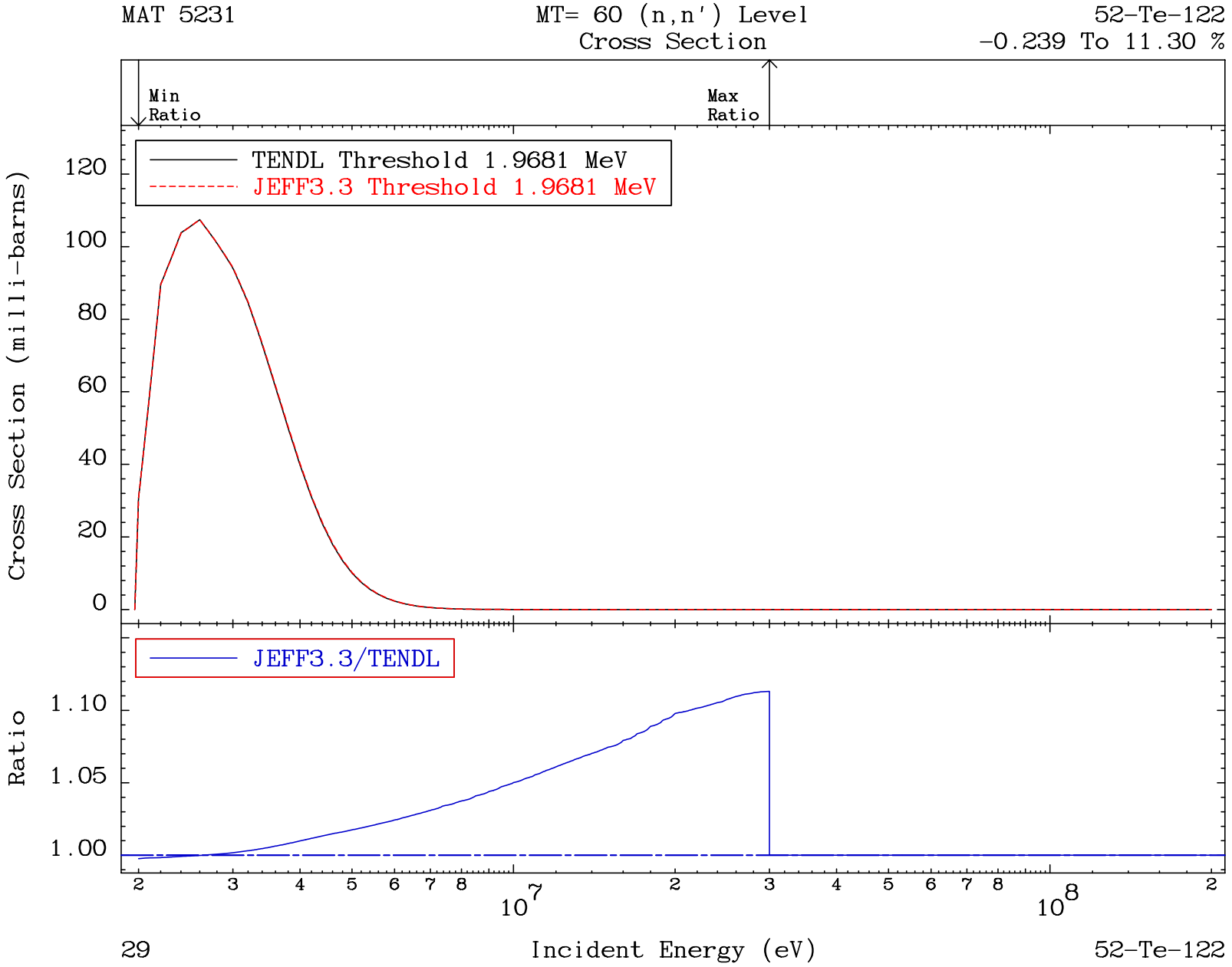

MAT 5231
MT= 55 (n,n') Level
Cross Section
52-Te-122
-0.091 To 11.31 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.7615 MeV
JEFF3.3 Threshold 1.7615 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
24
Incident Energy (eV)
52-Te-122

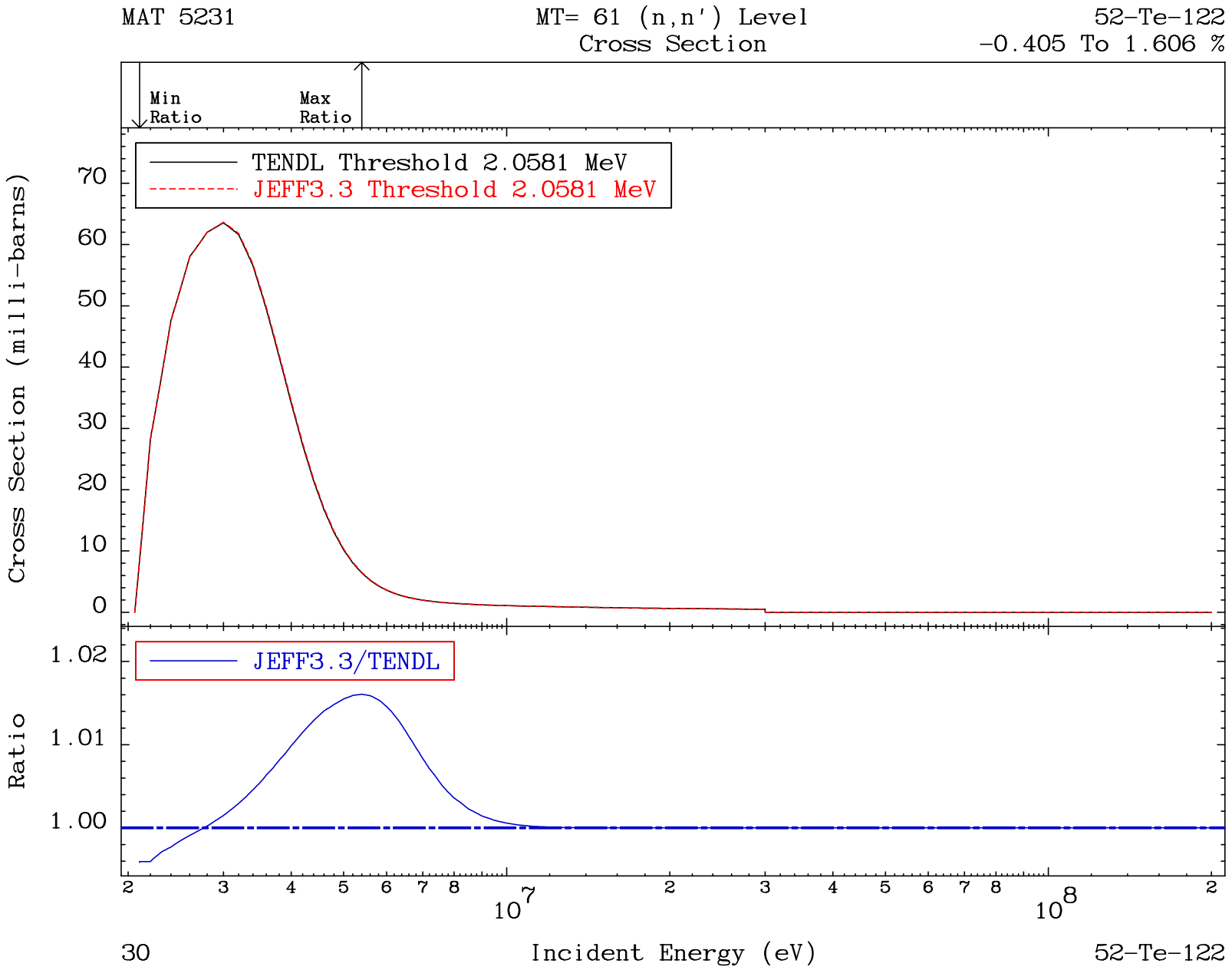

MAT 5231
MT= 56 (n,n') Level
Cross Section
52-Te-122
-4.278 To 1.640 %
Min Ratio
Max Ratio
TENDL Threshold 1.7658 MeV
JEFF3.3 Threshold 1.7658 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.02
1.00
0.98
0.96
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
52-Te-122

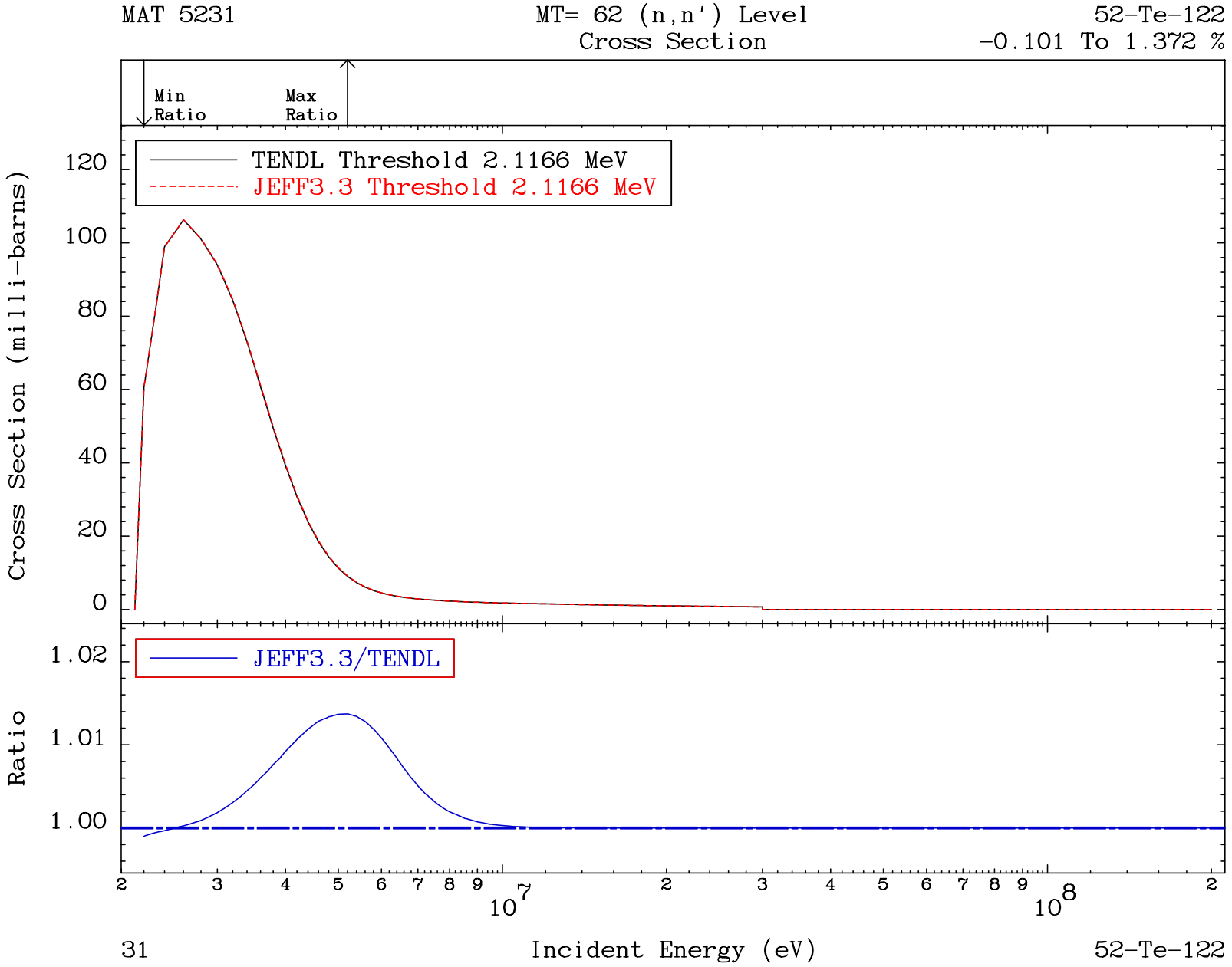

MAT 5231
MT= 57 (n,n') Level
Cross Section
52-Te-122
-0.219 To 1.358 %
Min Ratio
Max Ratio
TENDL Threshold 1.7671 MeV
JEFF3.3 Threshold 1.7671 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
26
Incident Energy (eV)
52-Te-122

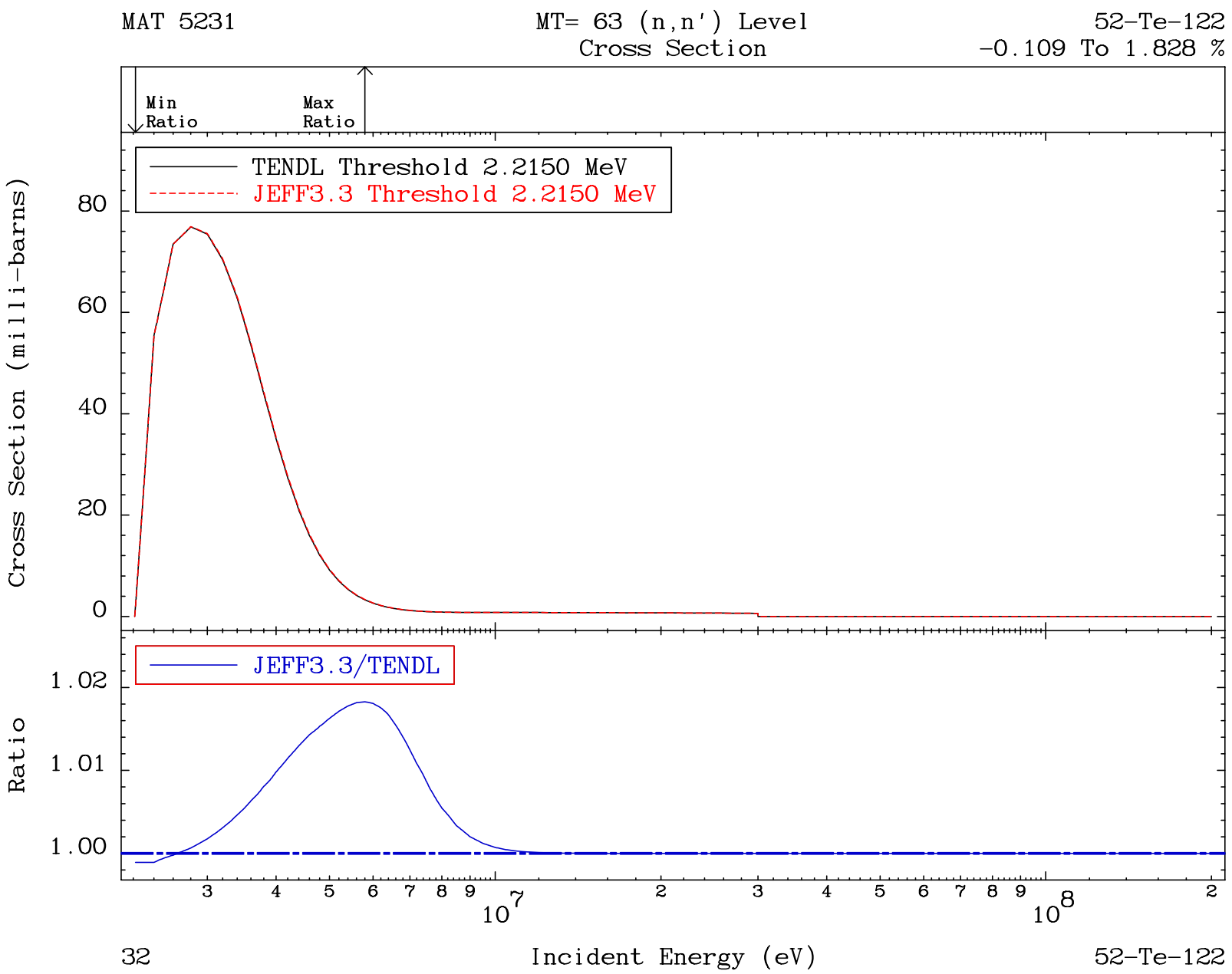

MAT 5231
MT= 58 (n,n') Level
Cross Section
52-Te-122
-0.667 To 1.600 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.9254 MeV
JEFF3.3 Threshold 1.9254 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
27
Incident Energy (eV)
52-Te-122

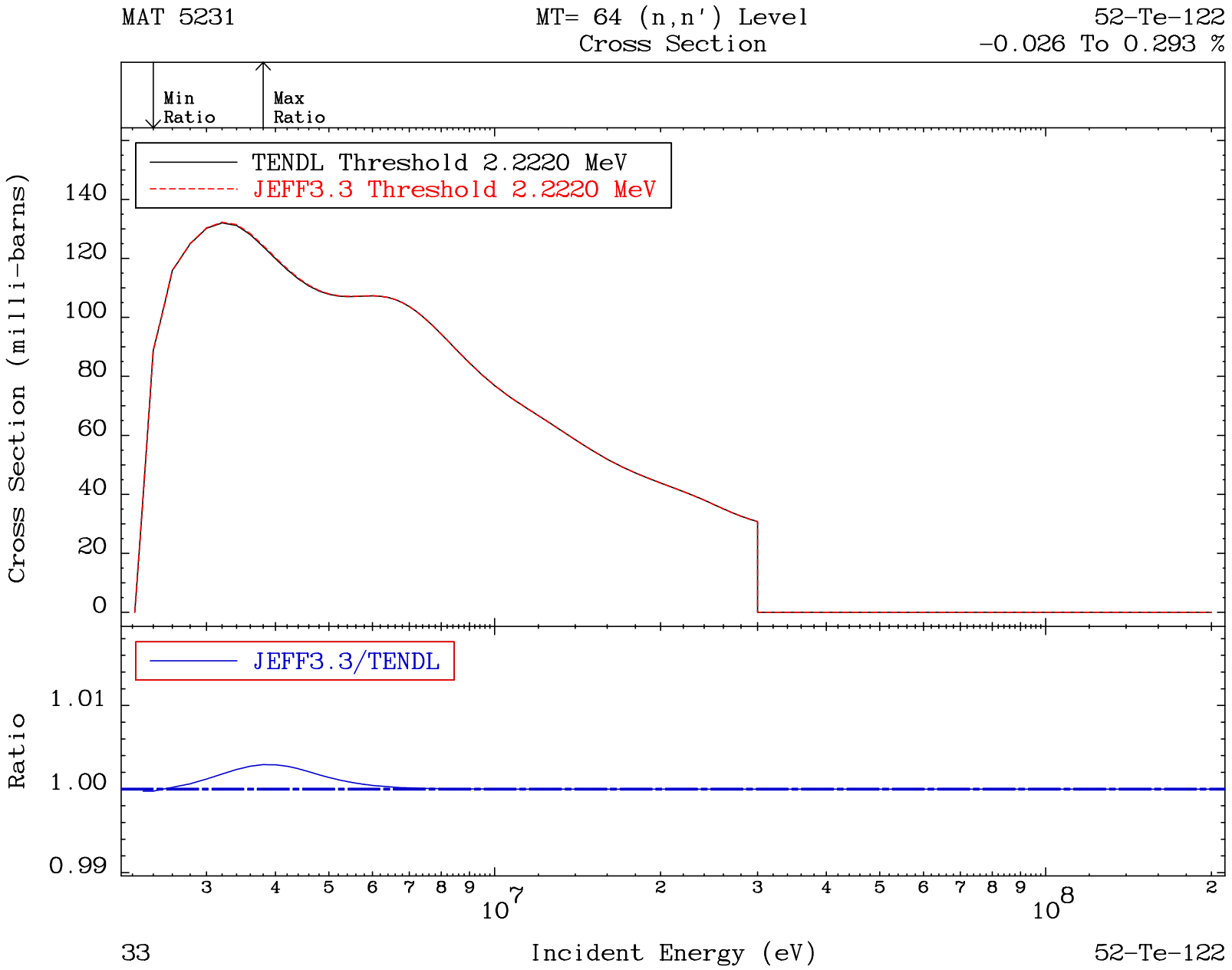

MAT 5231
MT= 59 (n,n') Level
Cross Section
52-Te-122
-0.059 To 11.31 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.9565 MeV
JEFF3.3 Threshold 1.9565 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
28
Incident Energy (eV)
52-Te-122

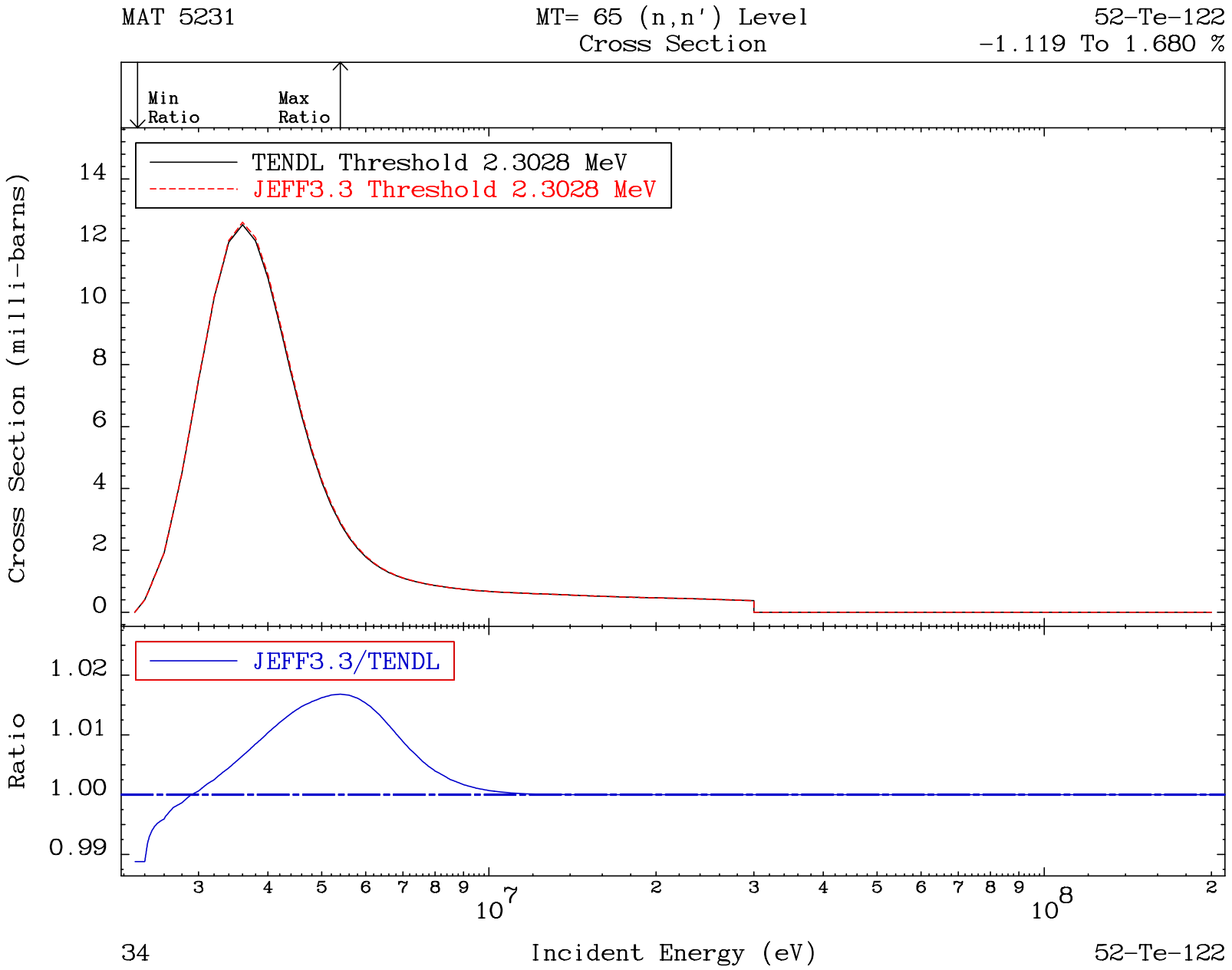

MAT 5231
MT= 60 (n,n') Level
Cross Section
52-Te-122
-0.239 To 11.30 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.9681 MeV
JEFF3.3 Threshold 1.9681 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
29
Incident Energy (eV)
52-Te-122

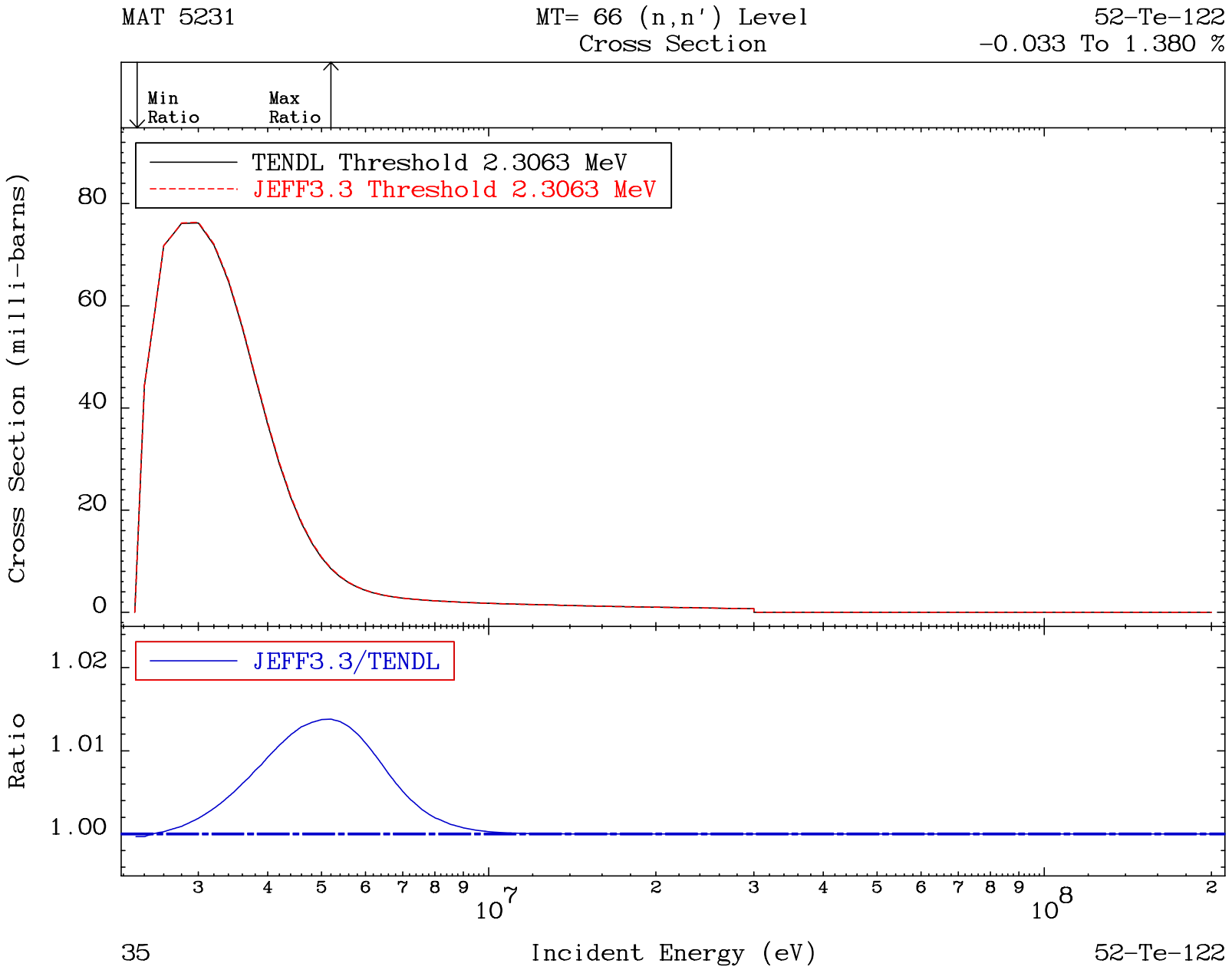

MAT 5231
MT= 61 (n,n') Level
Cross Section
52-Te-122
-0.405 To 1.606 %
Min Ratio
Max Ratio
TENDL Threshold 2.0581 MeV
JEFF3.3 Threshold 2.0581 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
30
Incident Energy (eV)
52-Te-122

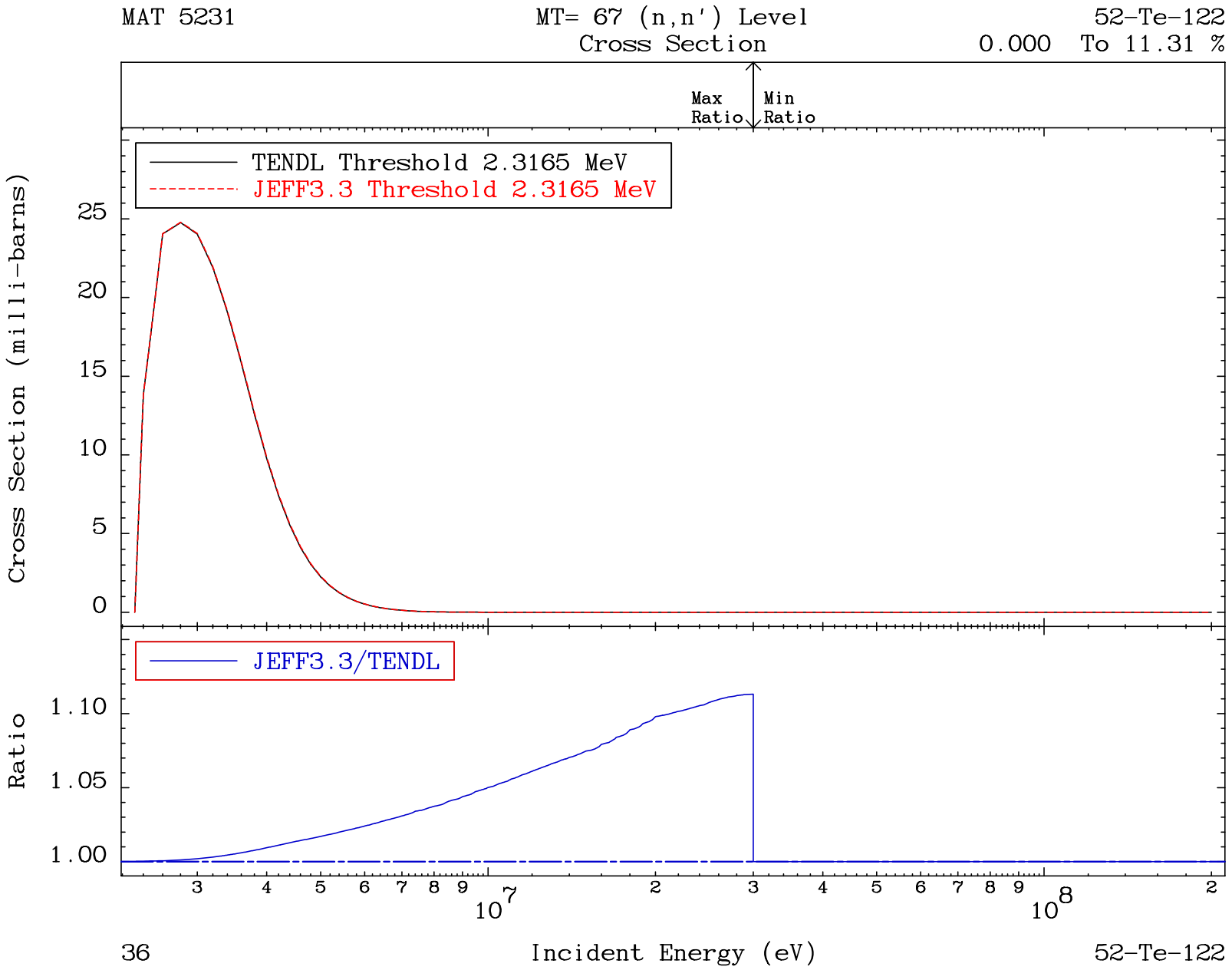

MAT 5231
MT= 62 (n,n') Level
Cross Section
52-Te-122
-0.101 To 1.372 %
Min Ratio
Max Ratio
TENDL Threshold 2.1166 MeV
JEFF3.3 Threshold 2.1166 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
52-Te-122

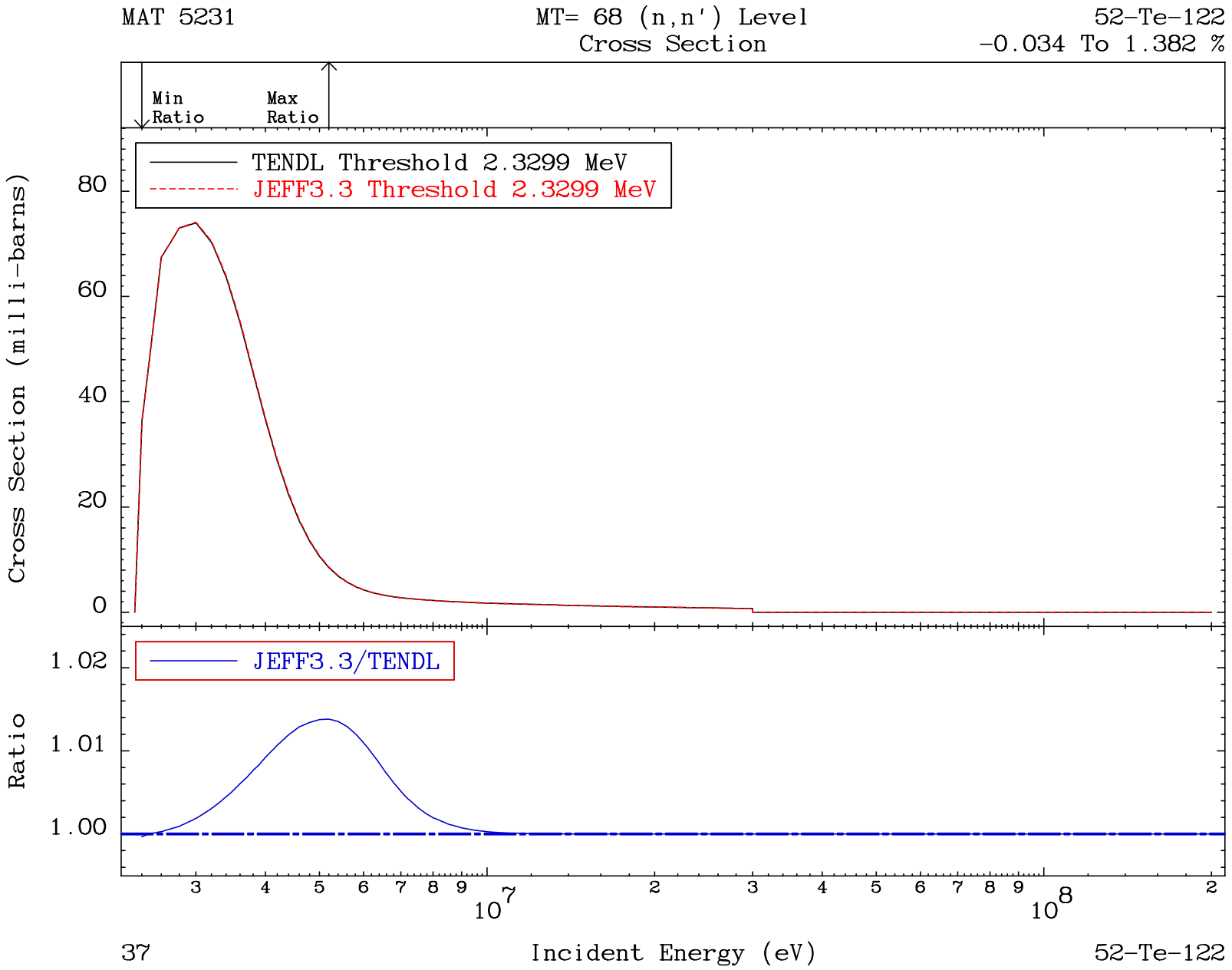

MAT 5231
MT= 63 (n,n') Level
Cross Section
52-Te-122
-0.109 To 1.828 %
Min Ratio
Max Ratio
TENDL Threshold 2.2150 MeV
JEFF3.3 Threshold 2.2150 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
32
Incident Energy (eV)
52-Te-122

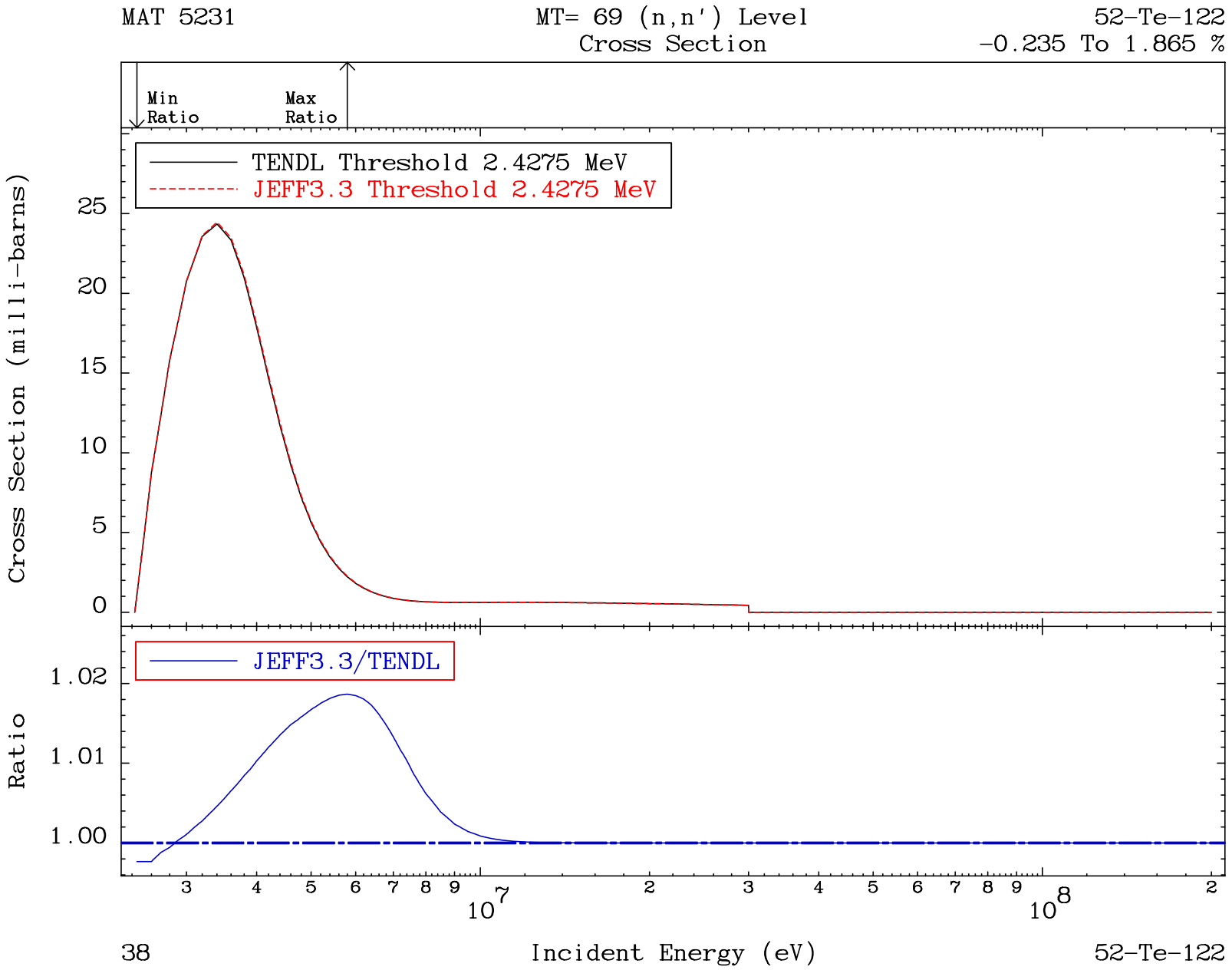

MAT 5231
MT= 64 (n,n') Level
Cross Section
52-Te-122
-0.026 To 0.293 %
Min Ratio
Max Ratio
TENDL Threshold 2.2220 MeV
JEFF3.3 Threshold 2.2220 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
33
Incident Energy (eV)
52-Te-122

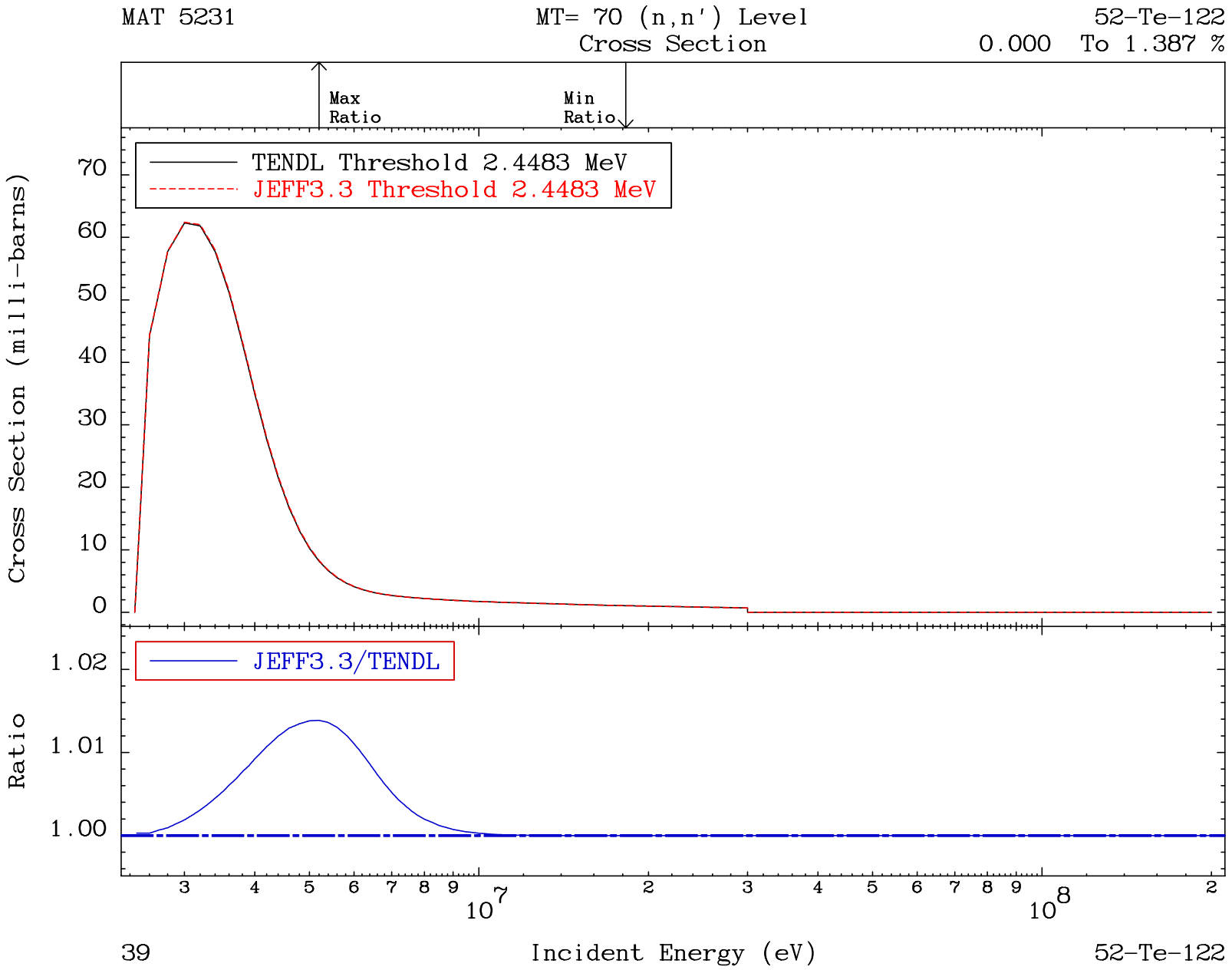

MAT 5231
MT= 65 (n,n') Level
Cross Section
52-Te-122
-1.119 To 1.680 %
Min Ratio
Max Ratio
TENDL Threshold 2.3028 MeV
JEFF3.3 Threshold 2.3028 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
34
52-Te-122

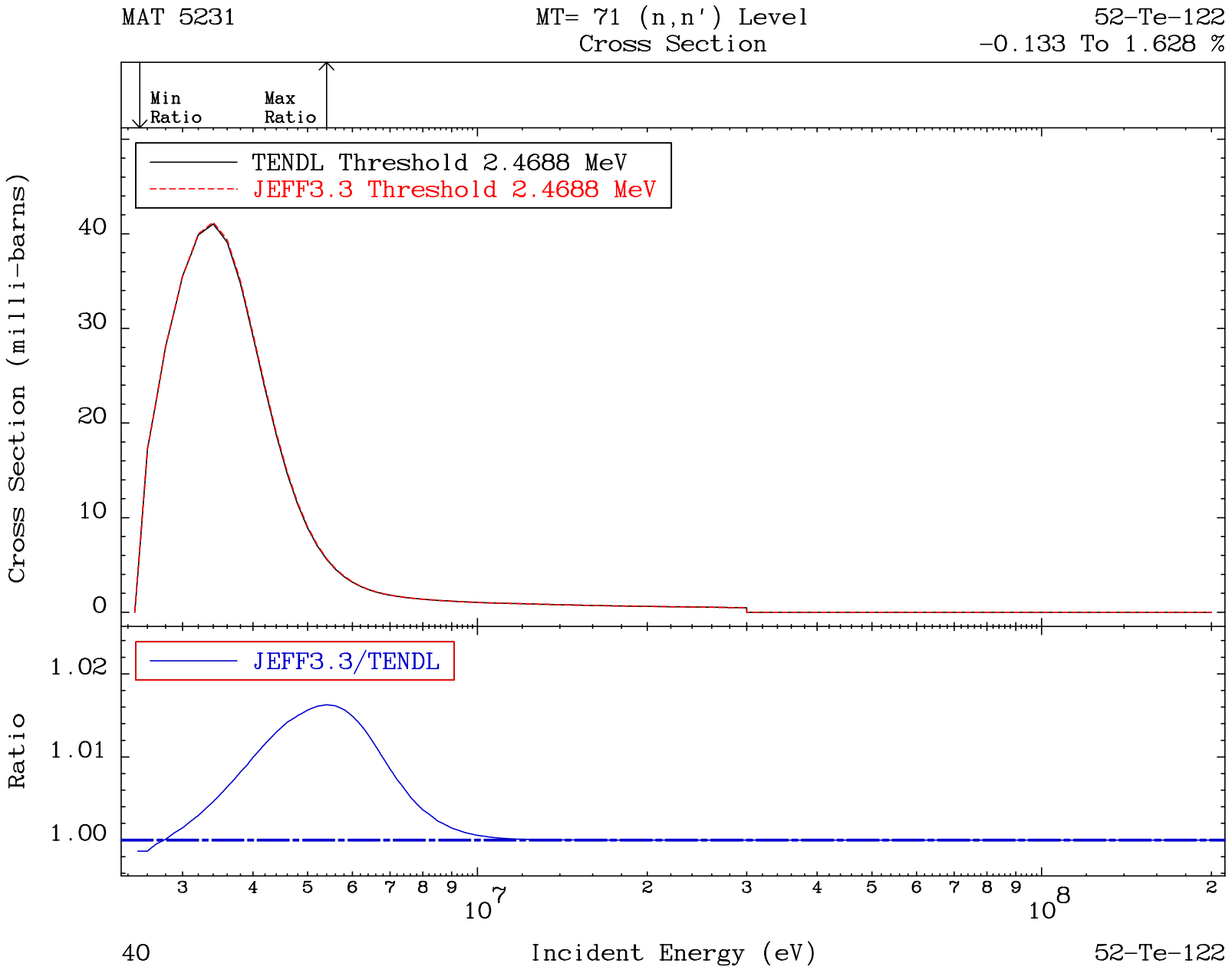

MAT 5231
MT= 66 (n,n') Level
Cross Section
52-Te-122
-0.033 To 1.380 %
Min Ratio
Max Ratio
TENDL Threshold 2.3063 MeV
JEFF3.3 Threshold 2.3063 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
35
Incident Energy (eV)
52-Te-122

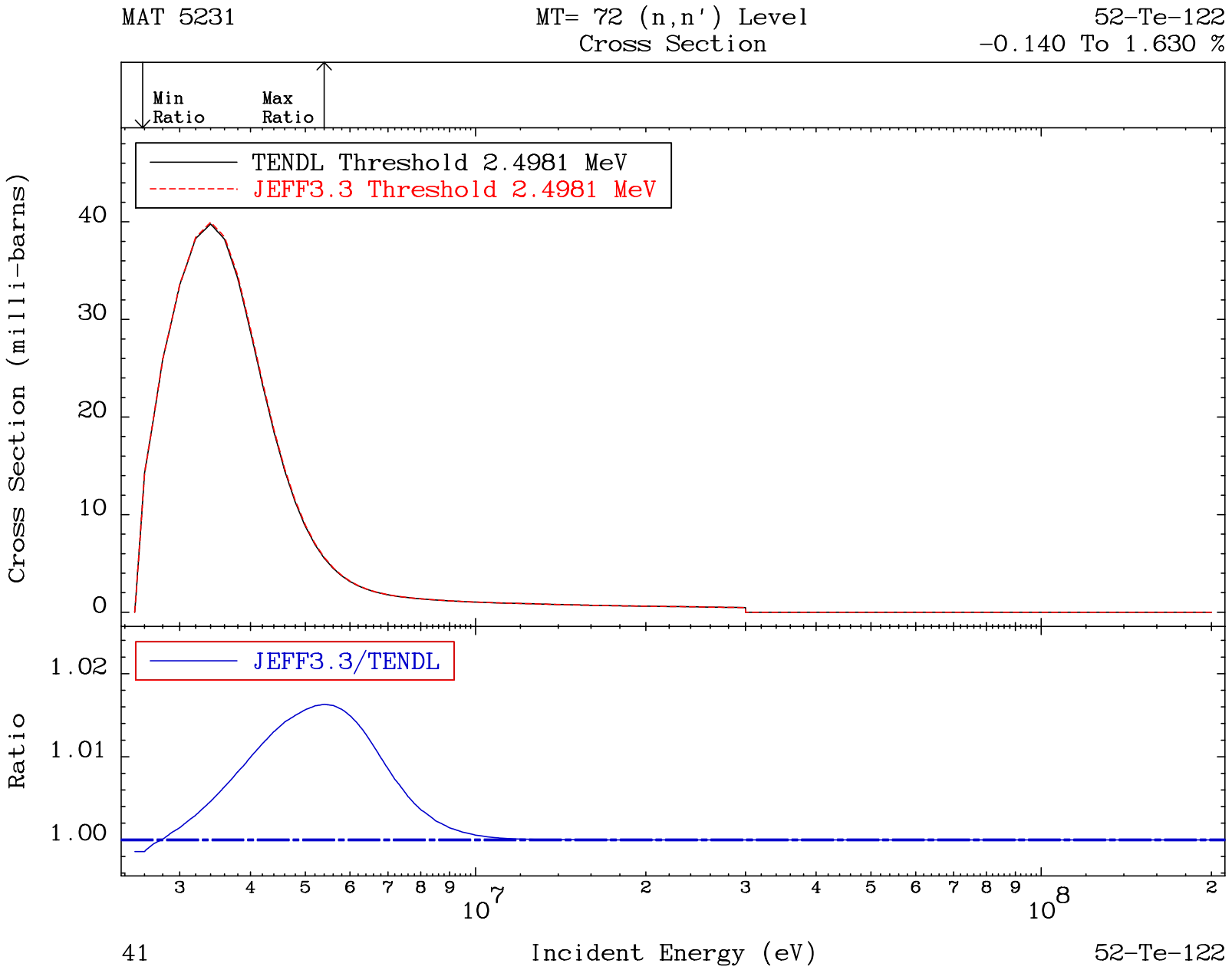

MAT 5231
MT= 67 (n,n') Level
Cross Section
52-Te-122
0.000 To 11.31 %
Max Ratio
Min Ratio
TENDL Threshold 2.3165 MeV
JEFF3.3 Threshold 2.3165 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
36
Incident Energy (eV)
52-Te-122

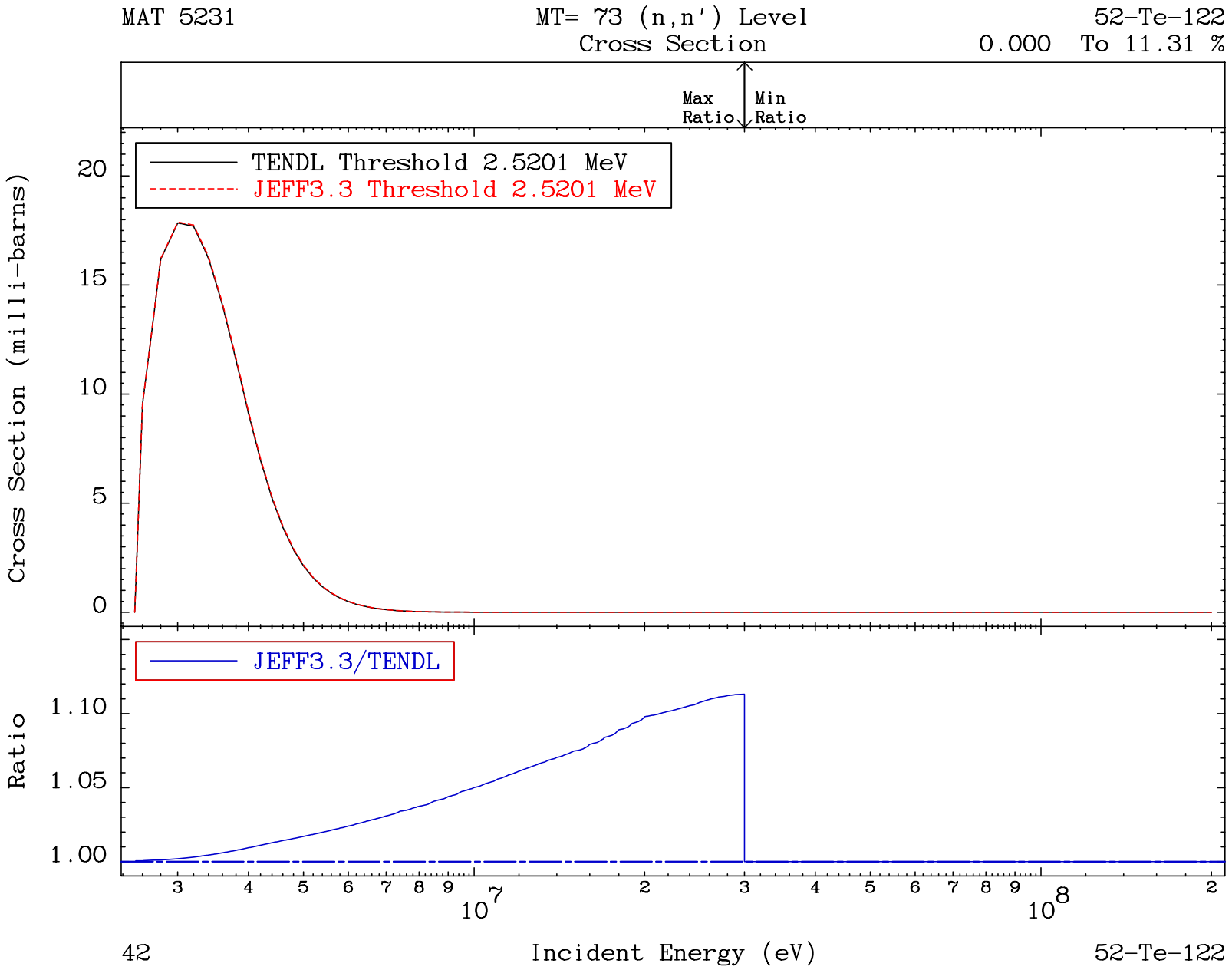

MAT 5231
MT= 68 (n,n') Level
Cross Section
52-Te-122
-0.034 To 1.382 %
Min Ratio
Max Ratio
TENDL Threshold 2.3299 MeV
JEFF3.3 Threshold 2.3299 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
52-Te-122

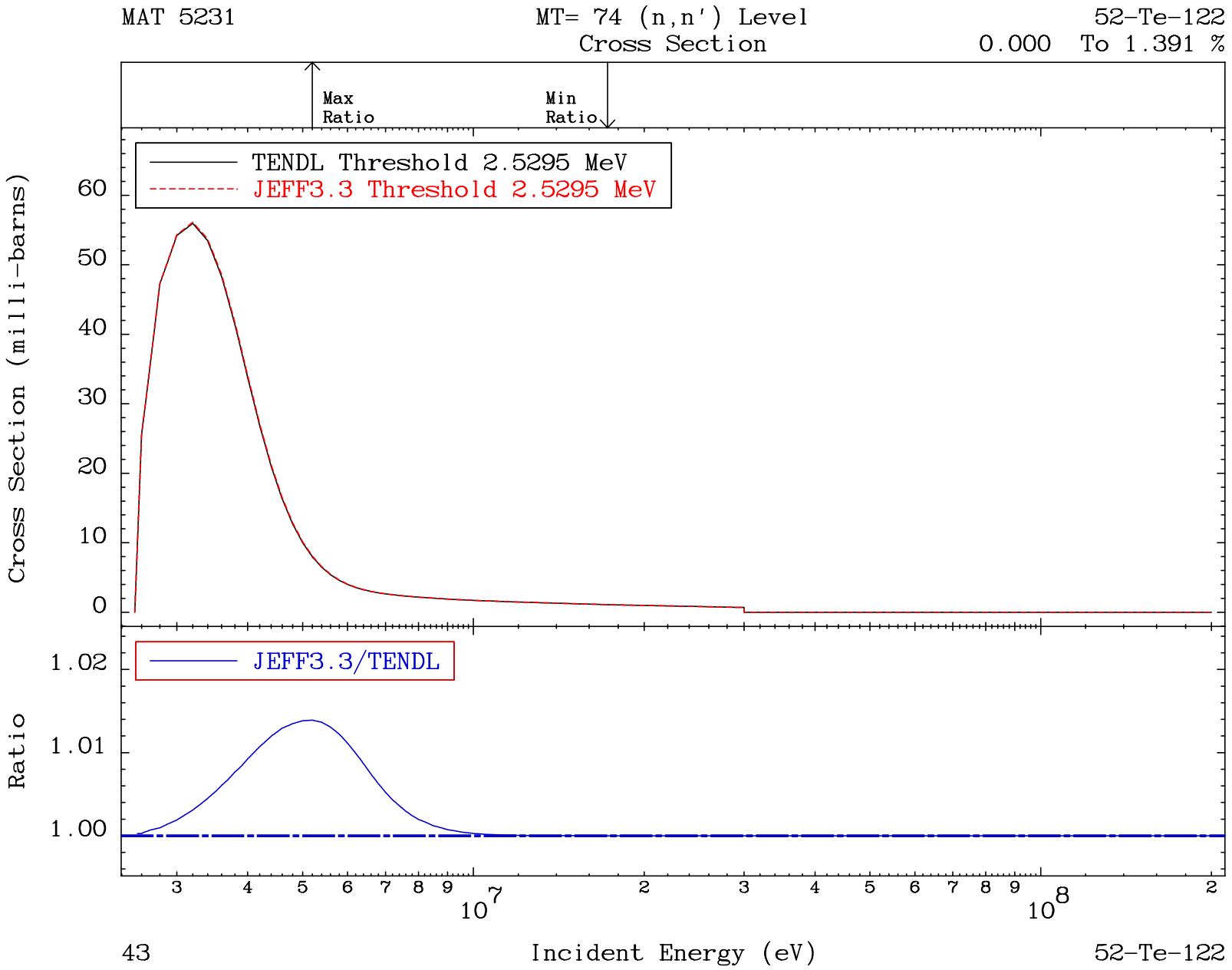

MAT 5231
MT= 69 (n,n') Level
Cross Section
52-Te-122
-0.235 To 1.865 %
Min Ratio
Max Ratio
TENDL Threshold 2.4275 MeV
JEFF3.3 Threshold 2.4275 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
38
Incident Energy (eV)
52-Te-122

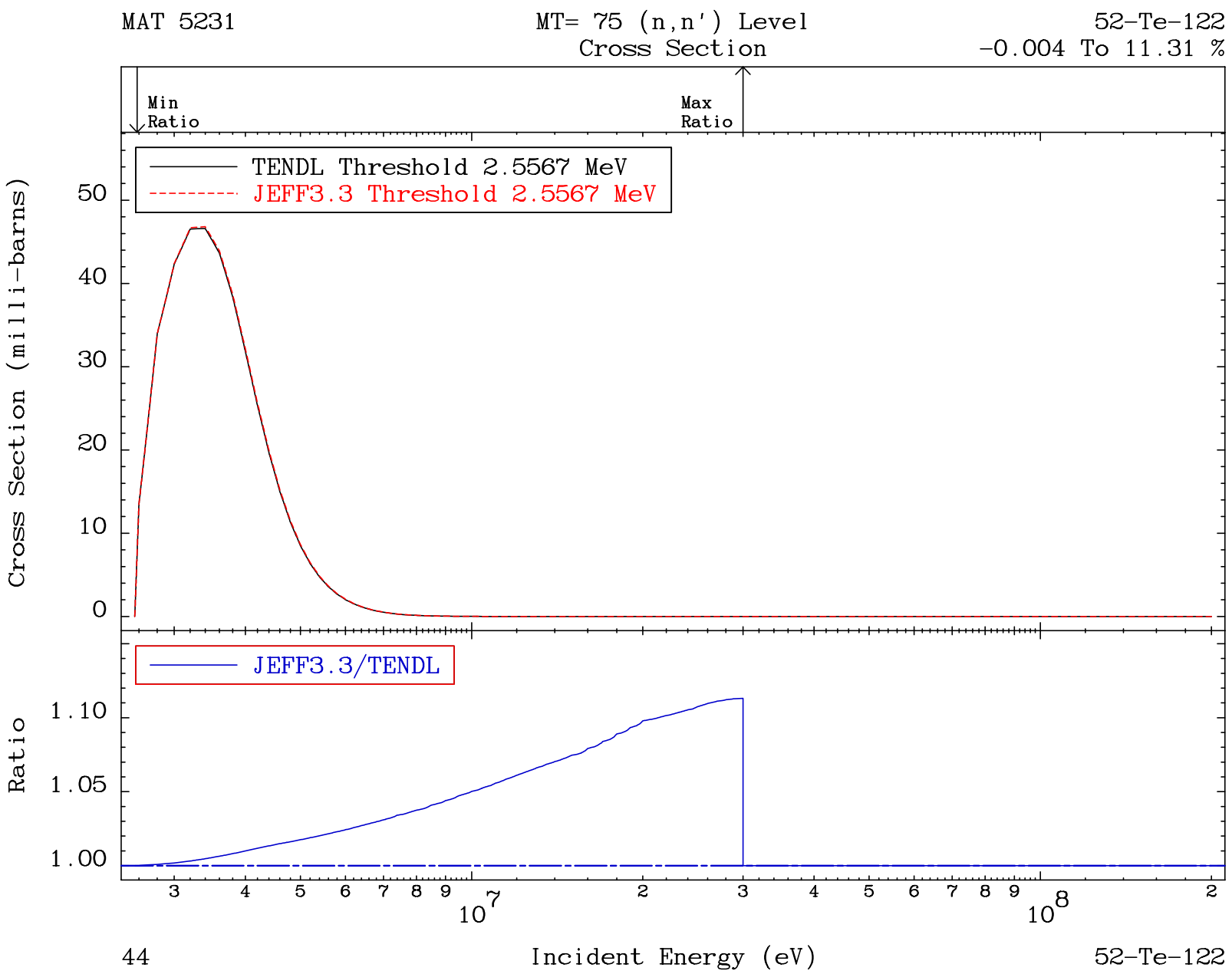

MAT 5231
MT= 70 (n,n') Level
Cross Section
52-Te-122
0.000 To 1.387 %
Max Ratio
Min Ratio
TENDL Threshold 2.4483 MeV
JEFF3.3 Threshold 2.4483 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
39
Incident Energy (eV)
52-Te-122

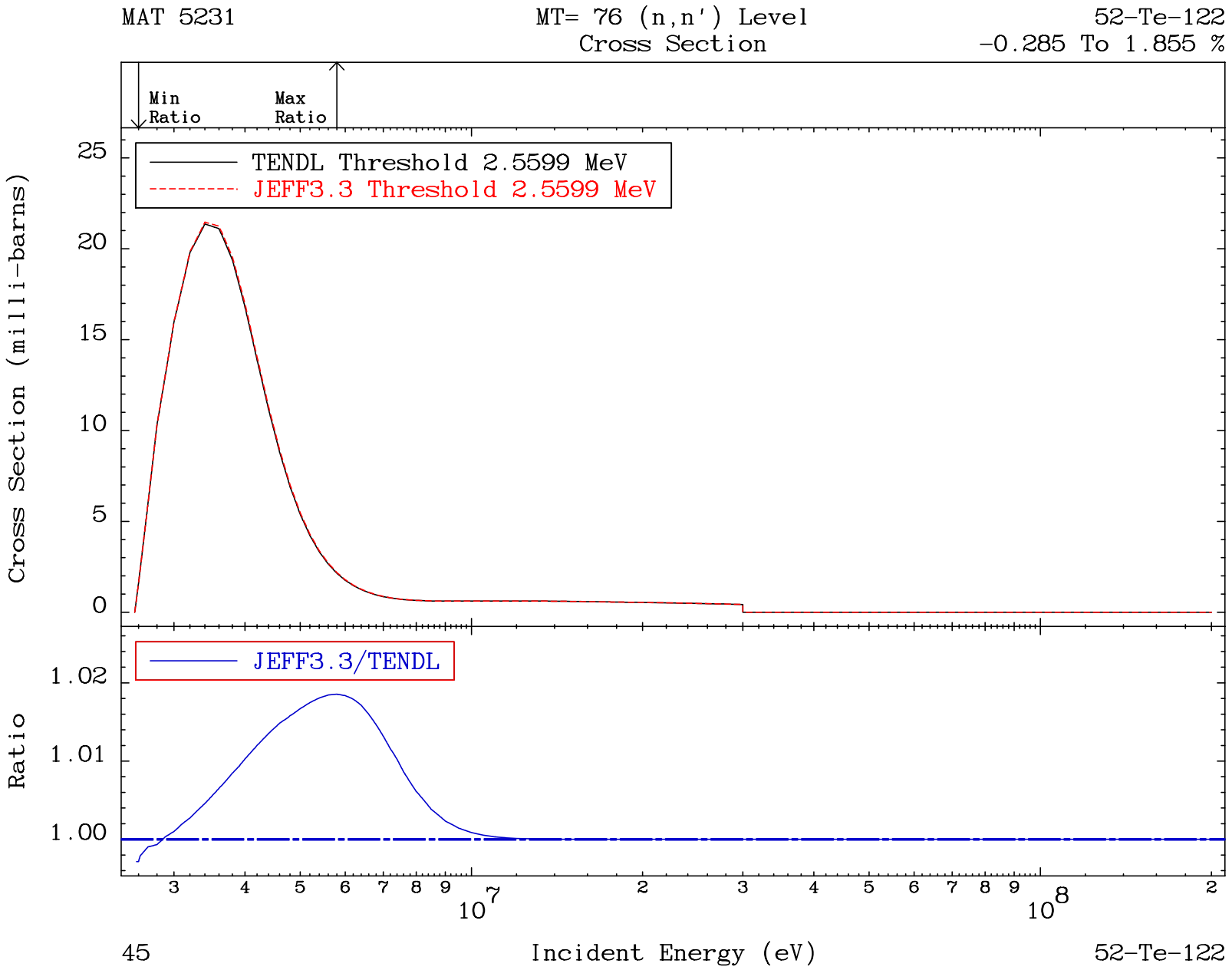

MAT 5231
MT= 71 (n,n') Level
Cross Section
52-Te-122
-0.133 To 1.628 %
Min Ratio
Max Ratio
TENDL Threshold 2.4688 MeV
JEFF3.3 Threshold 2.4688 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
40
Incident Energy (eV)
52-Te-122

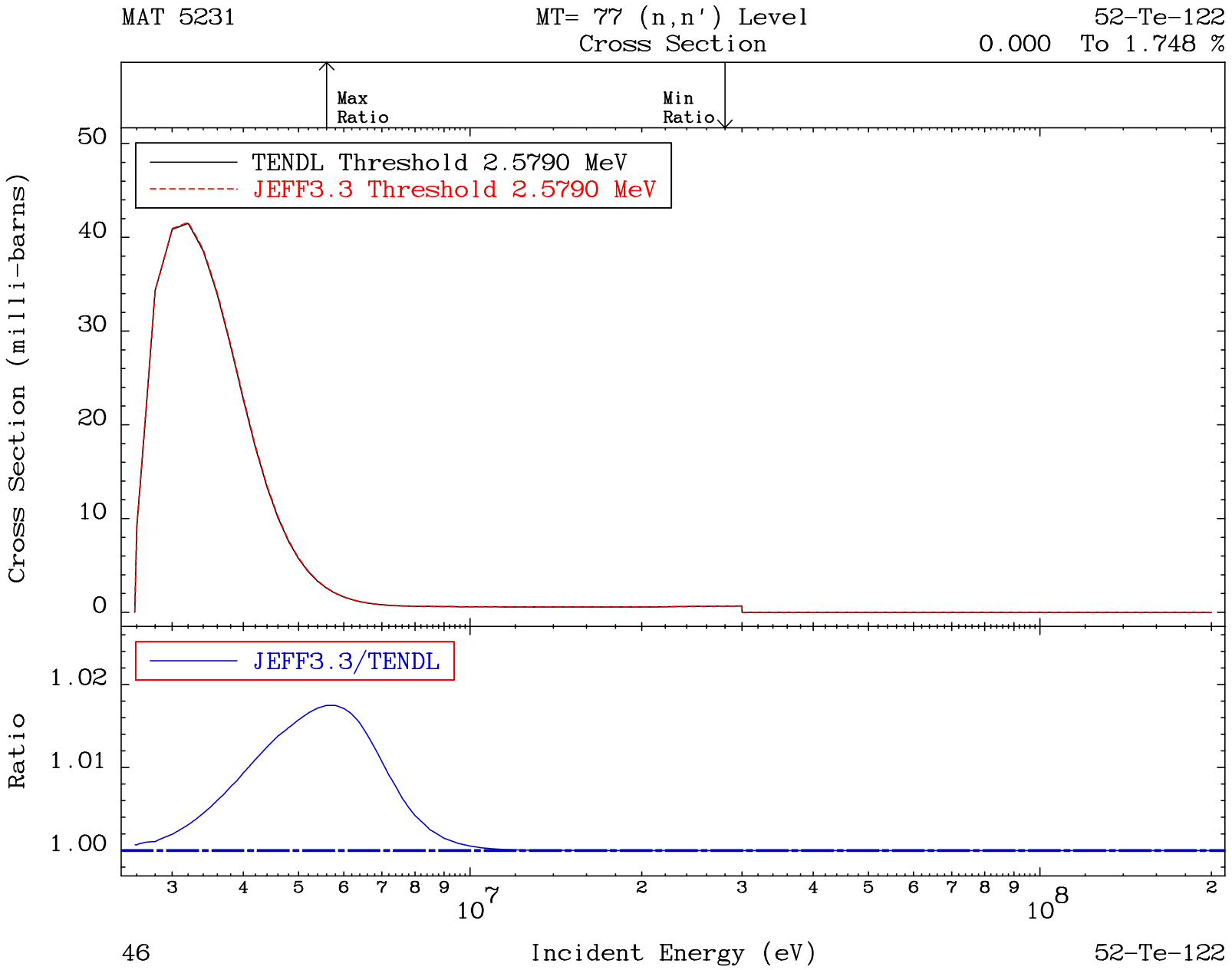

MAT 5231
MT= 72 (n,n') Level
Cross Section
52-Te-122
-0.140 To 1.630 %
Min Ratio
Max Ratio
TENDL Threshold 2.4981 MeV
JEFF3.3 Threshold 2.4981 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
41
Incident Energy (eV)
52-Te-122

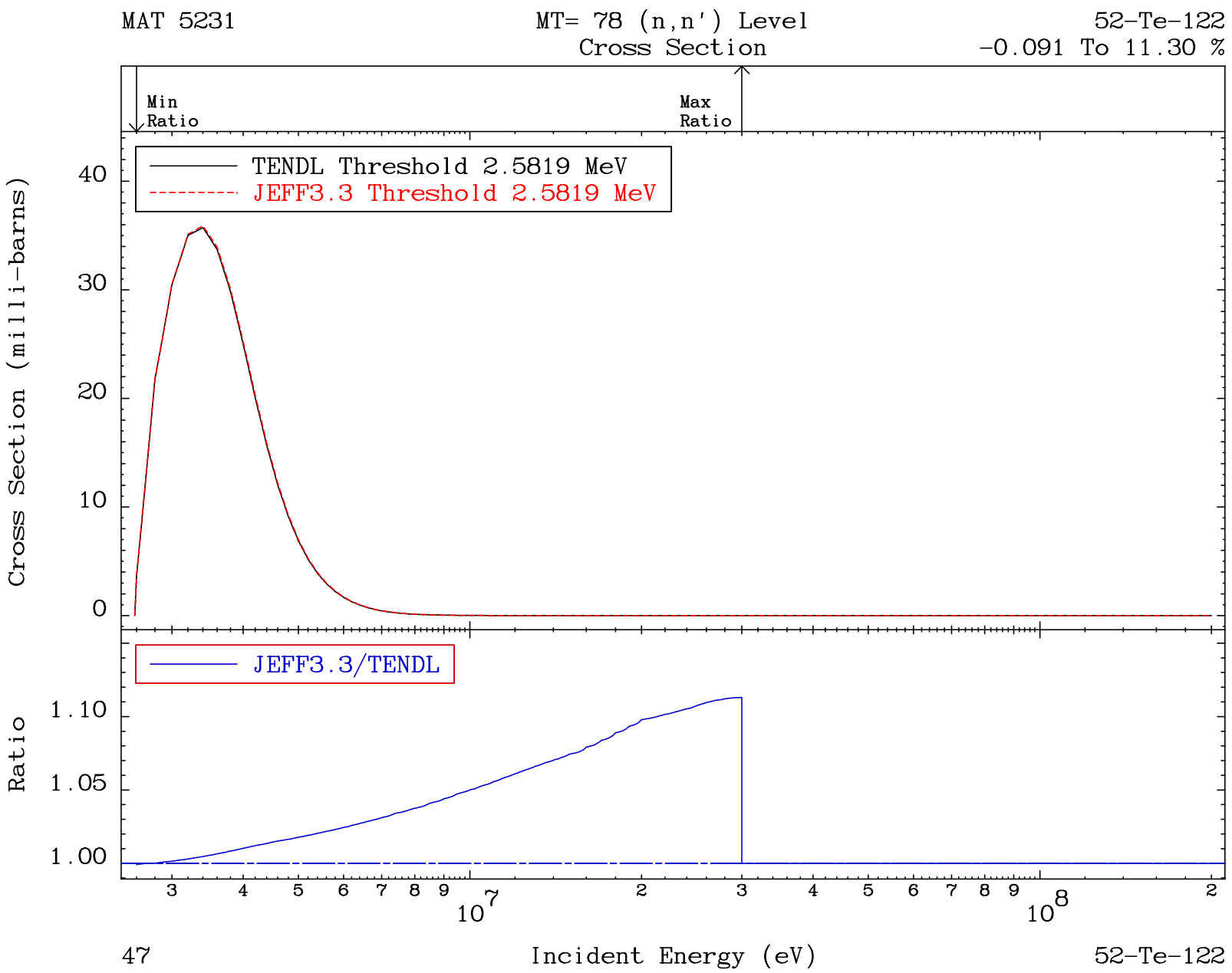

MAT 5231
MT= 73 (n,n') Level
Cross Section
52-Te-122
0.000 To 11.31 %
Max Ratio
Min Ratio
TENDL Threshold 2.5201 MeV
JEFF3.3 Threshold 2.5201 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
42
Incident Energy (eV)
52-Te-122

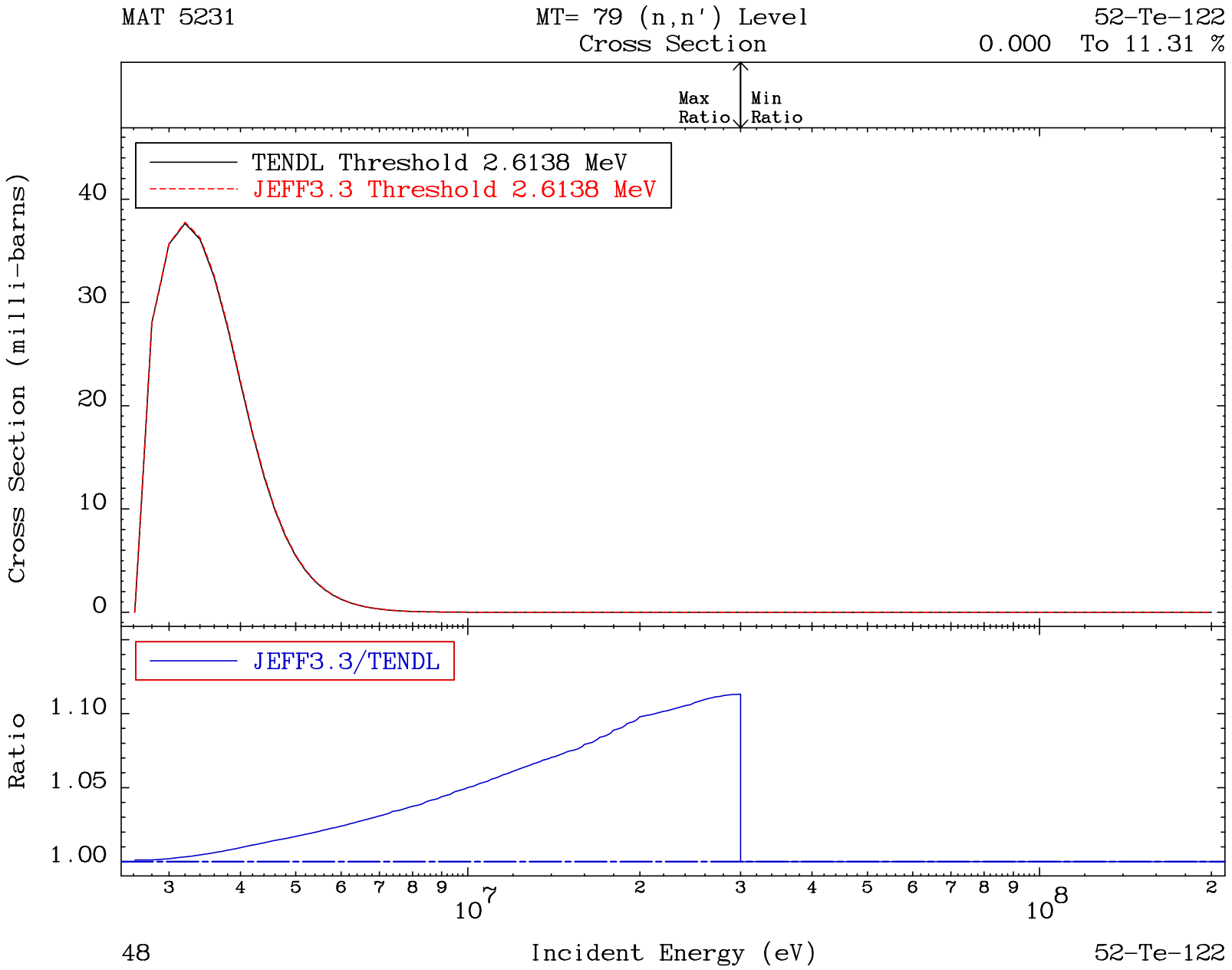

MAT 5231
MT= 74 (n,n') Level
Cross Section
52-Te-122
0.000 To 1.391 %
Max Ratio
Min Ratio
TENDL Threshold 2.5295 MeV
JEFF3.3 Threshold 2.5295 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
43
Incident Energy (eV)
52-Te-122

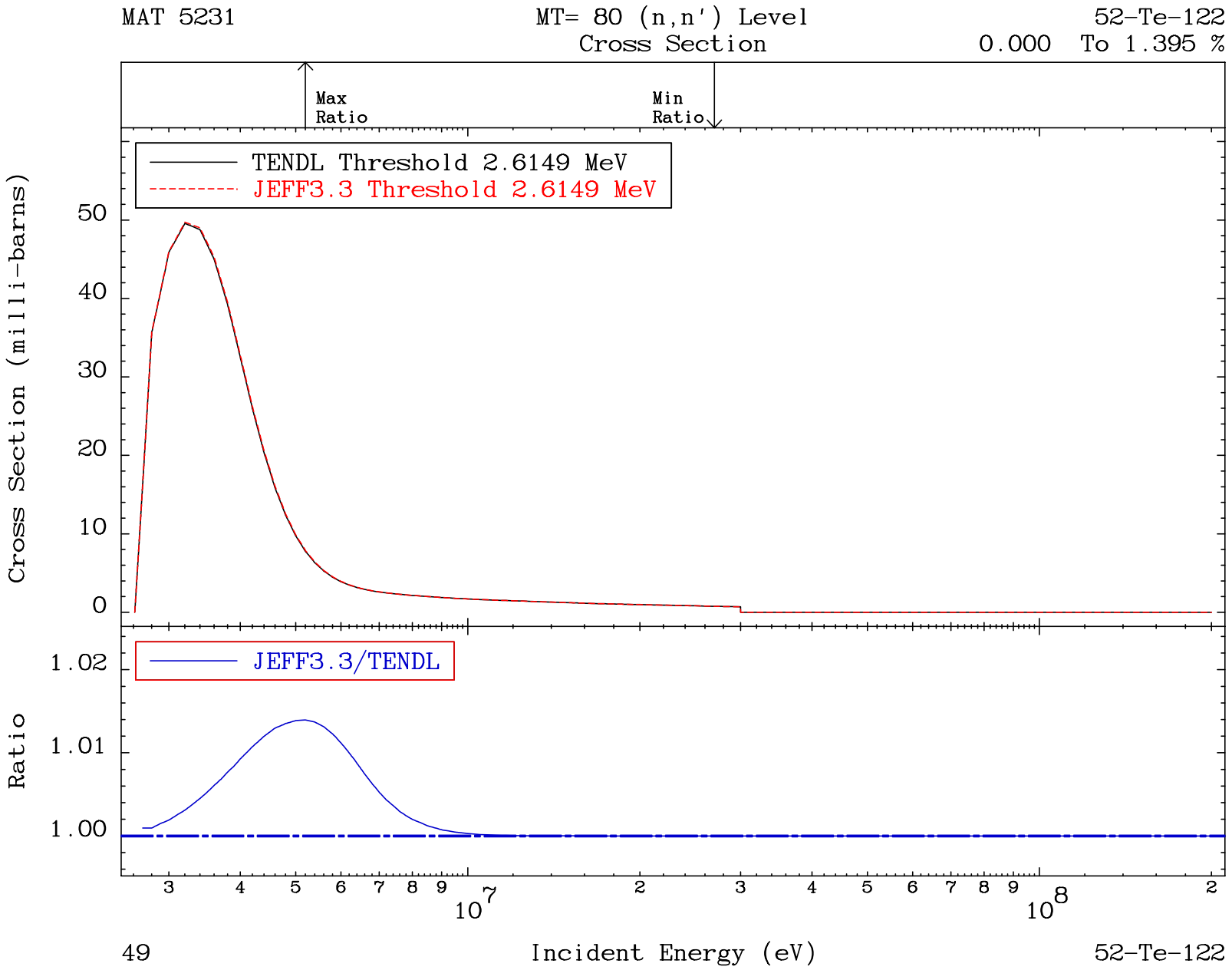

MAT 5231
MT= 75 (n,n') Level
Cross Section
52-Te-122
-0.004 To 11.31 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.5567 MeV
JEFF3.3 Threshold 2.5567 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
44
Incident Energy (eV)
52-Te-122

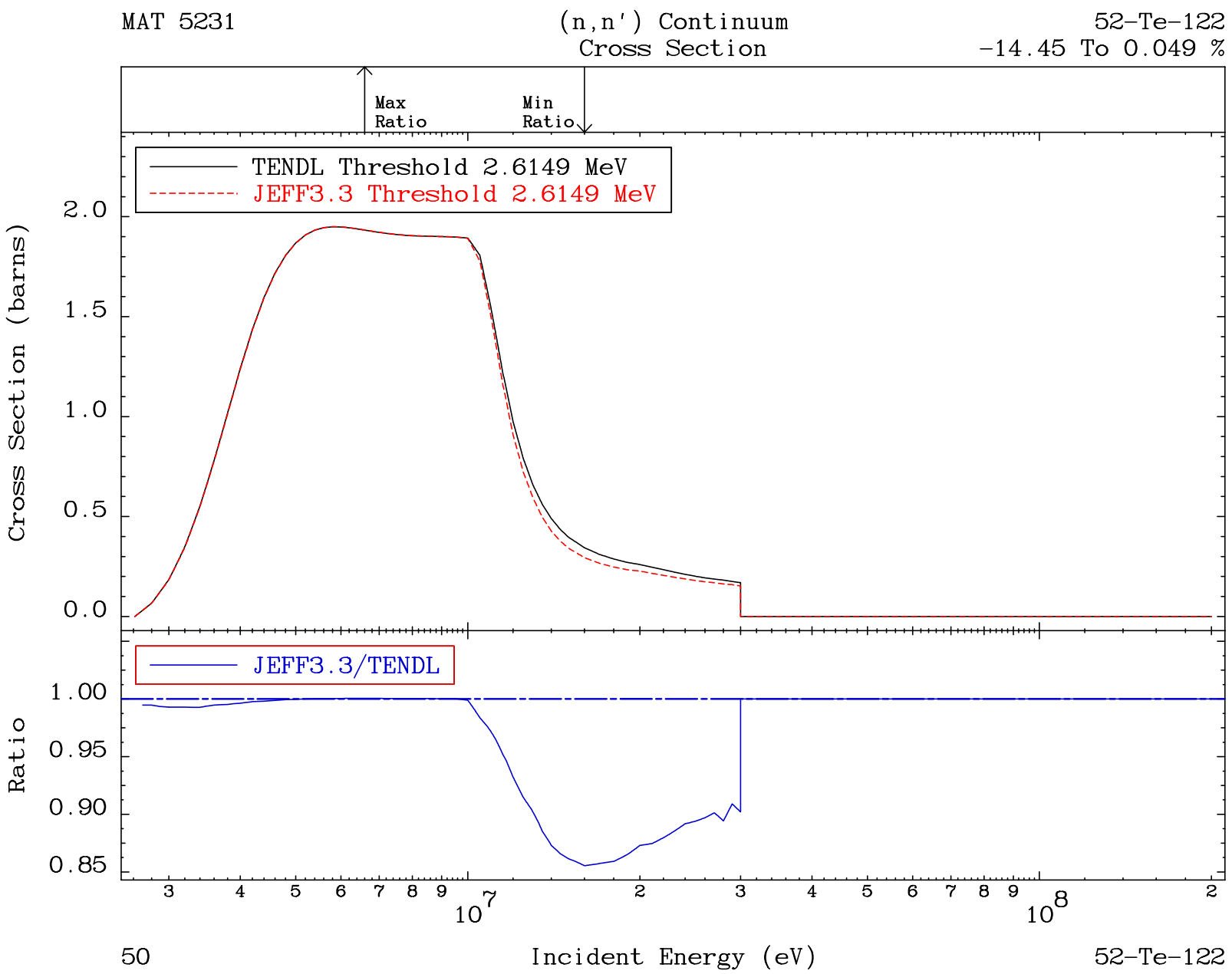

MAT 5231
MT= 76 (n,n') Level
Cross Section
52-Te-122
-0.285 To 1.855 %
Min Ratio
Max Ratio
TENDL Threshold 2.5599 MeV
JEFF3.3 Threshold 2.5599 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
52-Te-122

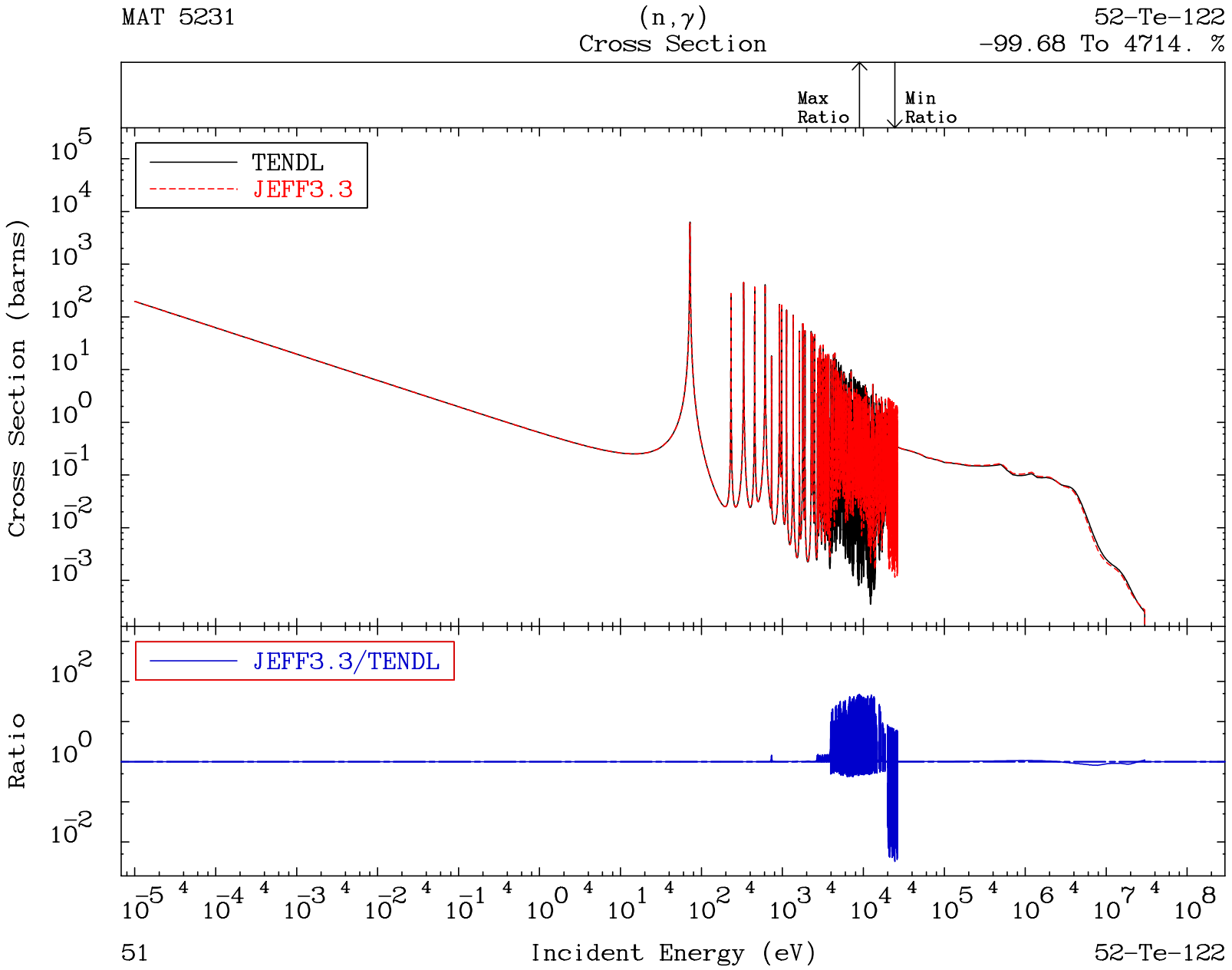

MAT 5231
MT= 77 (n,n') Level
Cross Section
52-Te-122
0.000 To 1.748 %
Max Ratio
Min Ratio
TENDL Threshold 2.5790 MeV
JEFF3.3 Threshold 2.5790 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
46
52-Te-122

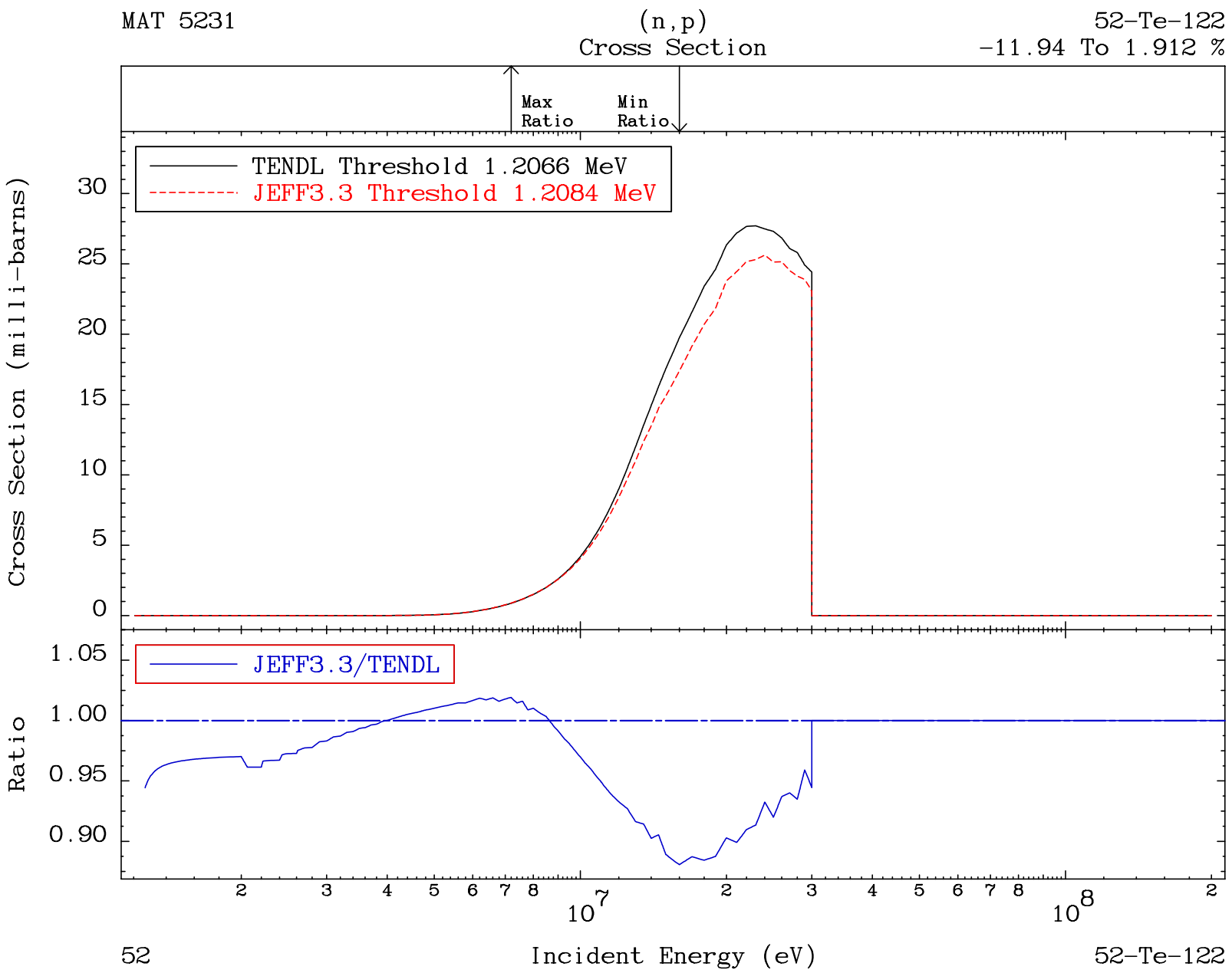

MAT 5231
MT= 78 (n,n') Level
Cross Section
52-Te-122
-0.091 To 11.30 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.5819 MeV
JEFF3.3 Threshold 2.5819 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
47
Incident Energy (eV)
52-Te-122

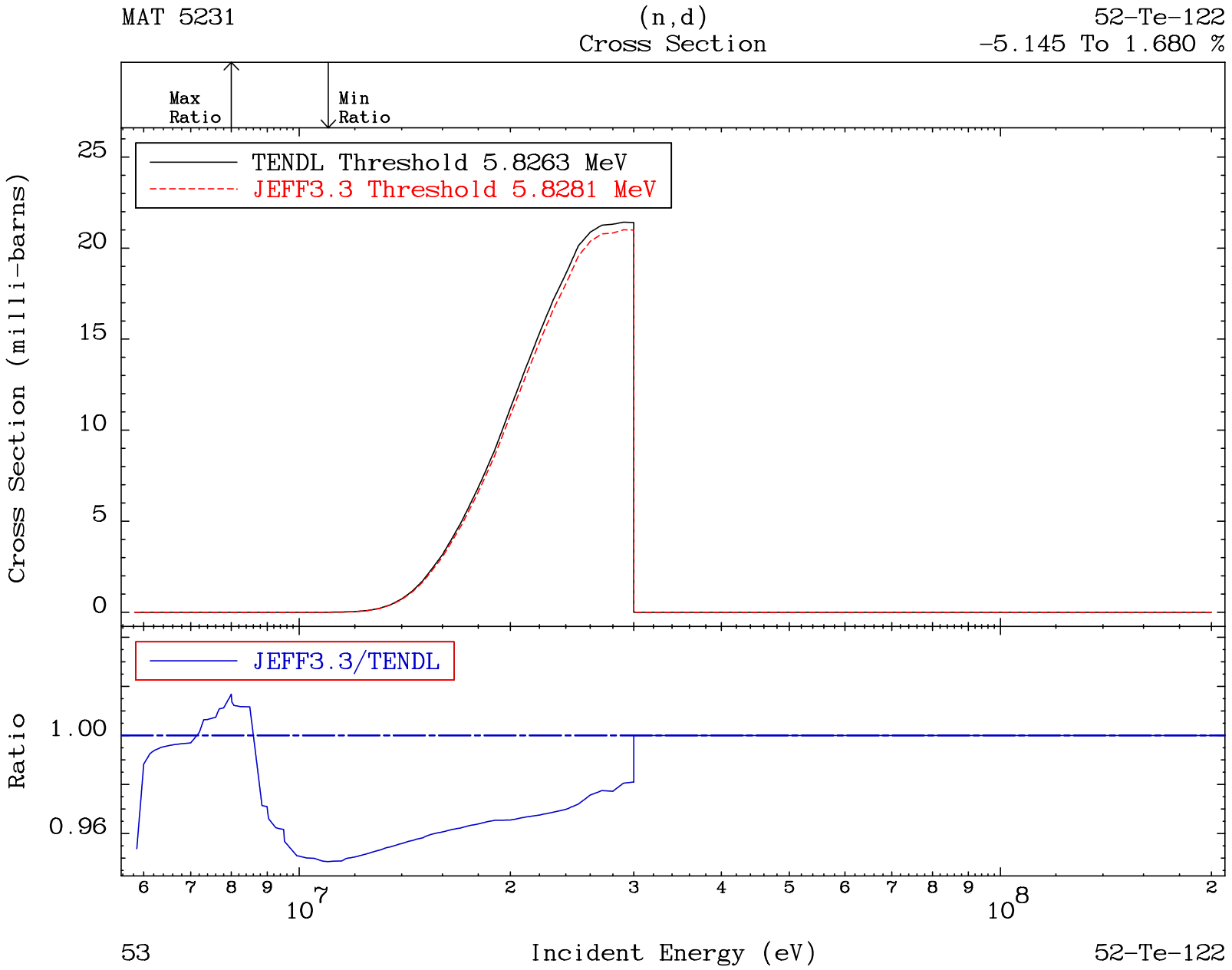

MAT 5231
MT= 79 (n,n') Level
Cross Section
52-Te-122
0.000 To 11.31 %
Max Ratio
Min Ratio
TENDL Threshold 2.6138 MeV
JEFF3.3 Threshold 2.6138 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
48
Incident Energy (eV)
52-Te-122

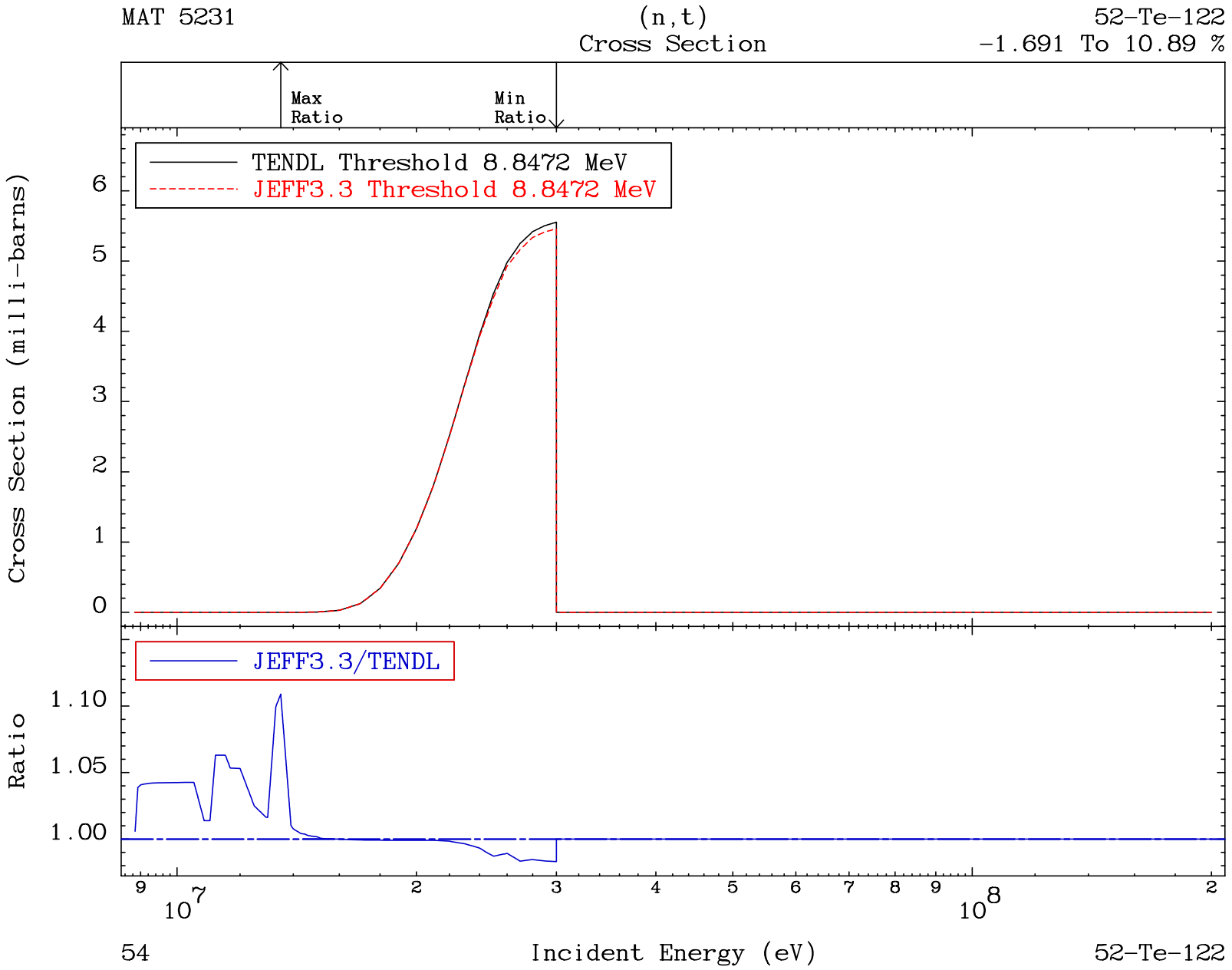

MAT 5231
MT= 80 (n,n') Level
Cross Section
52-Te-122
0.000 To 1.395 %
Max Ratio
Min Ratio
TENDL Threshold 2.6149 MeV
JEFF3.3 Threshold 2.6149 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
49
52-Te-122

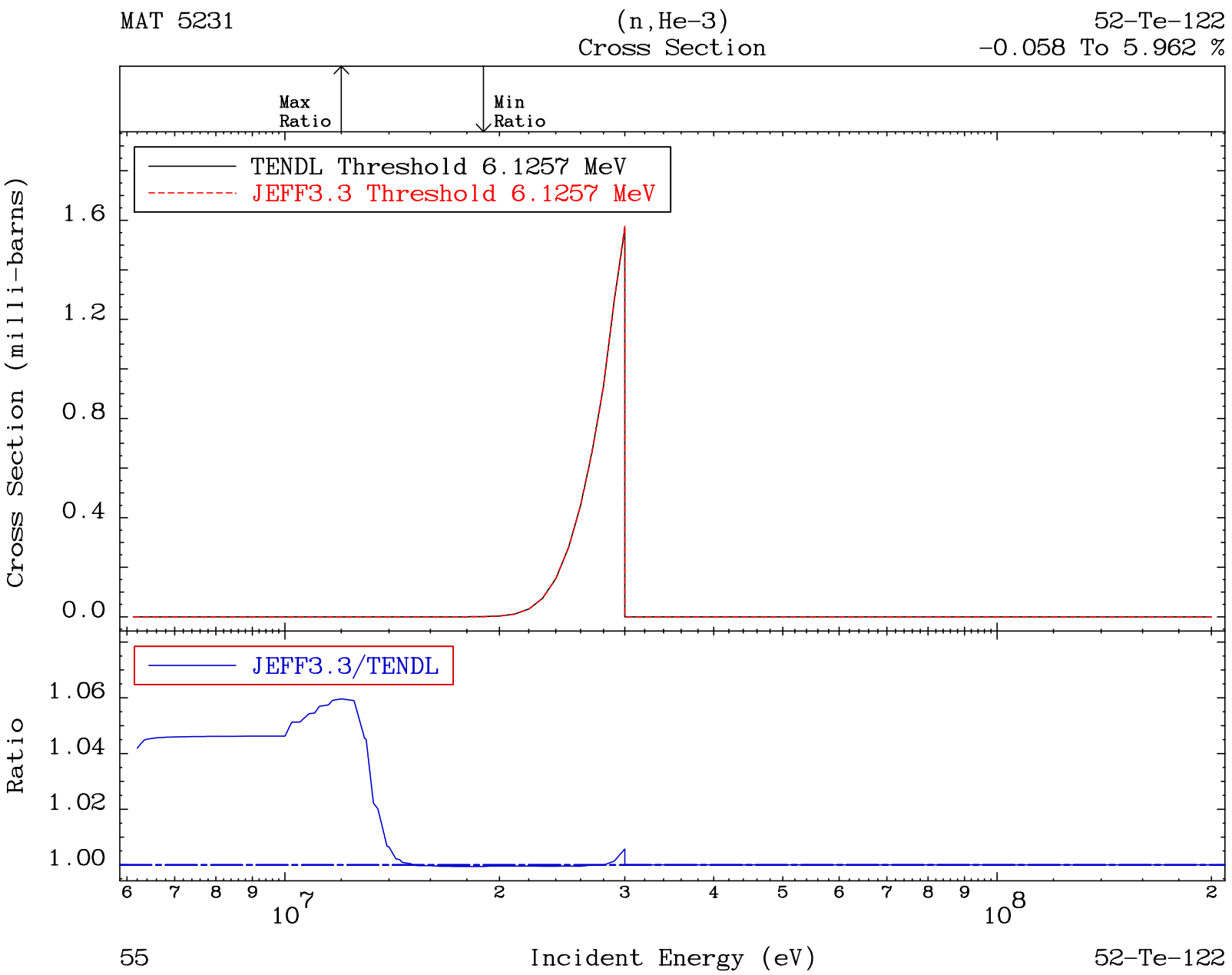

MAT 5231
(n,n') Continuum
Cross Section
52-Te-122
-14.45 To 0.049 %
Max
Ratio
Min
Ratio
TENDL Threshold 2.6149 MeV
JEFF3.3 Threshold 2.6149 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
0.85
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
50
Incident Energy (eV)
52-Te-122

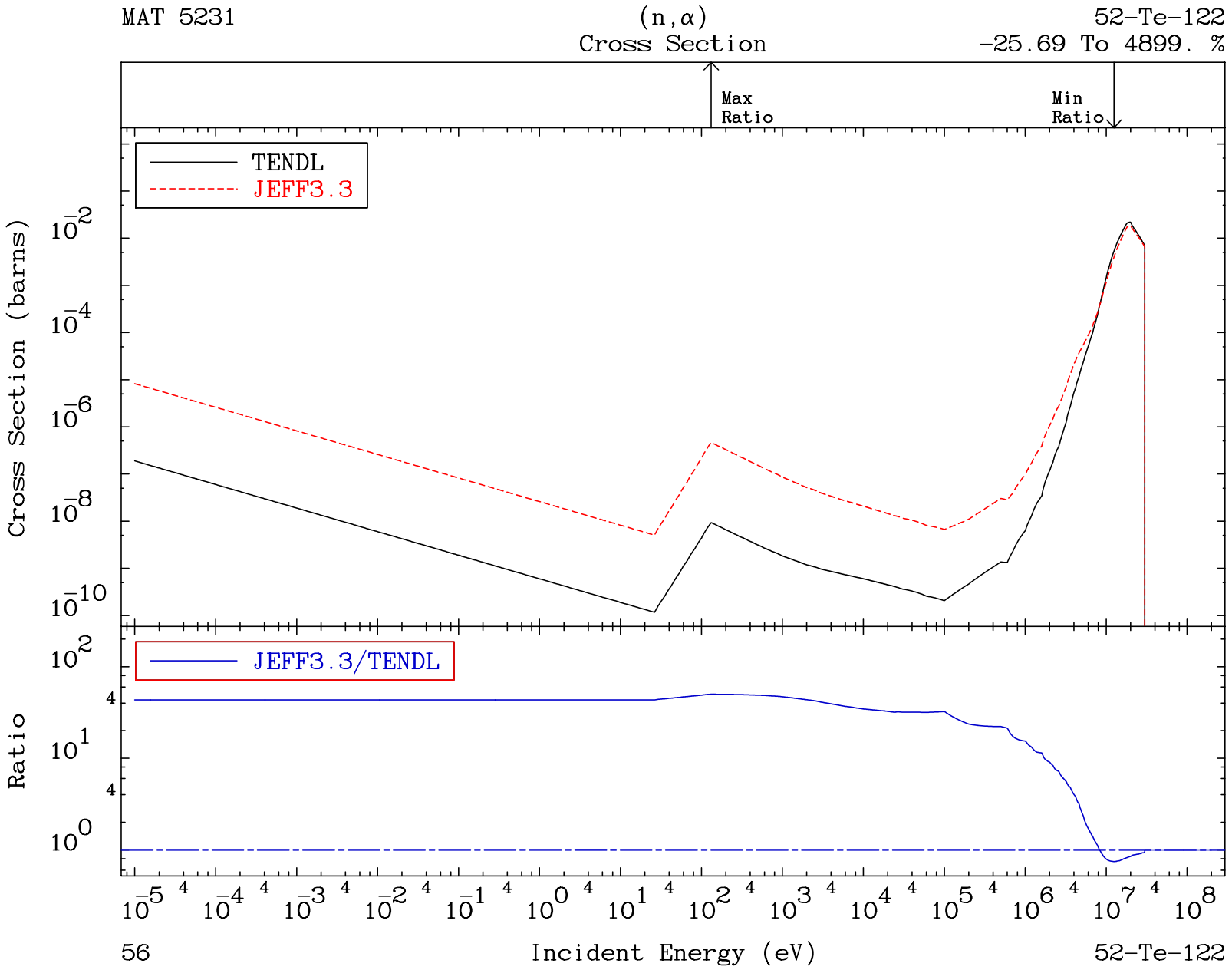

MAT 5231
(n,γ)
Cross Section
52-Te-122
-99.68 To 4714. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
51
52-Te-122

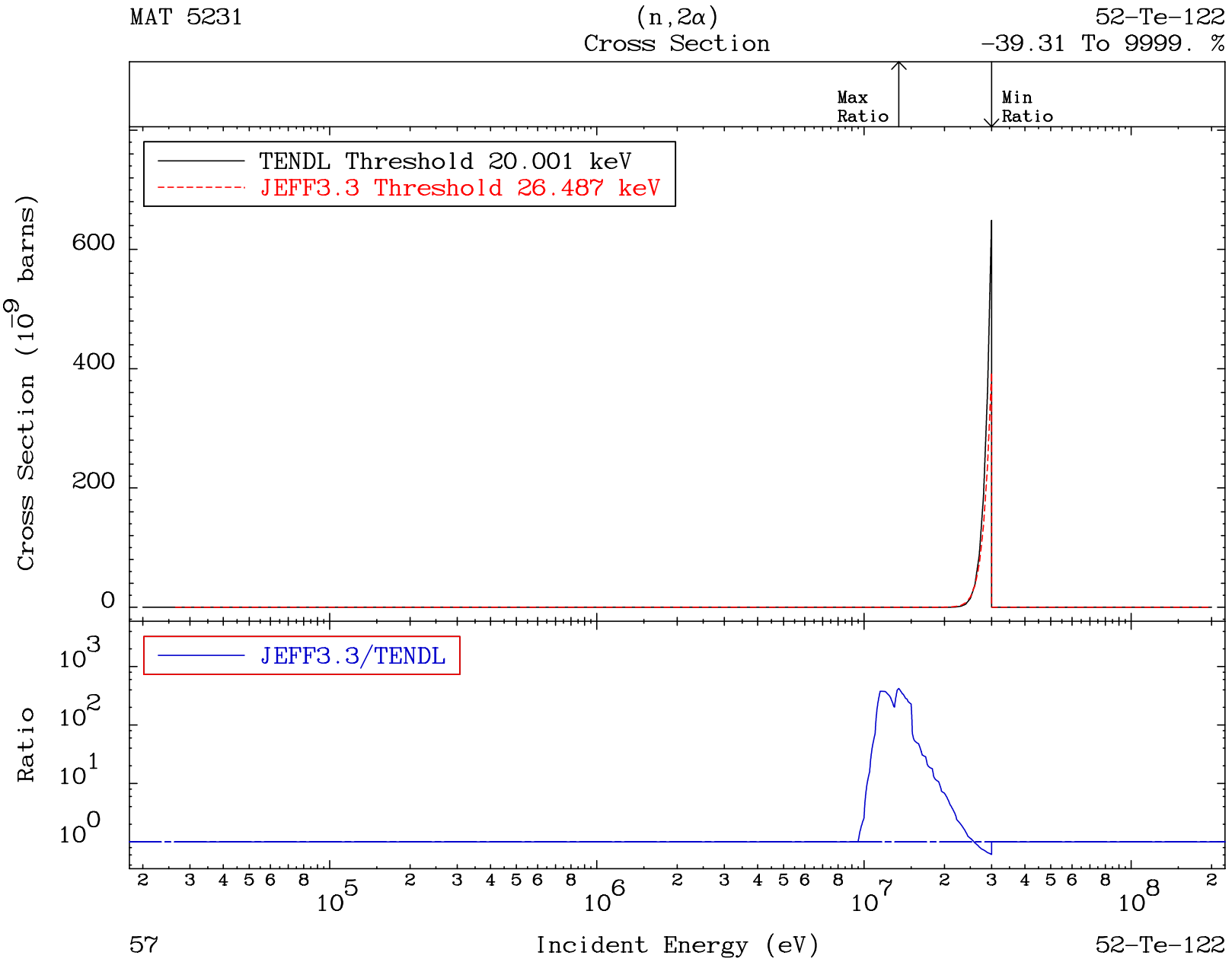

MAT 5231
(n,p)
Cross Section
52-Te-122
-11.94 To 1.912 %
Max Ratio
Min Ratio
TENDL Threshold 1.2066 MeV
JEFF3.3 Threshold 1.2084 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.05
1.00
0.95
0.90
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
52
Incident Energy (eV)
52-Te-122

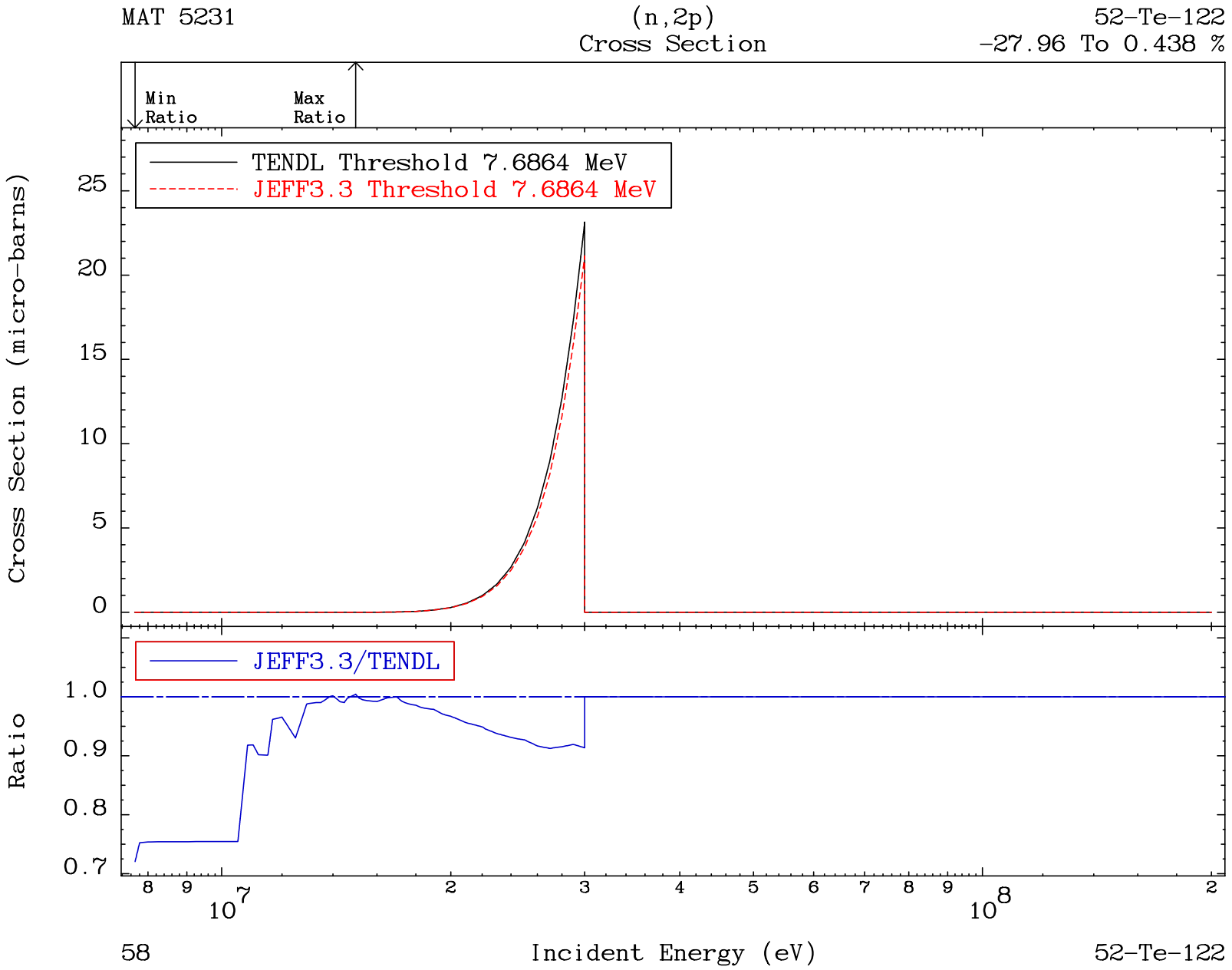

MAT 5231
(n,d)
Cross Section
52-Te-122
-5.145 To 1.680 %
Max Ratio
Min Ratio
TENDL Threshold 5.8263 MeV
JEFF3.3 Threshold 5.8281 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.96
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
53
Incident Energy (eV)
52-Te-122

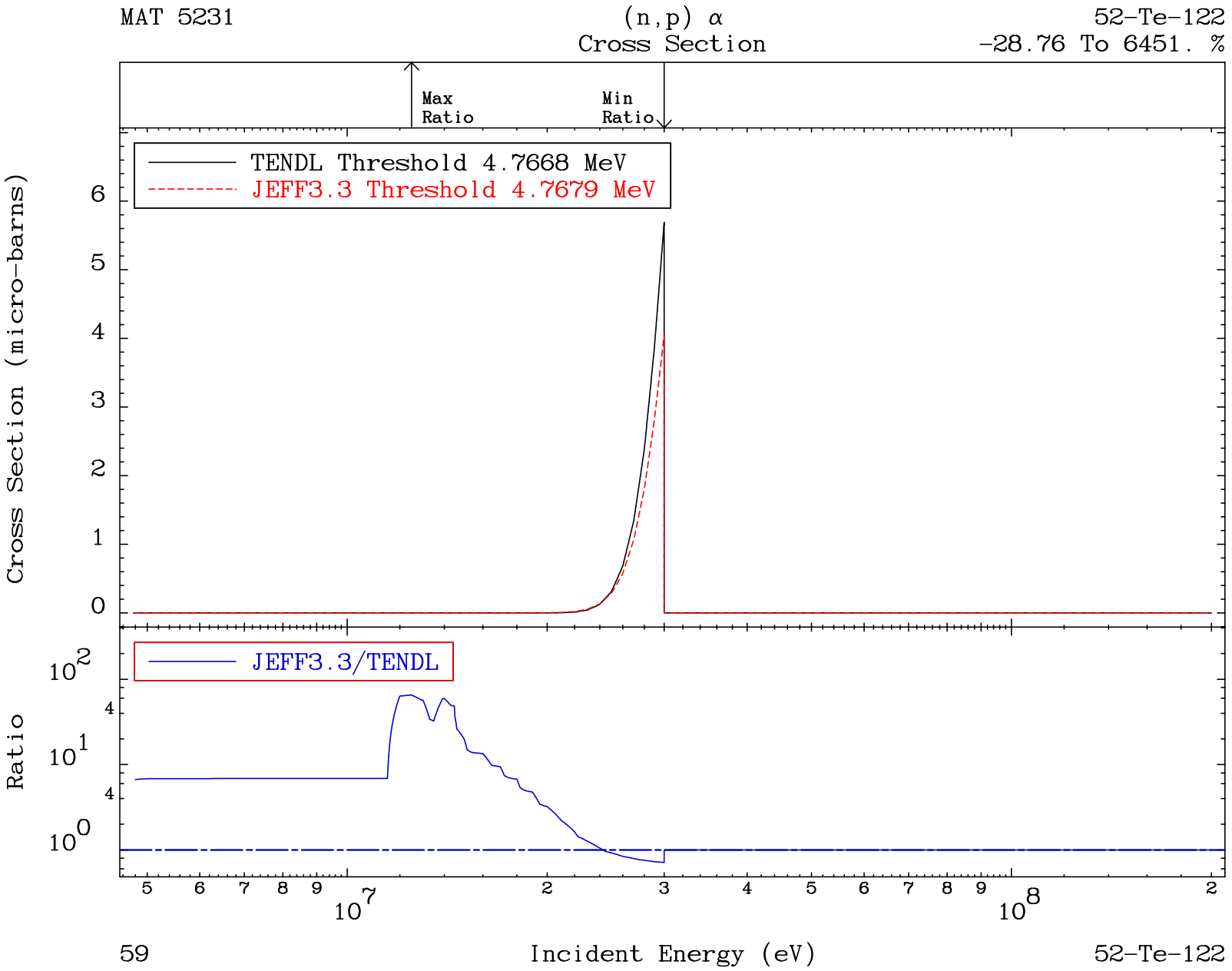

MAT 5231
(n,t)
Cross Section
52-Te-122
-1.691 To 10.89 %
Max Ratio
Min Ratio
TENDL Threshold 8.8472 MeV
JEFF3.3 Threshold 8.8472 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
JEFF3.3/TENDL
Ratio
1.00
1.05
1.10
9
10^7
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
52-Te-122

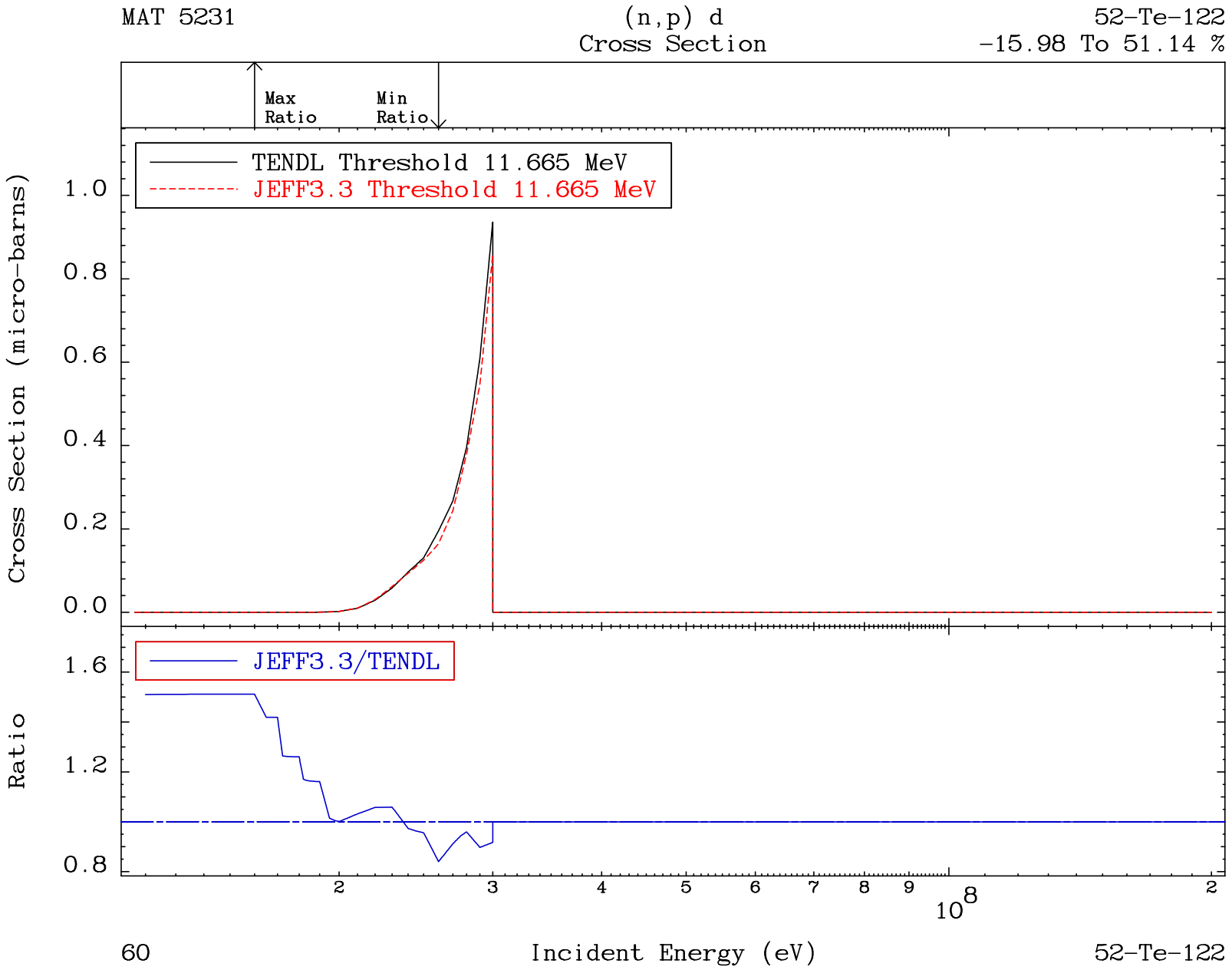

MAT 5231
(n,He-3)
Cross Section
52-Te-122
-0.058 To 5.962 %
Max Ratio
Min Ratio
TENDL Threshold 6.1257 MeV
JEFF3.3 Threshold 6.1257 MeV
Cross Section (milli-barns)
1.6
1.2
0.8
0.4
0.0
JEFF3.3/TENDL
Ratio
1.06
1.04
1.02
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
55
Incident Energy (eV)
52-Te-122

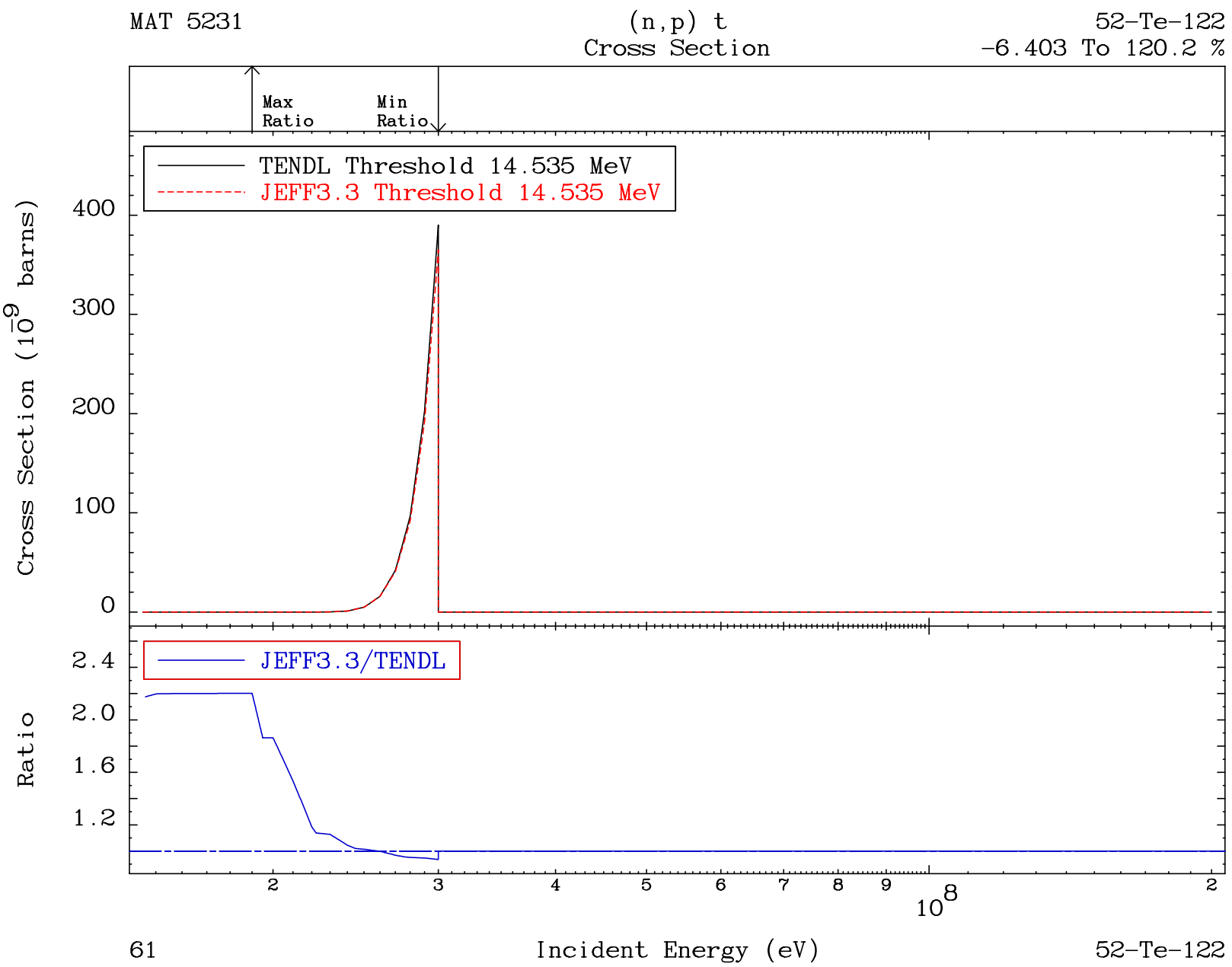

MAT 5231
(n,α)
Cross Section
52-Te-122
-25.69 To 4899. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
56
52-Te-122

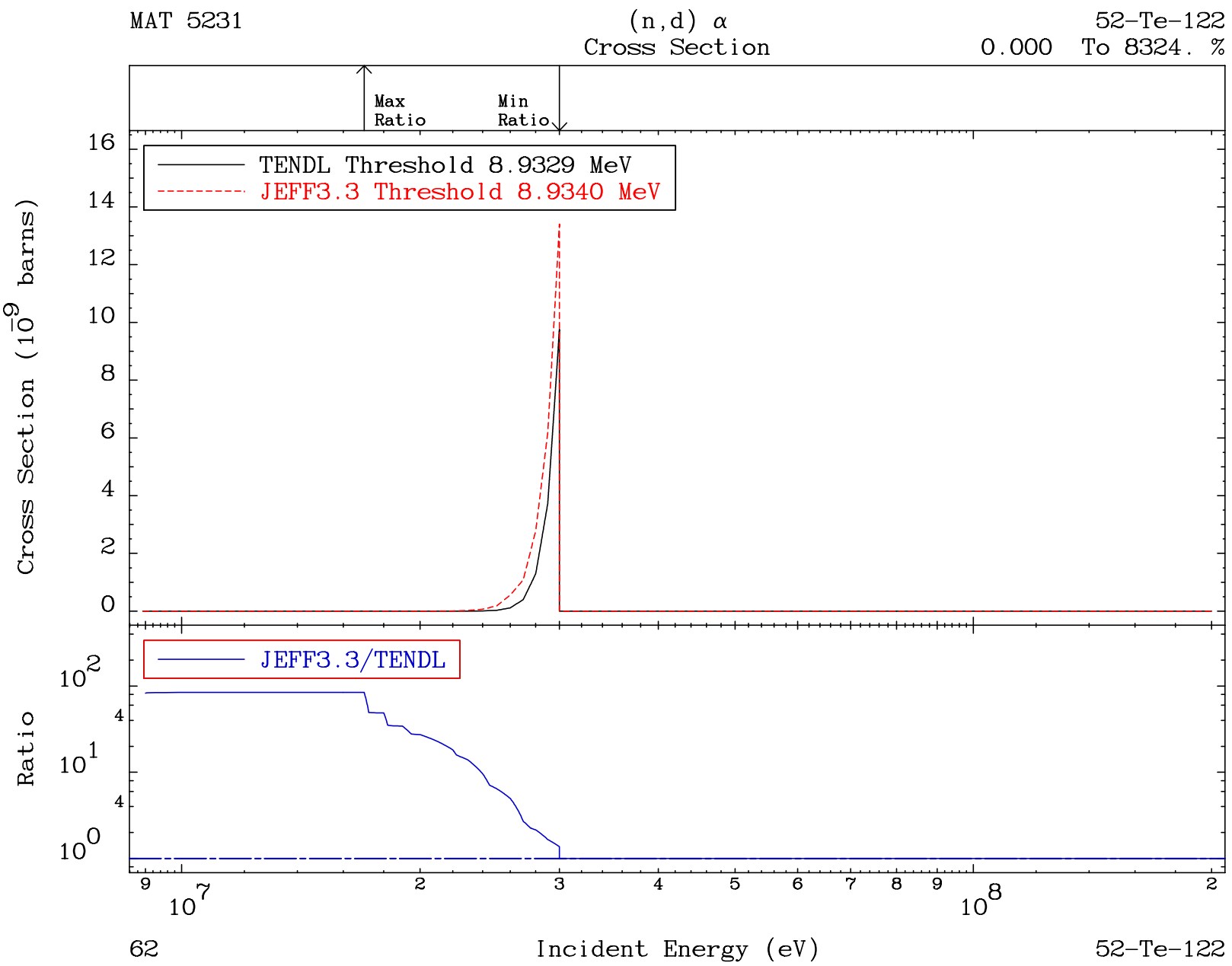

MAT 5231
(n,2α)
Cross Section
52-Te-122
-39.31 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 20.001 keV
JEFF3.3 Threshold 26.487 keV
Cross Section (10^-9 barns)
600
400
200
0
JEFF3.3/TENDL
Ratio
10^3
10^2
10^1
10^0
2 3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
57
Incident Energy (eV)
52-Te-122

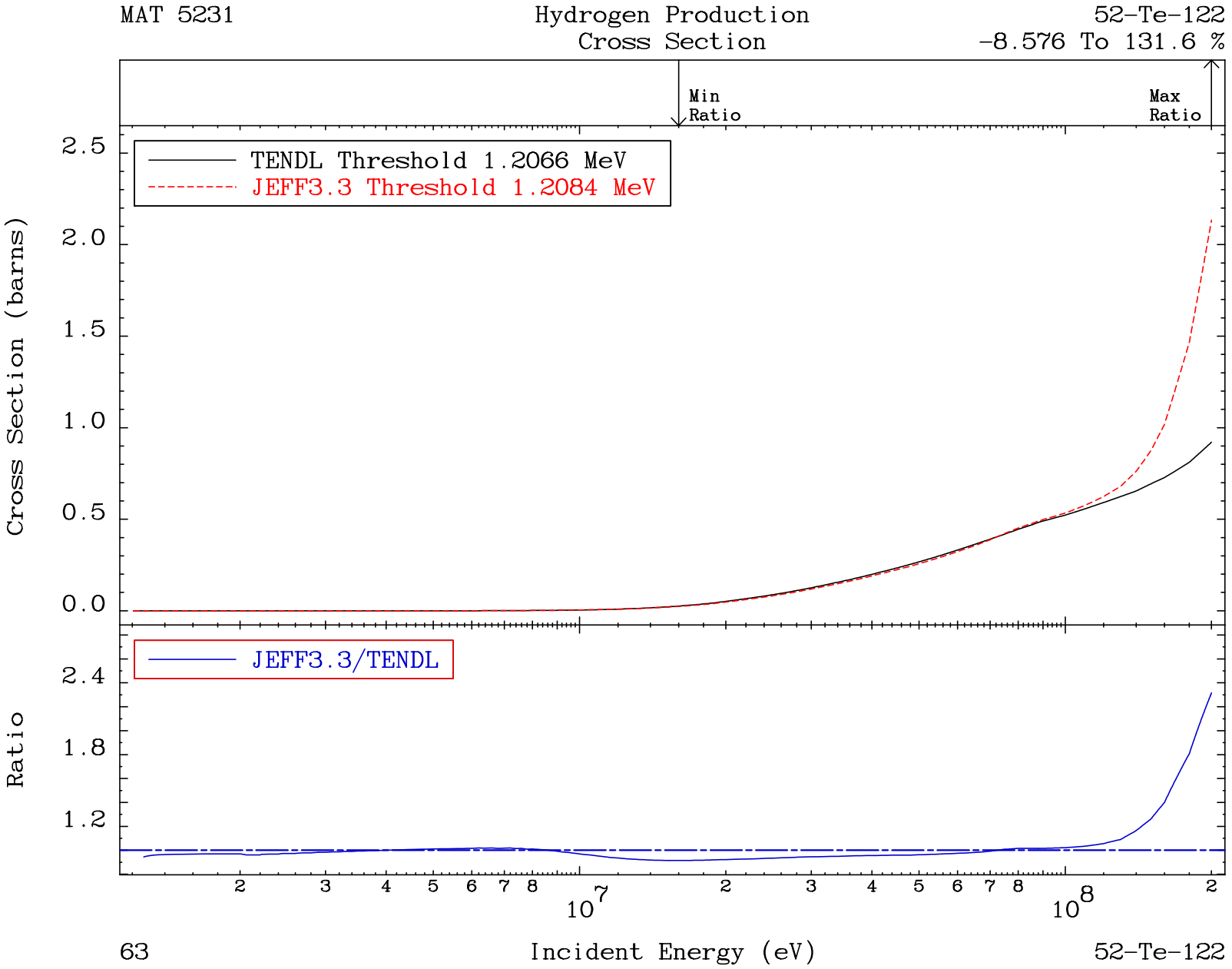

MAT 5231
(n,2p)
Cross Section
52-Te-122
-27.96 To 0.438 %
Min Ratio
Max Ratio
TENDL Threshold 7.6864 MeV
JEFF3.3 Threshold 7.6864 MeV
Cross Section (micro-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.0
0.9
0.8
0.7
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
58
Incident Energy (eV)
52-Te-122

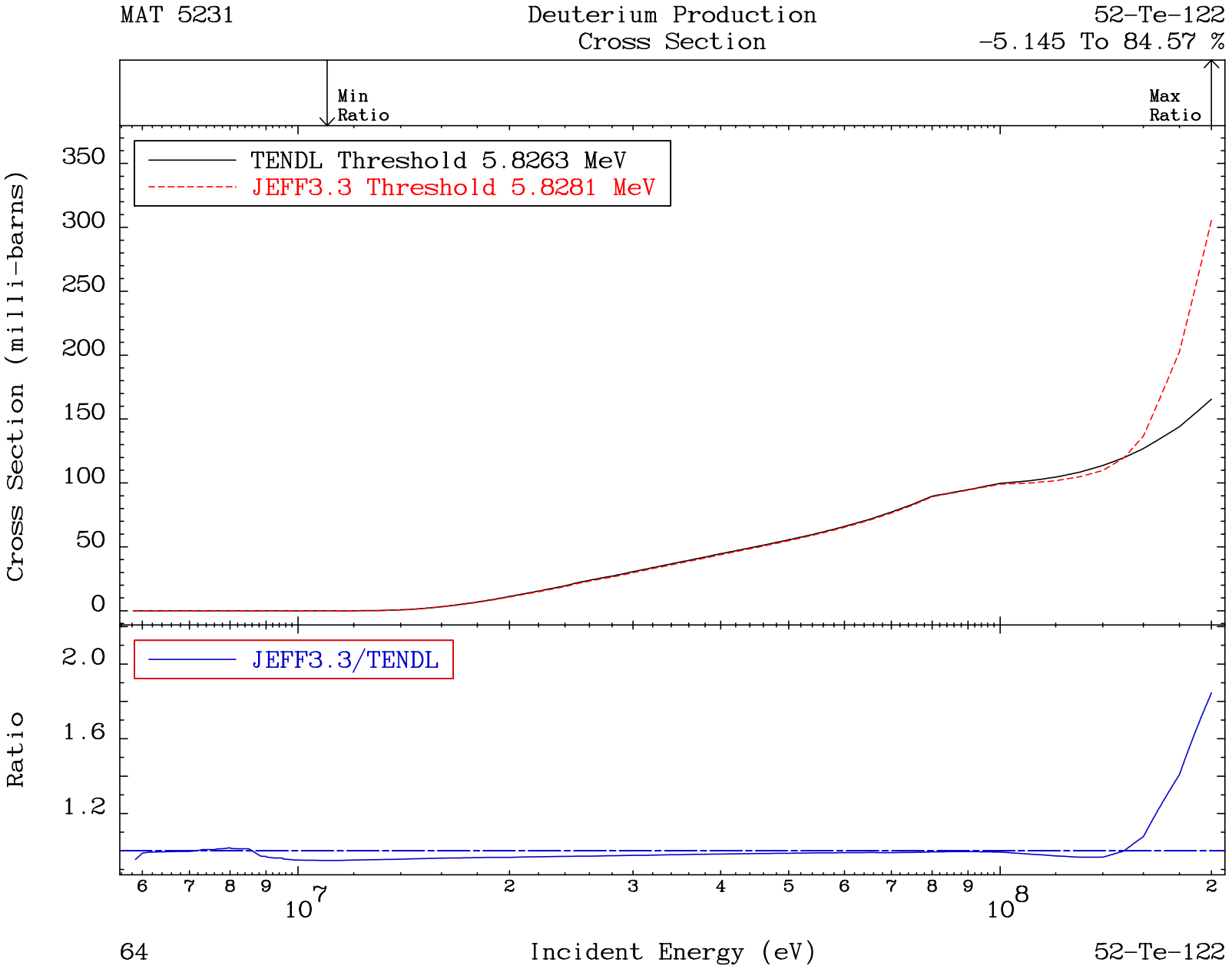

MAT 5231
(n,p) α
Cross Section
52-Te-122
-28.76 To 6451. %
Max Ratio
Min Ratio
TENDL Threshold 4.7668 MeV
JEFF3.3 Threshold 4.7679 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
59
52-Te-122

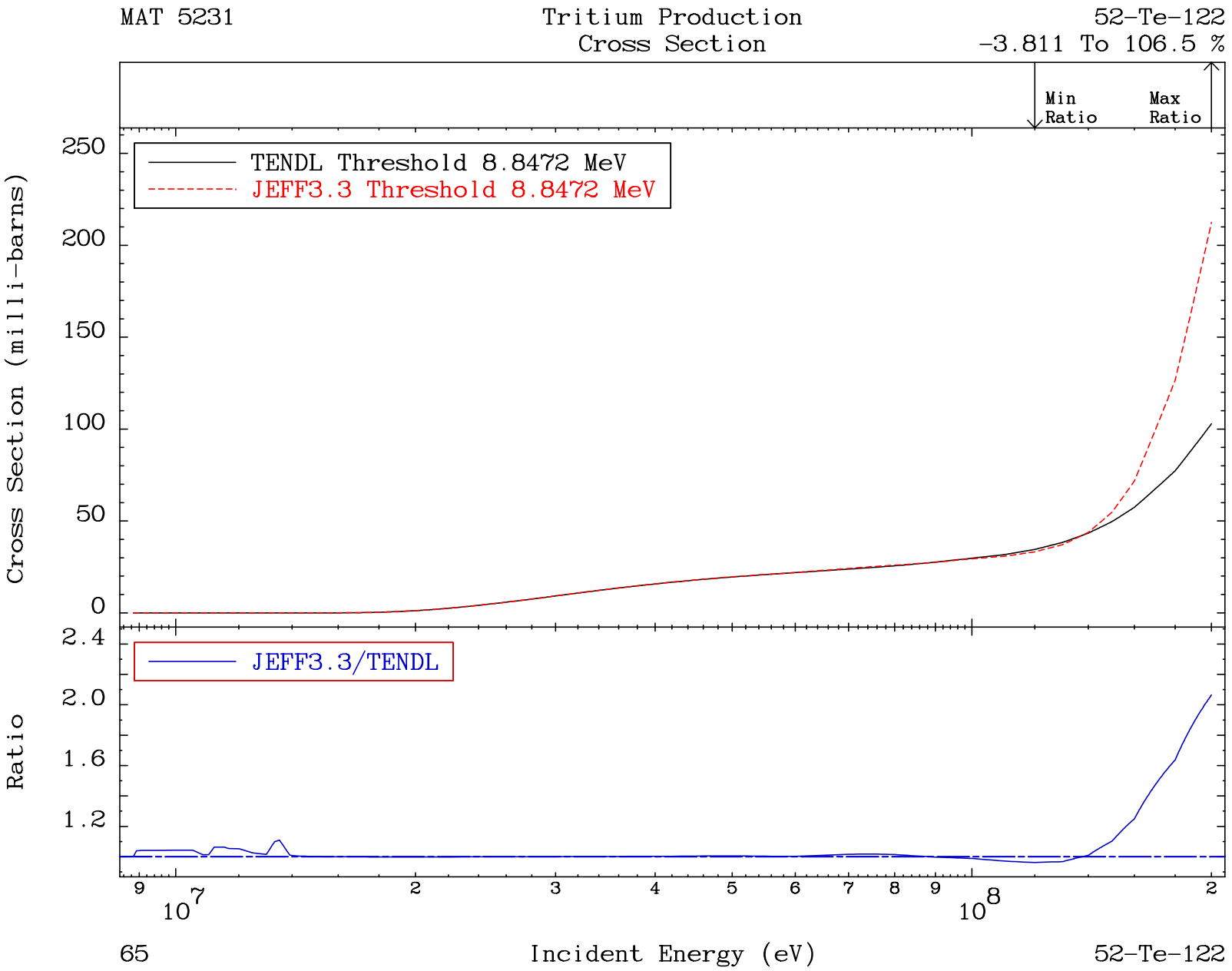

MAT 5231
(n,p) d
Cross Section
52-Te-122
-15.98 To 51.14 %
Max Ratio
Min Ratio
TENDL Threshold 11.665 MeV
JEFF3.3 Threshold 11.665 MeV
Cross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.6
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
60
Incident Energy (eV)
52-Te-122

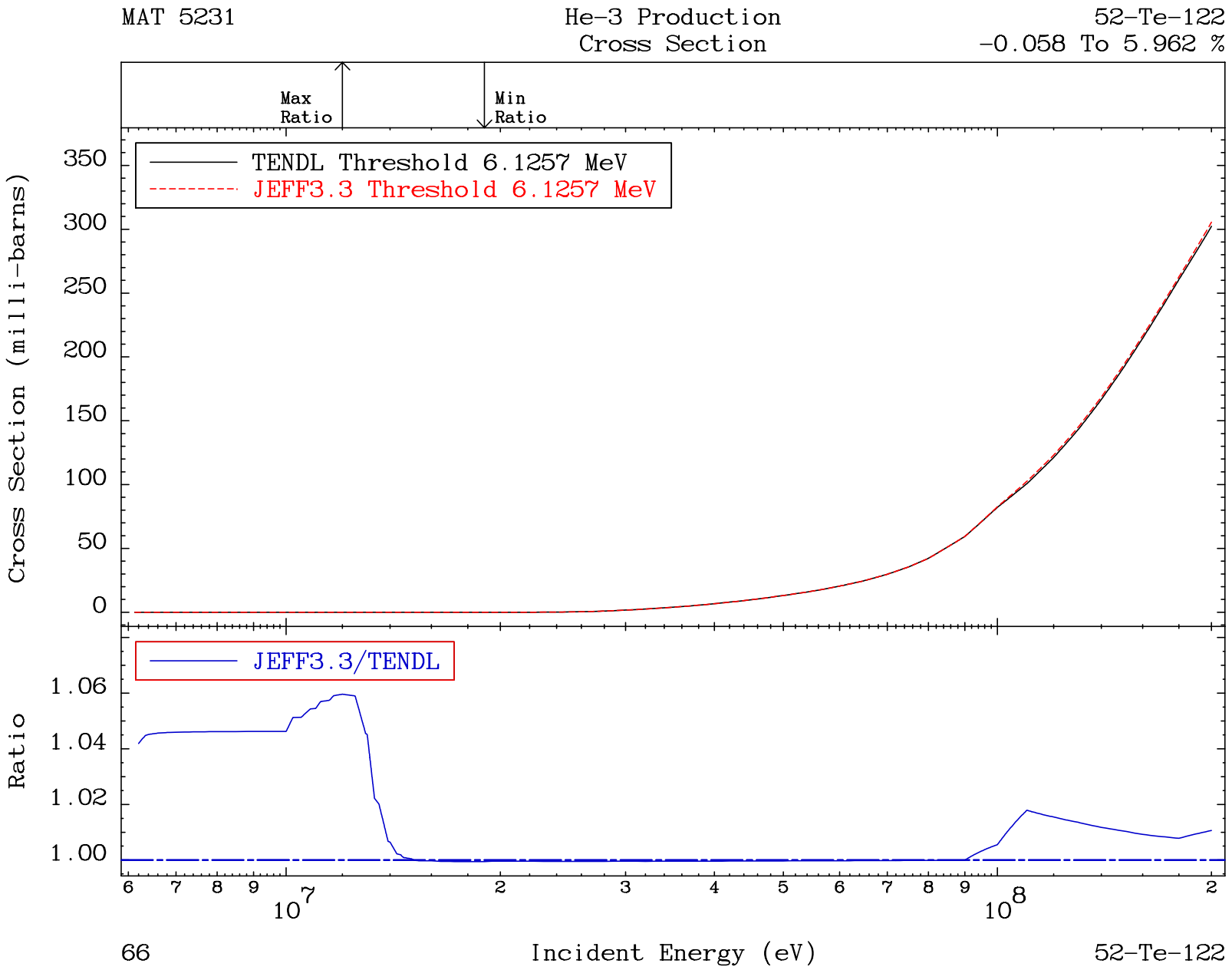

MAT 5231
(n,p) t
Cross Section
52-Te-122
-6.403 To 120.2 %
Max Ratio
Min Ratio
TENDL Threshold 14.535 MeV
JEFF3.3 Threshold 14.535 MeV
Cross Section (10^{-9} barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
2.4
2.0
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
61
Incident Energy (eV)
52-Te-122

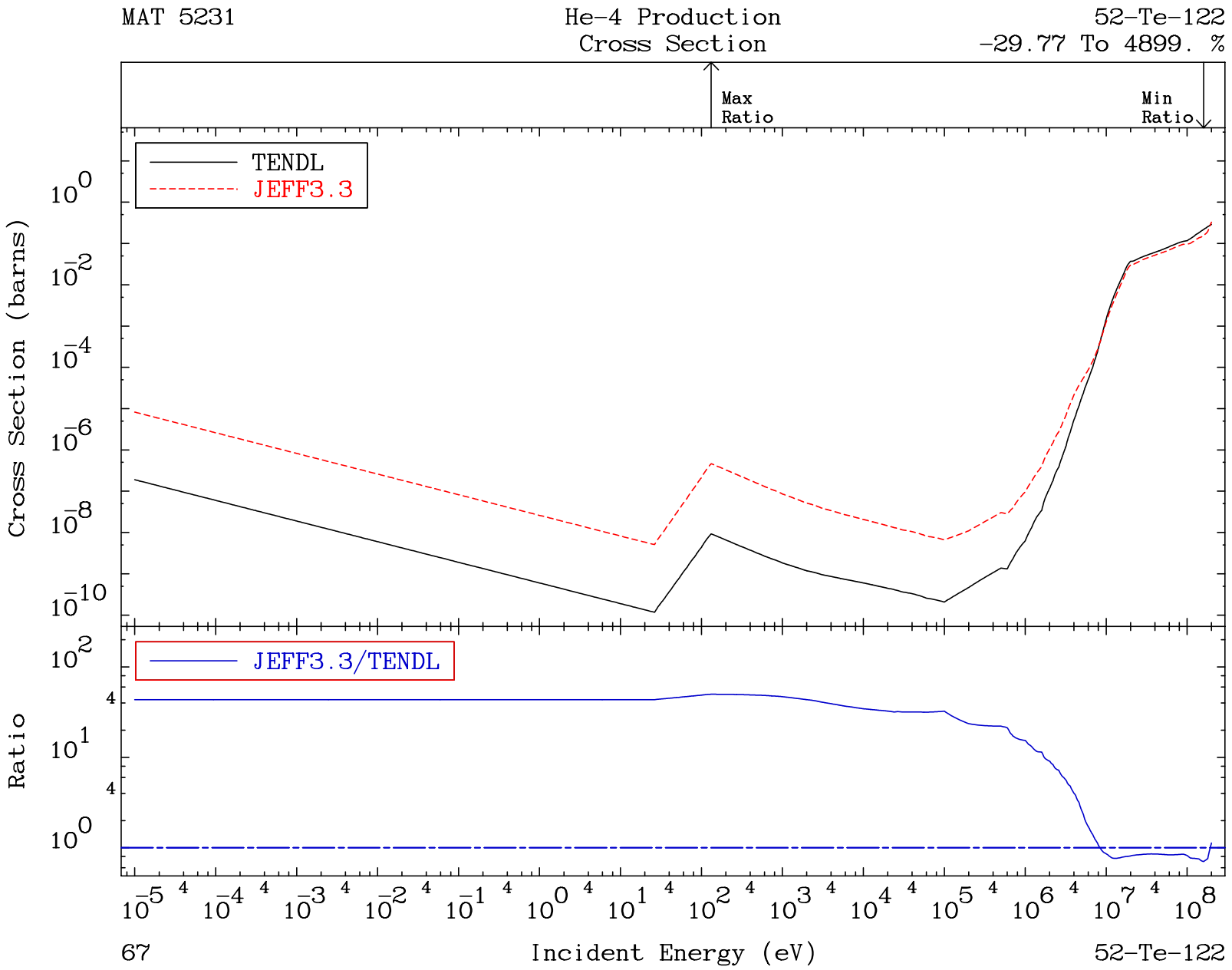

MAT 5231
(n,d) α
Cross Section
52-Te-122
0.000 To 8324. %
Max Ratio
Min Ratio
TENDL Threshold 8.9329 MeV
JEFF3.3 Threshold 8.9340 MeV
Cross Section (10^{-9} barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
62
52-Te-122

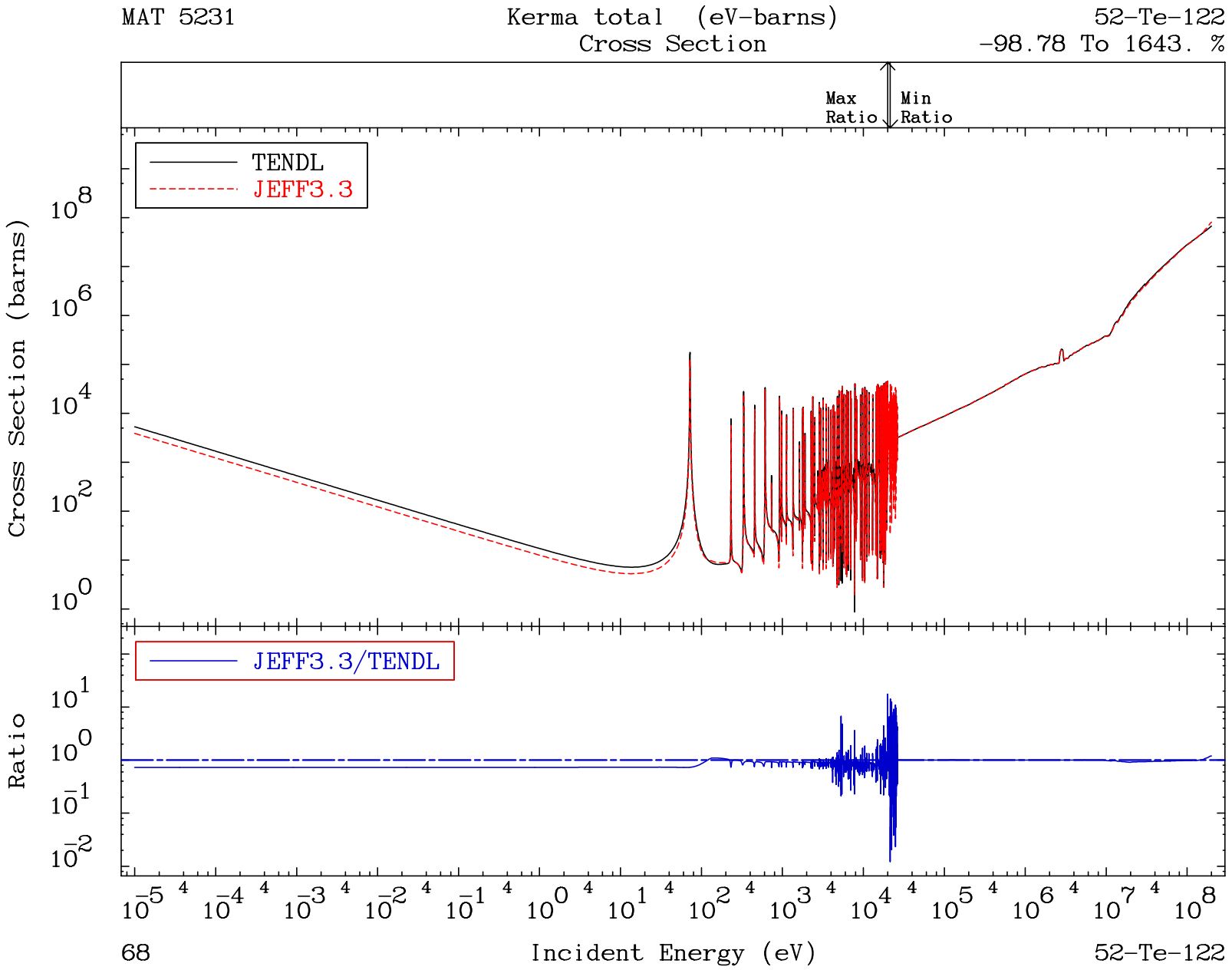

MAT 5231
Hydrogen Production
Cross Section
52-Te-122
-8.576 To 131.6 %
Min Ratio
Max Ratio
TENDL Threshold 1.2066 MeV
JEFF3.3 Threshold 1.2084 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
2.4
1.8
1.2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
63
Incident Energy (eV)
52-Te-122

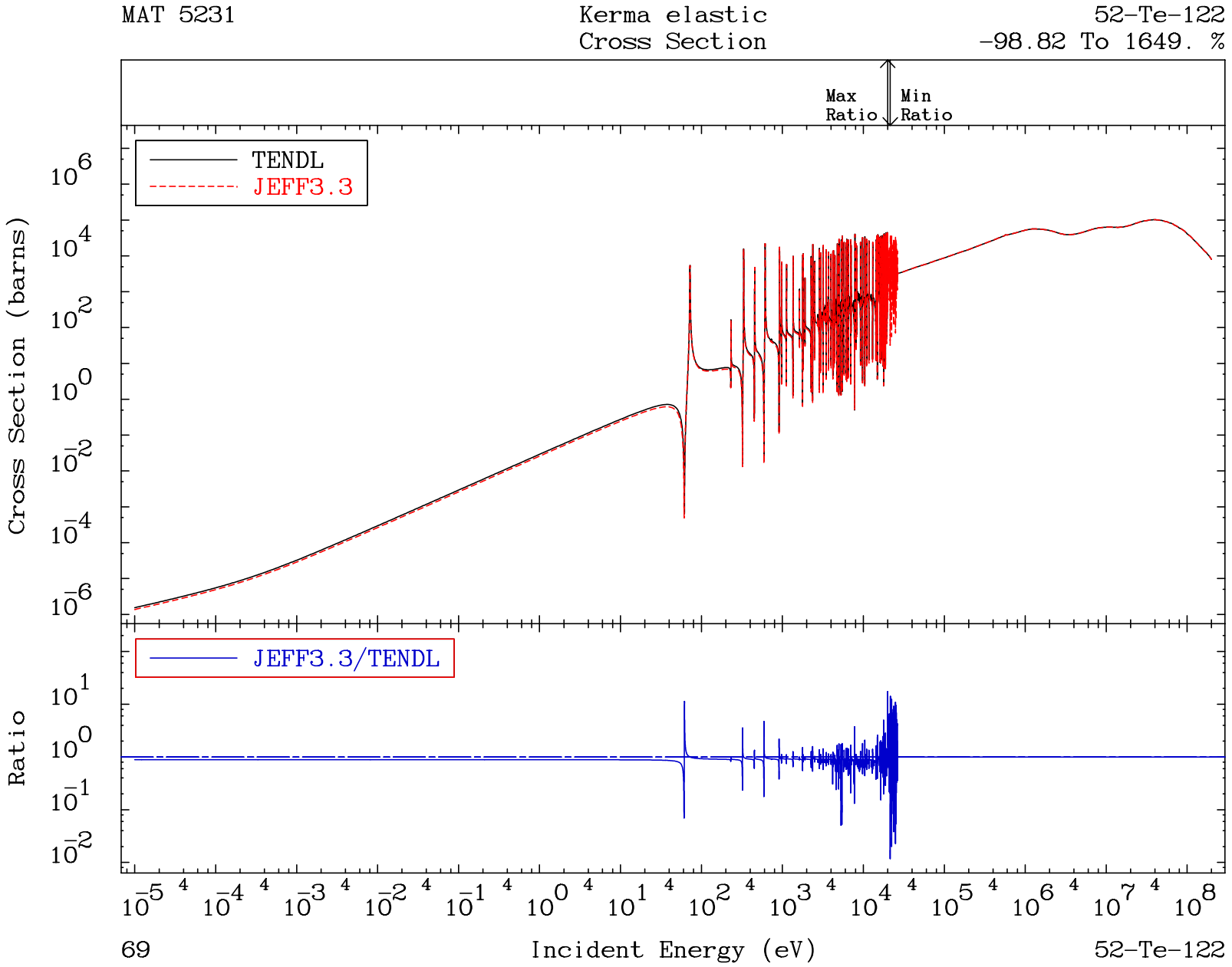

MAT 5231
Deuterium Production
Cross Section
52-Te-122
-5.145 To 84.57 %
Min
Ratio
Max
Ratio
TENDL Threshold 5.8263 MeV
JEFF3.3 Threshold 5.8281 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
64
Incident Energy (eV)
52-Te-122

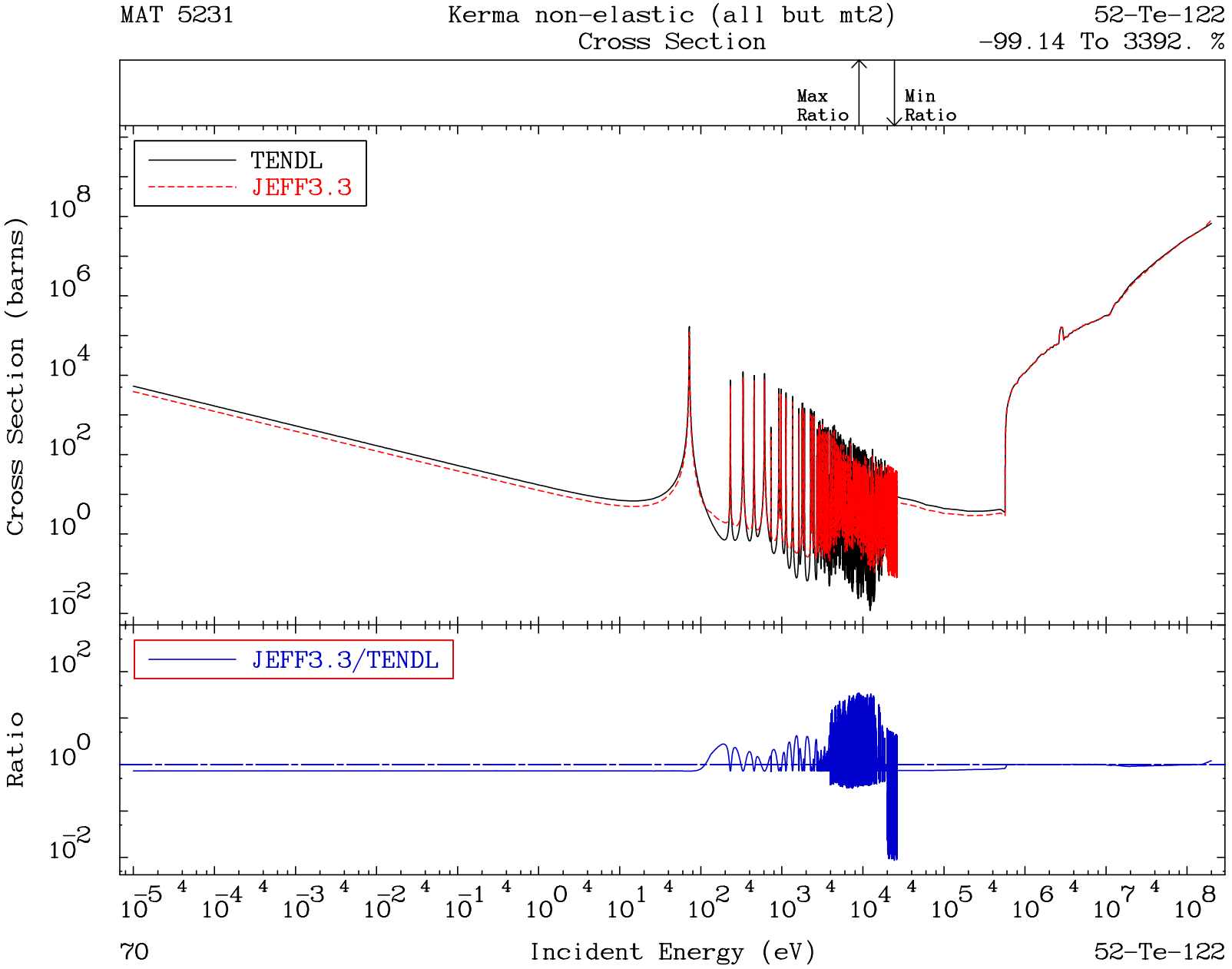

MAT 5231
Tritium Production
Cross Section
52-Te-122
-3.811 To 106.5 %
Min Ratio
Max Ratio
TENDL Threshold 8.8472 MeV
JEFF3.3 Threshold 8.8472 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
2.4
2.0
1.6
1.2
9
10^7
2
3
4
5
6
7
8
9
10^8
2
65
Incident Energy (eV)
52-Te-122

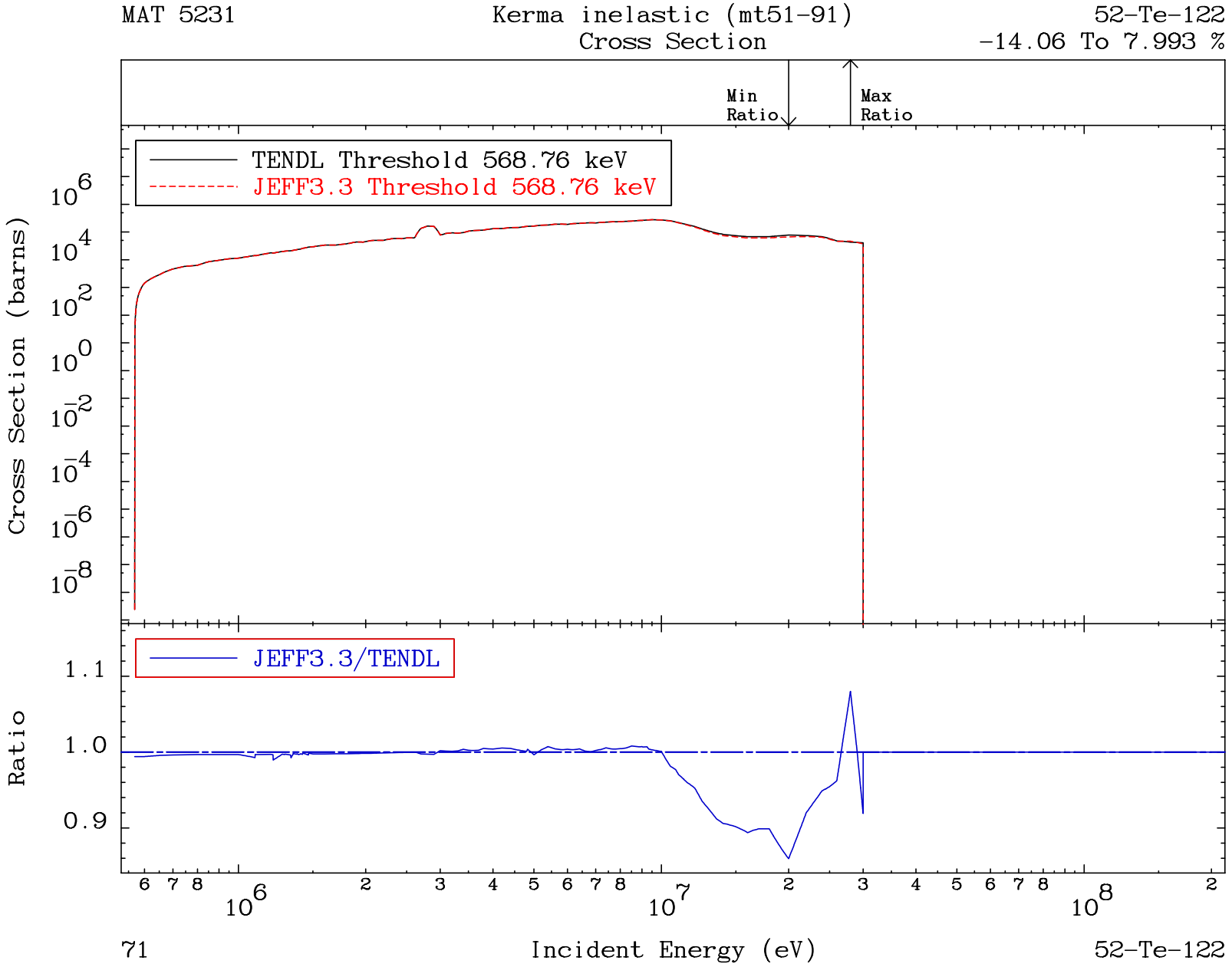

MAT 5231
He-3 Production
Cross Section
52-Te-122
-0.058 To 5.962 %
Max Ratio
Min Ratio
TENDL Threshold 6.1257 MeV
JEFF3.3 Threshold 6.1257 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.06
1.04
1.02
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
66
Incident Energy (eV)
52-Te-122

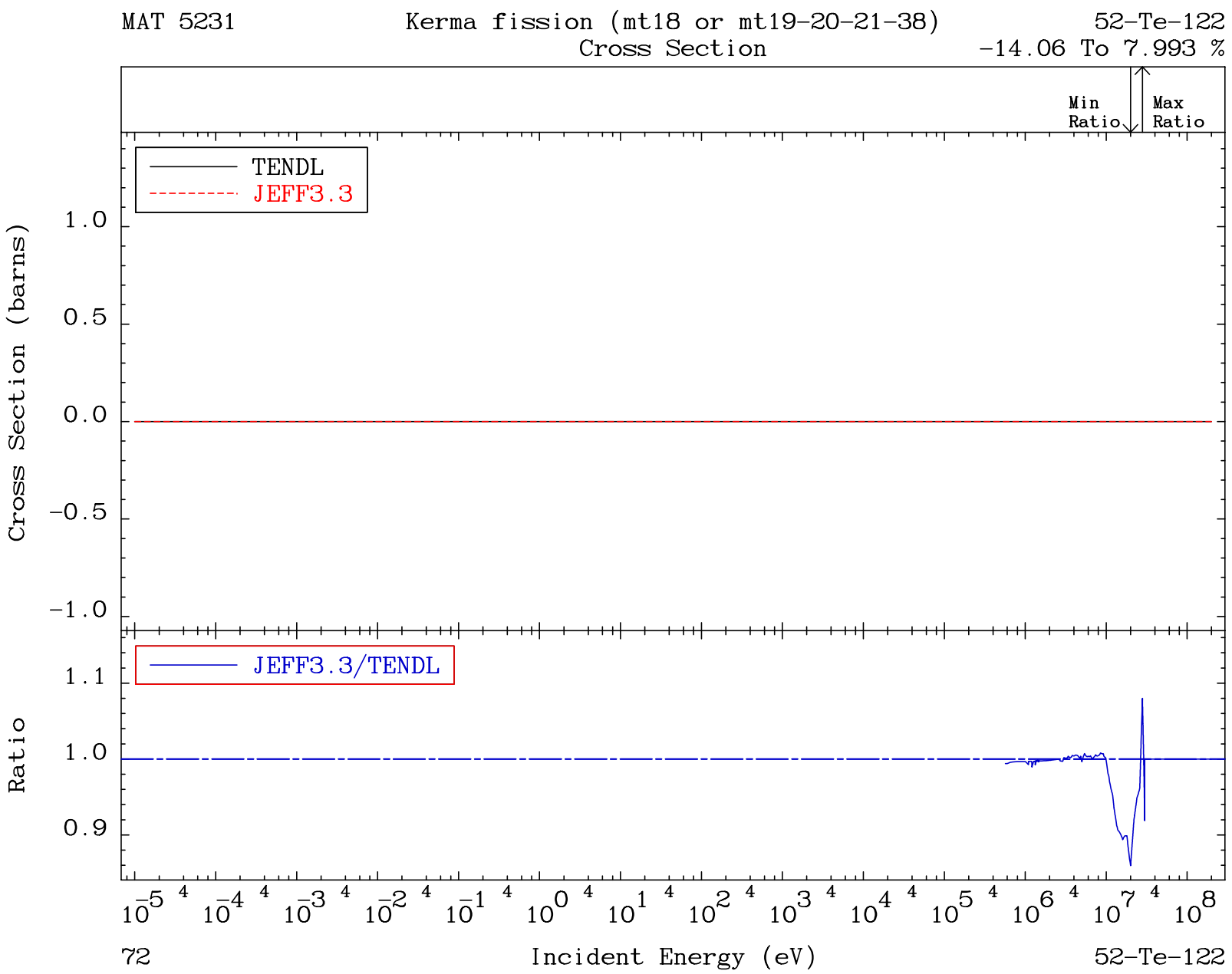

MAT 5231
He-4 Production
Cross Section
52-Te-122
-29.77 To 4899. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
67
52-Te-122

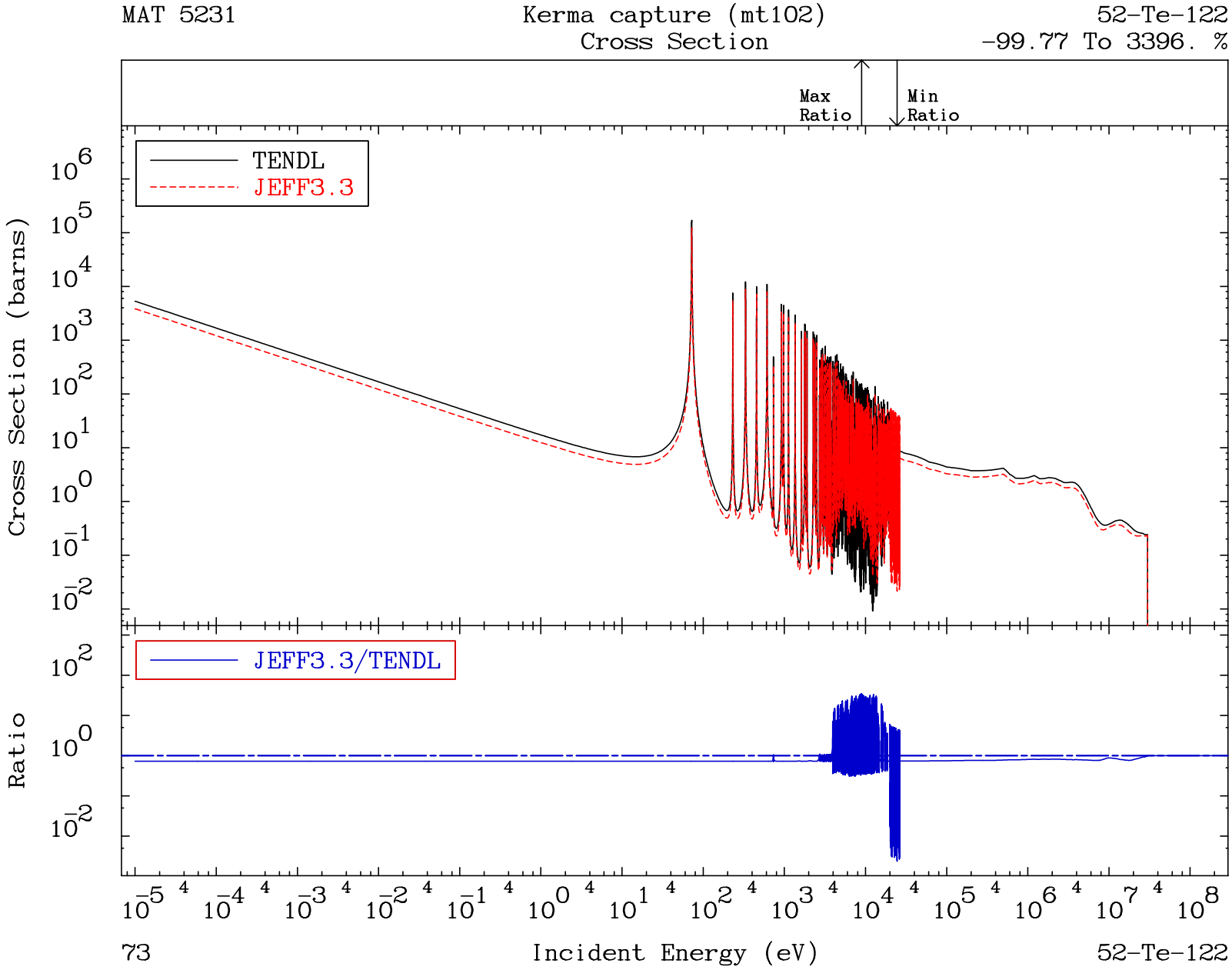

MAT 5231
Kerma total (eV-barns)
Cross Section
52-Te-122
-98.78 To 1643. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
52-Te-122

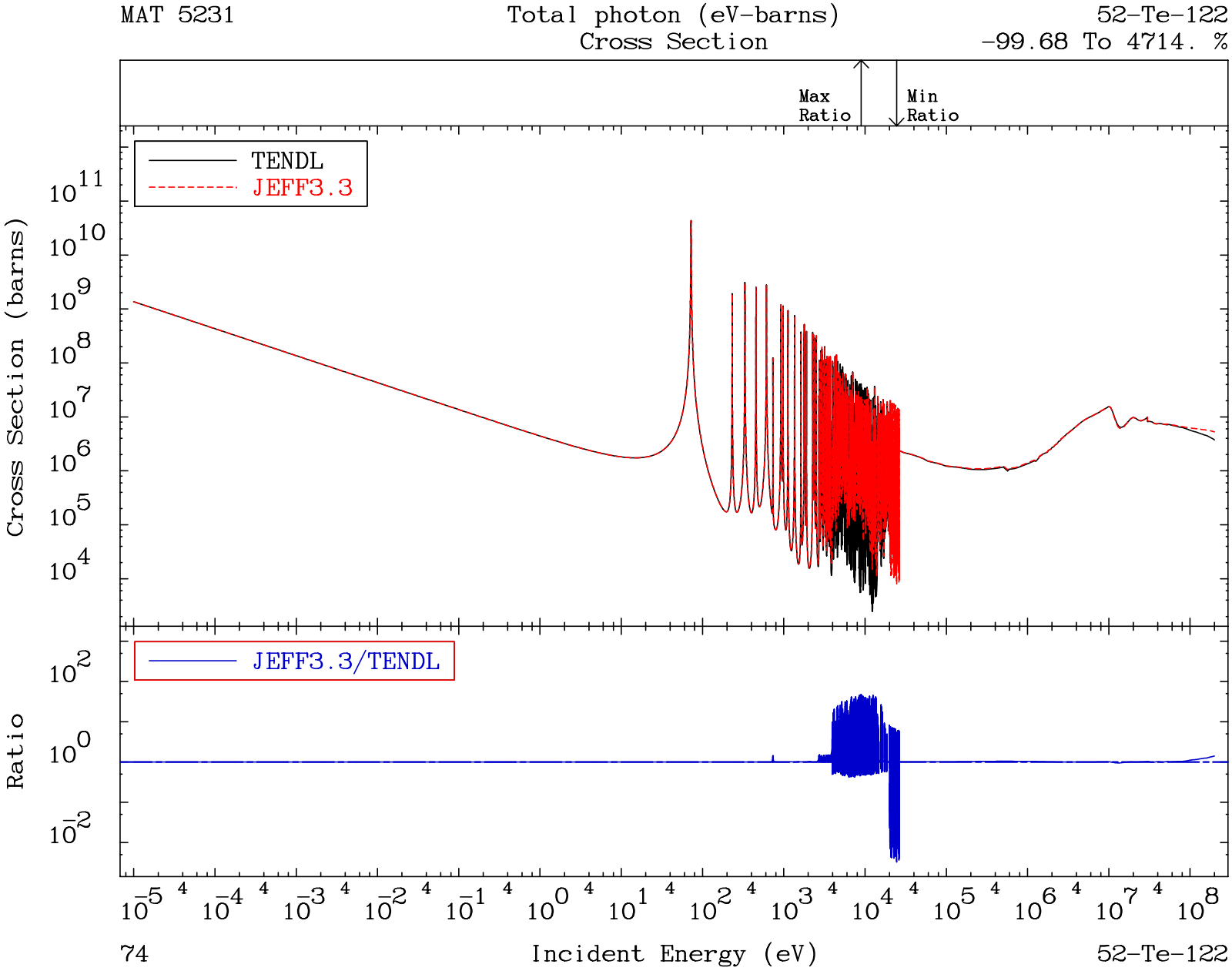

MAT 5231
Kerma elastic
Cross Section
52-Te-122
-98.82 To 1649. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
69
52-Te-122

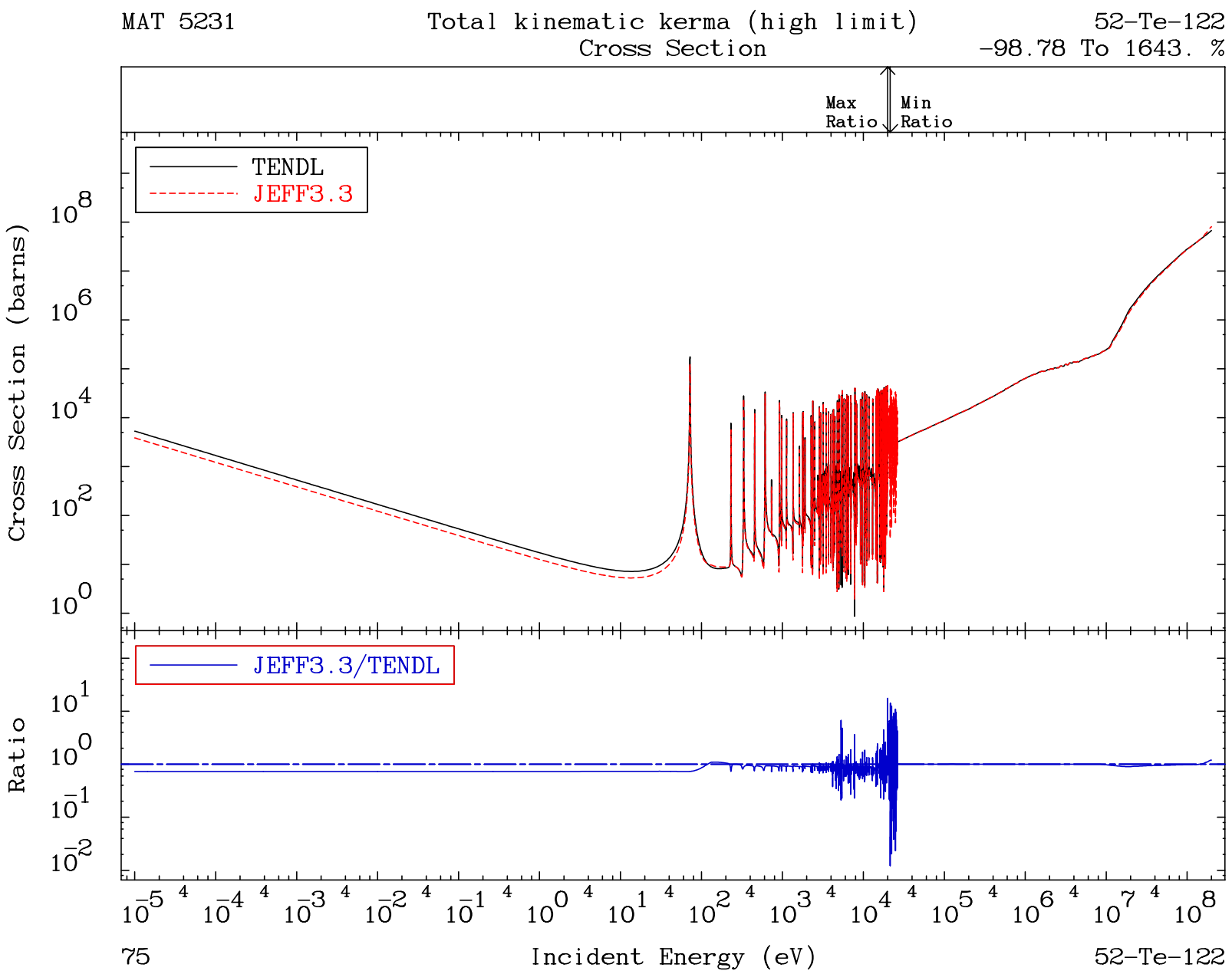

MAT 5231
Kerma non-elastic (all but mt2)
Cross Section
52-Te-122
-99.14 To 3392. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
70
52-Te-122

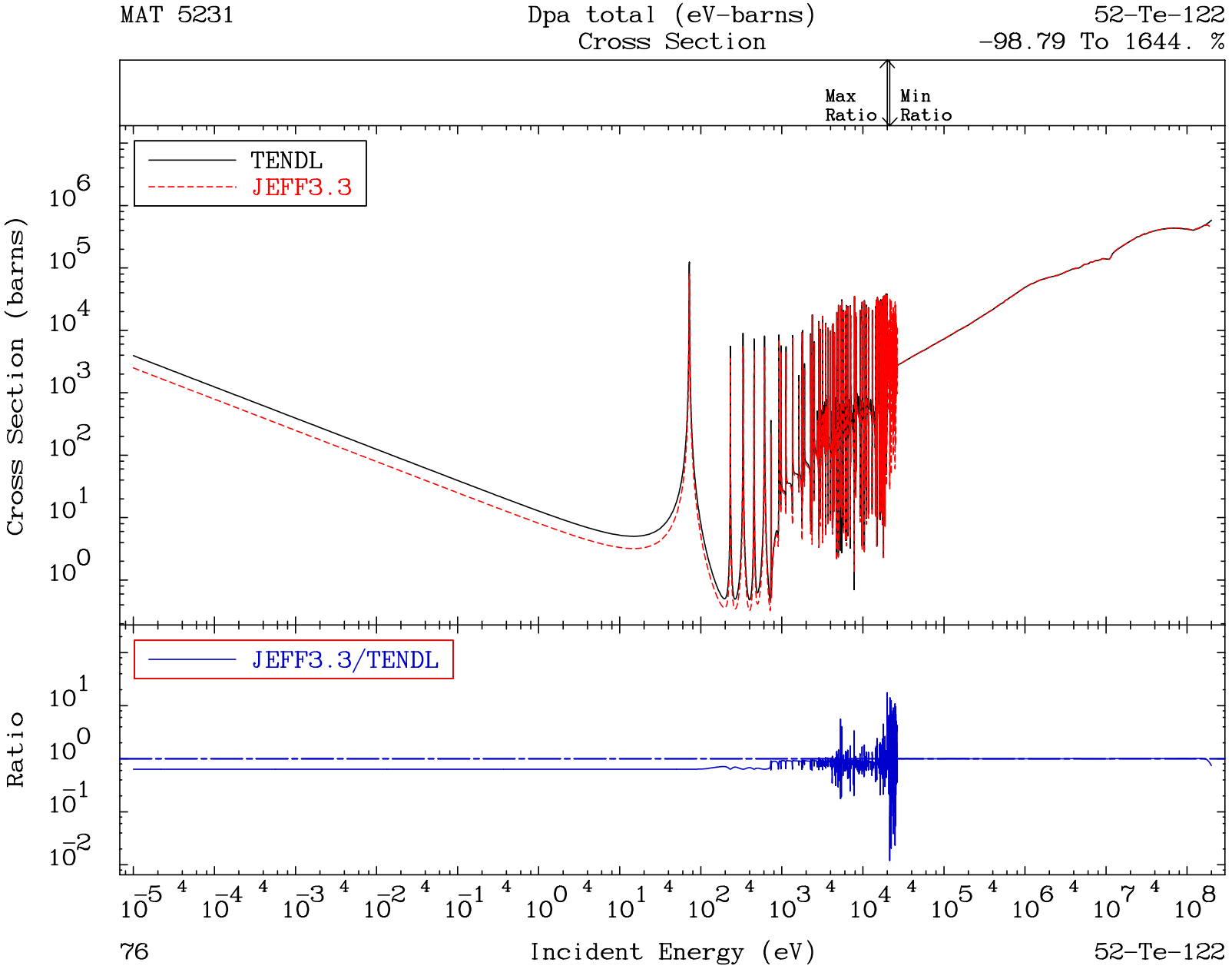

MAT 5231
Kerma inelastic (mt51-91)
Cross Section
52-Te-122
-14.06 To 7.993 %
Min Ratio
Max Ratio
TENDL Threshold 568.76 keV
JEFF3.3 Threshold 568.76 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
71
52-Te-122

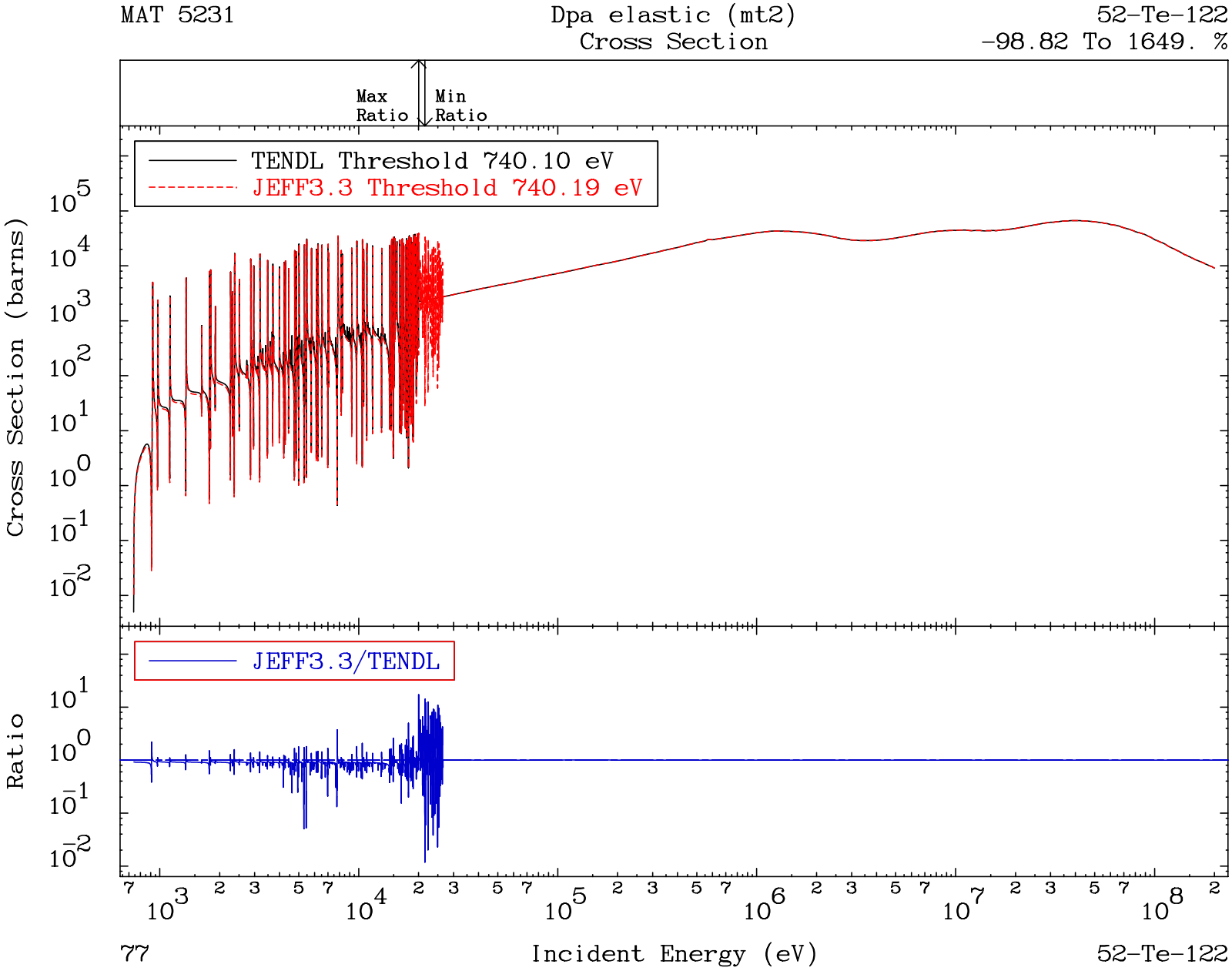

MAT 5231
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
52-Te-122
-14.06 To 7.993 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
72
Incident Energy (eV)
52-Te-122

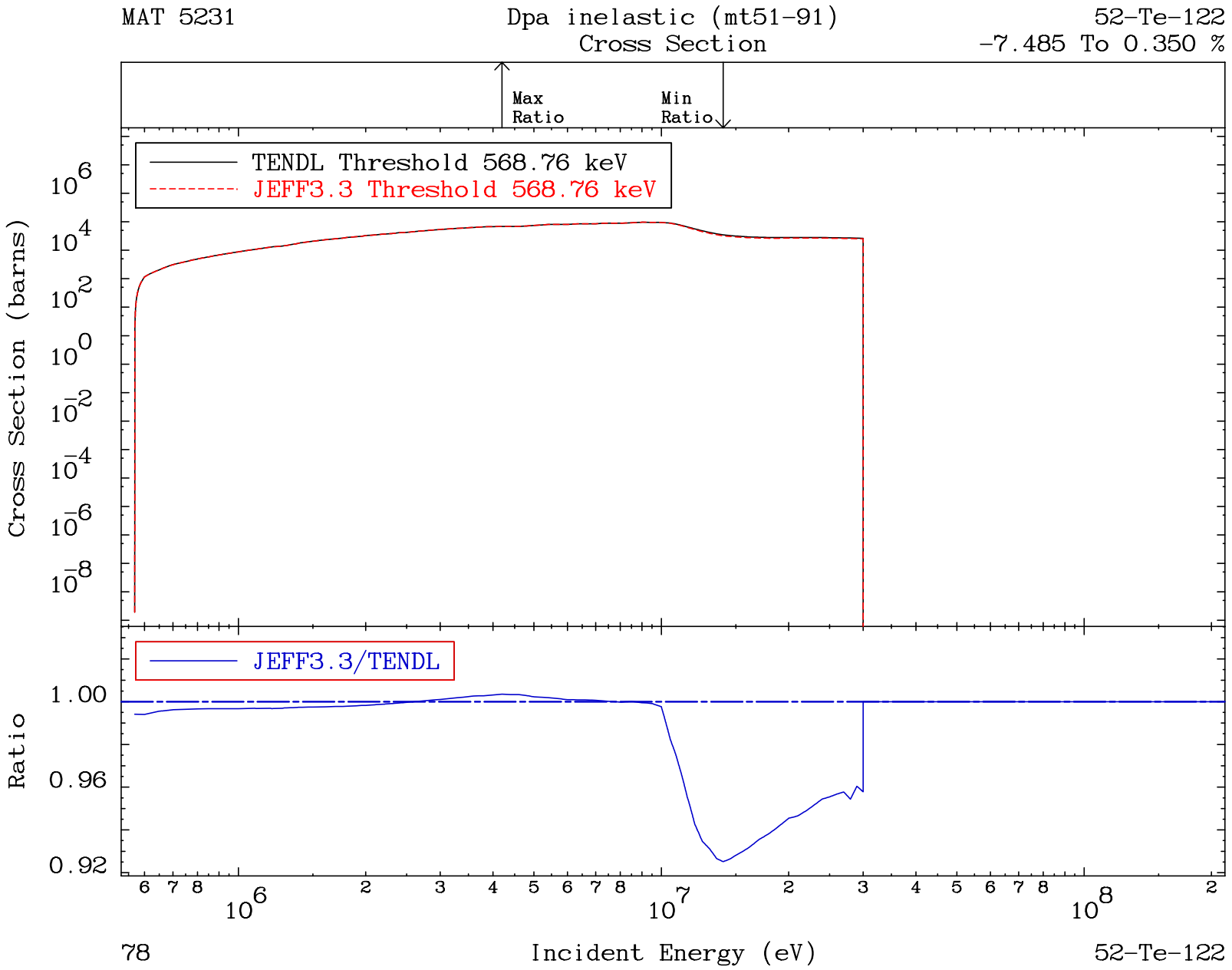

MAT 5231
Kerma capture (mt102)
Cross Section
52-Te-122
-99.77 To 3396. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
73
52-Te-122

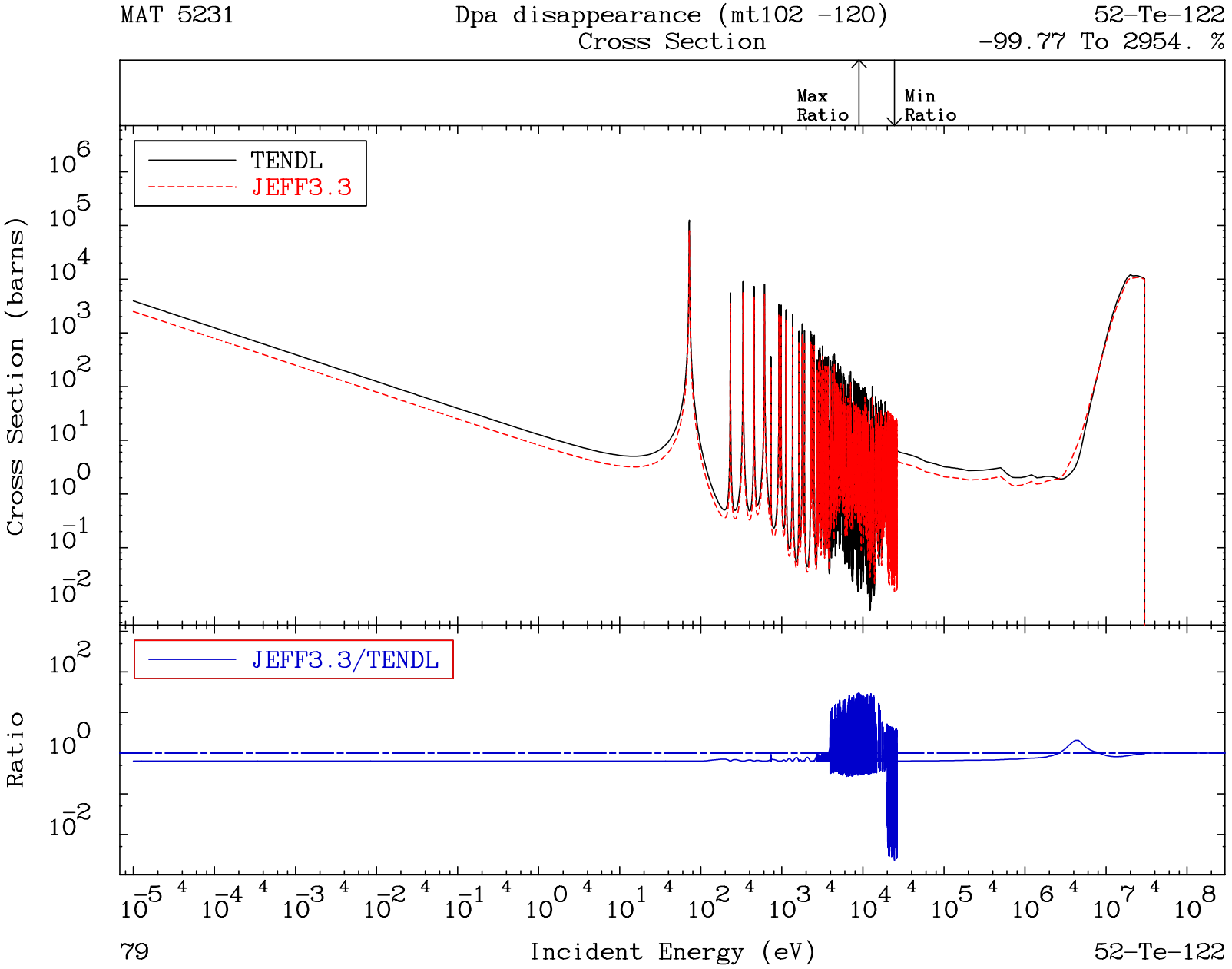

MAT 5231
Total photon (eV-barns)
Cross Section
52-Te-122
-99.68 To 4714. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
74
52-Te-122

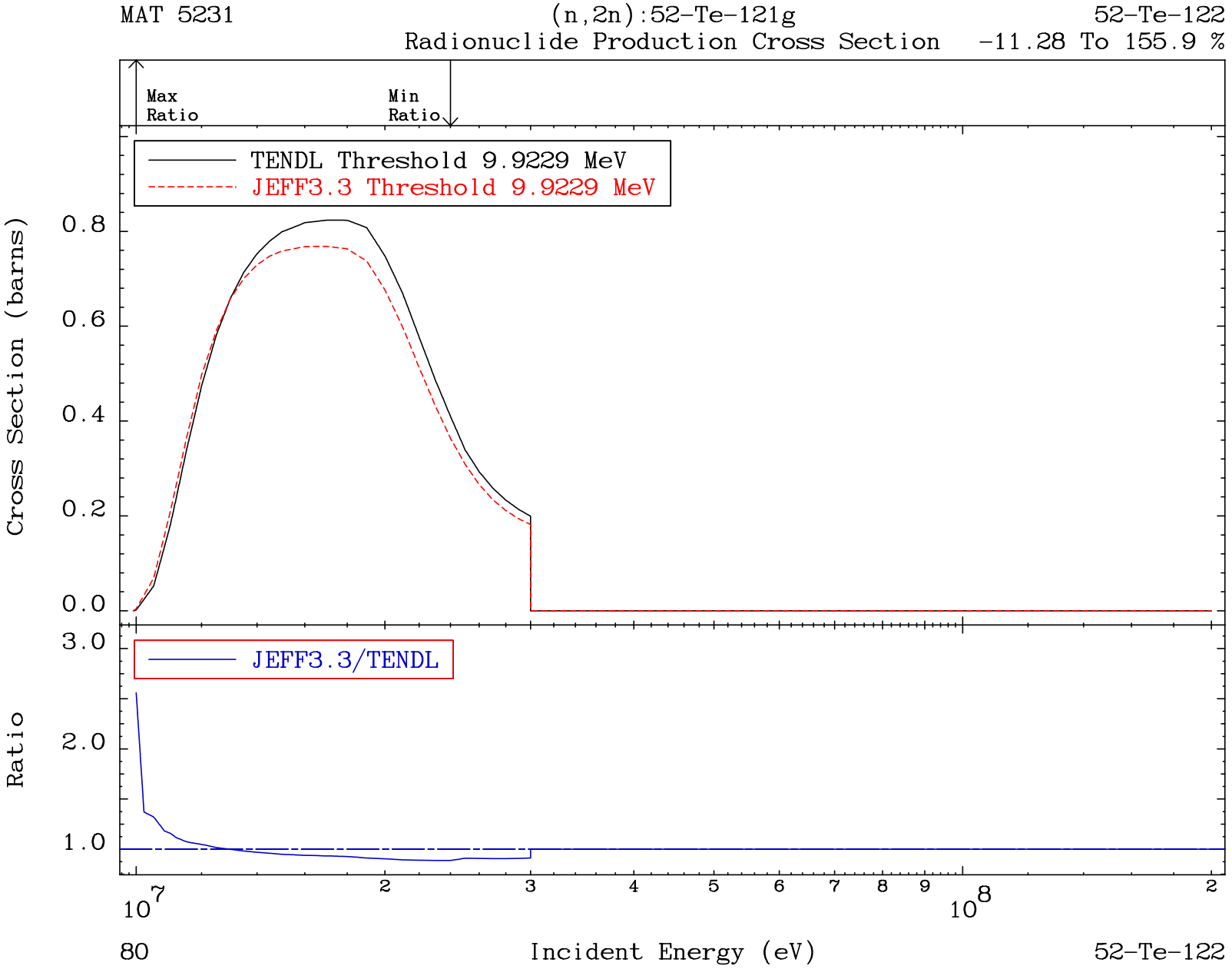

MAT 5231
Total kinematic kerma (high limit)
Cross Section
52-Te-122
-98.78 To 1643. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
75
52-Te-122

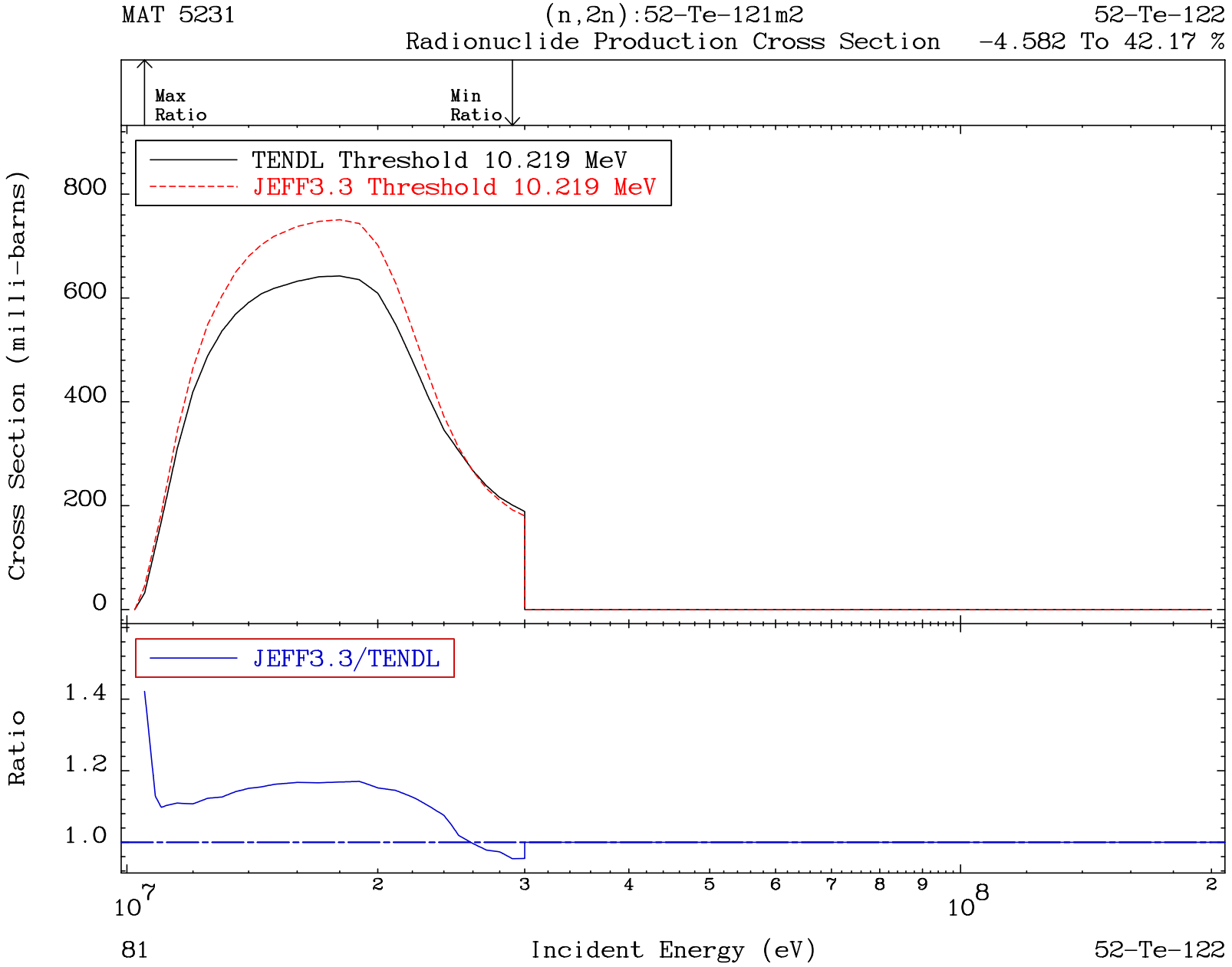

MAT 5231
Dpa total (eV-barns)
Cross Section
52-Te-122
-98.79 To 1644. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
76
52-Te-122

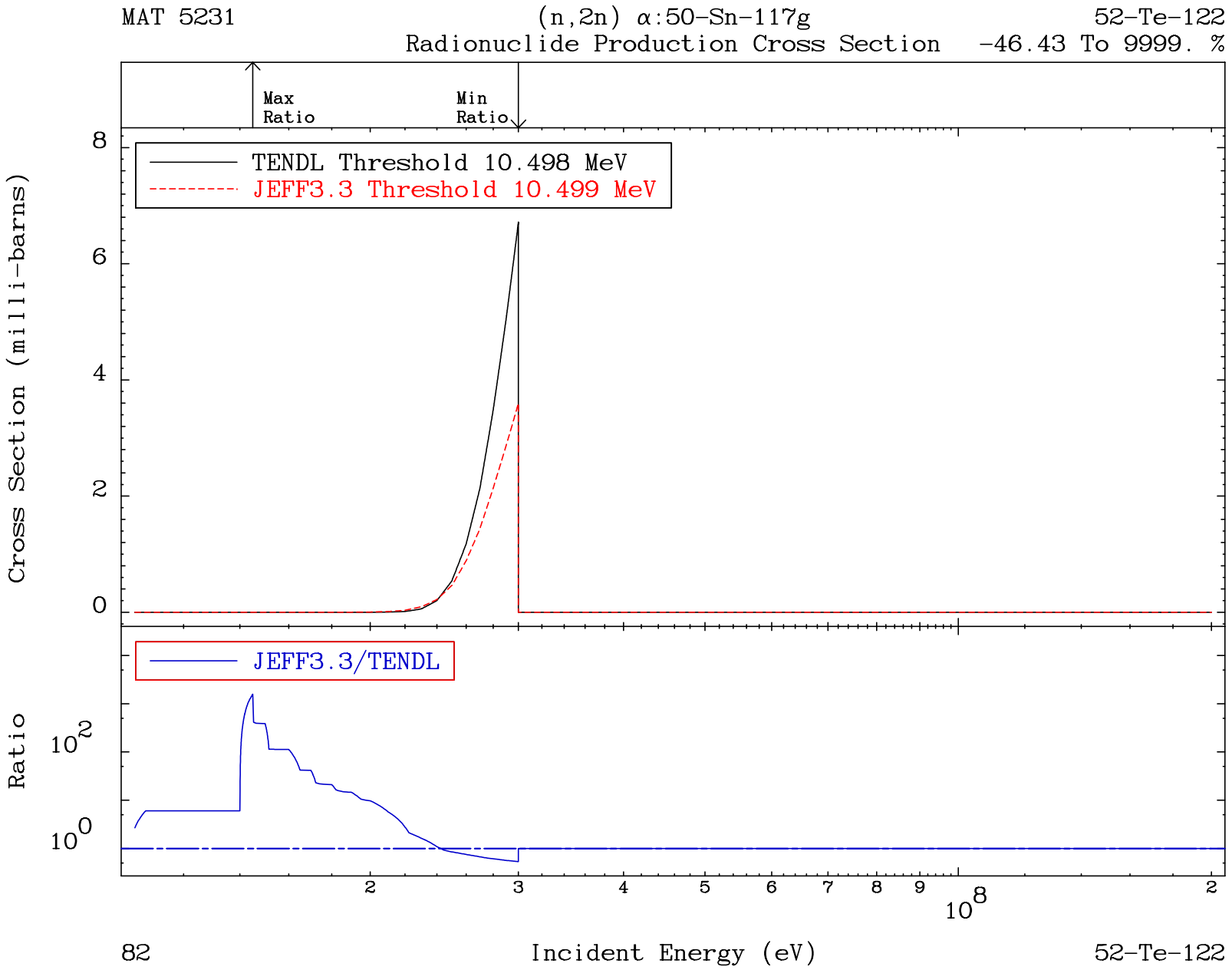

MAT 5231
Dpa elastic (mt2)
Cross Section
52-Te-122
-98.82 To 1649. %
Max Ratio
Min Ratio
TENDL Threshold 740.10 eV
JEFF3.3 Threshold 740.19 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
77
52-Te-122

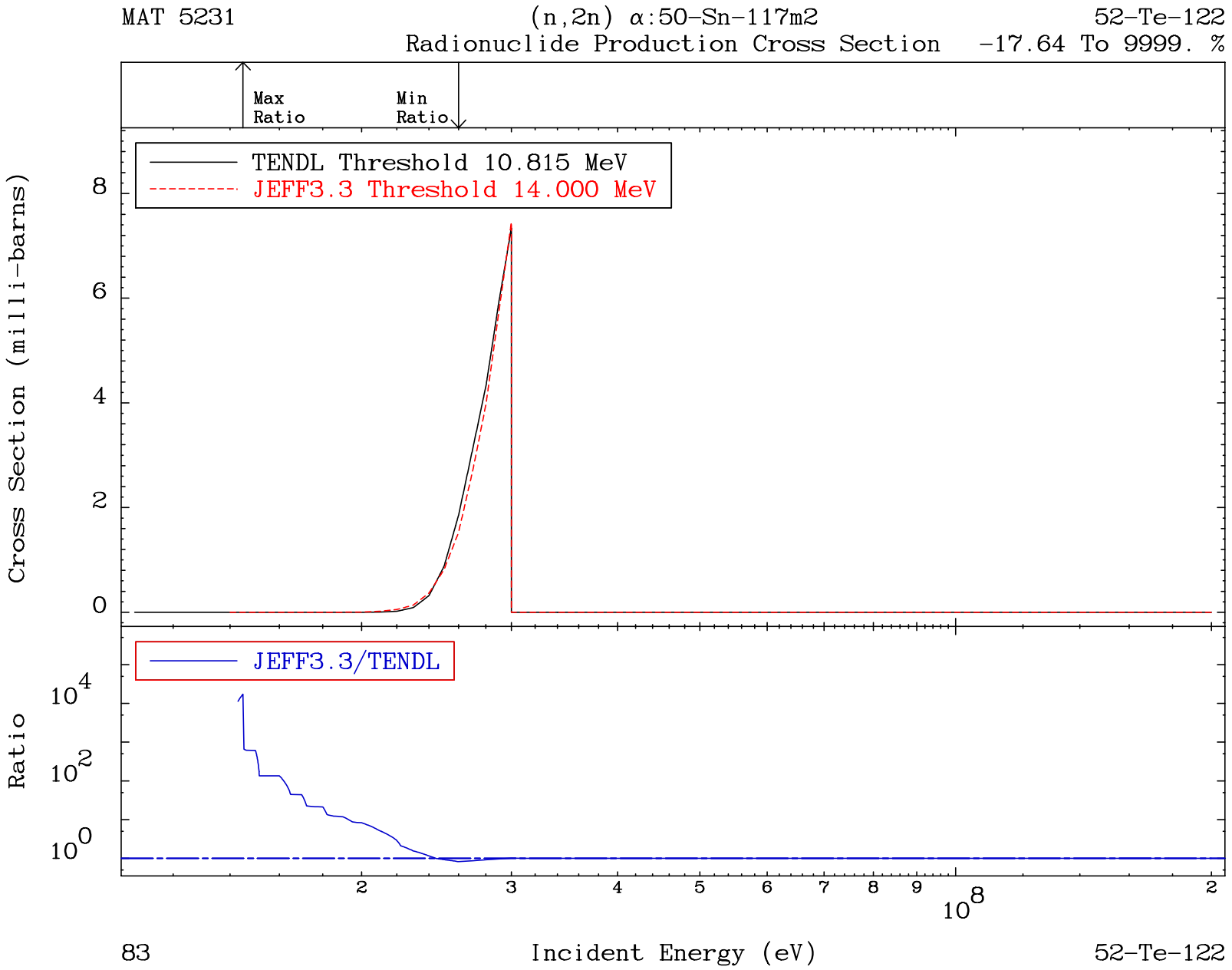

MAT 5231
Dpa inelastic (mt51-91)
Cross Section
52-Te-122
-7.485 To 0.350 %
Max Ratio
Min Ratio
TENDL Threshold 568.76 keV
JEFF3.3 Threshold 568.76 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
78
52-Te-122

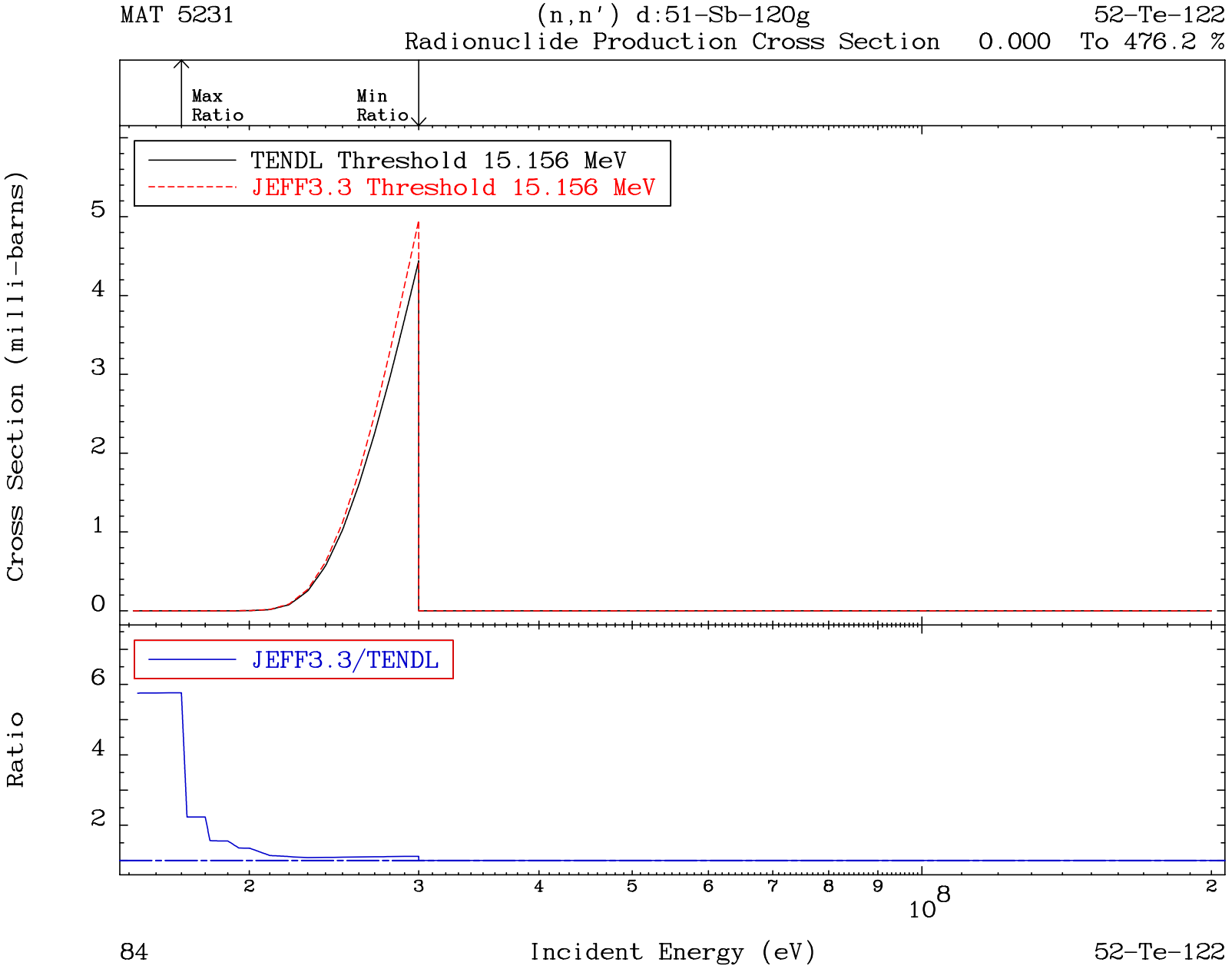

MAT 5231
Dpa disappearance (mt102 -120)
Cross Section
52-Te-122
-99.77 To 2954. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
79
52-Te-122

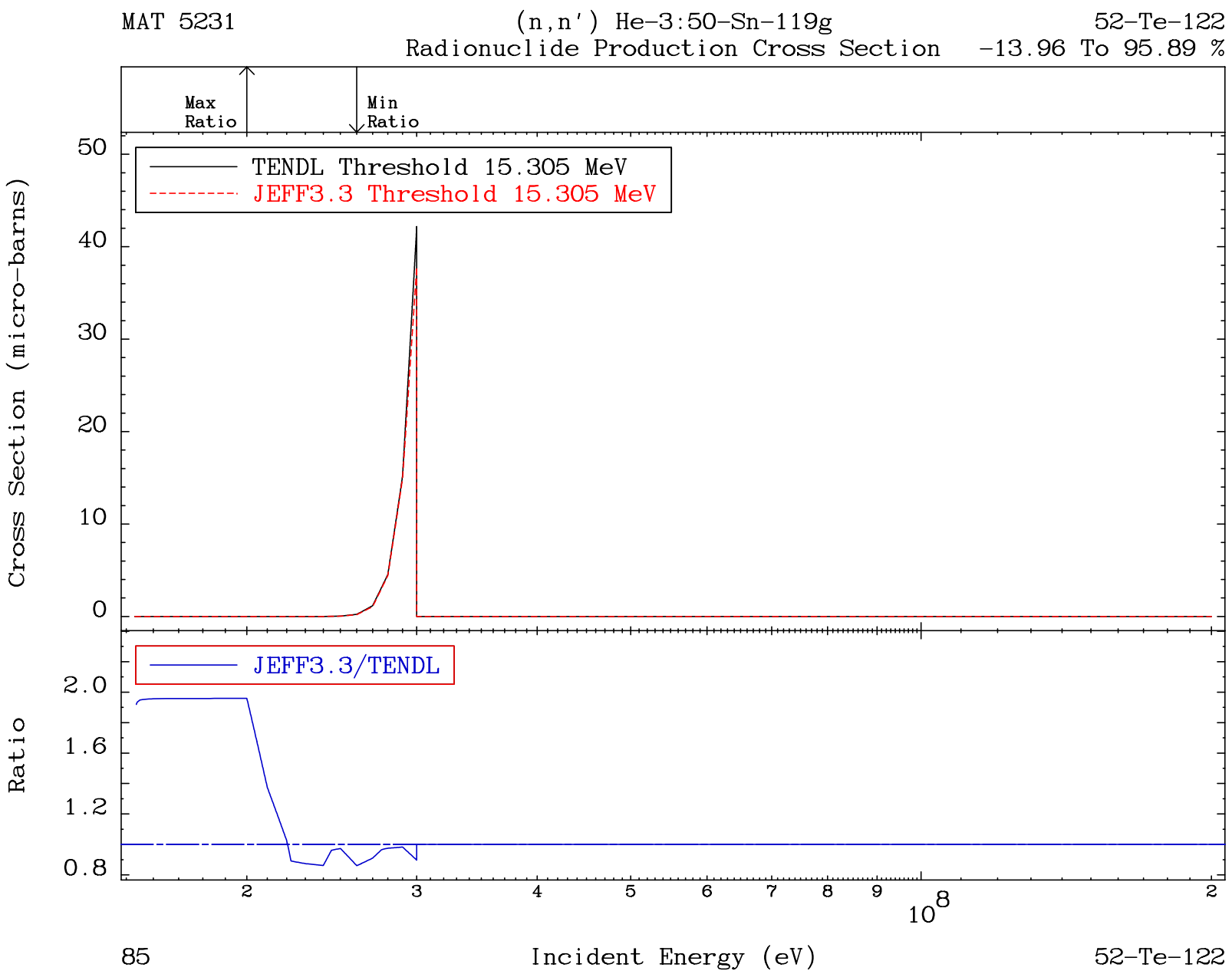

MAT 5231
(n,2n):52-Te-121g
52-Te-122
Radionuclide Production Cross Section -11.28 To 155.9 %
Max Ratio
Min Ratio
TENDL Threshold 9.9229 MeV
JEFF3.3 Threshold 9.9229 MeV
Cross Section (barns)
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
52-Te-122

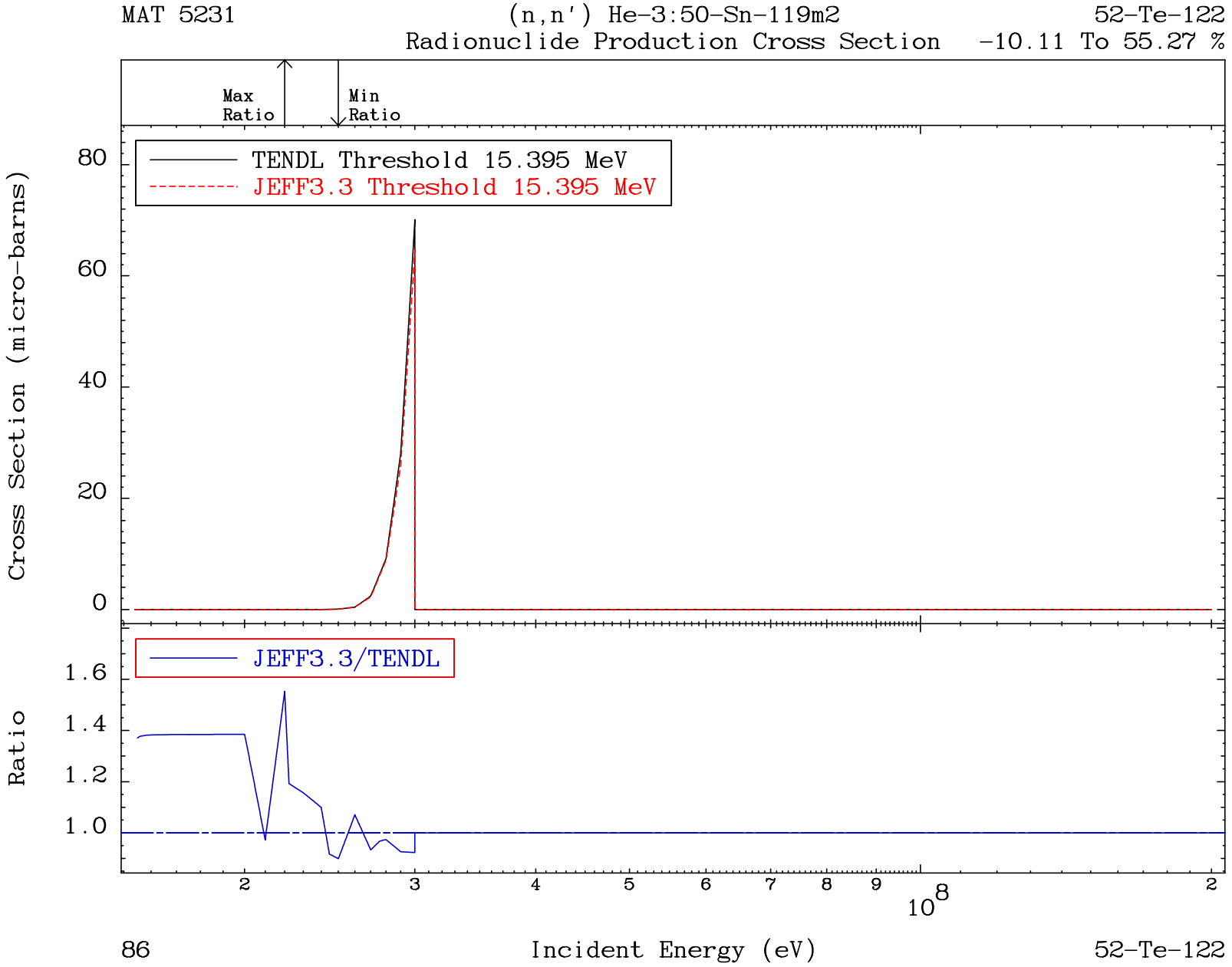

MAT 5231
(n,2n):52-Te-121m2
52-Te-122
Radionuclide Production Cross Section -4.582 To 42.17 %
Max Ratio
Min Ratio
TENDL Threshold 10.219 MeV
JEFF3.3 Threshold 10.219 MeV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
52-Te-122

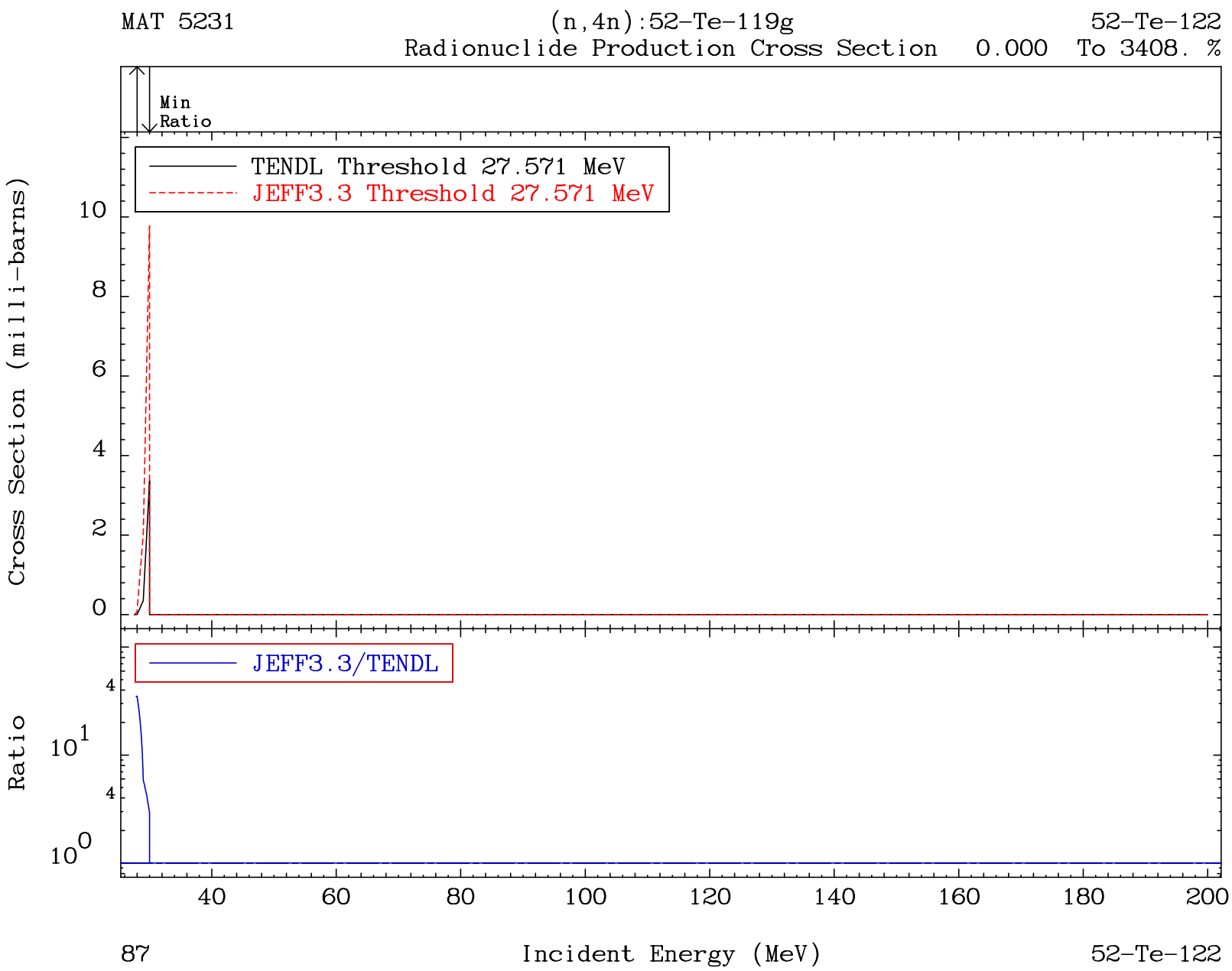

MAT 5231
(n,2n) α:50-Sn-117g
52-Te-122
Radionuclide Production Cross Section -46.43 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 10.498 MeV
JEFF3.3 Threshold 10.499 MeV
Cross Section (milli-barns)
8
6
4
2
0
JEFF3.3/TENDL
Ratio
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
82
Incident Energy (eV)
52-Te-122

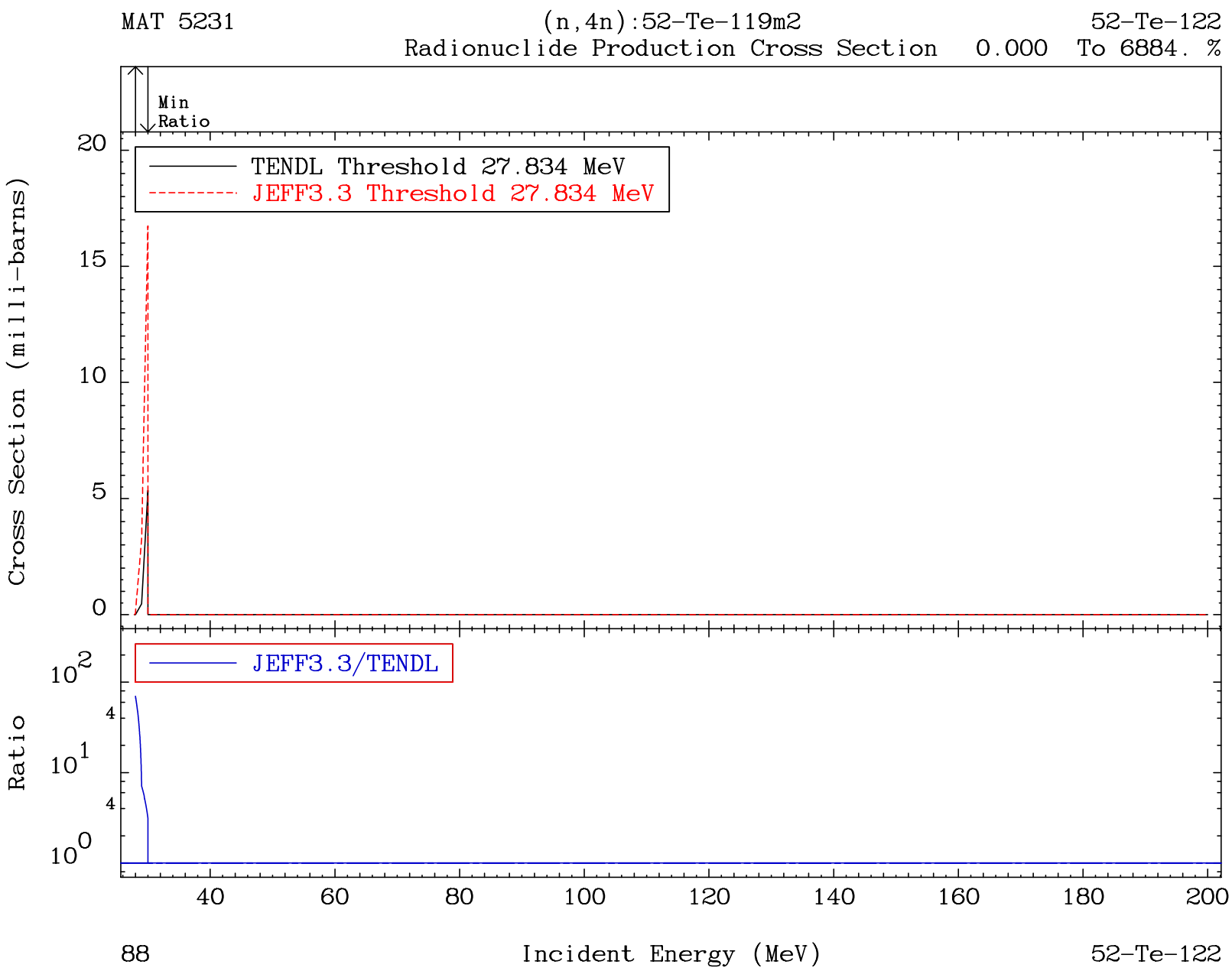

MAT 5231
(n,2n) α:50-Sn-117m2
52-Te-122
Radionuclide Production Cross Section -17.64 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 10.815 MeV
JEFF3.3 Threshold 14.000 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
10^0
10^2
10^4
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
52-Te-122

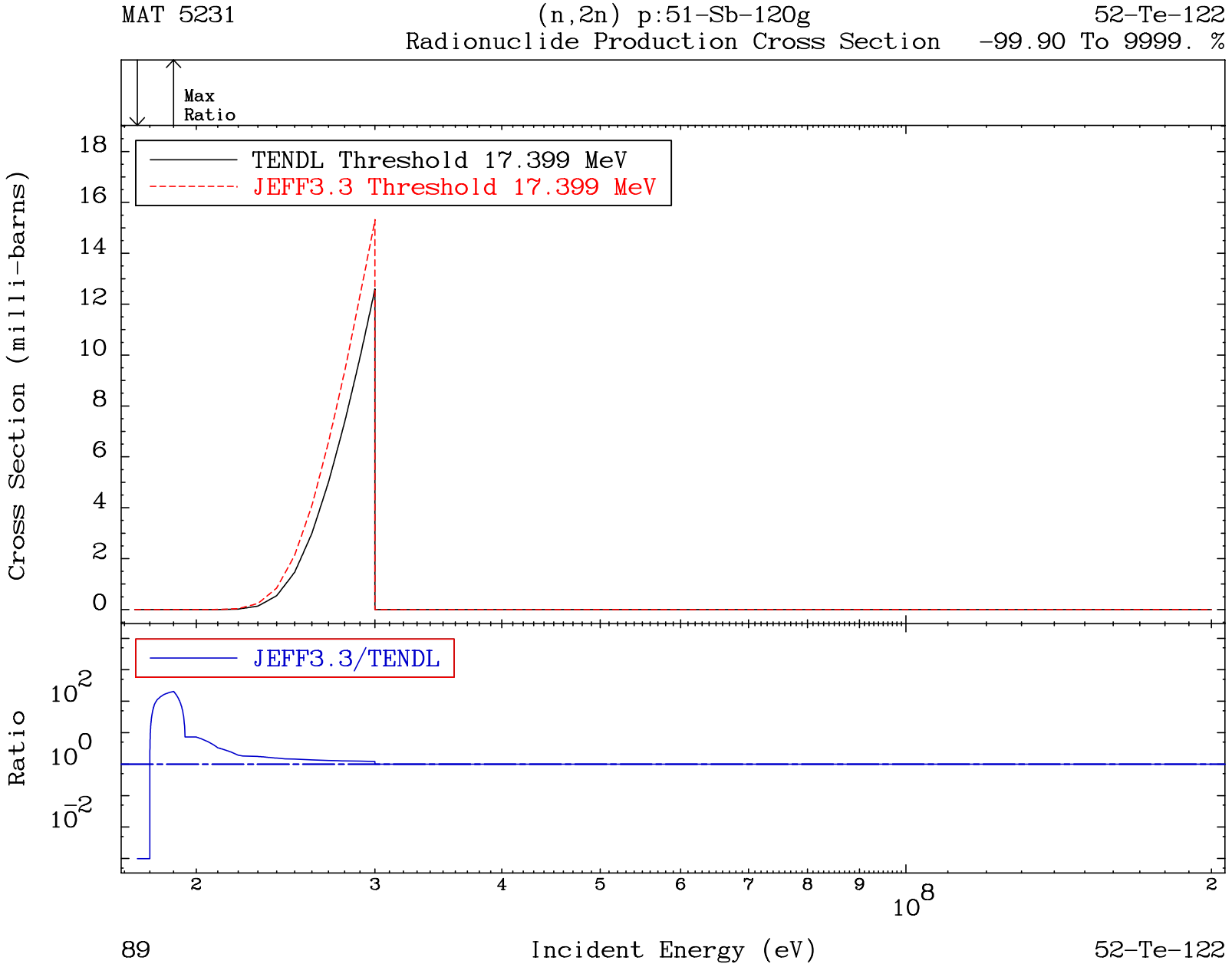

MAT 5231
(n,n') d:51-Sb-120g
52-Te-122
Radionuclide Production Cross Section 0.000 To 476.2 %
Max Ratio
Min Ratio
TENDL Threshold 15.156 MeV
JEFF3.3 Threshold 15.156 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
84
52-Te-122

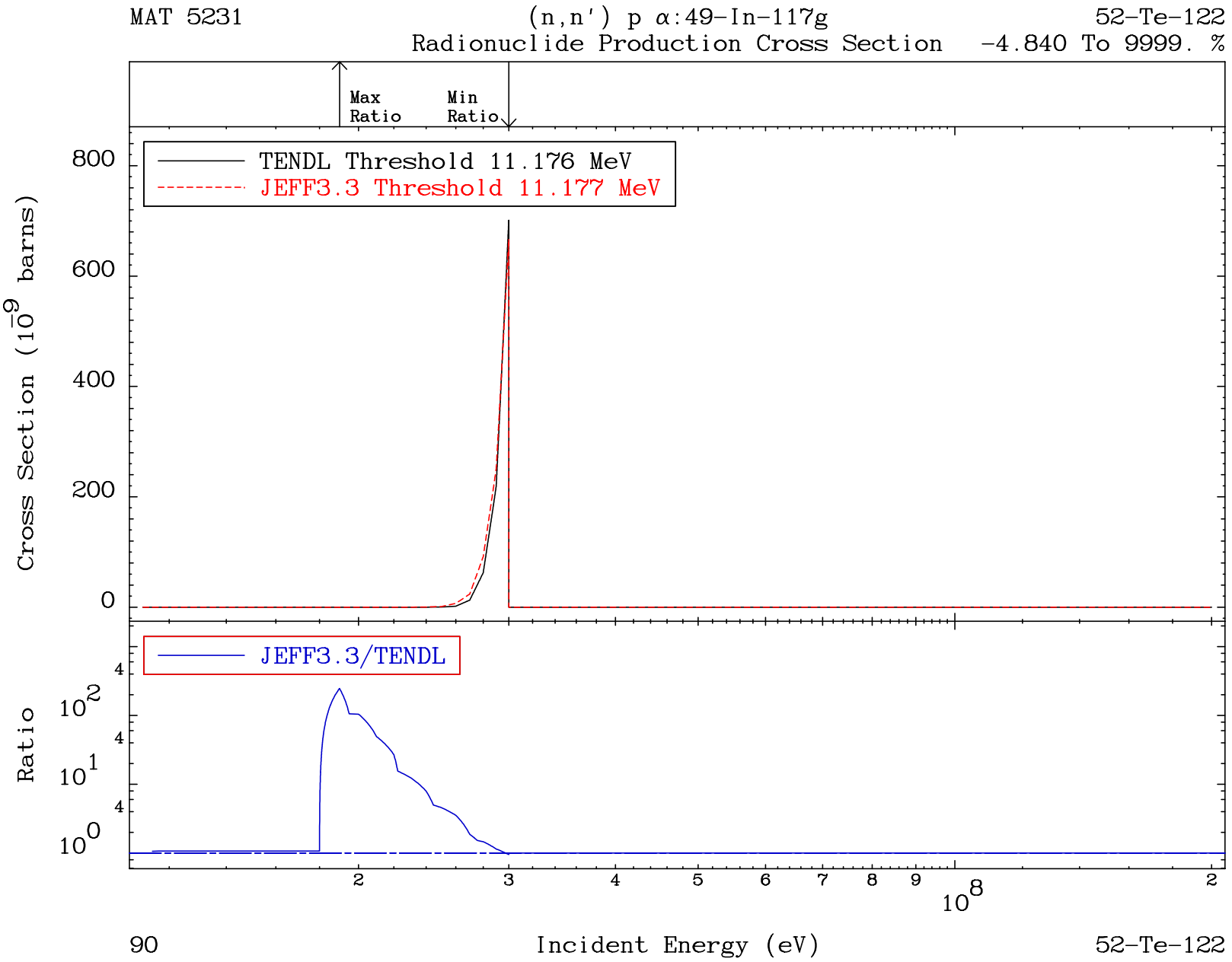

MAT 5231
(n,n') He-3:50-Sn-119g
52-Te-122
Radionuclide Production Cross Section -13.96 To 95.89 %
Max Ratio
Min Ratio
TENDL Threshold 15.305 MeV
JEFF3.3 Threshold 15.305 MeV
Cross Section (micro-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
85
Incident Energy (eV)
52-Te-122

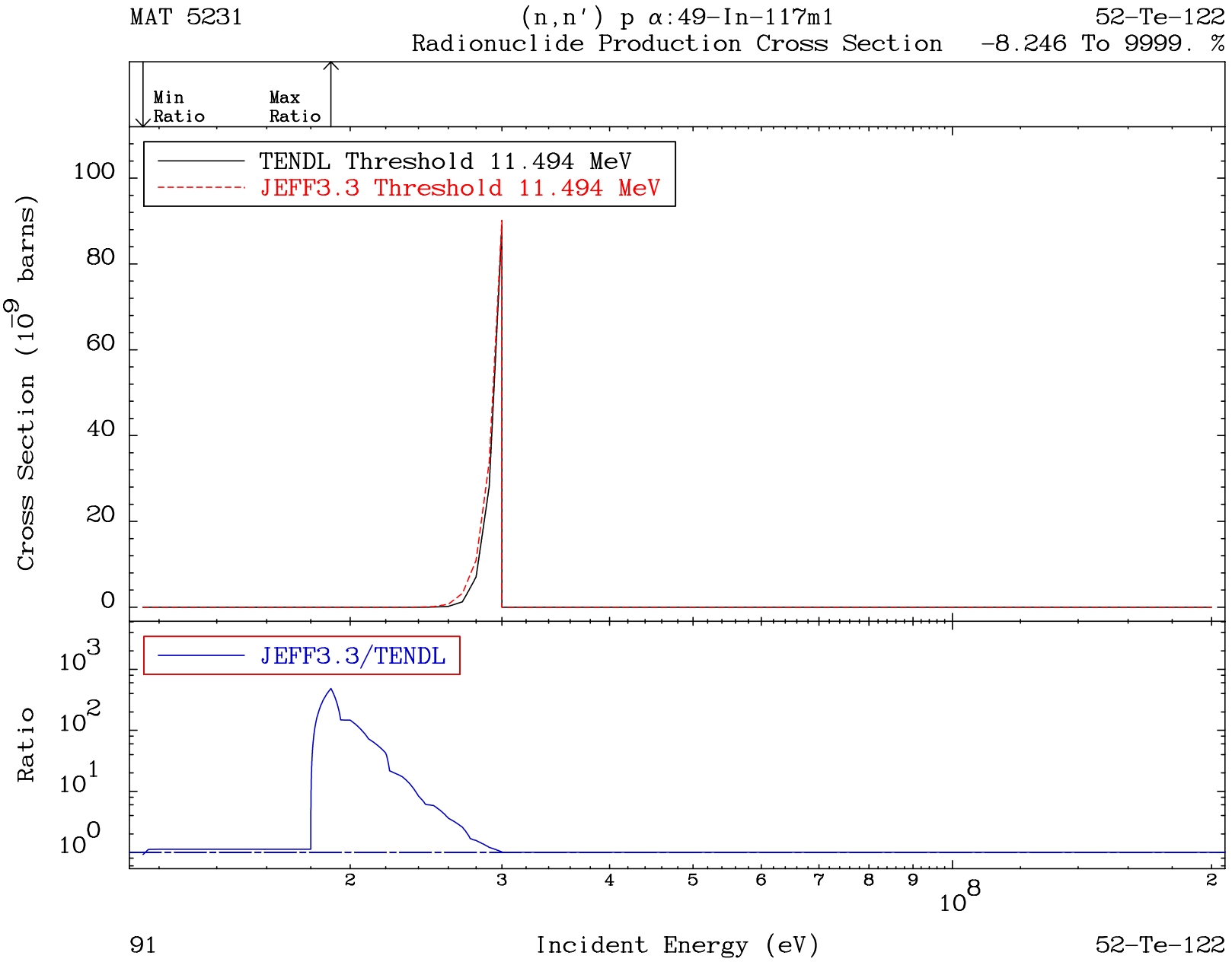

MAT 5231
(n,n') He-3:50-Sn-119m2
52-Te-122
Radionuclide Production Cross Section -10.11 To 55.27 %
Max Ratio
Min Ratio
TENDL Threshold 15.395 MeV
JEFF3.3 Threshold 15.395 MeV
Cross Section (micro-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.6
1.4
1.2
1.0
2
3
4
5
6
7
8
9
10^8
2
86
Incident Energy (eV)
52-Te-122

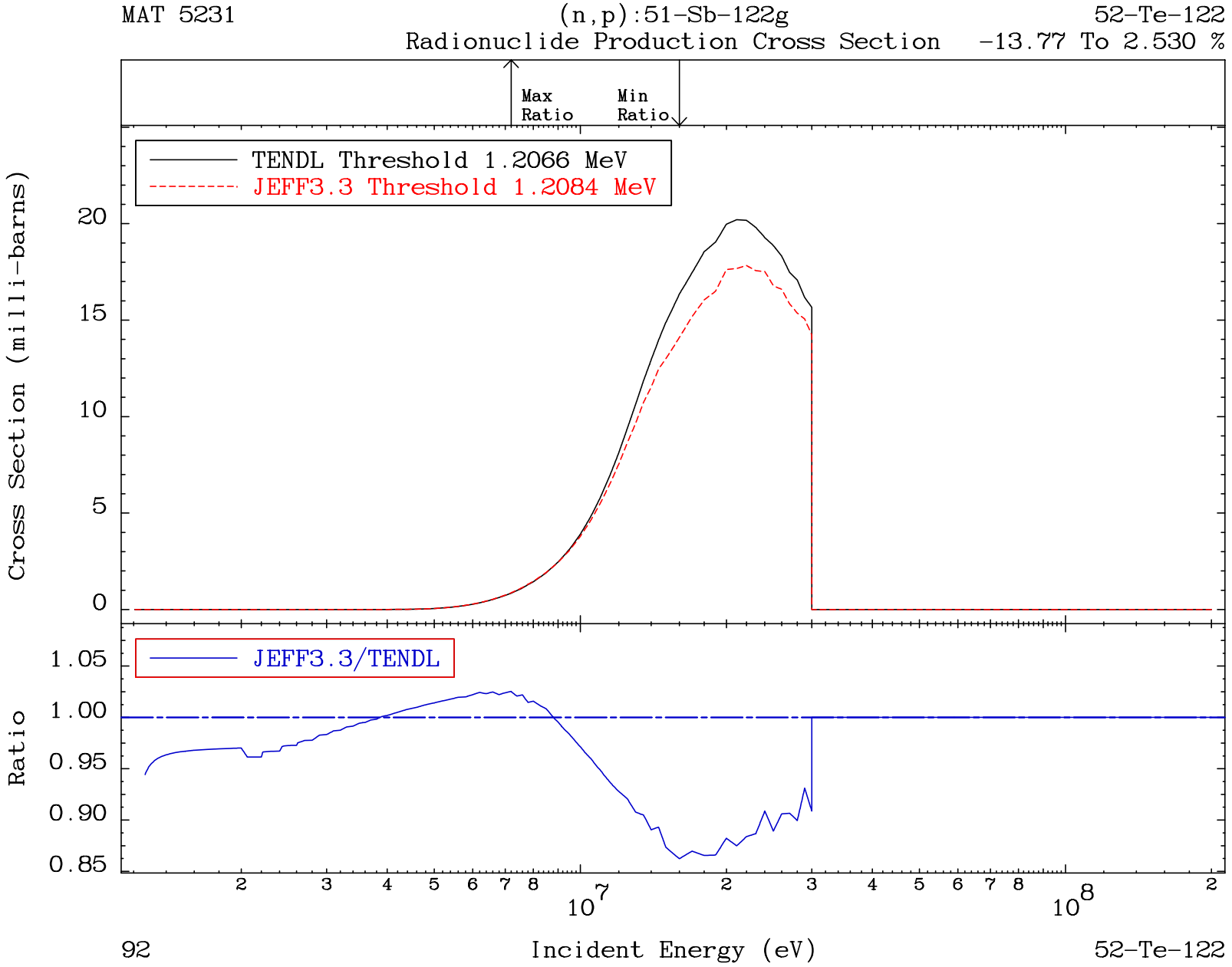

MAT 5231
(n,4n):52-Te-119g
52-Te-122
Radionuclide Production Cross Section 0.000 To 3408. %
Min Ratio
TENDL Threshold 27.571 MeV
JEFF3.3 Threshold 27.571 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
JEFF3.3/TENDL
Ratio
10^0
4
10^1
4
40
60
80
100
120
140
160
180
200
87
Incident Energy (MeV)
52-Te-122

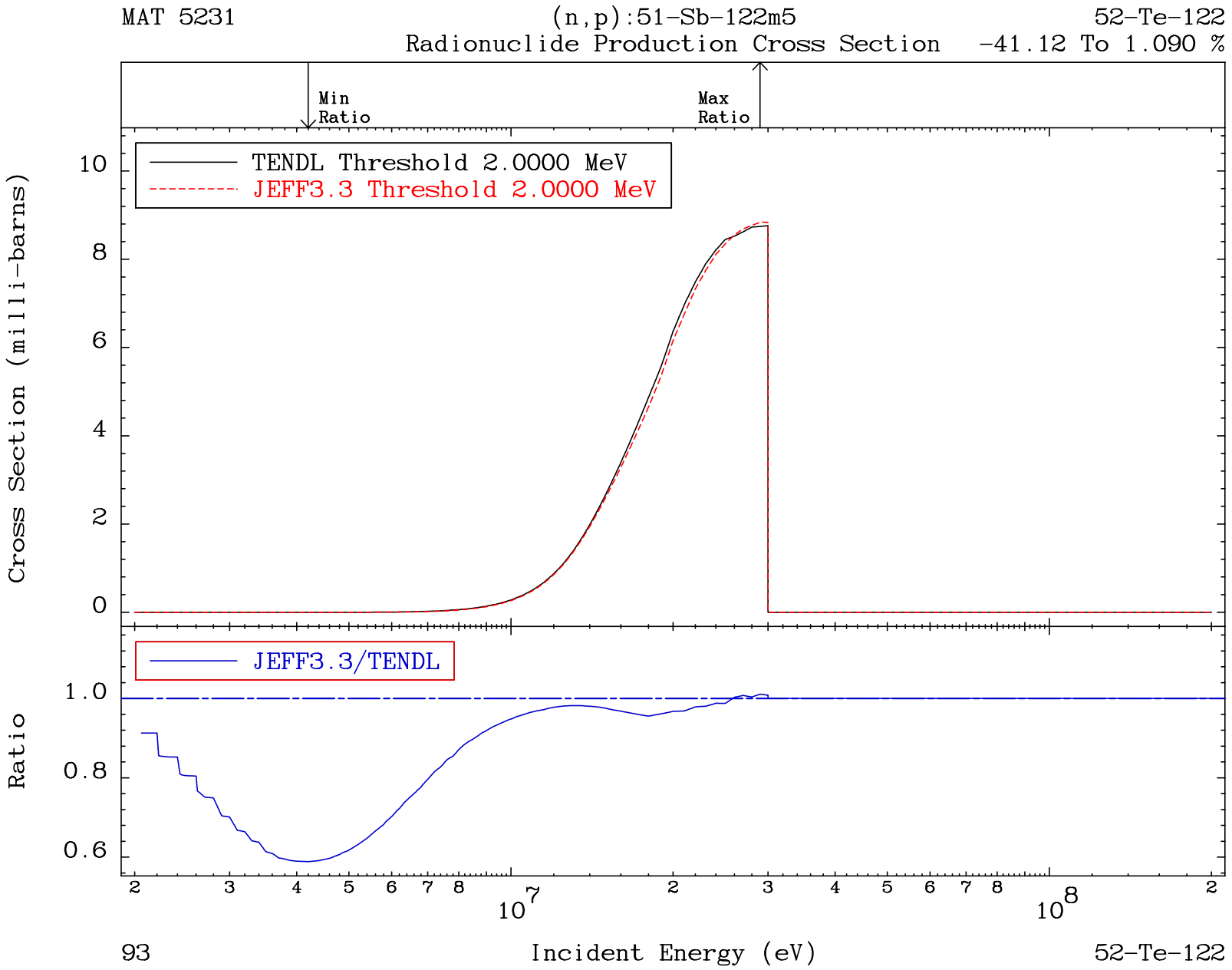

MAT 5231
(n,4n):52-Te-119m2
52-Te-122
Radionuclide Production Cross Section 0.000 To 6884. %
Min
Ratio
TENDL Threshold 27.834 MeV
JEFF3.3 Threshold 27.834 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^2
4
10^1
4
10^0
40
60
80
100
120
140
160
180
200
88
Incident Energy (MeV)
52-Te-122

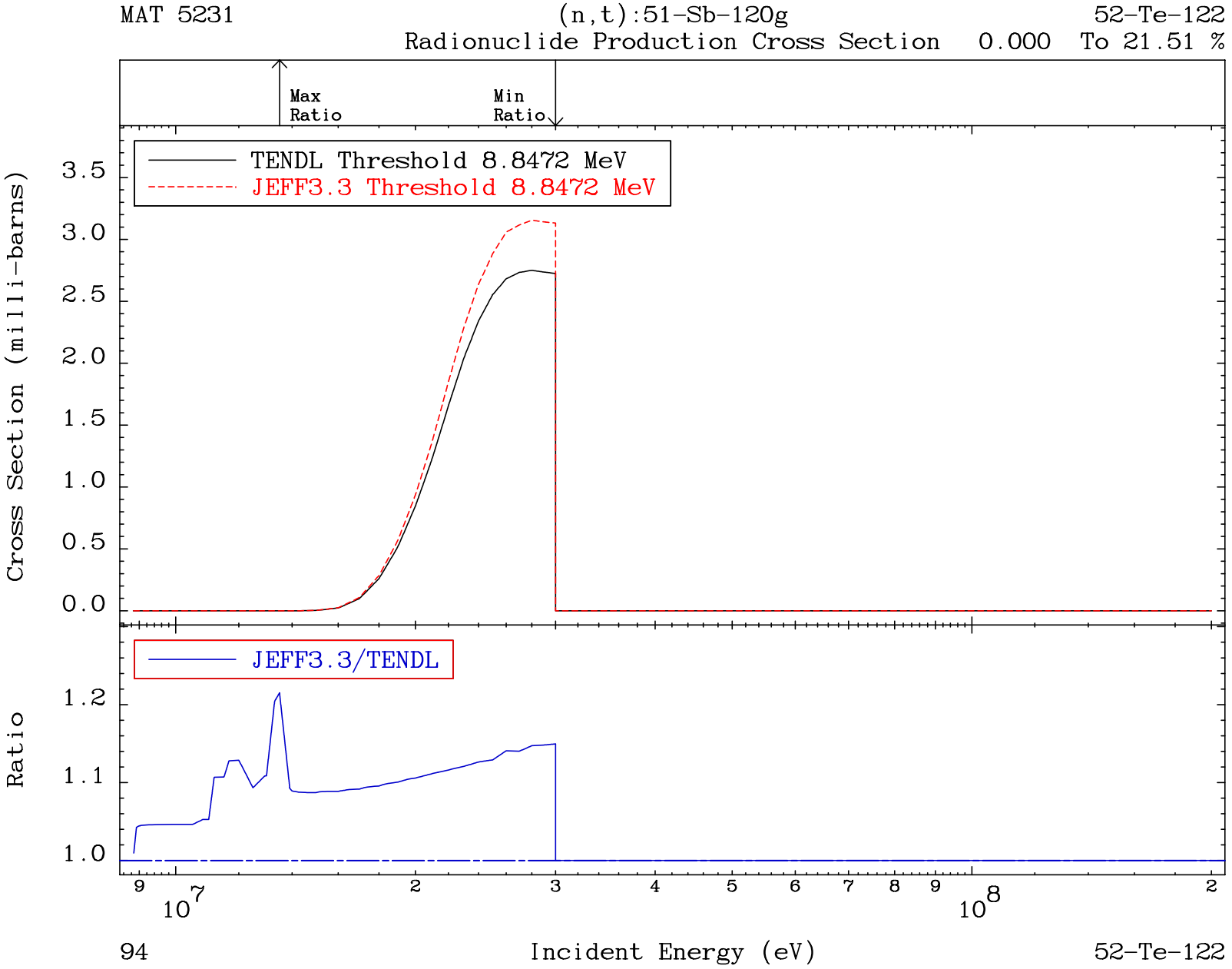

MAT 5231
(n,2n) p:51-Sb-120g
52-Te-122
Radionuclide Production Cross Section -99.90 To 9999. %
Max Ratio
TENDL Threshold 17.399 MeV
JEFF3.3 Threshold 17.399 MeV
Cross Section (milli-barns)
18
16
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
89
Incident Energy (eV)
52-Te-122

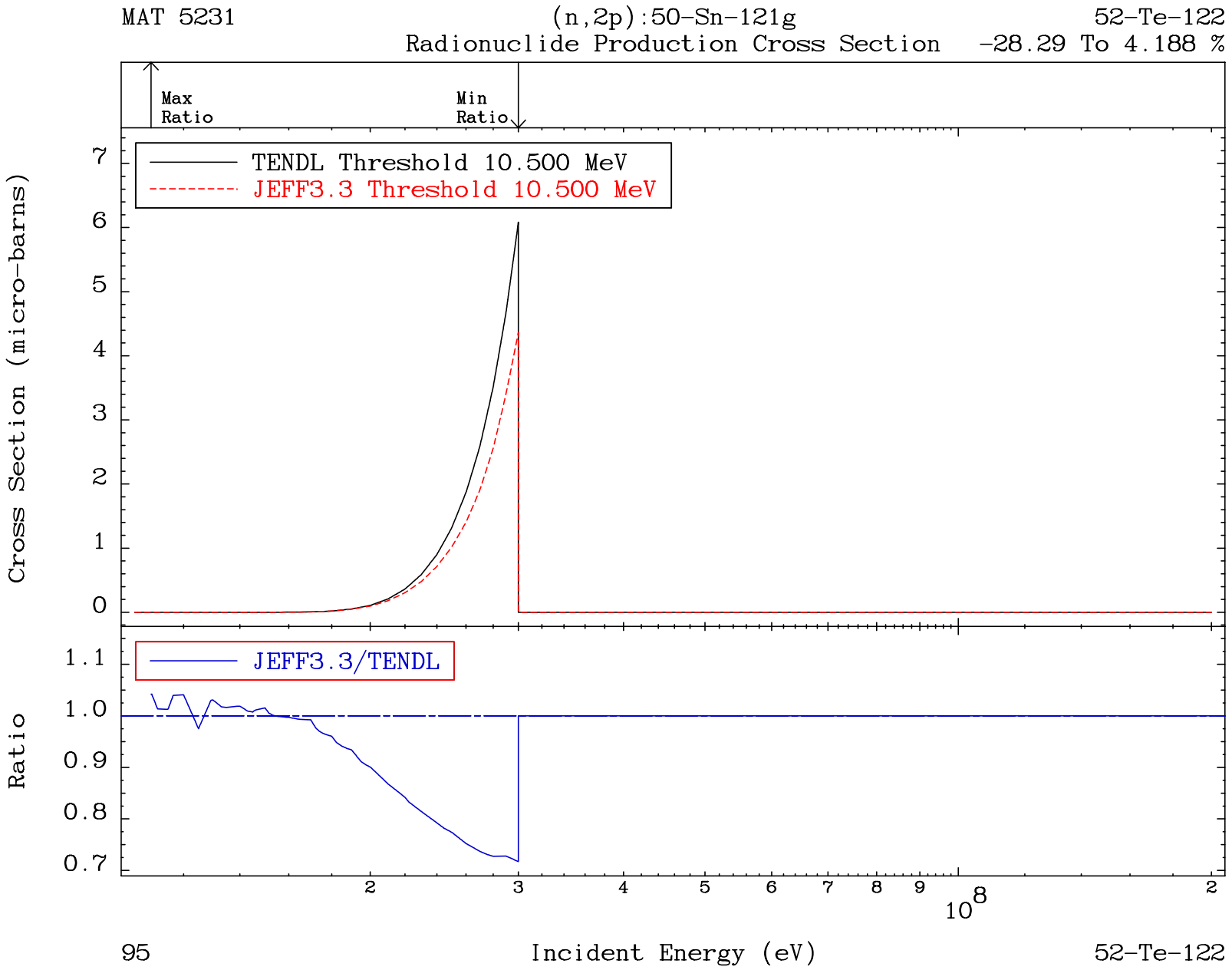

MAT 5231
(n,n') p α:49-In-117g
52-Te-122
Radionuclide Production Cross Section -4.840 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 11.176 MeV
JEFF3.3 Threshold 11.177 MeV
Cross Section (10^{-9} barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
10^{2}
10^{1}
10^{0}
2
3
4
5
6
7
8
9
10^{8}
2
90
Incident Energy (eV)
52-Te-122

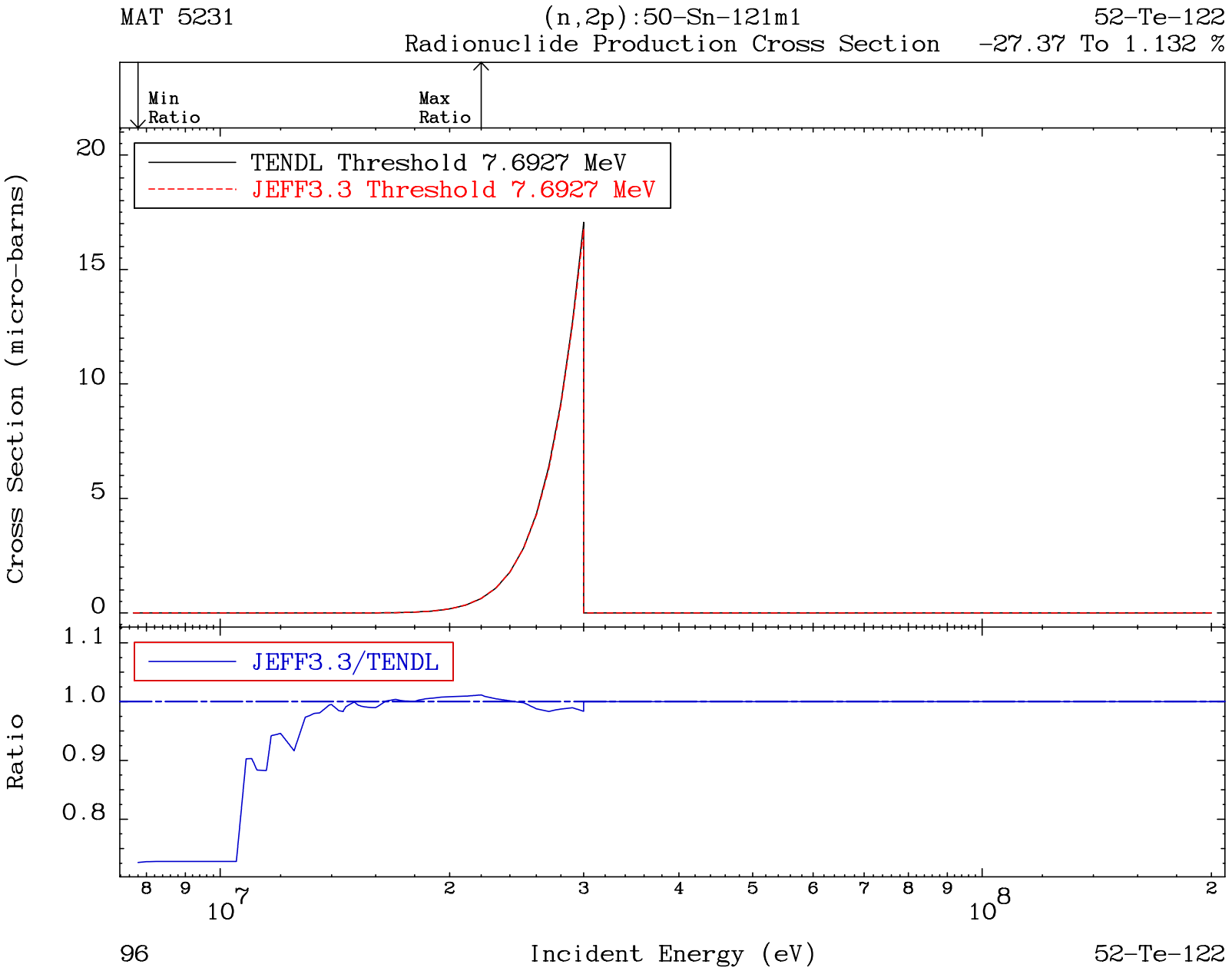

MAT 5231
(n,n') p α:49-In-117m1
52-Te-122
Radionuclide Production Cross Section -8.246 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 11.494 MeV
JEFF3.3 Threshold 11.494 MeV
Cross Section (10^{-9} barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^3
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
52-Te-122

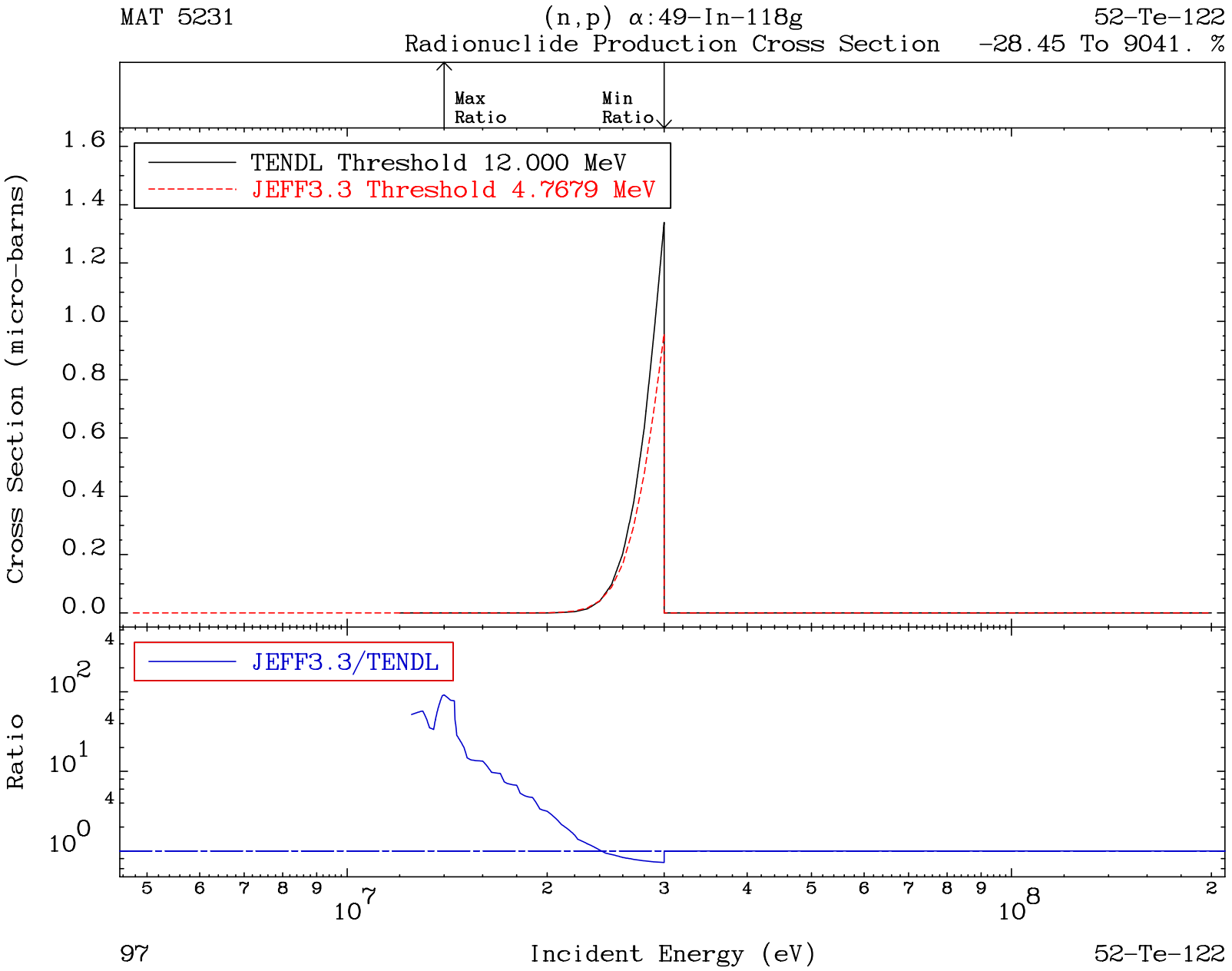

MAT 5231
(n,p):51-Sb-122g
52-Te-122
Radionuclide Production Cross Section -13.77 To 2.530 %
Max Ratio
Min Ratio
TENDL Threshold 1.2066 MeV
JEFF3.3 Threshold 1.2084 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.05
1.00
0.95
0.90
0.85
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
92
Incident Energy (eV)
52-Te-122

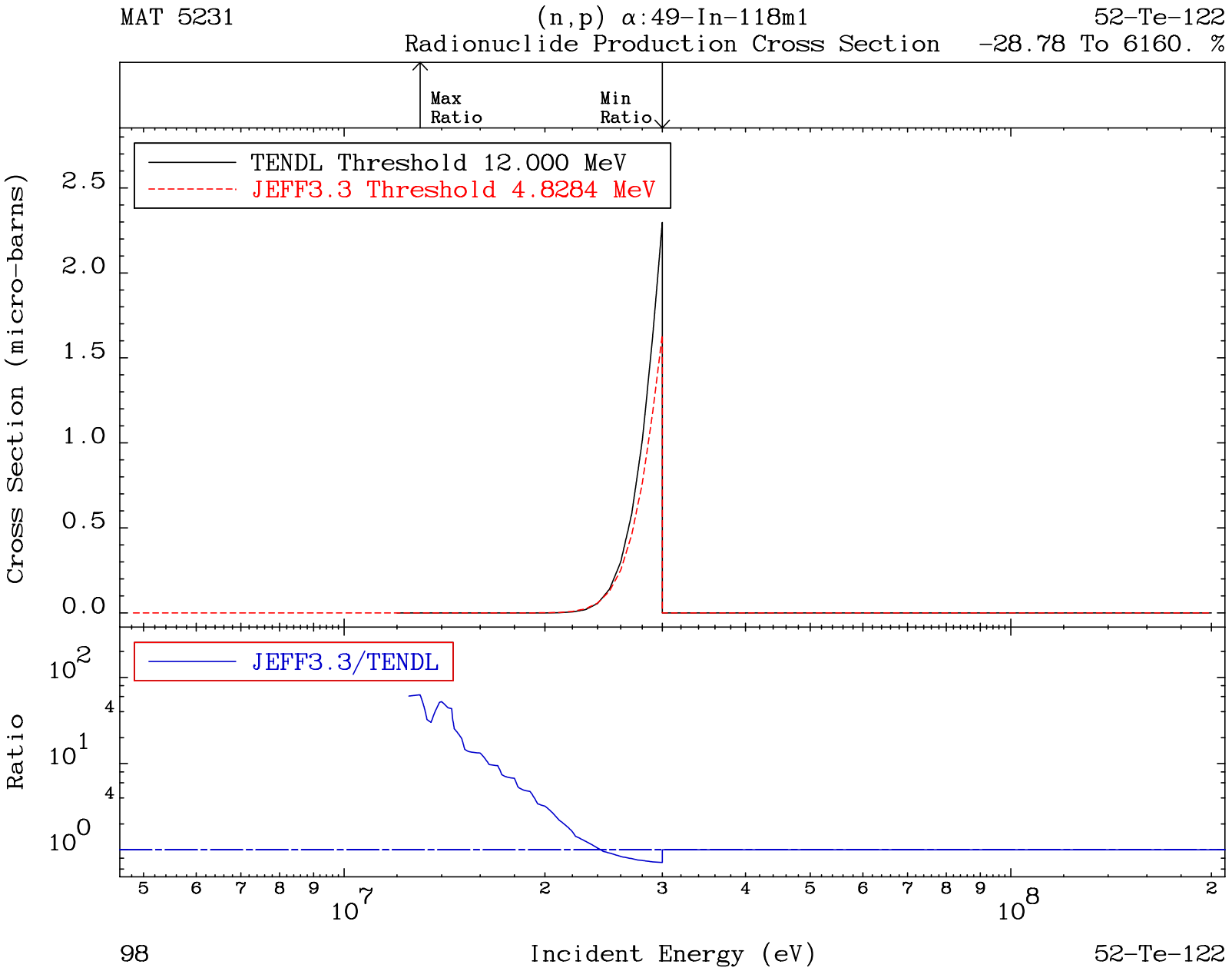

MAT 5231
(n,p):51-Sb-122m5
52-Te-122
Radionuclide Production Cross Section -41.12 To 1.090 %
Min Ratio
Max Ratio
TENDL Threshold 2.0000 MeV
JEFF3.3 Threshold 2.0000 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
93
52-Te-122

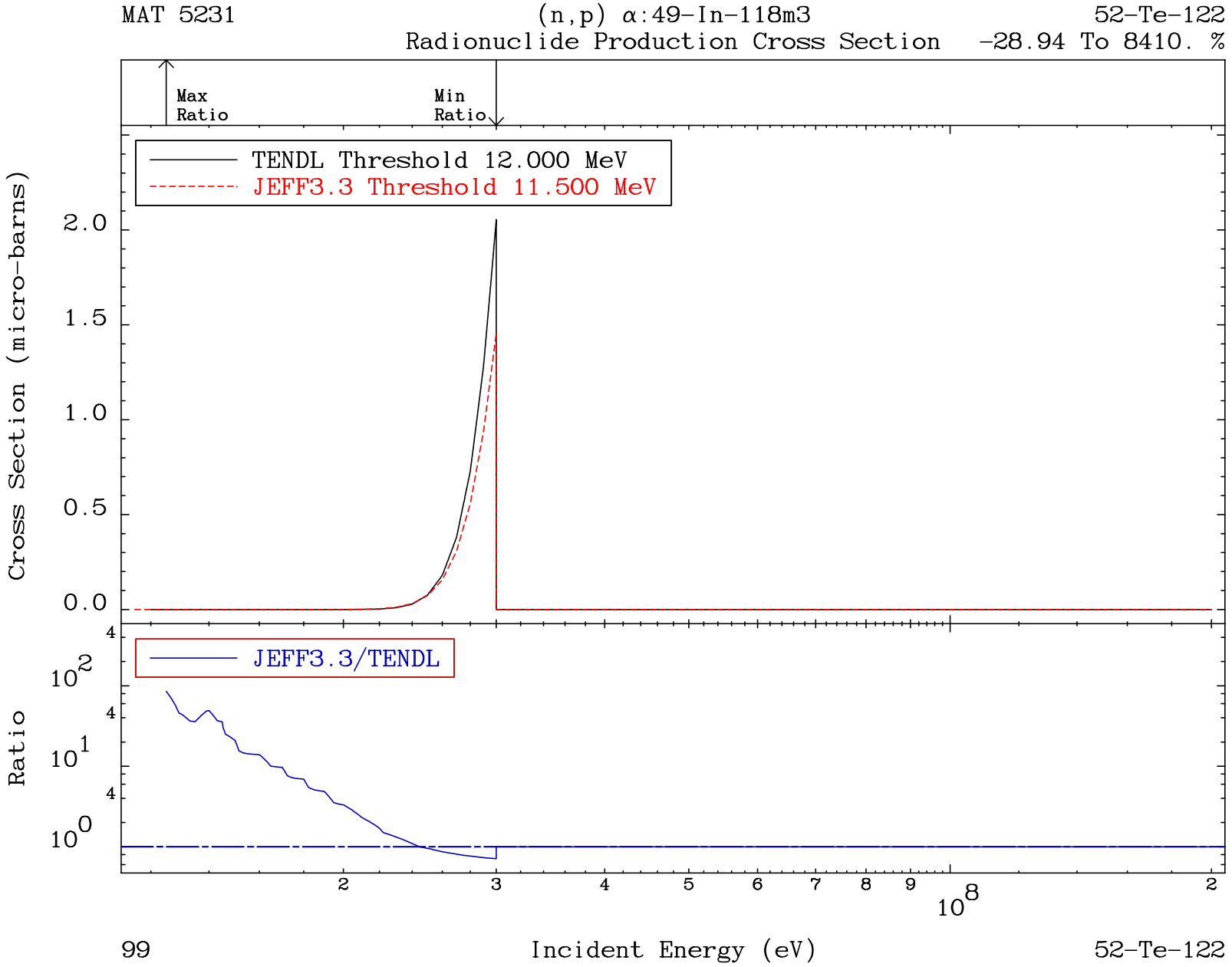

MAT 5231
(n,t):51-Sb-120g
52-Te-122
Radionuclide Production Cross Section 0.000 To 21.51 %
Max Ratio
Min Ratio
TENDL Threshold 8.8472 MeV
JEFF3.3 Threshold 8.8472 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
94
Incident Energy (eV)
52-Te-122

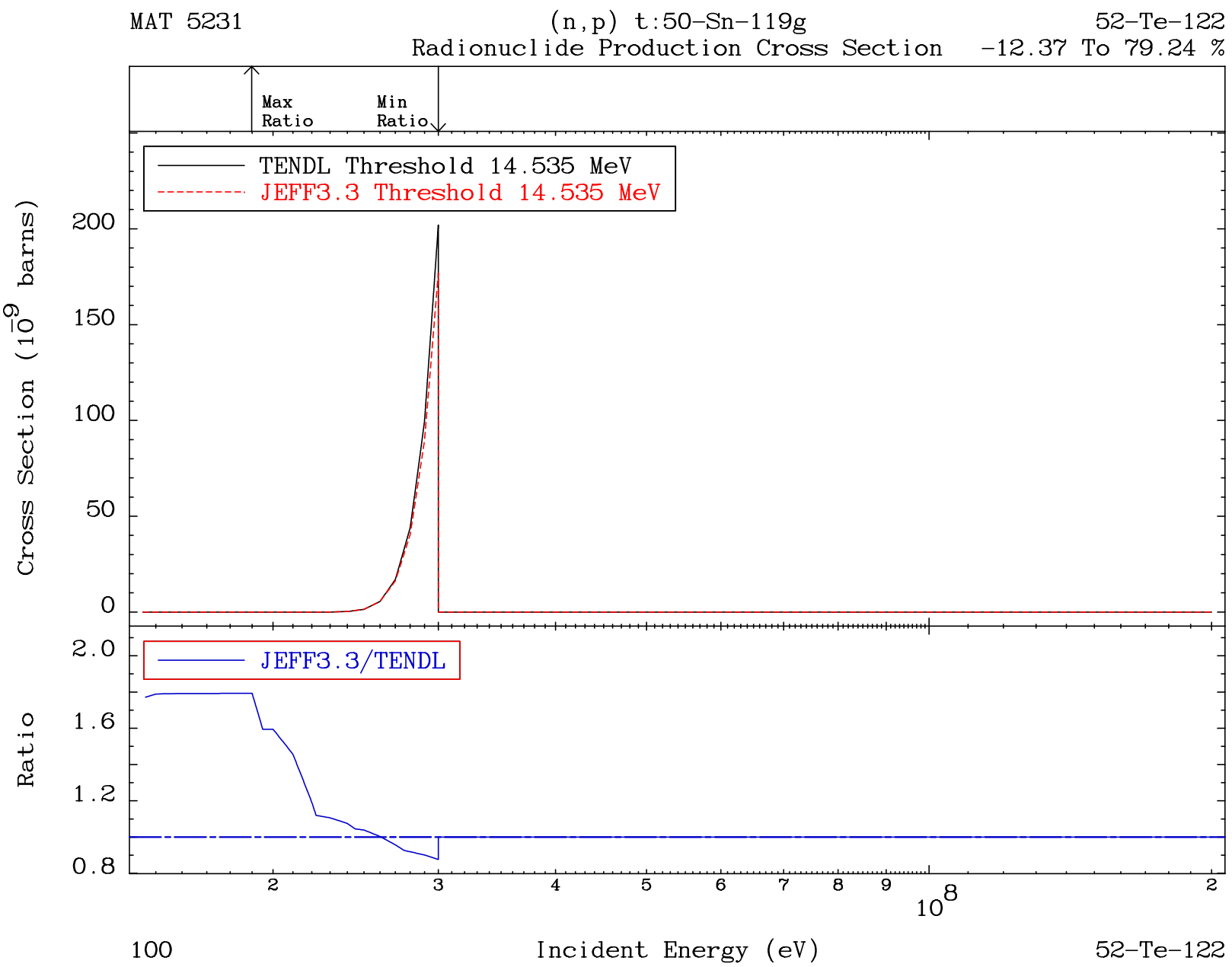

MAT 5231
(n,2p):50-Sn-121g
52-Te-122
Radionuclide Production Cross Section
-28.29 To 4.188 %
Max Ratio
Min Ratio
TENDL Threshold 10.500 MeV
JEFF3.3 Threshold 10.500 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
7
JEFF3.3/TENDL
Ratio
0.7
0.8
0.9
1.0
1.1
2
3
4
5
6
7
8
9
10^8
2
95
Incident Energy (eV)
52-Te-122

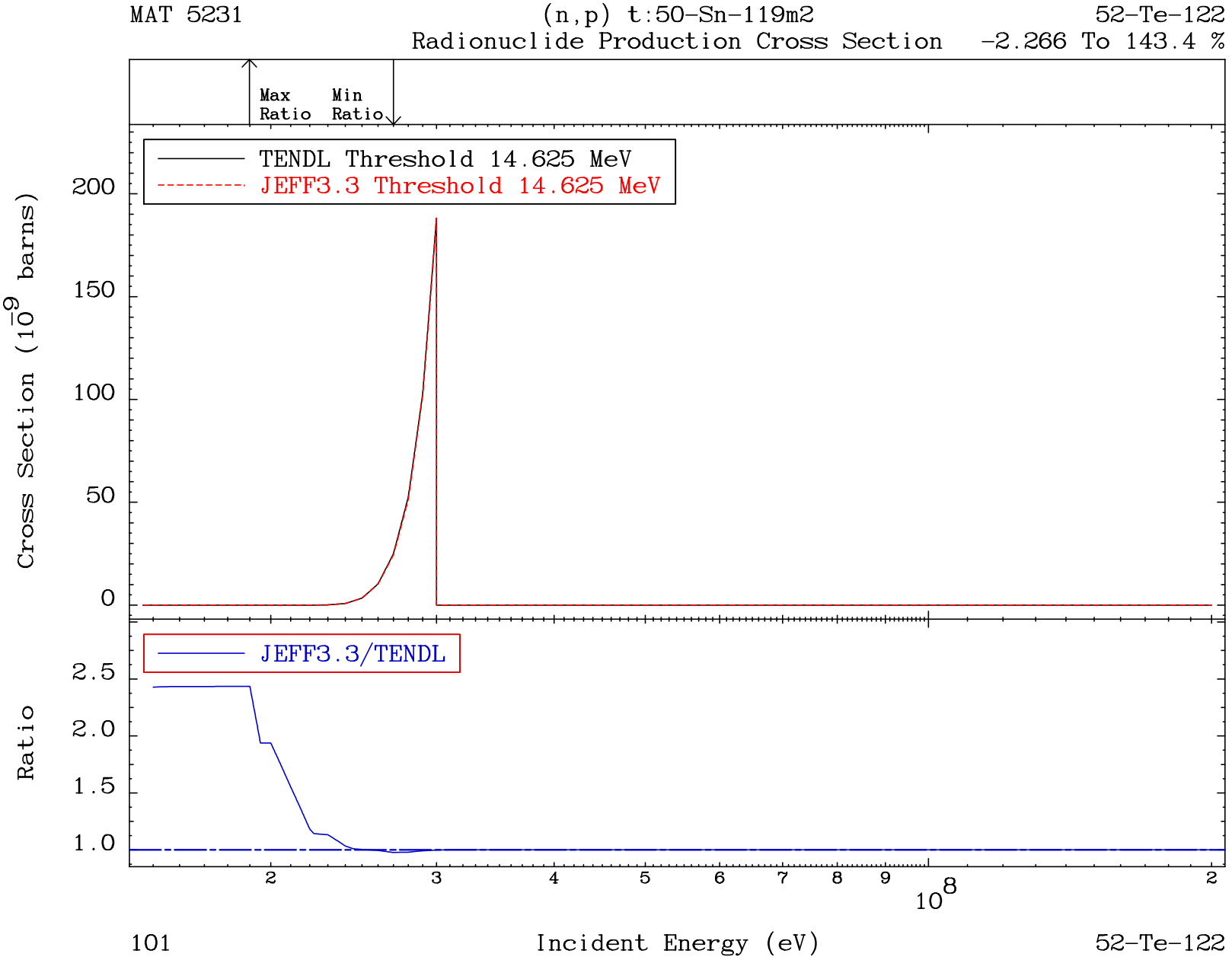

MAT 5231
(n,2p):50-Sn-121m1
52-Te-122
Radionuclide Production Cross Section
-27.37 To 1.132 %
Min Ratio
Max Ratio
TENDL Threshold 7.6927 MeV
JEFF3.3 Threshold 7.6927 MeV
Cross Section (micro-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
0.8
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
96
Incident Energy (eV)
52-Te-122

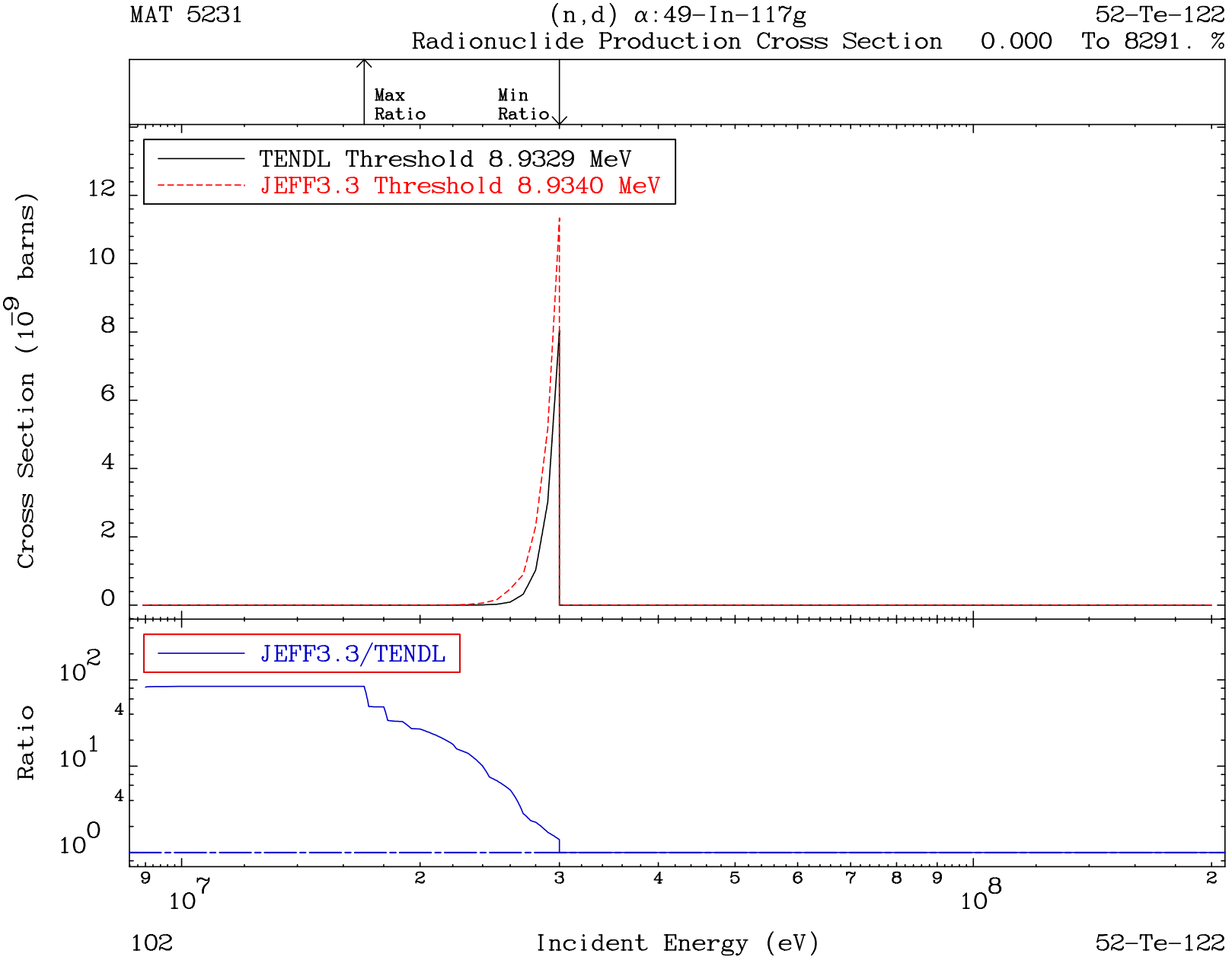

MAT 5231
(n,p) α:49-In-118g
52-Te-122
Radionuclide Production Cross Section
-28.45 To 9041. %
Max Ratio
Min Ratio
TENDL Threshold 12.000 MeV
JEFF3.3 Threshold 4.7679 MeV
Cross Section (micro-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
97
Incident Energy (eV)
52-Te-122

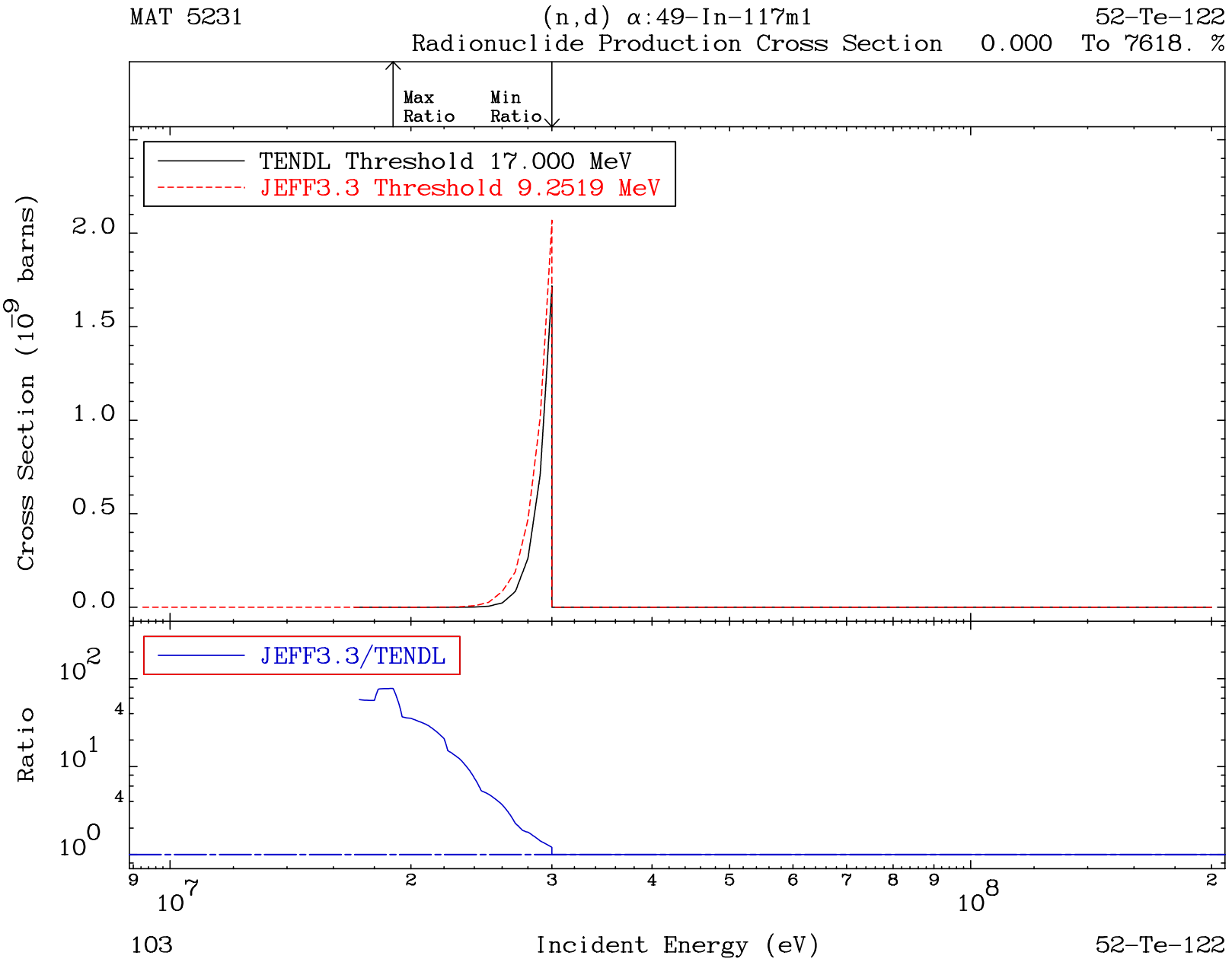

MAT 5231
(n,p) α:49-In-118m1
52-Te-122
Radionuclide Production Cross Section -28.78 To 6160. %
Max Ratio
Min Ratio
TENDL Threshold 12.000 MeV
JEFF3.3 Threshold 4.8284 MeV
Cross Section (micro-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
98
Incident Energy (eV)
52-Te-122


MAT 5231
(n,p) α:49-In-118m3
52-Te-122
Radionuclide Production Cross Section -28.94 To 8410. %
Max Ratio
Min Ratio
TENDL Threshold 12.000 MeV
JEFF3.3 Threshold 11.500 MeV
Cross Section (micro-barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
99
Incident Energy (eV)
52-Te-122


MAT 5231
(n,p) t:50-Sn-119g
52-Te-122
Radionuclide Production Cross Section
-12.37 To 79.24 %
Max Ratio
Min Ratio
TENDL Threshold 14.535 MeV
JEFF3.3 Threshold 14.535 MeV
Cross Section (10^{-9} barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
0.8
2
3
4
5
6
7
8
9
10^8
2
100
Incident Energy (eV)
52-Te-122


MAT 5231
(n,p) t:50-Sn-119m2
52-Te-122
Radionuclide Production Cross Section
-2.266 To 143.4 %
Max Ratio
Min Ratio
TENDL Threshold 14.625 MeV
JEFF3.3 Threshold 14.625 MeV
Cross Section (10^{-9} barns)
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
10^8
2
101
Incident Energy (eV)
52-Te-122


MAT 5231
(n,d) α:49-In-117g
52-Te-122
Radionuclide Production Cross Section 0.000 To 8291. %
Max Ratio
Min Ratio
TENDL Threshold 8.9329 MeV
JEFF3.3 Threshold 8.9340 MeV
Cross Section (10^{-9} barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
102
52-Te-122


MAT 5231
(n,d) α:49-In-117m1
52-Te-122
Radionuclide Production Cross Section 0.000 To 7618. %
Max Ratio
Min Ratio
TENDL Threshold 17.000 MeV
JEFF3.3 Threshold 9.2519 MeV
Cross Section (10^{-9} barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^{2}
10^{1}
10^{0}
10^{7}
10^{8}
Incident Energy (eV)
103
52-Te-122