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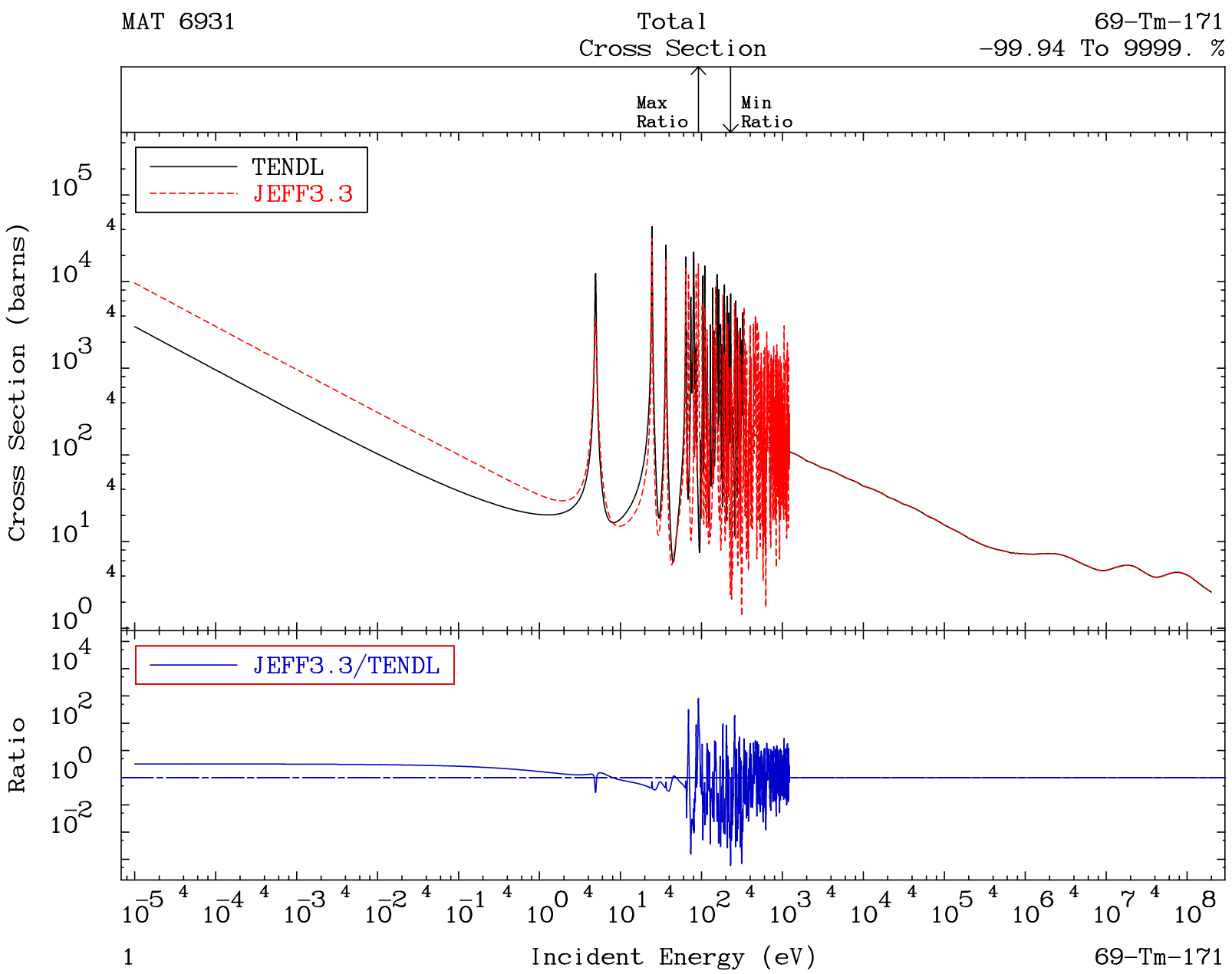
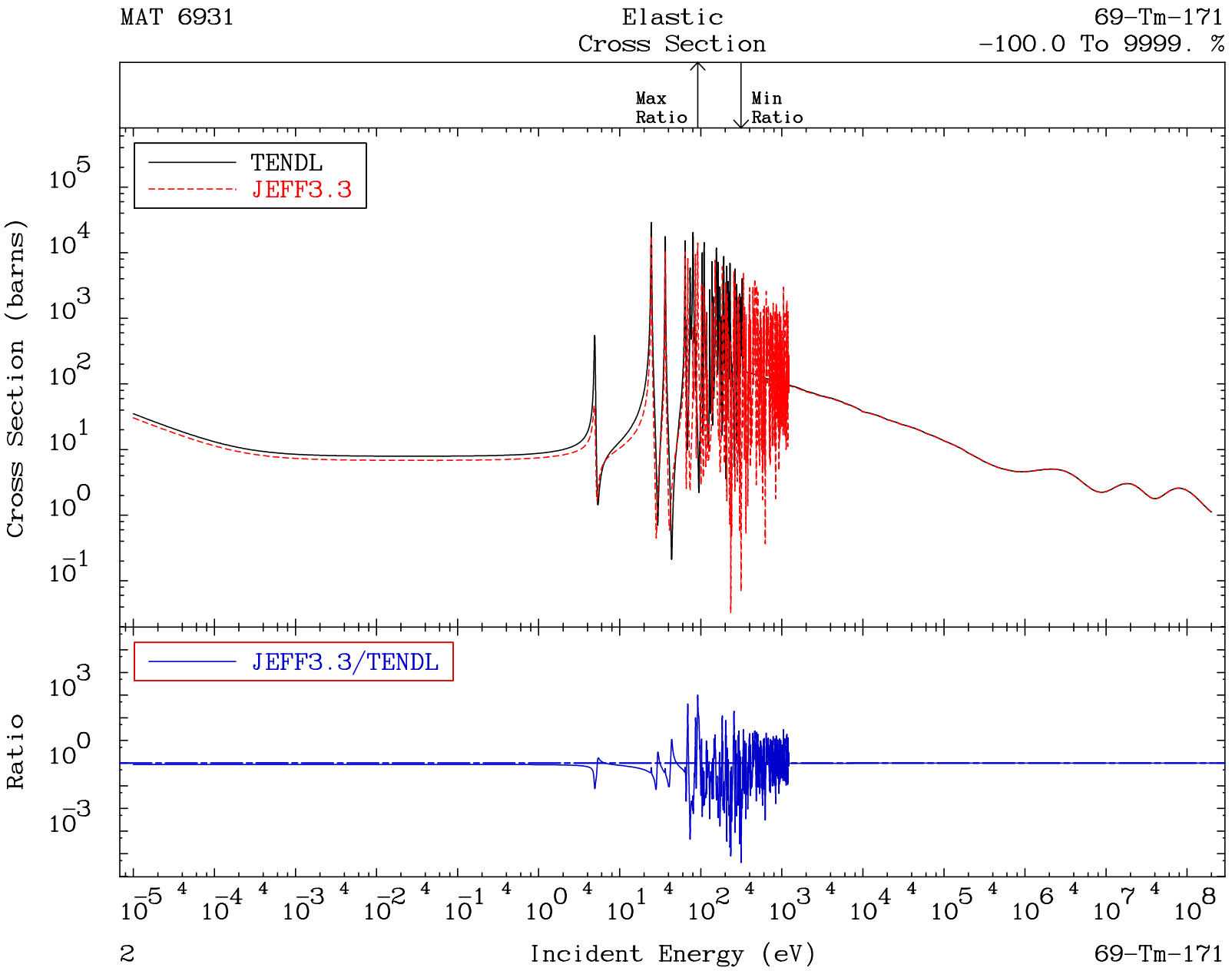
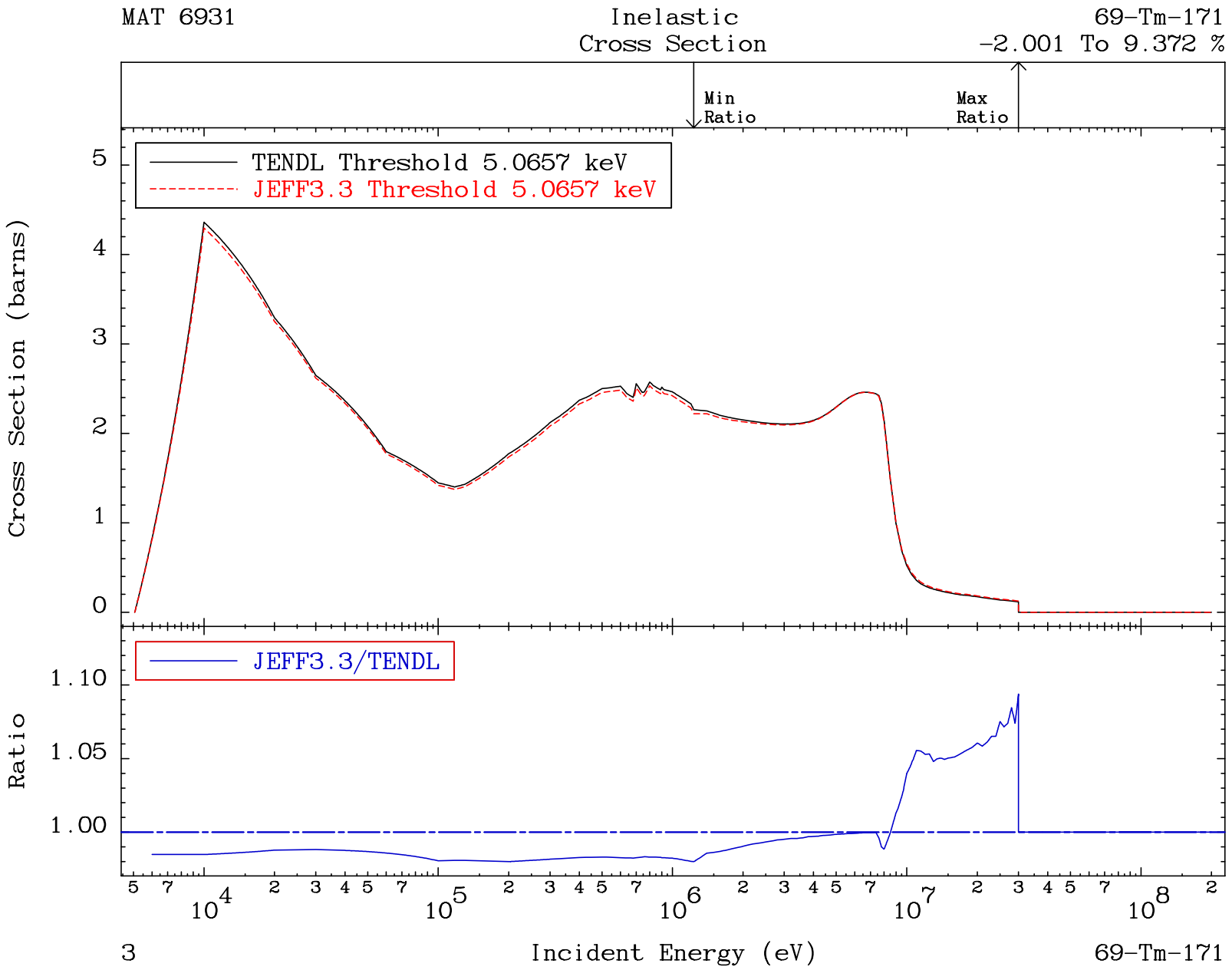
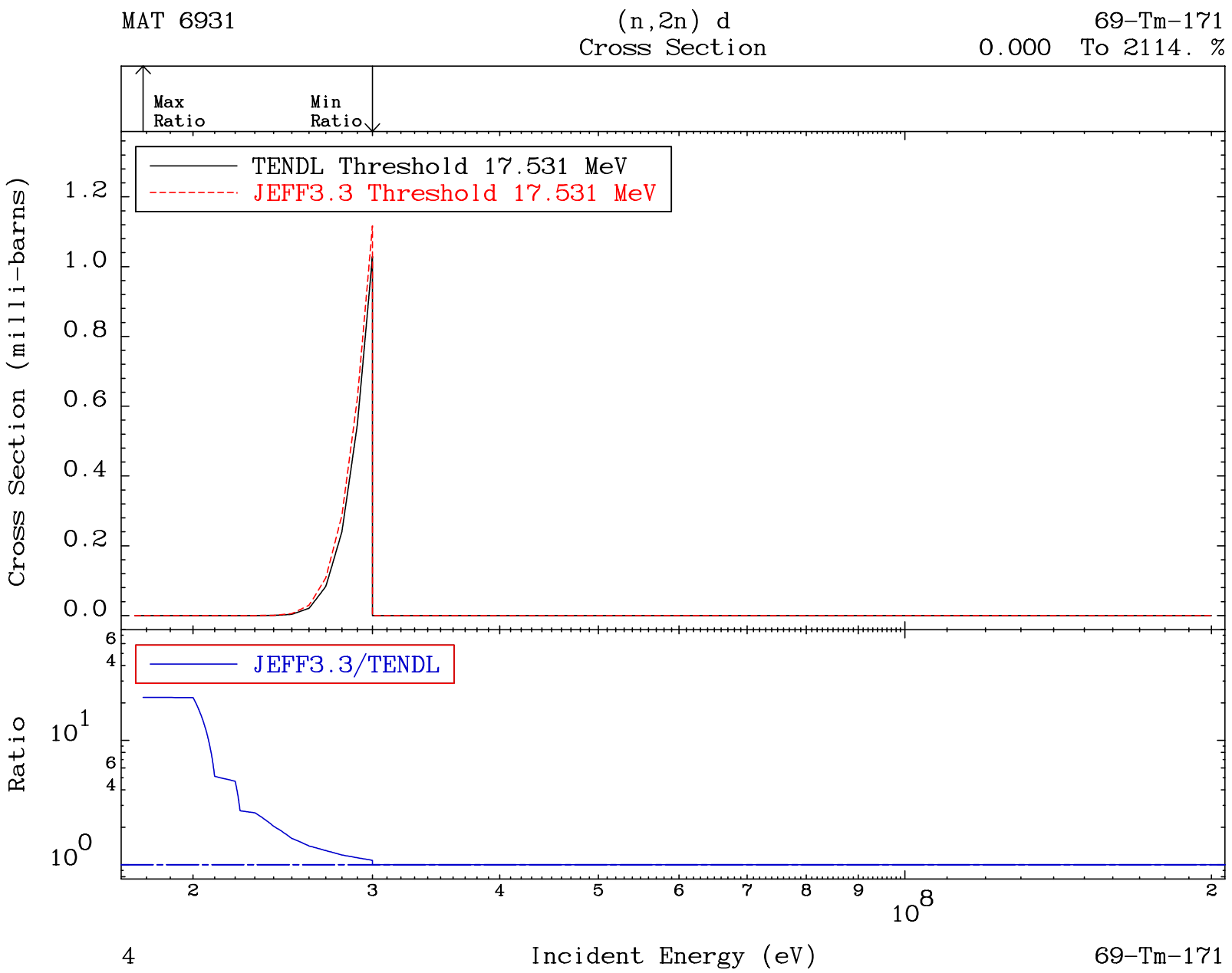
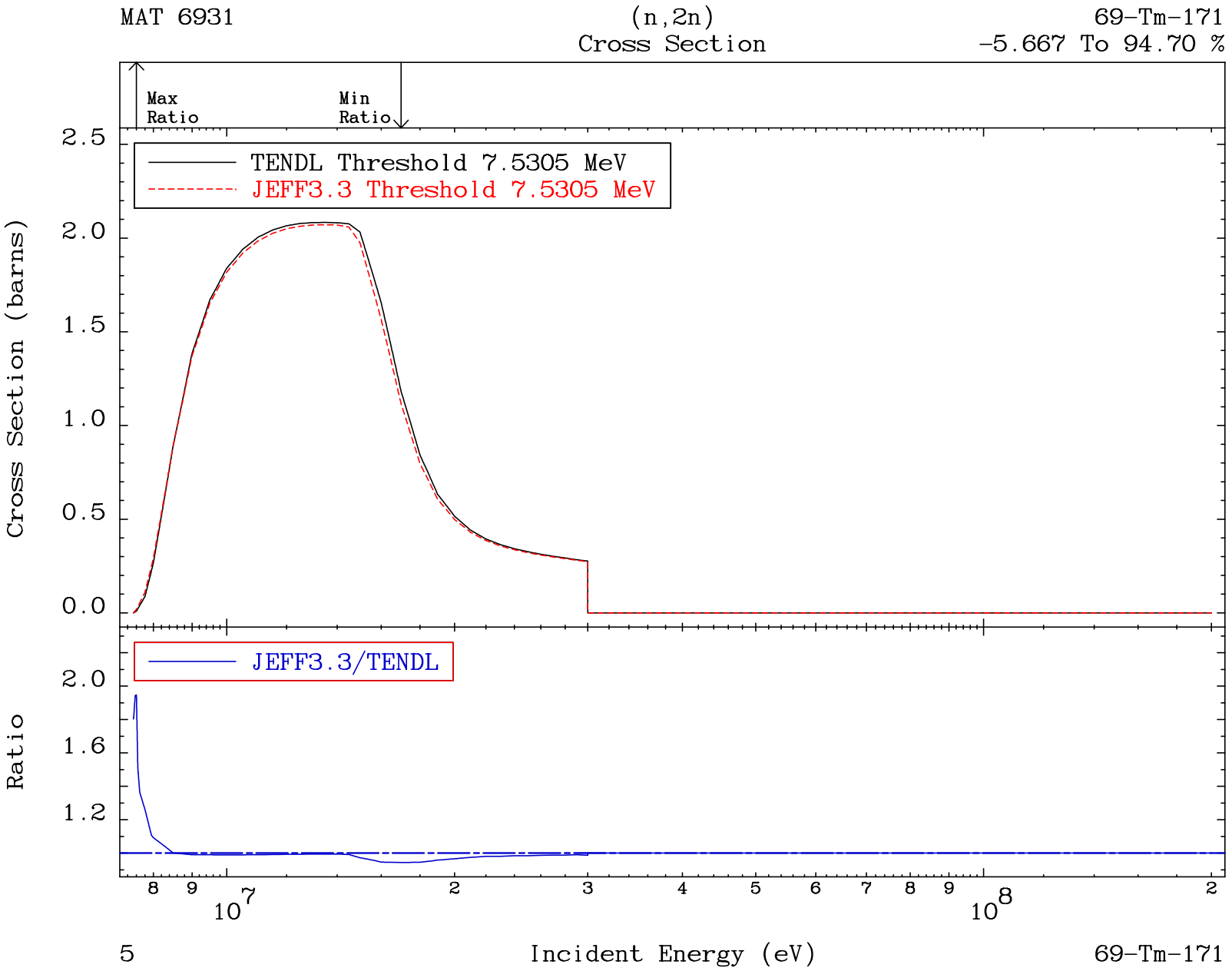
Press Mouse Button to Start

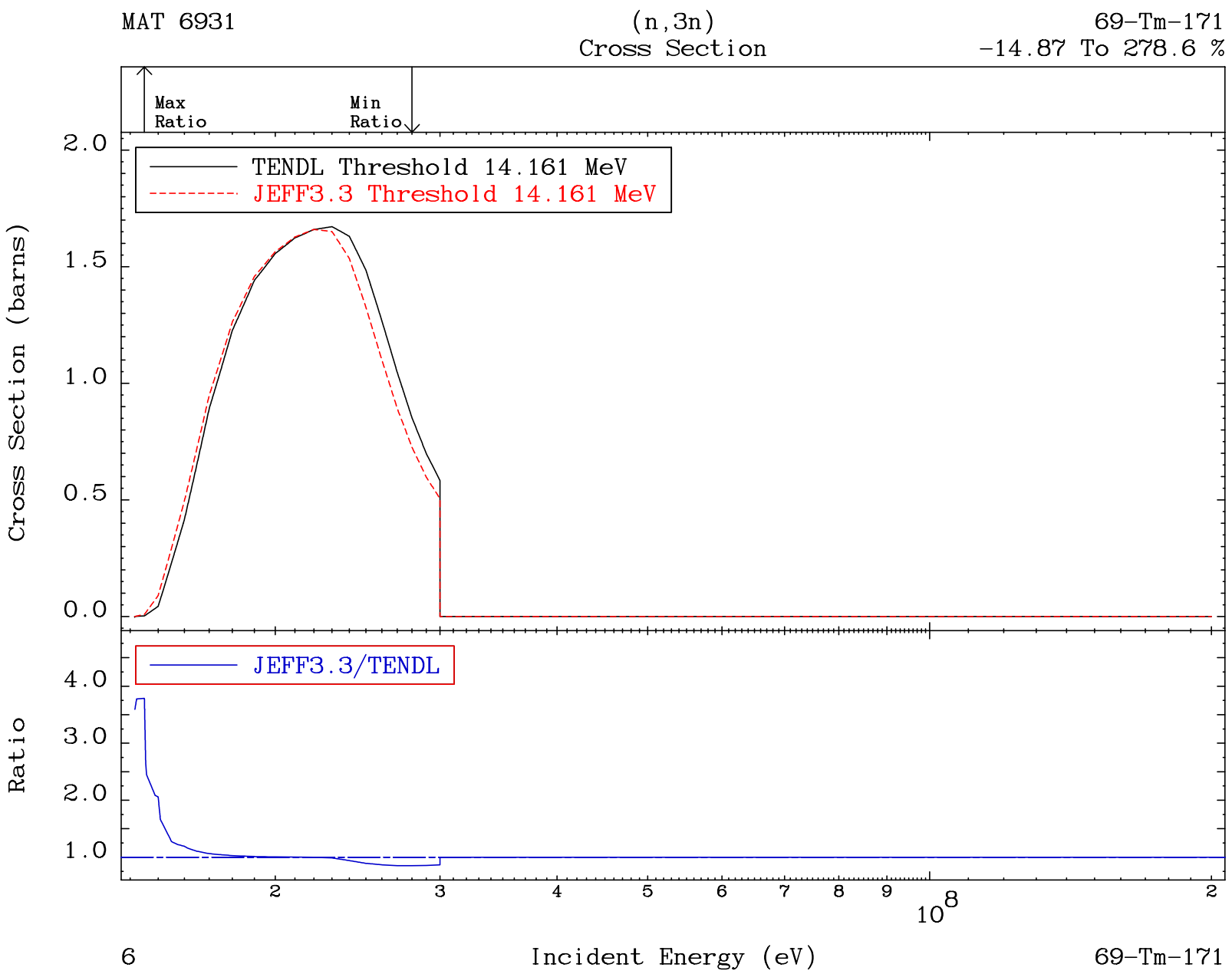

MAT 6931
Total
Cross Section
69-Tm-171
-99.94 To 9999. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
1
69-Tm-171

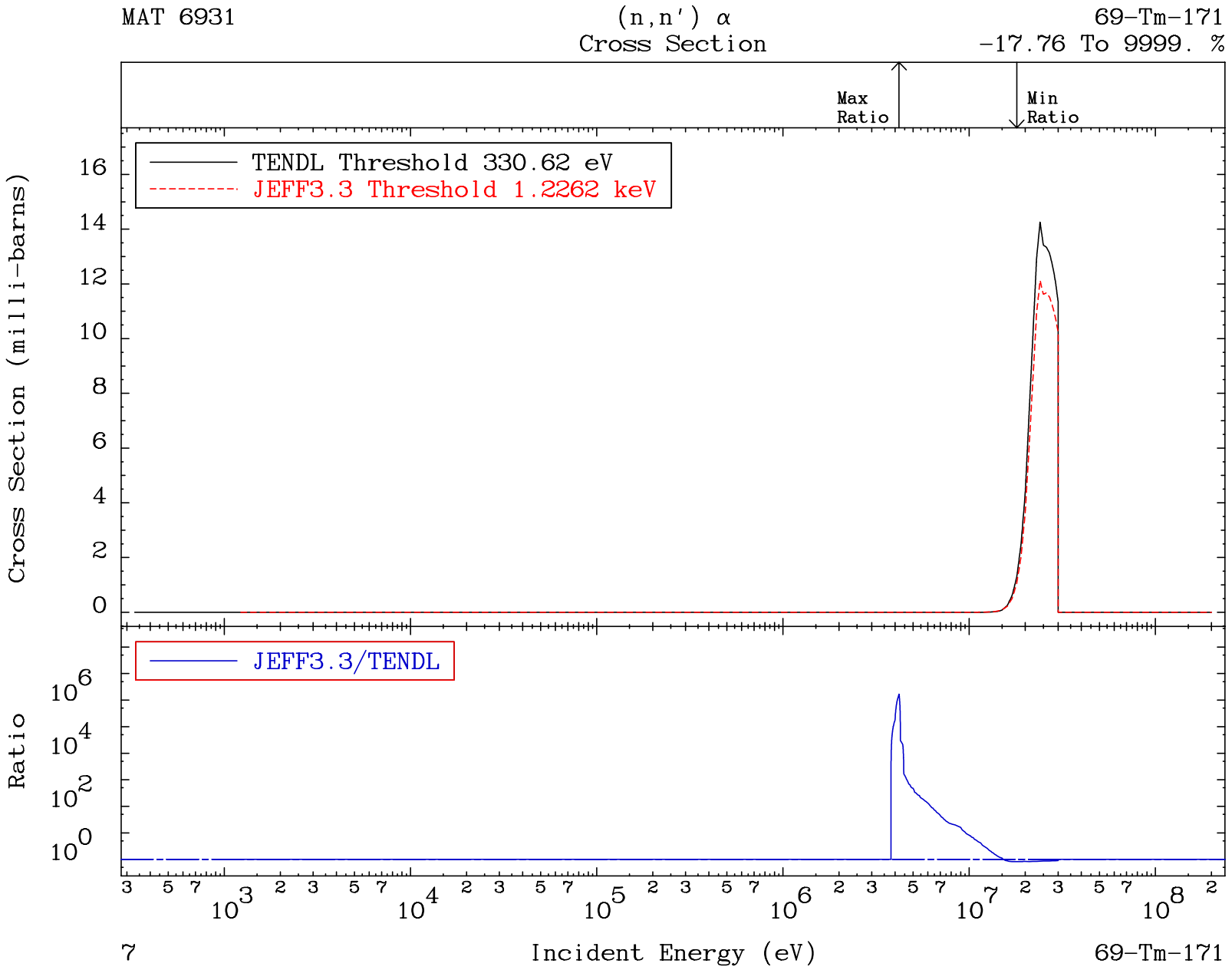

MAT 6931
Elastic
Cross Section
69-Tm-171
-100.0 To 9999. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
2
69-Tm-171

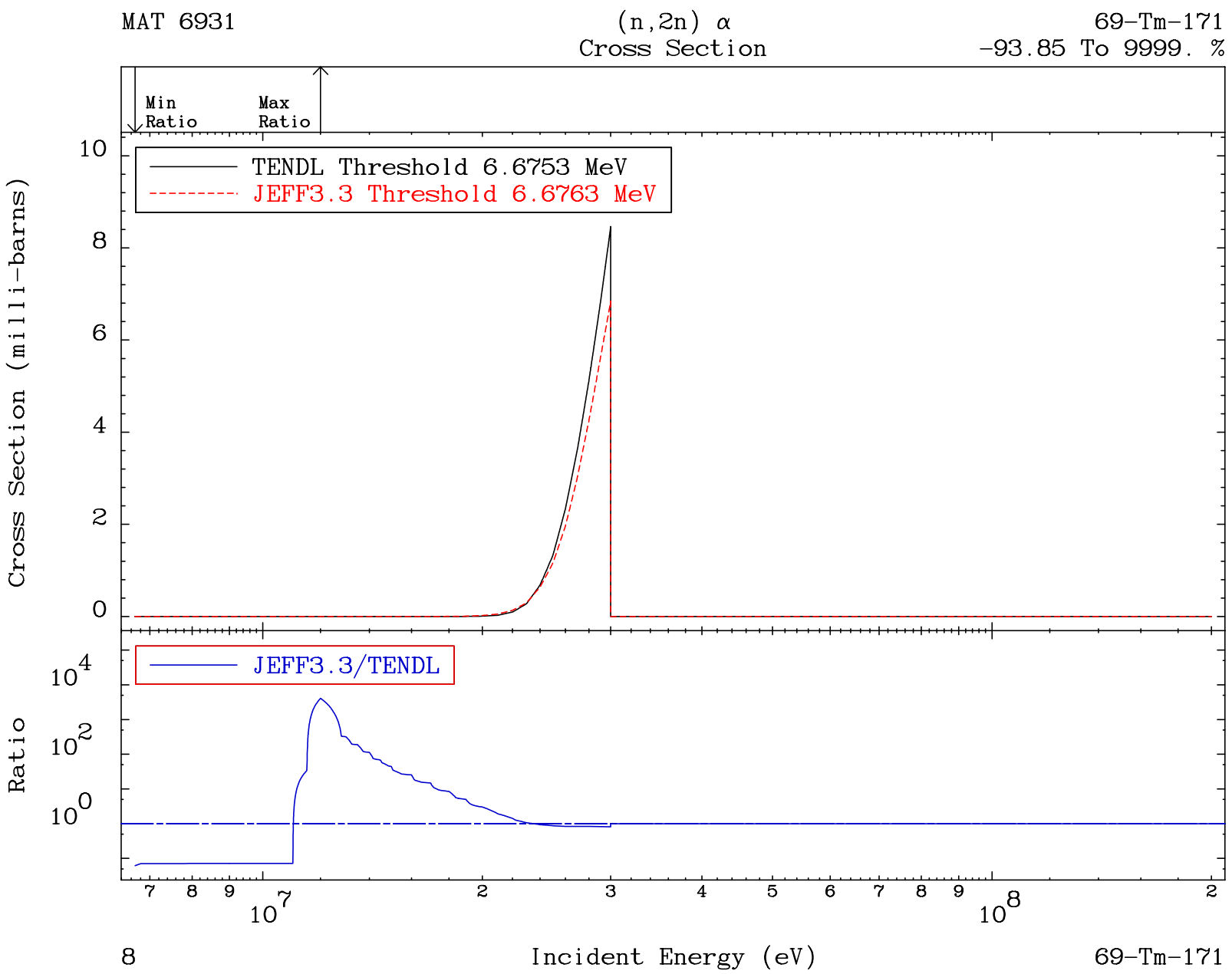

MAT 6931
Inelastic
Cross Section
69-Tm-171
-2.001 To 9.372 %
Min
Ratio
Max
Ratio
TENDL Threshold 5.0657 keV
JEFF3.3 Threshold 5.0657 keV
Cross Section (barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
1.00
1.05
1.10
5 7 10^4 2 3 4 5 7 10^5 2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
Incident Energy (eV)
3
69-Tm-171

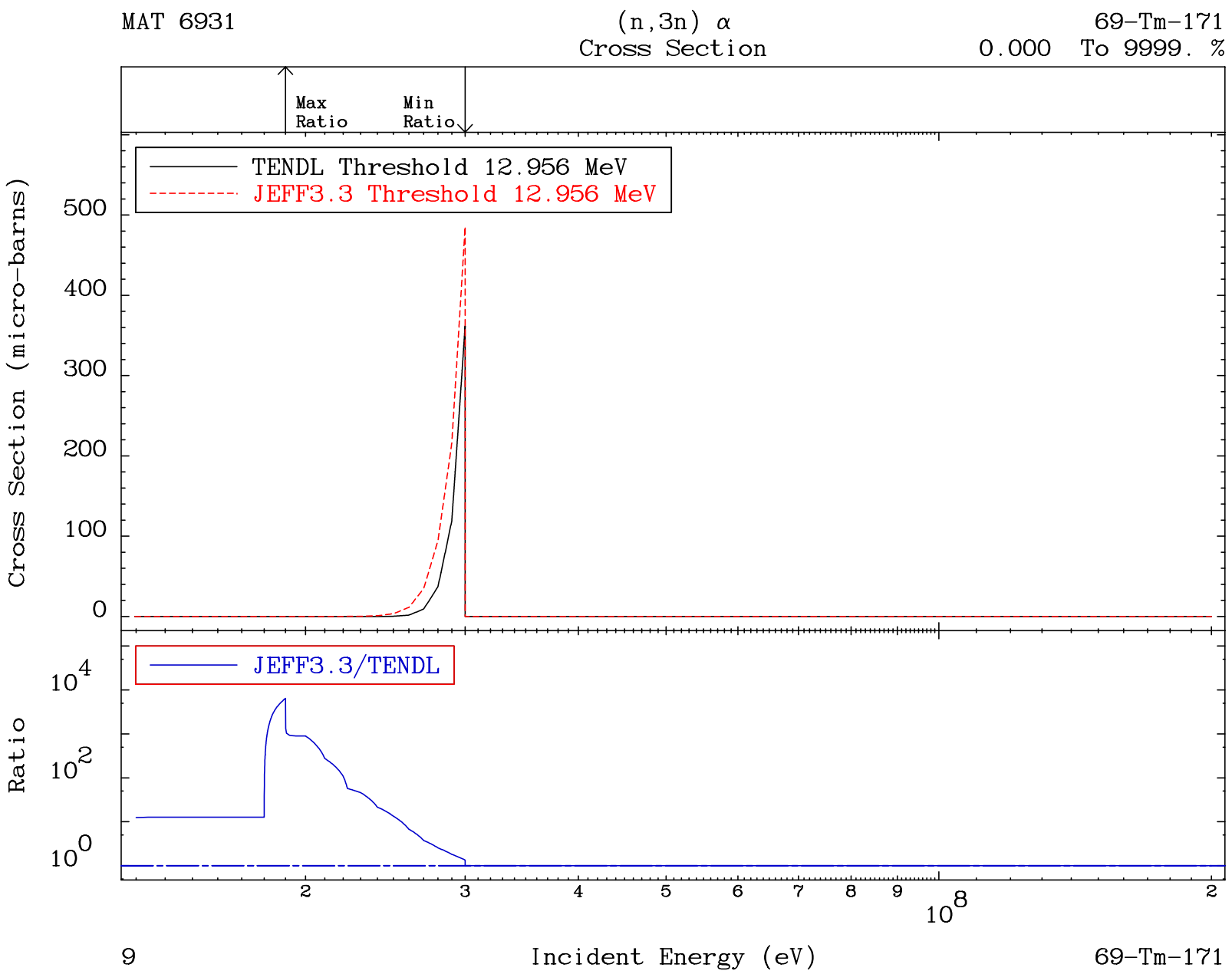

MAT 6931
(n,2n) d
Cross Section
69-Tm-171
0.000 To 2114. %
Max Ratio
Min Ratio
TENDL Threshold 17.531 MeV
JEFF3.3 Threshold 17.531 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^1
10^0
6
4
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
69-Tm-171

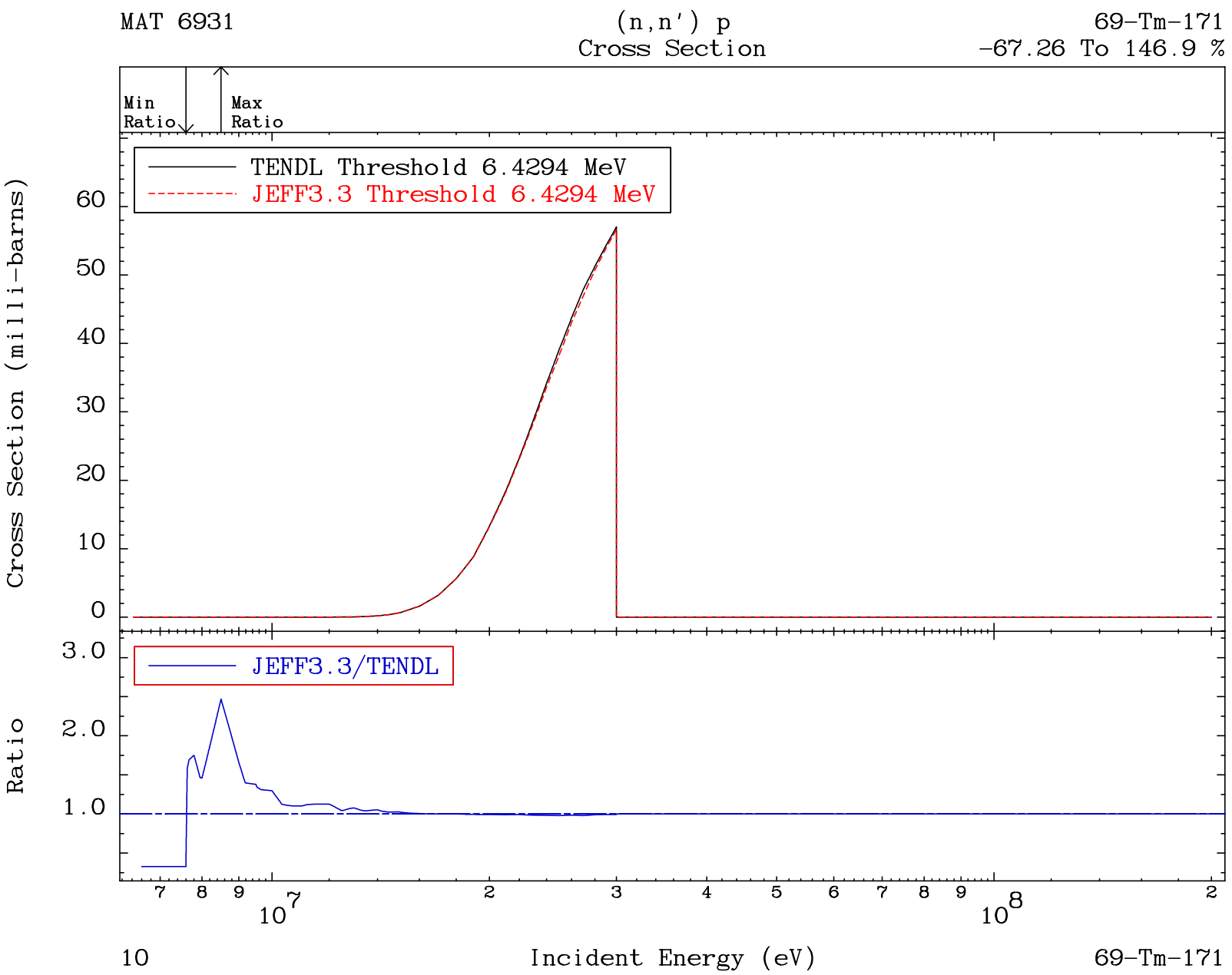

MAT 6931
(n,2n)
Cross Section
69-Tm-171
-5.667 To 94.70 %
Max Ratio
Min Ratio
TENDL Threshold 7.5305 MeV
JEFF3.3 Threshold 7.5305 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
69-Tm-171

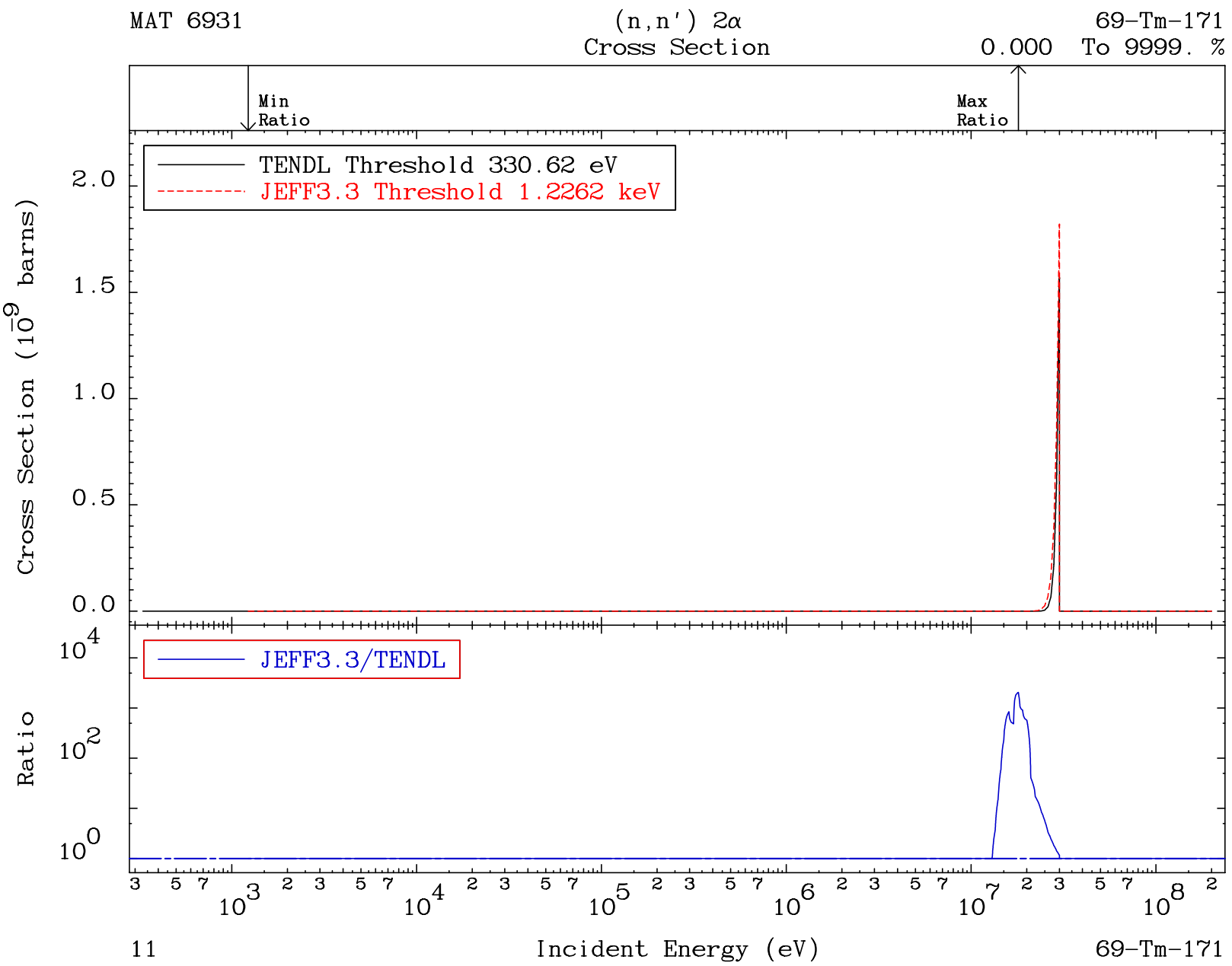

MAT 6931
(n,3n)
Cross Section
69-Tm-171
-14.87 To 278.6 %
Max Ratio
Min Ratio
TENDL Threshold 14.161 MeV
JEFF3.3 Threshold 14.161 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
69-Tm-171

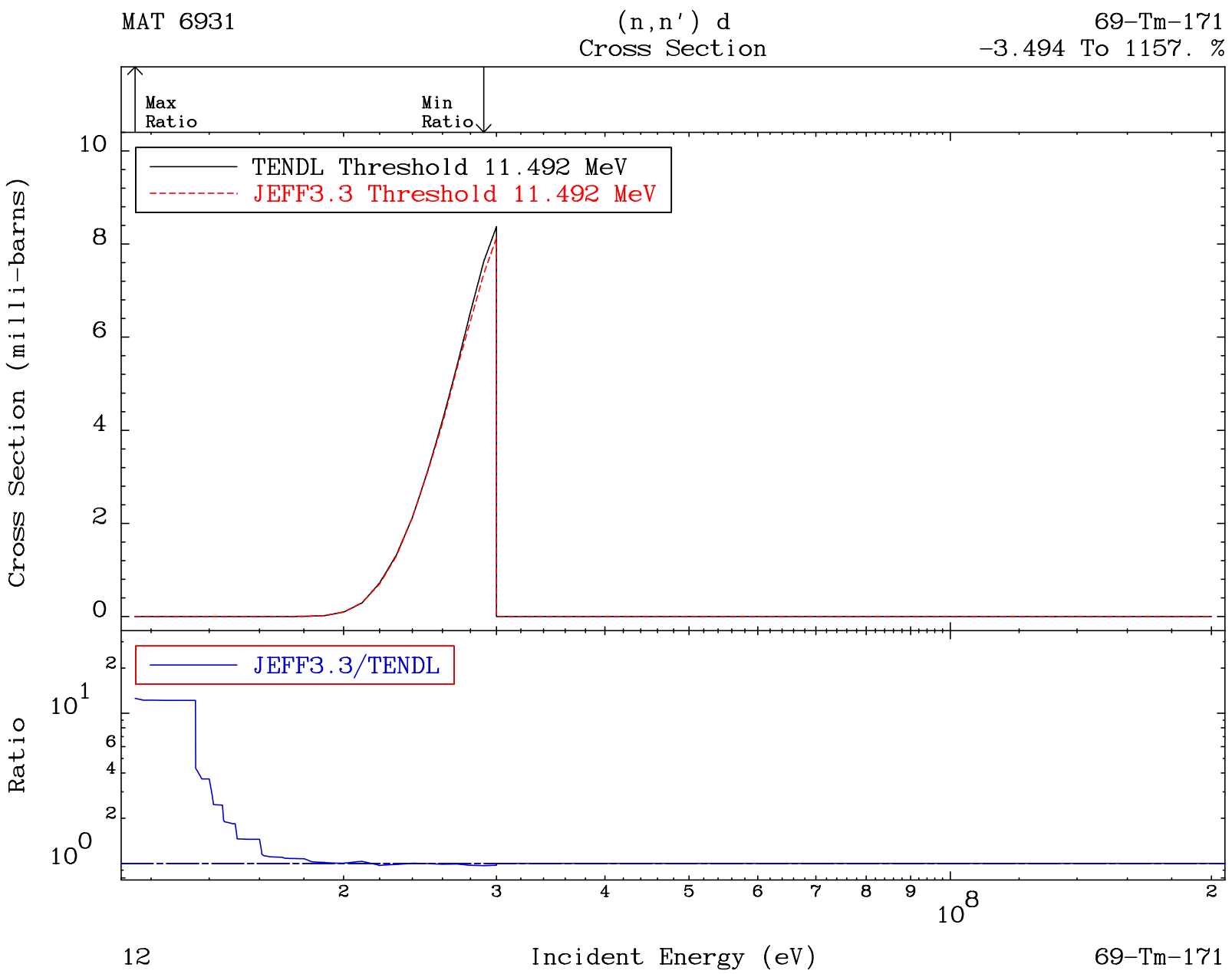

MAT 6931
(n,n') α
Cross Section
69-Tm-171
-17.76 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 330.62 eV
JEFF3.3 Threshold 1.2262 keV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
7
69-Tm-171

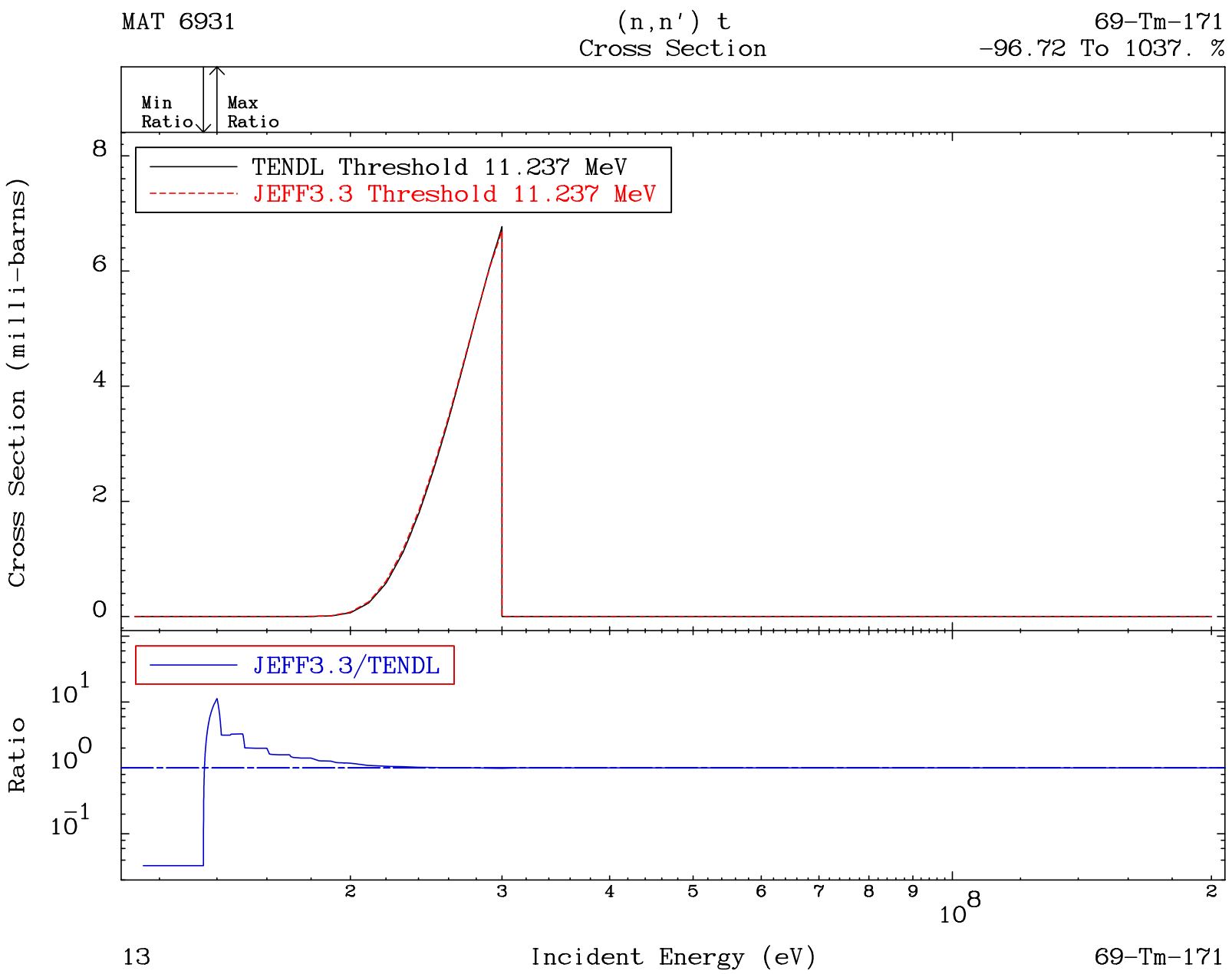

MAT 6931
(n,2n) α
Cross Section
69-Tm-171
-93.85 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 6.6753 MeV
JEFF3.3 Threshold 6.6763 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
8
69-Tm-171

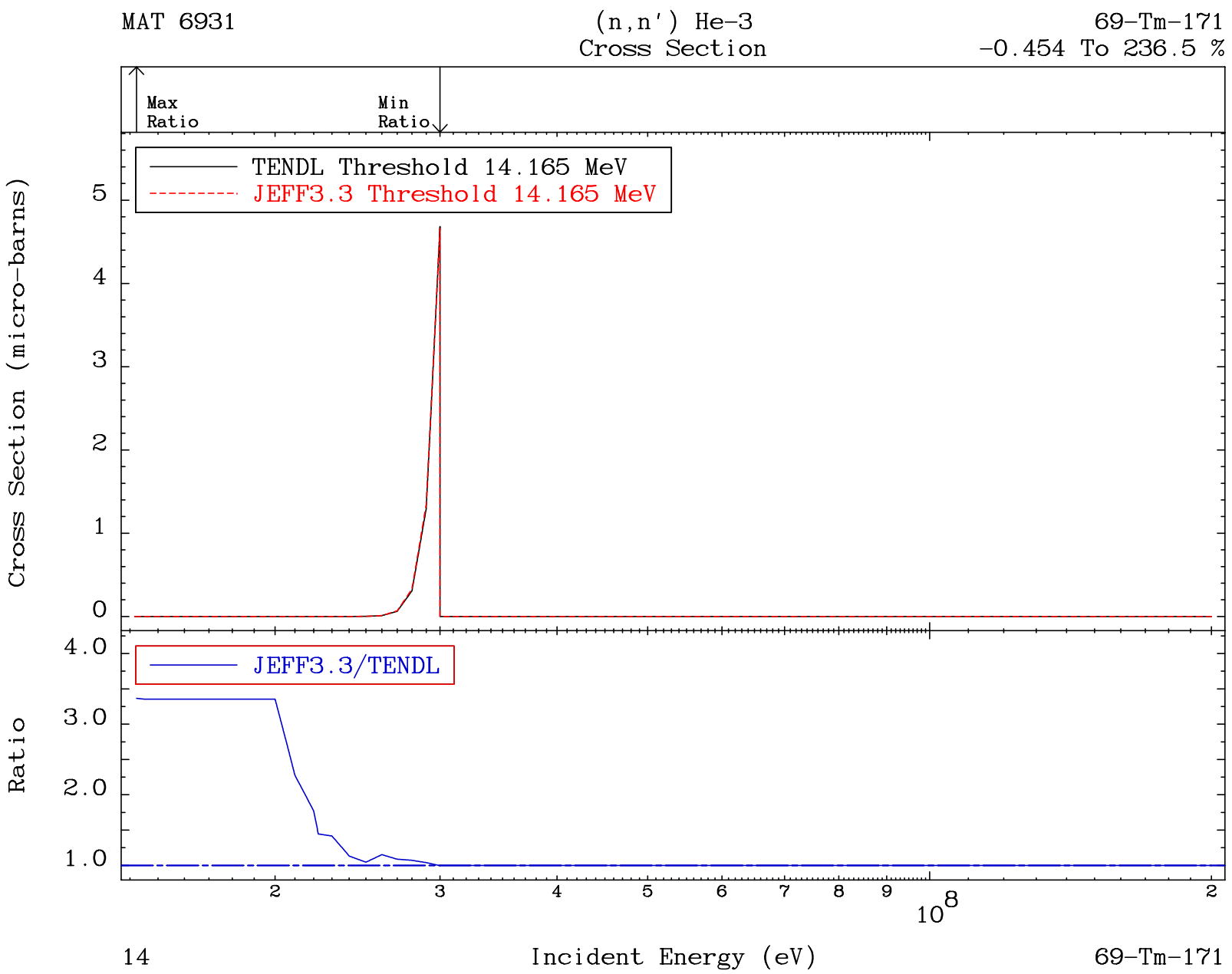

MAT 6931
(n,3n) α
Cross Section
69-Tm-171
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 12.956 MeV
JEFF3.3 Threshold 12.956 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
69-Tm-171

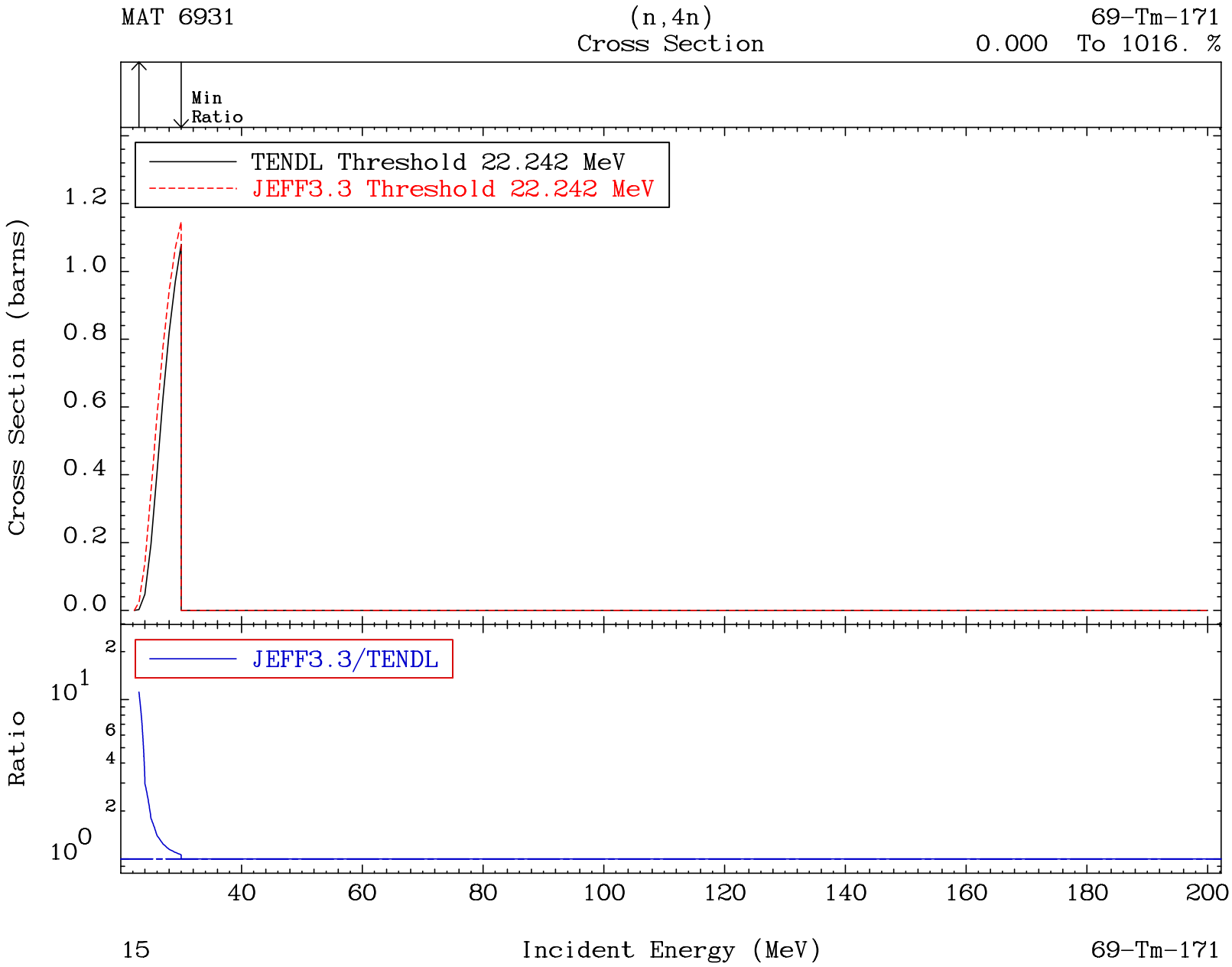

MAT 6931
(n,n') p
Cross Section
69-Tm-171
-67.26 To 146.9 %
Min Ratio
Max Ratio
TENDL Threshold 6.4294 MeV
JEFF3.3 Threshold 6.4294 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
69-Tm-171

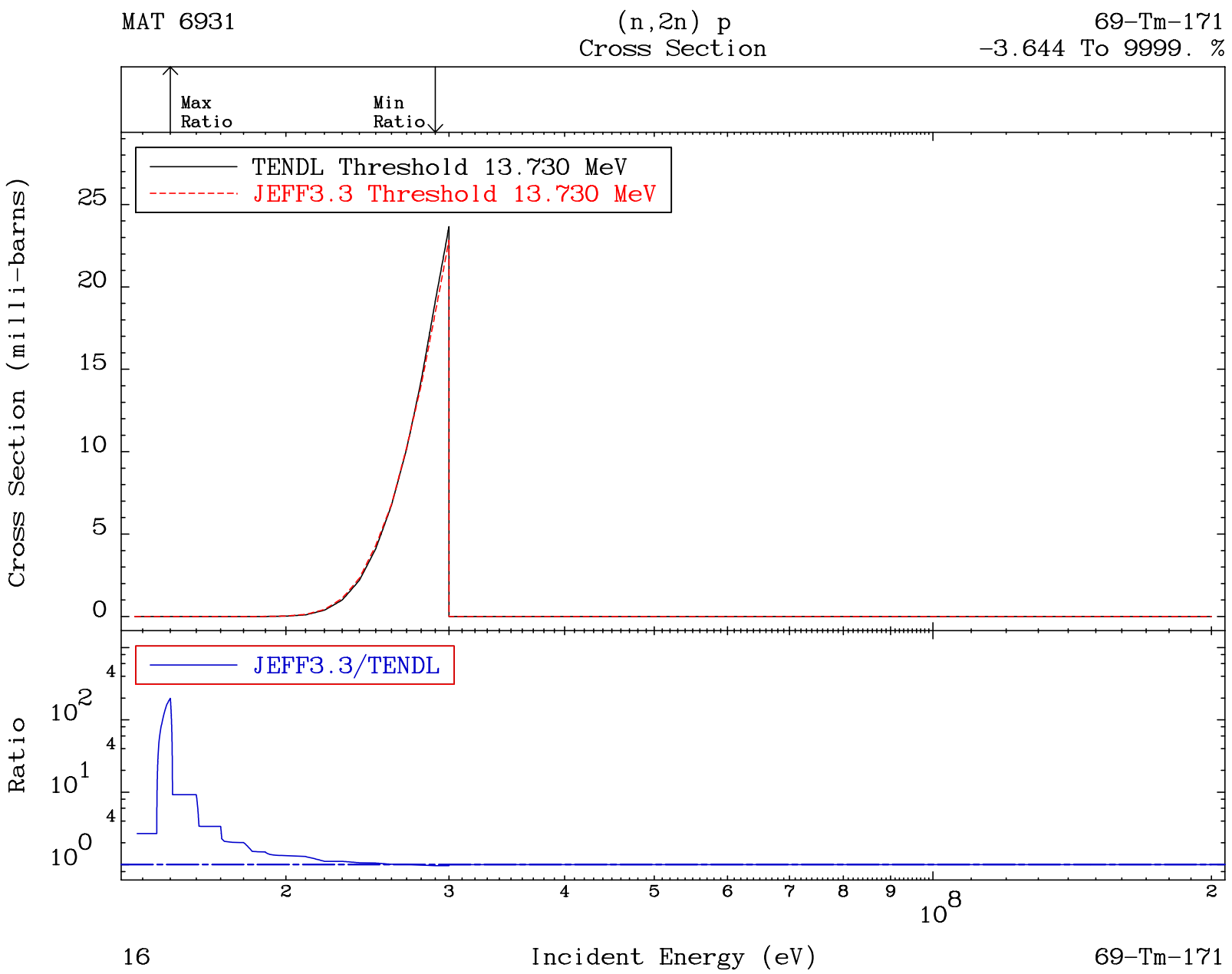

MAT 6931
(n,n') 2α
Cross Section
69-Tm-171
0.000 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 330.62 eV
JEFF3.3 Threshold 1.2262 keV
Cross Section (10^{-9} barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
11
Incident Energy (eV)
69-Tm-171

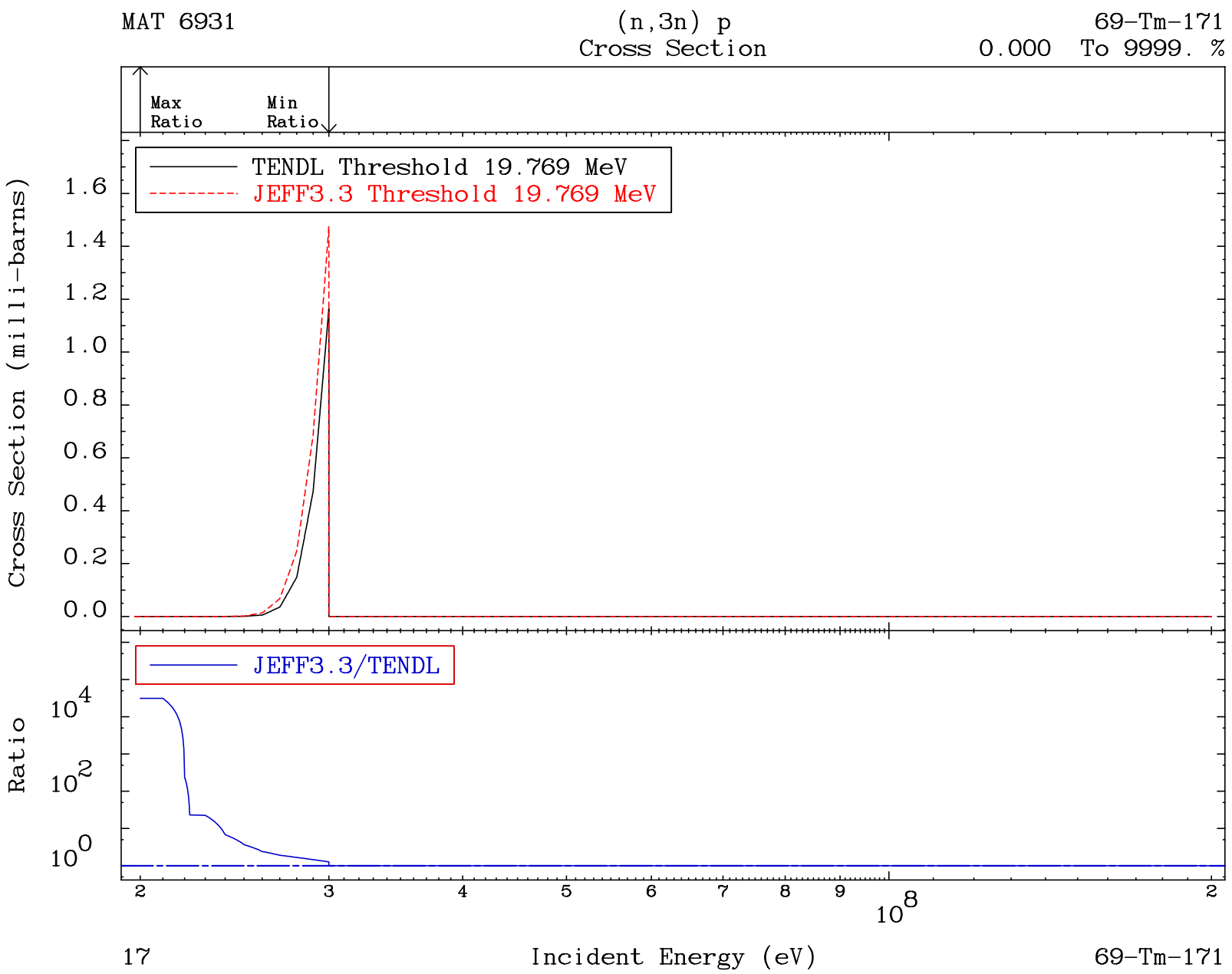

MAT 6931
(n,n') d
Cross Section
69-Tm-171
-3.494 To 1157. %
Max Ratio
Min Ratio
TENDL Threshold 11.492 MeV
JEFF3.3 Threshold 11.492 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
12
69-Tm-171

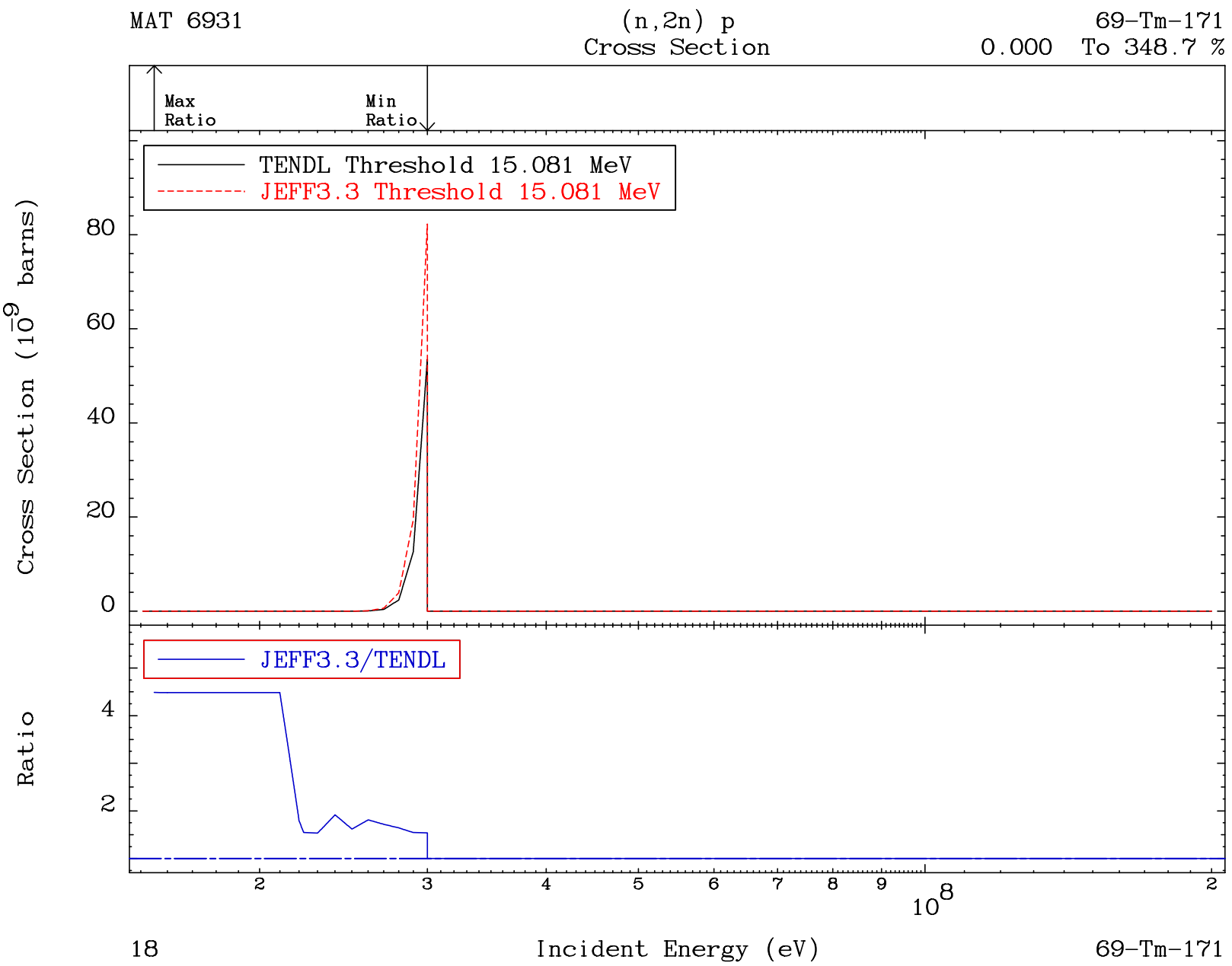

MAT 6931
(n,n') t
Cross Section
69-Tm-171
-96.72 To 1037. %
Min Ratio
Max Ratio
TENDL Threshold 11.237 MeV
JEFF3.3 Threshold 11.237 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
10^{1}
10^{0}
10^{-1}
2
3
4
5
6
7
8
9
10^{8}
2
13
Incident Energy (eV)
69-Tm-171

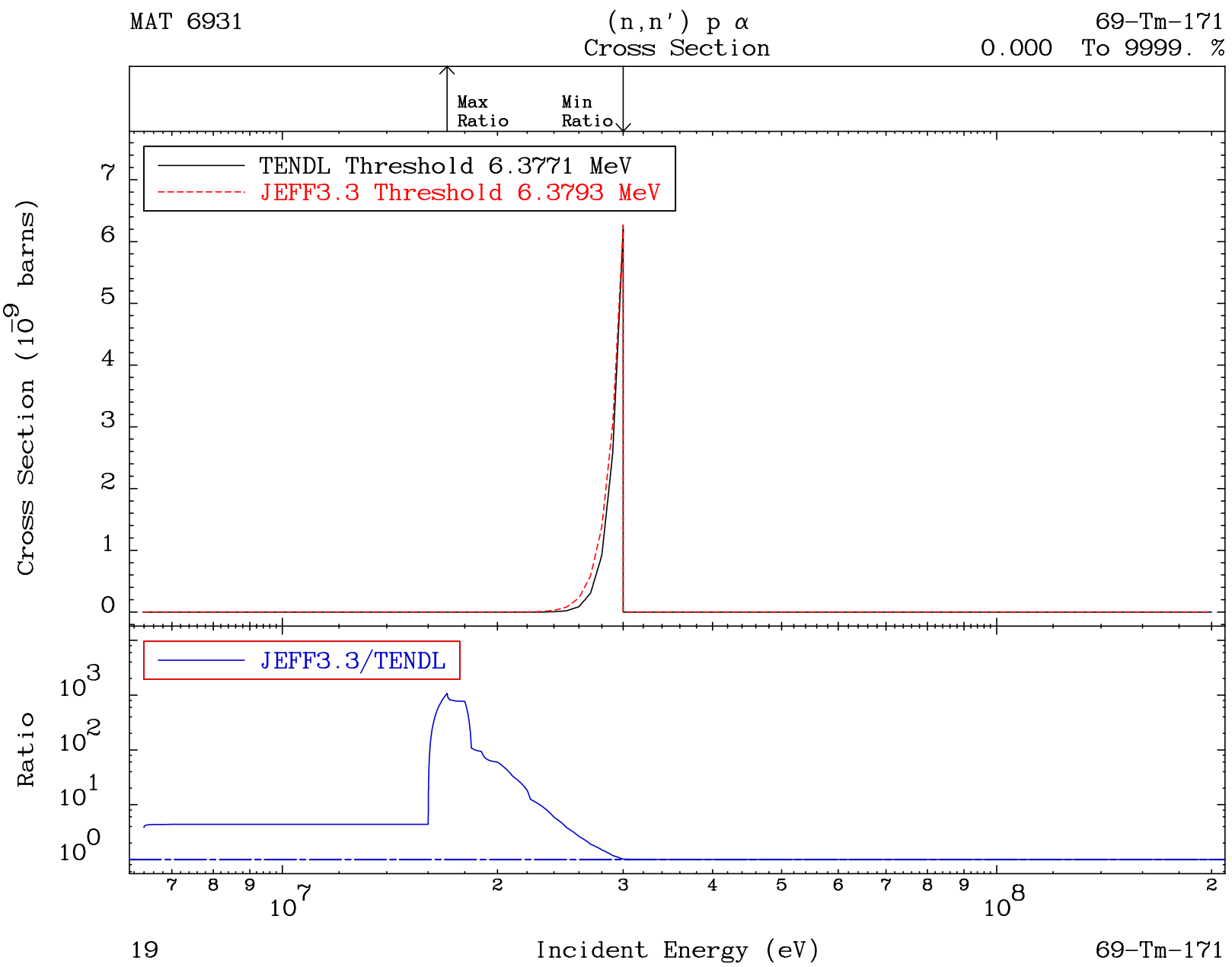

MAT 6931
(n,n') He-3
Cross Section
69-Tm-171
-0.454 To 236.5 %
Max Ratio
Min Ratio
TENDL Threshold 14.165 MeV
JEFF3.3 Threshold 14.165 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
1.0
2.0
3.0
4.0
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
69-Tm-171

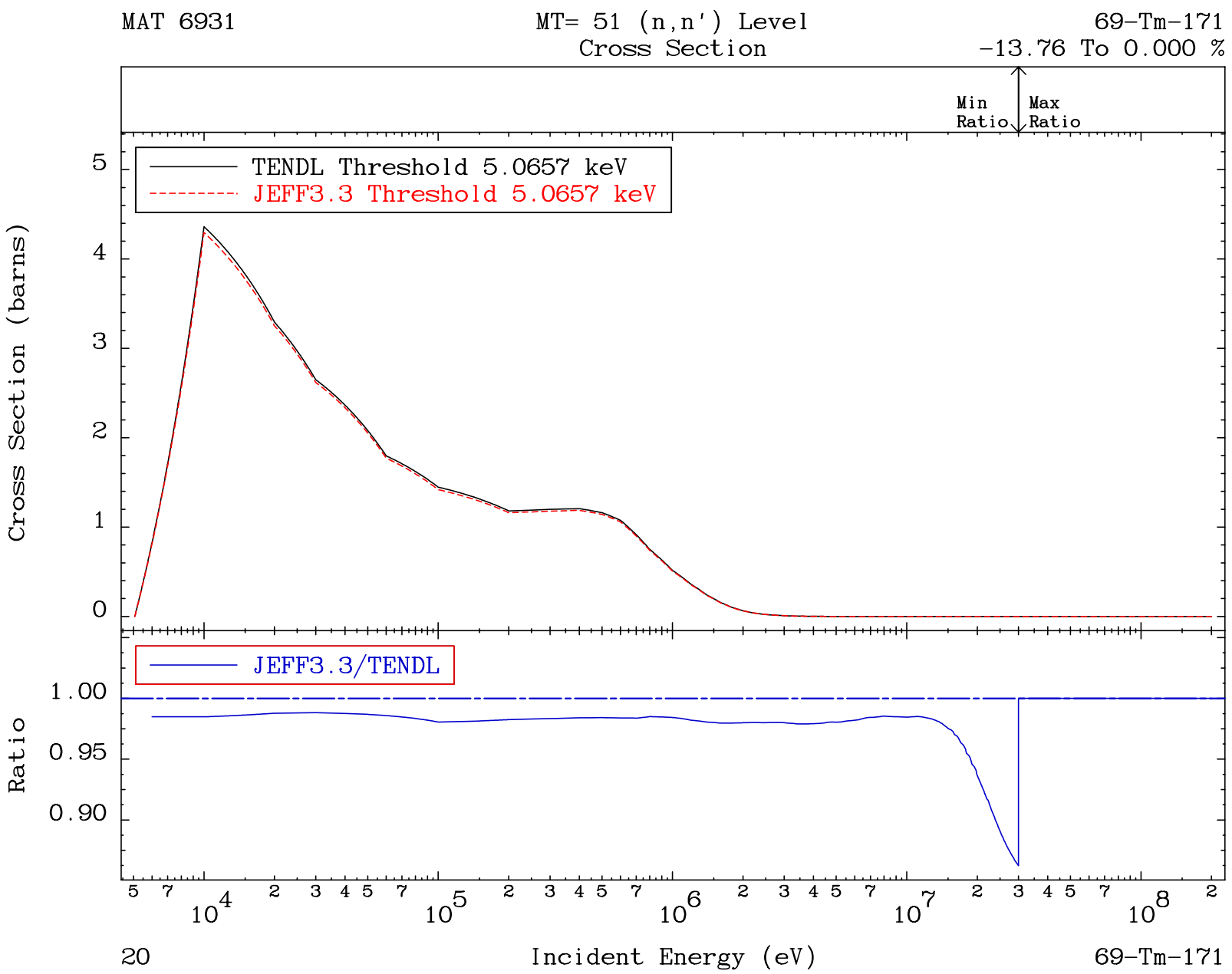

MAT 6931
(n,4n)
Cross Section
69-Tm-171
0.000 To 1016. %
Min
Ratio
TENDL Threshold 22.242 MeV
JEFF3.3 Threshold 22.242 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
2
10^1
6
4
2
10^0
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
69-Tm-171

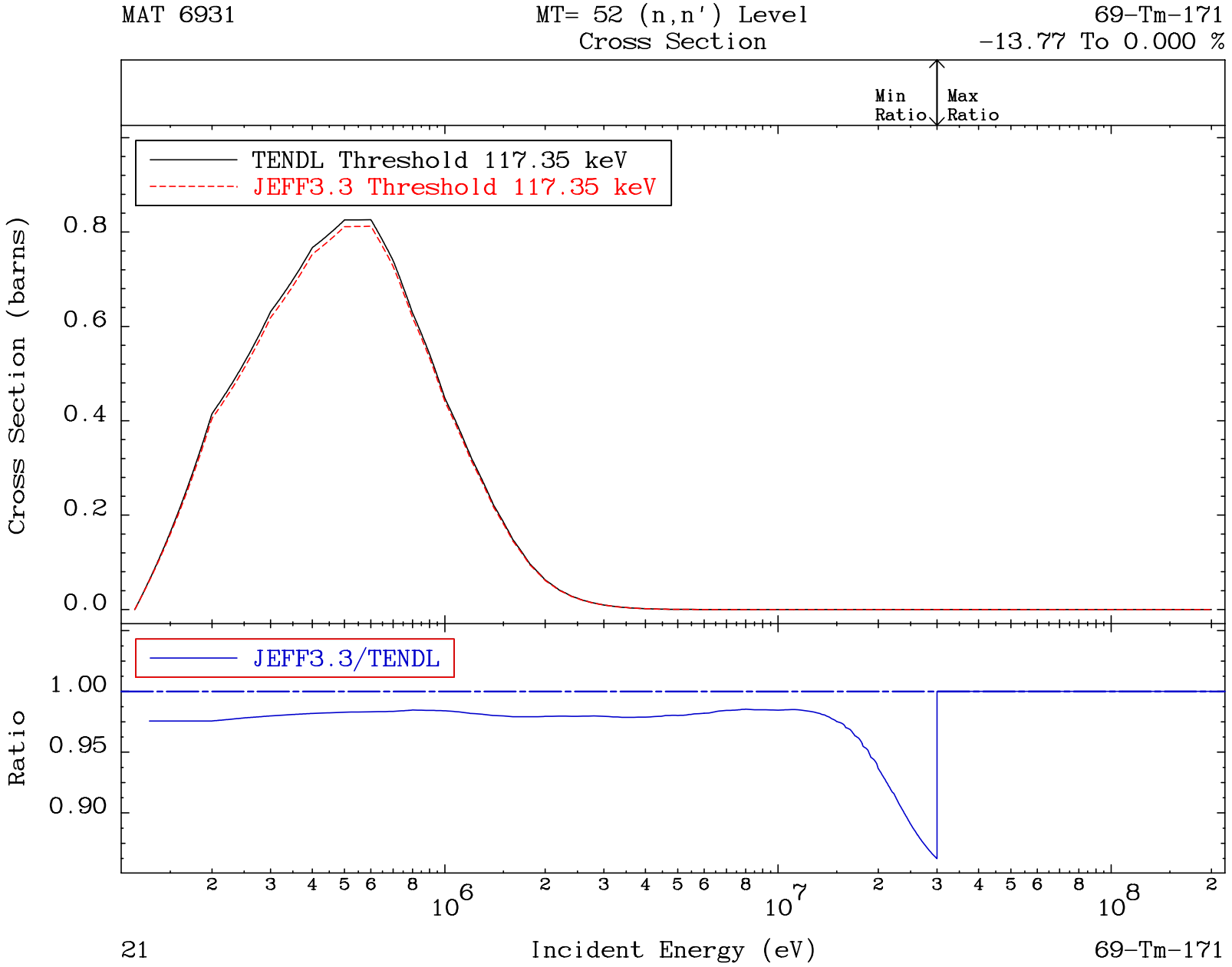

MAT 6931
(n,2n) p
Cross Section
69-Tm-171
-3.644 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.730 MeV
JEFF3.3 Threshold 13.730 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
69-Tm-171

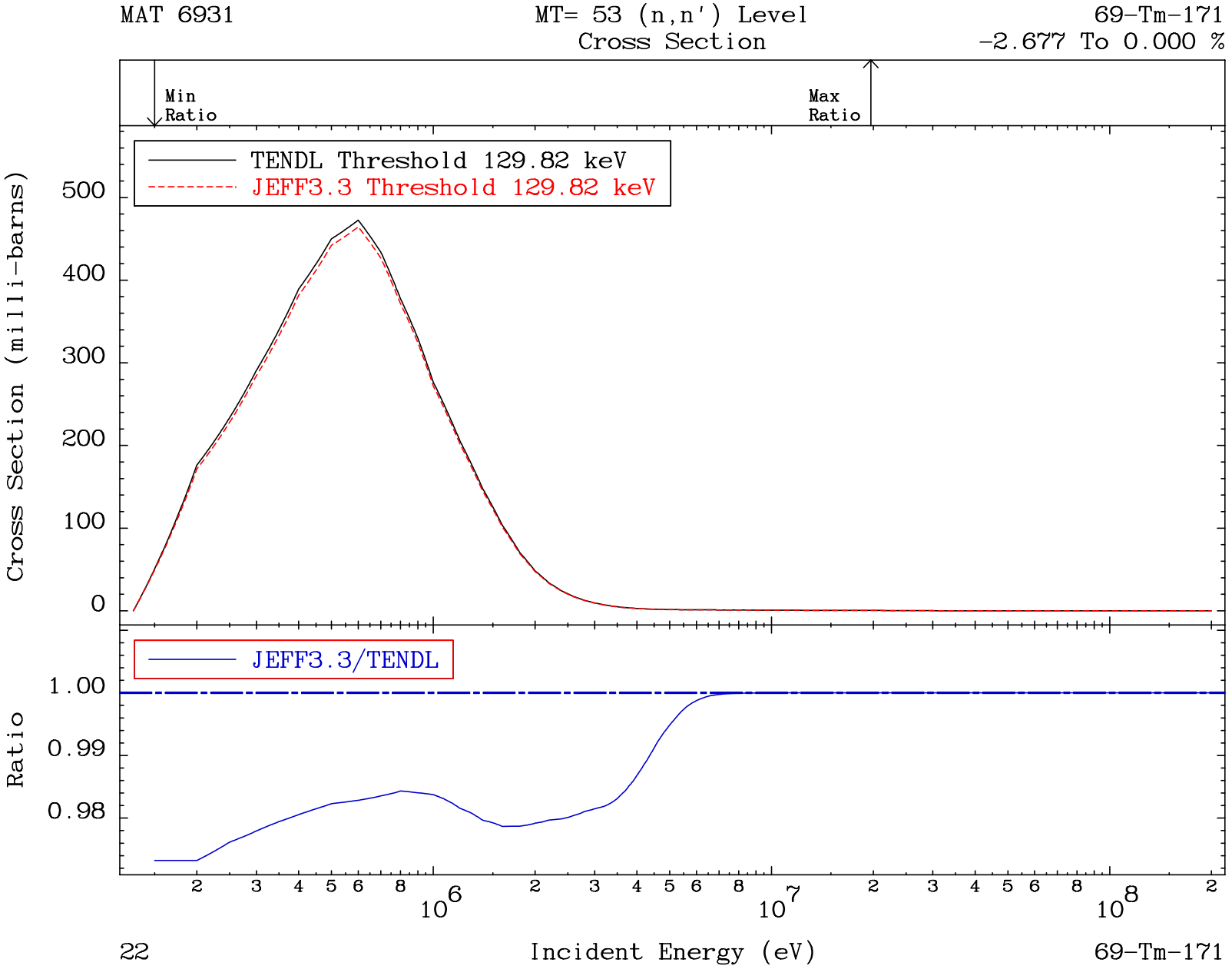

MAT 6931
(n,3n) p
Cross Section
69-Tm-171
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 19.769 MeV
JEFF3.3 Threshold 19.769 MeV
Cross Section (milli-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
17
Incident Energy (eV)
69-Tm-171

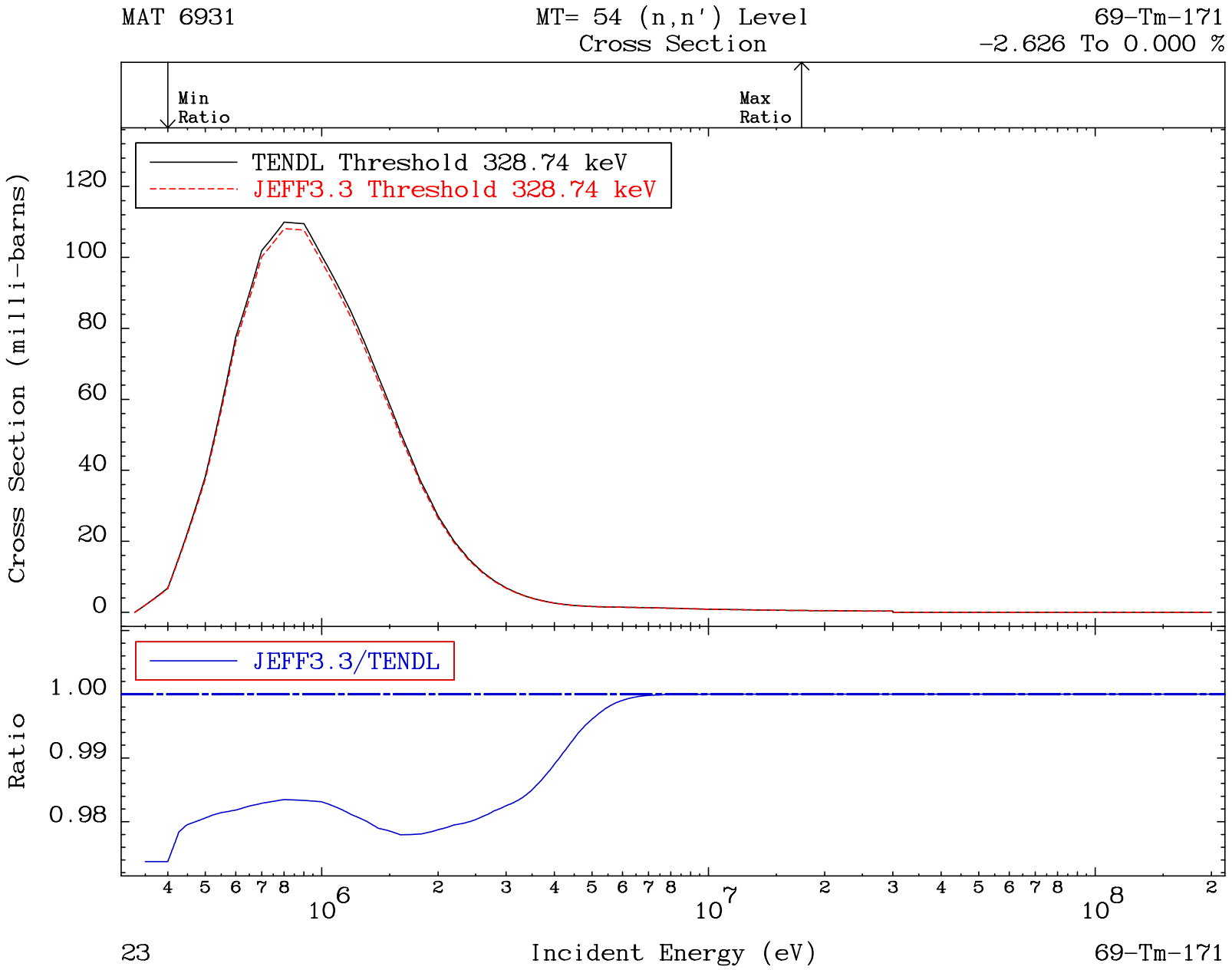

MAT 6931
(n,2n) p
Cross Section
69-Tm-171
0.000 To 348.7 %
Max Ratio
Min Ratio
TENDL Threshold 15.081 MeV
JEFF3.3 Threshold 15.081 MeV
Cross Section (10^{-9} barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
4
2
2
3
4
5
6
7
8
9
10^8
2
18
Incident Energy (eV)
69-Tm-171

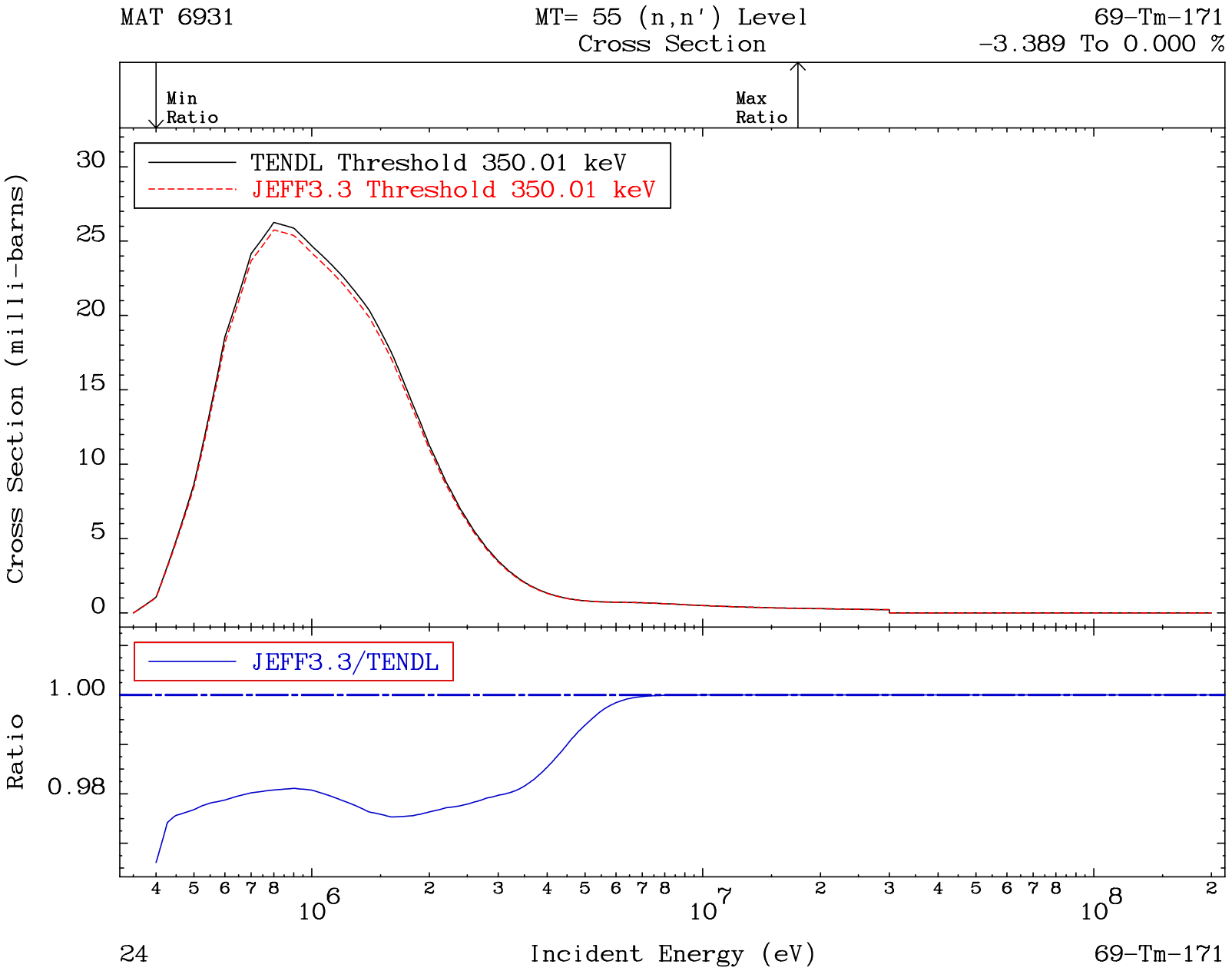

MAT 6931
(n,n') p α
Cross Section
69-Tm-171
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.3771 MeV
JEFF3.3 Threshold 6.3793 MeV
Cross Section (10^-9 barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
19
69-Tm-171

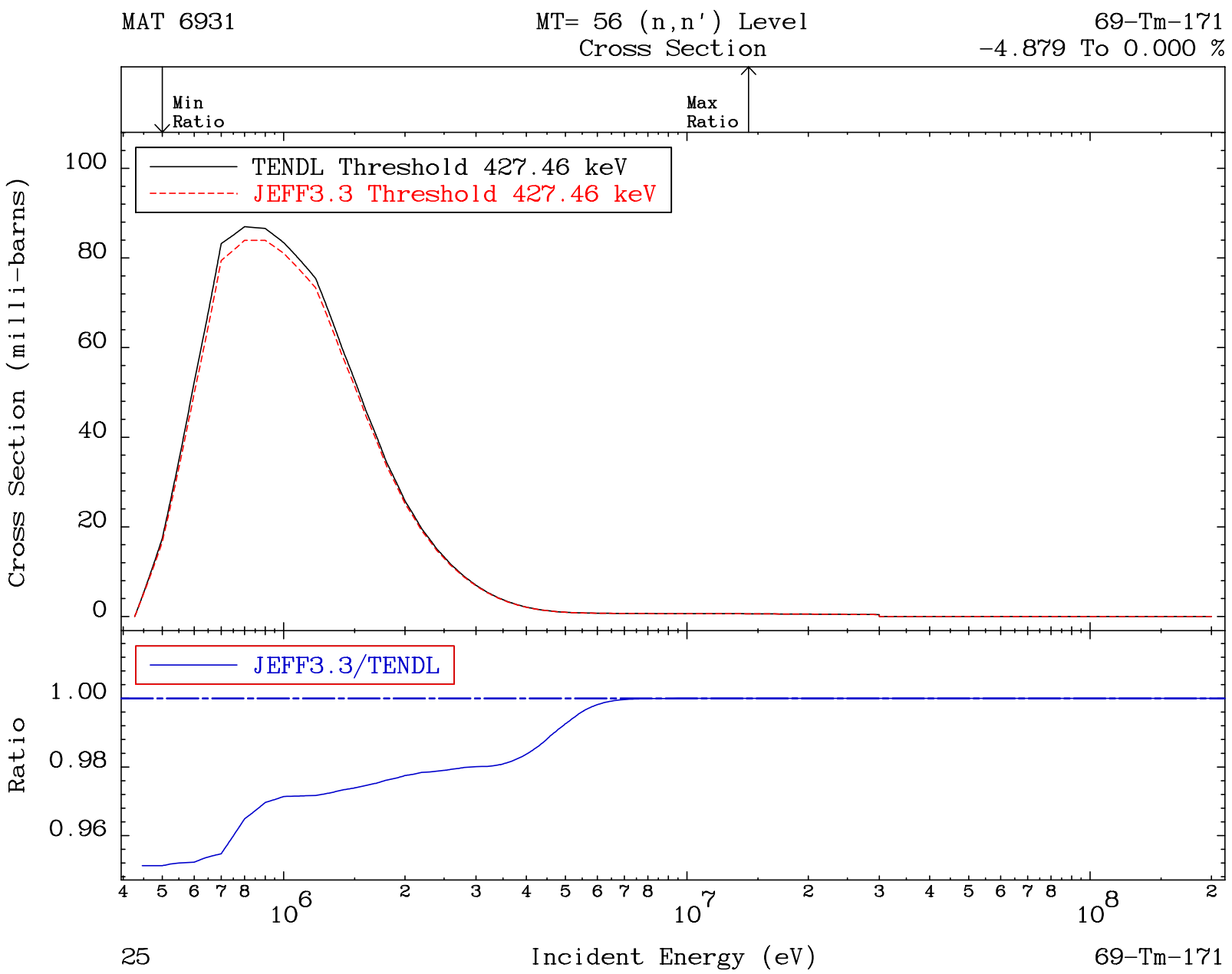

MAT 6931
MT= 51 (n,n') Level
Cross Section
69-Tm-171
-13.76 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 5.0657 keV
JEFF3.3 Threshold 5.0657 keV
Cross Section (barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
0.90
0.95
1.00
10^4
10^5
10^6
10^7
10^8
Incident Energy (eV)
20
69-Tm-171

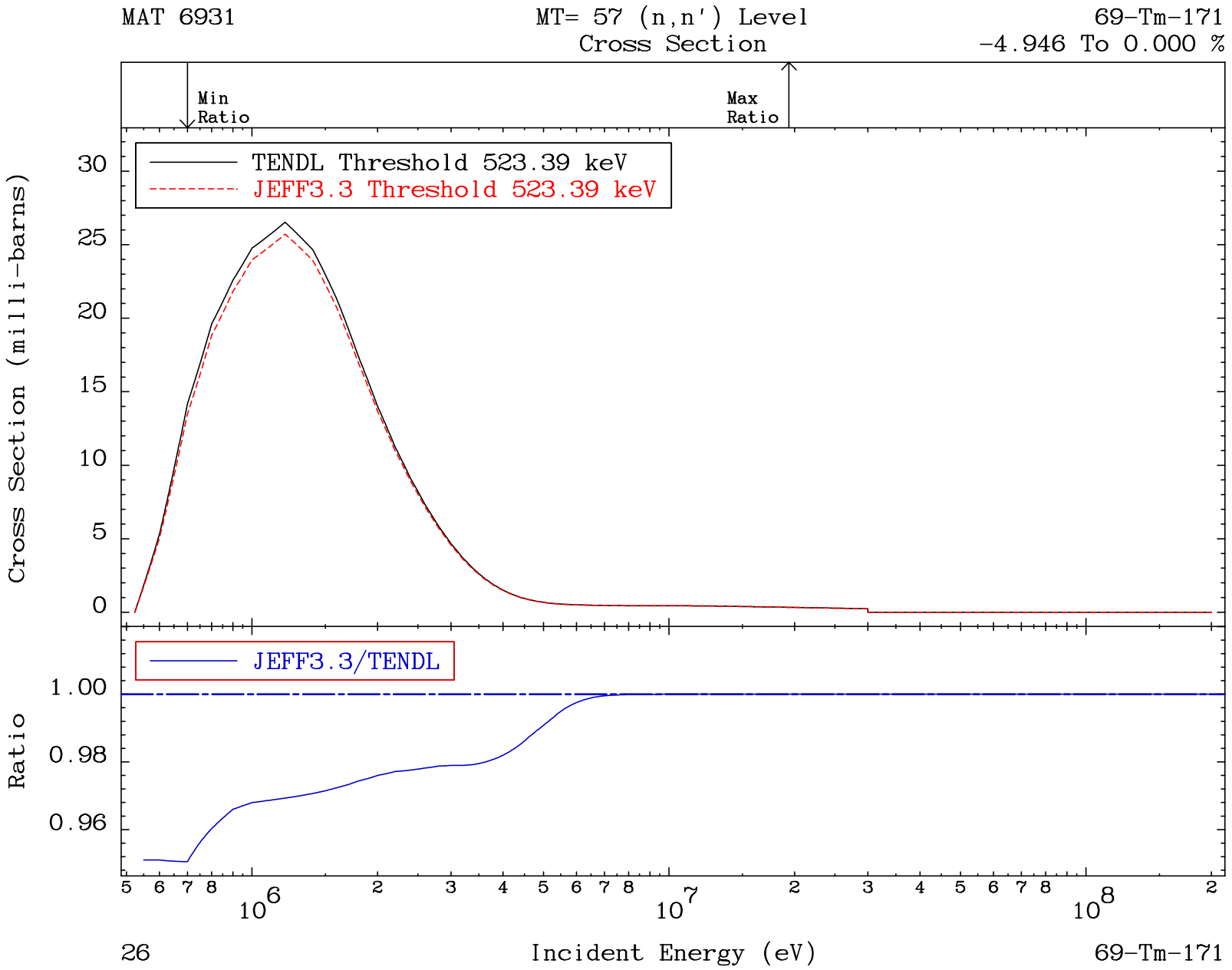

MAT 6931
MT= 52 (n,n') Level
Cross Section
69-Tm-171
-13.77 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 117.35 keV
JEFF3.3 Threshold 117.35 keV
Cross Section (barns)
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
2 3 4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
21
Incident Energy (eV)
69-Tm-171

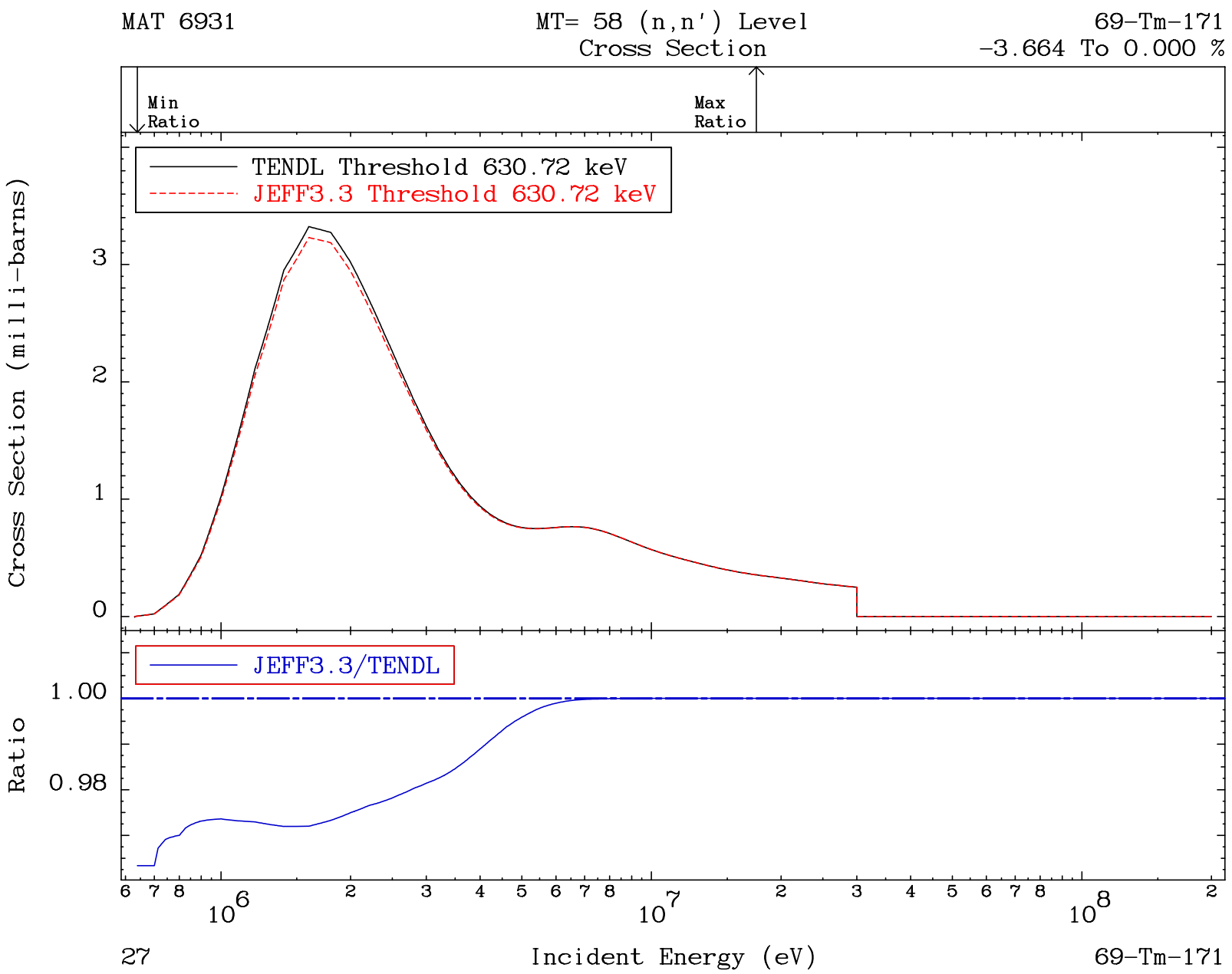

MAT 6931
MT= 53 (n,n') Level
Cross Section
69-Tm-171
-2.677 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 129.82 keV
JEFF3.3 Threshold 129.82 keV
Cross Section (milli-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
22
Incident Energy (eV)
69-Tm-171

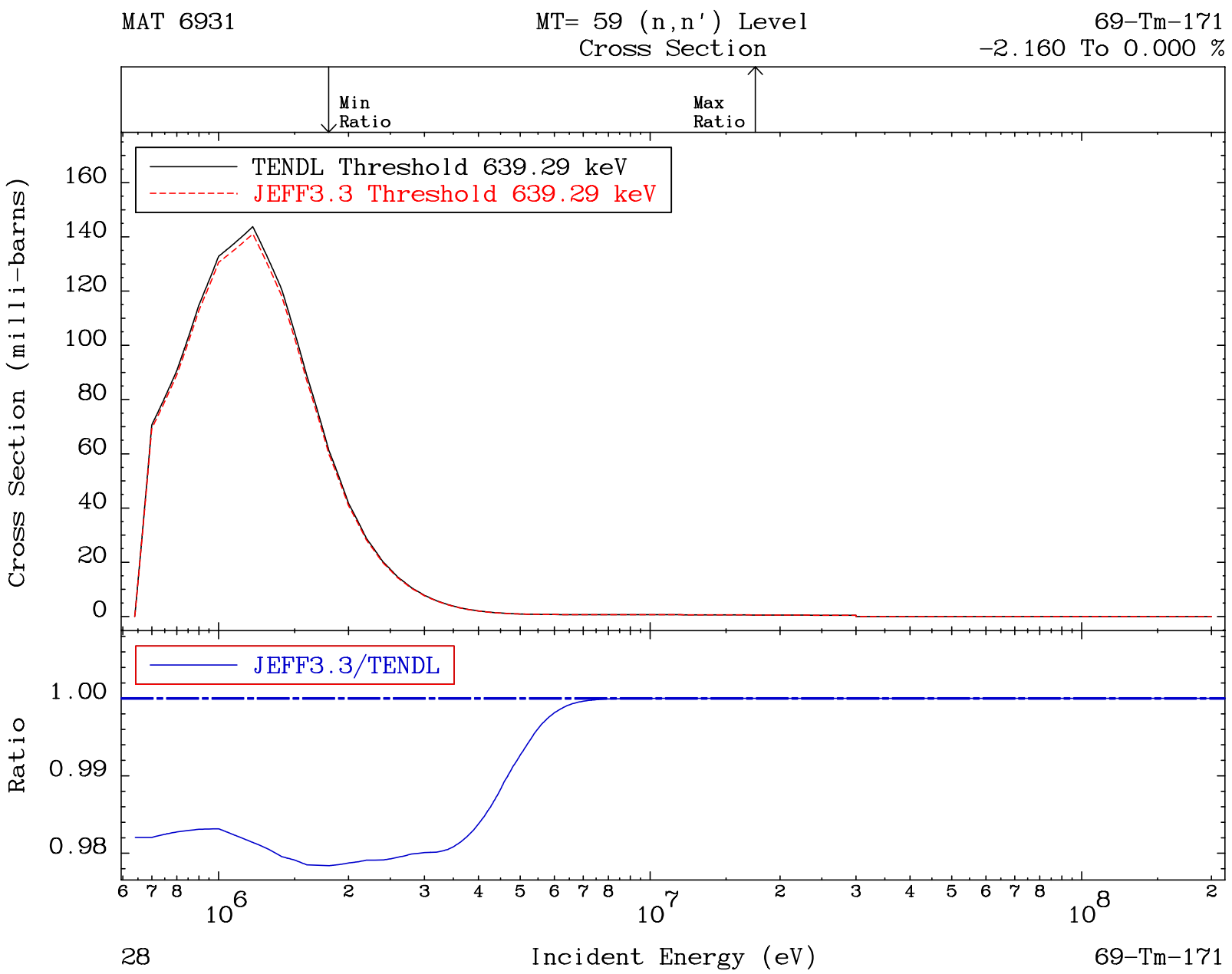

MAT 6931
MT= 54 (n,n') Level
Cross Section
69-Tm-171
-2.626 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 328.74 keV
JEFF3.3 Threshold 328.74 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
69-Tm-171

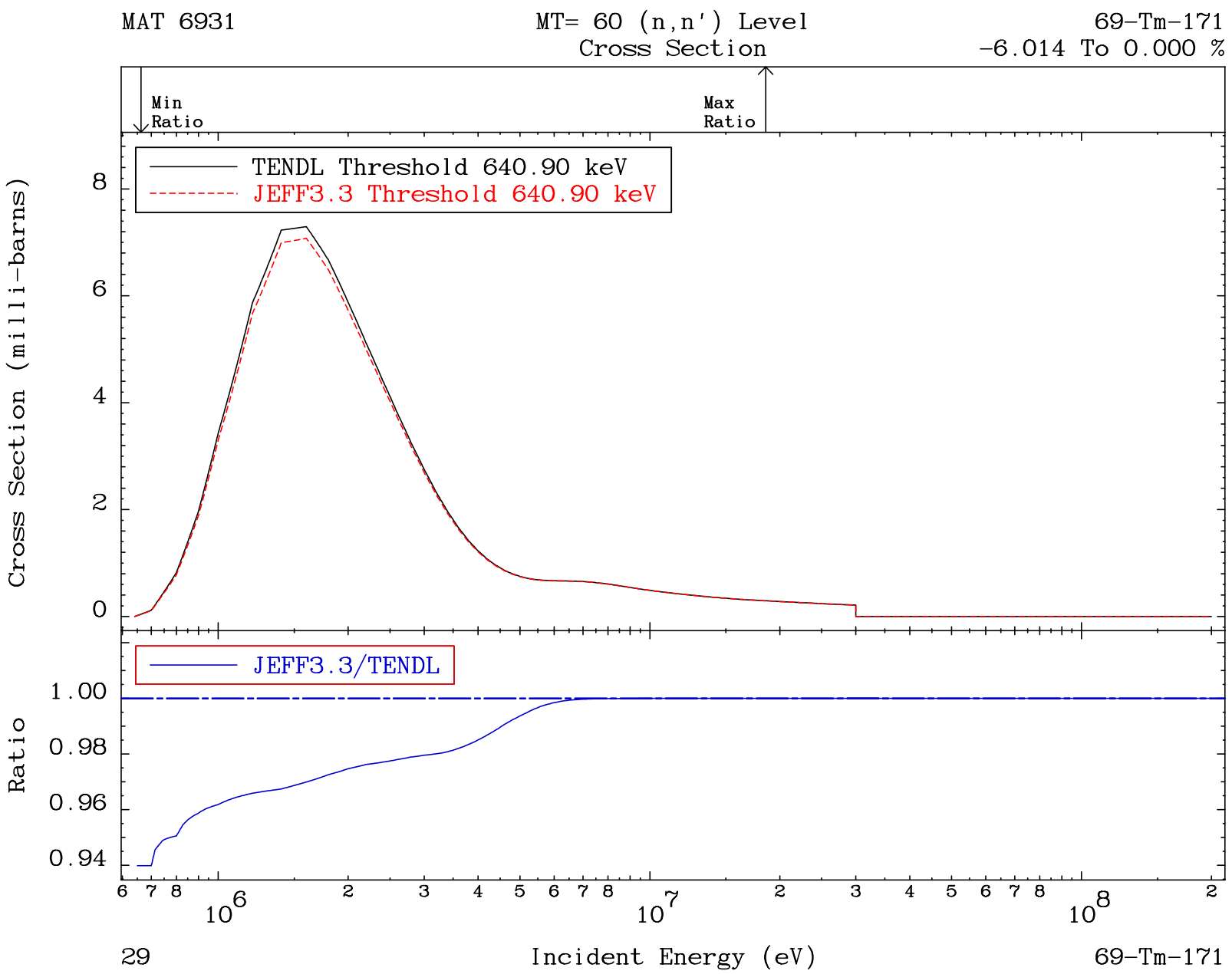

MAT 6931
MT= 55 (n,n') Level
Cross Section
69-Tm-171
-3.389 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 350.01 keV
JEFF3.3 Threshold 350.01 keV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
69-Tm-171

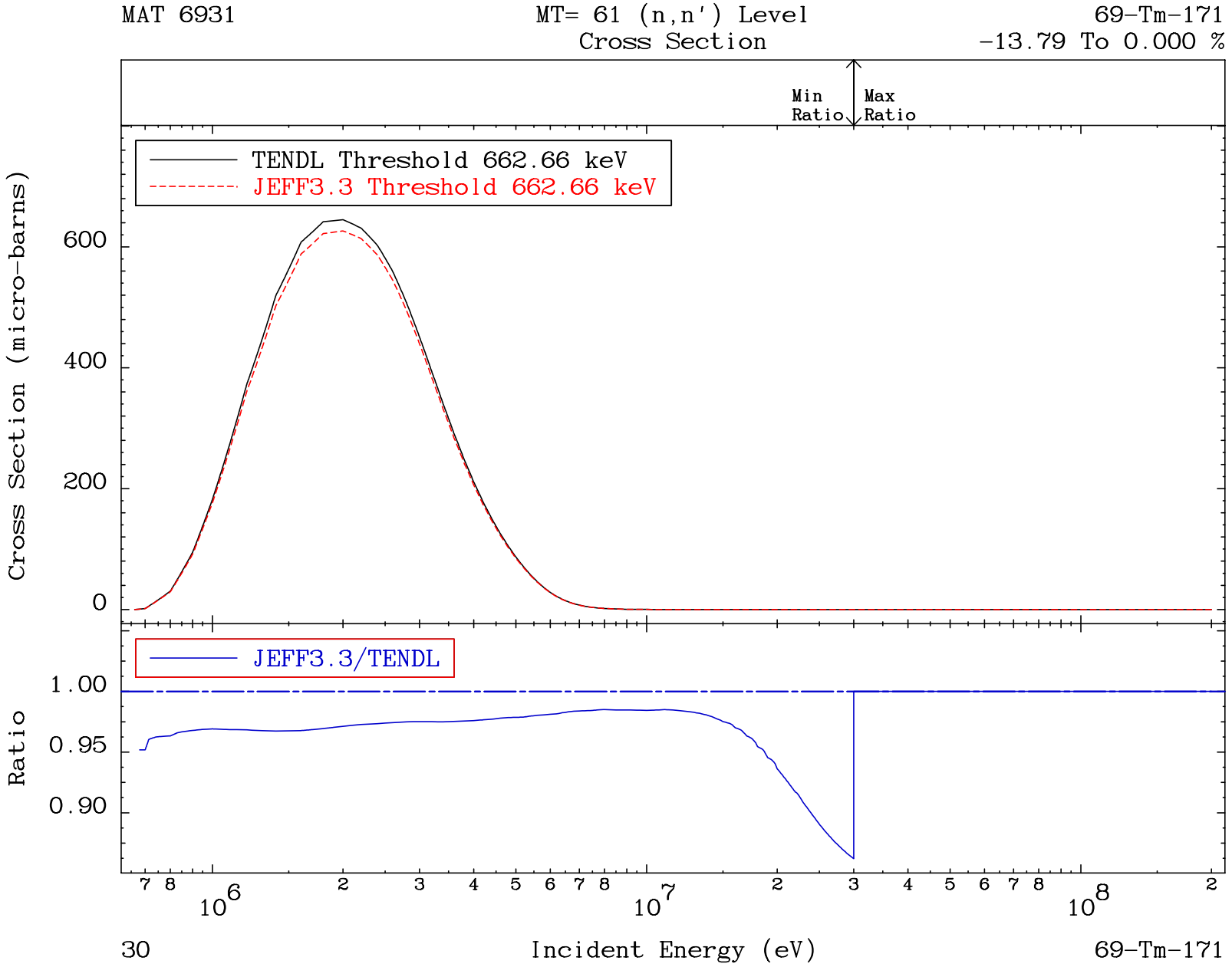

MAT 6931
MT= 56 (n,n') Level
Cross Section
69-Tm-171
-4.879 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 427.46 keV
JEFF3.3 Threshold 427.46 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
25
Incident Energy (eV)
69-Tm-171

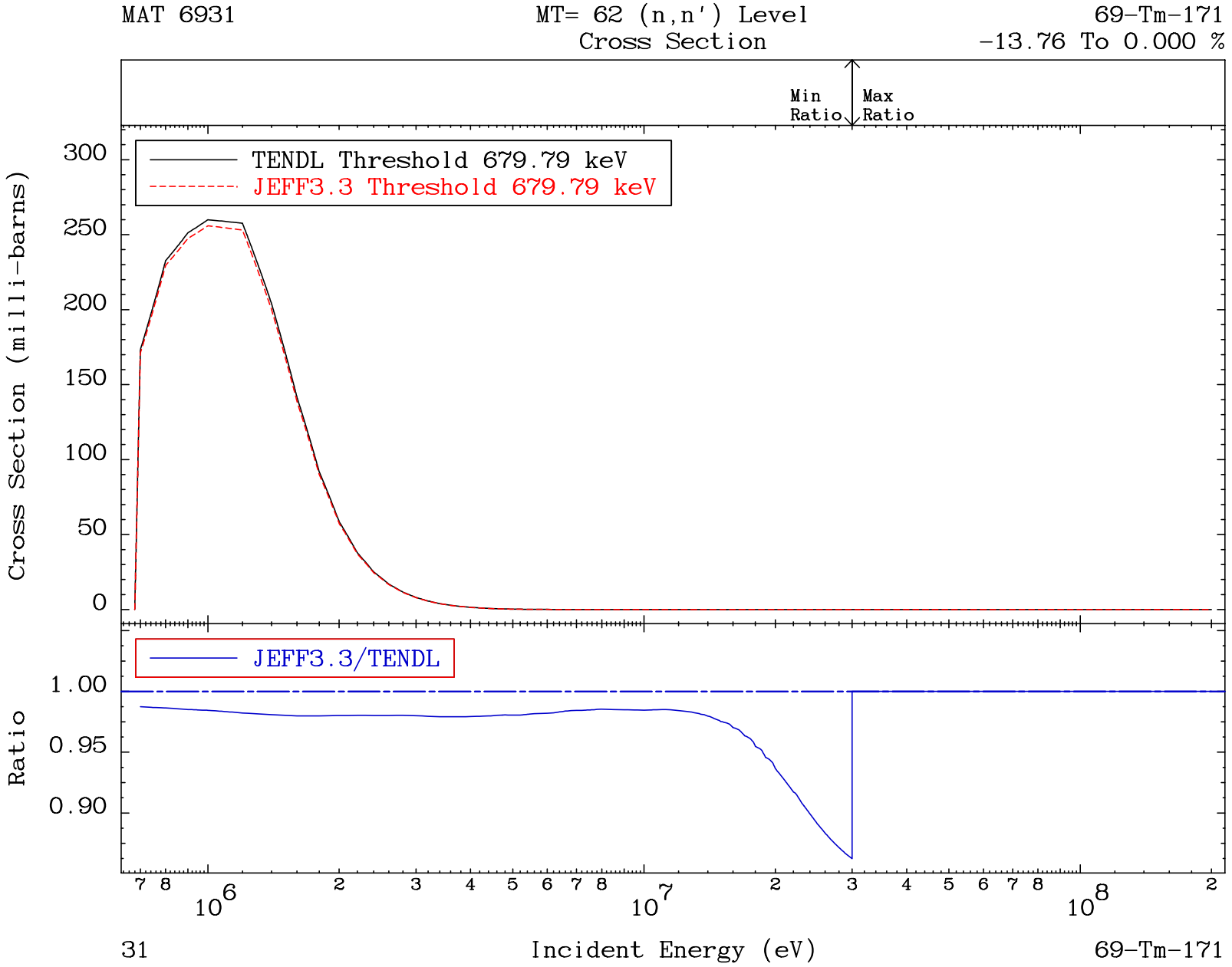

MAT 6931
MT= 57 (n,n') Level
Cross Section
69-Tm-171
-4.946 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 523.39 keV
JEFF3.3 Threshold 523.39 keV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
26
Incident Energy (eV)
69-Tm-171

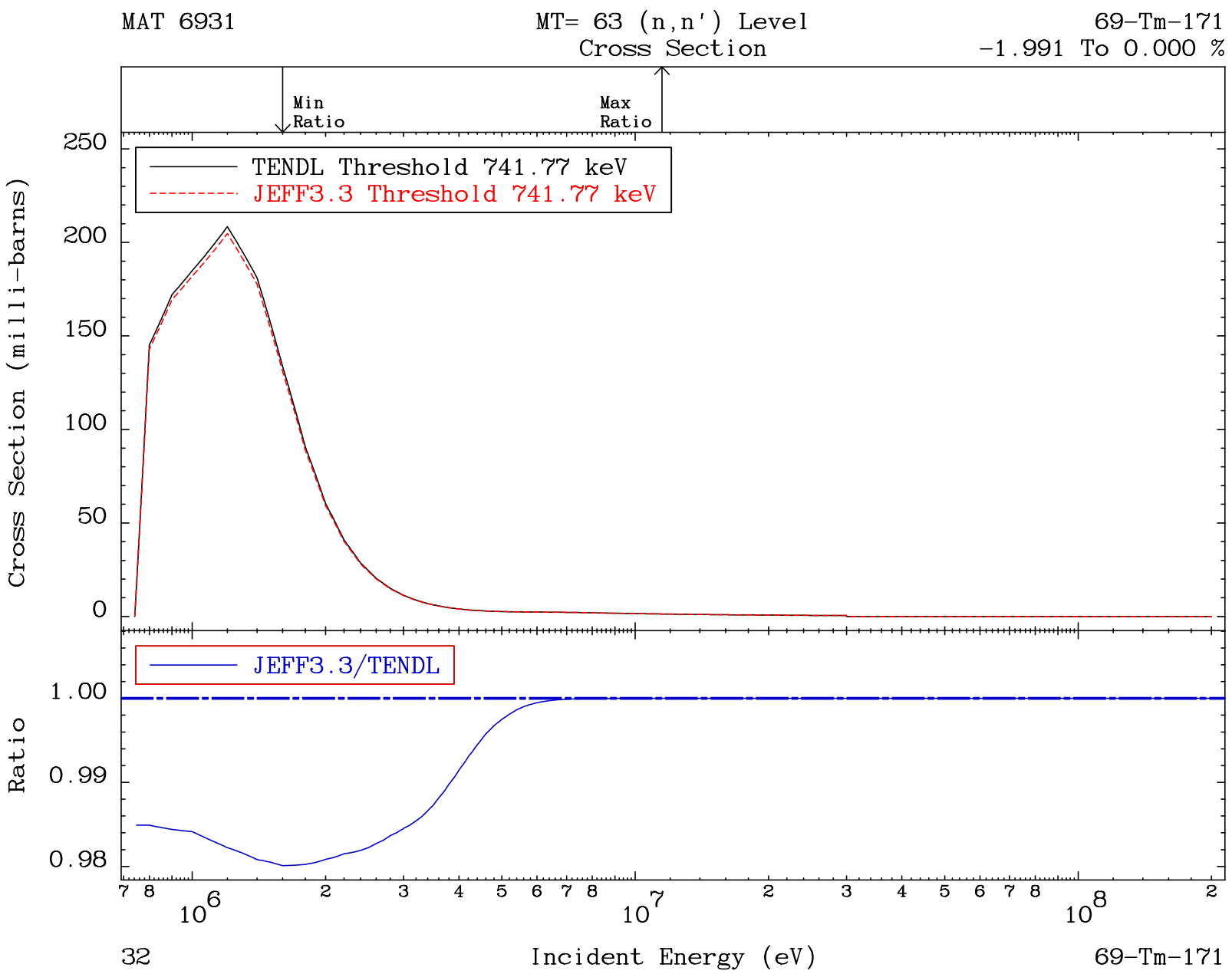

MAT 6931
MT= 58 (n,n') Level
Cross Section
69-Tm-171
-3.664 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 630.72 keV
JEFF3.3 Threshold 630.72 keV
Cross Section (milli-barns)
0
1
2
3
JEFF3.3/TENDL
Ratio
1.00
0.98
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
Incident Energy (eV)
27
69-Tm-171

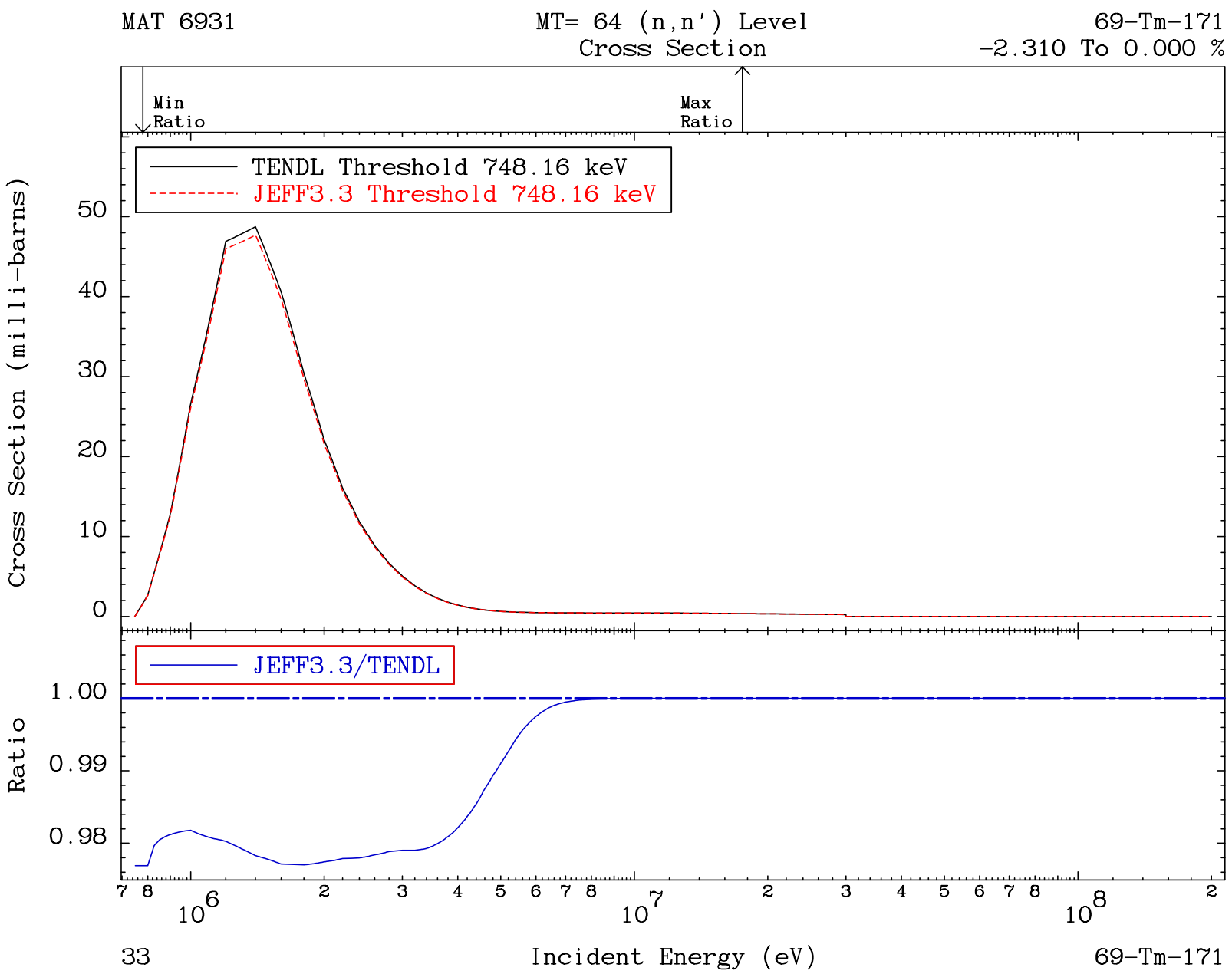

MAT 6931
MT= 59 (n,n') Level
Cross Section
69-Tm-171
-2.160 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 639.29 keV
JEFF3.3 Threshold 639.29 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
28
Incident Energy (eV)
69-Tm-171

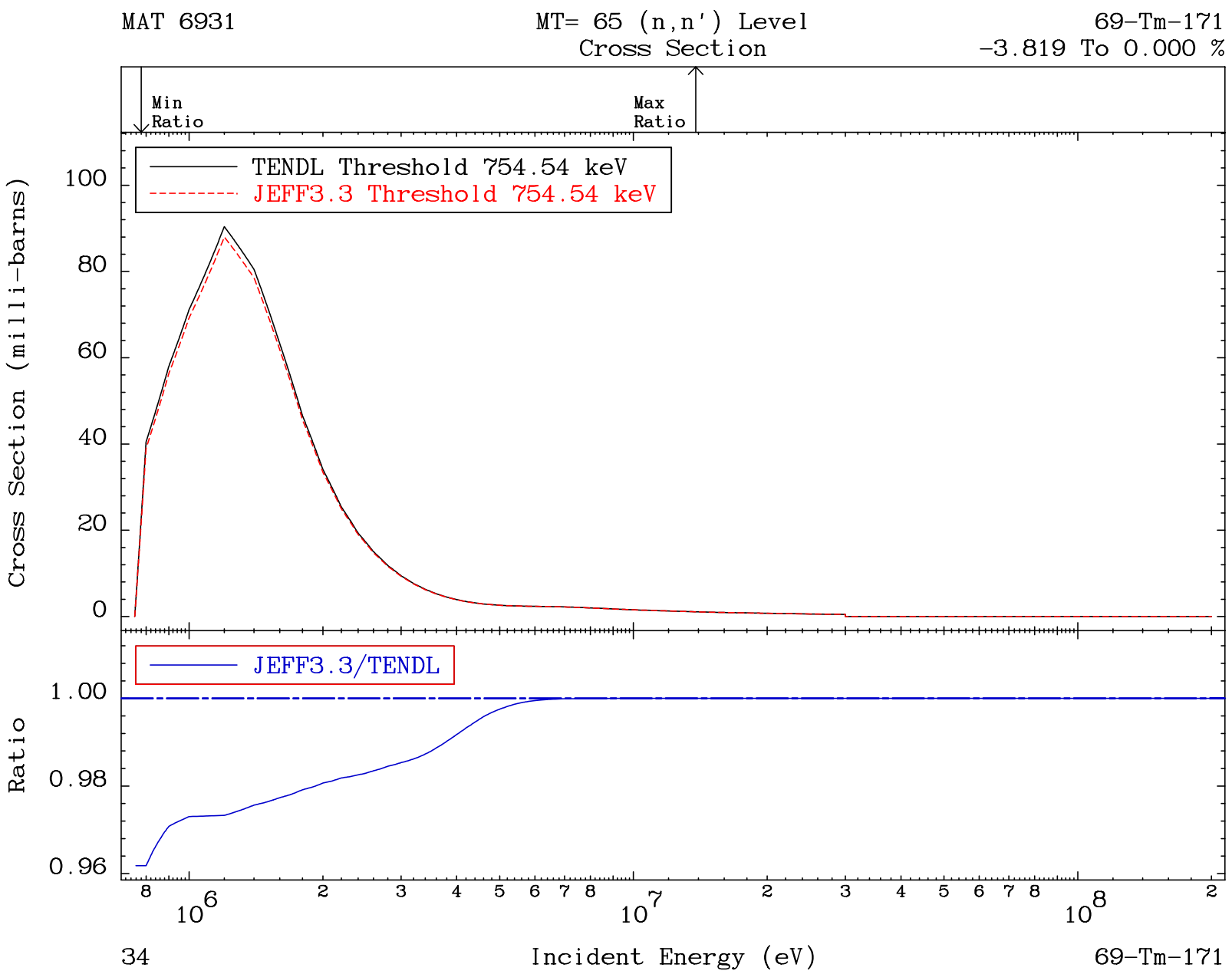

MAT 6931
MT= 60 (n,n') Level
Cross Section
69-Tm-171
-6.014 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 640.90 keV
JEFF3.3 Threshold 640.90 keV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
0.94
0.96
0.98
1.00
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
29
Incident Energy (eV)
69-Tm-171

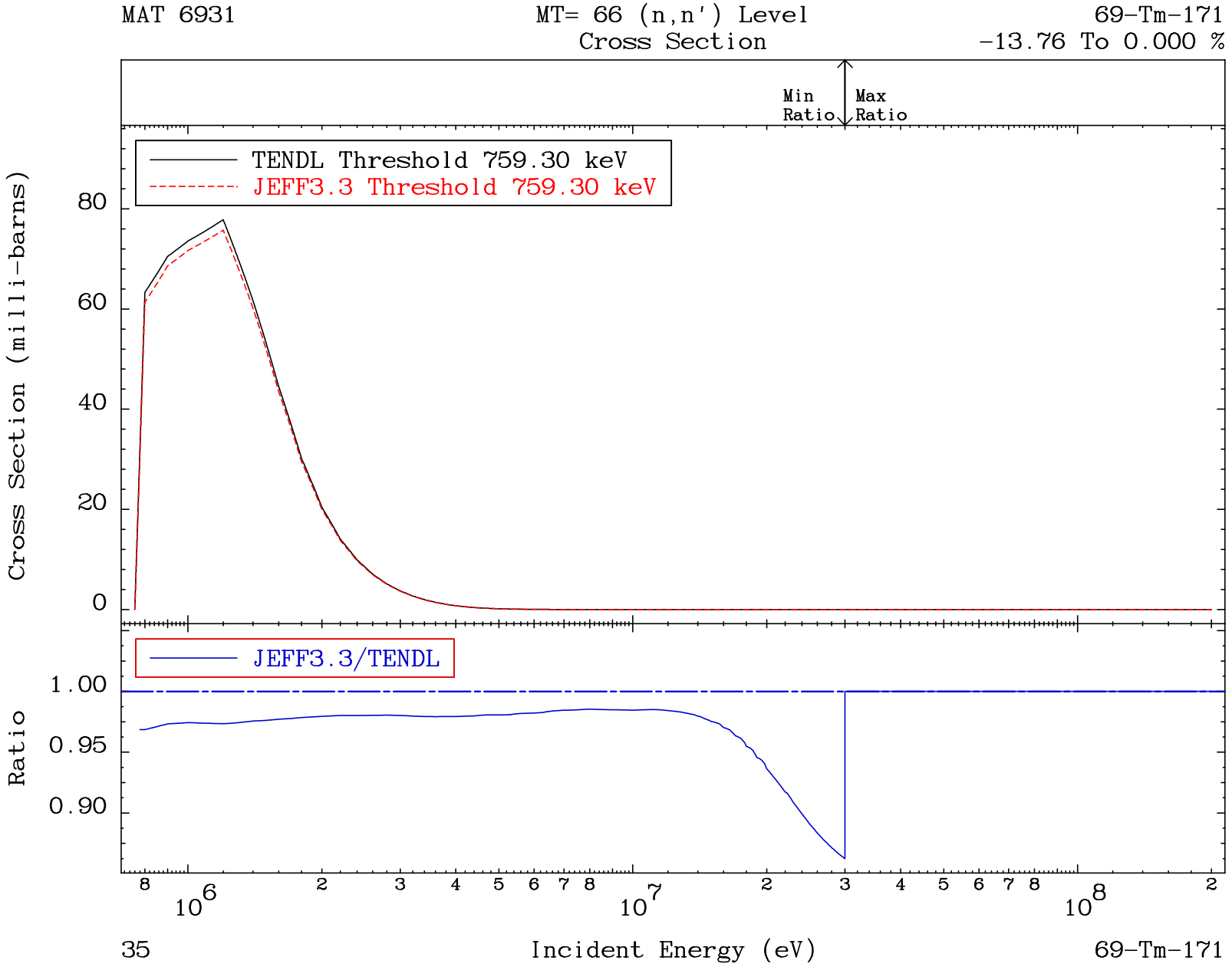

MAT 6931
MT= 61 (n,n') Level
Cross Section
69-Tm-171
-13.79 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 662.66 keV
JEFF3.3 Threshold 662.66 keV
Cross Section (micro-barns)
600
400
200
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
30
Incident Energy (eV)
69-Tm-171

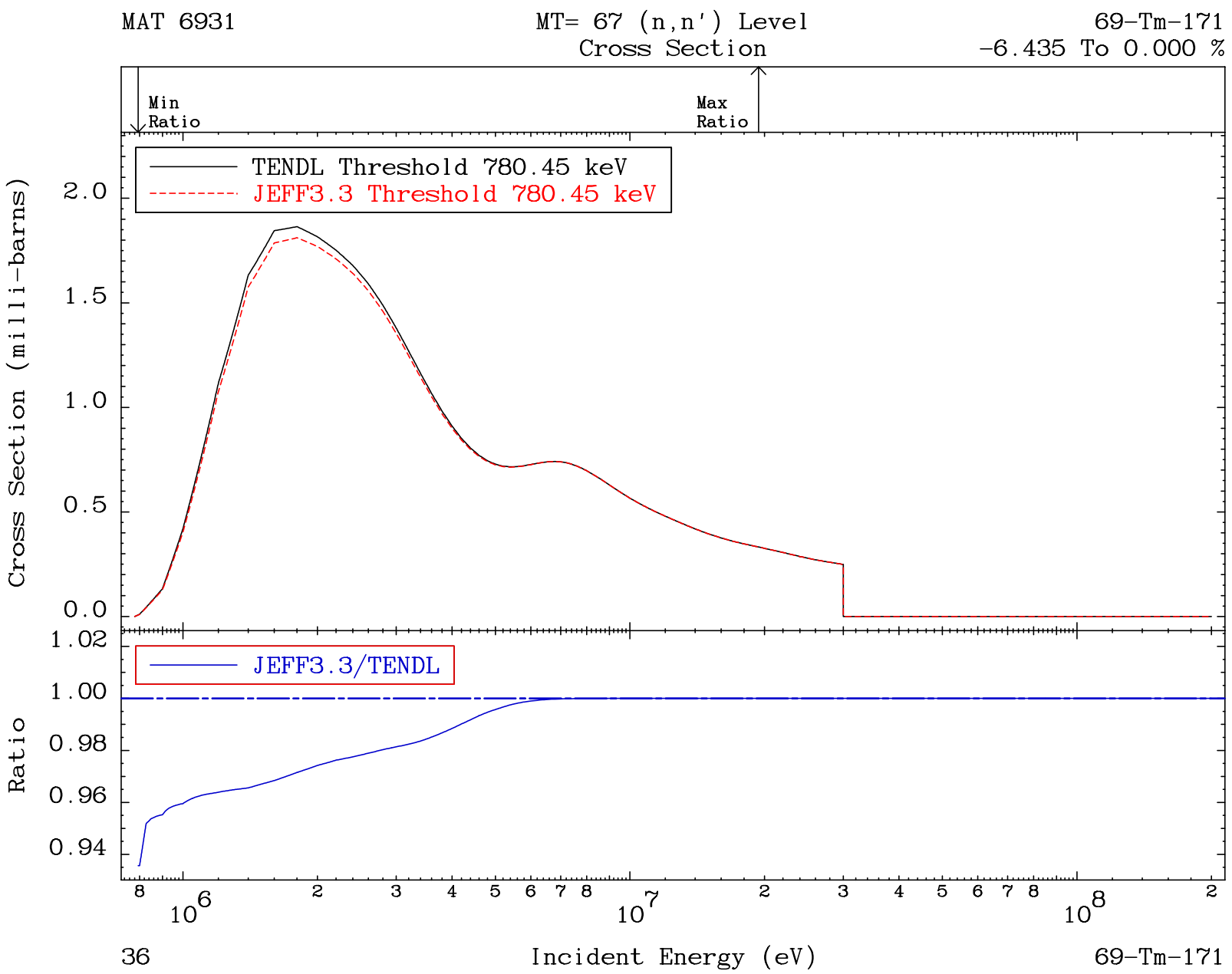

MAT 6931
MT= 62 (n,n') Level
Cross Section
69-Tm-171
-13.76 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 679.79 keV
JEFF3.3 Threshold 679.79 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
31
Incident Energy (eV)
69-Tm-171

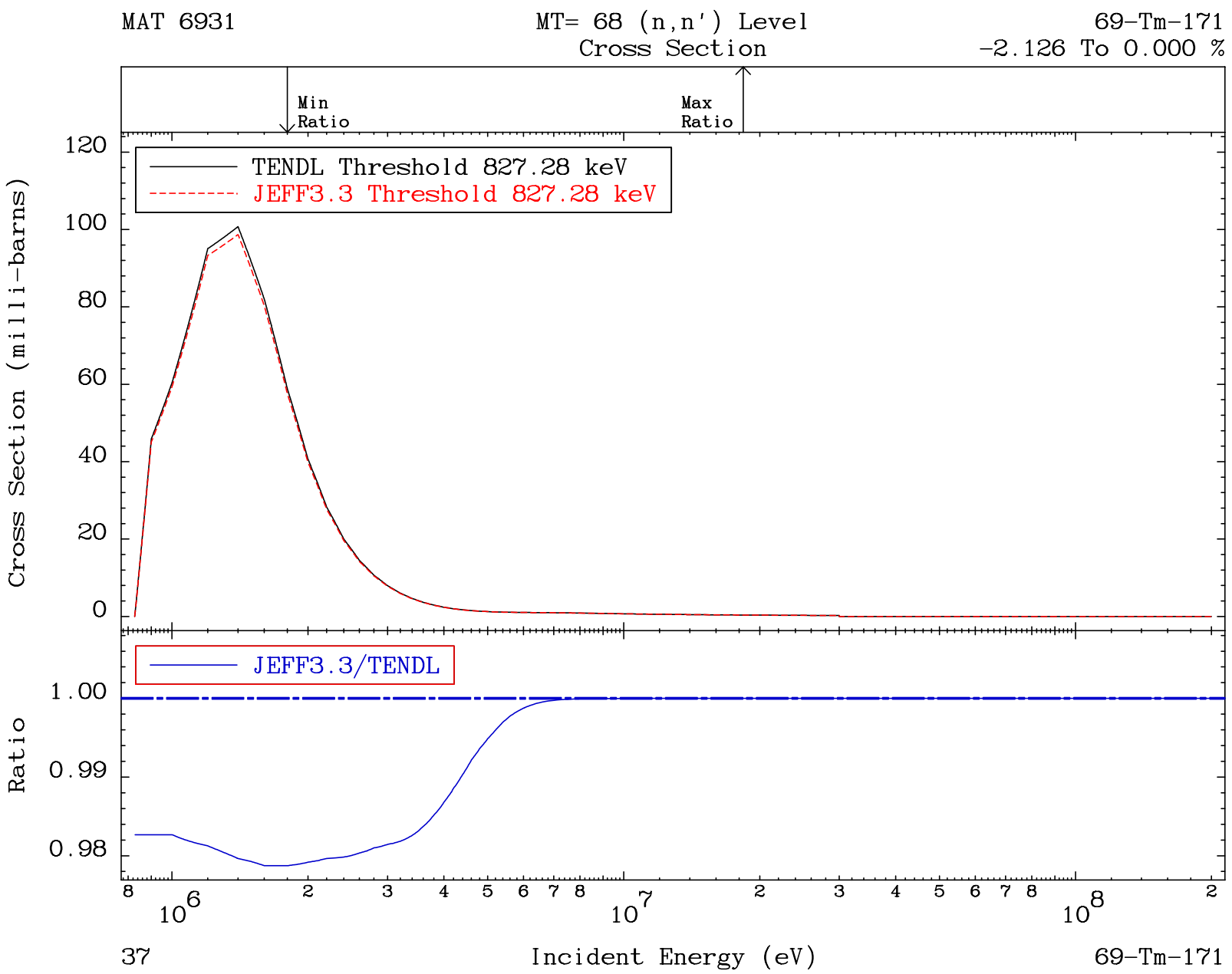

MAT 6931
MT= 63 (n,n') Level
Cross Section
69-Tm-171
-1.991 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 741.77 keV
JEFF3.3 Threshold 741.77 keV
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
32
Incident Energy (eV)
69-Tm-171

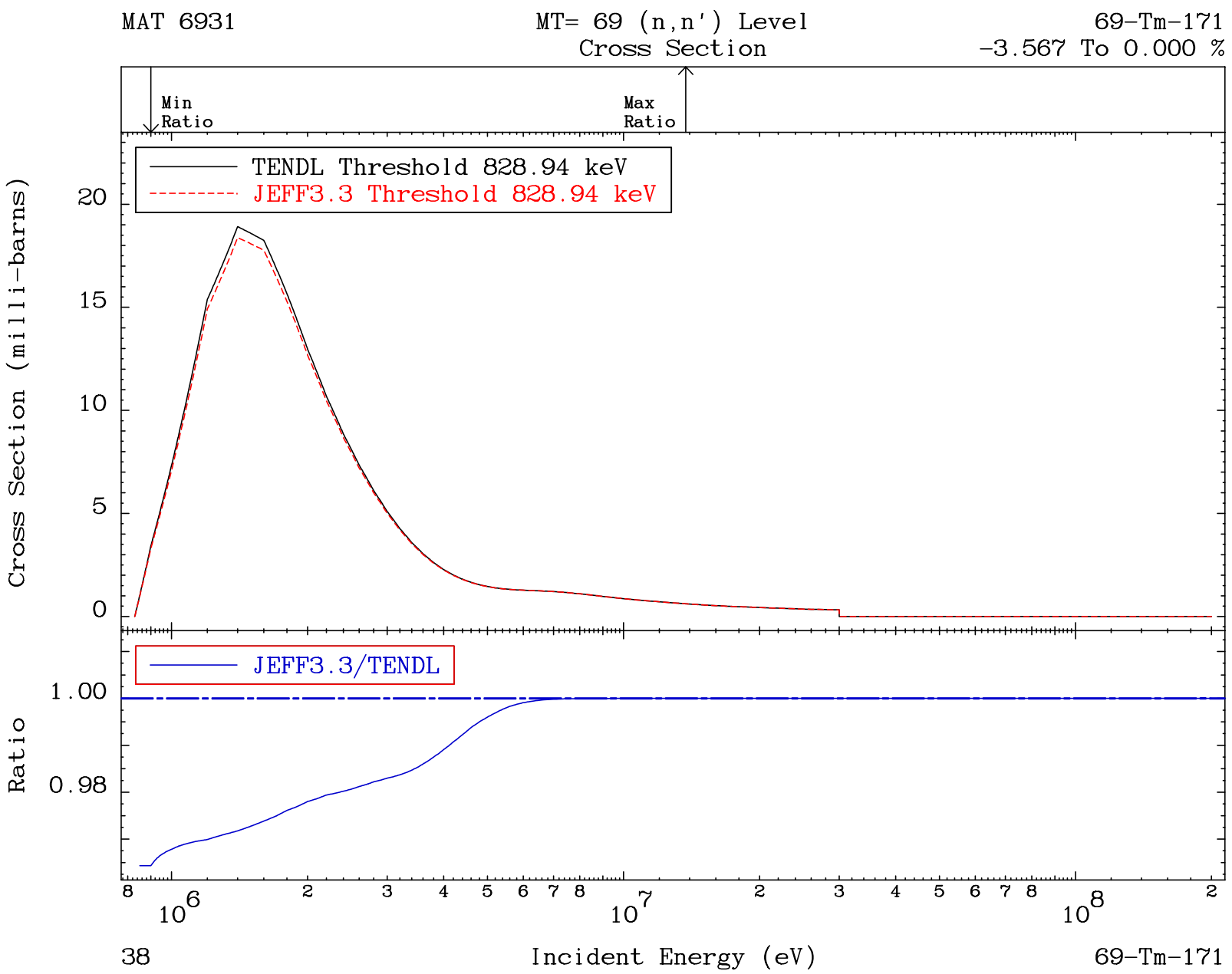

MAT 6931
MT= 64 (n,n') Level
Cross Section
69-Tm-171
-2.310 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 748.16 keV
JEFF3.3 Threshold 748.16 keV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
33
Incident Energy (eV)
69-Tm-171

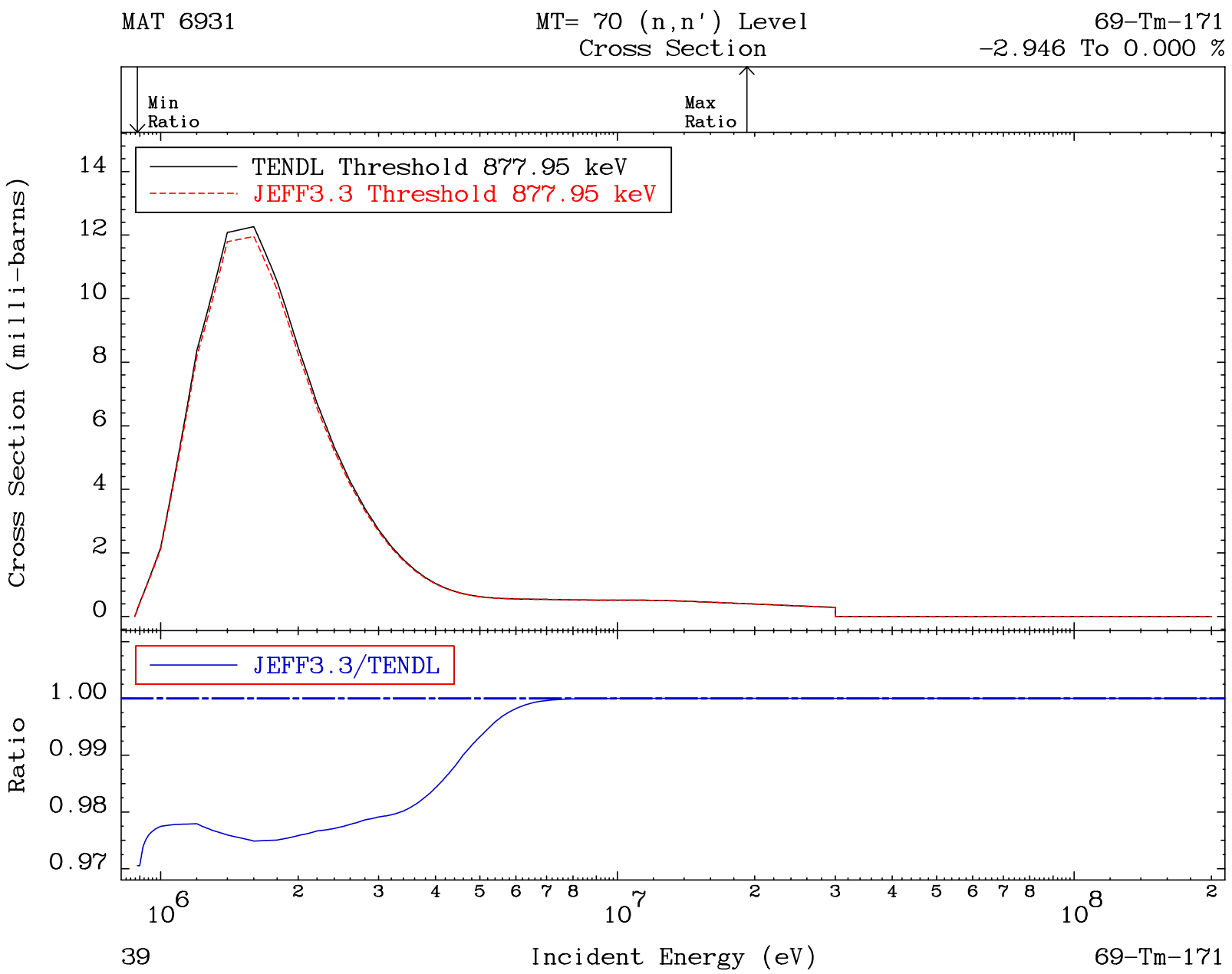

MAT 6931
MT= 65 (n,n') Level
Cross Section
69-Tm-171
-3.819 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 754.54 keV
JEFF3.3 Threshold 754.54 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
34
Incident Energy (eV)
69-Tm-171

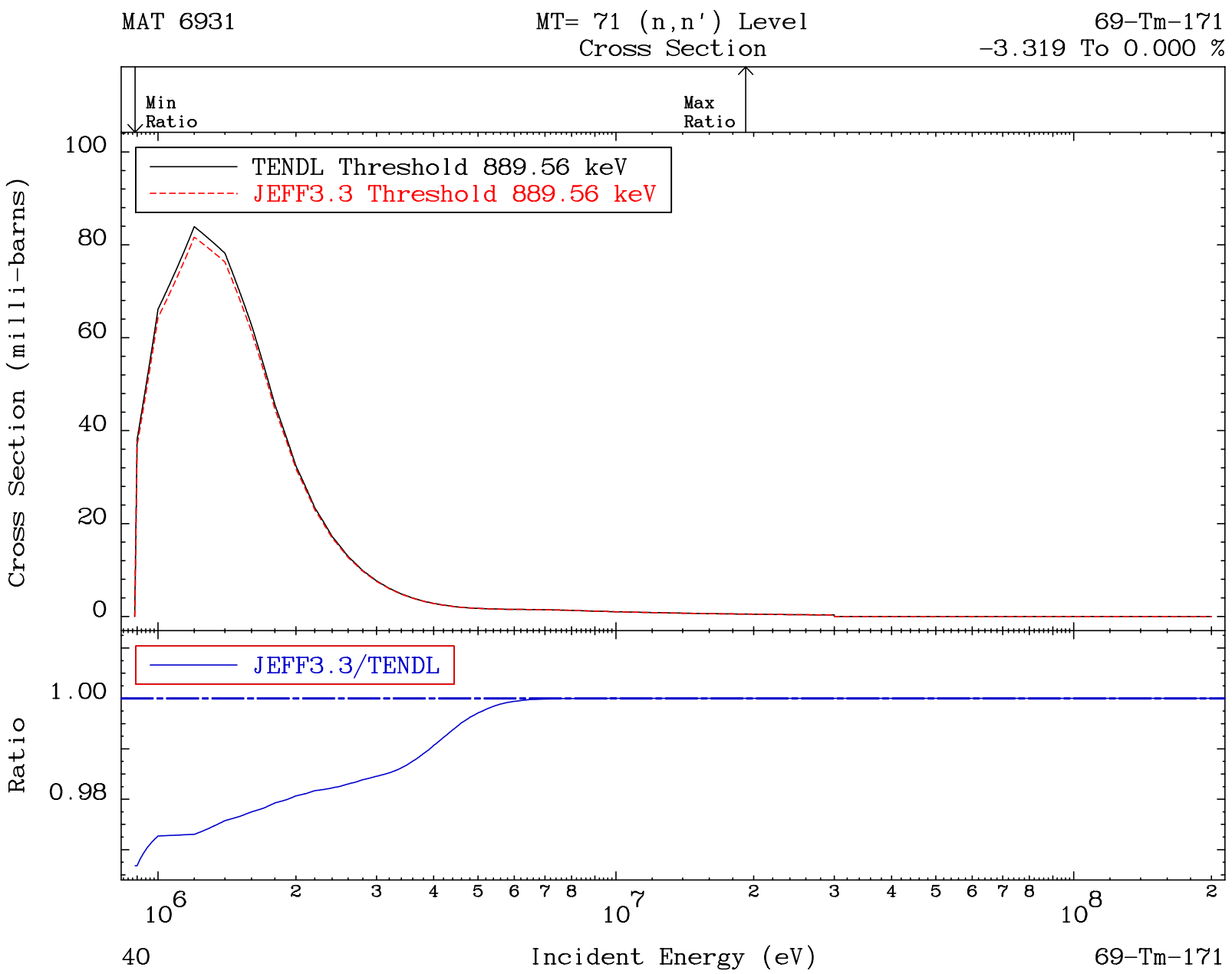

MAT 6931
MT= 66 (n,n') Level
Cross Section
69-Tm-171
-13.76 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 759.30 keV
JEFF3.3 Threshold 759.30 keV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
35
Incident Energy (eV)
69-Tm-171

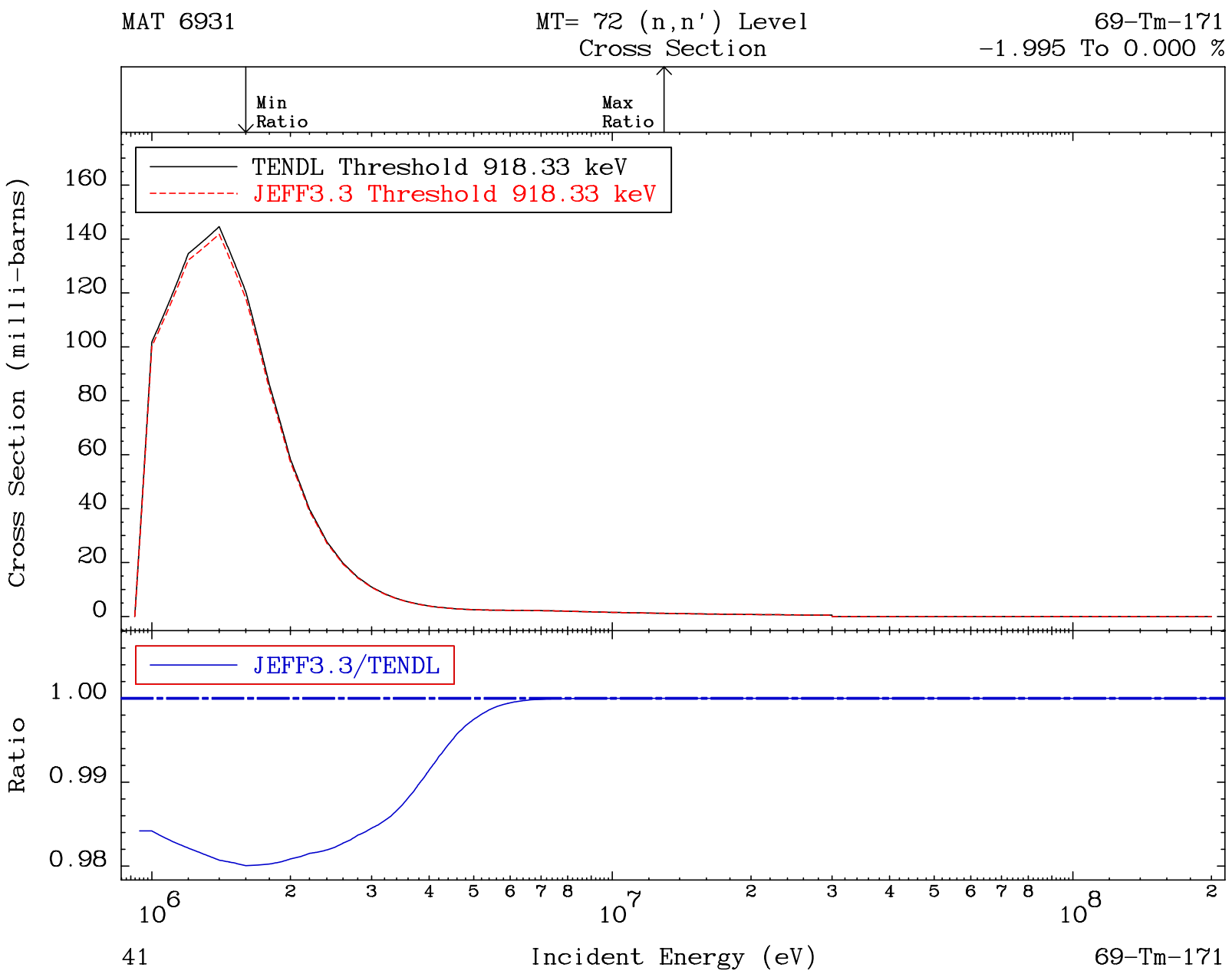

MAT 6931
MT= 67 (n,n') Level
Cross Section
69-Tm-171
-6.435 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 780.45 keV
JEFF3.3 Threshold 780.45 keV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.02
1.00
0.98
0.96
0.94
8
2
3
4
5
6
7
8
10^6
10^7
10^8
36
Incident Energy (eV)
69-Tm-171

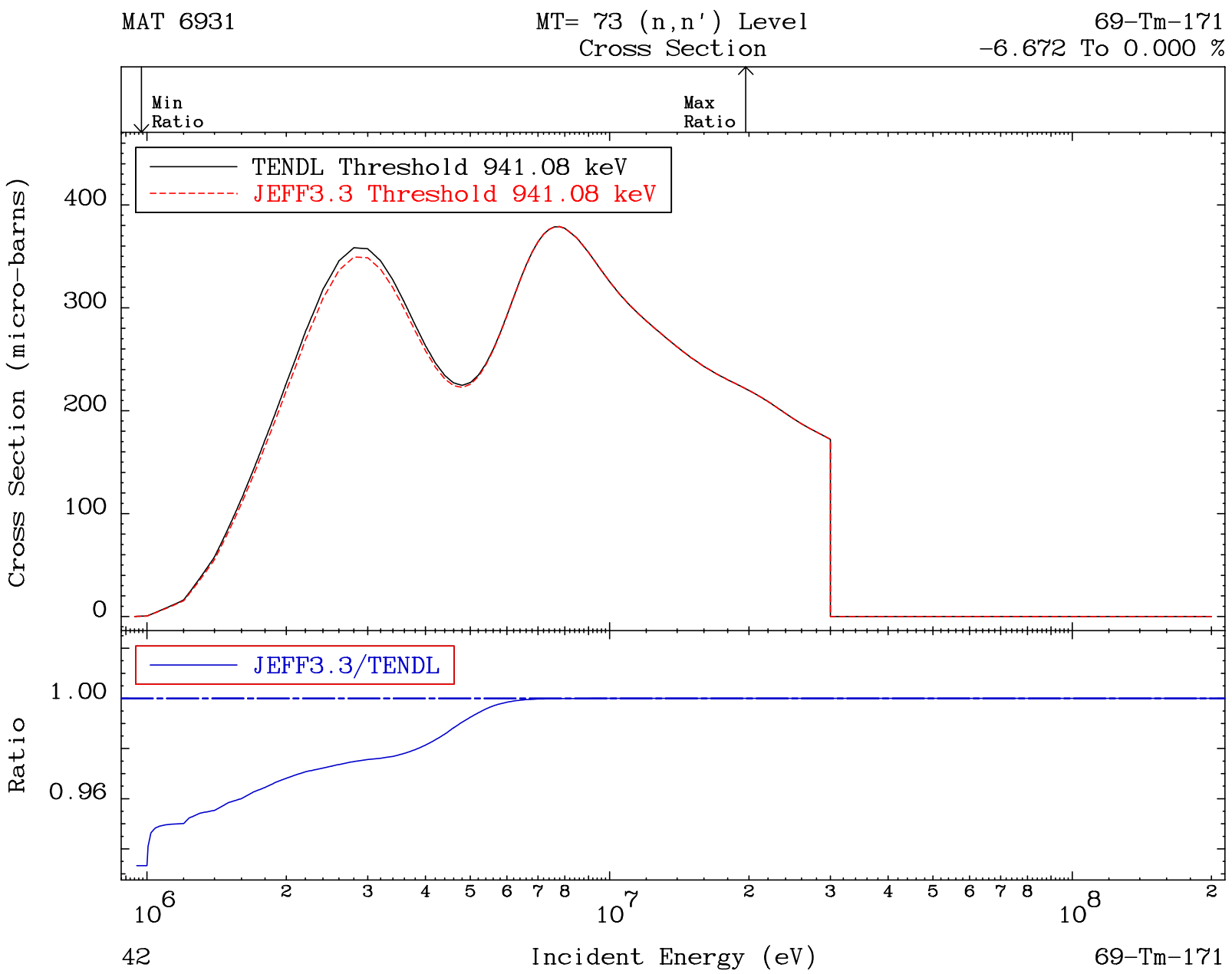

MAT 6931
MT= 68 (n,n') Level
Cross Section
69-Tm-171
-2.126 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 827.28 keV
JEFF3.3 Threshold 827.28 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
8
2
3
4
5
6
7
8
10^6
10^7
10^8
37
Incident Energy (eV)
69-Tm-171

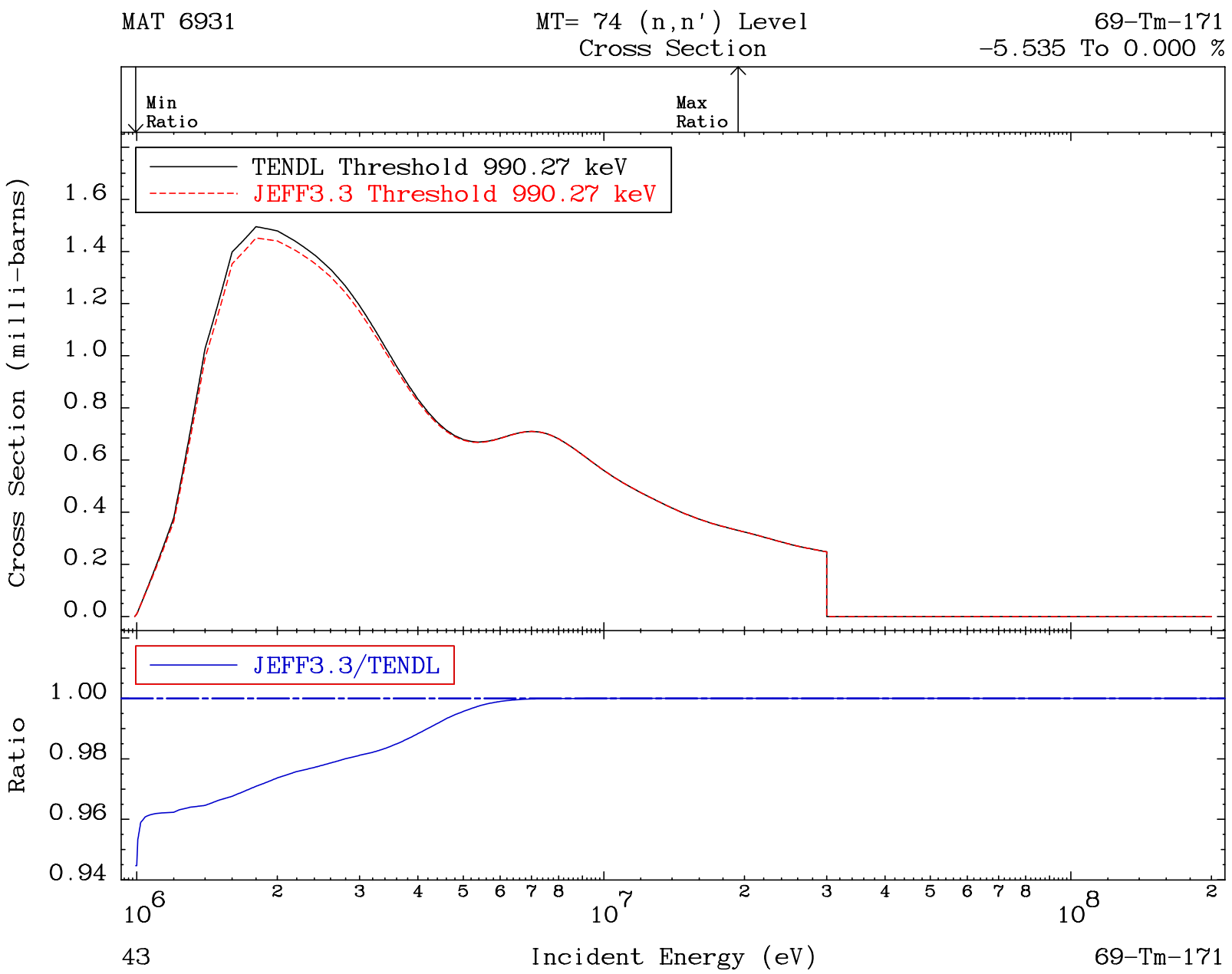

MAT 6931
MT= 69 (n,n') Level
Cross Section
69-Tm-171
-3.567 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 828.94 keV
JEFF3.3 Threshold 828.94 keV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
38
Incident Energy (eV)
69-Tm-171

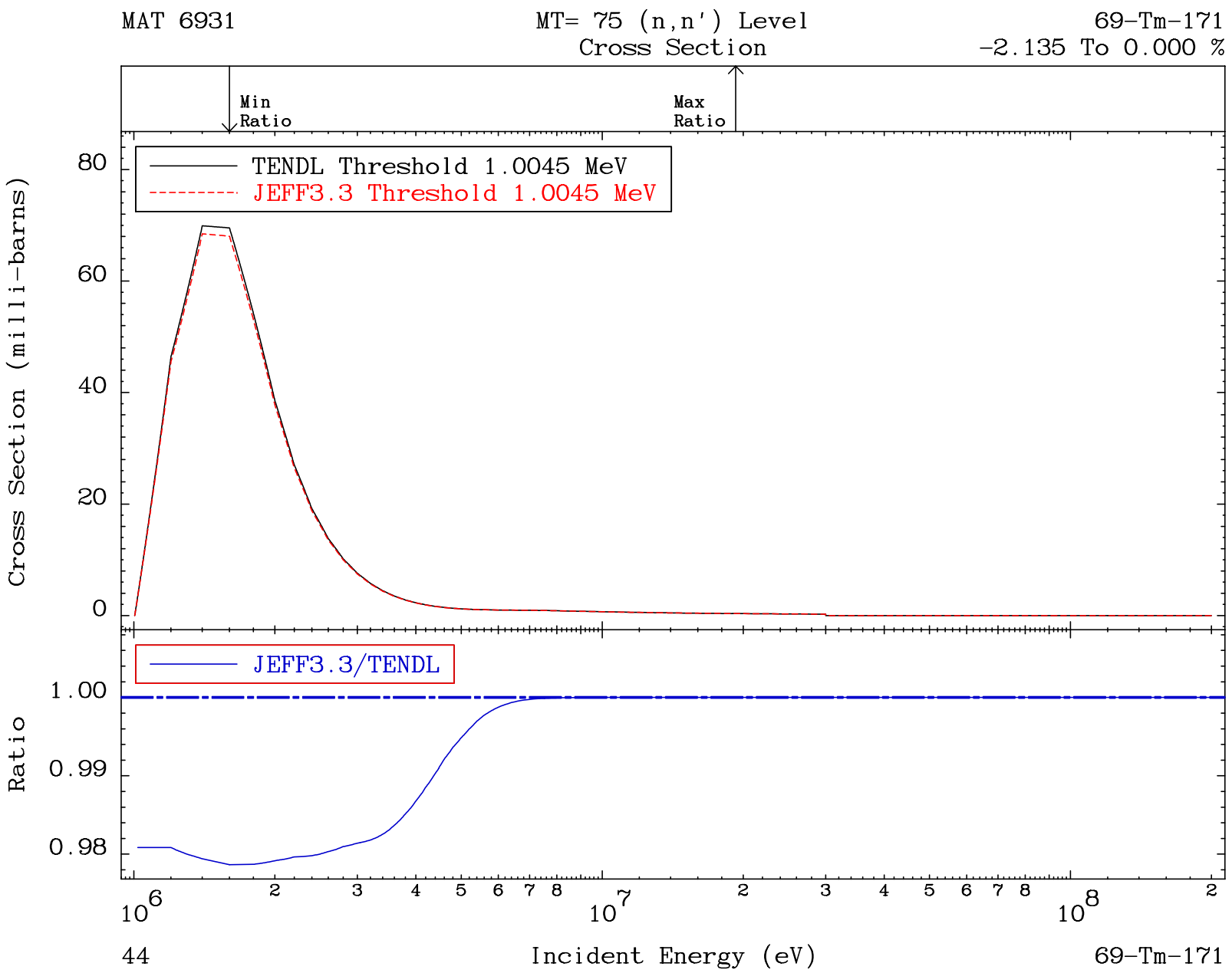

MAT 6931
MT= 70 (n,n') Level
Cross Section
69-Tm-171
-2.946 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 877.95 keV
JEFF3.3 Threshold 877.95 keV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
0.97
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
39
Incident Energy (eV)
69-Tm-171

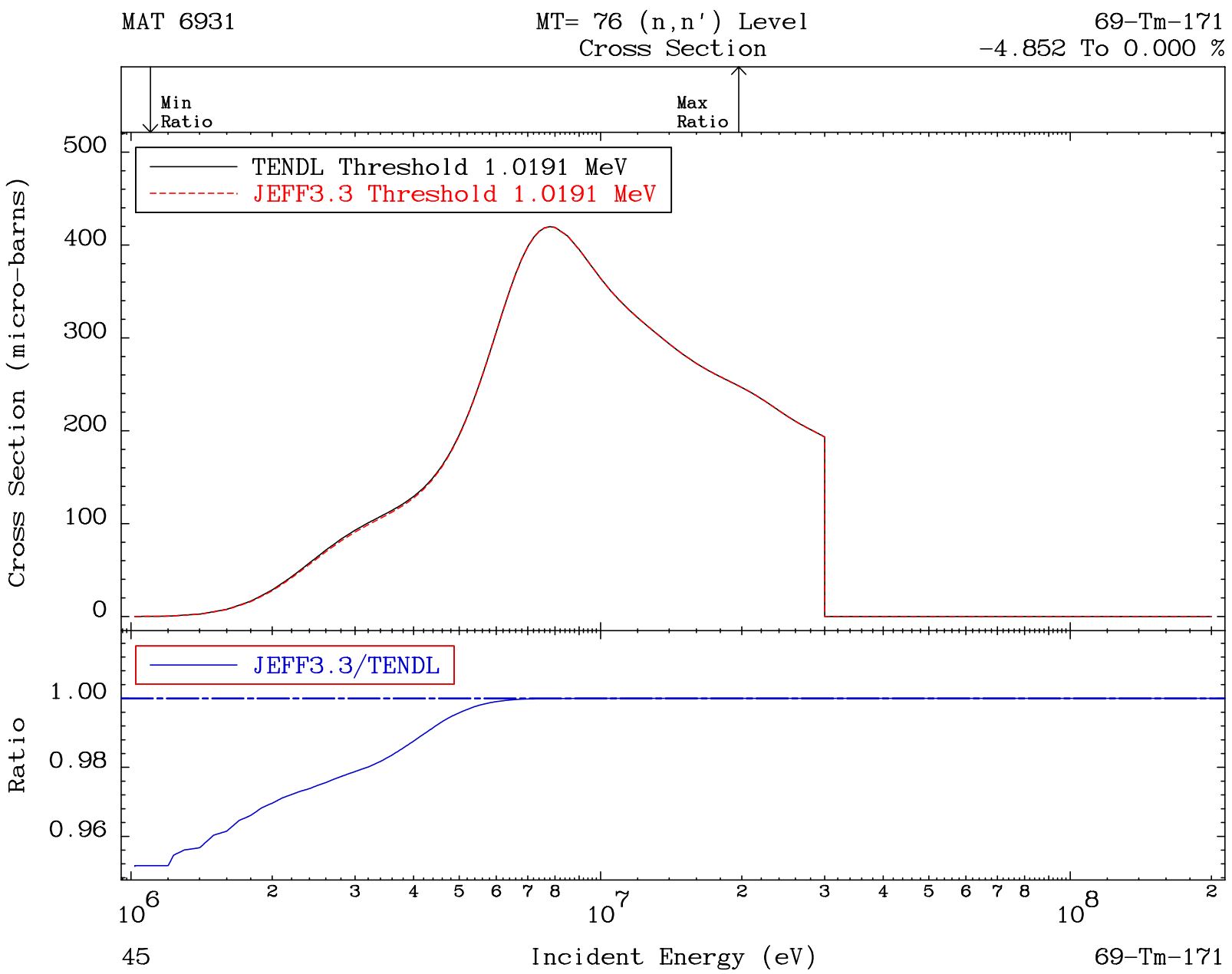

MAT 6931
MT= 71 (n,n') Level
Cross Section
69-Tm-171
-3.319 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 889.56 keV
JEFF3.3 Threshold 889.56 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.98
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
40
Incident Energy (eV)
69-Tm-171

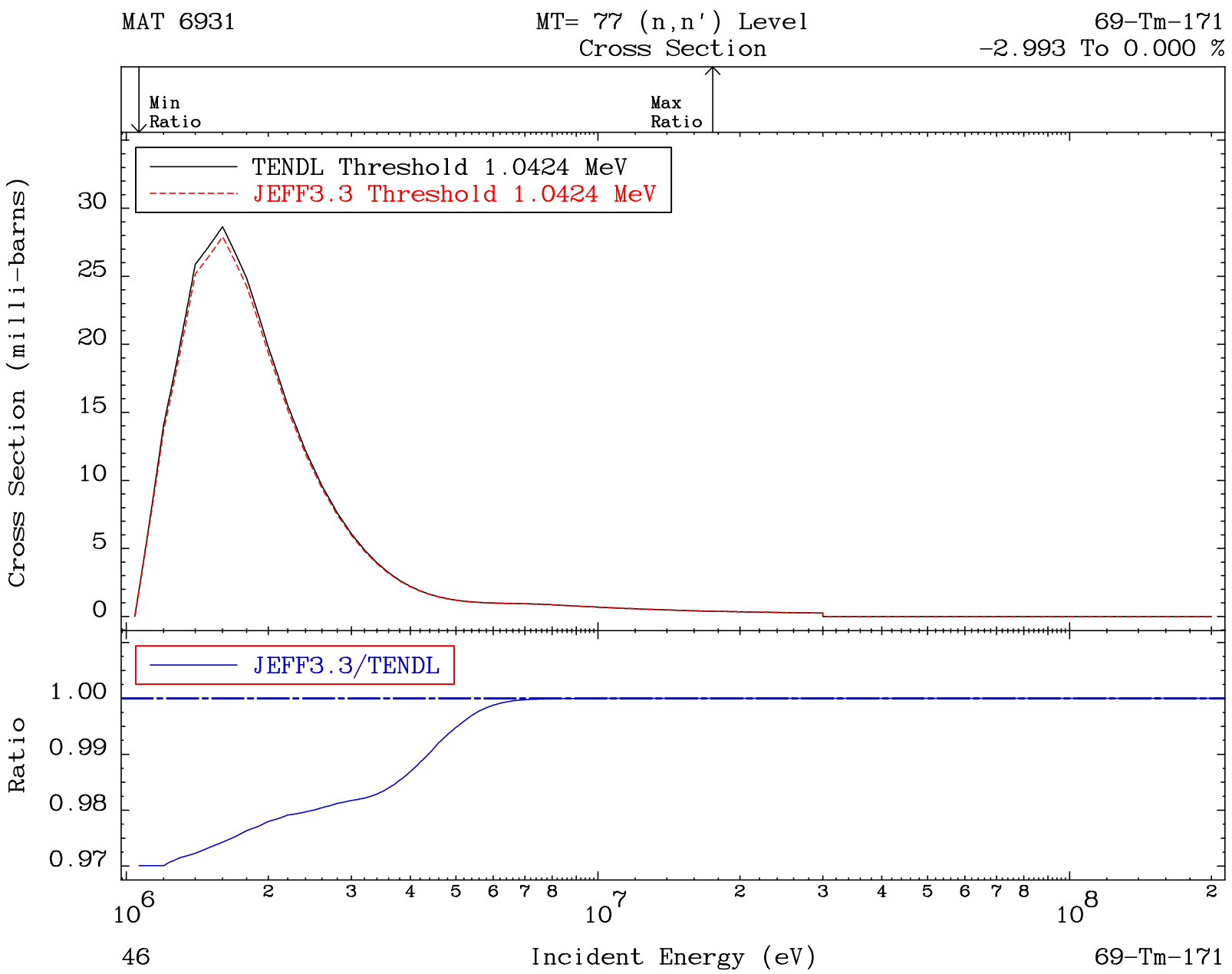

MAT 6931
MT= 72 (n,n') Level
Cross Section
69-Tm-171
-1.995 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 918.33 keV
JEFF3.3 Threshold 918.33 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
41
Incident Energy (eV)
69-Tm-171

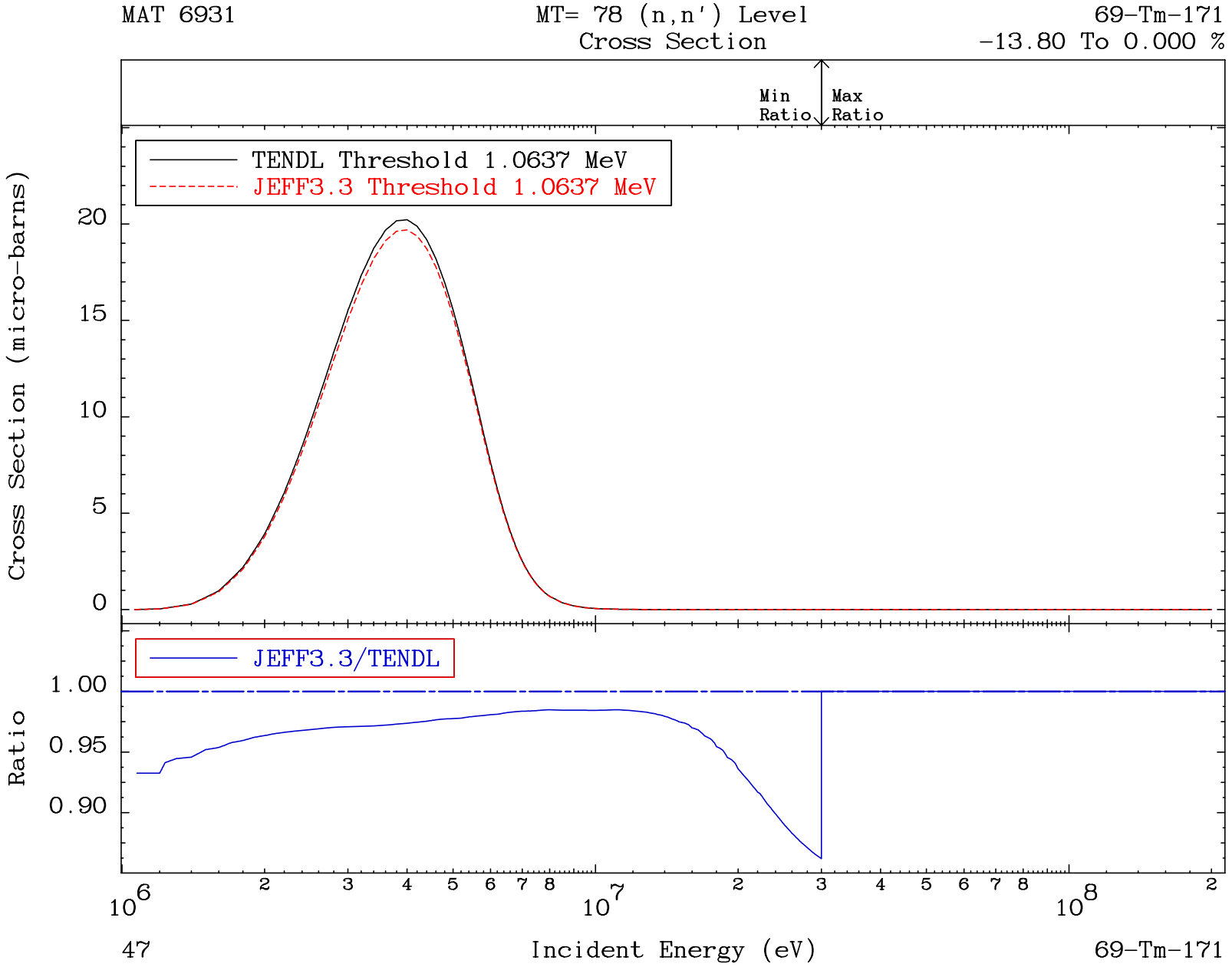

MAT 6931
MT= 73 (n,n') Level
Cross Section
69-Tm-171
-6.672 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 941.08 keV
JEFF3.3 Threshold 941.08 keV
Cross Section (micro-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.00
0.96
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
42
Incident Energy (eV)
69-Tm-171

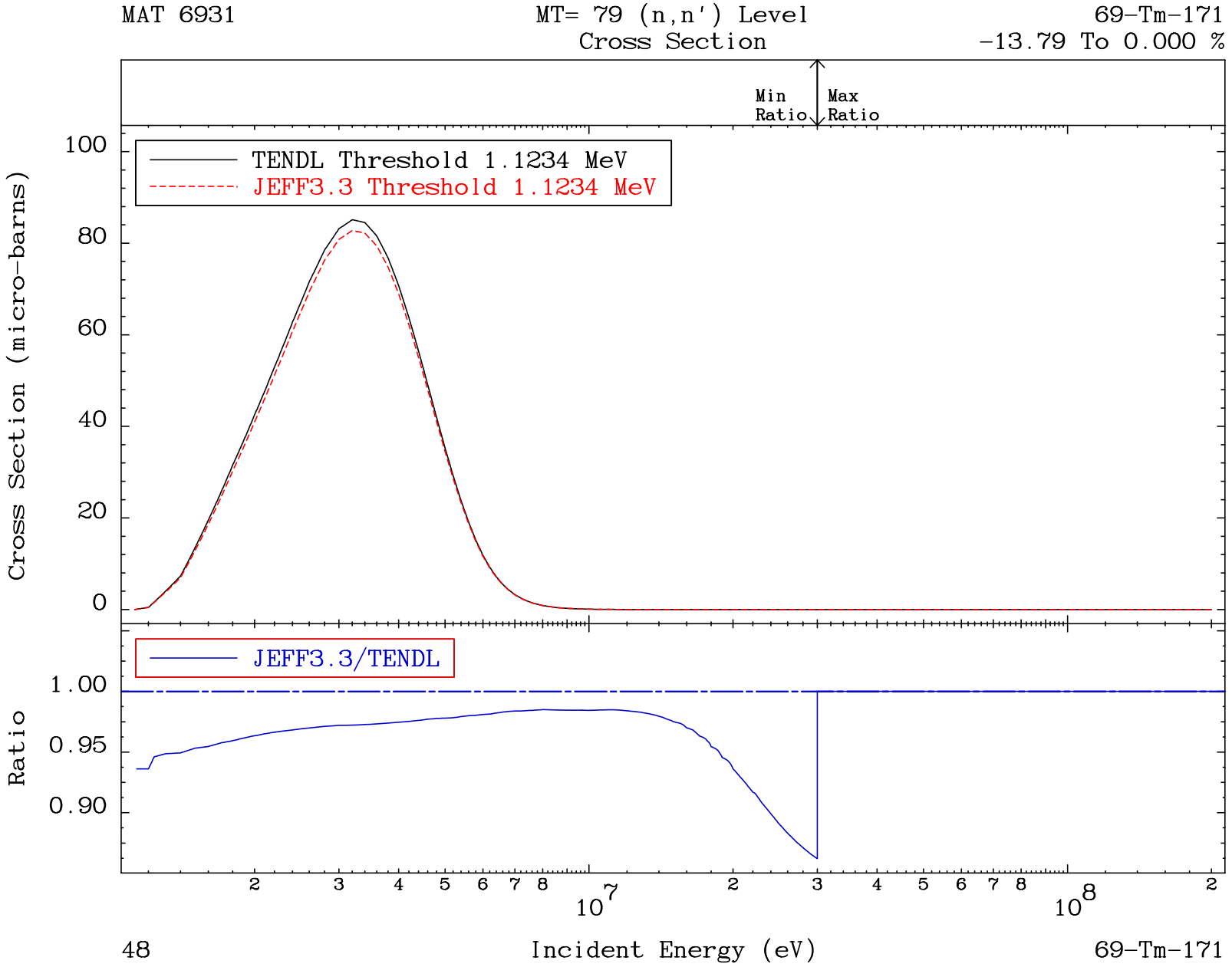

MAT 6931
MT= 74 (n,n') Level
Cross Section
69-Tm-171
-5.535 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 990.27 keV
JEFF3.3 Threshold 990.27 keV
Cross Section (milli-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
43
Incident Energy (eV)
69-Tm-171

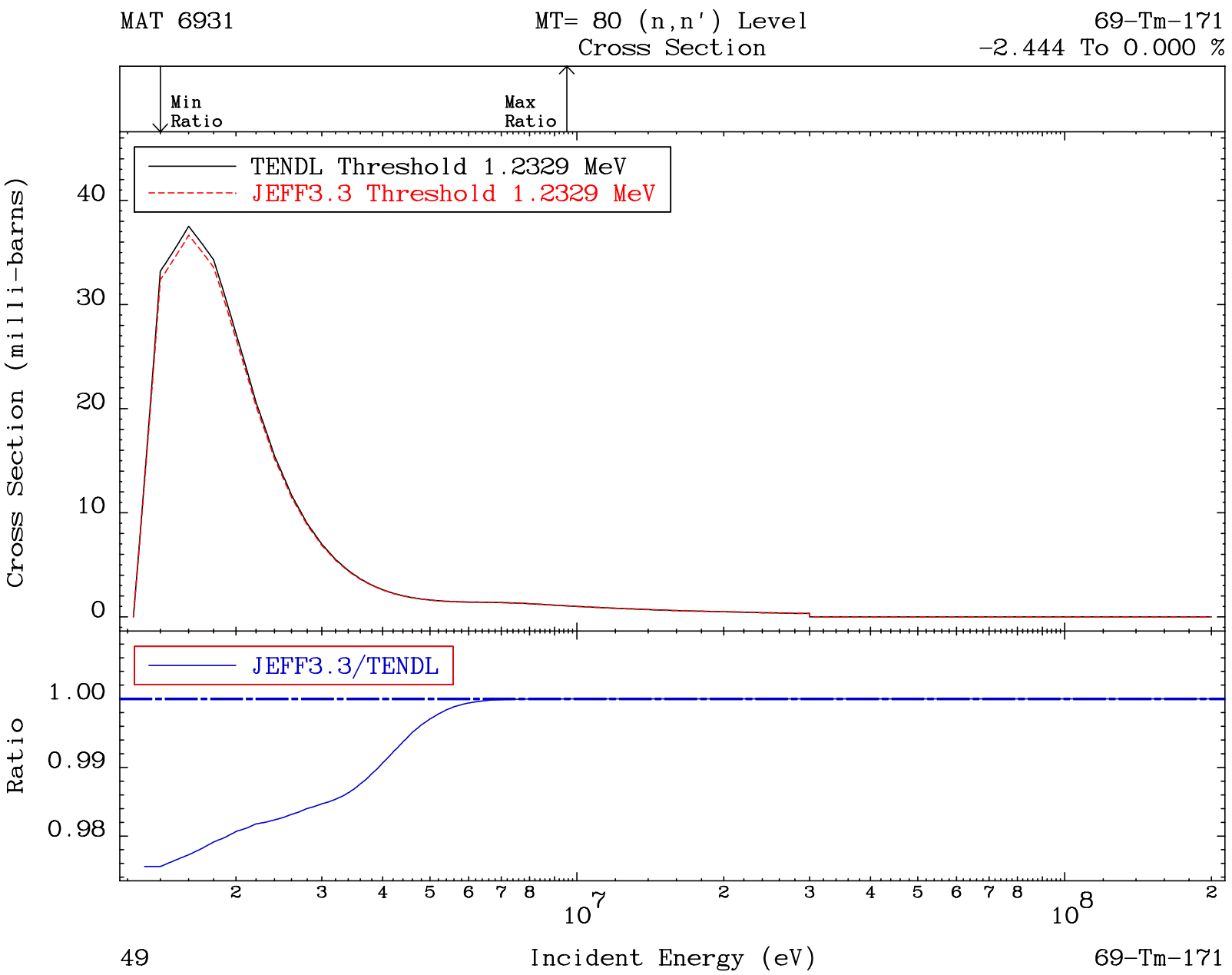

MAT 6931
MT= 75 (n,n') Level
Cross Section
69-Tm-171
-2.135 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.0045 MeV
JEFF3.3 Threshold 1.0045 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
44
Incident Energy (eV)
69-Tm-171

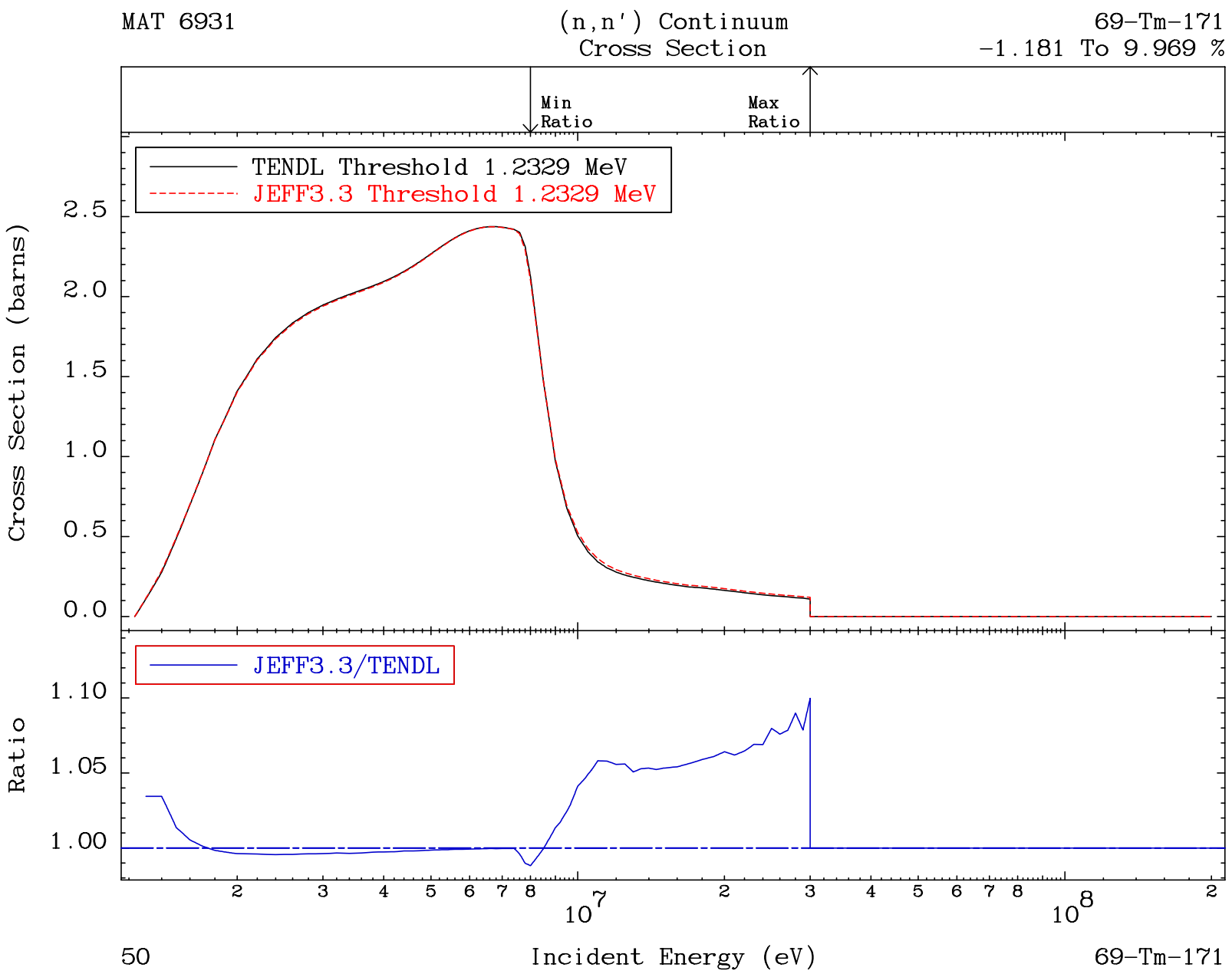

MAT 6931
MT= 76 (n,n') Level
Cross Section
69-Tm-171
-4.852 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.0191 MeV
JEFF3.3 Threshold 1.0191 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
10^6
10^7
10^8
Incident Energy (eV)
45
69-Tm-171

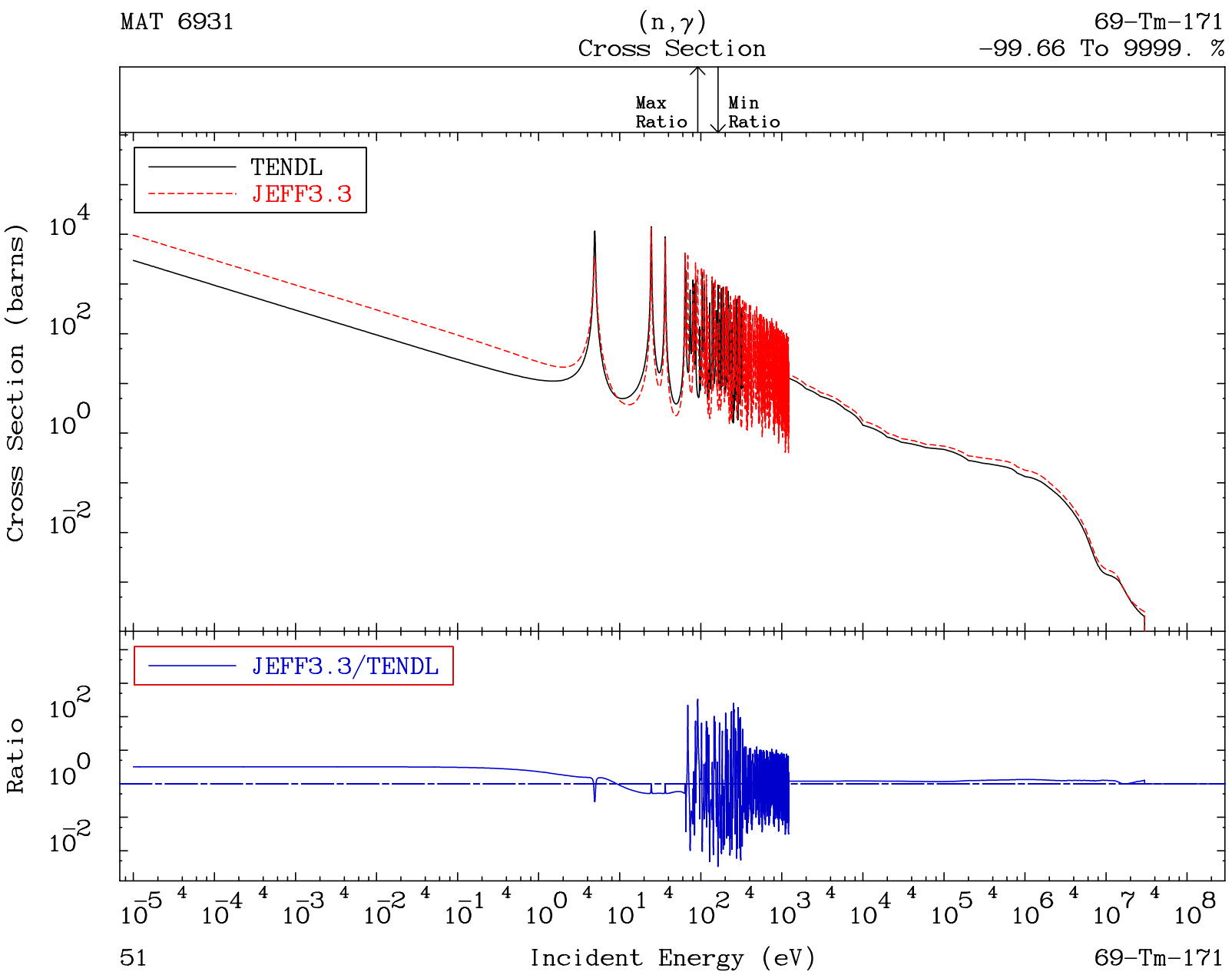

MAT 6931
MT= 77 (n,n') Level
Cross Section
69-Tm-171
-2.993 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.0424 MeV
JEFF3.3 Threshold 1.0424 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
0.97
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
46
Incident Energy (eV)
69-Tm-171

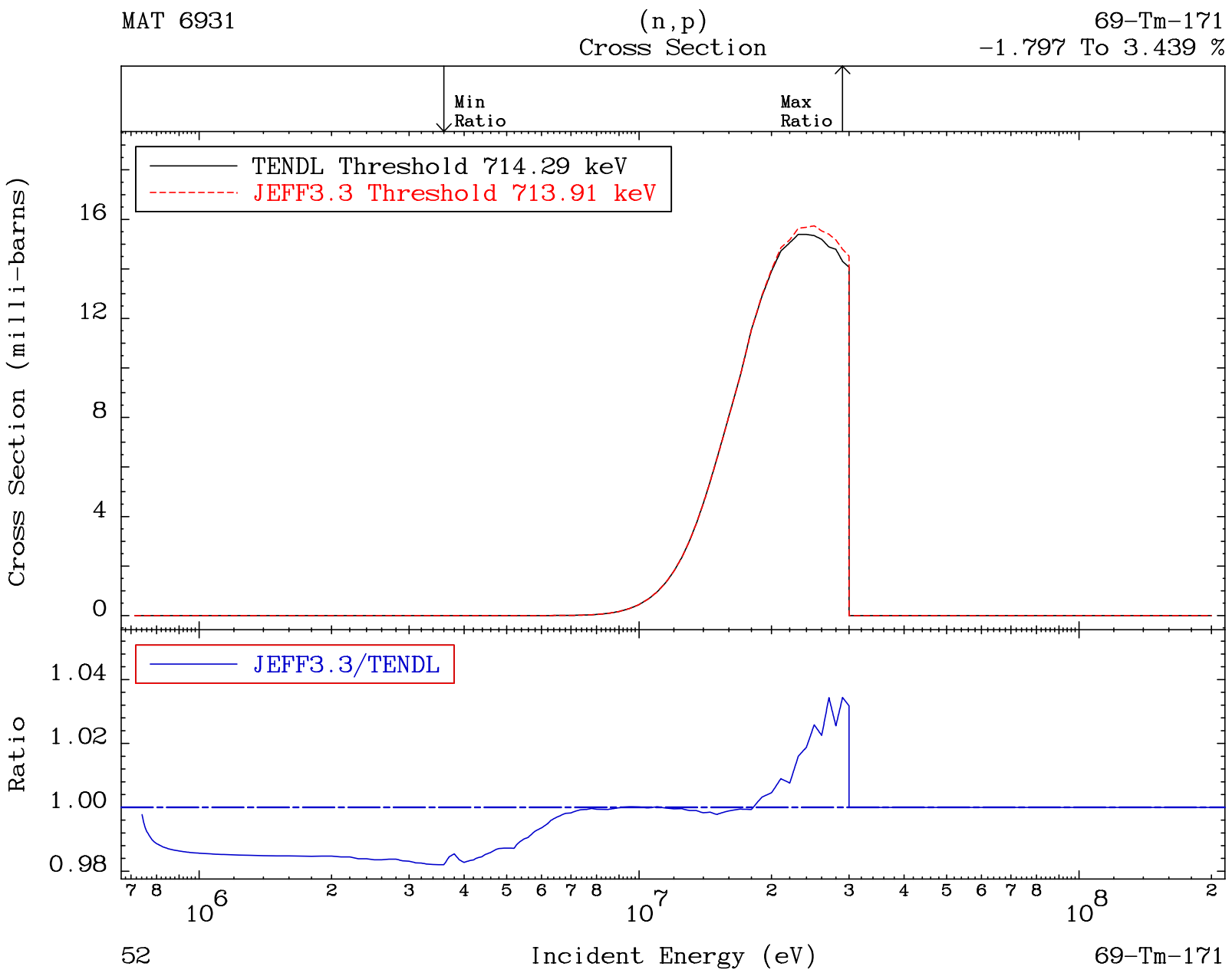

MAT 6931
MT= 78 (n,n') Level
Cross Section
69-Tm-171
-13.80 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.0637 MeV
JEFF3.3 Threshold 1.0637 MeV
Cross Section (micro-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
10^6
10^7
10^8
Incident Energy (eV)
47
69-Tm-171

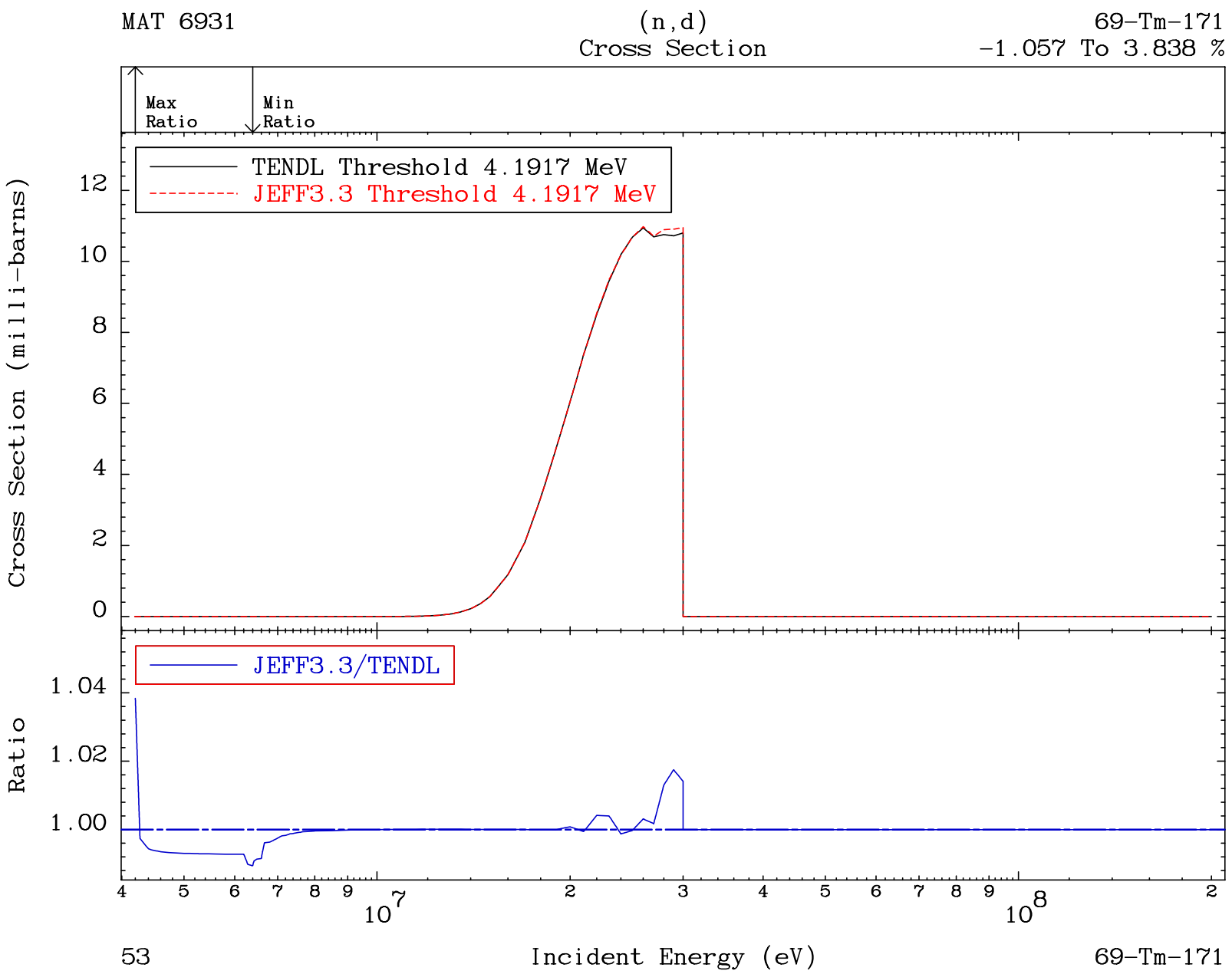

MAT 6931
MT= 79 (n,n') Level
Cross Section
69-Tm-171
-13.79 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.1234 MeV
JEFF3.3 Threshold 1.1234 MeV
Cross Section (micro-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
48
Incident Energy (eV)
69-Tm-171

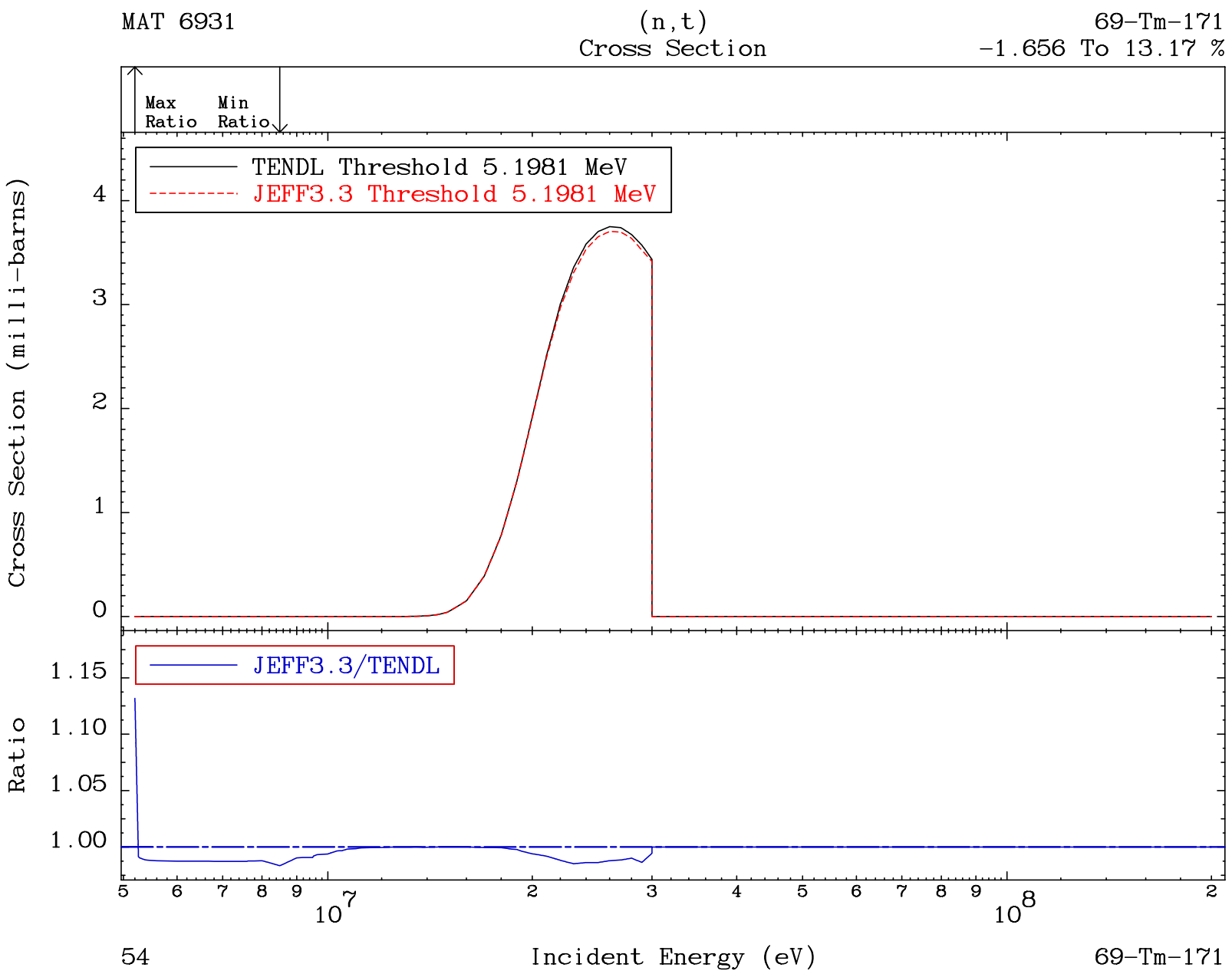

MAT 6931
MT= 80 (n,n') Level
Cross Section
69-Tm-171
-2.444 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2329 MeV
JEFF3.3 Threshold 1.2329 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
49
Incident Energy (eV)
69-Tm-171

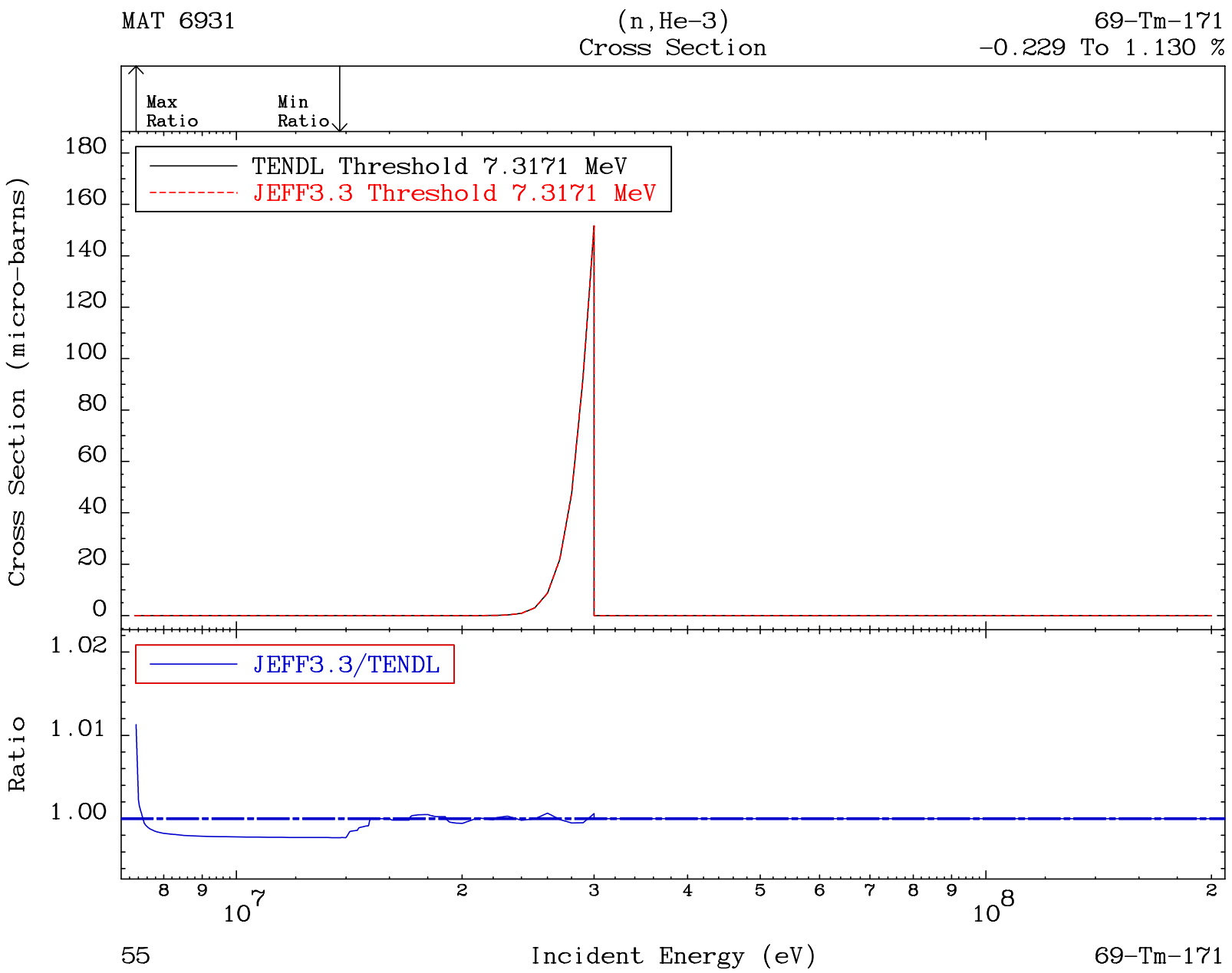

MAT 6931
(n,n') Continuum
Cross Section
69-Tm-171
-1.181 To 9.969 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2329 MeV
JEFF3.3 Threshold 1.2329 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
50
Incident Energy (eV)
69-Tm-171

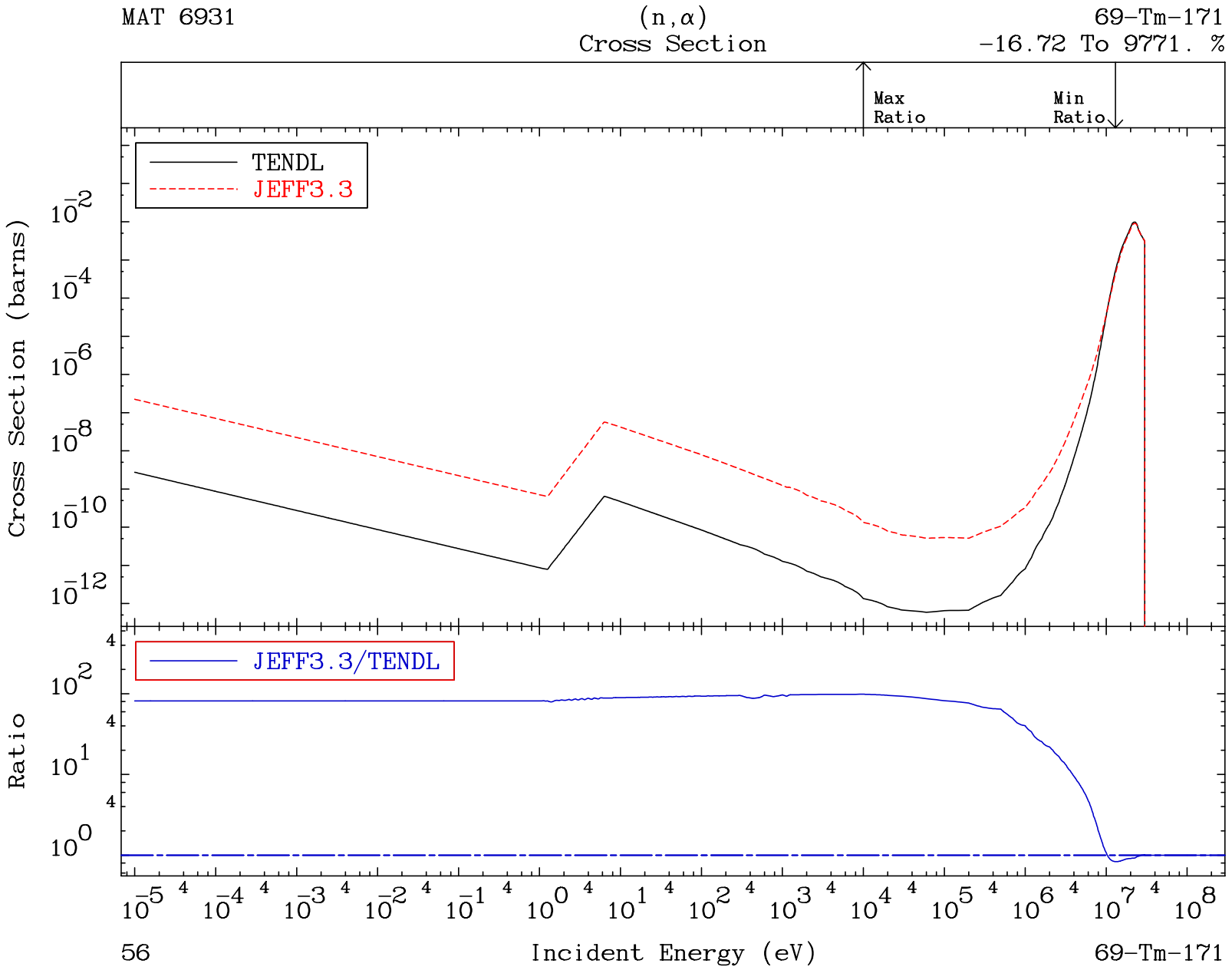

MAT 6931
(n,γ)
Cross Section
69-Tm-171
-99.66 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
51
69-Tm-171

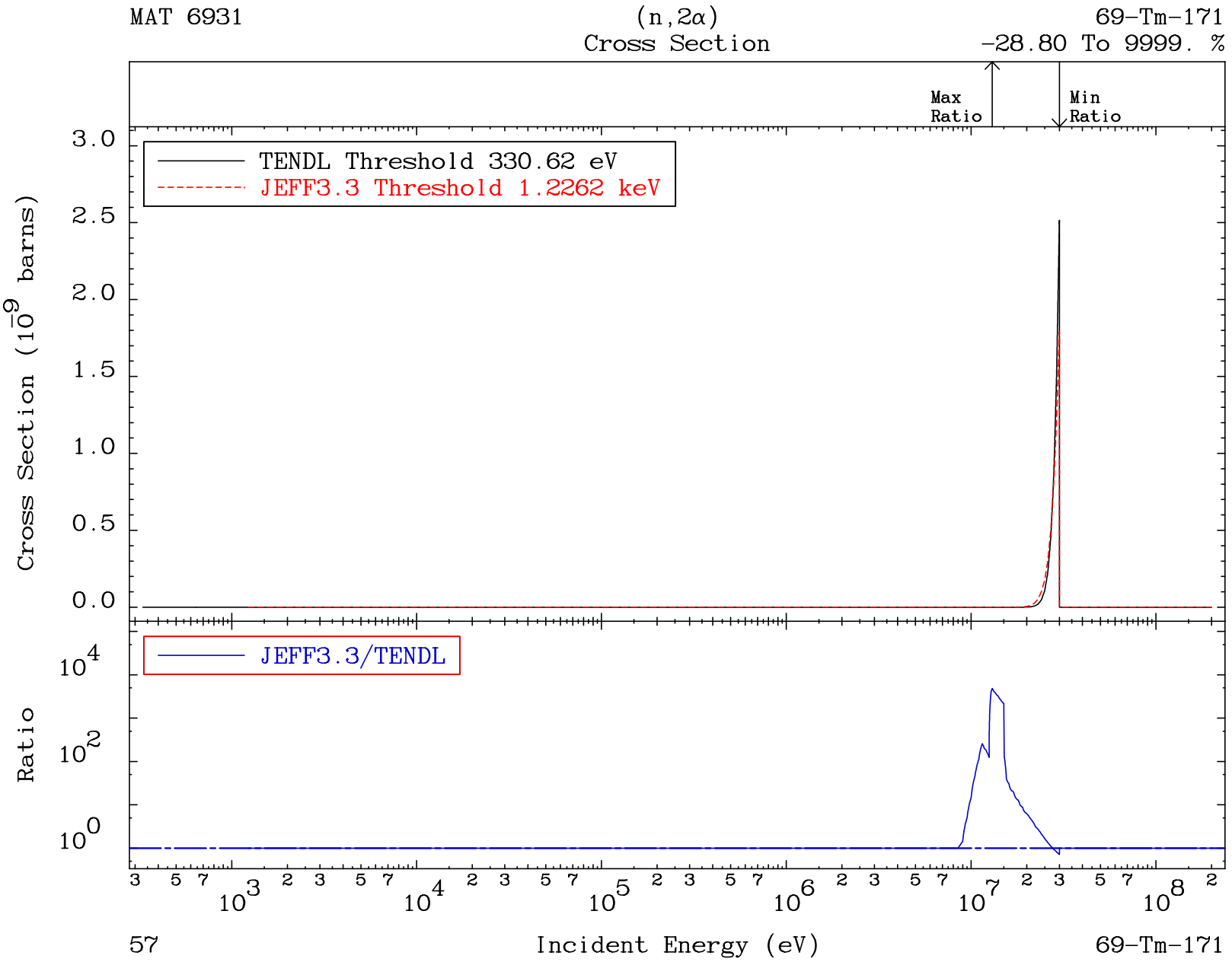

MAT 6931
(n,p)
Cross Section
69-Tm-171
-1.797 To 3.439 %
Min Ratio
Max Ratio
TENDL Threshold 714.29 keV
JEFF3.3 Threshold 713.91 keV
Cross Section (milli-barns)
16
12
8
4
0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
0.98
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
52
Incident Energy (eV)
69-Tm-171

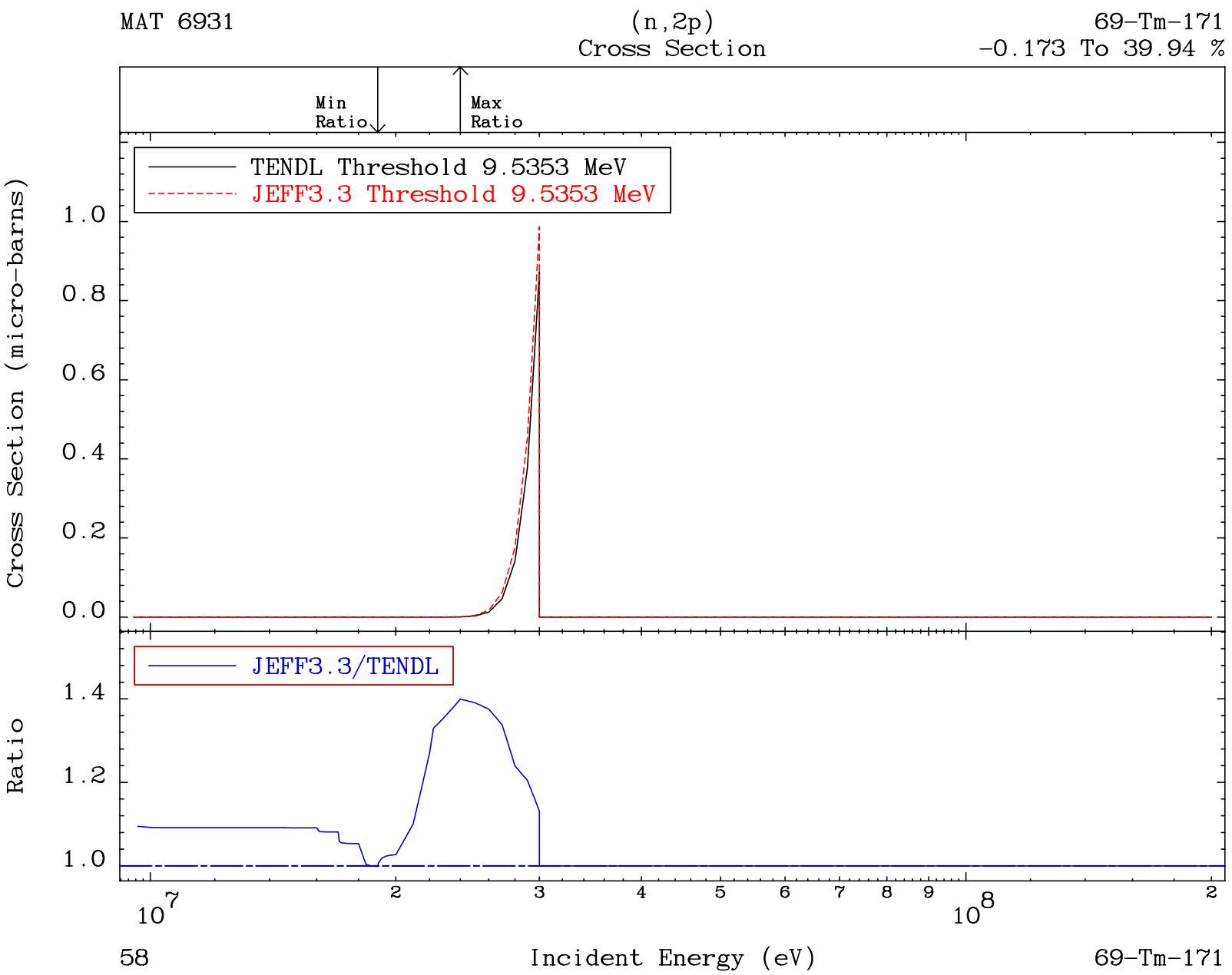

MAT 6931
(n,d)
Cross Section
69-Tm-171
-1.057 To 3.838 %
Max Ratio
Min Ratio
TENDL Threshold 4.1917 MeV
JEFF3.3 Threshold 4.1917 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
JEFF3.3/TENDL
Ratio
1.00
1.02
1.04
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
53
69-Tm-171

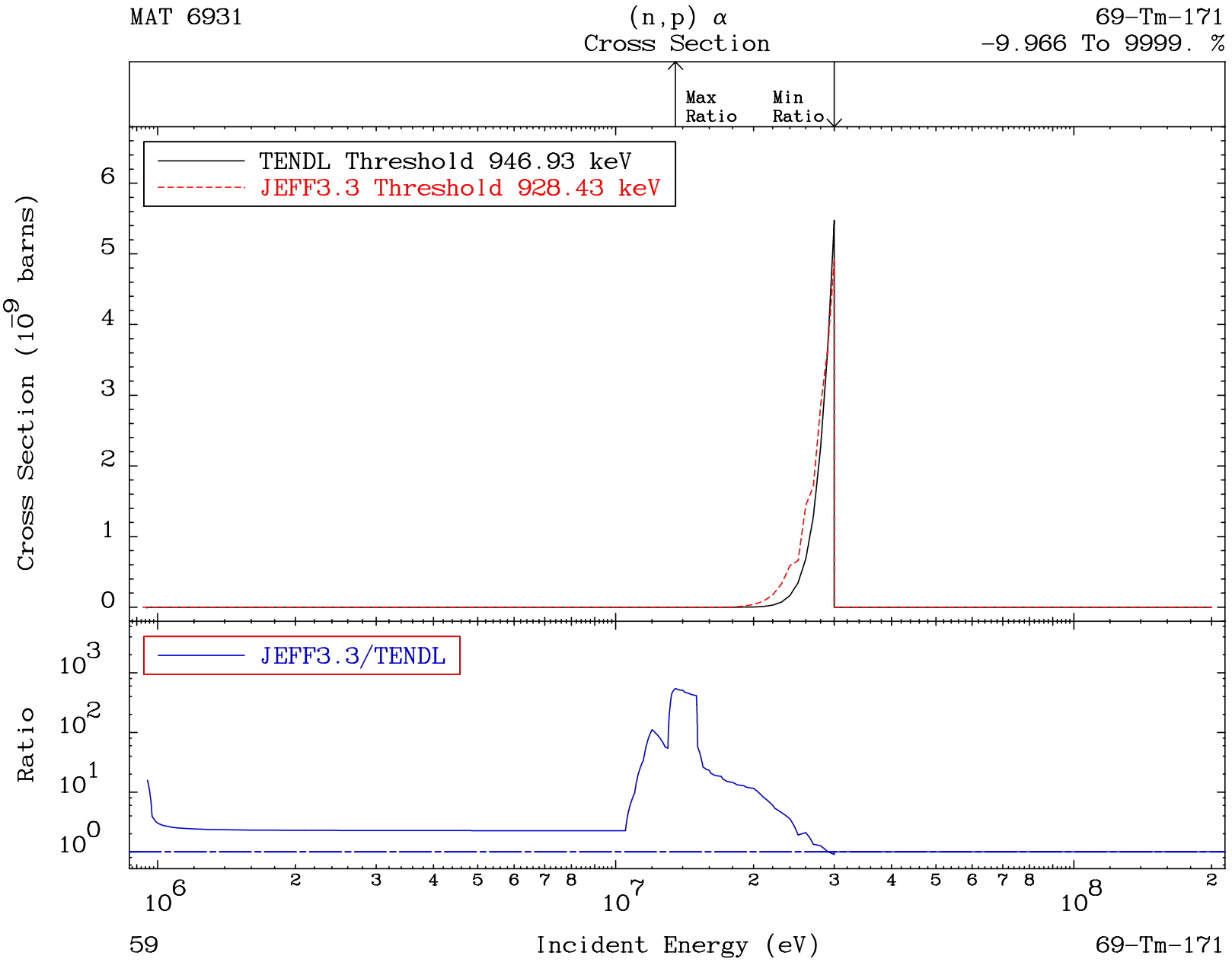

MAT 6931
(n,t)
Cross Section
69-Tm-171
-1.656 To 13.17 %
Max Ratio
Min Ratio
TENDL Threshold 5.1981 MeV
JEFF3.3 Threshold 5.1981 MeV
Cross Section (milli-barns)
0
1
2
3
4
JEFF3.3/TENDL
Ratio
1.00
1.05
1.10
1.15
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
54
Incident Energy (eV)
69-Tm-171

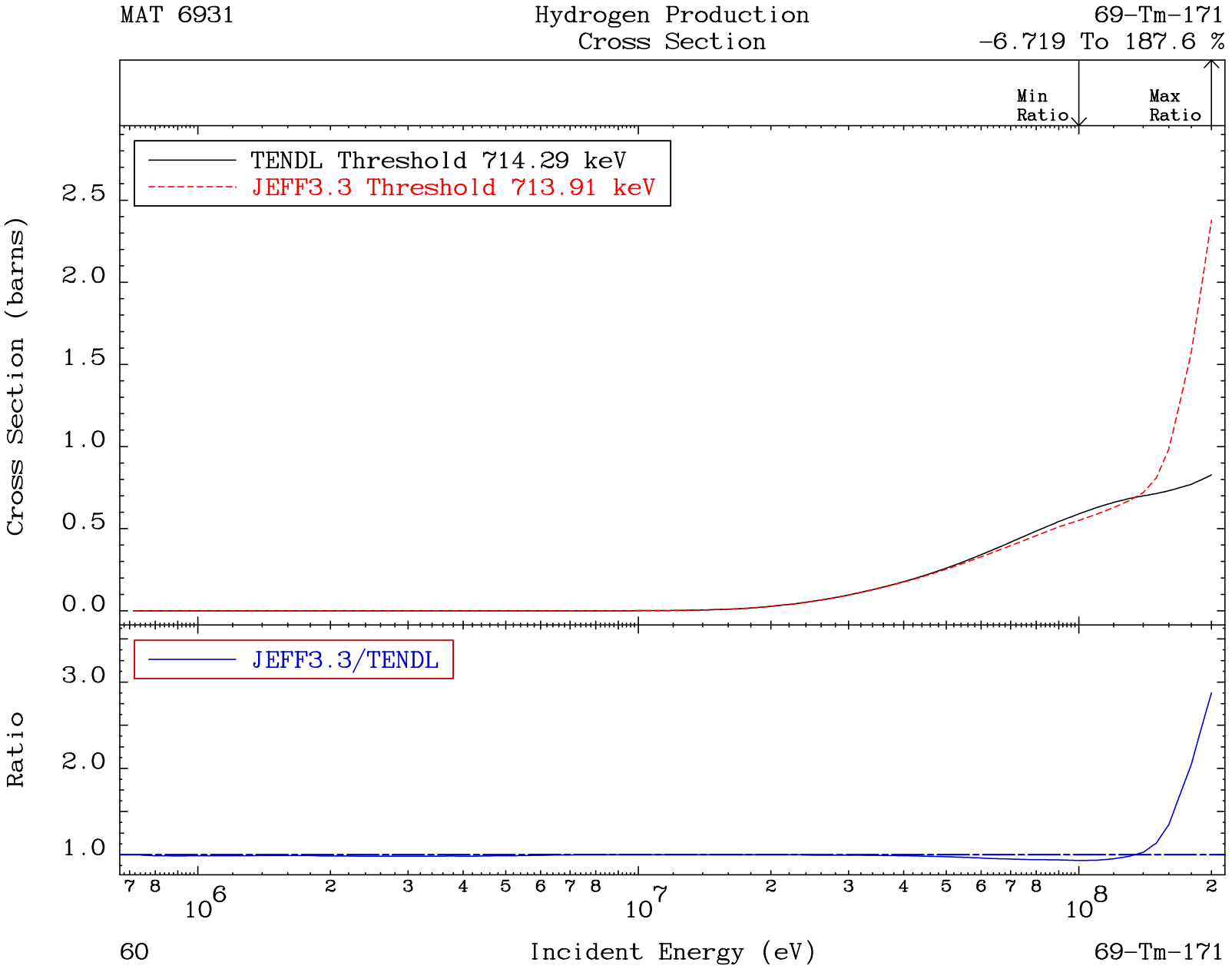

MAT 6931
(n,He-3)
Cross Section
69-Tm-171
-0.229 To 1.130 %
Max Ratio
Min Ratio
TENDL Threshold 7.3171 MeV
JEFF3.3 Threshold 7.3171 MeV
Cross Section (micro-barns)
180
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
55
Incident Energy (eV)
69-Tm-171

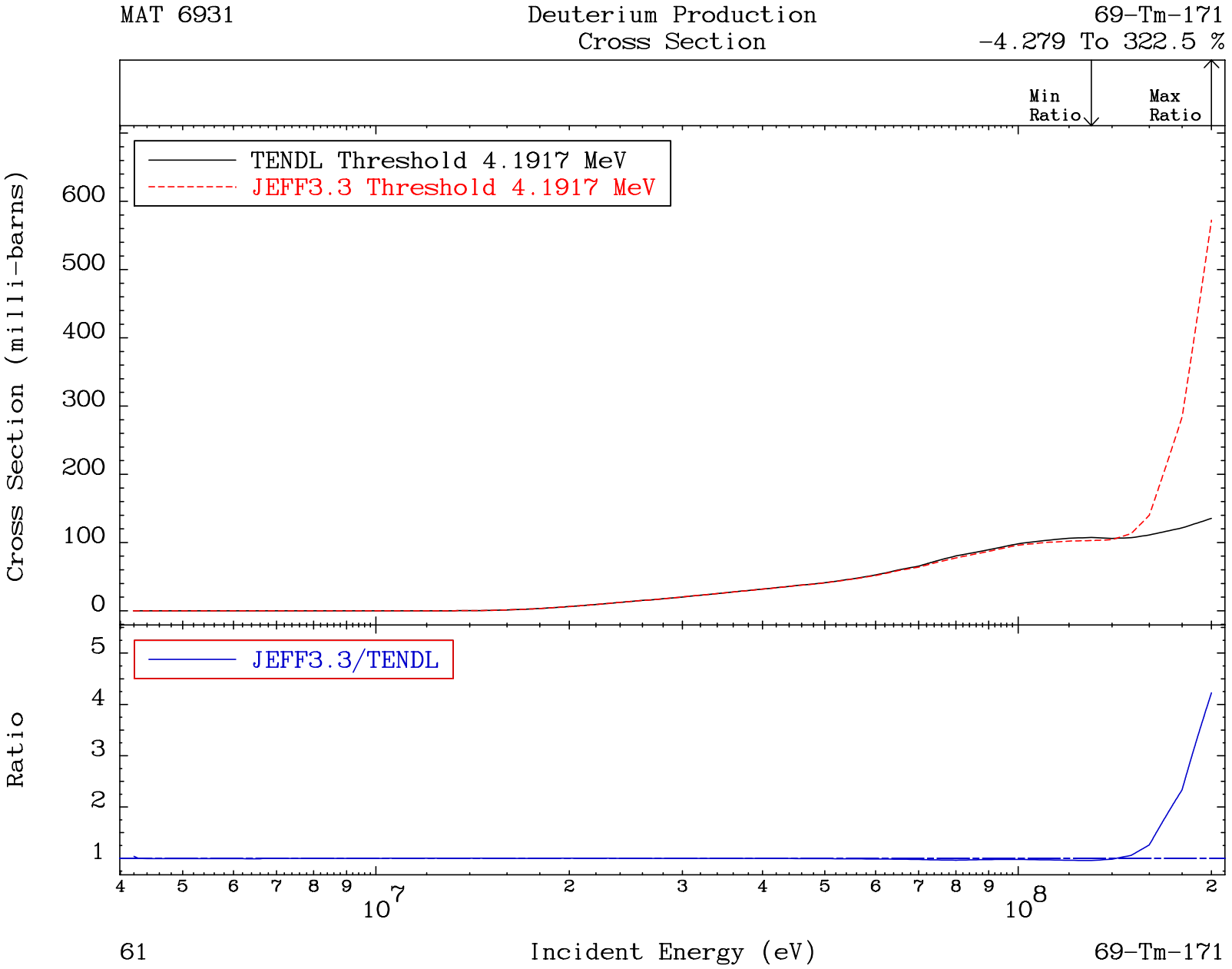

MAT 6931
(n,α)
Cross Section
69-Tm-171
-16.72 To 9771. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
56
69-Tm-171

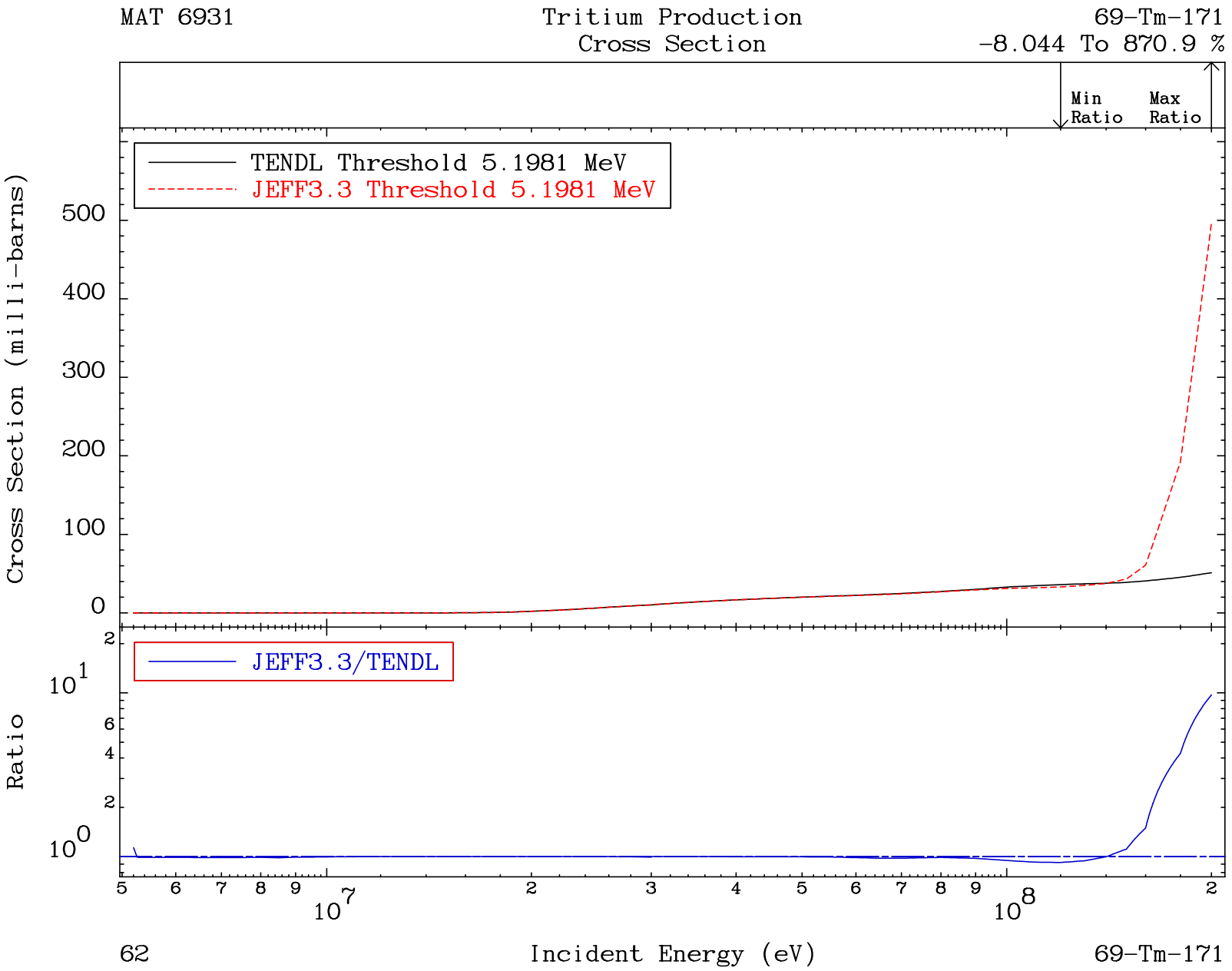

MAT 6931
(n,2α)
Cross Section
69-Tm-171
-28.80 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 330.62 eV
JEFF3.3 Threshold 1.2262 keV
Cross Section (10^-9 barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
3 5 7 10^3 2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
57
Incident Energy (eV)
69-Tm-171

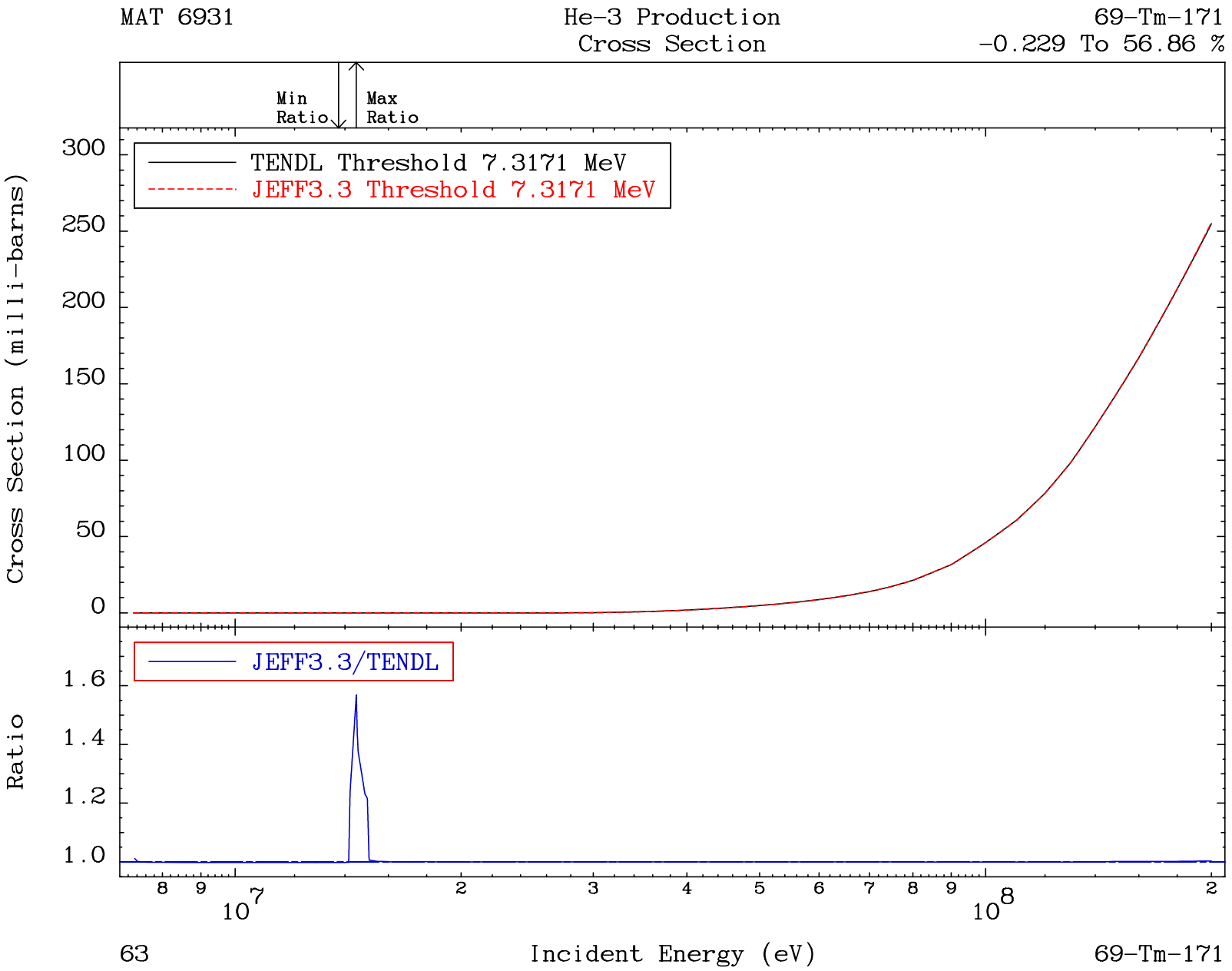

MAT 6931
(n,2p)
Cross Section
69-Tm-171
-0.173 To 39.94 %
Min Ratio
Max Ratio
TENDL Threshold 9.5353 MeV
JEFF3.3 Threshold 9.5353 MeV
Cross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
69-Tm-171

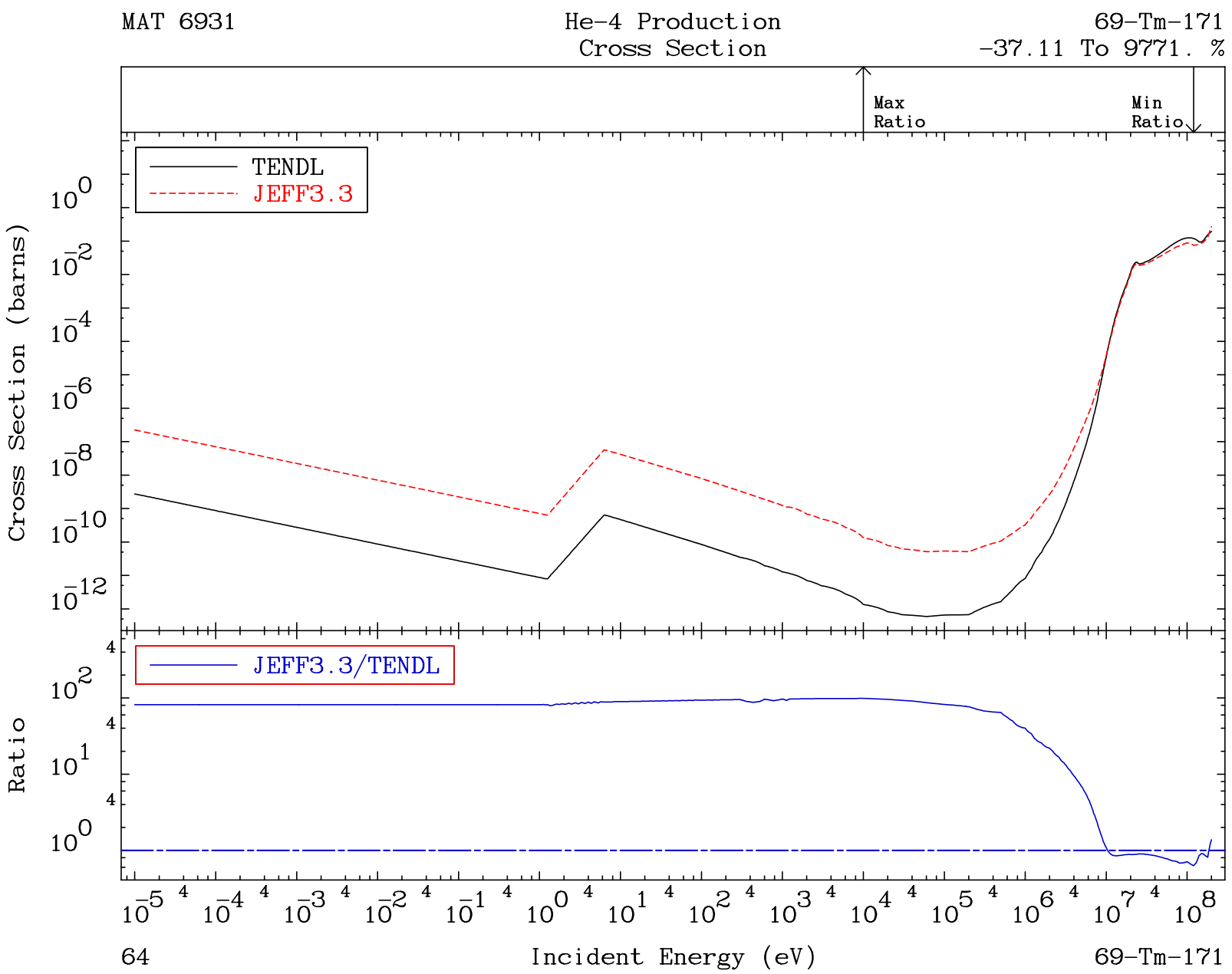

MAT 6931
(n,p) α
Cross Section
69-Tm-171
-9.966 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 946.93 keV
JEFF3.3 Threshold 928.43 keV
Cross Section (10^{-9} barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
59
69-Tm-171

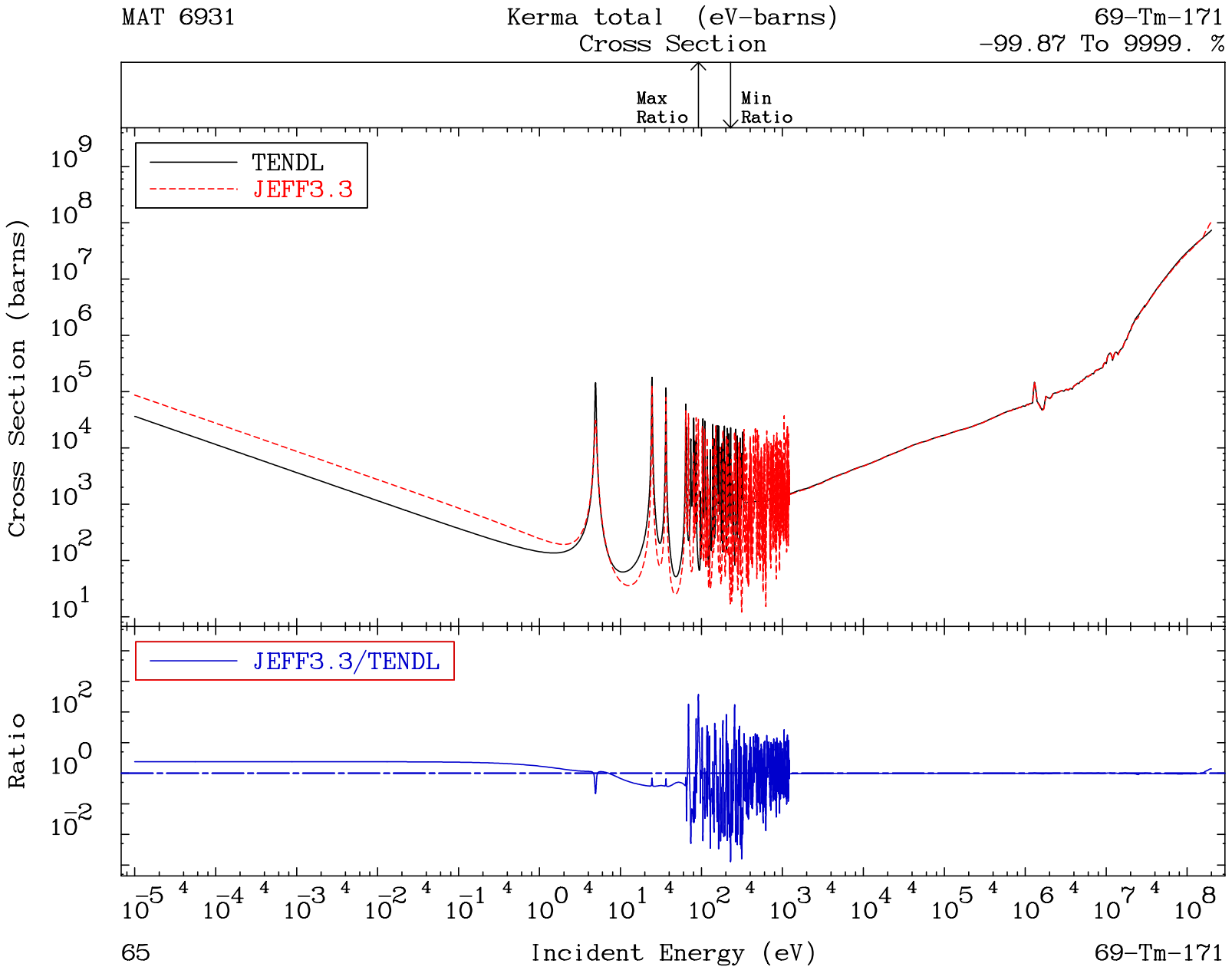

MAT 6931
Hydrogen Production
Cross Section
69-Tm-171
-6.719 To 187.6 %
Min Ratio
Max Ratio
TENDL Threshold 714.29 keV
JEFF3.3 Threshold 713.91 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
60
Incident Energy (eV)
69-Tm-171

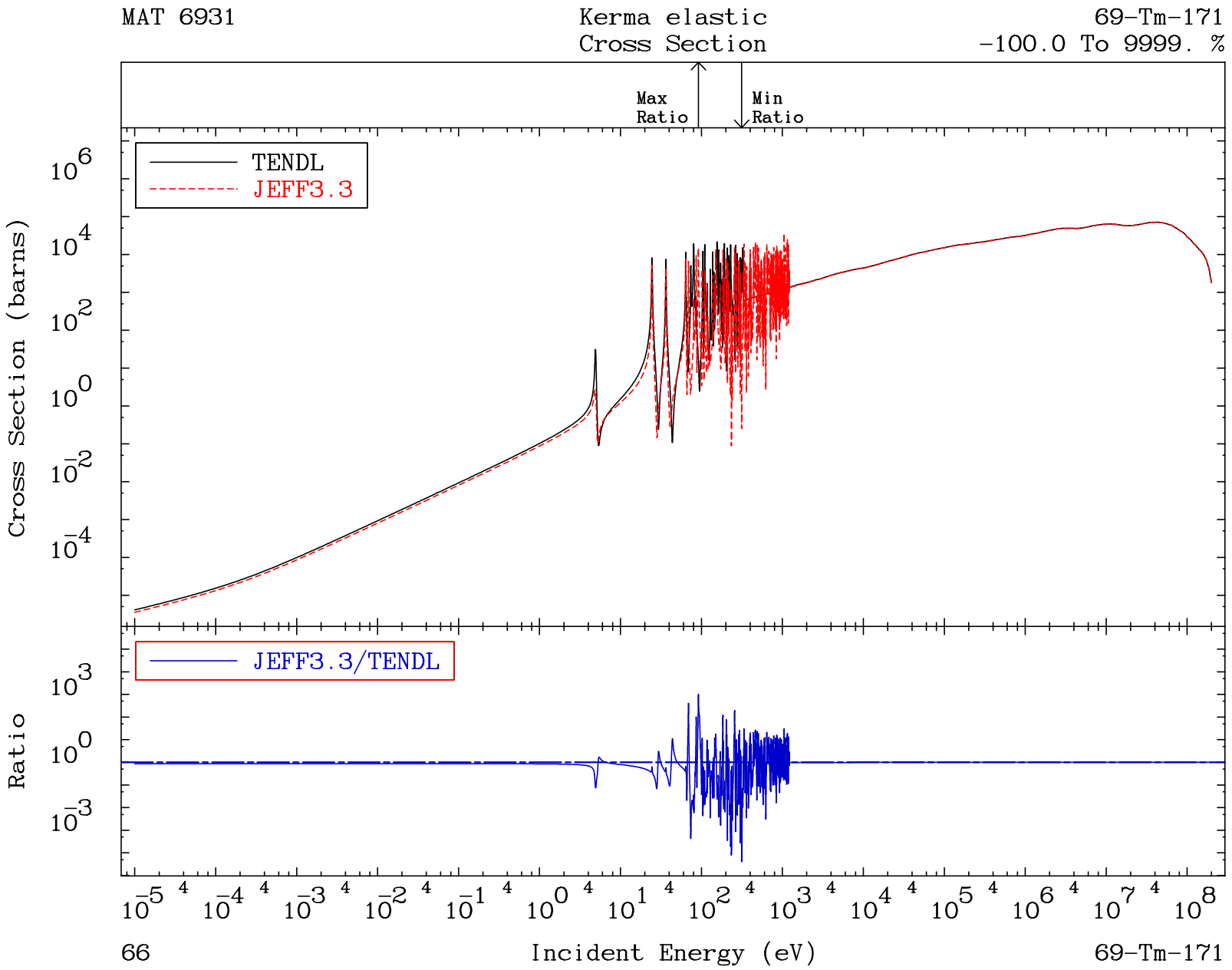

MAT 6931
Deuterium Production
Cross Section
69-Tm-171
-4.279 To 322.5 %
Min Ratio
Max Ratio
TENDL Threshold 4.1917 MeV
JEFF3.3 Threshold 4.1917 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
5
4
3
2
1
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
61
Incident Energy (eV)
69-Tm-171

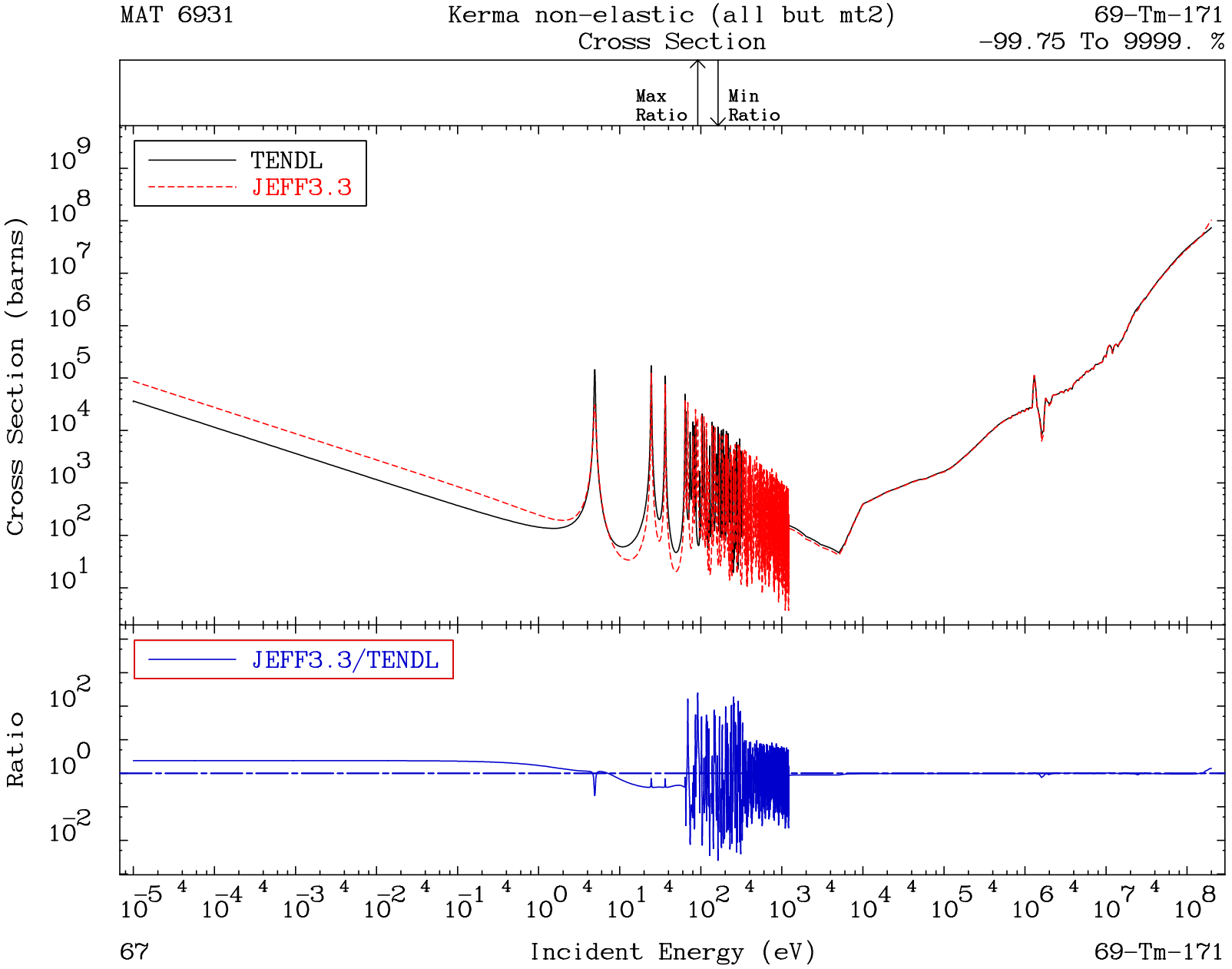

MAT 6931
Tritium Production
Cross Section
69-Tm-171
-8.044 To 870.9 %
Min Ratio
Max Ratio
TENDL Threshold 5.1981 MeV
JEFF3.3 Threshold 5.1981 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^1
6
4
2
10^0
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
62
Incident Energy (eV)
69-Tm-171

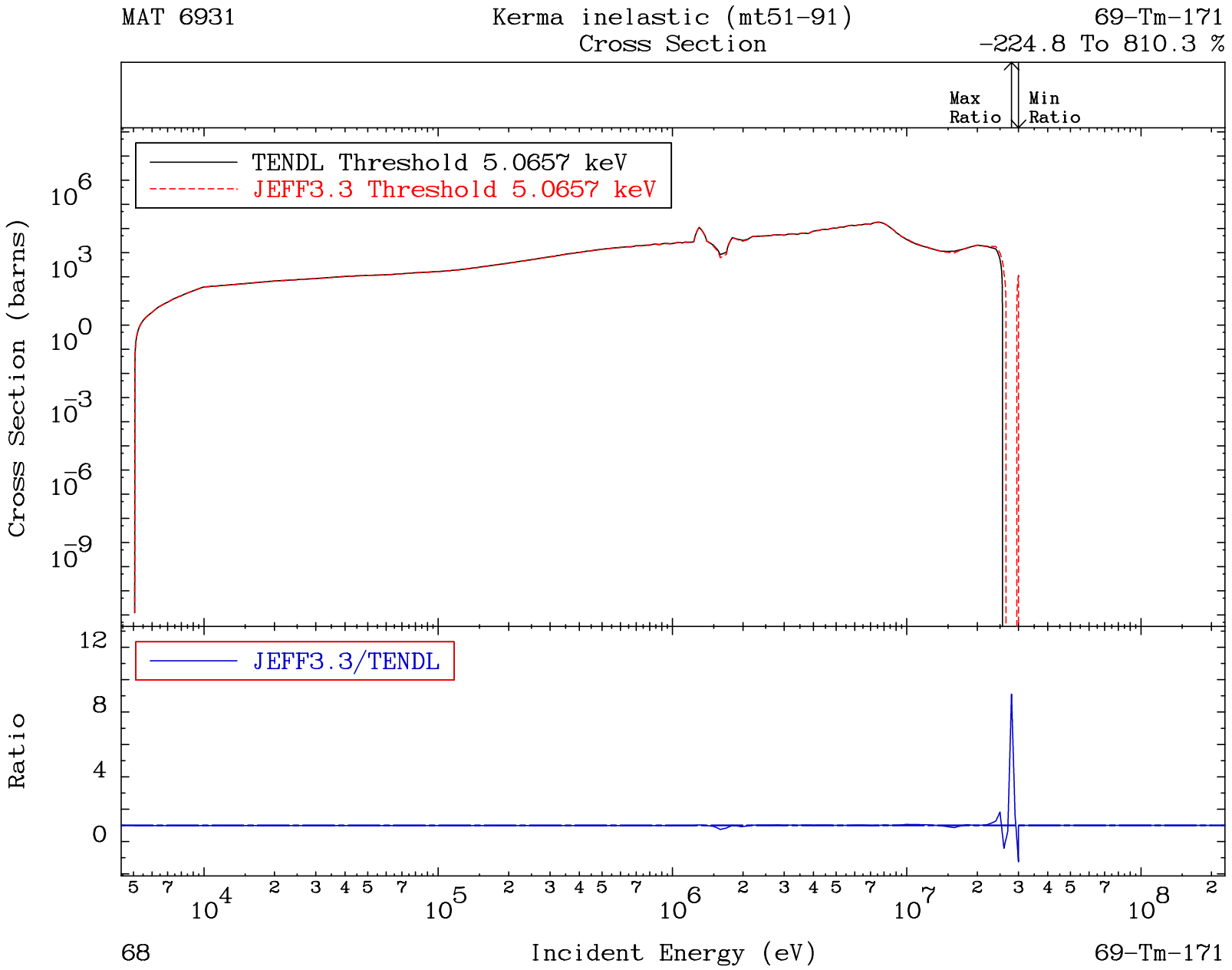

MAT 6931
He-3 Production
Cross Section
69-Tm-171
-0.229 To 56.86 %
Min Ratio
Max Ratio
TENDL Threshold 7.3171 MeV
JEFF3.3 Threshold 7.3171 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.6
1.4
1.2
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
63
Incident Energy (eV)
69-Tm-171

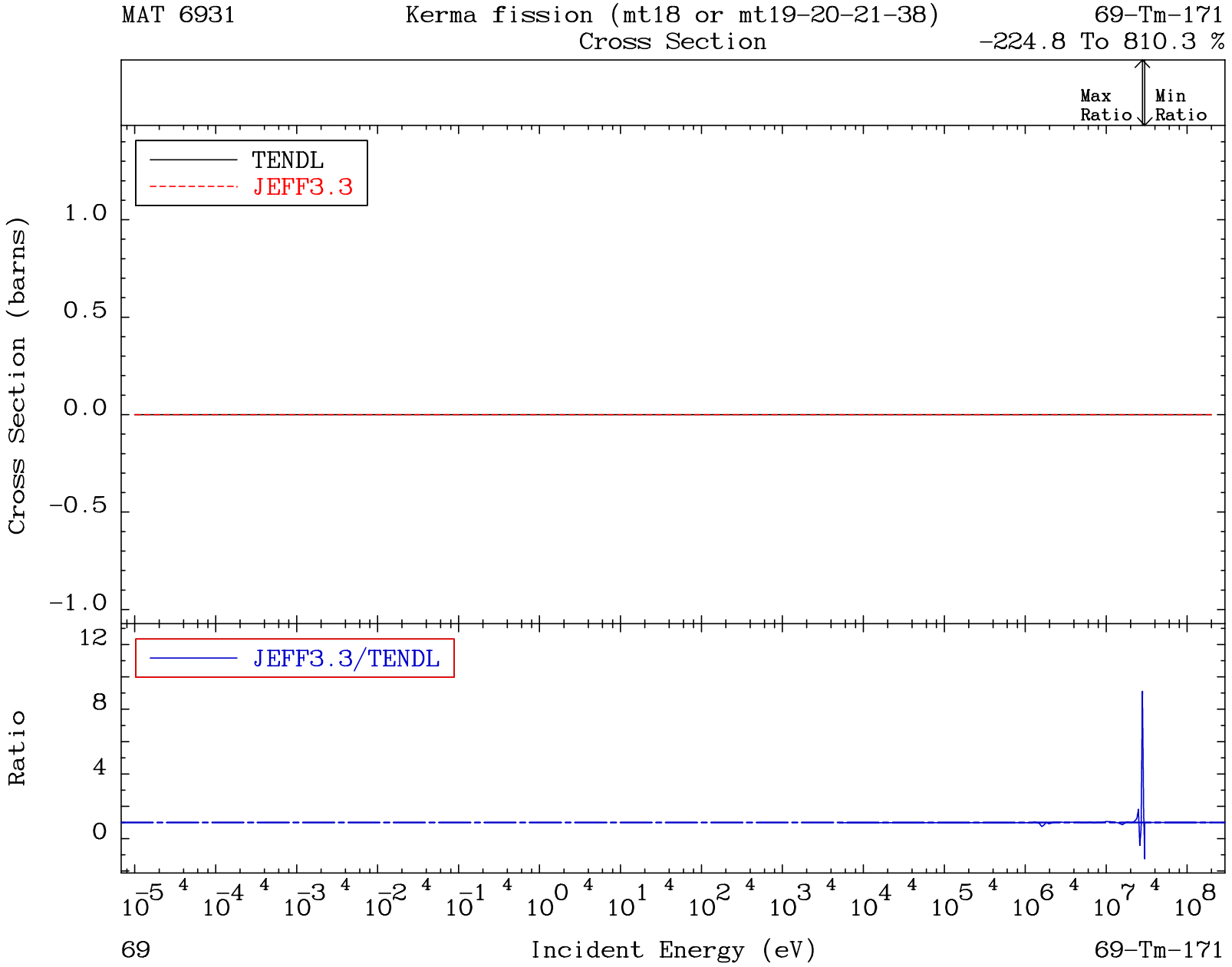

MAT 6931
He-4 Production
Cross Section
69-Tm-171
-37.11 To 9771. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
64
69-Tm-171

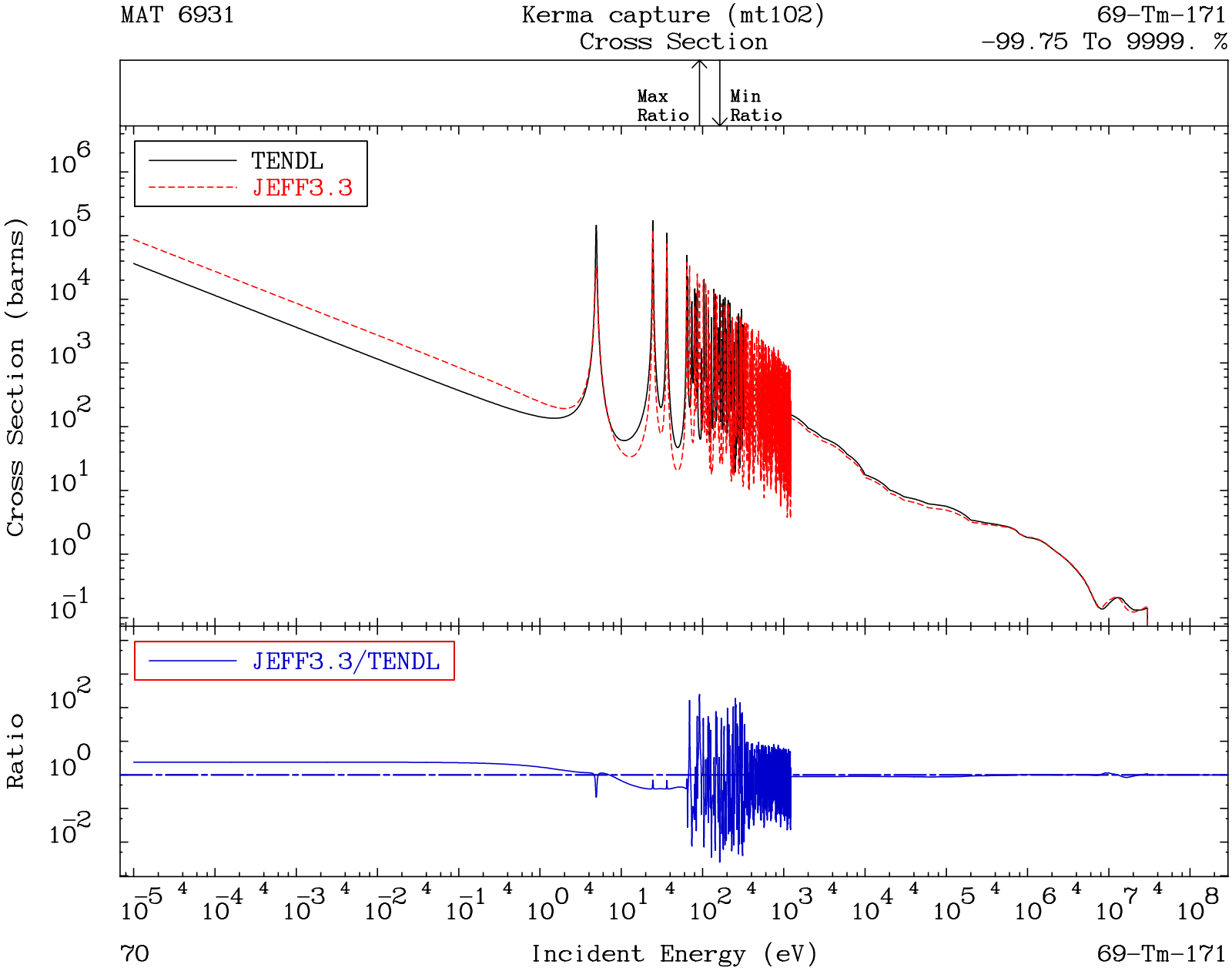

MAT 6931
Kerma total (eV-barns)
Cross Section
69-Tm-171
-99.87 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
65
69-Tm-171

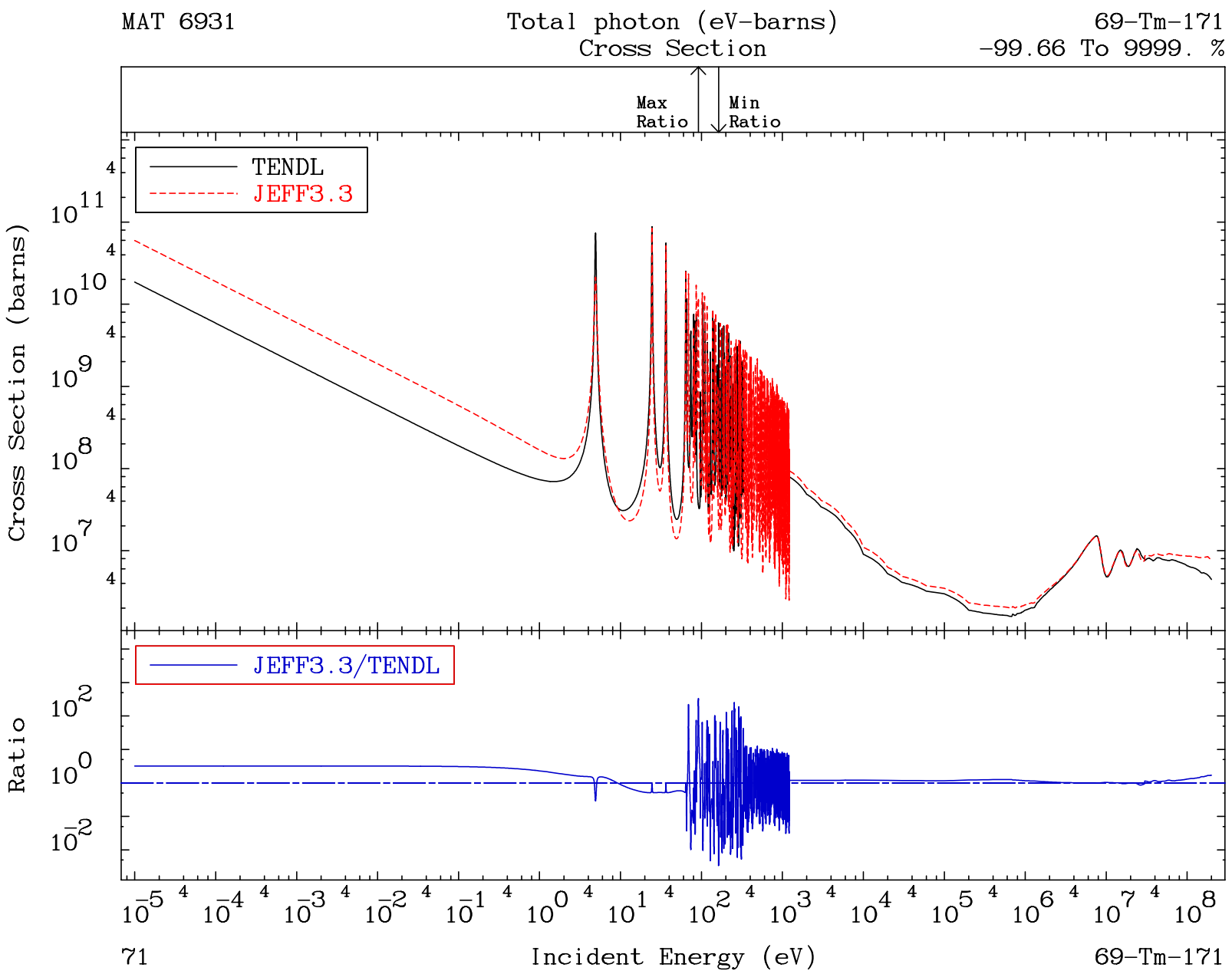

MAT 6931
Kerma elastic
Cross Section
69-Tm-171
-100.0 To 9999. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
66
69-Tm-171

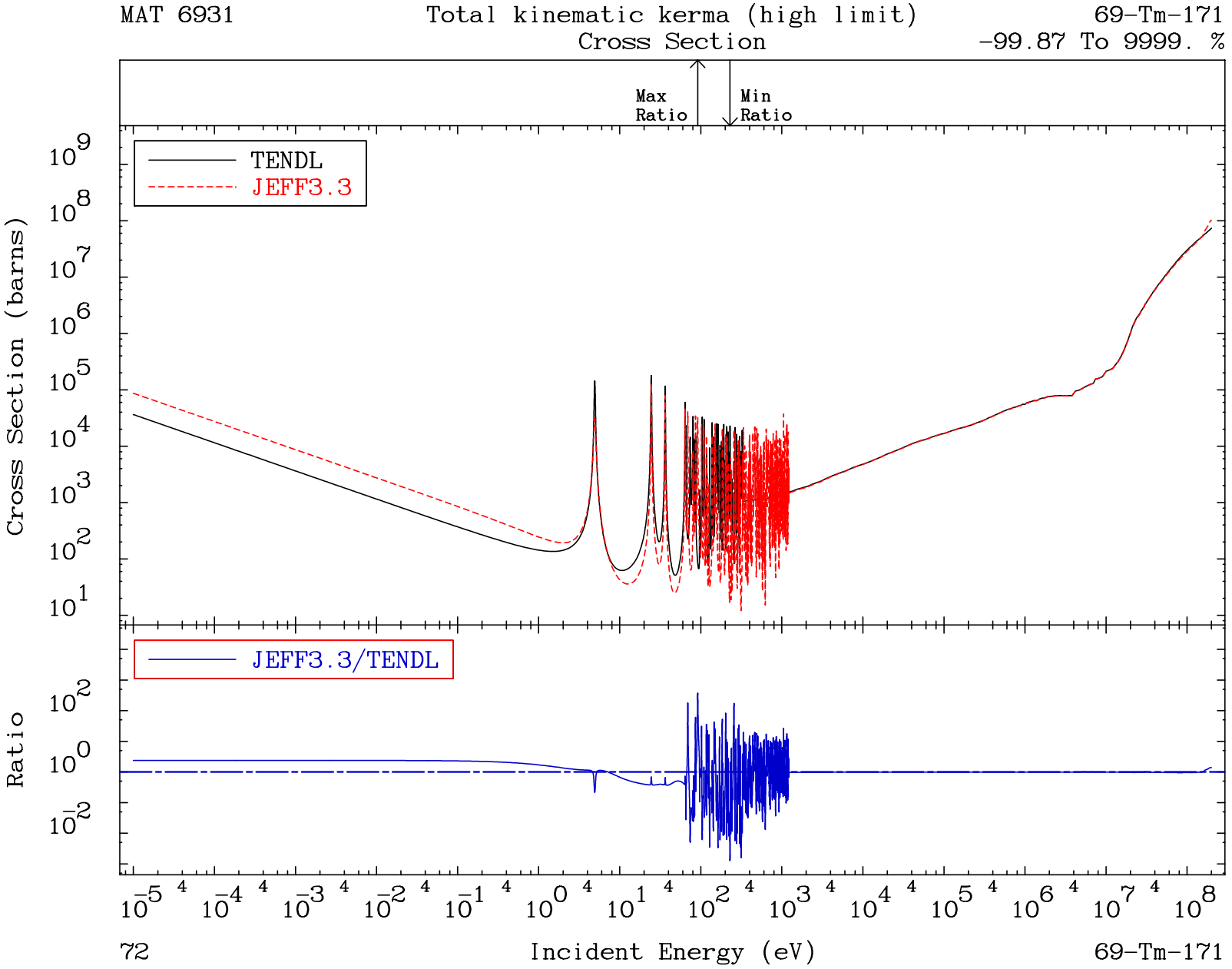

MAT 6931
Kerma non-elastic (all but mt2)
Cross Section
69-Tm-171
-99.75 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
67
69-Tm-171

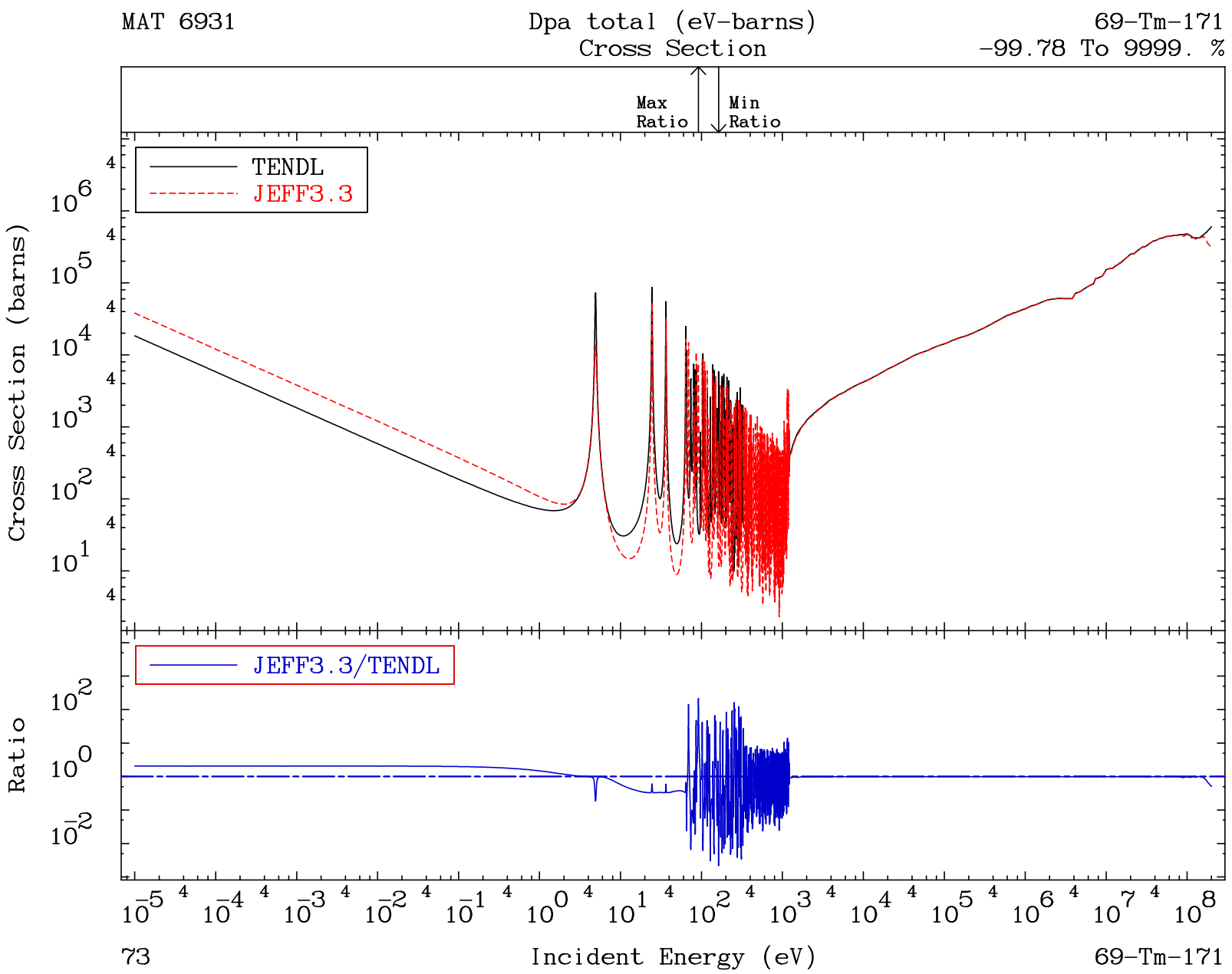

MAT 6931
Kerma inelastic (mt51-91)
Cross Section
69-Tm-171
-224.8 To 810.3 %
Max Ratio
Min Ratio
TENDL Threshold 5.0657 keV
JEFF3.3 Threshold 5.0657 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
69-Tm-171

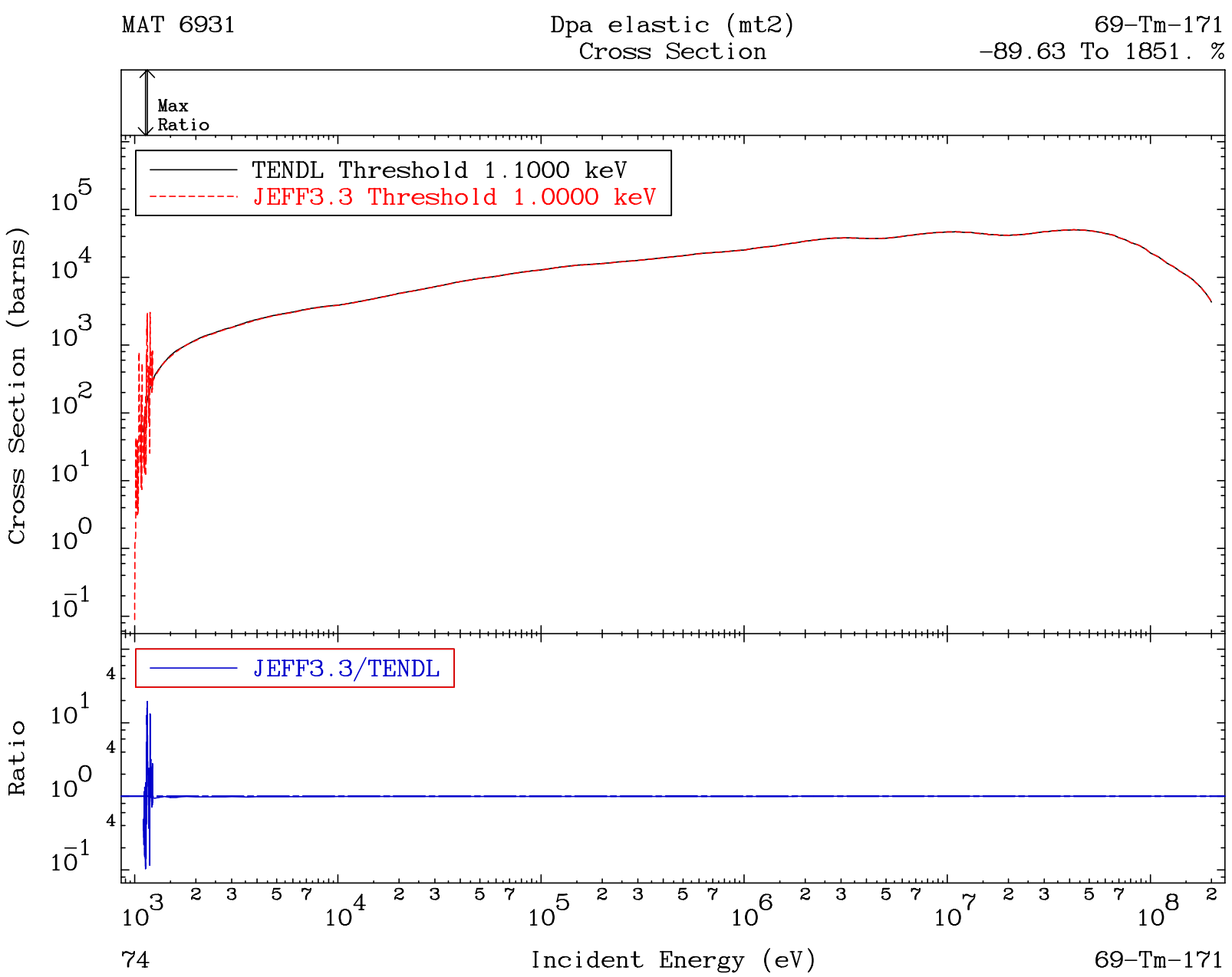

MAT 6931
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
69-Tm-171
-224.8 To 810.3 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
12
8
4
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
69
Incident Energy (eV)
69-Tm-171

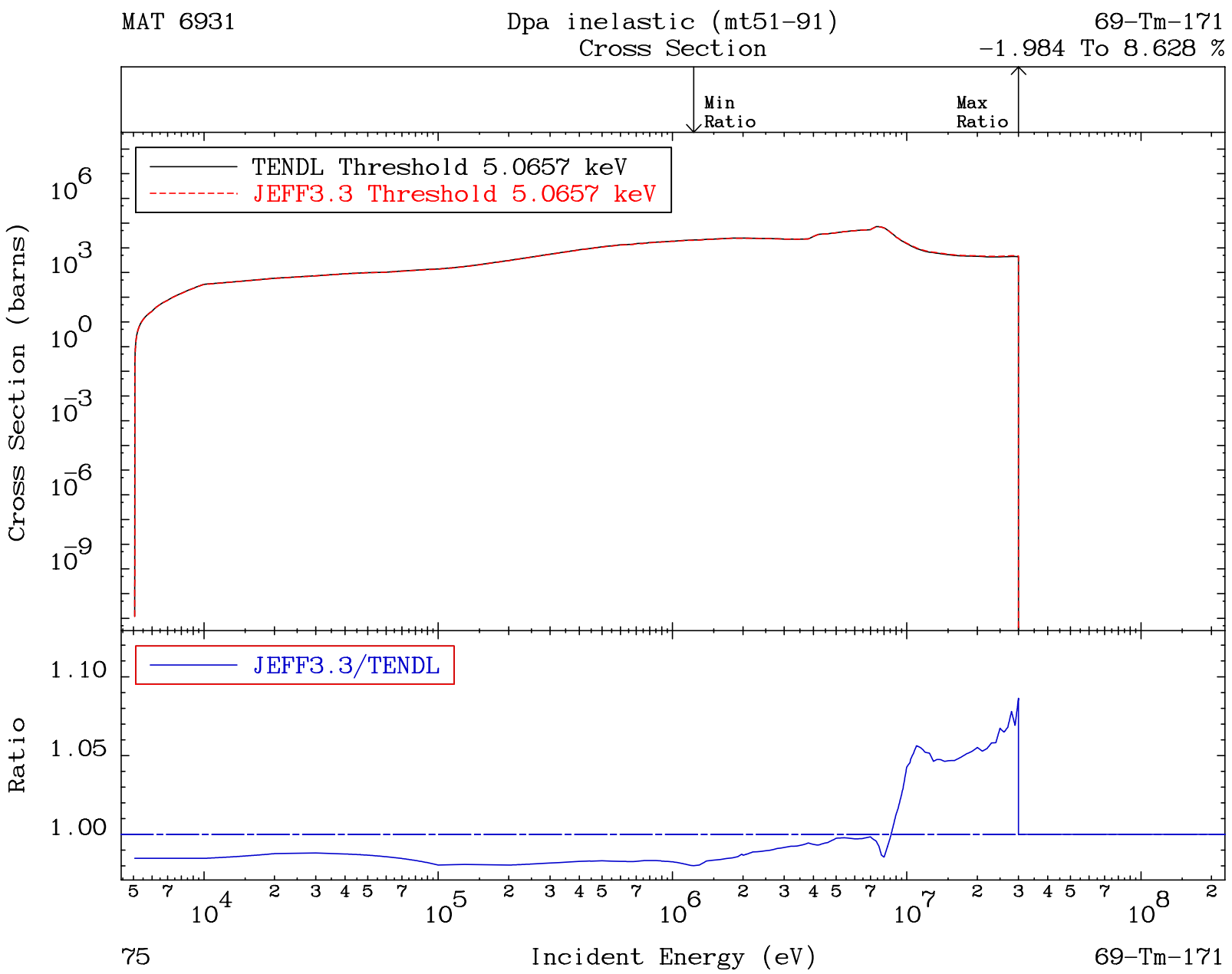

MAT 6931
Kerma capture (mt102)
Cross Section
69-Tm-171
-99.75 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
70
69-Tm-171

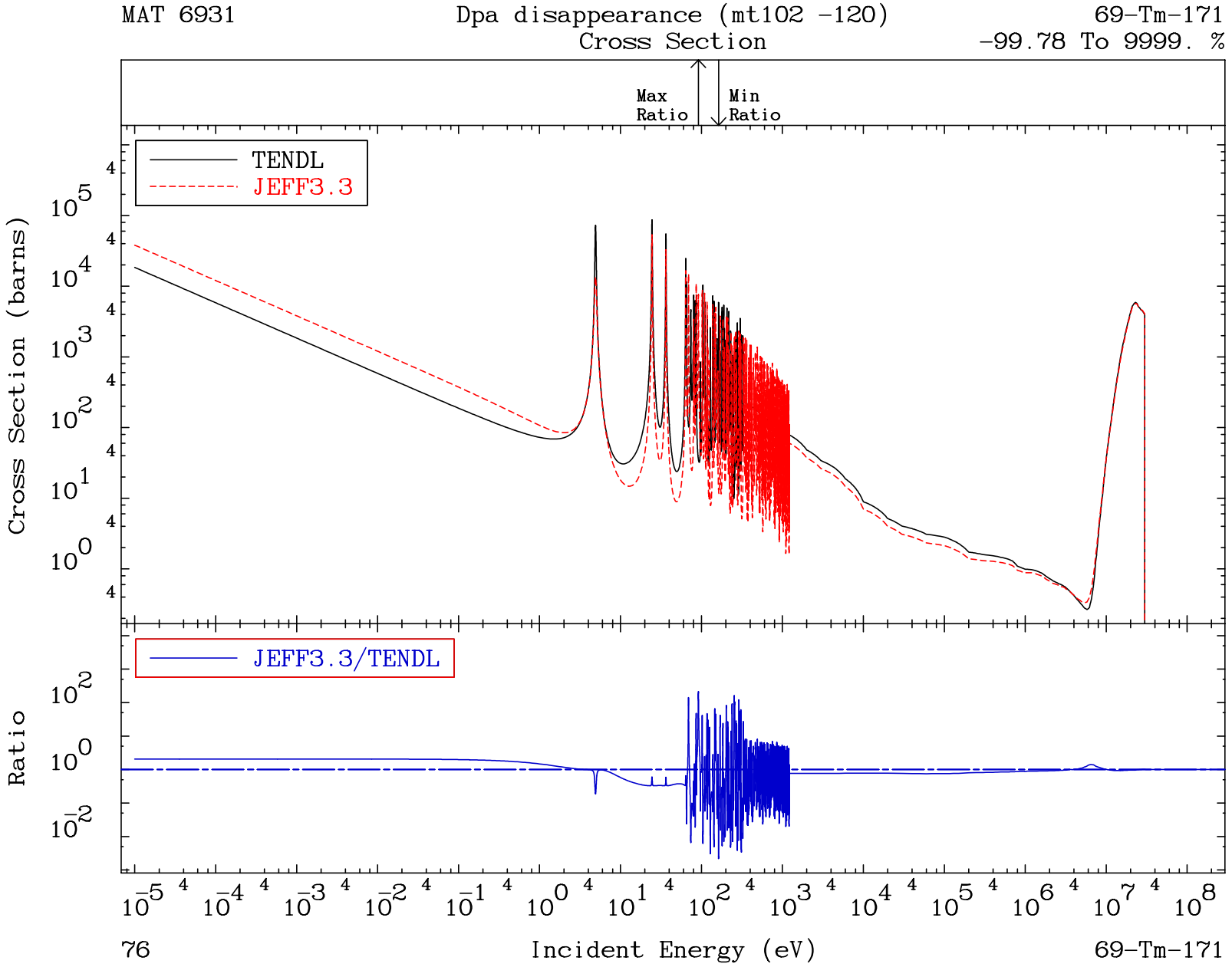

MAT 6931
Total photon (eV-barns)
Cross Section
69-Tm-171
-99.66 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
71
69-Tm-171

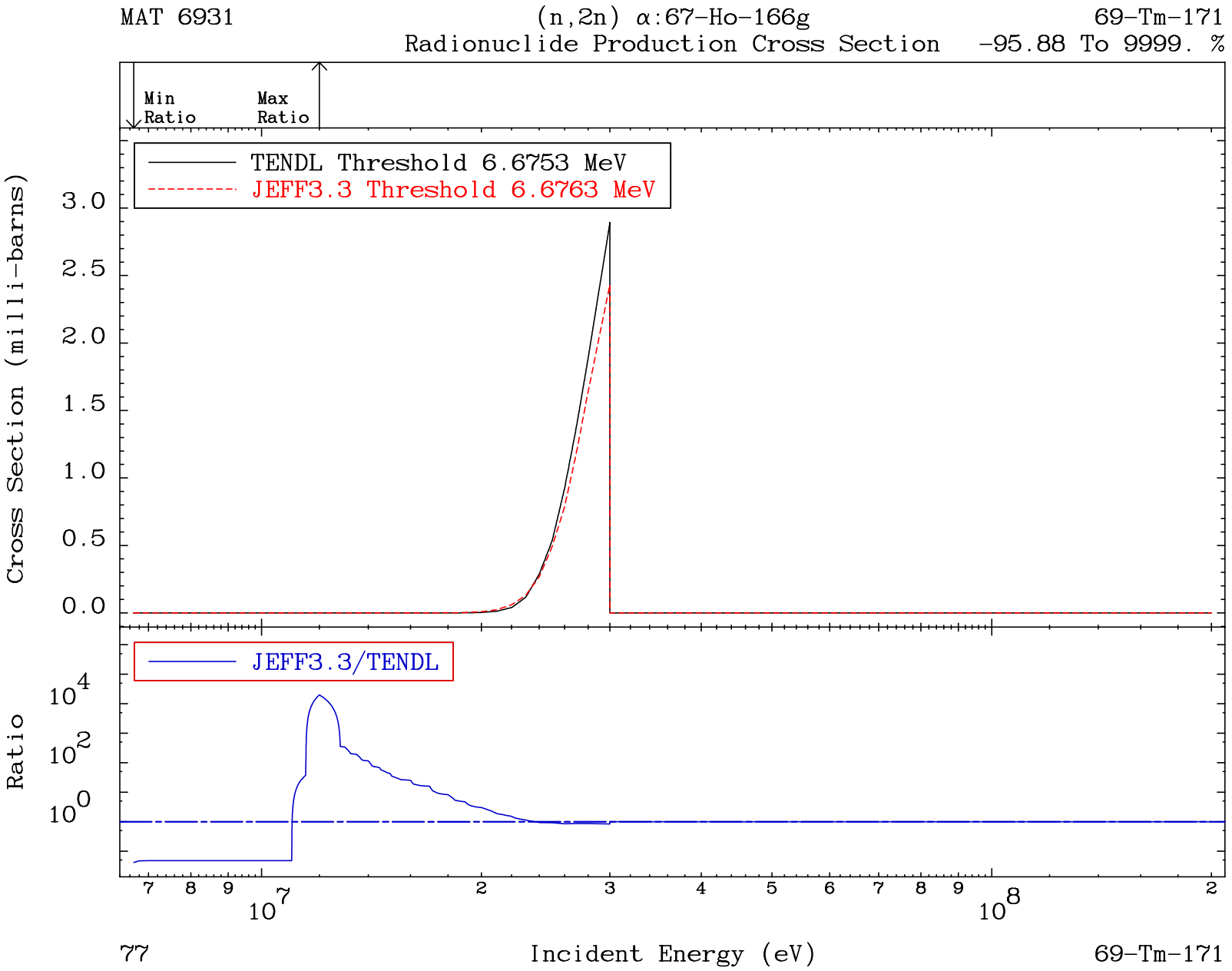

MAT 6931
Total kinematic kerma (high limit)
Cross Section
69-Tm-171
-99.87 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
72
69-Tm-171

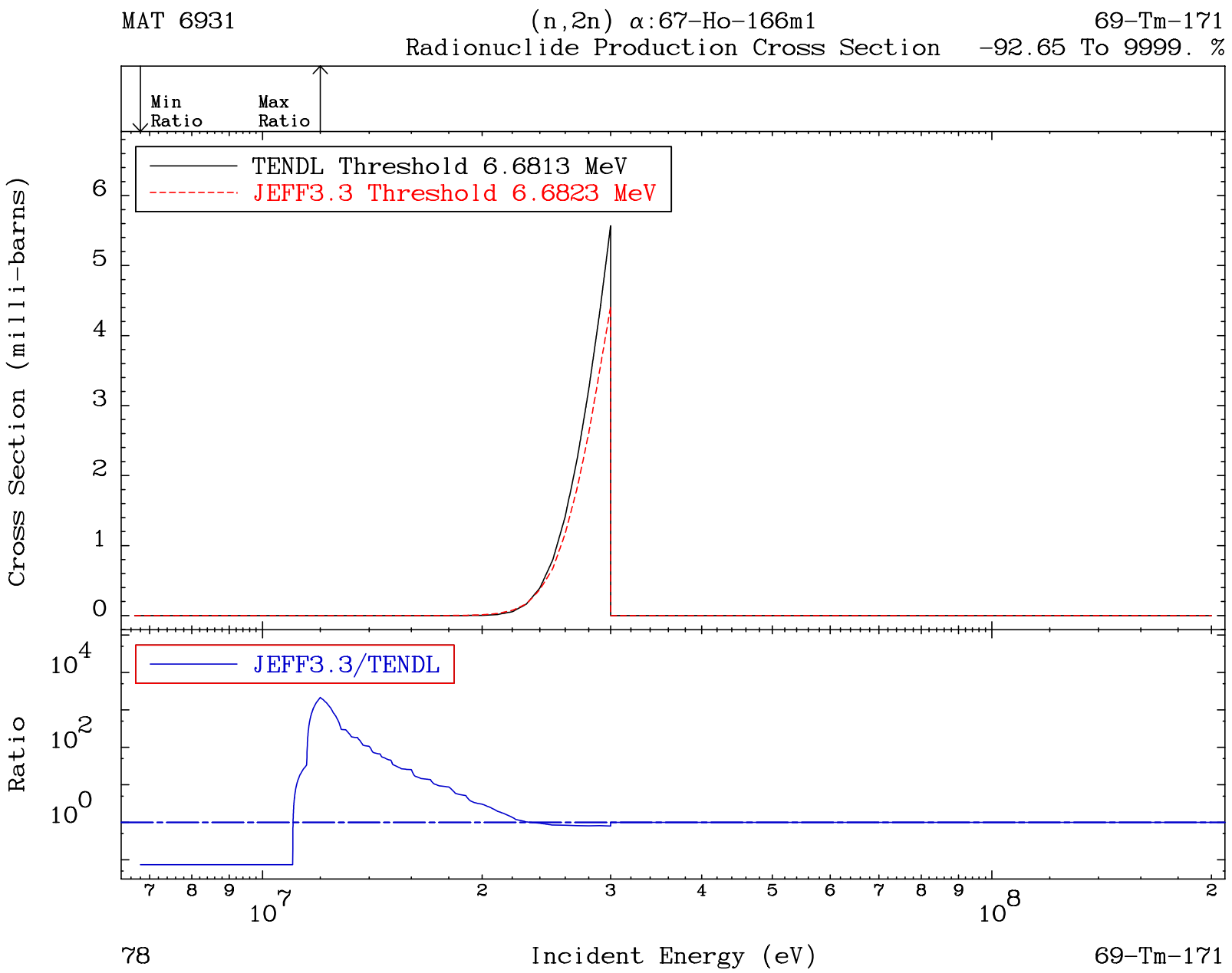

MAT 6931
Dpa total (eV-barns)
Cross Section
69-Tm-171
-99.78 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
73
69-Tm-171

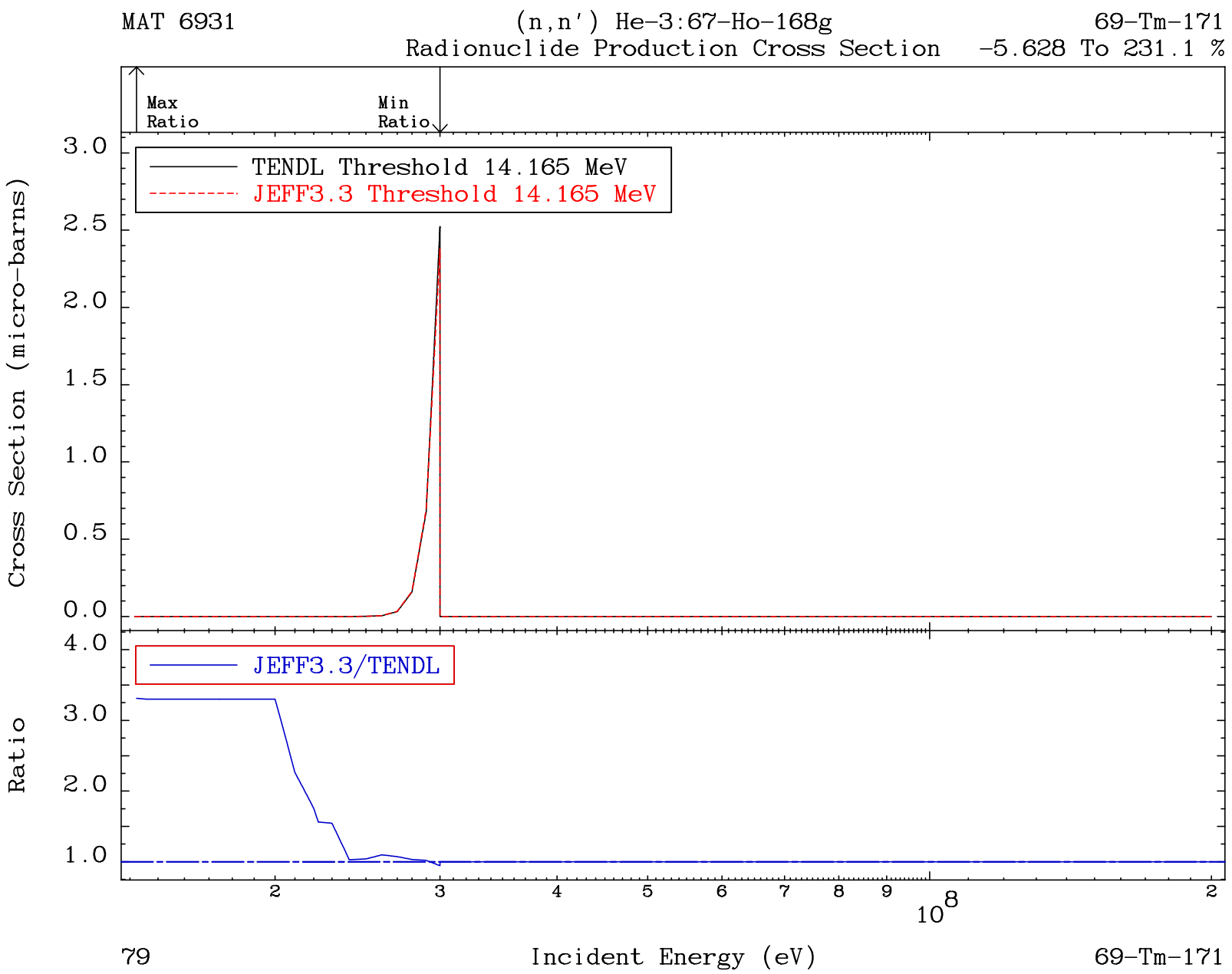

MAT 6931
Dpa elastic (mt2)
Cross Section
69-Tm-171
-89.63 To 1851. %
Max
Ratio
TENDL Threshold 1.1000 keV
JEFF3.3 Threshold 1.0000 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
74
69-Tm-171

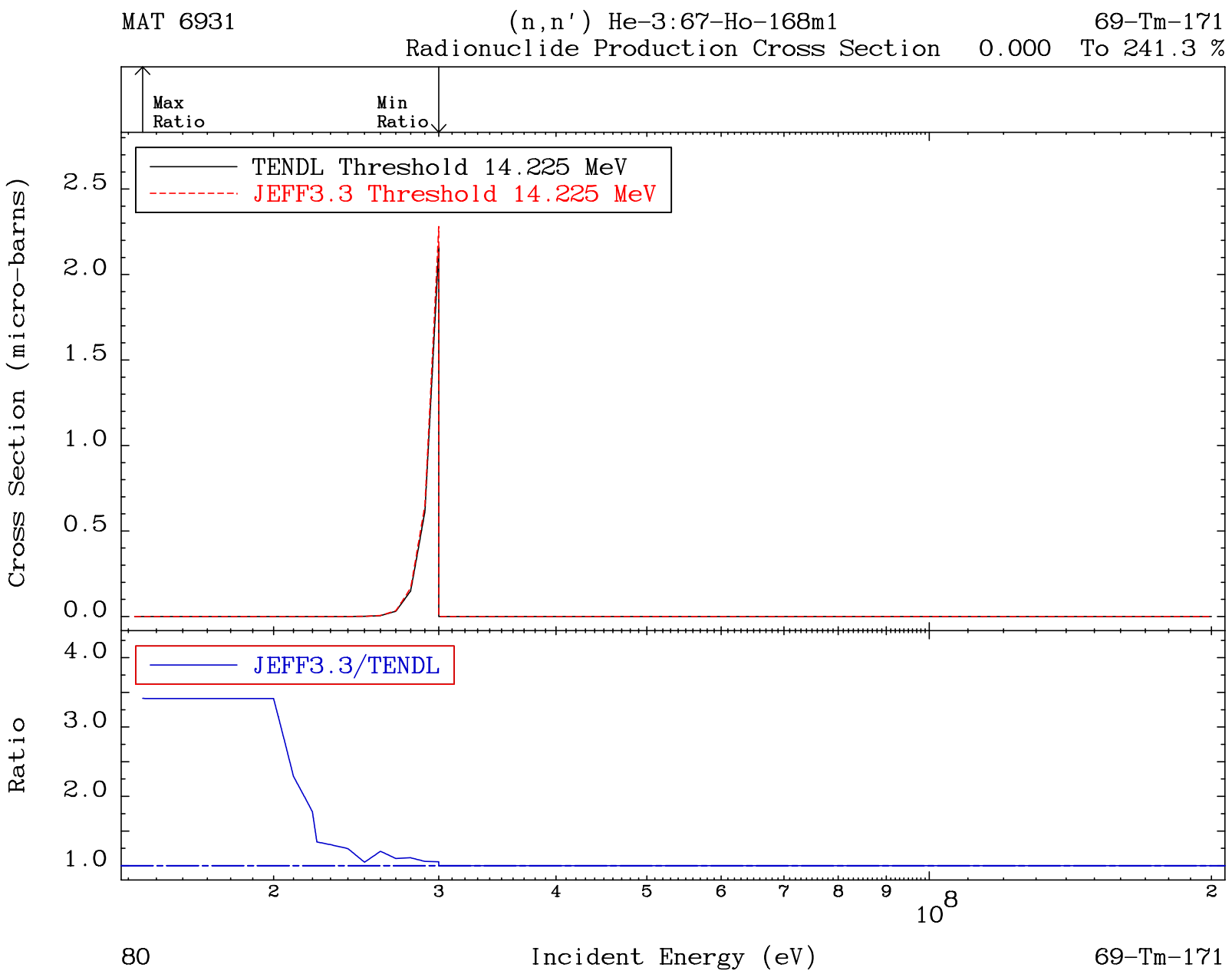

MAT 6931
Dpa inelastic (mt51-91)
Cross Section
69-Tm-171
-1.984 To 8.628 %
Min Ratio
Max Ratio
TENDL Threshold 5.0657 keV
JEFF3.3 Threshold 5.0657 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
75
69-Tm-171

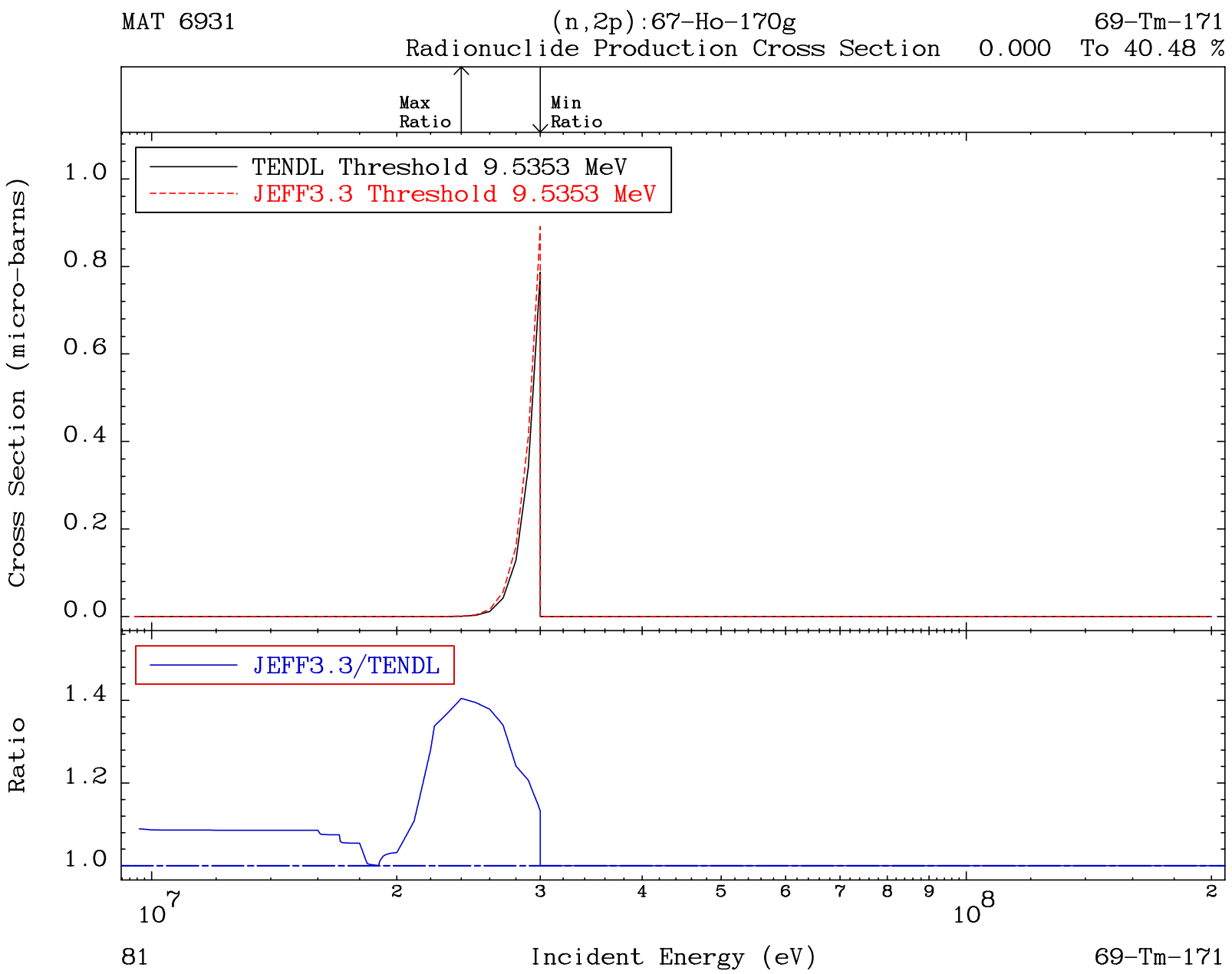

MAT 6931
Dpa disappearance (mt102 -120)
Cross Section
69-Tm-171
-99.78 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
76
69-Tm-171

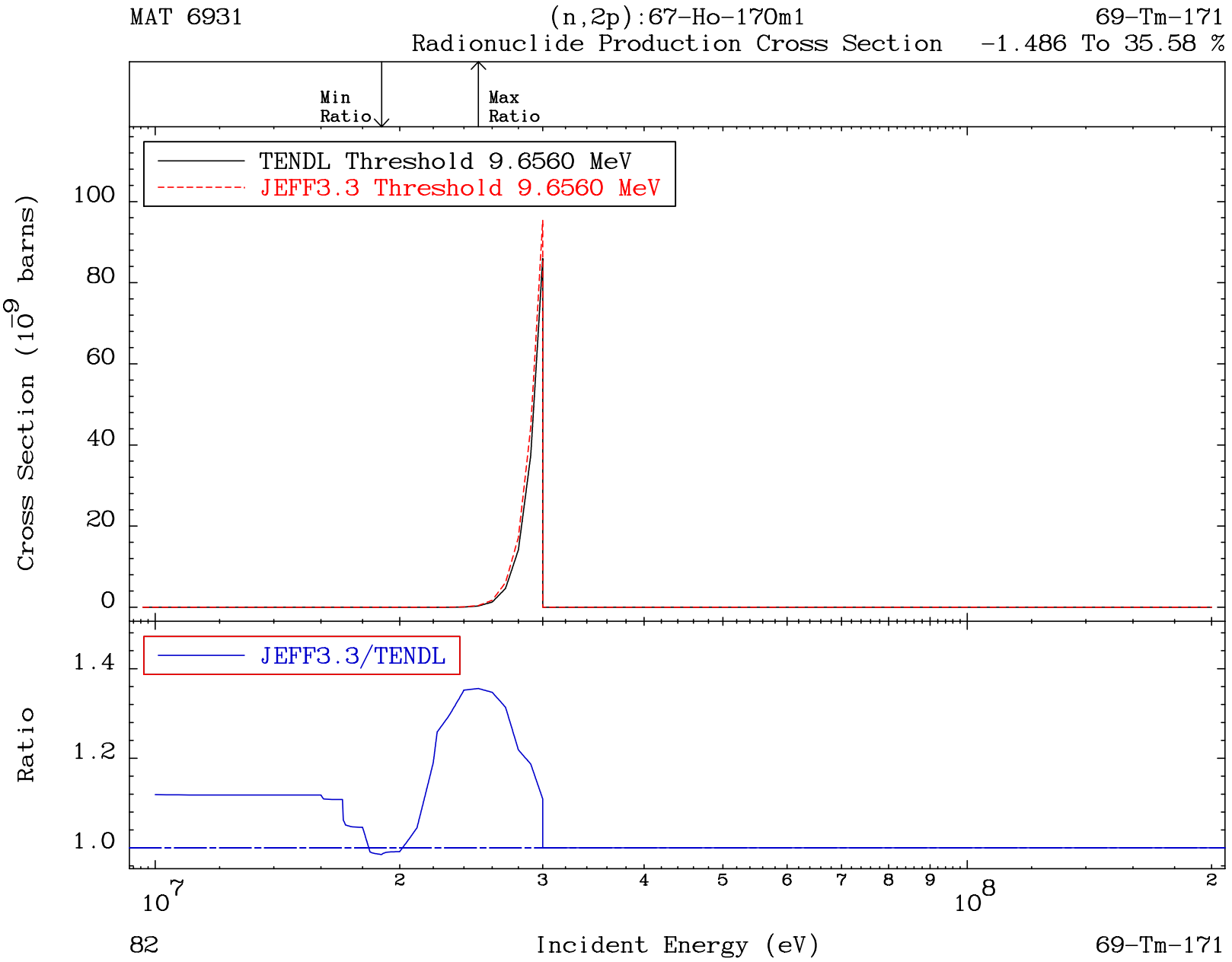

MAT 6931
(n,2n) α:67-Ho-166g
69-Tm-171
Radionuclide Production Cross Section
-95.88 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 6.6753 MeV
JEFF3.3 Threshold 6.6763 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
77
Incident Energy (eV)
69-Tm-171


MAT 6931
(n,2n) α:67-Ho-166m1
69-Tm-171
Radionuclide Production Cross Section -92.65 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 6.6813 MeV
JEFF3.3 Threshold 6.6823 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
78
Incident Energy (eV)
69-Tm-171


MAT 6931
(n,n') He-3:67-Ho-168g
69-Tm-171
Radionuclide Production Cross Section
-5.628 To 231.1 %
Max Ratio
Min Ratio
TENDL Threshold 14.165 MeV
JEFF3.3 Threshold 14.165 MeV
Cross Section (micro-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
69-Tm-171


MAT 6931
(n,n') He-3:67-Ho-168m1
69-Tm-171
Radionuclide Production Cross Section 0.000 To 241.3 %
Max Ratio
Min Ratio
TENDL Threshold 14.225 MeV
JEFF3.3 Threshold 14.225 MeV
Cross Section (micro-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
69-Tm-171


MAT 6931
(n,2p):67-Ho-170g
69-Tm-171
Radionuclide Production Cross Section 0.000 To 40.48 %
Max Ratio
Min Ratio
TENDL Threshold 9.5353 MeV
JEFF3.3 Threshold 9.5353 MeV
Cross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
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)
69-Tm-171


MAT 6931
(n,2p):67-Ho-170m1
69-Tm-171
Radionuclide Production Cross Section
-1.486 To 35.58 %
Min Ratio
Max Ratio
TENDL Threshold 9.6560 MeV
JEFF3.3 Threshold 9.6560 MeV
Cross Section (10^{-9} barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
10^{7}
2
3
4
5
6
7
8
9
10^{8}
2
82
Incident Energy (eV)
69-Tm-171