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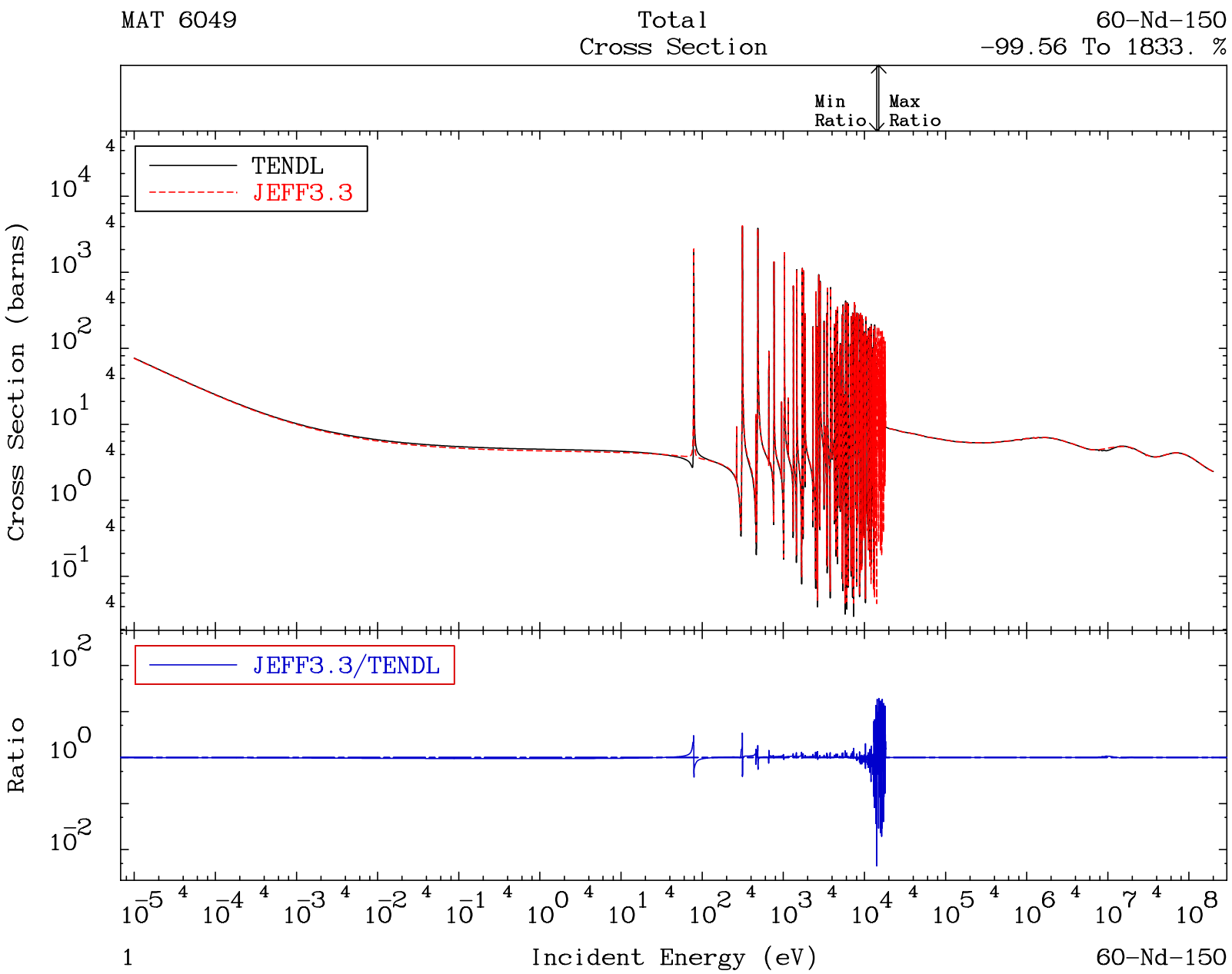
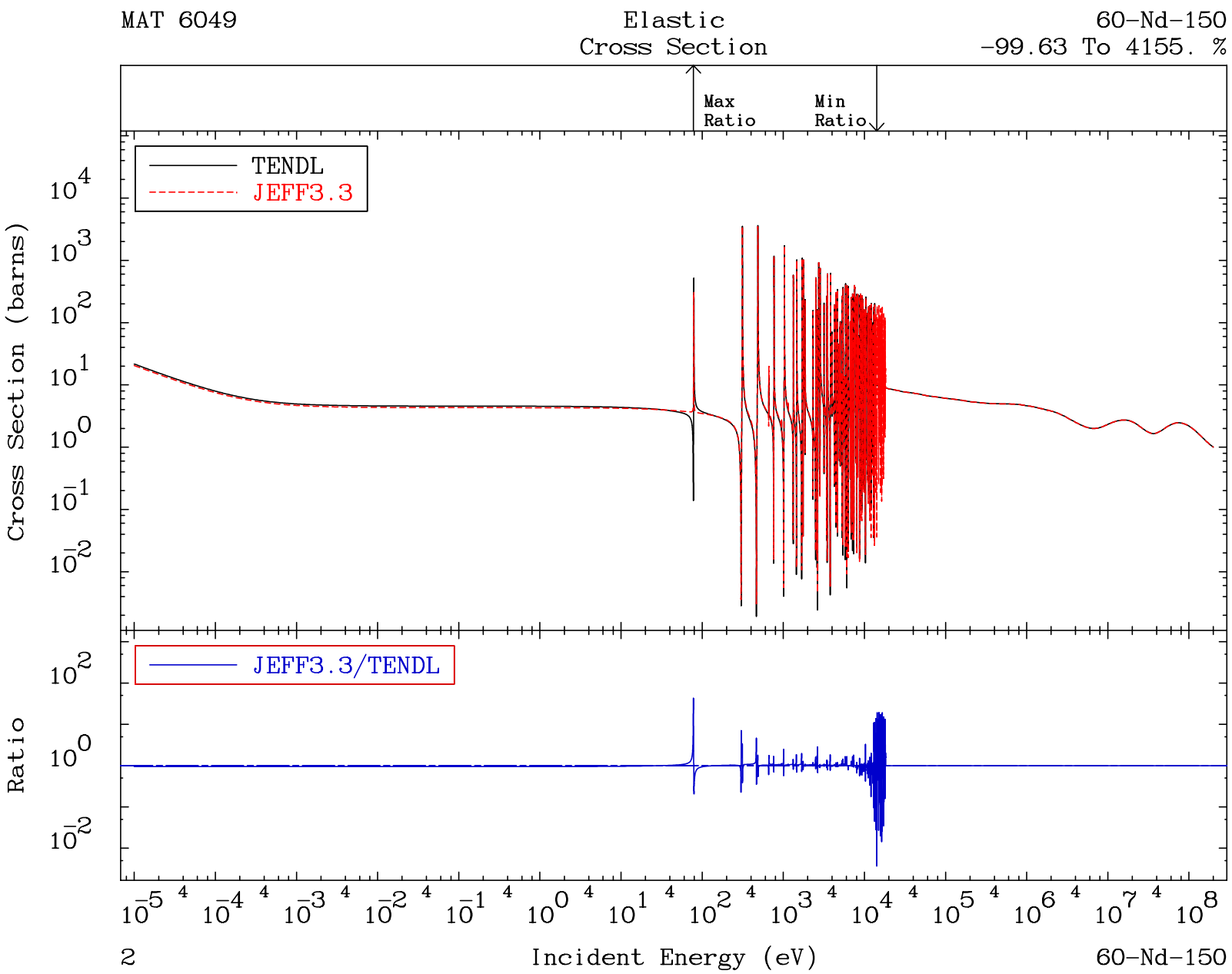
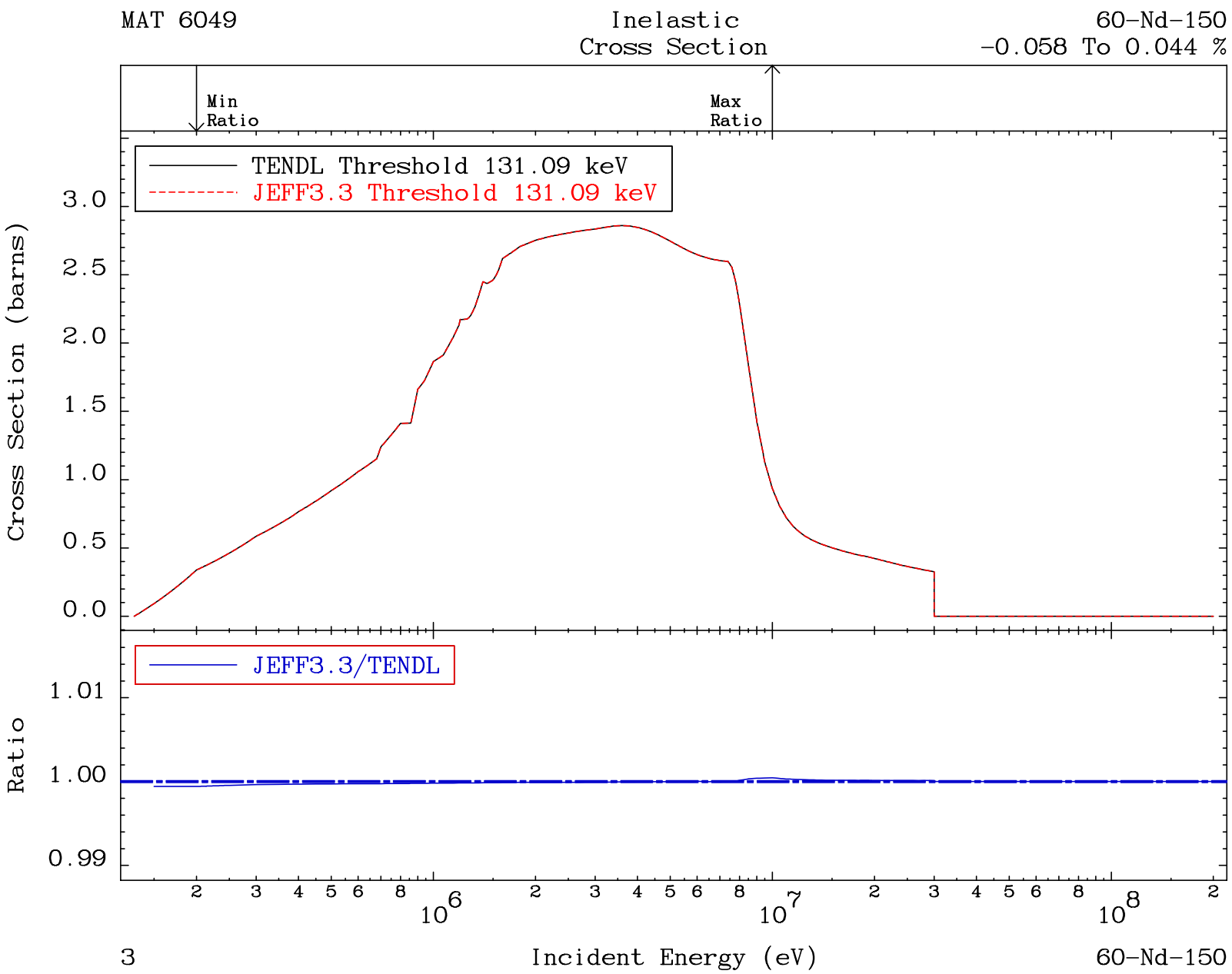
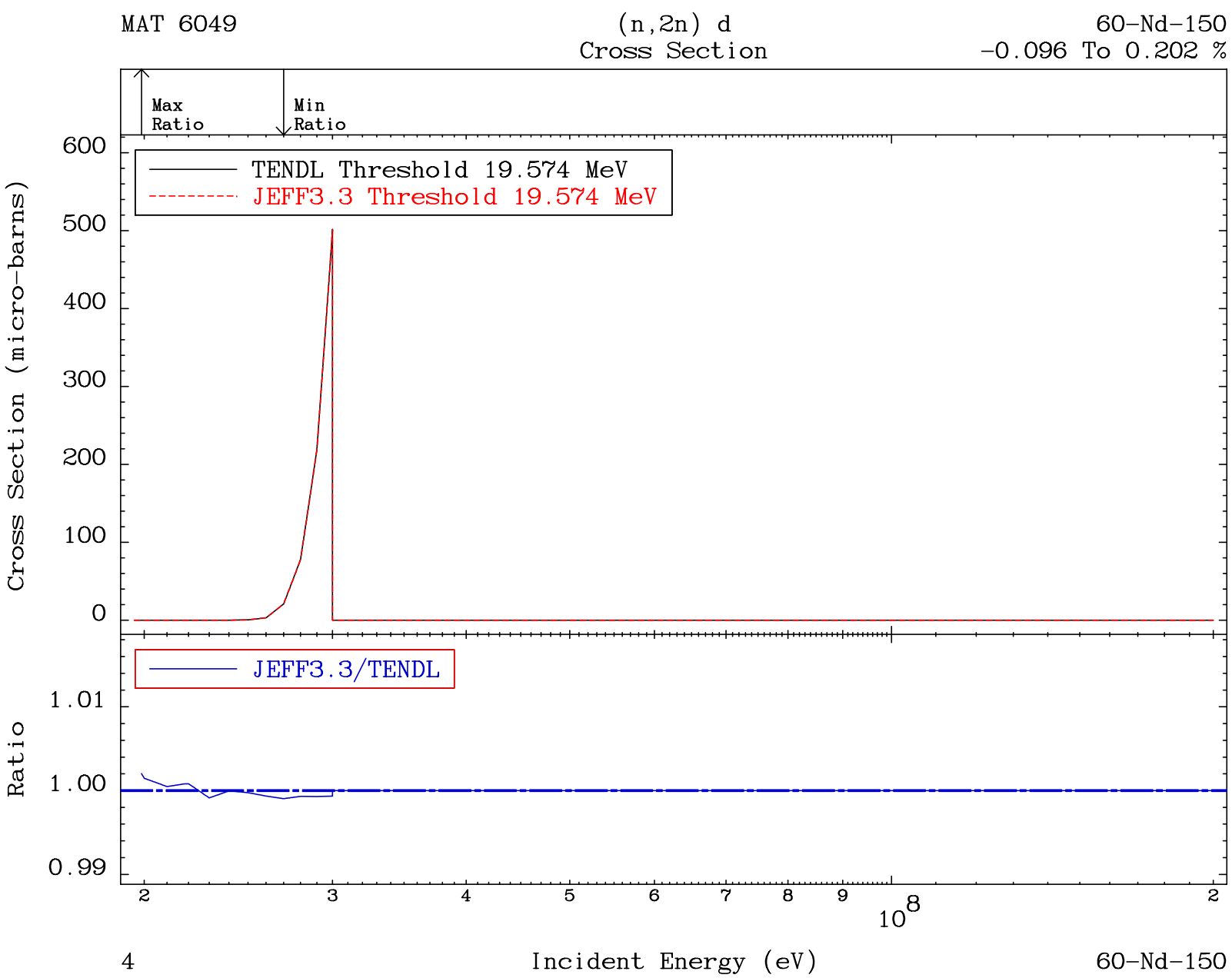
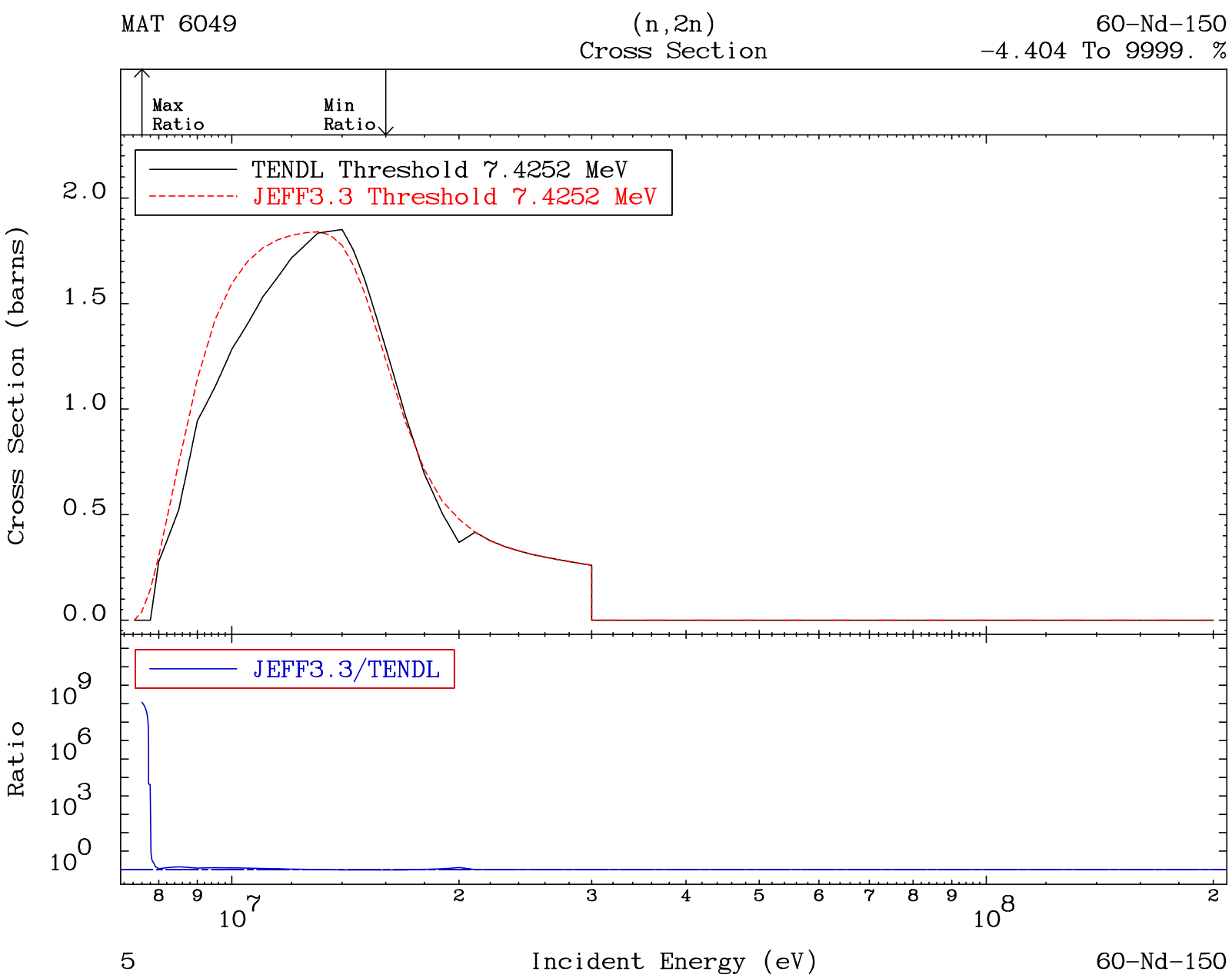
Press Mouse Button to Start

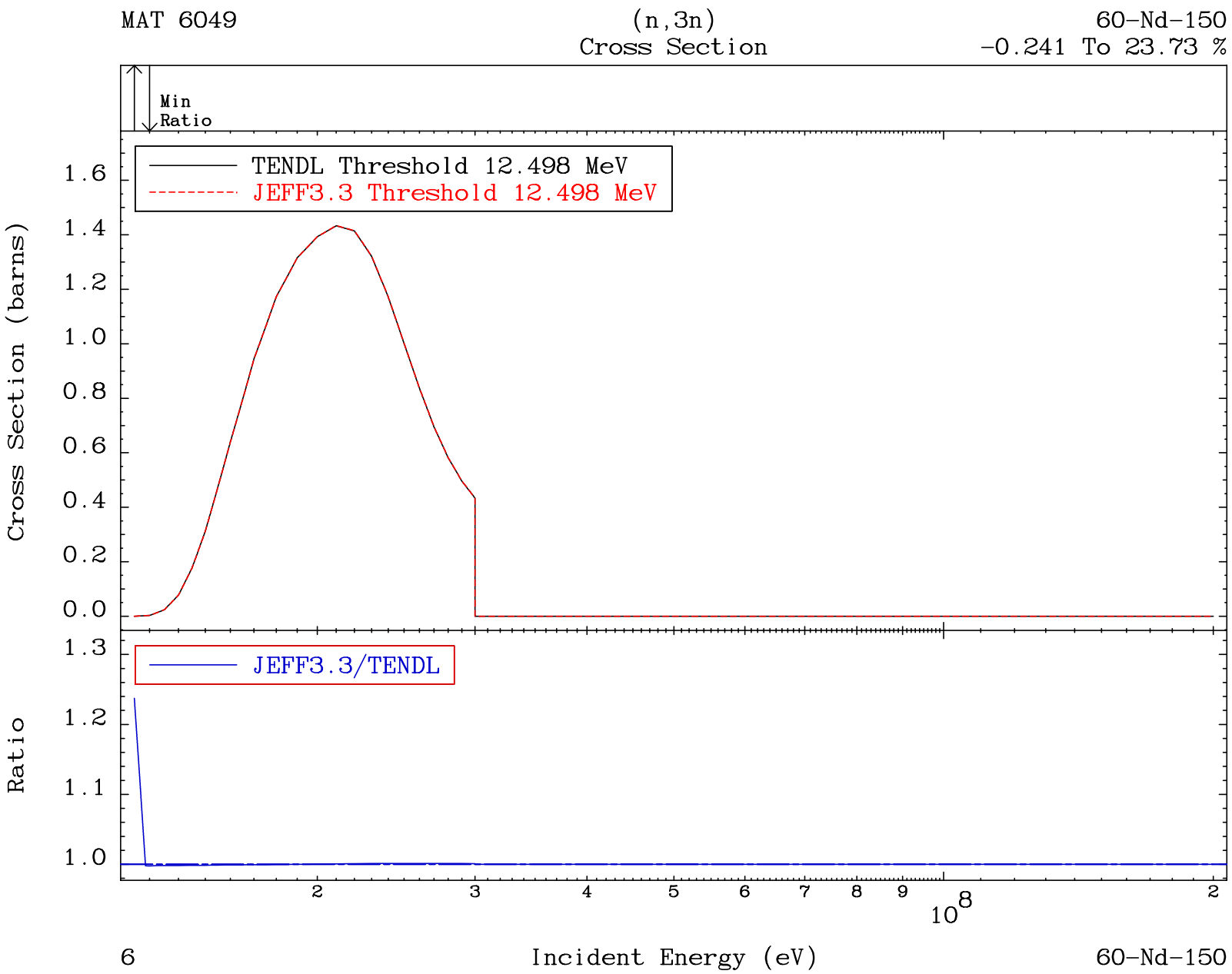

MAT 6049
Total
Cross Section
60-Nd-150
-99.56 To 1833. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
1
60-Nd-150

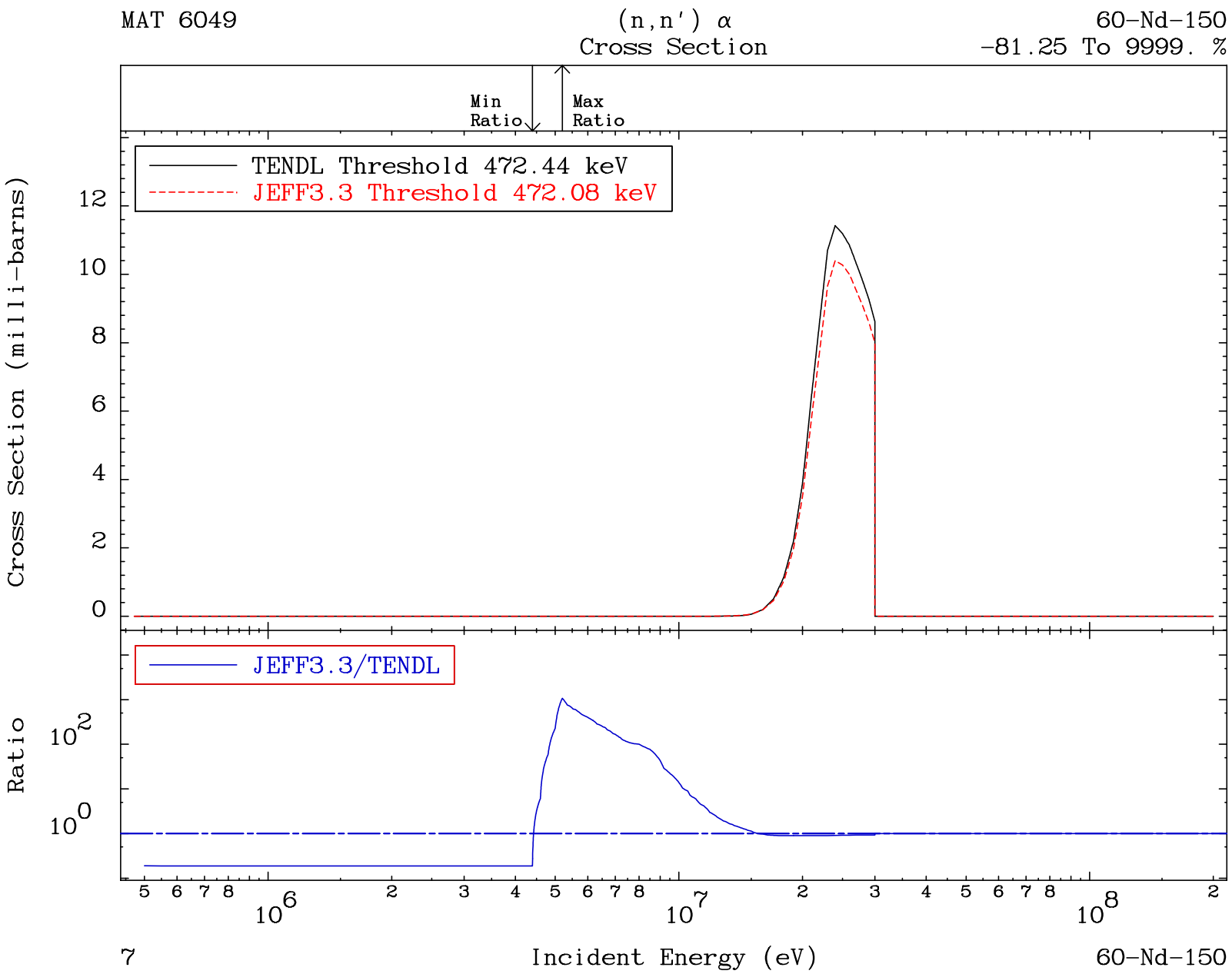

MAT 6049
Elastic
Cross Section
60-Nd-150
-99.63 To 4155. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
2
60-Nd-150

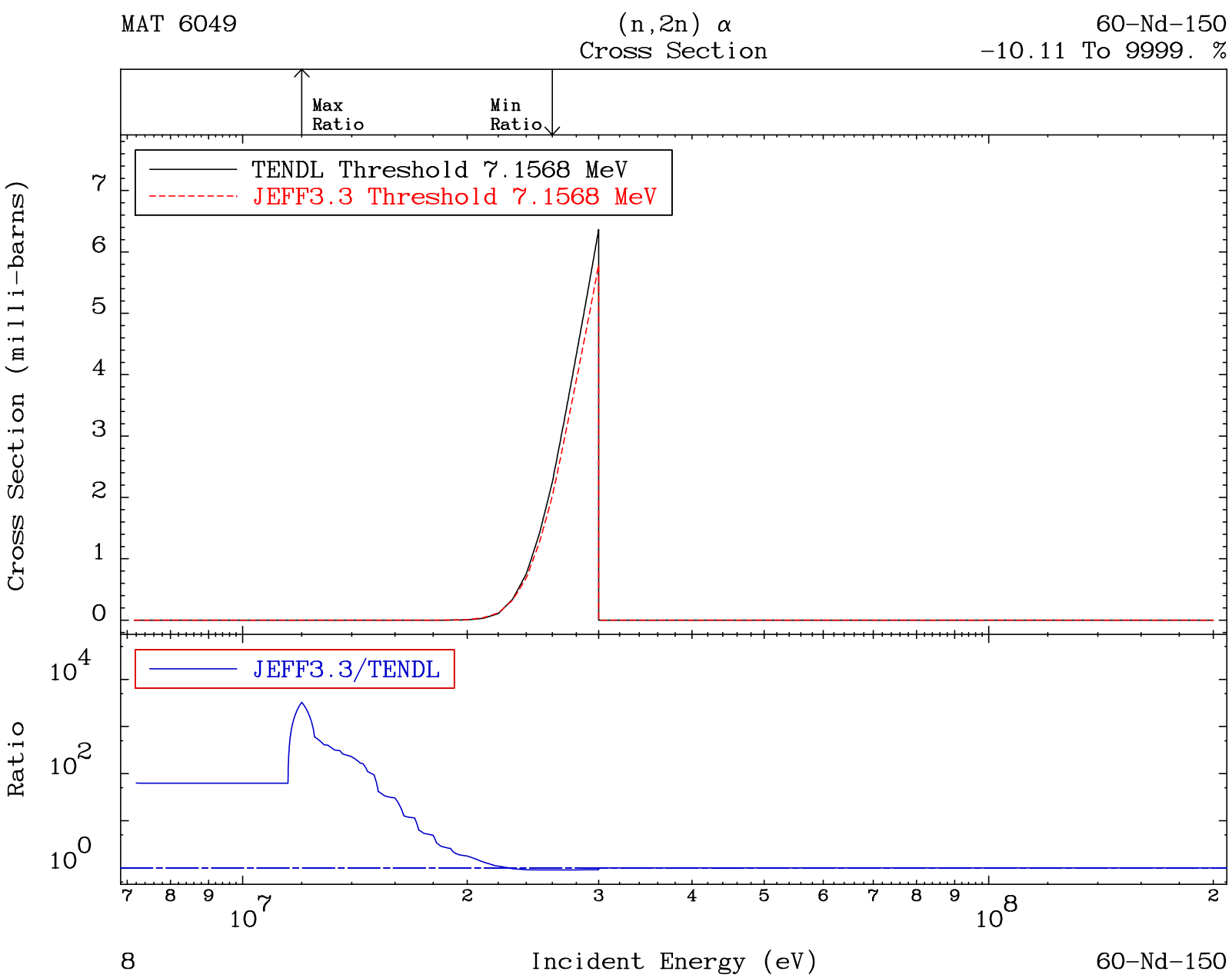

MAT 6049
Inelastic
Cross Section
60-Nd-150
-0.058 To 0.044 %
Min
Ratio
Max
Ratio
TENDL Threshold 131.09 keV
JEFF3.3 Threshold 131.09 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
60-Nd-150

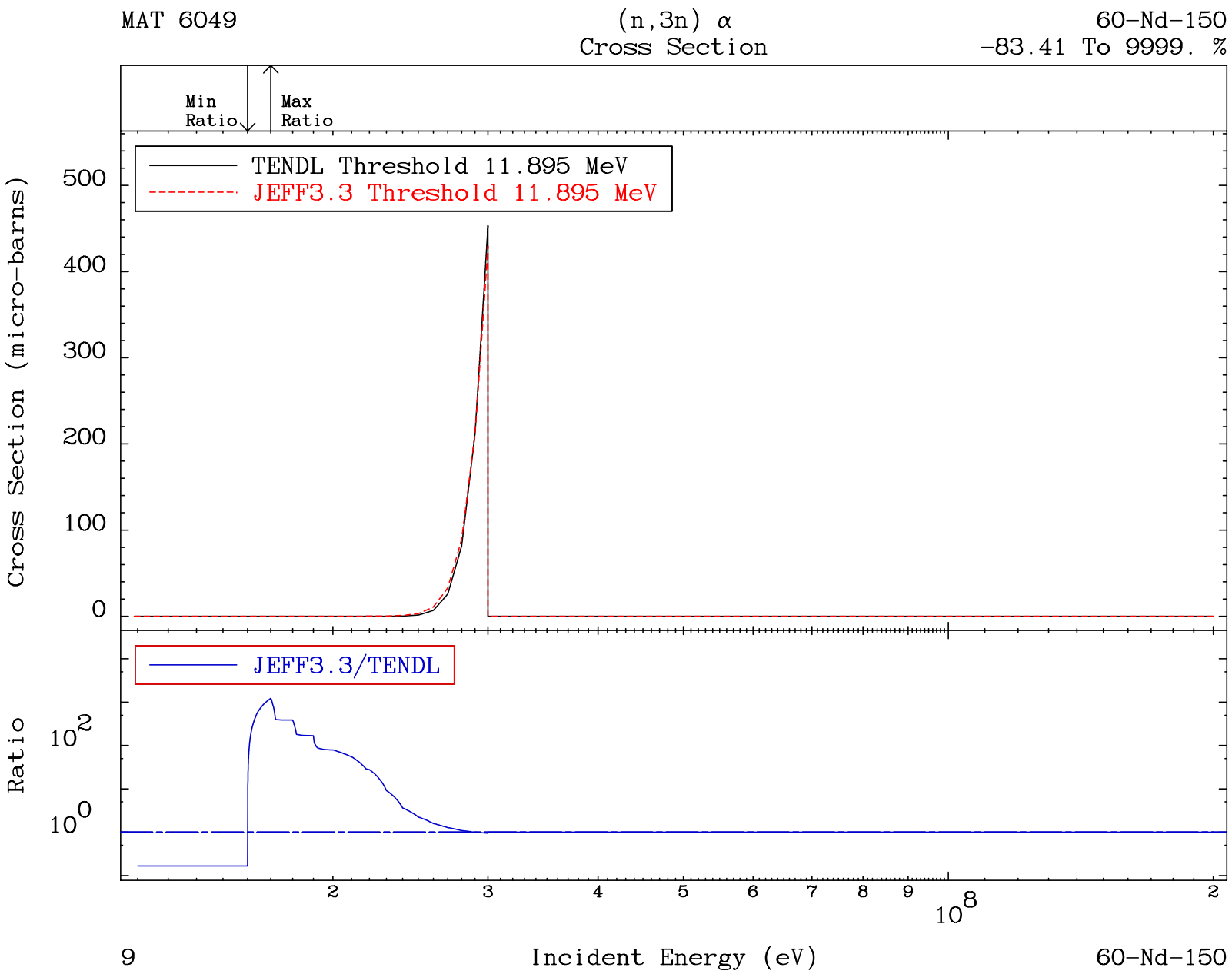

MAT 6049
(n,2n) d
Cross Section
60-Nd-150
-0.096 To 0.202 %
Max Ratio
Min Ratio
TENDL Threshold 19.574 MeV
JEFF3.3 Threshold 19.574 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
60-Nd-150

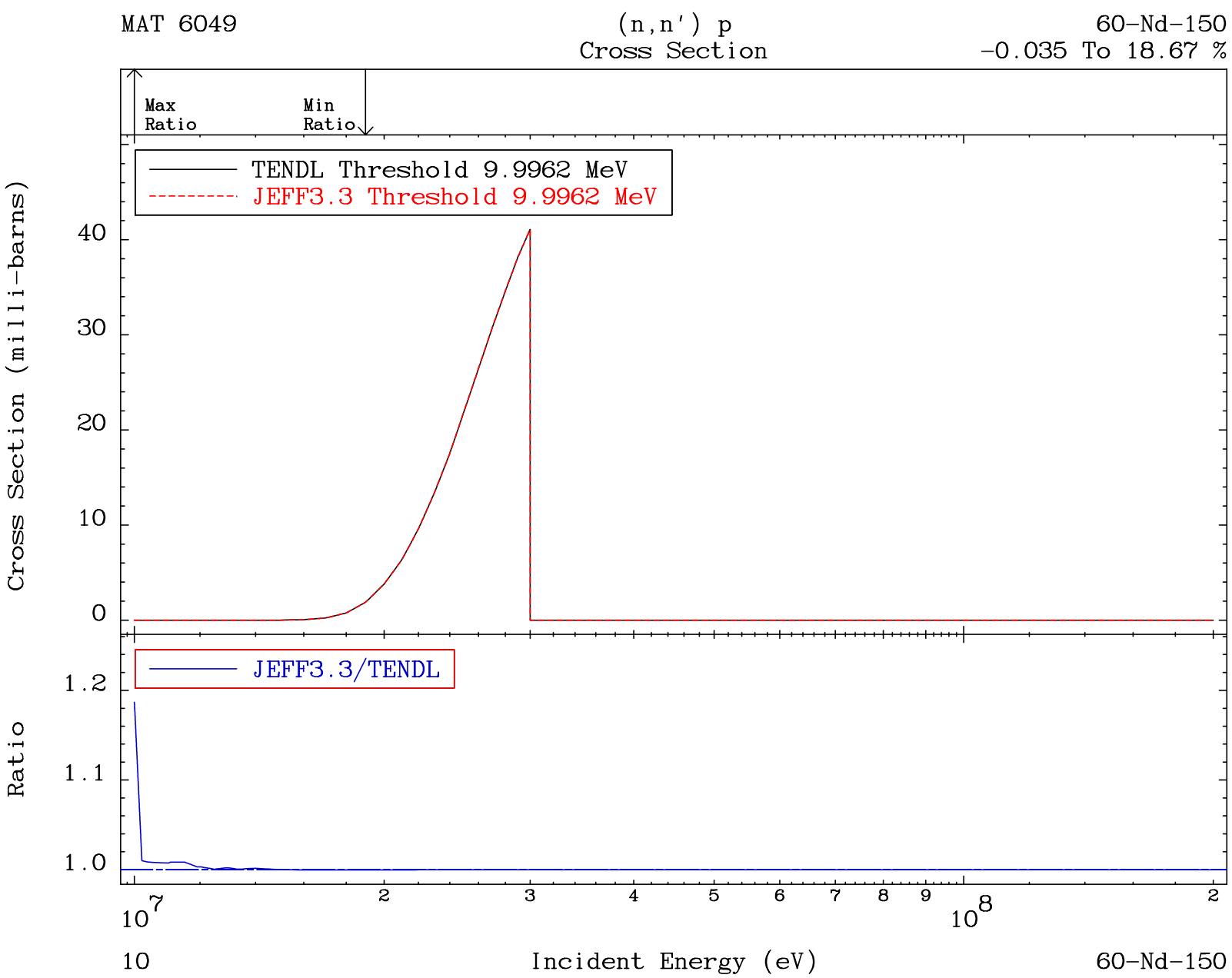

MAT 6049
(n,2n)
Cross Section
60-Nd-150
-4.404 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.4252 MeV
JEFF3.3 Threshold 7.4252 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^9
10^6
10^3
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
60-Nd-150

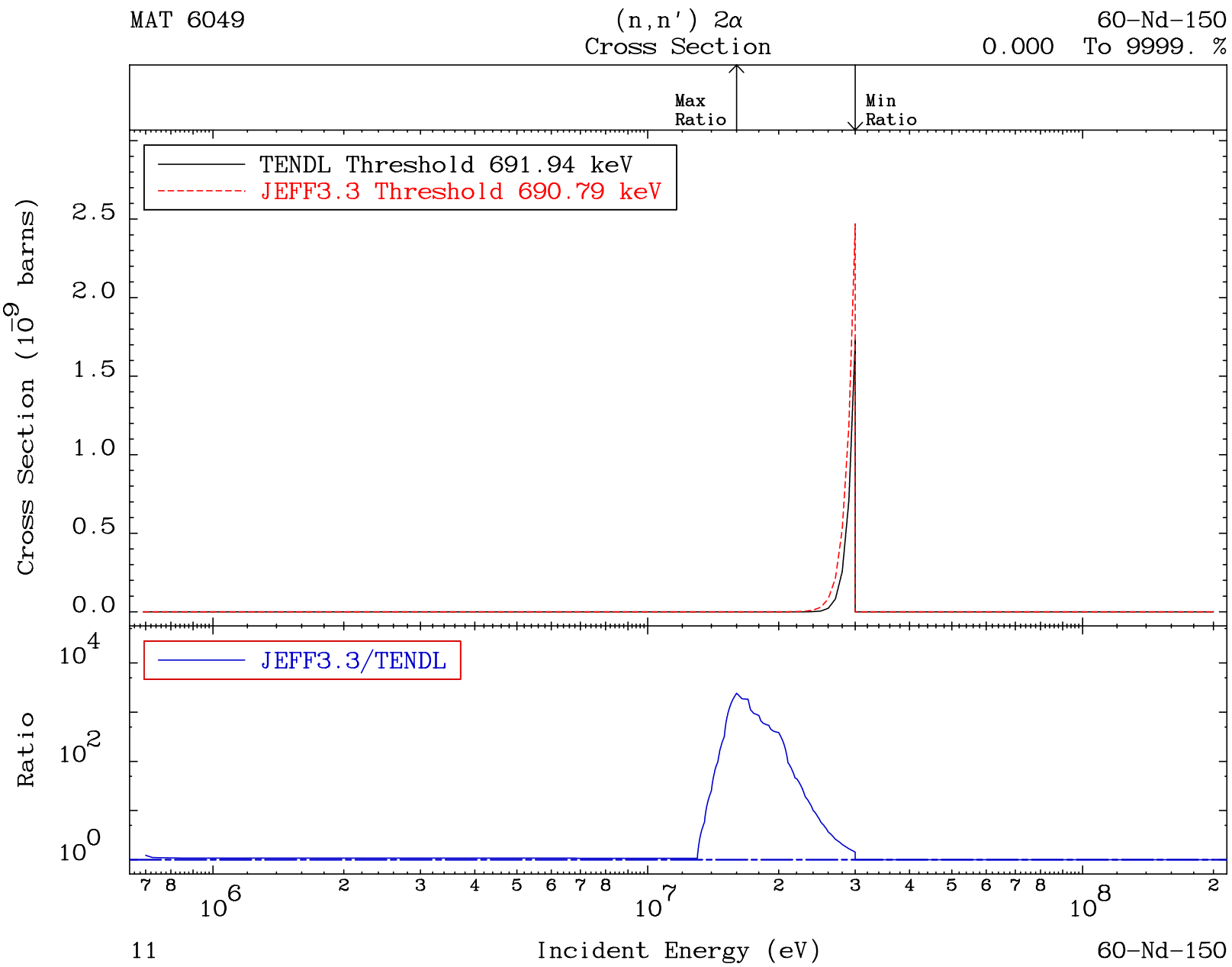

MAT 6049
(n,3n)
Cross Section
60-Nd-150
-0.241 To 23.73 %
Min
Ratio
TENDL Threshold 12.498 MeV
JEFF3.3 Threshold 12.498 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.3
1.2
1.1
1.0
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
60-Nd-150

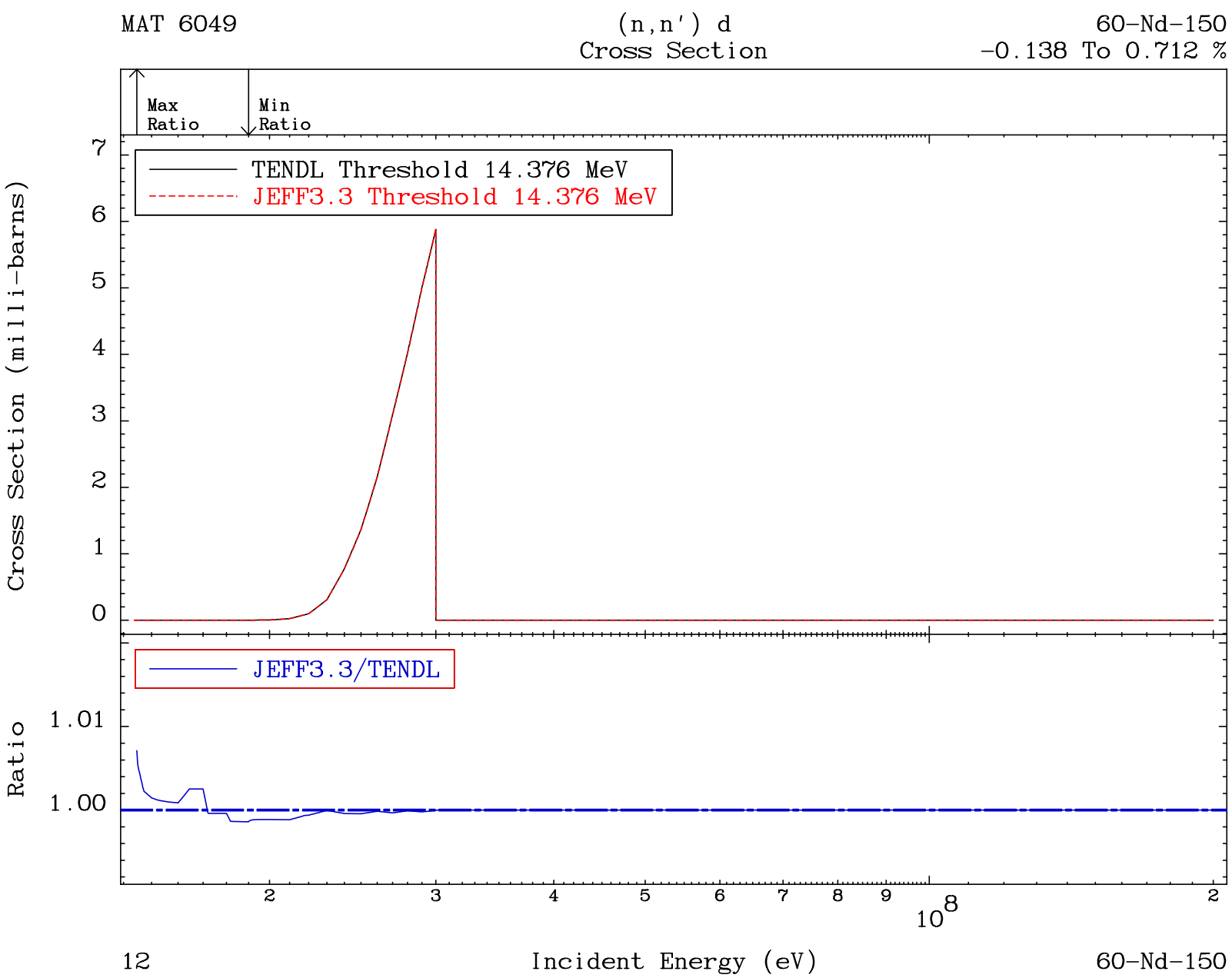

MAT 6049
(n,n') α
Cross Section
60-Nd-150
-81.25 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 472.44 keV
JEFF3.3 Threshold 472.08 keV
Cross Section (milli-barns)
0
2
4
6
8
10
12
JEFF3.3/TENDL
Ratio
10^2
10^0
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
7
Incident Energy (eV)
60-Nd-150

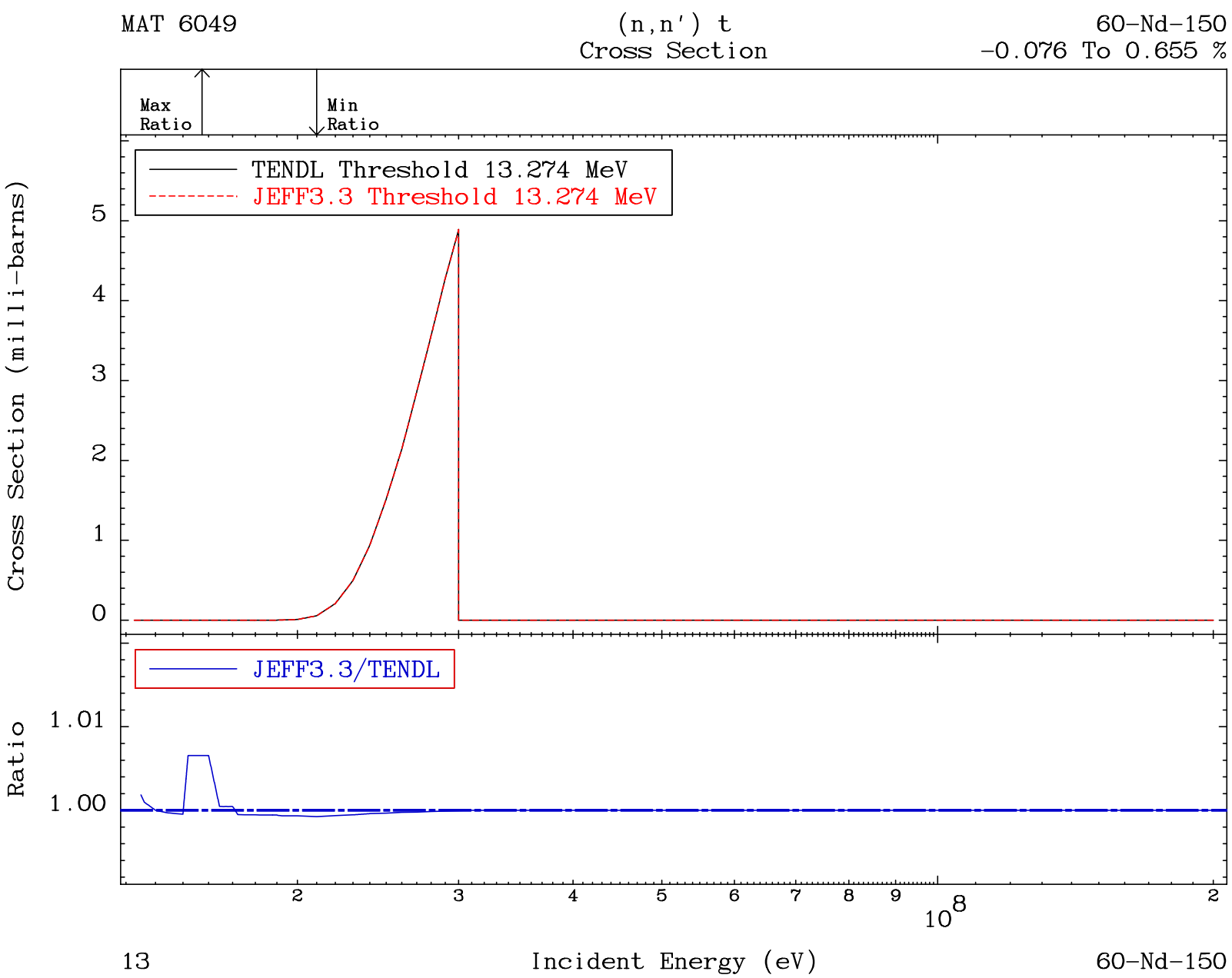

MAT 6049
(n,2n) α
Cross Section
60-Nd-150
-10.11 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.1568 MeV
JEFF3.3 Threshold 7.1568 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
8
60-Nd-150

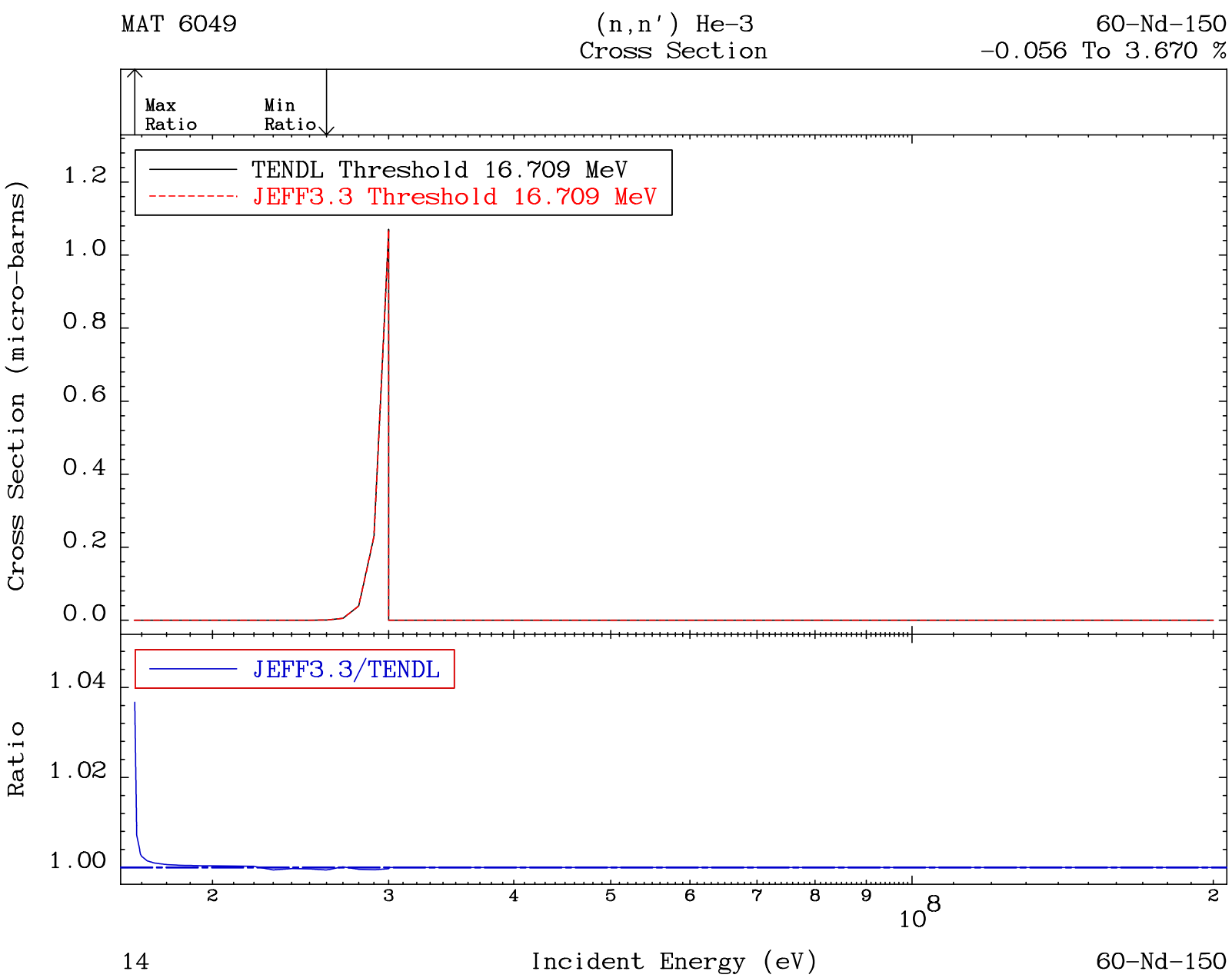

MAT 6049
(n,3n) α
Cross Section
60-Nd-150
-83.41 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 11.895 MeV
JEFF3.3 Threshold 11.895 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
60-Nd-150

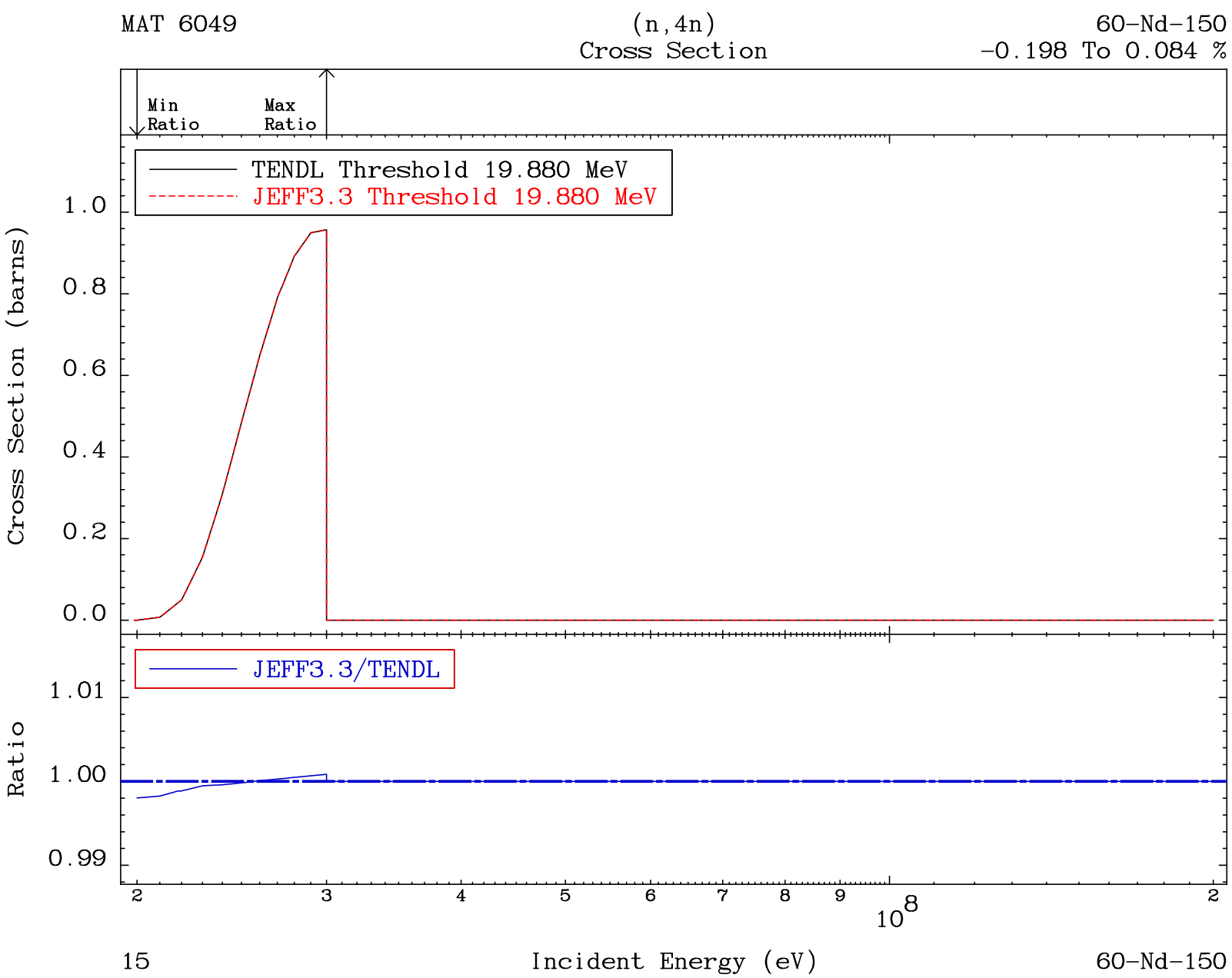

MAT 6049
(n,n') p
Cross Section
60-Nd-150
-0.035 To 18.67 %
Max Ratio
Min Ratio
TENDL Threshold 9.9962 MeV
JEFF3.3 Threshold 9.9962 MeV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
60-Nd-150

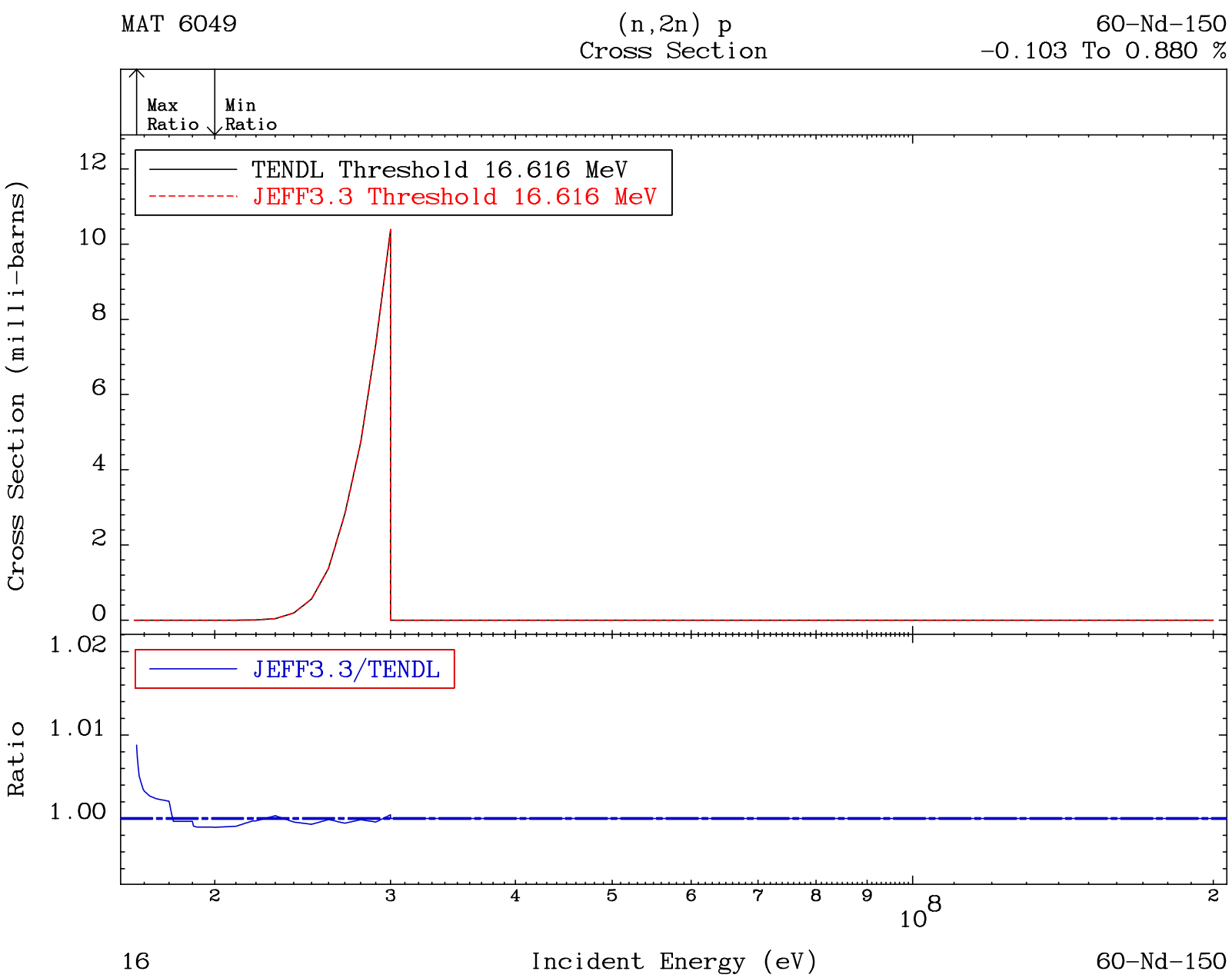

MAT 6049
(n,n') 2α
Cross Section
60-Nd-150
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 691.94 keV
JEFF3.3 Threshold 690.79 keV
Cross Section (10^{-9} barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
11
Incident Energy (eV)
60-Nd-150

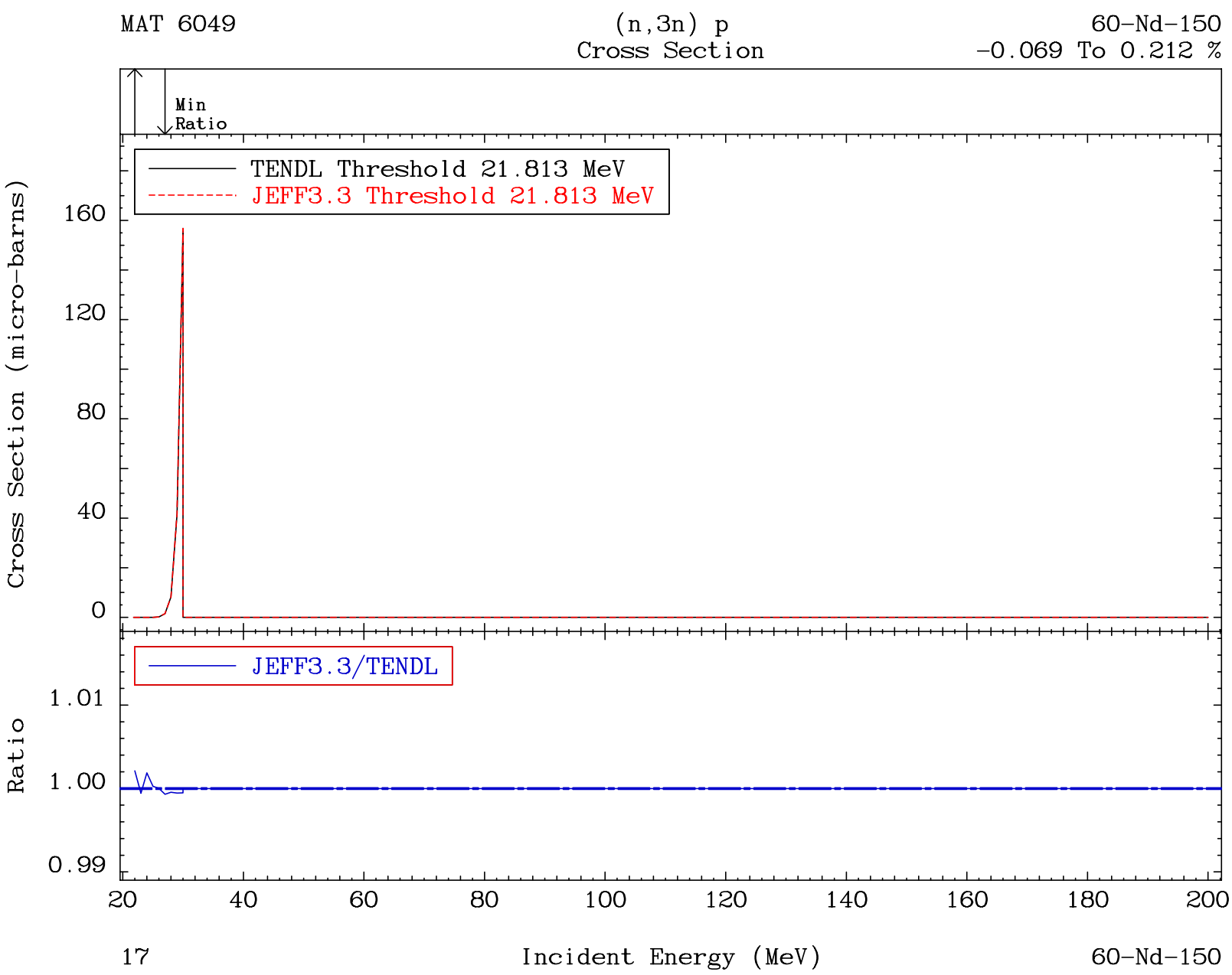

MAT 6049
(n,n') d
Cross Section
60-Nd-150
-0.138 To 0.712 %
Max Ratio
Min Ratio
TENDL Threshold 14.376 MeV
JEFF3.3 Threshold 14.376 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
JEFF3.3/TENDL
Ratio
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
60-Nd-150

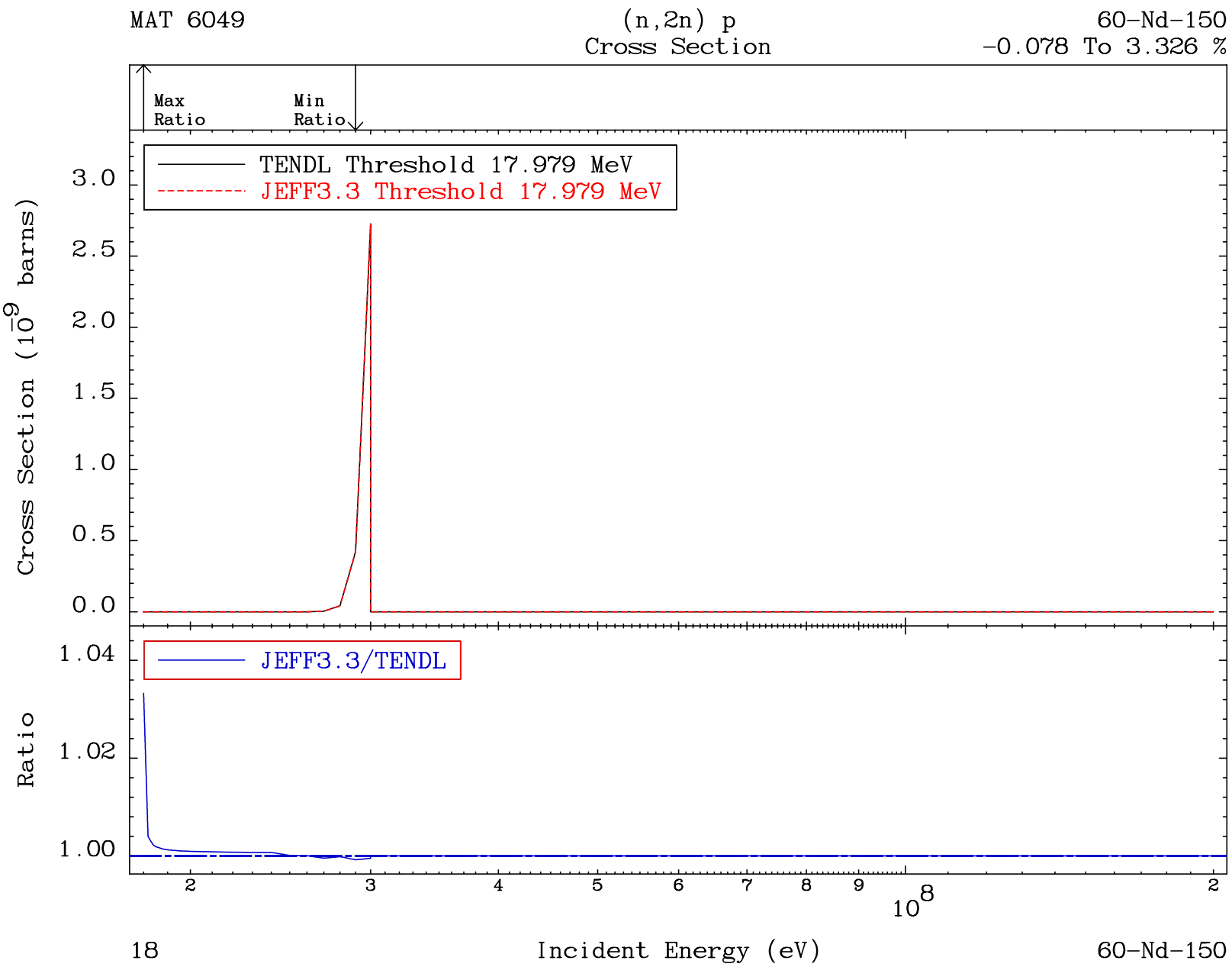

MAT 6049
(n,n') t
Cross Section
60-Nd-150
-0.076 To 0.655 %
Max Ratio
Min Ratio
TENDL Threshold 13.274 MeV
JEFF3.3 Threshold 13.274 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
60-Nd-150

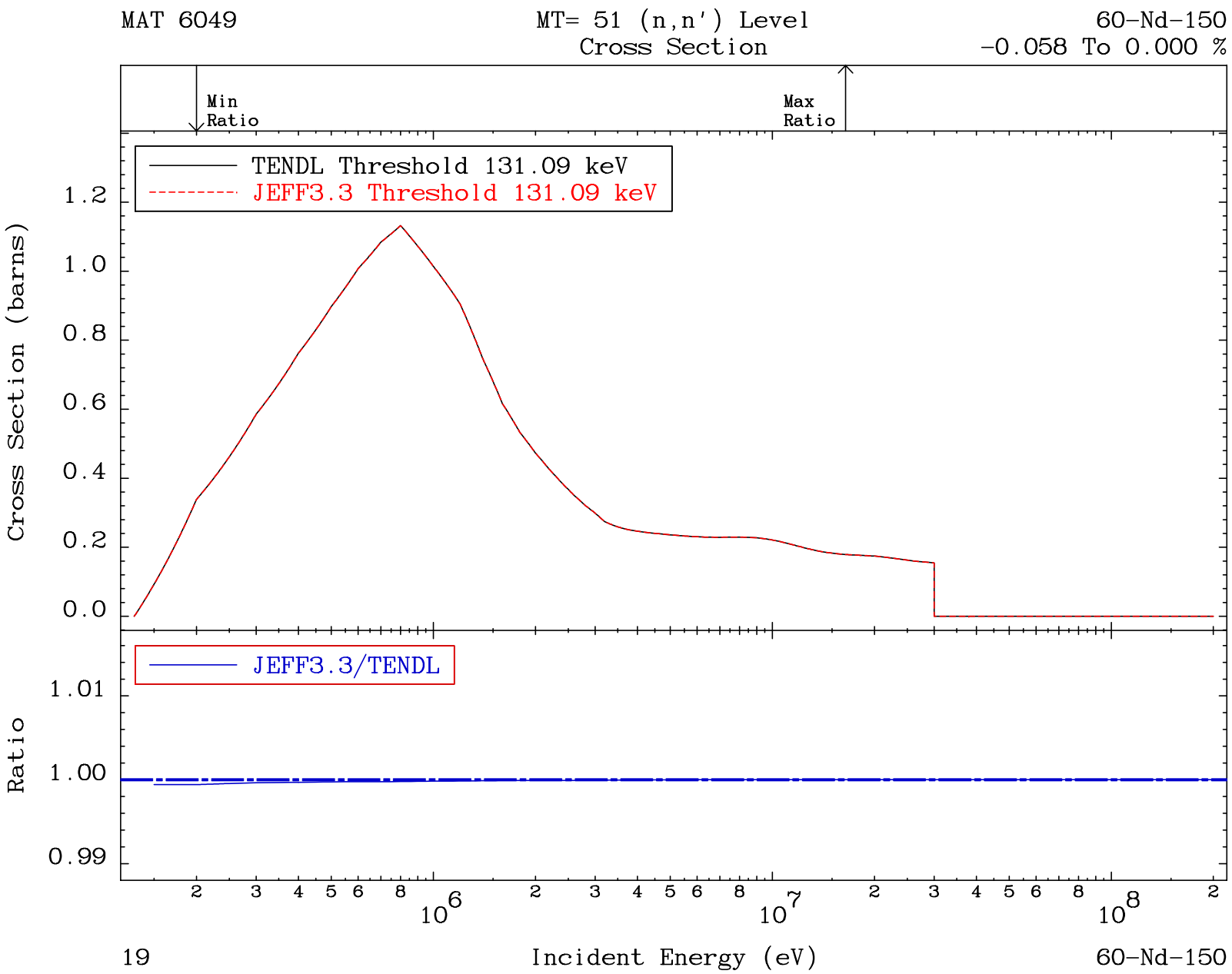

MAT 6049
(n,n') He-3
Cross Section
60-Nd-150
-0.056 To 3.670 %
Max Ratio
Min Ratio
TENDL Threshold 16.709 MeV
JEFF3.3 Threshold 16.709 MeV
Cross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
60-Nd-150

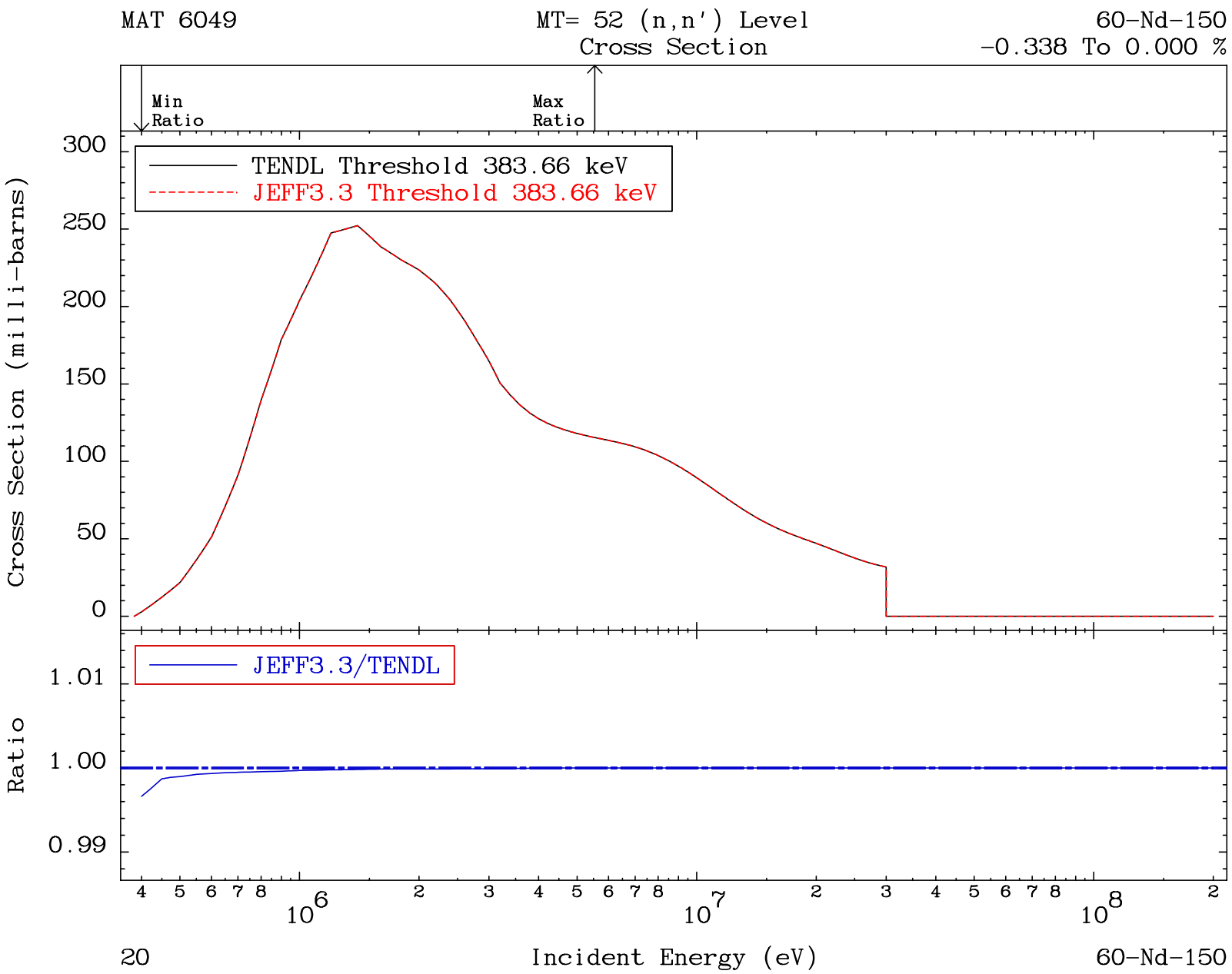

MAT 6049
(n,4n)
Cross Section
60-Nd-150
-0.198 To 0.084 %
Min Ratio
Max Ratio
TENDL Threshold 19.880 MeV
JEFF3.3 Threshold 19.880 MeV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
60-Nd-150

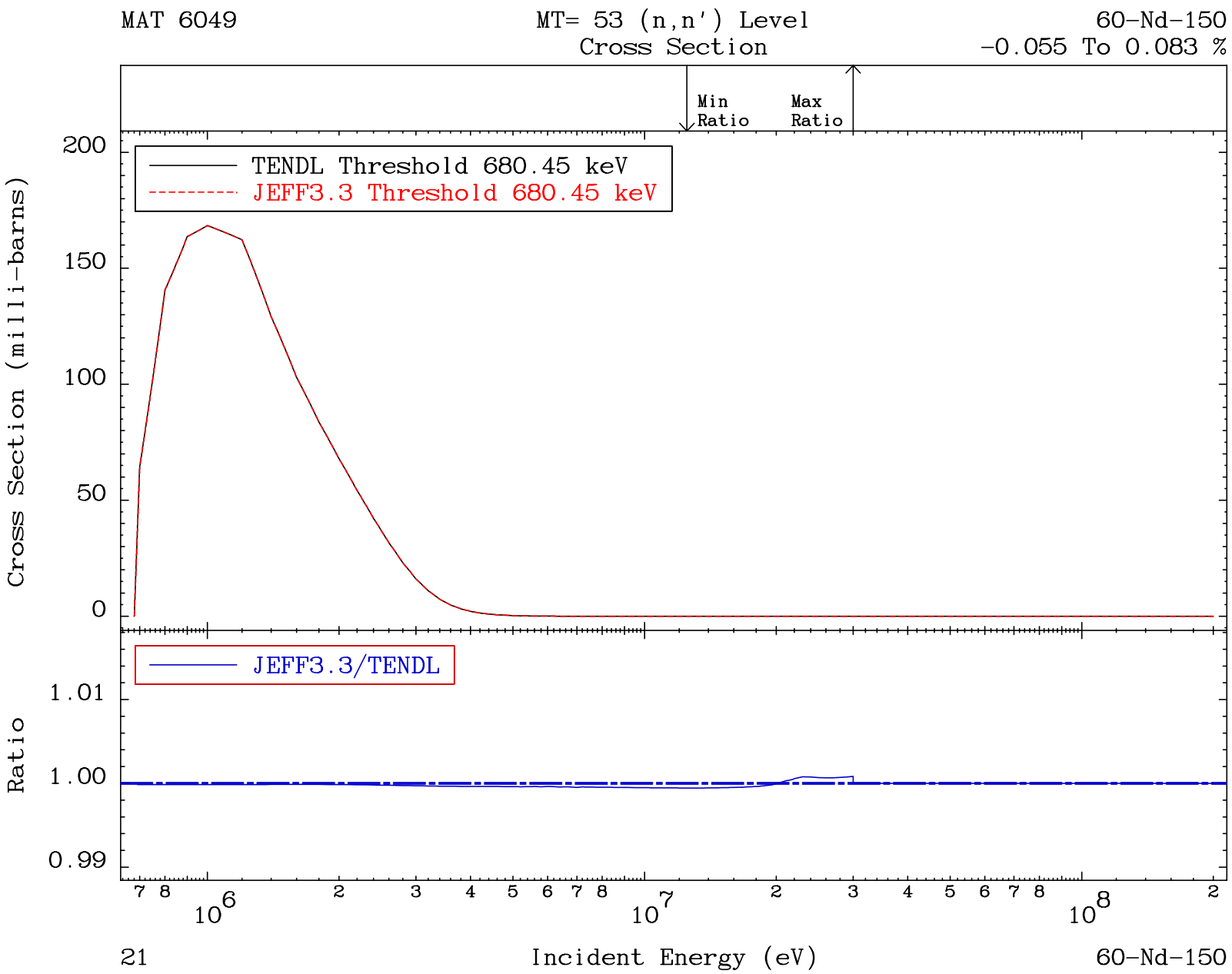

MAT 6049
(n,2n) p
Cross Section
60-Nd-150
-0.103 To 0.880 %
Max Ratio
Min Ratio
TENDL Threshold 16.616 MeV
JEFF3.3 Threshold 16.616 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
60-Nd-150

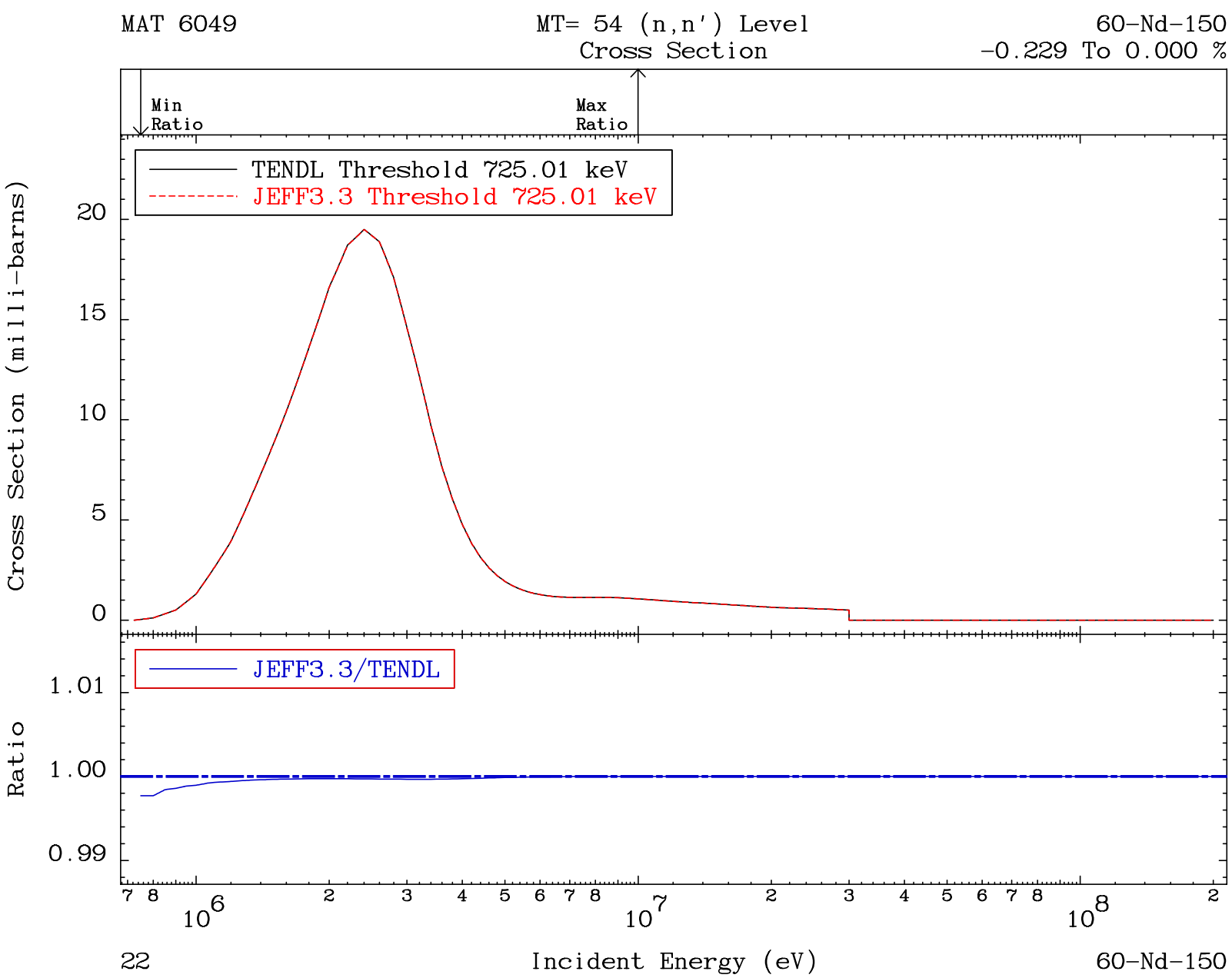

MAT 6049
(n,3n) p
Cross Section
60-Nd-150
-0.069 To 0.212 %
Min
Ratio
TENDL Threshold 21.813 MeV
JEFF3.3 Threshold 21.813 MeV
Cross Section (micro-barns)
160
120
80
40
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
17
Incident Energy (MeV)
60-Nd-150

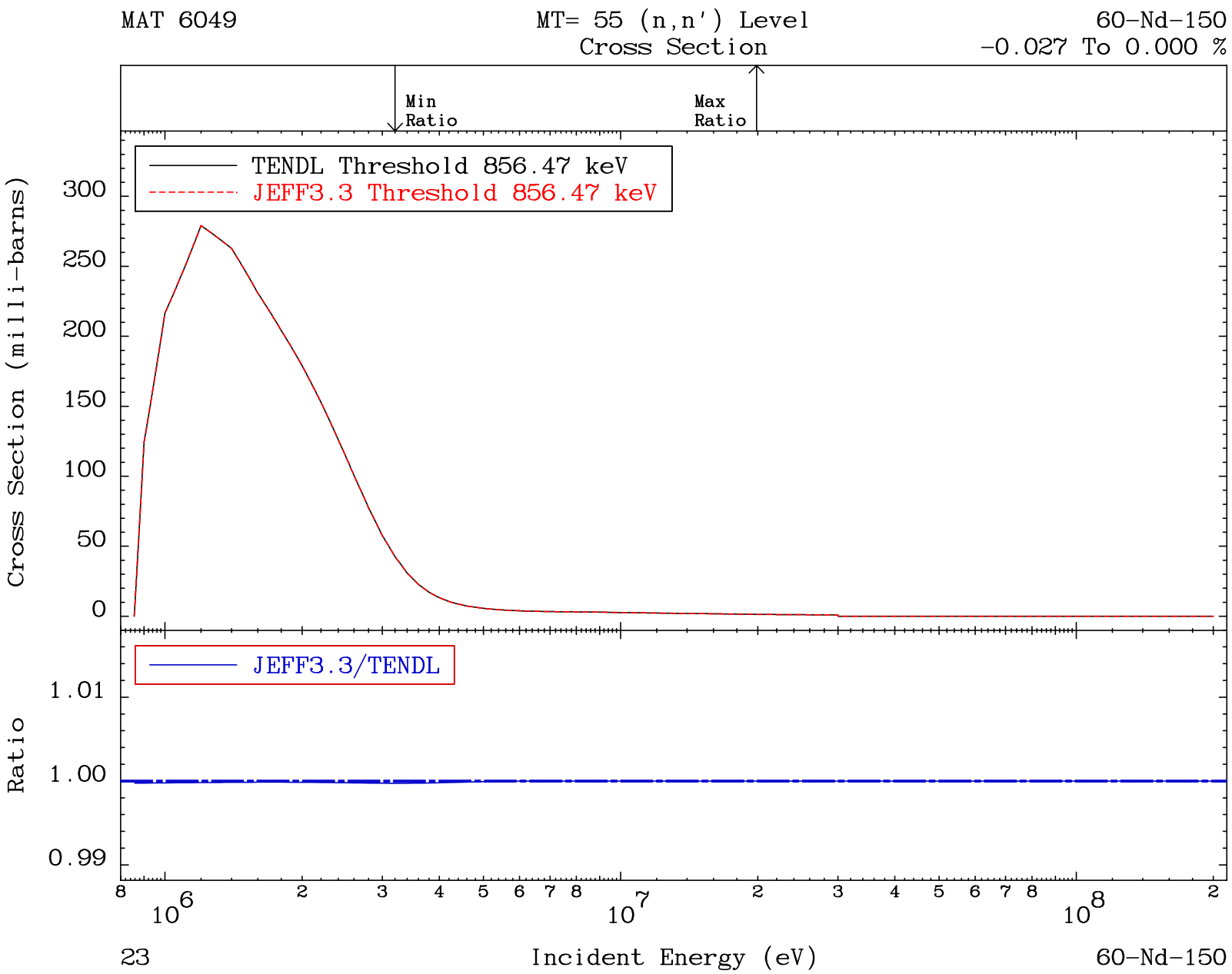

MAT 6049
(n,2n) p
Cross Section
60-Nd-150
-0.078 To 3.326 %
Max Ratio
Min Ratio
TENDL Threshold 17.979 MeV
JEFF3.3 Threshold 17.979 MeV
Cross Section (10^{-9} barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
18
Incident Energy (eV)
60-Nd-150

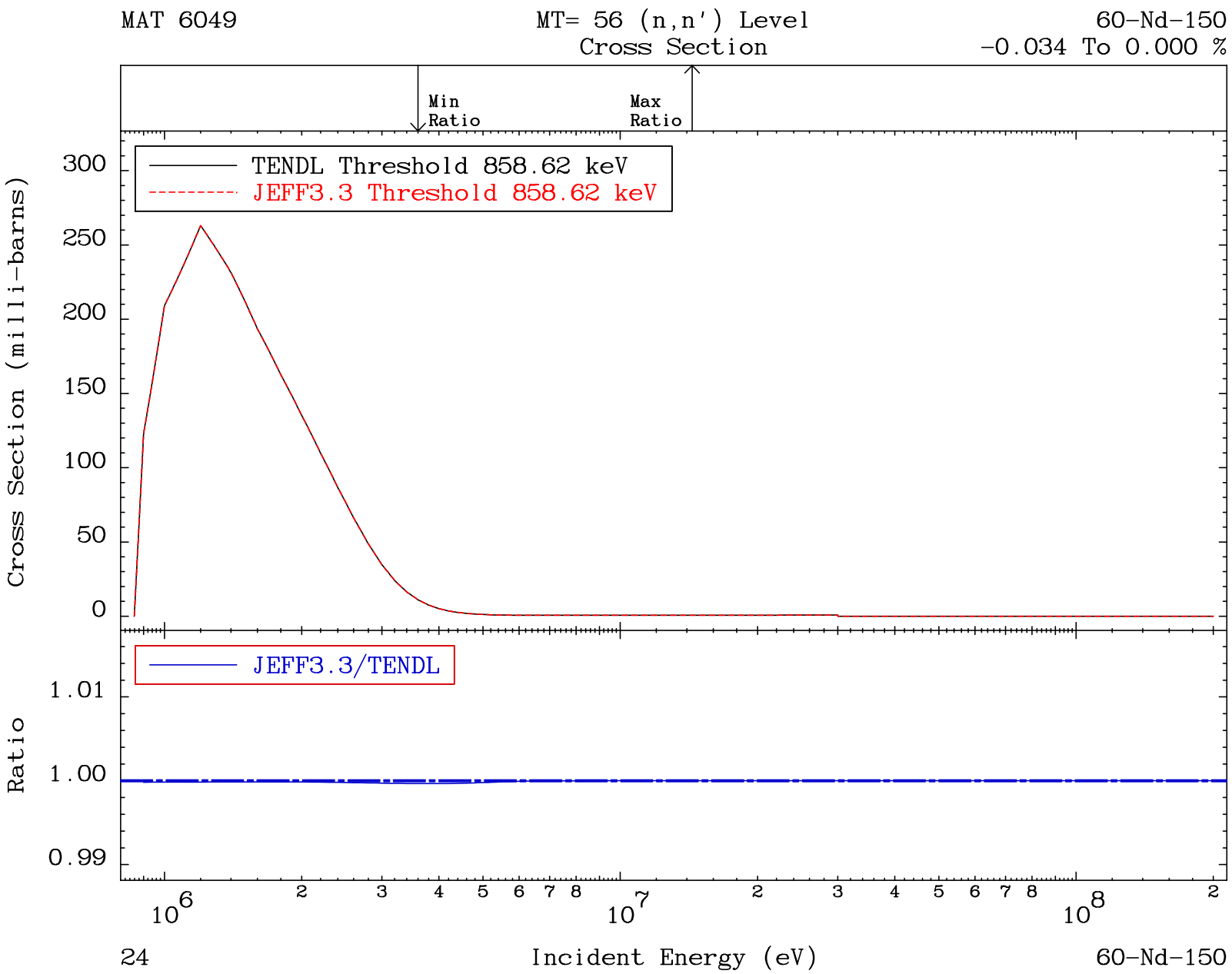

MAT 6049
MT= 51 (n,n') Level
Cross Section
60-Nd-150
-0.058 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 131.09 keV
JEFF3.3 Threshold 131.09 keV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
19
Incident Energy (eV)
60-Nd-150

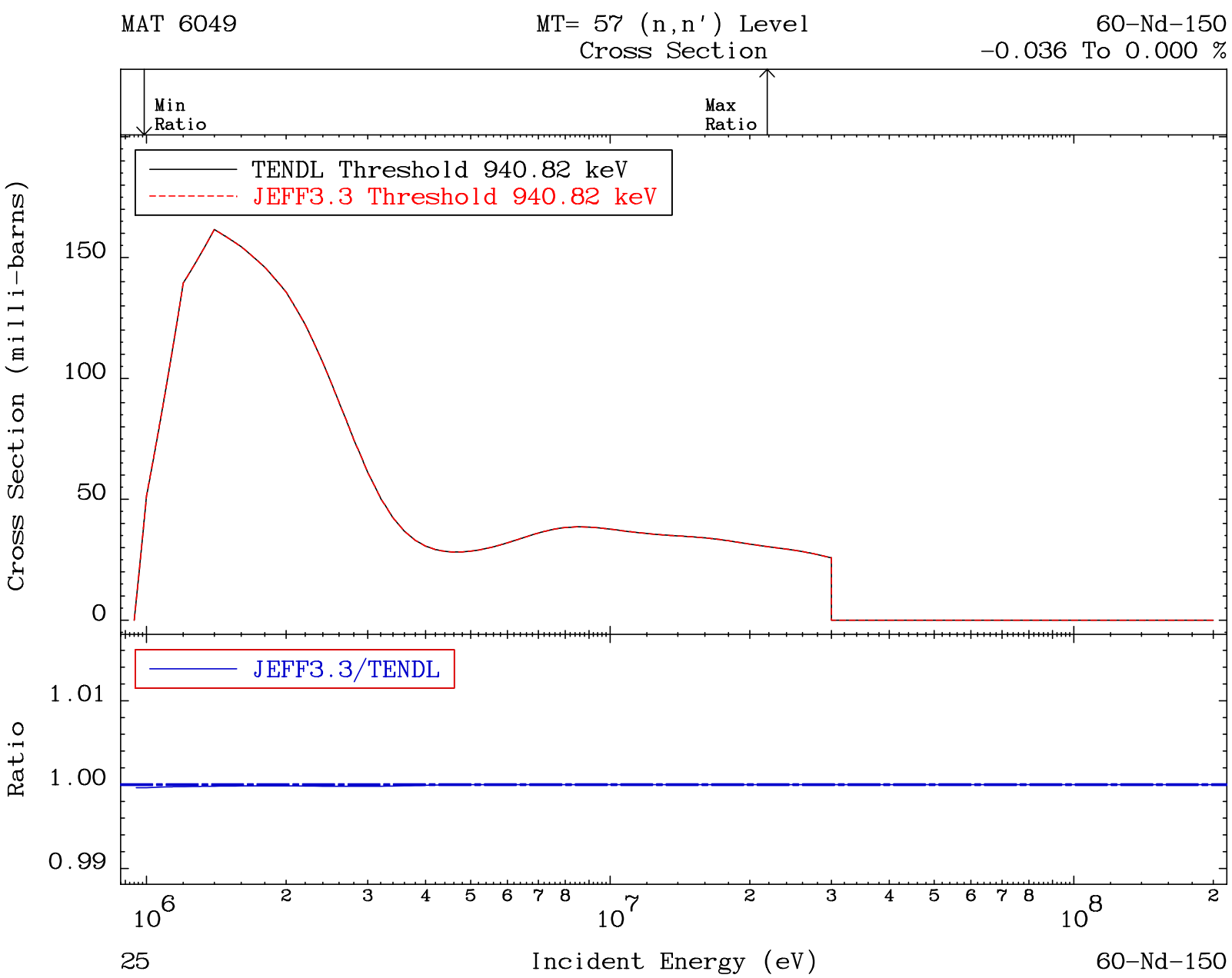

MAT 6049
MT= 52 (n,n') Level
Cross Section
60-Nd-150
-0.338 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 383.66 keV
JEFF3.3 Threshold 383.66 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
20
Incident Energy (eV)
60-Nd-150

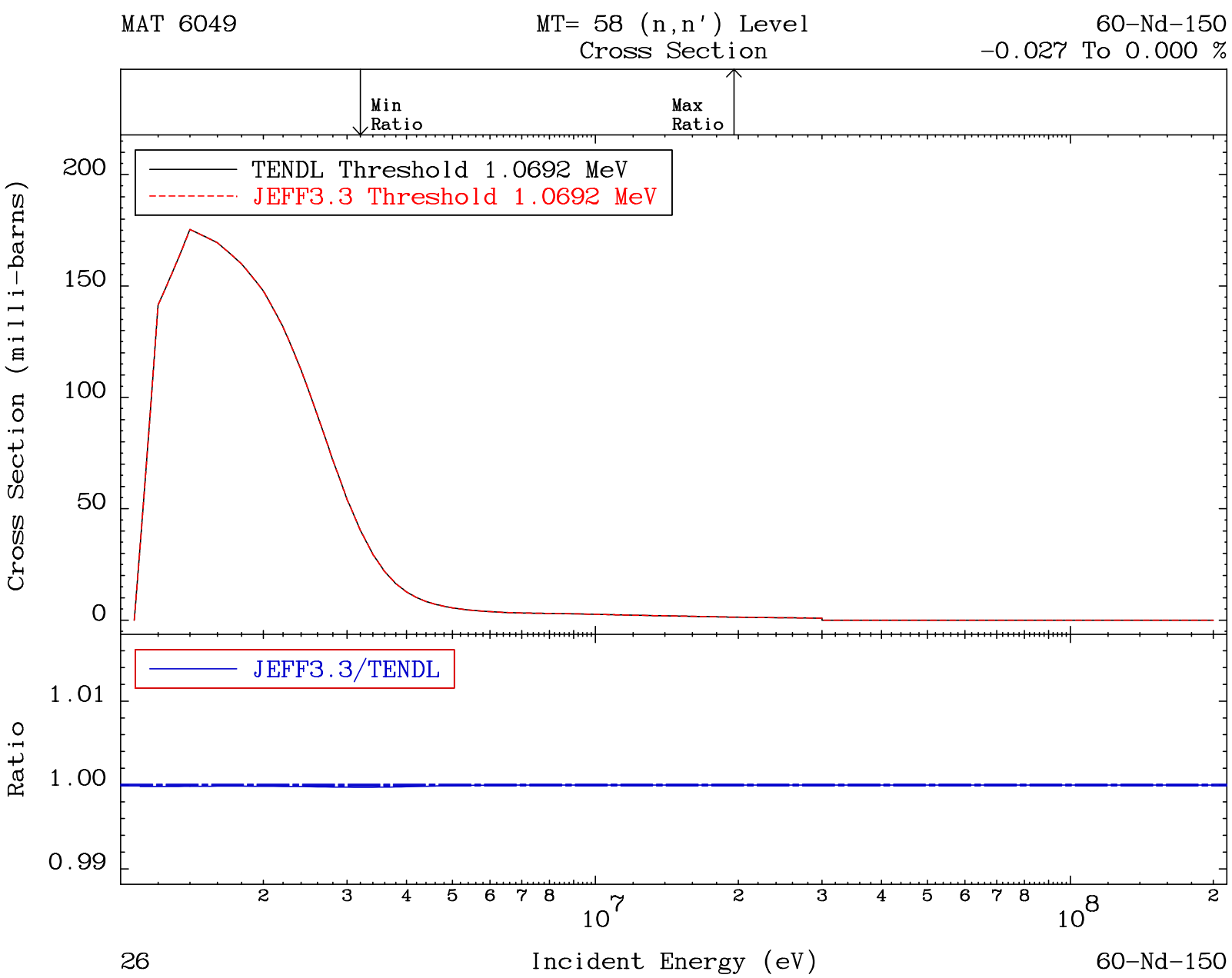

MAT 6049
MT= 53 (n,n') Level
Cross Section
60-Nd-150
-0.055 To 0.083 %
Min
Ratio
Max
Ratio
TENDL Threshold 680.45 keV
JEFF3.3 Threshold 680.45 keV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
7 8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
21
Incident Energy (eV)
60-Nd-150

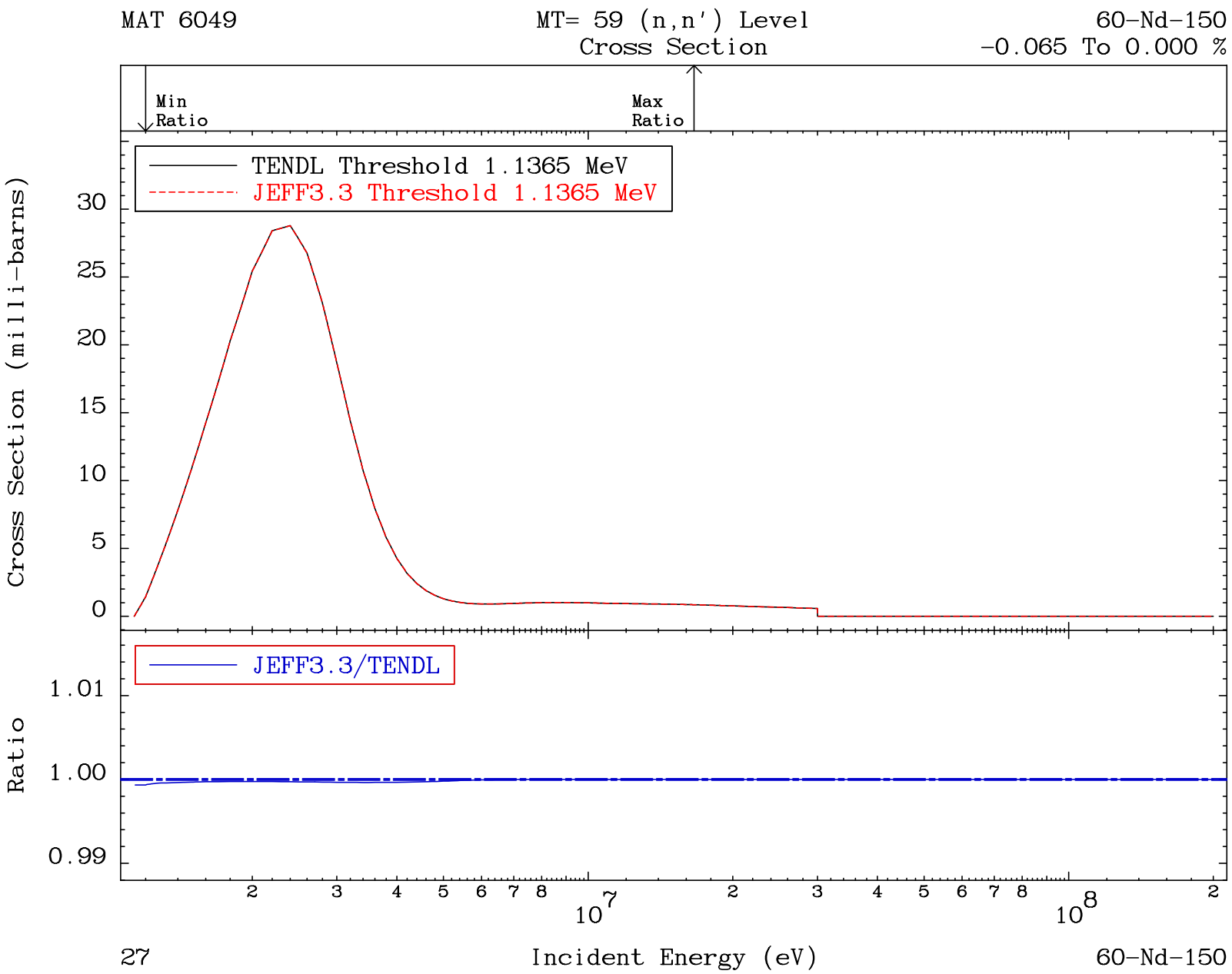

MAT 6049
MT= 54 (n,n') Level
Cross Section
60-Nd-150
-0.229 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 725.01 keV
JEFF3.3 Threshold 725.01 keV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
60-Nd-150

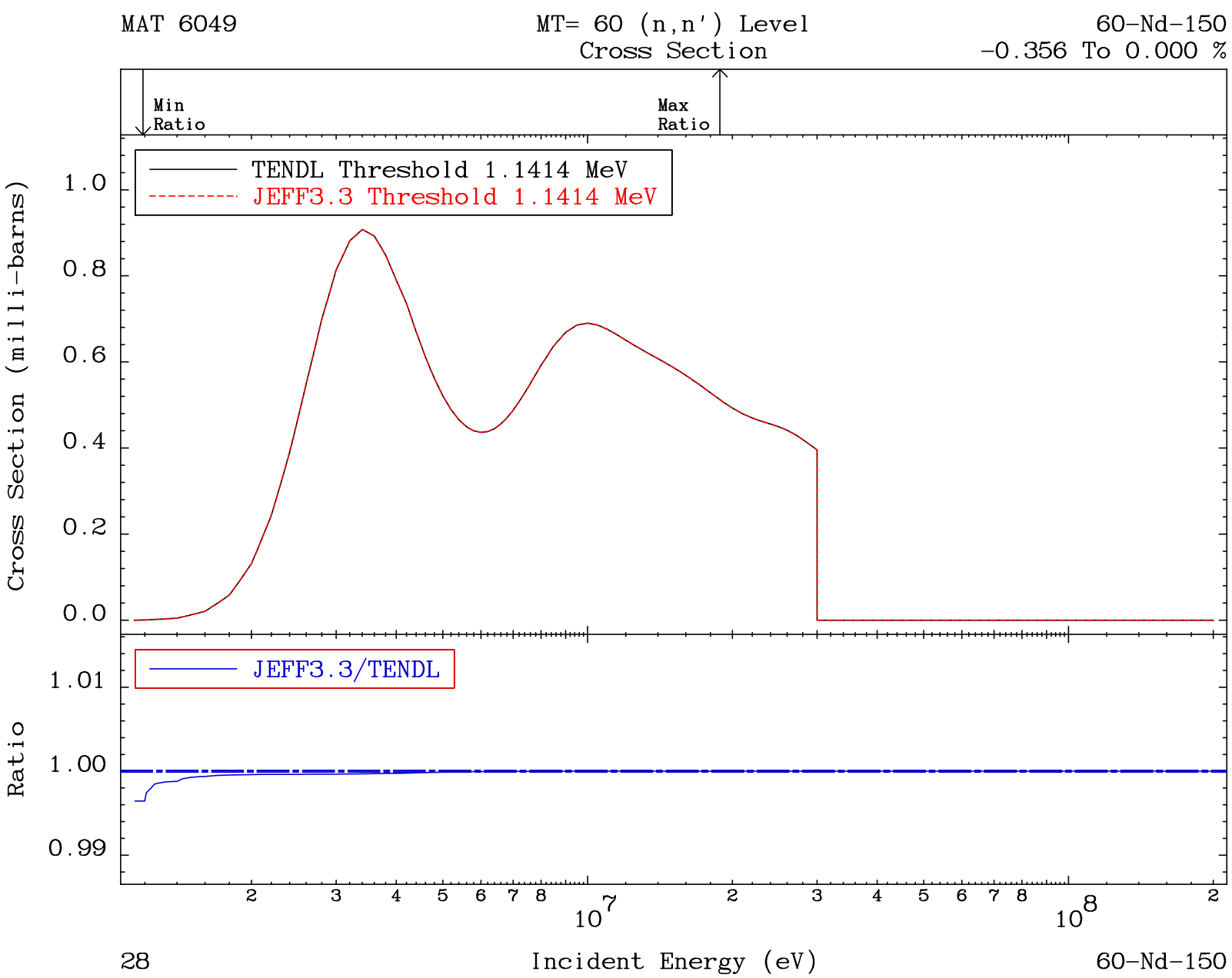

MAT 6049
MT= 55 (n,n') Level
Cross Section
60-Nd-150
-0.027 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 856.47 keV
JEFF3.3 Threshold 856.47 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
23
Incident Energy (eV)
60-Nd-150

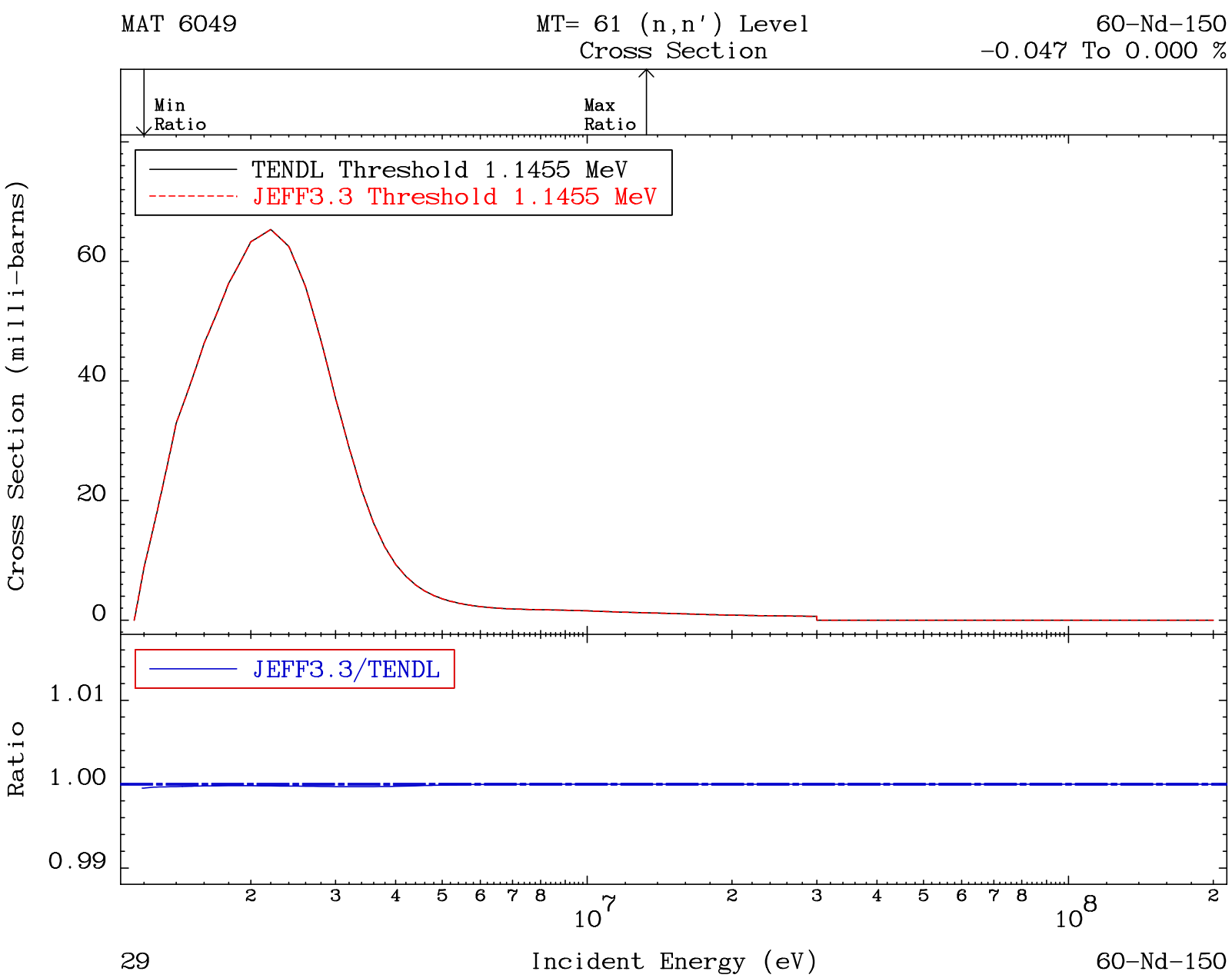

MAT 6049
MT= 56 (n,n') Level
Cross Section
60-Nd-150
-0.034 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 858.62 keV
JEFF3.3 Threshold 858.62 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
24
Incident Energy (eV)
60-Nd-150

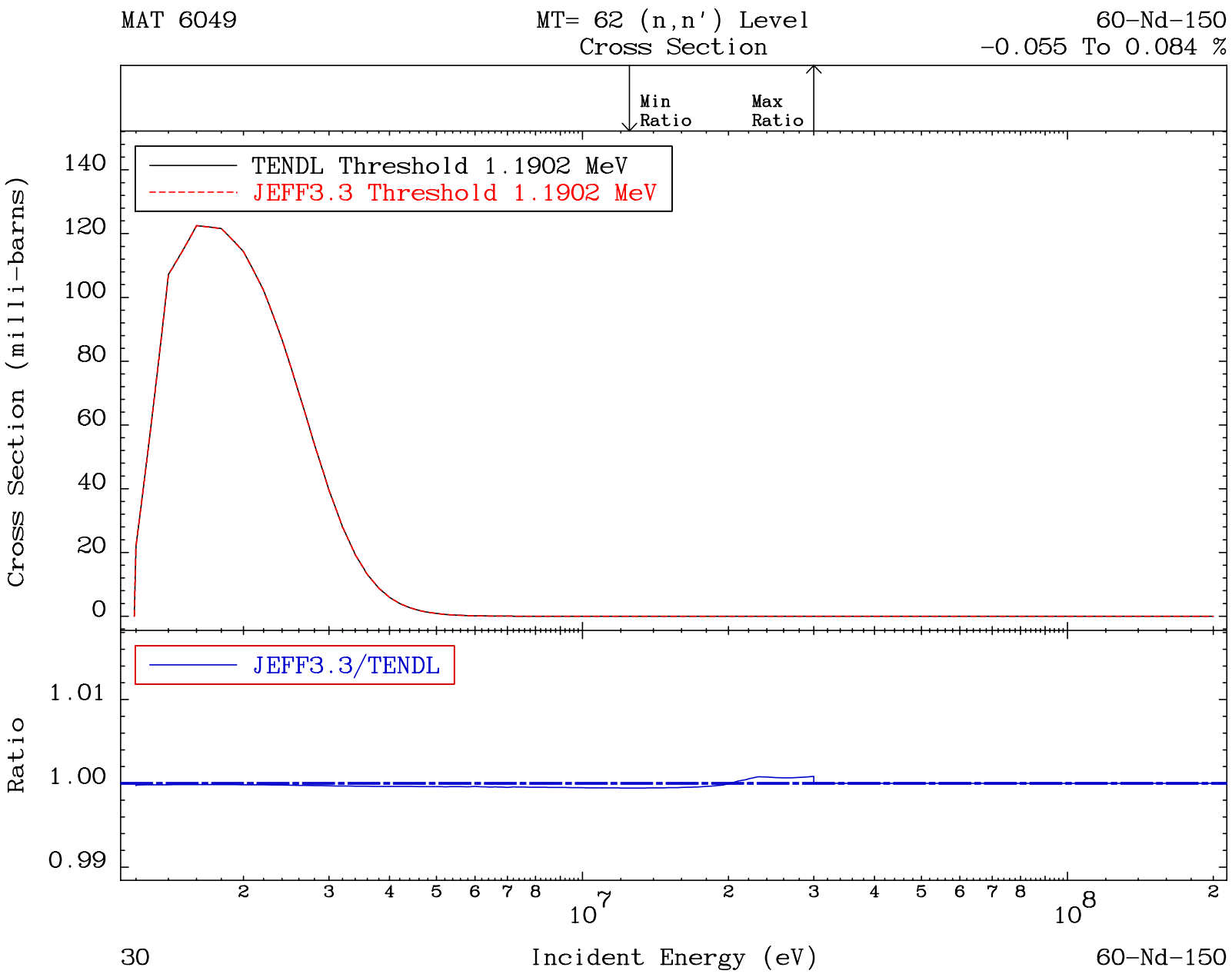

MAT 6049
MT= 57 (n,n') Level
Cross Section
60-Nd-150
-0.036 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 940.82 keV
JEFF3.3 Threshold 940.82 keV
Cross Section (milli-barns)
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
Incident Energy (eV)
25
60-Nd-150

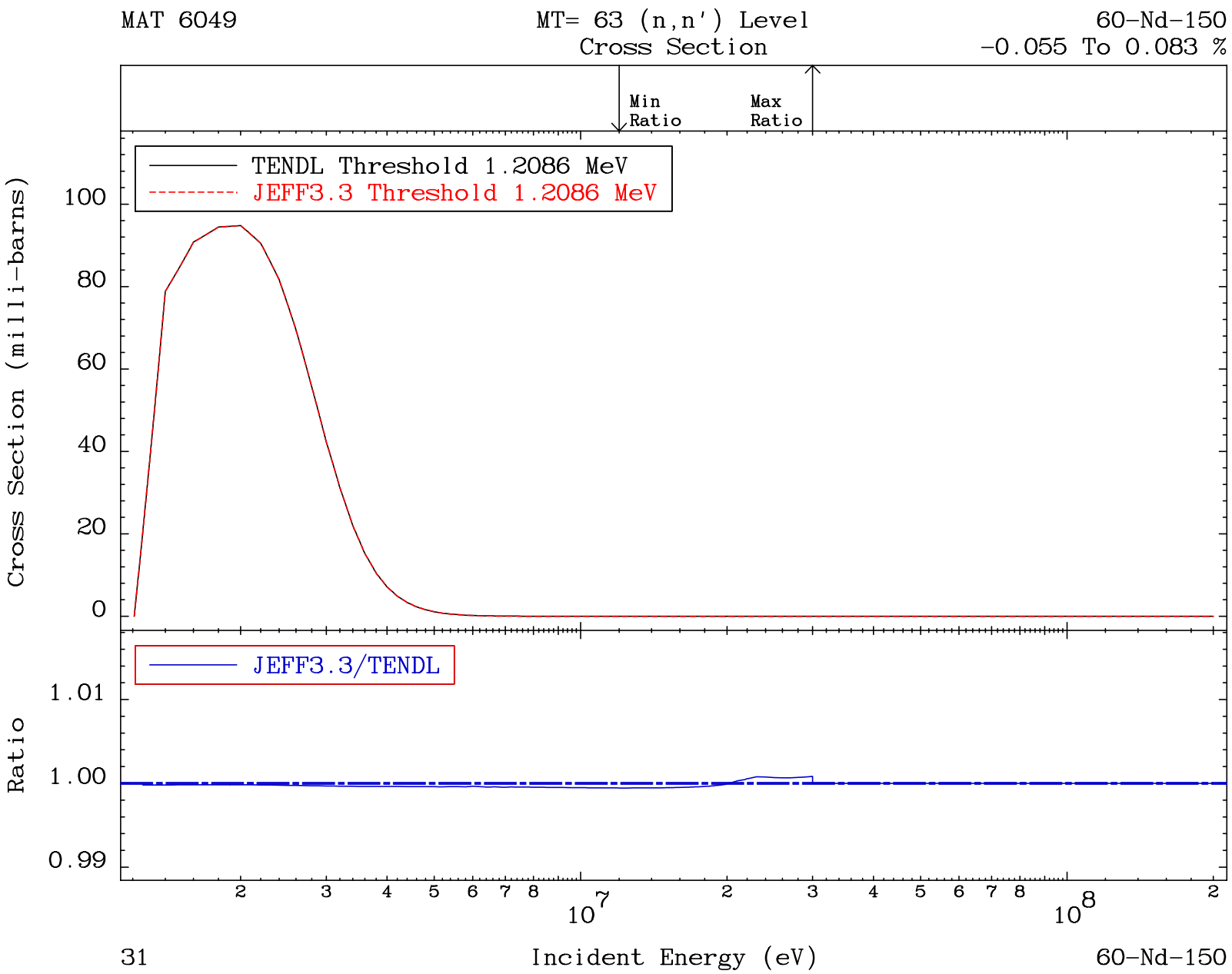

MAT 6049
MT= 58 (n,n') Level
Cross Section
60-Nd-150
-0.027 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.0692 MeV
JEFF3.3 Threshold 1.0692 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
60-Nd-150

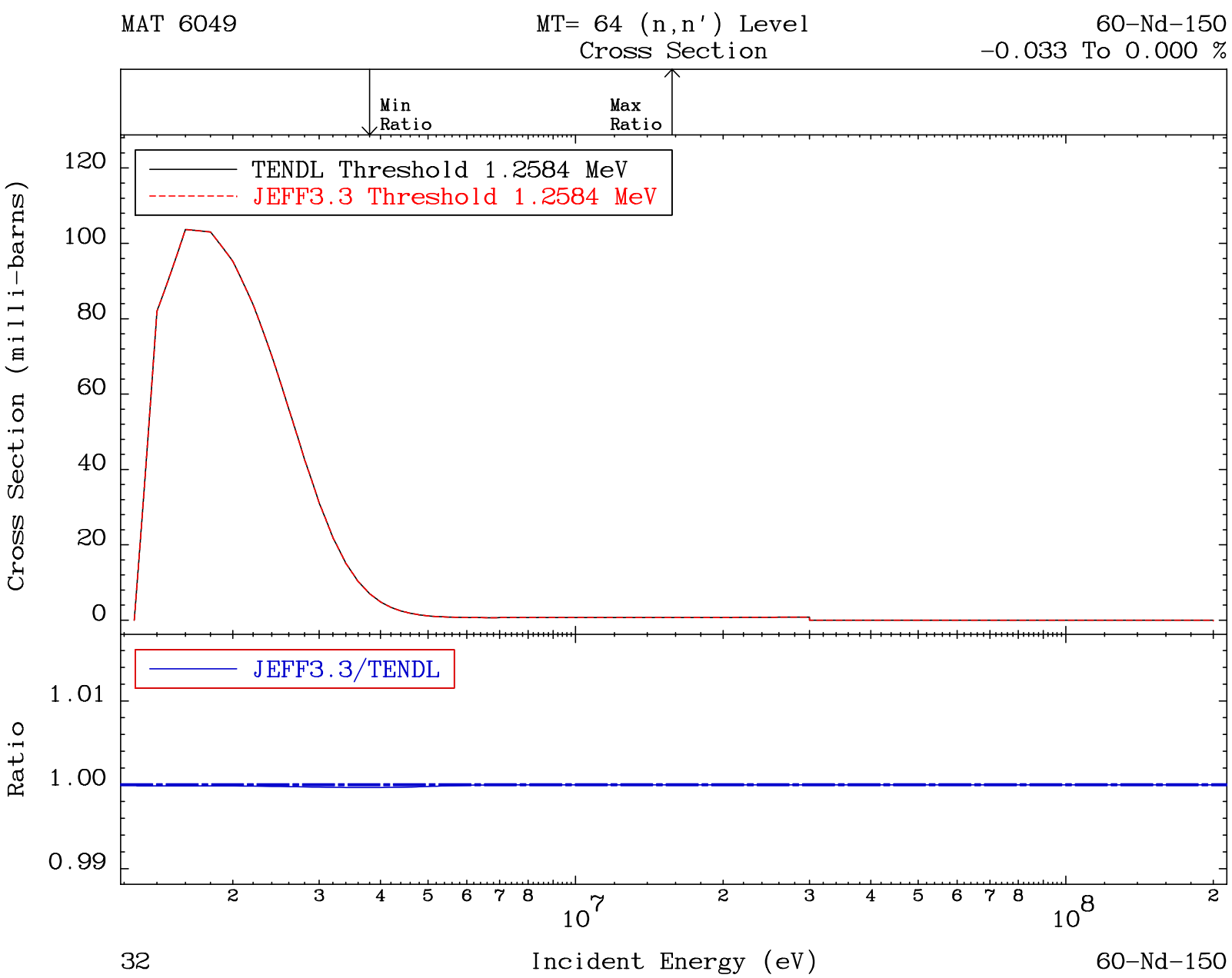

MAT 6049
MT= 59 (n,n') Level
Cross Section
60-Nd-150
-0.065 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.1365 MeV
JEFF3.3 Threshold 1.1365 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
27
Incident Energy (eV)
60-Nd-150

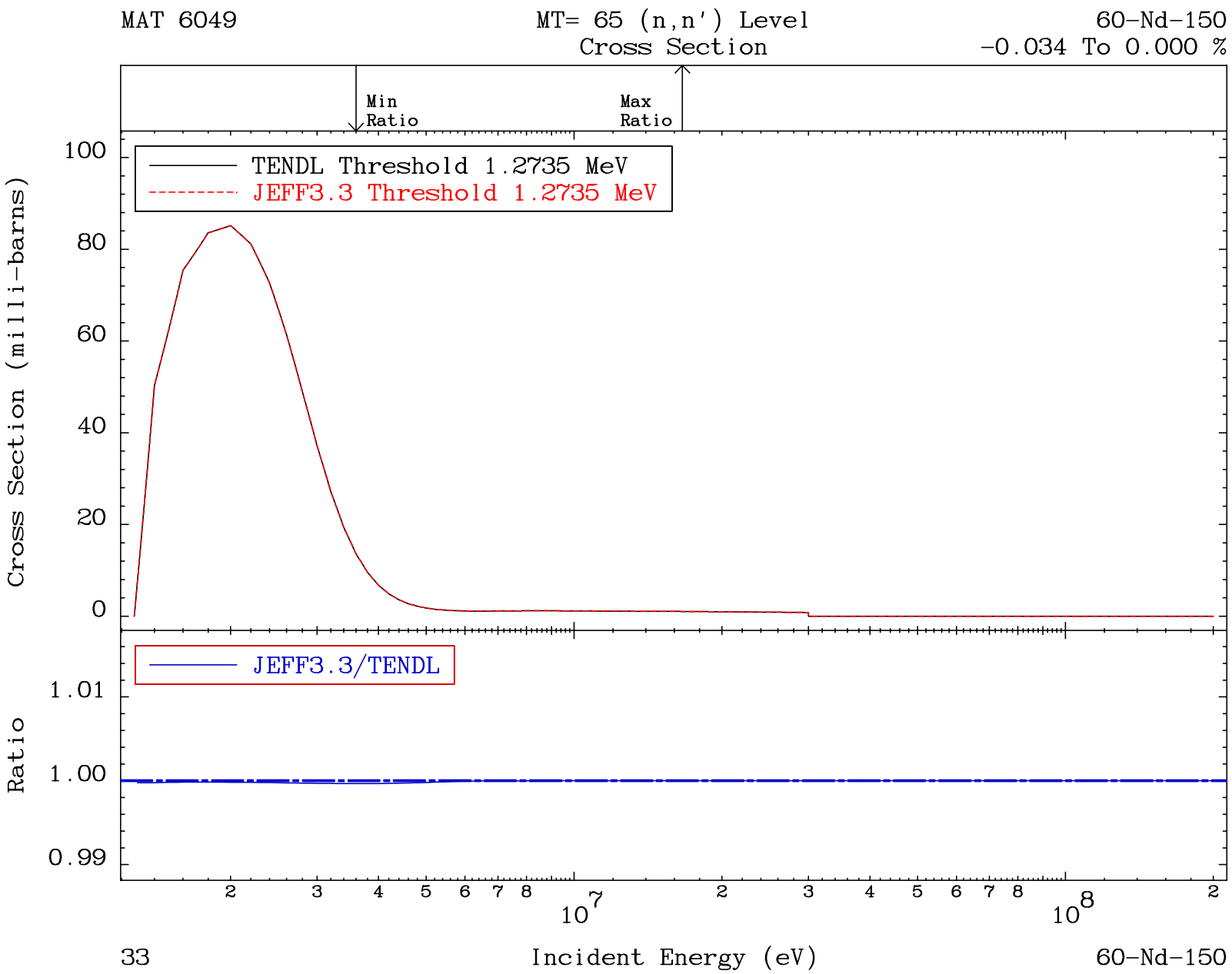

MAT 6049
MT= 60 (n,n') Level
Cross Section
60-Nd-150
-0.356 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.1414 MeV
JEFF3.3 Threshold 1.1414 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
28
Incident Energy (eV)
60-Nd-150

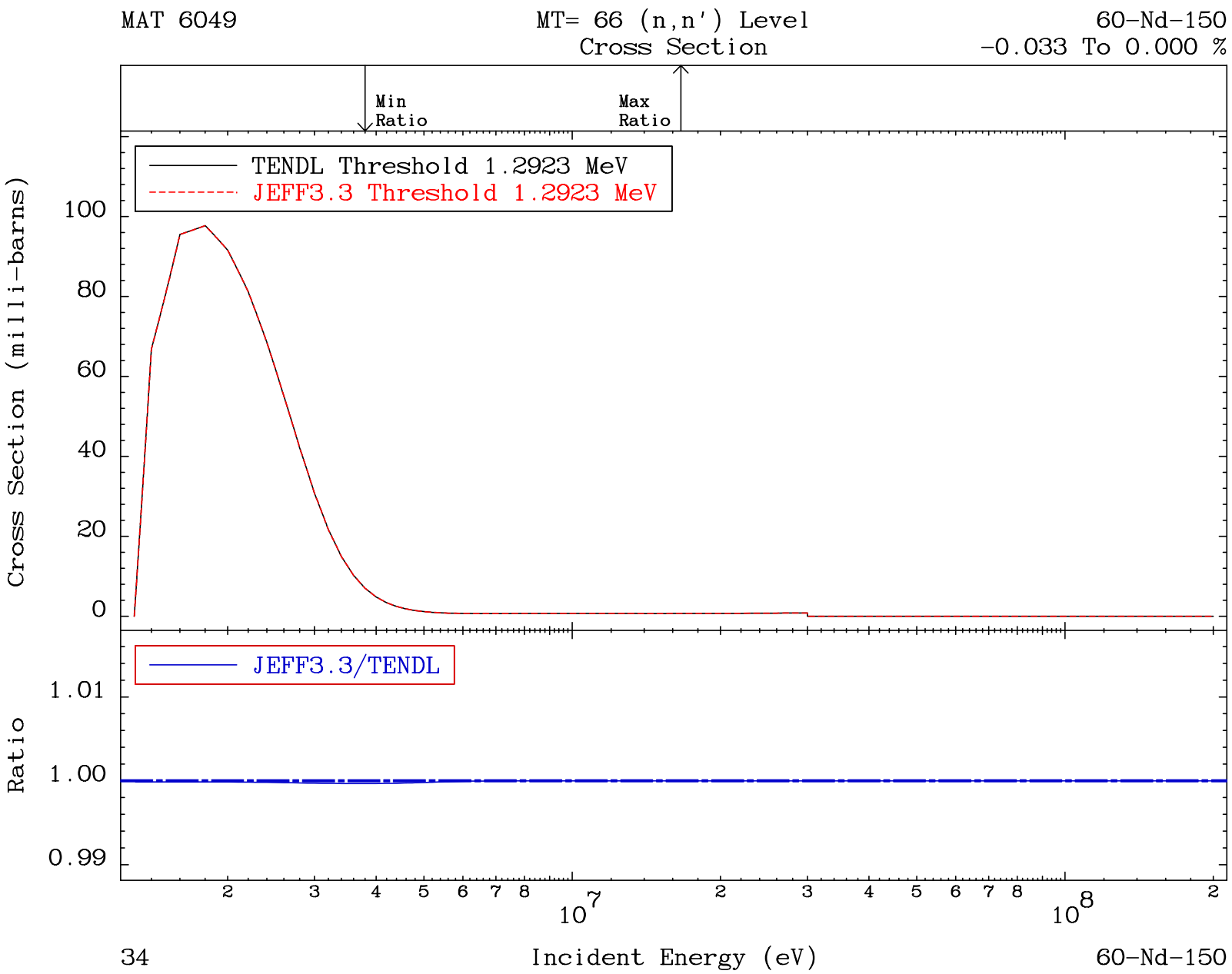

MAT 6049
MT= 61 (n,n') Level
Cross Section
60-Nd-150
-0.047 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.1455 MeV
JEFF3.3 Threshold 1.1455 MeV
Cross Section (milli-barns)
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
29
Incident Energy (eV)
60-Nd-150

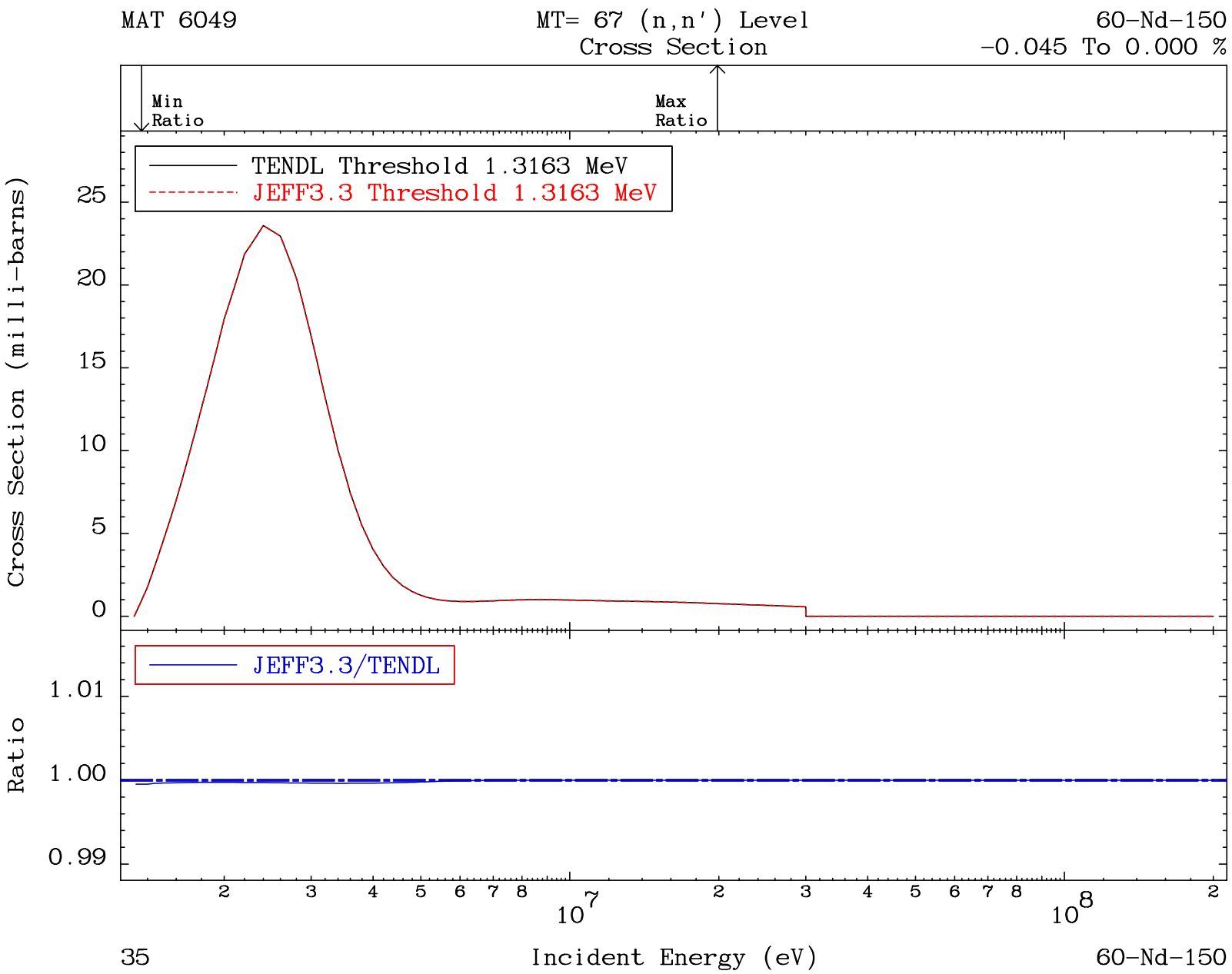

MAT 6049
MT= 62 (n,n') Level
Cross Section
60-Nd-150
-0.055 To 0.084 %
Min Ratio
Max Ratio
TENDL Threshold 1.1902 MeV
JEFF3.3 Threshold 1.1902 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
60-Nd-150

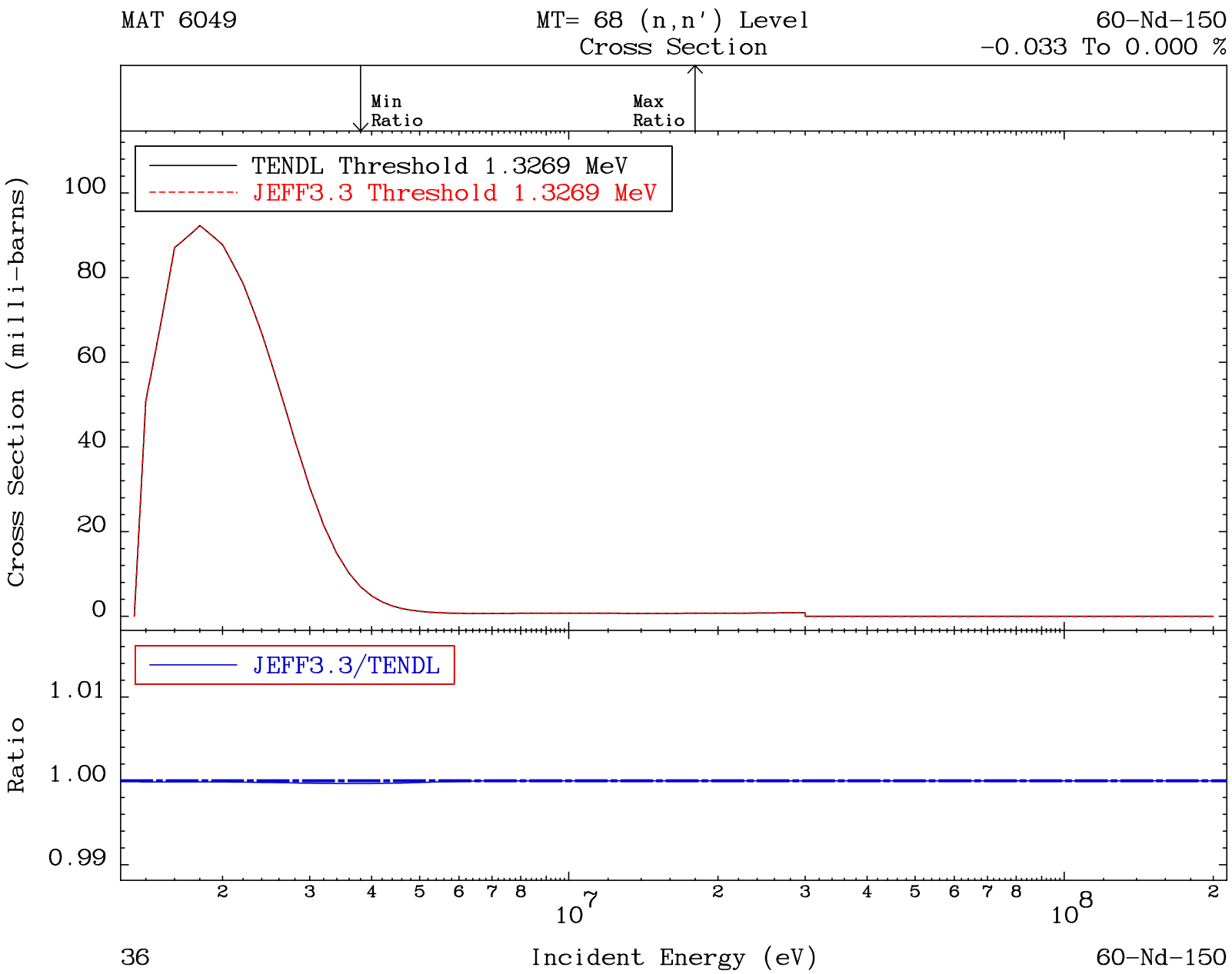

MAT 6049
MT= 63 (n,n') Level
Cross Section
60-Nd-150
-0.055 To 0.083 %
Min Ratio
Max Ratio
TENDL Threshold 1.2086 MeV
JEFF3.3 Threshold 1.2086 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
31
Incident Energy (eV)
60-Nd-150

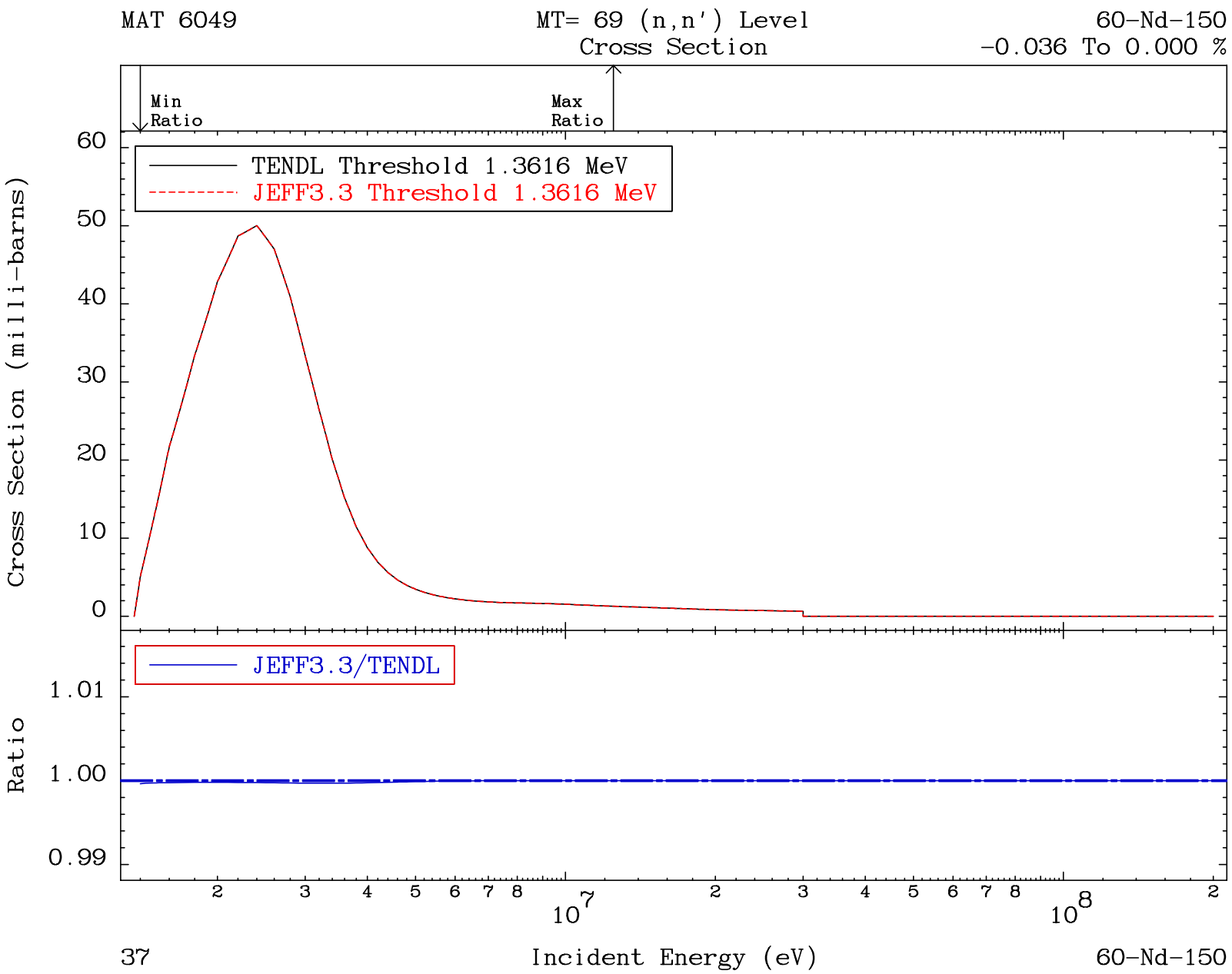

MAT 6049
MT= 64 (n,n') Level
Cross Section
60-Nd-150
-0.033 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2584 MeV
JEFF3.3 Threshold 1.2584 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
32
Incident Energy (eV)
60-Nd-150

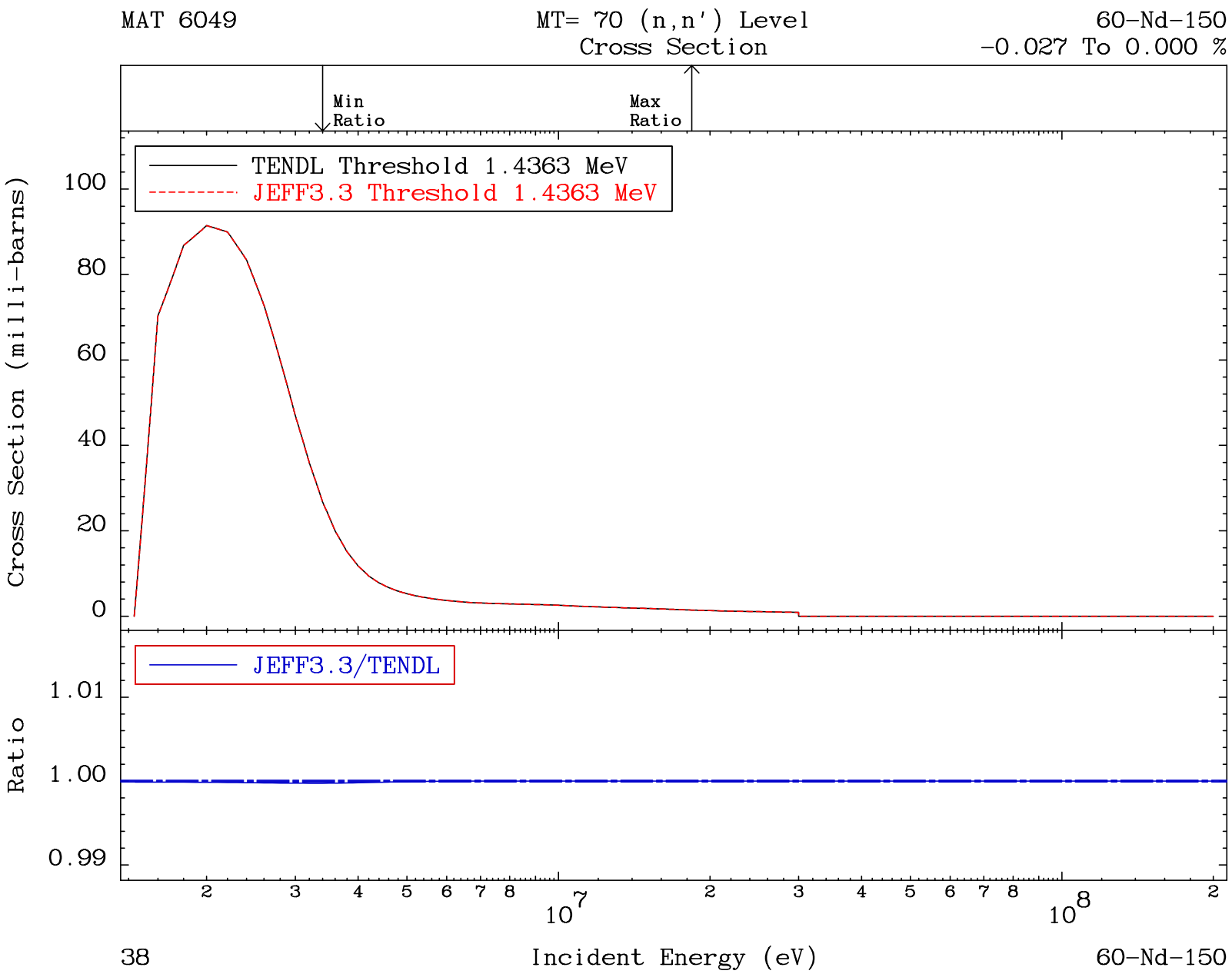

MAT 6049
MT= 65 (n,n') Level
Cross Section
60-Nd-150
-0.034 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2735 MeV
JEFF3.3 Threshold 1.2735 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
33
Incident Energy (eV)
60-Nd-150

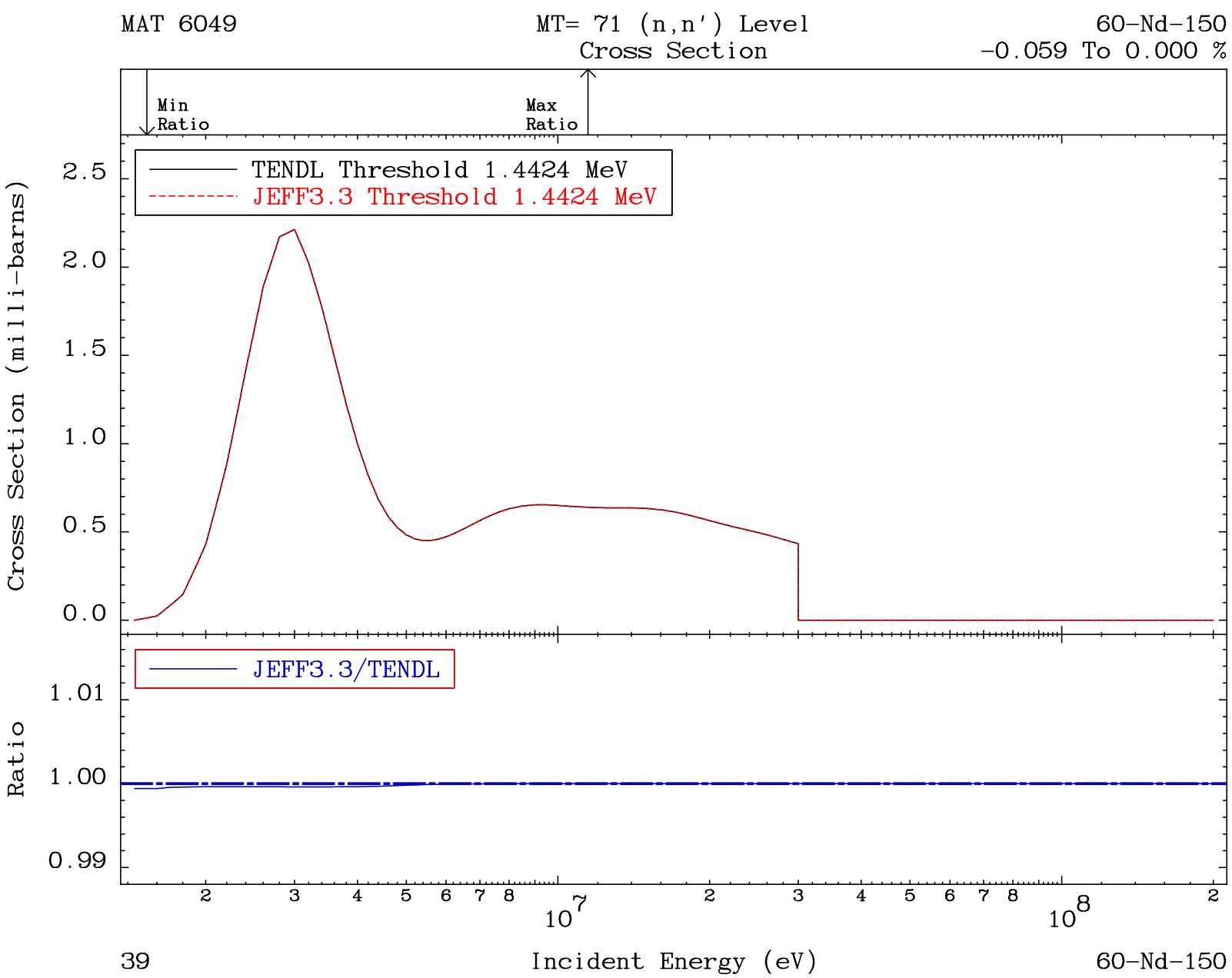

MAT 6049
MT= 66 (n,n') Level
Cross Section
60-Nd-150
-0.033 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2923 MeV
JEFF3.3 Threshold 1.2923 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
34
Incident Energy (eV)
60-Nd-150

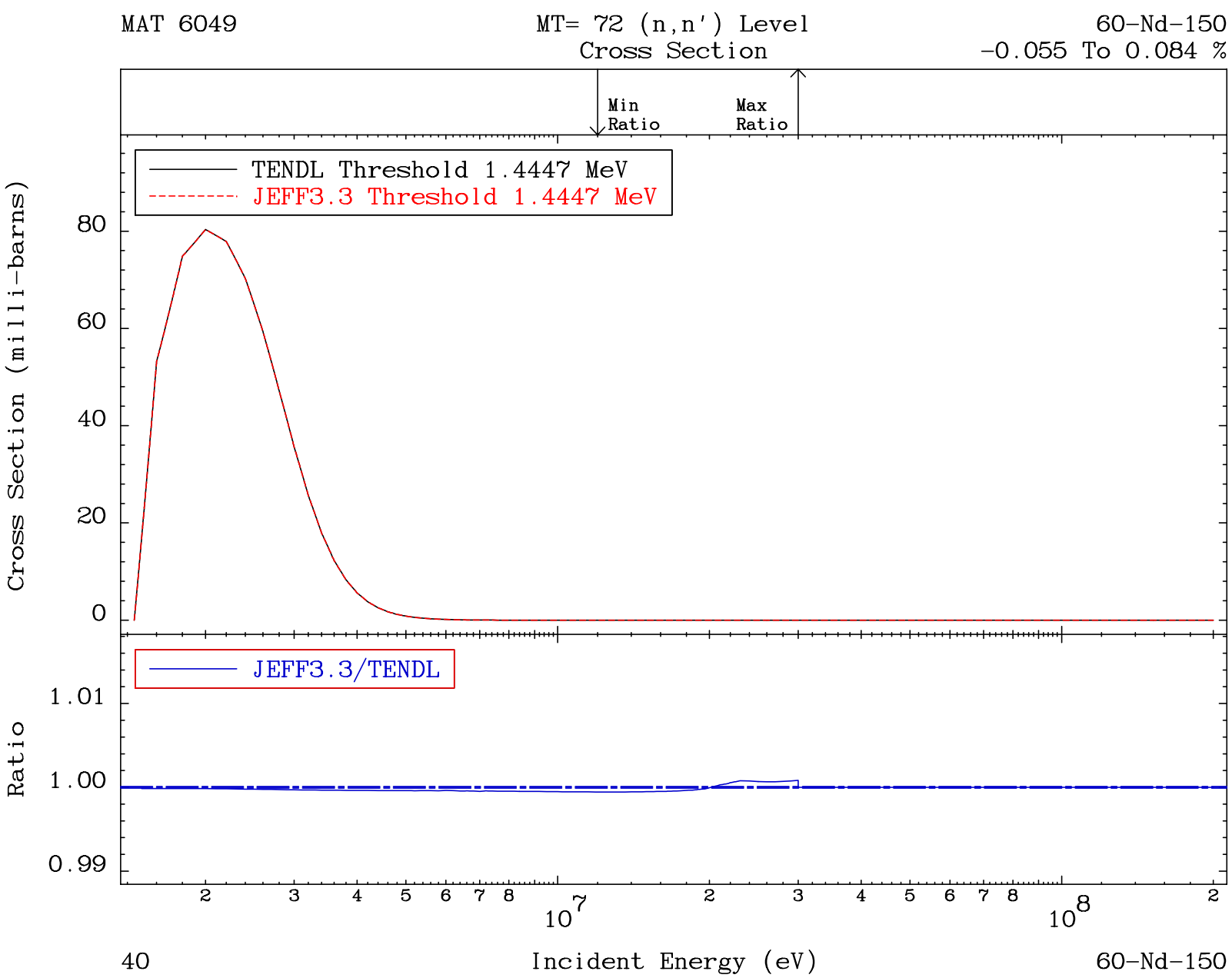

MAT 6049
MT= 67 (n,n') Level
Cross Section
60-Nd-150
-0.045 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.3163 MeV
JEFF3.3 Threshold 1.3163 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
35
Incident Energy (eV)
60-Nd-150

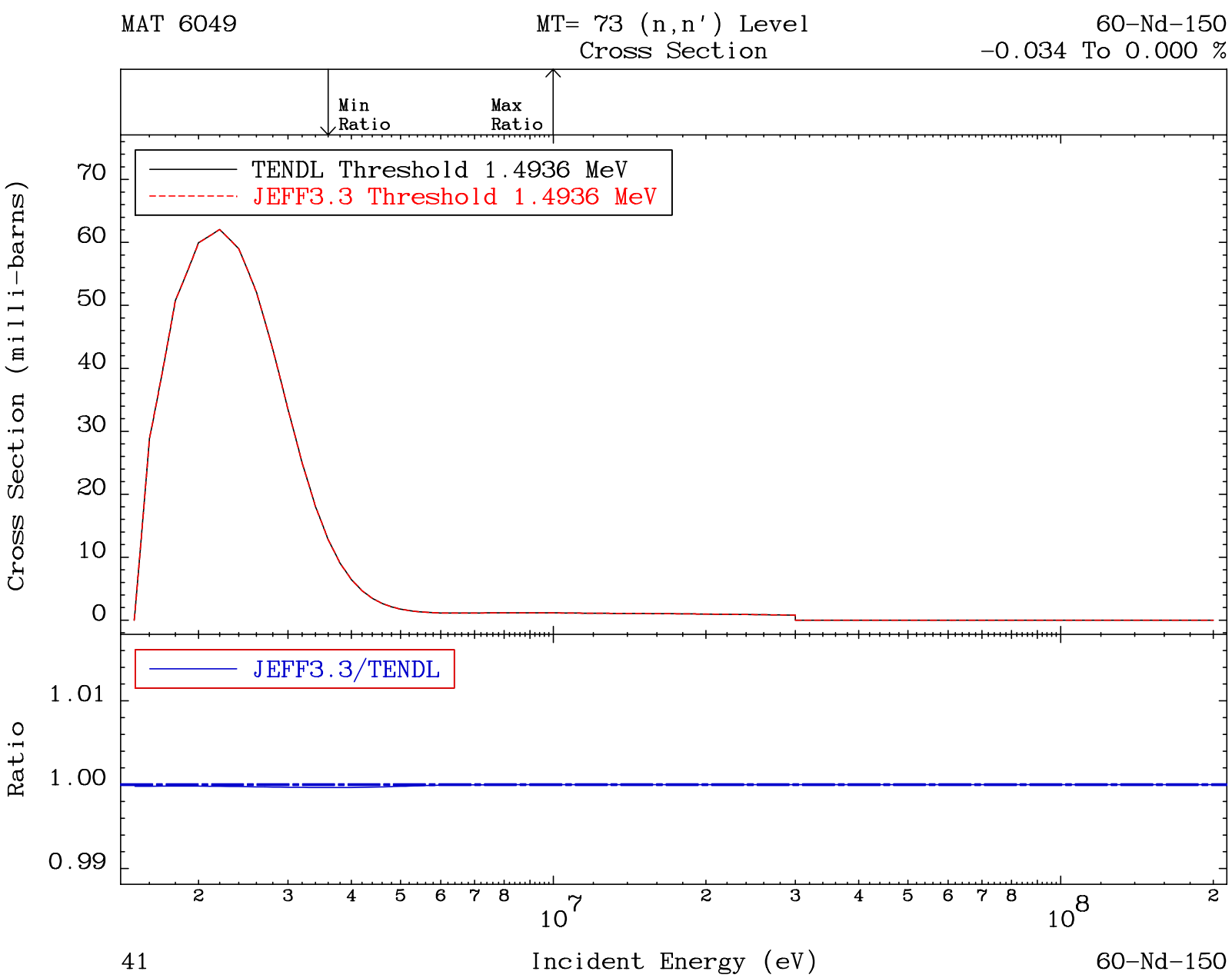

MAT 6049
MT= 68 (n,n') Level
Cross Section
60-Nd-150
-0.033 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.3269 MeV
JEFF3.3 Threshold 1.3269 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
36
Incident Energy (eV)
60-Nd-150

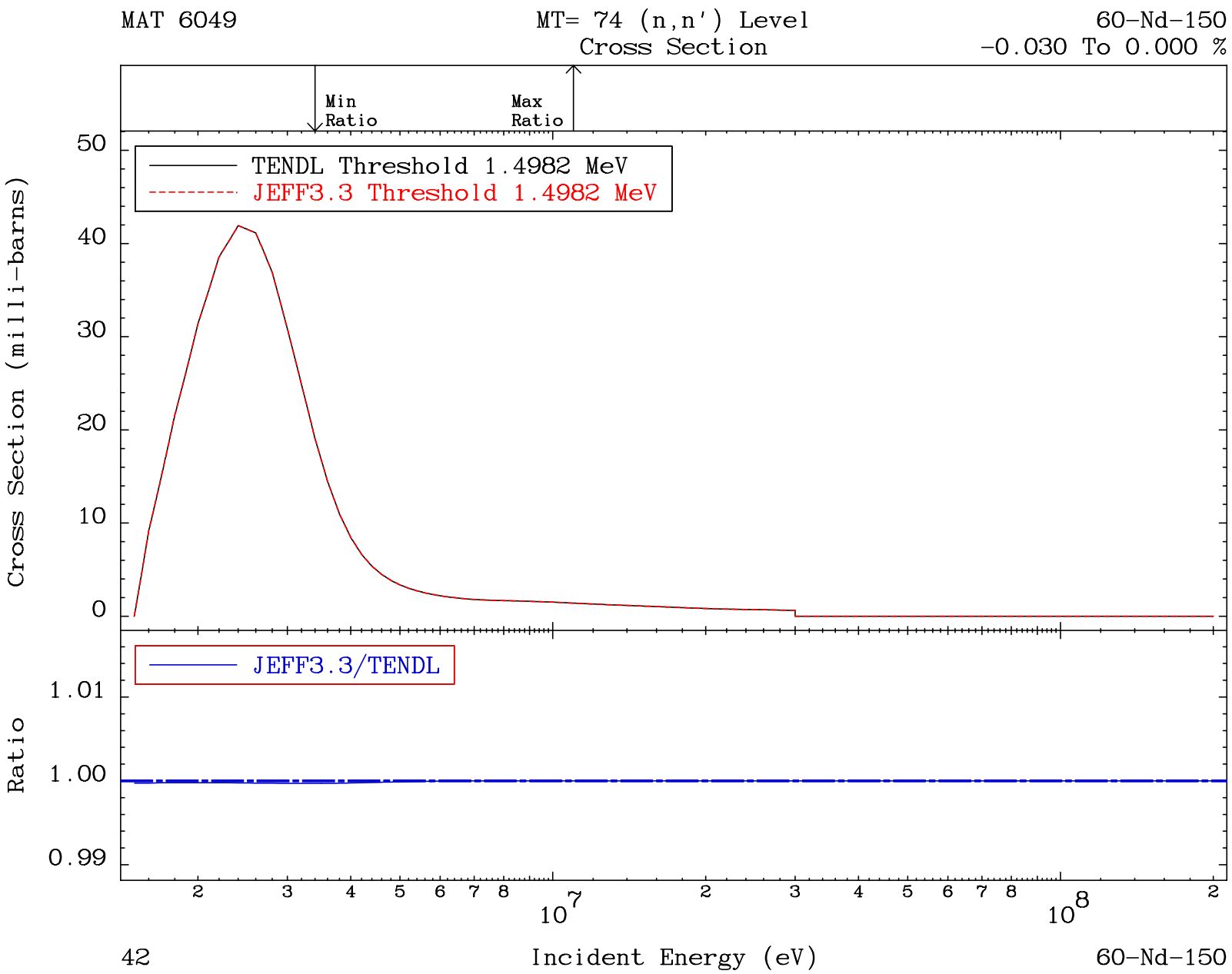

MAT 6049
MT= 69 (n,n') Level
Cross Section
60-Nd-150
-0.036 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.3616 MeV
JEFF3.3 Threshold 1.3616 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
37
Incident Energy (eV)
60-Nd-150

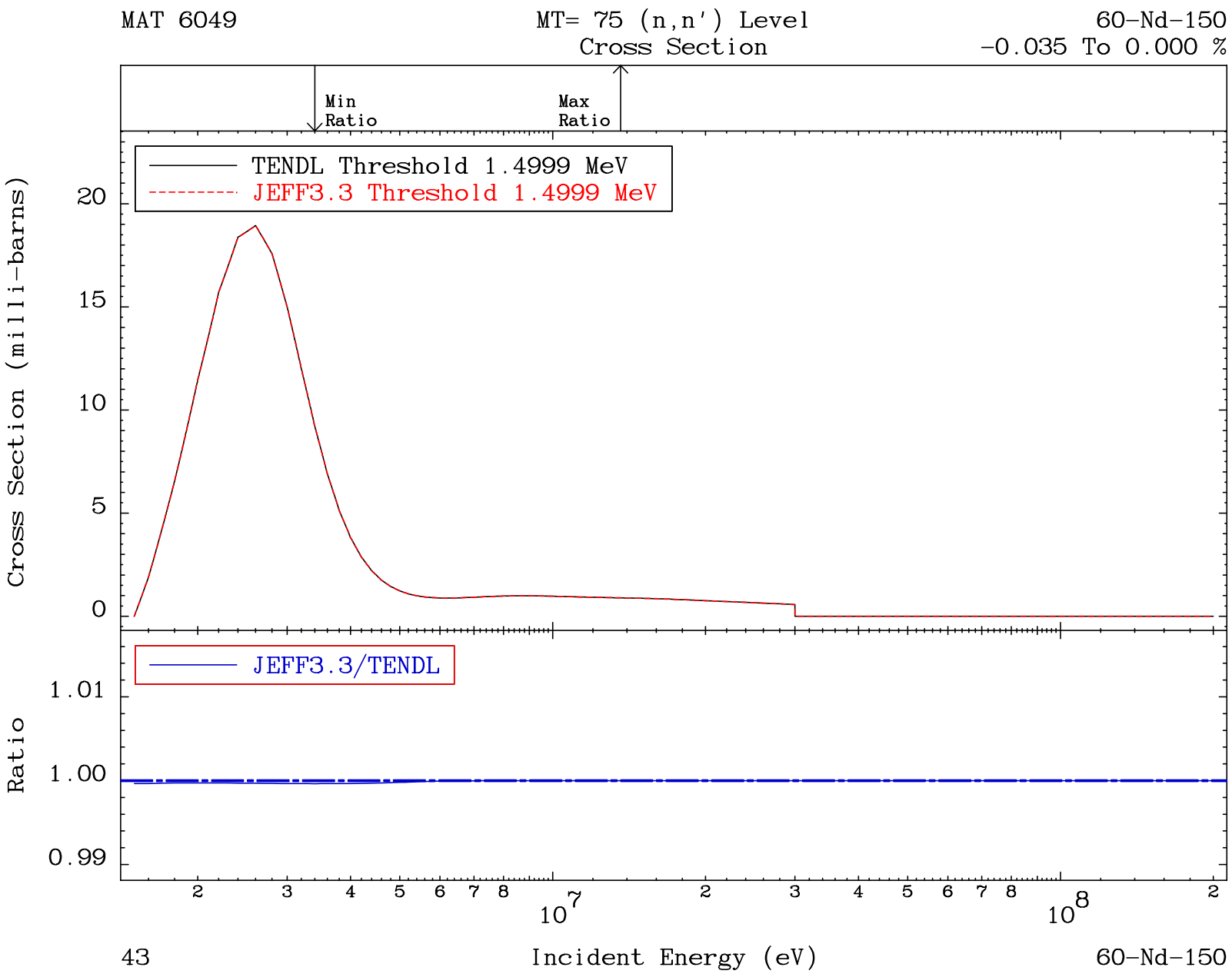

MAT 6049
MT= 70 (n,n') Level
Cross Section
60-Nd-150
-0.027 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4363 MeV
JEFF3.3 Threshold 1.4363 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
38
Incident Energy (eV)
60-Nd-150

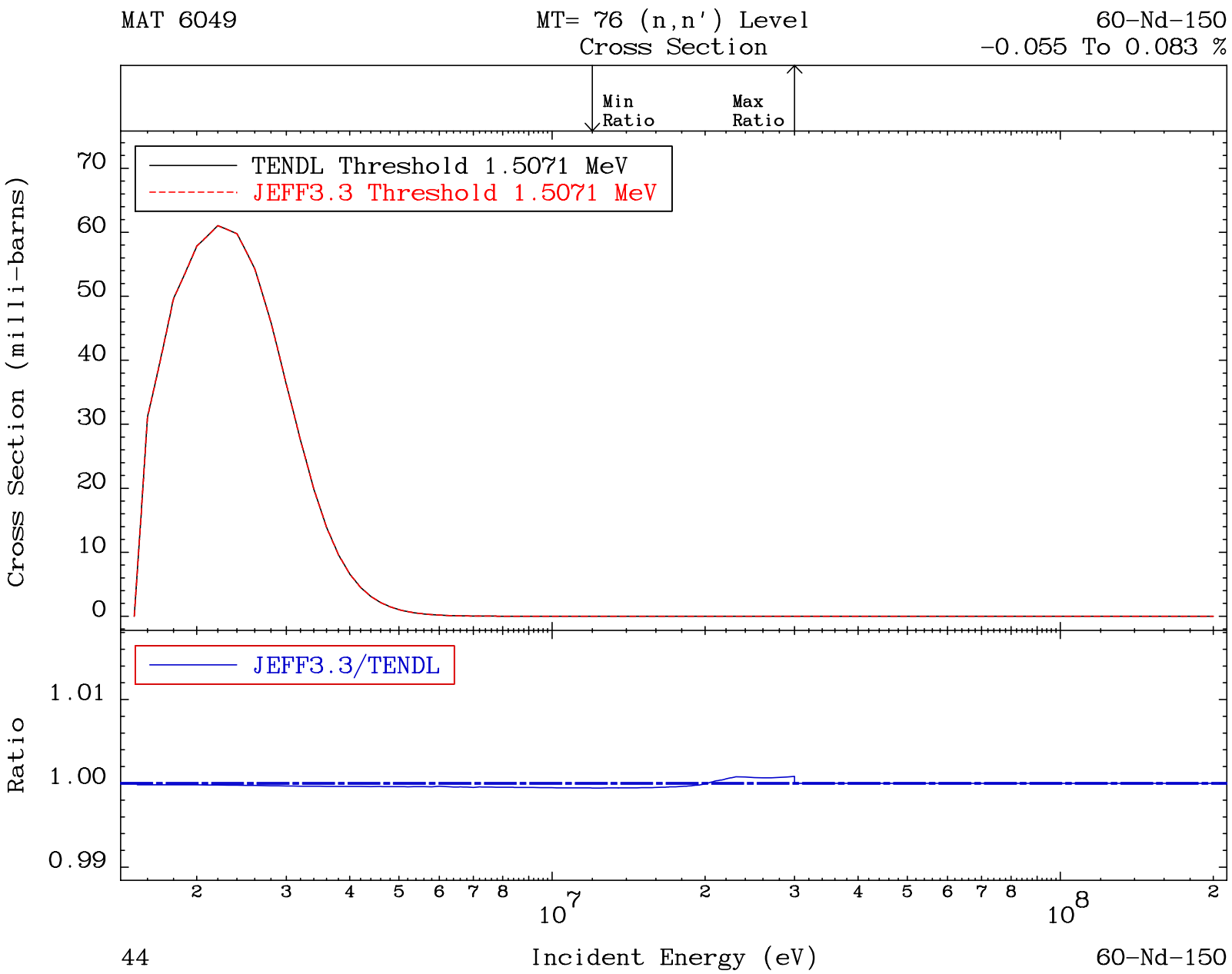

MAT 6049
MT= 71 (n,n') Level
Cross Section
60-Nd-150
-0.059 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4424 MeV
JEFF3.3 Threshold 1.4424 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
39
Incident Energy (eV)
60-Nd-150

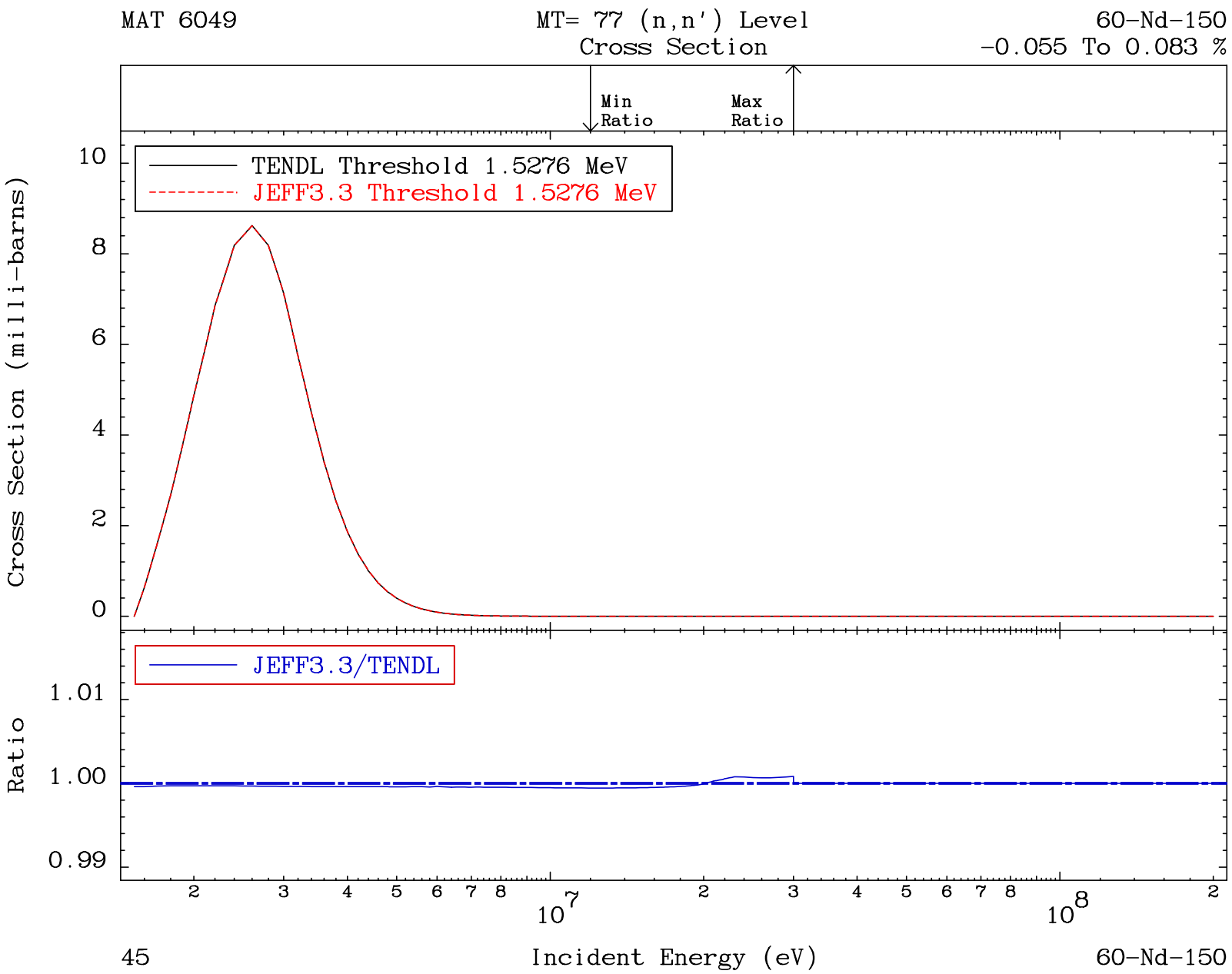

MAT 6049
MT= 72 (n,n') Level
Cross Section
60-Nd-150
-0.055 To 0.084 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4447 MeV
JEFF3.3 Threshold 1.4447 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
40
Incident Energy (eV)
60-Nd-150

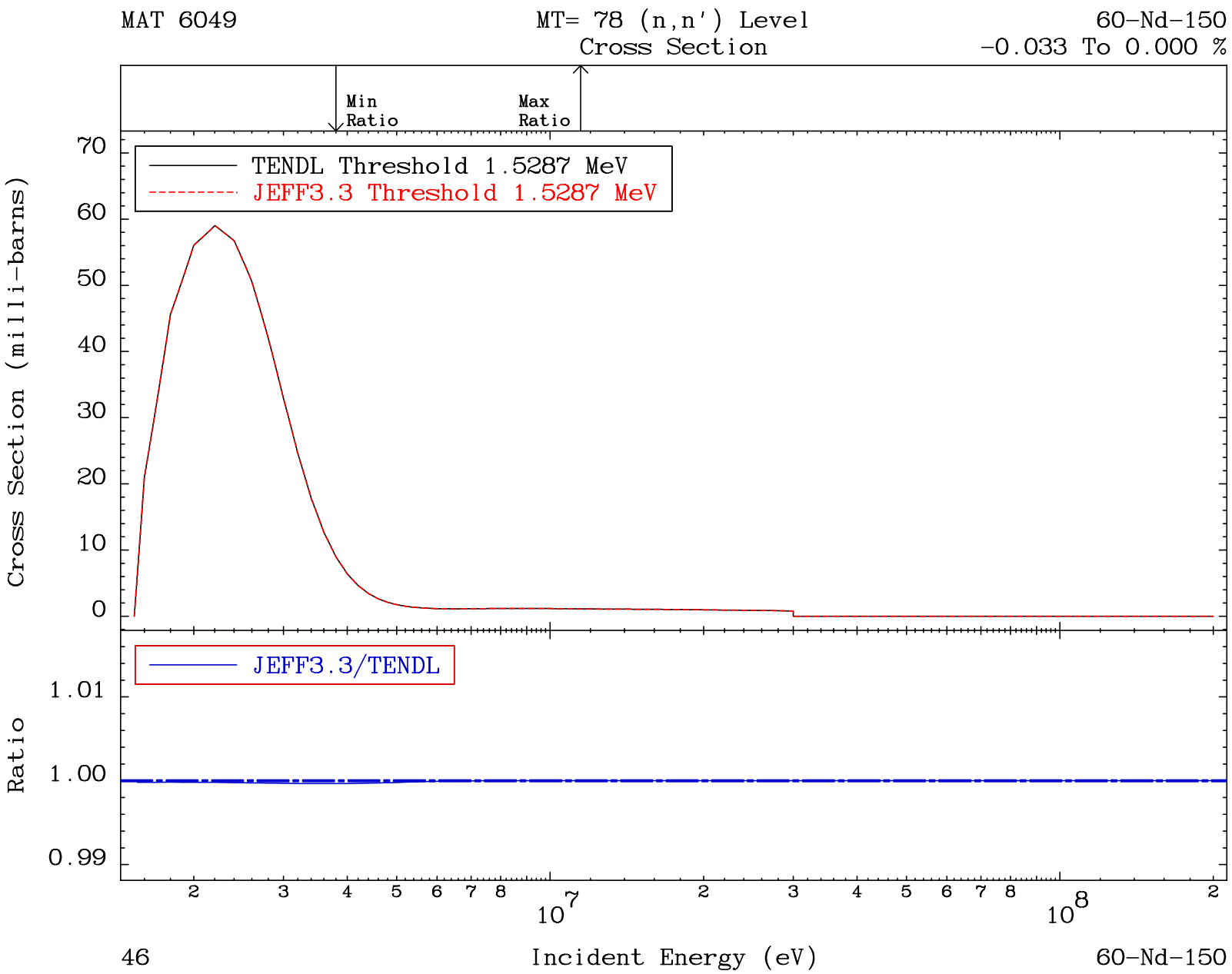

MAT 6049
MT= 73 (n,n') Level
Cross Section
60-Nd-150
-0.034 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4936 MeV
JEFF3.3 Threshold 1.4936 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
41
Incident Energy (eV)
60-Nd-150

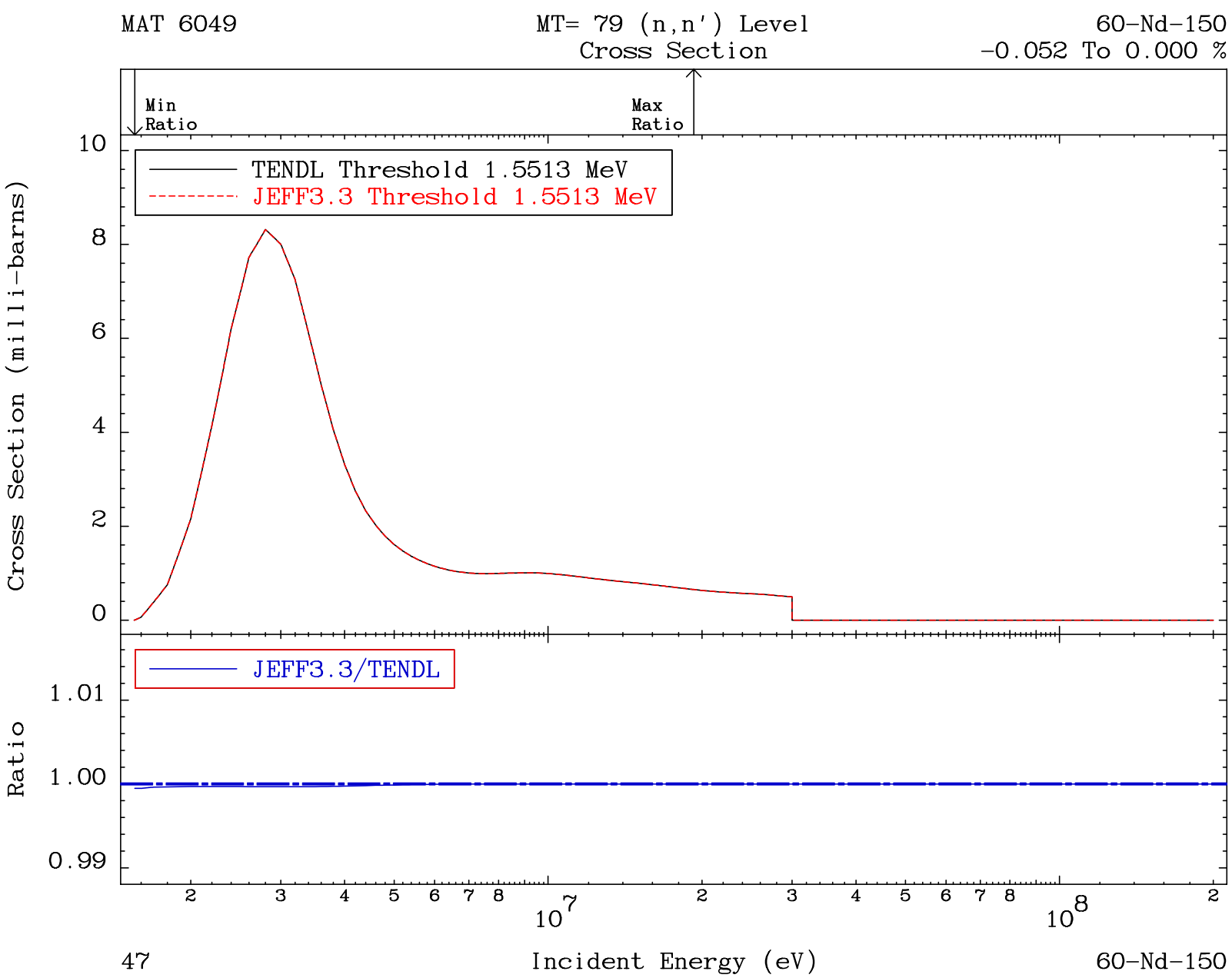

MAT 6049
MT= 74 (n,n') Level
Cross Section
60-Nd-150
-0.030 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4982 MeV
JEFF3.3 Threshold 1.4982 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
42
Incident Energy (eV)
60-Nd-150

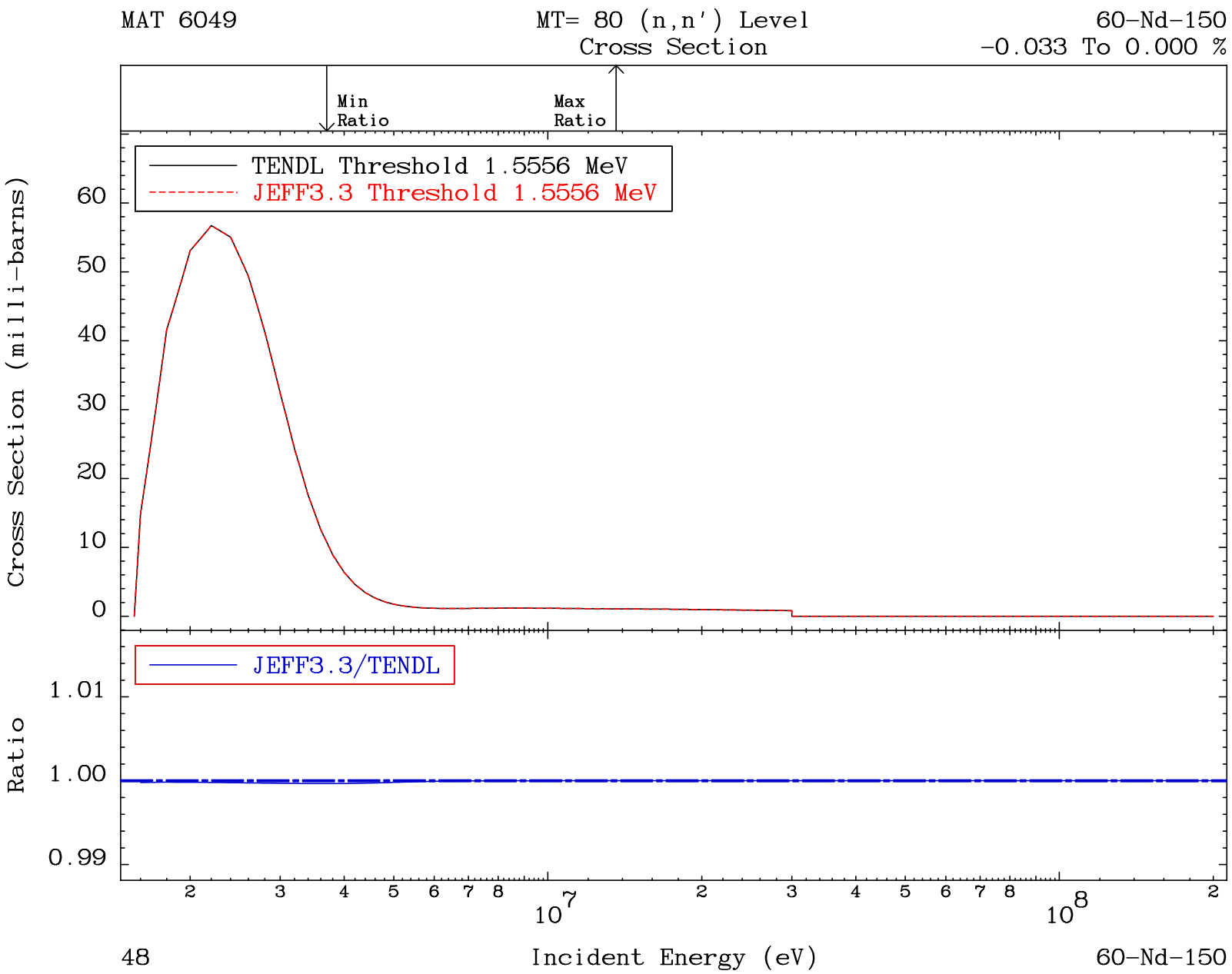

MAT 6049
MT= 75 (n,n') Level
Cross Section
60-Nd-150
-0.035 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4999 MeV
JEFF3.3 Threshold 1.4999 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
43
Incident Energy (eV)
60-Nd-150

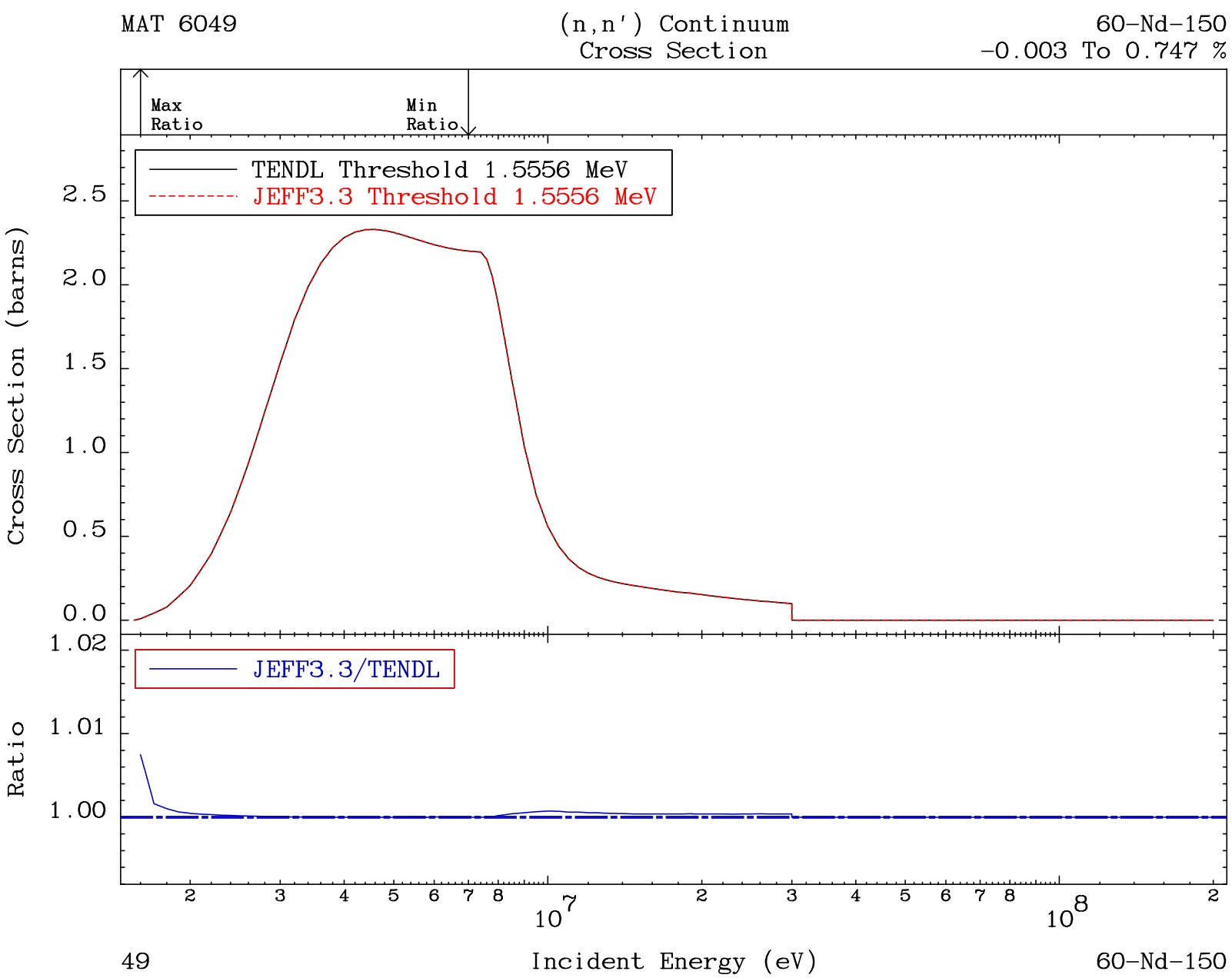

MAT 6049
MT= 76 (n,n') Level
Cross Section
60-Nd-150
-0.055 To 0.083 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.5071 MeV
JEFF3.3 Threshold 1.5071 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
44
Incident Energy (eV)
60-Nd-150

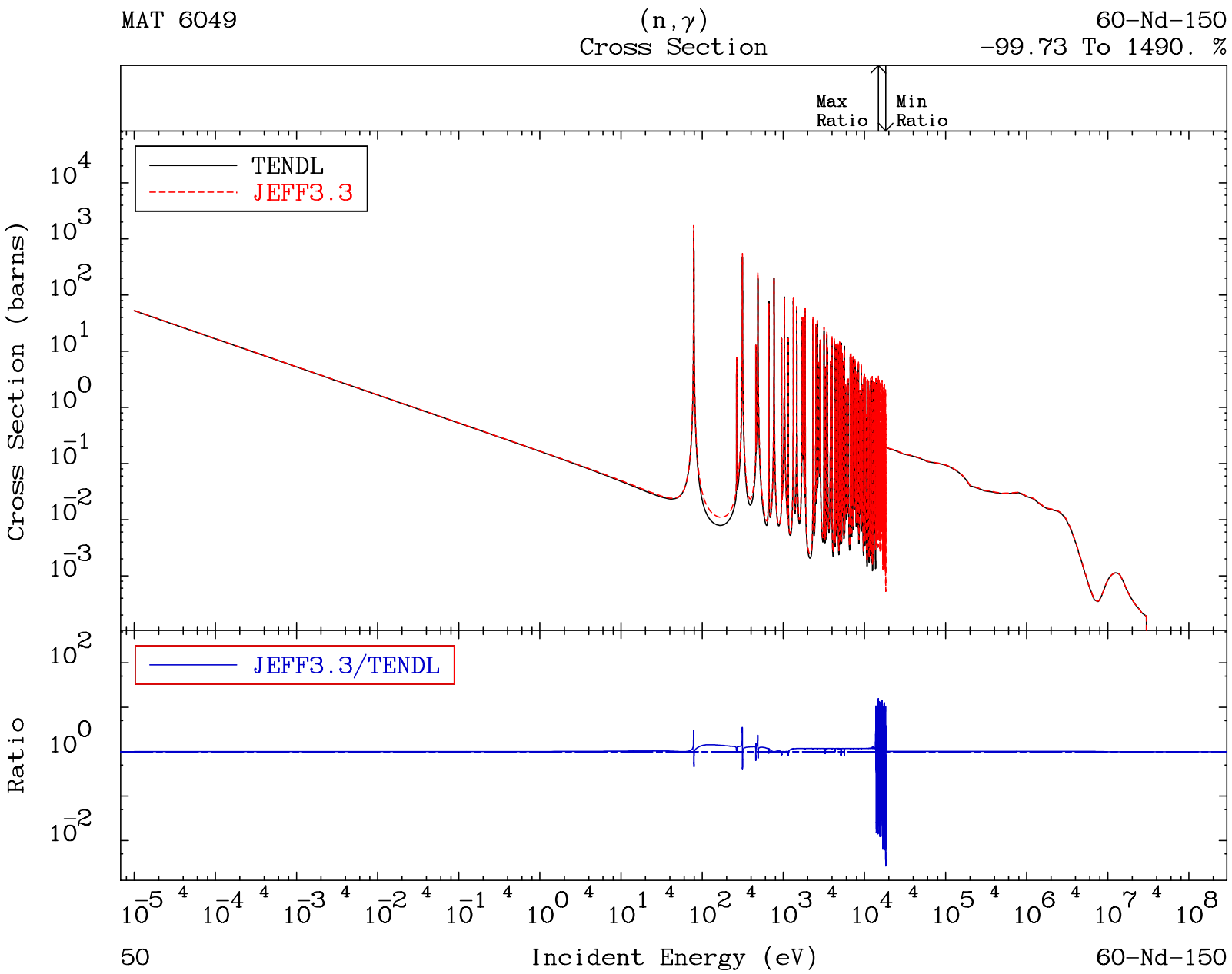

MAT 6049
MT= 77 (n,n') Level
Cross Section
60-Nd-150
-0.055 To 0.083 %
Min Ratio
Max Ratio
TENDL Threshold 1.5276 MeV
JEFF3.3 Threshold 1.5276 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
45
60-Nd-150

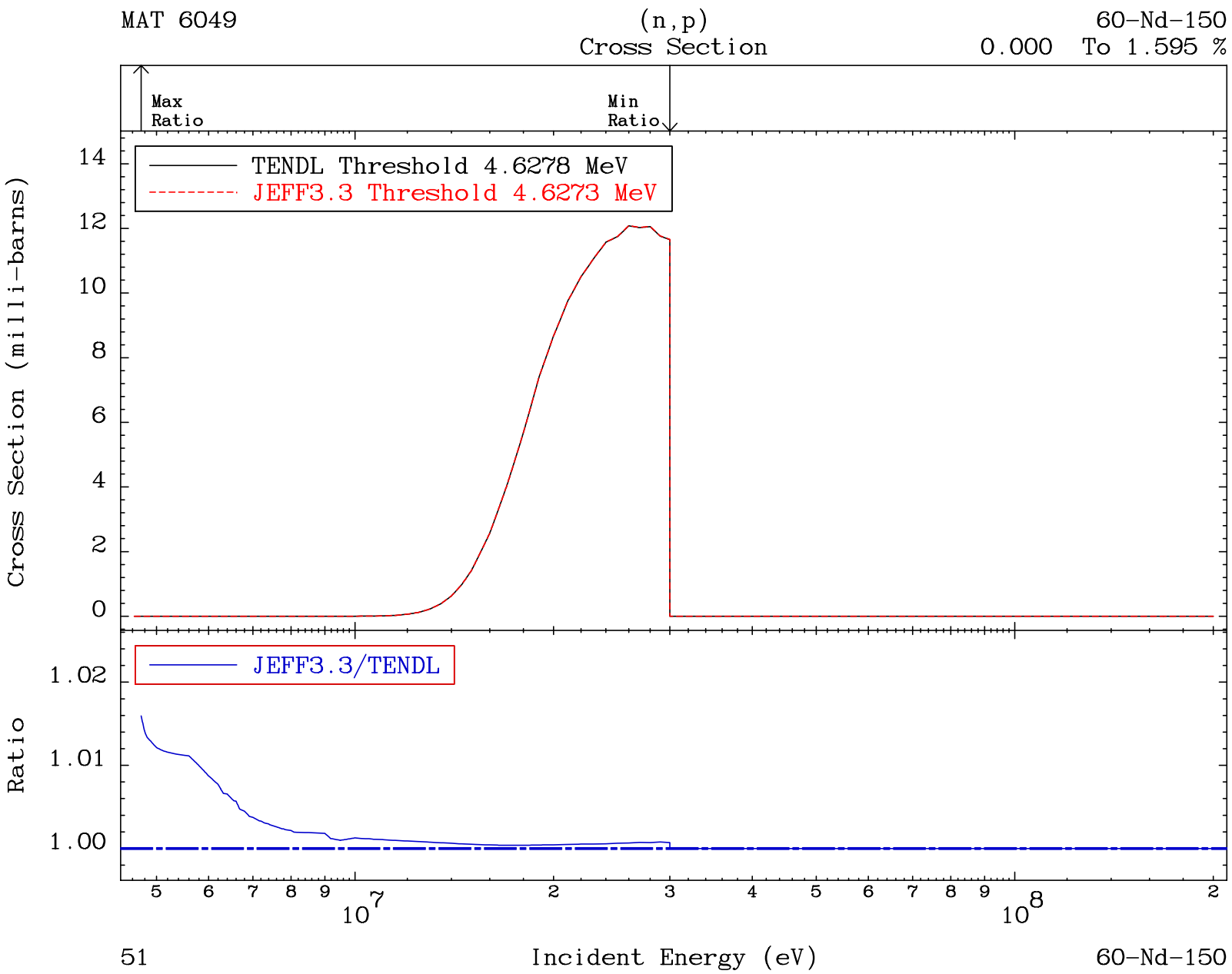

MAT 6049
MT= 78 (n,n') Level
Cross Section
60-Nd-150
-0.033 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.5287 MeV
JEFF3.3 Threshold 1.5287 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
46
Incident Energy (eV)
60-Nd-150

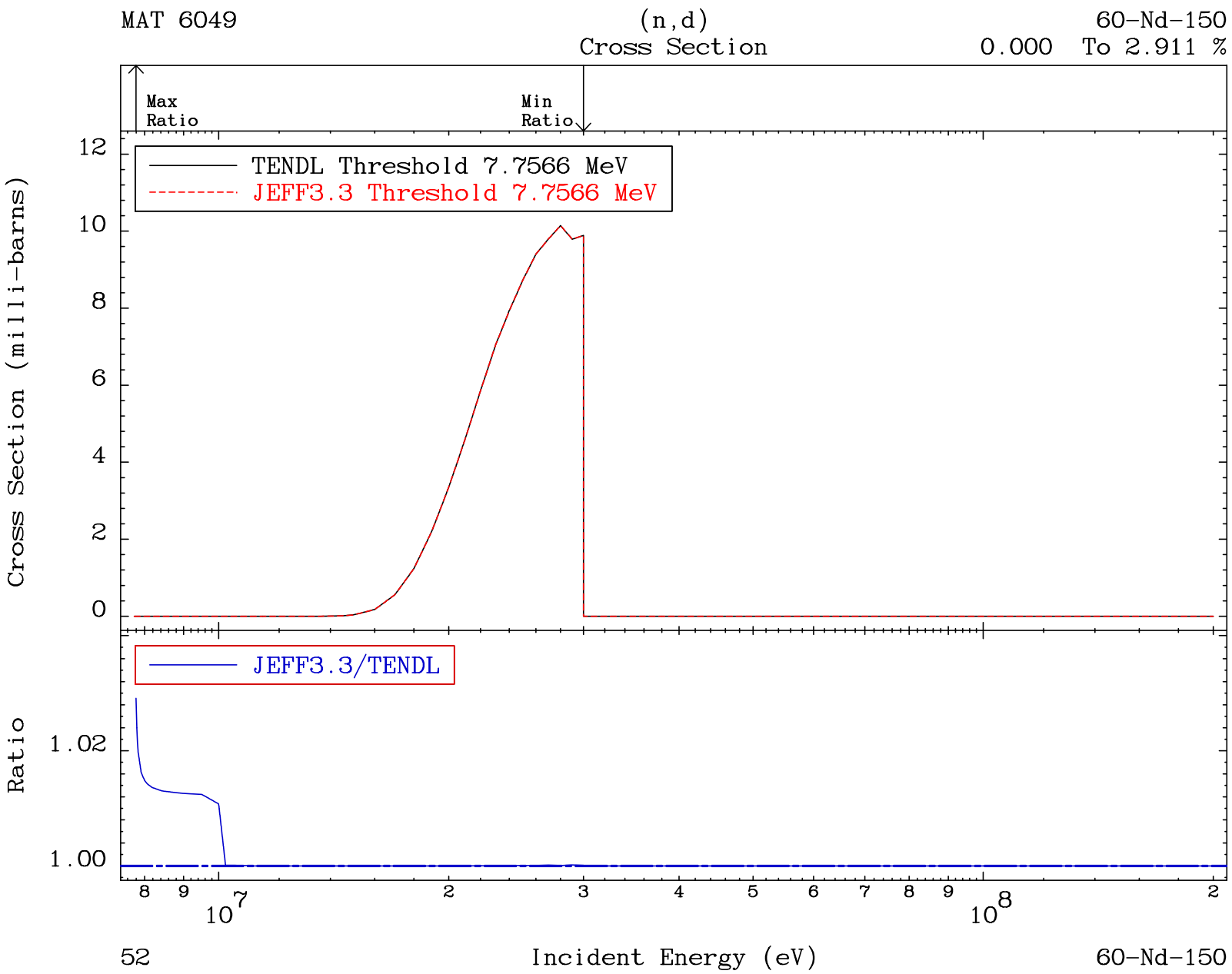

MAT 6049
MT= 79 (n,n') Level
Cross Section
60-Nd-150
-0.052 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.5513 MeV
JEFF3.3 Threshold 1.5513 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
47
Incident Energy (eV)
60-Nd-150

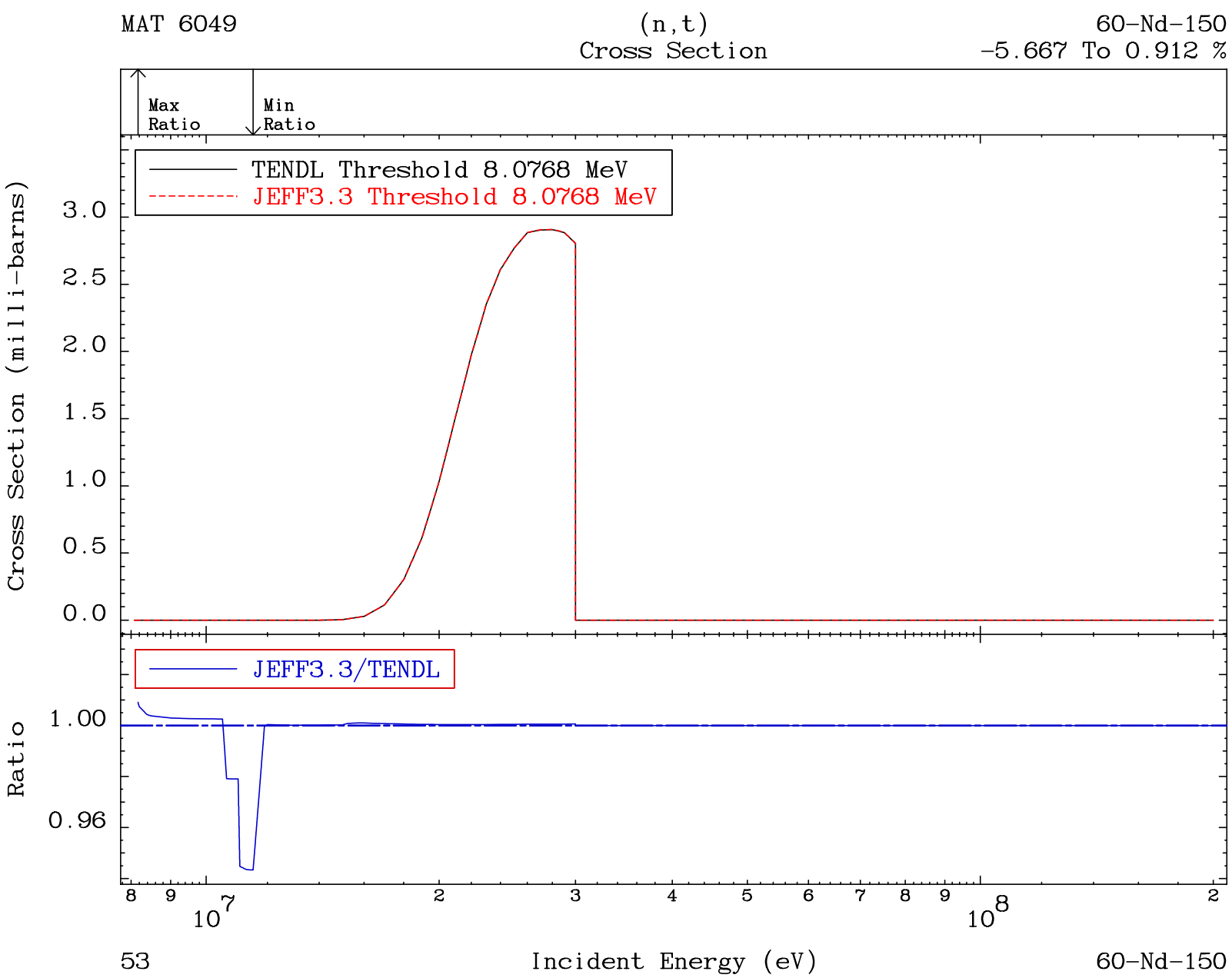

MAT 6049
MT= 80 (n,n') Level
Cross Section
60-Nd-150
-0.033 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.5556 MeV
JEFF3.3 Threshold 1.5556 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
48
Incident Energy (eV)
60-Nd-150

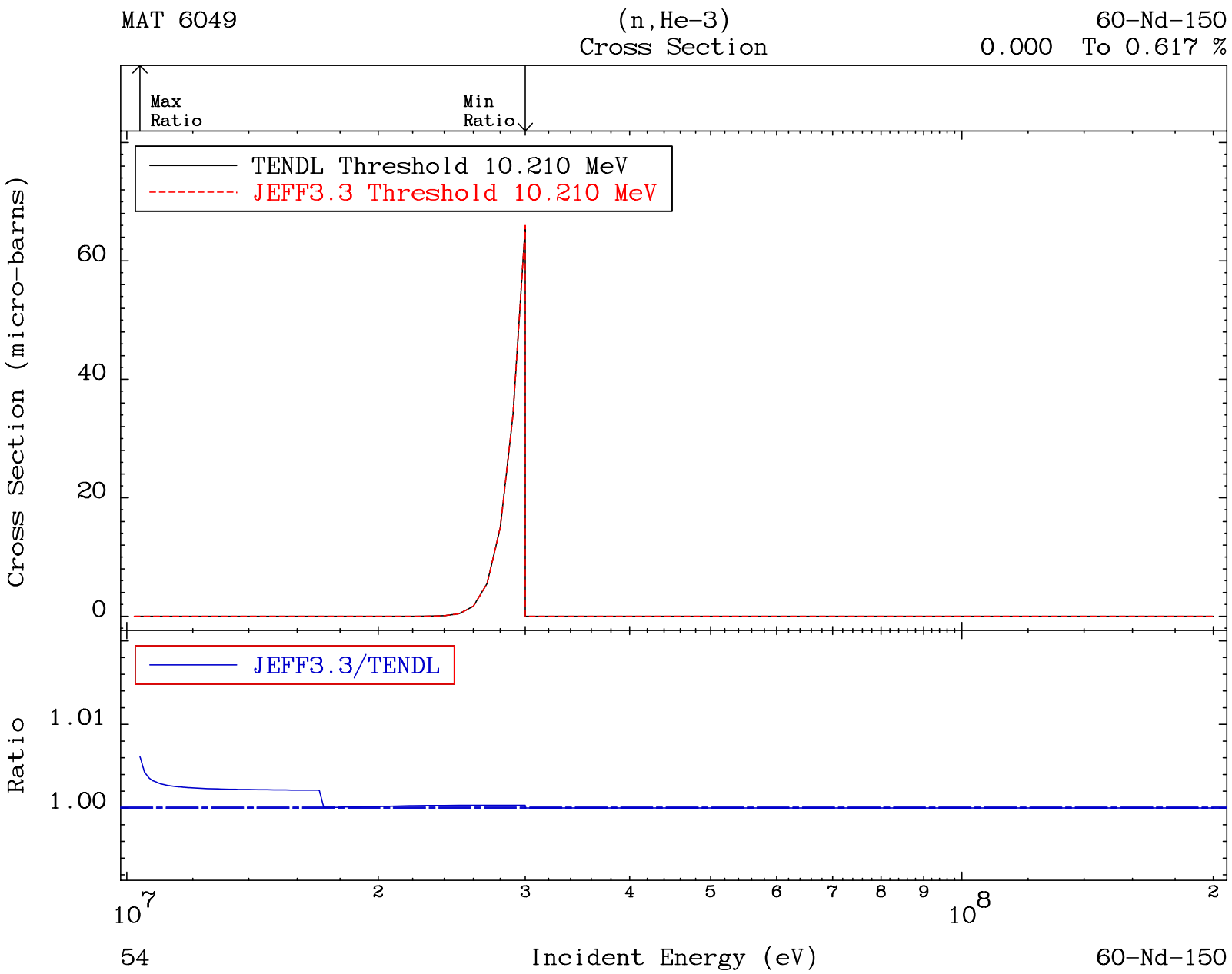

MAT 6049
(n,n') Continuum
Cross Section
60-Nd-150
-0.003 To 0.747 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.5556 MeV
JEFF3.3 Threshold 1.5556 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
49
Incident Energy (eV)
60-Nd-150

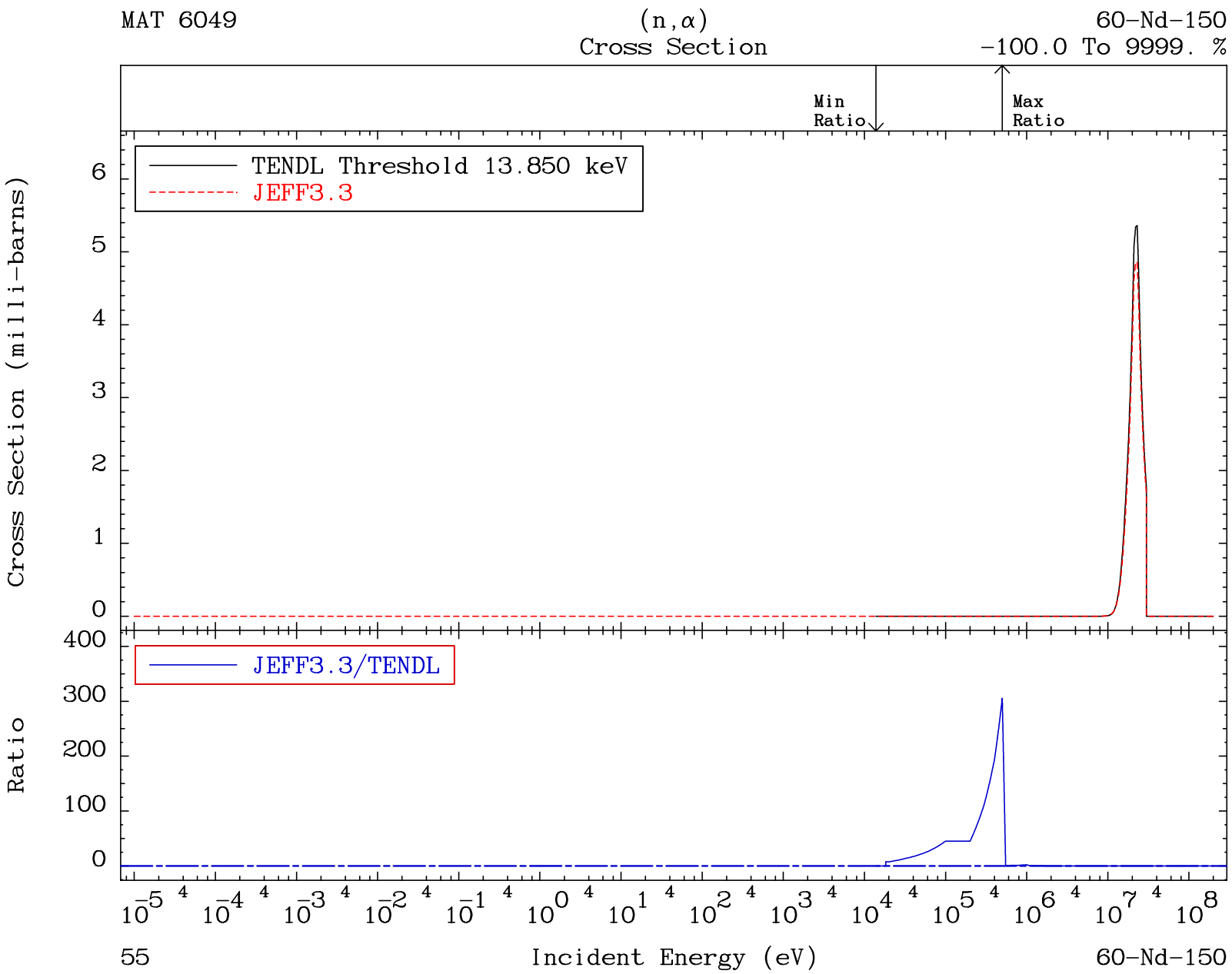

MAT 6049
(n,γ)
Cross Section
60-Nd-150
-99.73 To 1490. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
50
60-Nd-150

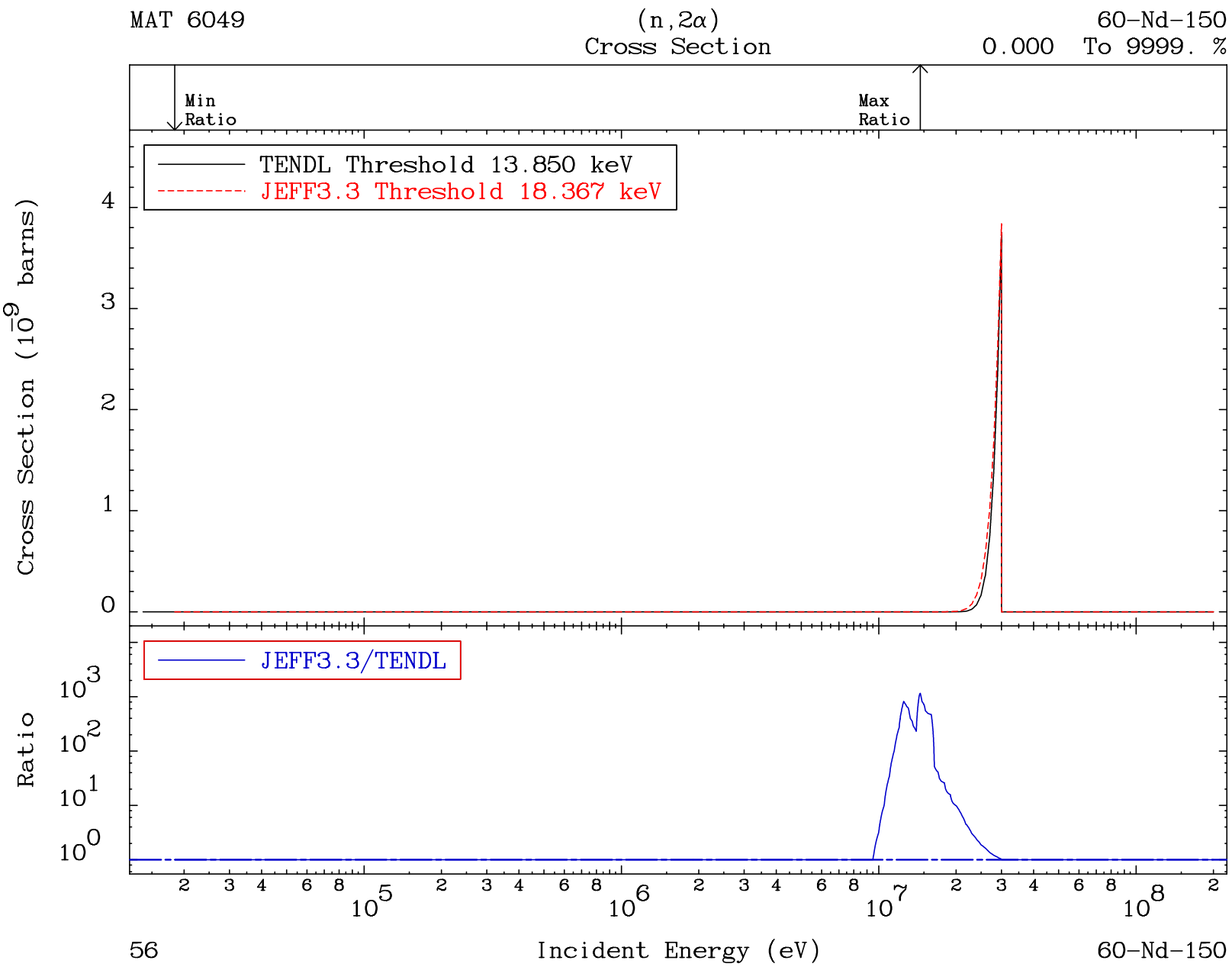

MAT 6049
(n,p)
Cross Section
60-Nd-150
0.000 To 1.595 %
Max Ratio
Min Ratio
TENDL Threshold 4.6278 MeV
JEFF3.3 Threshold 4.6273 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
51
Incident Energy (eV)
60-Nd-150

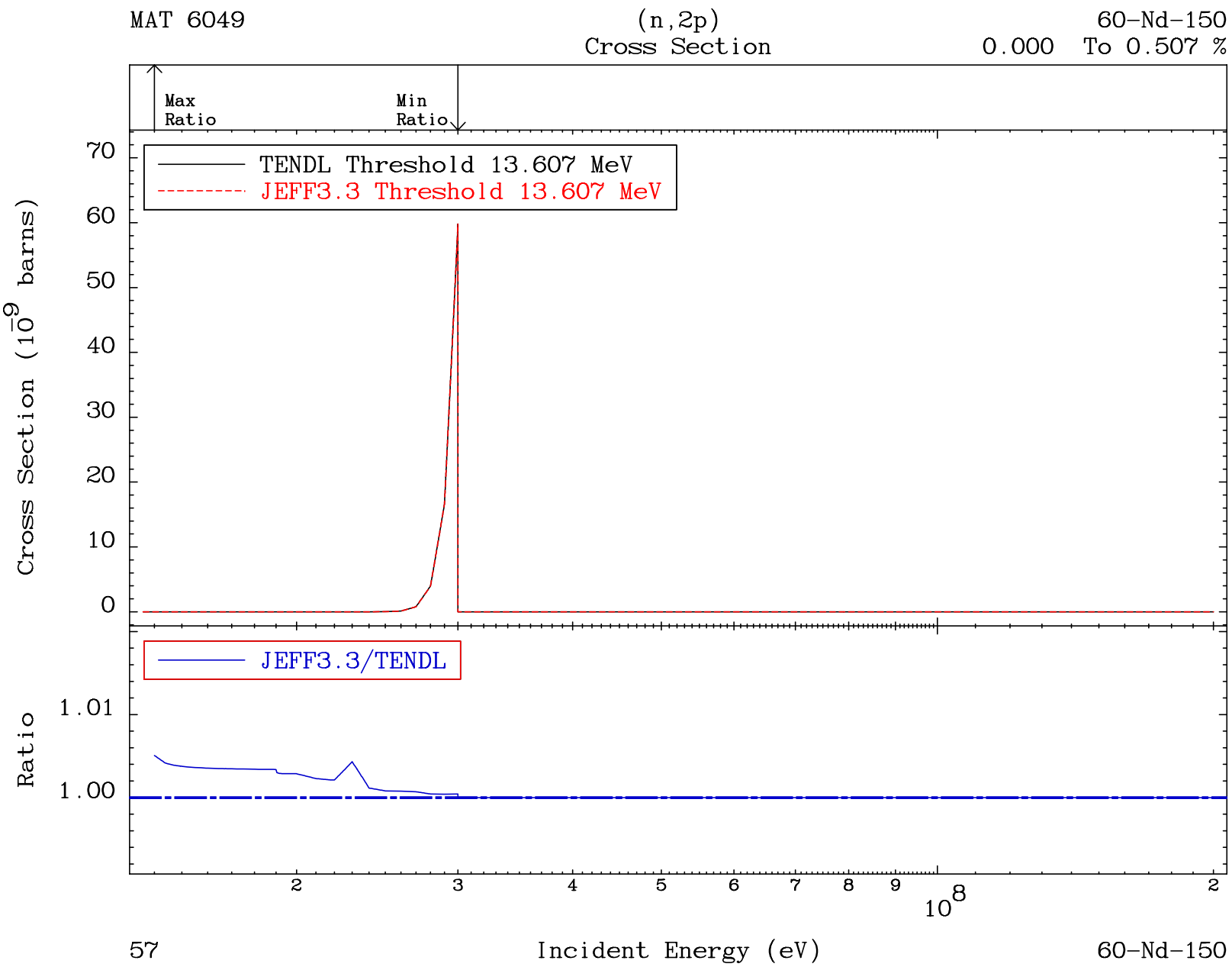

MAT 6049
(n,d)
Cross Section
60-Nd-150
0.000 To 2.911 %
Max Ratio
Min Ratio
TENDL Threshold 7.7566 MeV
JEFF3.3 Threshold 7.7566 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.02
1.00
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
52
Incident Energy (eV)
60-Nd-150

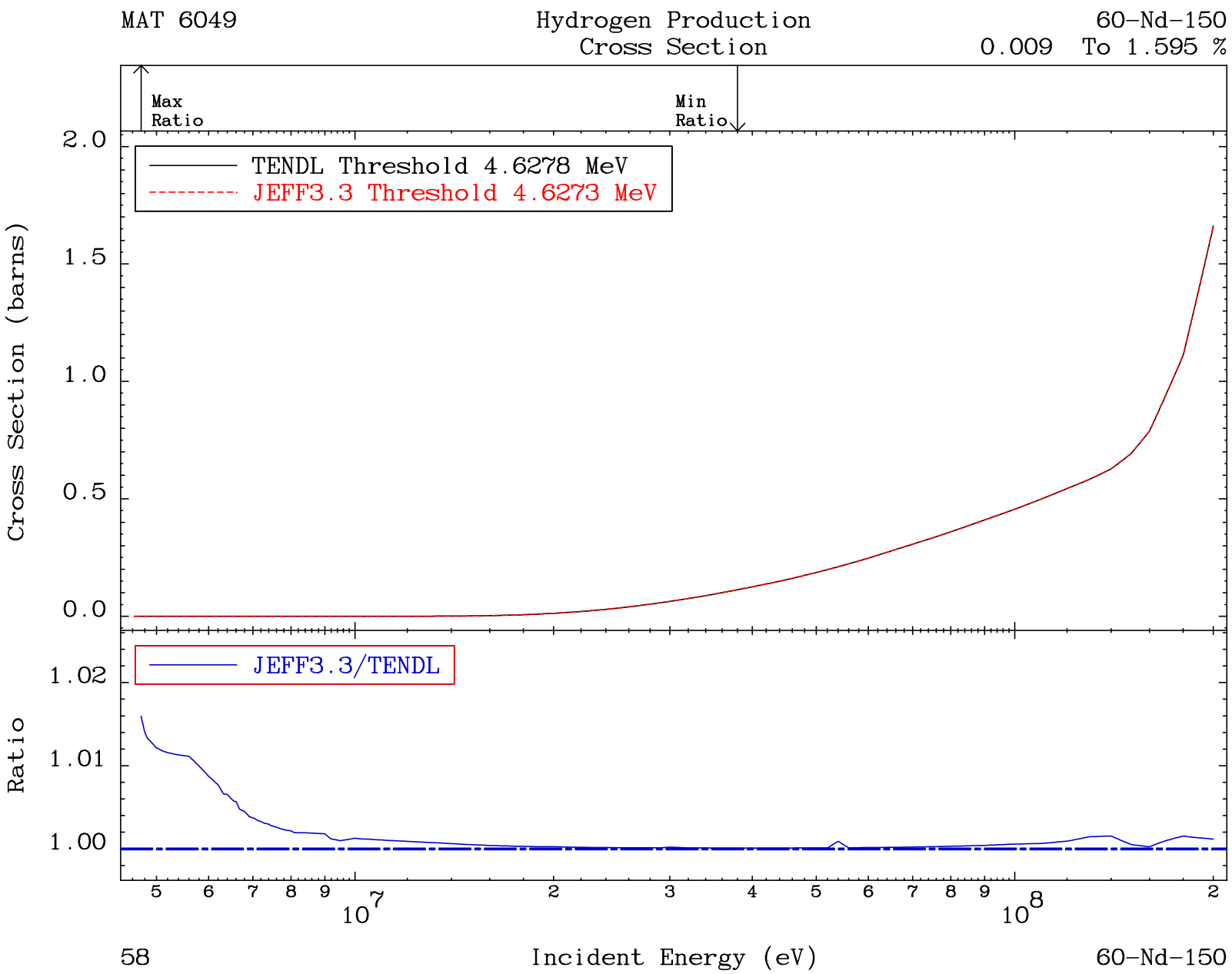

MAT 6049
(n,t)
Cross Section
60-Nd-150
-5.667 To 0.912 %
Max Ratio
Min Ratio
TENDL Threshold 8.0768 MeV
JEFF3.3 Threshold 8.0768 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.00
0.96
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
53
Incident Energy (eV)
60-Nd-150

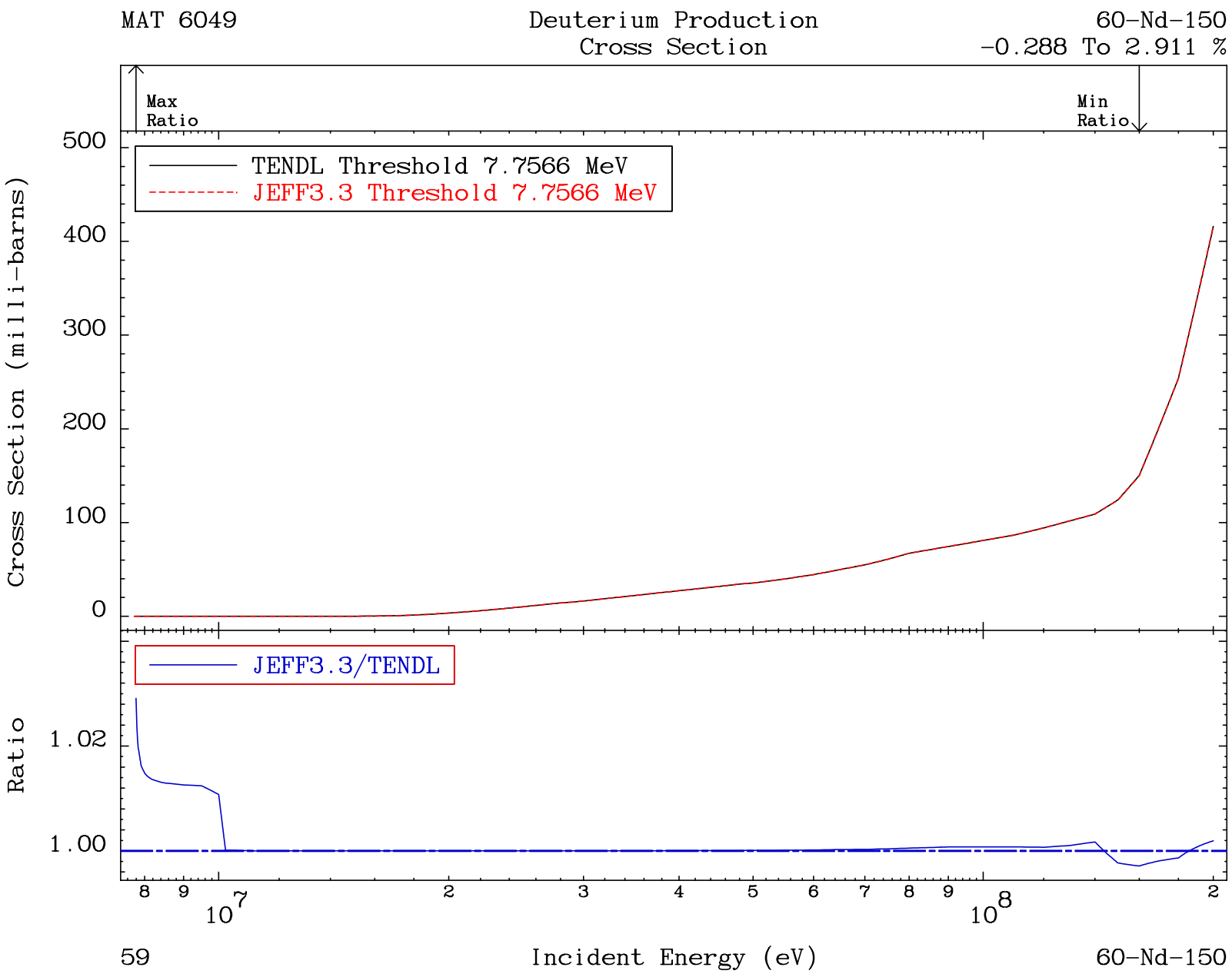

MAT 6049
(n,He-3)
Cross Section
60-Nd-150
0.000 To 0.617 %
Max Ratio
Min Ratio
TENDL Threshold 10.210 MeV
JEFF3.3 Threshold 10.210 MeV
Cross Section (micro-barns)
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
10^7
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
60-Nd-150

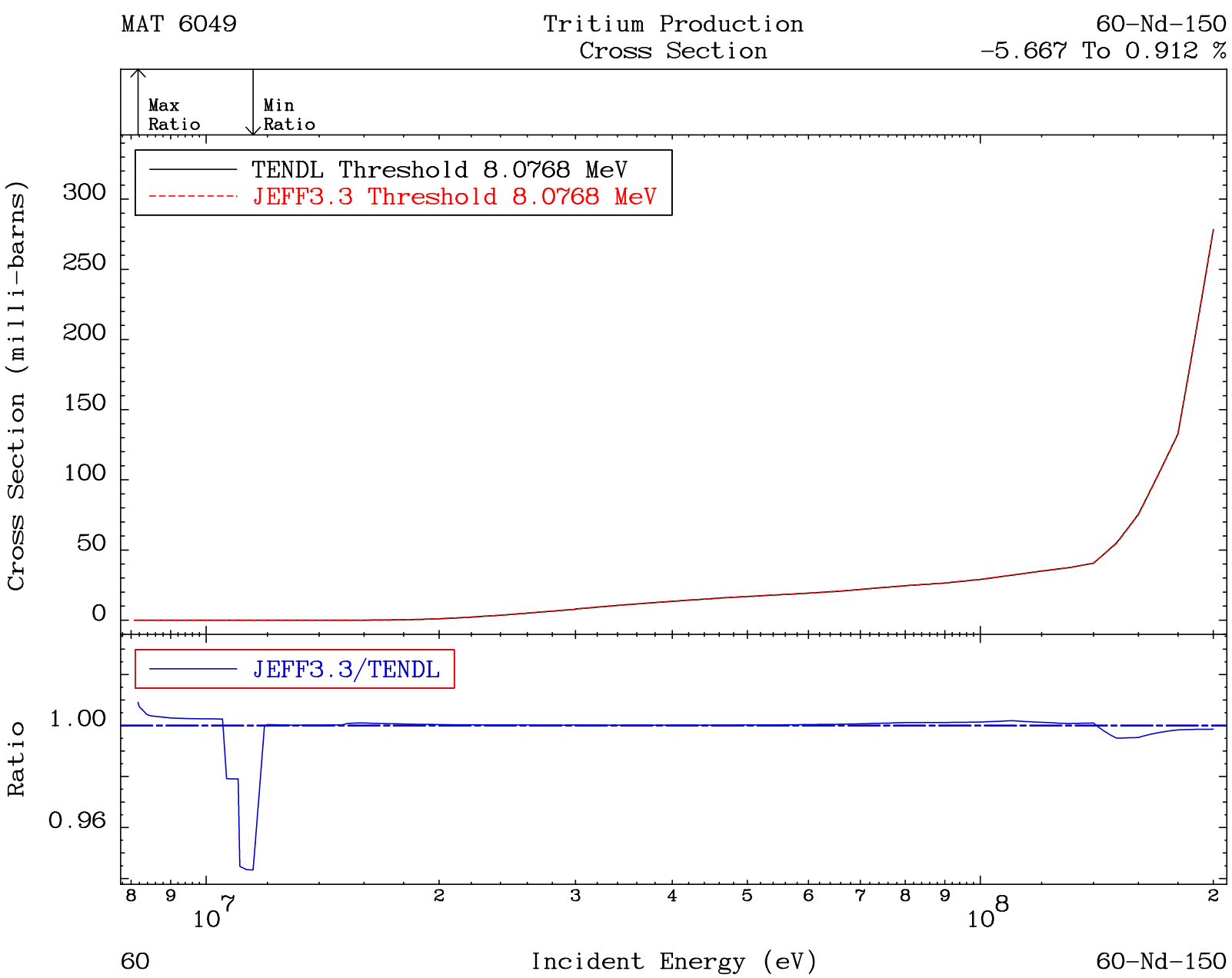

MAT 6049
(n,α)
Cross Section
60-Nd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 13.850 keV
JEFF3.3
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
55
60-Nd-150

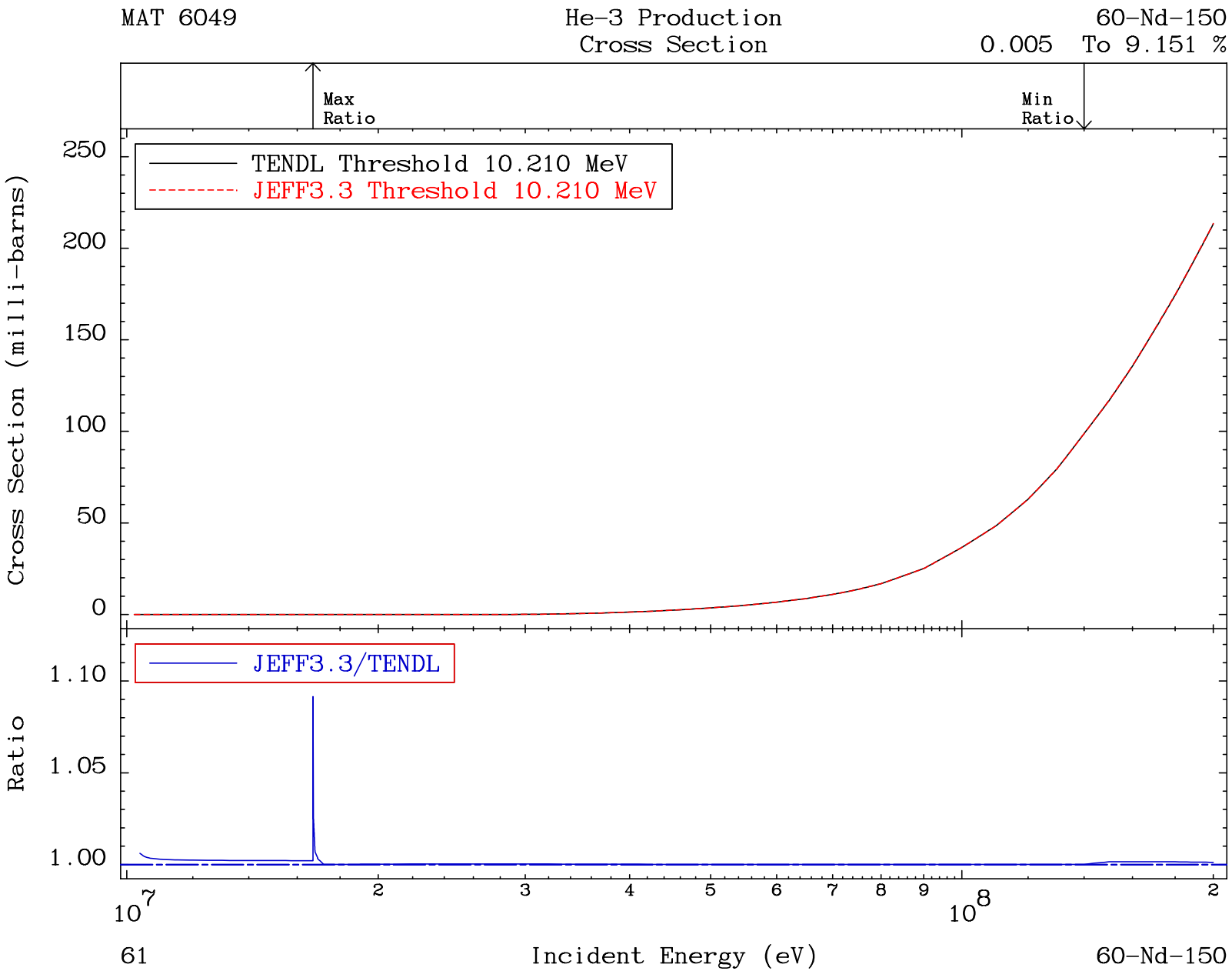

MAT 6049
(n,2α)
Cross Section
60-Nd-150
0.000 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 13.850 keV
JEFF3.3 Threshold 18.367 keV
Cross Section (10^-9 barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
56
60-Nd-150

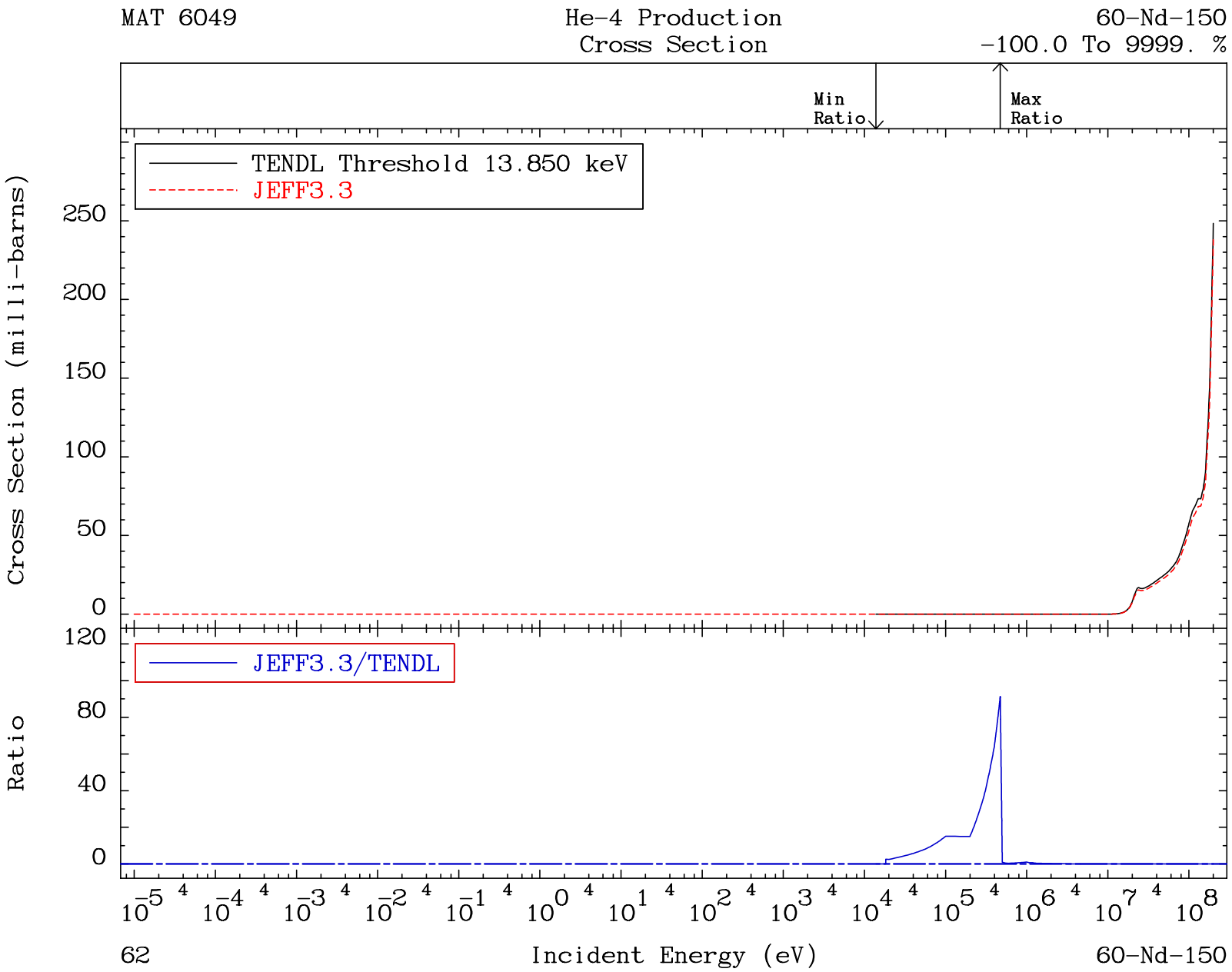

MAT 6049
(n,2p)
Cross Section
60-Nd-150
0.000 To 0.507 %
Max Ratio
Min Ratio
TENDL Threshold 13.607 MeV
JEFF3.3 Threshold 13.607 MeV
Cross Section (10^{-9} barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
57
Incident Energy (eV)
60-Nd-150

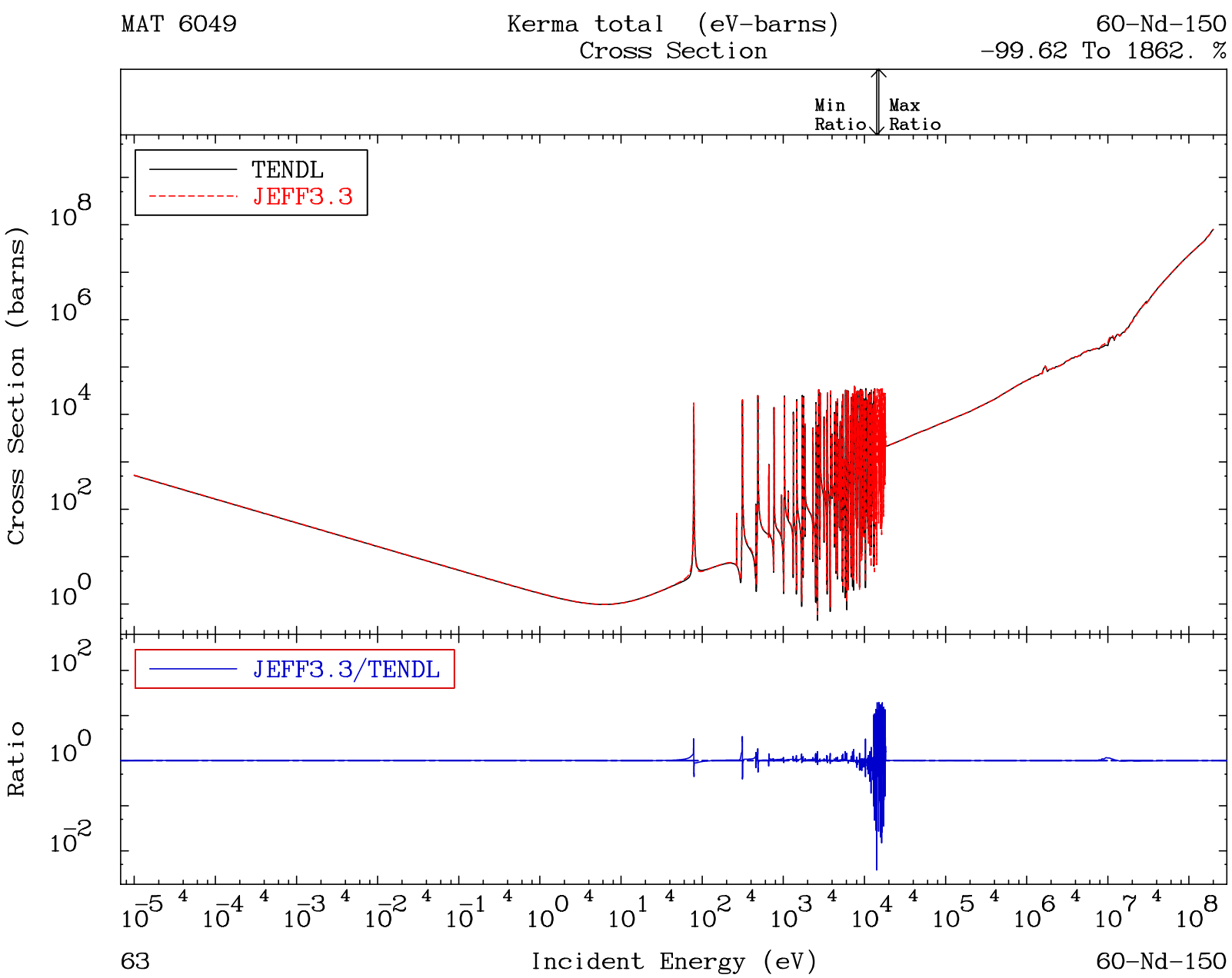

MAT 6049
Hydrogen Production
Cross Section
60-Nd-150
0.009 To 1.595 %
Max Ratio
Min Ratio
TENDL Threshold 4.6278 MeV
JEFF3.3 Threshold 4.6273 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
58
Incident Energy (eV)
60-Nd-150

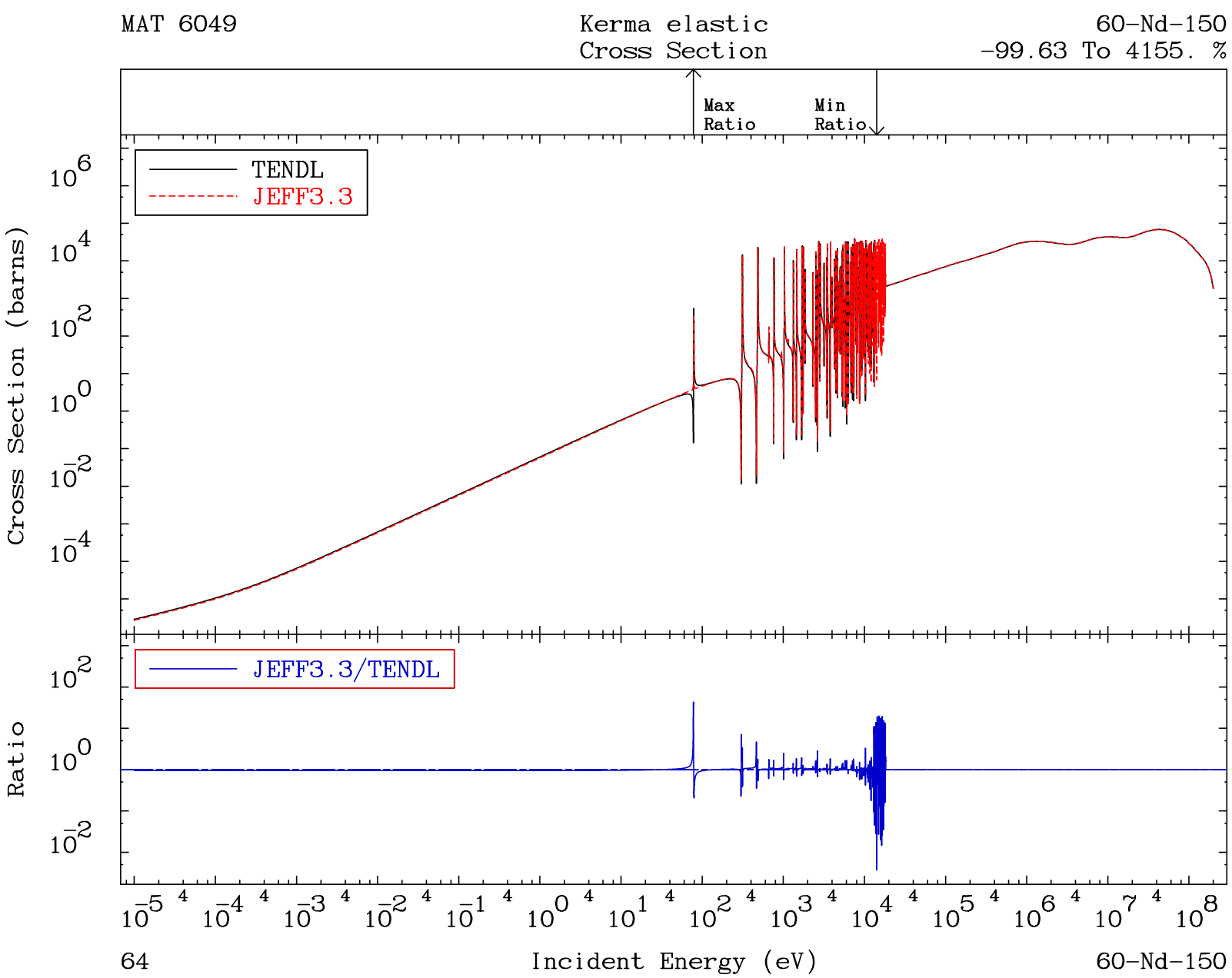

MAT 6049
Deuterium Production
Cross Section
60-Nd-150
-0.288 To 2.911 %
Max
Ratio
Min
Ratio
TENDL Threshold 7.7566 MeV
JEFF3.3 Threshold 7.7566 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.02
1.00
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
59
Incident Energy (eV)
60-Nd-150

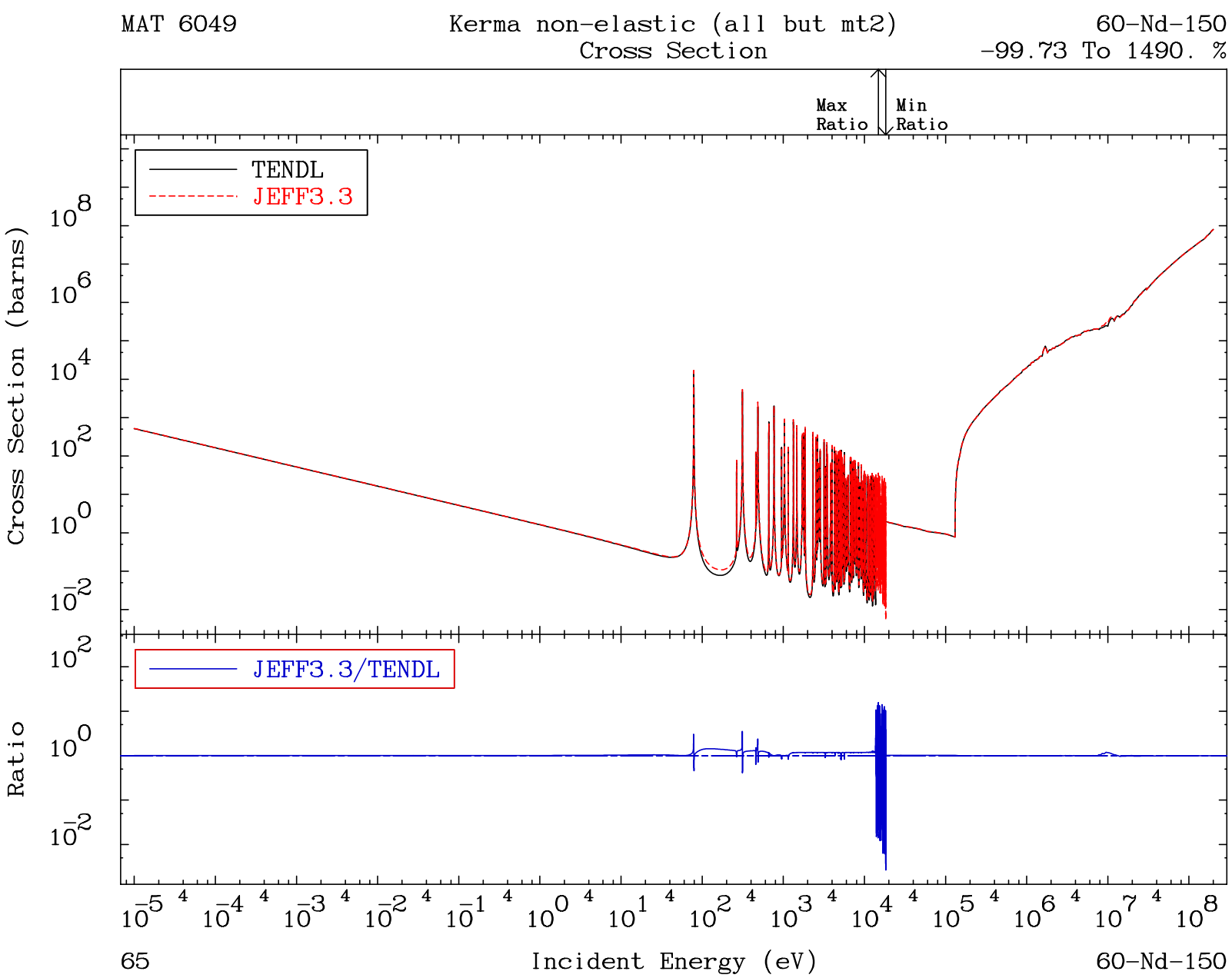

MAT 6049
Tritium Production
Cross Section
60-Nd-150
-5.667 To 0.912 %
Max Ratio
Min Ratio
TENDL Threshold 8.0768 MeV
JEFF3.3 Threshold 8.0768 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.96
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
60
Incident Energy (eV)
60-Nd-150

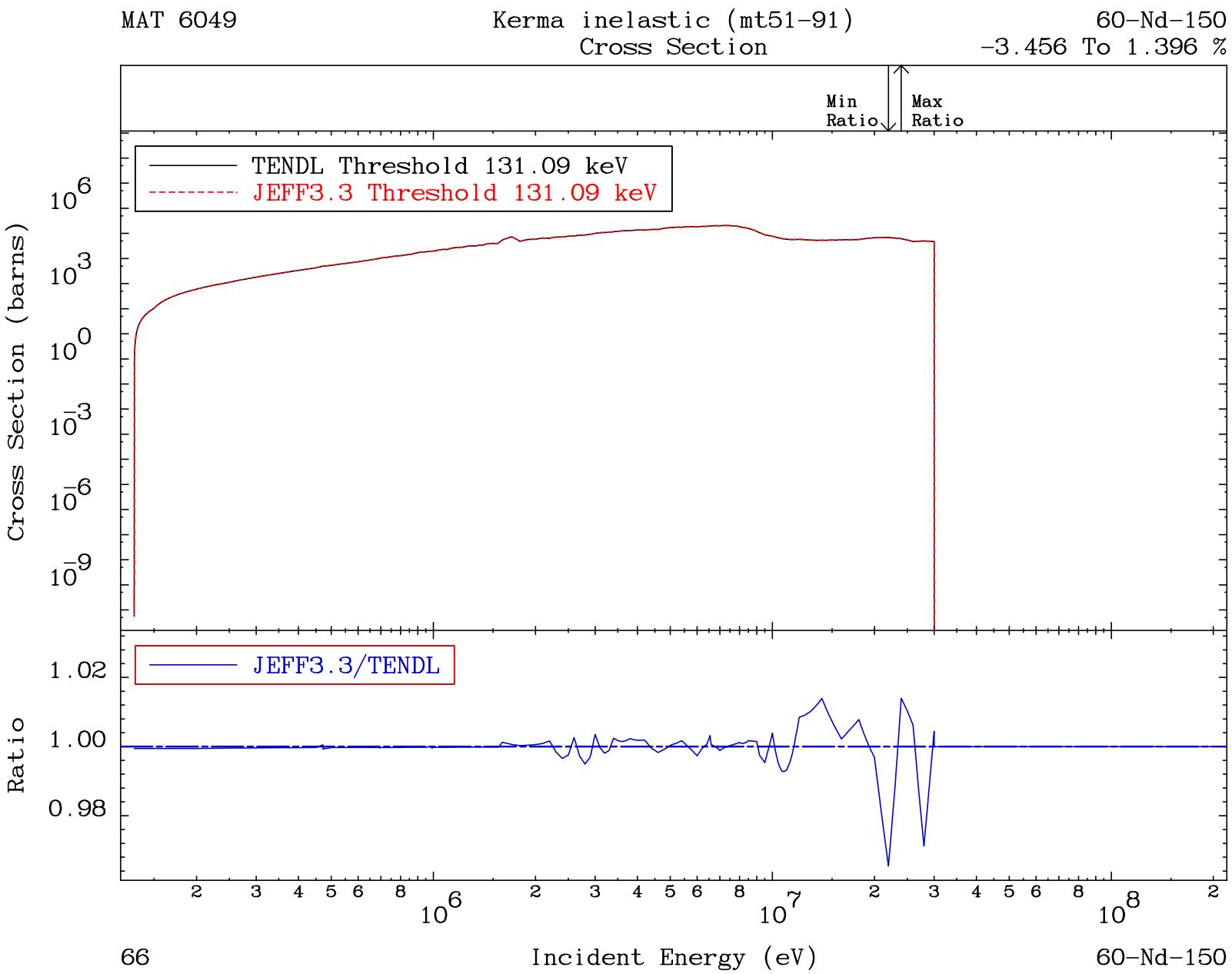

MAT 6049
He-3 Production
Cross Section
60-Nd-150
0.005 To 9.151 %
Max Ratio
Min Ratio
TENDL Threshold 10.210 MeV
JEFF3.3 Threshold 10.210 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.10
1.05
1.00
10^7
2
3
4
5
6
7
8
9
10^8
2
61
Incident Energy (eV)
60-Nd-150

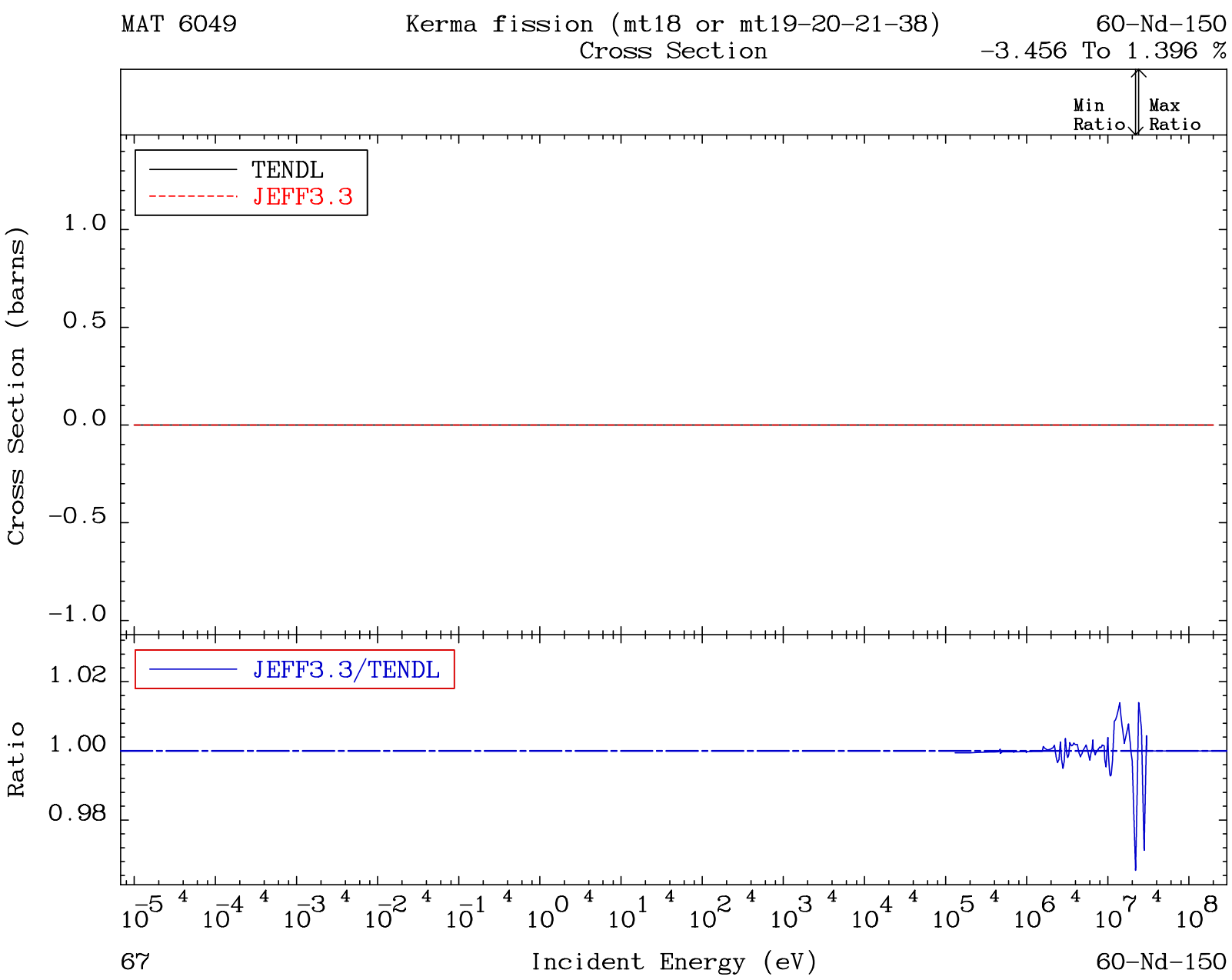

MAT 6049
He-4 Production
Cross Section
60-Nd-150
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 13.850 keV
JEFF3.3
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
120
80
40
0
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
62
Incident Energy (eV)
60-Nd-150

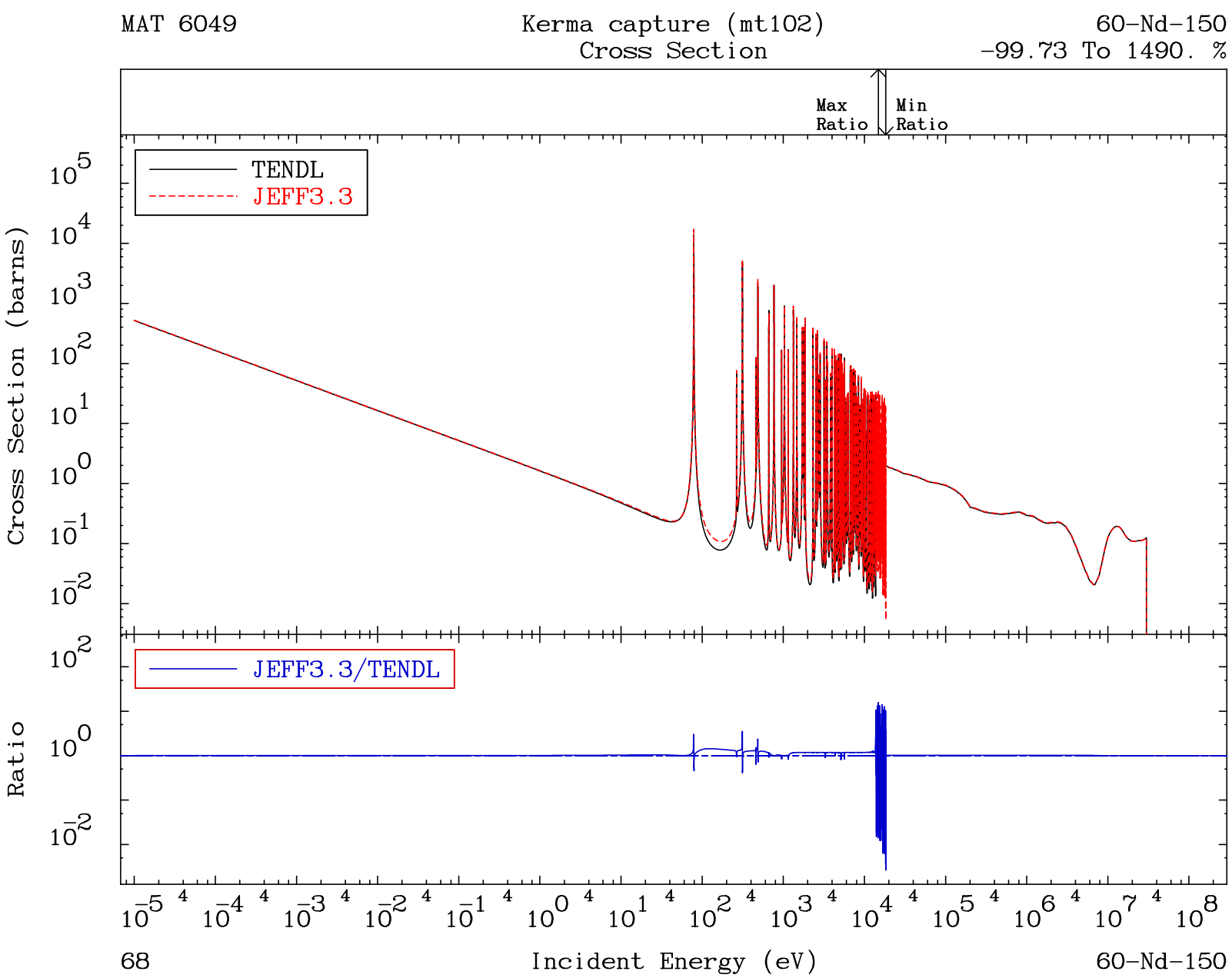

MAT 6049
Kerma total (eV-barns)
Cross Section
60-Nd-150
-99.62 To 1862. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
63
60-Nd-150

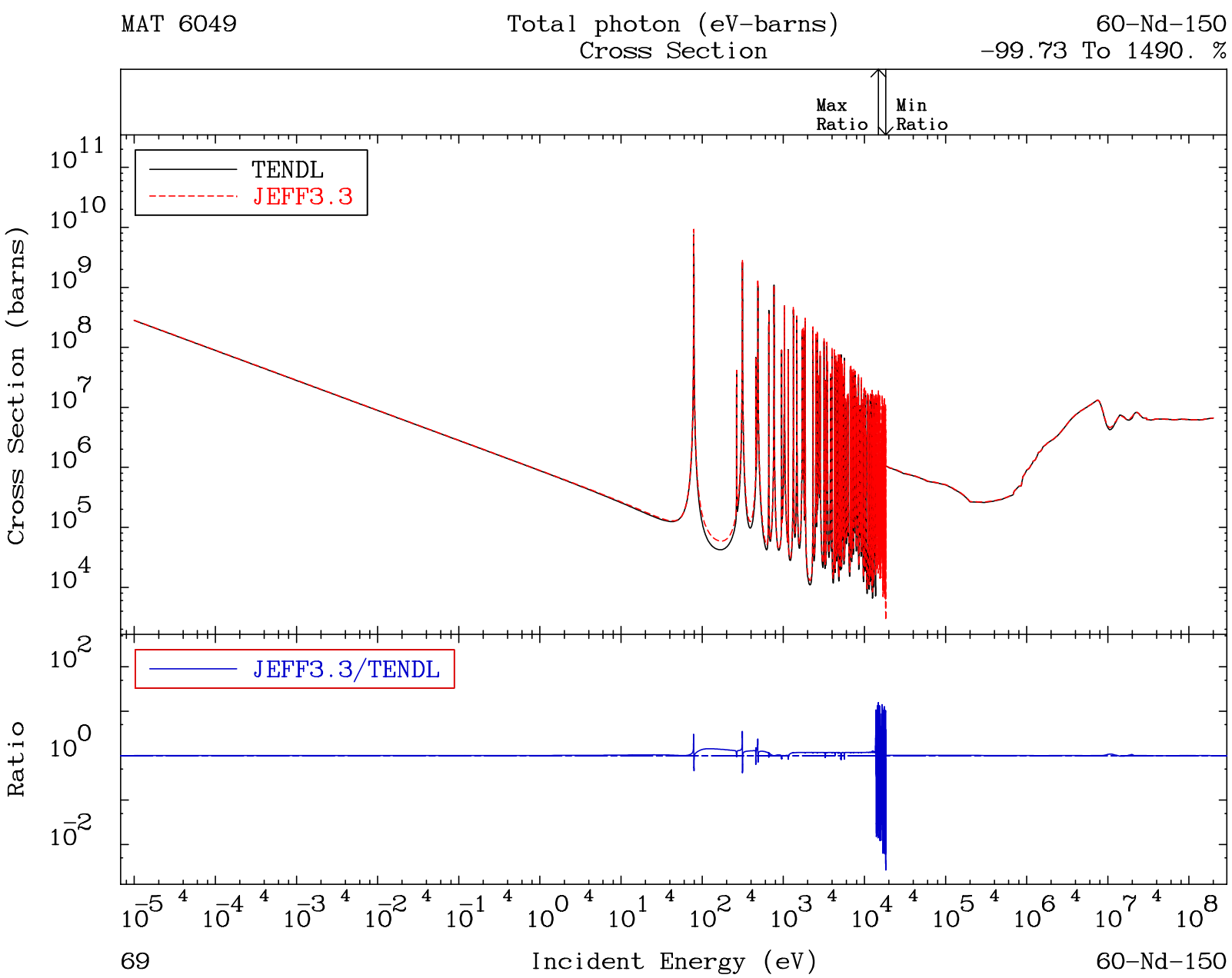

MAT 6049
Kerma elastic
Cross Section
60-Nd-150
-99.63 To 4155. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
64
60-Nd-150

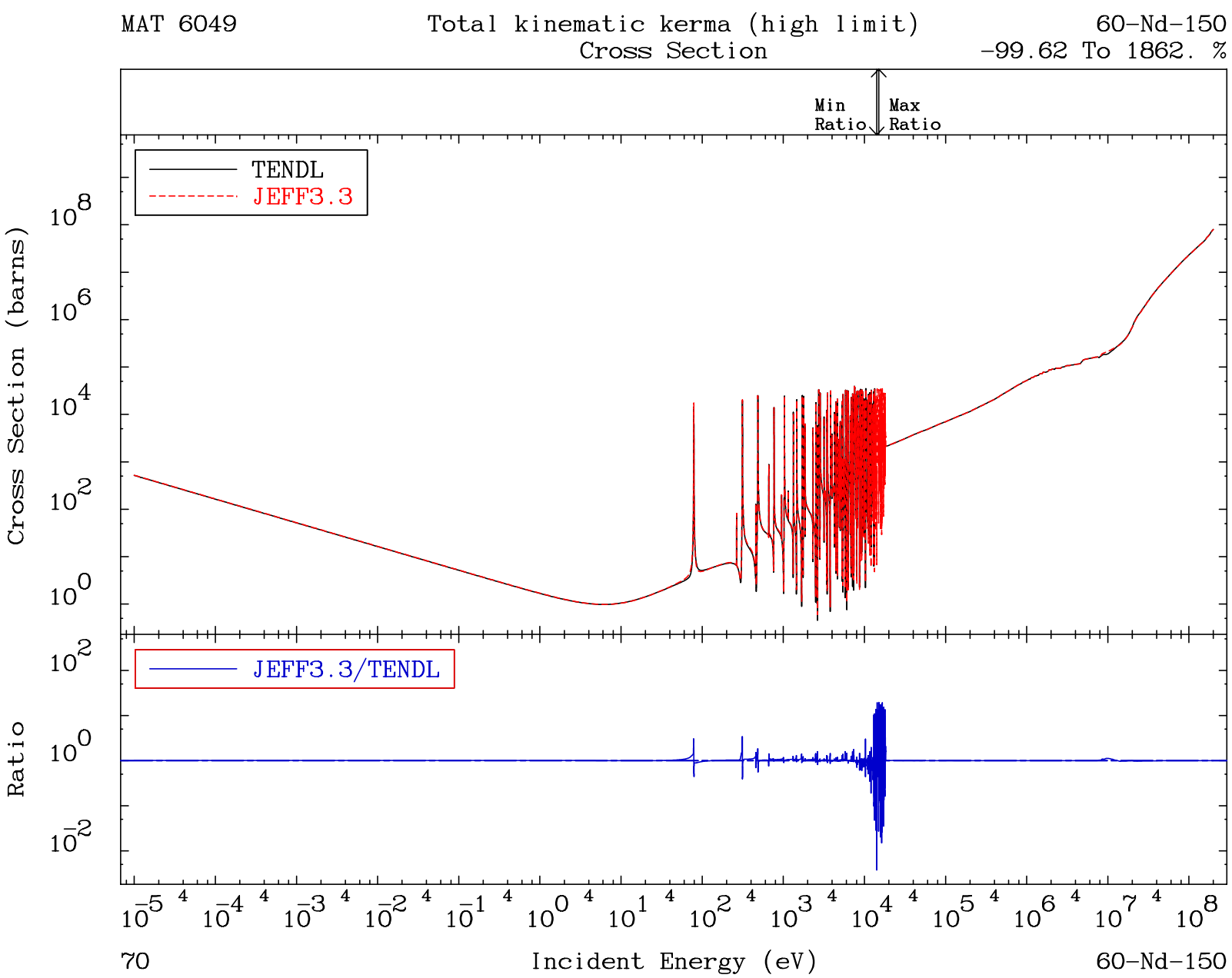

MAT 6049
Kerma non-elastic (all but mt2)
Cross Section
60-Nd-150
-99.73 To 1490. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
65
60-Nd-150

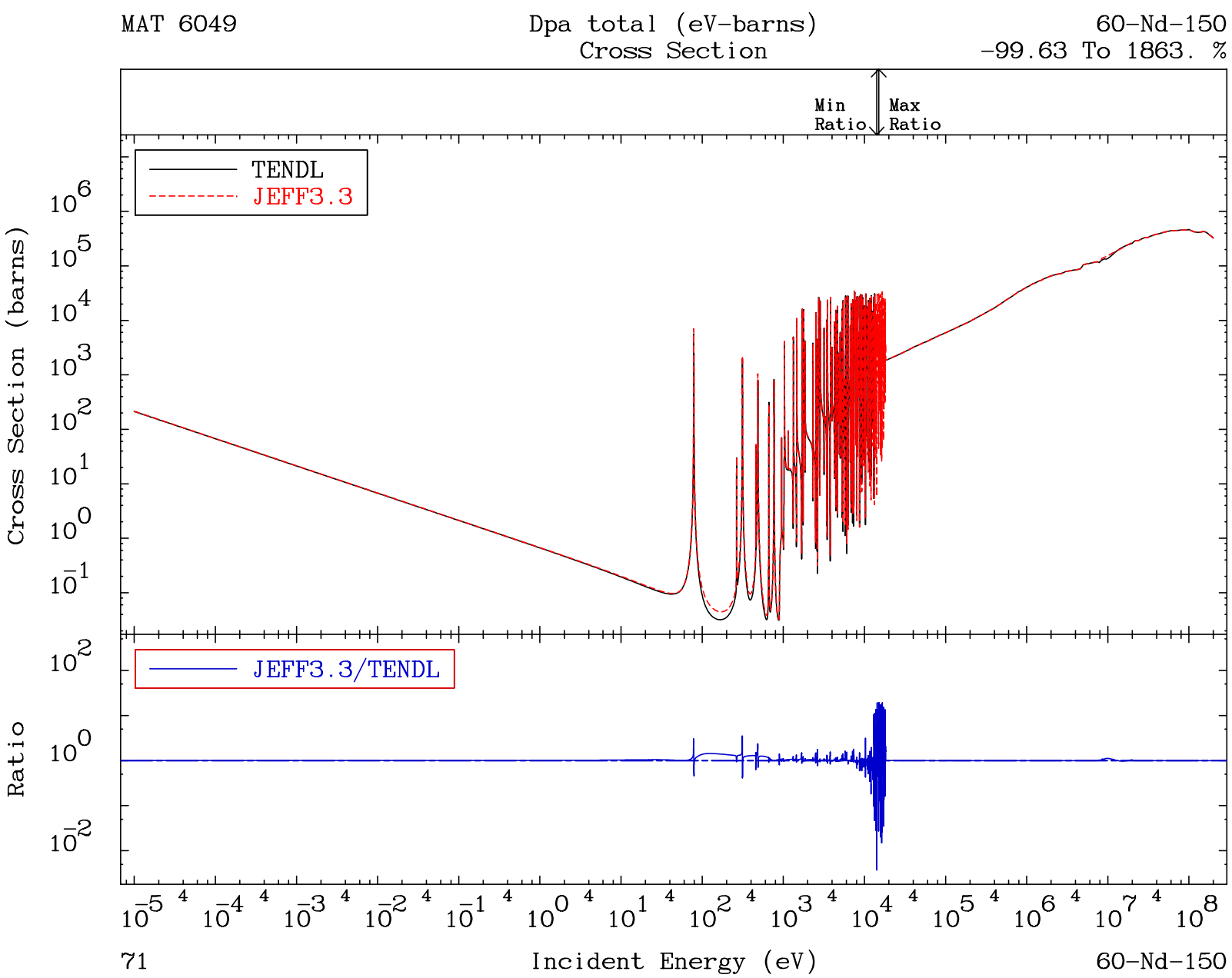

MAT 6049
Kerma inelastic (mt51-91)
Cross Section
60-Nd-150
-3.456 To 1.396 %
Min Ratio
Max Ratio
TENDL Threshold 131.09 keV
JEFF3.3 Threshold 131.09 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
66
60-Nd-150

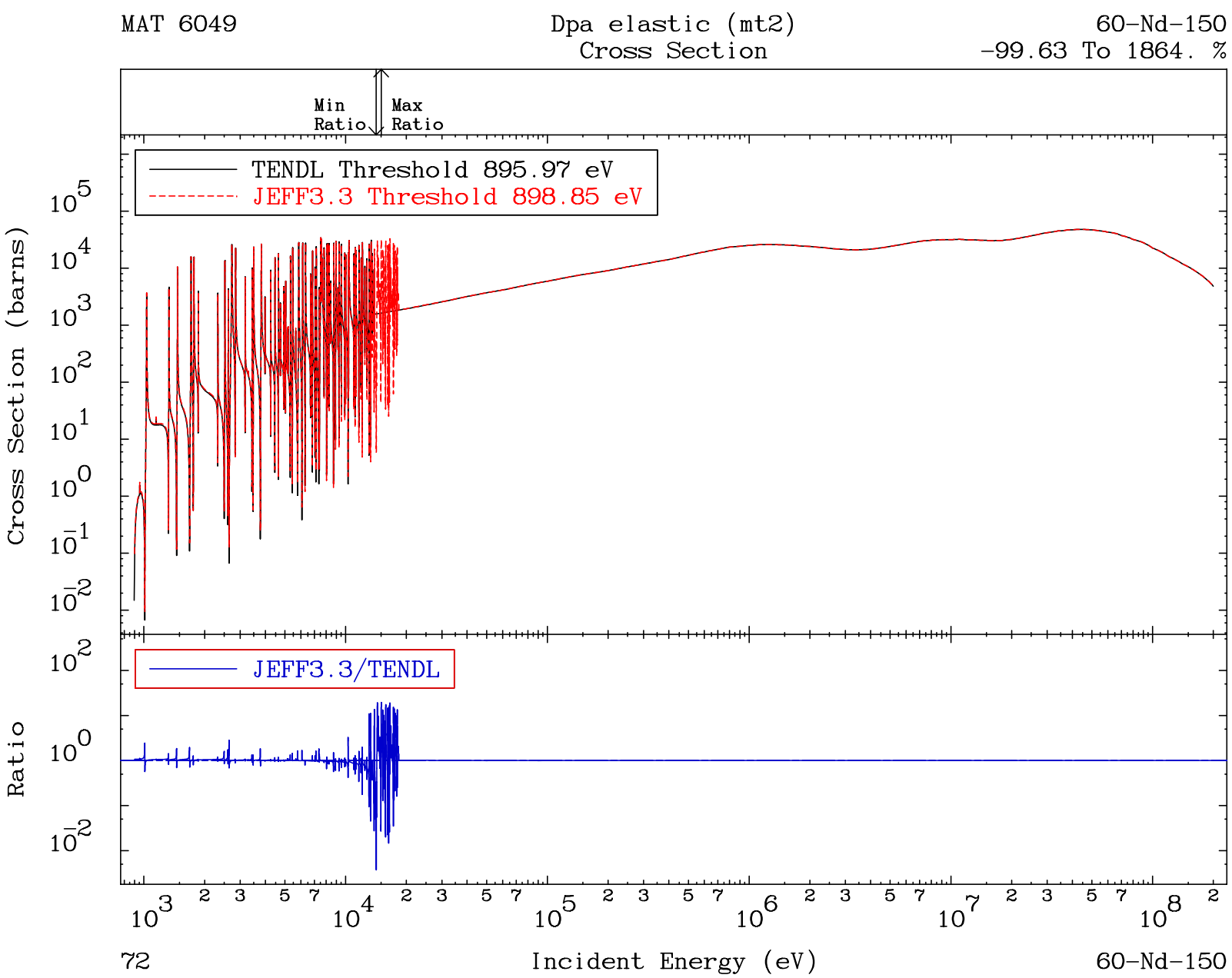

MAT 6049
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
60-Nd-150
-3.456 To 1.396 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.02
1.00
0.98
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
67
Incident Energy (eV)
60-Nd-150

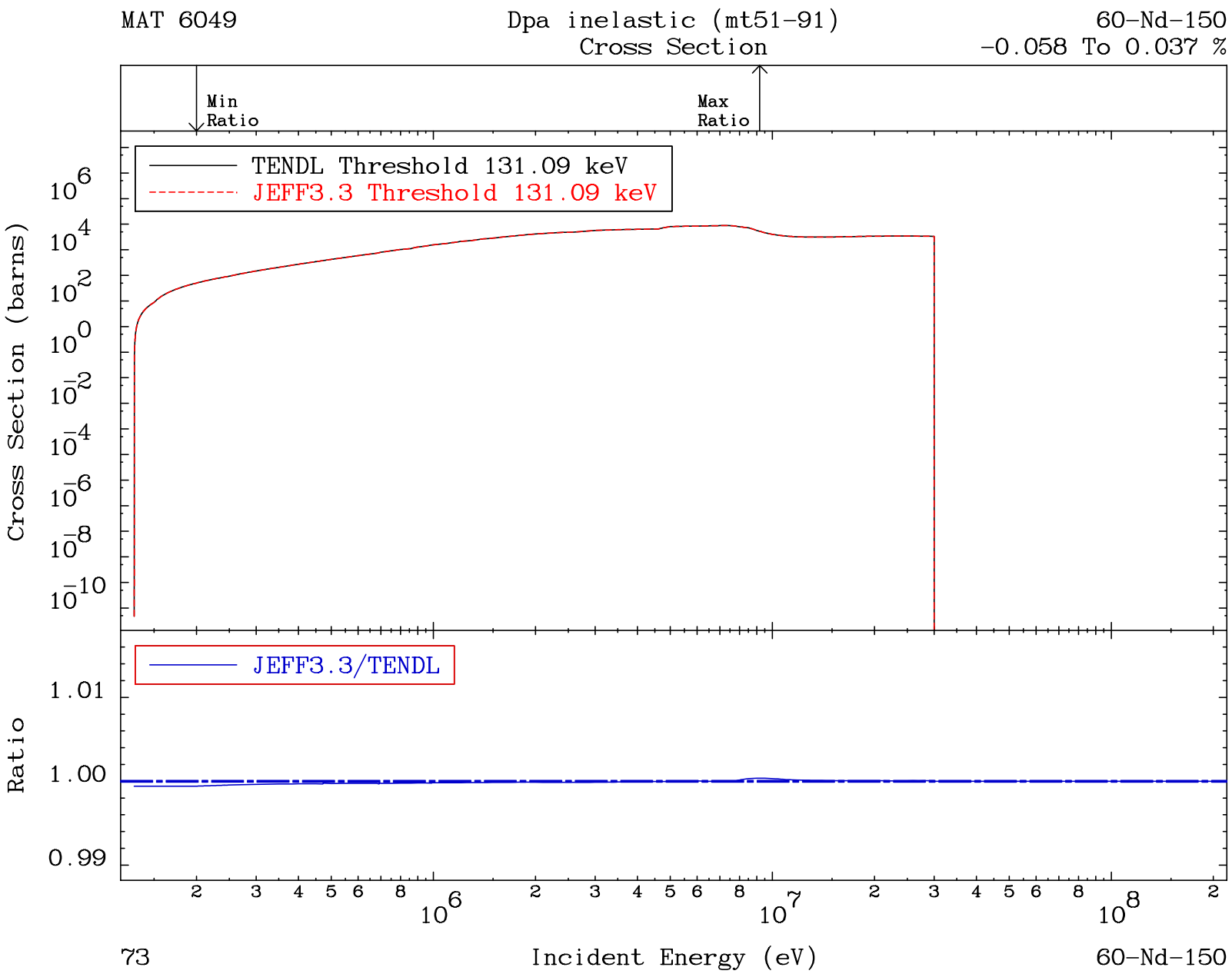

MAT 6049
Kerma capture (mt102)
Cross Section
60-Nd-150
-99.73 To 1490. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
60-Nd-150

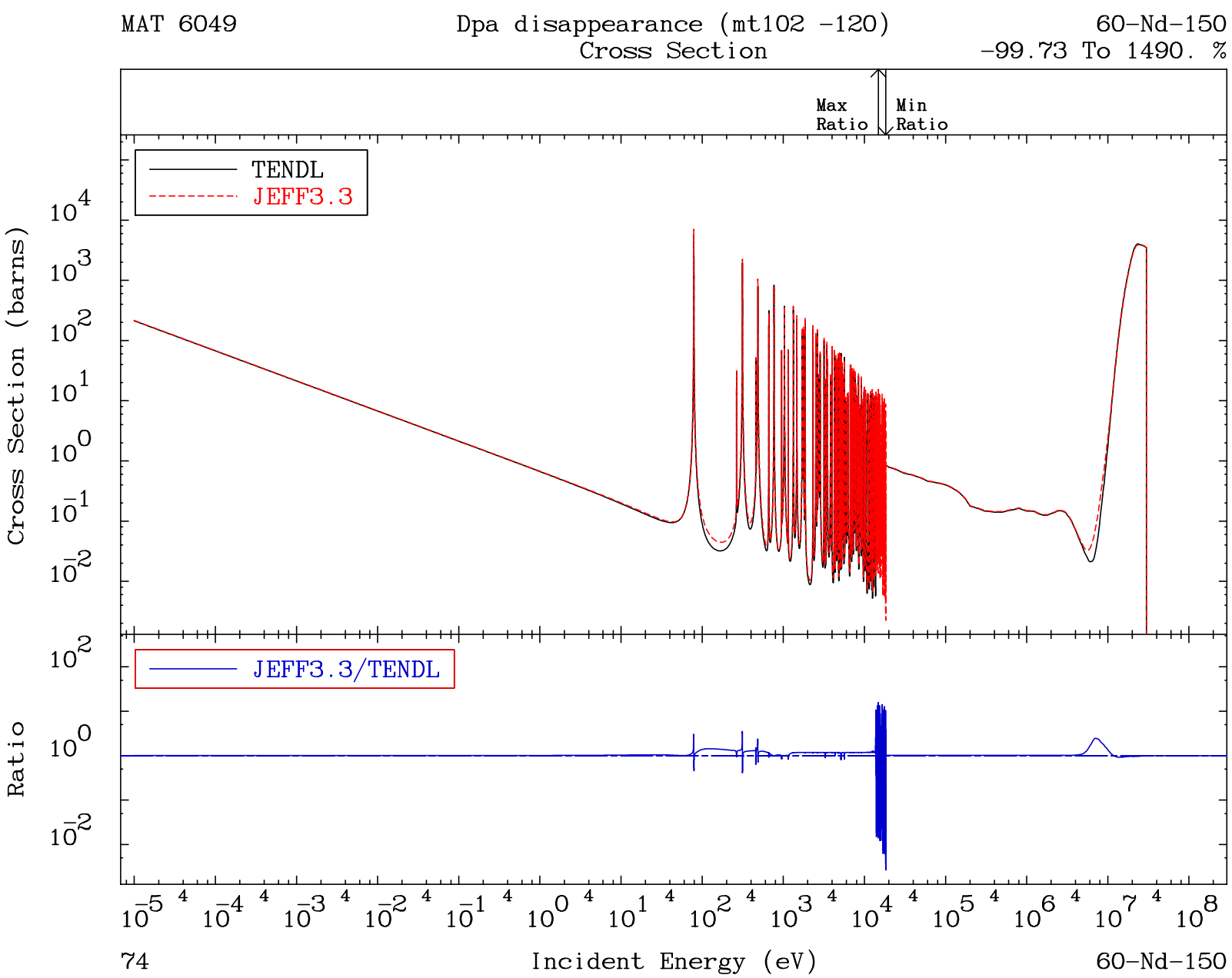

MAT 6049
Total photon (eV-barns)
Cross Section
60-Nd-150
-99.73 To 1490. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
JEFF3.3/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
69
60-Nd-150

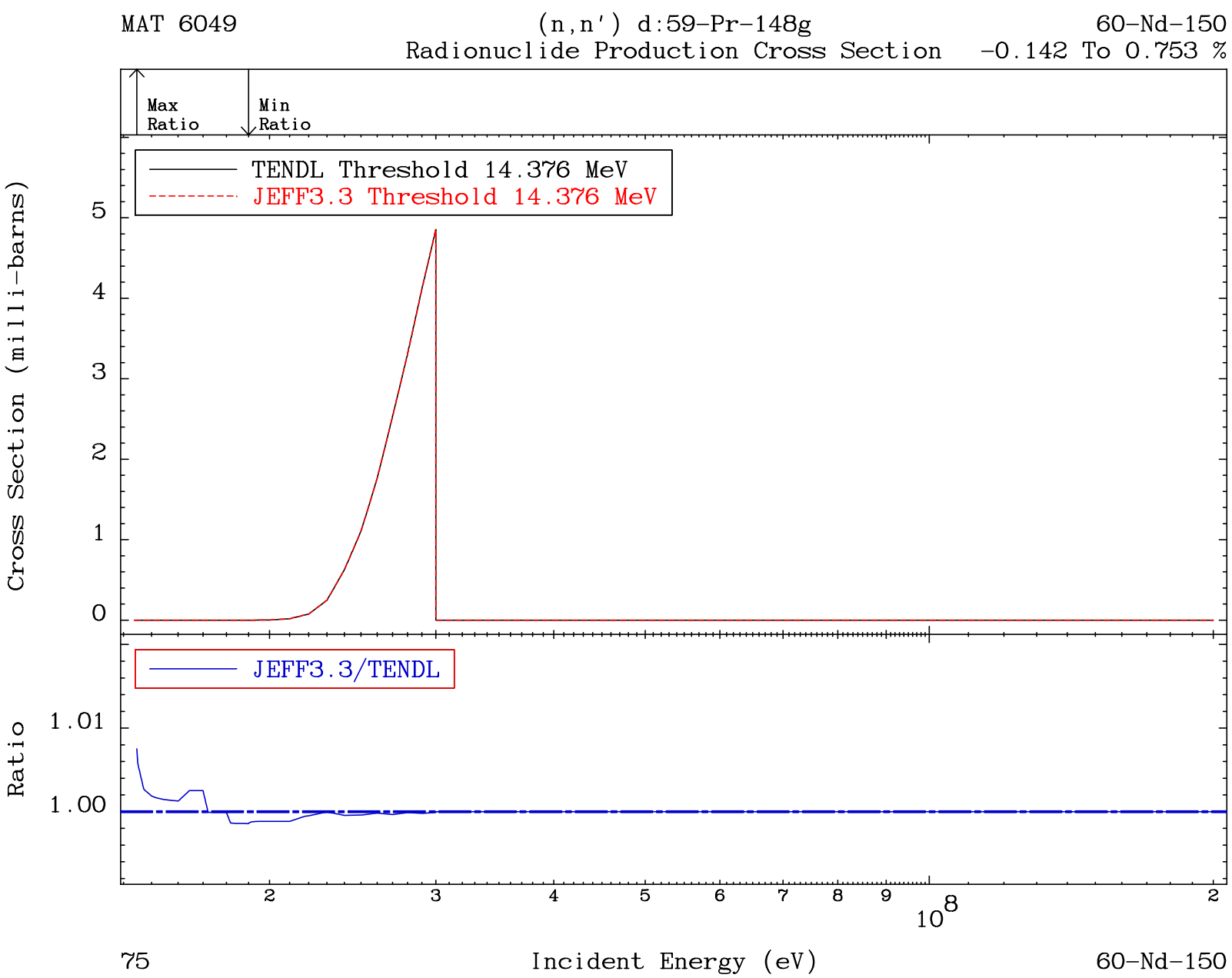

MAT 6049
Total kinematic kerma (high limit)
Cross Section
60-Nd-150
-99.62 To 1862. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
70
60-Nd-150

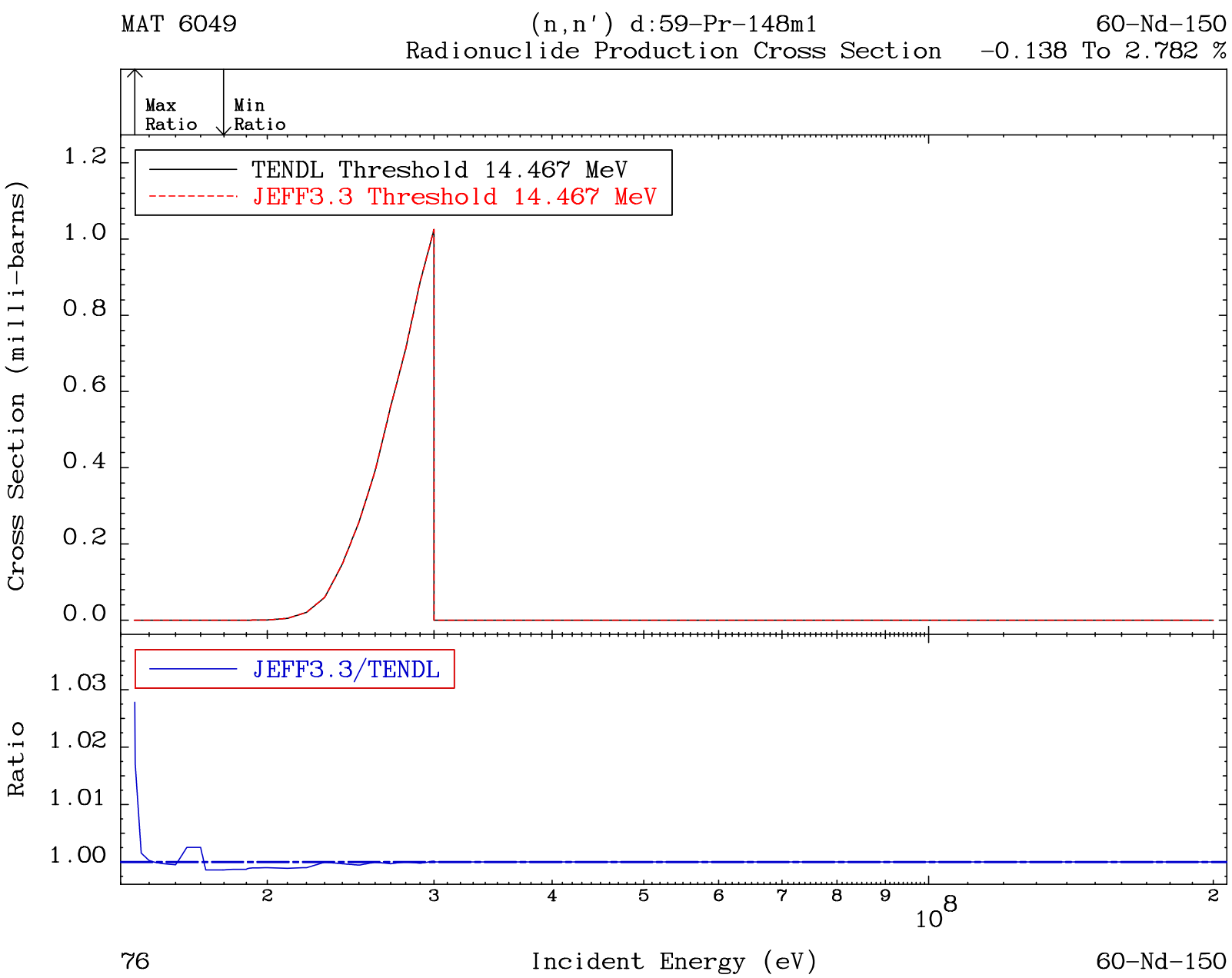

MAT 6049
Dpa total (eV-barns)
Cross Section
60-Nd-150
-99.63 To 1863. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
71
60-Nd-150

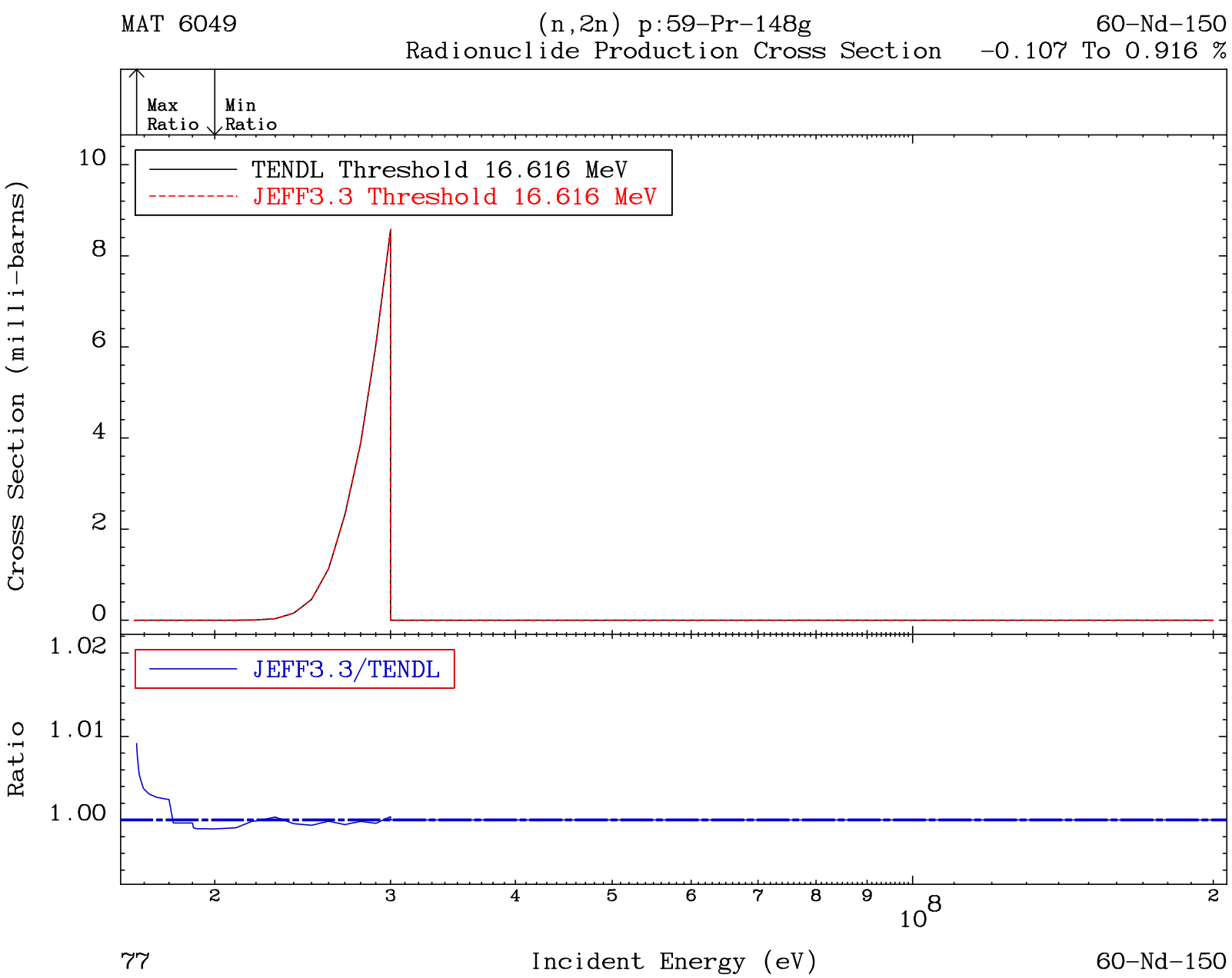

MAT 6049
Dpa elastic (mt2)
Cross Section
60-Nd-150
-99.63 To 1864. %
Min Ratio
Max Ratio
TENDL Threshold 895.97 eV
JEFF3.3 Threshold 898.85 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
72
60-Nd-150

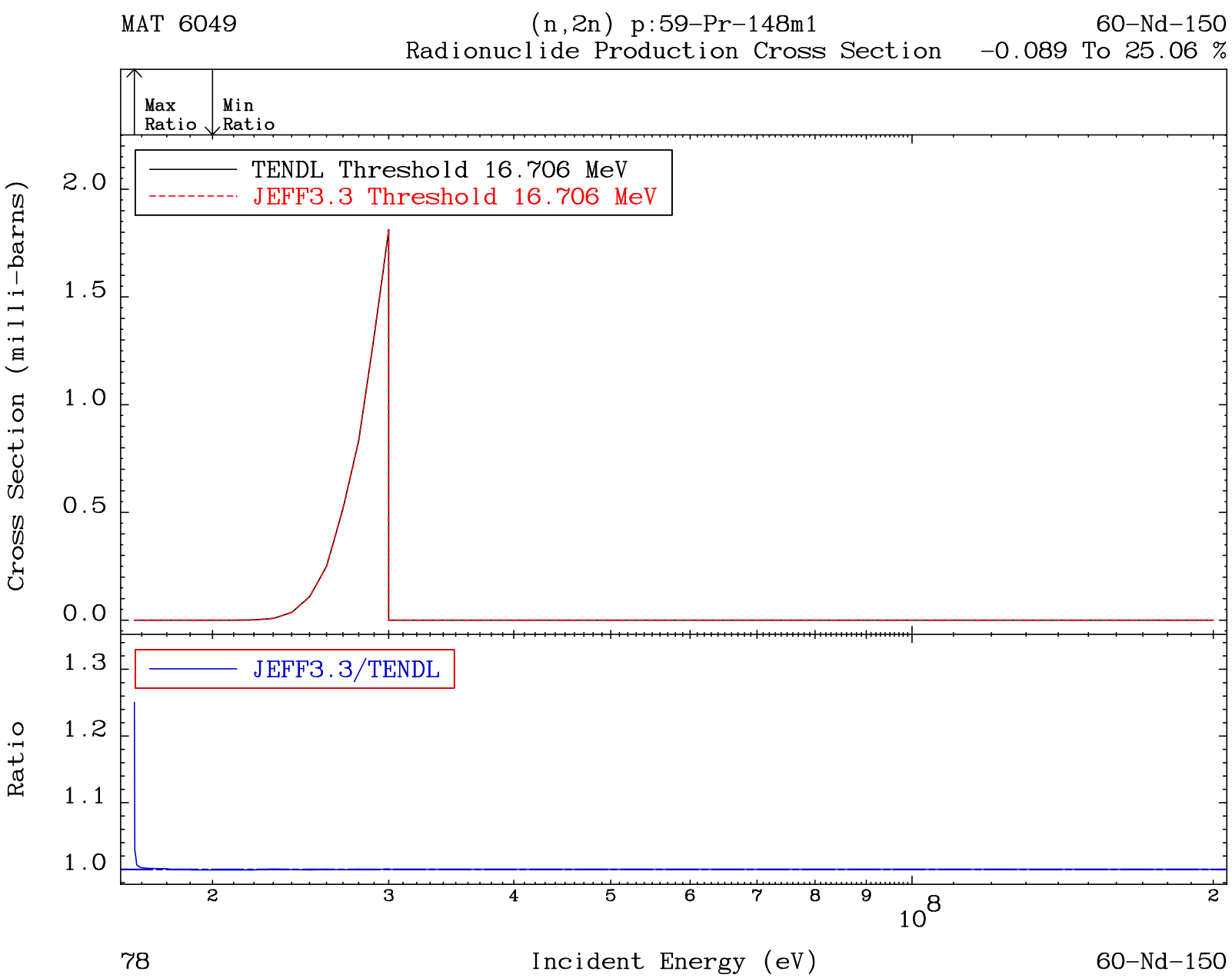

MAT 6049
Dpa inelastic (mt51-91)
Cross Section
60-Nd-150
-0.058 To 0.037 %
Min Ratio
Max Ratio
TENDL Threshold 131.09 keV
JEFF3.3 Threshold 131.09 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
73
60-Nd-150

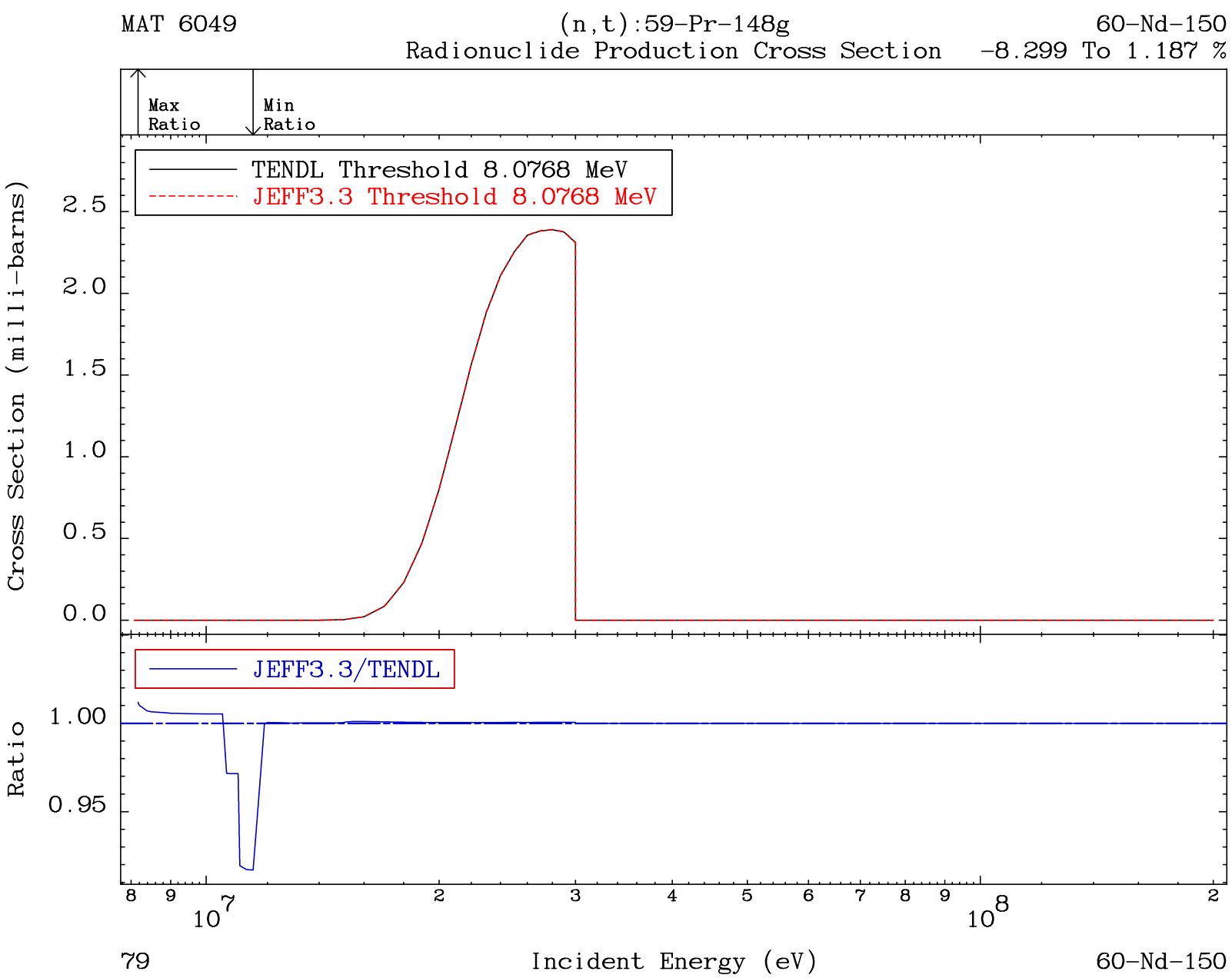

MAT 6049
Dpa disappearance (mt102 -120)
Cross Section
60-Nd-150
-99.73 To 1490. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
74
60-Nd-150

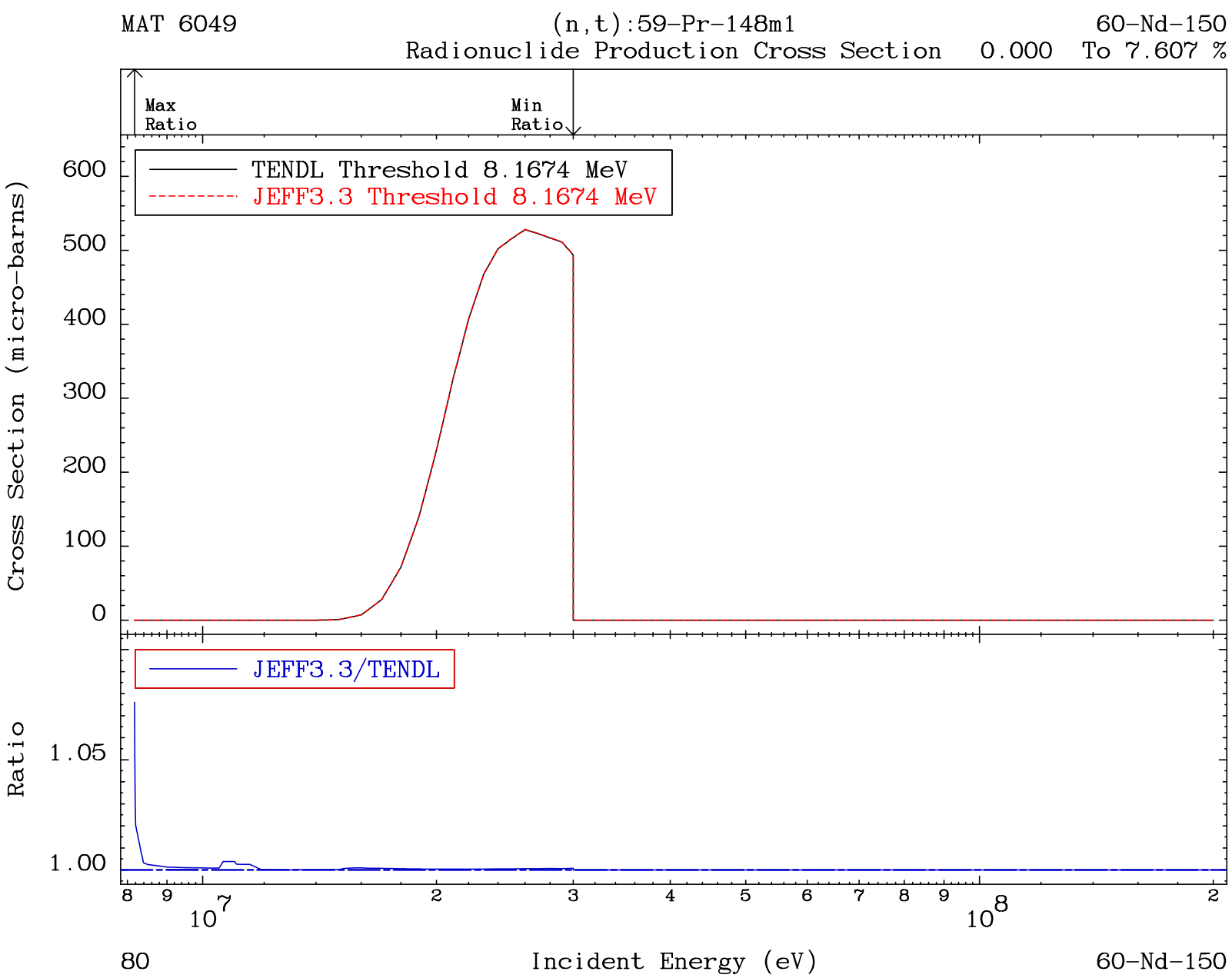

MAT 6049
(n,n') d:59-Pr-148g
60-Nd-150
Radionuclide Production Cross Section
-0.142 To 0.753 %
Max Ratio
Min Ratio
TENDL Threshold 14.376 MeV
JEFF3.3 Threshold 14.376 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
75
Incident Energy (eV)
60-Nd-150


MAT 6049
(n,n') d:59-Pr-148m1
60-Nd-150
Radionuclide Production Cross Section -0.138 To 2.782 %
Max Ratio
Min Ratio
TENDL Threshold 14.467 MeV
JEFF3.3 Threshold 14.467 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
76
Incident Energy (eV)
60-Nd-150


MAT 6049
(n,2n) p:59-Pr-148g
60-Nd-150
Radionuclide Production Cross Section
-0.107 To 0.916 %
Max Ratio
Min Ratio
TENDL Threshold 16.616 MeV
JEFF3.3 Threshold 16.616 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
77
Incident Energy (eV)
60-Nd-150


MAT 6049
(n,2n) p:59-Pr-148m1
60-Nd-150
Radionuclide Production Cross Section
-0.089 To 25.06 %
Max Ratio
Min Ratio
TENDL Threshold 16.706 MeV
JEFF3.3 Threshold 16.706 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.3
1.2
1.1
1.0
2
3
4
5
6
7
8
9
10^8
2
78
Incident Energy (eV)
60-Nd-150


MAT 6049
(n,t):59-Pr-148g
60-Nd-150
Radionuclide Production Cross Section -8.299 To 1.187 %
Max Ratio
Min Ratio
TENDL Threshold 8.0768 MeV
JEFF3.3 Threshold 8.0768 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.00
0.95
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
79
Incident Energy (eV)
60-Nd-150


MAT 6049
(n,t):59-Pr-148m1
60-Nd-150
Radionuclide Production Cross Section 0.000 To 7.607 %
Max Ratio
Min Ratio
TENDL Threshold 8.1674 MeV
JEFF3.3 Threshold 8.1674 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.05
1.00
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
80
Incident Energy (eV)
60-Nd-150