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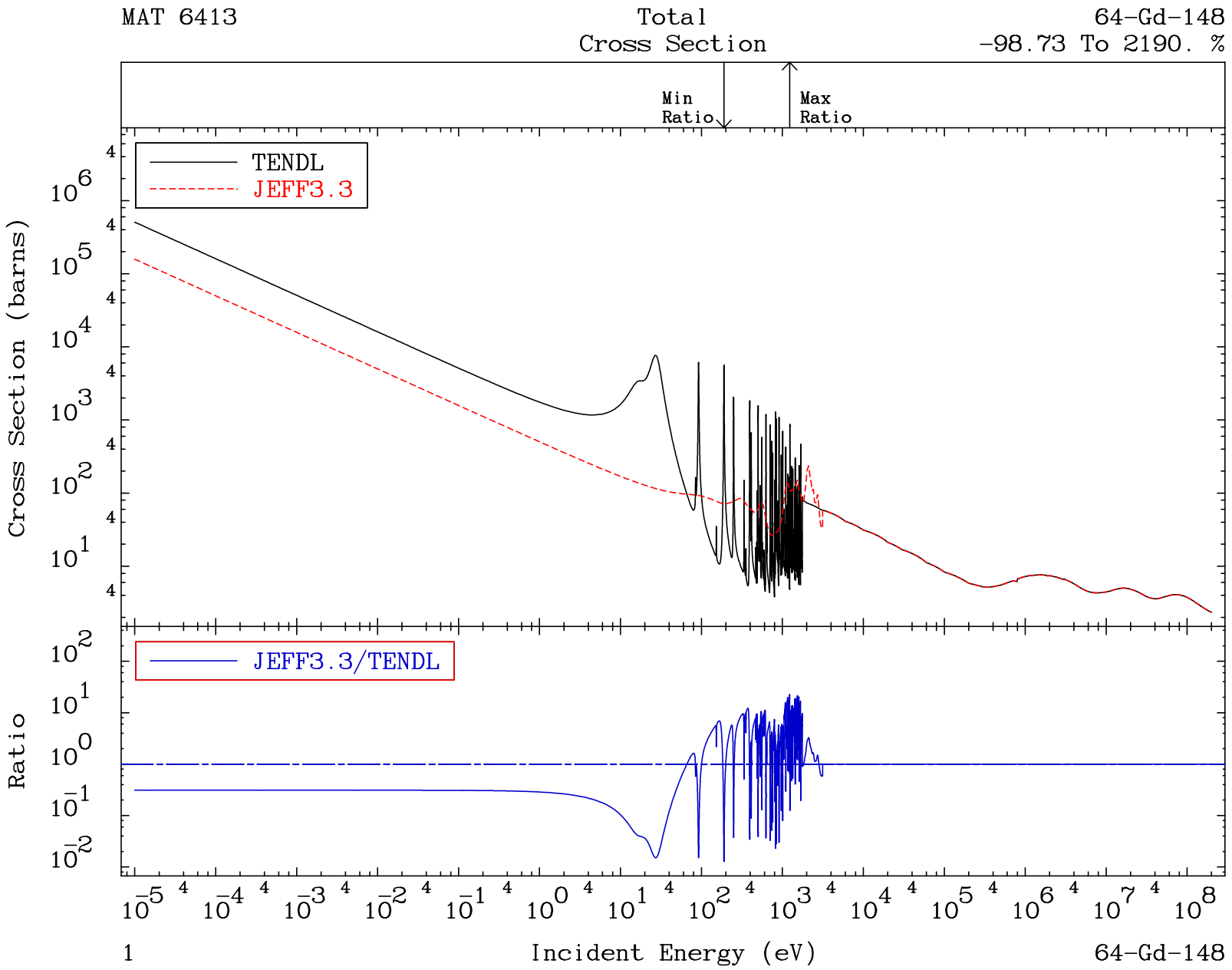
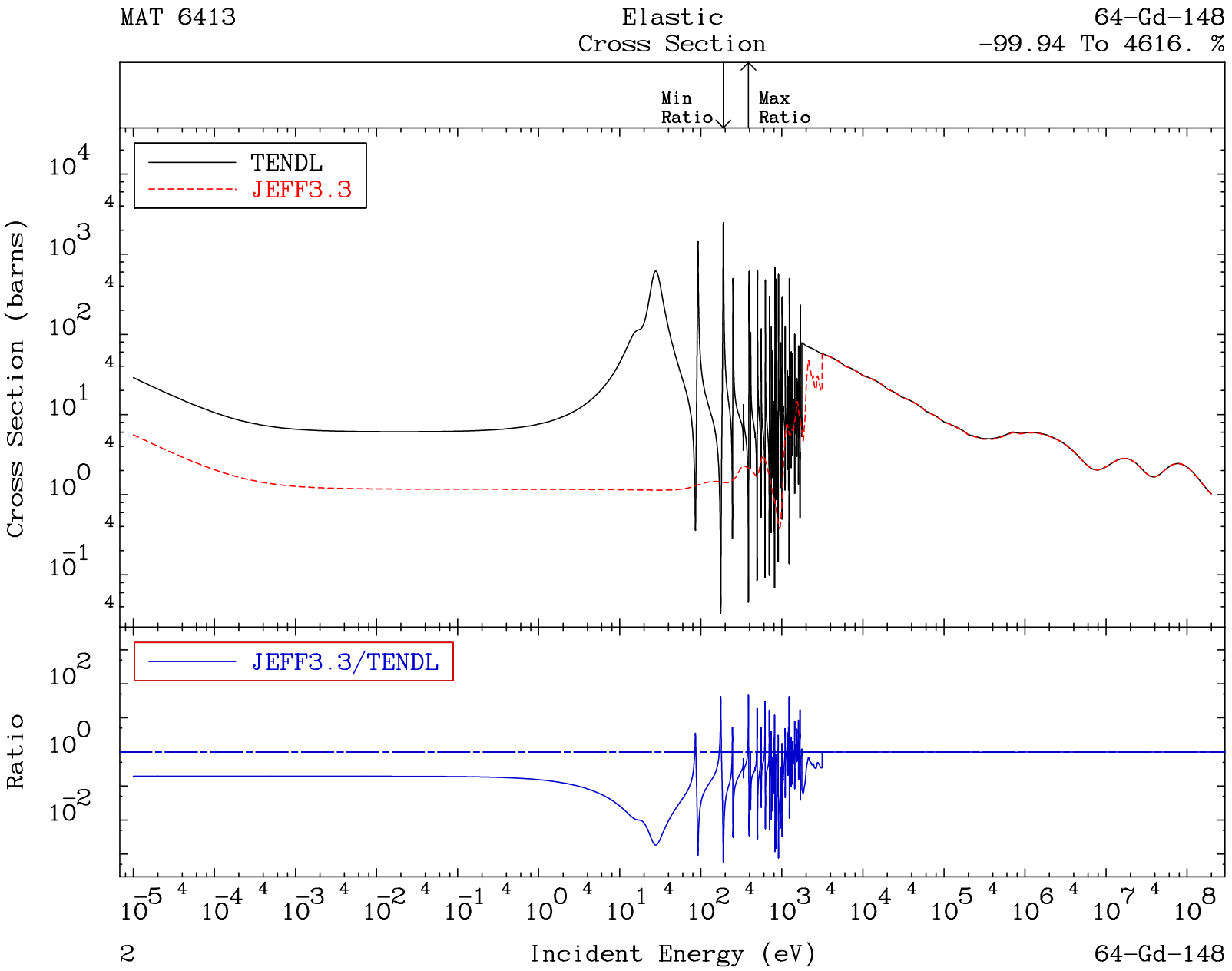
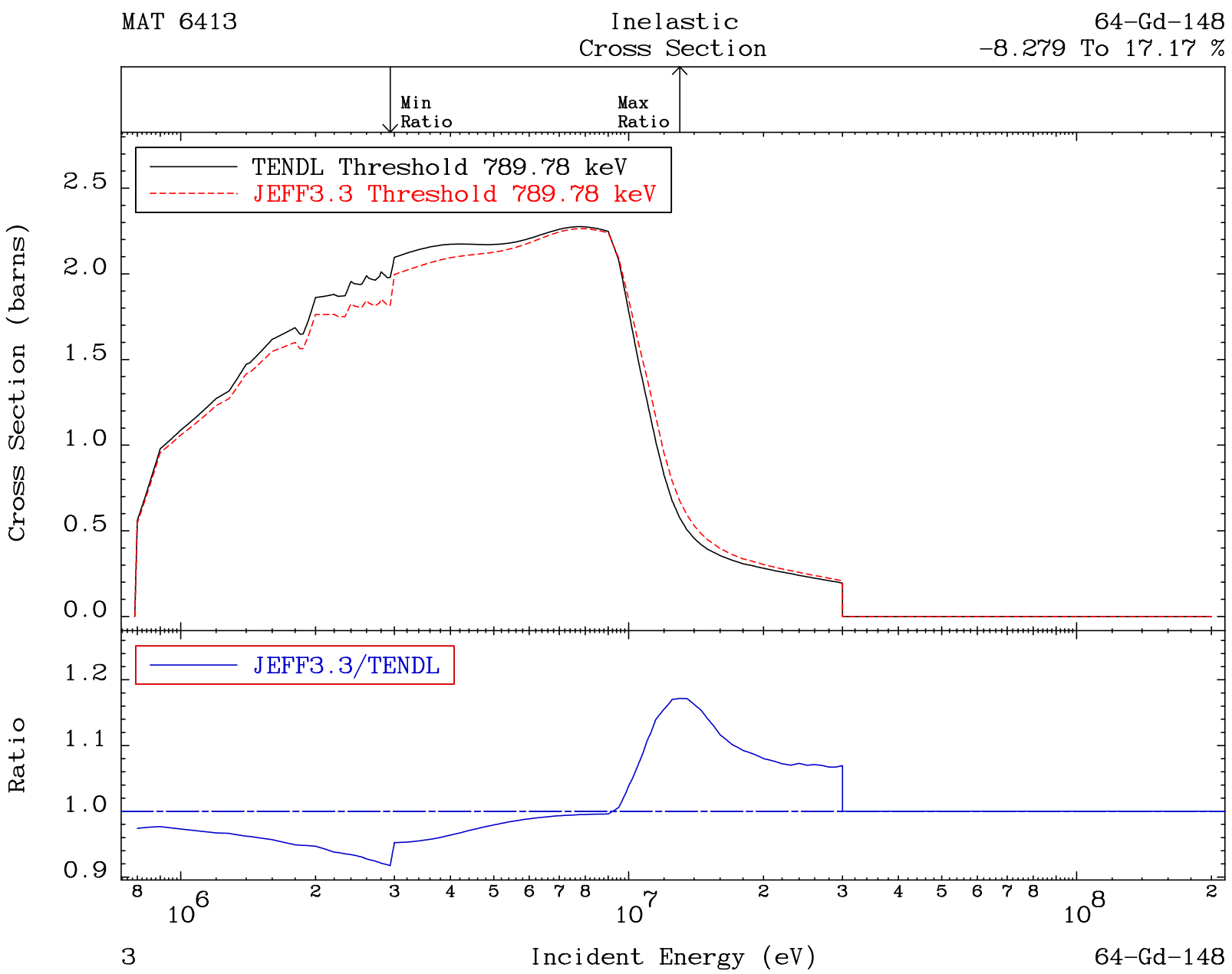
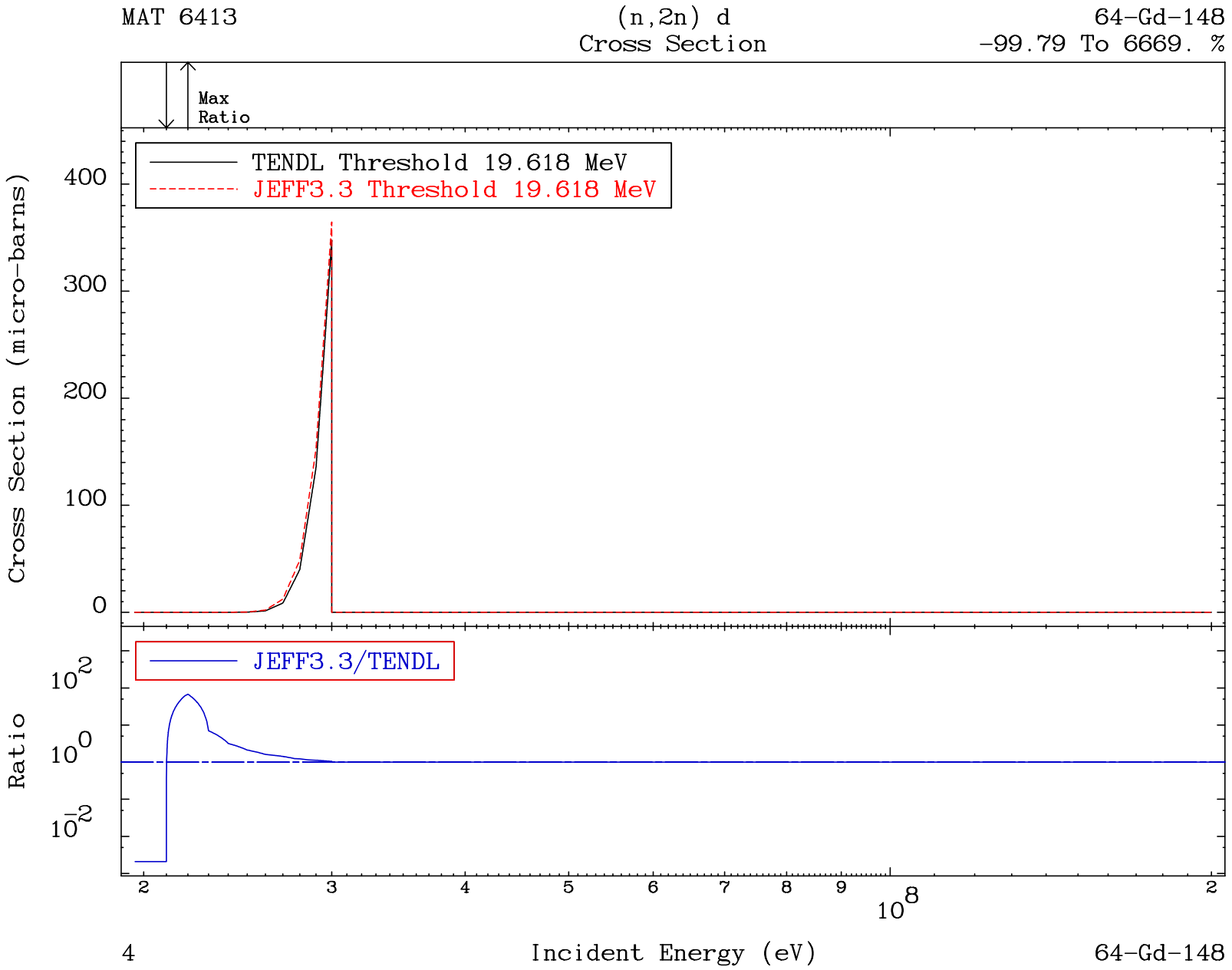
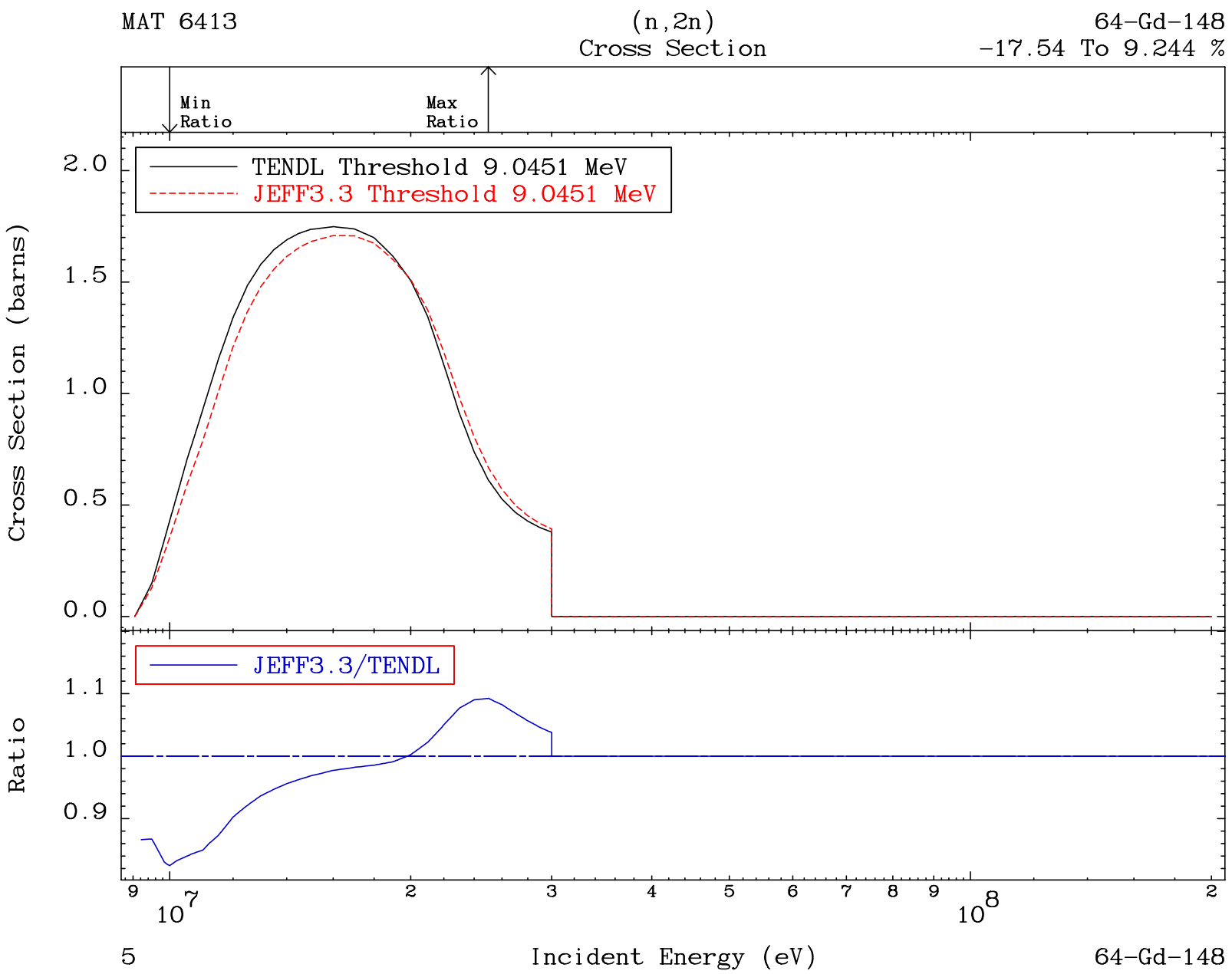
Press Mouse Button to Start

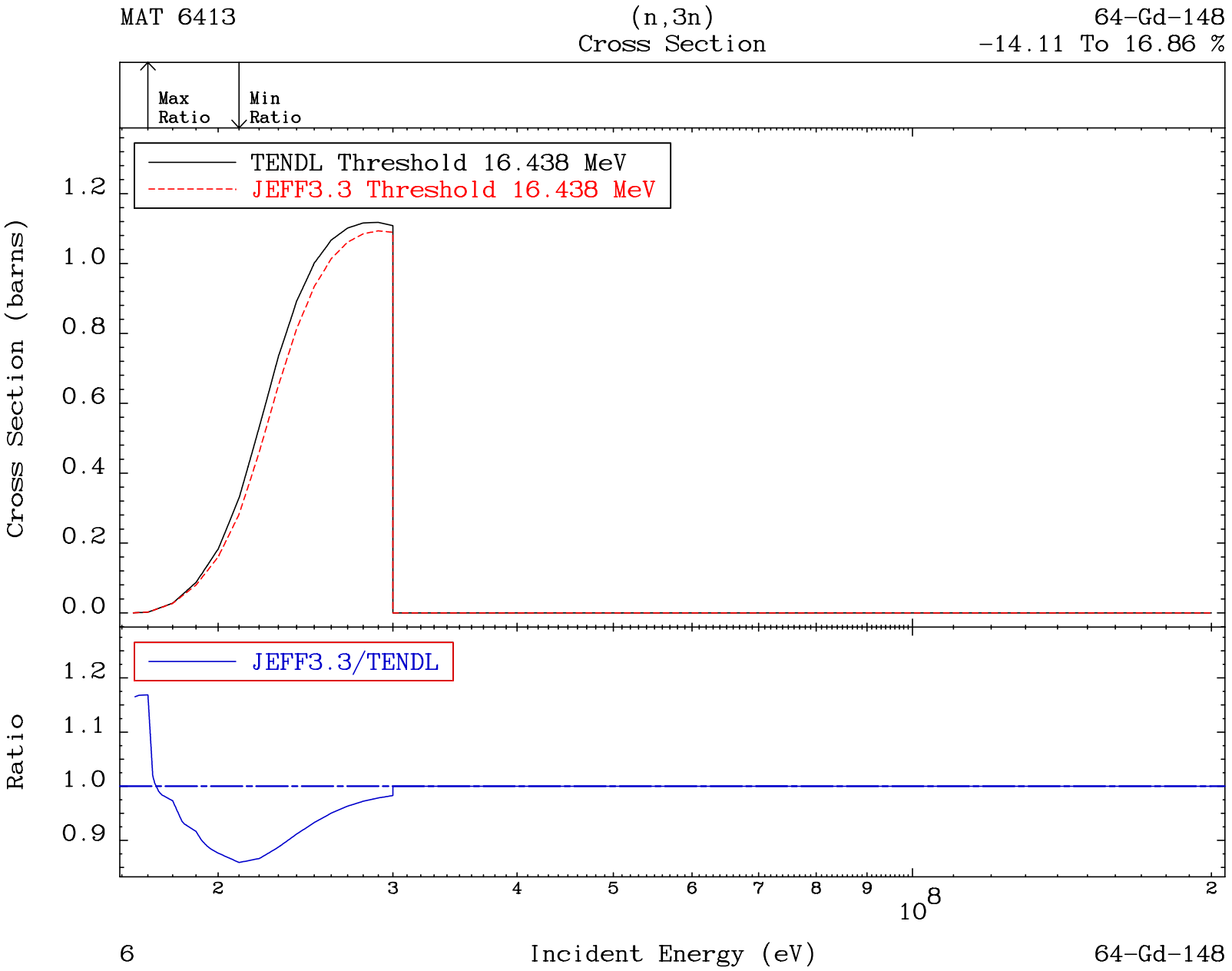

MAT 6413
Total
Cross Section
64-Gd-148
-98.73 To 2190. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
1
64-Gd-148

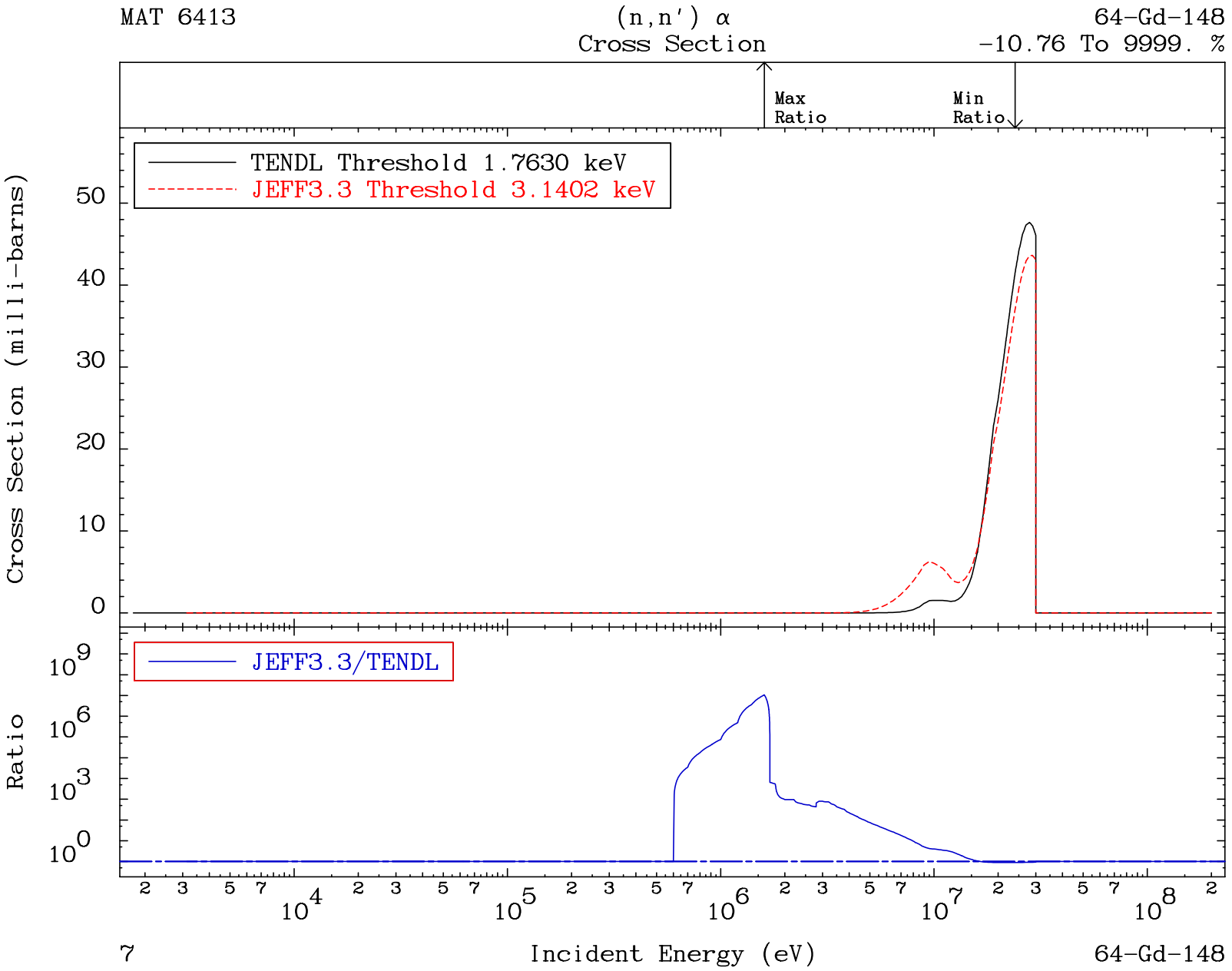

MAT 6413
Elastic
Cross Section
64-Gd-148
-99.94 To 4616. %
Min
Ratio
Max
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
2
64-Gd-148

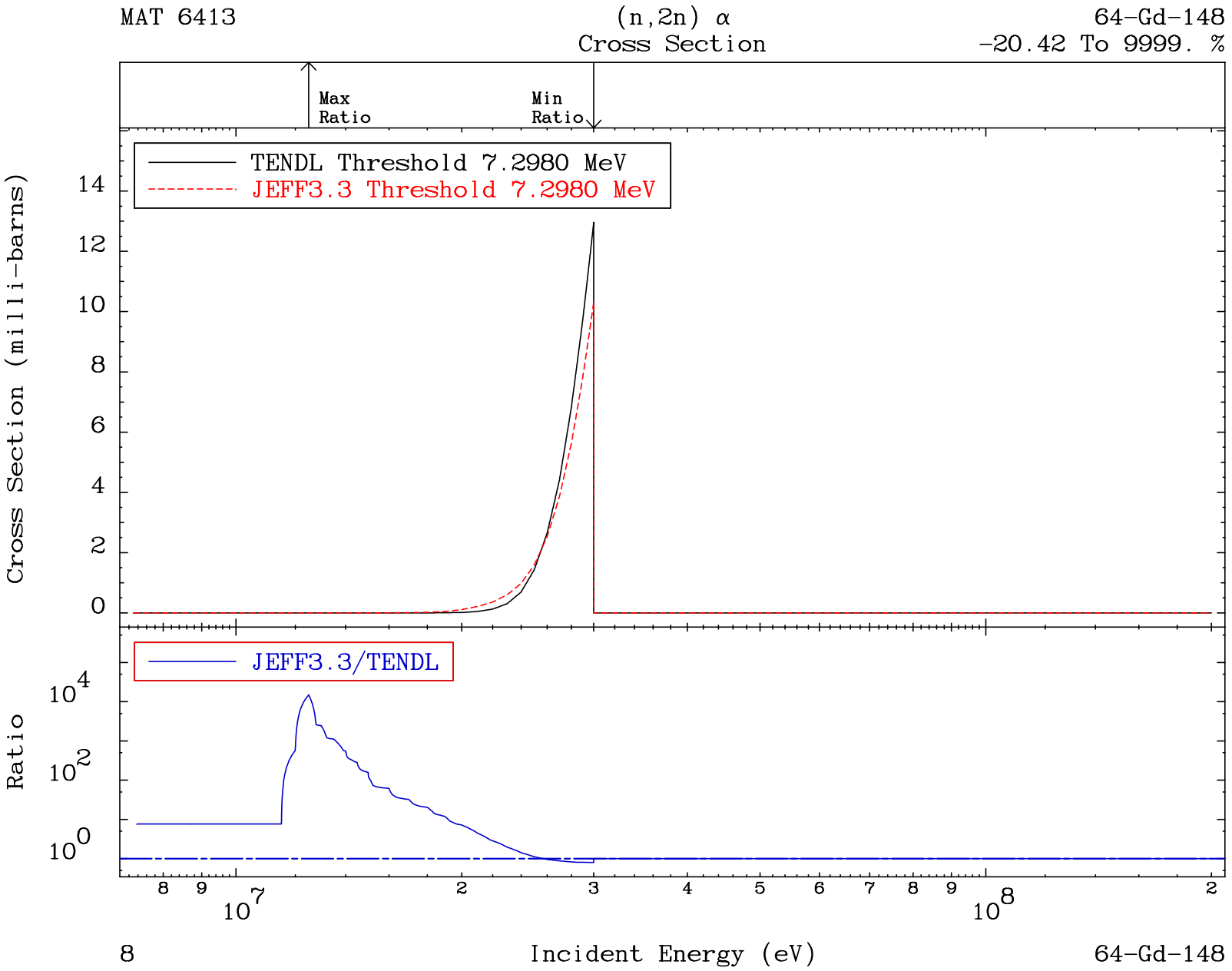

MAT 6413
Inelastic
Cross Section
64-Gd-148
-8.279 To 17.17 %
Min
Ratio
Max
Ratio
TENDL Threshold 789.78 keV
JEFF3.3 Threshold 789.78 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
0.9
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
3
Incident Energy (eV)
64-Gd-148

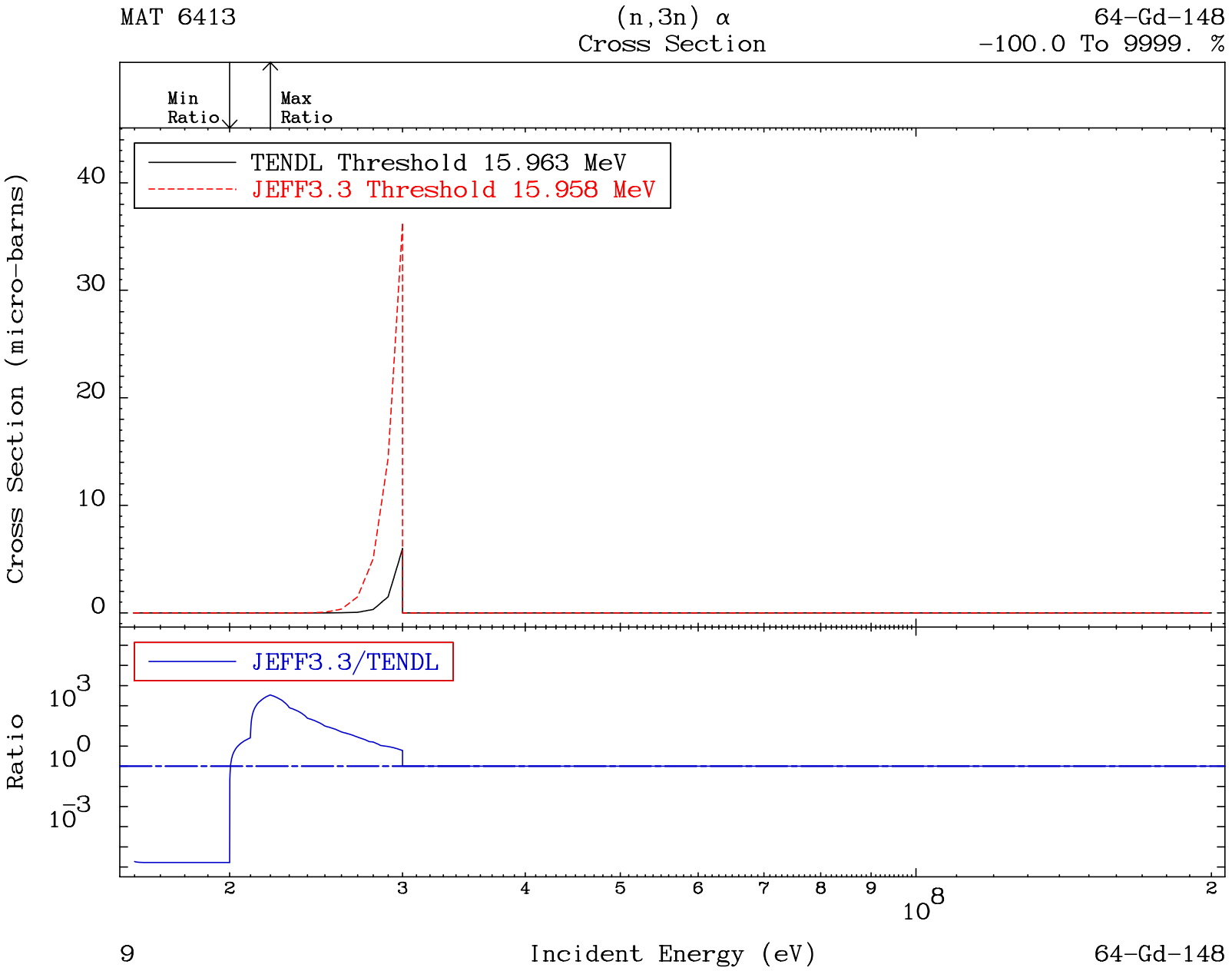

MAT 6413
(n,2n) d
Cross Section
64-Gd-148
-99.79 To 6669. %
Max
Ratio
TENDL Threshold 19.618 MeV
JEFF3.3 Threshold 19.618 MeV
Cross Section (micro-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
64-Gd-148

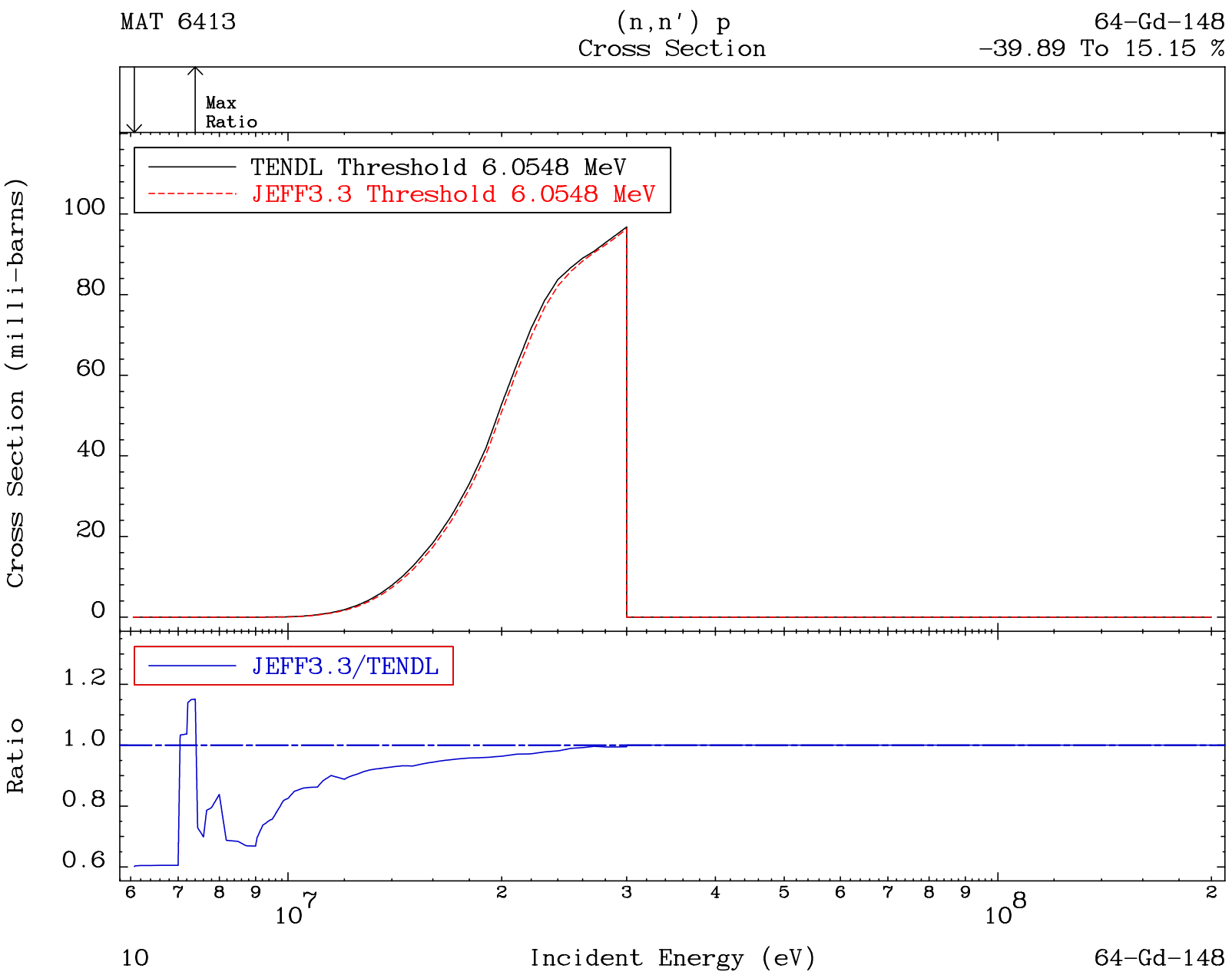

MAT 6413
(n,2n)
Cross Section
64-Gd-148
-17.54 To 9.244 %
Min Ratio
Max Ratio
TENDL Threshold 9.0451 MeV
JEFF3.3 Threshold 9.0451 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
9
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
64-Gd-148

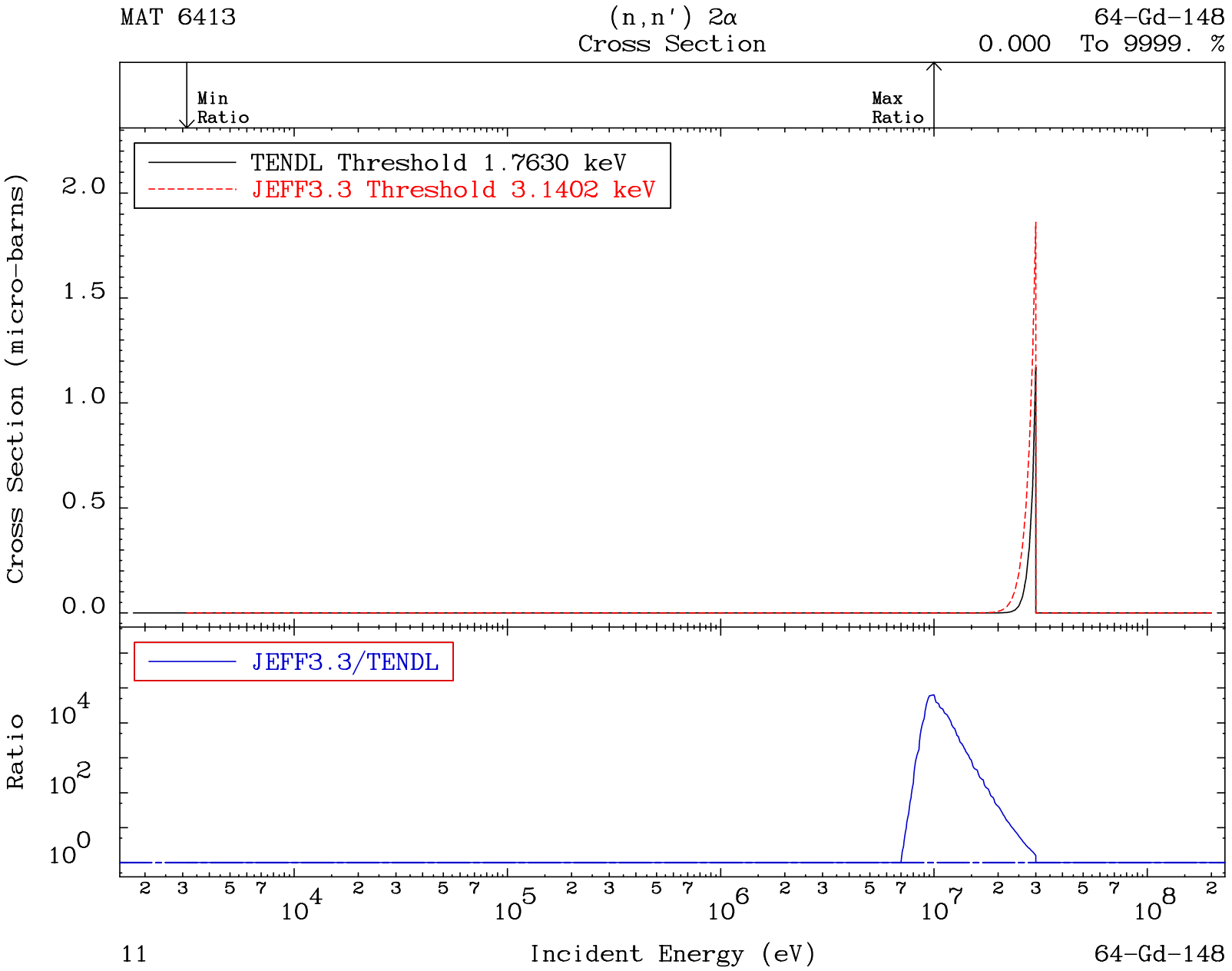

MAT 6413
(n,3n)
Cross Section
64-Gd-148
-14.11 To 16.86 %
Max Ratio
Min Ratio
TENDL Threshold 16.438 MeV
JEFF3.3 Threshold 16.438 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
0.9
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
64-Gd-148

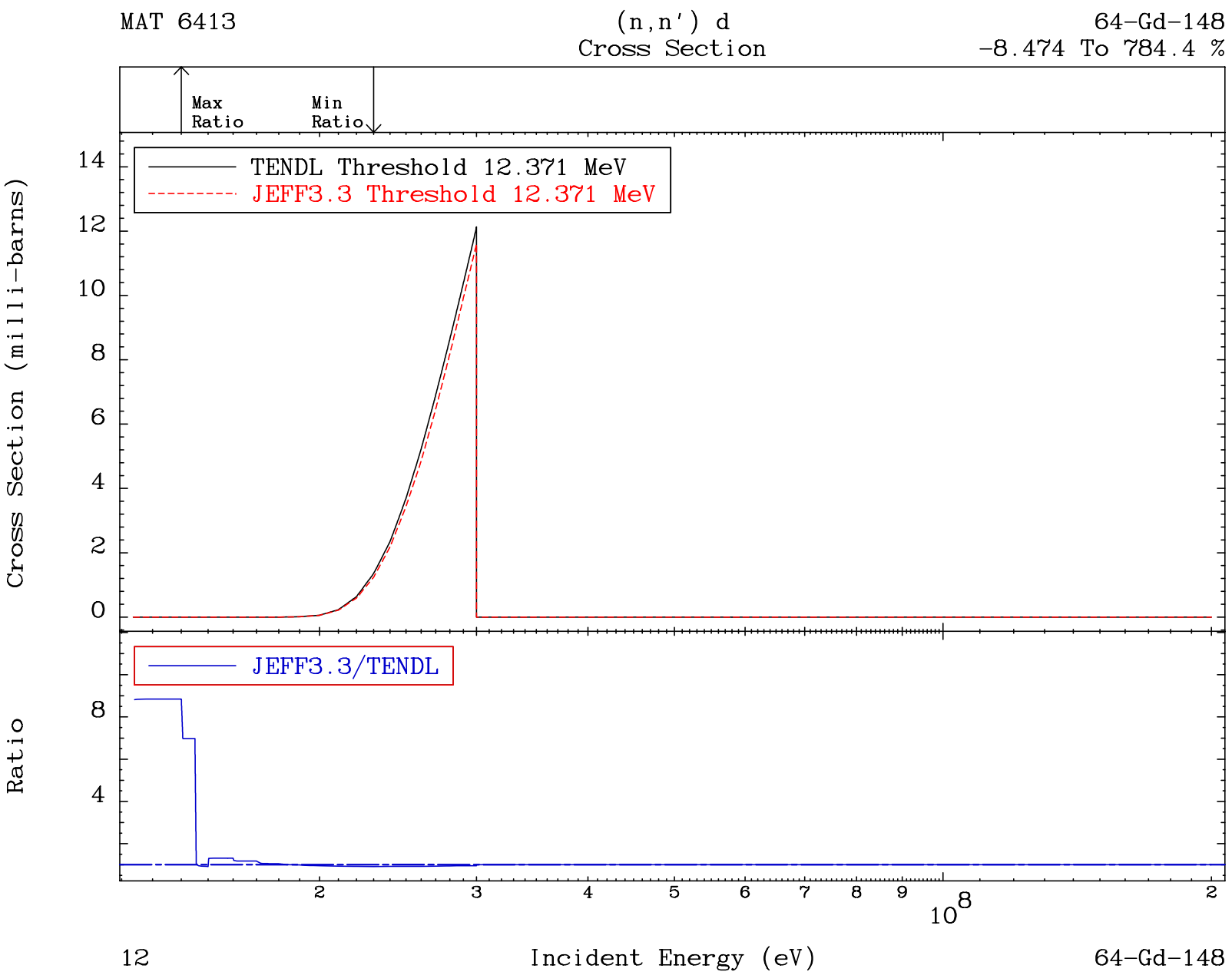

MAT 6413
(n,n') α
Cross Section
64-Gd-148
-10.76 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.7630 keV
JEFF3.3 Threshold 3.1402 keV
Cross Section (milli-barns)
0
10
20
30
40
50
JEFF3.3/TENDL
Ratio
10^0
10^3
10^6
10^9
2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
7
Incident Energy (eV)
64-Gd-148

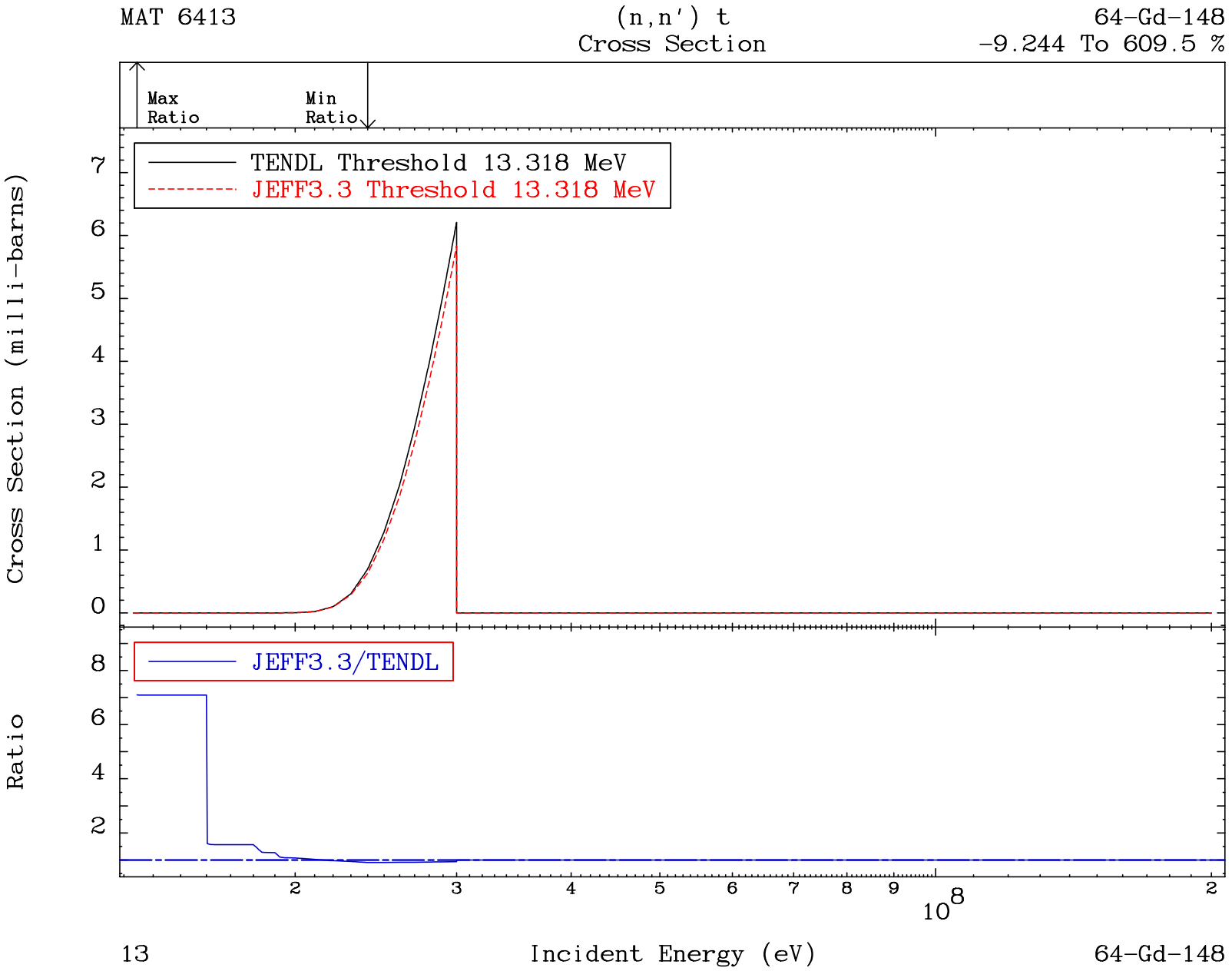

MAT 6413
(n,2n) α
Cross Section
64-Gd-148
-20.42 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.2980 MeV
JEFF3.3 Threshold 7.2980 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
8
64-Gd-148

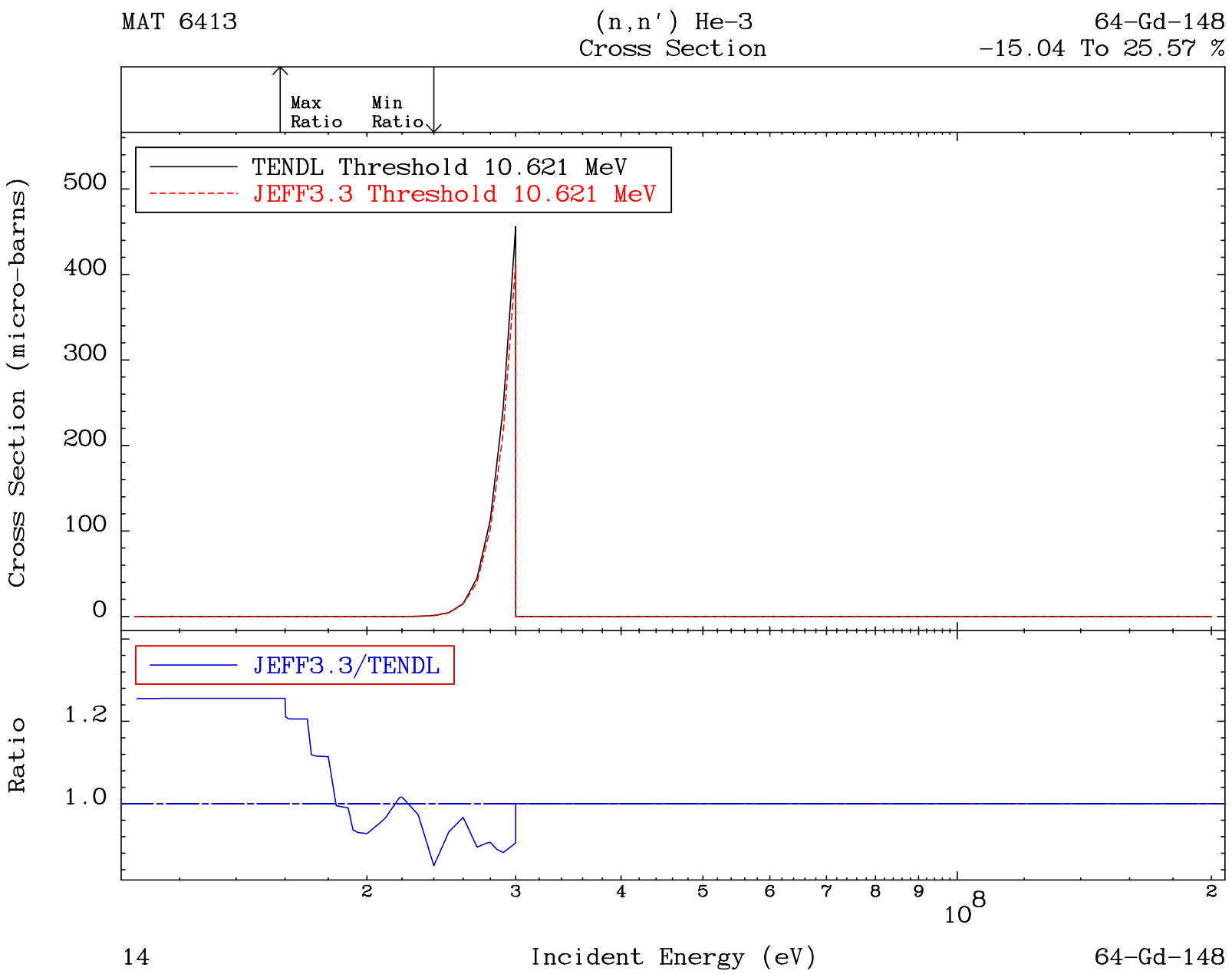

MAT 6413
(n,3n) α
Cross Section
64-Gd-148
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 15.963 MeV
JEFF3.3 Threshold 15.958 MeV
Cross Section (micro-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^3
10^0
10^-3
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
64-Gd-148

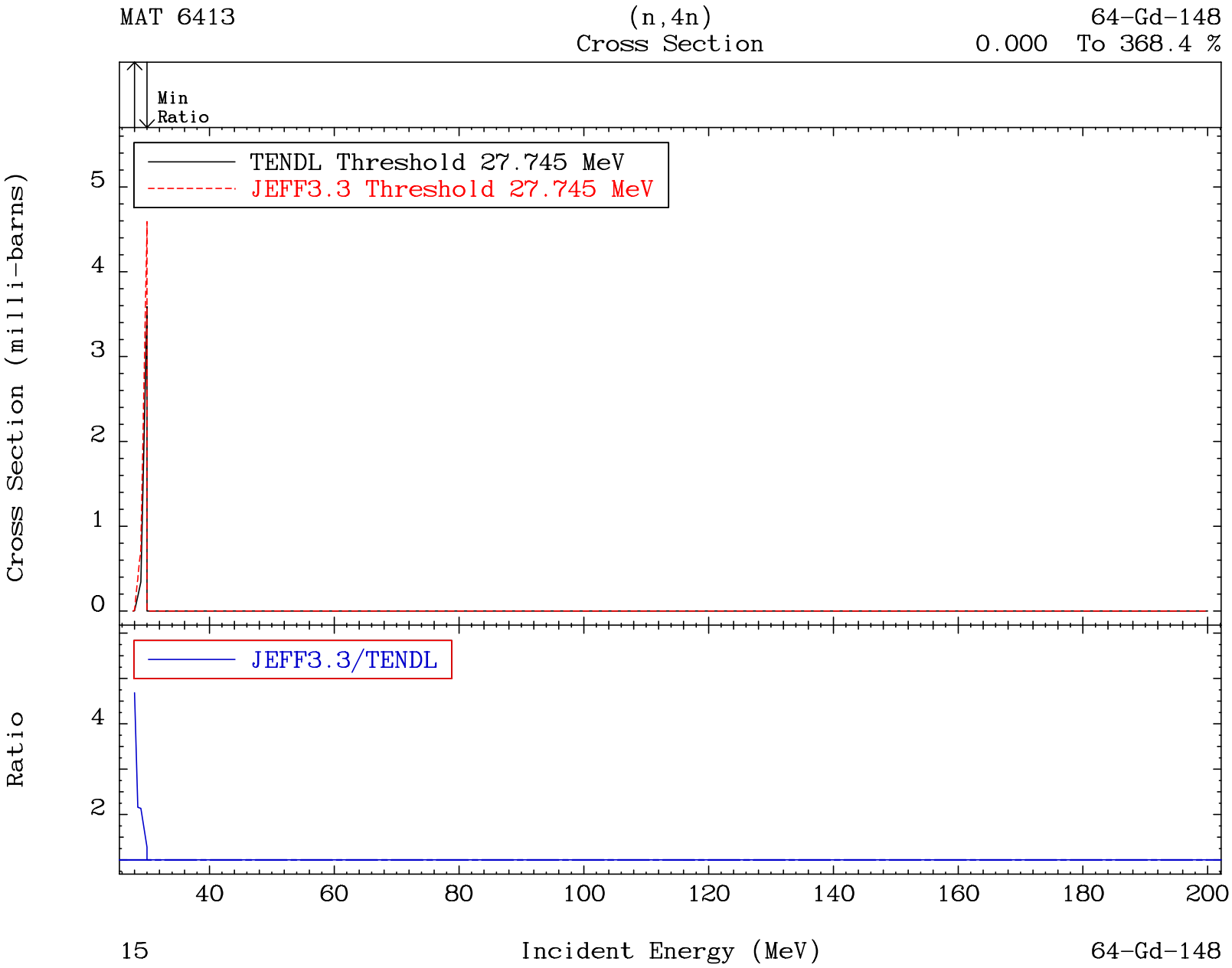

MAT 6413
(n,n') p
Cross Section
64-Gd-148
-39.89 To 15.15 %
Max
Ratio
TENDL Threshold 6.0548 MeV
JEFF3.3 Threshold 6.0548 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.2
1.0
0.8
0.6
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
64-Gd-148

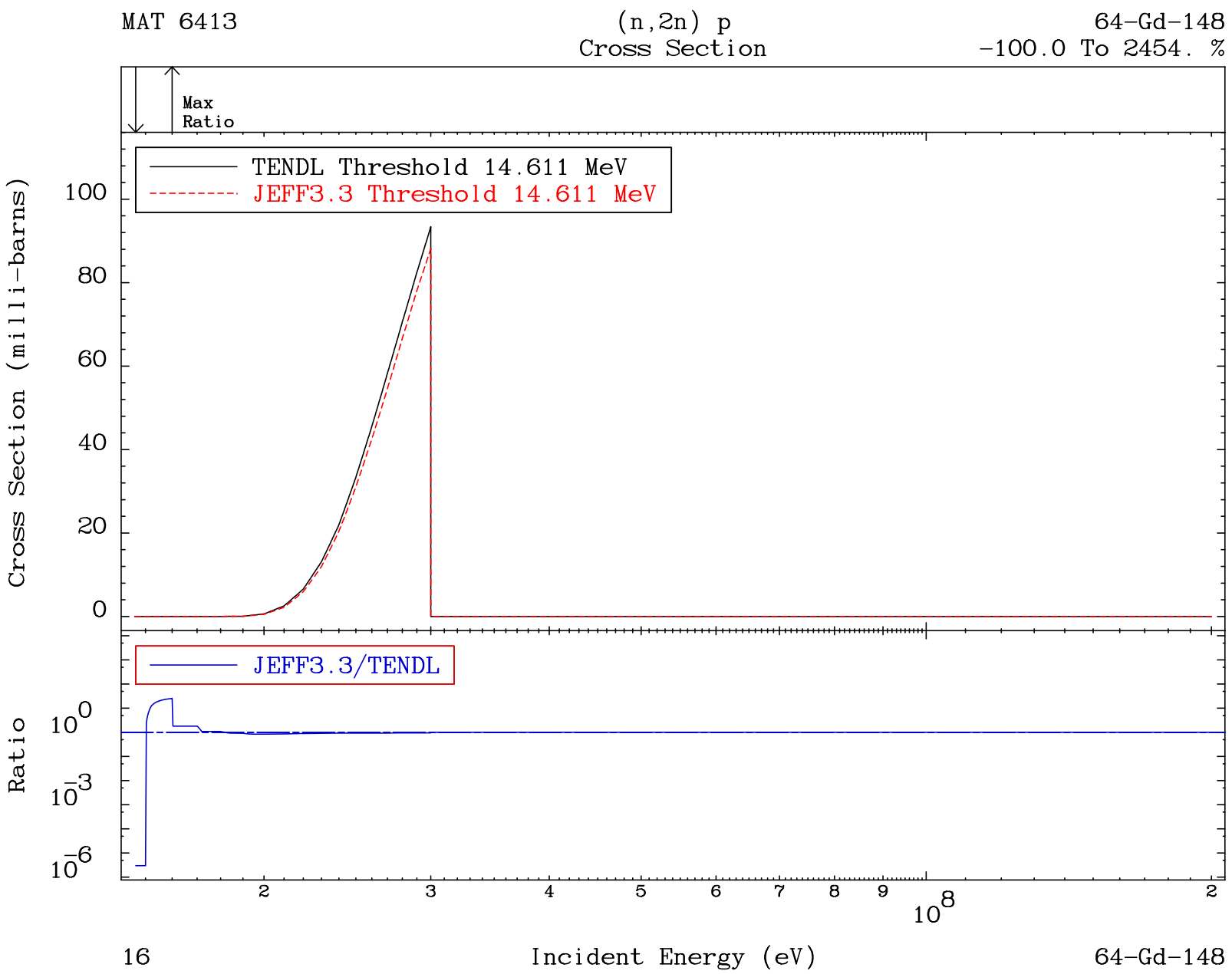

MAT 6413
(n,n') 2α
Cross Section
64-Gd-148
0.000 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.7630 keV
JEFF3.3 Threshold 3.1402 keV
Cross Section (micro-barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
11
Incident Energy (eV)
64-Gd-148

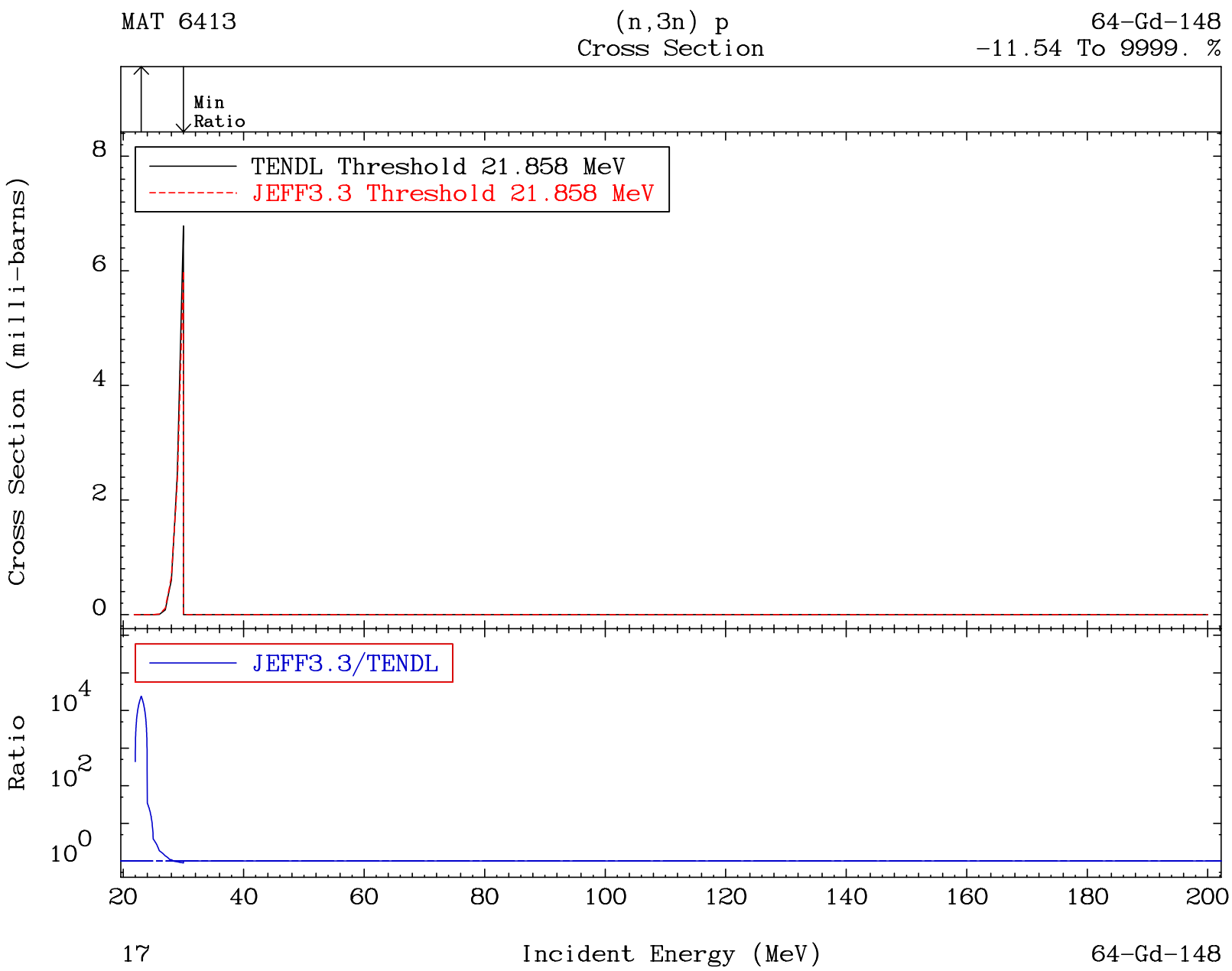

MAT 6413
(n,n') d
Cross Section
64-Gd-148
-8.474 To 784.4 %
Max Ratio
Min Ratio
TENDL Threshold 12.371 MeV
JEFF3.3 Threshold 12.371 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
8
4
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
64-Gd-148

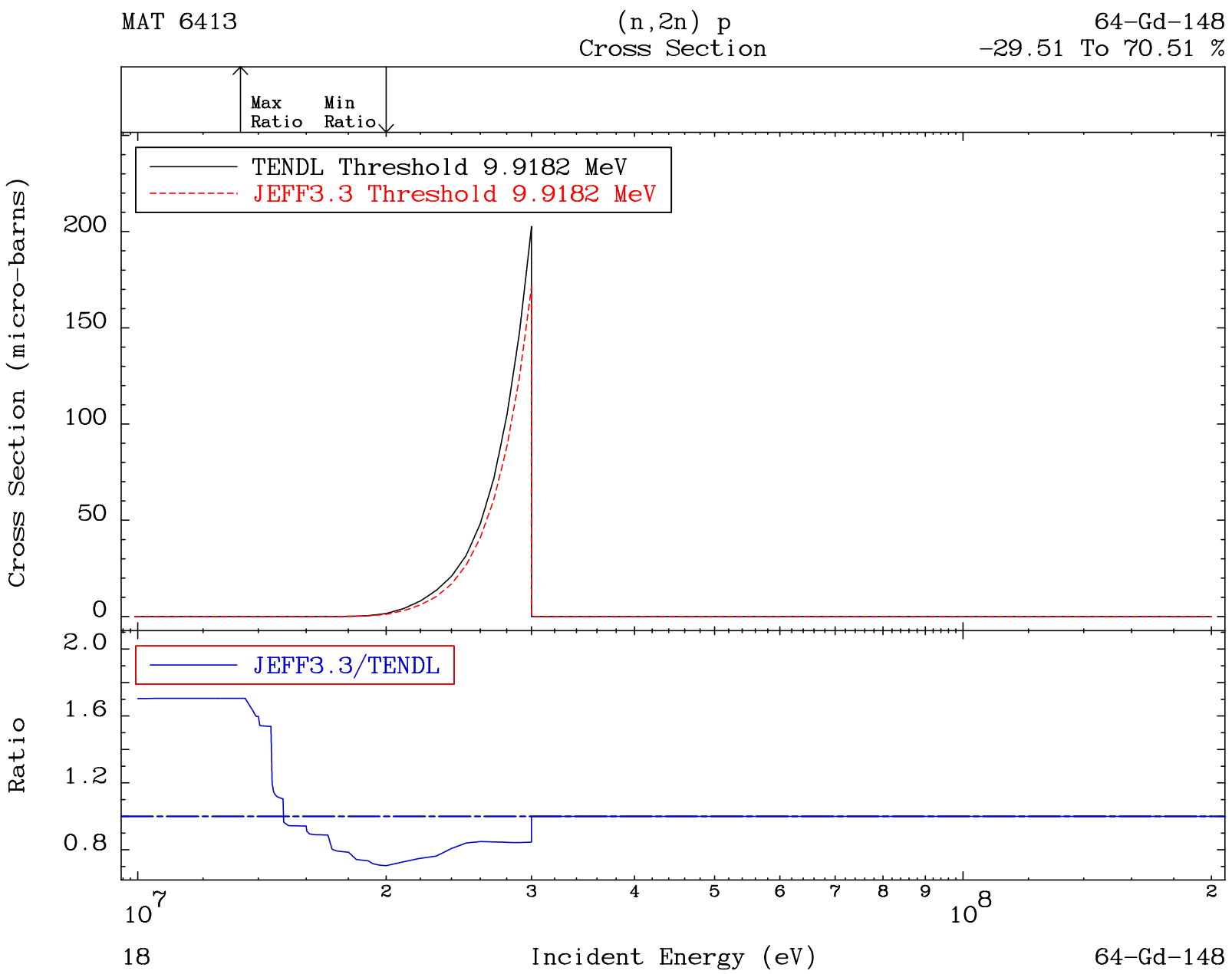

MAT 6413
(n,n') t
Cross Section
64-Gd-148
-9.244 To 609.5 %
Max Ratio
Min Ratio
TENDL Threshold 13.318 MeV
JEFF3.3 Threshold 13.318 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
13
64-Gd-148

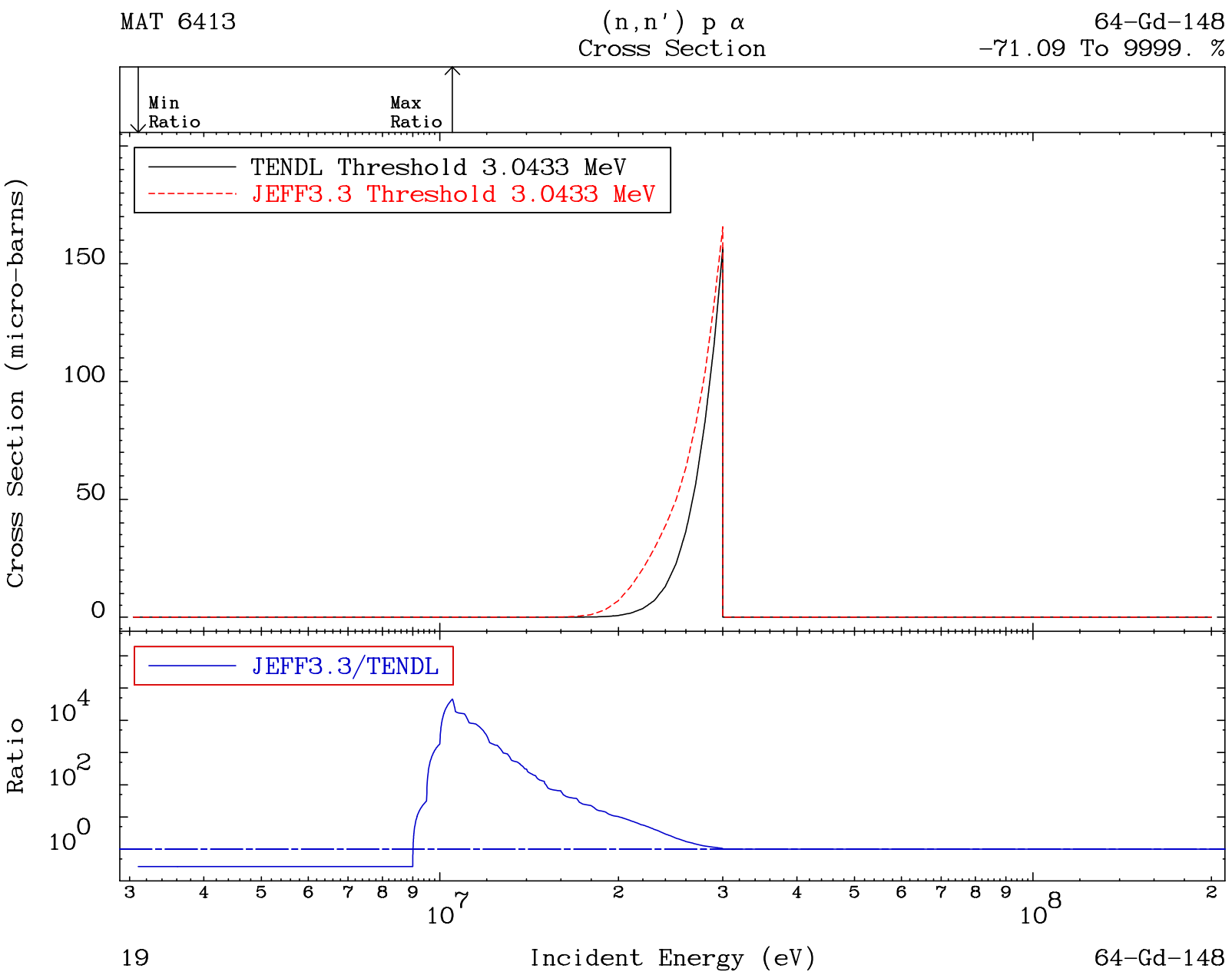

MAT 6413
(n,n') He-3
Cross Section
64-Gd-148
-15.04 To 25.57 %
Max Ratio
Min Ratio
TENDL Threshold 10.621 MeV
JEFF3.3 Threshold 10.621 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.2
1.0
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
64-Gd-148

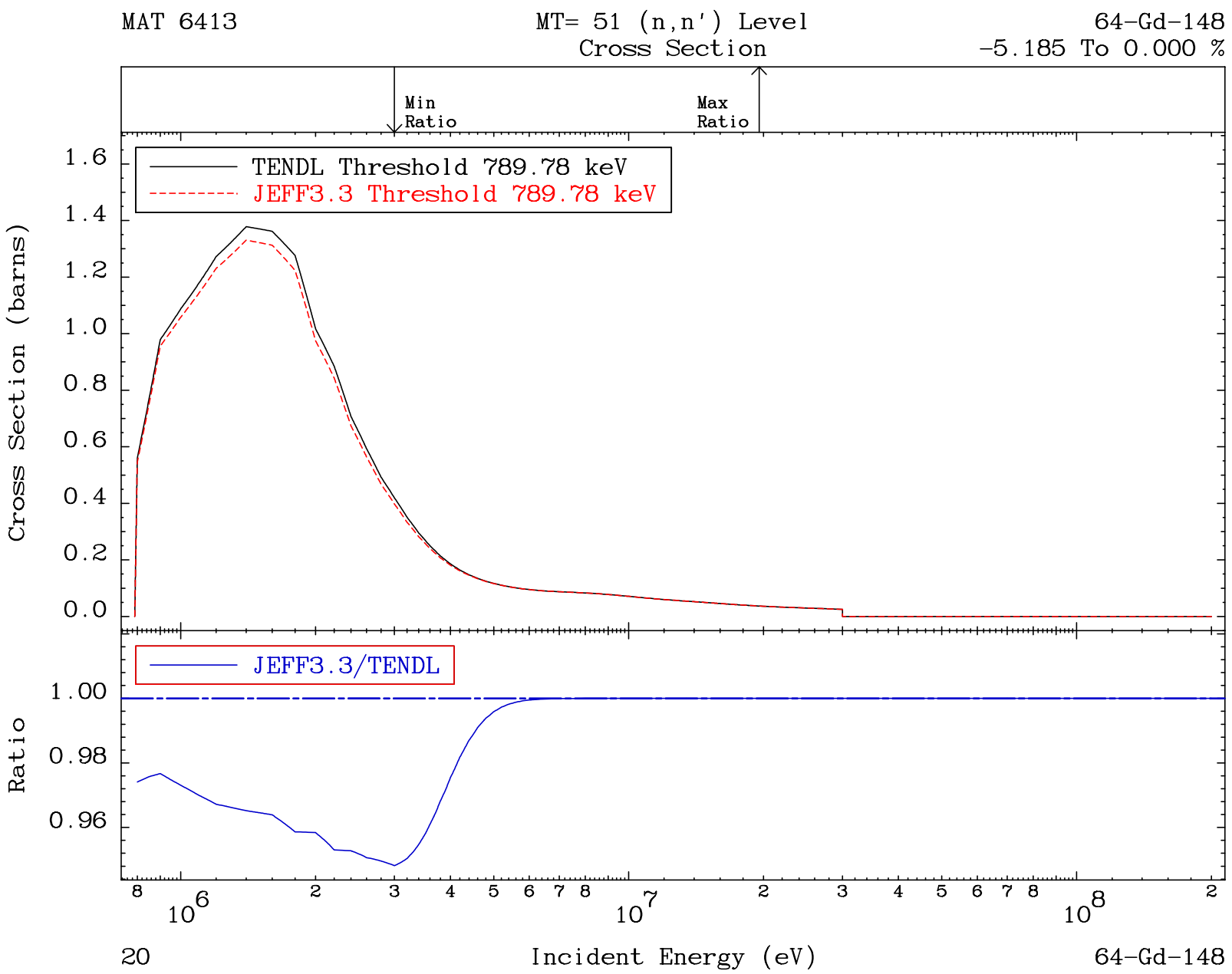

MAT 6413
(n,4n)
Cross Section
64-Gd-148
0.000 To 368.4 %
Min
Ratio
TENDL Threshold 27.745 MeV
JEFF3.3 Threshold 27.745 MeV
JEFF3.3/TENDL
Cross Section (milli-barns)
Ratio
Incident Energy (MeV)
15
64-Gd-148

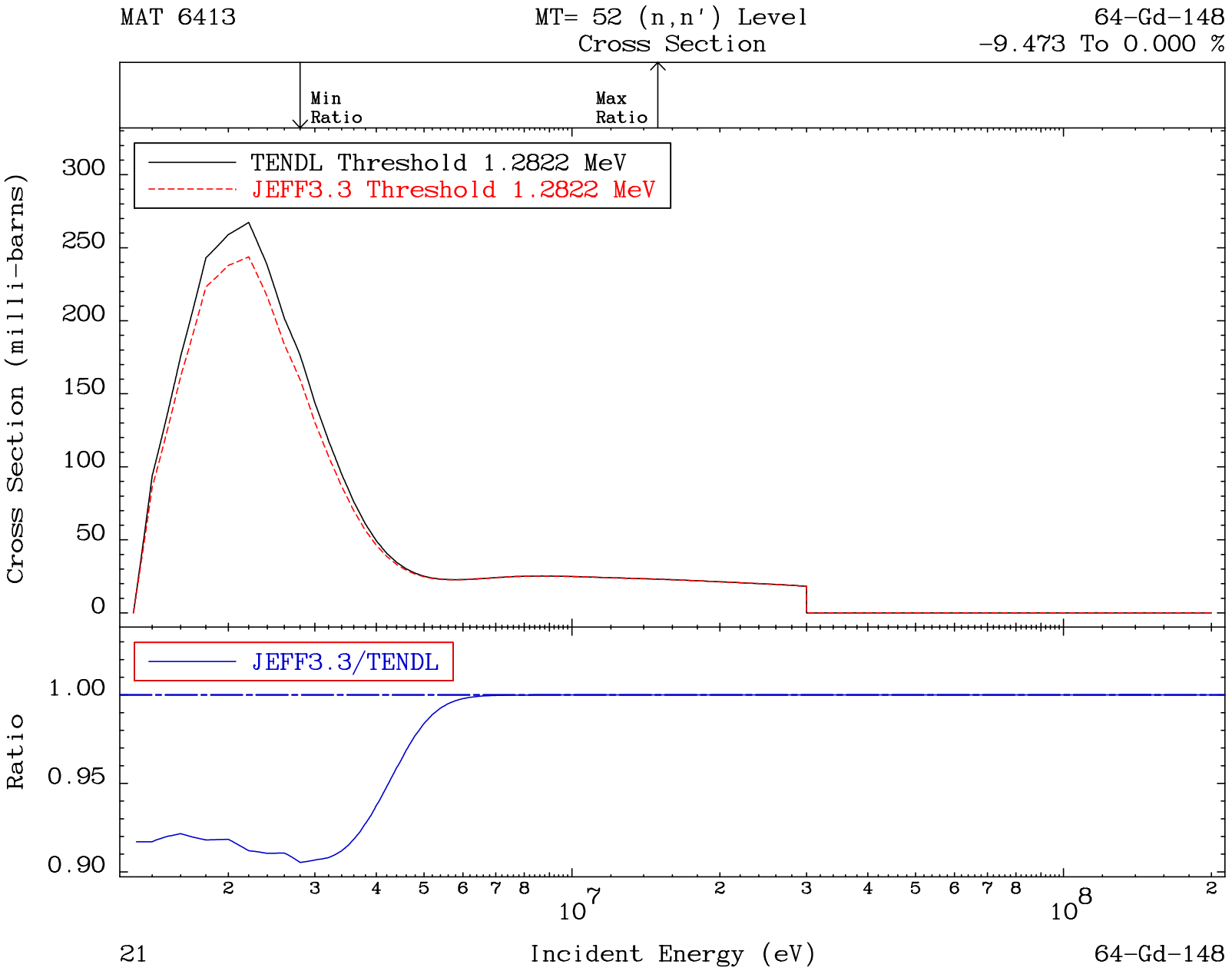

MAT 6413
(n,2n) p
Cross Section
64-Gd-148
-100.0 To 2454. %
Max
Ratio
TENDL Threshold 14.611 MeV
JEFF3.3 Threshold 14.611 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^0
10^-3
10^-6
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
64-Gd-148

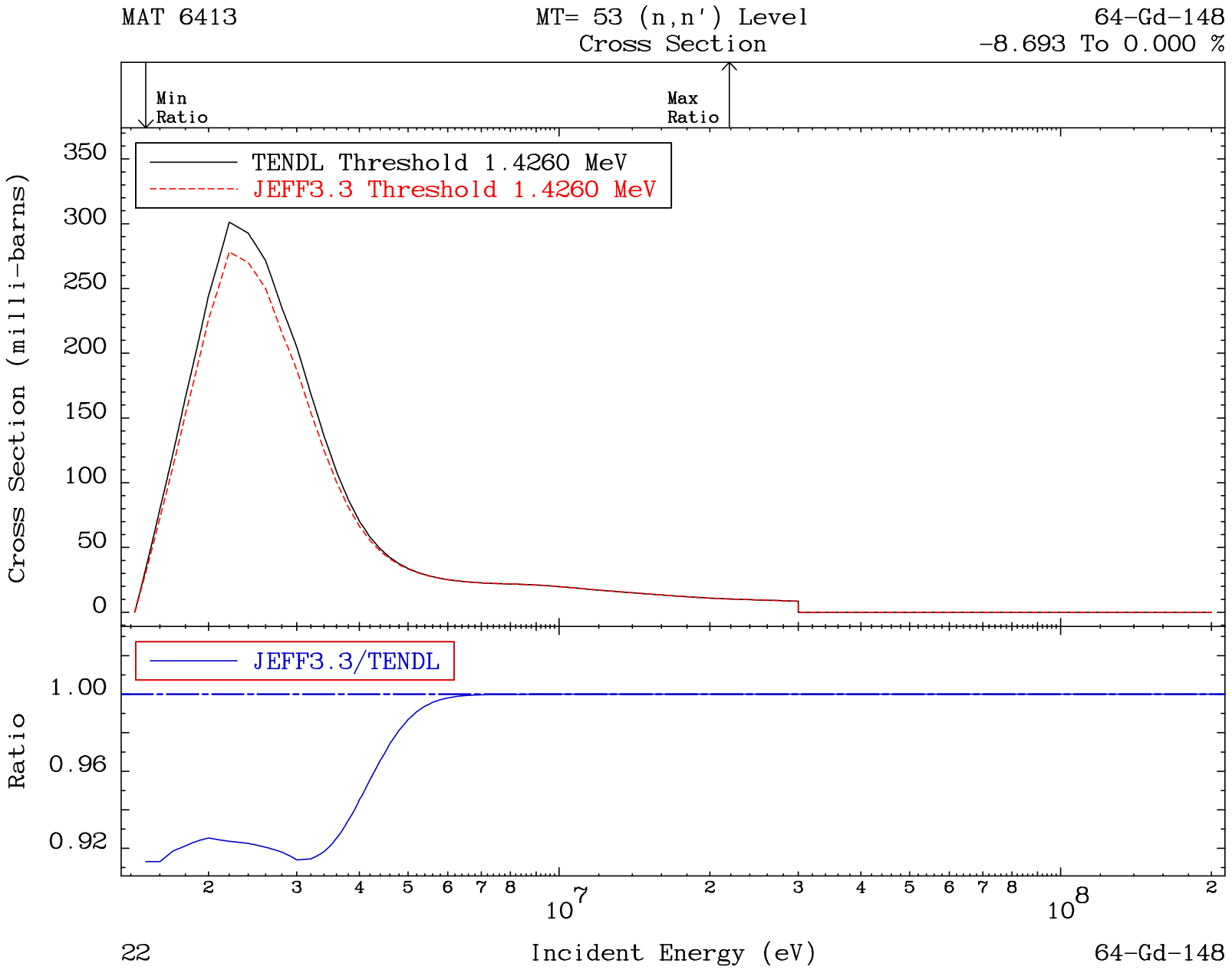

MAT 6413
(n,3n) p
Cross Section
64-Gd-148
-11.54 To 9999. %
Min
Ratio
TENDL Threshold 21.858 MeV
JEFF3.3 Threshold 21.858 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
10^0
10^2
10^4
20
40
60
80
100
120
140
160
180
200
17
Incident Energy (MeV)
64-Gd-148

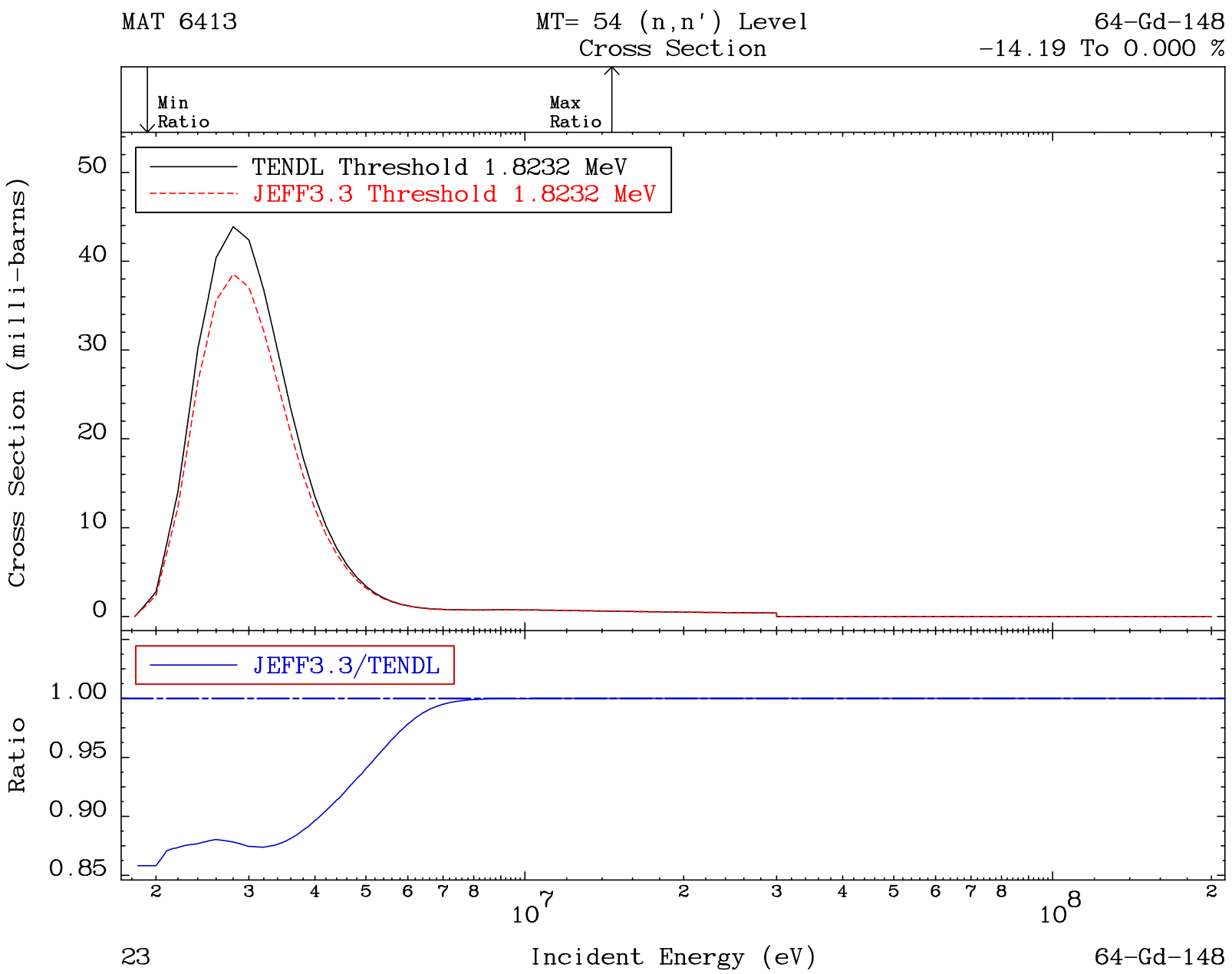

MAT 6413
(n,2n) p
Cross Section
64-Gd-148
-29.51 To 70.51 %
Max Ratio
Min Ratio
TENDL Threshold 9.9182 MeV
JEFF3.3 Threshold 9.9182 MeV
Cross Section (micro-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
0.8
10^7
2
3
4
5
6
7
8
9
10^8
2
18
Incident Energy (eV)
64-Gd-148

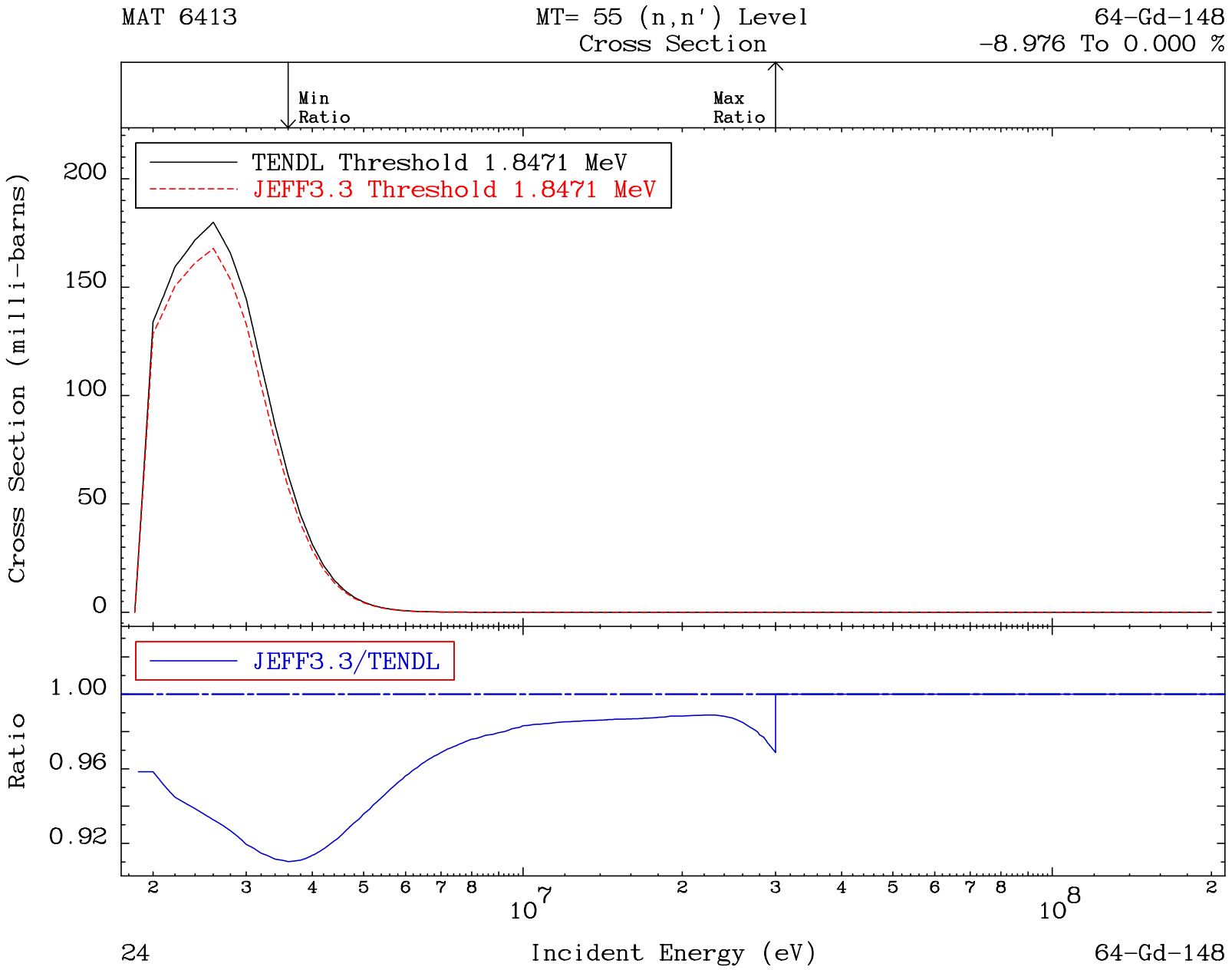

MAT 6413
(n,n') p α
Cross Section
64-Gd-148
-71.09 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 3.0433 MeV
JEFF3.3 Threshold 3.0433 MeV
Cross Section (micro-barns)
150
100
50
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
19
Incident Energy (eV)
64-Gd-148

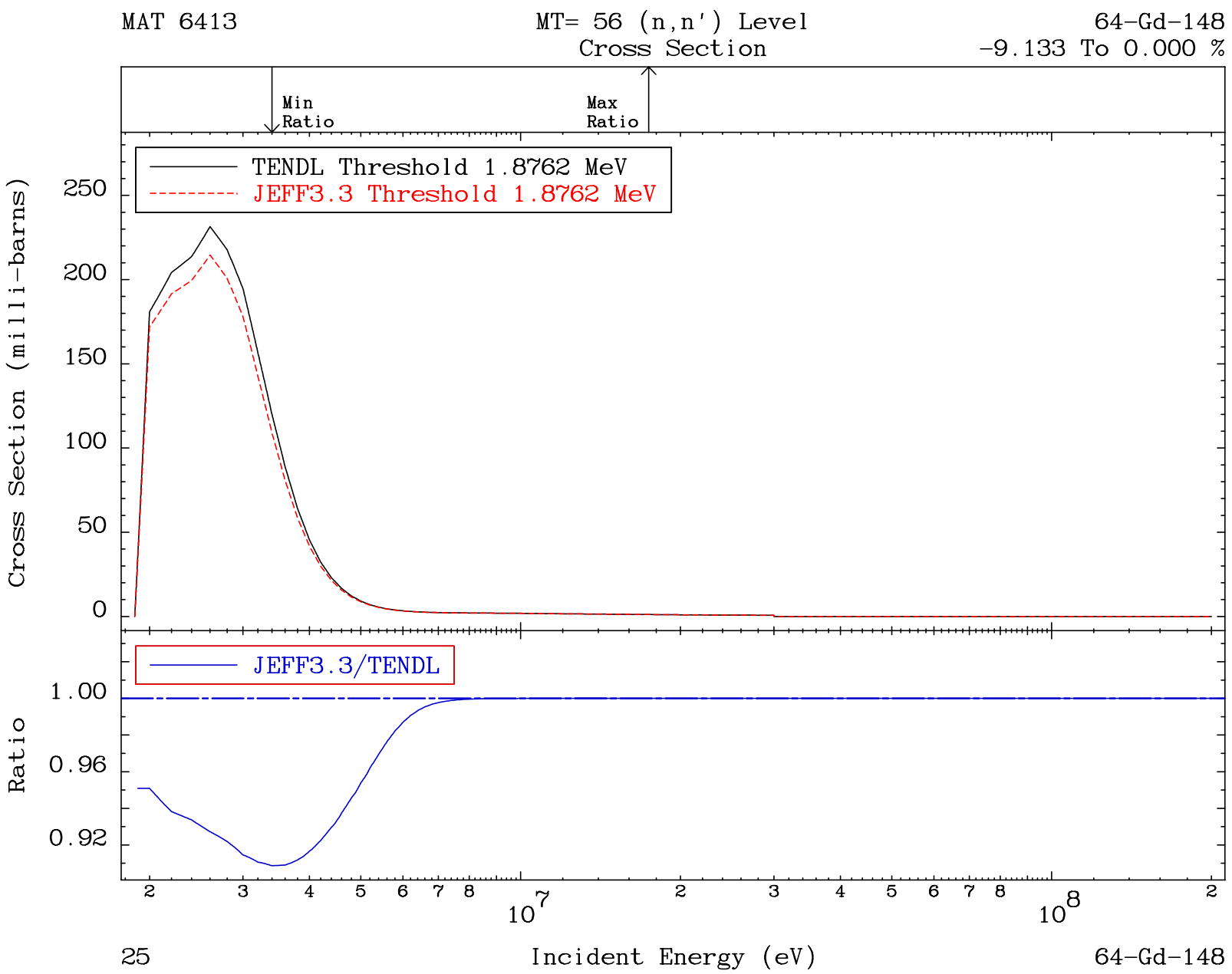

MAT 6413
MT= 51 (n,n') Level
Cross Section
64-Gd-148
-5.185 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 789.78 keV
JEFF3.3 Threshold 789.78 keV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
20
Incident Energy (eV)
64-Gd-148

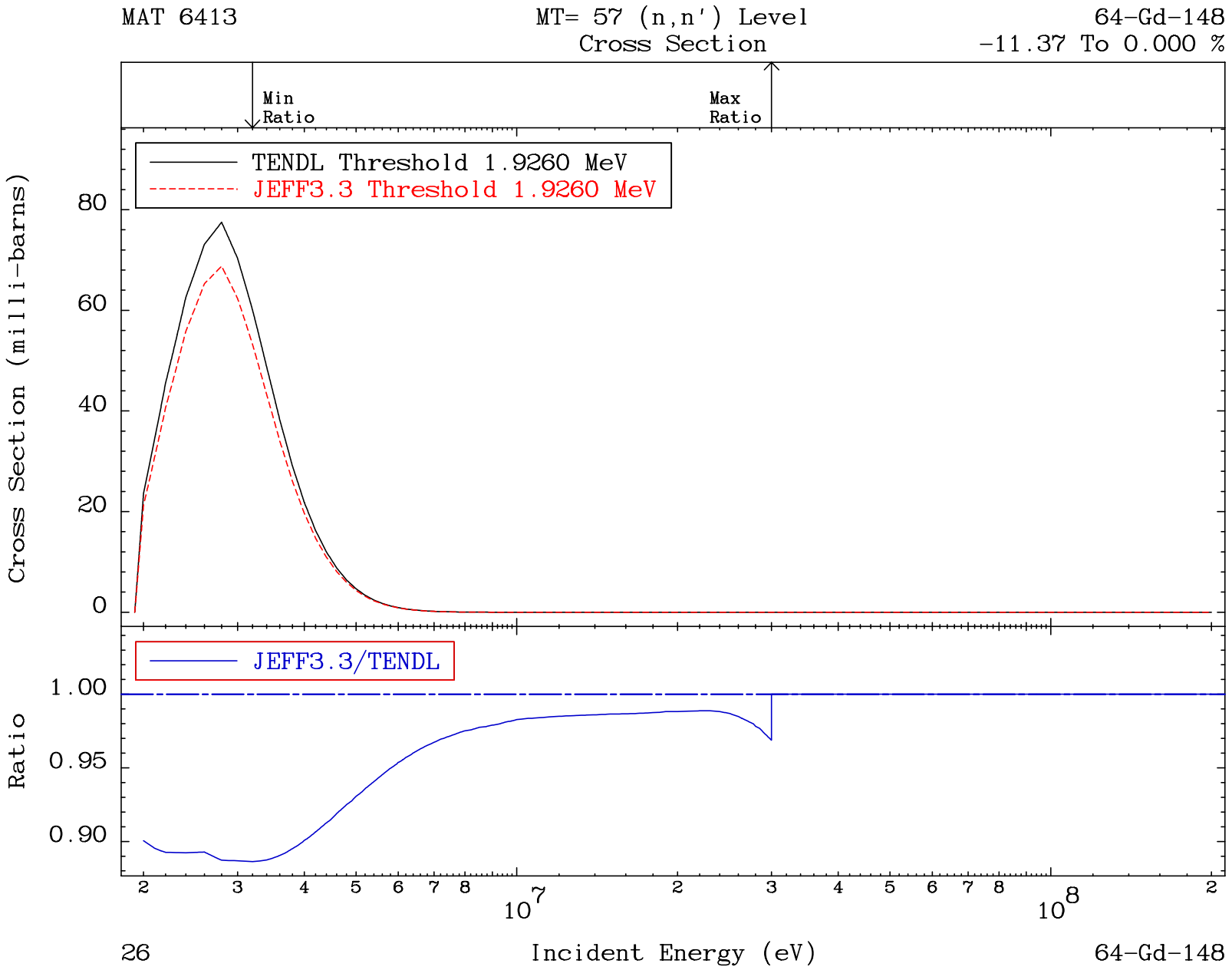

MAT 6413
MT= 52 (n,n') Level
Cross Section
64-Gd-148
-9.473 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2822 MeV
JEFF3.3 Threshold 1.2822 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
21
Incident Energy (eV)
64-Gd-148

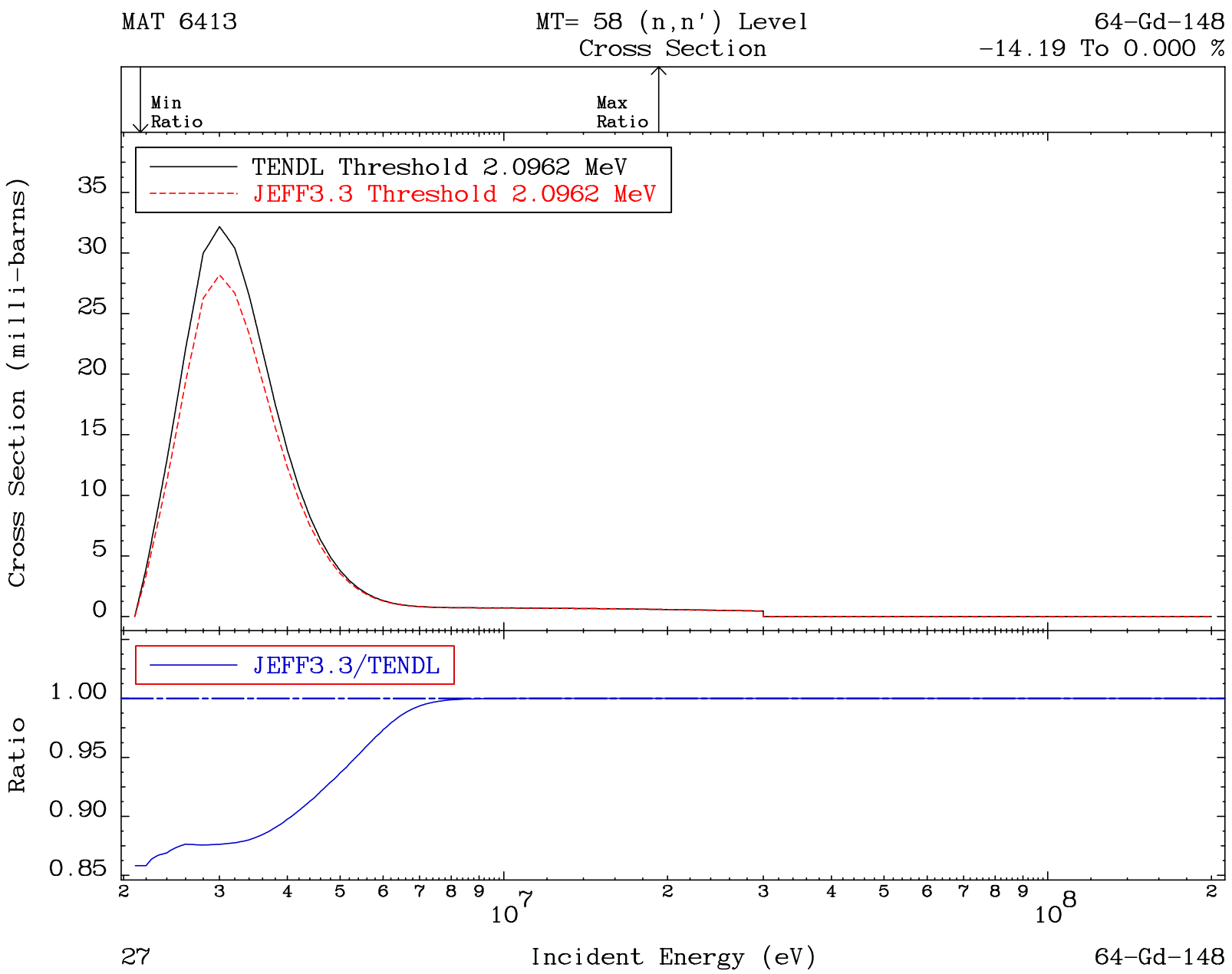

MAT 6413
MT= 53 (n,n') Level
Cross Section
64-Gd-148
-8.693 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.4260 MeV
JEFF3.3 Threshold 1.4260 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.96
0.92
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
22
Incident Energy (eV)
64-Gd-148

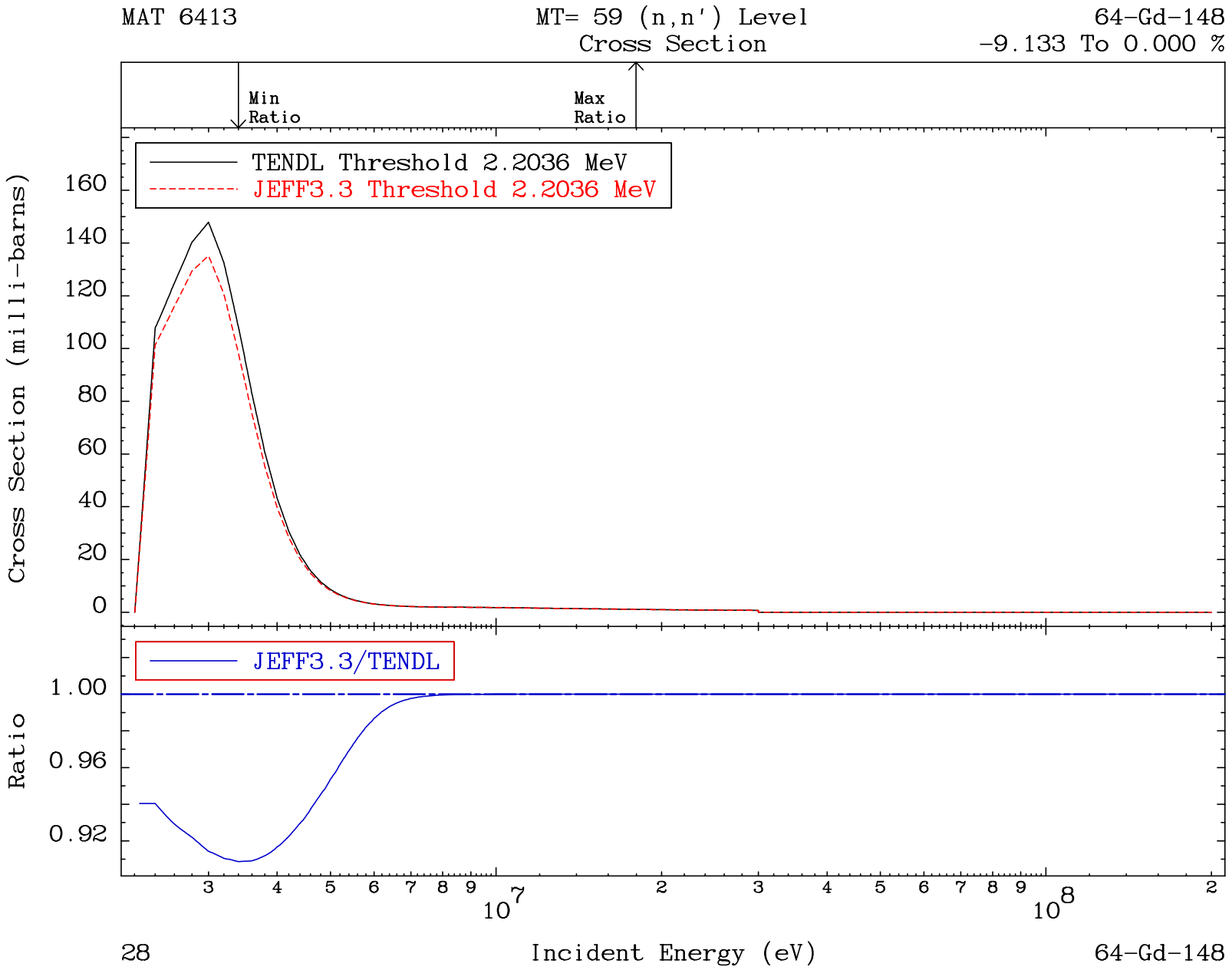

MAT 6413
MT= 54 (n,n') Level
Cross Section
64-Gd-148
-14.19 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.8232 MeV
JEFF3.3 Threshold 1.8232 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
0.85
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
64-Gd-148

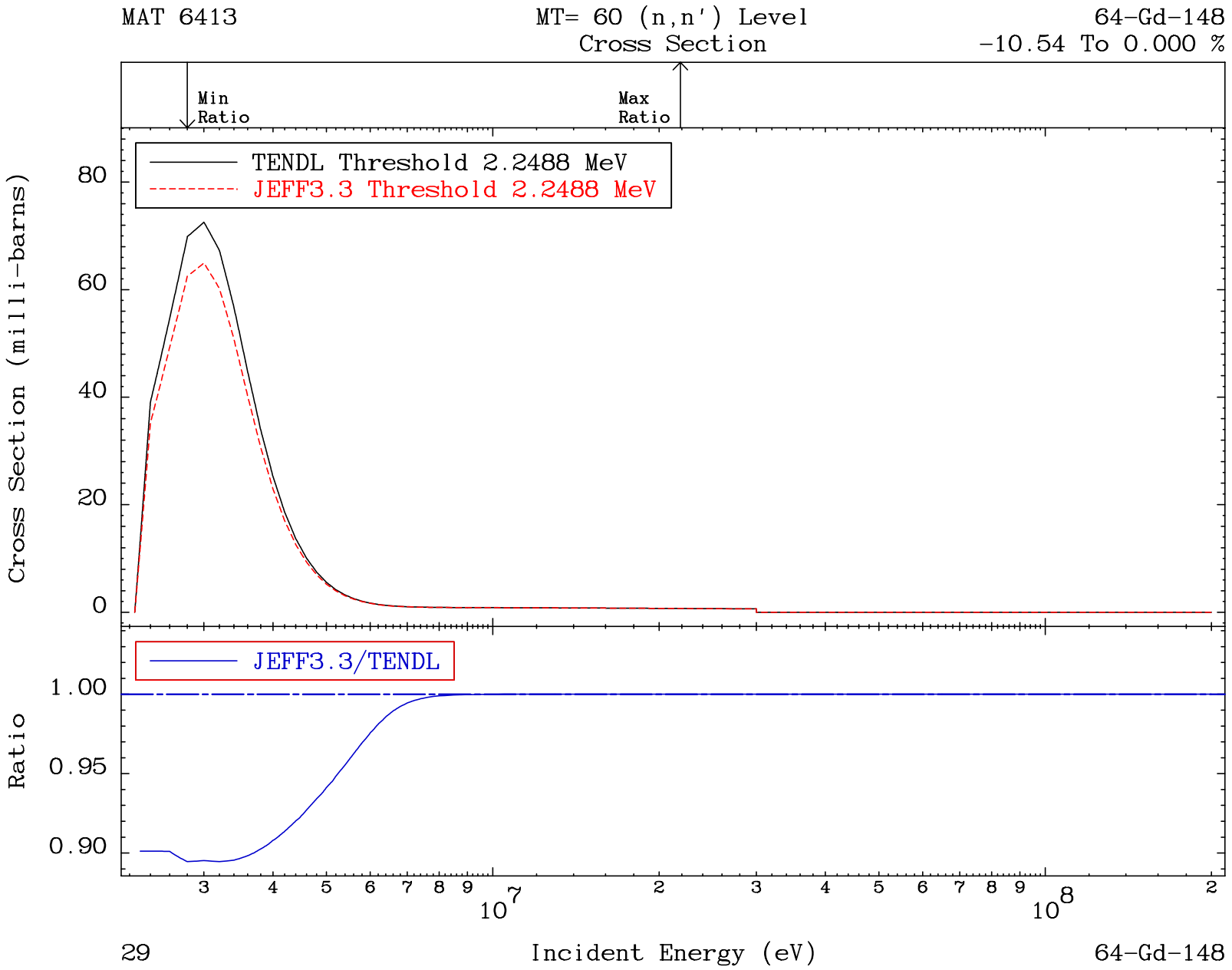

MAT 6413
MT= 55 (n,n') Level
Cross Section
64-Gd-148
-8.976 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.8471 MeV
JEFF3.3 Threshold 1.8471 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.96
0.92
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
24
Incident Energy (eV)
64-Gd-148

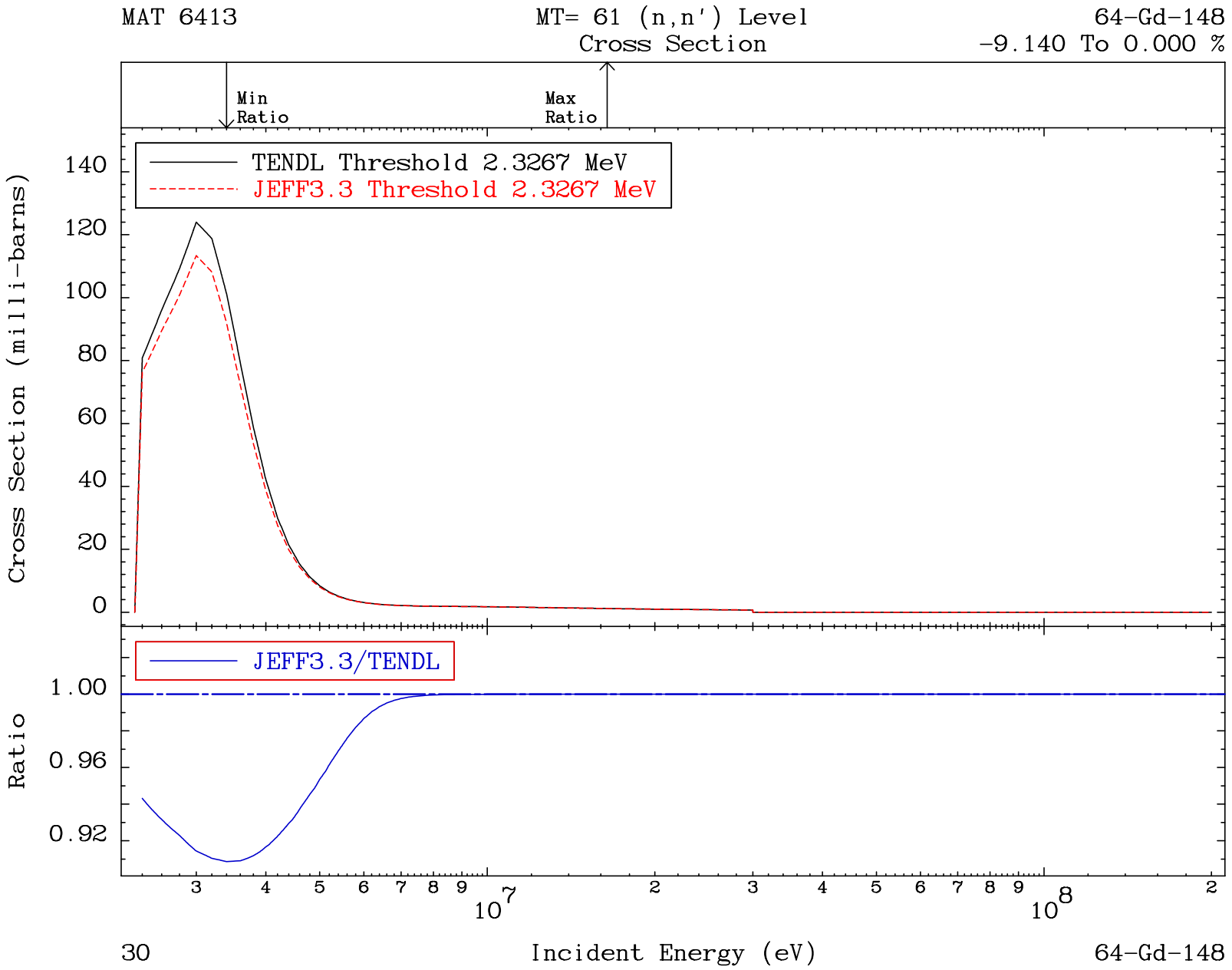

MAT 6413
MT= 56 (n,n') Level
Cross Section
64-Gd-148
-9.133 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.8762 MeV
JEFF3.3 Threshold 1.8762 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.96
0.92
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
25
Incident Energy (eV)
64-Gd-148

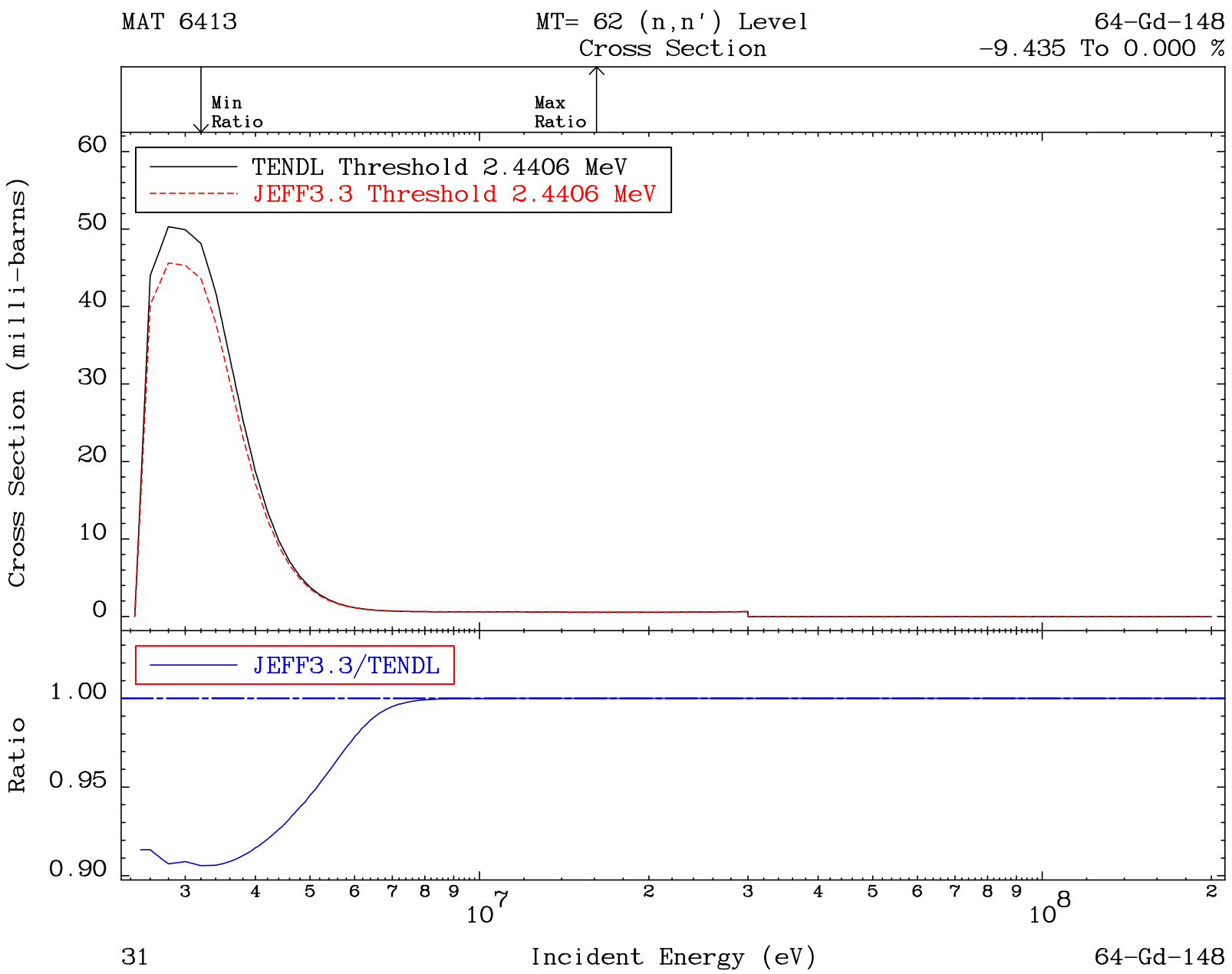

MAT 6413
MT= 57 (n,n') Level
Cross Section
64-Gd-148
-11.37 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.9260 MeV
JEFF3.3 Threshold 1.9260 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
64-Gd-148

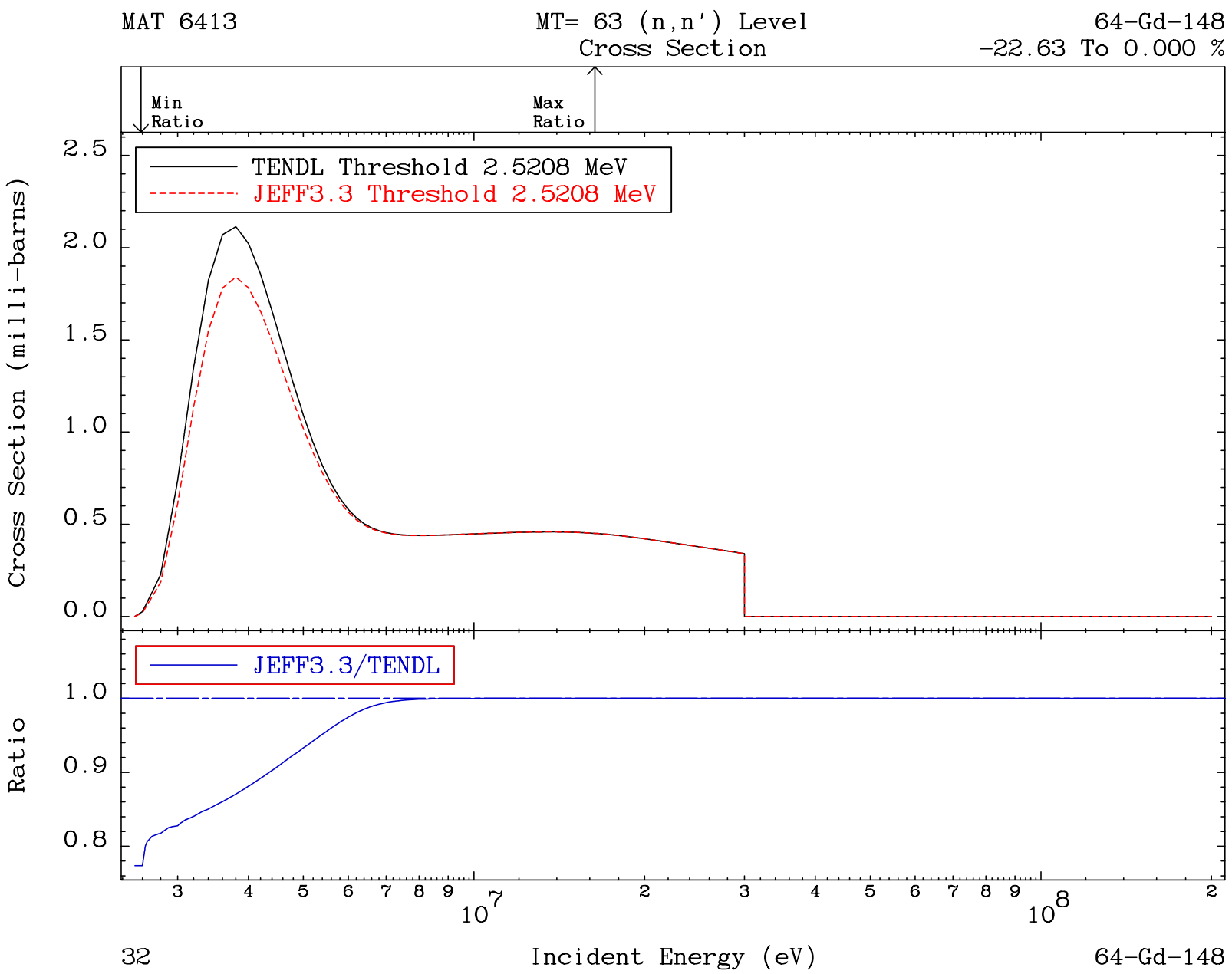

MAT 6413
MT= 58 (n,n') Level
Cross Section
64-Gd-148
-14.19 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.0962 MeV
JEFF3.3 Threshold 2.0962 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
0.85
2
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
27
Incident Energy (eV)
64-Gd-148

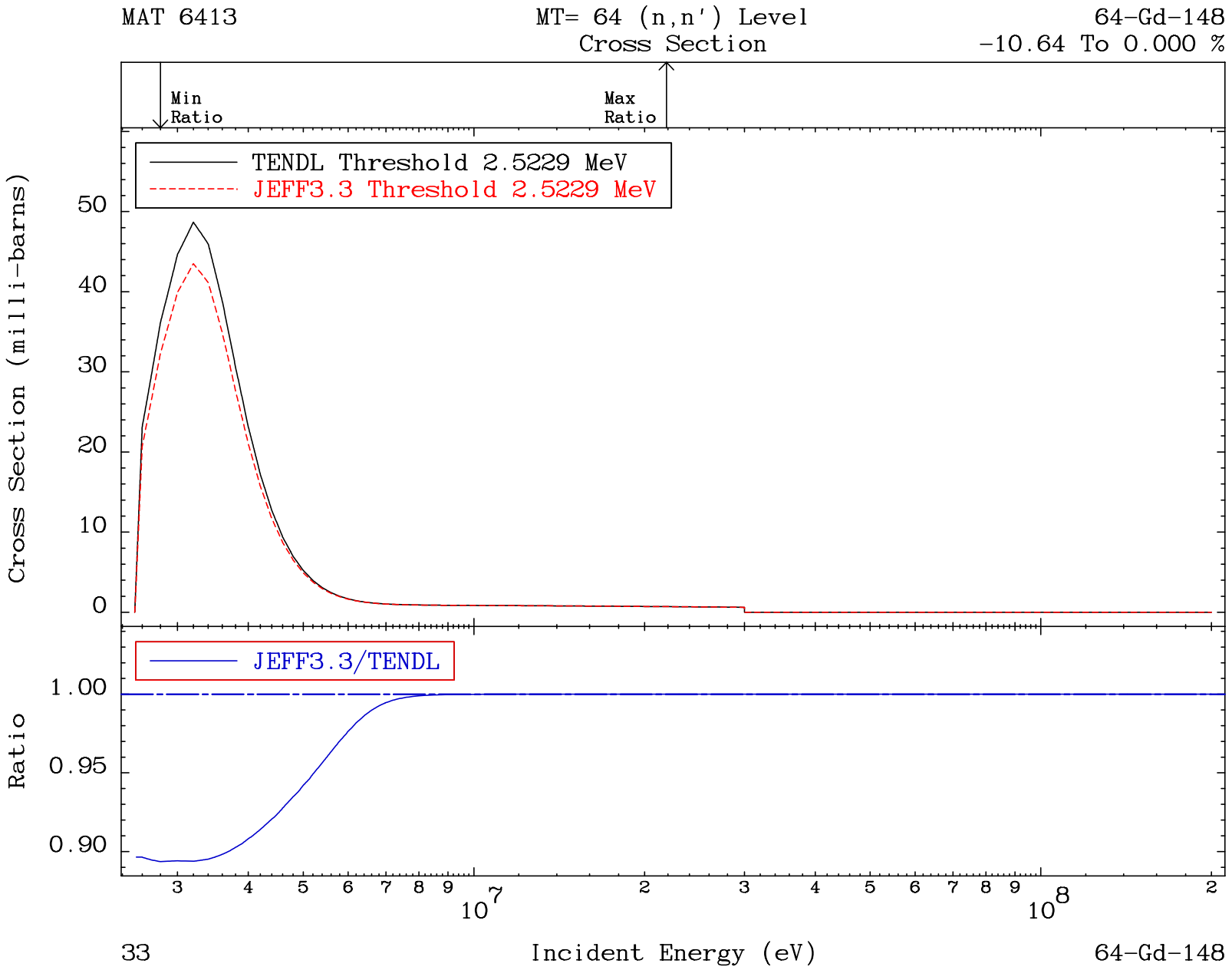

MAT 6413
MT= 59 (n,n') Level
Cross Section
64-Gd-148
-9.133 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.2036 MeV
JEFF3.3 Threshold 2.2036 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.96
0.92
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
28
Incident Energy (eV)
64-Gd-148

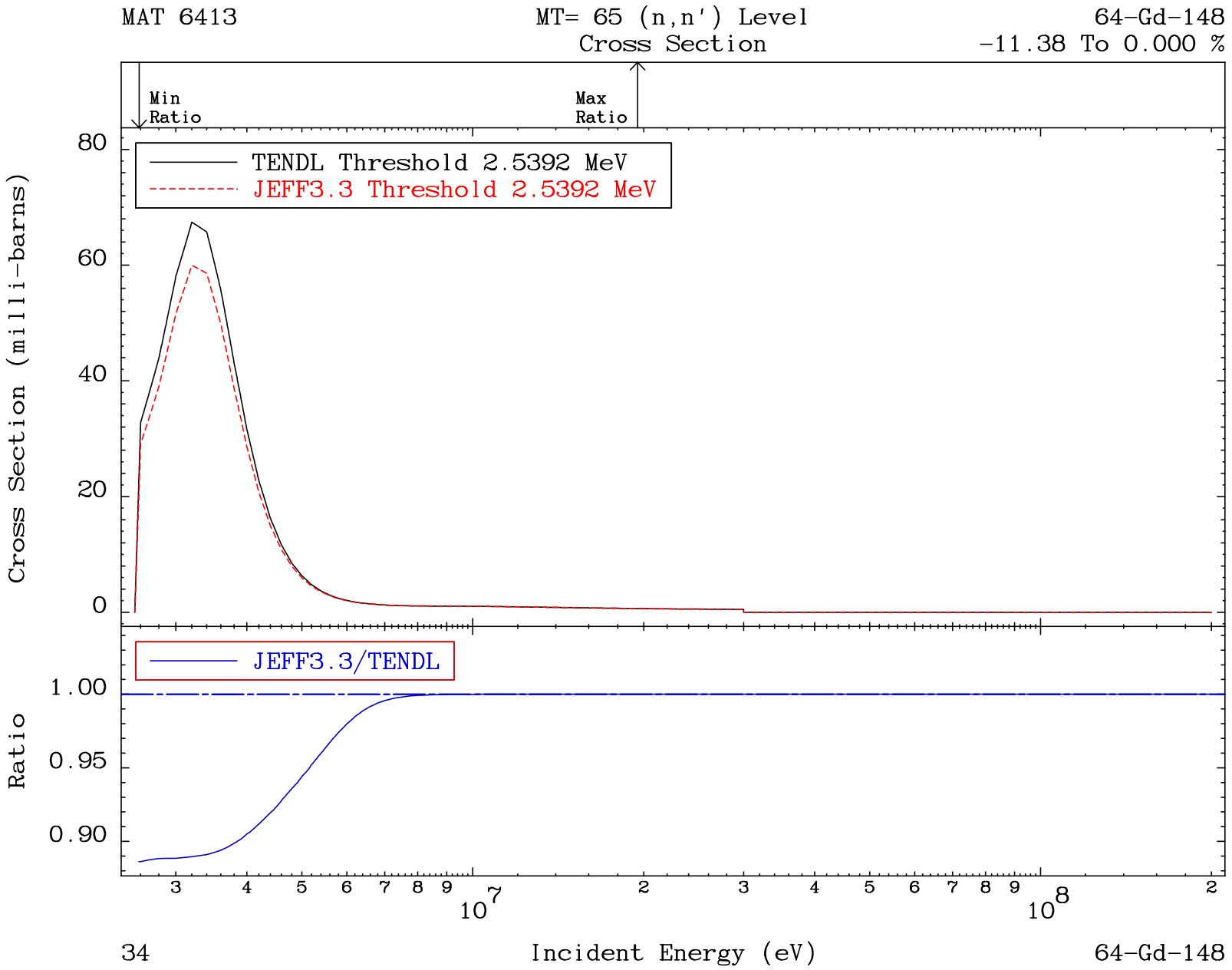

MAT 6413
MT= 60 (n,n') Level
Cross Section
64-Gd-148
-10.54 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 2.2488 MeV
JEFF3.3 Threshold 2.2488 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
29
Incident Energy (eV)
64-Gd-148

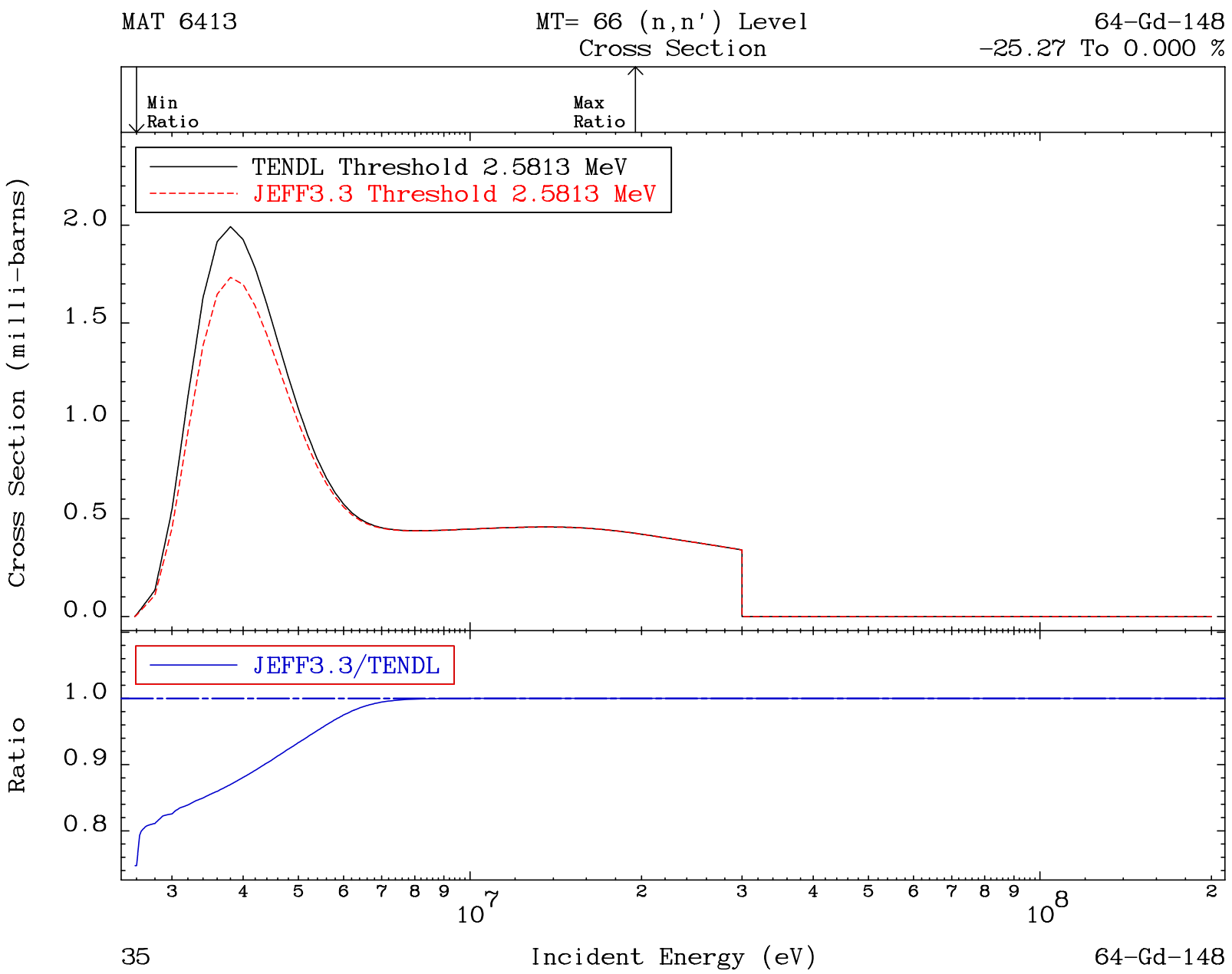

MAT 6413
MT= 61 (n,n') Level
Cross Section
64-Gd-148
-9.140 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.3267 MeV
JEFF3.3 Threshold 2.3267 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.96
0.92
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
30
Incident Energy (eV)
64-Gd-148

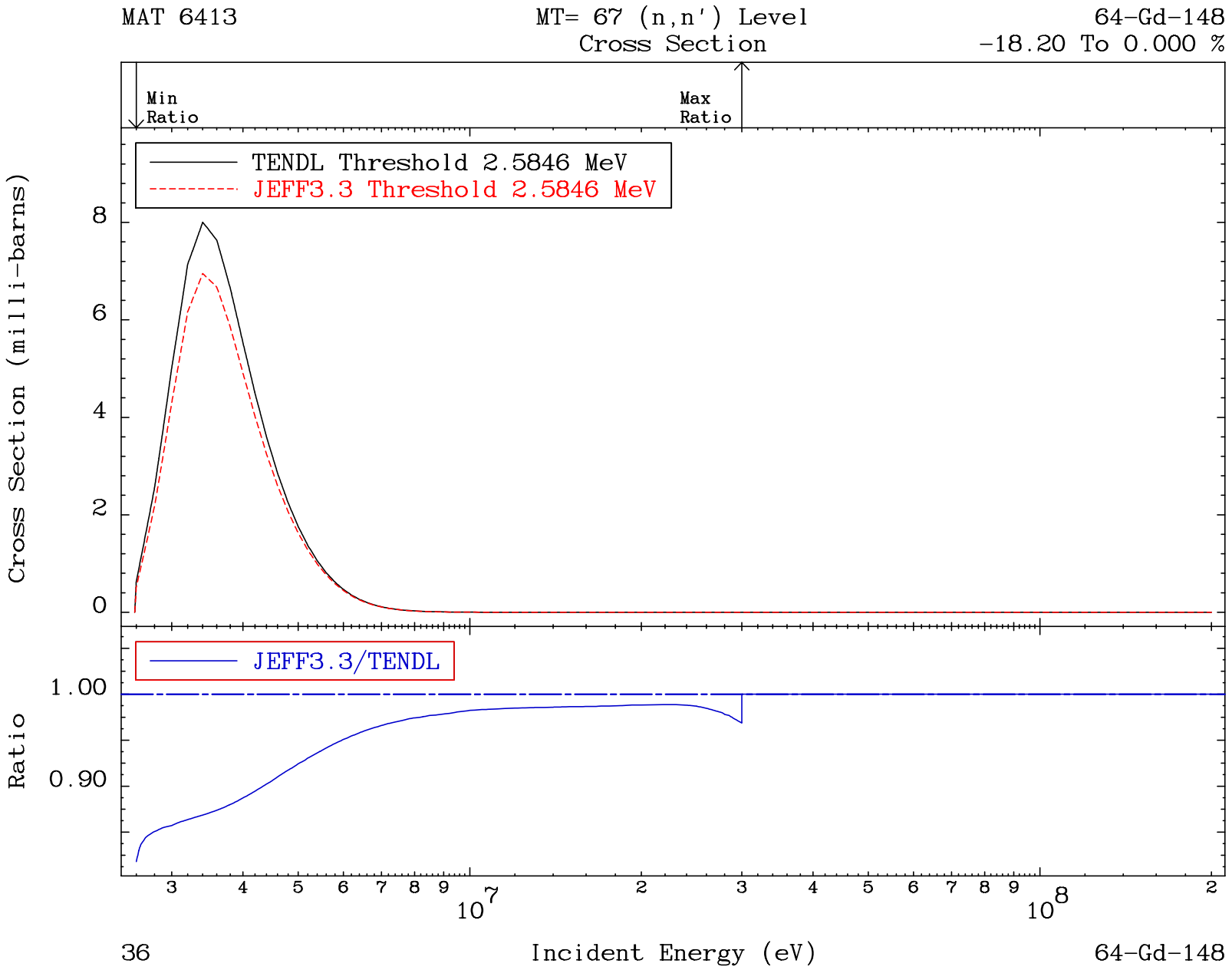

MAT 6413
MT= 62 (n,n') Level
Cross Section
64-Gd-148
-9.435 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.4406 MeV
JEFF3.3 Threshold 2.4406 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
31
Incident Energy (eV)
64-Gd-148

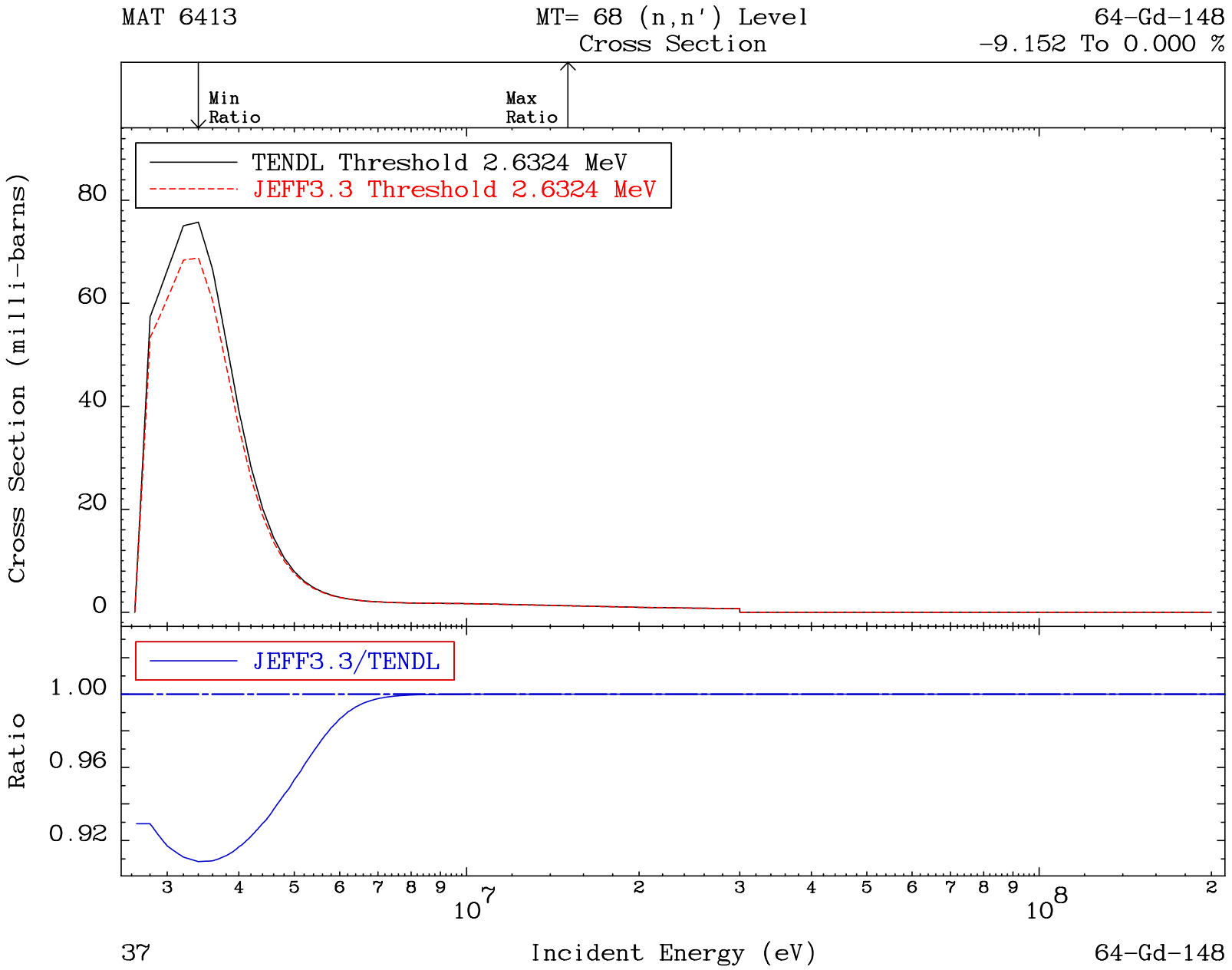

MAT 6413
MT= 63 (n,n') Level
Cross Section
64-Gd-148
-22.63 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.5208 MeV
JEFF3.3 Threshold 2.5208 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.0
0.9
0.8
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
32
Incident Energy (eV)
64-Gd-148

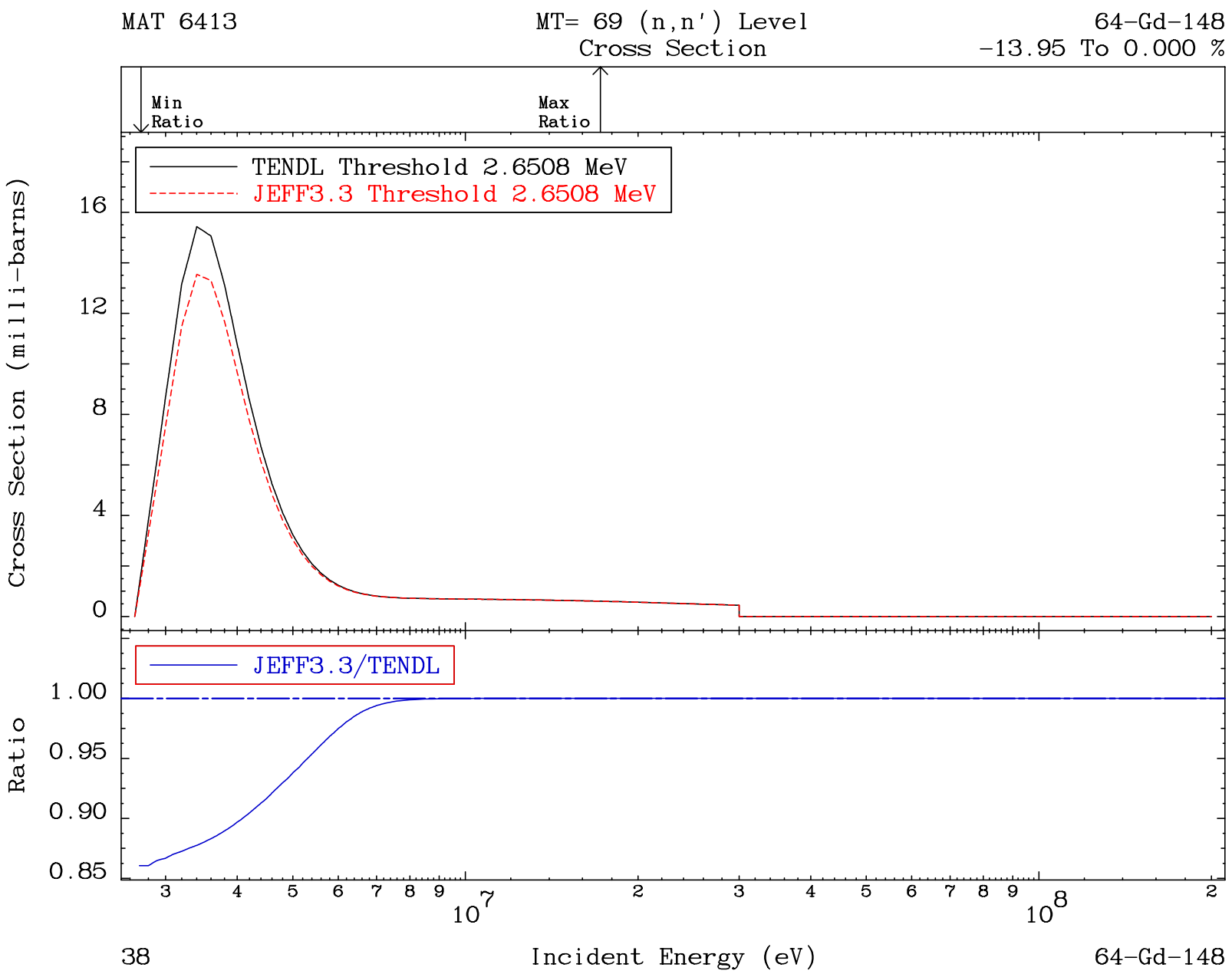

MAT 6413
MT= 64 (n,n') Level
Cross Section
64-Gd-148
-10.64 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.5229 MeV
JEFF3.3 Threshold 2.5229 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
33
Incident Energy (eV)
64-Gd-148

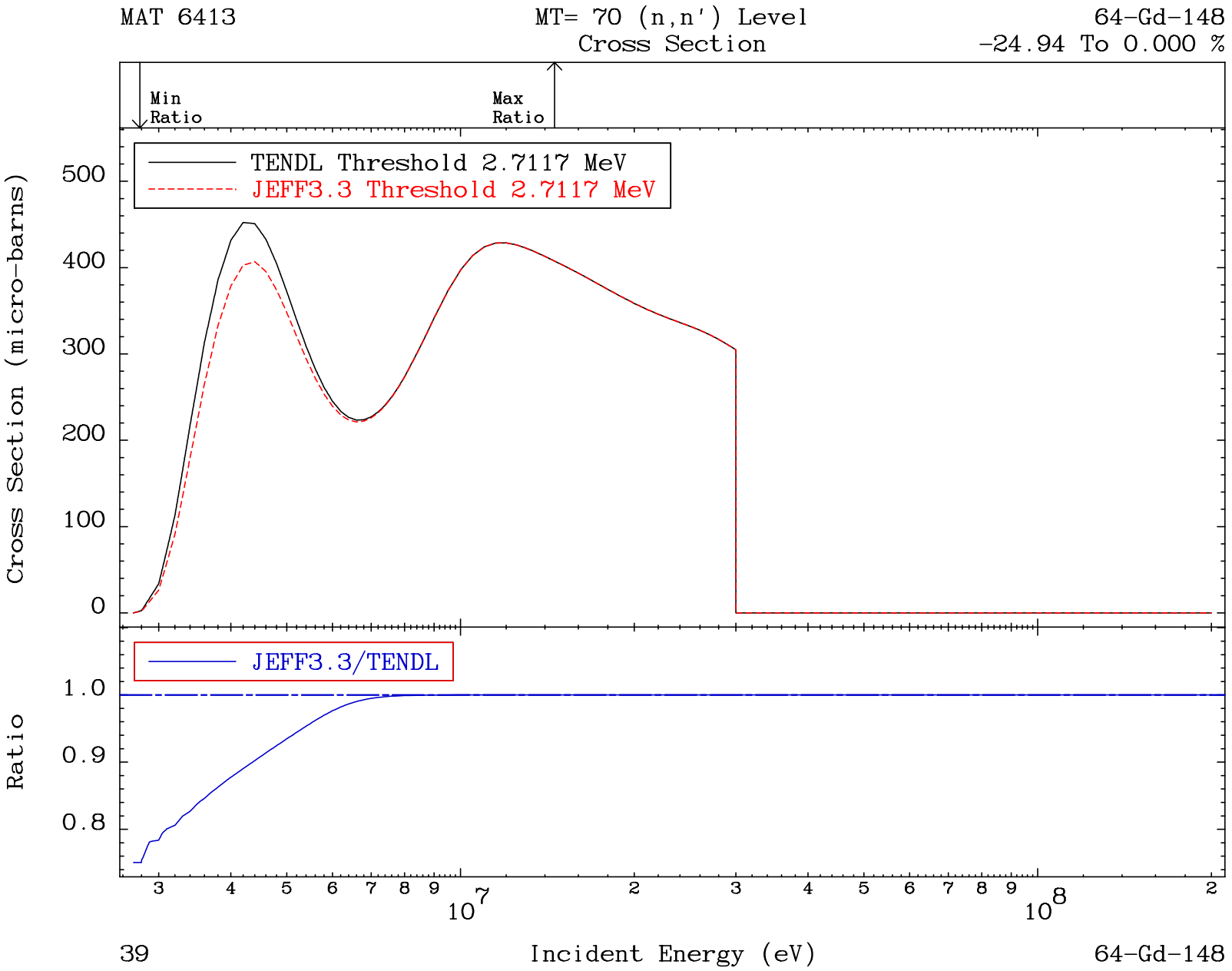

MAT 6413
MT= 65 (n,n') Level
Cross Section
64-Gd-148
-11.38 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.5392 MeV
JEFF3.3 Threshold 2.5392 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
34
Incident Energy (eV)
64-Gd-148

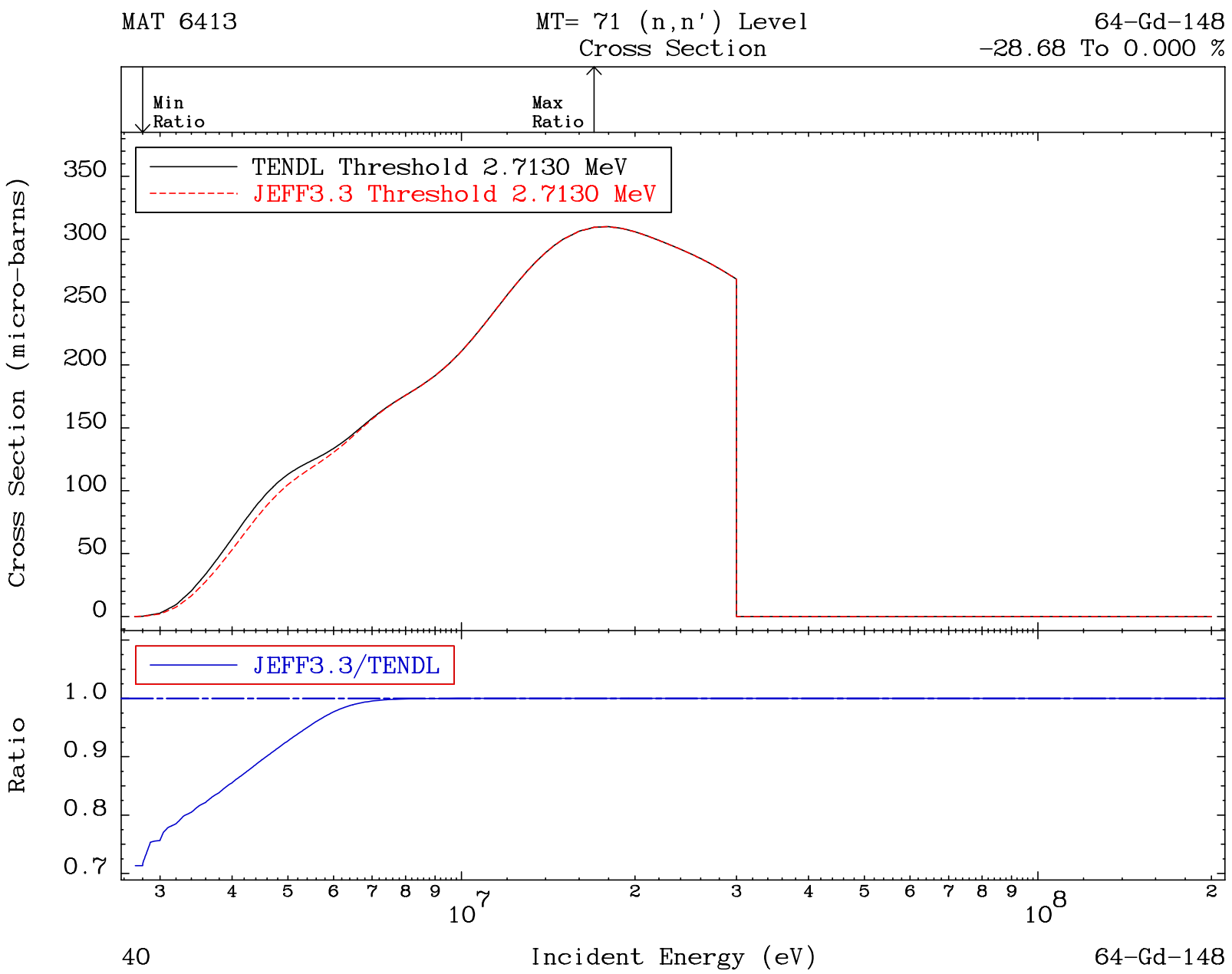

MAT 6413
MT= 66 (n,n') Level
Cross Section
64-Gd-148
-25.27 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.5813 MeV
JEFF3.3 Threshold 2.5813 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.0
0.9
0.8
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
35
Incident Energy (eV)
64-Gd-148

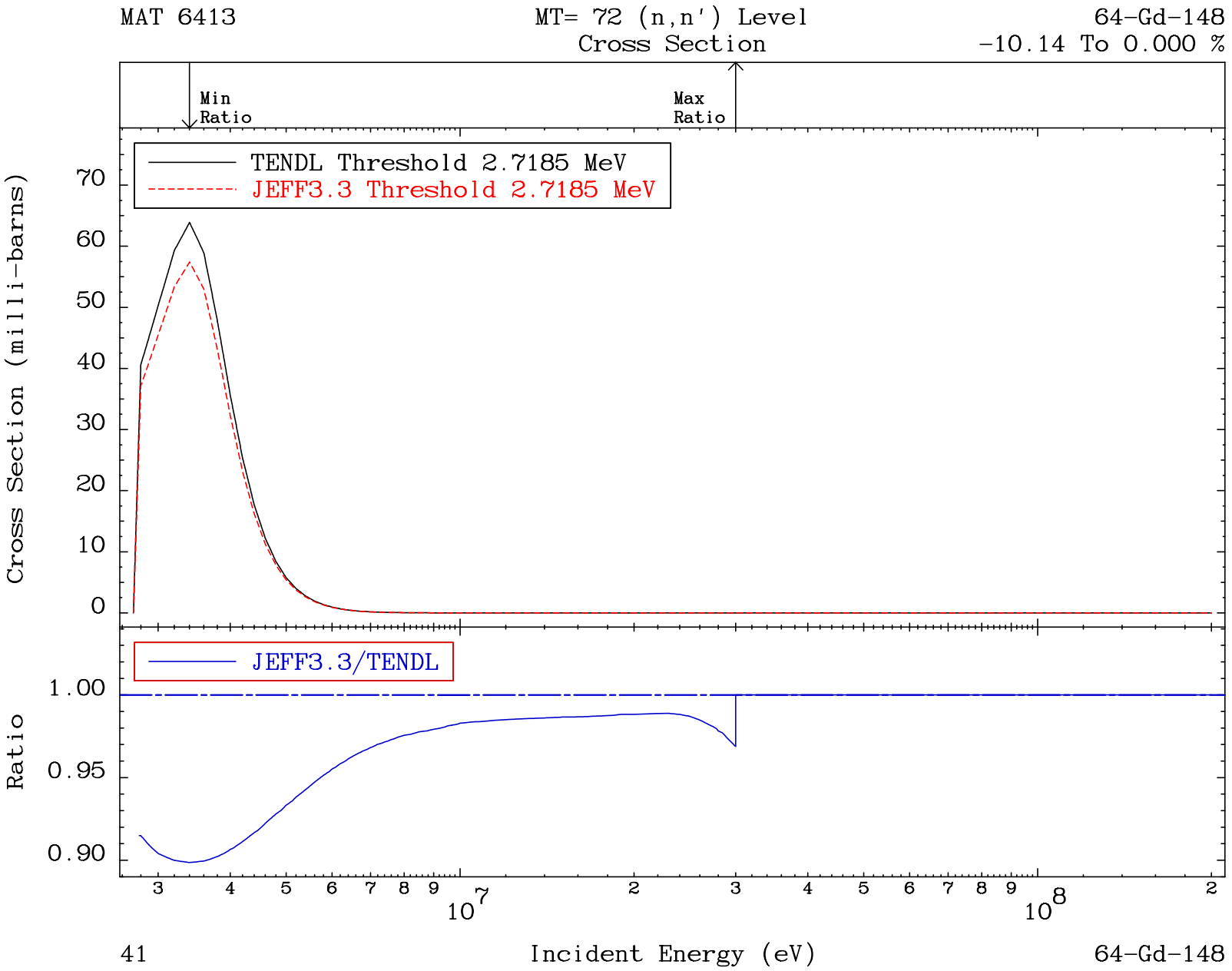

MAT 6413
MT= 67 (n,n') Level
Cross Section
64-Gd-148
-18.20 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.5846 MeV
JEFF3.3 Threshold 2.5846 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
1.00
0.90
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
36
Incident Energy (eV)
64-Gd-148

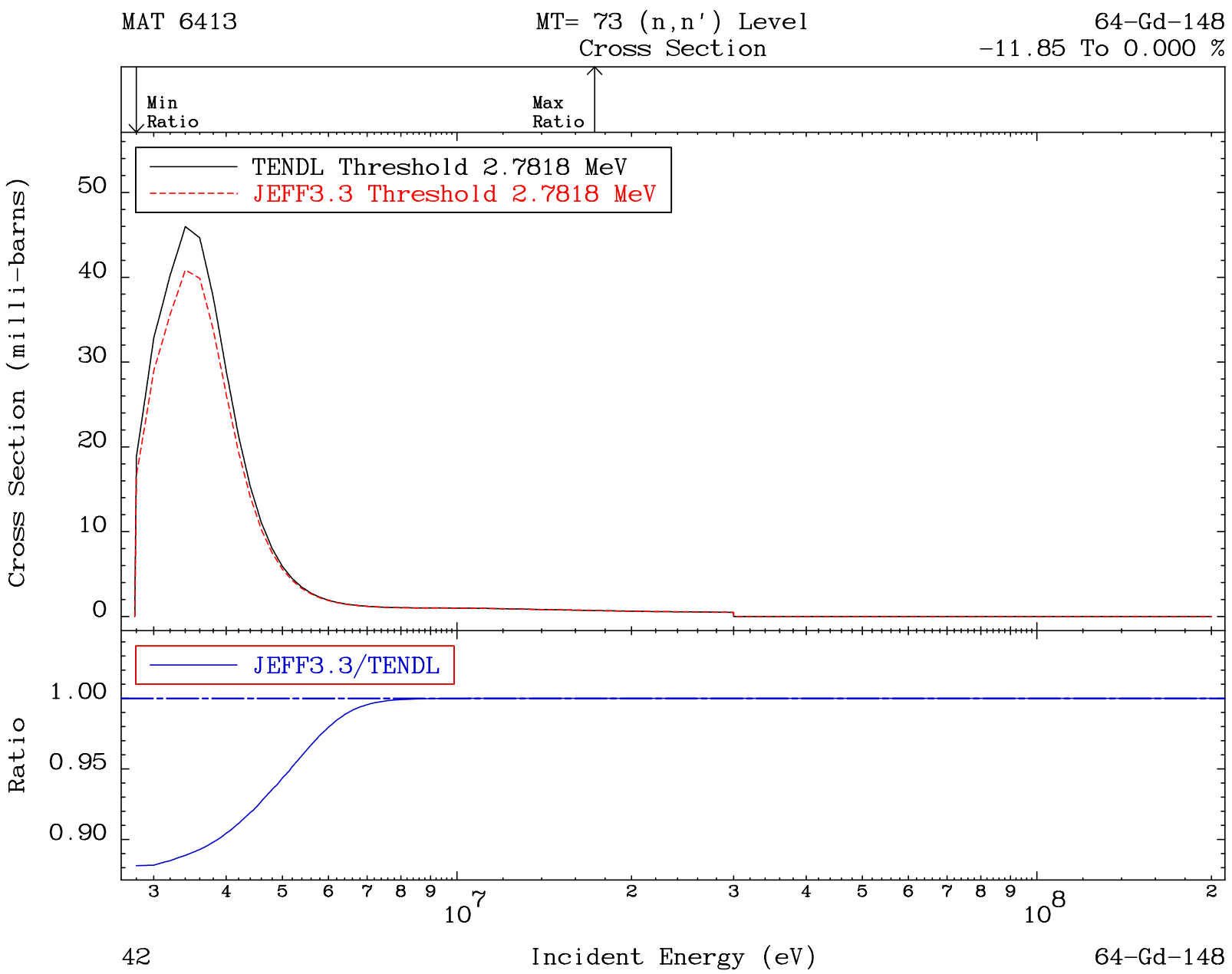

MAT 6413
MT= 68 (n,n') Level
Cross Section
64-Gd-148
-9.152 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.6324 MeV
JEFF3.3 Threshold 2.6324 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.96
0.92
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
37
Incident Energy (eV)
64-Gd-148

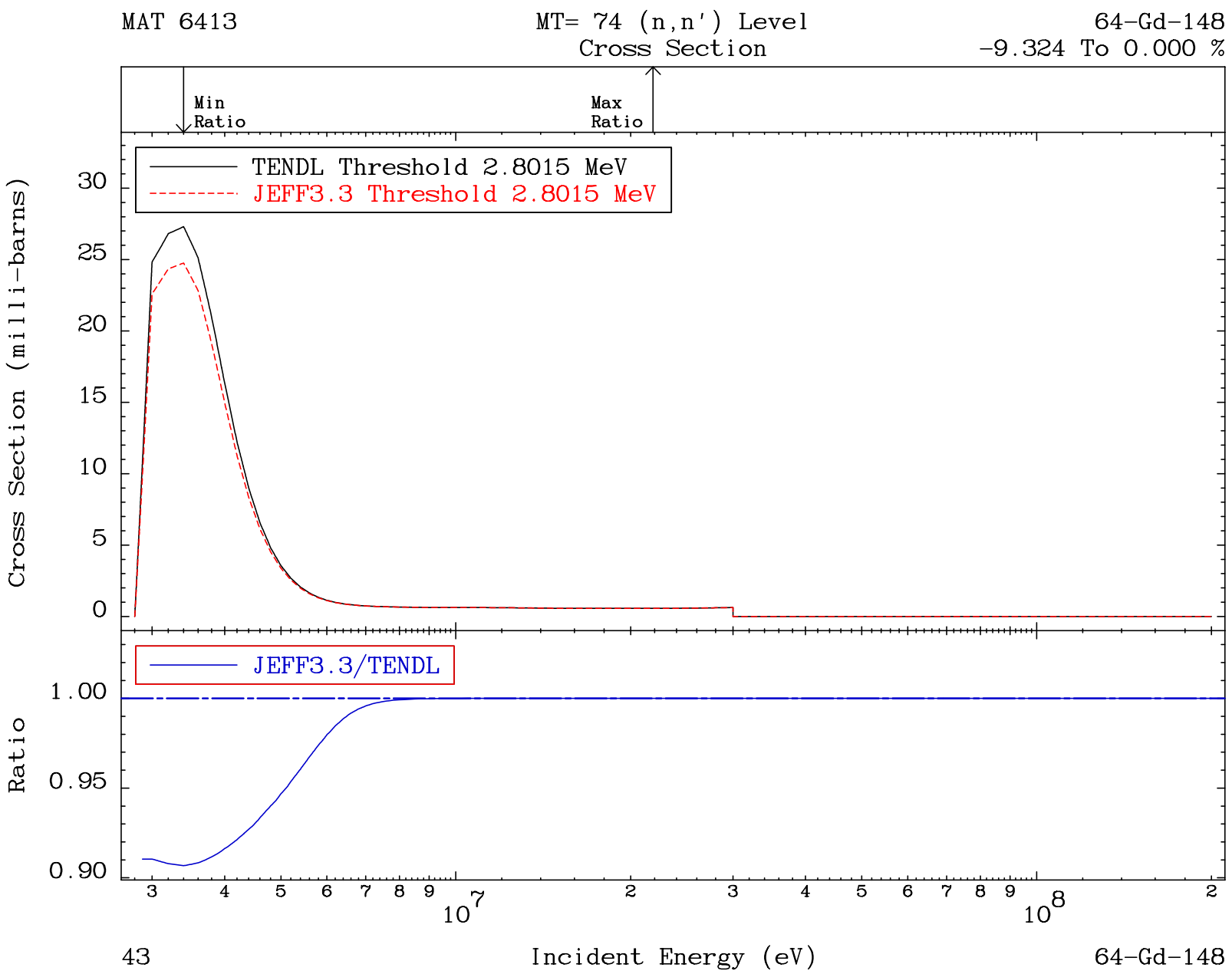

MAT 6413
MT= 69 (n,n') Level
Cross Section
64-Gd-148
-13.95 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.6508 MeV
JEFF3.3 Threshold 2.6508 MeV
Cross Section (milli-barns)
16
12
8
4
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
0.85
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
38
Incident Energy (eV)
64-Gd-148

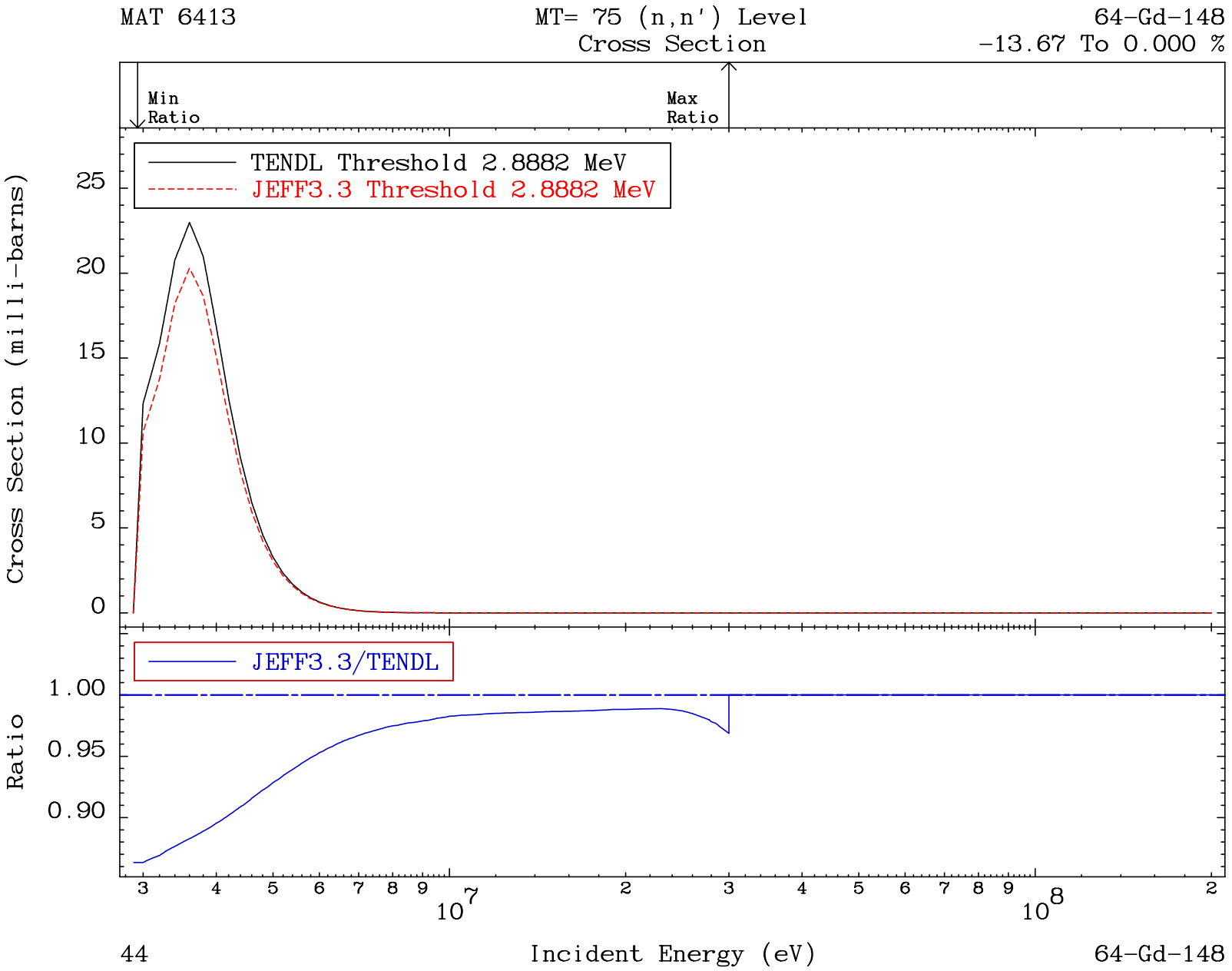

MAT 6413
MT= 70 (n,n') Level
Cross Section
64-Gd-148
-24.94 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.7117 MeV
JEFF3.3 Threshold 2.7117 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.0
0.9
0.8
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
39
Incident Energy (eV)
64-Gd-148

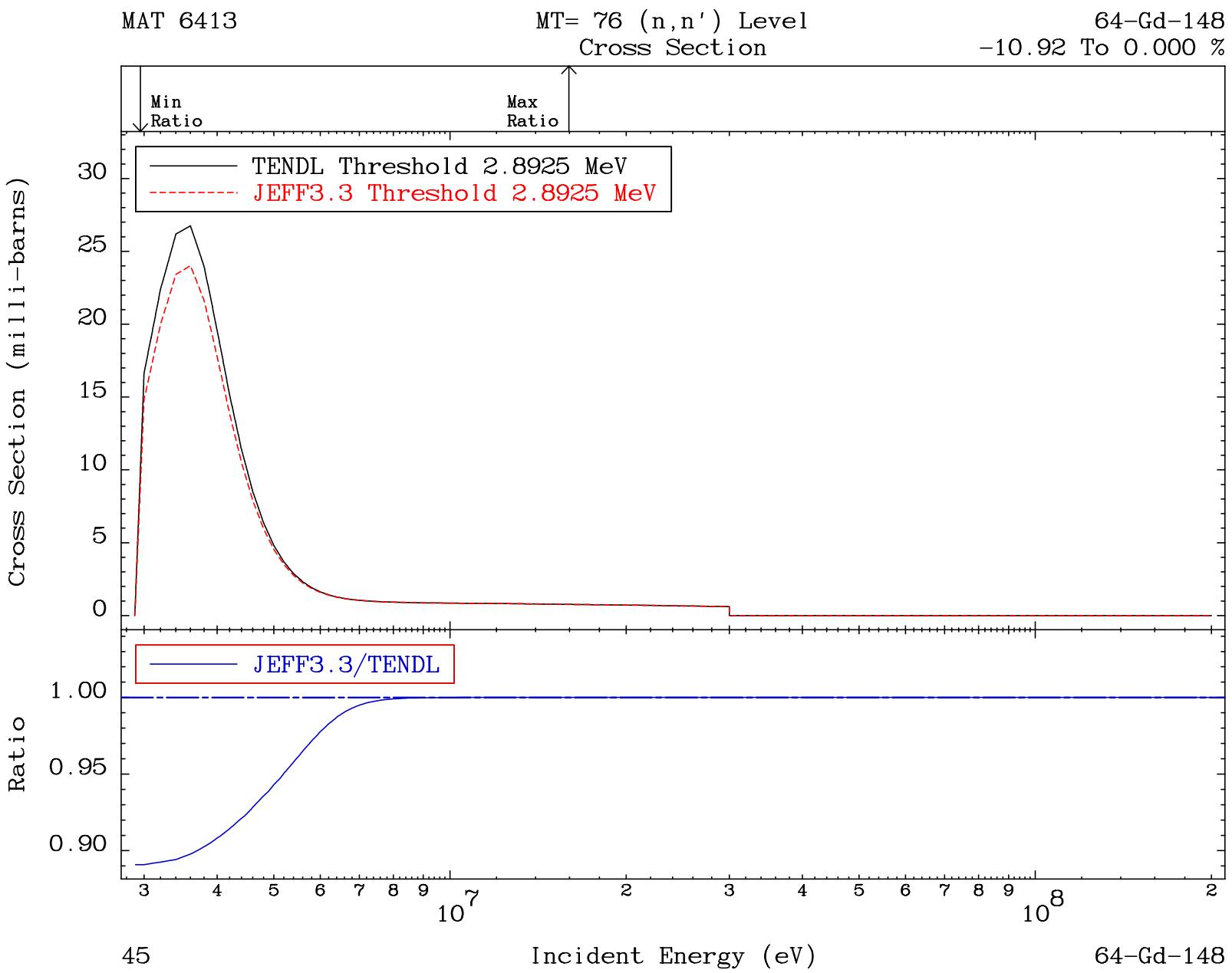

MAT 6413
MT= 71 (n,n') Level
Cross Section
64-Gd-148
-28.68 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.7130 MeV
JEFF3.3 Threshold 2.7130 MeV
Cross Section (micro-barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.0
0.9
0.8
0.7
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
40
Incident Energy (eV)
64-Gd-148

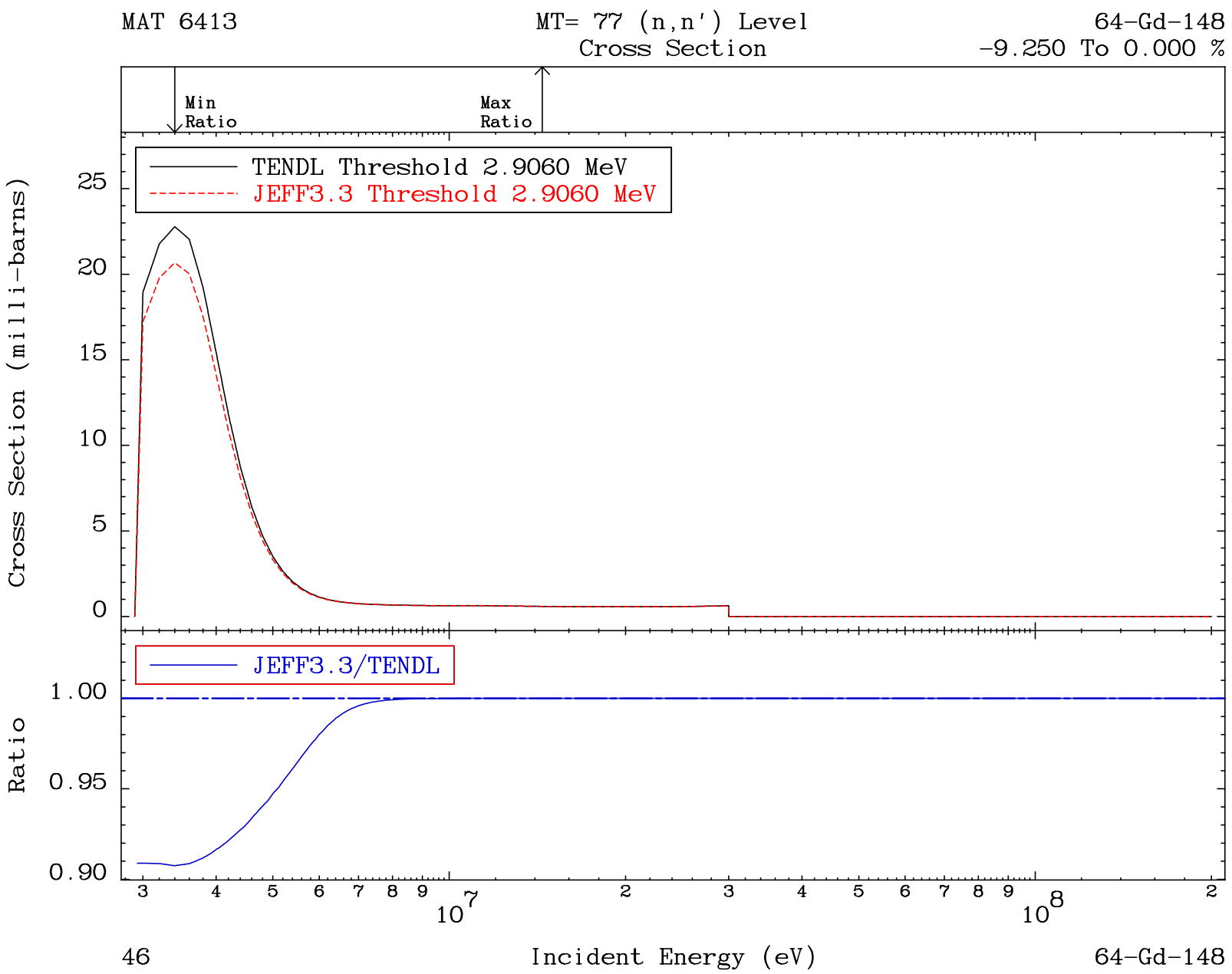

MAT 6413
MT= 72 (n,n') Level
Cross Section
64-Gd-148
-10.14 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.7185 MeV
JEFF3.3 Threshold 2.7185 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
41
Incident Energy (eV)
64-Gd-148

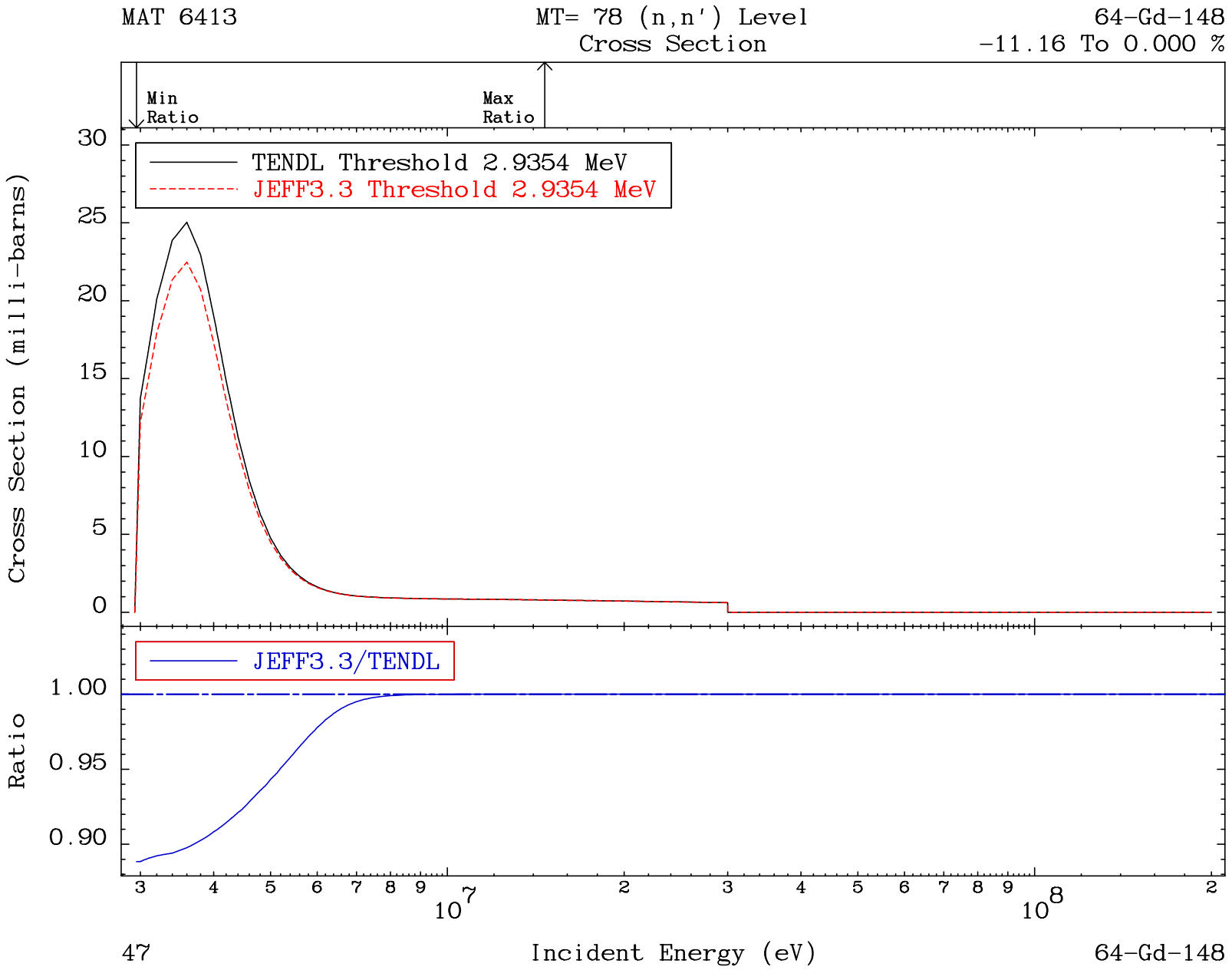

MAT 6413
MT= 73 (n,n') Level
Cross Section
64-Gd-148
-11.85 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.7818 MeV
JEFF3.3 Threshold 2.7818 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
42
Incident Energy (eV)
64-Gd-148

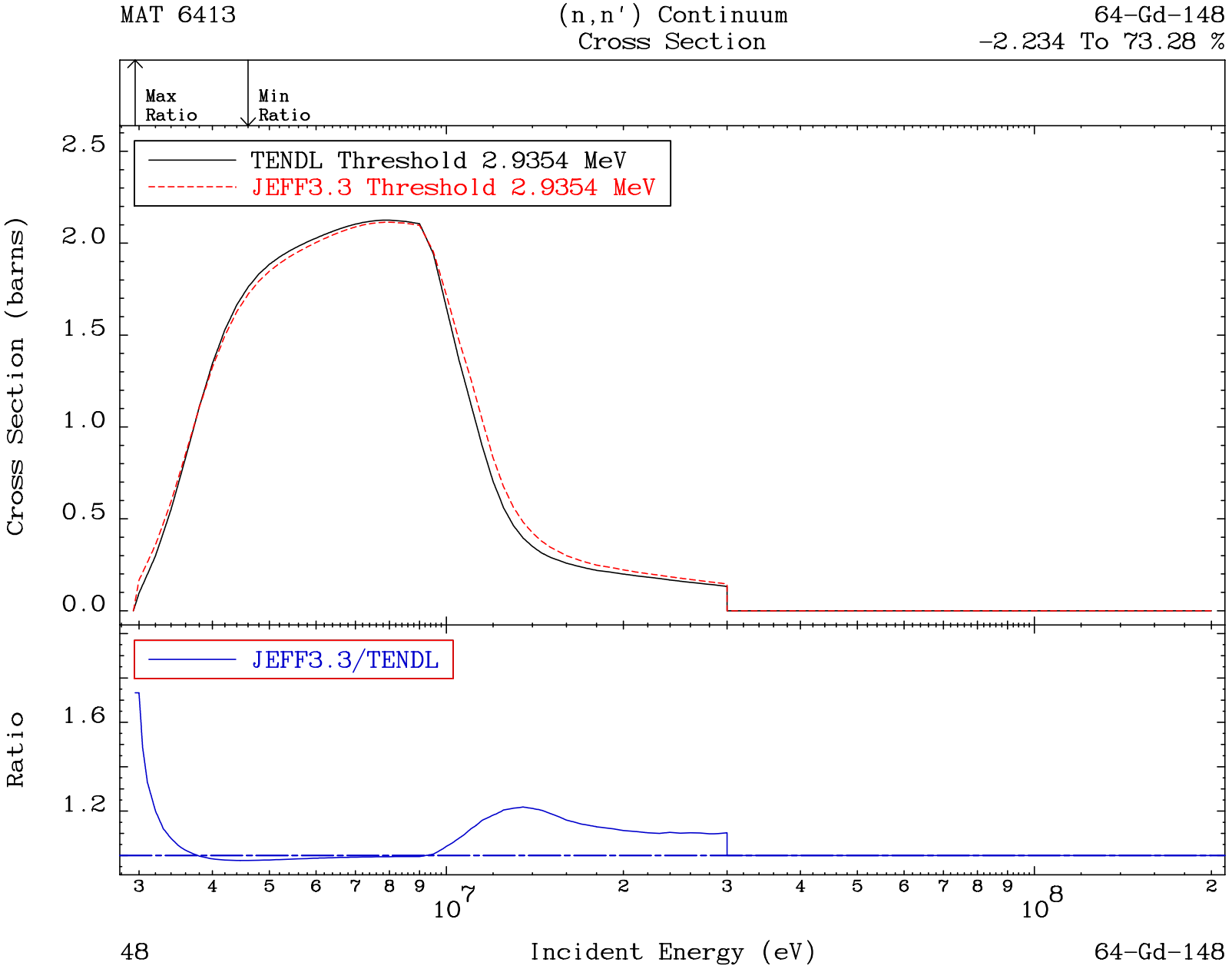

MAT 6413
MT= 74 (n,n') Level
Cross Section
64-Gd-148
-9.324 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.8015 MeV
JEFF3.3 Threshold 2.8015 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
43
Incident Energy (eV)
64-Gd-148

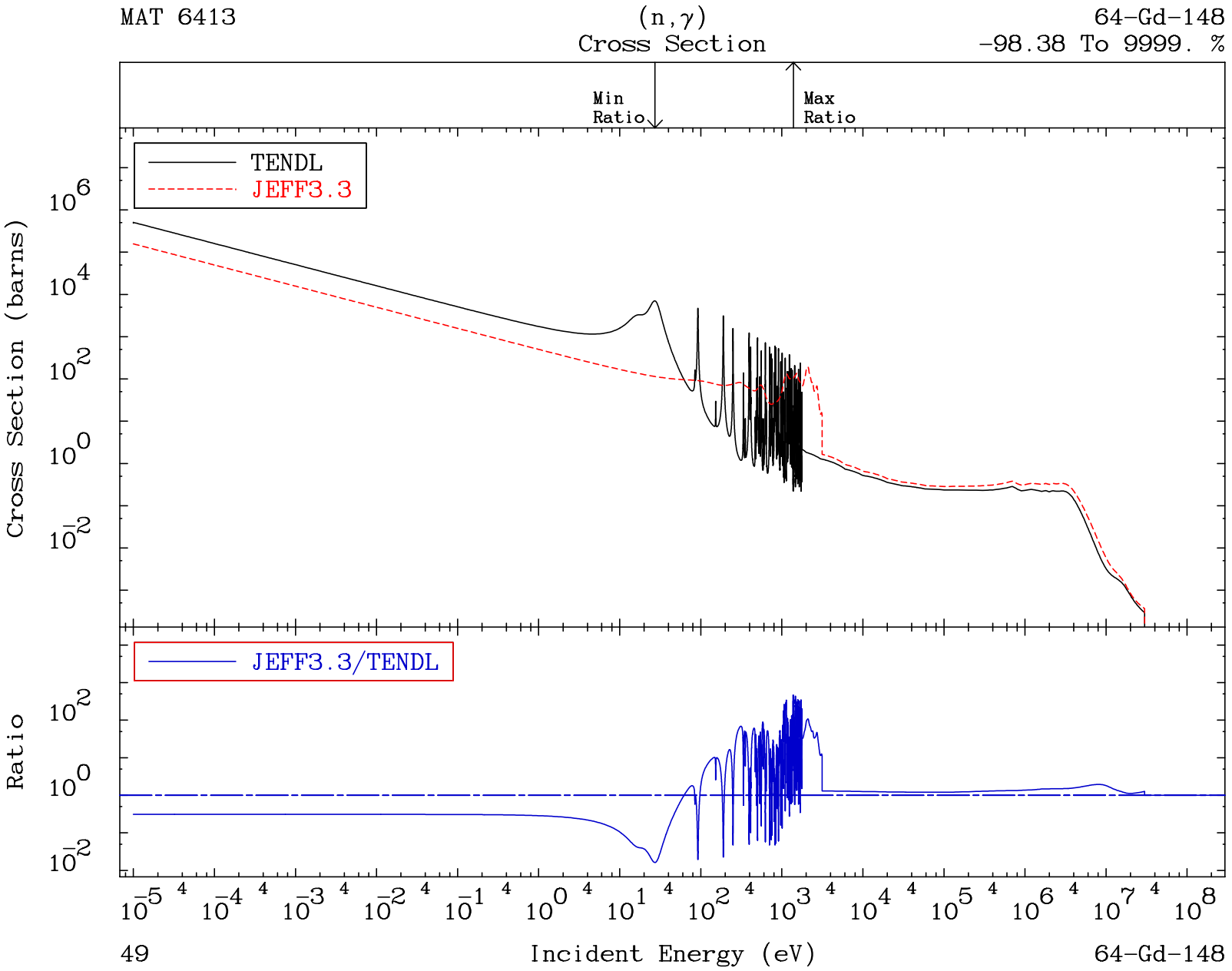

MAT 6413
MT= 75 (n,n') Level
Cross Section
64-Gd-148
-13.67 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.8882 MeV
JEFF3.3 Threshold 2.8882 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
64-Gd-148

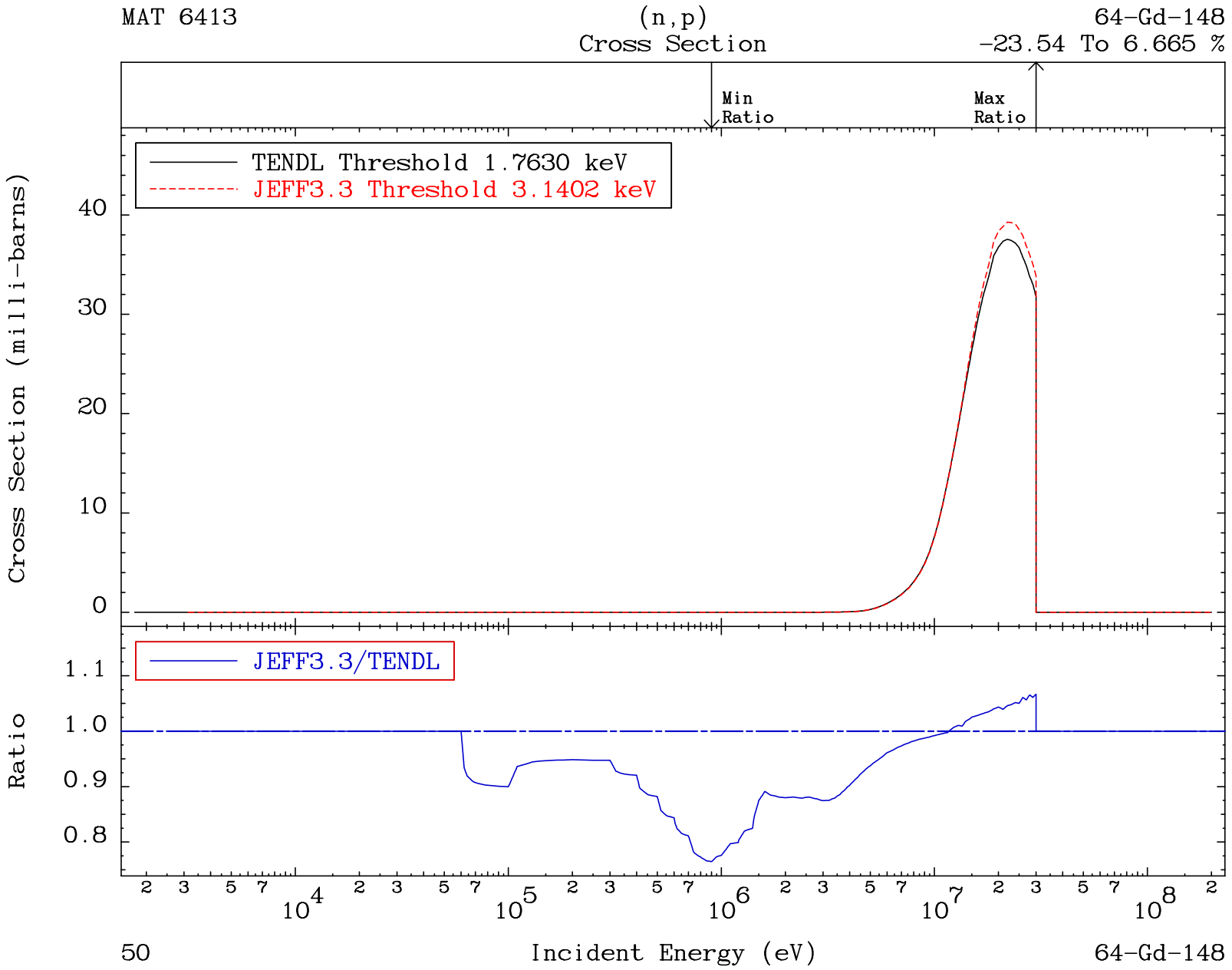

MAT 6413
MT= 76 (n,n') Level
Cross Section
64-Gd-148
-10.92 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.8925 MeV
JEFF3.3 Threshold 2.8925 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
45
Incident Energy (eV)
64-Gd-148

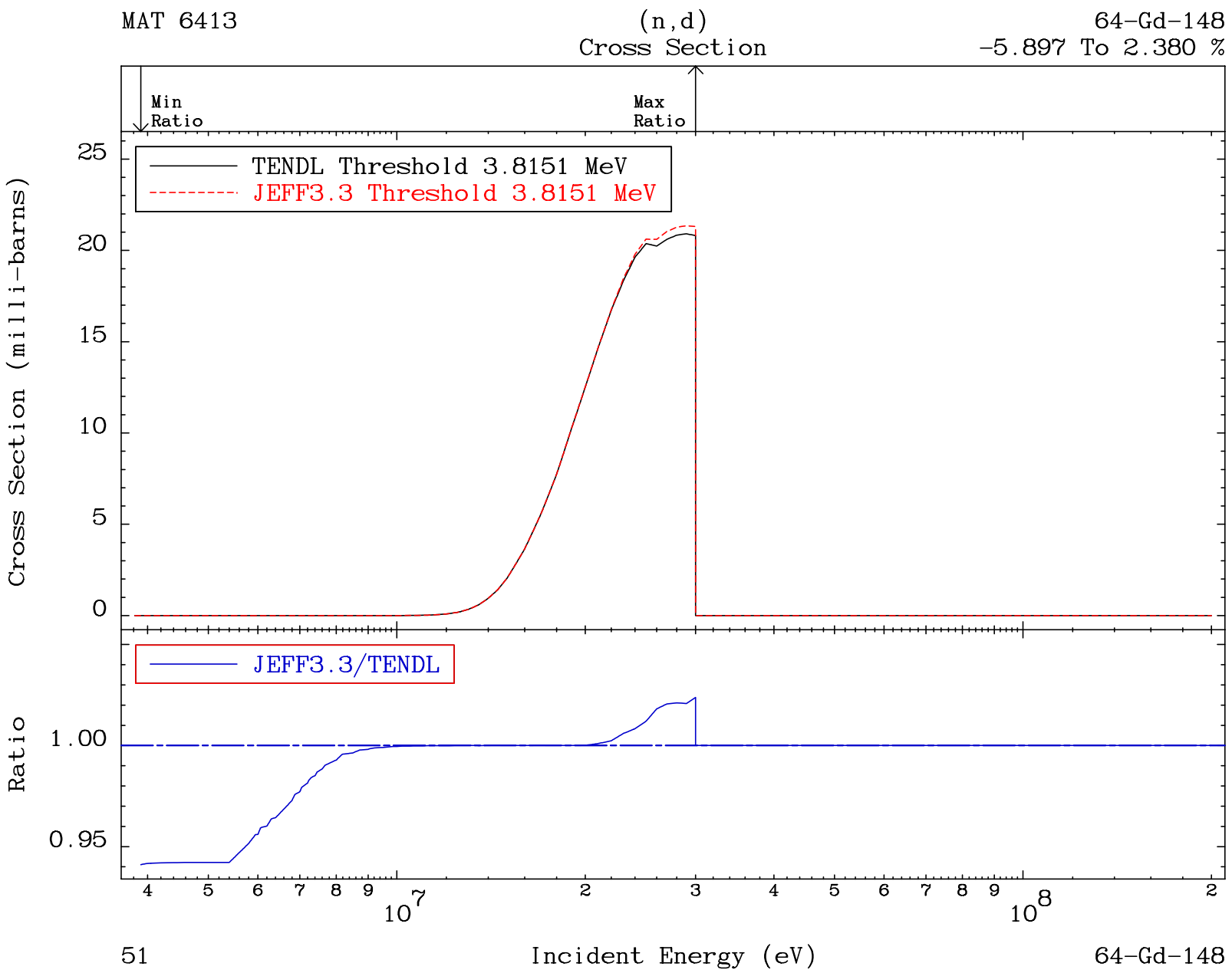

MAT 6413
MT= 77 (n,n') Level
Cross Section
64-Gd-148
-9.250 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.9060 MeV
JEFF3.3 Threshold 2.9060 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
46
Incident Energy (eV)
64-Gd-148

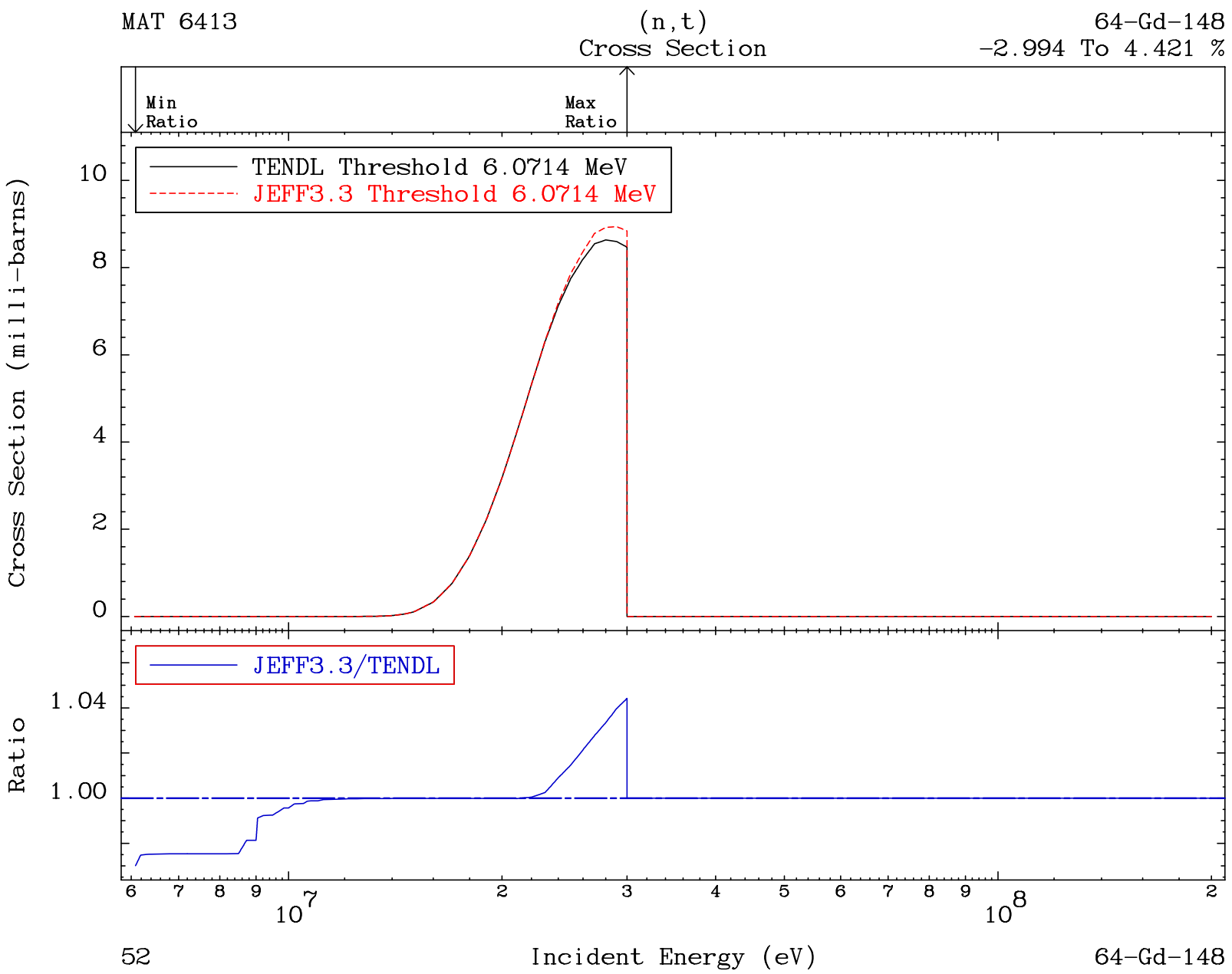

MAT 6413
MT= 78 (n,n') Level
Cross Section
64-Gd-148
-11.16 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 2.9354 MeV
JEFF3.3 Threshold 2.9354 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
47
Incident Energy (eV)
64-Gd-148

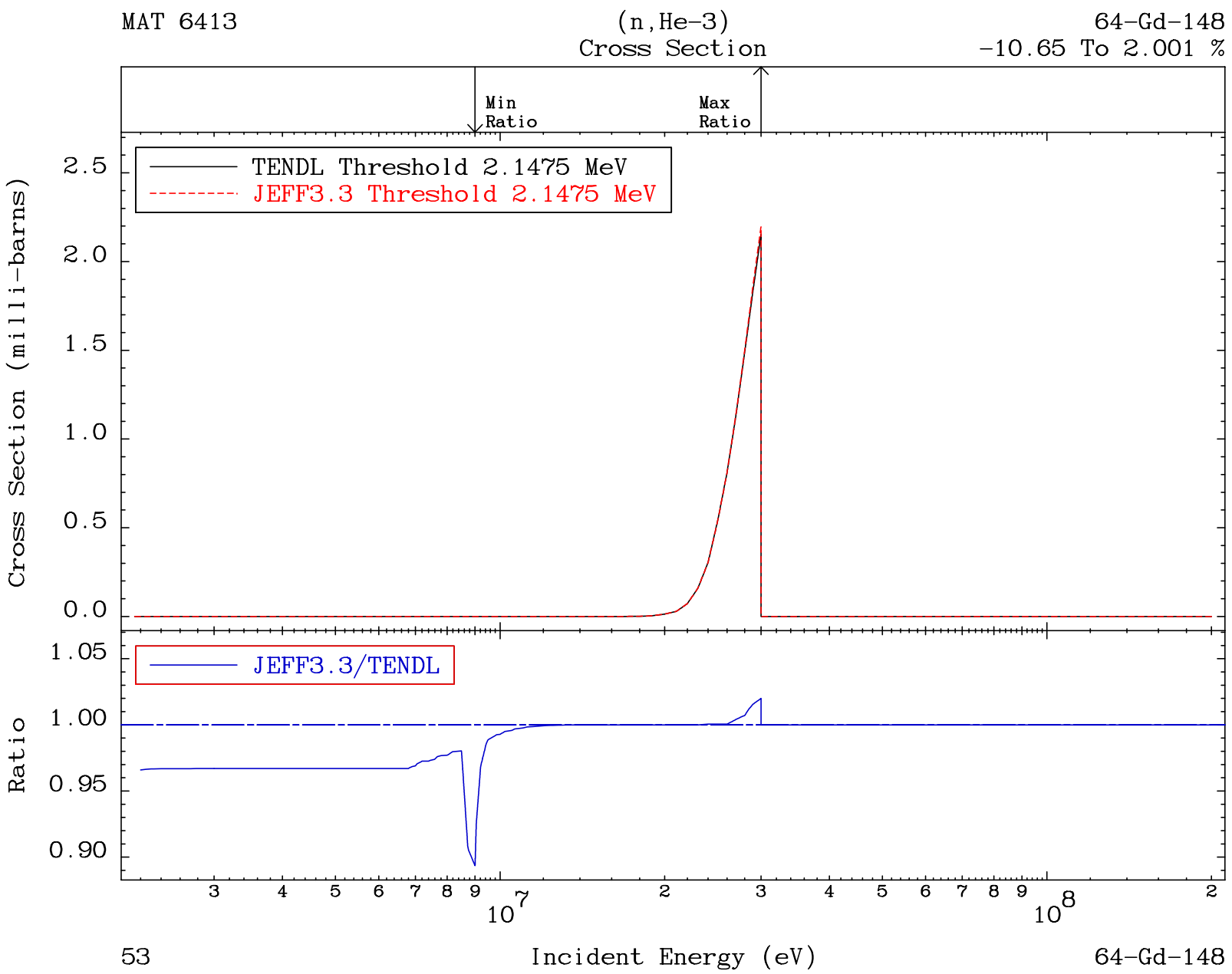

MAT 6413
(n,n') Continuum
Cross Section
64-Gd-148
-2.234 To 73.28 %
Max Ratio
Min Ratio
TENDL Threshold 2.9354 MeV
JEFF3.3 Threshold 2.9354 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.6
1.2
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
48
Incident Energy (eV)
64-Gd-148

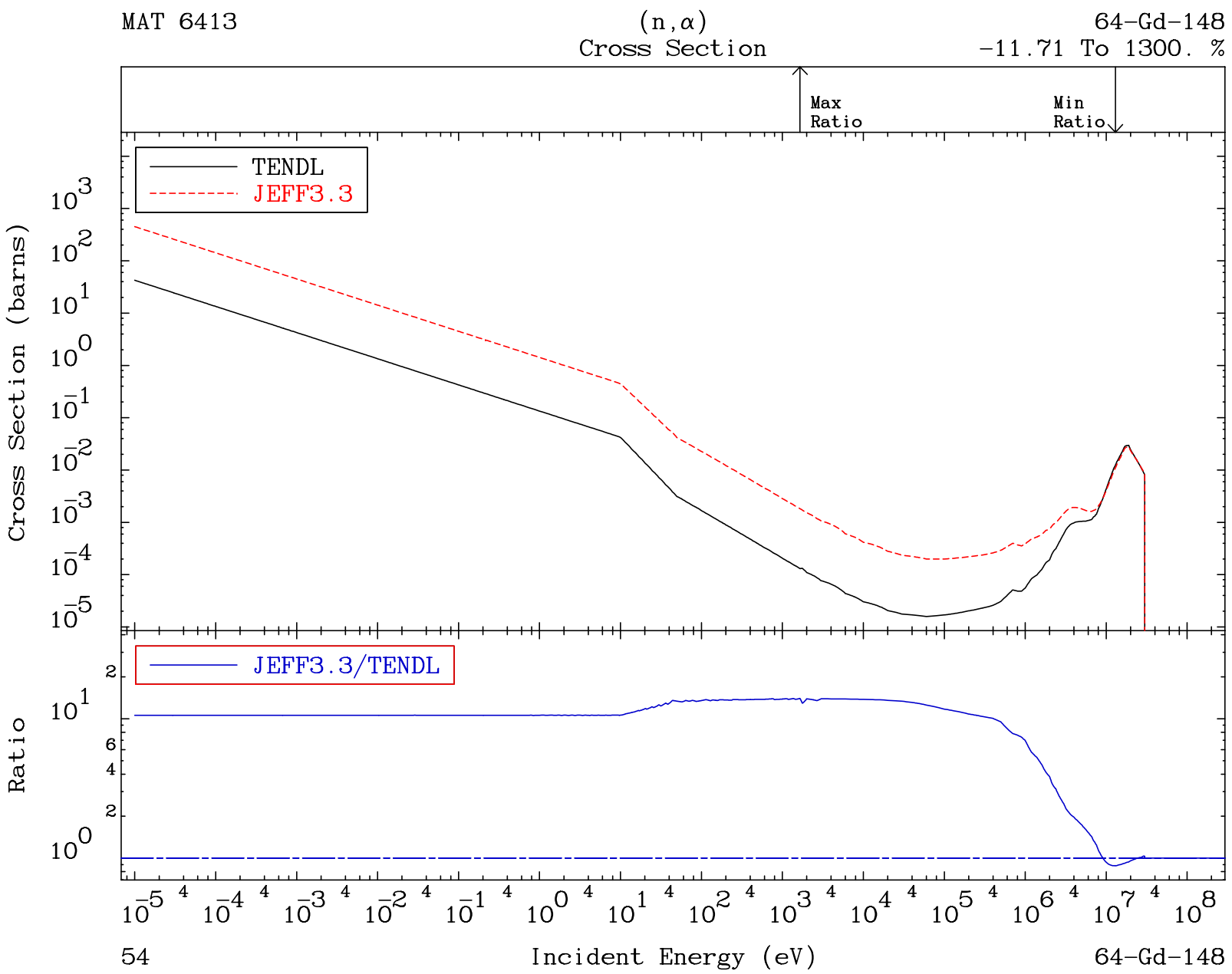

MAT 6413
(n,γ)
Cross Section
64-Gd-148
-98.38 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
49
64-Gd-148

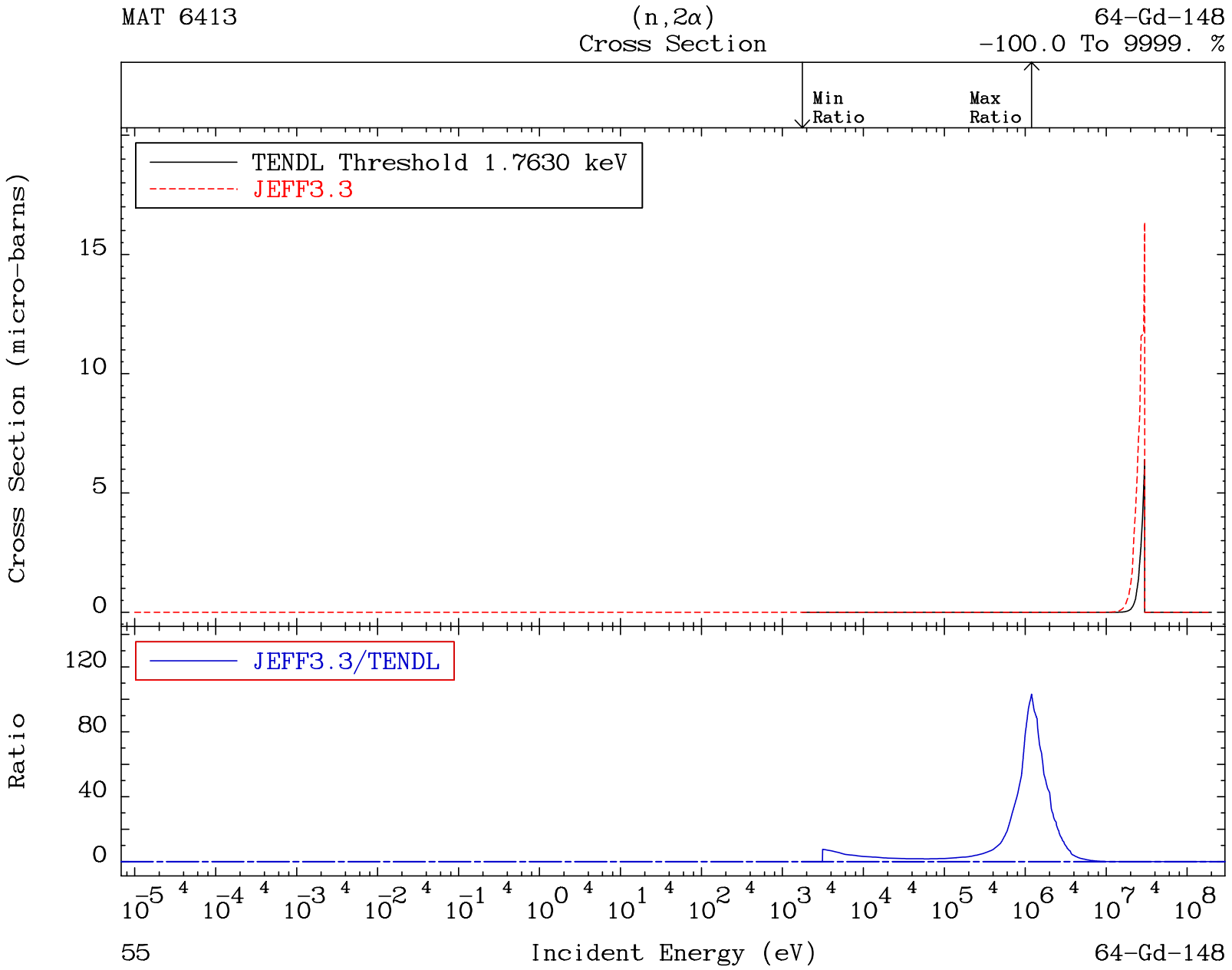

MAT 6413
(n,p)
Cross Section
64-Gd-148
-23.54 To 6.665 %
Min Ratio
Max Ratio
TENDL Threshold 1.7630 keV
JEFF3.3 Threshold 3.1402 keV
Cross Section (milli-barns)
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.1
1.0
0.9
0.8
2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
50
Incident Energy (eV)
64-Gd-148

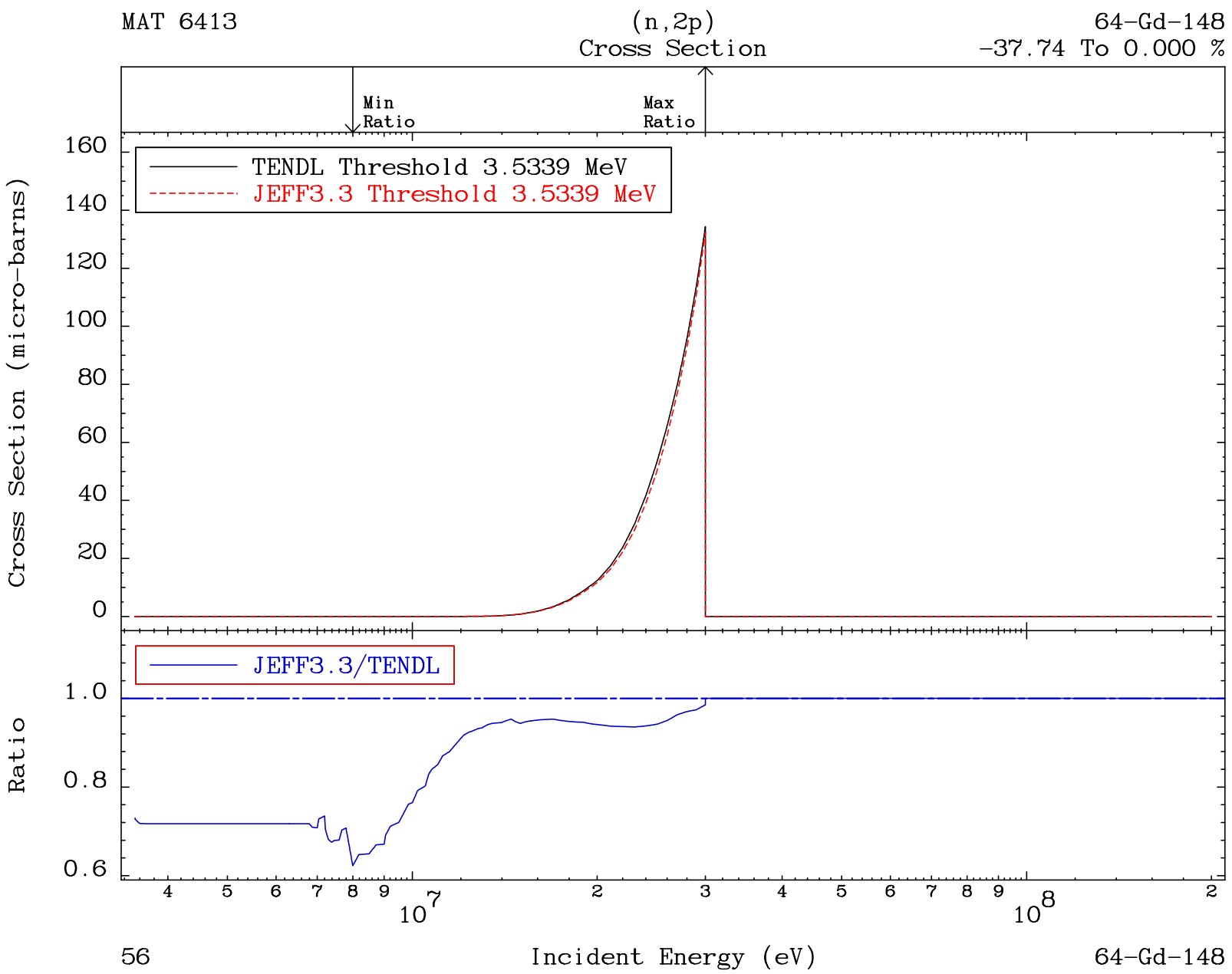

MAT 6413
(n,d)
Cross Section
64-Gd-148
-5.897 To 2.380 %
Min Ratio
Max Ratio
TENDL Threshold 3.8151 MeV
JEFF3.3 Threshold 3.8151 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.95
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
51
Incident Energy (eV)
64-Gd-148

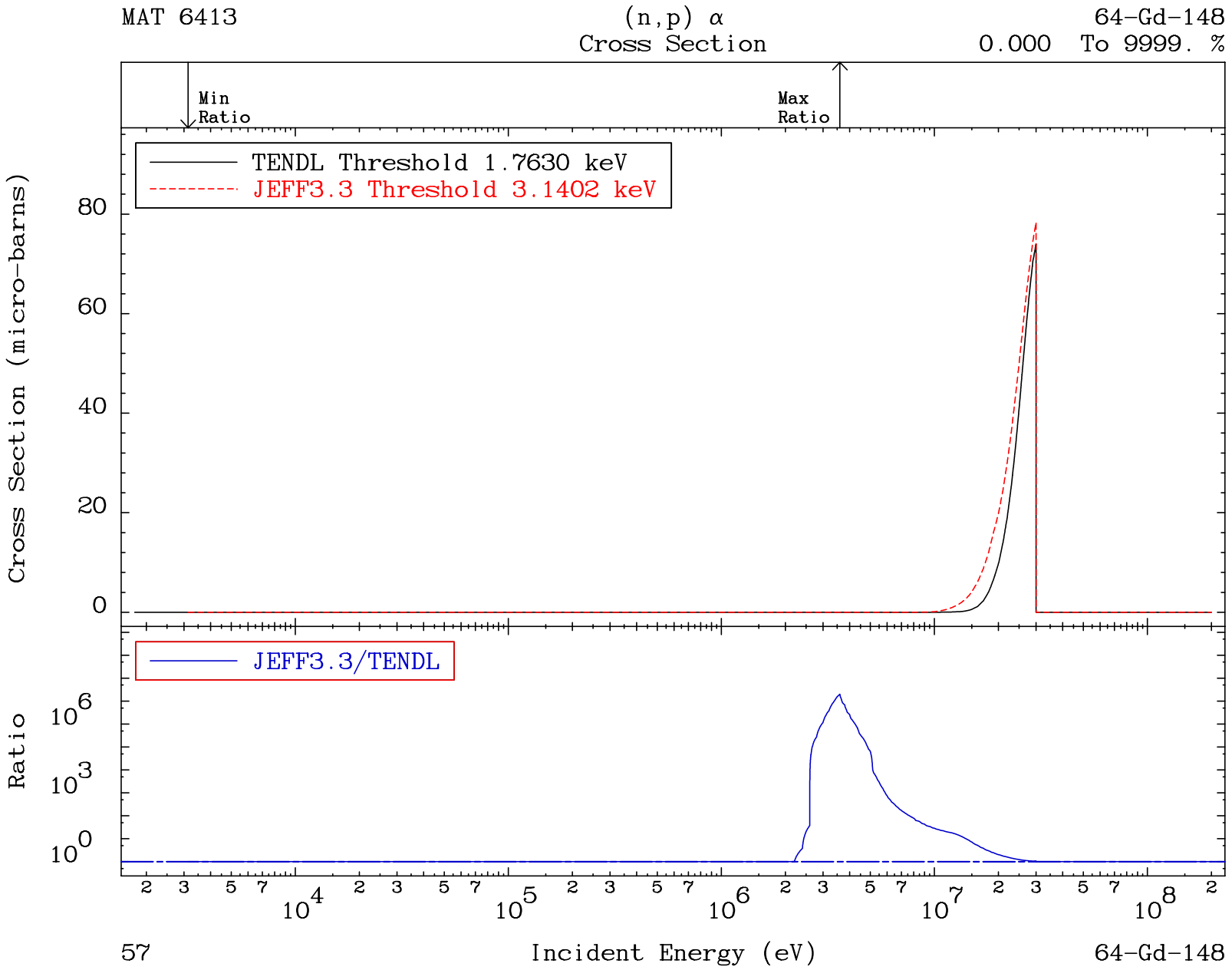

MAT 6413
(n,t)
Cross Section
64-Gd-148
-2.994 To 4.421 %
Min Ratio
Max Ratio
TENDL Threshold 6.0714 MeV
JEFF3.3 Threshold 6.0714 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
52
64-Gd-148

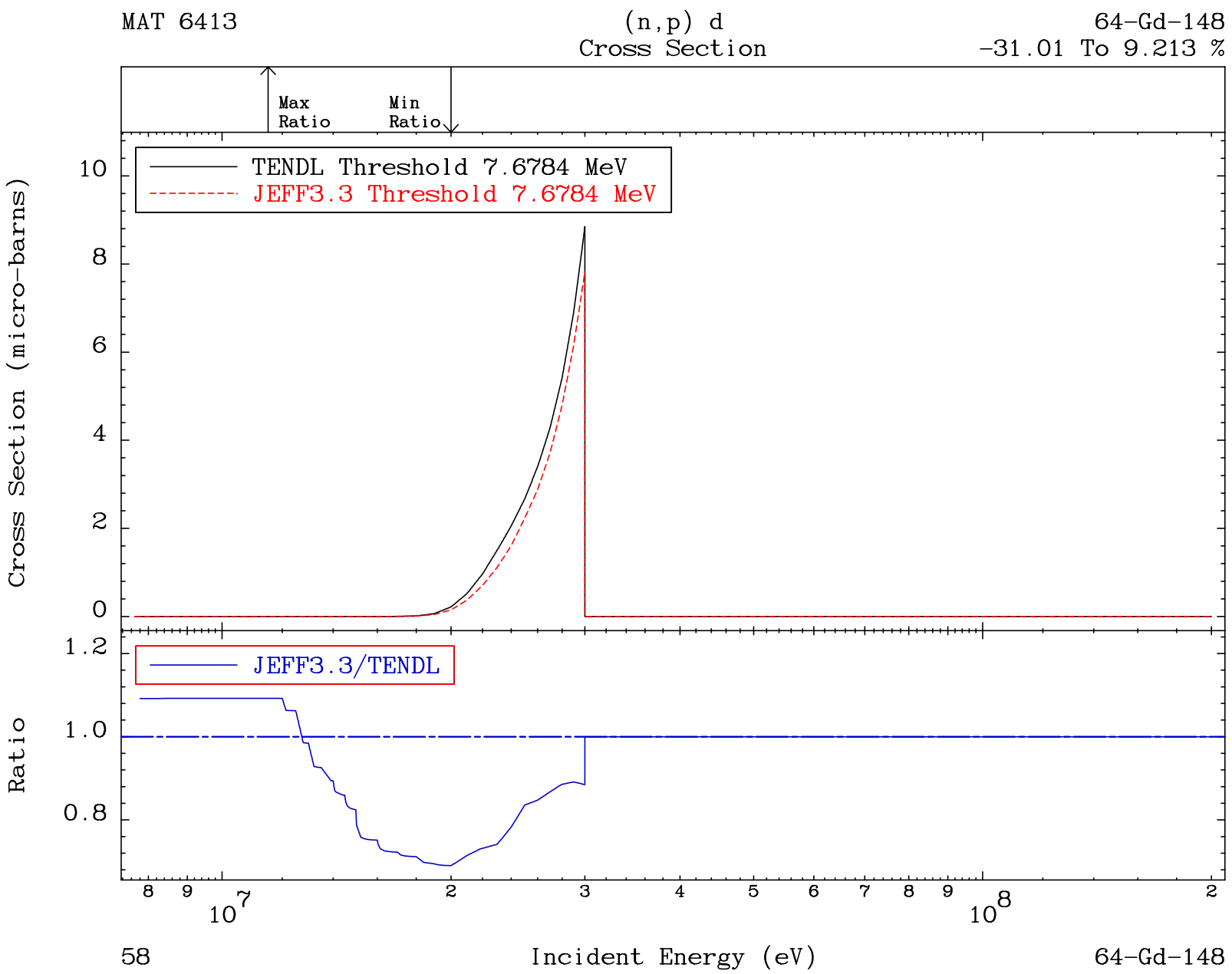

MAT 6413
(n,He-3)
Cross Section
64-Gd-148
-10.65 To 2.001 %
Min Ratio
Max Ratio
TENDL Threshold 2.1475 MeV
JEFF3.3 Threshold 2.1475 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.05
1.00
0.95
0.90
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
53
Incident Energy (eV)
64-Gd-148

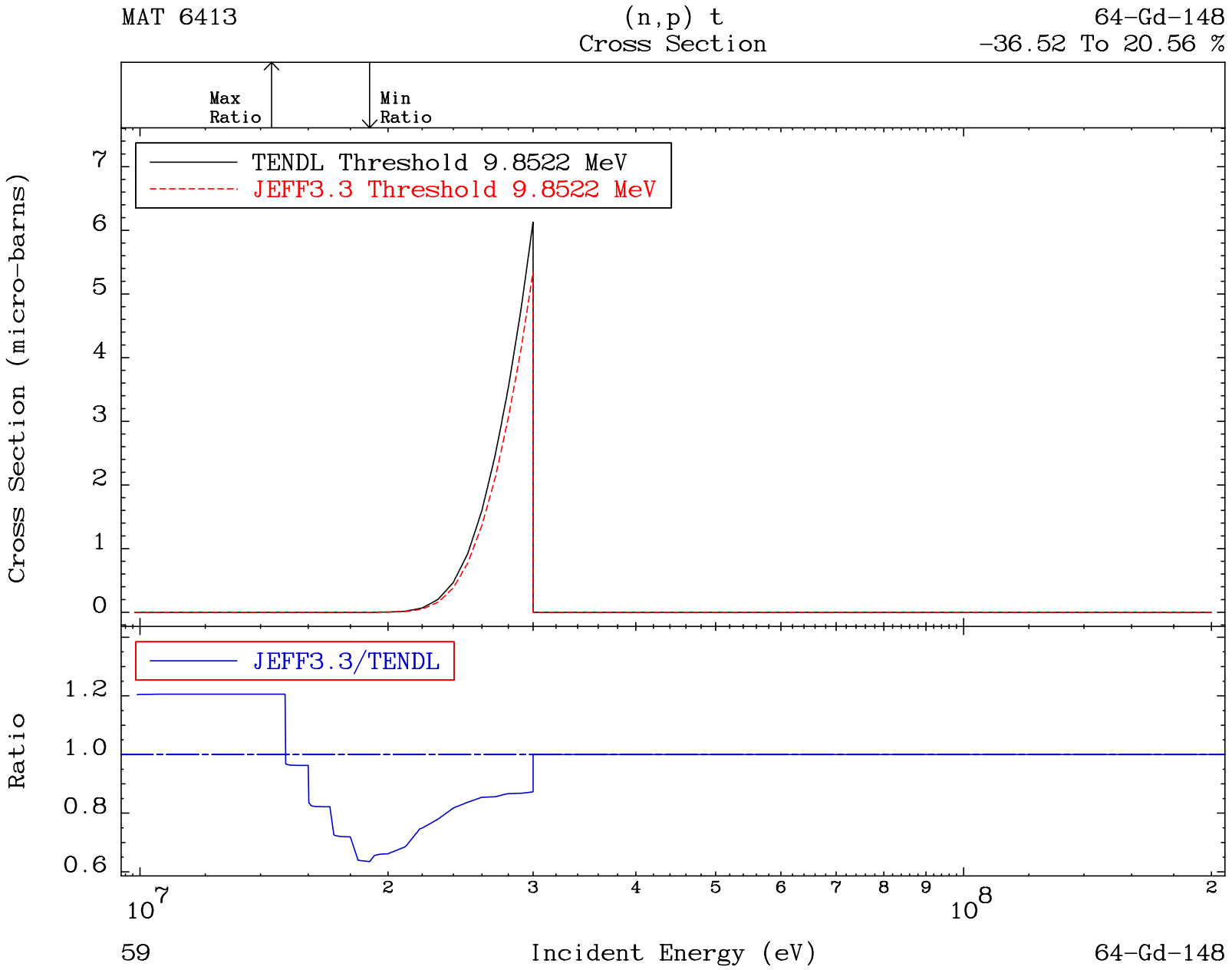

MAT 6413
(n,α)
Cross Section
64-Gd-148
-11.71 To 1300. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
54
64-Gd-148

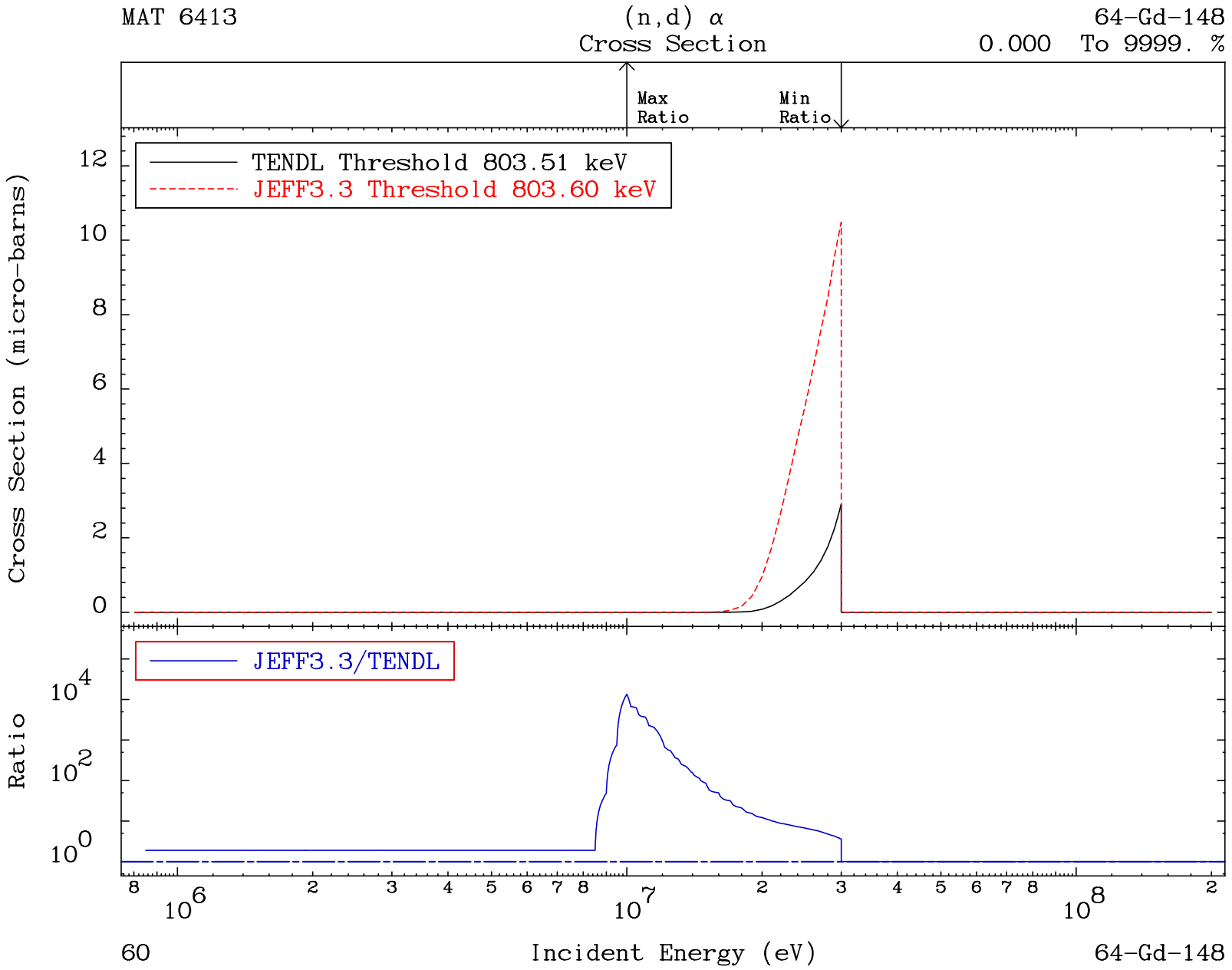

MAT 6413
(n,2α)
Cross Section
64-Gd-148
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.7630 keV
JEFF3.3
Cross Section (micro-barns)
15
10
5
0
JEFF3.3/TENDL
Ratio
120
80
40
0
10-5 10-4 10-3 10-2 10-1 100 101 102 103 104 105 106 107 108
55
Incident Energy (eV)
64-Gd-148

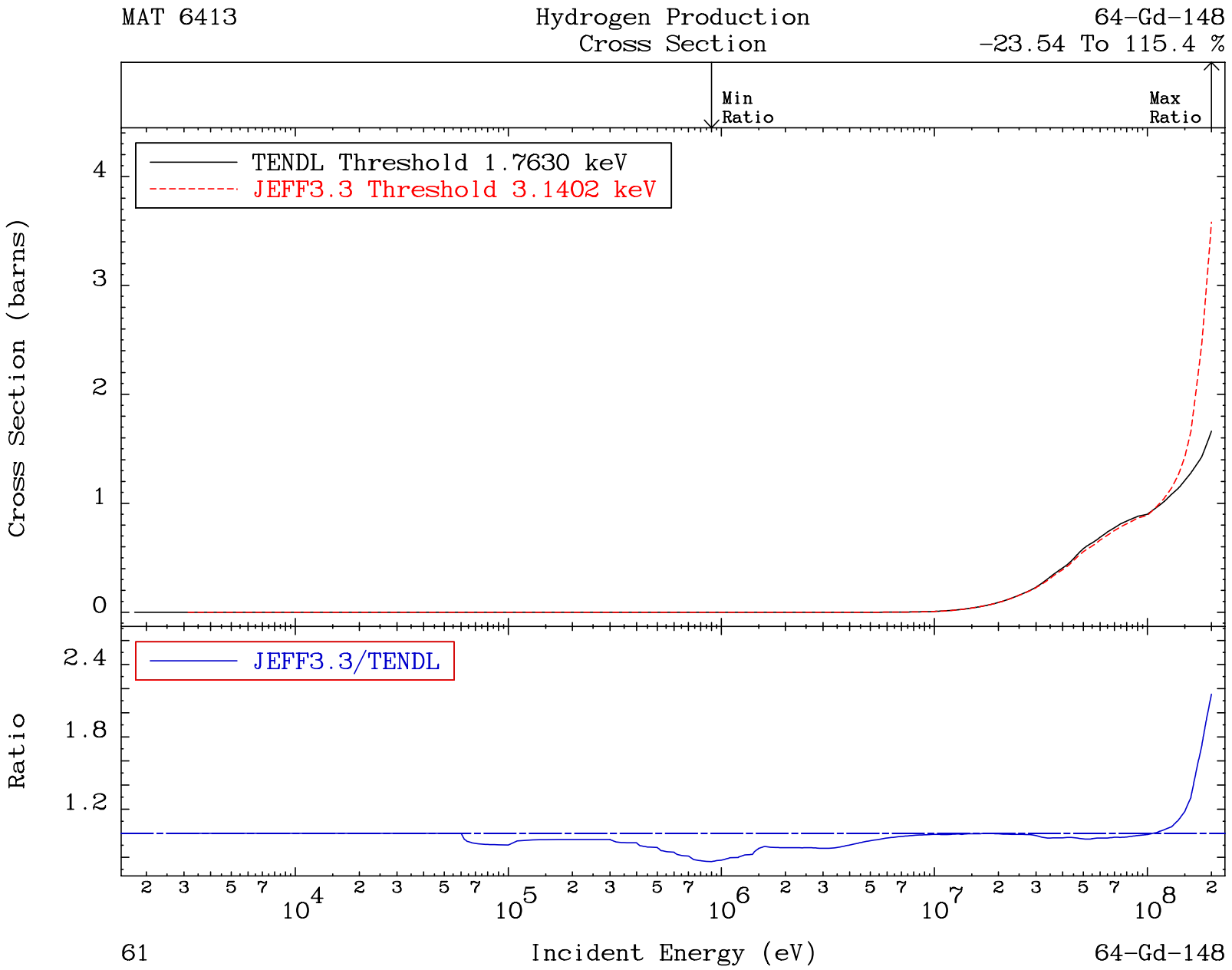

MAT 6413
(n,2p)
Cross Section
64-Gd-148
-37.74 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 3.5339 MeV
JEFF3.3 Threshold 3.5339 MeV
Cross Section (micro-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.0
0.8
0.6
4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
56
Incident Energy (eV)
64-Gd-148

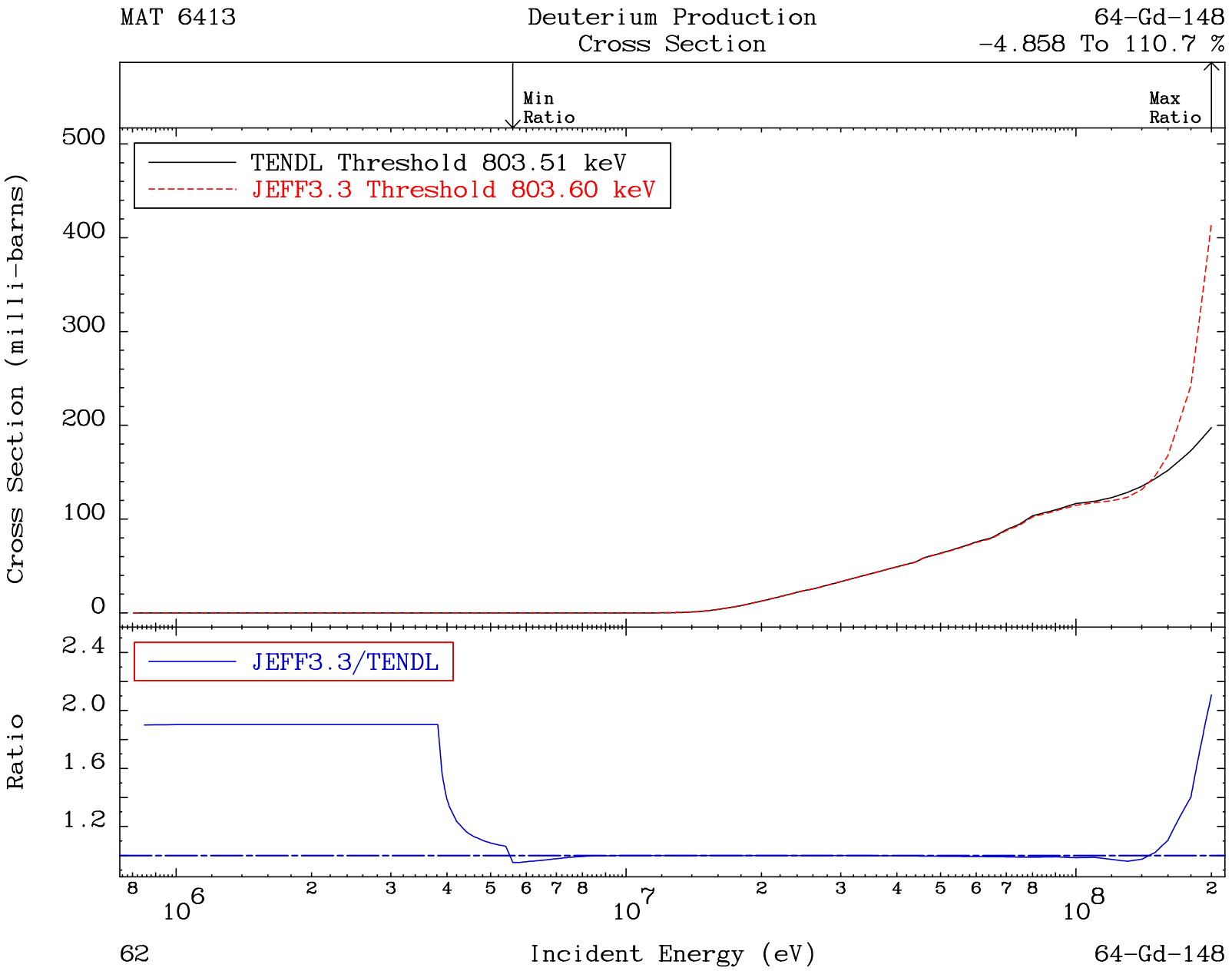

MAT 6413
(n,p) α
Cross Section
64-Gd-148
0.000 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 1.7630 keV
JEFF3.3 Threshold 3.1402 keV
Cross Section (micro-barns)
0
20
40
60
80
JEFF3.3/TENDL
Ratio
10^0
10^3
10^6
2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
57
Incident Energy (eV)
64-Gd-148

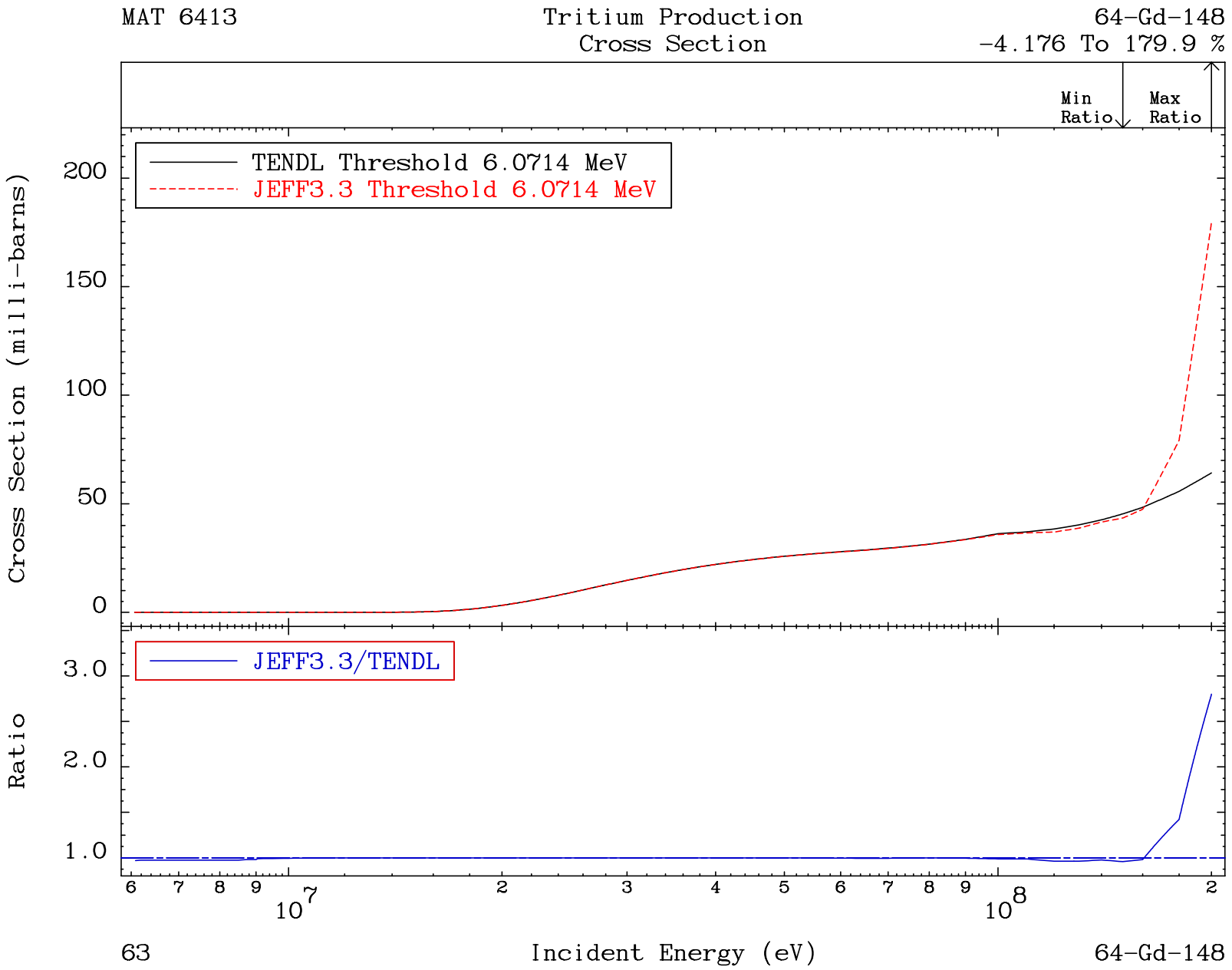

MAT 6413
(n,p) d
Cross Section
64-Gd-148
-31.01 To 9.213 %
Max Ratio
Min Ratio
TENDL Threshold 7.6784 MeV
JEFF3.3 Threshold 7.6784 MeV
Cross Section (micro-barns)
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.2
1.0
0.8
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
58
Incident Energy (eV)
64-Gd-148

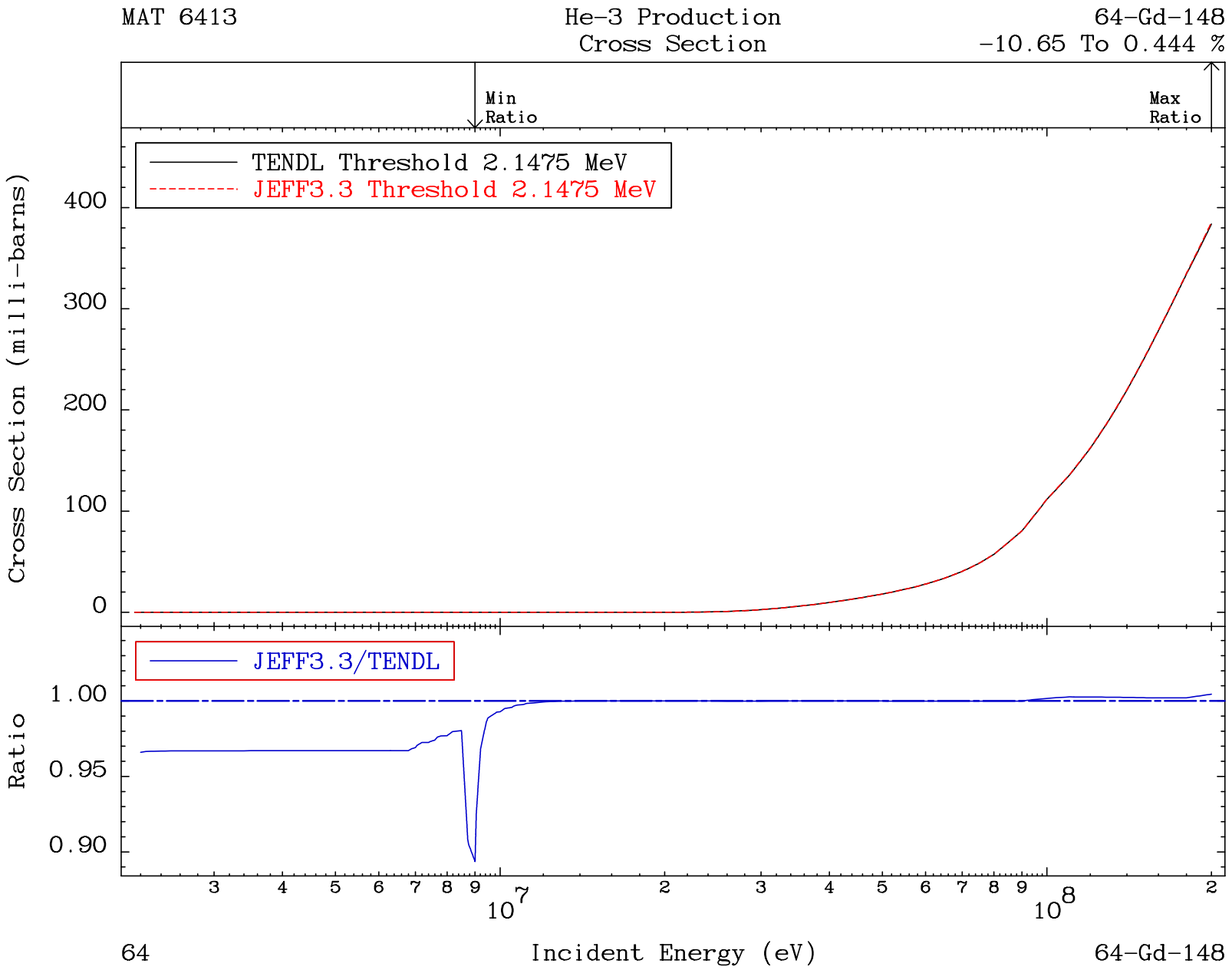

MAT 6413
(n,p) t
Cross Section
64-Gd-148
-36.52 To 20.56 %
Max Ratio
Min Ratio
TENDL Threshold 9.8522 MeV
JEFF3.3 Threshold 9.8522 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
7
JEFF3.3/TENDL
Ratio
0.6
0.8
1.0
1.2
10^7
2
3
4
5
6
7
8
9
10^8
2
59
Incident Energy (eV)
64-Gd-148

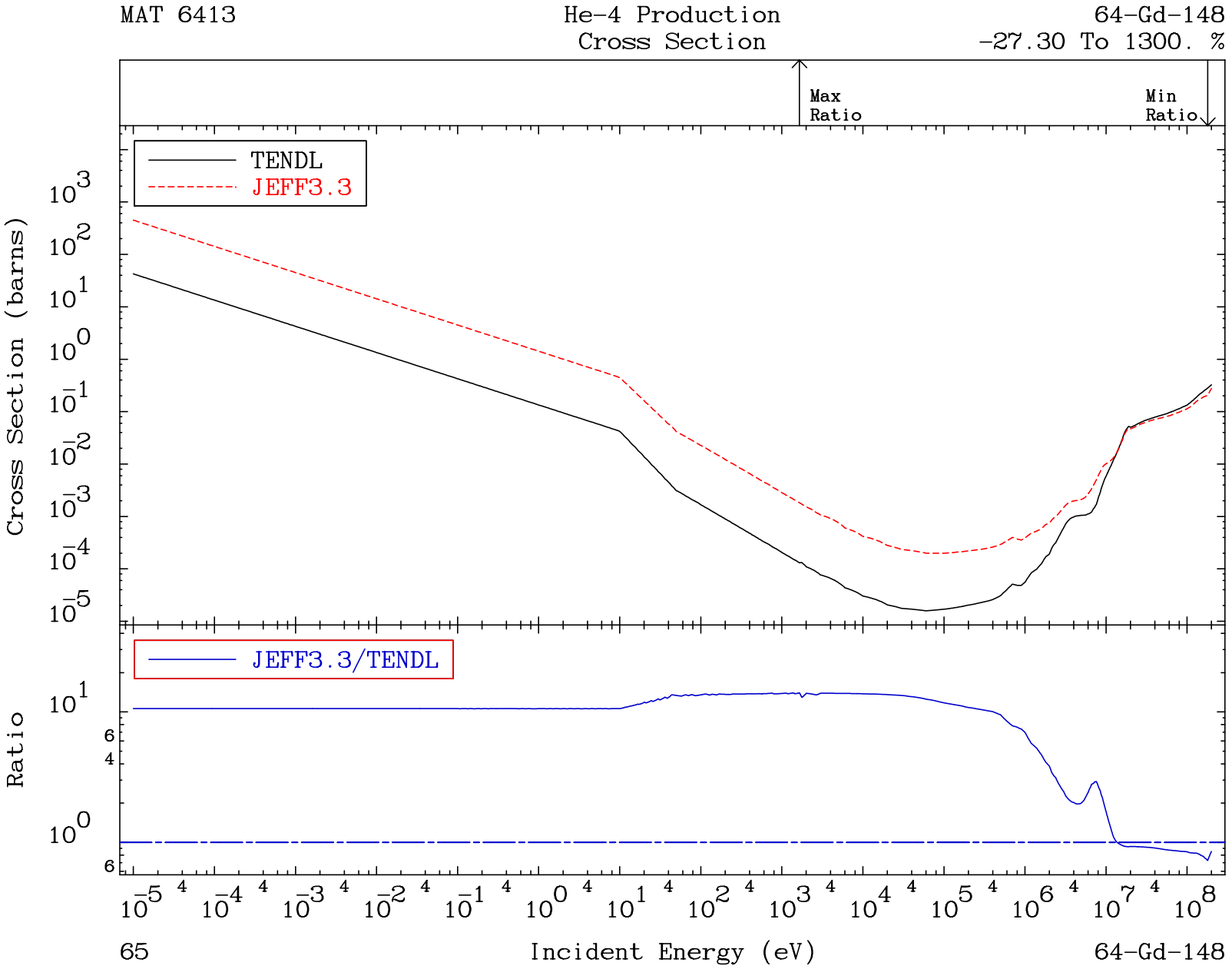

MAT 6413
(n,d) α
Cross Section
64-Gd-148
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 803.51 keV
JEFF3.3 Threshold 803.60 keV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
60
64-Gd-148

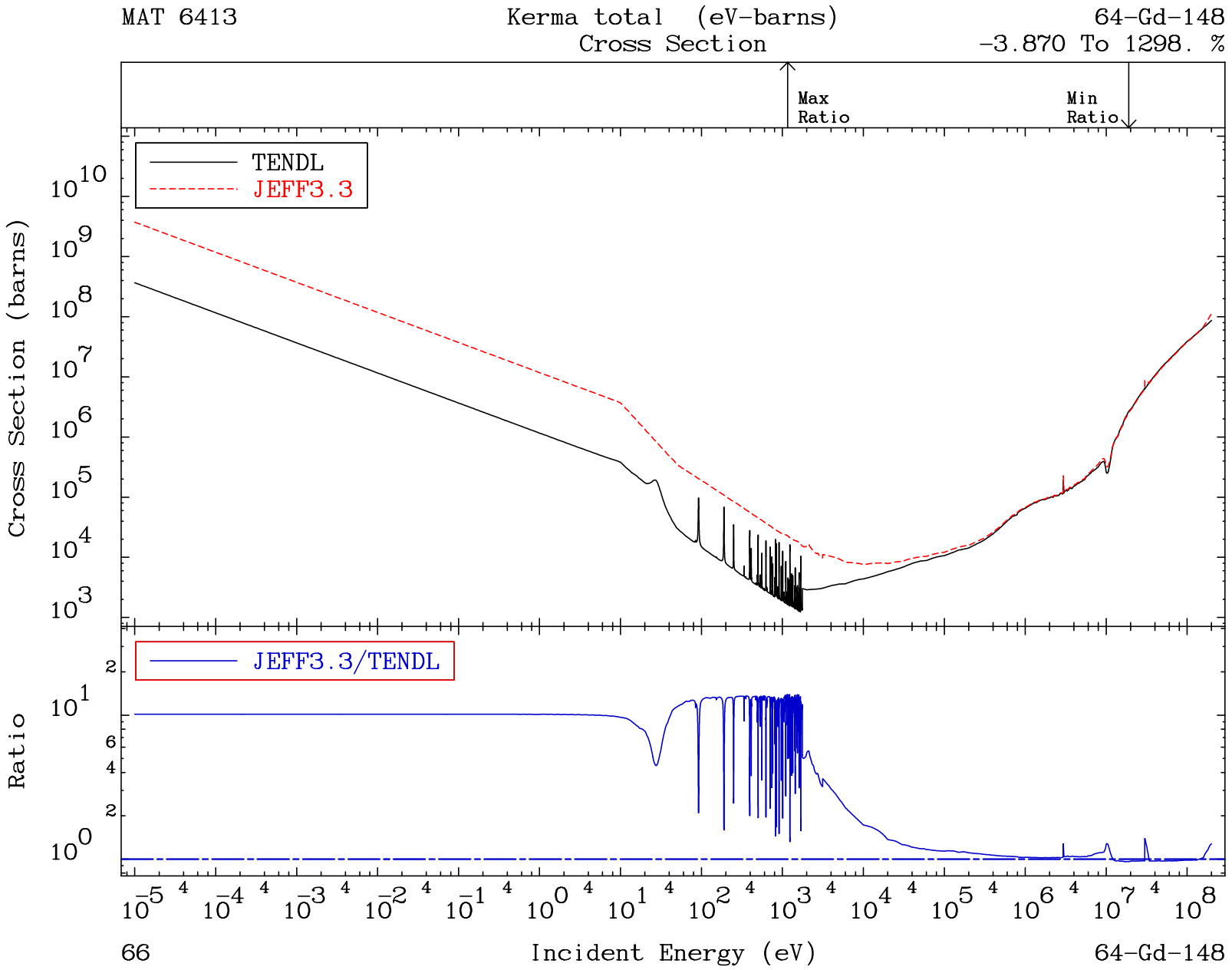

MAT 6413
Hydrogen Production
Cross Section
64-Gd-148
-23.54 To 115.4 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.7630 keV
JEFF3.3 Threshold 3.1402 keV
Cross Section (barns)
0
1
2
3
4
JEFF3.3/TENDL
Ratio
1.2
1.8
2.4
2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
61
Incident Energy (eV)
64-Gd-148

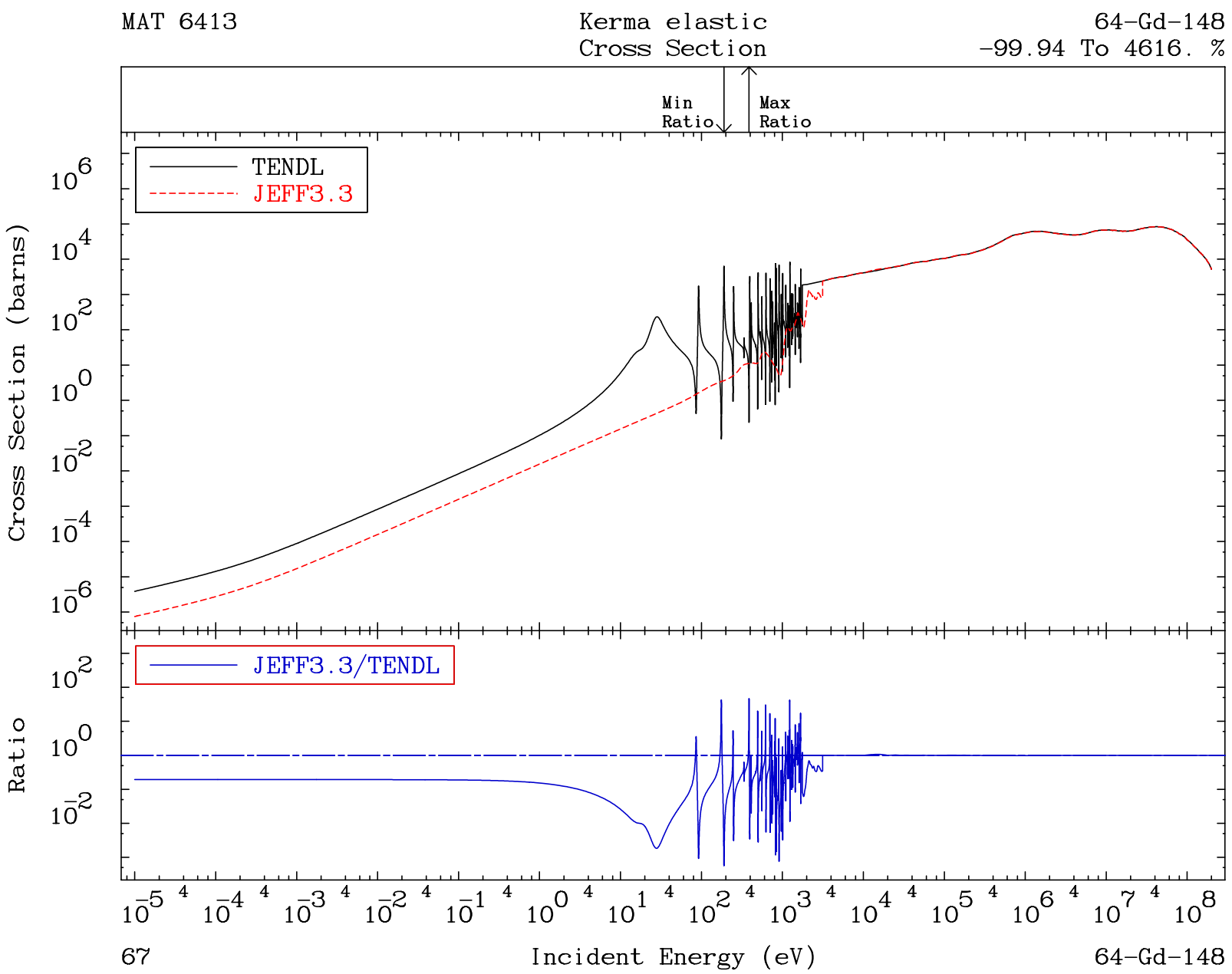

MAT 6413
Deuterium Production
Cross Section
64-Gd-148
-4.858 To 110.7 %
Min
Ratio
Max
Ratio
TENDL Threshold 803.51 keV
JEFF3.3 Threshold 803.60 keV
Cross Section (milli-barns)
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
2.4
2.0
1.6
1.2
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
62
Incident Energy (eV)
64-Gd-148

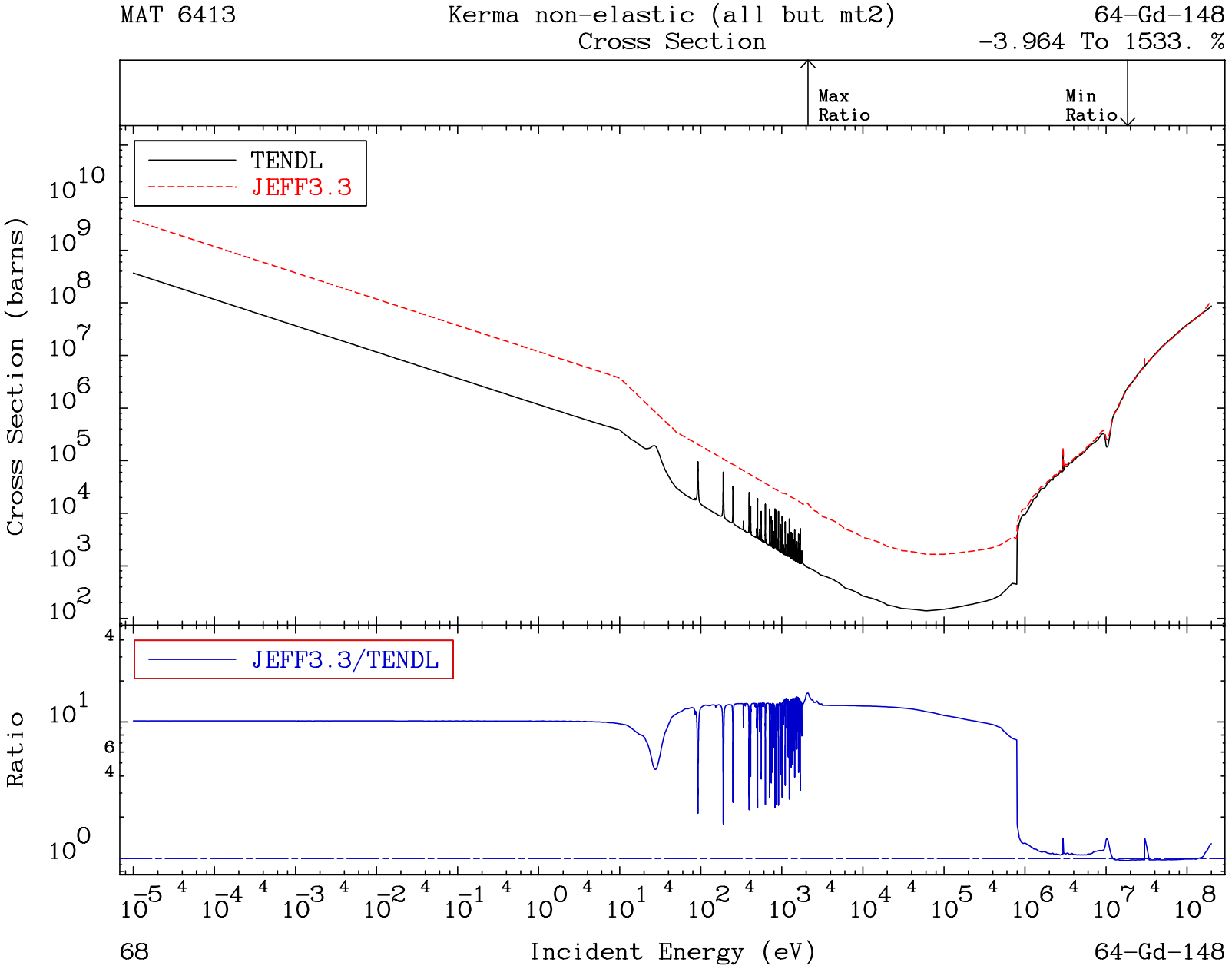

MAT 6413
Tritium Production
Cross Section
64-Gd-148
-4.176 To 179.9 %
Min Ratio
Max Ratio
TENDL Threshold 6.0714 MeV
JEFF3.3 Threshold 6.0714 MeV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
63
Incident Energy (eV)
64-Gd-148

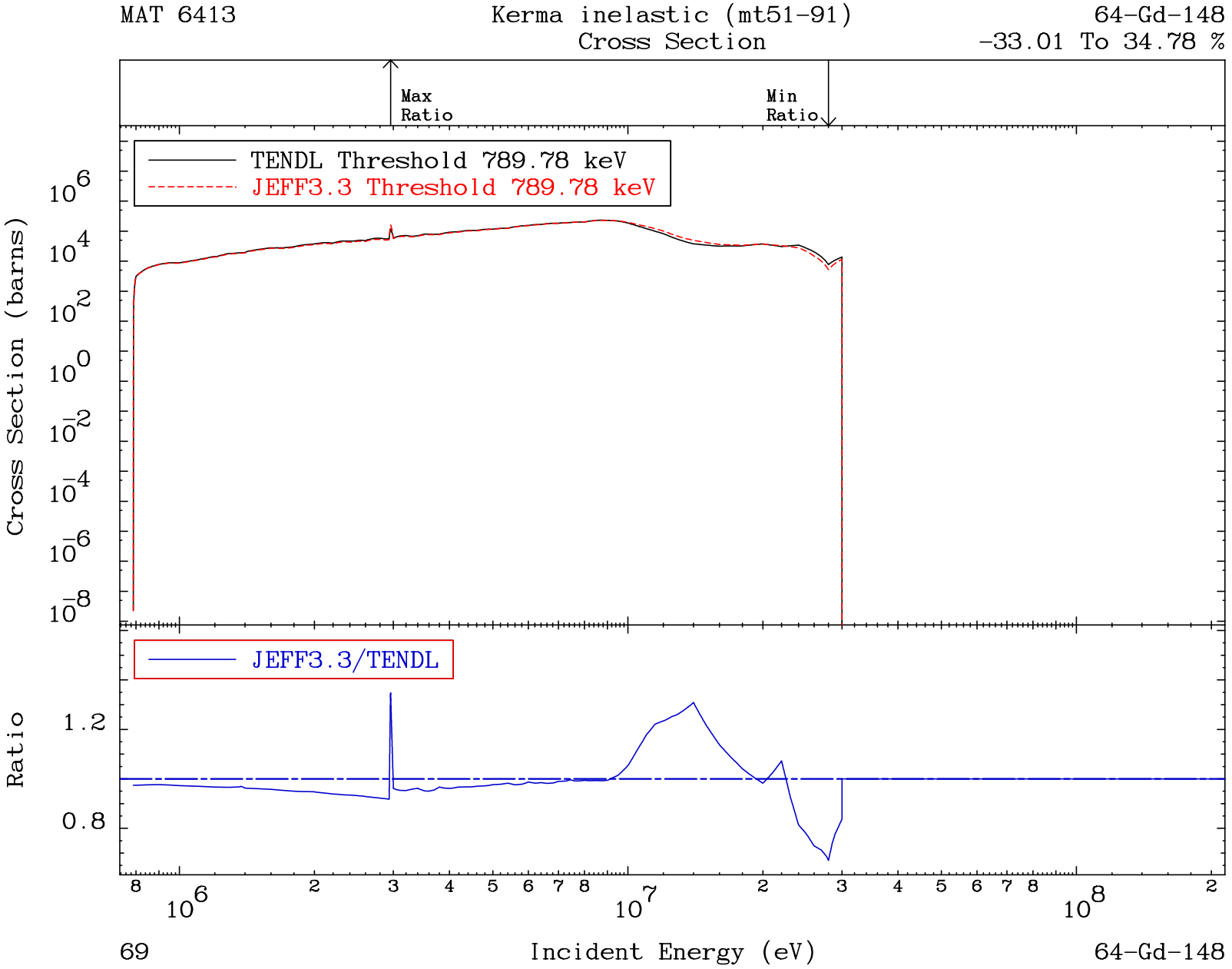

MAT 6413
He-3 Production
Cross Section
64-Gd-148
-10.65 To 0.444 %
Min Ratio
Max Ratio
TENDL Threshold 2.1475 MeV
JEFF3.3 Threshold 2.1475 MeV
Cross Section (milli-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.00
0.95
0.90
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
64
Incident Energy (eV)
64-Gd-148

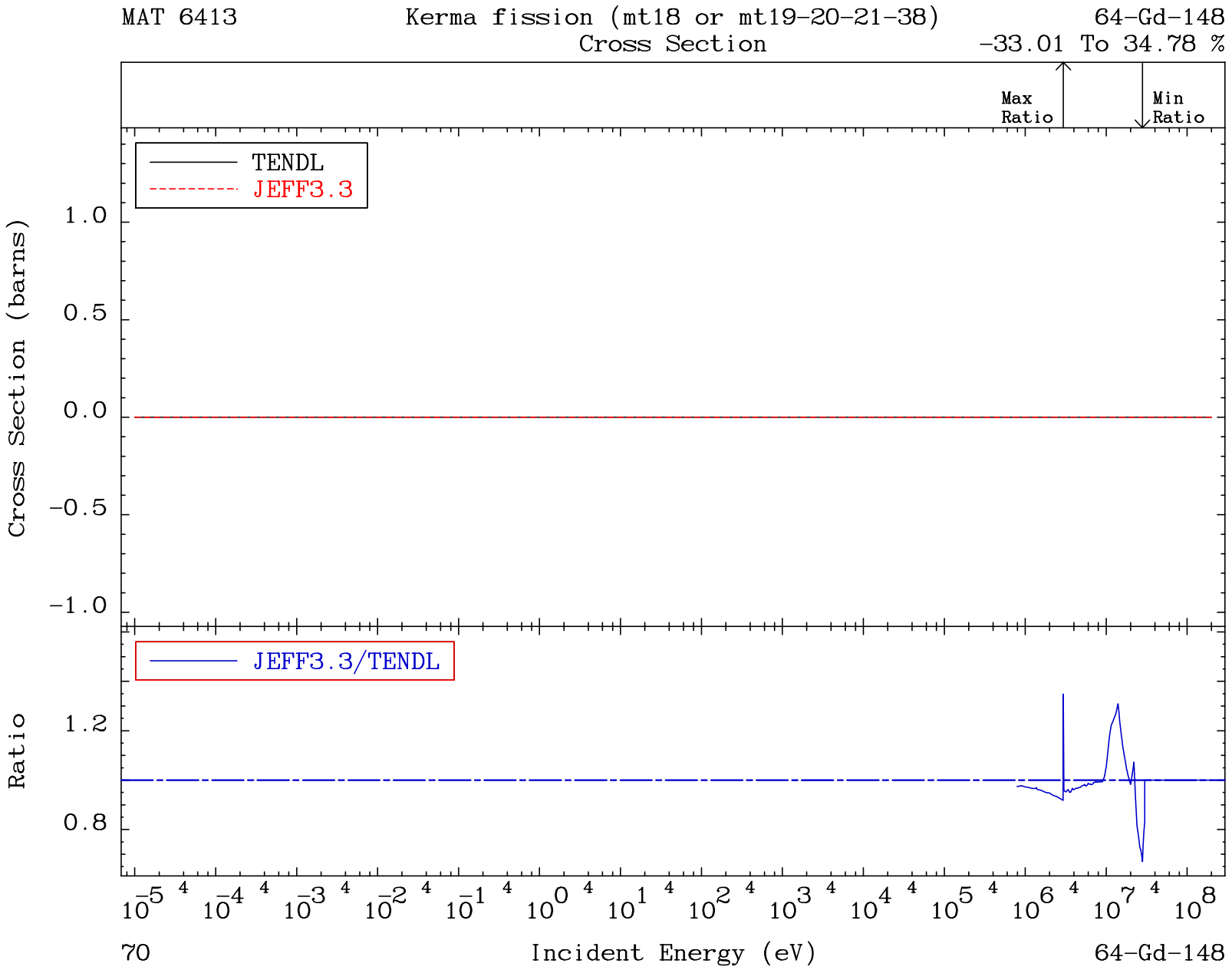

MAT 6413
He-4 Production
Cross Section
64-Gd-148
-27.30 To 1300. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
65
64-Gd-148

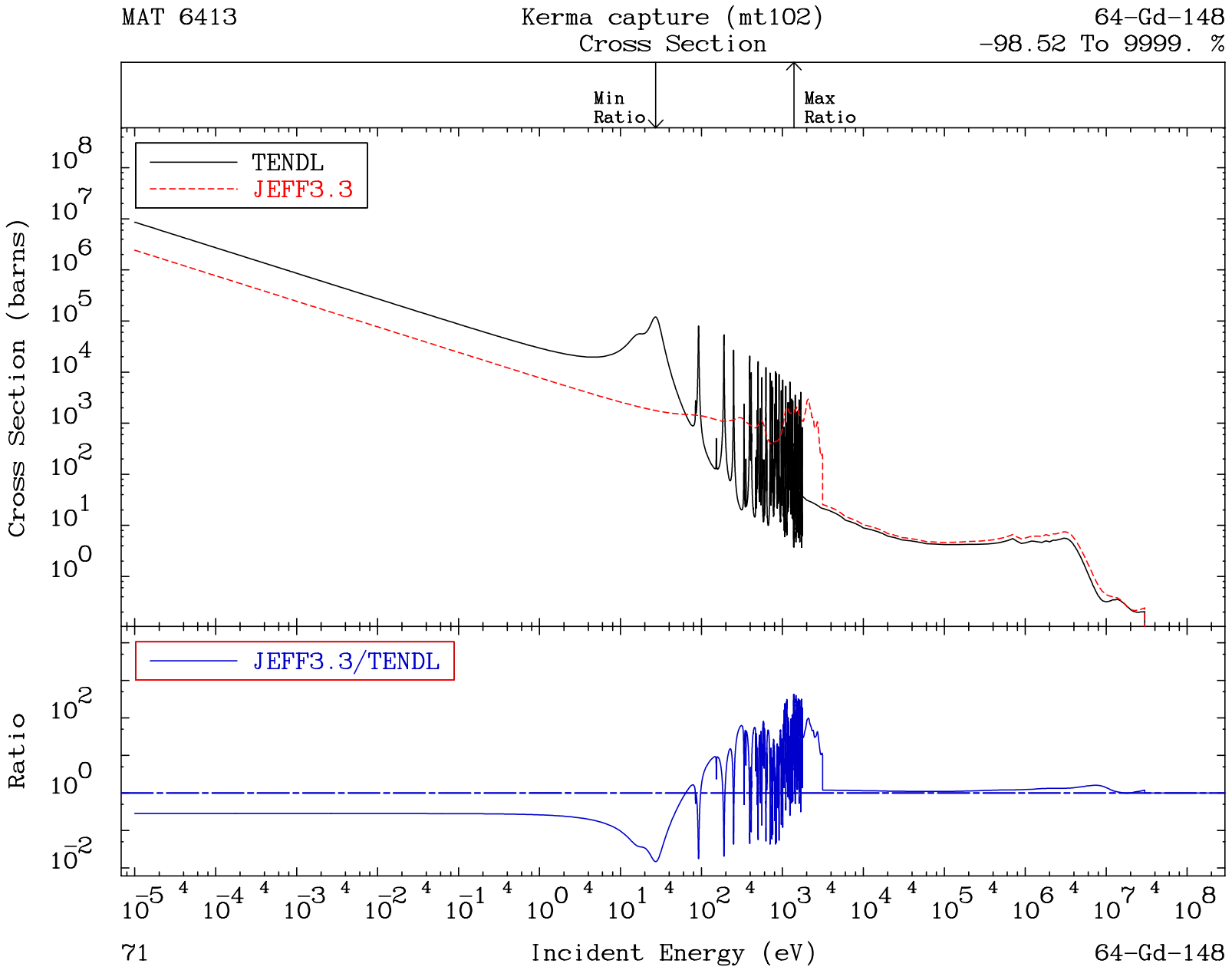

MAT 6413
Kerma total (eV-barns)
Cross Section
64-Gd-148
-3.870 To 1298. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
66
64-Gd-148

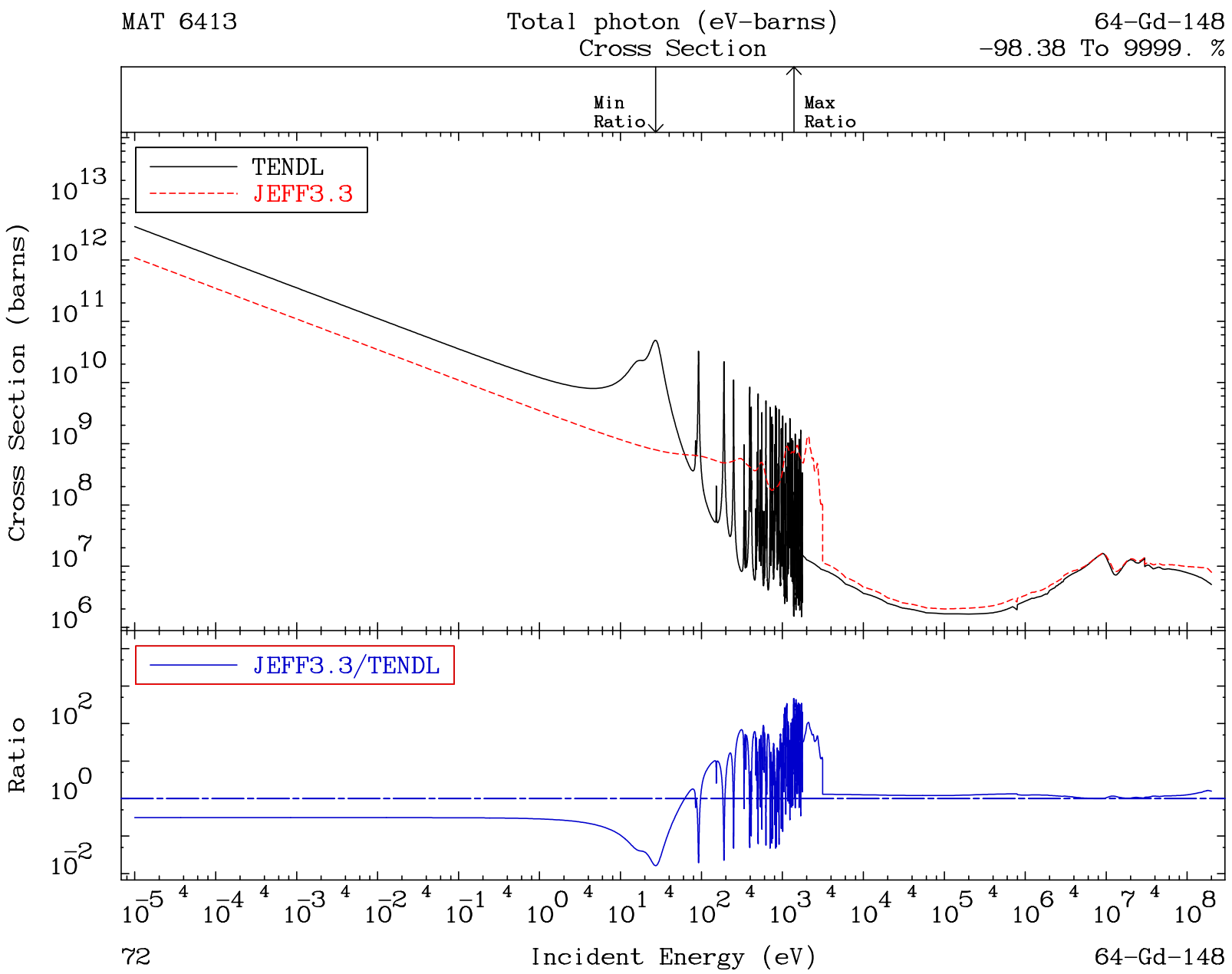

MAT 6413
Kerma elastic
Cross Section
64-Gd-148
-99.94 To 4616. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
67
64-Gd-148

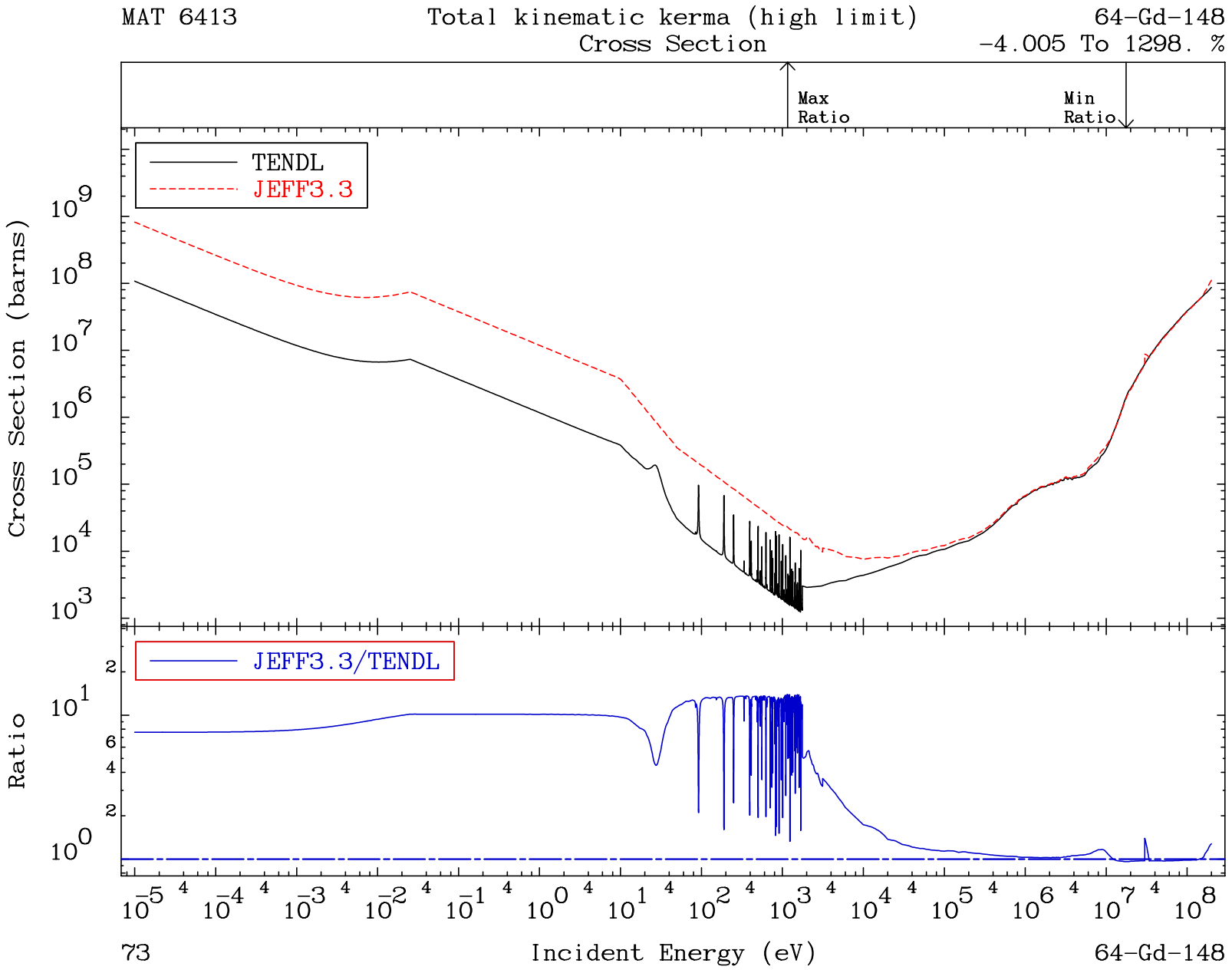

MAT 6413
Kerma non-elastic (all but mt2)
Cross Section
64-Gd-148
-3.964 To 1533. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
64-Gd-148

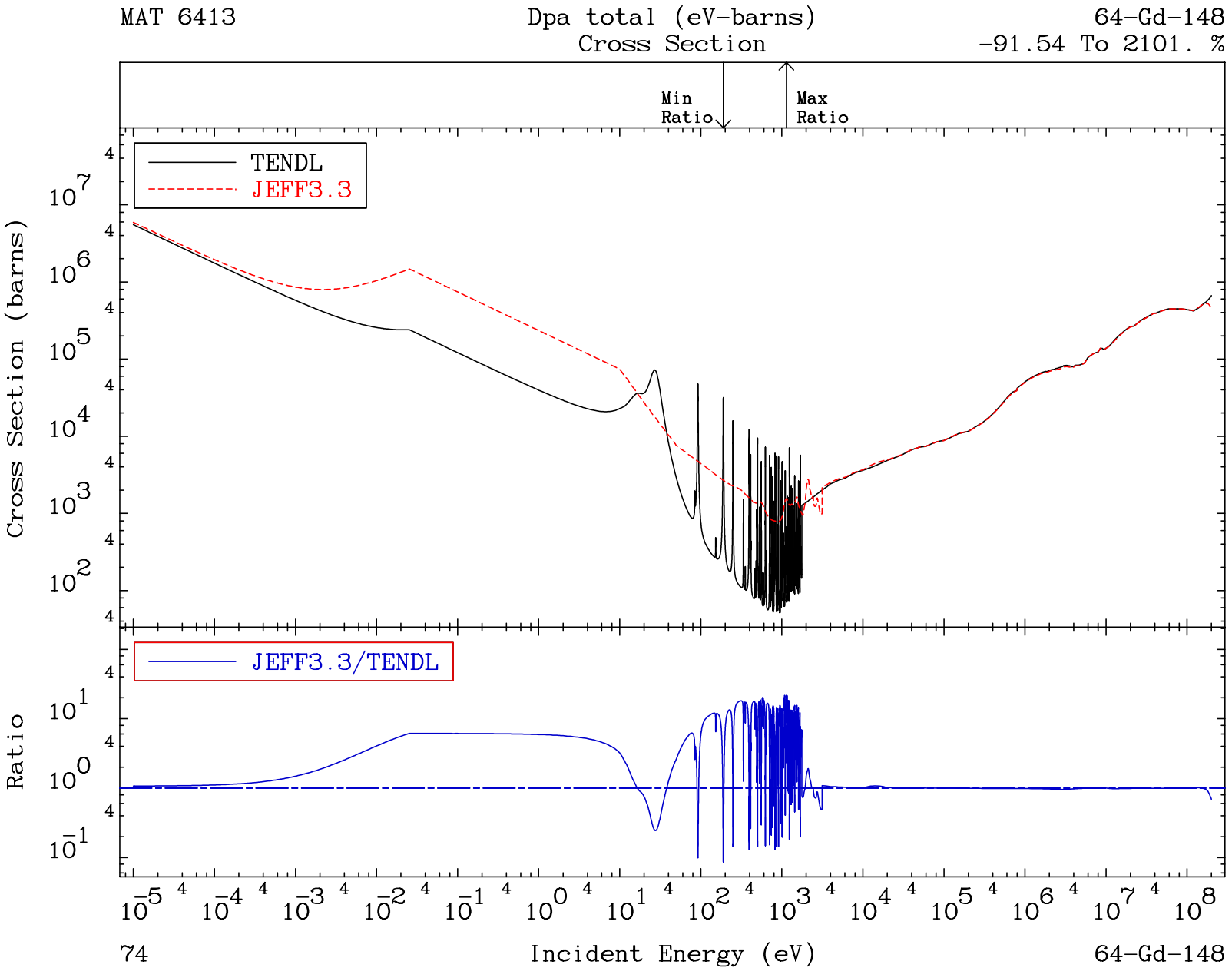

MAT 6413
Kerma inelastic (mt51-91)
Cross Section
64-Gd-148
-33.01 To 34.78 %
Max Ratio
Min Ratio
TENDL Threshold 789.78 keV
JEFF3.3 Threshold 789.78 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
69
64-Gd-148

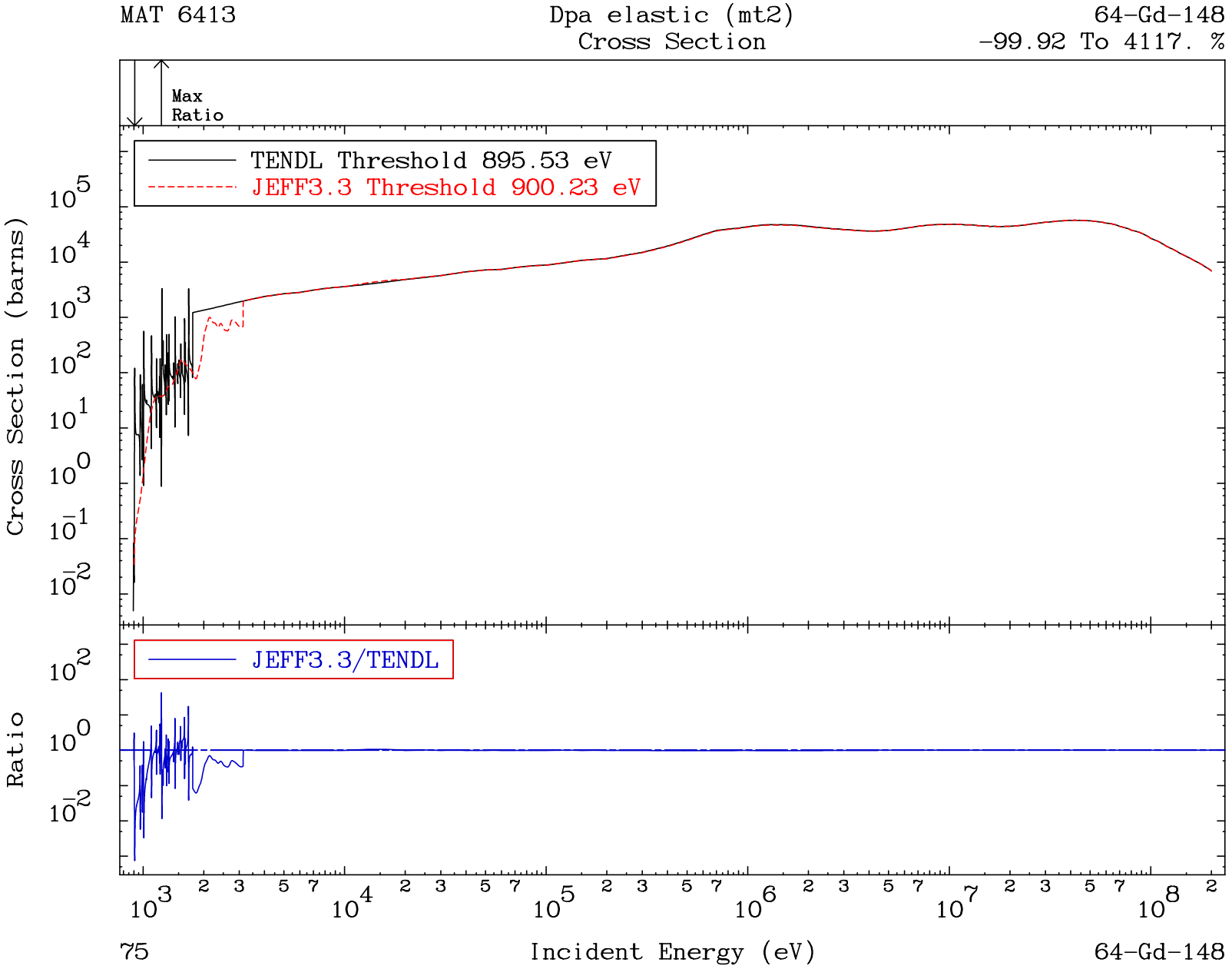

MAT 6413
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
64-Gd-148
-33.01 To 34.78 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.2
0.8
10-5 4 10-4 4 10-3 4 10-2 4 10-1 4 100 4 101 4 102 4 103 4 104 4 105 4 106 4 107 4 108
70
Incident Energy (eV)
64-Gd-148

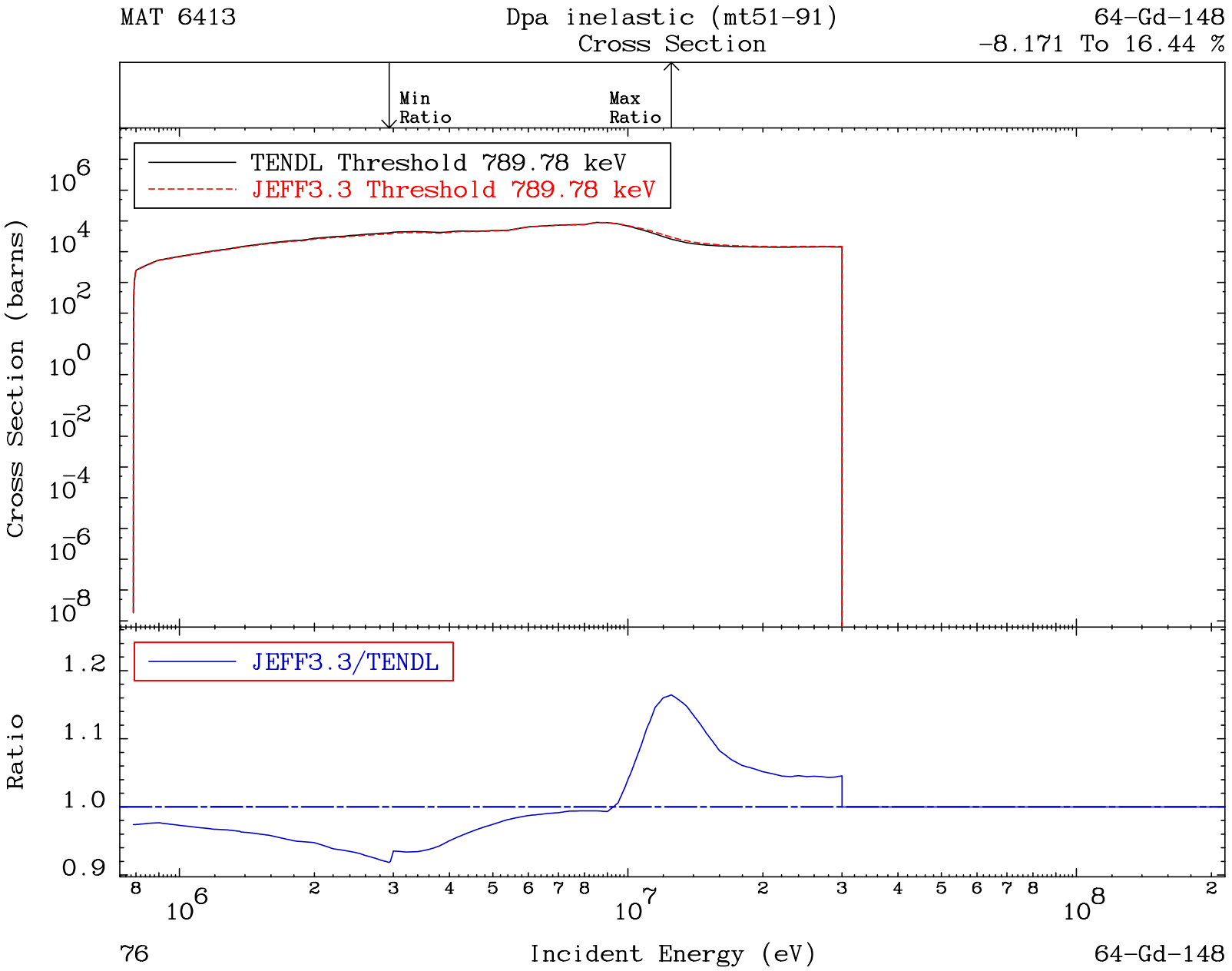

MAT 6413
Kerma capture (mt102)
Cross Section
64-Gd-148
-98.52 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
71
64-Gd-148

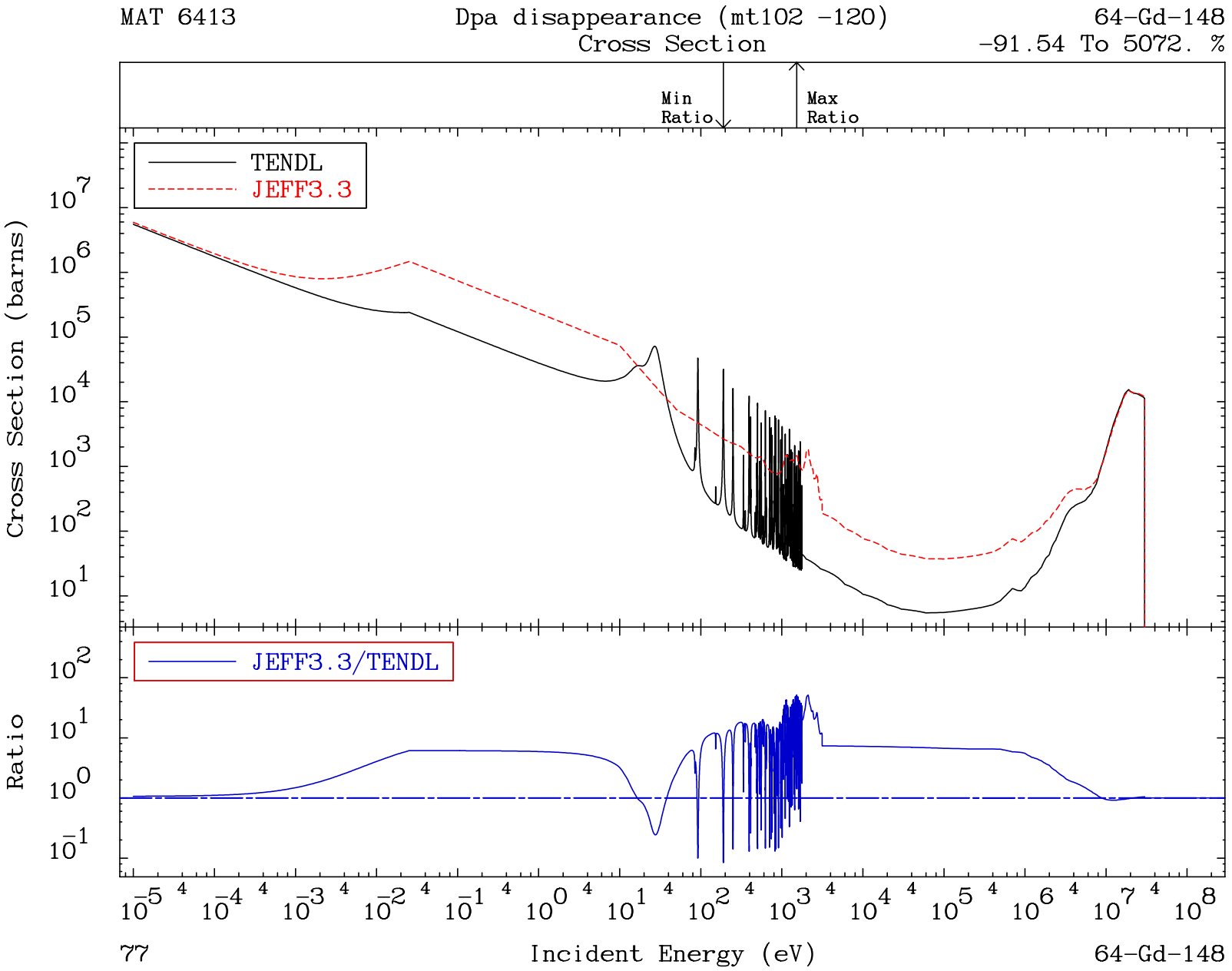

MAT 6413
Total photon (eV-barns)
Cross Section
64-Gd-148
-98.38 To 9999. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
72
64-Gd-148

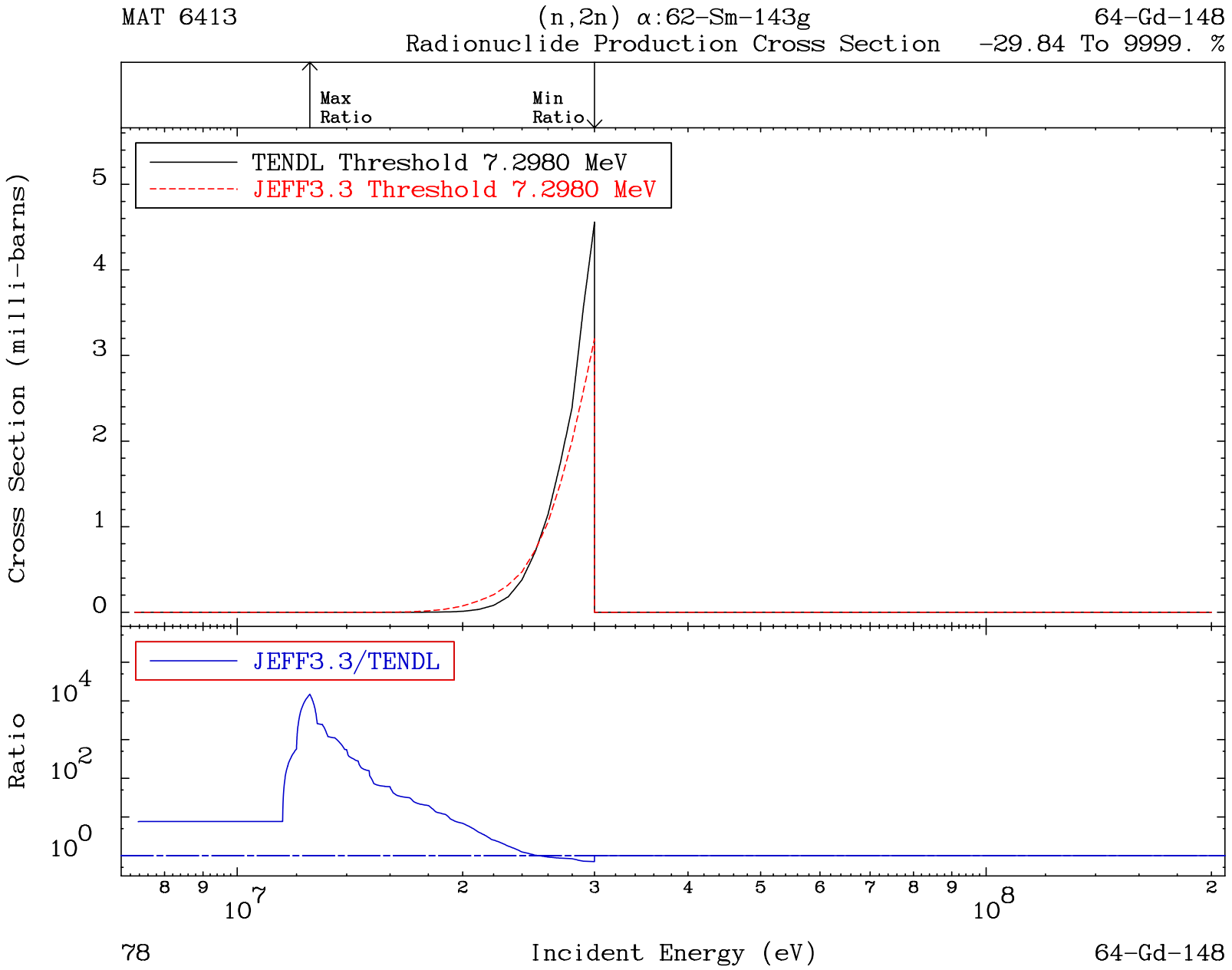

MAT 6413
Total kinematic kerma (high limit)
Cross Section
64-Gd-148
-4.005 To 1298. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
73
64-Gd-148

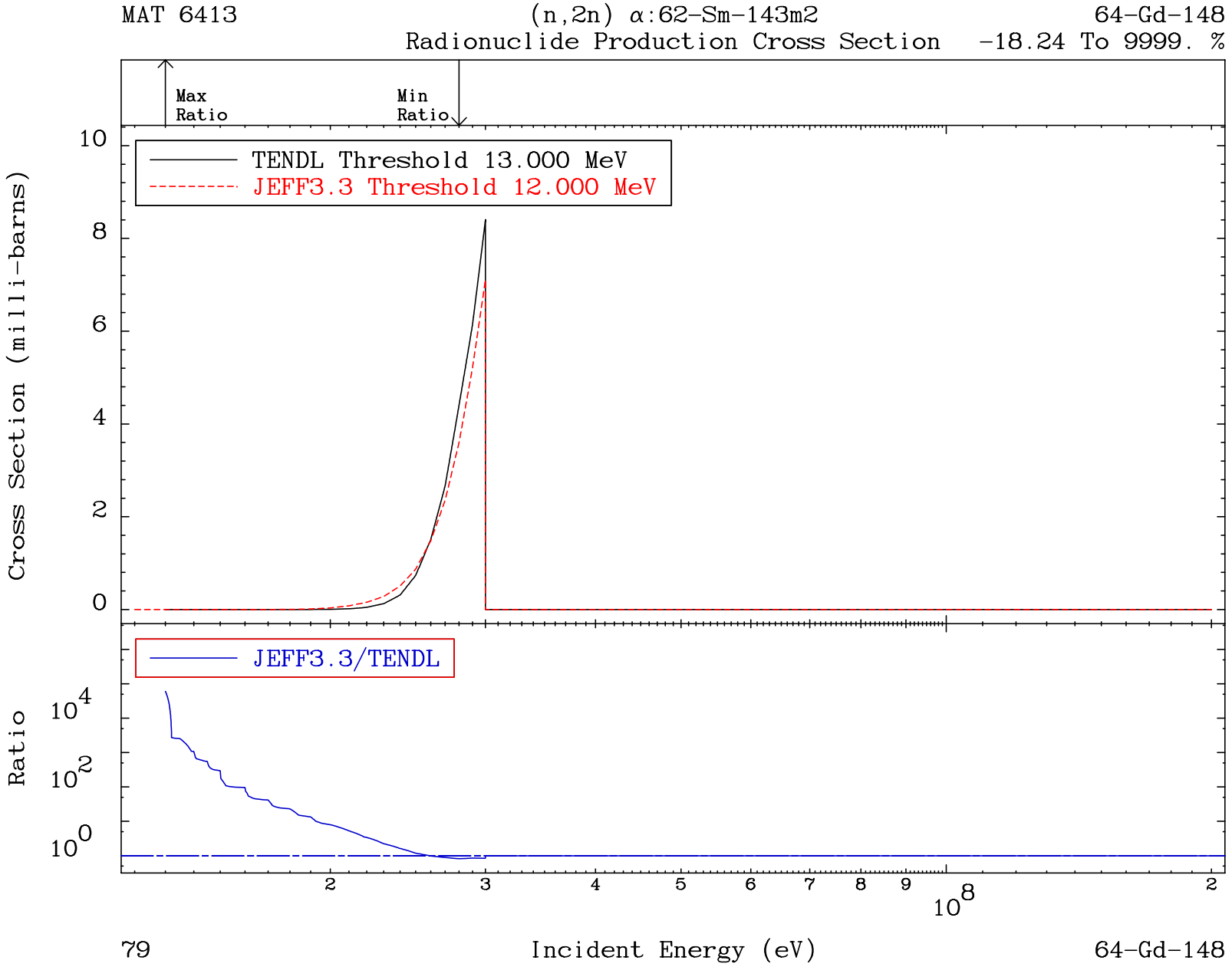

MAT 6413
Dpa total (eV-barns)
Cross Section
64-Gd-148
-91.54 To 2101. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
74
Incident Energy (eV)
64-Gd-148

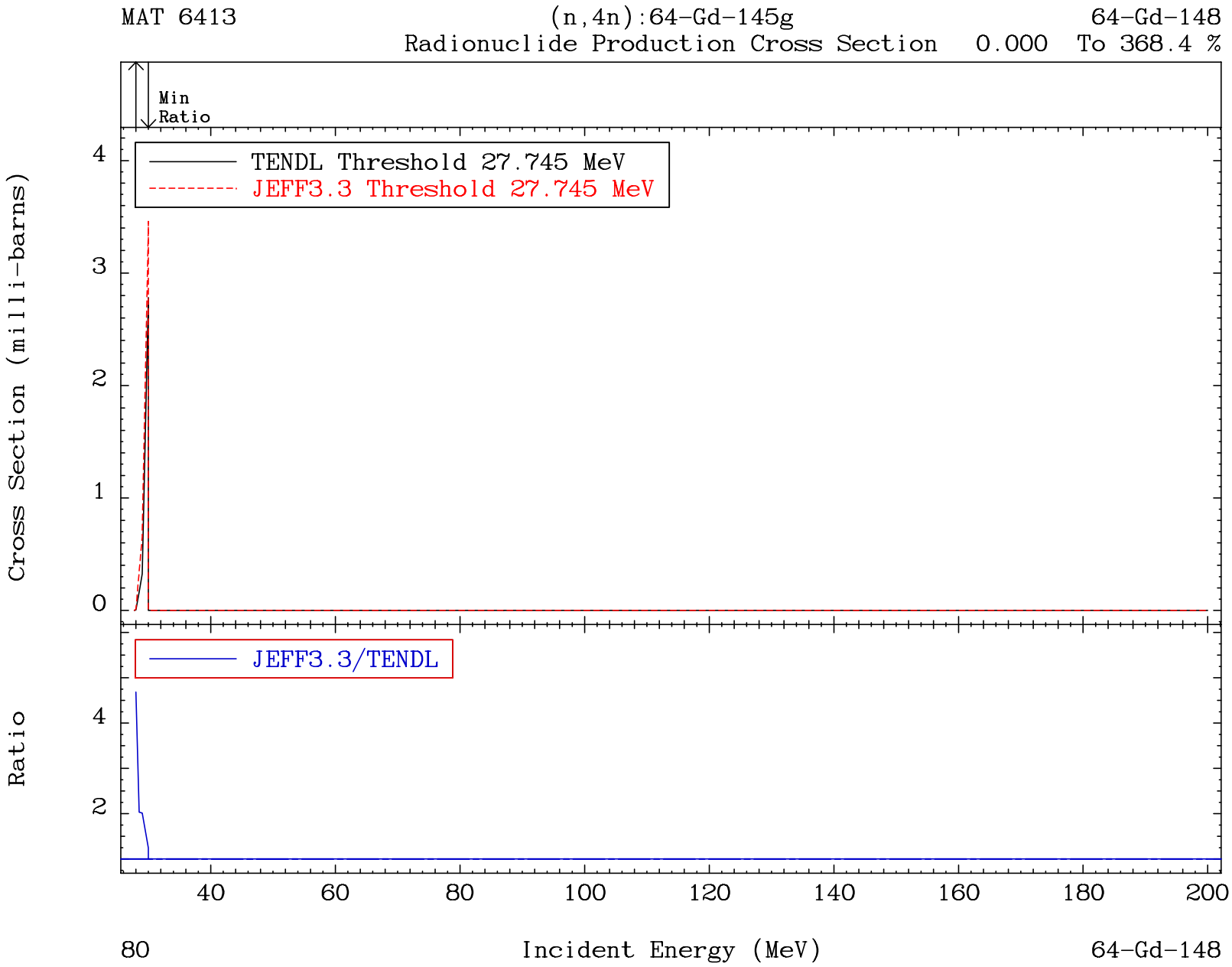

MAT 6413
Dpa elastic (mt2)
Cross Section
64-Gd-148
-99.92 To 4117. %
Max
Ratio
TENDL Threshold 895.53 eV
JEFF3.3 Threshold 900.23 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
75
64-Gd-148

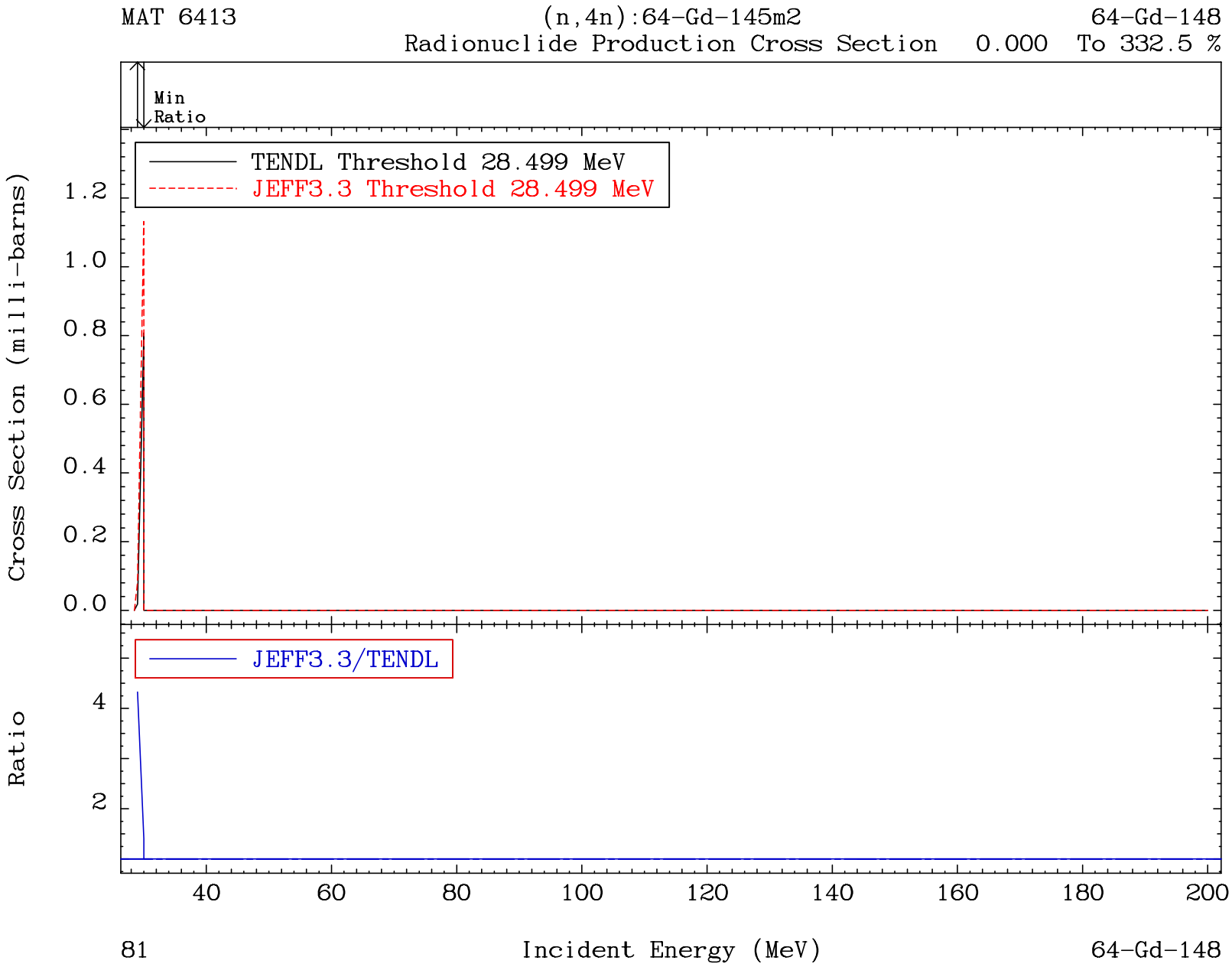

MAT 6413
Dpa inelastic (mt51-91)
Cross Section
64-Gd-148
-8.171 To 16.44 %
Min Ratio
Max Ratio
TENDL Threshold 789.78 keV
JEFF3.3 Threshold 789.78 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
76
64-Gd-148


MAT 6413
Dpa disappearance (mt102 -120)
Cross Section
64-Gd-148
-91.54 To 5072. %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
77
64-Gd-148


MAT 6413
(n,2n) α:62-Sm-143g
64-Gd-148
Radionuclide Production Cross Section -29.84 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 7.2980 MeV
JEFF3.3 Threshold 7.2980 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
78
Incident Energy (eV)
64-Gd-148


MAT 6413
(n,2n) α:62-Sm-143m2
64-Gd-148
Radionuclide Production Cross Section -18.24 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.000 MeV
JEFF3.3 Threshold 12.000 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
79
64-Gd-148


MAT 6413
(n,4n):64-Gd-145g
64-Gd-148
Radionuclide Production Cross Section 0.000 To 368.4 %
Min Ratio
TENDL Threshold 27.745 MeV
JEFF3.3 Threshold 27.745 MeV
Cross Section (milli-barns)
0
1
2
3
4
JEFF3.3/TENDL
Ratio
2
4
40
60
80
100
120
140
160
180
200
80
Incident Energy (MeV)
64-Gd-148


MAT 6413
(n,4n):64-Gd-145m2
64-Gd-148
Radionuclide Production Cross Section 0.000 To 332.5 %
Min Ratio
TENDL Threshold 28.499 MeV
JEFF3.3 Threshold 28.499 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
4
2
40
60
80
100
120
140
160
180
200
81
Incident Energy (MeV)
64-Gd-148