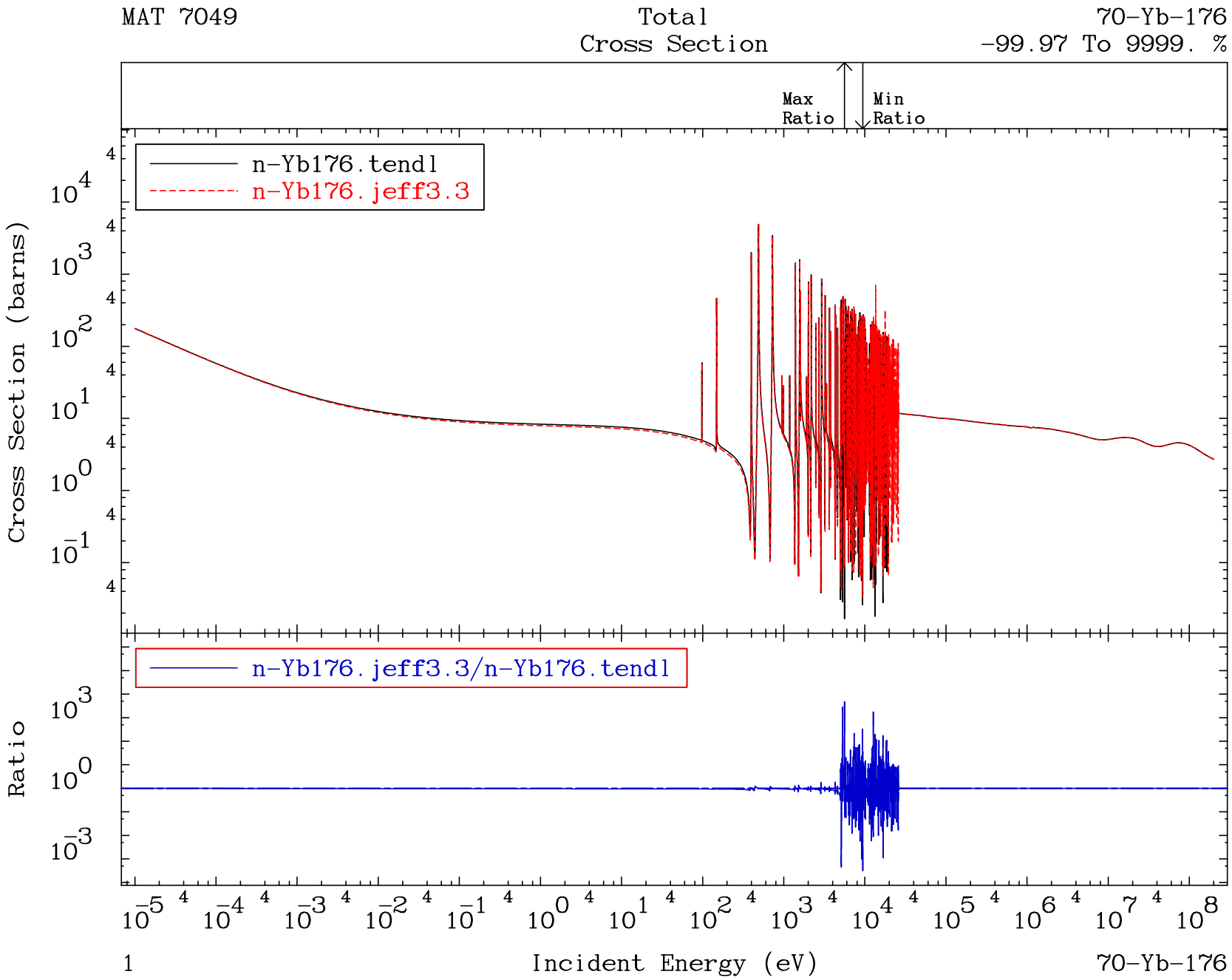
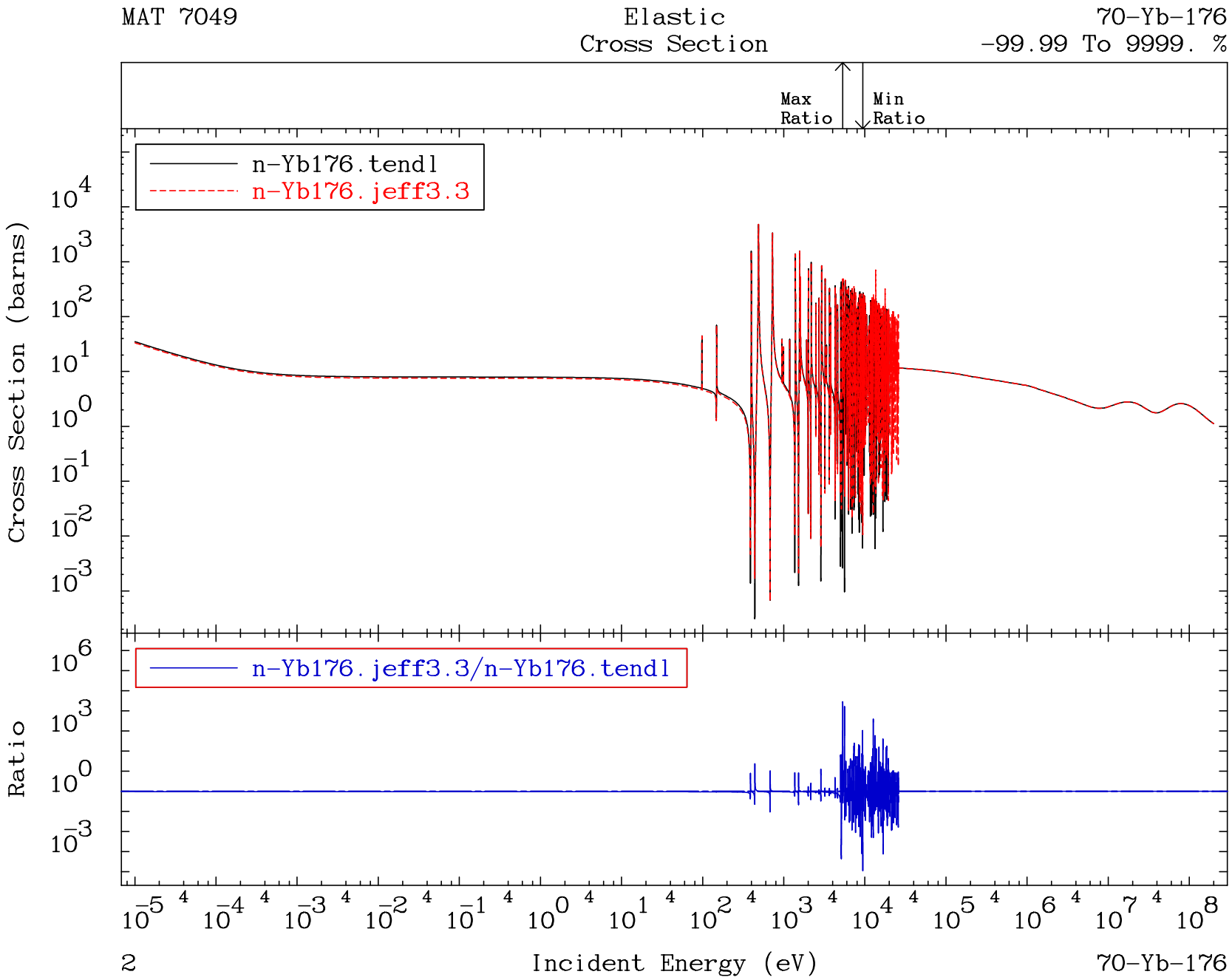
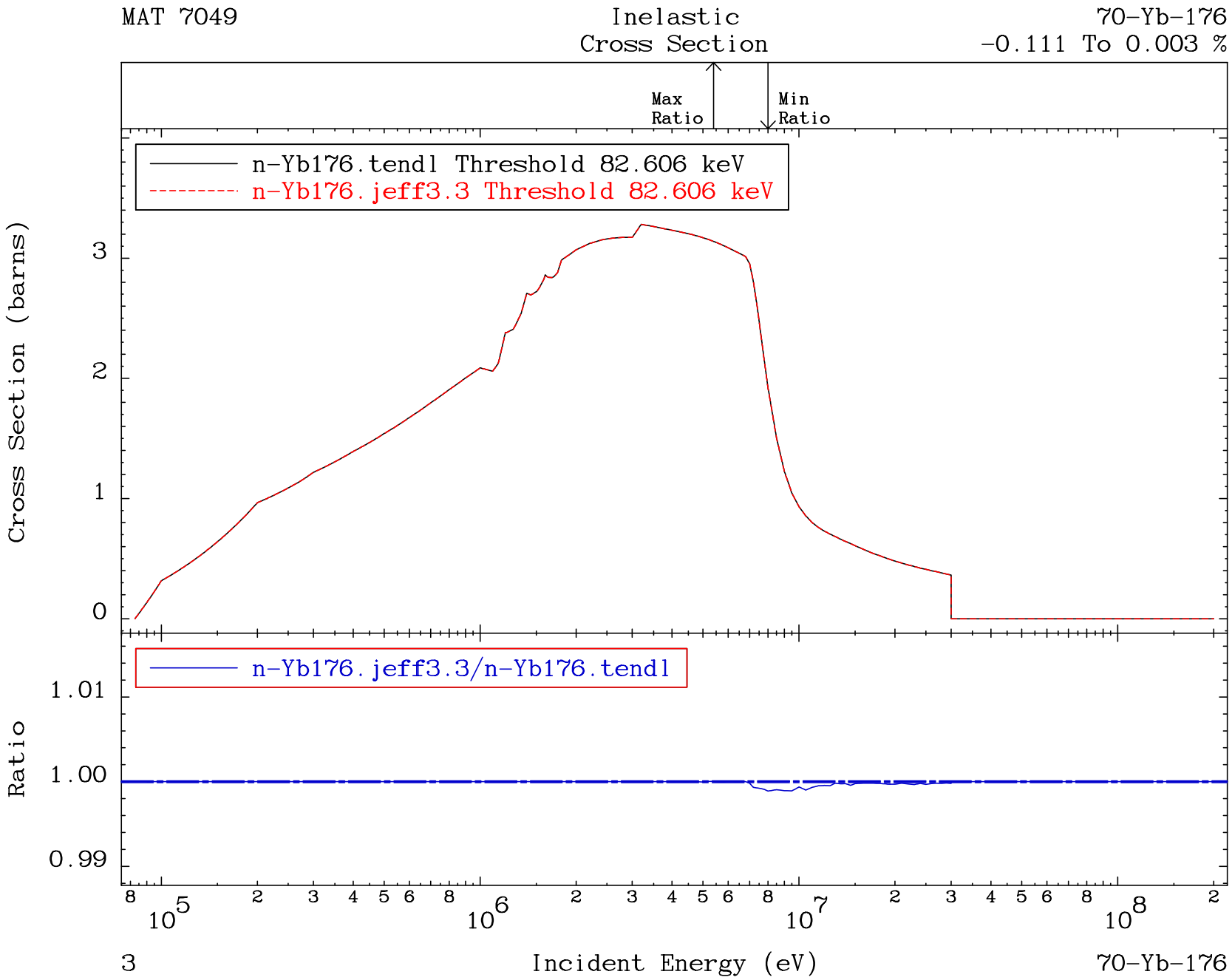
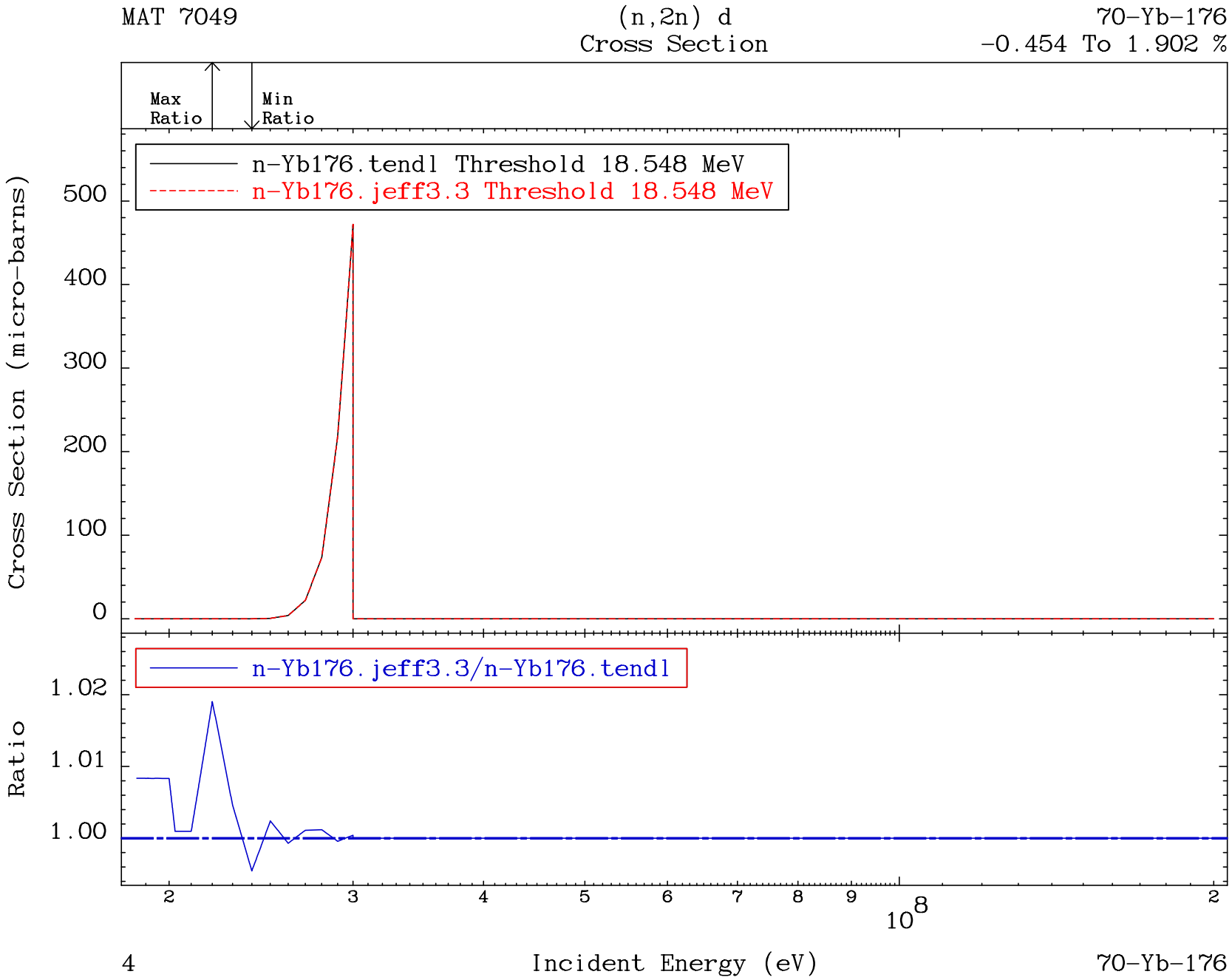
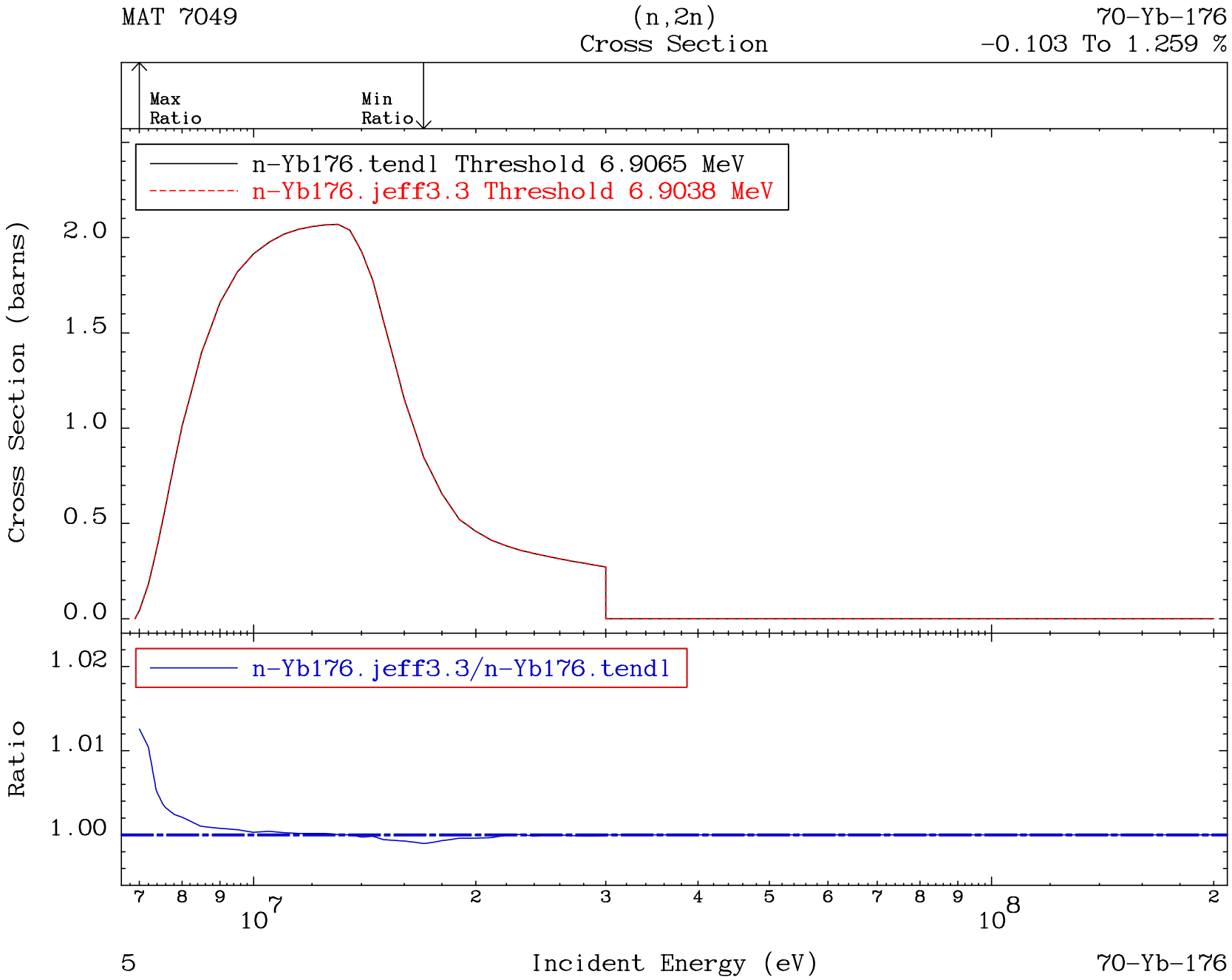
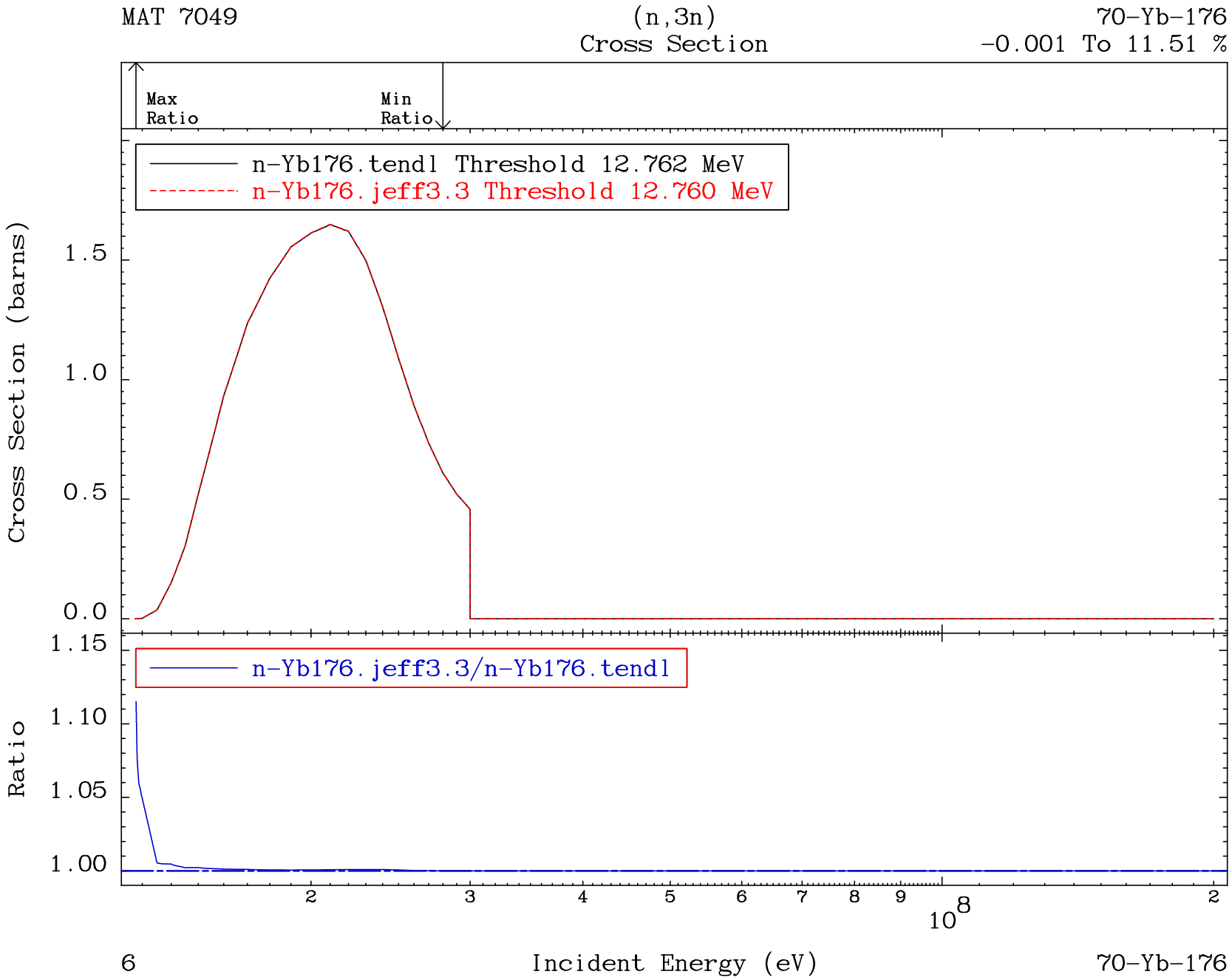

MAT 7049
Total
Cross Section
70-Yb-176
-99.97 To 9999. %
Max
Ratio
Min
Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
1
70-Yb-176

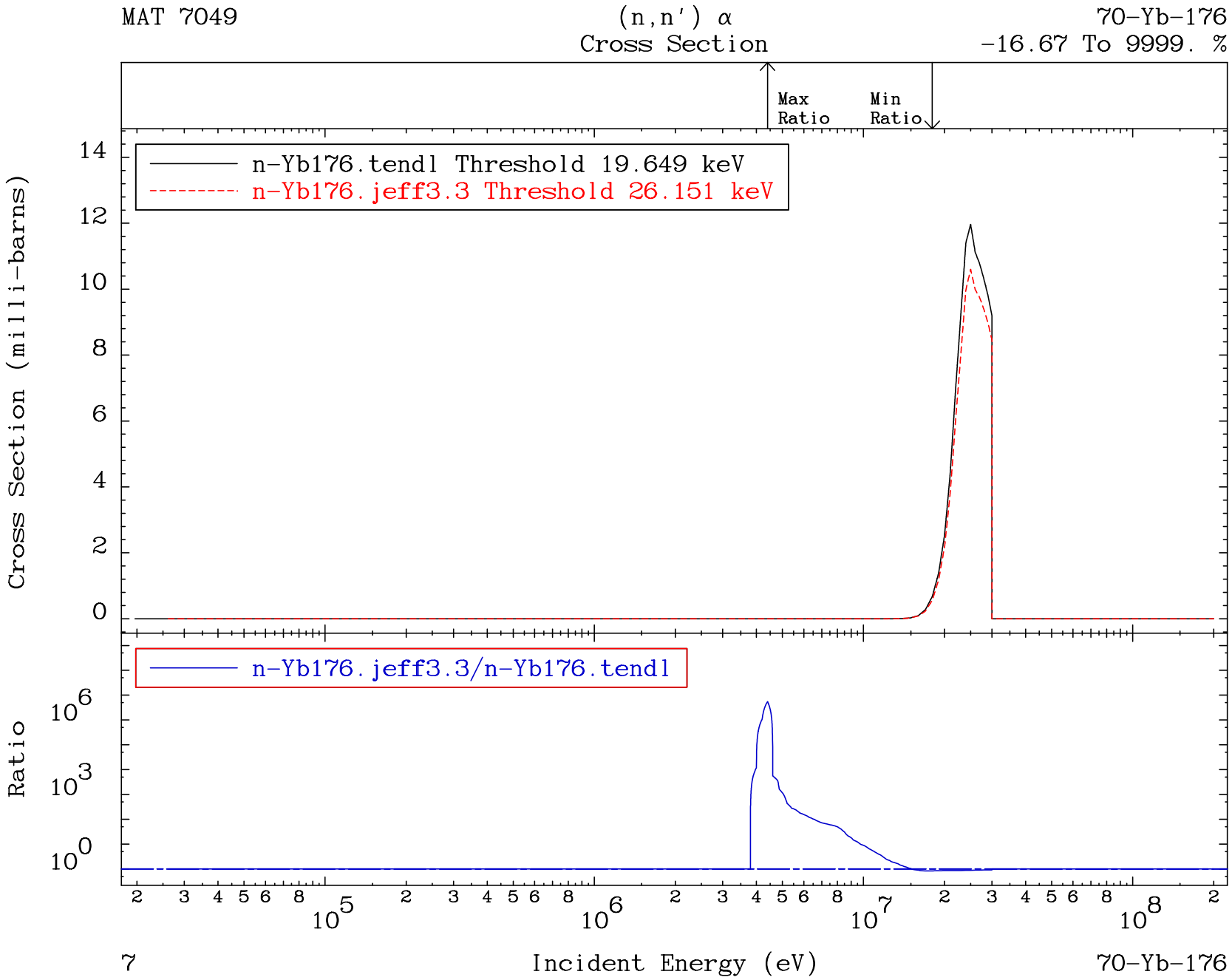

MAT 7049
Elastic
Cross Section
70-Yb-176
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
2
70-Yb-176

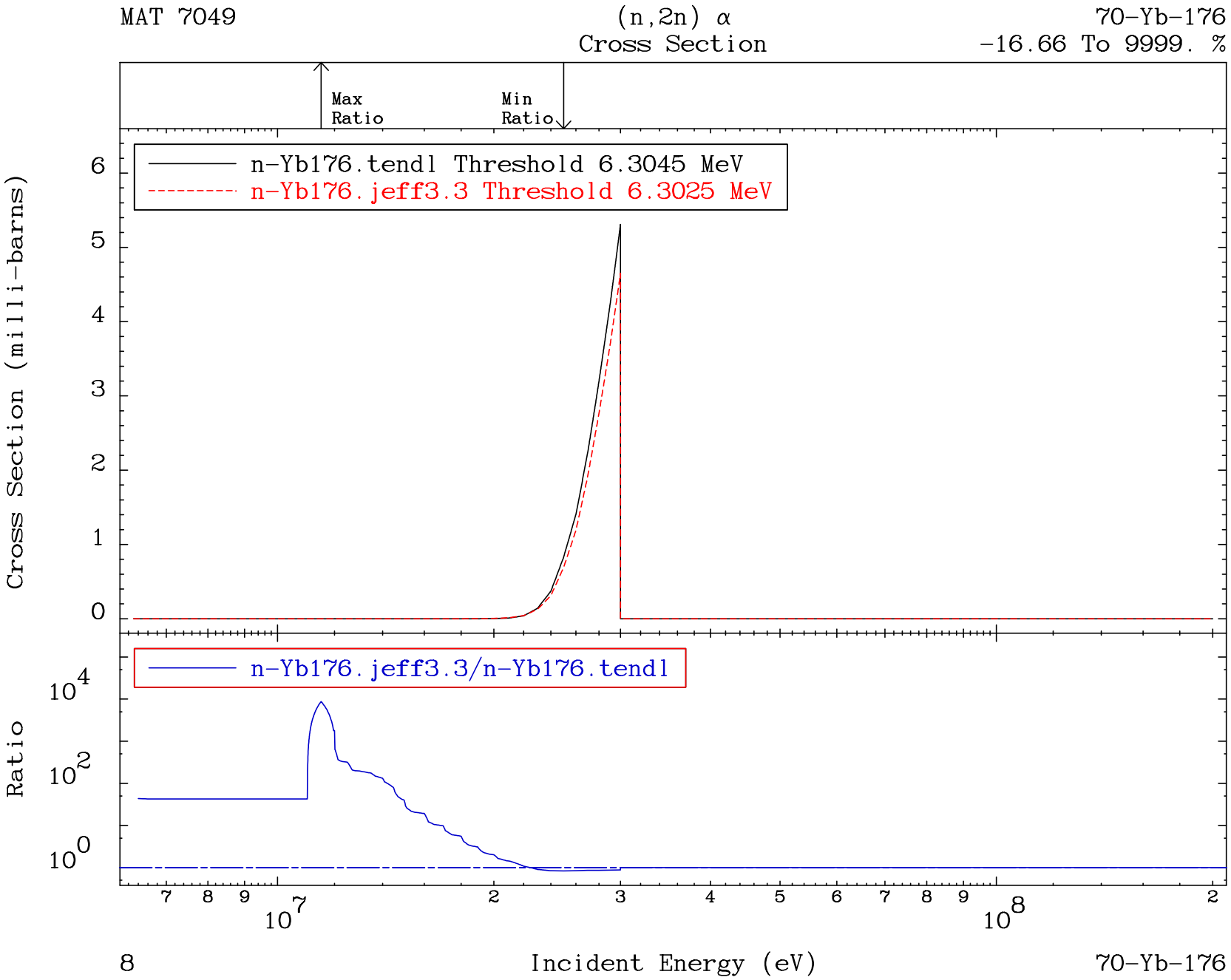

MAT 7049
Inelastic
Cross Section
70-Yb-176
-0.111 To 0.003 %
Max
Ratio
Min
Ratio
n-Yb176.tendl Threshold 82.606 keV
n-Yb176.jeff3.3 Threshold 82.606 keV
Cross Section (barns)
0
1
2
3
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
0.99
1.00
1.01
10^5
10^6
10^7
10^8
Incident Energy (eV)
3
70-Yb-176

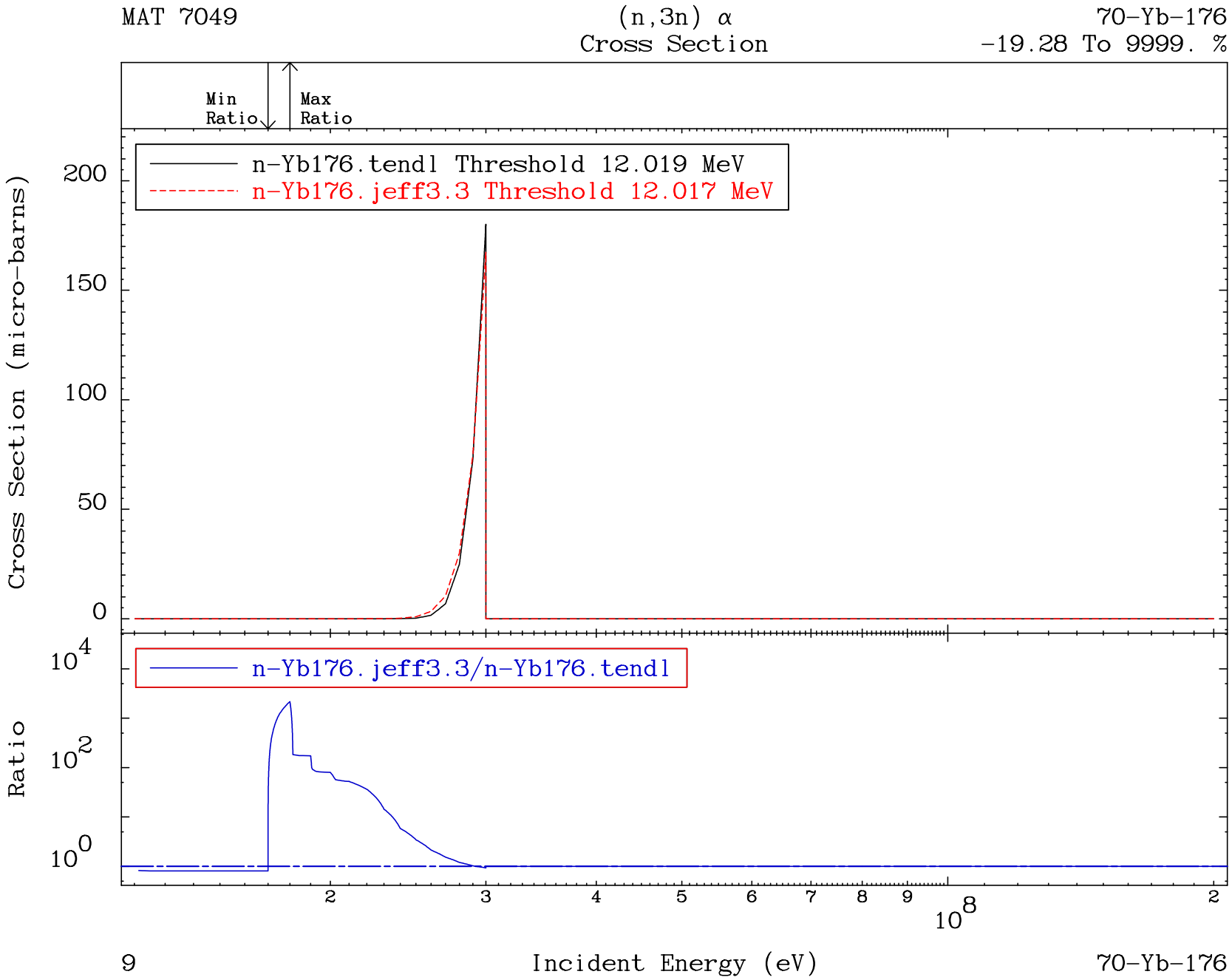

MAT 7049
(n,2n) d
Cross Section
70-Yb-176
-0.454 To 1.902 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 18.548 MeV
n-Yb176.jeff3.3 Threshold 18.548 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
2
10^8
4
Incident Energy (eV)
70-Yb-176

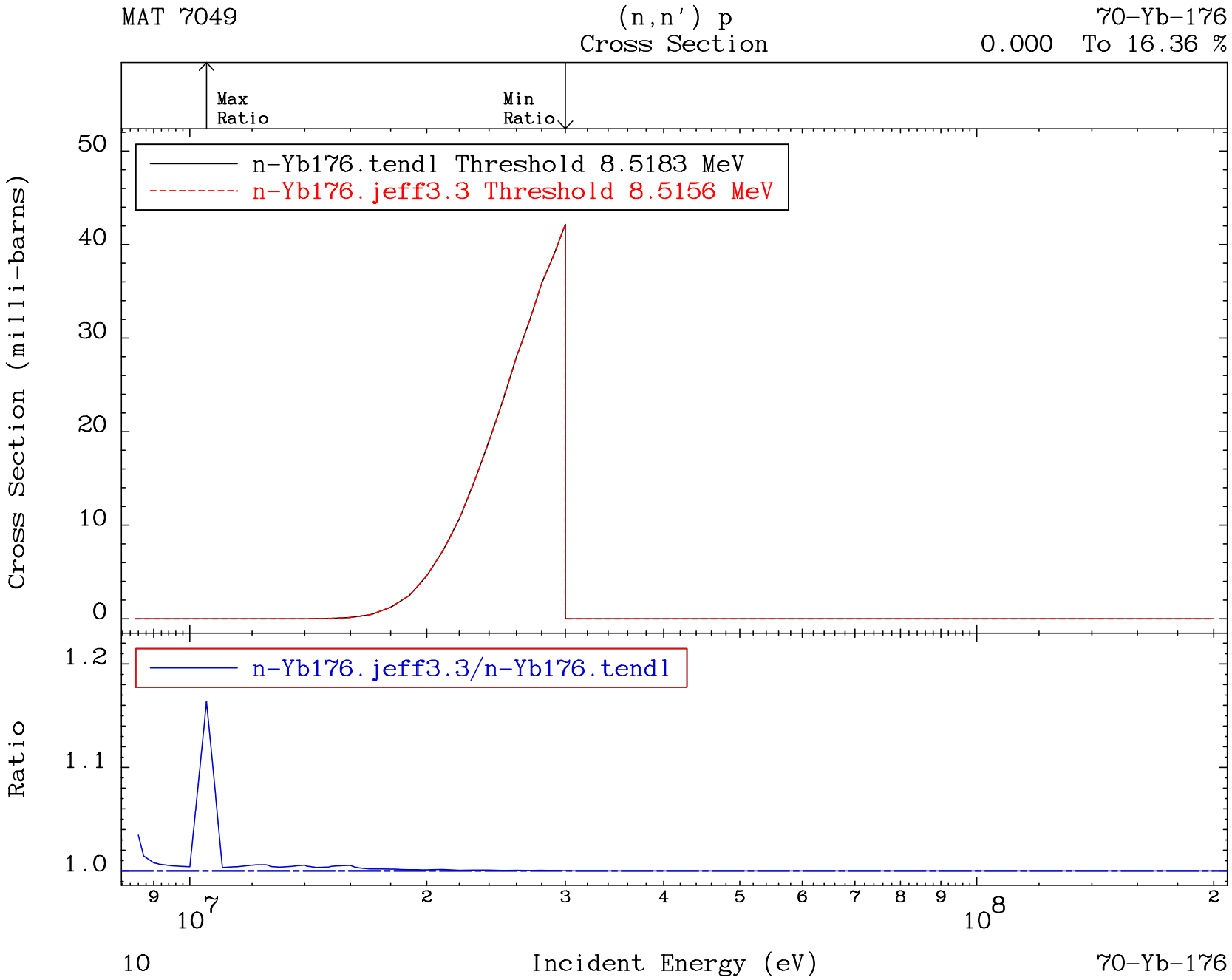

MAT 7049
(n,2n)
Cross Section
70-Yb-176
-0.103 To 1.259 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 6.9065 MeV
n-Yb176.jeff3.3 Threshold 6.9038 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.02
1.01
1.00
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
70-Yb-176

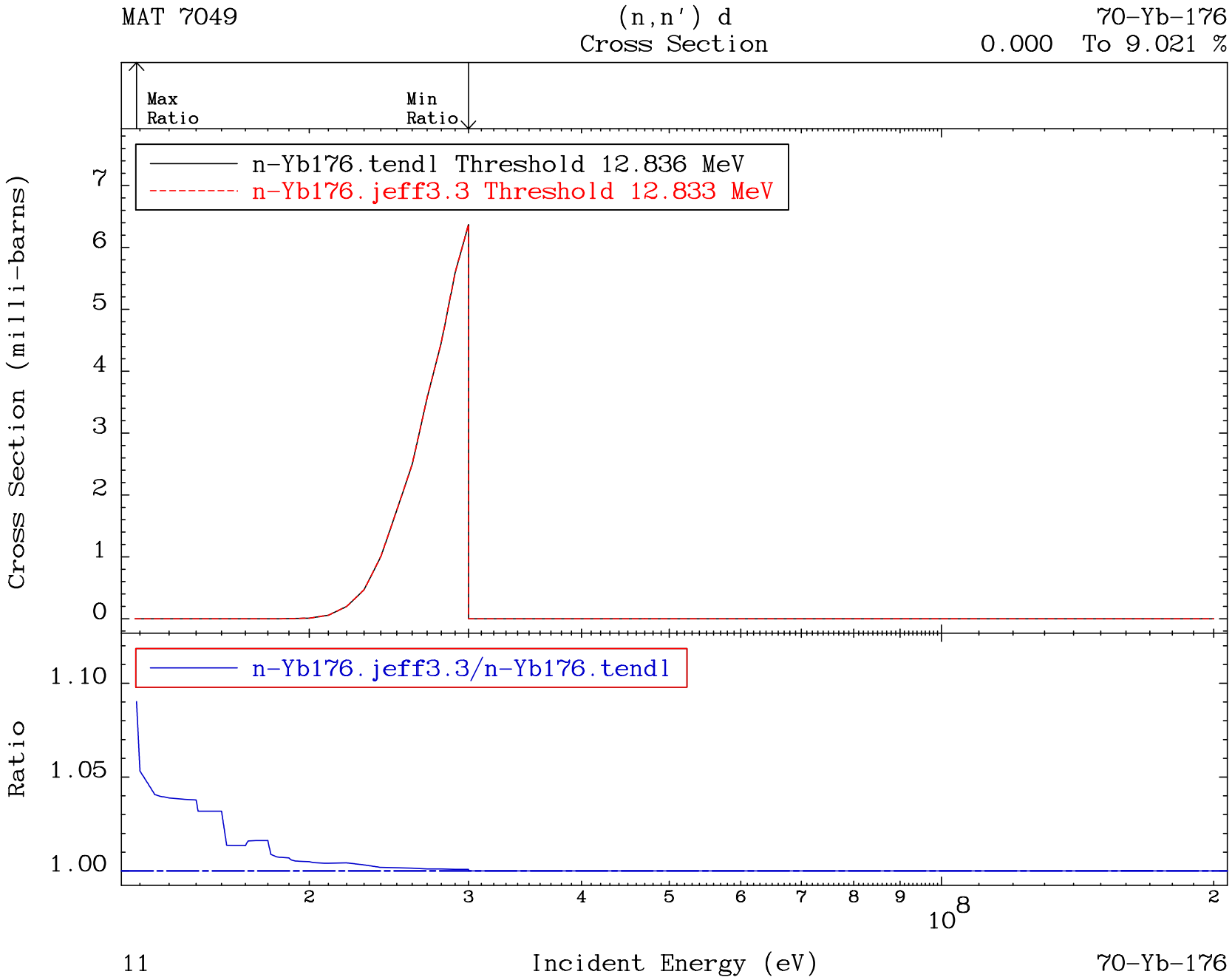

MAT 7049
(n,3n)
Cross Section
70-Yb-176
-0.001 To 11.51 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 12.762 MeV
n-Yb176.jeff3.3 Threshold 12.760 MeV
Cross Section (barns)
1.5
1.0
0.5
0.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.15
1.10
1.05
1.00
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
70-Yb-176

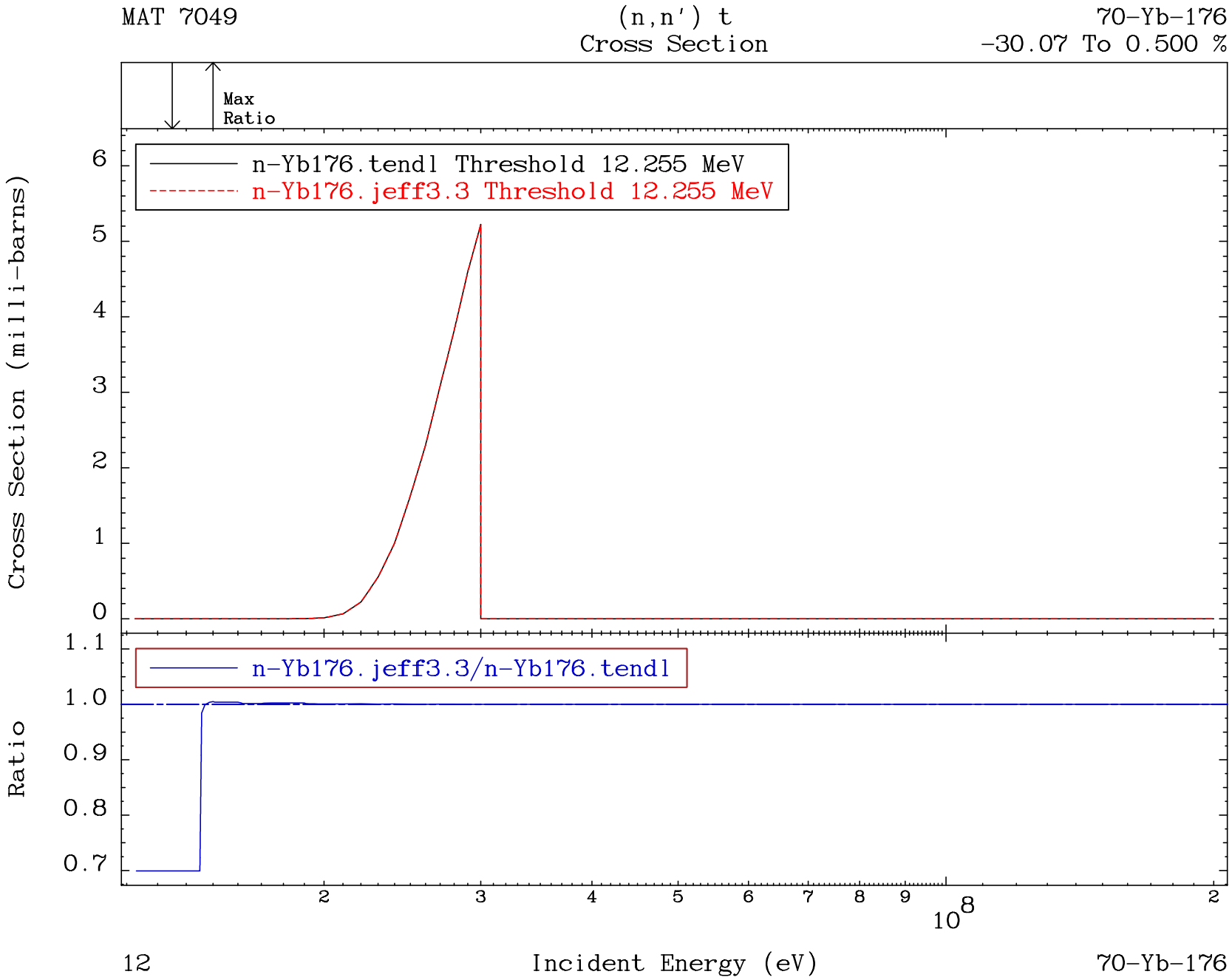

MAT 7049
(n,n') α
Cross Section
70-Yb-176
-16.67 To 9999. %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 19.649 keV
n-Yb176.jeff3.3 Threshold 26.151 keV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
10^0
10^3
10^6
2 3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
7
Incident Energy (eV)
70-Yb-176

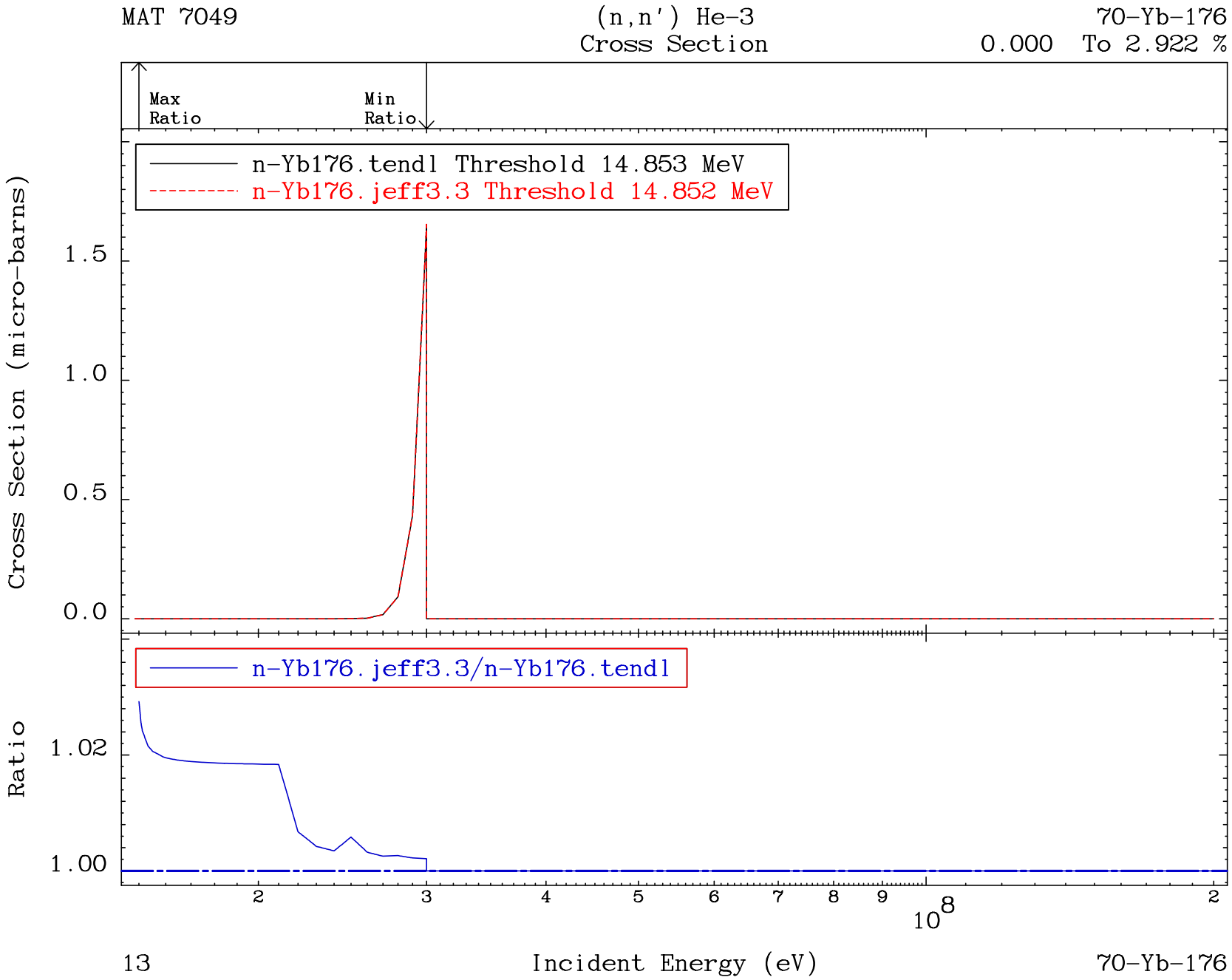

MAT 7049
(n,2n) α
Cross Section
70-Yb-176
-16.66 To 9999. %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 6.3045 MeV
n-Yb176.jeff3.3 Threshold 6.3025 MeV
Cross Section (milli-barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
8
70-Yb-176

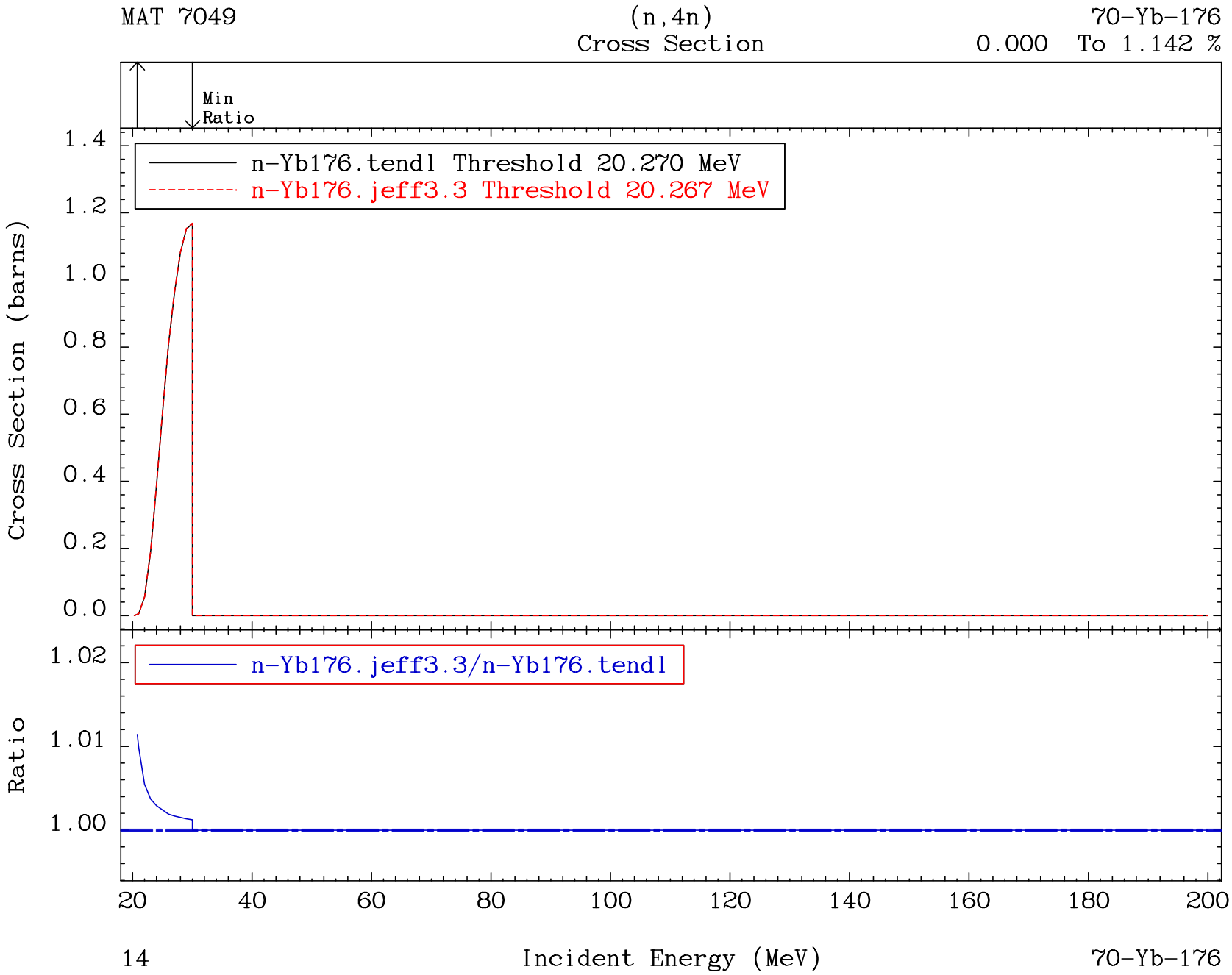

MAT 7049
(n,3n) α
Cross Section
70-Yb-176
-19.28 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 12.019 MeV
n-Yb176.jeff3.3 Threshold 12.017 MeV
Cross Section (micro-barns)
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
70-Yb-176

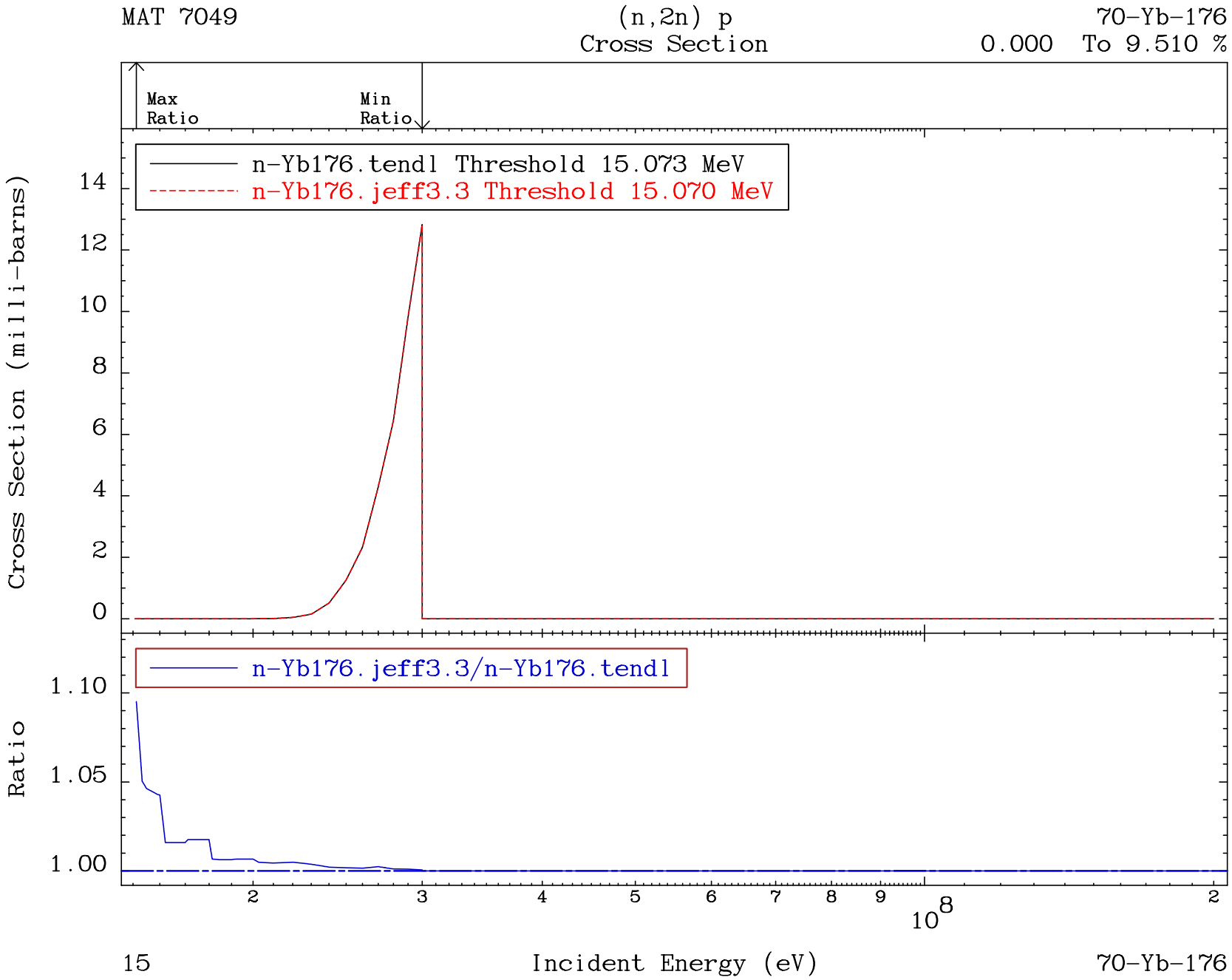

MAT 7049
(n,n') p
Cross Section
70-Yb-176
0.000 To 16.36 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 8.5183 MeV
n-Yb176.jeff3.3 Threshold 8.5156 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.2
1.1
1.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
70-Yb-176

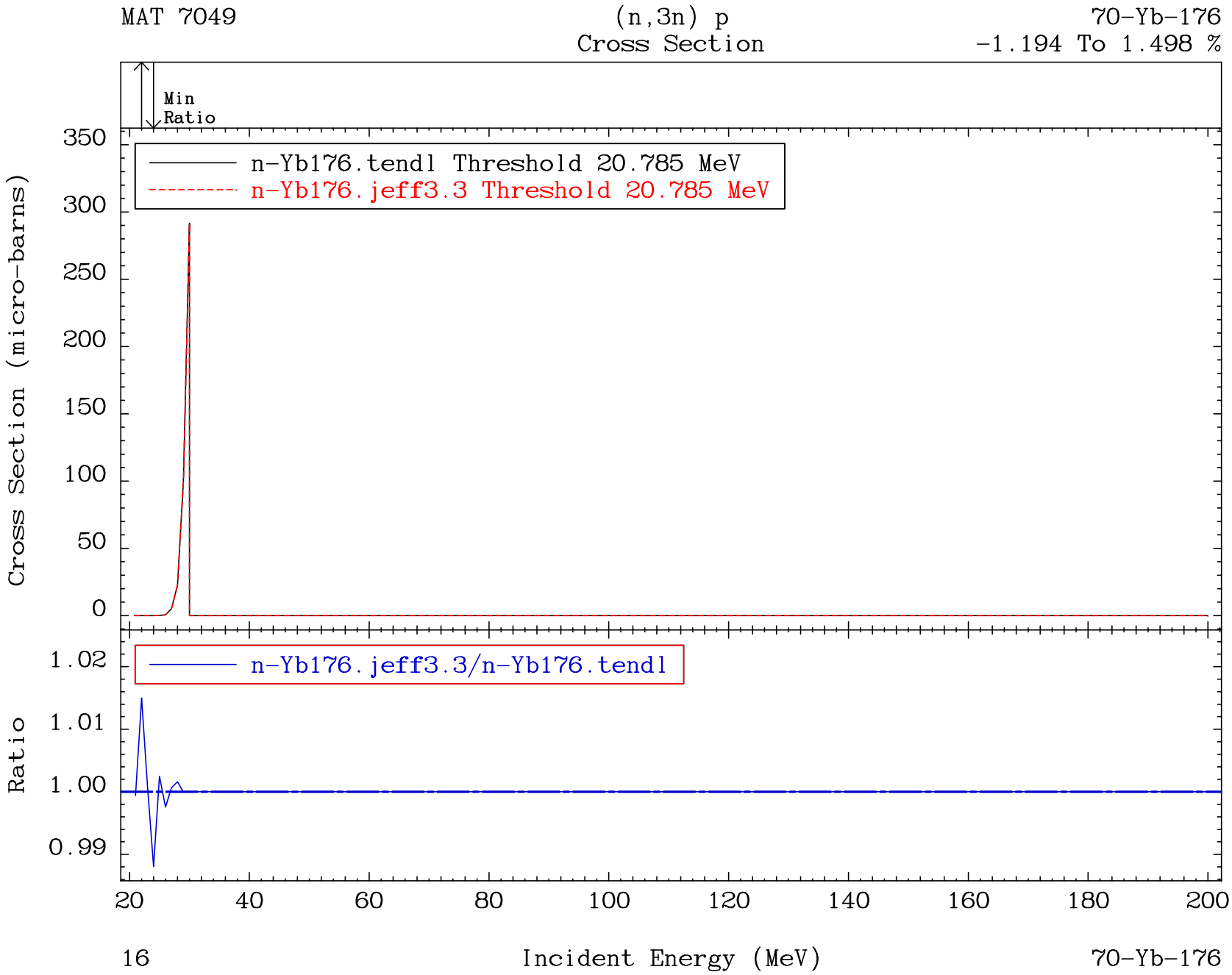

MAT 7049
(n,n') d
Cross Section
70-Yb-176
0.000 To 9.021 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 12.836 MeV
n-Yb176.jeff3.3 Threshold 12.833 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.00
1.05
1.10
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
70-Yb-176

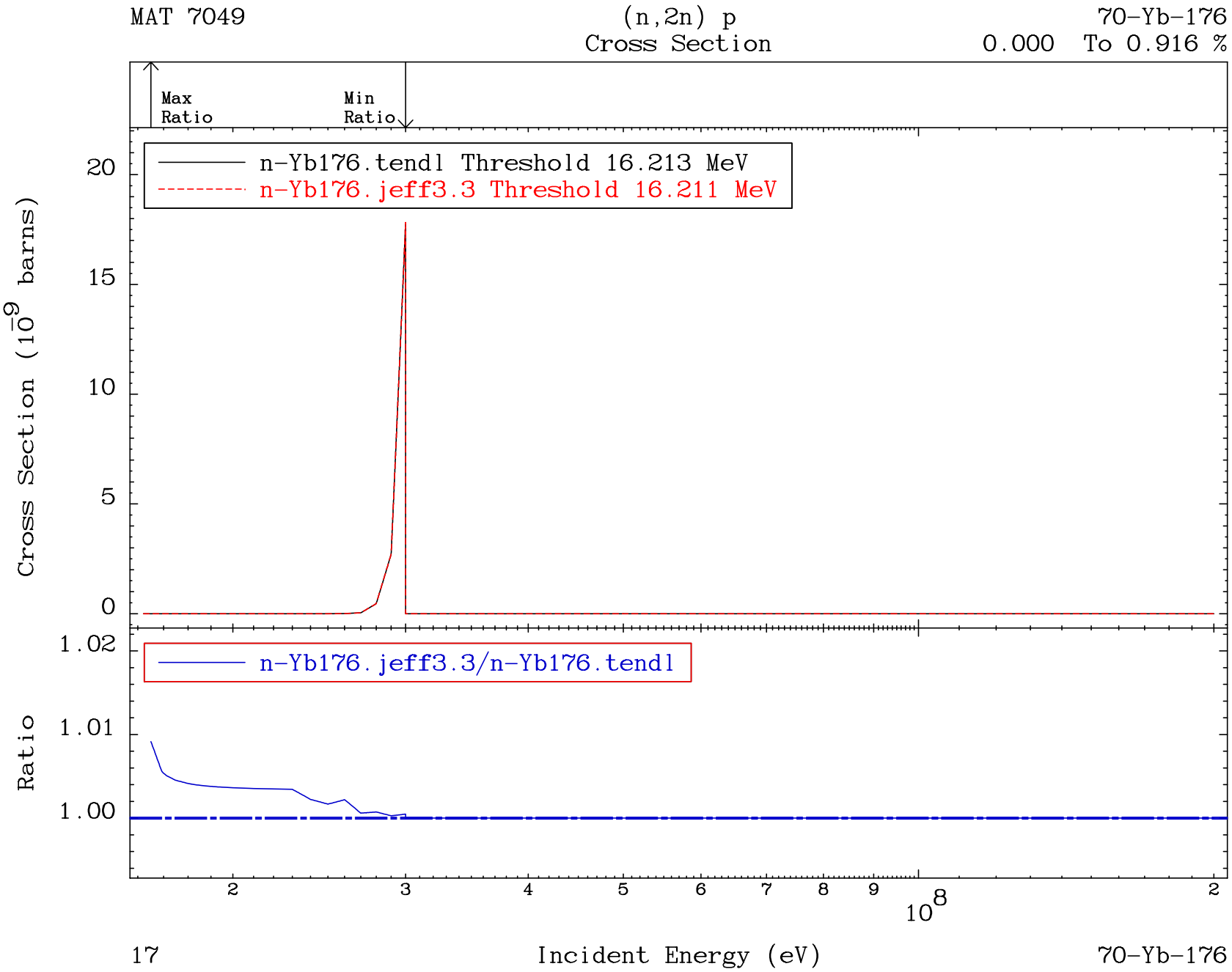

MAT 7049
(n,n') t
Cross Section
70-Yb-176
-30.07 To 0.500 %
Max
Ratio
n-Yb176.tendl Threshold 12.255 MeV
n-Yb176.jeff3.3 Threshold 12.255 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
0.7
0.8
0.9
1.0
1.1
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
70-Yb-176

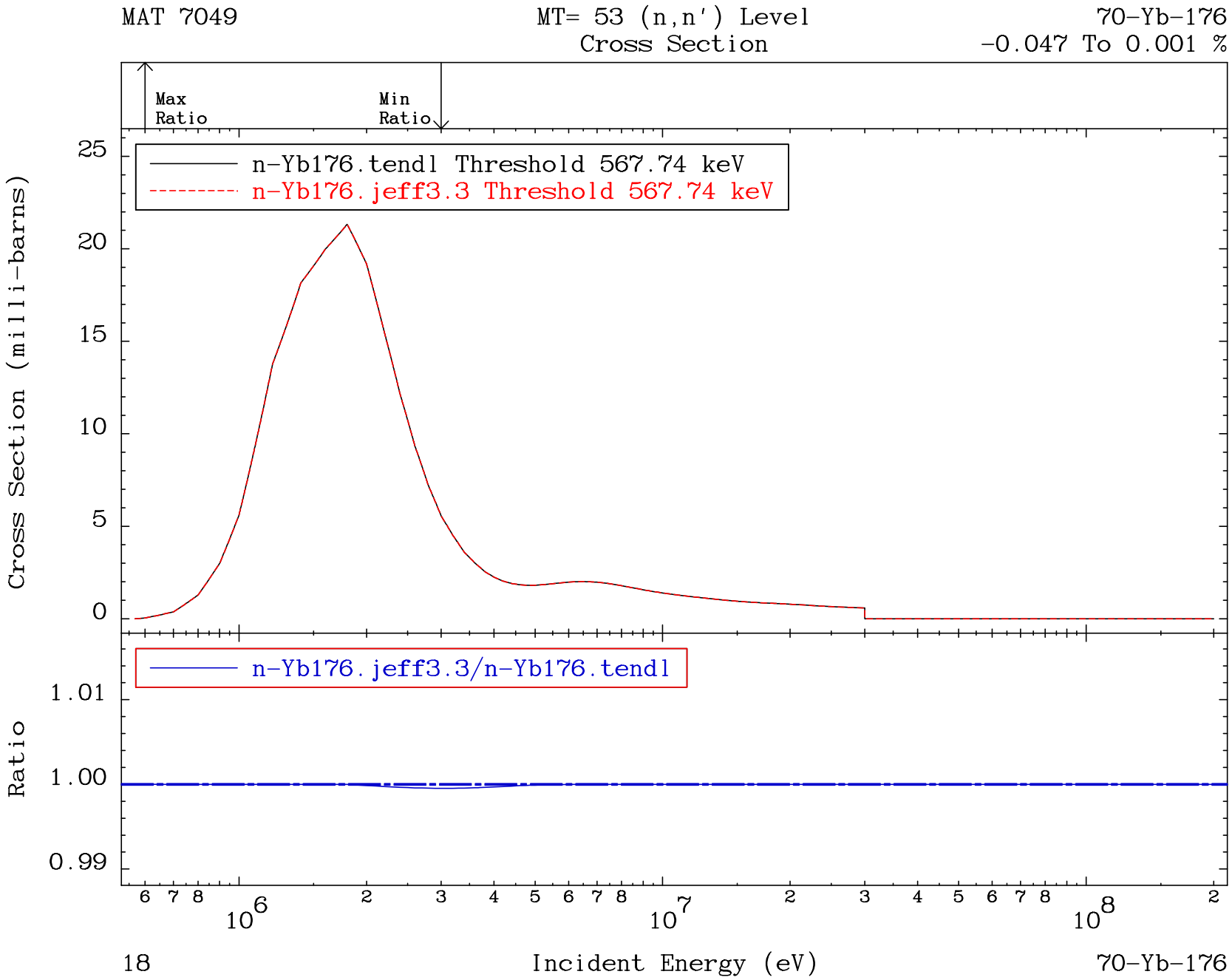

MAT 7049
(n,n') He-3
Cross Section
70-Yb-176
0.000 To 2.922 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 14.853 MeV
n-Yb176.jeff3.3 Threshold 14.852 MeV
Cross Section (micro-barns)
1.5
1.0
0.5
0.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
70-Yb-176

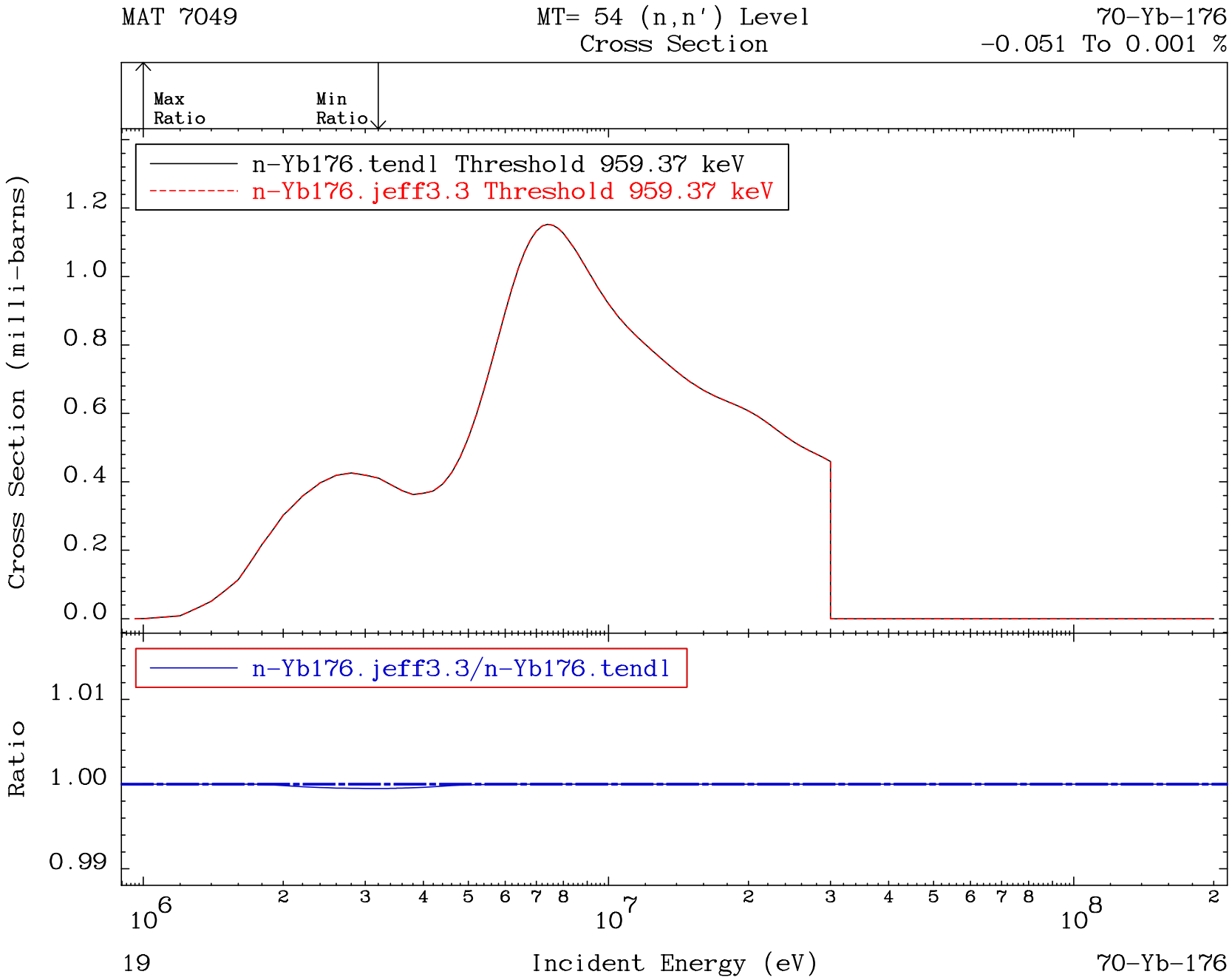

MAT 7049
(n,4n)
Cross Section
70-Yb-176
0.000 To 1.142 %
Min
Ratio
n-Yb176.tendl Threshold 20.270 MeV
n-Yb176.jeff3.3 Threshold 20.267 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.02
1.01
1.00
20
40
60
80
100
120
140
160
180
200
14
Incident Energy (MeV)
70-Yb-176

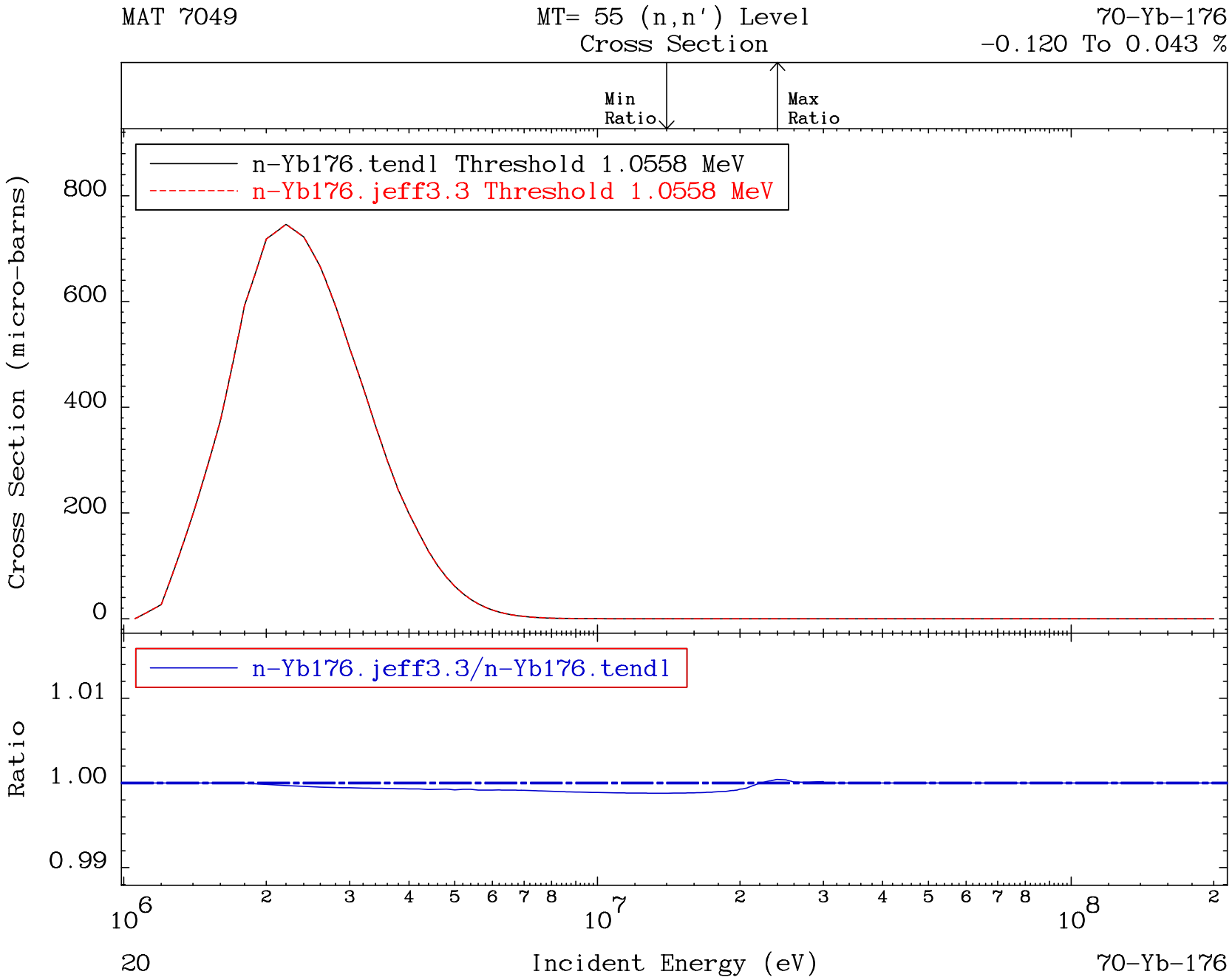

MAT 7049
(n,2n) p
Cross Section
70-Yb-176
0.000 To 9.510 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 15.073 MeV
n-Yb176.jeff3.3 Threshold 15.070 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.00
1.05
1.10
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
70-Yb-176

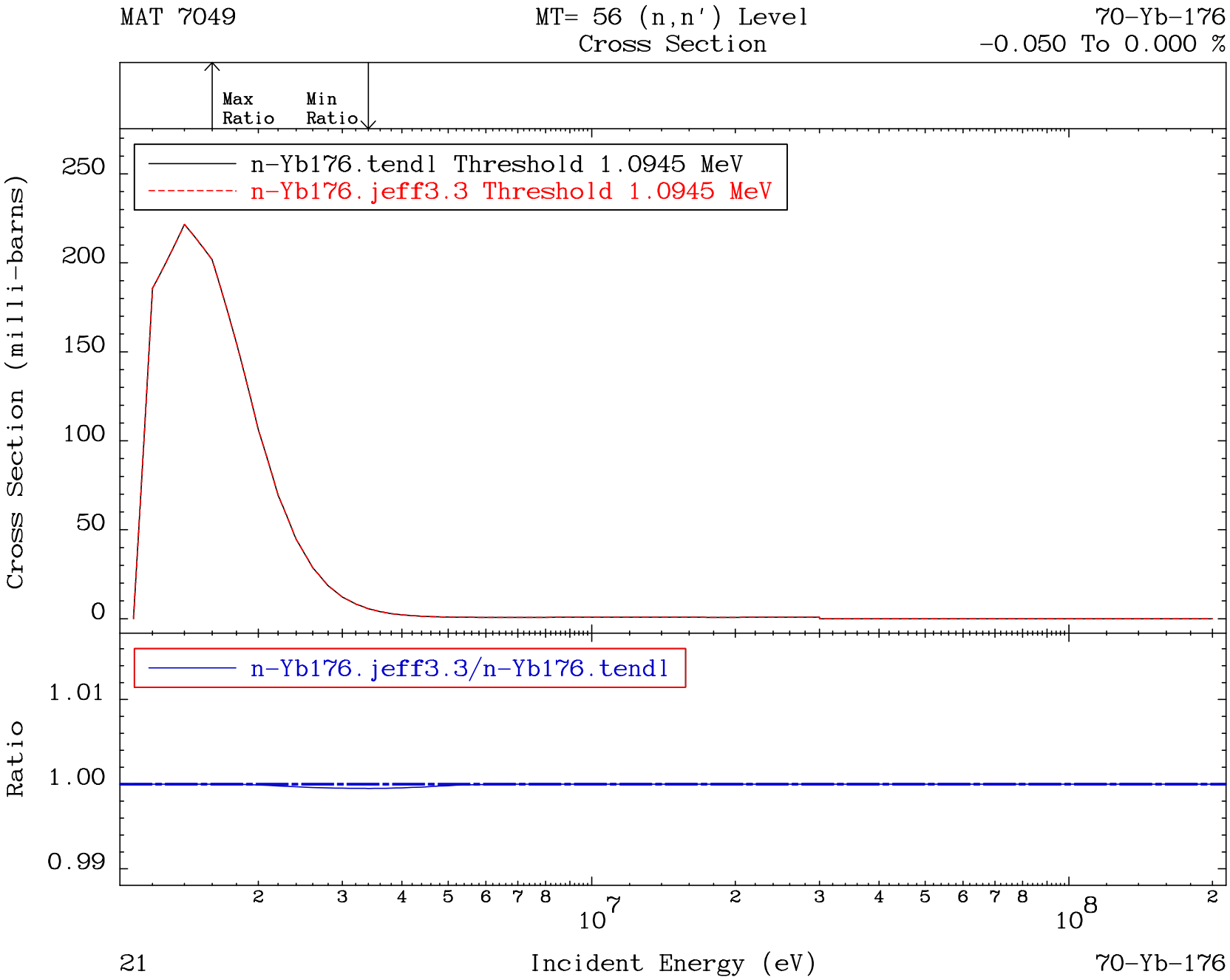

MAT 7049
(n,3n) p
Cross Section
70-Yb-176
-1.194 To 1.498 %
Min
Ratio
n-Yb176.tendl Threshold 20.785 MeV
n-Yb176.jeff3.3 Threshold 20.785 MeV
Cross Section (micro-barns)
350
300
250
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.02
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
16
Incident Energy (MeV)
70-Yb-176

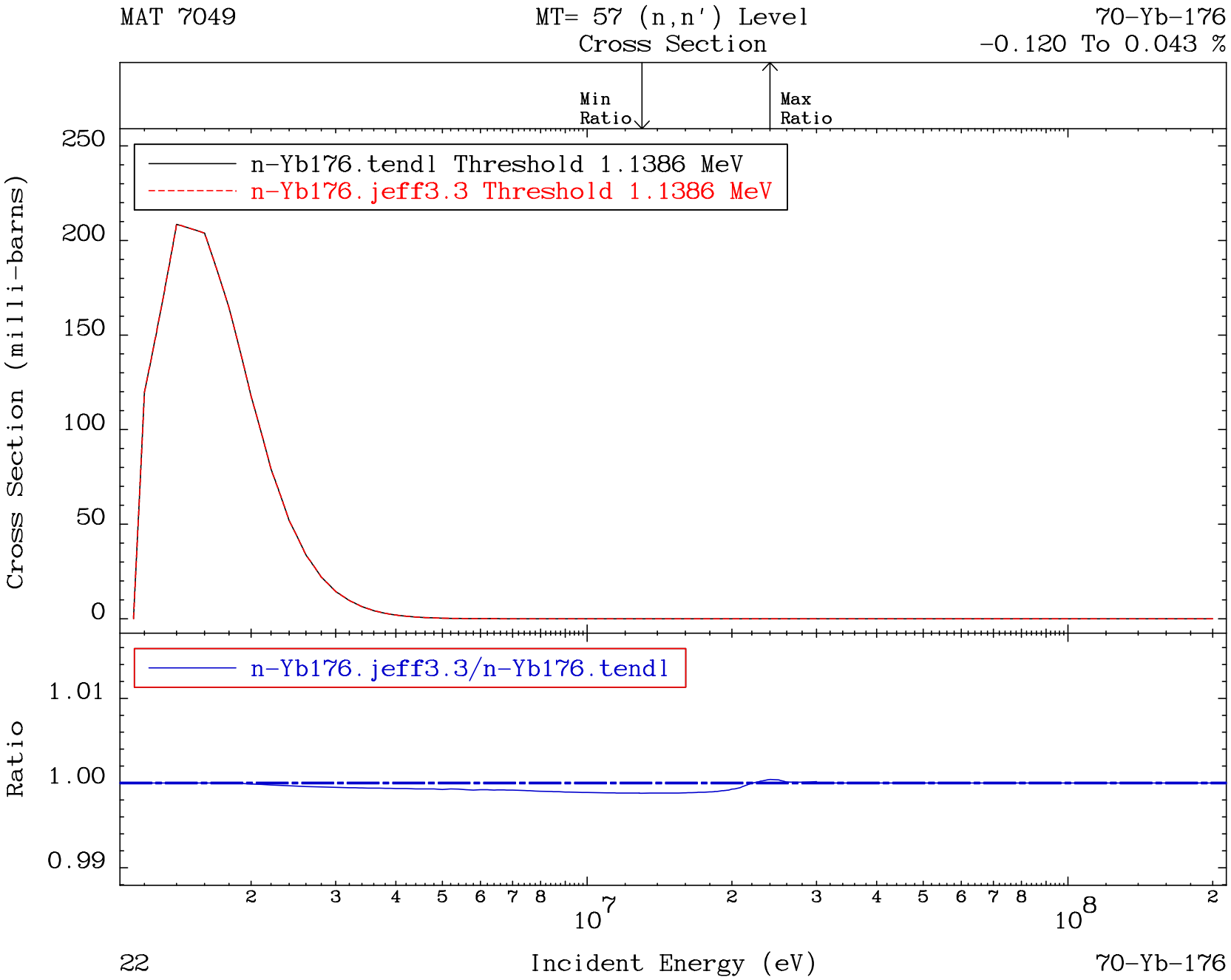

MAT 7049
(n,2n) p
Cross Section
70-Yb-176
0.000 To 0.916 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 16.213 MeV
n-Yb176.jeff3.3 Threshold 16.211 MeV
Cross Section (10^{-9} barns)
20
15
10
5
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
17
Incident Energy (eV)
70-Yb-176

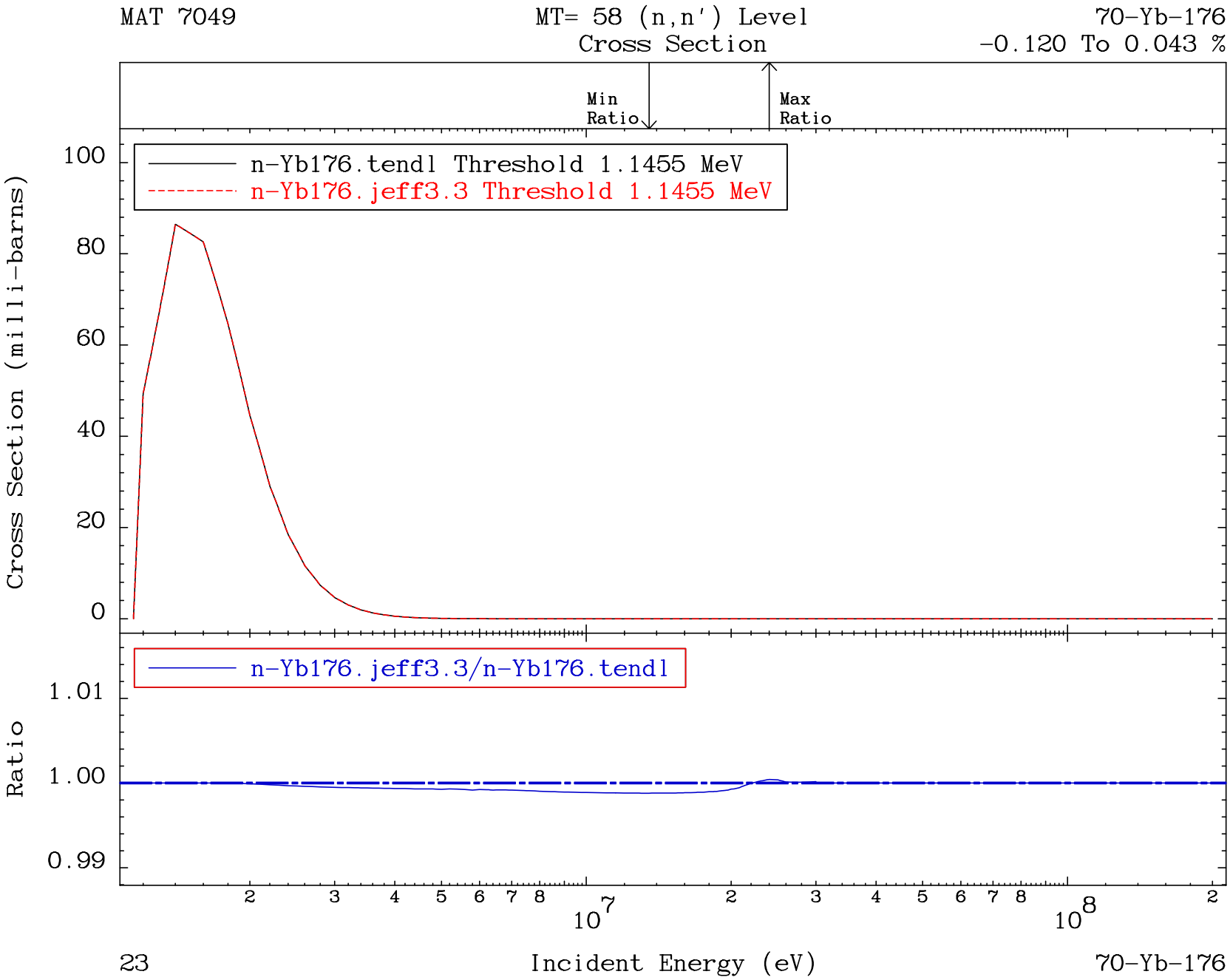

MAT 7049
MT= 53 (n,n') Level
Cross Section
70-Yb-176
-0.047 To 0.001 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 567.74 keV
n-Yb176.jeff3.3 Threshold 567.74 keV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
18
Incident Energy (eV)
70-Yb-176

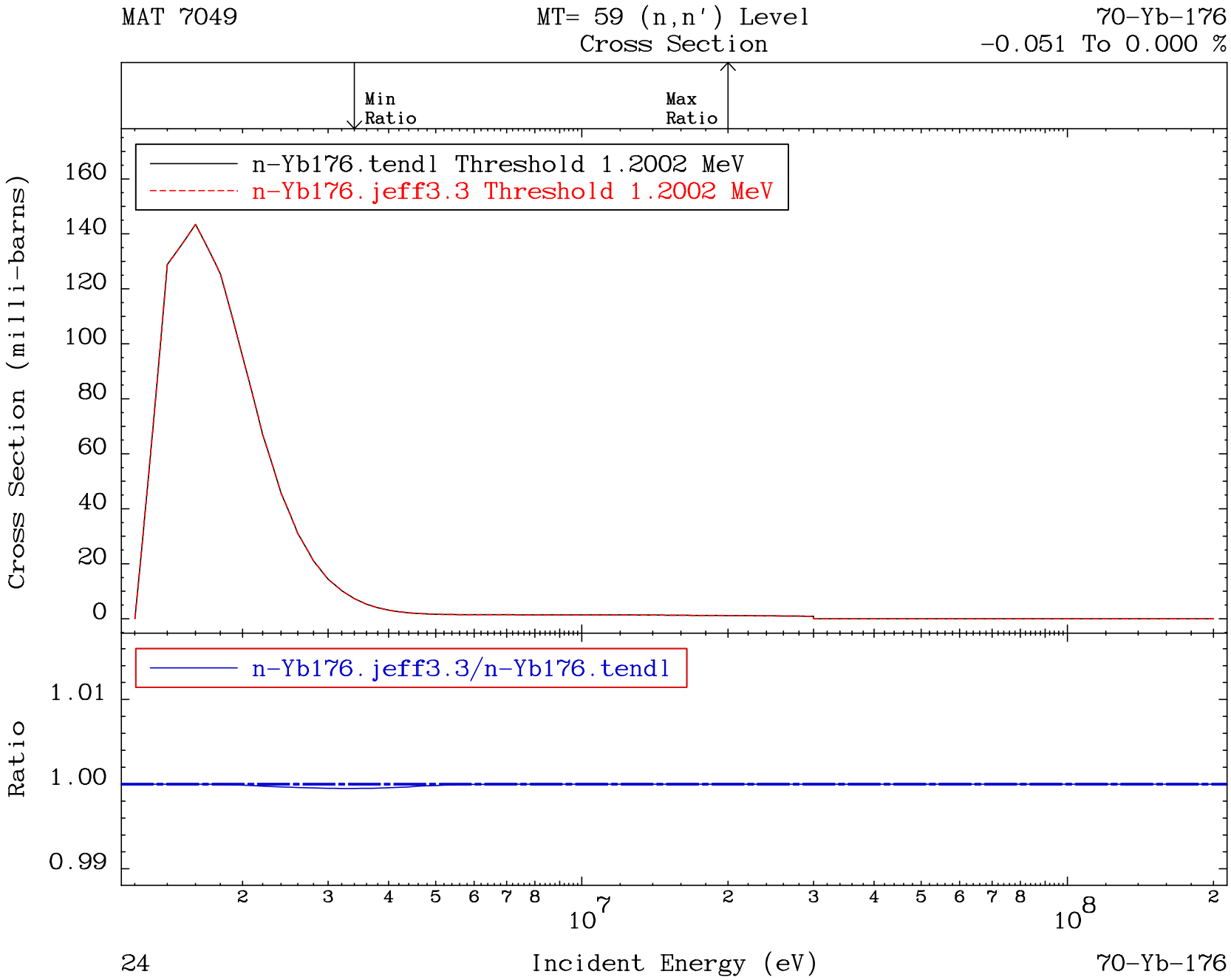

MAT 7049
MT= 54 (n,n') Level
Cross Section
70-Yb-176
-0.051 To 0.001 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 959.37 keV
n-Yb176.jeff3.3 Threshold 959.37 keV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
19
Incident Energy (eV)
70-Yb-176

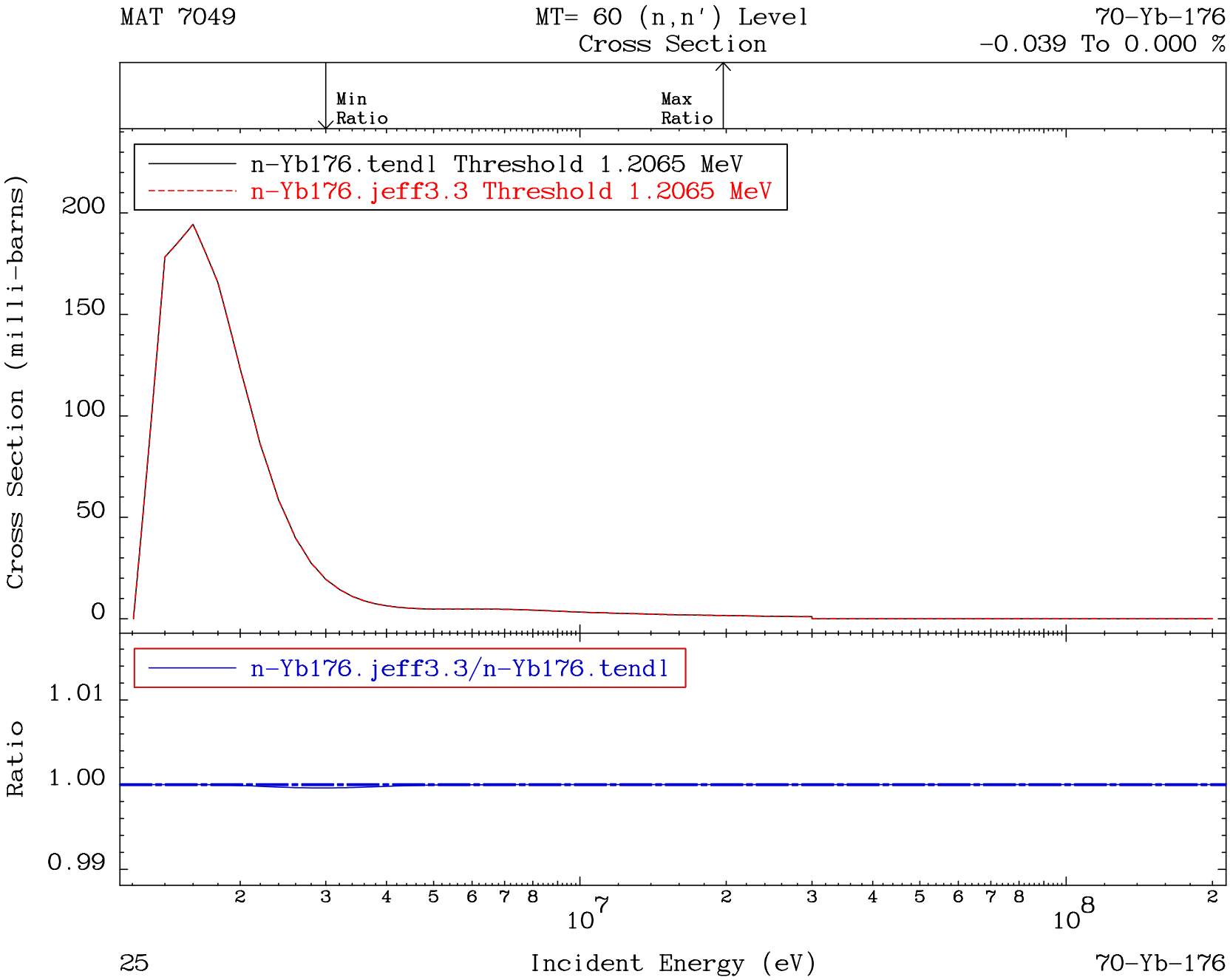

MAT 7049
MT= 55 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.0558 MeV
n-Yb176.jeff3.3 Threshold 1.0558 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
Incident Energy (eV)
20
70-Yb-176

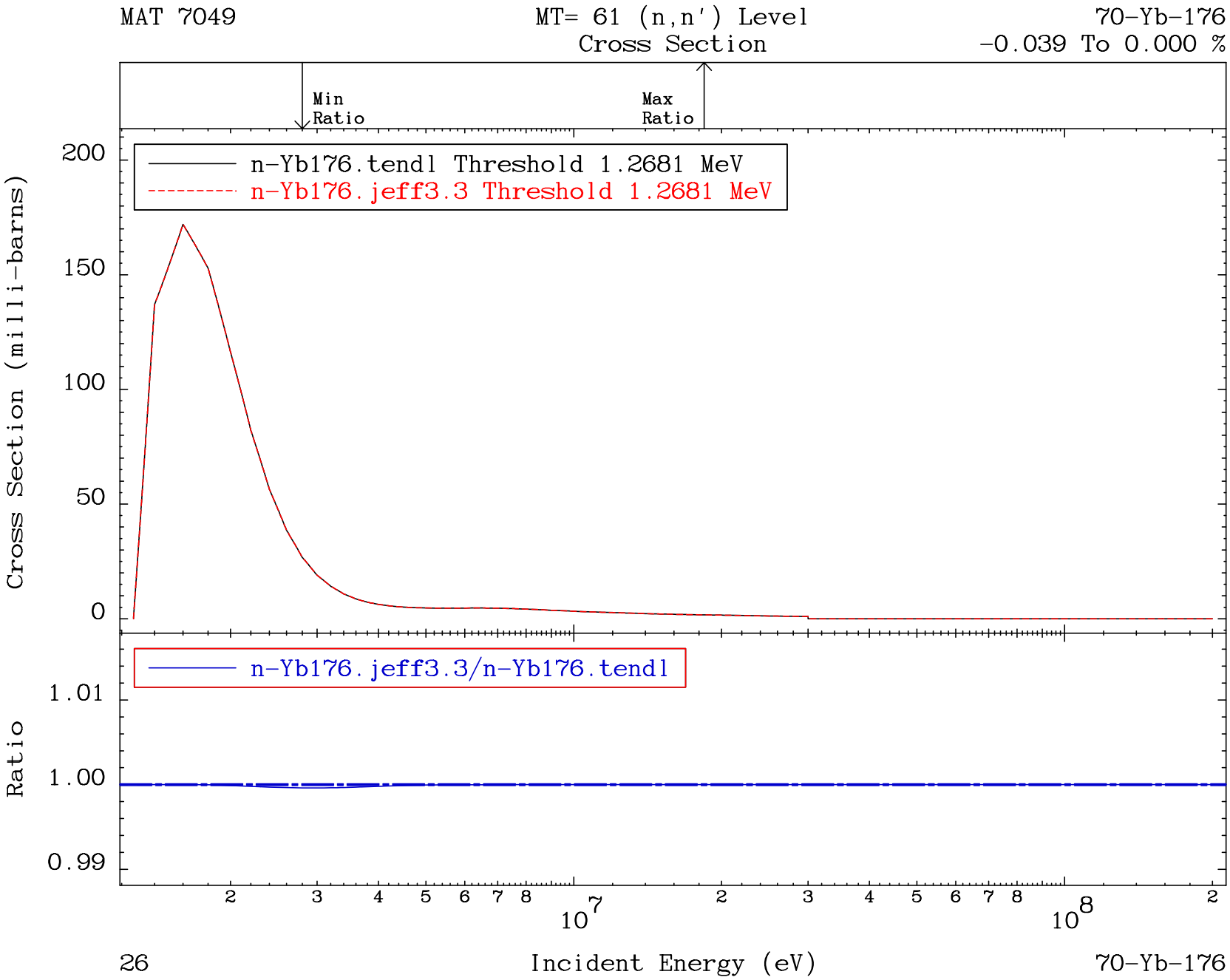

MAT 7049
MT= 56 (n,n') Level
Cross Section
70-Yb-176
-0.050 To 0.000 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 1.0945 MeV
n-Yb176.jeff3.3 Threshold 1.0945 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
70-Yb-176

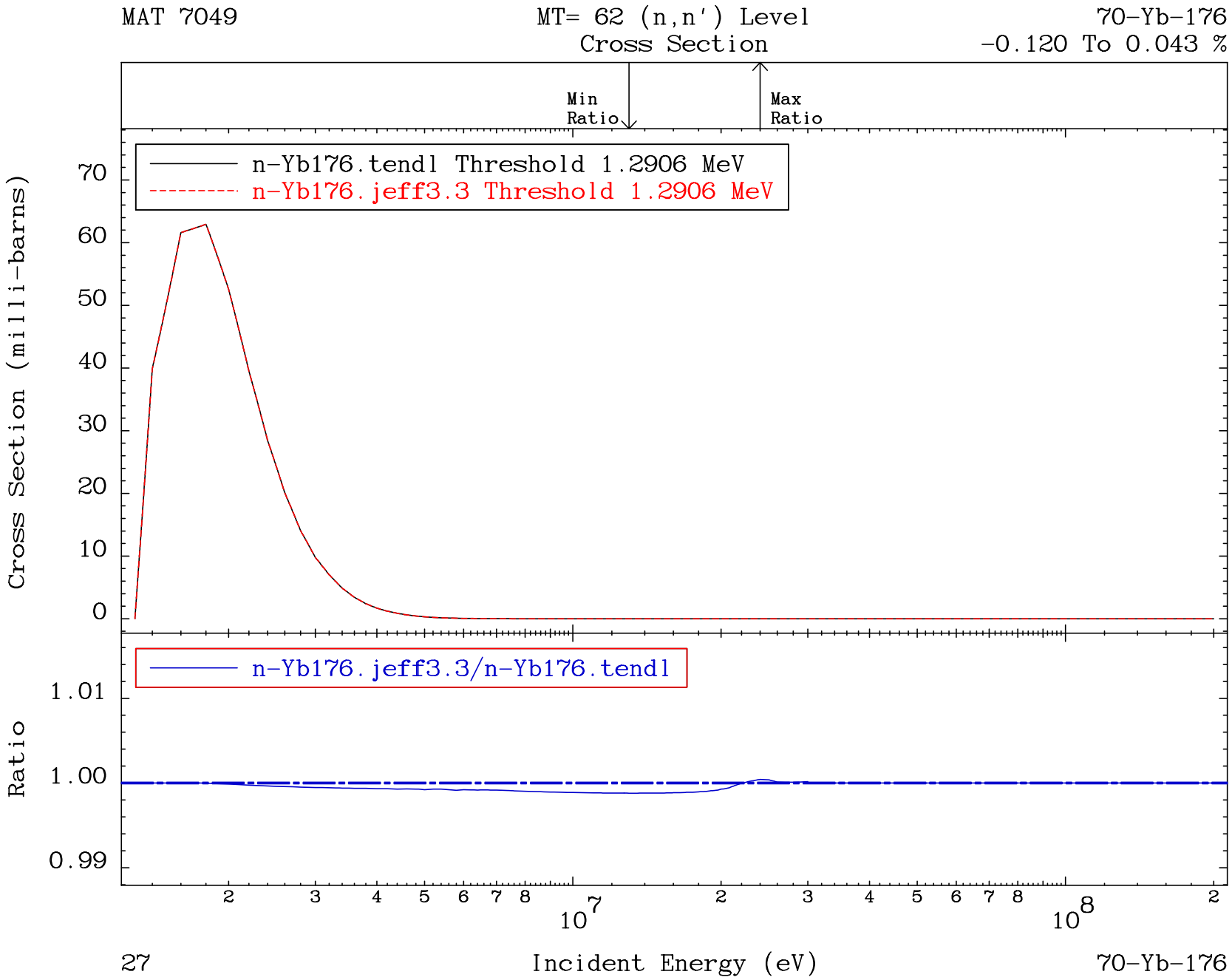

MAT 7049
MT= 57 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.1386 MeV
n-Yb176.jeff3.3 Threshold 1.1386 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
70-Yb-176

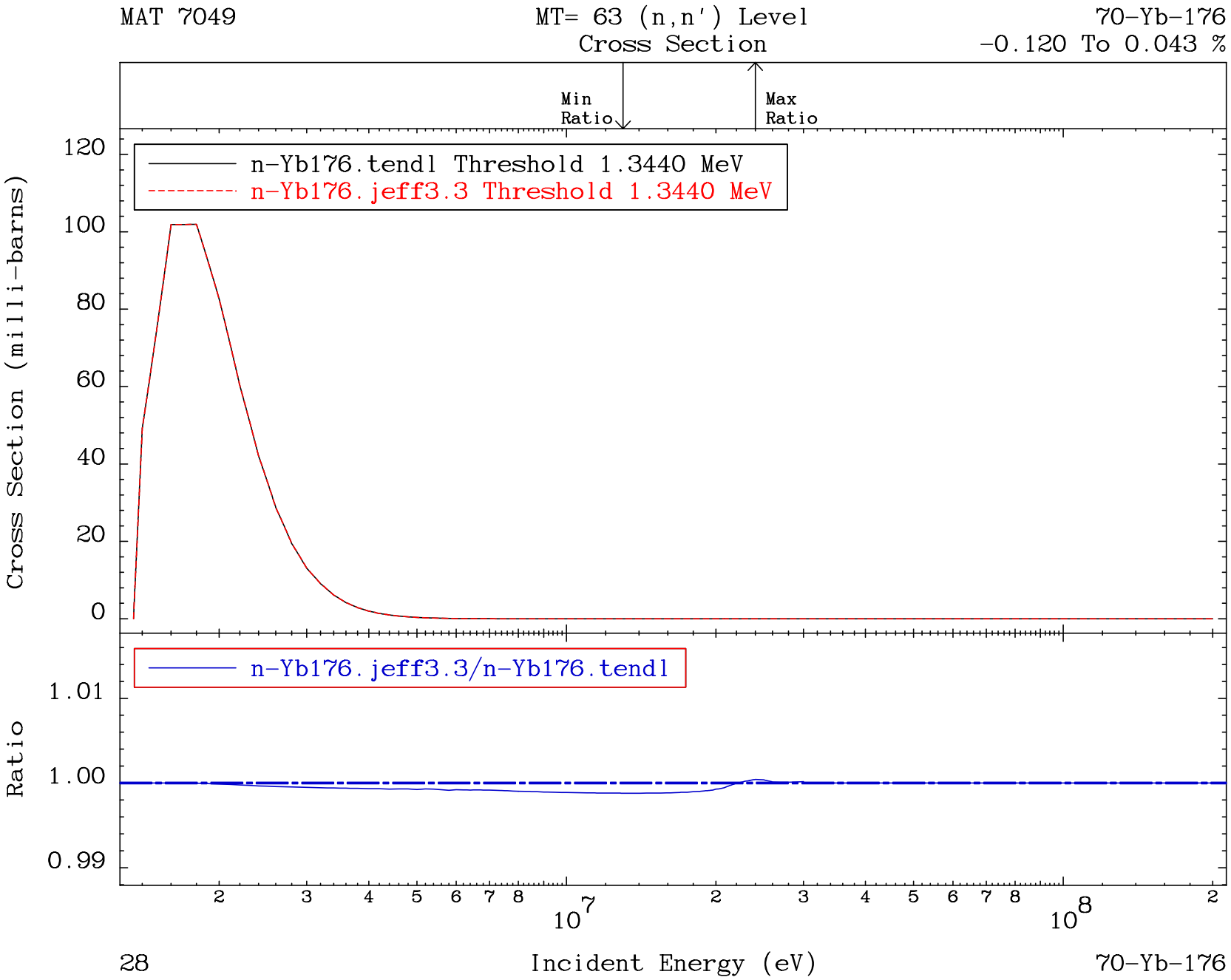

MAT 7049
MT= 58 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.1455 MeV
n-Yb176.jeff3.3 Threshold 1.1455 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
23
Incident Energy (eV)
70-Yb-176

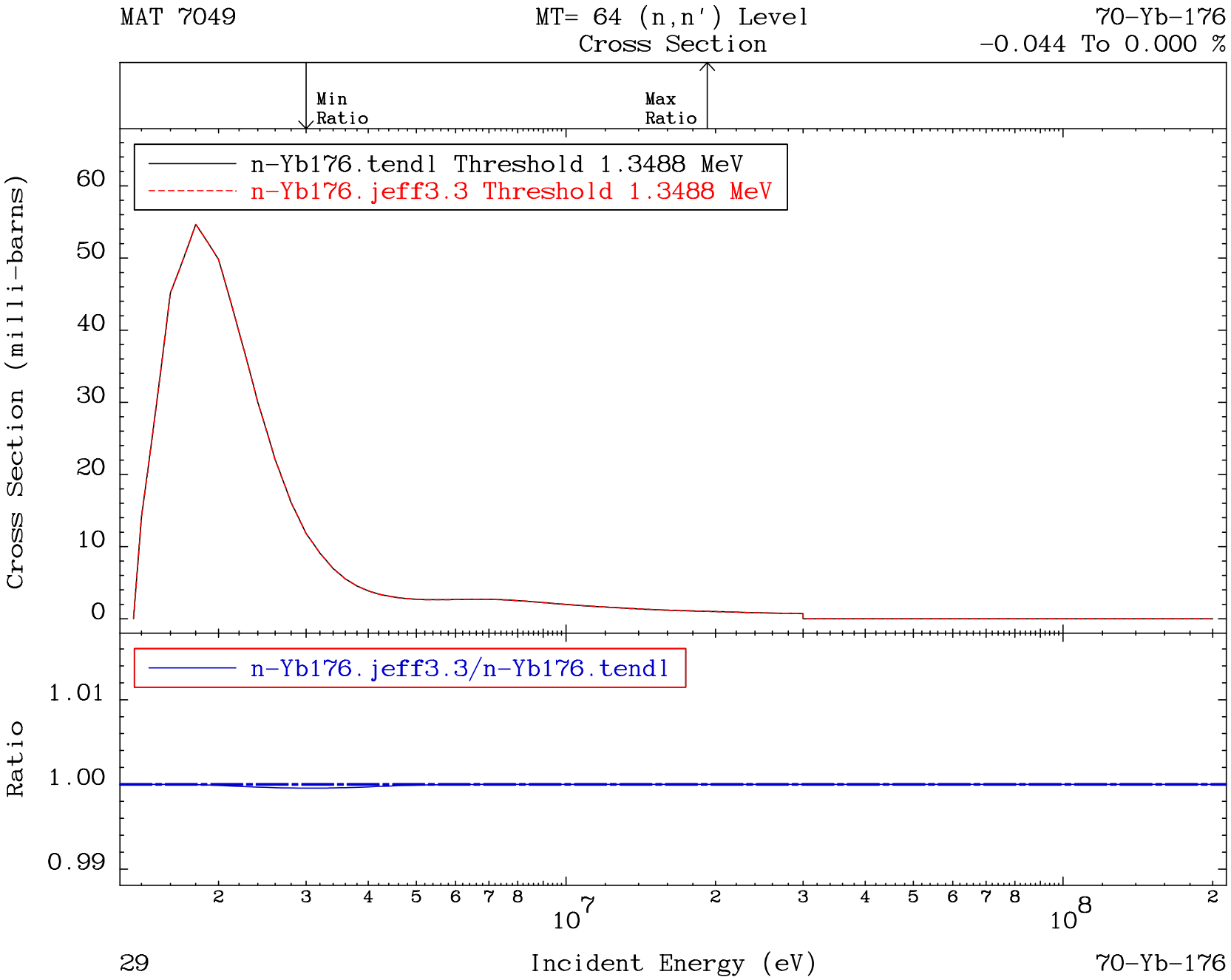

MAT 7049
MT= 59 (n,n') Level
Cross Section
70-Yb-176
-0.051 To 0.000 %
Min
Ratio
Max
Ratio
n-Yb176.tendl Threshold 1.2002 MeV
n-Yb176.jeff3.3 Threshold 1.2002 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
24
Incident Energy (eV)
70-Yb-176

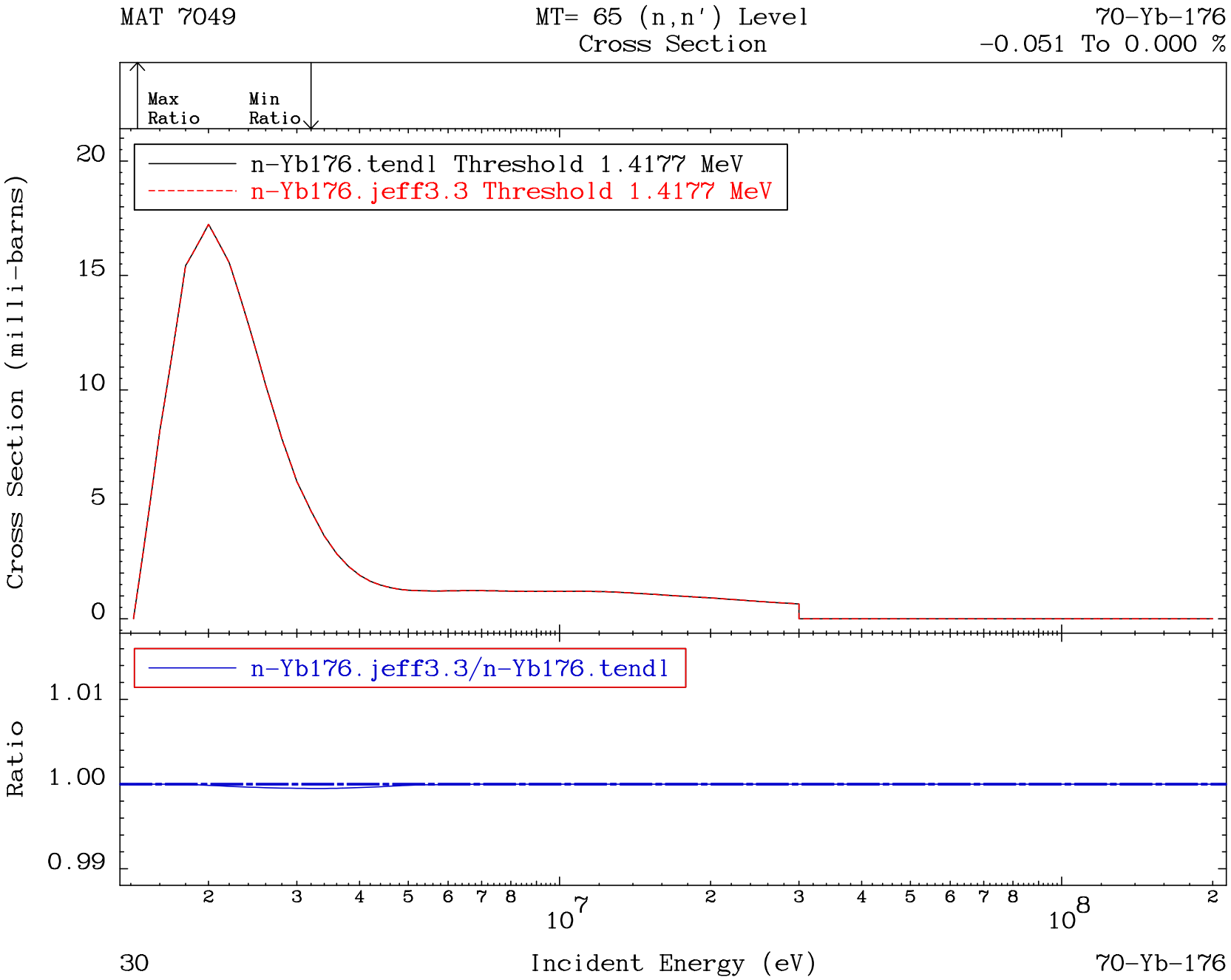

MAT 7049
MT= 60 (n,n') Level
Cross Section
70-Yb-176
-0.039 To 0.000 %
Min
Ratio
Max
Ratio
n-Yb176.tendl Threshold 1.2065 MeV
n-Yb176.jeff3.3 Threshold 1.2065 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
25
Incident Energy (eV)
70-Yb-176

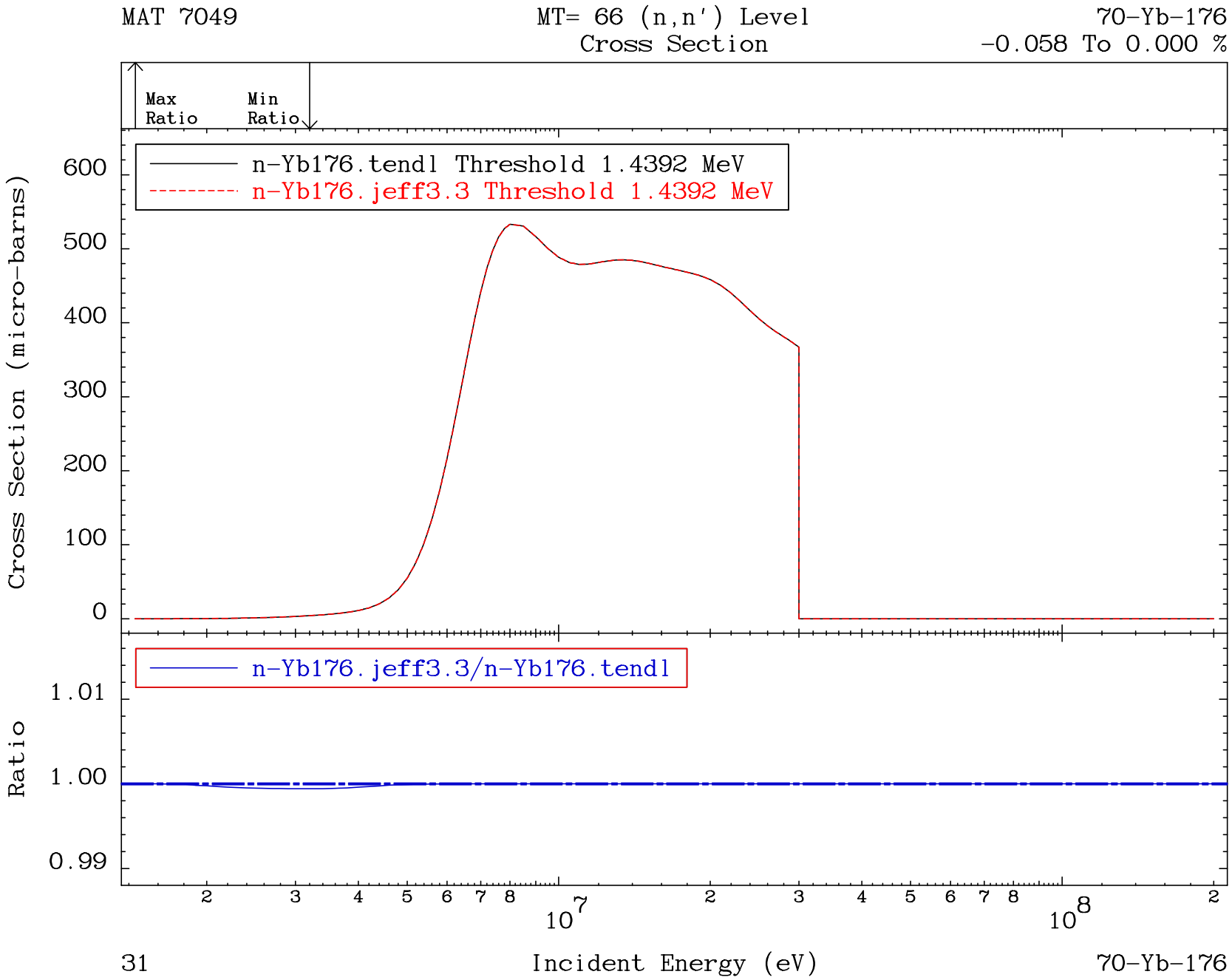

MAT 7049
MT= 61 (n,n') Level
Cross Section
70-Yb-176
-0.039 To 0.000 %
Min
Ratio
Max
Ratio
n-Yb176.tendl Threshold 1.2681 MeV
n-Yb176.jeff3.3 Threshold 1.2681 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
70-Yb-176

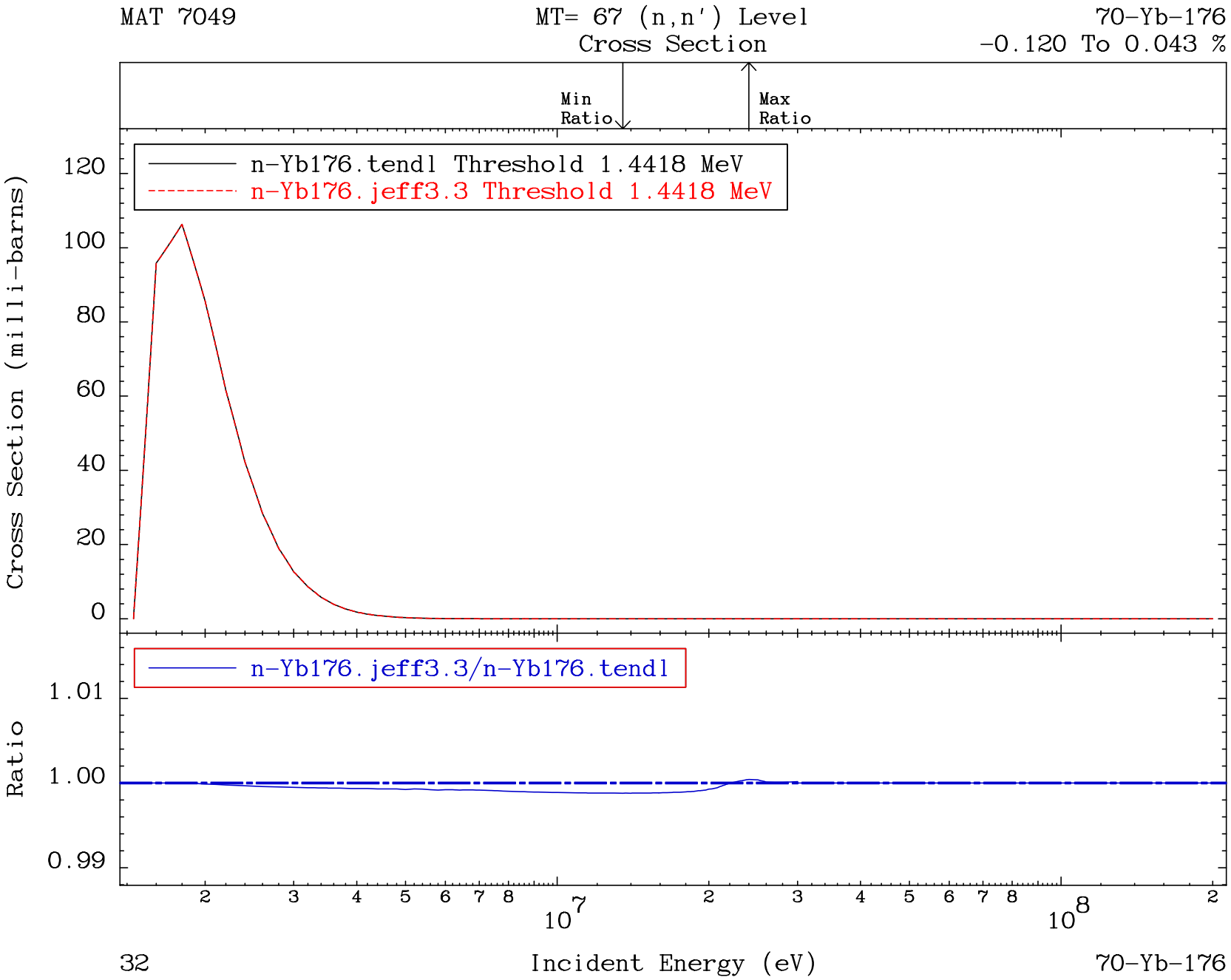

MAT 7049
MT= 62 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.2906 MeV
n-Yb176.jeff3.3 Threshold 1.2906 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
27
Incident Energy (eV)
70-Yb-176

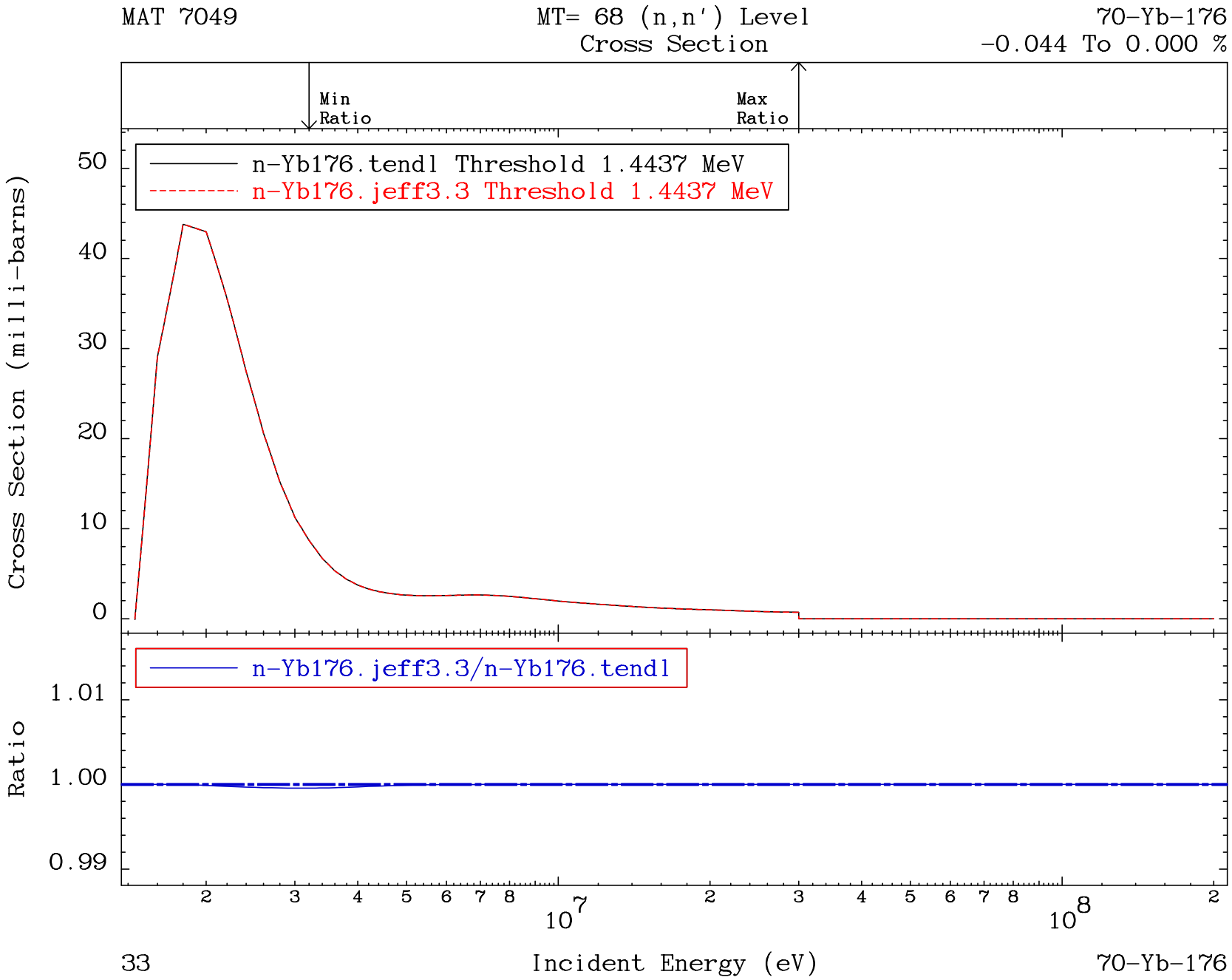

MAT 7049
MT= 63 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.3440 MeV
n-Yb176.jeff3.3 Threshold 1.3440 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
28
Incident Energy (eV)
70-Yb-176

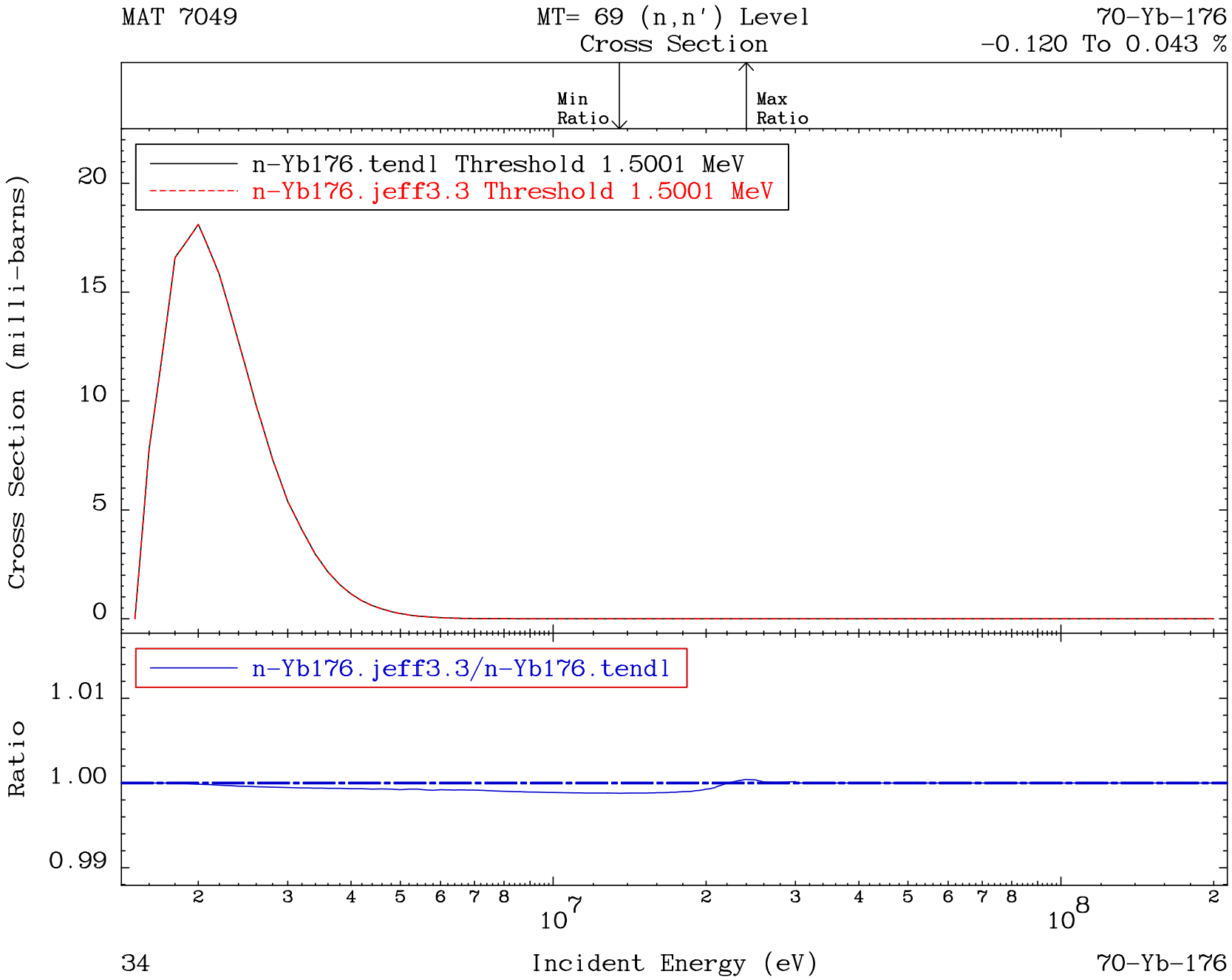

MAT 7049
MT= 64 (n,n') Level
Cross Section
70-Yb-176
-0.044 To 0.000 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.3488 MeV
n-Yb176.jeff3.3 Threshold 1.3488 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
29
Incident Energy (eV)
70-Yb-176

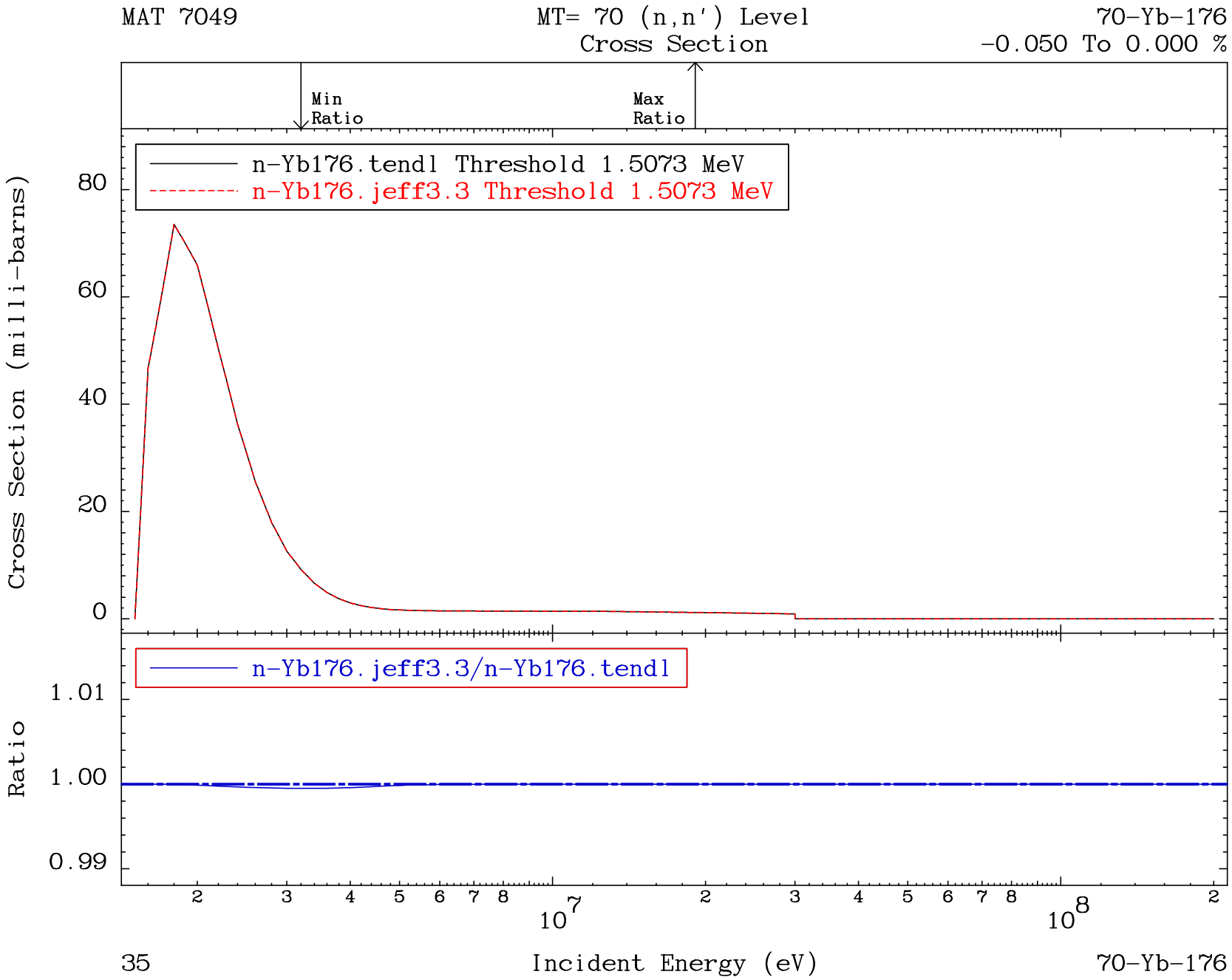

MAT 7049
MT= 65 (n,n') Level
Cross Section
70-Yb-176
-0.051 To 0.000 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 1.4177 MeV
n-Yb176.jeff3.3 Threshold 1.4177 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
70-Yb-176

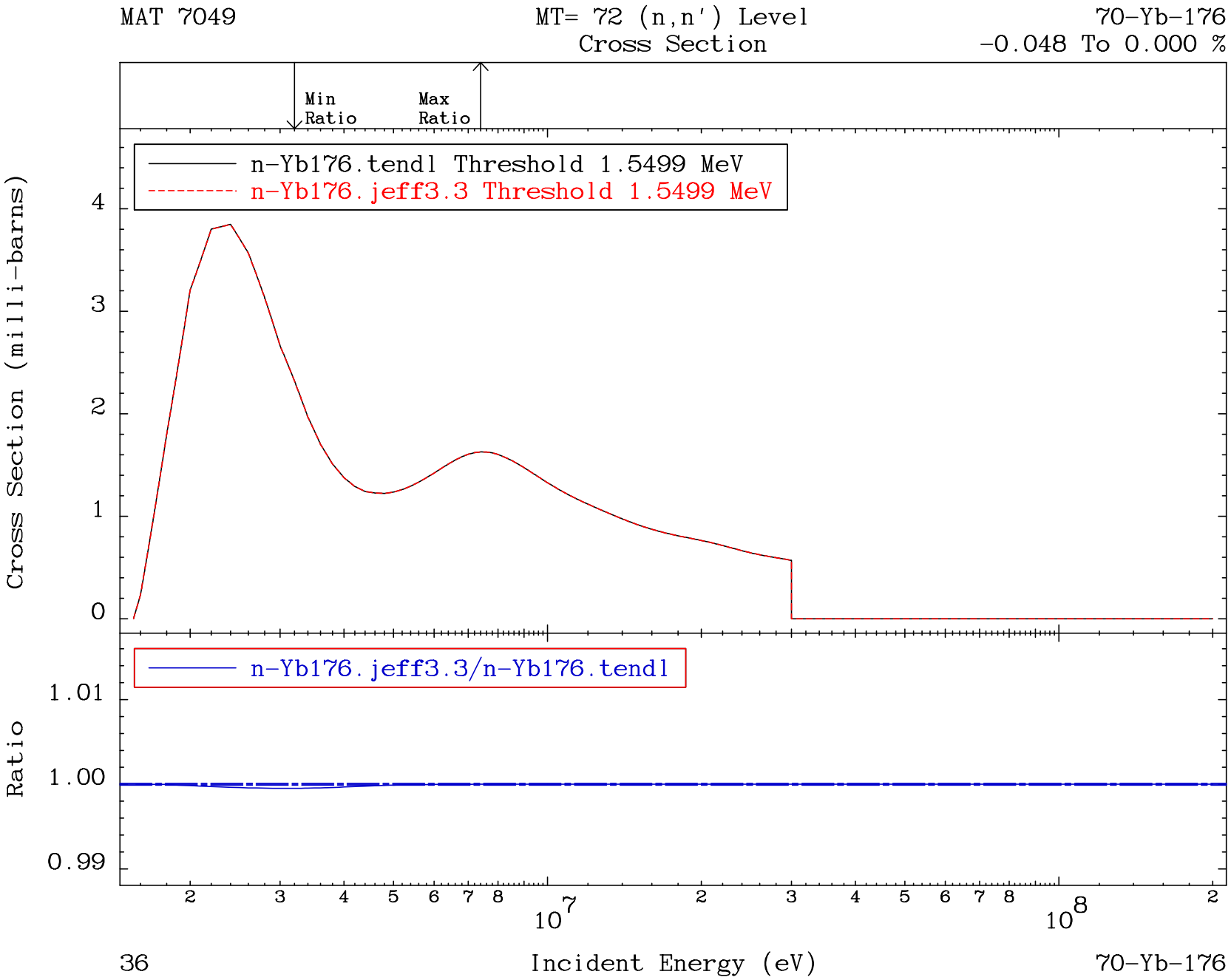

MAT 7049
MT= 66 (n,n') Level
Cross Section
70-Yb-176
-0.058 To 0.000 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 1.4392 MeV
n-Yb176.jeff3.3 Threshold 1.4392 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
31
Incident Energy (eV)
70-Yb-176

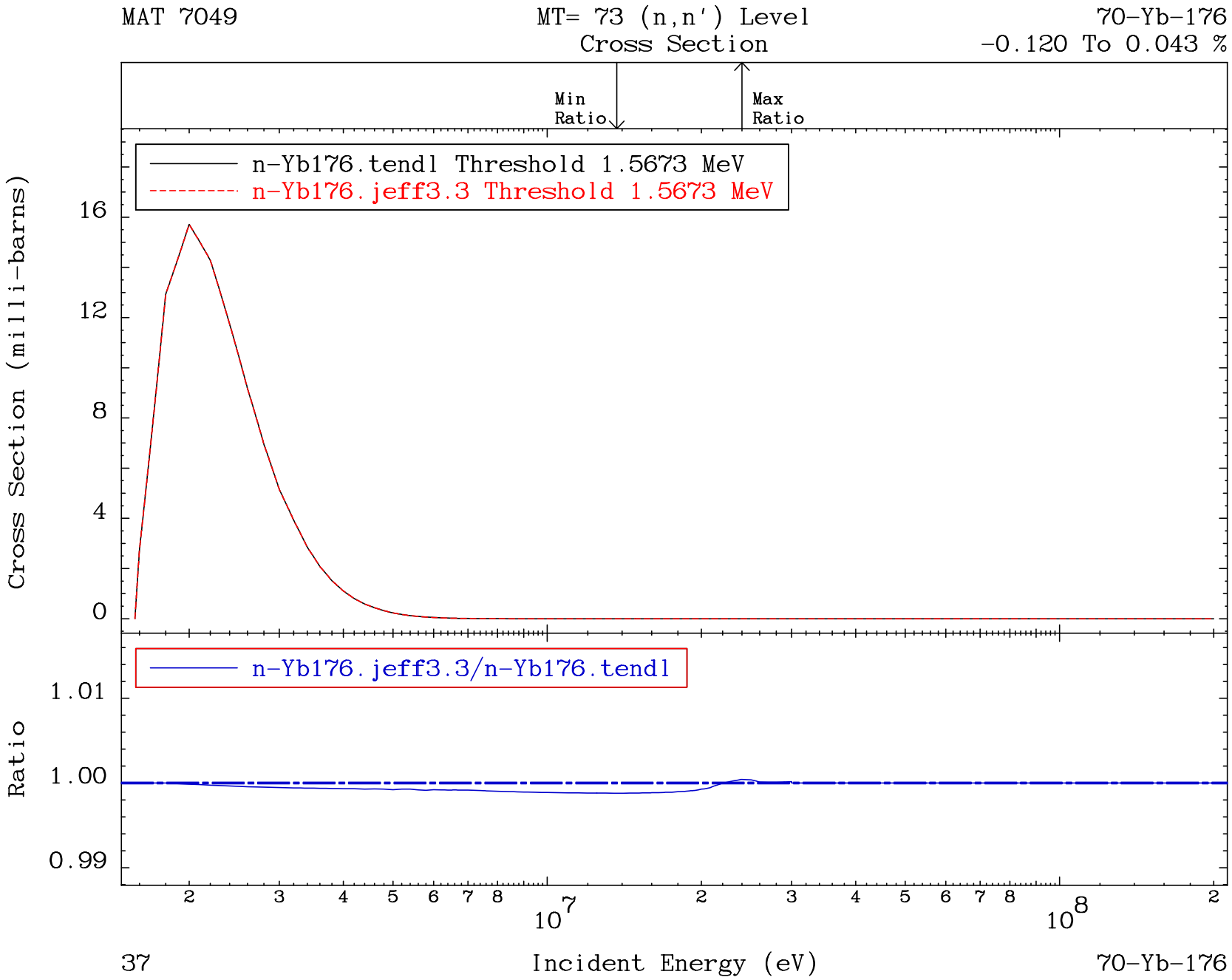

MAT 7049
MT= 67 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.4418 MeV
n-Yb176.jeff3.3 Threshold 1.4418 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
32
Incident Energy (eV)
70-Yb-176

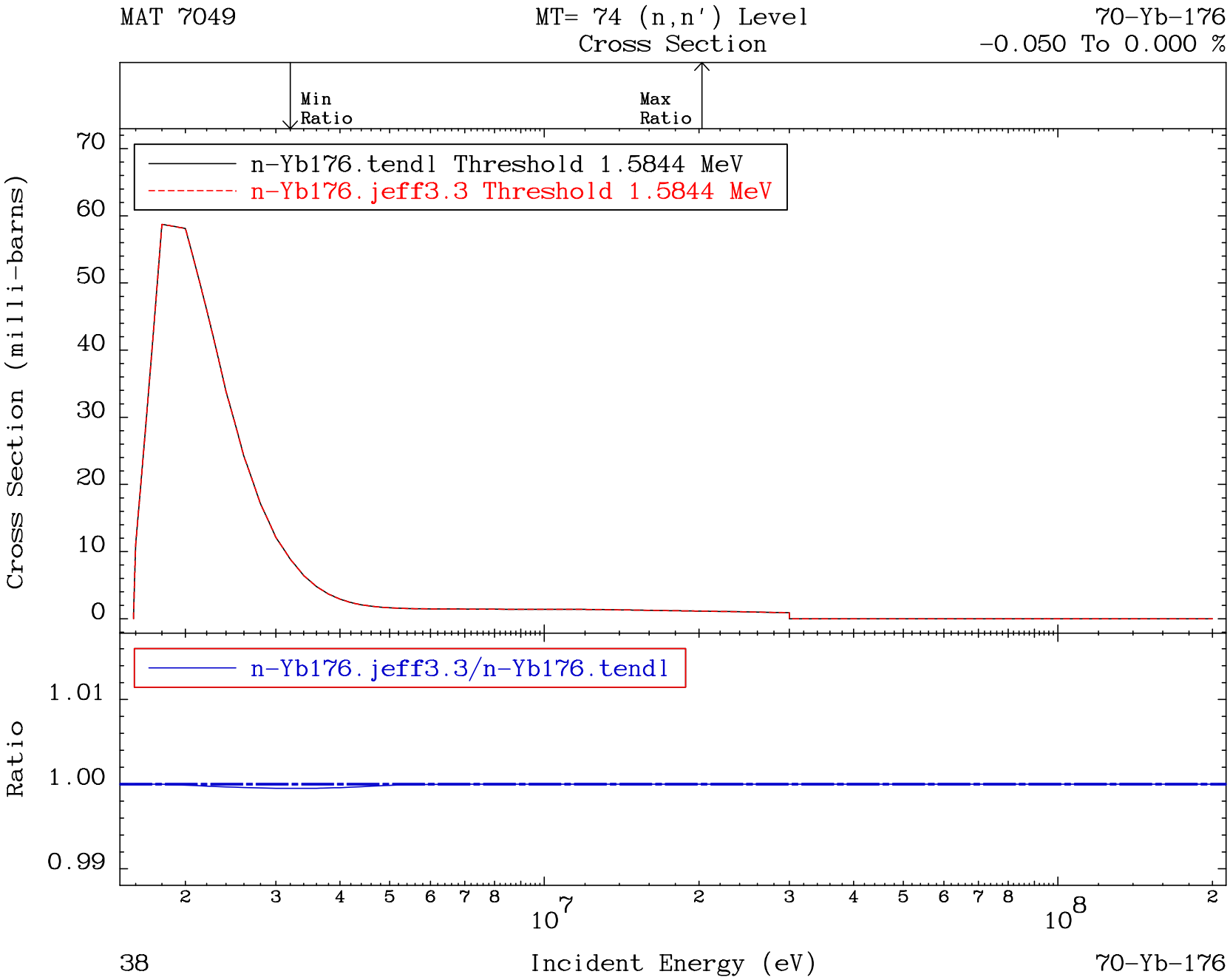

MAT 7049
MT= 68 (n,n') Level
Cross Section
70-Yb-176
-0.044 To 0.000 %
Min
Ratio
Max
Ratio
n-Yb176.tendl Threshold 1.4437 MeV
n-Yb176.jeff3.3 Threshold 1.4437 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
33
Incident Energy (eV)
70-Yb-176

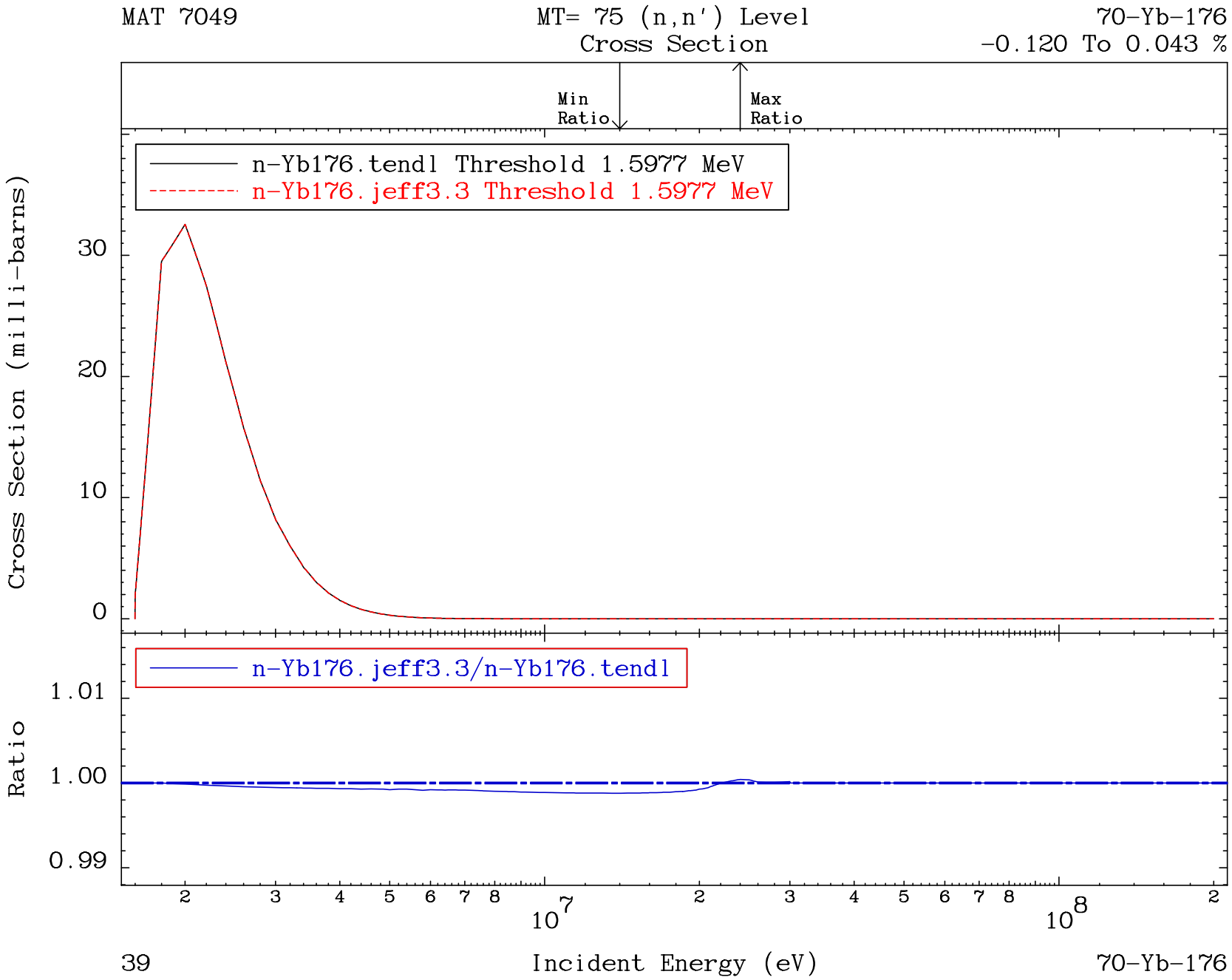

MAT 7049
MT= 69 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.5001 MeV
n-Yb176.jeff3.3 Threshold 1.5001 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
34
Incident Energy (eV)
70-Yb-176

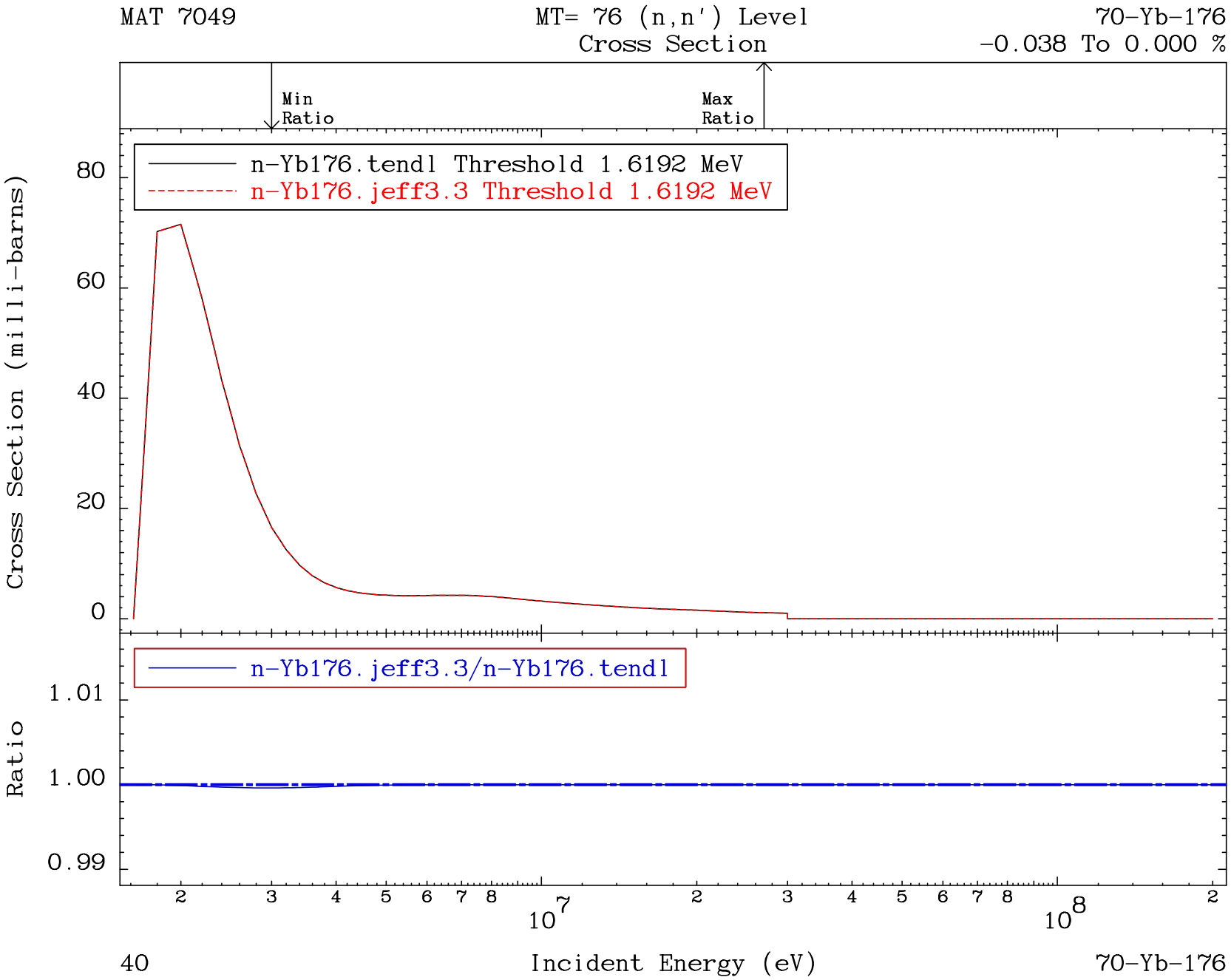

MAT 7049
MT= 70 (n,n') Level
Cross Section
70-Yb-176
-0.050 To 0.000 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.5073 MeV
n-Yb176.jeff3.3 Threshold 1.5073 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
35
Incident Energy (eV)
70-Yb-176

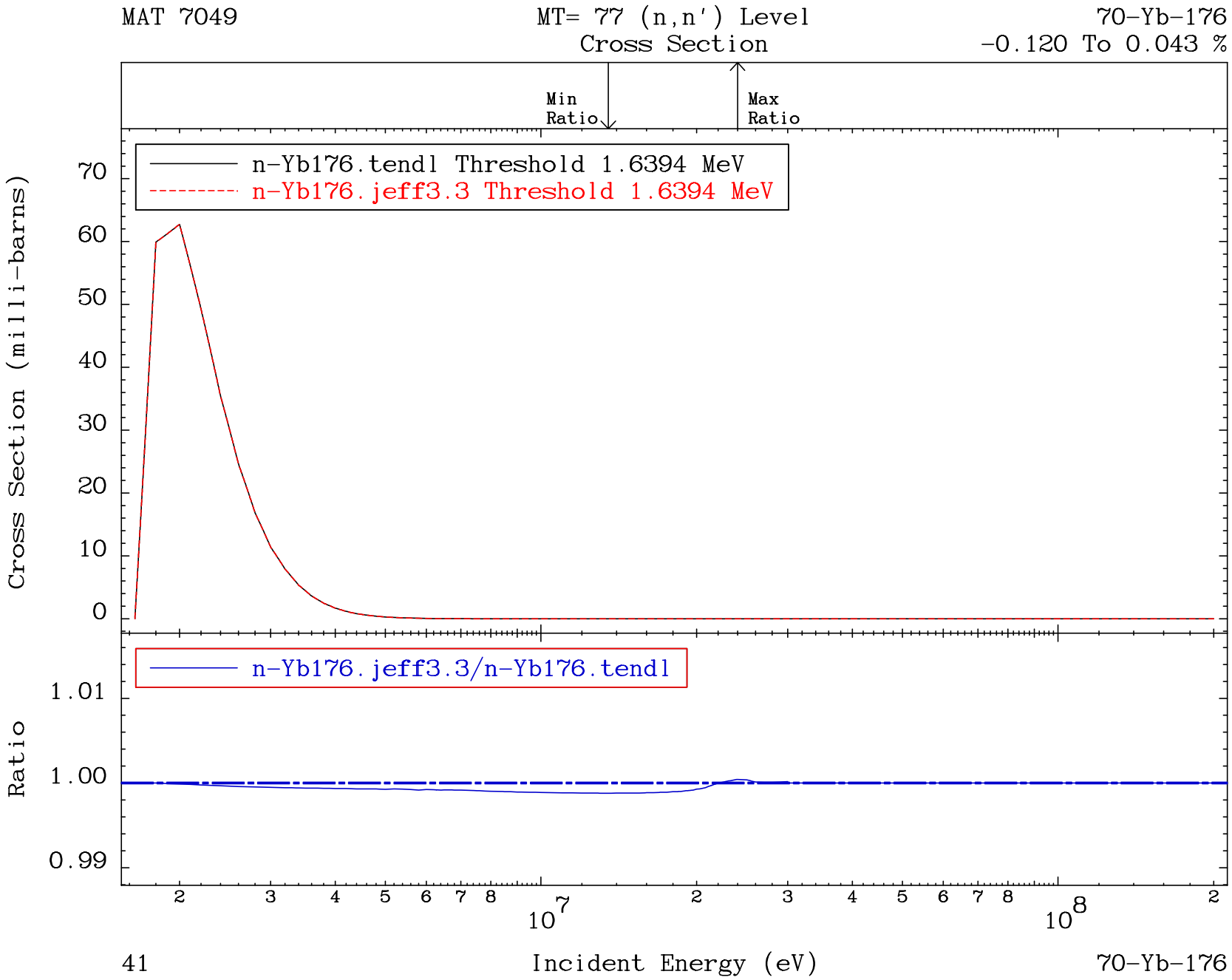

MAT 7049
MT= 72 (n,n') Level
Cross Section
70-Yb-176
-0.048 To 0.000 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.5499 MeV
n-Yb176.jeff3.3 Threshold 1.5499 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
0.99
1.00
1.01
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
36
Incident Energy (eV)
70-Yb-176

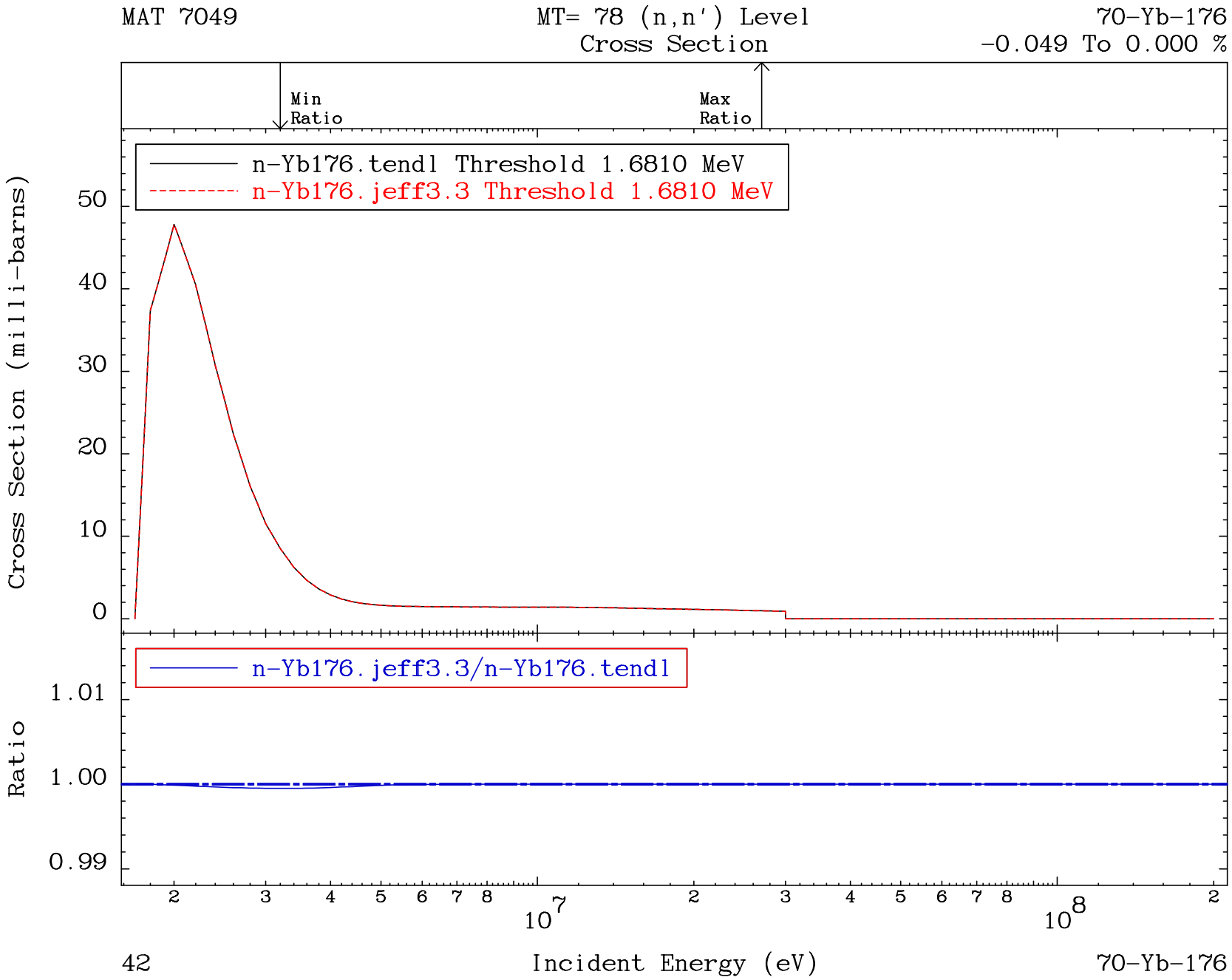

MAT 7049
MT= 73 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.5673 MeV
n-Yb176.jeff3.3 Threshold 1.5673 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
37
Incident Energy (eV)
70-Yb-176

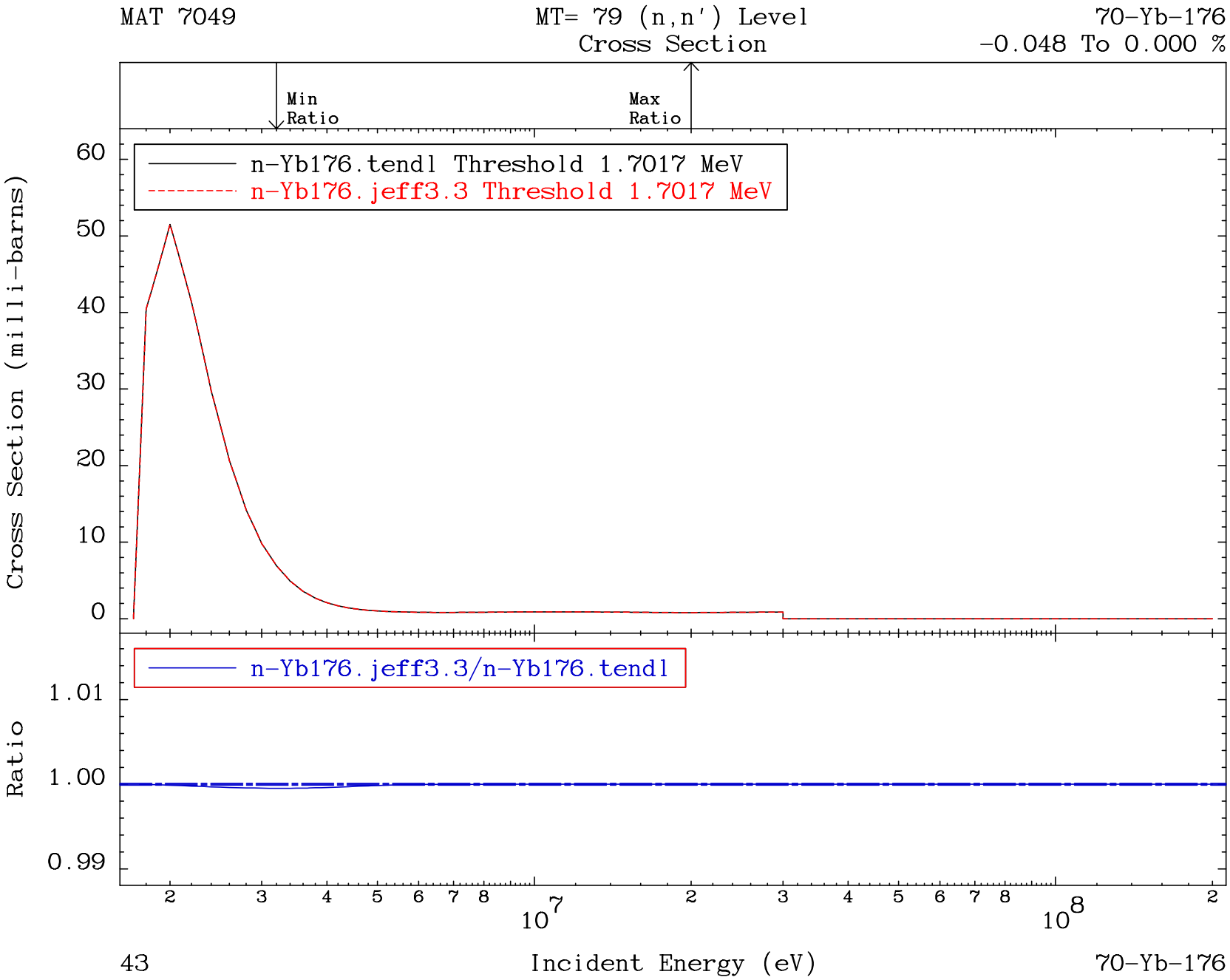

MAT 7049
MT= 74 (n,n') Level
Cross Section
70-Yb-176
-0.050 To 0.000 %
Min
Ratio
Max
Ratio
n-Yb176.tendl Threshold 1.5844 MeV
n-Yb176.jeff3.3 Threshold 1.5844 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
38
Incident Energy (eV)
70-Yb-176

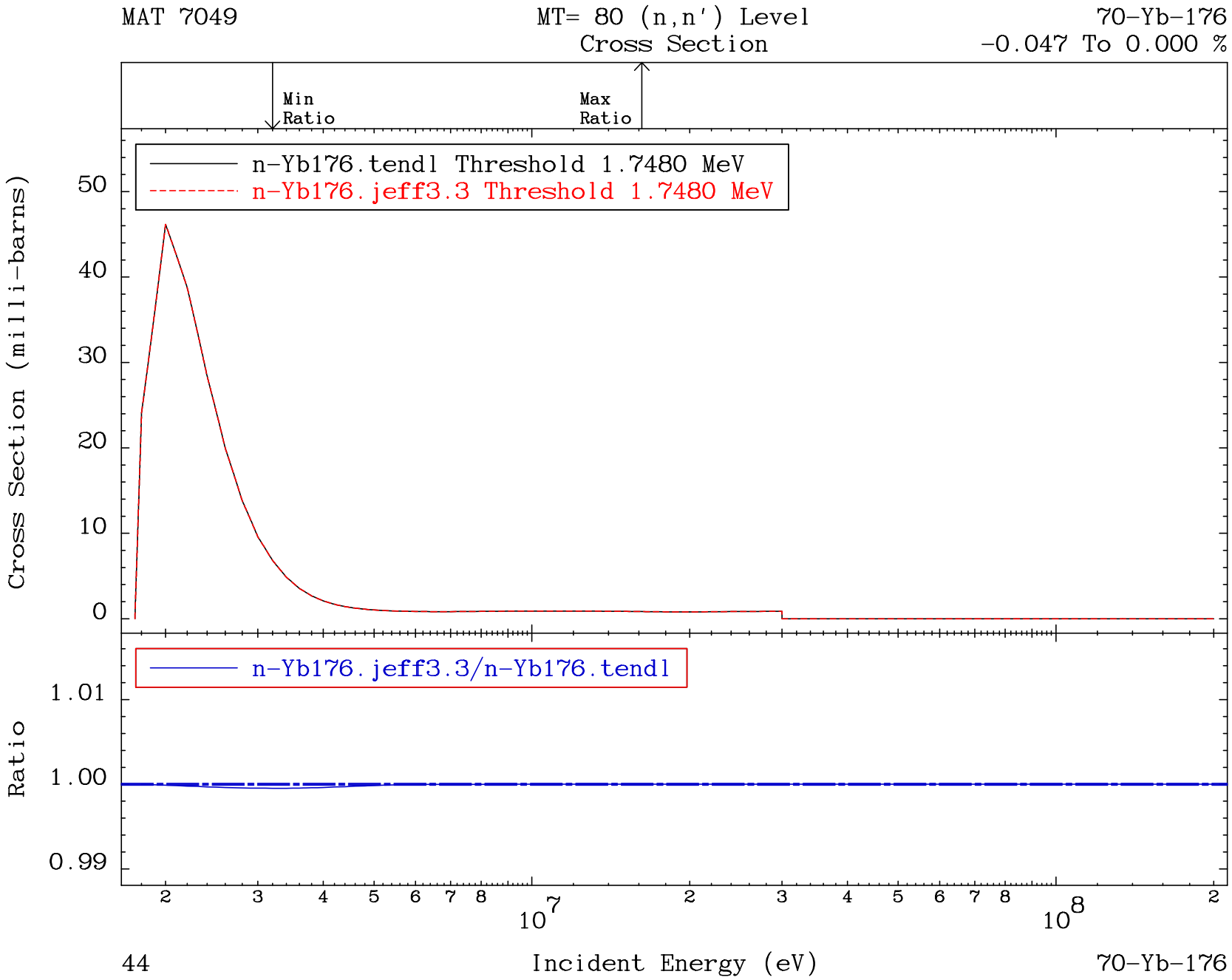

MAT 7049
MT= 75 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.5977 MeV
n-Yb176.jeff3.3 Threshold 1.5977 MeV
Cross Section (milli-barns)
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
39
Incident Energy (eV)
70-Yb-176

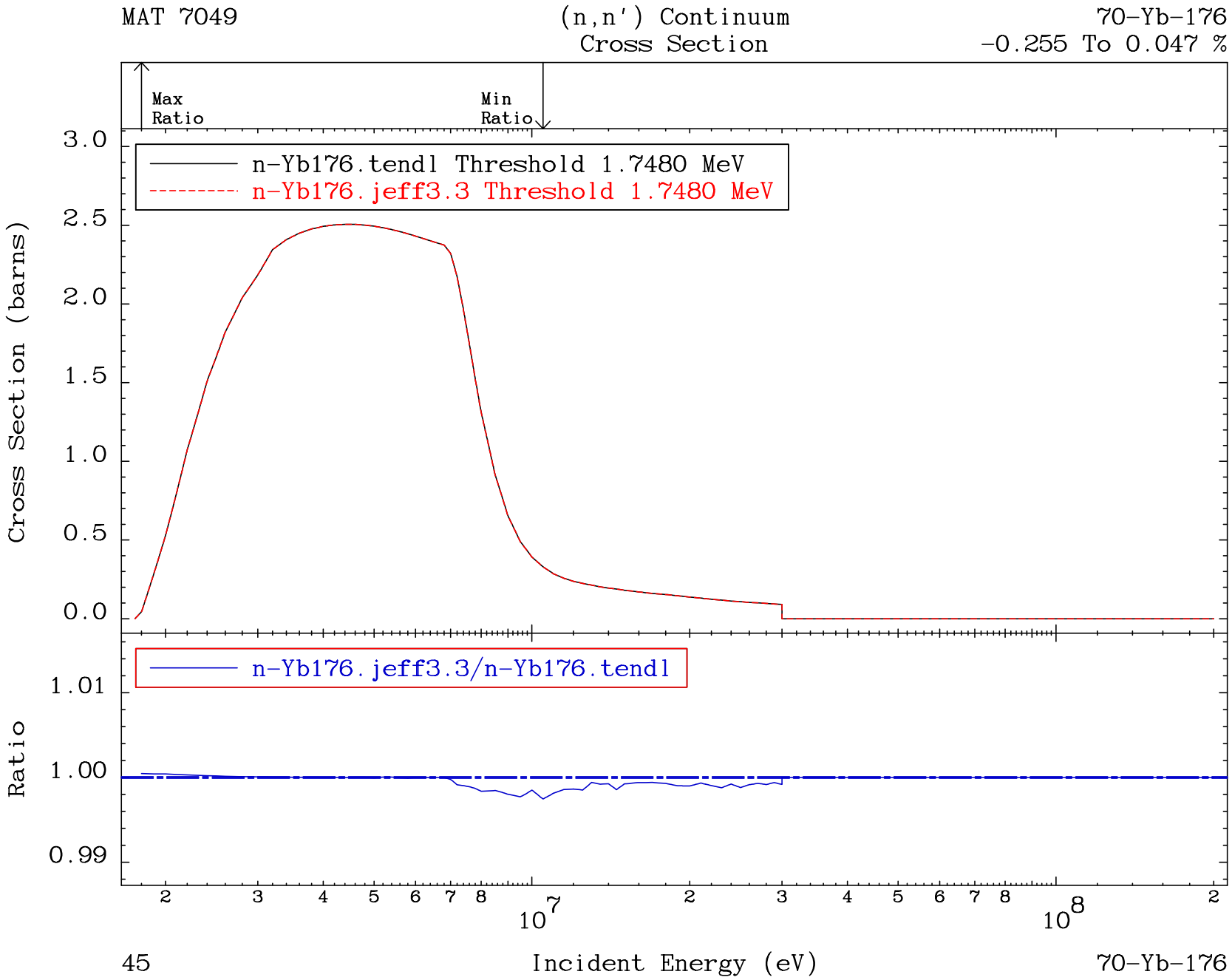

MAT 7049
MT= 76 (n,n') Level
Cross Section
70-Yb-176
-0.038 To 0.000 %
Min
Ratio
Max
Ratio
n-Yb176.tendl Threshold 1.6192 MeV
n-Yb176.jeff3.3 Threshold 1.6192 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
40
Incident Energy (eV)
70-Yb-176

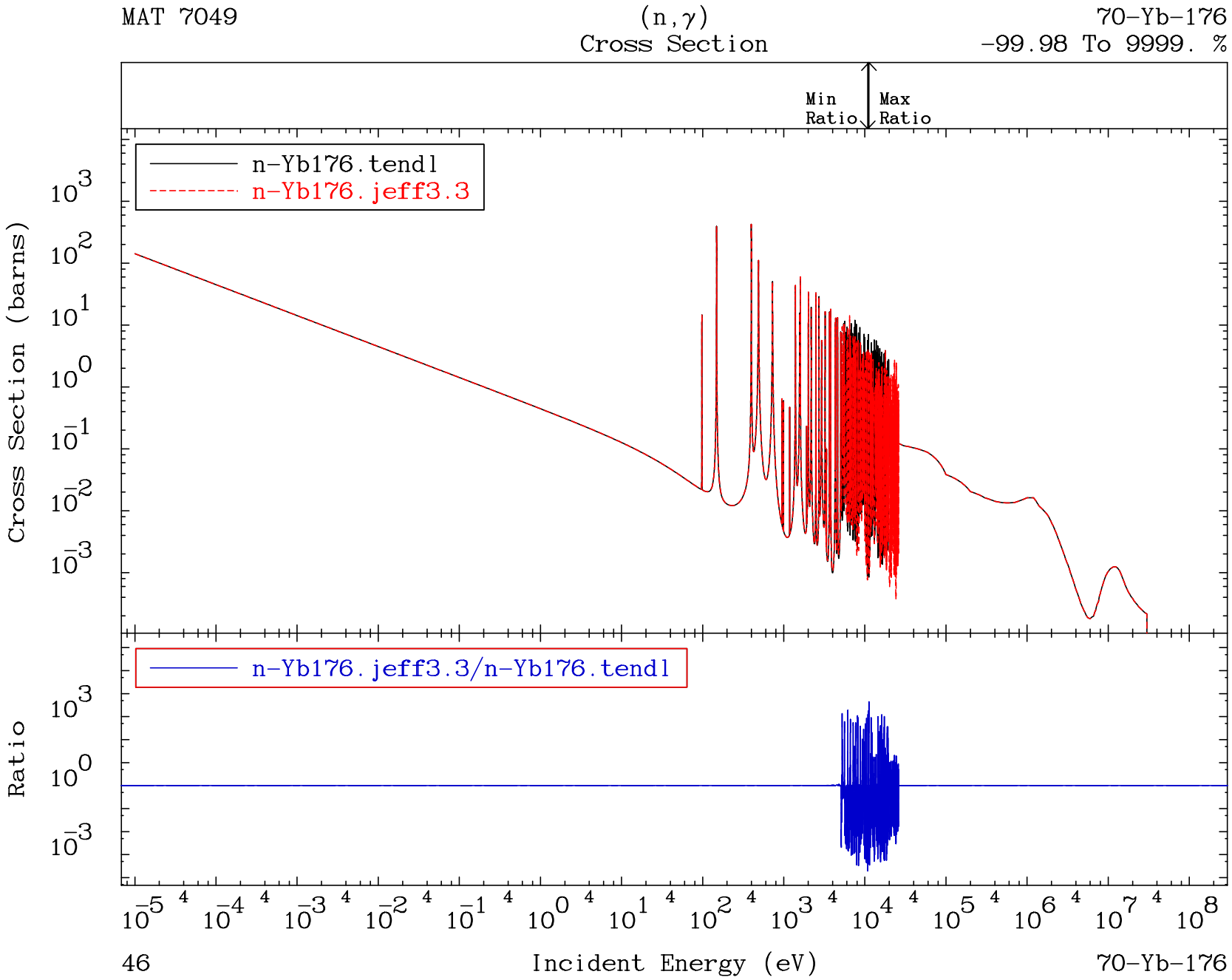

MAT 7049
MT= 77 (n,n') Level
Cross Section
70-Yb-176
-0.120 To 0.043 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.6394 MeV
n-Yb176.jeff3.3 Threshold 1.6394 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
41
Incident Energy (eV)
70-Yb-176

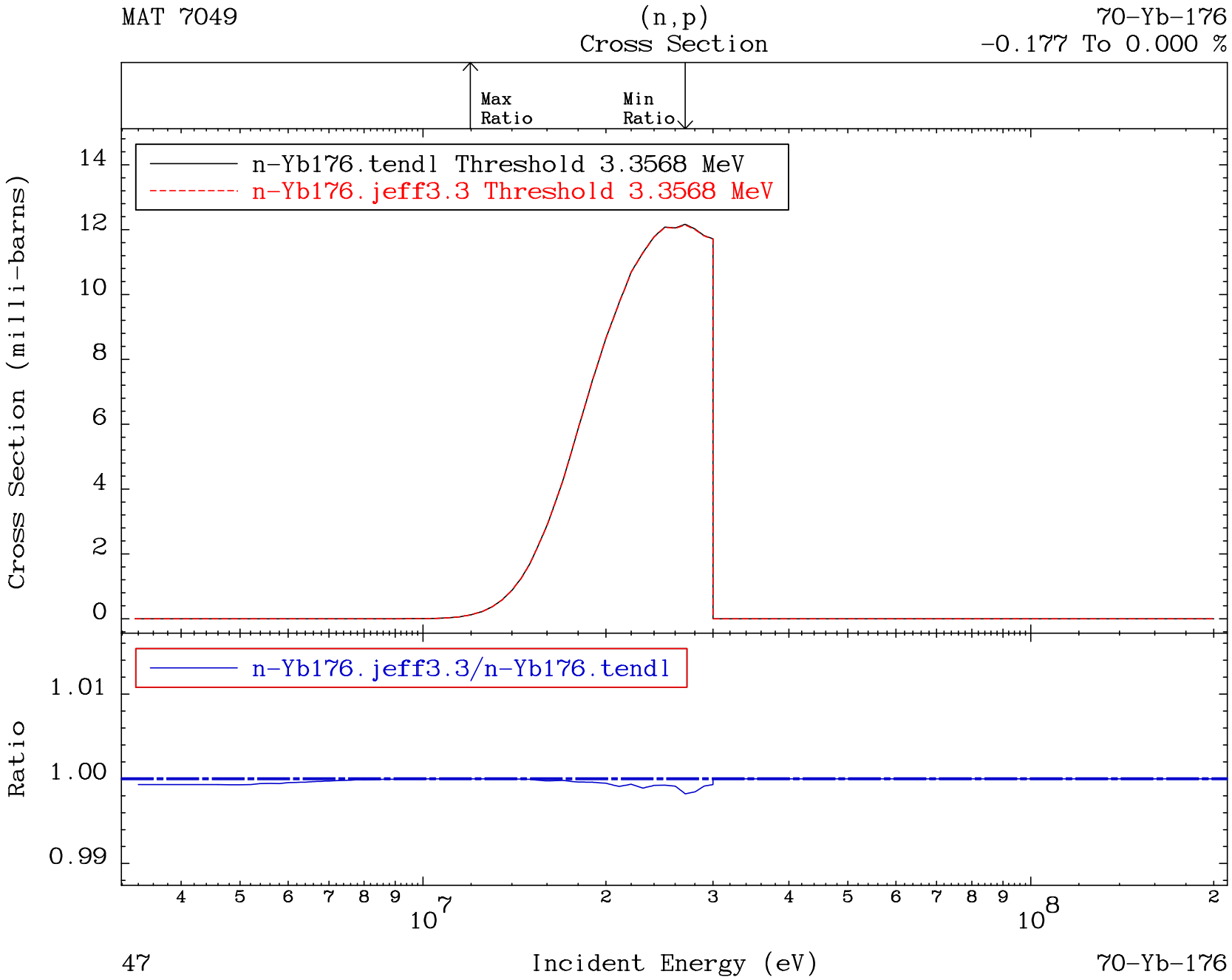

MAT 7049
MT= 78 (n,n') Level
Cross Section
70-Yb-176
-0.049 To 0.000 %
Min
Ratio
Max
Ratio
n-Yb176.tendl Threshold 1.6810 MeV
n-Yb176.jeff3.3 Threshold 1.6810 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
42
Incident Energy (eV)
70-Yb-176

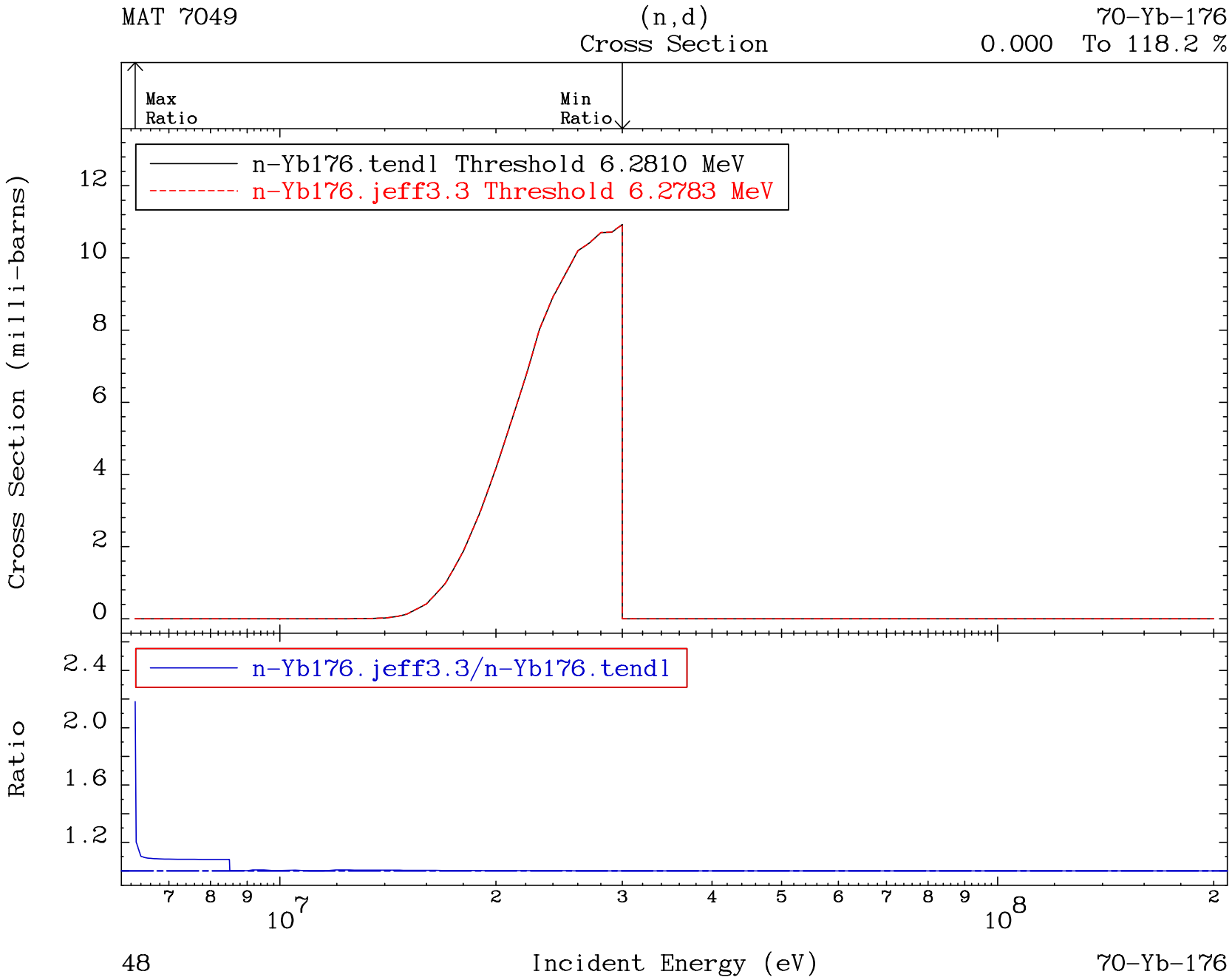

MAT 7049
MT= 79 (n,n') Level
Cross Section
70-Yb-176
-0.048 To 0.000 %
Min
Ratio
Max
Ratio
n-Yb176.tendl Threshold 1.7017 MeV
n-Yb176.jeff3.3 Threshold 1.7017 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
43
Incident Energy (eV)
70-Yb-176

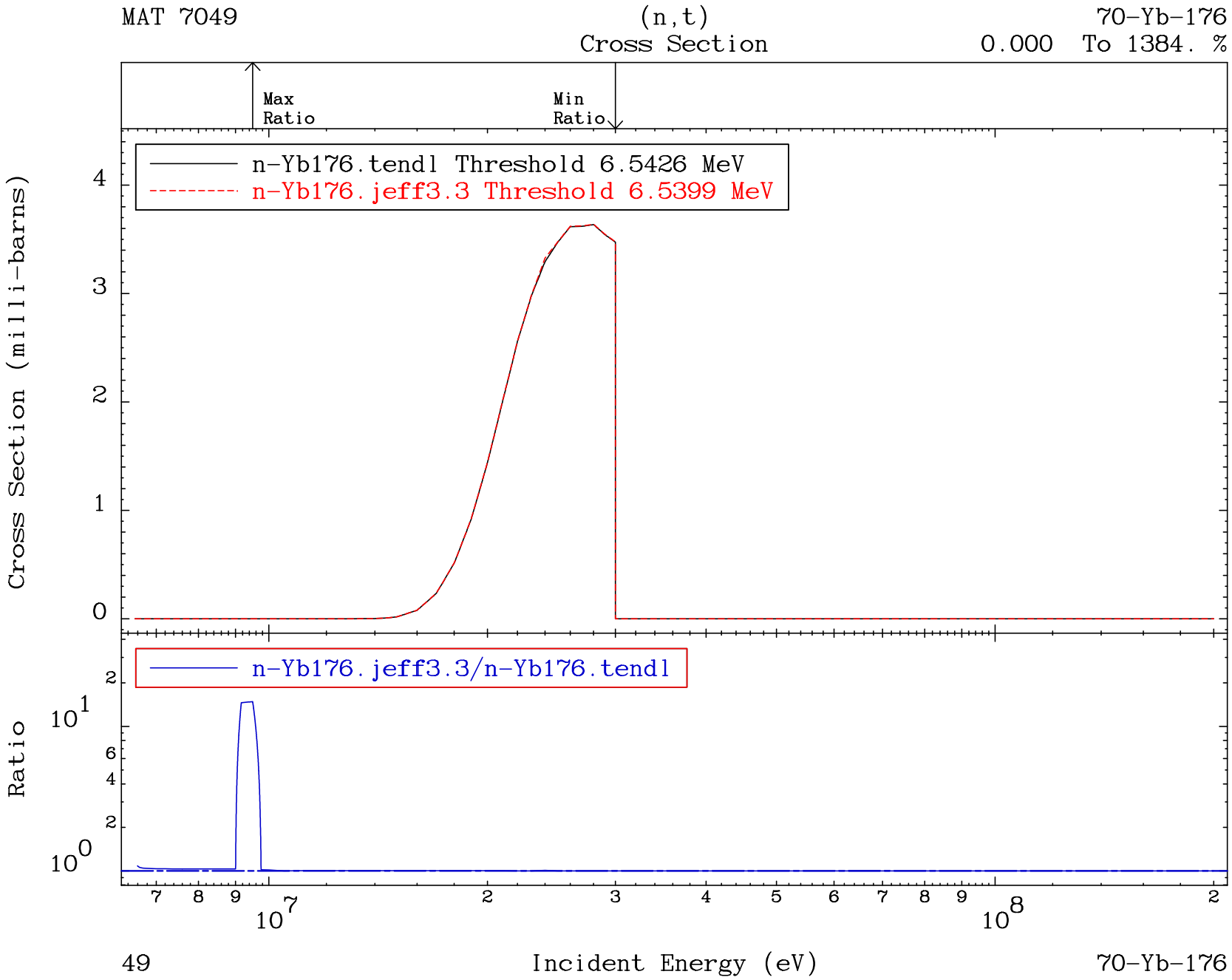

MAT 7049
MT= 80 (n,n') Level
Cross Section
70-Yb-176
-0.047 To 0.000 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 1.7480 MeV
n-Yb176.jeff3.3 Threshold 1.7480 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
44
Incident Energy (eV)
70-Yb-176

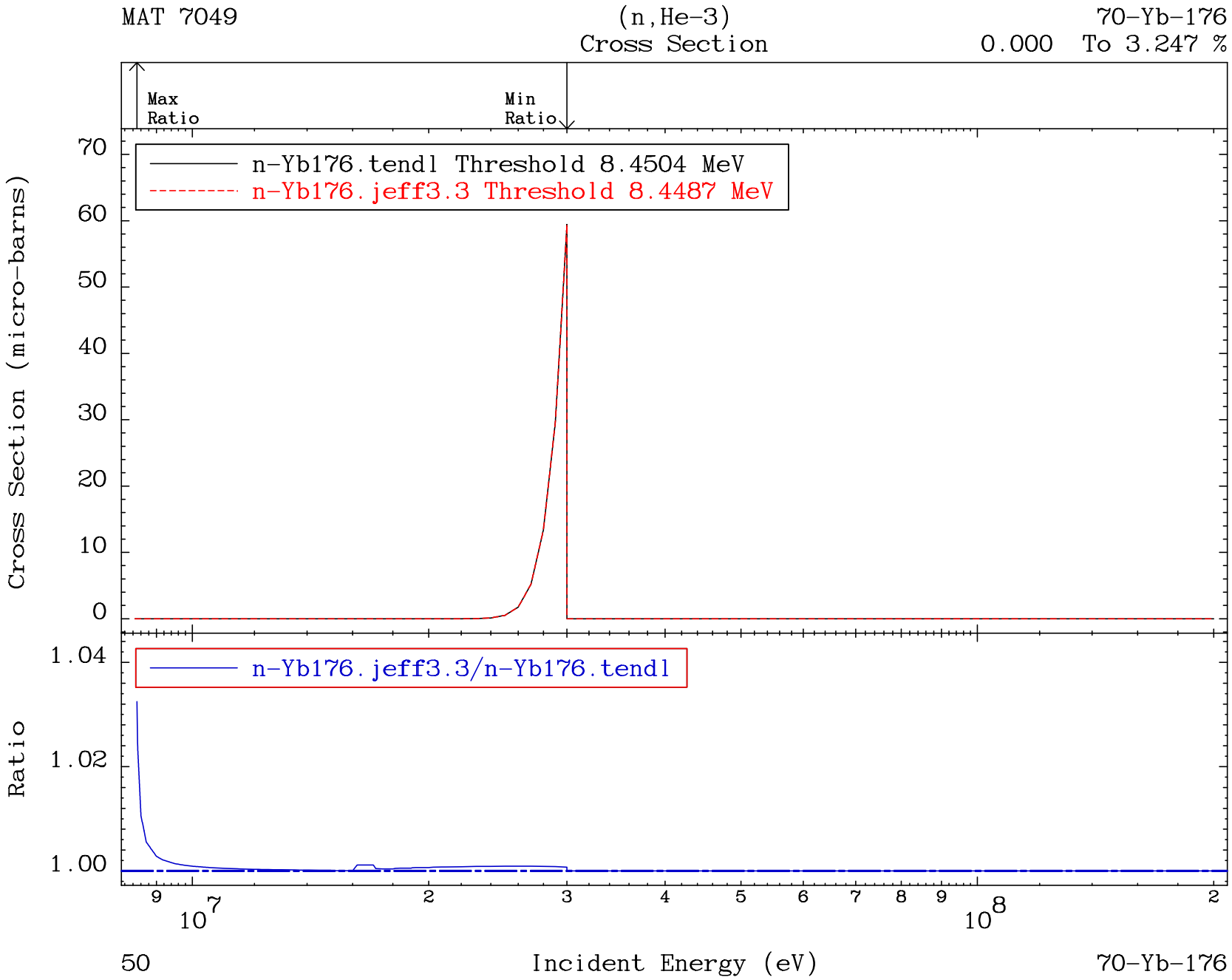

MAT 7049
(n,n') Continuum
Cross Section
70-Yb-176
-0.255 To 0.047 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 1.7480 MeV
n-Yb176.jeff3.3 Threshold 1.7480 MeV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
45
Incident Energy (eV)
70-Yb-176

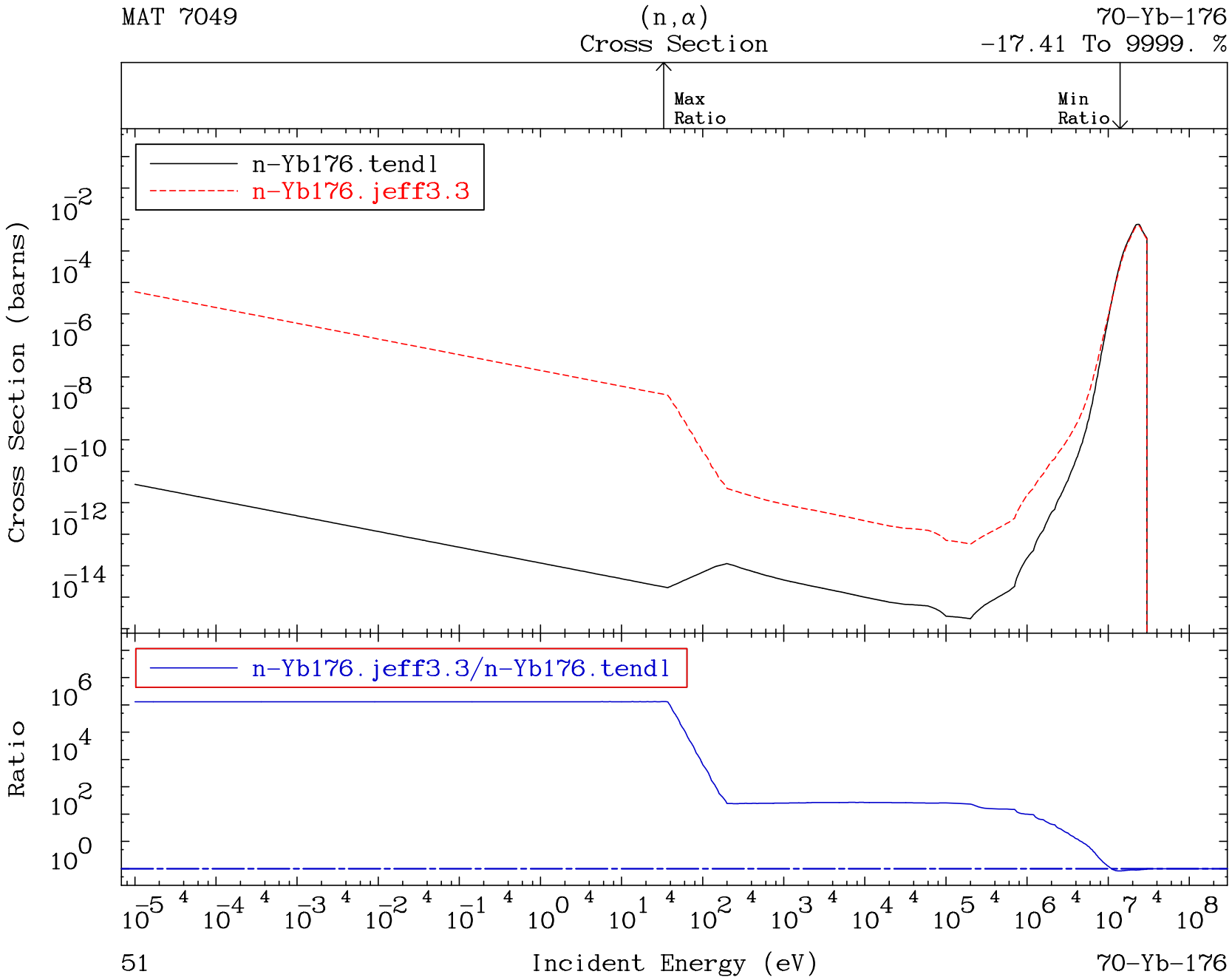

MAT 7049
(n,γ)
Cross Section
70-Yb-176
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
46
Incident Energy (eV)
70-Yb-176

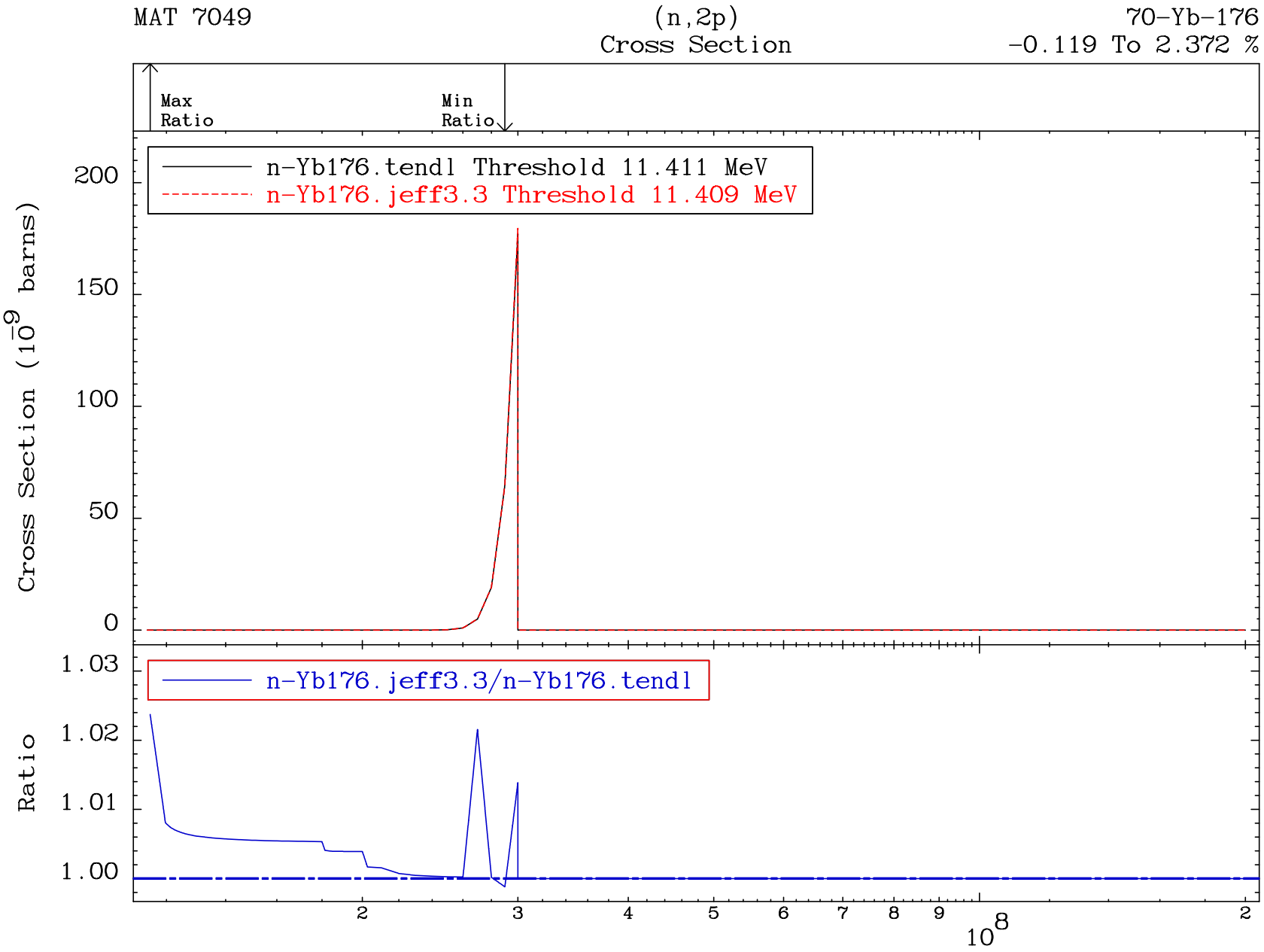

MAT 7049
(n,p)
Cross Section
70-Yb-176
-0.177 To 0.000 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 3.3568 MeV
n-Yb176.jeff3.3 Threshold 3.3568 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
47
Incident Energy (eV)
70-Yb-176

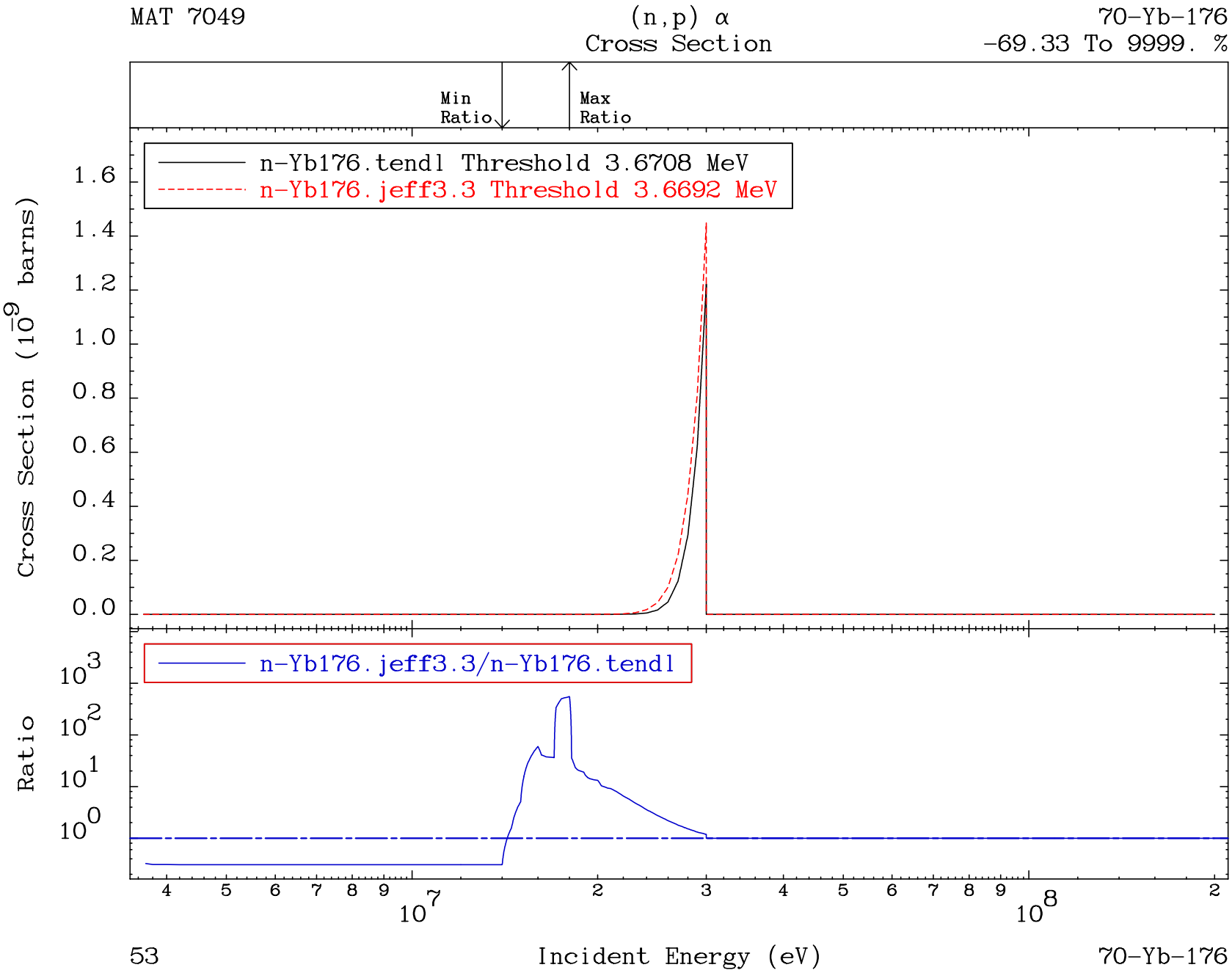

MAT 7049
(n,d)
Cross Section
70-Yb-176
0.000 To 118.2 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 6.2810 MeV
n-Yb176.jeff3.3 Threshold 6.2783 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.2
1.6
2.0
2.4
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
48
Incident Energy (eV)
70-Yb-176

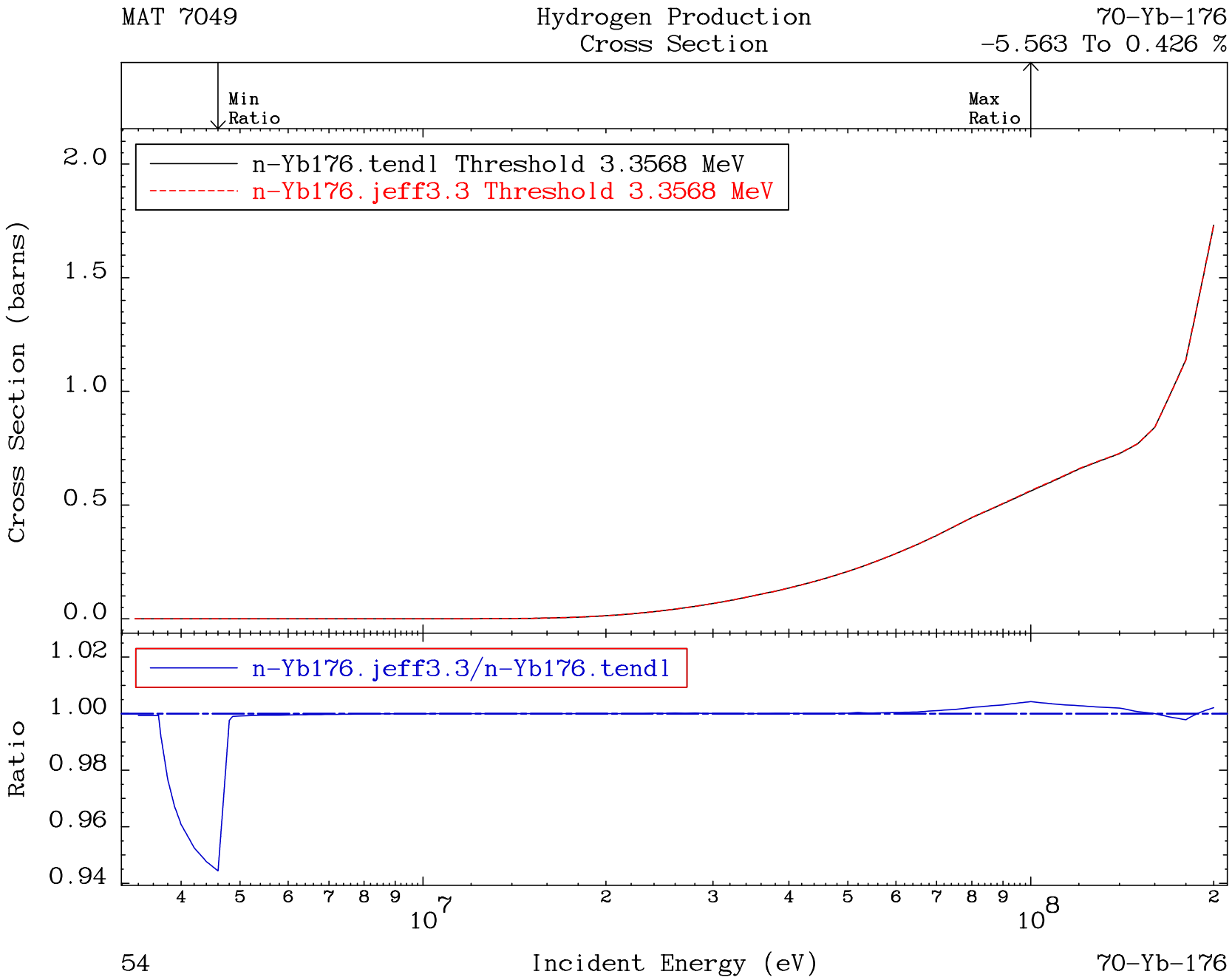

MAT 7049
(n,t)
Cross Section
70-Yb-176
0.000 To 1384. %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 6.5426 MeV
n-Yb176.jeff3.3 Threshold 6.5399 MeV
Cross Section (milli-barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
49
70-Yb-176

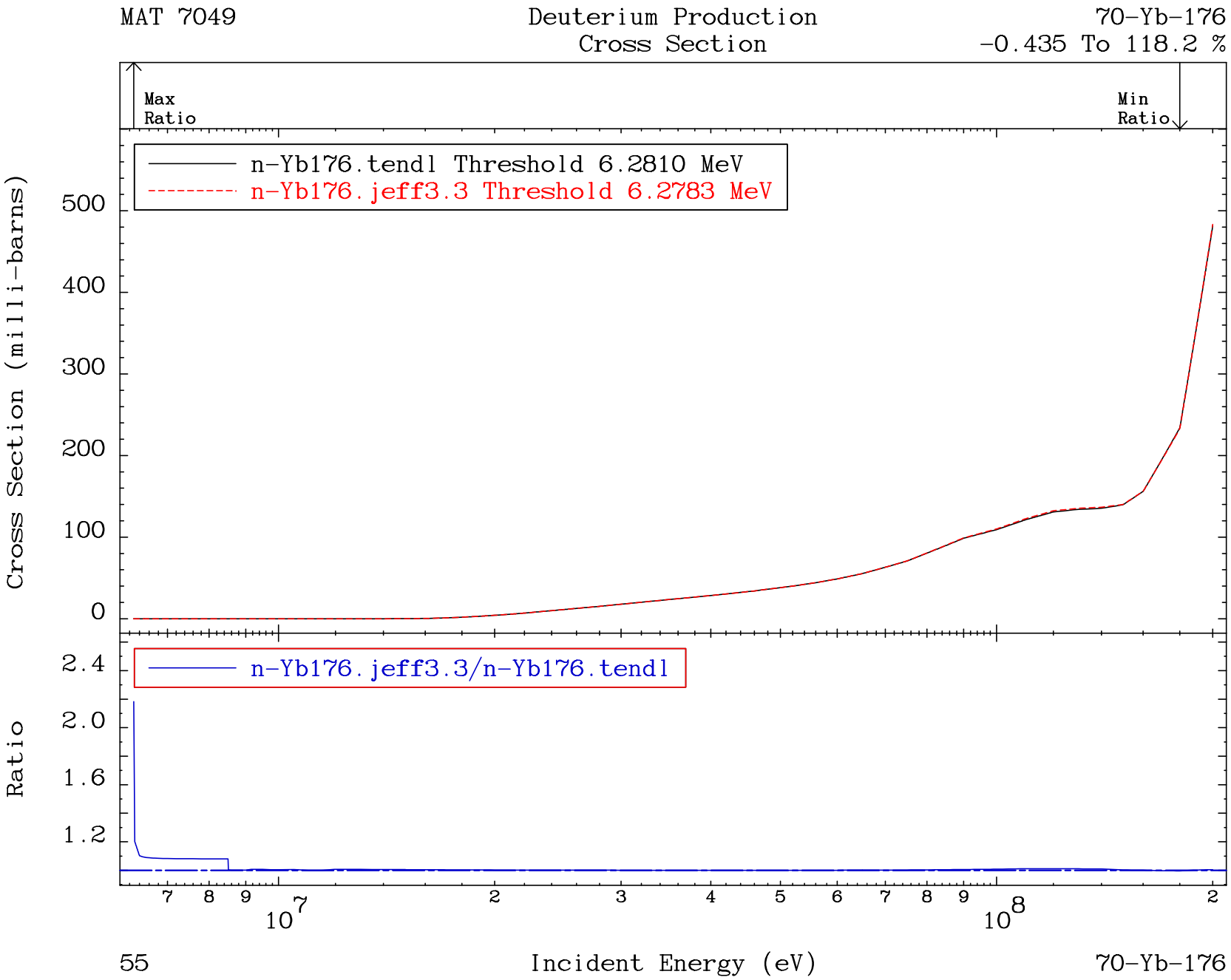

MAT 7049
(n,He-3)
Cross Section
70-Yb-176
0.000 To 3.247 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 8.4504 MeV
n-Yb176.jeff3.3 Threshold 8.4487 MeV
Cross Section (micro-barns)
70
60
50
40
30
20
10
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.04
1.02
1.00
9
10^7
2
3
4
5
6
7
8
9
10^8
2
50
Incident Energy (eV)
70-Yb-176

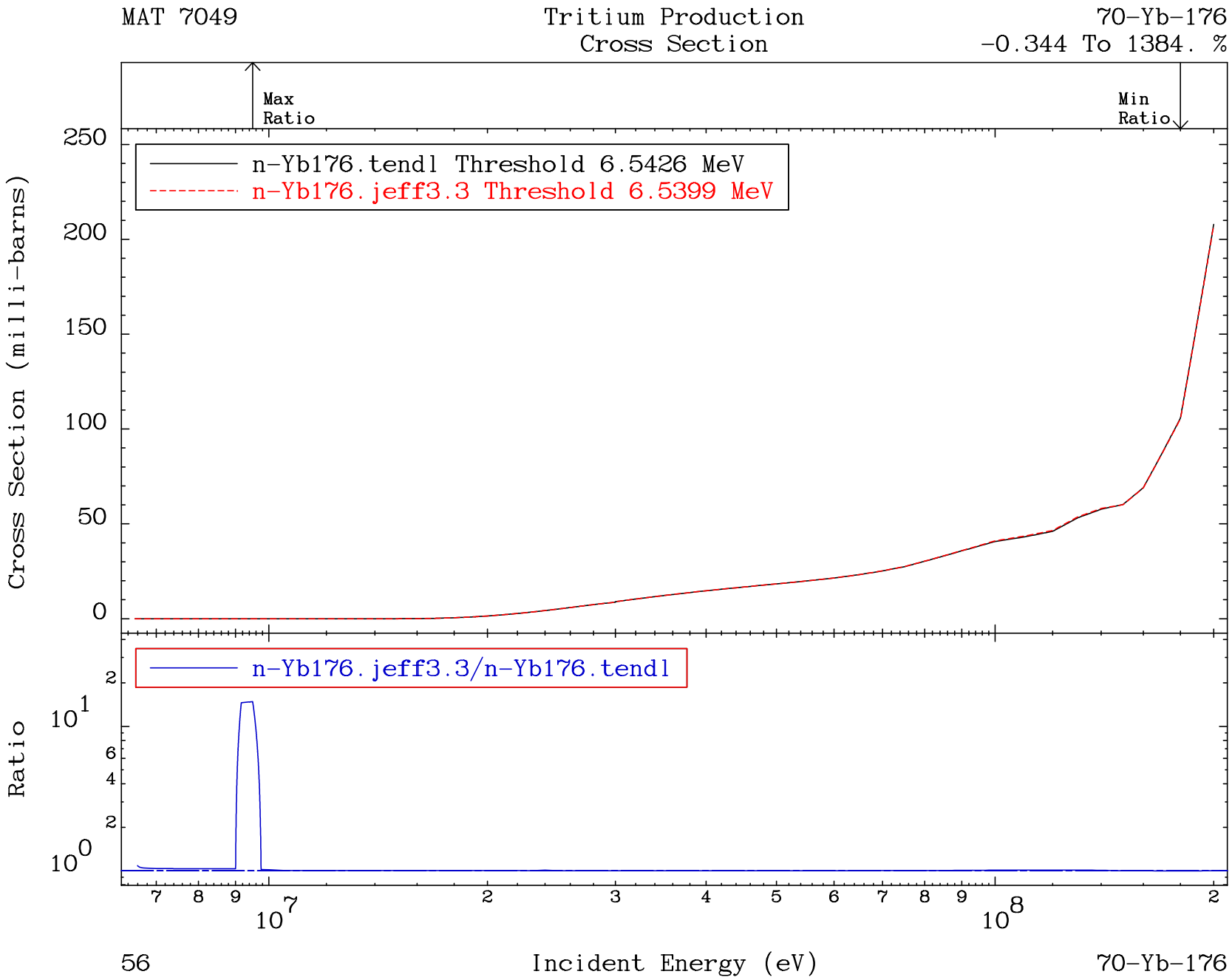

MAT 7049
(n,α)
Cross Section
70-Yb-176
-17.41 To 9999. %
Max Ratio
Min Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
51
70-Yb-176

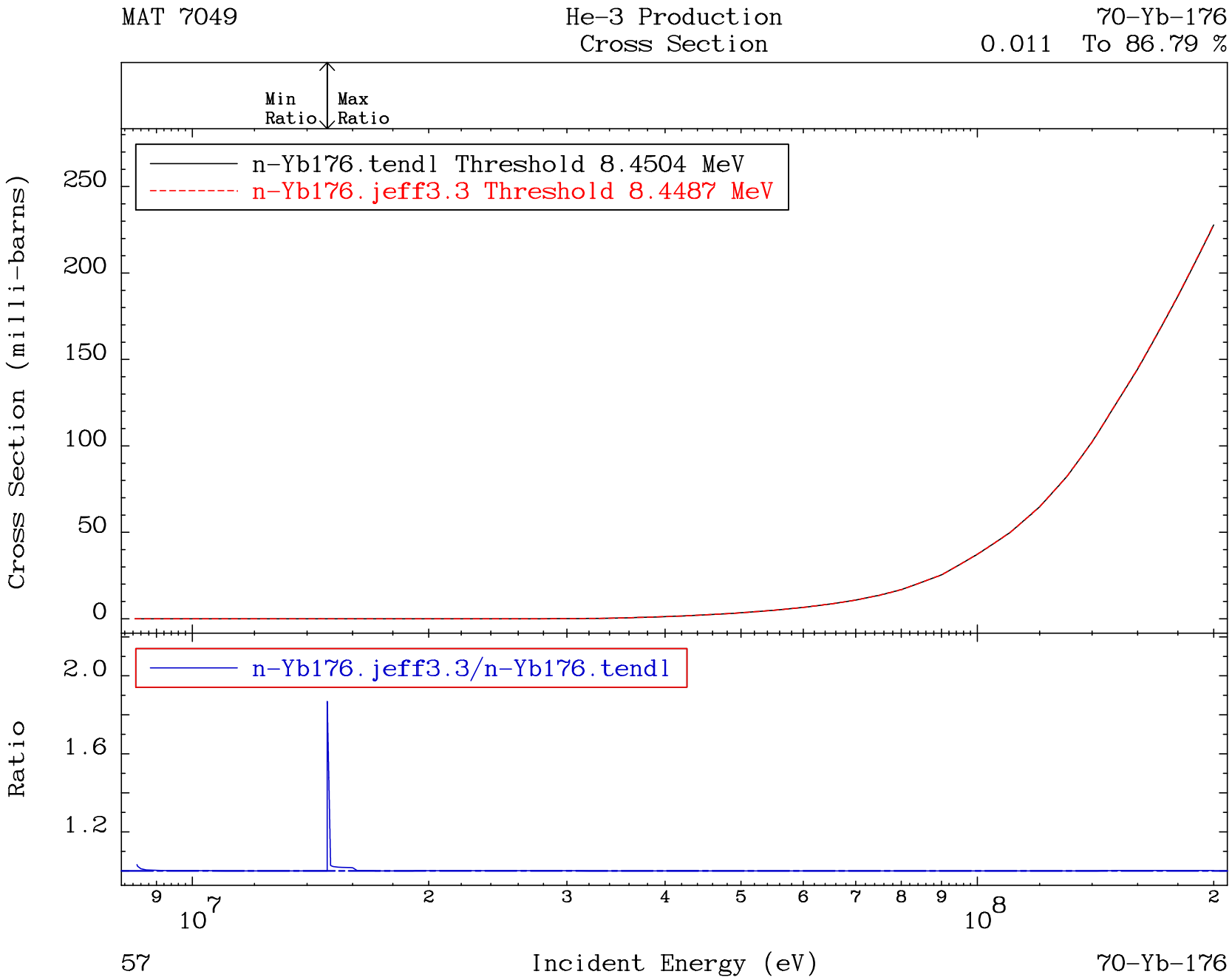

MAT 7049
(n,2p)
Cross Section
70-Yb-176
-0.119 To 2.372 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 11.411 MeV
n-Yb176.jeff3.3 Threshold 11.409 MeV
Cross Section (10^{-9} barns)
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^{8}
2
52
Incident Energy (eV)
70-Yb-176

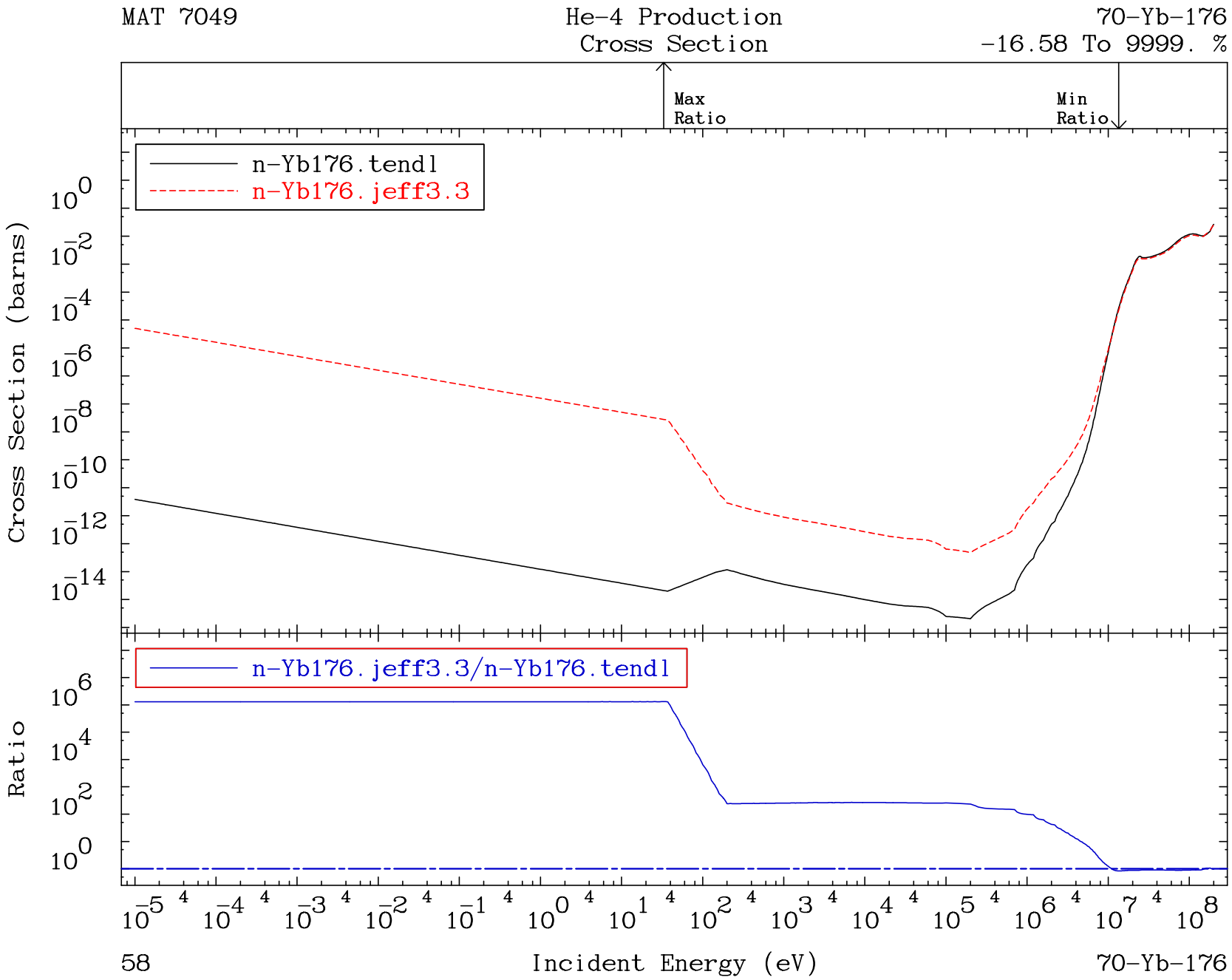

MAT 7049
(n,p) α
Cross Section
70-Yb-176
-69.33 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 3.6708 MeV
n-Yb176.jeff3.3 Threshold 3.6692 MeV
Cross Section (10^{-9} barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
10^3
10^2
10^1
10^0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
53
Incident Energy (eV)
70-Yb-176

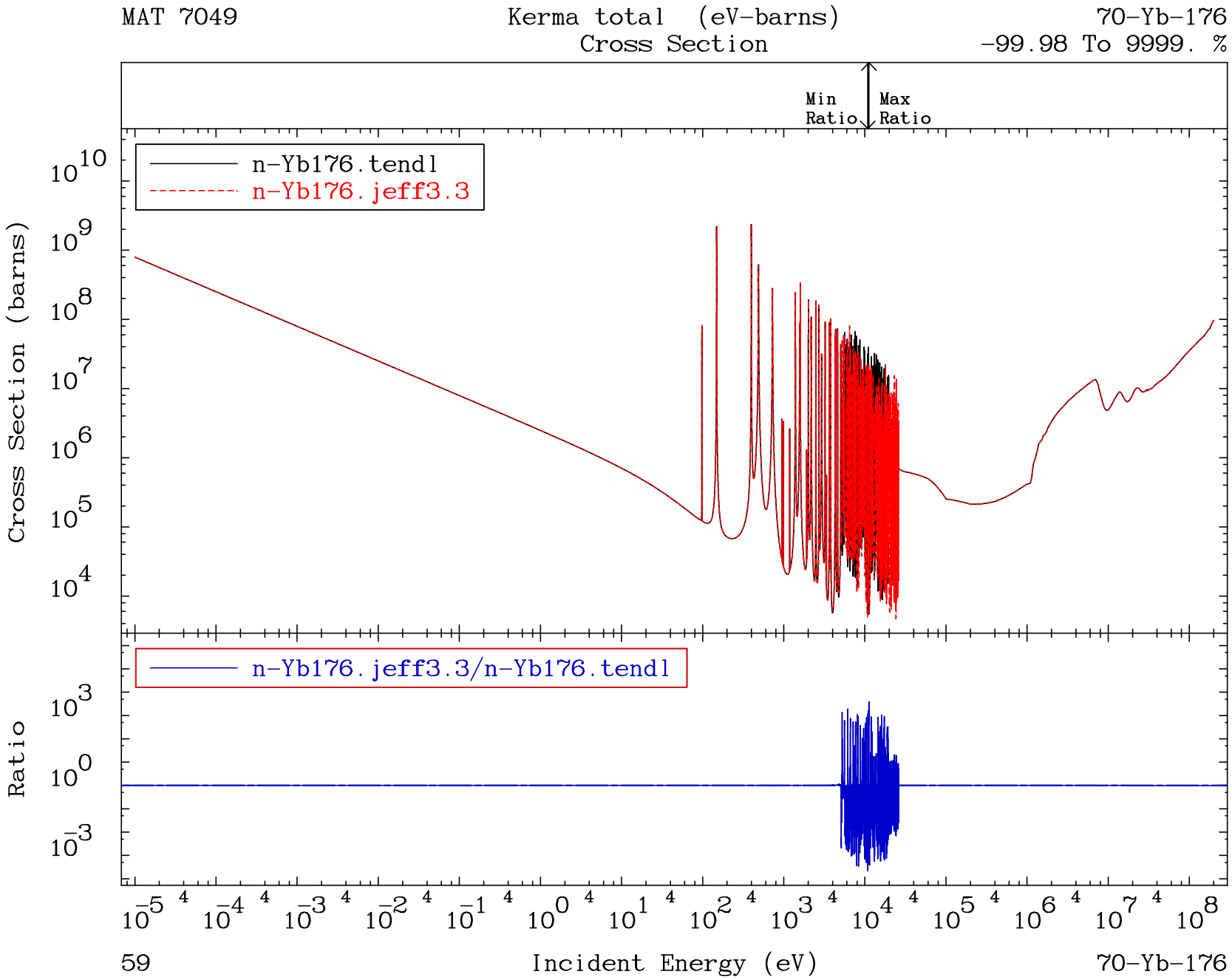

MAT 7049
Hydrogen Production
Cross Section
70-Yb-176
-5.563 To 0.426 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 3.3568 MeV
n-Yb176.jeff3.3 Threshold 3.3568 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.02
1.00
0.98
0.96
0.94
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
54
Incident Energy (eV)
70-Yb-176

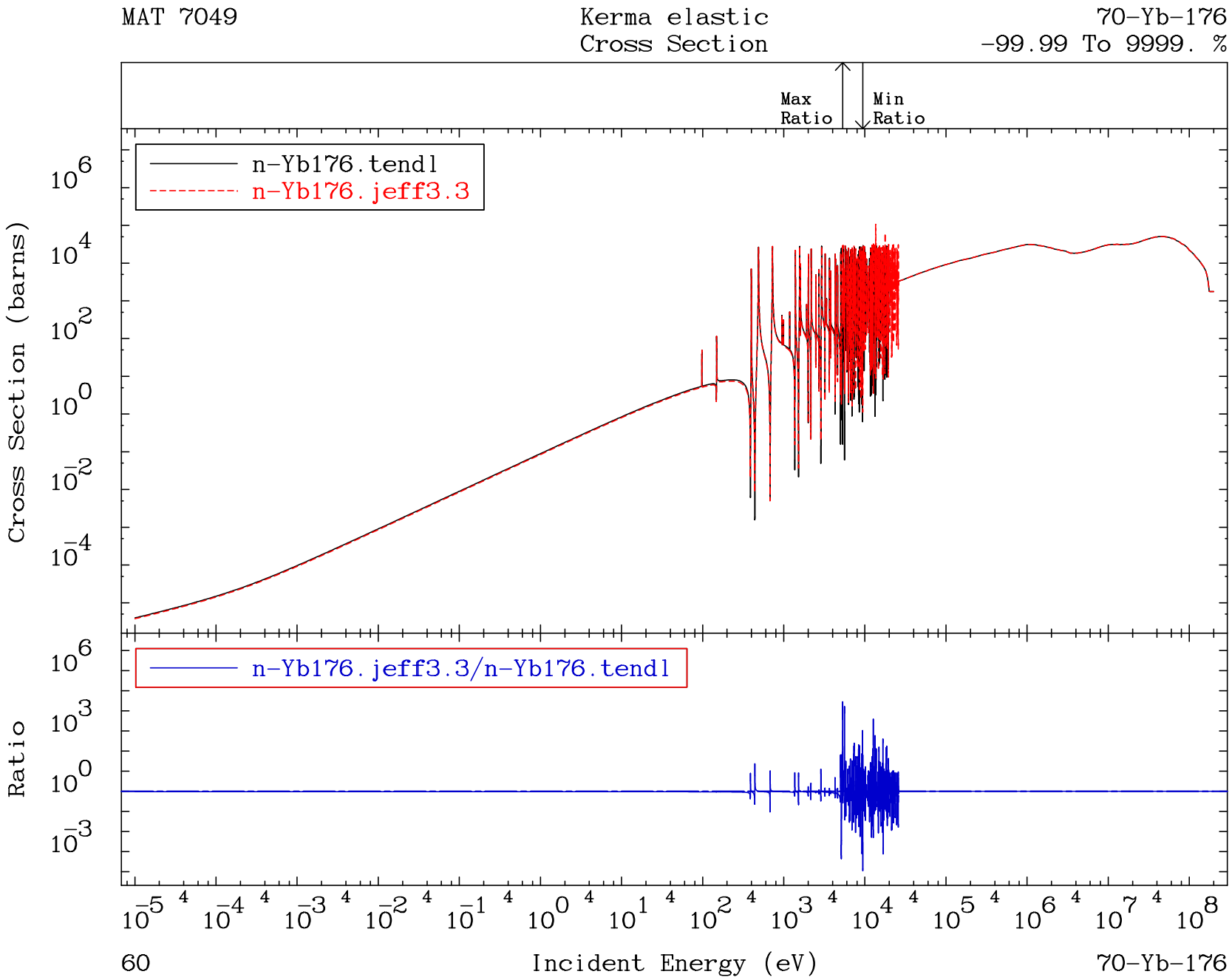

MAT 7049
Deuterium Production
Cross Section
70-Yb-176
-0.435 To 118.2 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 6.2810 MeV
n-Yb176.jeff3.3 Threshold 6.2783 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
2.4
2.0
1.6
1.2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
55
Incident Energy (eV)
70-Yb-176

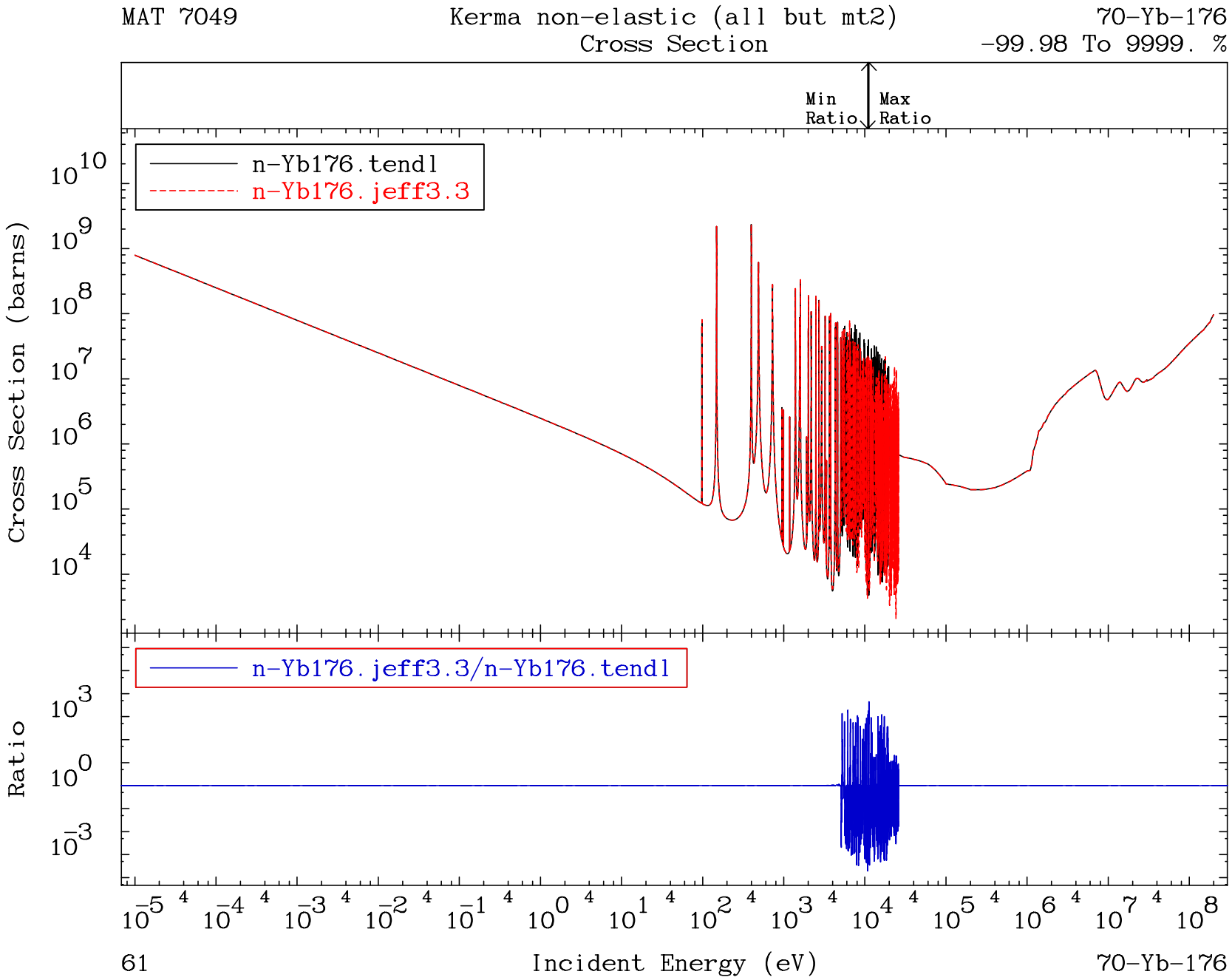

MAT 7049
Tritium Production
Cross Section
70-Yb-176
-0.344 To 1384. %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 6.5426 MeV
n-Yb176.jeff3.3 Threshold 6.5399 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
10^1
10^0
2
6
4
2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
56
Incident Energy (eV)
70-Yb-176

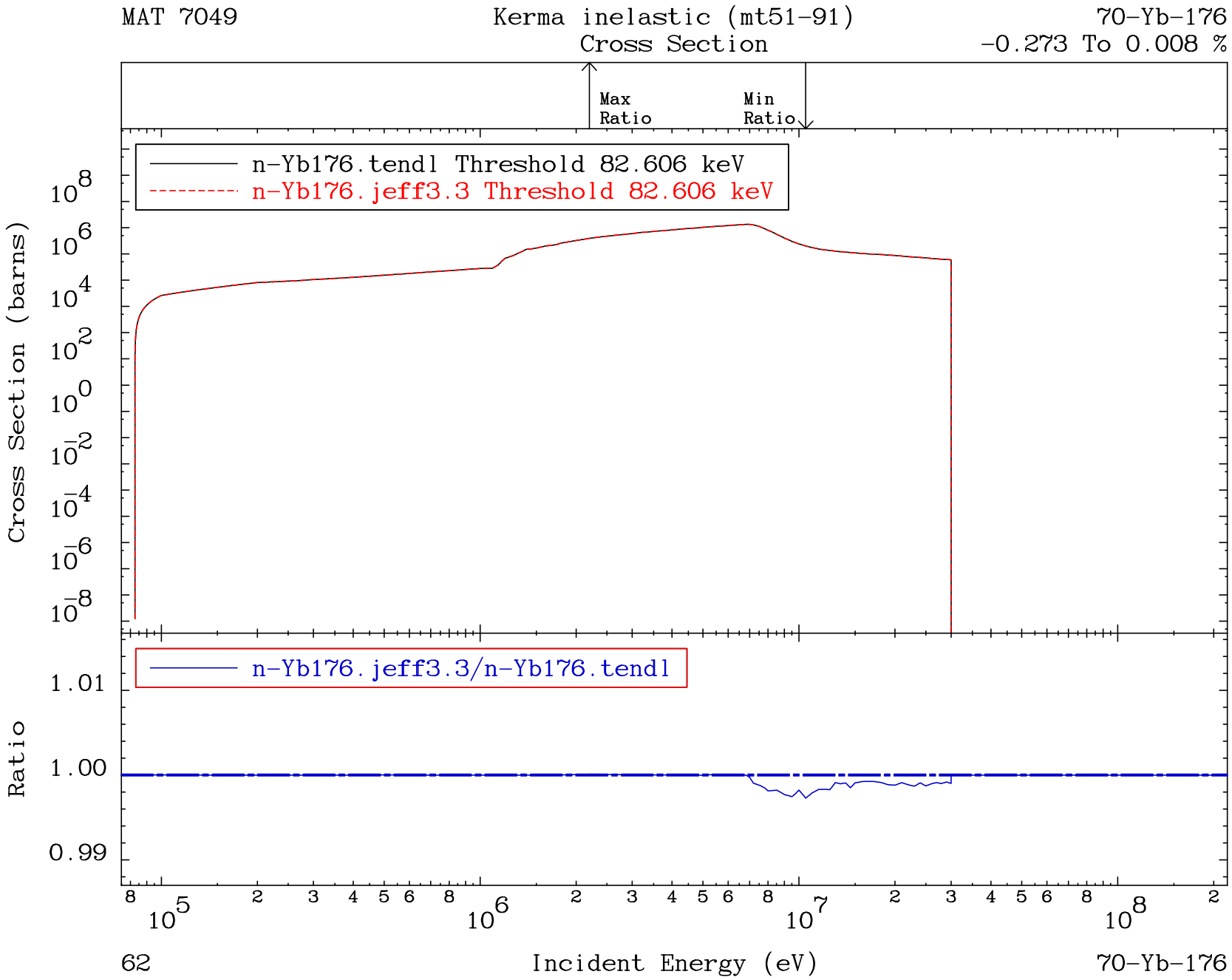

MAT 7049
He-3 Production
Cross Section
70-Yb-176
0.011 To 86.79 %
Min Ratio
Max Ratio
n-Yb176.tendl Threshold 8.4504 MeV
n-Yb176.jeff3.3 Threshold 8.4487 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
2.0
1.6
1.2
9
10^7
2
3
4
5
6
7
8
9
10^8
2
57
Incident Energy (eV)
70-Yb-176

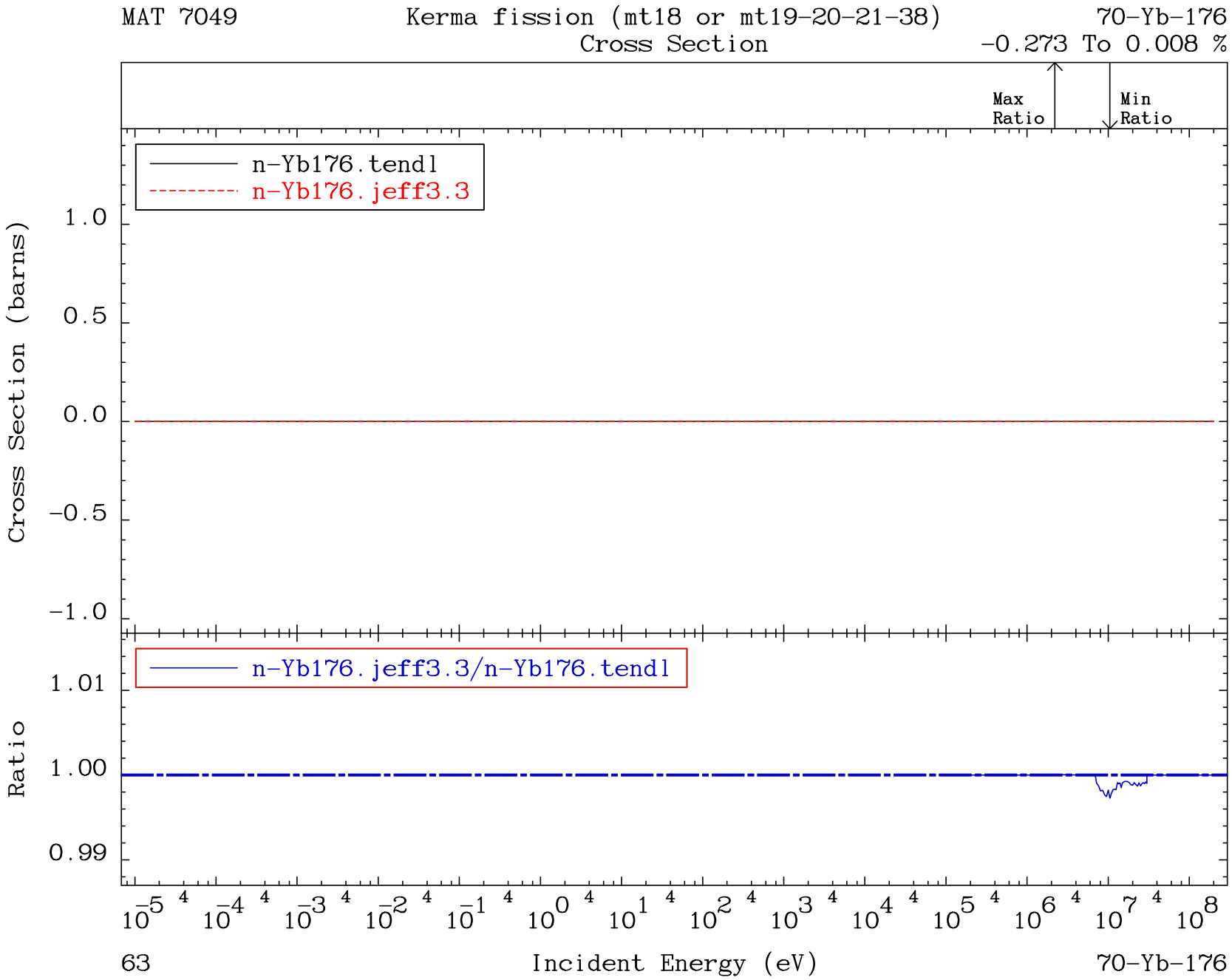

MAT 7049
He-4 Production
Cross Section
70-Yb-176
-16.58 To 9999. %
Max Ratio
Min Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
58
70-Yb-176

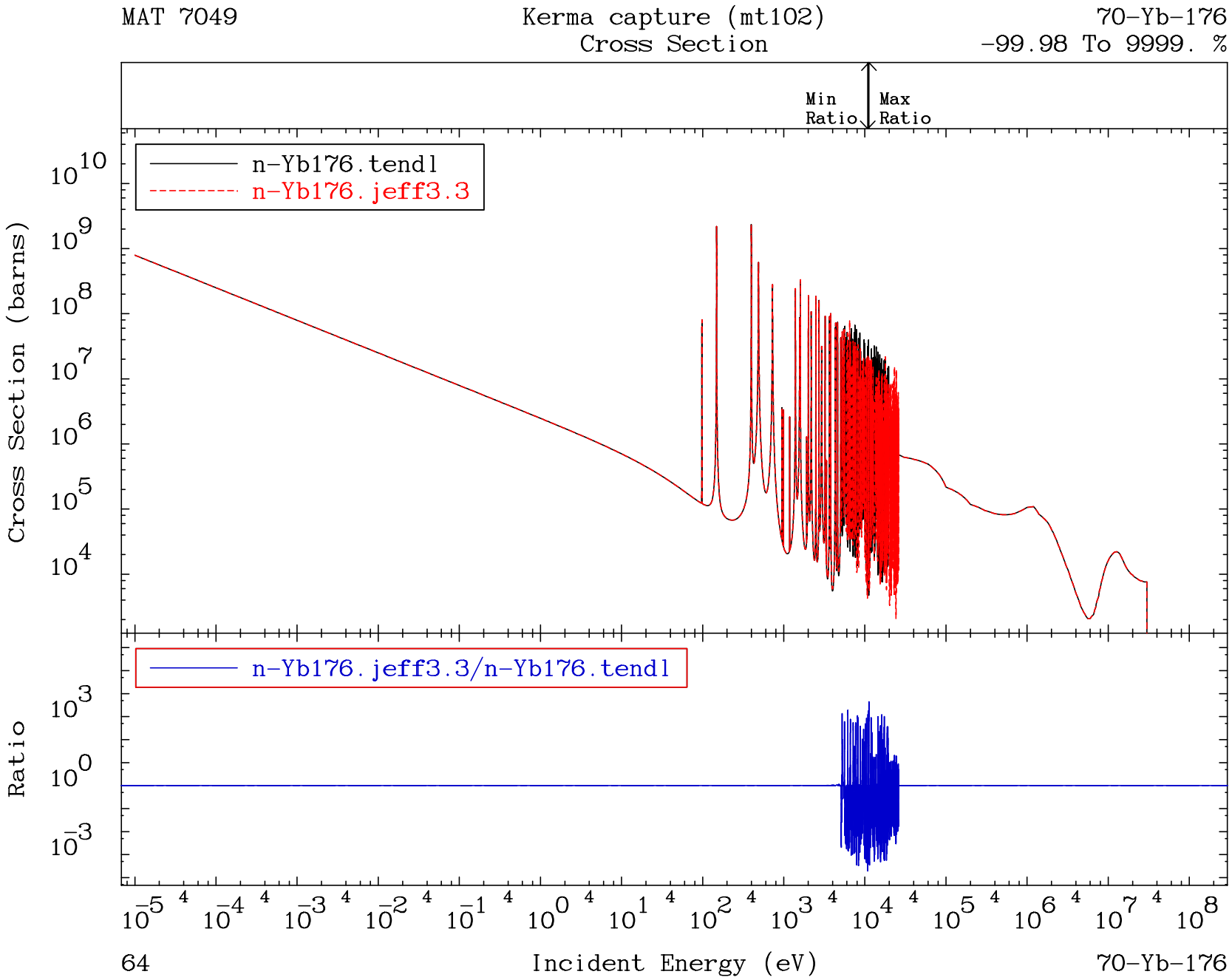

MAT 7049
Kerma total (eV-barns)
Cross Section
70-Yb-176
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
59
Incident Energy (eV)
70-Yb-176

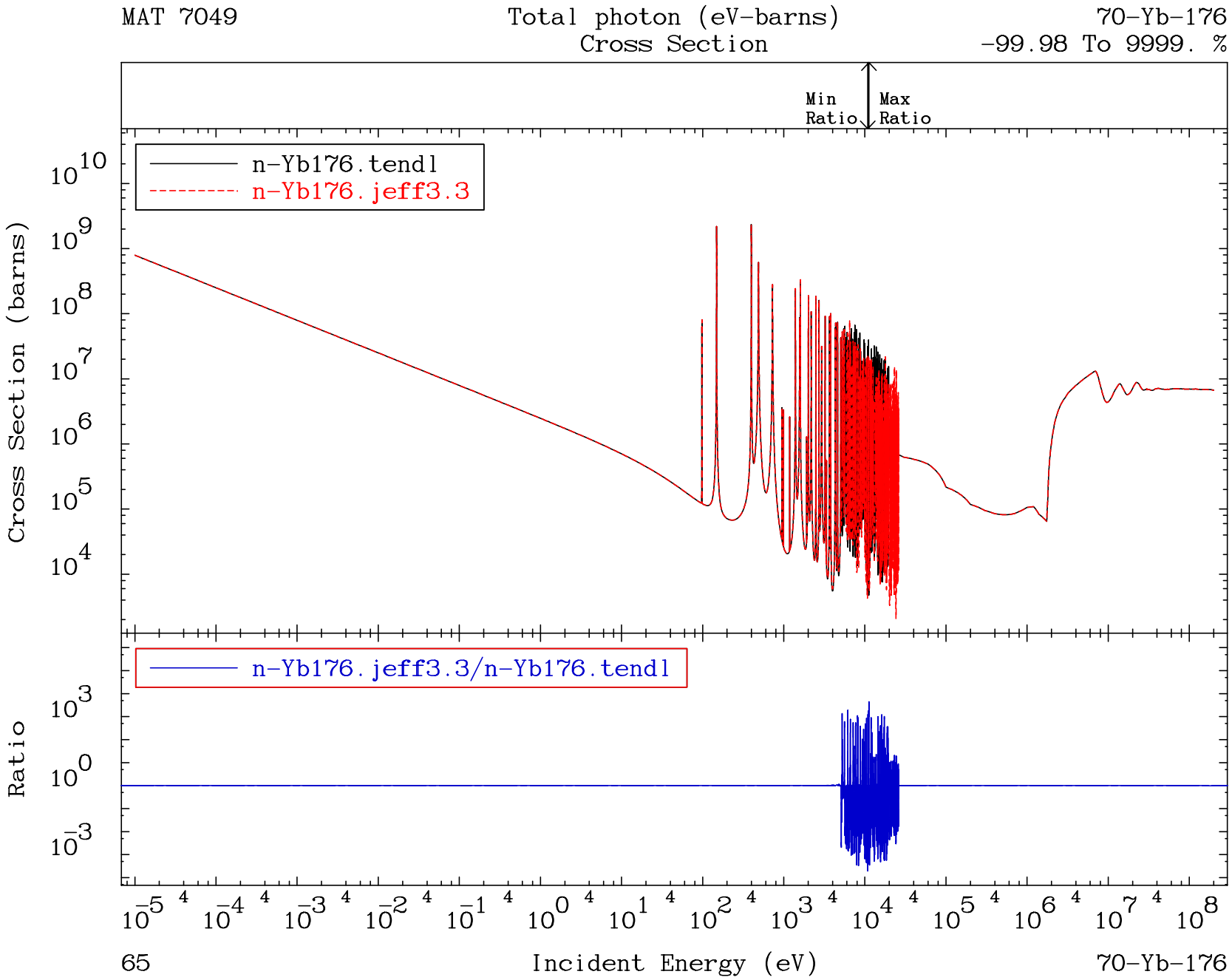

MAT 7049
Kerma elastic
Cross Section
70-Yb-176
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
60
70-Yb-176

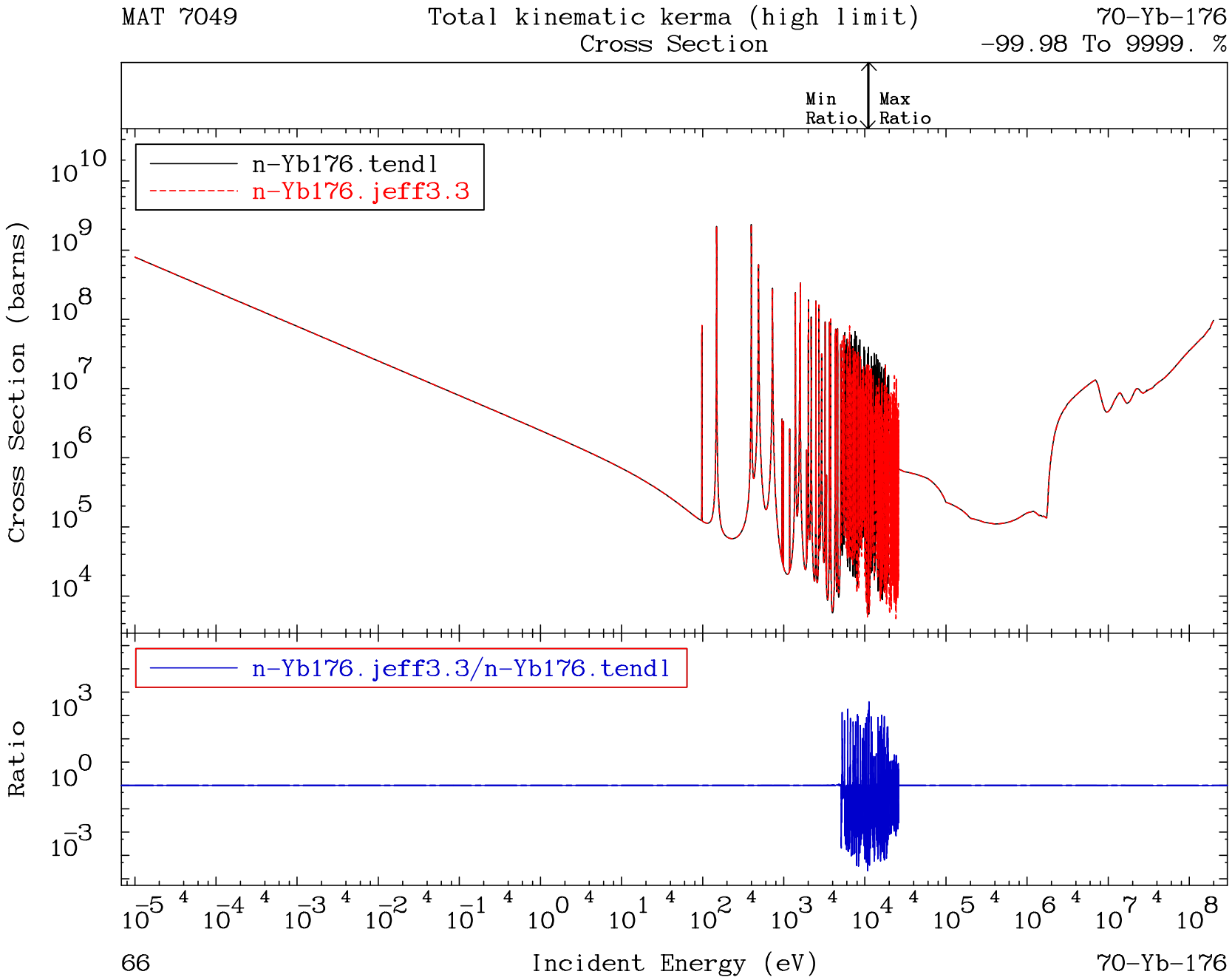

MAT 7049
Kerma non-elastic (all but mt2)
Cross Section
70-Yb-176
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
61
70-Yb-176

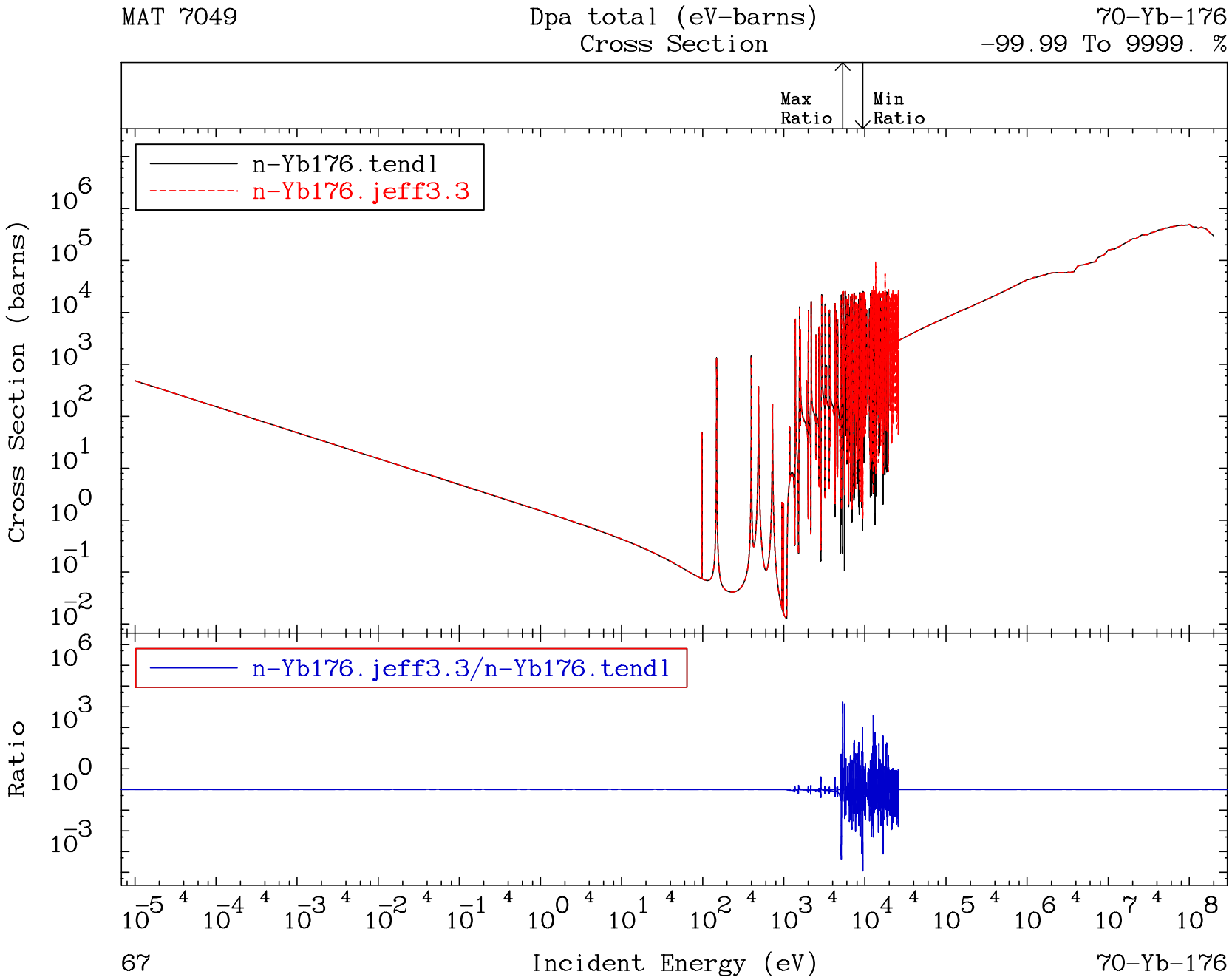

MAT 7049
Kerma inelastic (mt51-91)
Cross Section
70-Yb-176
-0.273 To 0.008 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 82.606 keV
n-Yb176.jeff3.3 Threshold 82.606 keV
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
62
70-Yb-176

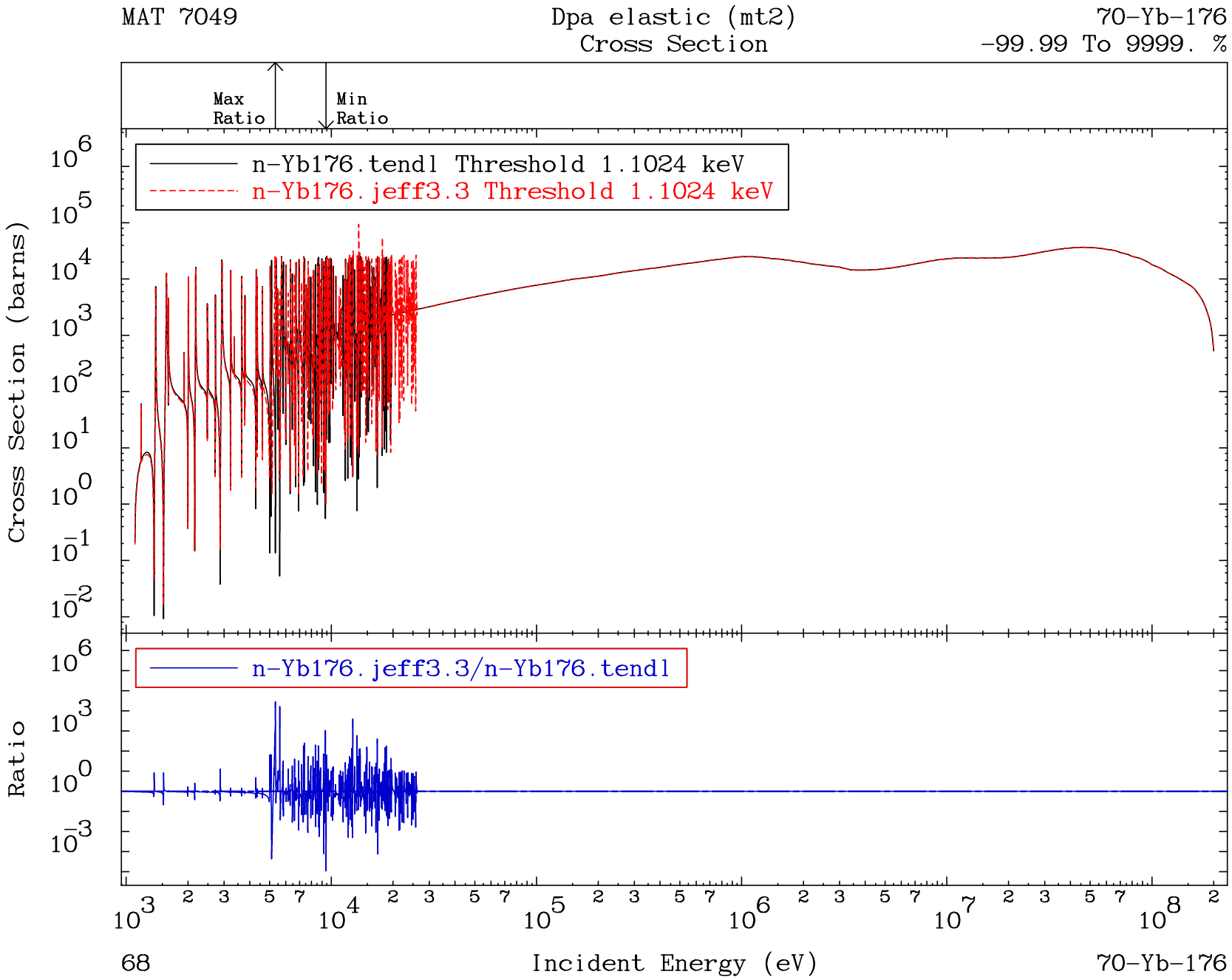

MAT 7049
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
70-Yb-176
-0.273 To 0.008 %
Max Ratio
Min Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
63
Incident Energy (eV)
70-Yb-176

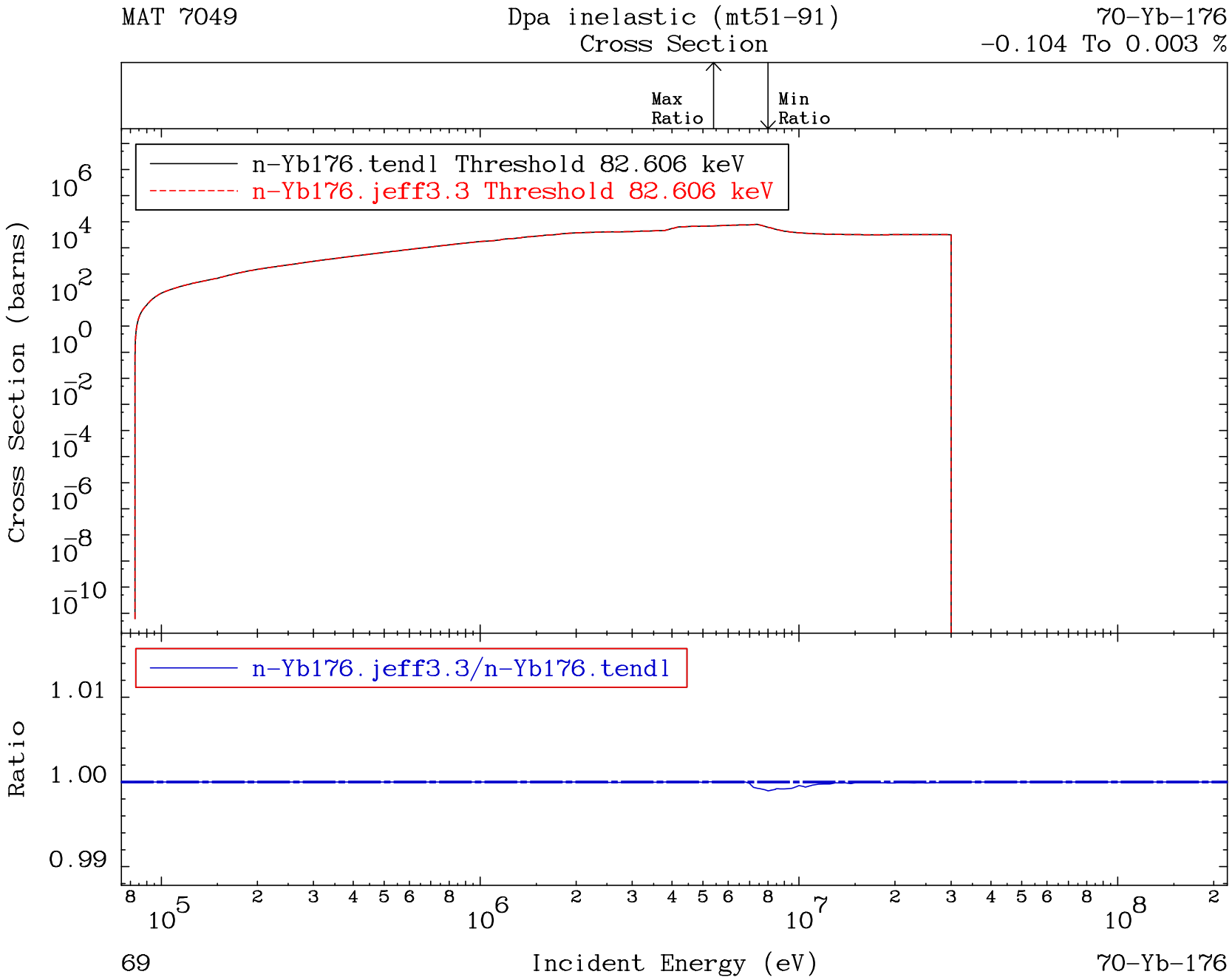

MAT 7049
Kerma capture (mt102)
Cross Section
70-Yb-176
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
64
Incident Energy (eV)
70-Yb-176

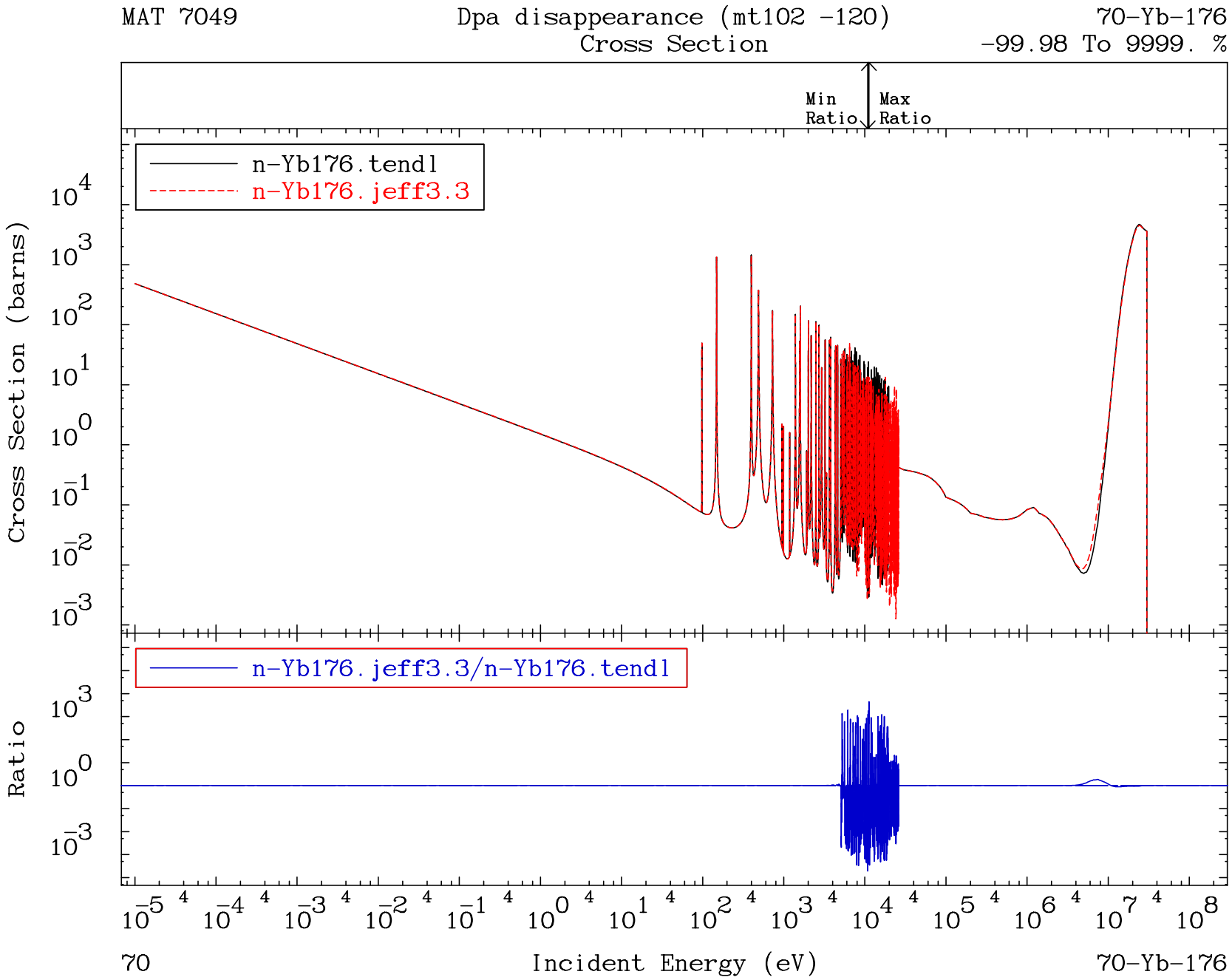

MAT 7049
Total photon (eV-barns)
Cross Section
70-Yb-176
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
65
70-Yb-176

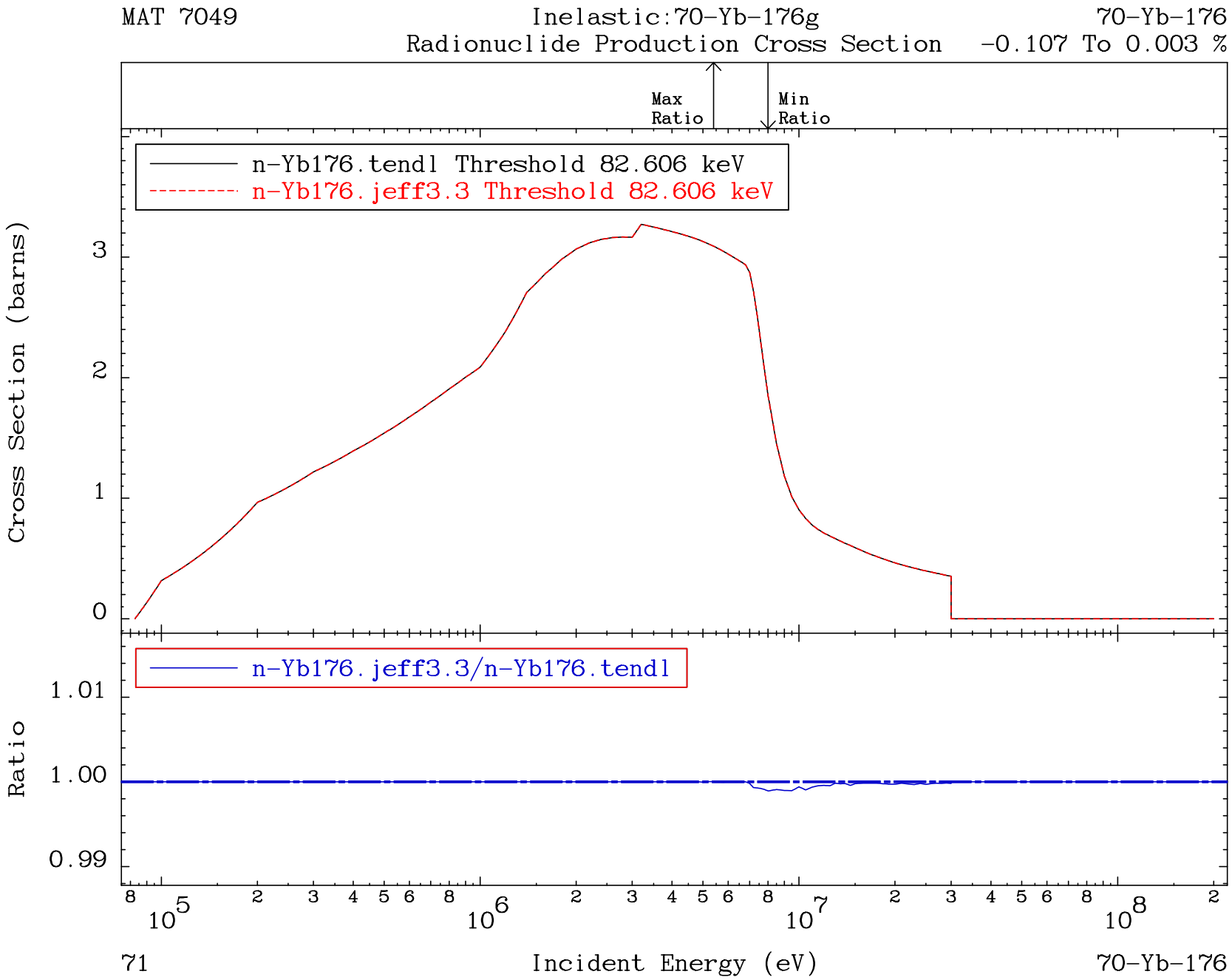

MAT 7049
Total kinematic kerma (high limit)
Cross Section
70-Yb-176
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
66
70-Yb-176

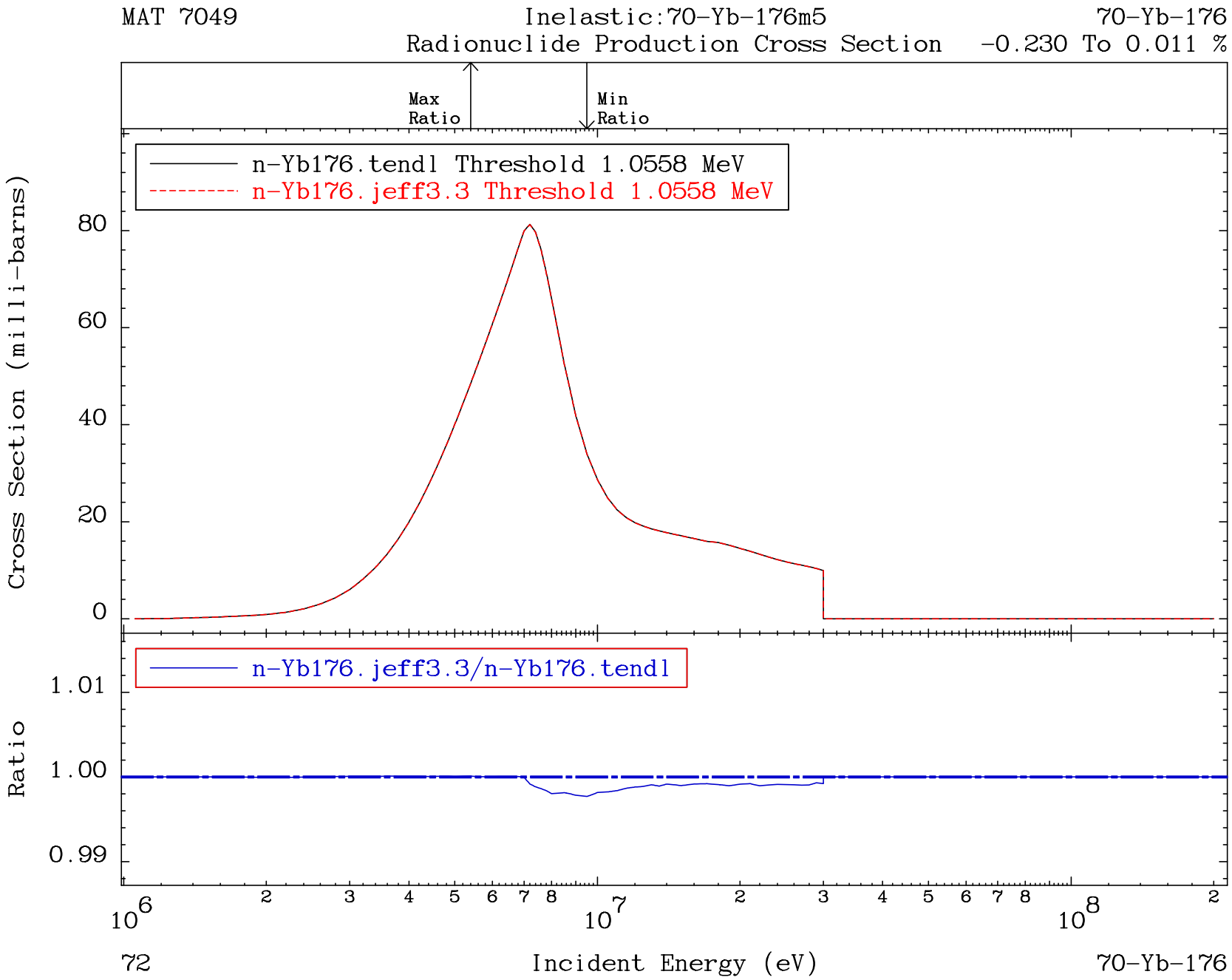

MAT 7049
Dpa total (eV-barns)
Cross Section
70-Yb-176
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
67
Incident Energy (eV)
70-Yb-176


MAT 7049
Dpa elastic (mt2)
Cross Section
70-Yb-176
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 1.1024 keV
n-Yb176.jeff3.3 Threshold 1.1024 keV
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
68
70-Yb-176


MAT 7049
Dpa inelastic (mt51-91)
Cross Section
70-Yb-176
-0.104 To 0.003 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 82.606 keV
n-Yb176.jeff3.3 Threshold 82.606 keV
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
69
70-Yb-176


MAT 7049
Dpa disappearance (mt102 -120)
Cross Section
70-Yb-176
-99.98 To 9999. %
Min Ratio
Max Ratio
n-Yb176.tendl
n-Yb176.jeff3.3
Cross Section (barns)
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
Incident Energy (eV)
70
70-Yb-176


MAT 7049
Inelastic:70-Yb-176g
70-Yb-176
Radionuclide Production Cross Section
-0.107 To 0.003 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 82.606 keV
n-Yb176.jeff3.3 Threshold 82.606 keV
Cross Section (barns)
0
1
2
3
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
0.99
1.00
1.01
8
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
71
Incident Energy (eV)
70-Yb-176


MAT 7049
Inelastic:70-Yb-176m5
70-Yb-176
Radionuclide Production Cross Section
-0.230 To 0.011 %
Max Ratio
Min Ratio
n-Yb176.tendl Threshold 1.0558 MeV
n-Yb176.jeff3.3 Threshold 1.0558 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Yb176.jeff3.3/n-Yb176.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
Incident Energy (eV)
72
70-Yb-176