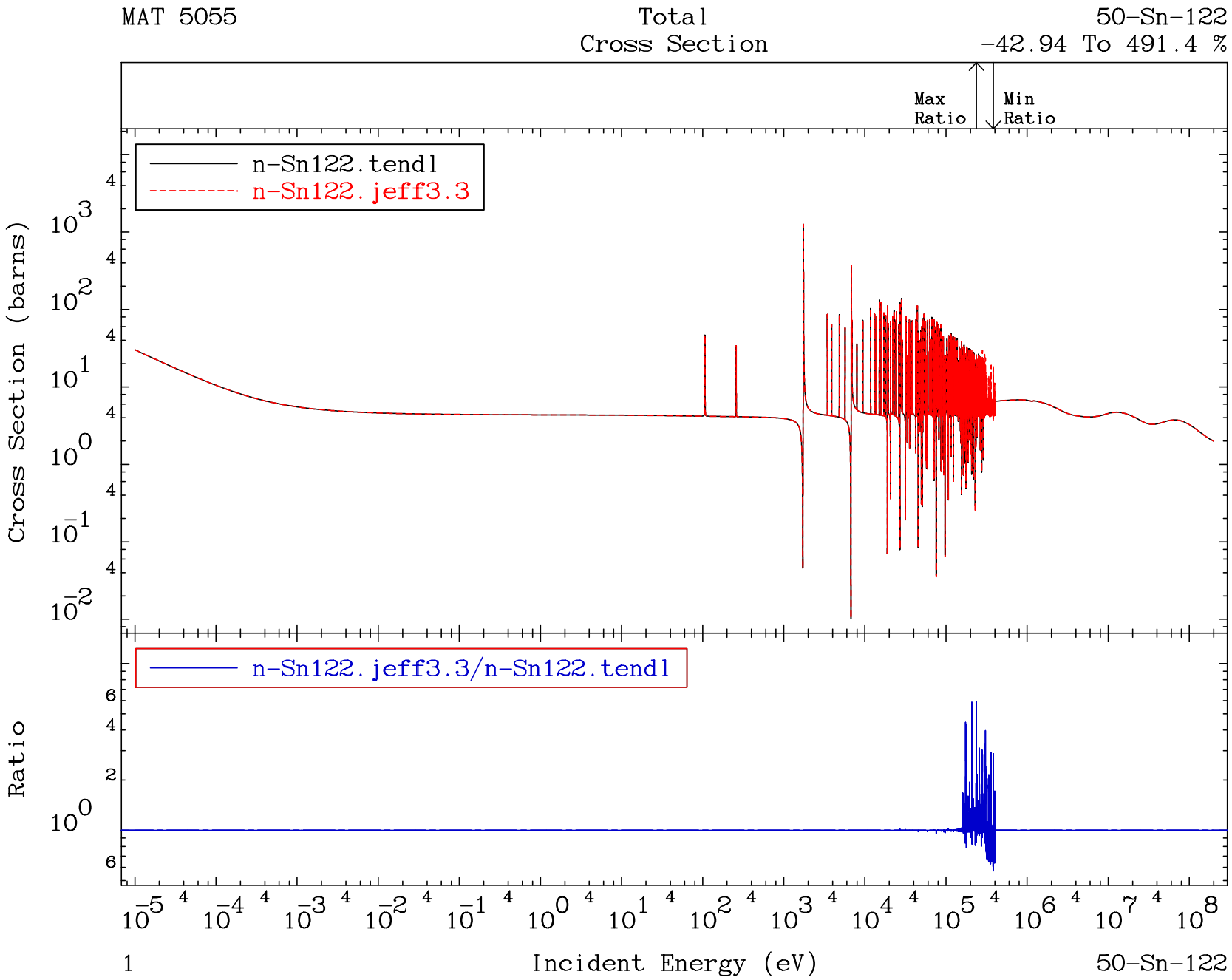
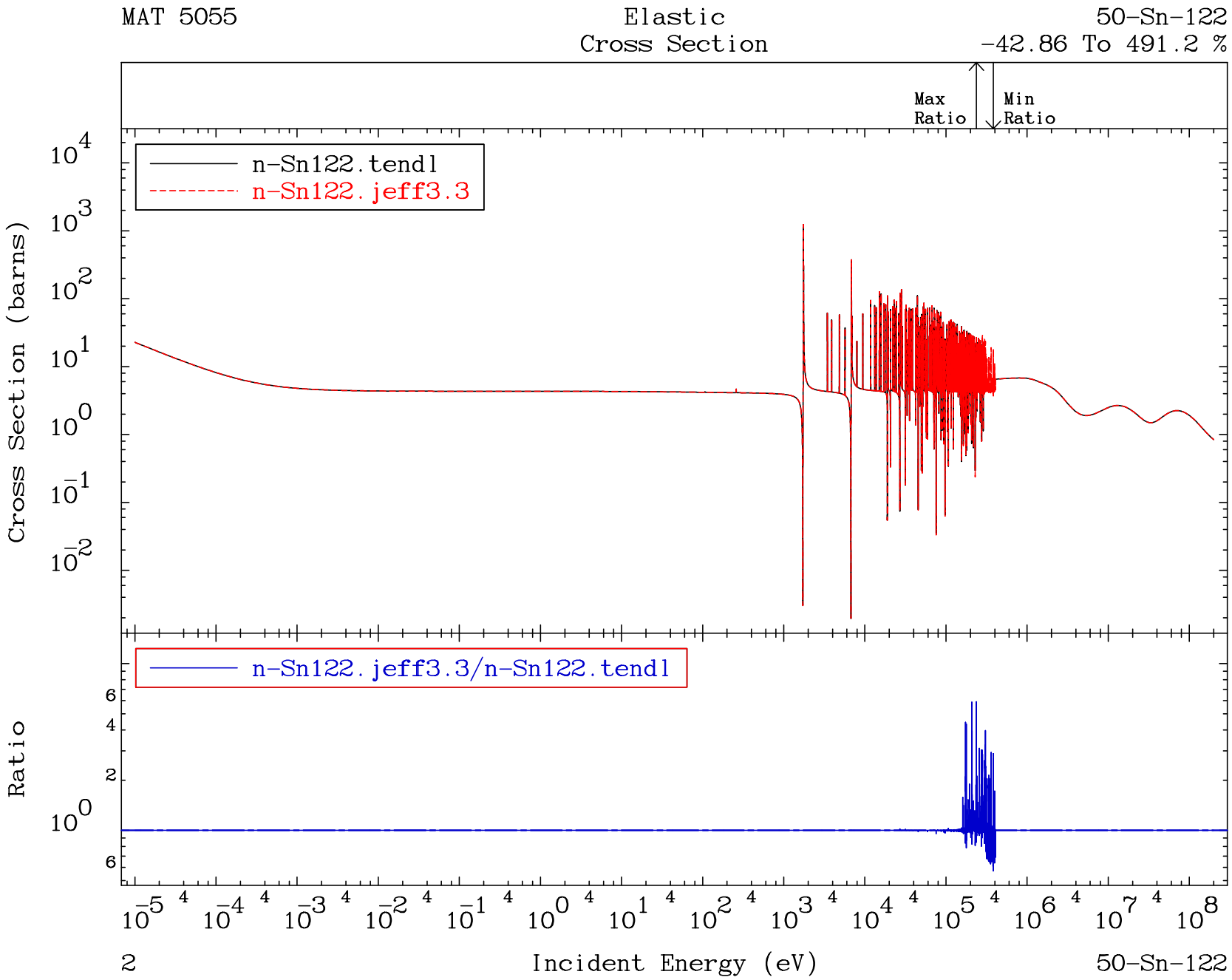
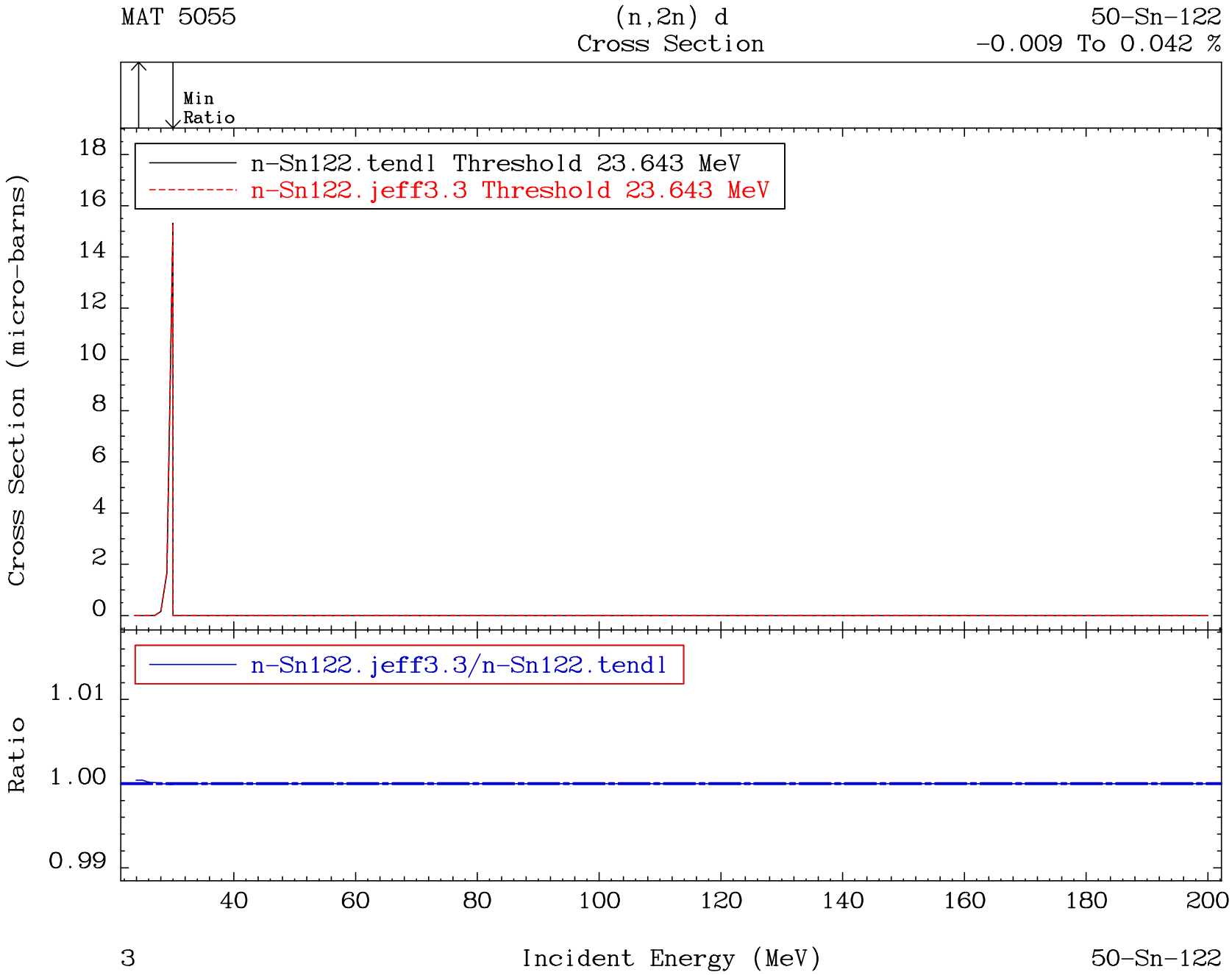
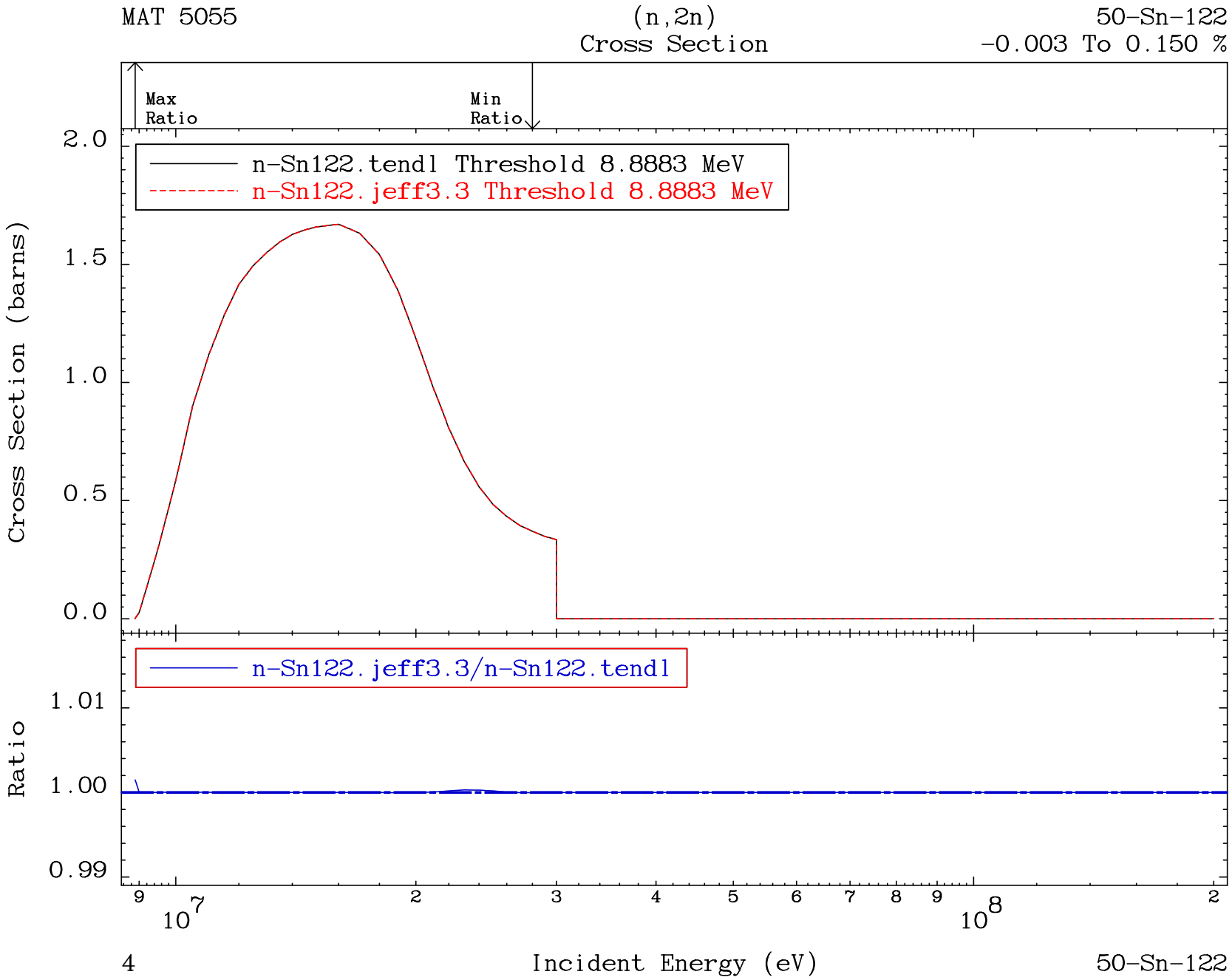
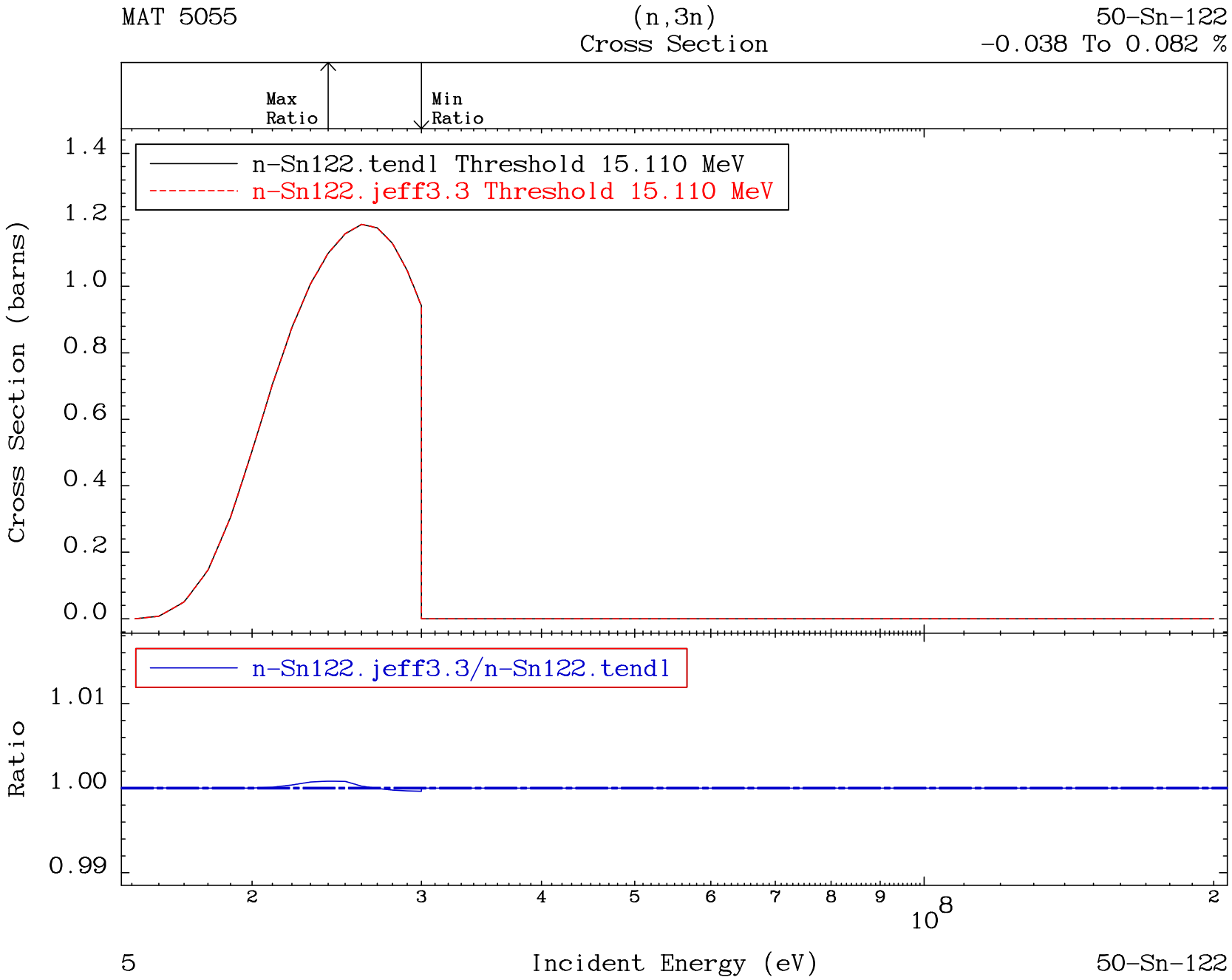
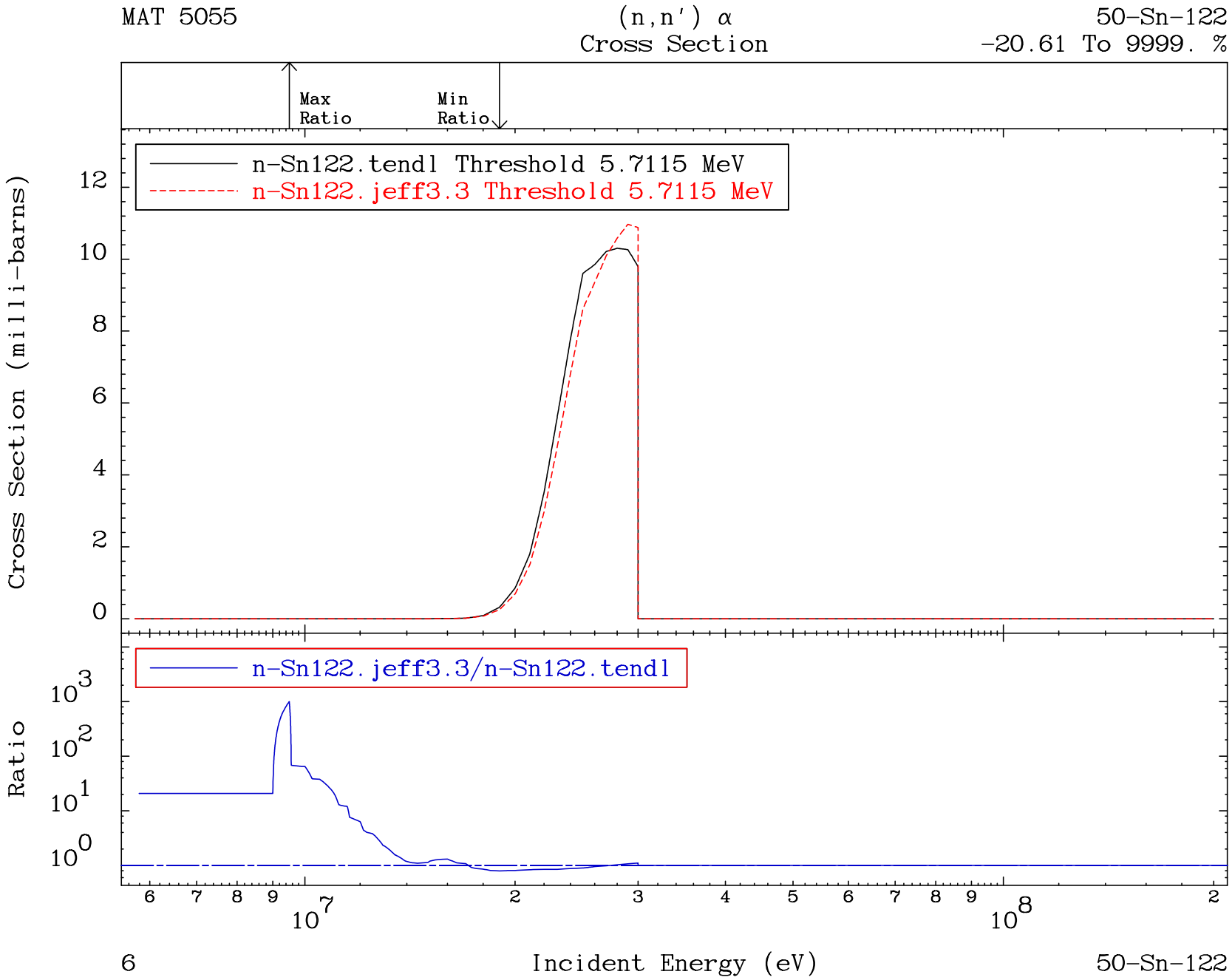

MAT 5055
Total
Cross Section
50-Sn-122
-42.94 To 491.4 %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
1
50-Sn-122

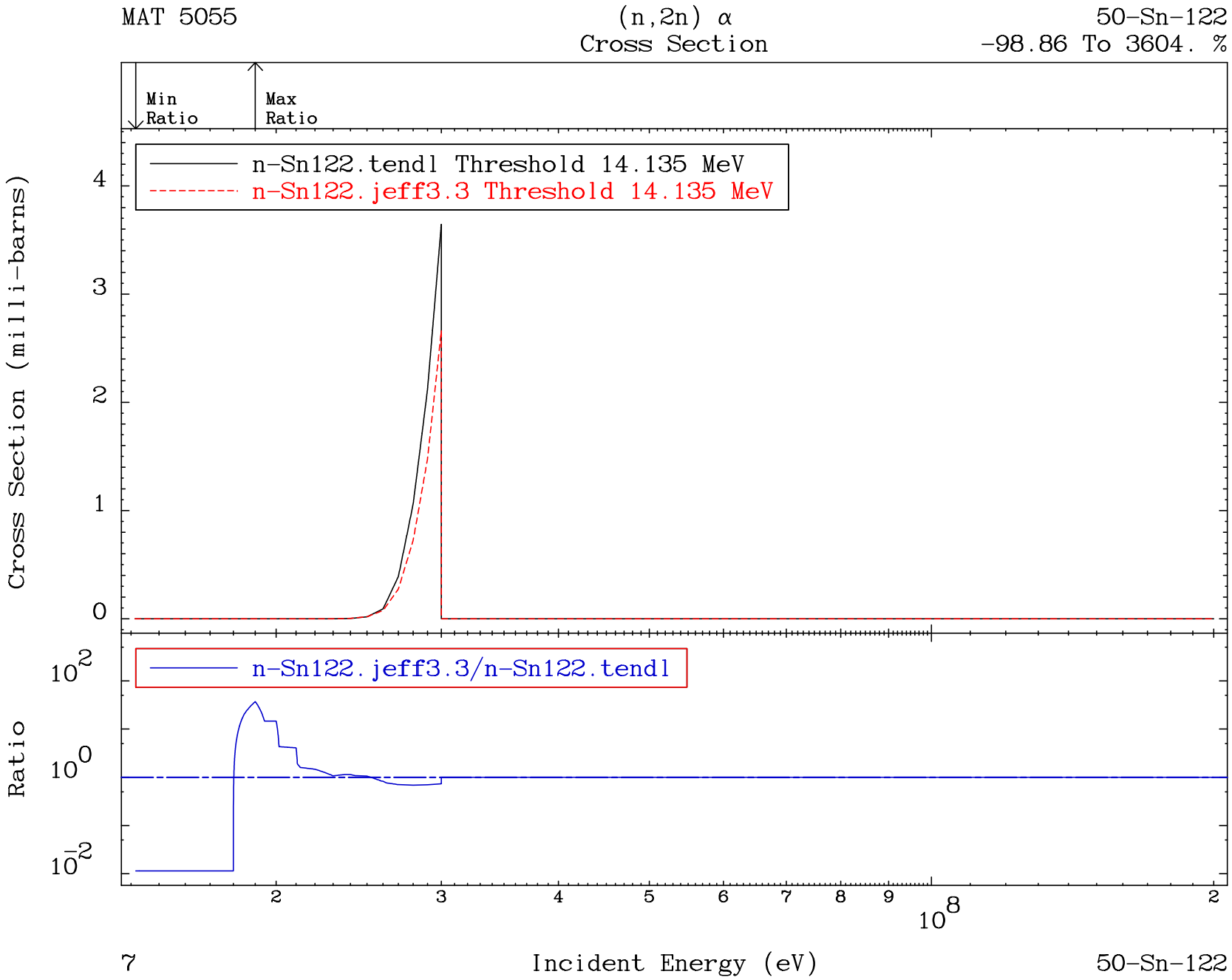

MAT 5055
Elastic
Cross Section
50-Sn-122
-42.86 To 491.2 %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
2
50-Sn-122

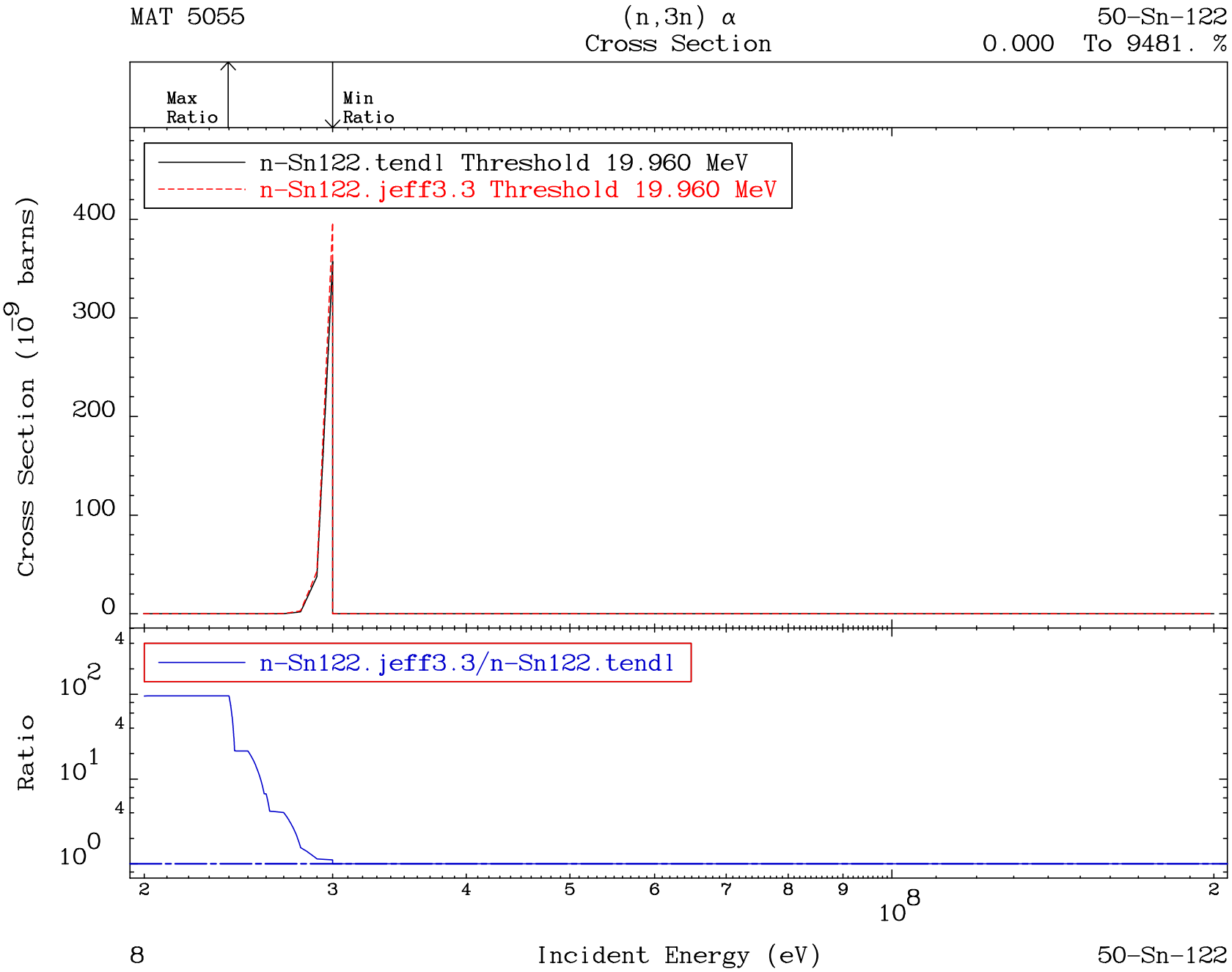

MAT 5055
(n,2n) d
Cross Section
50-Sn-122
-0.009 To 0.042 %
Min
Ratio
n-Sn122.tendl Threshold 23.643 MeV
n-Sn122.jeff3.3 Threshold 23.643 MeV
Cross Section (micro-barns)
18
16
14
12
10
8
6
4
2
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
3
Incident Energy (MeV)
50-Sn-122

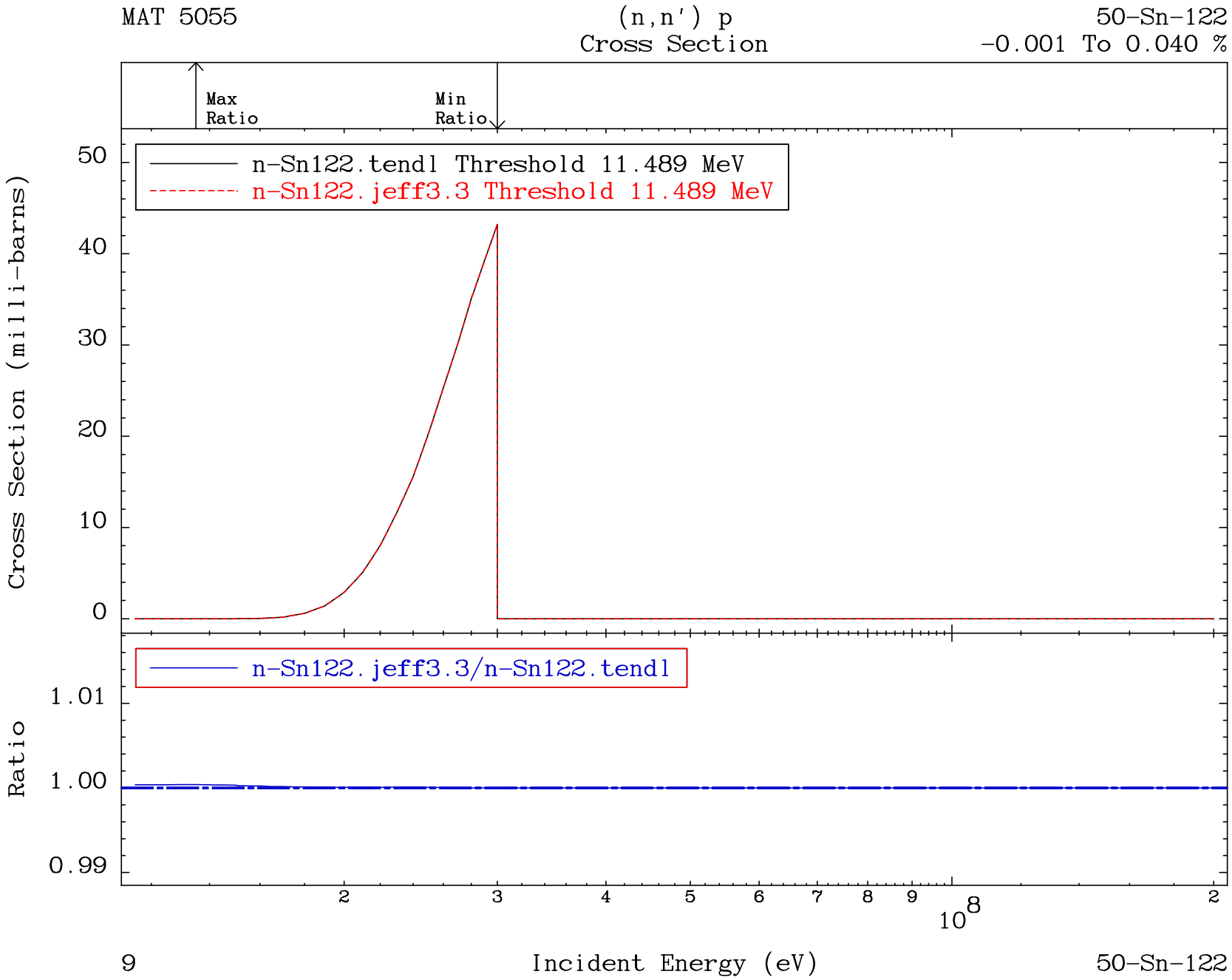

MAT 5055
(n,2n)
Cross Section
50-Sn-122
-0.003 To 0.150 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 8.8883 MeV
n-Sn122.jeff3.3 Threshold 8.8883 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
50-Sn-122

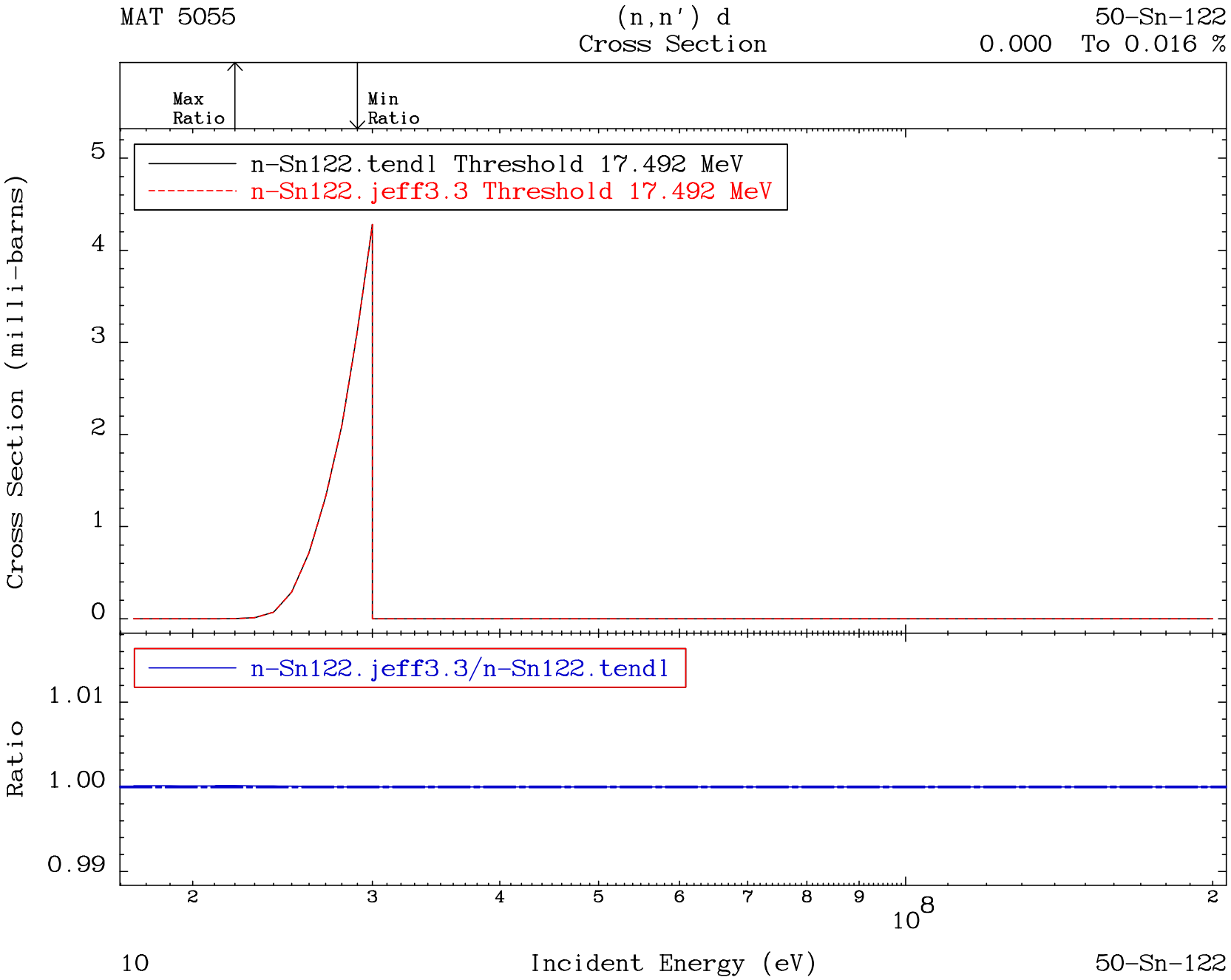

MAT 5055
(n,3n)
Cross Section
50-Sn-122
-0.038 To 0.082 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 15.110 MeV
n-Sn122.jeff3.3 Threshold 15.110 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
2
10^8
5
Incident Energy (eV)
50-Sn-122

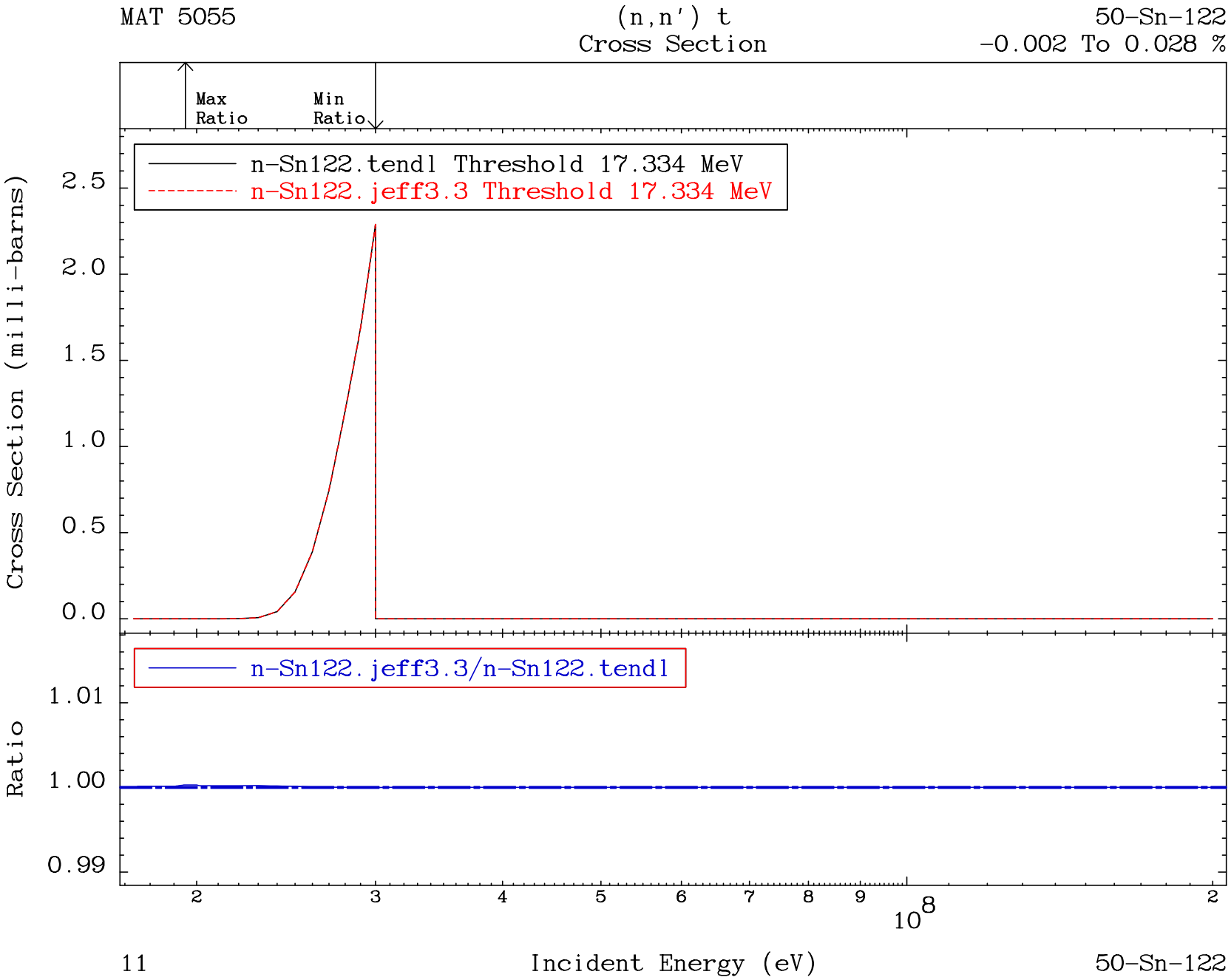

MAT 5055
(n,n') α
Cross Section
50-Sn-122
-20.61 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 5.7115 MeV
n-Sn122.jeff3.3 Threshold 5.7115 MeV
Cross Section (milli-barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
6
50-Sn-122

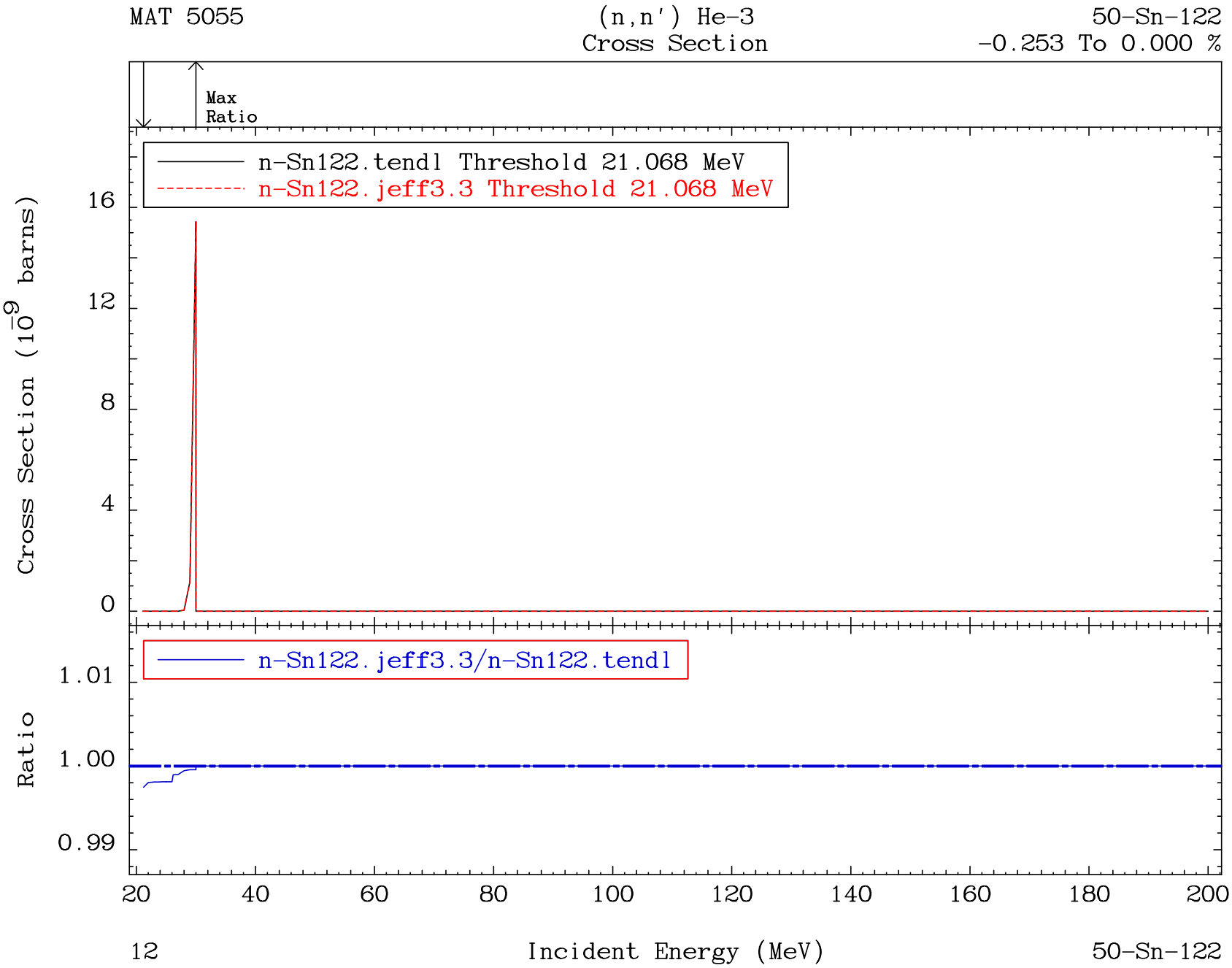

MAT 5055
(n,2n) α
Cross Section
50-Sn-122
-98.86 To 3604. %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 14.135 MeV
n-Sn122.jeff3.3 Threshold 14.135 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
50-Sn-122

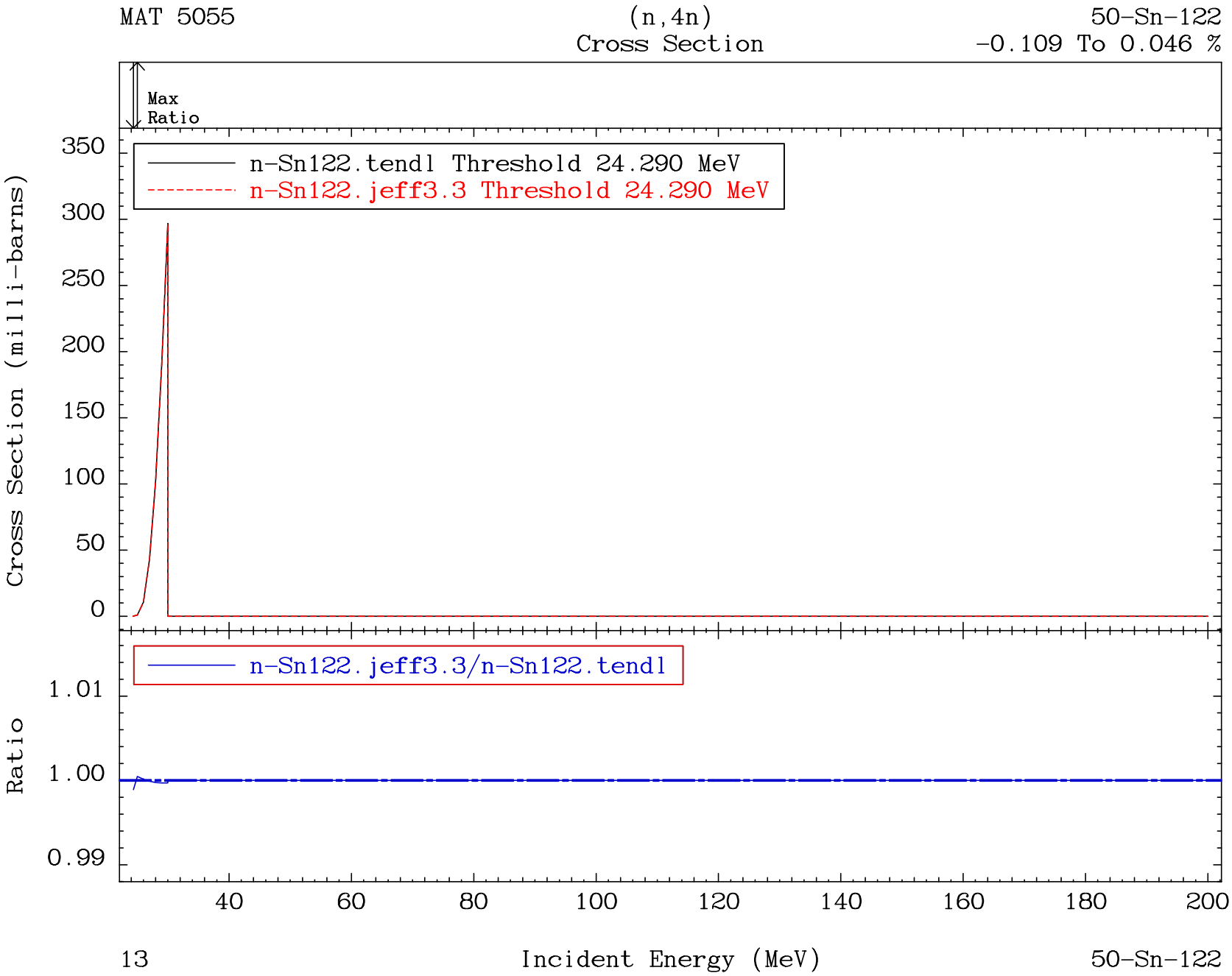

MAT 5055
(n,3n) α
Cross Section
50-Sn-122
0.000 To 9481. %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 19.960 MeV
n-Sn122.jeff3.3 Threshold 19.960 MeV
Cross Section (10^-9 barns)
400
300
200
100
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
50-Sn-122

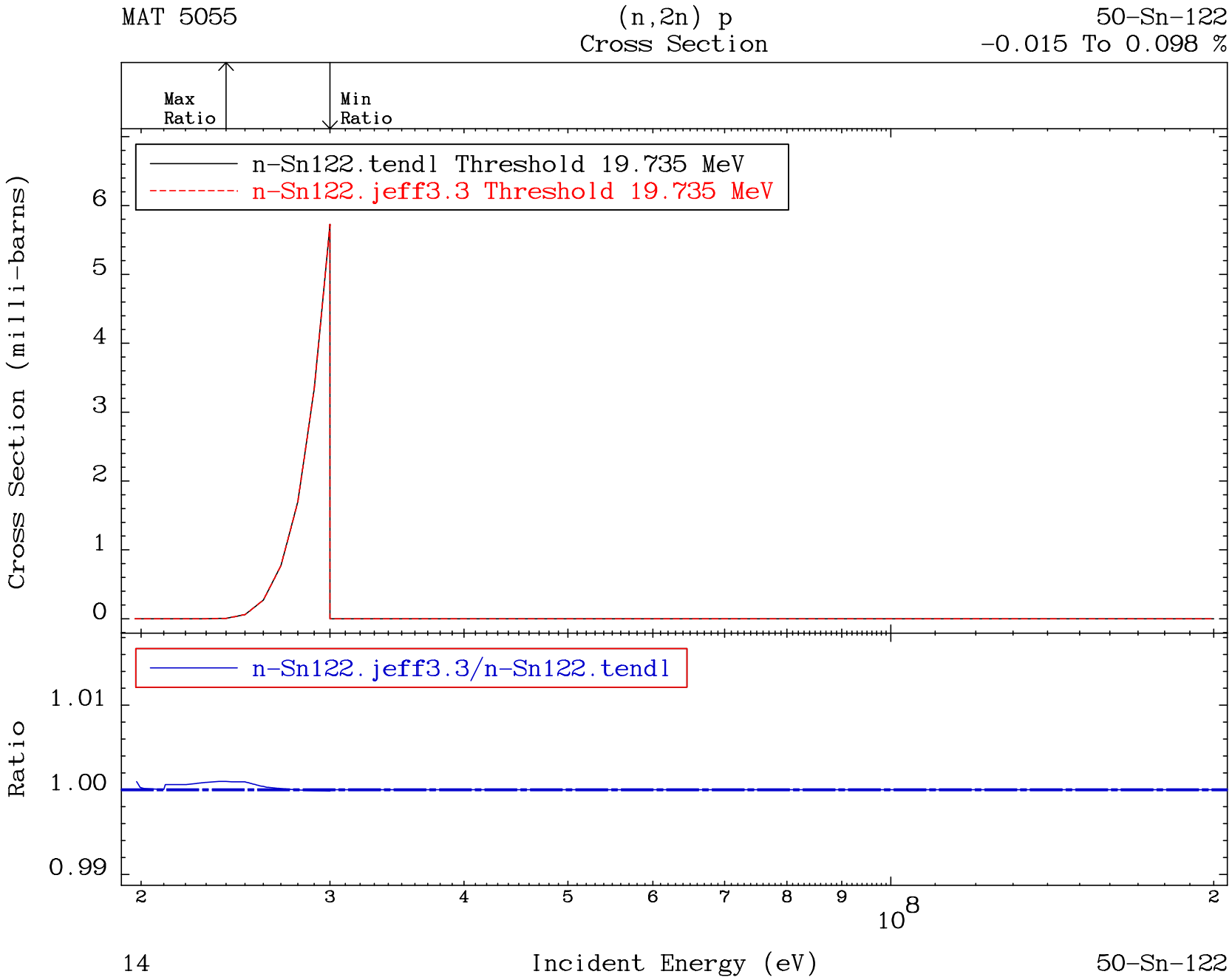

MAT 5055
(n,n') p
Cross Section
50-Sn-122
-0.001 To 0.040 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 11.489 MeV
n-Sn122.jeff3.3 Threshold 11.489 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
50-Sn-122

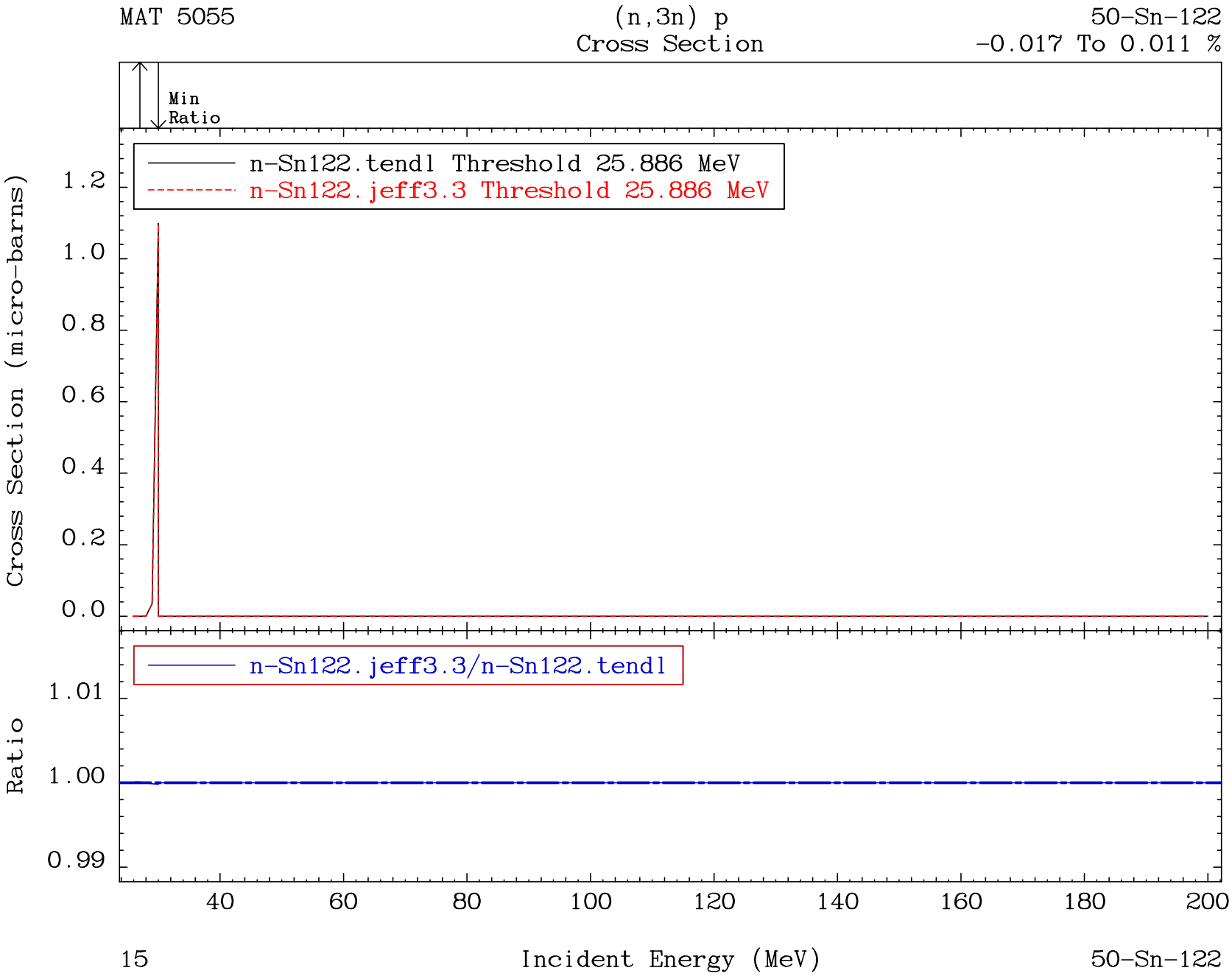

MAT 5055
(n,n') d
Cross Section
50-Sn-122
0.000 To 0.016 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 17.492 MeV
n-Sn122.jeff3.3 Threshold 17.492 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
2
10^8
10
Incident Energy (eV)
50-Sn-122

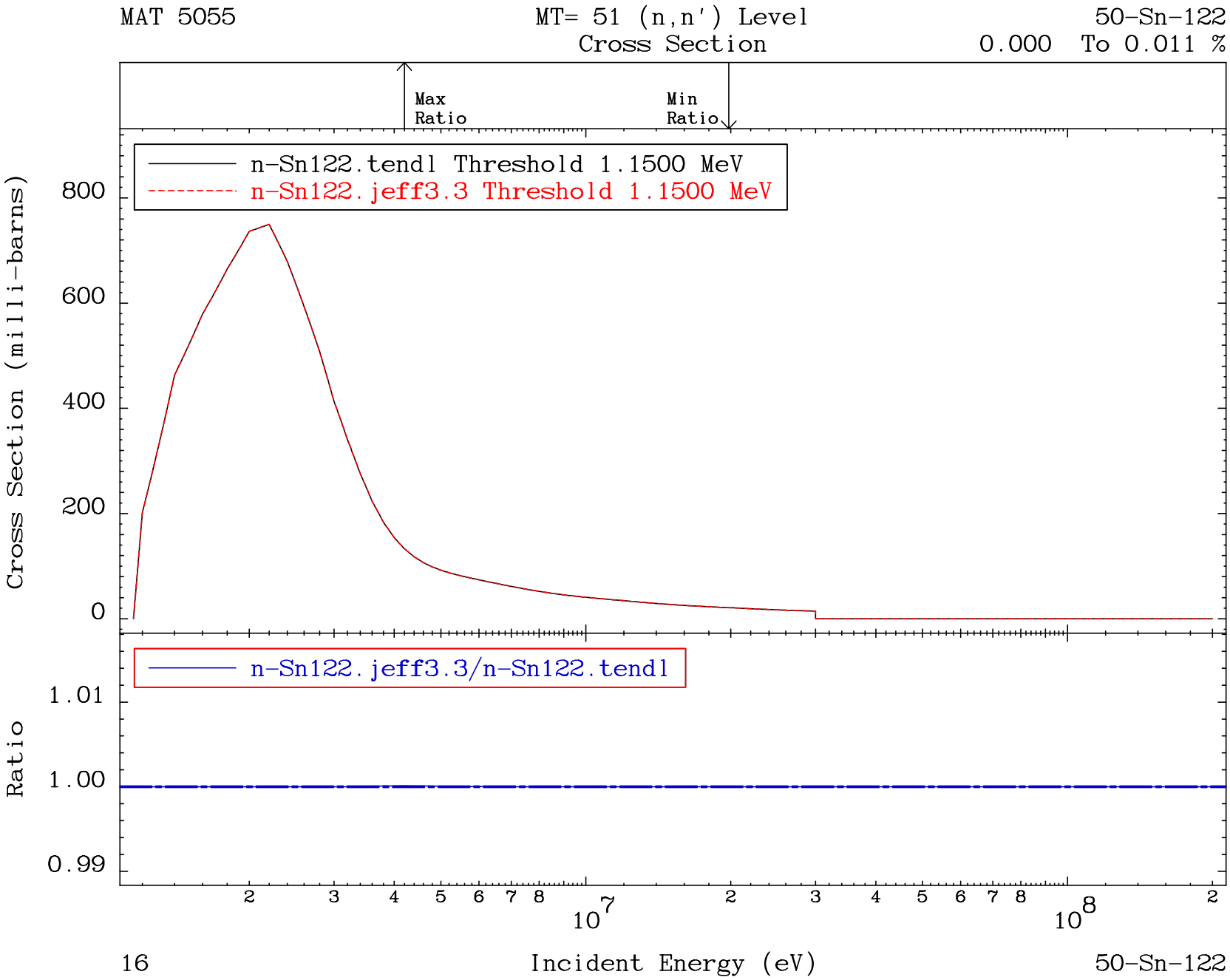

MAT 5055
(n,n') t
Cross Section
50-Sn-122
-0.002 To 0.028 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 17.334 MeV
n-Sn122.jeff3.3 Threshold 17.334 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
50-Sn-122

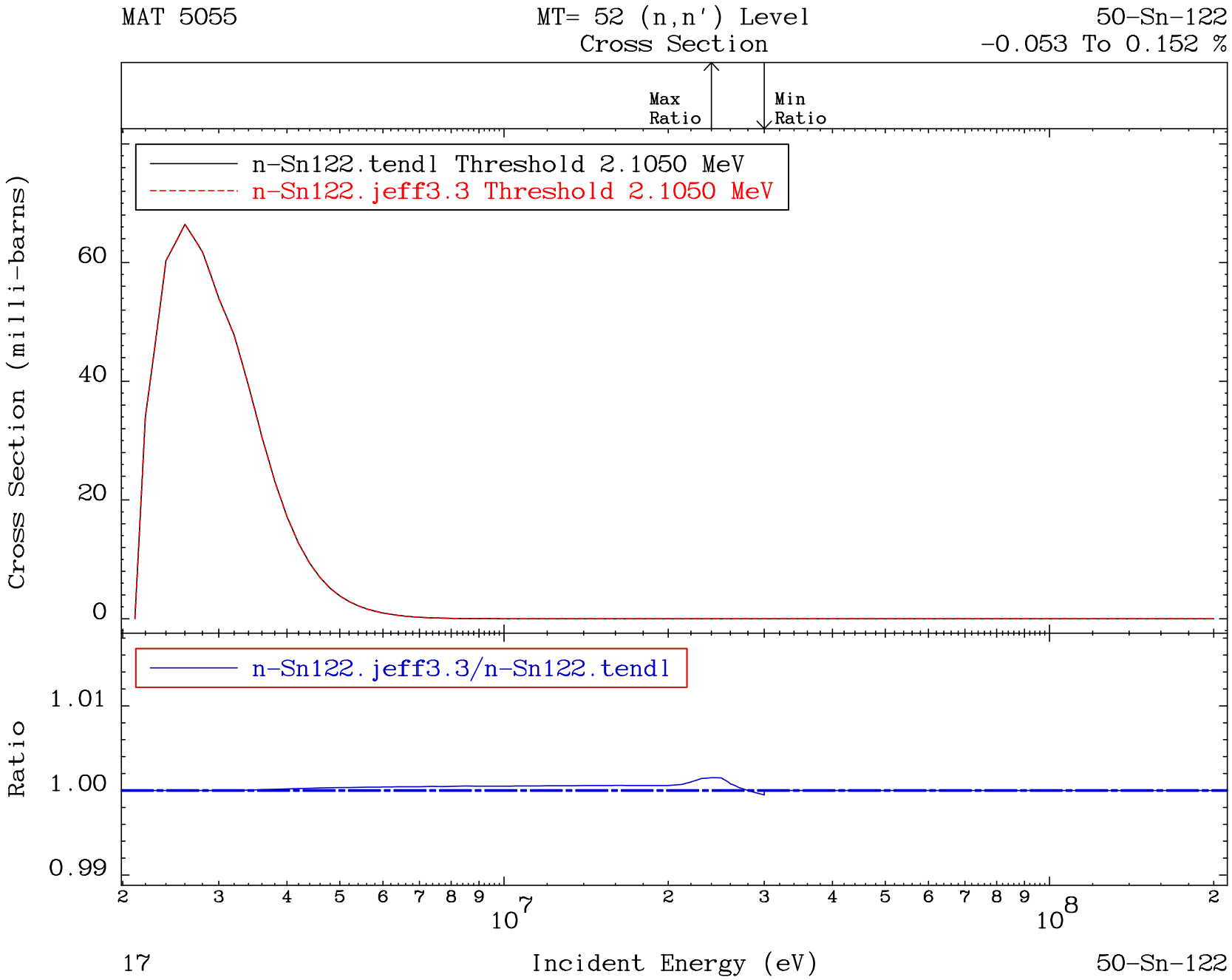

MAT 5055
(n,n') He-3
Cross Section
50-Sn-122
-0.253 To 0.000 %
Max
Ratio
n-Sn122.tendl Threshold 21.068 MeV
n-Sn122.jeff3.3 Threshold 21.068 MeV
Cross Section (10^{-9} barns)
16
12
8
4
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
12
Incident Energy (MeV)
50-Sn-122

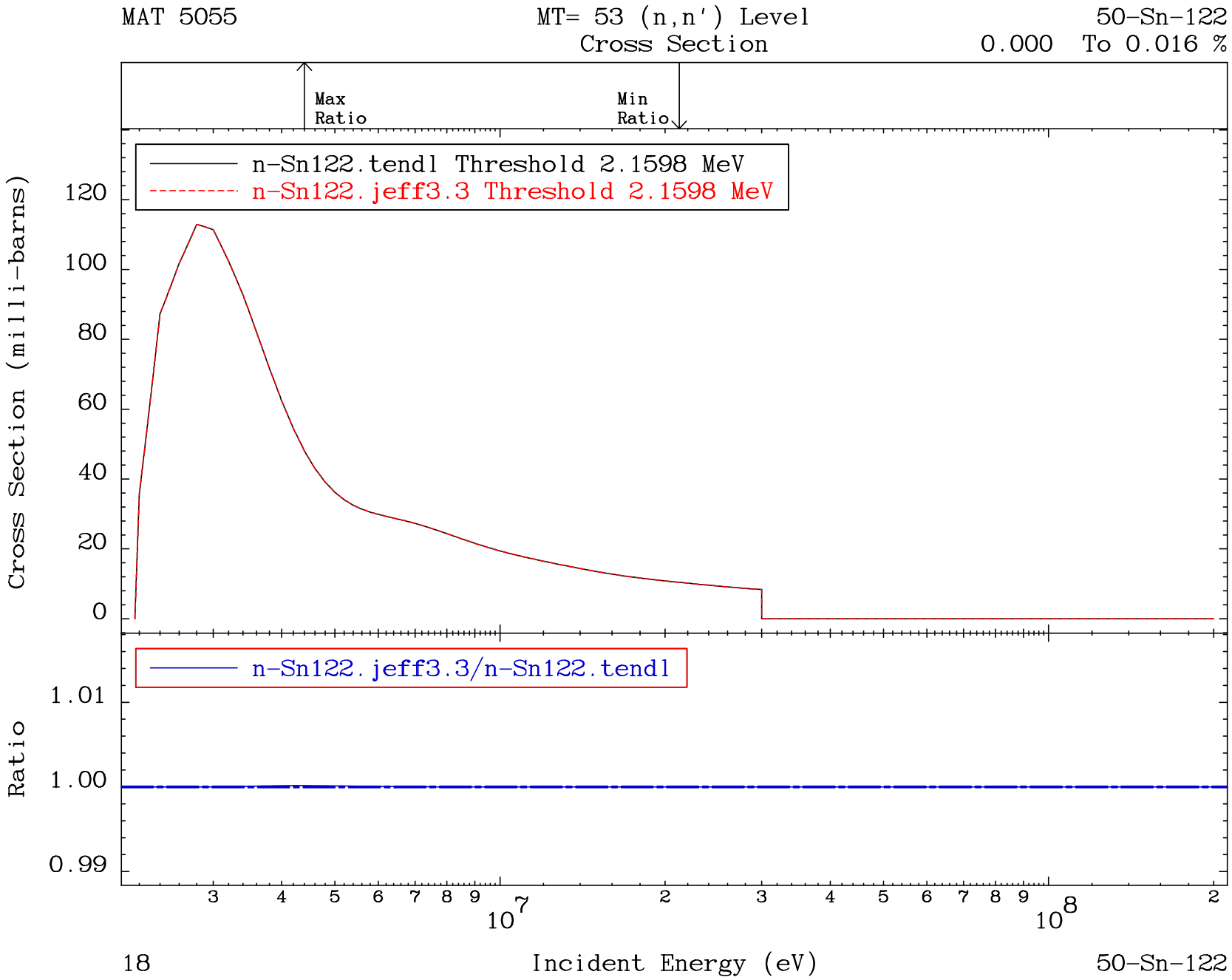

MAT 5055
(n,4n)
Cross Section
50-Sn-122
-0.109 To 0.046 %
Max
Ratio
n-Sn122.tendl Threshold 24.290 MeV
n-Sn122.jeff3.3 Threshold 24.290 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
13
Incident Energy (MeV)
50-Sn-122

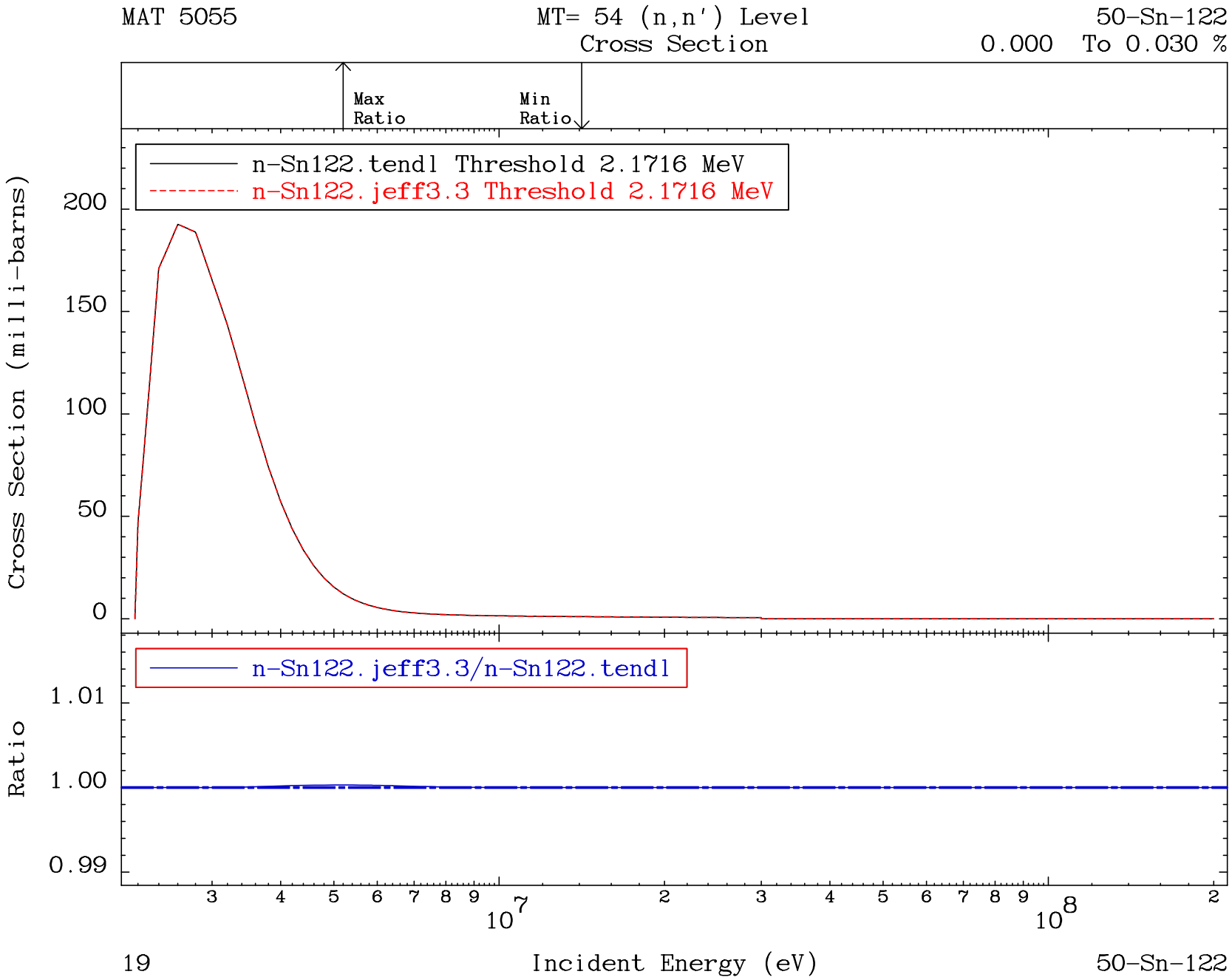

MAT 5055
(n,2n) p
Cross Section
50-Sn-122
-0.015 To 0.098 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 19.735 MeV
n-Sn122.jeff3.3 Threshold 19.735 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
2
10^8
14
Incident Energy (eV)
50-Sn-122

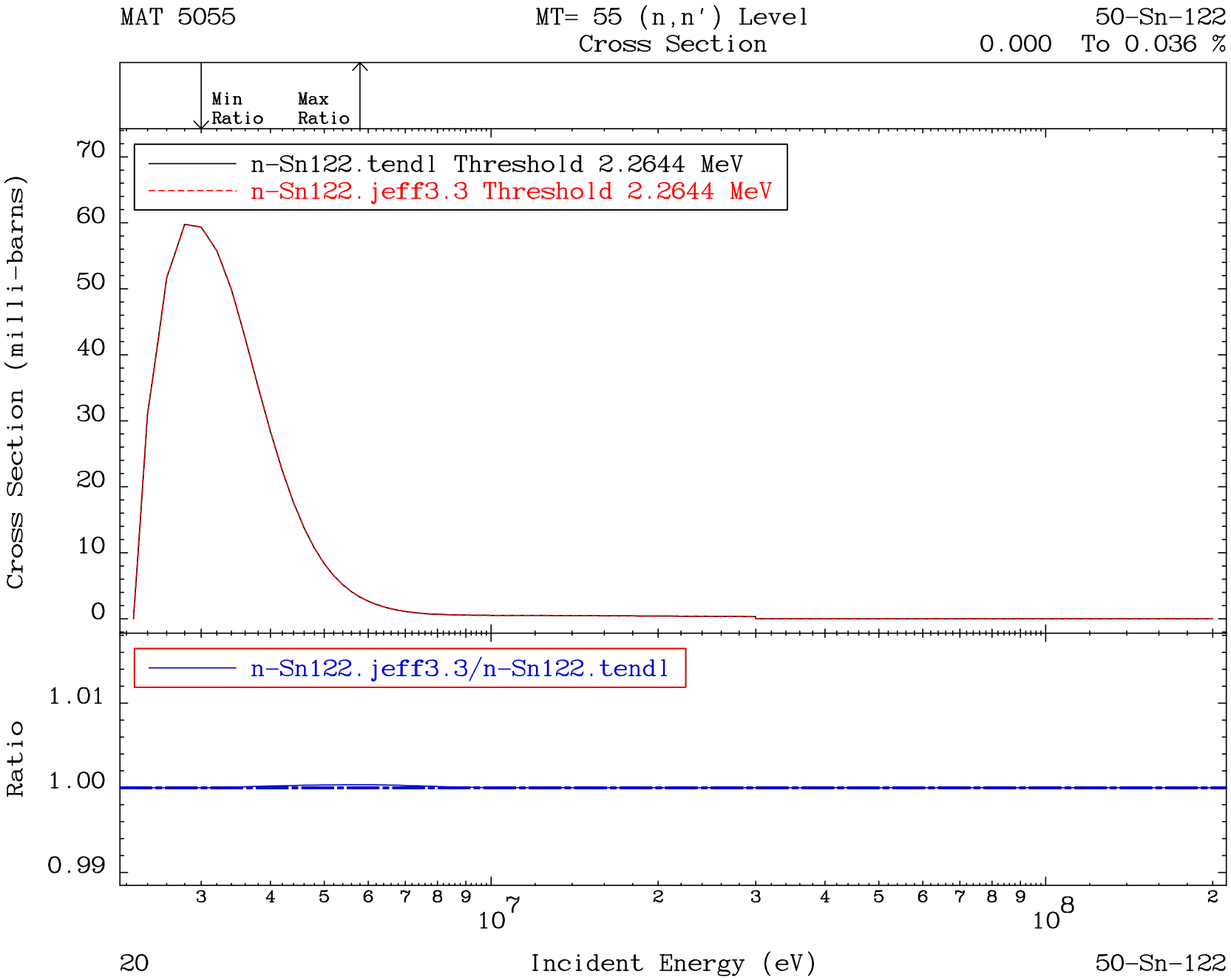

MAT 5055
(n,3n) p
Cross Section
50-Sn-122
-0.017 To 0.011 %
Min
Ratio
n-Sn122.tendl Threshold 25.886 MeV
n-Sn122.jeff3.3 Threshold 25.886 MeV
Cross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
50-Sn-122

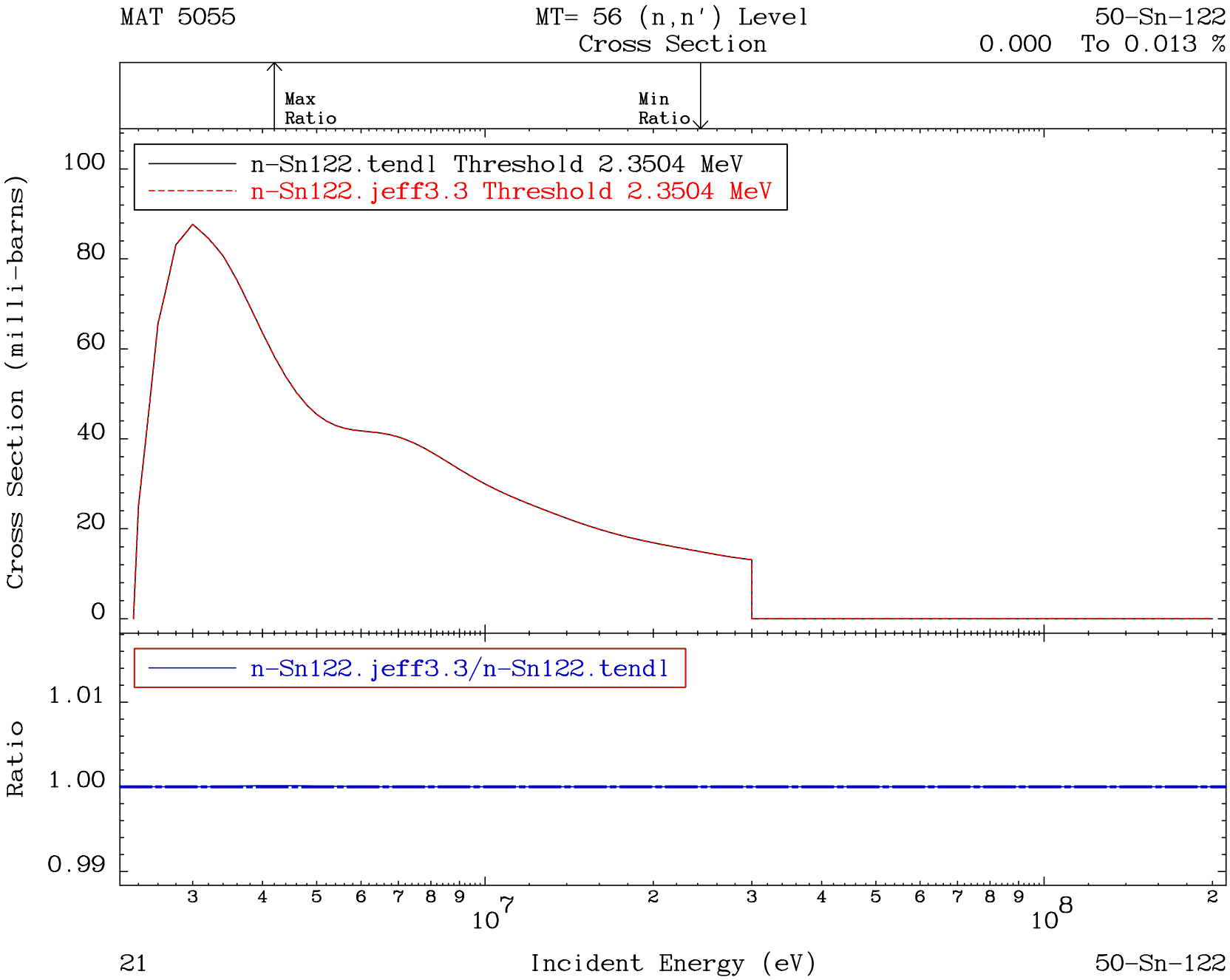

MAT 5055
MT= 51 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.011 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 1.1500 MeV
n-Sn122.jeff3.3 Threshold 1.1500 MeV
Cross Section (milli-barns)
800
600
400
200
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
16
Incident Energy (eV)
50-Sn-122

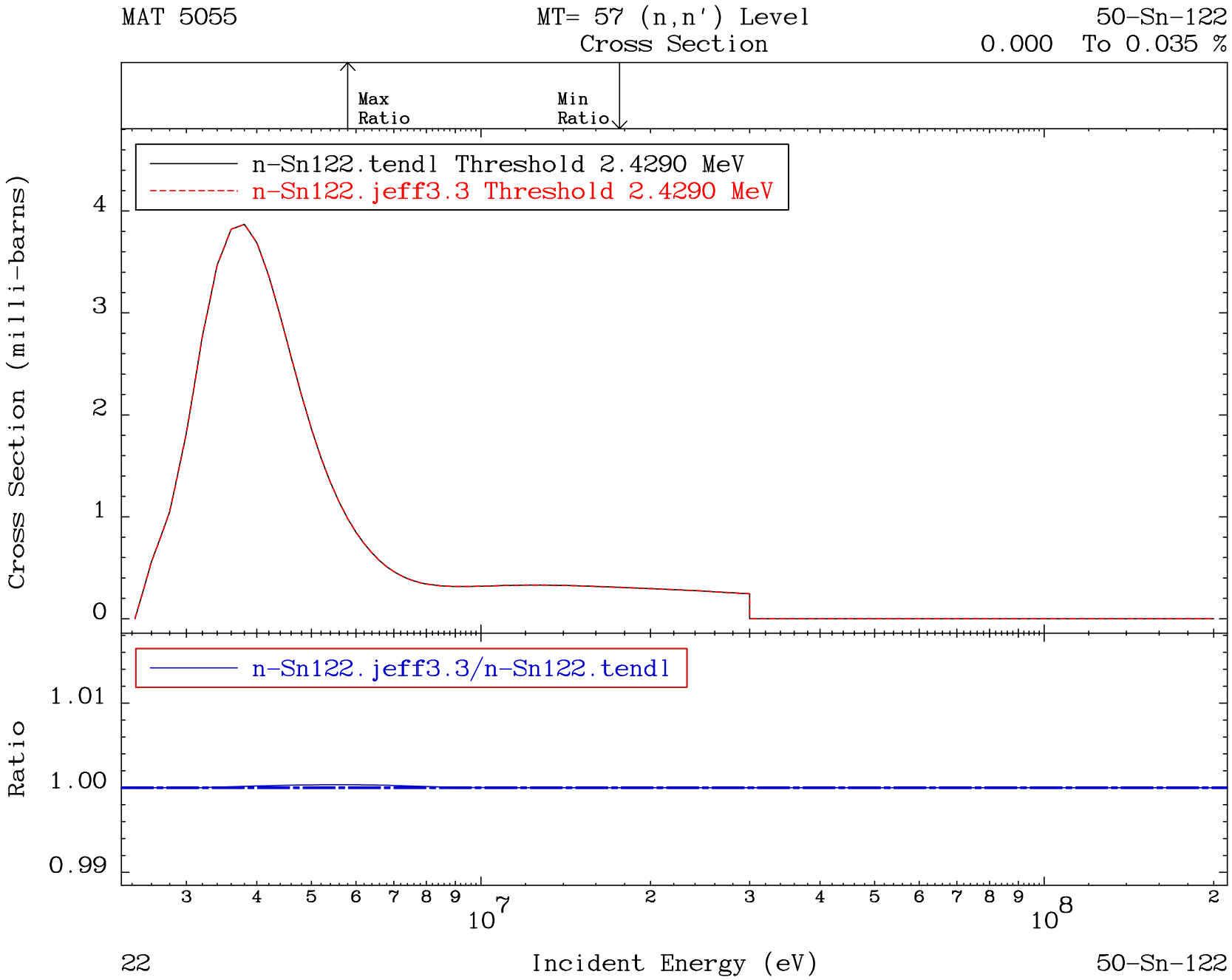

MAT 5055
MT= 52 (n,n') Level
Cross Section
50-Sn-122
-0.053 To 0.152 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.1050 MeV
n-Sn122.jeff3.3 Threshold 2.1050 MeV
Cross Section (milli-barns)
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
17
Incident Energy (eV)
50-Sn-122

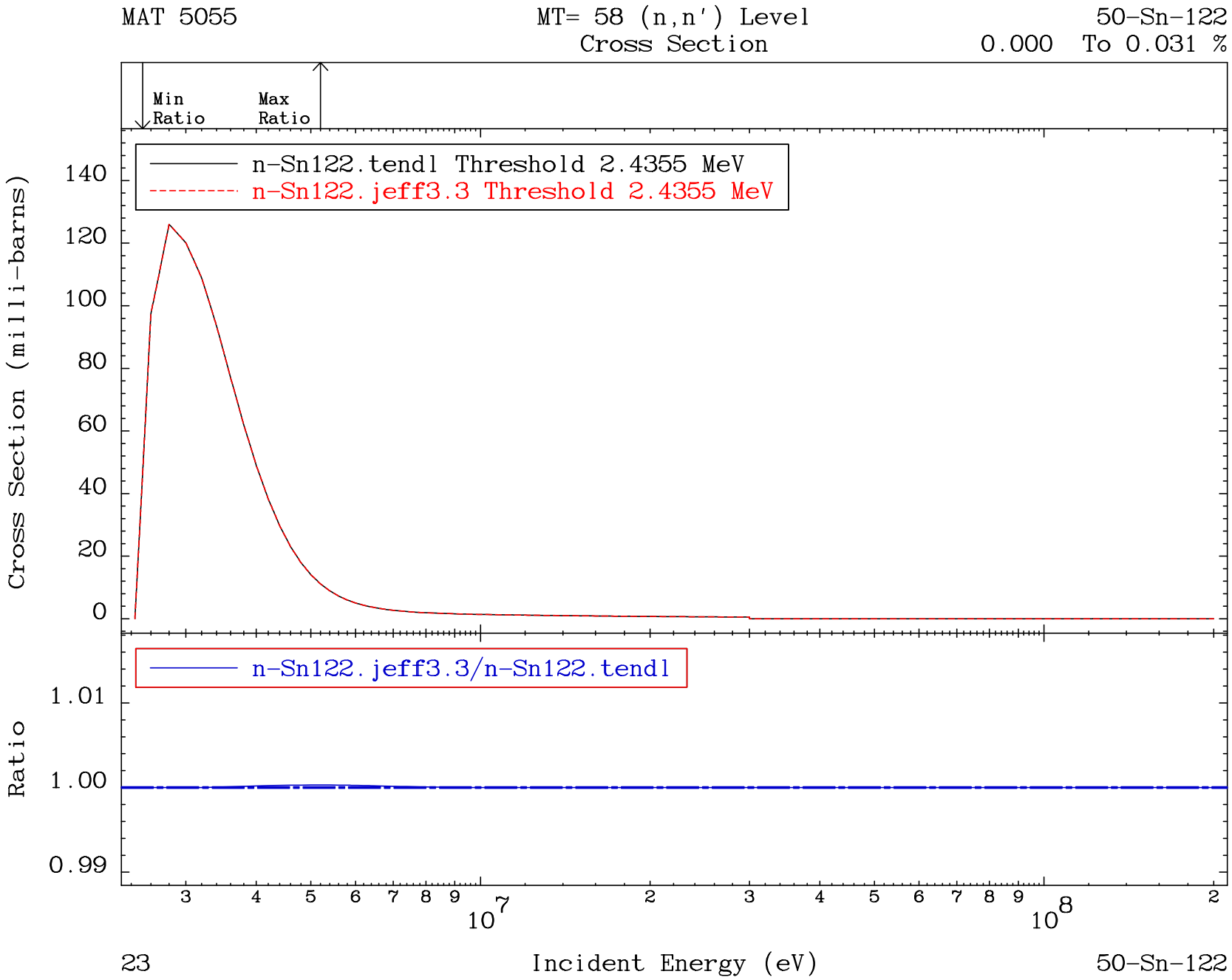

MAT 5055
MT= 53 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.016 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.1598 MeV
n-Sn122.jeff3.3 Threshold 2.1598 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
50-Sn-122

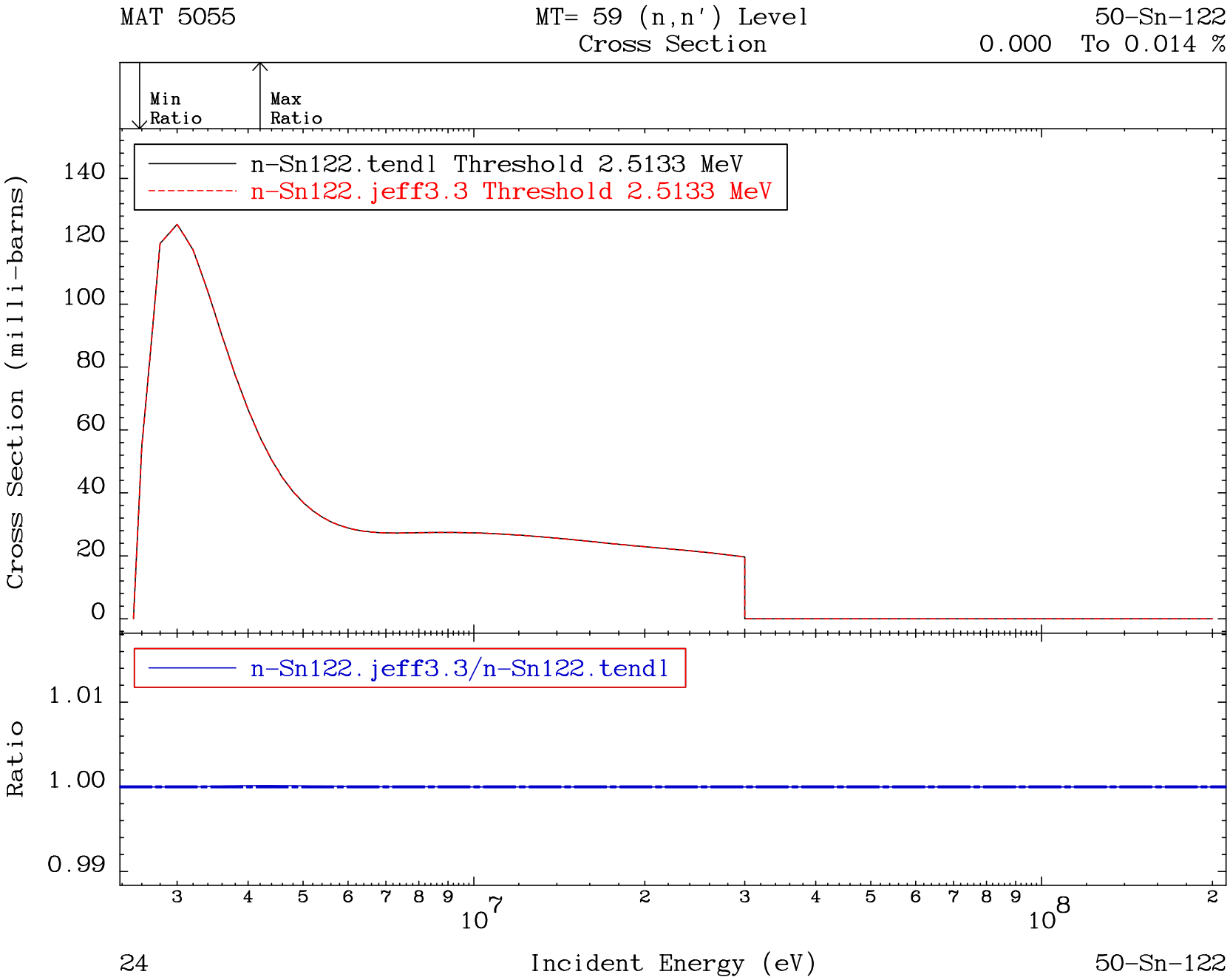

MAT 5055
MT= 54 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.030 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.1716 MeV
n-Sn122.jeff3.3 Threshold 2.1716 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
50-Sn-122

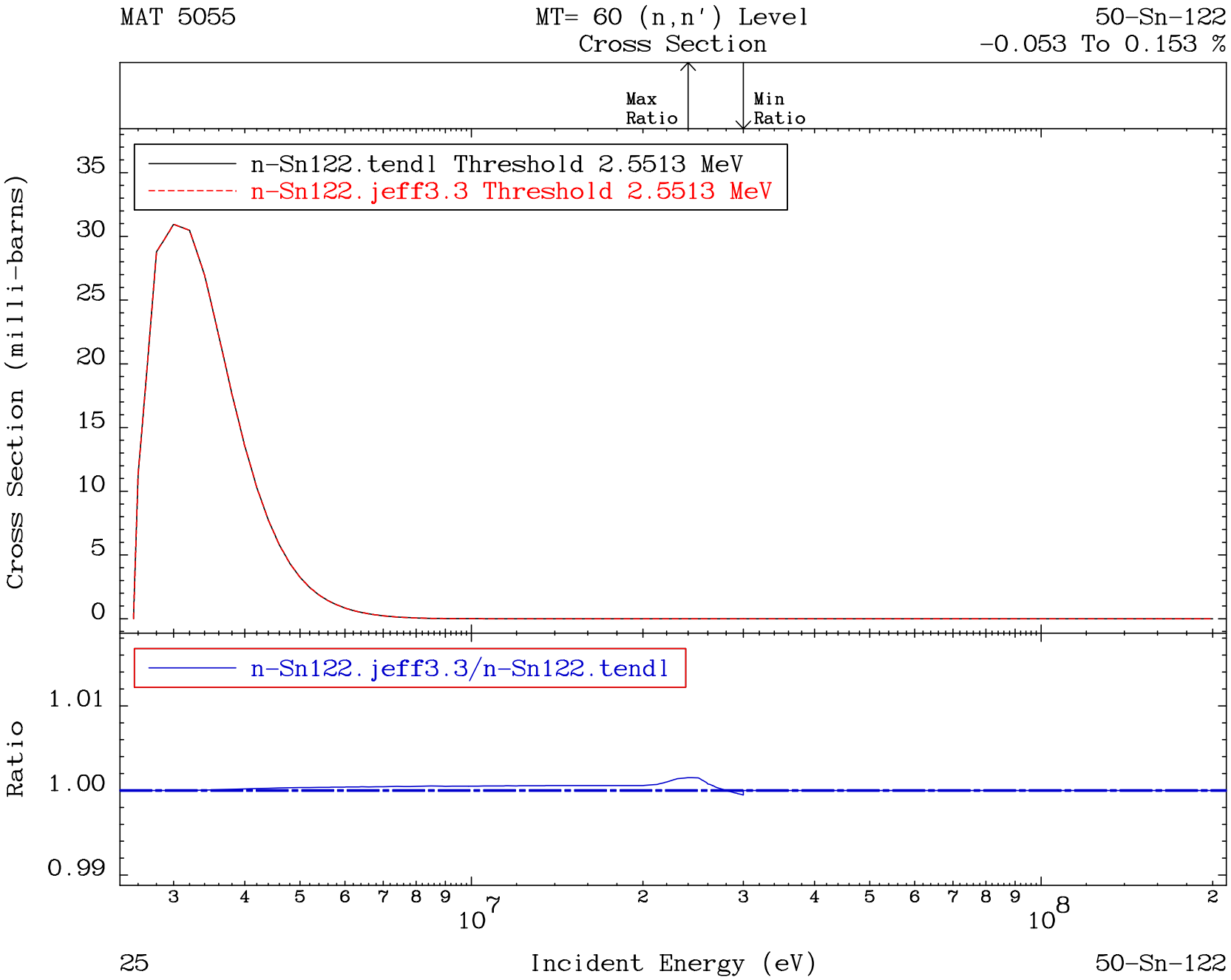

MAT 5055
MT= 55 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.036 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.2644 MeV
n-Sn122.jeff3.3 Threshold 2.2644 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
20
Incident Energy (eV)
50-Sn-122

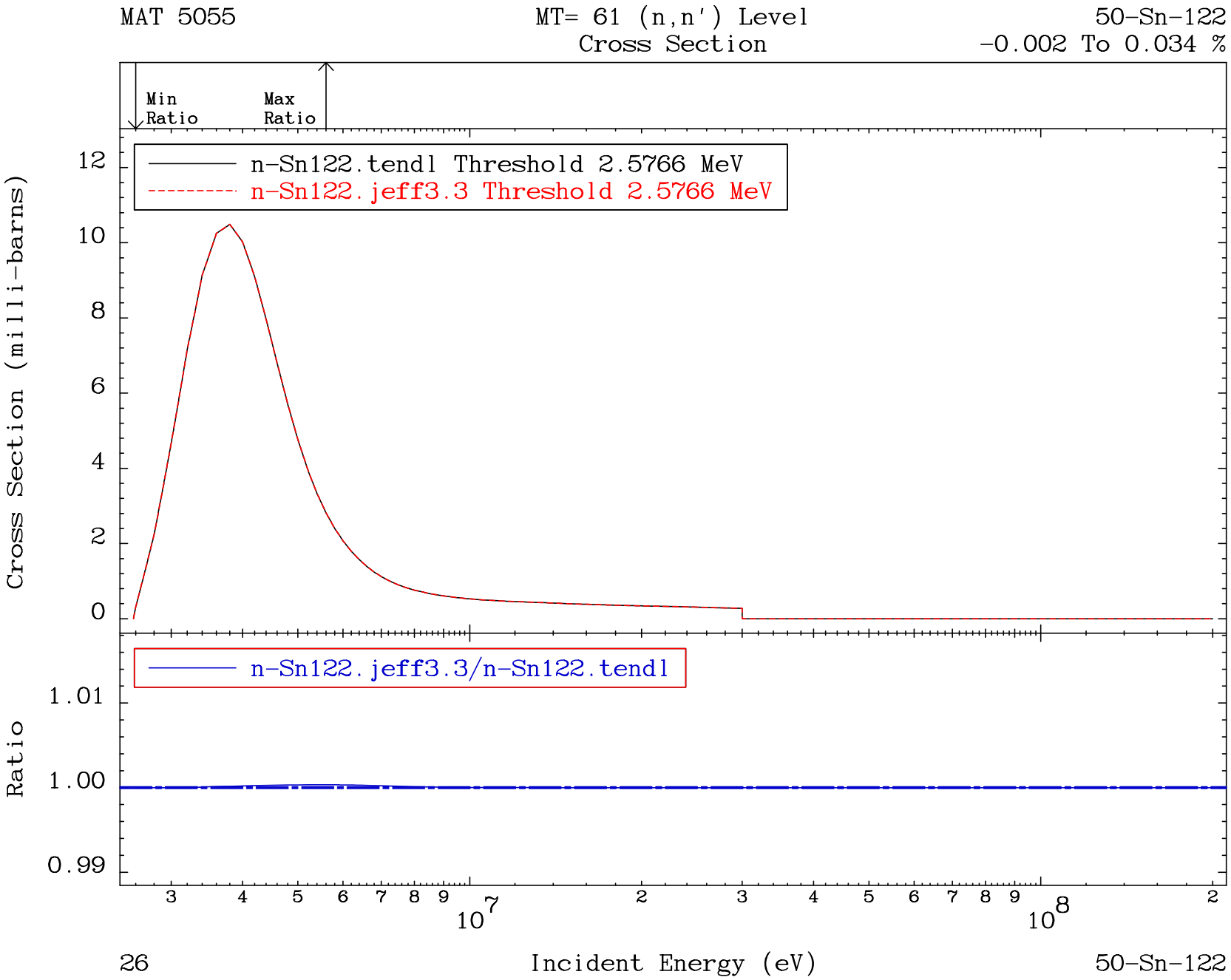

MAT 5055
MT= 56 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.013 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.3504 MeV
n-Sn122.jeff3.3 Threshold 2.3504 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
50-Sn-122

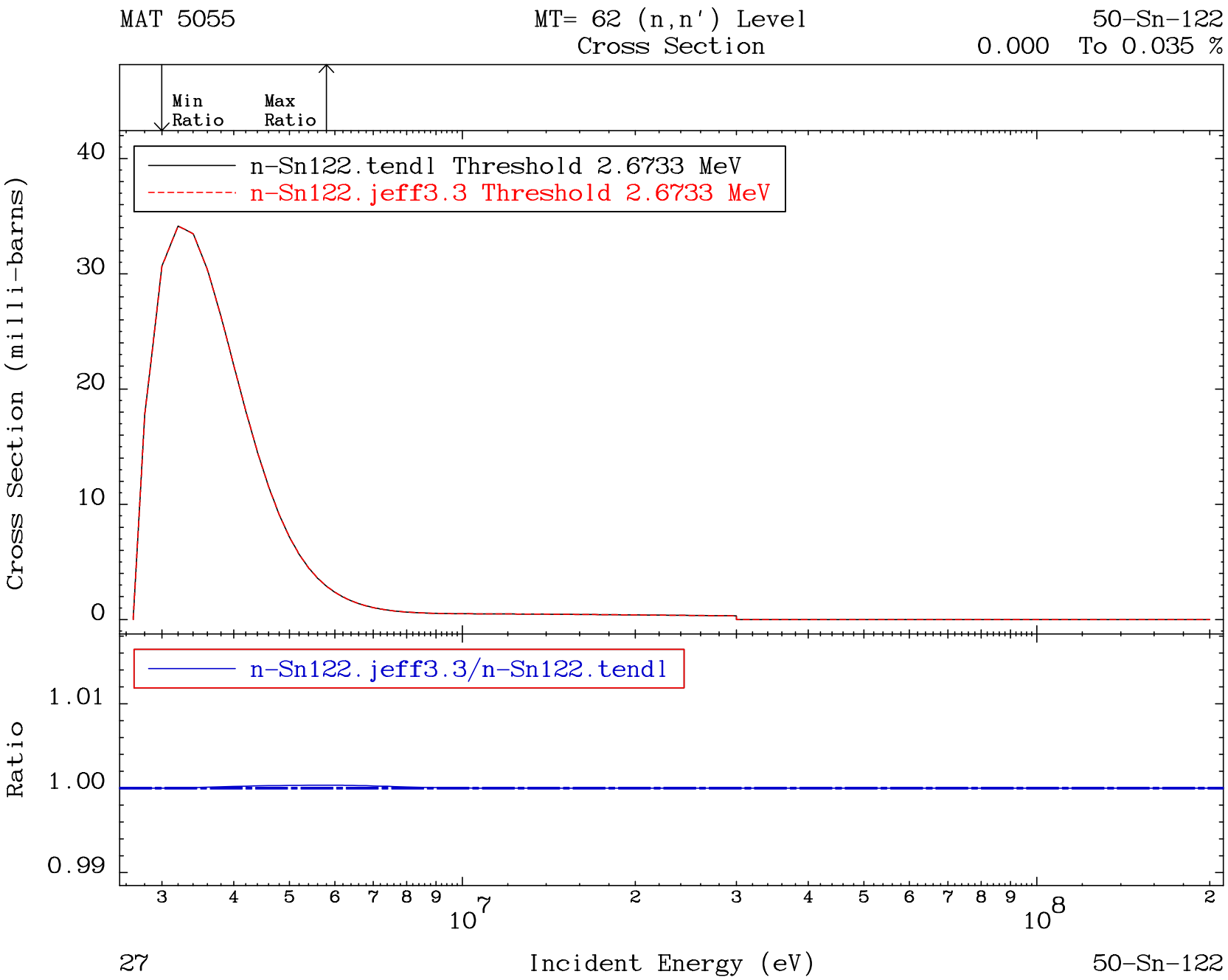

MAT 5055
MT= 57 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.035 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.4290 MeV
n-Sn122.jeff3.3 Threshold 2.4290 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
22
50-Sn-122

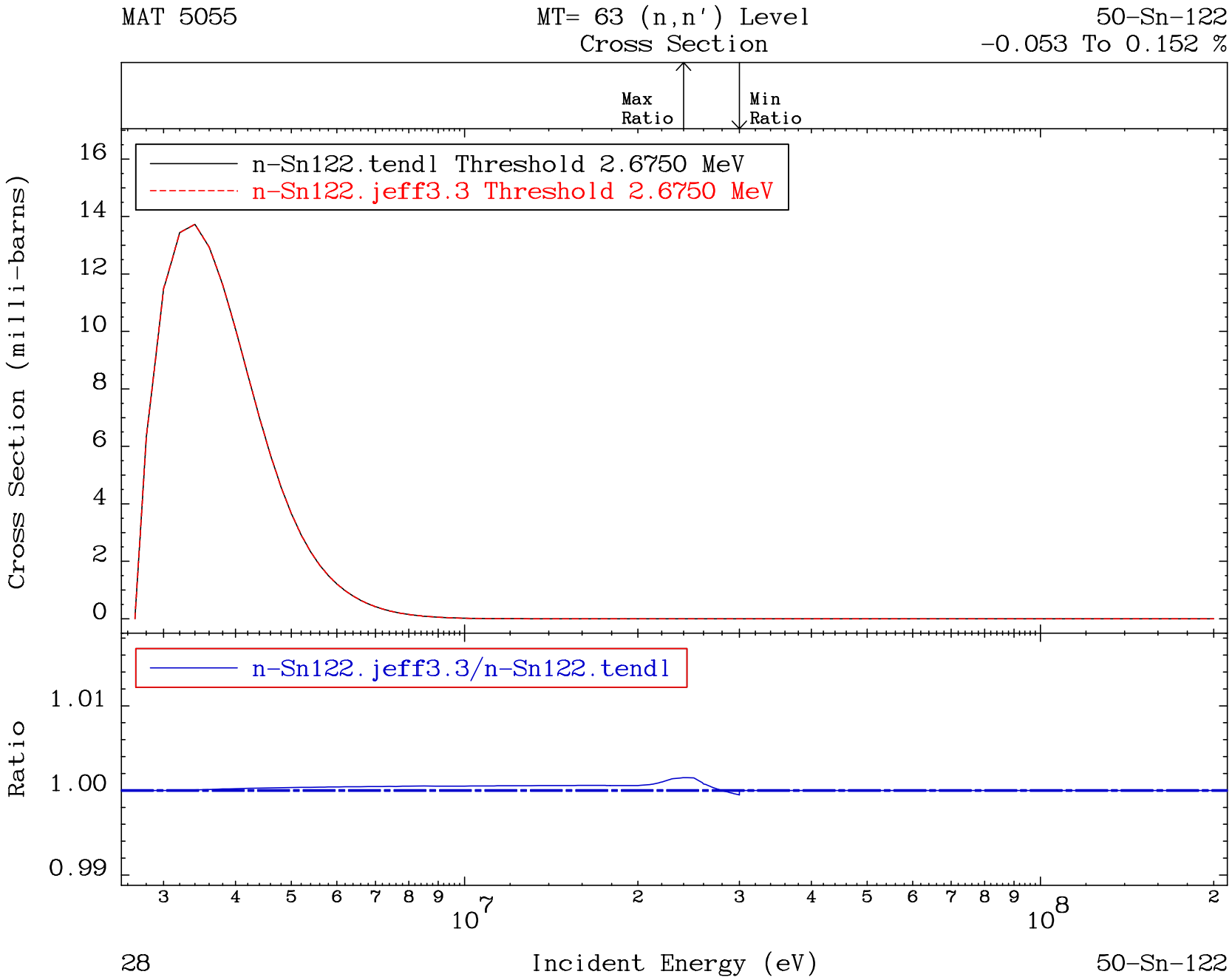

MAT 5055
MT= 58 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.031 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.4355 MeV
n-Sn122.jeff3.3 Threshold 2.4355 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
50-Sn-122

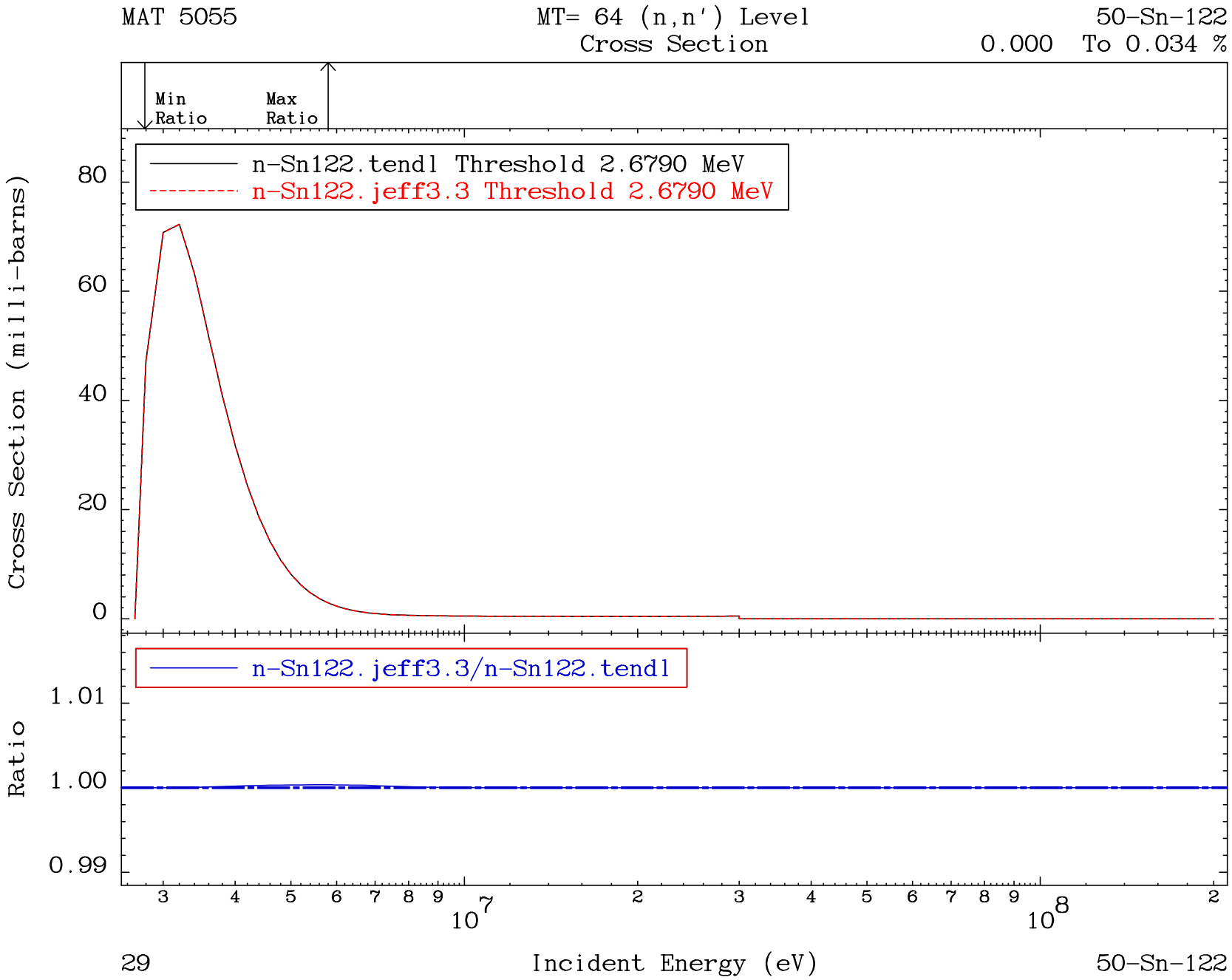

MAT 5055
MT= 59 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.014 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.5133 MeV
n-Sn122.jeff3.3 Threshold 2.5133 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
50-Sn-122

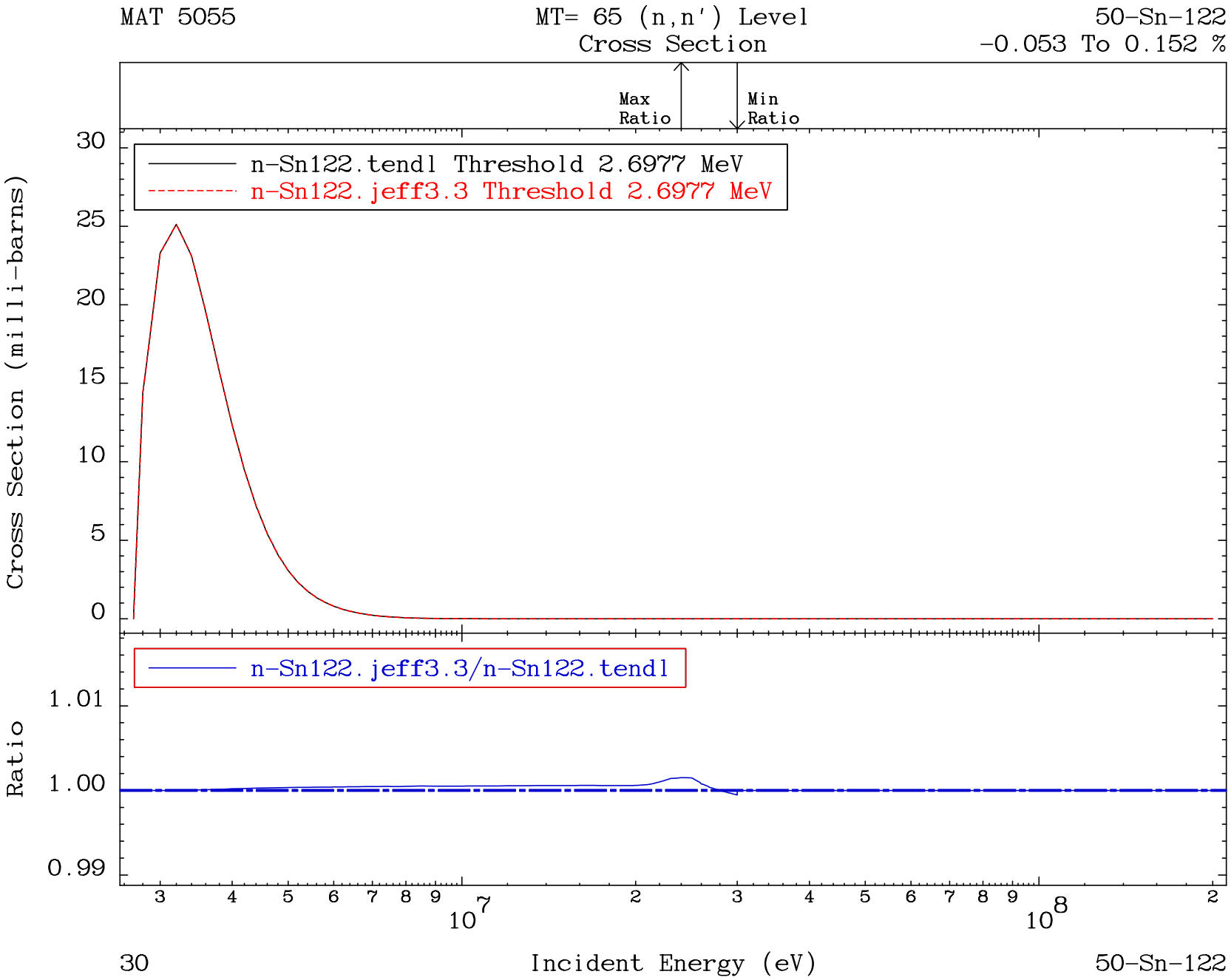

MAT 5055
MT= 60 (n,n') Level
Cross Section
50-Sn-122
-0.053 To 0.153 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.5513 MeV
n-Sn122.jeff3.3 Threshold 2.5513 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
50-Sn-122

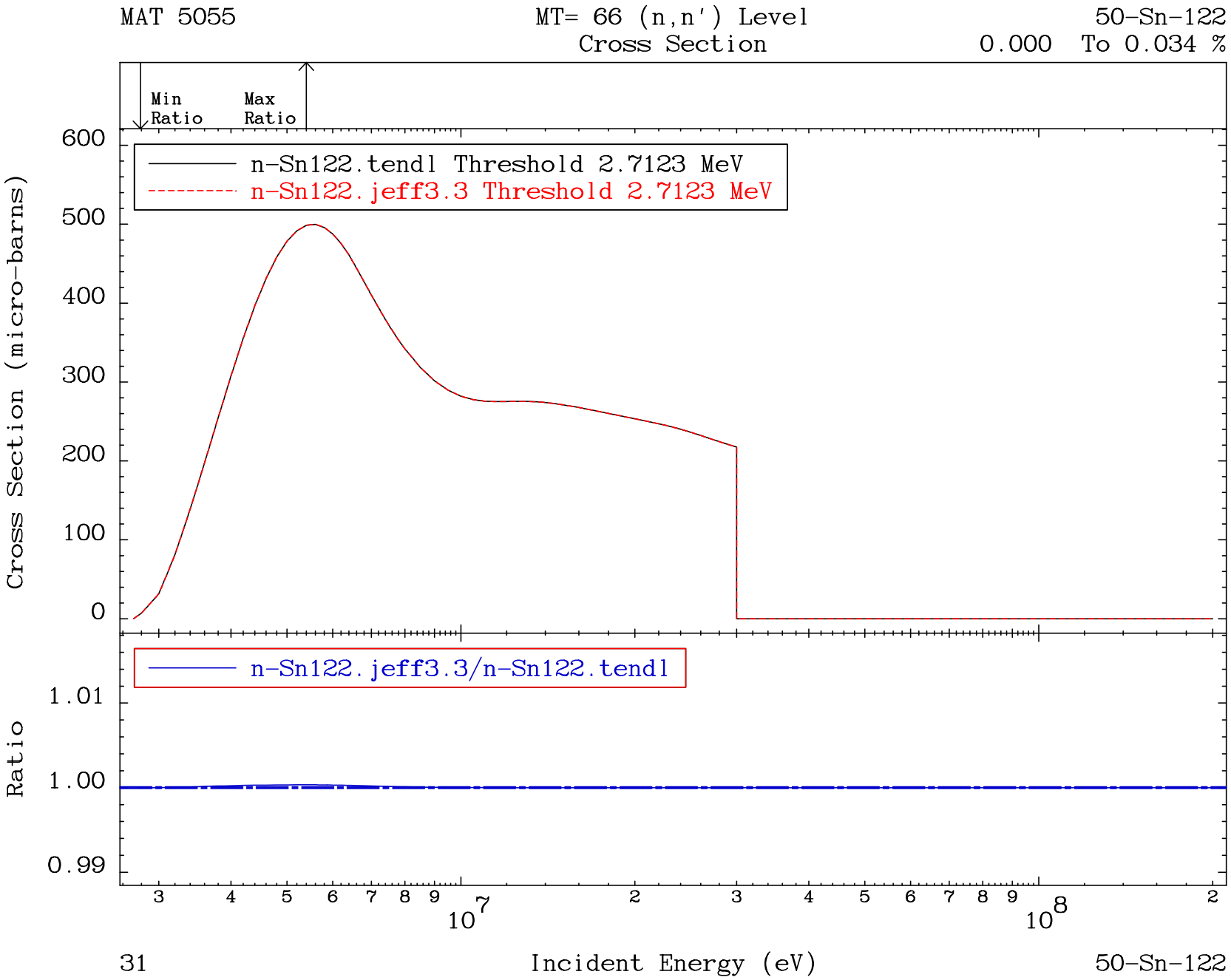

MAT 5055
MT= 61 (n,n') Level
Cross Section
50-Sn-122
-0.002 To 0.034 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.5766 MeV
n-Sn122.jeff3.3 Threshold 2.5766 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
50-Sn-122

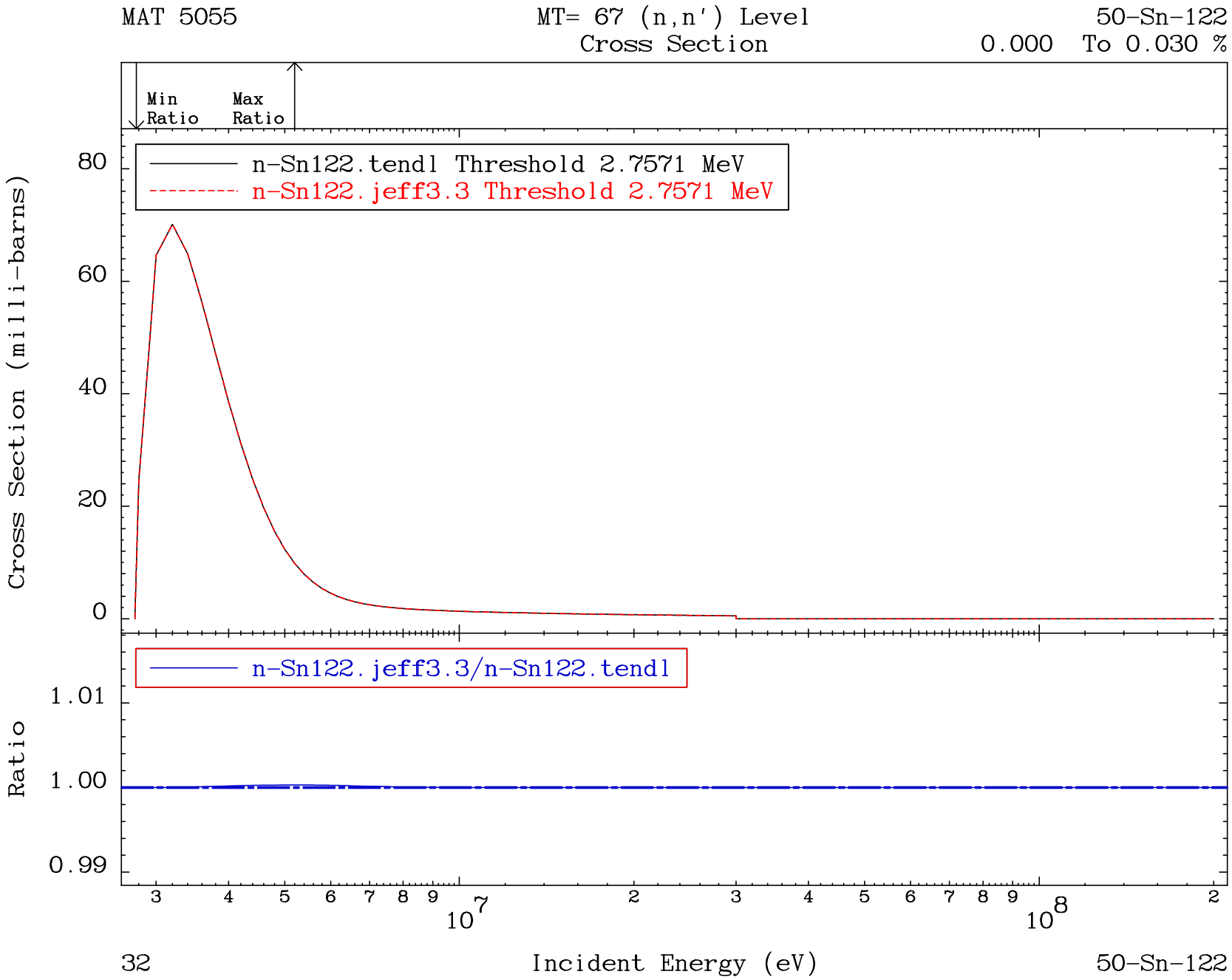

MAT 5055
MT= 62 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.035 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.6733 MeV
n-Sn122.jeff3.3 Threshold 2.6733 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
50-Sn-122

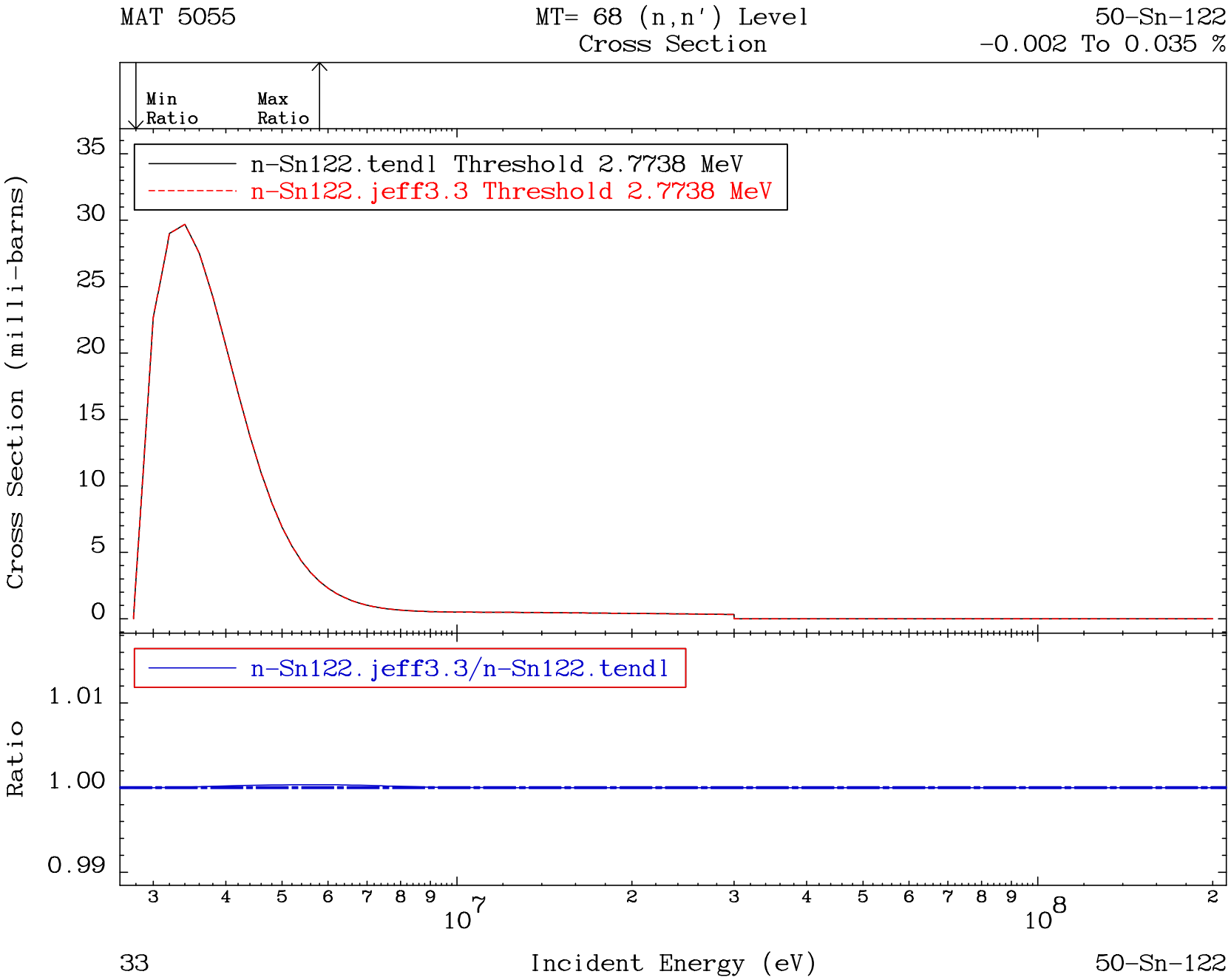

MAT 5055
MT= 63 (n,n') Level
Cross Section
50-Sn-122
-0.053 To 0.152 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.6750 MeV
n-Sn122.jeff3.3 Threshold 2.6750 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
28
Incident Energy (eV)
50-Sn-122

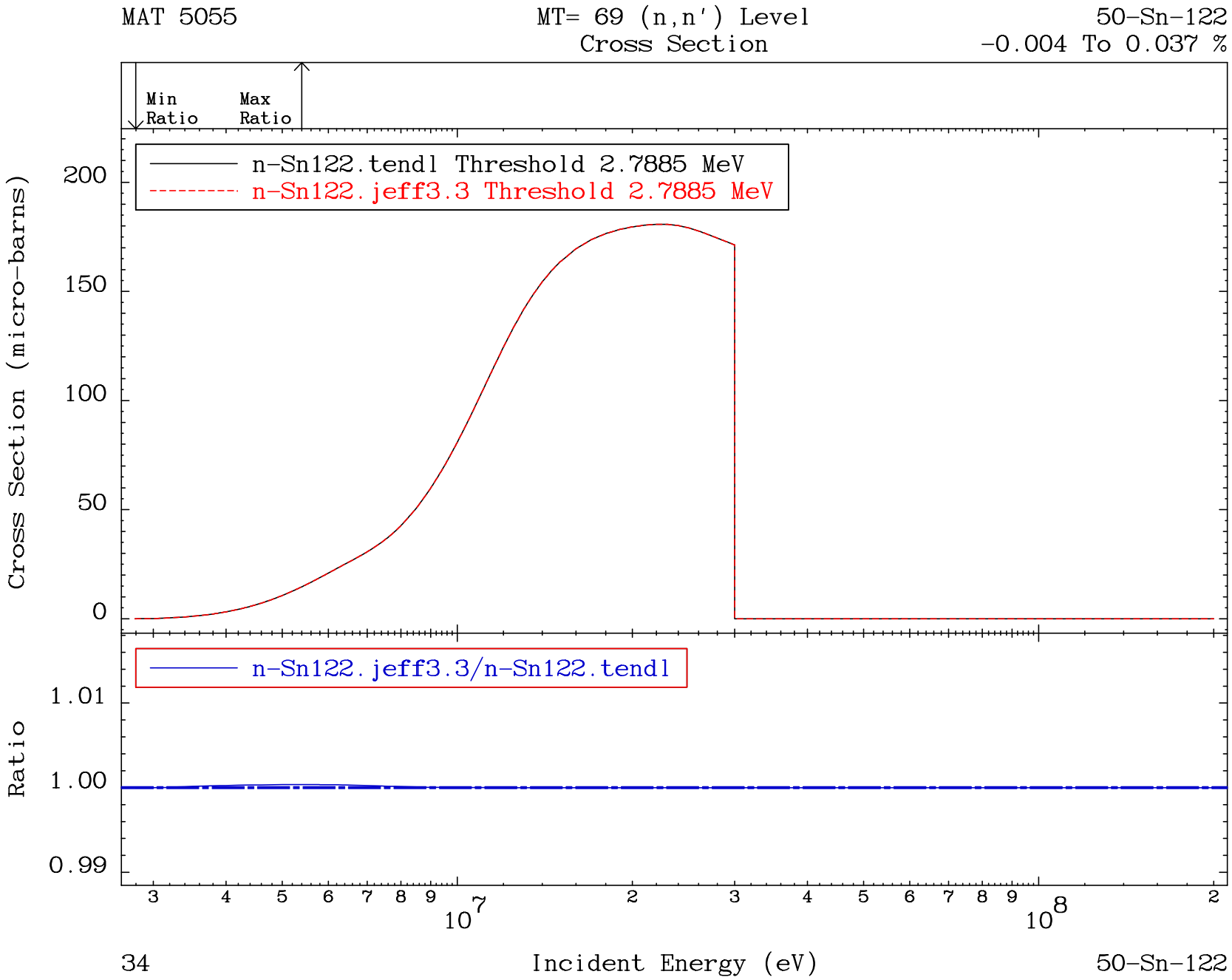

MAT 5055
MT= 64 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.034 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.6790 MeV
n-Sn122.jeff3.3 Threshold 2.6790 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
29
Incident Energy (eV)
50-Sn-122

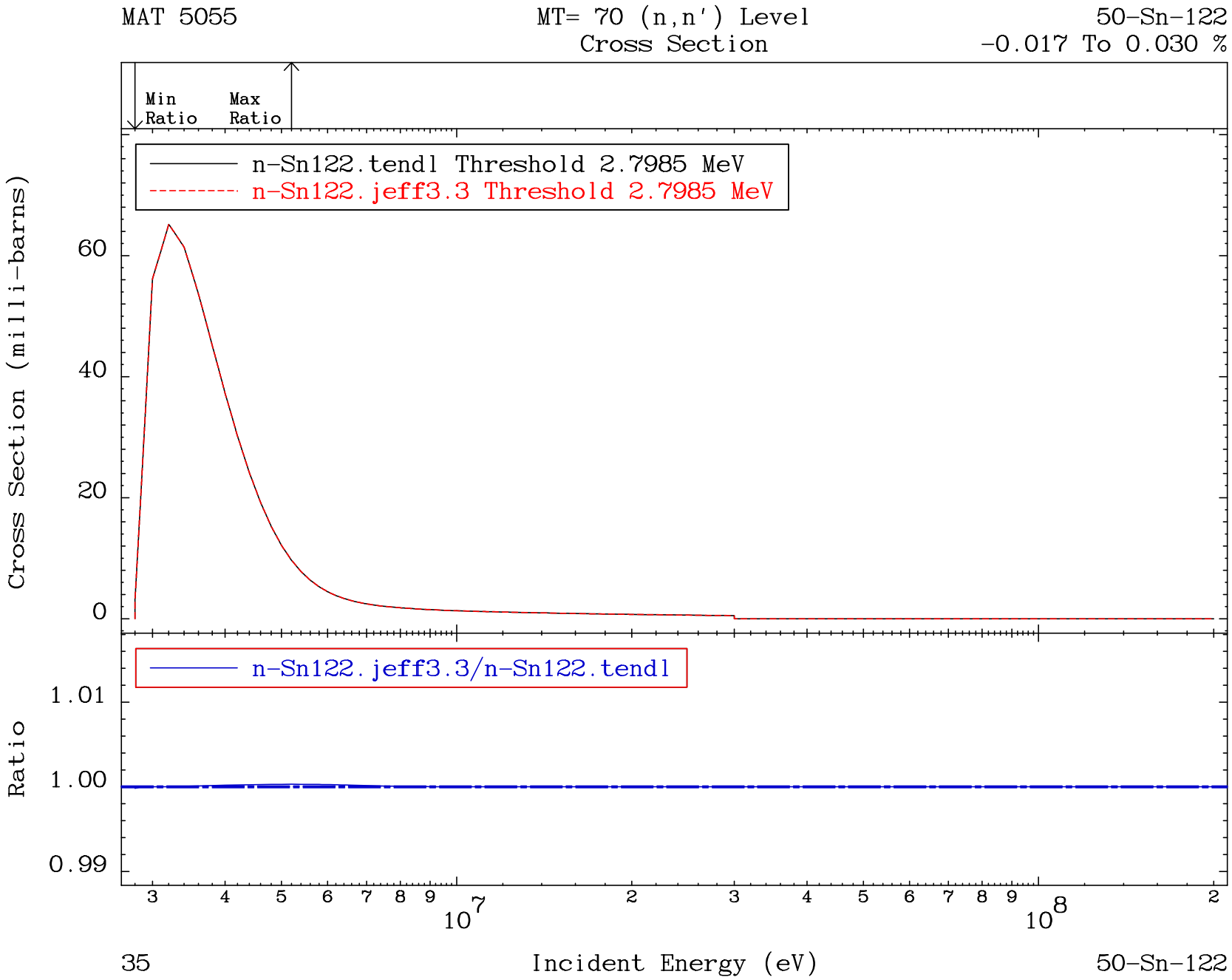

MAT 5055
MT= 65 (n,n') Level
Cross Section
50-Sn-122
-0.053 To 0.152 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.6977 MeV
n-Sn122.jeff3.3 Threshold 2.6977 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
30
Incident Energy (eV)
50-Sn-122

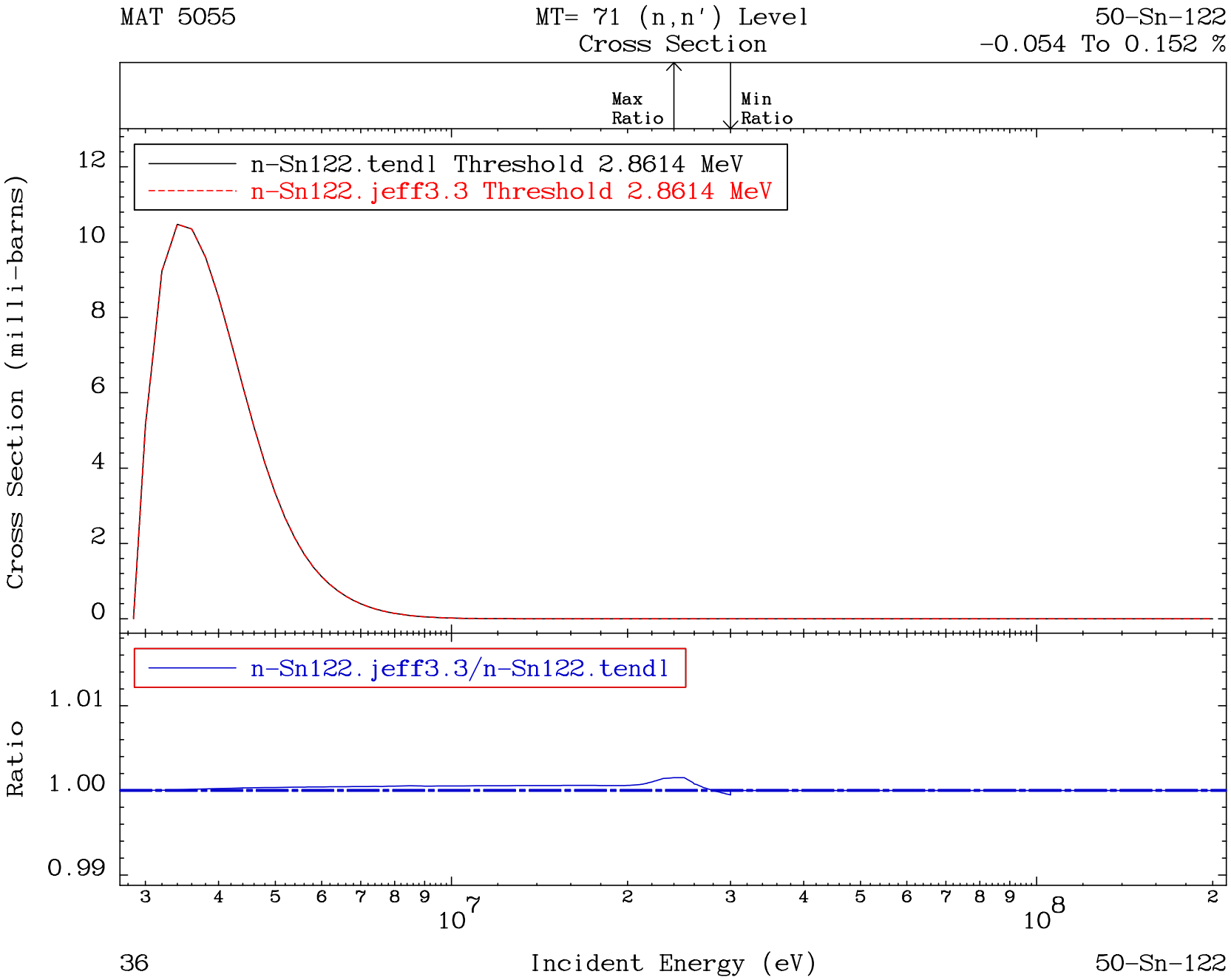

MAT 5055
MT= 66 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.034 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.7123 MeV
n-Sn122.jeff3.3 Threshold 2.7123 MeV
Cross Section (micro-barns)
600
500
400
300
200
100
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
50-Sn-122

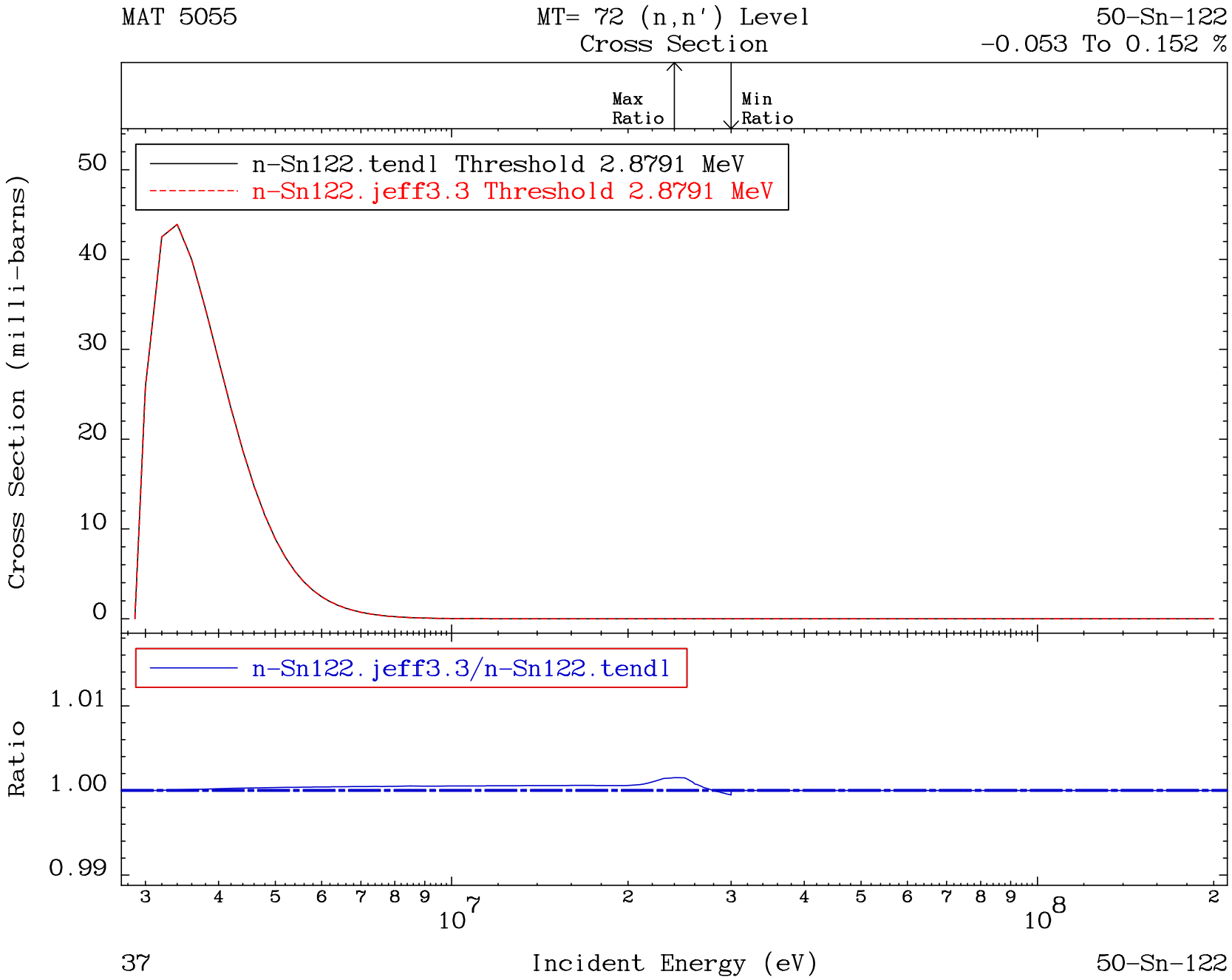

MAT 5055
MT= 67 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.030 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.7571 MeV
n-Sn122.jeff3.3 Threshold 2.7571 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
32
Incident Energy (eV)
50-Sn-122

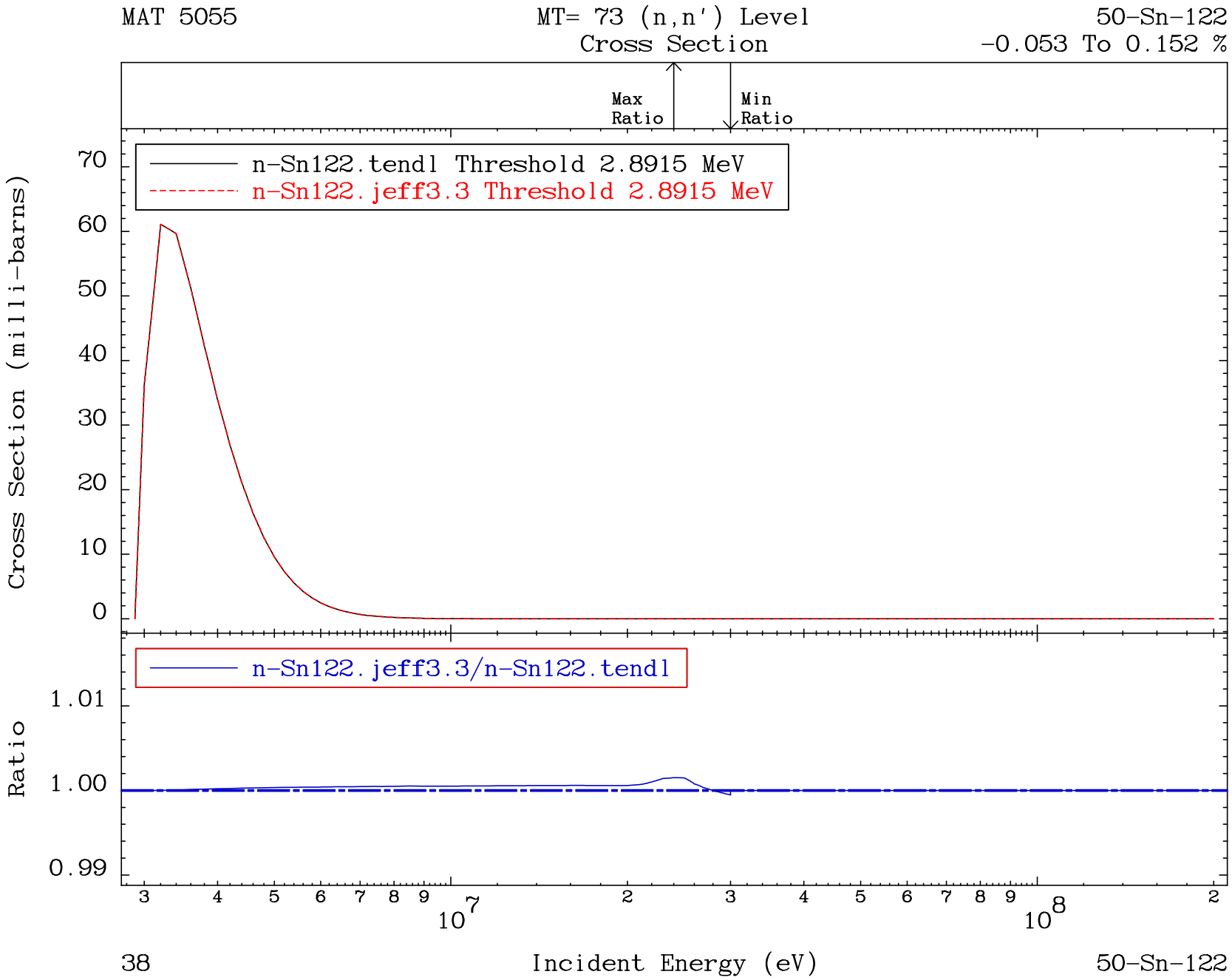

MAT 5055
MT= 68 (n,n') Level
Cross Section
50-Sn-122
-0.002 To 0.035 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.7738 MeV
n-Sn122.jeff3.3 Threshold 2.7738 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
33
Incident Energy (eV)
50-Sn-122

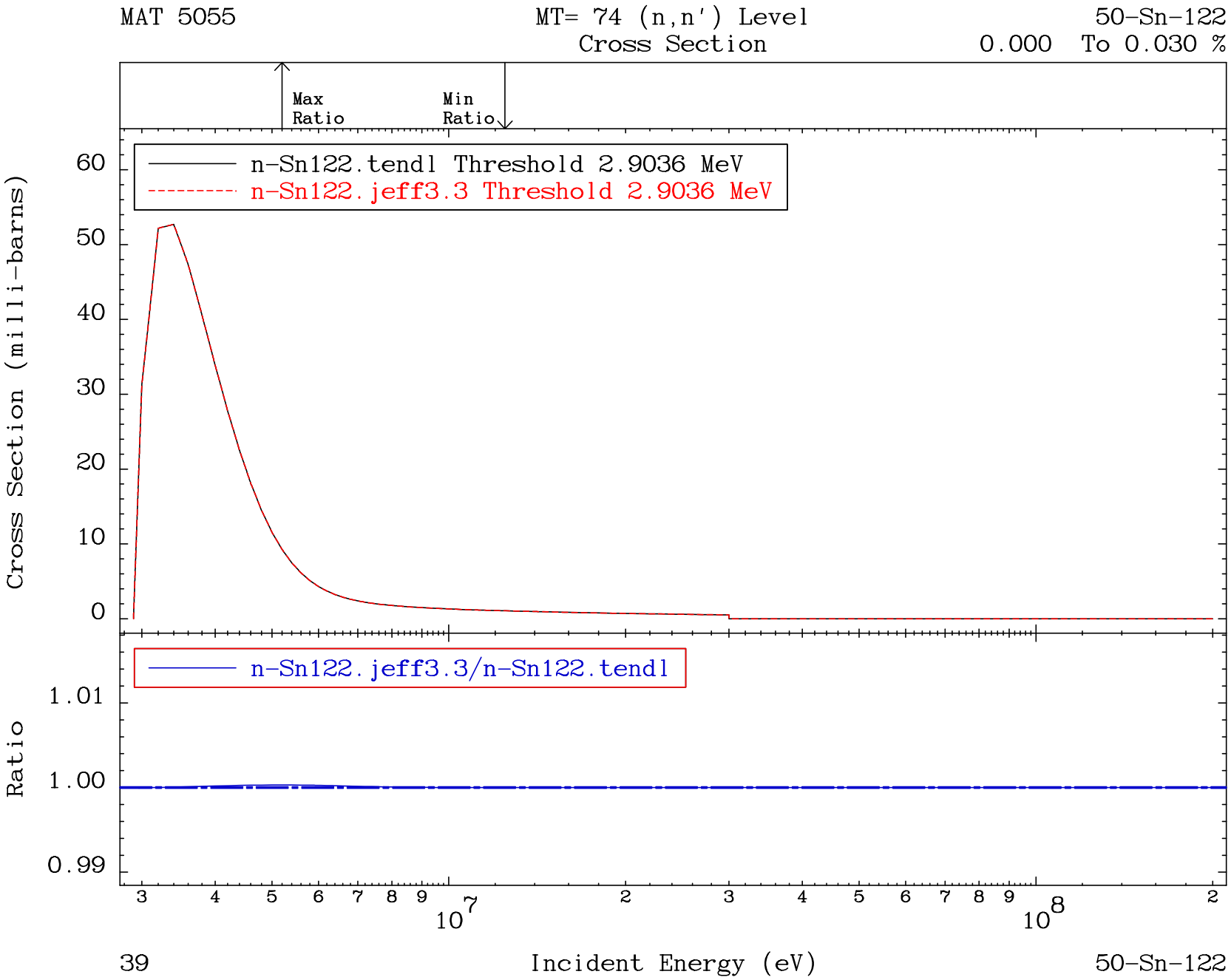

MAT 5055
MT= 69 (n,n') Level
Cross Section
50-Sn-122
-0.004 To 0.037 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.7885 MeV
n-Sn122.jeff3.3 Threshold 2.7885 MeV
Cross Section (micro-barns)
200
150
100
50
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
34
Incident Energy (eV)
50-Sn-122

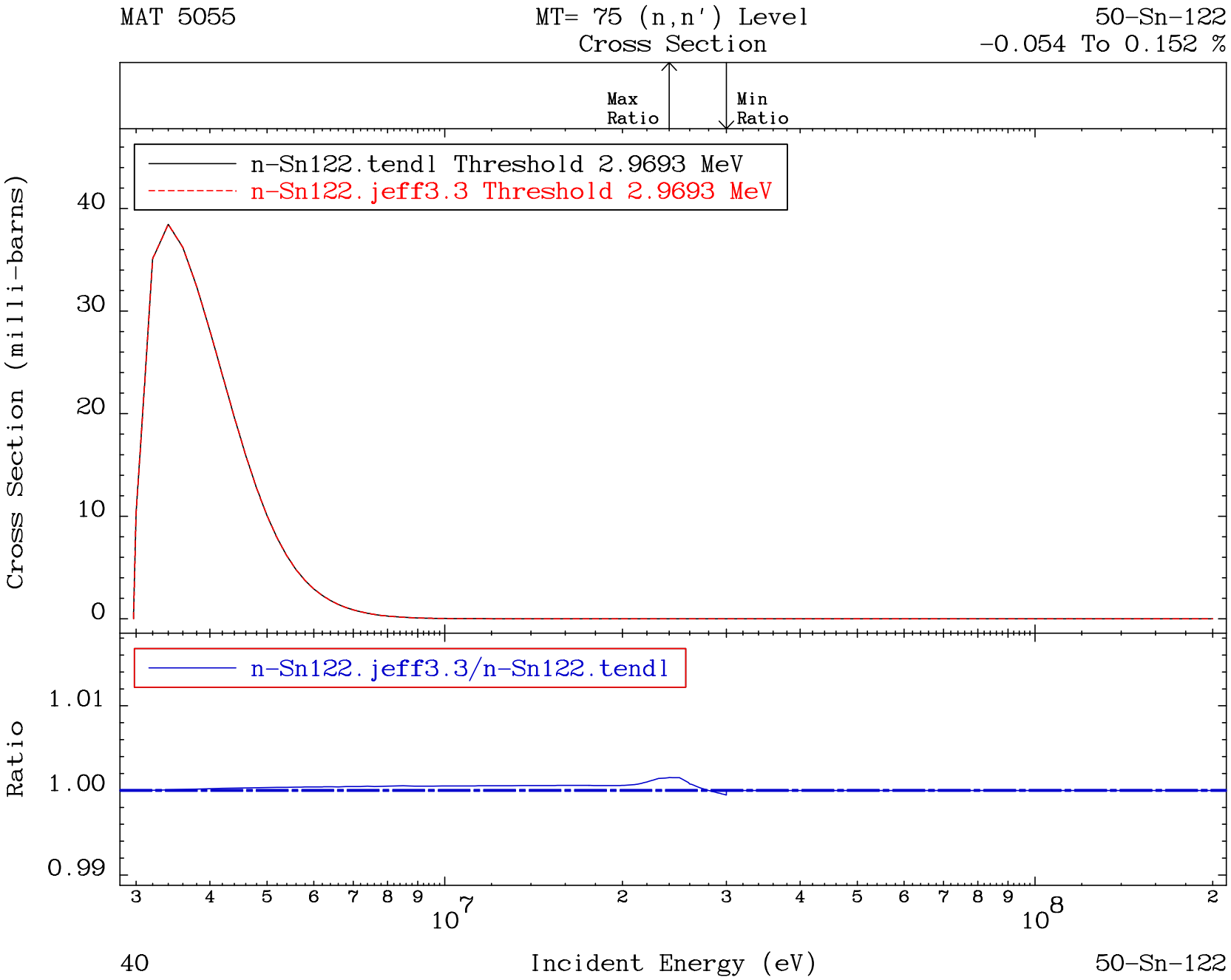

MAT 5055
MT= 70 (n,n') Level
Cross Section
50-Sn-122
-0.017 To 0.030 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 2.7985 MeV
n-Sn122.jeff3.3 Threshold 2.7985 MeV
Cross Section (milli-barns)
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
35
Incident Energy (eV)
50-Sn-122

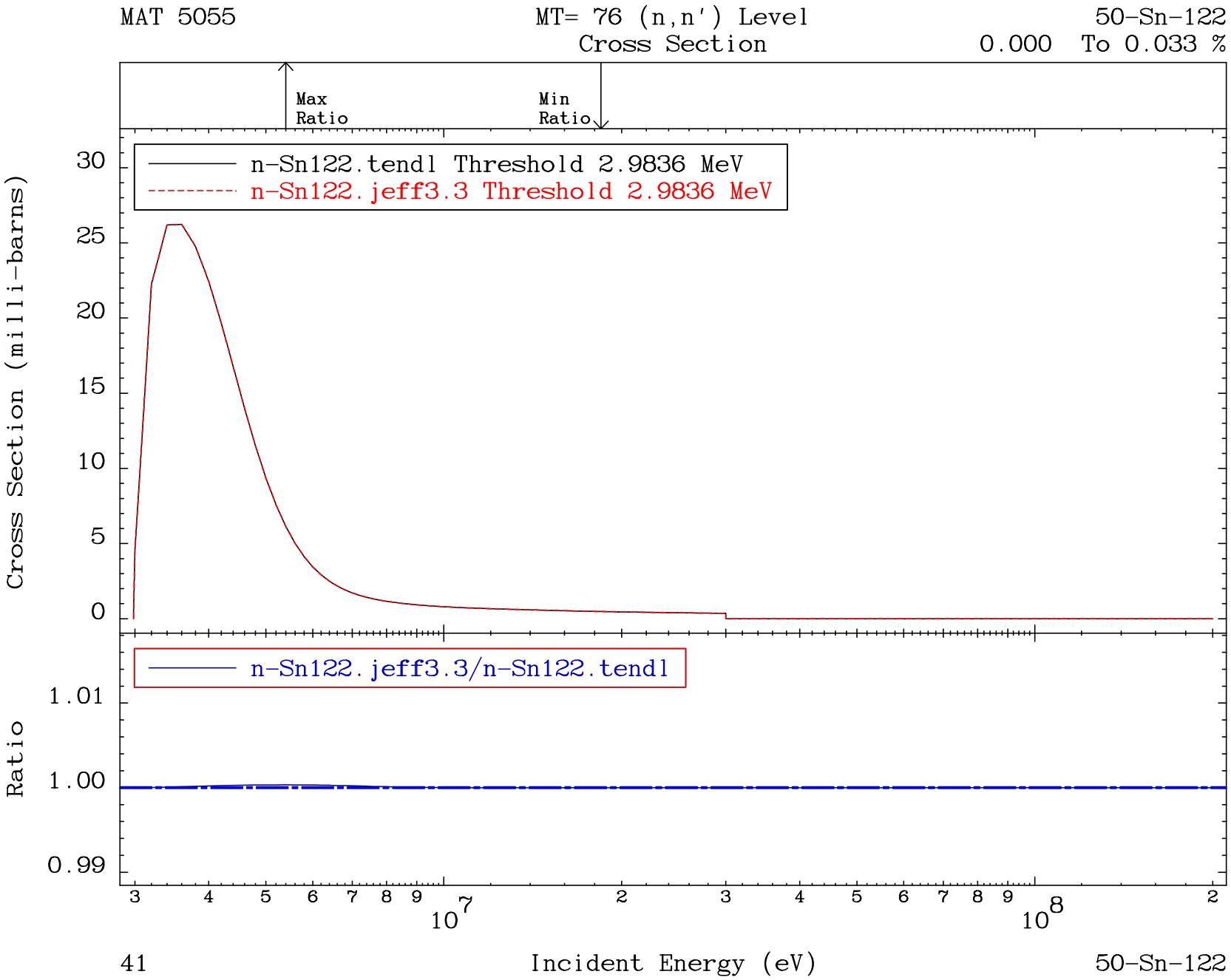

MAT 5055
MT= 71 (n,n') Level
Cross Section
50-Sn-122
-0.054 To 0.152 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.8614 MeV
n-Sn122.jeff3.3 Threshold 2.8614 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
36
Incident Energy (eV)
50-Sn-122

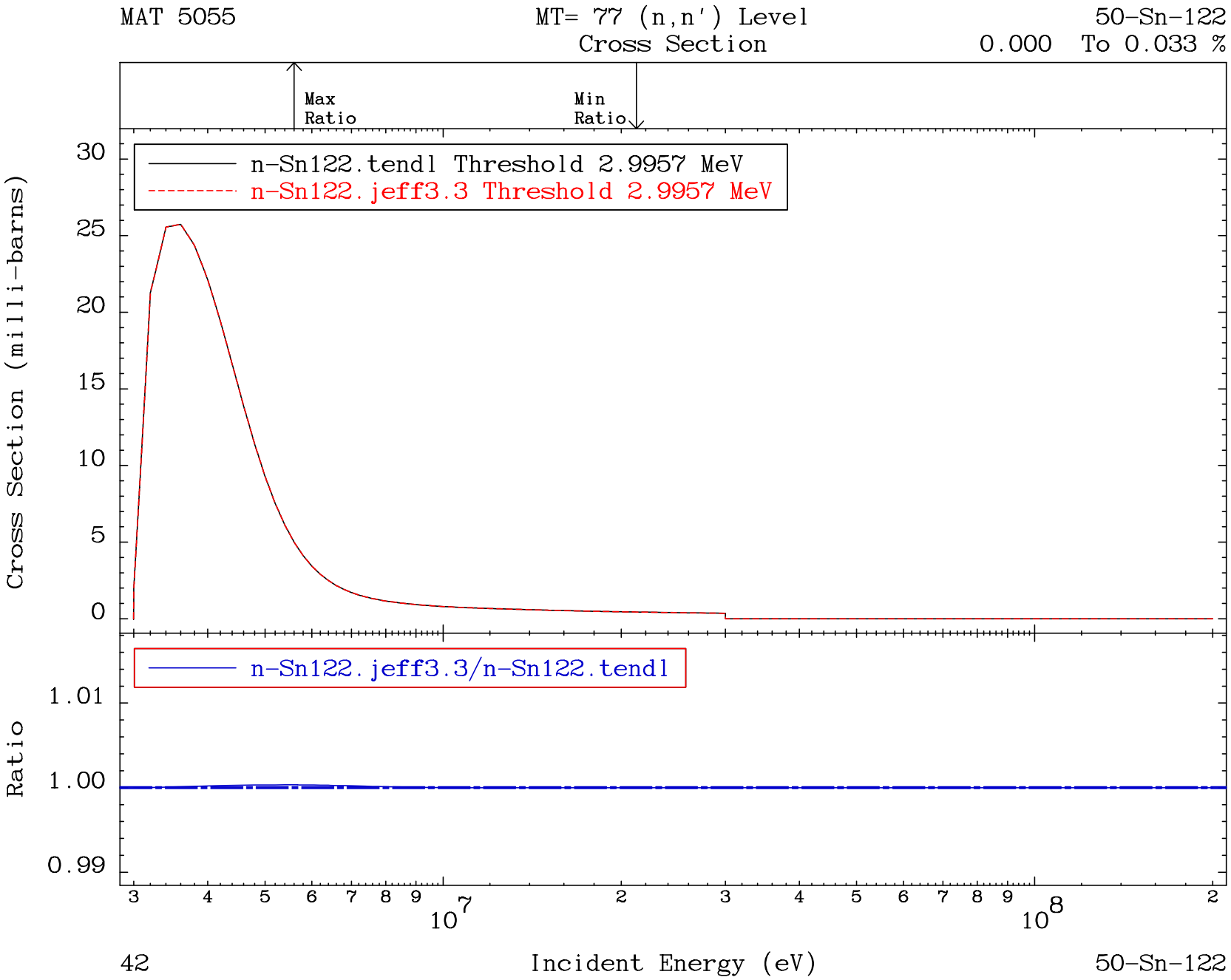

MAT 5055
MT= 72 (n,n') Level
Cross Section
50-Sn-122
-0.053 To 0.152 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.8791 MeV
n-Sn122.jeff3.3 Threshold 2.8791 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
50-Sn-122

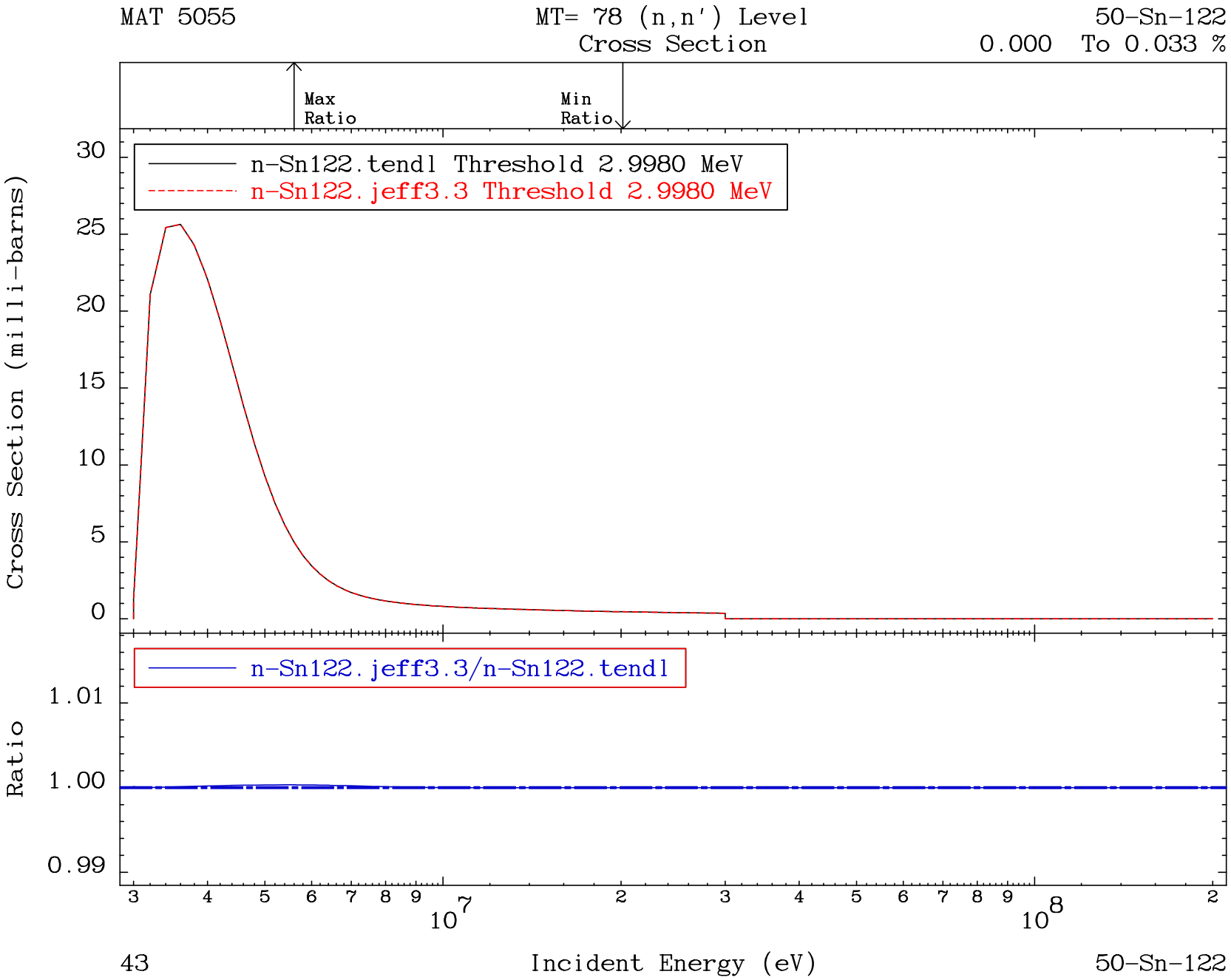

MAT 5055
MT= 73 (n,n') Level
Cross Section
50-Sn-122
-0.053 To 0.152 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.8915 MeV
n-Sn122.jeff3.3 Threshold 2.8915 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
38
Incident Energy (eV)
50-Sn-122

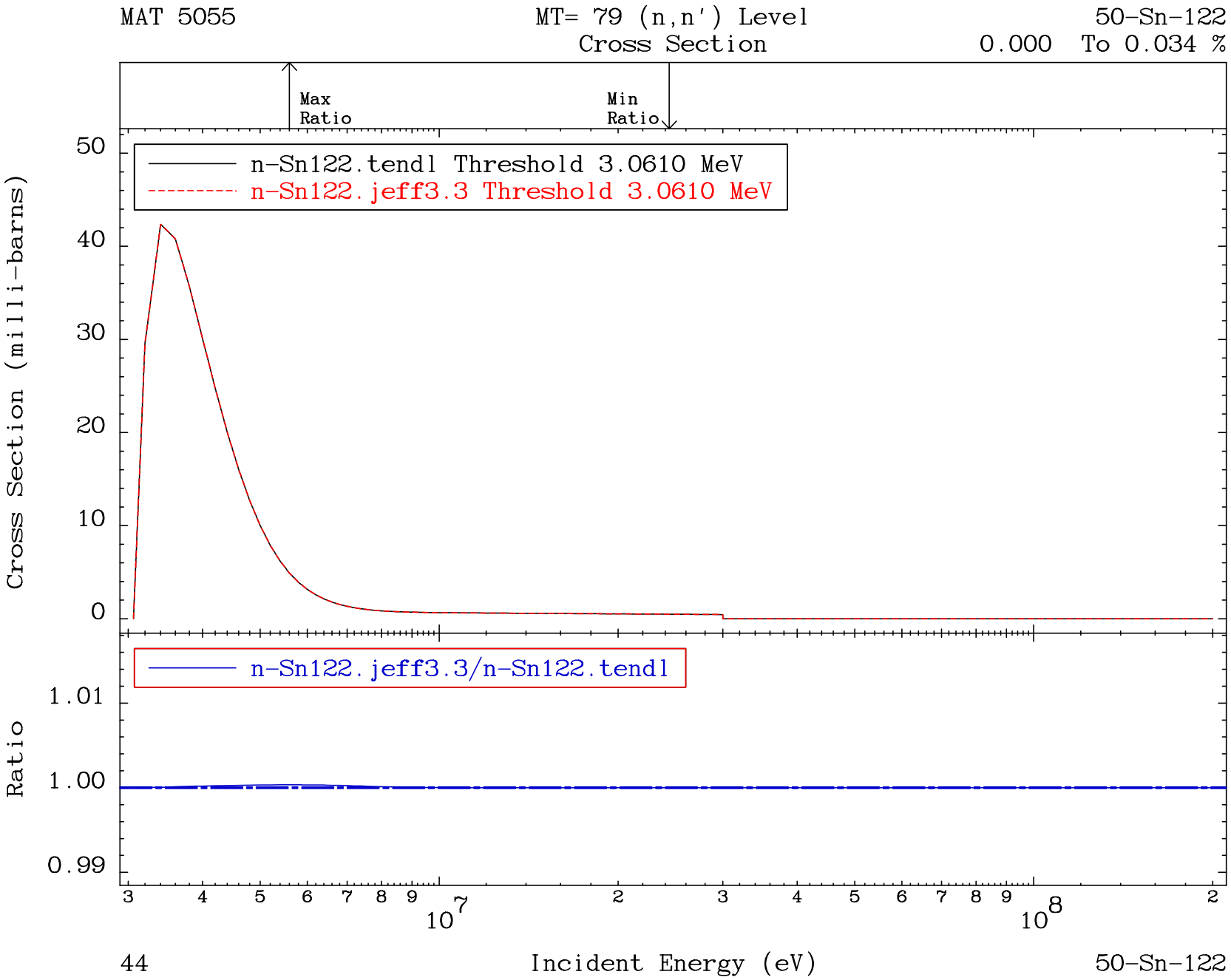

MAT 5055
MT= 74 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.030 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.9036 MeV
n-Sn122.jeff3.3 Threshold 2.9036 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
39
Incident Energy (eV)
50-Sn-122

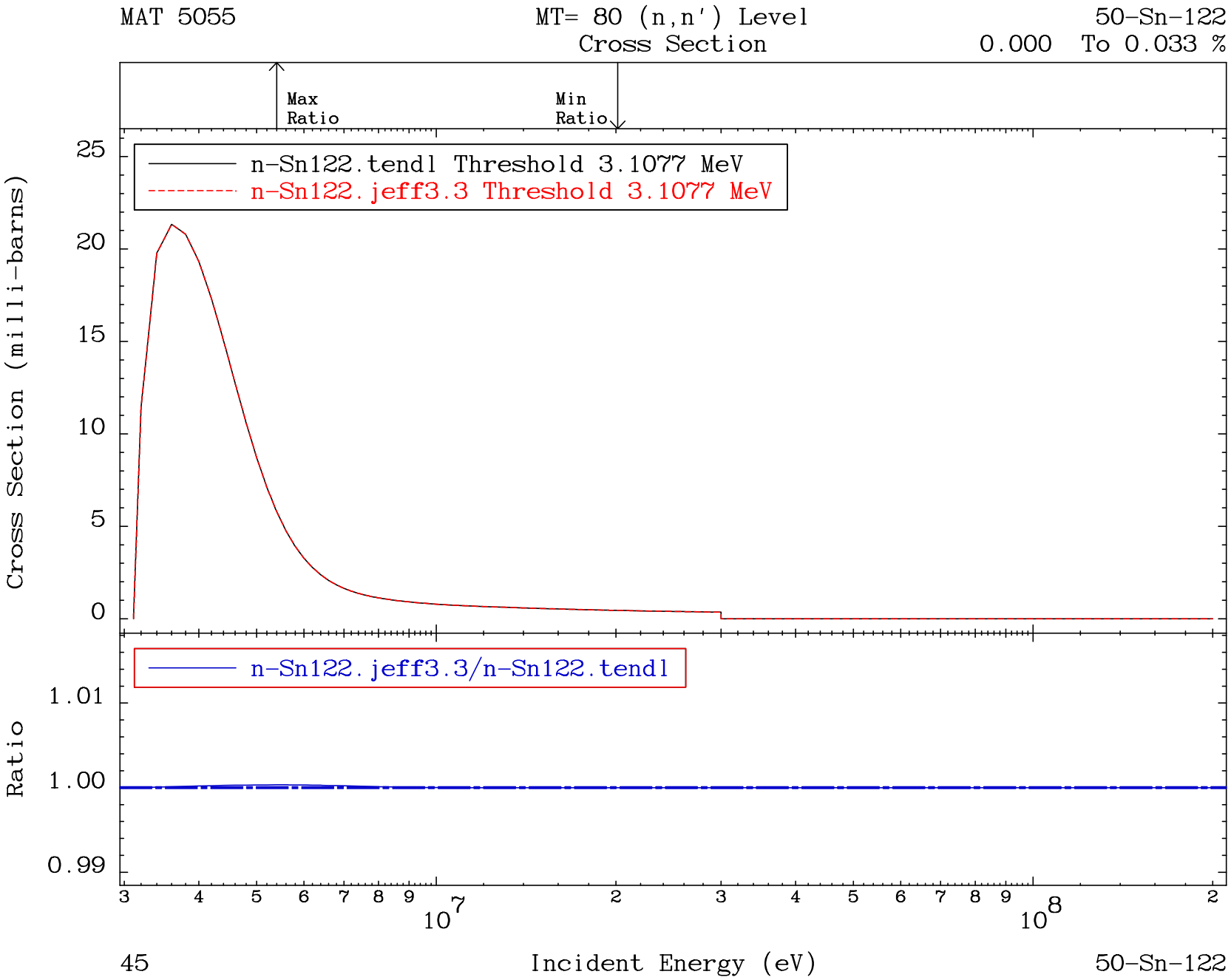

MAT 5055
MT= 75 (n,n') Level
Cross Section
50-Sn-122
-0.054 To 0.152 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.9693 MeV
n-Sn122.jeff3.3 Threshold 2.9693 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
50-Sn-122

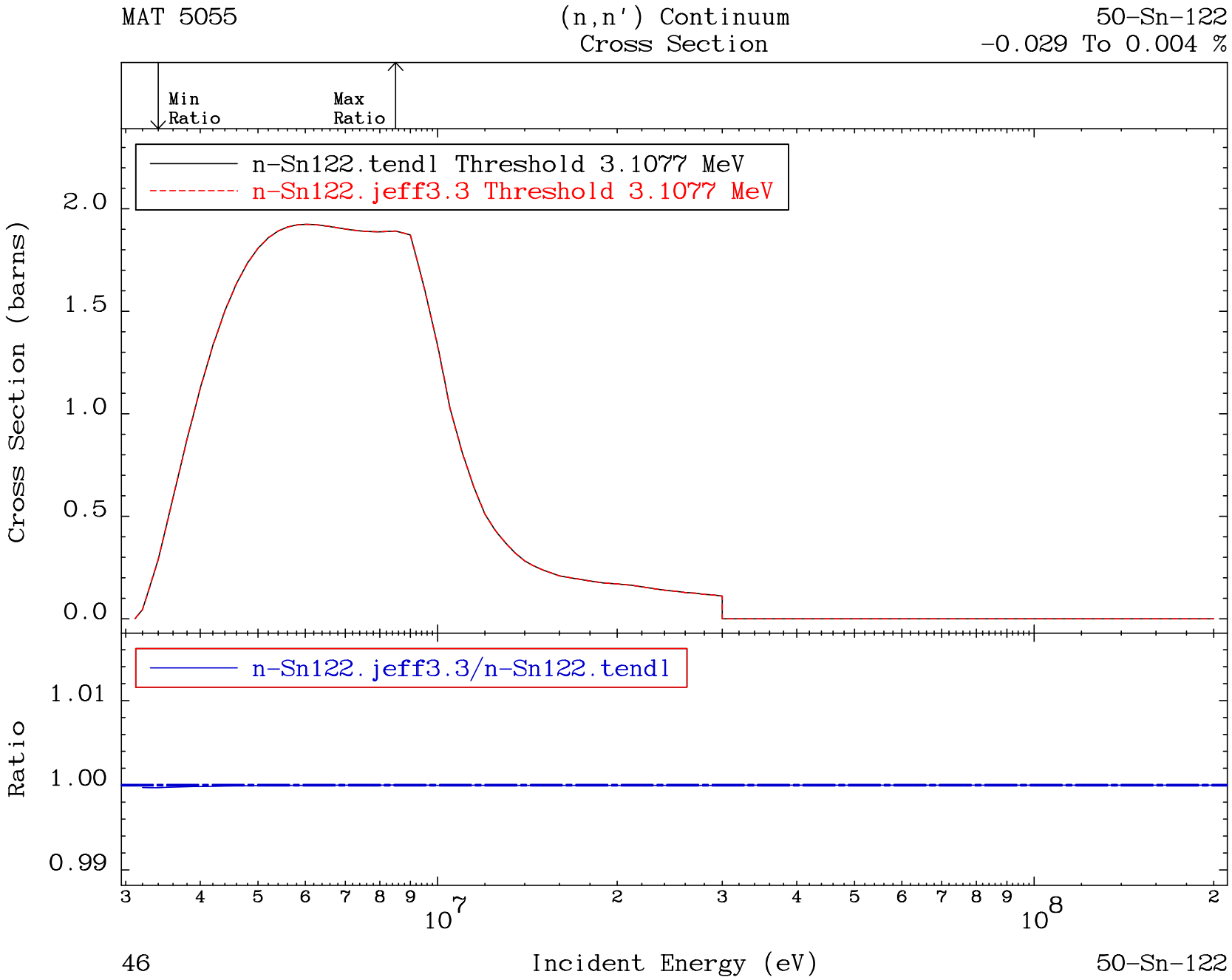

MAT 5055
MT= 76 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.033 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.9836 MeV
n-Sn122.jeff3.3 Threshold 2.9836 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
41
Incident Energy (eV)
50-Sn-122

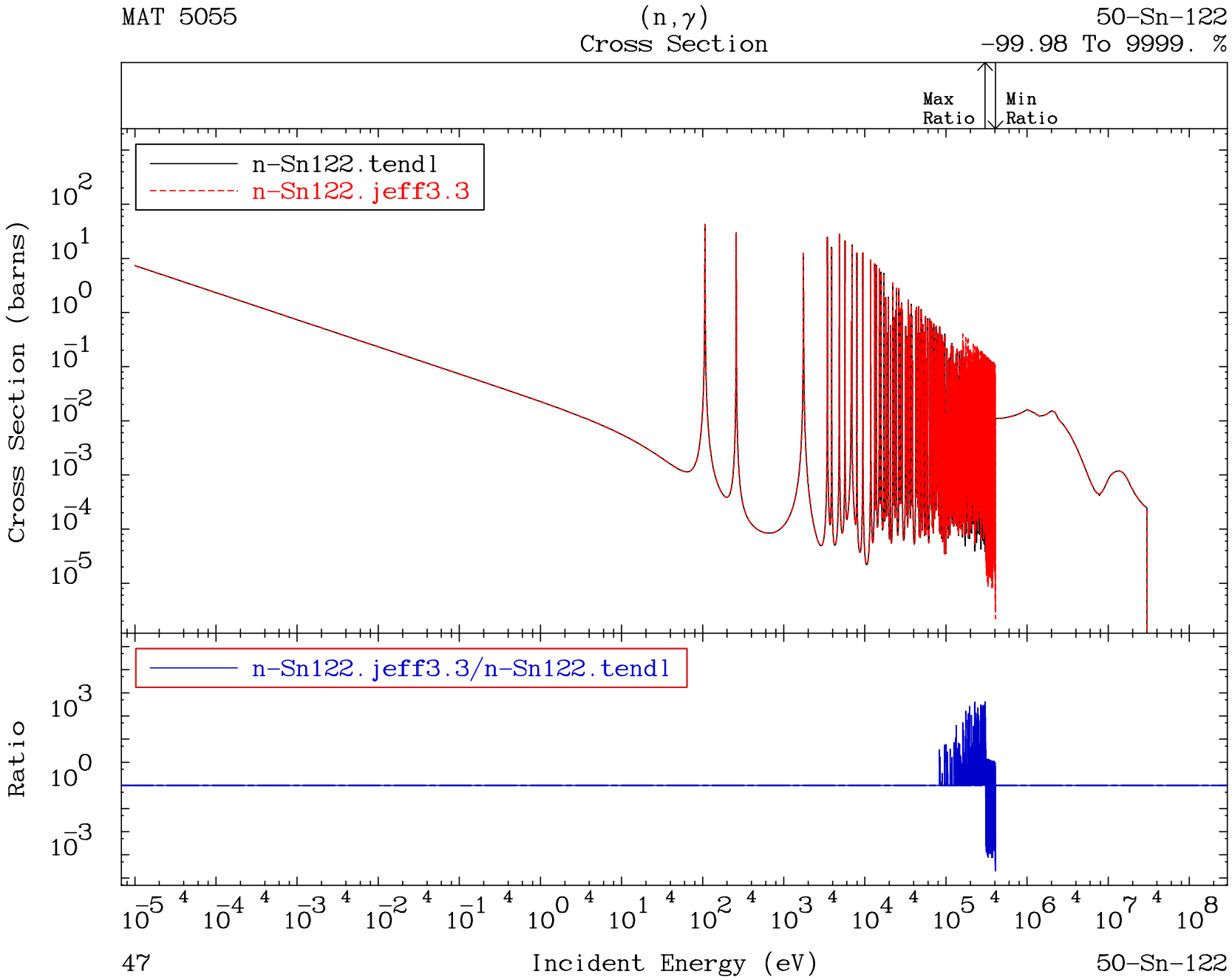

MAT 5055
MT= 77 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.033 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.9957 MeV
n-Sn122.jeff3.3 Threshold 2.9957 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
42
Incident Energy (eV)
50-Sn-122

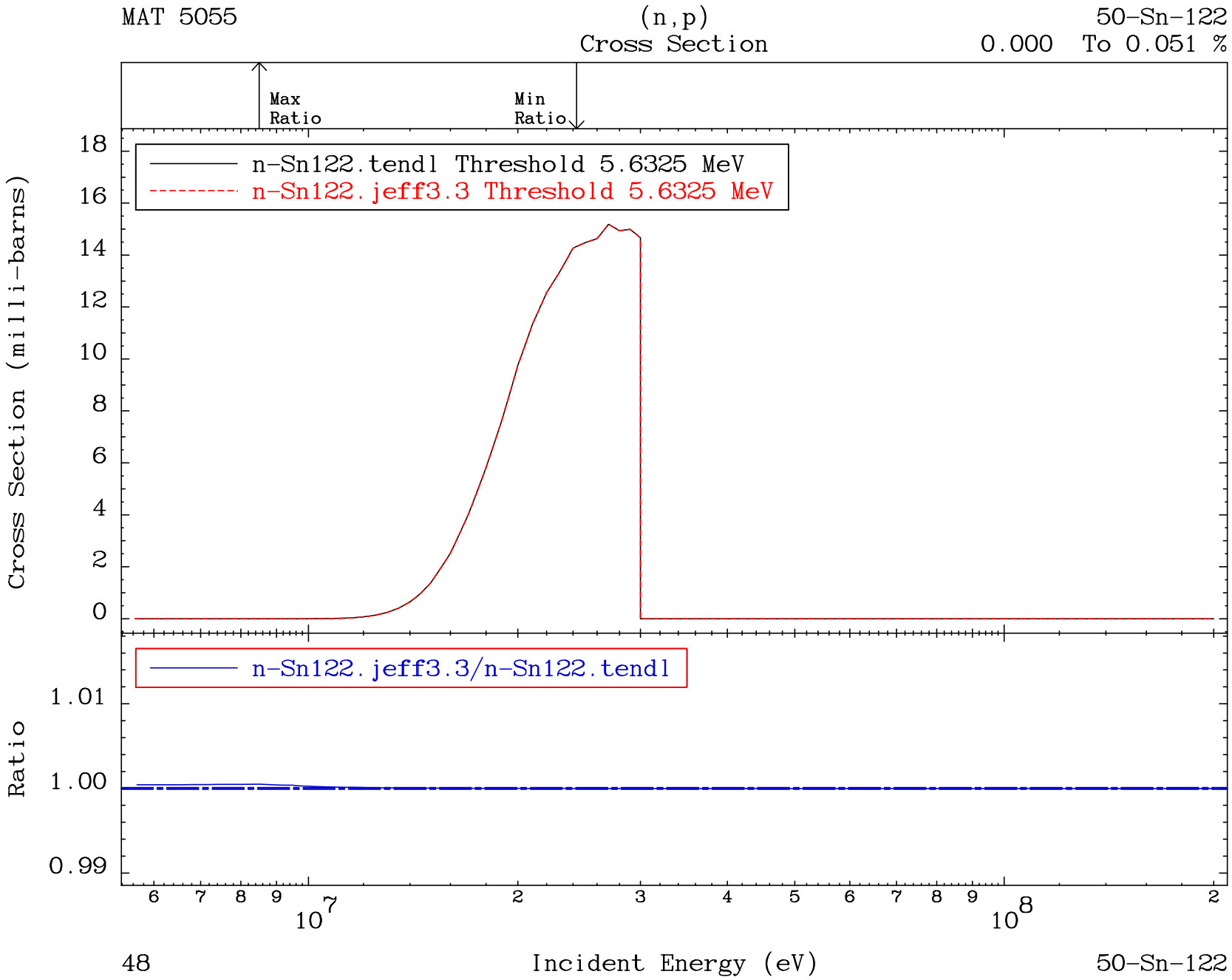

MAT 5055
MT= 78 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.033 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 2.9980 MeV
n-Sn122.jeff3.3 Threshold 2.9980 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
43
Incident Energy (eV)
50-Sn-122

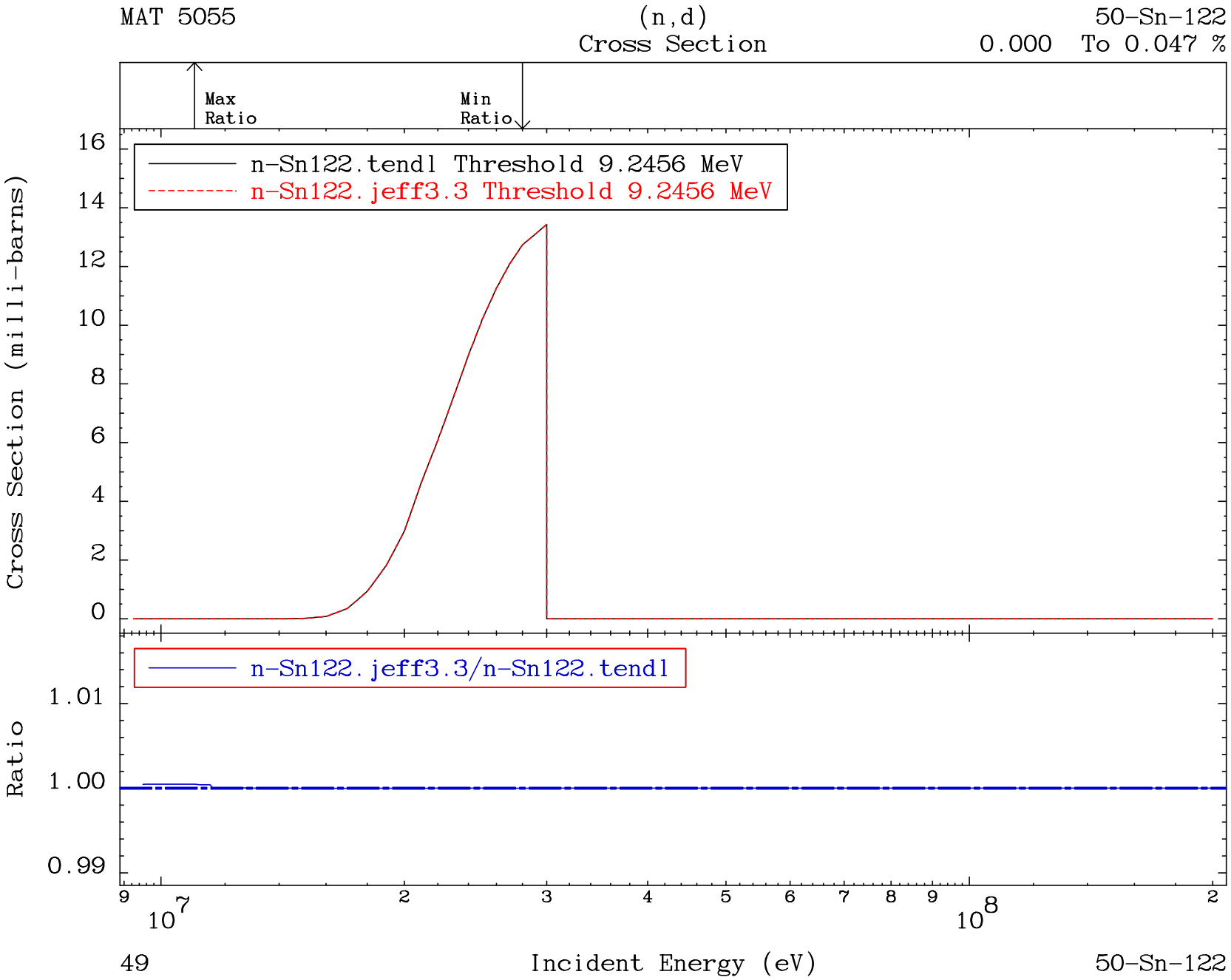

MAT 5055
MT= 79 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.034 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 3.0610 MeV
n-Sn122.jeff3.3 Threshold 3.0610 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
50-Sn-122

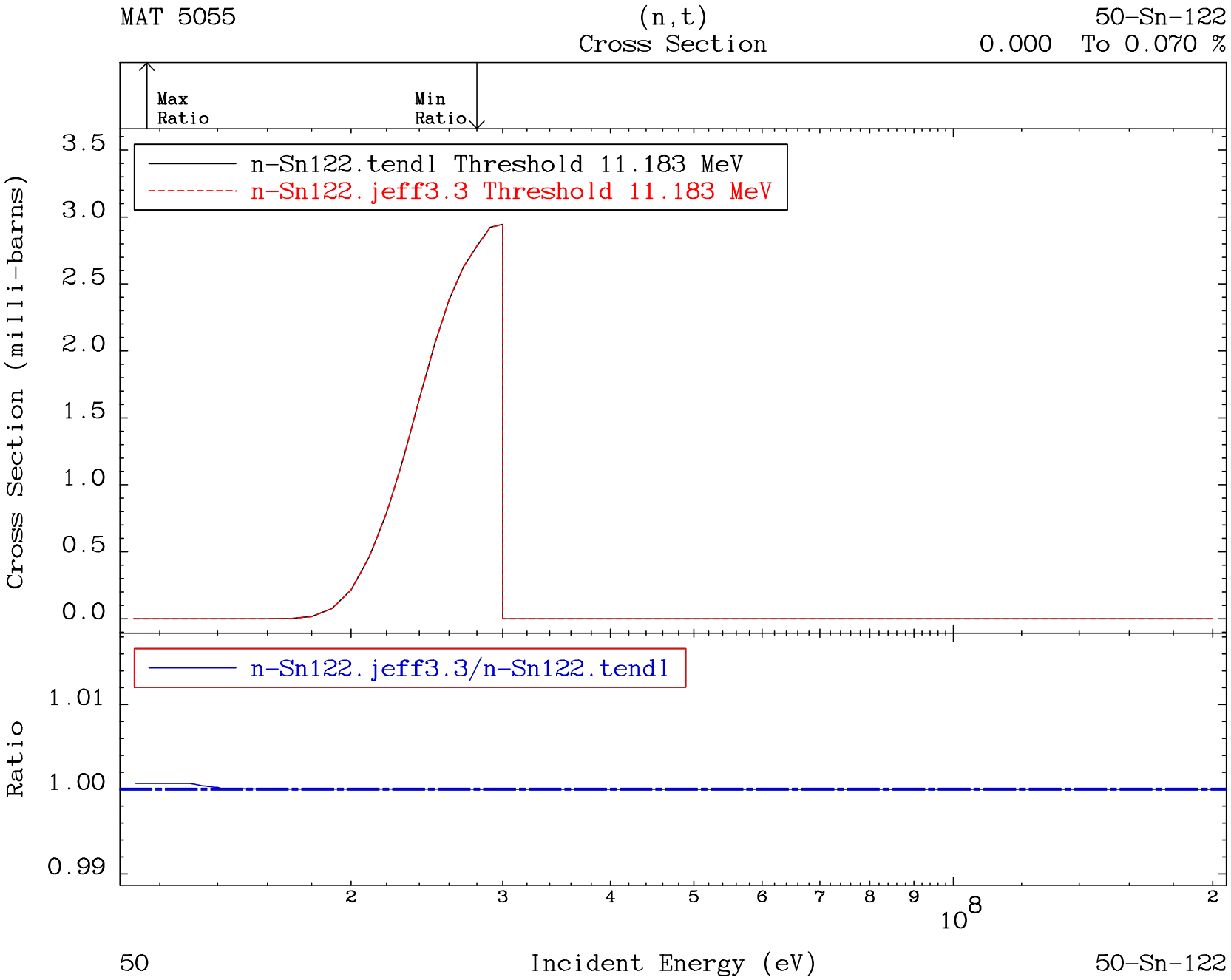

MAT 5055
MT= 80 (n,n') Level
Cross Section
50-Sn-122
0.000 To 0.033 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 3.1077 MeV
n-Sn122.jeff3.3 Threshold 3.1077 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
50-Sn-122

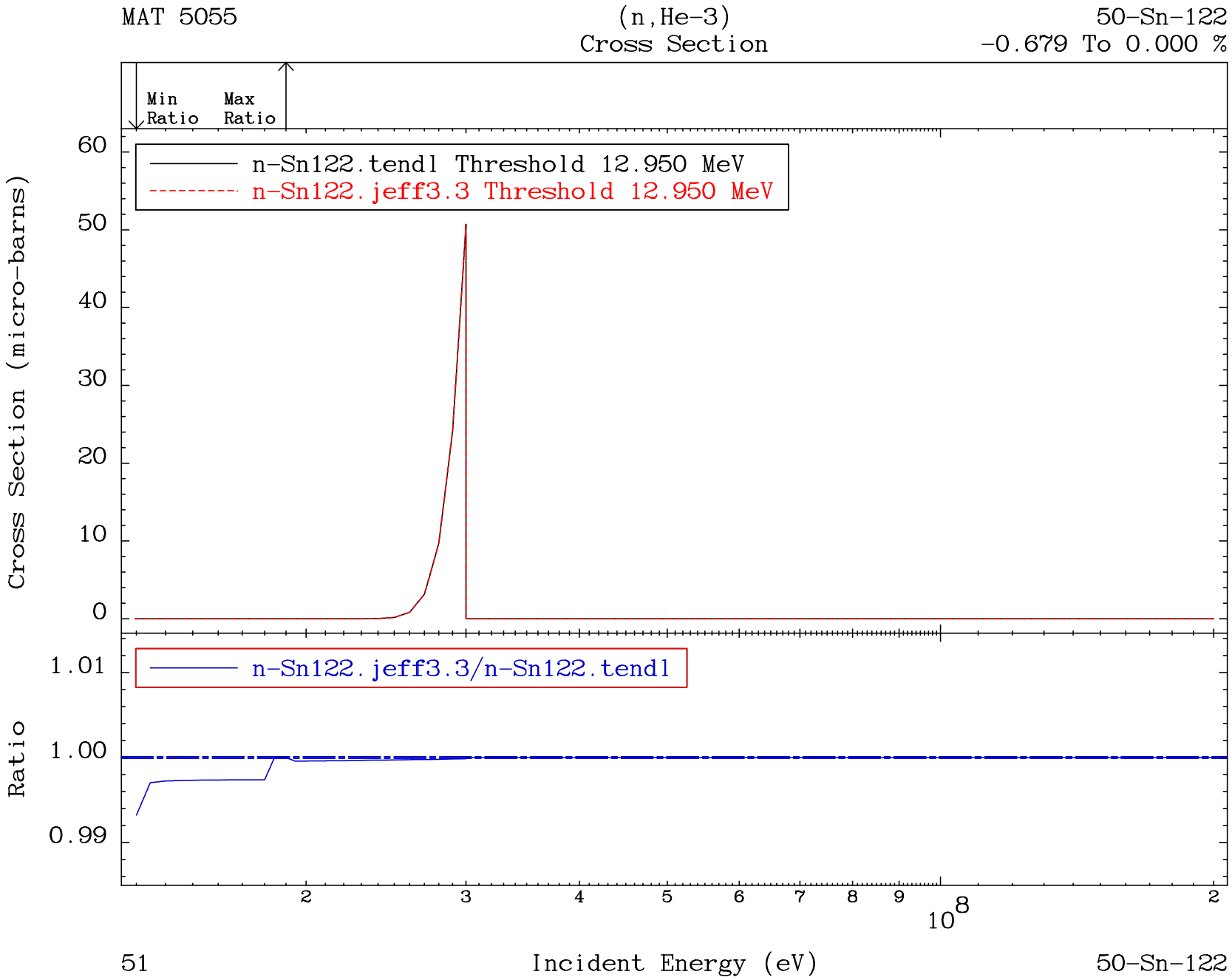

MAT 5055
(n,n') Continuum
Cross Section
50-Sn-122
-0.029 To 0.004 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 3.1077 MeV
n-Sn122.jeff3.3 Threshold 3.1077 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
50-Sn-122

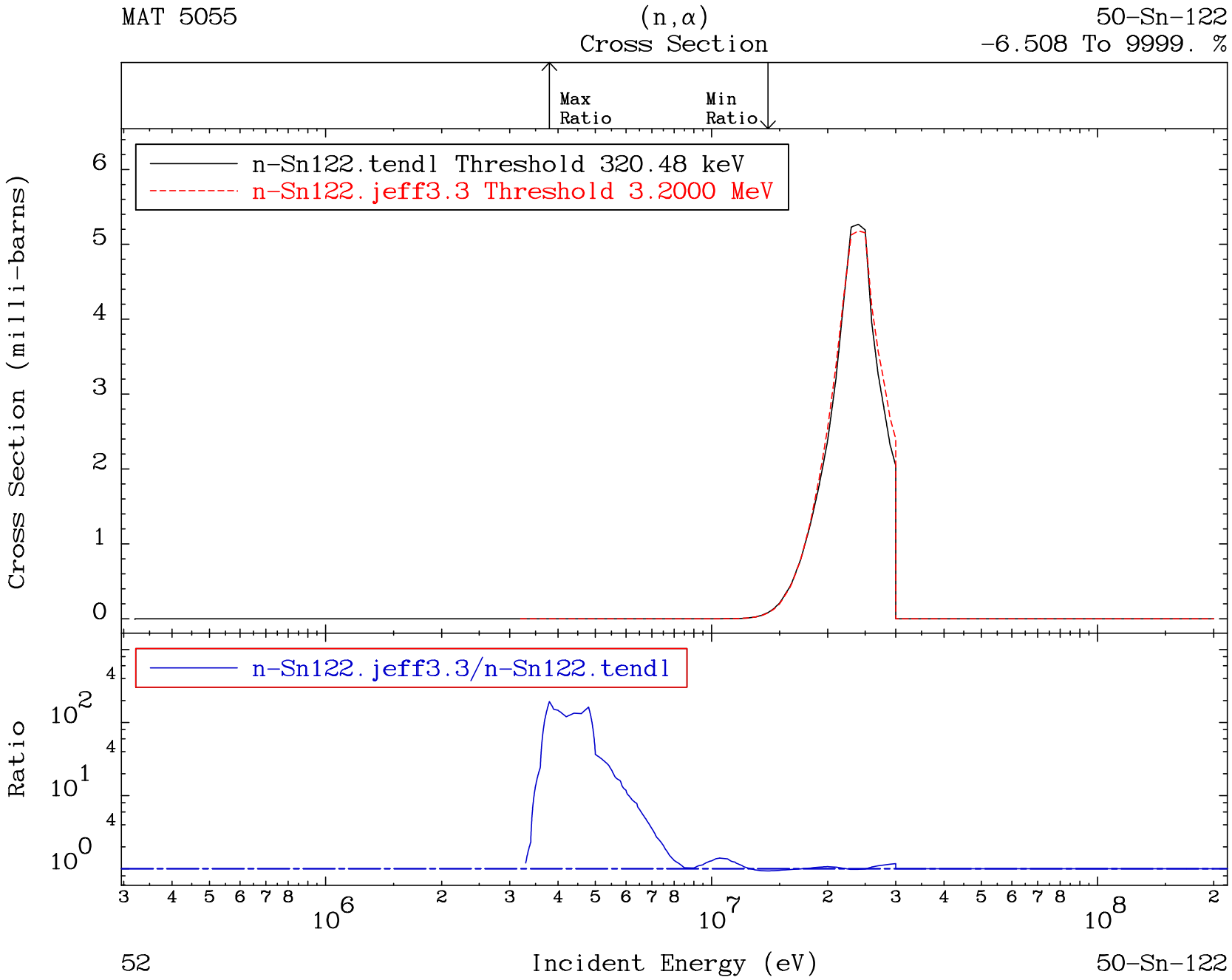

MAT 5055
(n,γ)
Cross Section
50-Sn-122
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
47
50-Sn-122

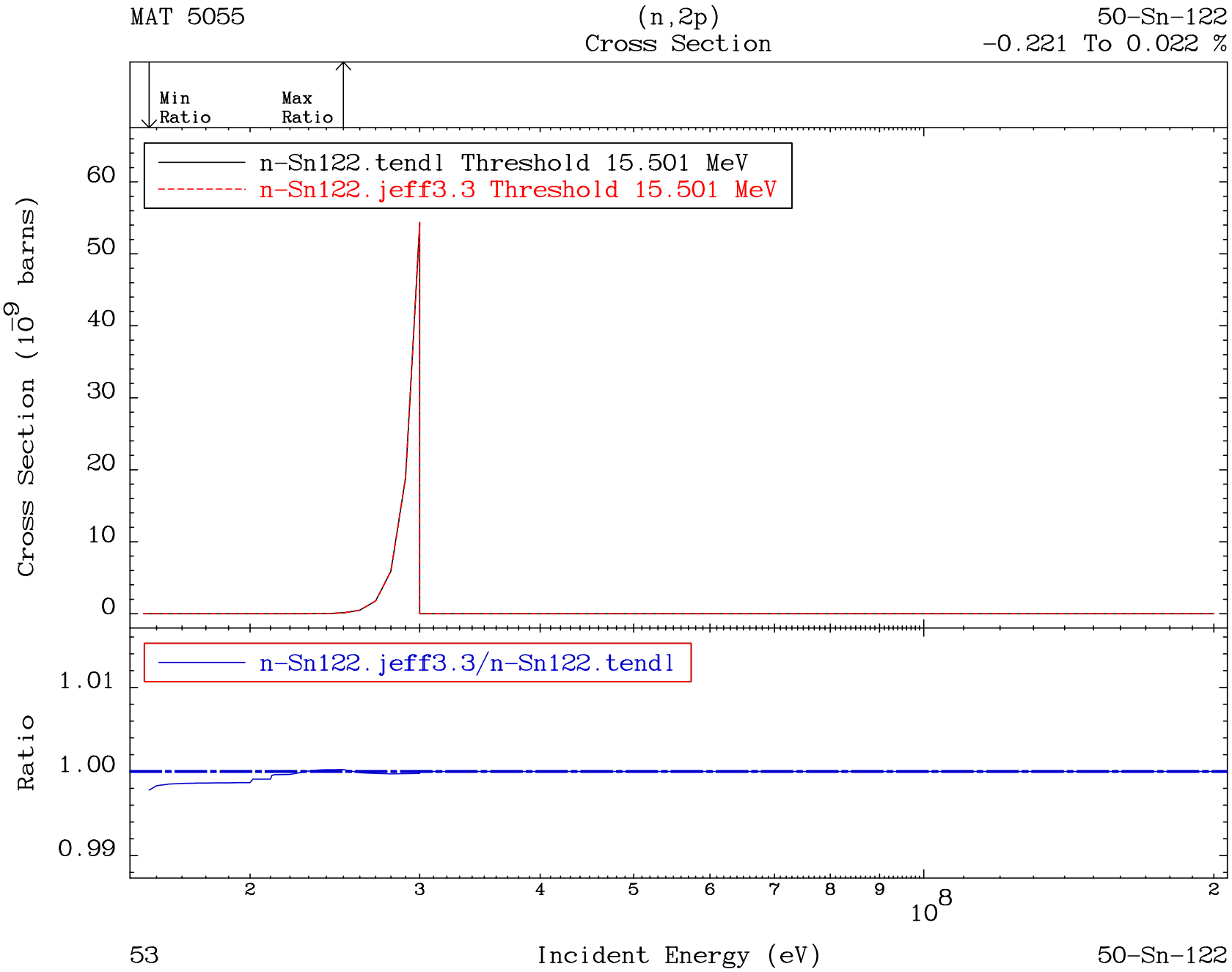

MAT 5055
(n,p)
Cross Section
50-Sn-122
0.000 To 0.051 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 5.6325 MeV
n-Sn122.jeff3.3 Threshold 5.6325 MeV
Cross Section (milli-barns)
18
16
14
12
10
8
6
4
2
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
48
Incident Energy (eV)
50-Sn-122

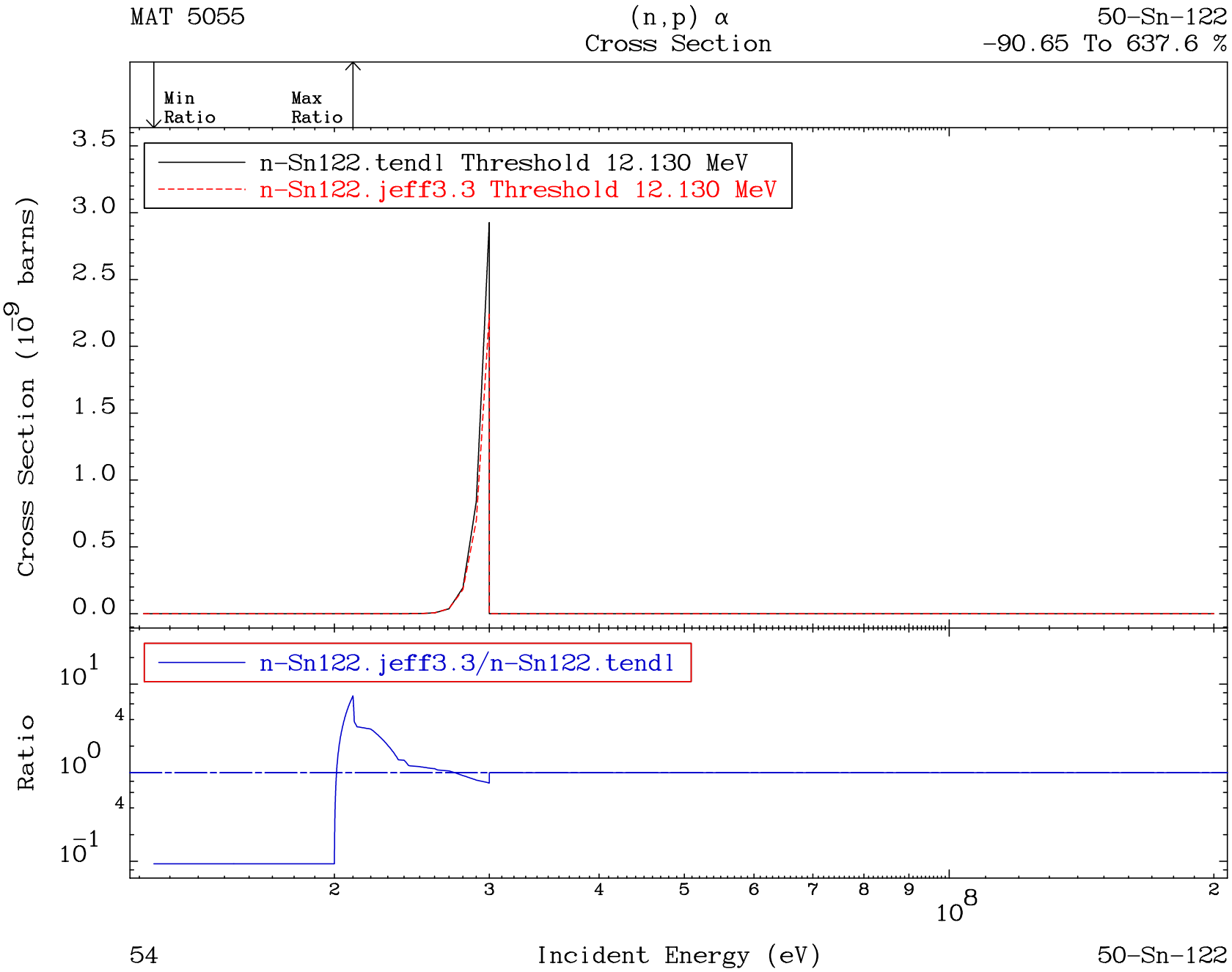

MAT 5055
(n,d)
Cross Section
50-Sn-122
0.000 To 0.047 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 9.2456 MeV
n-Sn122.jeff3.3 Threshold 9.2456 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
49
Incident Energy (eV)
50-Sn-122

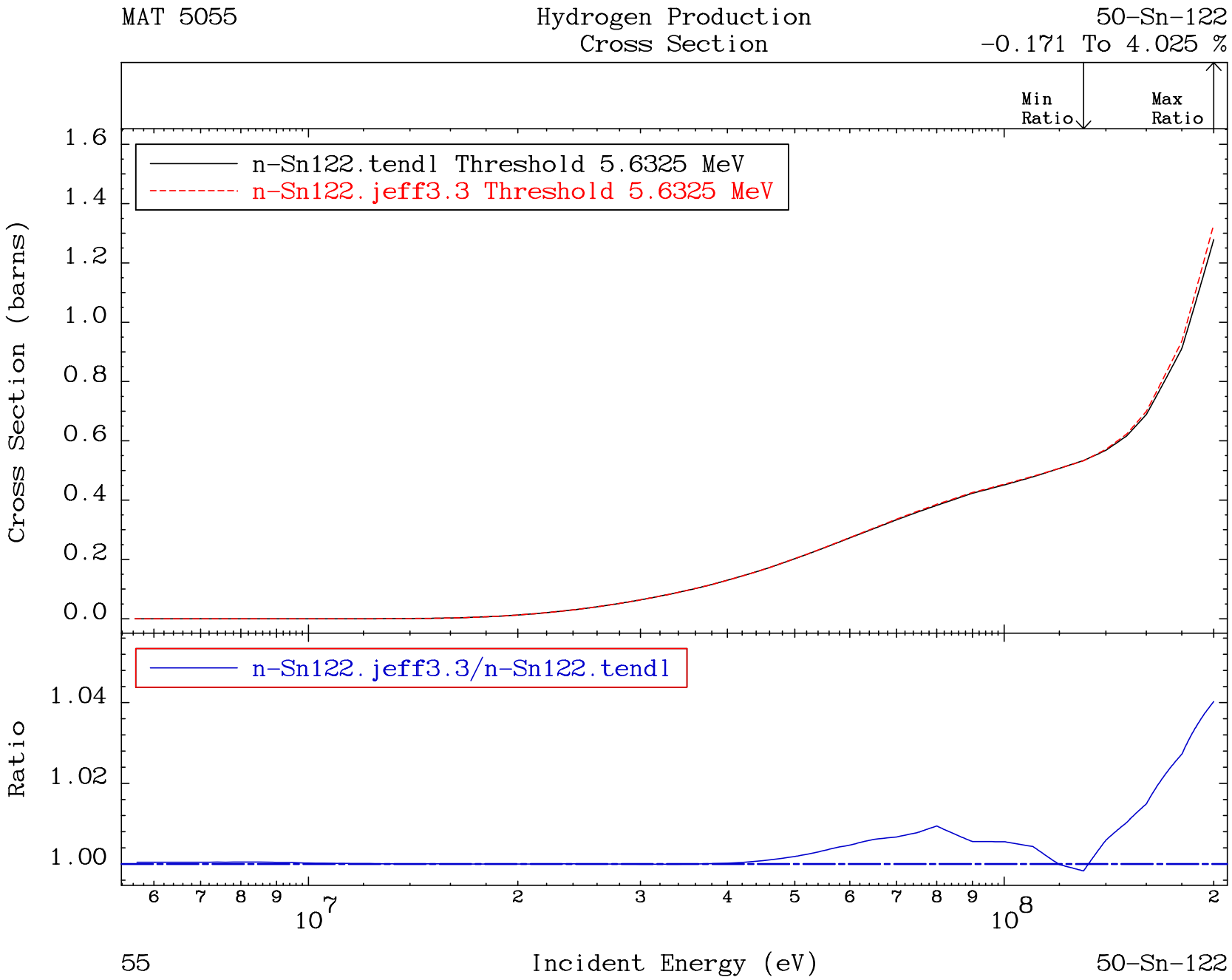

MAT 5055
(n,t)
Cross Section
50-Sn-122
0.000 To 0.070 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 11.183 MeV
n-Sn122.jeff3.3 Threshold 11.183 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
50
Incident Energy (eV)
50-Sn-122

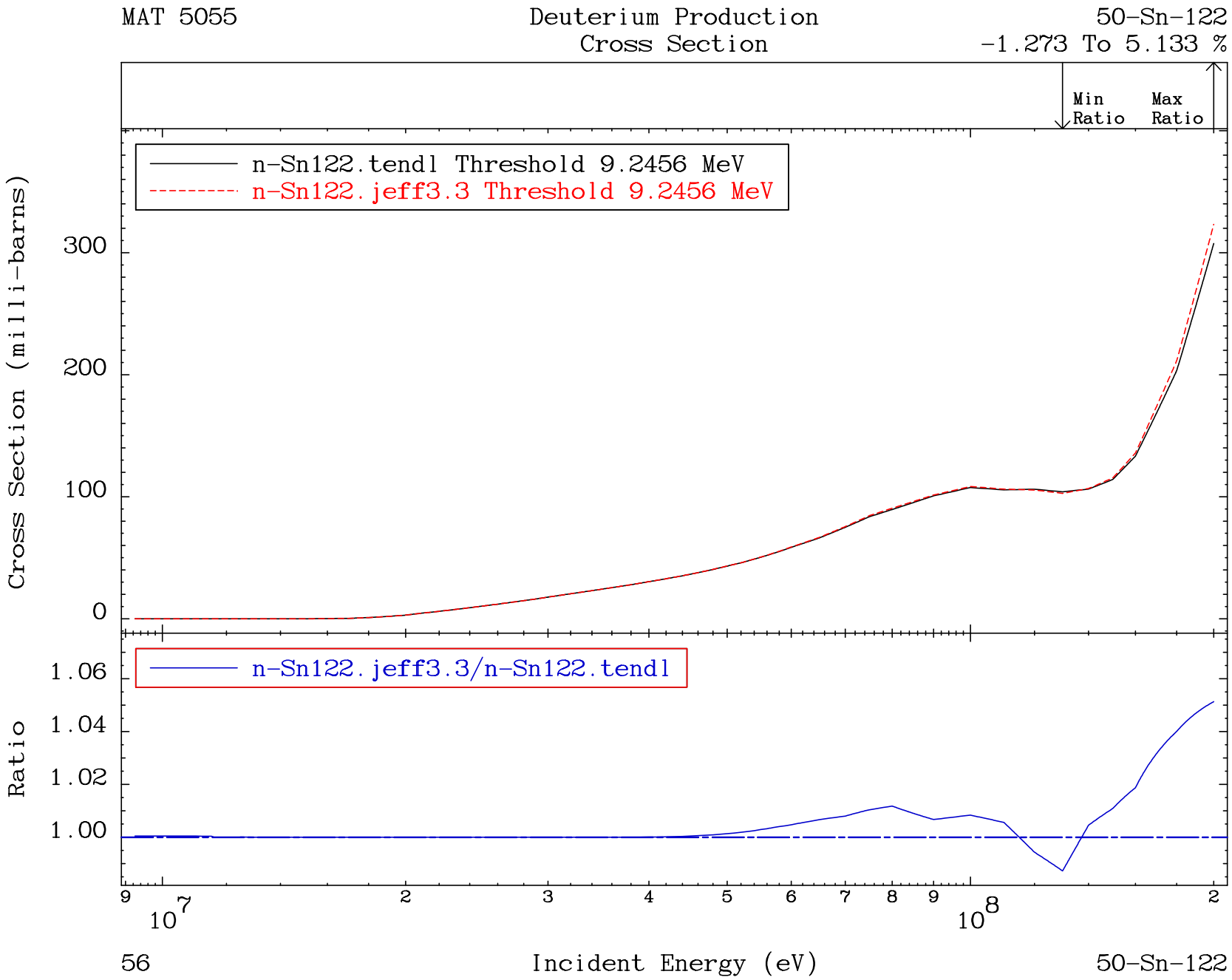

MAT 5055
(n,He-3)
Cross Section
50-Sn-122
-0.679 To 0.000 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 12.950 MeV
n-Sn122.jeff3.3 Threshold 12.950 MeV
Cross Section (micro-barns)
60
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
51
Incident Energy (eV)
50-Sn-122

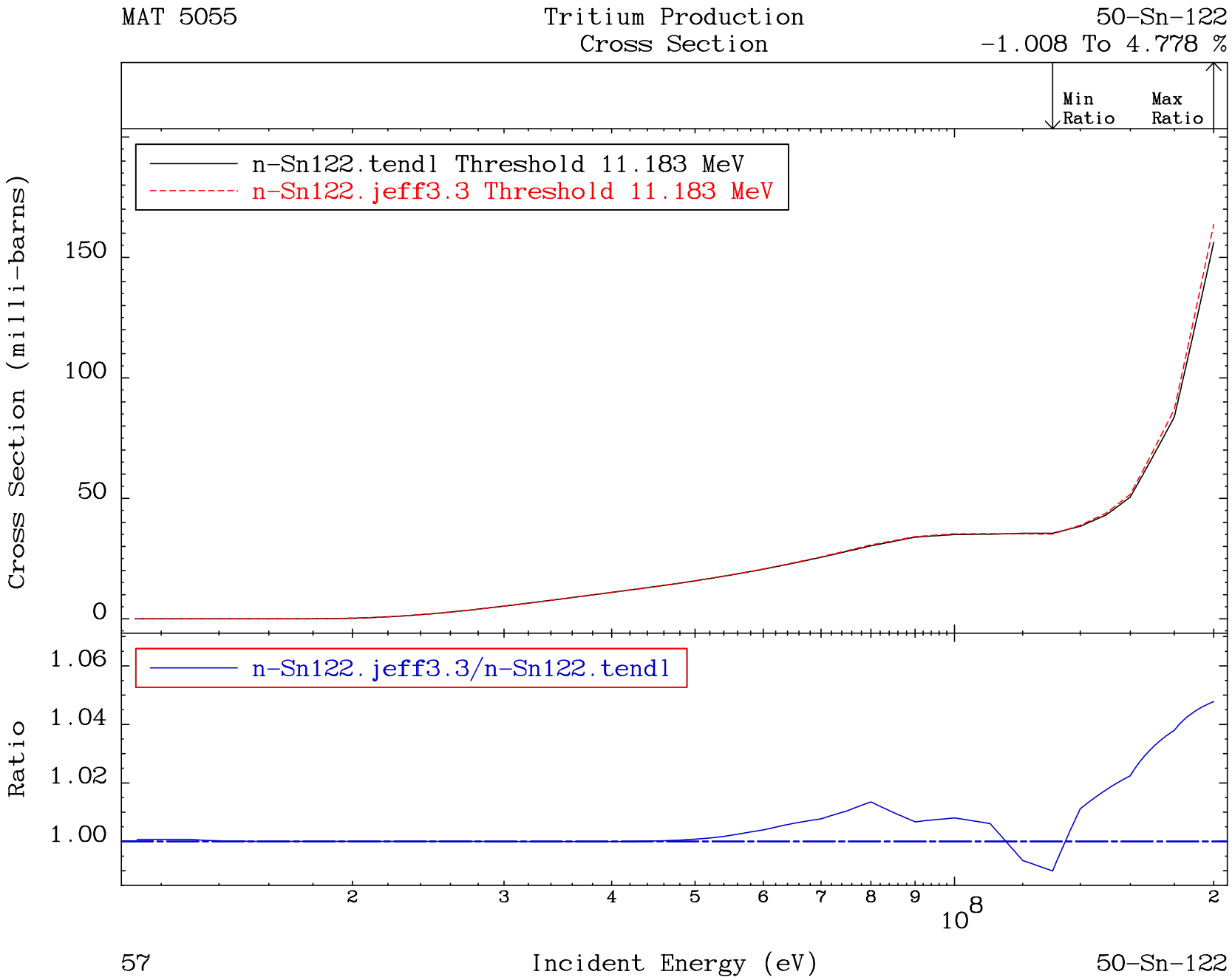

MAT 5055
(n,α)
Cross Section
50-Sn-122
-6.508 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 320.48 keV
n-Sn122.jeff3.3 Threshold 3.2000 MeV
Cross Section (milli-barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
52
50-Sn-122

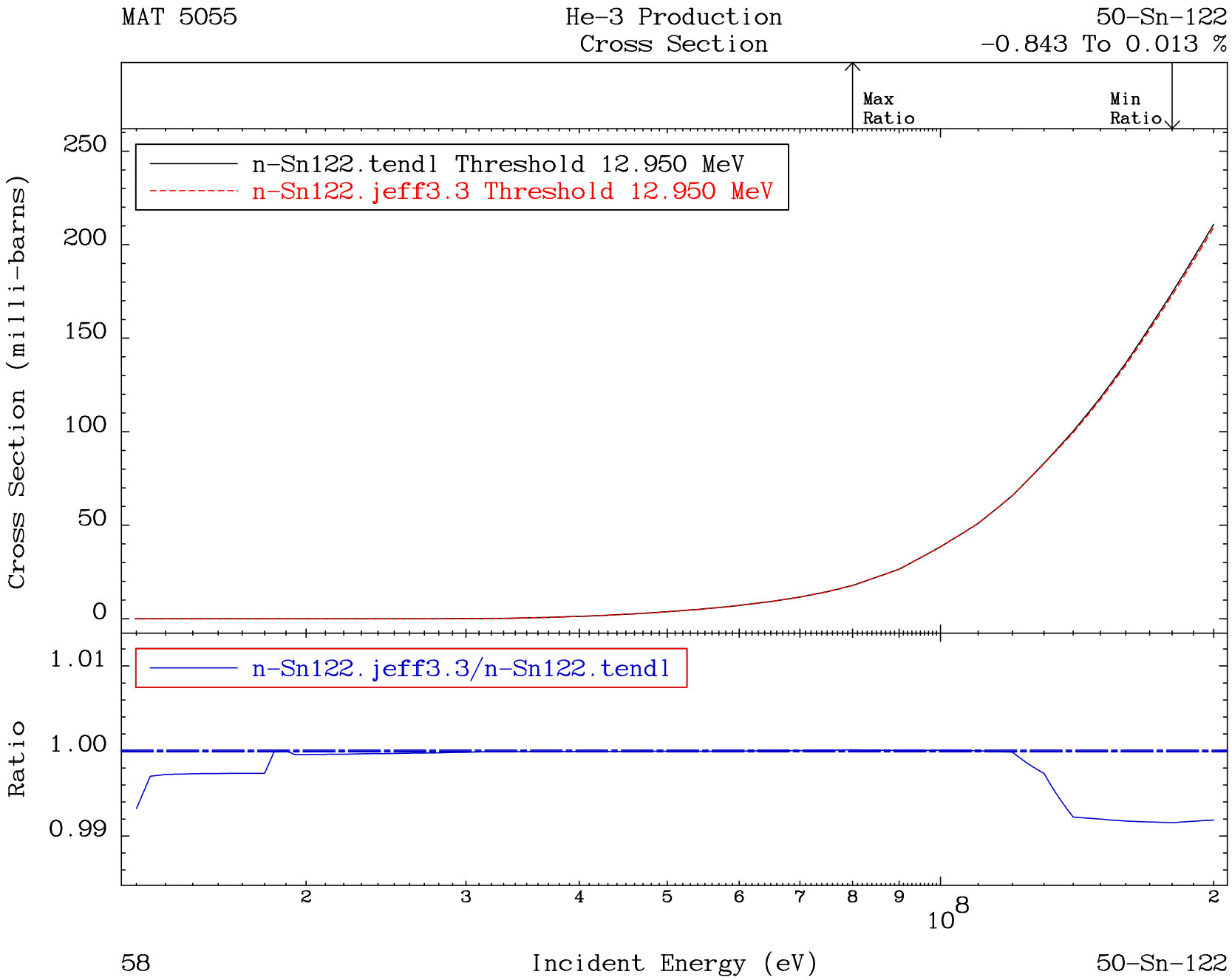

MAT 5055
(n,2p)
Cross Section
50-Sn-122
-0.221 To 0.022 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 15.501 MeV
n-Sn122.jeff3.3 Threshold 15.501 MeV
Cross Section (10^{-9} barns)
60
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^{8}
2
53
Incident Energy (eV)
50-Sn-122

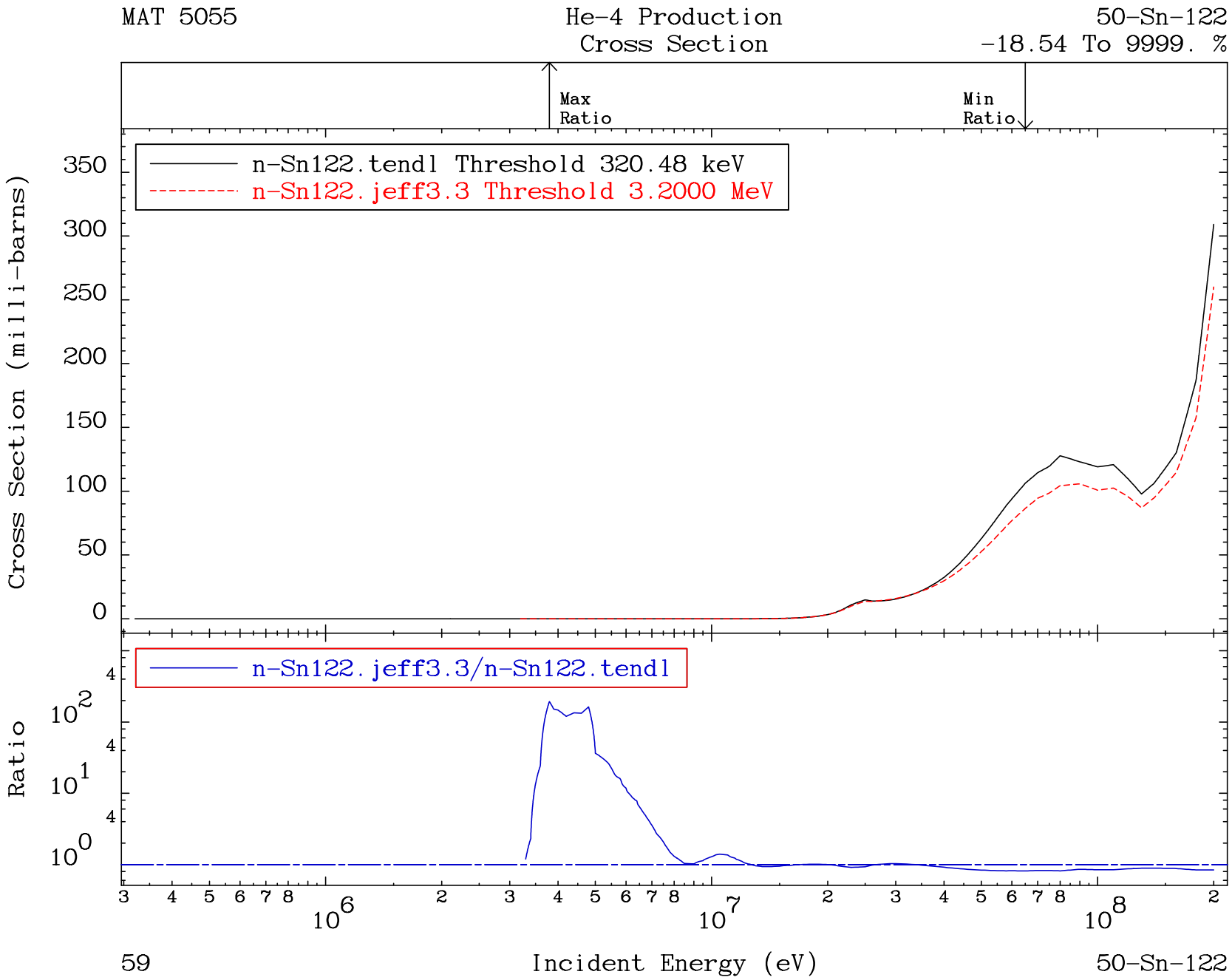

MAT 5055
(n,p) α
Cross Section
50-Sn-122
-90.65 To 637.6 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 12.130 MeV
n-Sn122.jeff3.3 Threshold 12.130 MeV
Cross Section (10^{-9} barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
10^{1}
10^{0}
10^{-1}
2
3
4
5
6
7
8
9
10^{8}
54
Incident Energy (eV)
50-Sn-122

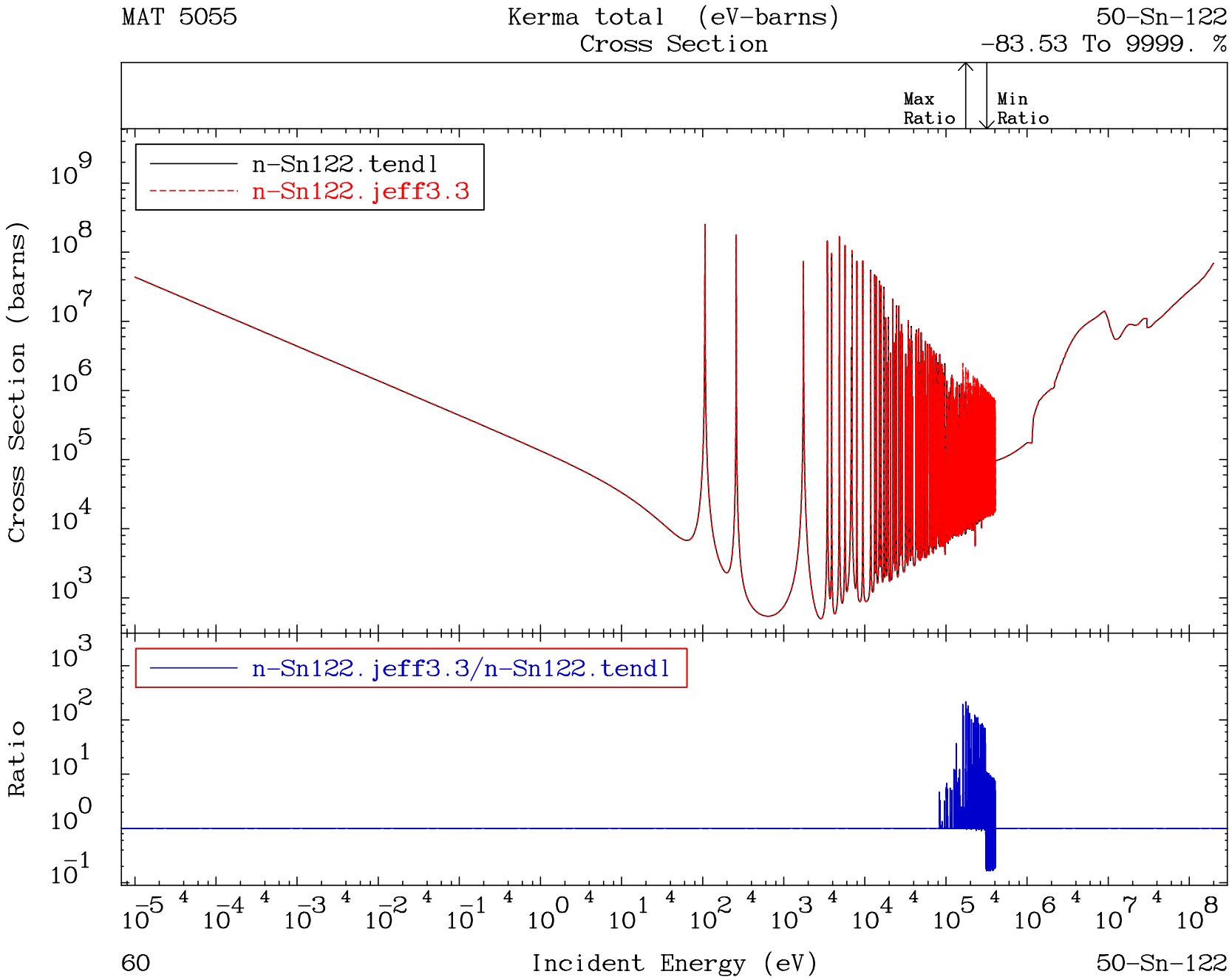

MAT 5055
Hydrogen Production
Cross Section
50-Sn-122
-0.171 To 4.025 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 5.6325 MeV
n-Sn122.jeff3.3 Threshold 5.6325 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.04
1.02
1.00
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
55
Incident Energy (eV)
50-Sn-122

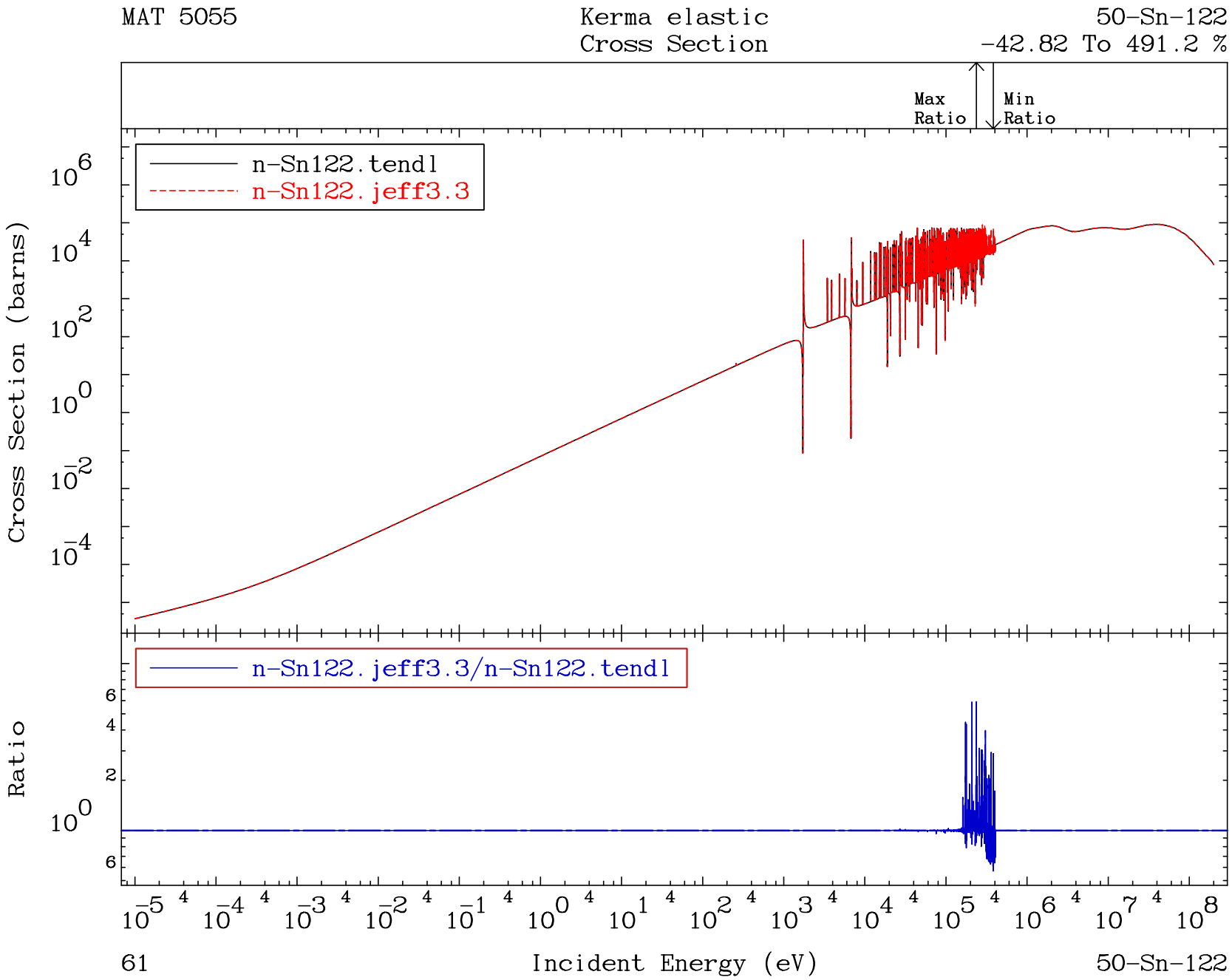

MAT 5055
Deuterium Production
Cross Section
50-Sn-122
-1.273 To 5.133 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 9.2456 MeV
n-Sn122.jeff3.3 Threshold 9.2456 MeV
Cross Section (milli-barns)
300
200
100
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.06
1.04
1.02
1.00
9
10^7
2
3
4
5
6
7
8
9
10^8
2
56
Incident Energy (eV)
50-Sn-122

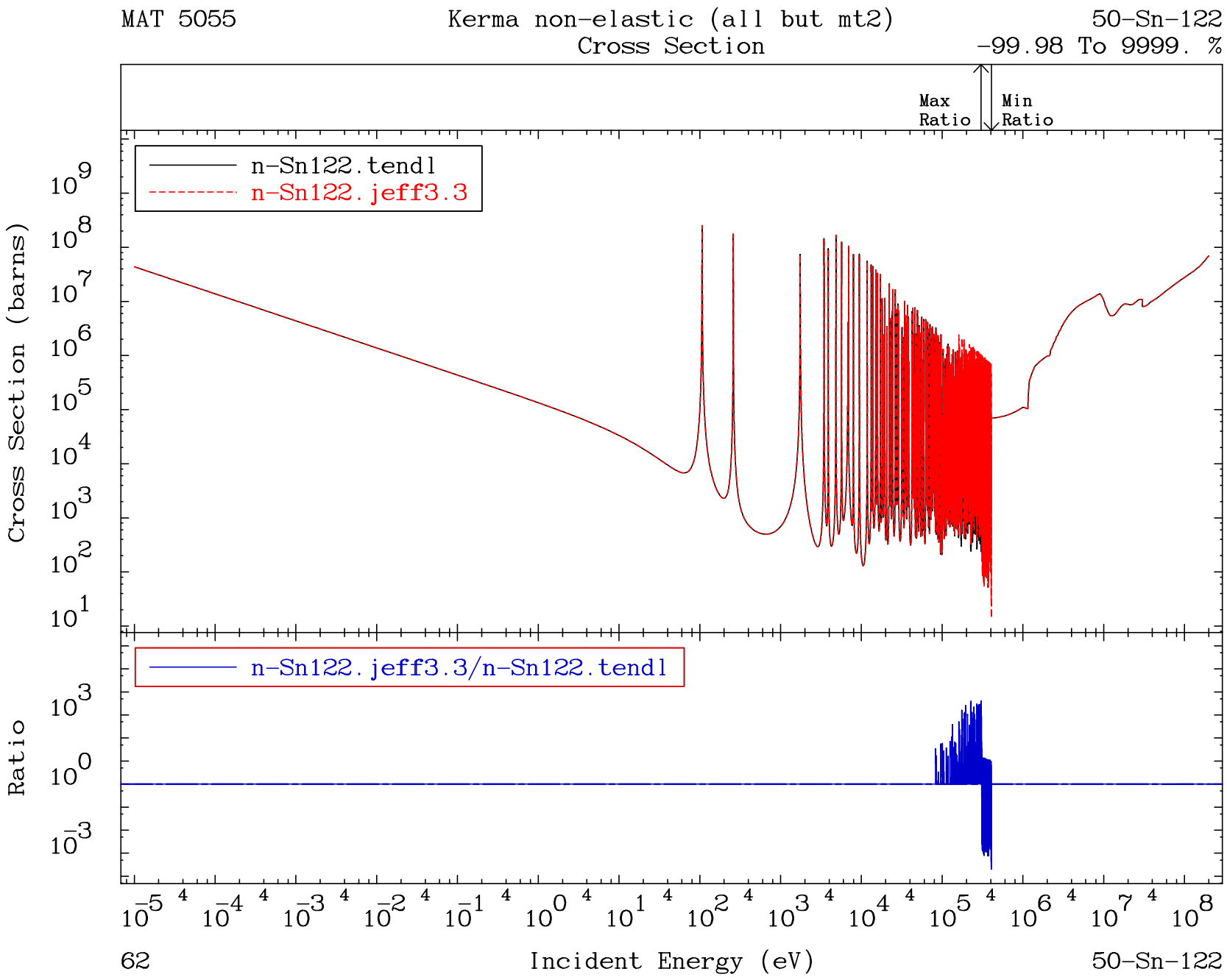

MAT 5055
Tritium Production
Cross Section
50-Sn-122
-1.008 To 4.778 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 11.183 MeV
n-Sn122.jeff3.3 Threshold 11.183 MeV
Cross Section (milli-barns)
150
100
50
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.06
1.04
1.02
1.00
2
3
4
5
6
7
8
9
10^8
2
57
Incident Energy (eV)
50-Sn-122

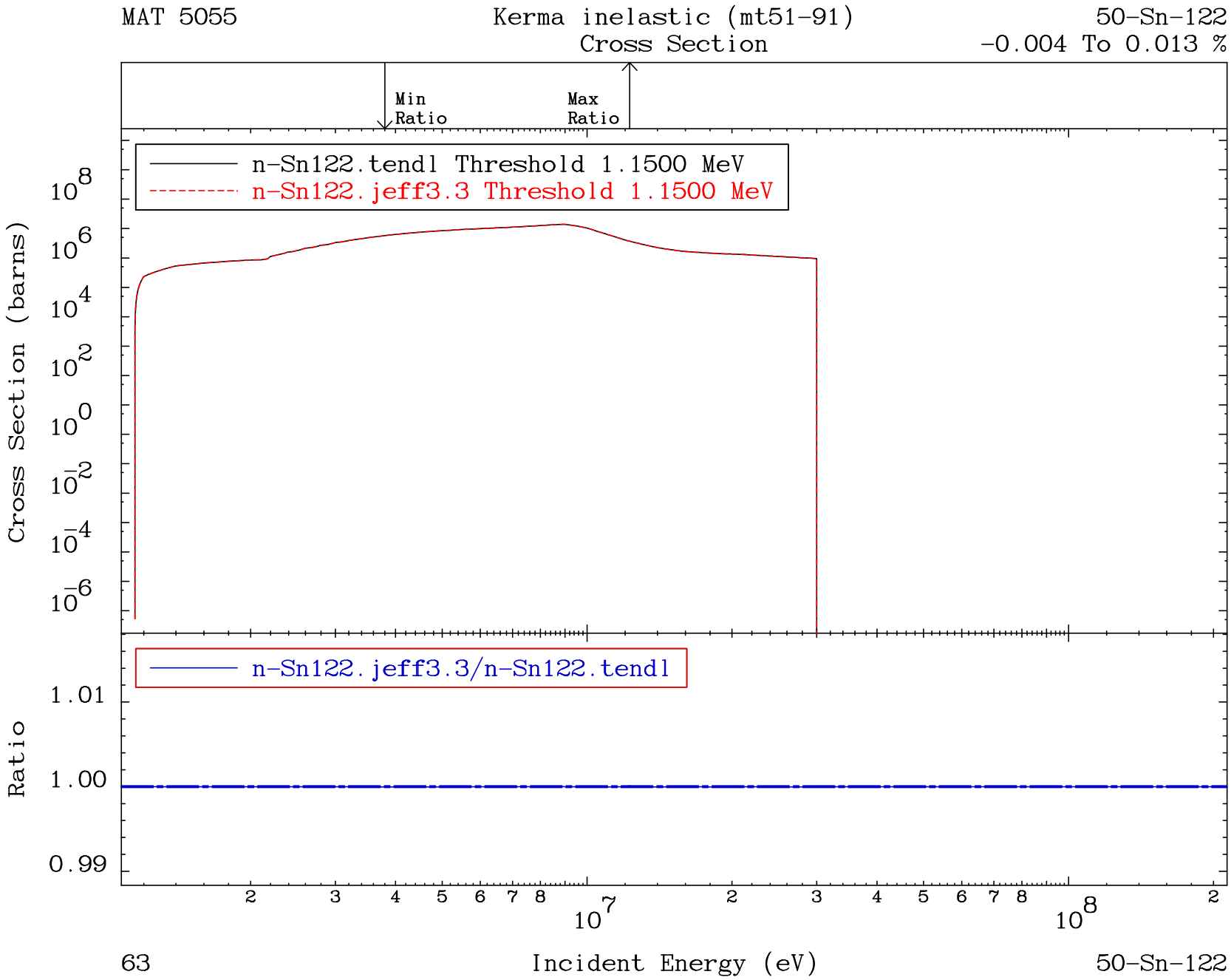

MAT 5055
He-3 Production
Cross Section
50-Sn-122
-0.843 To 0.013 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 12.950 MeV
n-Sn122.jeff3.3 Threshold 12.950 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
50-Sn-122

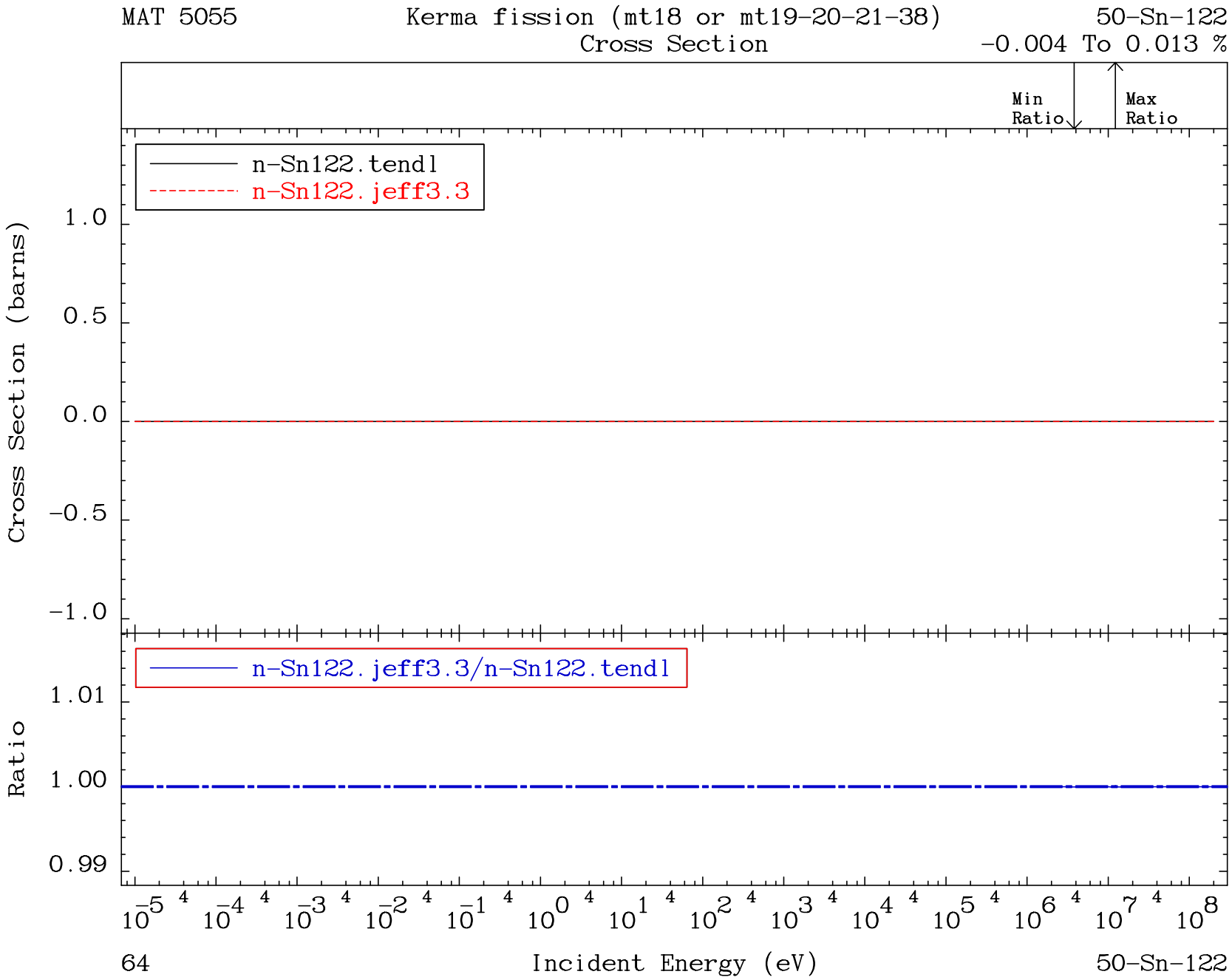

MAT 5055
He-4 Production
Cross Section
50-Sn-122
-18.54 To 9999. %
Max
Ratio
Min
Ratio
n-Sn122.tendl Threshold 320.48 keV
n-Sn122.jeff3.3 Threshold 3.2000 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
10^2
10^1
10^0
4
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
59
Incident Energy (eV)
50-Sn-122

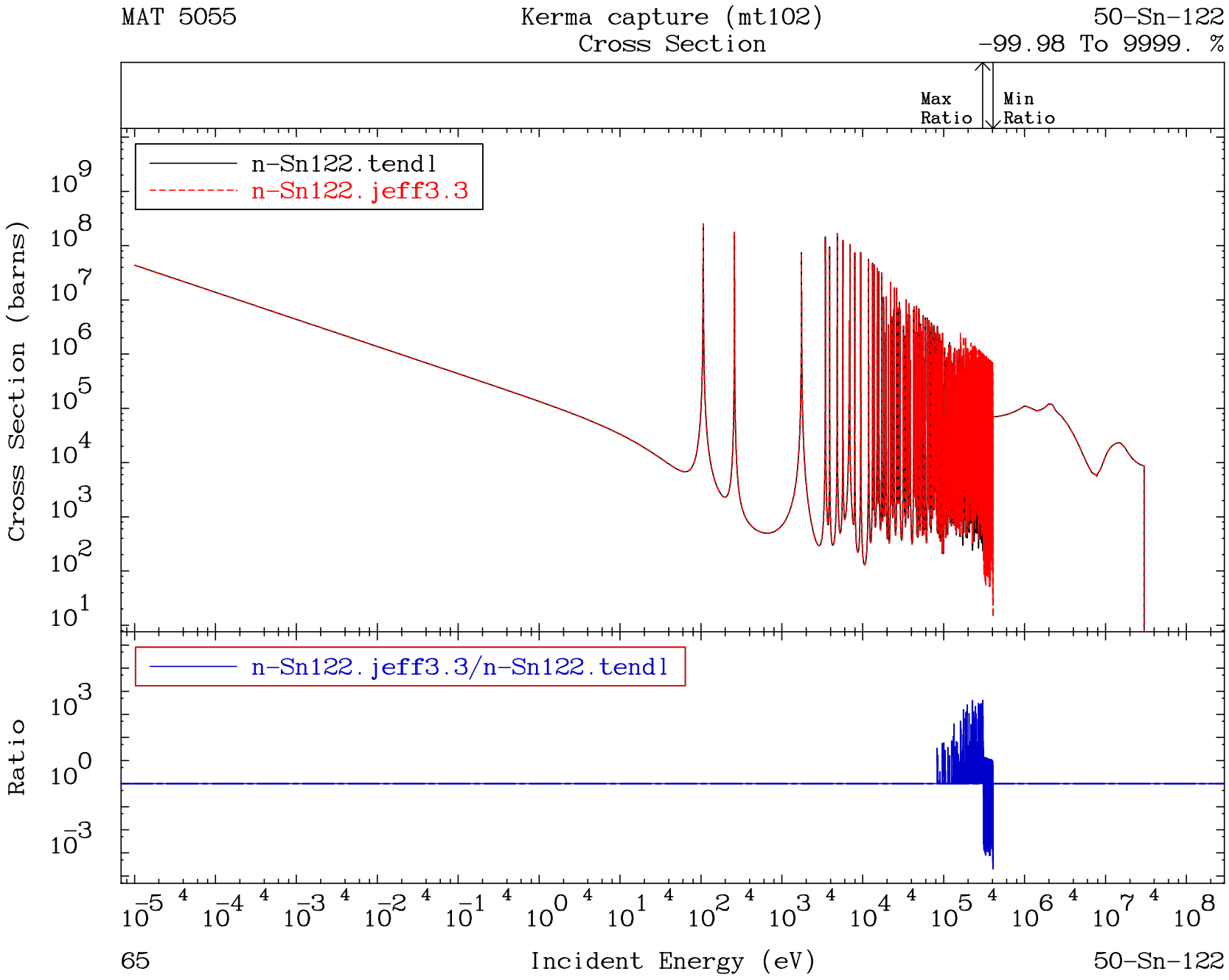

MAT 5055
Kerma total (eV-barns)
Cross Section
50-Sn-122
-83.53 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
60
50-Sn-122

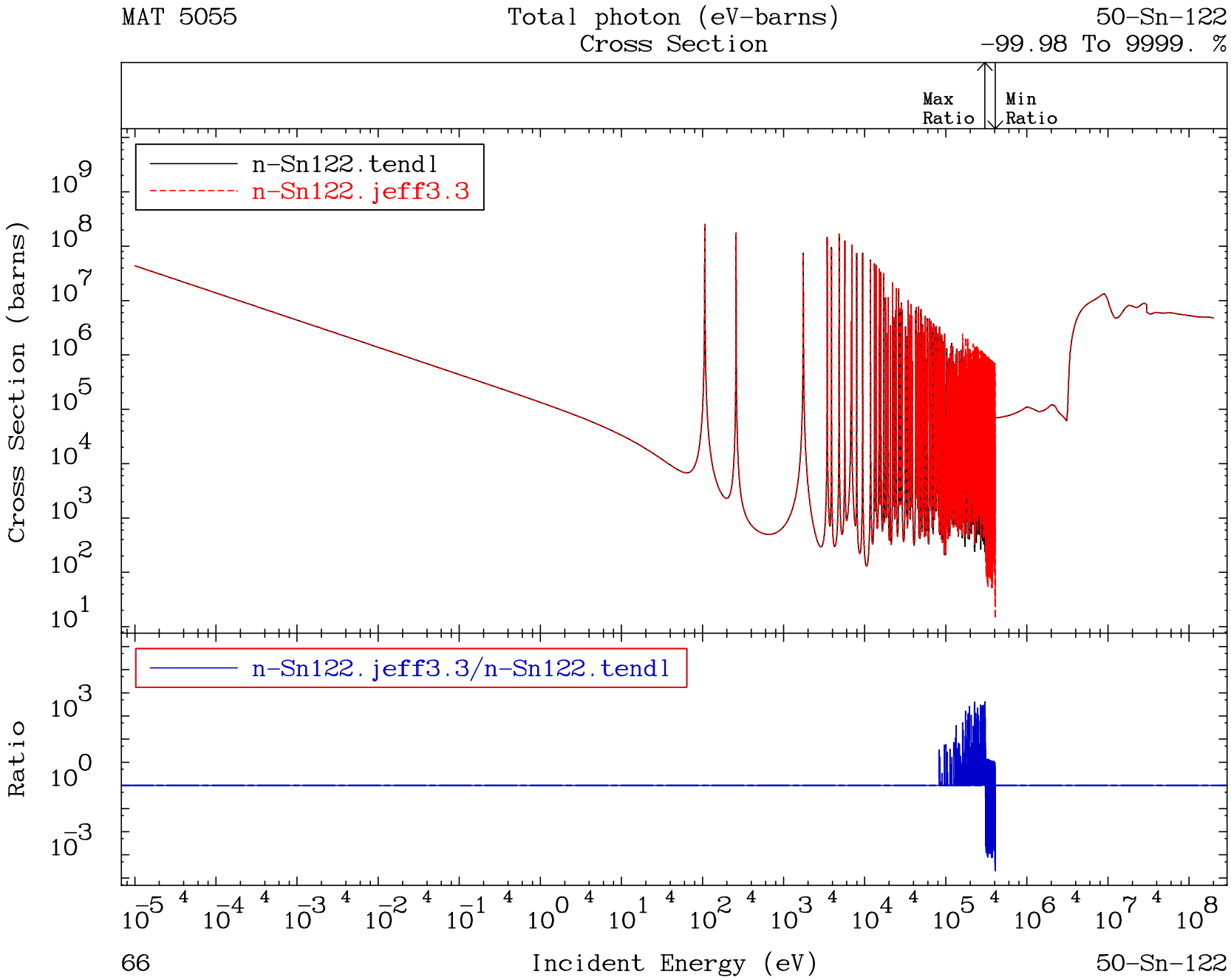

MAT 5055
Kerma elastic
Cross Section
50-Sn-122
-42.82 To 491.2 %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
61
Incident Energy (eV)
50-Sn-122

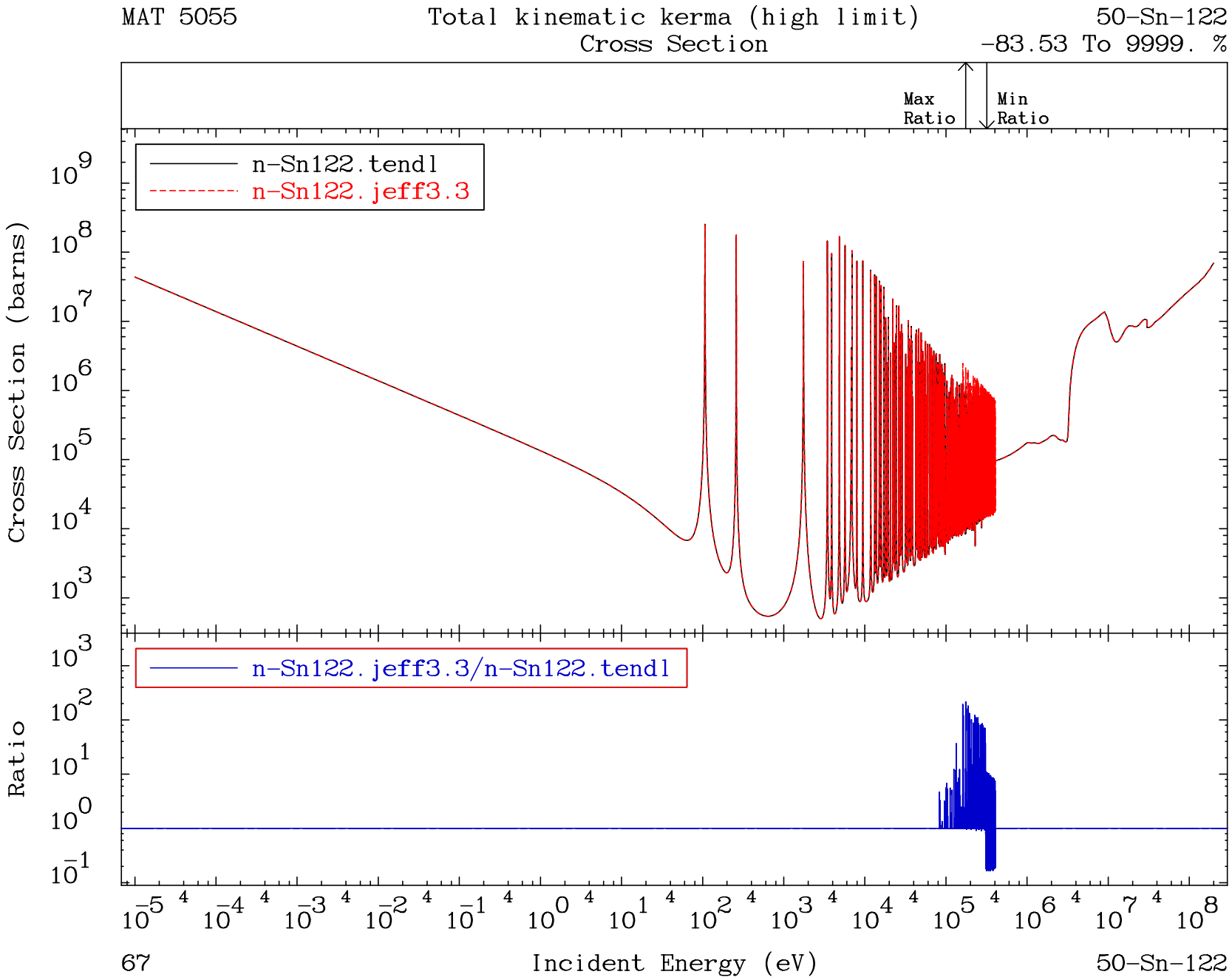

MAT 5055
Kerma non-elastic (all but mt2)
Cross Section
50-Sn-122
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
62
50-Sn-122

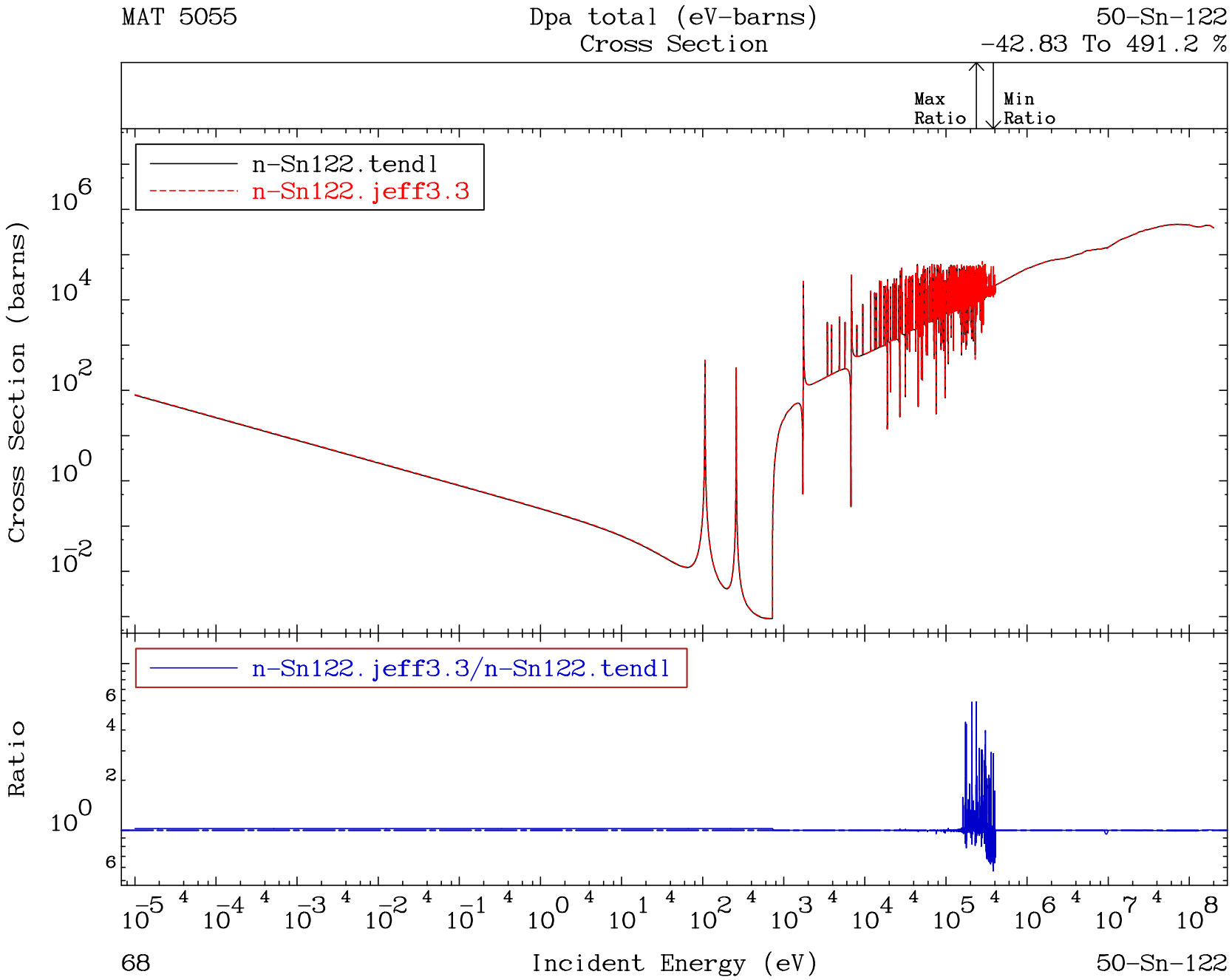

MAT 5055
Kerma inelastic (mt51-91)
Cross Section
50-Sn-122
-0.004 To 0.013 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 1.1500 MeV
n-Sn122.jeff3.3 Threshold 1.1500 MeV
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
63
50-Sn-122

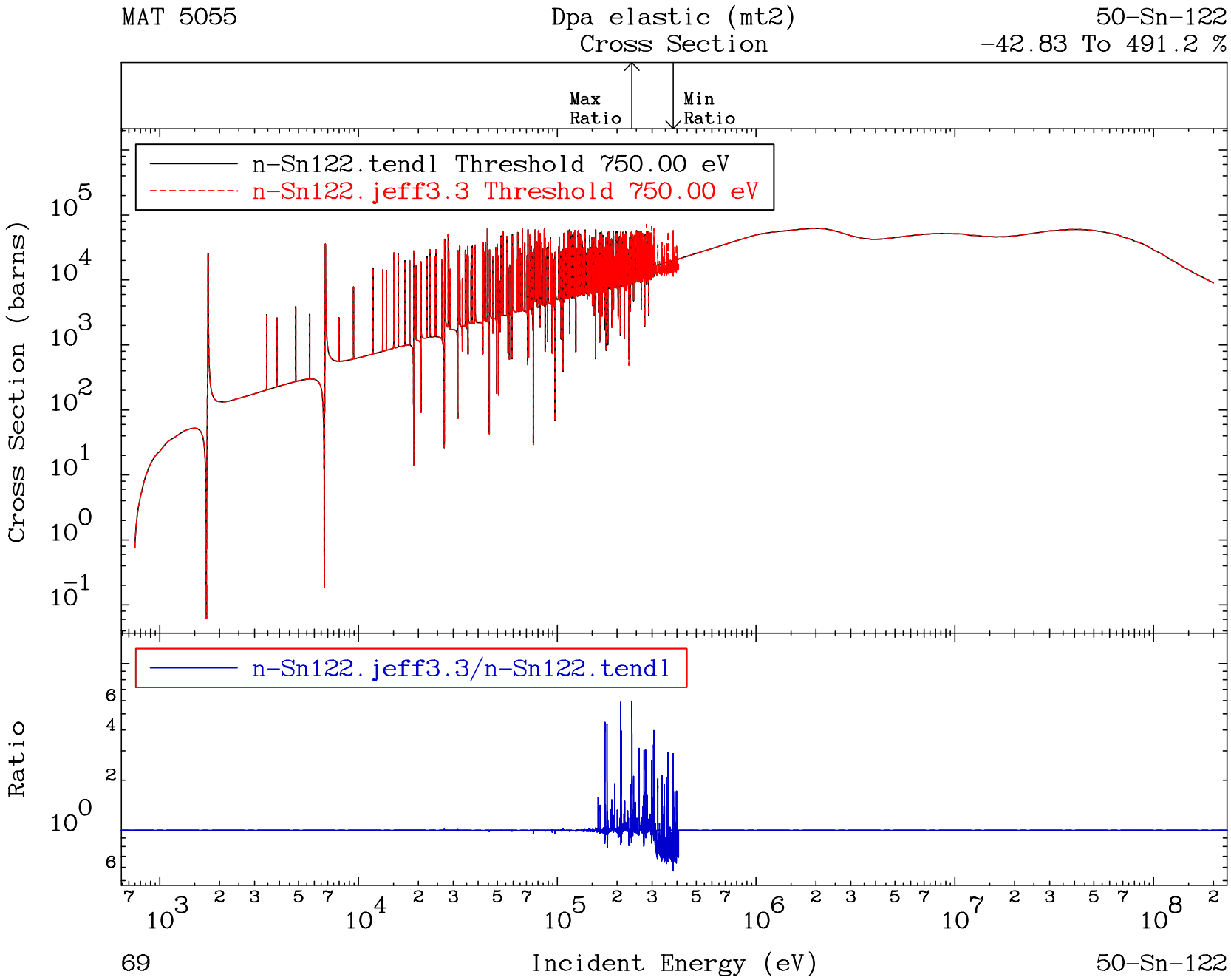

MAT 5055
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
50-Sn-122
-0.004 To 0.013 %
Min Ratio
Max Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
64
Incident Energy (eV)
50-Sn-122

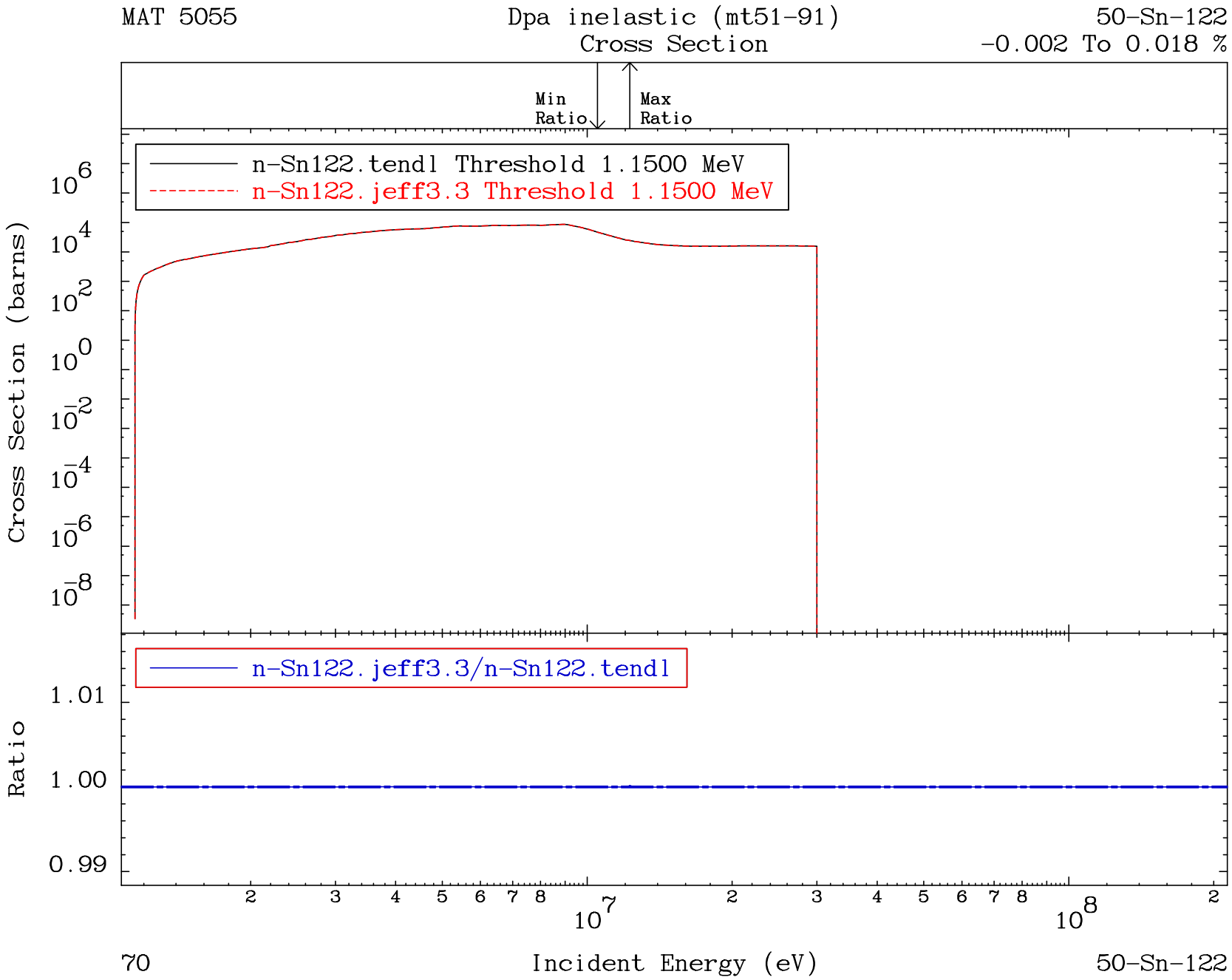

MAT 5055
Kerma capture (mt102)
Cross Section
50-Sn-122
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
65
50-Sn-122

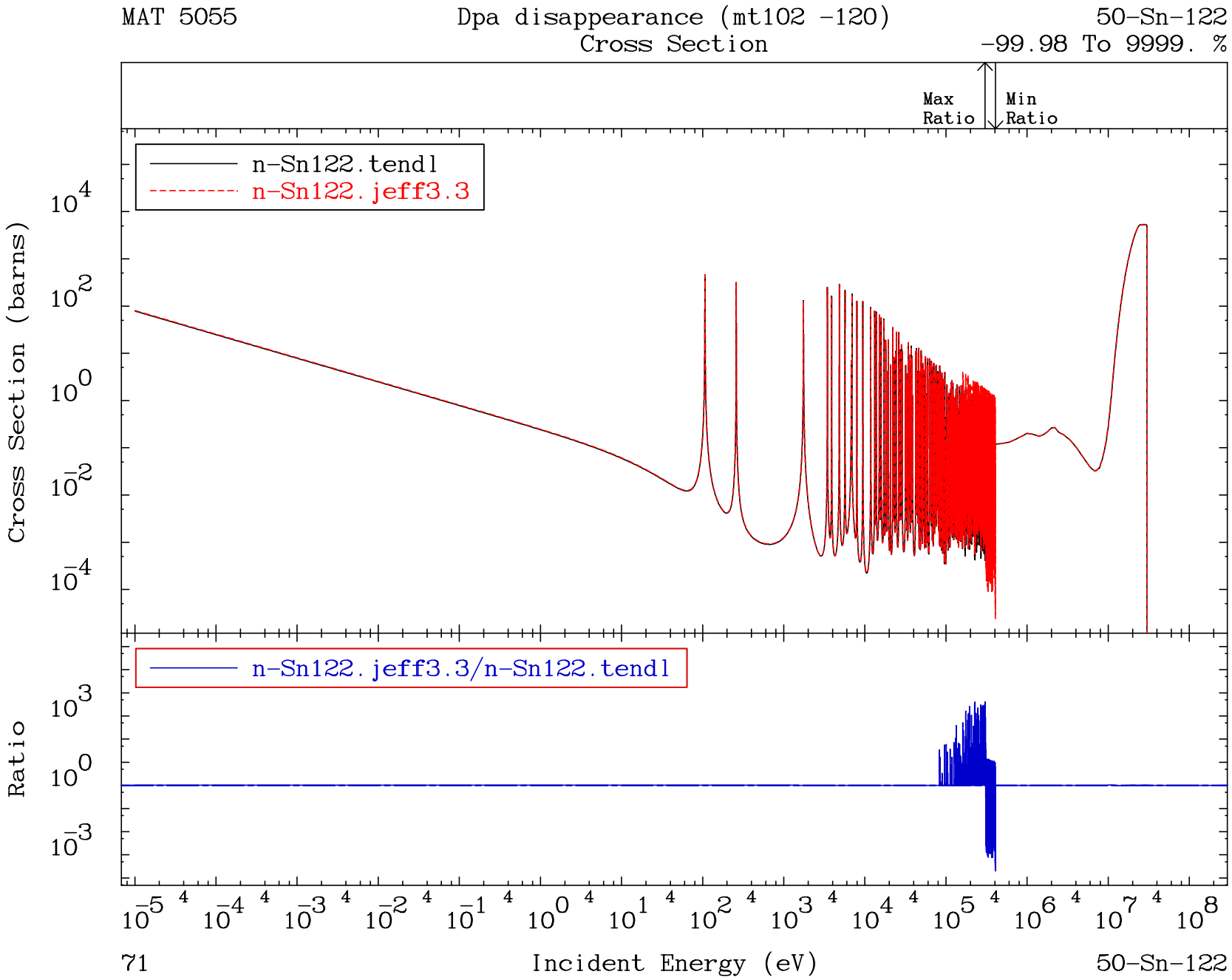

MAT 5055
Total photon (eV-barns)
Cross Section
50-Sn-122
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
66
50-Sn-122

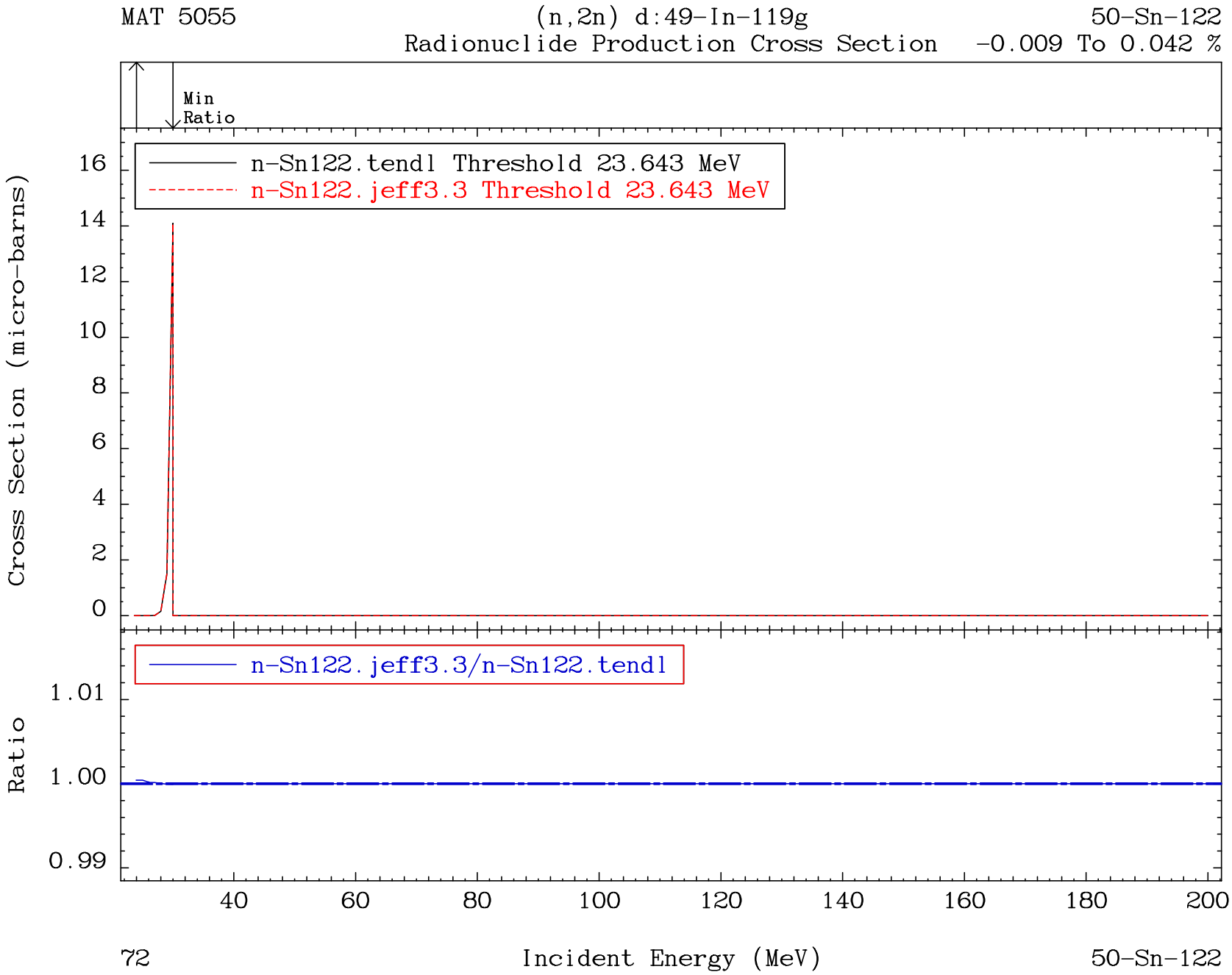

MAT 5055
Total kinematic kerma (high limit)
Cross Section
50-Sn-122
-83.53 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
67
50-Sn-122

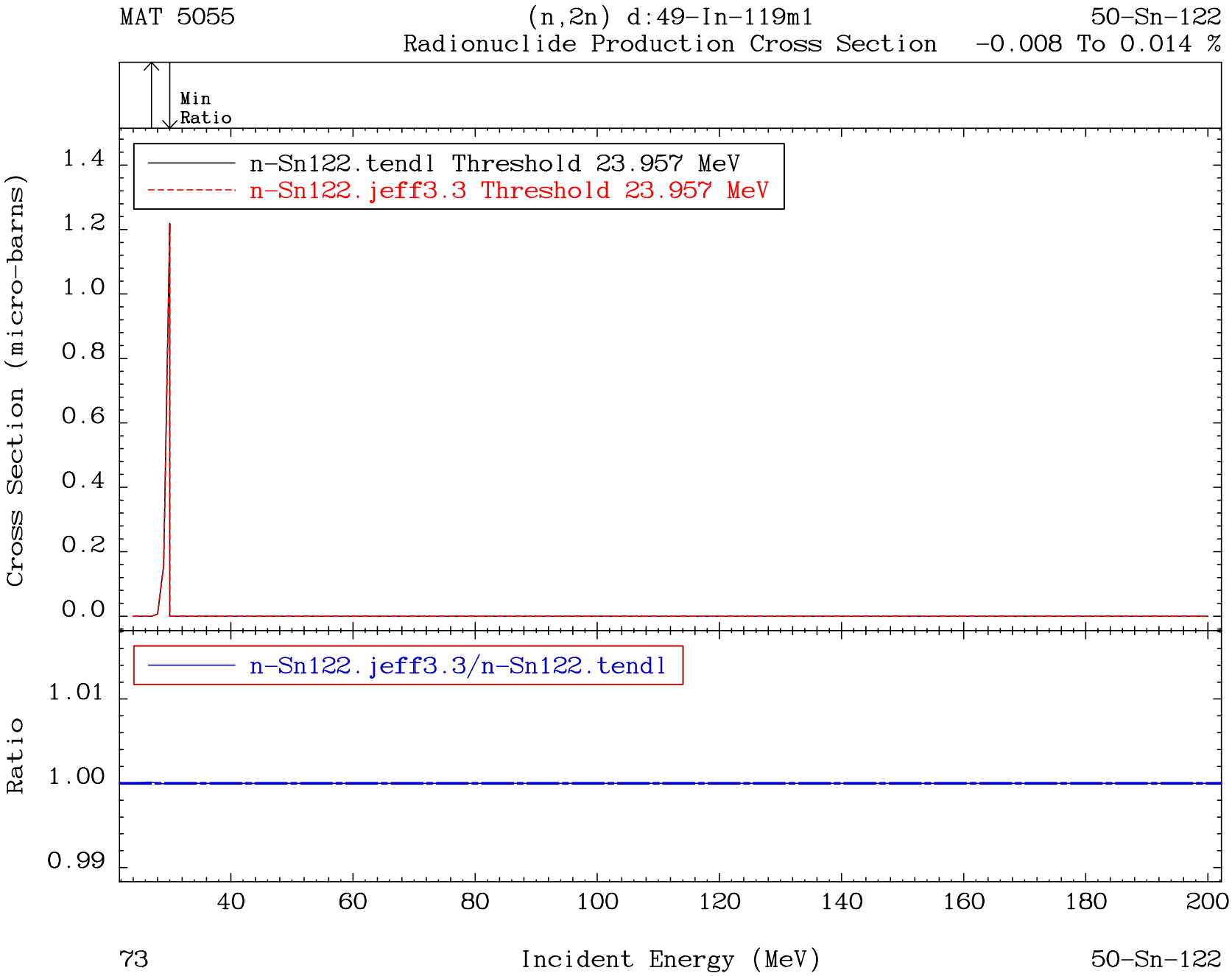

MAT 5055
Dpa total (eV-barns)
Cross Section
50-Sn-122
-42.83 To 491.2 %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
68
50-Sn-122

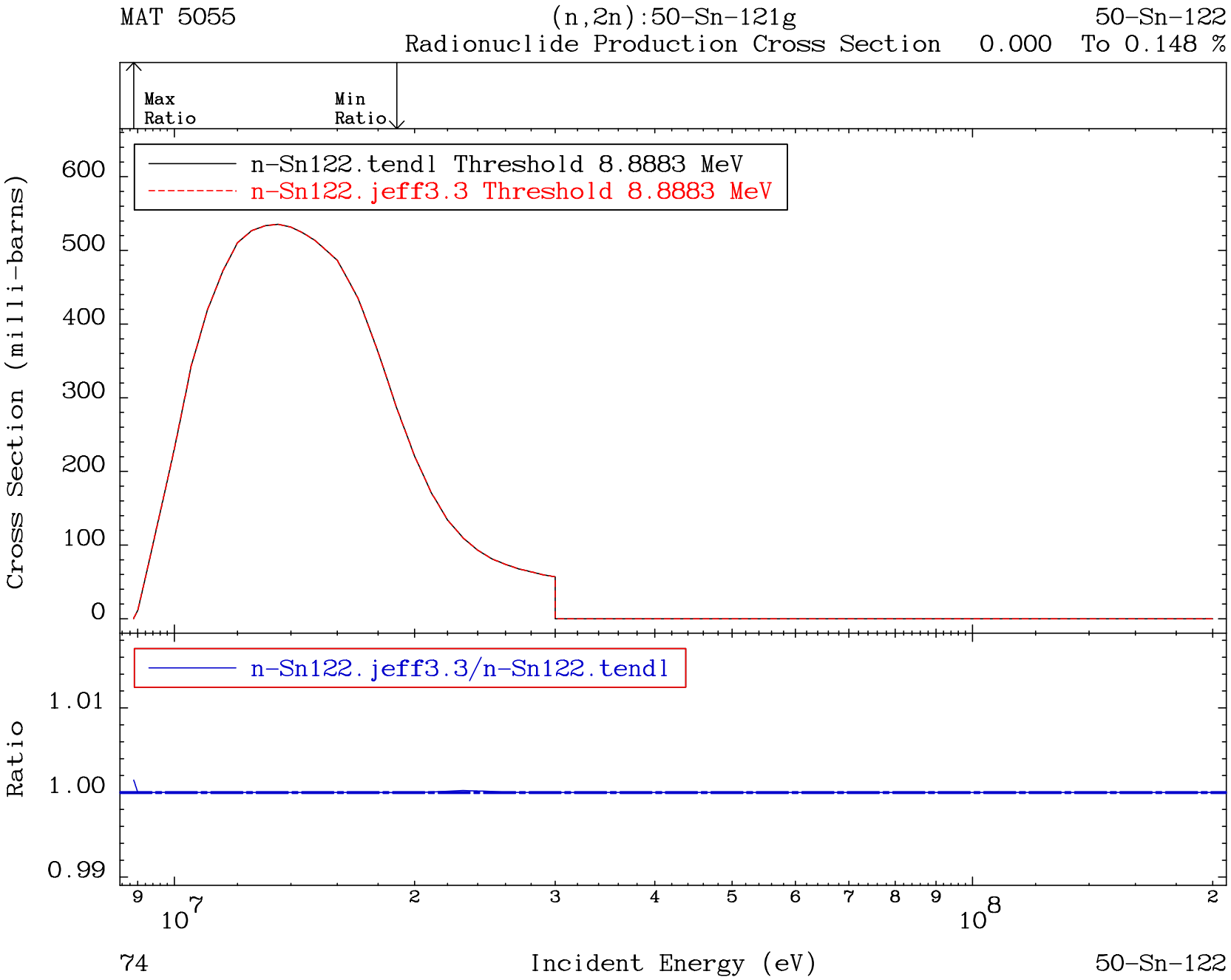

MAT 5055
Dpa elastic (mt2)
Cross Section
50-Sn-122
-42.83 To 491.2 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 750.00 eV
n-Sn122.jeff3.3 Threshold 750.00 eV
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
69
50-Sn-122

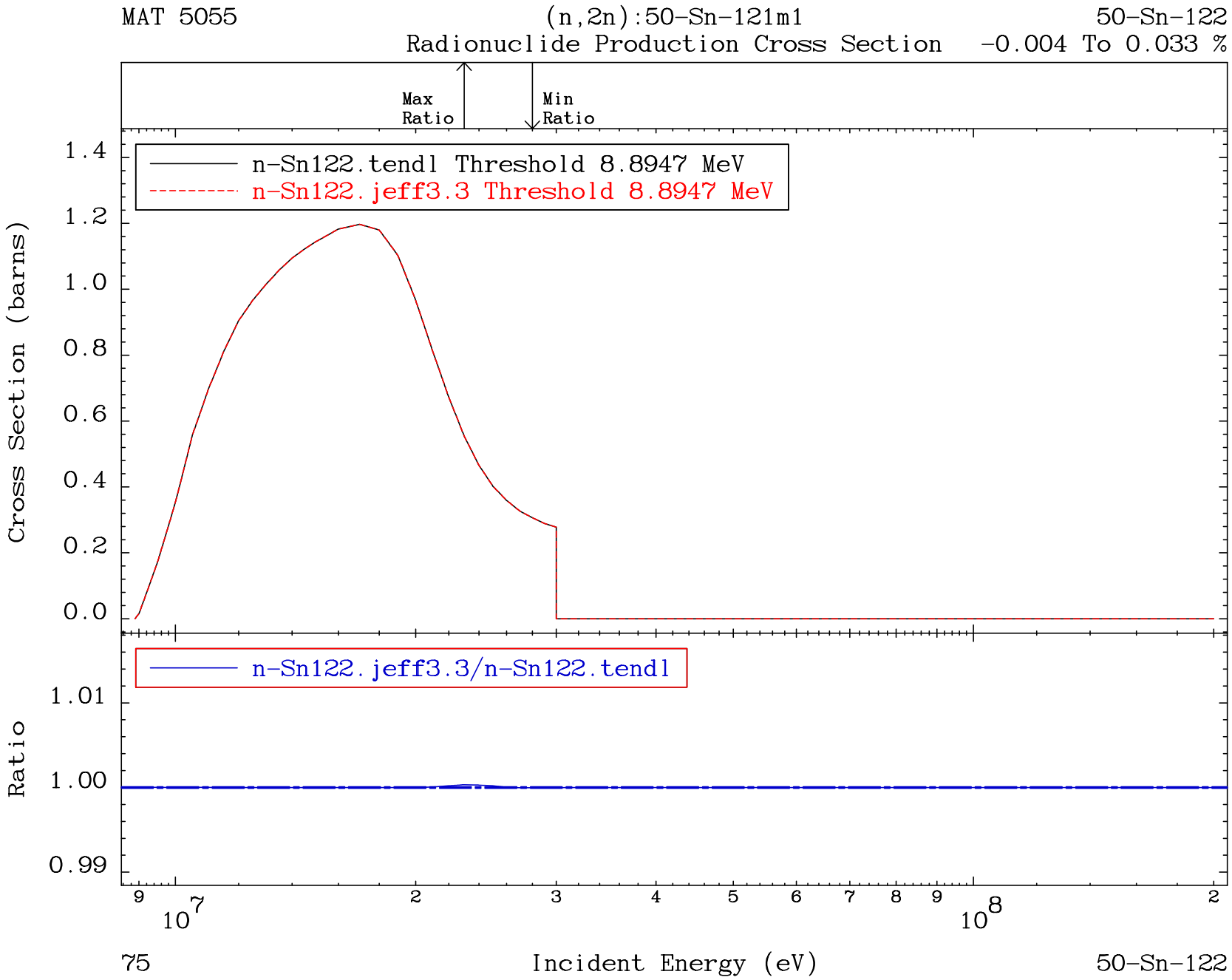

MAT 5055
Dpa inelastic (mt51-91)
Cross Section
50-Sn-122
-0.002 To 0.018 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 1.1500 MeV
n-Sn122.jeff3.3 Threshold 1.1500 MeV
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
70
50-Sn-122

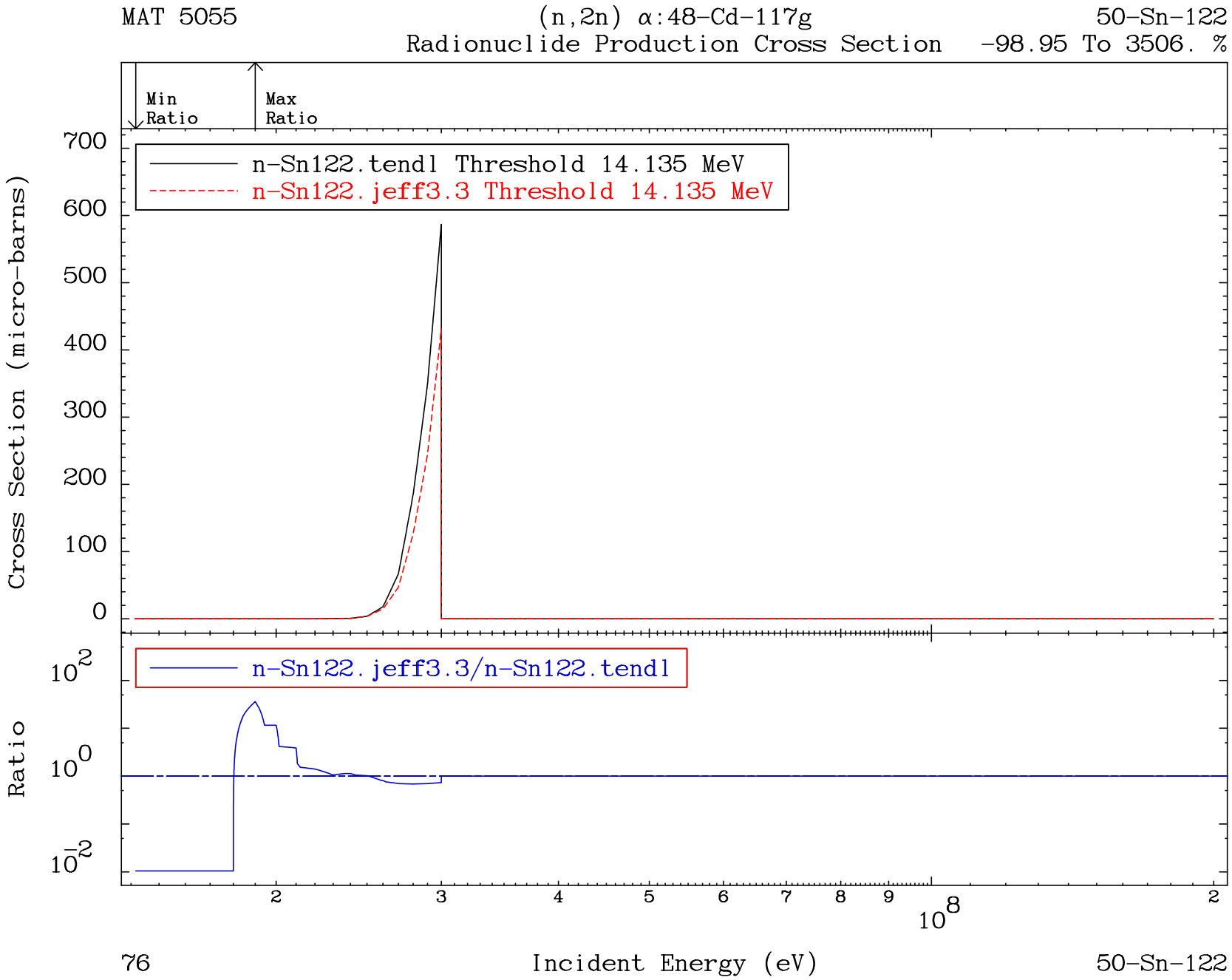

MAT 5055
Dpa disappearance (mt102 -120)
Cross Section
50-Sn-122
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl
n-Sn122.jeff3.3
Cross Section (barns)
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
Incident Energy (eV)
71
50-Sn-122

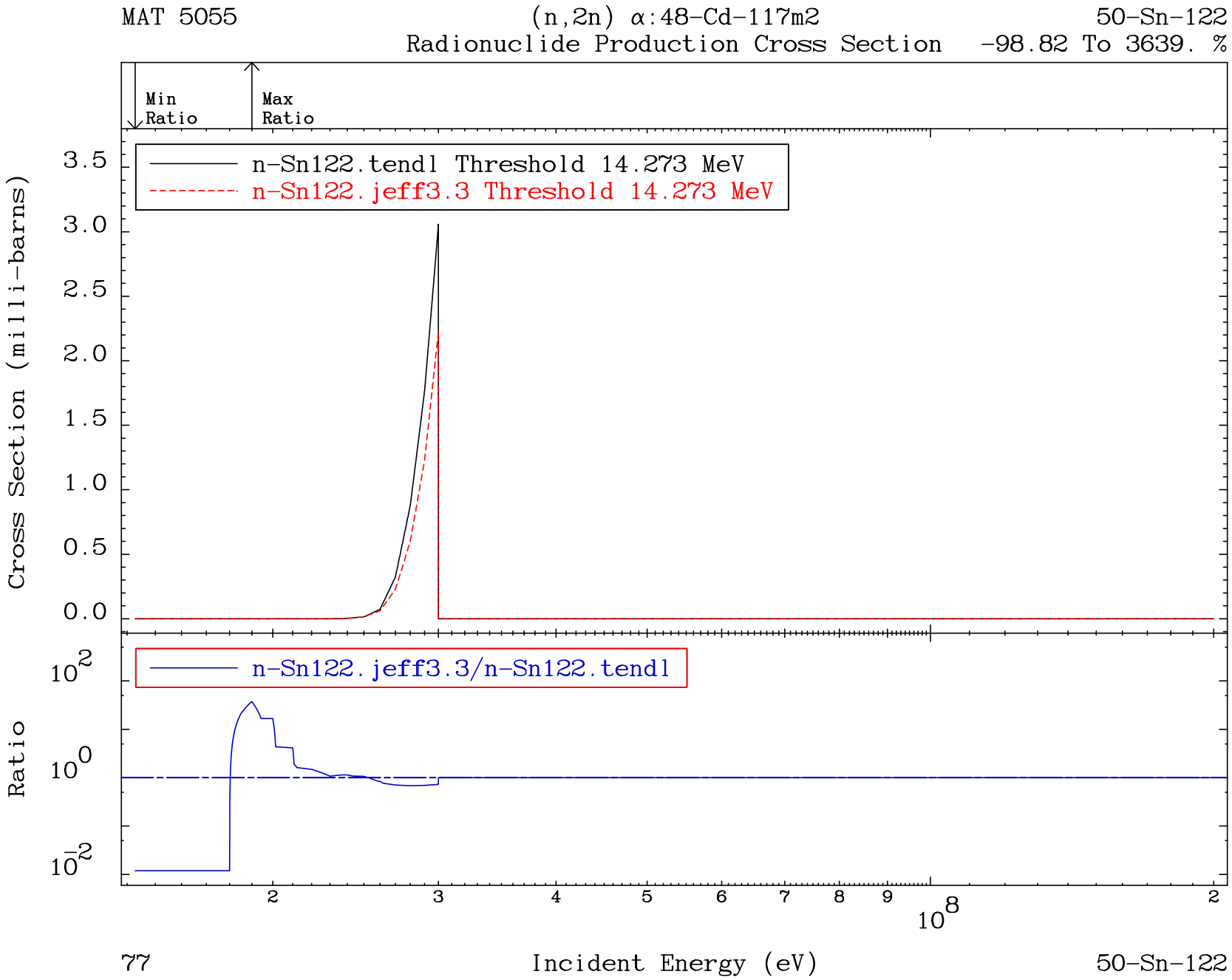

MAT 5055
(n,2n) d:49-In-119g
50-Sn-122
Radionuclide Production Cross Section
-0.009 To 0.042 %
Min
Ratio
n-Sn122.tendl Threshold 23.643 MeV
n-Sn122.jeff3.3 Threshold 23.643 MeV
Cross Section (micro-barns)
16
14
12
10
8
6
4
2
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
72
Incident Energy (MeV)
50-Sn-122

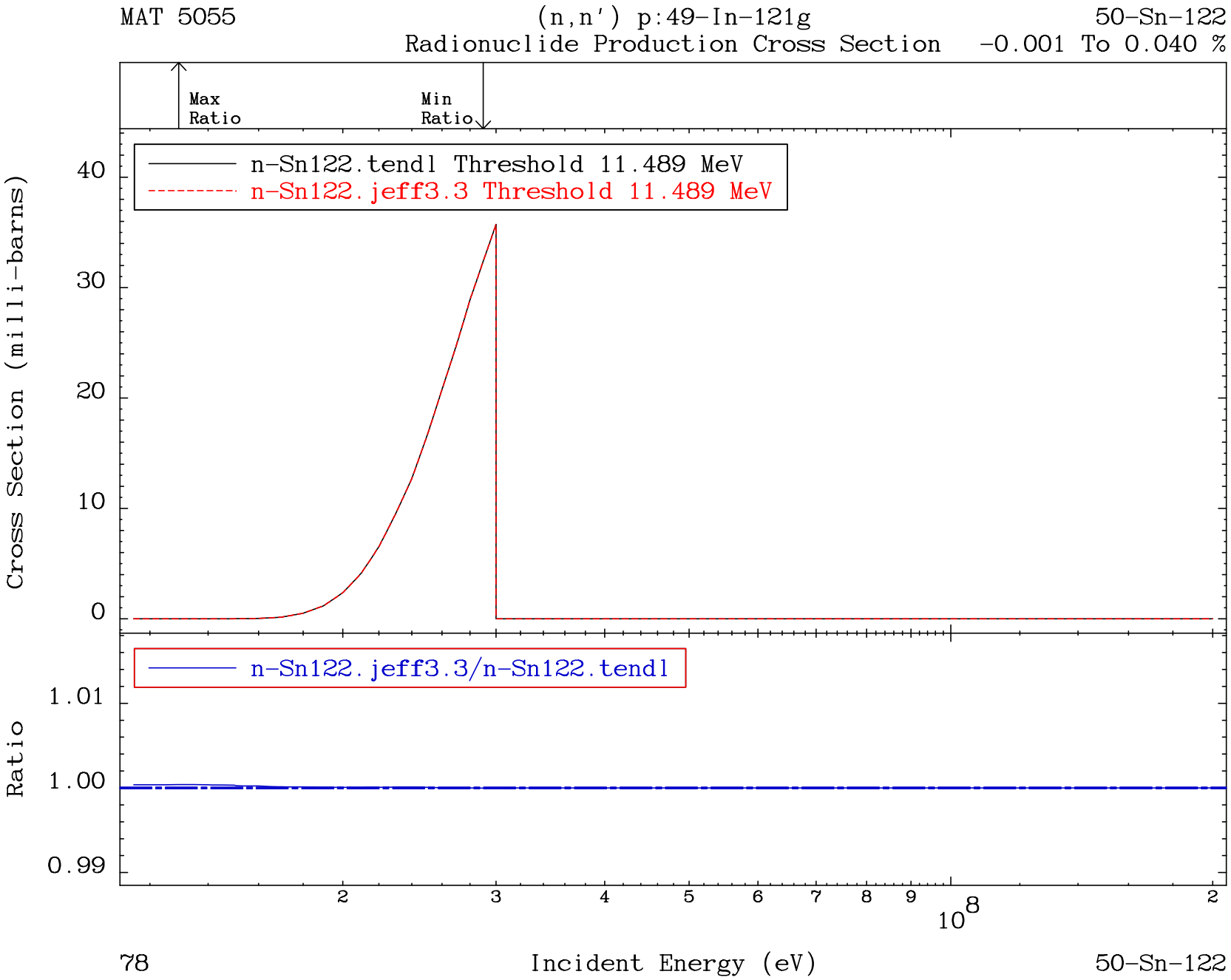

MAT 5055
(n,2n) d:49-In-119m1
50-Sn-122
Radionuclide Production Cross Section
-0.008 To 0.014 %
Min
Ratio
n-Sn122.tendl Threshold 23.957 MeV
n-Sn122.jeff3.3 Threshold 23.957 MeV
Cross Section (micro-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
73
Incident Energy (MeV)
50-Sn-122

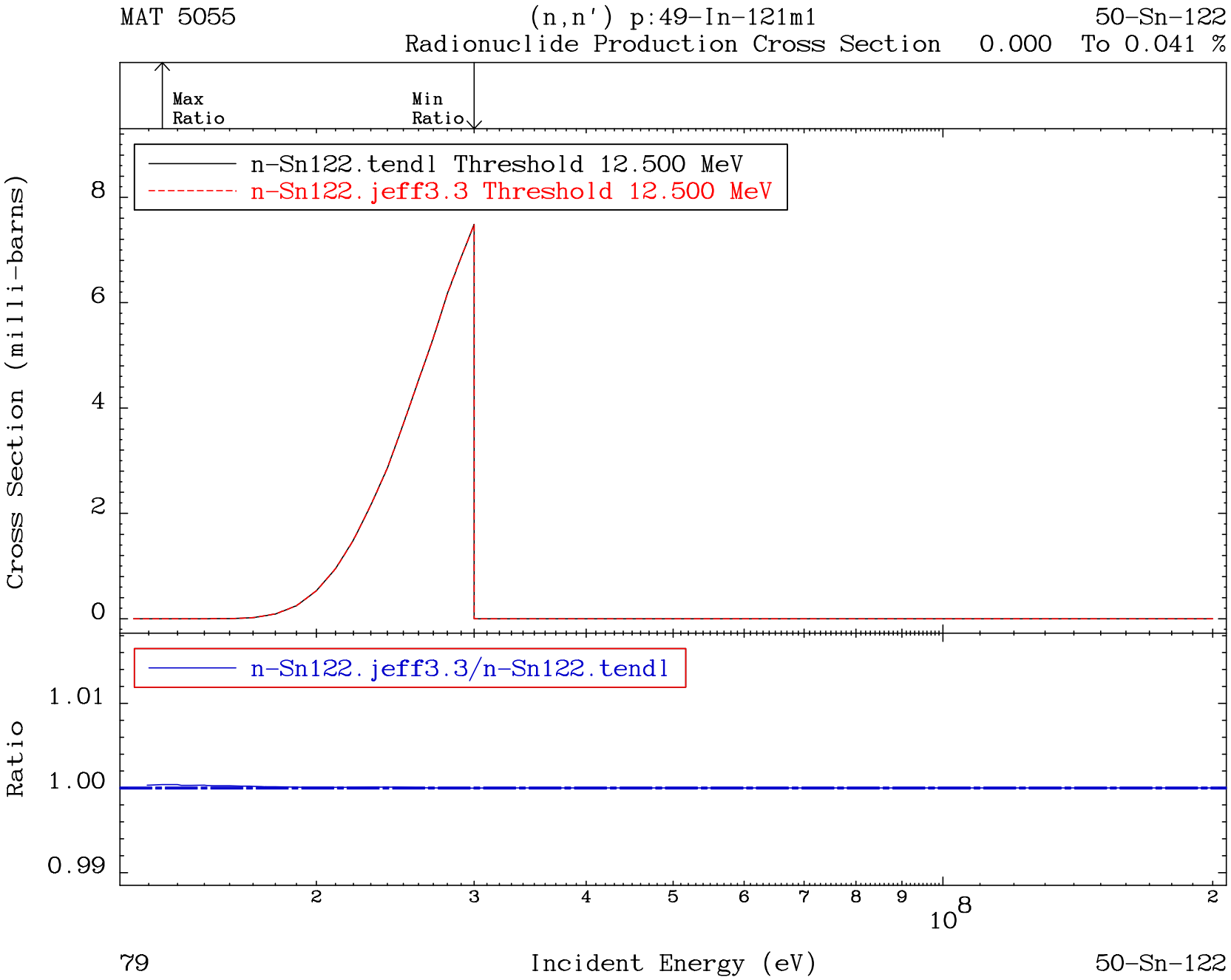

MAT 5055
(n,2n):50-Sn-121g
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.148 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 8.8883 MeV
n-Sn122.jeff3.3 Threshold 8.8883 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
74
Incident Energy (eV)
50-Sn-122

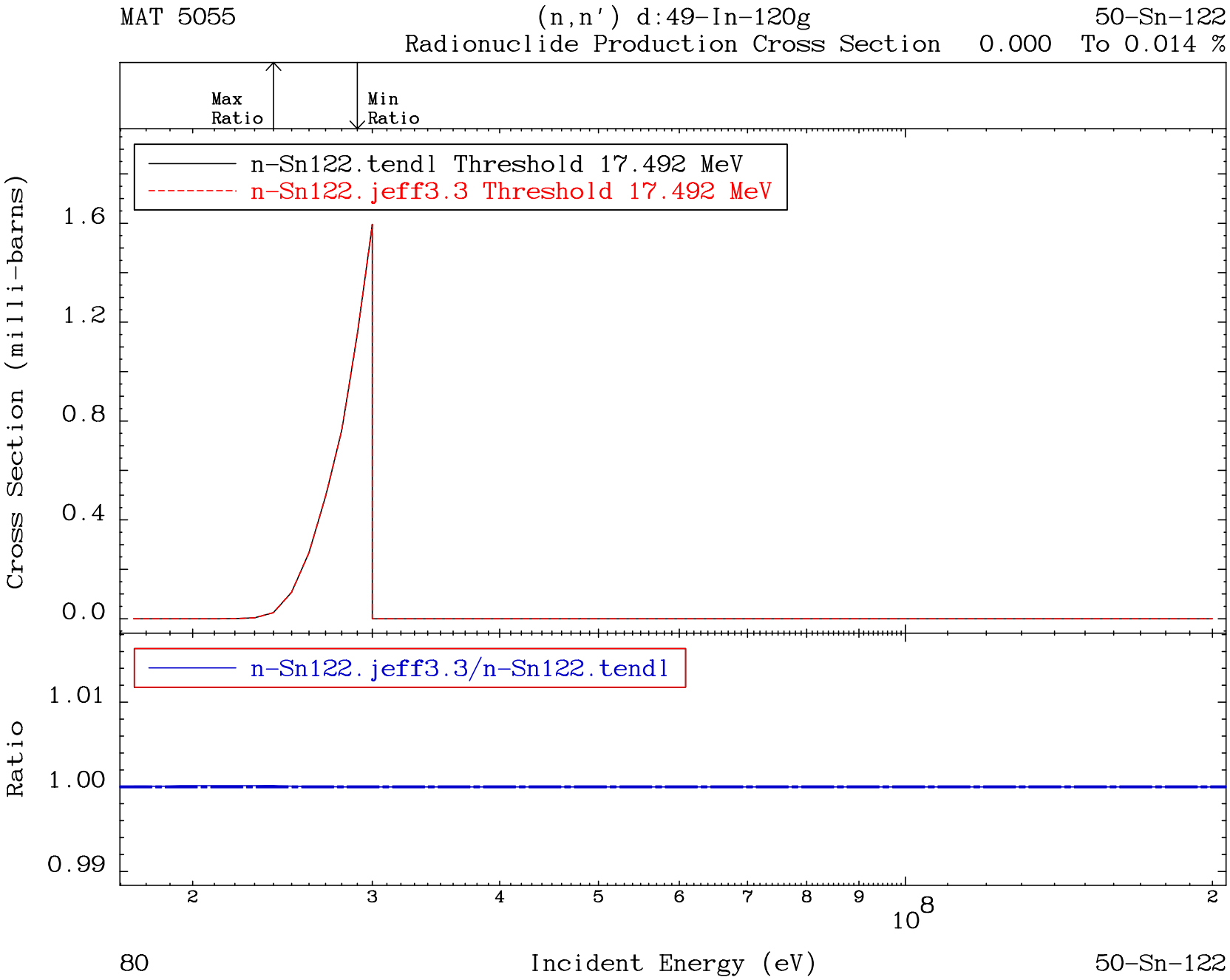

MAT 5055
(n,2n):50-Sn-121m1
50-Sn-122
Radionuclide Production Cross Section
-0.004 To 0.033 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 8.8947 MeV
n-Sn122.jeff3.3 Threshold 8.8947 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
75
Incident Energy (eV)
50-Sn-122

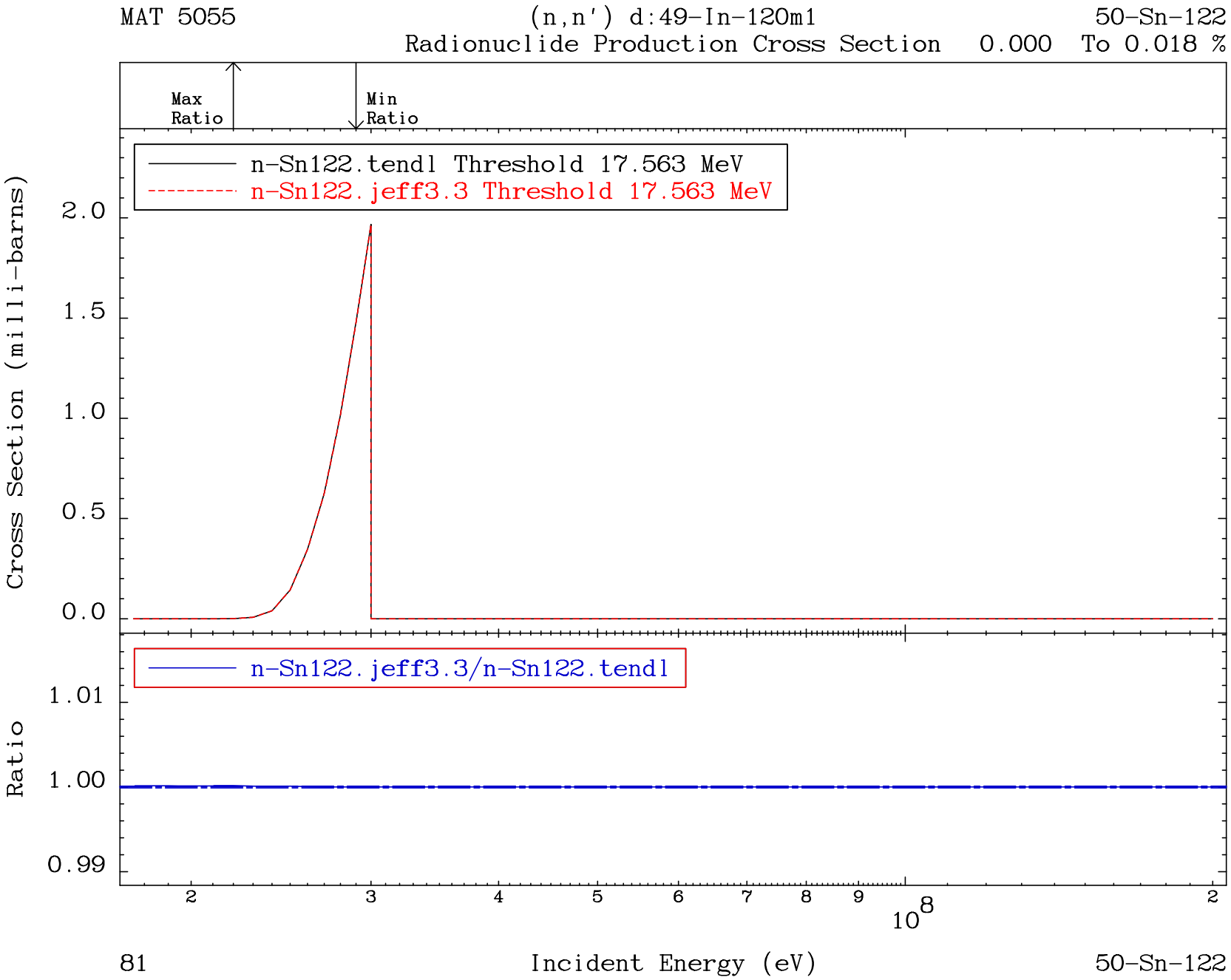

MAT 5055
(n,2n) α:48-Cd-117g
50-Sn-122
Radionuclide Production Cross Section -98.95 To 3506. %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 14.135 MeV
n-Sn122.jeff3.3 Threshold 14.135 MeV
Cross Section (micro-barns)
700
600
500
400
300
200
100
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
76
Incident Energy (eV)
50-Sn-122

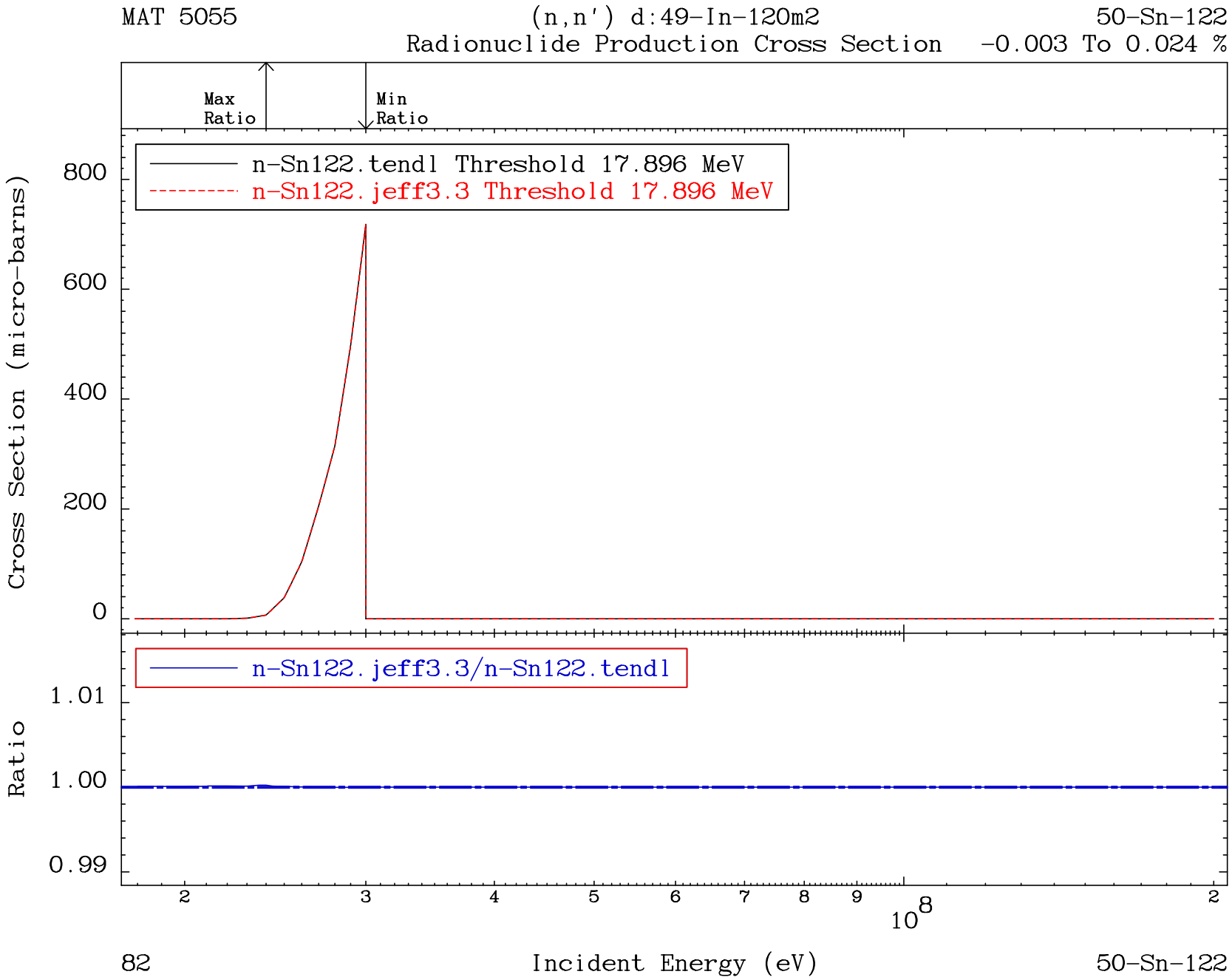

MAT 5055
(n,2n) α:48-Cd-117m2
50-Sn-122
Radionuclide Production Cross Section -98.82 To 3639. %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 14.273 MeV
n-Sn122.jeff3.3 Threshold 14.273 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
77
Incident Energy (eV)
50-Sn-122

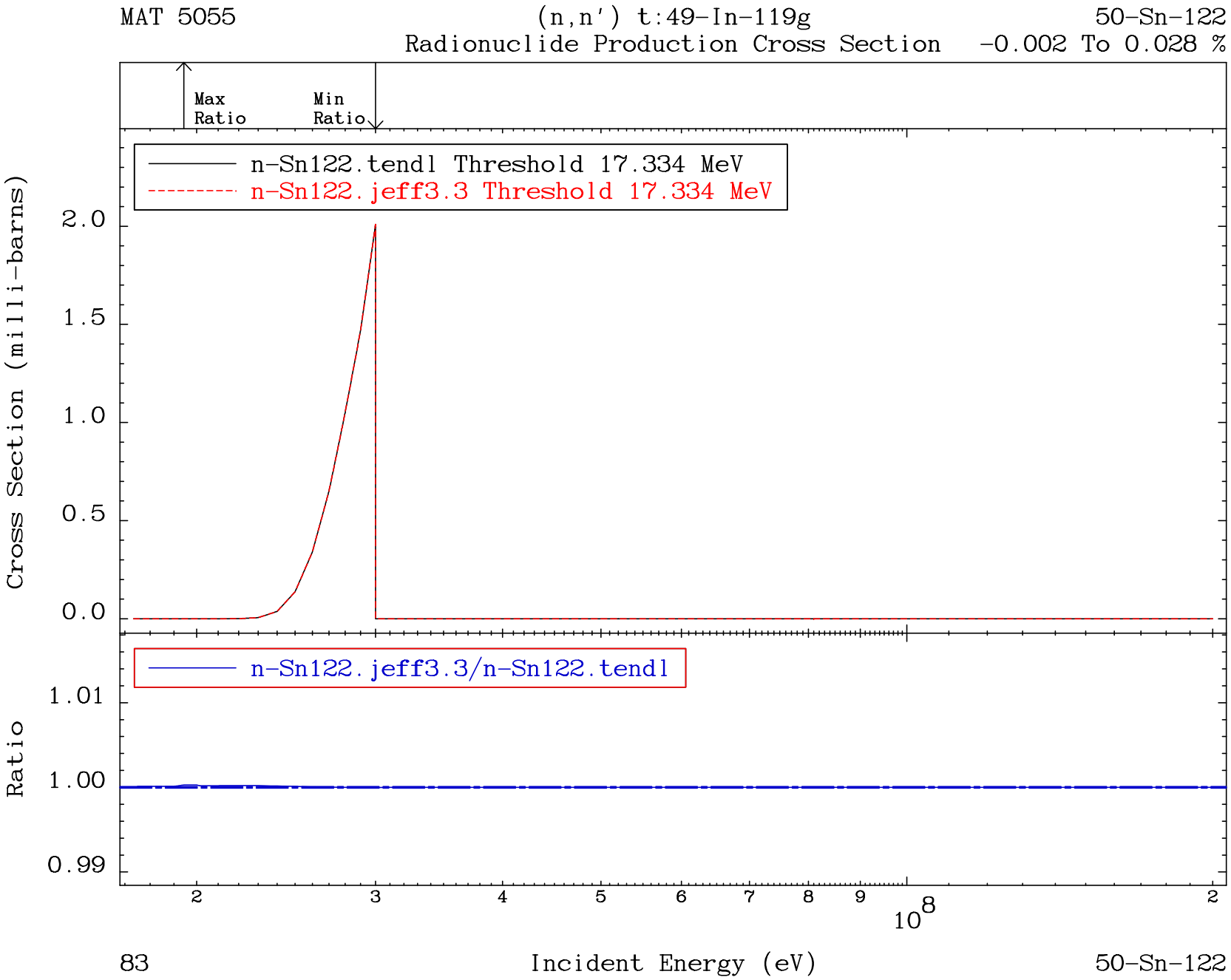

MAT 5055
(n,n') p:49-In-121g
50-Sn-122
Radionuclide Production Cross Section
-0.001 To 0.040 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 11.489 MeV
n-Sn122.jeff3.3 Threshold 11.489 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
78
Incident Energy (eV)
50-Sn-122

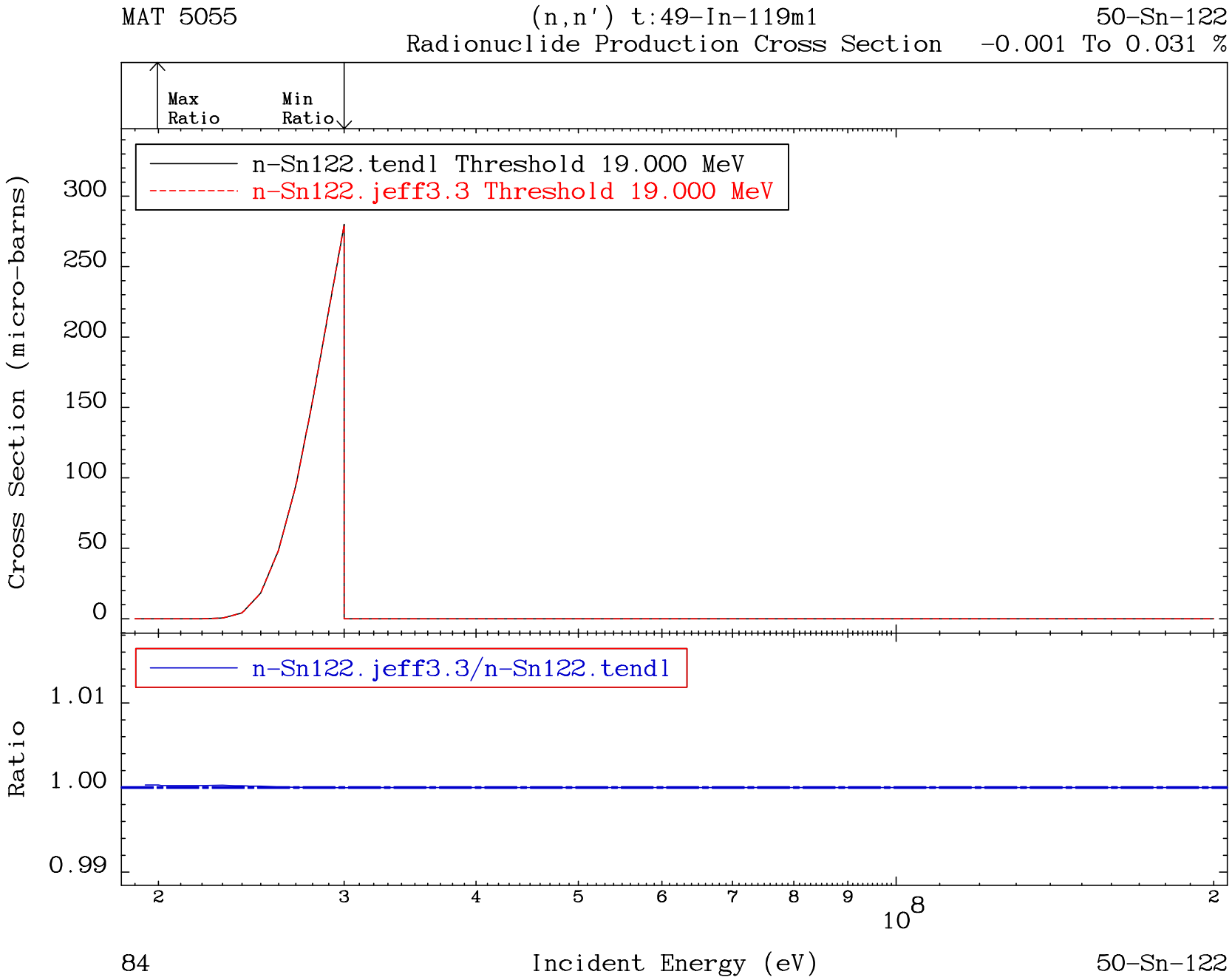

MAT 5055
(n,n') p:49-In-121m1
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.041 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 12.500 MeV
n-Sn122.jeff3.3 Threshold 12.500 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
50-Sn-122

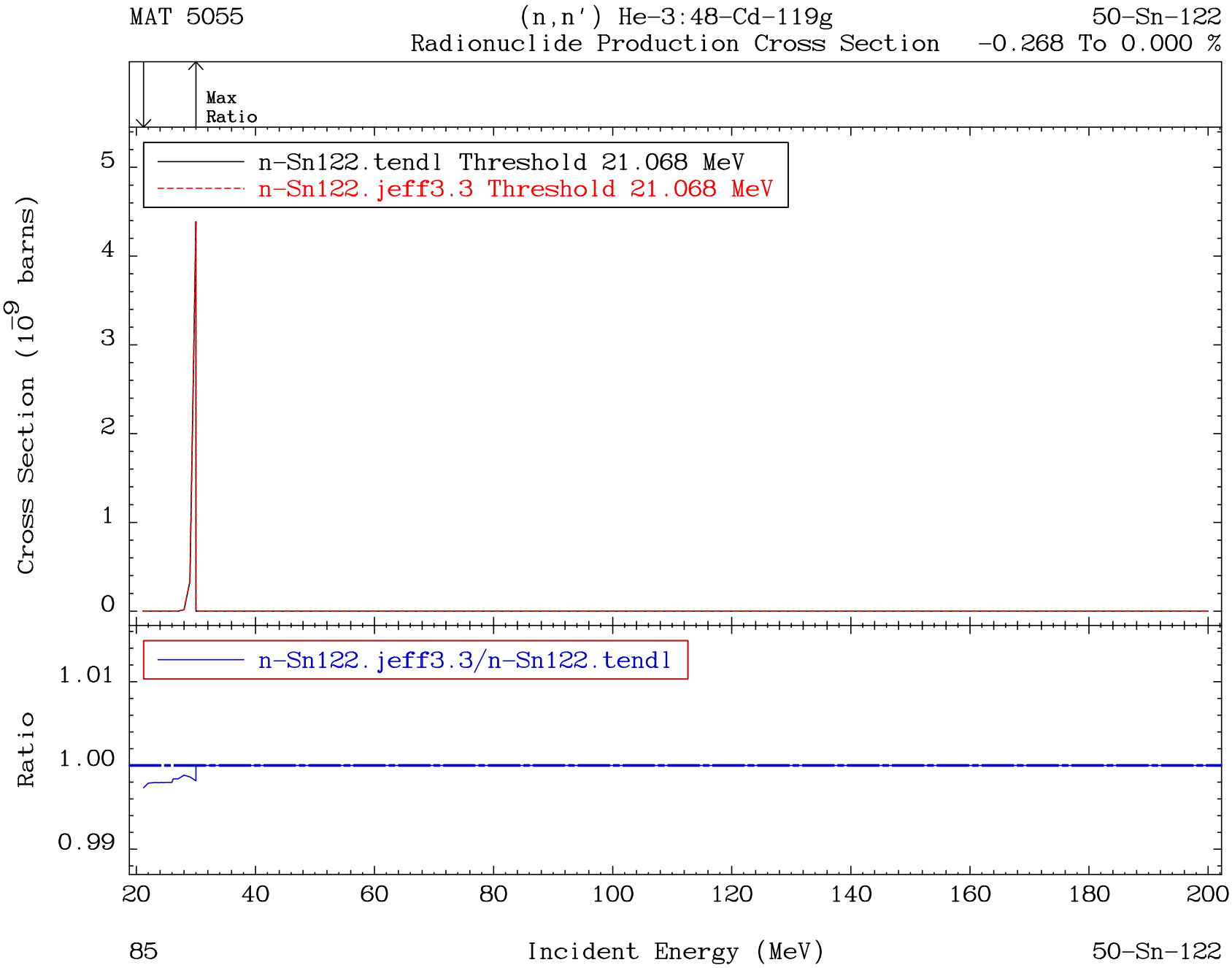

MAT 5055
(n,n') d:49-In-120g
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.014 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 17.492 MeV
n-Sn122.jeff3.3 Threshold 17.492 MeV
Cross Section (milli-barns)
1.6
1.2
0.8
0.4
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
50-Sn-122

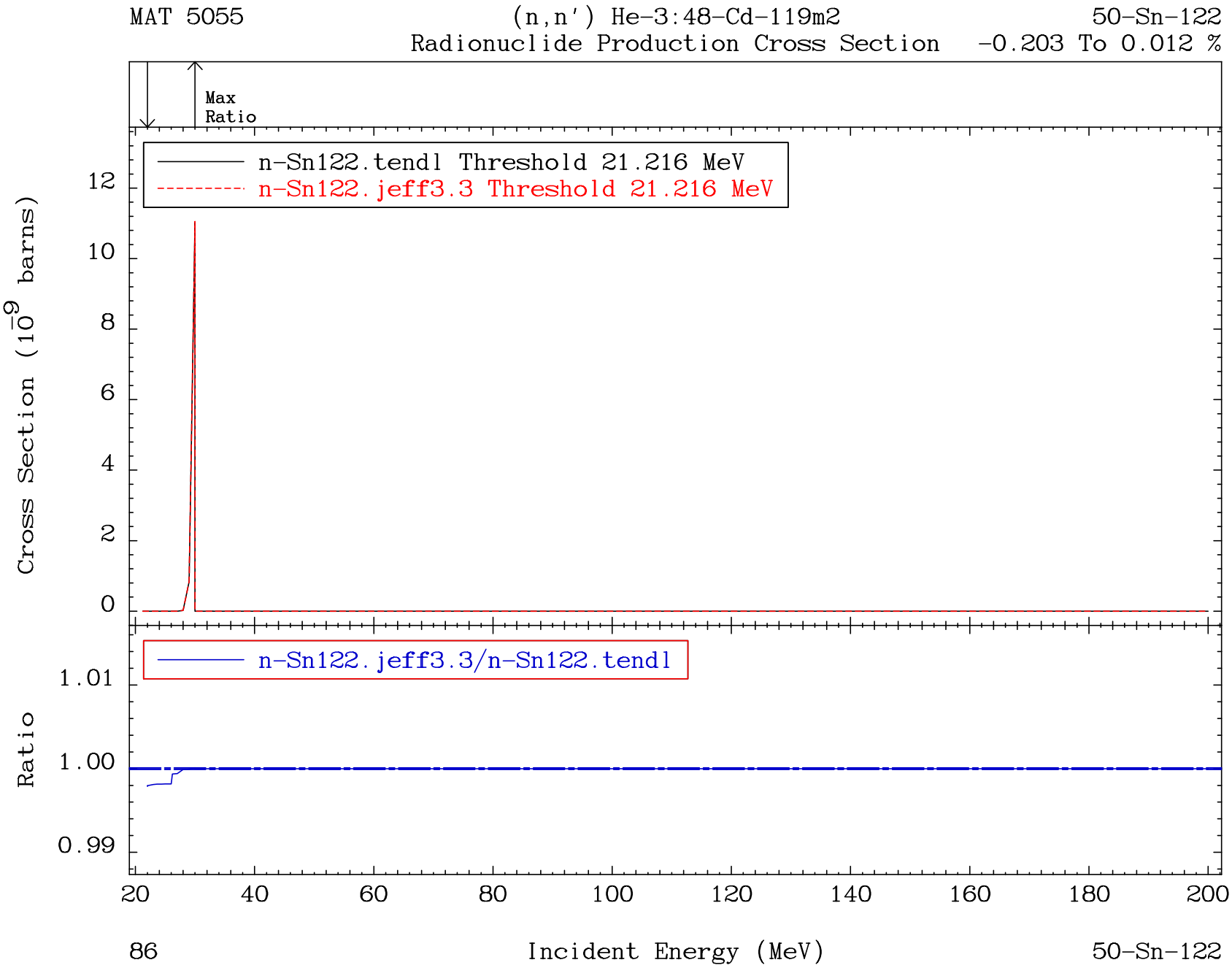

MAT 5055
(n,n') d:49-In-120m1
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.018 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 17.563 MeV
n-Sn122.jeff3.3 Threshold 17.563 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
50-Sn-122

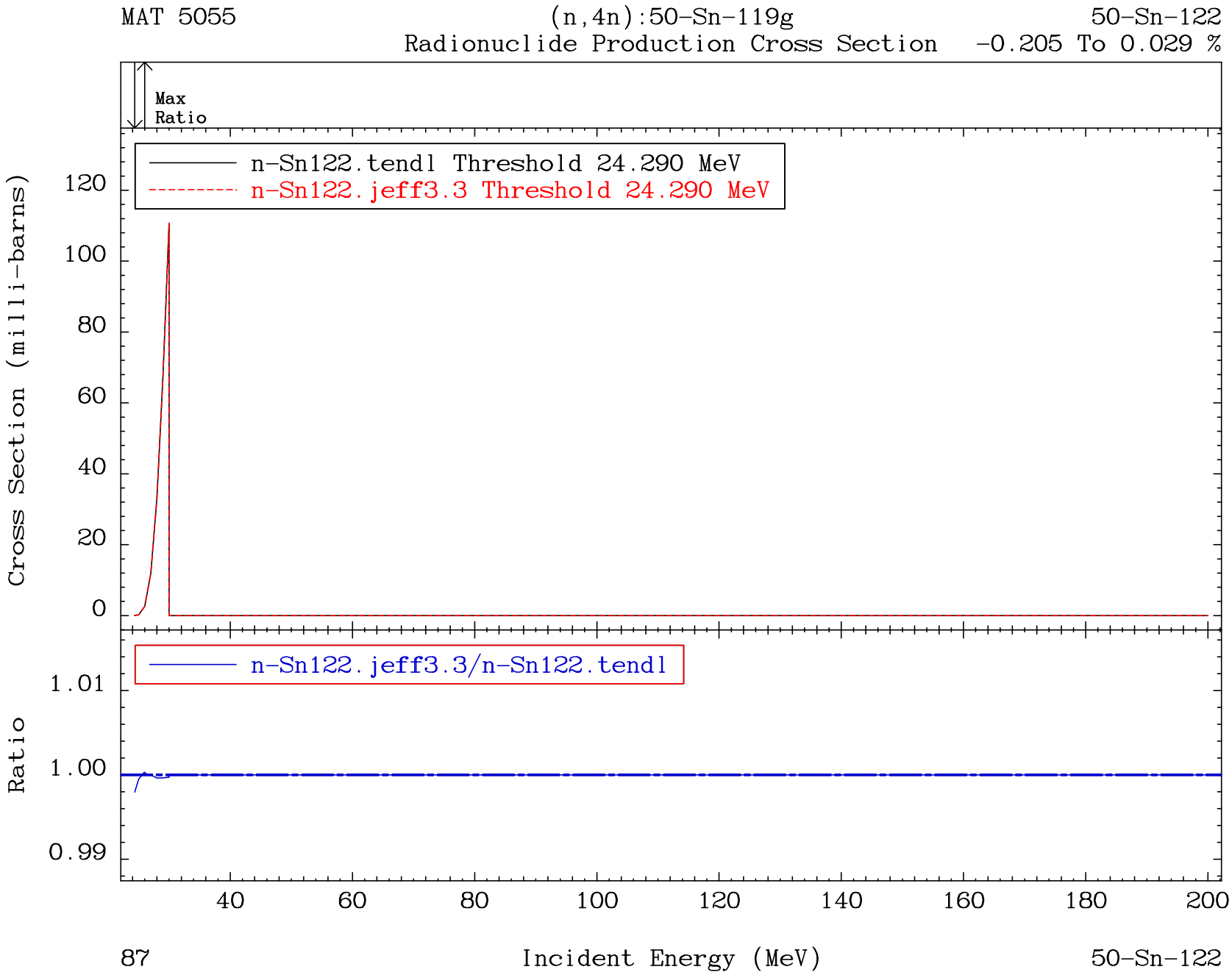

MAT 5055
(n,n') d:49-In-120m2
50-Sn-122
Radionuclide Production Cross Section
-0.003 To 0.024 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 17.896 MeV
n-Sn122.jeff3.3 Threshold 17.896 MeV
Cross Section (micro-barns)
800
600
400
200
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
82
Incident Energy (eV)
50-Sn-122

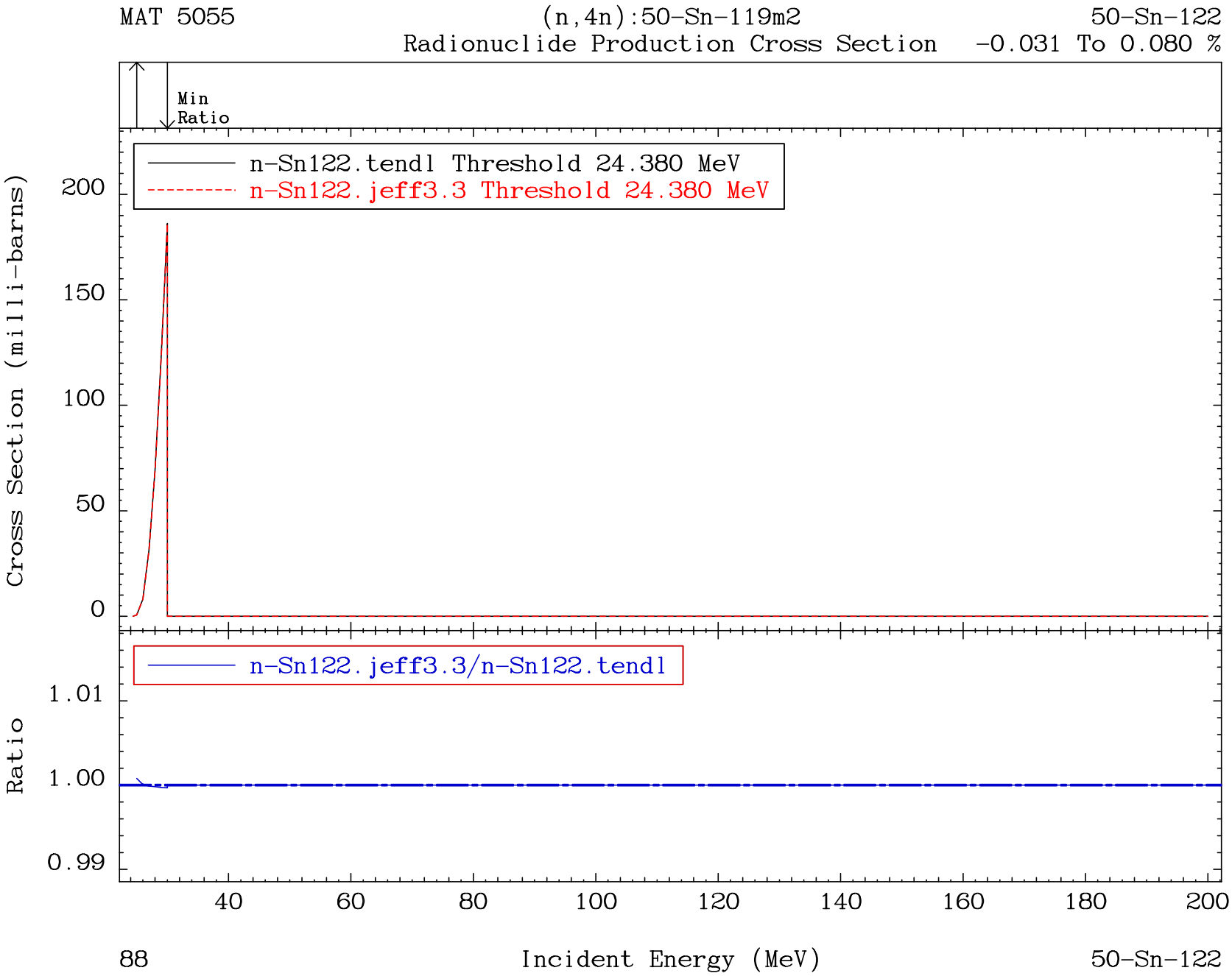

MAT 5055
(n,n') t:49-In-119g
50-Sn-122
Radionuclide Production Cross Section
-0.002 To 0.028 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 17.334 MeV
n-Sn122.jeff3.3 Threshold 17.334 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
50-Sn-122

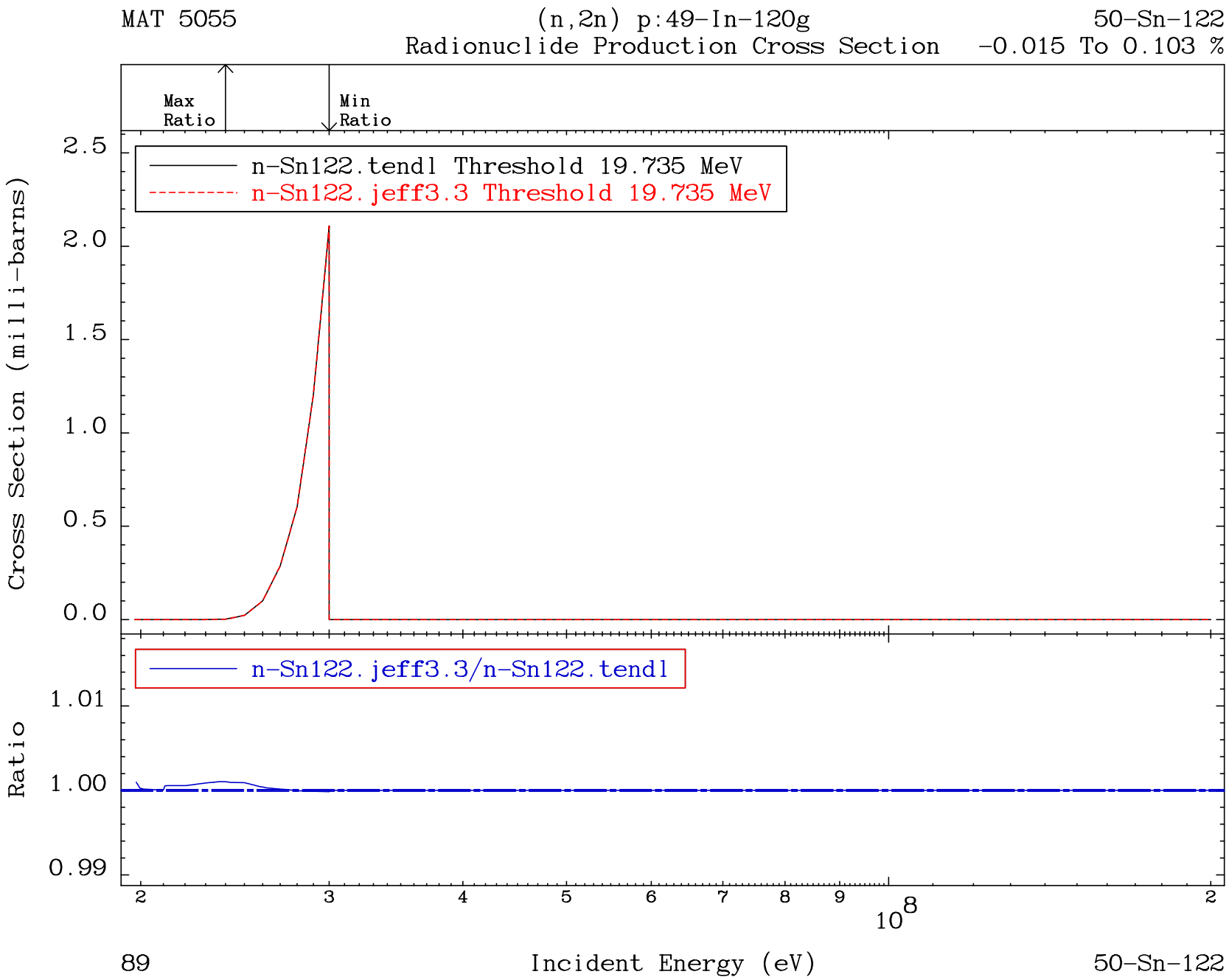

MAT 5055
(n,n') t:49-In-119m1
50-Sn-122
Radionuclide Production Cross Section
-0.001 To 0.031 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 19.000 MeV
n-Sn122.jeff3.3 Threshold 19.000 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
84
Incident Energy (eV)
50-Sn-122

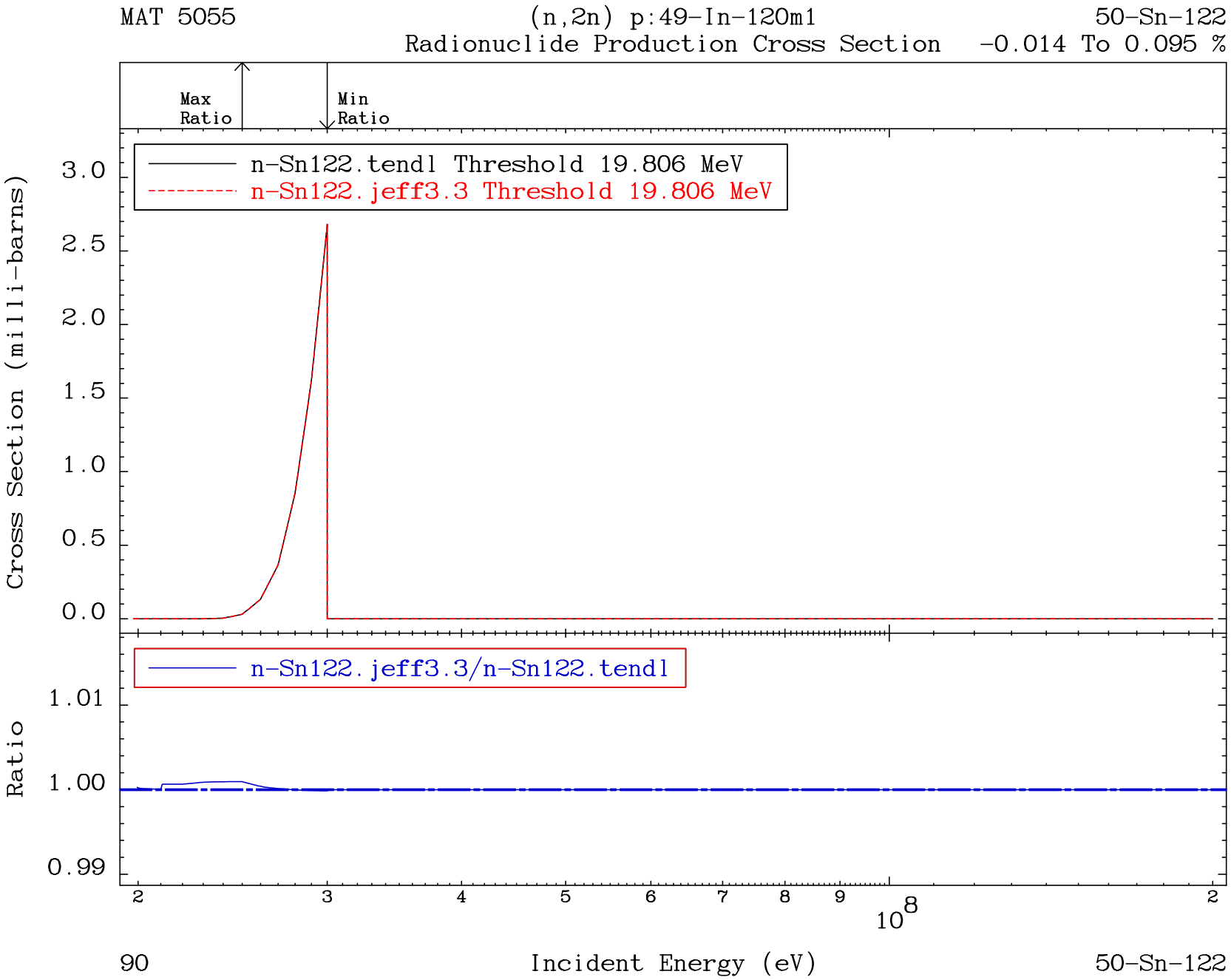

MAT 5055
(n,n') He-3:48-Cd-119g
50-Sn-122
Radionuclide Production Cross Section
-0.268 To 0.000 %
Max
Ratio
n-Sn122.tendl Threshold 21.068 MeV
n-Sn122.jeff3.3 Threshold 21.068 MeV
Cross Section (10^{-9} barns)
0
1
2
3
4
5
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
20
40
60
80
100
120
140
160
180
200
85
Incident Energy (MeV)
50-Sn-122

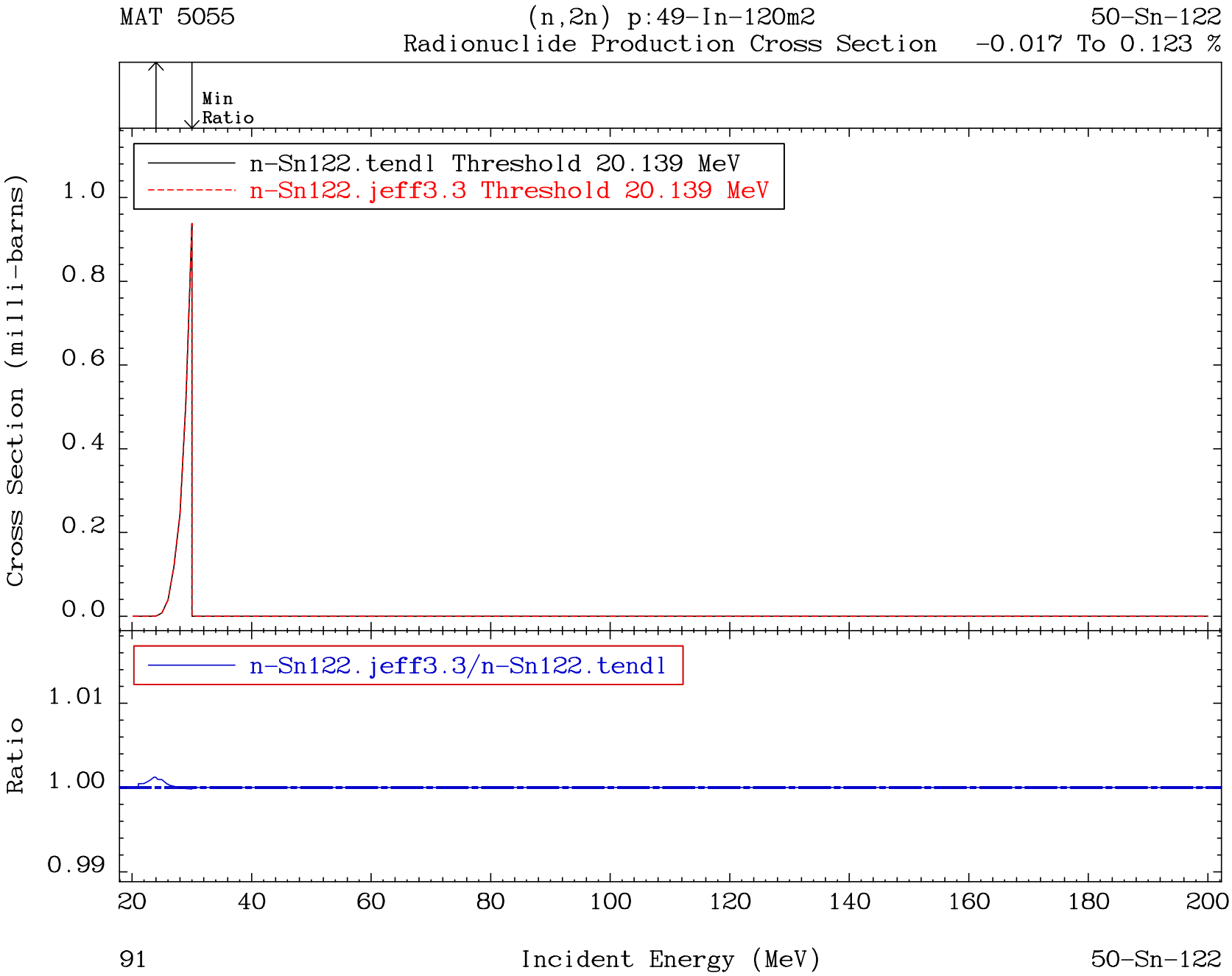

MAT 5055
(n,n') He-3:48-Cd-119m2
50-Sn-122
Radionuclide Production Cross Section
-0.203 To 0.012 %
Max
Ratio
n-Sn122.tendl Threshold 21.216 MeV
n-Sn122.jeff3.3 Threshold 21.216 MeV
Cross Section (10^{-9} barns)
0
2
4
6
8
10
12
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
20
40
60
80
100
120
140
160
180
200
86
Incident Energy (MeV)
50-Sn-122

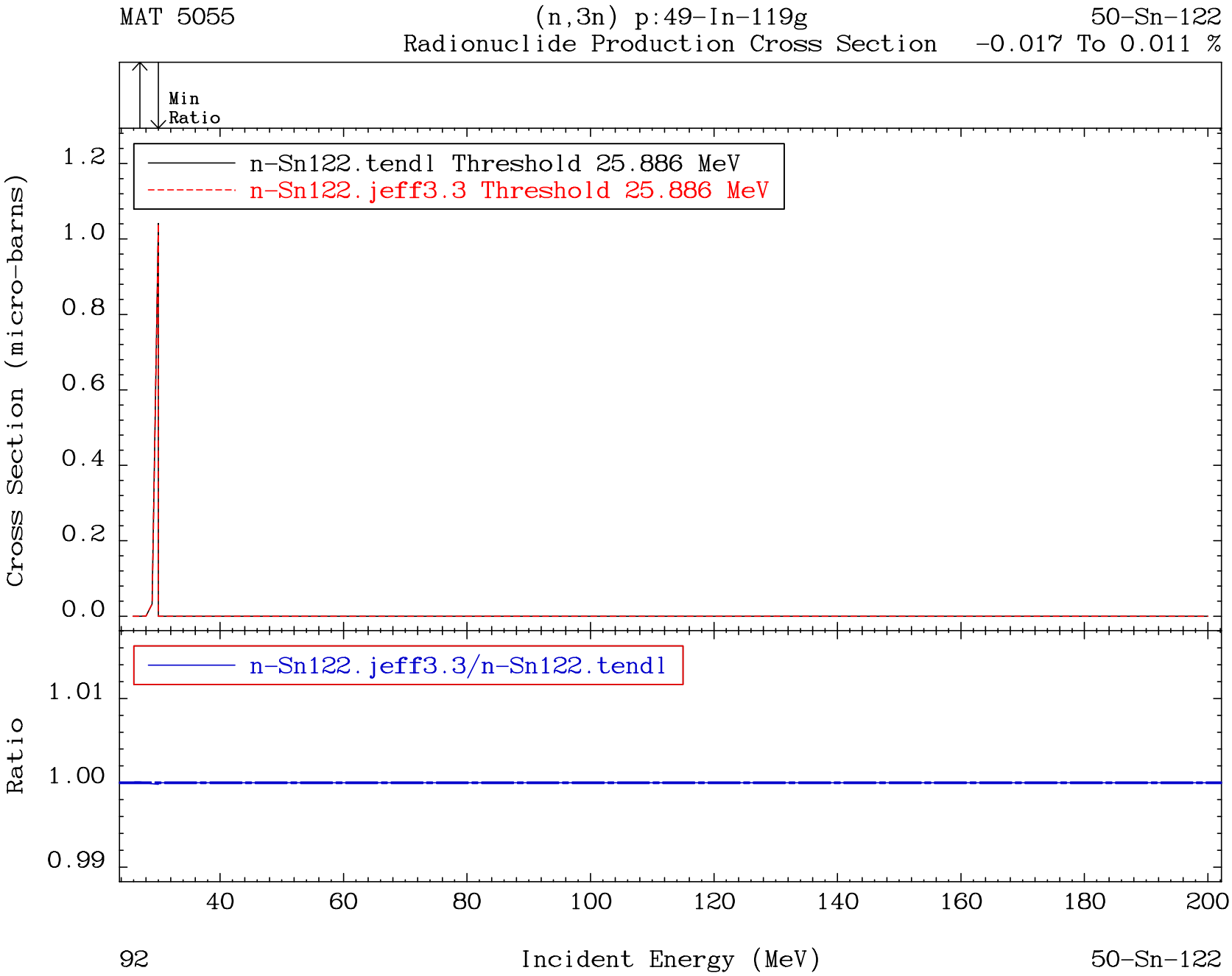

MAT 5055
(n,4n):50-Sn-119g
50-Sn-122
Radionuclide Production Cross Section
-0.205 To 0.029 %
Max
Ratio
n-Sn122.tendl Threshold 24.290 MeV
n-Sn122.jeff3.3 Threshold 24.290 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
87
Incident Energy (MeV)
50-Sn-122

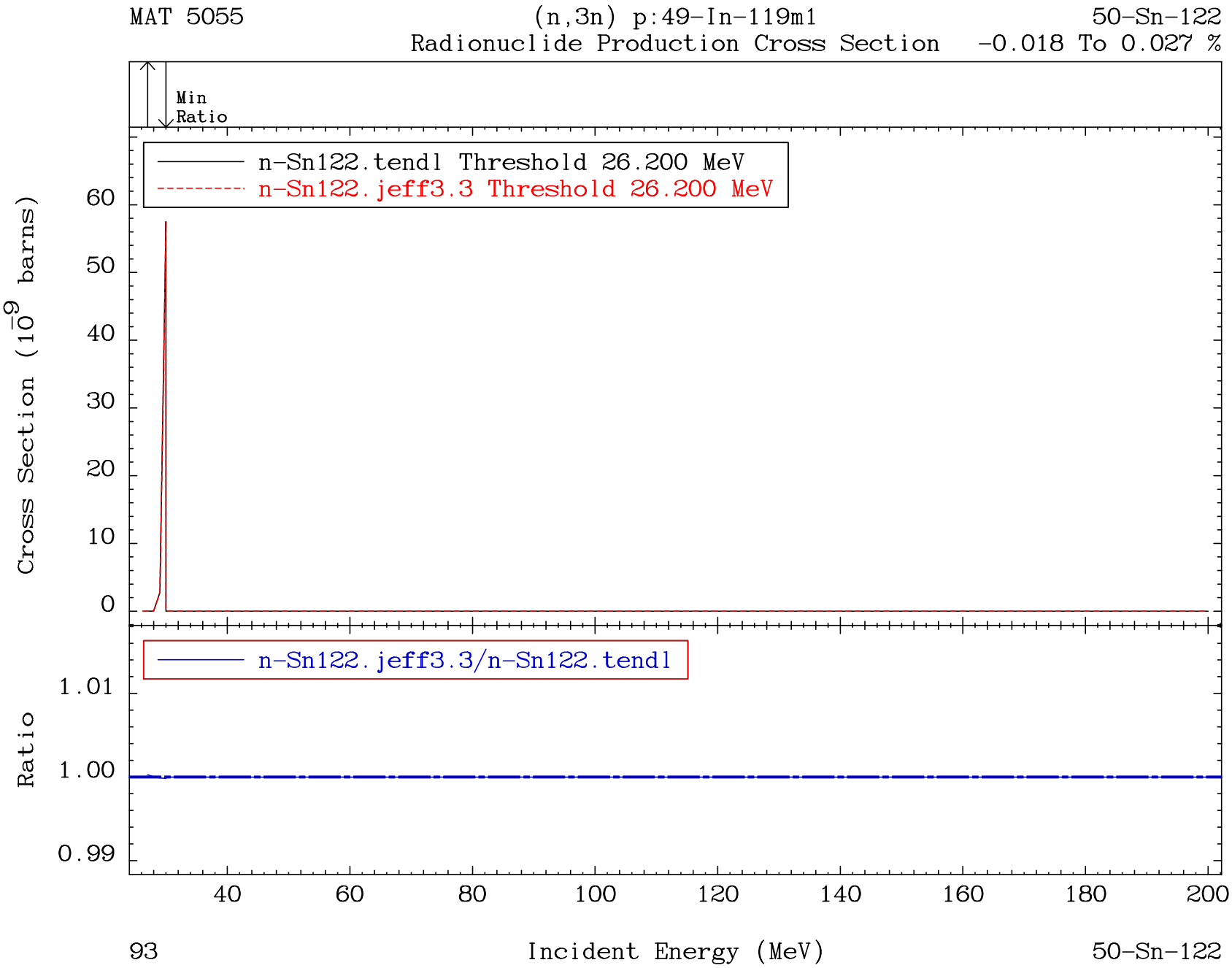

MAT 5055
(n,4n):50-Sn-119m2
50-Sn-122
Radionuclide Production Cross Section
-0.031 To 0.080 %
Min
Ratio
n-Sn122.tendl Threshold 24.380 MeV
n-Sn122.jeff3.3 Threshold 24.380 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
88
Incident Energy (MeV)
50-Sn-122

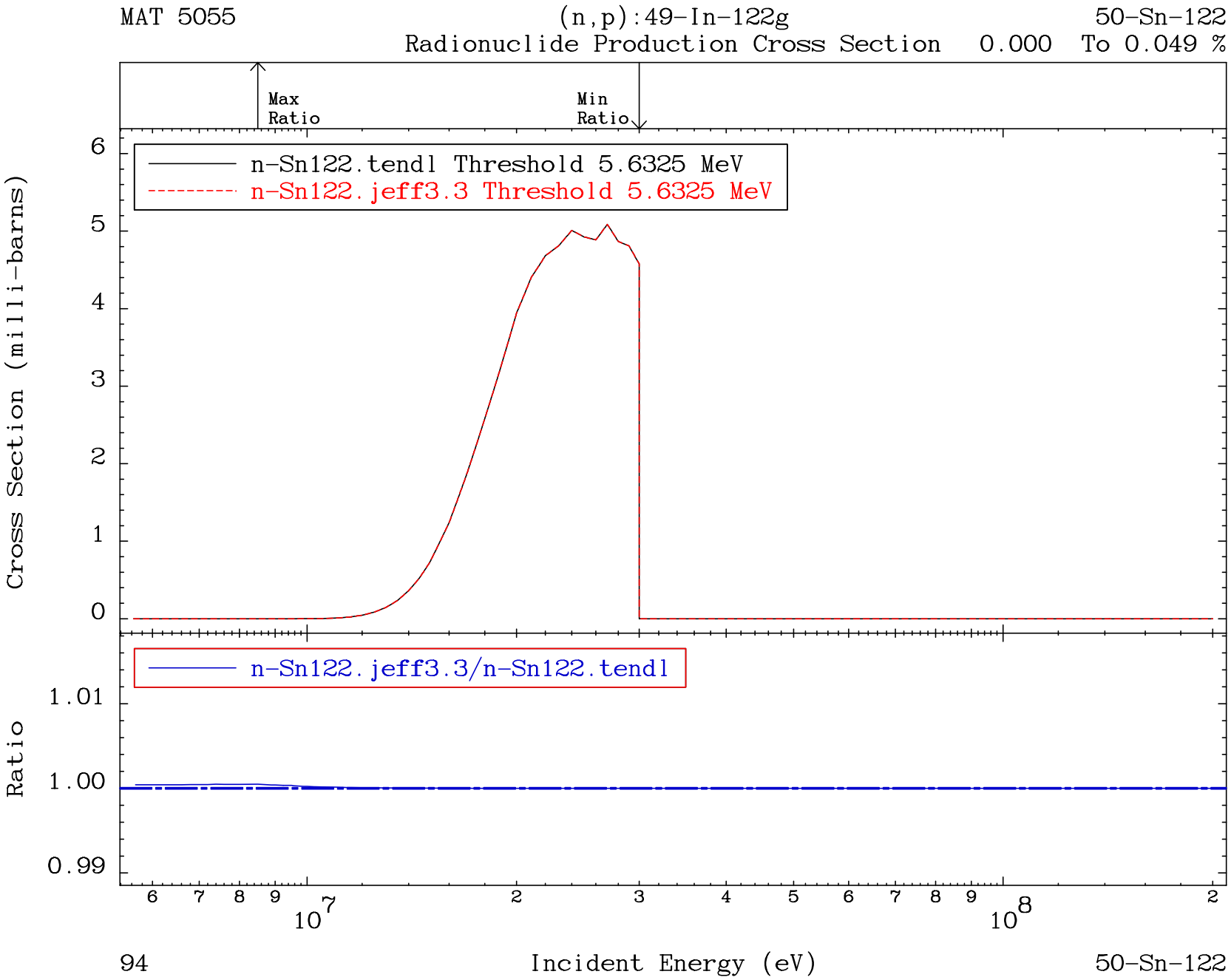

MAT 5055
(n,2n) p:49-In-120g
50-Sn-122
Radionuclide Production Cross Section
-0.015 To 0.103 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 19.735 MeV
n-Sn122.jeff3.3 Threshold 19.735 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
89
Incident Energy (eV)
50-Sn-122

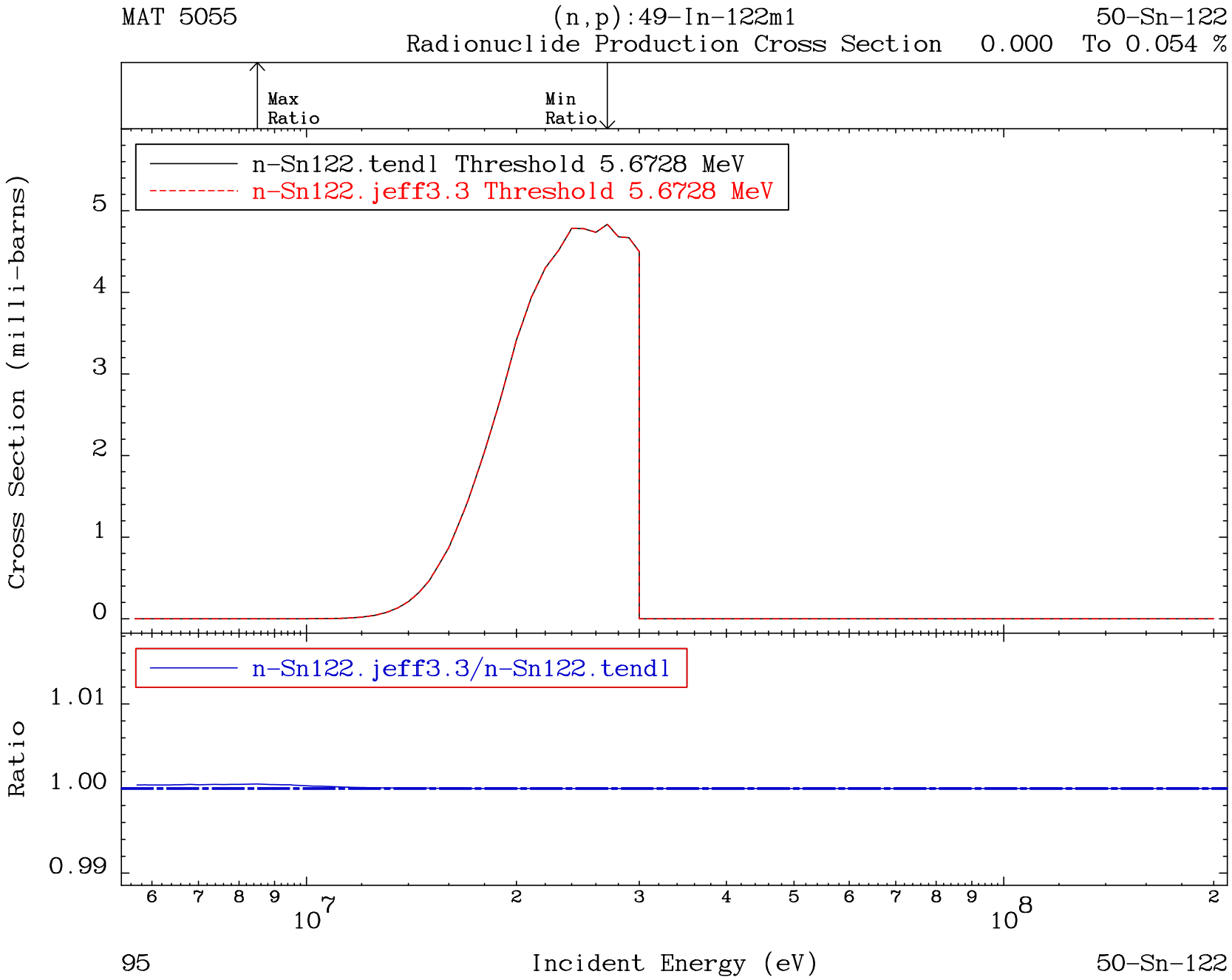

MAT 5055
(n,2n) p:49-In-120m1
50-Sn-122
Radionuclide Production Cross Section
-0.014 To 0.095 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 19.806 MeV
n-Sn122.jeff3.3 Threshold 19.806 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
90
Incident Energy (eV)
50-Sn-122

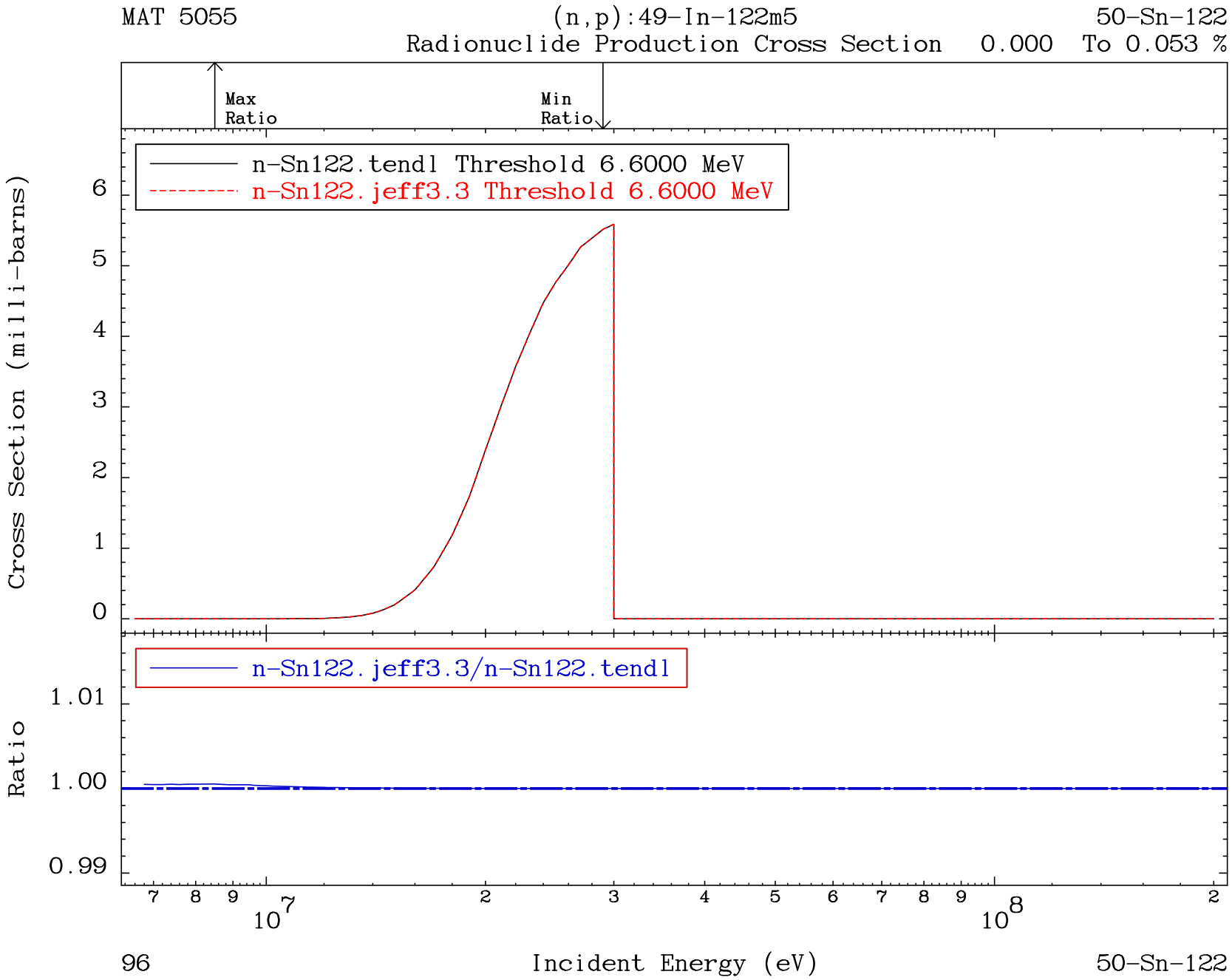

MAT 5055
(n,2n) p:49-In-120m2
50-Sn-122
Radionuclide Production Cross Section -0.017 To 0.123 %
Min
Ratio
n-Sn122.tendl Threshold 20.139 MeV
n-Sn122.jeff3.3 Threshold 20.139 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
20
40
60
80
100
120
140
160
180
200
91
Incident Energy (MeV)
50-Sn-122

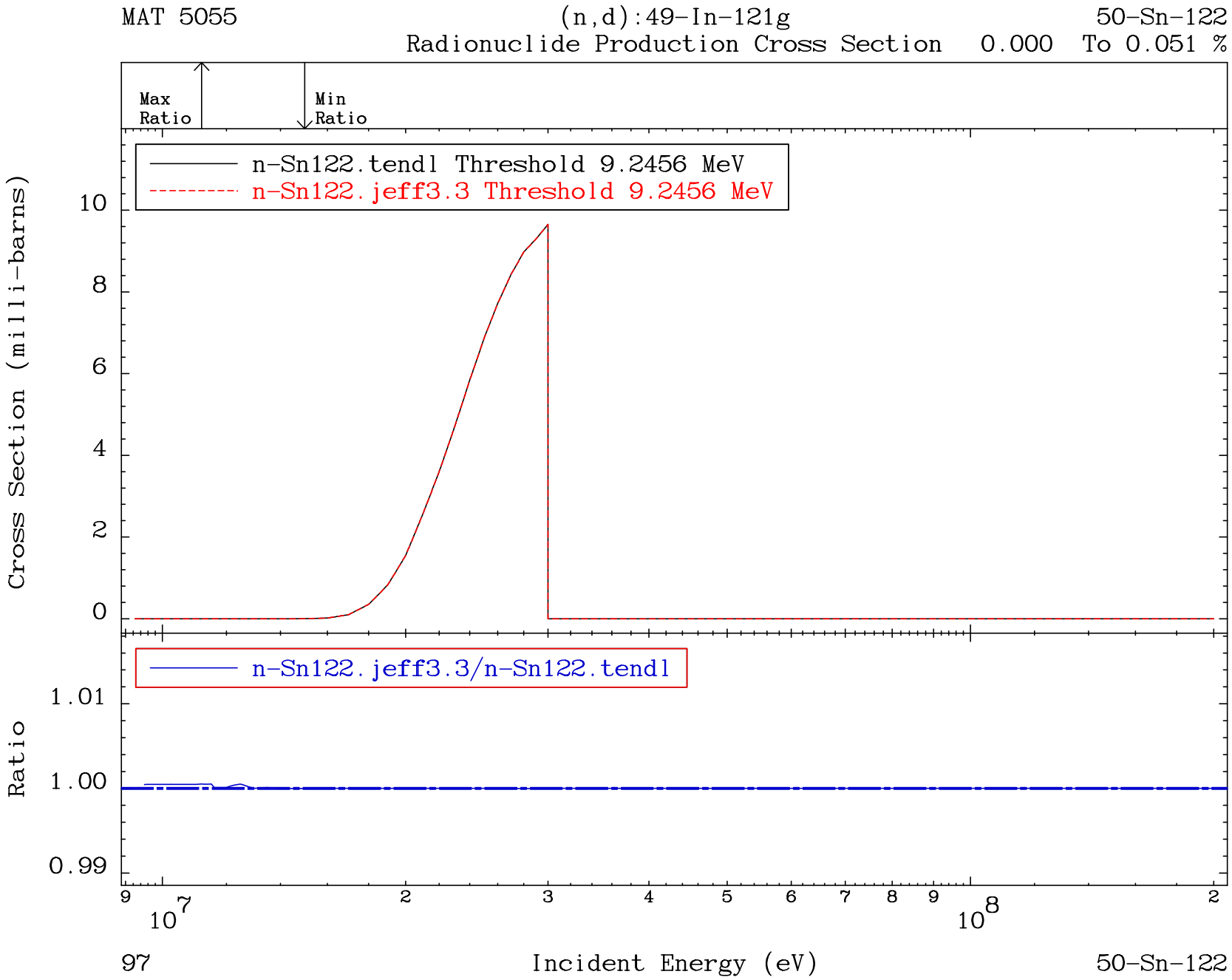

MAT 5055
(n,3n) p:49-In-119g
50-Sn-122
Radionuclide Production Cross Section
-0.017 To 0.011 %
Min
Ratio
n-Sn122.tendl Threshold 25.886 MeV
n-Sn122.jeff3.3 Threshold 25.886 MeV
Cross Section (micro-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
92
Incident Energy (MeV)
50-Sn-122

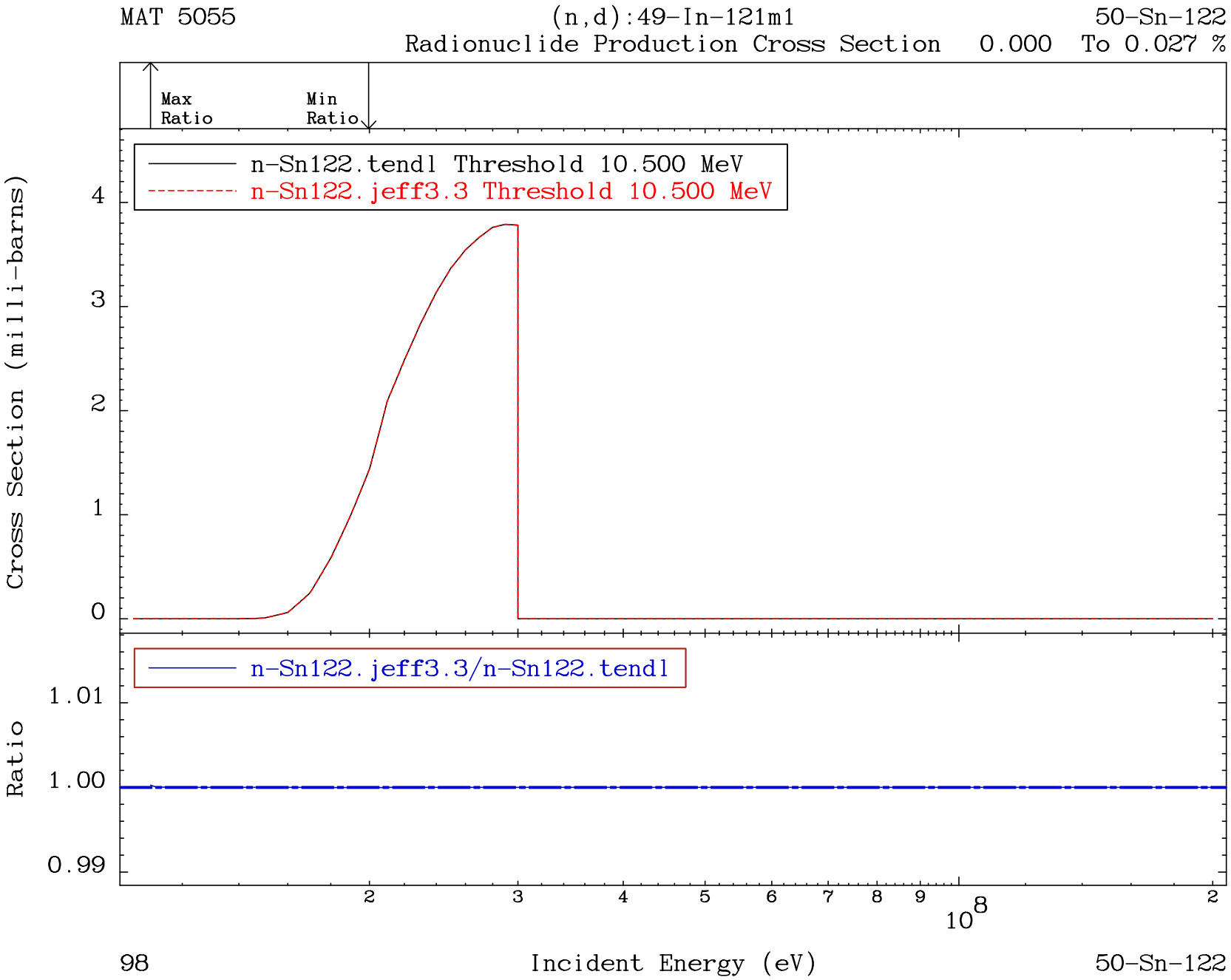

MAT 5055
(n,3n) p:49-In-119m1
50-Sn-122
Radionuclide Production Cross Section
-0.018 To 0.027 %
Min
Ratio
n-Sn122.tendl Threshold 26.200 MeV
n-Sn122.jeff3.3 Threshold 26.200 MeV
Cross Section (10^{-9} barns)
60
50
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
40
60
80
100
120
140
160
180
200
93
Incident Energy (MeV)
50-Sn-122

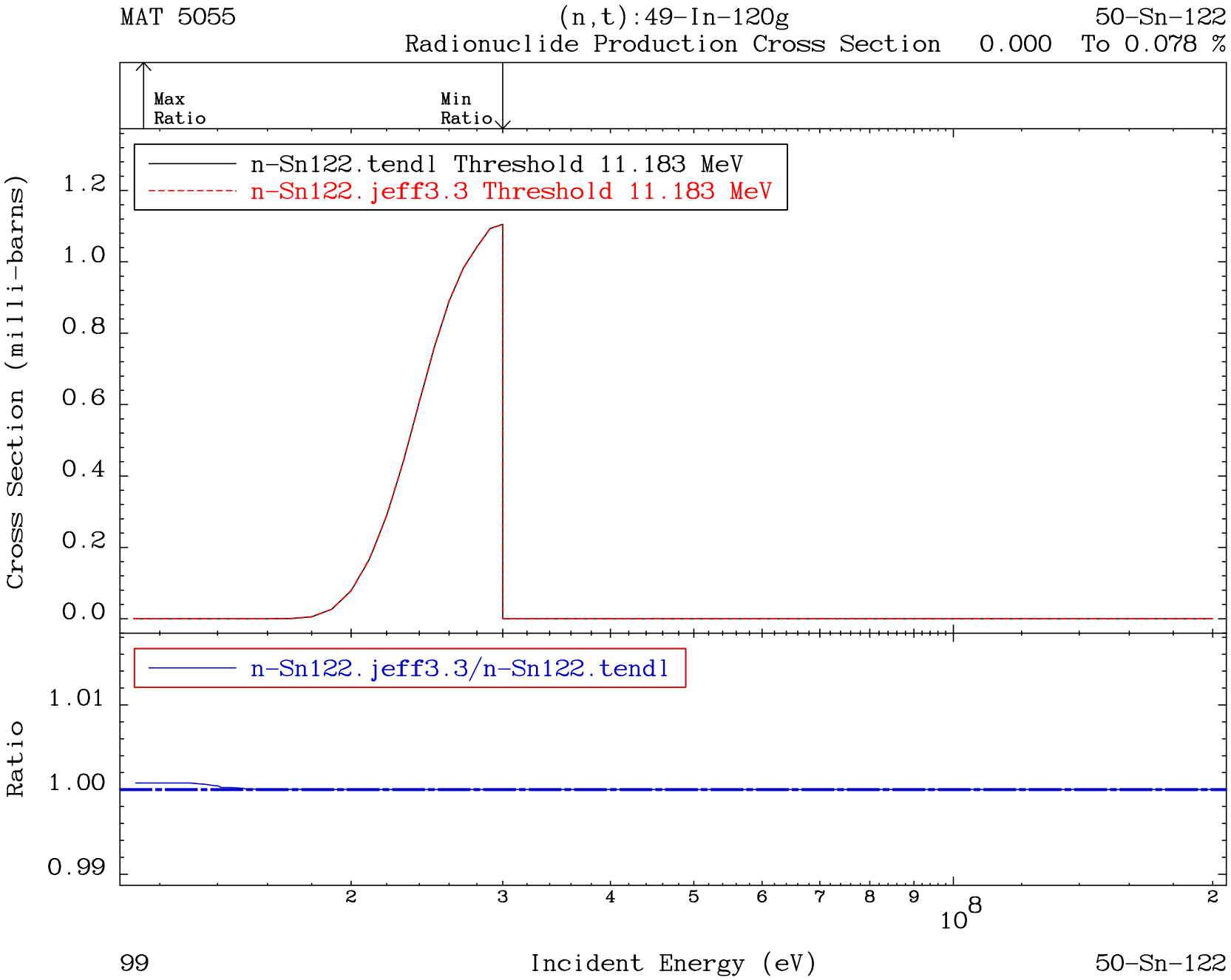

MAT 5055
(n,p):49-In-122g
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.049 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 5.6325 MeV
n-Sn122.jeff3.3 Threshold 5.6325 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
94
Incident Energy (eV)
50-Sn-122

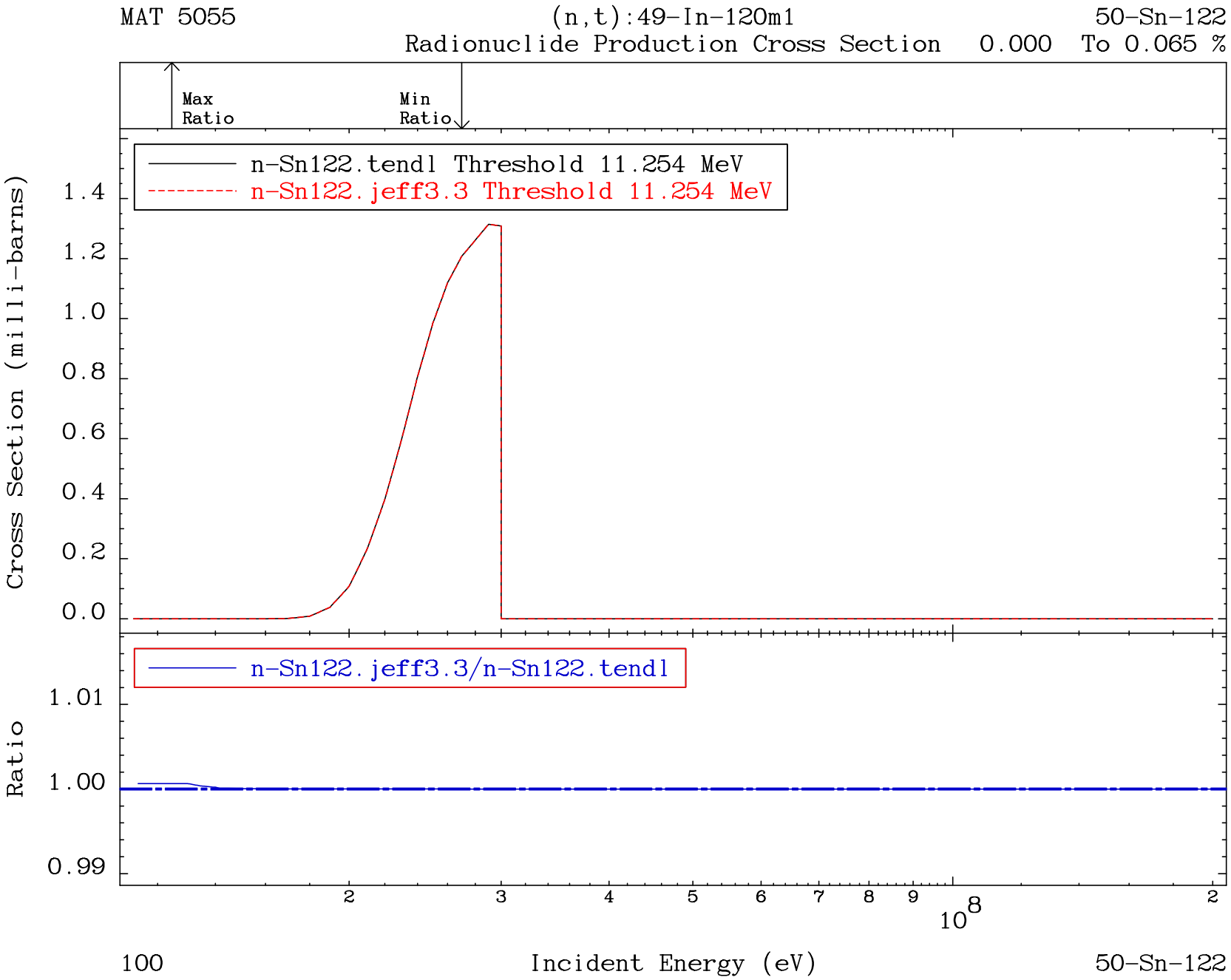

MAT 5055
(n,p):49-In-122m1
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.054 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 5.6728 MeV
n-Sn122.jeff3.3 Threshold 5.6728 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
95
Incident Energy (eV)
50-Sn-122

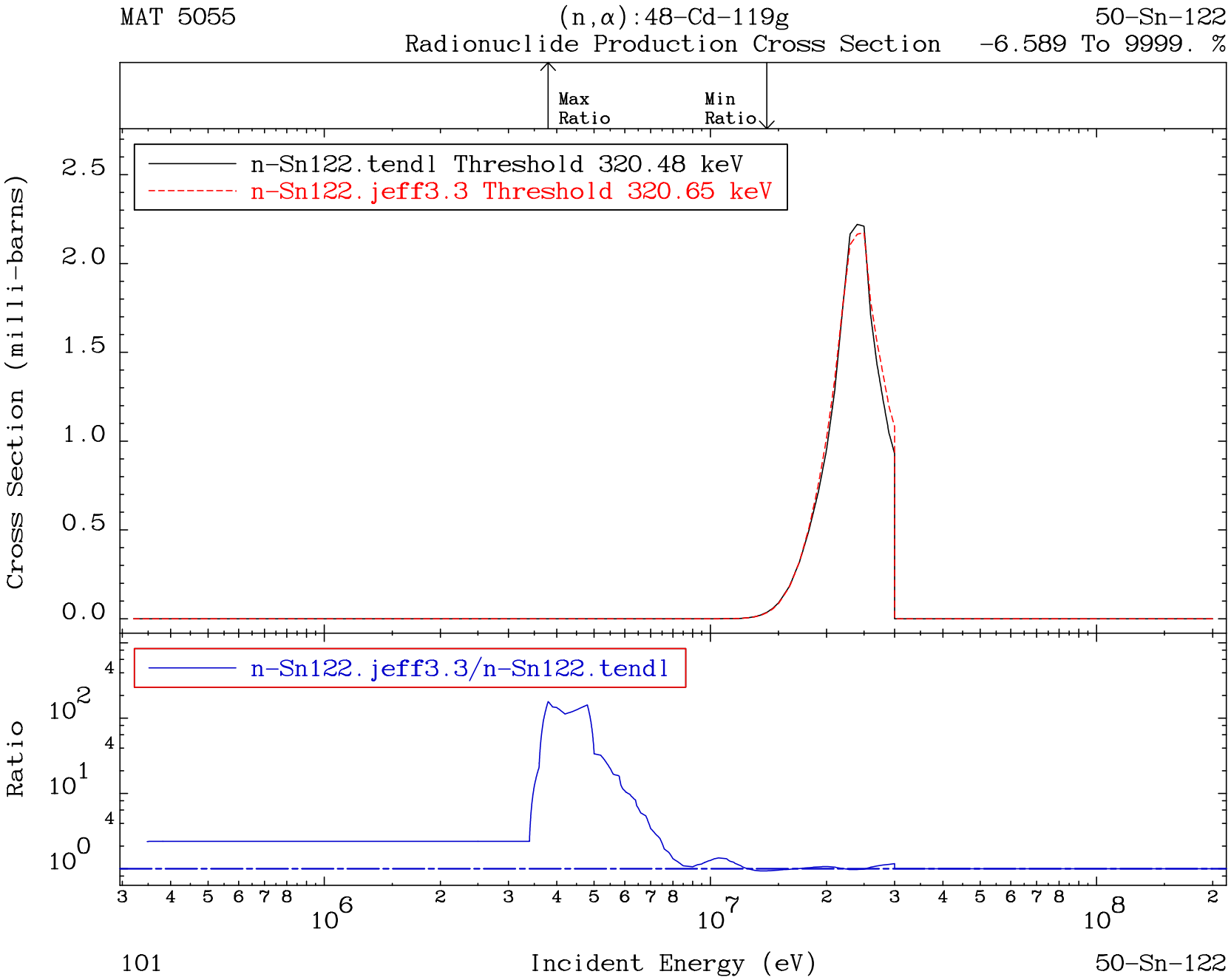

MAT 5055
(n,p):49-In-122m5
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.053 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 6.6000 MeV
n-Sn122.jeff3.3 Threshold 6.6000 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
96
Incident Energy (eV)
50-Sn-122

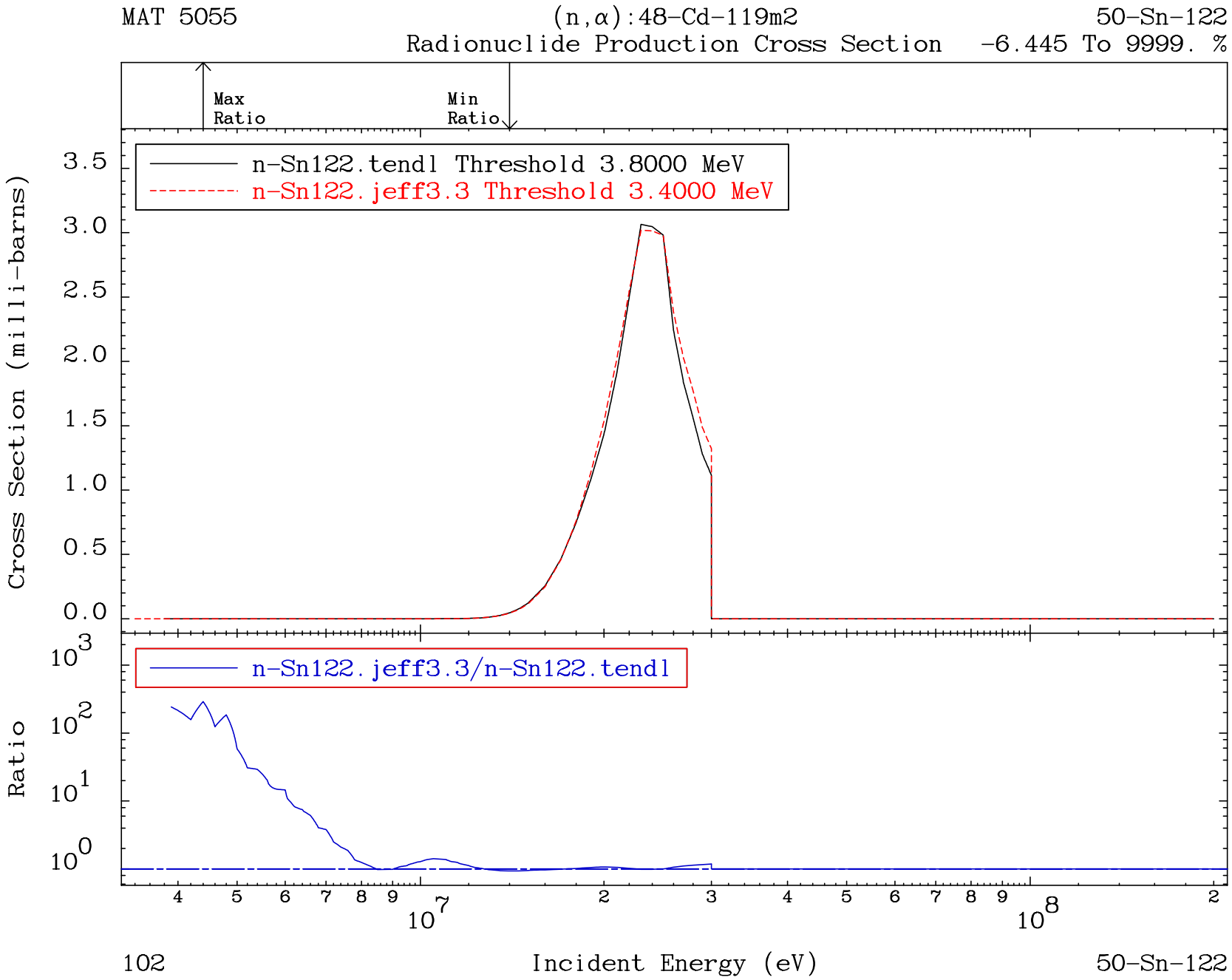

MAT 5055
(n,d):49-In-121g
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.051 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 9.2456 MeV
n-Sn122.jeff3.3 Threshold 9.2456 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
97
Incident Energy (eV)
50-Sn-122

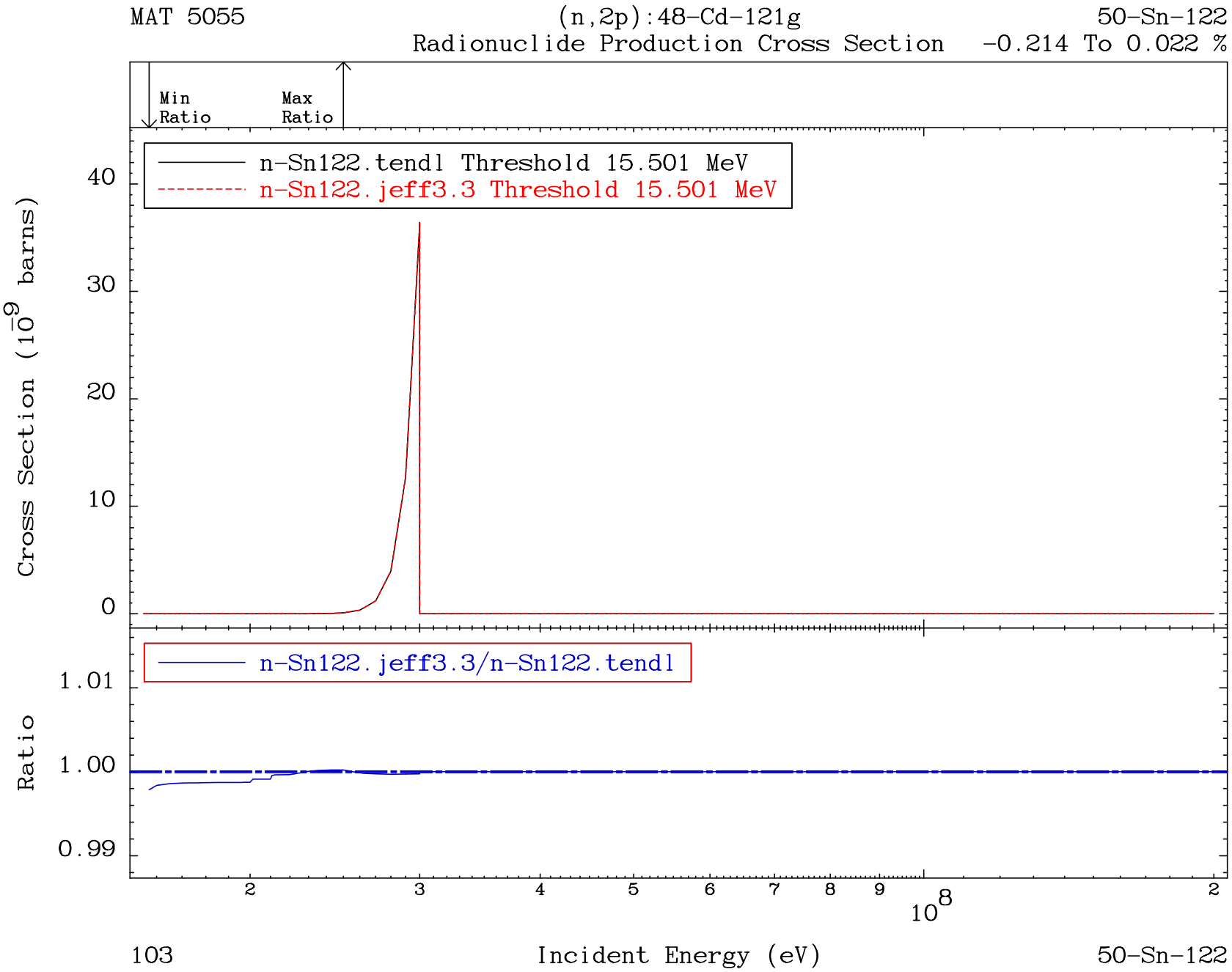

MAT 5055
(n,d):49-In-121m1
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.027 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 10.500 MeV
n-Sn122.jeff3.3 Threshold 10.500 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
10^8
2
98
Incident Energy (eV)
50-Sn-122

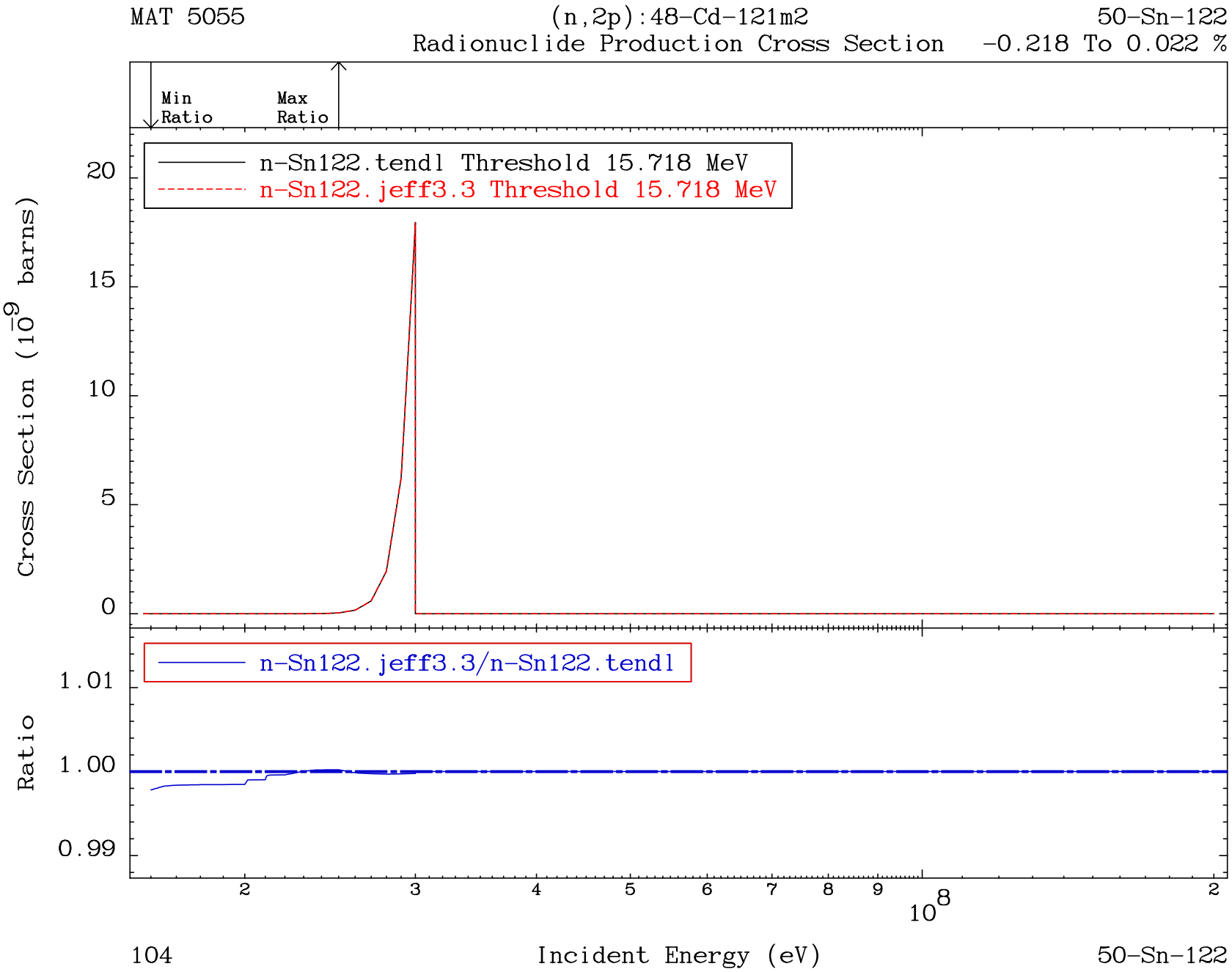

MAT 5055
(n,t):49-In-120g
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.078 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 11.183 MeV
n-Sn122.jeff3.3 Threshold 11.183 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
99
Incident Energy (eV)
50-Sn-122

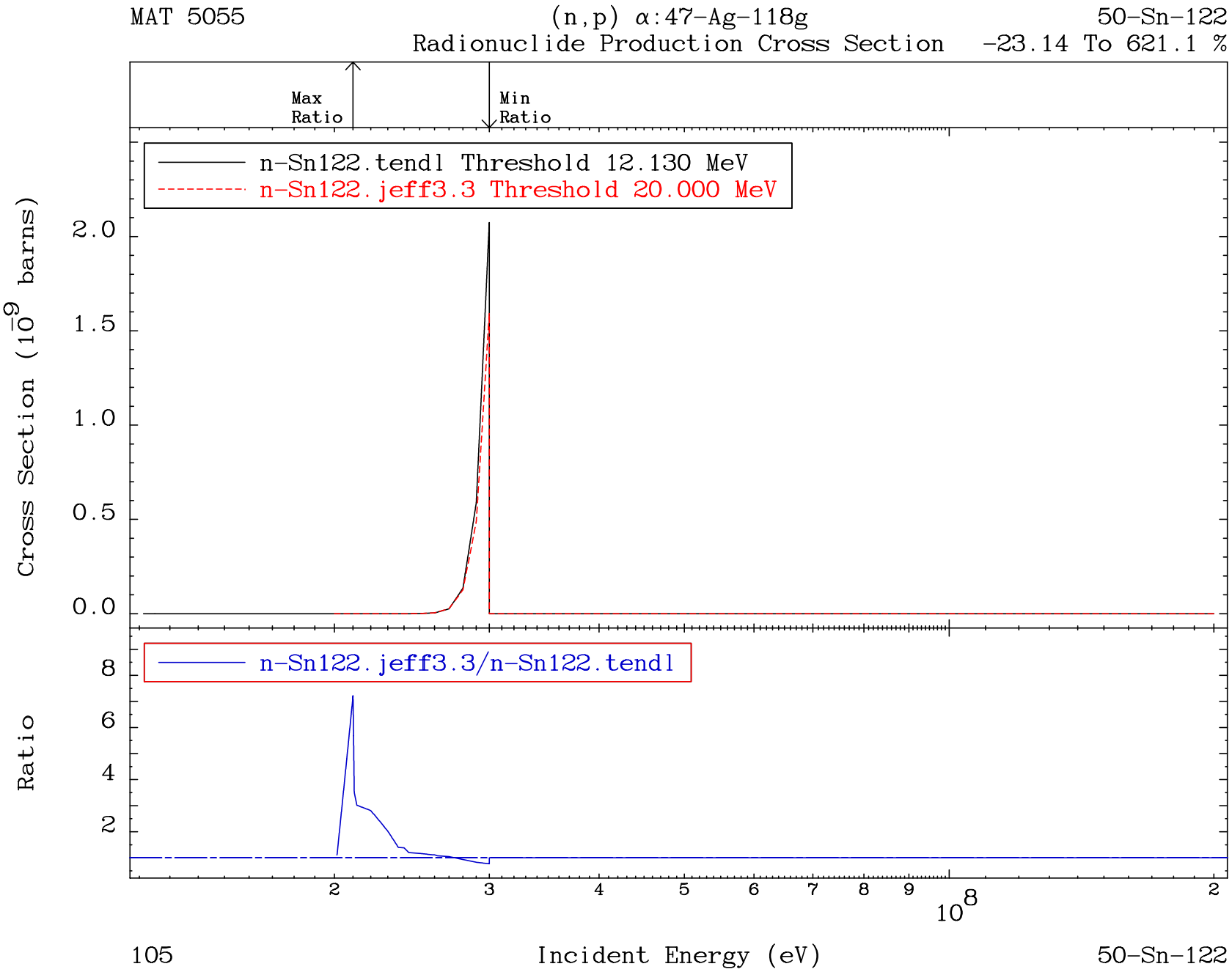

MAT 5055
(n,t):49-In-120m1
50-Sn-122
Radionuclide Production Cross Section 0.000 To 0.065 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 11.254 MeV
n-Sn122.jeff3.3 Threshold 11.254 MeV
Cross Section (milli-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
100
Incident Energy (eV)
50-Sn-122

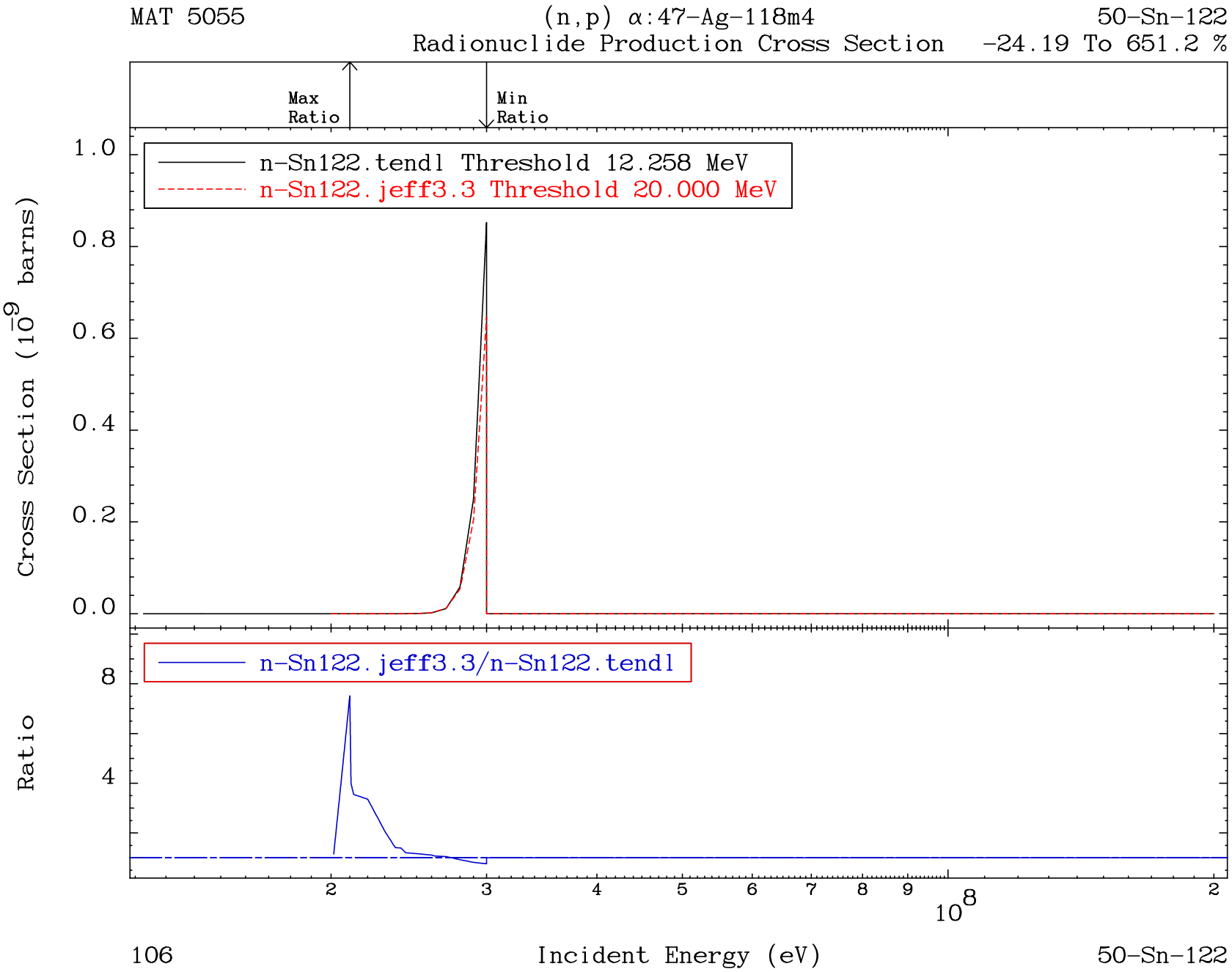

MAT 5055
(n,α):48-Cd-119g
50-Sn-122
Radionuclide Production Cross Section -6.589 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 320.48 keV
n-Sn122.jeff3.3 Threshold 320.65 keV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
101
Incident Energy (eV)
50-Sn-122


MAT 5055
(n,α):48-Cd-119m2
50-Sn-122
Radionuclide Production Cross Section -6.445 To 9999. %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 3.8000 MeV
n-Sn122.jeff3.3 Threshold 3.4000 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.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
102
Incident Energy (eV)
50-Sn-122


MAT 5055
(n,2p):48-Cd-121g
50-Sn-122
Radionuclide Production Cross Section
-0.214 To 0.022 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 15.501 MeV
n-Sn122.jeff3.3 Threshold 15.501 MeV
Cross Section (10^{-9} barns)
40
30
20
10
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^{8}
2
103
Incident Energy (eV)
50-Sn-122


MAT 5055
(n,2p):48-Cd-121m2
50-Sn-122
Radionuclide Production Cross Section
-0.218 To 0.022 %
Min Ratio
Max Ratio
n-Sn122.tendl Threshold 15.718 MeV
n-Sn122.jeff3.3 Threshold 15.718 MeV
Cross Section (10^{-9} barns)
20
15
10
5
0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
9
10^8
2
104
Incident Energy (eV)
50-Sn-122


MAT 5055
(n,p) α:47-Ag-118g
50-Sn-122
Radionuclide Production Cross Section -23.14 To 621.1 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 12.130 MeV
n-Sn122.jeff3.3 Threshold 20.000 MeV
Cross Section (10^{-9} barns)
2.0
1.5
1.0
0.5
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
8
6
4
2
2
3
4
5
6
7
8
9
10^8
2
105
Incident Energy (eV)
50-Sn-122


MAT 5055
(n,p) α:47-Ag-118m4
50-Sn-122
Radionuclide Production Cross Section -24.19 To 651.2 %
Max Ratio
Min Ratio
n-Sn122.tendl Threshold 12.258 MeV
n-Sn122.jeff3.3 Threshold 20.000 MeV
Cross Section (10^{-9} barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Sn122.jeff3.3/n-Sn122.tendl
Ratio
8
4
2
3
4
5
6
7
8
9
10^8
2
106
Incident Energy (eV)
50-Sn-122