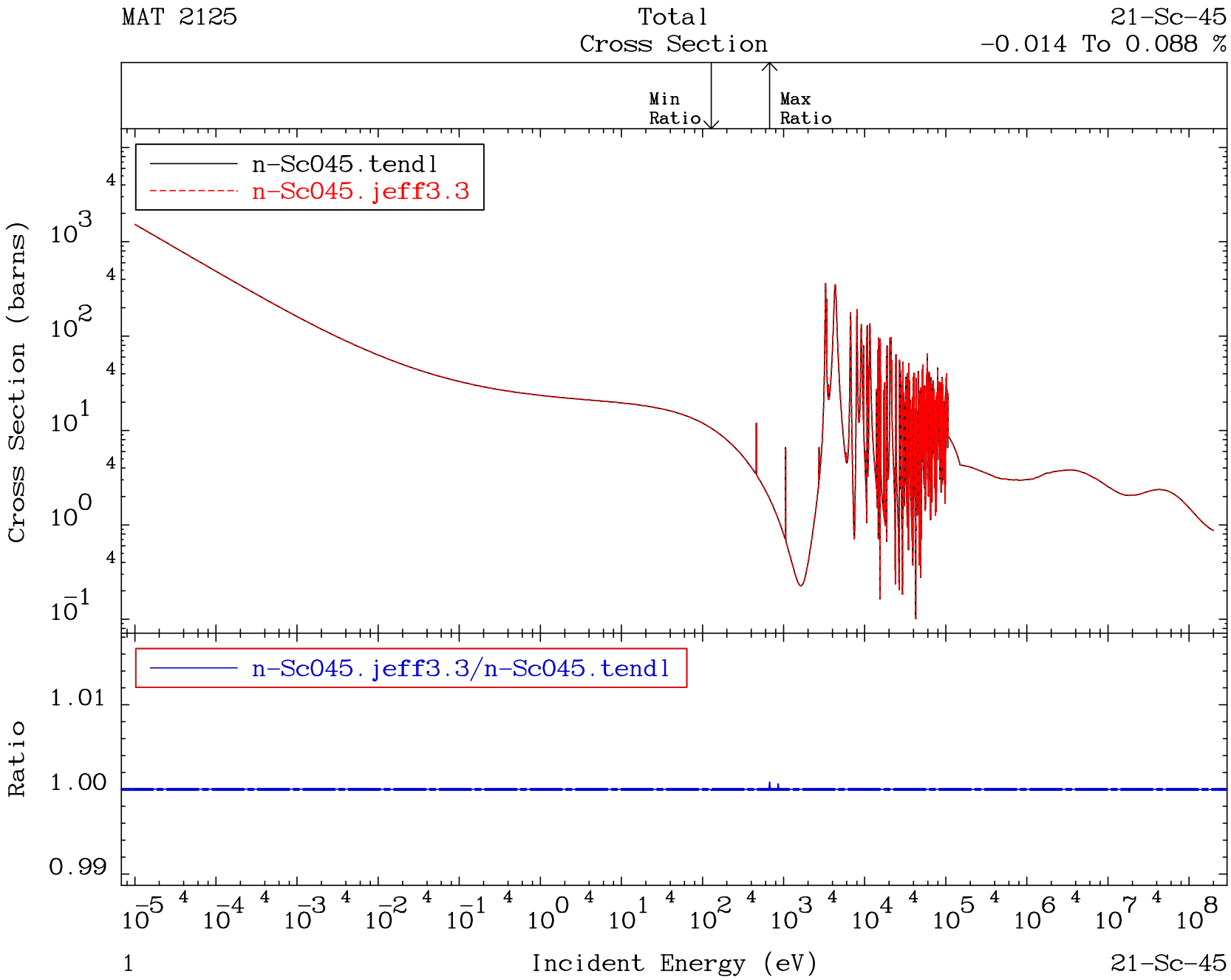
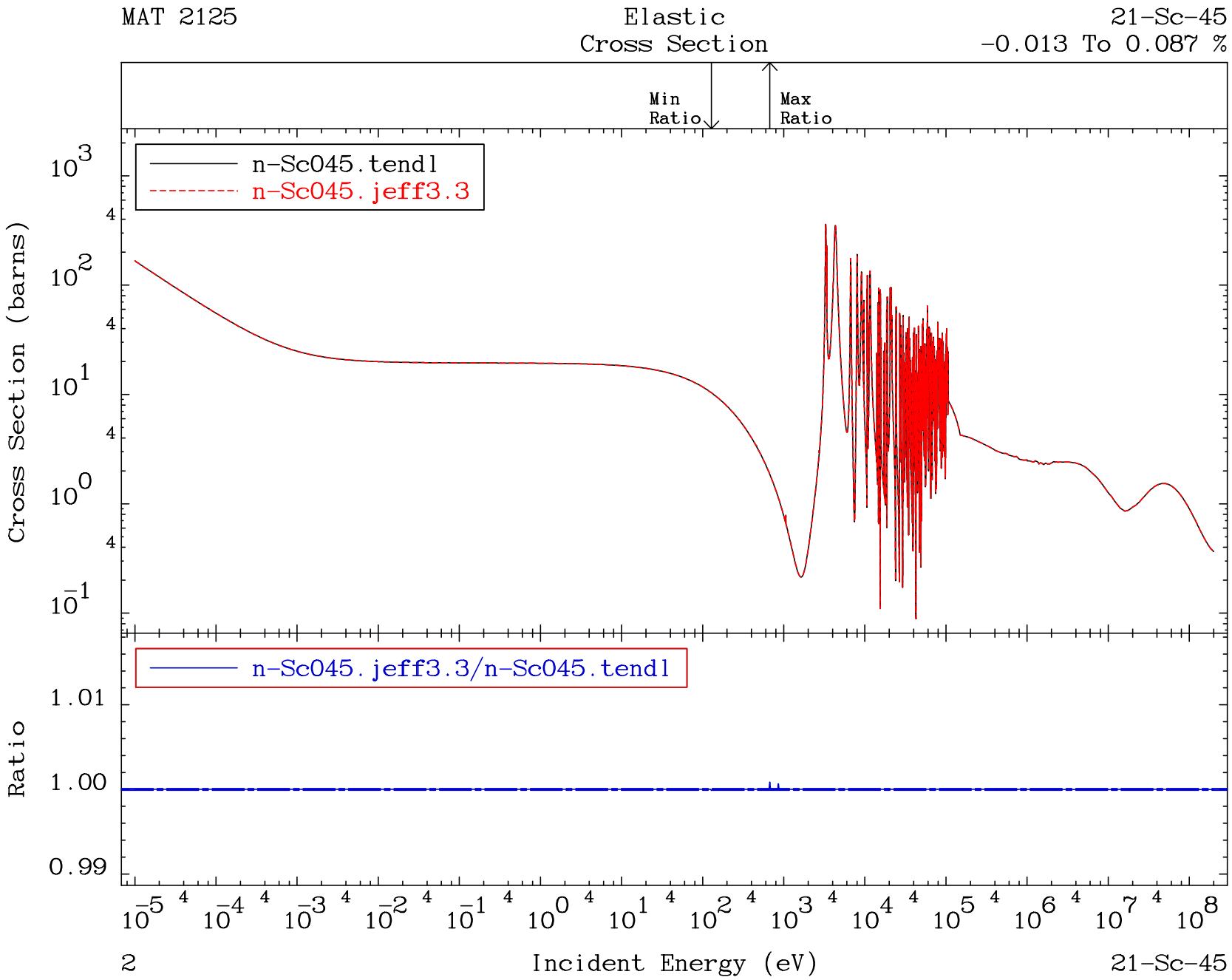
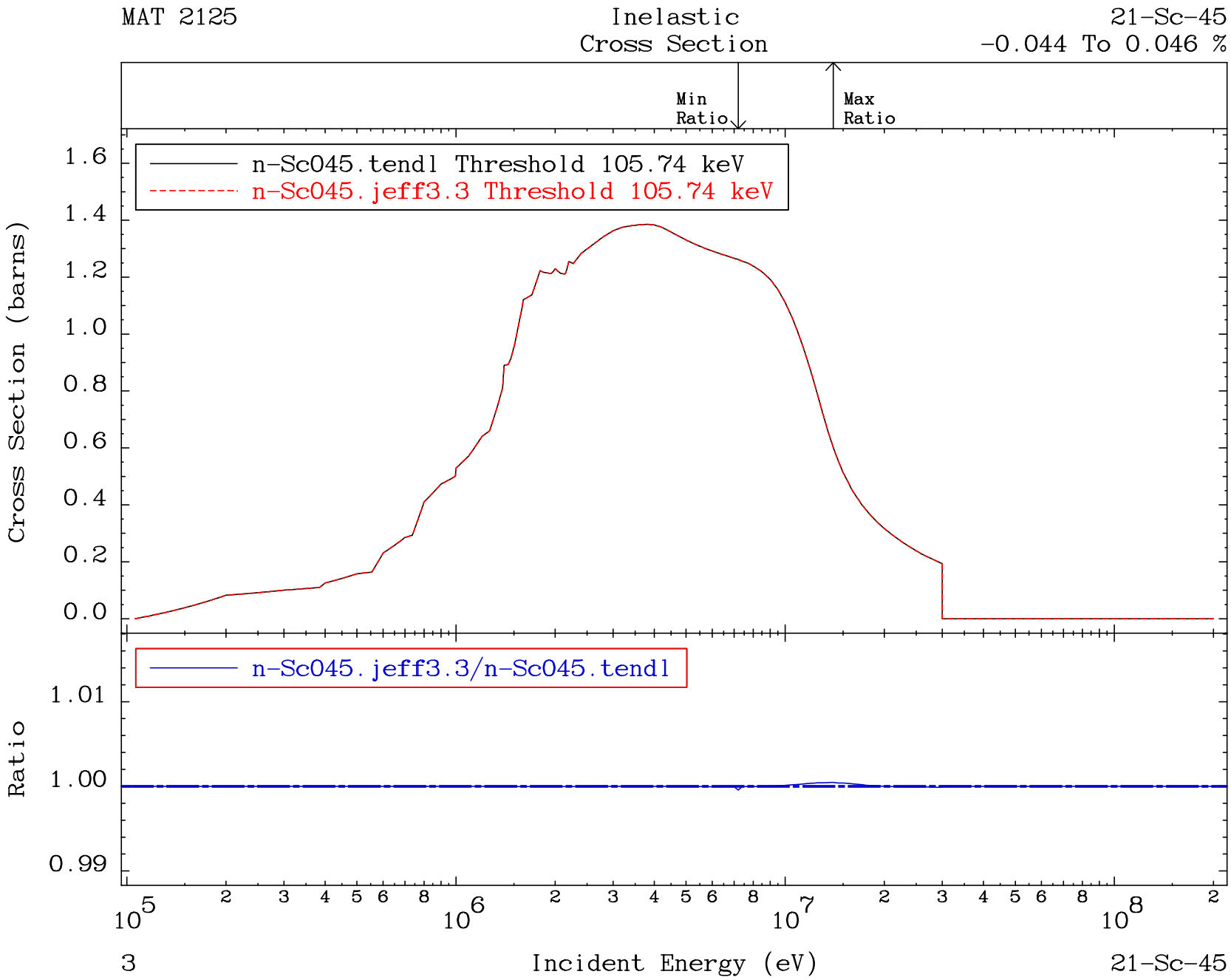
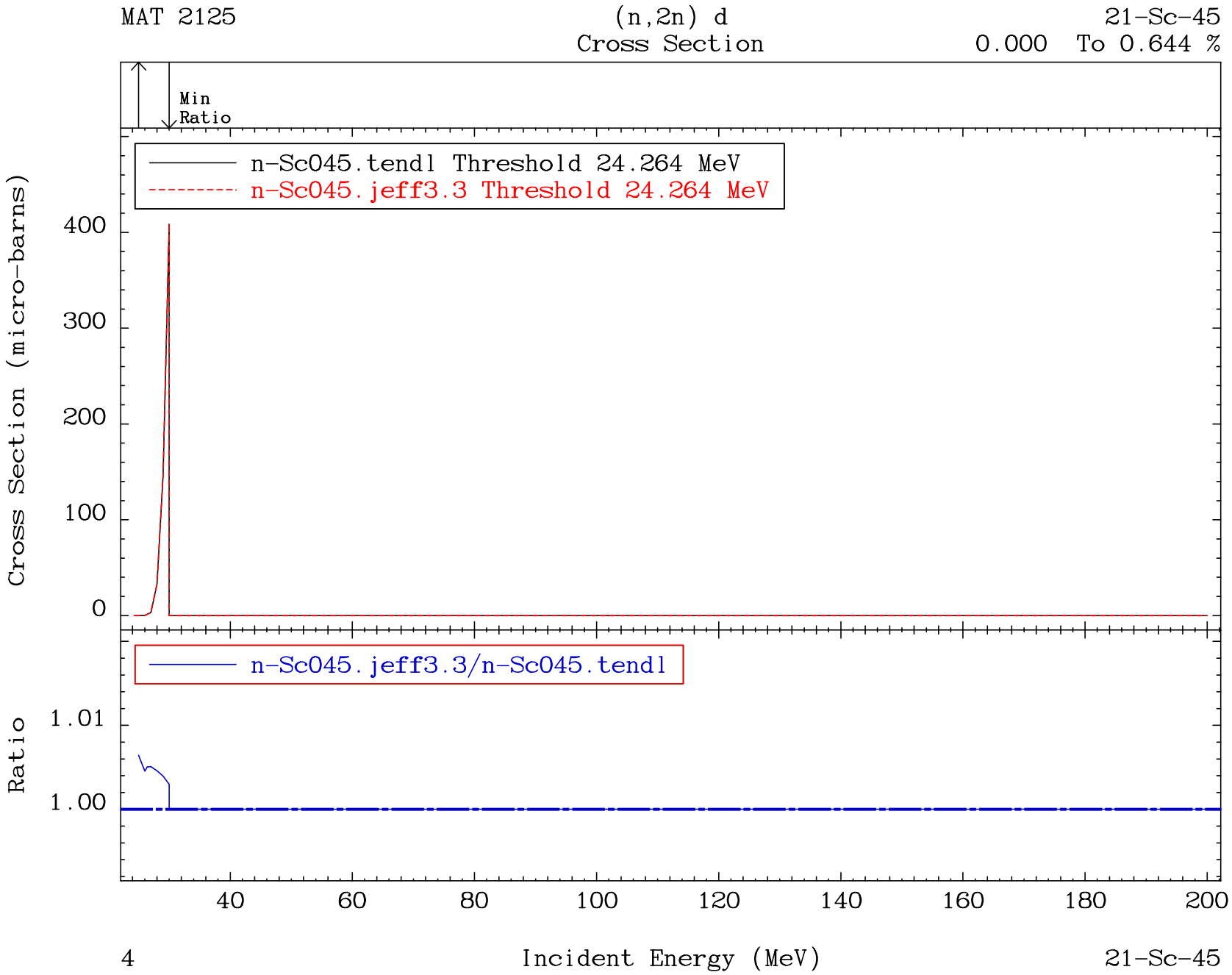
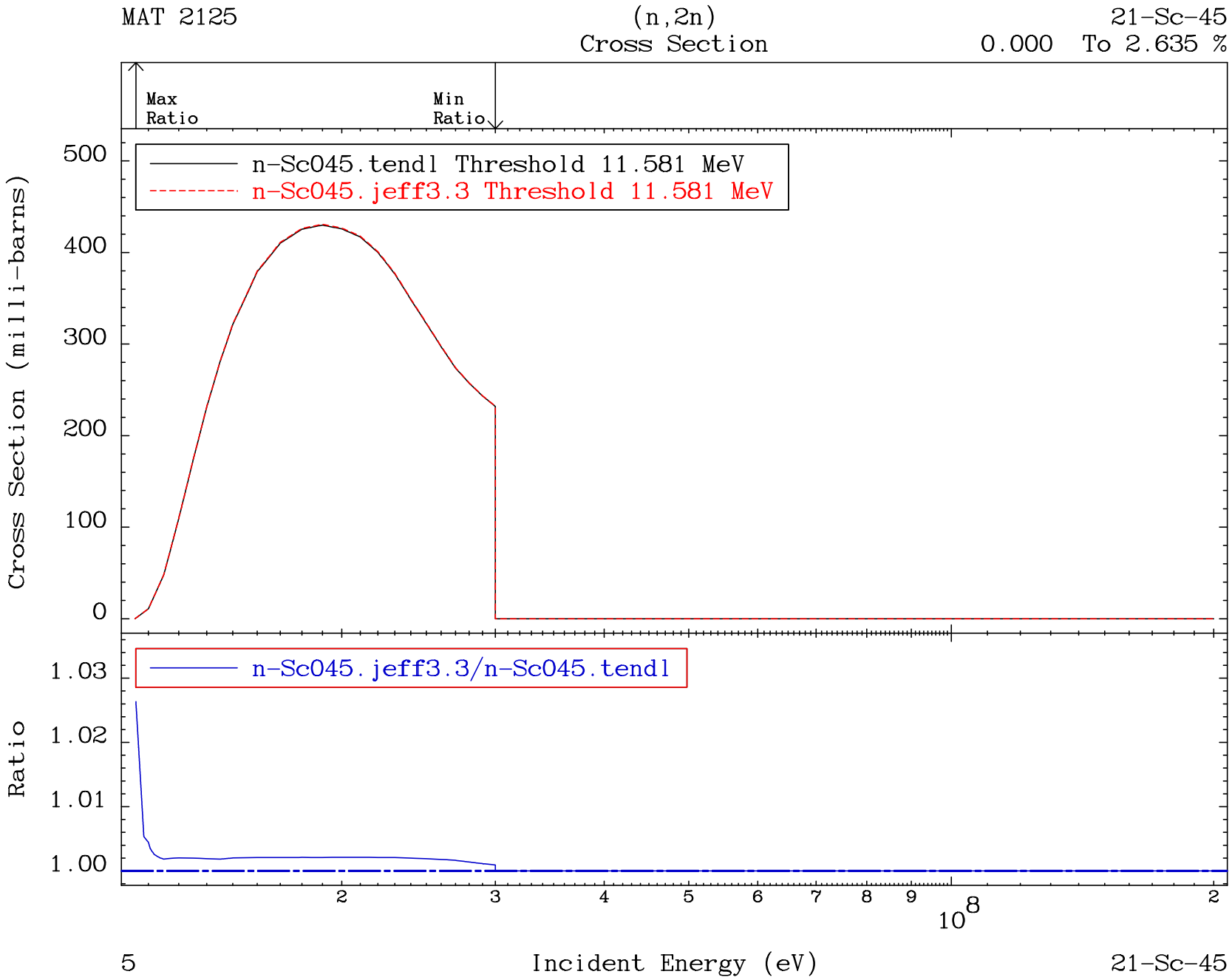
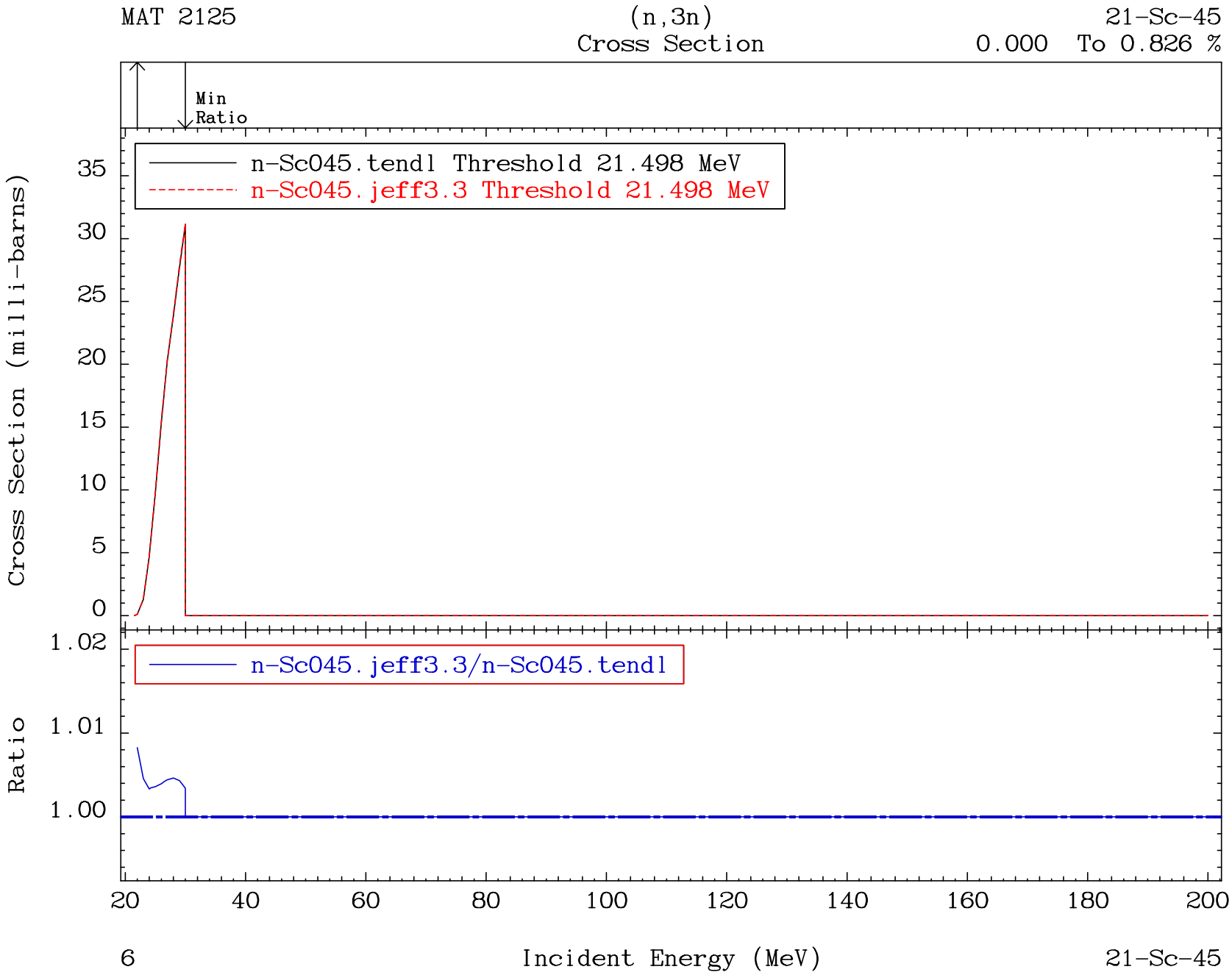

MAT 2125
Total
Cross Section
21-Sc-45
-0.014 To 0.088 %
Min
Ratio
Max
Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
1
21-Sc-45

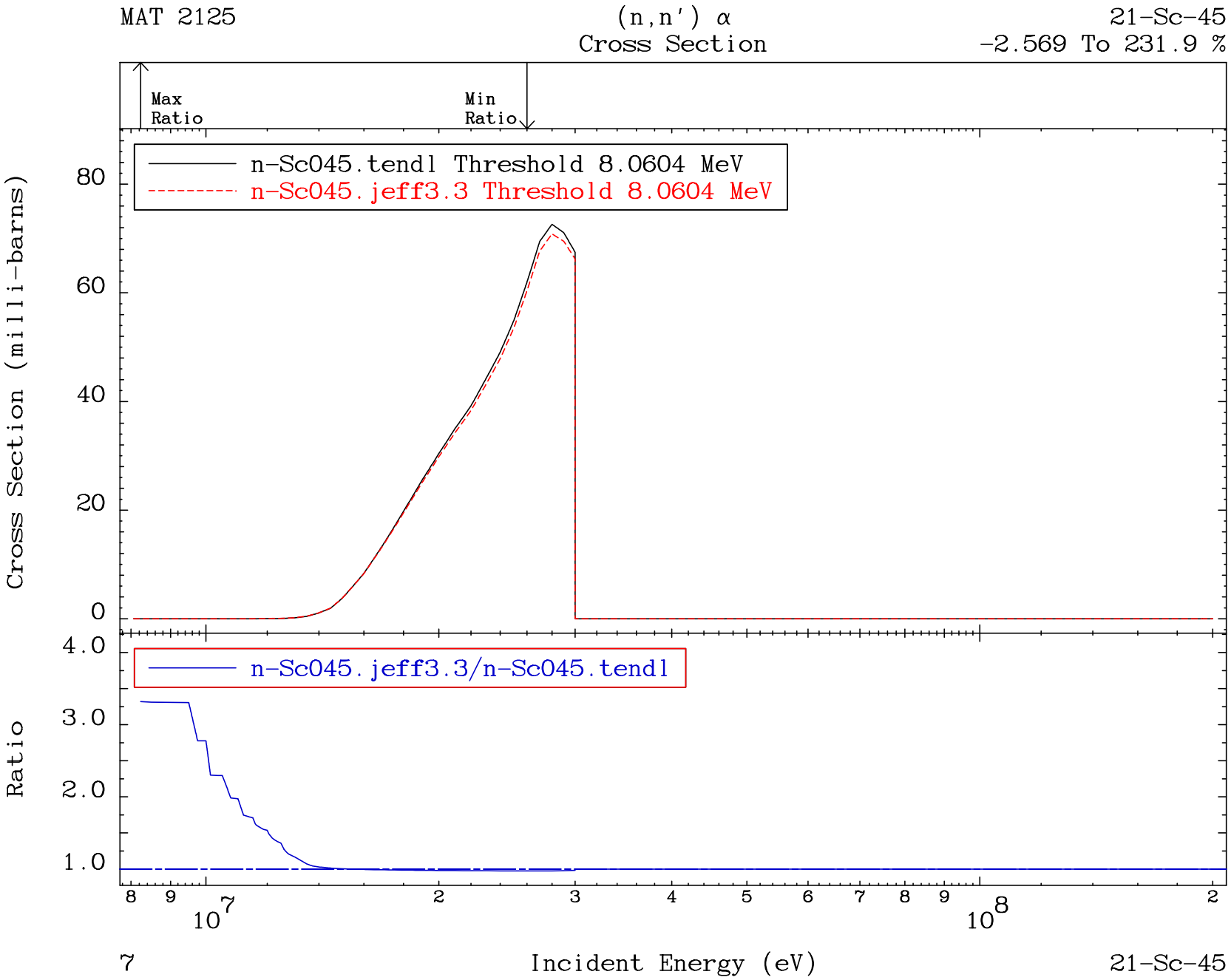

MAT 2125
Elastic
Cross Section
21-Sc-45
-0.013 To 0.087 %
Min
Ratio
Max
Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
2
21-Sc-45

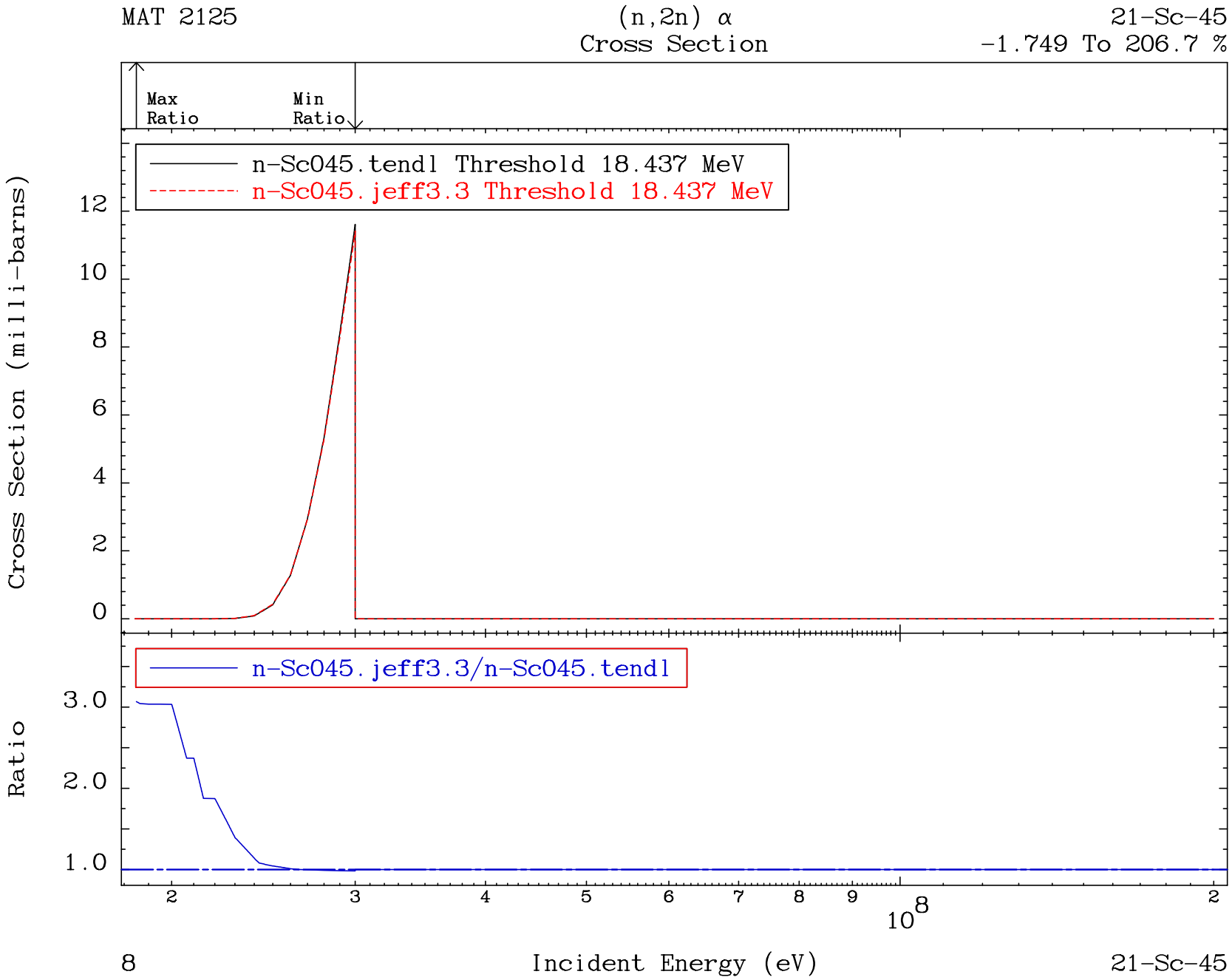

MAT 2125
Inelastic
Cross Section
21-Sc-45
-0.044 To 0.046 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 105.74 keV
n-Sc045.jeff3.3 Threshold 105.74 keV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
3
Incident Energy (eV)
21-Sc-45

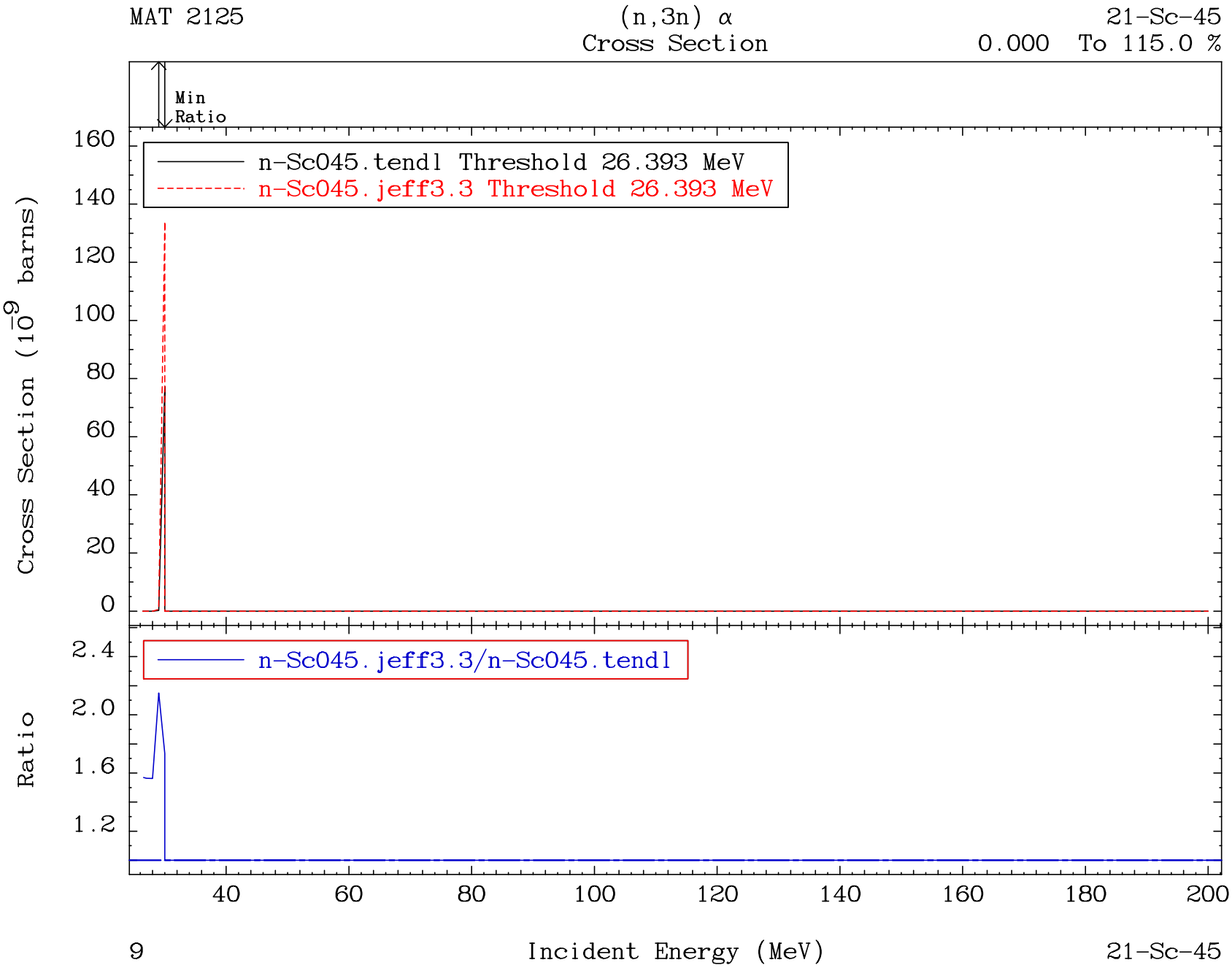

MAT 2125
(n,2n) d
Cross Section
21-Sc-45
0.000 To 0.644 %
Min
Ratio
n-Sc045.tendl Threshold 24.264 MeV
n-Sc045.jeff3.3 Threshold 24.264 MeV
Cross Section (micro-barns)
400
300
200
100
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
21-Sc-45

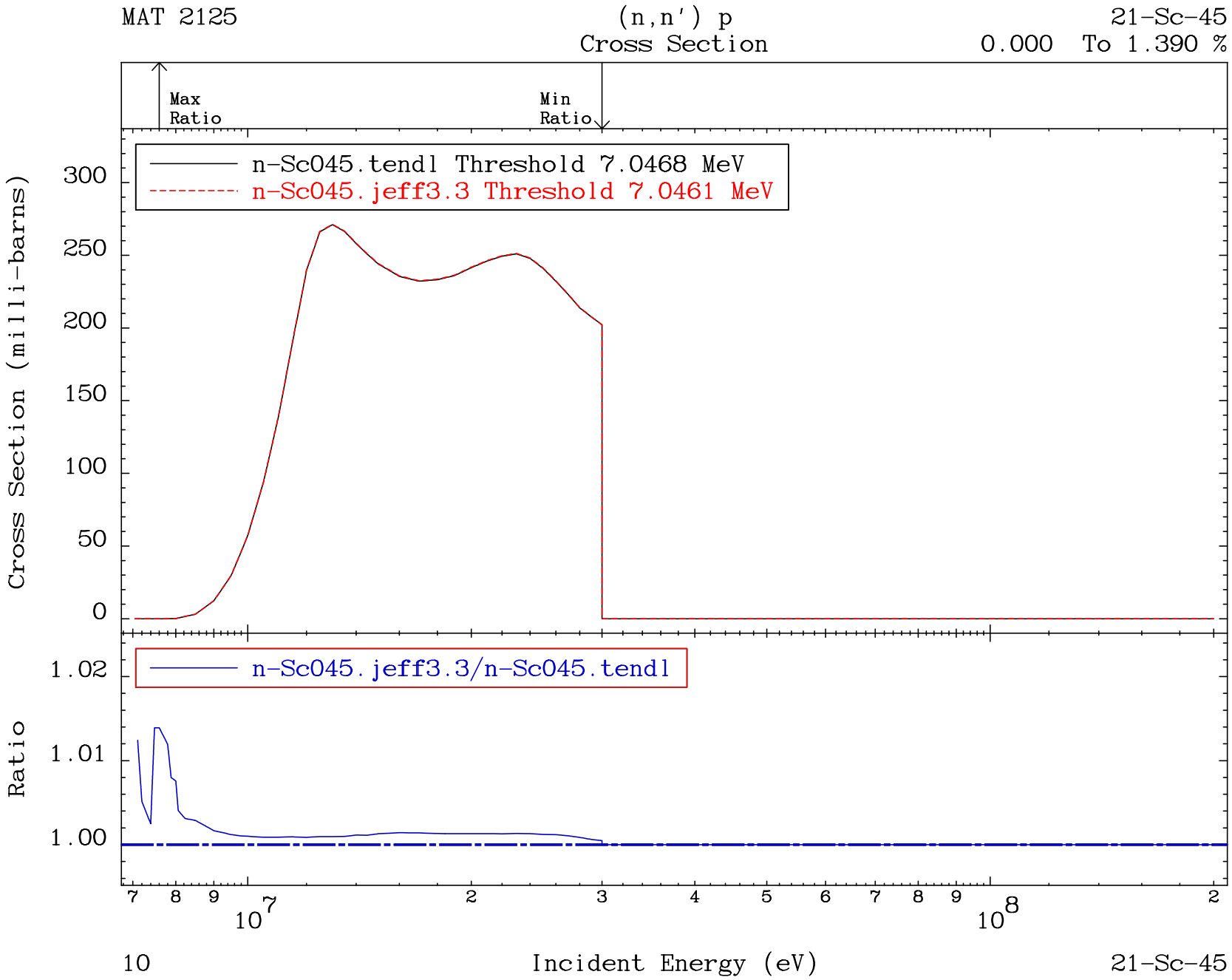

MAT 2125
(n,2n)
Cross Section
21-Sc-45
0.000 To 2.635 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 11.581 MeV
n-Sc045.jeff3.3 Threshold 11.581 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
21-Sc-45

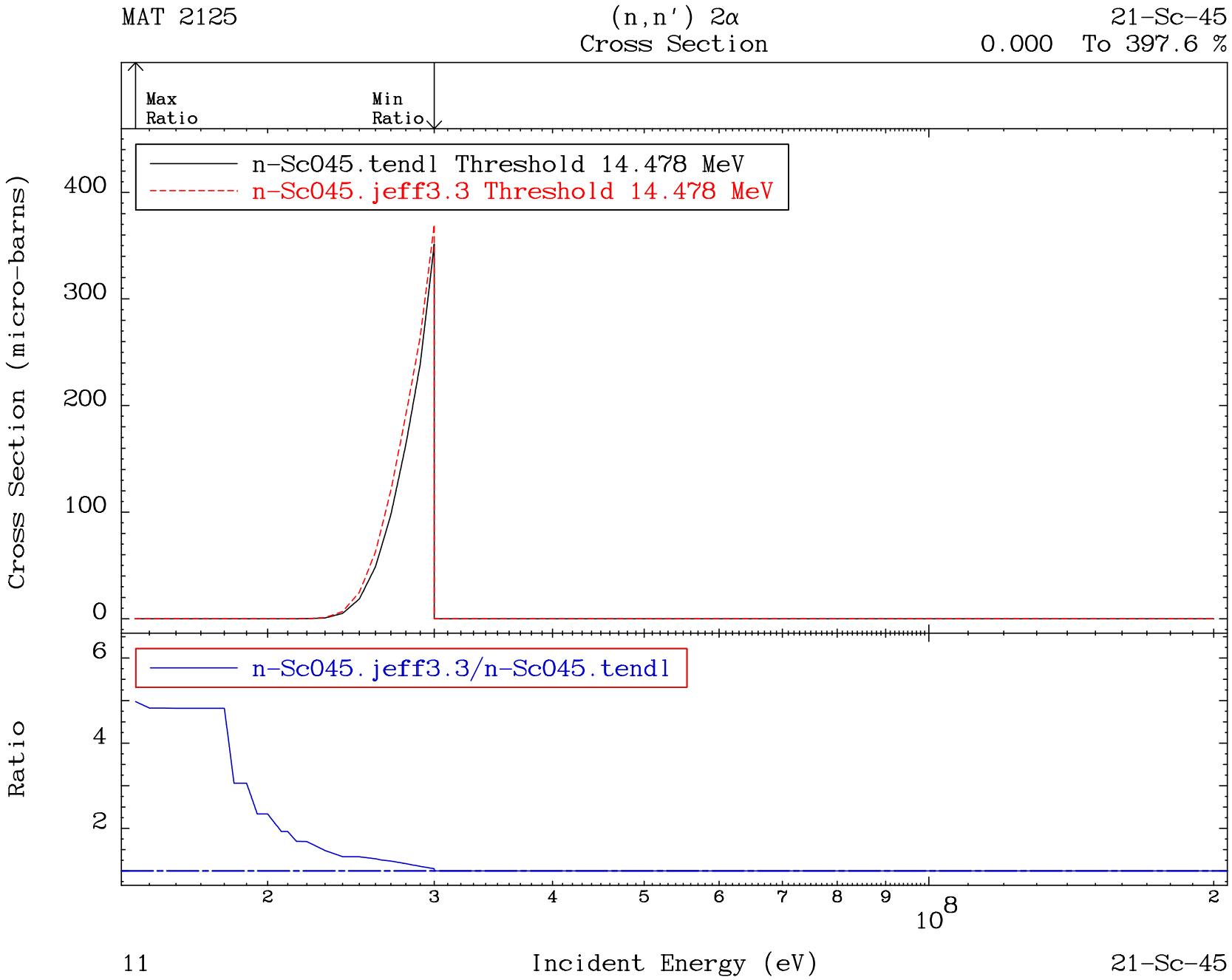

MAT 2125
(n,3n)
Cross Section
21-Sc-45
0.000 To 0.826 %
Min
Ratio
n-Sc045.tendl Threshold 21.498 MeV
n-Sc045.jeff3.3 Threshold 21.498 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
20
40
60
80
100
120
140
160
180
200
6
Incident Energy (MeV)
21-Sc-45

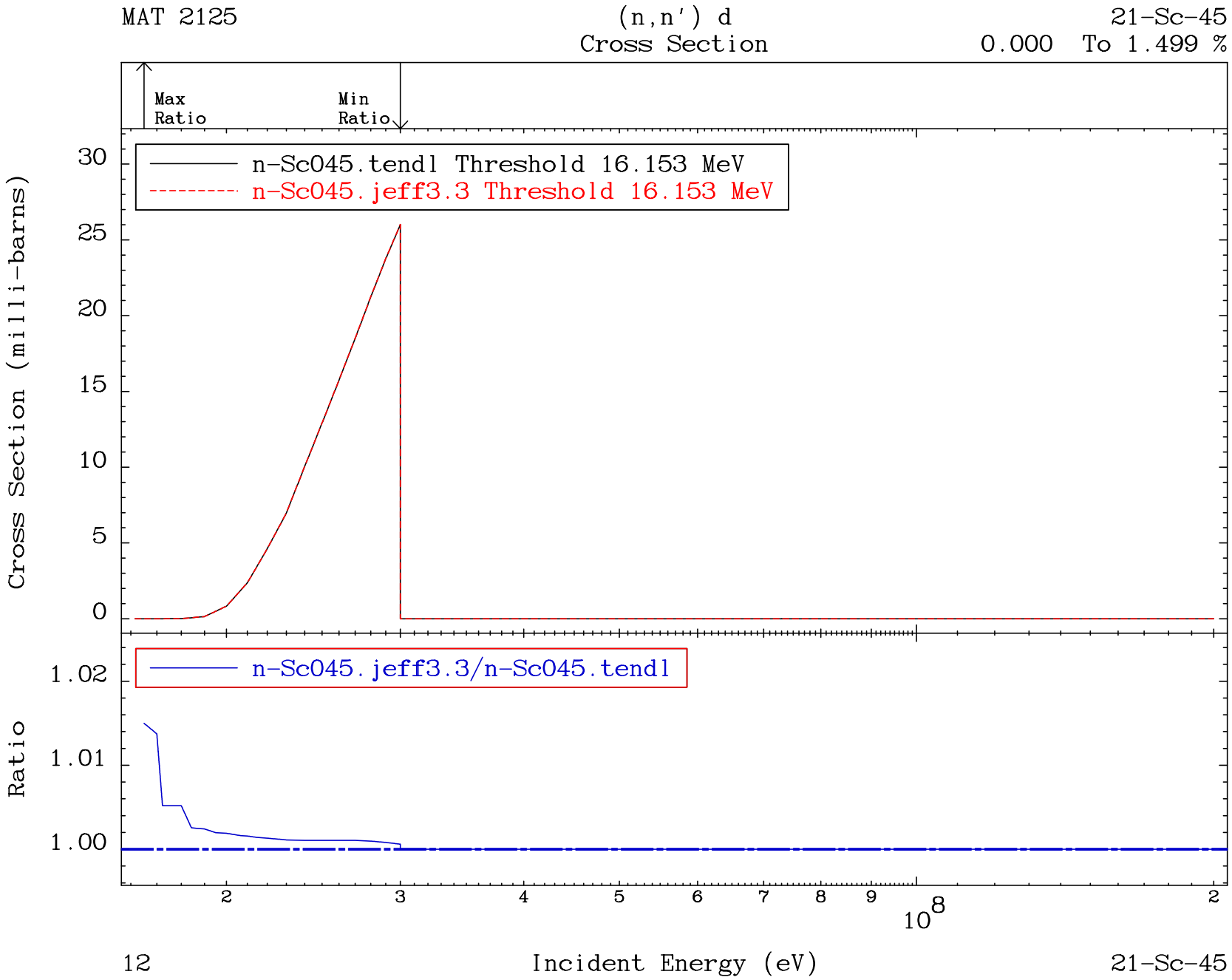

MAT 2125
(n,n') α
Cross Section
21-Sc-45
-2.569 To 231.9 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 8.0604 MeV
n-Sc045.jeff3.3 Threshold 8.0604 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
4.0
3.0
2.0
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
21-Sc-45

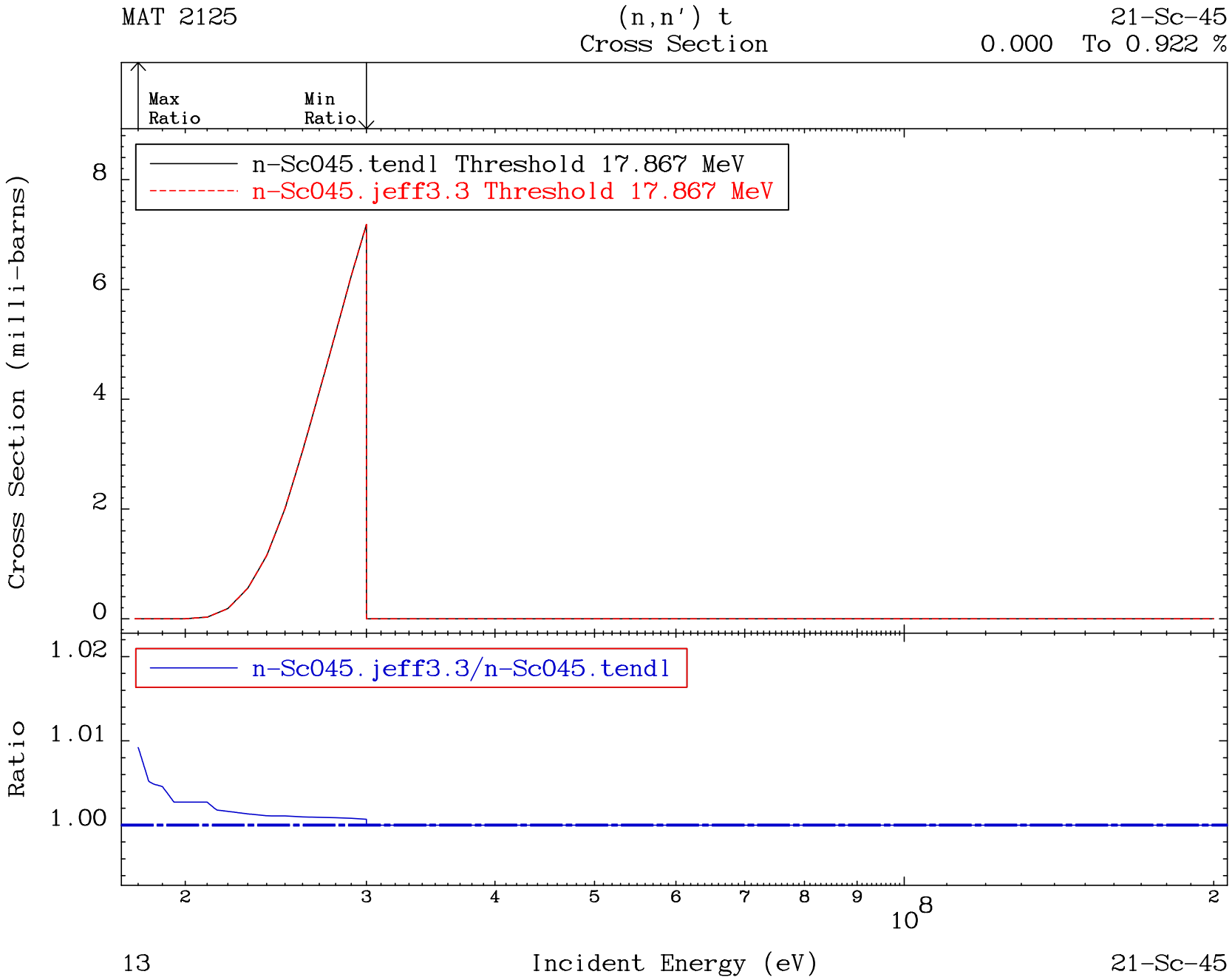

MAT 2125
(n,2n) α
Cross Section
21-Sc-45
-1.749 To 206.7 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 18.437 MeV
n-Sc045.jeff3.3 Threshold 18.437 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.0
2.0
3.0
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
21-Sc-45

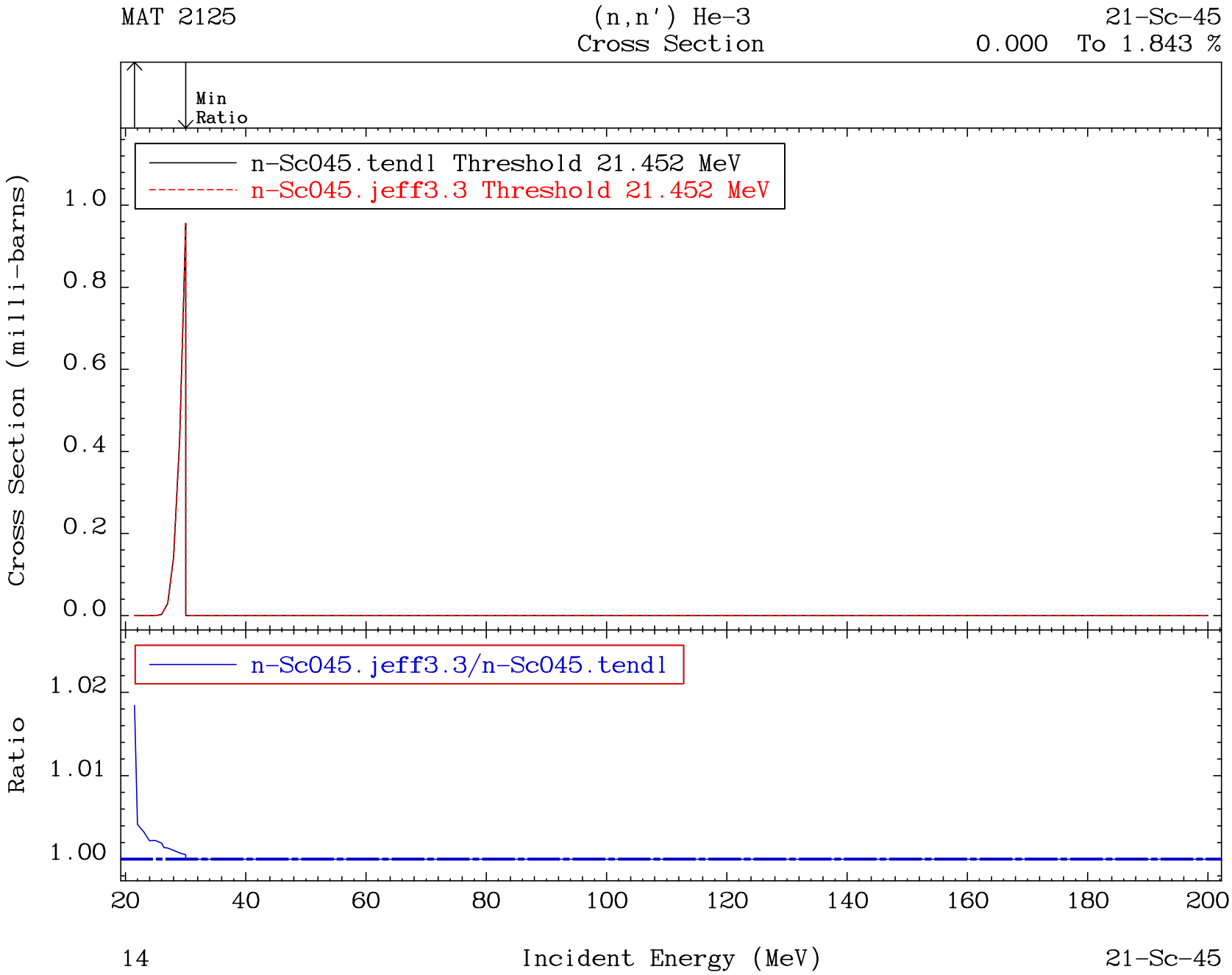

MAT 2125
(n,3n) α
Cross Section
21-Sc-45
0.000 To 115.0 %
Min
Ratio
n-Sc045.tendl Threshold 26.393 MeV
n-Sc045.jeff3.3 Threshold 26.393 MeV
Cross Section (10^-9 barns)
160
140
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
2.4
2.0
1.6
1.2
40
60
80
100
120
140
160
180
200
9
Incident Energy (MeV)
21-Sc-45

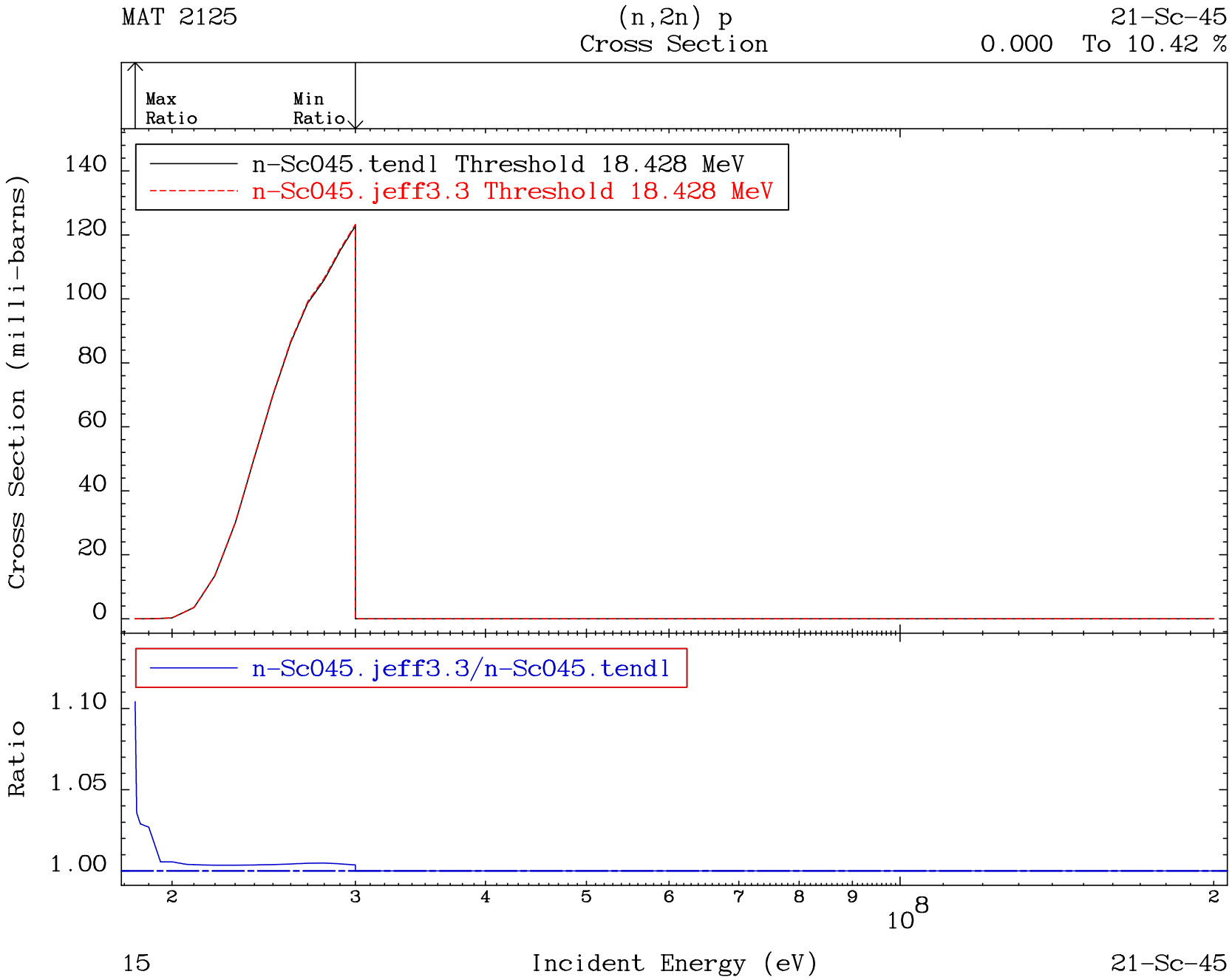

MAT 2125
(n,n') p
Cross Section
21-Sc-45
0.000 To 1.390 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 7.0468 MeV
n-Sc045.jeff3.3 Threshold 7.0461 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
21-Sc-45

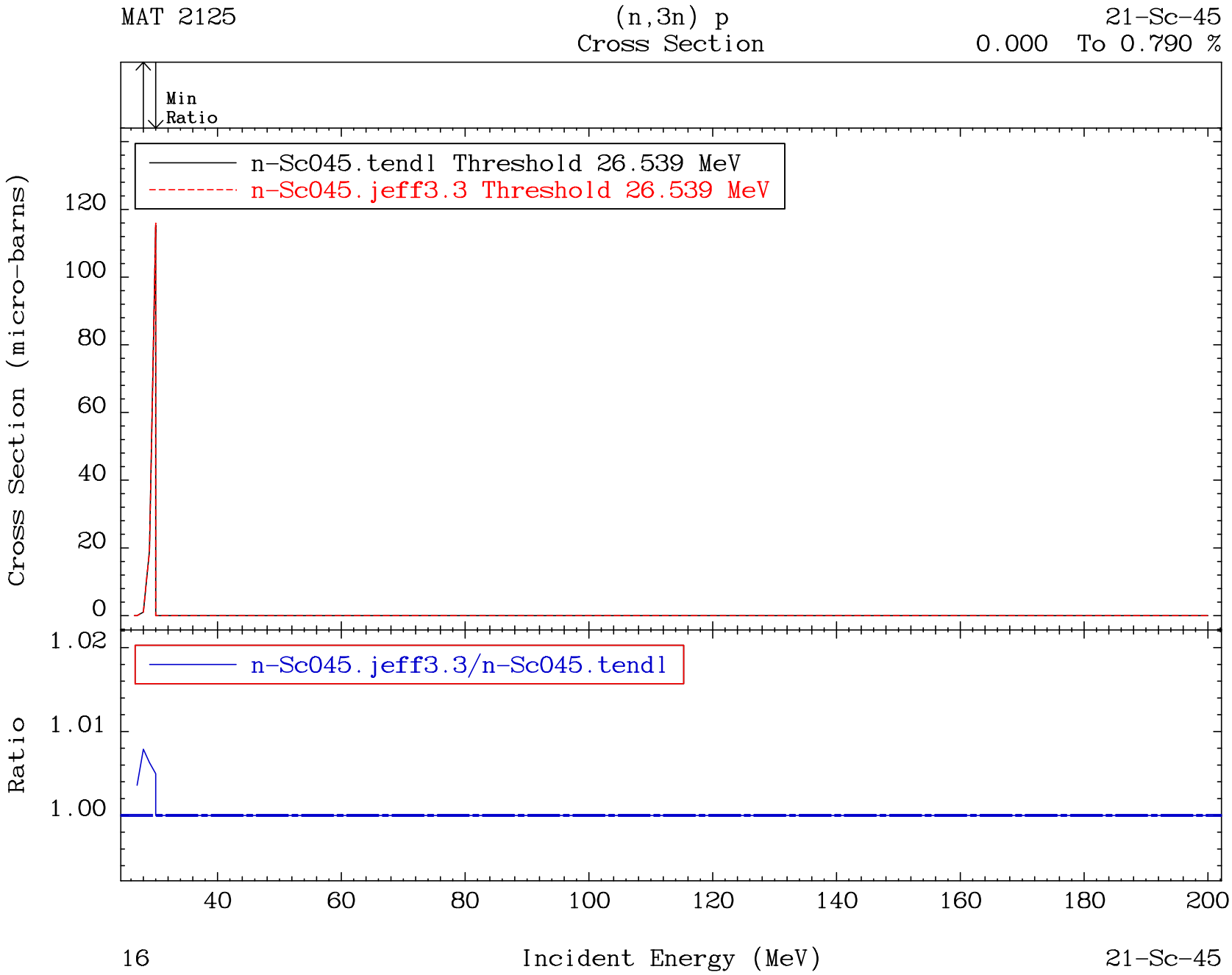

MAT 2125
(n,n') 2α
Cross Section
21-Sc-45
0.000 To 397.6 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 14.478 MeV
n-Sc045.jeff3.3 Threshold 14.478 MeV
Cross Section (micro-barns)
400
300
200
100
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
6
4
2
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
21-Sc-45

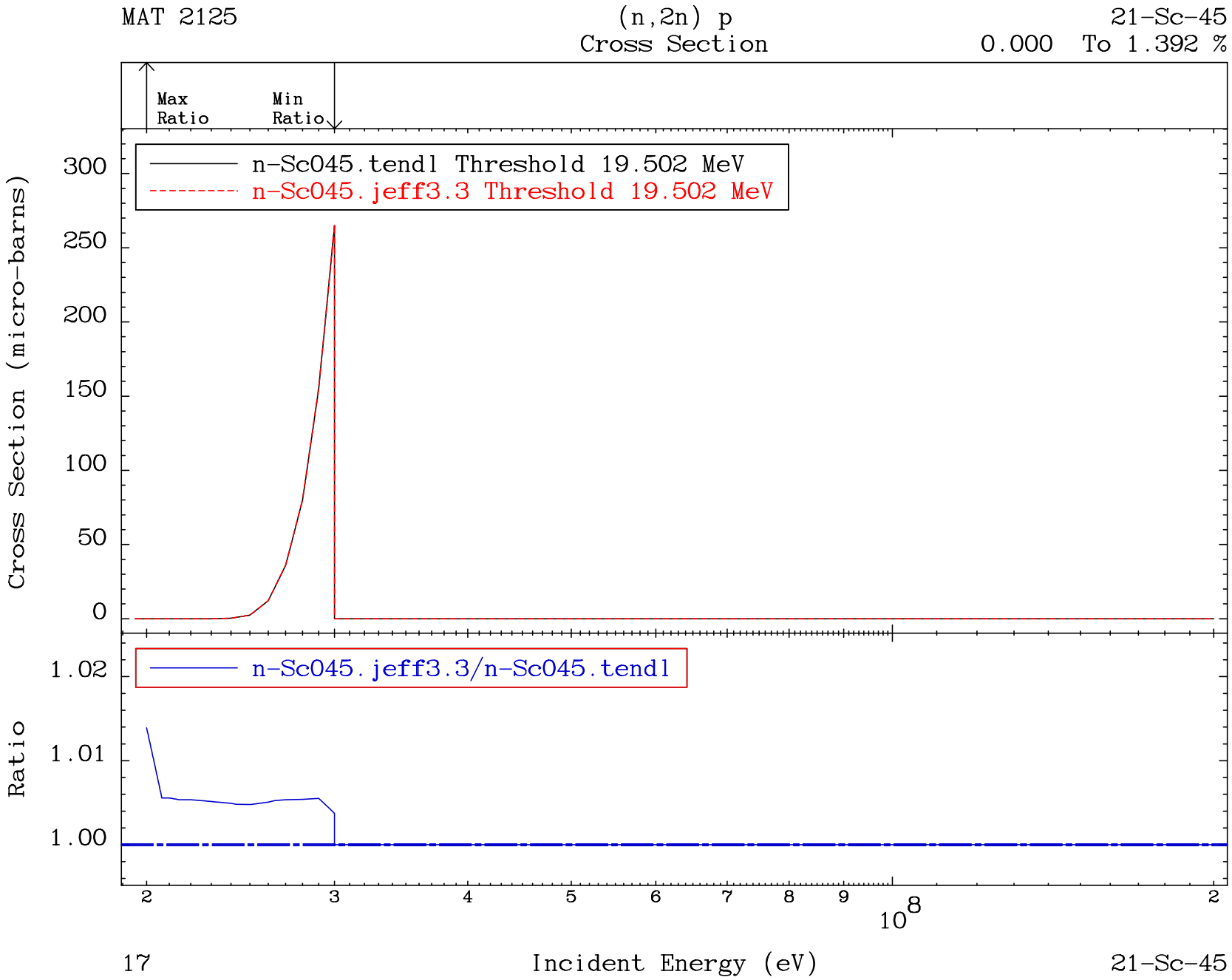

MAT 2125
(n,n') d
Cross Section
21-Sc-45
0.000 To 1.499 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 16.153 MeV
n-Sc045.jeff3.3 Threshold 16.153 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
21-Sc-45

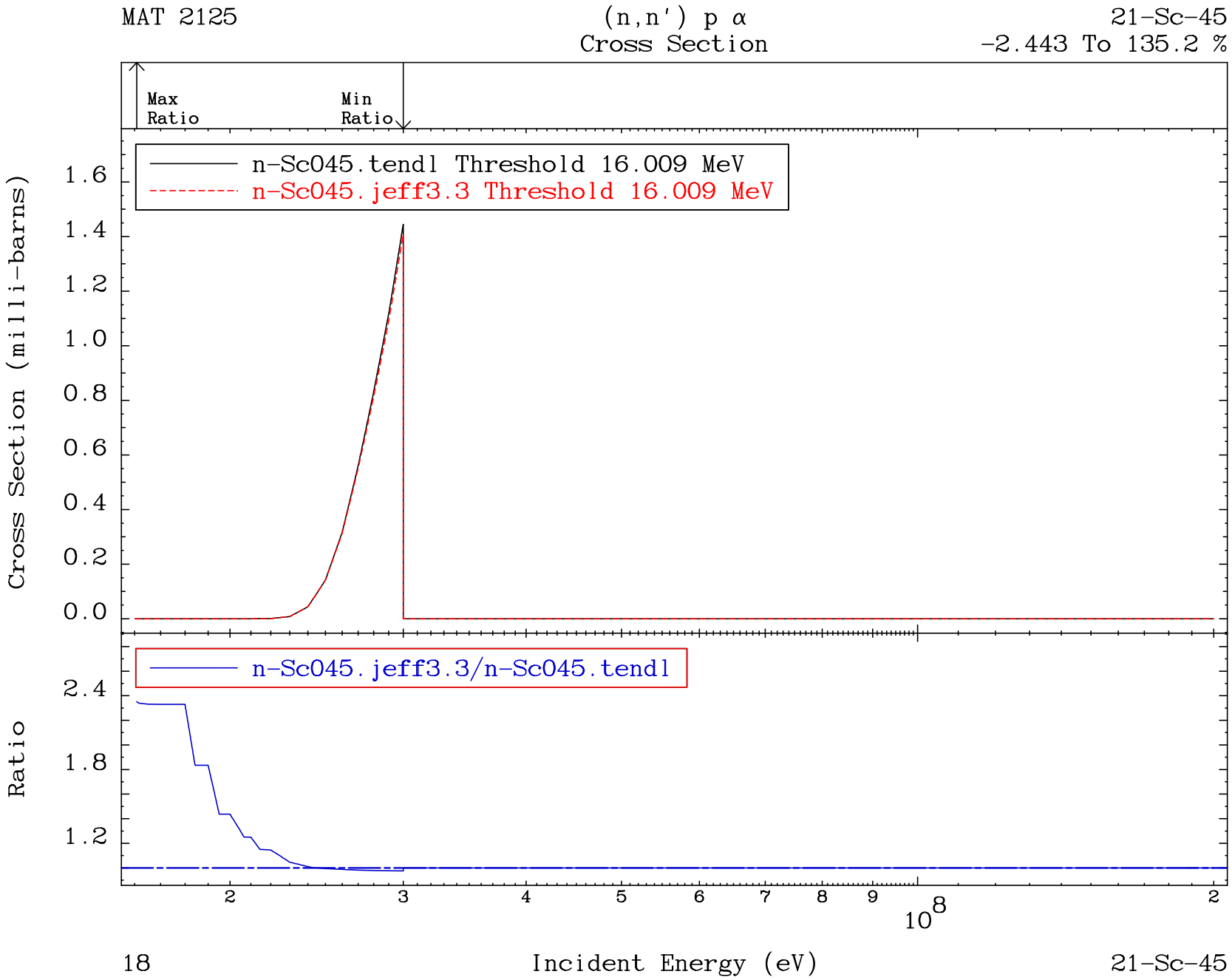

MAT 2125
(n,n') t
Cross Section
21-Sc-45
0.000 To 0.922 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 17.867 MeV
n-Sc045.jeff3.3 Threshold 17.867 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.00
1.01
1.02
2
3
4
5
6
7
8
9
10^8
2
13
Incident Energy (eV)
21-Sc-45

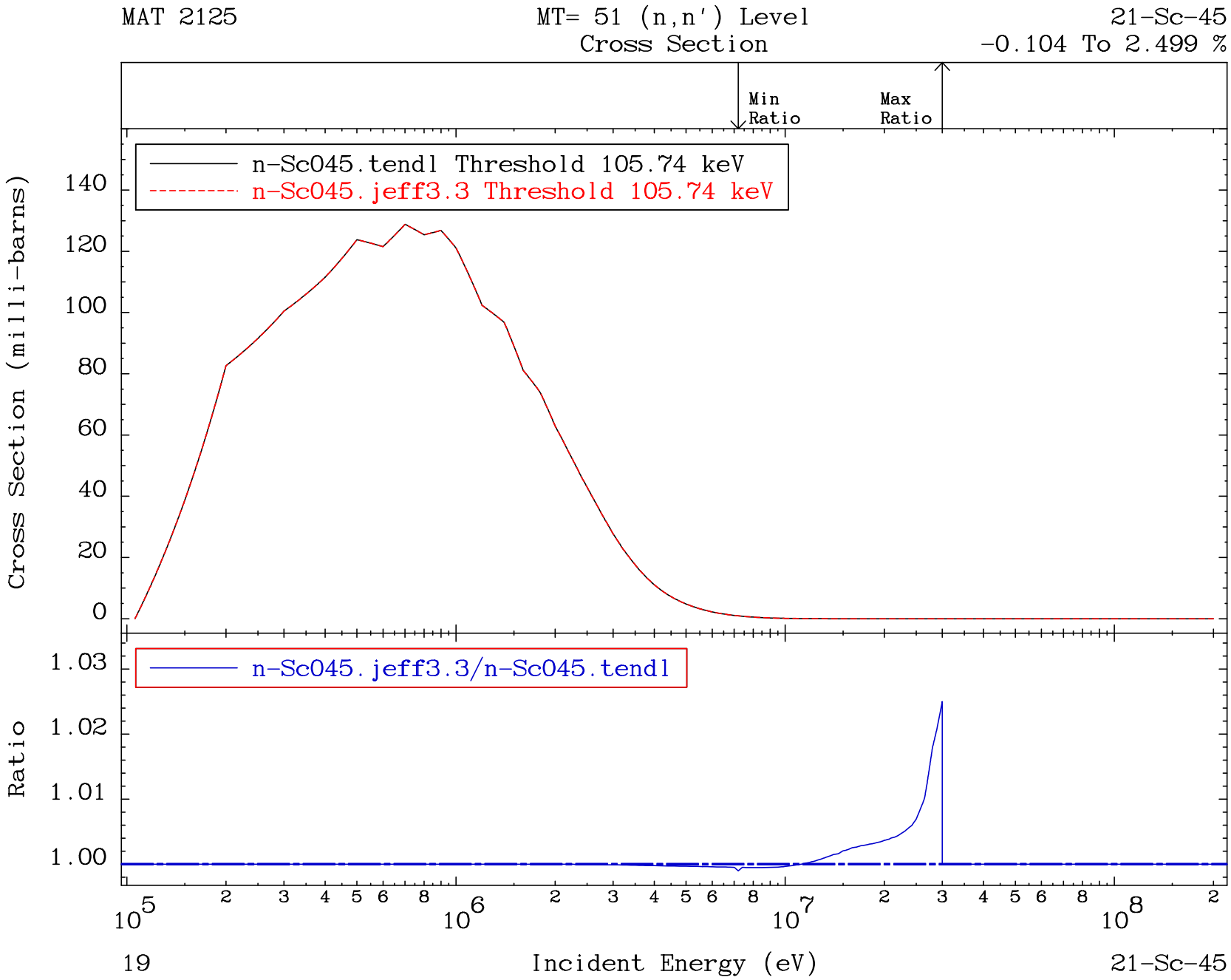

MAT 2125
(n,n') He-3
Cross Section
21-Sc-45
0.000 To 1.843 %
Min
Ratio
n-Sc045.tendl Threshold 21.452 MeV
n-Sc045.jeff3.3 Threshold 21.452 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
20
40
60
80
100
120
140
160
180
200
14
Incident Energy (MeV)
21-Sc-45

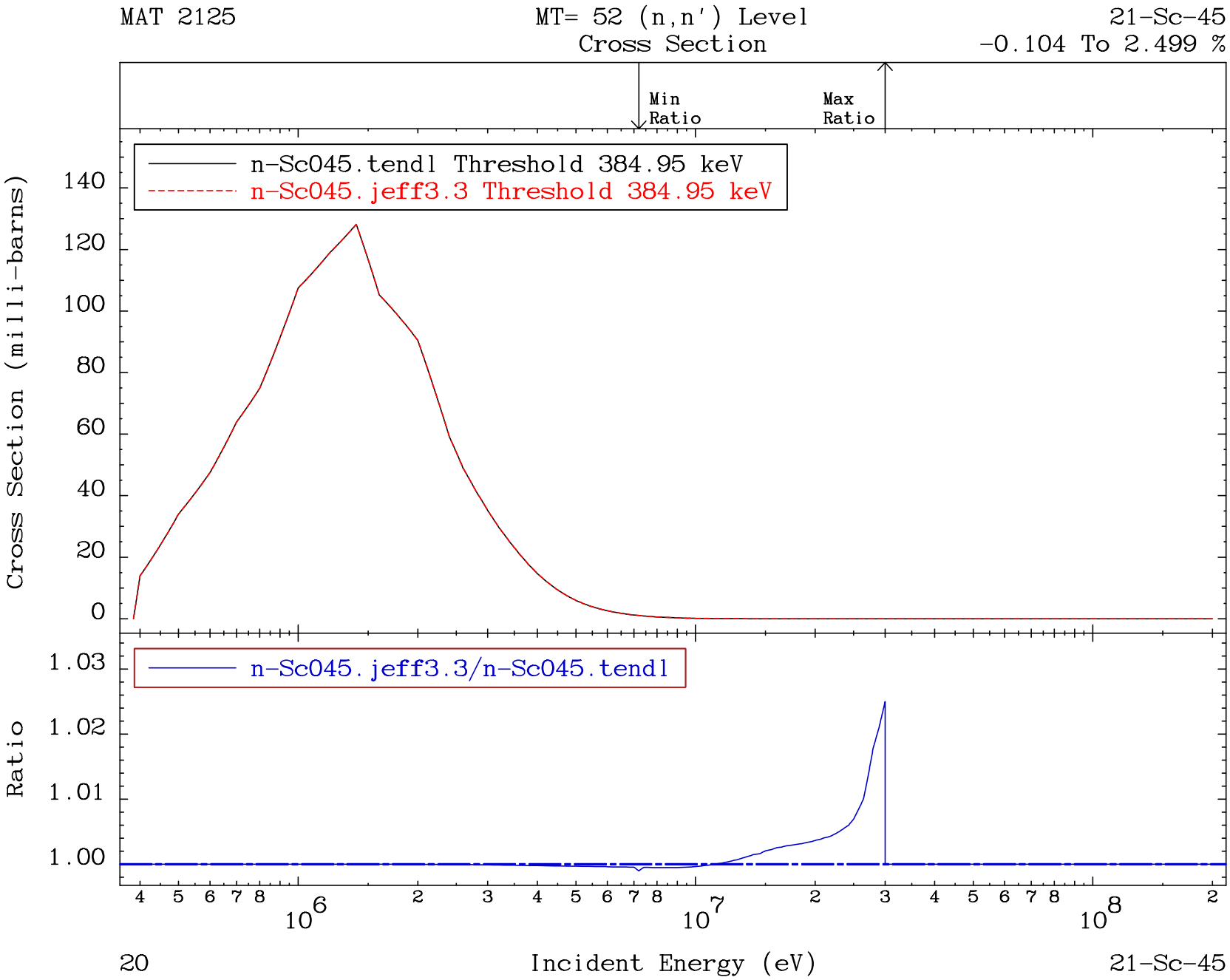

MAT 2125
(n,2n) p
Cross Section
21-Sc-45
0.000 To 10.42 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 18.428 MeV
n-Sc045.jeff3.3 Threshold 18.428 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.10
1.05
1.00
2
3
4
5
6
7
8
9
10^8
2
15
Incident Energy (eV)
21-Sc-45

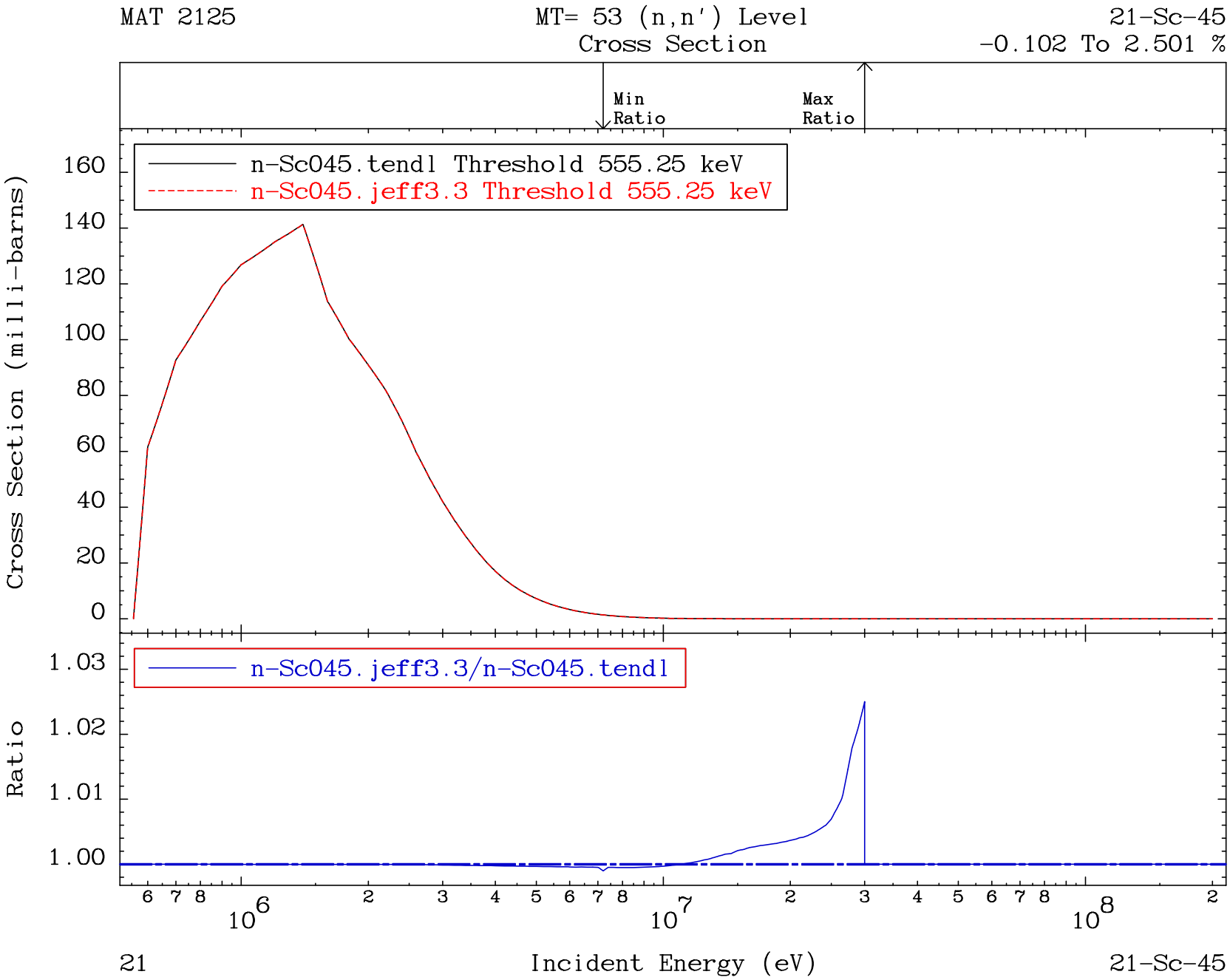

MAT 2125
(n,3n) p
Cross Section
21-Sc-45
0.000 To 0.790 %
Min
Ratio
n-Sc045.tendl Threshold 26.539 MeV
n-Sc045.jeff3.3 Threshold 26.539 MeV
Cross Section (micro-barns)
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
40
60
80
100
120
140
160
180
200
16
Incident Energy (MeV)
21-Sc-45

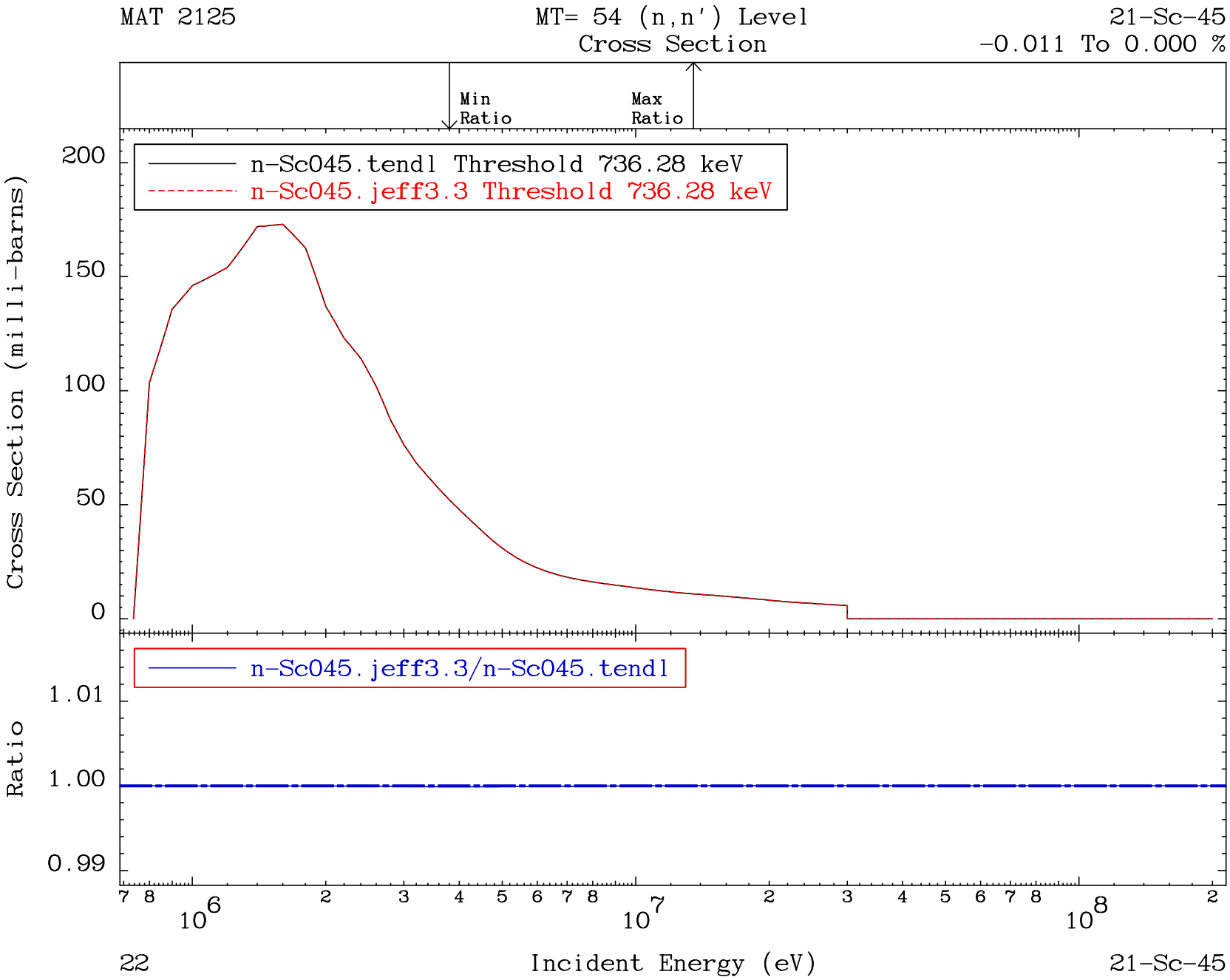

MAT 2125
(n,2n) p
Cross Section
21-Sc-45
0.000 To 1.392 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 19.502 MeV
n-Sc045.jeff3.3 Threshold 19.502 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
17
Incident Energy (eV)
21-Sc-45

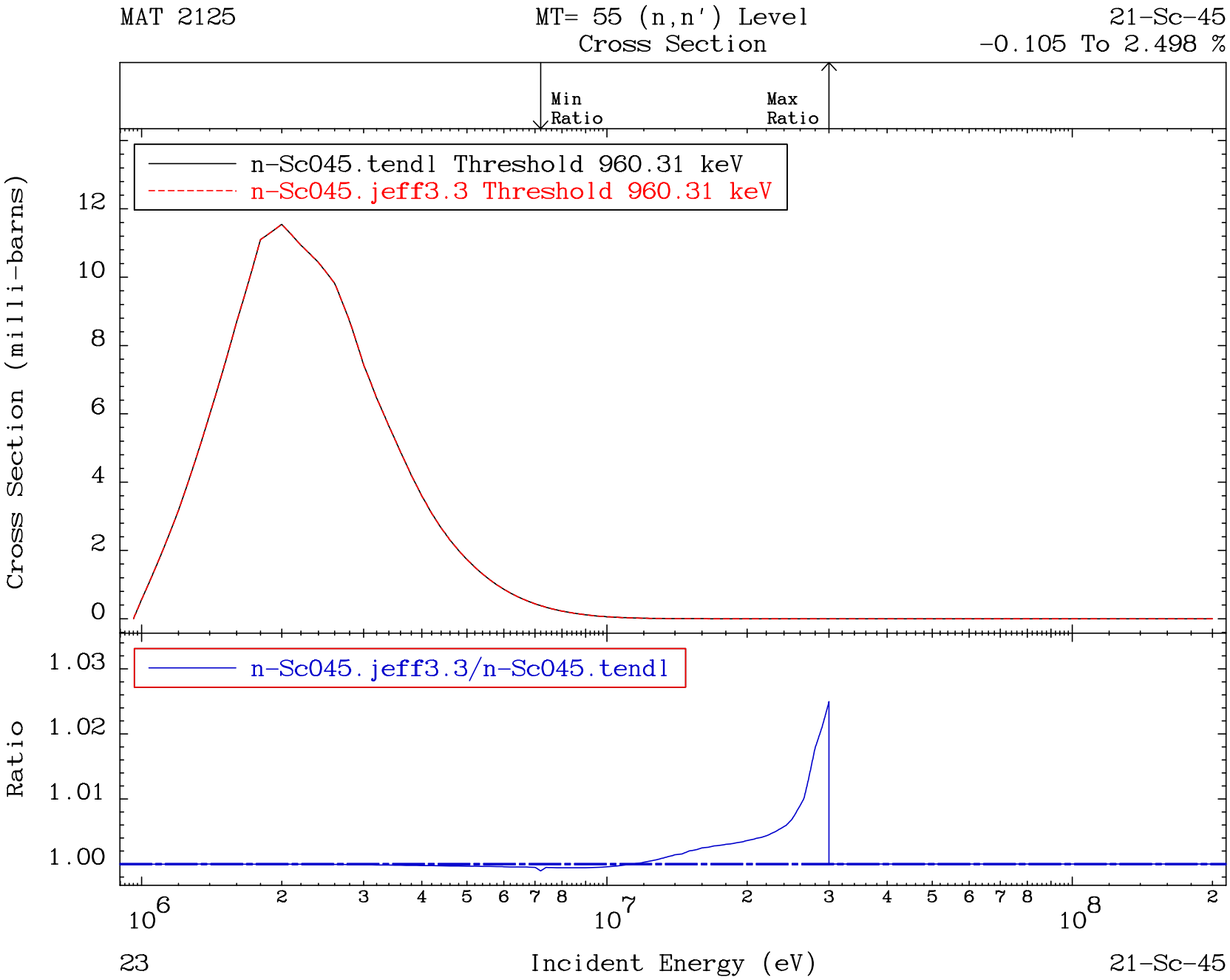

MAT 2125
(n,n') p α
Cross Section
21-Sc-45
-2.443 To 135.2 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 16.009 MeV
n-Sc045.jeff3.3 Threshold 16.009 MeV
Cross Section (milli-barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
2.4
1.8
1.2
2
3
4
5
6
7
8
9
10^8
2
18
Incident Energy (eV)
21-Sc-45

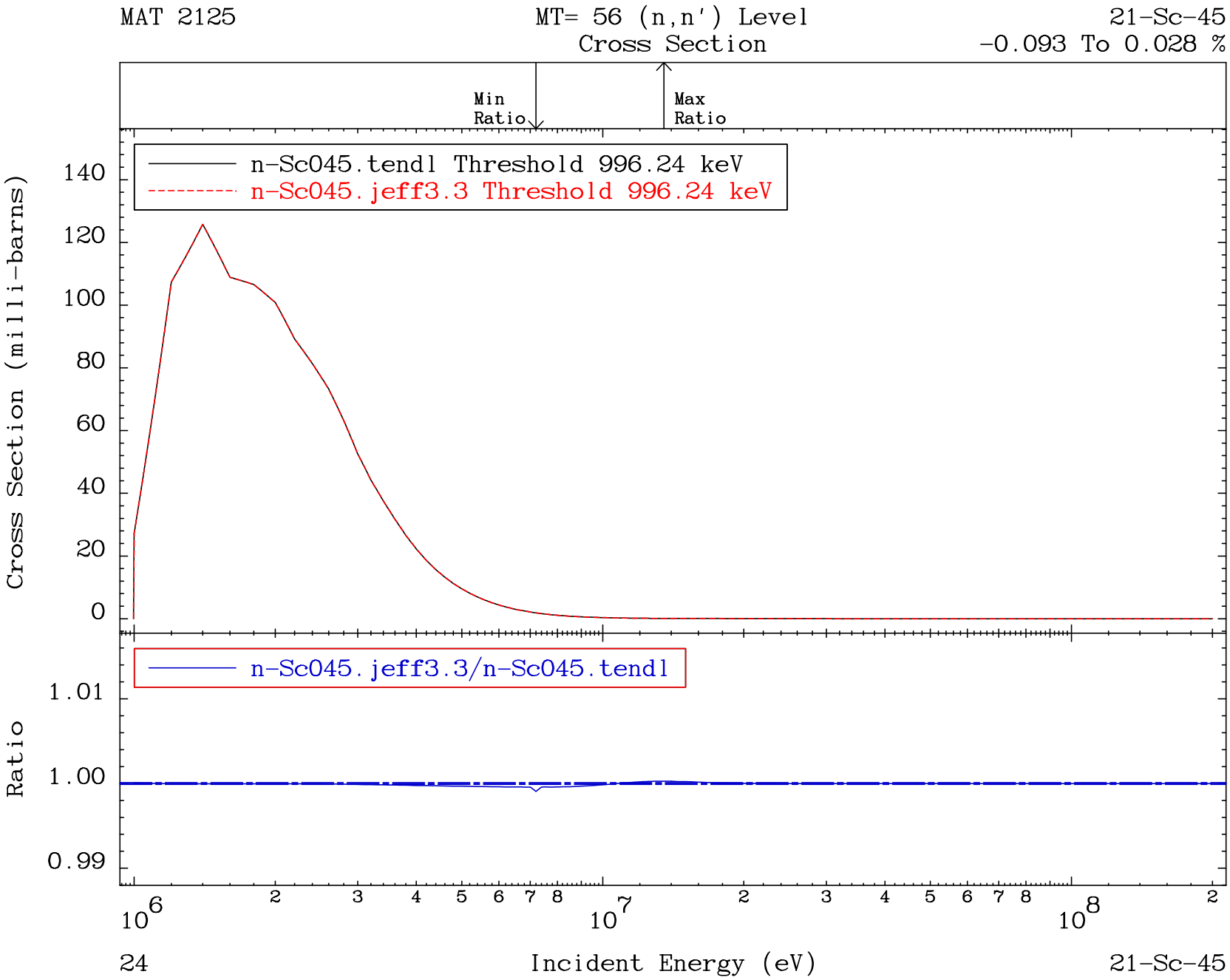

MAT 2125
MT= 51 (n,n') Level
Cross Section
21-Sc-45
-0.104 To 2.499 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 105.74 keV
n-Sc045.jeff3.3 Threshold 105.74 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
10^5
10^6
10^7
10^8
19
Incident Energy (eV)
21-Sc-45

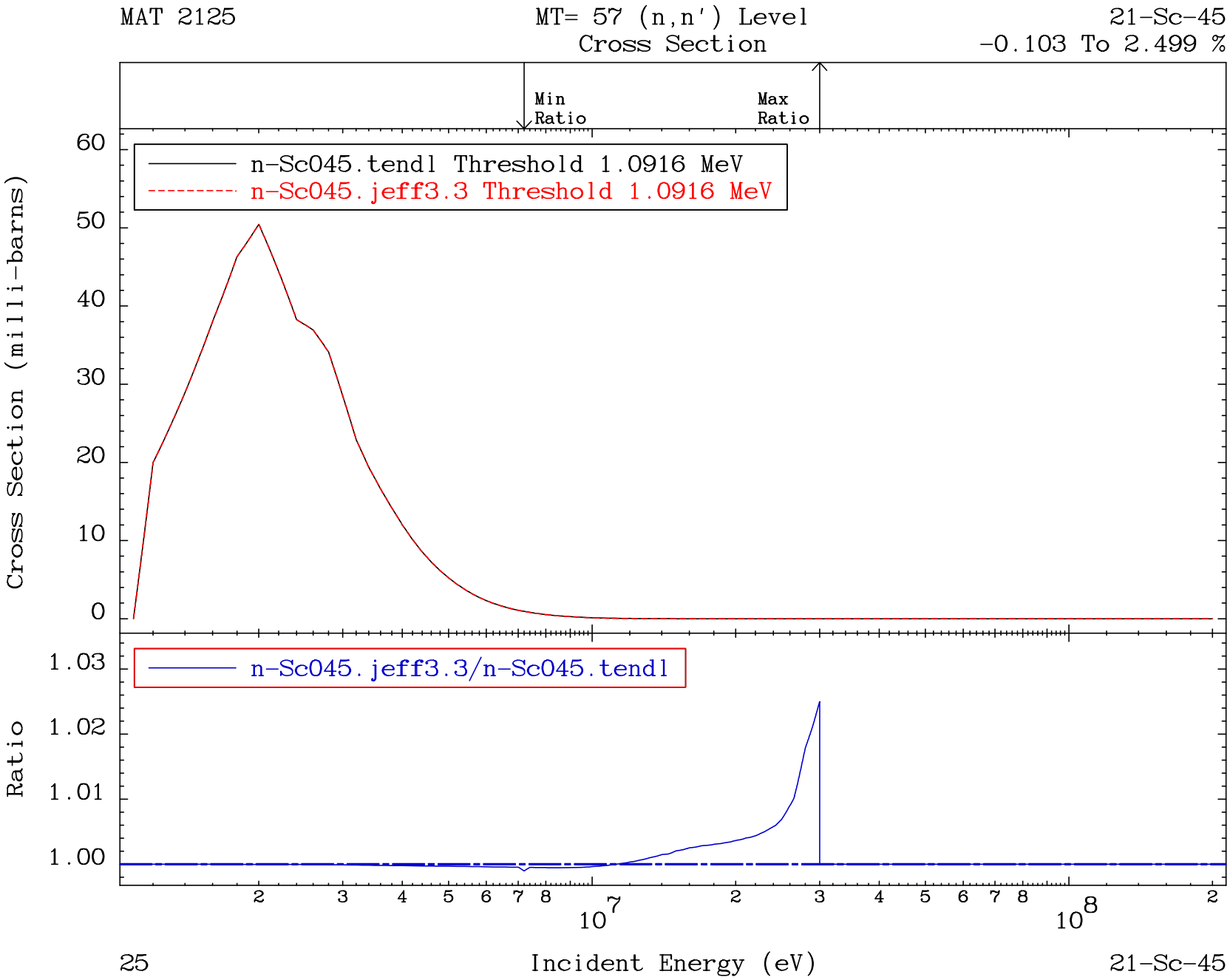

MAT 2125
MT= 52 (n,n') Level
Cross Section
21-Sc-45
-0.104 To 2.499 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 384.95 keV
n-Sc045.jeff3.3 Threshold 384.95 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
21-Sc-45

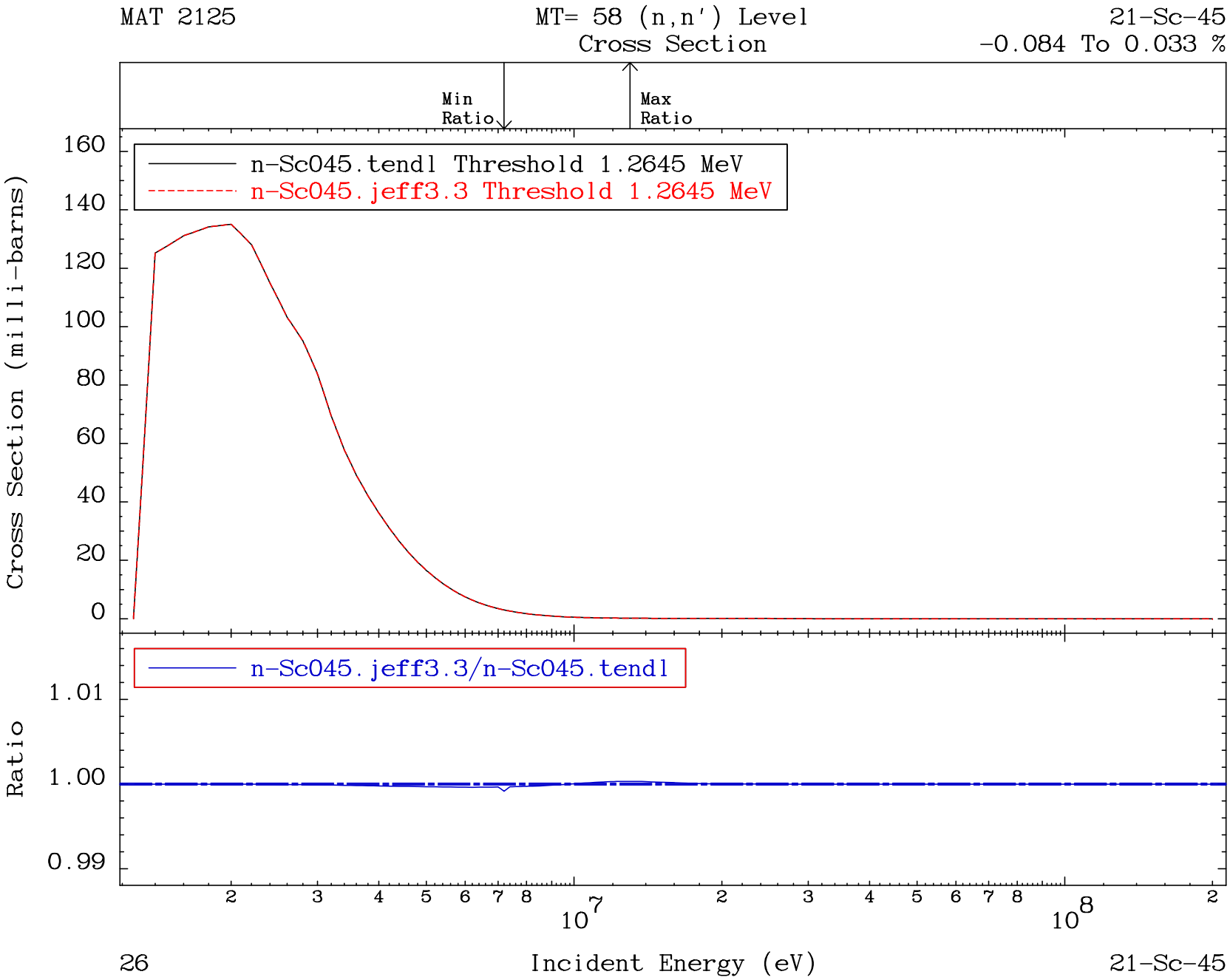

MAT 2125
MT= 53 (n,n') Level
Cross Section
21-Sc-45
-0.102 To 2.501 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 555.25 keV
n-Sc045.jeff3.3 Threshold 555.25 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
21-Sc-45

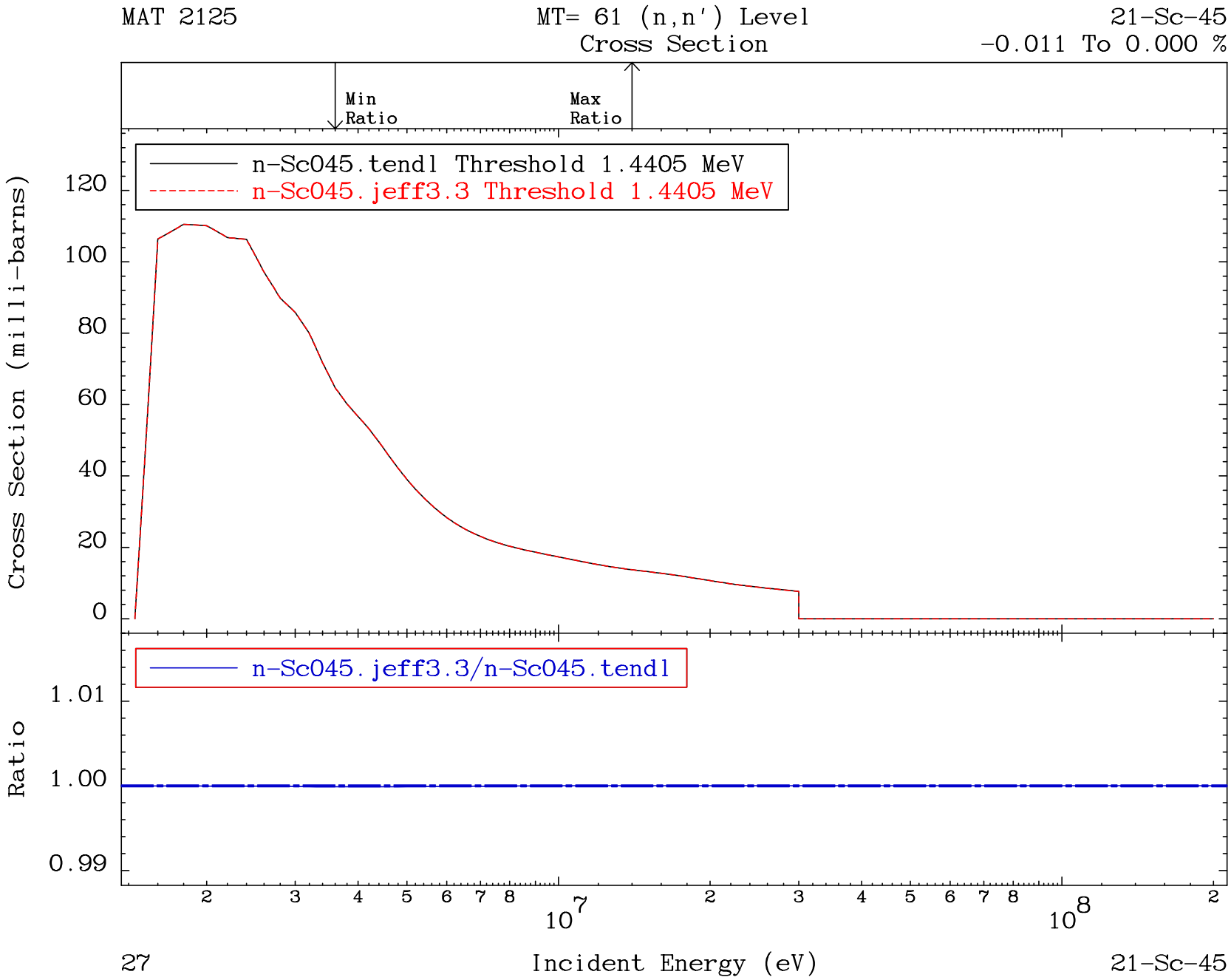

MAT 2125
MT= 54 (n,n') Level
Cross Section
21-Sc-45
-0.011 To 0.000 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 736.28 keV
n-Sc045.jeff3.3 Threshold 736.28 keV
Cross Section (milli-barns)
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
21-Sc-45

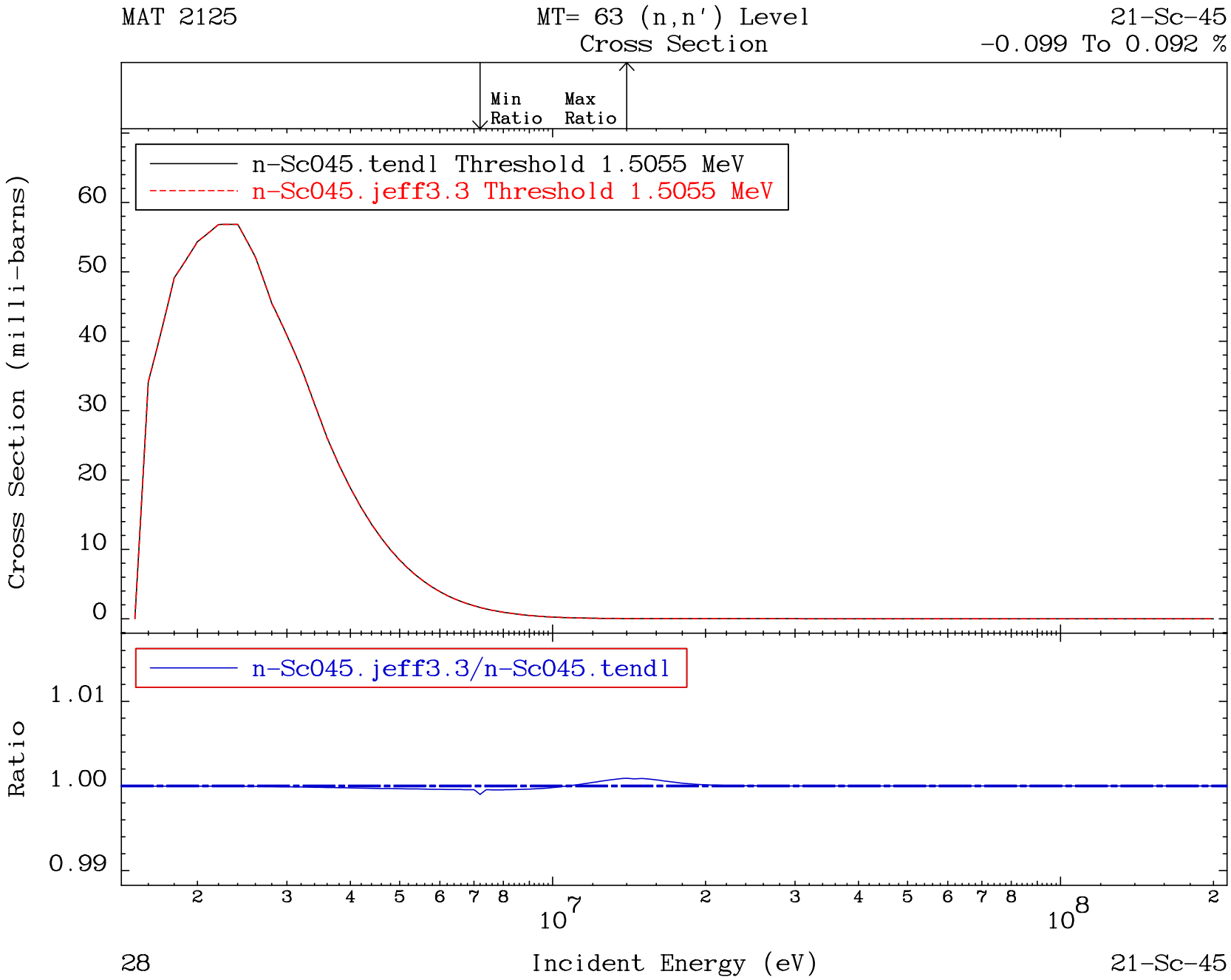

MAT 2125
MT= 55 (n,n') Level
Cross Section
21-Sc-45
-0.105 To 2.498 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 960.31 keV
n-Sc045.jeff3.3 Threshold 960.31 keV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.00
1.01
1.02
1.03
10^6
10^7
10^8
23
Incident Energy (eV)
21-Sc-45

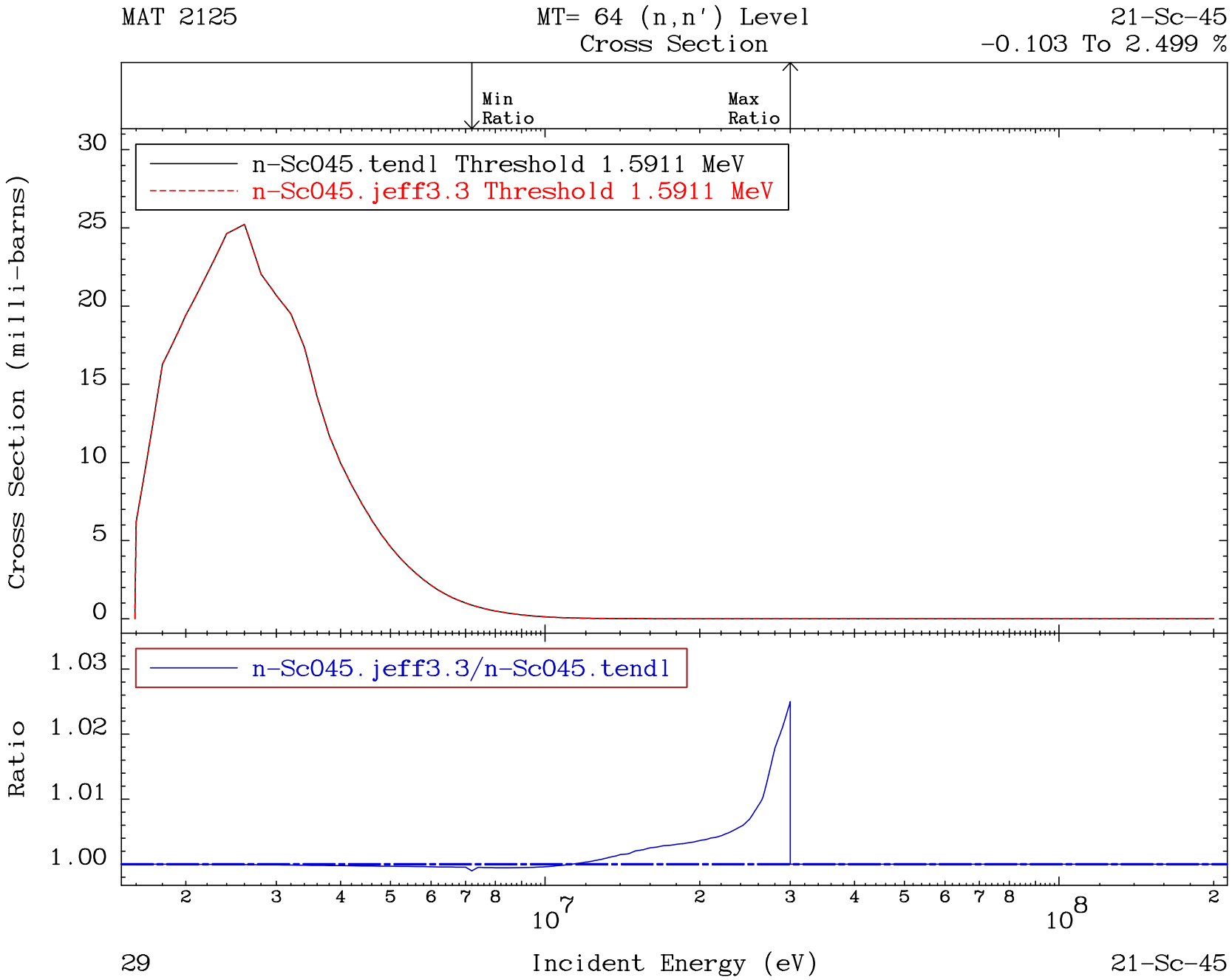

MAT 2125
MT= 56 (n,n') Level
Cross Section
21-Sc-45
-0.093 To 0.028 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 996.24 keV
n-Sc045.jeff3.3 Threshold 996.24 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
10^6
10^7
10^8
24
Incident Energy (eV)
21-Sc-45

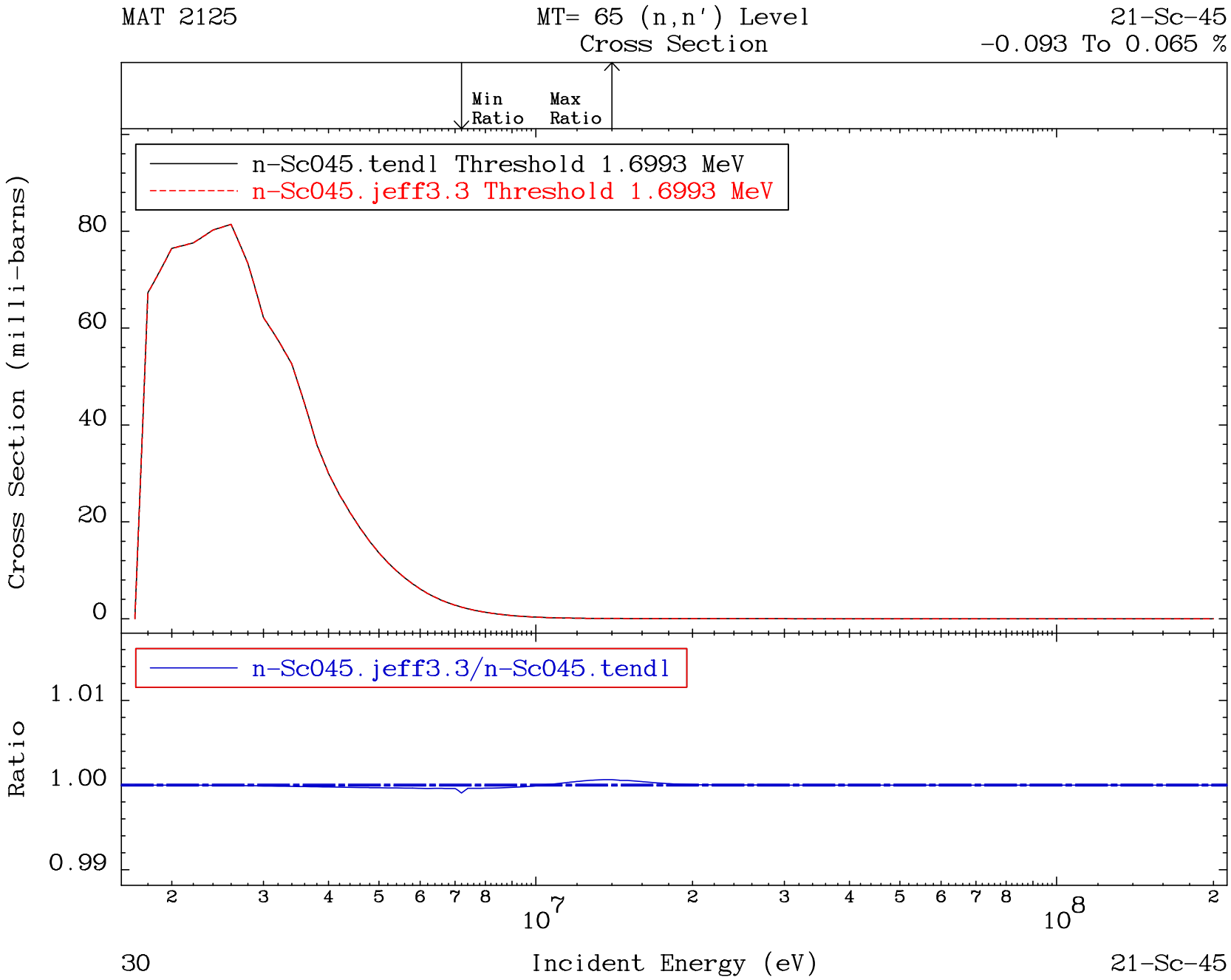

MAT 2125
MT= 57 (n,n') Level
Cross Section
21-Sc-45
-0.103 To 2.499 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 1.0916 MeV
n-Sc045.jeff3.3 Threshold 1.0916 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
21-Sc-45

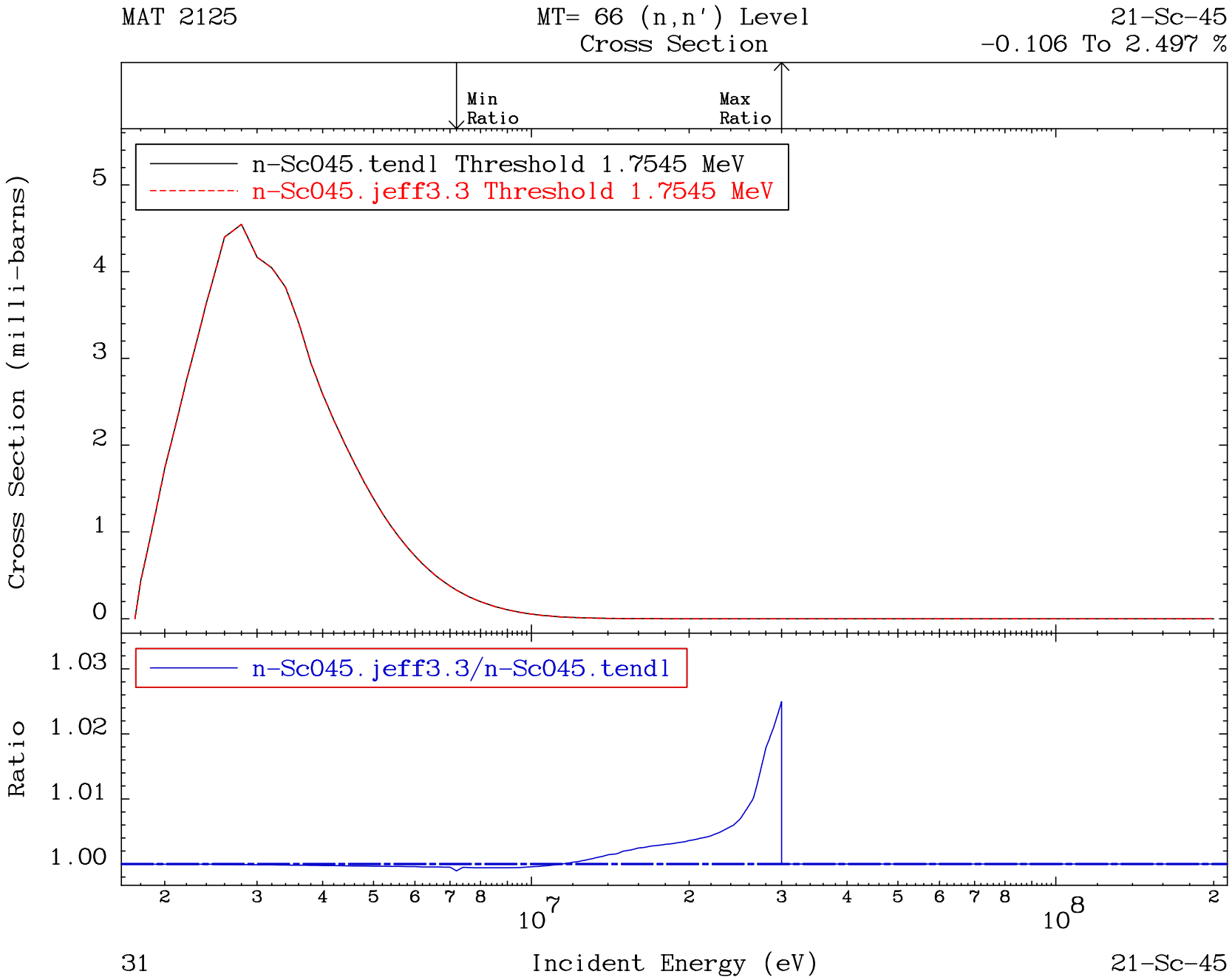

MAT 2125
MT= 58 (n,n') Level
Cross Section
21-Sc-45
-0.084 To 0.033 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 1.2645 MeV
n-Sc045.jeff3.3 Threshold 1.2645 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
26
Incident Energy (eV)
21-Sc-45

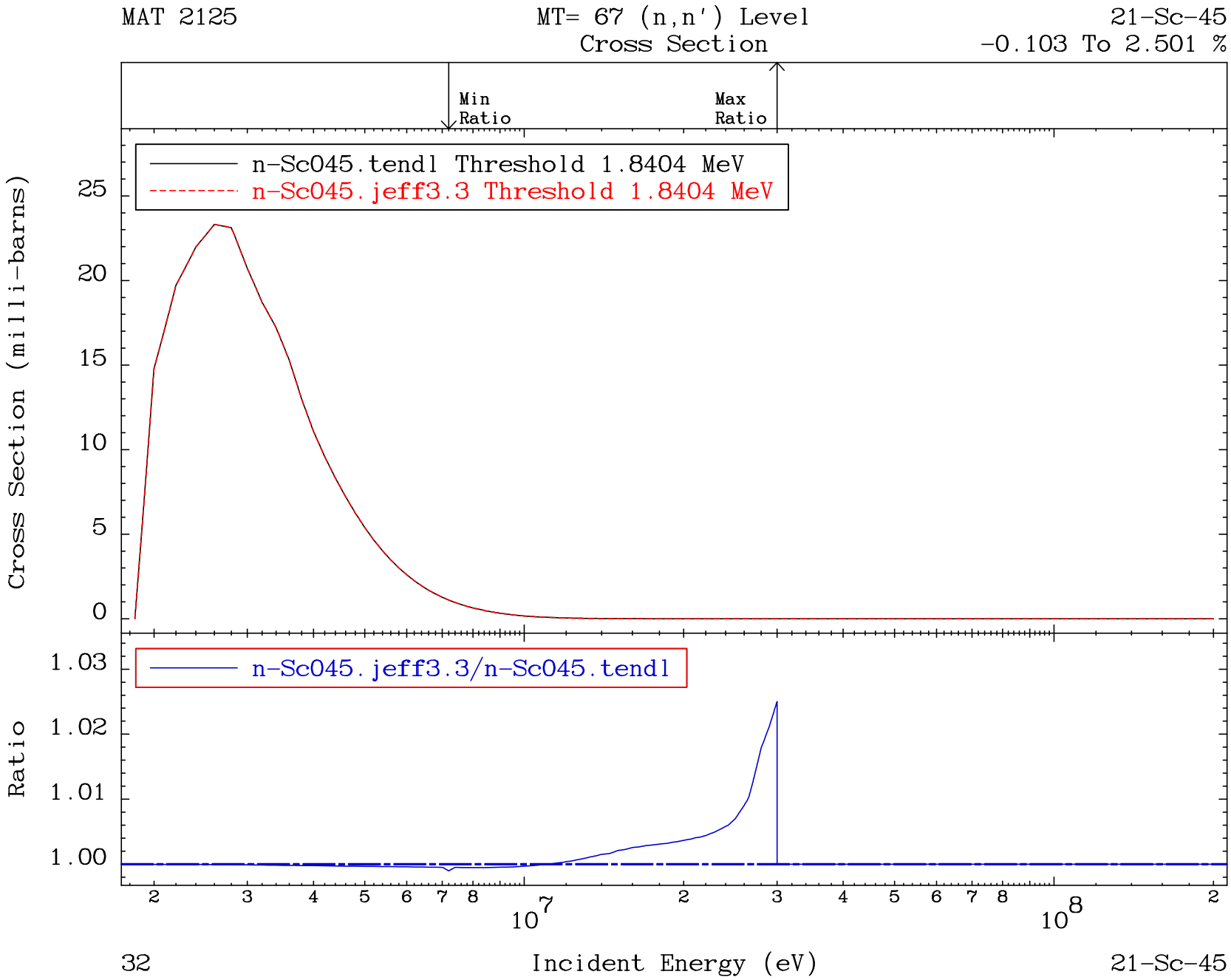

MAT 2125
MT= 61 (n,n') Level
Cross Section
21-Sc-45
-0.011 To 0.000 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 1.4405 MeV
n-Sc045.jeff3.3 Threshold 1.4405 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
27
Incident Energy (eV)
21-Sc-45

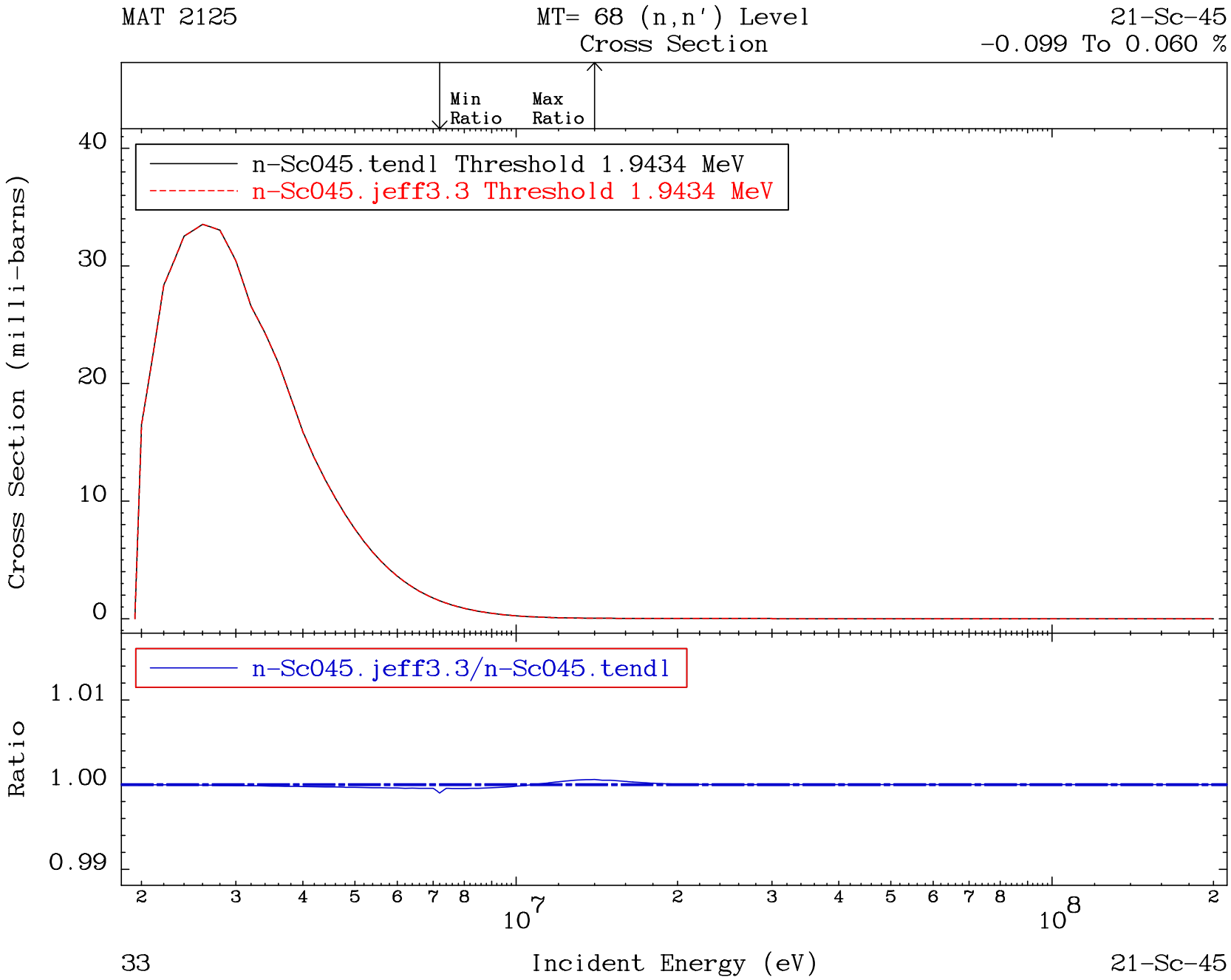

MAT 2125
MT= 63 (n,n') Level
Cross Section
21-Sc-45
-0.099 To 0.092 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 1.5055 MeV
n-Sc045.jeff3.3 Threshold 1.5055 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
28
Incident Energy (eV)
21-Sc-45

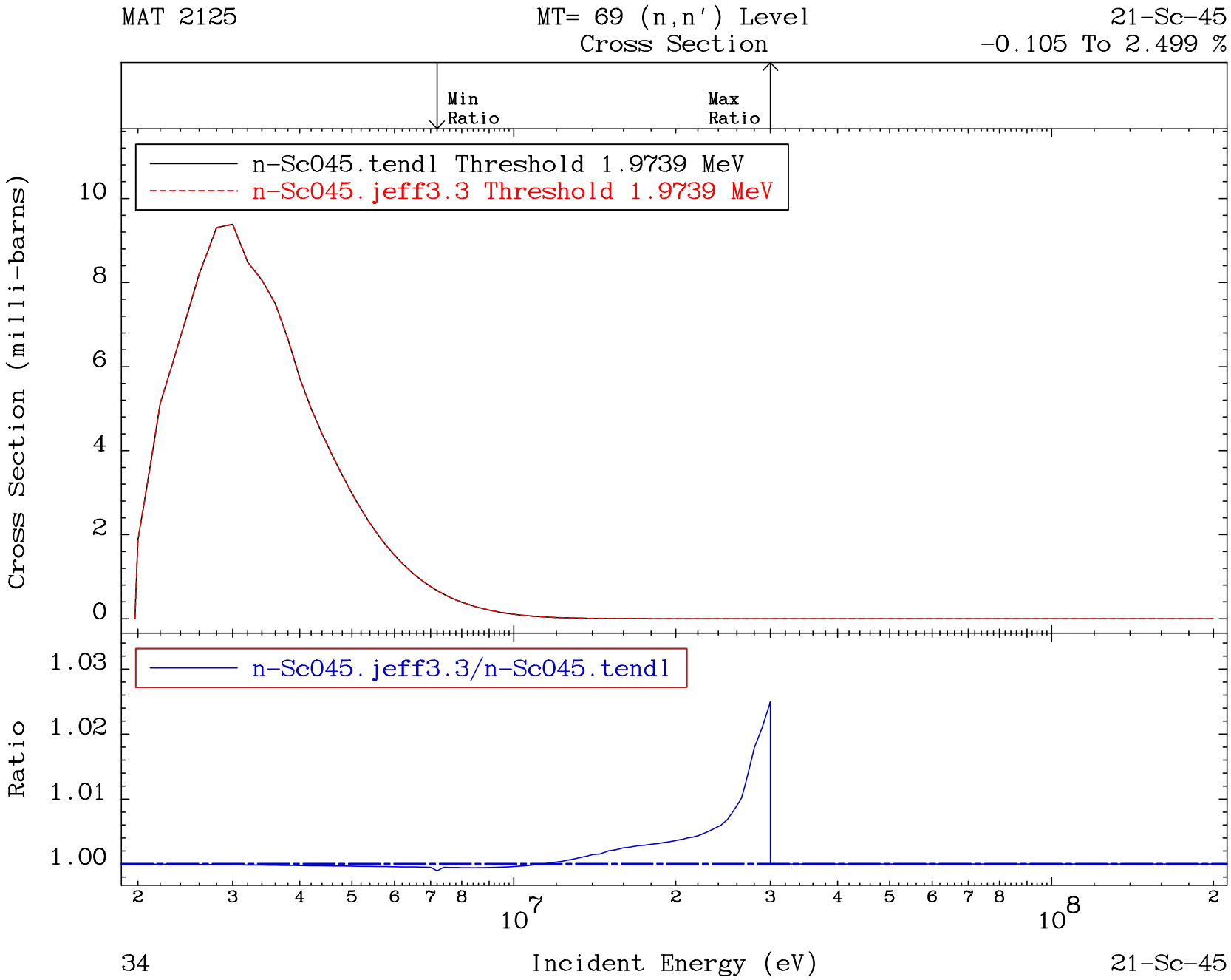

MAT 2125
MT= 64 (n,n') Level
Cross Section
21-Sc-45
-0.103 To 2.499 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 1.5911 MeV
n-Sc045.jeff3.3 Threshold 1.5911 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
29
Incident Energy (eV)
21-Sc-45

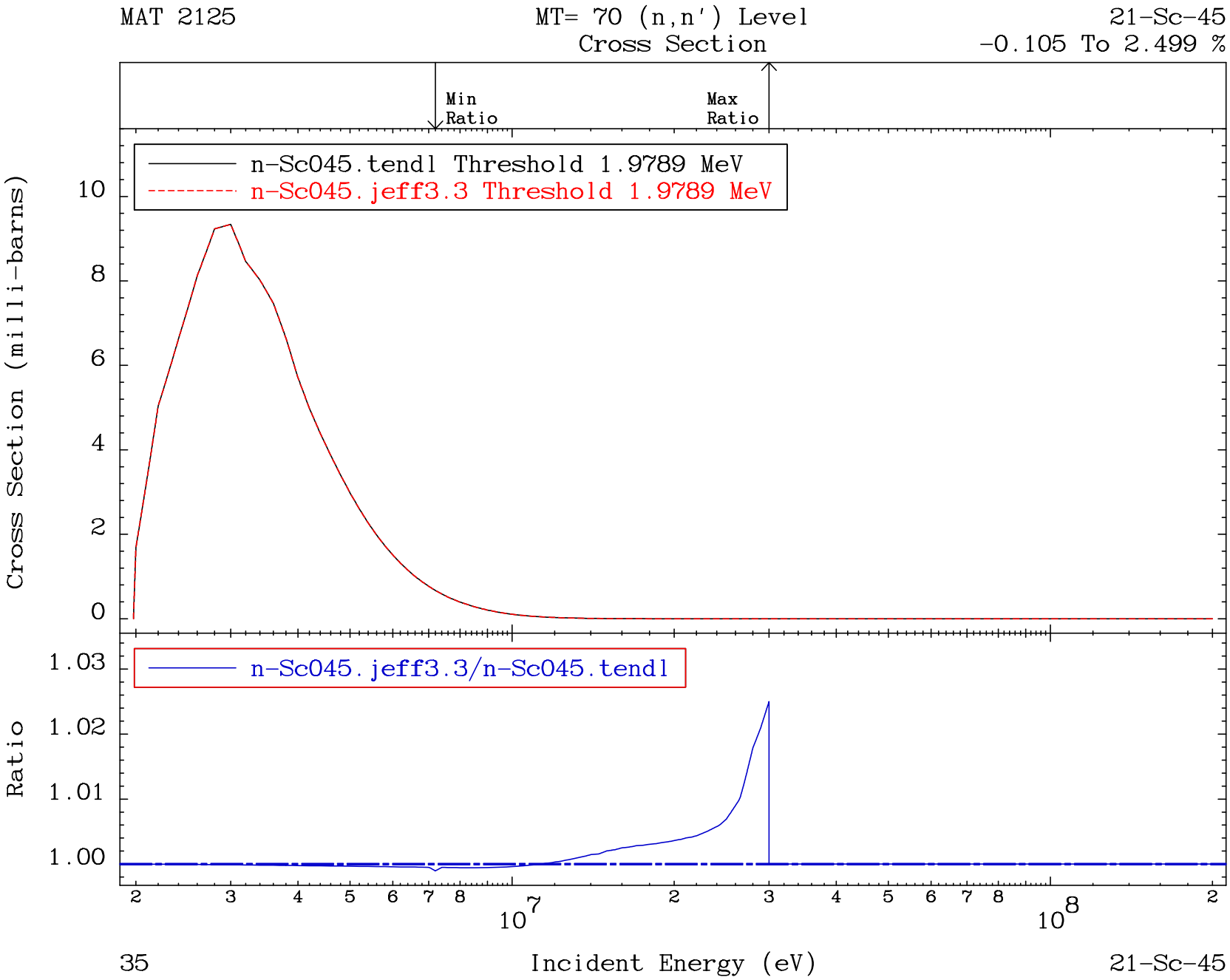

MAT 2125
MT= 65 (n,n') Level
Cross Section
21-Sc-45
-0.093 To 0.065 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 1.6993 MeV
n-Sc045.jeff3.3 Threshold 1.6993 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
21-Sc-45

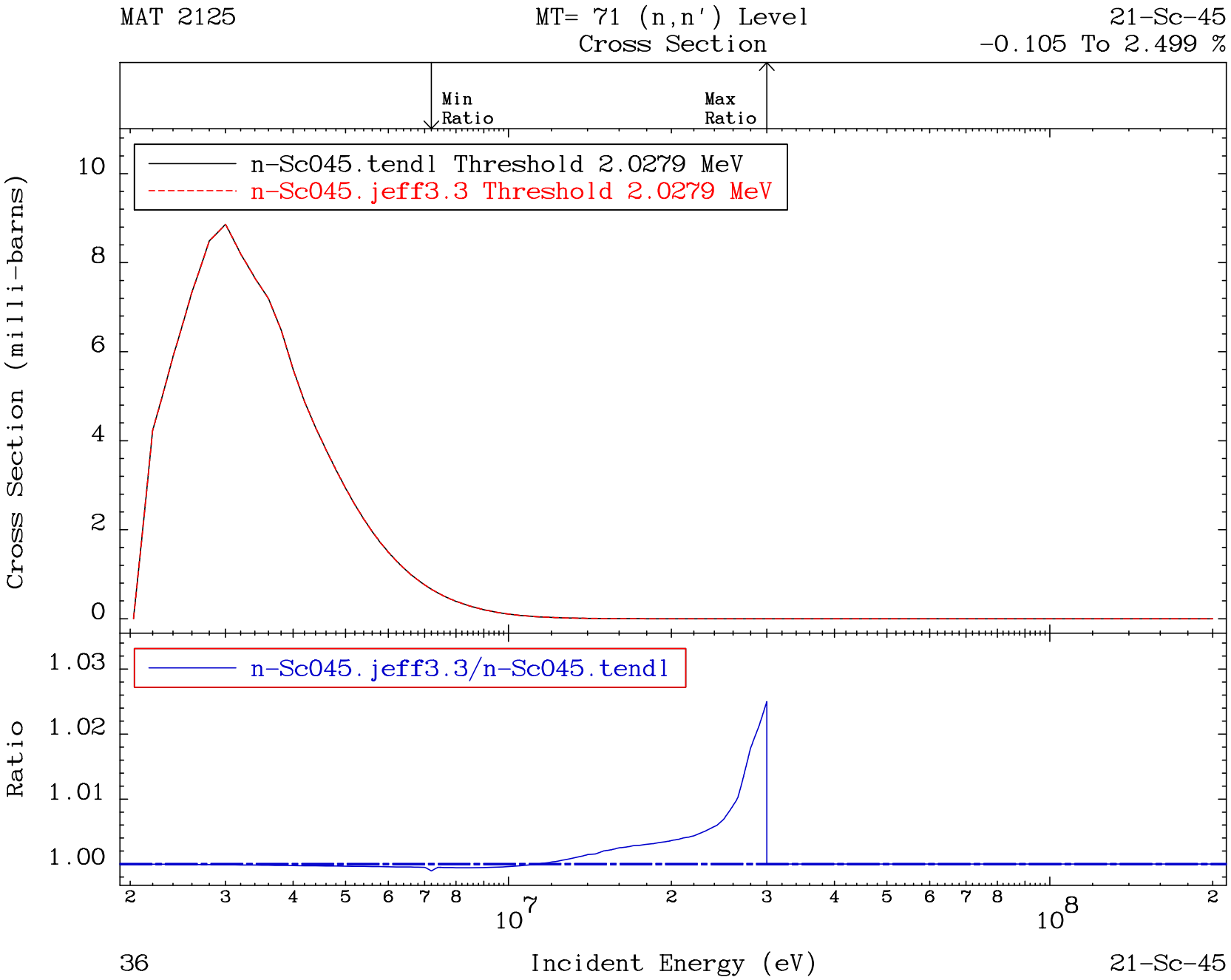

MAT 2125
MT= 66 (n,n') Level
Cross Section
21-Sc-45
-0.106 To 2.497 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 1.7545 MeV
n-Sc045.jeff3.3 Threshold 1.7545 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.00
1.01
1.02
1.03
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
31
Incident Energy (eV)
21-Sc-45

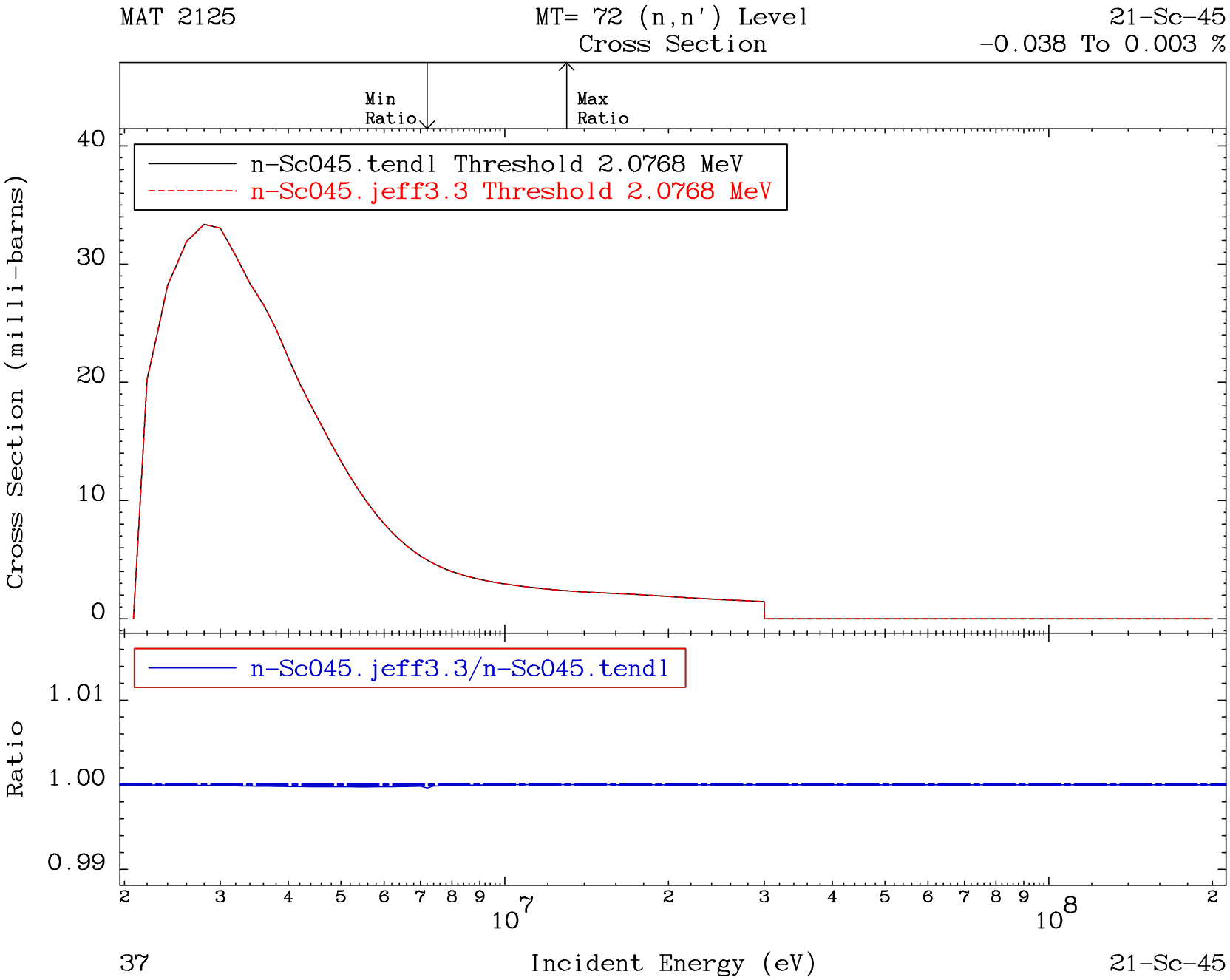

MAT 2125
MT= 67 (n,n') Level
Cross Section
21-Sc-45
-0.103 To 2.501 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 1.8404 MeV
n-Sc045.jeff3.3 Threshold 1.8404 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
32
Incident Energy (eV)
21-Sc-45

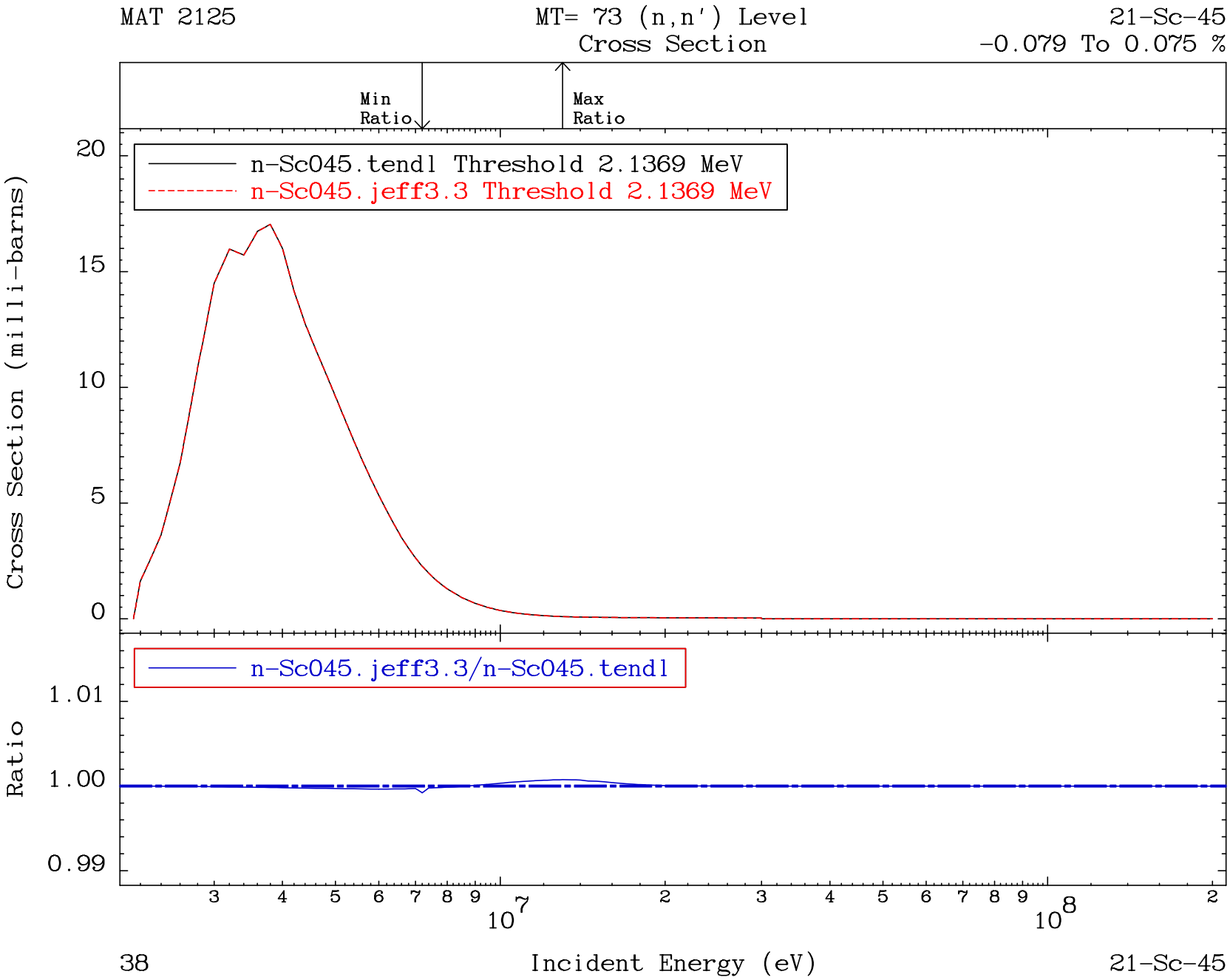

MAT 2125
MT= 68 (n,n') Level
Cross Section
21-Sc-45
-0.099 To 0.060 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 1.9434 MeV
n-Sc045.jeff3.3 Threshold 1.9434 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
33
Incident Energy (eV)
21-Sc-45

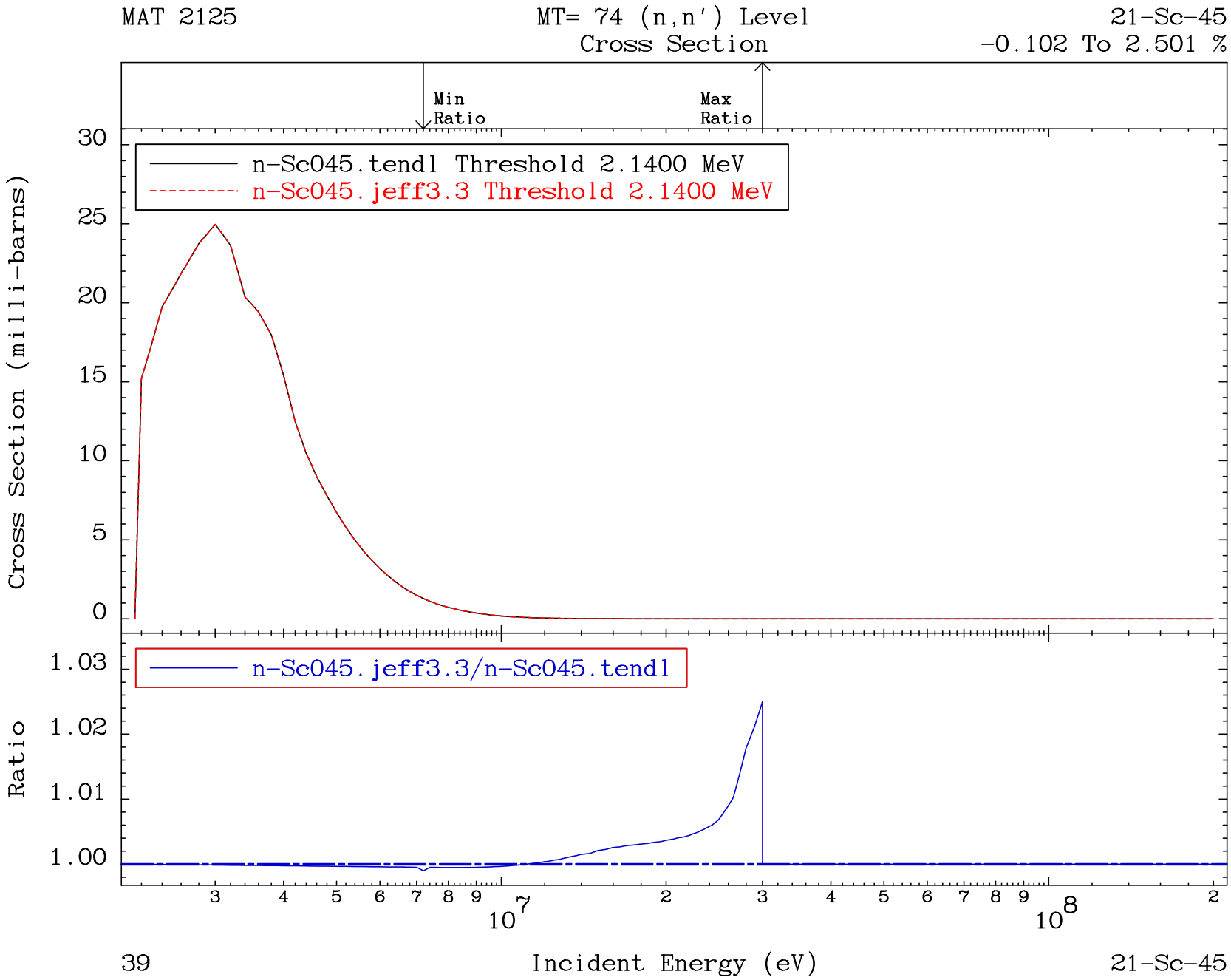

MAT 2125
MT= 69 (n,n') Level
Cross Section
21-Sc-45
-0.105 To 2.499 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 1.9739 MeV
n-Sc045.jeff3.3 Threshold 1.9739 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
34
Incident Energy (eV)
21-Sc-45

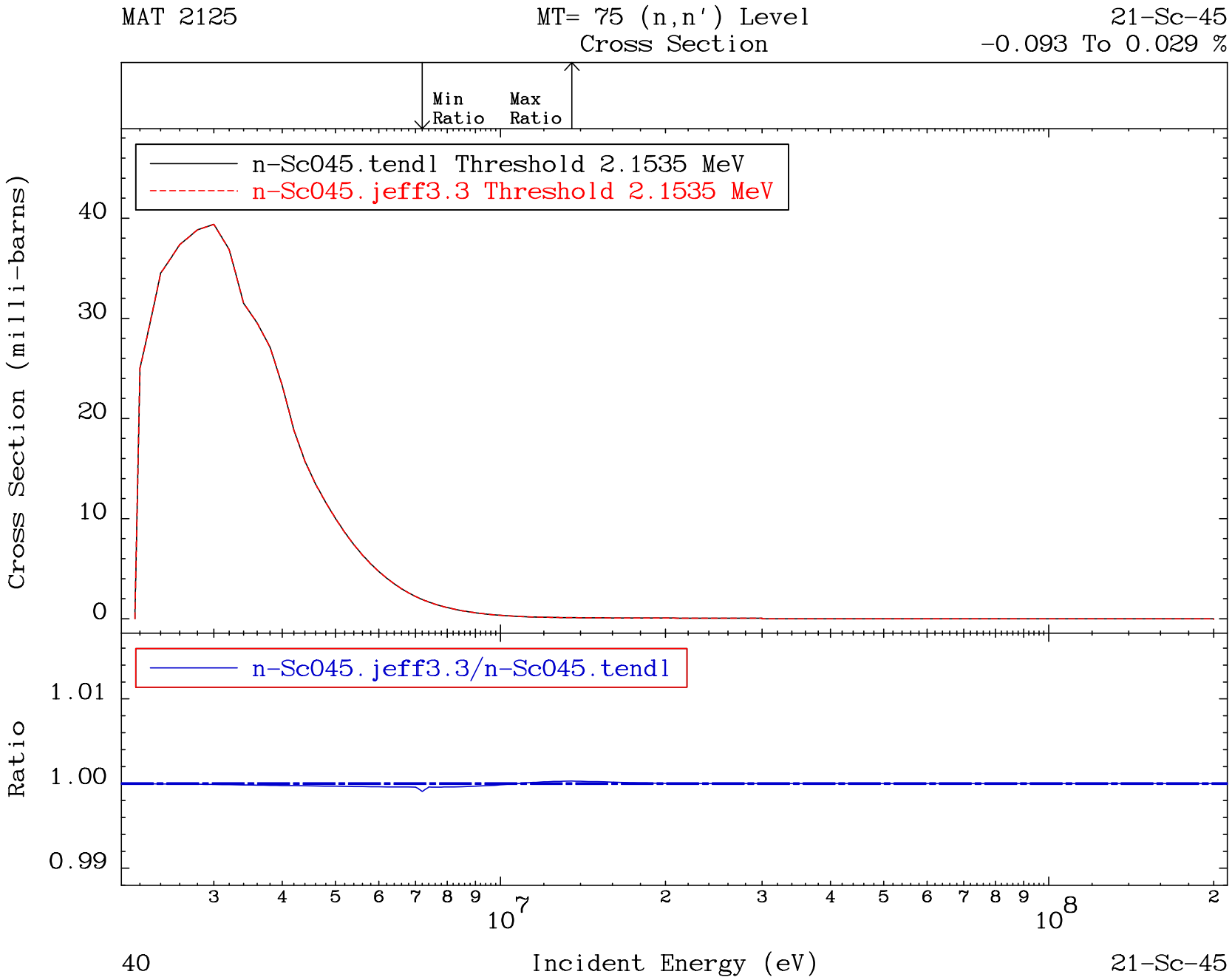

MAT 2125
MT= 70 (n,n') Level
Cross Section
21-Sc-45
-0.105 To 2.499 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 1.9789 MeV
n-Sc045.jeff3.3 Threshold 1.9789 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
35
Incident Energy (eV)
21-Sc-45

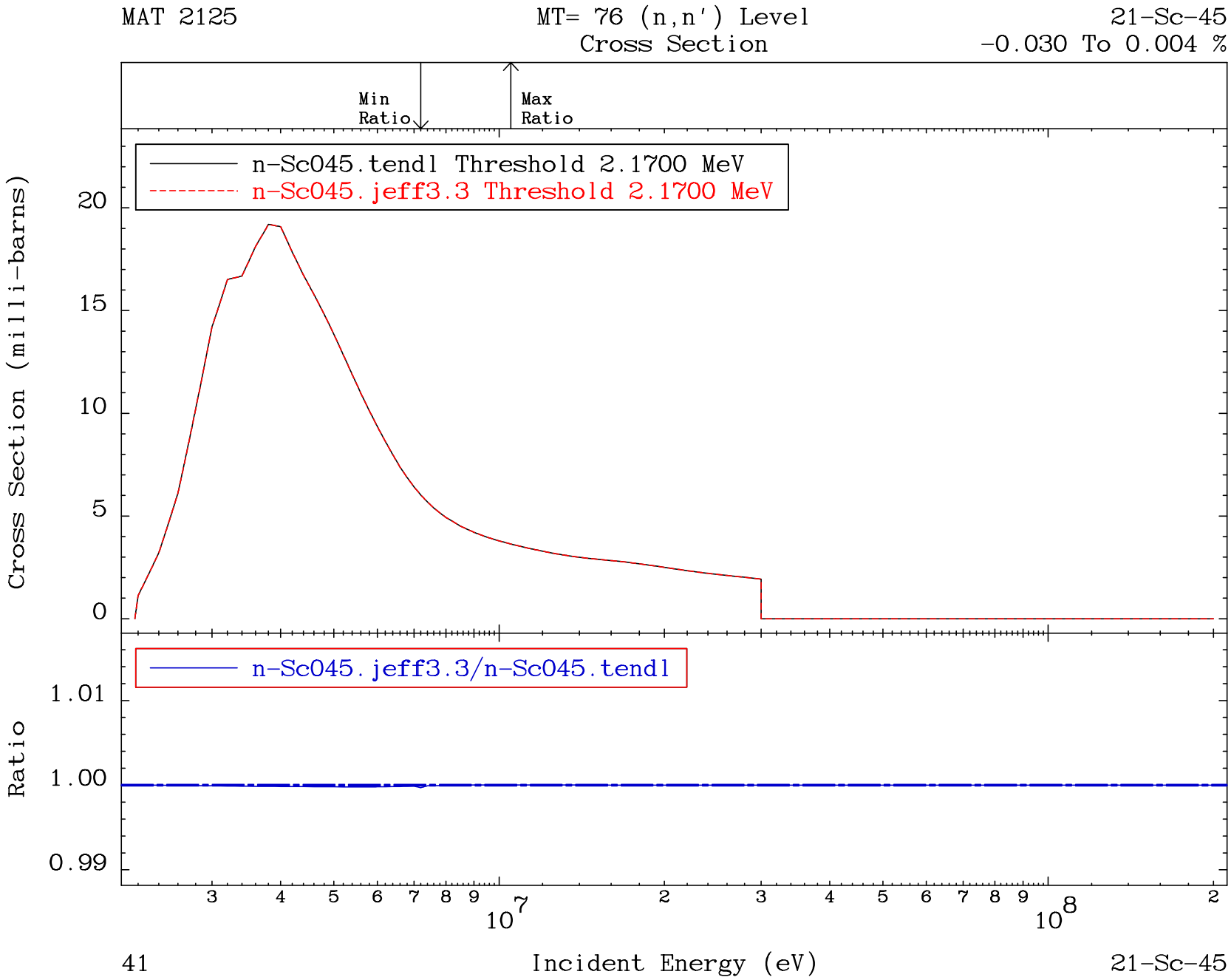

MAT 2125
MT= 71 (n,n') Level
Cross Section
21-Sc-45
-0.105 To 2.499 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 2.0279 MeV
n-Sc045.jeff3.3 Threshold 2.0279 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
36
Incident Energy (eV)
21-Sc-45

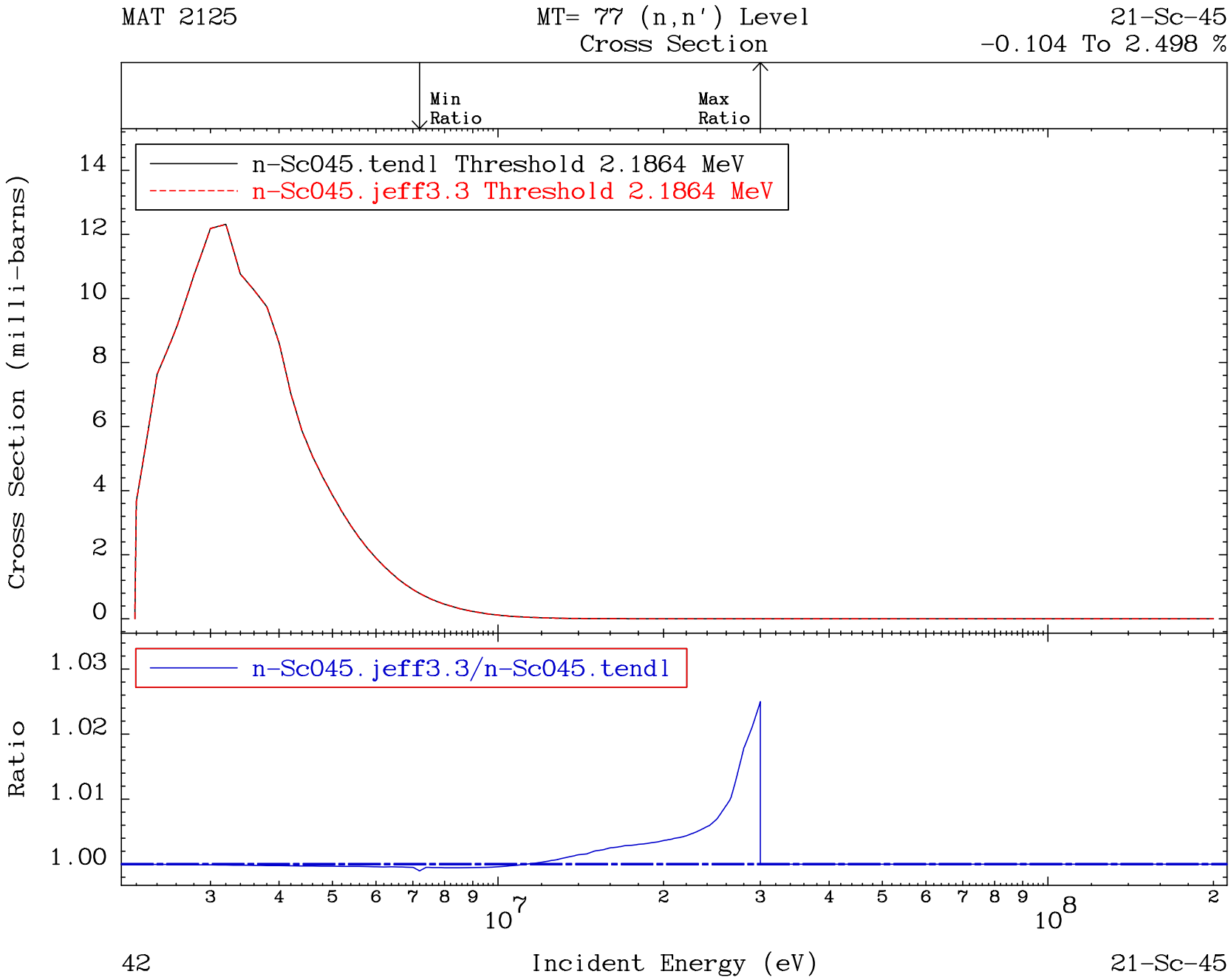

MAT 2125
MT= 72 (n,n') Level
Cross Section
21-Sc-45
-0.038 To 0.003 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 2.0768 MeV
n-Sc045.jeff3.3 Threshold 2.0768 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
21-Sc-45

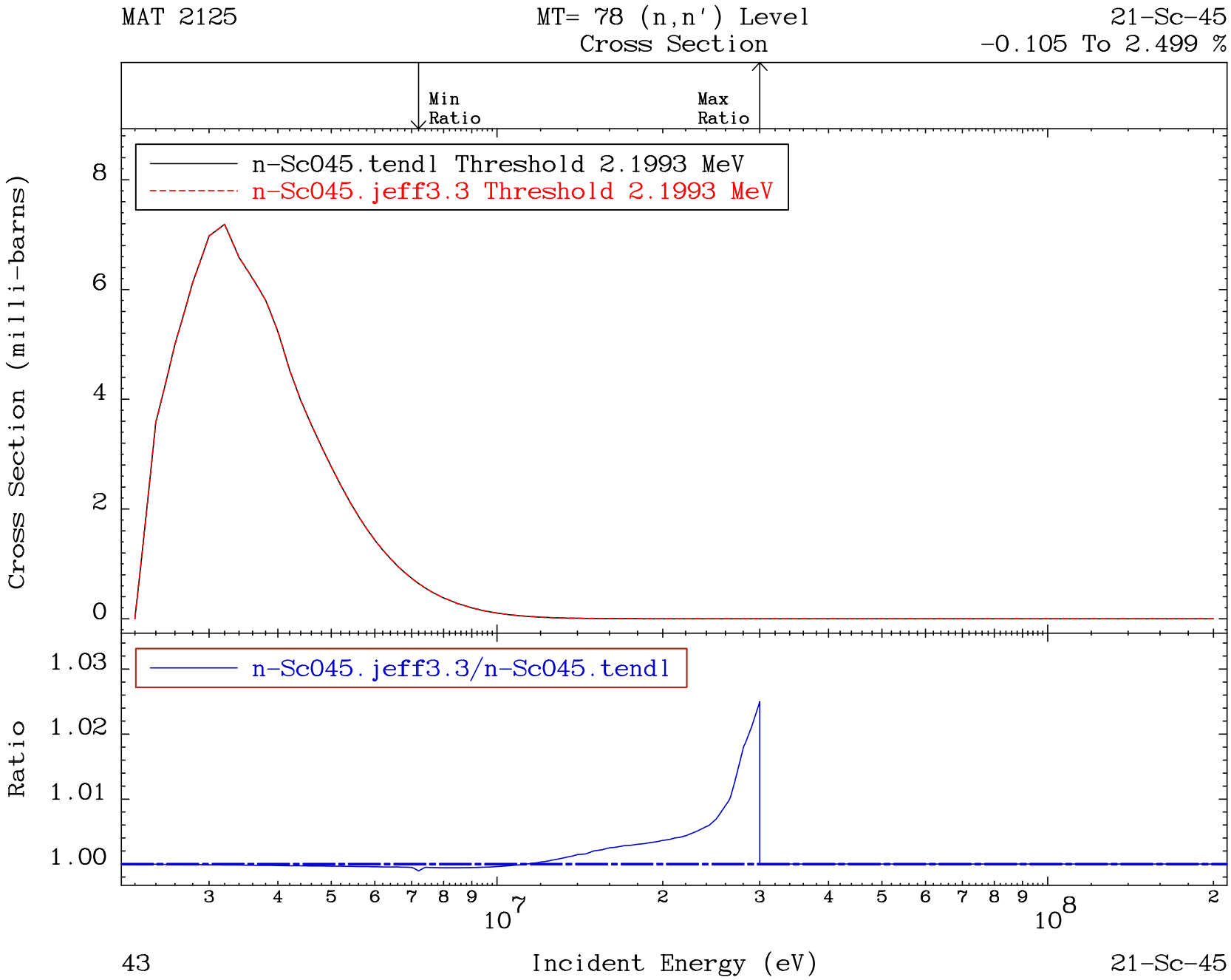

MAT 2125
MT= 73 (n,n') Level
Cross Section
21-Sc-45
-0.079 To 0.075 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 2.1369 MeV
n-Sc045.jeff3.3 Threshold 2.1369 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
38
Incident Energy (eV)
21-Sc-45

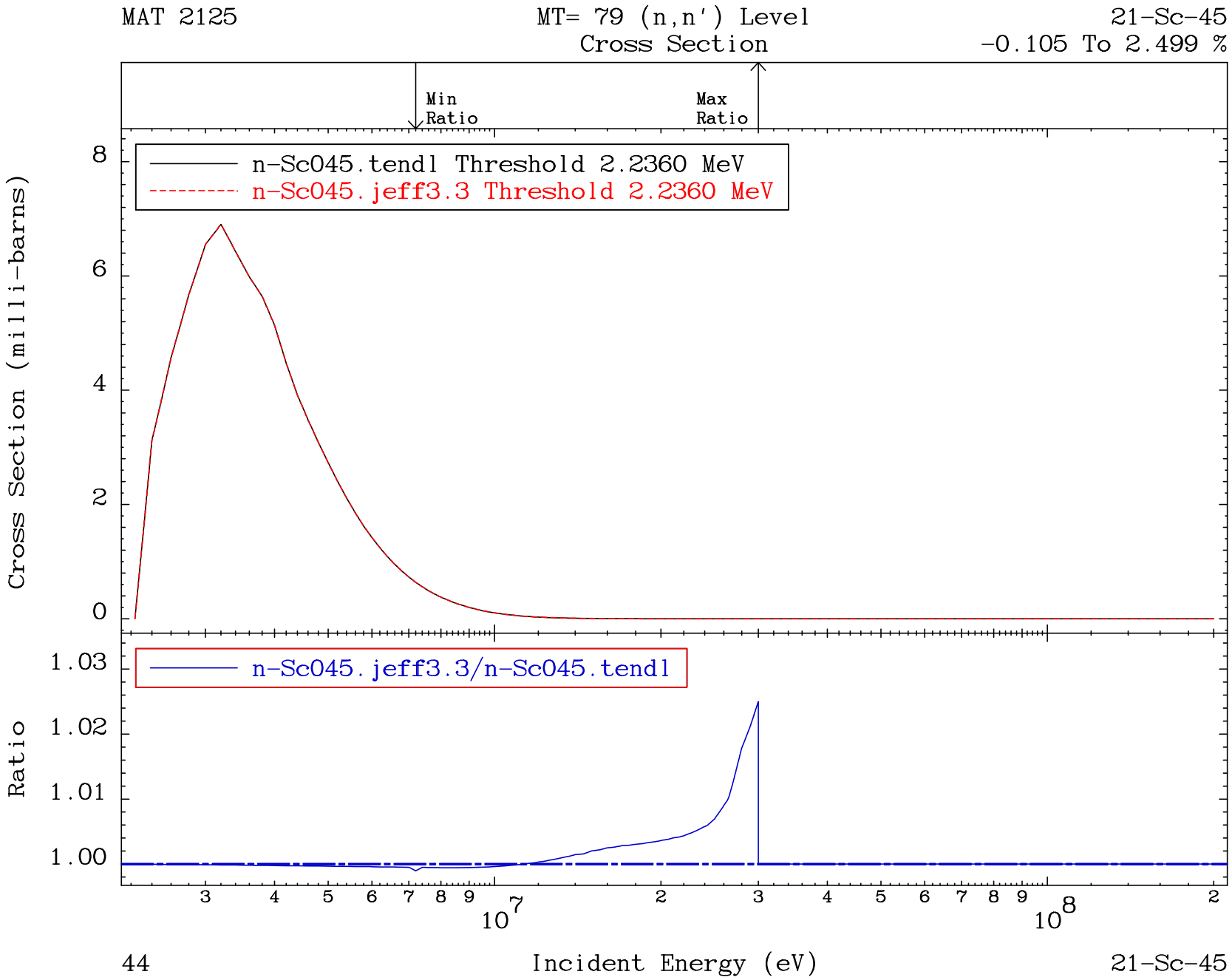

MAT 2125
MT= 74 (n,n') Level
Cross Section
21-Sc-45
-0.102 To 2.501 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 2.1400 MeV
n-Sc045.jeff3.3 Threshold 2.1400 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
39
Incident Energy (eV)
21-Sc-45

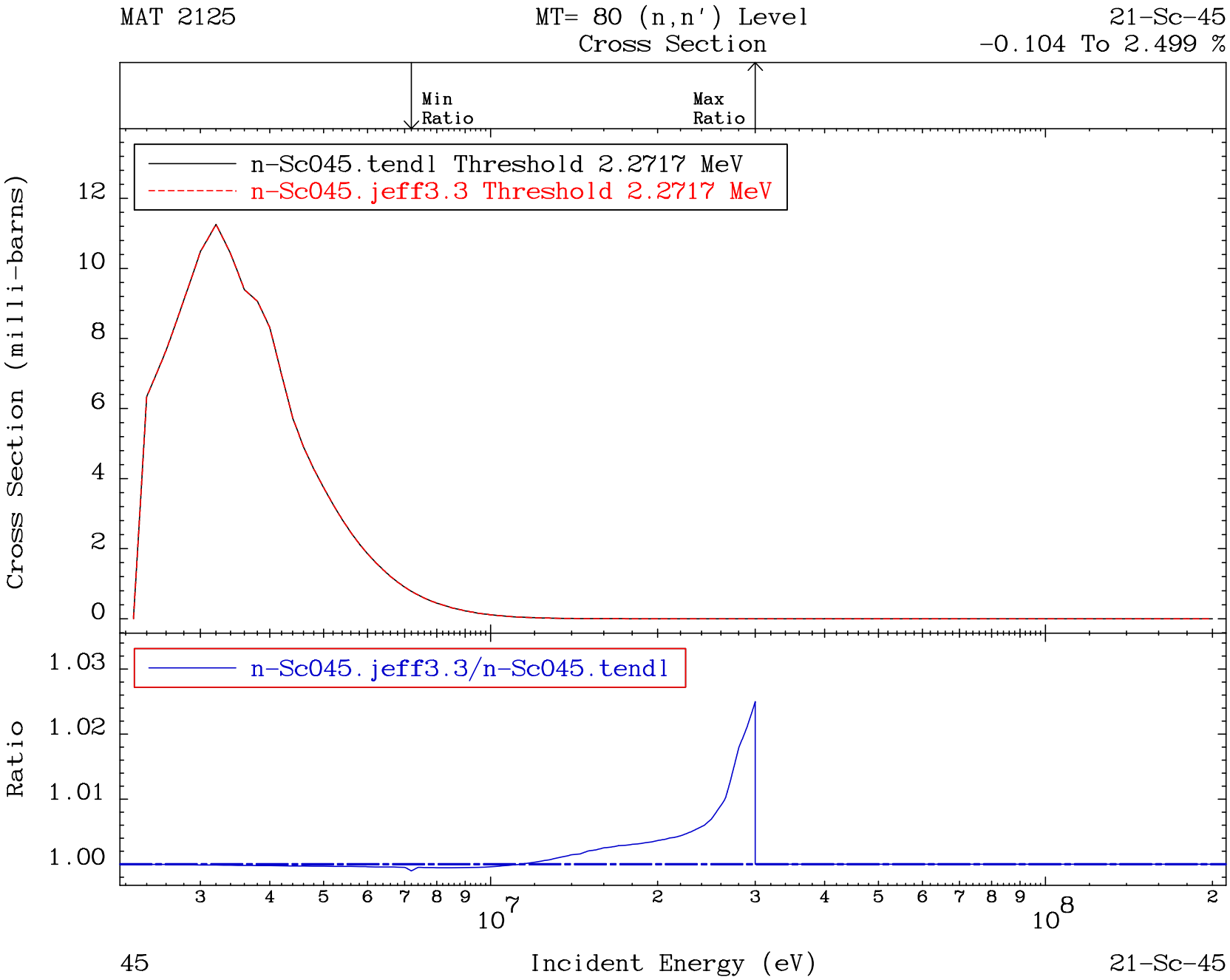

MAT 2125
MT= 75 (n,n') Level
Cross Section
21-Sc-45
-0.093 To 0.029 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 2.1535 MeV
n-Sc045.jeff3.3 Threshold 2.1535 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
21-Sc-45

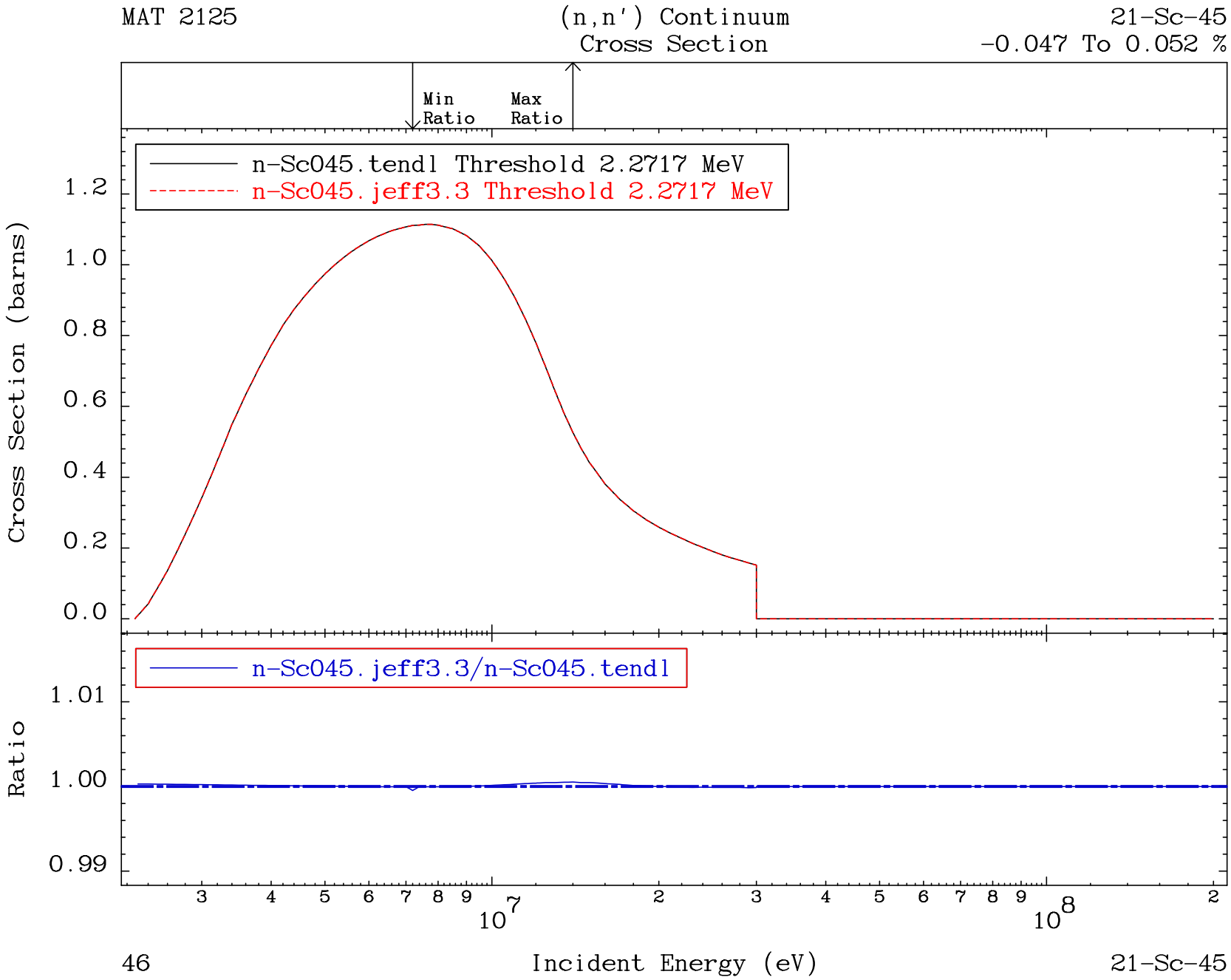

MAT 2125
MT= 76 (n,n') Level
Cross Section
21-Sc-45
-0.030 To 0.004 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 2.1700 MeV
n-Sc045.jeff3.3 Threshold 2.1700 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
41
Incident Energy (eV)
21-Sc-45

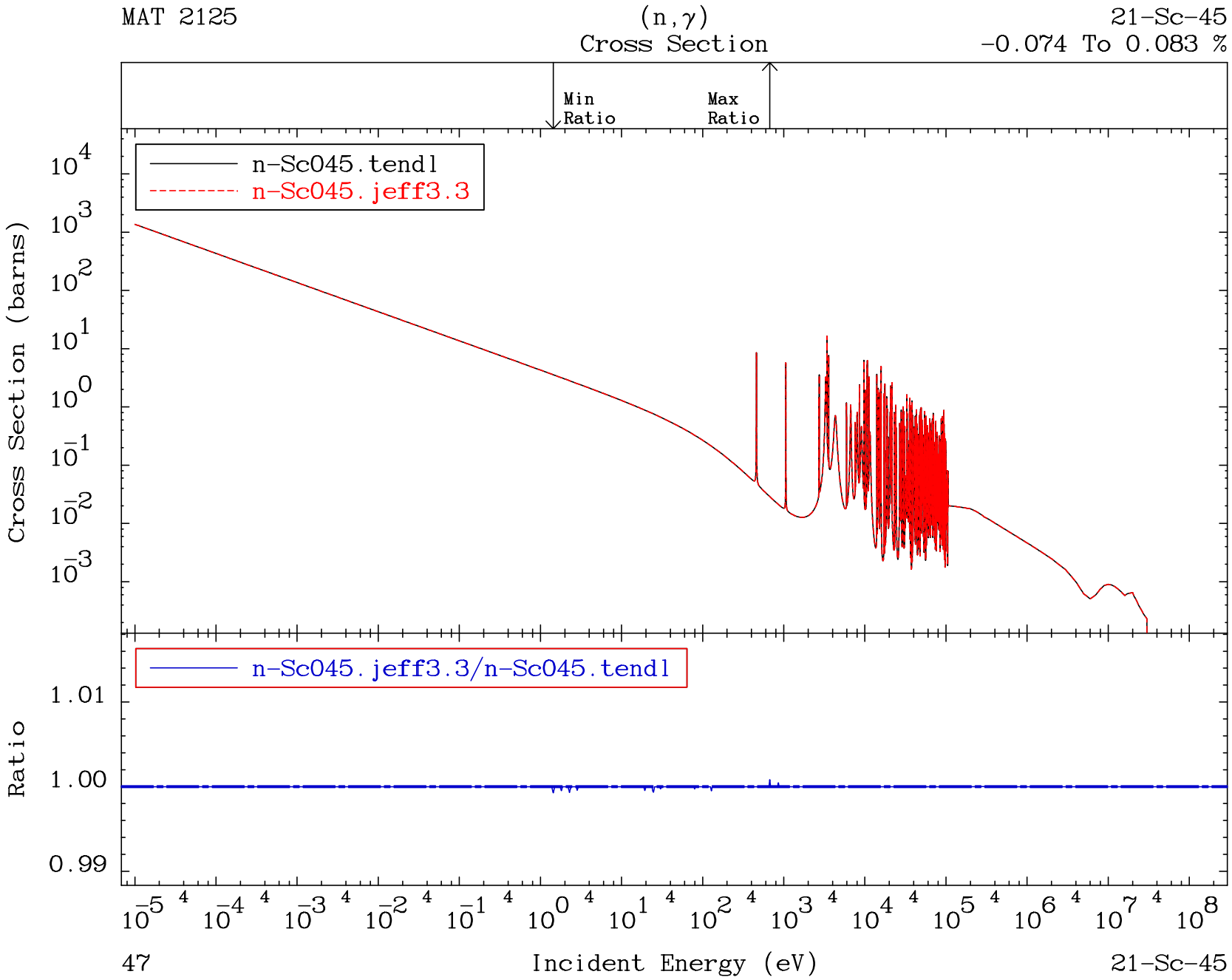

MAT 2125
MT= 77 (n,n') Level
Cross Section
21-Sc-45
-0.104 To 2.498 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 2.1864 MeV
n-Sc045.jeff3.3 Threshold 2.1864 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
42
Incident Energy (eV)
21-Sc-45

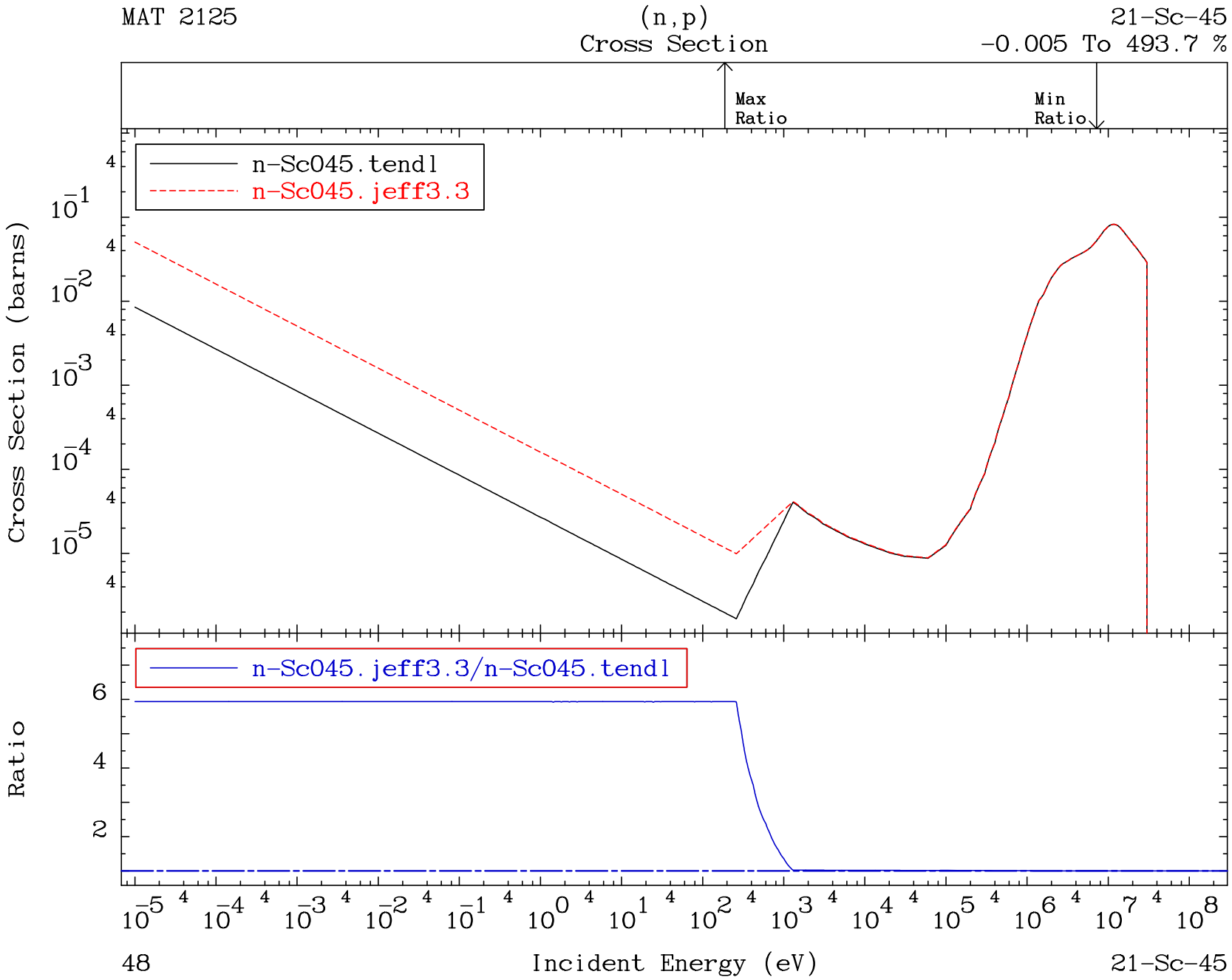

MAT 2125
MT= 78 (n,n') Level
Cross Section
21-Sc-45
-0.105 To 2.499 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 2.1993 MeV
n-Sc045.jeff3.3 Threshold 2.1993 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.00
1.01
1.02
1.03
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
43
Incident Energy (eV)
21-Sc-45

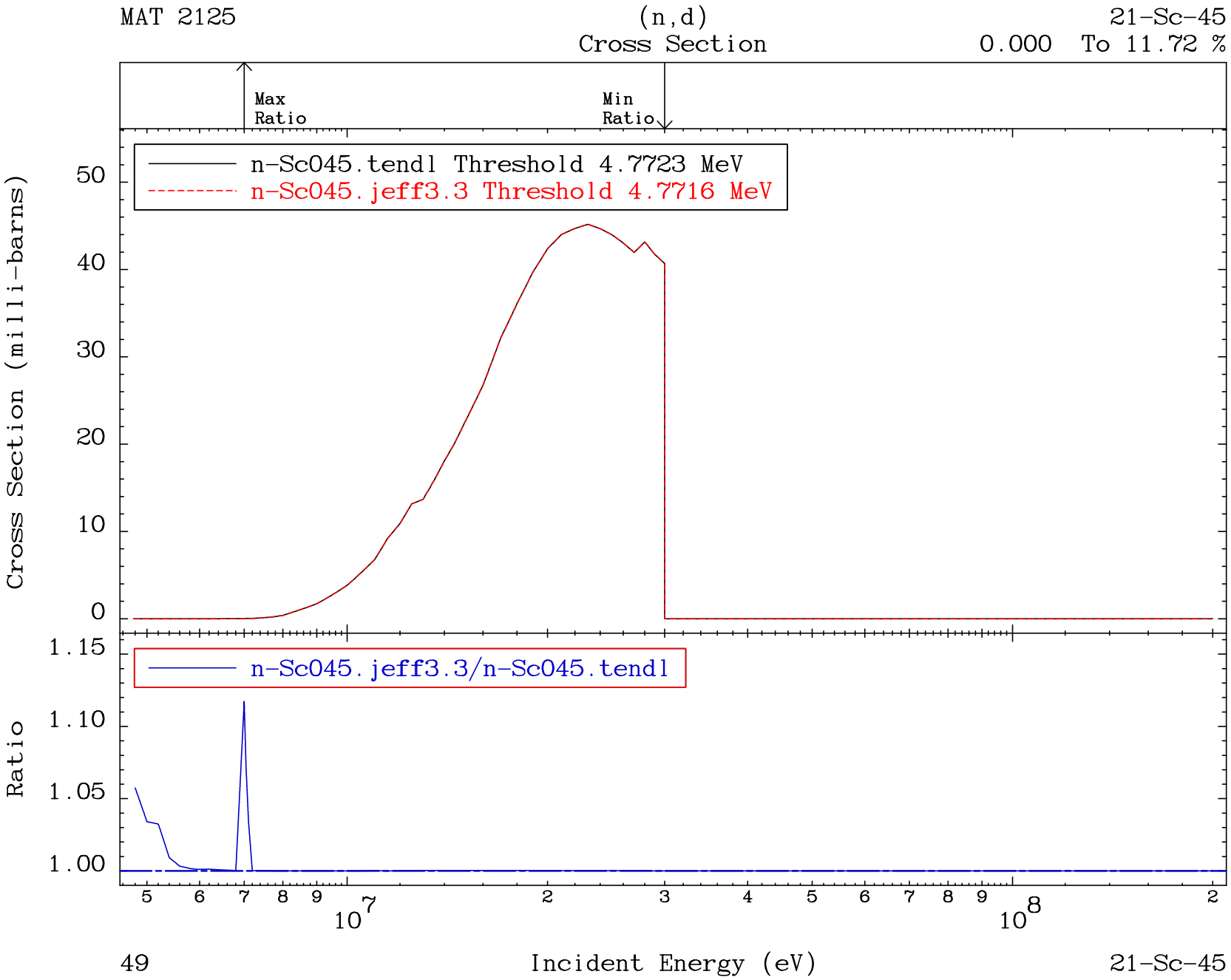

MAT 2125
MT= 79 (n,n') Level
Cross Section
21-Sc-45
-0.105 To 2.499 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 2.2360 MeV
n-Sc045.jeff3.3 Threshold 2.2360 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.00
1.01
1.02
1.03
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
21-Sc-45

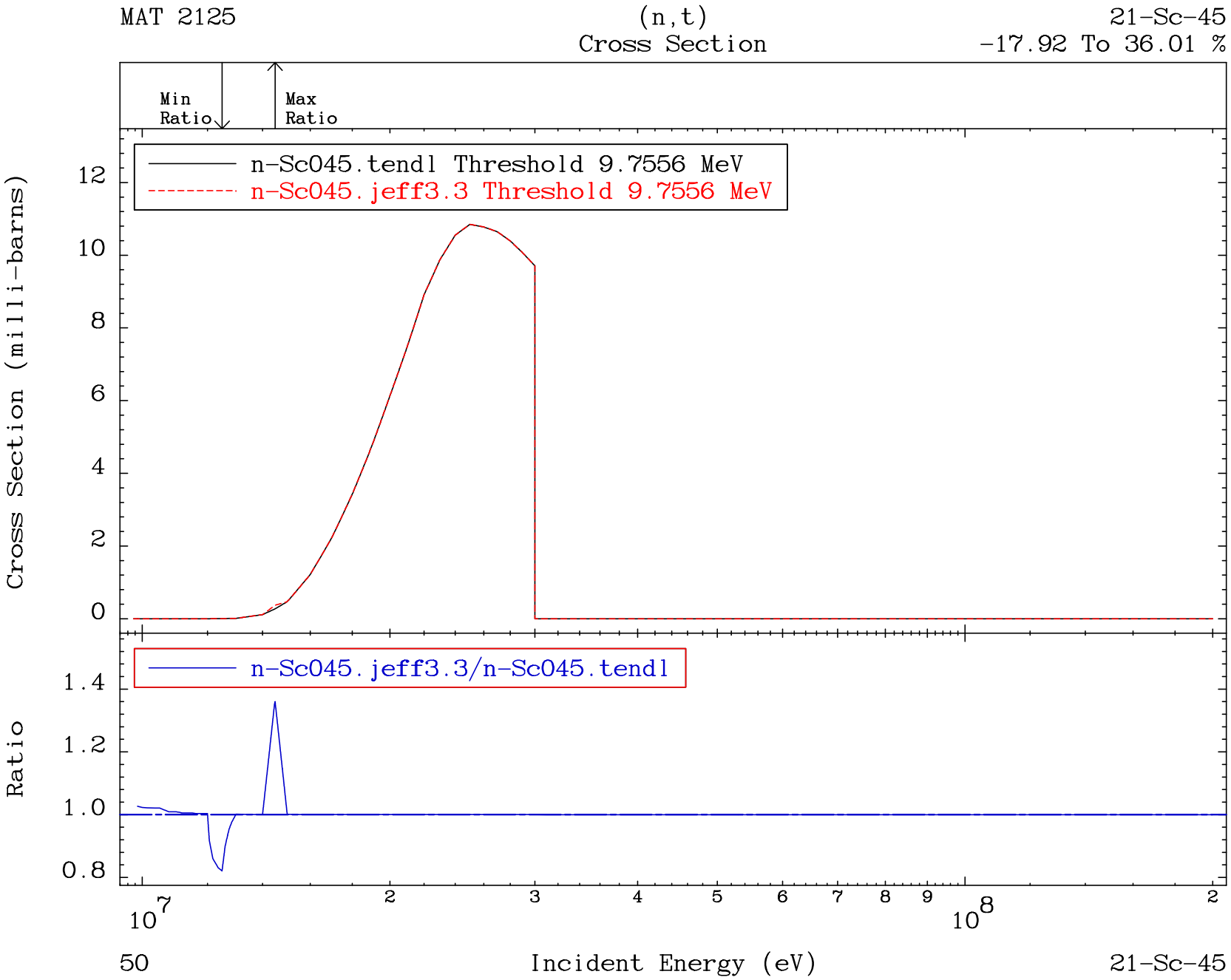

MAT 2125
MT= 80 (n,n') Level
Cross Section
21-Sc-45
-0.104 To 2.499 %
Min
Ratio
Max
Ratio
n-Sc045.tendl Threshold 2.2717 MeV
n-Sc045.jeff3.3 Threshold 2.2717 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.00
1.01
1.02
1.03
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
45
Incident Energy (eV)
21-Sc-45

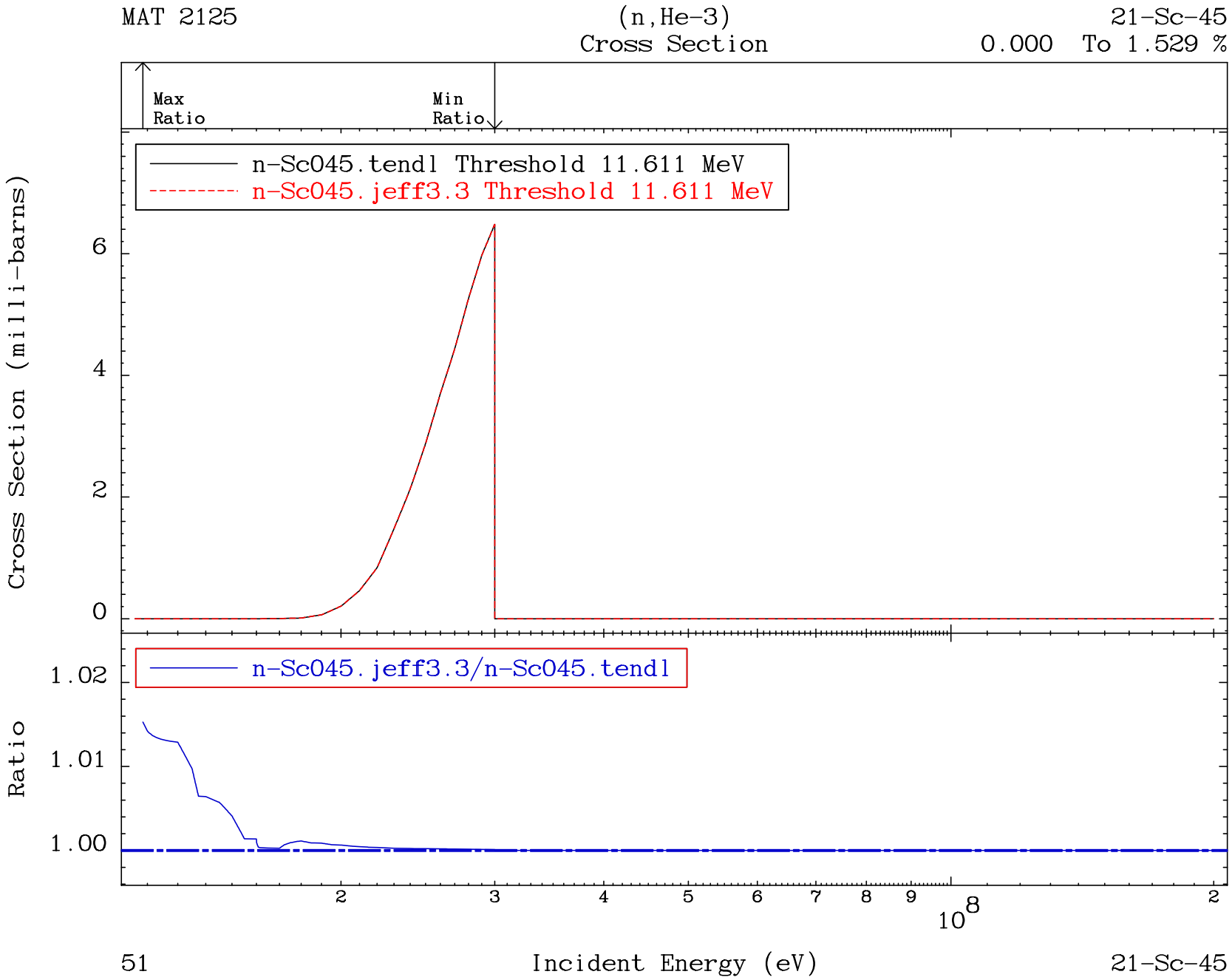

MAT 2125
(n,n') Continuum
Cross Section
21-Sc-45
-0.047 To 0.052 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 2.2717 MeV
n-Sc045.jeff3.3 Threshold 2.2717 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
46
Incident Energy (eV)
21-Sc-45

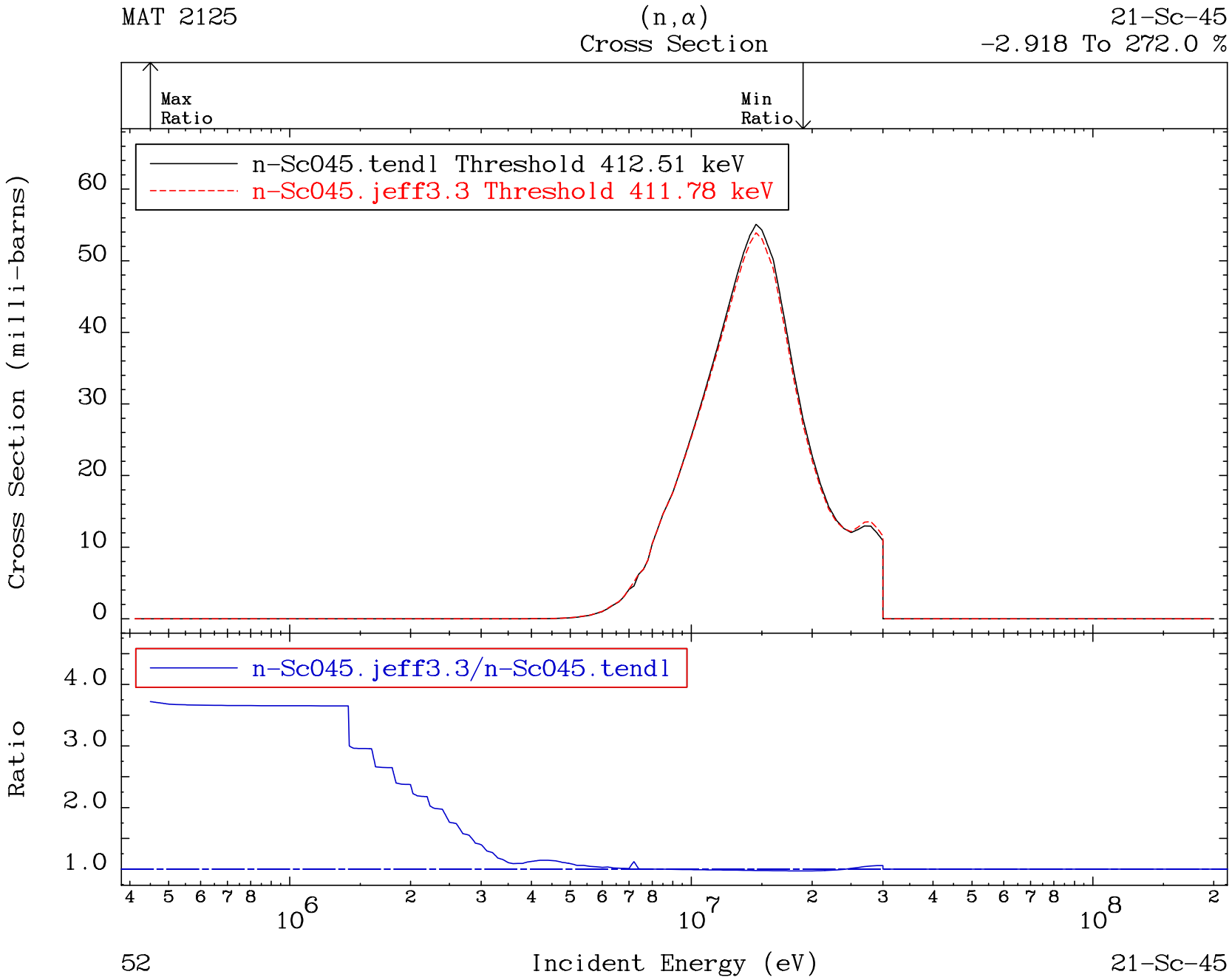

MAT 2125
(n,γ)
Cross Section
21-Sc-45
-0.074 To 0.083 %
Min Ratio
Max Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
47
21-Sc-45

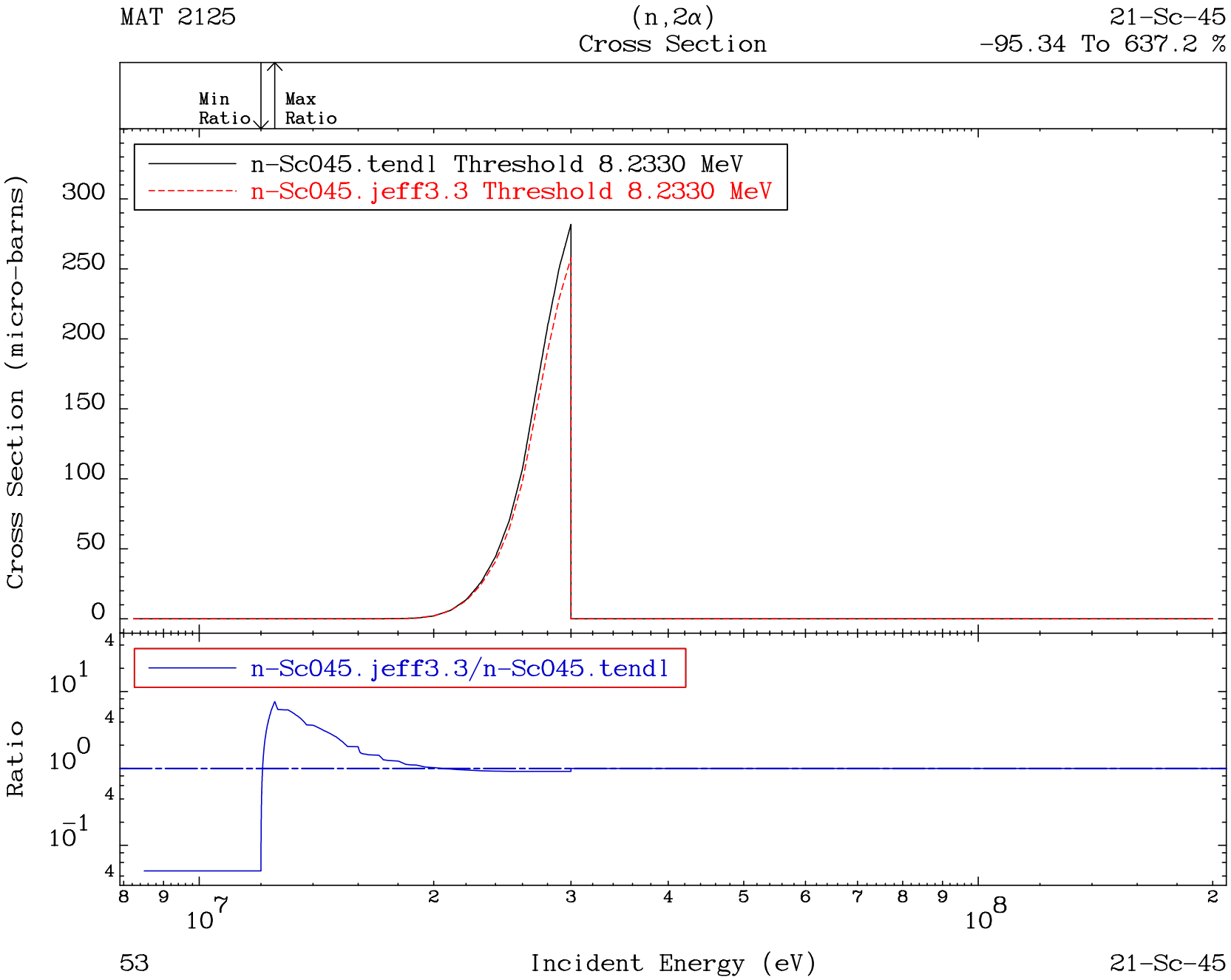

MAT 2125
(n,p)
Cross Section
21-Sc-45
-0.005 To 493.7 %
Max Ratio
Min Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
48
21-Sc-45

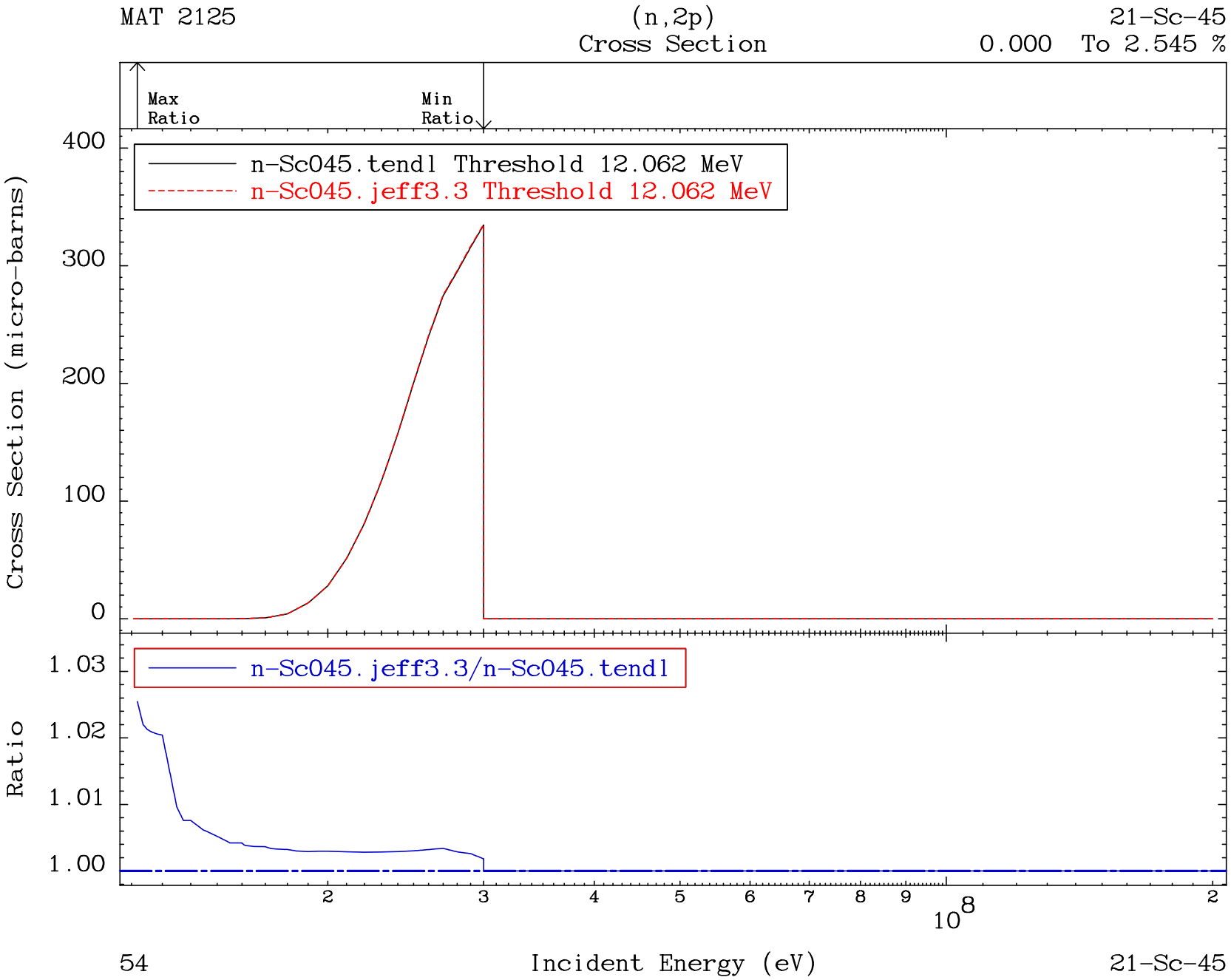

MAT 2125
(n,d)
Cross Section
21-Sc-45
0.000 To 11.72 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 4.7723 MeV
n-Sc045.jeff3.3 Threshold 4.7716 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.15
1.10
1.05
1.00
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
49
Incident Energy (eV)
21-Sc-45

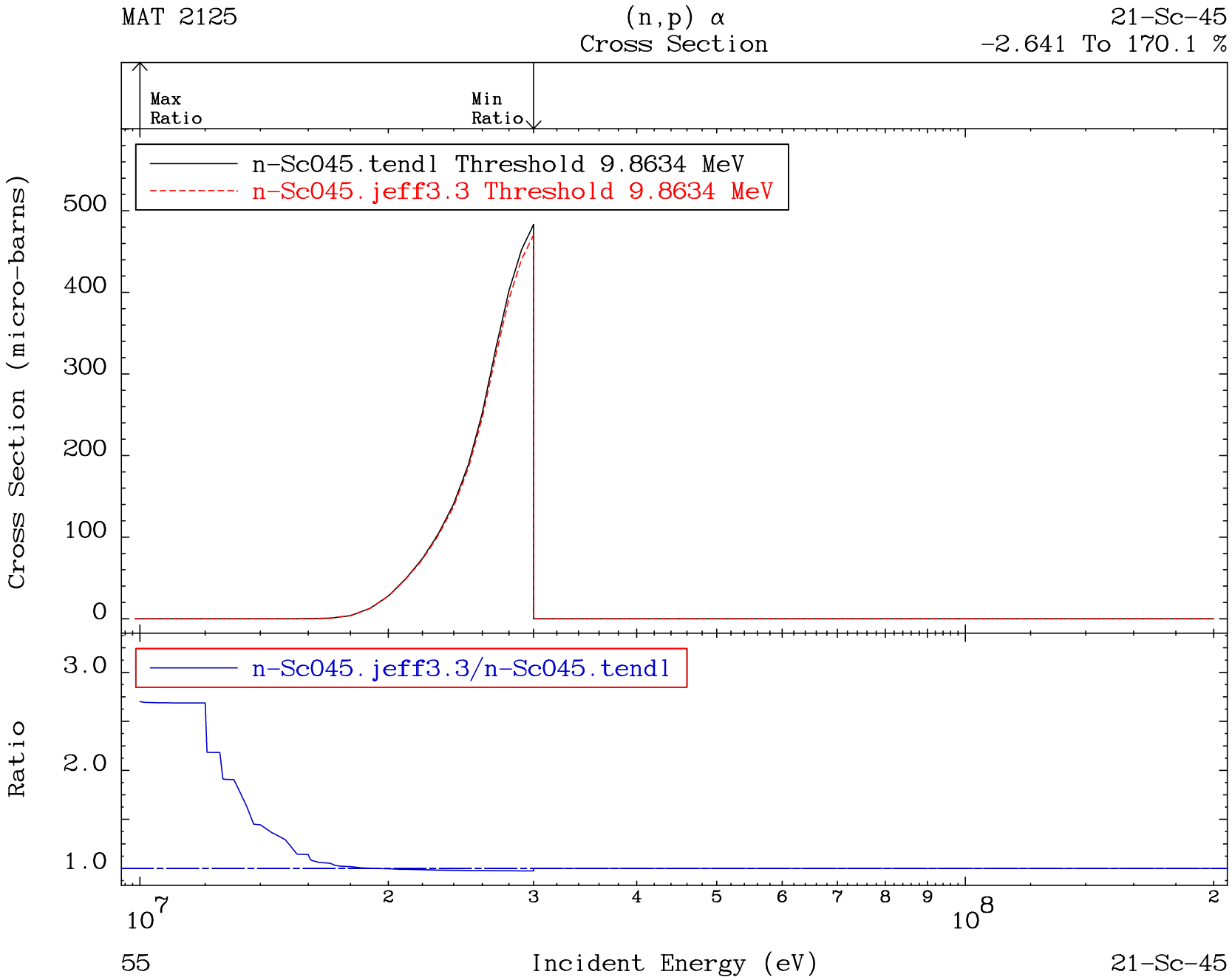

MAT 2125
(n,t)
Cross Section
21-Sc-45
-17.92 To 36.01 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 9.7556 MeV
n-Sc045.jeff3.3 Threshold 9.7556 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
0.8
1.0
1.2
1.4
10^7
2
3
4
5
6
7
8
9
10^8
2
50
Incident Energy (eV)
21-Sc-45

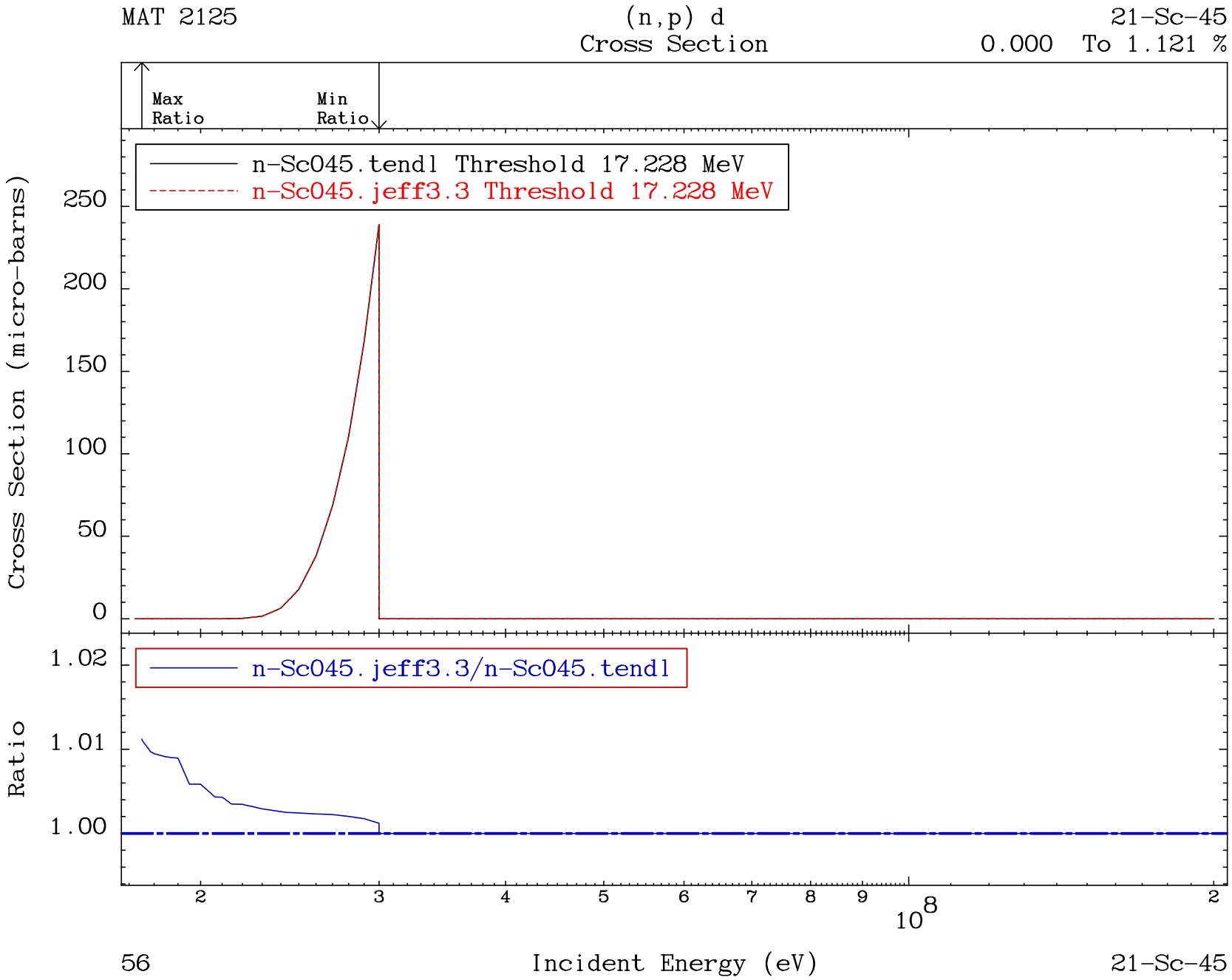

MAT 2125
(n,He-3)
Cross Section
21-Sc-45
0.000 To 1.529 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 11.611 MeV
n-Sc045.jeff3.3 Threshold 11.611 MeV
Cross Section (milli-barns)
0
2
4
6
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.00
1.01
1.02
2
3
4
5
6
7
8
9
10^8
2
51
Incident Energy (eV)
21-Sc-45

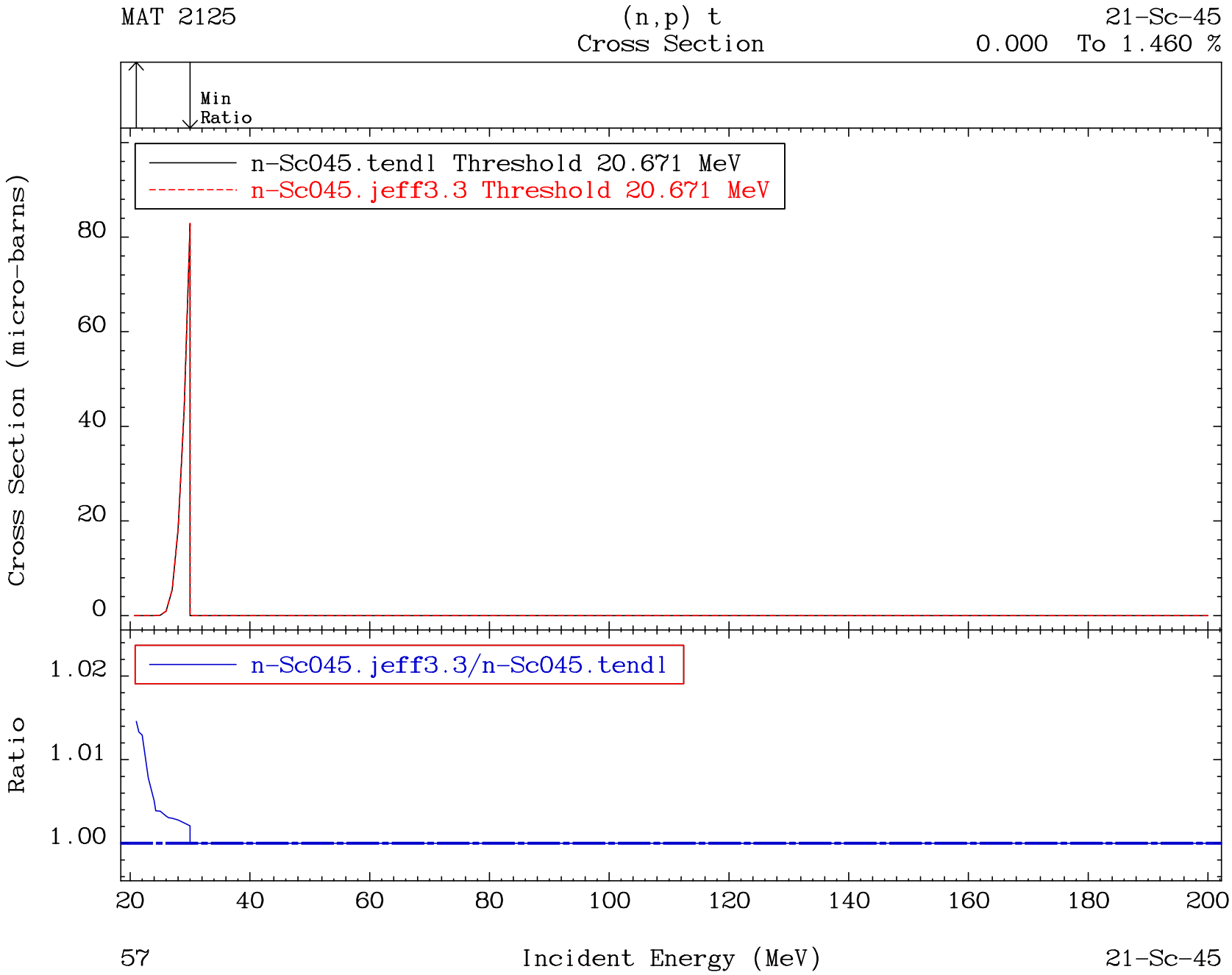

MAT 2125
(n,α)
Cross Section
21-Sc-45
-2.918 To 272.0 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 412.51 keV
n-Sc045.jeff3.3 Threshold 411.78 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
4.0
3.0
2.0
1.0
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
52
Incident Energy (eV)
21-Sc-45

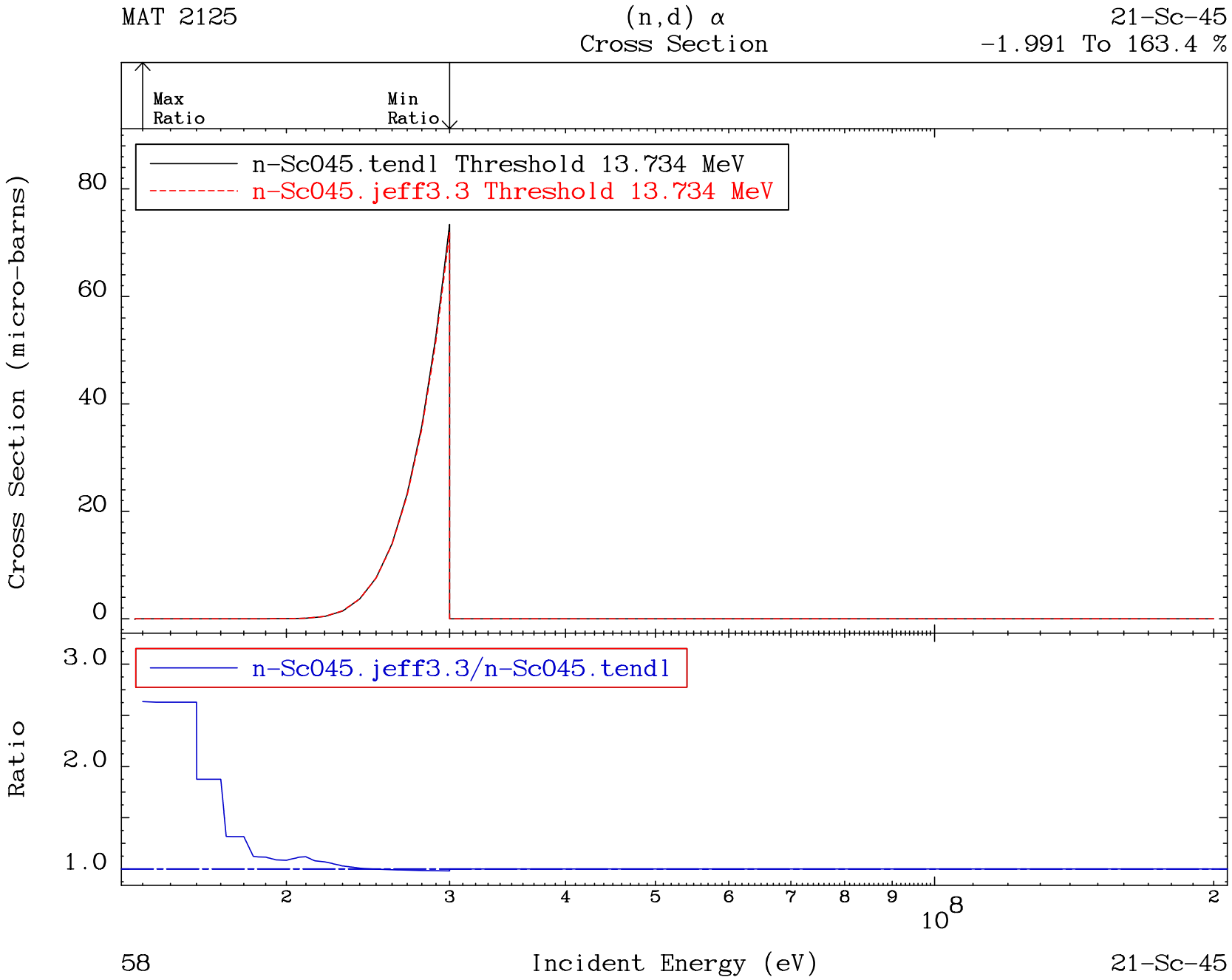

MAT 2125
(n,2α)
Cross Section
21-Sc-45
-95.34 To 637.2 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 8.2330 MeV
n-Sc045.jeff3.3 Threshold 8.2330 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
10^1
10^0
10^-1
10^7
10^8
53
Incident Energy (eV)
21-Sc-45

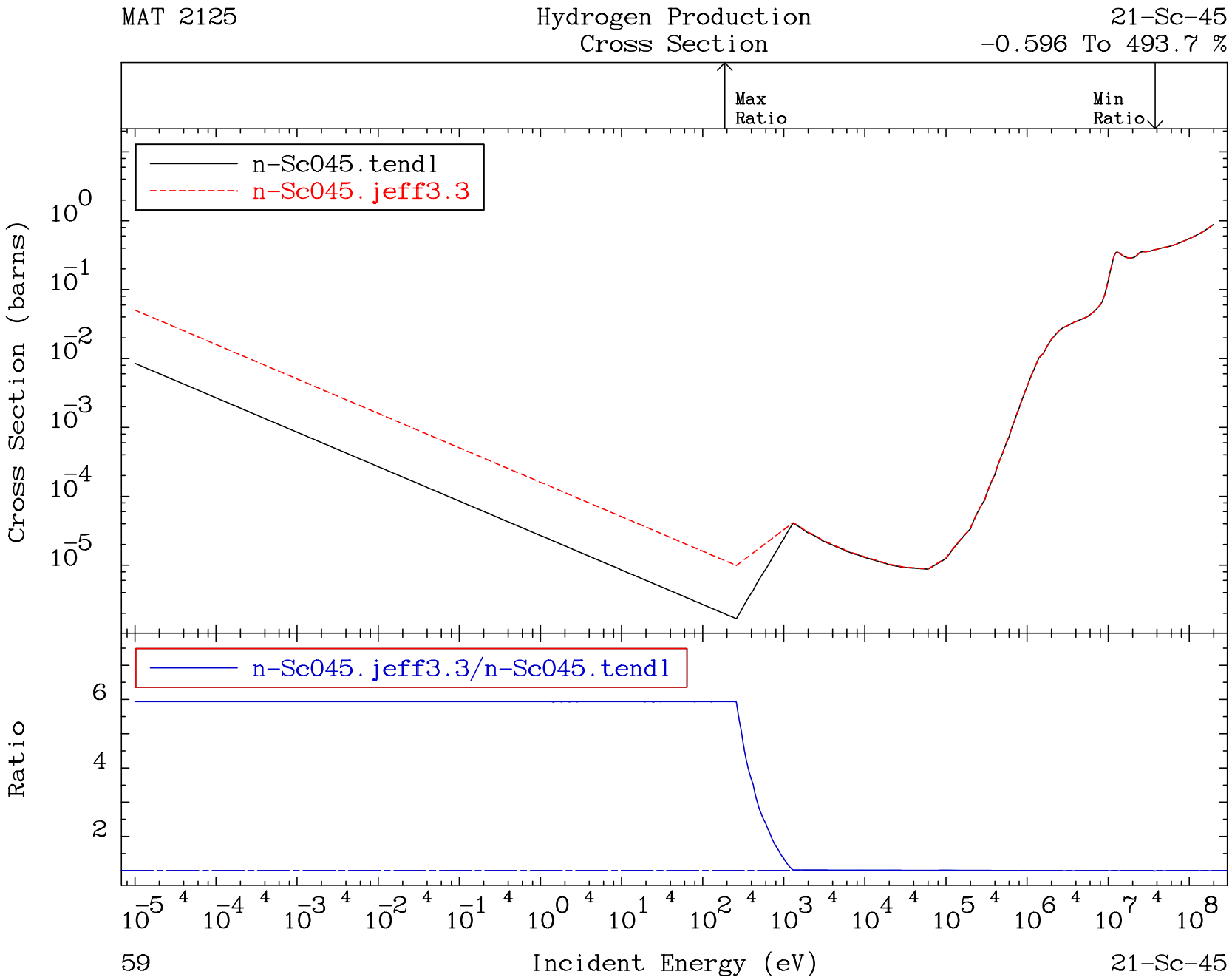

MAT 2125
(n,2p)
Cross Section
21-Sc-45
0.000 To 2.545 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 12.062 MeV
n-Sc045.jeff3.3 Threshold 12.062 MeV
Cross Section (micro-barns)
400
300
200
100
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
54
Incident Energy (eV)
21-Sc-45

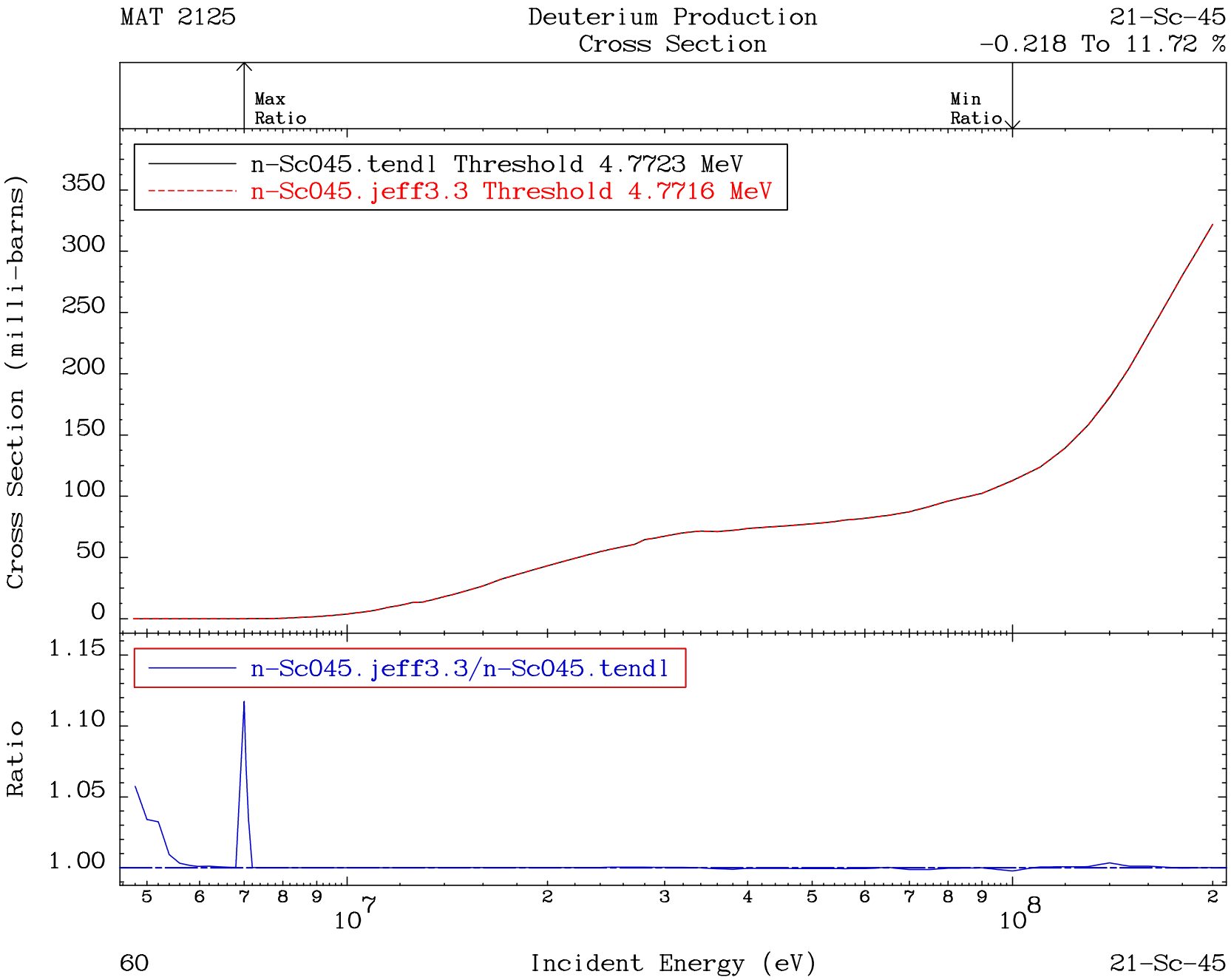

MAT 2125
(n,p) α
Cross Section
21-Sc-45
-2.641 To 170.1 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 9.8634 MeV
n-Sc045.jeff3.3 Threshold 9.8634 MeV
Cross Section (micro-barns)
500
400
300
200
100
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
3.0
2.0
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
55
Incident Energy (eV)
21-Sc-45

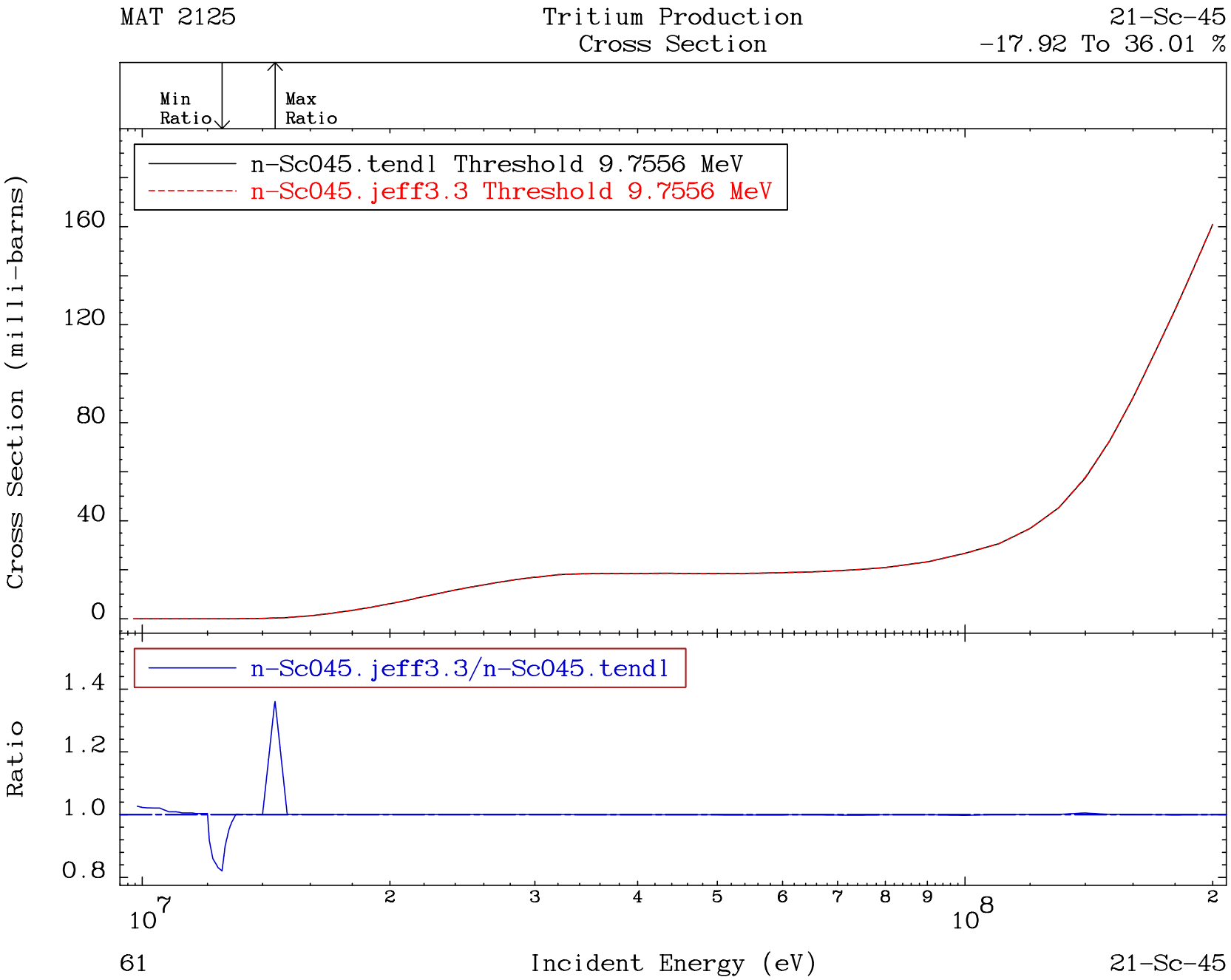

MAT 2125
(n,p) d
Cross Section
21-Sc-45
0.000 To 1.121 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 17.228 MeV
n-Sc045.jeff3.3 Threshold 17.228 MeV
Cross Section (micro-barns)
250
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
56
Incident Energy (eV)
21-Sc-45

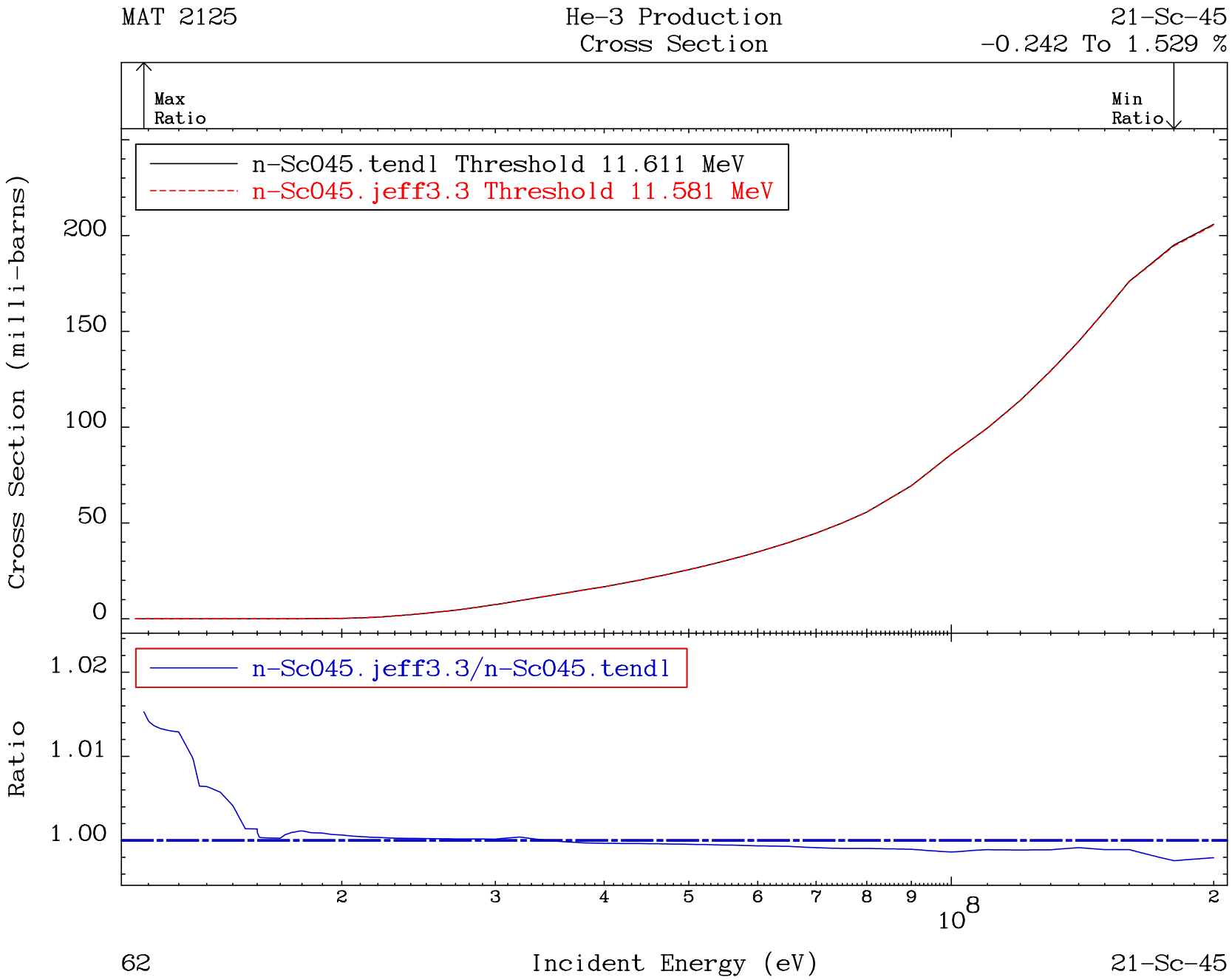

MAT 2125
(n,p) t
Cross Section
21-Sc-45
0.000 To 1.460 %
Min
Ratio
n-Sc045.tendl Threshold 20.671 MeV
n-Sc045.jeff3.3 Threshold 20.671 MeV
Cross Section (micro-barns)
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
20
40
60
80
100
120
140
160
180
200
57
Incident Energy (MeV)
21-Sc-45

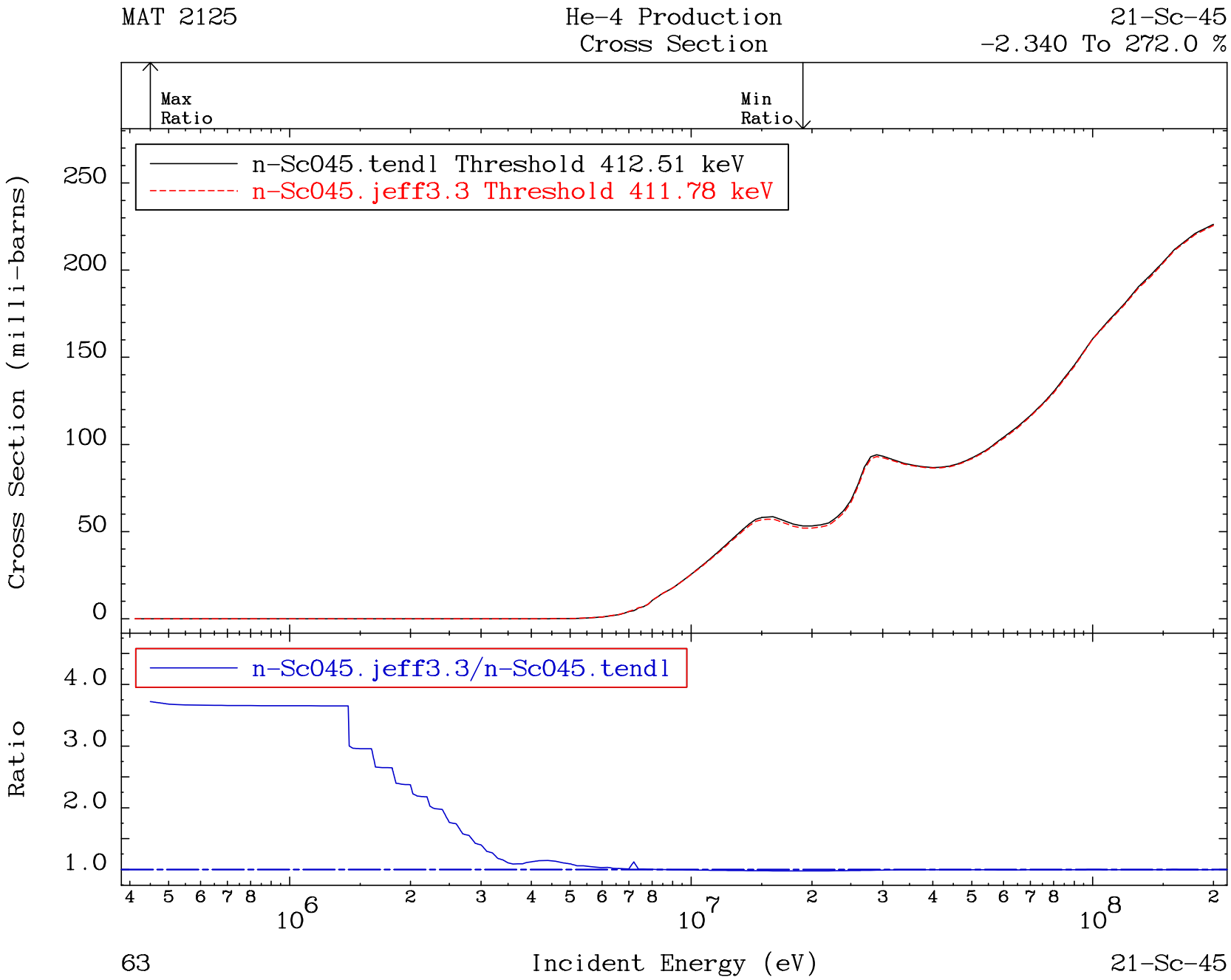

MAT 2125
(n,d) α
Cross Section
21-Sc-45
-1.991 To 163.4 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 13.734 MeV
n-Sc045.jeff3.3 Threshold 13.734 MeV
Cross Section (micro-barns)
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
21-Sc-45

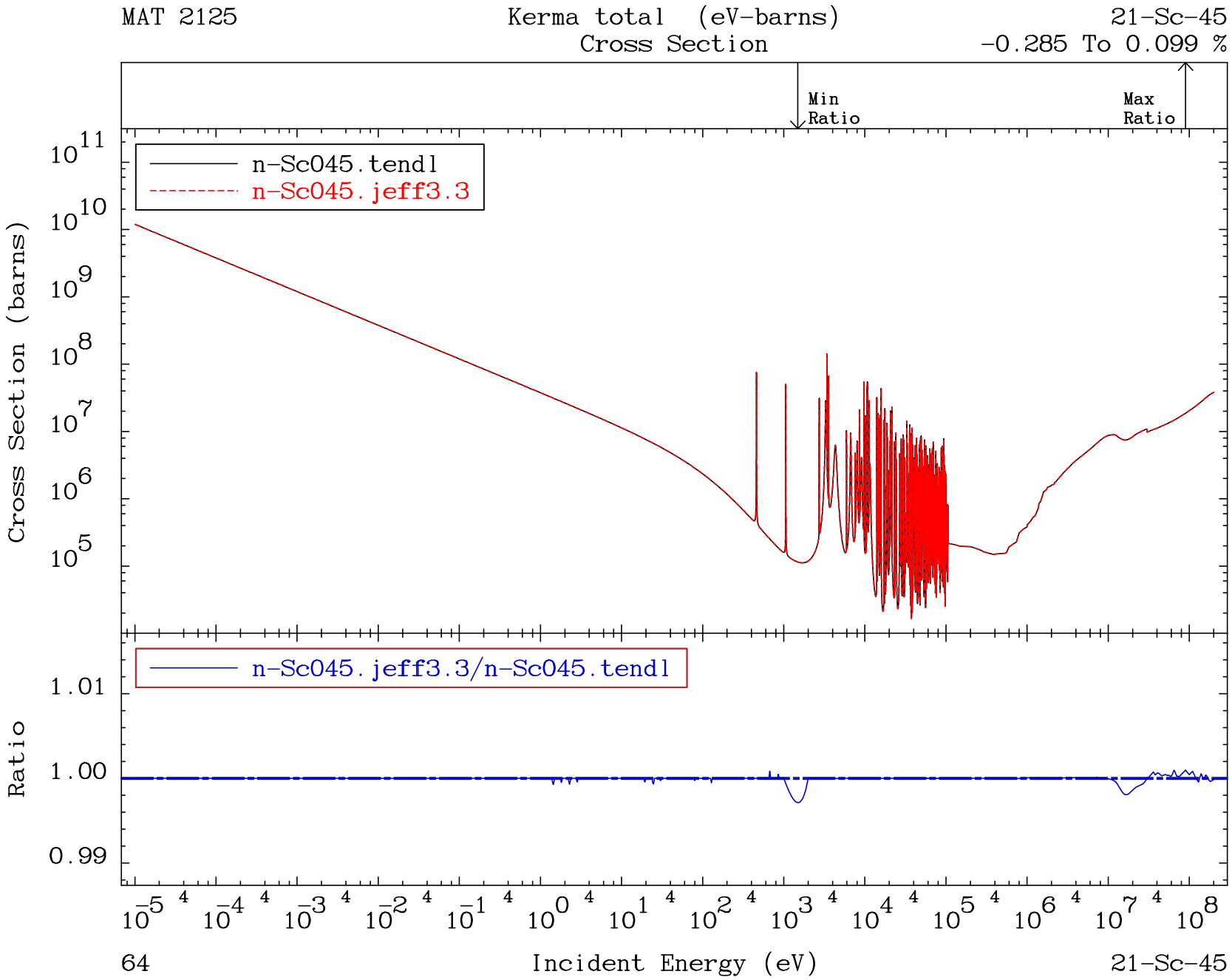

MAT 2125
Hydrogen Production
Cross Section
21-Sc-45
-0.596 To 493.7 %
Max Ratio
Min Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
59
21-Sc-45

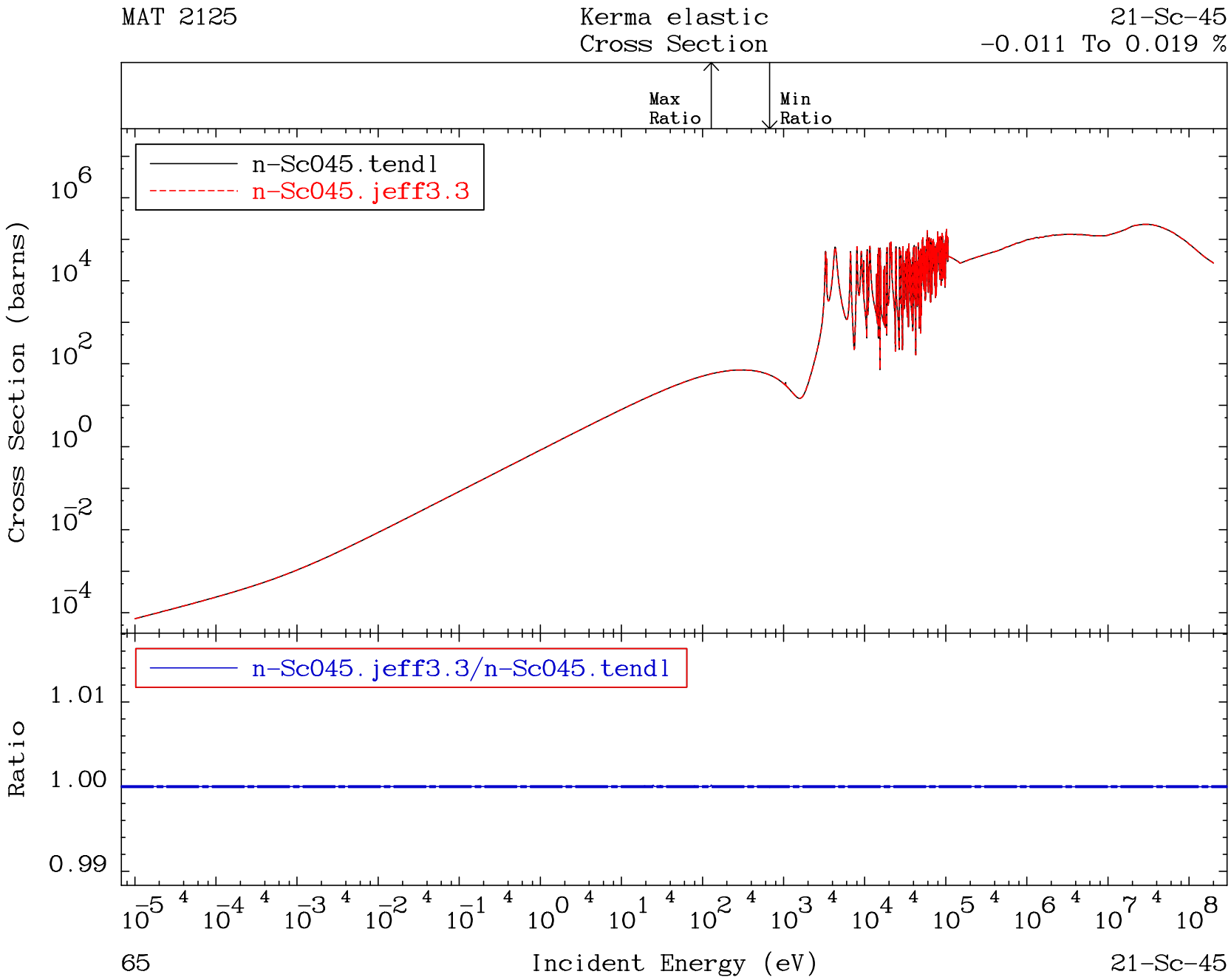

MAT 2125
Deuterium Production
Cross Section
21-Sc-45
-0.218 To 11.72 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 4.7723 MeV
n-Sc045.jeff3.3 Threshold 4.7716 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.15
1.10
1.05
1.00
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
60
Incident Energy (eV)
21-Sc-45

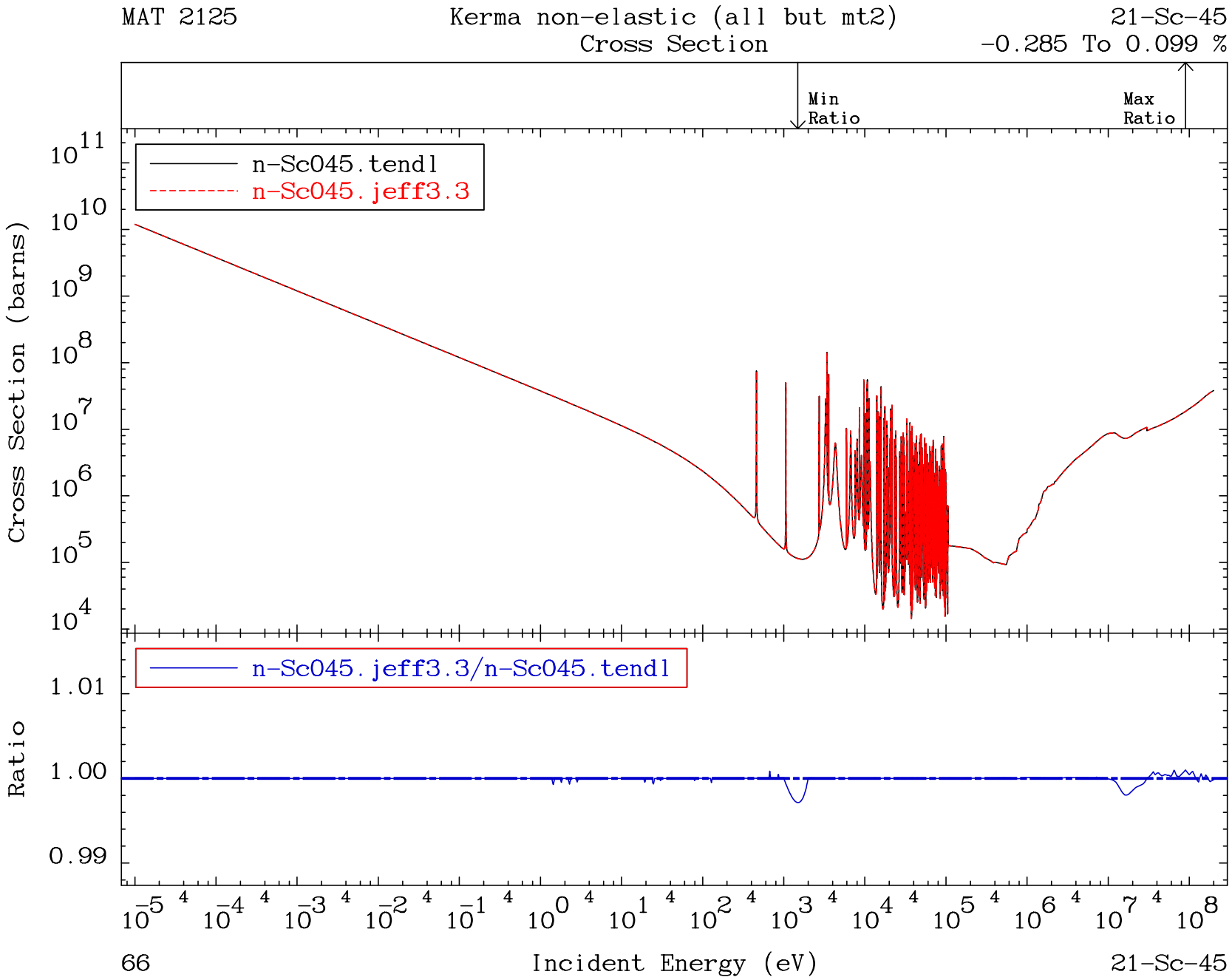

MAT 2125
Tritium Production
Cross Section
21-Sc-45
-17.92 To 36.01 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 9.7556 MeV
n-Sc045.jeff3.3 Threshold 9.7556 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.4
1.2
1.0
0.8
10^7
2
3
4
5
6
7
8
9
10^8
2
61
Incident Energy (eV)
21-Sc-45

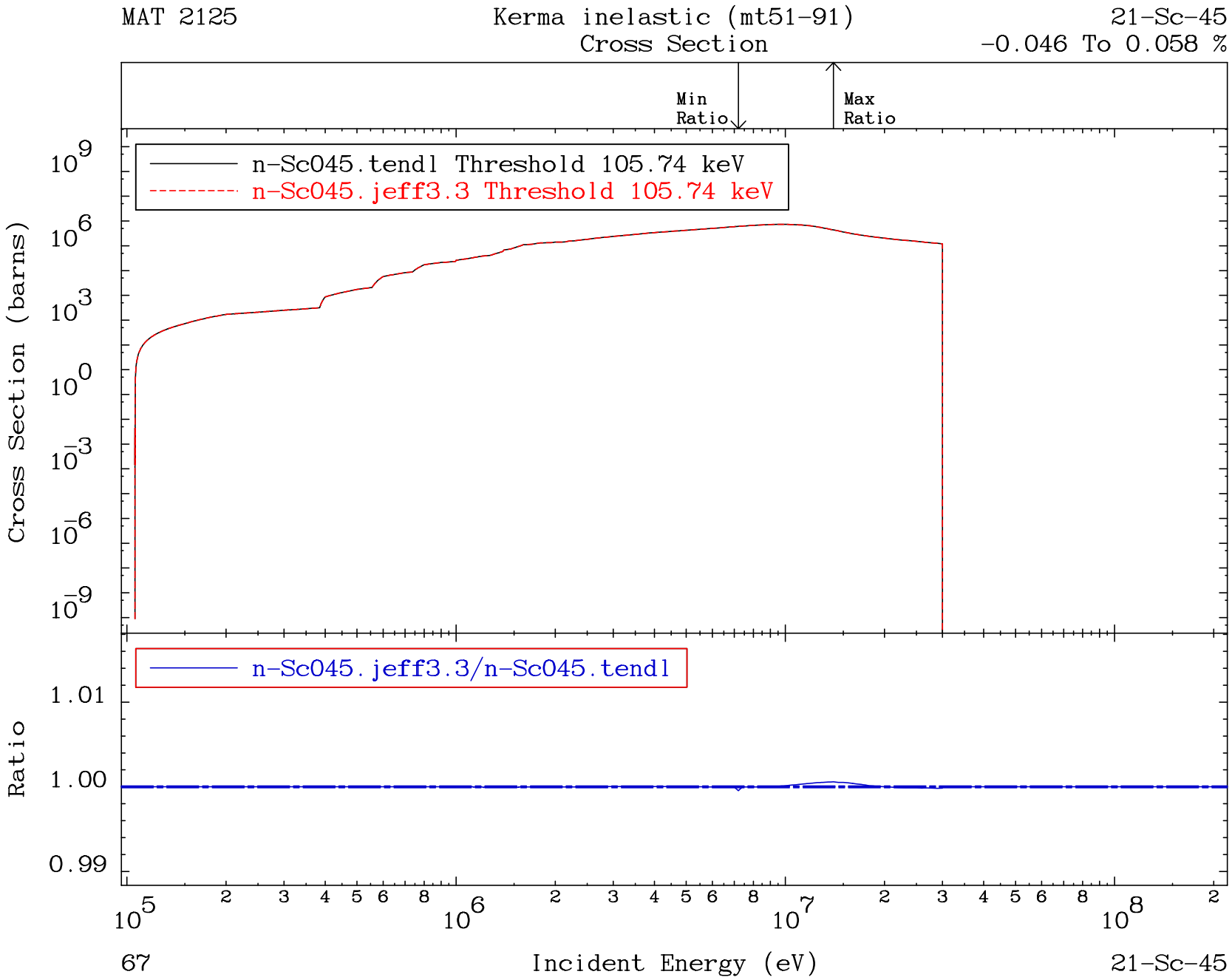

MAT 2125
He-3 Production
Cross Section
21-Sc-45
-0.242 To 1.529 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 11.611 MeV
n-Sc045.jeff3.3 Threshold 11.581 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
62
Incident Energy (eV)
21-Sc-45

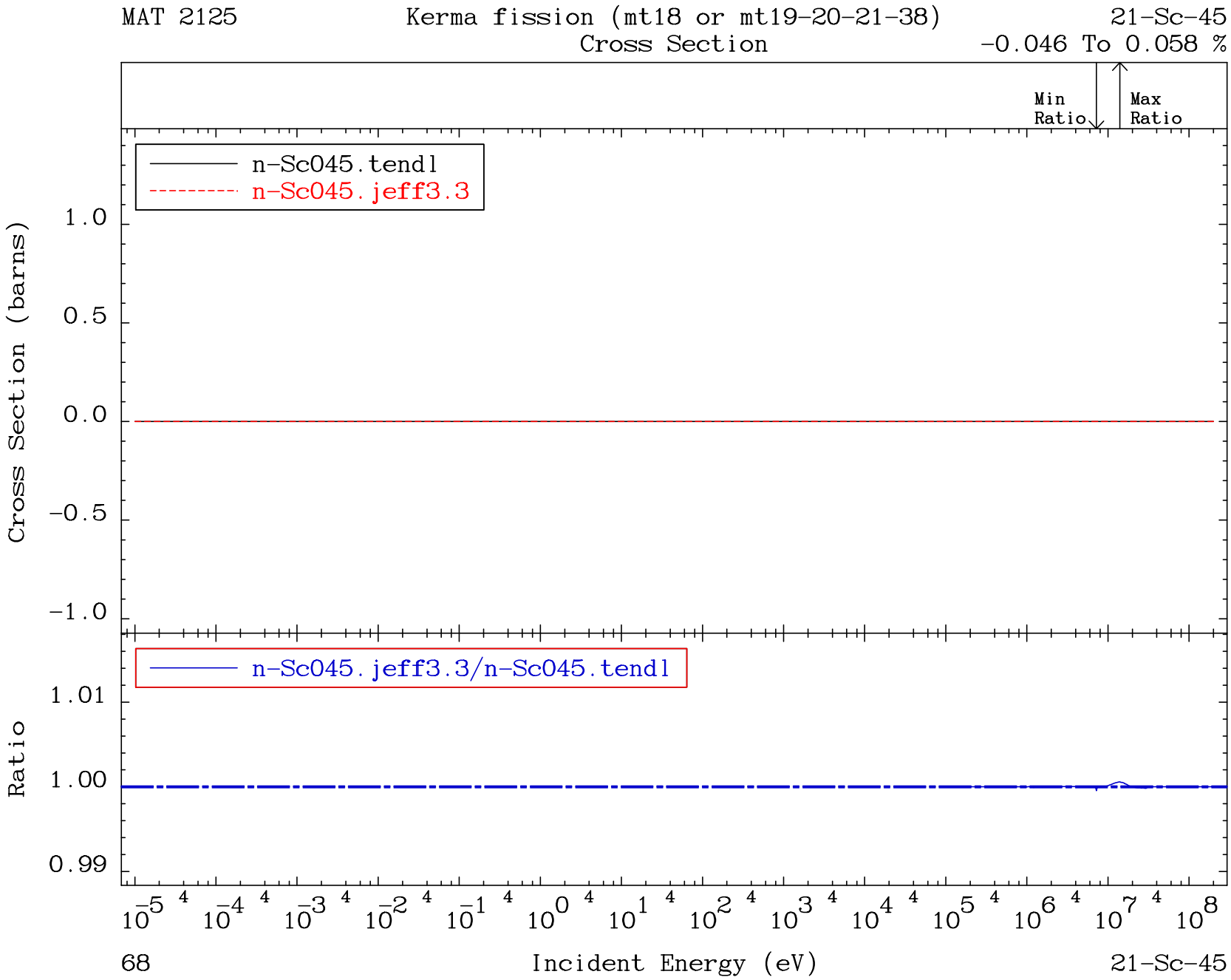

MAT 2125
He-4 Production
Cross Section
21-Sc-45
-2.340 To 272.0 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 412.51 keV
n-Sc045.jeff3.3 Threshold 411.78 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
4.0
3.0
2.0
1.0
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
63
Incident Energy (eV)
21-Sc-45

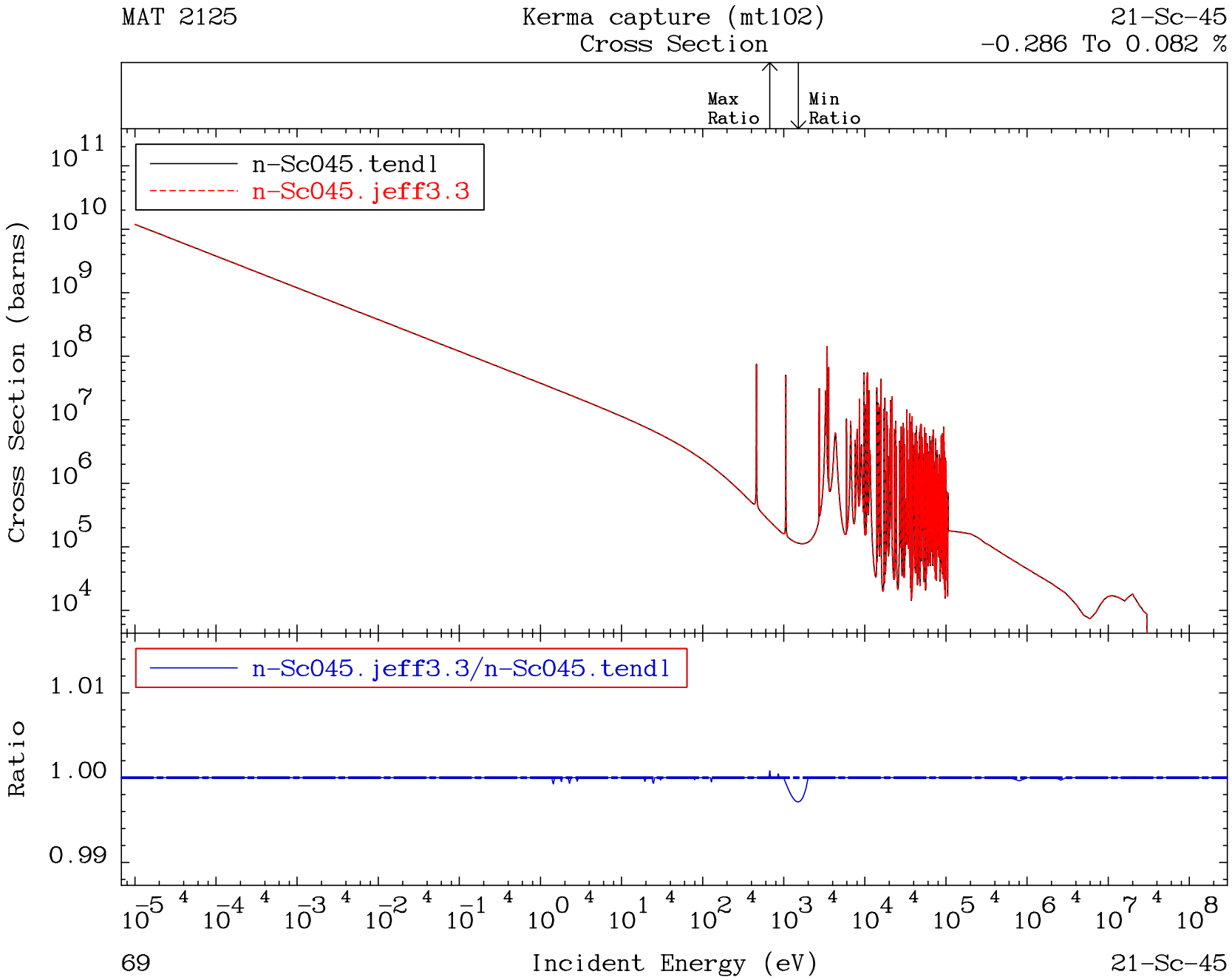

MAT 2125
Kerma total (eV-barns)
Cross Section
21-Sc-45
-0.285 To 0.099 %
Min Ratio
Max Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
64
Incident Energy (eV)
21-Sc-45

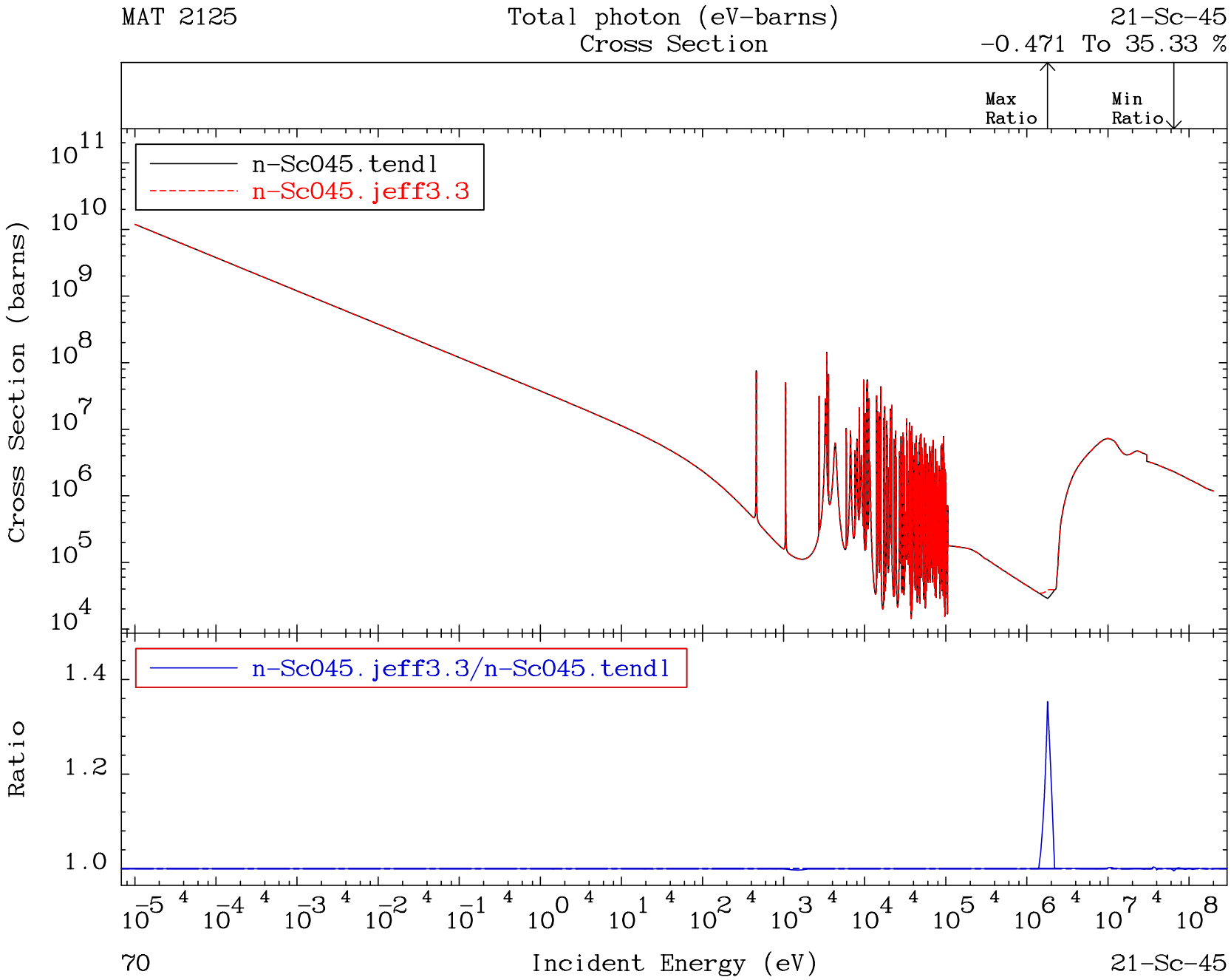

MAT 2125
Kerma elastic
Cross Section
21-Sc-45
-0.011 To 0.019 %
Max
Ratio
Min
Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
10^6
10^4
10^2
10^0
10^-2
10^-4
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
65
Incident Energy (eV)
21-Sc-45

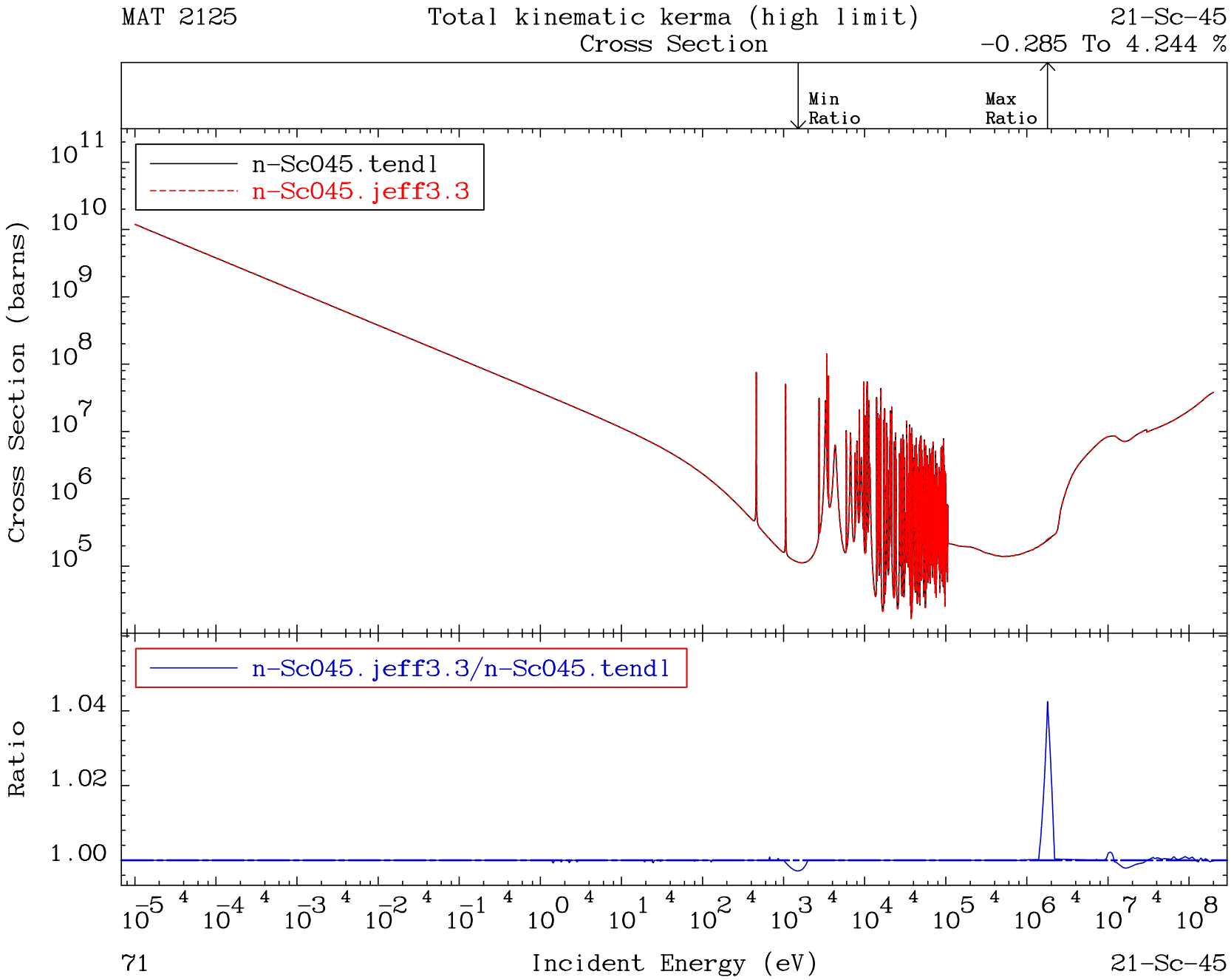

MAT 2125
Kerma non-elastic (all but mt2)
Cross Section
21-Sc-45
-0.285 To 0.099 %
Min Ratio
Max Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
66
Incident Energy (eV)
21-Sc-45

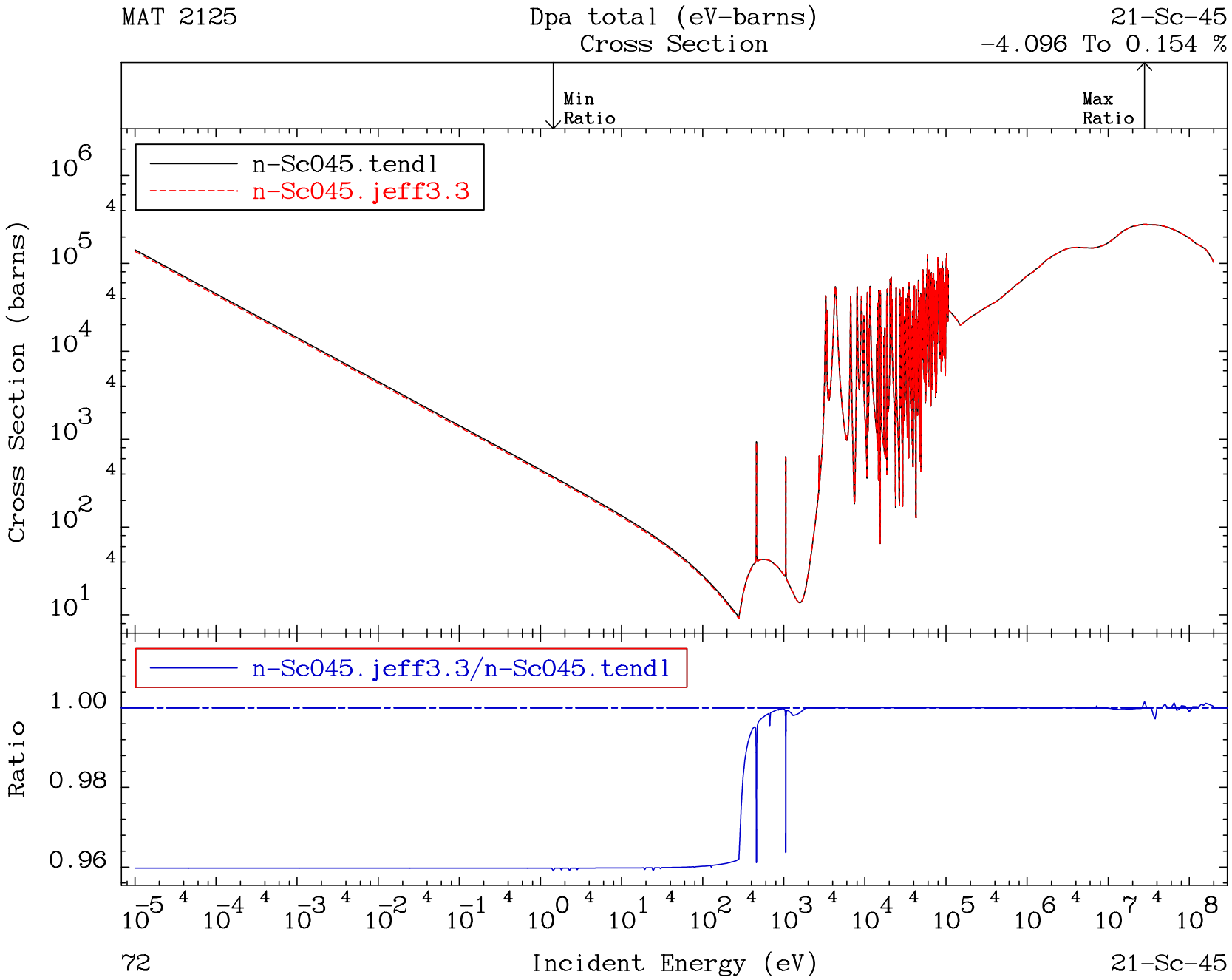

MAT 2125
Kerma inelastic (mt51-91)
Cross Section
21-Sc-45
-0.046 To 0.058 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 105.74 keV
n-Sc045.jeff3.3 Threshold 105.74 keV
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
67
21-Sc-45

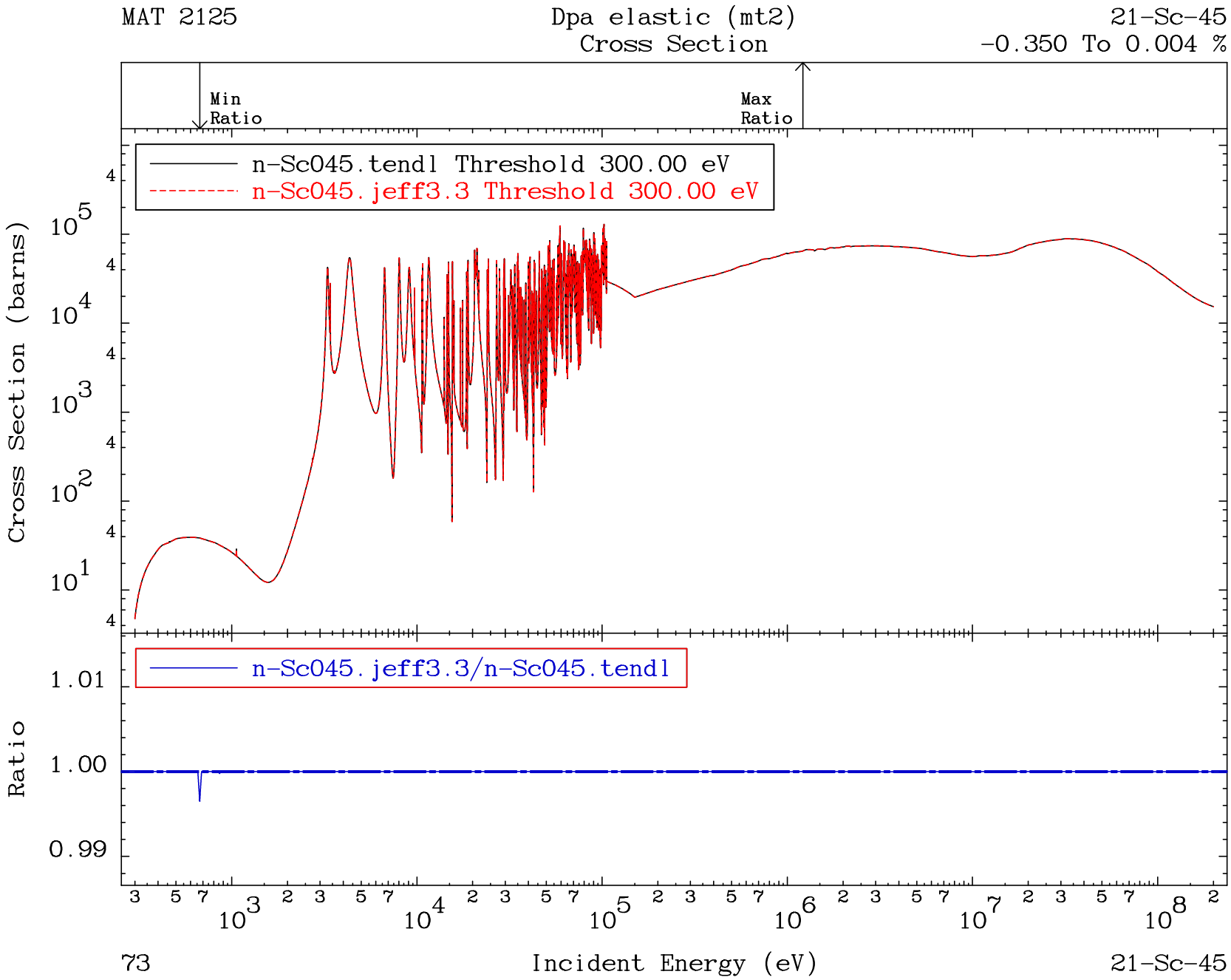

MAT 2125
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
21-Sc-45
-0.046 To 0.058 %
Min Ratio
Max Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
68
Incident Energy (eV)
21-Sc-45

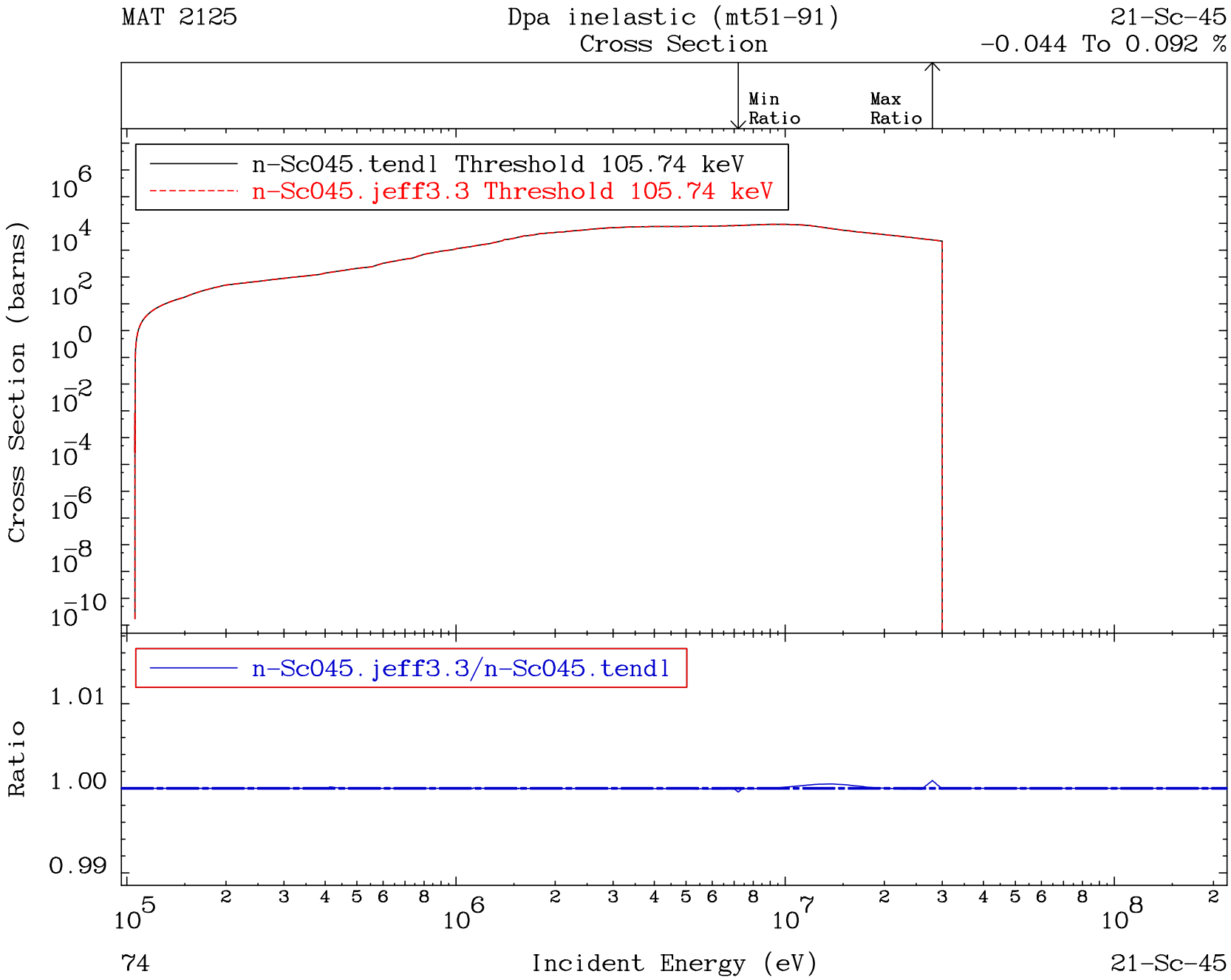

MAT 2125
Kerma capture (mt102)
Cross Section
21-Sc-45
-0.286 To 0.082 %
Max Ratio
Min Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
69
Incident Energy (eV)
21-Sc-45

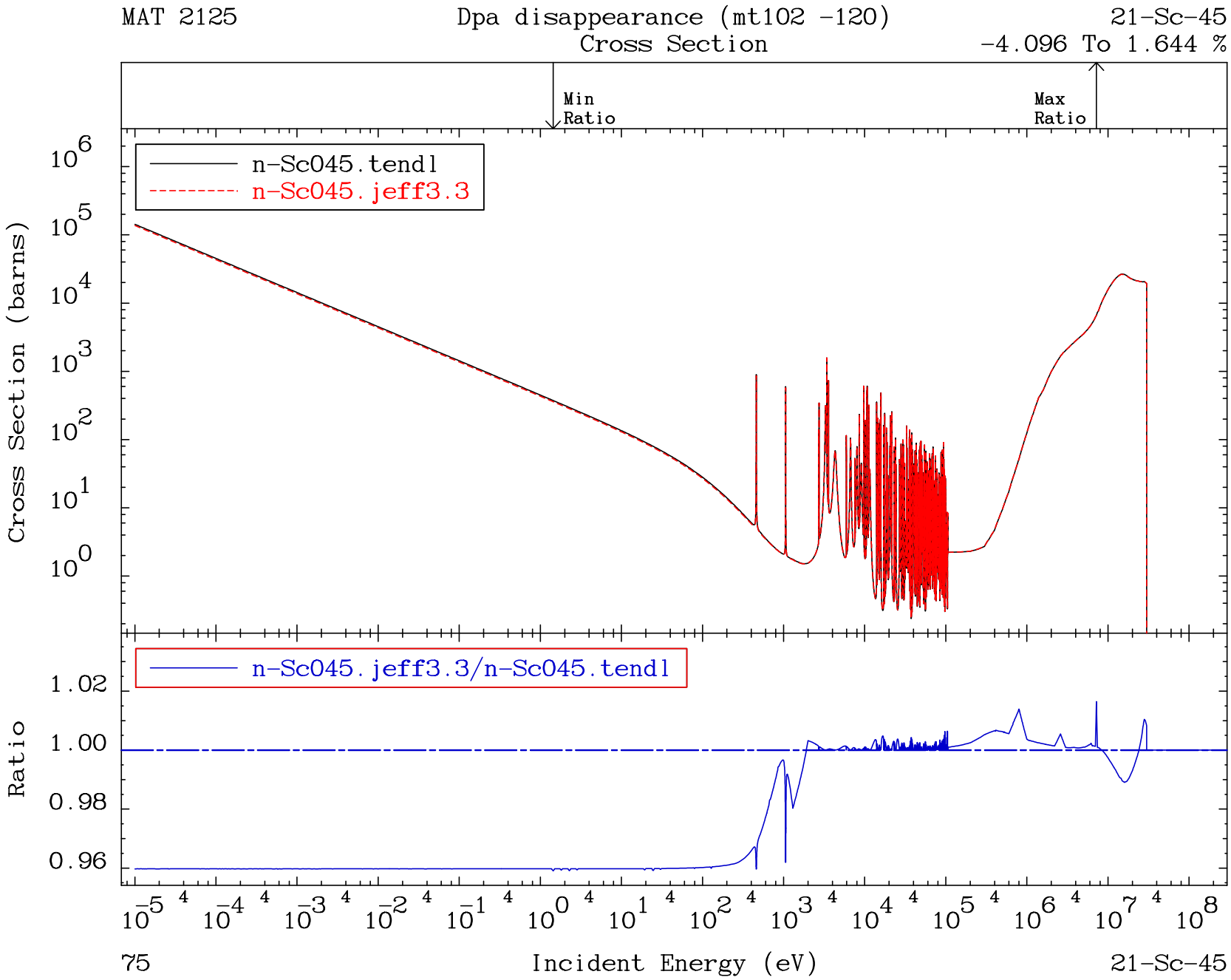

MAT 2125
Total photon (eV-barns)
Cross Section
21-Sc-45
-0.471 To 35.33 %
Max Ratio
Min Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
70
21-Sc-45

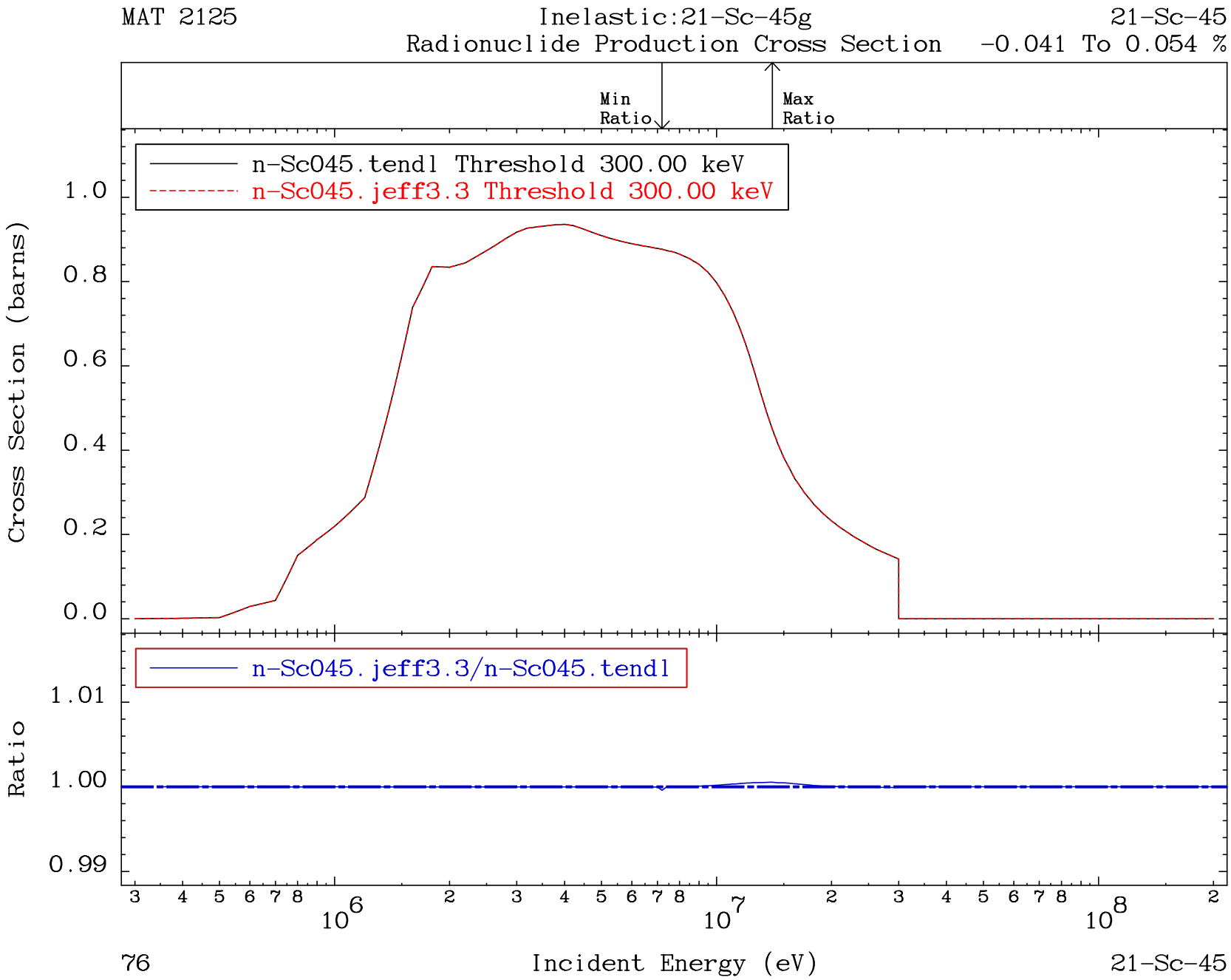

MAT 2125
Total kinematic kerma (high limit)
Cross Section
21-Sc-45
-0.285 To 4.244 %
Min Ratio
Max Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
71
21-Sc-45

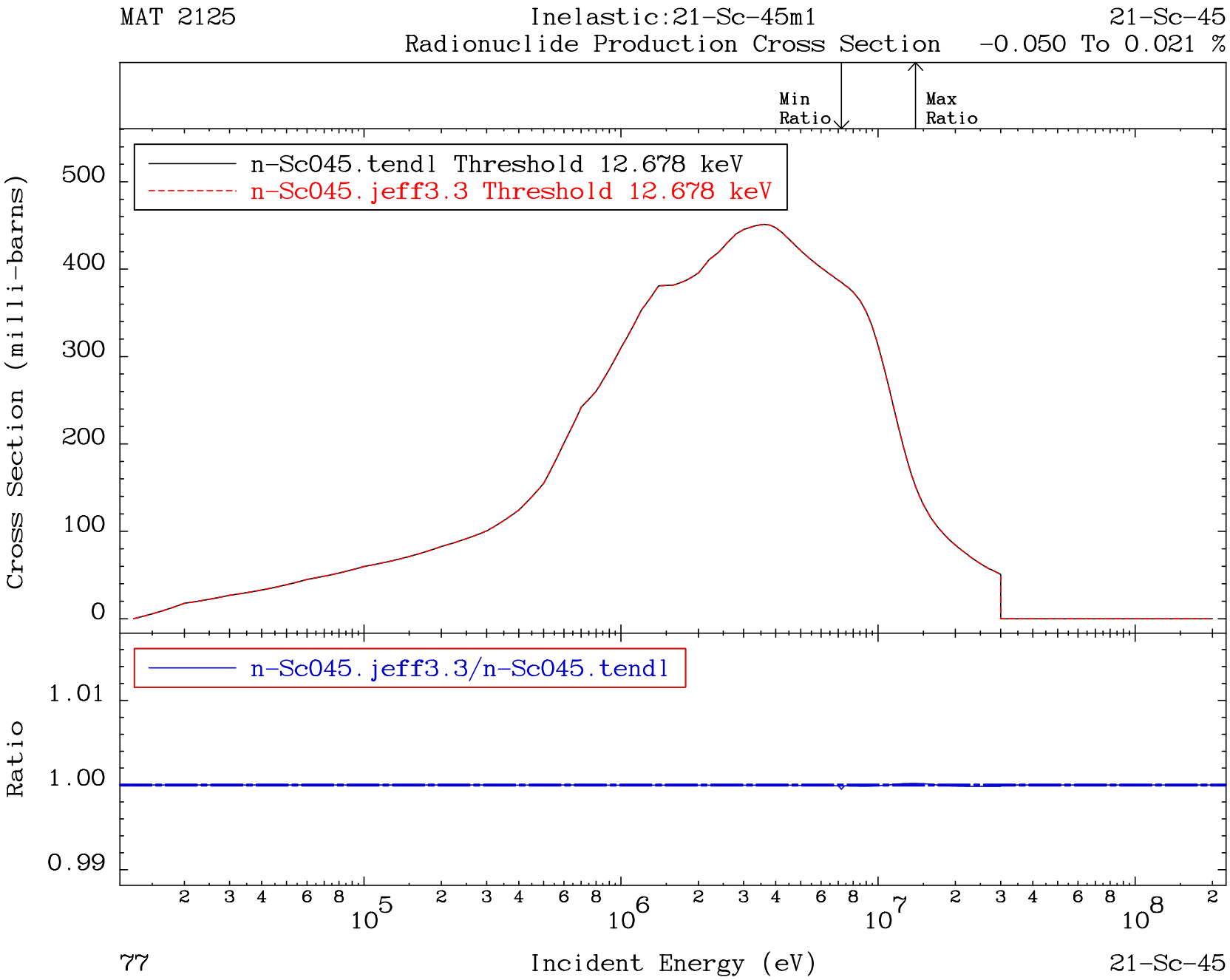

MAT 2125
Dpa total (eV-barns)
Cross Section
21-Sc-45
-4.096 To 0.154 %
Min Ratio
Max Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
72
21-Sc-45

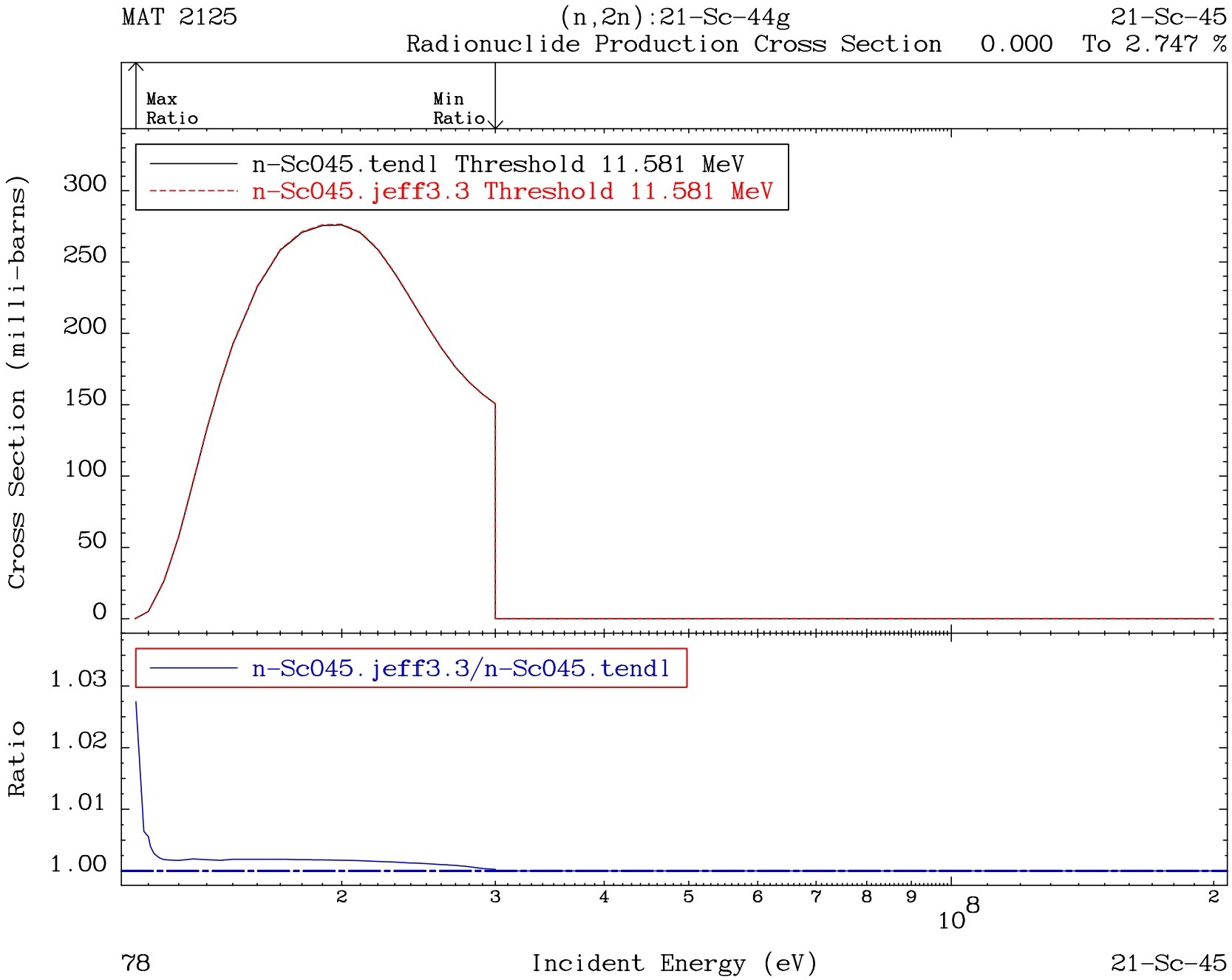

MAT 2125
Dpa elastic (mt2)
Cross Section
21-Sc-45
-0.350 To 0.004 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 300.00 eV
n-Sc045.jeff3.3 Threshold 300.00 eV
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
73
21-Sc-45

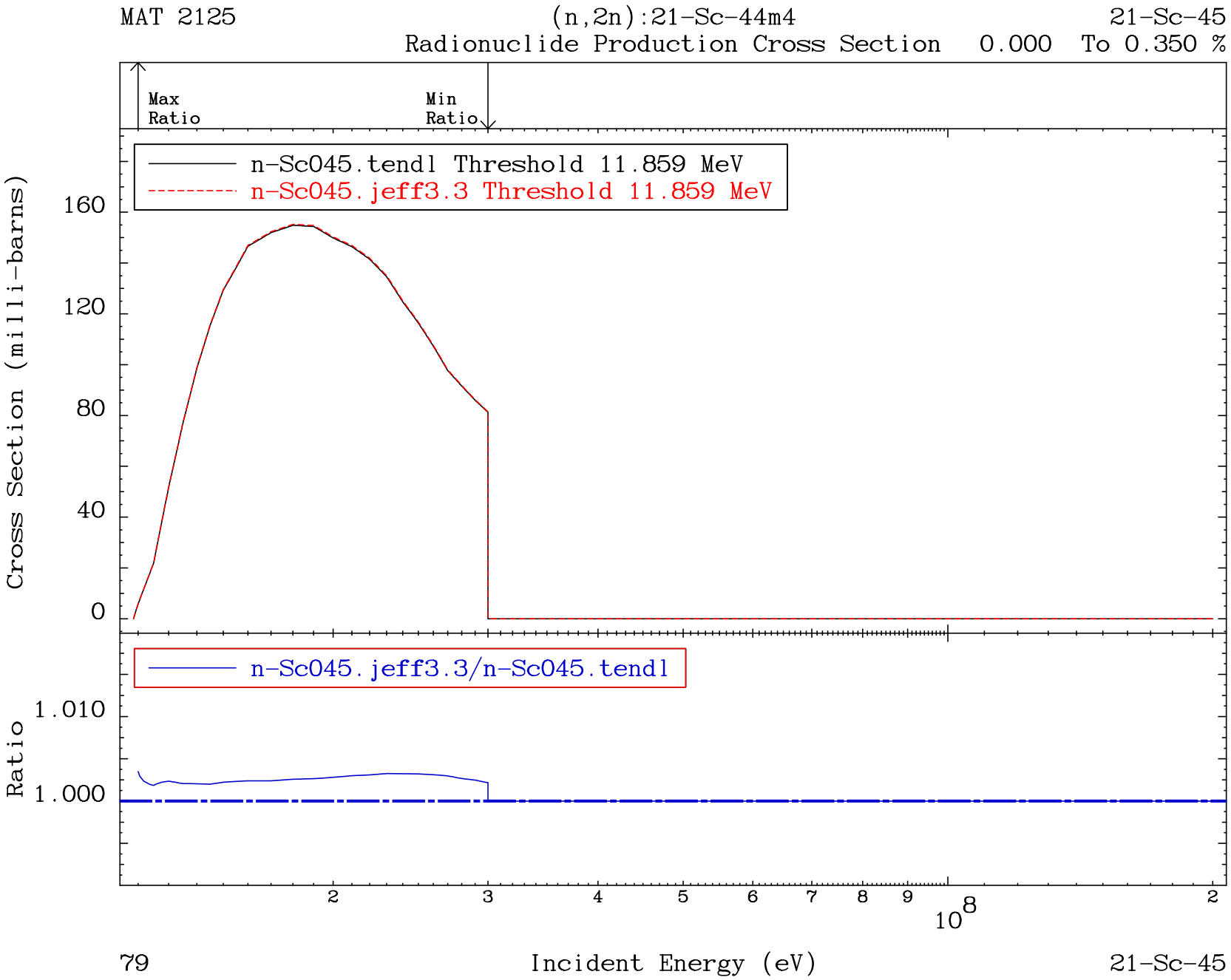

MAT 2125
Dpa inelastic (mt51-91)
Cross Section
21-Sc-45
-0.044 To 0.092 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 105.74 keV
n-Sc045.jeff3.3 Threshold 105.74 keV
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
74
21-Sc-45

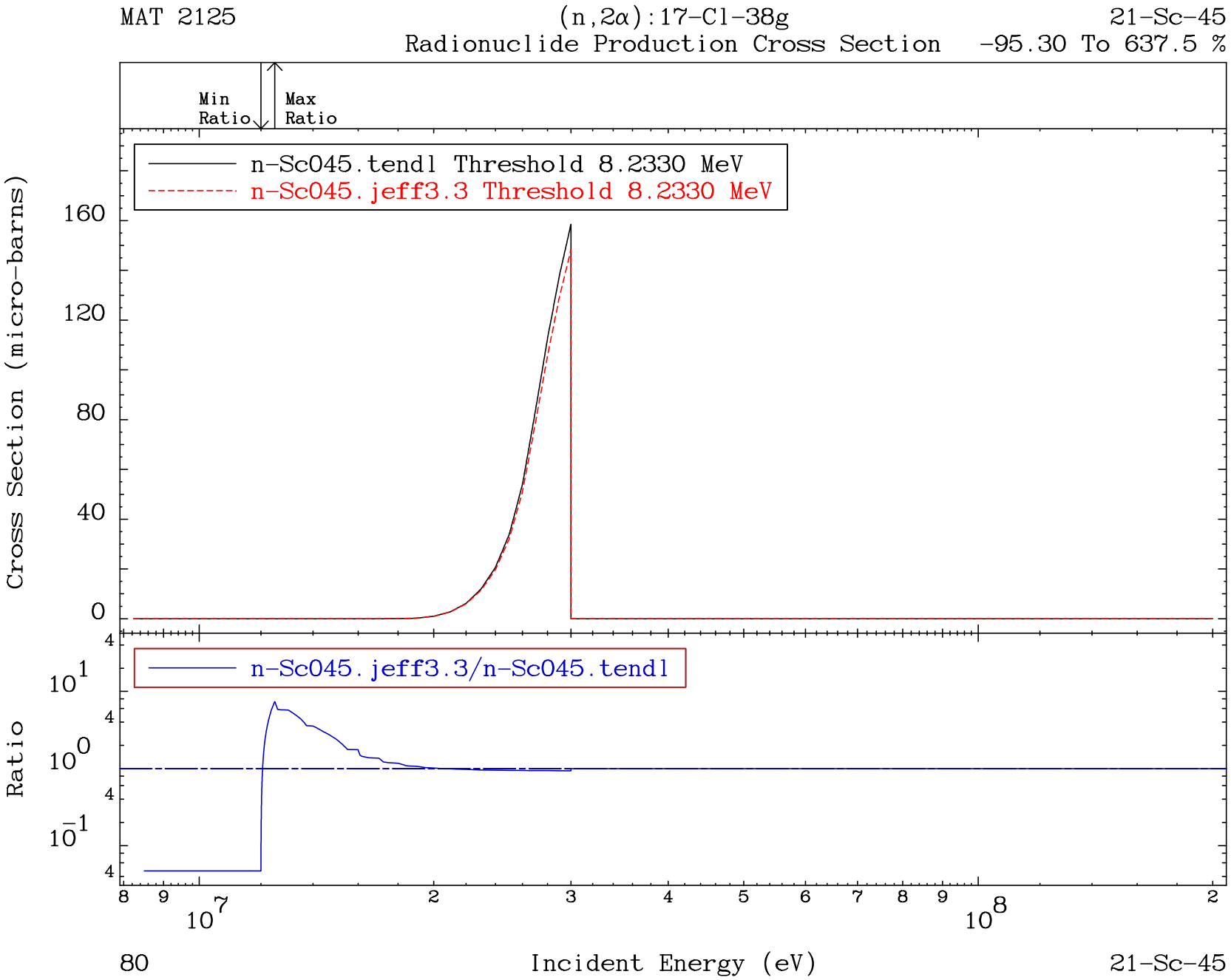

MAT 2125
Dpa disappearance (mt102 -120)
Cross Section
21-Sc-45
-4.096 To 1.644 %
Min Ratio
Max Ratio
n-Sc045.tendl
n-Sc045.jeff3.3
Cross Section (barns)
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
Incident Energy (eV)
75
21-Sc-45

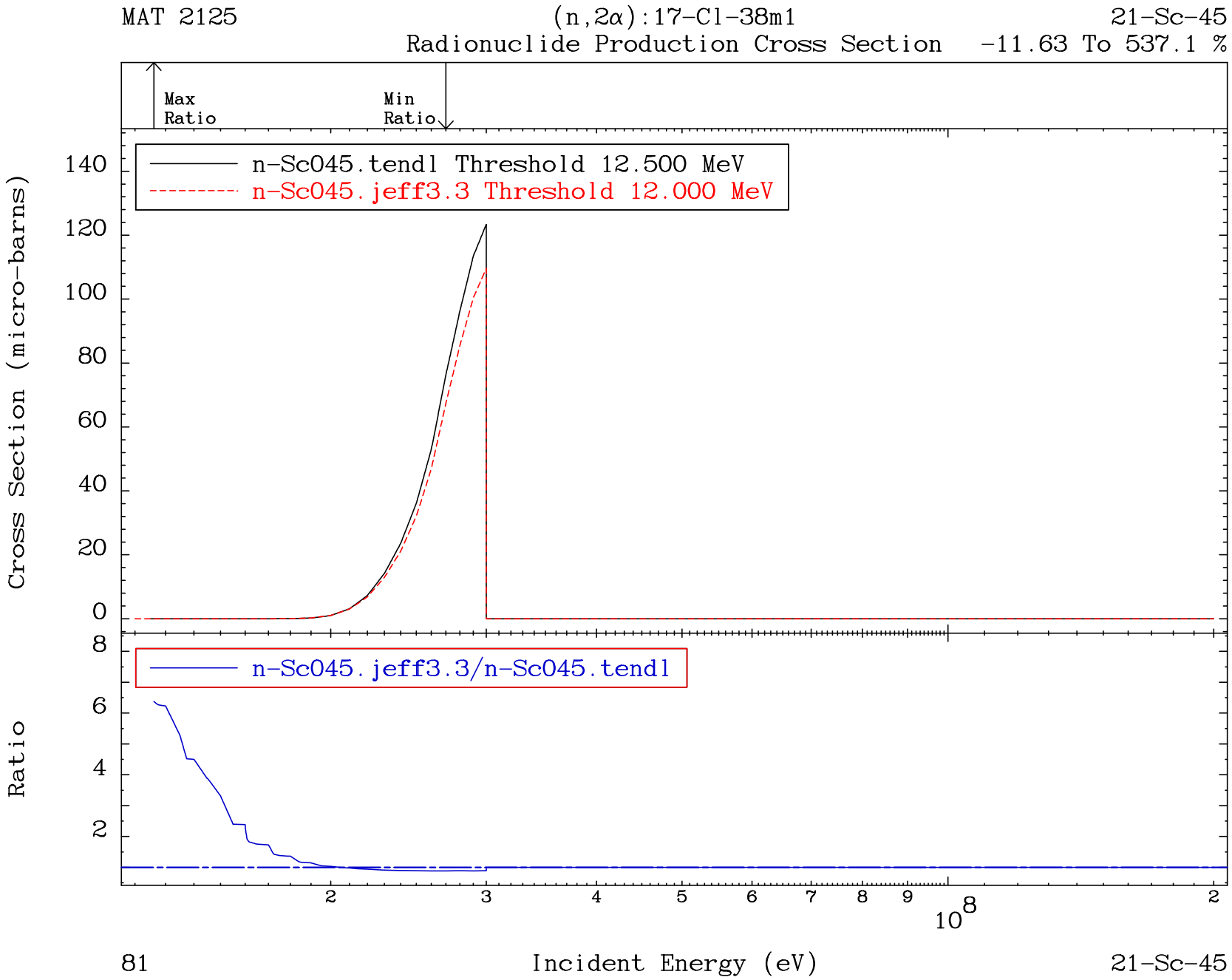

MAT 2125
Inelastic:21-Sc-45g
21-Sc-45
Radionuclide Production Cross Section
-0.041 To 0.054 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 300.00 keV
n-Sc045.jeff3.3 Threshold 300.00 keV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
76
Incident Energy (eV)
21-Sc-45


MAT 2125
Inelastic:21-Sc-45m1
21-Sc-45
Radionuclide Production Cross Section
-0.050 To 0.021 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 12.678 keV
n-Sc045.jeff3.3 Threshold 12.678 keV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.01
1.00
0.99
2 3 4 6 8
10^5
10^6
10^7
10^8
77
Incident Energy (eV)
21-Sc-45


MAT 2125
(n,2n):21-Sc-44g
21-Sc-45
Radionuclide Production Cross Section 0.000 To 2.747 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 11.581 MeV
n-Sc045.jeff3.3 Threshold 11.581 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.03
1.02
1.01
1.00
2
3
4
5
6
7
8
9
10^8
2
78
Incident Energy (eV)
21-Sc-45


MAT 2125
(n,2n):21-Sc-44m4
21-Sc-45
Radionuclide Production Cross Section 0.000 To 0.350 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 11.859 MeV
n-Sc045.jeff3.3 Threshold 11.859 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
1.010
1.000
2
3
4
5
6
7
8
9
10^8
2
79
Incident Energy (eV)
21-Sc-45


MAT 2125
(n,2α):17-Cl-38g
21-Sc-45
Radionuclide Production Cross Section -95.30 To 637.5 %
Min Ratio
Max Ratio
n-Sc045.tendl Threshold 8.2330 MeV
n-Sc045.jeff3.3 Threshold 8.2330 MeV
Cross Section (micro-barns)
160
120
80
40
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
10^1
10^0
10^-1
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
80
Incident Energy (eV)
21-Sc-45


MAT 2125
(n,2α):17-Cl-38m1
21-Sc-45
Radionuclide Production Cross Section -11.63 To 537.1 %
Max Ratio
Min Ratio
n-Sc045.tendl Threshold 12.500 MeV
n-Sc045.jeff3.3 Threshold 12.000 MeV
Cross Section (micro-barns)
140
120
100
80
60
40
20
0
n-Sc045.jeff3.3/n-Sc045.tendl
Ratio
8
6
4
2
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
21-Sc-45