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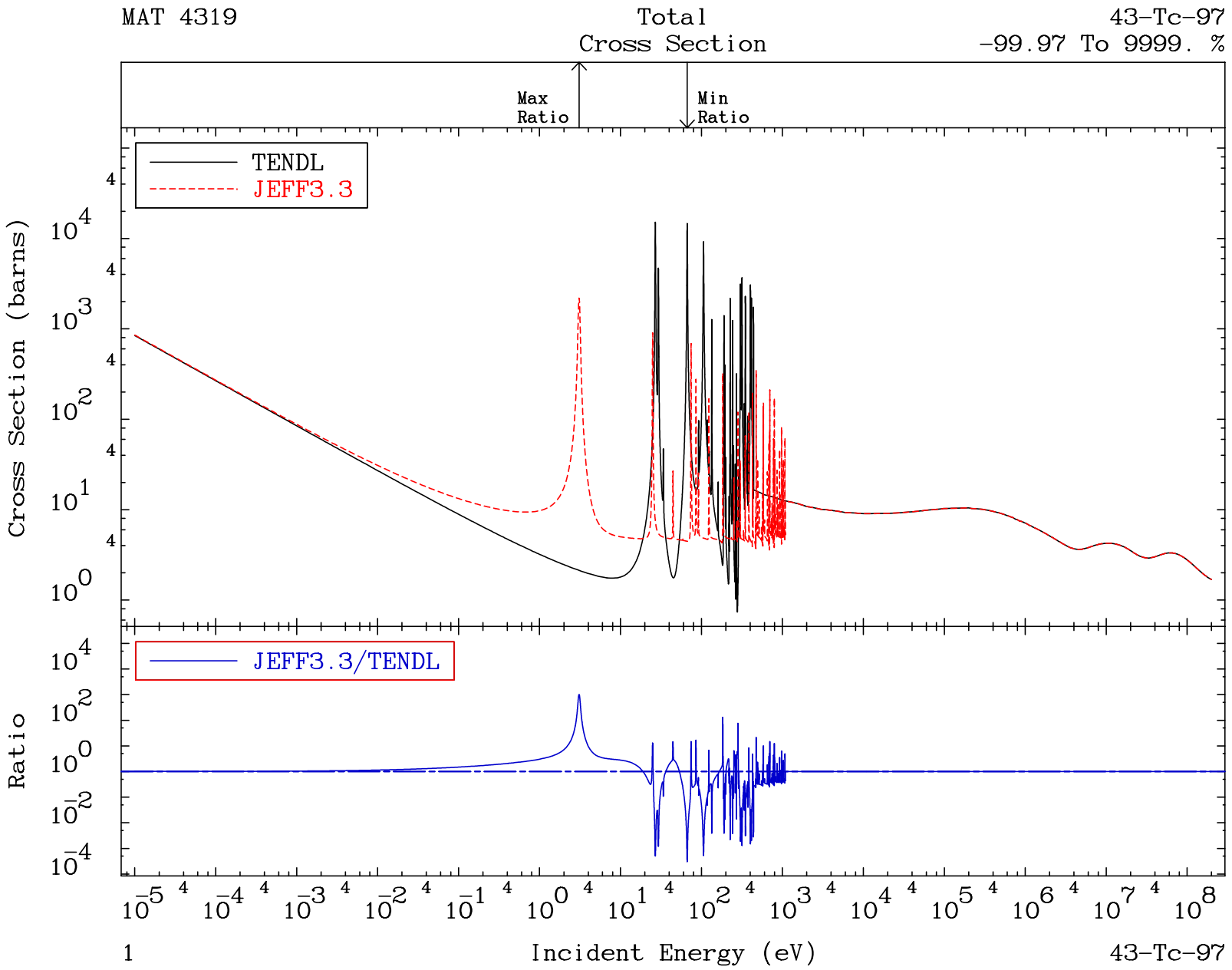
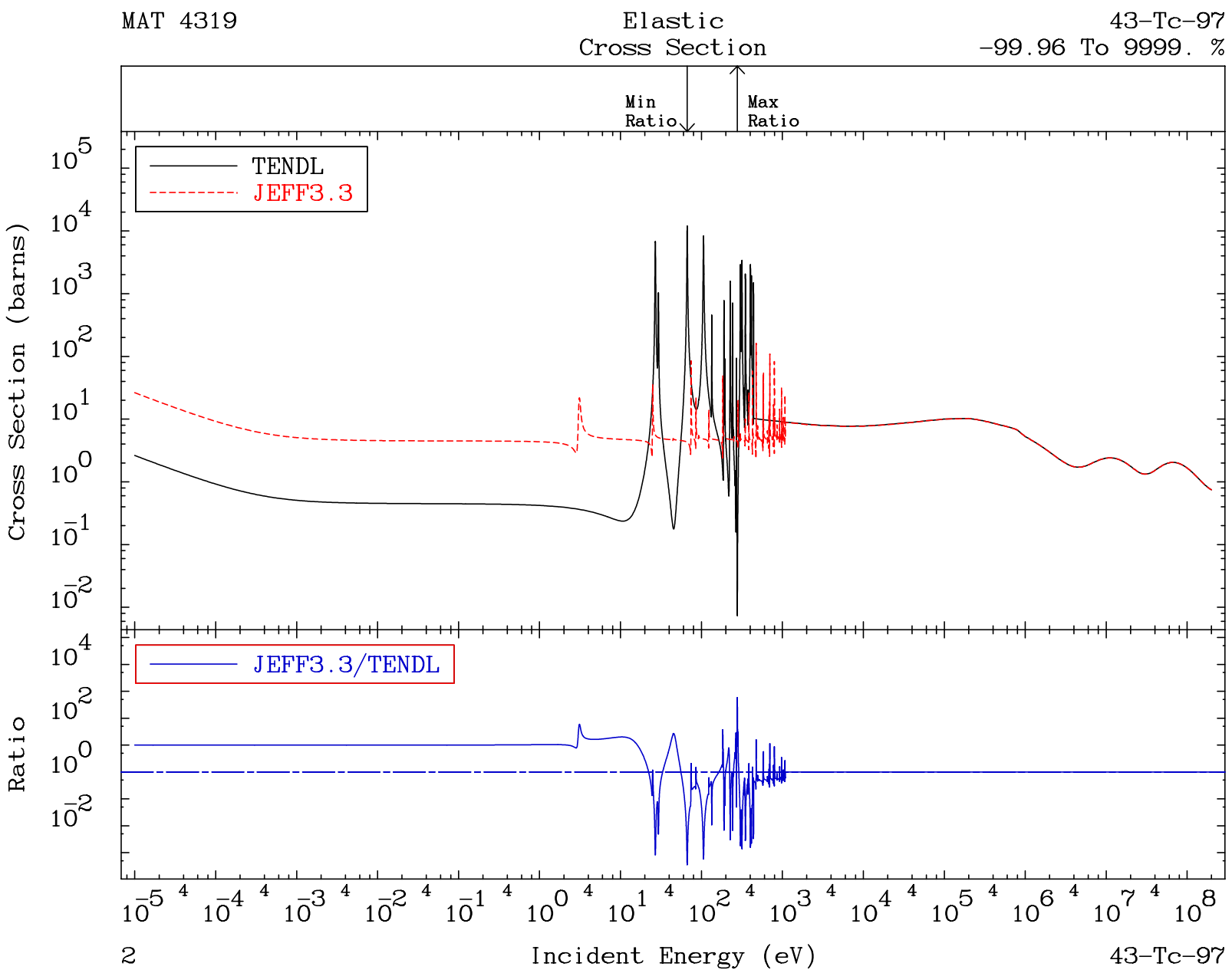
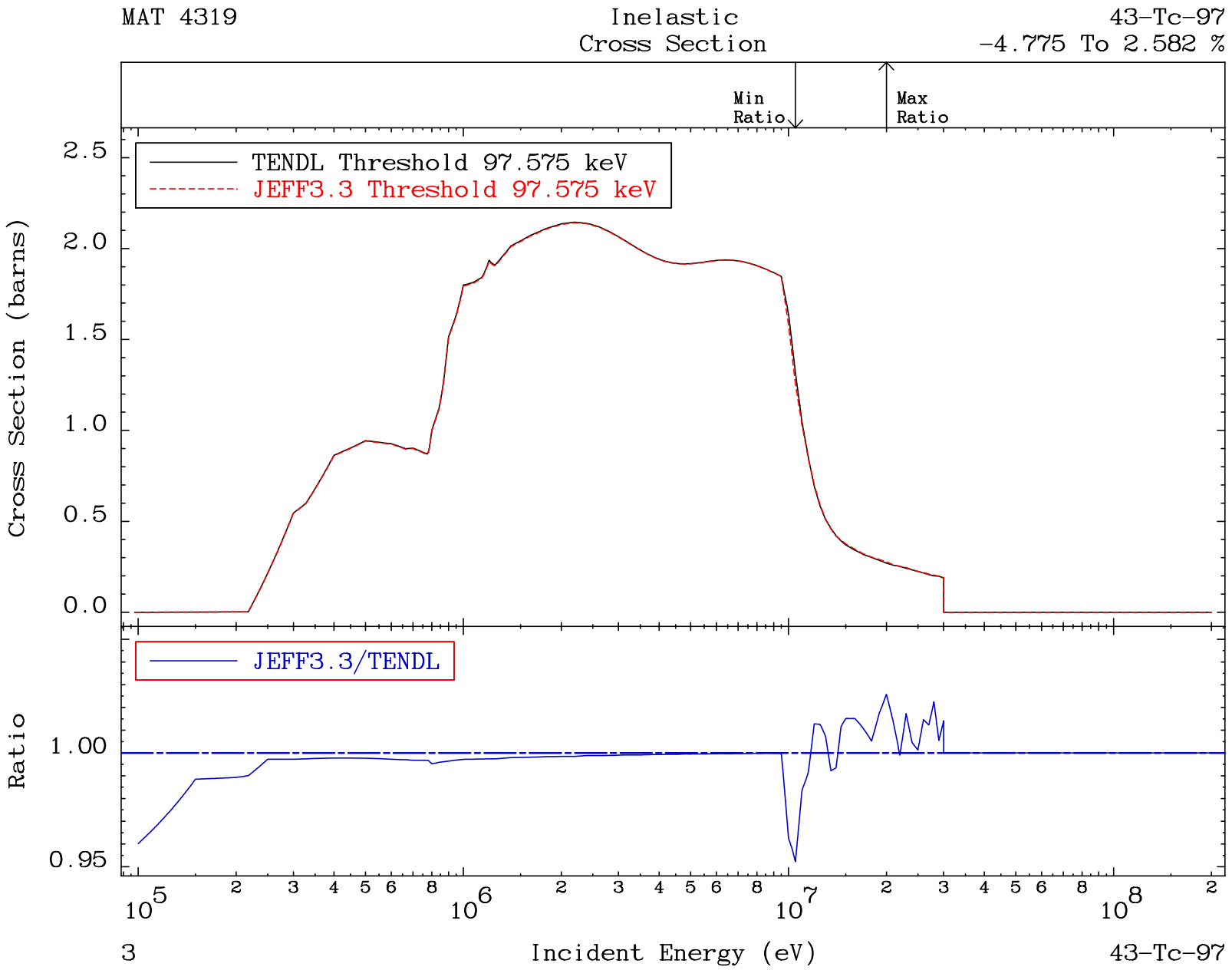
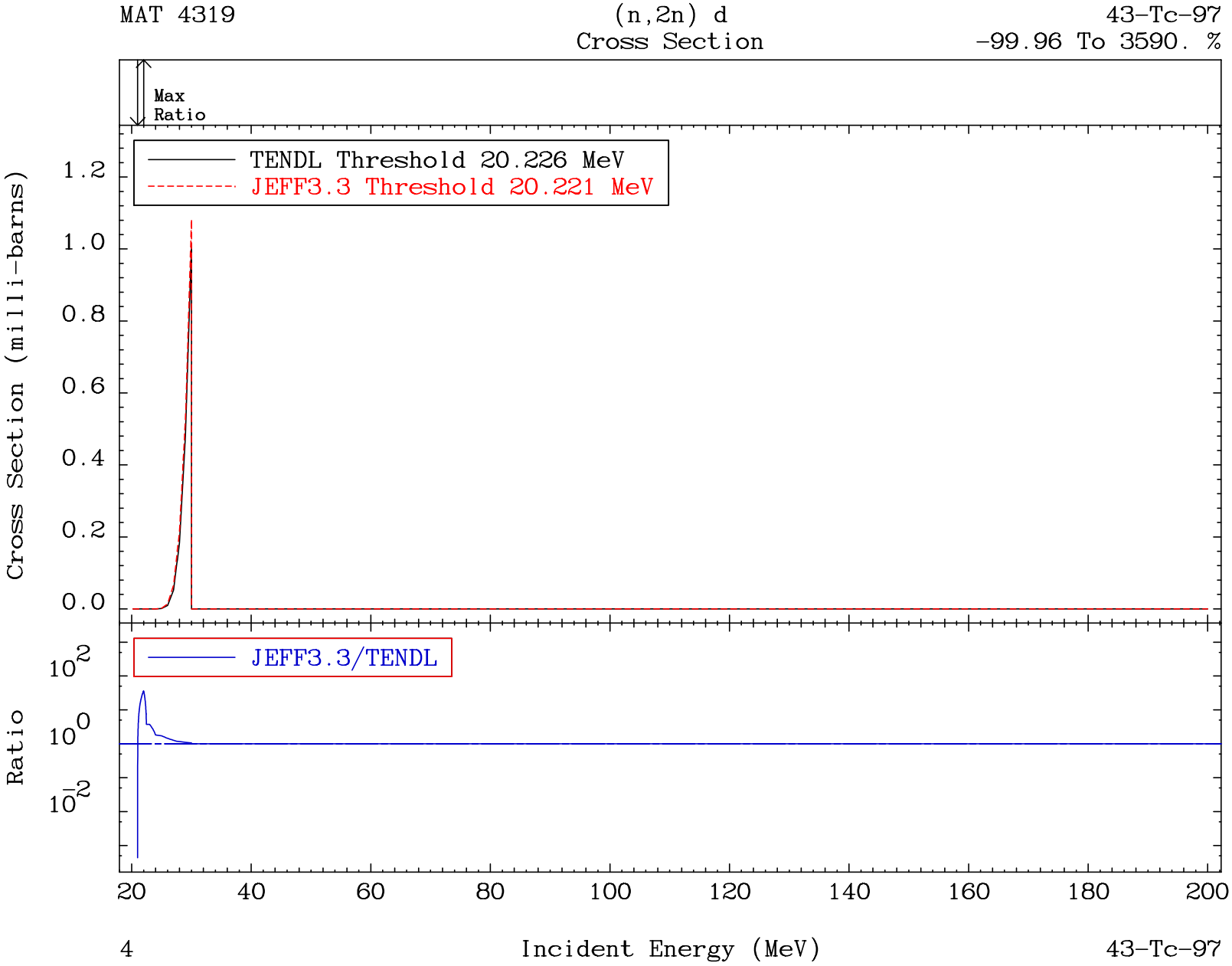
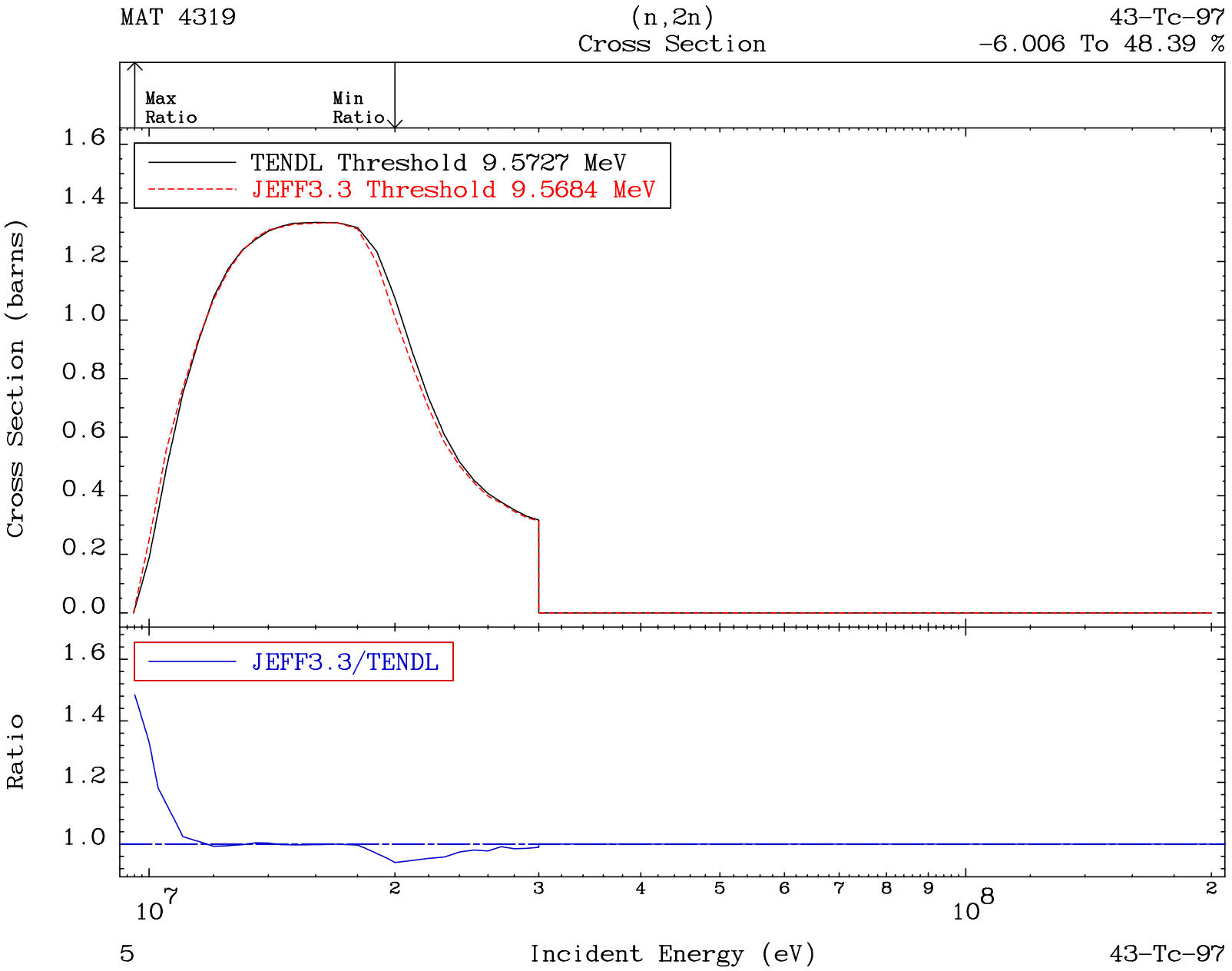
Press Mouse Button to Start

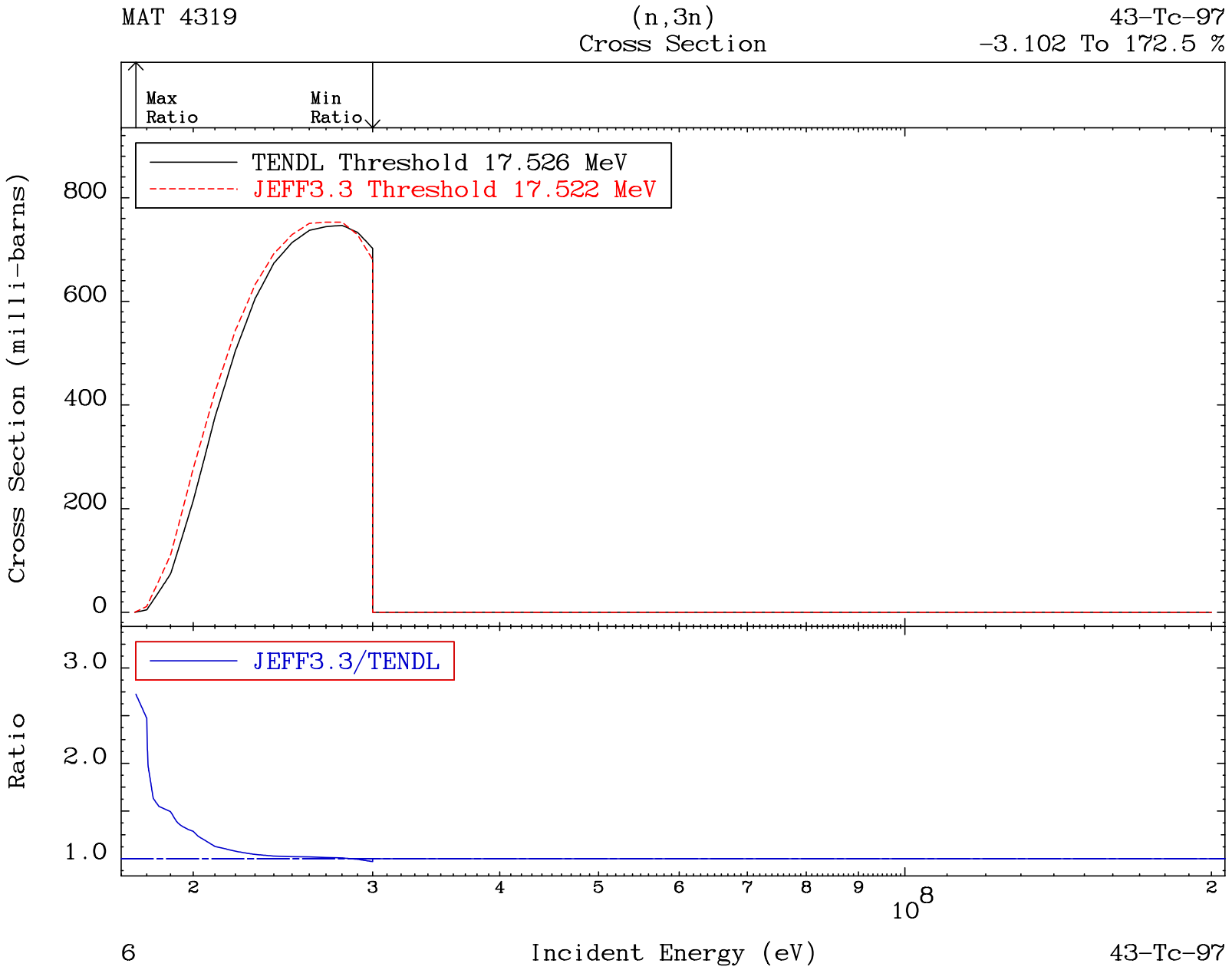

MAT 4319
Total
Cross Section
43-Tc-97
-99.97 To 9999. %
Max
Ratio
Min
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
1
43-Tc-97

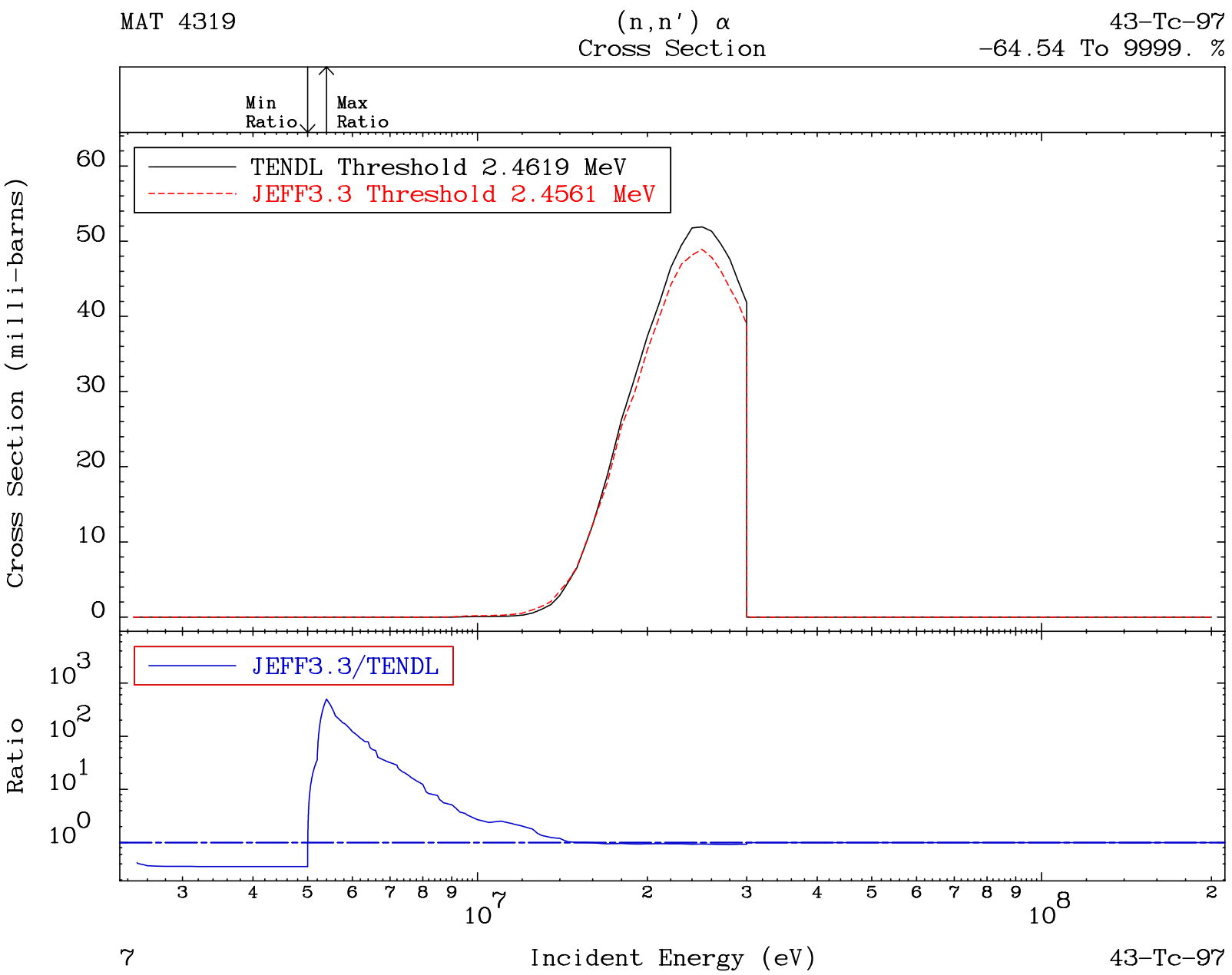

MAT 4319
Elastic
Cross Section
43-Tc-97
-99.96 To 9999. %
Min
Ratio
Max
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
2
43-Tc-97

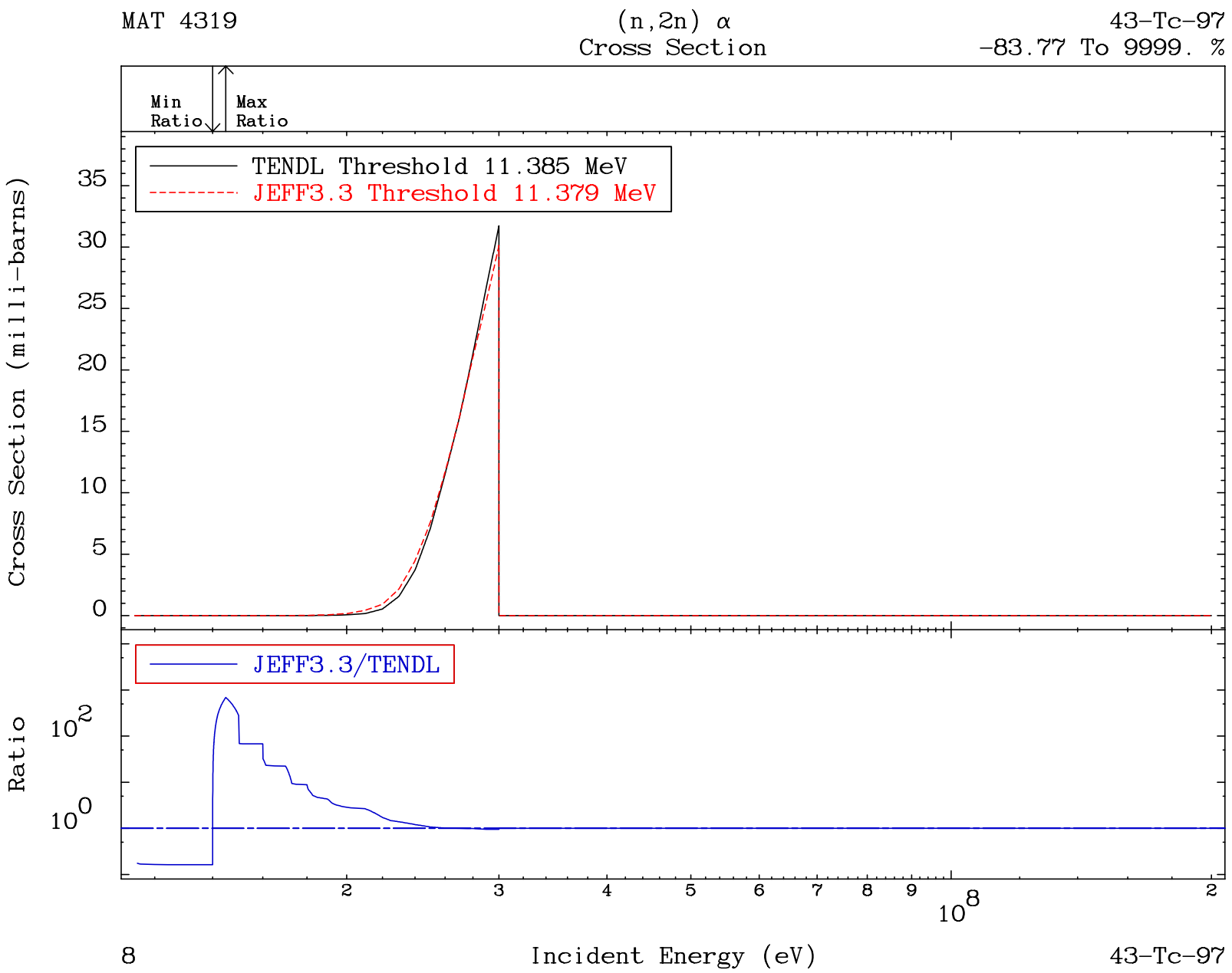

MAT 4319
Inelastic
Cross Section
43-Tc-97
-4.775 To 2.582 %
Min
Ratio
Max
Ratio
TENDL Threshold 97.575 keV
JEFF3.3 Threshold 97.575 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.00
0.95
10^5
10^6
10^7
10^8
Incident Energy (eV)
3
43-Tc-97

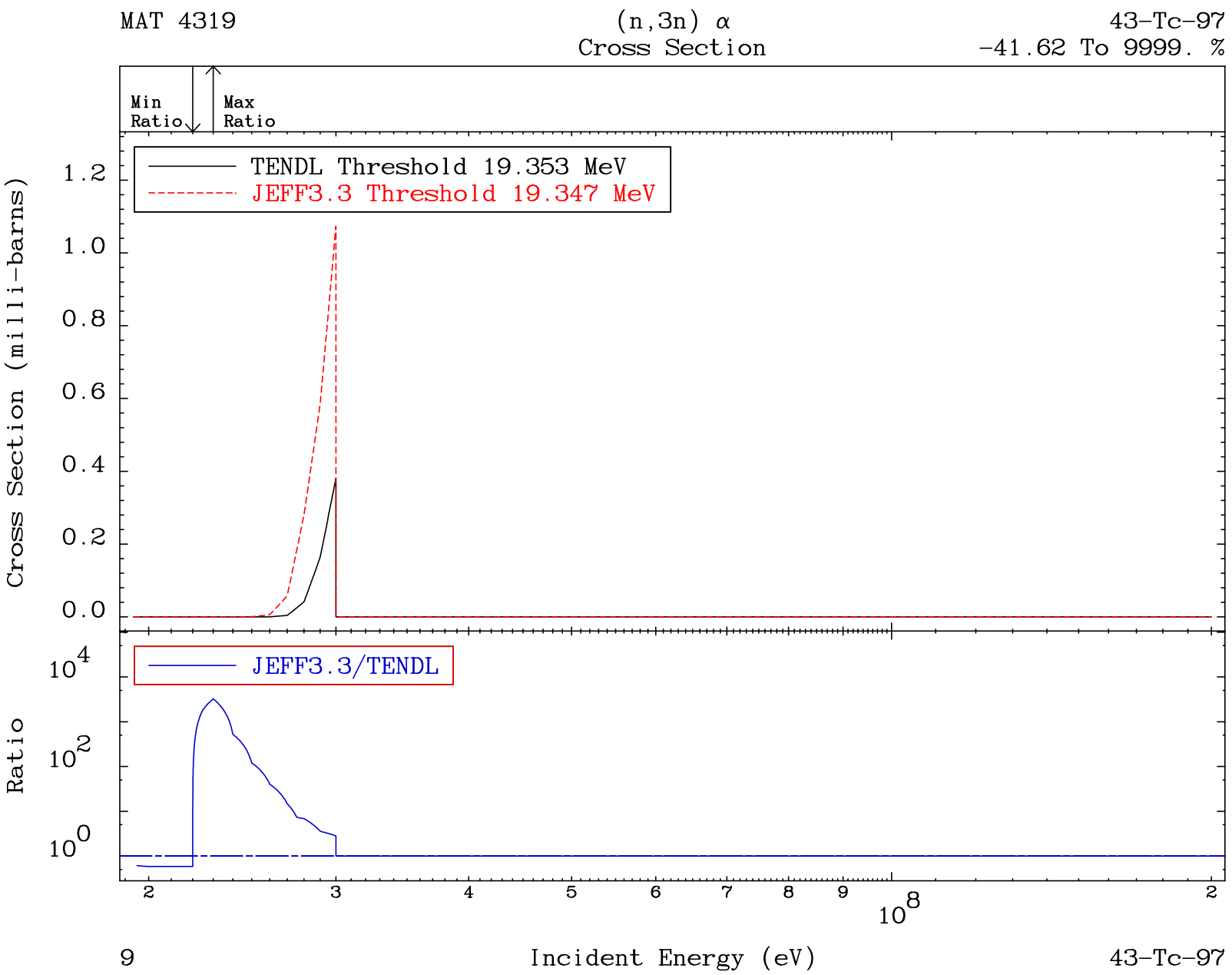

MAT 4319
(n,2n) d
Cross Section
43-Tc-97
-99.96 To 3590. %
Max
Ratio
TENDL Threshold 20.226 MeV
JEFF3.3 Threshold 20.221 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^2
10^0
10^-2
20
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
43-Tc-97

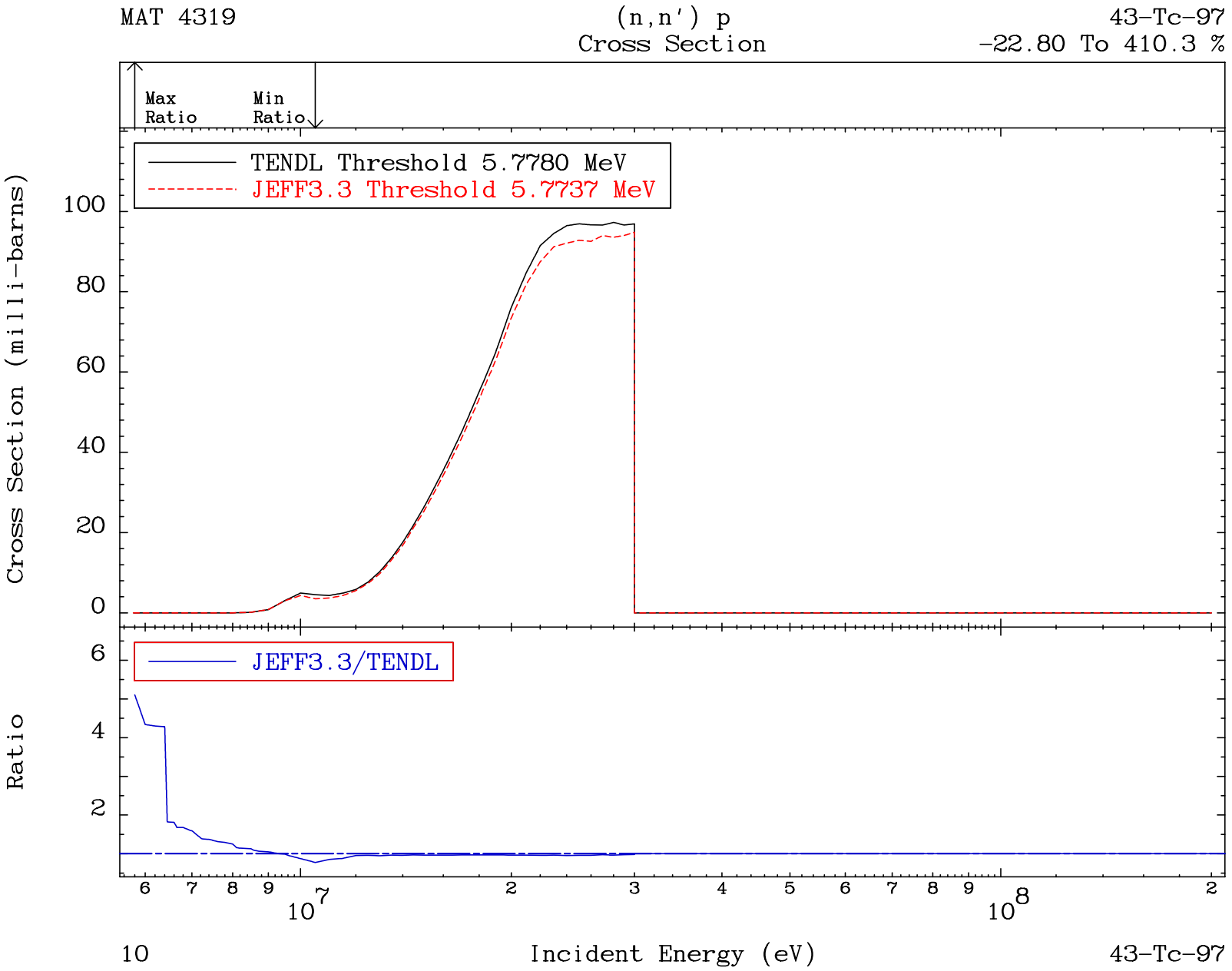

MAT 4319
(n,2n)
Cross Section
43-Tc-97
-6.006 To 48.39 %
Max Ratio
Min Ratio
TENDL Threshold 9.5727 MeV
JEFF3.3 Threshold 9.5684 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.6
1.4
1.2
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
43-Tc-97

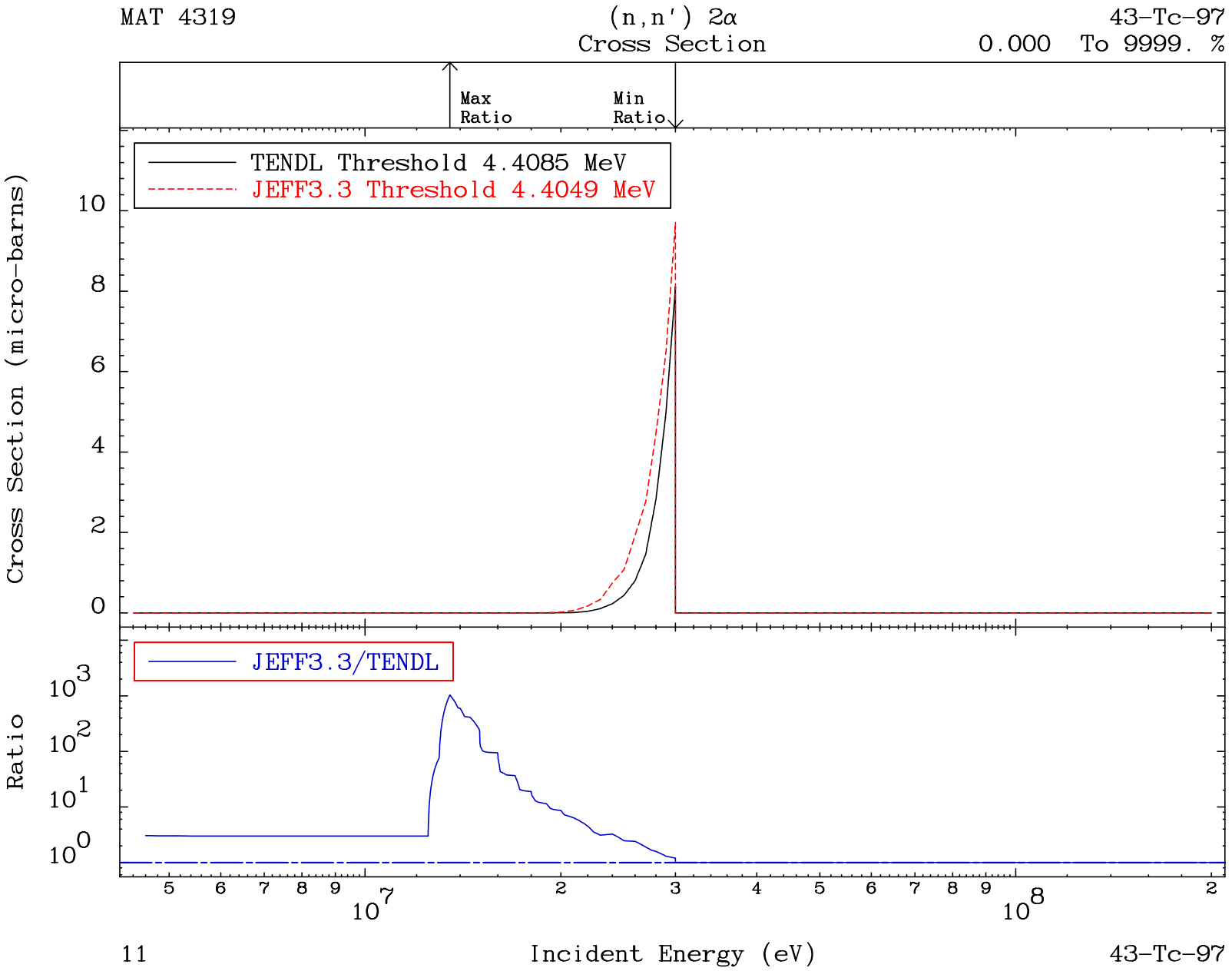

MAT 4319
(n,3n)
Cross Section
43-Tc-97
-3.102 To 172.5 %
Max Ratio
Min Ratio
TENDL Threshold 17.526 MeV
JEFF3.3 Threshold 17.522 MeV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
43-Tc-97

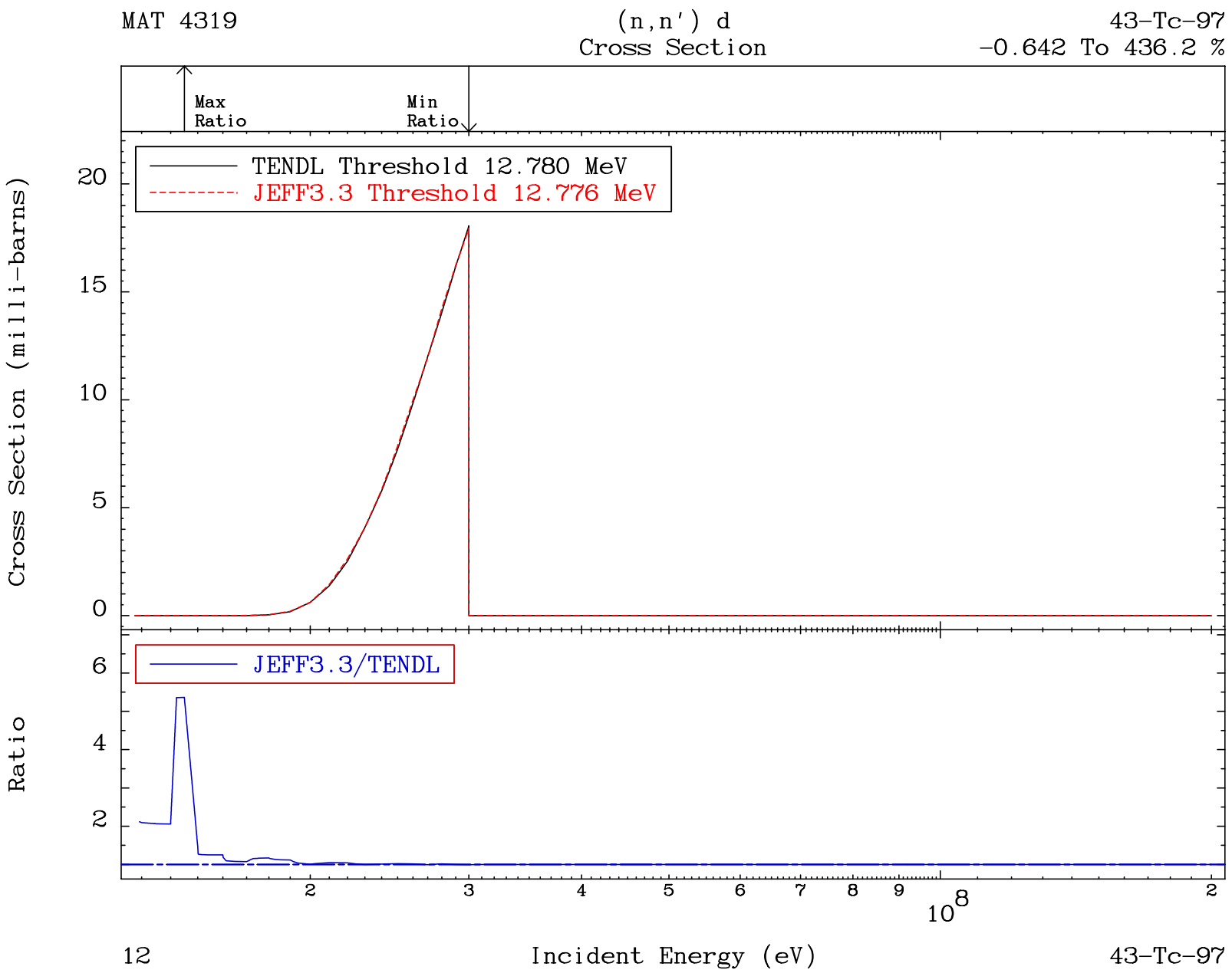

MAT 4319
(n,n') α
Cross Section
43-Tc-97
-64.54 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.4619 MeV
JEFF3.3 Threshold 2.4561 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
7
Incident Energy (eV)
43-Tc-97

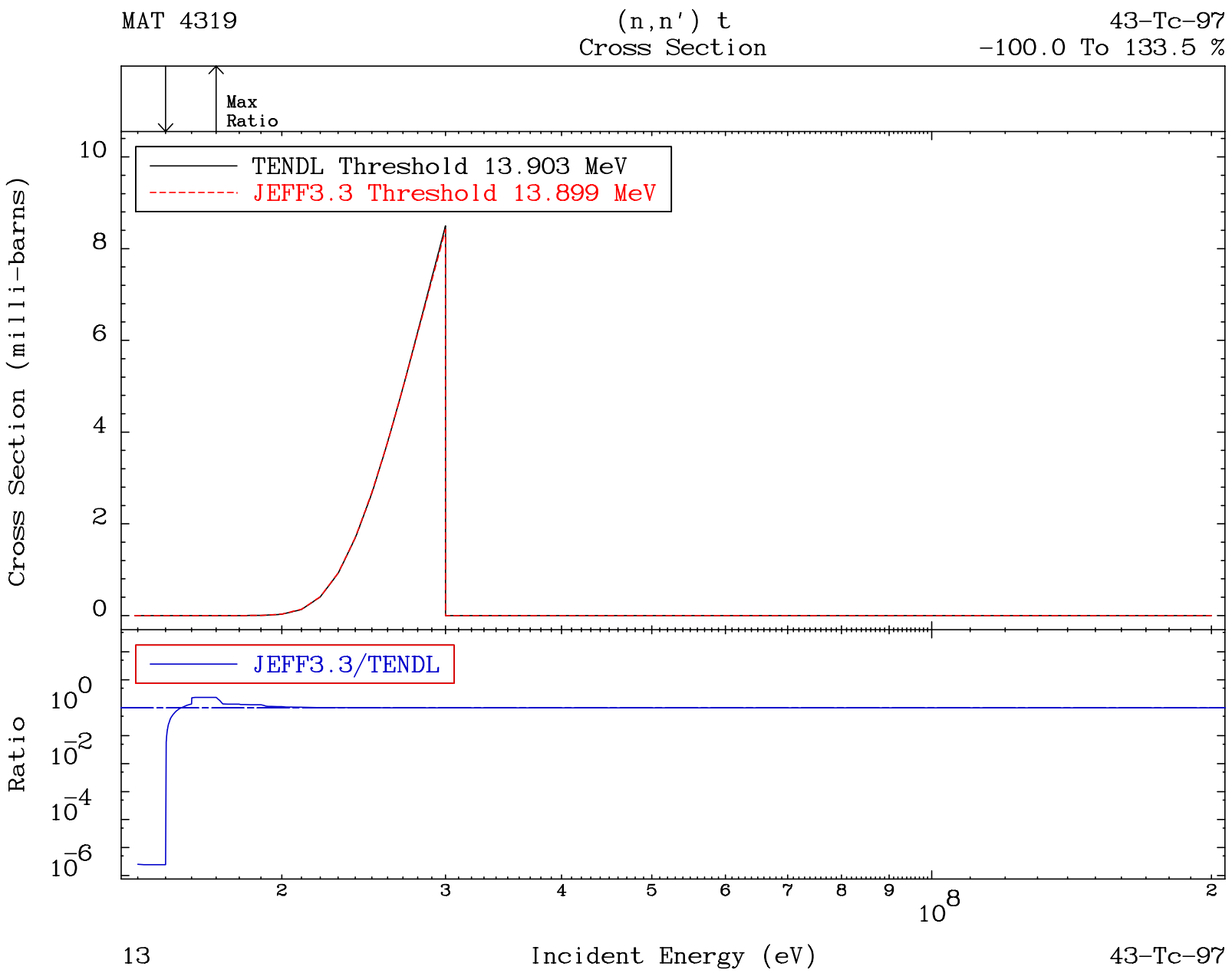

MAT 4319
(n,2n) α
Cross Section
43-Tc-97
-83.77 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 11.385 MeV
JEFF3.3 Threshold 11.379 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
8
Incident Energy (eV)
43-Tc-97

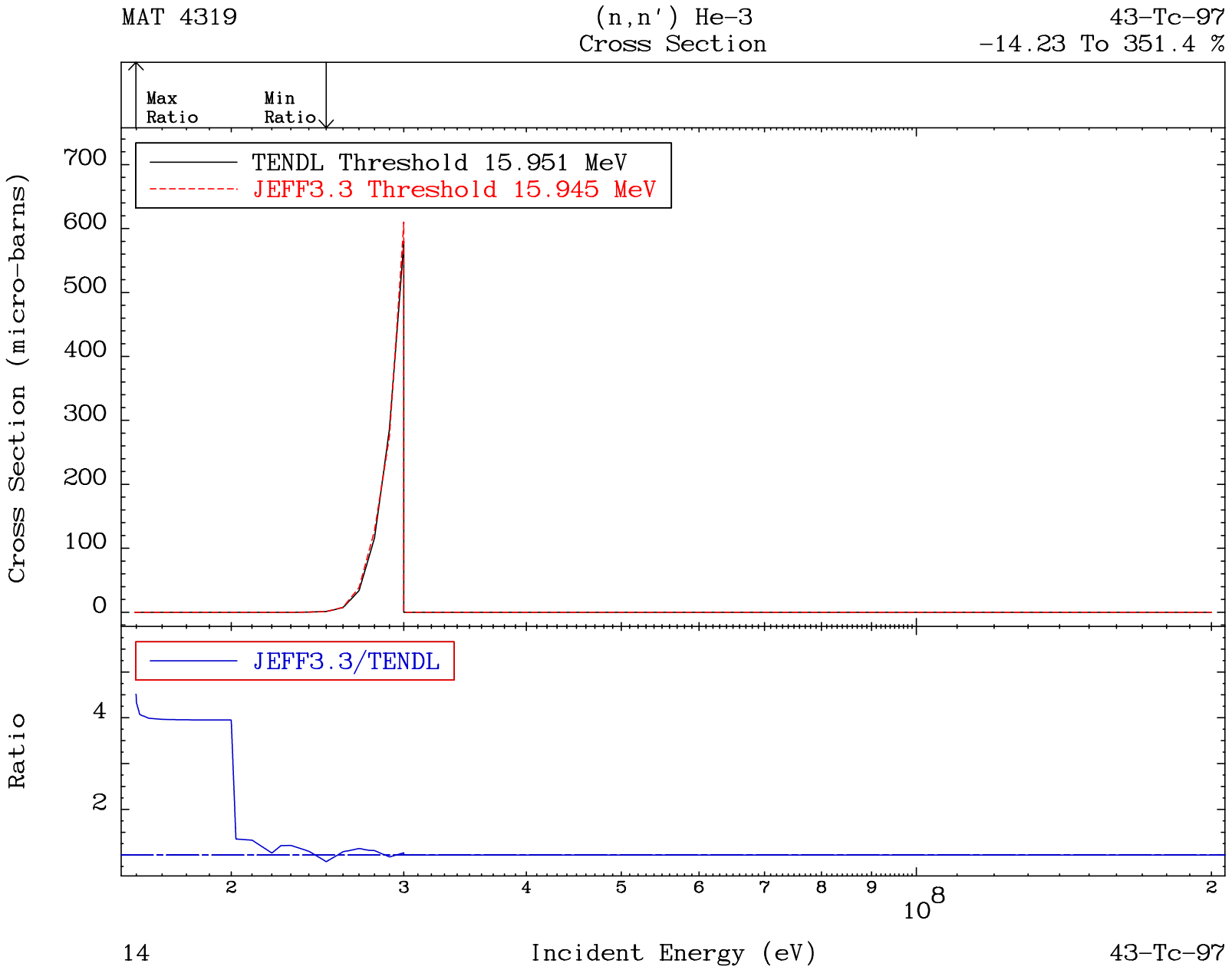

MAT 4319
(n,3n) α
Cross Section
43-Tc-97
-41.62 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 19.353 MeV
JEFF3.3 Threshold 19.347 MeV
Cross Section (milli-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
9
Incident Energy (eV)
43-Tc-97

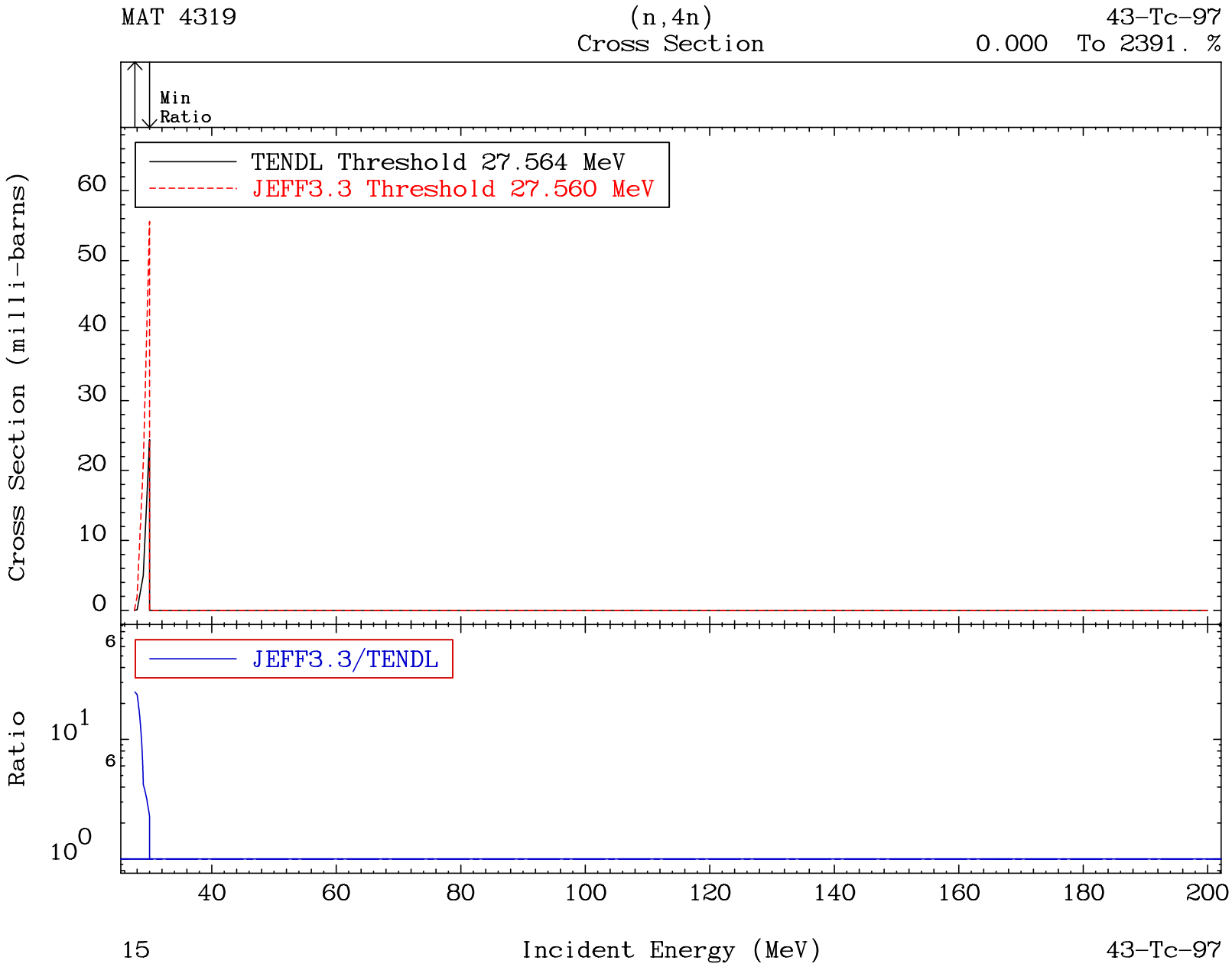

MAT 4319
(n,n') p
Cross Section
43-Tc-97
-22.80 To 410.3 %
Max Ratio
Min Ratio
TENDL Threshold 5.7780 MeV
JEFF3.3 Threshold 5.7737 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
6
4
2
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
43-Tc-97

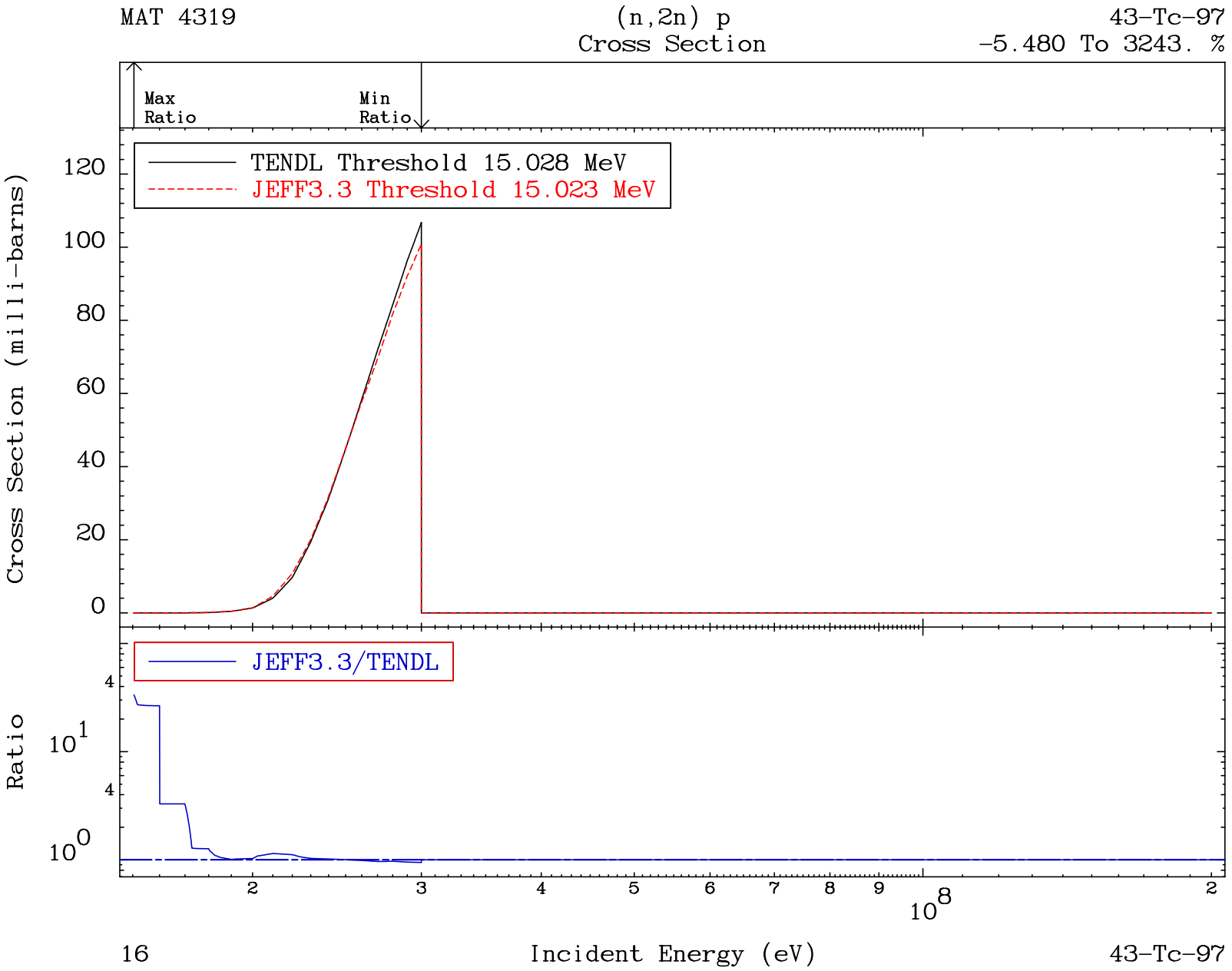

MAT 4319
(n,n') 2α
Cross Section
43-Tc-97
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 4.4085 MeV
JEFF3.3 Threshold 4.4049 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
11
43-Tc-97

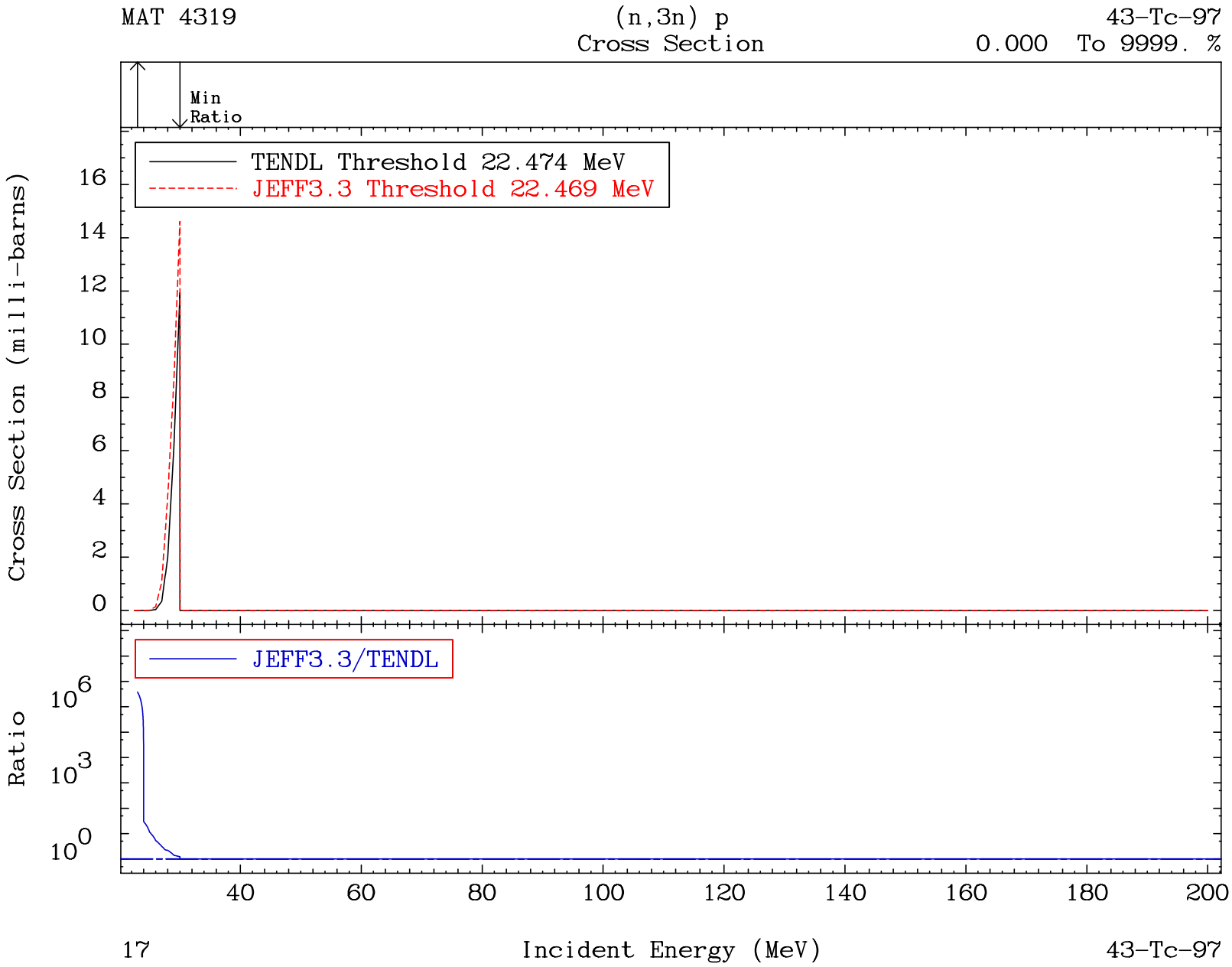

MAT 4319
(n,n') d
Cross Section
43-Tc-97
-0.642 To 436.2 %
Max Ratio
Min Ratio
TENDL Threshold 12.780 MeV
JEFF3.3 Threshold 12.776 MeV
Cross Section (milli-barns)
20
15
10
5
0
JEFF3.3/TENDL
Ratio
6
4
2
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
43-Tc-97

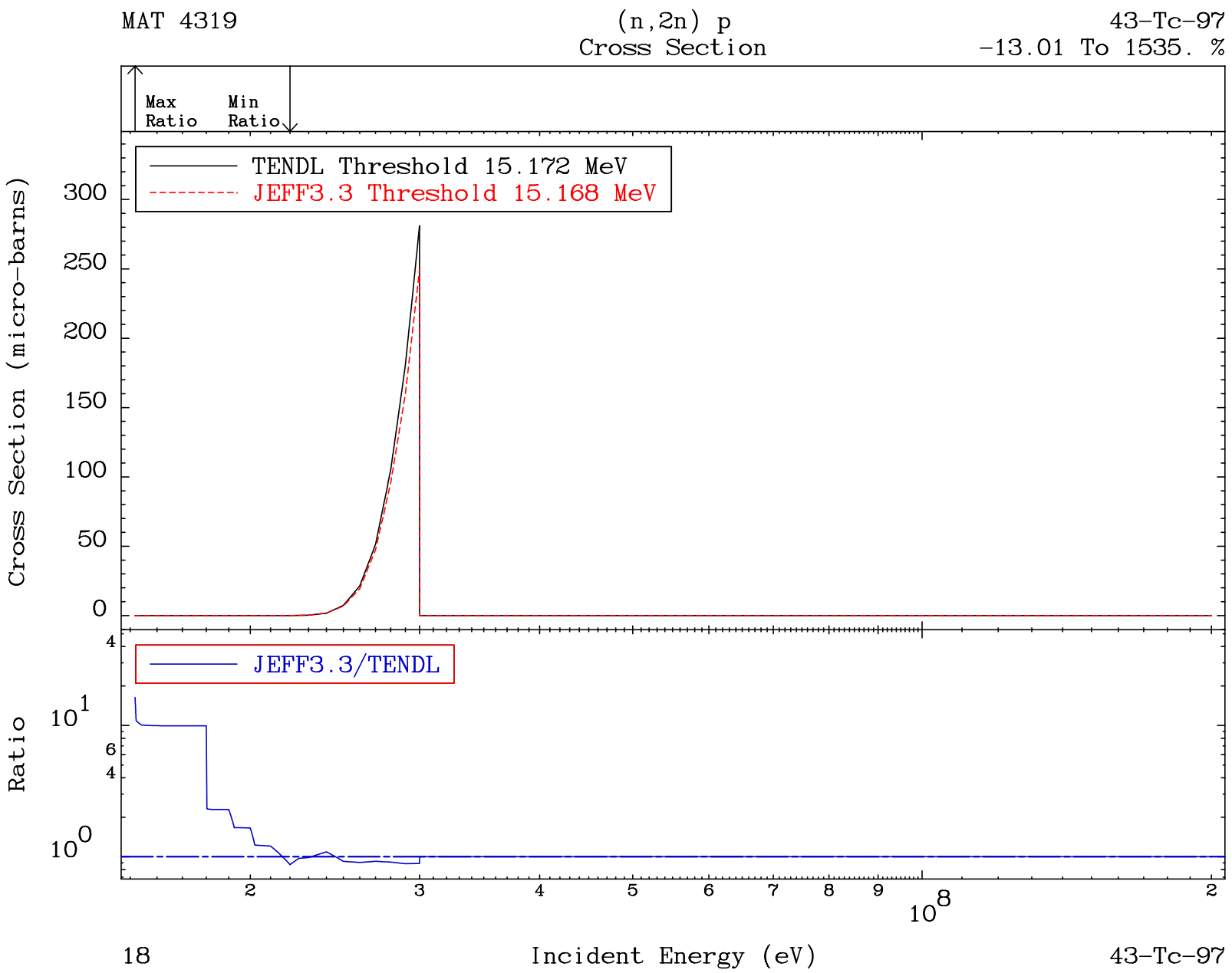

MAT 4319
(n,n') t
Cross Section
43-Tc-97
-100.0 To 133.5 %
Max
Ratio
TENDL Threshold 13.903 MeV
JEFF3.3 Threshold 13.899 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
13
43-Tc-97

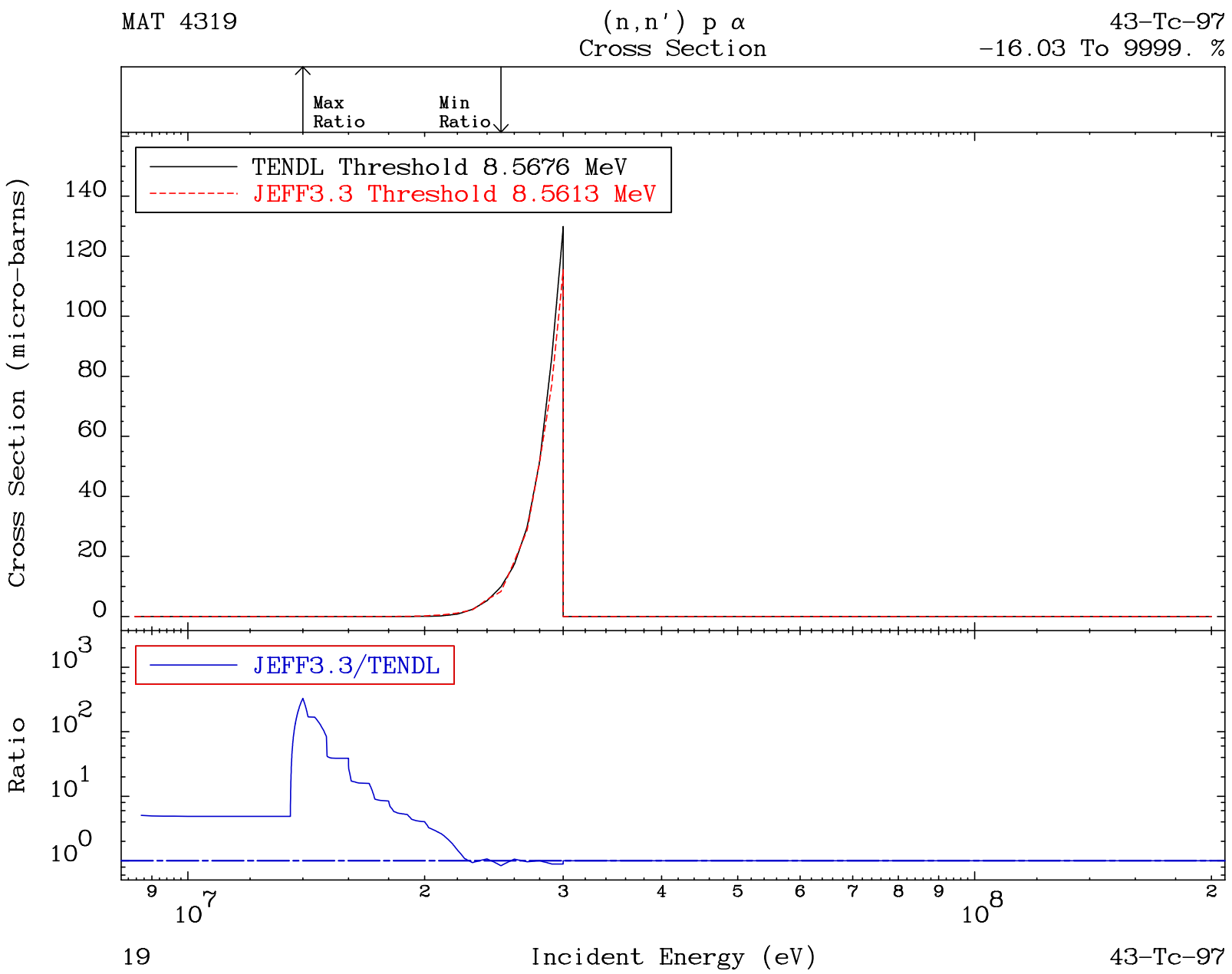

MAT 4319
(n,n') He-3
Cross Section
43-Tc-97
-14.23 To 351.4 %
Max Ratio
Min Ratio
TENDL Threshold 15.951 MeV
JEFF3.3 Threshold 15.945 MeV
Cross Section (micro-barns)
700
600
500
400
300
200
100
0
JEFF3.3/TENDL
Ratio
4
2
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
43-Tc-97

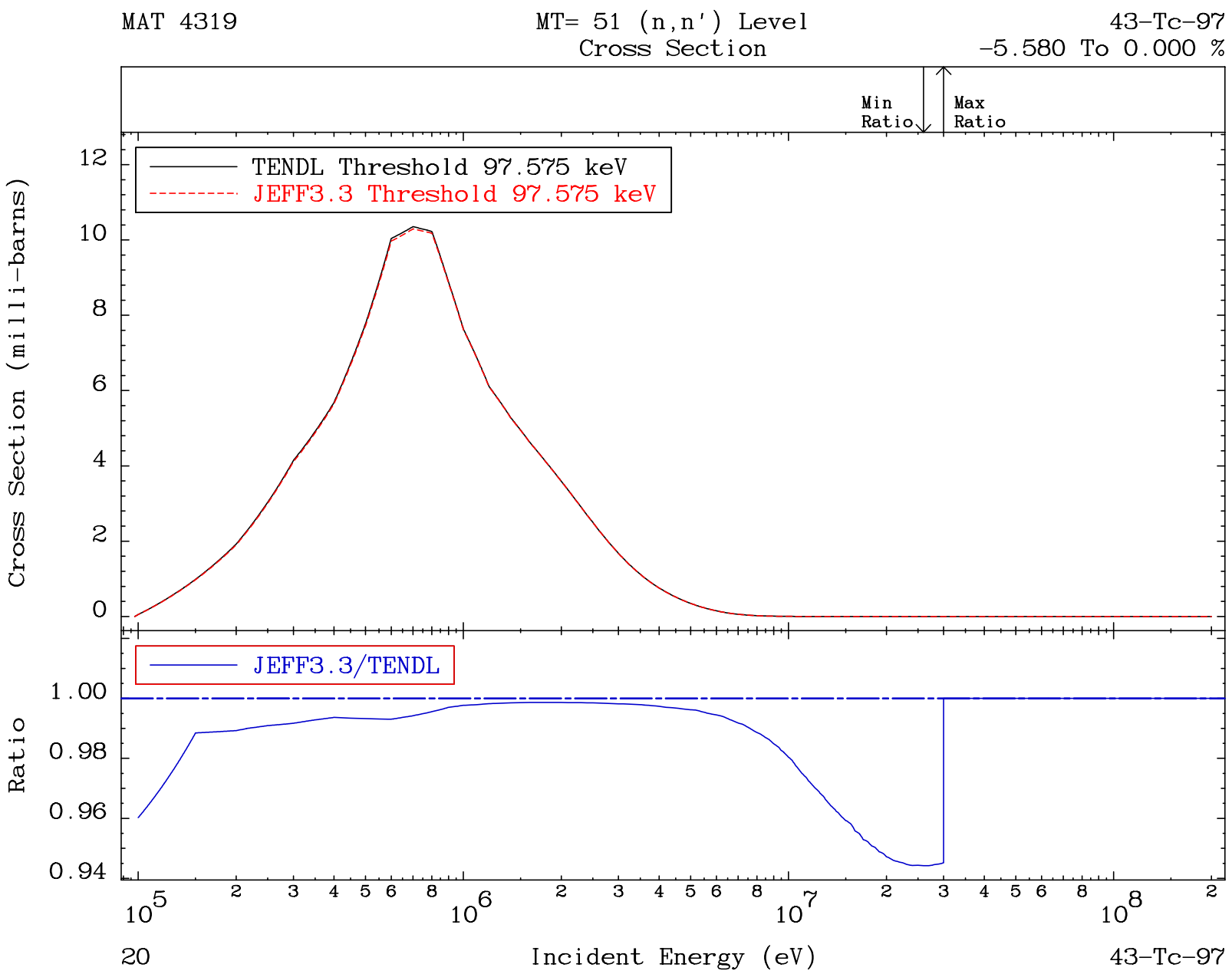

MAT 4319
(n,4n)
Cross Section
43-Tc-97
0.000 To 2391. %
Min
Ratio
TENDL Threshold 27.564 MeV
JEFF3.3 Threshold 27.560 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
6
10^1
6
10^0
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
43-Tc-97

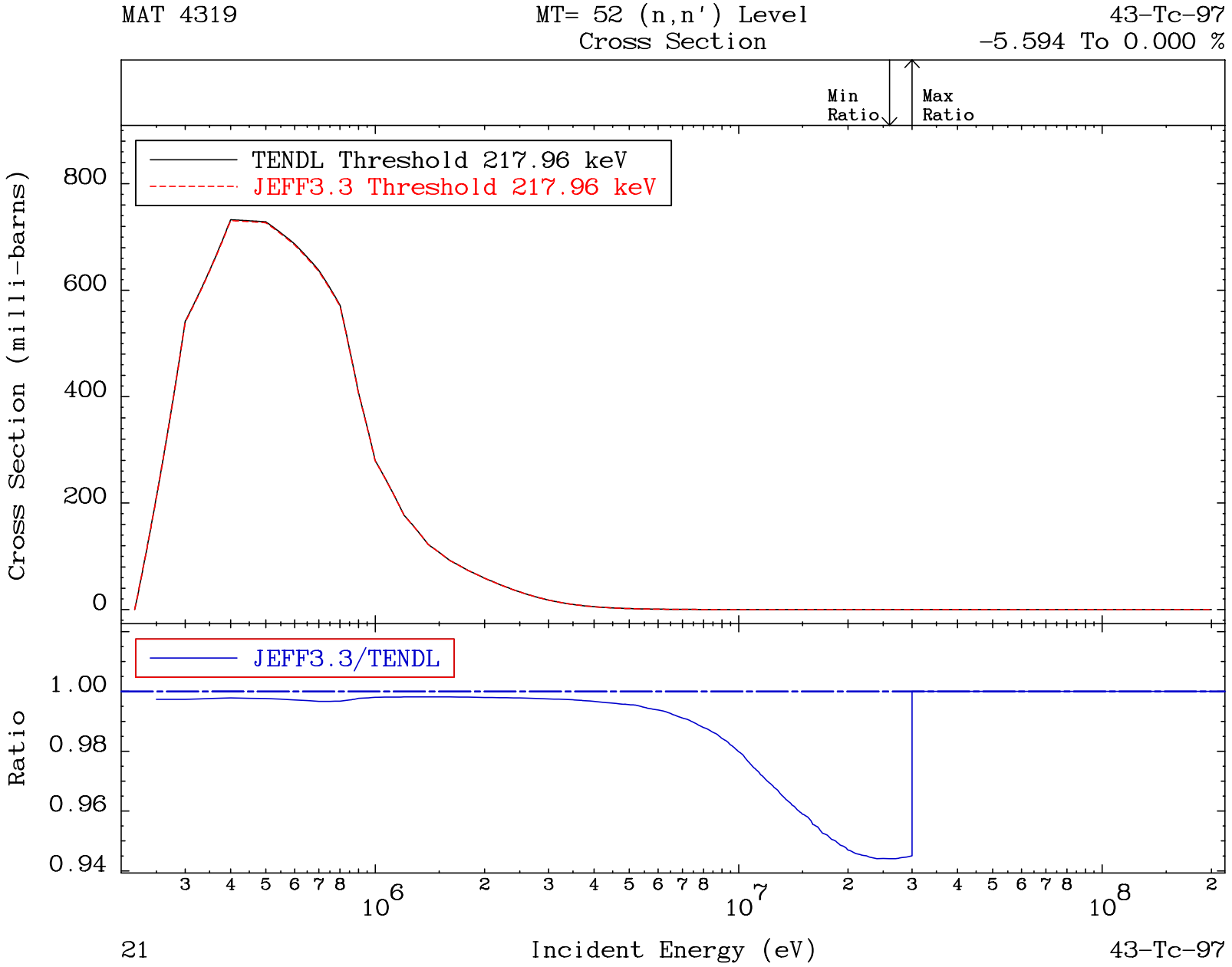

MAT 4319
(n,2n) p
Cross Section
43-Tc-97
-5.480 To 3243. %
Max Ratio
Min Ratio
TENDL Threshold 15.028 MeV
JEFF3.3 Threshold 15.023 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^1
4
10^0
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
43-Tc-97

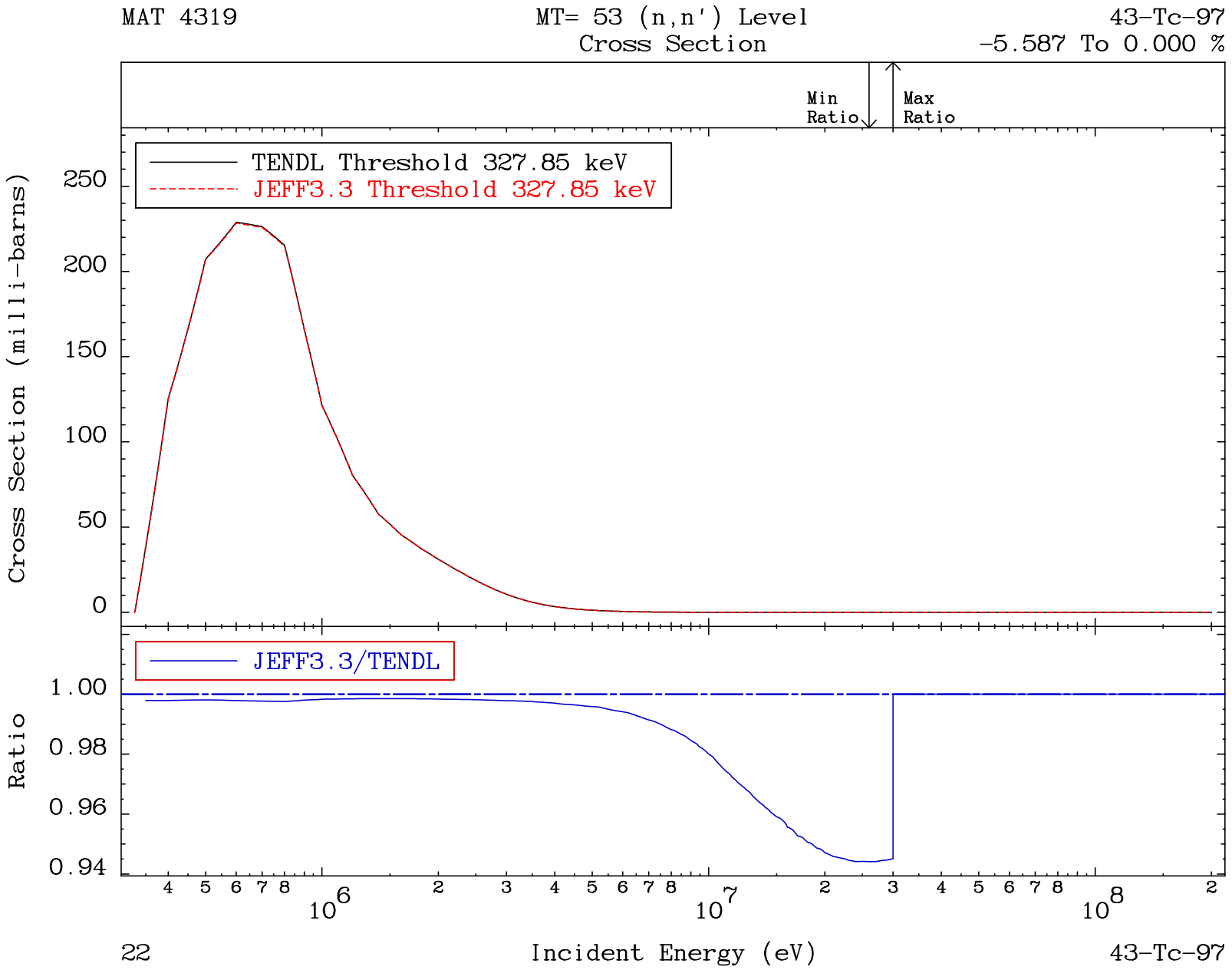

MAT 4319
(n,3n) p
Cross Section
43-Tc-97
0.000 To 9999. %
Min
Ratio
TENDL Threshold 22.474 MeV
JEFF3.3 Threshold 22.469 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
10^6
10^3
10^0
40
60
80
100
120
140
160
180
200
17
Incident Energy (MeV)
43-Tc-97

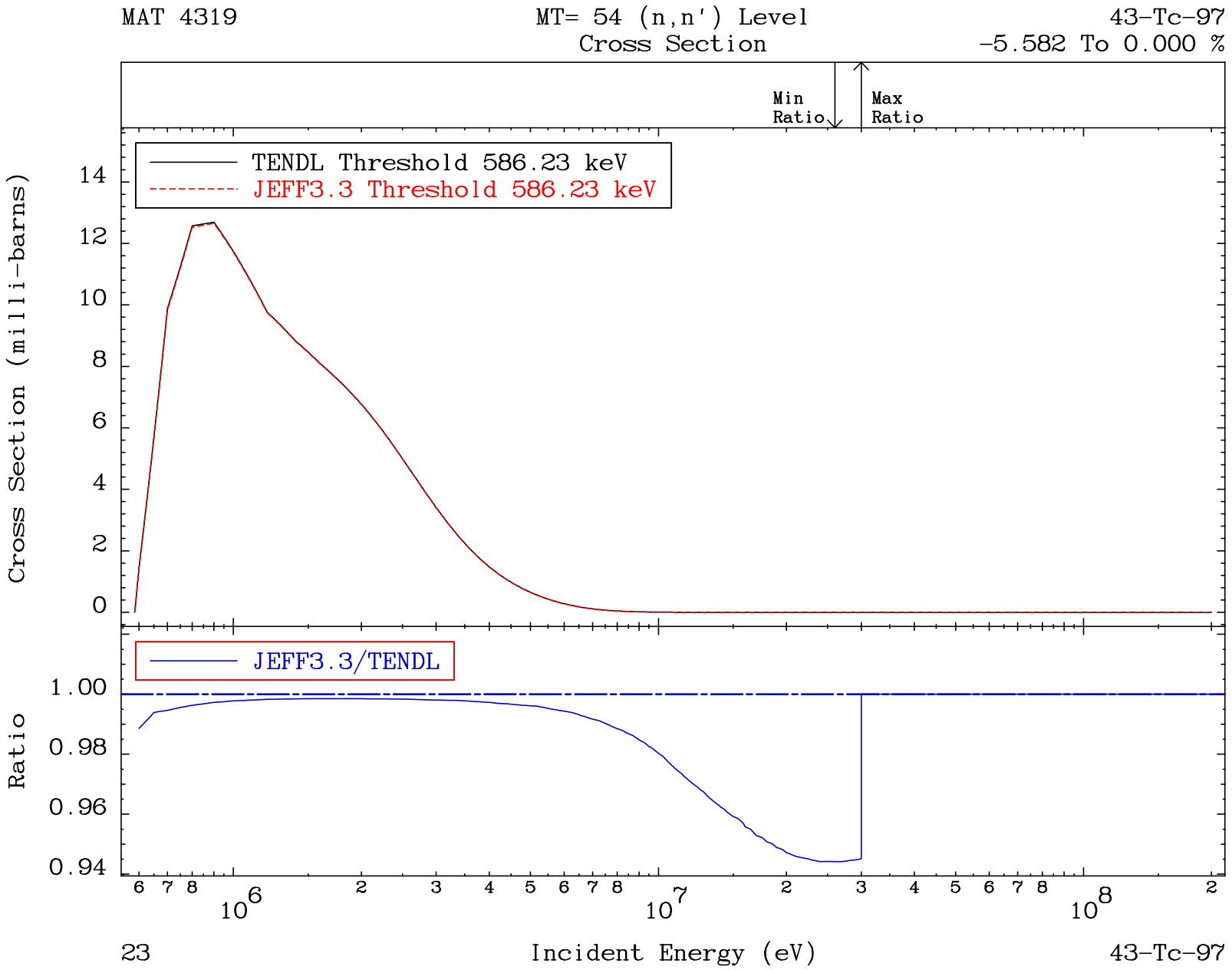

MAT 4319
(n,2n) p
Cross Section
43-Tc-97
-13.01 To 1535. %
Max Ratio
Min Ratio
TENDL Threshold 15.172 MeV
JEFF3.3 Threshold 15.168 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
4
10^1
6
4
10^0
2
3
4
5
6
7
8
9
10^8
2
18
Incident Energy (eV)
43-Tc-97

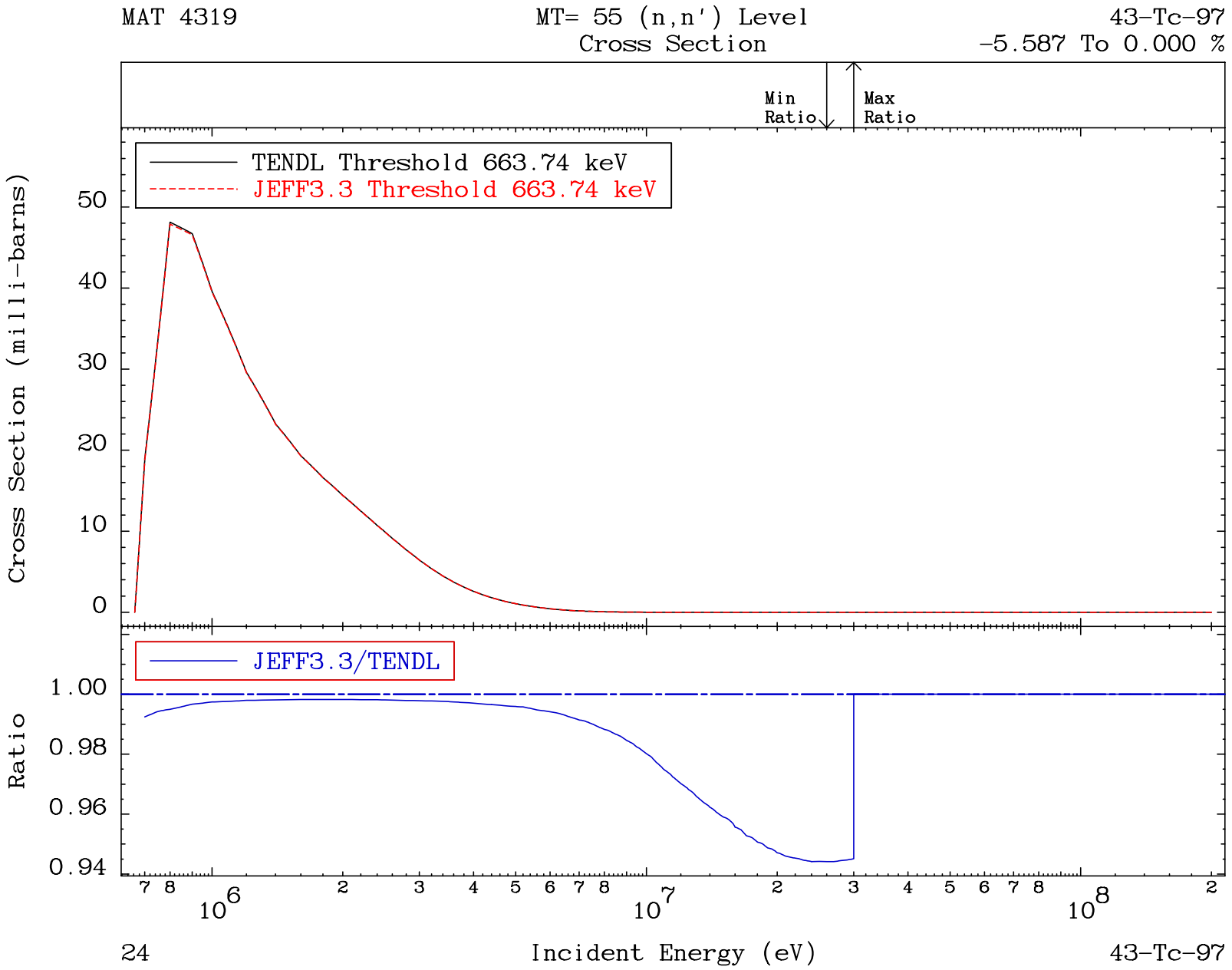

MAT 4319
(n,n') p α
Cross Section
43-Tc-97
-16.03 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 8.5676 MeV
JEFF3.3 Threshold 8.5613 MeV
Cross Section (micro-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^3
10^2
10^1
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
19
Incident Energy (eV)
43-Tc-97

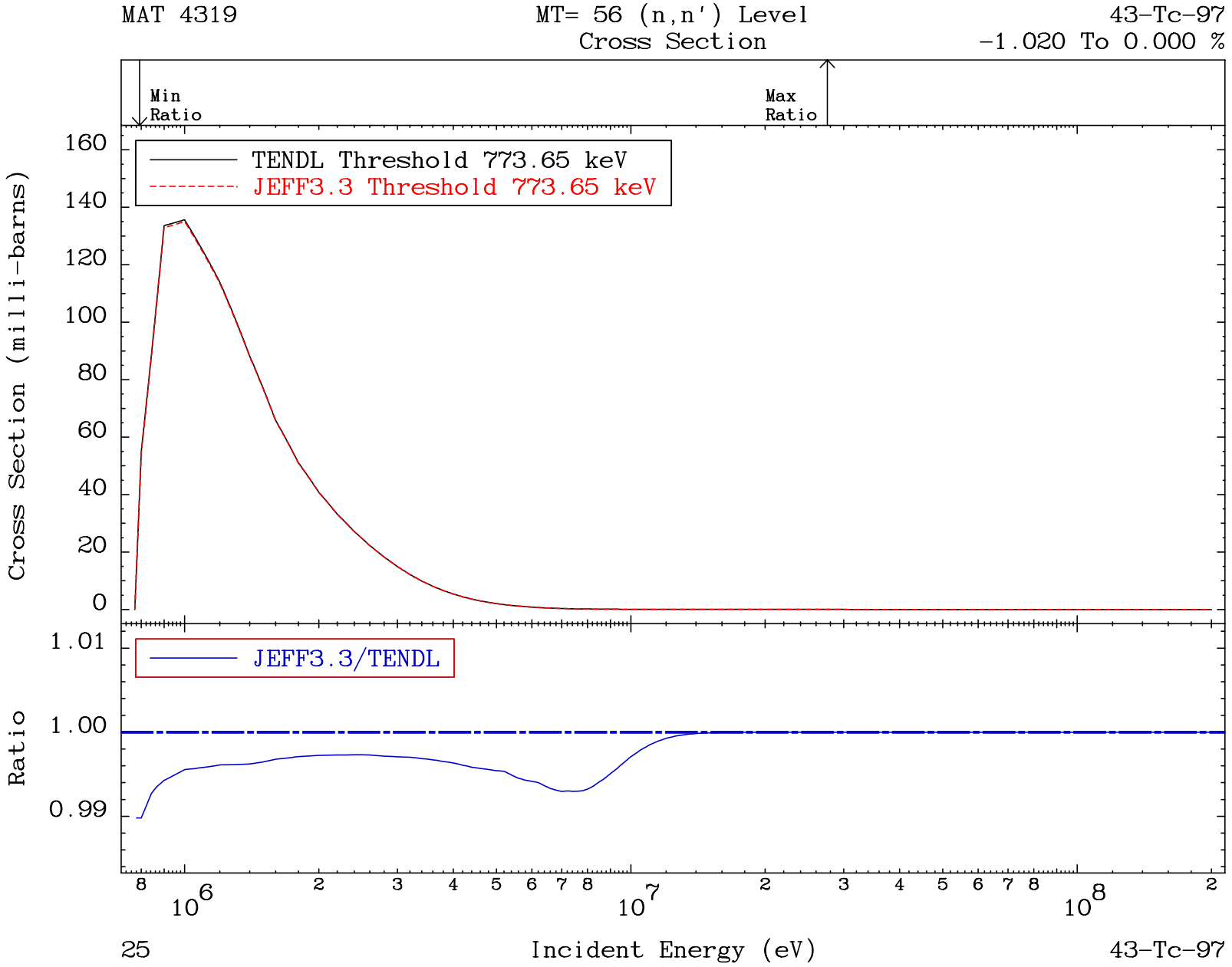

MAT 4319
MT= 51 (n,n') Level
Cross Section
43-Tc-97
-5.580 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 97.575 keV
JEFF3.3 Threshold 97.575 keV
Cross Section (milli-barns)
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
10^5
10^6
10^7
10^8
Incident Energy (eV)
20
43-Tc-97

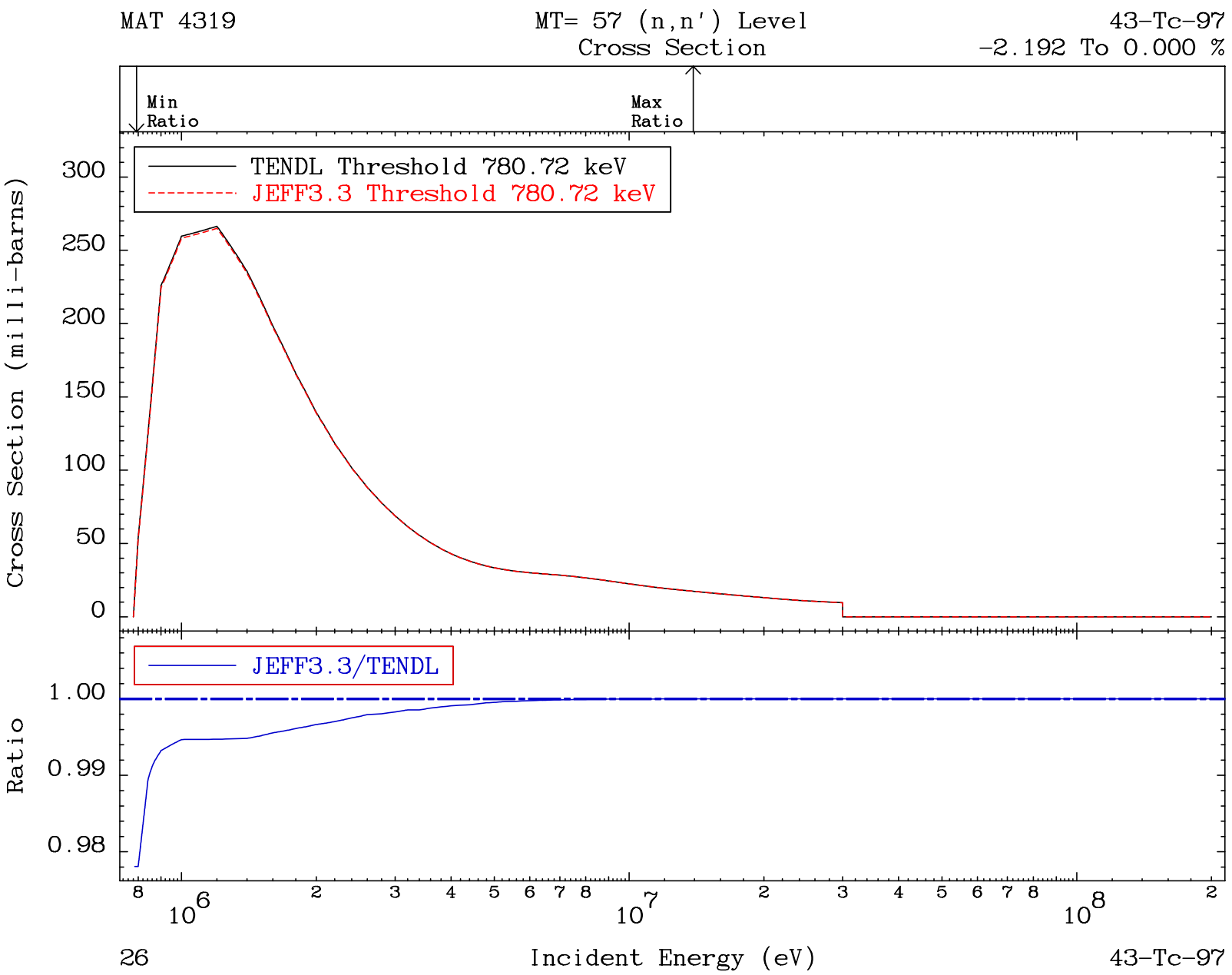

MAT 4319
MT= 52 (n,n') Level
Cross Section
43-Tc-97
-5.594 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 217.96 keV
JEFF3.3 Threshold 217.96 keV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
3 4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
21
Incident Energy (eV)
43-Tc-97

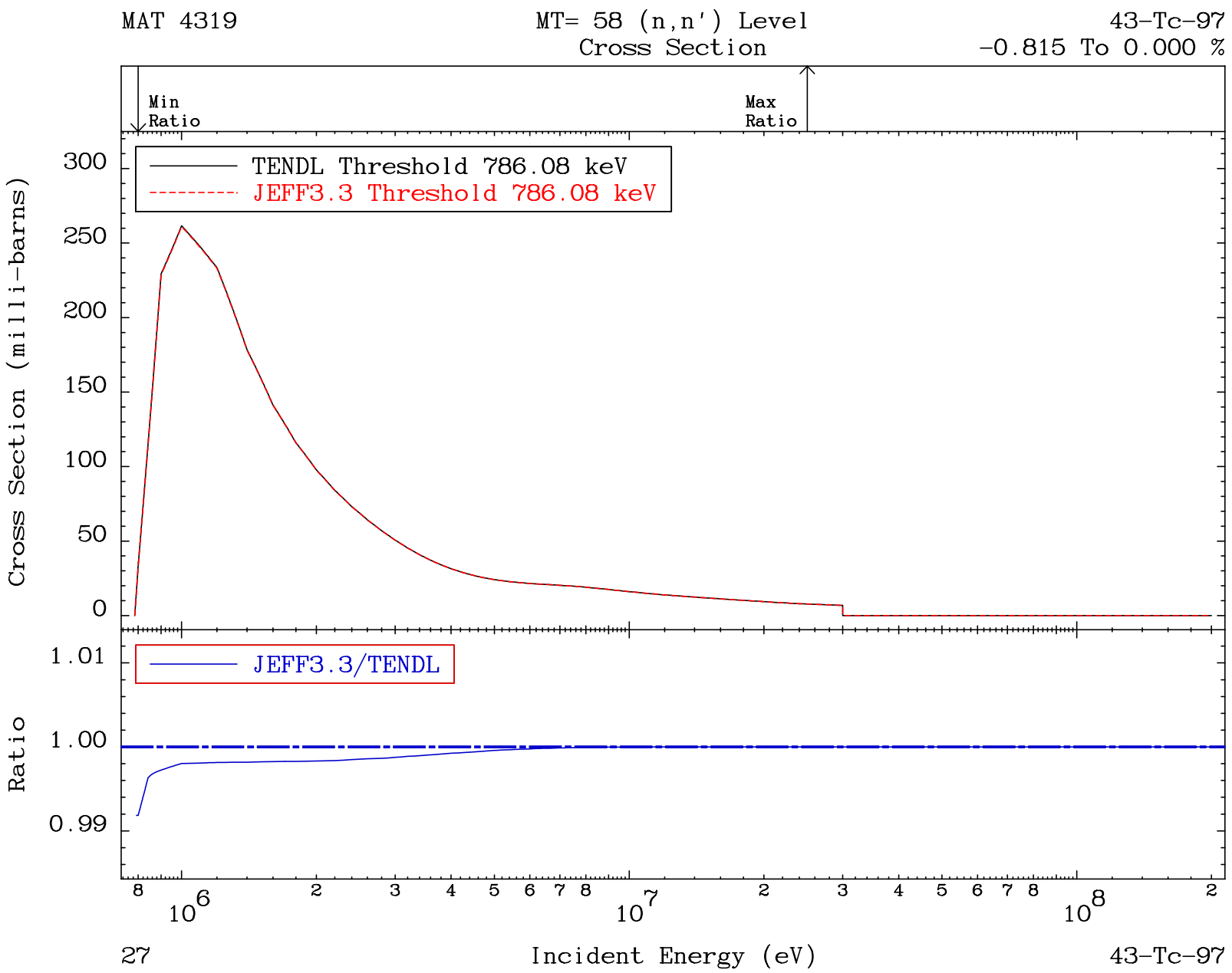

MAT 4319
MT= 53 (n,n') Level
Cross Section
43-Tc-97
-5.587 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 327.85 keV
JEFF3.3 Threshold 327.85 keV
Cross Section (milli-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
43-Tc-97

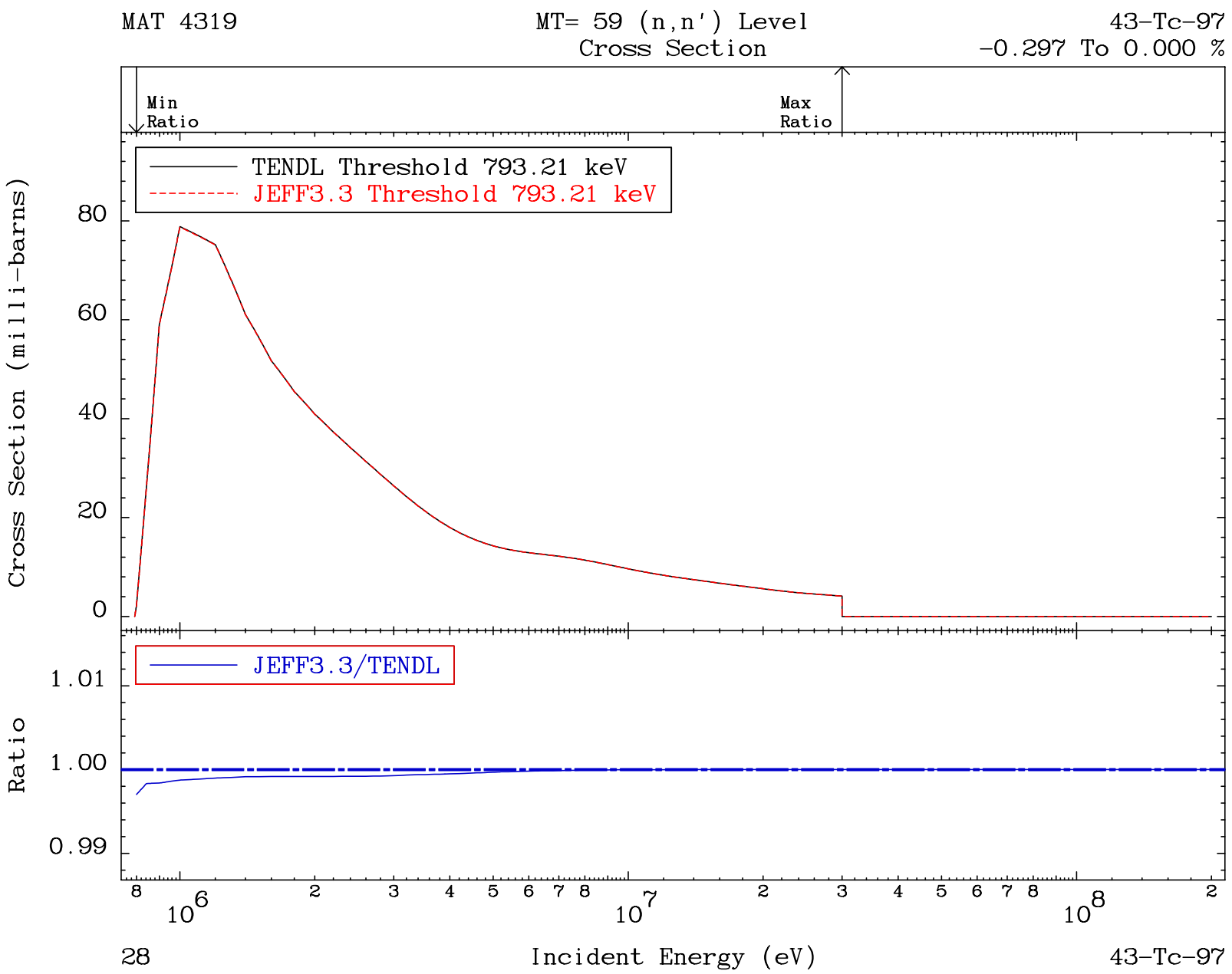

MAT 4319
MT= 54 (n,n') Level
Cross Section
43-Tc-97
-5.582 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 586.23 keV
JEFF3.3 Threshold 586.23 keV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
43-Tc-97

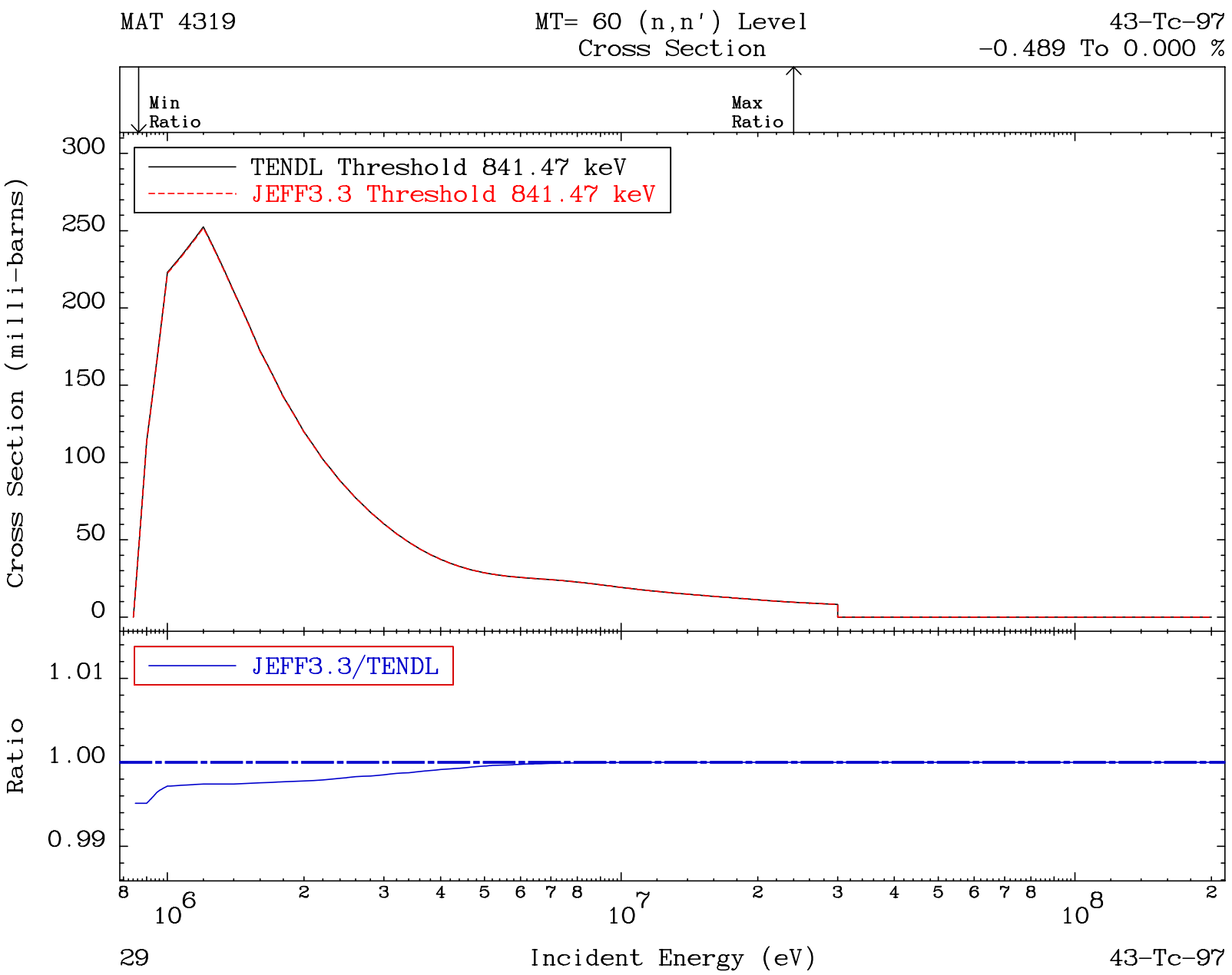

MAT 4319
MT= 55 (n,n') Level
Cross Section
43-Tc-97
-5.587 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 663.74 keV
JEFF3.3 Threshold 663.74 keV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
43-Tc-97

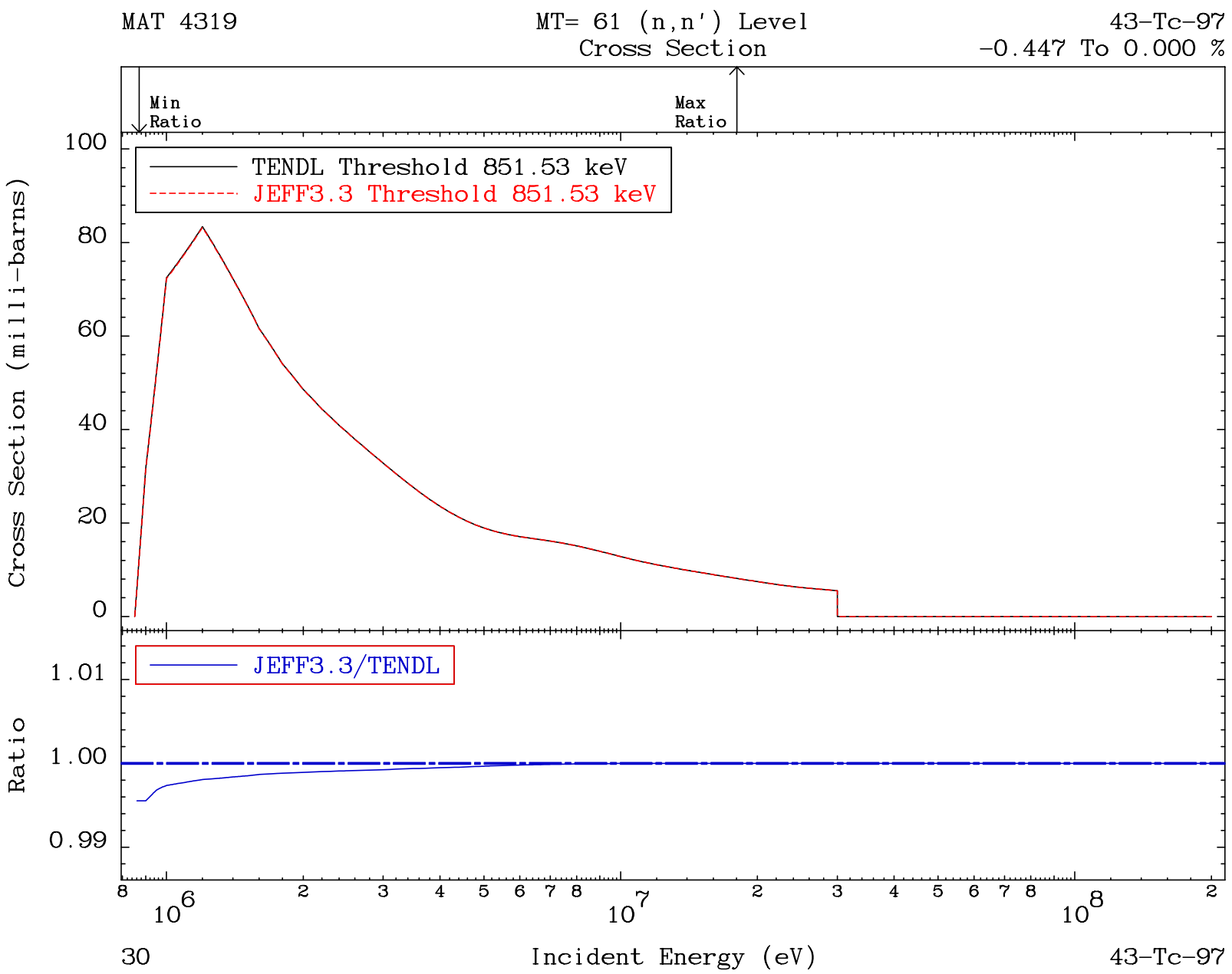

MAT 4319
MT= 56 (n,n') Level
Cross Section
43-Tc-97
-1.020 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 773.65 keV
JEFF3.3 Threshold 773.65 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
25
Incident Energy (eV)
43-Tc-97

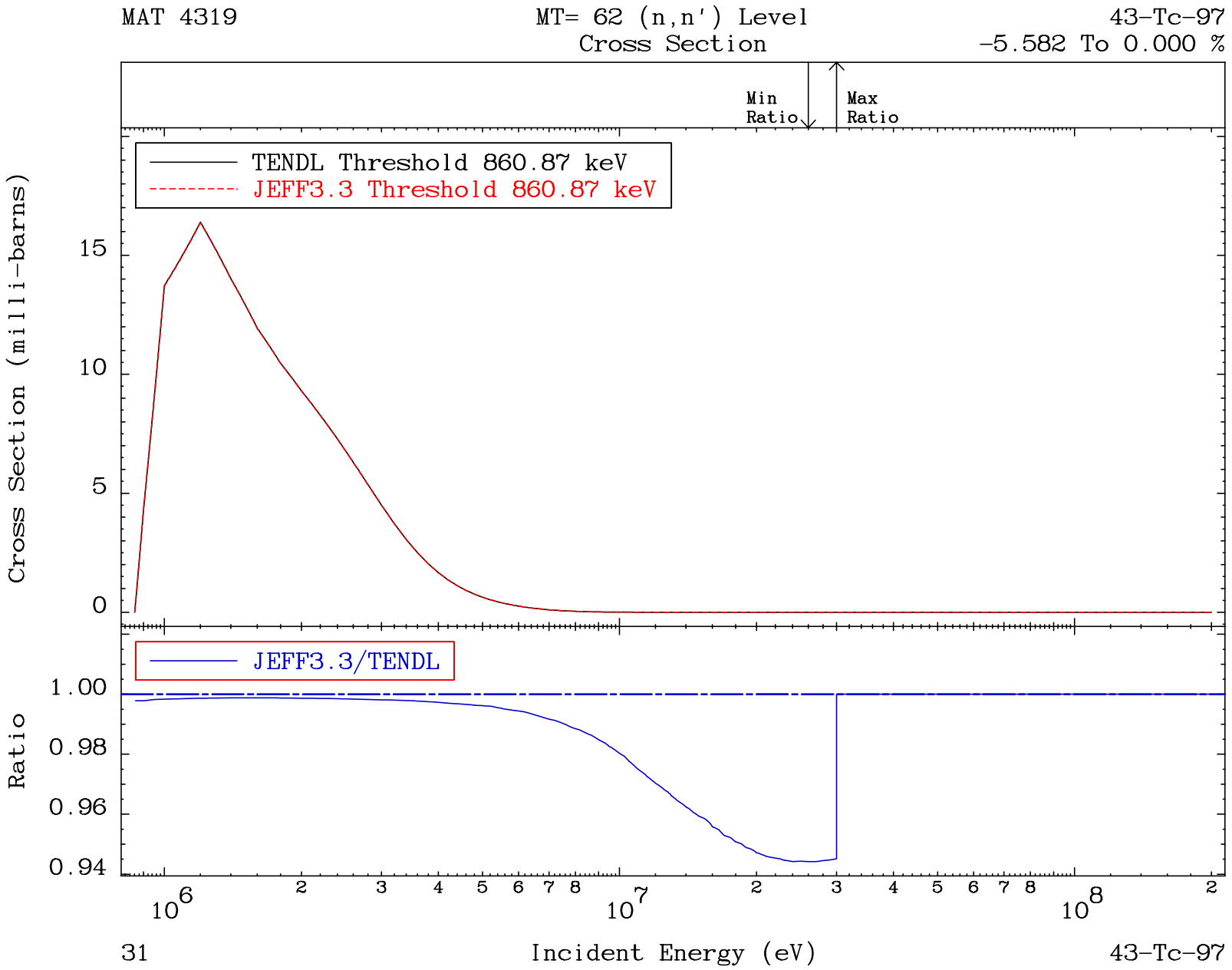

MAT 4319
MT= 57 (n,n') Level
Cross Section
43-Tc-97
-2.192 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 780.72 keV
JEFF3.3 Threshold 780.72 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.00
0.99
0.98
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
26
Incident Energy (eV)
43-Tc-97

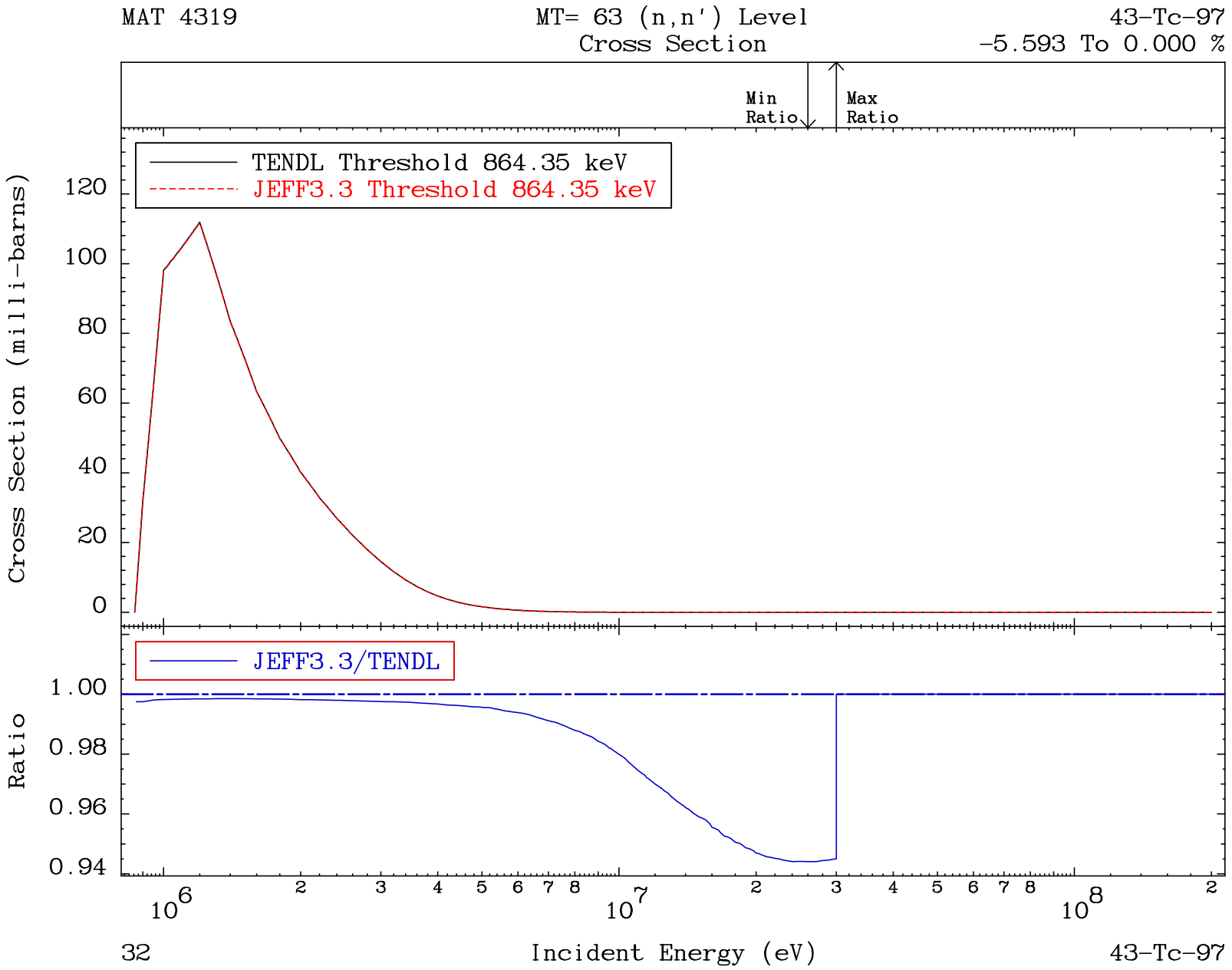

MAT 4319
MT= 58 (n,n') Level
Cross Section
43-Tc-97
-0.815 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 786.08 keV
JEFF3.3 Threshold 786.08 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
27
Incident Energy (eV)
43-Tc-97

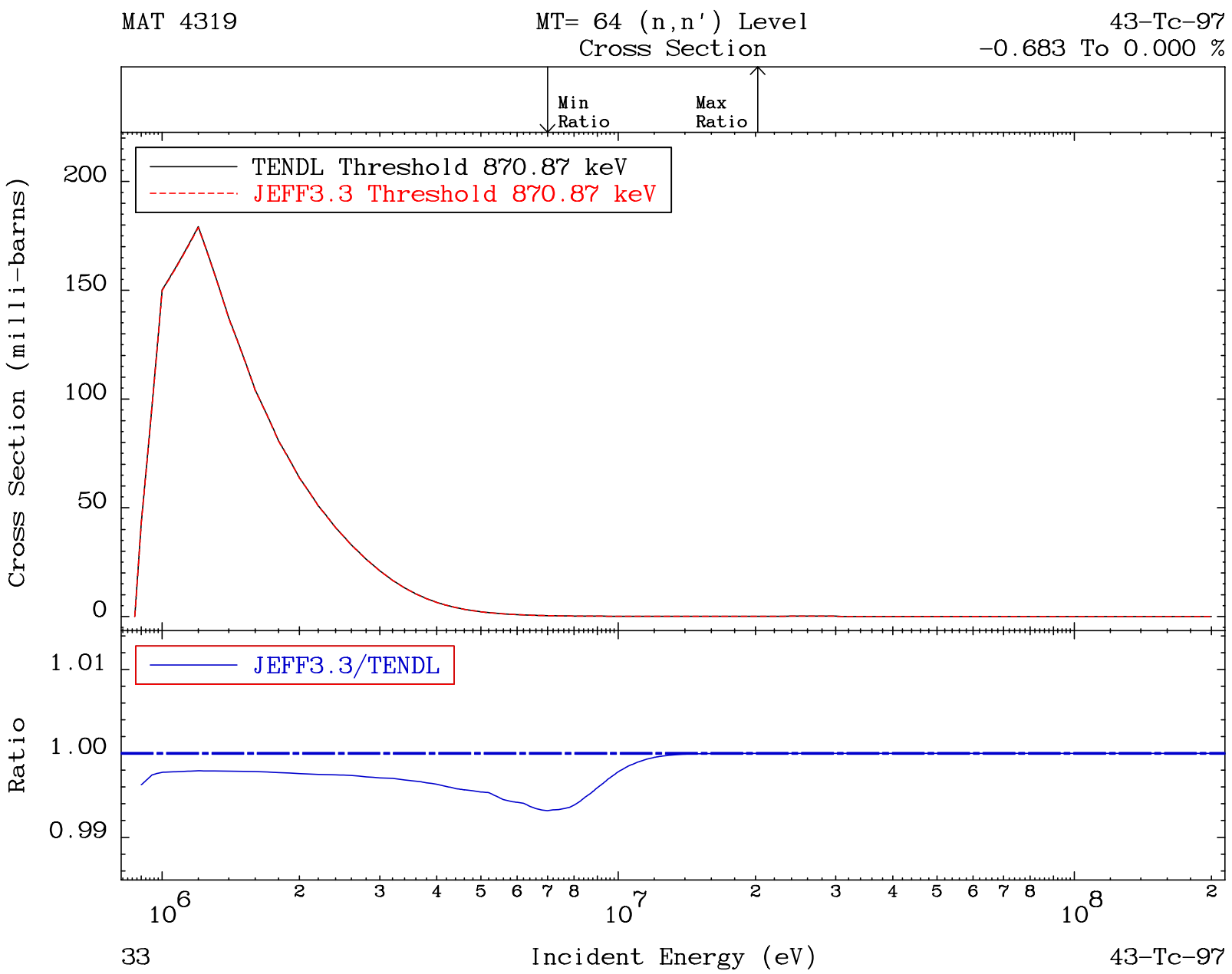

MAT 4319
MT= 59 (n,n') Level
Cross Section
43-Tc-97
-0.297 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 793.21 keV
JEFF3.3 Threshold 793.21 keV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
28
Incident Energy (eV)
43-Tc-97

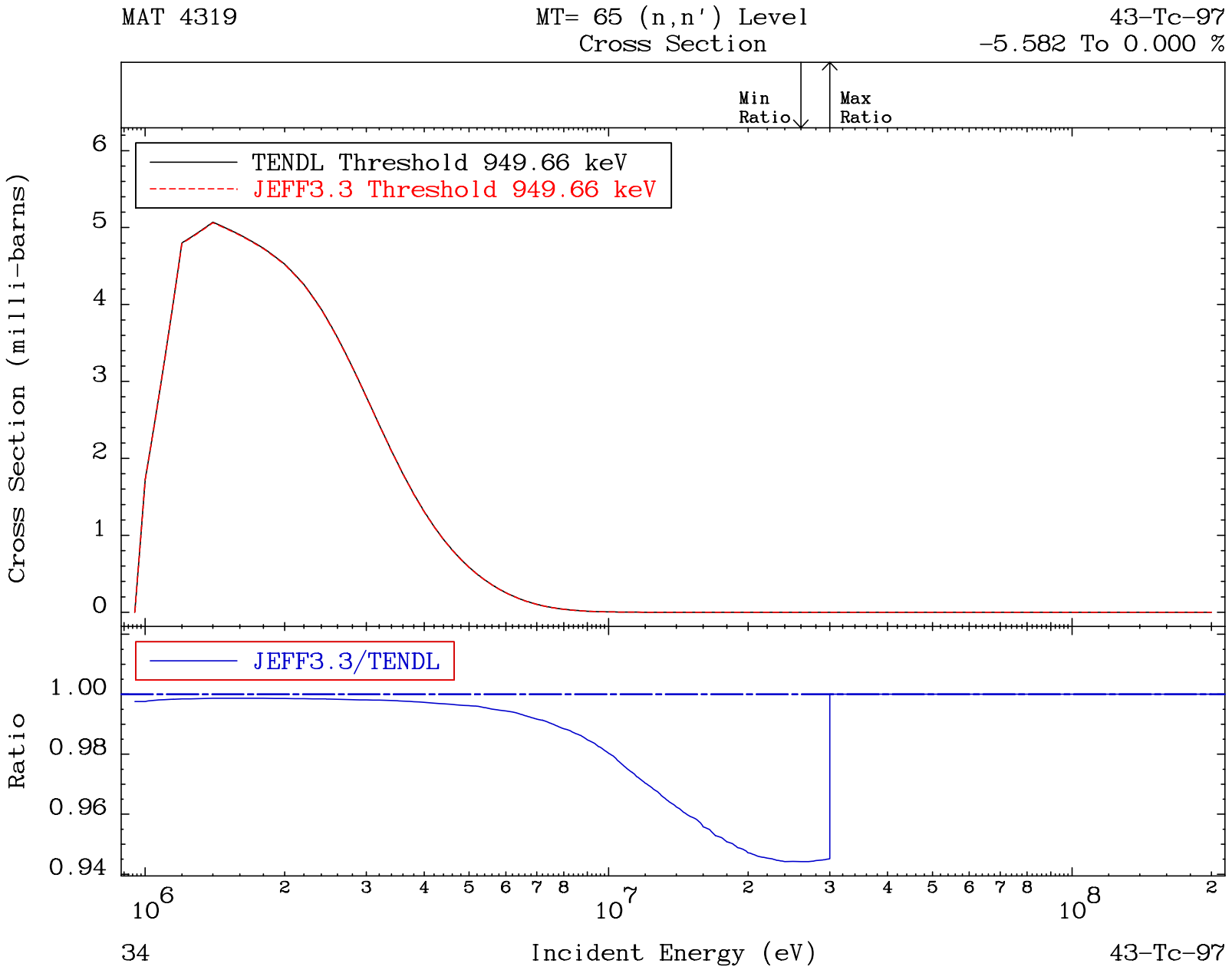

MAT 4319
MT= 60 (n,n') Level
Cross Section
43-Tc-97
-0.489 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 841.47 keV
JEFF3.3 Threshold 841.47 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
29
Incident Energy (eV)
43-Tc-97

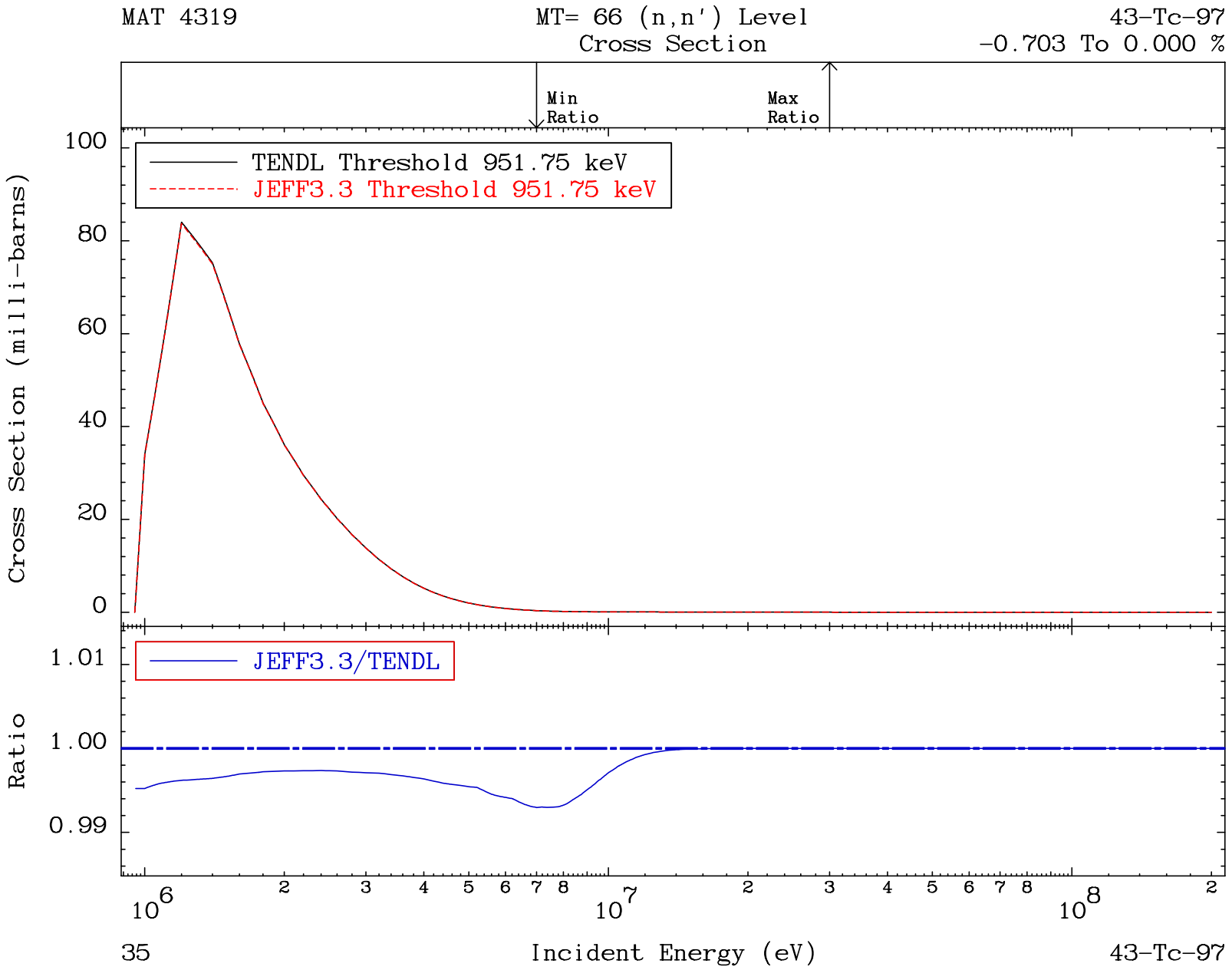

MAT 4319
MT= 61 (n,n') Level
Cross Section
43-Tc-97
-0.447 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 851.53 keV
JEFF3.3 Threshold 851.53 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
30
Incident Energy (eV)
43-Tc-97

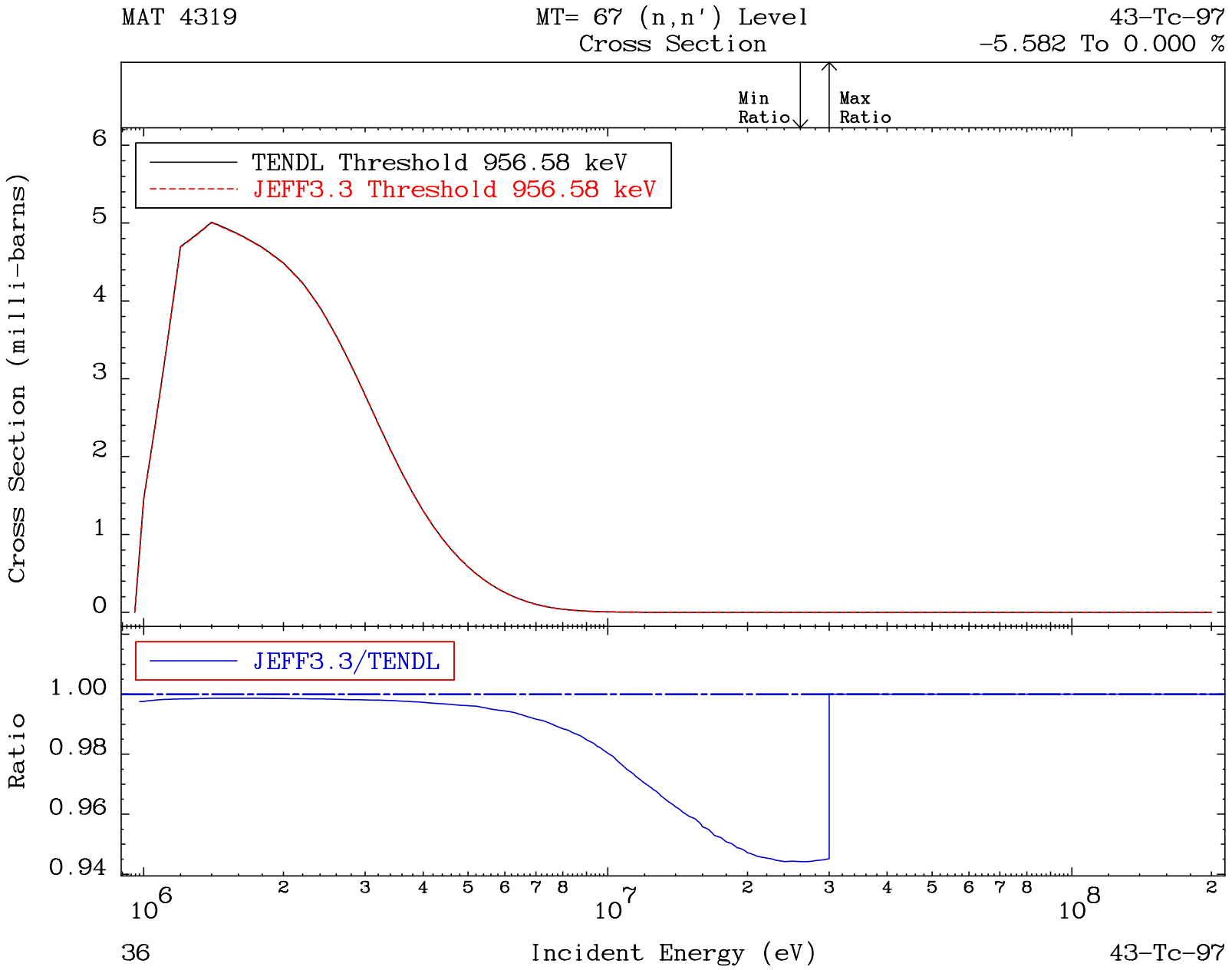

MAT 4319
MT= 62 (n,n') Level
Cross Section
43-Tc-97
-5.582 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 860.87 keV
JEFF3.3 Threshold 860.87 keV
Cross Section (milli-barns)
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
31
Incident Energy (eV)
43-Tc-97

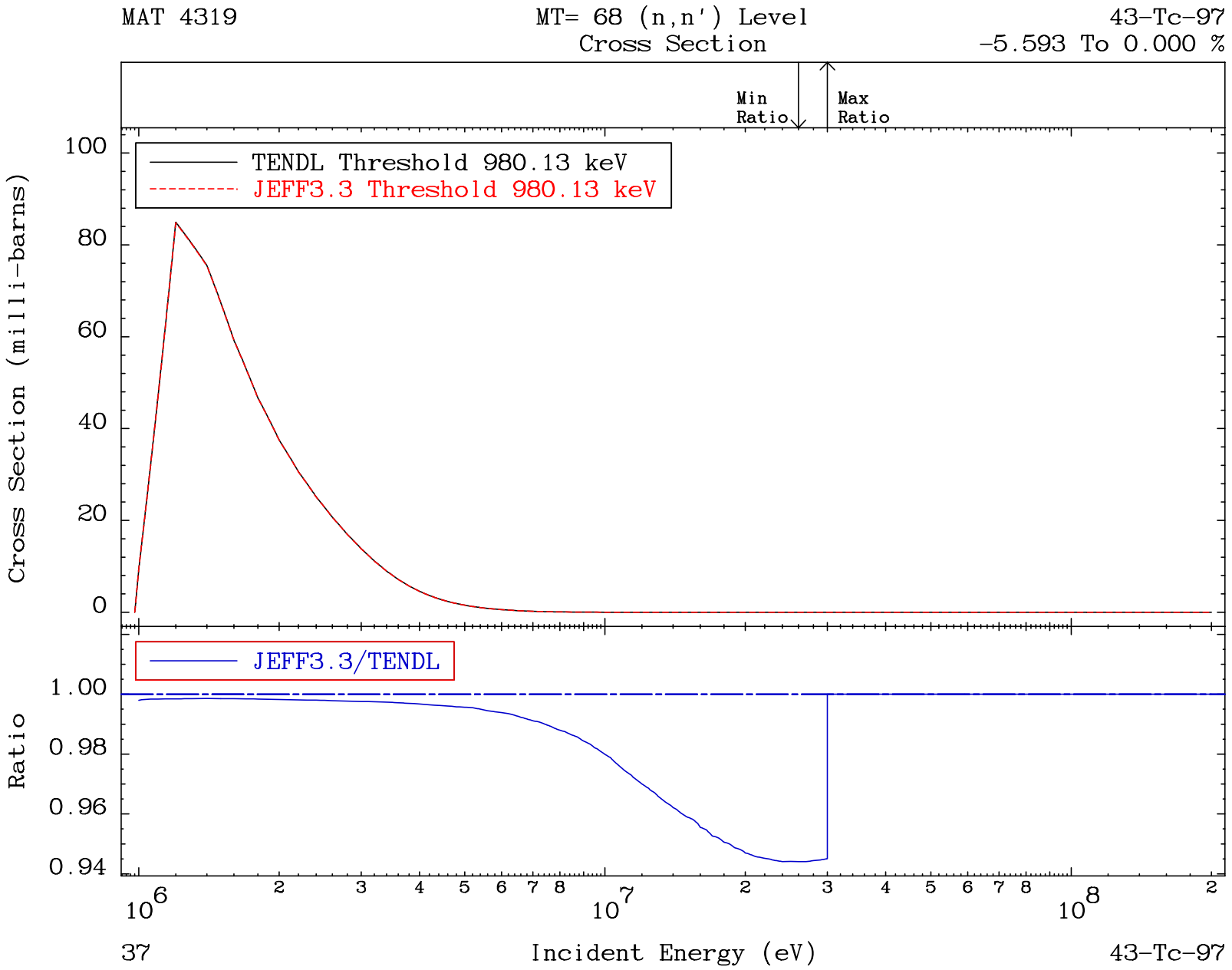

MAT 4319
MT= 63 (n,n') Level
Cross Section
43-Tc-97
-5.593 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 864.35 keV
JEFF3.3 Threshold 864.35 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
10^6
10^7
10^8
32
Incident Energy (eV)
43-Tc-97

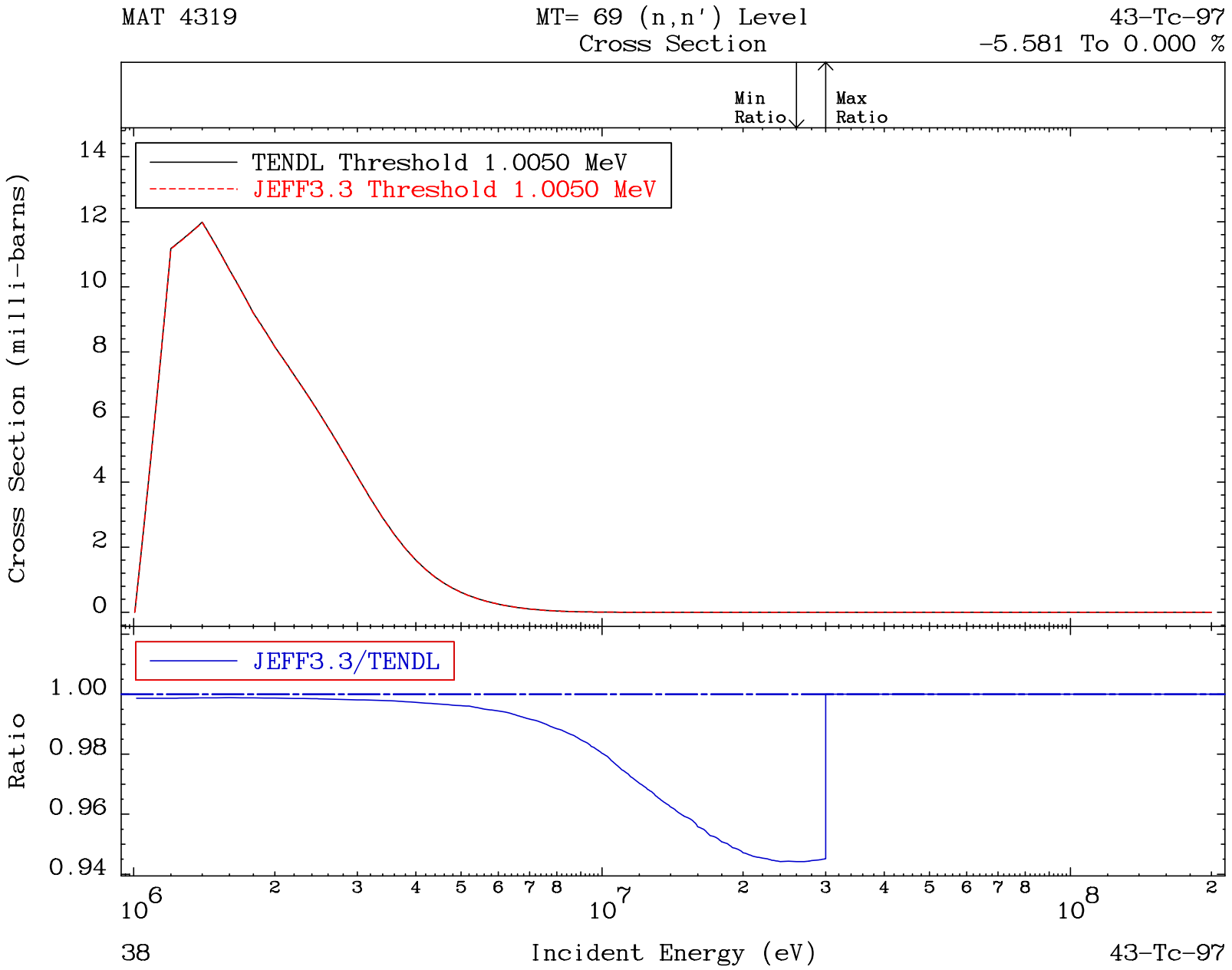

MAT 4319
MT= 64 (n,n') Level
Cross Section
43-Tc-97
-0.683 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 870.87 keV
JEFF3.3 Threshold 870.87 keV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
33
Incident Energy (eV)
43-Tc-97

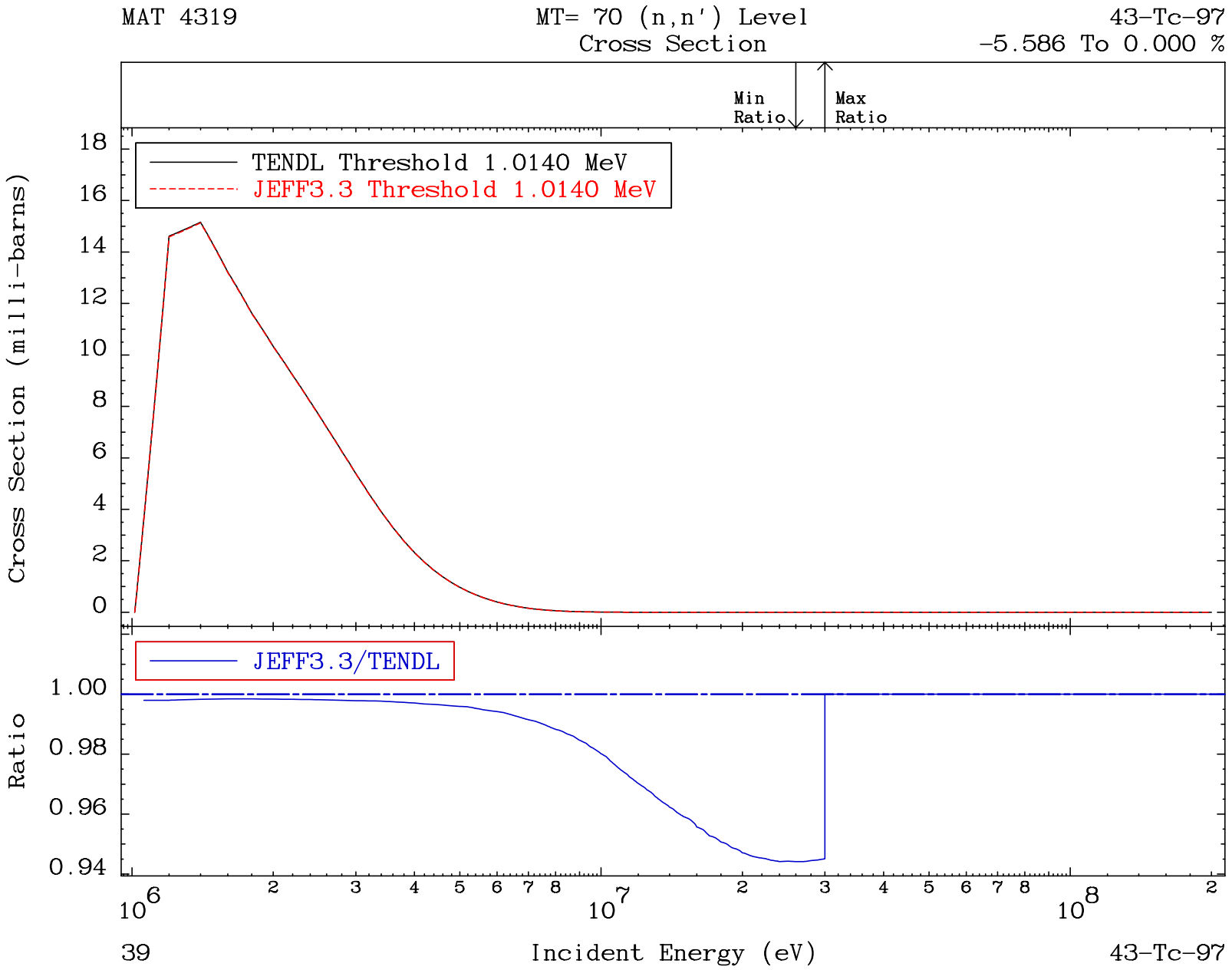

MAT 4319
MT= 65 (n,n') Level
Cross Section
43-Tc-97
-5.582 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 949.66 keV
JEFF3.3 Threshold 949.66 keV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
34
43-Tc-97

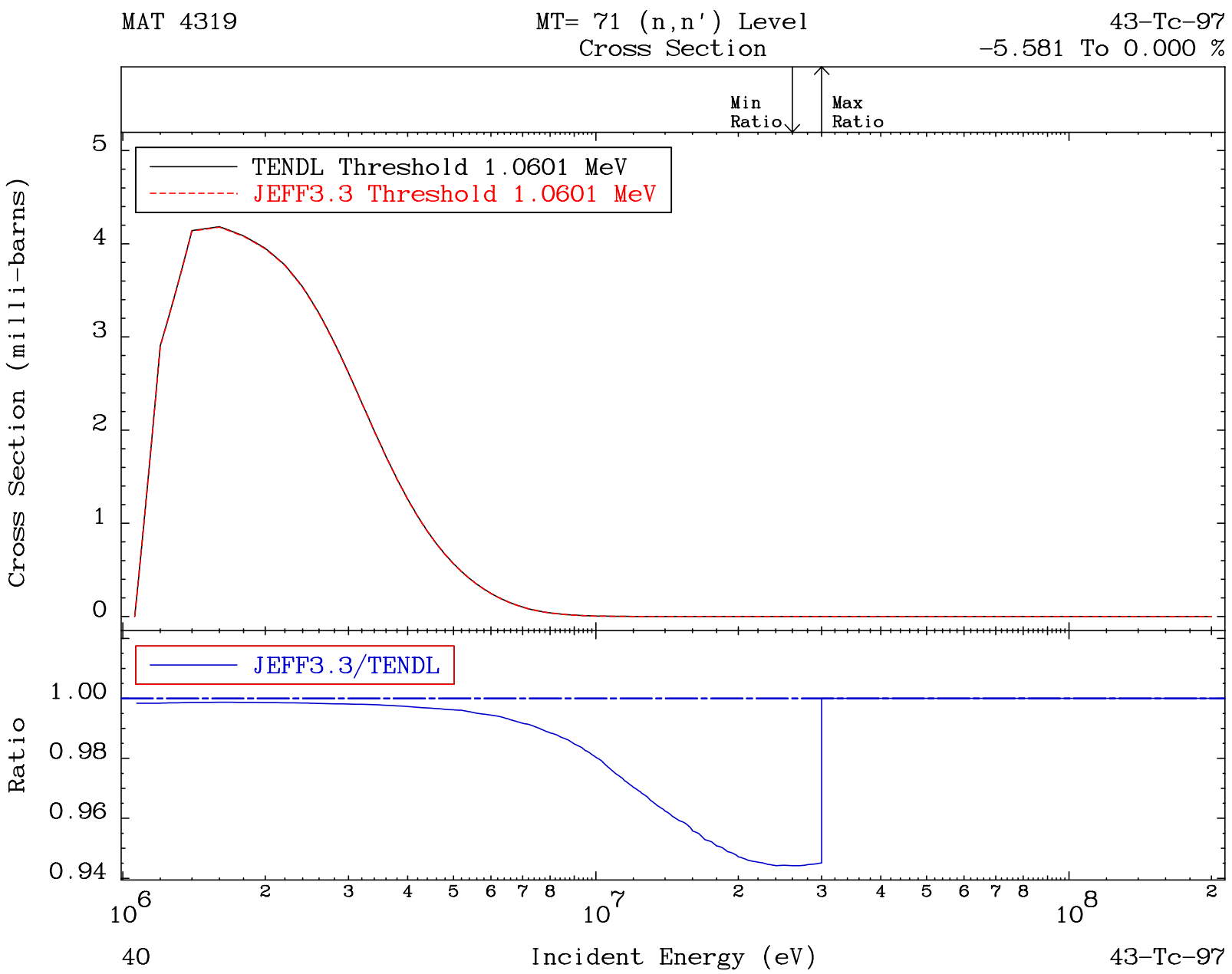

MAT 4319
MT= 66 (n,n') Level
Cross Section
43-Tc-97
-0.703 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 951.75 keV
JEFF3.3 Threshold 951.75 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
35
Incident Energy (eV)
43-Tc-97

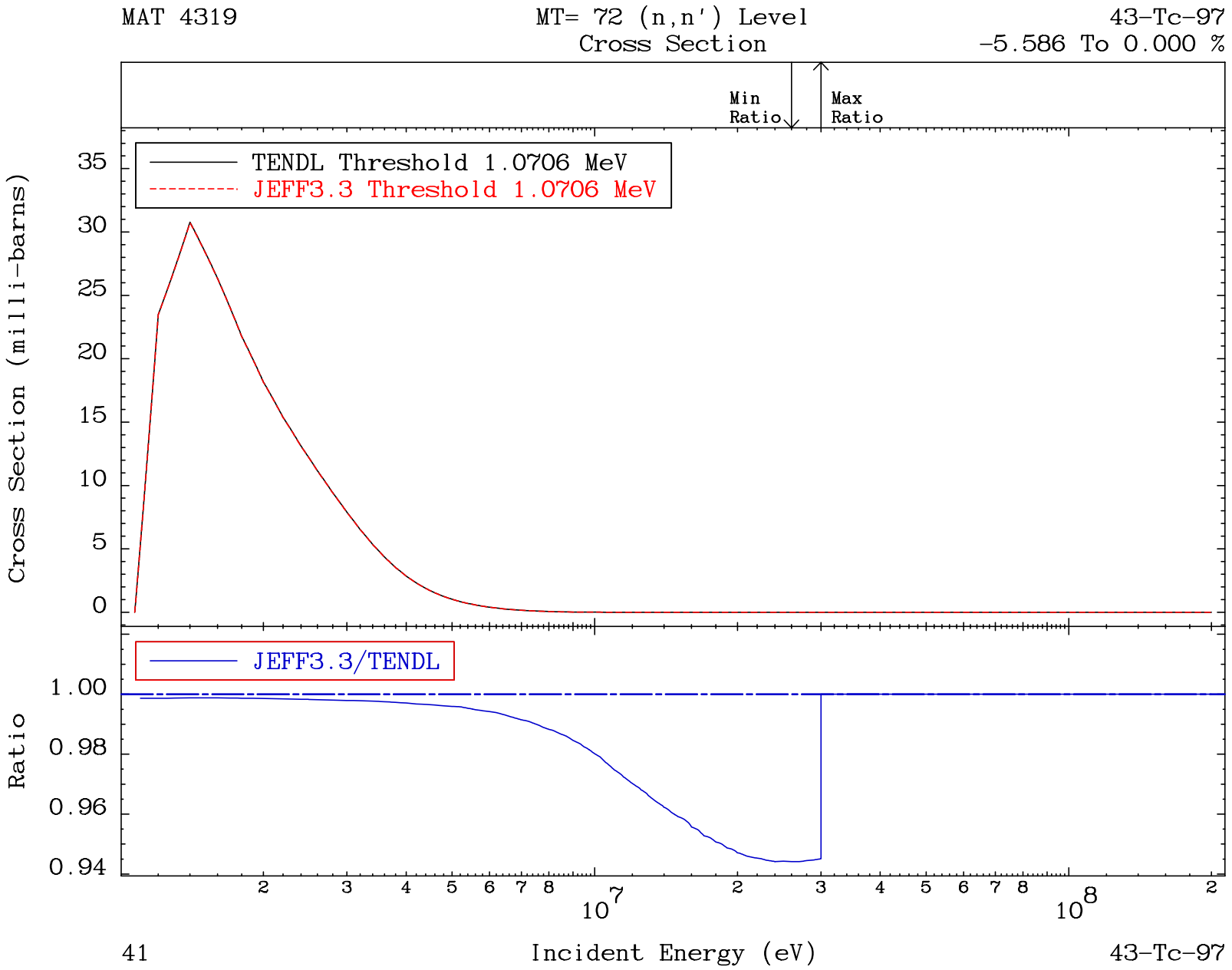

MAT 4319
MT= 67 (n,n') Level
Cross Section
43-Tc-97
-5.582 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 956.58 keV
JEFF3.3 Threshold 956.58 keV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
36
43-Tc-97

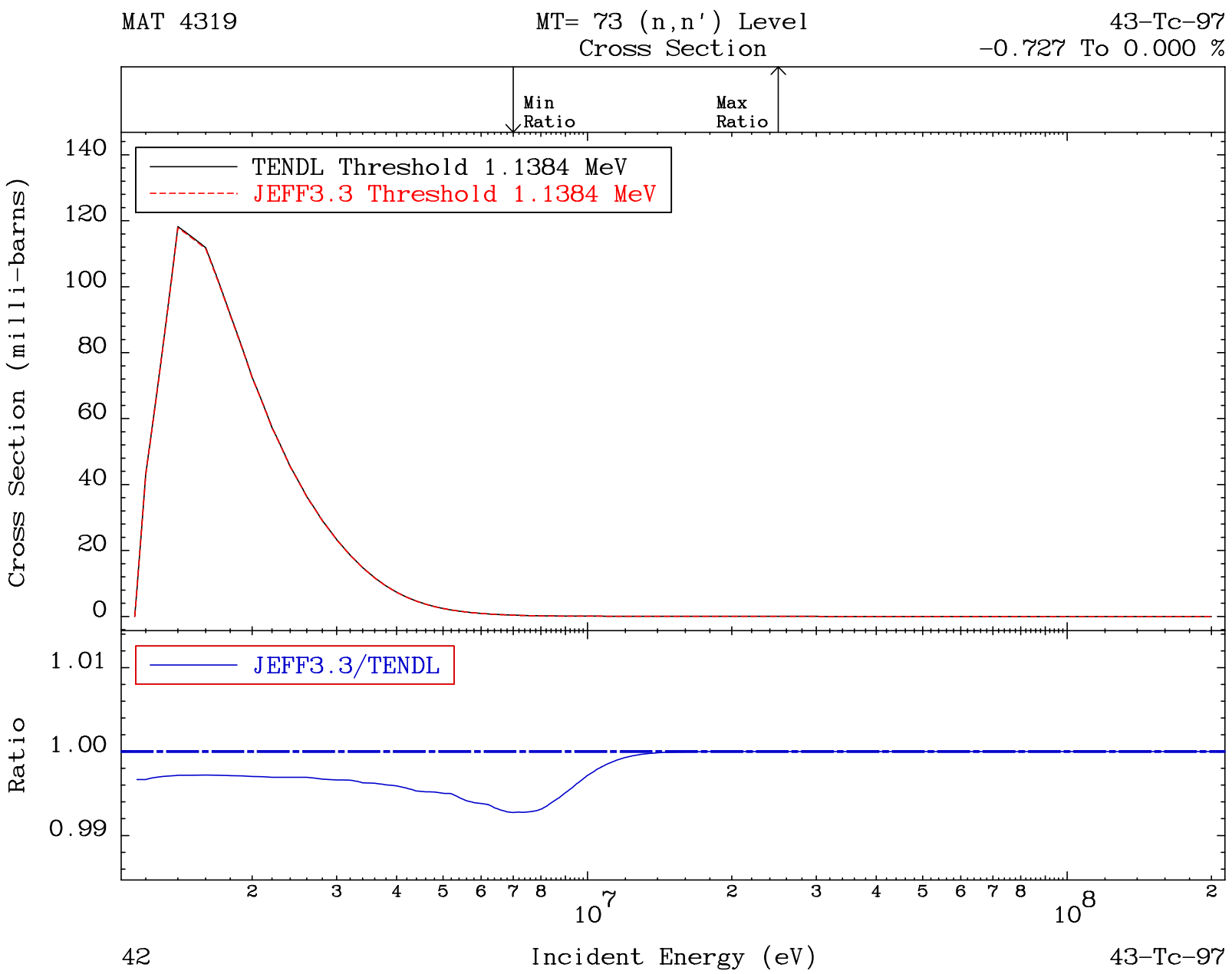

MAT 4319
MT= 68 (n,n') Level
Cross Section
43-Tc-97
-5.593 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 980.13 keV
JEFF3.3 Threshold 980.13 keV
Cross Section (milli-barns)
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
10^6
10^7
10^8
37
Incident Energy (eV)
43-Tc-97

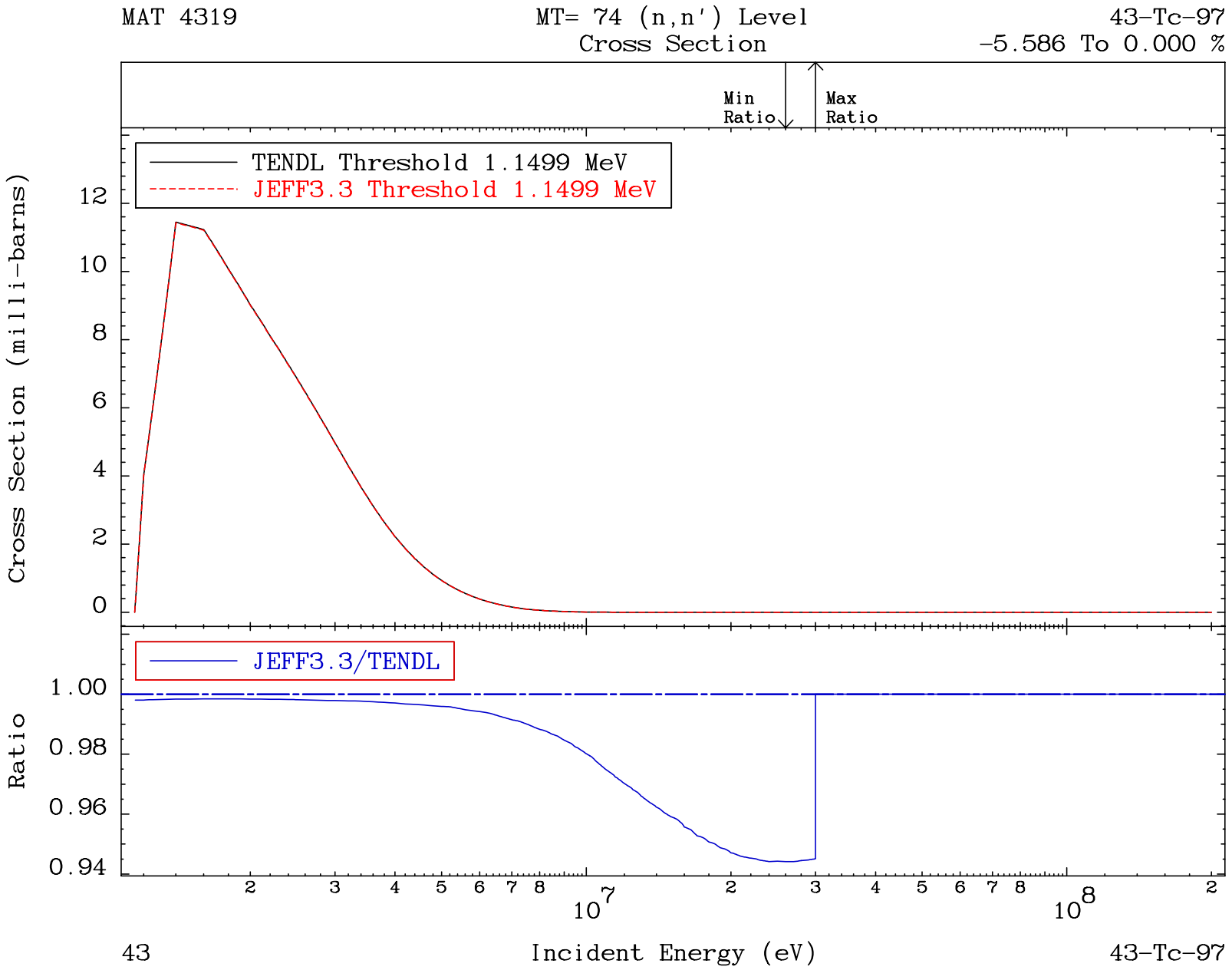

MAT 4319
MT= 69 (n,n') Level
Cross Section
43-Tc-97
-5.581 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.0050 MeV
JEFF3.3 Threshold 1.0050 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
10^6
10^7
10^8
Incident Energy (eV)
38
43-Tc-97

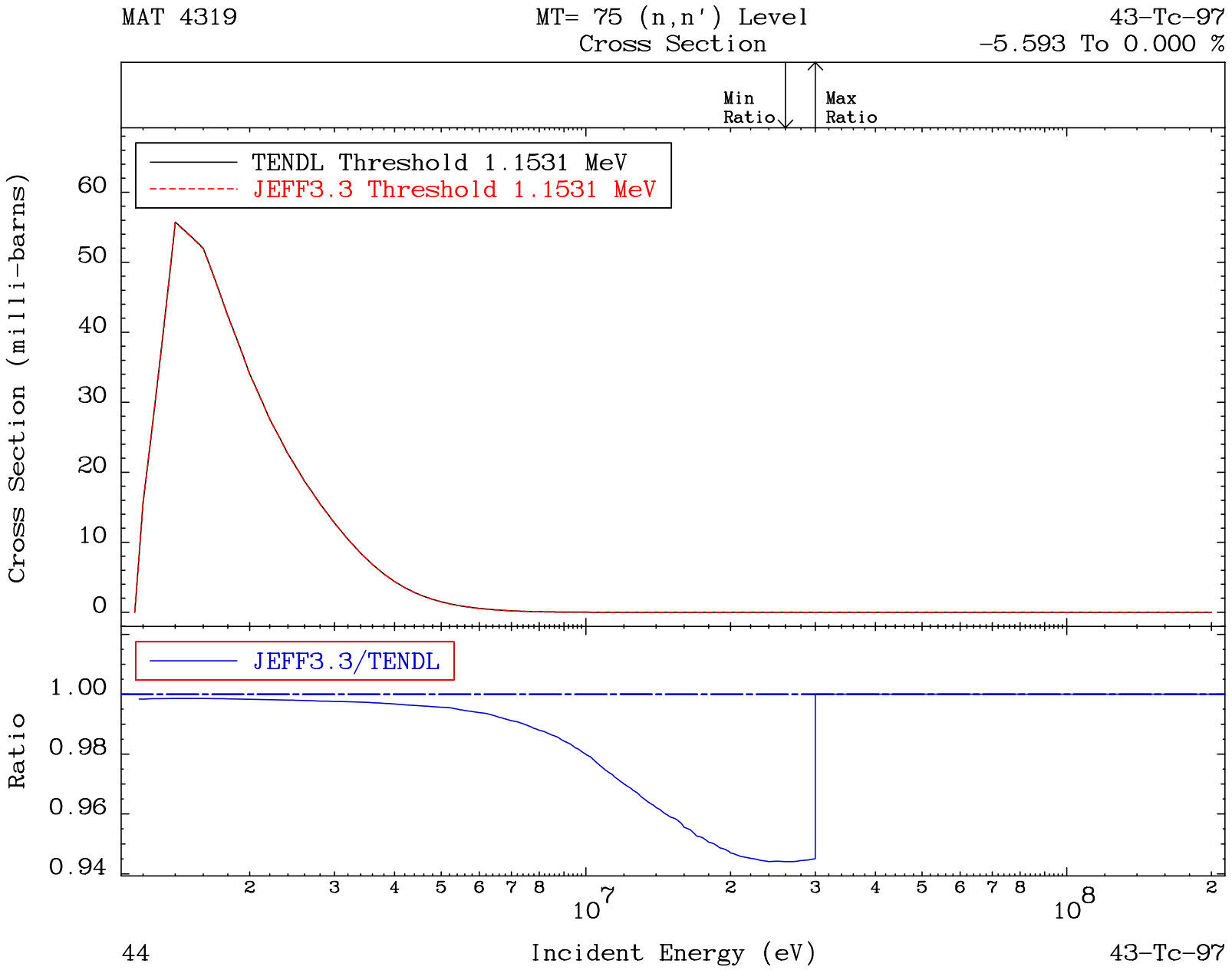

MAT 4319
MT= 70 (n,n') Level
Cross Section
43-Tc-97
-5.586 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.0140 MeV
JEFF3.3 Threshold 1.0140 MeV
Cross Section (milli-barns)
18
16
14
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
10^6
10^7
10^8
39
Incident Energy (eV)
43-Tc-97

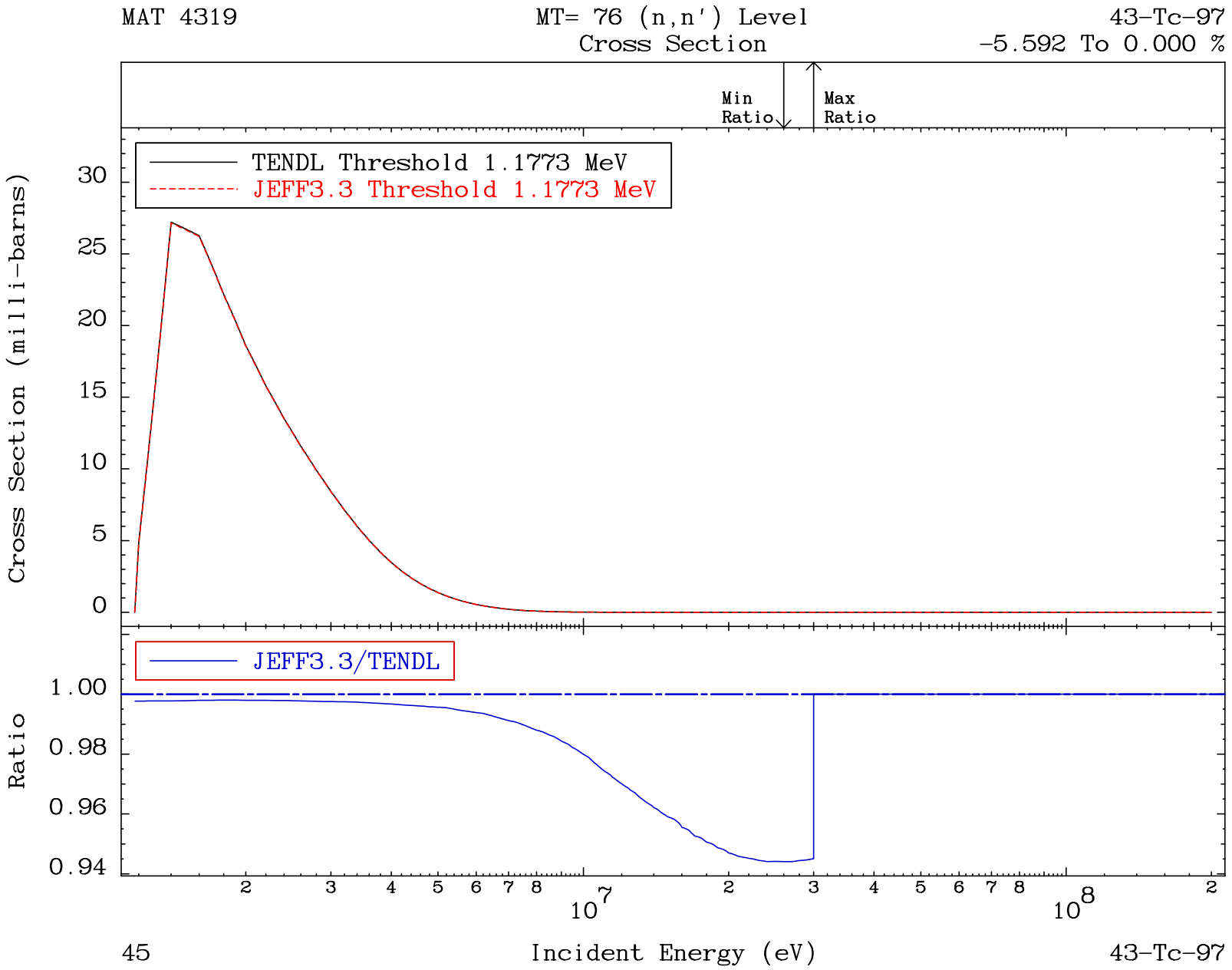

MAT 4319
MT= 71 (n,n') Level
Cross Section
43-Tc-97
-5.581 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.0601 MeV
JEFF3.3 Threshold 1.0601 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
40
43-Tc-97

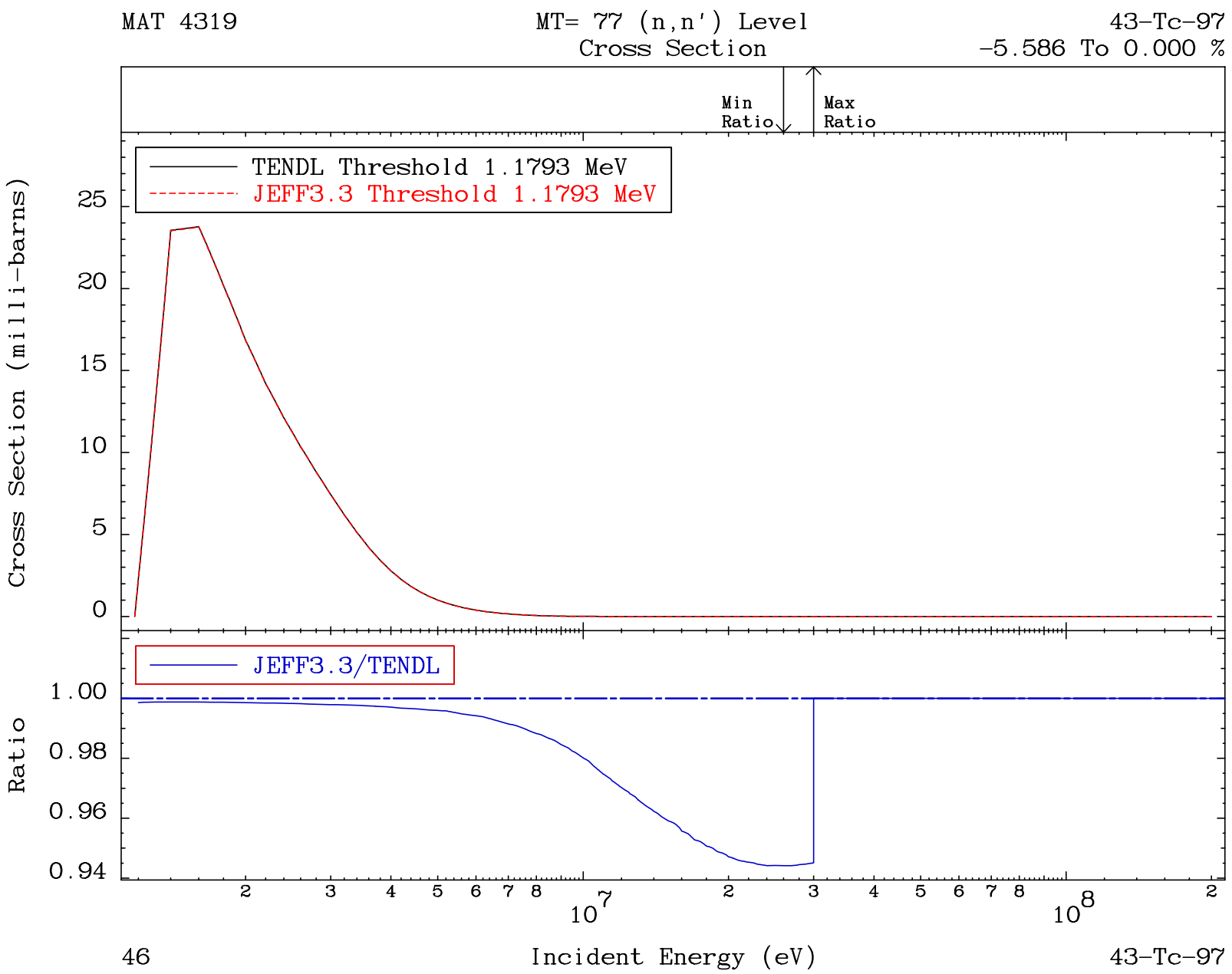

MAT 4319
MT= 72 (n,n') Level
Cross Section
43-Tc-97
-5.586 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.0706 MeV
JEFF3.3 Threshold 1.0706 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
41
Incident Energy (eV)
43-Tc-97

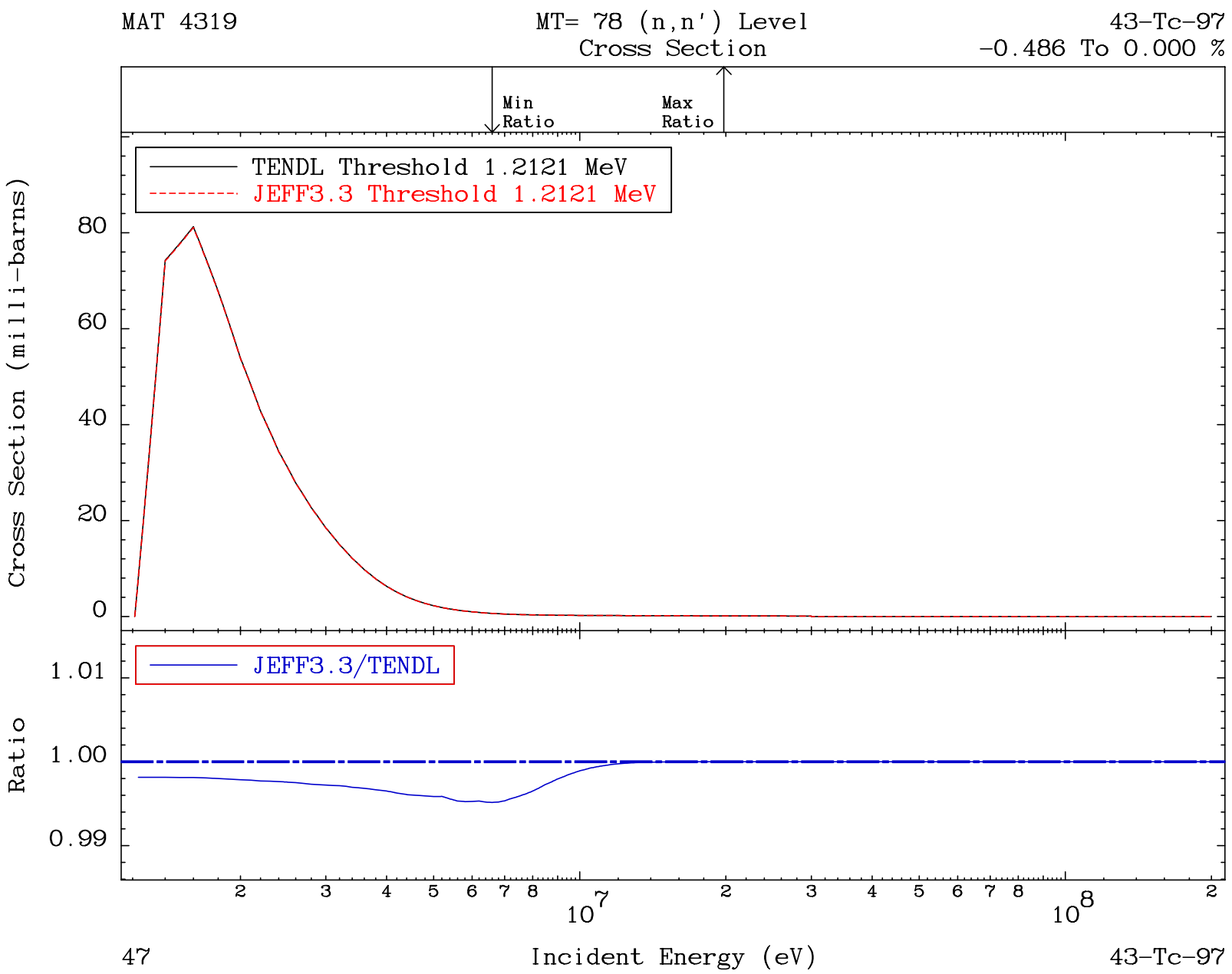

MAT 4319
MT= 73 (n,n') Level
Cross Section
43-Tc-97
-0.727 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.1384 MeV
JEFF3.3 Threshold 1.1384 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
42
Incident Energy (eV)
43-Tc-97

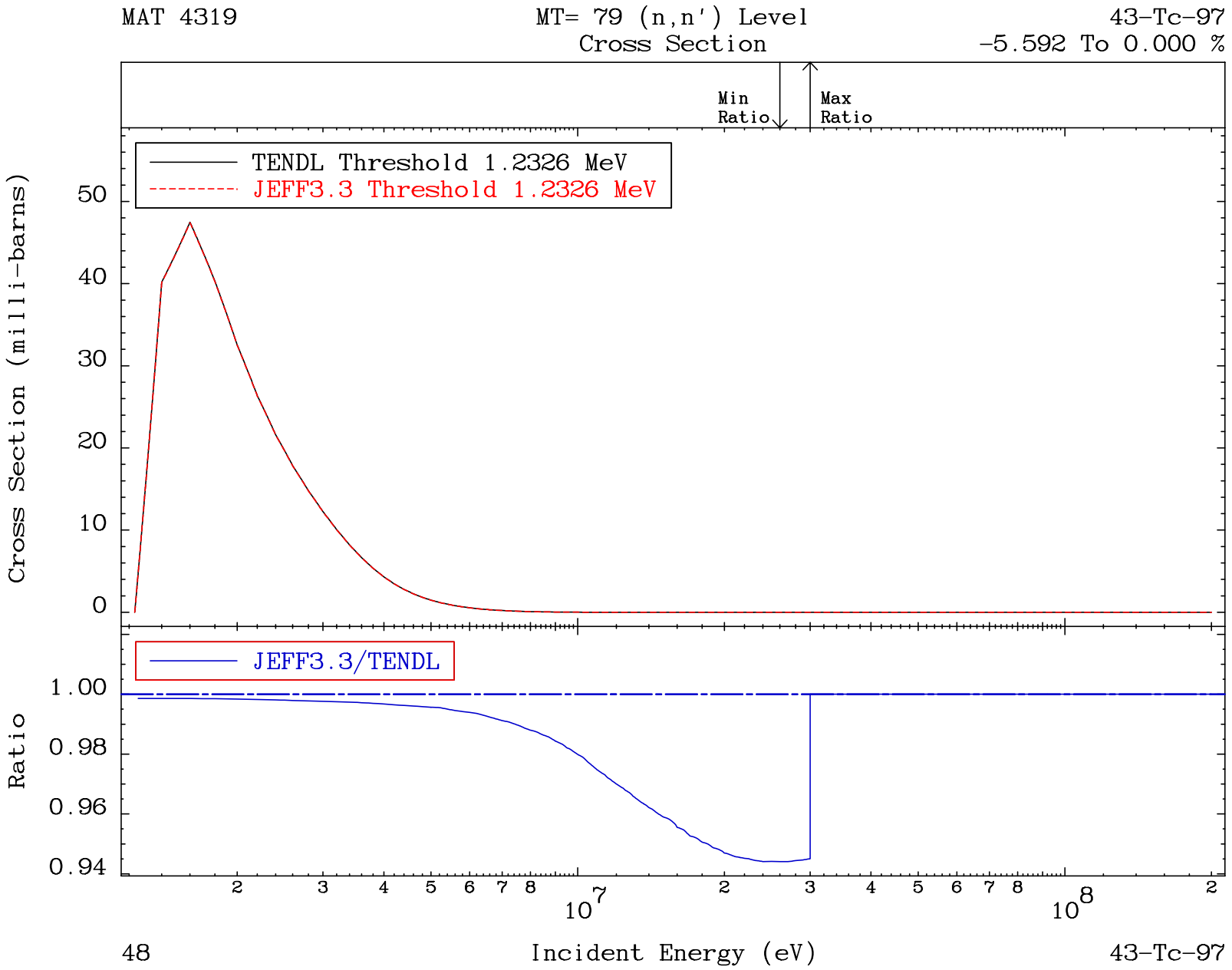

MAT 4319
MT= 74 (n,n') Level
Cross Section
43-Tc-97
-5.586 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.1499 MeV
JEFF3.3 Threshold 1.1499 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
JEFF3.3/TENDL
Ratio
0.94
0.96
0.98
1.00
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
43
Incident Energy (eV)
43-Tc-97

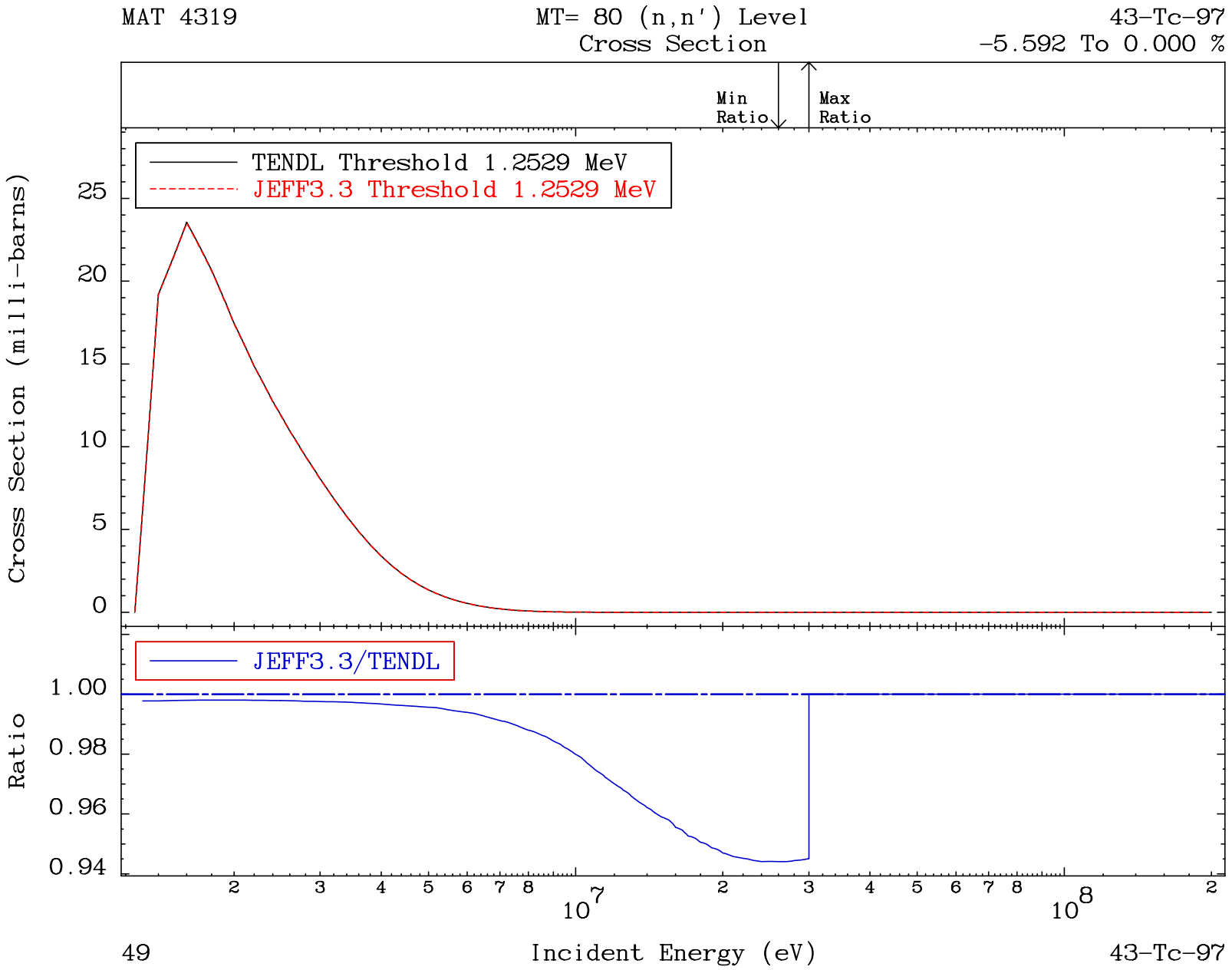

MAT 4319
MT= 75 (n,n') Level
Cross Section
43-Tc-97
-5.593 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.1531 MeV
JEFF3.3 Threshold 1.1531 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
44
Incident Energy (eV)
43-Tc-97

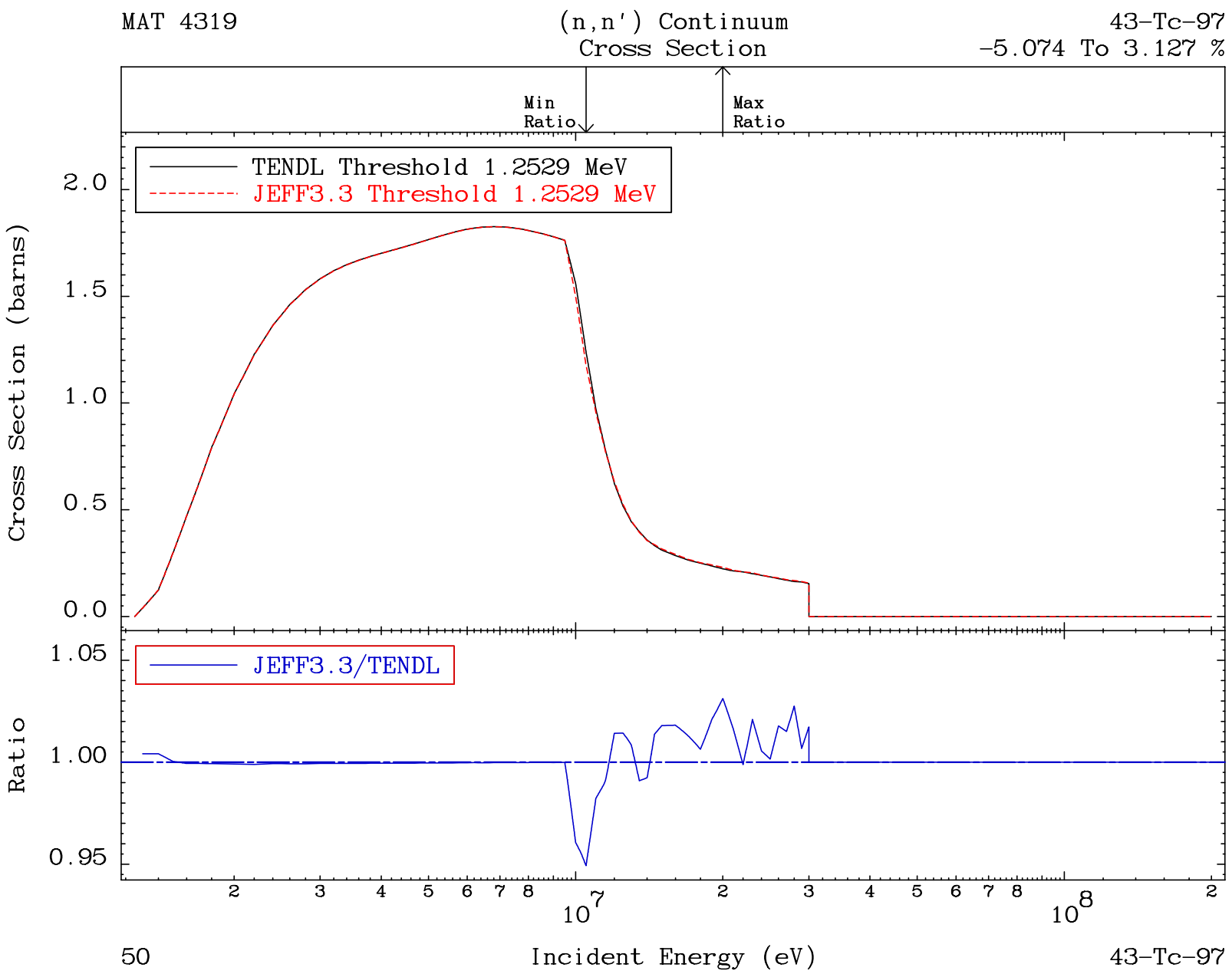

MAT 4319
MT= 76 (n,n') Level
Cross Section
43-Tc-97
-5.592 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.1773 MeV
JEFF3.3 Threshold 1.1773 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
45
Incident Energy (eV)
43-Tc-97

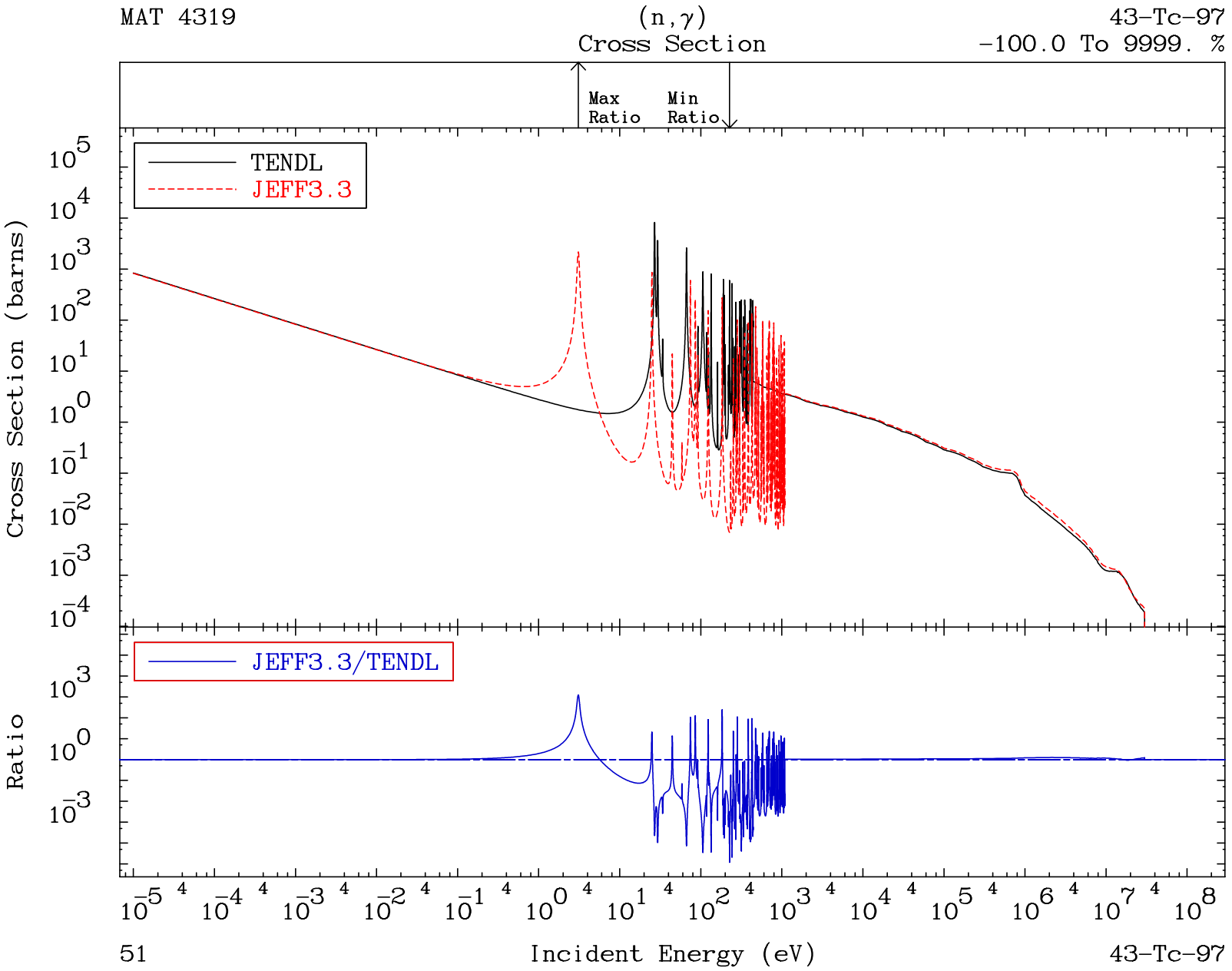

MAT 4319
MT= 77 (n,n') Level
Cross Section
43-Tc-97
-5.586 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.1793 MeV
JEFF3.3 Threshold 1.1793 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
46
Incident Energy (eV)
43-Tc-97

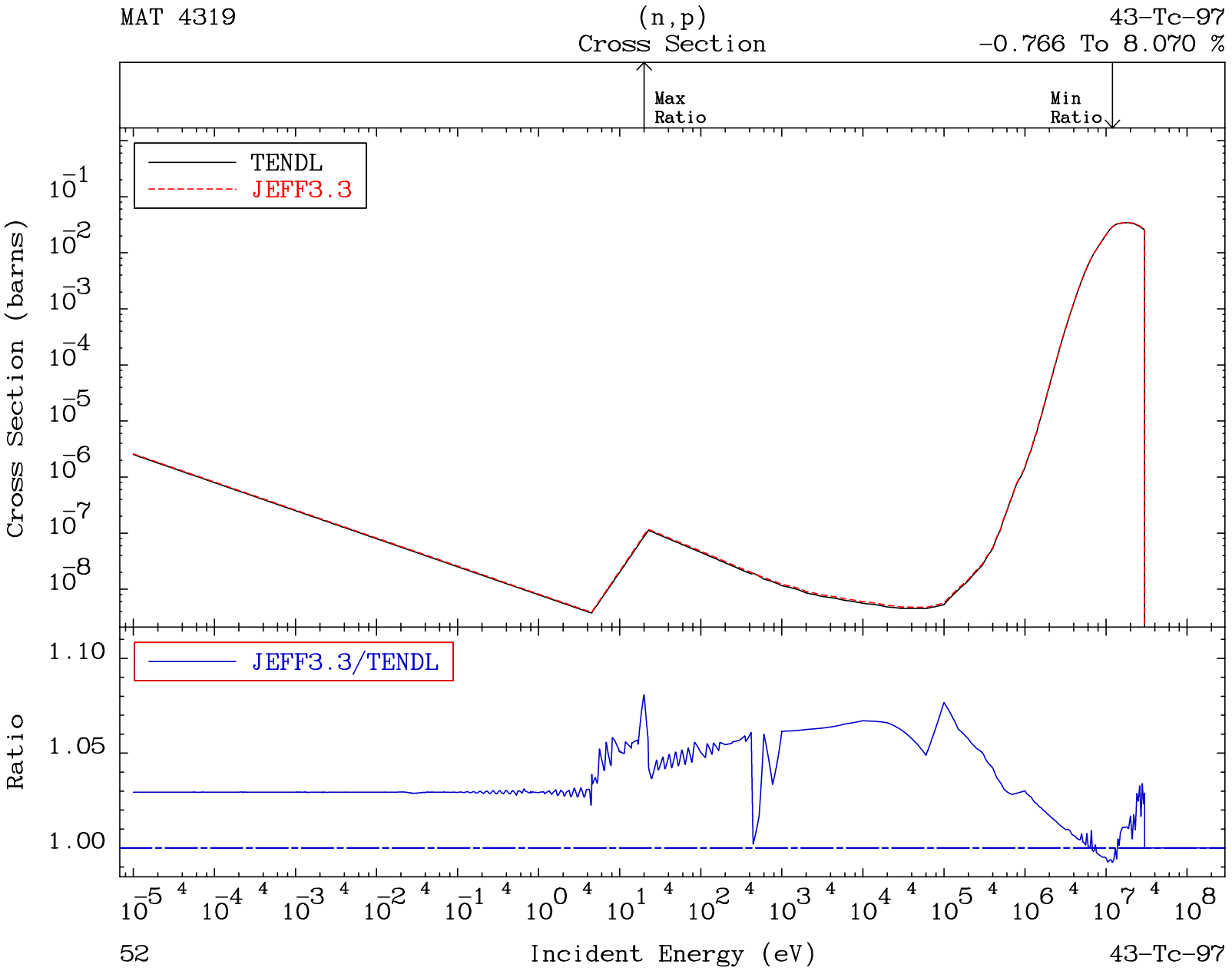

MAT 4319
MT= 78 (n,n') Level
Cross Section
43-Tc-97
-0.486 To 0.000 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2121 MeV
JEFF3.3 Threshold 1.2121 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
1.01
1.00
0.99
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
47
Incident Energy (eV)
43-Tc-97

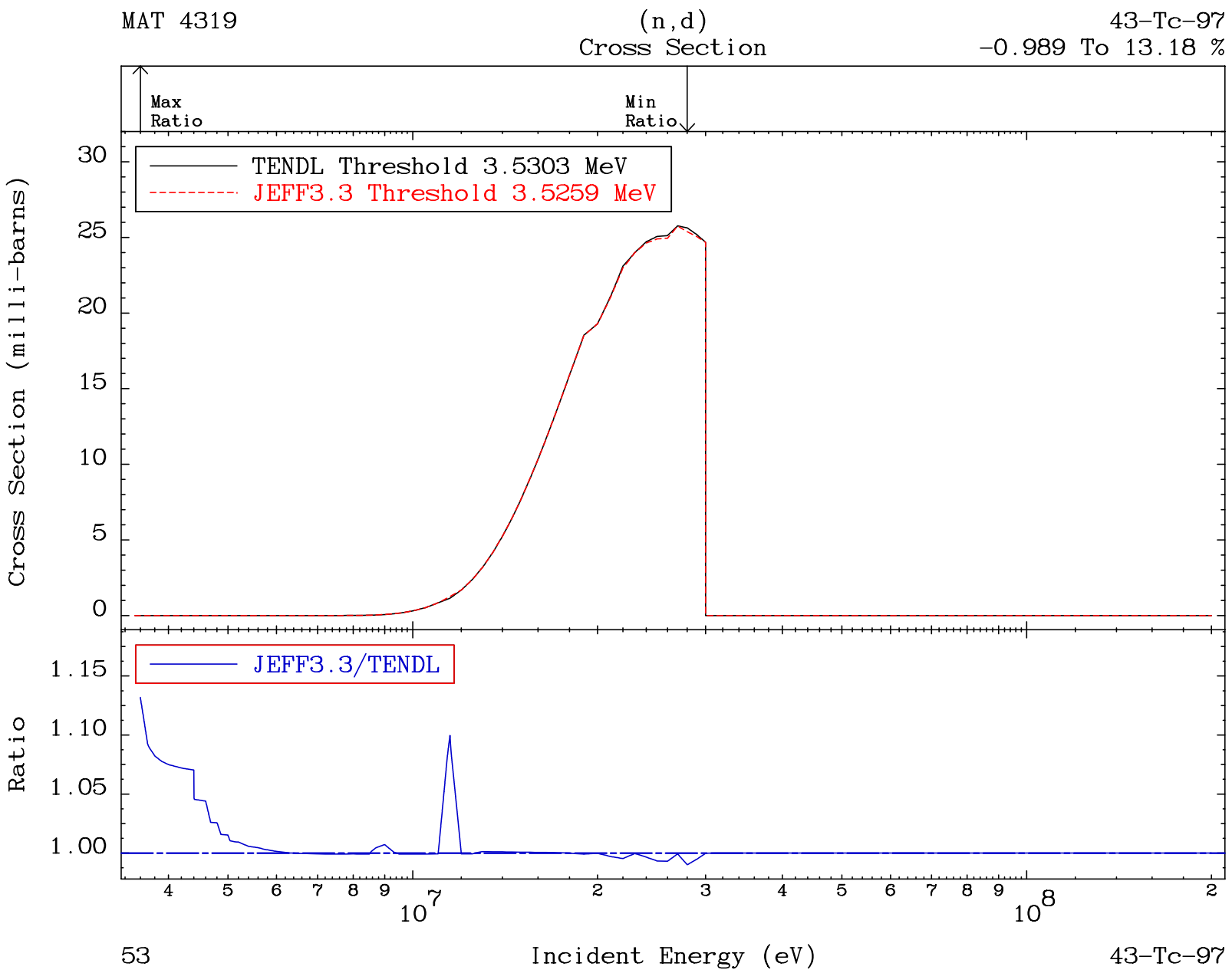

MAT 4319
MT= 79 (n,n') Level
Cross Section
43-Tc-97
-5.592 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.2326 MeV
JEFF3.3 Threshold 1.2326 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
48
Incident Energy (eV)
43-Tc-97

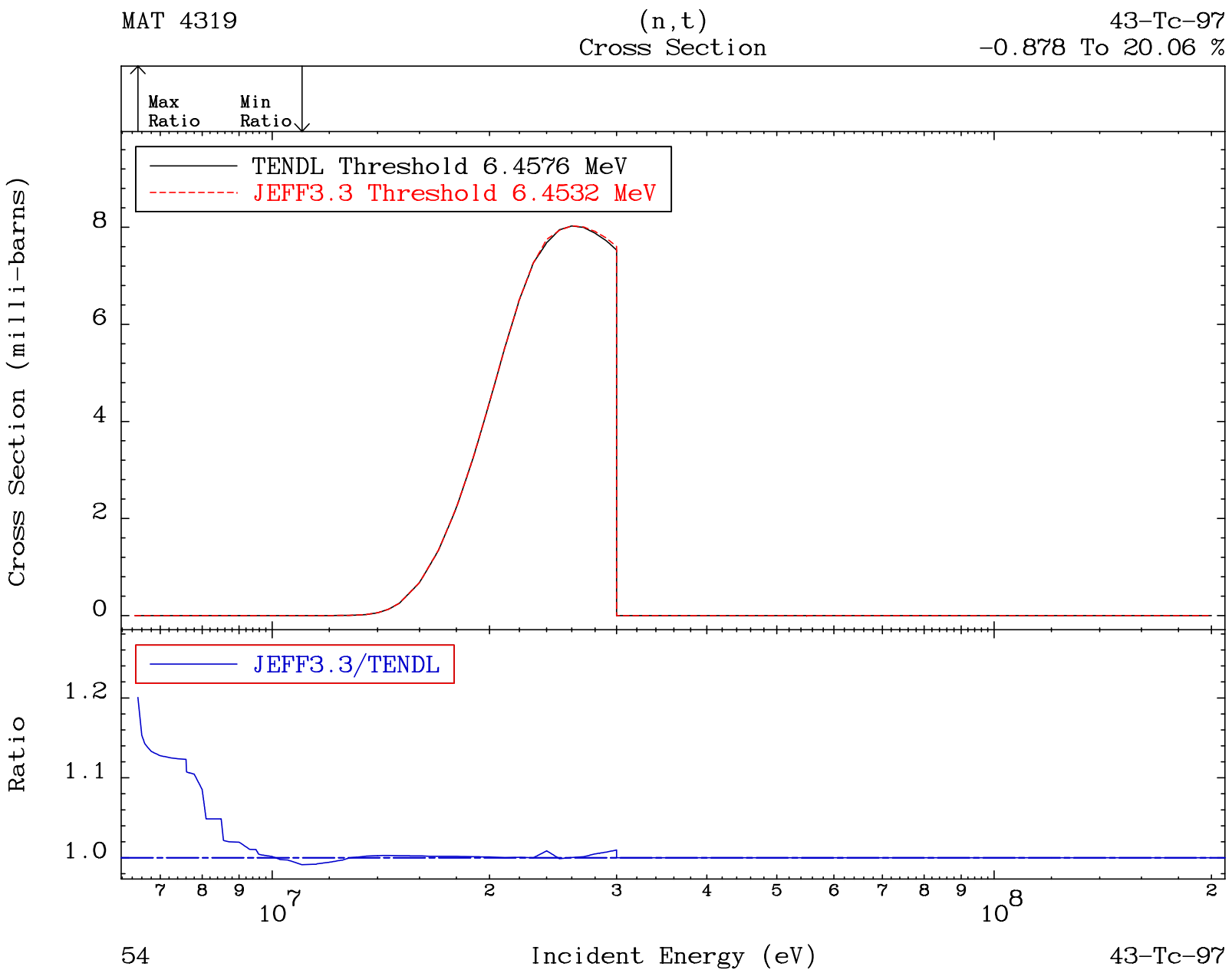

MAT 4319
MT= 80 (n,n') Level
Cross Section
43-Tc-97
-5.592 To 0.000 %
Min Ratio
Max Ratio
TENDL Threshold 1.2529 MeV
JEFF3.3 Threshold 1.2529 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.00
0.98
0.96
0.94
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
49
Incident Energy (eV)
43-Tc-97

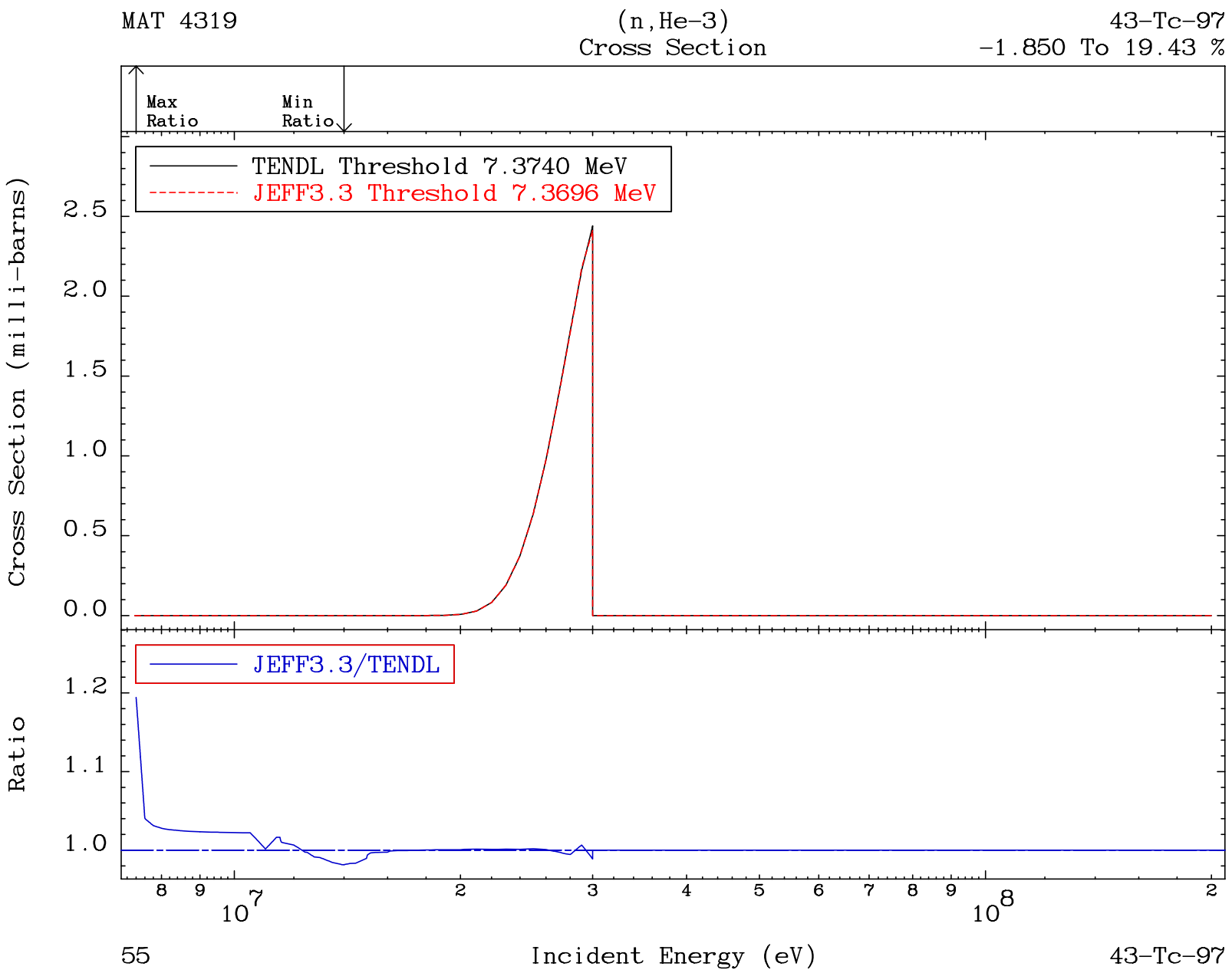

MAT 4319
(n,n') Continuum
Cross Section
43-Tc-97
-5.074 To 3.127 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.2529 MeV
JEFF3.3 Threshold 1.2529 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.05
1.00
0.95
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
50
Incident Energy (eV)
43-Tc-97

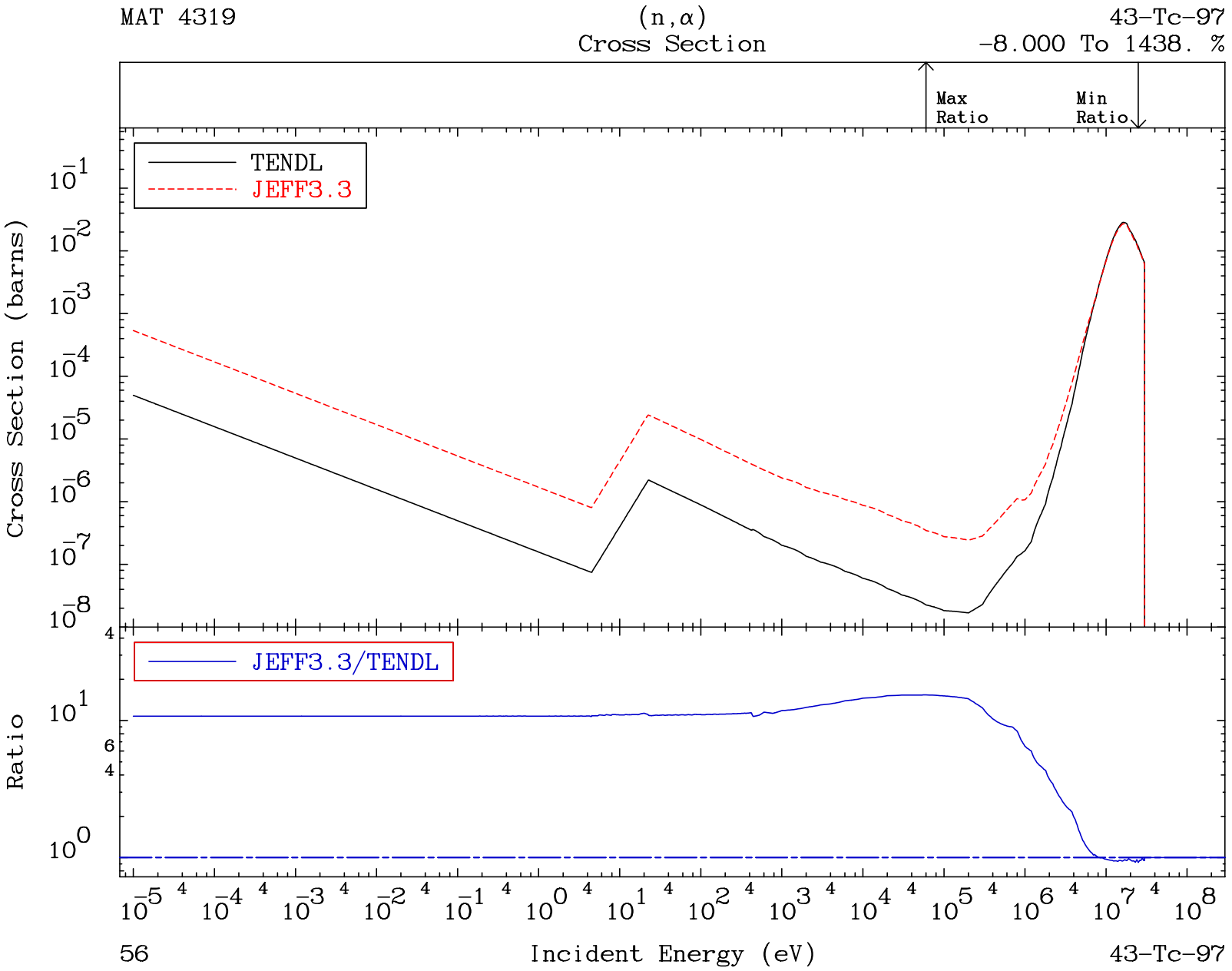

MAT 4319
(n,γ)
Cross Section
43-Tc-97
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
51
43-Tc-97

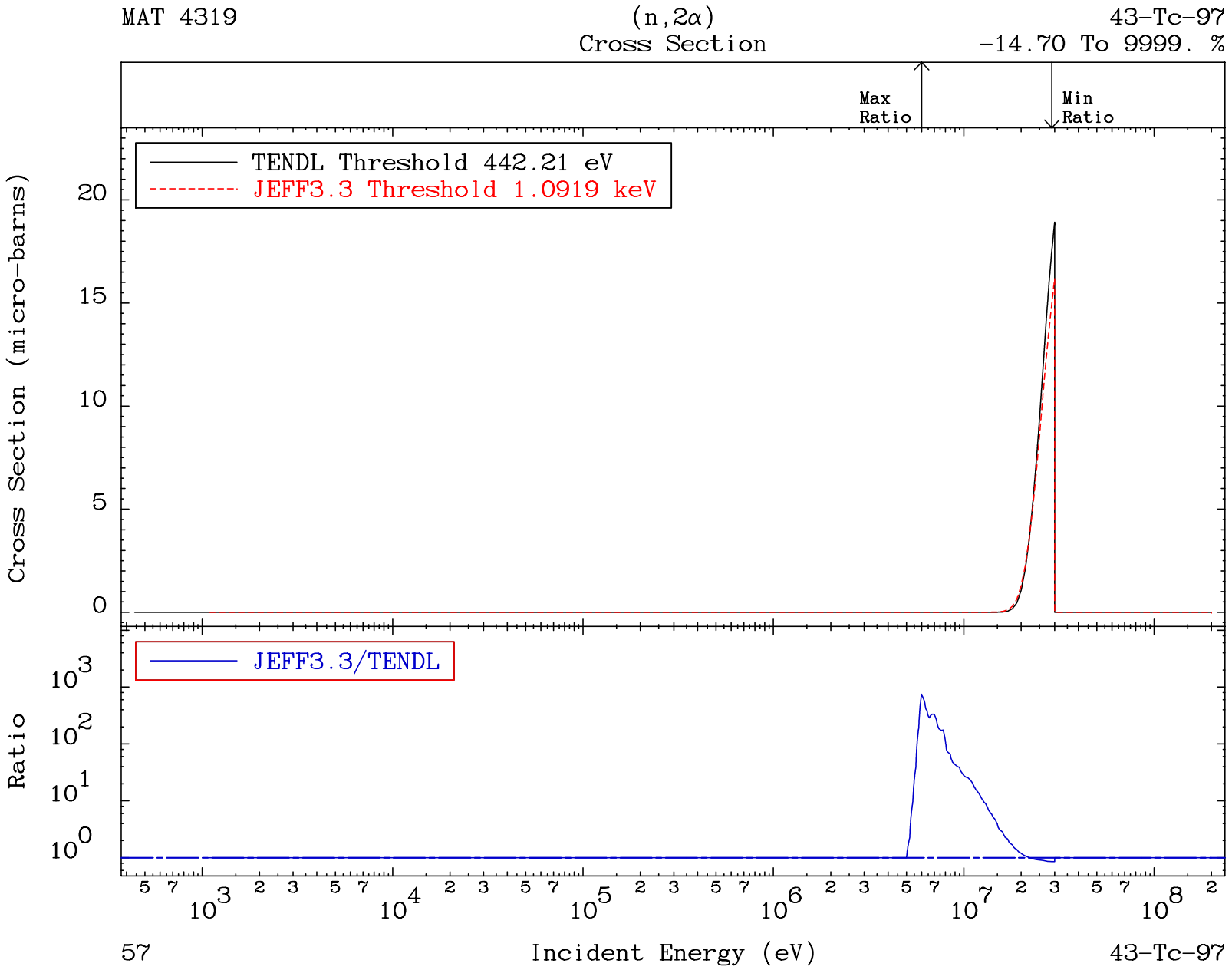

MAT 4319
(n,p)
Cross Section
43-Tc-97
-0.766 To 8.070 %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
52
43-Tc-97

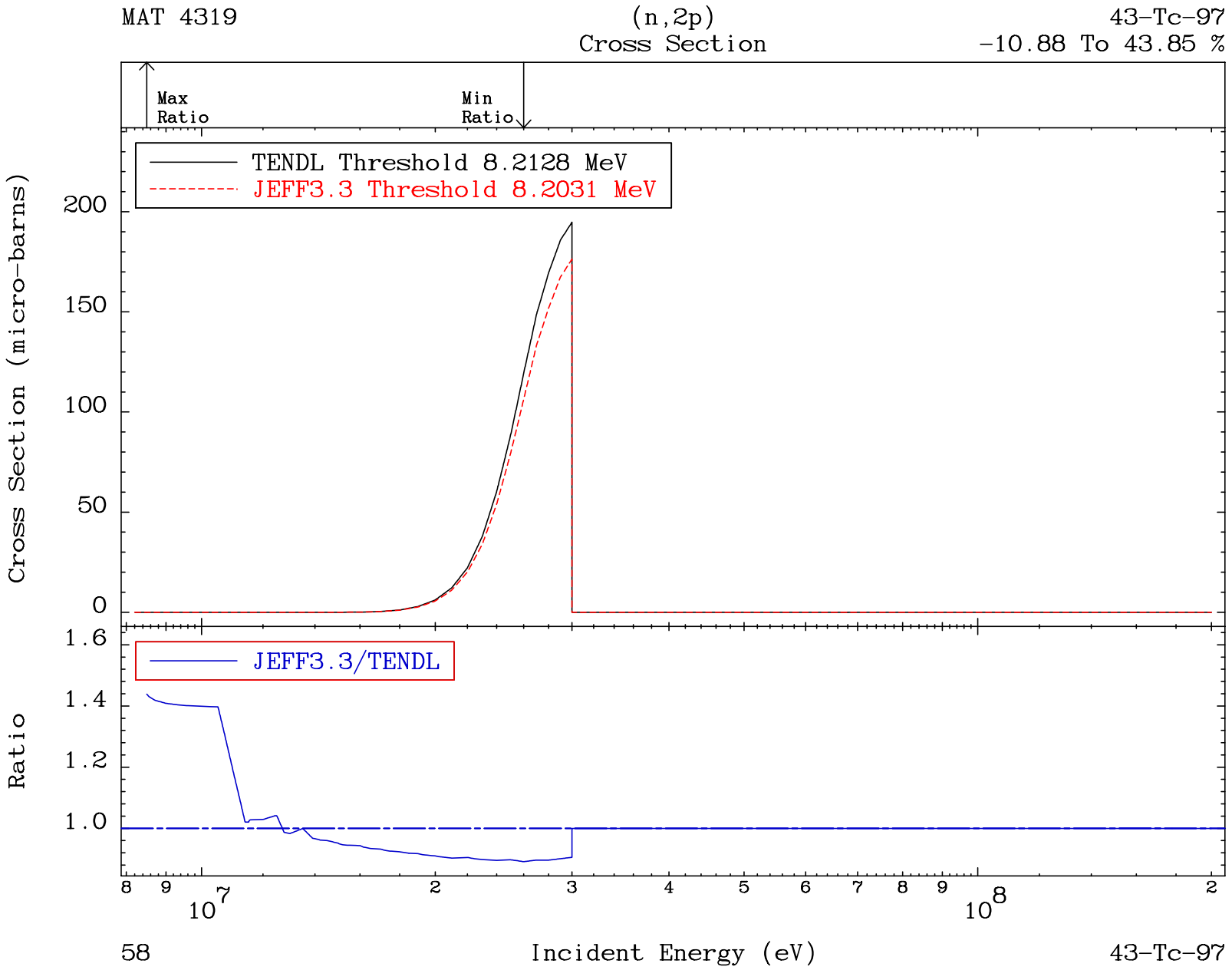

MAT 4319
(n,d)
Cross Section
43-Tc-97
-0.989 To 13.18 %
Max Ratio
Min Ratio
TENDL Threshold 3.5303 MeV
JEFF3.3 Threshold 3.5259 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
1.15
1.10
1.05
1.00
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
53
Incident Energy (eV)
43-Tc-97

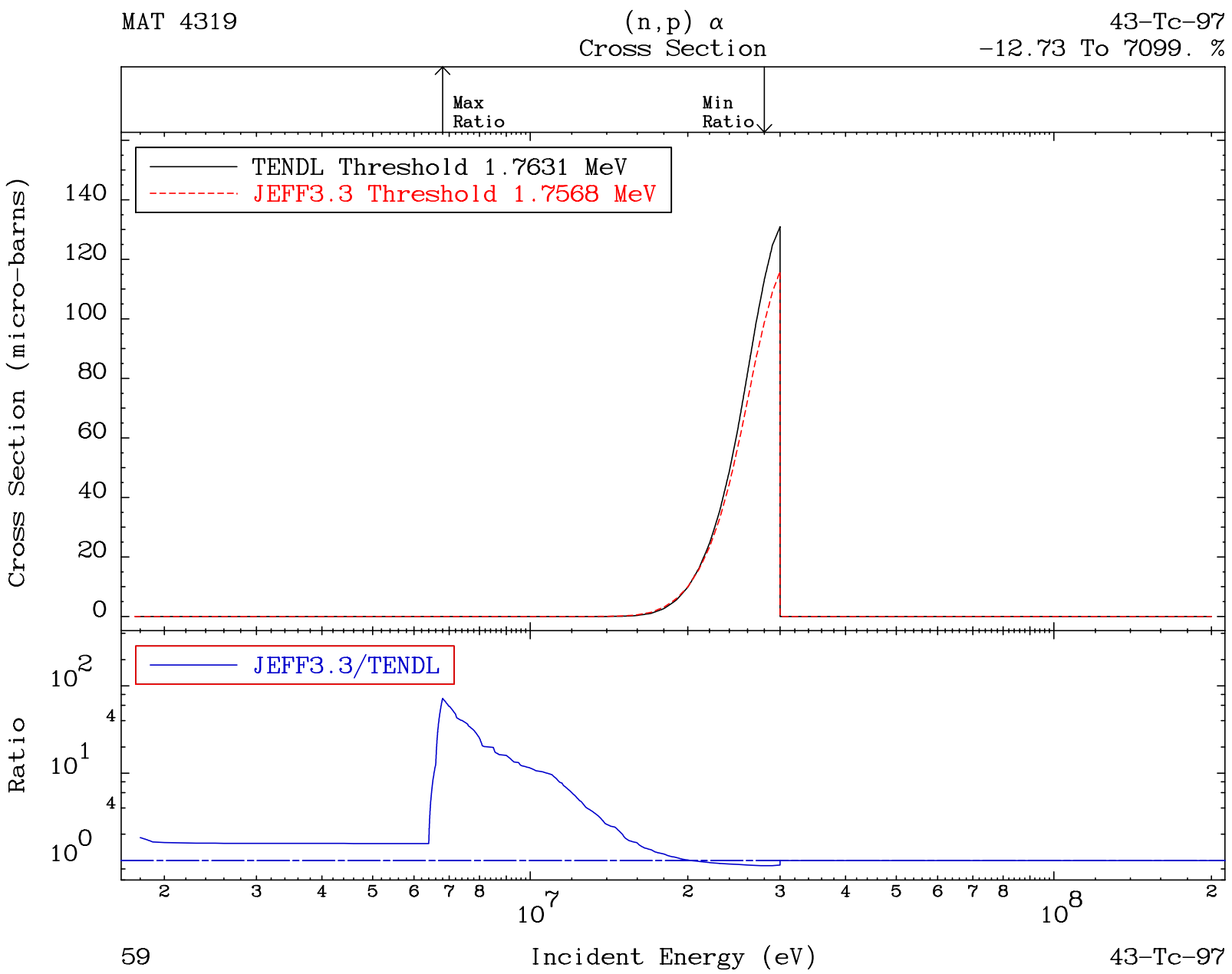

MAT 4319
(n,t)
Cross Section
43-Tc-97
-0.878 To 20.06 %
Max Ratio
Min Ratio
TENDL Threshold 6.4576 MeV
JEFF3.3 Threshold 6.4532 MeV
Cross Section (milli-barns)
0
2
4
6
8
JEFF3.3/TENDL
Ratio
1.0
1.1
1.2
7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
54
Incident Energy (eV)
43-Tc-97

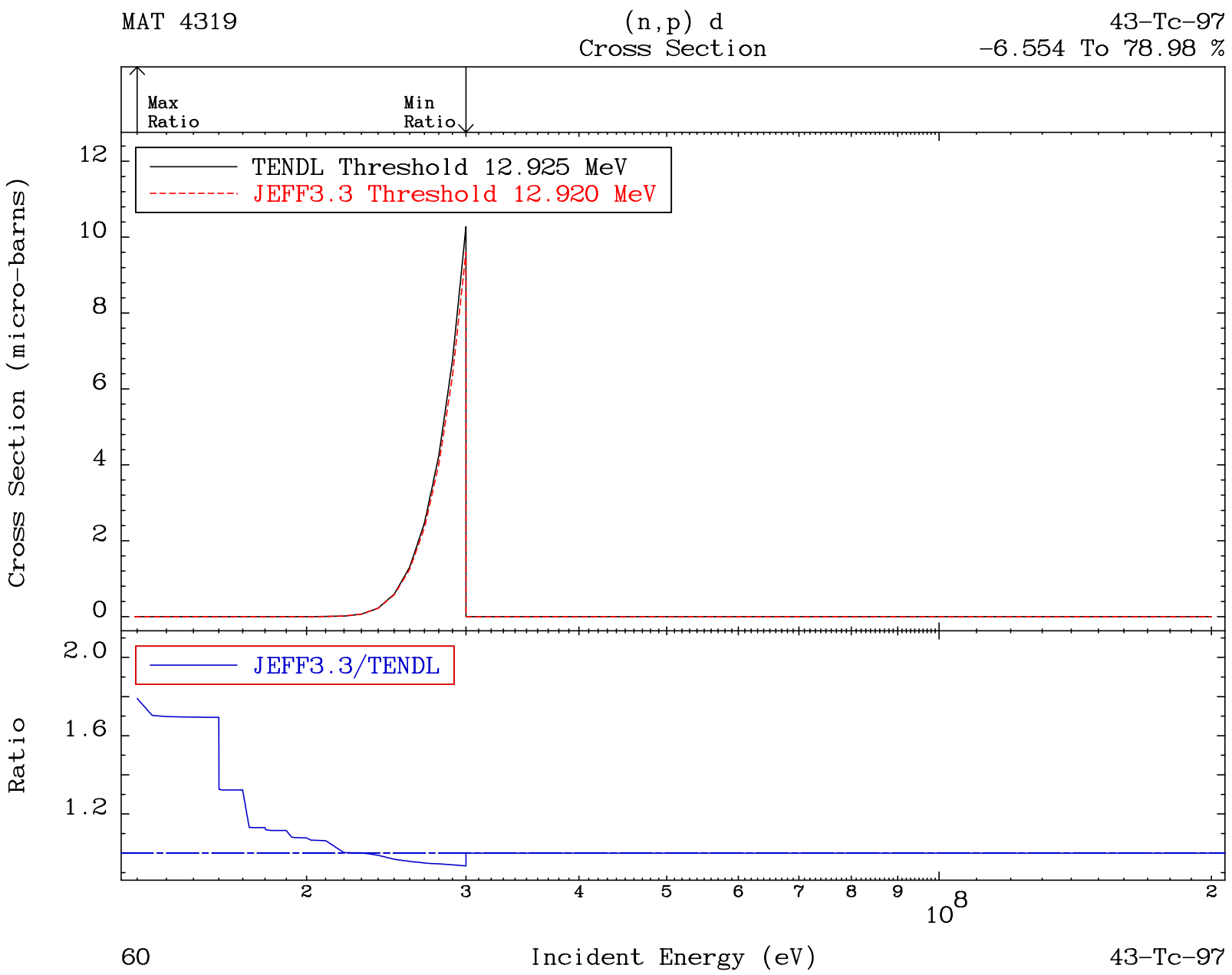

MAT 4319
(n,He-3)
Cross Section
43-Tc-97
-1.850 To 19.43 %
Max Ratio
Min Ratio
TENDL Threshold 7.3740 MeV
JEFF3.3 Threshold 7.3696 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
55
Incident Energy (eV)
43-Tc-97

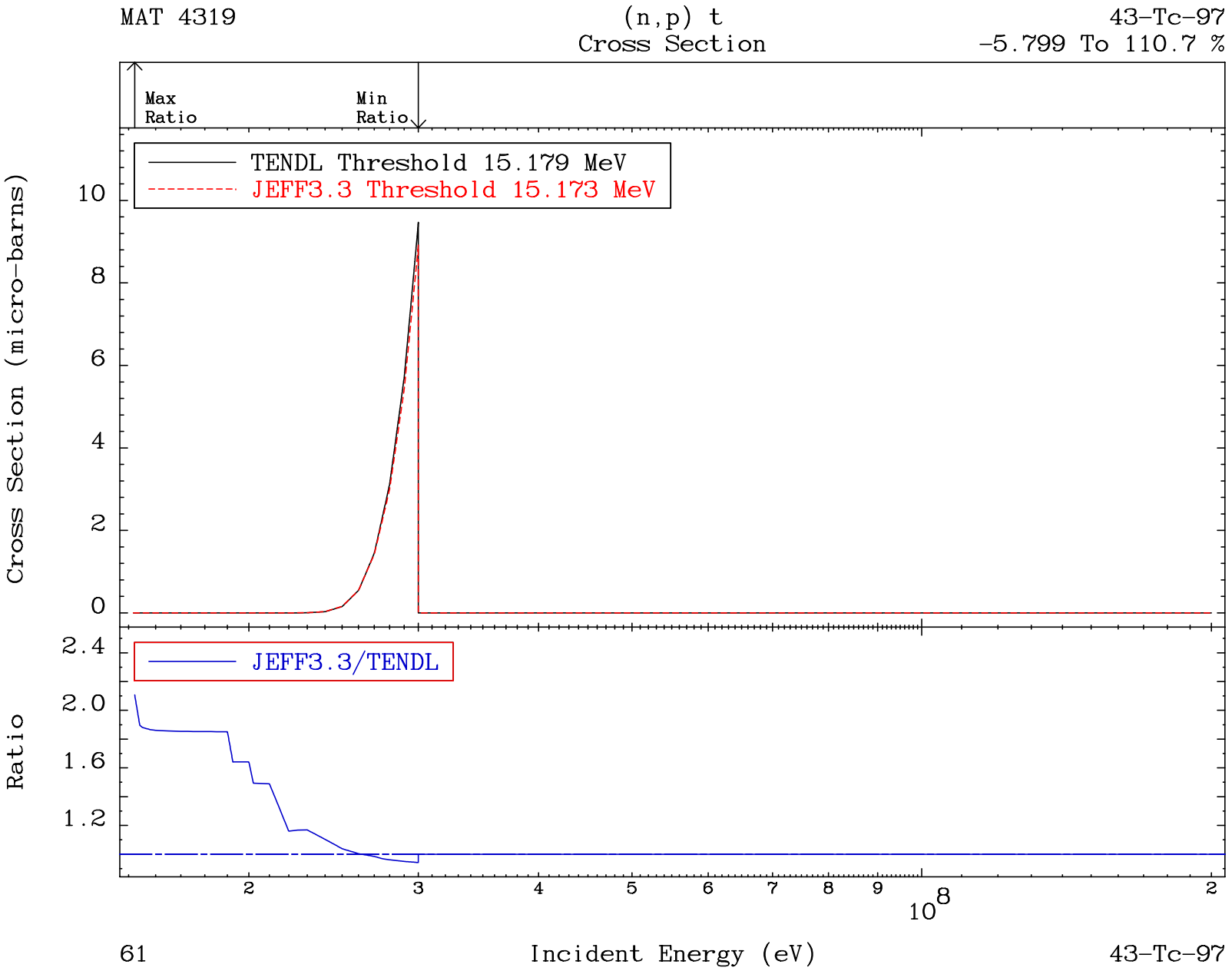

MAT 4319
(n,α)
Cross Section
43-Tc-97
-8.000 To 1438. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
56
43-Tc-97

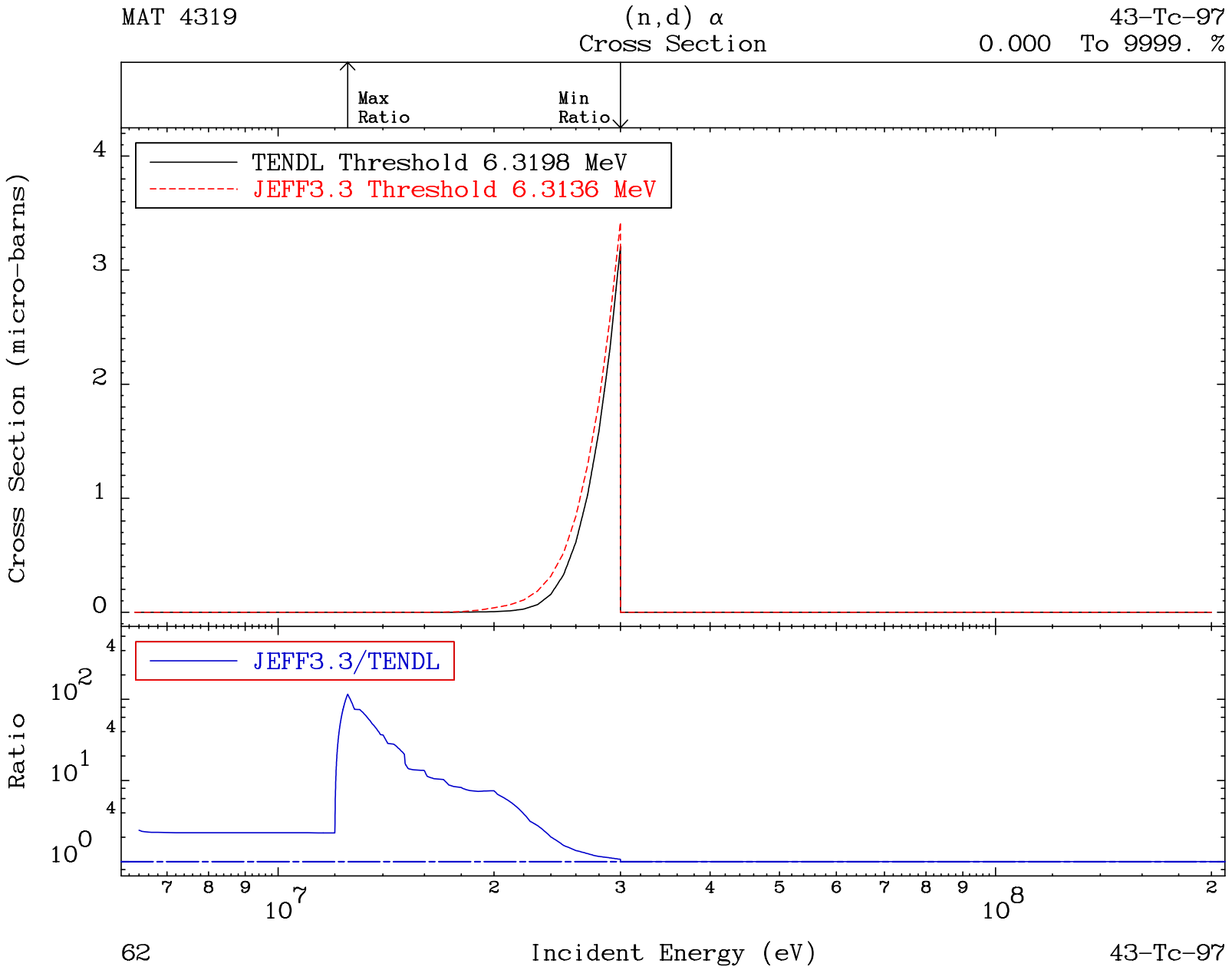

MAT 4319
(n,2α)
Cross Section
43-Tc-97
-14.70 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 442.21 eV
JEFF3.3 Threshold 1.0919 keV
Cross Section (micro-barns)
0
5
10
15
20
JEFF3.3/TENDL
Ratio
10^0
10^1
10^2
10^3
10^3
10^4
10^5
10^6
10^7
10^8
Incident Energy (eV)
57
43-Tc-97

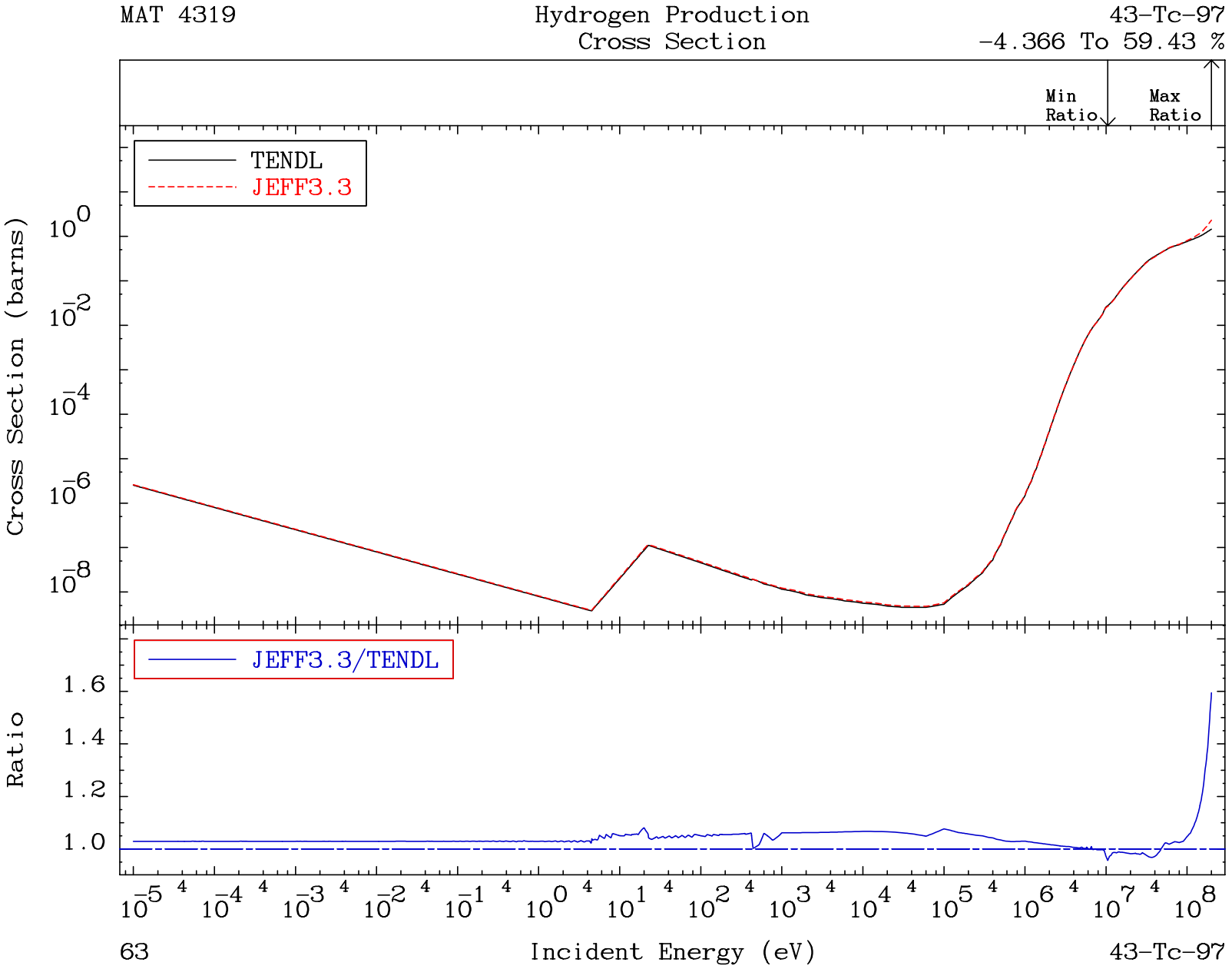

MAT 4319
(n,2p)
Cross Section
43-Tc-97
-10.88 To 43.85 %
Max Ratio
Min Ratio
TENDL Threshold 8.2128 MeV
JEFF3.3 Threshold 8.2031 MeV
Cross Section (micro-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.6
1.4
1.2
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
58
Incident Energy (eV)
43-Tc-97

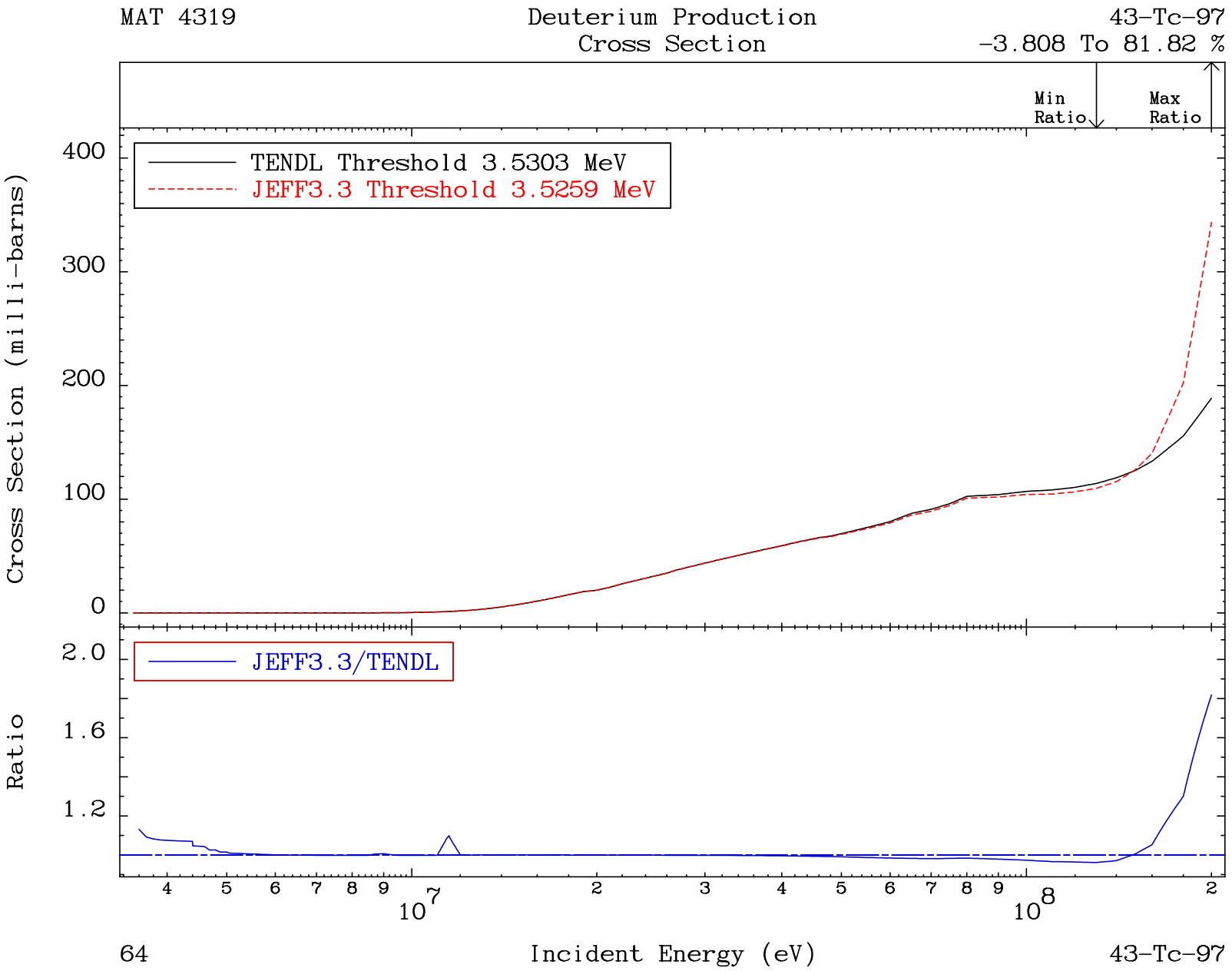

MAT 4319
(n,p) α
Cross Section
43-Tc-97
-12.73 To 7099. %
Max Ratio
Min Ratio
TENDL Threshold 1.7631 MeV
JEFF3.3 Threshold 1.7568 MeV
Cross Section (micro-barns)
140
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^2
10^1
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
59
Incident Energy (eV)
43-Tc-97

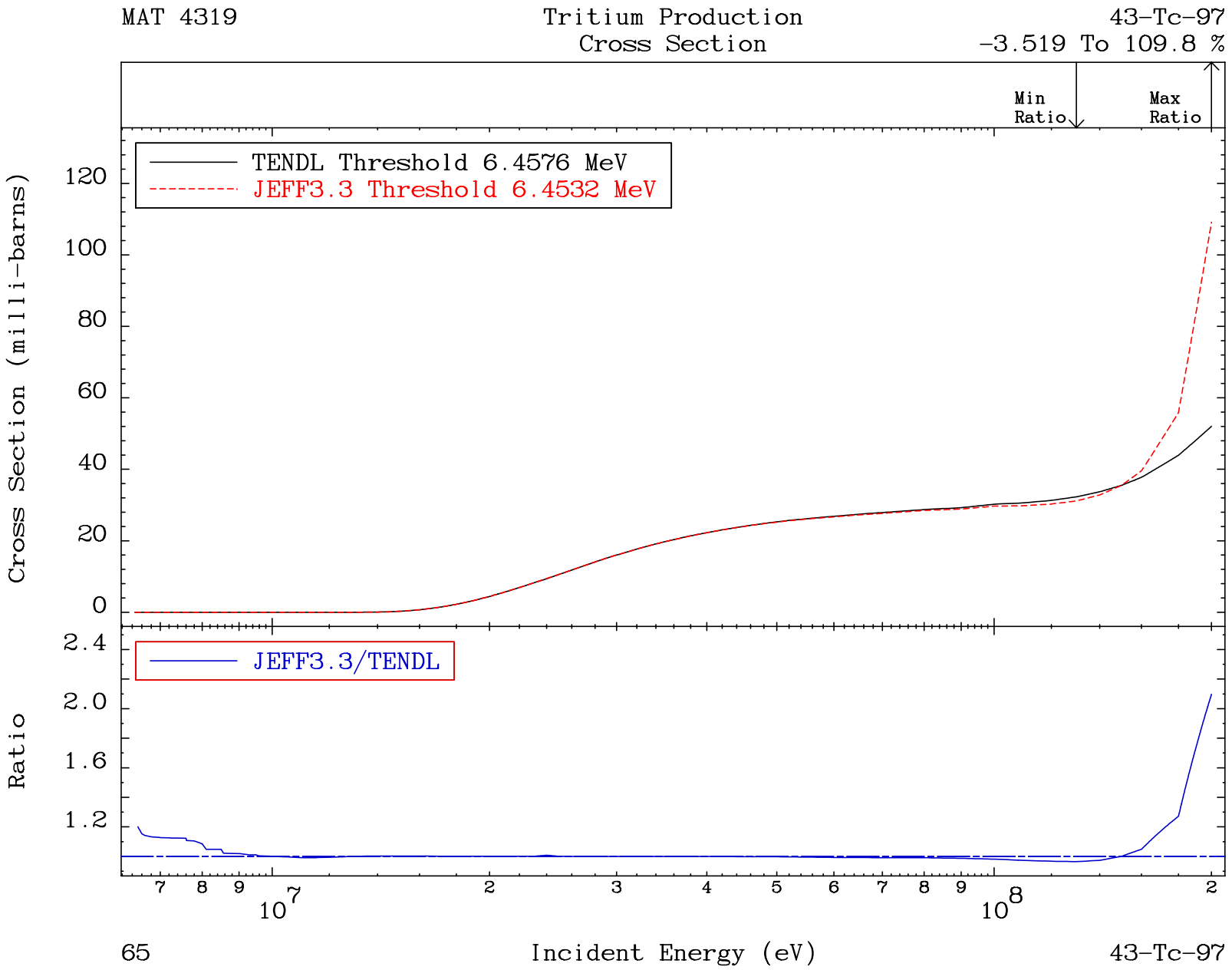

MAT 4319
(n,p) d
Cross Section
43-Tc-97
-6.554 To 78.98 %
Max Ratio
Min Ratio
TENDL Threshold 12.925 MeV
JEFF3.3 Threshold 12.920 MeV
Cross Section (micro-barns)
12
10
8
6
4
2
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
60
Incident Energy (eV)
43-Tc-97

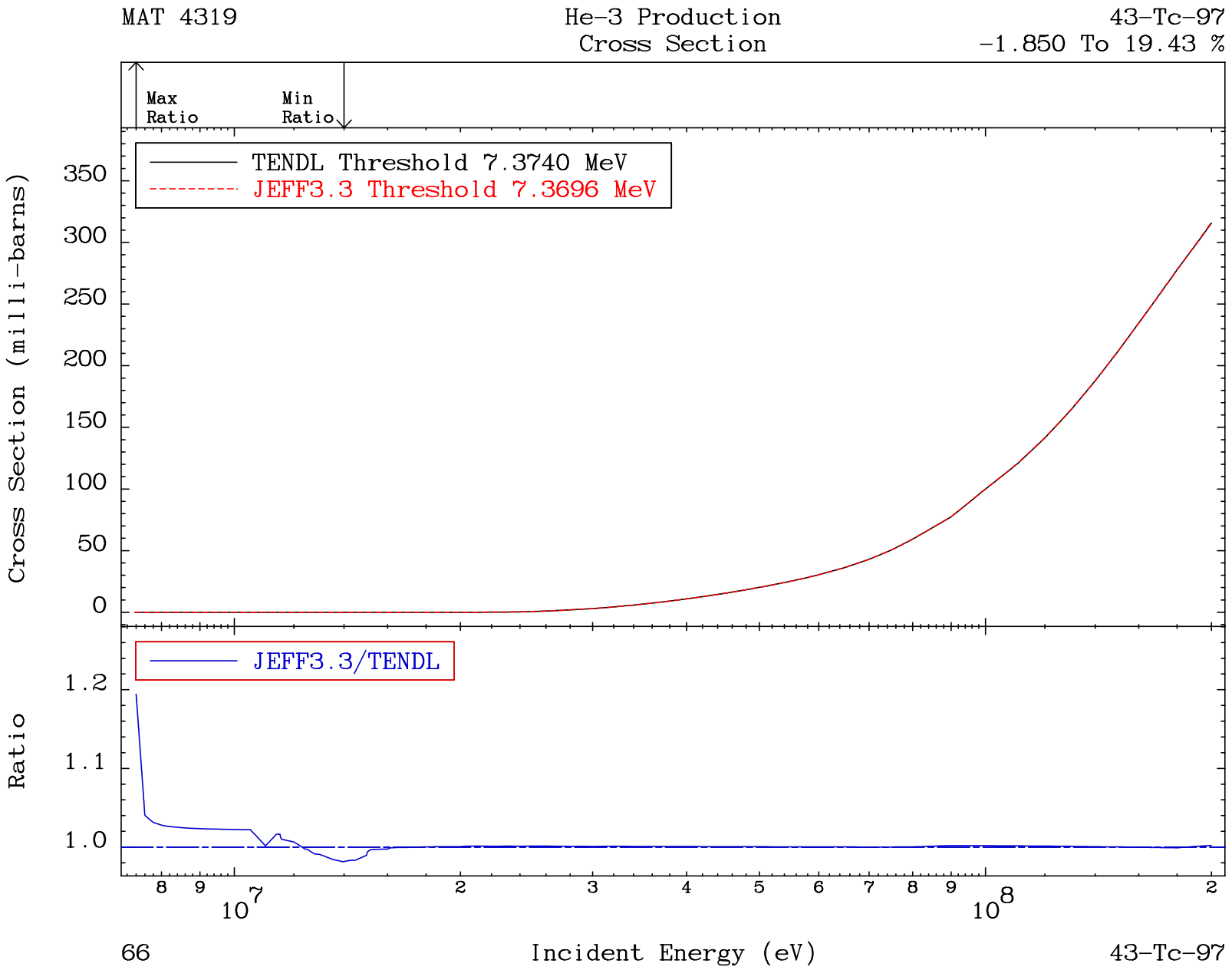

MAT 4319
(n,p) t
Cross Section
43-Tc-97
-5.799 To 110.7 %
Max Ratio
Min Ratio
TENDL Threshold 15.179 MeV
JEFF3.3 Threshold 15.173 MeV
Cross Section (micro-barns)
0
2
4
6
8
10
JEFF3.3/TENDL
Ratio
1.2
1.6
2.0
2.4
2
3
4
5
6
7
8
9
10^8
2
61
Incident Energy (eV)
43-Tc-97

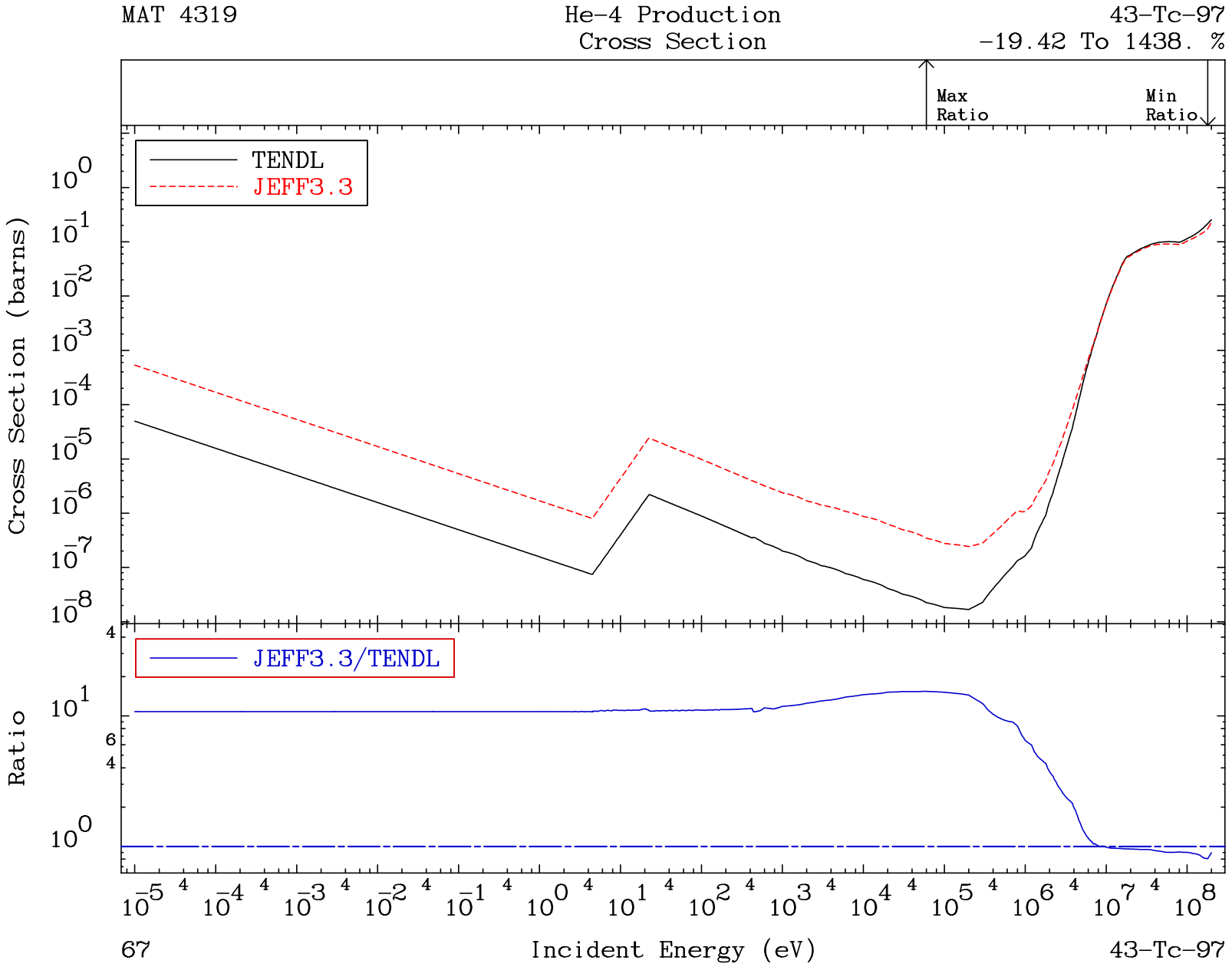

MAT 4319
(n,d) α
Cross Section
43-Tc-97
0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 6.3198 MeV
JEFF3.3 Threshold 6.3136 MeV
Cross Section (micro-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
62
43-Tc-97

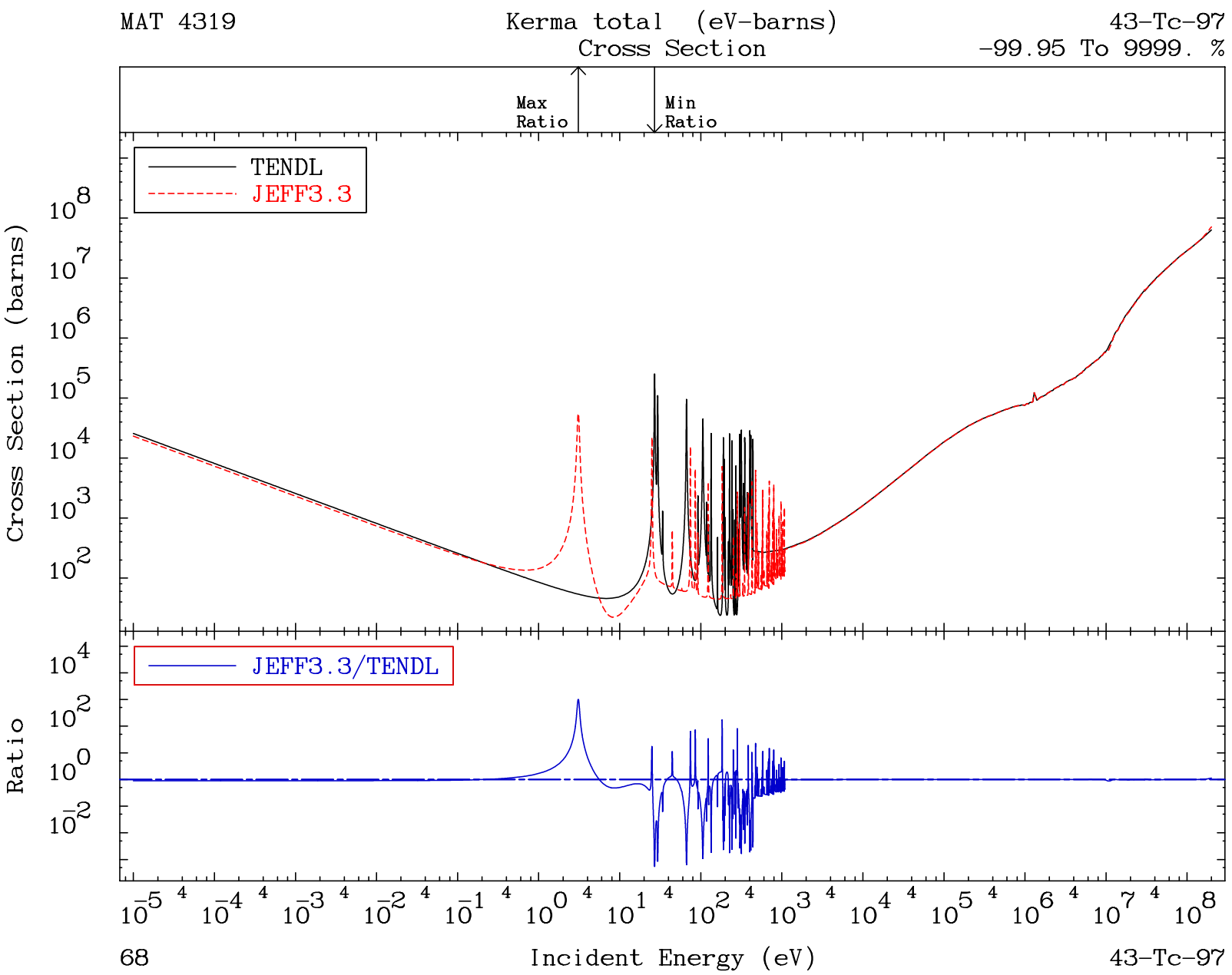

MAT 4319
Hydrogen Production
Cross Section
43-Tc-97
-4.366 To 59.43 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
63
43-Tc-97

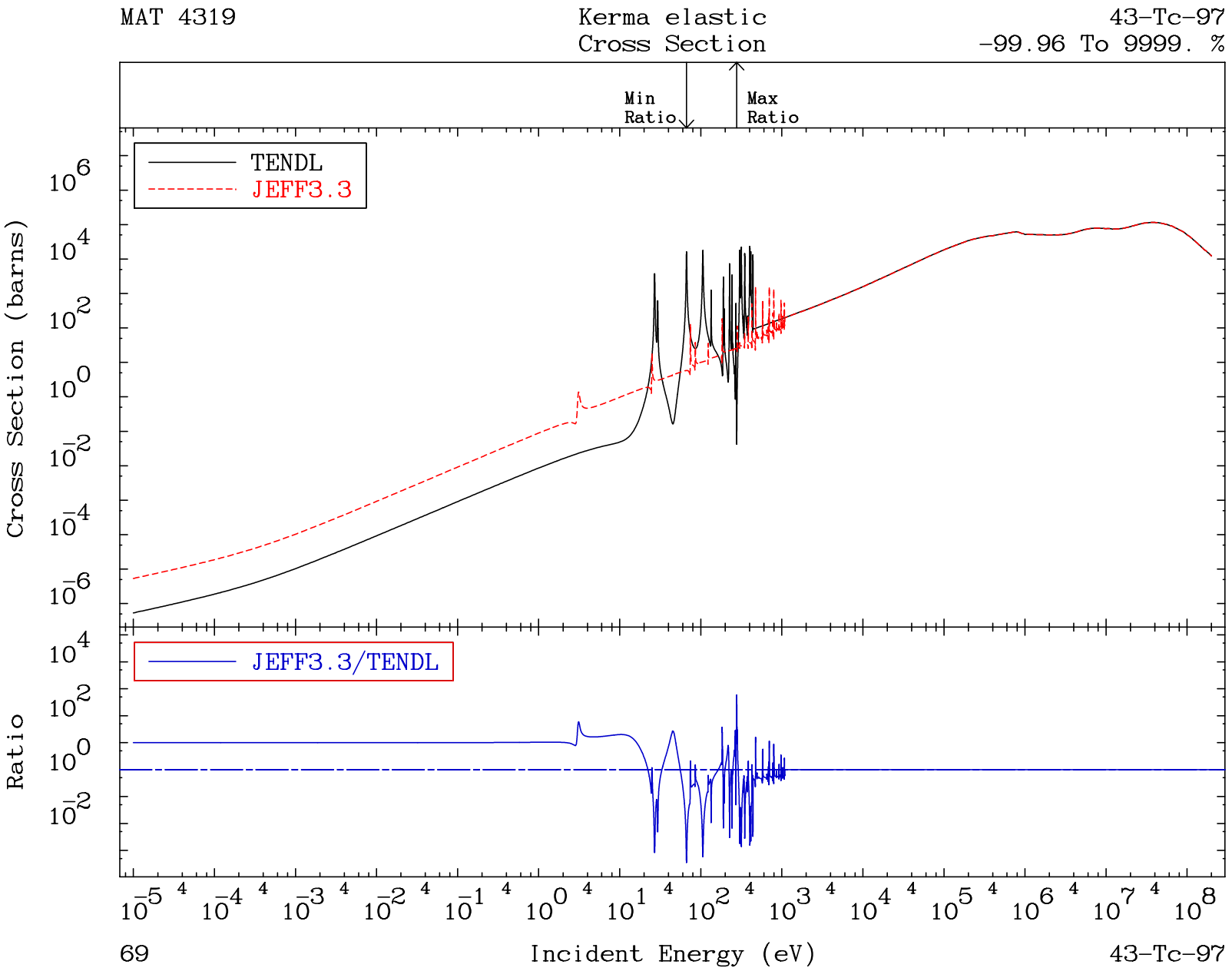

MAT 4319
Deuterium Production
Cross Section
43-Tc-97
-3.808 To 81.82 %
Min Ratio
Max Ratio
TENDL Threshold 3.5303 MeV
JEFF3.3 Threshold 3.5259 MeV
Cross Section (milli-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
2.0
1.6
1.2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
64
Incident Energy (eV)
43-Tc-97

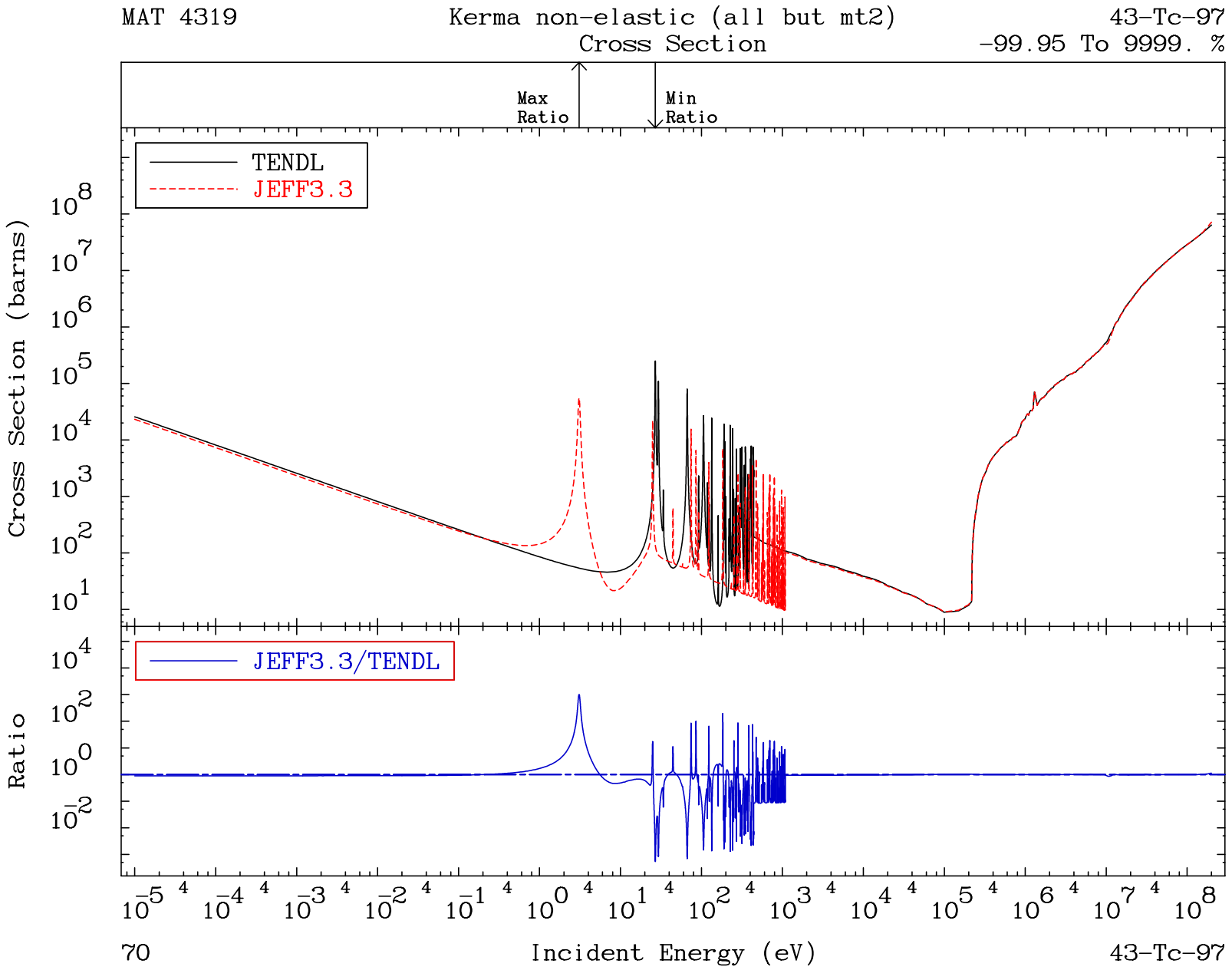

MAT 4319
Tritium Production
Cross Section
43-Tc-97
-3.519 To 109.8 %
Min Ratio
Max Ratio
TENDL Threshold 6.4576 MeV
JEFF3.3 Threshold 6.4532 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
2.4
2.0
1.6
1.2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
65
Incident Energy (eV)
43-Tc-97

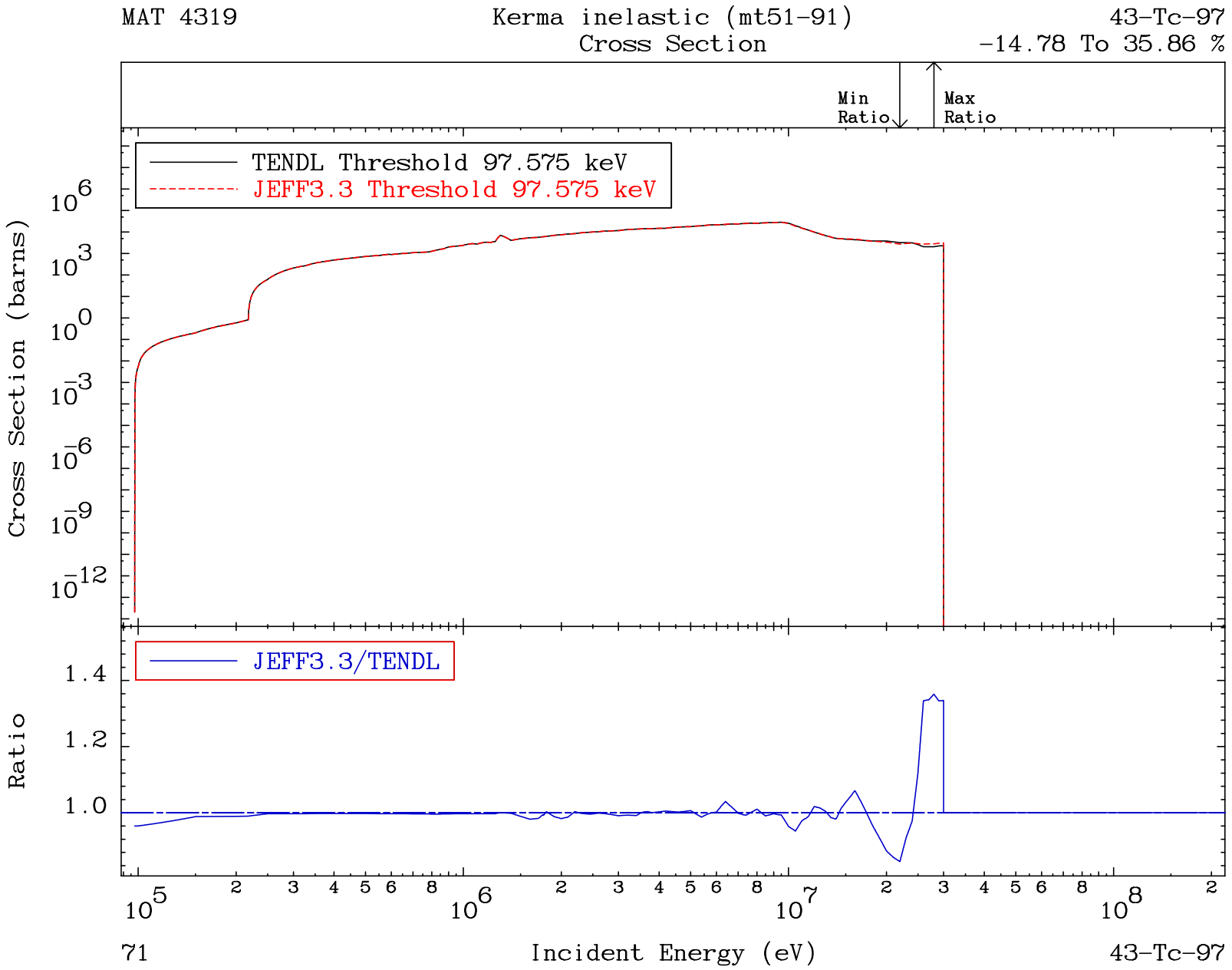

MAT 4319
He-3 Production
Cross Section
43-Tc-97
-1.850 To 19.43 %
Max Ratio
Min Ratio
TENDL Threshold 7.3740 MeV
JEFF3.3 Threshold 7.3696 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
66
Incident Energy (eV)
43-Tc-97

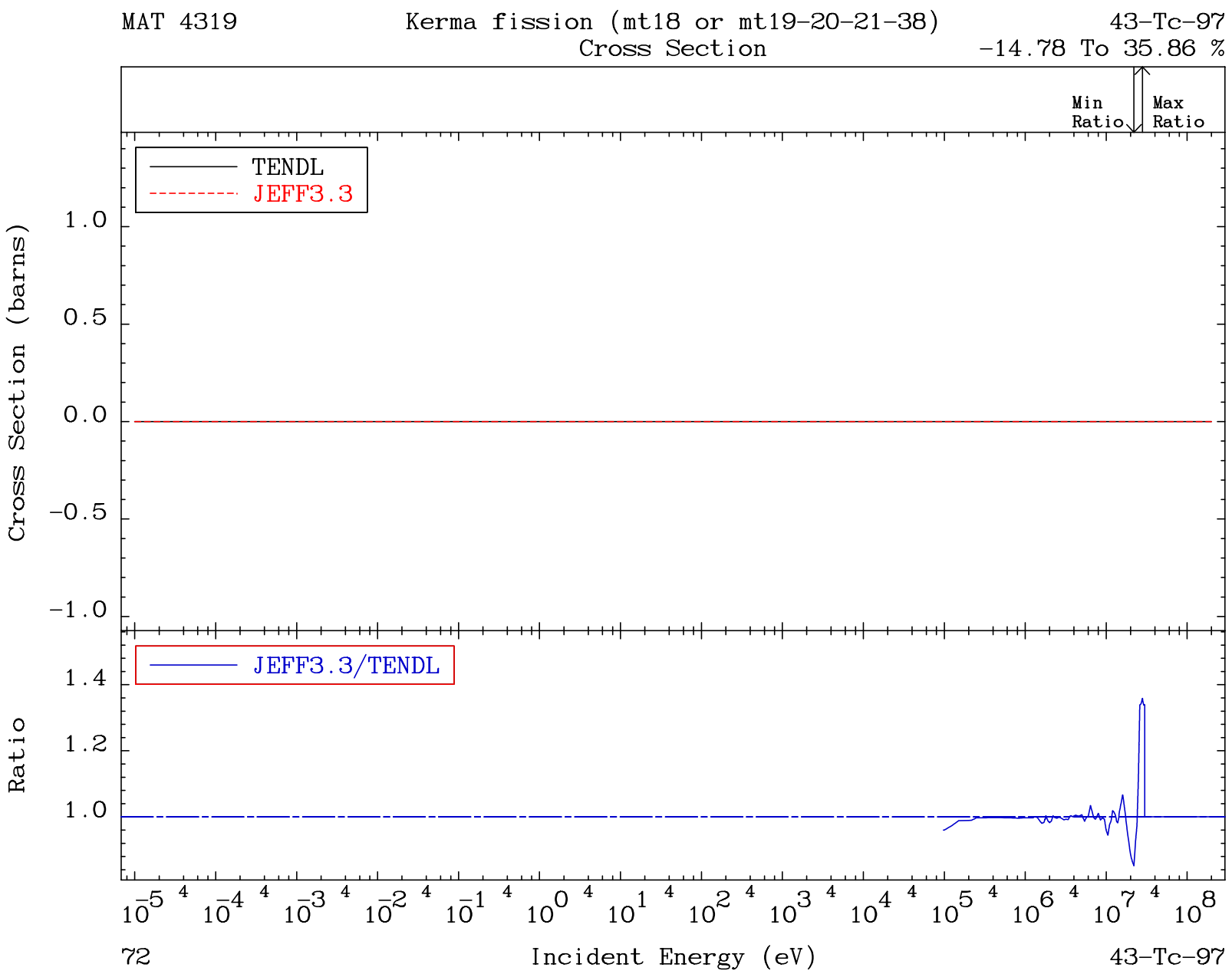

MAT 4319
He-4 Production
Cross Section
43-Tc-97
-19.42 To 1438. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
67
43-Tc-97

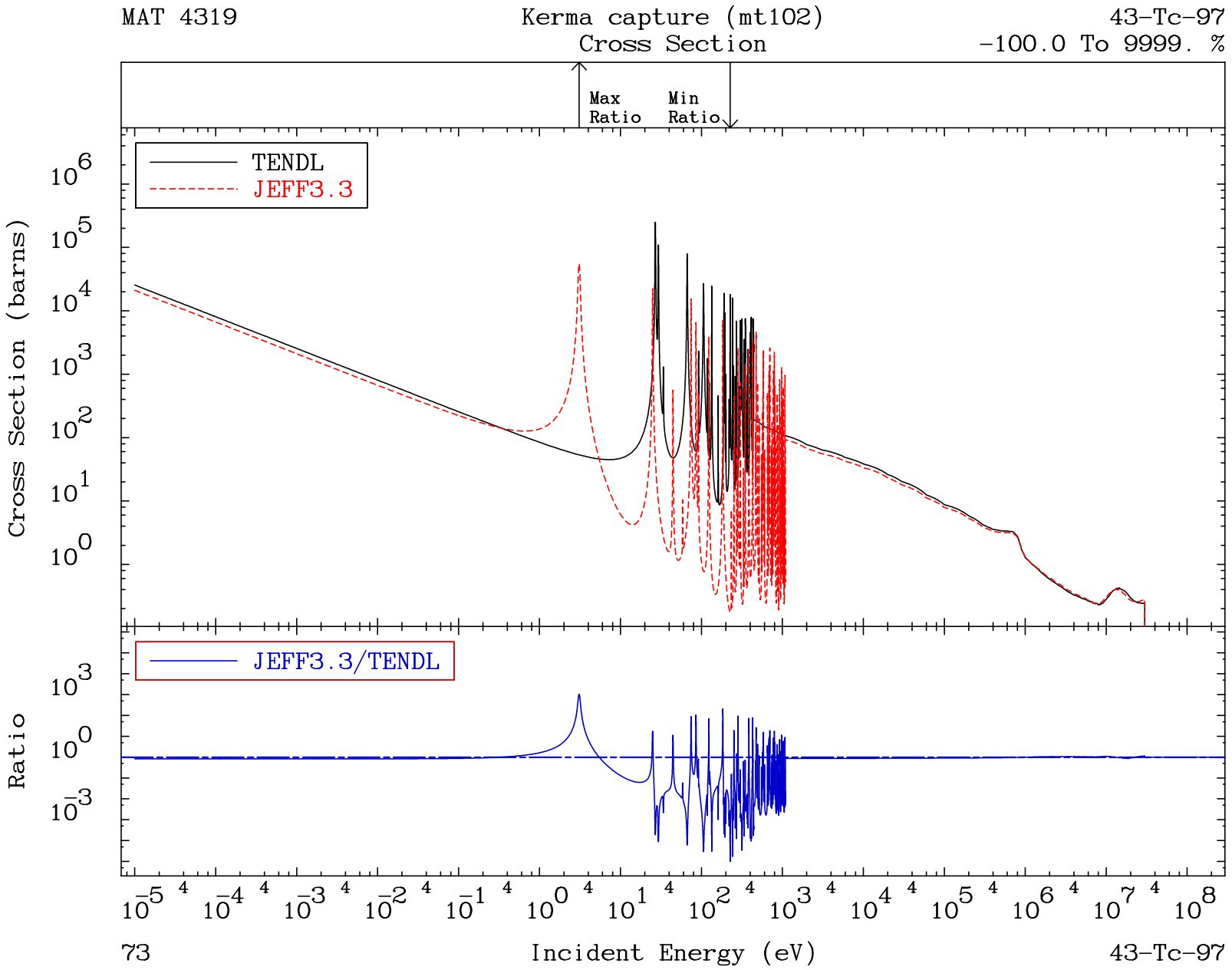

MAT 4319
Kerma total (eV-barns)
Cross Section
43-Tc-97
-99.95 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
68
43-Tc-97

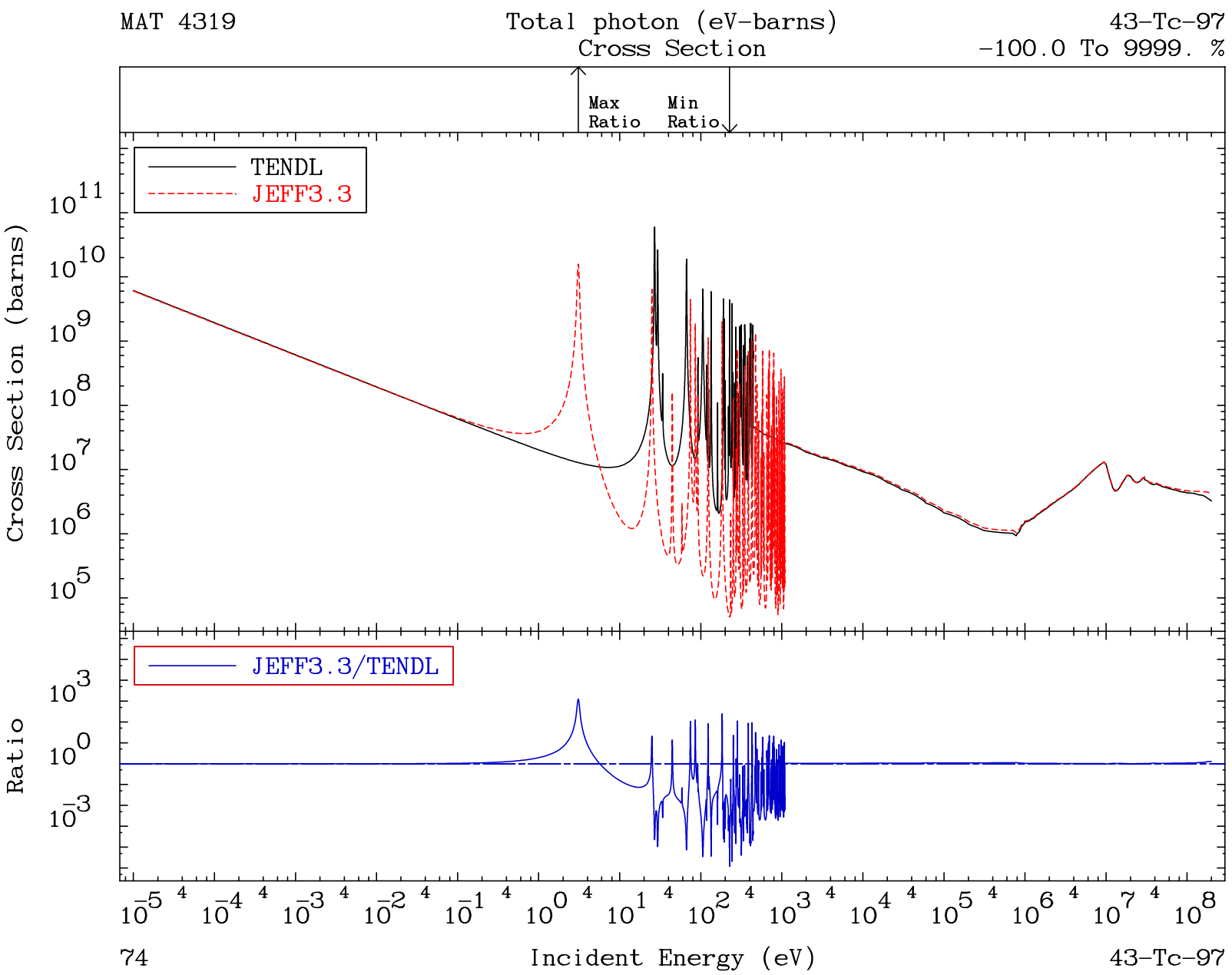

MAT 4319
Kerma elastic
Cross Section
43-Tc-97
-99.96 To 9999. %
Min
Ratio
Max
Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
69
43-Tc-97

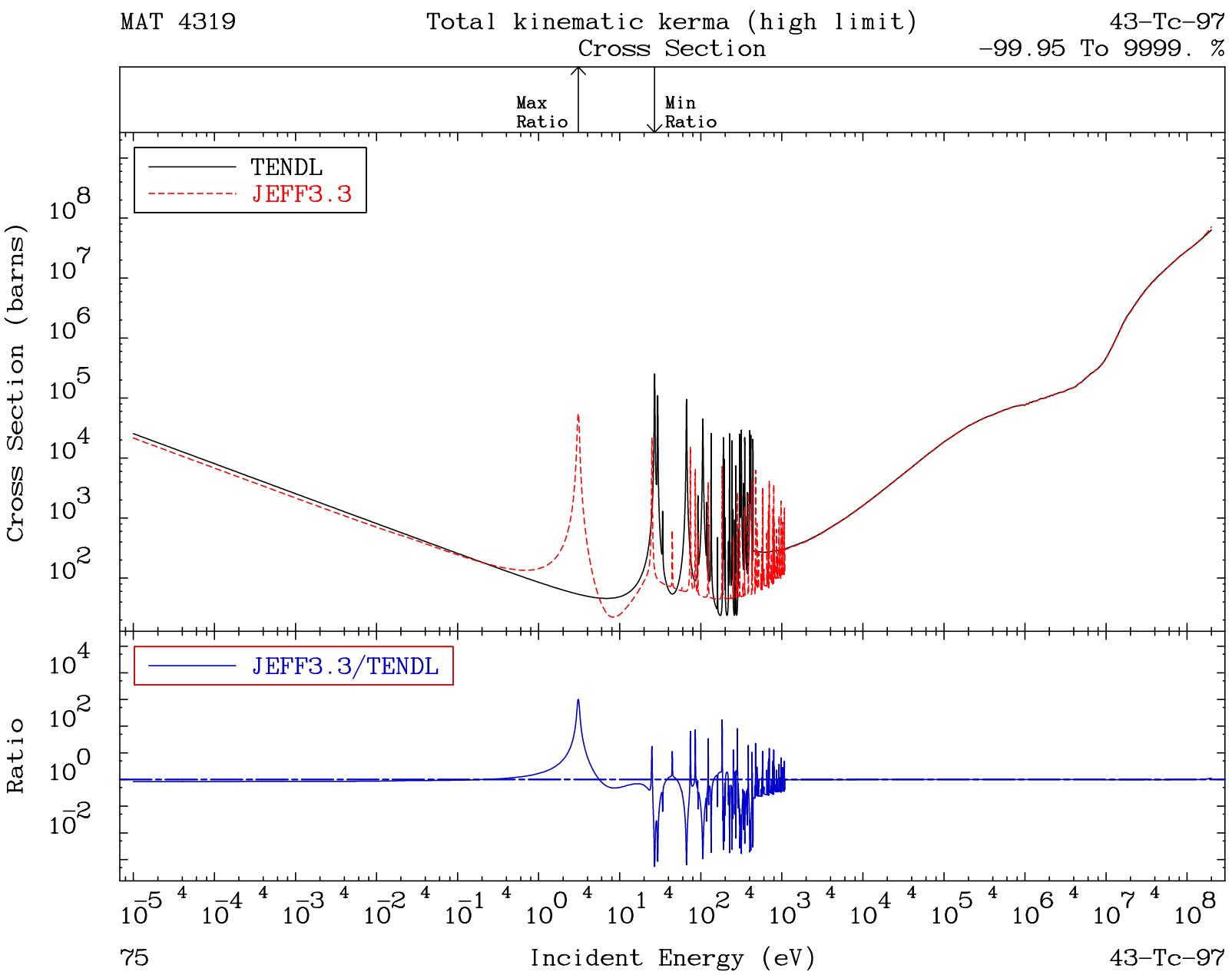

MAT 4319
Kerma non-elastic (all but mt2)
Cross Section
43-Tc-97
-99.95 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
70
43-Tc-97

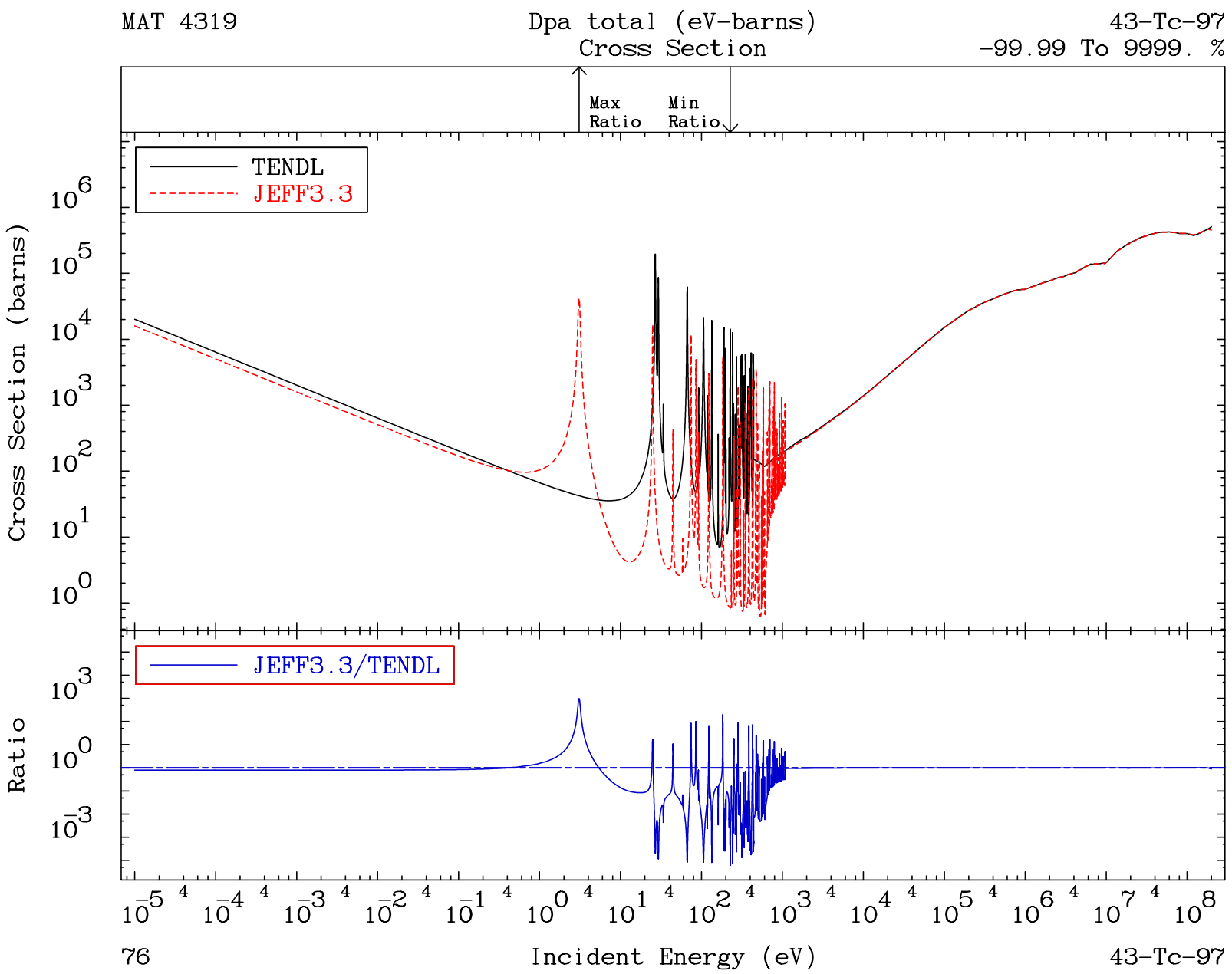

MAT 4319
Kerma inelastic (mt51-91)
Cross Section
43-Tc-97
-14.78 To 35.86 %
Min Ratio
Max Ratio
TENDL Threshold 97.575 keV
JEFF3.3 Threshold 97.575 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
71
43-Tc-97

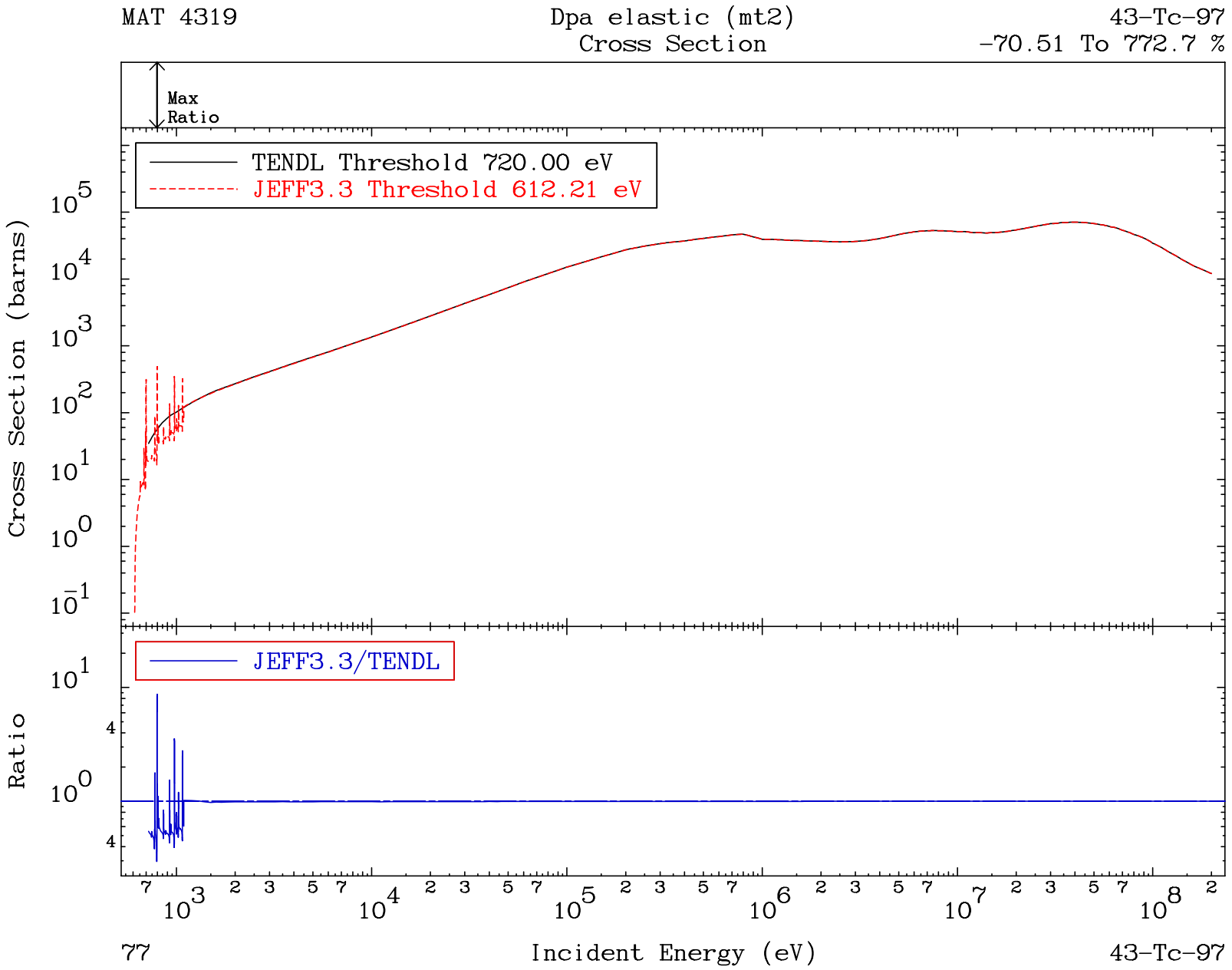

MAT 4319
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
43-Tc-97
-14.78 To 35.86 %
Min Ratio
Max Ratio
TENDL
JEFF3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
72
Incident Energy (eV)
43-Tc-97

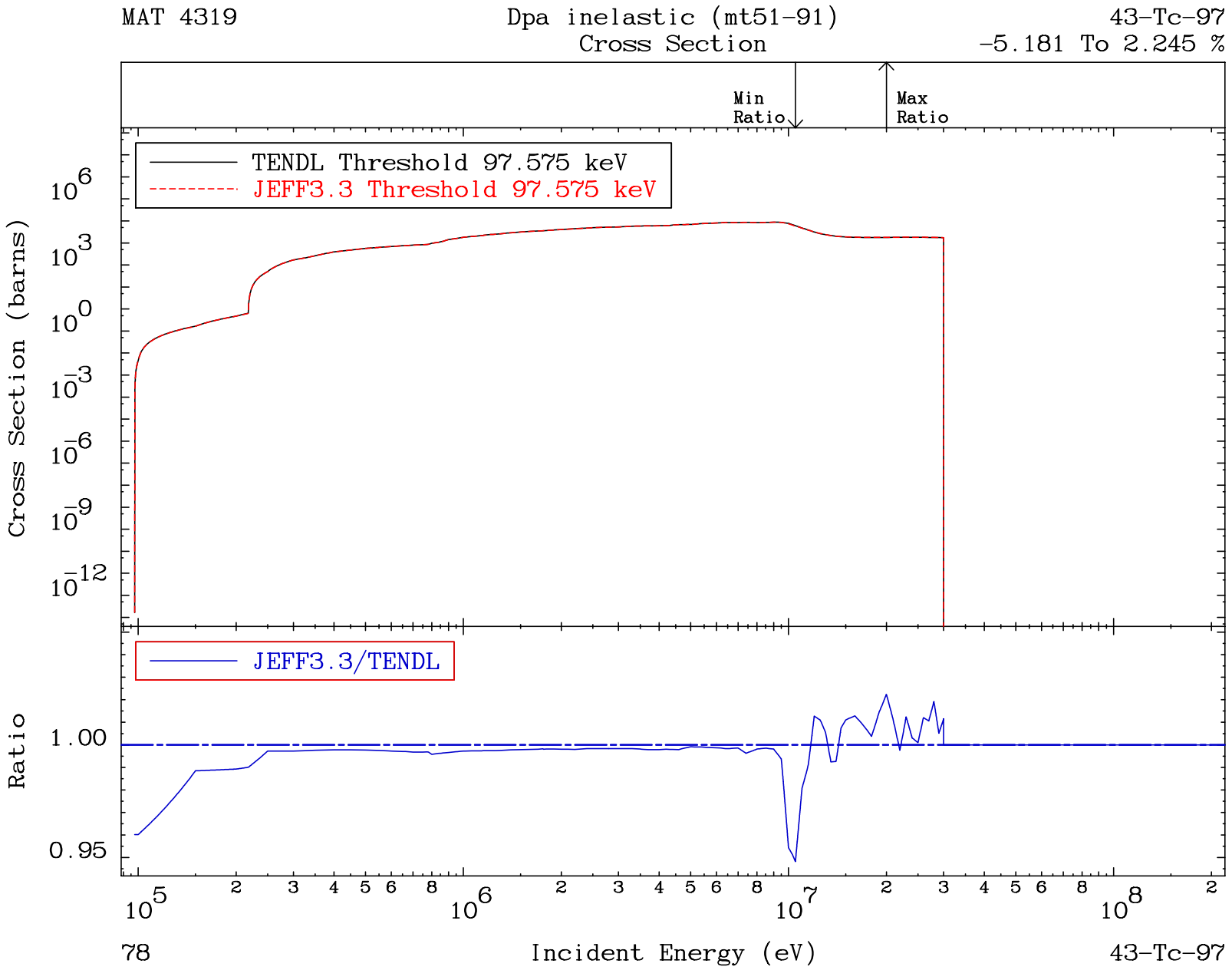

MAT 4319
Kerma capture (mt102)
Cross Section
43-Tc-97
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
73
43-Tc-97

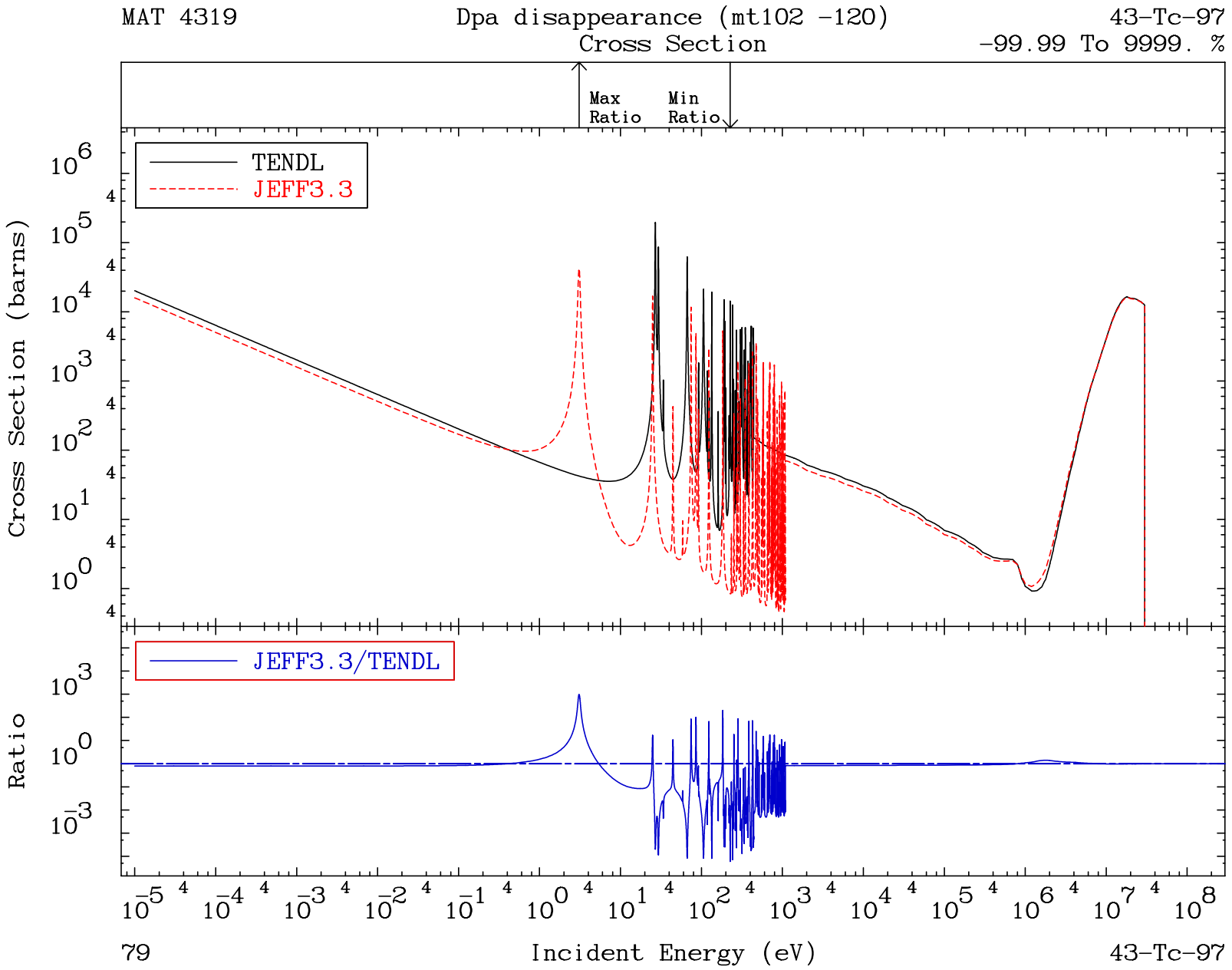

MAT 4319
Total photon (eV-barns)
Cross Section
43-Tc-97
-100.0 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
74
Incident Energy (eV)
43-Tc-97

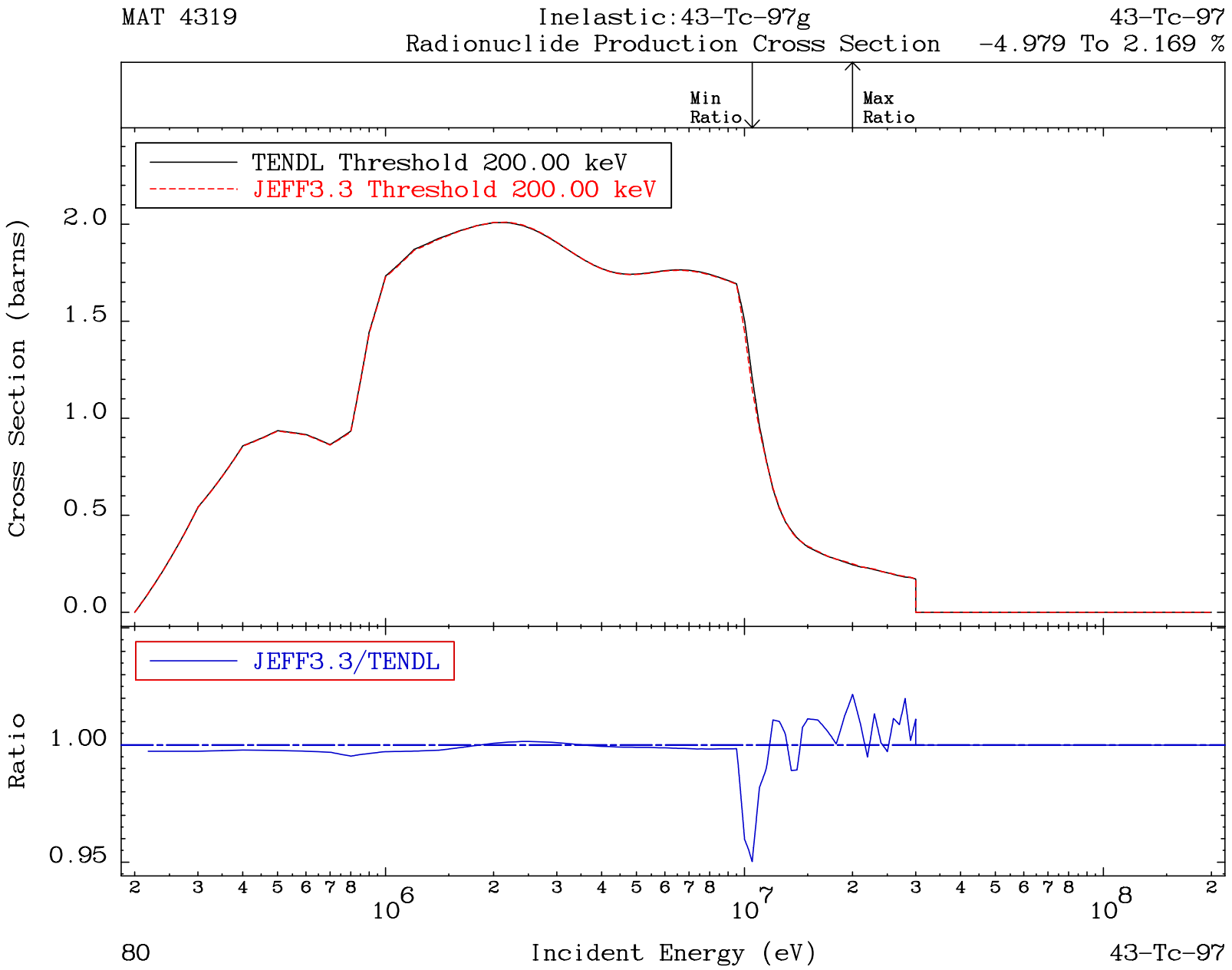

MAT 4319
Total kinematic kerma (high limit)
Cross Section
43-Tc-97
-99.95 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
75
43-Tc-97

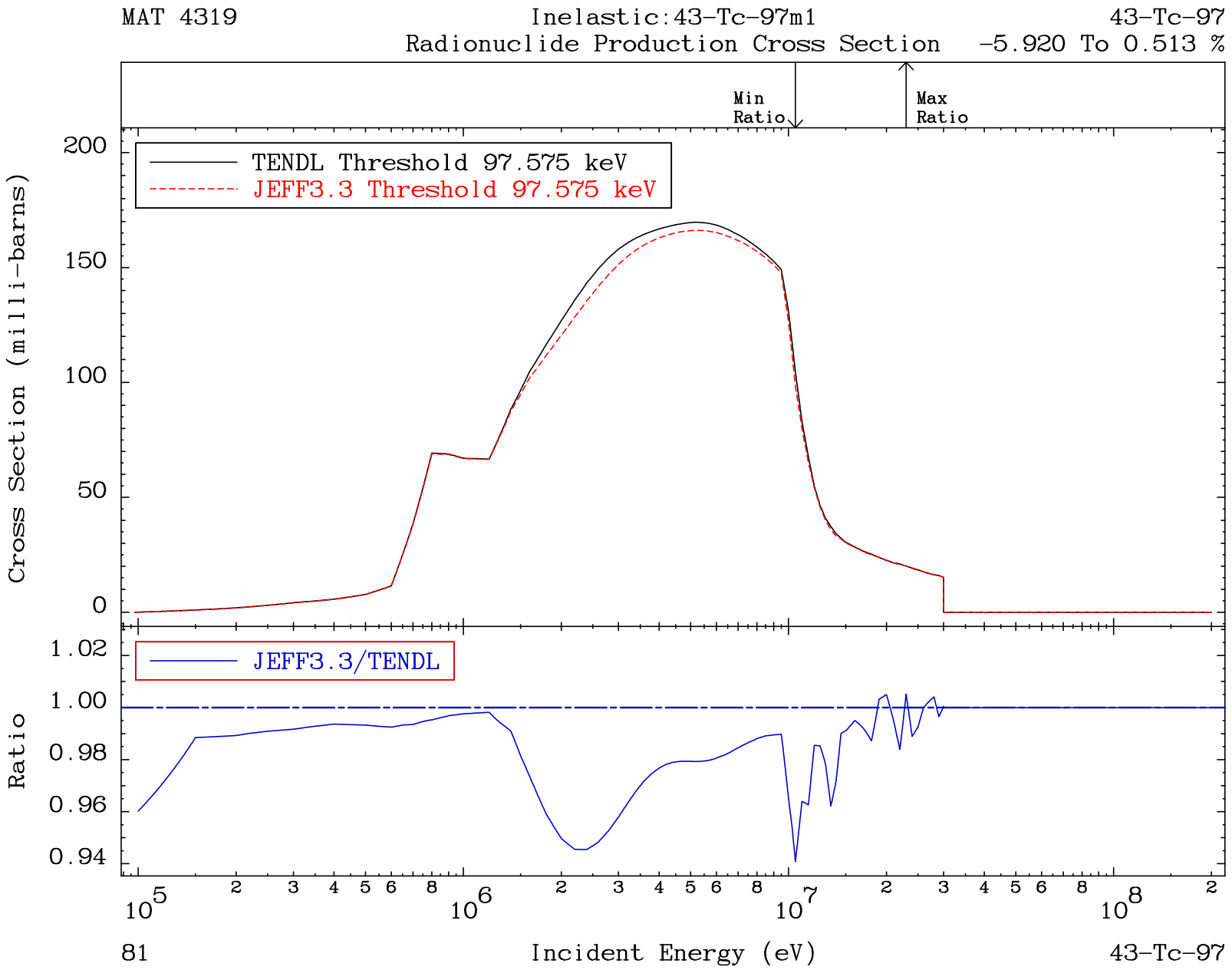

MAT 4319
Dpa total (eV-barns)
Cross Section
43-Tc-97
-99.99 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
76
43-Tc-97

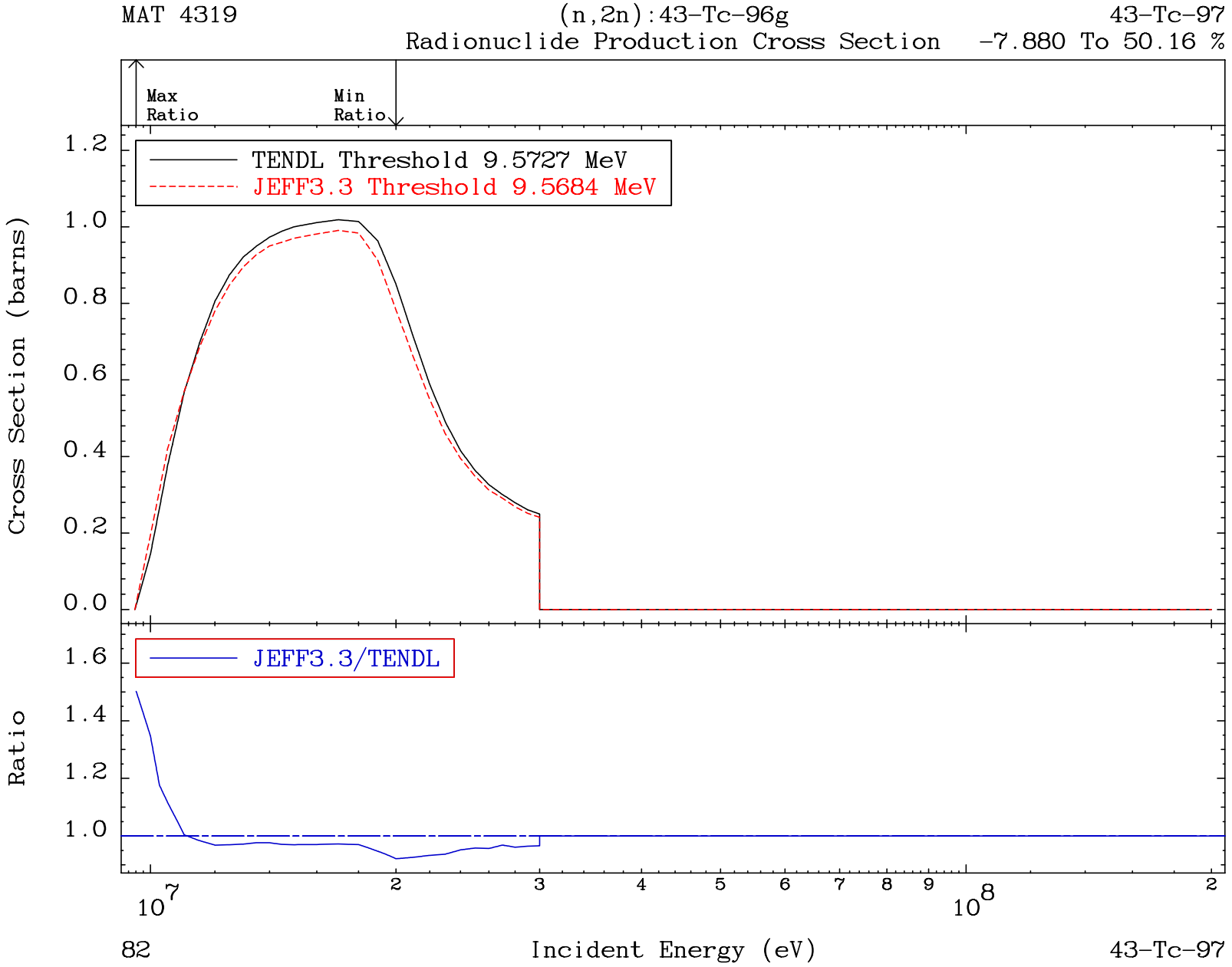

MAT 4319
Dpa elastic (mt2)
Cross Section
43-Tc-97
-70.51 To 772.7 %
Max
Ratio
TENDL Threshold 720.00 eV
JEFF3.3 Threshold 612.21 eV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
77
43-Tc-97

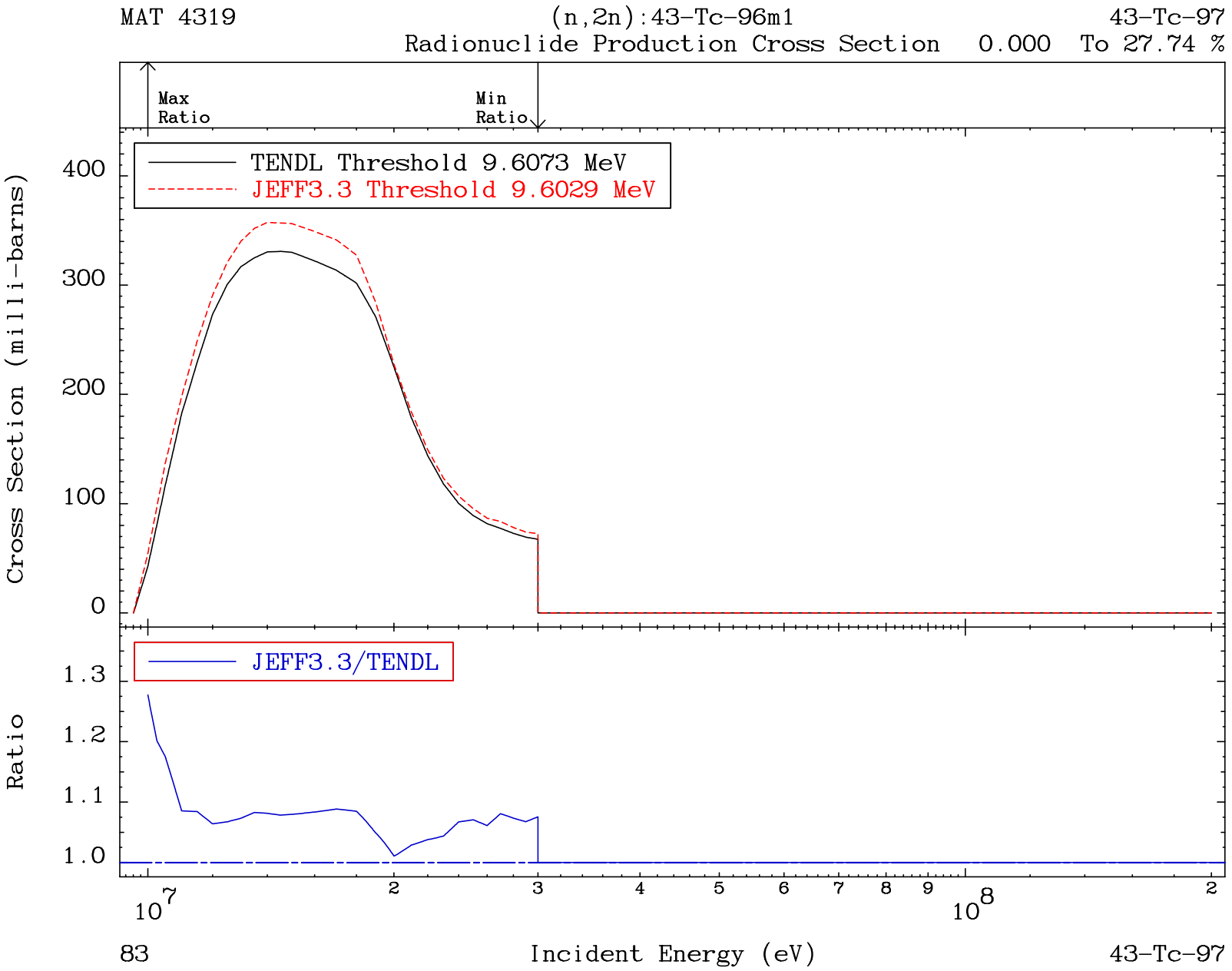

MAT 4319
Dpa inelastic (mt51-91)
Cross Section
43-Tc-97
-5.181 To 2.245 %
Min Ratio
Max Ratio
TENDL Threshold 97.575 keV
JEFF3.3 Threshold 97.575 keV
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
78
43-Tc-97

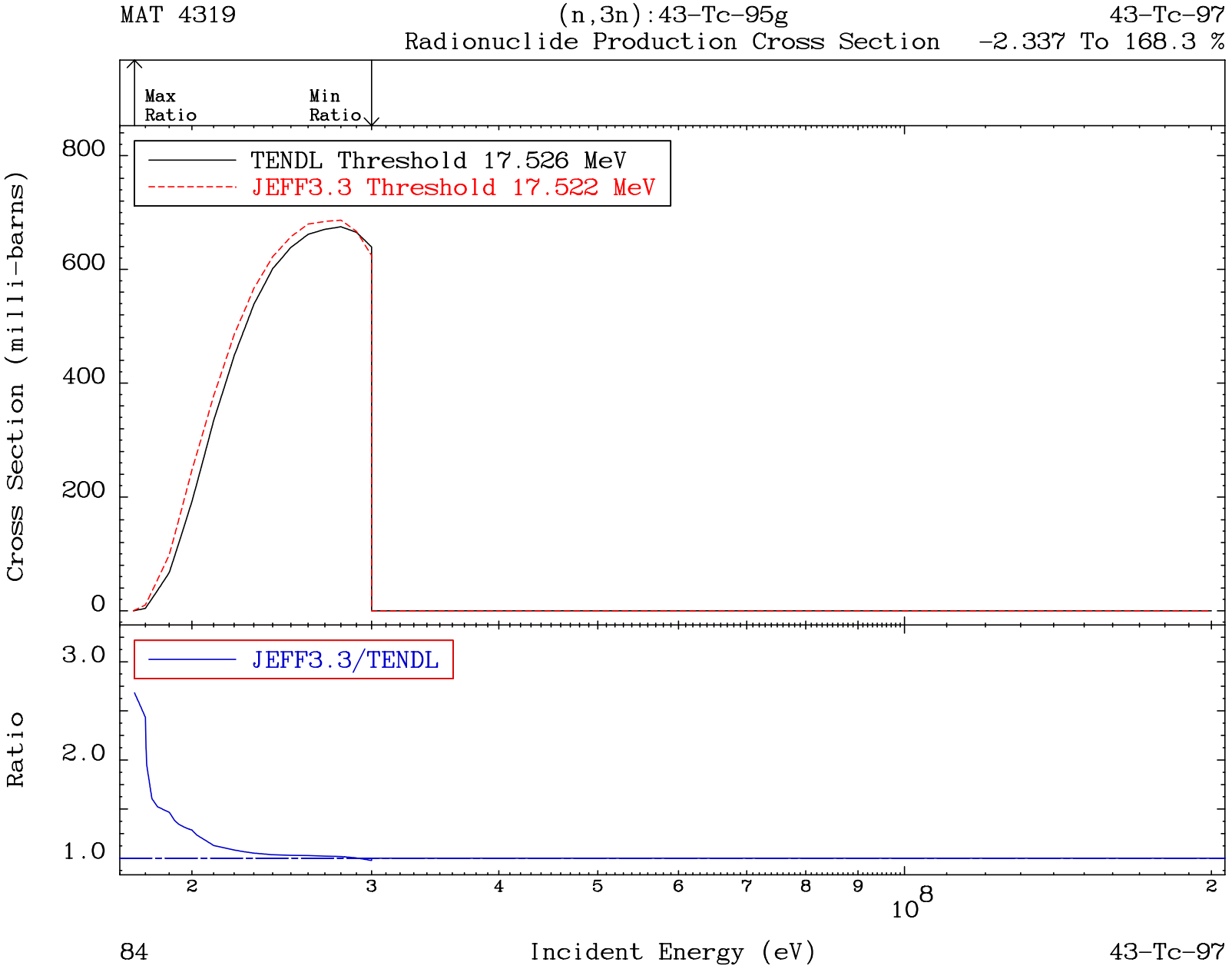

MAT 4319
Dpa disappearance (mt102 -120)
Cross Section
43-Tc-97
-99.99 To 9999. %
Max Ratio
Min Ratio
TENDL
JEFF3.3
Cross Section (barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
79
43-Tc-97

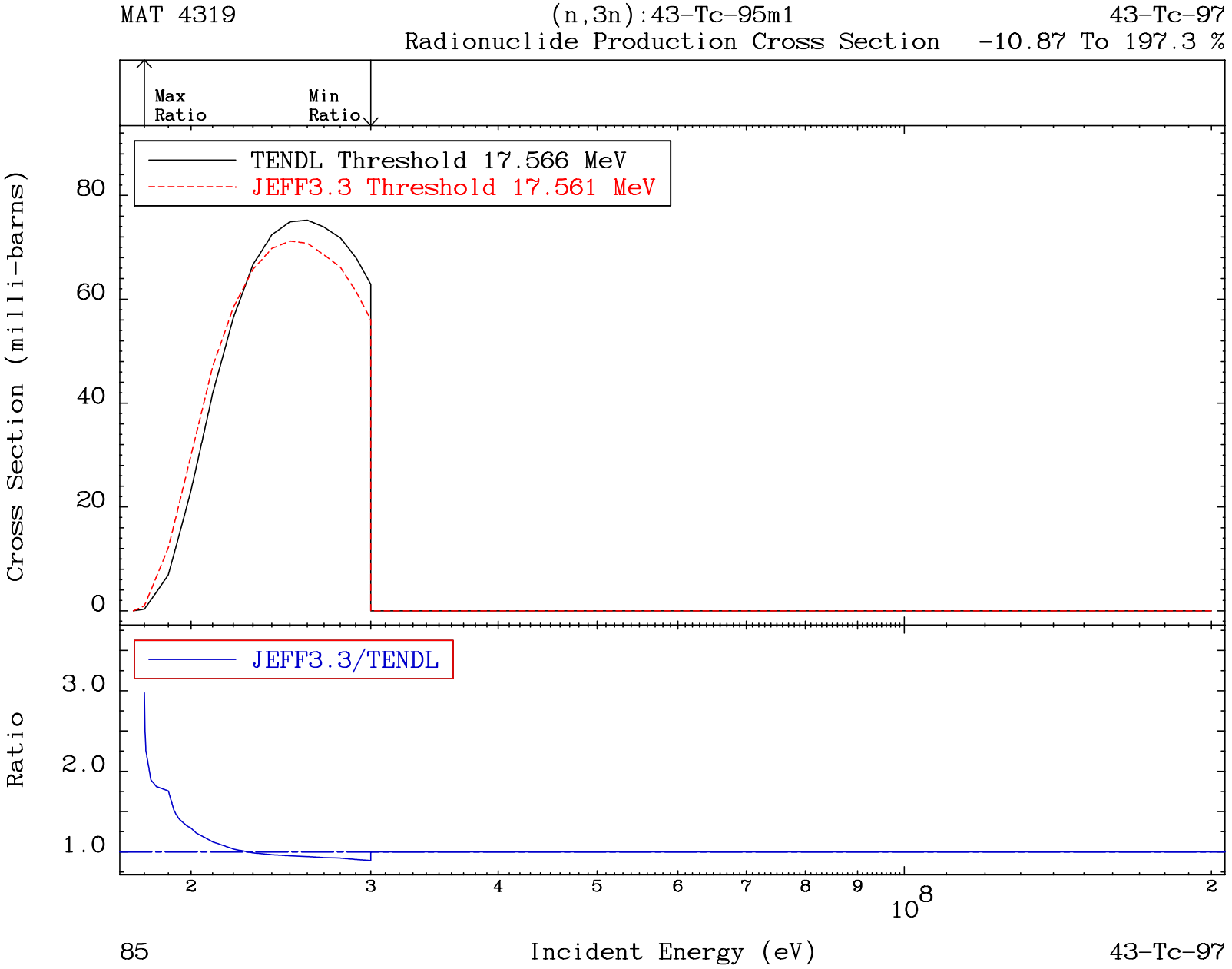

MAT 4319
Inelastic:43-Tc-97g
43-Tc-97
Radionuclide Production Cross Section
-4.979 To 2.169 %
Min Ratio
Max Ratio
TENDL Threshold 200.00 keV
JEFF3.3 Threshold 200.00 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.00
0.95
2 3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
80
Incident Energy (eV)
43-Tc-97

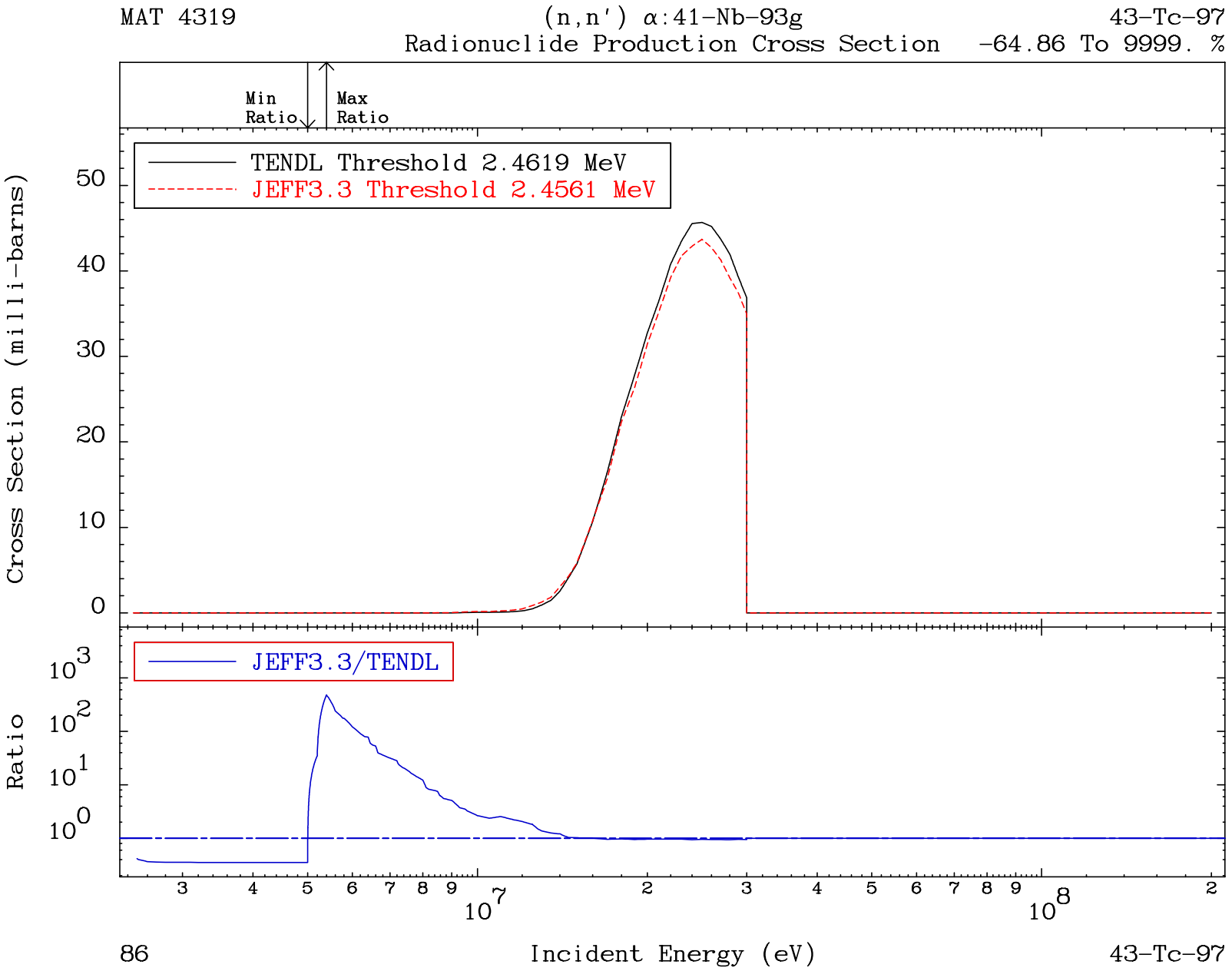

MAT 4319
Inelastic:43-Tc-97m1
43-Tc-97
Radionuclide Production Cross Section
-5.920 To 0.513 %
Min Ratio
Max Ratio
TENDL Threshold 97.575 keV
JEFF3.3 Threshold 97.575 keV
Cross Section (milli-barns)
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.02
1.00
0.98
0.96
0.94
10^5
10^6
10^7
10^8
81
Incident Energy (eV)
43-Tc-97

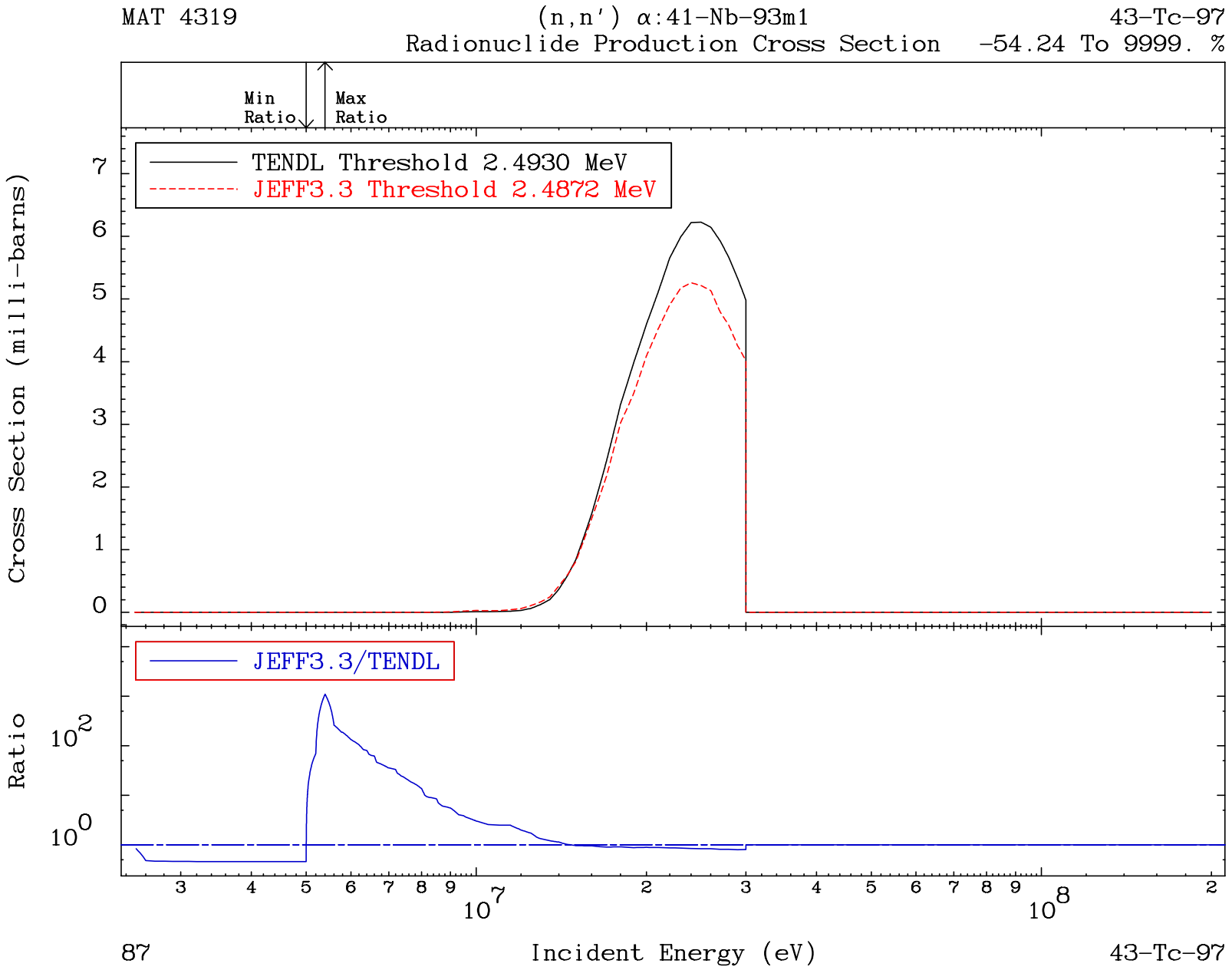

MAT 4319
(n,2n):43-Tc-96g
43-Tc-97
Radionuclide Production Cross Section -7.880 To 50.16 %
Max Ratio
Min Ratio
TENDL Threshold 9.5727 MeV
JEFF3.3 Threshold 9.5684 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.6
1.4
1.2
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
82
Incident Energy (eV)
43-Tc-97

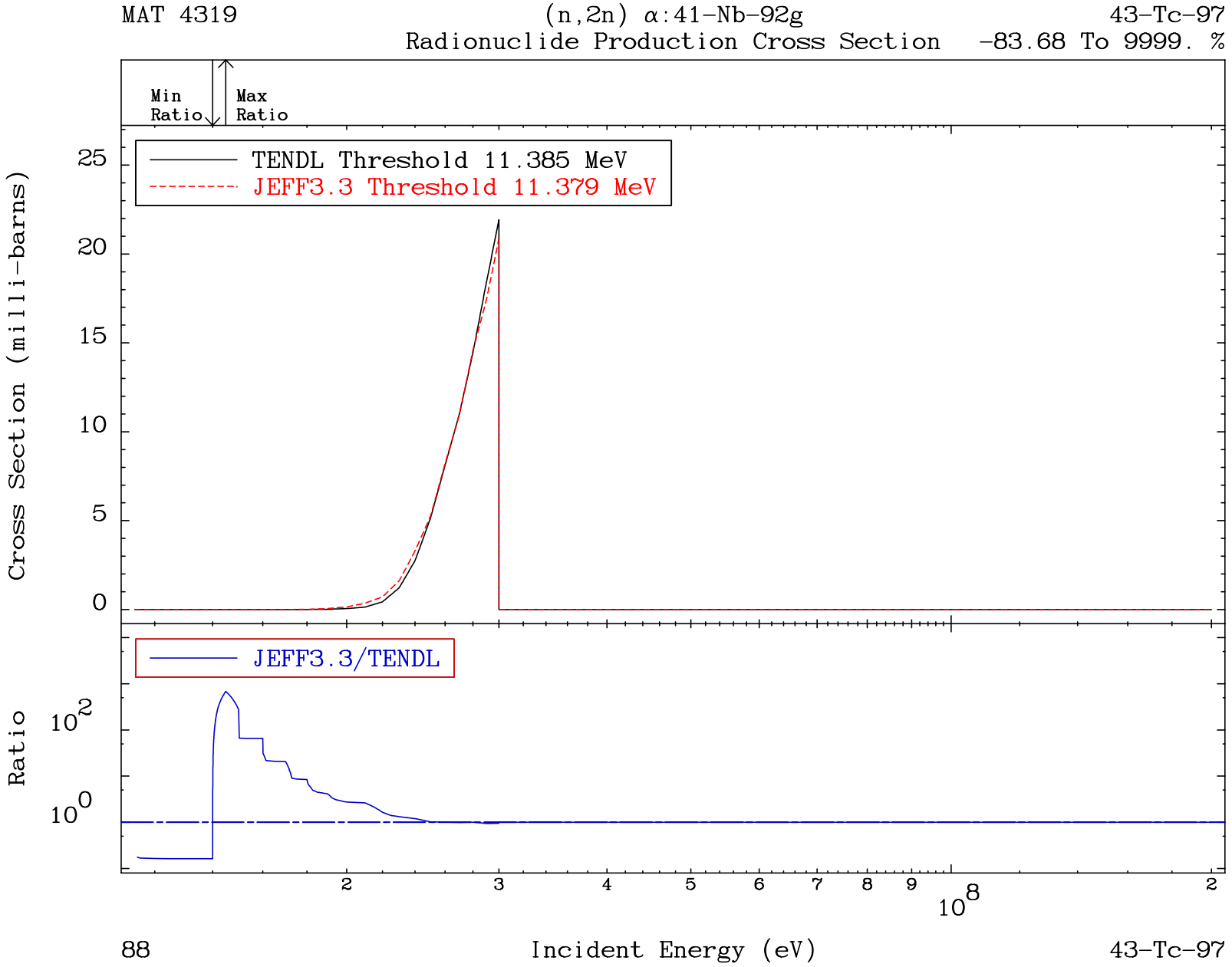

MAT 4319
(n,2n):43-Tc-96m1
43-Tc-97
Radionuclide Production Cross Section 0.000 To 27.74 %
Max Ratio
Min Ratio
TENDL Threshold 9.6073 MeV
JEFF3.3 Threshold 9.6029 MeV
Cross Section (milli-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
1.3
1.2
1.1
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
83
Incident Energy (eV)
43-Tc-97

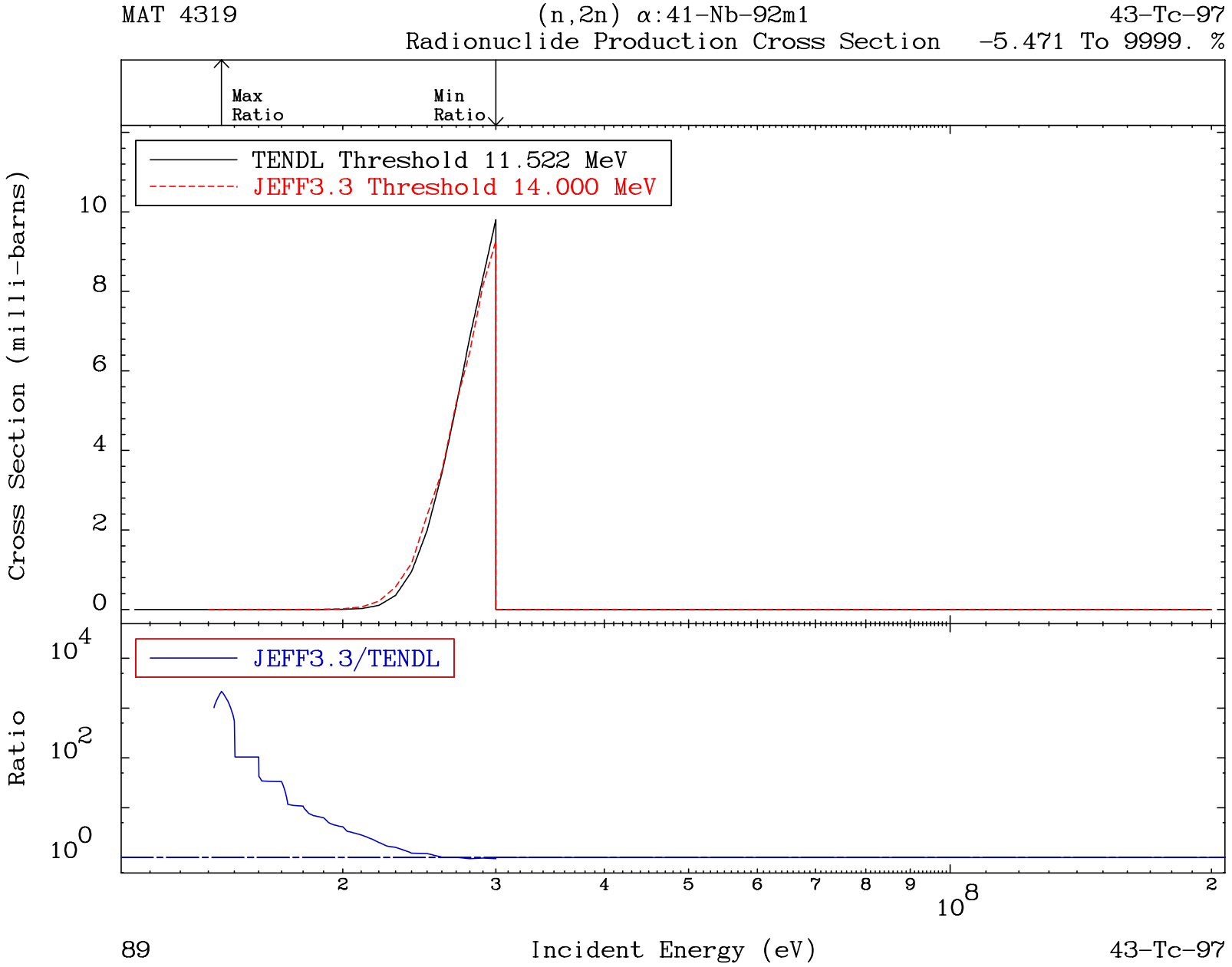

MAT 4319
(n,3n):43-Tc-95g
43-Tc-97
Radionuclide Production Cross Section
-2.337 To 168.3 %
Max Ratio
Min Ratio
TENDL Threshold 17.526 MeV
JEFF3.3 Threshold 17.522 MeV
Cross Section (milli-barns)
800
600
400
200
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
84
Incident Energy (eV)
43-Tc-97

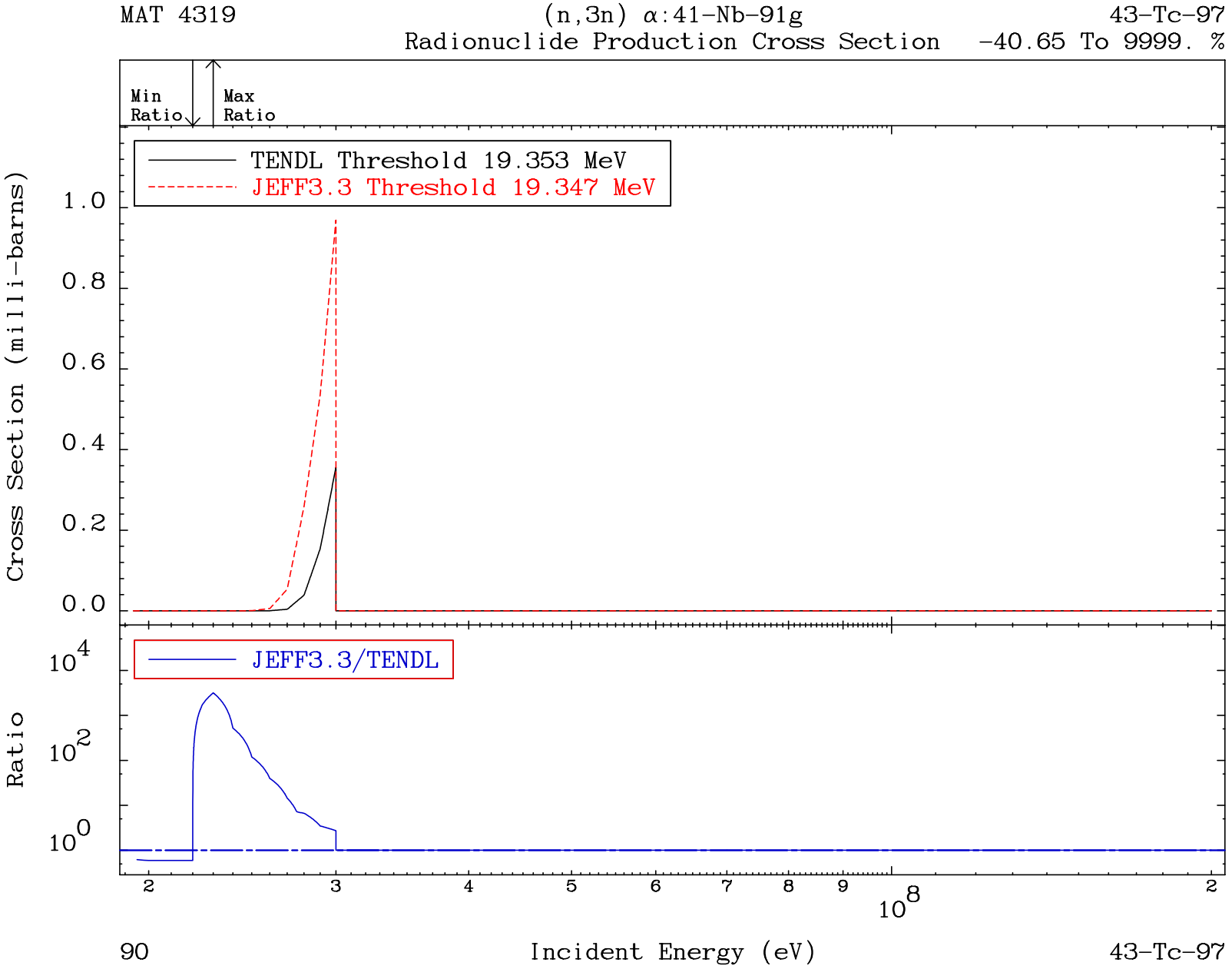

MAT 4319
(n,3n):43-Tc-95m1
43-Tc-97
Radionuclide Production Cross Section -10.87 To 197.3 %
Max Ratio
Min Ratio
TENDL Threshold 17.566 MeV
JEFF3.3 Threshold 17.561 MeV
Cross Section (milli-barns)
80
60
40
20
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
85
Incident Energy (eV)
43-Tc-97

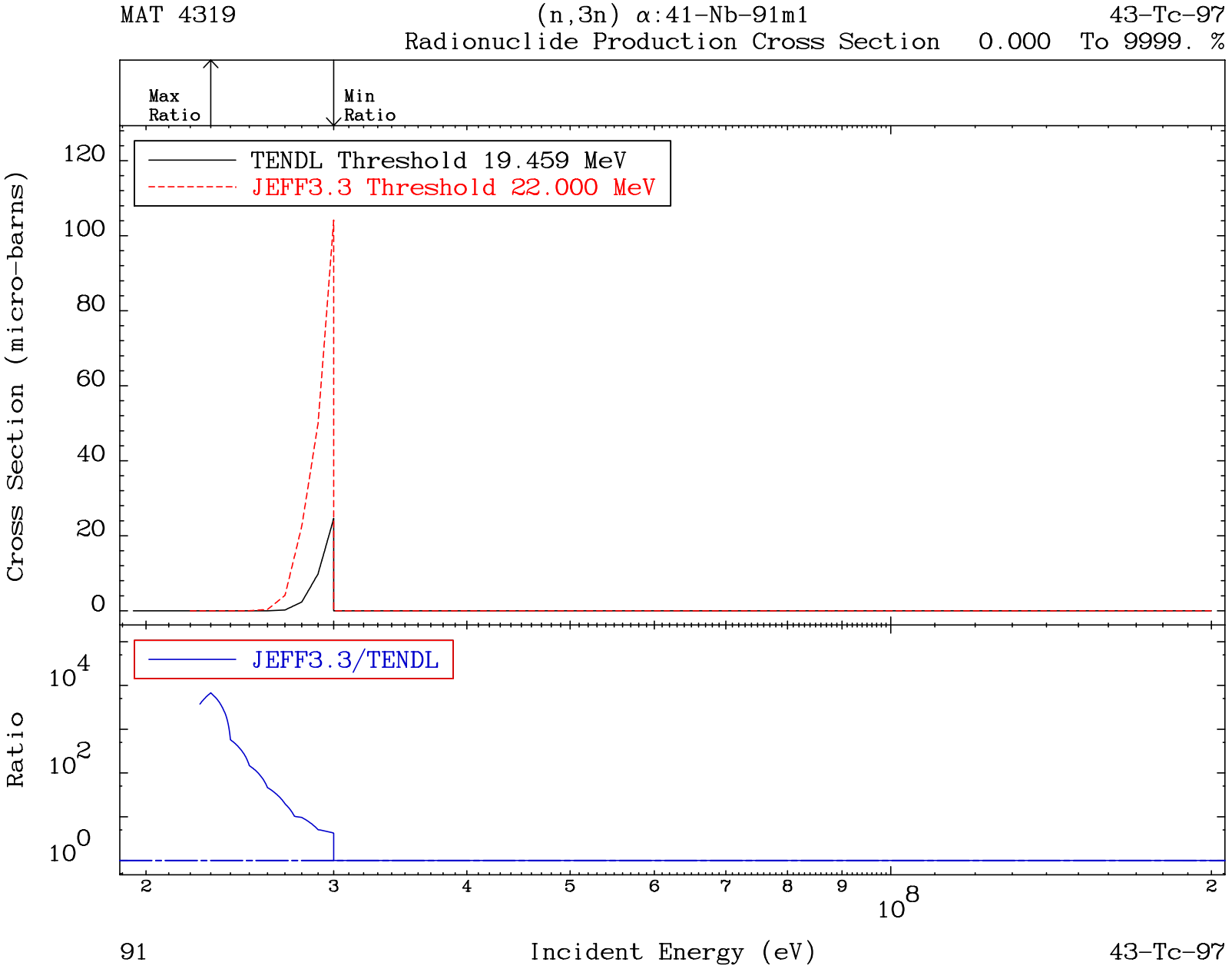

MAT 4319
(n,n') α:41-Nb-93g
43-Tc-97
Radionuclide Production Cross Section -64.86 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.4619 MeV
JEFF3.3 Threshold 2.4561 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
86
Incident Energy (eV)
43-Tc-97

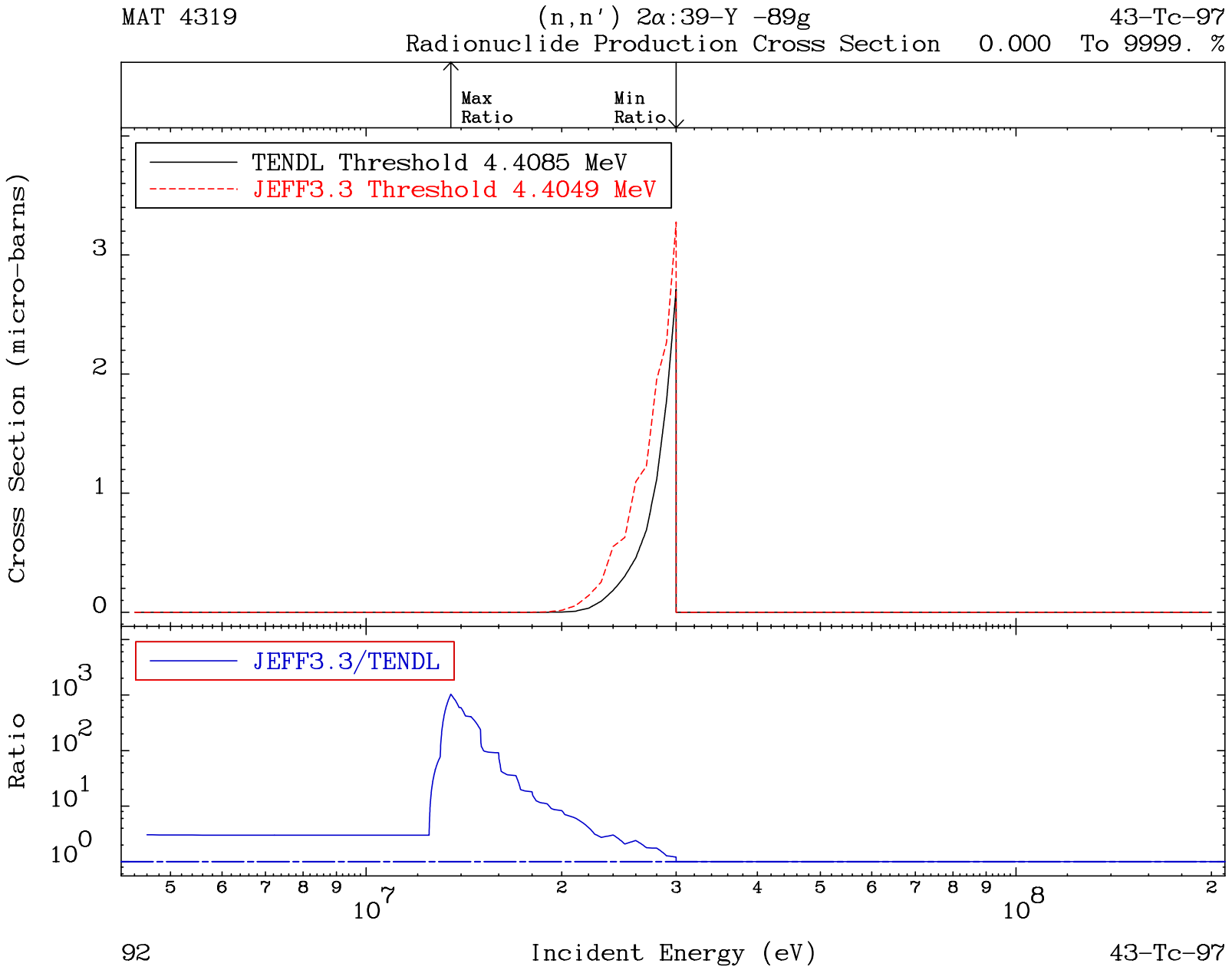

MAT 4319
(n,n') α:41-Nb-93m1
43-Tc-97
Radionuclide Production Cross Section -54.24 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 2.4930 MeV
JEFF3.3 Threshold 2.4872 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
7
JEFF3.3/TENDL
Ratio
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
87
Incident Energy (eV)
43-Tc-97

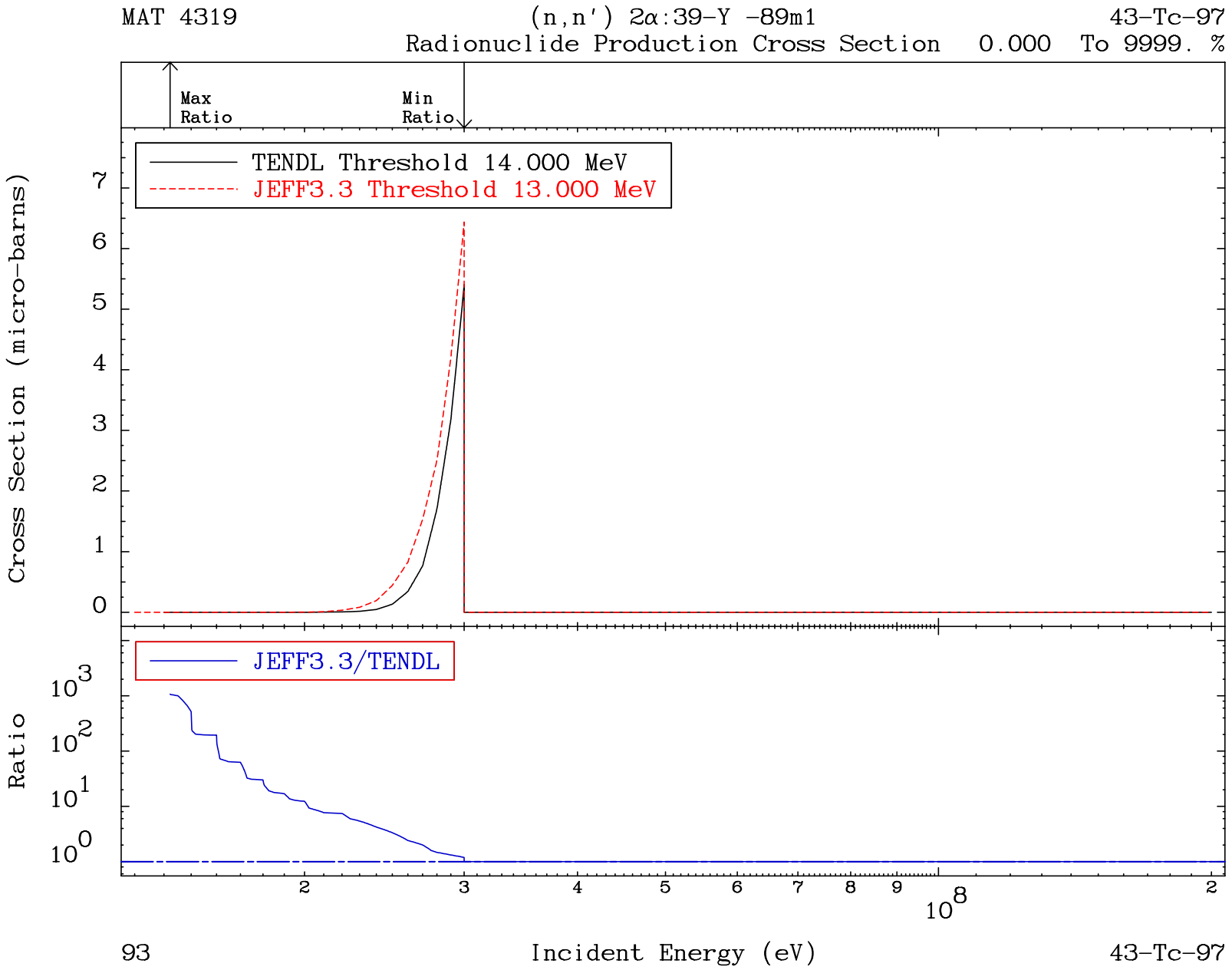

MAT 4319
(n,2n) α:41-Nb-92g
43-Tc-97
Radionuclide Production Cross Section -83.68 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 11.385 MeV
JEFF3.3 Threshold 11.379 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
88
Incident Energy (eV)
43-Tc-97

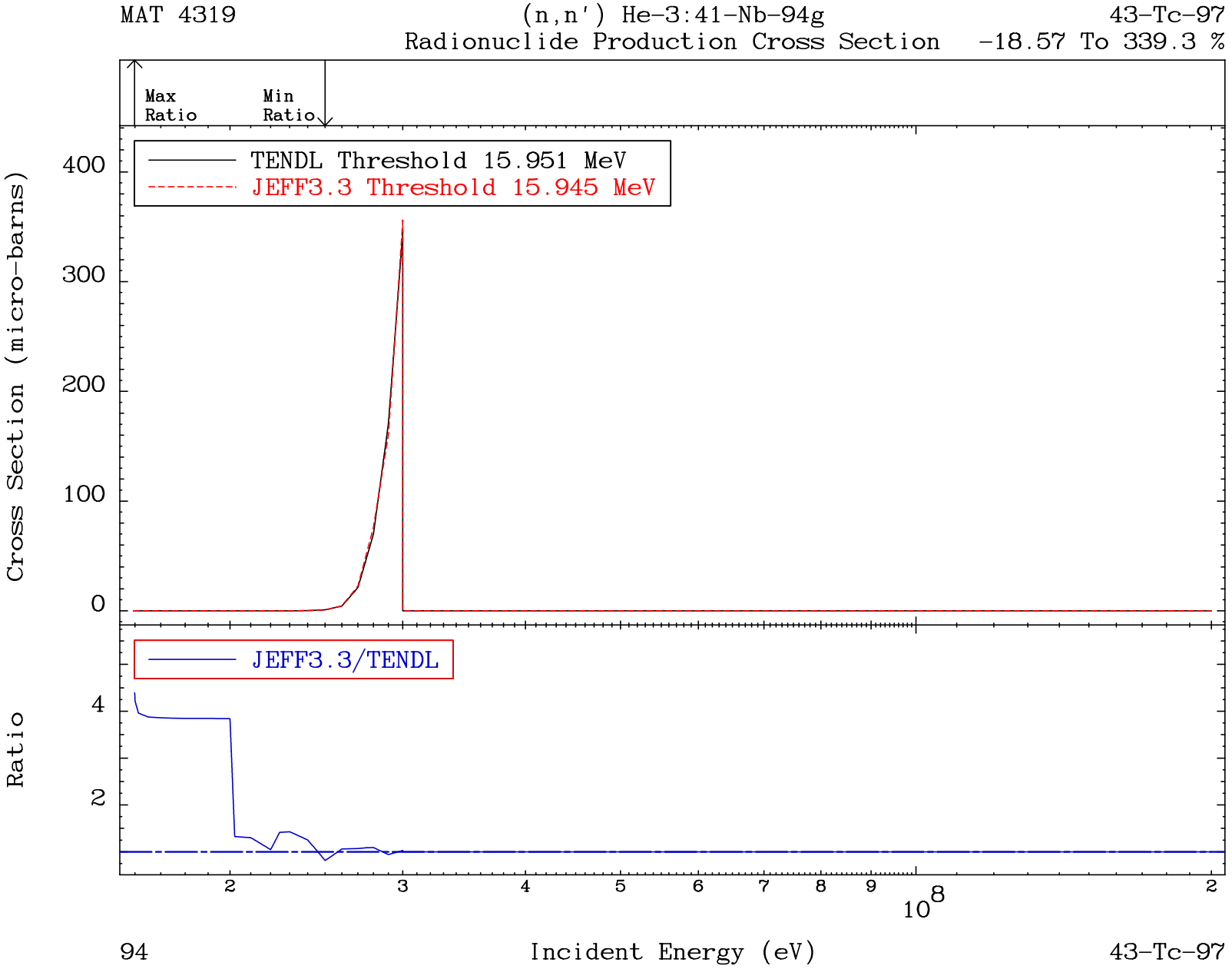

MAT 4319
(n,2n) α:41-Nb-92m1
43-Tc-97
Radionuclide Production Cross Section -5.471 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 11.522 MeV
JEFF3.3 Threshold 14.000 MeV
Cross Section (milli-barns)
JEFF3.3/TENDL
Ratio
Incident Energy (eV)
89
43-Tc-97

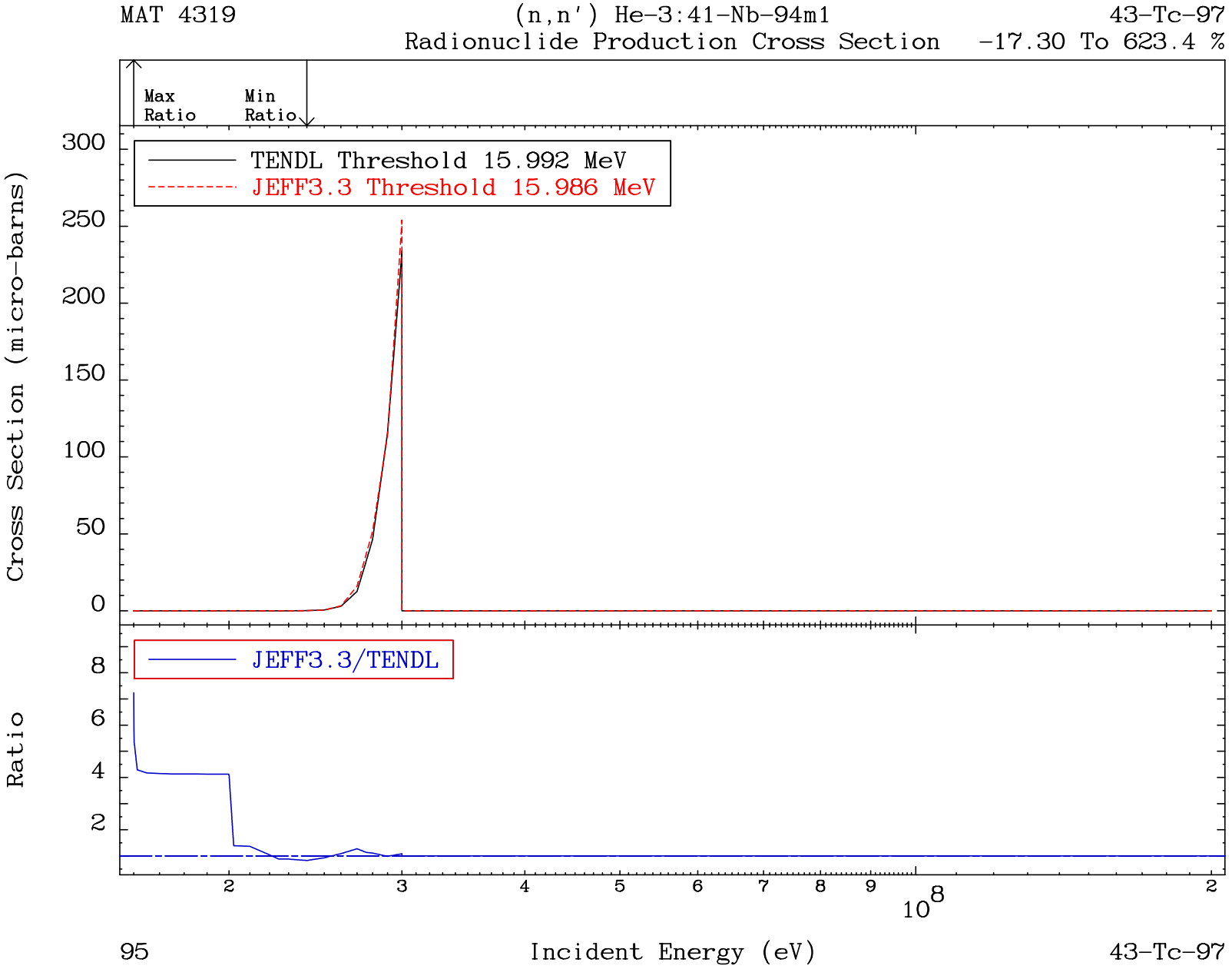

MAT 4319
(n,3n) α:41-Nb-91g
43-Tc-97
Radionuclide Production Cross Section
-40.65 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 19.353 MeV
JEFF3.3 Threshold 19.347 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
90
Incident Energy (eV)
43-Tc-97

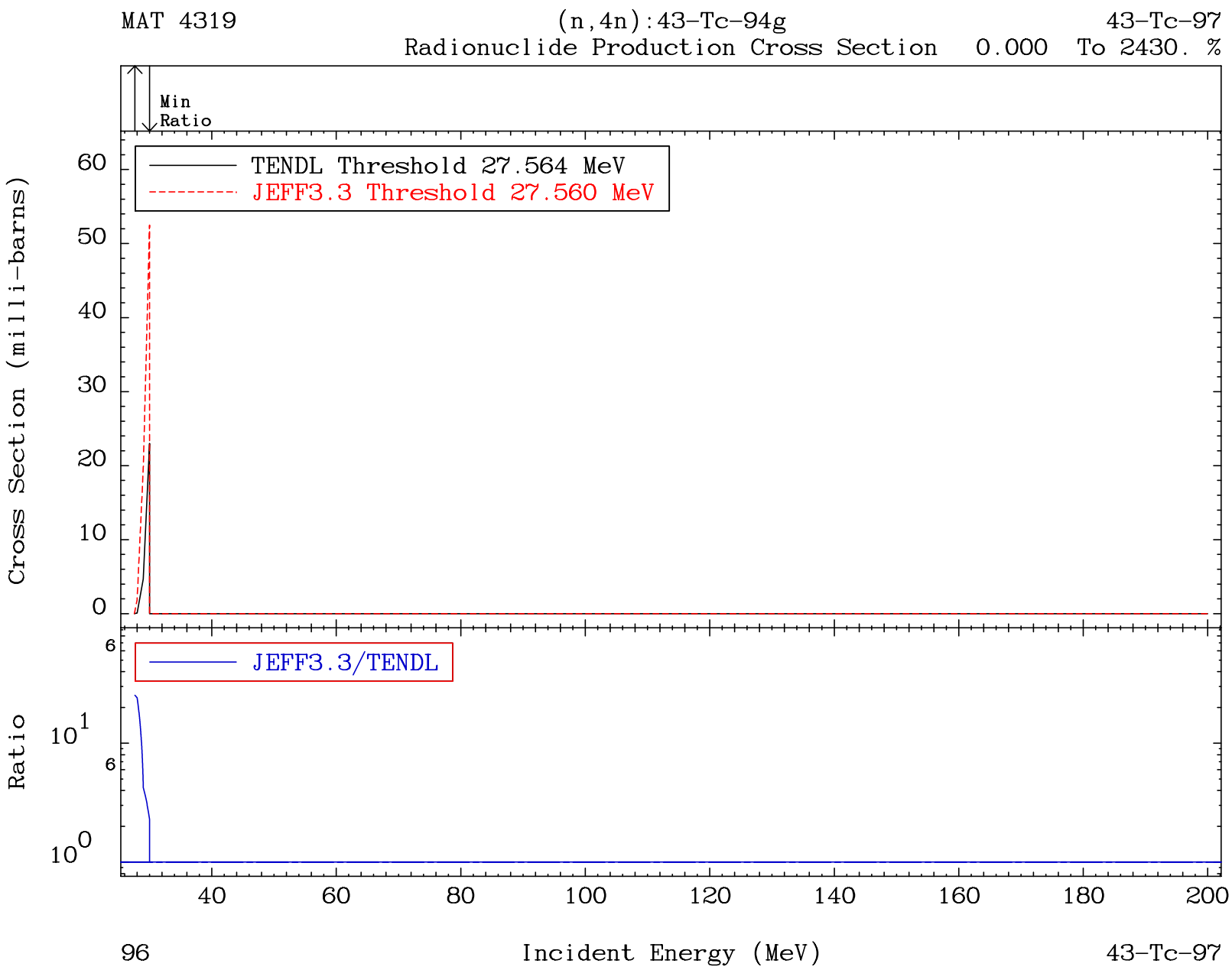

MAT 4319
(n,3n) α:41-Nb-91m1
43-Tc-97
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 19.459 MeV
JEFF3.3 Threshold 22.000 MeV
Cross Section (micro-barns)
120
100
80
60
40
20
0
JEFF3.3/TENDL
Ratio
10^4
10^2
10^0
2
3
4
5
6
7
8
9
10^8
2
91
Incident Energy (eV)
43-Tc-97

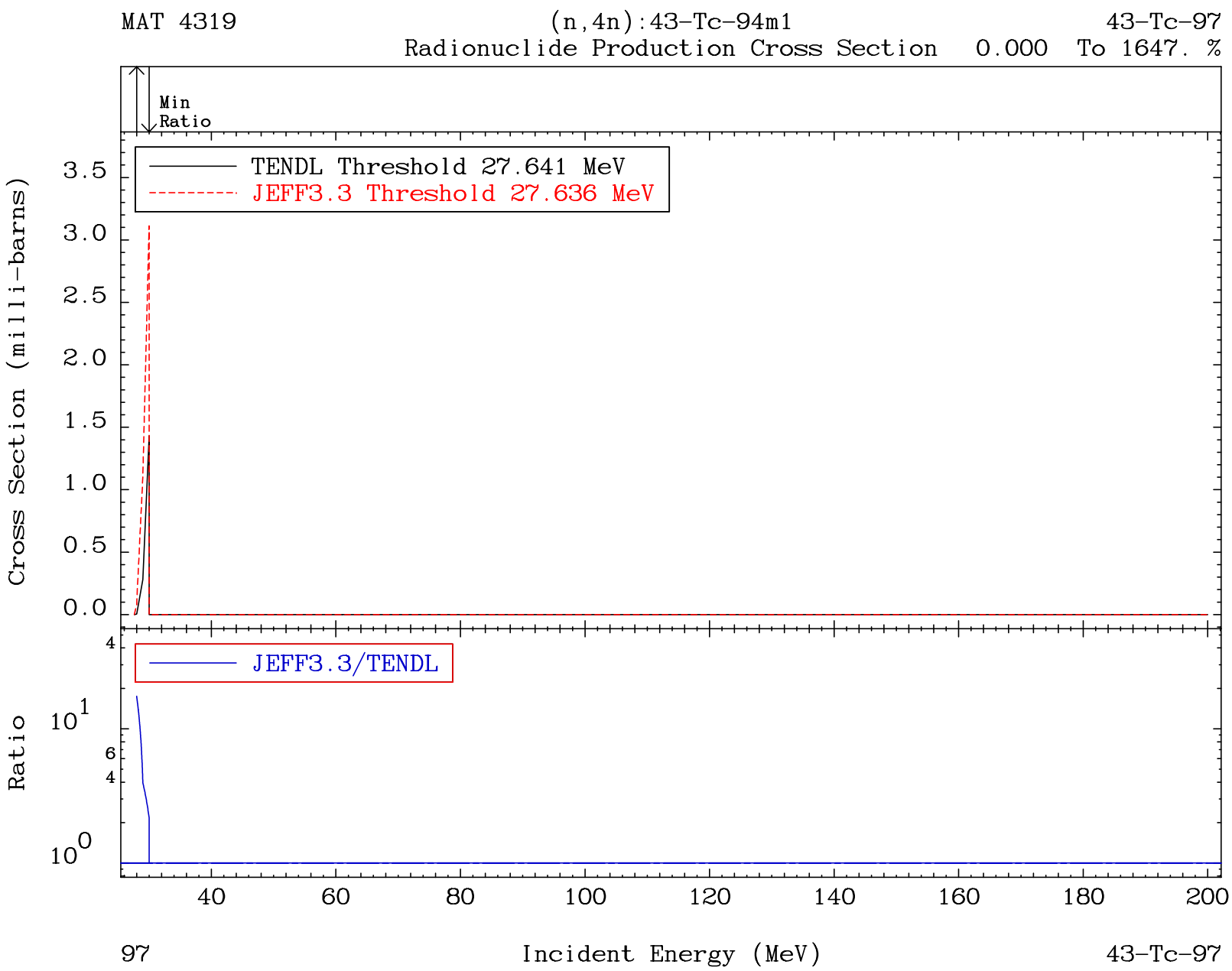

MAT 4319
(n,n') 2α:39-Y -89g
43-Tc-97
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 4.4085 MeV
JEFF3.3 Threshold 4.4049 MeV
Cross Section (micro-barns)
0
1
2
3
JEFF3.3/TENDL
Ratio
10^0
10^1
10^2
10^3
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
92
Incident Energy (eV)
43-Tc-97

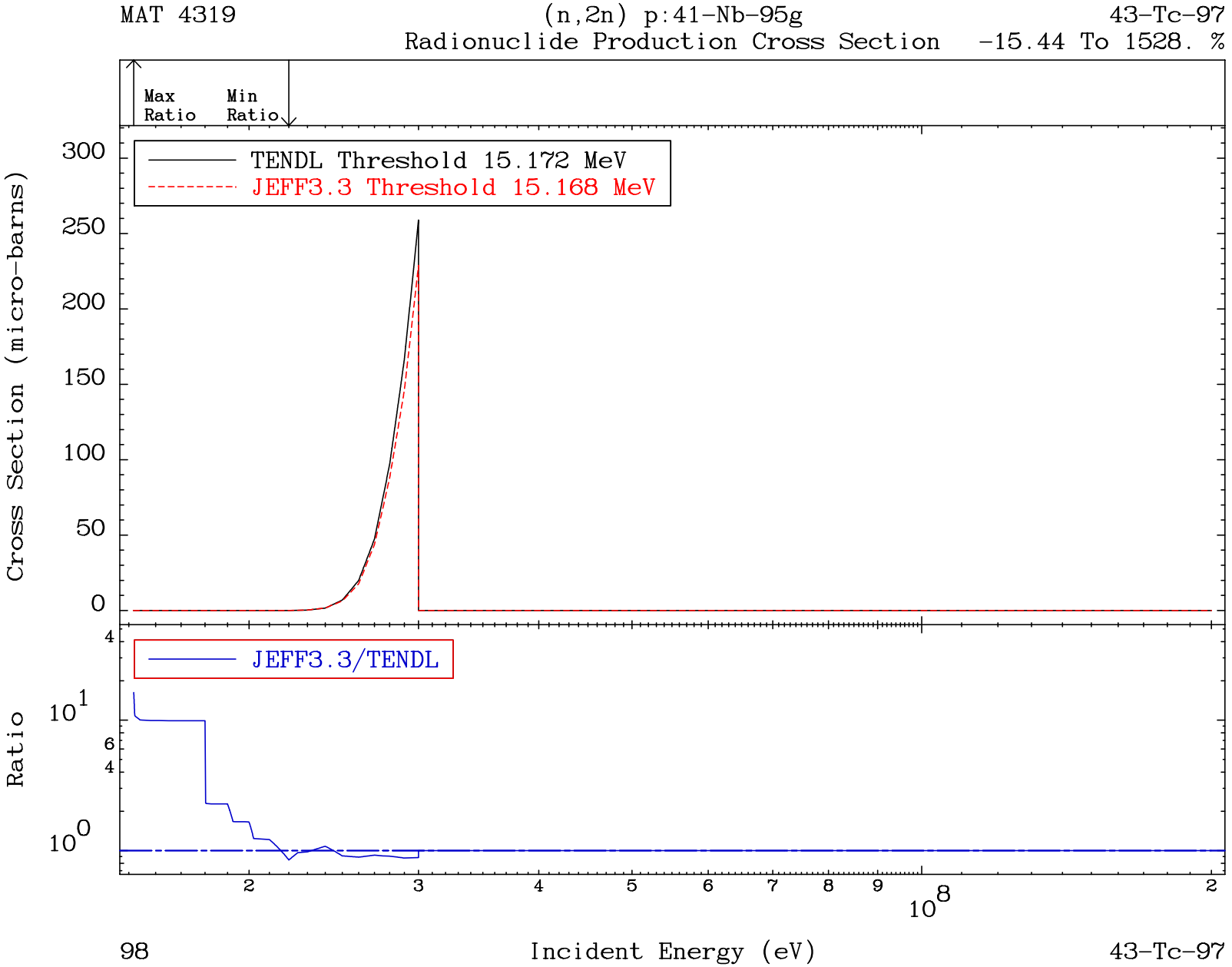

MAT 4319
(n,n') 2α:39-Y -89m1
43-Tc-97
Radionuclide Production Cross Section 0.000 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 14.000 MeV
JEFF3.3 Threshold 13.000 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
7
JEFF3.3/TENDL
Ratio
10^3
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
93
Incident Energy (eV)
43-Tc-97

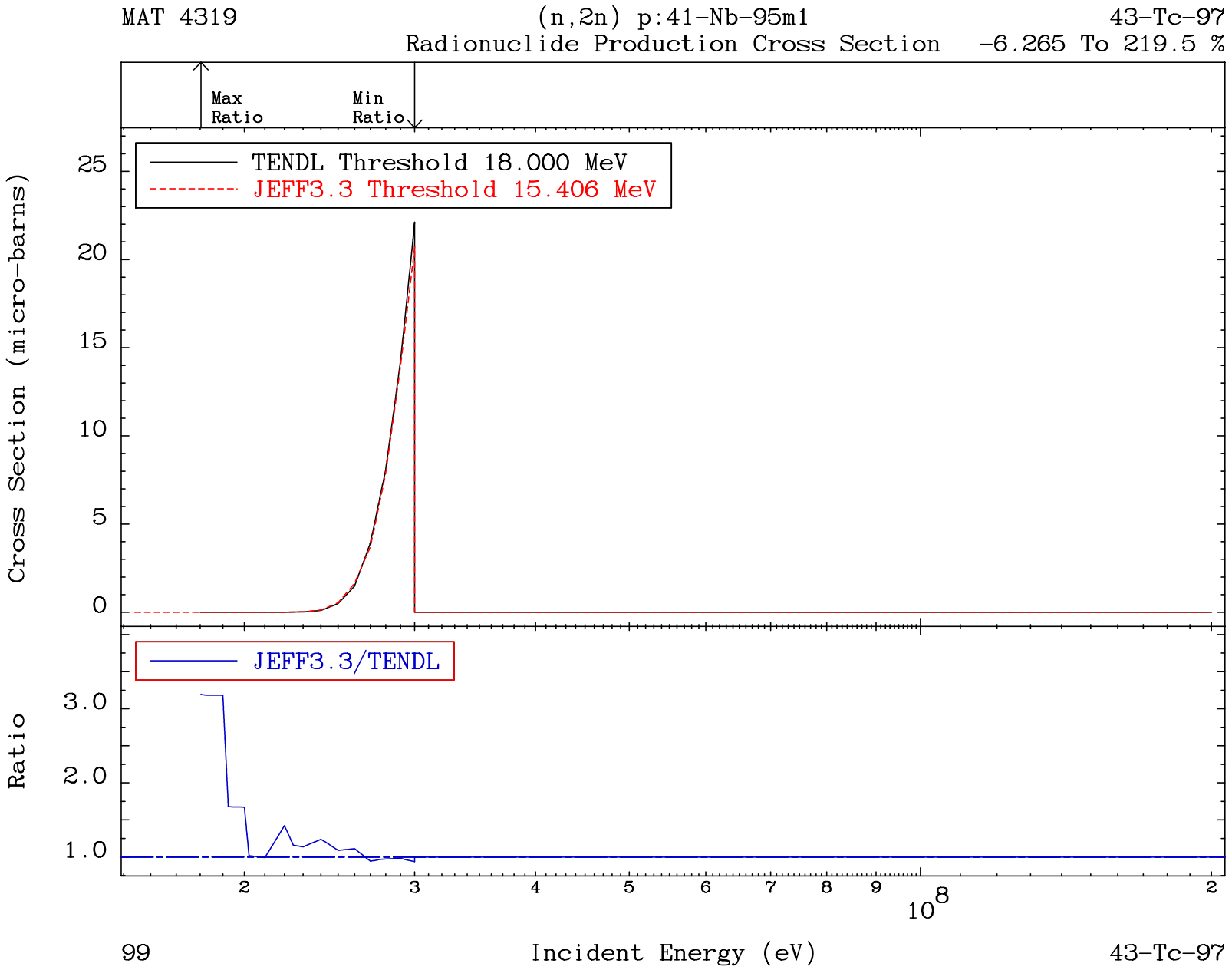

MAT 4319
(n,n') He-3:41-Nb-94g
43-Tc-97
Radionuclide Production Cross Section
-18.57 To 339.3 %
Max Ratio
Min Ratio
TENDL Threshold 15.951 MeV
JEFF3.3 Threshold 15.945 MeV
Cross Section (micro-barns)
400
300
200
100
0
JEFF3.3/TENDL
Ratio
4
2
2
3
4
5
6
7
8
9
10^8
2
94
Incident Energy (eV)
43-Tc-97

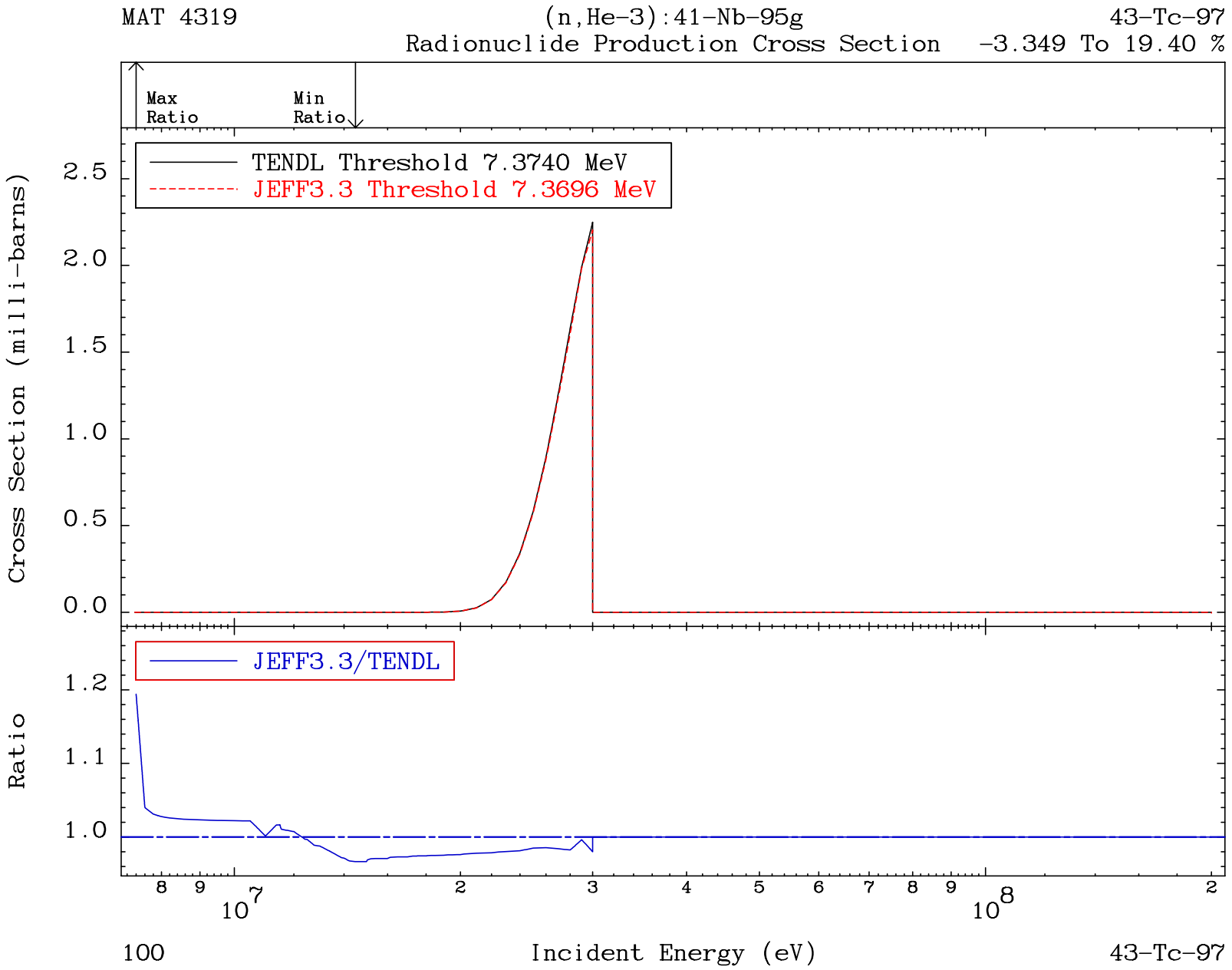

MAT 4319
(n,n') He-3:41-Nb-94m1
43-Tc-97
Radionuclide Production Cross Section
-17.30 To 623.4 %
Max Ratio
Min Ratio
TENDL Threshold 15.992 MeV
JEFF3.3 Threshold 15.986 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
8
6
4
2
2
3
4
5
6
7
8
9
10^8
2
95
Incident Energy (eV)
43-Tc-97

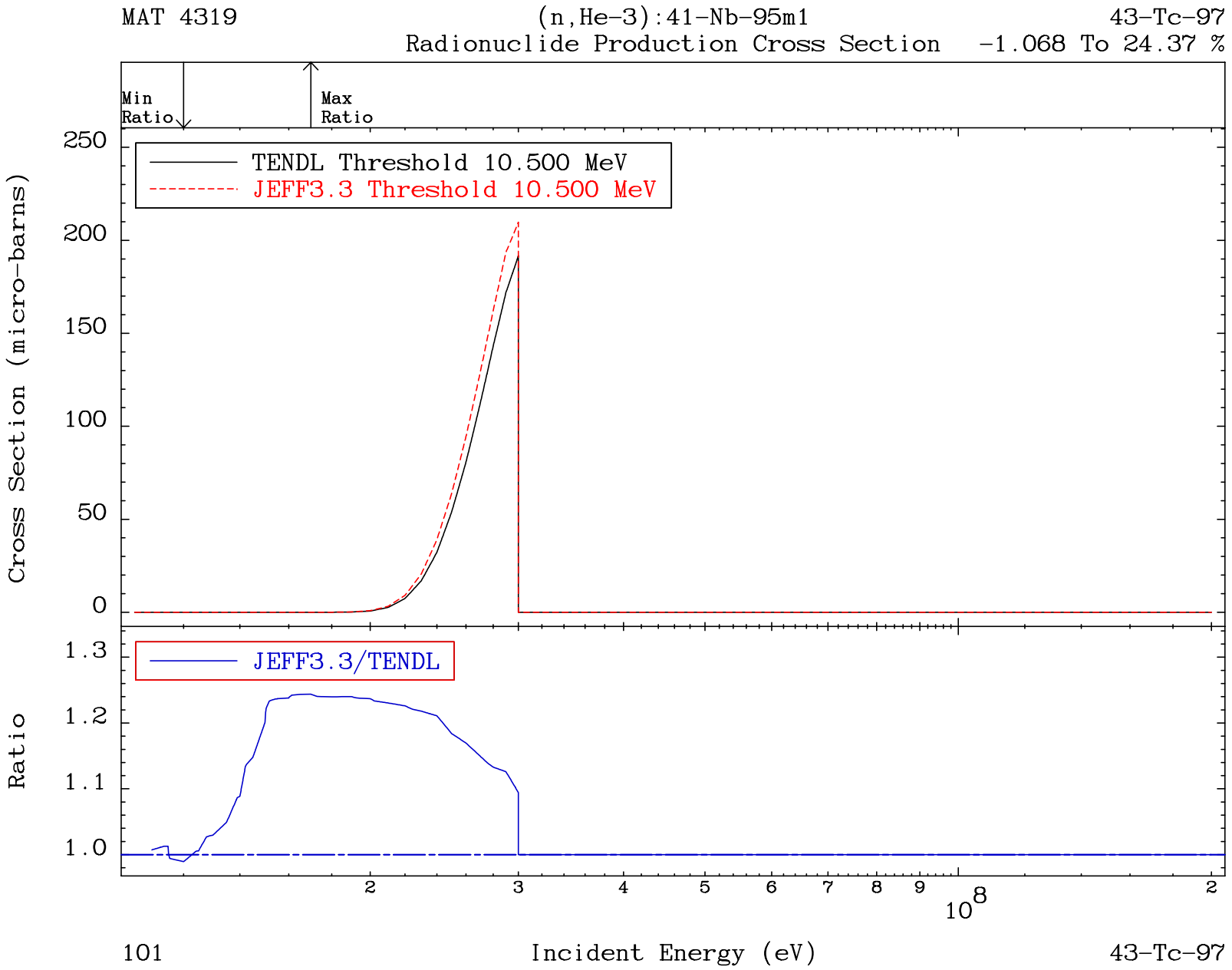

MAT 4319
(n,4n):43-Tc-94g
43-Tc-97
Radionuclide Production Cross Section 0.000 To 2430. %
Min
Ratio
TENDL Threshold 27.564 MeV
JEFF3.3 Threshold 27.560 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
JEFF3.3/TENDL
Ratio
6
10^1
6
10^0
40
60
80
100
120
140
160
180
200
96
Incident Energy (MeV)
43-Tc-97

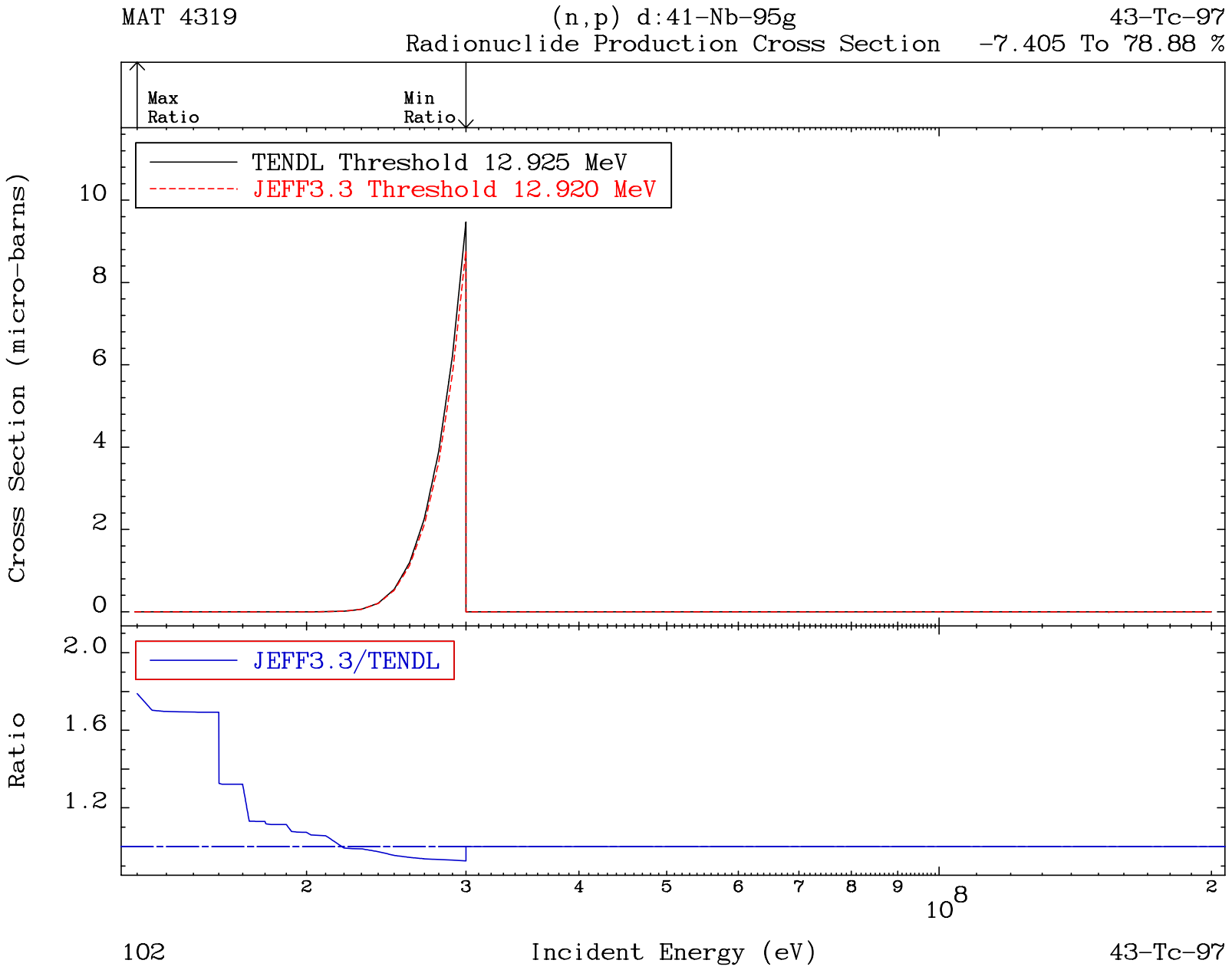

MAT 4319
(n,4n):43-Tc-94m1
43-Tc-97
Radionuclide Production Cross Section 0.000 To 1647. %
Min Ratio
TENDL Threshold 27.641 MeV
JEFF3.3 Threshold 27.636 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
4
10^1
6
4
10^0
40
60
80
100
120
140
160
180
200
97
Incident Energy (MeV)
43-Tc-97

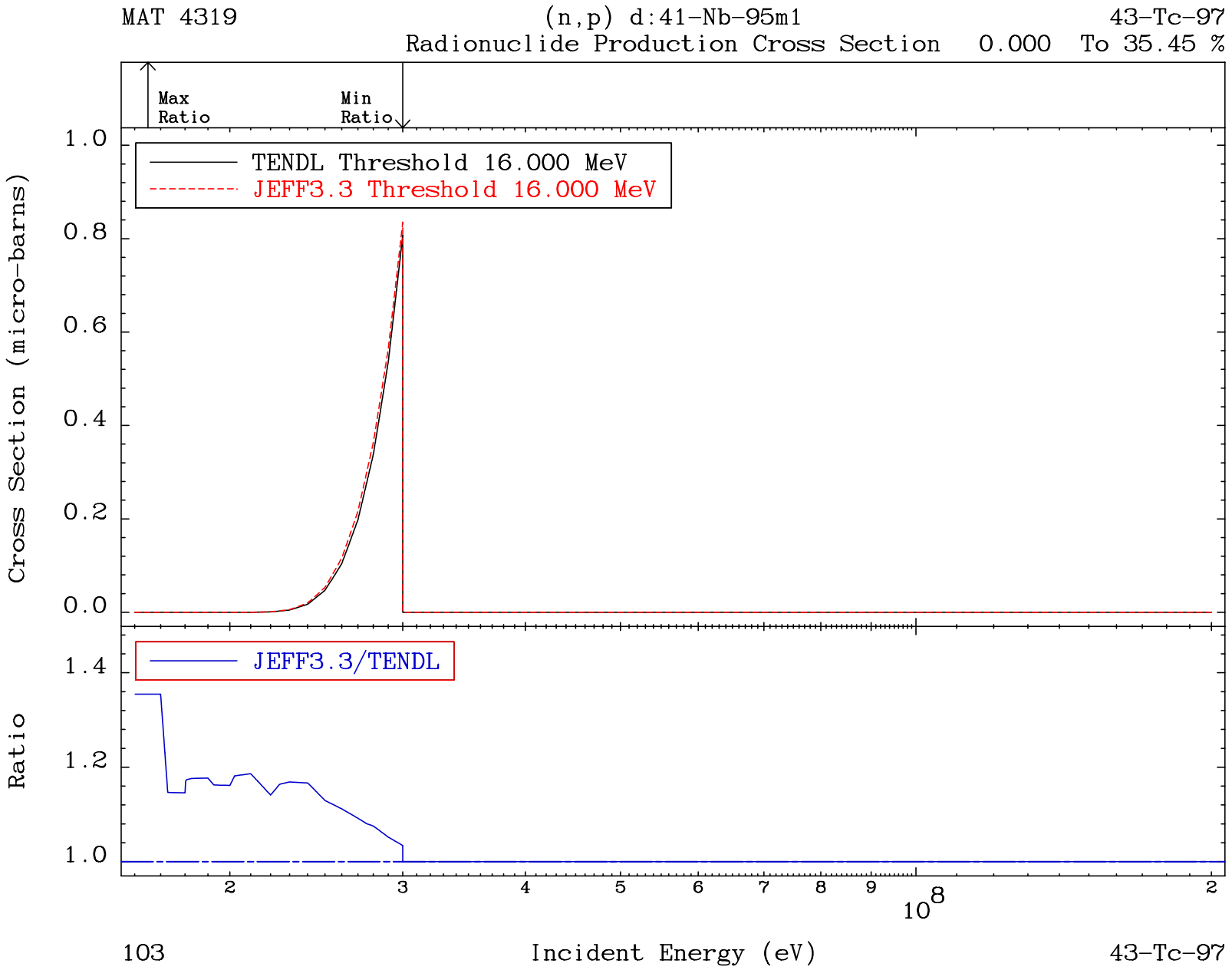

MAT 4319
(n,2n) p:41-Nb-95g
43-Tc-97
Radionuclide Production Cross Section -15.44 To 1528. %
Max Ratio
Min Ratio
TENDL Threshold 15.172 MeV
JEFF3.3 Threshold 15.168 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
4
10^1
6
4
10^0
2
3
4
5
6
7
8
9
10^8
2
98
Incident Energy (eV)
43-Tc-97

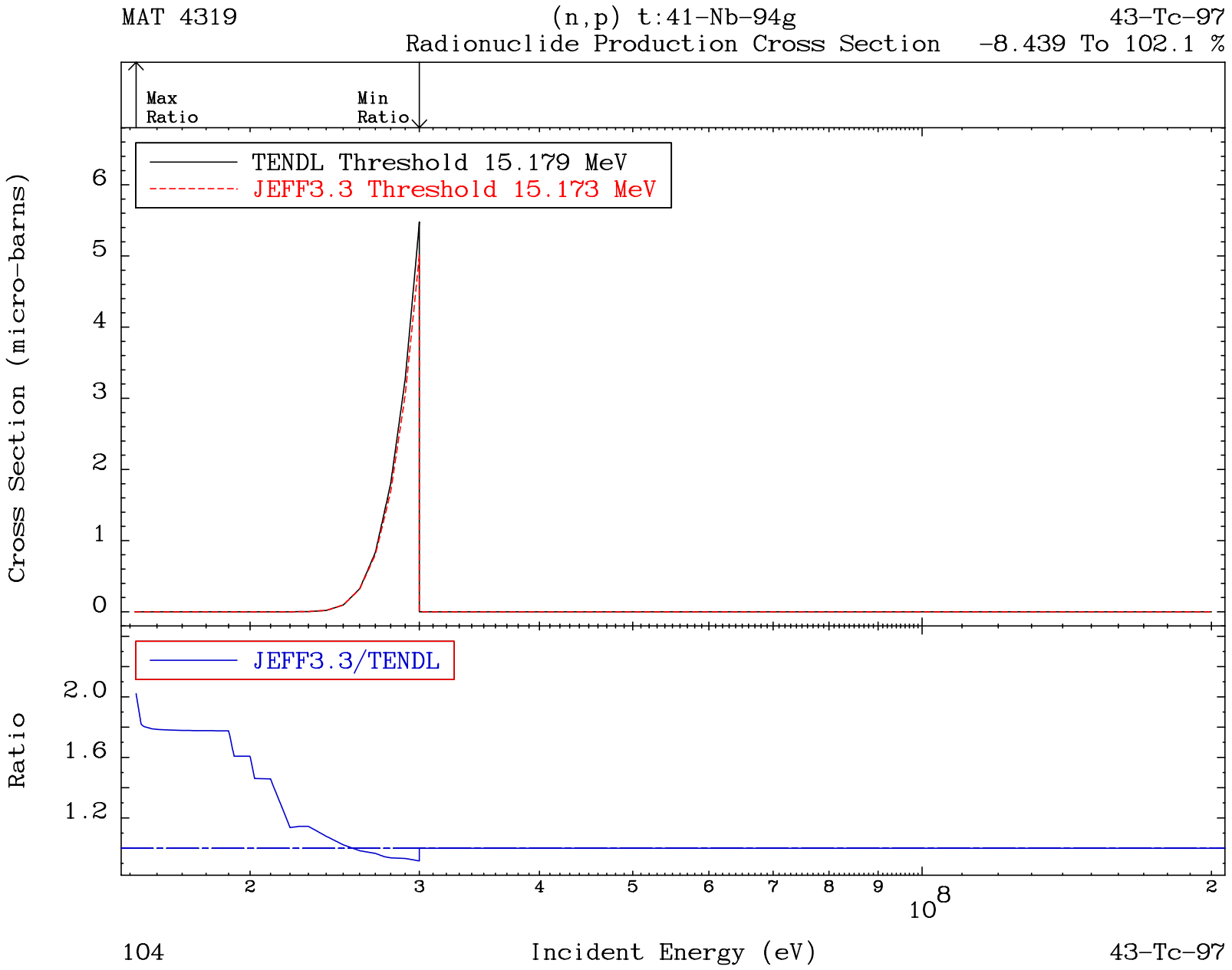

MAT 4319
(n,2n) p:41-Nb-95m1
43-Tc-97
Radionuclide Production Cross Section -6.265 To 219.5 %
Max Ratio
Min Ratio
TENDL Threshold 18.000 MeV
JEFF3.3 Threshold 15.406 MeV
Cross Section (micro-barns)
25
20
15
10
5
0
JEFF3.3/TENDL
Ratio
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
99
Incident Energy (eV)
43-Tc-97

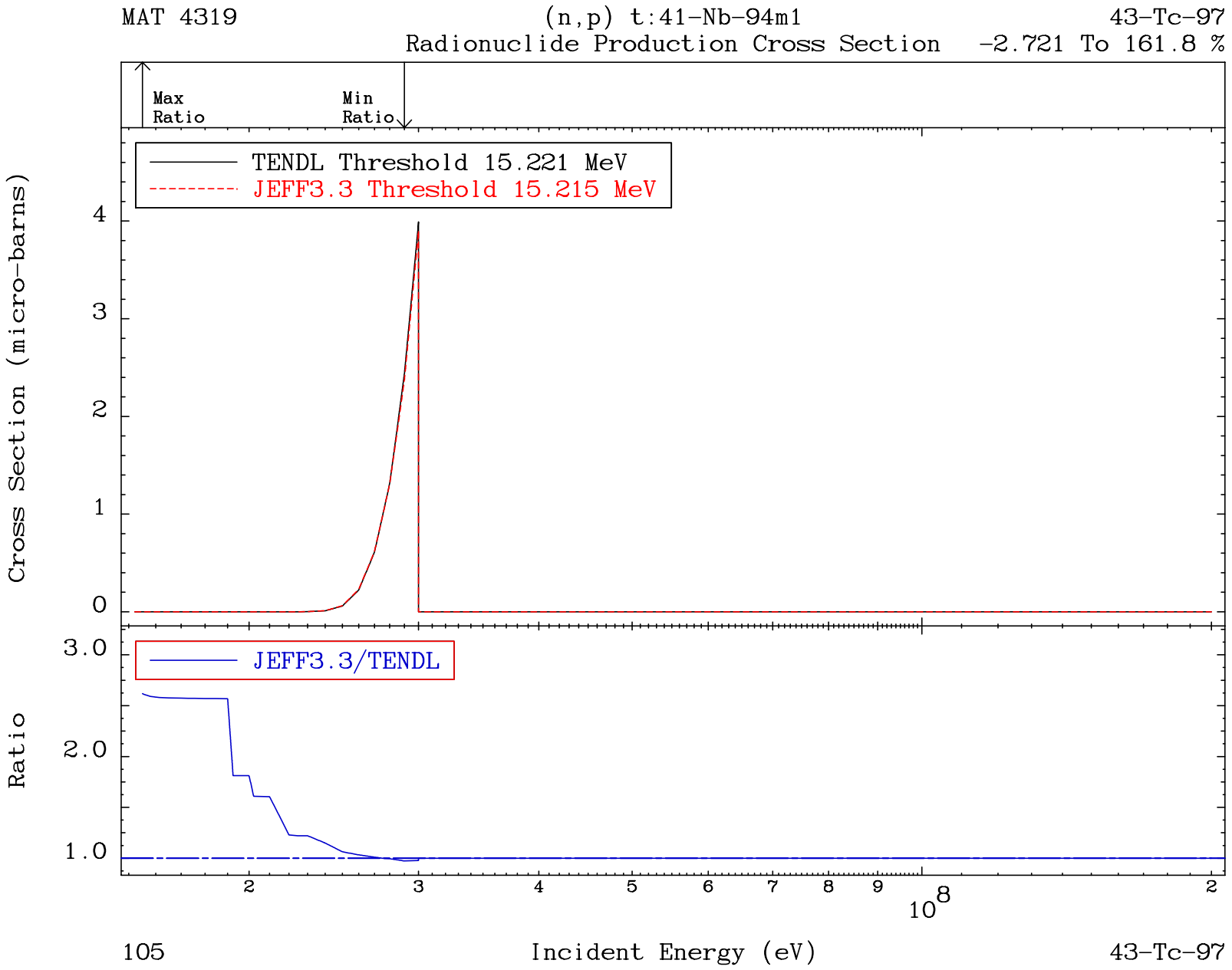

MAT 4319
(n,He-3):41-Nb-95g
43-Tc-97
Radionuclide Production Cross Section -3.349 To 19.40 %
Max Ratio
Min Ratio
TENDL Threshold 7.3740 MeV
JEFF3.3 Threshold 7.3696 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
JEFF3.3/TENDL
Ratio
1.2
1.1
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
100
Incident Energy (eV)
43-Tc-97


MAT 4319
(n,He-3):41-Nb-95m1
43-Tc-97
Radionuclide Production Cross Section -1.068 To 24.37 %
Min Ratio
Max Ratio
TENDL Threshold 10.500 MeV
JEFF3.3 Threshold 10.500 MeV
Cross Section (micro-barns)
250
200
150
100
50
0
JEFF3.3/TENDL
Ratio
1.3
1.2
1.1
1.0
2
3
4
5
6
7
8
9
10^8
2
101
Incident Energy (eV)
43-Tc-97


MAT 4319
(n,p) d:41-Nb-95g
43-Tc-97
Radionuclide Production Cross Section
-7.405 To 78.88 %
Max Ratio
Min Ratio
TENDL Threshold 12.925 MeV
JEFF3.3 Threshold 12.920 MeV
Cross Section (micro-barns)
0
2
4
6
8
10
JEFF3.3/TENDL
Ratio
1.2
1.6
2.0
2
3
4
5
6
7
8
9
10^8
2
102
Incident Energy (eV)
43-Tc-97


MAT 4319
(n,p) d:41-Nb-95m1
43-Tc-97
Radionuclide Production Cross Section 0.000 To 35.45 %
Max Ratio
Min Ratio
TENDL Threshold 16.000 MeV
JEFF3.3 Threshold 16.000 MeV
Cross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
JEFF3.3/TENDL
Ratio
1.4
1.2
1.0
2
3
4
5
6
7
8
9
10^8
2
103
Incident Energy (eV)
43-Tc-97


MAT 4319
(n,p) t:41-Nb-94g
43-Tc-97
Radionuclide Production Cross Section -8.439 To 102.1 %
Max Ratio
Min Ratio
TENDL Threshold 15.179 MeV
JEFF3.3 Threshold 15.173 MeV
Cross Section (micro-barns)
0
1
2
3
4
5
6
JEFF3.3/TENDL
Ratio
1.2
1.6
2.0
2
3
4
5
6
7
8
9
10^8
2
104
Incident Energy (eV)
43-Tc-97


MAT 4319
(n,p) t:41-Nb-94m1
43-Tc-97
Radionuclide Production Cross Section -2.721 To 161.8 %
Max Ratio
Min Ratio
TENDL Threshold 15.221 MeV
JEFF3.3 Threshold 15.215 MeV
Cross Section (micro-barns)
0
1
2
3
4
JEFF3.3/TENDL
Ratio
1.0
2.0
3.0
2
3
4
5
6
7
8
9
10^8
2
105
Incident Energy (eV)
43-Tc-97