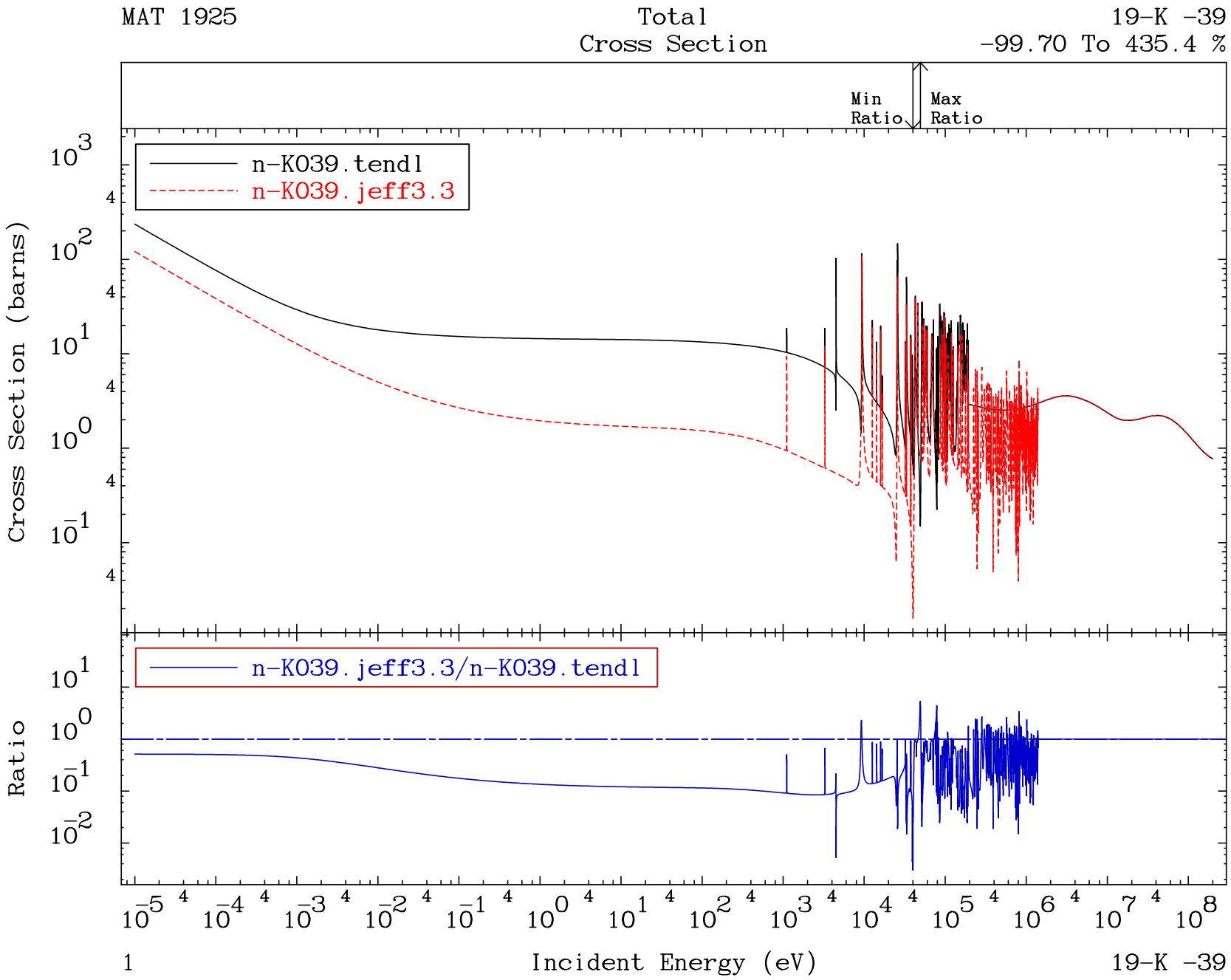
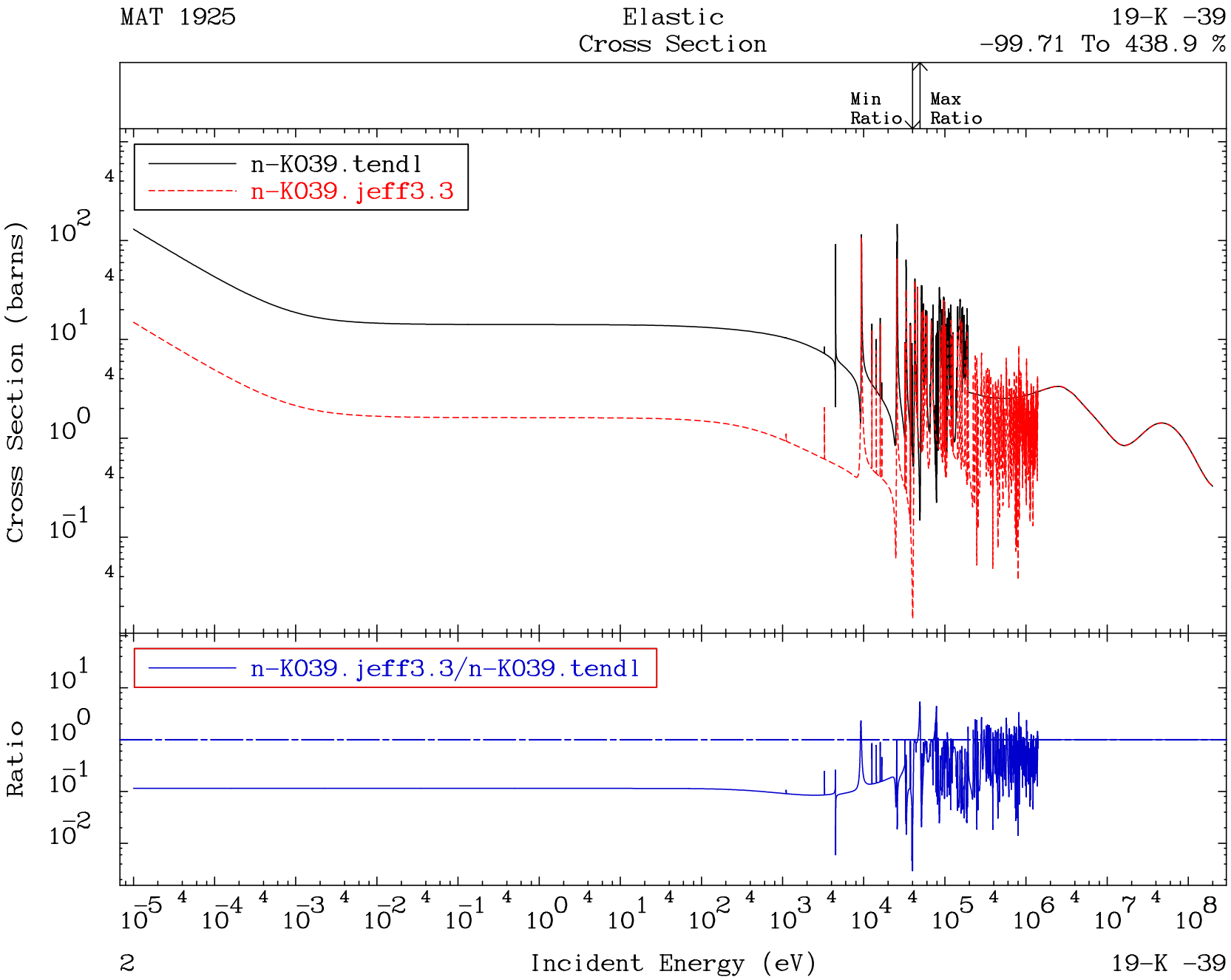
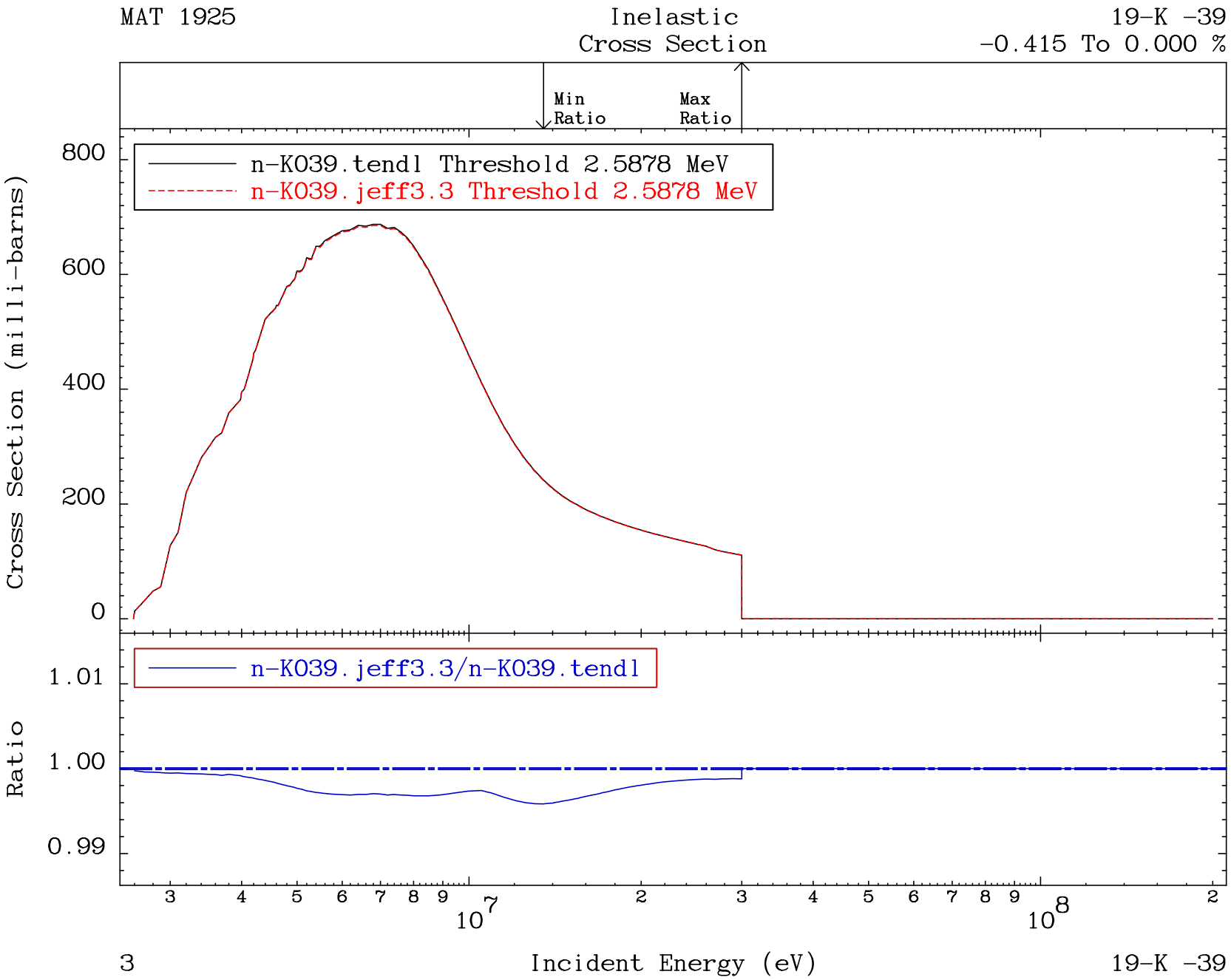
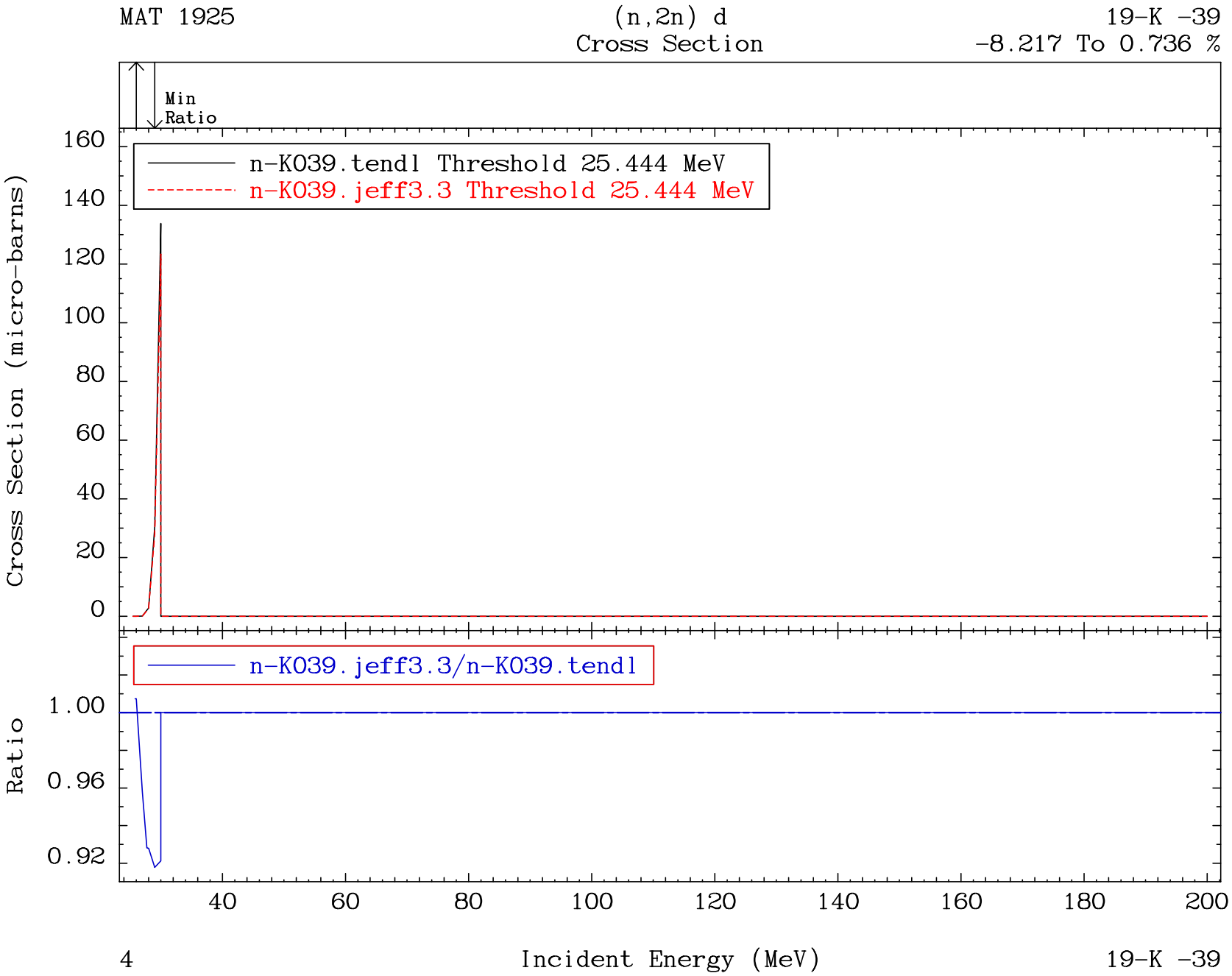
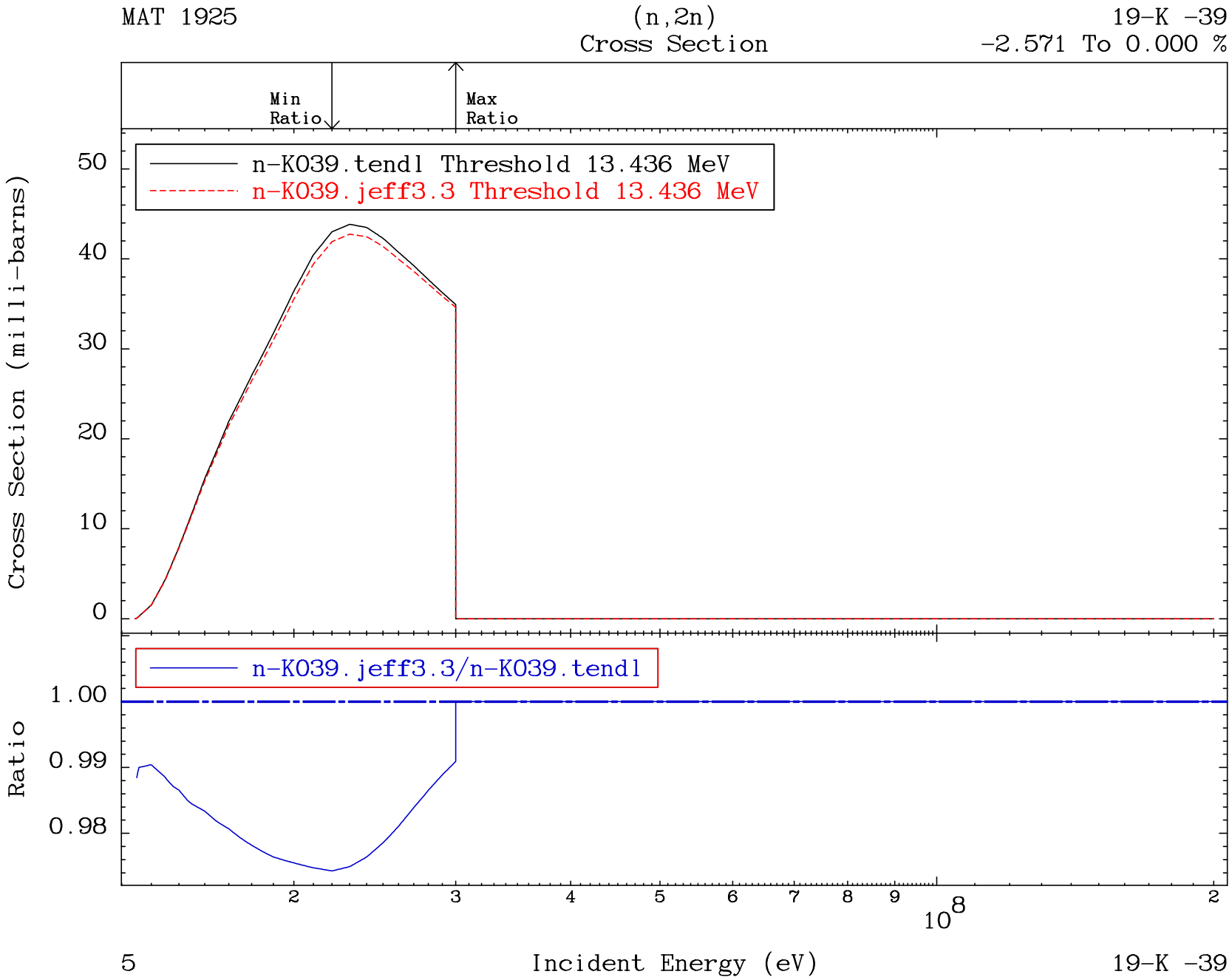
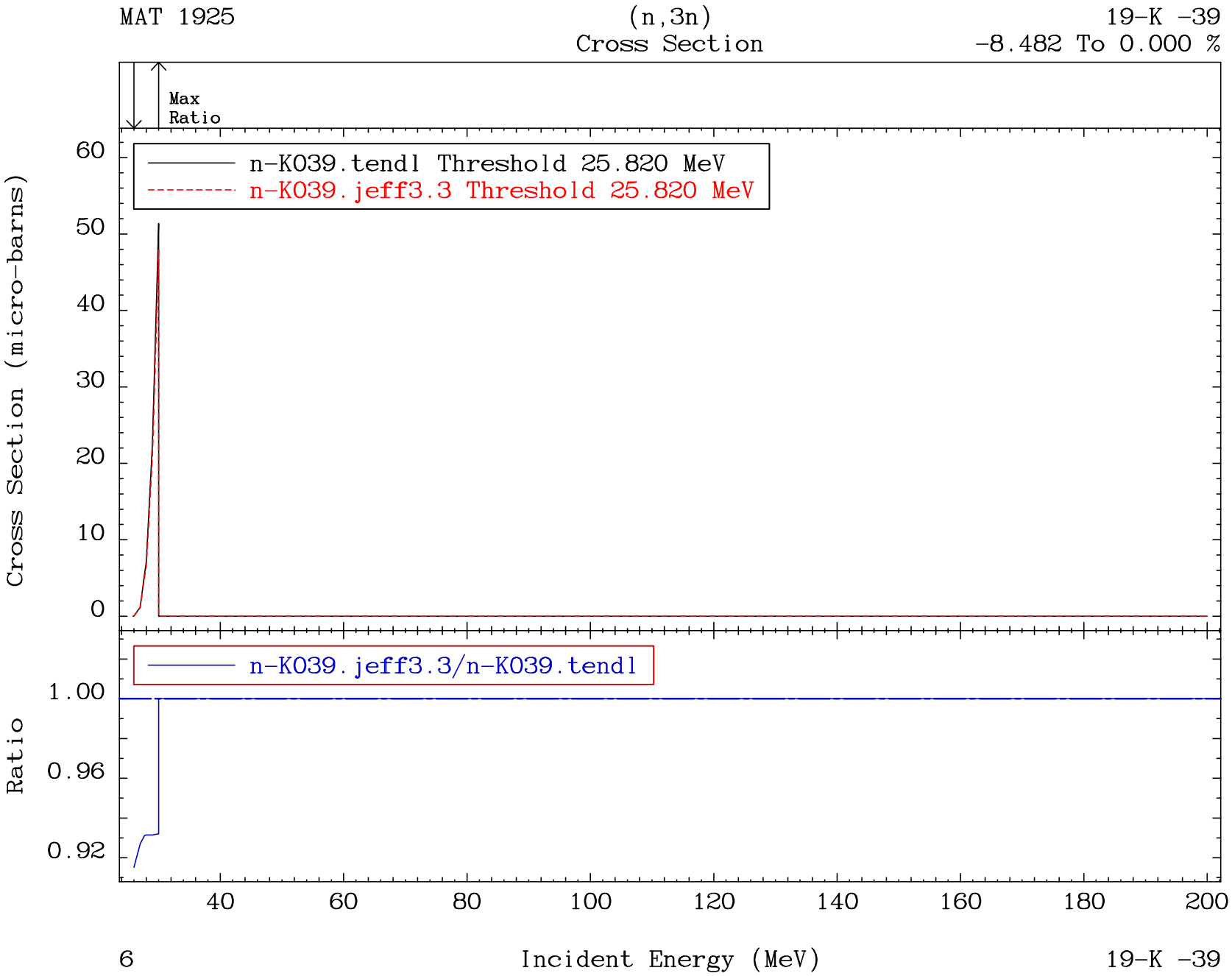

MAT 1925
Total
Cross Section
19-K -39
-99.70 To 435.4 %
Min
Ratio
Max
Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
1
19-K -39

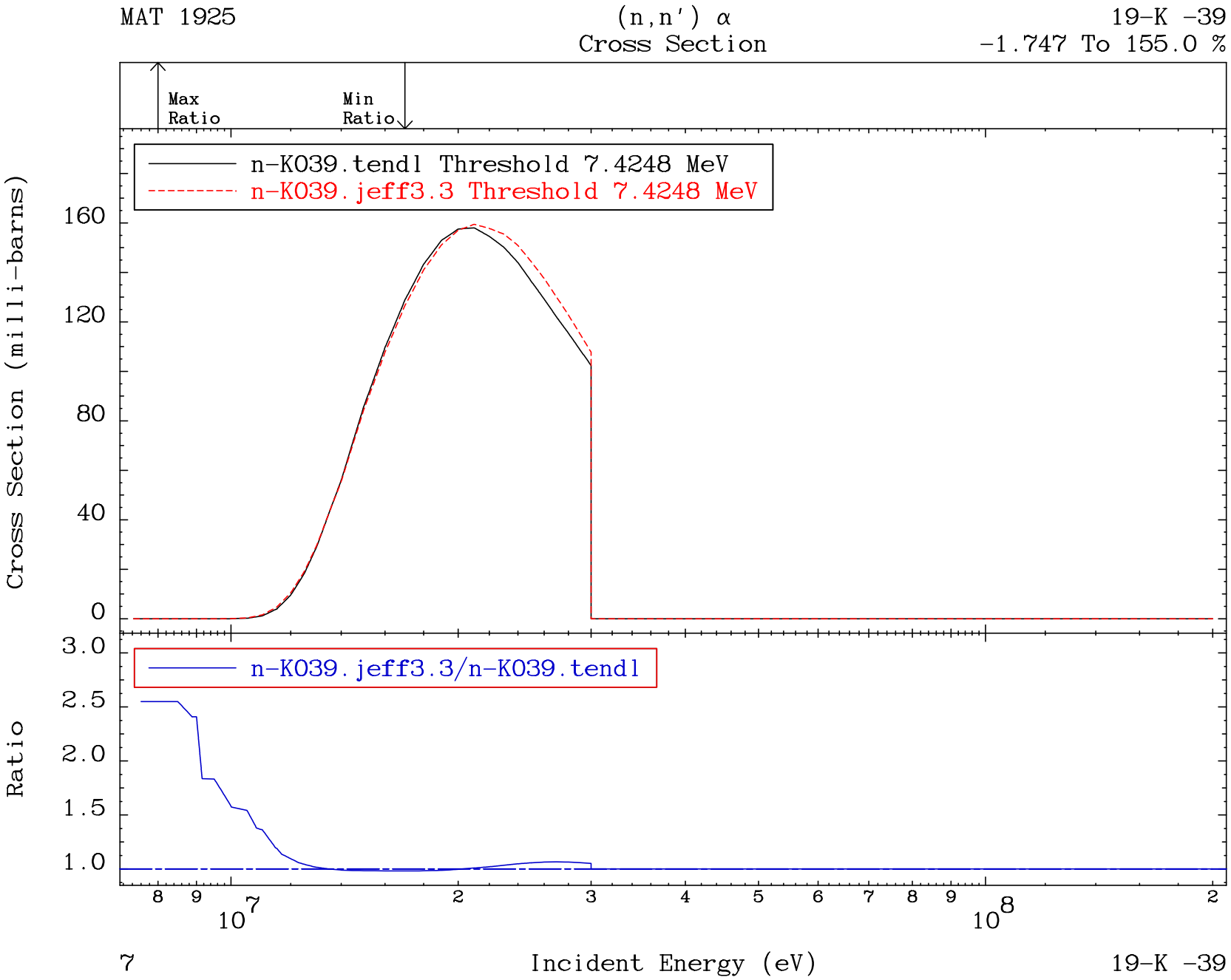

MAT 1925
Elastic
Cross Section
19-K -39
-99.71 To 438.9 %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
2
19-K -39

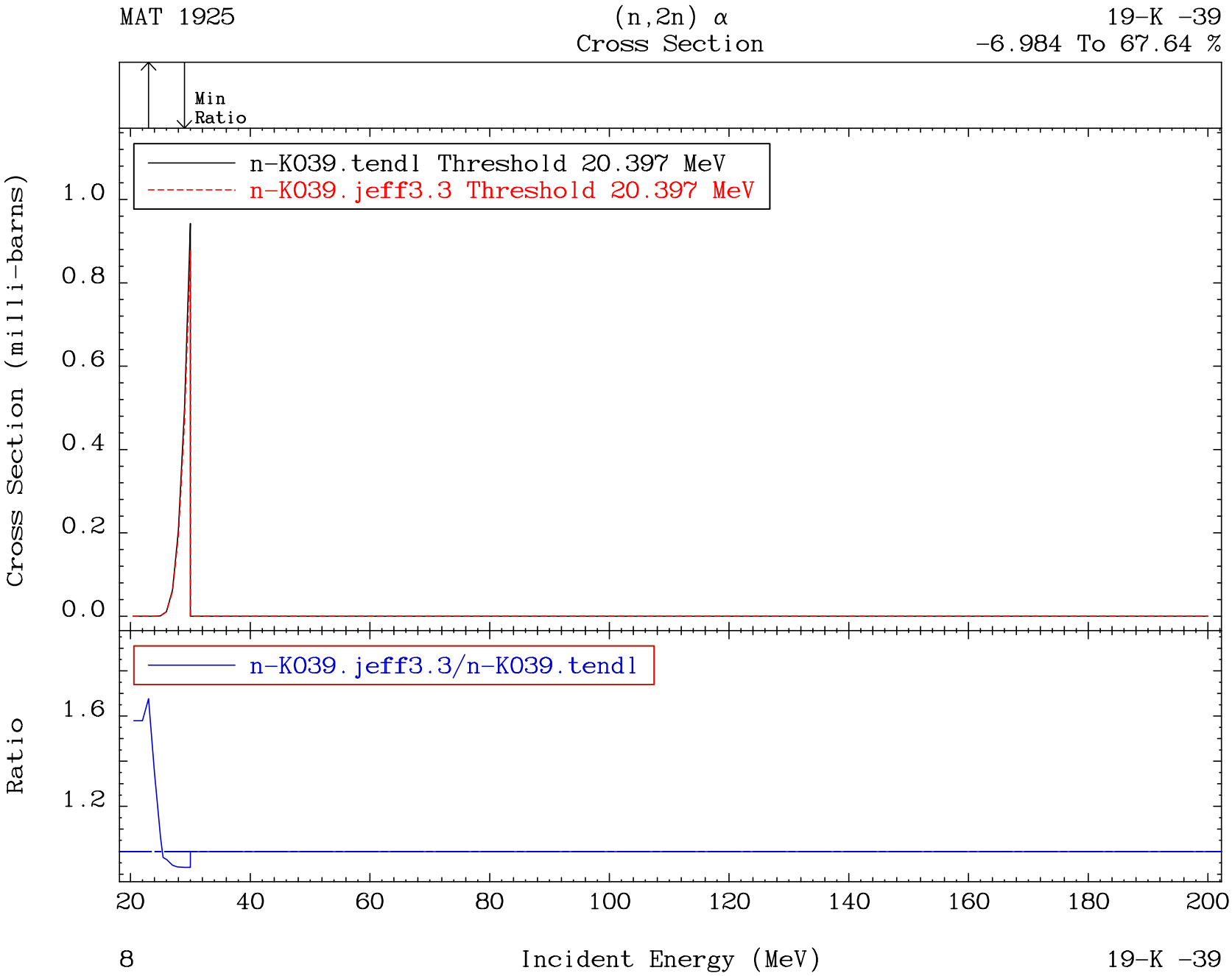

MAT 1925
Inelastic
Cross Section
19-K -39
-0.415 To 0.000 %
Min
Ratio
Max
Ratio
n-K039.tendl Threshold 2.5878 MeV
n-K039.jeff3.3 Threshold 2.5878 MeV
Cross Section (milli-barns)
800
600
400
200
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
3
Incident Energy (eV)
19-K -39

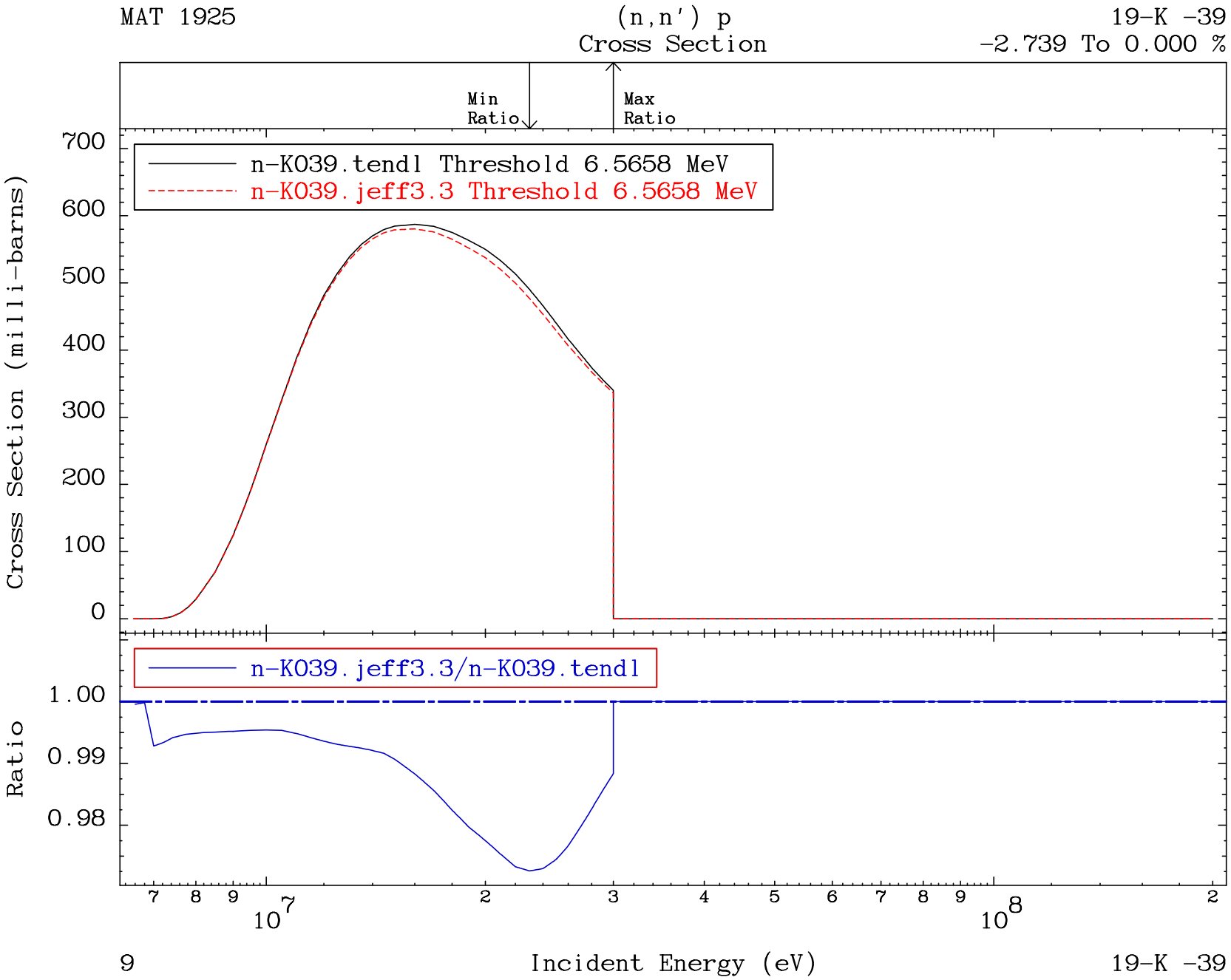

MAT 1925
(n,2n) d
Cross Section
19-K -39
-8.217 To 0.736 %
Min
Ratio
n-K039.tendl Threshold 25.444 MeV
n-K039.jeff3.3 Threshold 25.444 MeV
Cross Section (micro-barns)
160
140
120
100
80
60
40
20
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.96
0.92
40
60
80
100
120
140
160
180
200
4
Incident Energy (MeV)
19-K -39

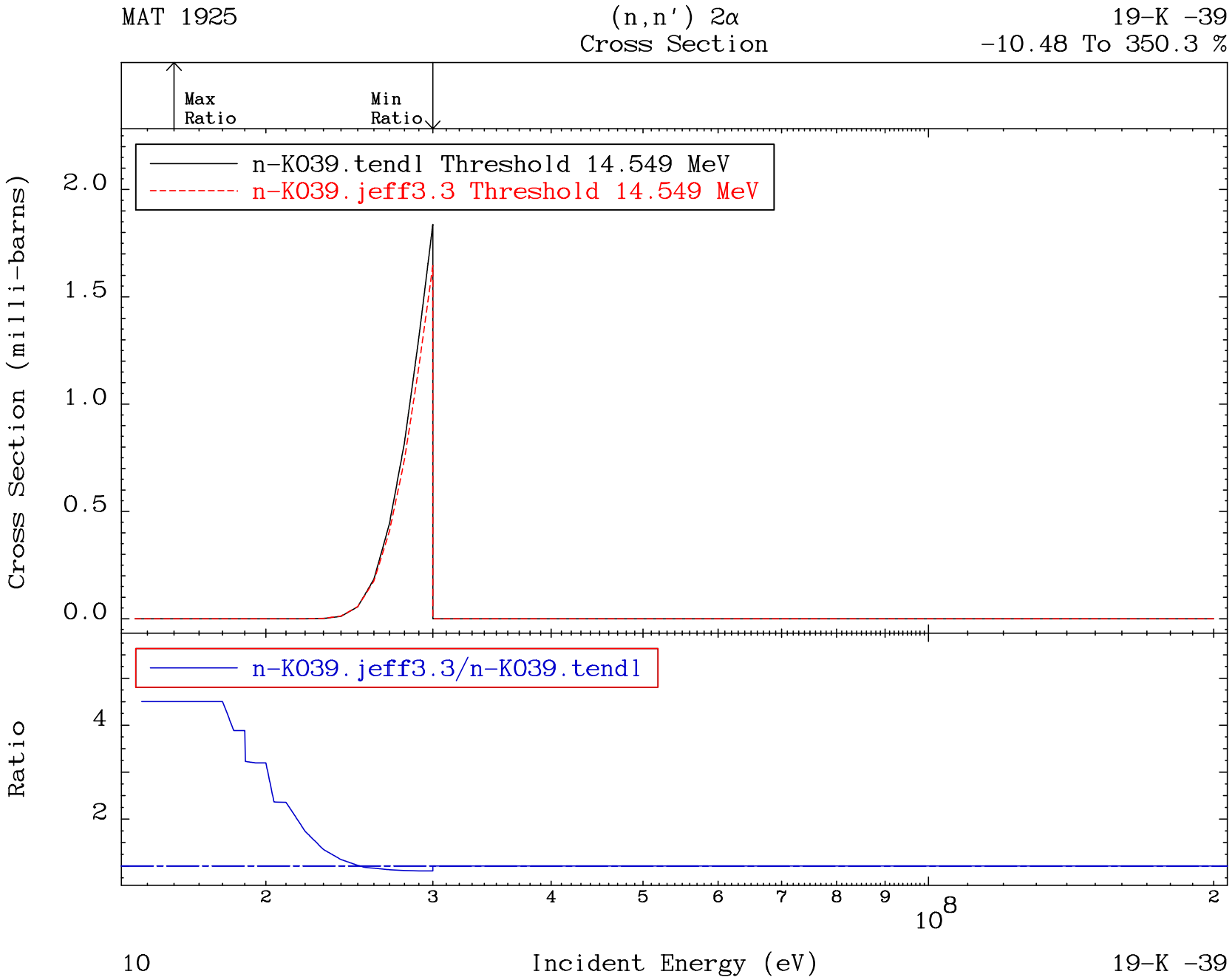

MAT 1925
(n,2n)
Cross Section
19-K -39
-2.571 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 13.436 MeV
n-K039.jeff3.3 Threshold 13.436 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
19-K -39

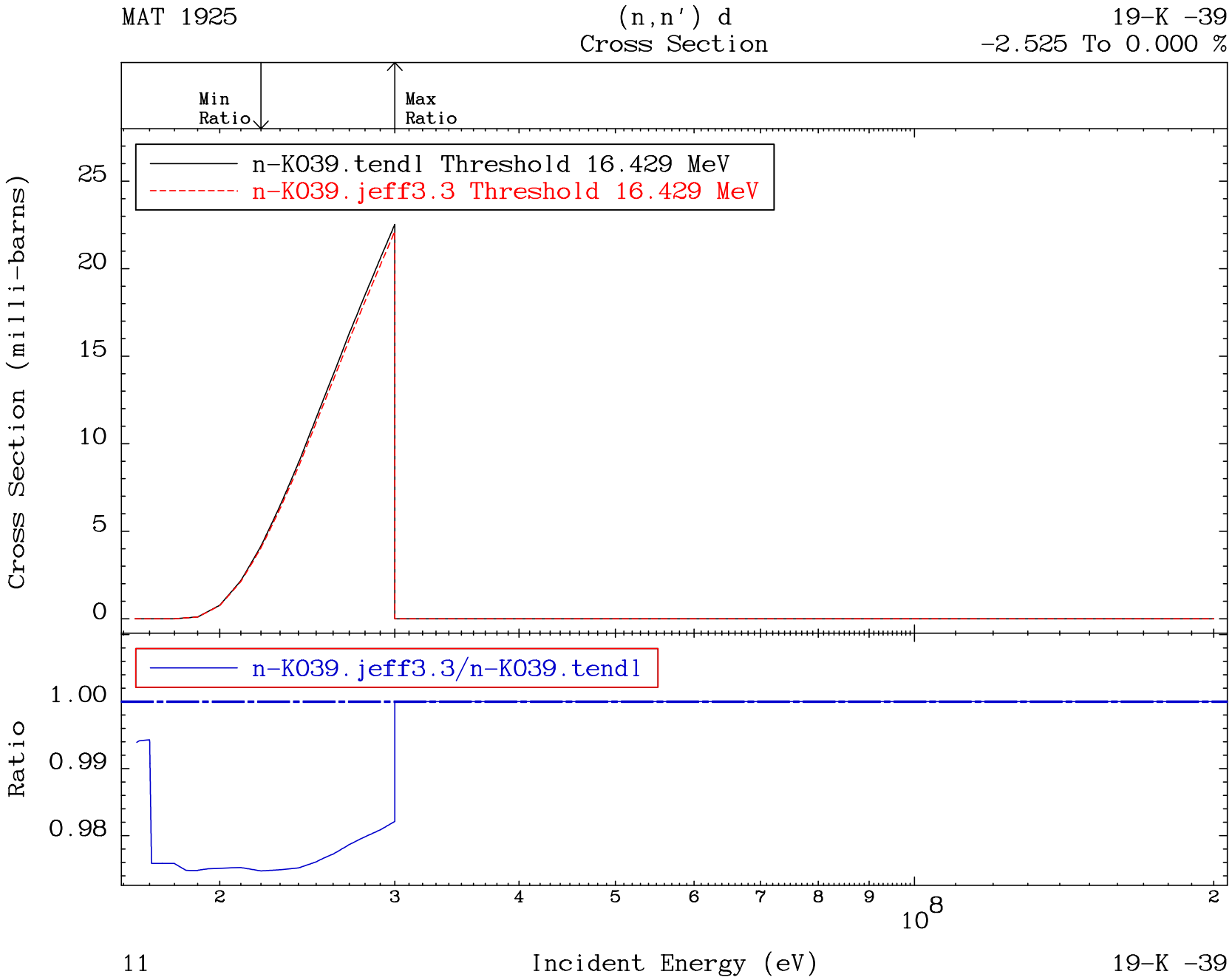

MAT 1925
(n,3n)
Cross Section
19-K -39
-8.482 To 0.000 %
Max
Ratio
n-K039.tendl Threshold 25.820 MeV
n-K039.jeff3.3 Threshold 25.820 MeV
Cross Section (micro-barns)
60
50
40
30
20
10
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.96
0.92
40
60
80
100
120
140
160
180
200
6
Incident Energy (MeV)
19-K -39

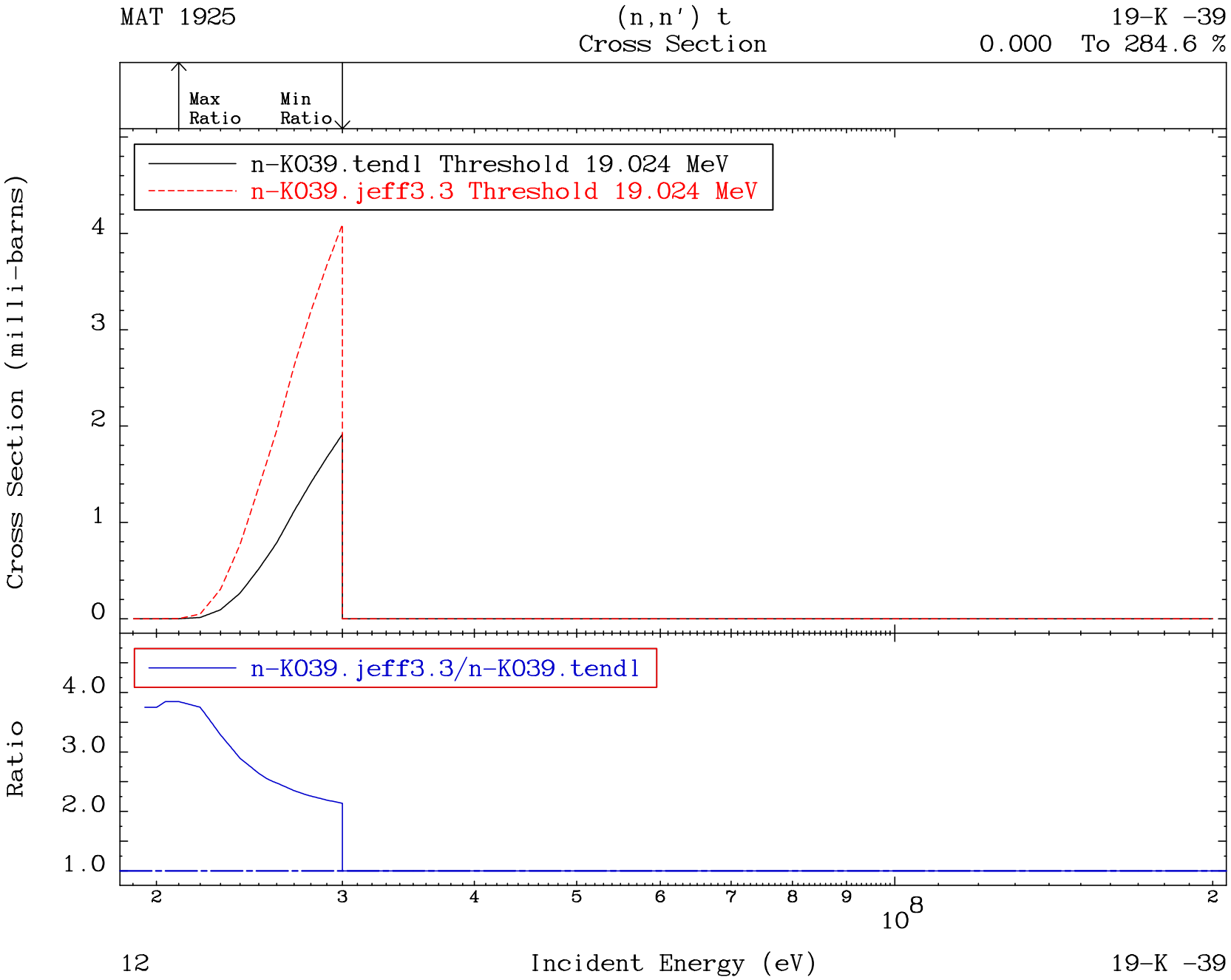

MAT 1925
(n,n') α
Cross Section
19-K -39
-1.747 To 155.0 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 7.4248 MeV
n-K039.jeff3.3 Threshold 7.4248 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-K039.jeff3.3/n-K039.tendl
Ratio
3.0
2.5
2.0
1.5
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
19-K -39

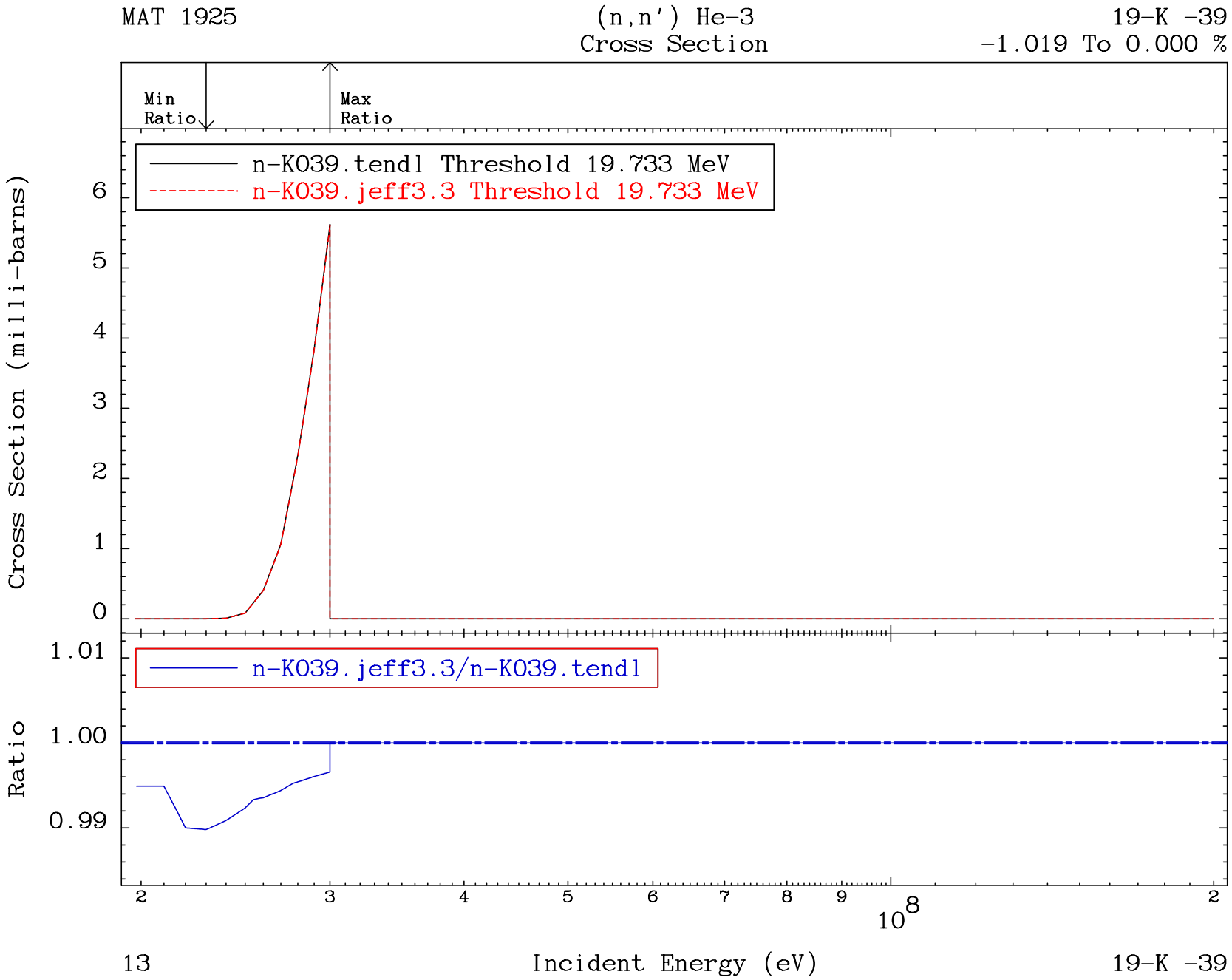

MAT 1925
(n,2n) α
Cross Section
19-K -39
-6.984 To 67.64 %
Min
Ratio
n-K039.tendl Threshold 20.397 MeV
n-K039.jeff3.3 Threshold 20.397 MeV
Cross Section (milli-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.6
1.2
20
40
60
80
100
120
140
160
180
200
8
Incident Energy (MeV)
19-K -39

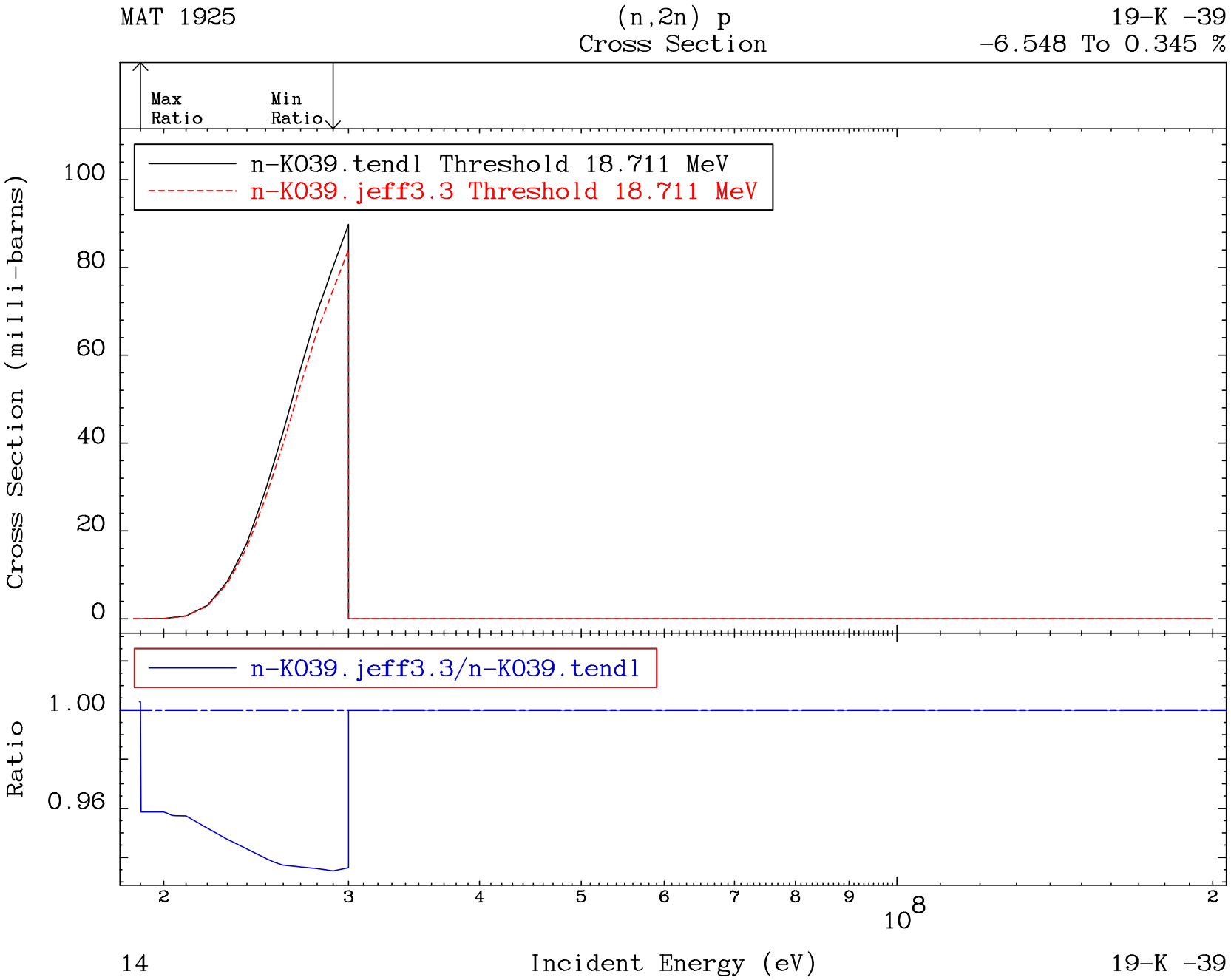

MAT 1925
(n,n') p
Cross Section
19-K -39
-2.739 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 6.5658 MeV
n-K039.jeff3.3 Threshold 6.5658 MeV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
9
Incident Energy (eV)
19-K -39

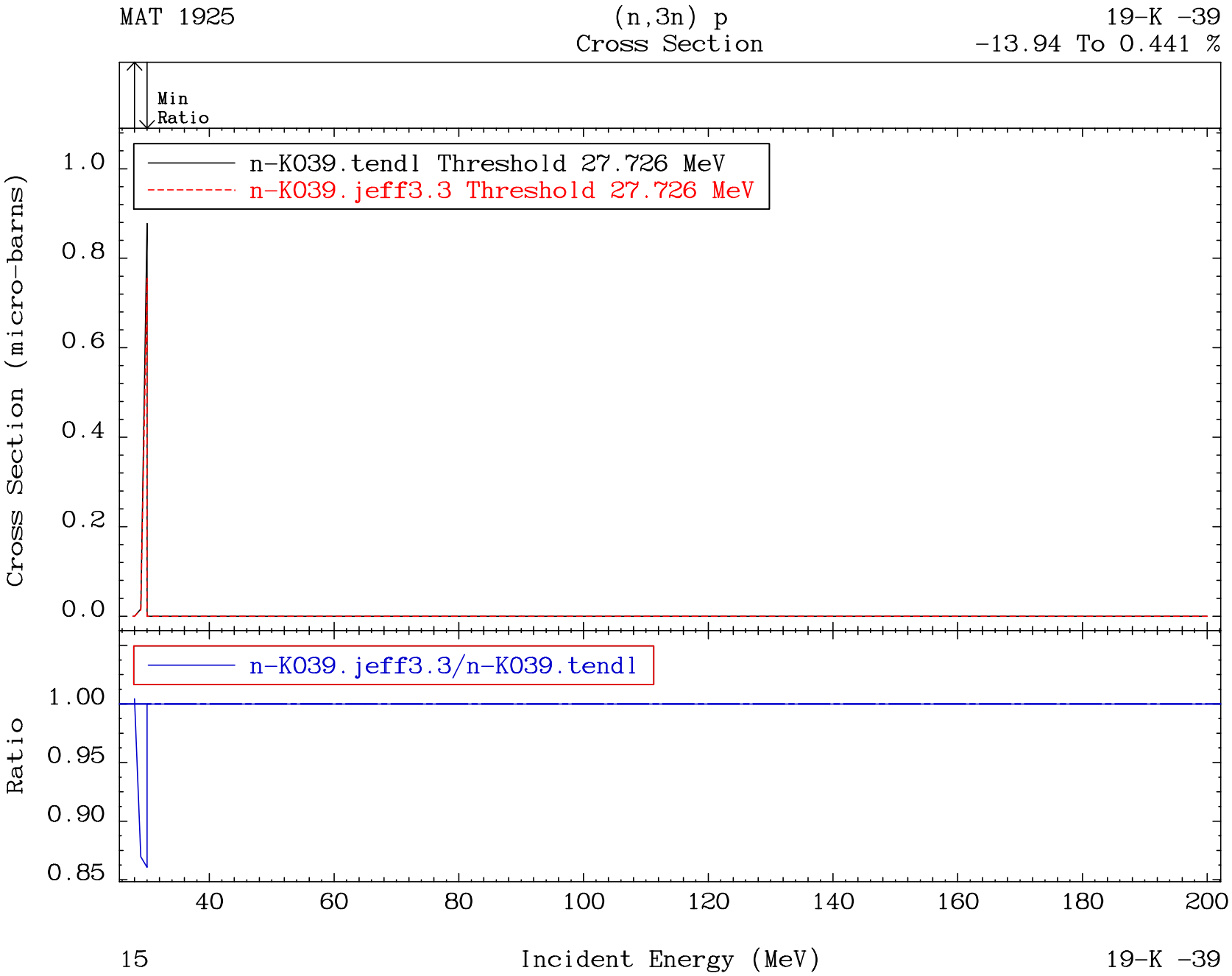

MAT 1925
(n,n') 2α
Cross Section
19-K -39
-10.48 To 350.3 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 14.549 MeV
n-K039.jeff3.3 Threshold 14.549 MeV
Cross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
n-K039.jeff3.3/n-K039.tendl
Ratio
4
2
2
3
4
5
6
7
8
9
10^8
2
10
Incident Energy (eV)
19-K -39

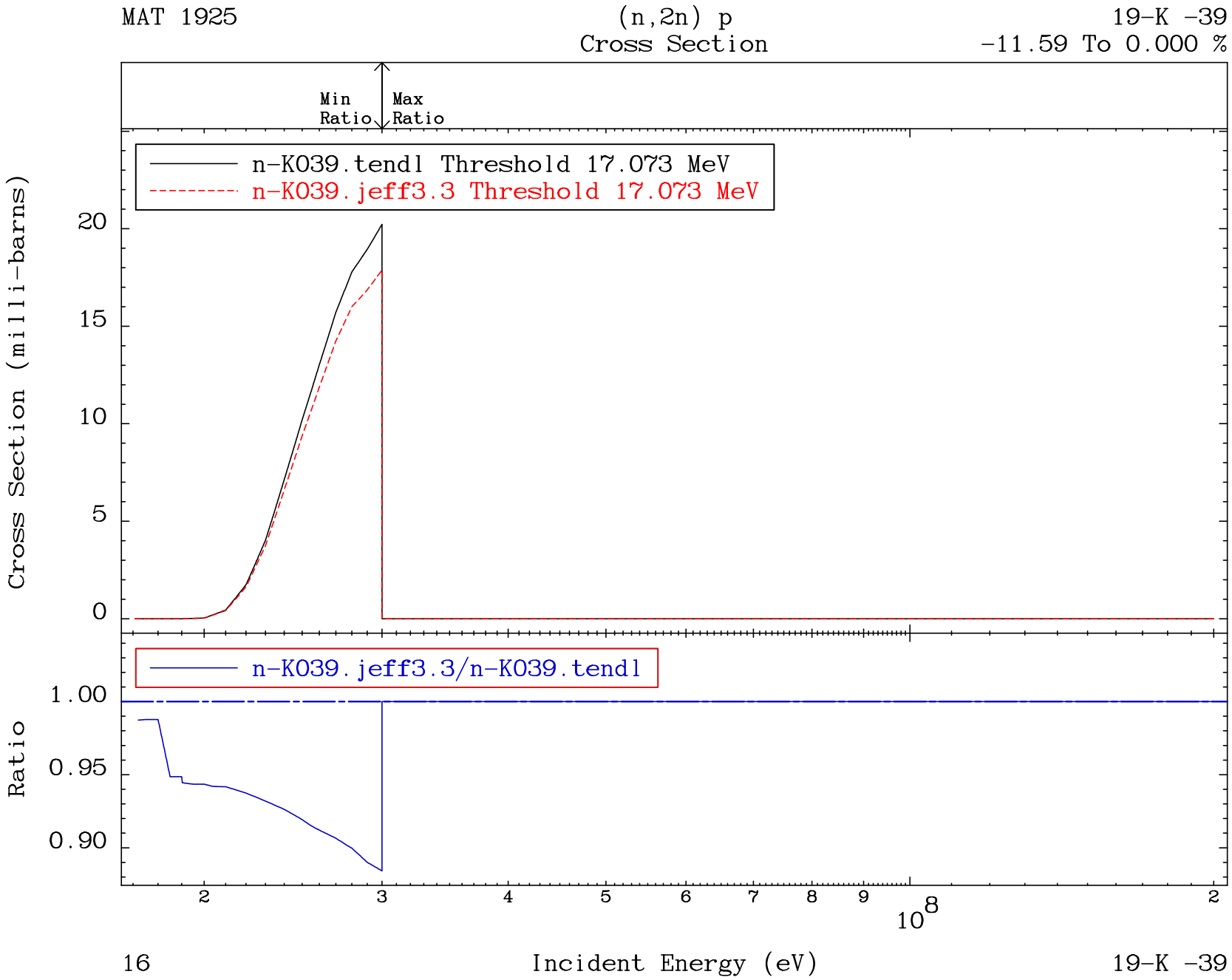

MAT 1925
(n,n') d
Cross Section
19-K -39
-2.525 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 16.429 MeV
n-K039.jeff3.3 Threshold 16.429 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
2
3
4
5
6
7
8
9
10^8
2
11
Incident Energy (eV)
19-K -39

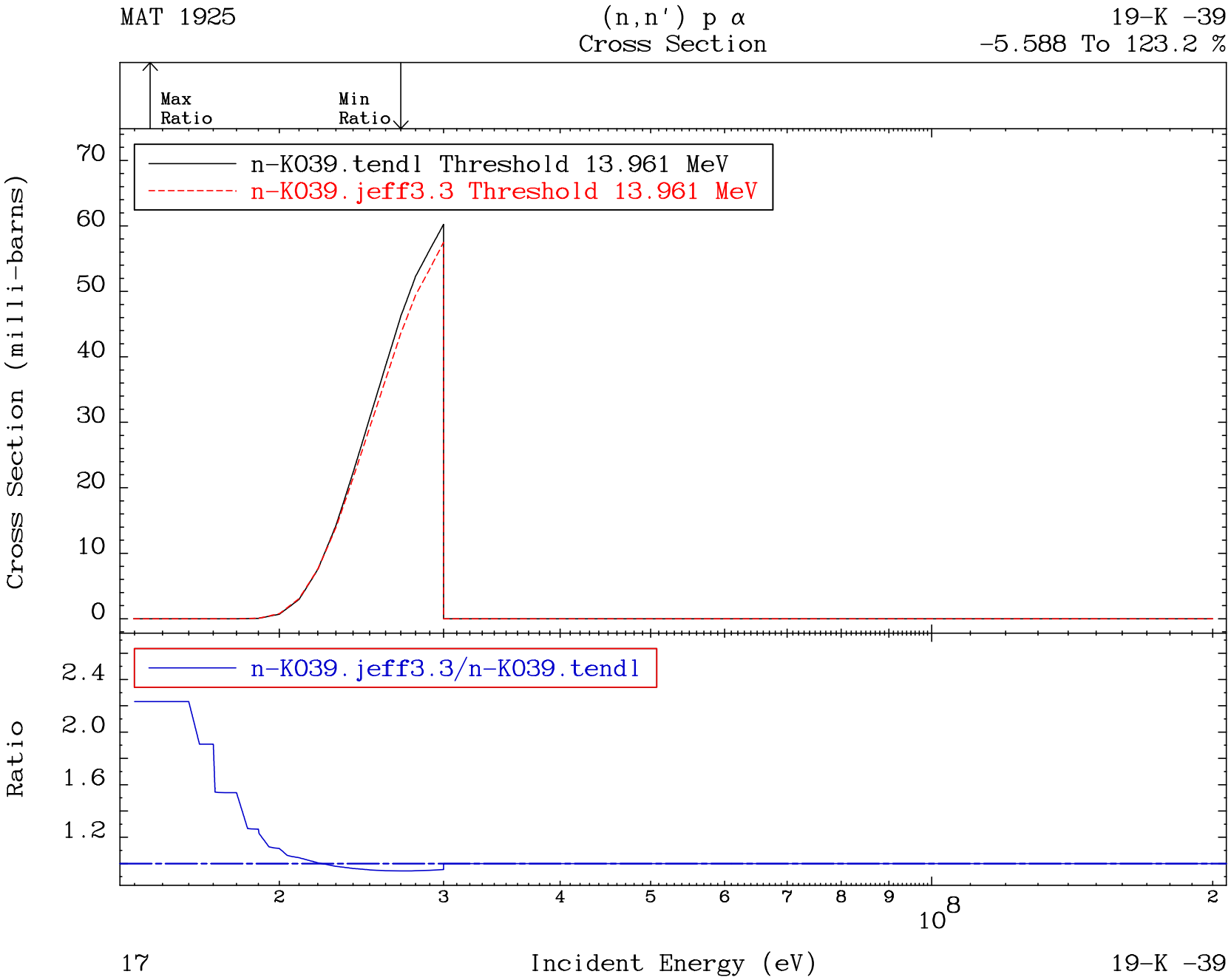

MAT 1925
(n,n') t
Cross Section
19-K -39
0.000 To 284.6 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 19.024 MeV
n-K039.jeff3.3 Threshold 19.024 MeV
Cross Section (milli-barns)
0
1
2
3
4
n-K039.jeff3.3/n-K039.tendl
Ratio
1.0
2.0
3.0
4.0
2
3
4
5
6
7
8
9
10^8
2
12
Incident Energy (eV)
19-K -39

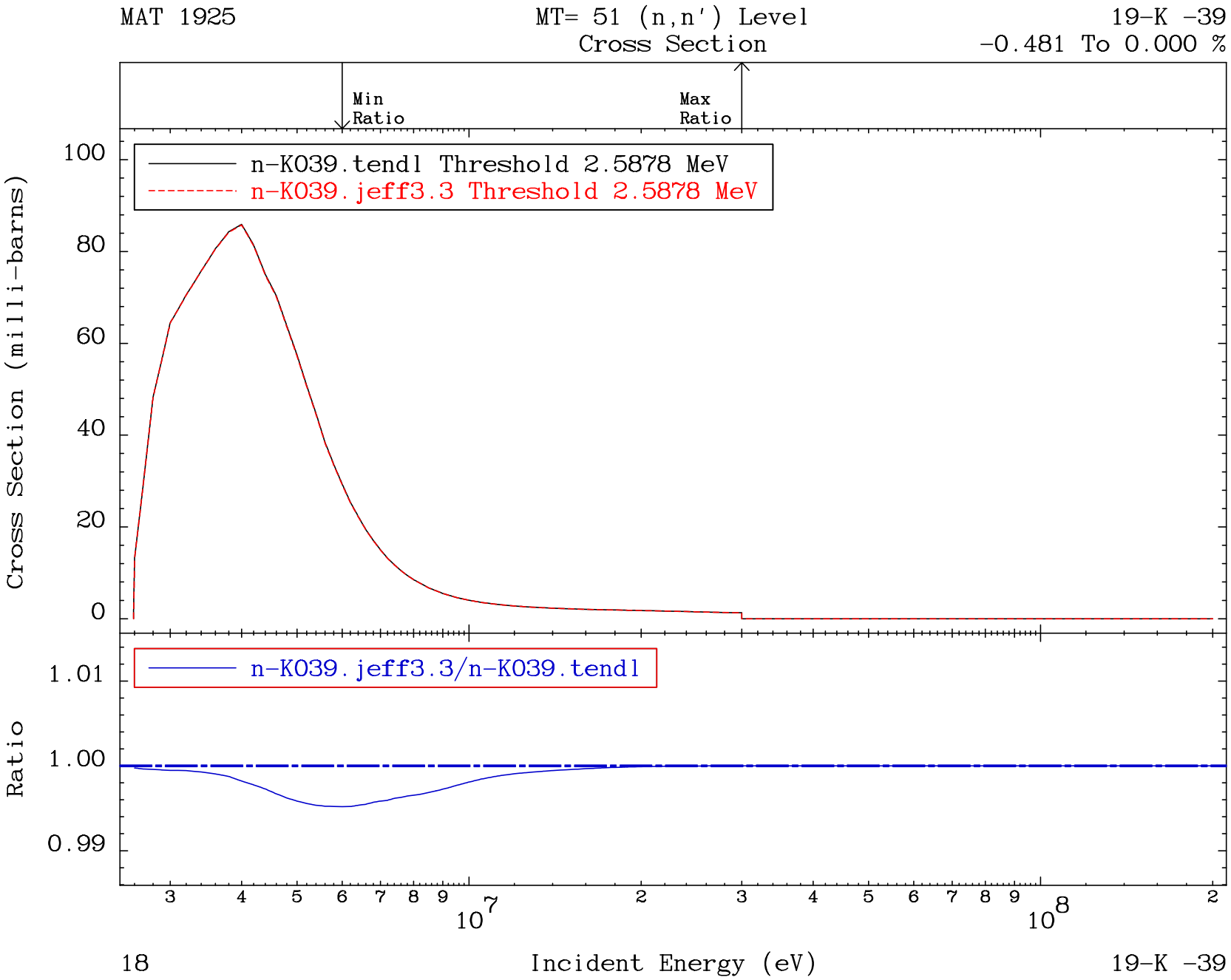

MAT 1925
(n,n') He-3
Cross Section
19-K -39
-1.019 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 19.733 MeV
n-K039.jeff3.3 Threshold 19.733 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-K039.jeff3.3/n-K039.tendl
Ratio
0.99
1.00
1.01
2
3
4
5
6
7
8
9
2
10^8
13
Incident Energy (eV)
19-K -39

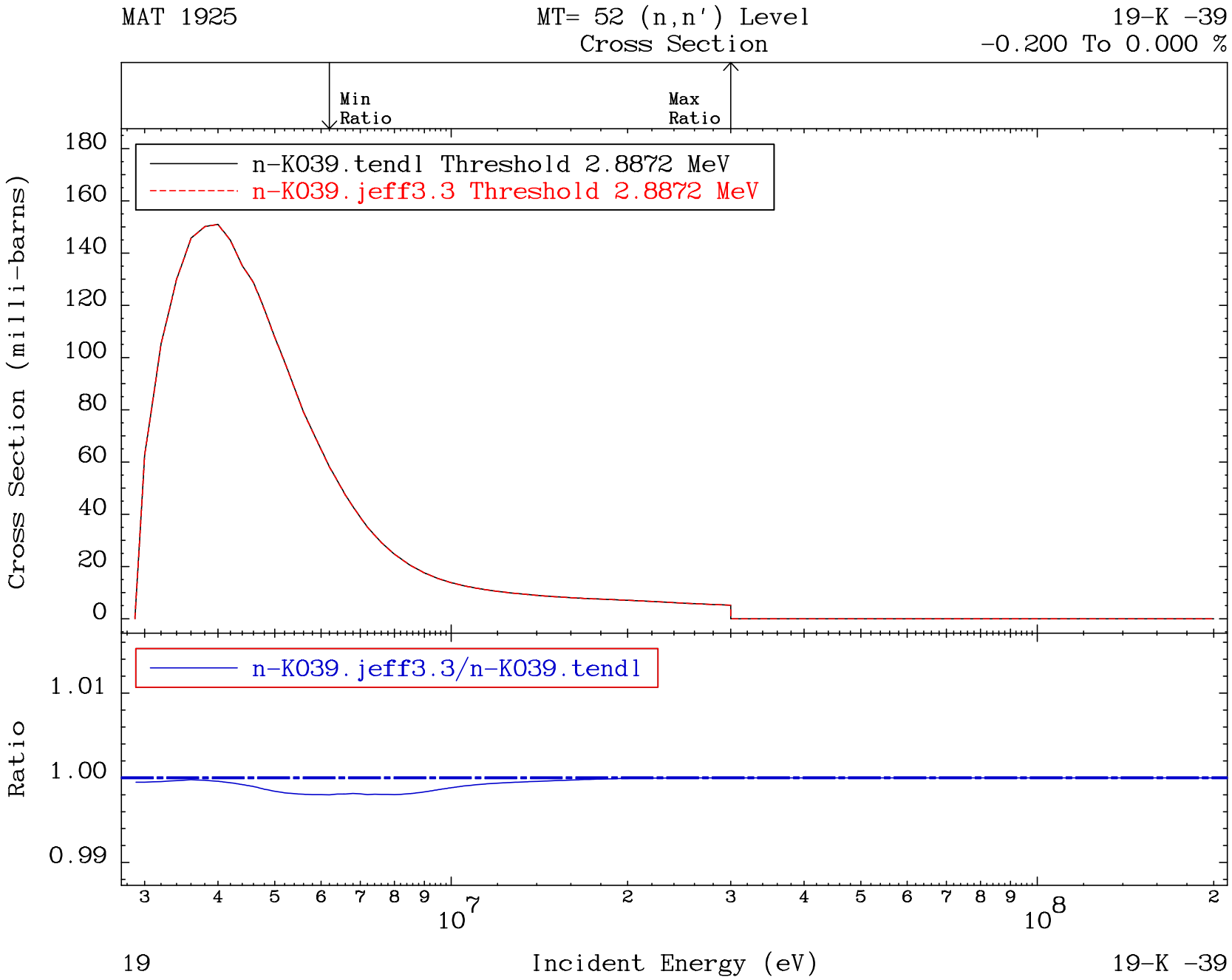

MAT 1925
(n,2n) p
Cross Section
19-K -39
-6.548 To 0.345 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 18.711 MeV
n-K039.jeff3.3 Threshold 18.711 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.96
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
19-K -39

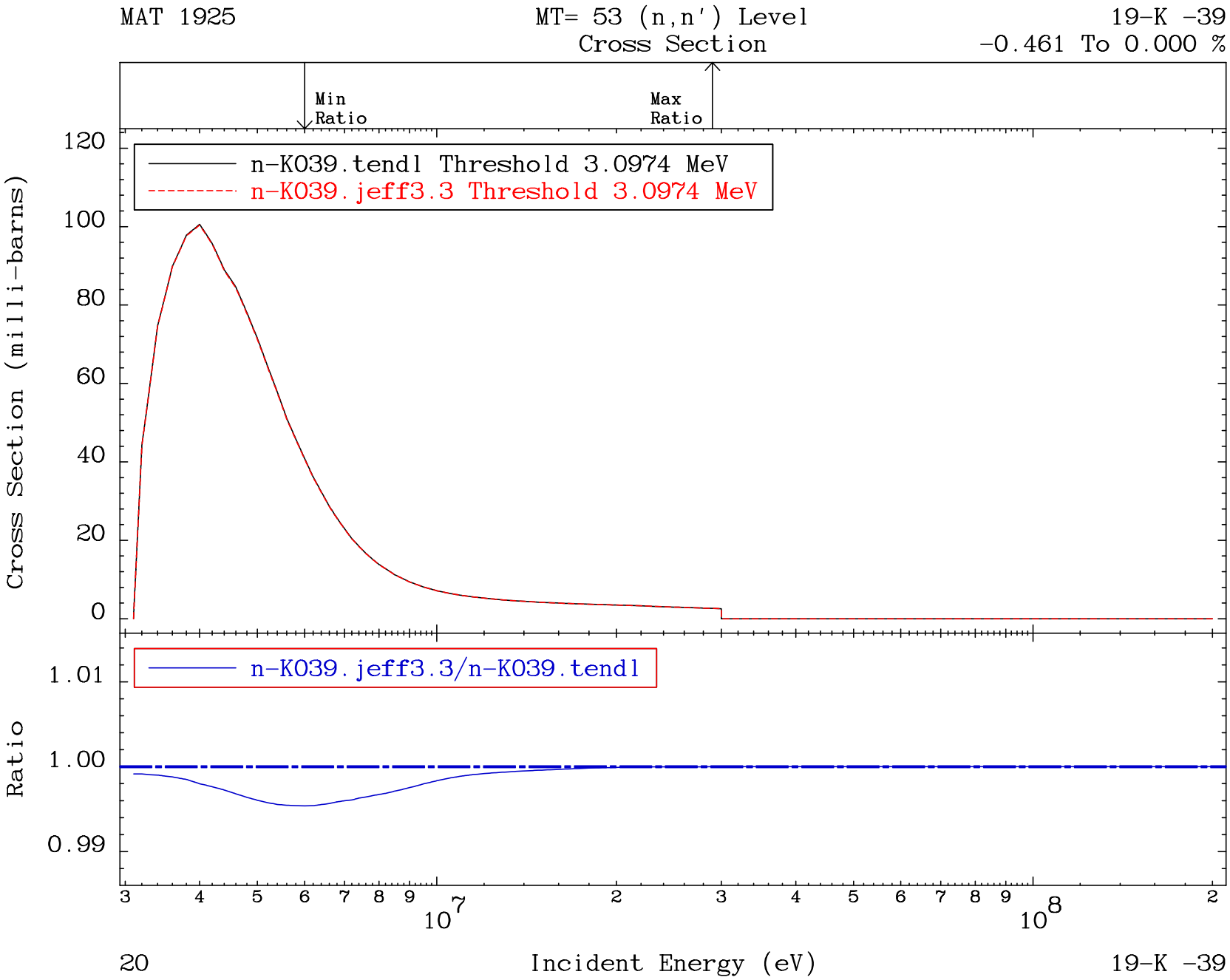

MAT 1925
(n,3n) p
Cross Section
19-K -39
-13.94 To 0.441 %
Min
Ratio
n-K039.tendl Threshold 27.726 MeV
n-K039.jeff3.3 Threshold 27.726 MeV
Cross Section (micro-barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.95
0.90
0.85
40
60
80
100
120
140
160
180
200
15
Incident Energy (MeV)
19-K -39

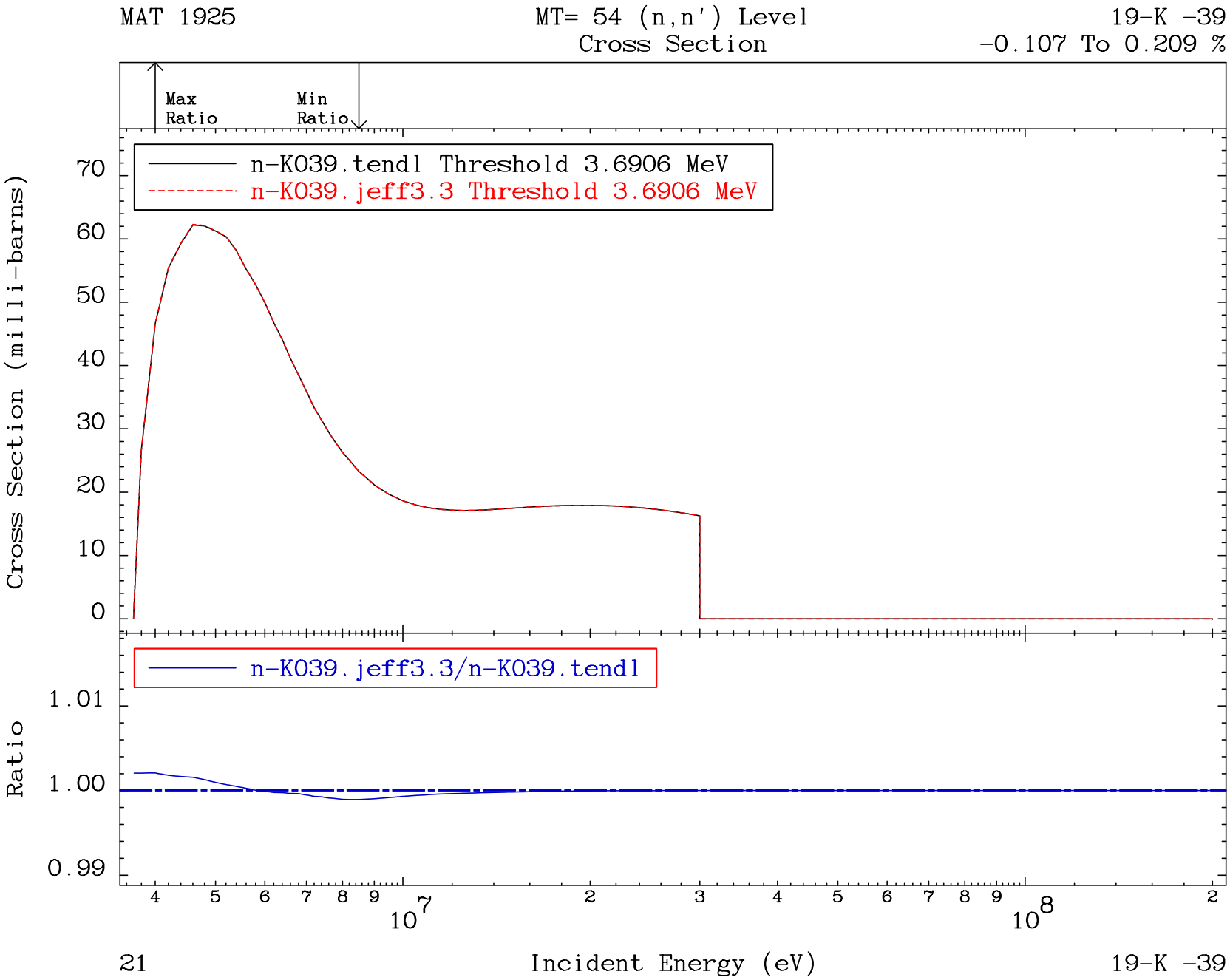

MAT 1925
(n,2n) p
Cross Section
19-K -39
-11.59 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 17.073 MeV
n-K039.jeff3.3 Threshold 17.073 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
16
Incident Energy (eV)
19-K -39

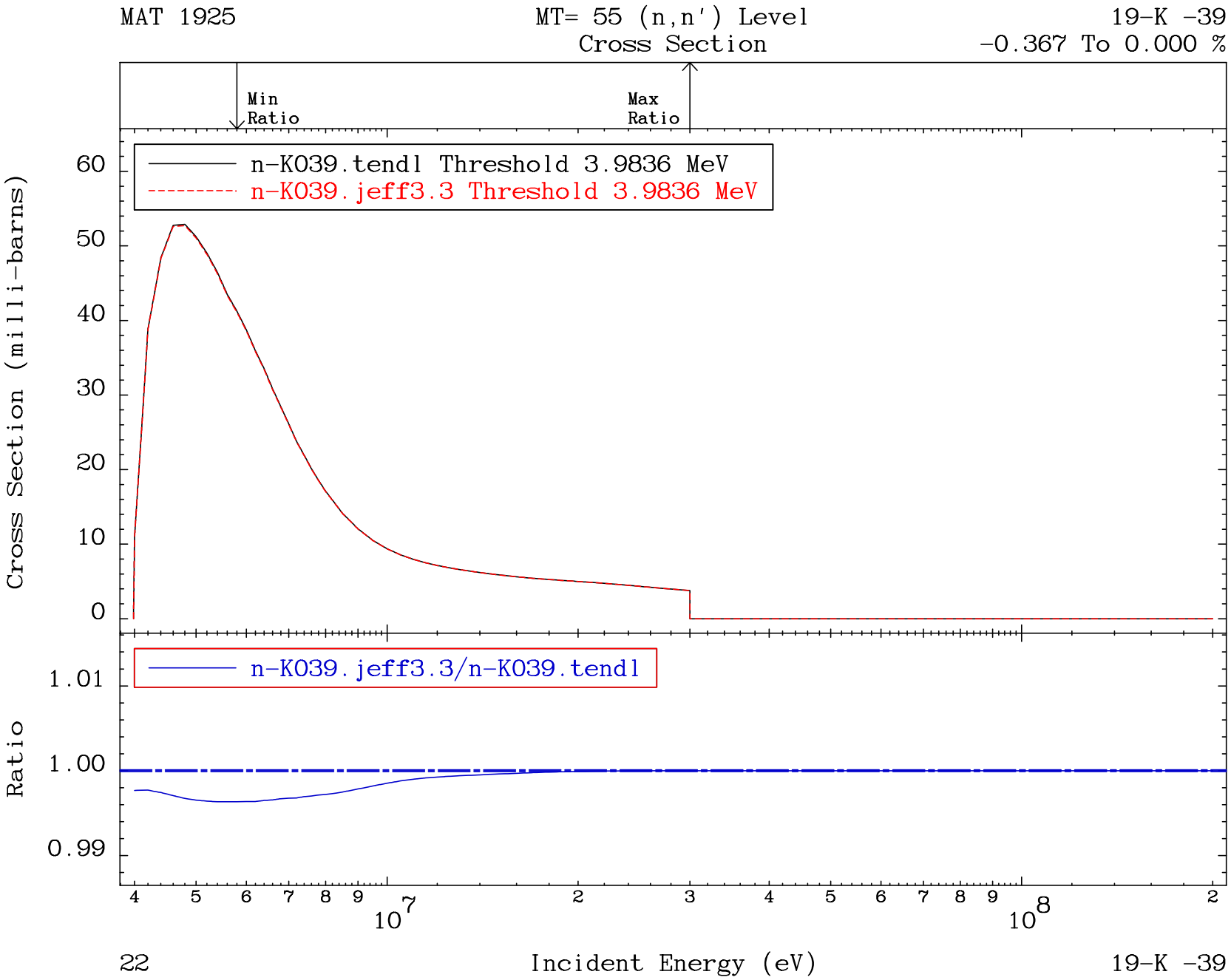

MAT 1925
(n,n') p α
Cross Section
19-K -39
-5.588 To 123.2 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 13.961 MeV
n-K039.jeff3.3 Threshold 13.961 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-K039.jeff3.3/n-K039.tendl
Ratio
2.4
2.0
1.6
1.2
2
3
4
5
6
7
8
9
10^8
2
17
Incident Energy (eV)
19-K -39

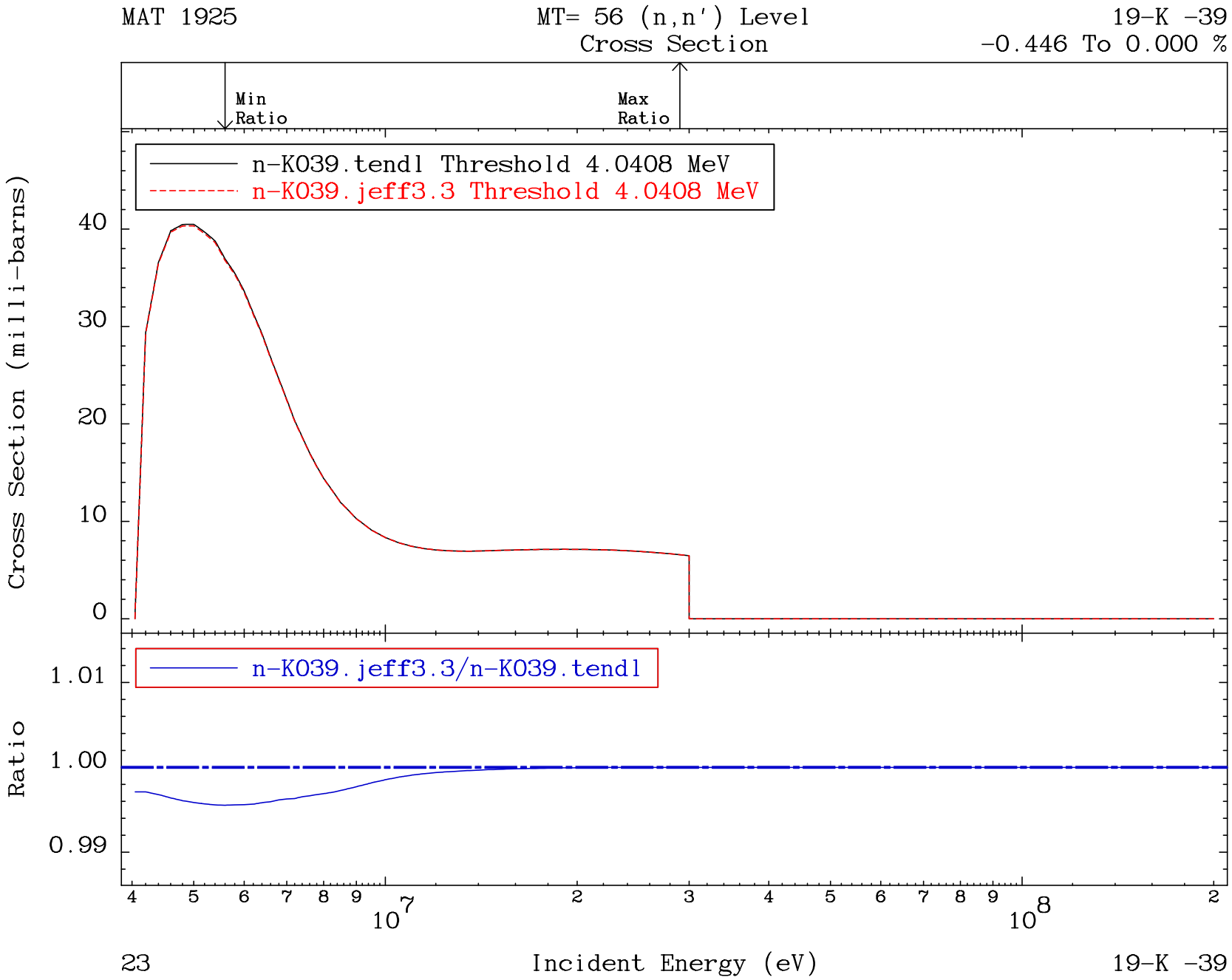

MAT 1925
MT= 51 (n,n') Level
Cross Section
19-K -39
-0.481 To 0.000 %
Min
Ratio
Max
Ratio
n-K039.tendl Threshold 2.5878 MeV
n-K039.jeff3.3 Threshold 2.5878 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
18
Incident Energy (eV)
19-K -39

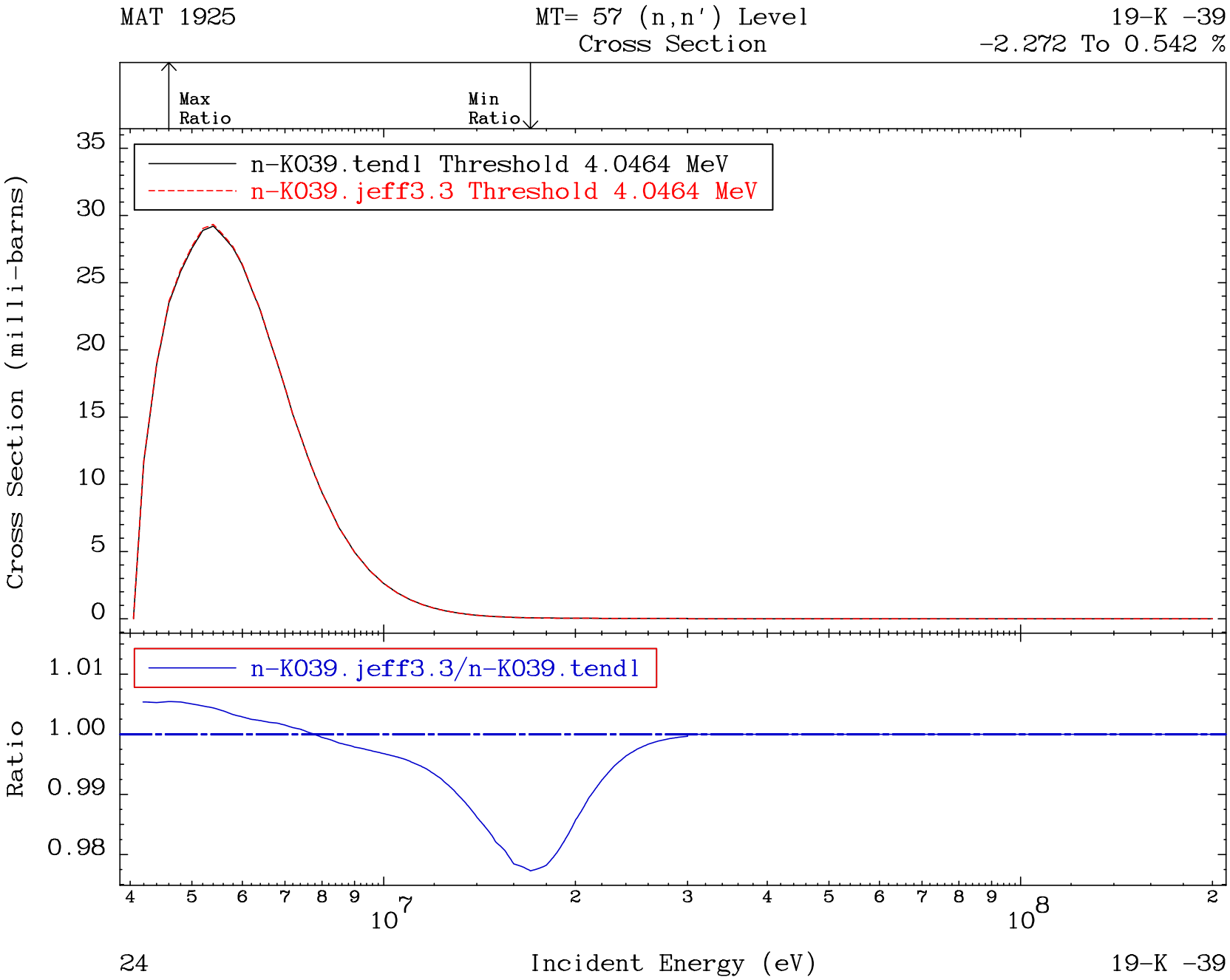

MAT 1925
MT= 52 (n,n') Level
Cross Section
19-K -39
-0.200 To 0.000 %
Min
Ratio
Max
Ratio
n-K039.tendl Threshold 2.8872 MeV
n-K039.jeff3.3 Threshold 2.8872 MeV
Cross Section (milli-barns)
180
160
140
120
100
80
60
40
20
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
19-K -39

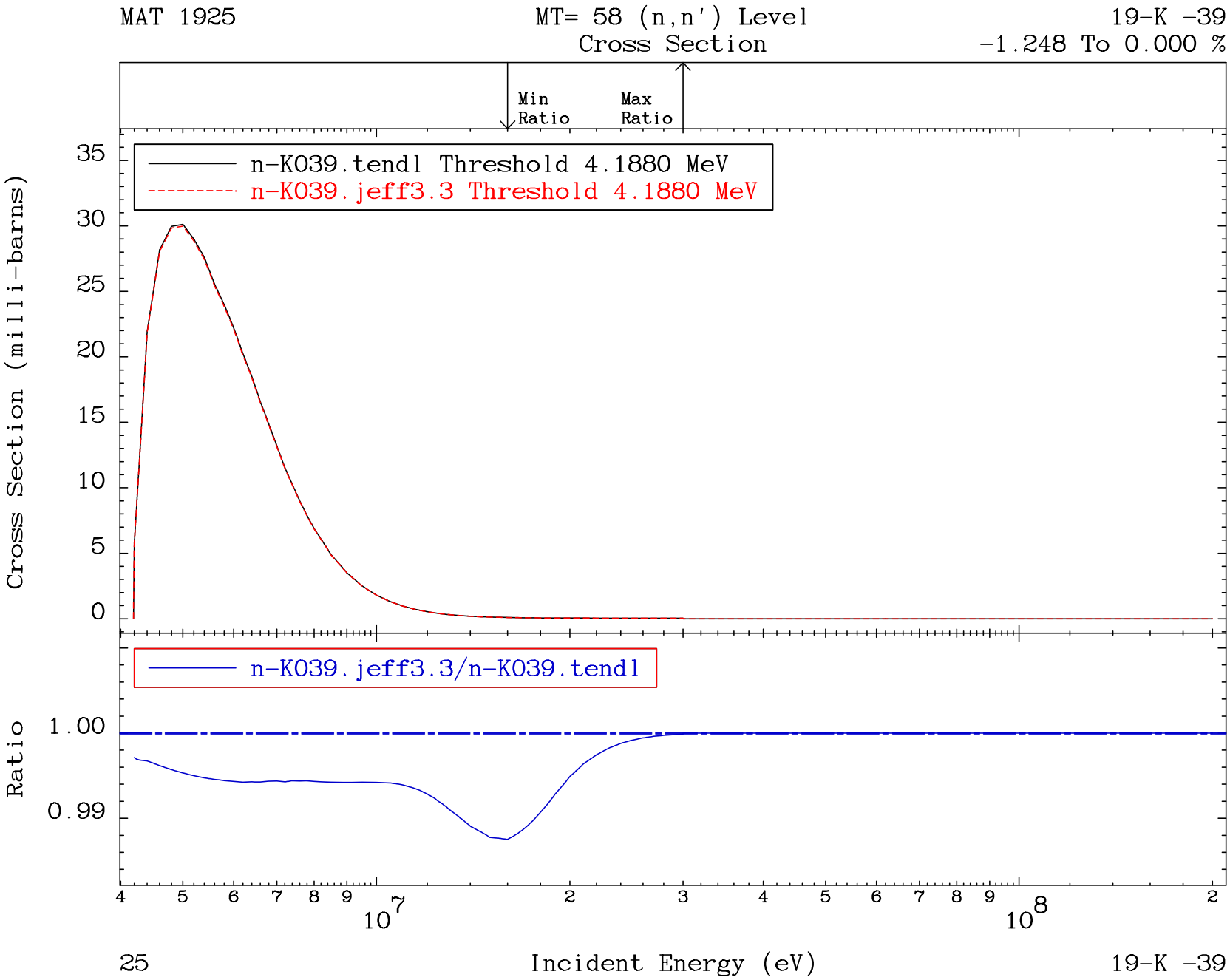

MAT 1925
MT= 53 (n,n') Level
Cross Section
19-K -39
-0.461 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 3.0974 MeV
n-K039.jeff3.3 Threshold 3.0974 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
20
19-K -39

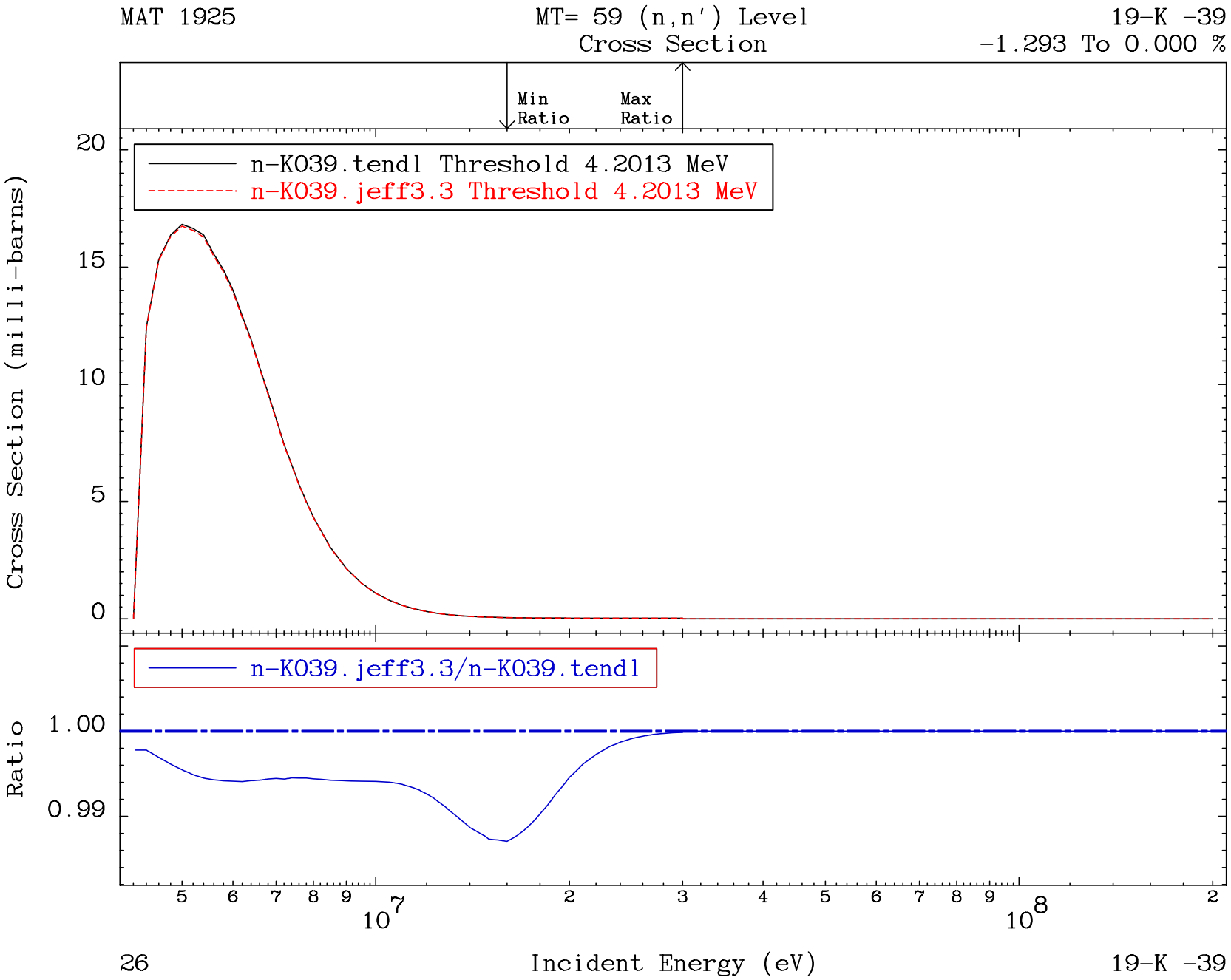

MAT 1925
MT= 54 (n,n') Level
Cross Section
19-K -39
-0.107 To 0.209 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 3.6906 MeV
n-K039.jeff3.3 Threshold 3.6906 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
19-K -39

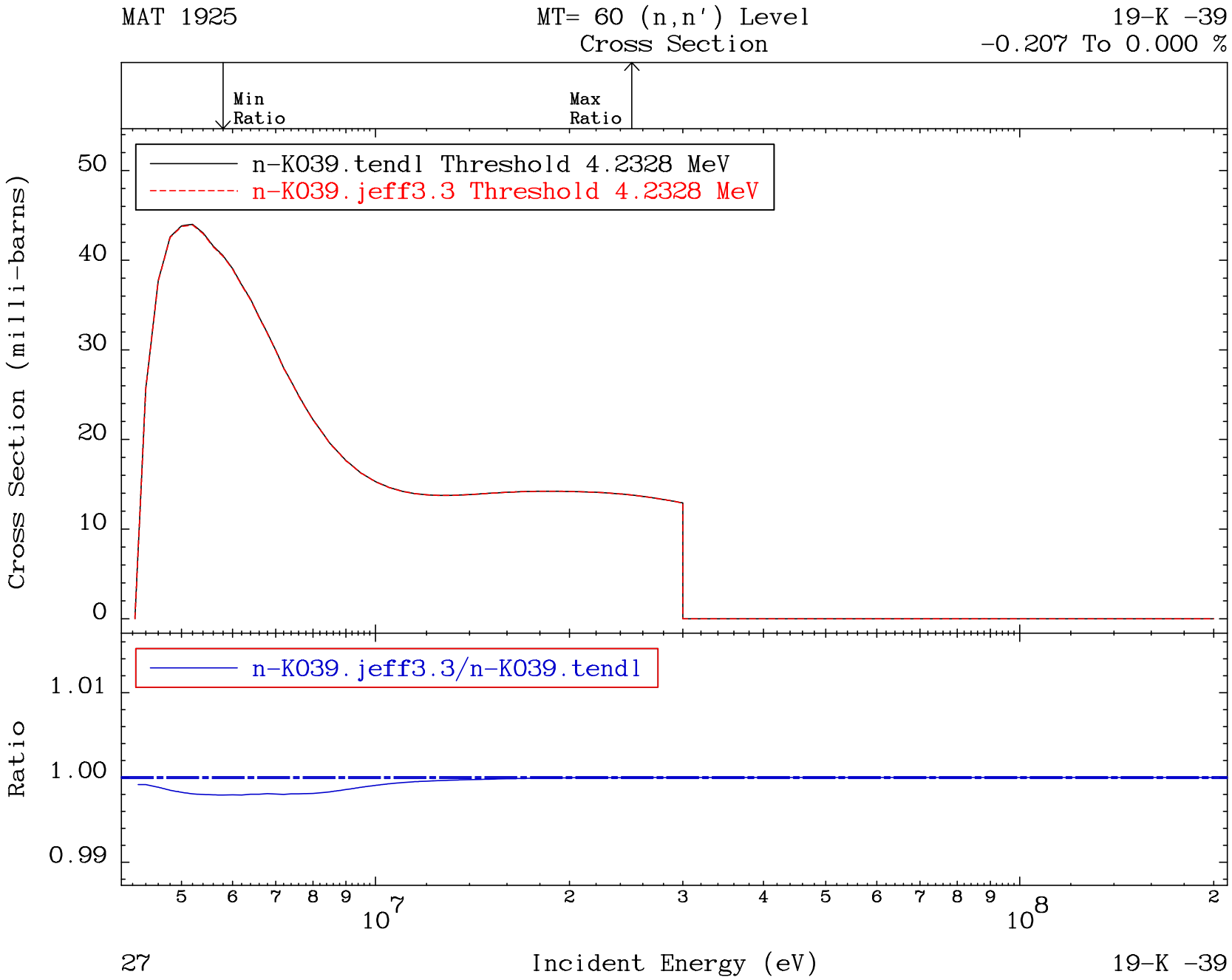

MAT 1925
MT= 55 (n,n') Level
Cross Section
19-K -39
-0.367 To 0.000 %
Min
Ratio
Max
Ratio
n-K039.tendl Threshold 3.9836 MeV
n-K039.jeff3.3 Threshold 3.9836 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
22
Incident Energy (eV)
19-K -39

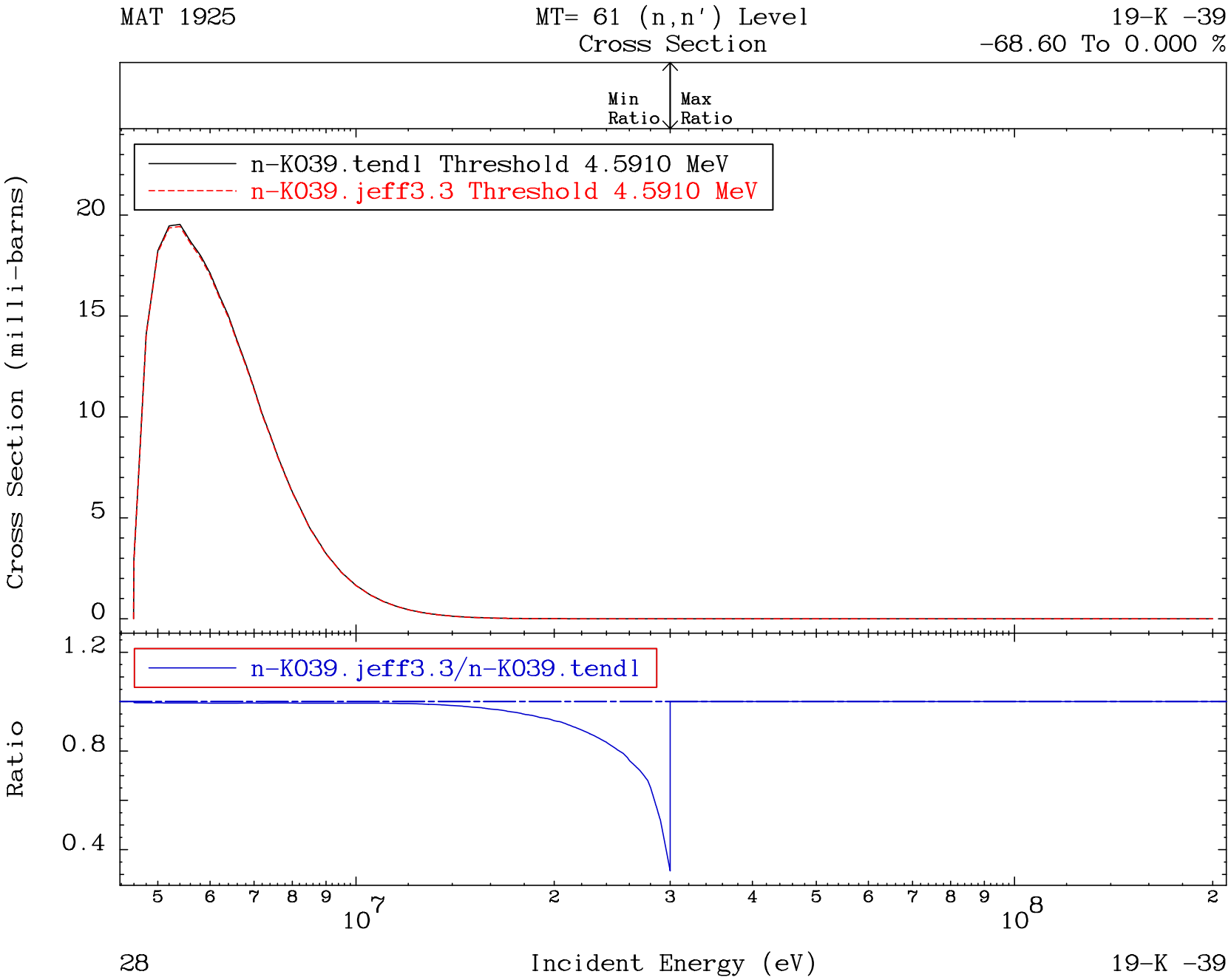

MAT 1925
MT= 56 (n,n') Level
Cross Section
19-K -39
-0.446 To 0.000 %
Min
Ratio
Max
Ratio
n-K039.tendl Threshold 4.0408 MeV
n-K039.jeff3.3 Threshold 4.0408 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
19-K -39

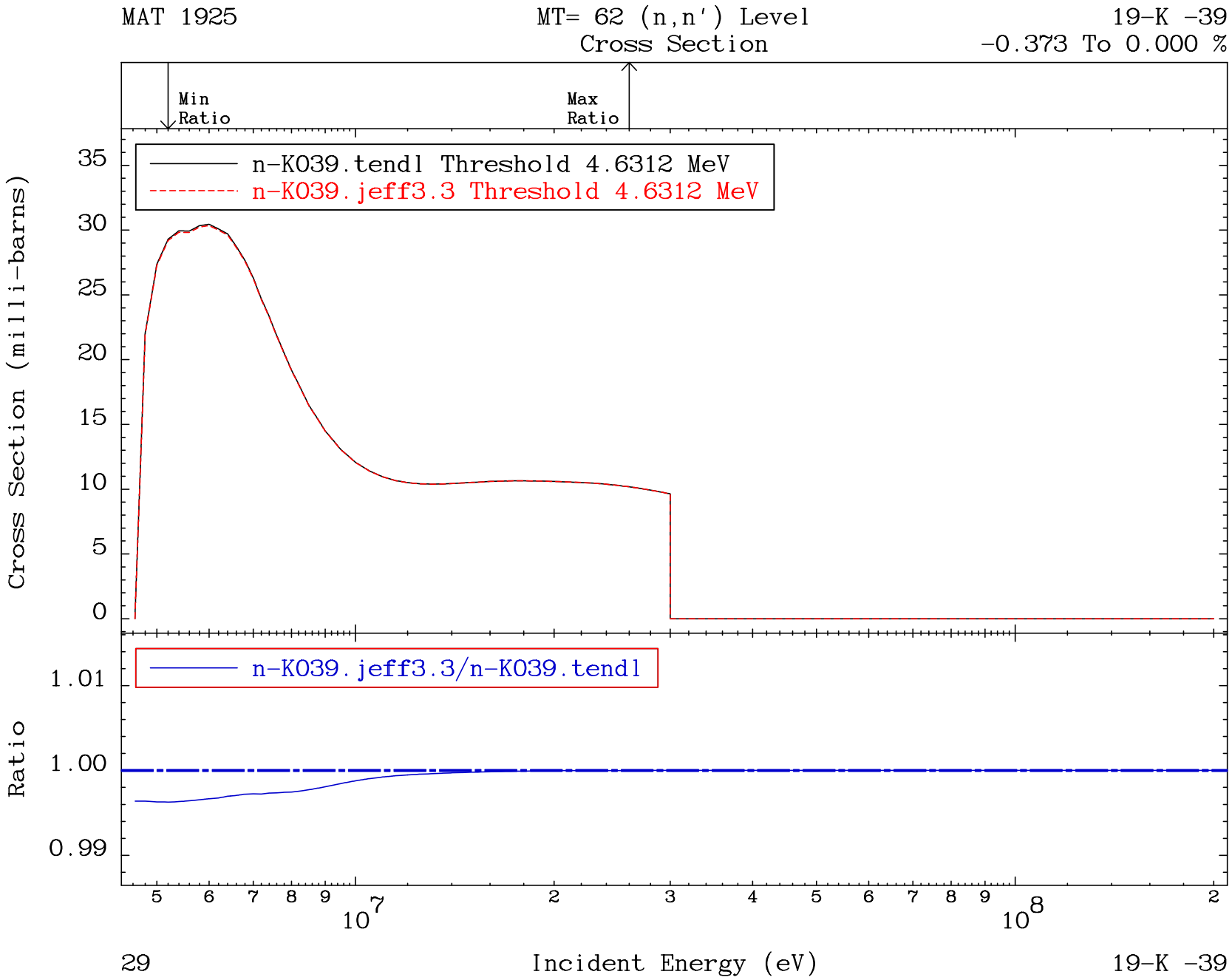

MAT 1925
MT= 57 (n,n') Level
Cross Section
19-K -39
-2.272 To 0.542 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 4.0464 MeV
n-K039.jeff3.3 Threshold 4.0464 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
0.98
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
19-K -39

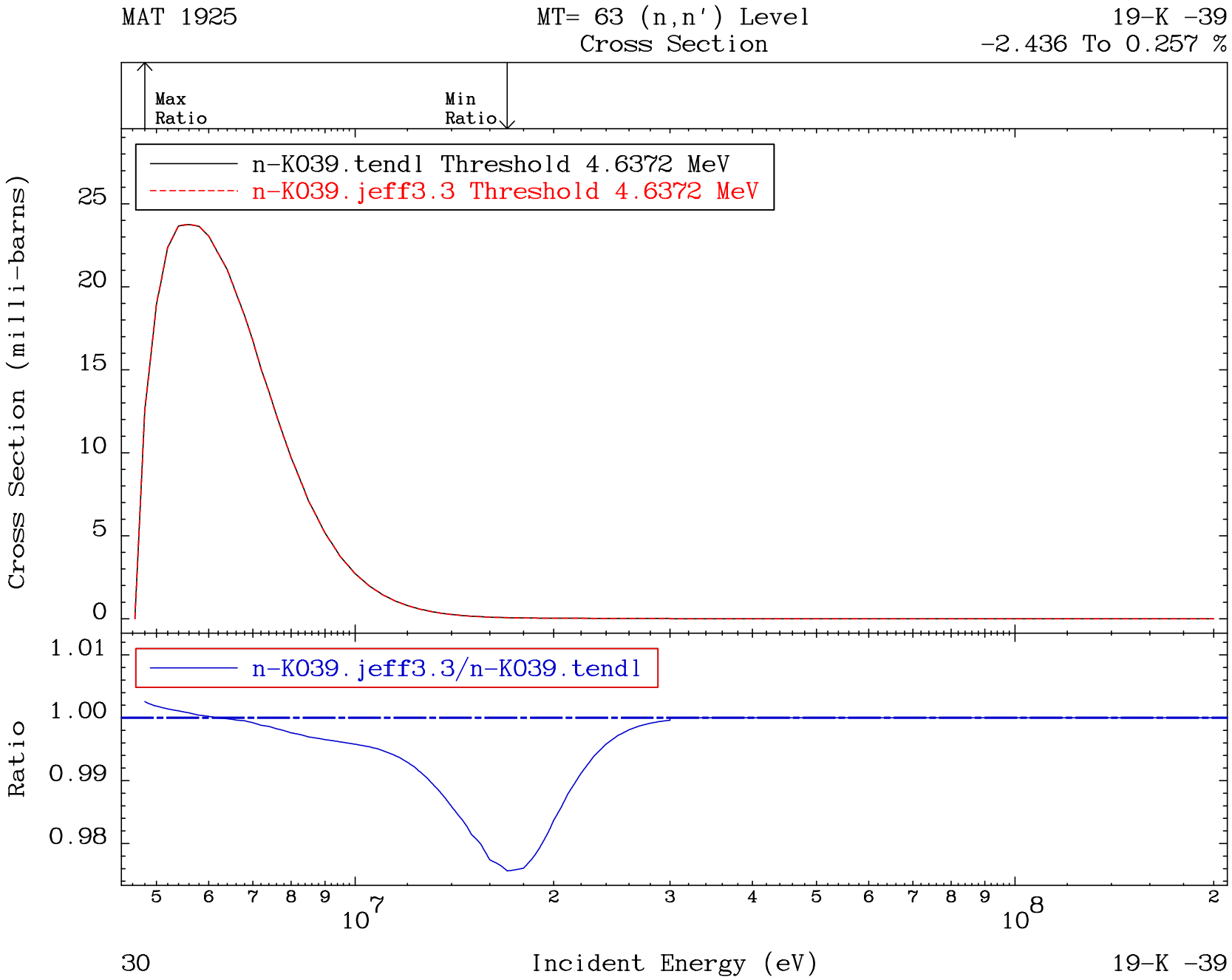

MAT 1925
MT= 58 (n,n') Level
Cross Section
19-K -39
-1.248 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 4.1880 MeV
n-K039.jeff3.3 Threshold 4.1880 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
19-K -39

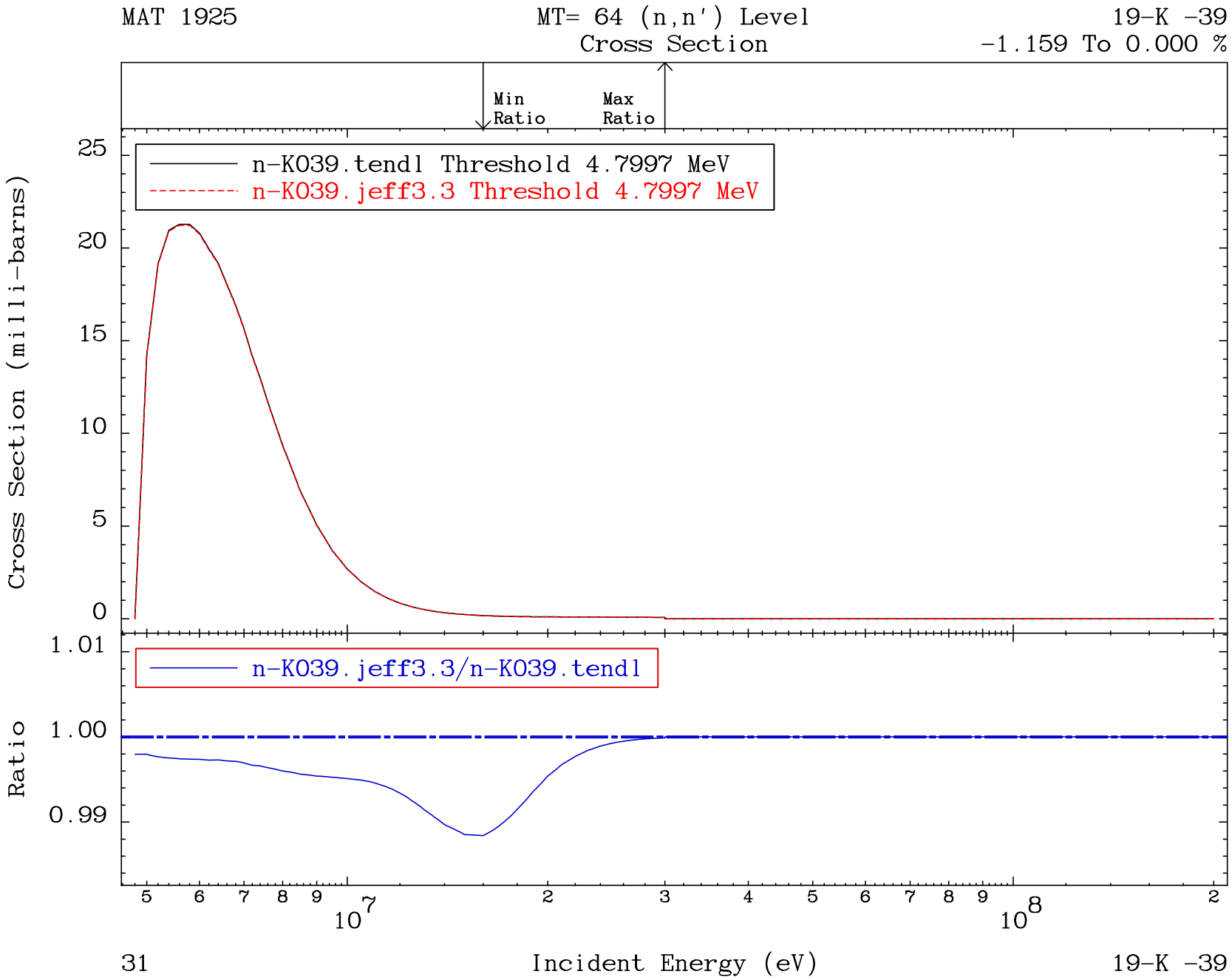

MAT 1925
MT= 59 (n,n') Level
Cross Section
19-K -39
-1.293 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 4.2013 MeV
n-K039.jeff3.3 Threshold 4.2013 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
19-K -39

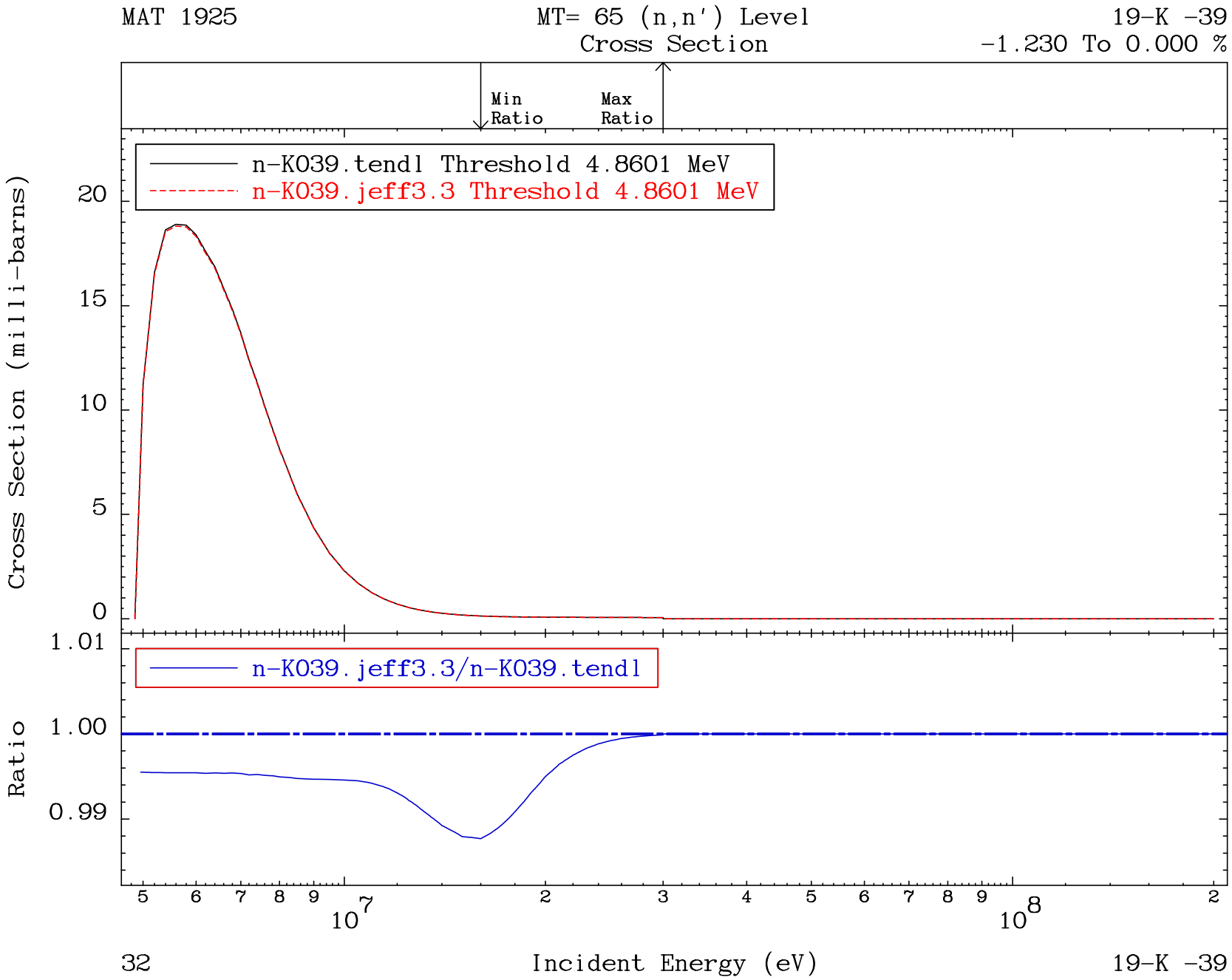

MAT 1925
MT= 60 (n,n') Level
Cross Section
19-K -39
-0.207 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 4.2328 MeV
n-K039.jeff3.3 Threshold 4.2328 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
19-K -39

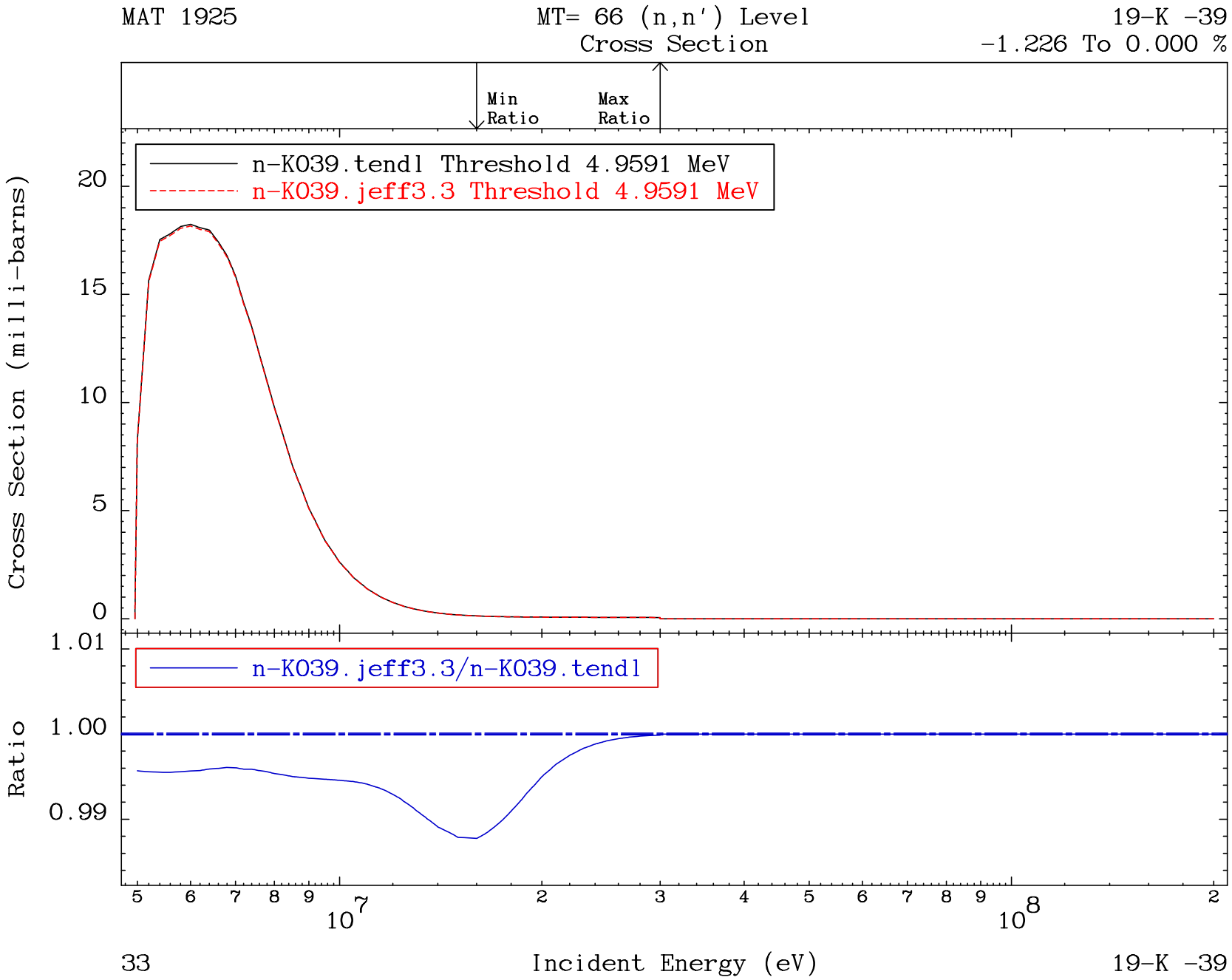

MAT 1925
MT= 61 (n,n') Level
Cross Section
19-K -39
-68.60 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 4.5910 MeV
n-K039.jeff3.3 Threshold 4.5910 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.2
0.8
0.4
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
28
Incident Energy (eV)
19-K -39

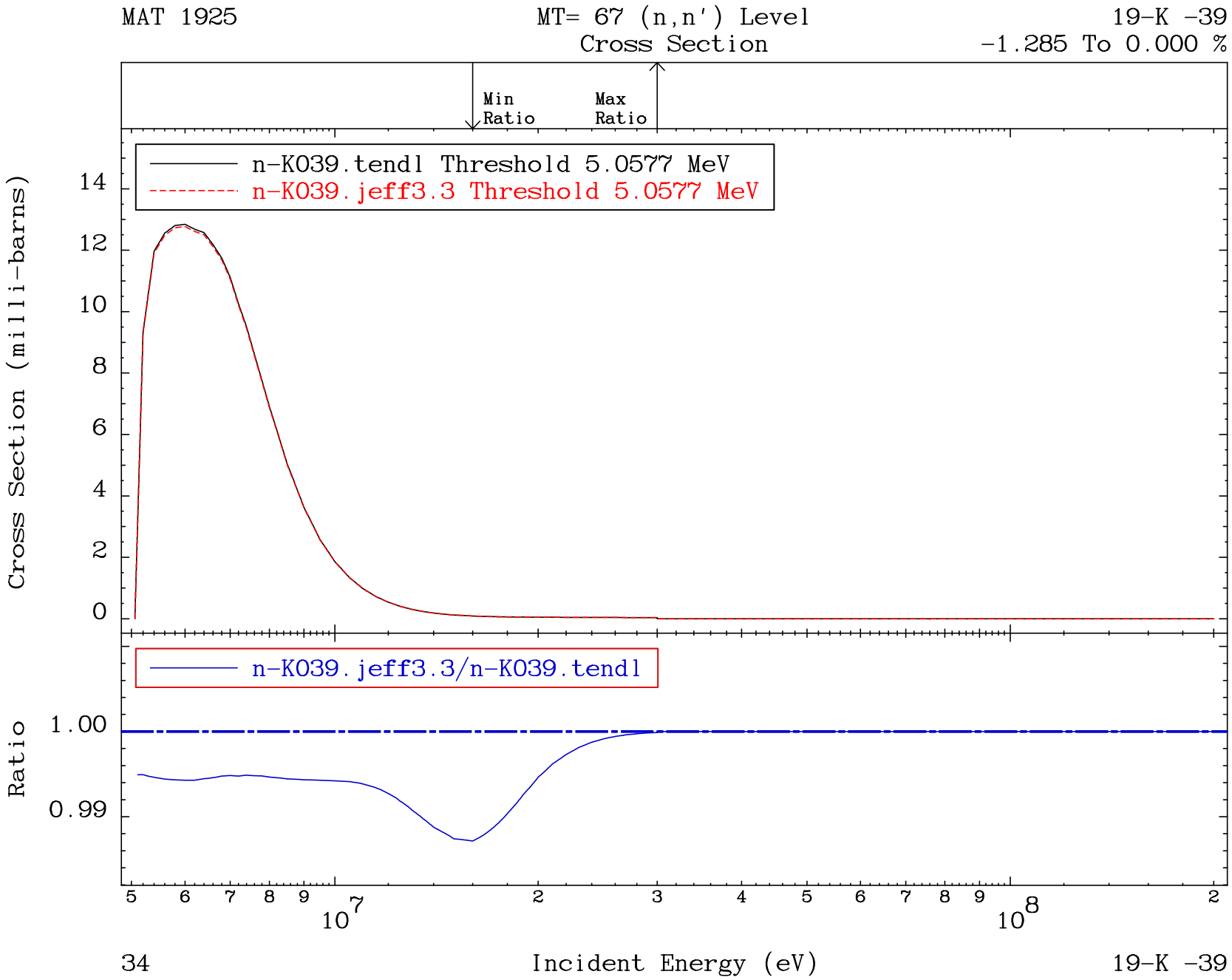

MAT 1925
MT= 62 (n,n') Level
Cross Section
19-K -39
-0.373 To 0.000 %
Min
Ratio
Max
Ratio
n-K039.tendl Threshold 4.6312 MeV
n-K039.jeff3.3 Threshold 4.6312 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
29
Incident Energy (eV)
19-K -39

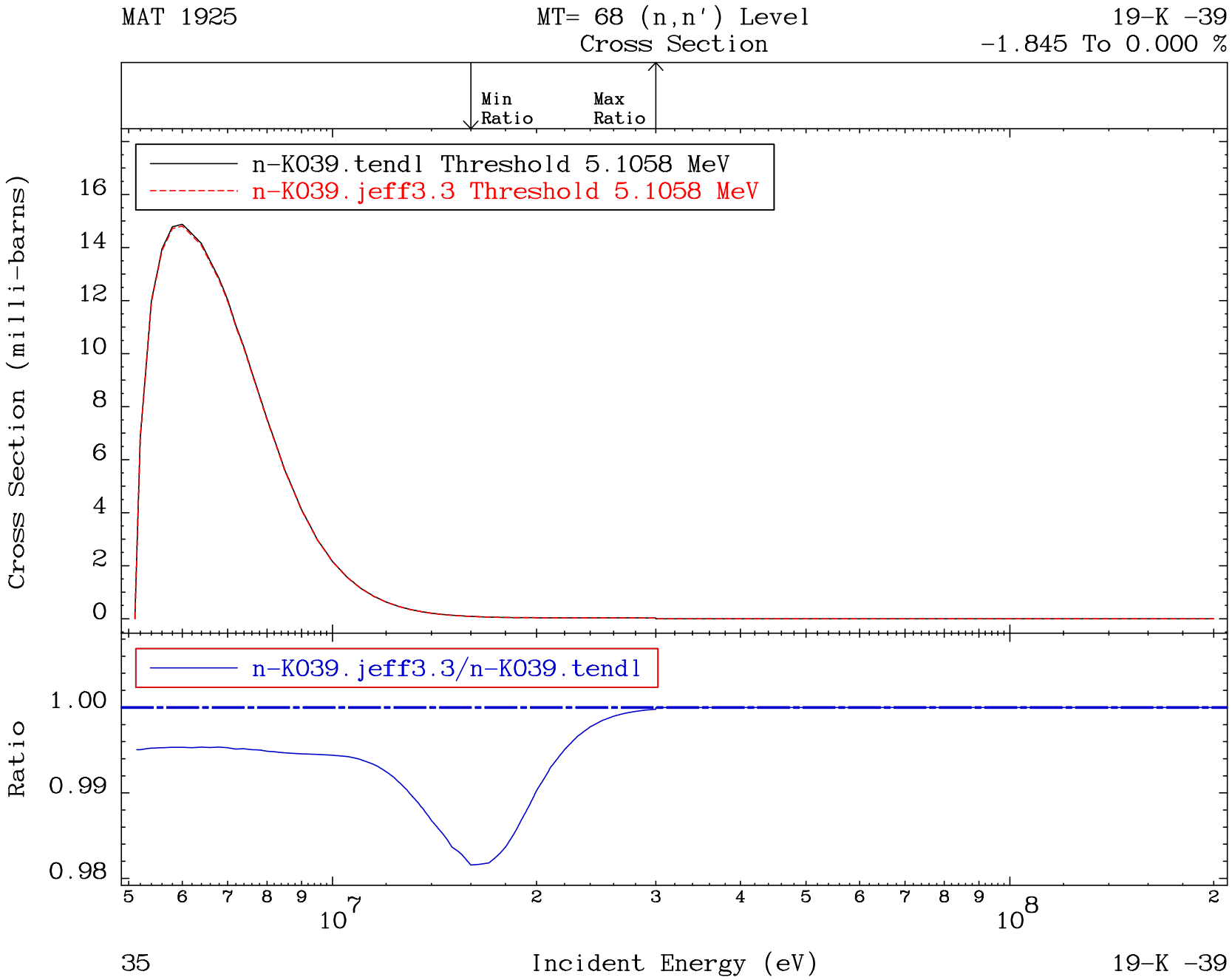

MAT 1925
MT= 63 (n,n') Level
Cross Section
19-K -39
-2.436 To 0.257 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 4.6372 MeV
n-K039.jeff3.3 Threshold 4.6372 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
0.98
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
30
Incident Energy (eV)
19-K -39

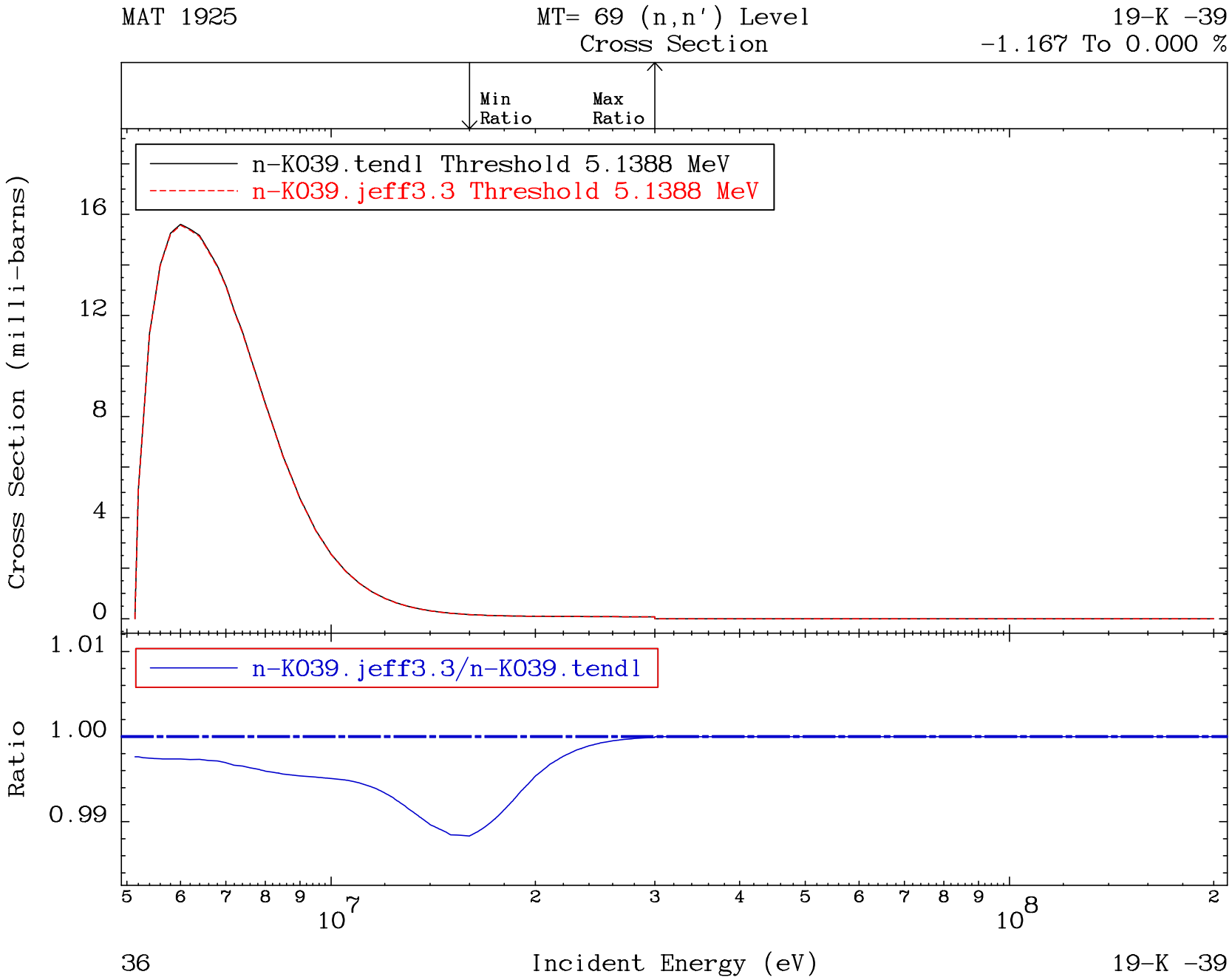

MAT 1925
MT= 64 (n,n') Level
Cross Section
19-K -39
-1.159 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 4.7997 MeV
n-K039.jeff3.3 Threshold 4.7997 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
19-K -39

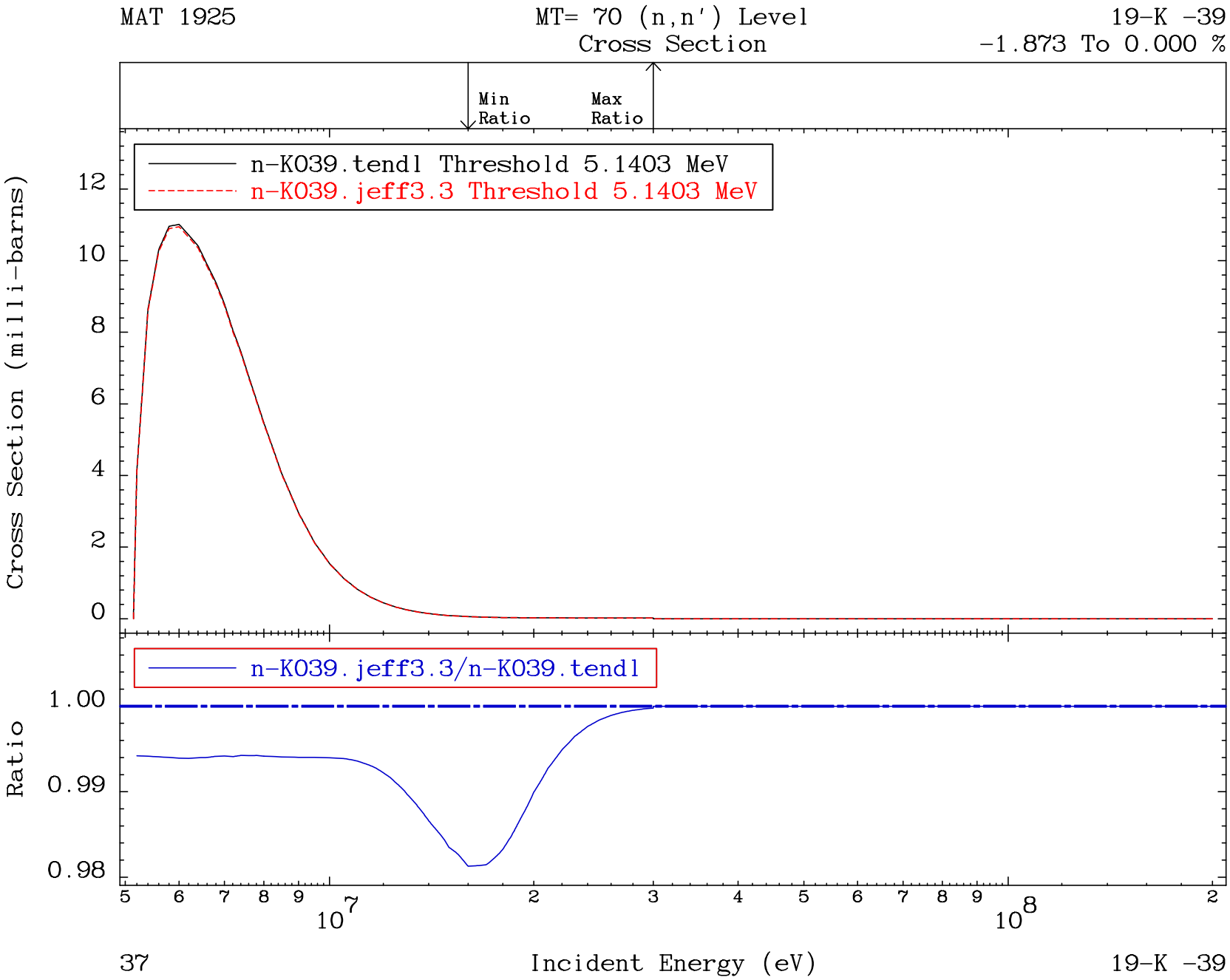

MAT 1925
MT= 65 (n,n') Level
Cross Section
19-K -39
-1.230 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 4.8601 MeV
n-K039.jeff3.3 Threshold 4.8601 MeV
Cross Section (milli-barns)
20
15
10
5
0
1.01
1.00
0.99
Ratio
n-K039.jeff3.3/n-K039.tendl
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
32
Incident Energy (eV)
19-K -39

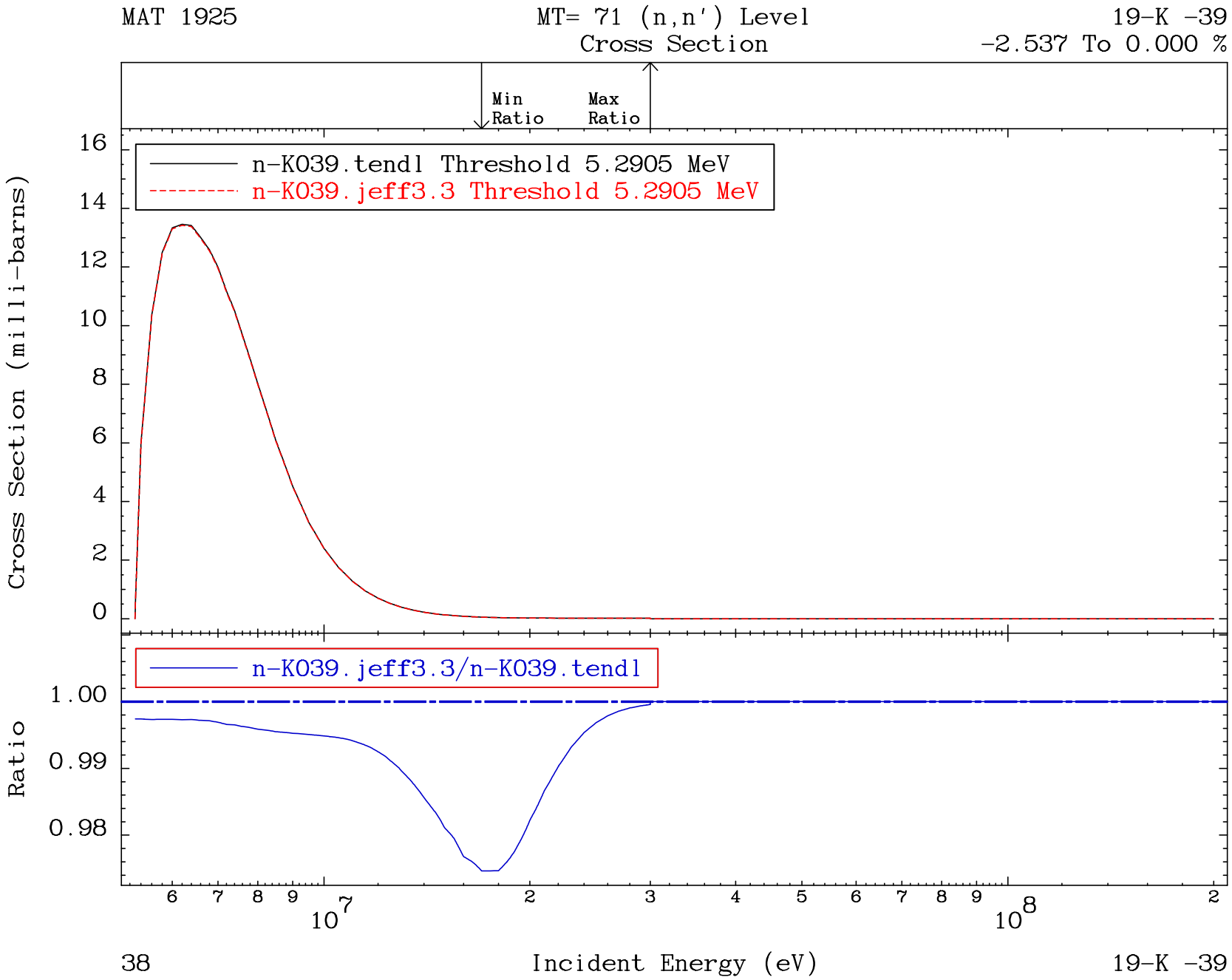

MAT 1925
MT= 66 (n,n') Level
Cross Section
19-K -39
-1.226 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 4.9591 MeV
n-K039.jeff3.3 Threshold 4.9591 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
33
Incident Energy (eV)
19-K -39

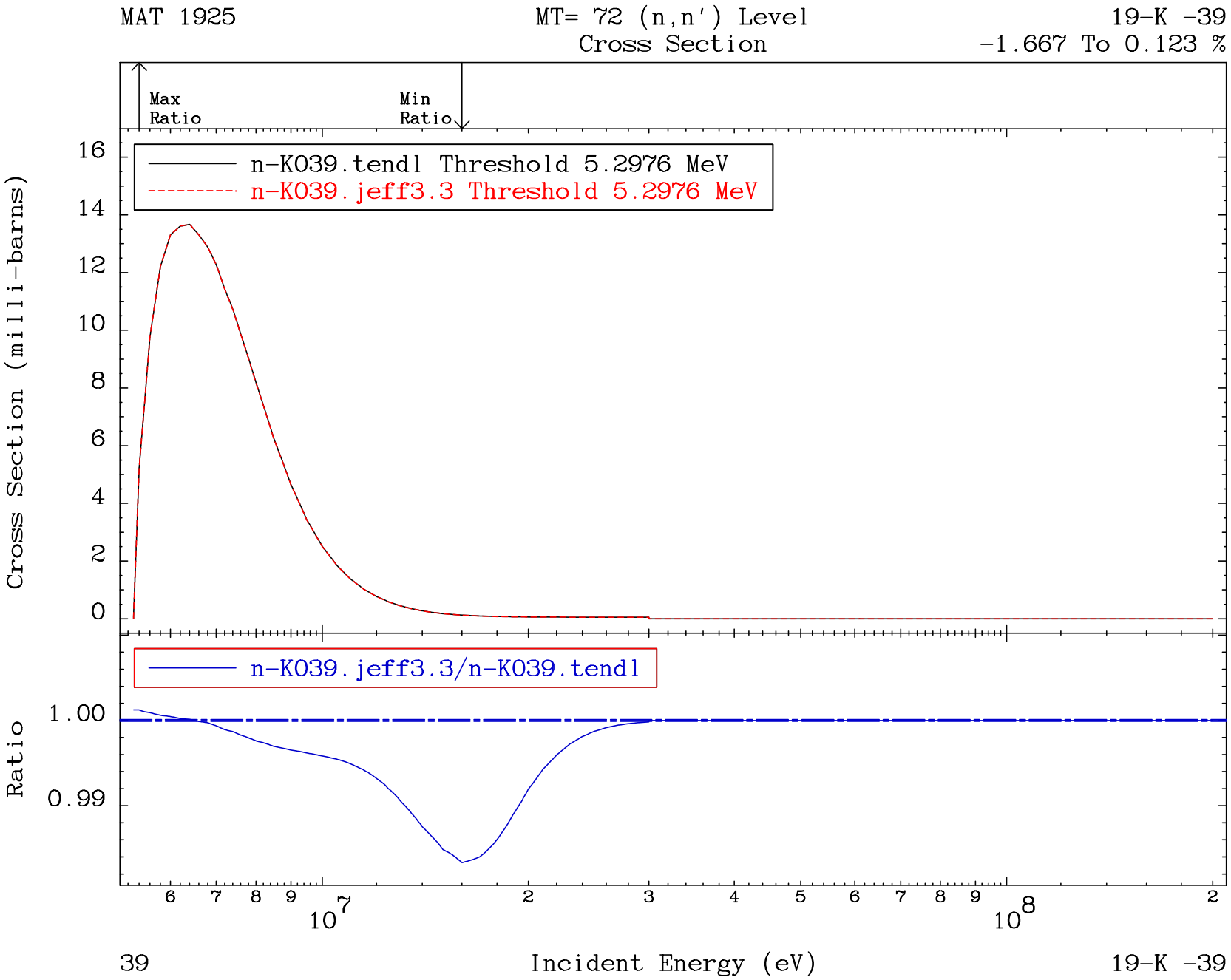

MAT 1925
MT= 67 (n,n') Level
Cross Section
19-K -39
-1.285 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.0577 MeV
n-K039.jeff3.3 Threshold 5.0577 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
34
Incident Energy (eV)
19-K -39

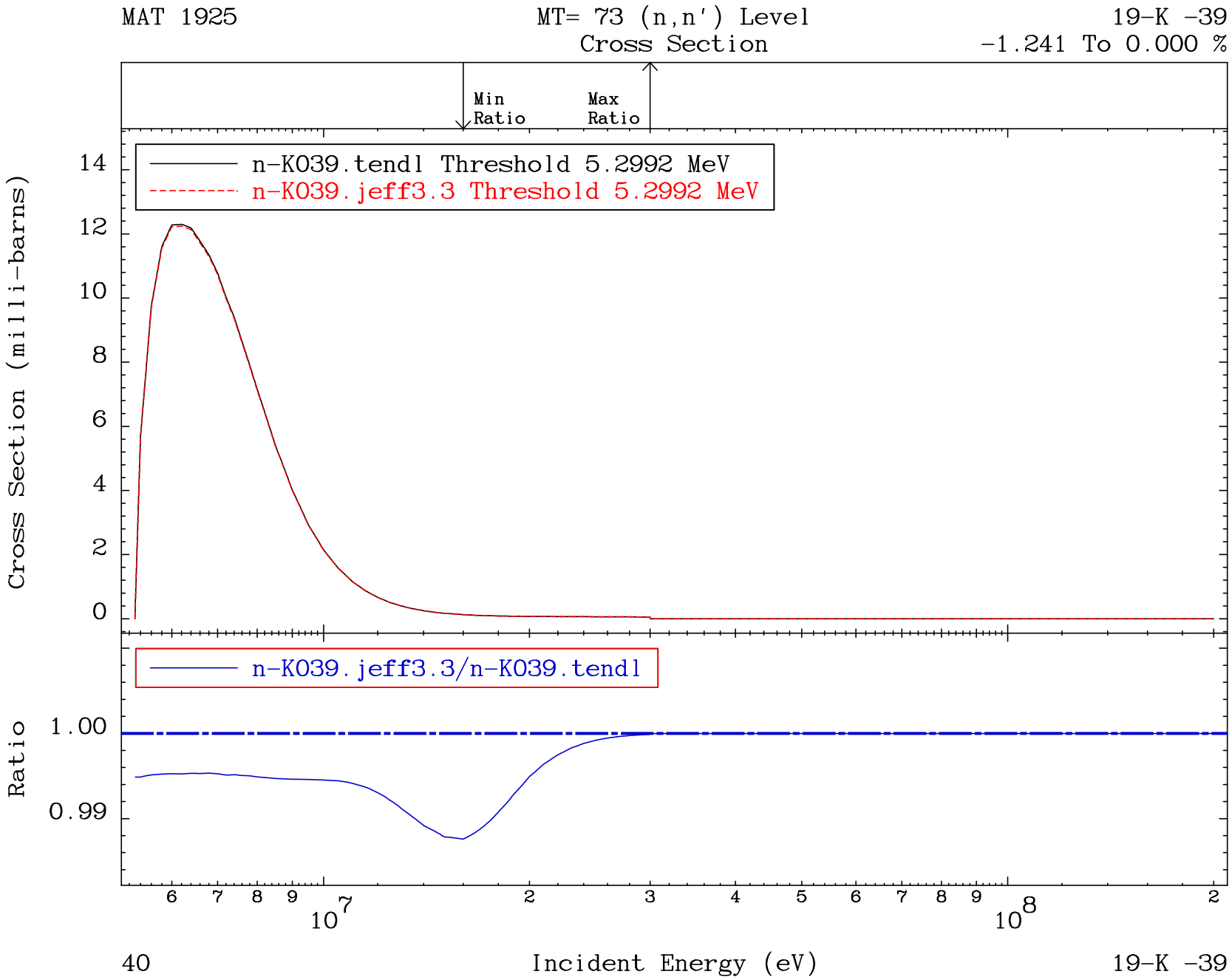

MAT 1925
MT= 68 (n,n') Level
Cross Section
19-K -39
-1.845 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.1058 MeV
n-K039.jeff3.3 Threshold 5.1058 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
35
Incident Energy (eV)
19-K -39

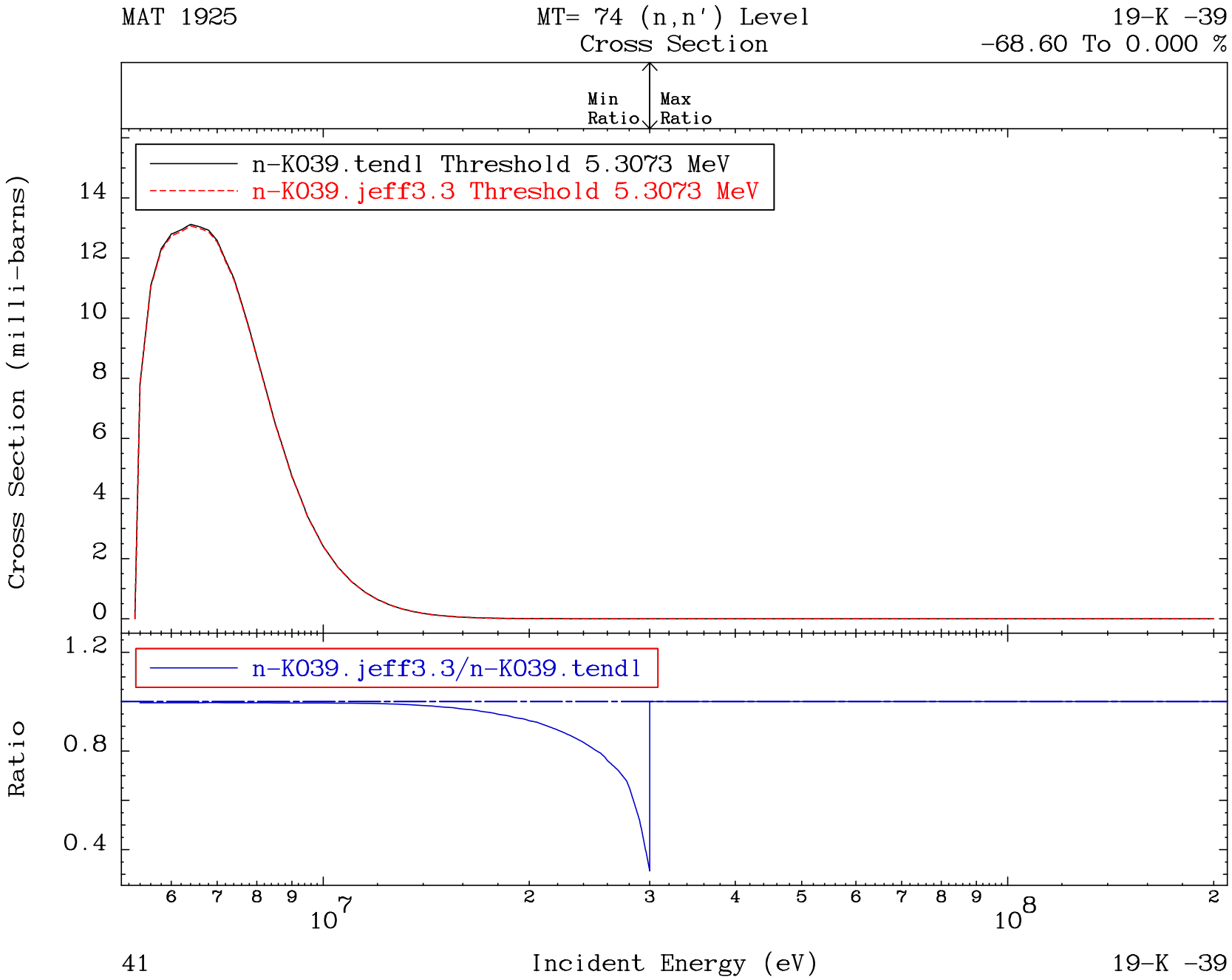

MAT 1925
MT= 69 (n,n') Level
Cross Section
19-K -39
-1.167 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.1388 MeV
n-K039.jeff3.3 Threshold 5.1388 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
36
Incident Energy (eV)
19-K -39

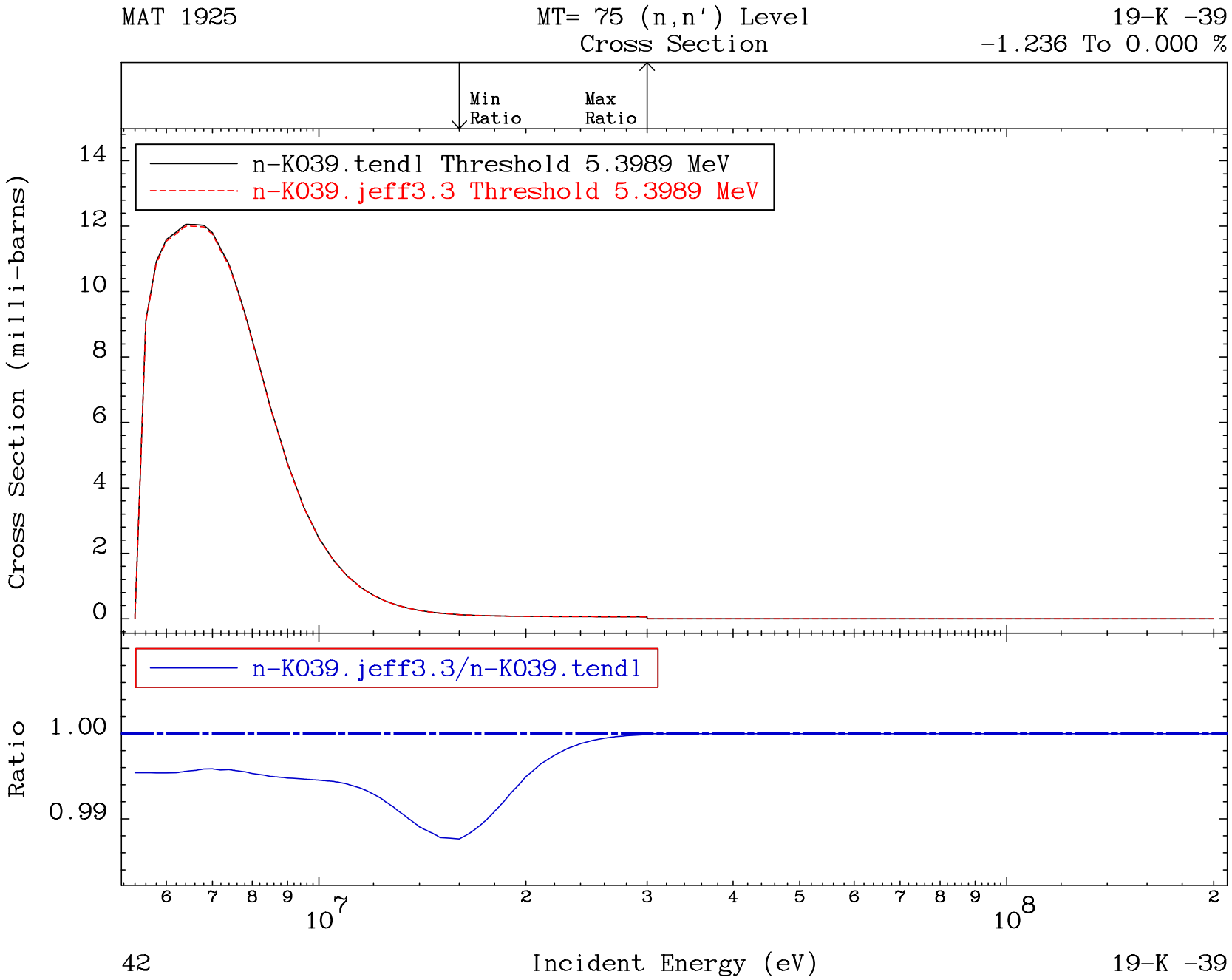

MAT 1925
MT= 70 (n,n') Level
Cross Section
19-K -39
-1.873 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.1403 MeV
n-K039.jeff3.3 Threshold 5.1403 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
37
Incident Energy (eV)
19-K -39

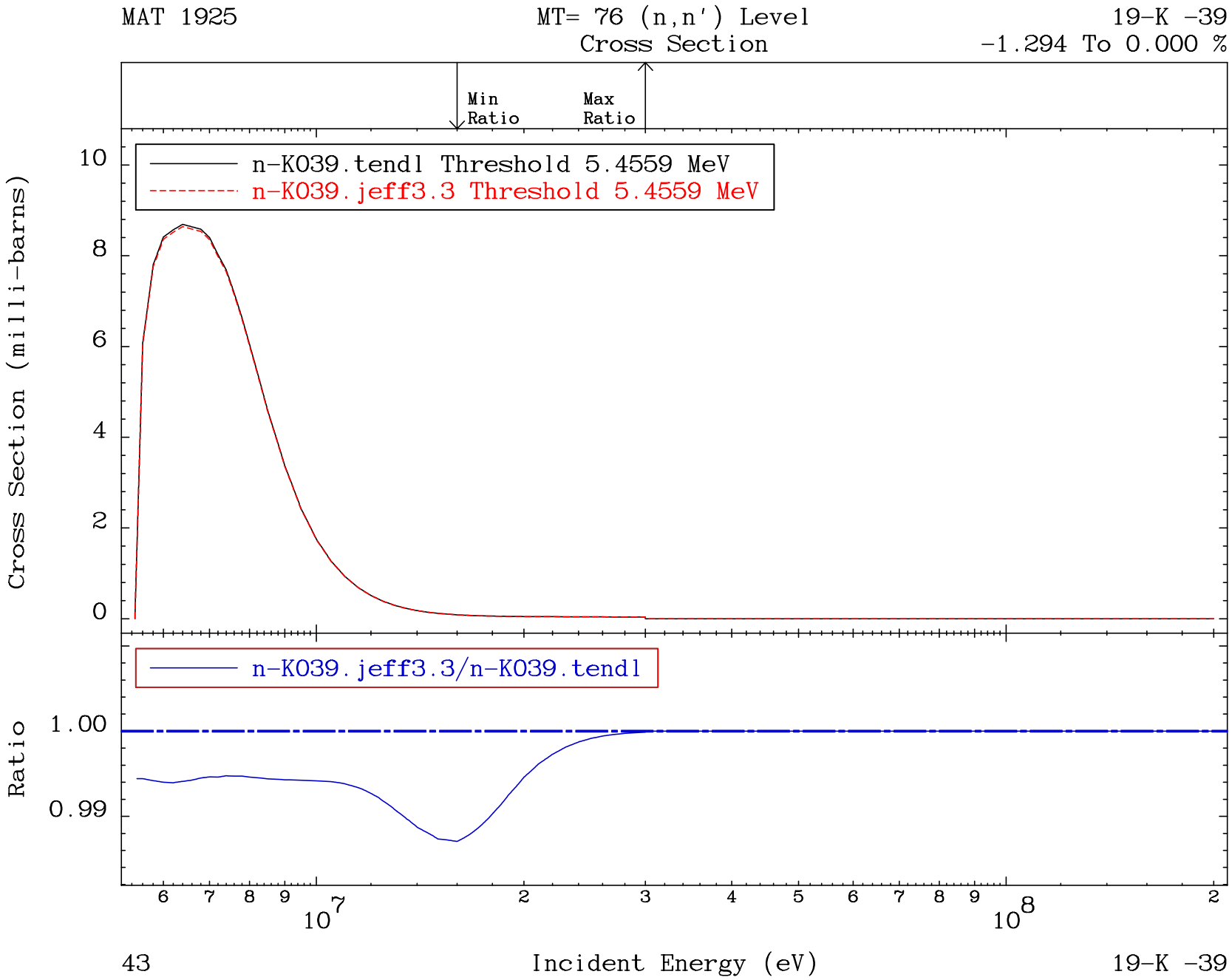

MAT 1925
MT= 71 (n,n') Level
Cross Section
19-K -39
-2.537 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.2905 MeV
n-K039.jeff3.3 Threshold 5.2905 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
38
Incident Energy (eV)
19-K -39

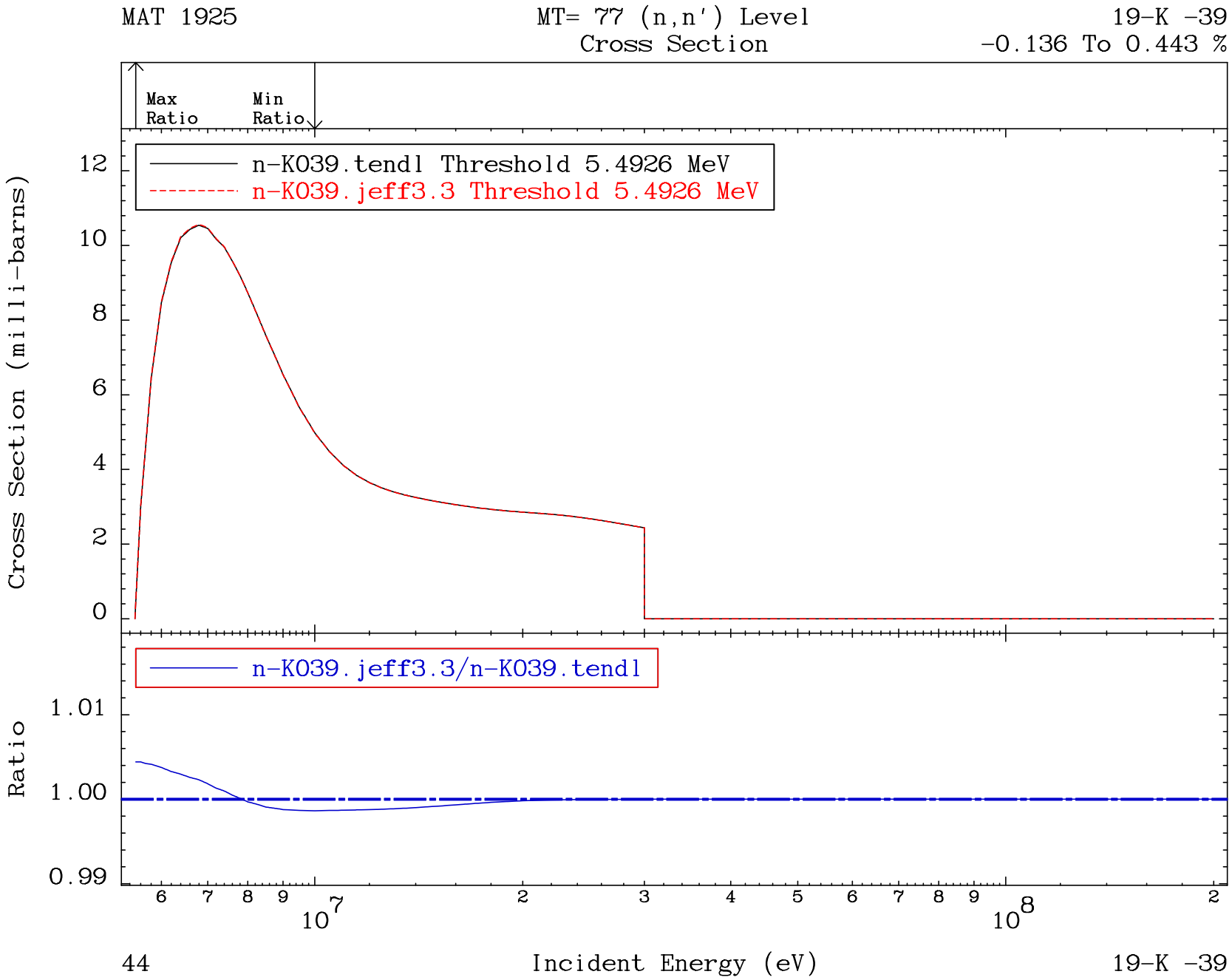

MAT 1925
MT= 72 (n,n') Level
Cross Section
19-K -39
-1.667 To 0.123 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 5.2976 MeV
n-K039.jeff3.3 Threshold 5.2976 MeV
Cross Section (milli-barns)
16
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
39
Incident Energy (eV)
19-K -39

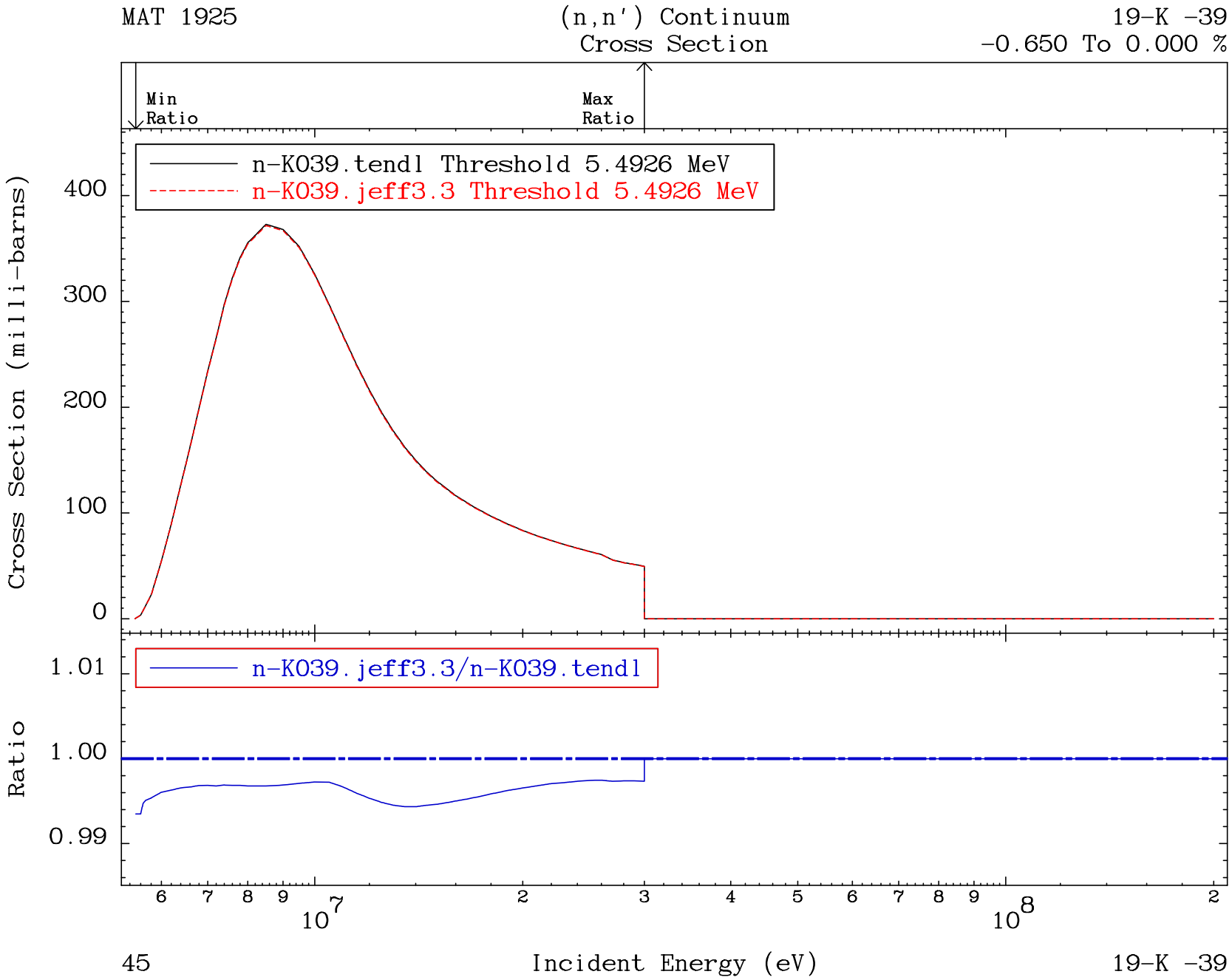

MAT 1925
MT= 73 (n,n') Level
Cross Section
19-K -39
-1.241 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.2992 MeV
n-K039.jeff3.3 Threshold 5.2992 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
40
Incident Energy (eV)
19-K -39

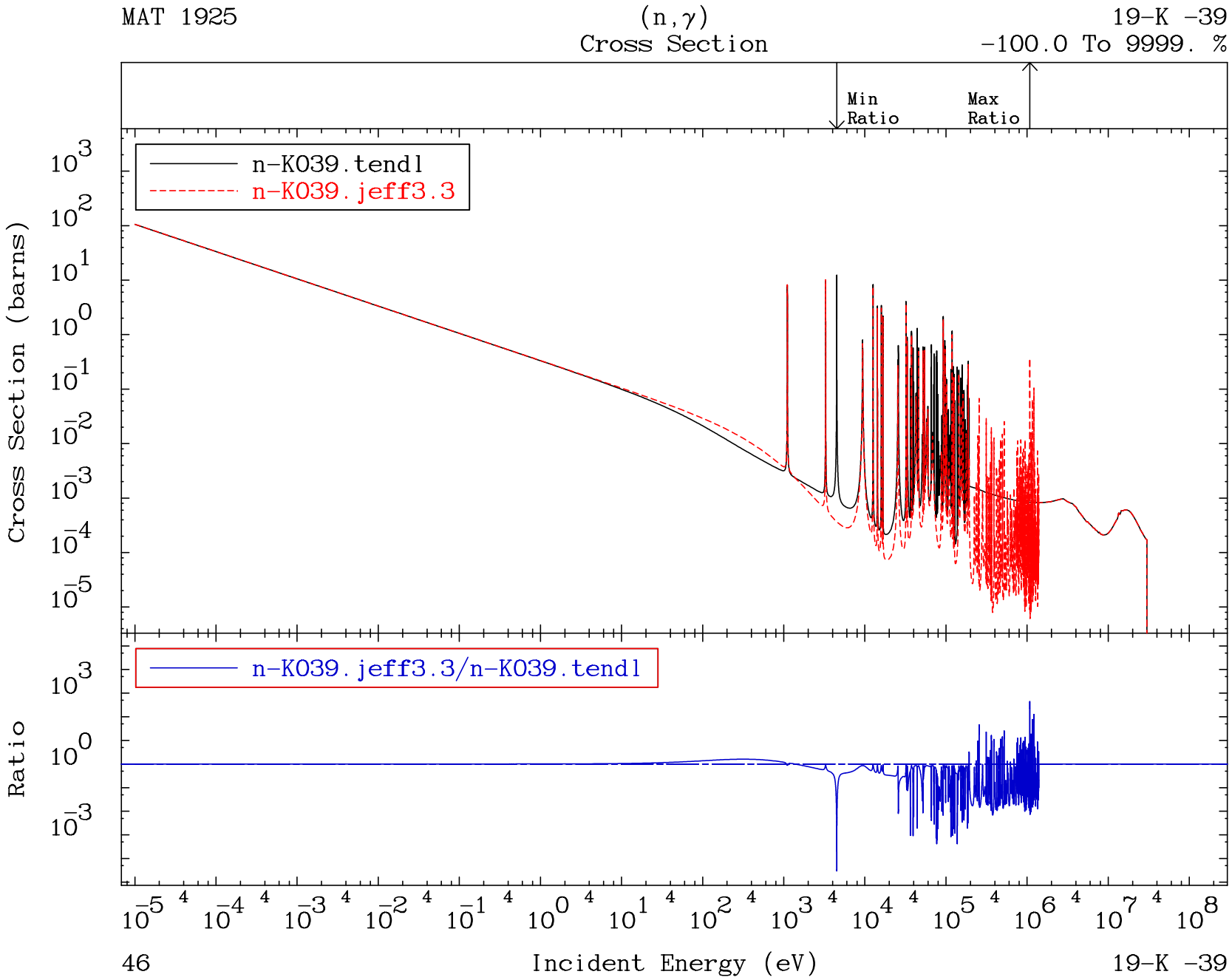

MAT 1925
MT= 74 (n,n') Level
Cross Section
19-K -39
-68.60 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.3073 MeV
n-K039.jeff3.3 Threshold 5.3073 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.2
0.8
0.4
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
41
Incident Energy (eV)
19-K -39

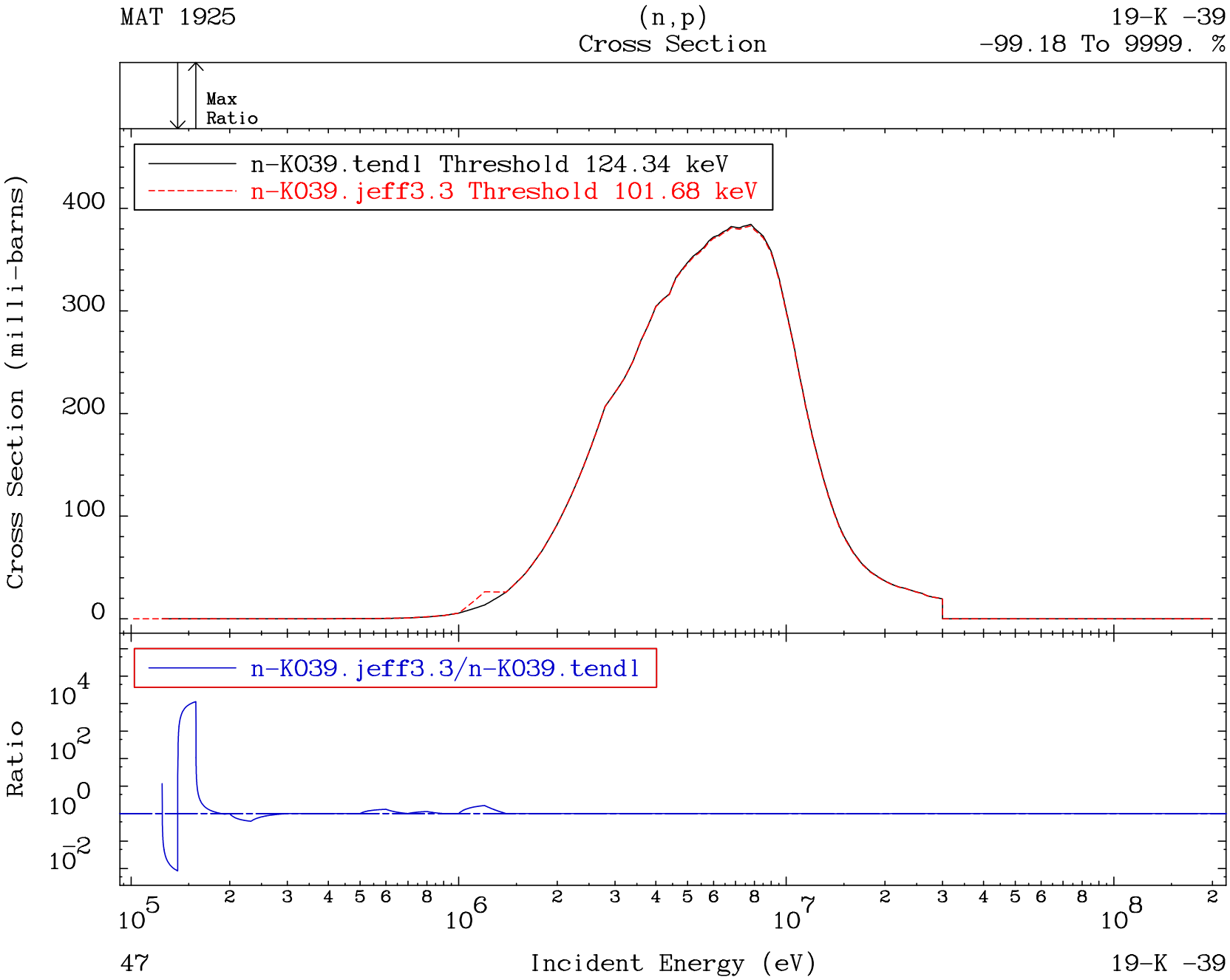

MAT 1925
MT= 75 (n,n') Level
Cross Section
19-K -39
-1.236 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.3989 MeV
n-K039.jeff3.3 Threshold 5.3989 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
42
Incident Energy (eV)
19-K -39

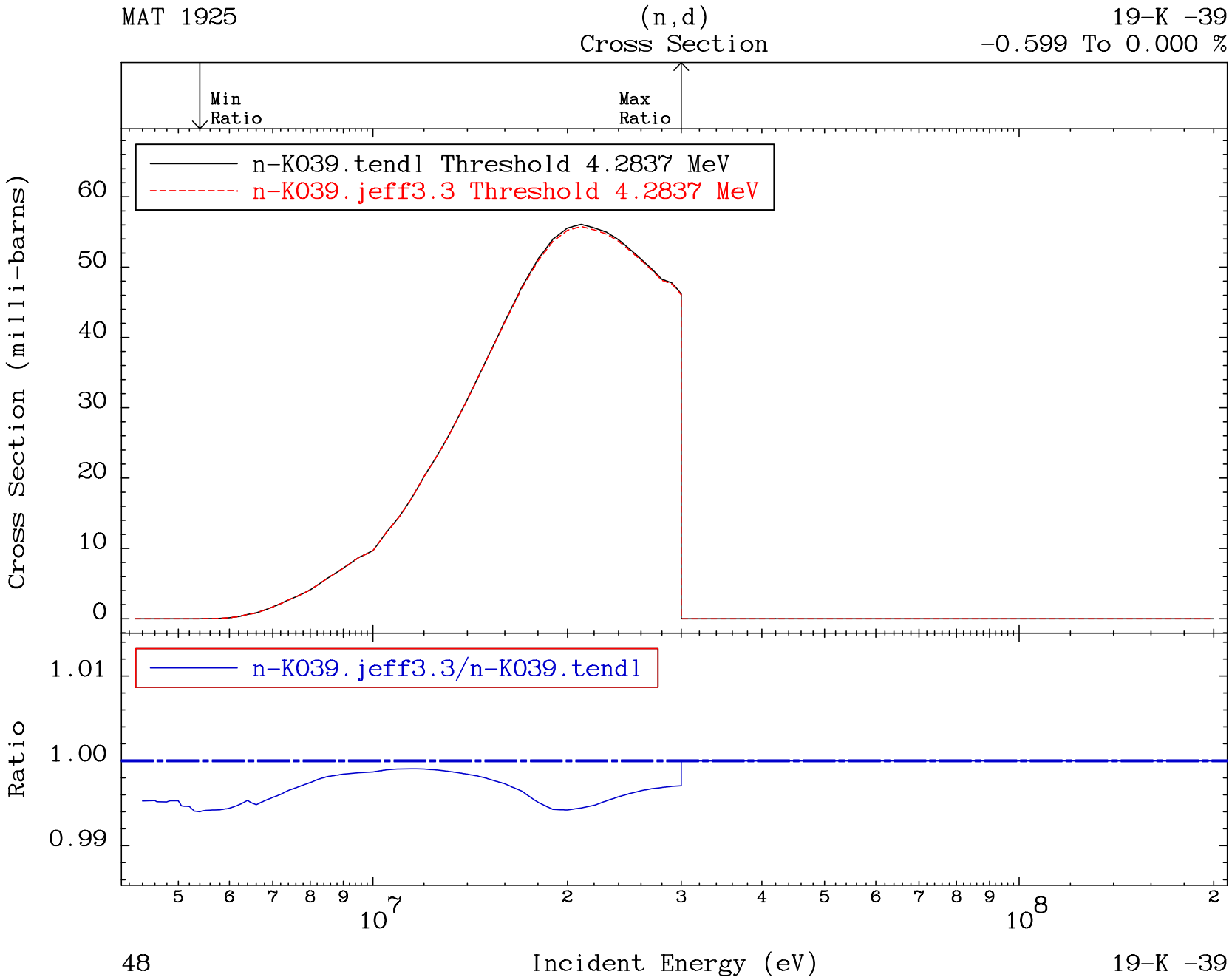

MAT 1925
MT= 76 (n,n') Level
Cross Section
19-K -39
-1.294 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.4559 MeV
n-K039.jeff3.3 Threshold 5.4559 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
43
Incident Energy (eV)
19-K -39

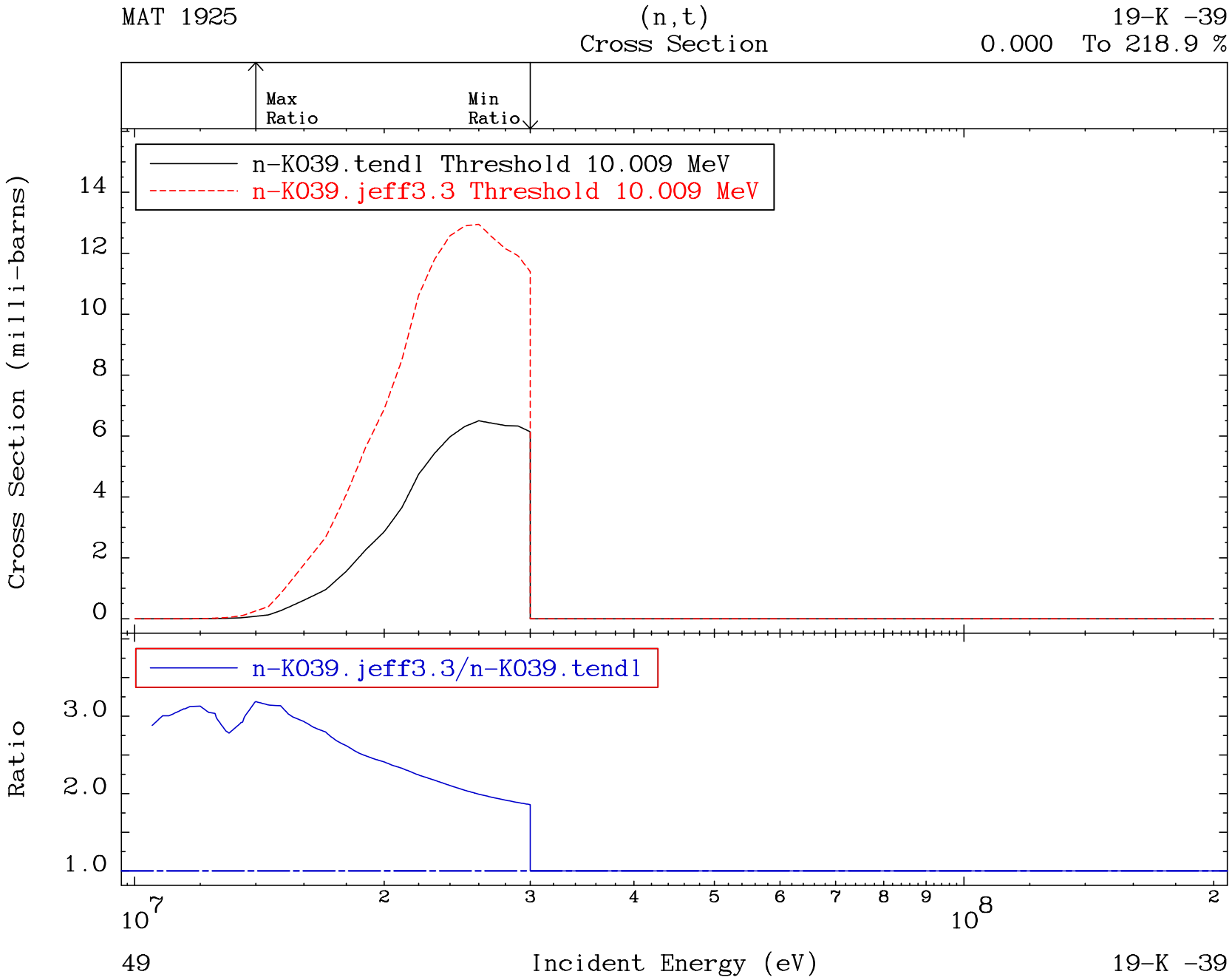

MAT 1925
MT= 77 (n,n') Level
Cross Section
19-K -39
-0.136 To 0.443 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 5.4926 MeV
n-K039.jeff3.3 Threshold 5.4926 MeV
Cross Section (milli-barns)
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
44
Incident Energy (eV)
19-K -39

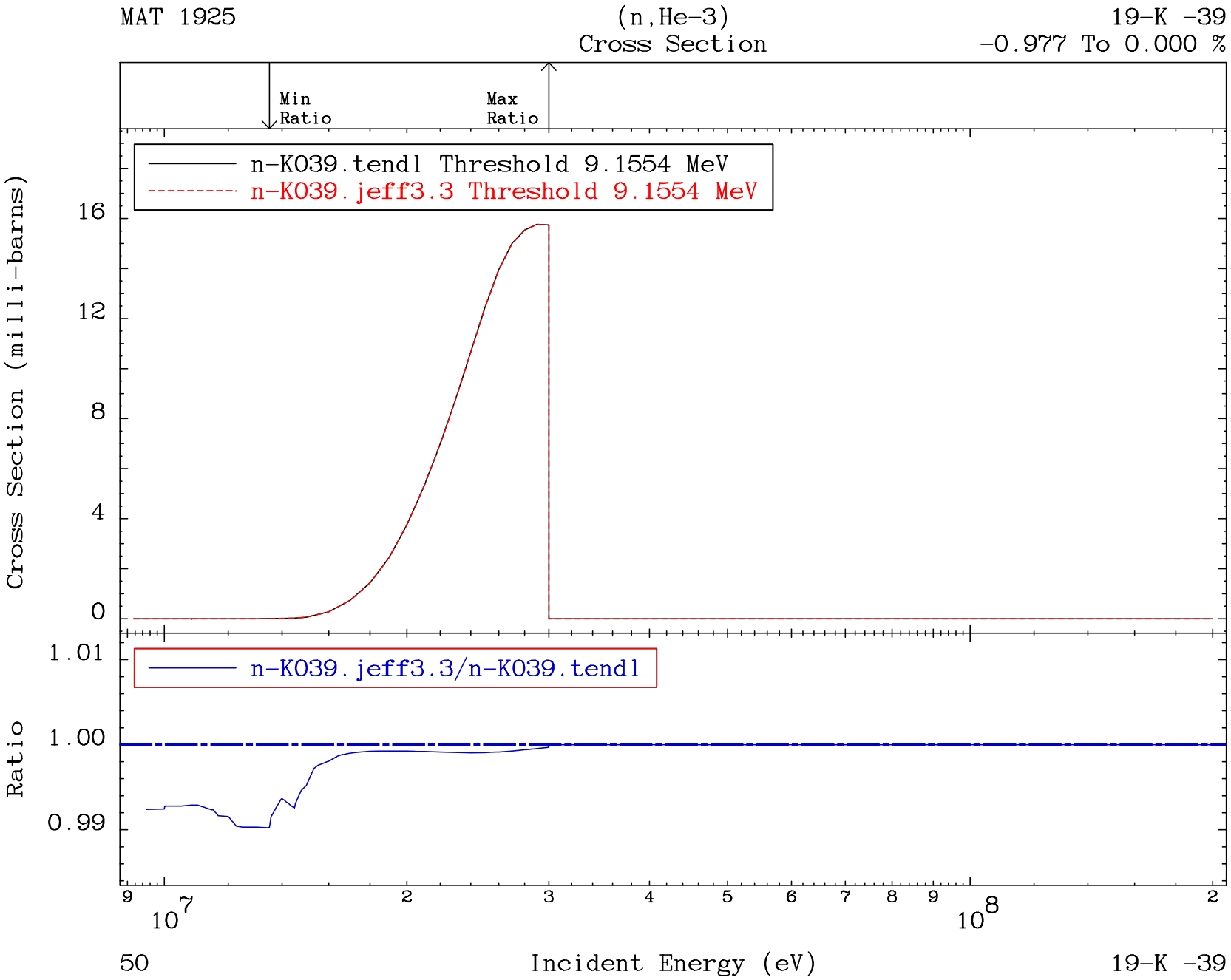

MAT 1925
(n,n') Continuum
Cross Section
19-K -39
-0.650 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 5.4926 MeV
n-K039.jeff3.3 Threshold 5.4926 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
45
Incident Energy (eV)
19-K -39

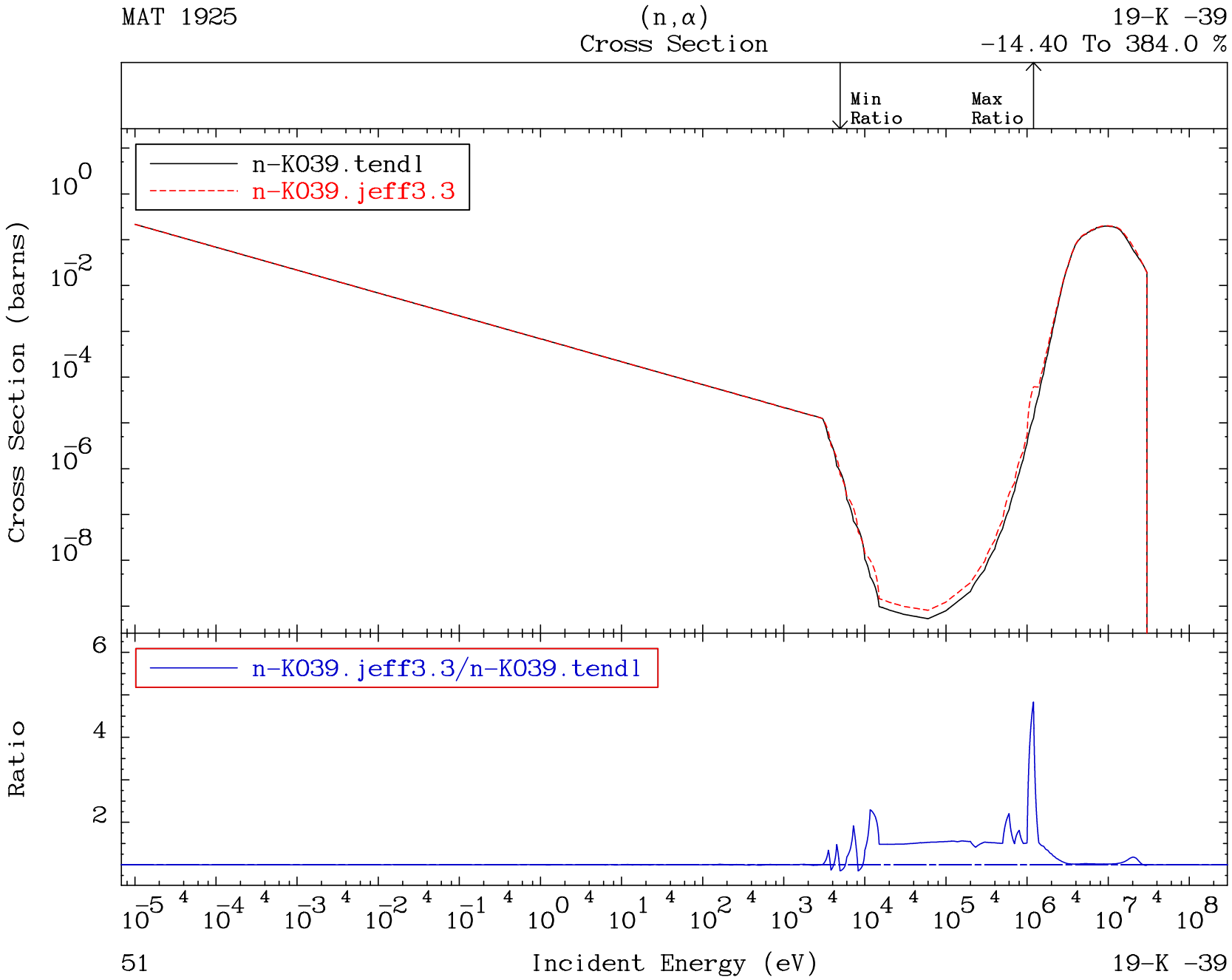

MAT 1925
(n,γ)
Cross Section
19-K -39
-100.0 To 9999. %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
46
19-K -39

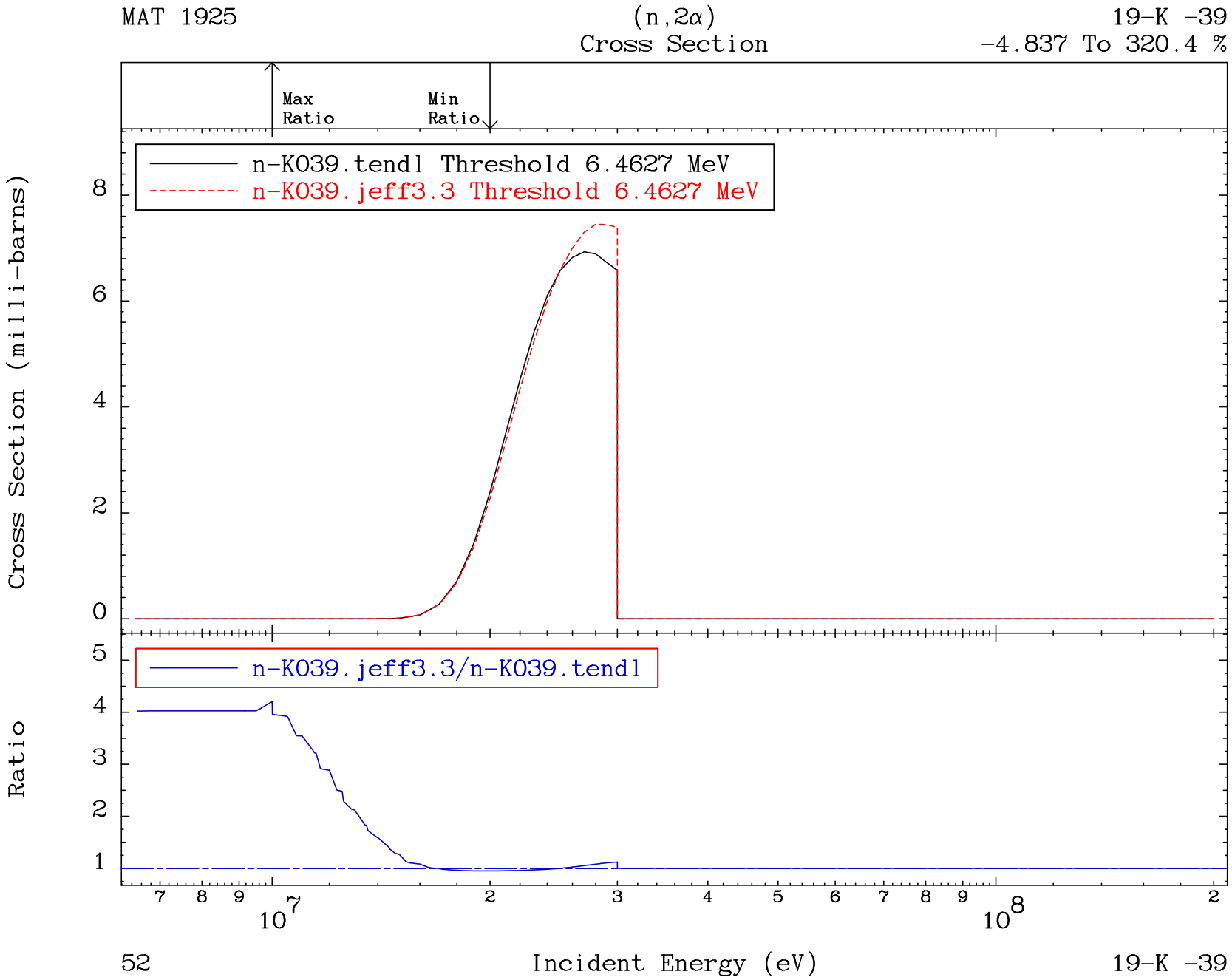

MAT 1925
(n,p)
Cross Section
19-K -39
-99.18 To 9999. %
Max
Ratio
n-K039.tendl Threshold 124.34 keV
n-K039.jeff3.3 Threshold 101.68 keV
Cross Section (milli-barns)
400
300
200
100
0
n-K039.jeff3.3/n-K039.tendl
Ratio
10^4
10^2
10^0
10^-2
10^5
10^6
10^7
10^8
2 3 4 5 6 8
47
Incident Energy (eV)
19-K -39

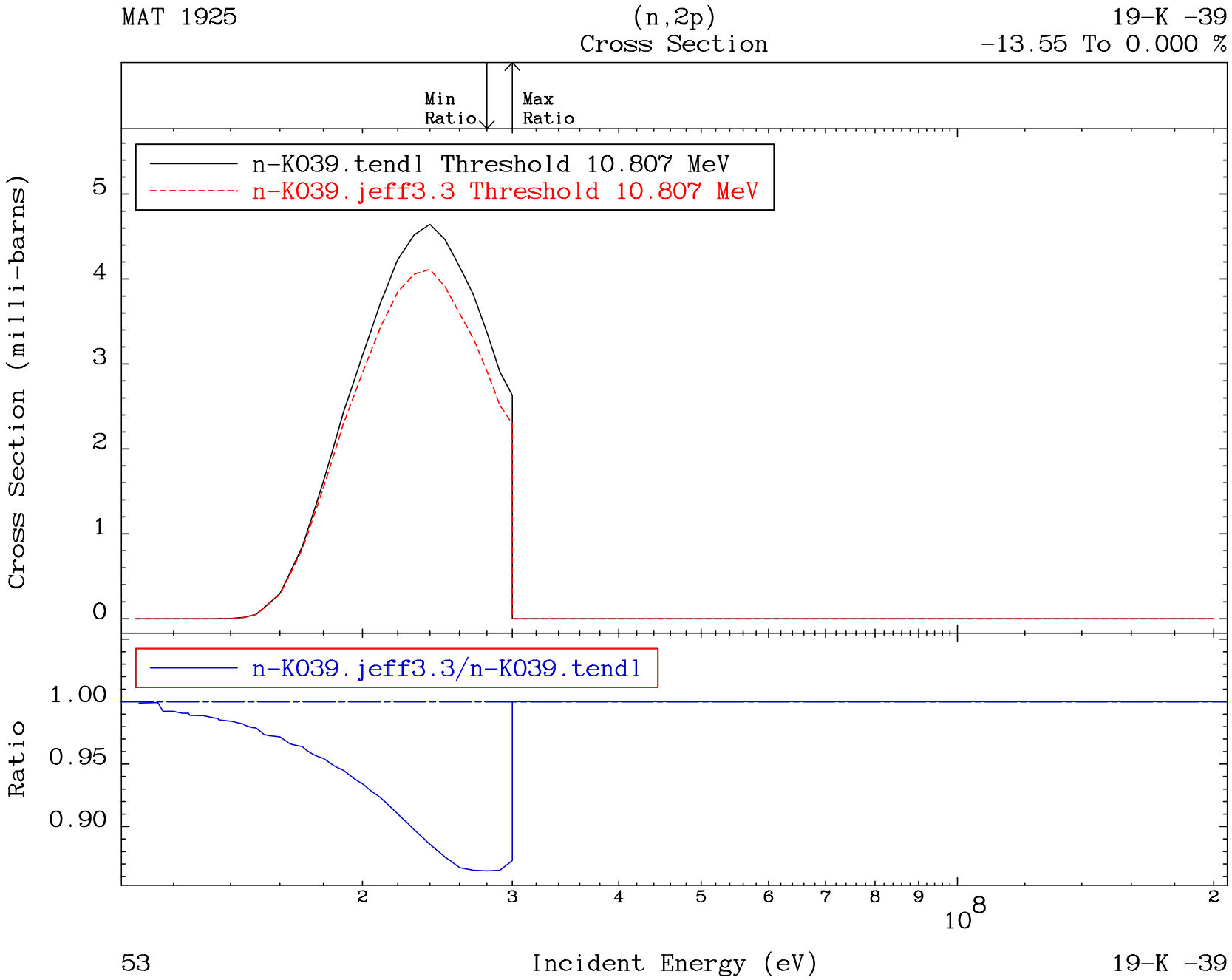

MAT 1925
(n,d)
Cross Section
19-K -39
-0.599 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 4.2837 MeV
n-K039.jeff3.3 Threshold 4.2837 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
48
Incident Energy (eV)
19-K -39

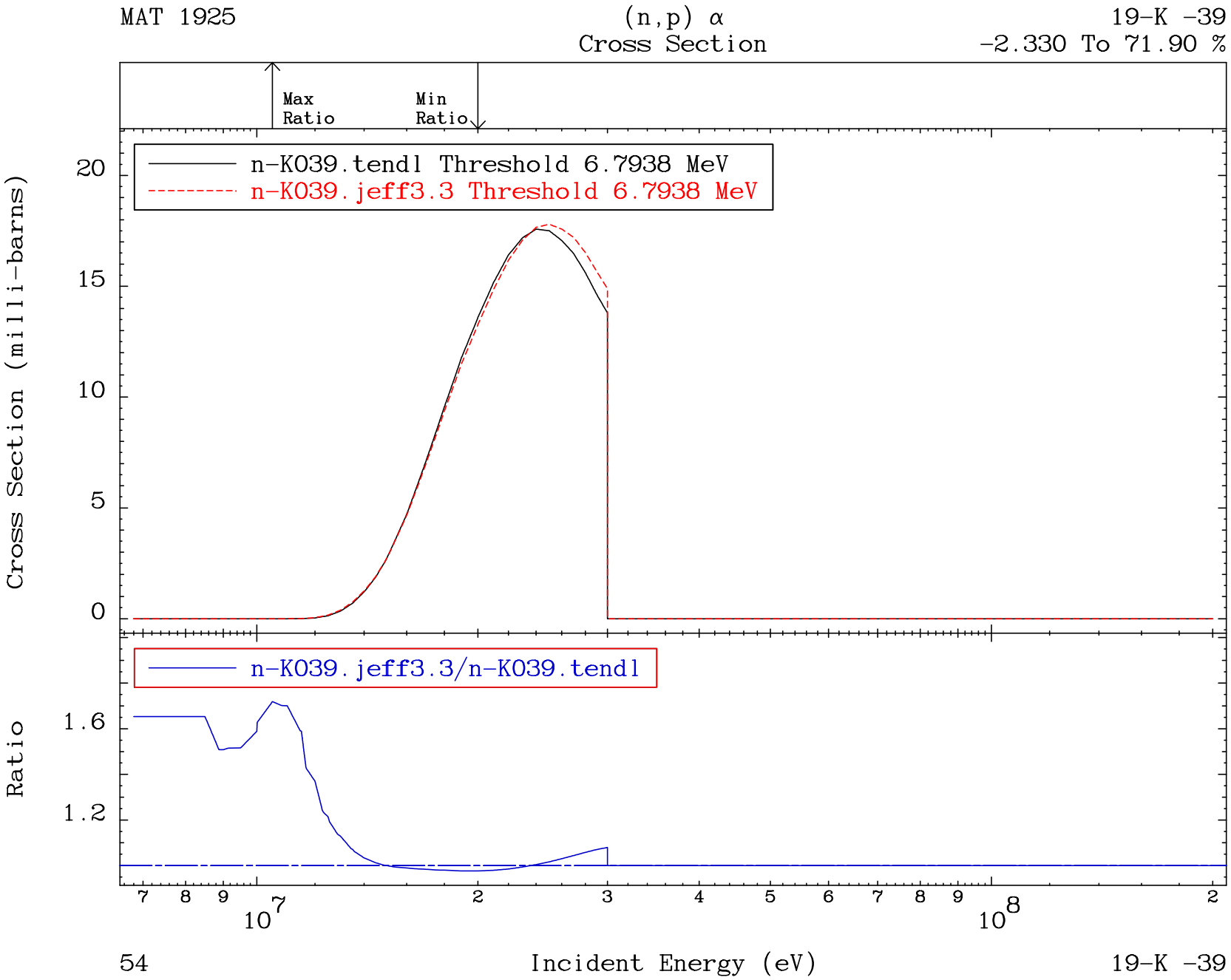

MAT 1925
(n,t)
Cross Section
19-K -39
0.000 To 218.9 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 10.009 MeV
n-K039.jeff3.3 Threshold 10.009 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
3.0
2.0
1.0
10^7
2
3
4
5
6
7
8
9
10^8
2
49
Incident Energy (eV)
19-K -39

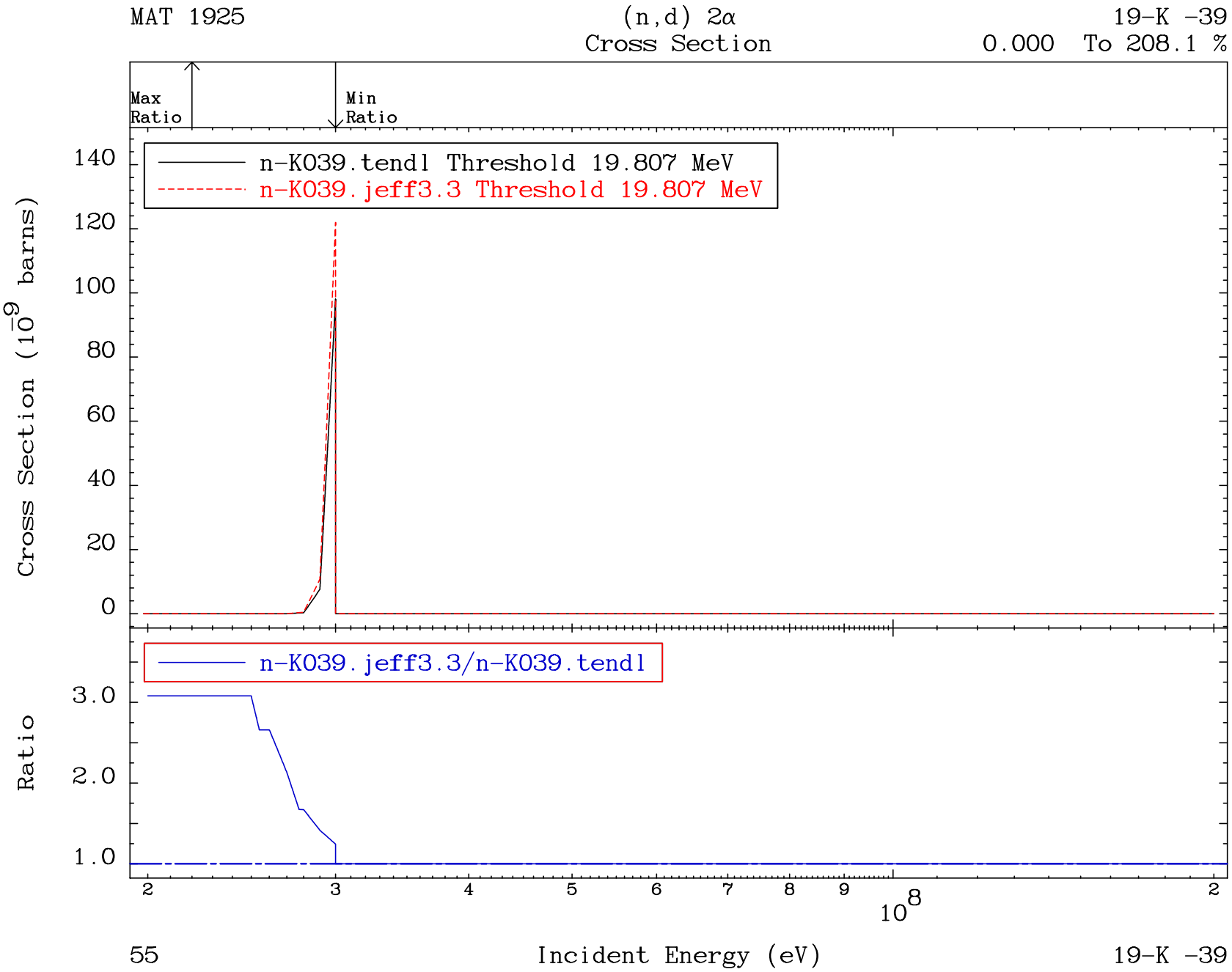

MAT 1925
(n,He-3)
Cross Section
19-K -39
-0.977 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 9.1554 MeV
n-K039.jeff3.3 Threshold 9.1554 MeV
Cross Section (milli-barns)
16
12
8
4
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
9
10^7
2
3
4
5
6
7
8
9
10^8
2
50
Incident Energy (eV)
19-K -39

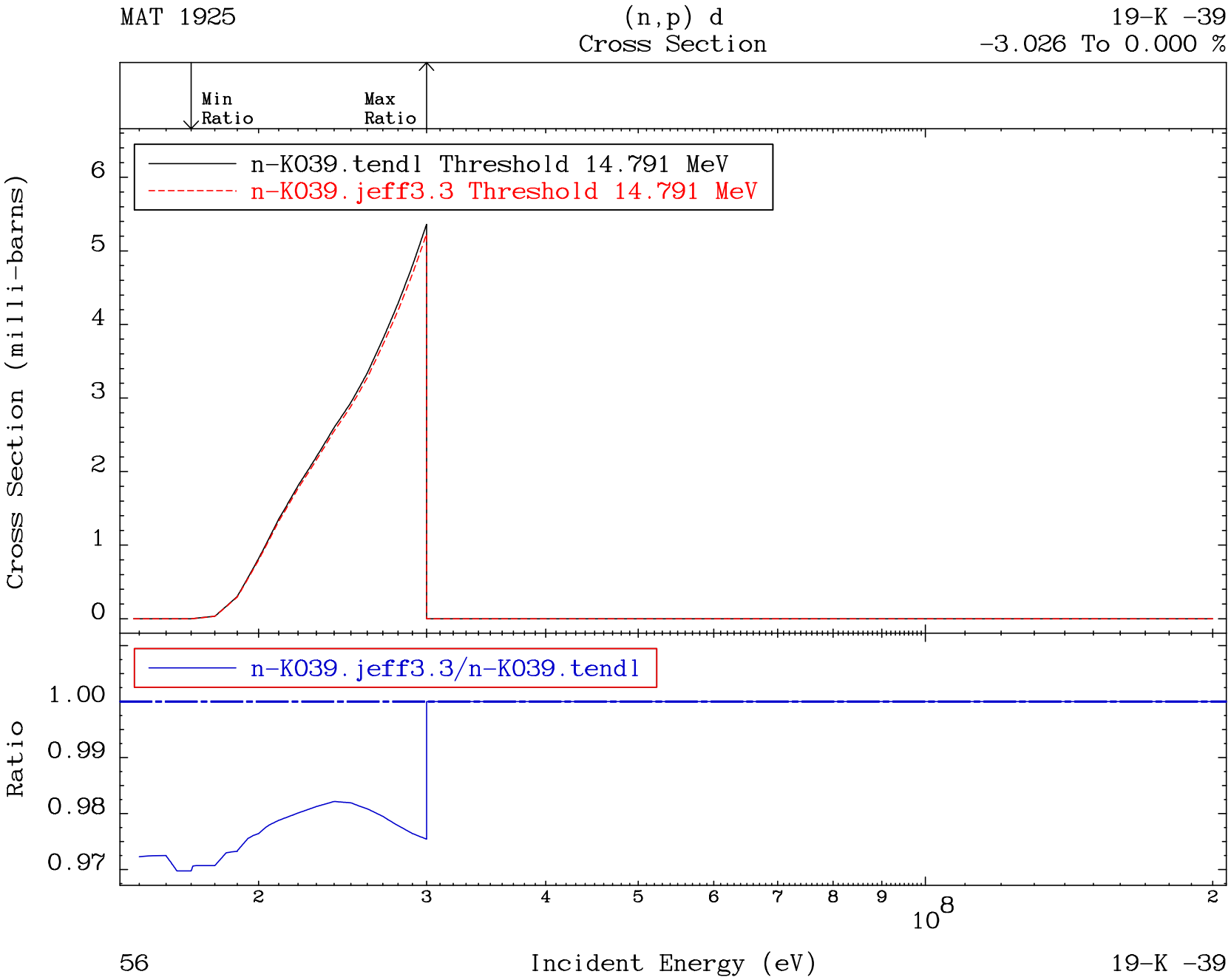

MAT 1925
(n,α)
Cross Section
19-K -39
-14.40 To 384.0 %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
51
19-K -39

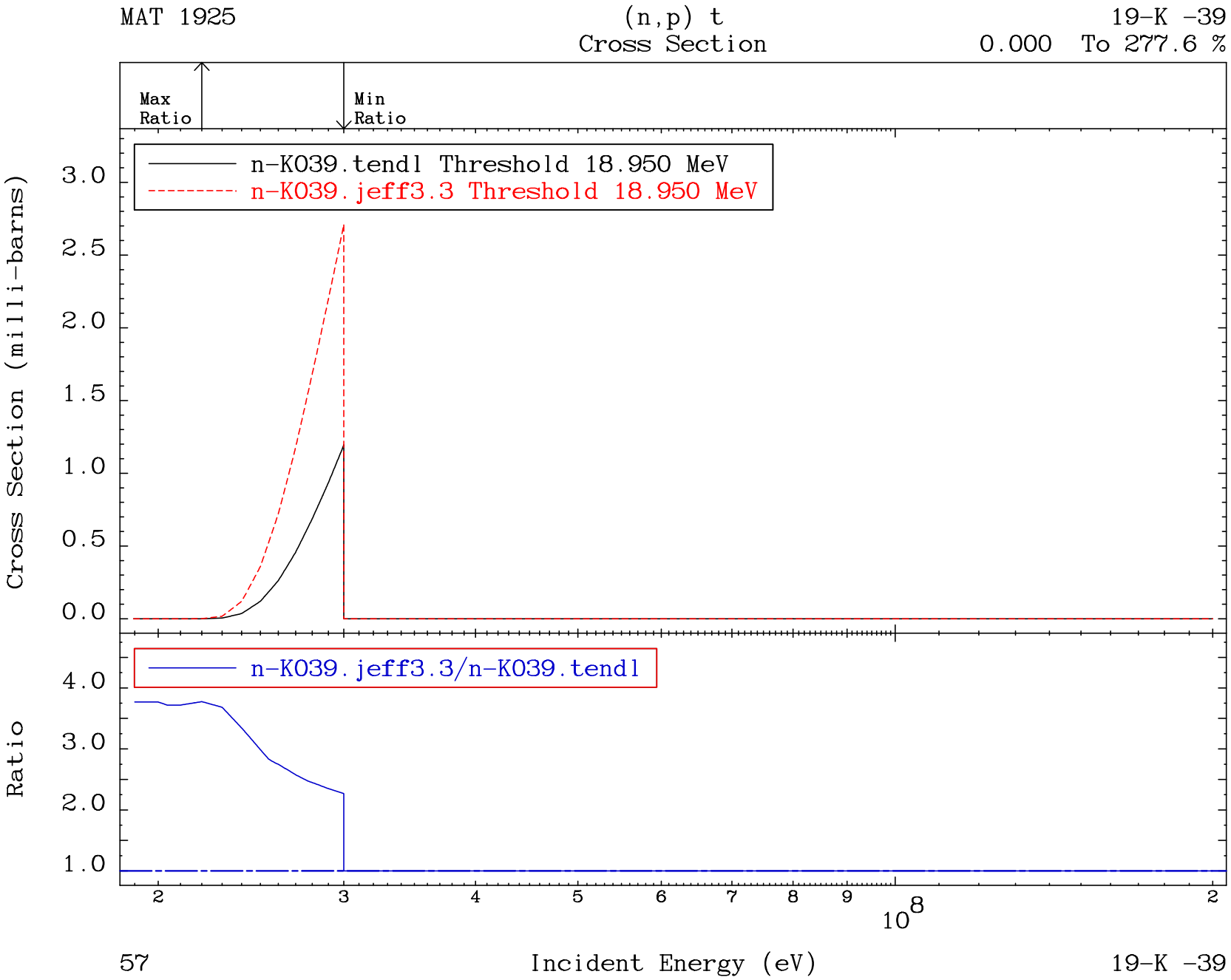

MAT 1925
(n,2α)
Cross Section
19-K -39
-4.837 To 320.4 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 6.4627 MeV
n-K039.jeff3.3 Threshold 6.4627 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-K039.jeff3.3/n-K039.tendl
Ratio
1
2
3
4
5
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
52
Incident Energy (eV)
19-K -39

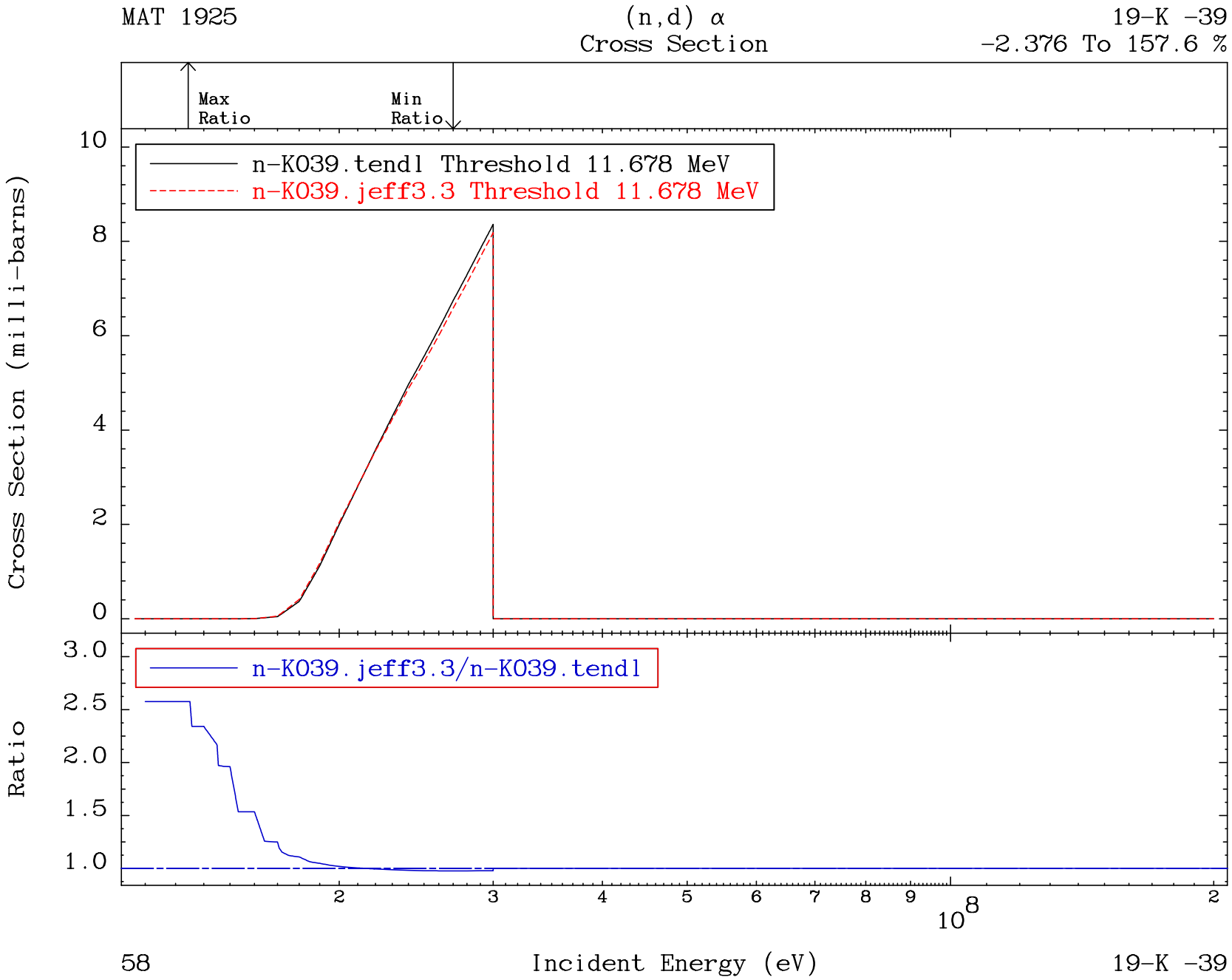

MAT 1925
(n,2p)
Cross Section
19-K -39
-13.55 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 10.807 MeV
n-K039.jeff3.3 Threshold 10.807 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
53
Incident Energy (eV)
19-K -39

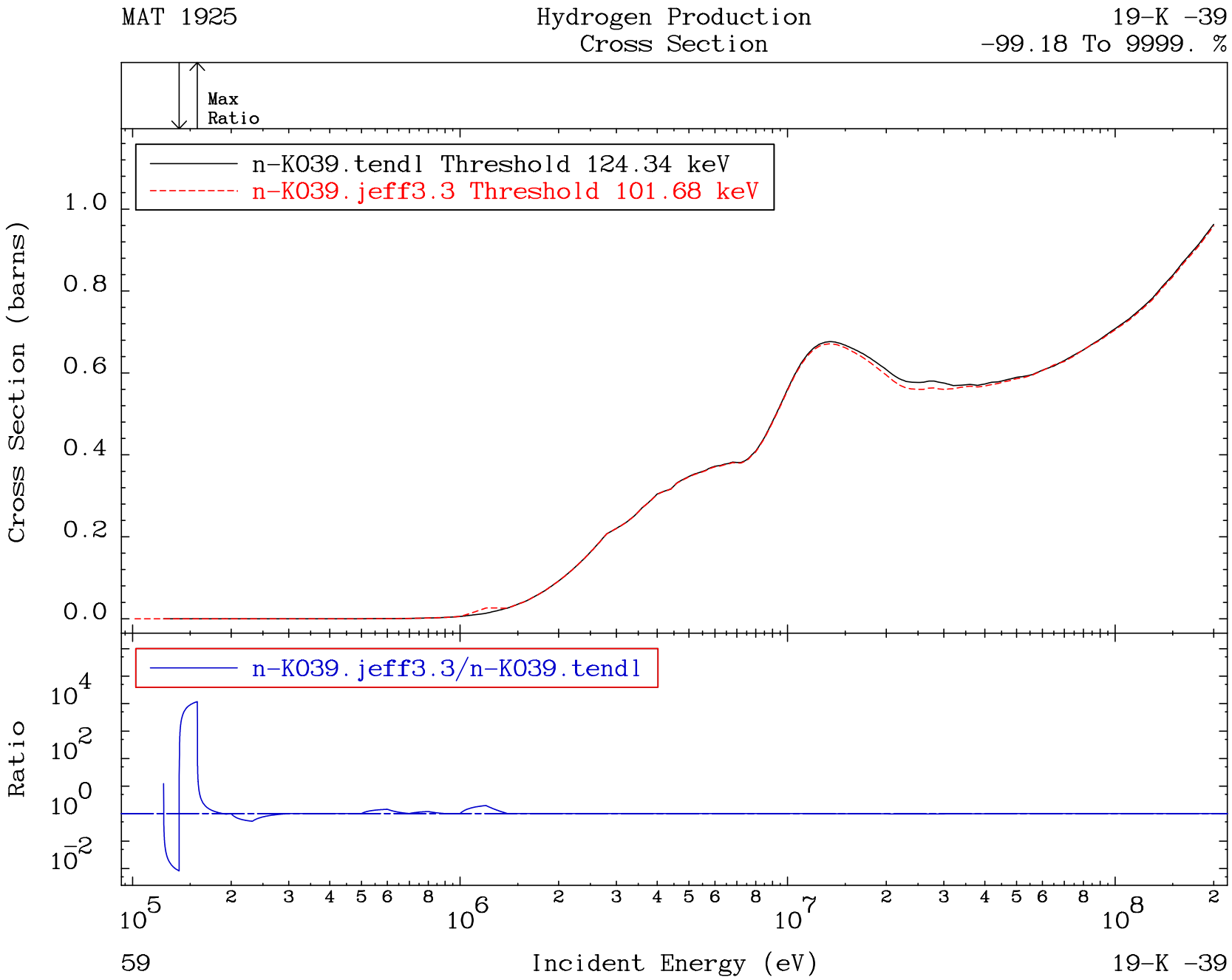

MAT 1925
(n,p) α
Cross Section
19-K -39
-2.330 To 71.90 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 6.7938 MeV
n-K039.jeff3.3 Threshold 6.7938 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.6
1.2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
54
Incident Energy (eV)
19-K -39

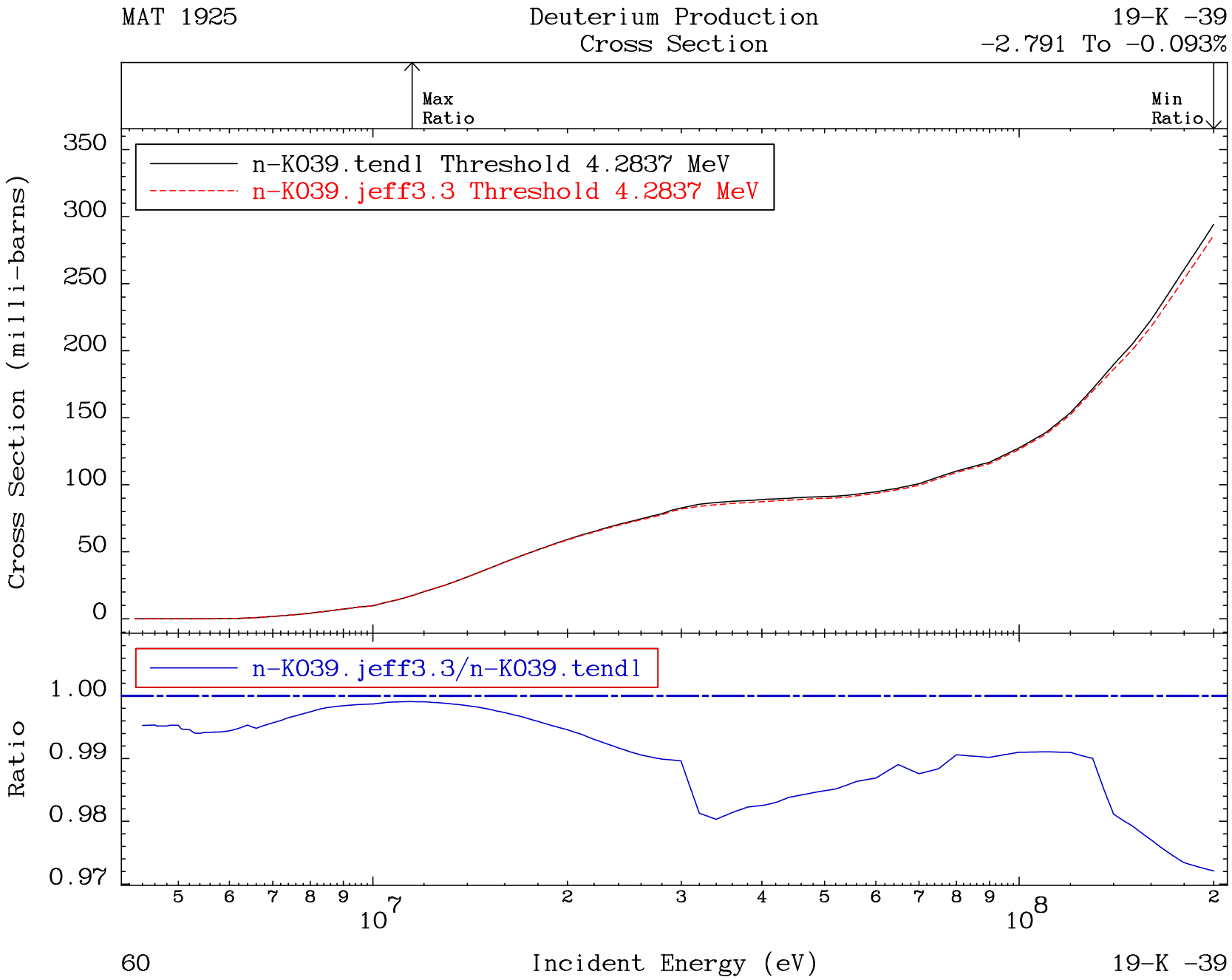

MAT 1925
(n,d) 2α
Cross Section
19-K -39
0.000 To 208.1 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 19.807 MeV
n-K039.jeff3.3 Threshold 19.807 MeV
Cross Section ($10^{-9}$ barns)
140
120
100
80
60
40
20
0
n-K039.jeff3.3/n-K039.tendl
Ratio
3.0
2.0
1.0
2
3
4
5
6
7
8
9
$10^{8}$
2
55
Incident Energy (eV)
19-K -39

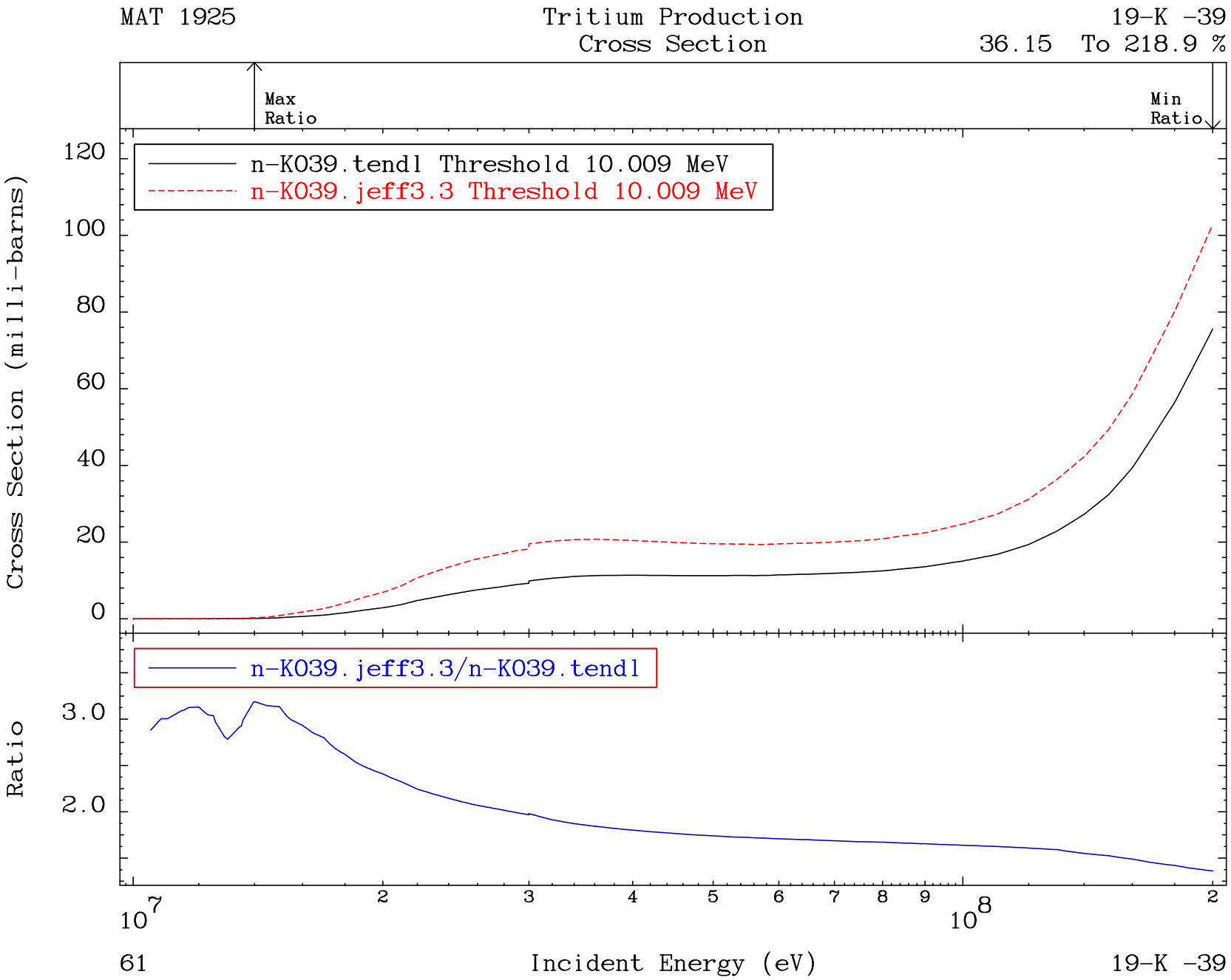

MAT 1925
(n,p) d
Cross Section
19-K -39
-3.026 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 14.791 MeV
n-K039.jeff3.3 Threshold 14.791 MeV
Cross Section (milli-barns)
0
1
2
3
4
5
6
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
0.97
2
3
4
5
6
7
8
9
10^8
2
56
Incident Energy (eV)
19-K -39

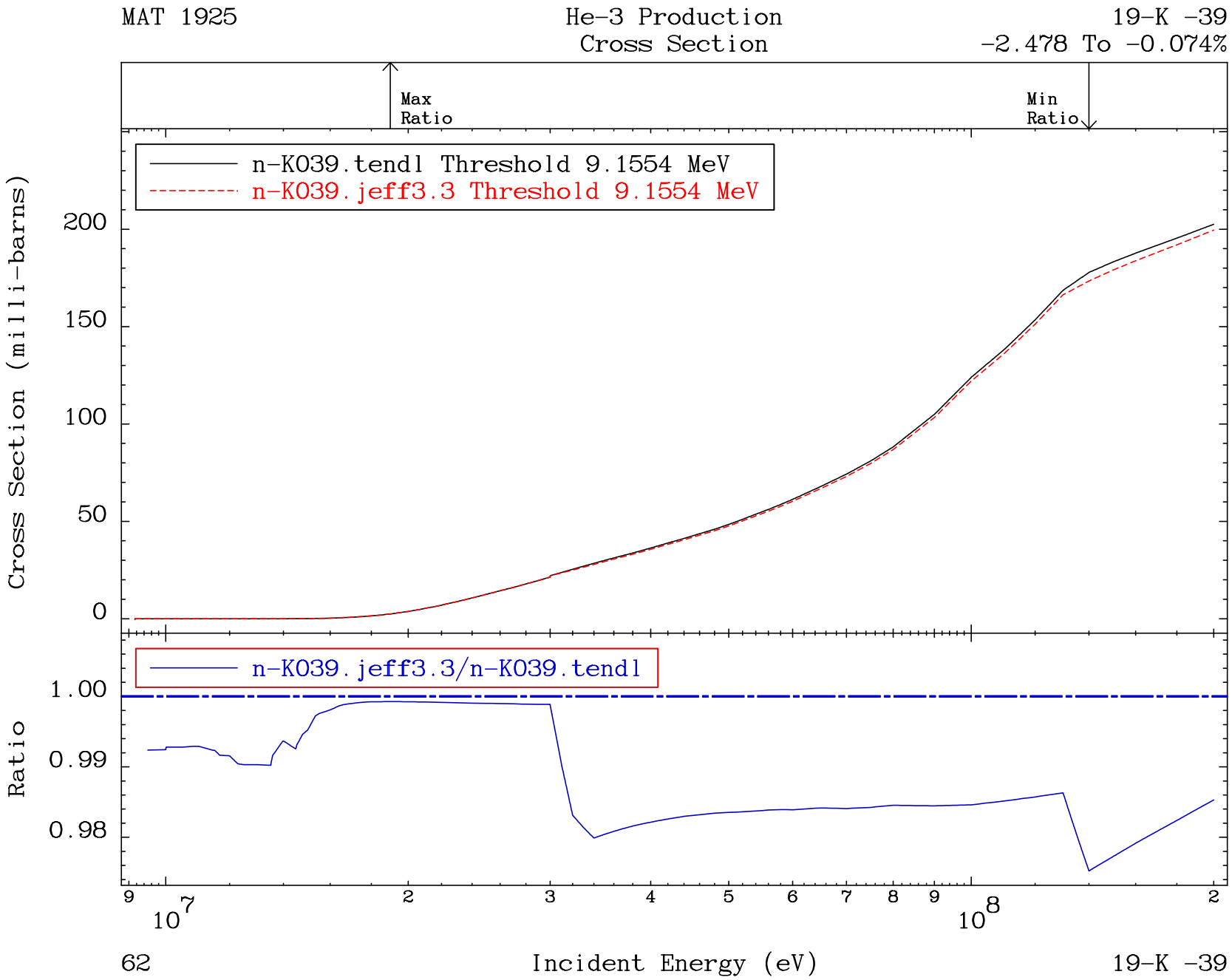

MAT 1925
(n,p) t
Cross Section
19-K -39
0.000 To 277.6 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 18.950 MeV
n-K039.jeff3.3 Threshold 18.950 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-K039.jeff3.3/n-K039.tendl
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
57
Incident Energy (eV)
19-K -39

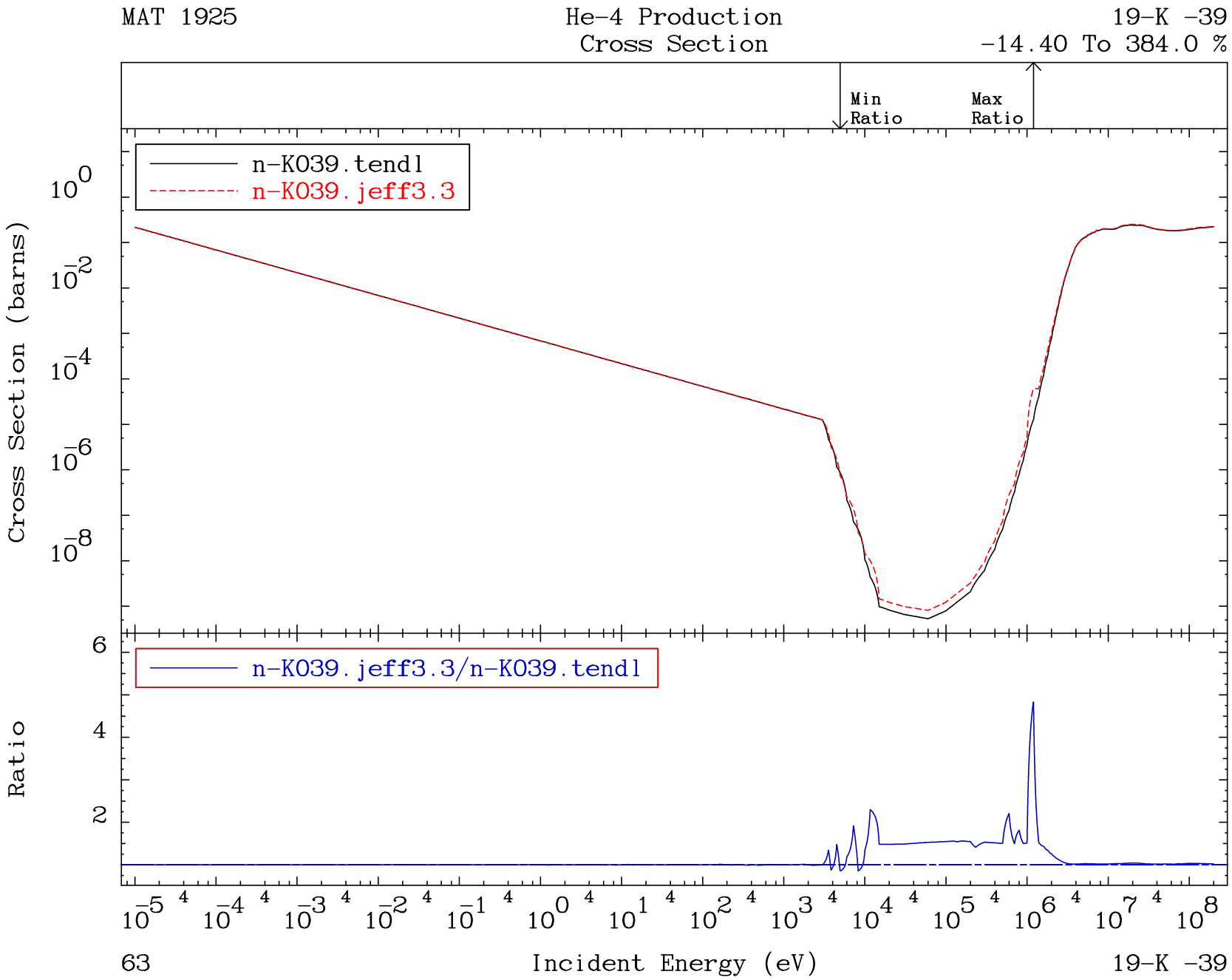

MAT 1925
(n,d) α
Cross Section
19-K -39
-2.376 To 157.6 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 11.678 MeV
n-K039.jeff3.3 Threshold 11.678 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
3.0
2.5
2.0
1.5
1.0
2
3
4
5
6
7
8
9
10^8
2
58
Incident Energy (eV)
19-K -39

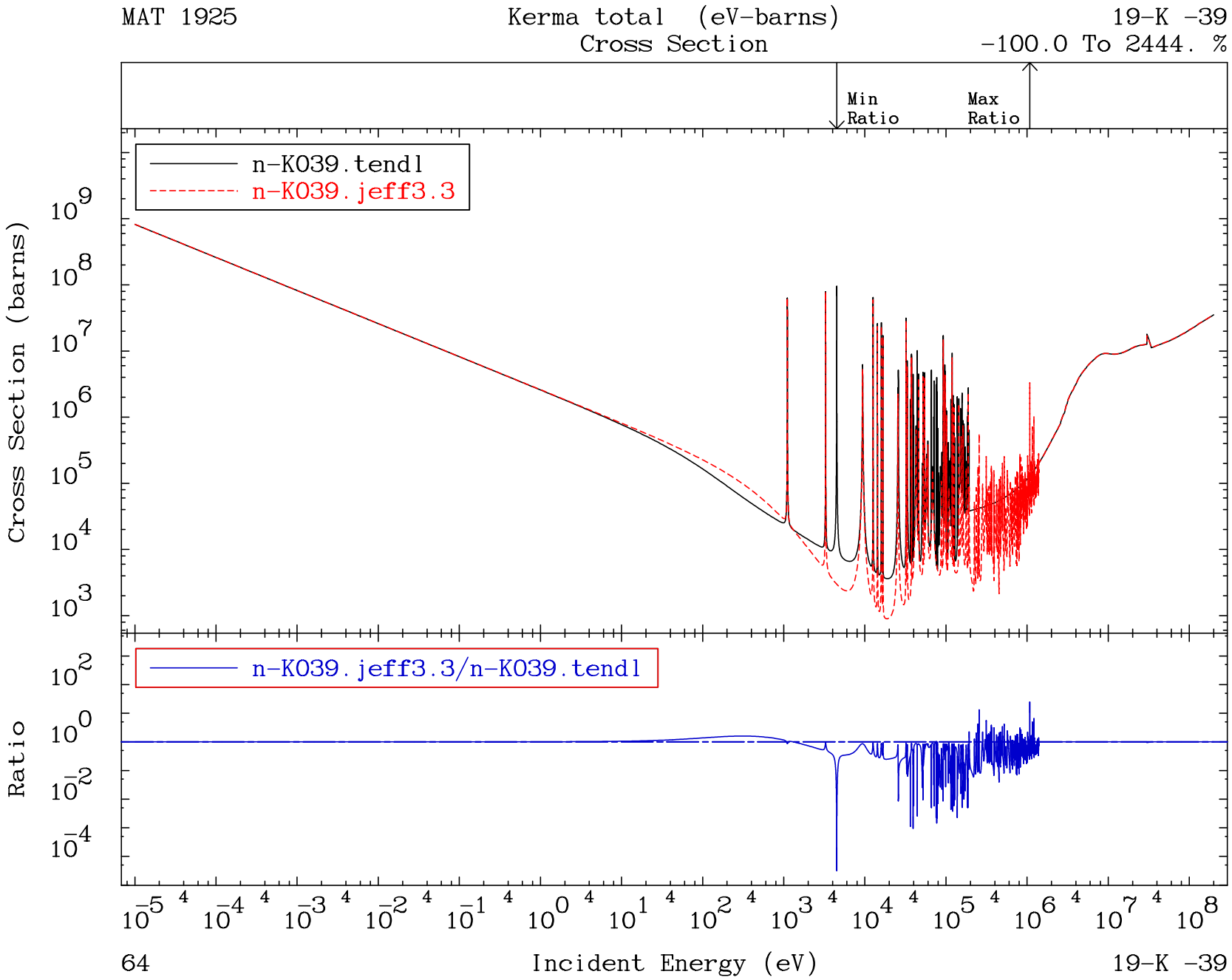

MAT 1925
Hydrogen Production
Cross Section
19-K -39
-99.18 To 9999. %
Max
Ratio
n-K039.tendl Threshold 124.34 keV
n-K039.jeff3.3 Threshold 101.68 keV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
n-K039.jeff3.3/n-K039.tendl
Ratio
10^4
10^2
10^0
10^-2
10^5
2
3
4
5
6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
59
Incident Energy (eV)
19-K -39

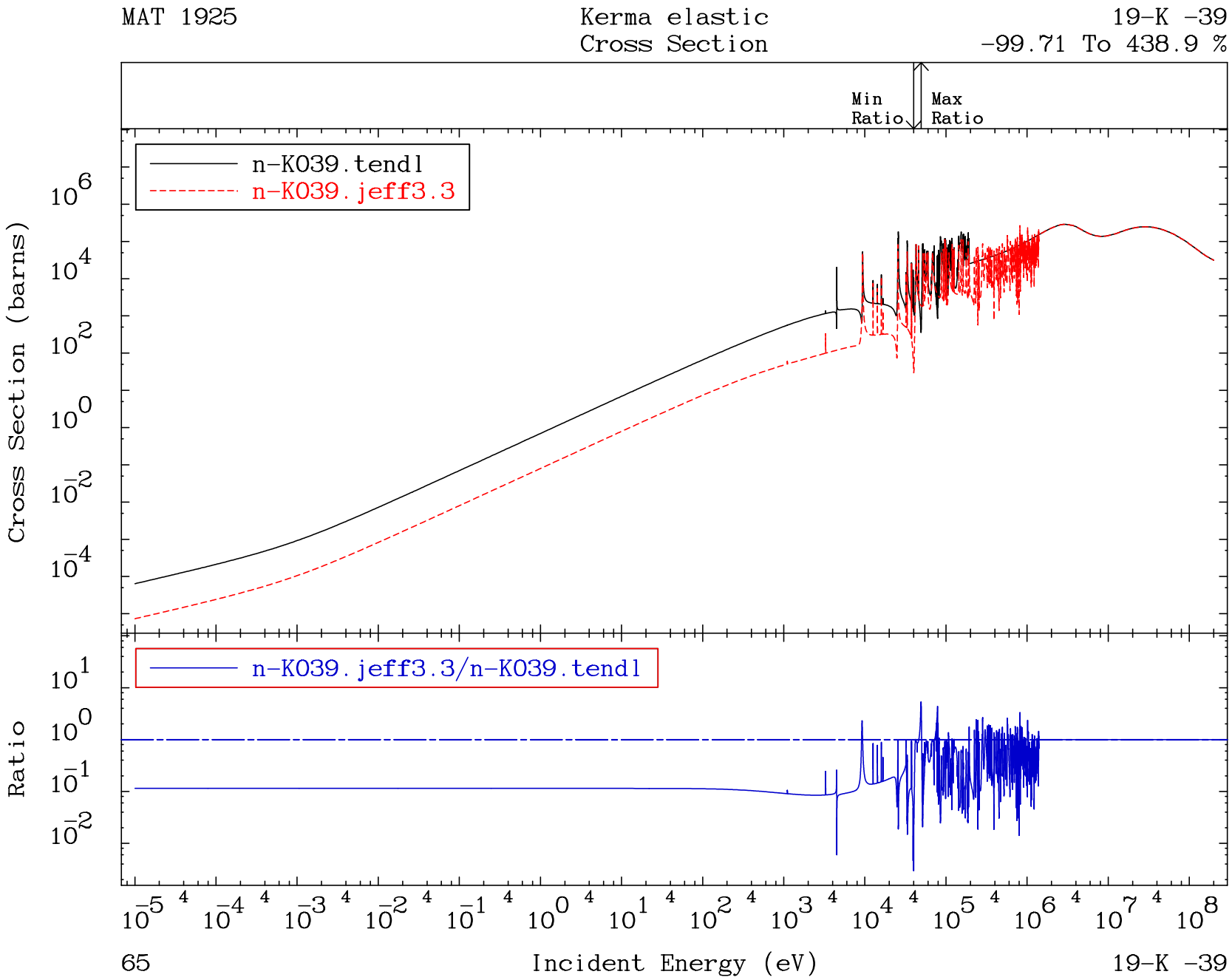

MAT 1925
Deuterium Production
Cross Section
19-K -39
-2.791 To -0.093%
Max
Ratio
Min
Ratio
n-K039.tendl Threshold 4.2837 MeV
n-K039.jeff3.3 Threshold 4.2837 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
0.97
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
60
Incident Energy (eV)
19-K -39

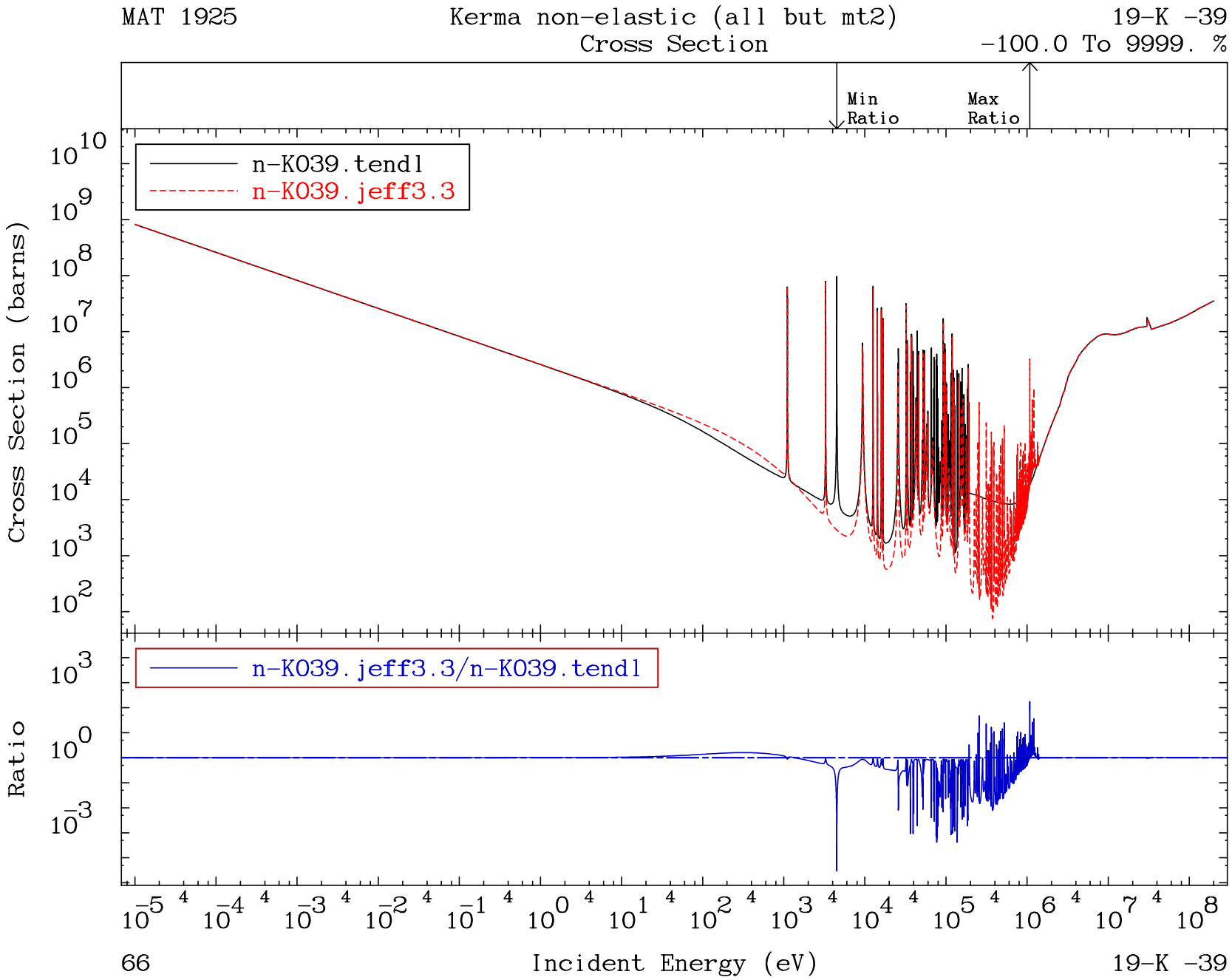

MAT 1925
Tritium Production
Cross Section
19-K -39
36.15 To 218.9 %
Max Ratio
Min Ratio
n-K039.tendl Threshold 10.009 MeV
n-K039.jeff3.3 Threshold 10.009 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-K039.jeff3.3/n-K039.tendl
Ratio
3.0
2.0
10^7
2
3
4
5
6
7
8
9
10^8
2
61
Incident Energy (eV)
19-K -39

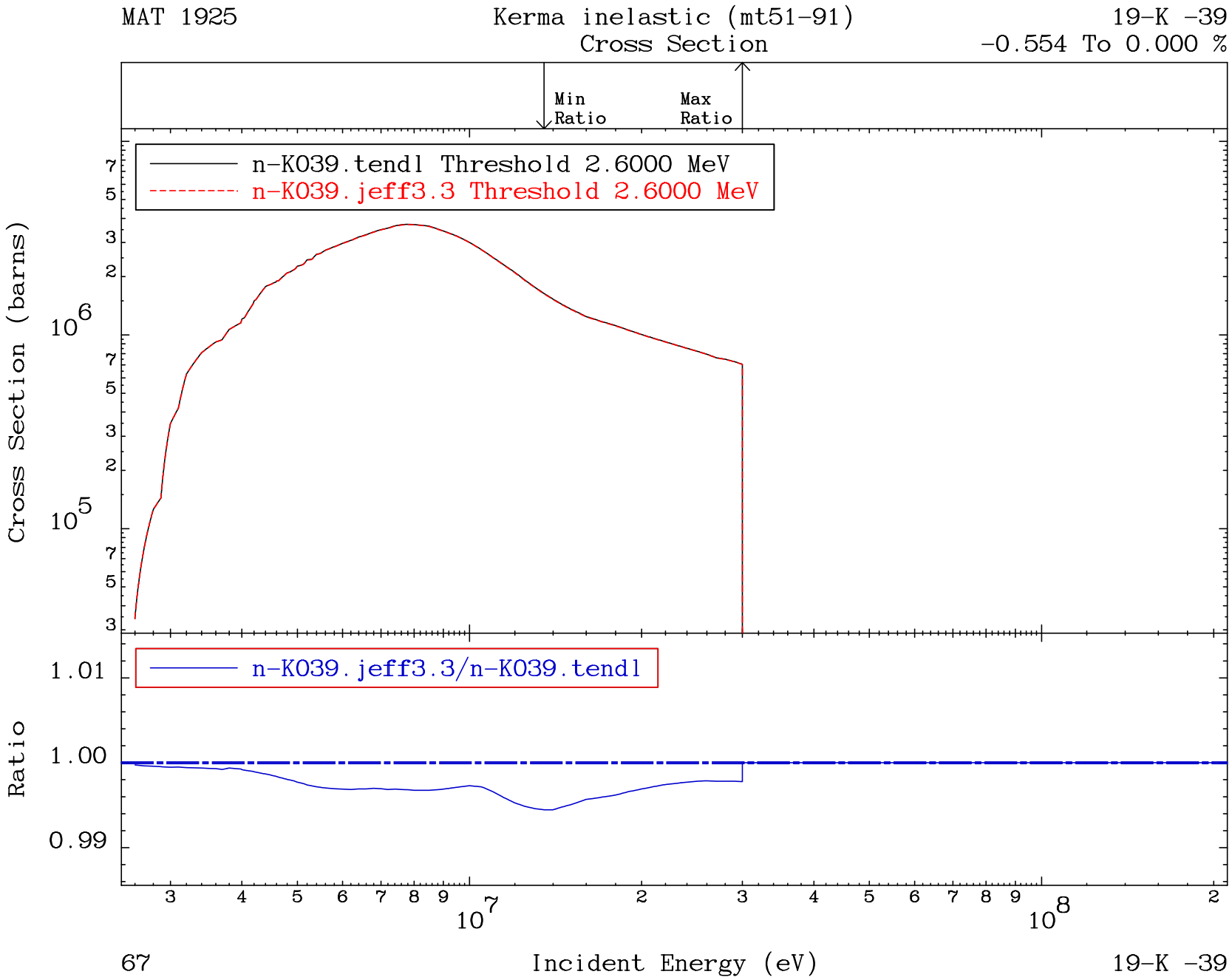

MAT 1925
He-3 Production
Cross Section
19-K -39
-2.478 To -0.074%
Max Ratio
Min Ratio
n-K039.tendl Threshold 9.1554 MeV
n-K039.jeff3.3 Threshold 9.1554 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
9
10^7
2
3
4
5
6
7
8
9
10^8
2
62
Incident Energy (eV)
19-K -39

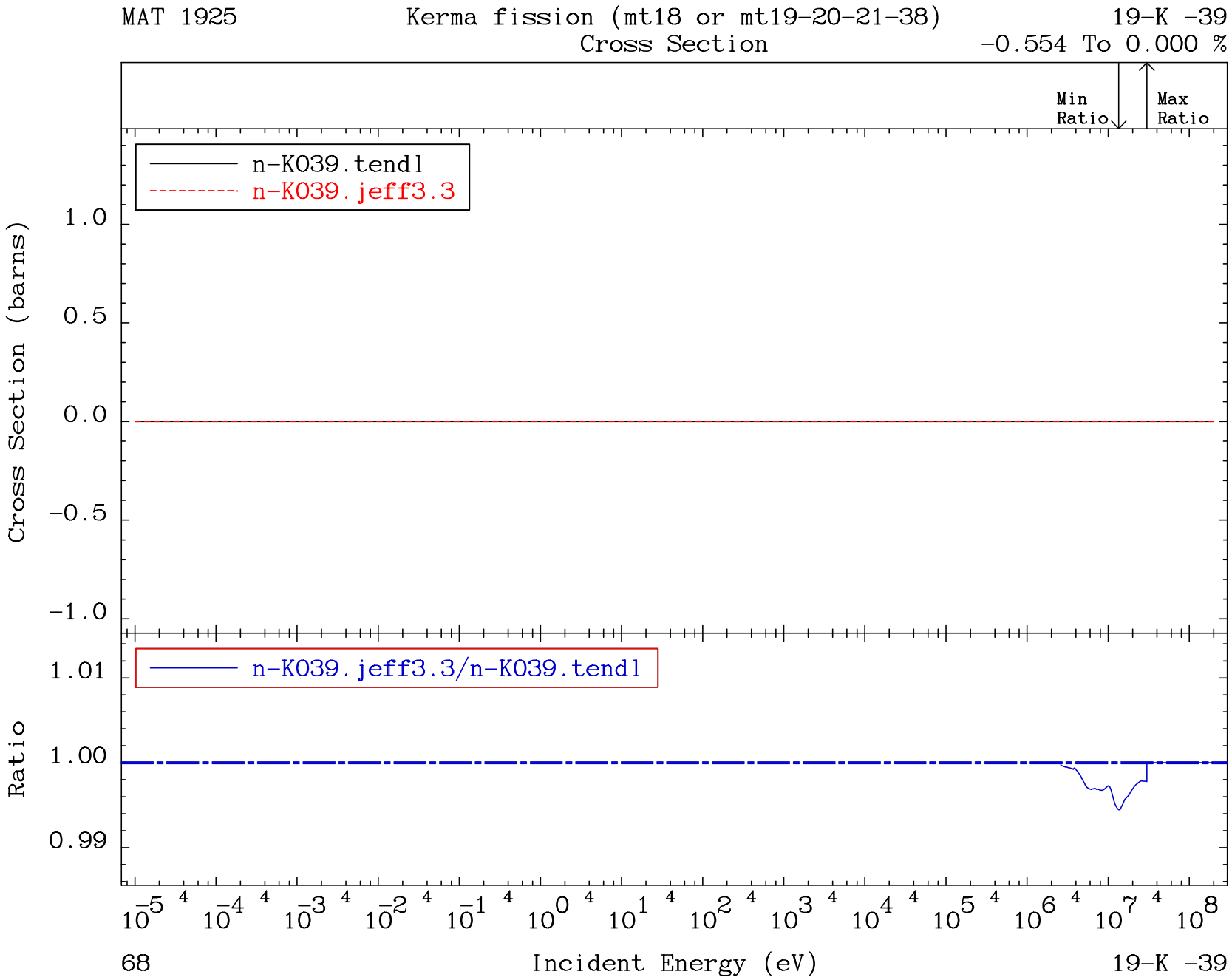

MAT 1925
He-4 Production
Cross Section
19-K -39
-14.40 To 384.0 %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
63
19-K -39

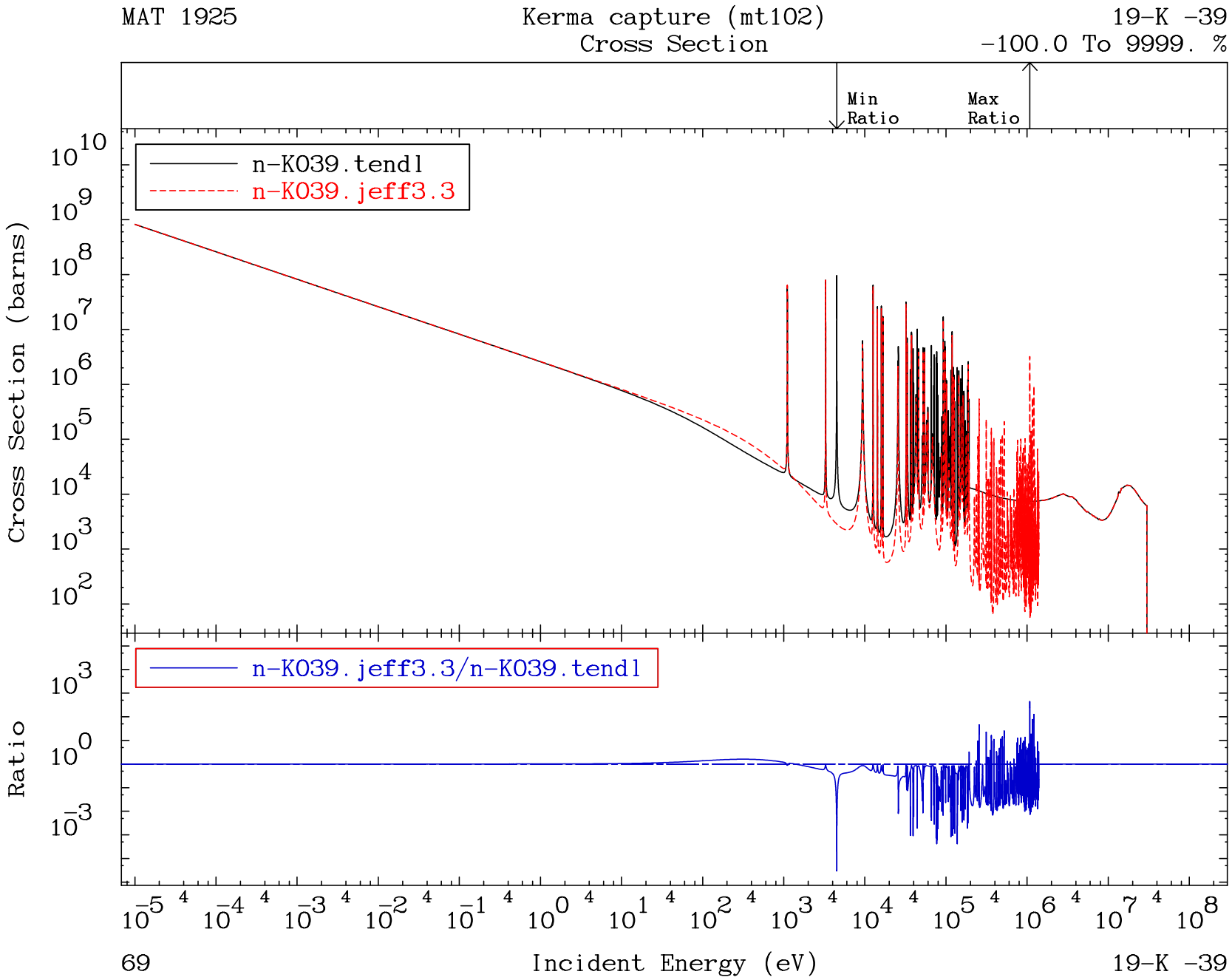

MAT 1925
Kerma total (eV-barns)
Cross Section
19-K -39
-100.0 To 2444. %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
64
19-K -39

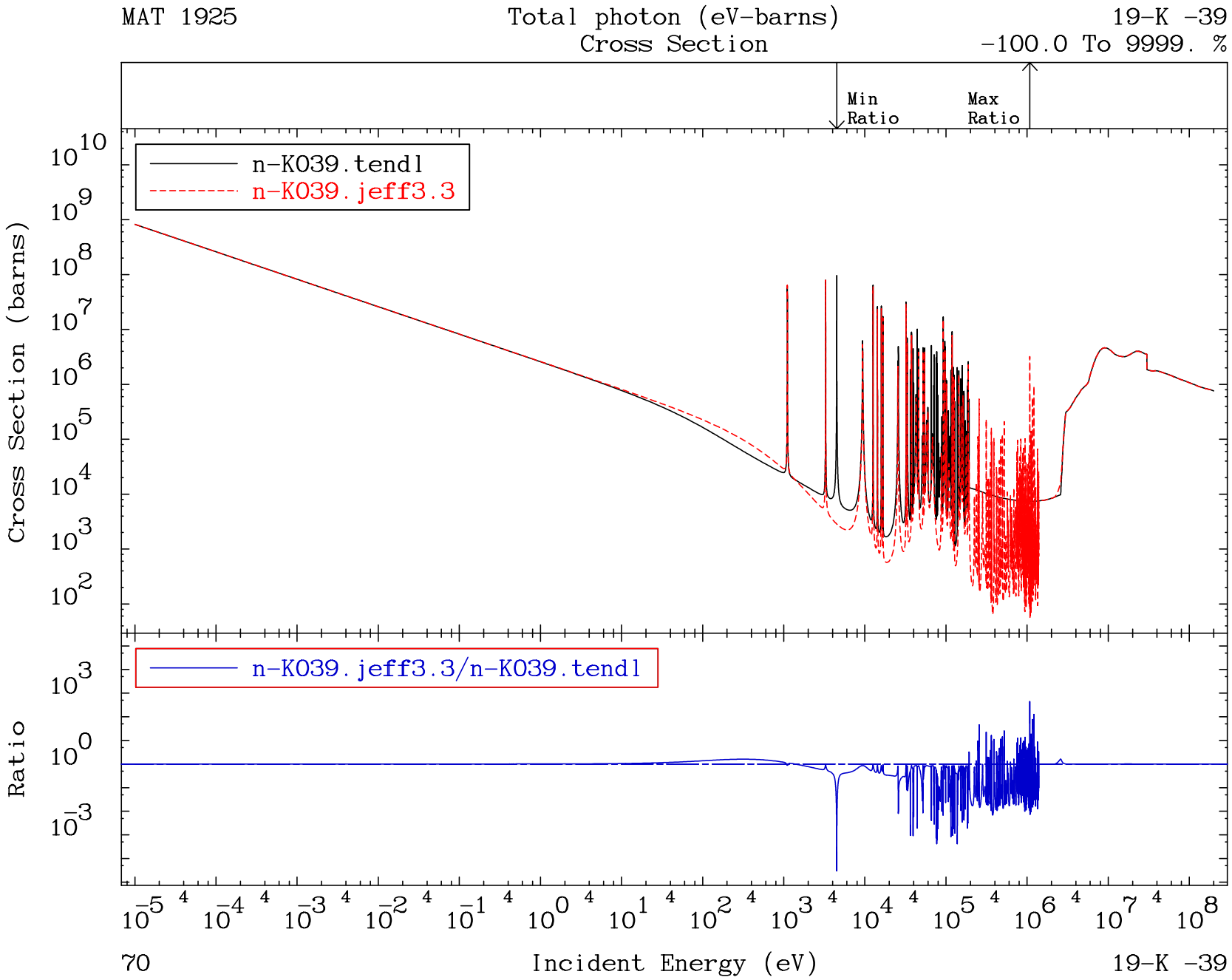

MAT 1925
Kerma elastic
Cross Section
19-K -39
-99.71 To 438.9 %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
Ratio
n-K039.jeff3.3/n-K039.tendl
Incident Energy (eV)
65
19-K -39

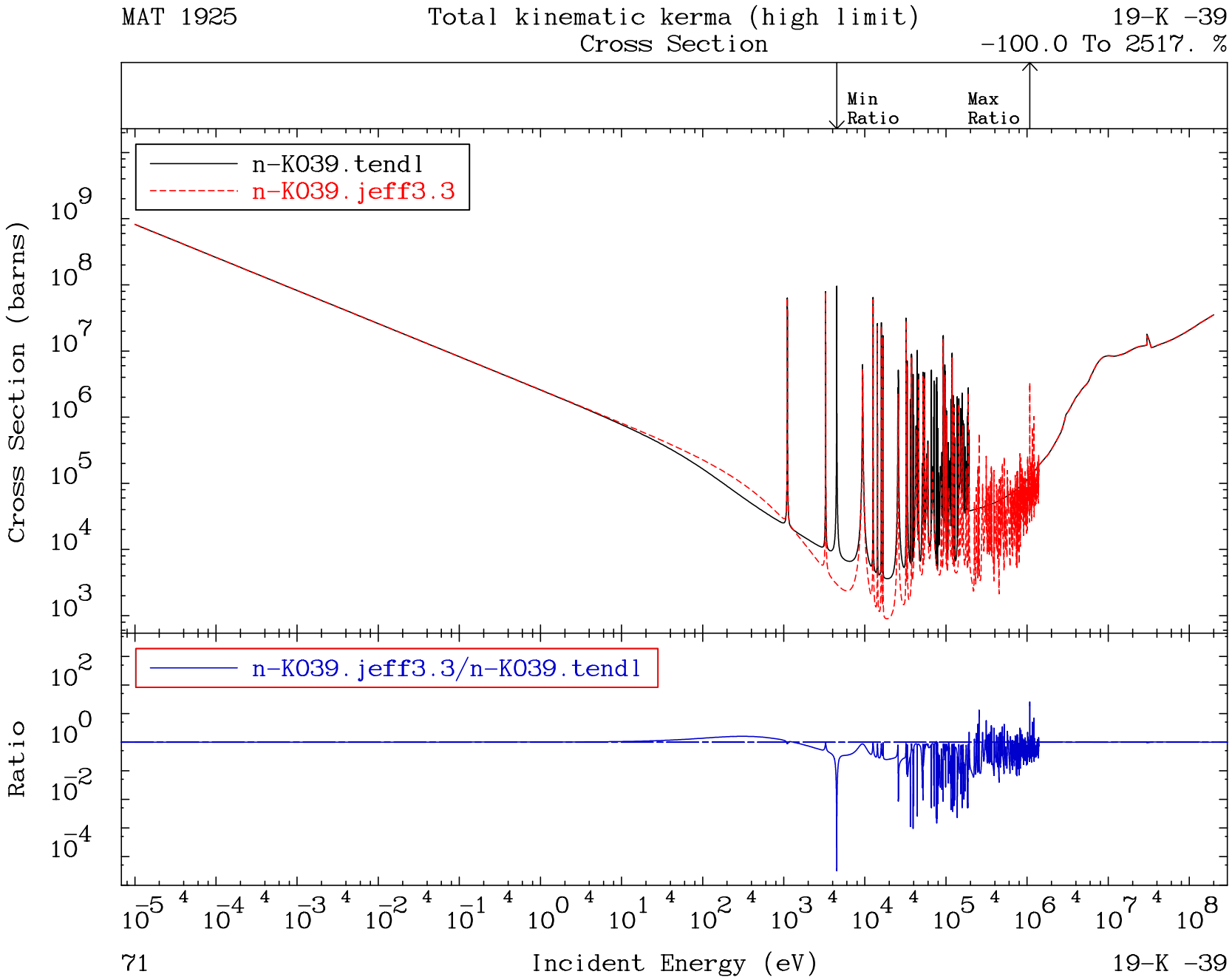

MAT 1925
Kerma non-elastic (all but mt2)
Cross Section
19-K -39
-100.0 To 9999. %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
66
19-K -39

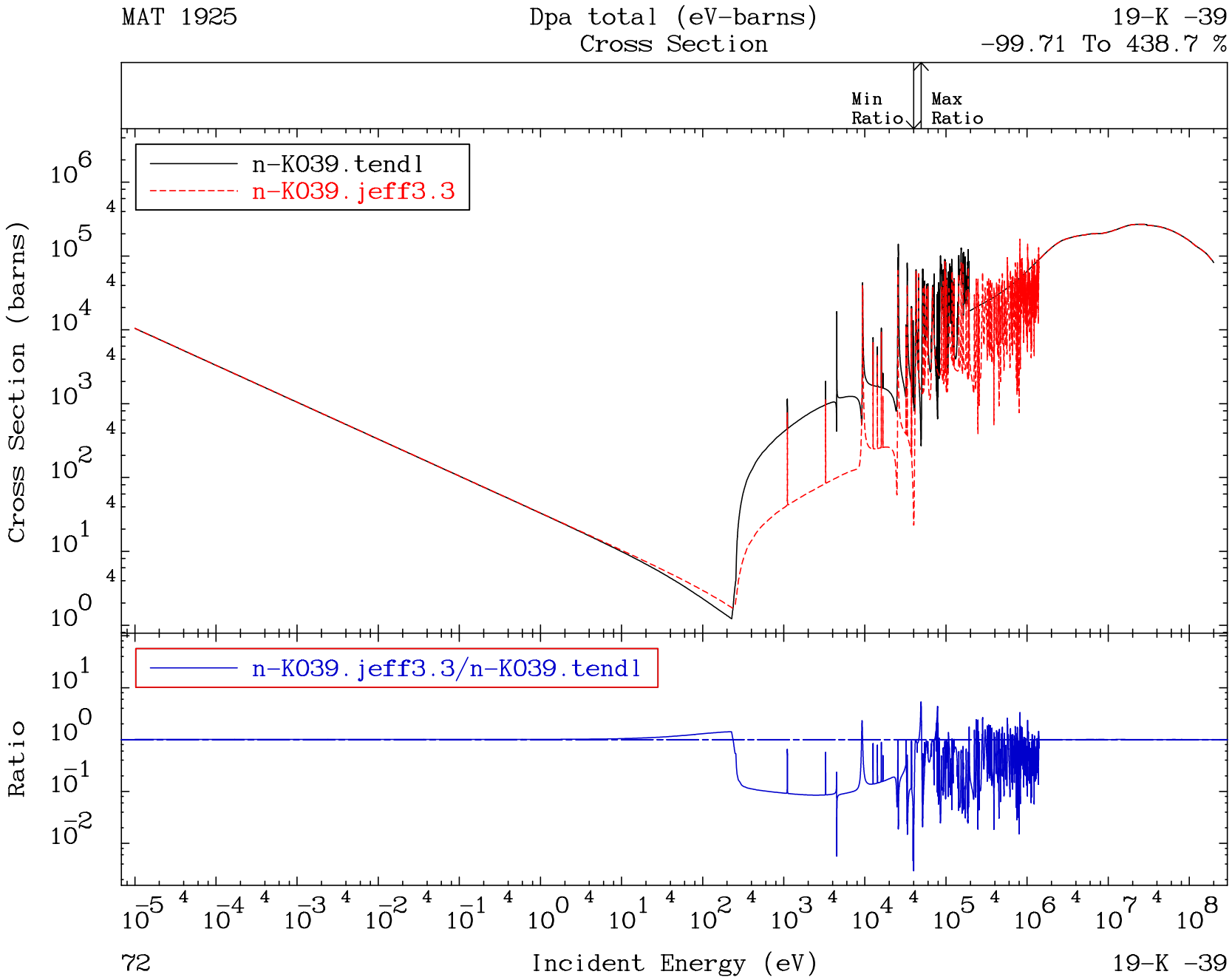

MAT 1925
Kerma inelastic (mt51-91)
Cross Section
19-K -39
-0.554 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 2.6000 MeV
n-K039.jeff3.3 Threshold 2.6000 MeV
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
67
19-K -39

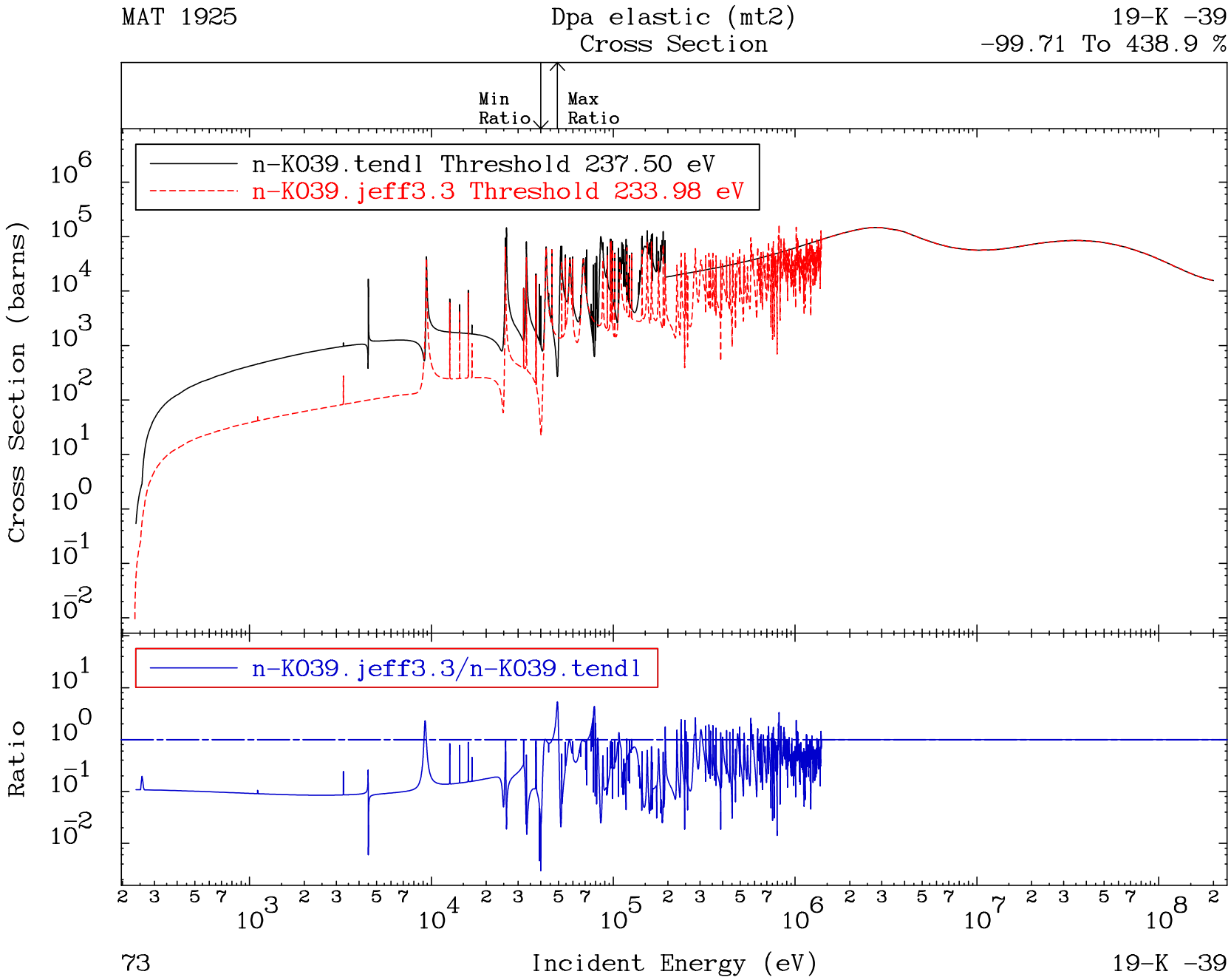

MAT 1925
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
19-K -39
-0.554 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.01
1.00
0.99
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
68
Incident Energy (eV)
19-K -39

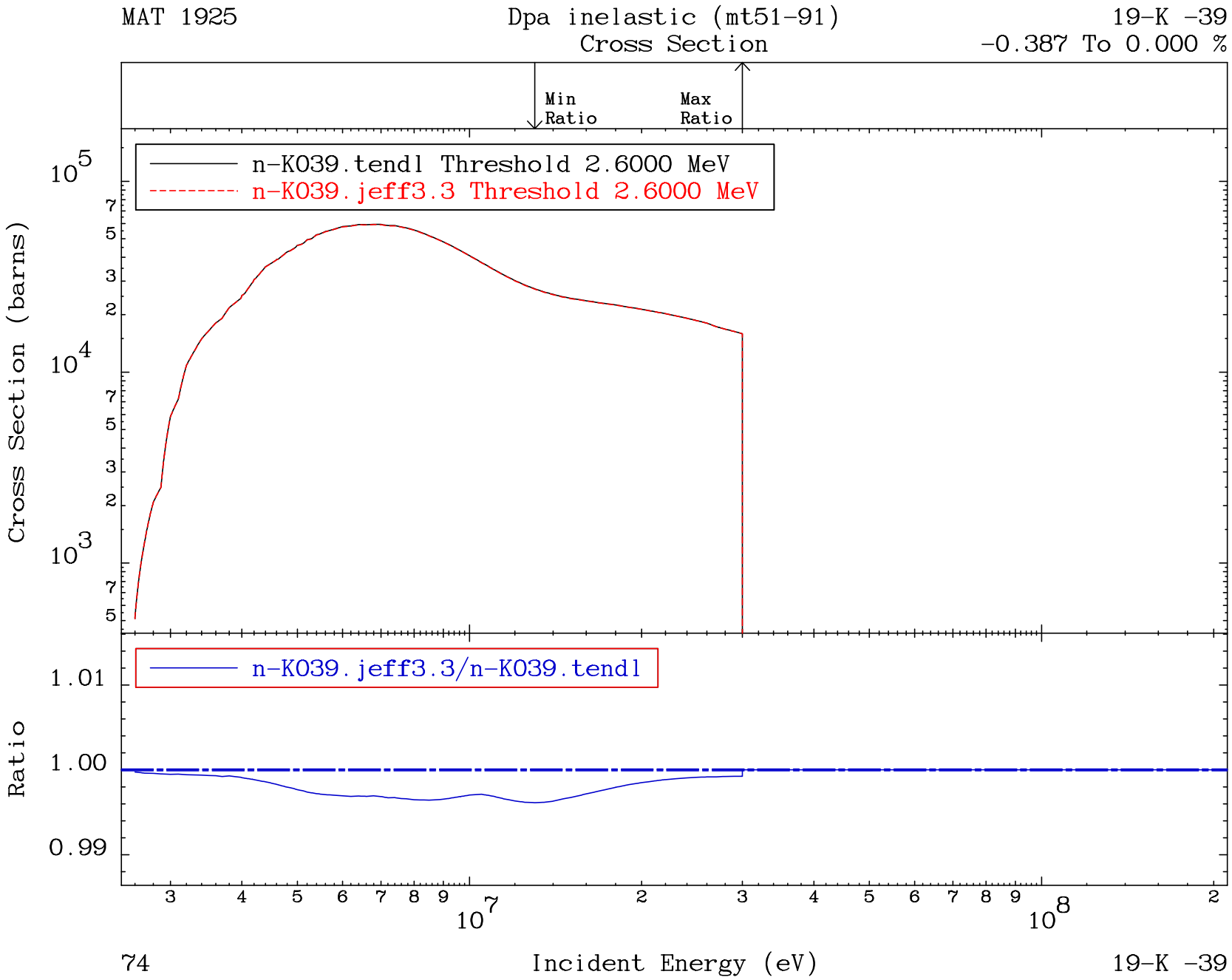

MAT 1925
Kerma capture (mt102)
Cross Section
19-K -39
-100.0 To 9999. %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
69
19-K -39

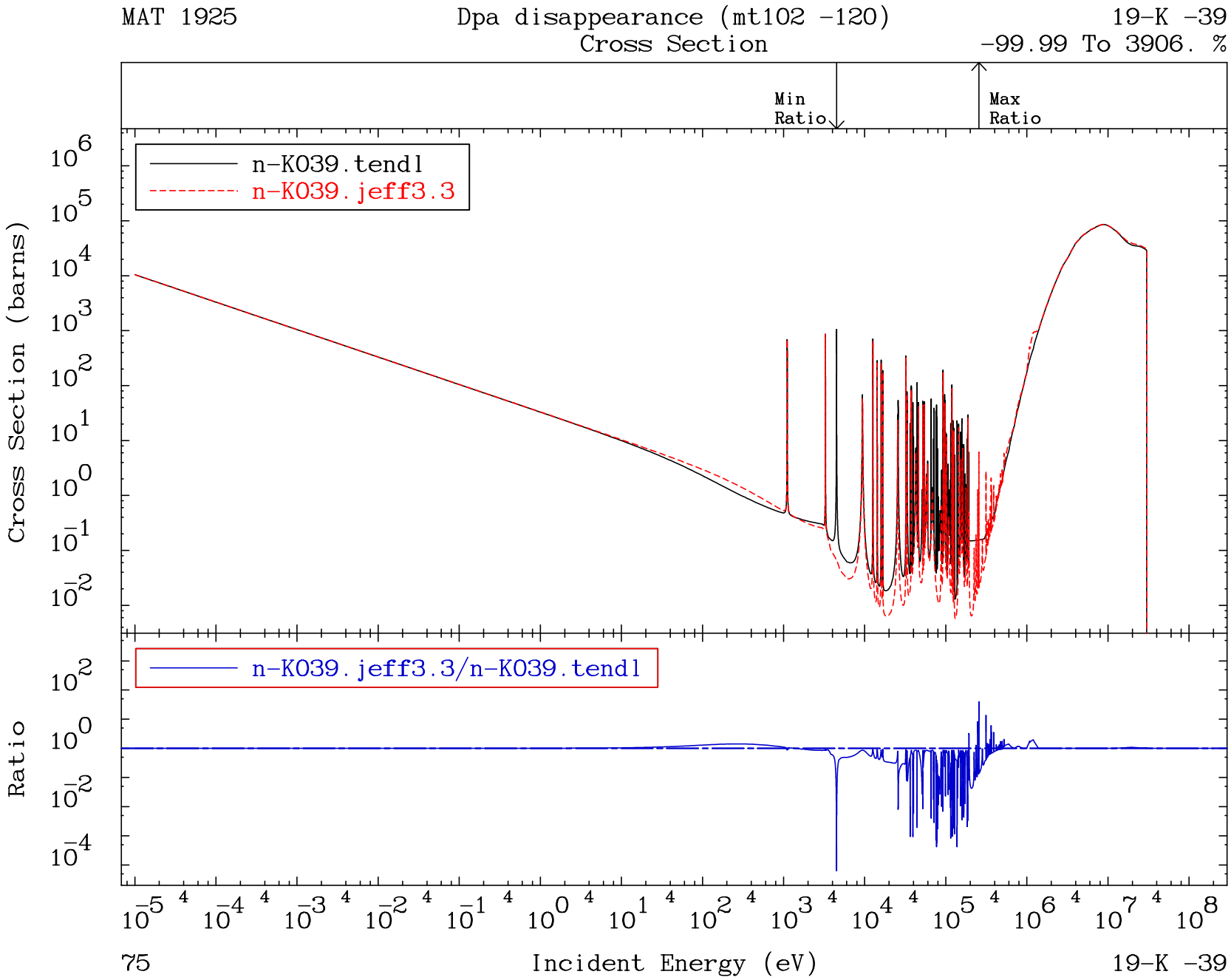

MAT 1925
Total photon (eV-barns)
Cross Section
19-K -39
-100.0 To 9999. %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
70
19-K -39

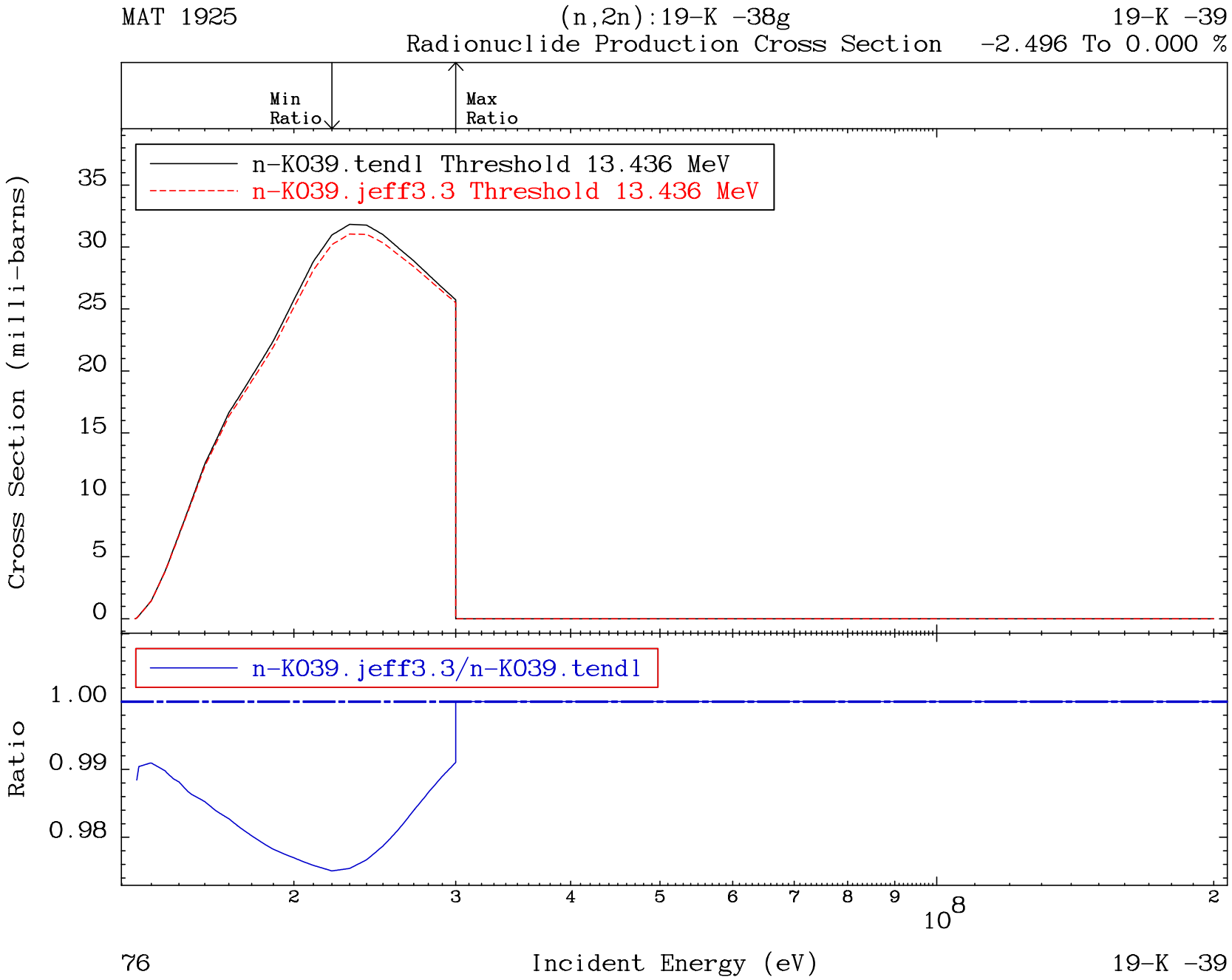

MAT 1925
Total kinematic kerma (high limit)
Cross Section
19-K -39
-100.0 To 2517. %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
71
19-K -39

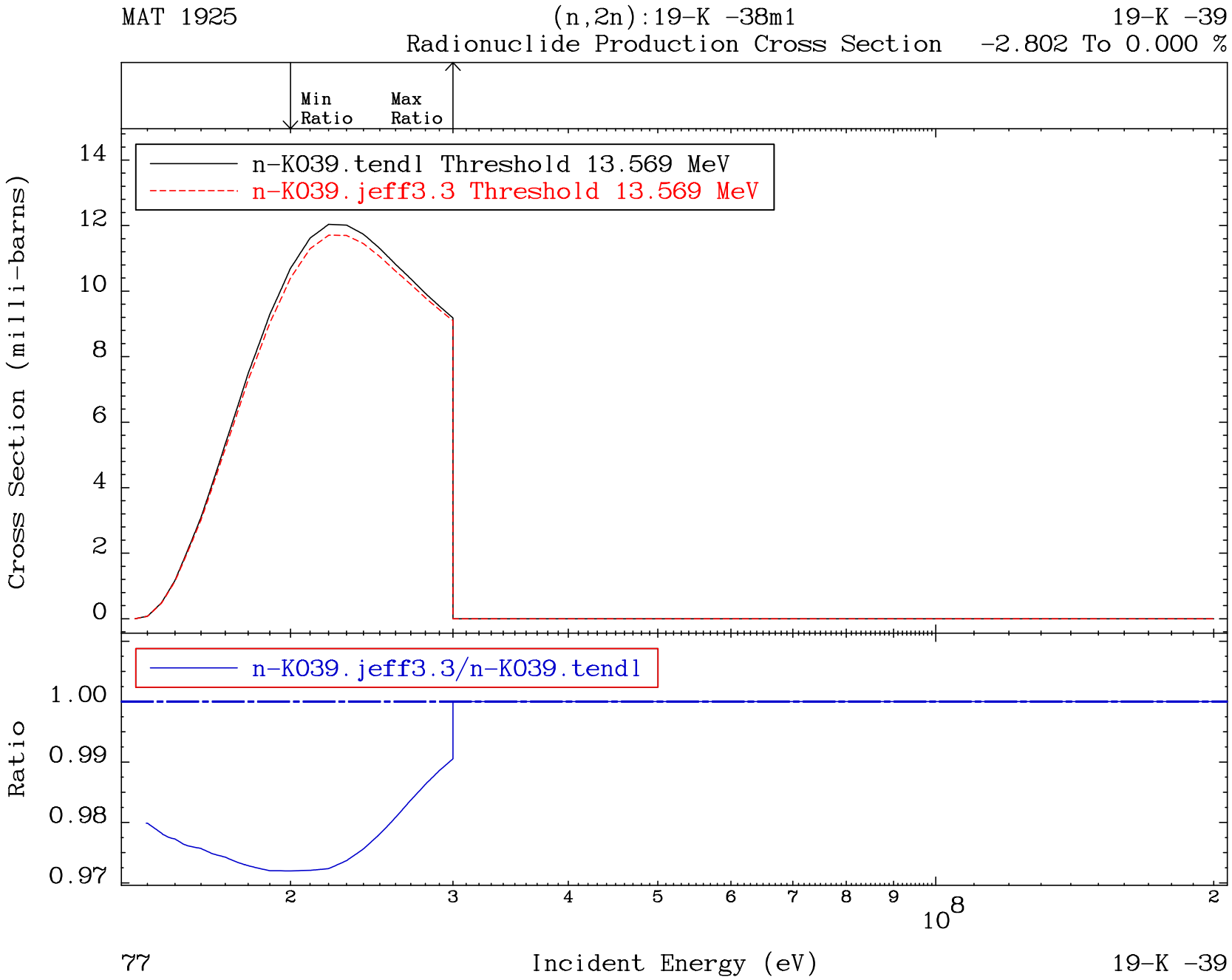

MAT 1925
Dpa total (eV-barns)
Cross Section
19-K -39
-99.71 To 438.7 %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
72
19-K -39

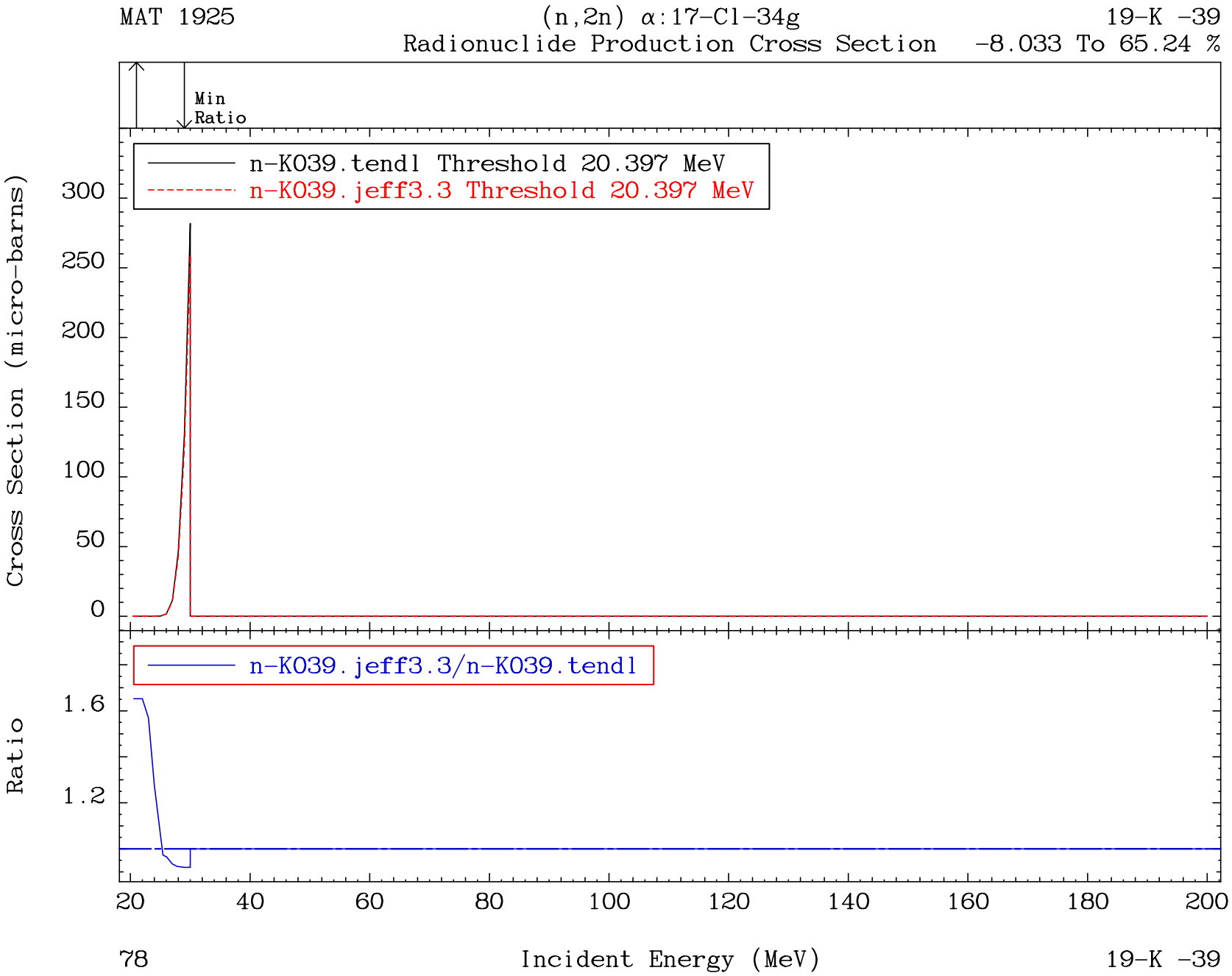

MAT 1925
Dpa elastic (mt2)
Cross Section
19-K -39
-99.71 To 438.9 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 237.50 eV
n-K039.jeff3.3 Threshold 233.98 eV
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
73
19-K -39

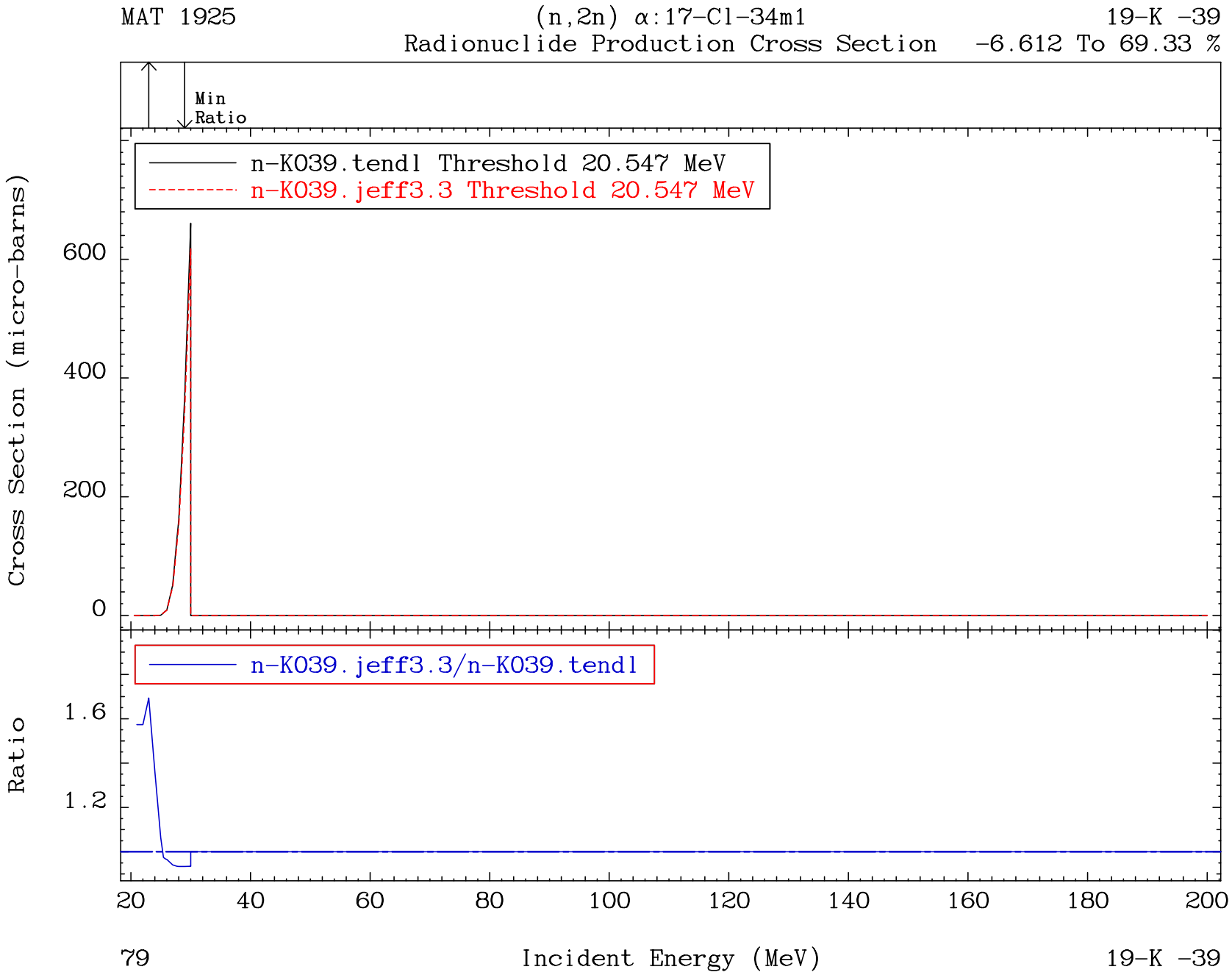

MAT 1925
Dpa inelastic (mt51-91)
Cross Section
19-K -39
-0.387 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 2.6000 MeV
n-K039.jeff3.3 Threshold 2.6000 MeV
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
74
19-K -39

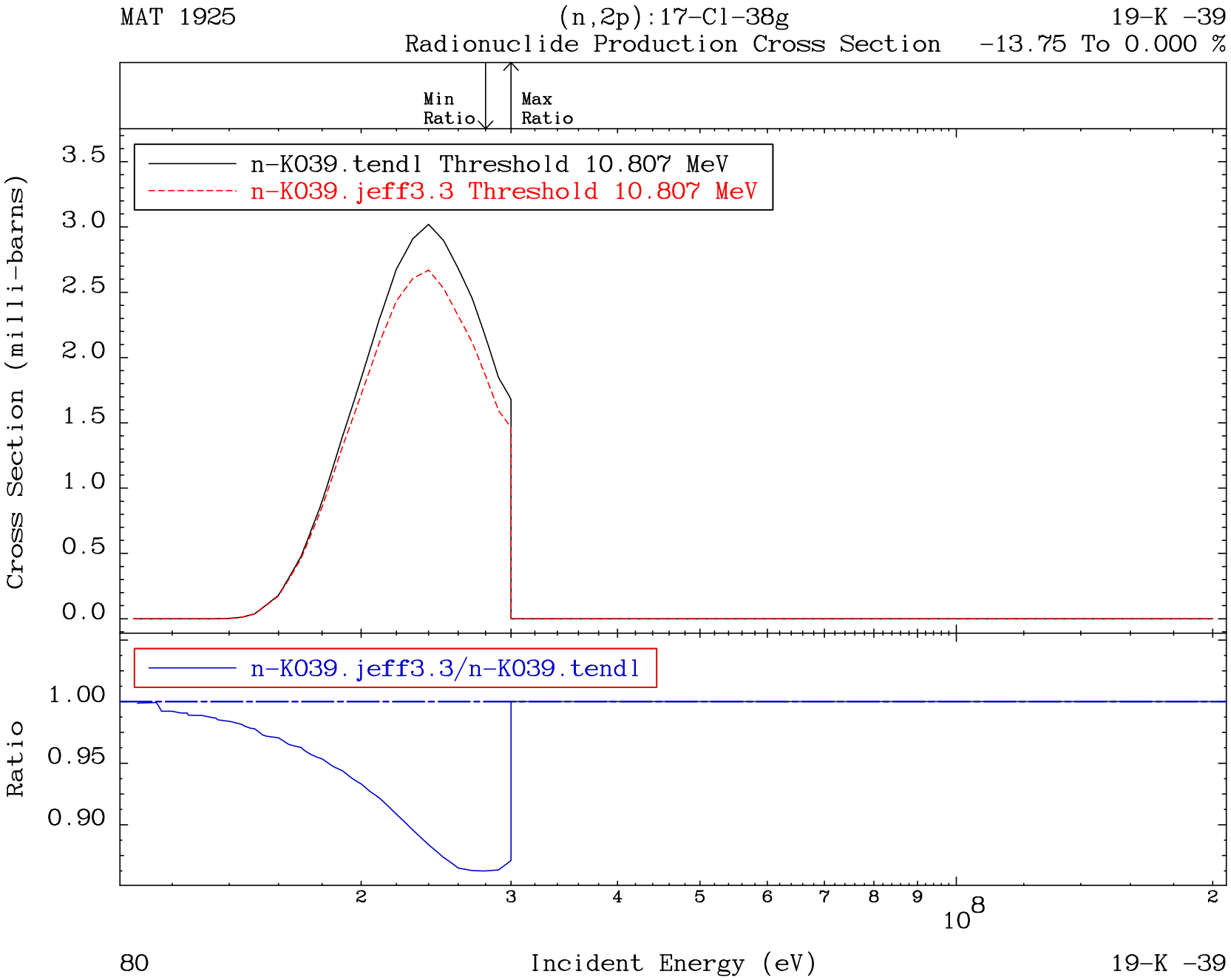

MAT 1925
Dpa disappearance (mt102 -120)
Cross Section
19-K -39
-99.99 To 3906. %
Min Ratio
Max Ratio
n-K039.tendl
n-K039.jeff3.3
Cross Section (barns)
n-K039.jeff3.3/n-K039.tendl
Ratio
Incident Energy (eV)
75
19-K -39

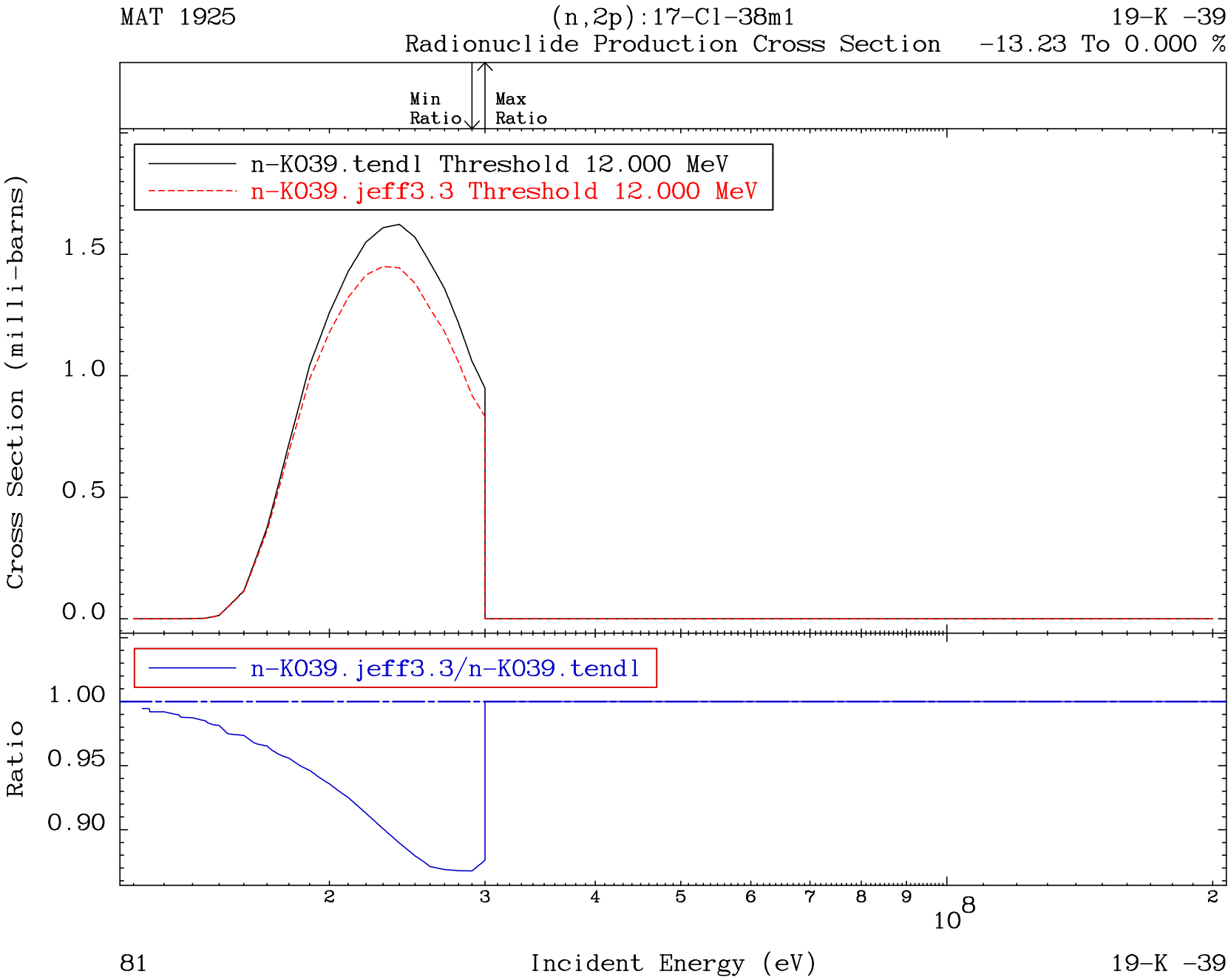

MAT 1925
(n,2n):19-K -38g
19-K -39
Radionuclide Production Cross Section
-2.496 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 13.436 MeV
n-K039.jeff3.3 Threshold 13.436 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
2
3
4
5
6
7
8
9
10^8
2
76
Incident Energy (eV)
19-K -39


MAT 1925
(n,2n):19-K -38m1
19-K -39
Radionuclide Production Cross Section
-2.802 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 13.569 MeV
n-K039.jeff3.3 Threshold 13.569 MeV
Cross Section (milli-barns)
14
12
10
8
6
4
2
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.99
0.98
0.97
2
3
4
5
6
7
8
9
10^8
2
77
Incident Energy (eV)
19-K -39


MAT 1925
(n,2n) α:17-Cl-34g
19-K -39
Radionuclide Production Cross Section
-8.033 To 65.24 %
Min
Ratio
n-K039.tendl Threshold 20.397 MeV
n-K039.jeff3.3 Threshold 20.397 MeV
Cross Section (micro-barns)
300
250
200
150
100
50
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.6
1.2
20
40
60
80
100
120
140
160
180
200
78
Incident Energy (MeV)
19-K -39


MAT 1925
(n,2n) α:17-Cl-34m1
19-K -39
Radionuclide Production Cross Section -6.612 To 69.33 %
Min Ratio
n-K039.tendl Threshold 20.547 MeV
n-K039.jeff3.3 Threshold 20.547 MeV
Cross Section (micro-barns)
600
400
200
0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.6
1.2
20
40
60
80
100
120
140
160
180
200
79
Incident Energy (MeV)
19-K -39


MAT 1925
(n,2p):17-Cl-38g
19-K -39
Radionuclide Production Cross Section -13.75 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 10.807 MeV
n-K039.jeff3.3 Threshold 10.807 MeV
Cross Section (milli-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
80
Incident Energy (eV)
19-K -39


MAT 1925
(n,2p):17-Cl-38m1
19-K -39
Radionuclide Production Cross Section
-13.23 To 0.000 %
Min Ratio
Max Ratio
n-K039.tendl Threshold 12.000 MeV
n-K039.jeff3.3 Threshold 12.000 MeV
Cross Section (milli-barns)
1.5
1.0
0.5
0.0
n-K039.jeff3.3/n-K039.tendl
Ratio
1.00
0.95
0.90
2
3
4
5
6
7
8
9
10^8
2
81
Incident Energy (eV)
19-K -39