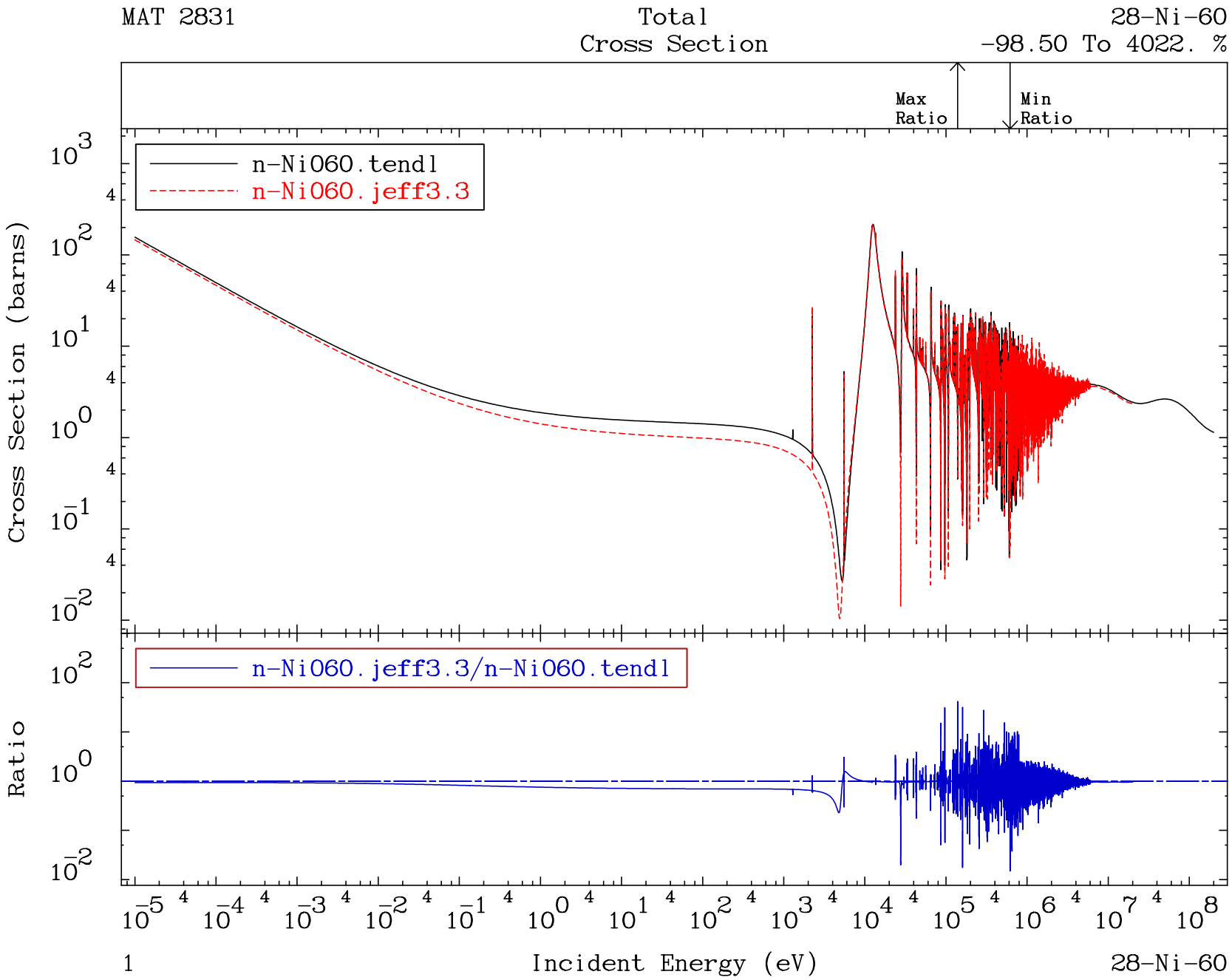
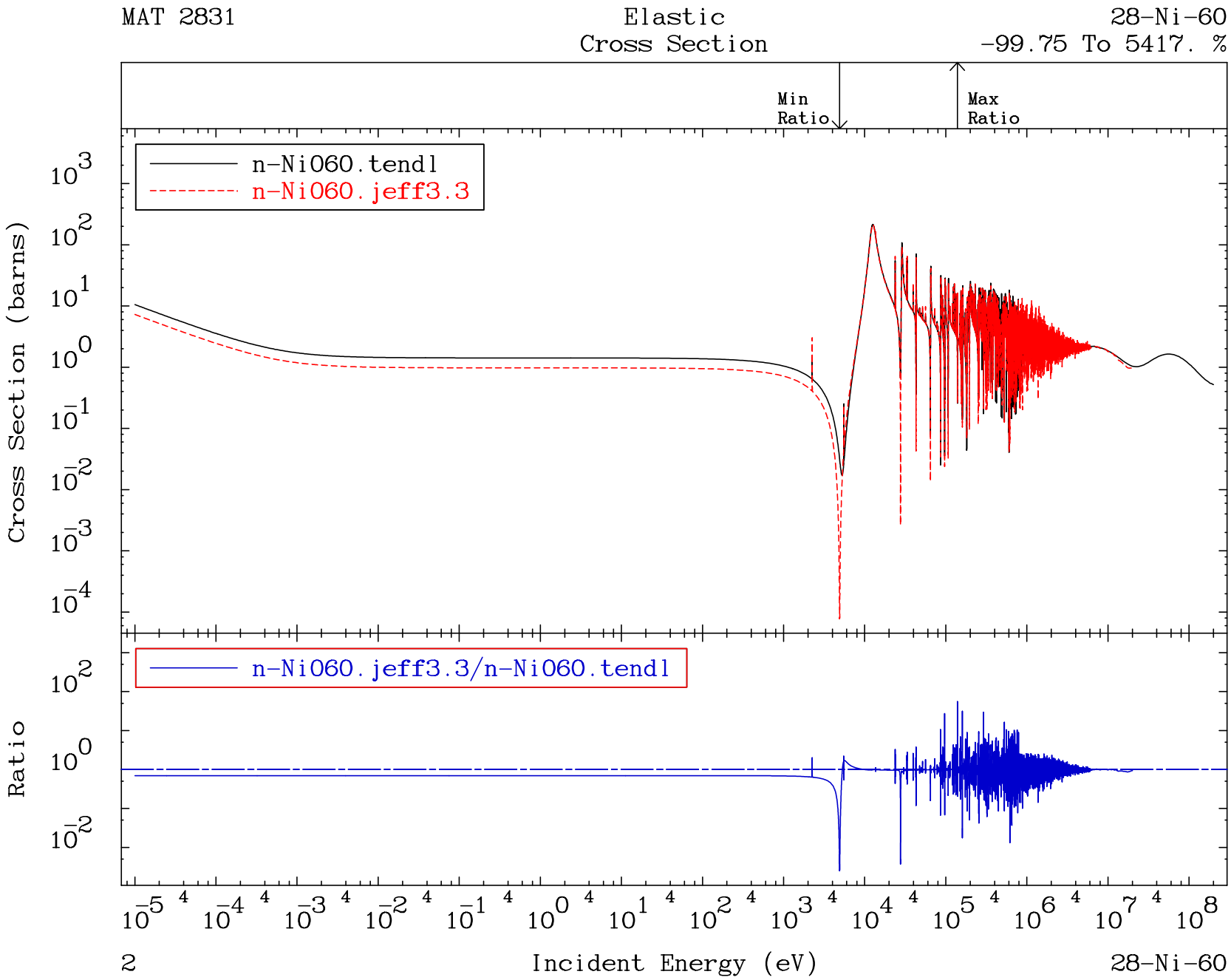
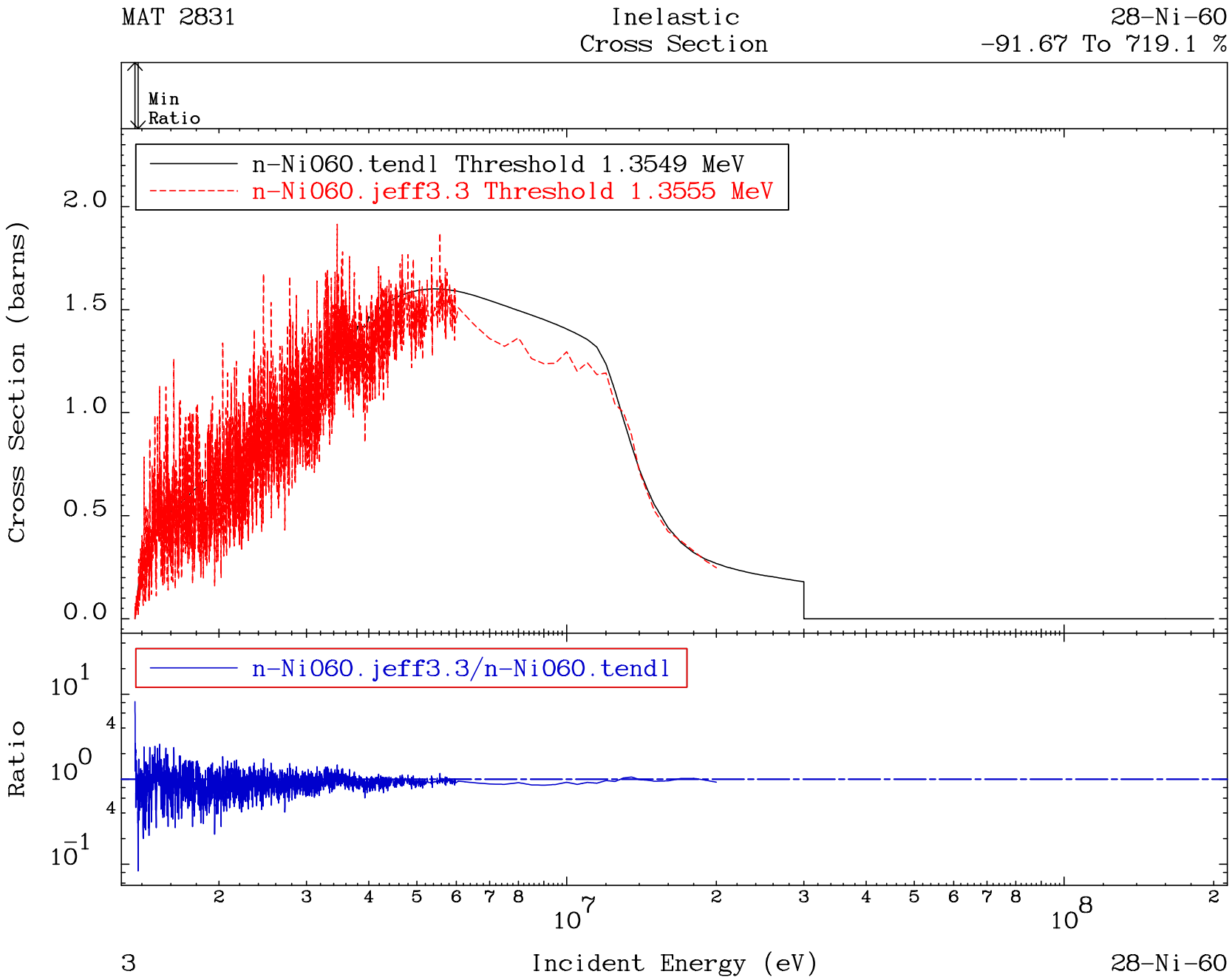
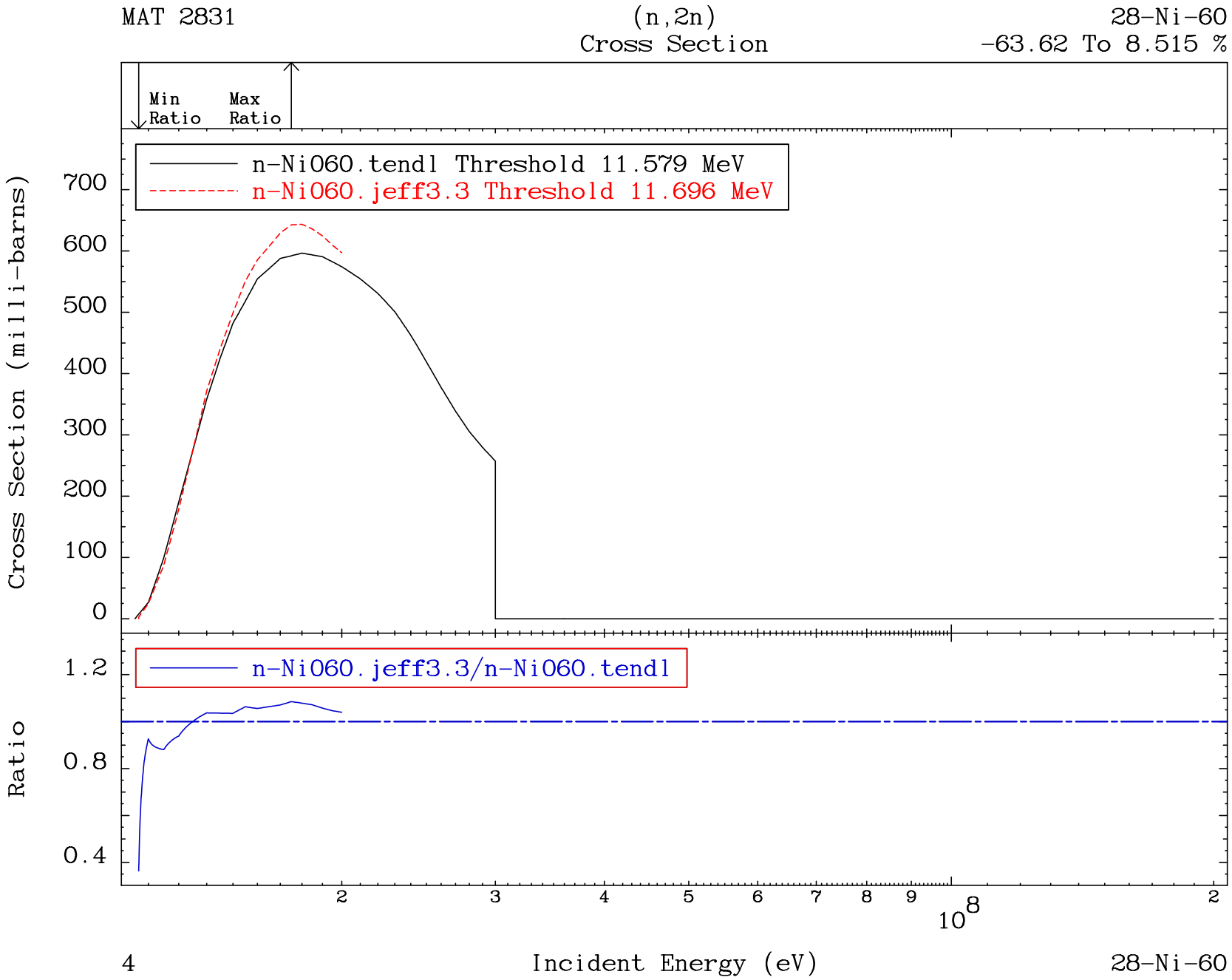
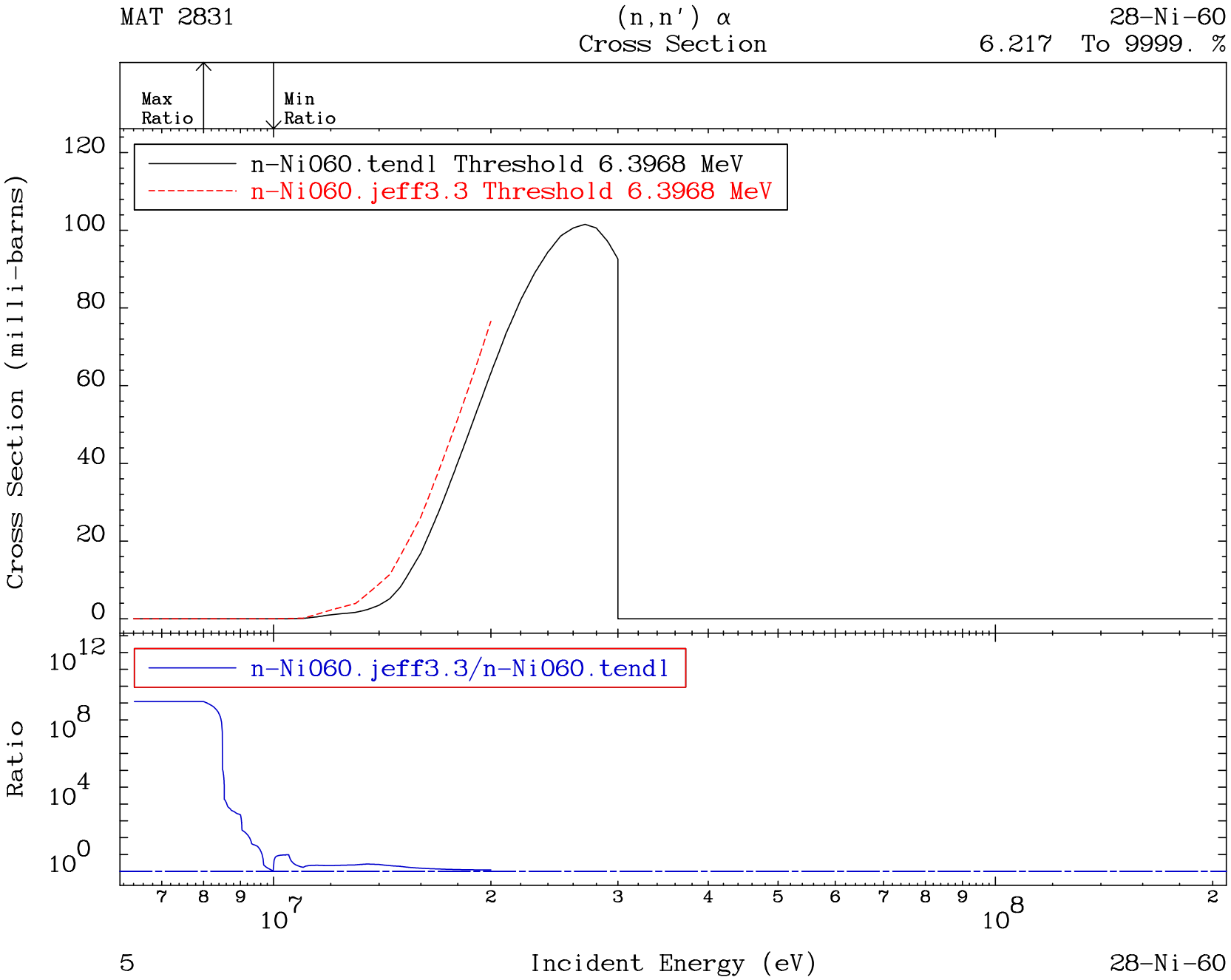
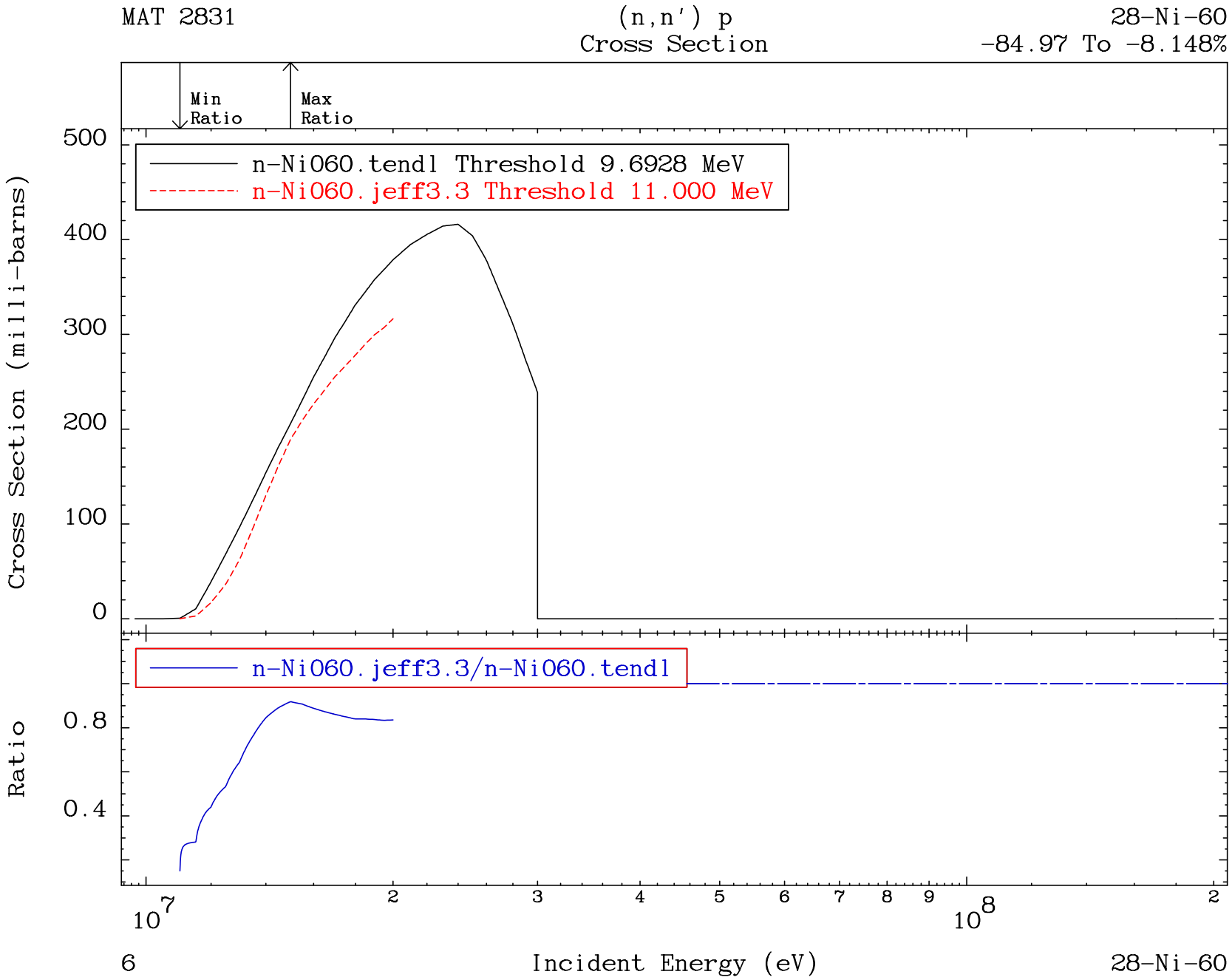

MAT 2831
Total
Cross Section
28-Ni-60
-98.50 To 4022. %
Max
Ratio
Min
Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
1
28-Ni-60

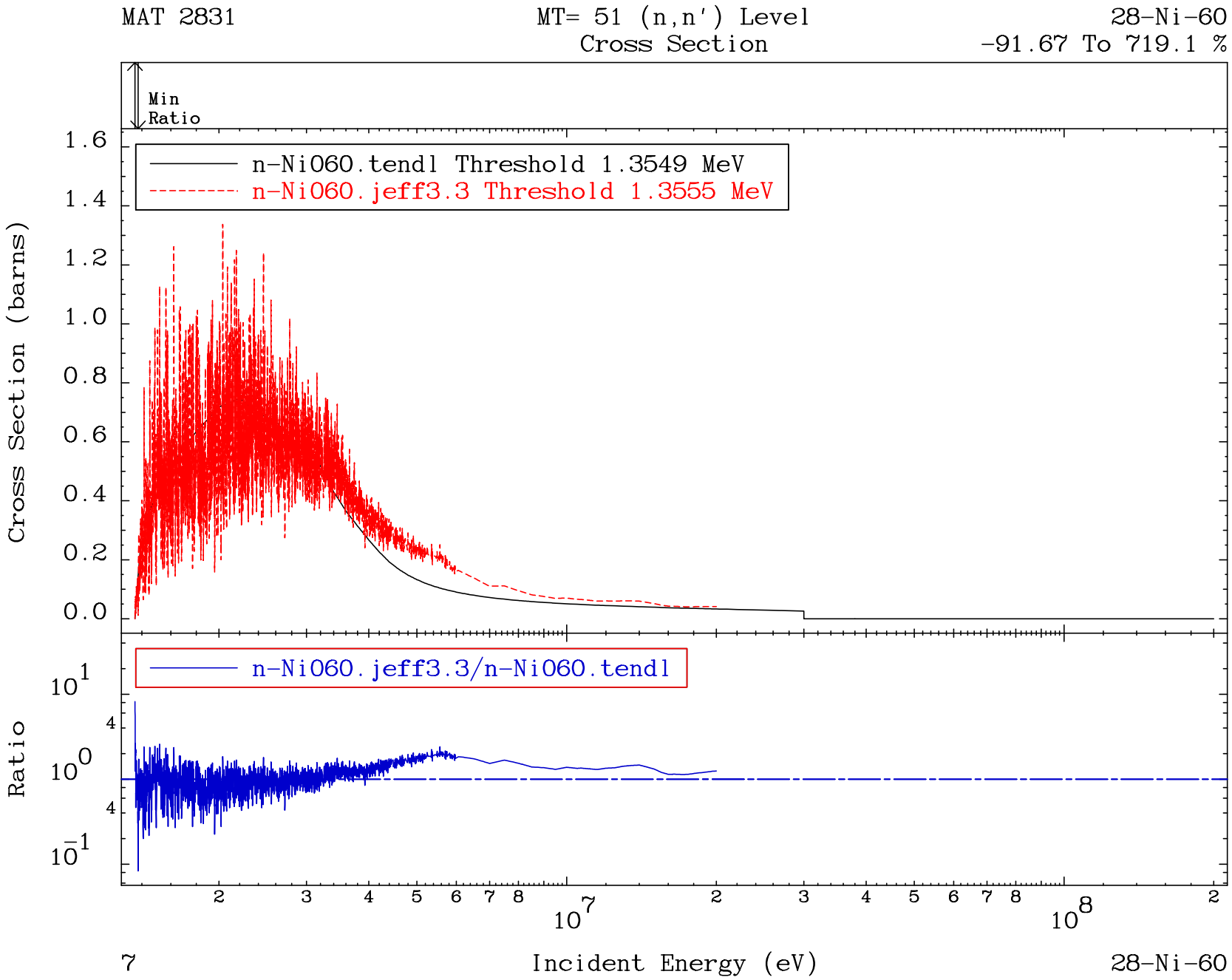

MAT 2831
Elastic
Cross Section
28-Ni-60
-99.75 To 5417. %
Min
Ratio
Max
Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
2
28-Ni-60

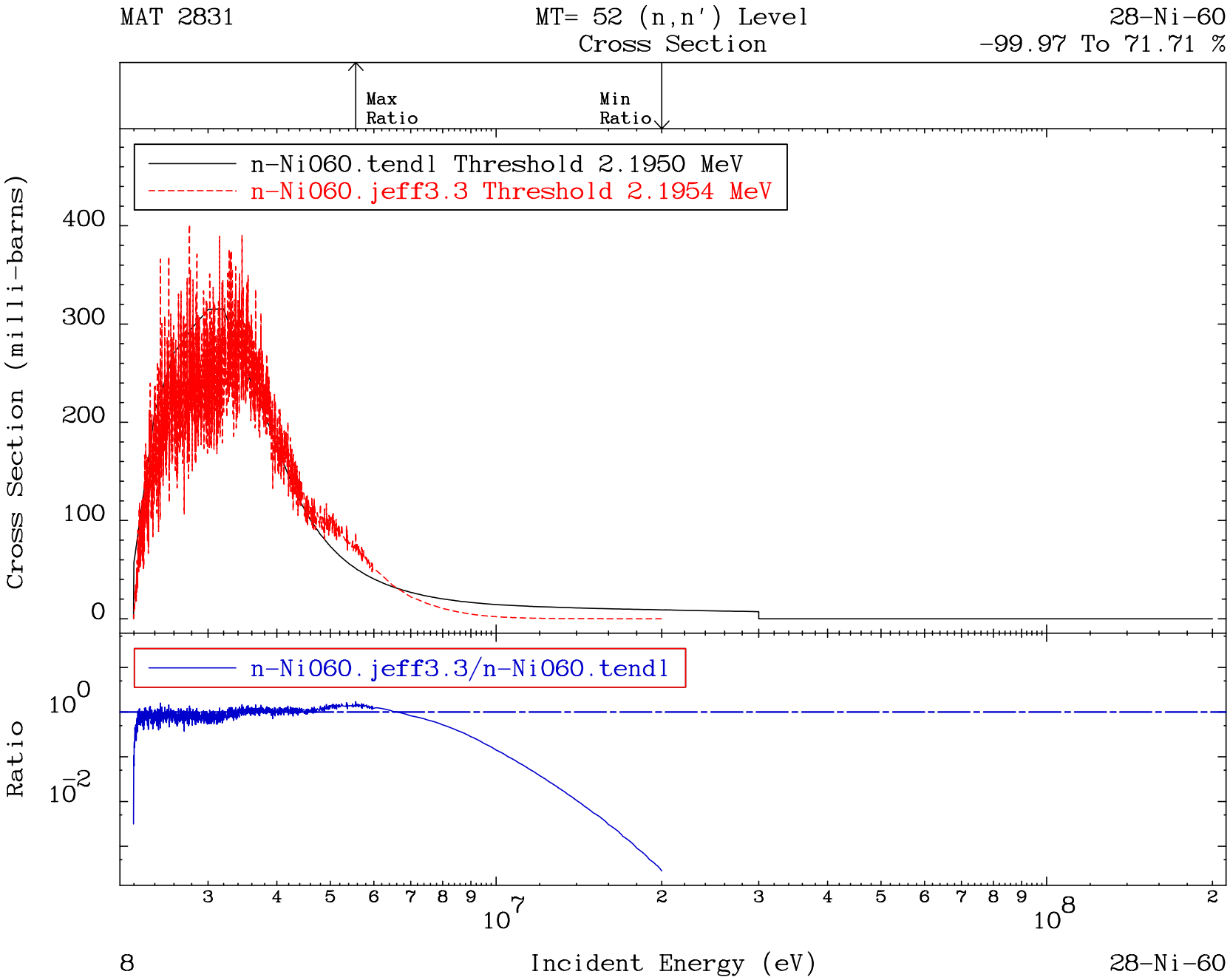

MAT 2831
Inelastic
Cross Section
28-Ni-60
-91.67 To 719.1 %
Min
Ratio
n-Ni060.tendl Threshold 1.3549 MeV
n-Ni060.jeff3.3 Threshold 1.3555 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^1
10^0
10^-1
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
3
Incident Energy (eV)
28-Ni-60

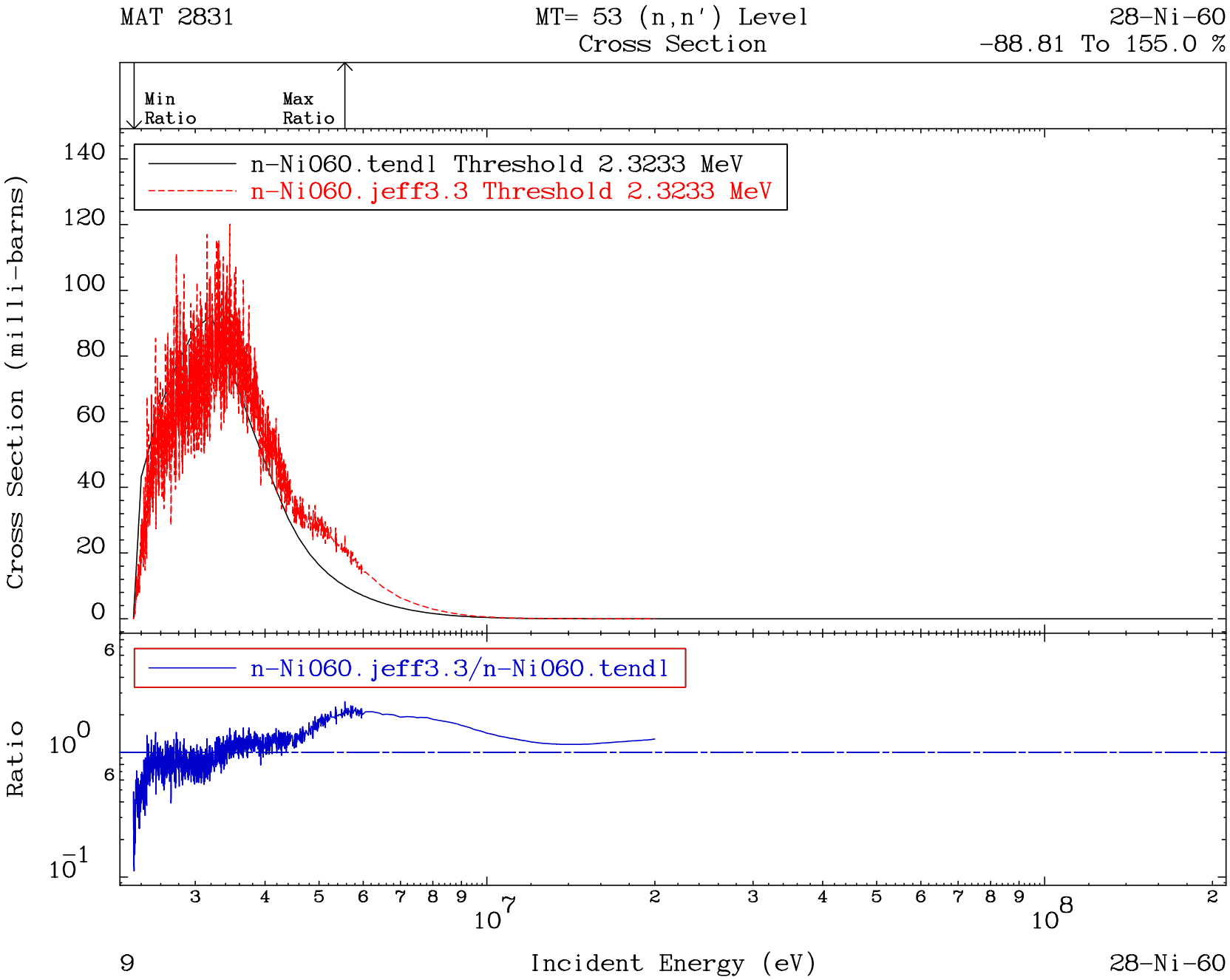

MAT 2831
(n,2n)
Cross Section
28-Ni-60
-63.62 To 8.515 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 11.579 MeV
n-Ni060.jeff3.3 Threshold 11.696 MeV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
28-Ni-60

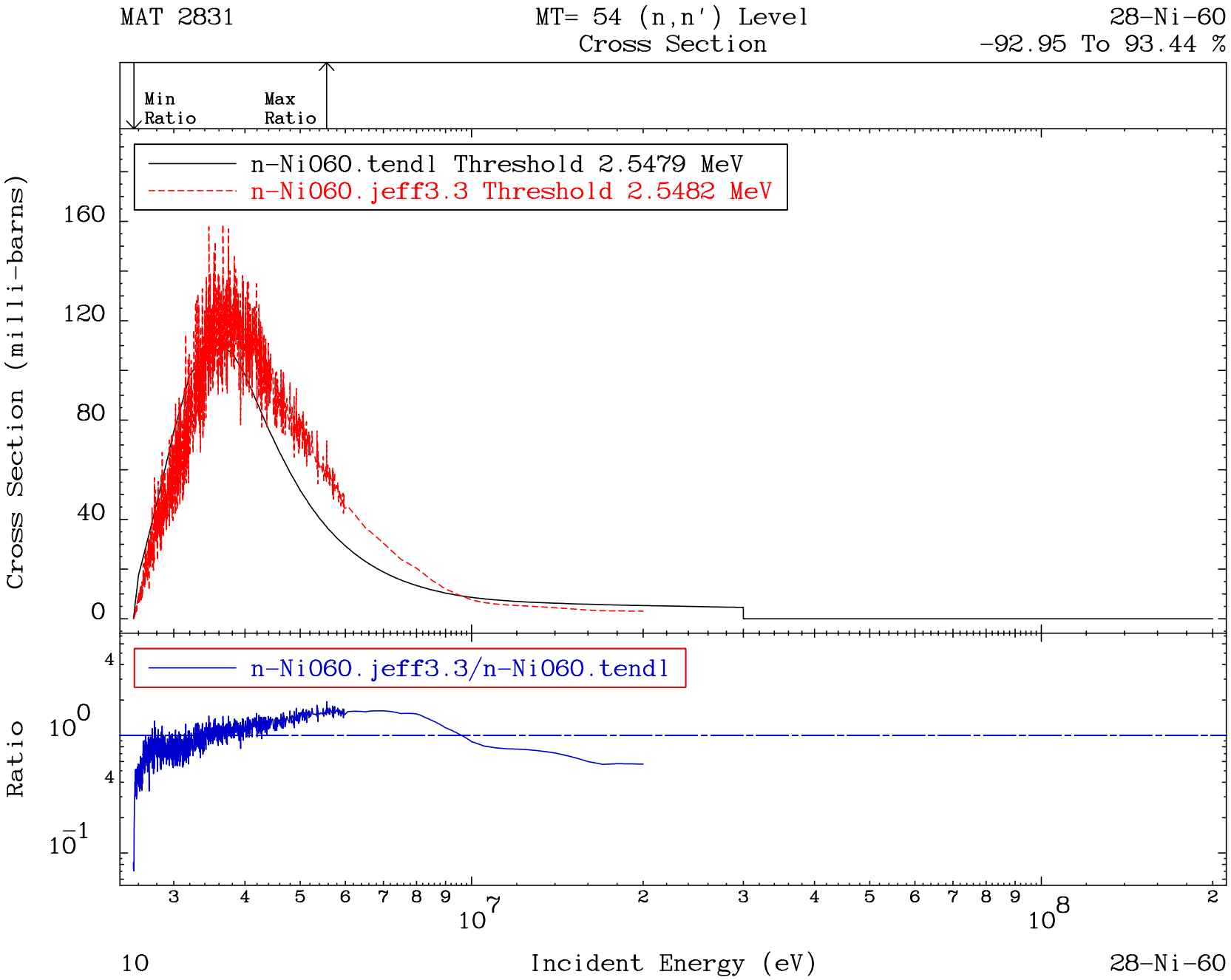

MAT 2831
(n,n') α
Cross Section
28-Ni-60
6.217 To 9999. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 6.3968 MeV
n-Ni060.jeff3.3 Threshold 6.3968 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^12
10^8
10^4
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
28-Ni-60

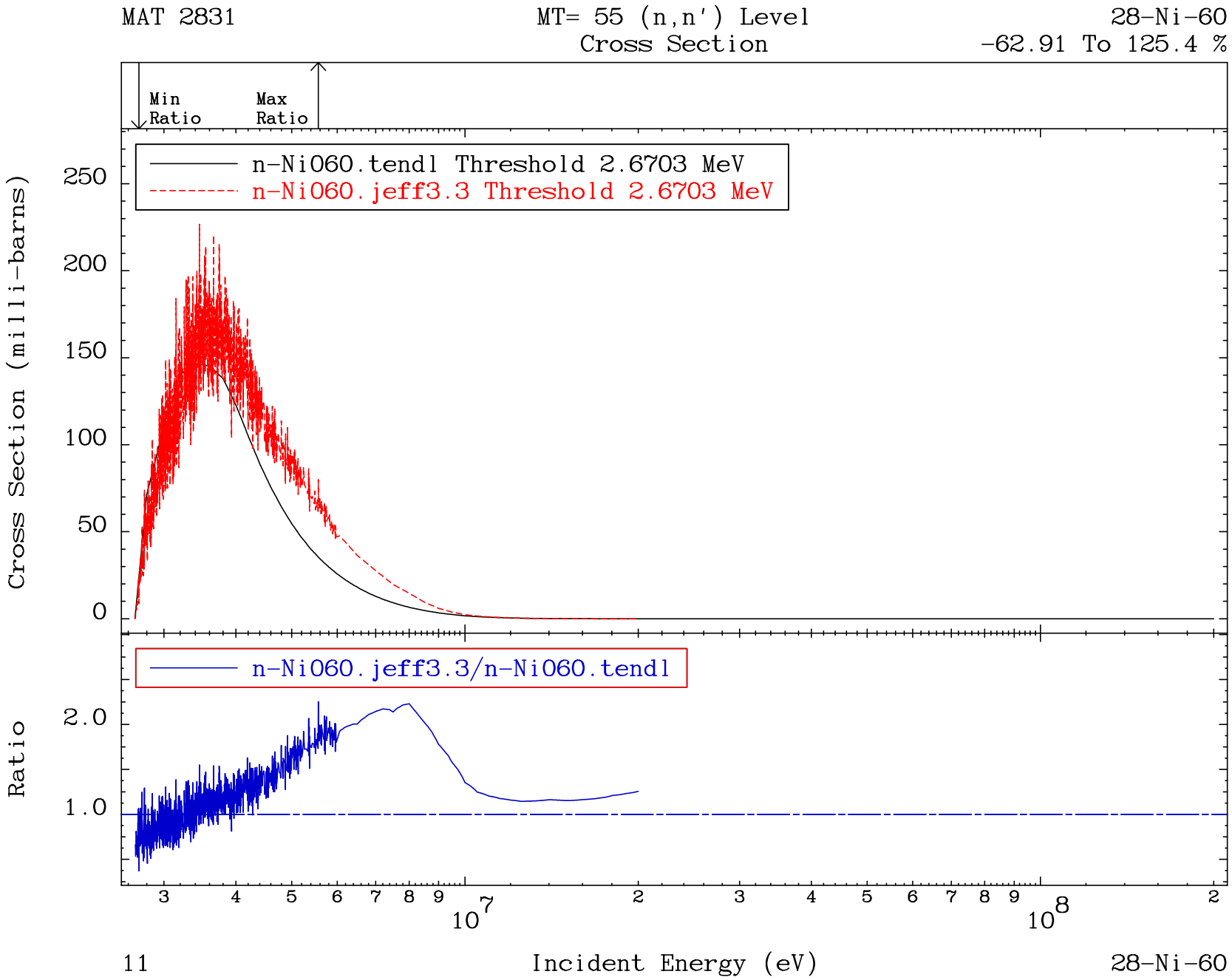

MAT 2831
(n,n') p
Cross Section
28-Ni-60
-84.97 To -8.148%
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 9.6928 MeV
n-Ni060.jeff3.3 Threshold 11.000 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
0.8
0.4
10^7
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
28-Ni-60

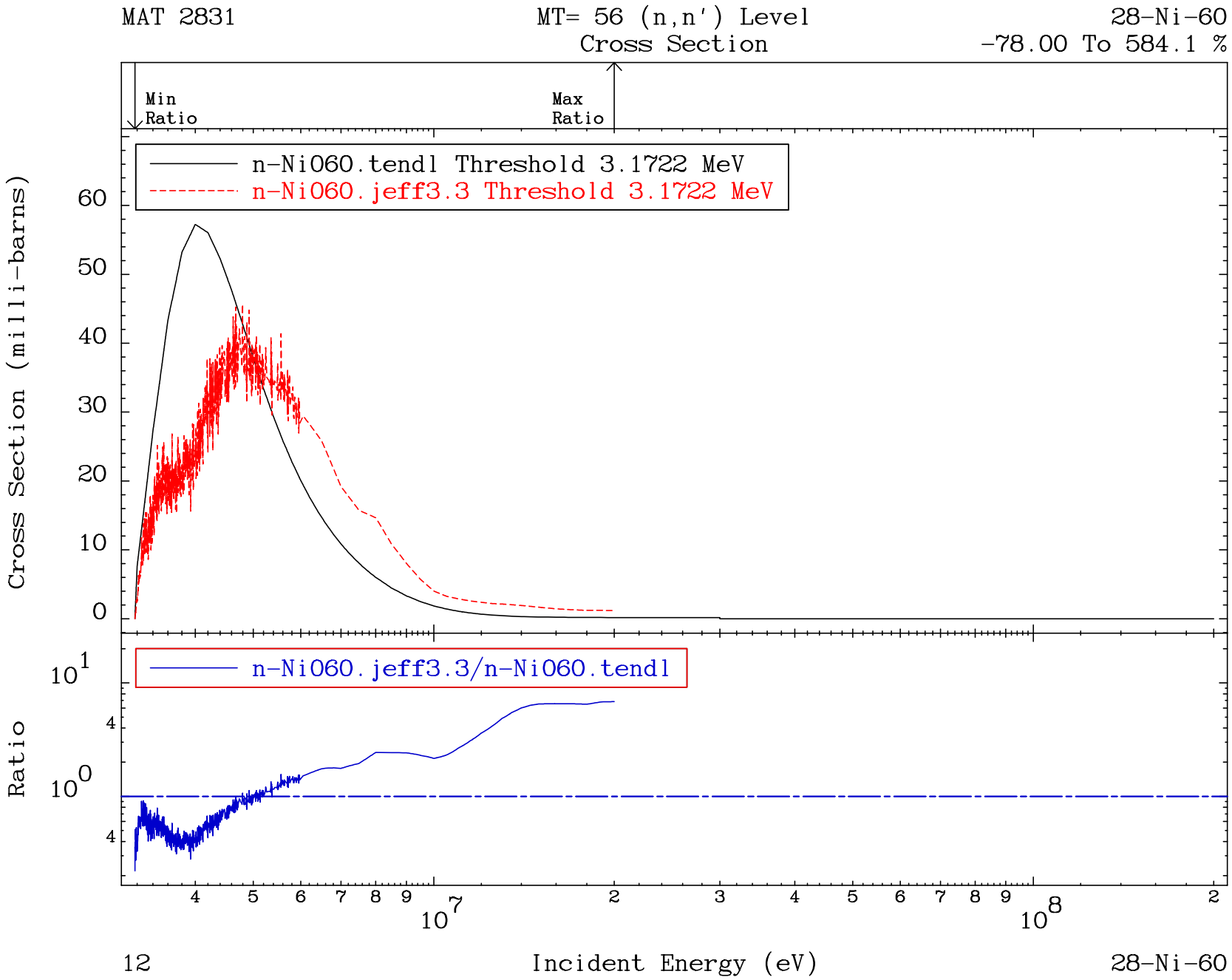

MAT 2831
MT= 51 (n,n') Level
Cross Section
28-Ni-60
-91.67 To 719.1 %
Min
Ratio
n-Ni060.tendl Threshold 1.3549 MeV
n-Ni060.jeff3.3 Threshold 1.3555 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^1
10^0
10^-1
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
7
Incident Energy (eV)
28-Ni-60

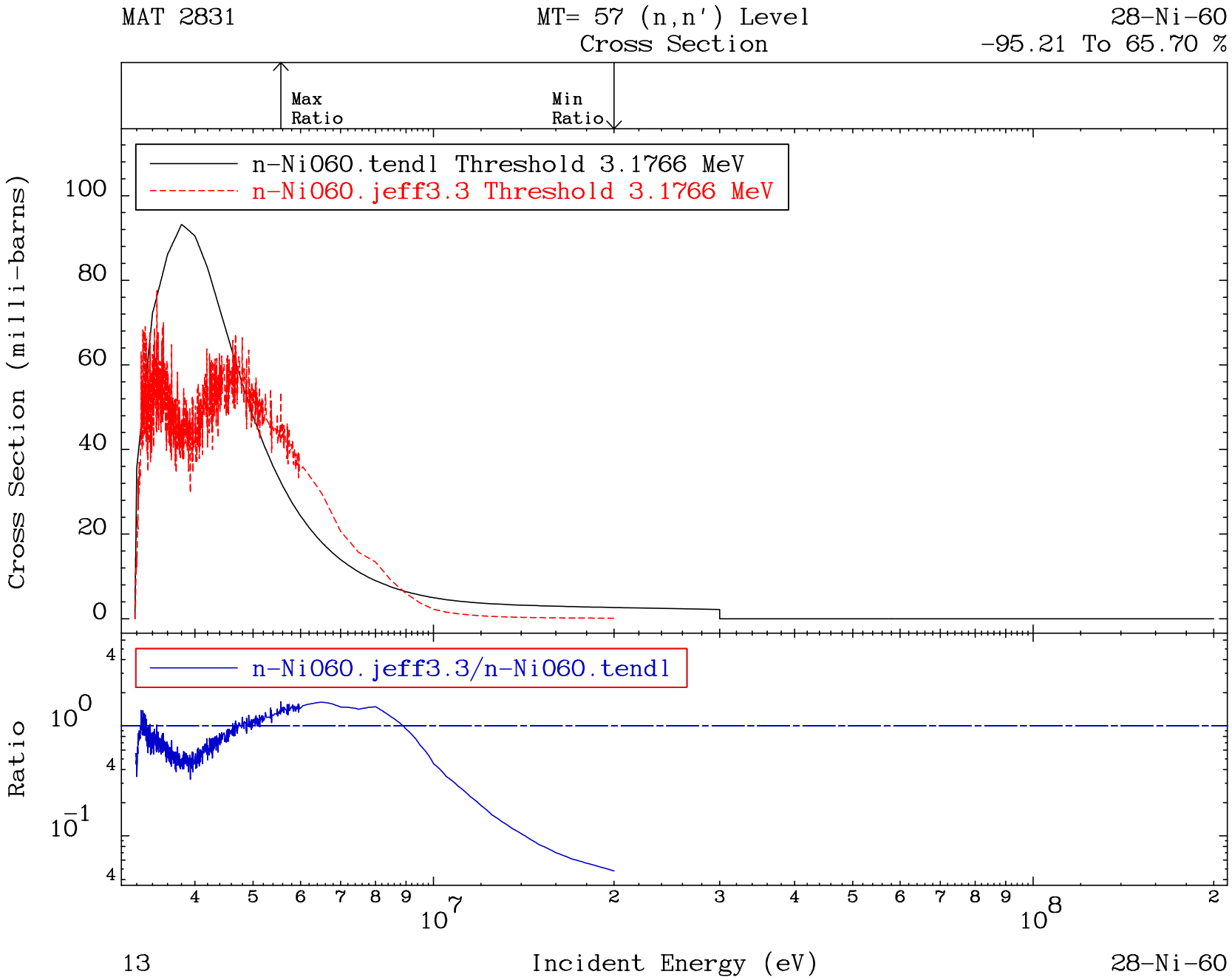

MAT 2831
MT= 52 (n,n') Level
Cross Section
28-Ni-60
-99.97 To 71.71 %
Max
Ratio
Min
Ratio
n-Ni060.tendl Threshold 2.1950 MeV
n-Ni060.jeff3.3 Threshold 2.1954 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^0
10^-2
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
8
28-Ni-60

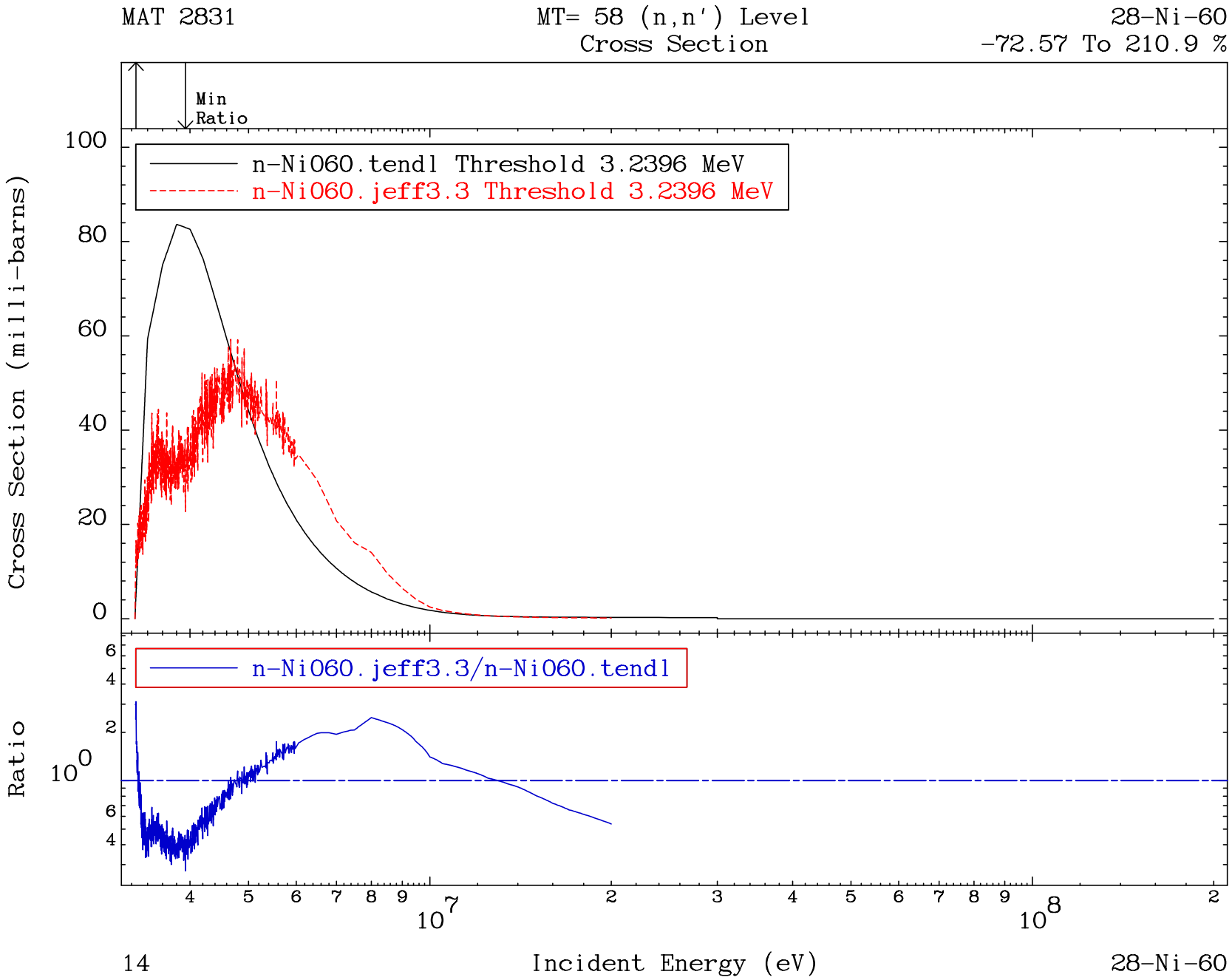

MAT 2831
MT= 53 (n,n') Level
Cross Section
28-Ni-60
-88.81 To 155.0 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 2.3233 MeV
n-Ni060.jeff3.3 Threshold 2.3233 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
6
10^0
6
10^{-1}
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
9
Incident Energy (eV)
28-Ni-60

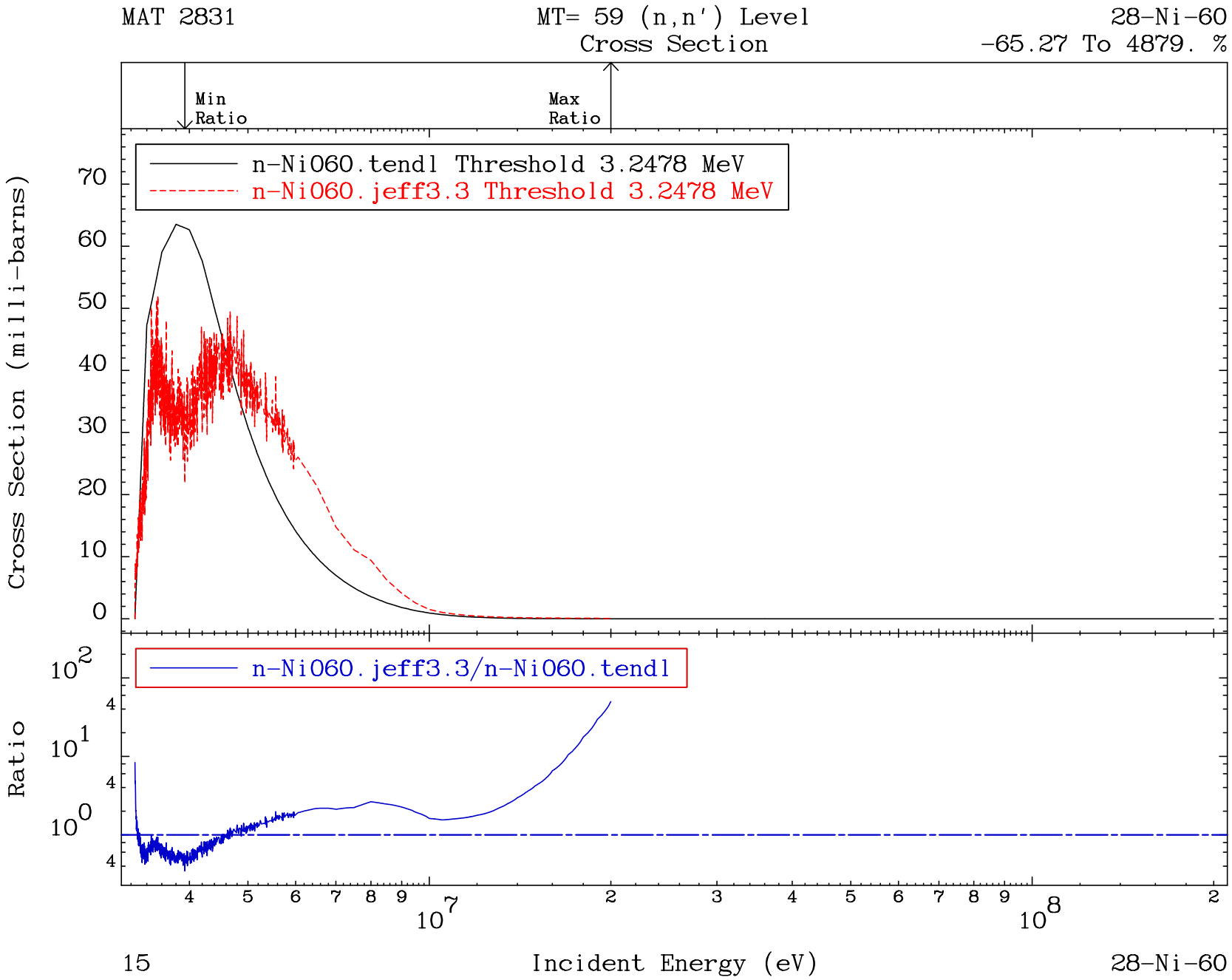

MAT 2831
MT= 54 (n,n') Level
Cross Section
28-Ni-60
-92.95 To 93.44 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 2.5479 MeV
n-Ni060.jeff3.3 Threshold 2.5482 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
4
10^{0}
4
10^{-1}
3 4 5 6 7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
10
Incident Energy (eV)
28-Ni-60

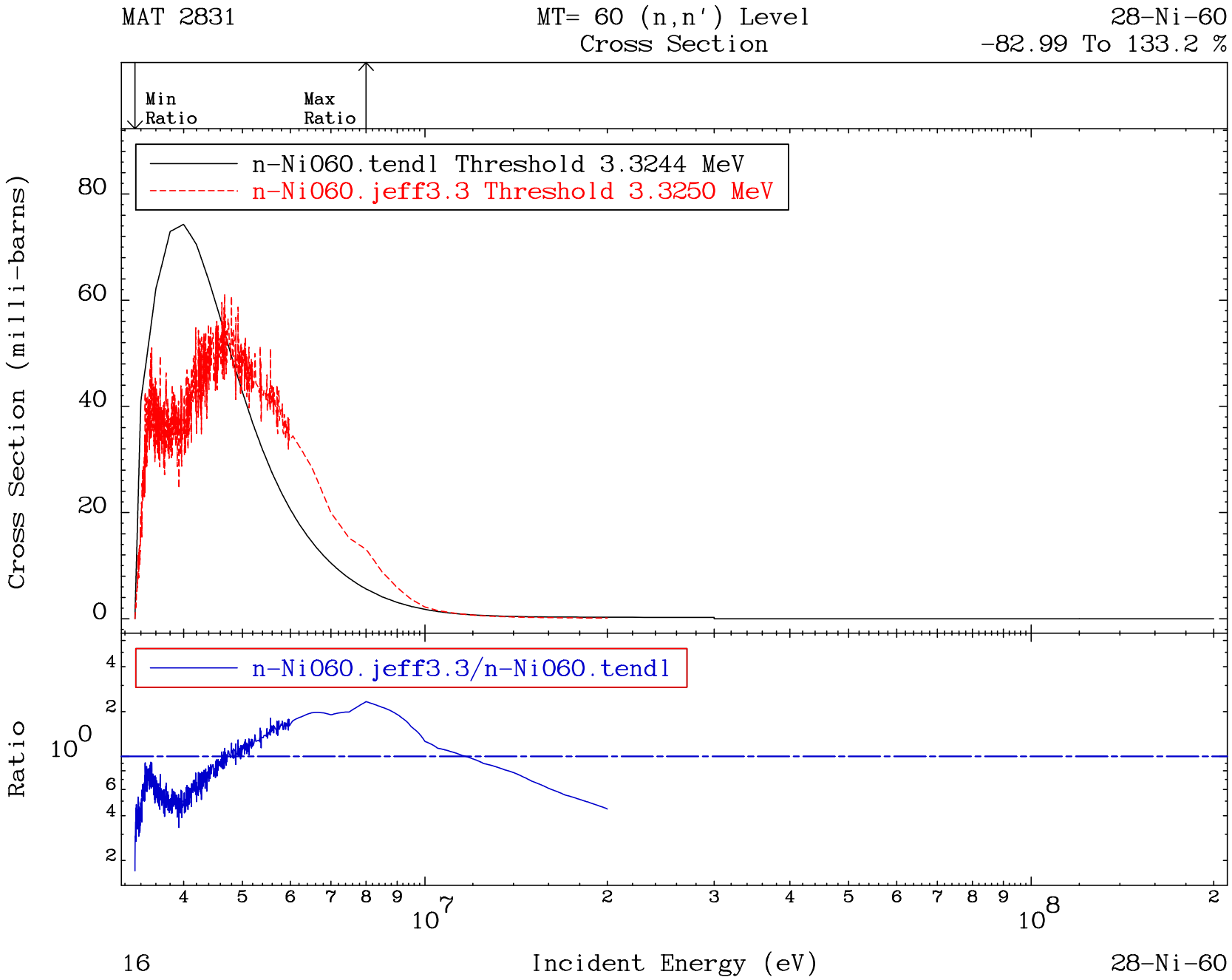

MAT 2831
MT= 55 (n,n') Level
Cross Section
28-Ni-60
-62.91 To 125.4 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 2.6703 MeV
n-Ni060.jeff3.3 Threshold 2.6703 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
2.0
1.0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
11
Incident Energy (eV)
28-Ni-60

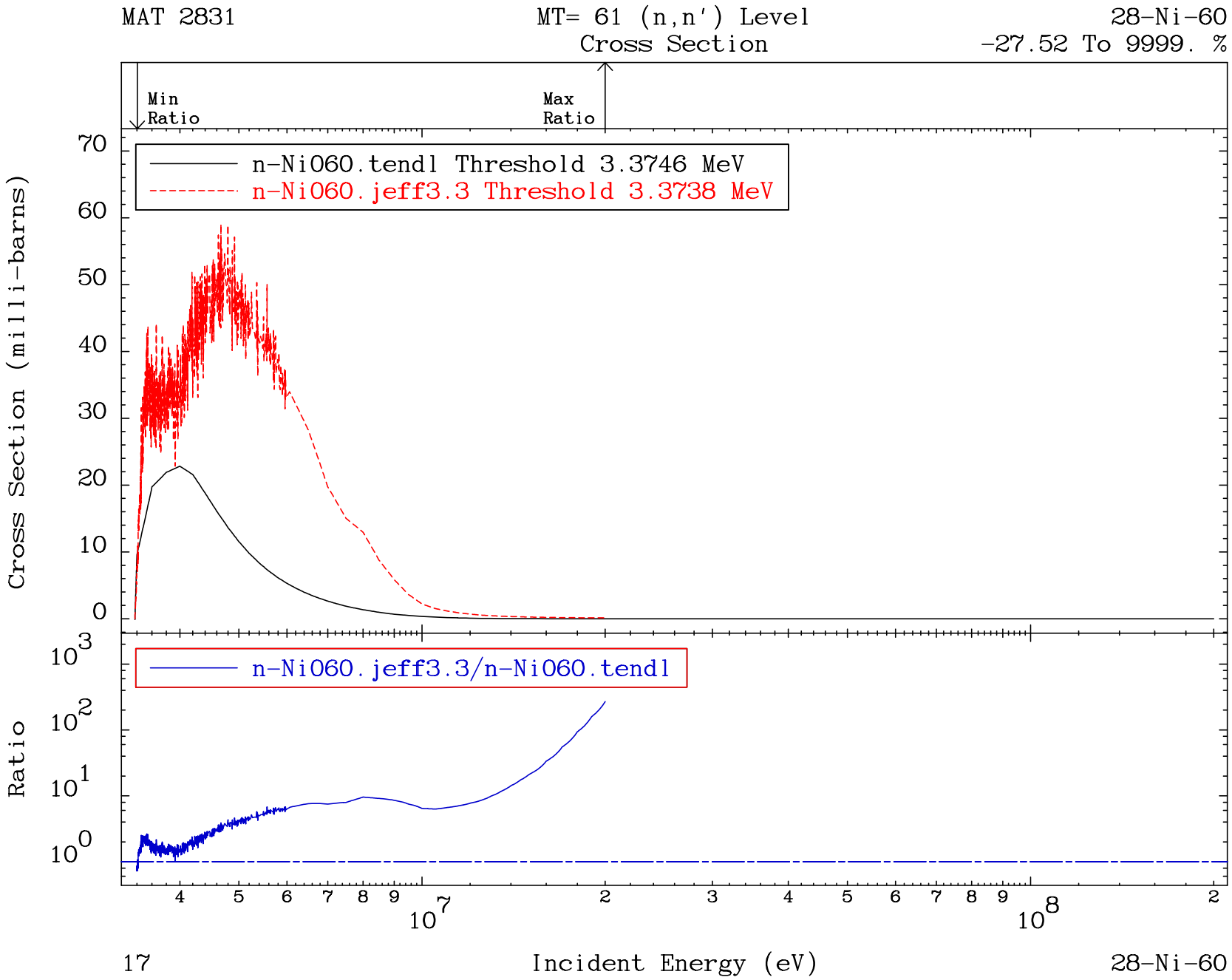

MAT 2831
MT= 56 (n,n') Level
Cross Section
28-Ni-60
-78.00 To 584.1 %
Min
Ratio
Max
Ratio
n-Ni060.tendl Threshold 3.1722 MeV
n-Ni060.jeff3.3 Threshold 3.1722 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^1
10^0
4
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
12
Incident Energy (eV)
28-Ni-60

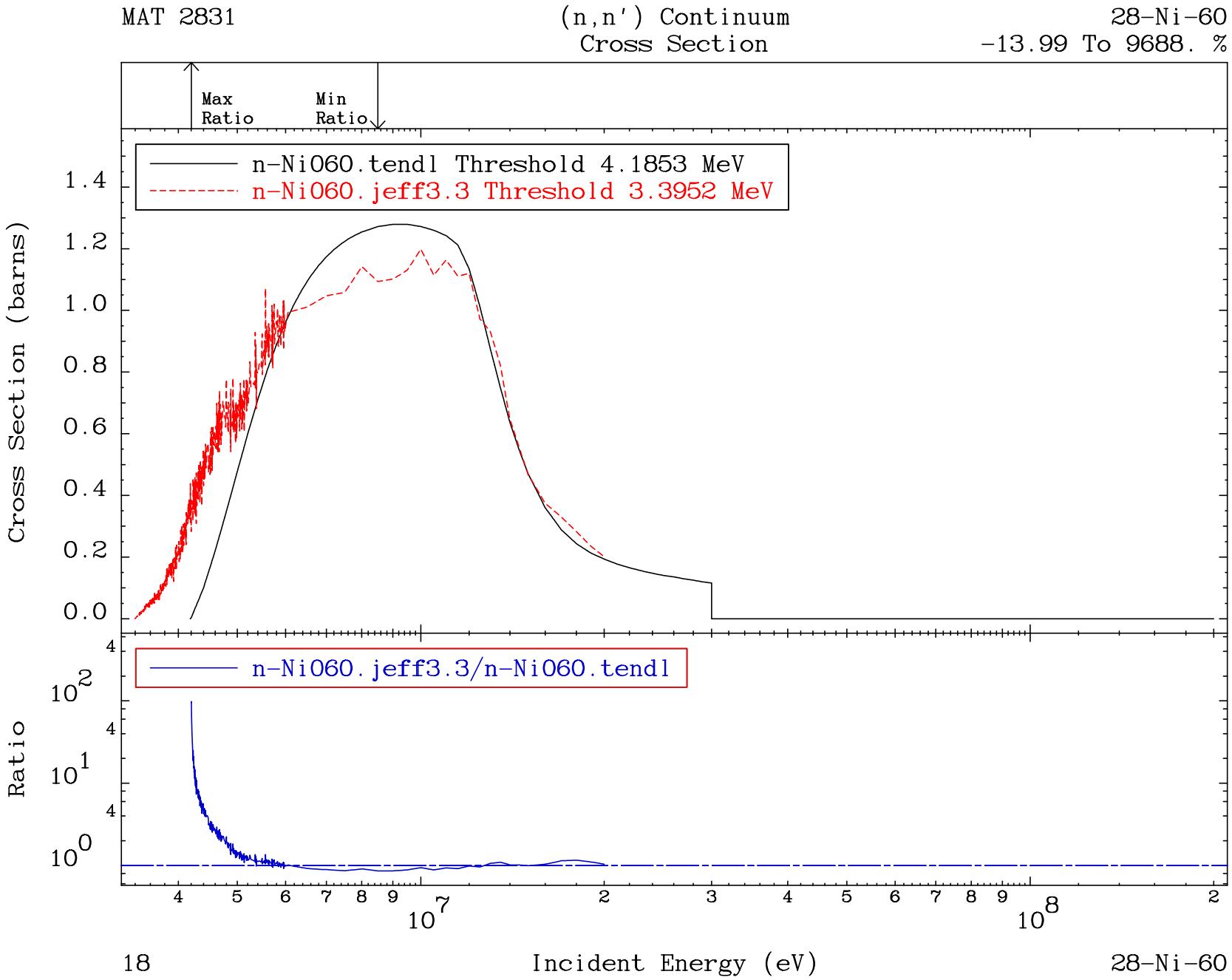

MAT 2831
MT= 57 (n,n') Level
Cross Section
28-Ni-60
-95.21 To 65.70 %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 3.1766 MeV
n-Ni060.jeff3.3 Threshold 3.1766 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^0
10^-1
4
4
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
13
Incident Energy (eV)
28-Ni-60

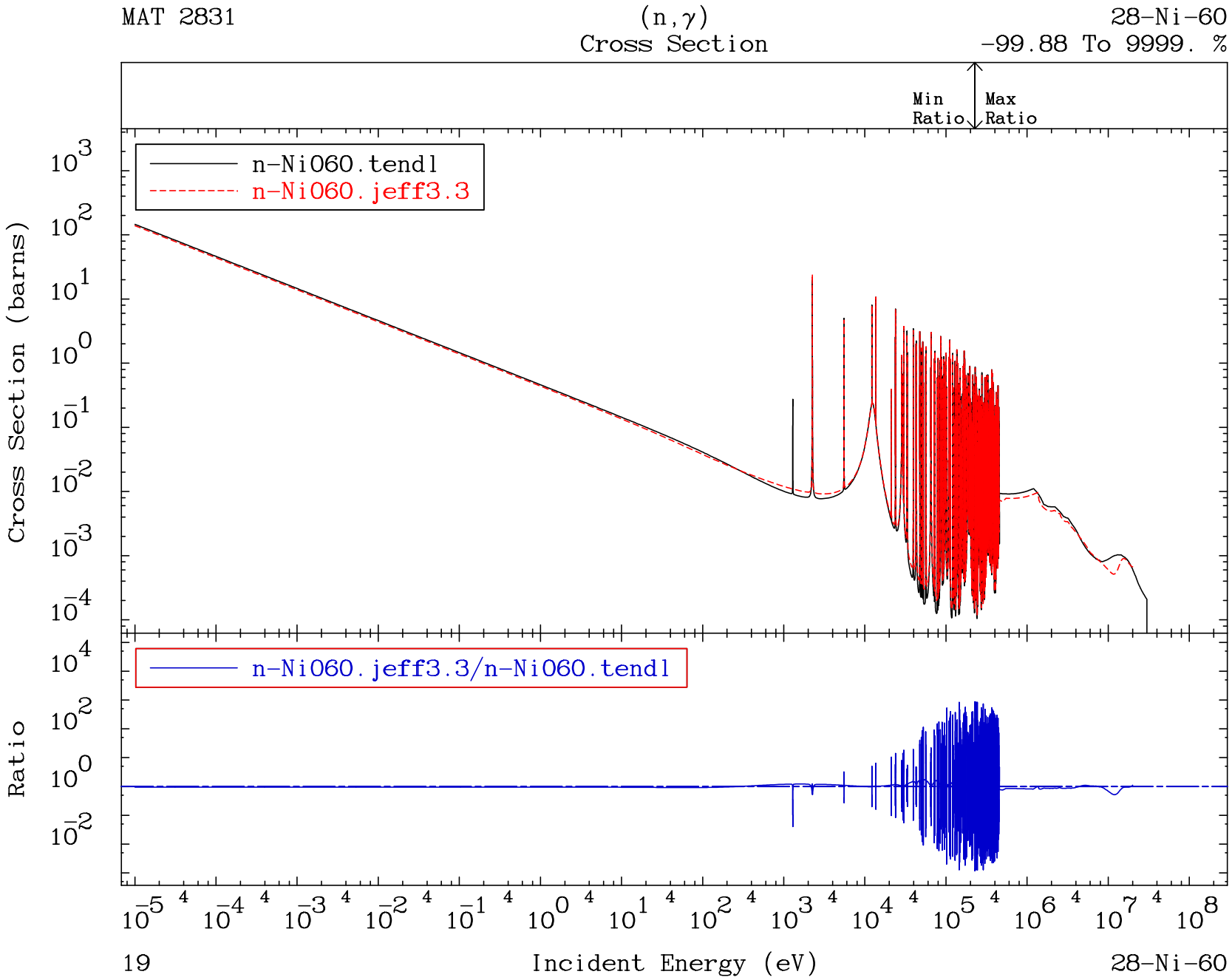

MAT 2831
MT= 58 (n,n') Level
Cross Section
28-Ni-60
-72.57 To 210.9 %
Min
Ratio
n-Ni060.tendl Threshold 3.2396 MeV
n-Ni060.jeff3.3 Threshold 3.2396 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
6
4
2
10^0
6
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
14
Incident Energy (eV)
28-Ni-60

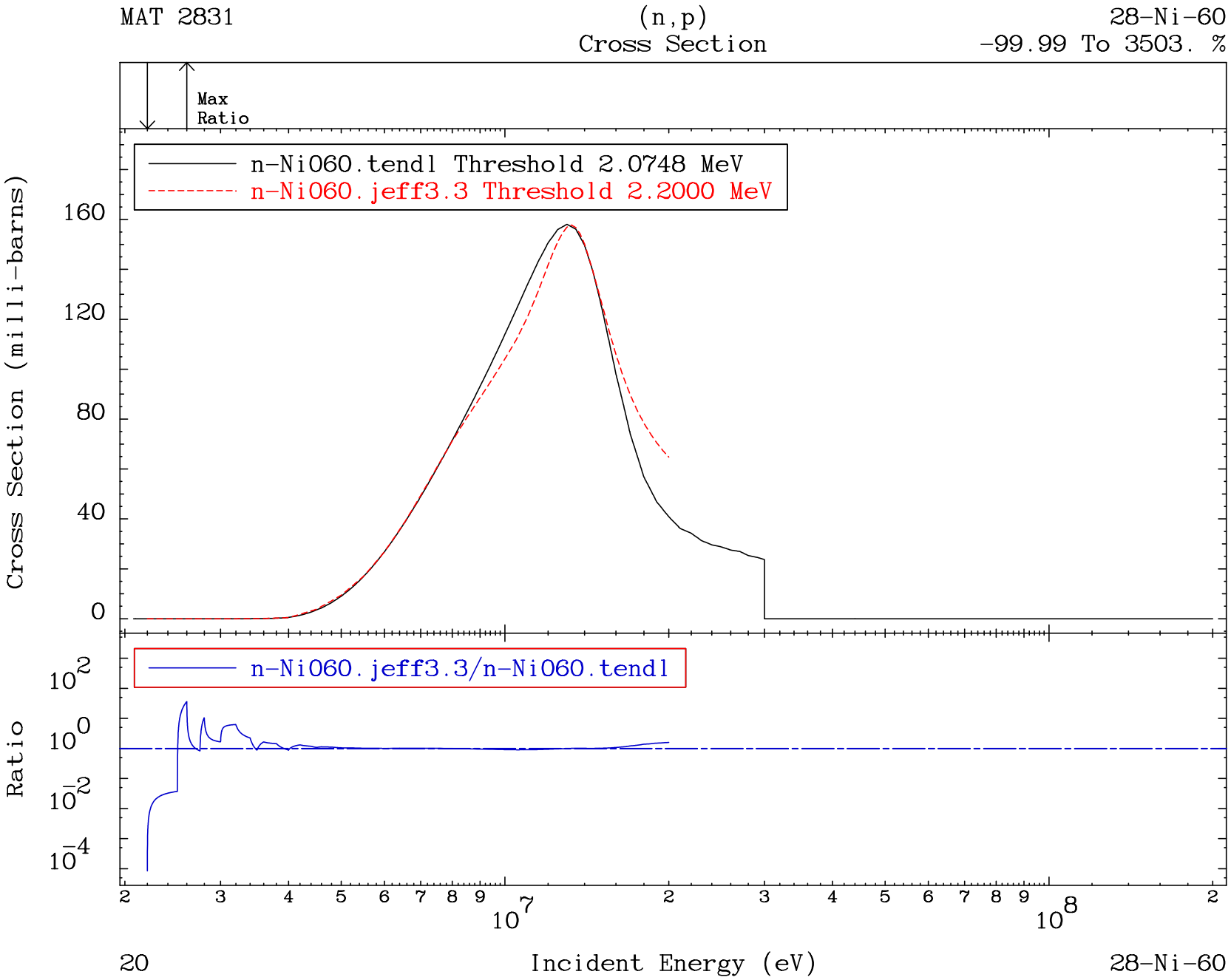

MAT 2831
MT= 59 (n,n') Level
Cross Section
28-Ni-60
-65.27 To 4879. %
Min
Ratio
Max
Ratio
n-Ni060.tendl Threshold 3.2478 MeV
n-Ni060.jeff3.3 Threshold 3.2478 MeV
Cross Section (milli-barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
15
28-Ni-60

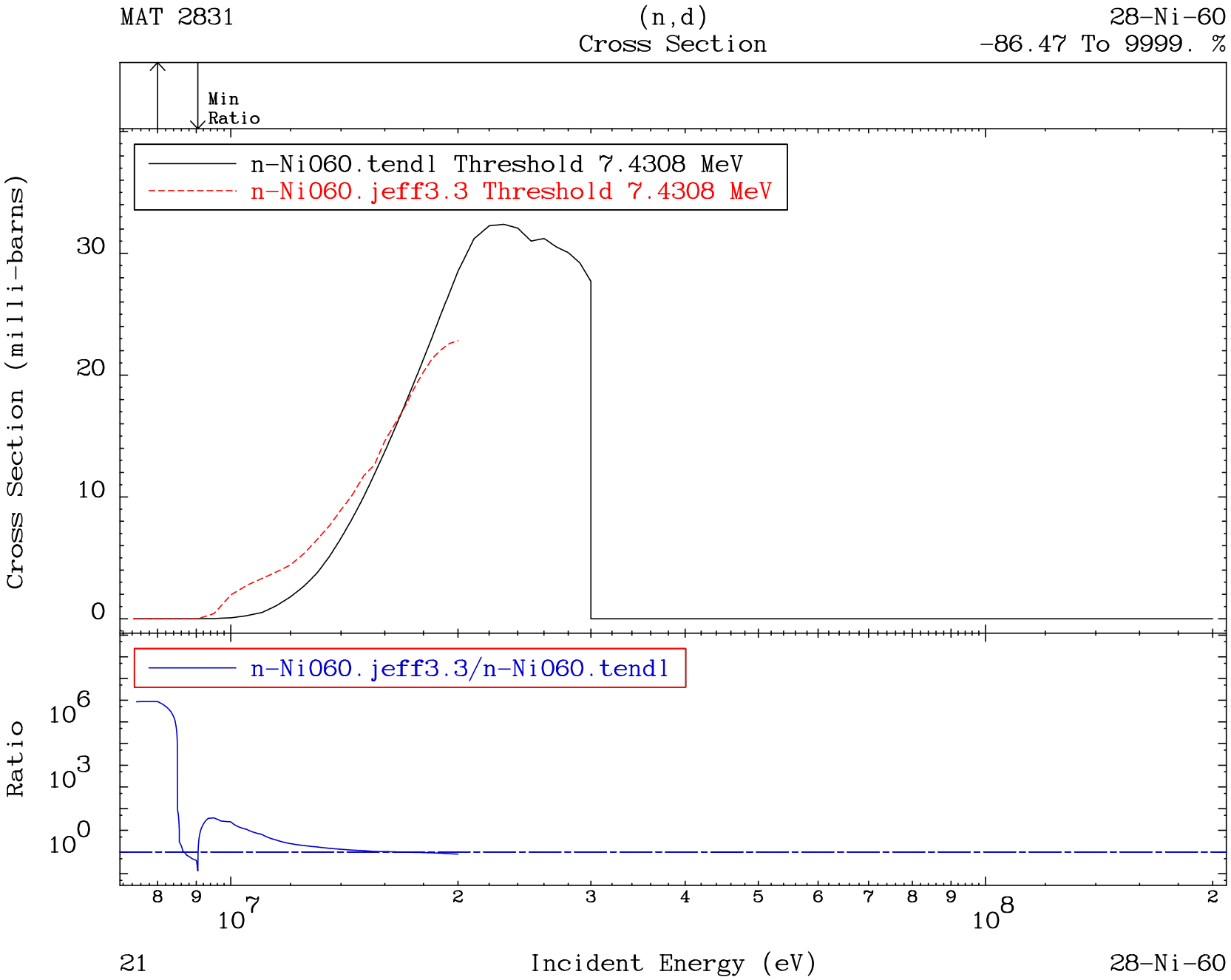

MAT 2831
MT= 60 (n,n') Level
Cross Section
28-Ni-60
-82.99 To 133.2 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 3.3244 MeV
n-Ni060.jeff3.3 Threshold 3.3250 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
4
2
10^0
6
4
2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
28-Ni-60

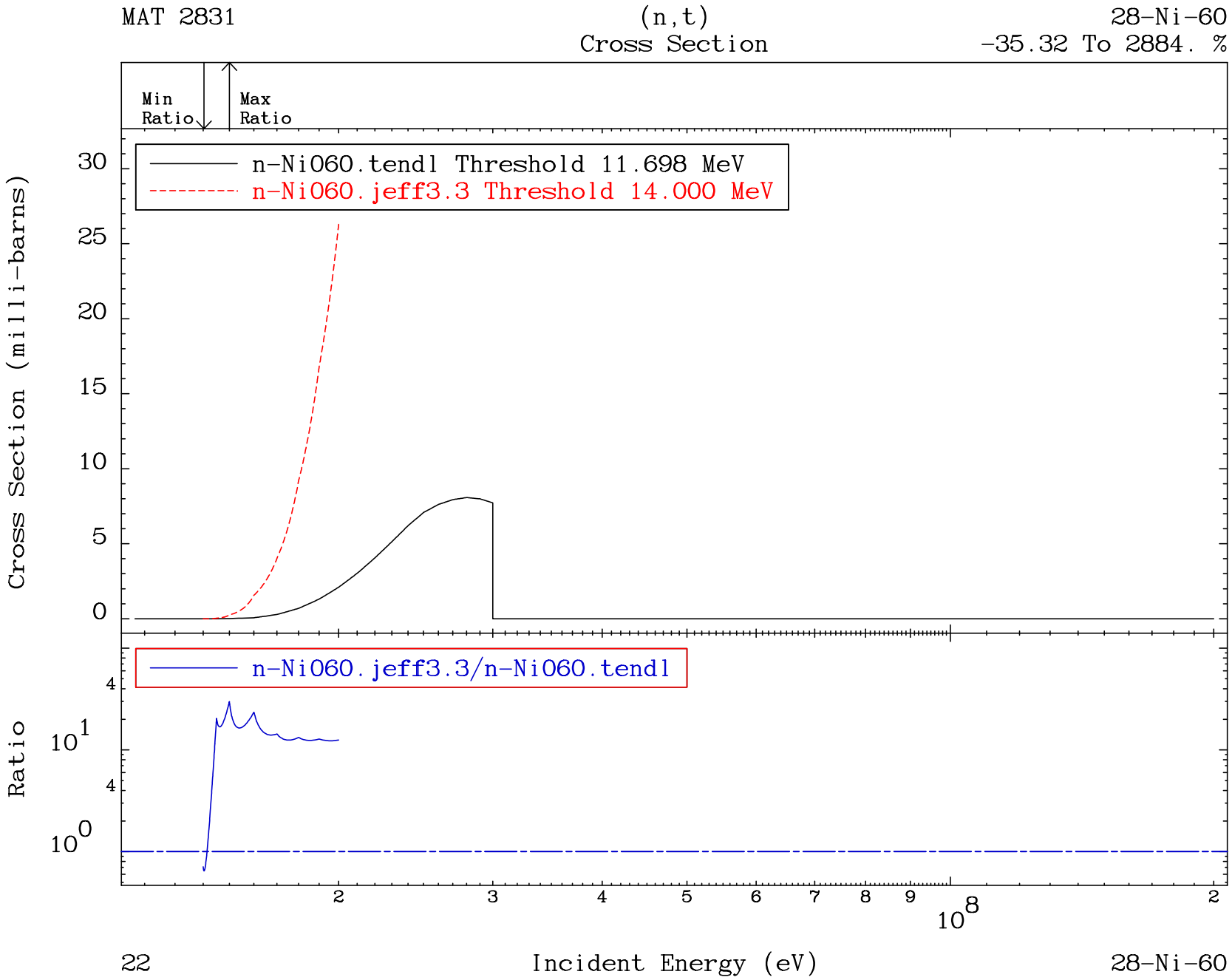

MAT 2831
MT= 61 (n,n') Level
Cross Section
28-Ni-60
-27.52 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 3.3746 MeV
n-Ni060.jeff3.3 Threshold 3.3738 MeV
Cross Section (milli-barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
17
28-Ni-60

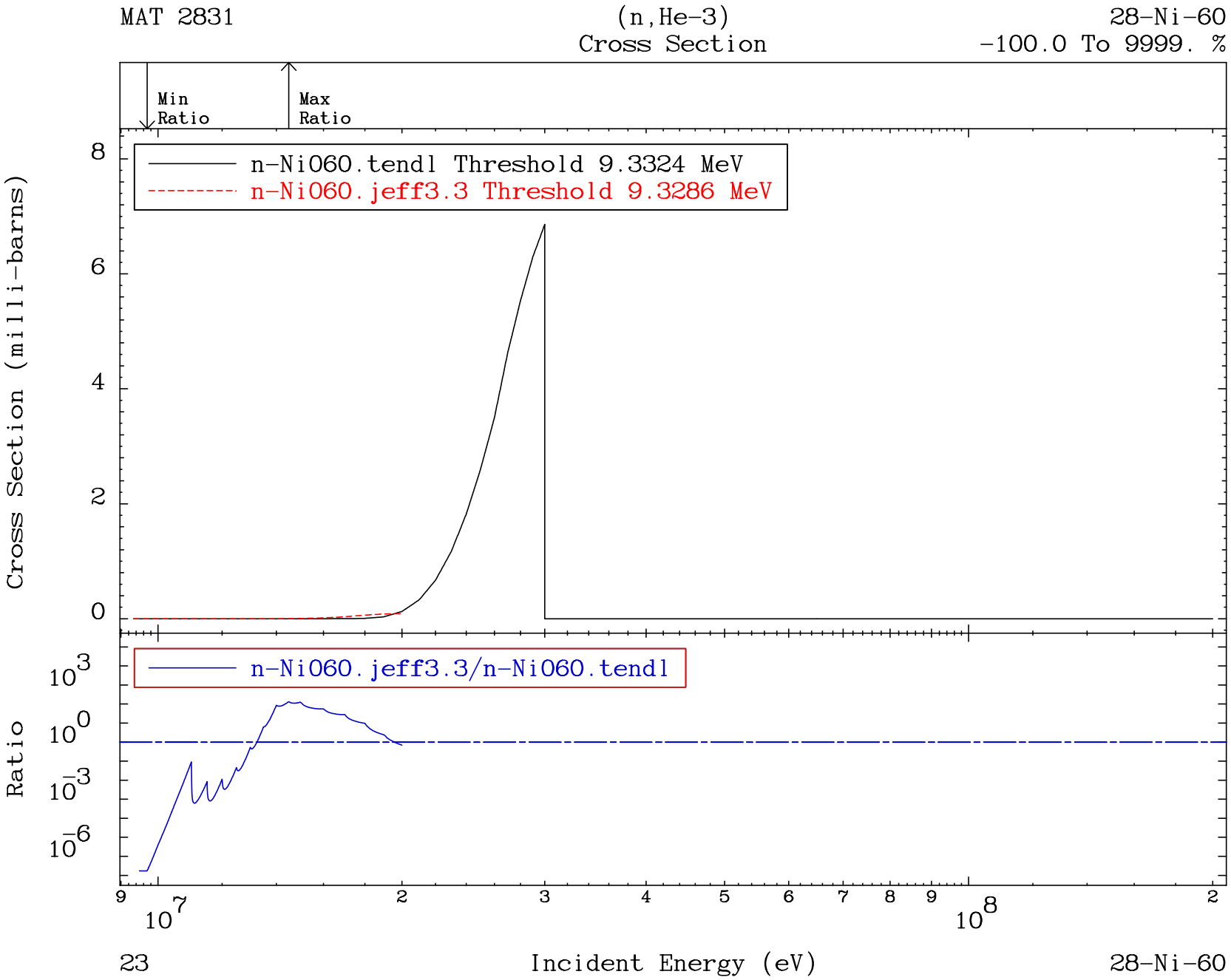

MAT 2831
(n,n') Continuum
Cross Section
28-Ni-60
-13.99 To 9688. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 4.1853 MeV
n-Ni060.jeff3.3 Threshold 3.3952 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^2
10^1
10^0
4
4
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
28-Ni-60

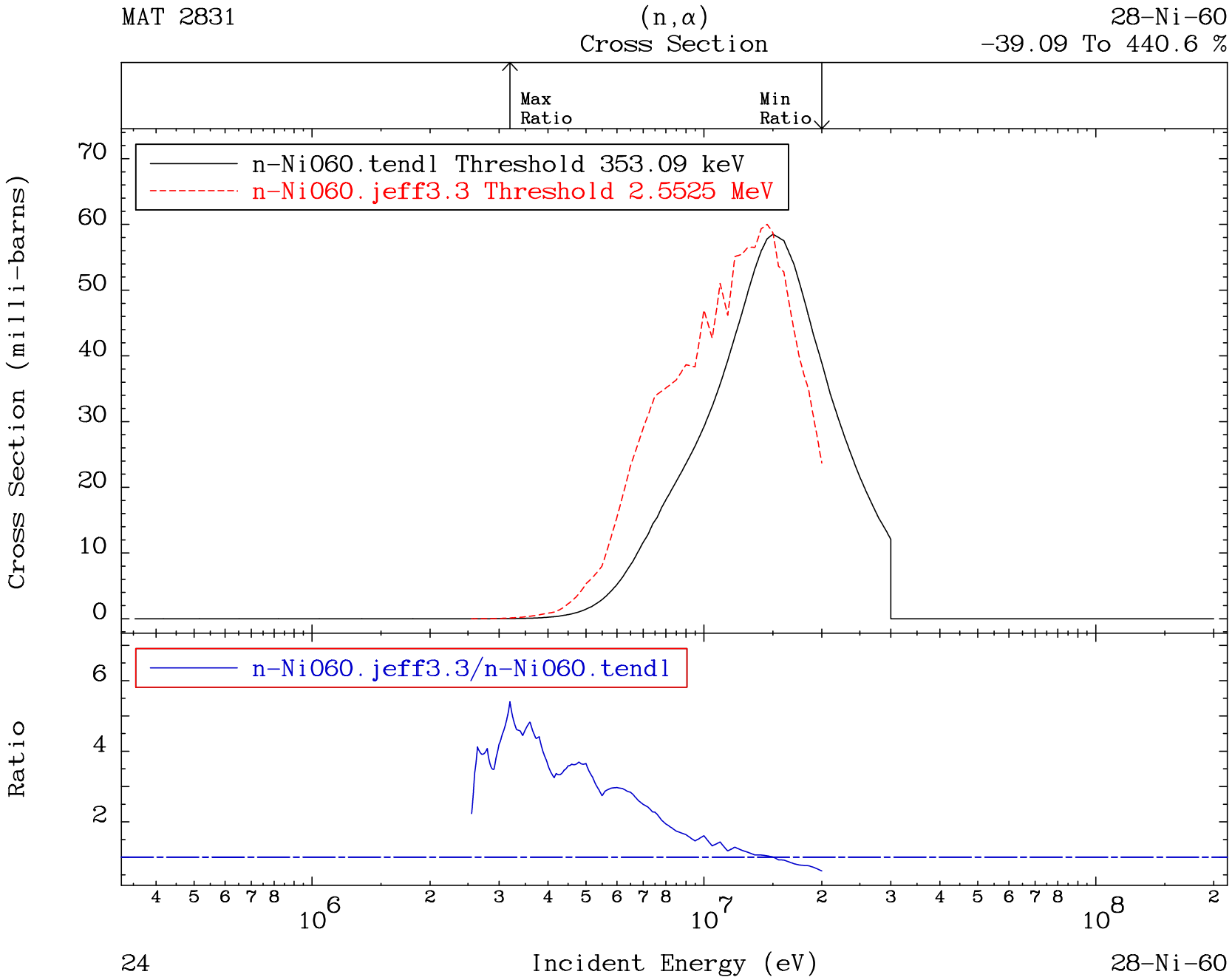

MAT 2831
(n,γ)
Cross Section
28-Ni-60
-99.88 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
19
28-Ni-60

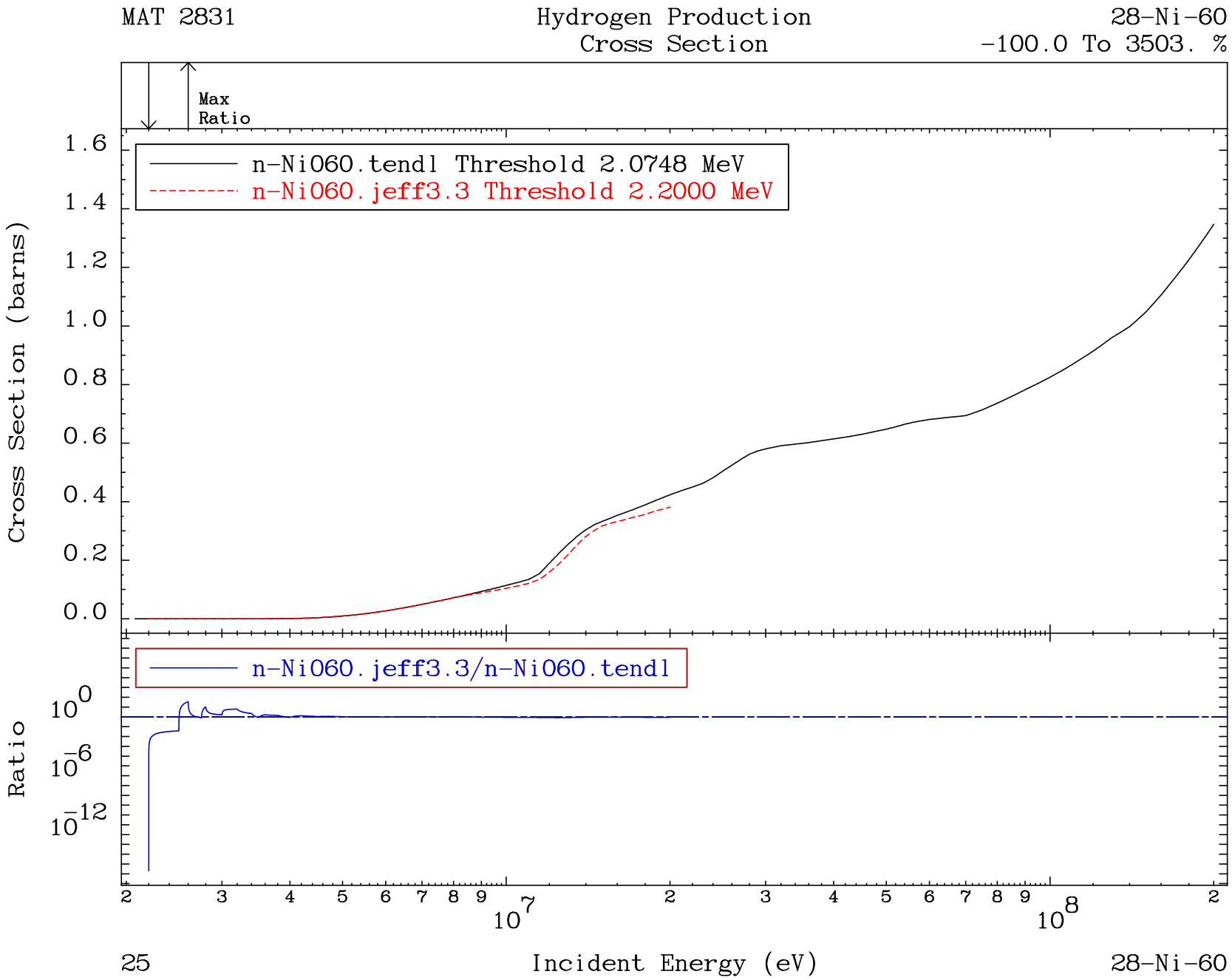

MAT 2831
(n,p)
Cross Section
28-Ni-60
-99.99 To 3503. %
Max
Ratio
n-Ni060.tendl Threshold 2.0748 MeV
n-Ni060.jeff3.3 Threshold 2.2000 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^2
10^0
10^-2
10^-4
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
28-Ni-60

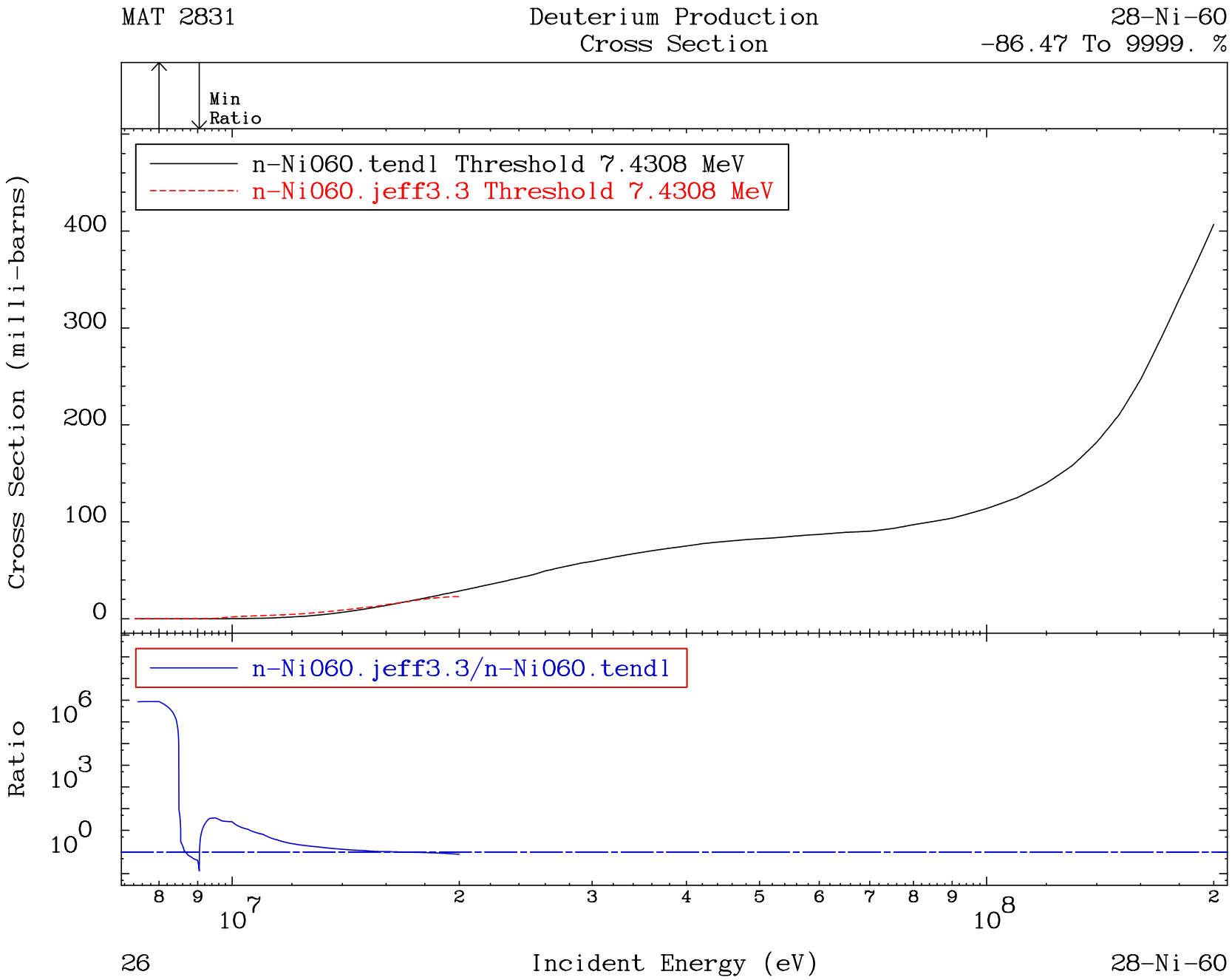

MAT 2831
(n,d)
Cross Section
28-Ni-60
-86.47 To 9999. %
Min
Ratio
n-Ni060.tendl Threshold 7.4308 MeV
n-Ni060.jeff3.3 Threshold 7.4308 MeV
Cross Section (milli-barns)
30
20
10
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^6
10^3
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
28-Ni-60

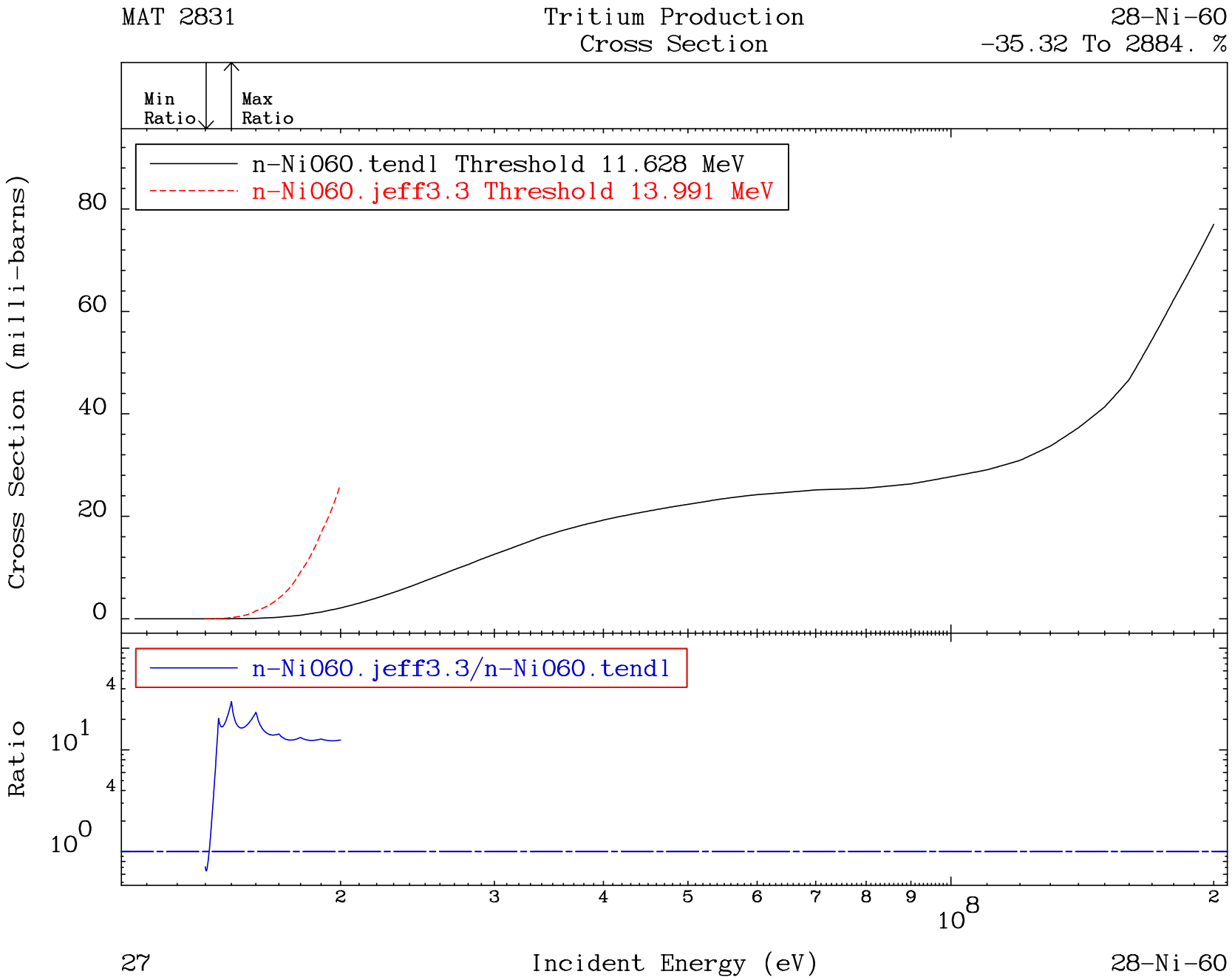

MAT 2831
(n,t)
Cross Section
28-Ni-60
-35.32 To 2884. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 11.698 MeV
n-Ni060.jeff3.3 Threshold 14.000 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^1
4
10^0
4
2
3
4
5
6
7
8
9
10^8
2
22
Incident Energy (eV)
28-Ni-60

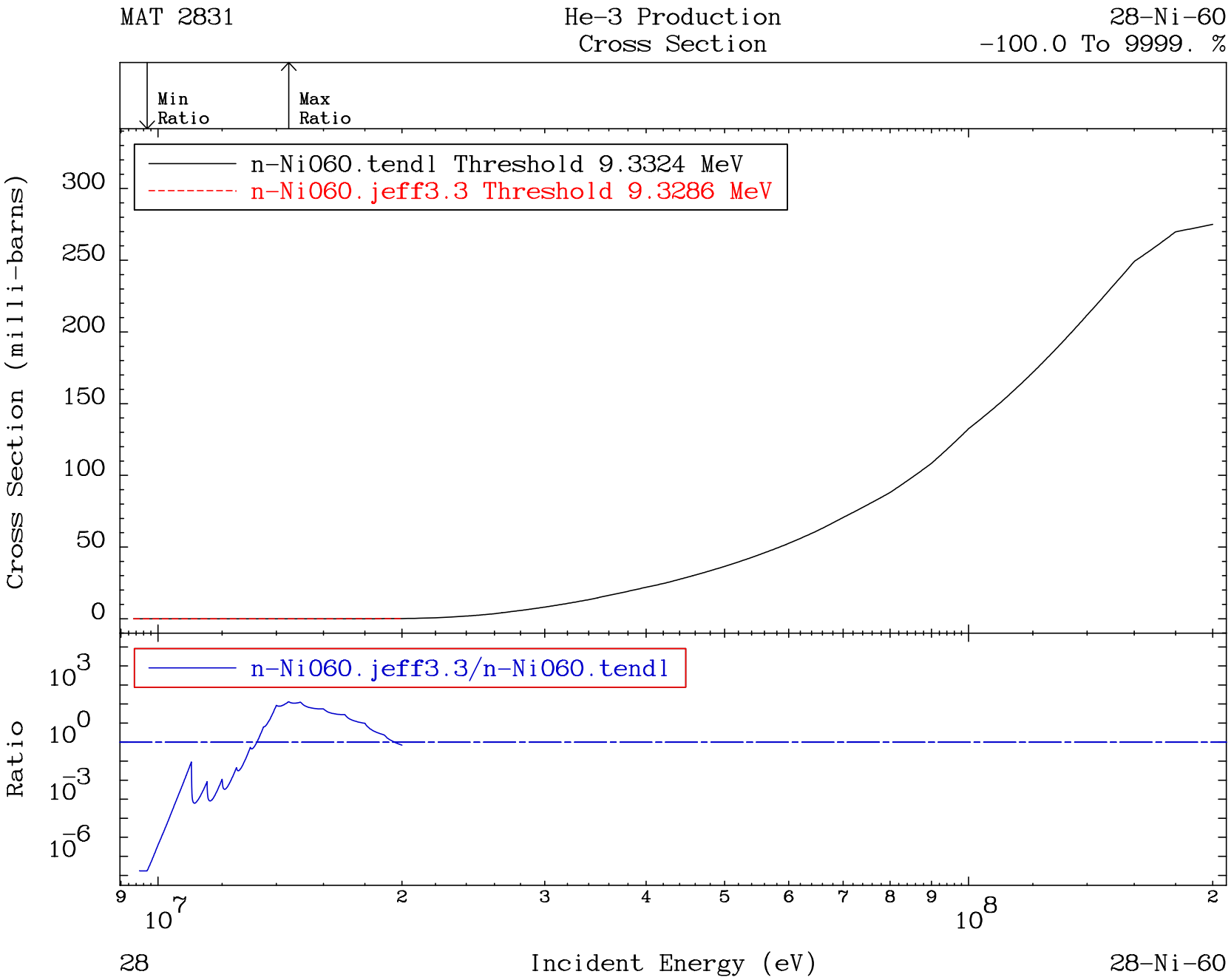

MAT 2831
(n,He-3)
Cross Section
28-Ni-60
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 9.3324 MeV
n-Ni060.jeff3.3 Threshold 9.3286 MeV
Cross Section (milli-barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
23
28-Ni-60

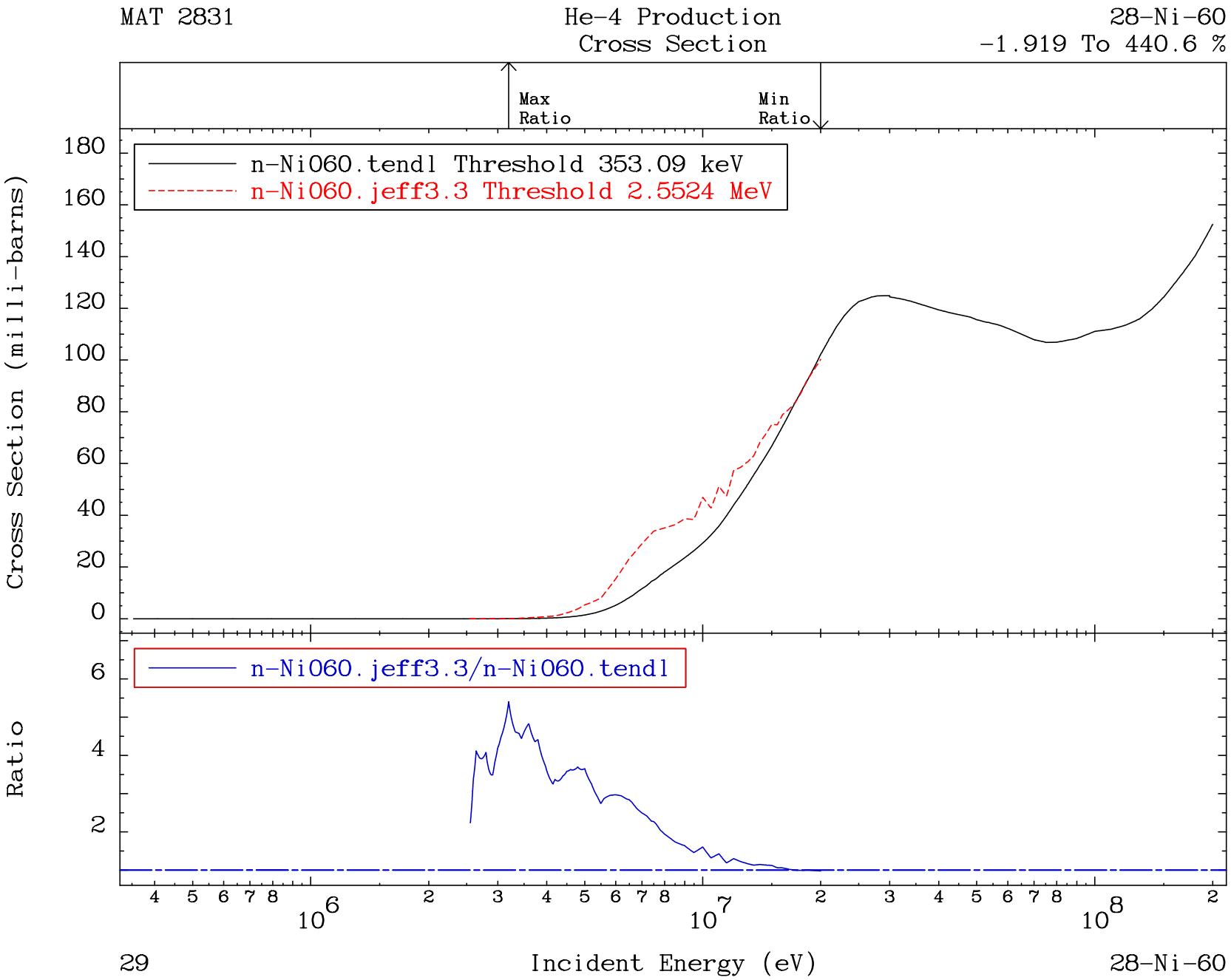

MAT 2831
(n,α)
Cross Section
28-Ni-60
-39.09 To 440.6 %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 353.09 keV
n-Ni060.jeff3.3 Threshold 2.5525 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
6
4
2
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
24
Incident Energy (eV)
28-Ni-60

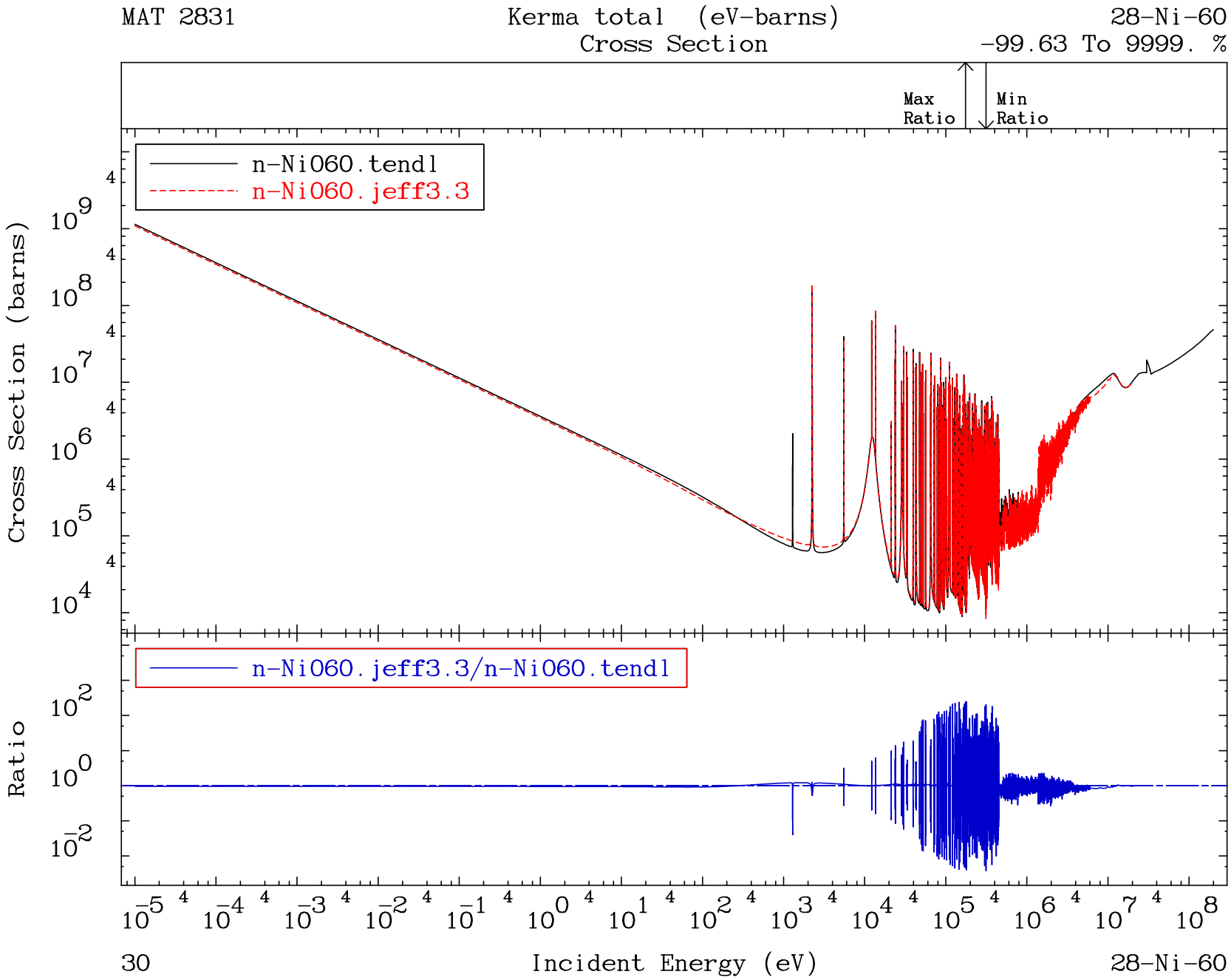

MAT 2831
Hydrogen Production
Cross Section
28-Ni-60
-100.0 To 3503. %
Max
Ratio
n-Ni060.tendl Threshold 2.0748 MeV
n-Ni060.jeff3.3 Threshold 2.2000 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^0
10^-6
10^-12
2
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
25
Incident Energy (eV)
28-Ni-60

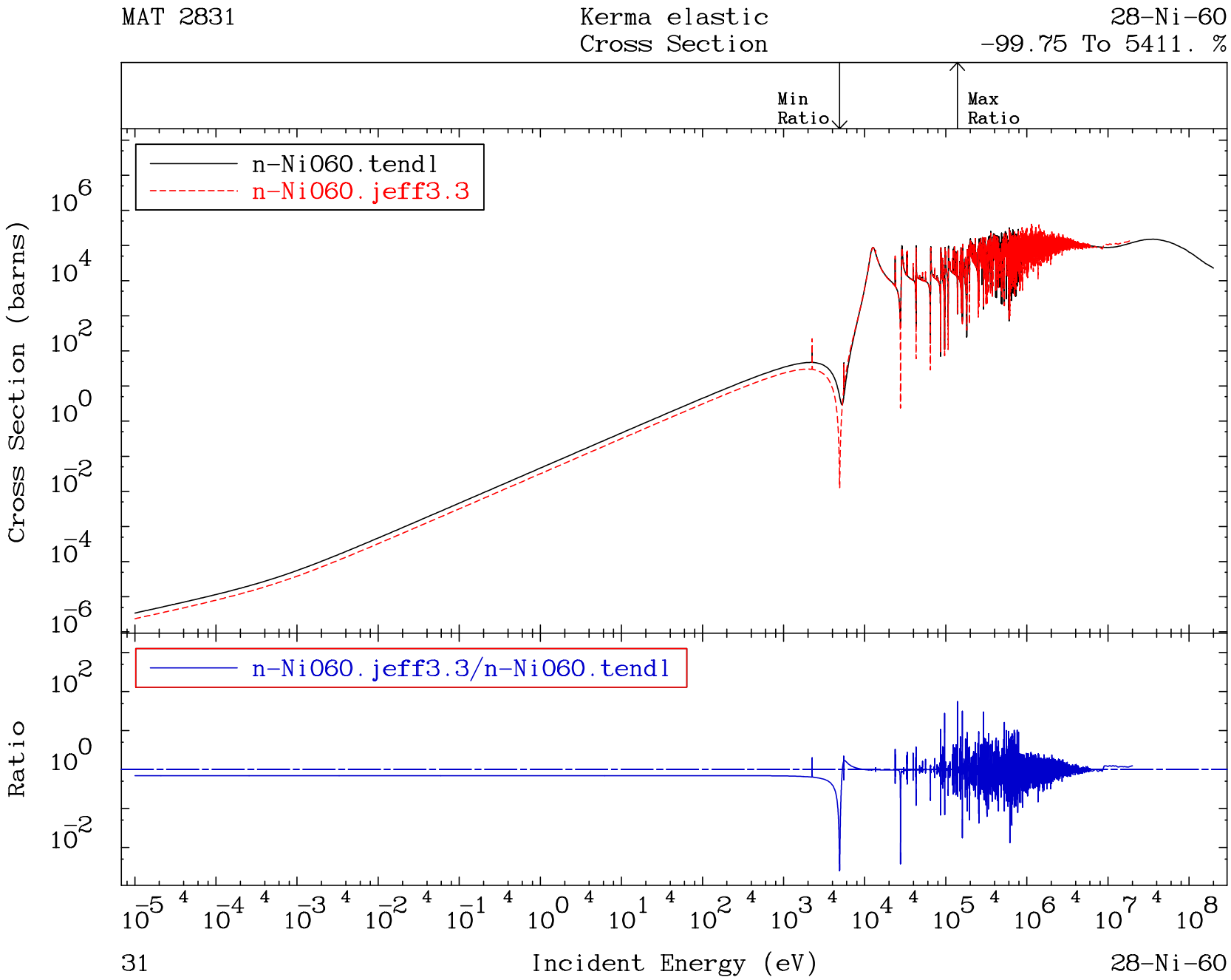

MAT 2831
Deuterium Production
Cross Section
28-Ni-60
-86.47 To 9999. %
Min
Ratio
n-Ni060.tendl Threshold 7.4308 MeV
n-Ni060.jeff3.3 Threshold 7.4308 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^6
10^3
10^0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
28-Ni-60

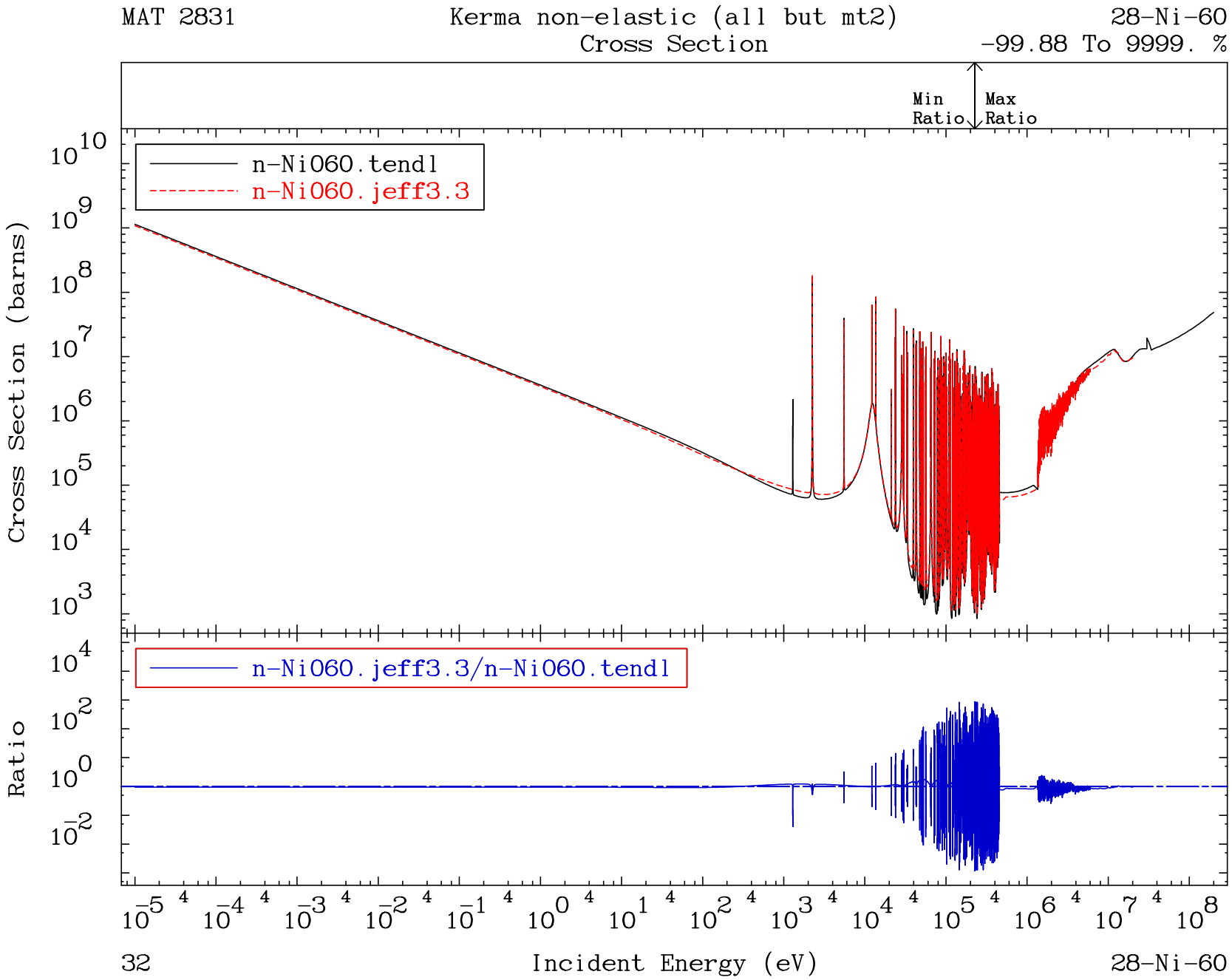

MAT 2831
Tritium Production
Cross Section
28-Ni-60
-35.32 To 2884. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 11.628 MeV
n-Ni060.jeff3.3 Threshold 13.991 MeV
Cross Section (milli-barns)
0
20
40
60
80
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^0
4
10^1
4
2
3
4
5
6
7
8
9
10^8
2
27
Incident Energy (eV)
28-Ni-60

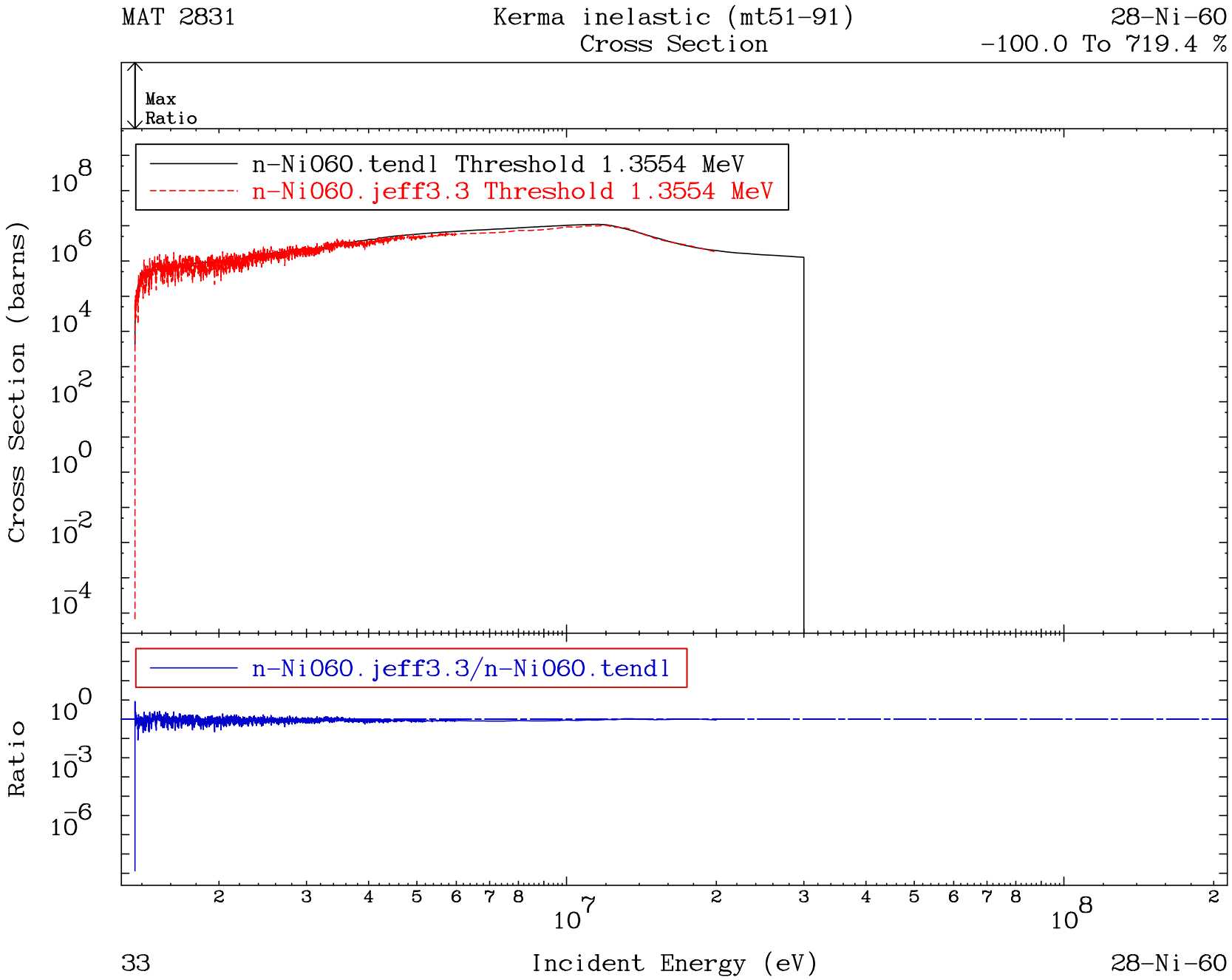

MAT 2831
He-3 Production
Cross Section
28-Ni-60
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 9.3324 MeV
n-Ni060.jeff3.3 Threshold 9.3286 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^3
10^0
10^-3
10^-6
9
10^7
2
3
4
5
6
7
8
9
10^8
2
28
Incident Energy (eV)
28-Ni-60

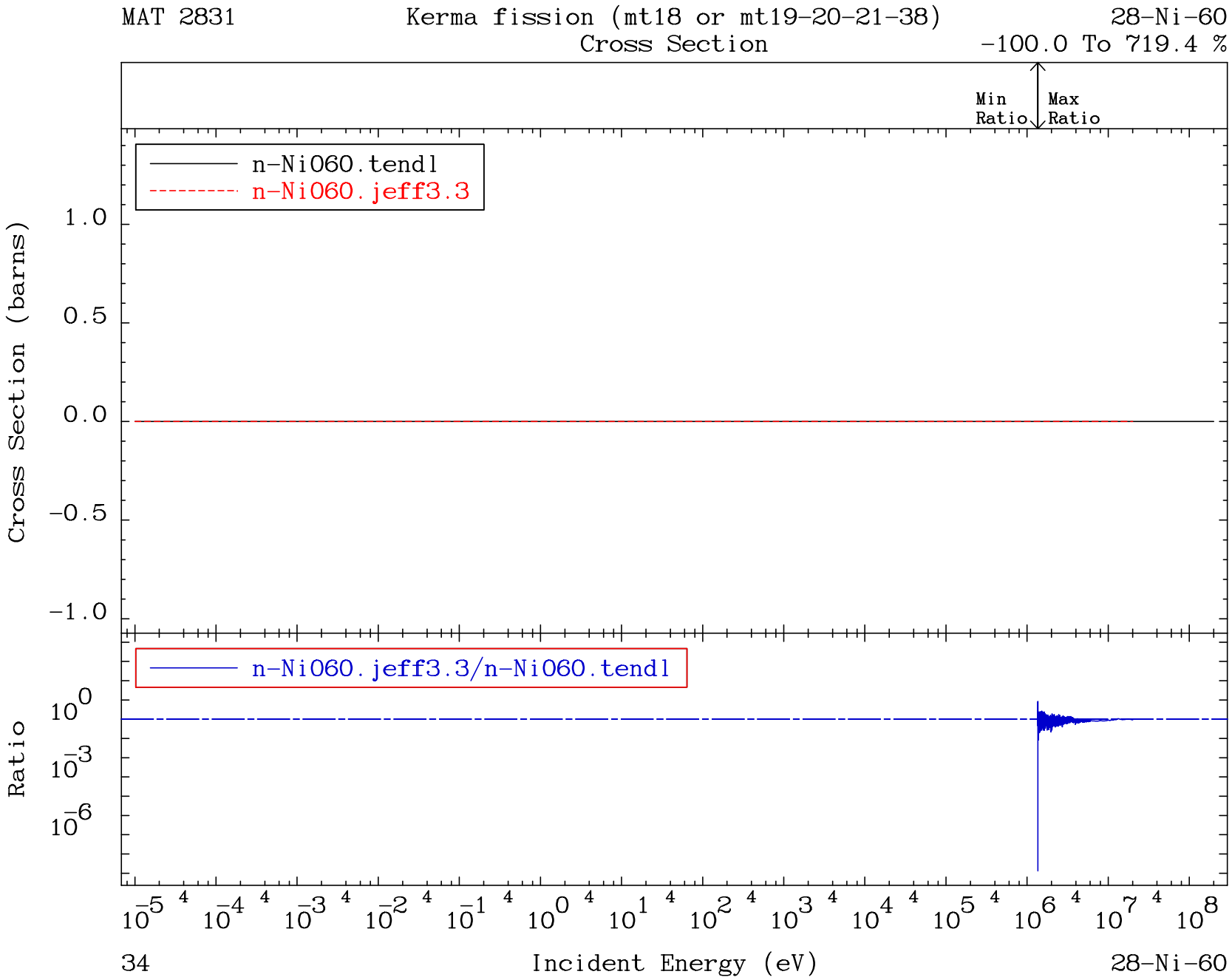

MAT 2831
He-4 Production
Cross Section
28-Ni-60
-1.919 To 440.6 %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 353.09 keV
n-Ni060.jeff3.3 Threshold 2.5524 MeV
Cross Section (milli-barns)
180
160
140
120
100
80
60
40
20
0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
6
4
2
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
29
Incident Energy (eV)
28-Ni-60

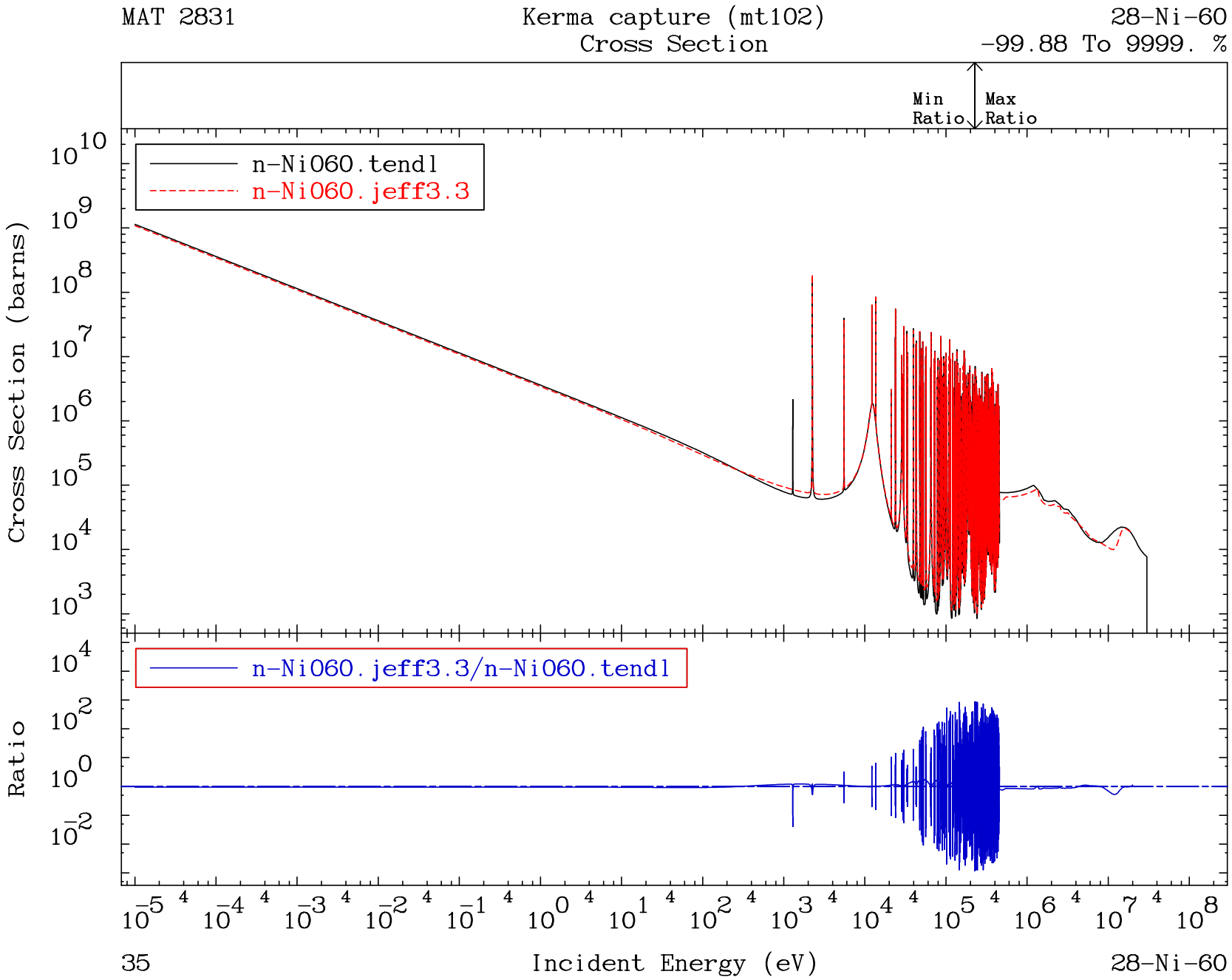

MAT 2831
Kerma total (eV-barns)
Cross Section
28-Ni-60
-99.63 To 9999. %
Max Ratio
Min Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
30
28-Ni-60

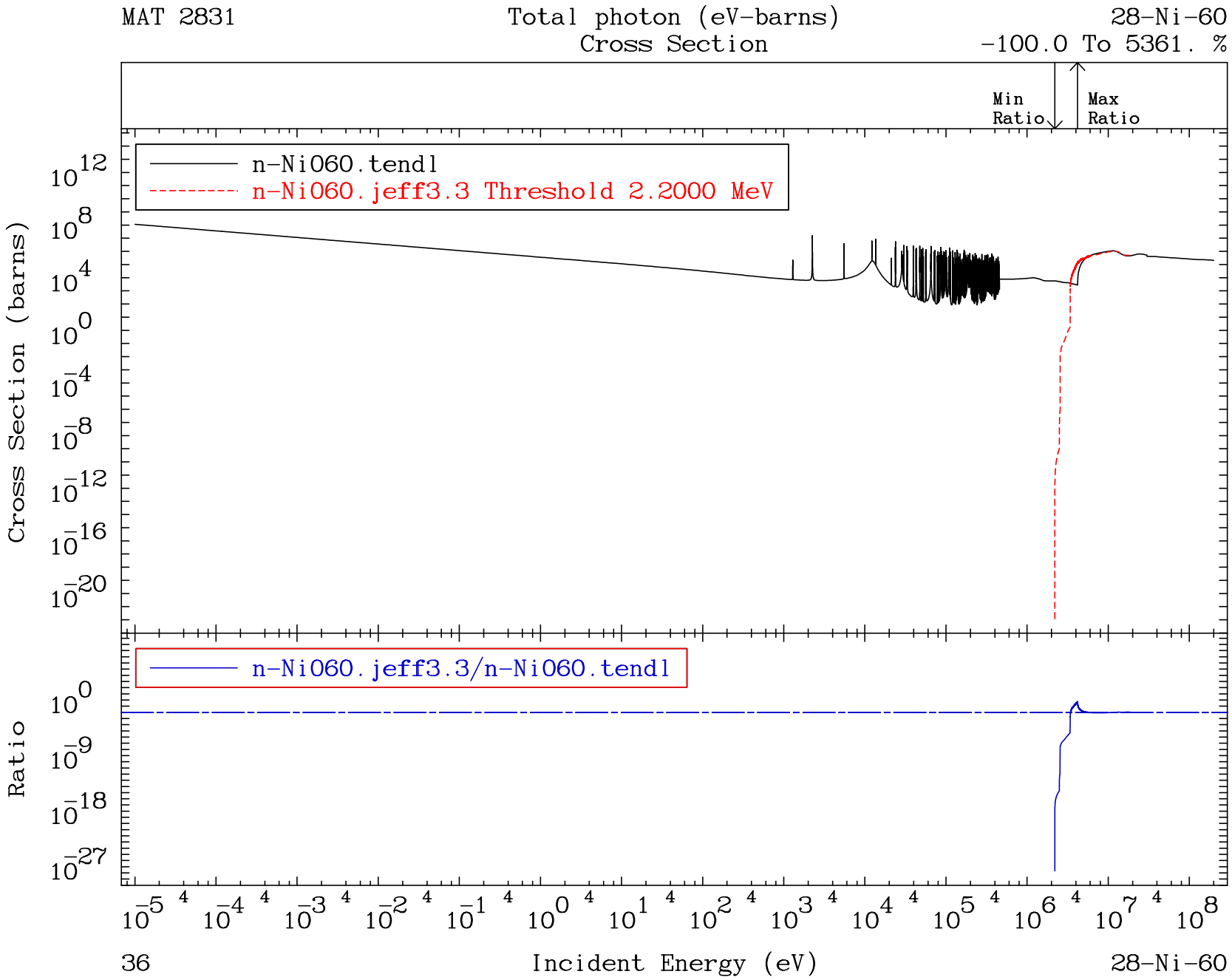

MAT 2831
Kerma elastic
Cross Section
28-Ni-60
-99.75 To 5411. %
Min
Ratio
Max
Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
31
28-Ni-60

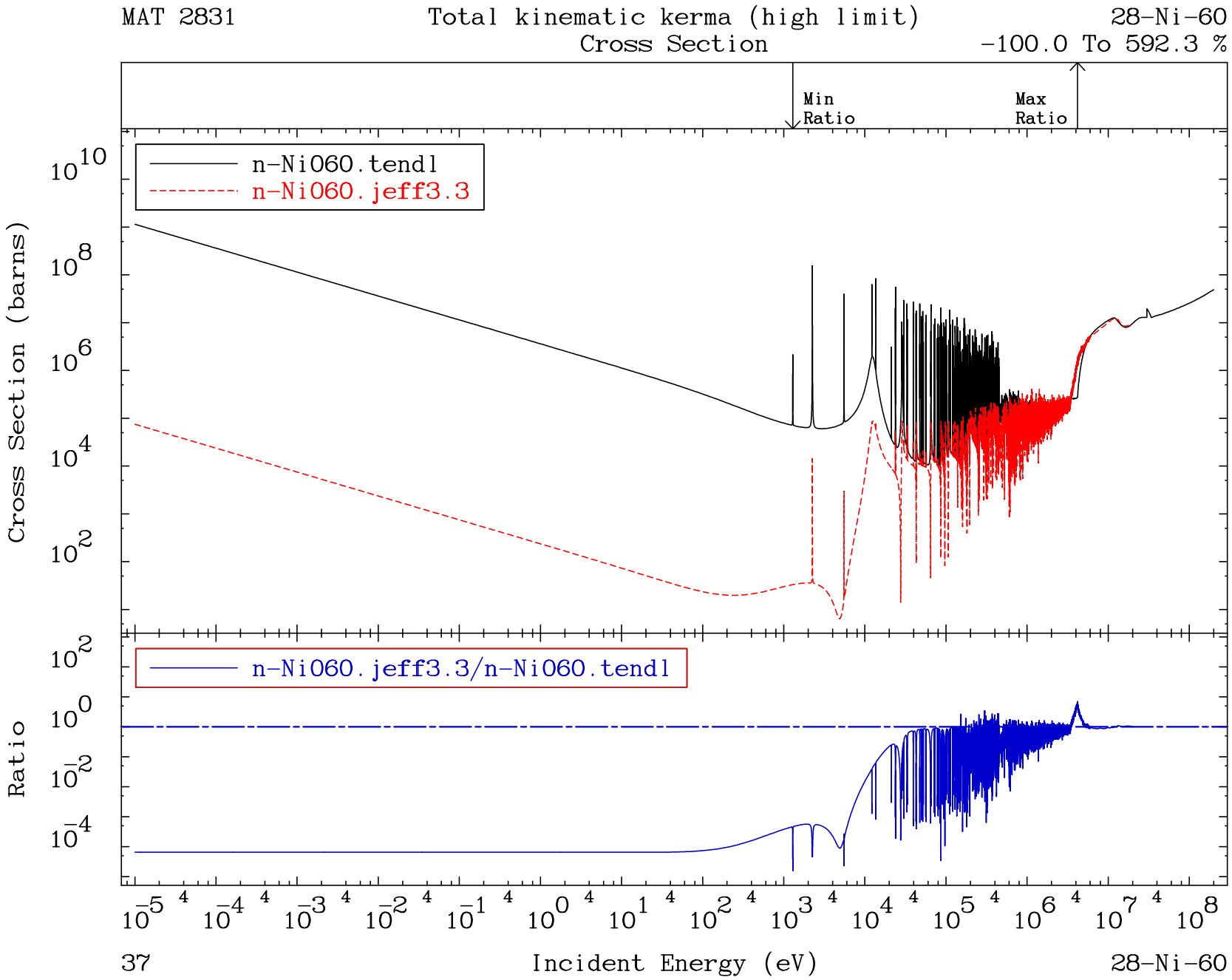

MAT 2831
Kerma non-elastic (all but mt2)
Cross Section
28-Ni-60
-99.88 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
32
28-Ni-60

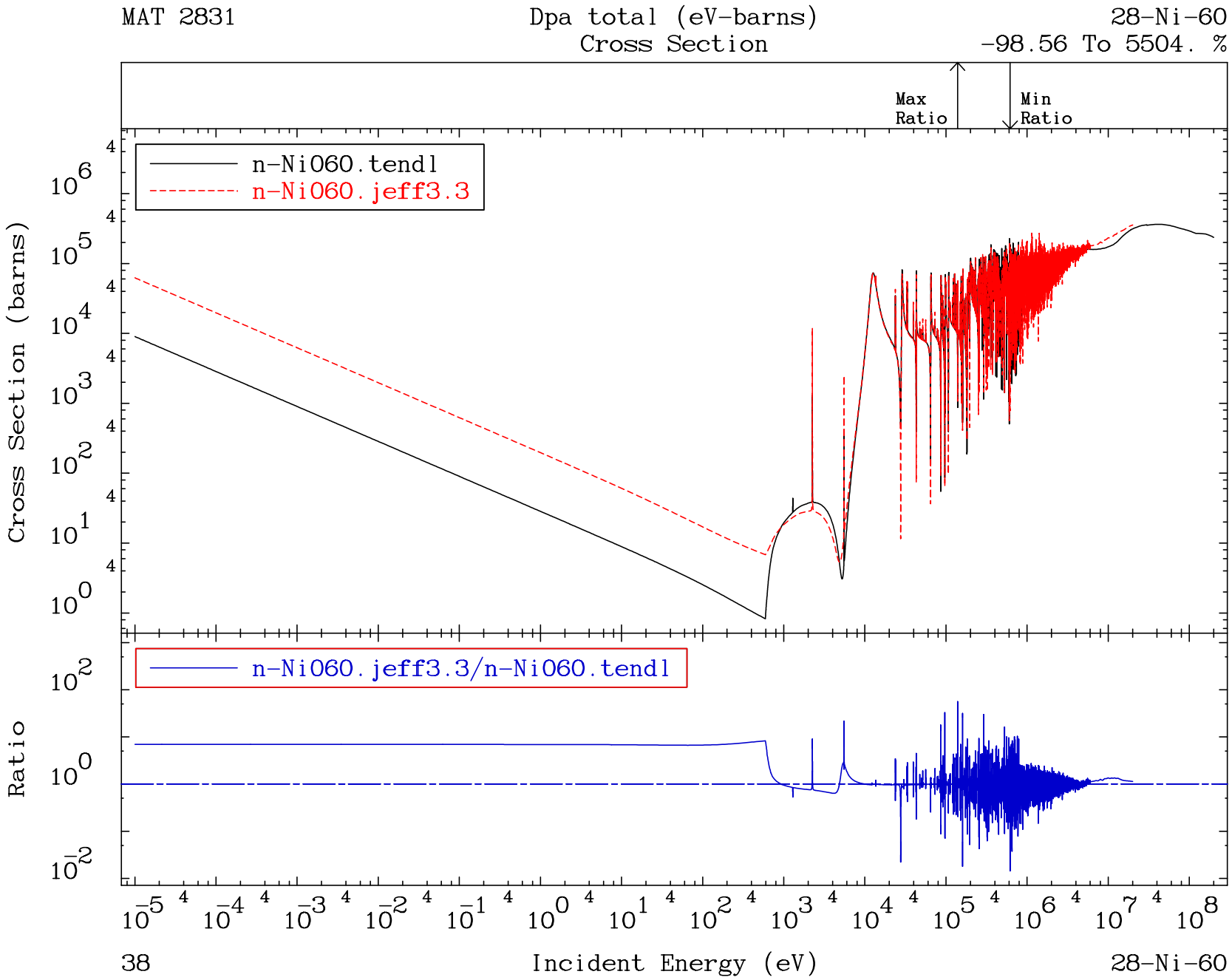

MAT 2831
Kerma inelastic (mt51-91)
Cross Section
28-Ni-60
-100.0 To 719.4 %
Max
Ratio
n-Ni060.tendl Threshold 1.3554 MeV
n-Ni060.jeff3.3 Threshold 1.3554 MeV
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
33
28-Ni-60

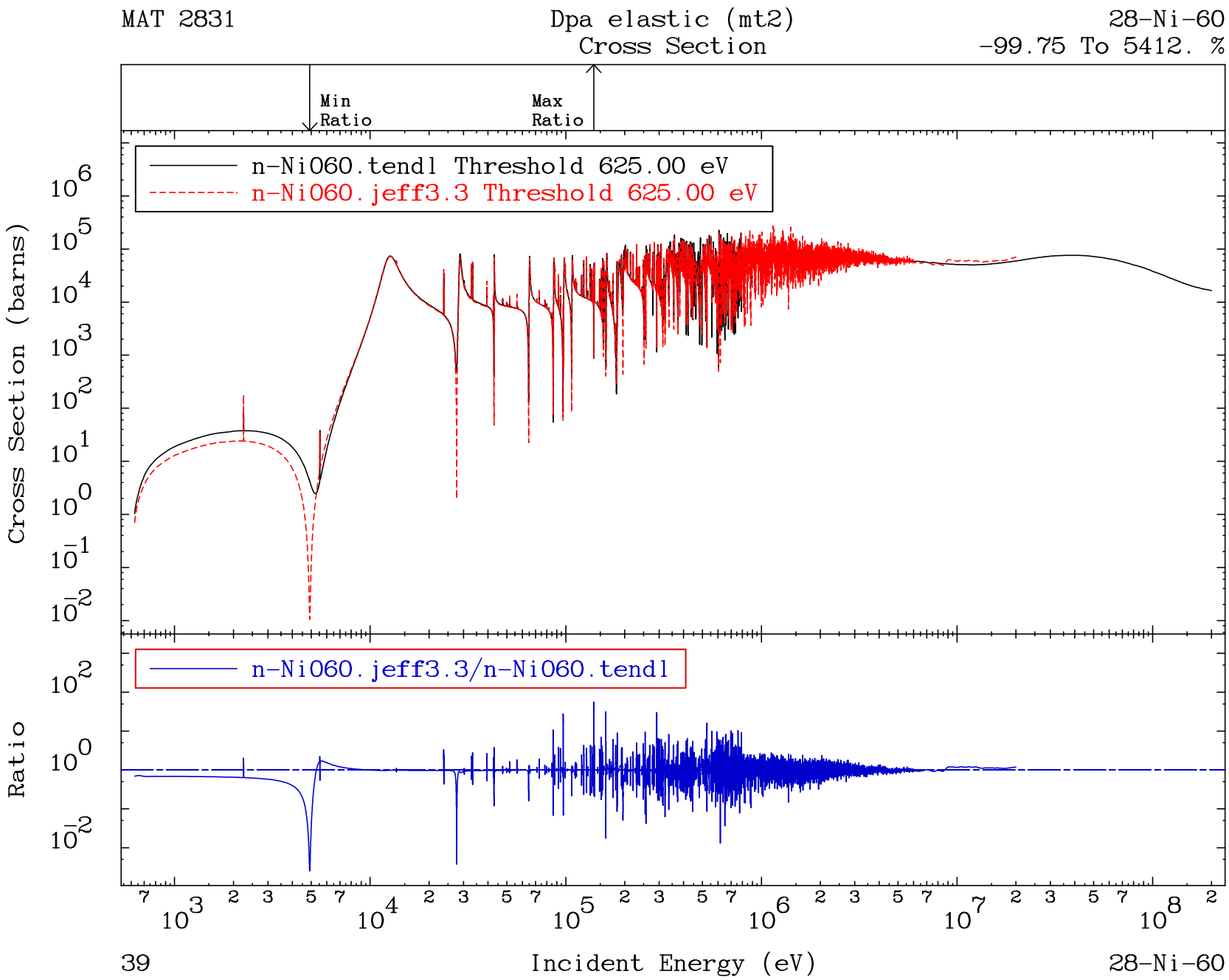

MAT 2831
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
28-Ni-60
-100.0 To 719.4 %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
10^0
10^-3
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
34
Incident Energy (eV)
28-Ni-60

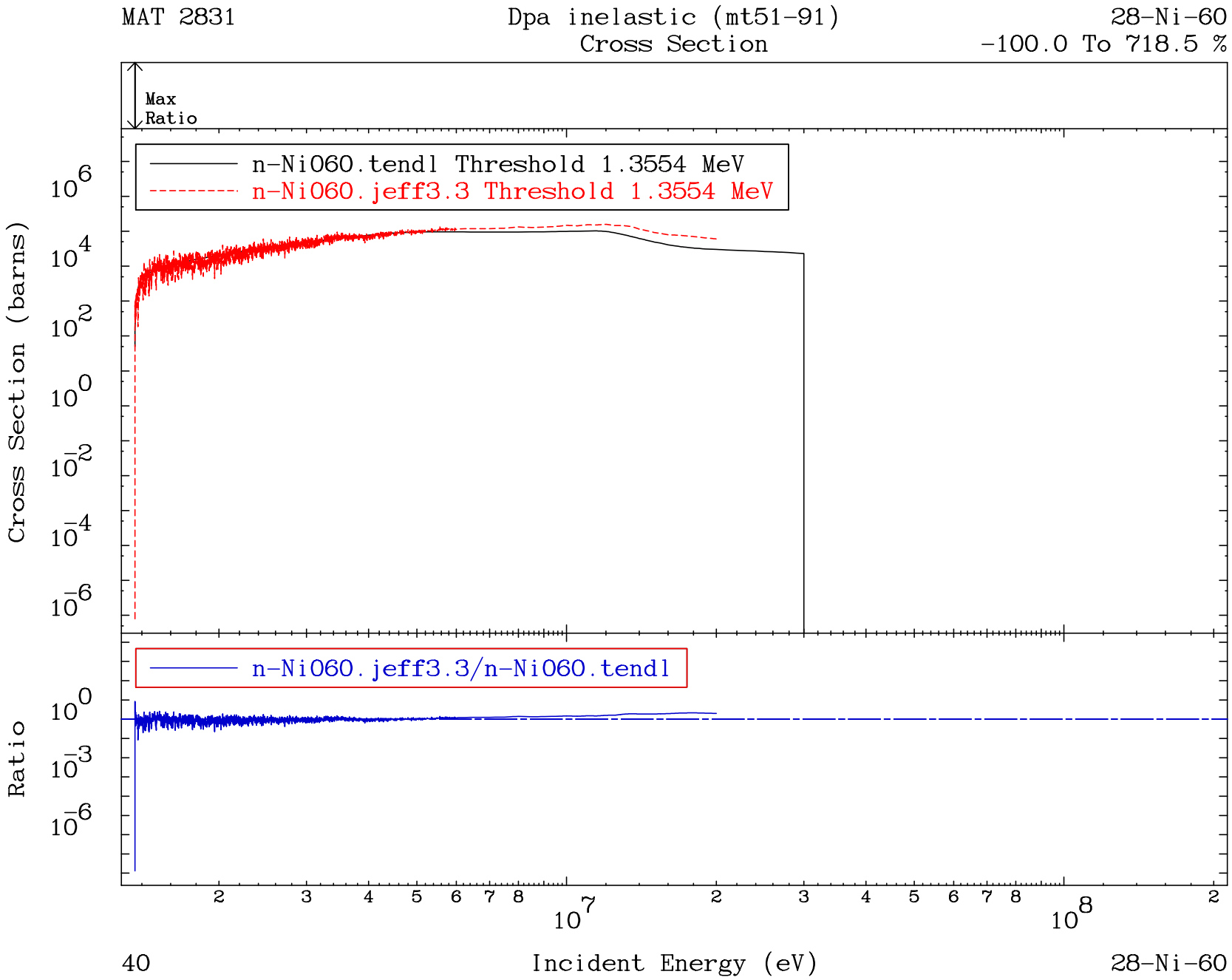

MAT 2831
Kerma capture (mt102)
Cross Section
28-Ni-60
-99.88 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
35
28-Ni-60

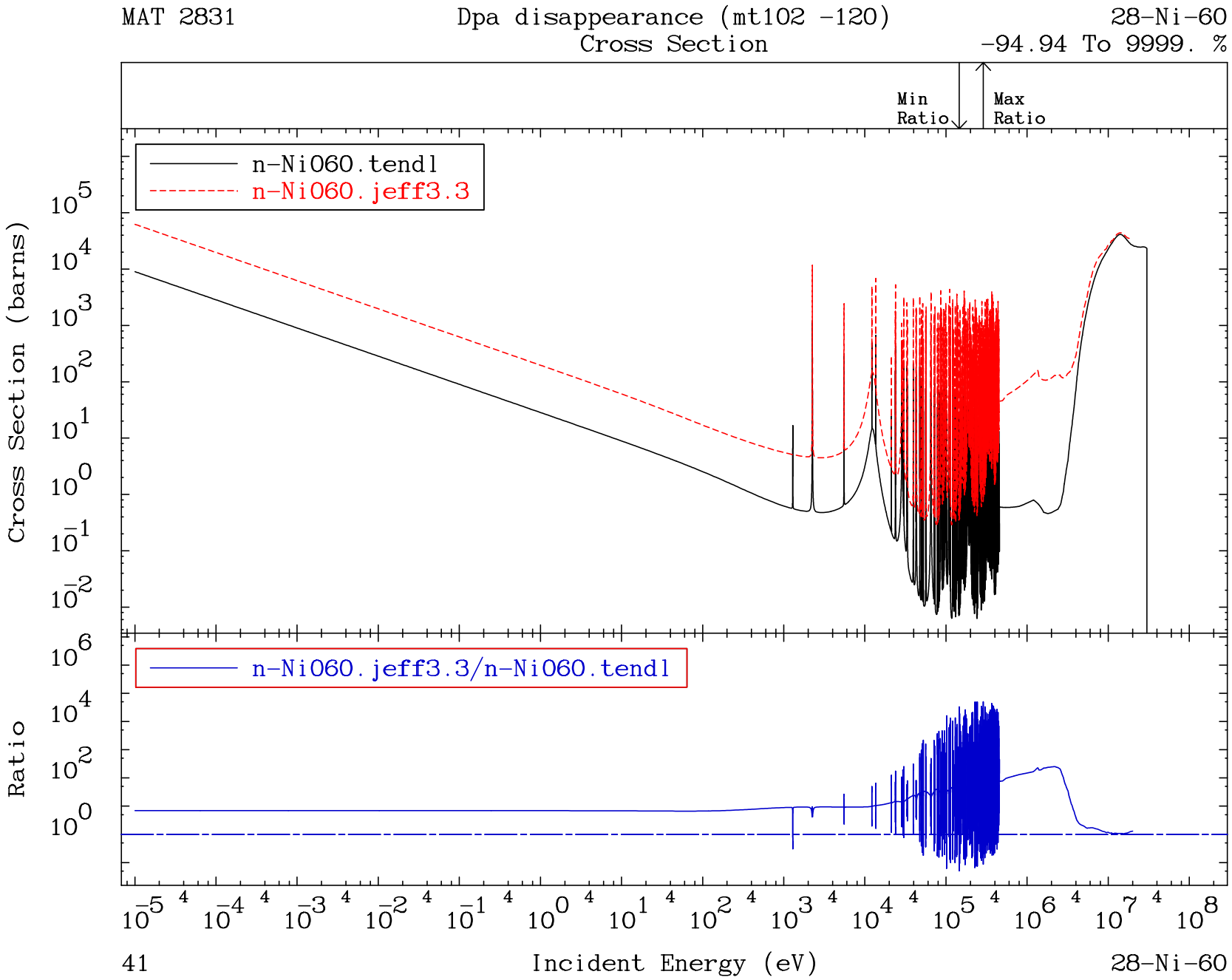

MAT 2831
Total photon (eV-barns)
Cross Section
28-Ni-60
-100.0 To 5361. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jeff3.3 Threshold 2.2000 MeV
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
36
28-Ni-60


MAT 2831
Total kinematic kerma (high limit)
Cross Section
28-Ni-60
-100.0 To 592.3 %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
Ratio
n-Ni060.jeff3.3/n-Ni060.tendl
Incident Energy (eV)
37
28-Ni-60


MAT 2831
Dpa total (eV-barns)
Cross Section
28-Ni-60
-98.56 To 5504. %
Max Ratio
Min Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
38
Incident Energy (eV)
28-Ni-60


MAT 2831
Dpa elastic (mt2)
Cross Section
28-Ni-60
-99.75 To 5412. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 625.00 eV
n-Ni060.jeff3.3 Threshold 625.00 eV
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
39
28-Ni-60


MAT 2831
Dpa inelastic (mt51-91)
Cross Section
28-Ni-60
-100.0 To 718.5 %
Max
Ratio
n-Ni060.tendl Threshold 1.3554 MeV
n-Ni060.jeff3.3 Threshold 1.3554 MeV
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
40
28-Ni-60


MAT 2831
Dpa disappearance (mt102 -120)
Cross Section
28-Ni-60
-94.94 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jeff3.3
Cross Section (barns)
n-Ni060.jeff3.3/n-Ni060.tendl
Ratio
Incident Energy (eV)
41
28-Ni-60