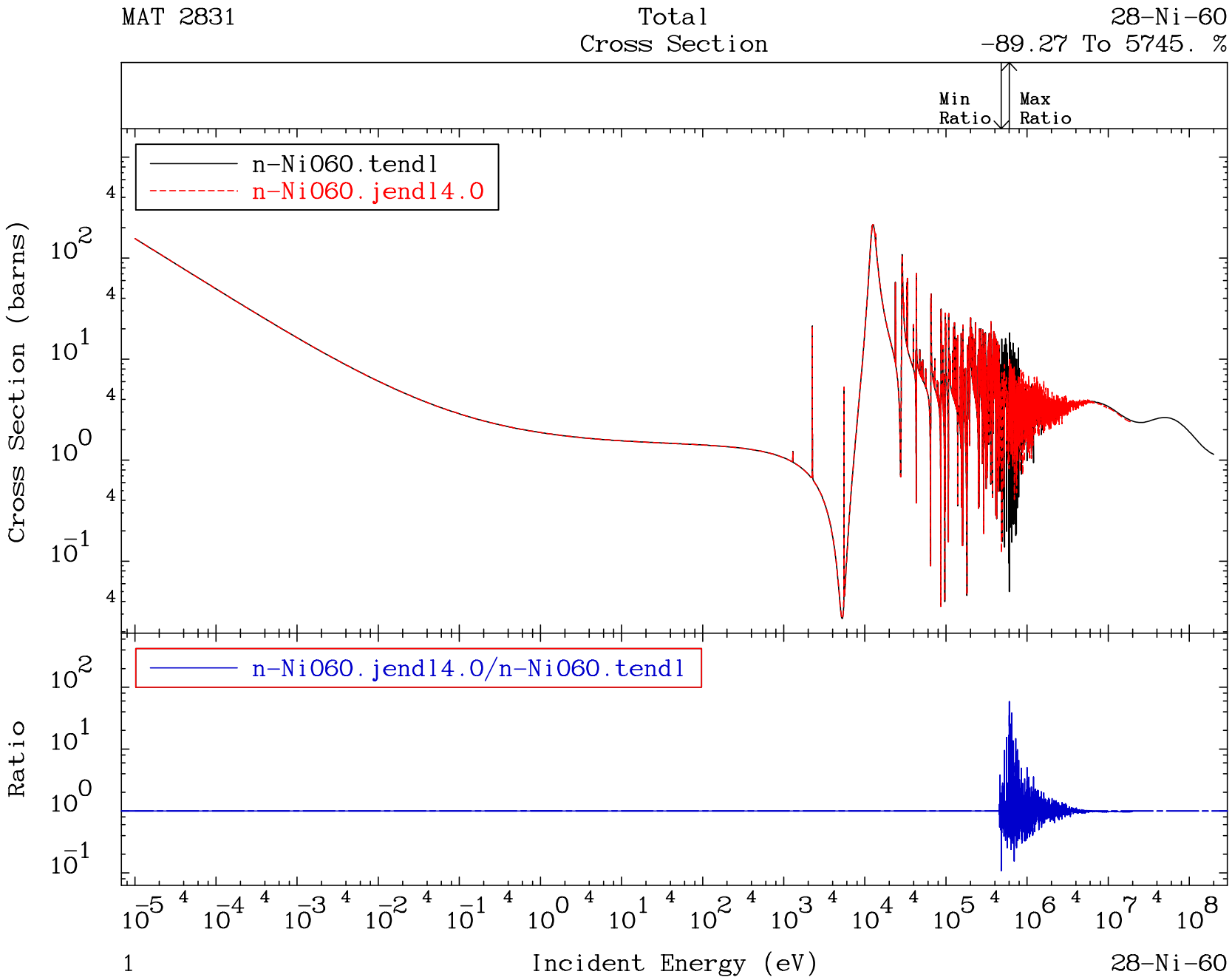
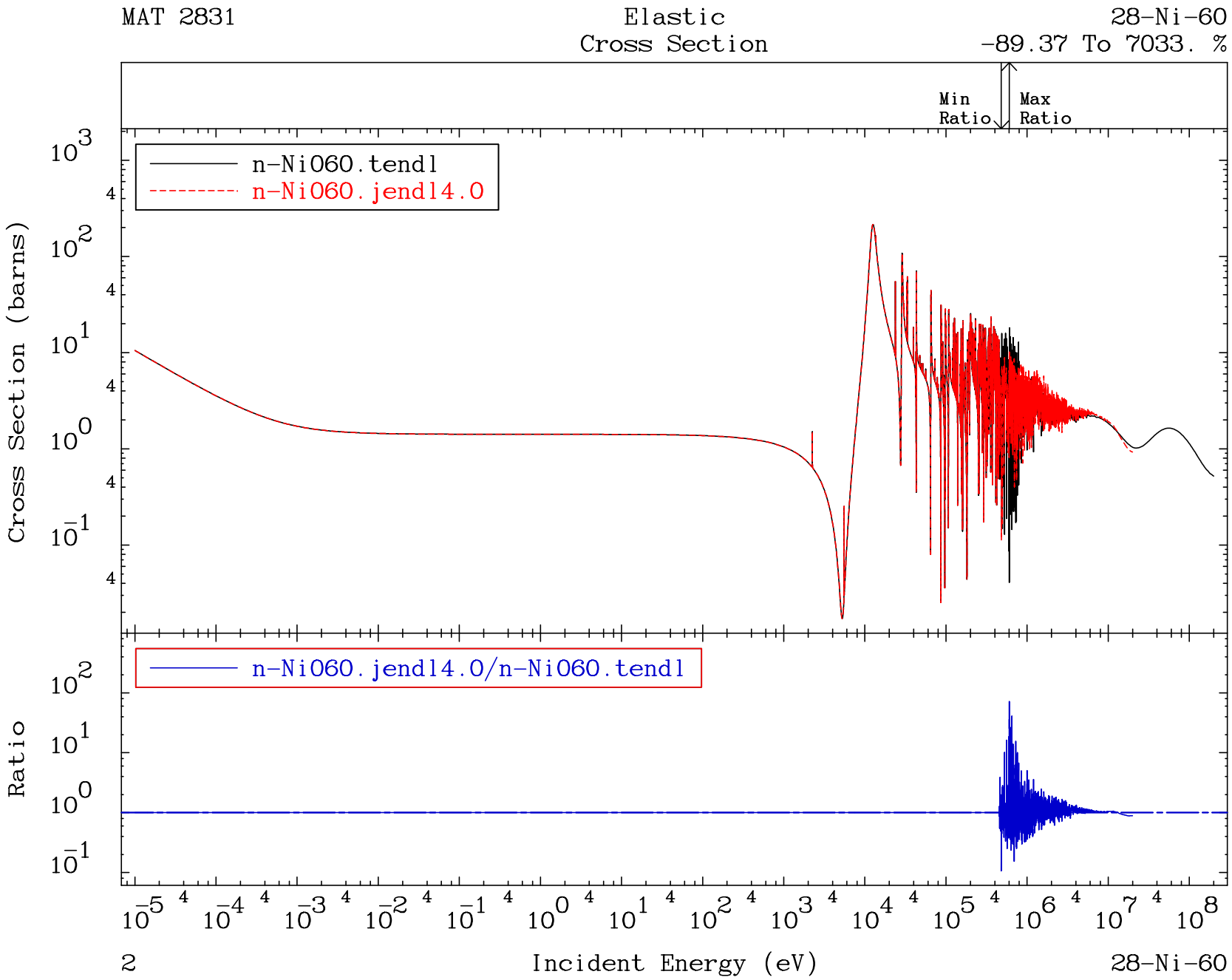
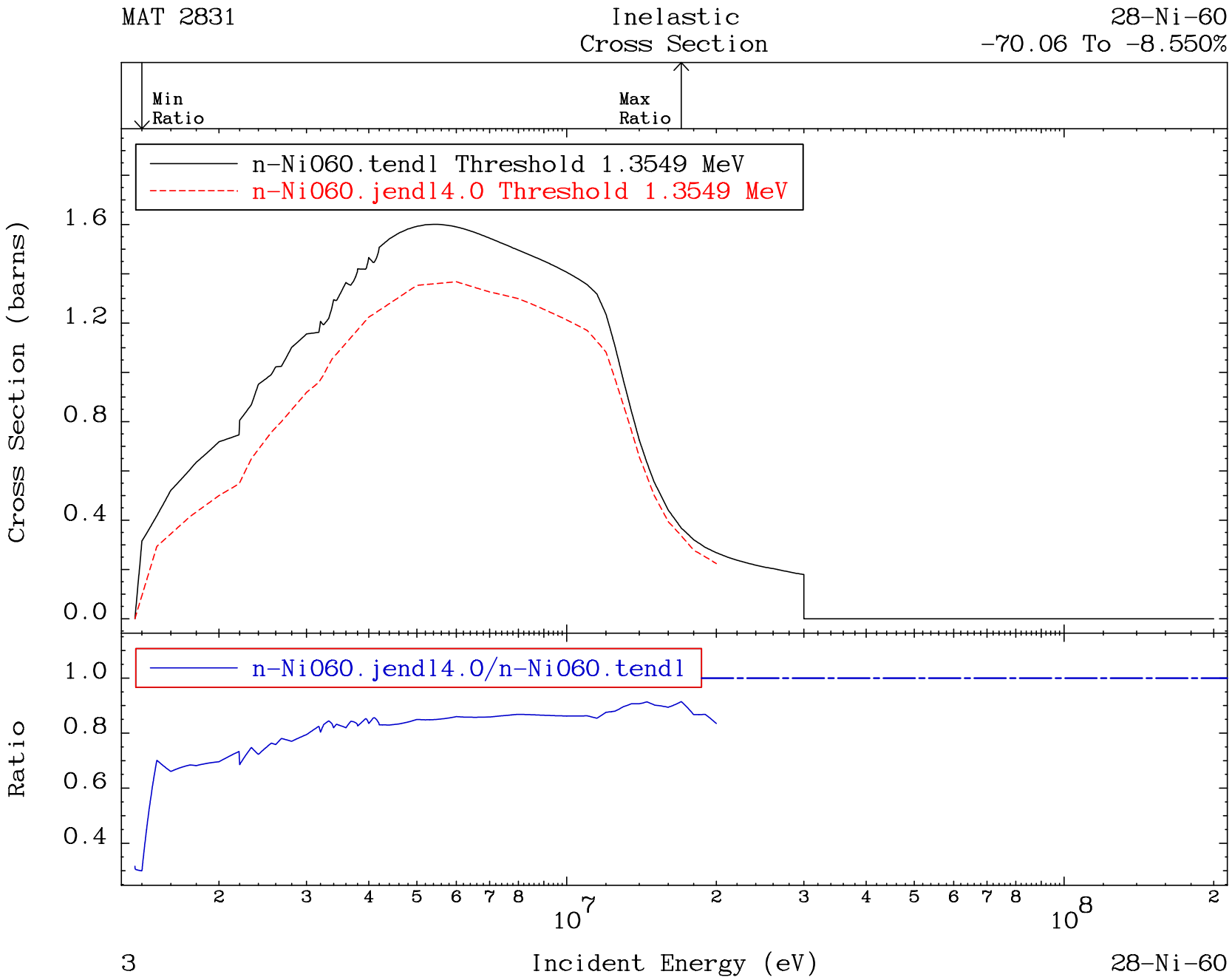
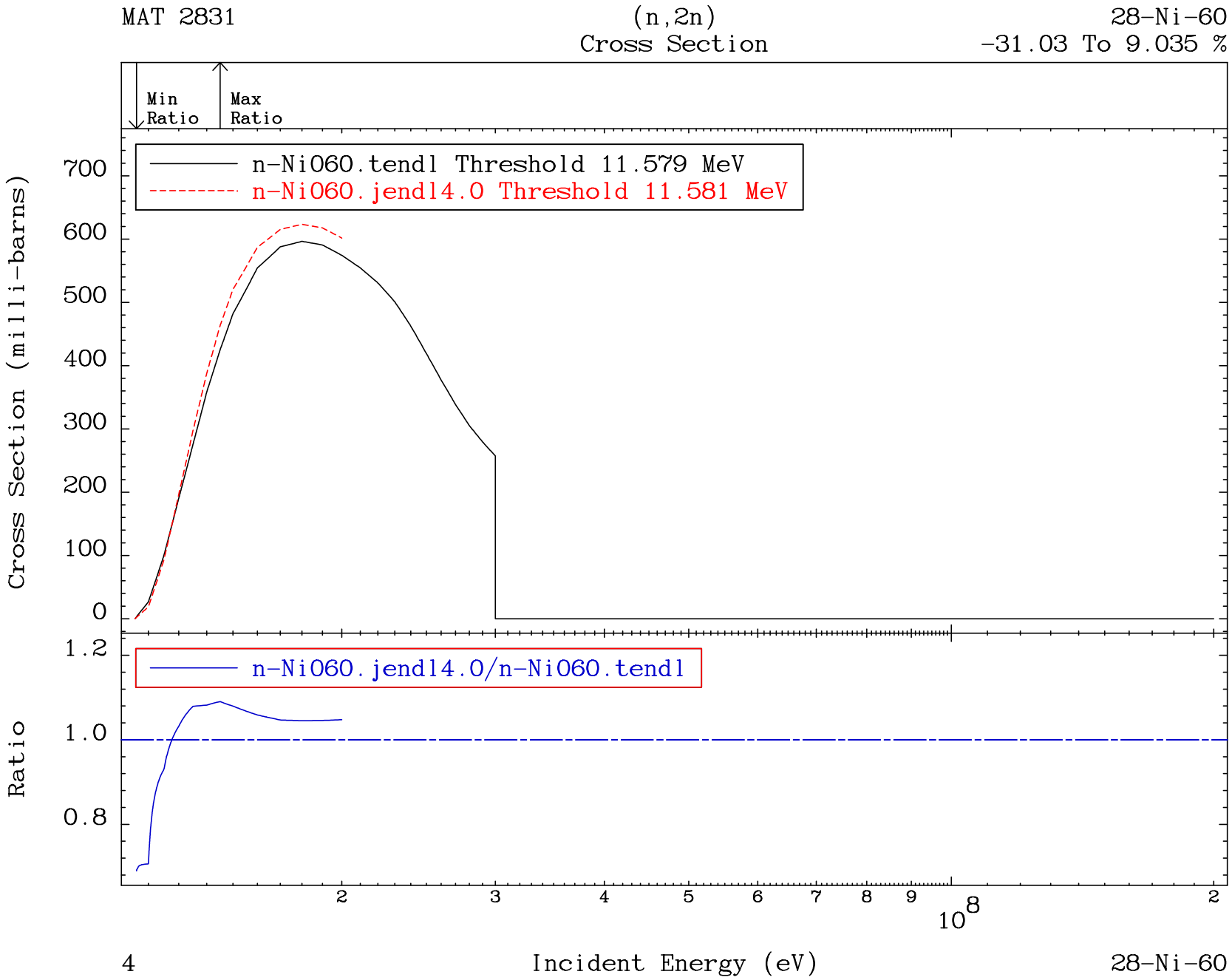
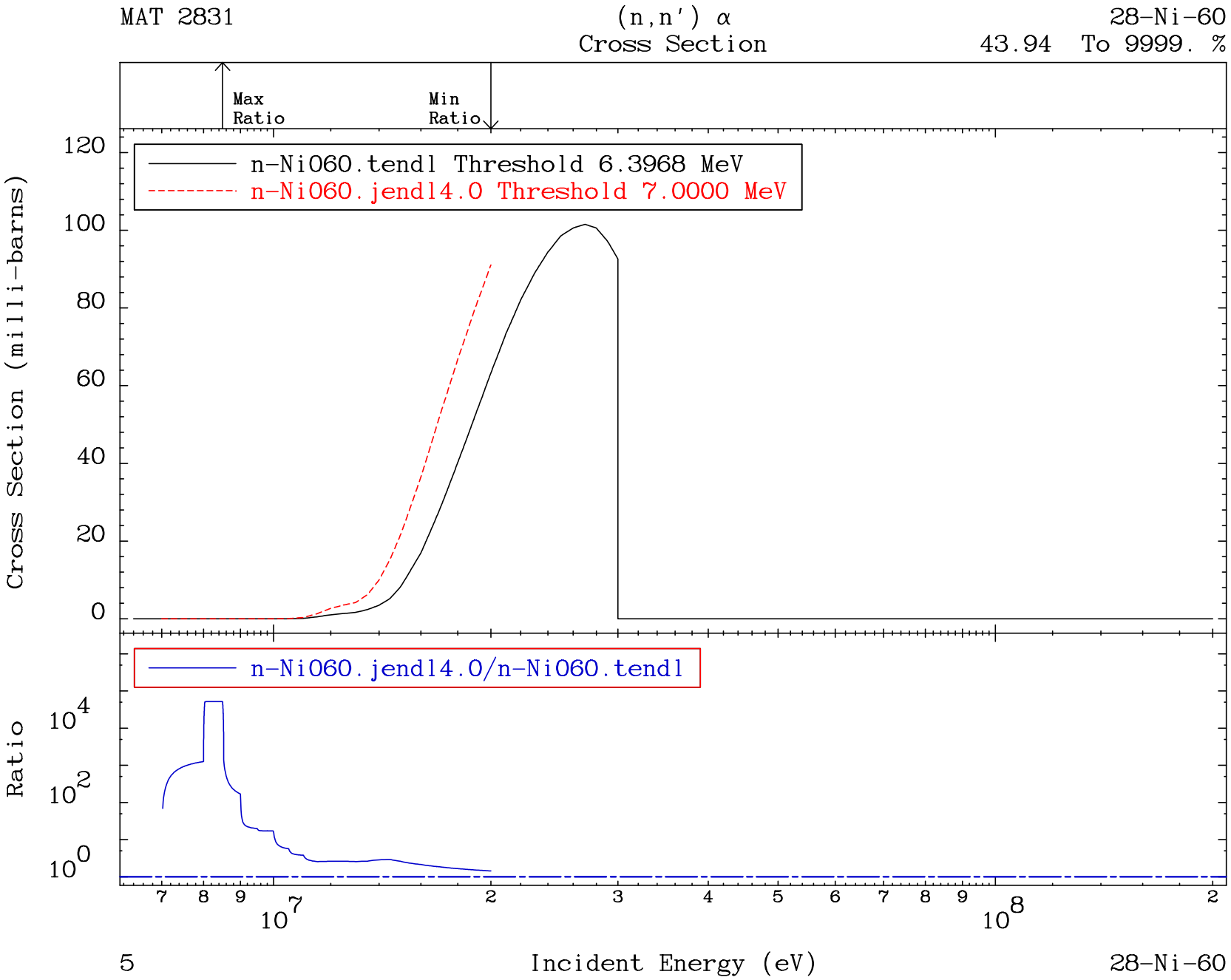
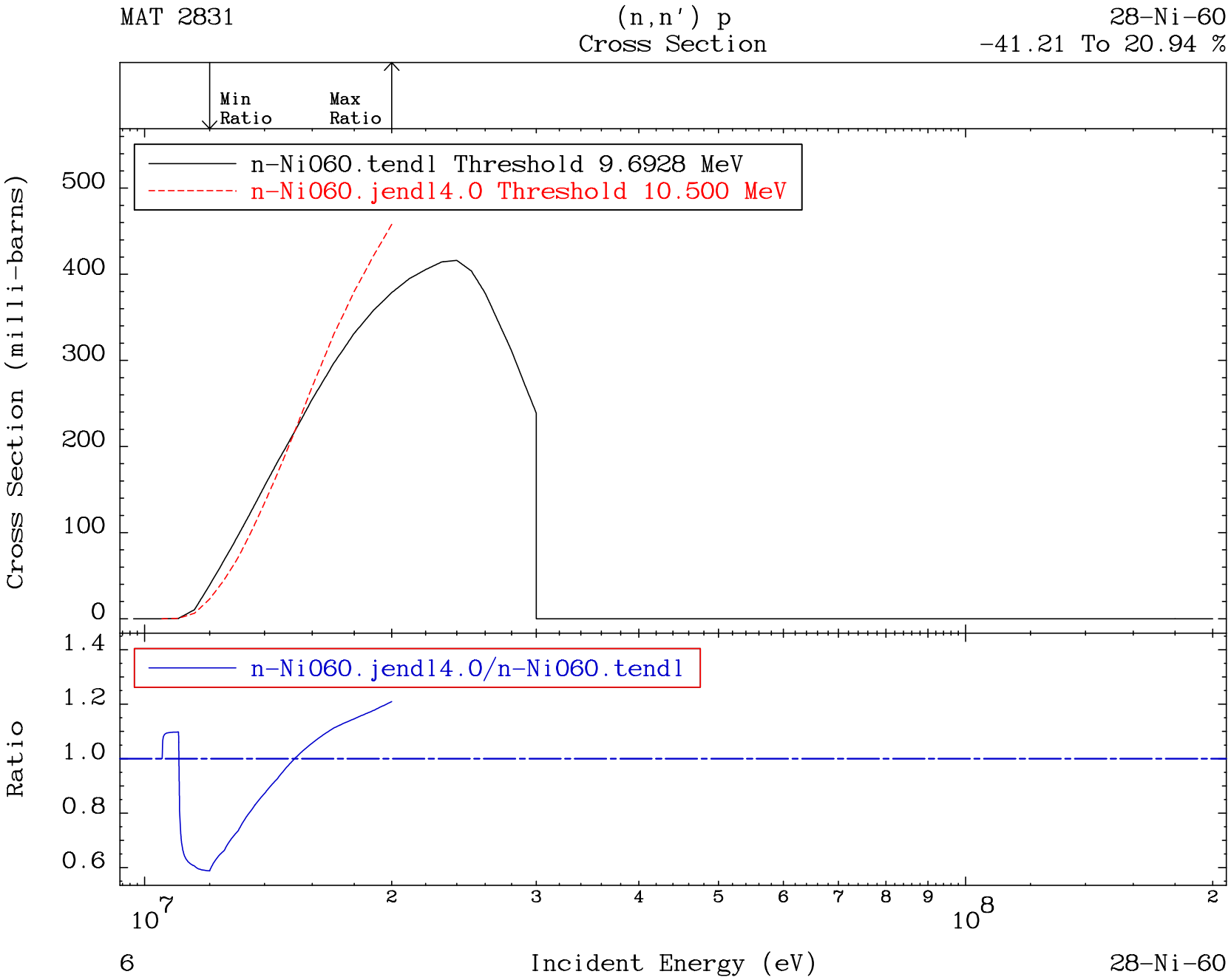

MAT 2831
Total
Cross Section
28-Ni-60
-89.27 To 5745. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
1
28-Ni-60

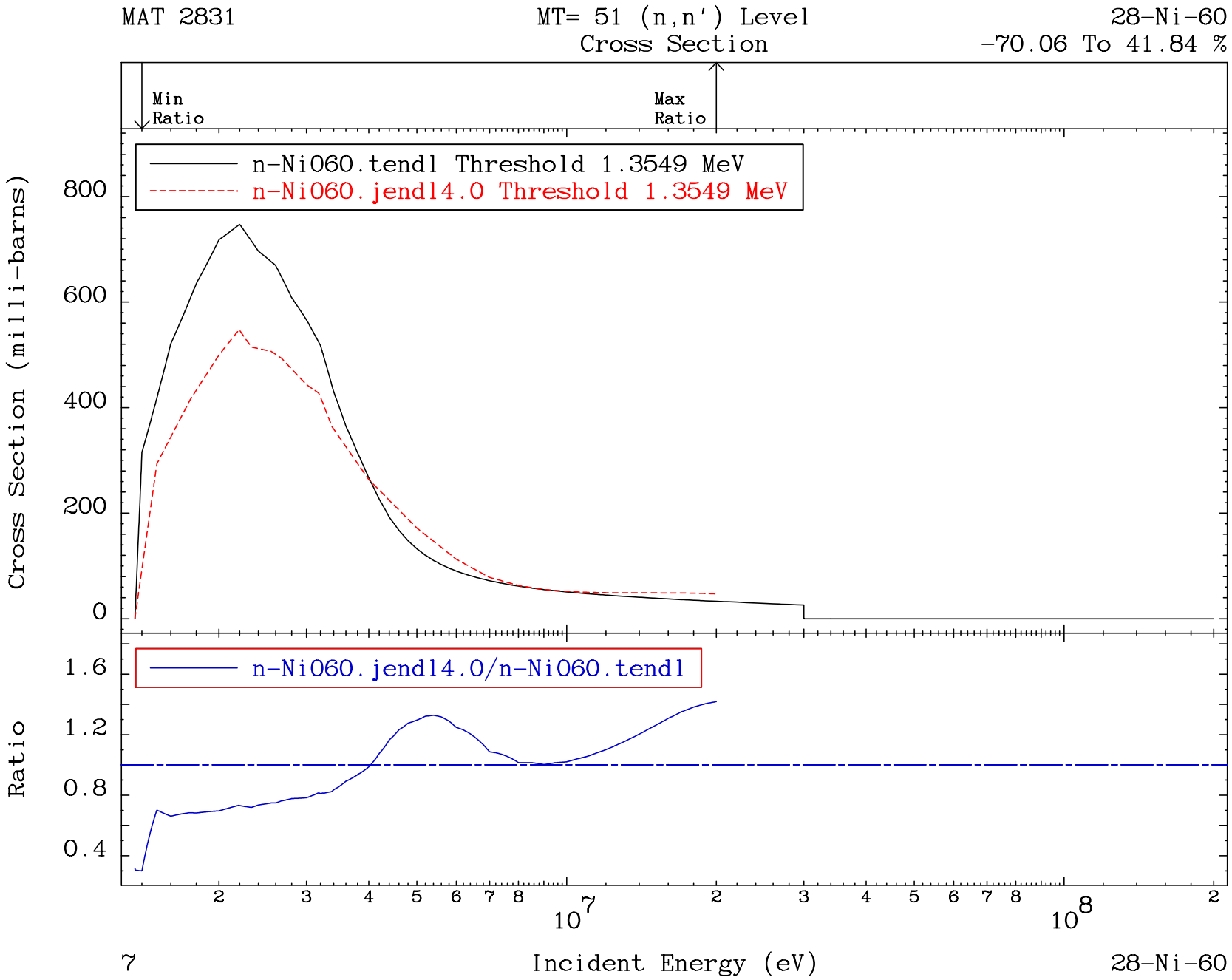

MAT 2831
Elastic
Cross Section
28-Ni-60
-89.37 To 7033. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
2
28-Ni-60

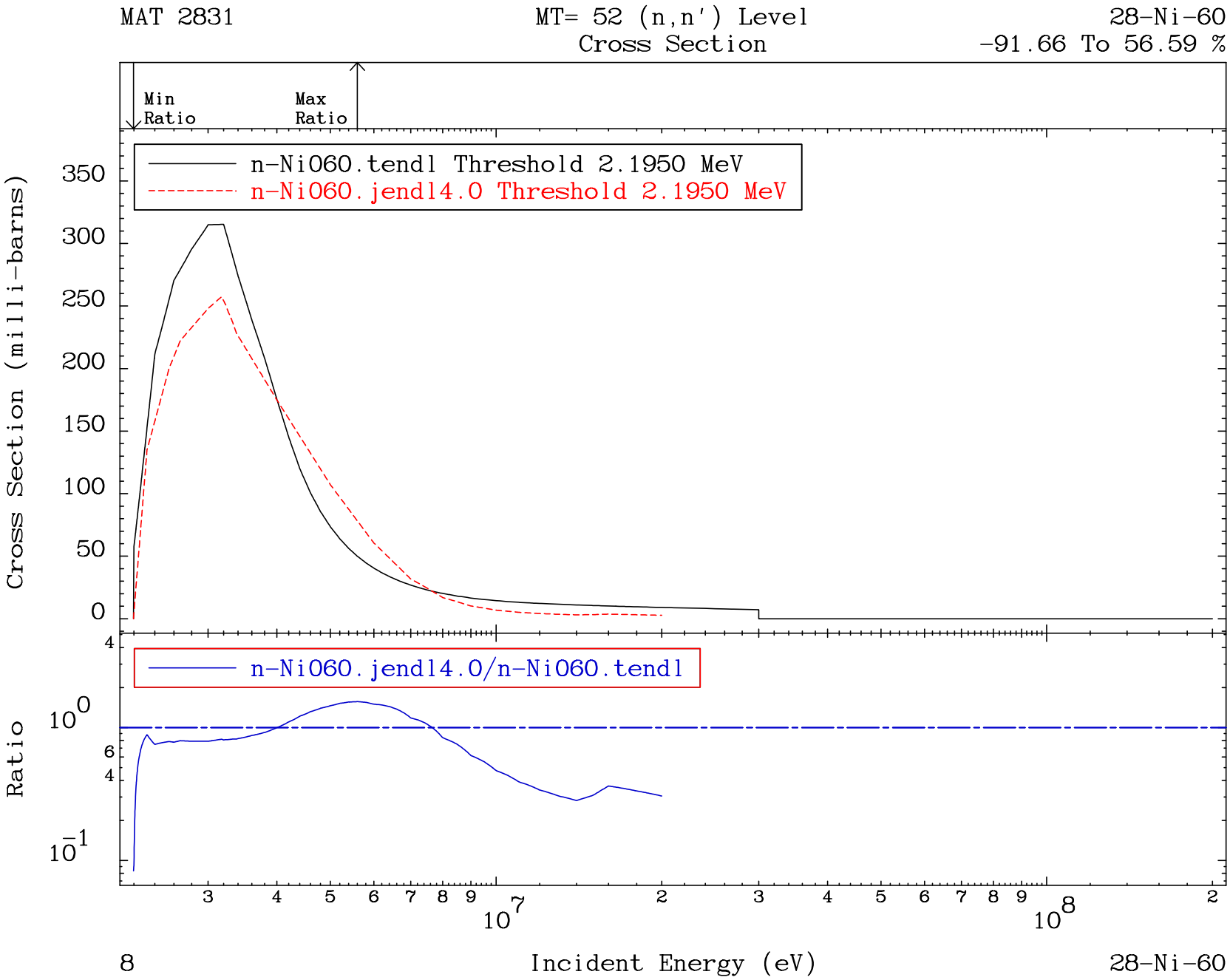

MAT 2831
Inelastic
Cross Section
28-Ni-60
-70.06 To -8.550%
Min
Ratio
Max
Ratio
n-Ni060.tendl Threshold 1.3549 MeV
n-Ni060.jendl4.0 Threshold 1.3549 MeV
Cross Section (barns)
1.6
1.2
0.8
0.4
0.0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
1.0
0.8
0.6
0.4
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
3
Incident Energy (eV)
28-Ni-60

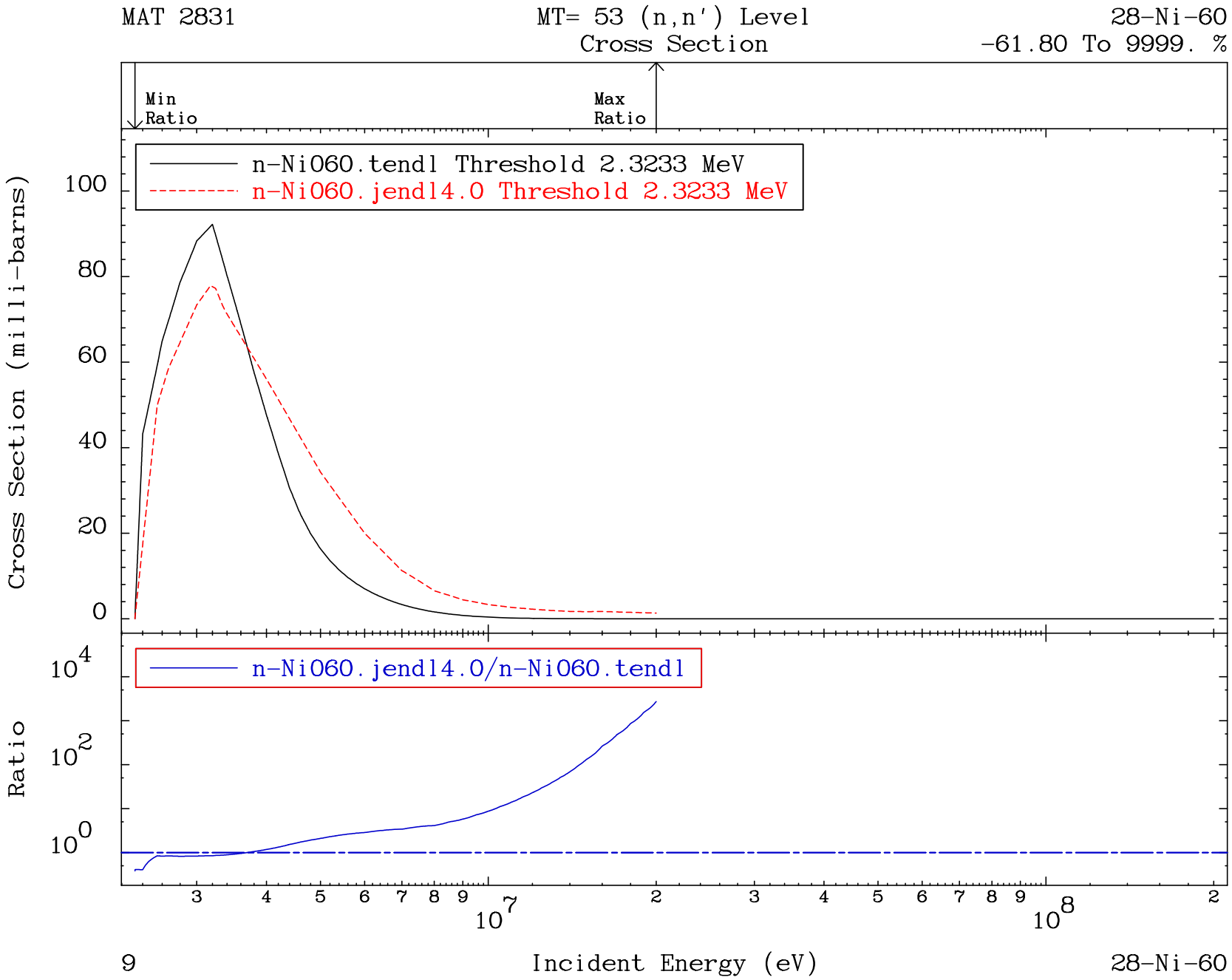

MAT 2831
(n,2n)
Cross Section
28-Ni-60
-31.03 To 9.035 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 11.579 MeV
n-Ni060.jendl4.0 Threshold 11.581 MeV
Cross Section (milli-barns)
700
600
500
400
300
200
100
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
1.2
1.0
0.8
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
28-Ni-60

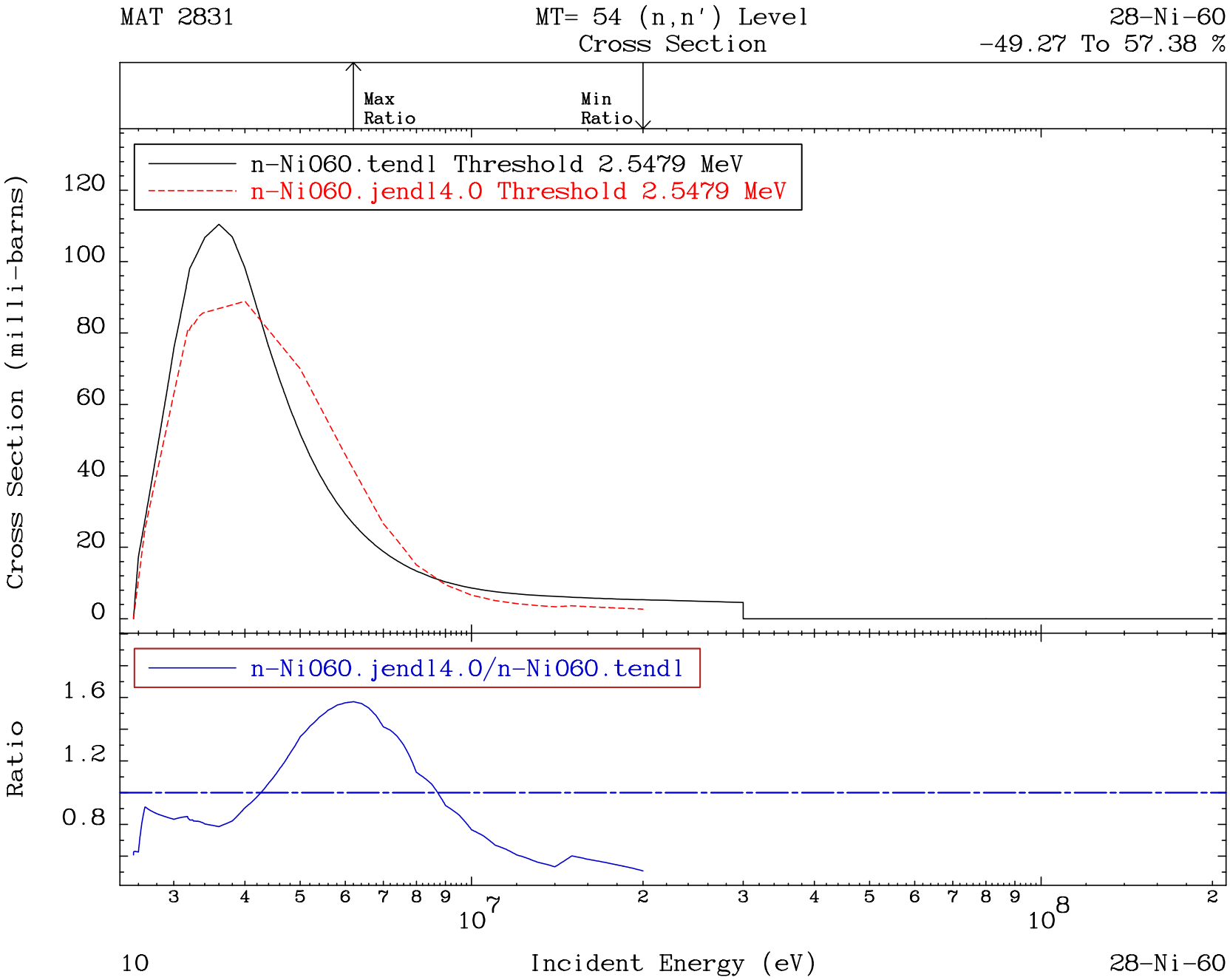

MAT 2831
(n,n') α
Cross Section
28-Ni-60
43.94 To 9999. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 6.3968 MeV
n-Ni060.jendl4.0 Threshold 7.0000 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^4
10^2
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
28-Ni-60

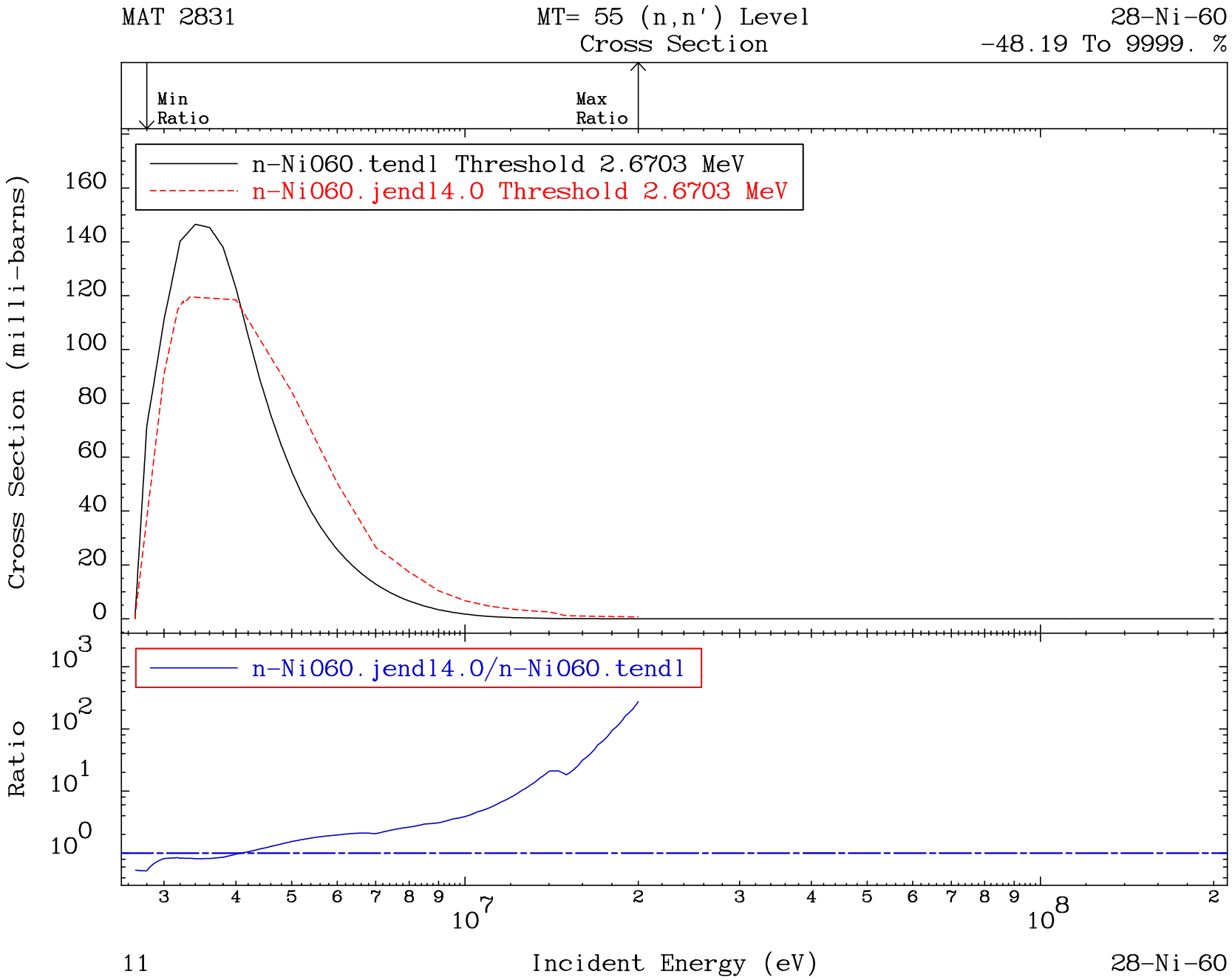

MAT 2831
(n,n') p
Cross Section
28-Ni-60
-41.21 To 20.94 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 9.6928 MeV
n-Ni060.jendl4.0 Threshold 10.500 MeV
Cross Section (milli-barns)
500
400
300
200
100
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
1.4
1.2
1.0
0.8
0.6
10^7
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
28-Ni-60

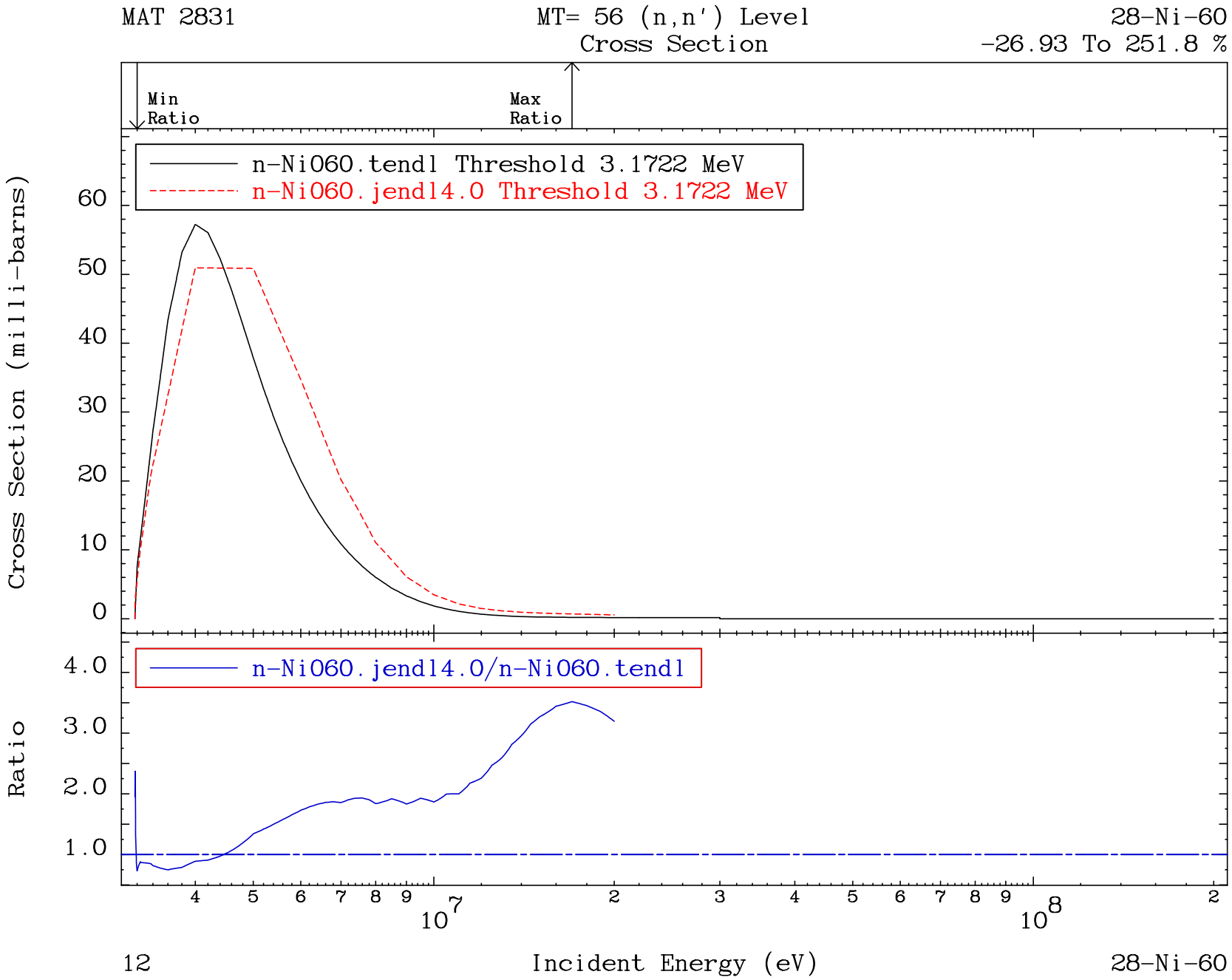

MAT 2831
MT= 51 (n,n') Level
Cross Section
28-Ni-60
-70.06 To 41.84 %
Min
Ratio
Max
Ratio
n-Ni060.tendl Threshold 1.3549 MeV
n-Ni060.jendl4.0 Threshold 1.3549 MeV
Cross Section (milli-barns)
800
600
400
200
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
1.6
1.2
0.8
0.4
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
7
Incident Energy (eV)
28-Ni-60

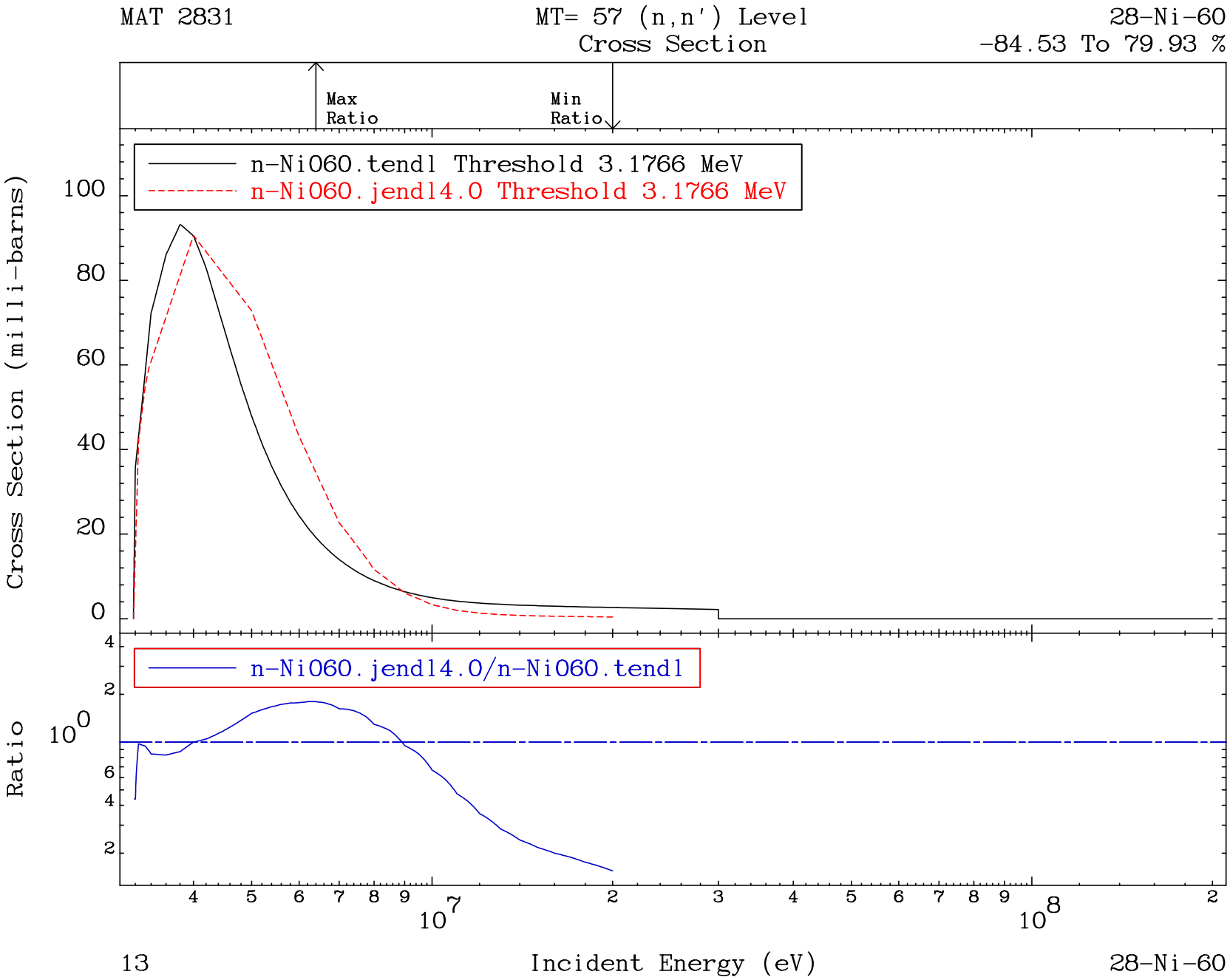

MAT 2831
MT= 52 (n,n') Level
Cross Section
28-Ni-60
-91.66 To 56.59 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 2.1950 MeV
n-Ni060.jendl4.0 Threshold 2.1950 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
4
10^0
6
4
10^{-1}
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
28-Ni-60

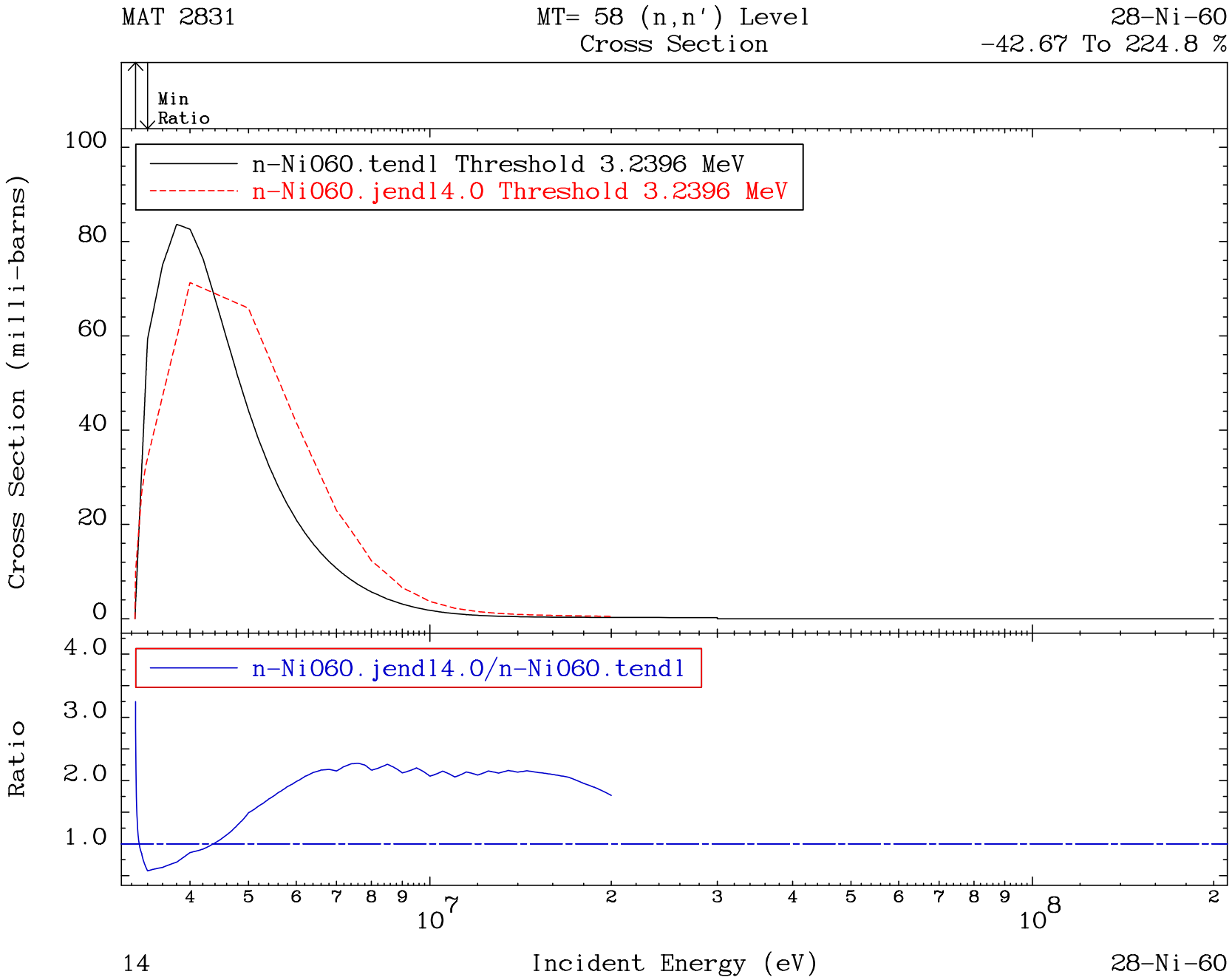

MAT 2831
MT= 53 (n,n') Level
Cross Section
28-Ni-60
-61.80 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 2.3233 MeV
n-Ni060.jendl4.0 Threshold 2.3233 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^4
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
9
Incident Energy (eV)
28-Ni-60

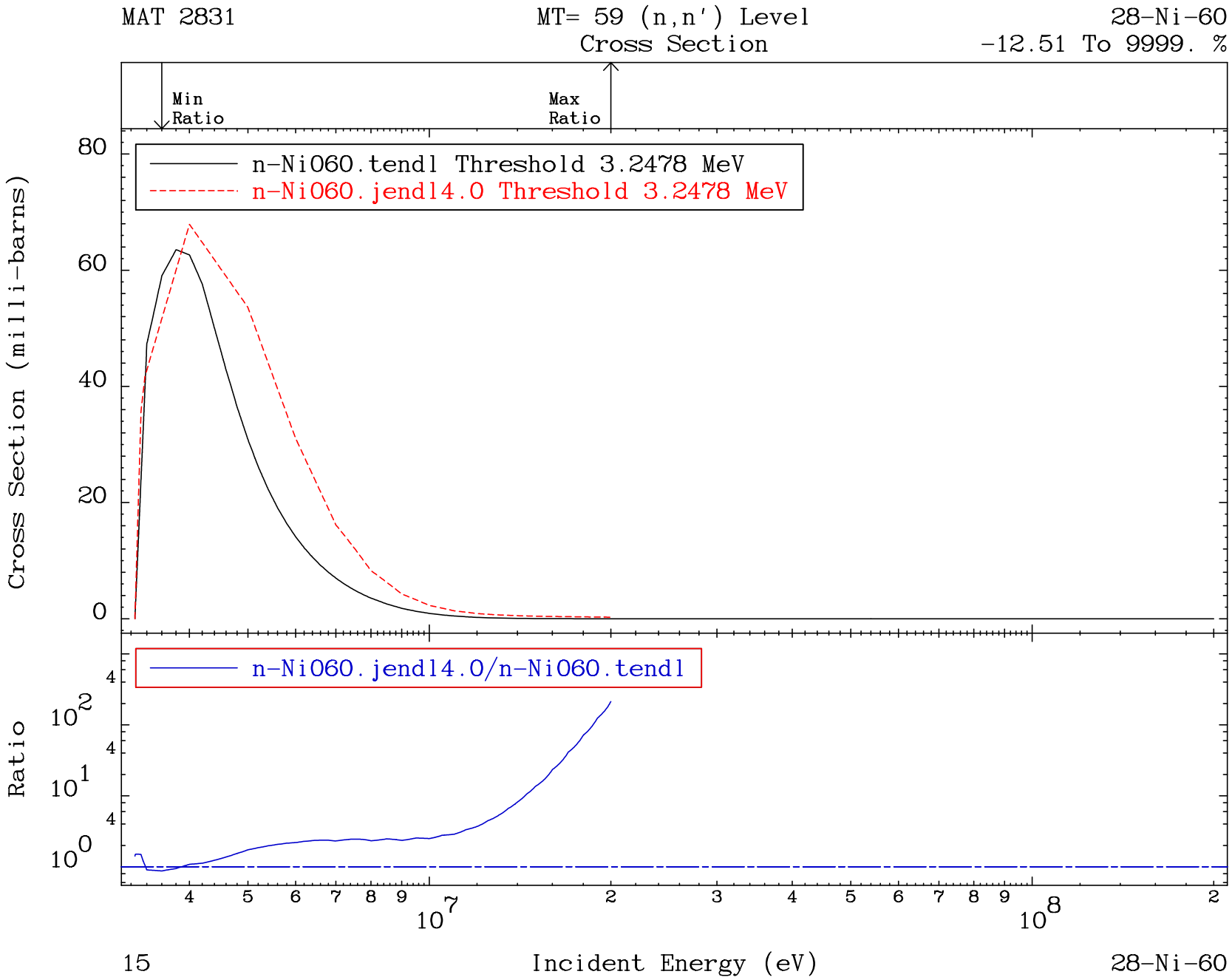

MAT 2831
MT= 54 (n,n') Level
Cross Section
28-Ni-60
-49.27 To 57.38 %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 2.5479 MeV
n-Ni060.jendl4.0 Threshold 2.5479 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
1.6
1.2
0.8
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
28-Ni-60

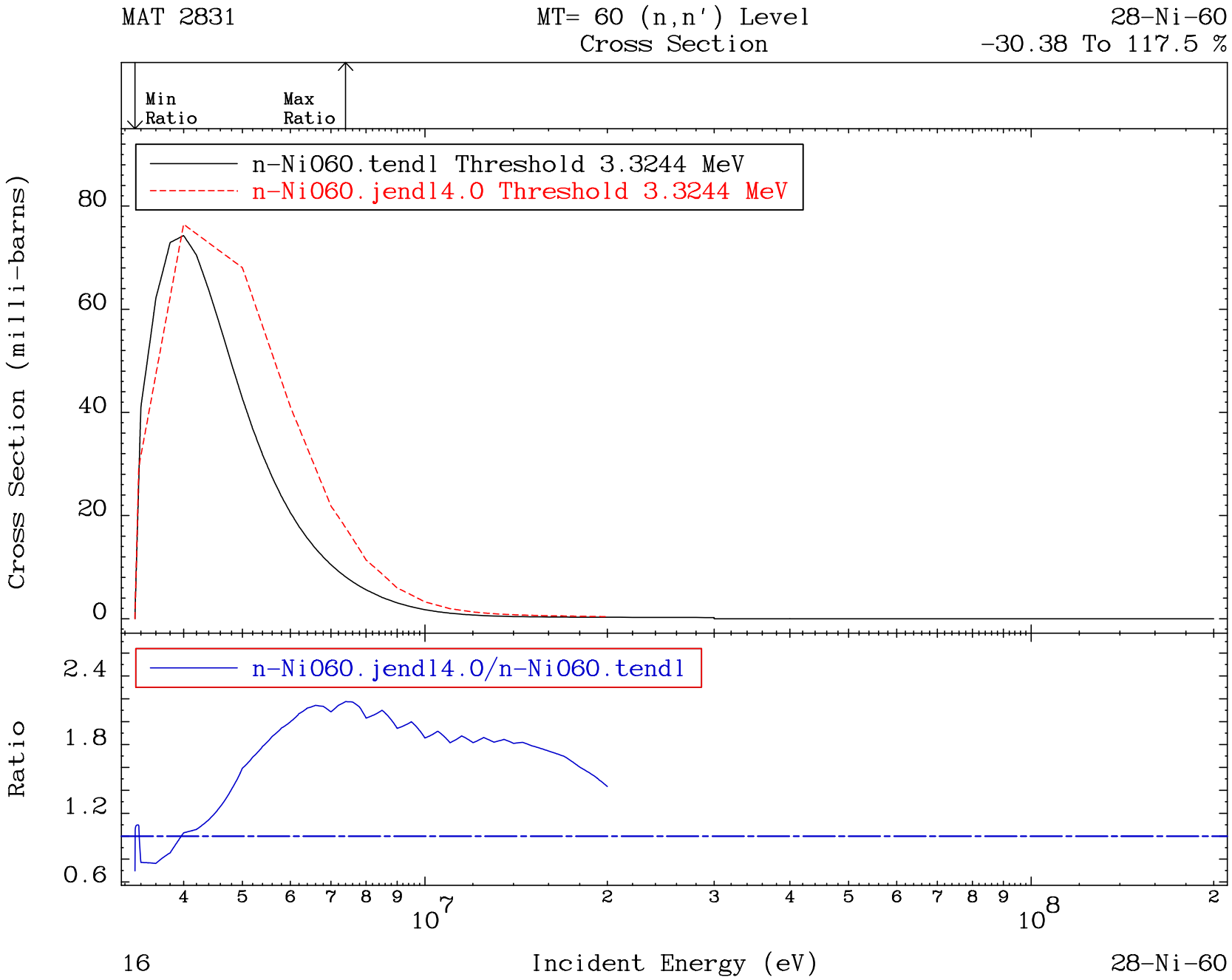

MAT 2831
MT= 55 (n,n') Level
Cross Section
28-Ni-60
-48.19 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 2.6703 MeV
n-Ni060.jendl4.0 Threshold 2.6703 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
11
Incident Energy (eV)
28-Ni-60

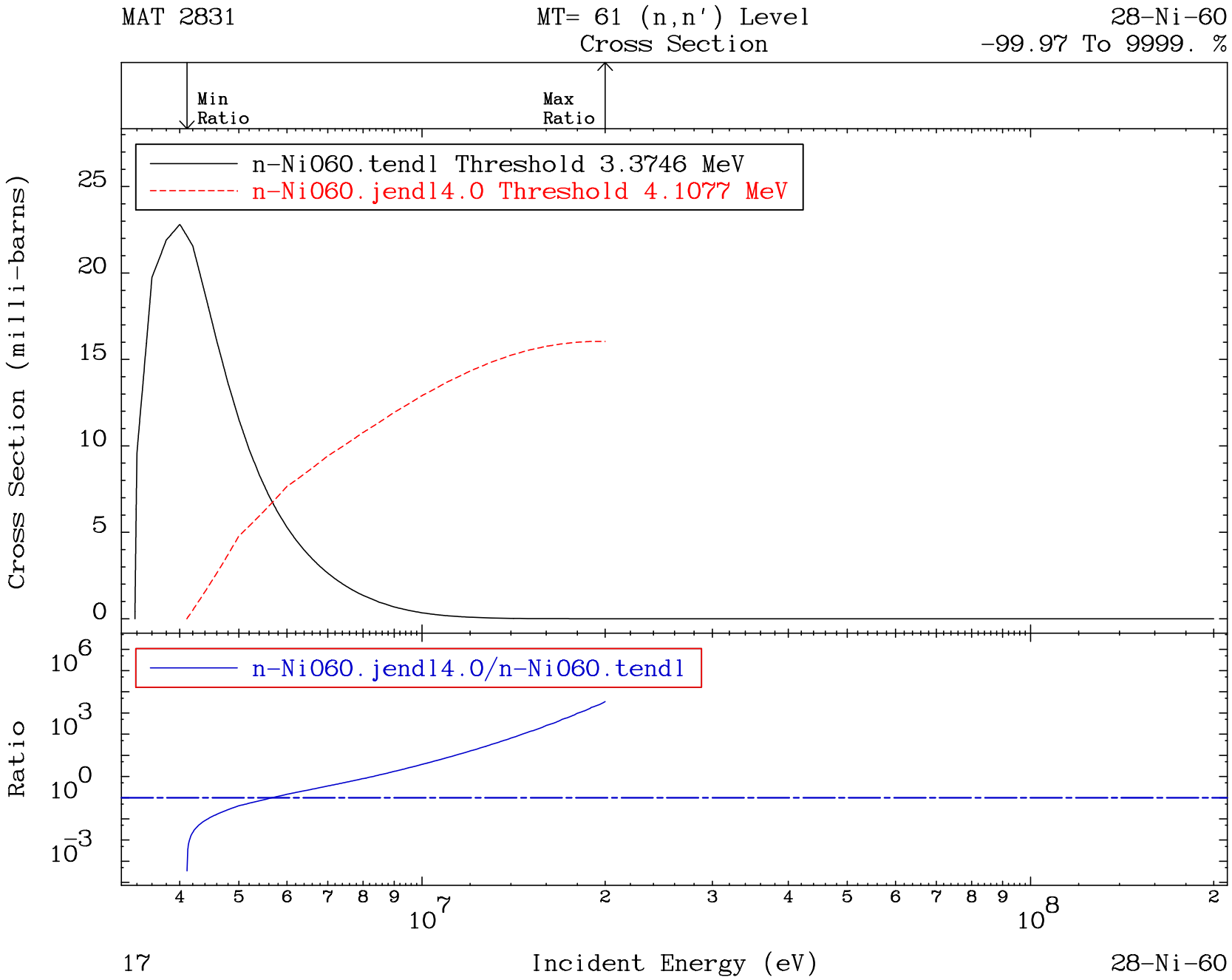

MAT 2831
MT= 56 (n,n') Level
Cross Section
28-Ni-60
-26.93 To 251.8 %
Min
Ratio
Max
Ratio
n-Ni060.tendl Threshold 3.1722 MeV
n-Ni060.jendl4.0 Threshold 3.1722 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
4.0
3.0
2.0
1.0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
12
Incident Energy (eV)
28-Ni-60

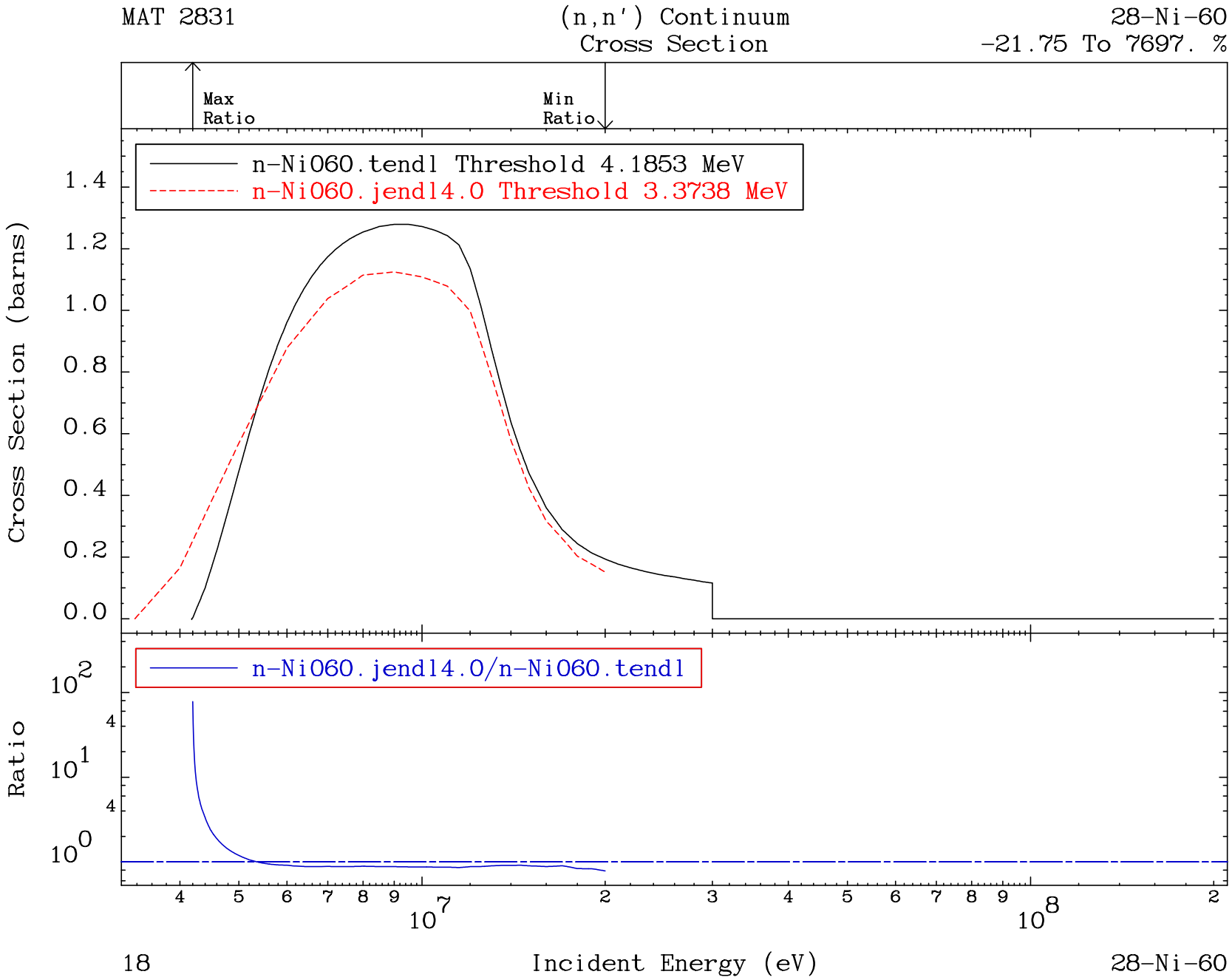

MAT 2831
MT= 57 (n,n') Level
Cross Section
28-Ni-60
-84.53 To 79.93 %
Max
Ratio
Min
Ratio
n-Ni060.tendl Threshold 3.1766 MeV
n-Ni060.jendl4.0 Threshold 3.1766 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
4
2
10^0
6
4
2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
13
Incident Energy (eV)
28-Ni-60

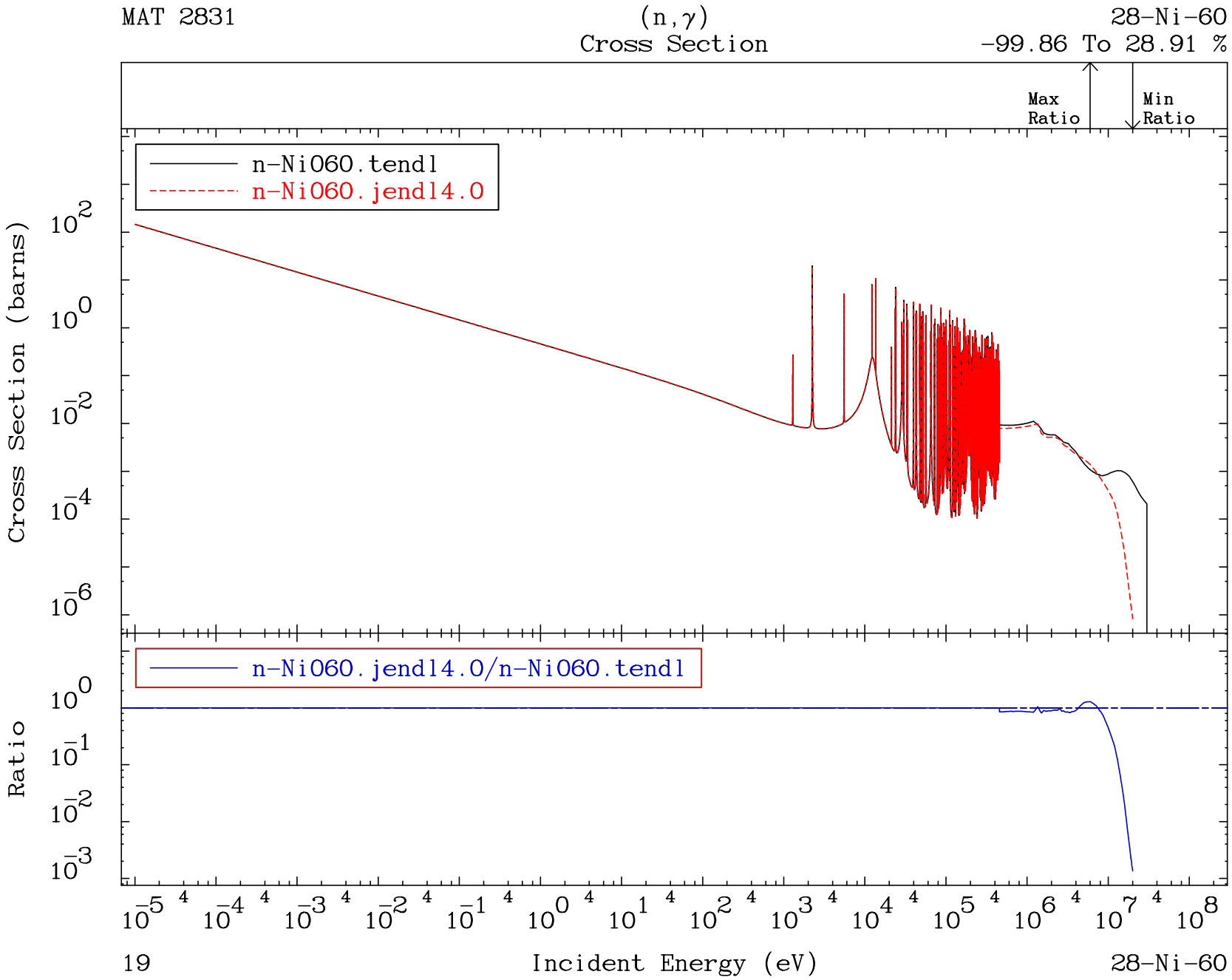

MAT 2831
MT= 58 (n,n') Level
Cross Section
28-Ni-60
-42.67 To 224.8 %
Min
Ratio
n-Ni060.tendl Threshold 3.2396 MeV
n-Ni060.jendl4.0 Threshold 3.2396 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
4.0
3.0
2.0
1.0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
14
Incident Energy (eV)
28-Ni-60

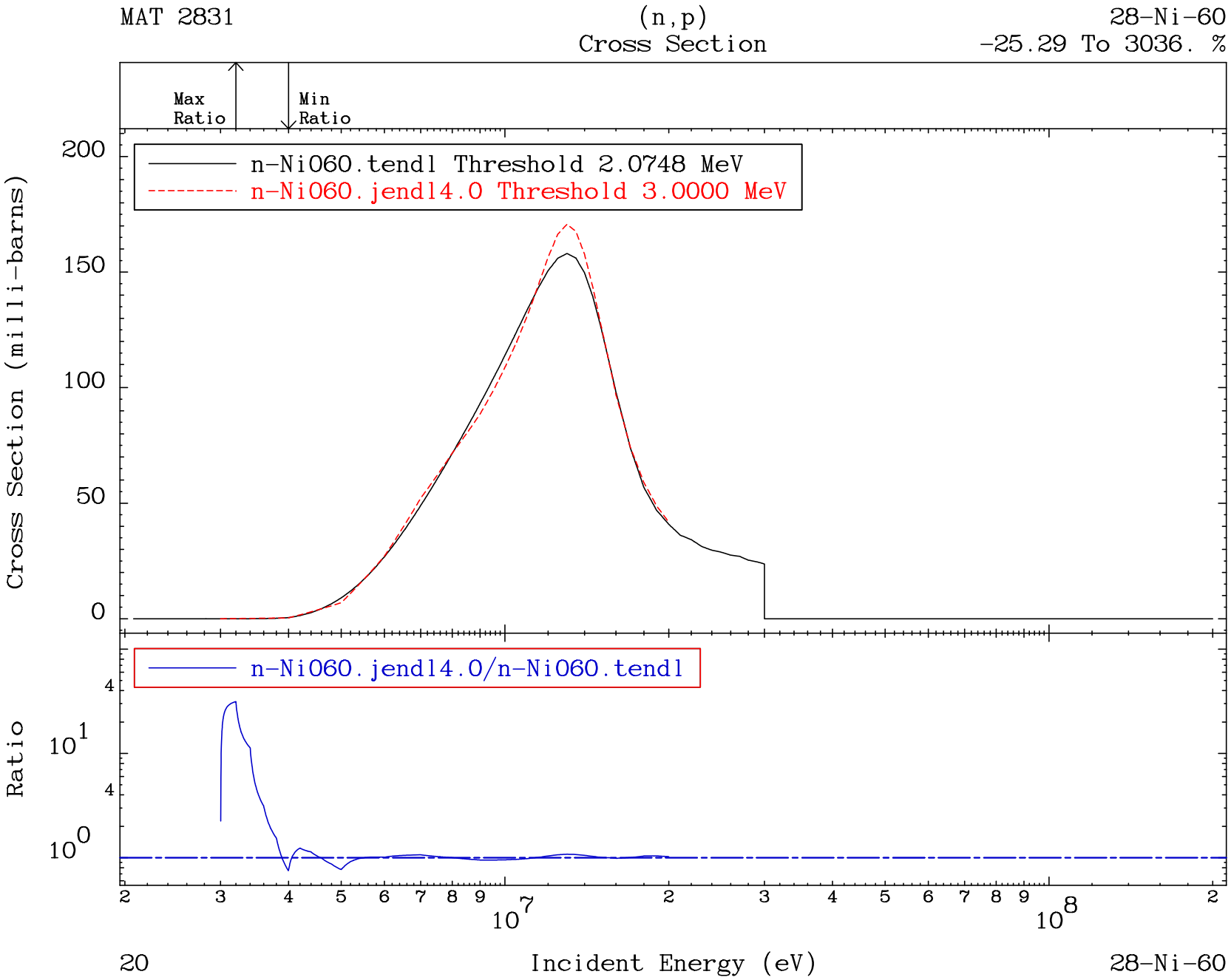

MAT 2831
MT= 59 (n,n') Level
Cross Section
28-Ni-60
-12.51 To 9999. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 3.2478 MeV
n-Ni060.jendl4.0 Threshold 3.2478 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^2
10^1
10^0
4
4
4
4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
15
Incident Energy (eV)
28-Ni-60

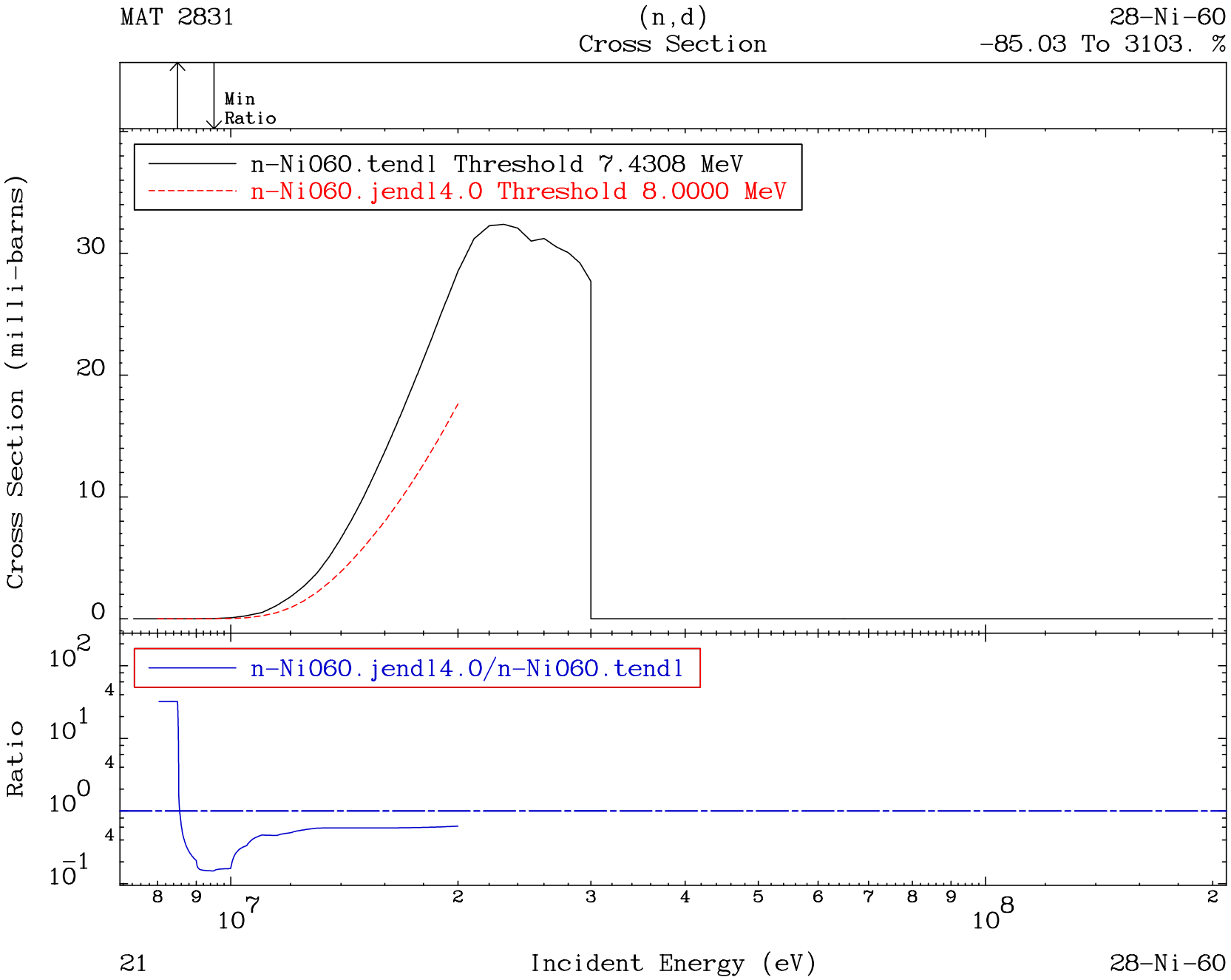

MAT 2831
MT= 60 (n,n') Level
Cross Section
28-Ni-60
-30.38 To 117.5 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 3.3244 MeV
n-Ni060.jendl4.0 Threshold 3.3244 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
2.4
1.8
1.2
0.6
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
28-Ni-60

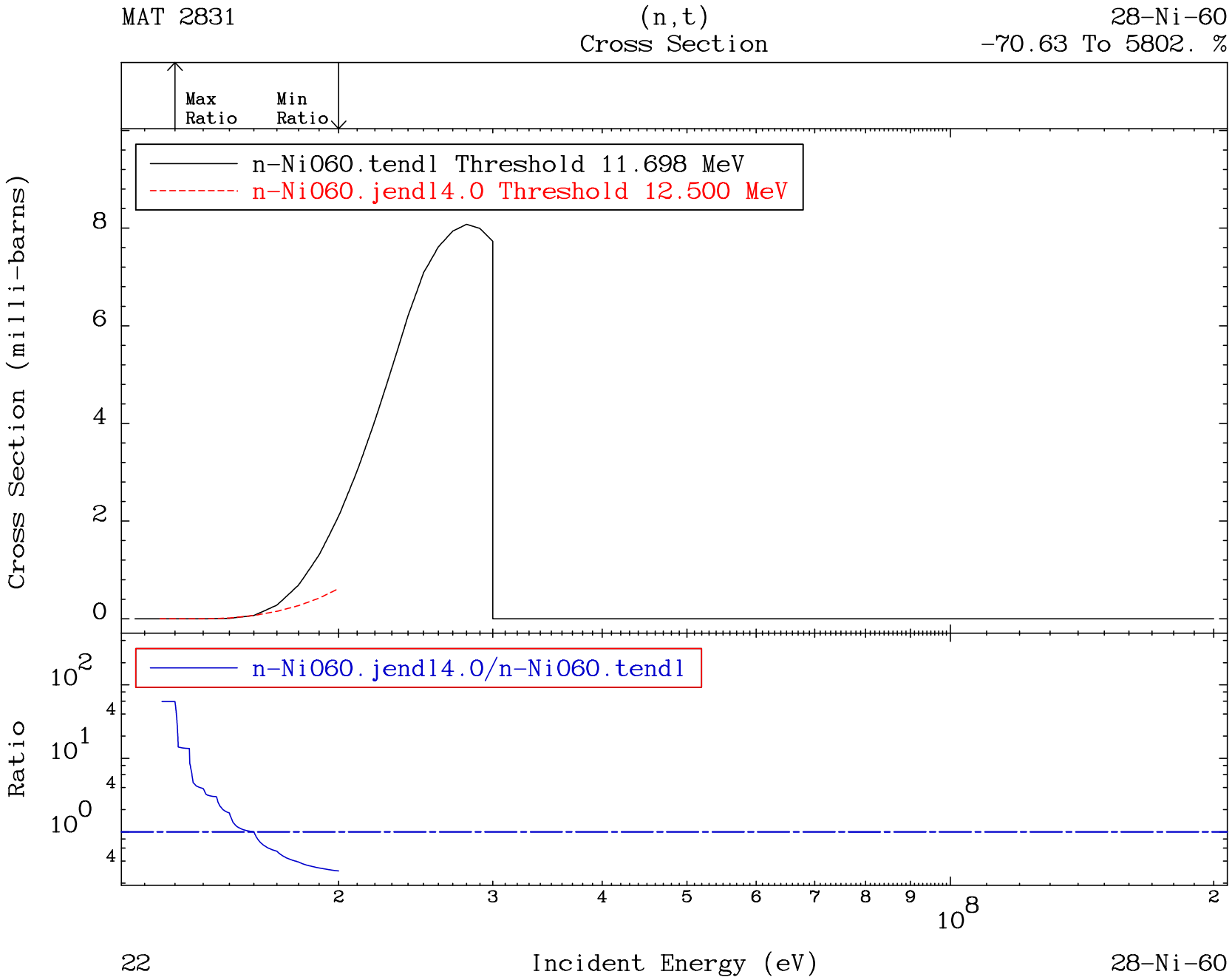

MAT 2831
MT= 61 (n,n') Level
Cross Section
28-Ni-60
-99.97 To 9999. %
Min
Ratio
Max
Ratio
n-Ni060.tendl Threshold 3.3746 MeV
n-Ni060.jendl4.0 Threshold 4.1077 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^6
10^3
10^0
10^-3
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
17
Incident Energy (eV)
28-Ni-60

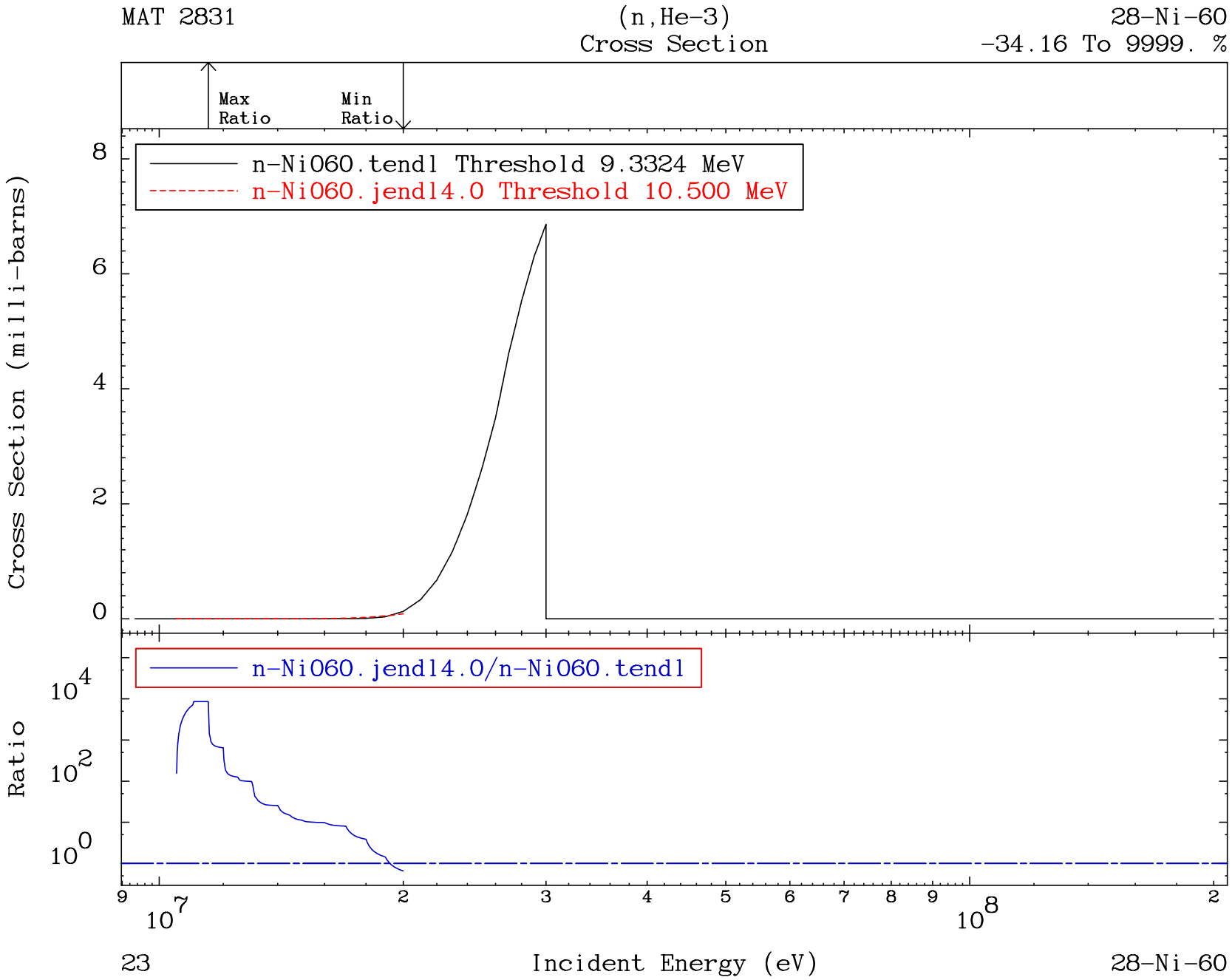

MAT 2831
(n,n') Continuum
Cross Section
28-Ni-60
-21.75 To 7697. %
Max
Ratio
Min
Ratio
n-Ni060.tendl Threshold 4.1853 MeV
n-Ni060.jendl4.0 Threshold 3.3738 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^2
4
10^1
4
10^0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
28-Ni-60

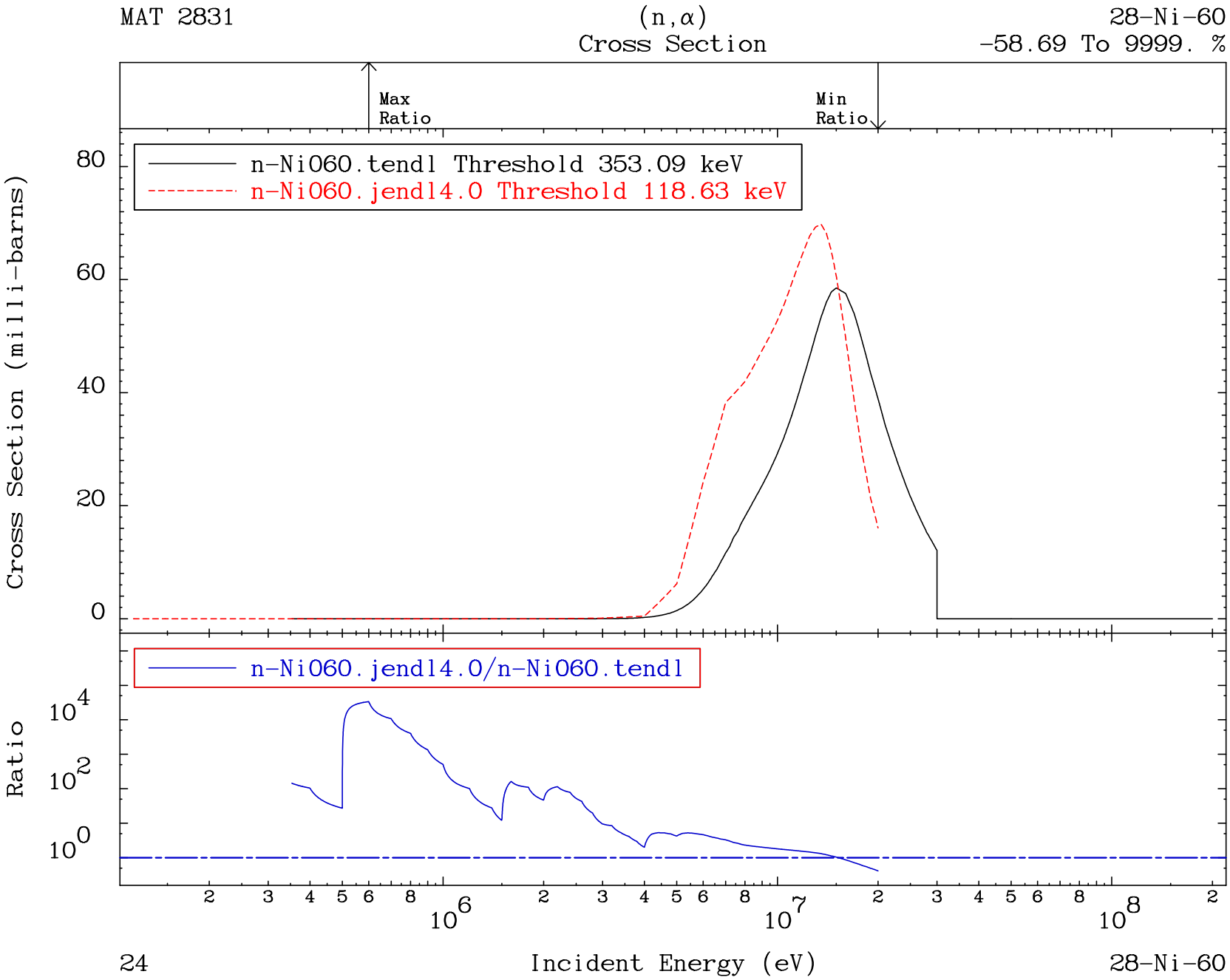

MAT 2831
(n,γ)
Cross Section
28-Ni-60
-99.86 To 28.91 %
Max Ratio
Min Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
19
28-Ni-60

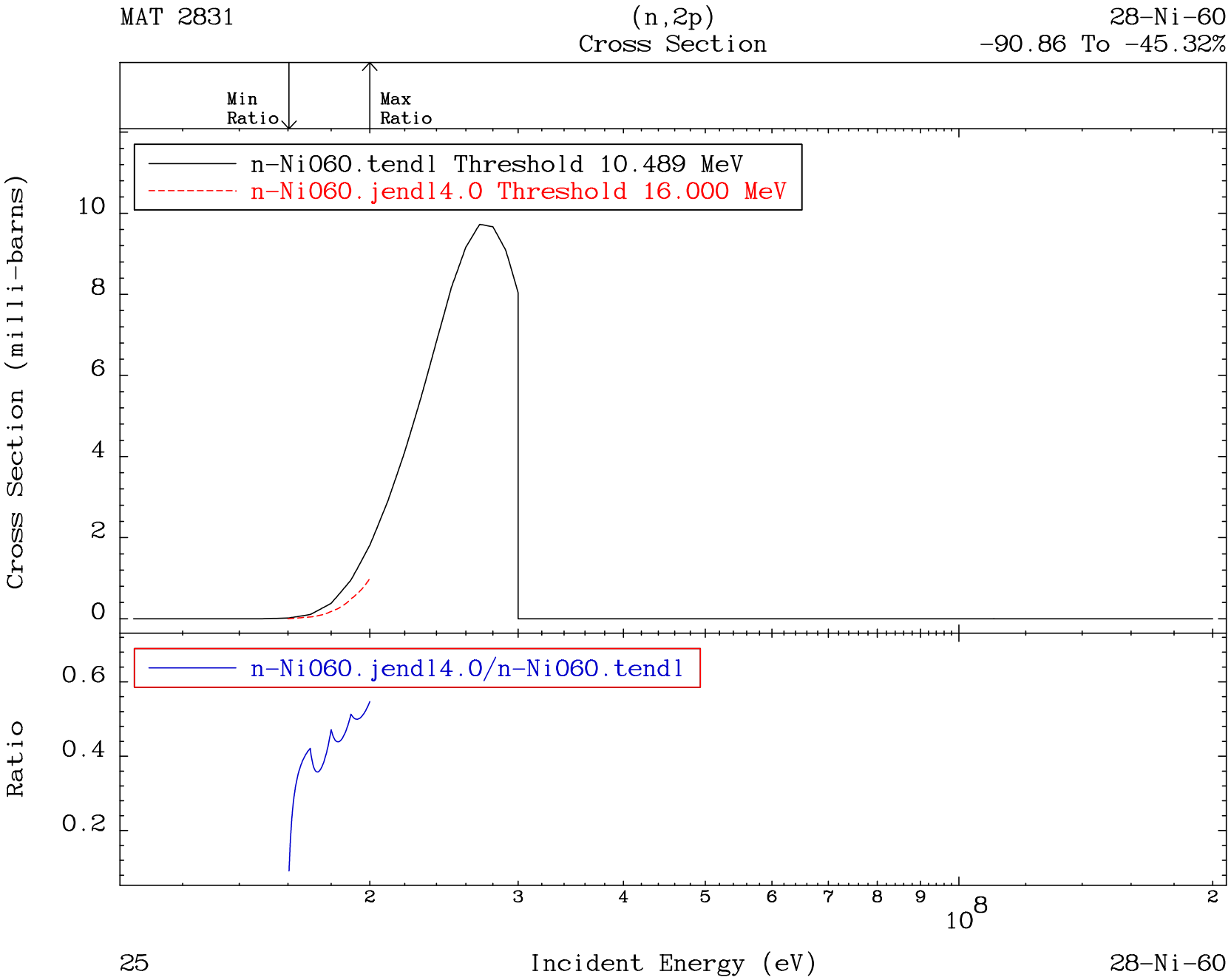

MAT 2831
(n,p)
Cross Section
28-Ni-60
-25.29 To 3036. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 2.0748 MeV
n-Ni060.jendl4.0 Threshold 3.0000 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
4
10^1
4
10^0
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
28-Ni-60

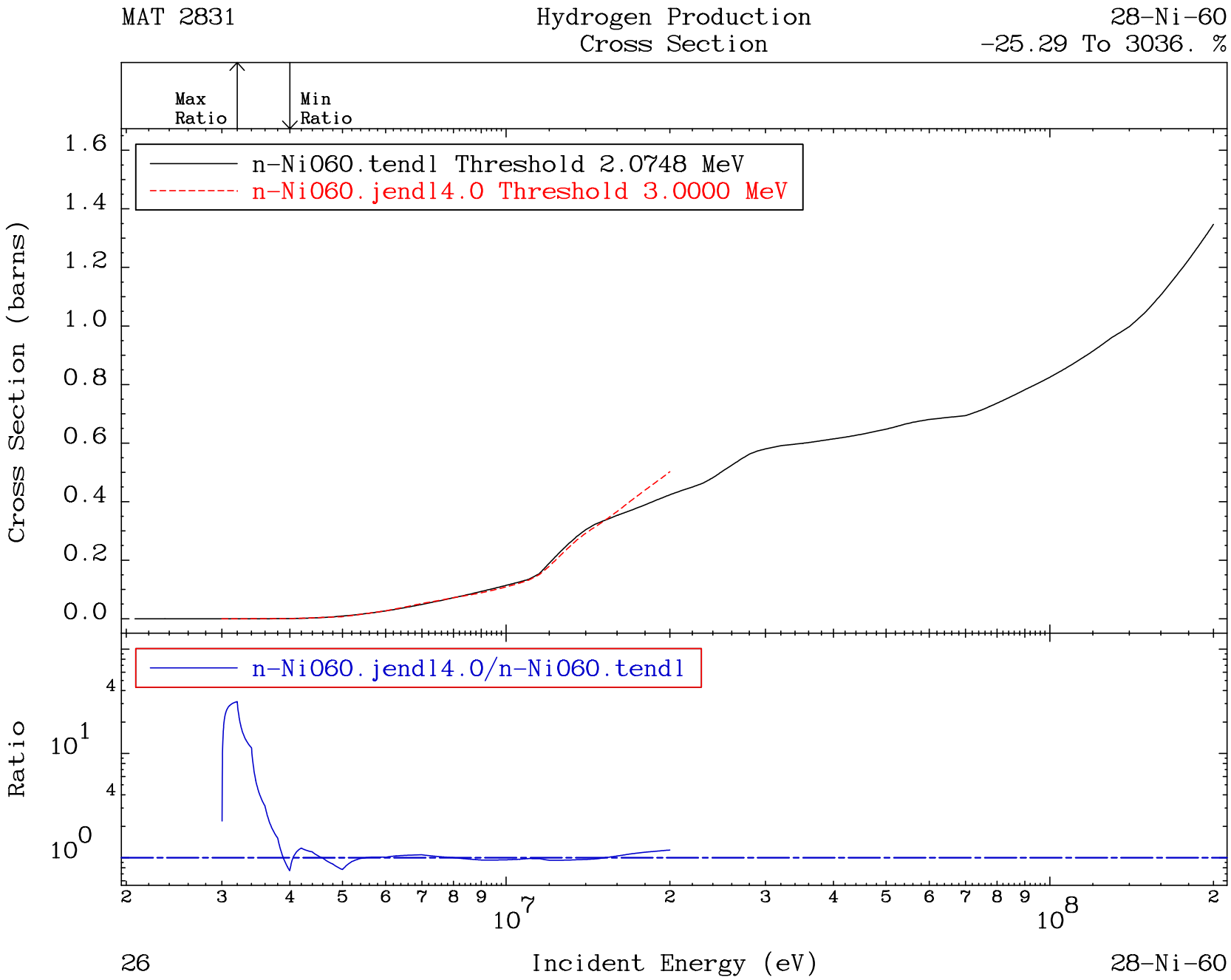

MAT 2831
(n,d)
Cross Section
28-Ni-60
-85.03 To 3103. %
Min
Ratio
n-Ni060.tendl Threshold 7.4308 MeV
n-Ni060.jendl4.0 Threshold 8.0000 MeV
Cross Section (milli-barns)
30
20
10
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^2
10^1
10^0
10^-1
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
28-Ni-60

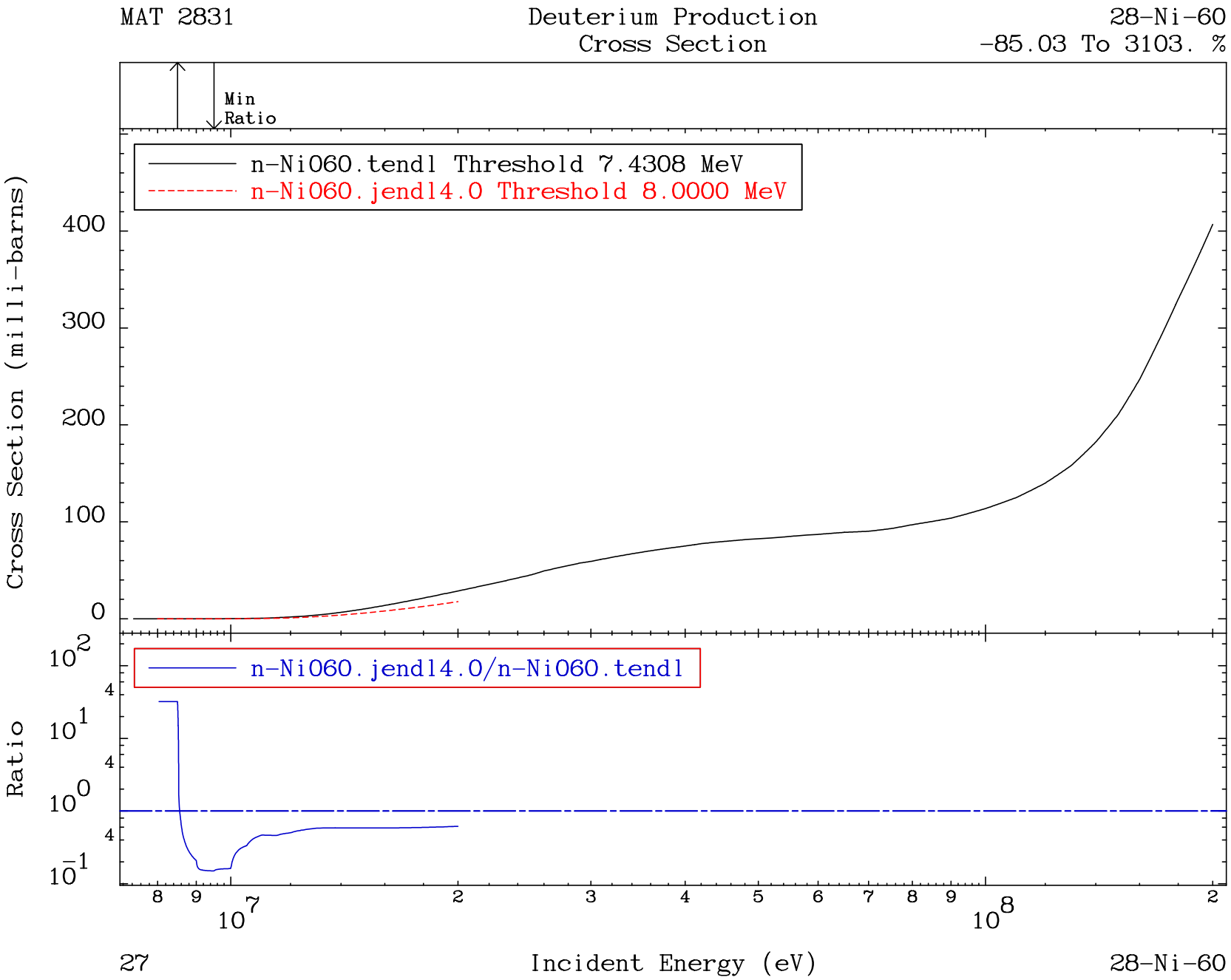

MAT 2831
(n,t)
Cross Section
28-Ni-60
-70.63 To 5802. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 11.698 MeV
n-Ni060.jendl4.0 Threshold 12.500 MeV
Cross Section (milli-barns)
0
2
4
6
8
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
22
Incident Energy (eV)
28-Ni-60

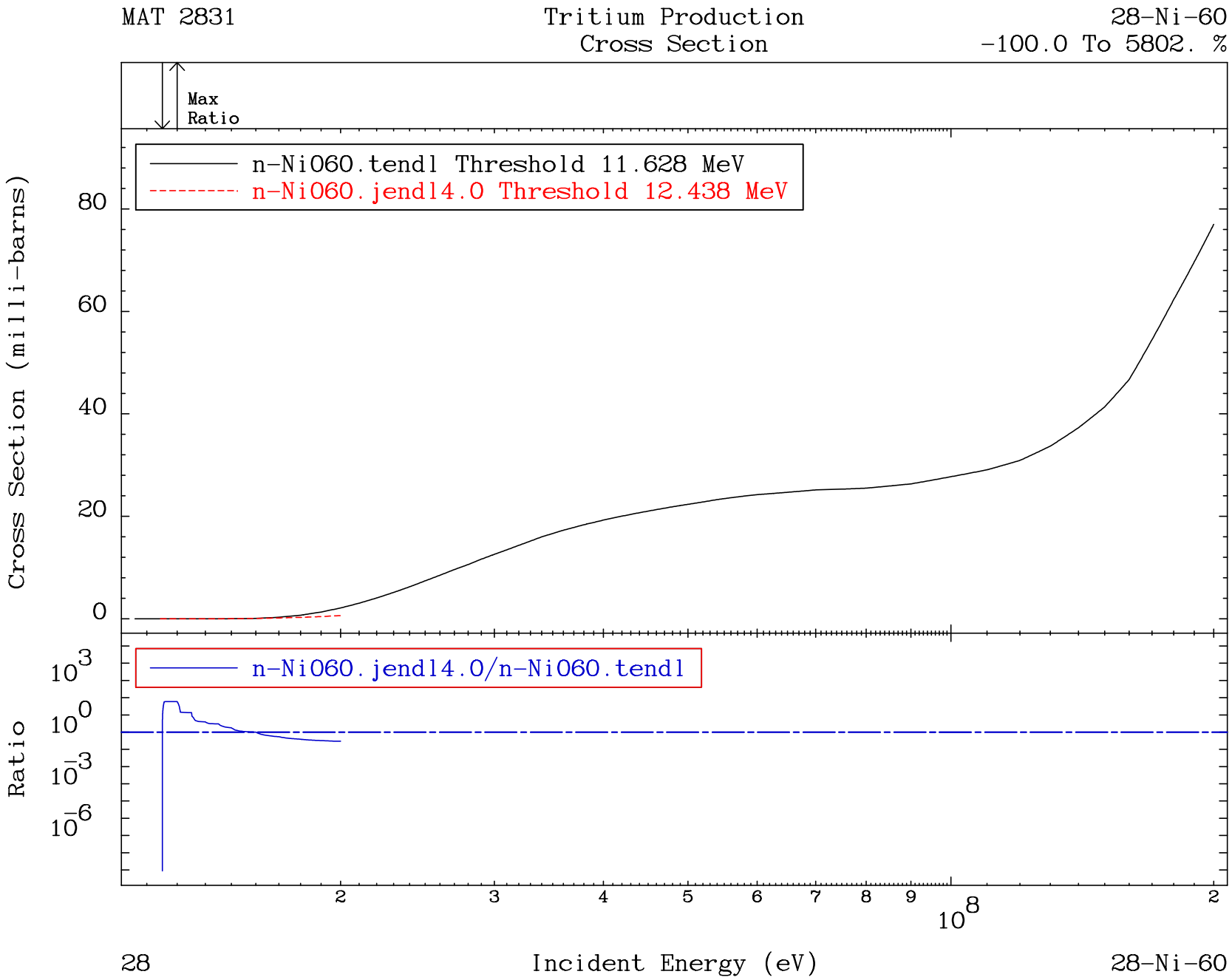

MAT 2831
(n,He-3)
Cross Section
28-Ni-60
-34.16 To 9999. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 9.3324 MeV
n-Ni060.jendl4.0 Threshold 10.500 MeV
Cross Section (milli-barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
23
28-Ni-60

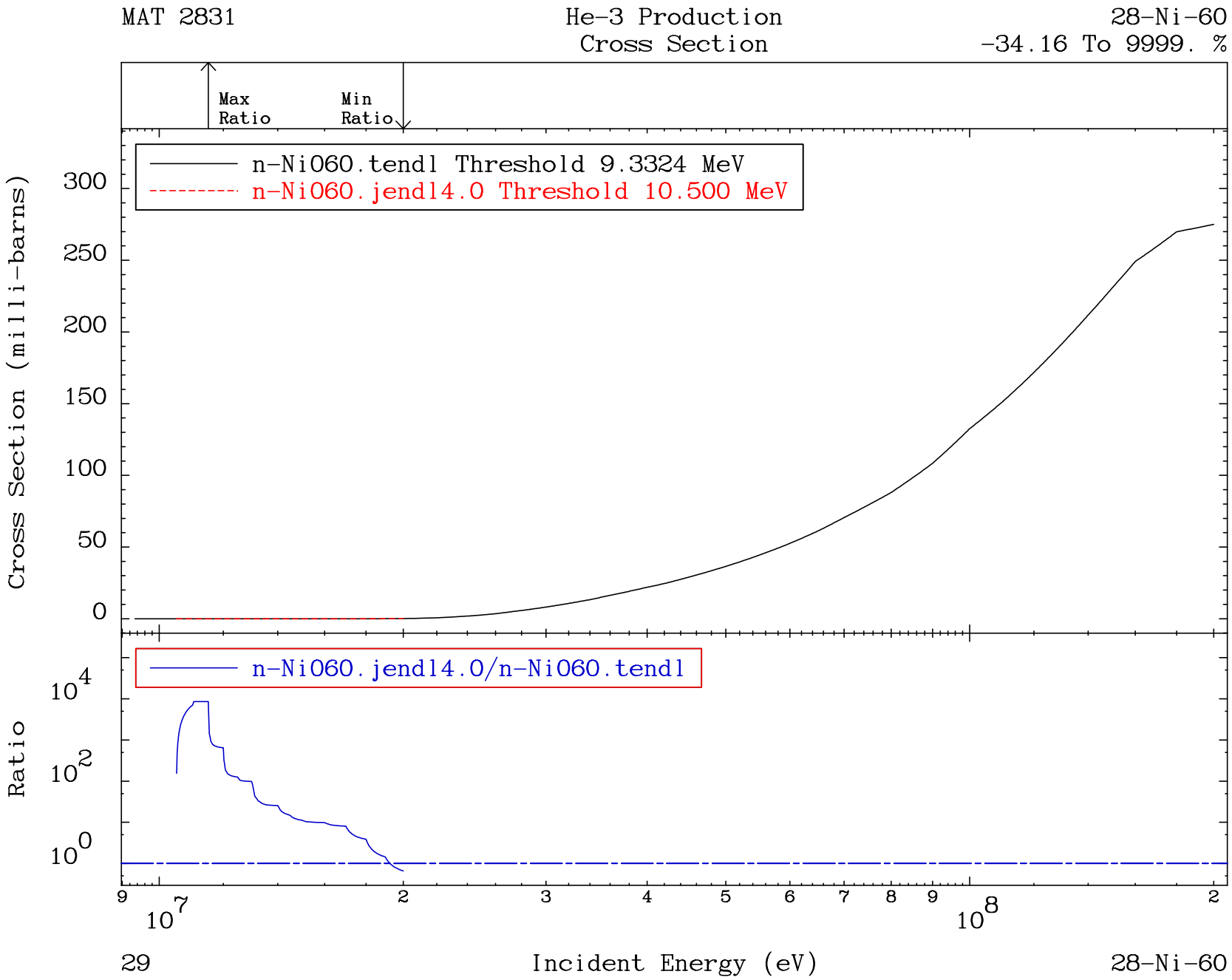

MAT 2831
(n,α)
Cross Section
28-Ni-60
-58.69 To 9999. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 353.09 keV
n-Ni060.jendl4.0 Threshold 118.63 keV
Cross Section (milli-barns)
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^4
10^2
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
24
Incident Energy (eV)
28-Ni-60

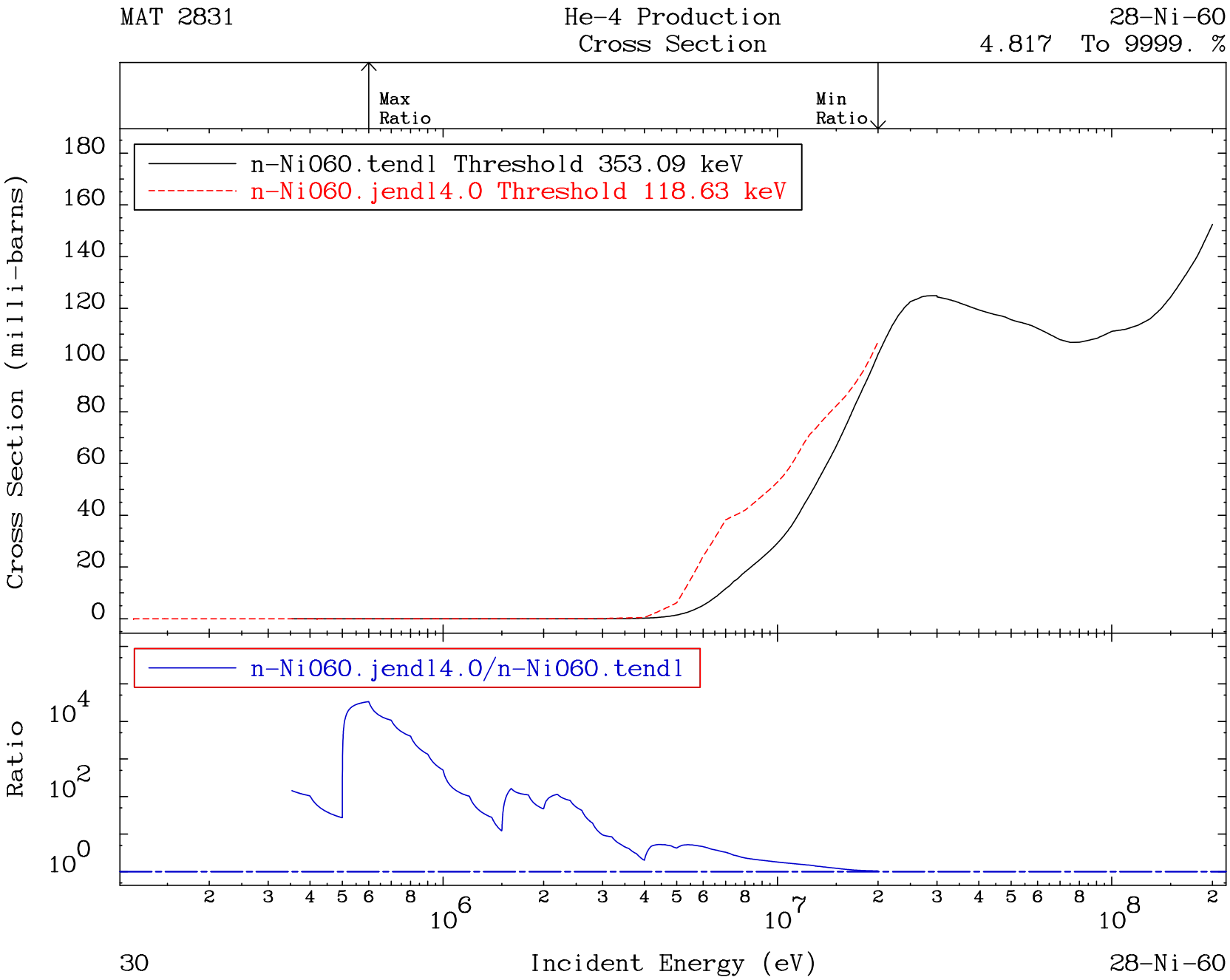

MAT 2831
(n,2p)
Cross Section
28-Ni-60
-90.86 To -45.32%
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 10.489 MeV
n-Ni060.jendl4.0 Threshold 16.000 MeV
Cross Section (milli-barns)
10
8
6
4
2
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
0.6
0.4
0.2
2
3
4
5
6
7
8
9
10^8
2
25
Incident Energy (eV)
28-Ni-60

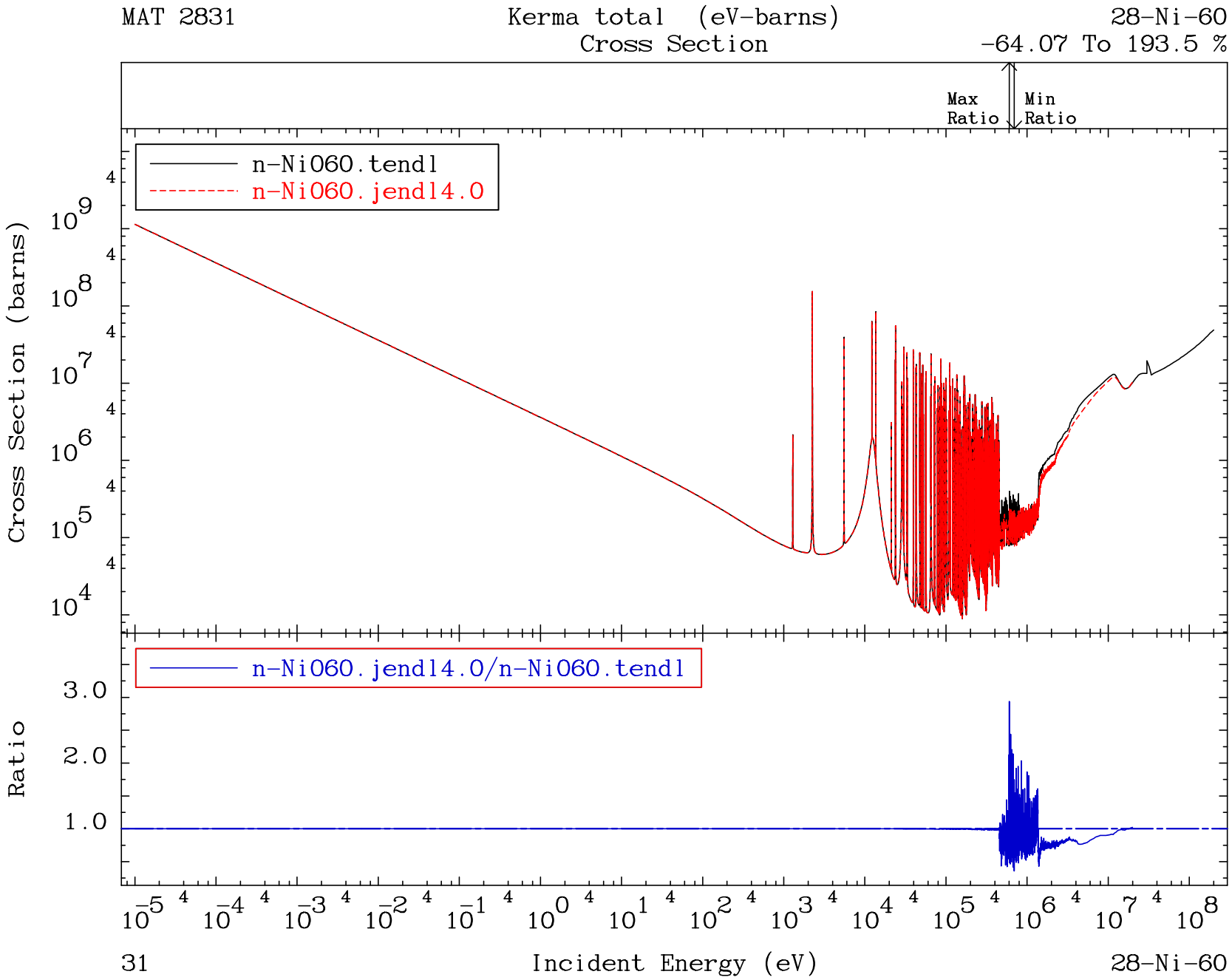

MAT 2831
Hydrogen Production
Cross Section
28-Ni-60
-25.29 To 3036. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 2.0748 MeV
n-Ni060.jendl4.0 Threshold 3.0000 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^1
10^0
2 3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
26
Incident Energy (eV)
28-Ni-60

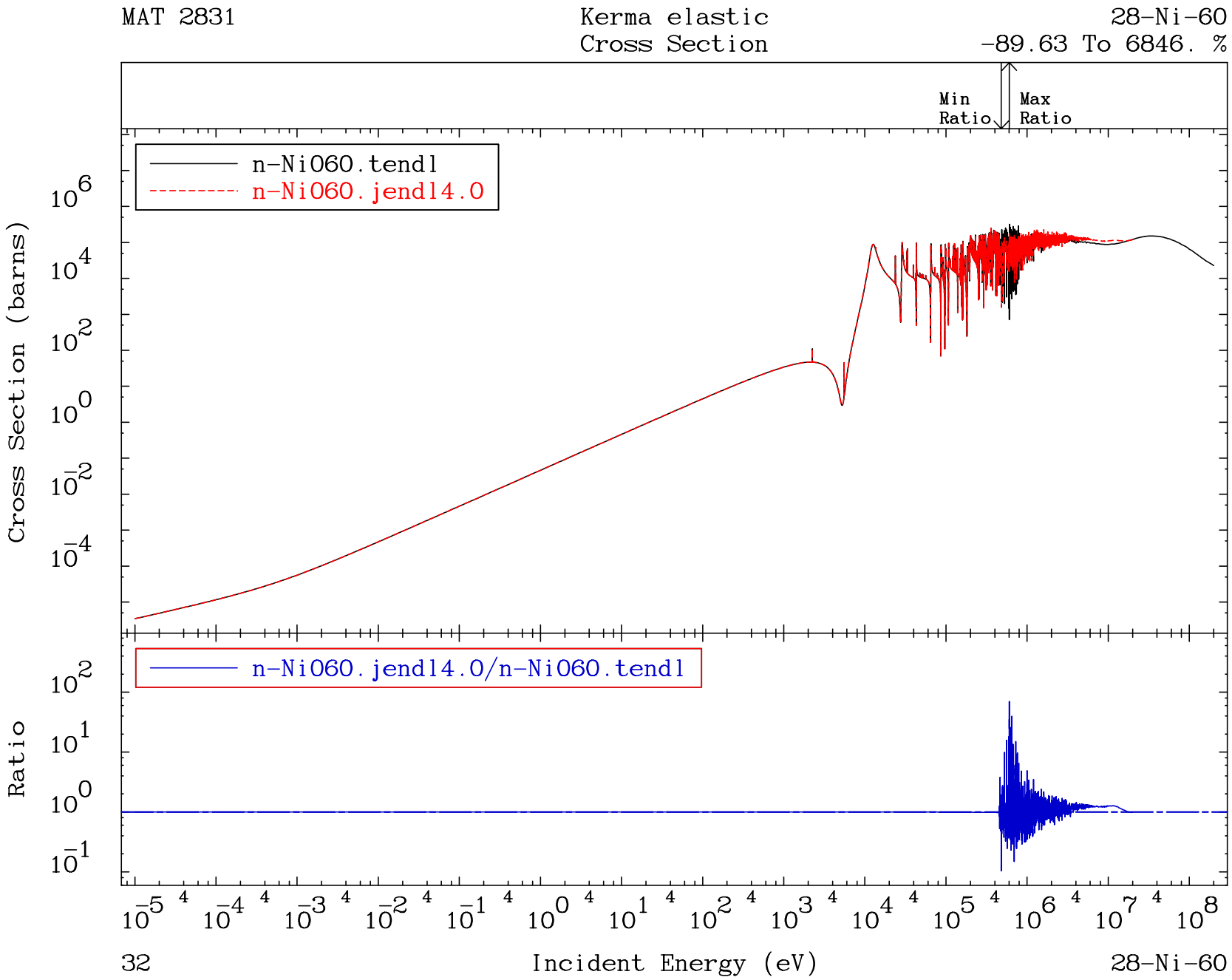

MAT 2831
Deuterium Production
Cross Section
28-Ni-60
-85.03 To 3103. %
Min
Ratio
n-Ni060.tendl Threshold 7.4308 MeV
n-Ni060.jendl4.0 Threshold 8.0000 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^2
10^1
10^0
10^-1
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
28-Ni-60

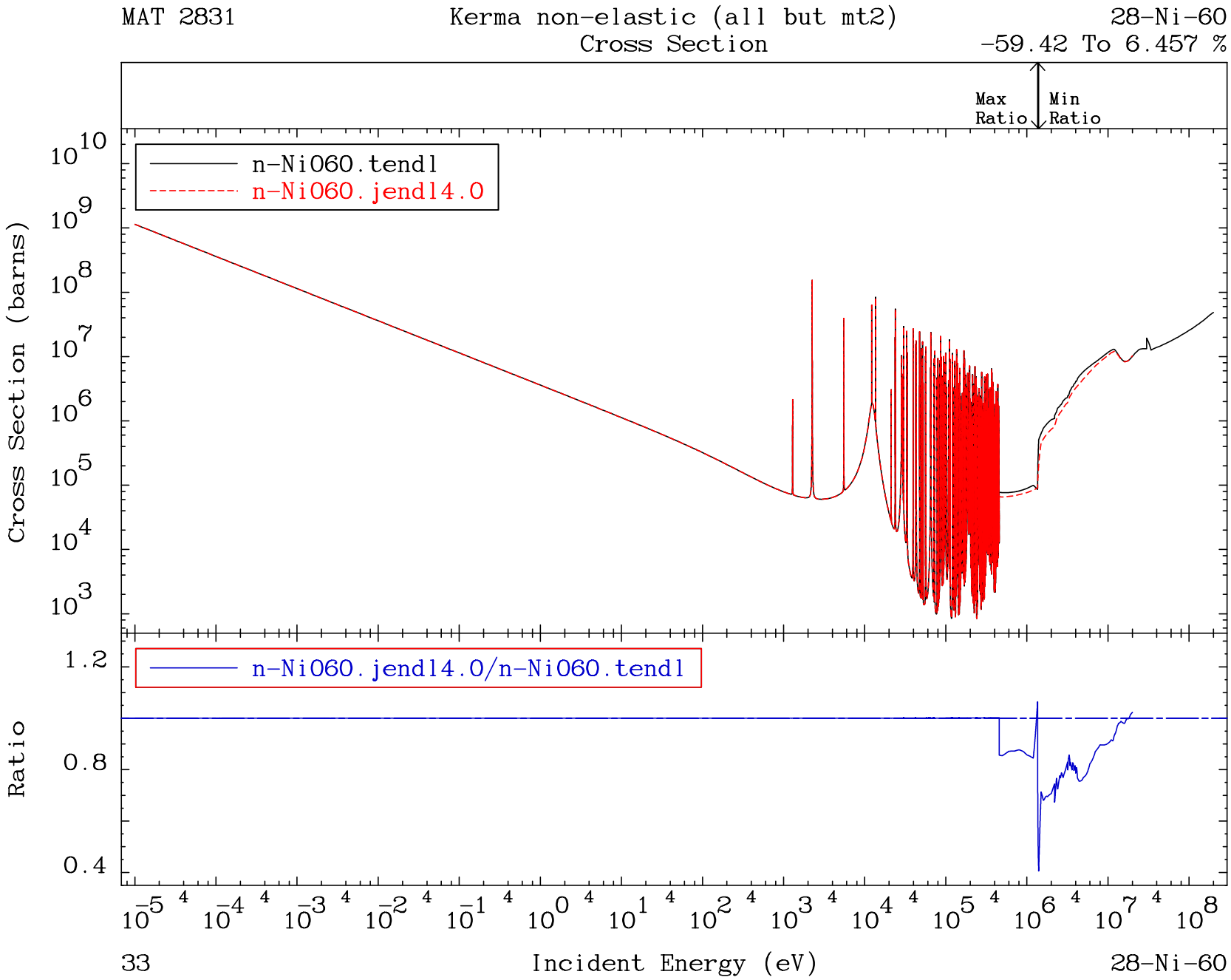

MAT 2831
Tritium Production
Cross Section
28-Ni-60
-100.0 To 5802. %
Max
Ratio
n-Ni060.tendl Threshold 11.628 MeV
n-Ni060.jendl4.0 Threshold 12.438 MeV
Cross Section (milli-barns)
0
20
40
60
80
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^3
10^0
10^-3
10^-6
2
3
4
5
6
7
8
9
10^8
2
28
Incident Energy (eV)
28-Ni-60

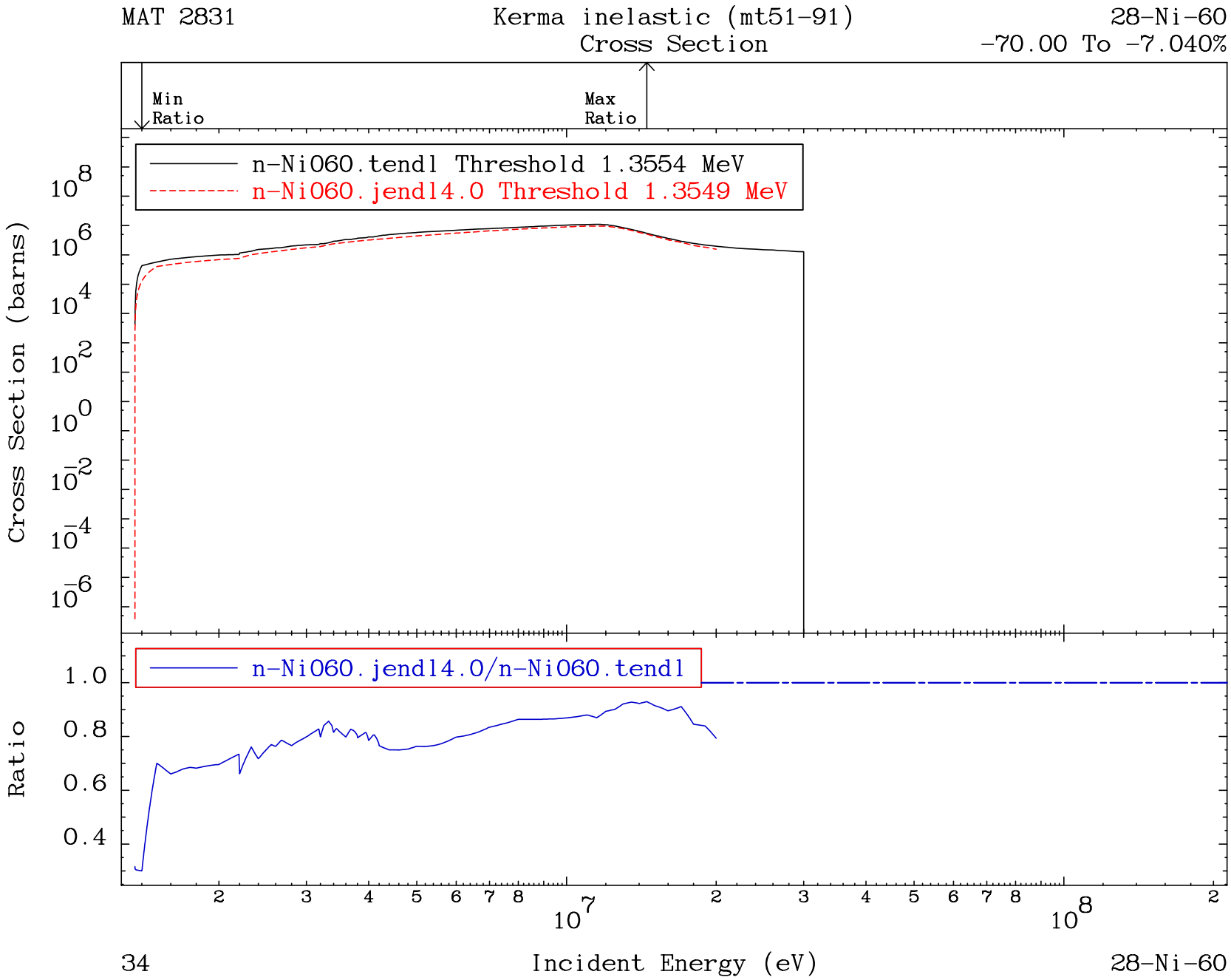

MAT 2831
He-3 Production
Cross Section
28-Ni-60
-34.16 To 9999. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 9.3324 MeV
n-Ni060.jendl4.0 Threshold 10.500 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^4
10^2
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
29
Incident Energy (eV)
28-Ni-60

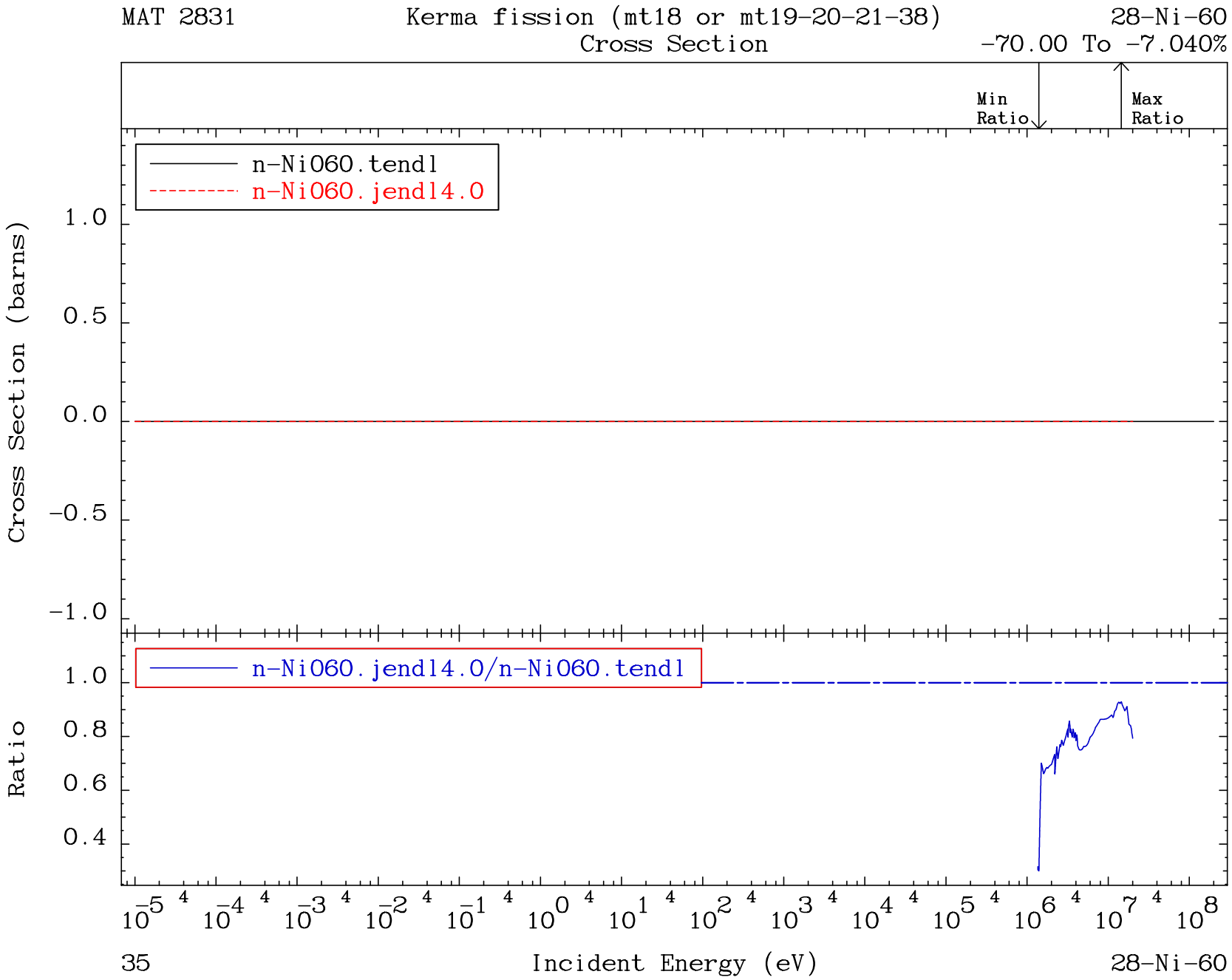

MAT 2831
He-4 Production
Cross Section
28-Ni-60
4.817 To 9999. %
Max Ratio
Min Ratio
n-Ni060.tendl Threshold 353.09 keV
n-Ni060.jendl4.0 Threshold 118.63 keV
Cross Section (milli-barns)
180
160
140
120
100
80
60
40
20
0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^4
10^2
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
30
Incident Energy (eV)
28-Ni-60

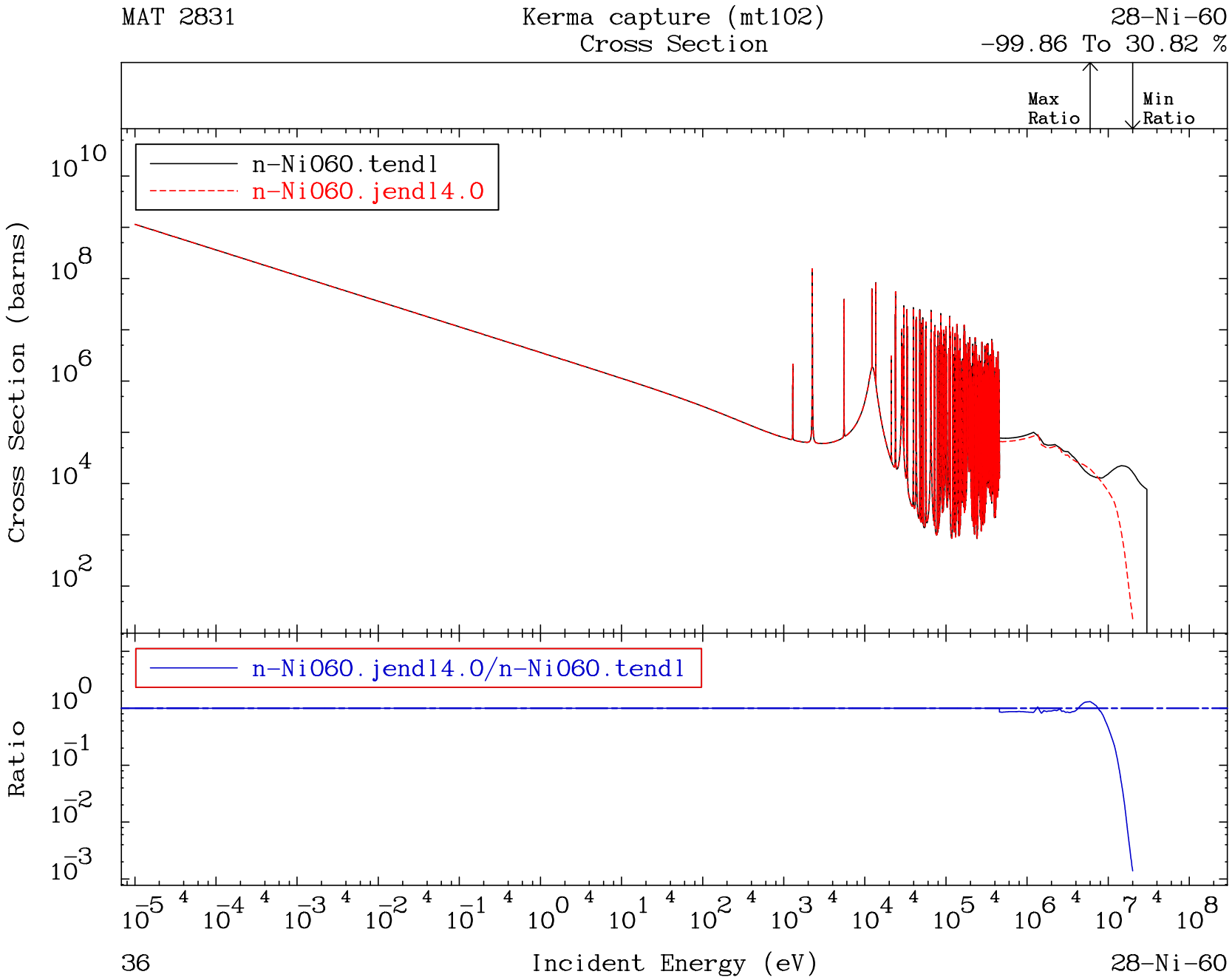

MAT 2831
Kerma total (eV-barns)
Cross Section
28-Ni-60
-64.07 To 193.5 %
Max Ratio
Min Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
31
28-Ni-60

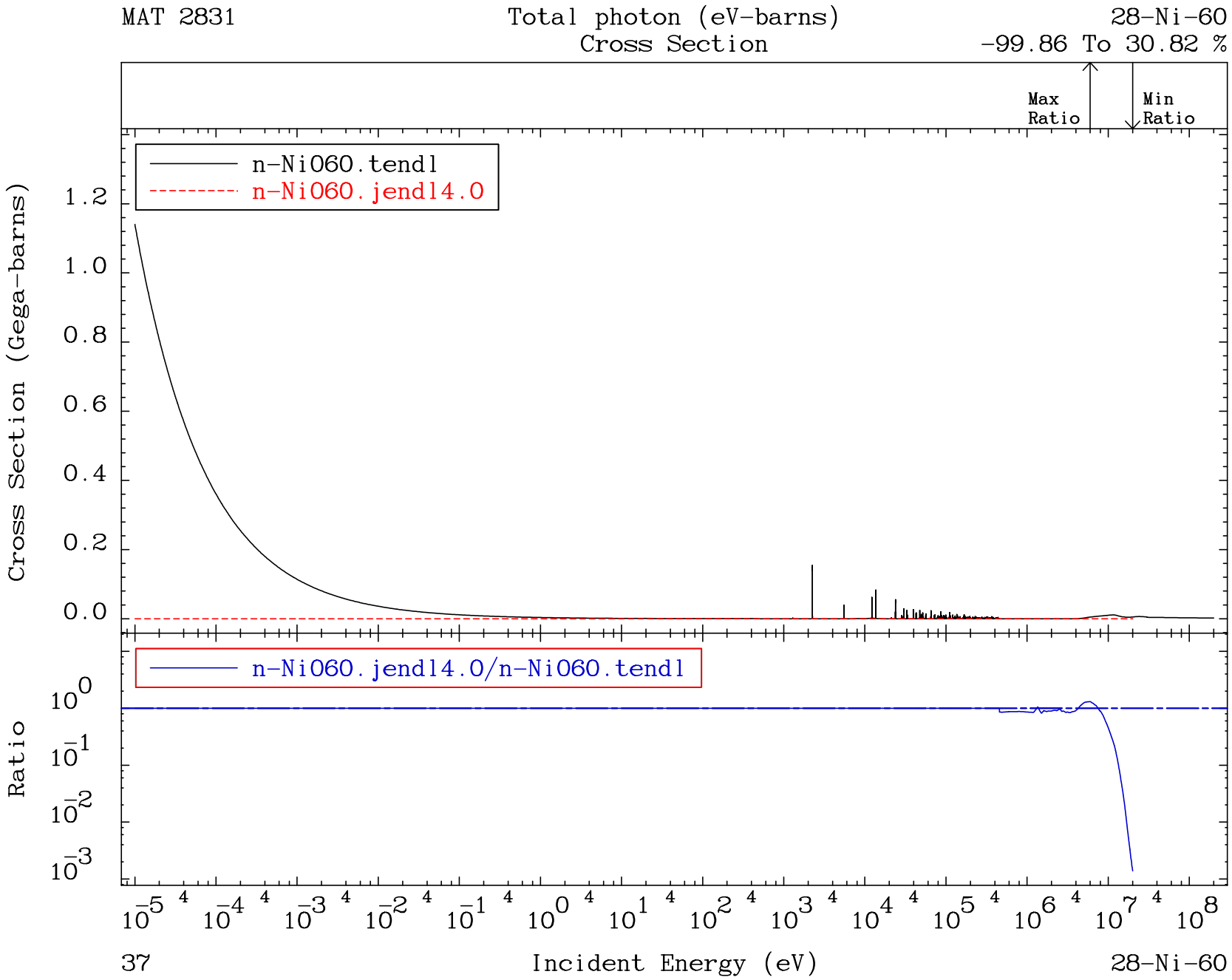

MAT 2831
Kerma elastic
Cross Section
28-Ni-60
-89.63 To 6846. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
Ratio
n-Ni060.jendl4.0/n-Ni060.tendl
Incident Energy (eV)
32
28-Ni-60

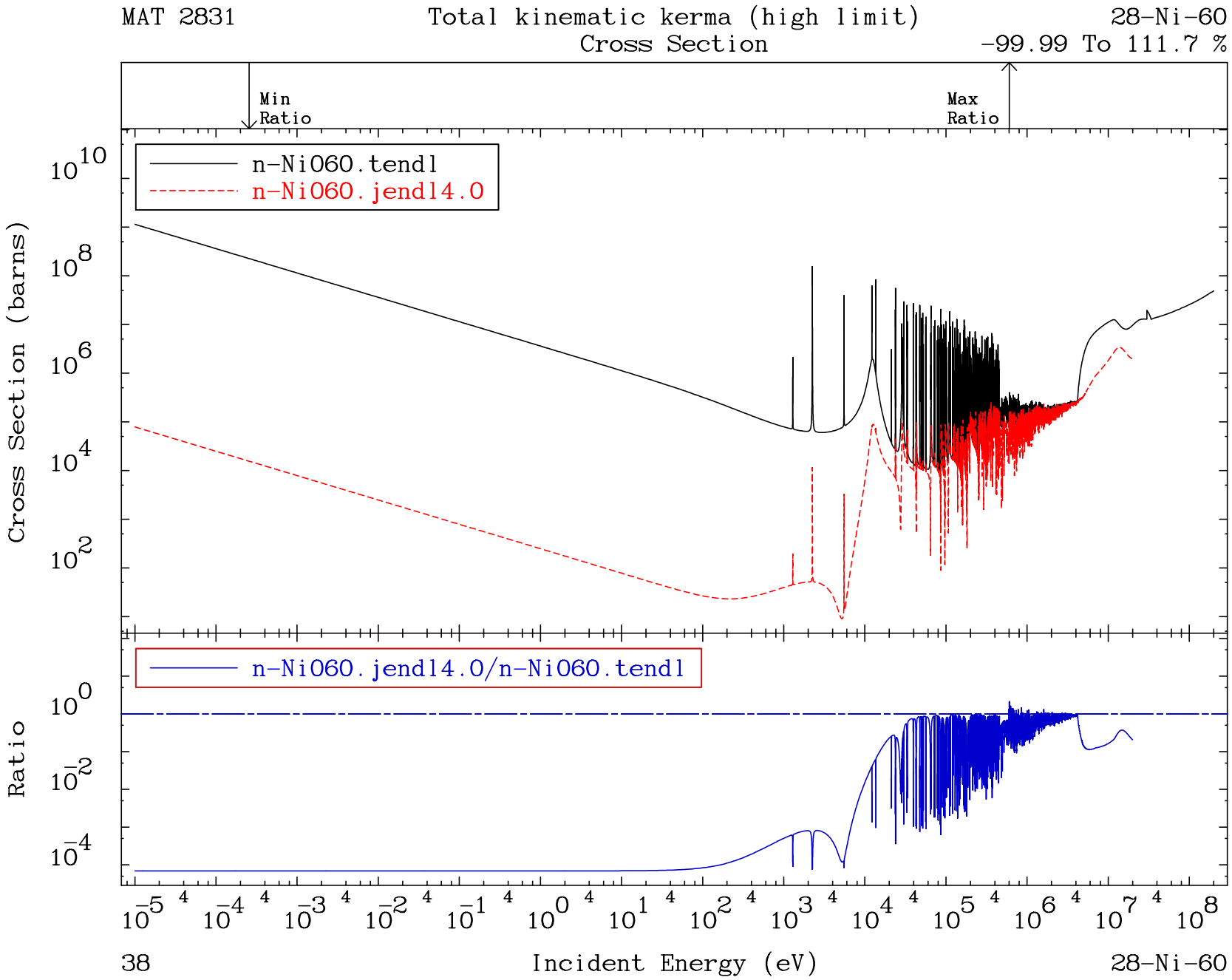

MAT 2831
Kerma non-elastic (all but mt2)
Cross Section
28-Ni-60
-59.42 To 6.457 %
Max Ratio
Min Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
33
Incident Energy (eV)
28-Ni-60

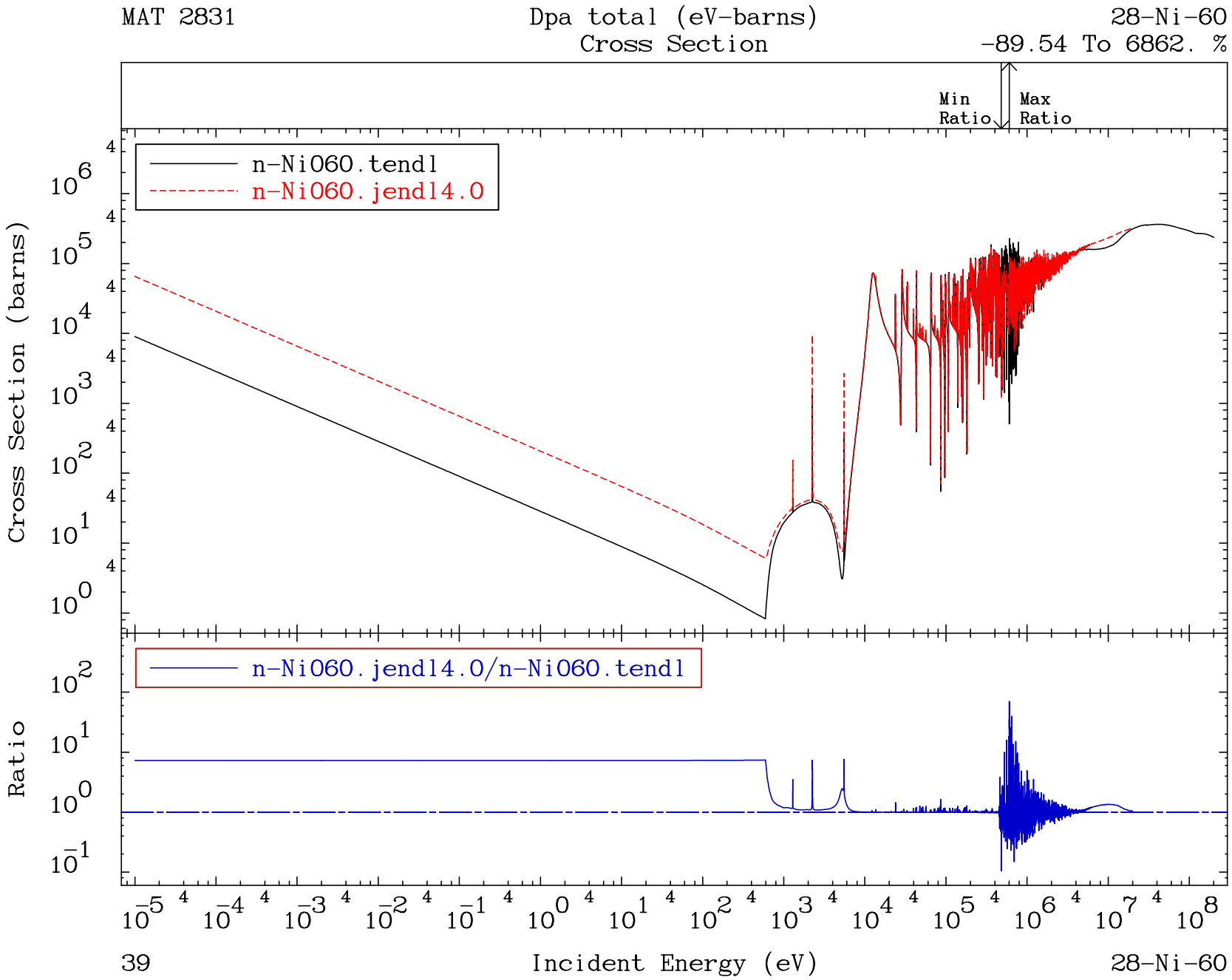

MAT 2831
Kerma inelastic (mt51-91)
Cross Section
28-Ni-60
-70.00 To -7.040%
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 1.3554 MeV
n-Ni060.jendl4.0 Threshold 1.3549 MeV
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
34
28-Ni-60

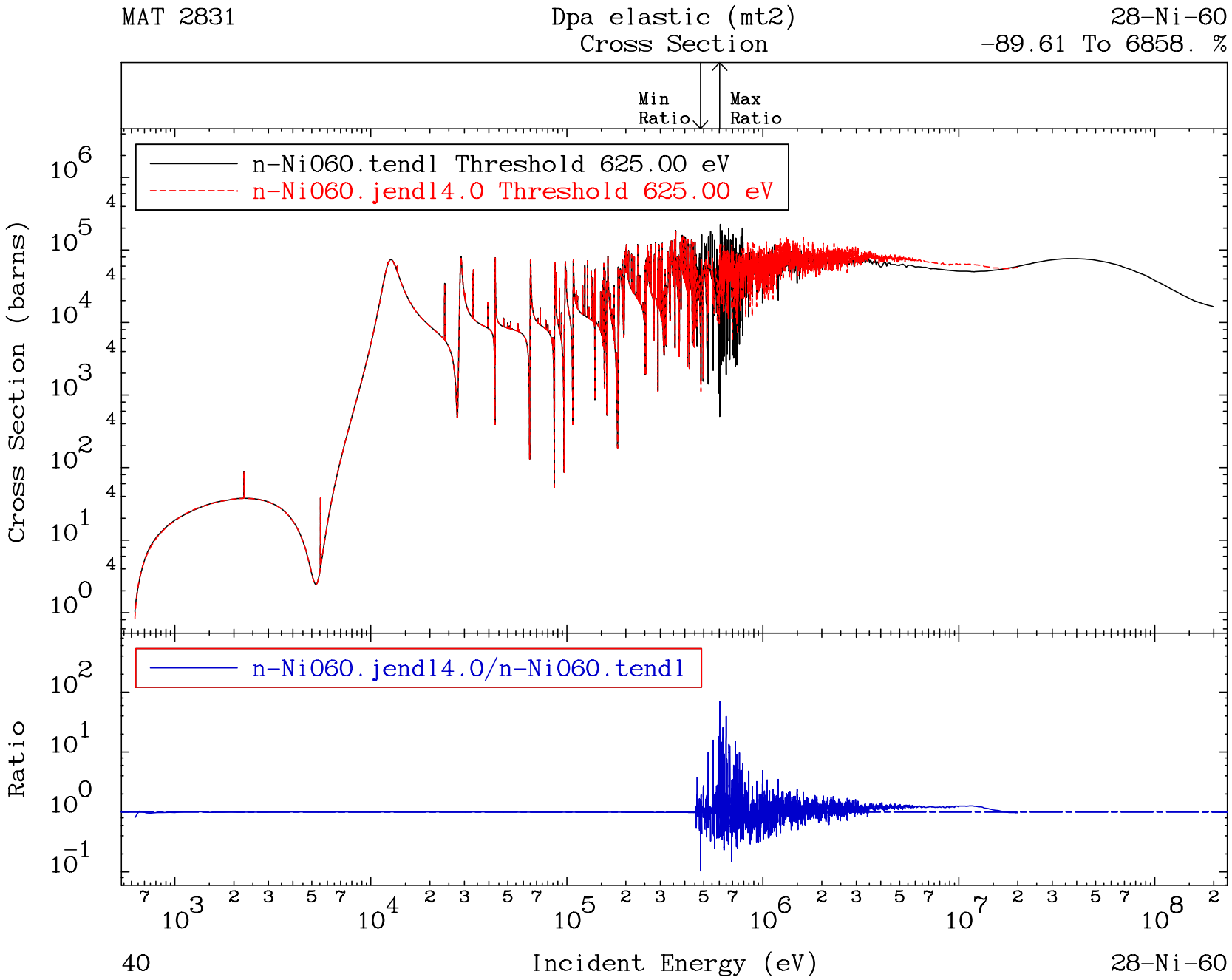

MAT 2831
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
28-Ni-60
-70.00 To -7.040%
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
1.0
0.8
0.6
0.4
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
35
Incident Energy (eV)
28-Ni-60

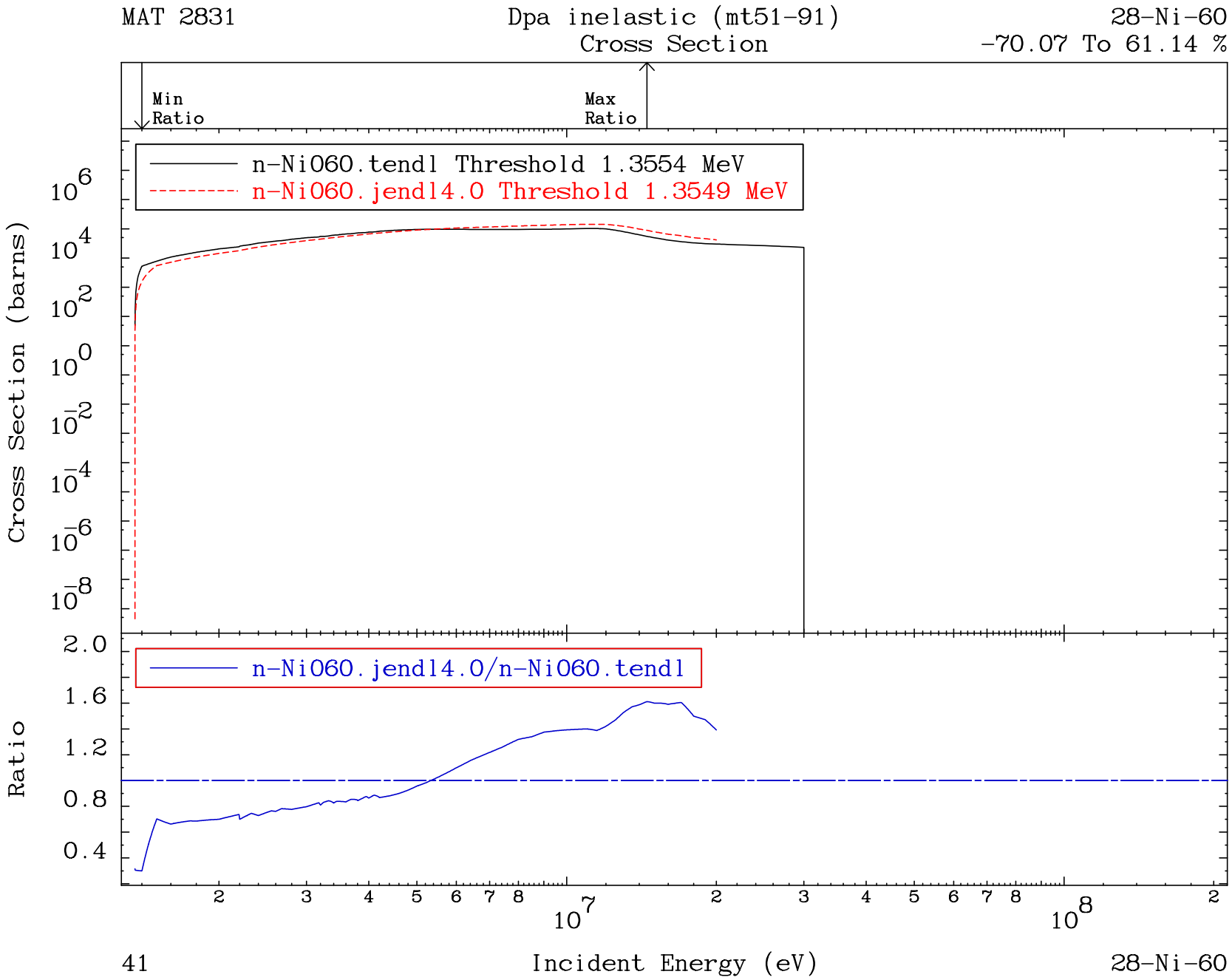

MAT 2831
Kerma capture (mt102)
Cross Section
28-Ni-60
-99.86 To 30.82 %
Max Ratio
Min Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
36
Incident Energy (eV)
28-Ni-60

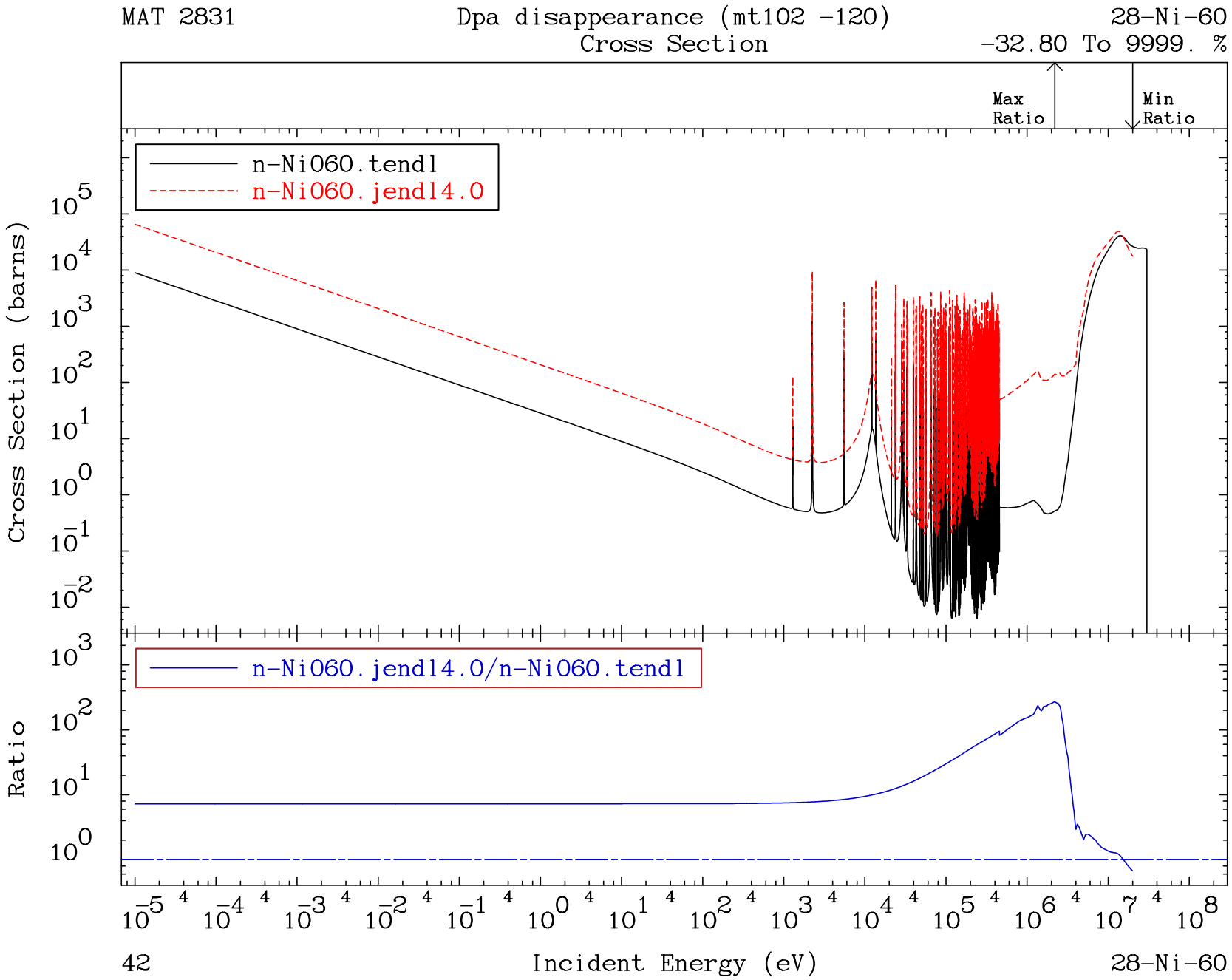

MAT 2831
Total photon (eV-barns)
Cross Section
28-Ni-60
-99.86 To 30.82 %
Max Ratio
Min Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (Giga-barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
10^0
10^-1
10^-2
10^-3
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
37
Incident Energy (eV)
28-Ni-60


MAT 2831
Total kinematic kerma (high limit)
Cross Section
28-Ni-60
-99.99 To 111.7 %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
38
28-Ni-60


MAT 2831
Dpa total (eV-barns)
Cross Section
28-Ni-60
-89.54 To 6862. %
Min Ratio
Max Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
39
28-Ni-60


MAT 2831
Dpa elastic (mt2)
Cross Section
28-Ni-60
-89.61 To 6858. %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 625.00 eV
n-Ni060.jendl4.0 Threshold 625.00 eV
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
40
28-Ni-60


MAT 2831
Dpa inelastic (mt51-91)
Cross Section
28-Ni-60
-70.07 To 61.14 %
Min Ratio
Max Ratio
n-Ni060.tendl Threshold 1.3554 MeV
n-Ni060.jendl4.0 Threshold 1.3549 MeV
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
41
28-Ni-60


MAT 2831
Dpa disappearance (mt102 -120)
Cross Section
28-Ni-60
-32.80 To 9999. %
Max Ratio
Min Ratio
n-Ni060.tendl
n-Ni060.jendl4.0
Cross Section (barns)
n-Ni060.jendl4.0/n-Ni060.tendl
Ratio
Incident Energy (eV)
42
28-Ni-60