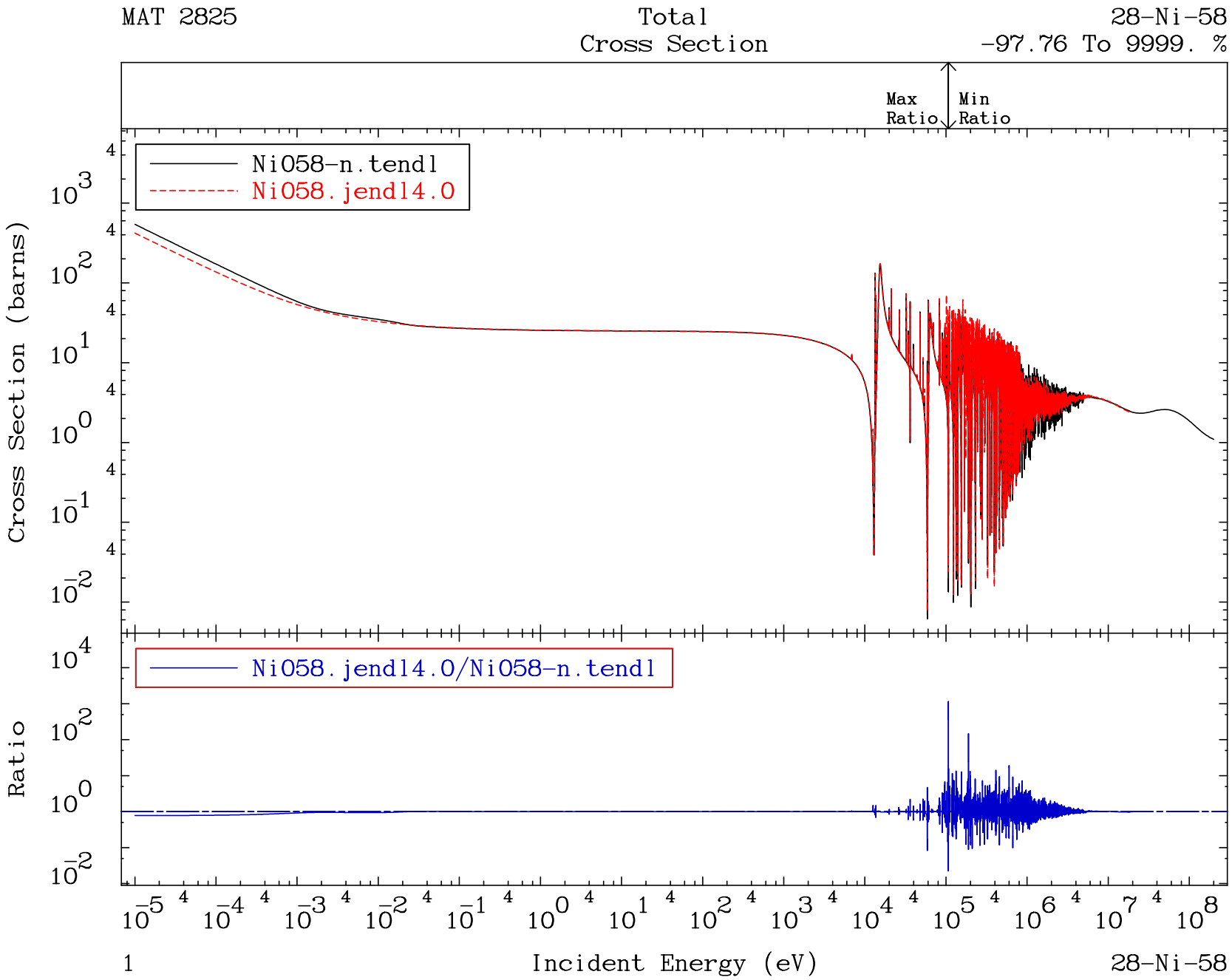
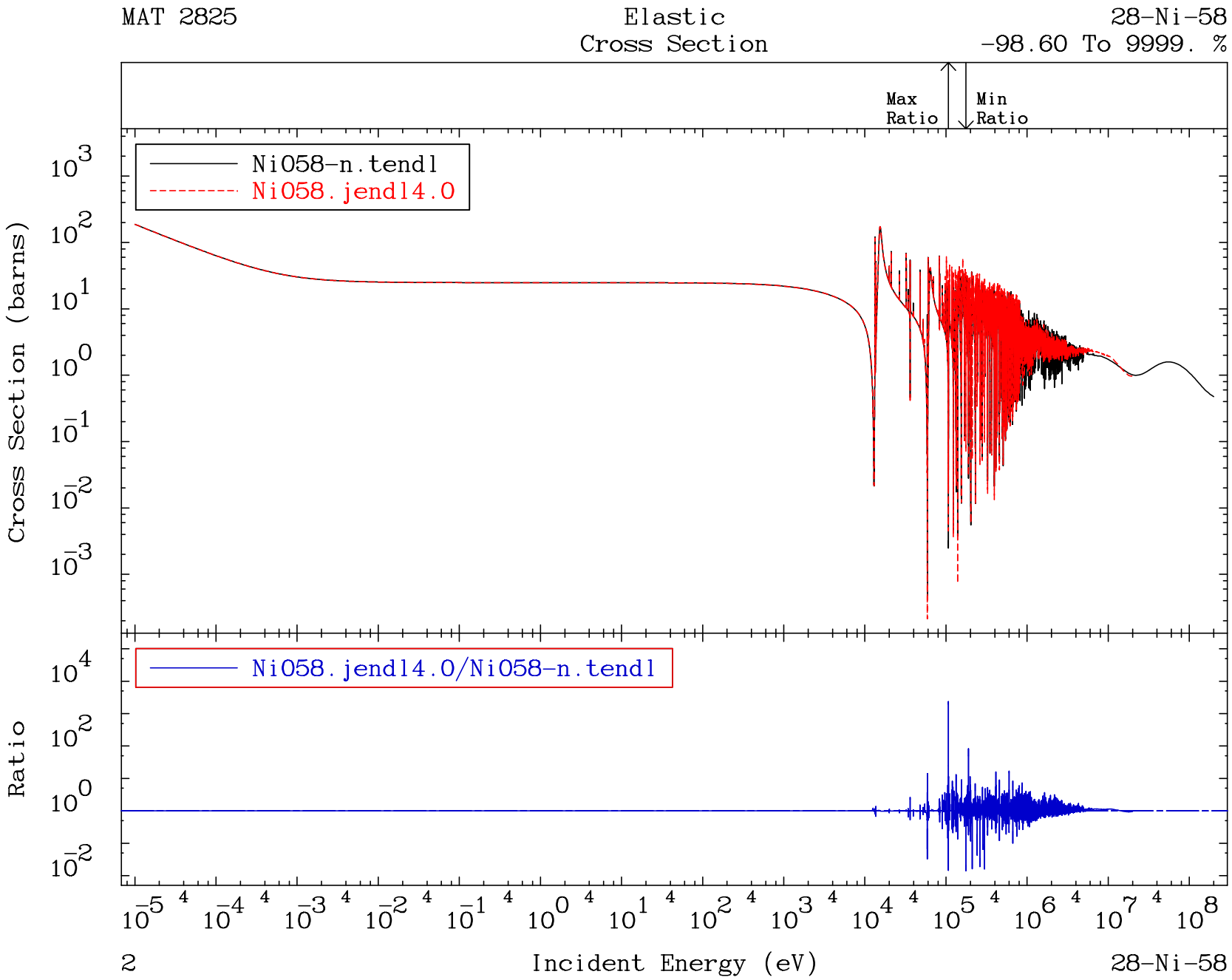
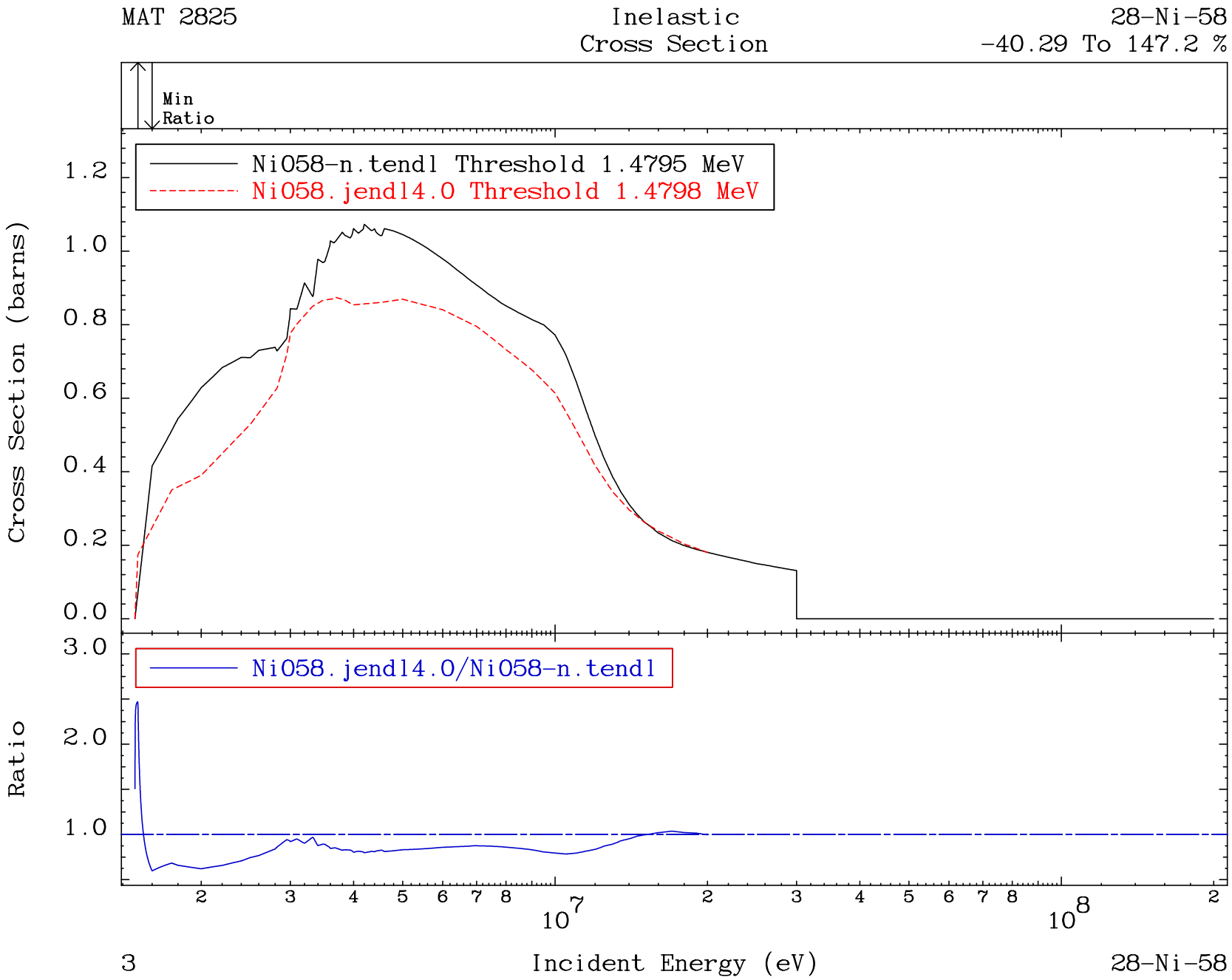
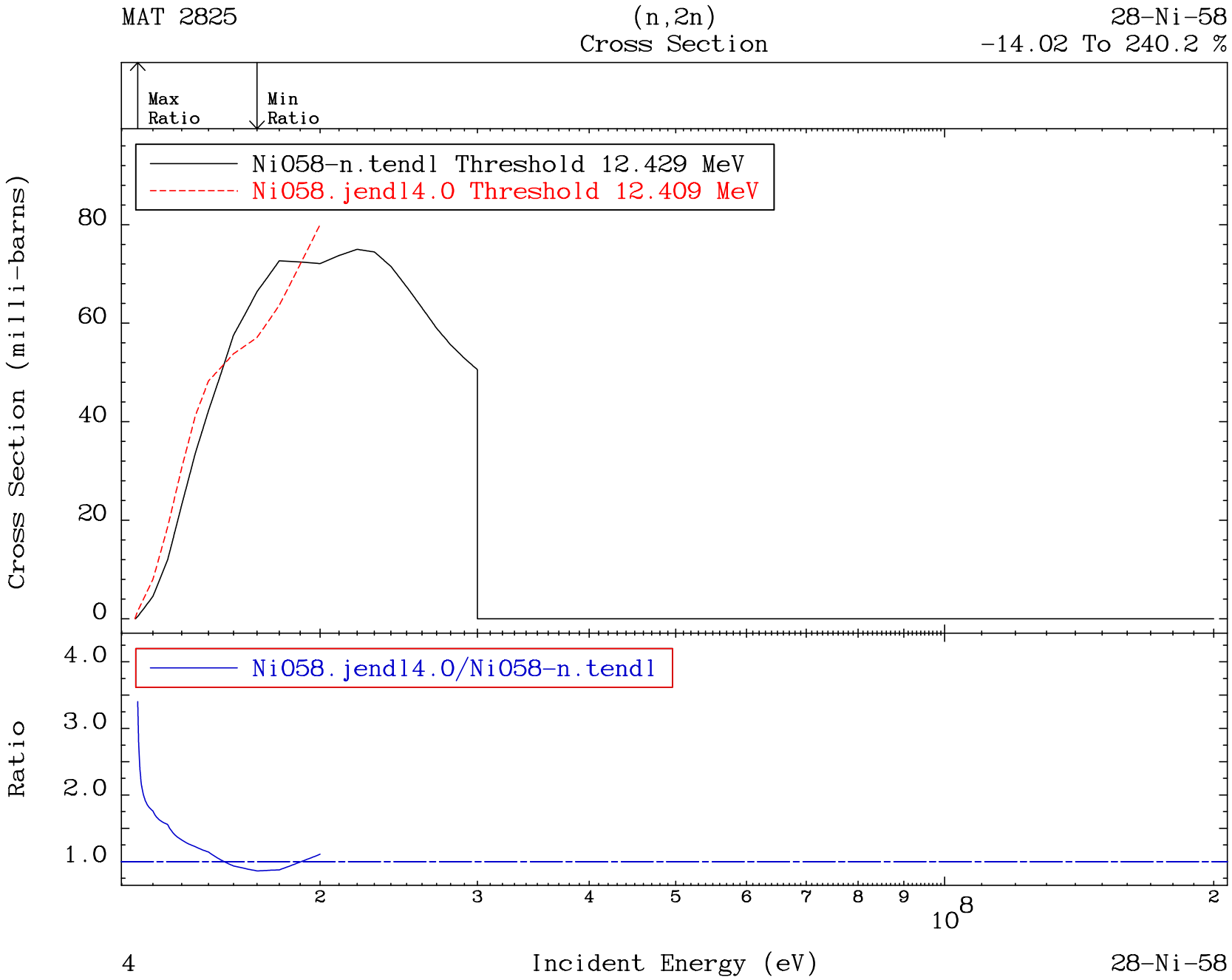
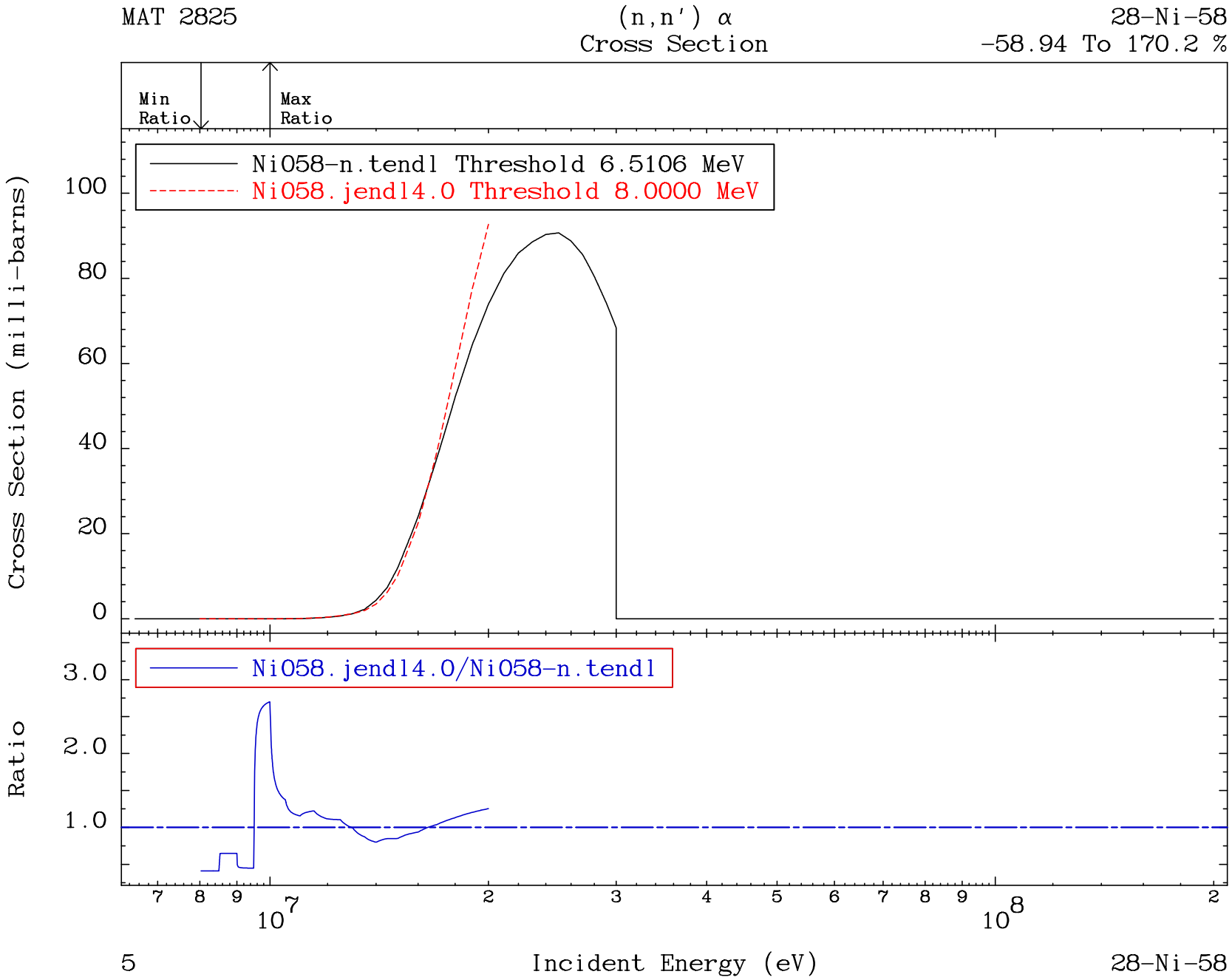
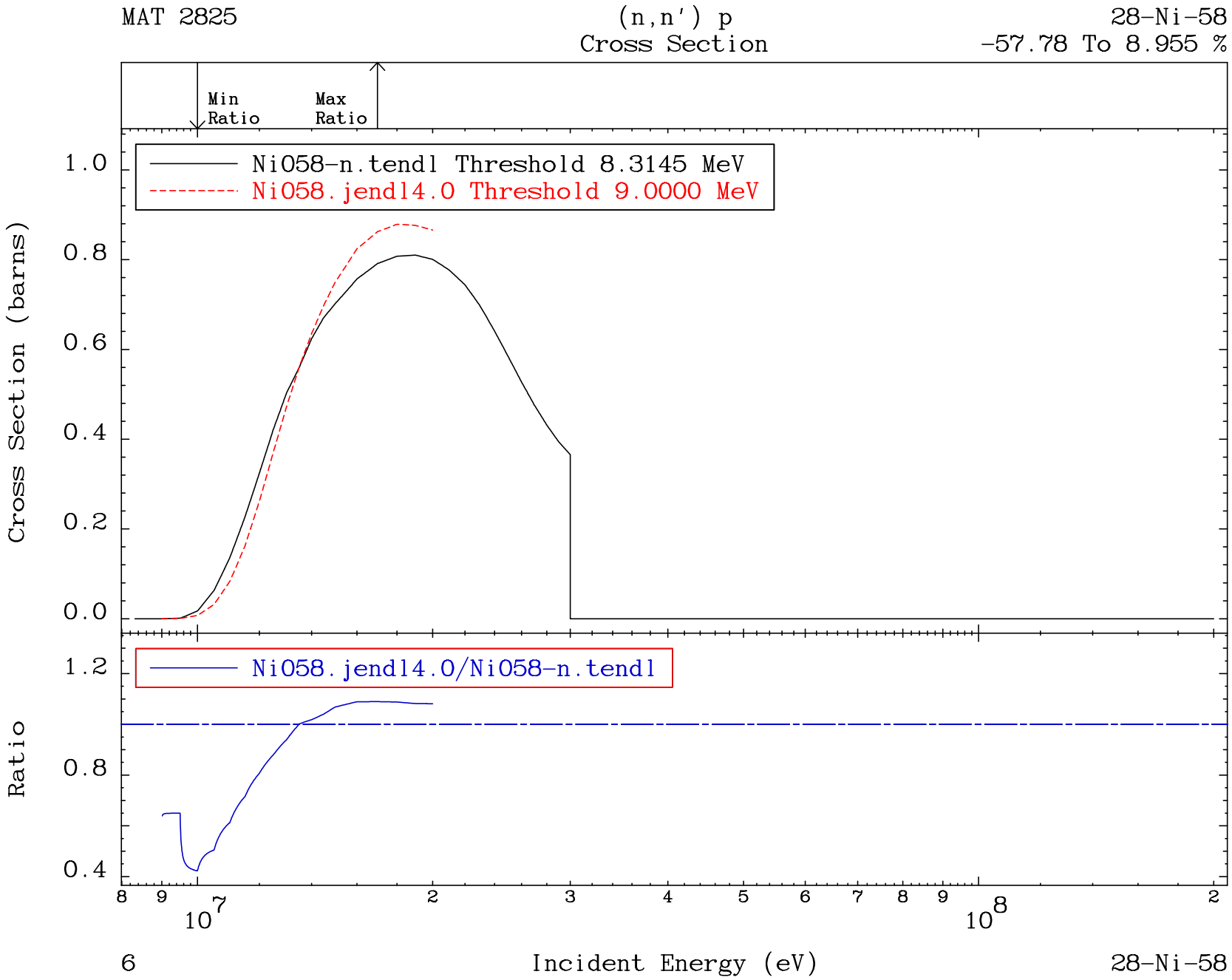

MAT 2825
Total
Cross Section
28-Ni-58
-97.76 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
1
28-Ni-58

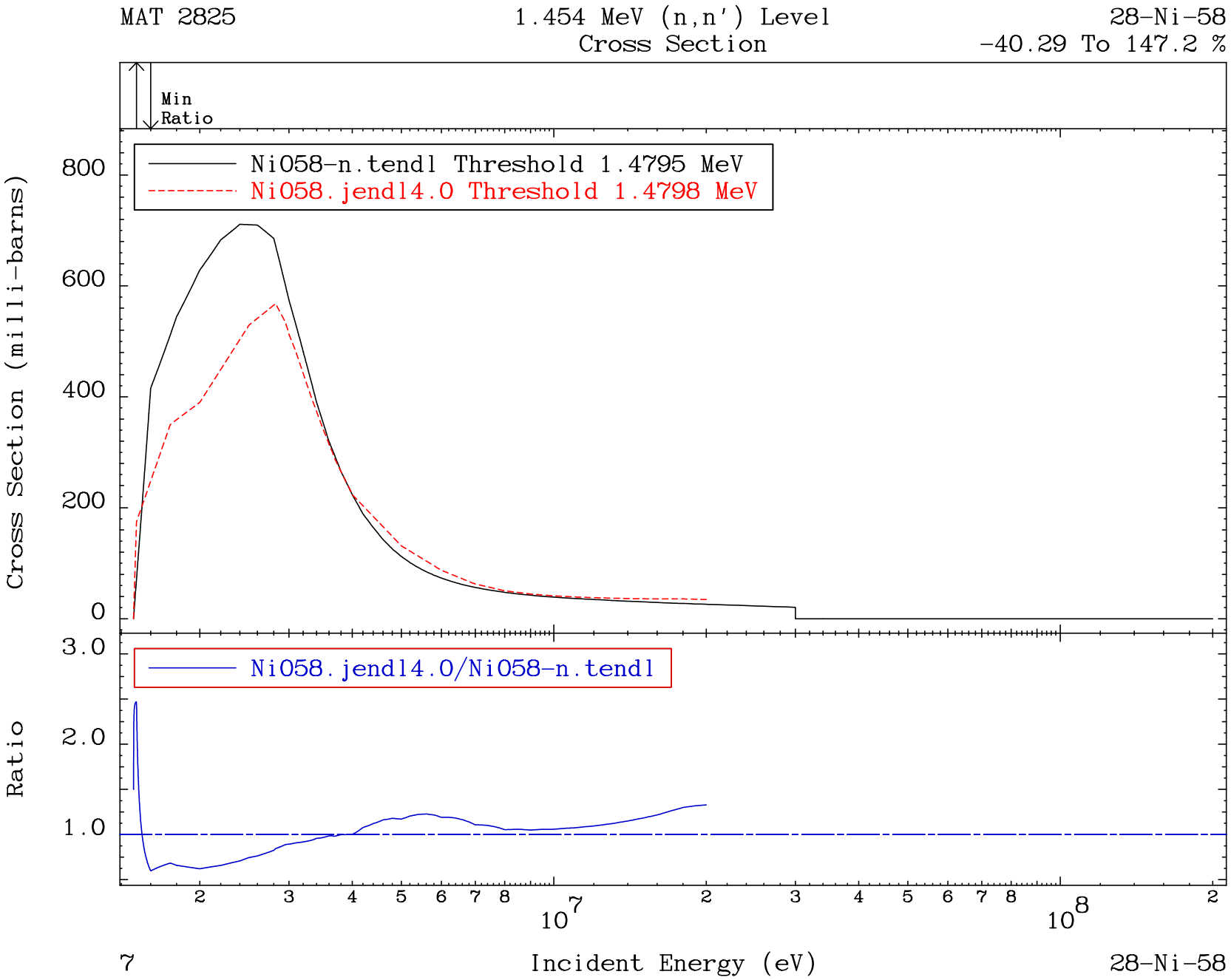

MAT 2825
Elastic
Cross Section
28-Ni-58
-98.60 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
2
28-Ni-58

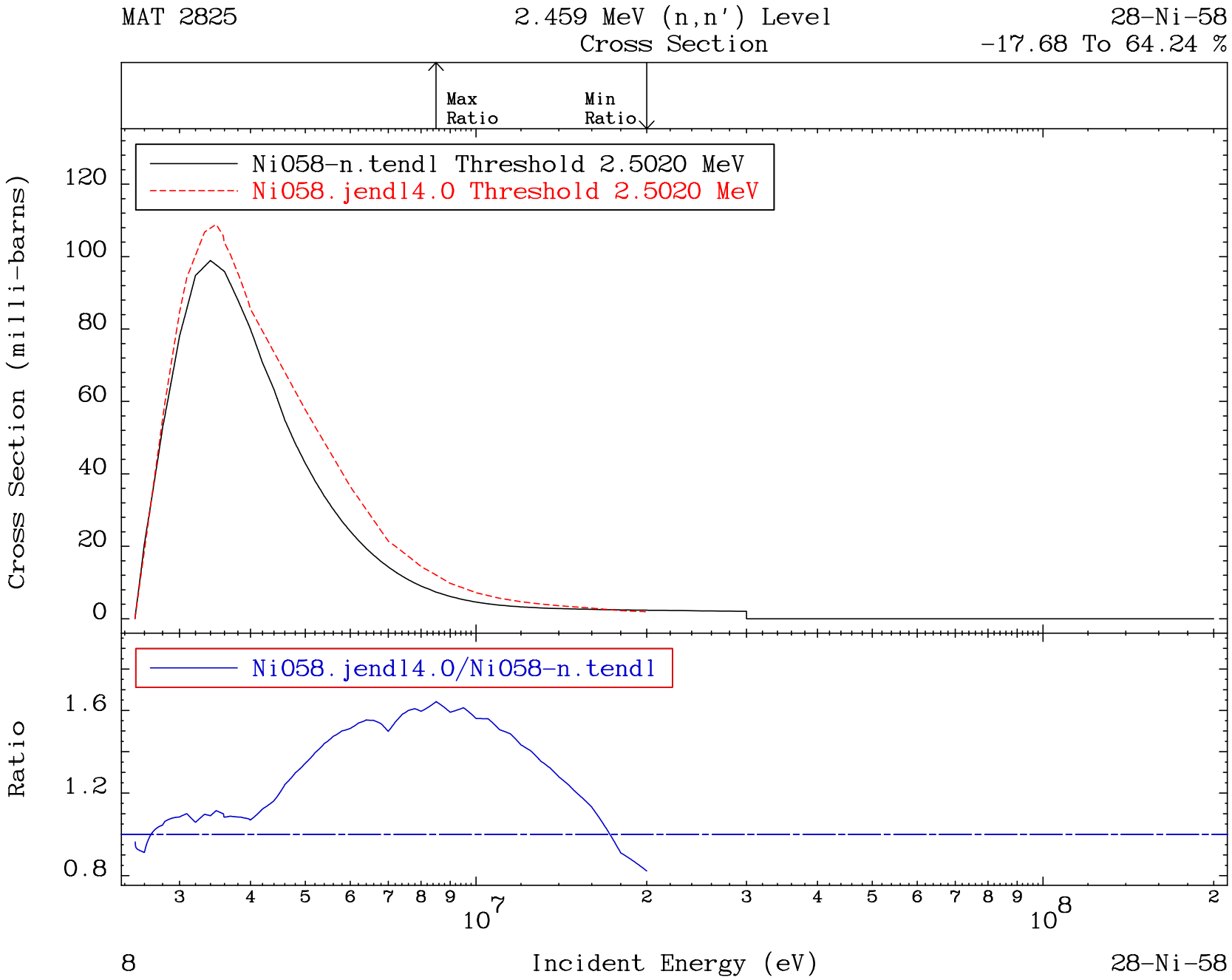

MAT 2825
Inelastic
Cross Section
28-Ni-58
-40.29 To 147.2 %
Min
Ratio
Ni058-n.tendl Threshold 1.4795 MeV
Ni058.jendl4.0 Threshold 1.4798 MeV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
3.0
2.0
1.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
3
Incident Energy (eV)
28-Ni-58

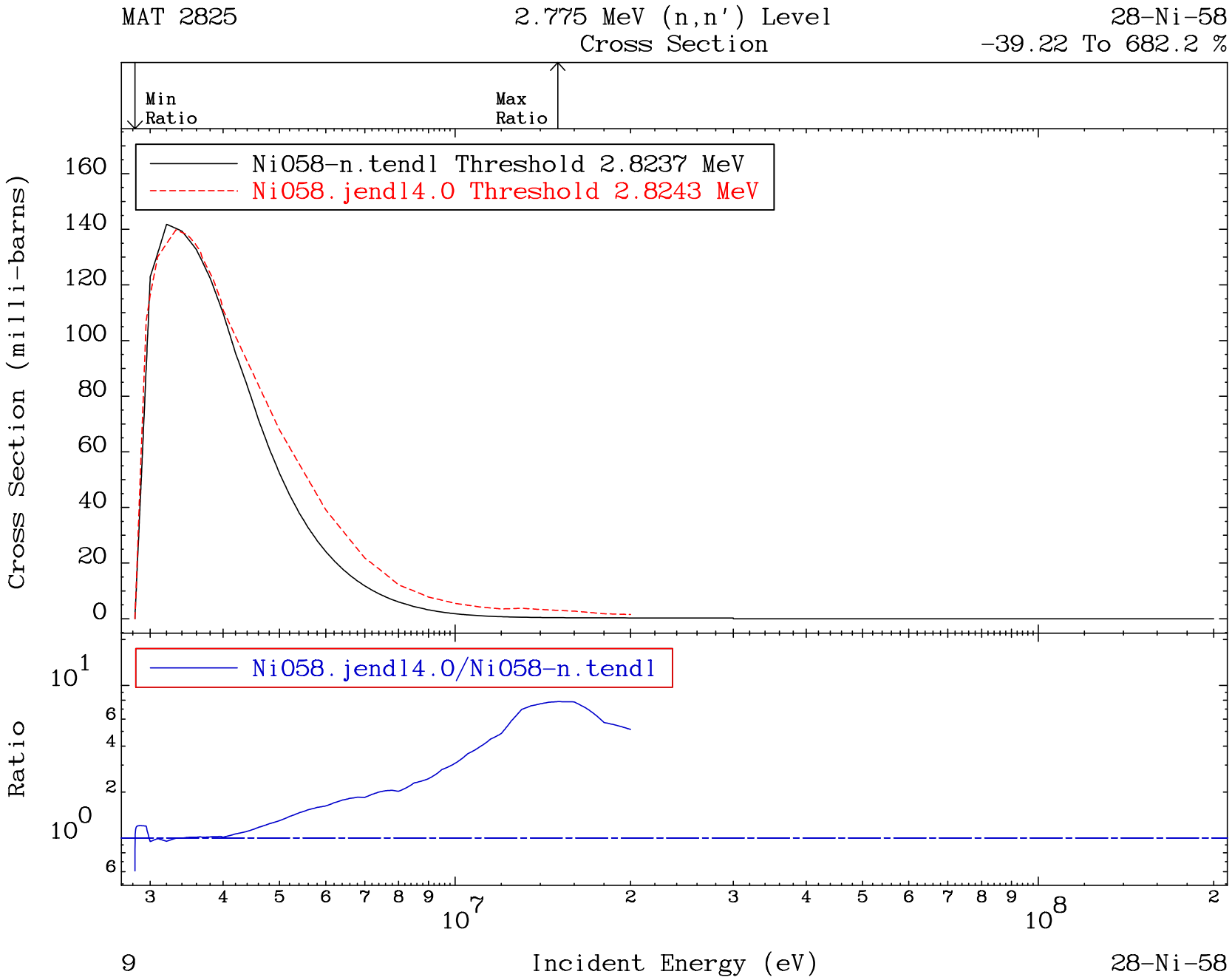

MAT 2825
(n,2n)
Cross Section
28-Ni-58
-14.02 To 240.2 %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 12.429 MeV
Ni058.jendl4.0 Threshold 12.409 MeV
Cross Section (milli-barns)
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
4.0
3.0
2.0
1.0
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
28-Ni-58

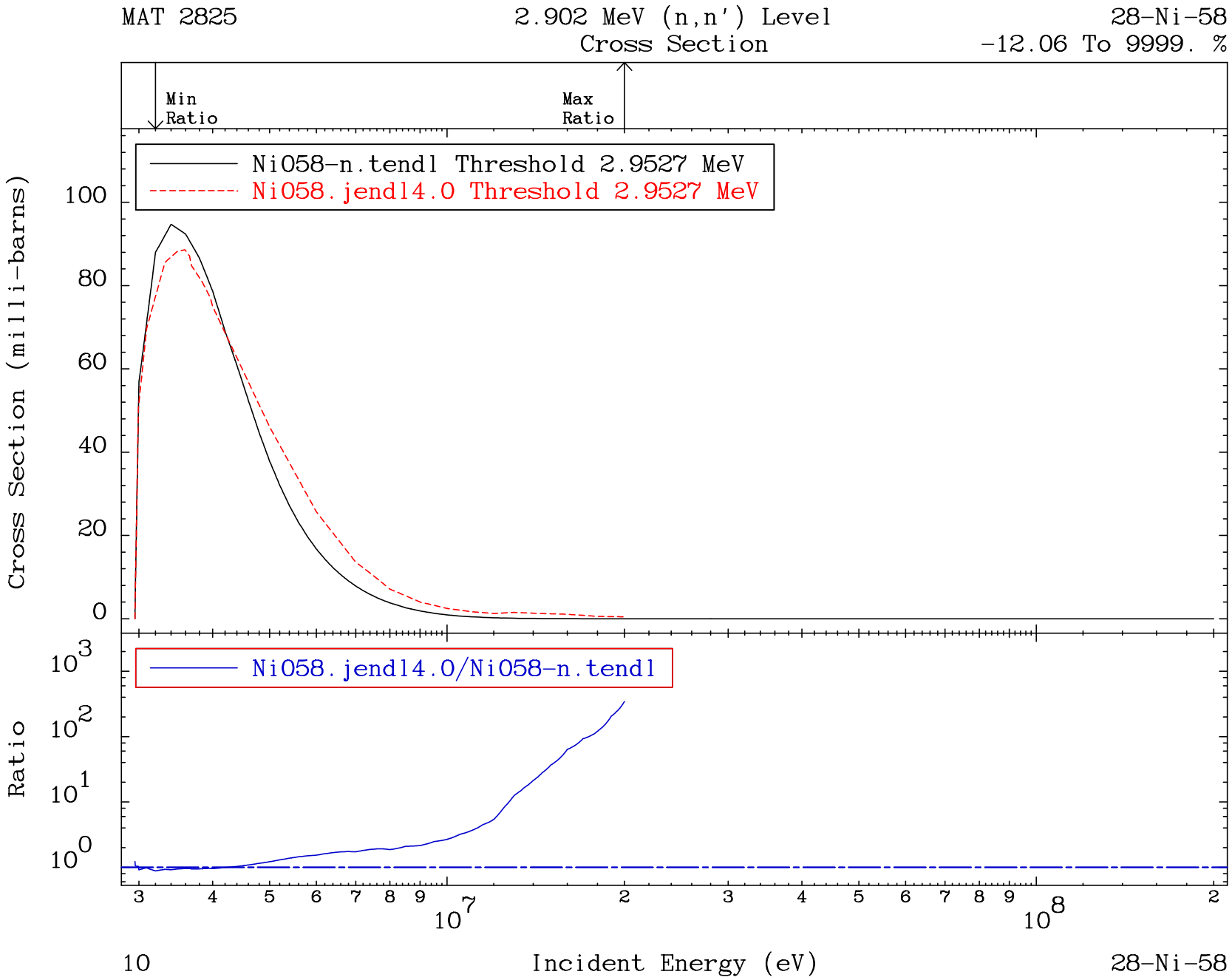

MAT 2825
(n,n') α
Cross Section
28-Ni-58
-58.94 To 170.2 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 6.5106 MeV
Ni058.jendl4.0 Threshold 8.0000 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
3.0
2.0
1.0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
28-Ni-58

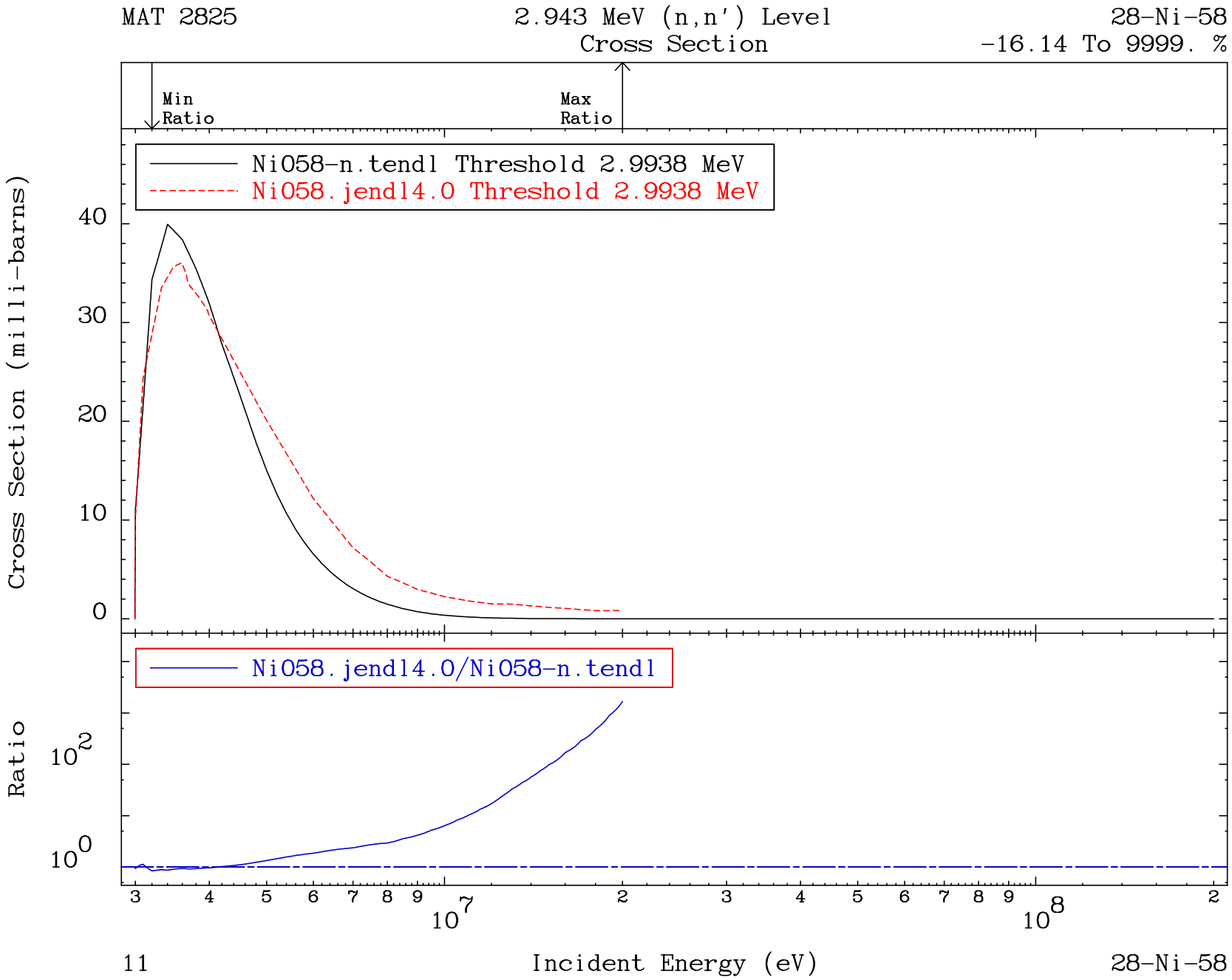

MAT 2825
(n,n') p
Cross Section
28-Ni-58
-57.78 To 8.955 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 8.3145 MeV
Ni058.jendl4.0 Threshold 9.0000 MeV
Cross Section (barns)
1.0
0.8
0.6
0.4
0.2
0.0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
1.2
0.8
0.4
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
6
Incident Energy (eV)
28-Ni-58

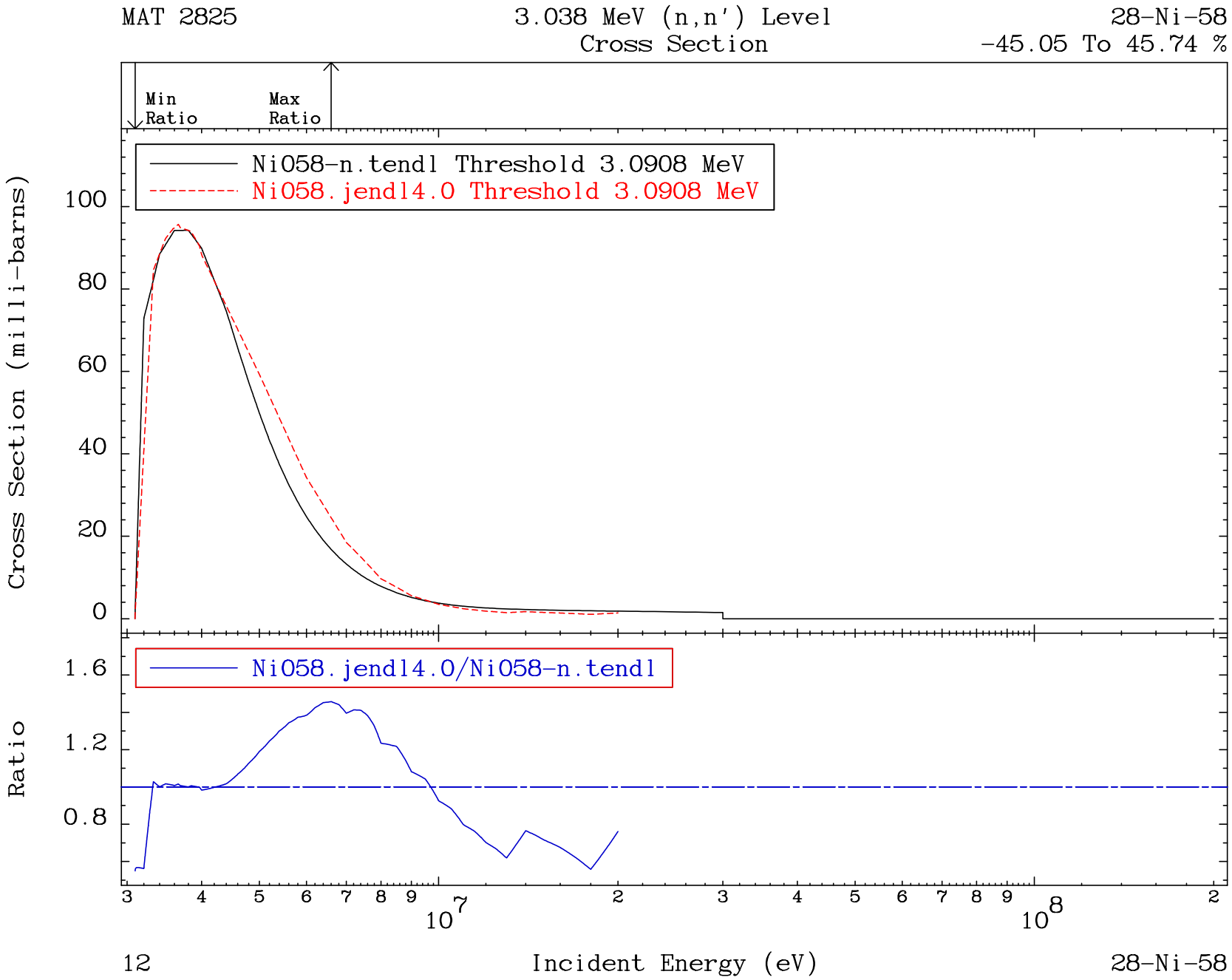

MAT 2825
1.454 MeV (n,n') Level
Cross Section
28-Ni-58
-40.29 To 147.2 %
Min
Ratio
Ni058-n.tendl Threshold 1.4795 MeV
Ni058.jendl4.0 Threshold 1.4798 MeV
Cross Section (milli-barns)
800
600
400
200
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
3.0
2.0
1.0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
7
Incident Energy (eV)
28-Ni-58

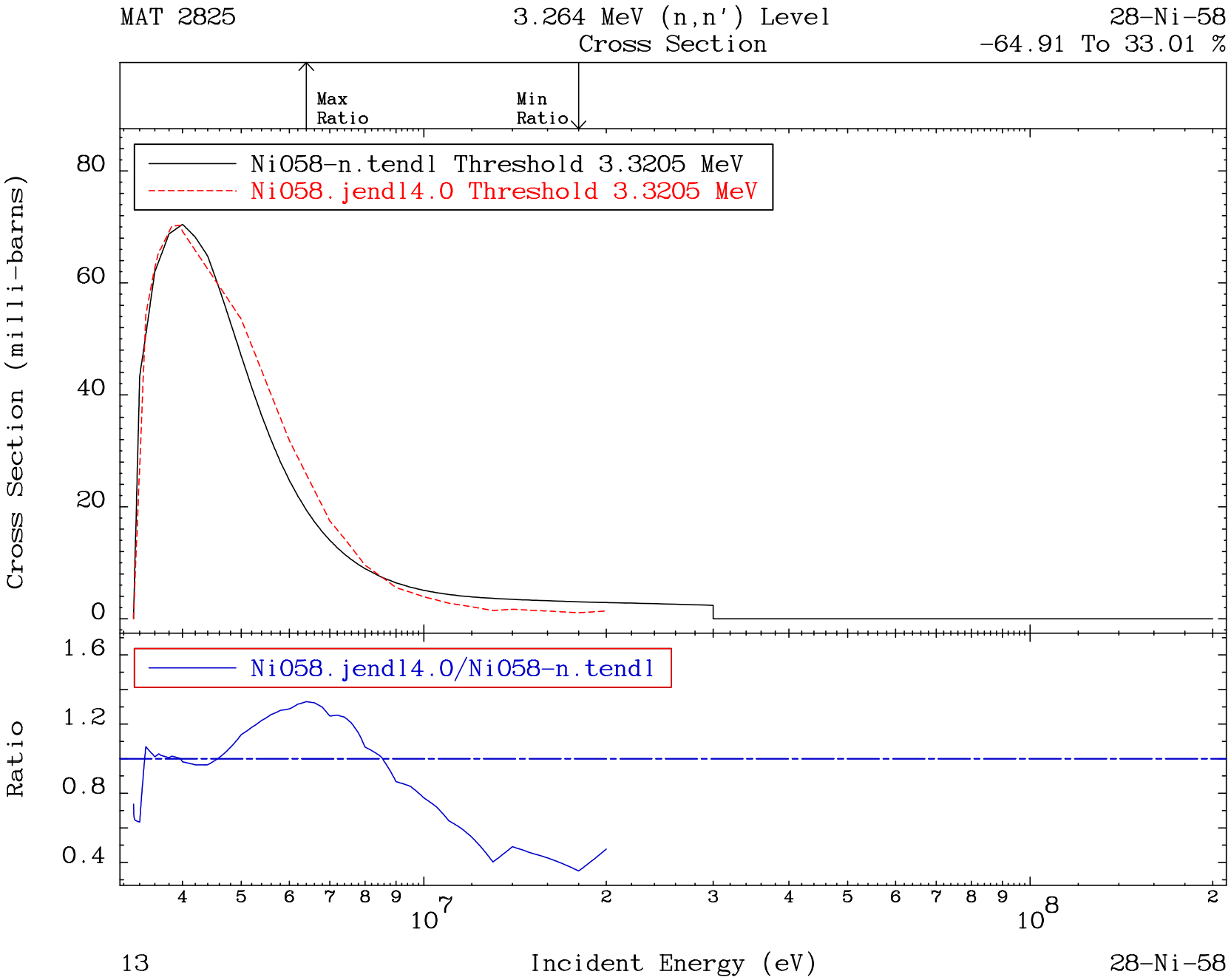

MAT 2825
2.459 MeV (n,n') Level
Cross Section
28-Ni-58
-17.68 To 64.24 %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 2.5020 MeV
Ni058.jendl4.0 Threshold 2.5020 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
1.6
1.2
0.8
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
8
Incident Energy (eV)
28-Ni-58

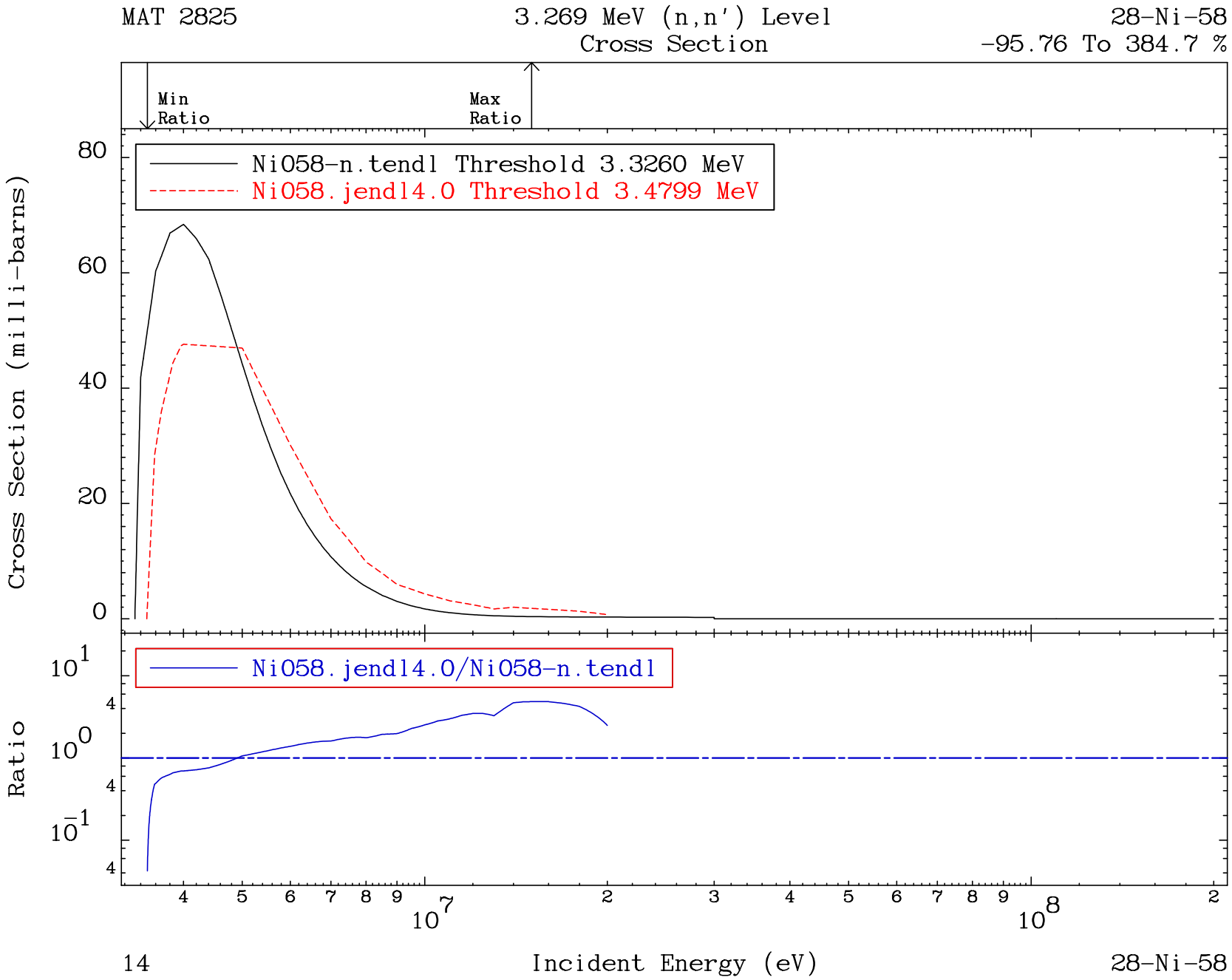

MAT 2825
2.775 MeV (n,n') Level
Cross Section
28-Ni-58
-39.22 To 682.2 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 2.8237 MeV
Ni058.jendl4.0 Threshold 2.8243 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^1
6
4
2
10^0
6
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
9
Incident Energy (eV)
28-Ni-58

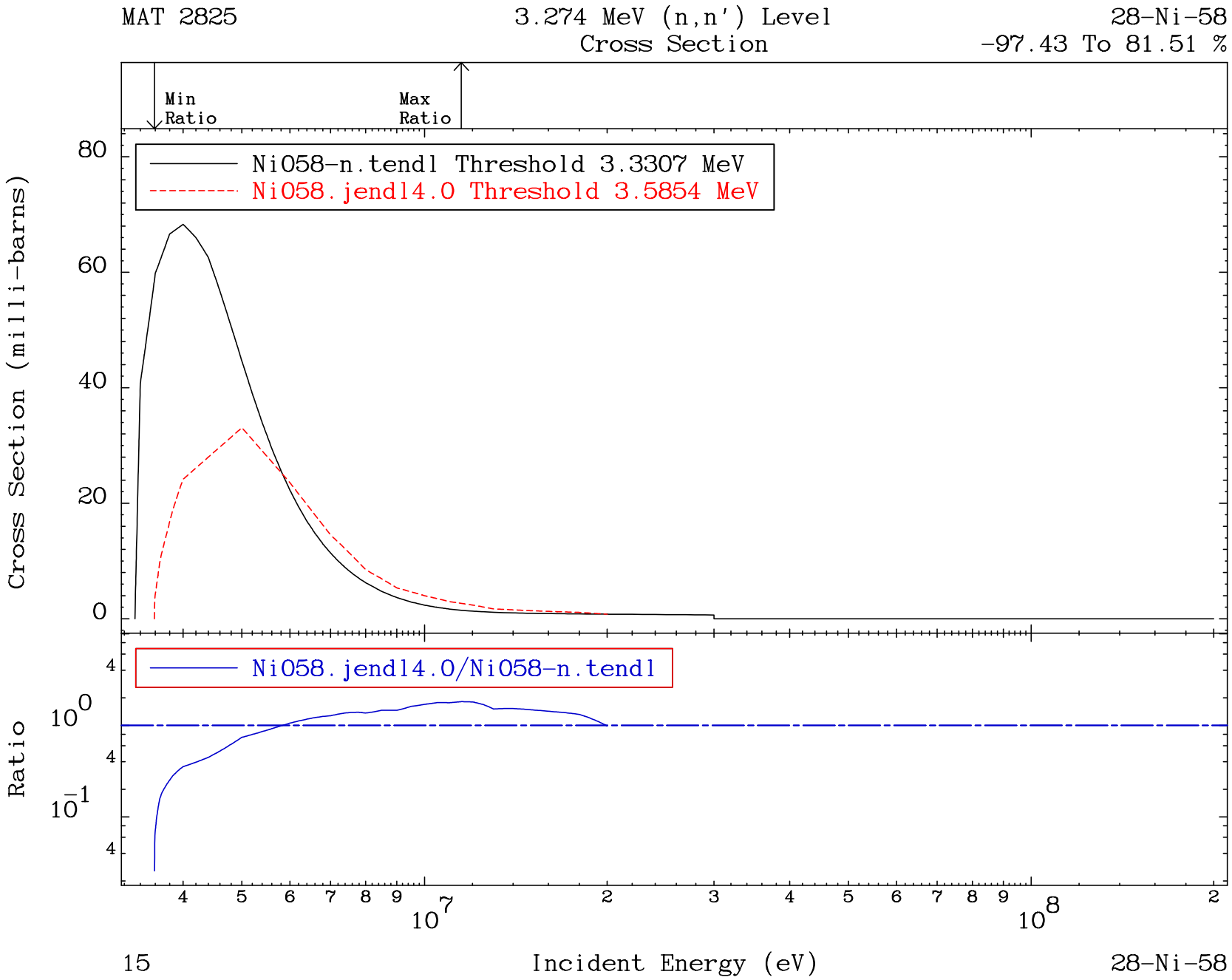

MAT 2825
2.902 MeV (n,n') Level
Cross Section
28-Ni-58
-12.06 To 9999. %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 2.9527 MeV
Ni058.jendl4.0 Threshold 2.9527 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
28-Ni-58

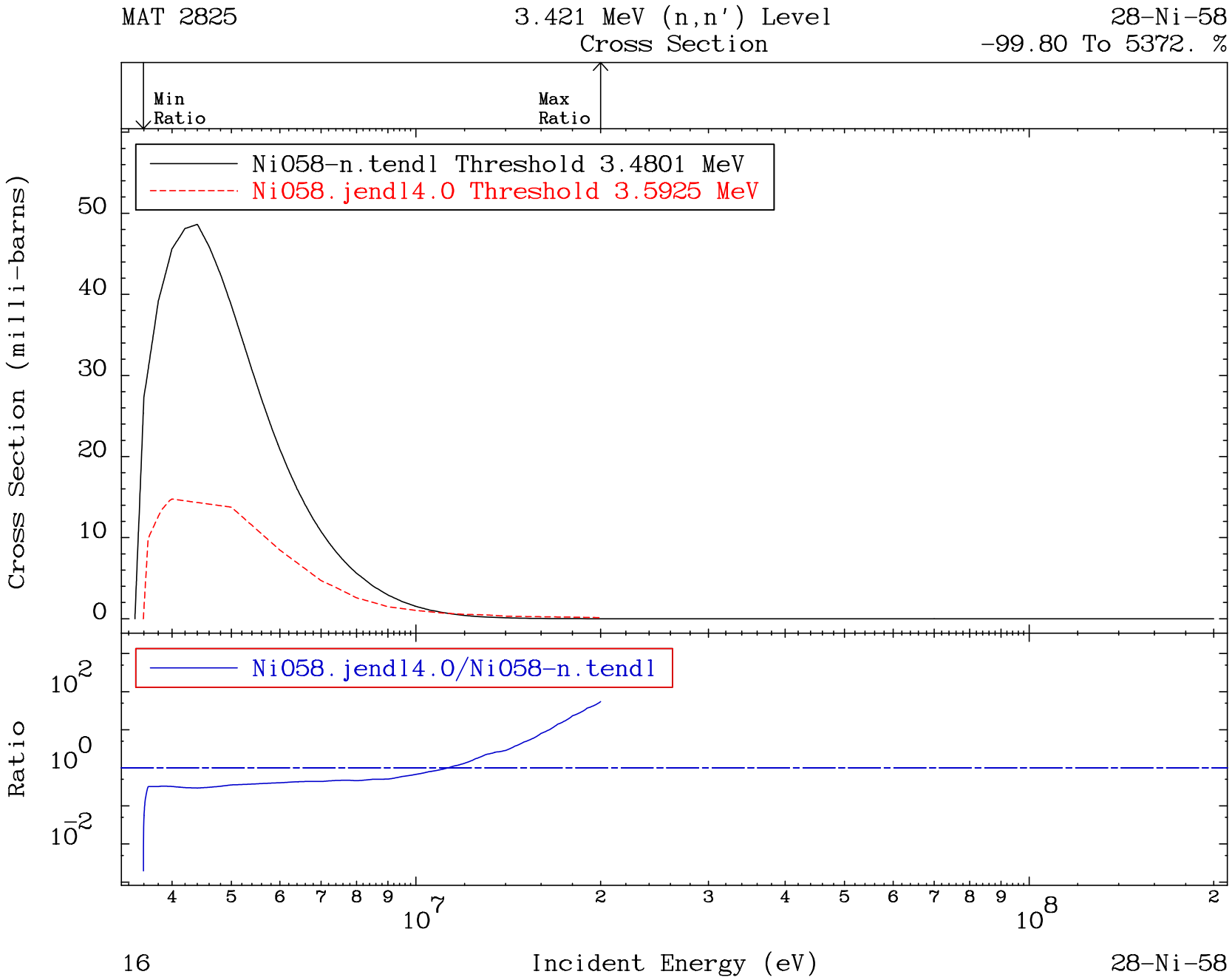

MAT 2825
2.943 MeV (n,n') Level
Cross Section
28-Ni-58
-16.14 To 9999. %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 2.9938 MeV
Ni058.jendl4.0 Threshold 2.9938 MeV
Cross Section (milli-barns)
40
30
20
10
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
11
Incident Energy (eV)
28-Ni-58

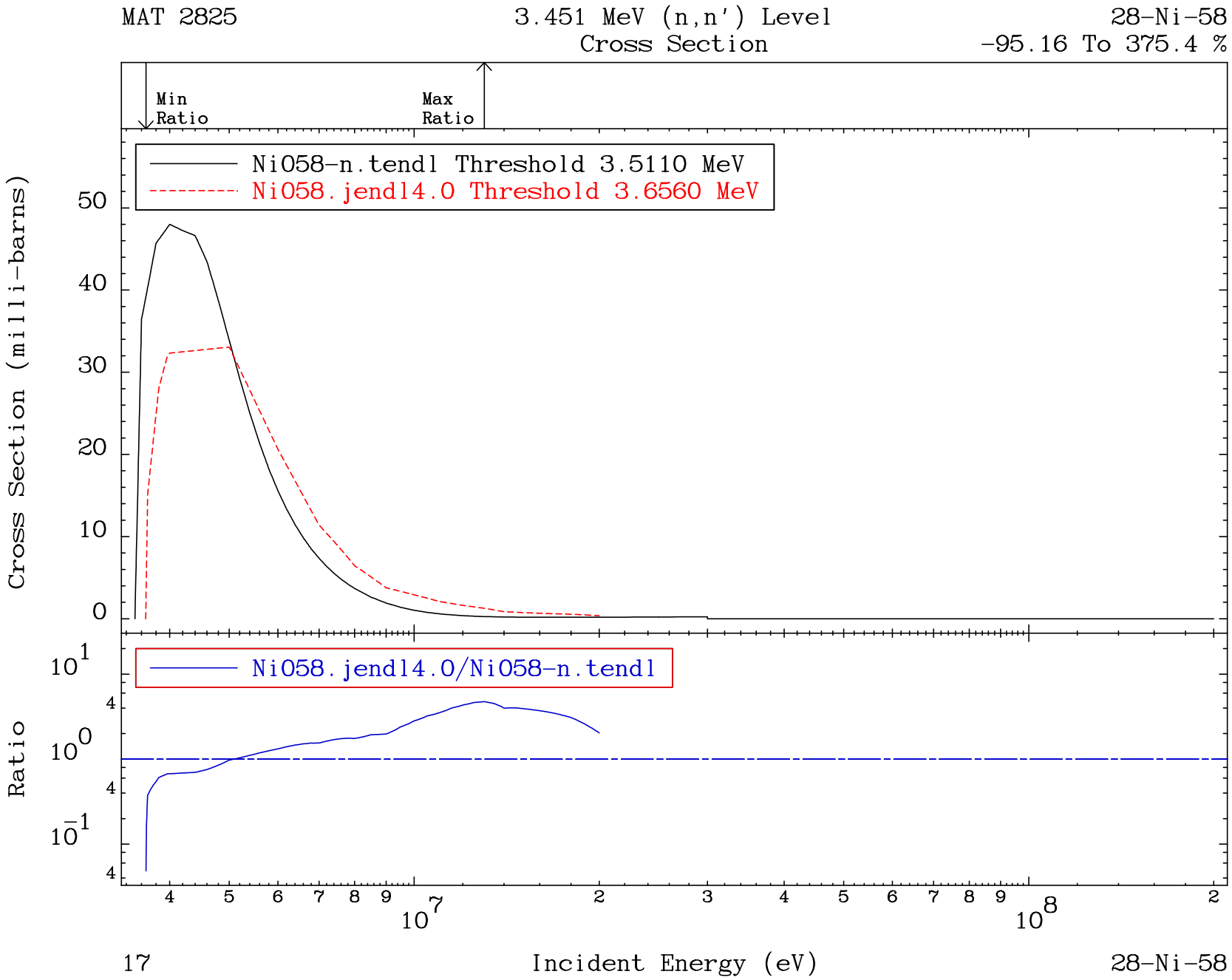

MAT 2825
3.038 MeV (n,n') Level
Cross Section
28-Ni-58
-45.05 To 45.74 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.0908 MeV
Ni058.jendl4.0 Threshold 3.0908 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
1.6
1.2
0.8
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
12
Incident Energy (eV)
28-Ni-58

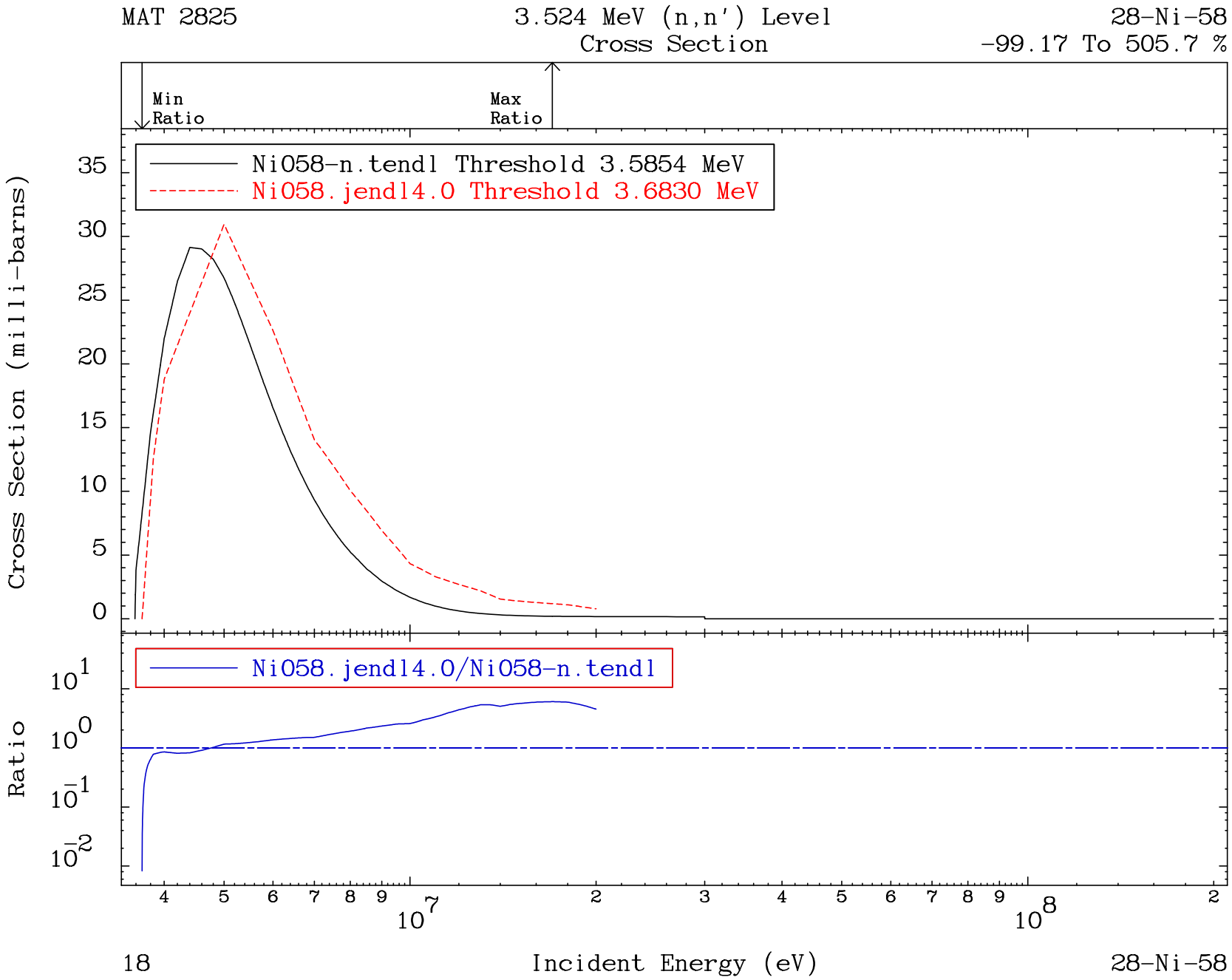

MAT 2825
3.264 MeV (n,n') Level
Cross Section
28-Ni-58
-64.91 To 33.01 %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 3.3205 MeV
Ni058.jendl4.0 Threshold 3.3205 MeV
Cross Section (milli-barns)
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
1.6
1.2
0.8
0.4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
13
Incident Energy (eV)
28-Ni-58

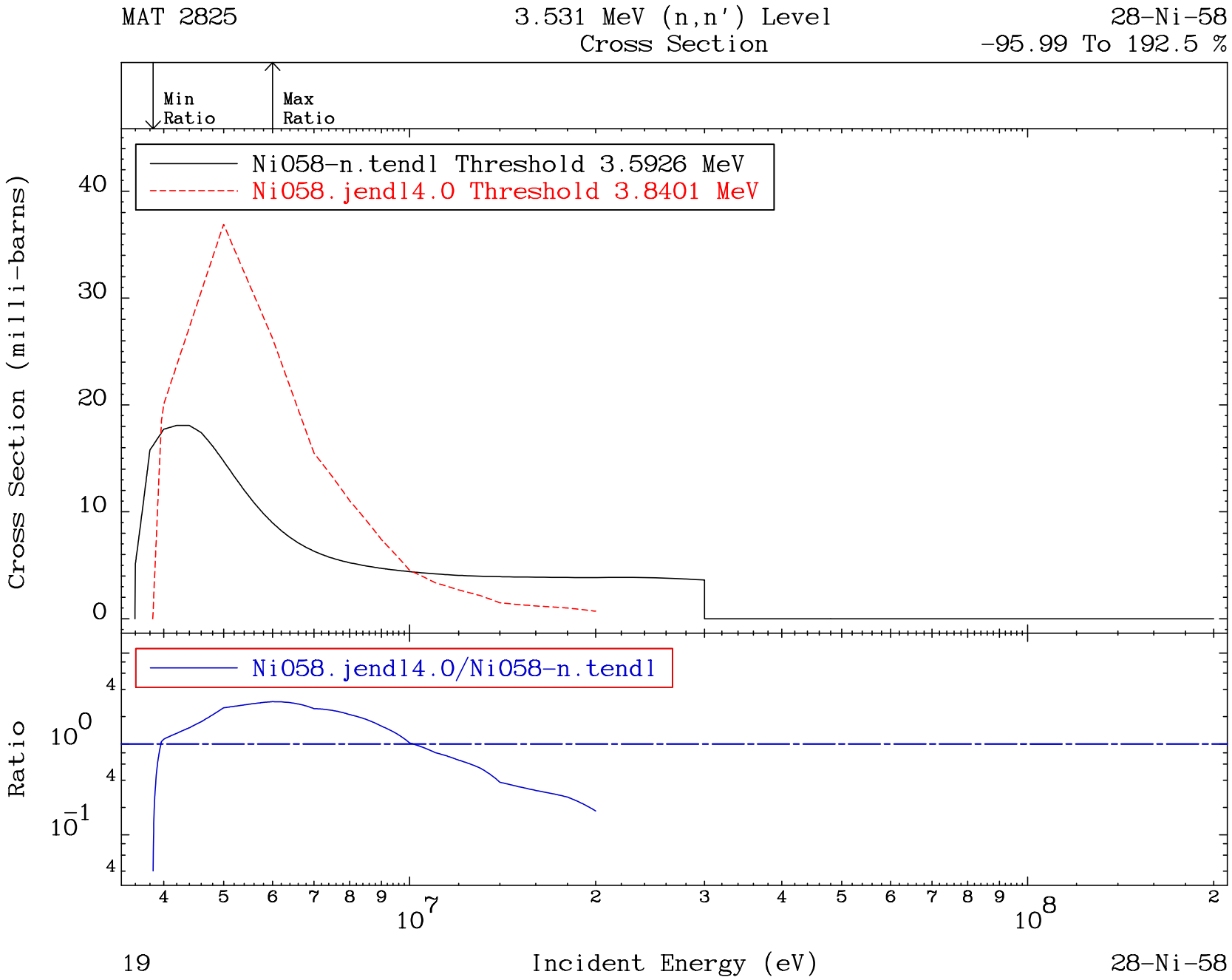

MAT 2825
3.269 MeV (n,n') Level
Cross Section
28-Ni-58
-95.76 To 384.7 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.3260 MeV
Ni058.jendl4.0 Threshold 3.4799 MeV
Cross Section (milli-barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
14
28-Ni-58

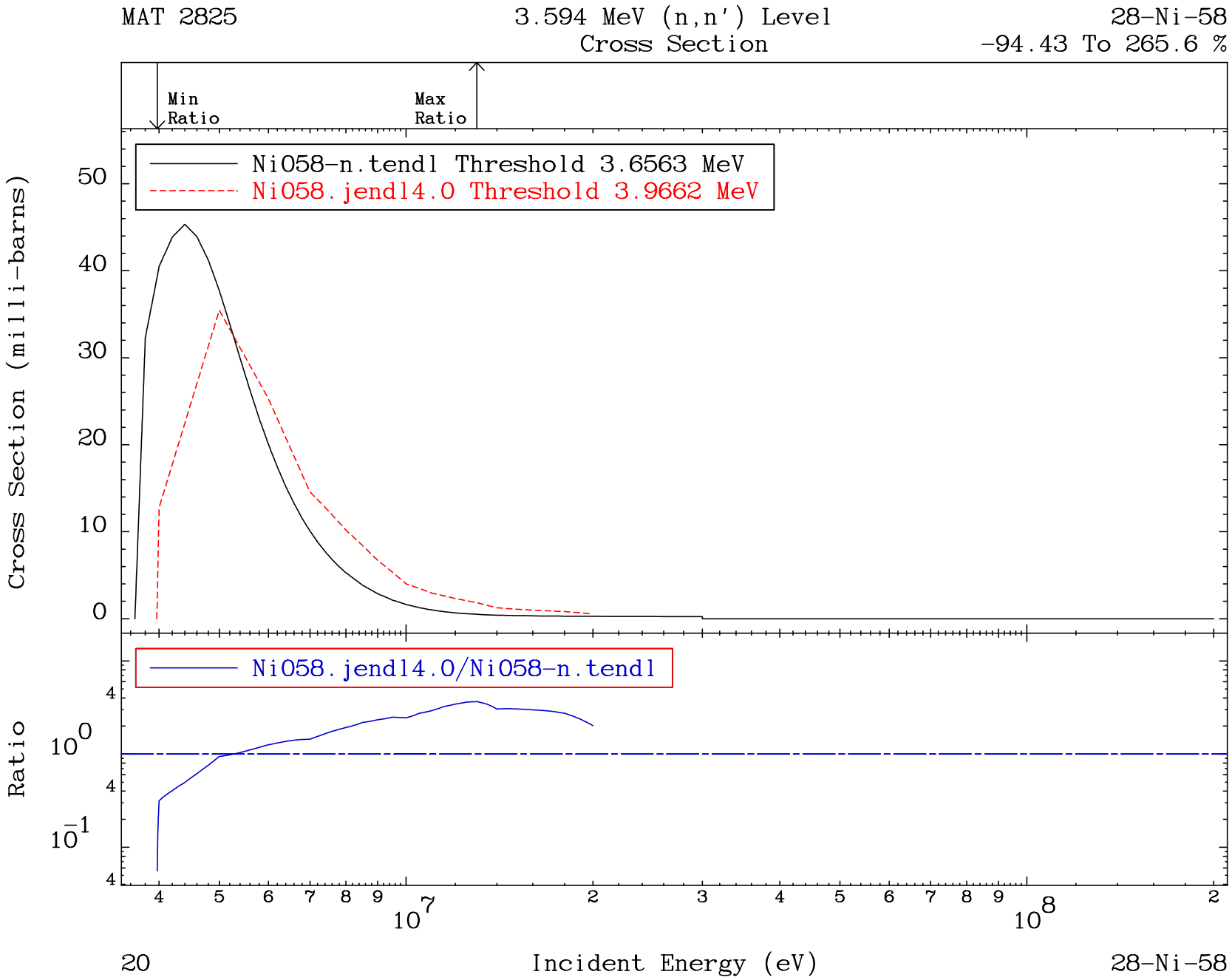

MAT 2825
3.274 MeV (n,n') Level
Cross Section
28-Ni-58
-97.43 To 81.51 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.3307 MeV
Ni058.jendl4.0 Threshold 3.5854 MeV
Cross Section (milli-barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
15
28-Ni-58

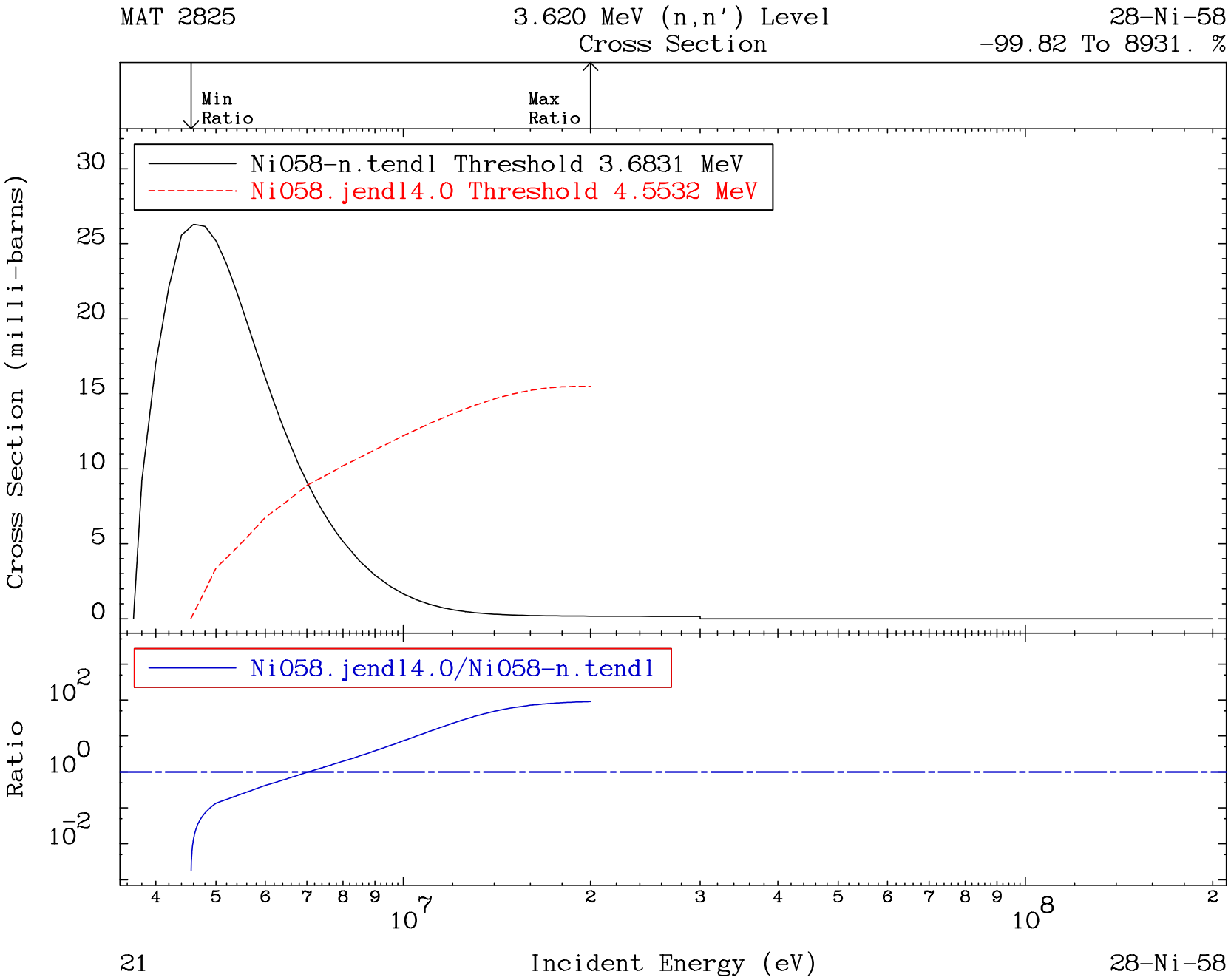

MAT 2825
3.421 MeV (n,n') Level
Cross Section
28-Ni-58
-99.80 To 5372. %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.4801 MeV
Ni058.jendl4.0 Threshold 3.5925 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^2
10^0
10^-2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
28-Ni-58

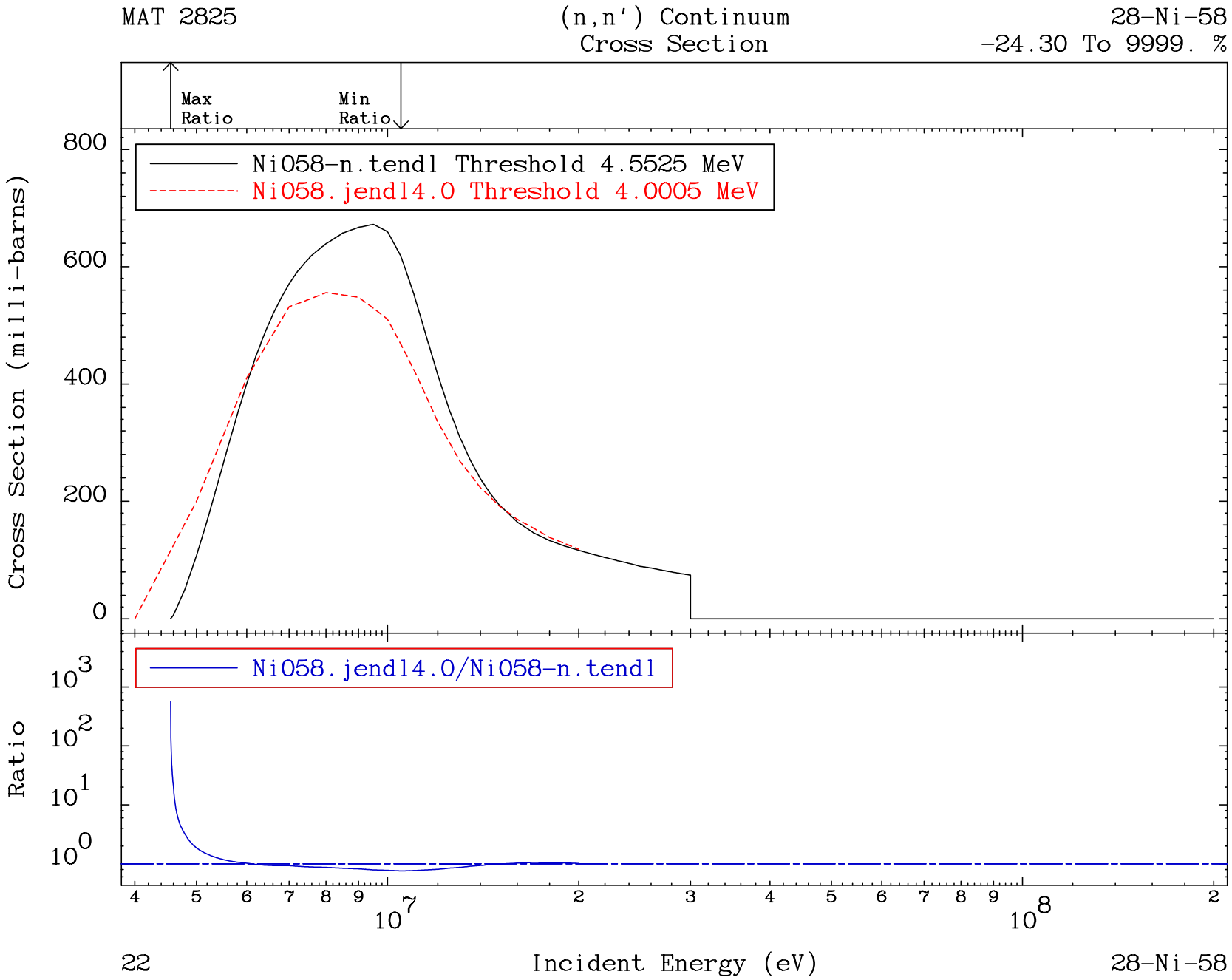

MAT 2825
3.451 MeV (n,n') Level
Cross Section
28-Ni-58
-95.16 To 375.4 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.5110 MeV
Ni058.jendl4.0 Threshold 3.6560 MeV
Cross Section (milli-barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
17
28-Ni-58

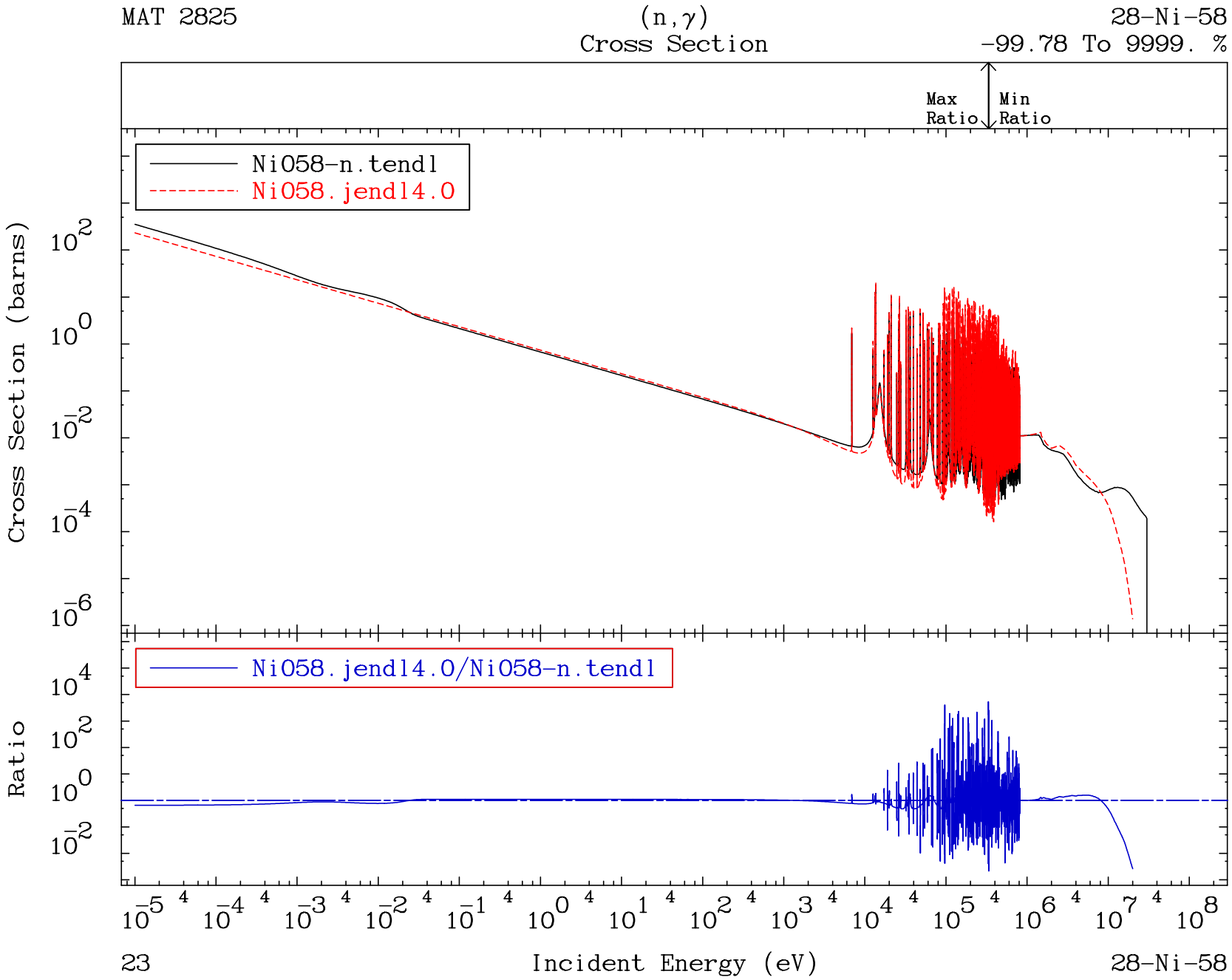

MAT 2825
3.524 MeV (n,n') Level
Cross Section
28-Ni-58
-99.17 To 505.7 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.5854 MeV
Ni058.jendl4.0 Threshold 3.6830 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^1
10^0
10^-1
10^-2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
28-Ni-58

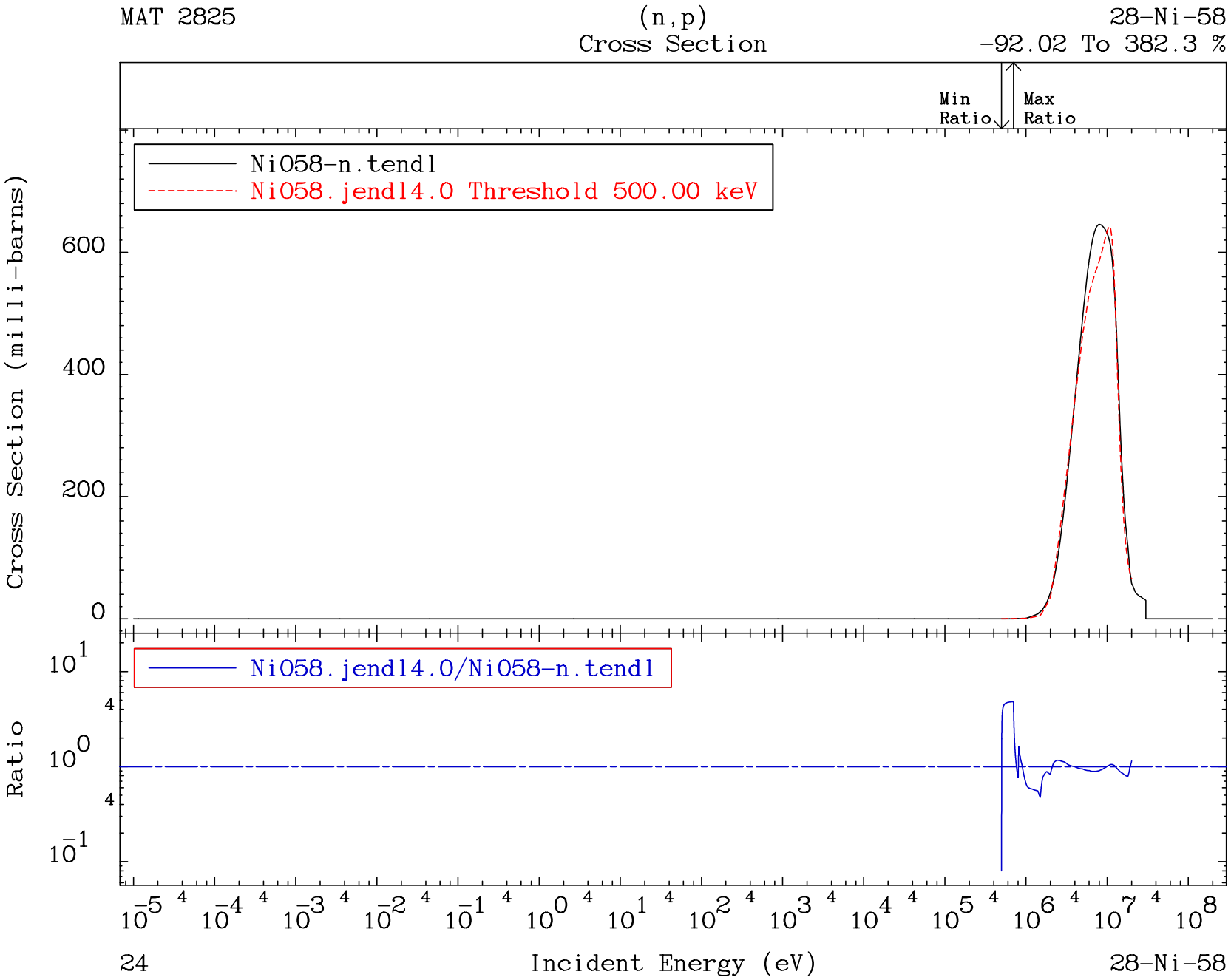

MAT 2825
3.531 MeV (n,n') Level
Cross Section
28-Ni-58
-95.99 To 192.5 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.5926 MeV
Ni058.jendl4.0 Threshold 3.8401 MeV
Cross Section (milli-barns)
40
30
20
10
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^0
10^-1
4
4
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
28-Ni-58

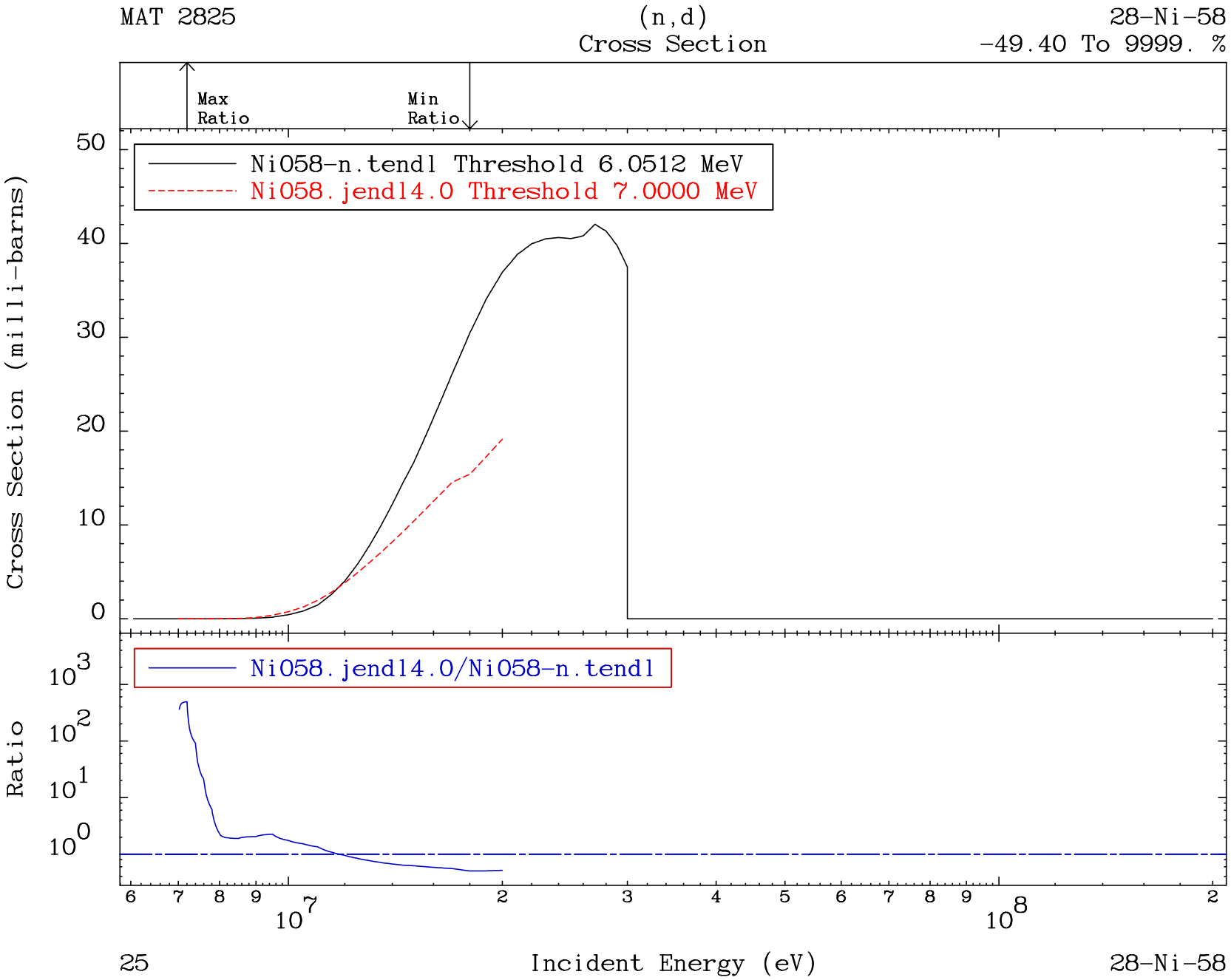

MAT 2825
3.594 MeV (n,n') Level
Cross Section
28-Ni-58
-94.43 To 265.6 %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.6563 MeV
Ni058.jendl4.0 Threshold 3.9662 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^0
10^-1
4
4
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
20
Incident Energy (eV)
28-Ni-58

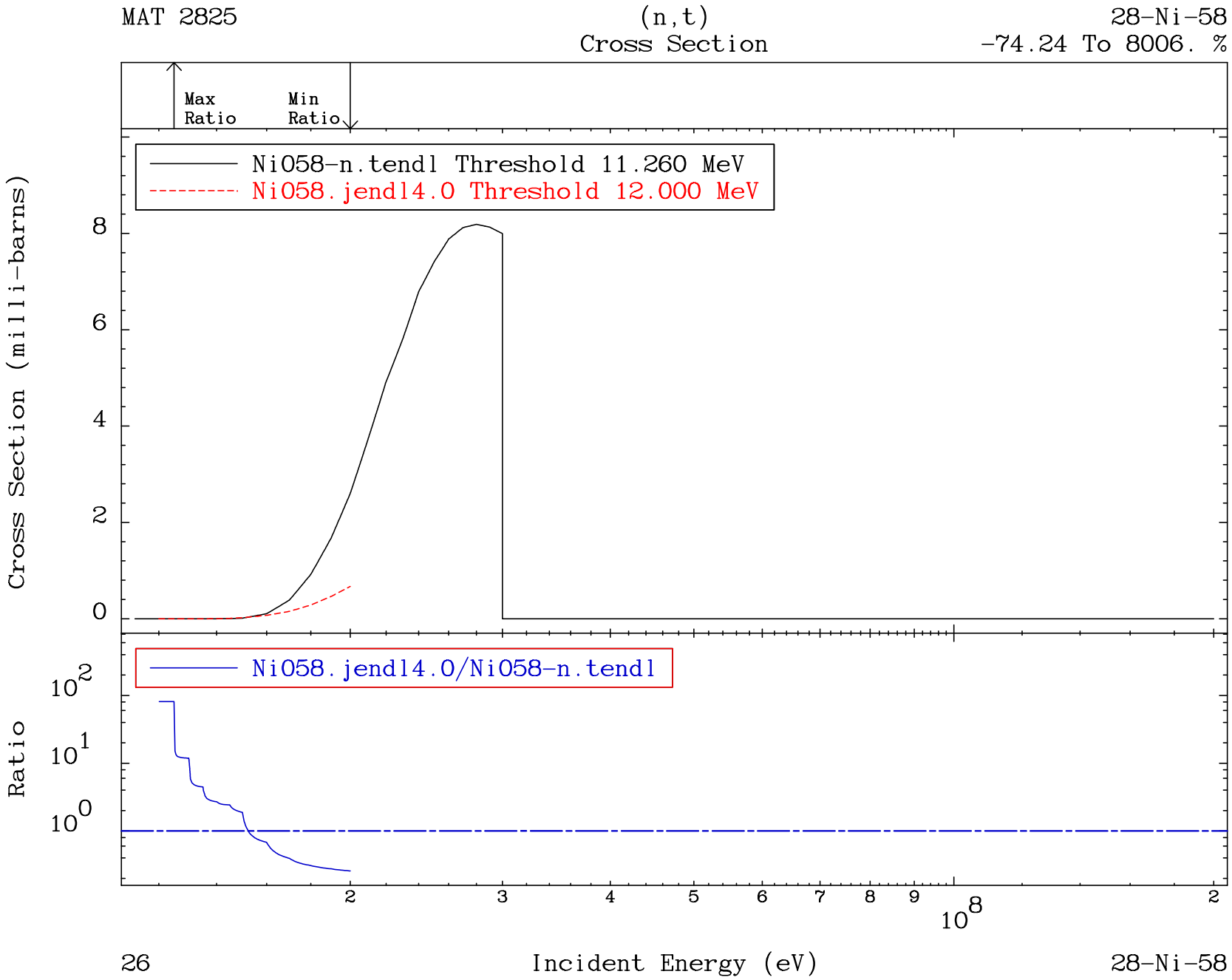

MAT 2825
3.620 MeV (n,n') Level
Cross Section
28-Ni-58
-99.82 To 8931. %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 3.6831 MeV
Ni058.jendl4.0 Threshold 4.5532 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^2
10^0
10^-2
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
28-Ni-58

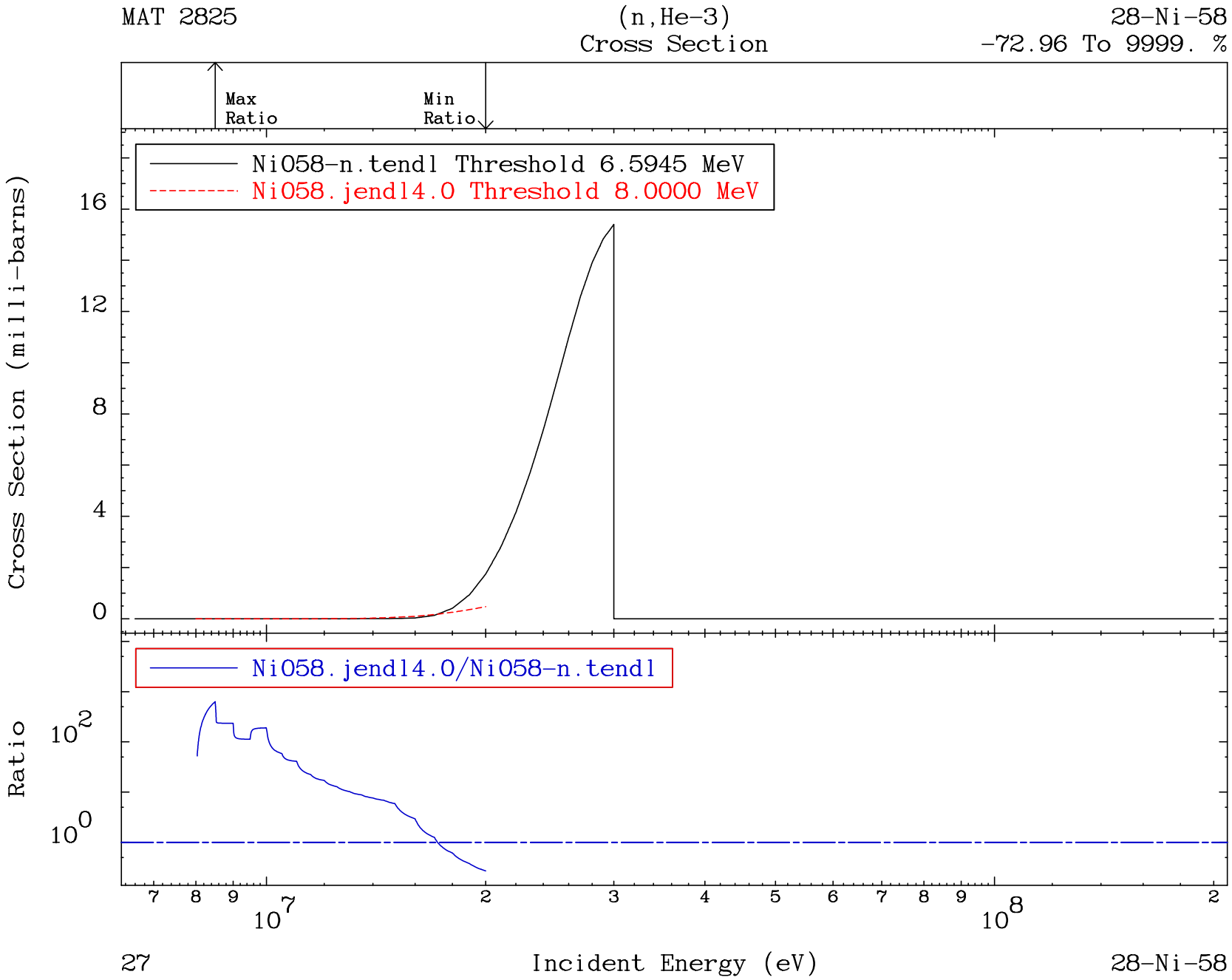

MAT 2825
(n,n') Continuum
Cross Section
28-Ni-58
-24.30 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 4.5525 MeV
Ni058.jendl4.0 Threshold 4.0005 MeV
Cross Section (milli-barns)
800
600
400
200
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^3
10^2
10^1
10^0
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
22
Incident Energy (eV)
28-Ni-58

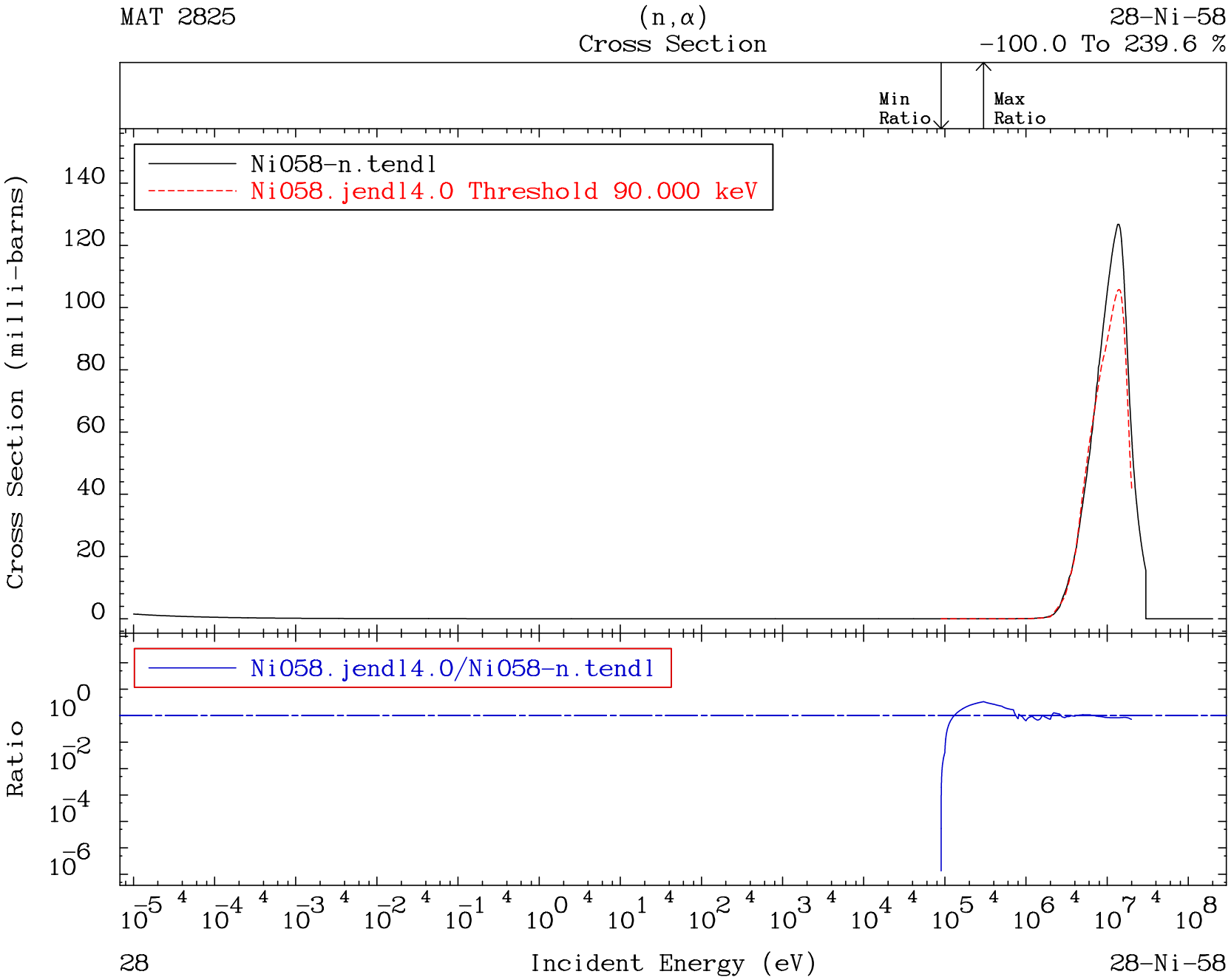

MAT 2825
(n,γ)
Cross Section
28-Ni-58
-99.78 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
23
28-Ni-58

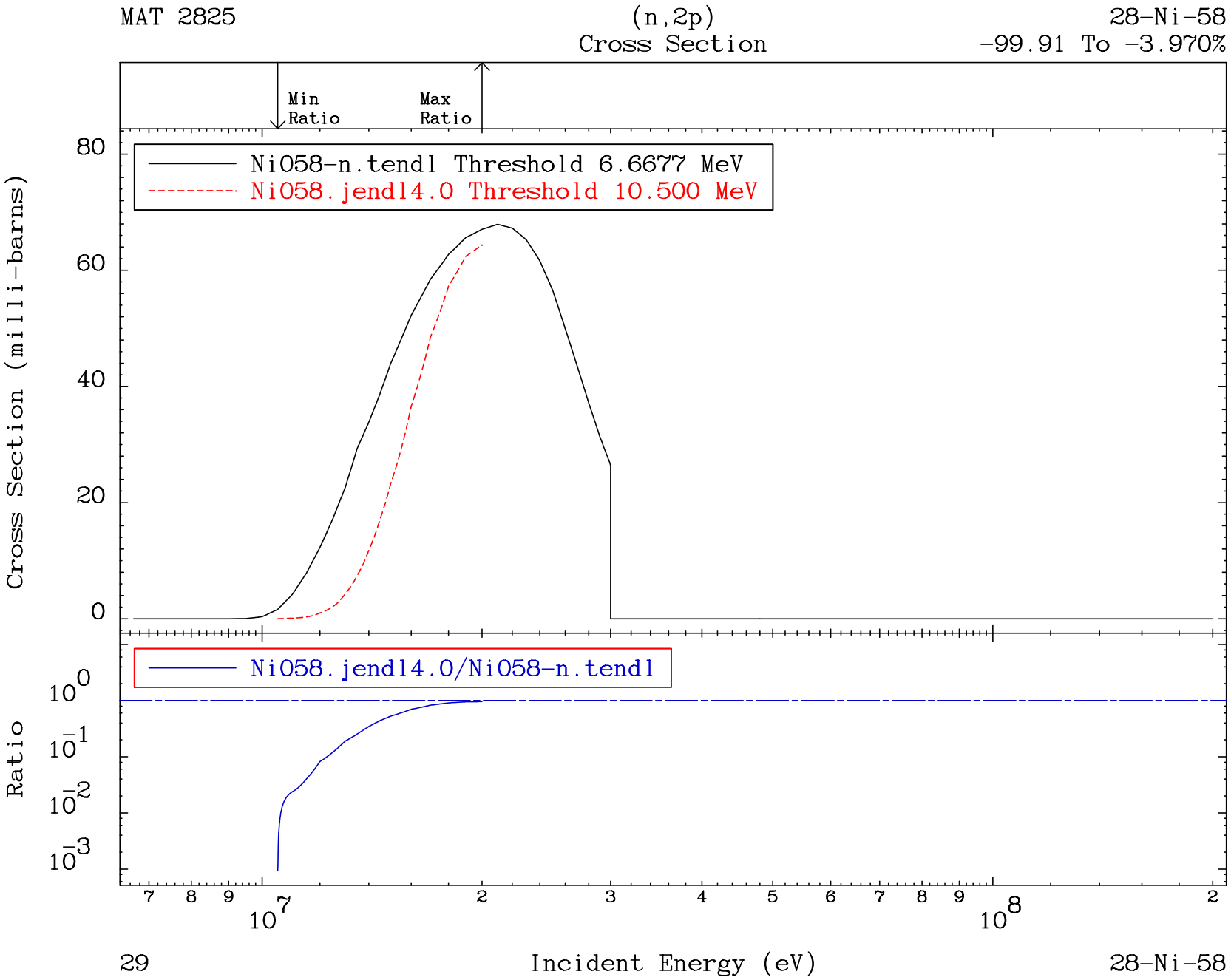

MAT 2825
(n,p)
Cross Section
28-Ni-58
-92.02 To 382.3 %
Min Ratio
Max Ratio
Ni058-n.tendl
Ni058.jendl4.0 Threshold 500.00 keV
Cross Section (milli-barns)
600
400
200
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^{1}
10^{0}
10^{-1}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
24
Incident Energy (eV)
28-Ni-58

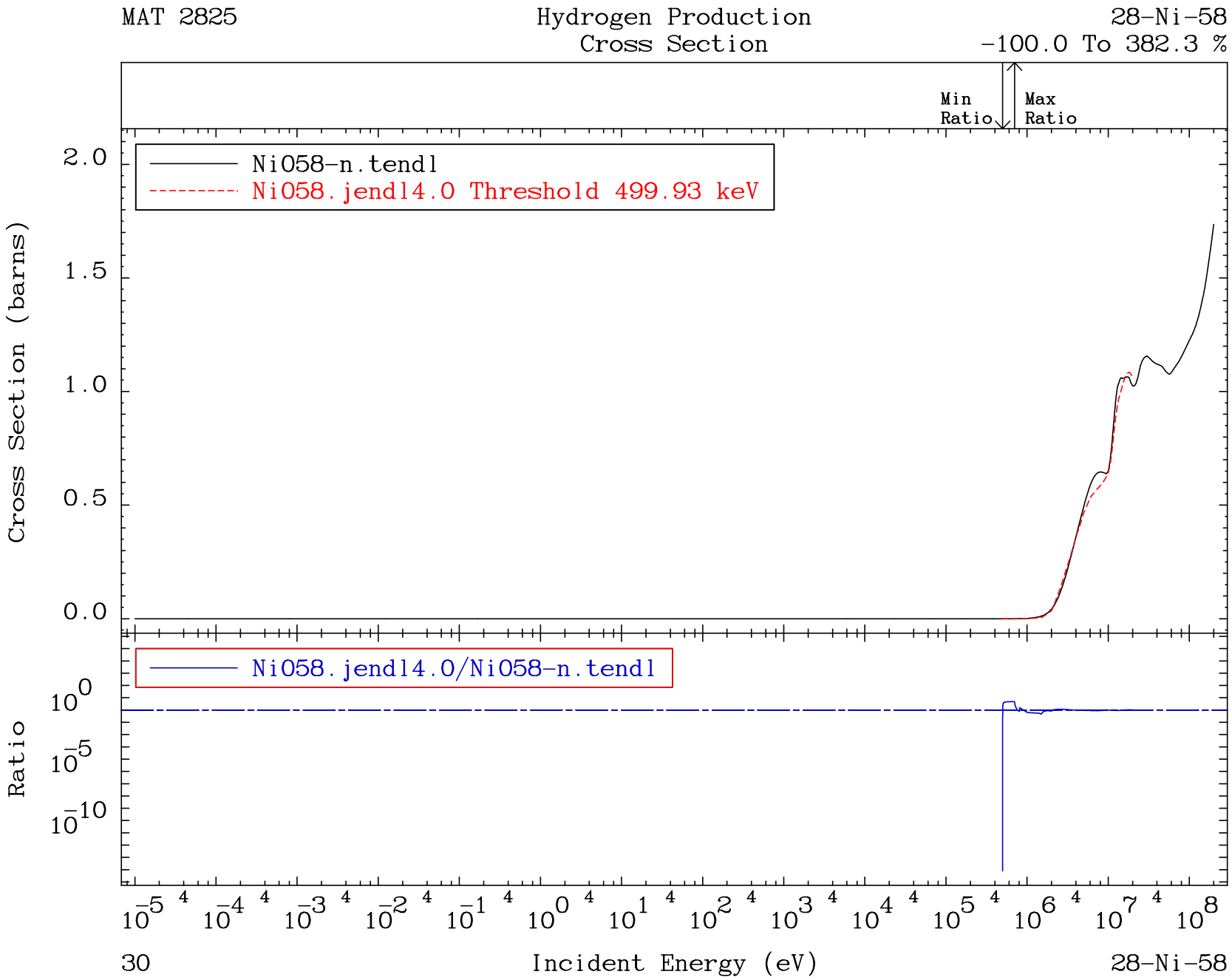

MAT 2825
(n,d)
Cross Section
28-Ni-58
-49.40 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 6.0512 MeV
Ni058.jendl4.0 Threshold 7.0000 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^3
10^2
10^1
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
25
Incident Energy (eV)
28-Ni-58

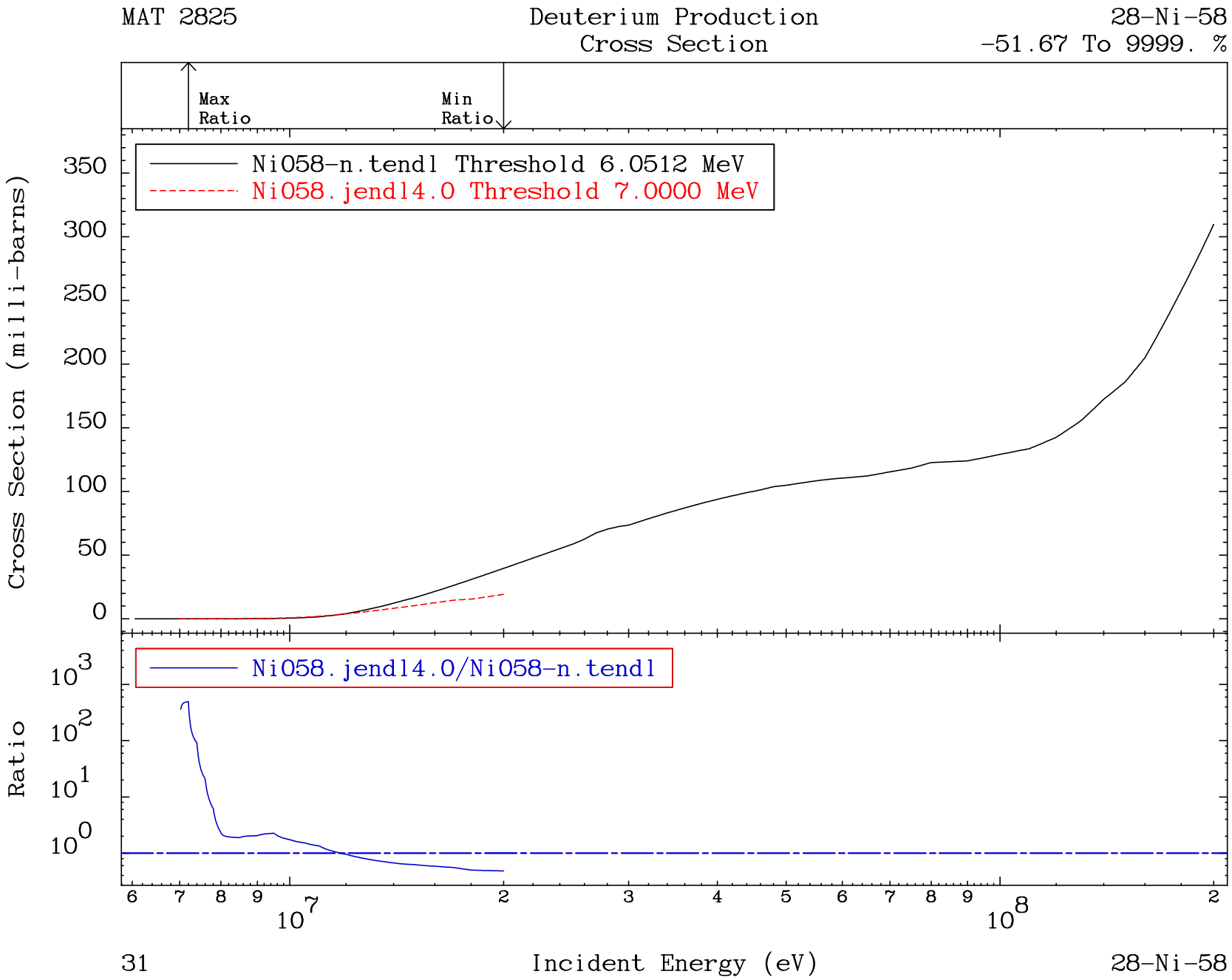

MAT 2825
(n,t)
Cross Section
28-Ni-58
-74.24 To 8006. %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 11.260 MeV
Ni058.jendl4.0 Threshold 12.000 MeV
Cross Section (milli-barns)
0
2
4
6
8
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
26
Incident Energy (eV)
28-Ni-58

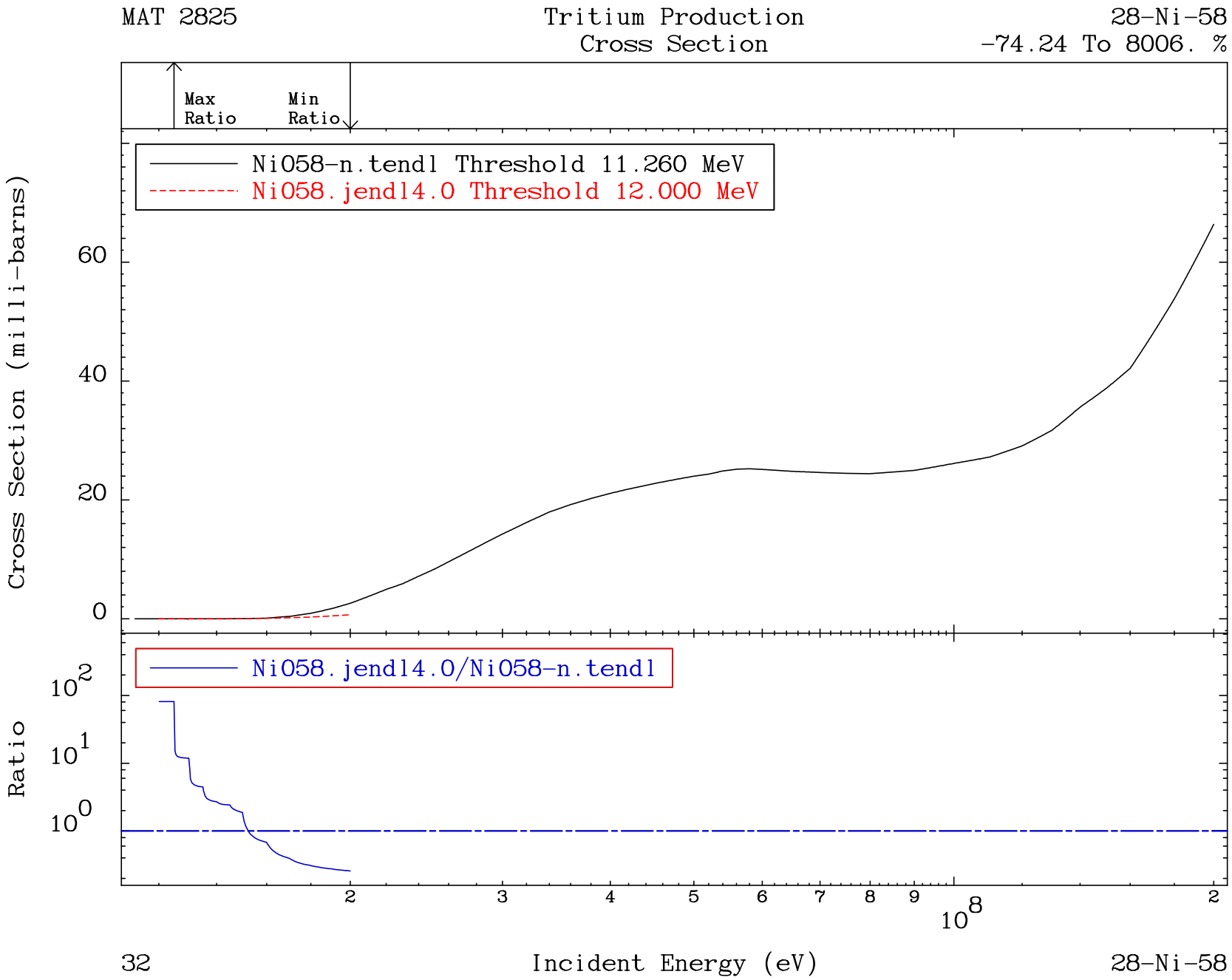

MAT 2825
(n,He-3)
Cross Section
28-Ni-58
-72.96 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 6.5945 MeV
Ni058.jendl4.0 Threshold 8.0000 MeV
Cross Section (milli-barns)
16
12
8
4
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^2
10^0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
27
Incident Energy (eV)
28-Ni-58

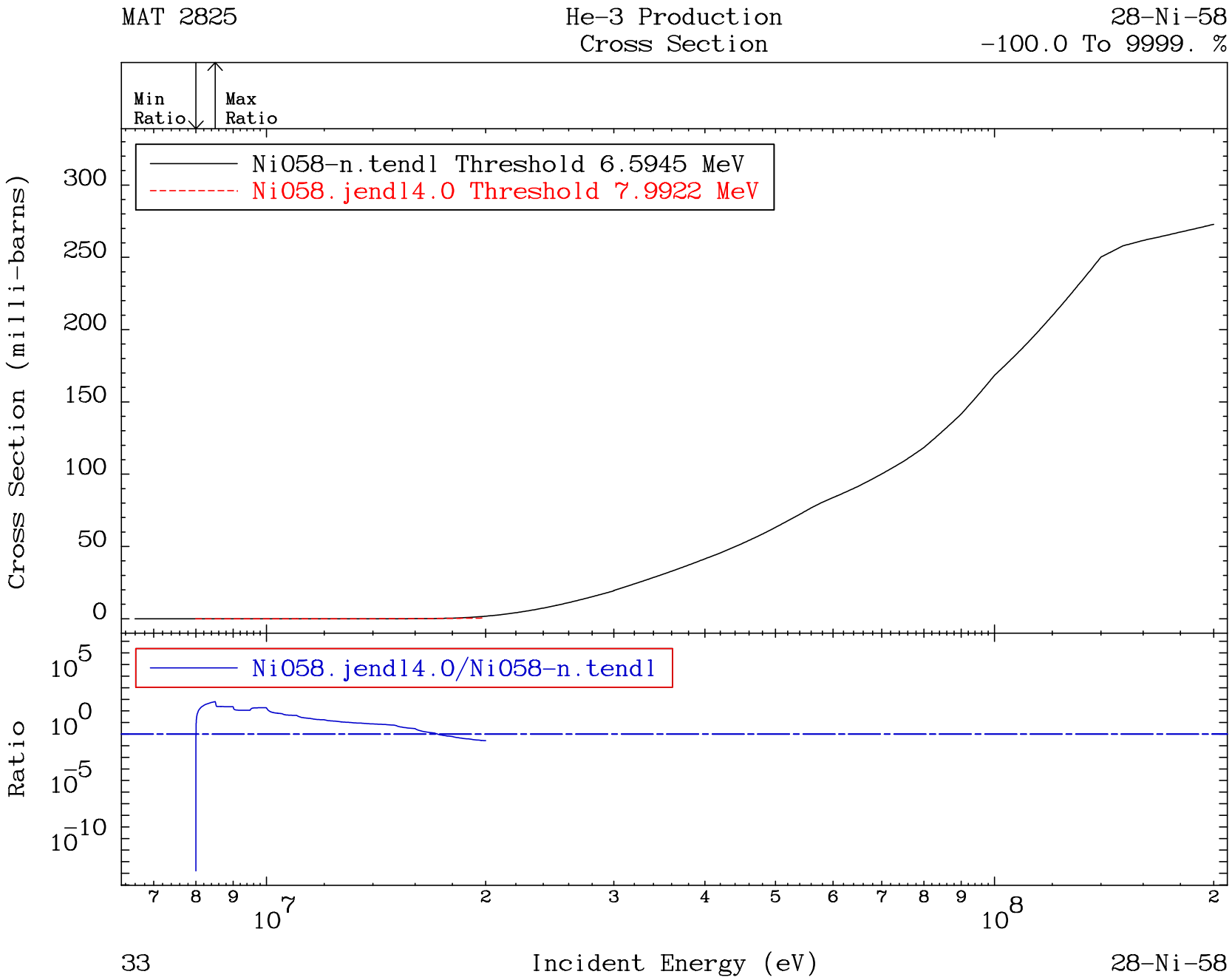

MAT 2825
(n,α)
Cross Section
28-Ni-58
-100.0 To 239.6 %
Min Ratio
Max Ratio
Ni058-n.tendl
Ni058.jendl4.0 Threshold 90.000 keV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^0
10^-2
10^-4
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
28
Incident Energy (eV)
28-Ni-58

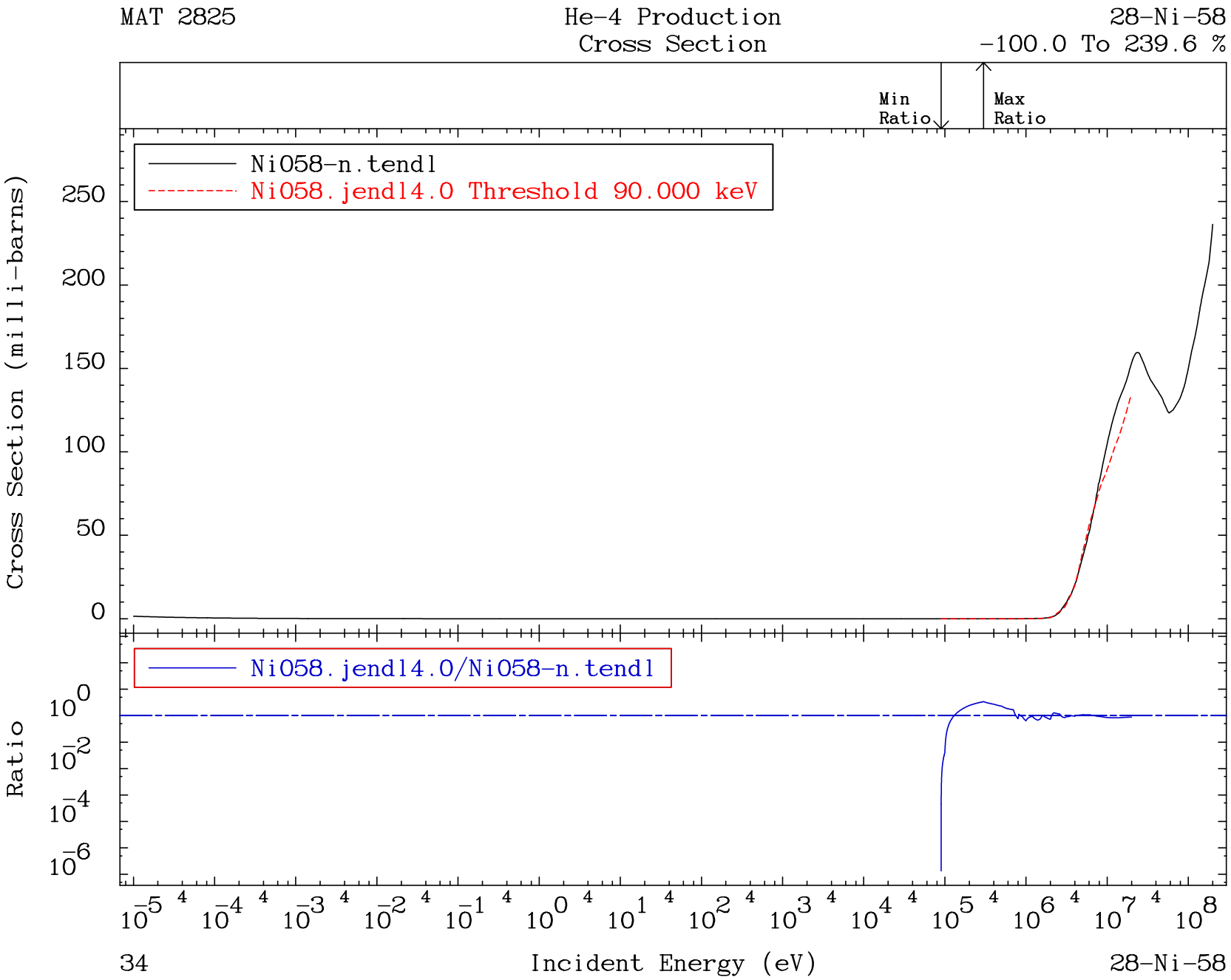

MAT 2825
(n,2p)
Cross Section
28-Ni-58
-99.91 To -3.970%
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 6.6677 MeV
Ni058.jendl4.0 Threshold 10.500 MeV
Cross Section (milli-barns)
80
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^0
10^-1
10^-2
10^-3
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
29
Incident Energy (eV)
28-Ni-58

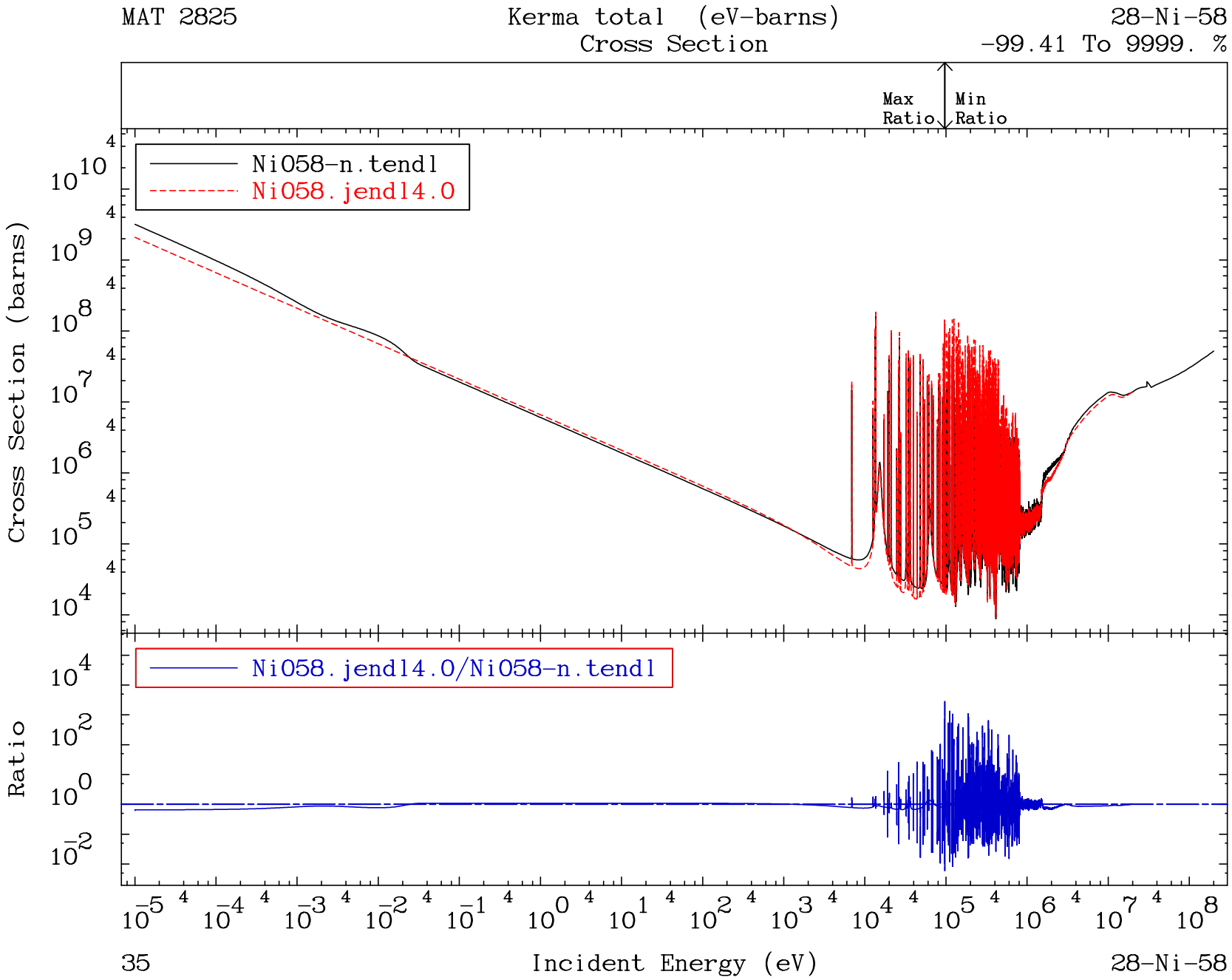

MAT 2825
Hydrogen Production
Cross Section
28-Ni-58
-100.0 To 382.3 %
Min Ratio
Max Ratio
Ni058-n.tendl
Ni058.jendl4.0 Threshold 499.93 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^0
10^-5
10^-10
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
30
Incident Energy (eV)
28-Ni-58

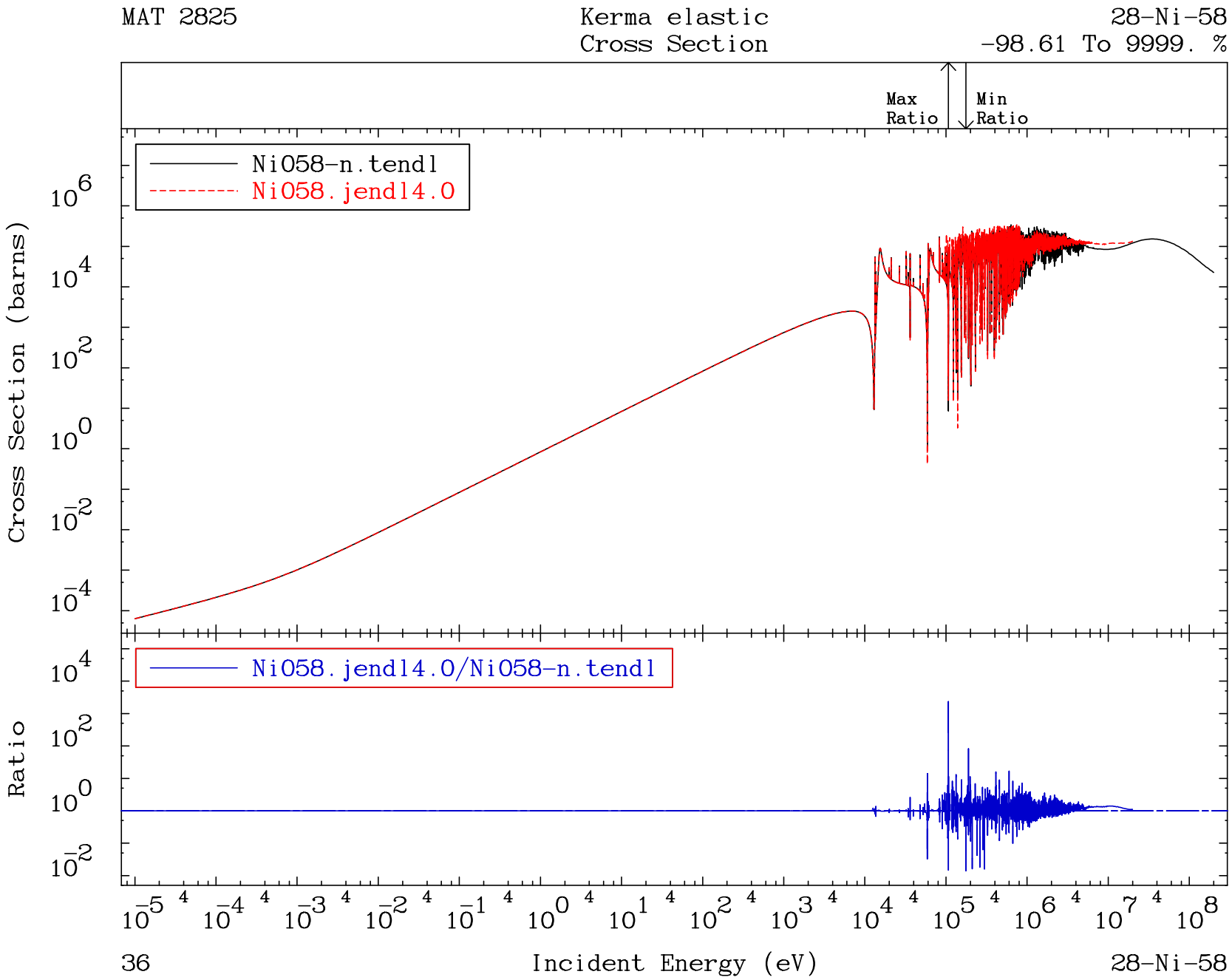

MAT 2825
Deuterium Production
Cross Section
28-Ni-58
-51.67 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 6.0512 MeV
Ni058.jendl4.0 Threshold 7.0000 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^3
10^2
10^1
10^0
6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
31
Incident Energy (eV)
28-Ni-58

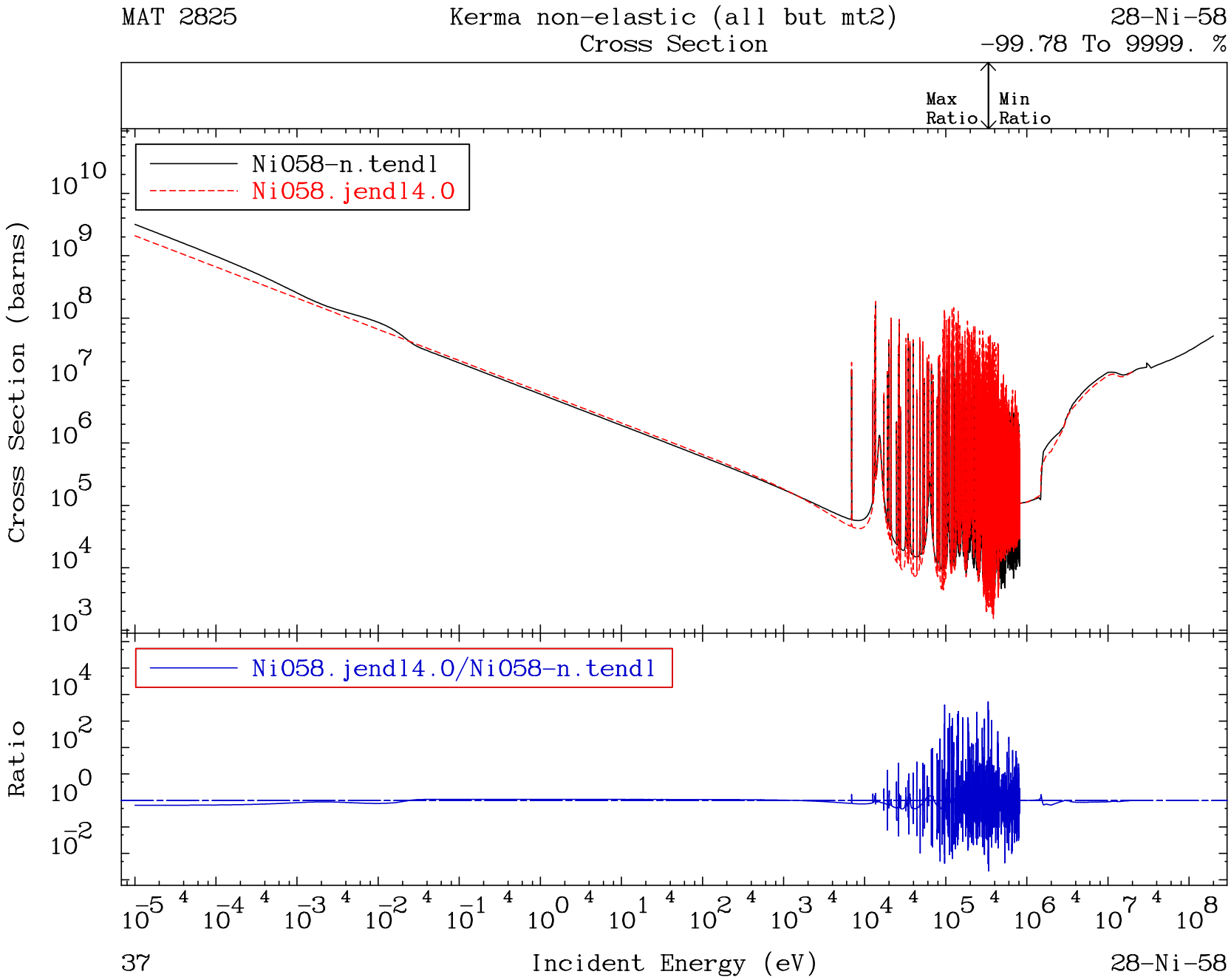

MAT 2825
Tritium Production
Cross Section
28-Ni-58
-74.24 To 8006. %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 11.260 MeV
Ni058.jendl4.0 Threshold 12.000 MeV
Cross Section (milli-barns)
60
40
20
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^2
10^1
10^0
2
3
4
5
6
7
8
9
10^8
2
32
Incident Energy (eV)
28-Ni-58

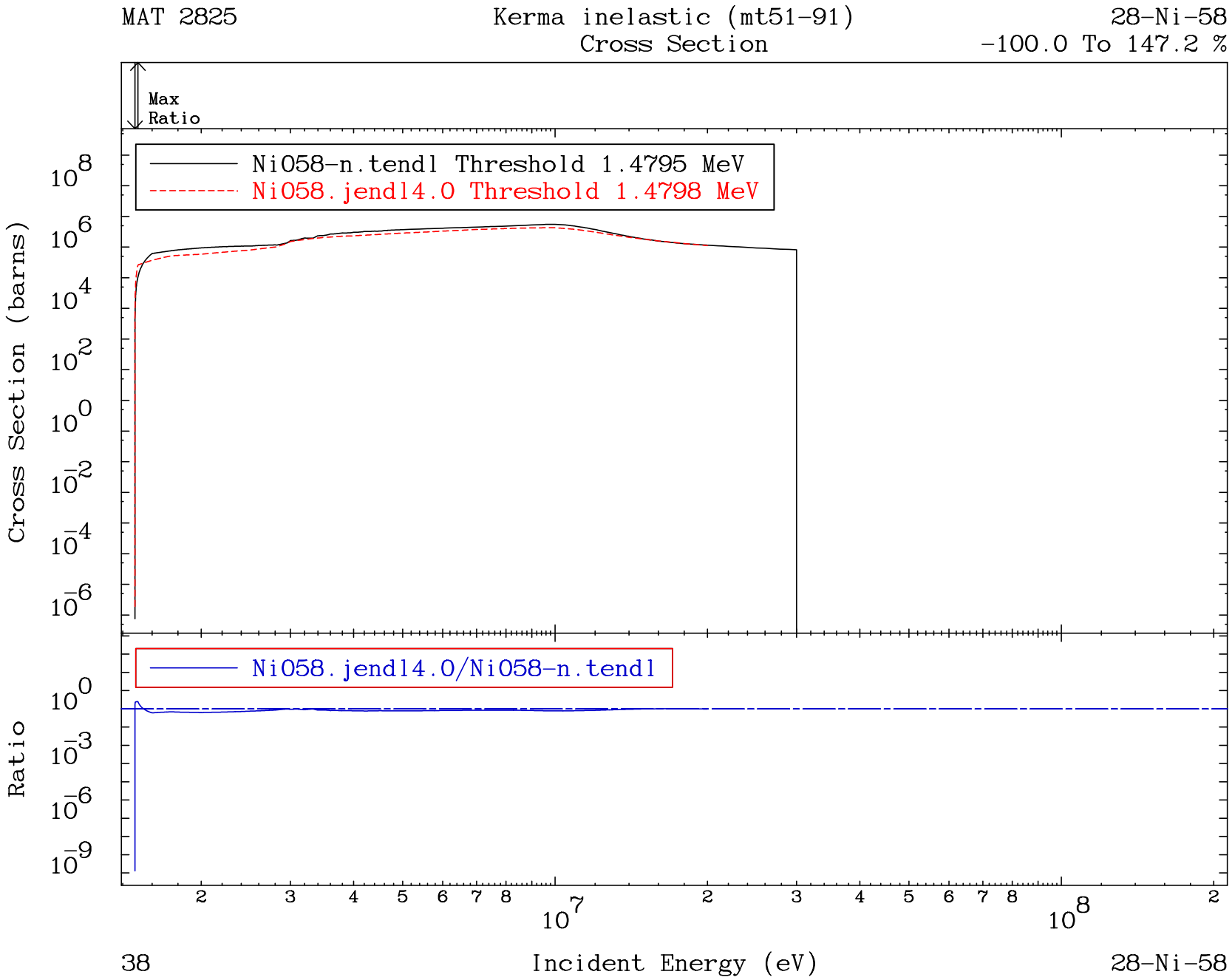

MAT 2825
He-3 Production
Cross Section
28-Ni-58
-100.0 To 9999. %
Min Ratio
Max Ratio
Ni058-n.tendl Threshold 6.5945 MeV
Ni058.jendl4.0 Threshold 7.9922 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^5
10^0
10^-5
10^-10
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
33
Incident Energy (eV)
28-Ni-58

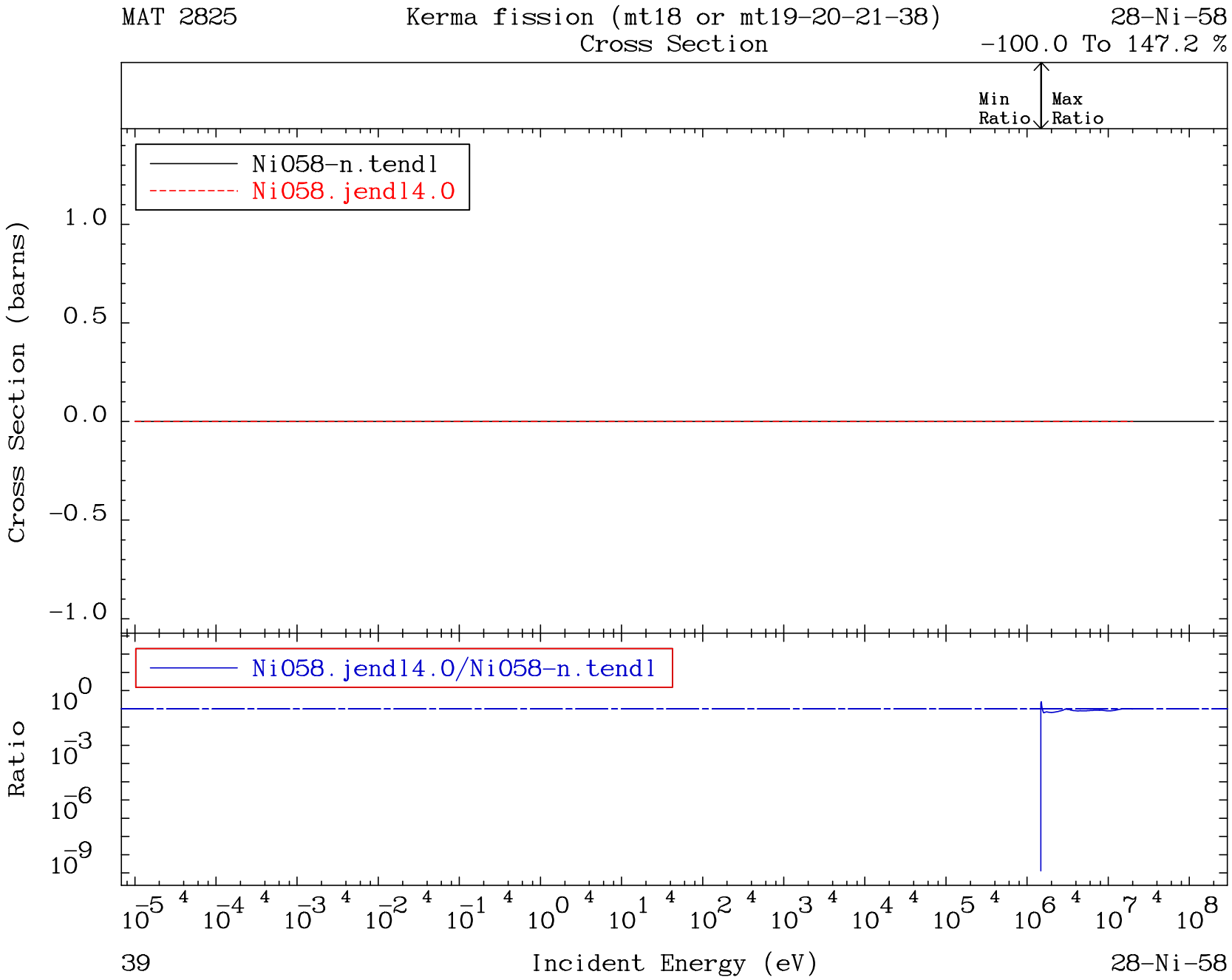

MAT 2825
He-4 Production
Cross Section
28-Ni-58
-100.0 To 239.6 %
Min Ratio
Max Ratio
Ni058-n.tendl
Ni058.jendl4.0 Threshold 90.000 keV
Cross Section (milli-barns)
250
200
150
100
50
0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^0
10^-2
10^-4
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
34
Incident Energy (eV)
28-Ni-58

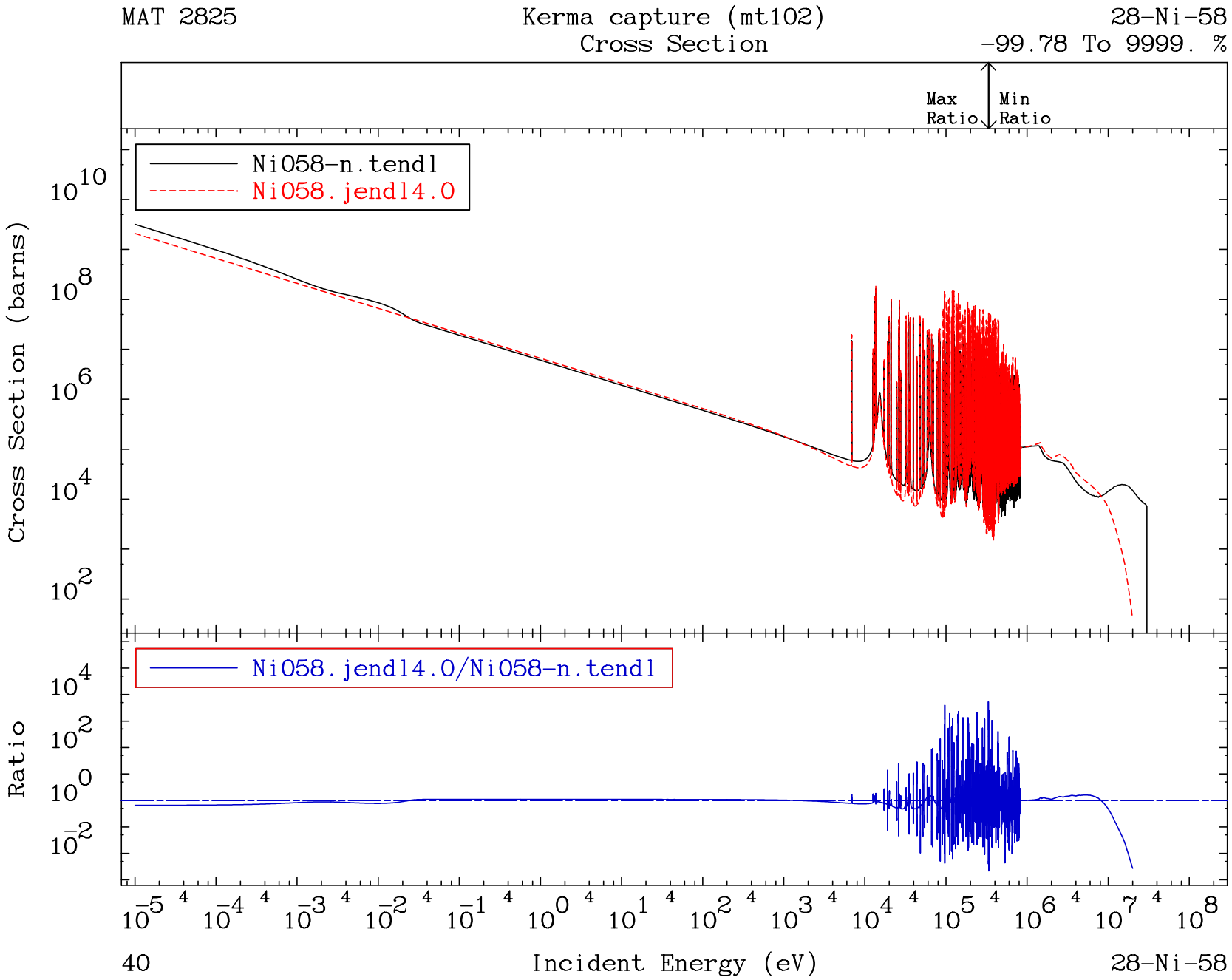

MAT 2825
Kerma total (eV-barns)
Cross Section
28-Ni-58
-99.41 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
35
Incident Energy (eV)
28-Ni-58

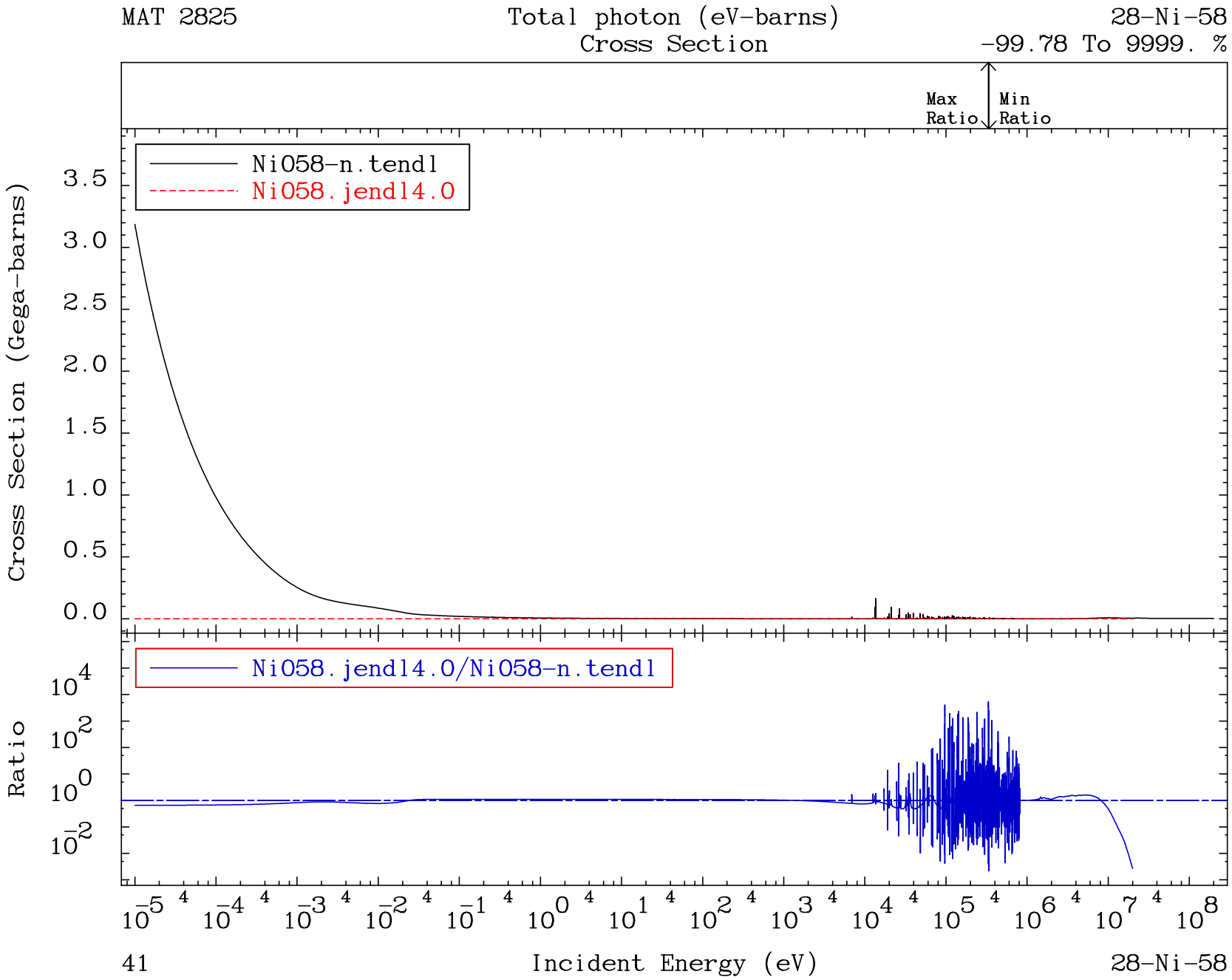

MAT 2825
Kerma elastic
Cross Section
28-Ni-58
-98.61 To 9999. %
Max
Ratio
Min
Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
36
28-Ni-58

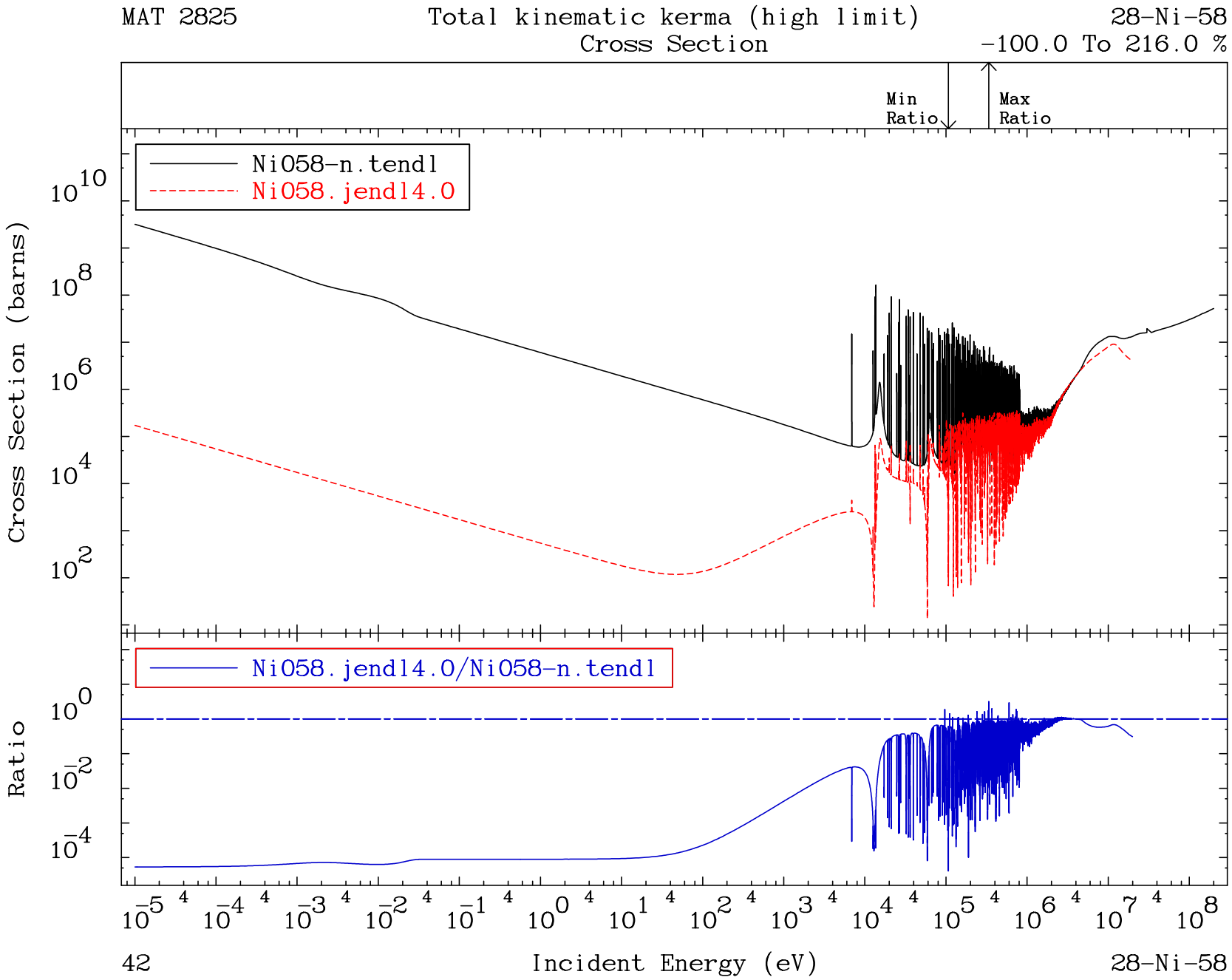

MAT 2825
Kerma non-elastic (all but mt2)
Cross Section
28-Ni-58
-99.78 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
37
28-Ni-58

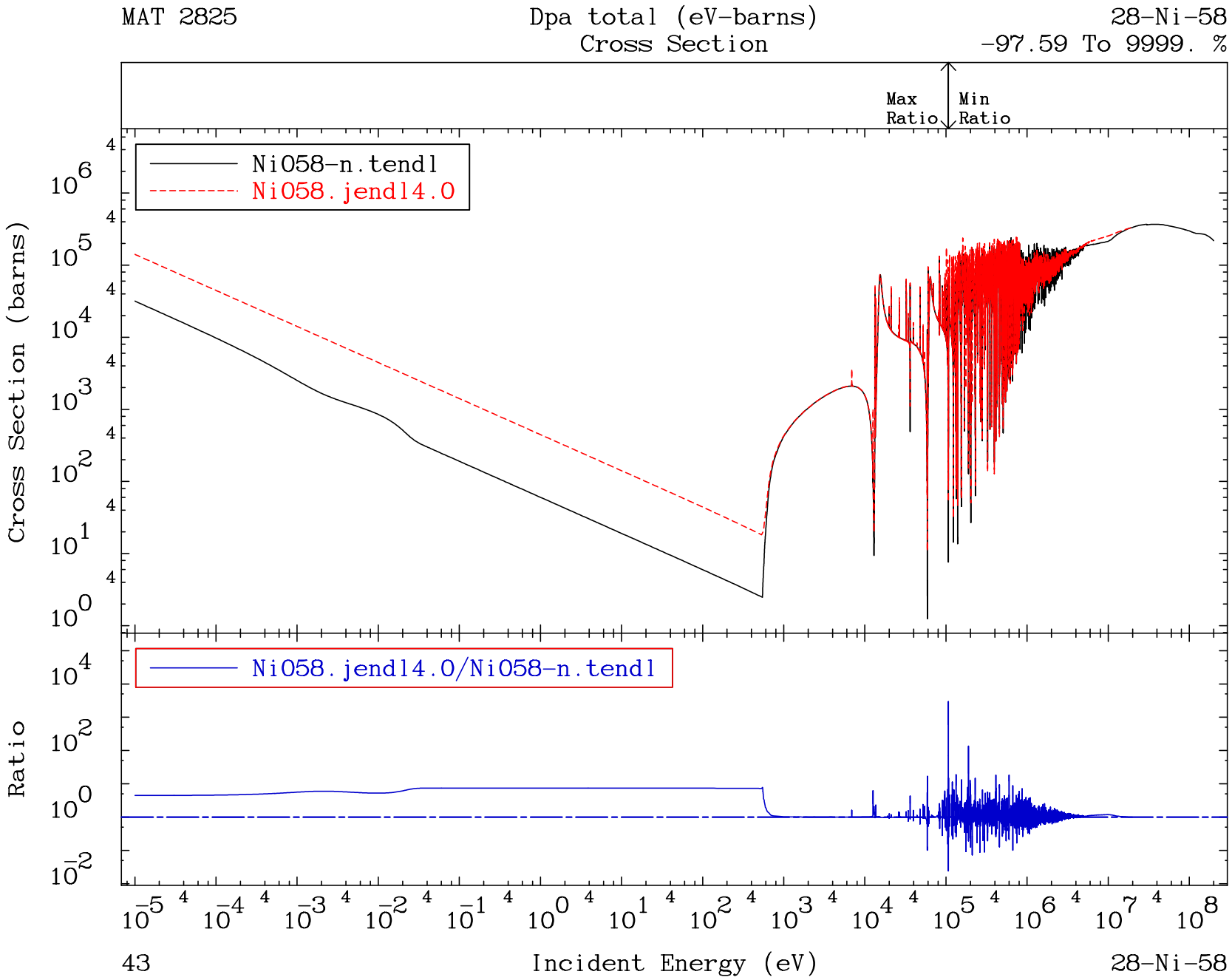

MAT 2825
Kerma inelastic (mt51-91)
Cross Section
28-Ni-58
-100.0 To 147.2 %
Max
Ratio
Ni058-n.tendl Threshold 1.4795 MeV
Ni058.jendl4.0 Threshold 1.4798 MeV
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
38
28-Ni-58

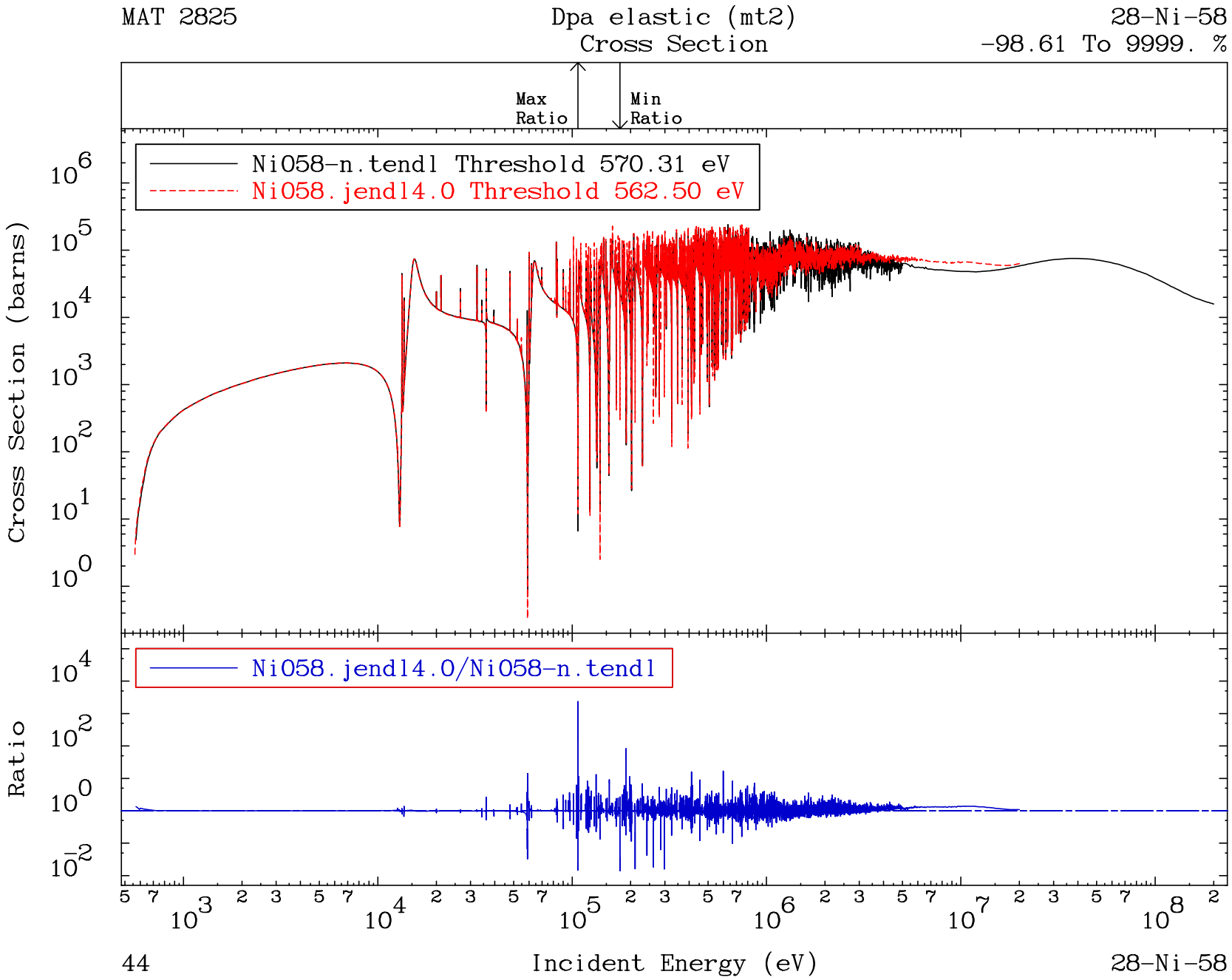

MAT 2825
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
28-Ni-58
-100.0 To 147.2 %
Min Ratio
Max Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^0
10^-3
10^-6
10^-9
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
39
Incident Energy (eV)
28-Ni-58

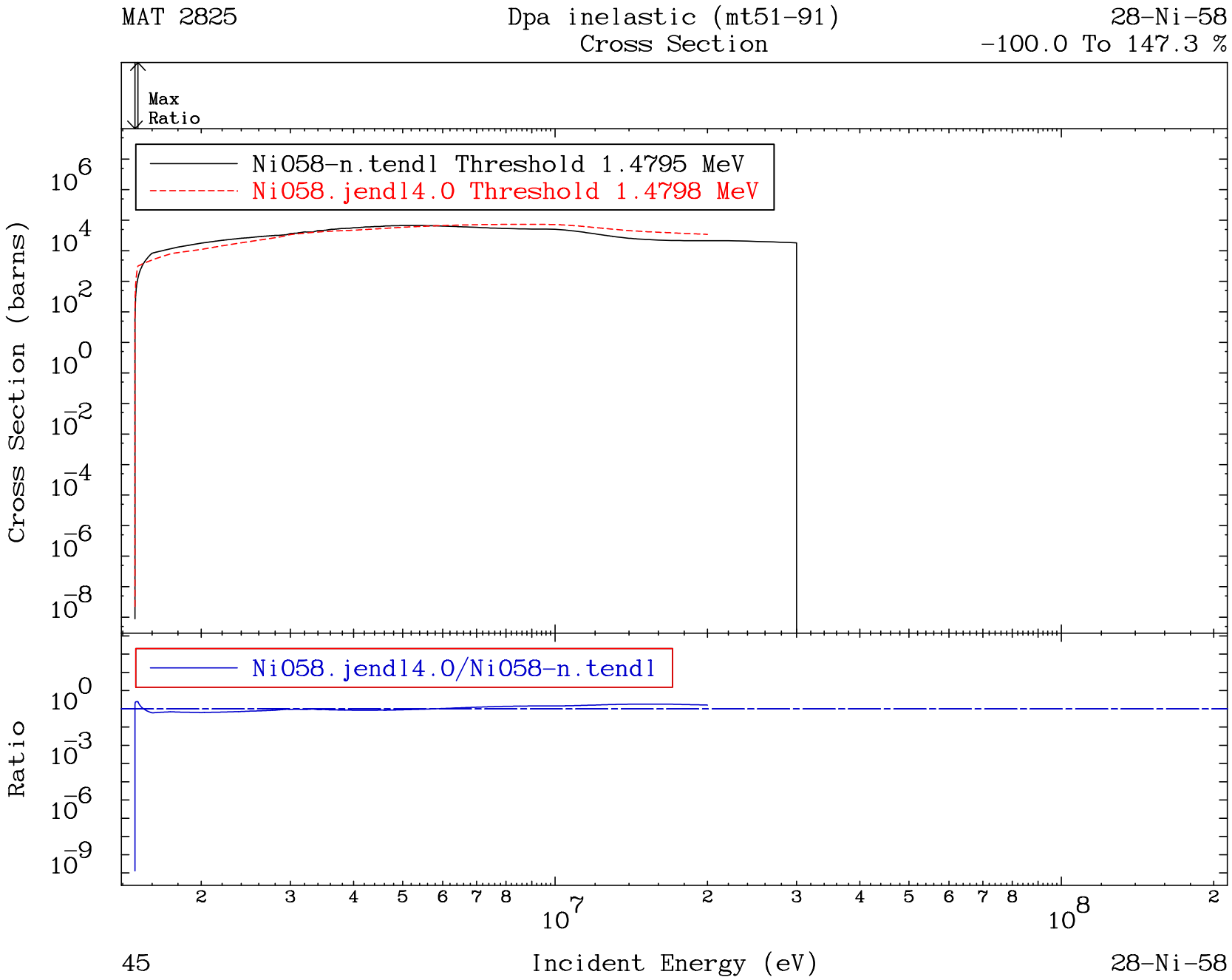

MAT 2825
Kerma capture (mt102)
Cross Section
28-Ni-58
-99.78 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
40
28-Ni-58

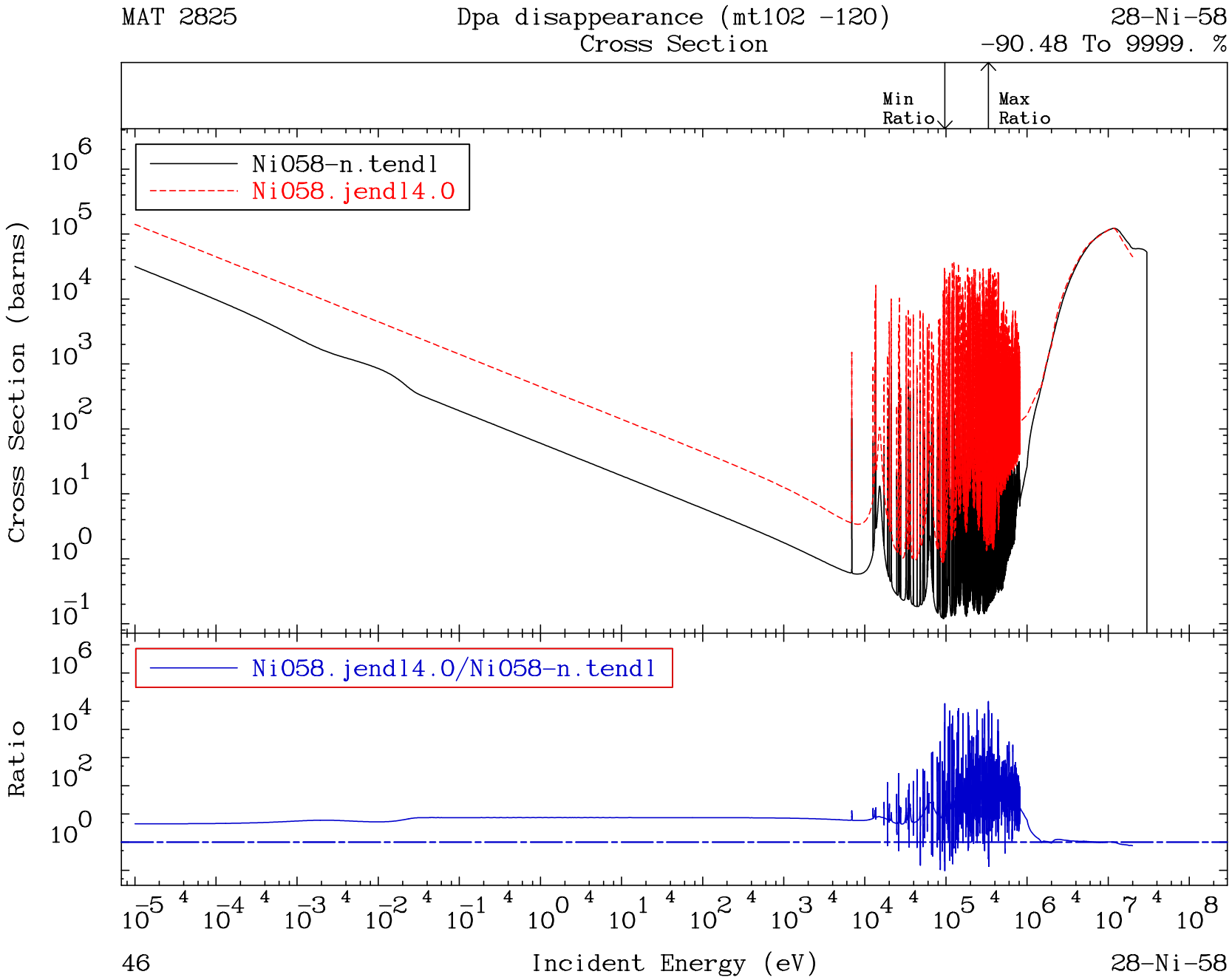

MAT 2825
Total photon (eV-barns)
Cross Section
28-Ni-58
-99.78 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (Giga-barns)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Ni058.jendl4.0/Ni058-n.tendl
Ratio
10^4
10^2
10^0
10^-2
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
41
Incident Energy (eV)
28-Ni-58


MAT 2825
Total kinematic kerma (high limit)
Cross Section
28-Ni-58
-100.0 To 216.0 %
Min Ratio
Max Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
42
28-Ni-58


MAT 2825
Dpa total (eV-barns)
Cross Section
28-Ni-58
-97.59 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
43
Incident Energy (eV)
28-Ni-58


MAT 2825
Dpa elastic (mt2)
Cross Section
28-Ni-58
-98.61 To 9999. %
Max Ratio
Min Ratio
Ni058-n.tendl Threshold 570.31 eV
Ni058.jendl4.0 Threshold 562.50 eV
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
44
28-Ni-58


MAT 2825
Dpa inelastic (mt51-91)
Cross Section
28-Ni-58
-100.0 To 147.3 %
Max
Ratio
Ni058-n.tendl Threshold 1.4795 MeV
Ni058.jendl4.0 Threshold 1.4798 MeV
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
45
28-Ni-58


MAT 2825
Dpa disappearance (mt102 -120)
Cross Section
28-Ni-58
-90.48 To 9999. %
Min Ratio
Max Ratio
Ni058-n.tendl
Ni058.jendl4.0
Cross Section (barns)
Ni058.jendl4.0/Ni058-n.tendl
Ratio
Incident Energy (eV)
46
28-Ni-58