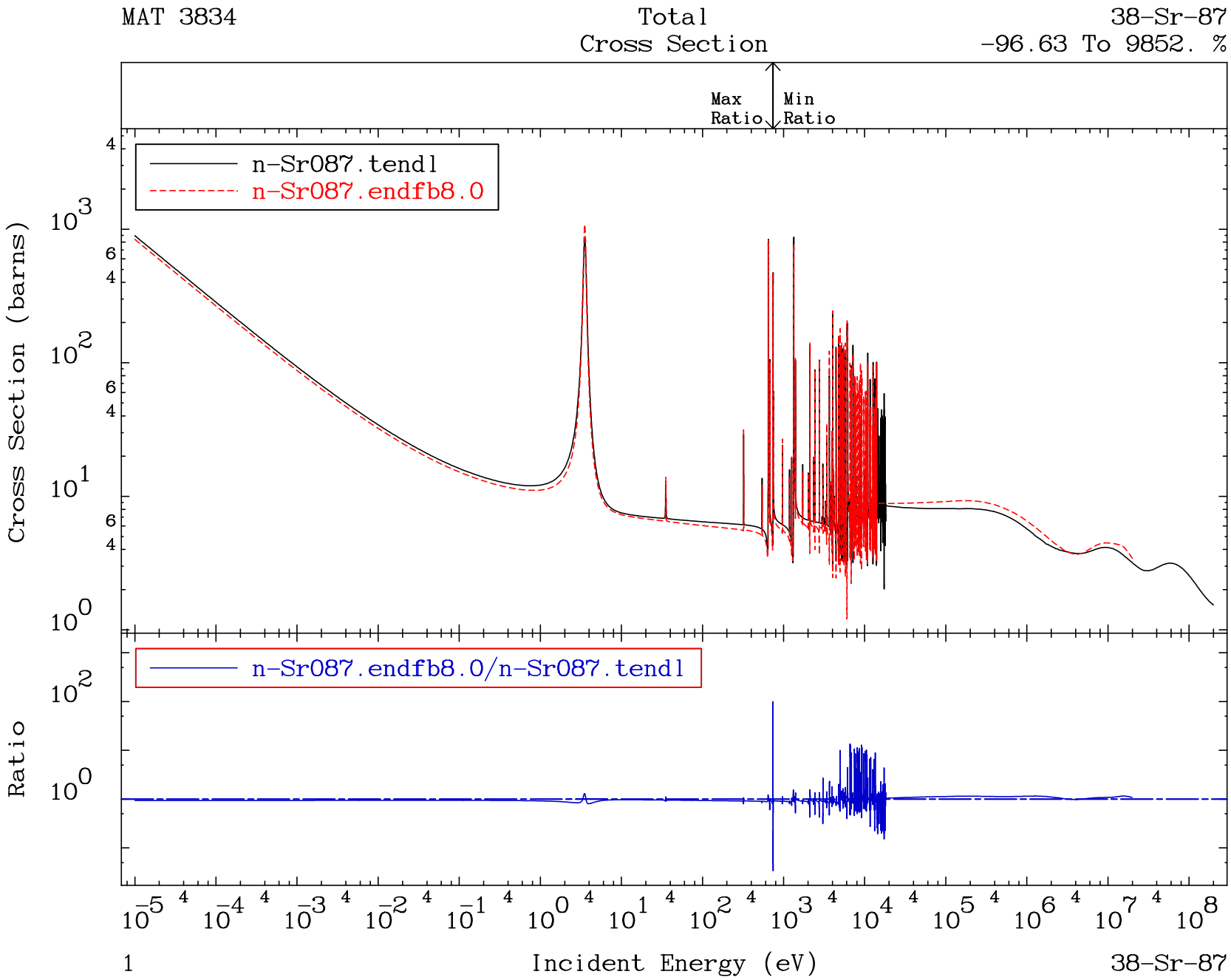
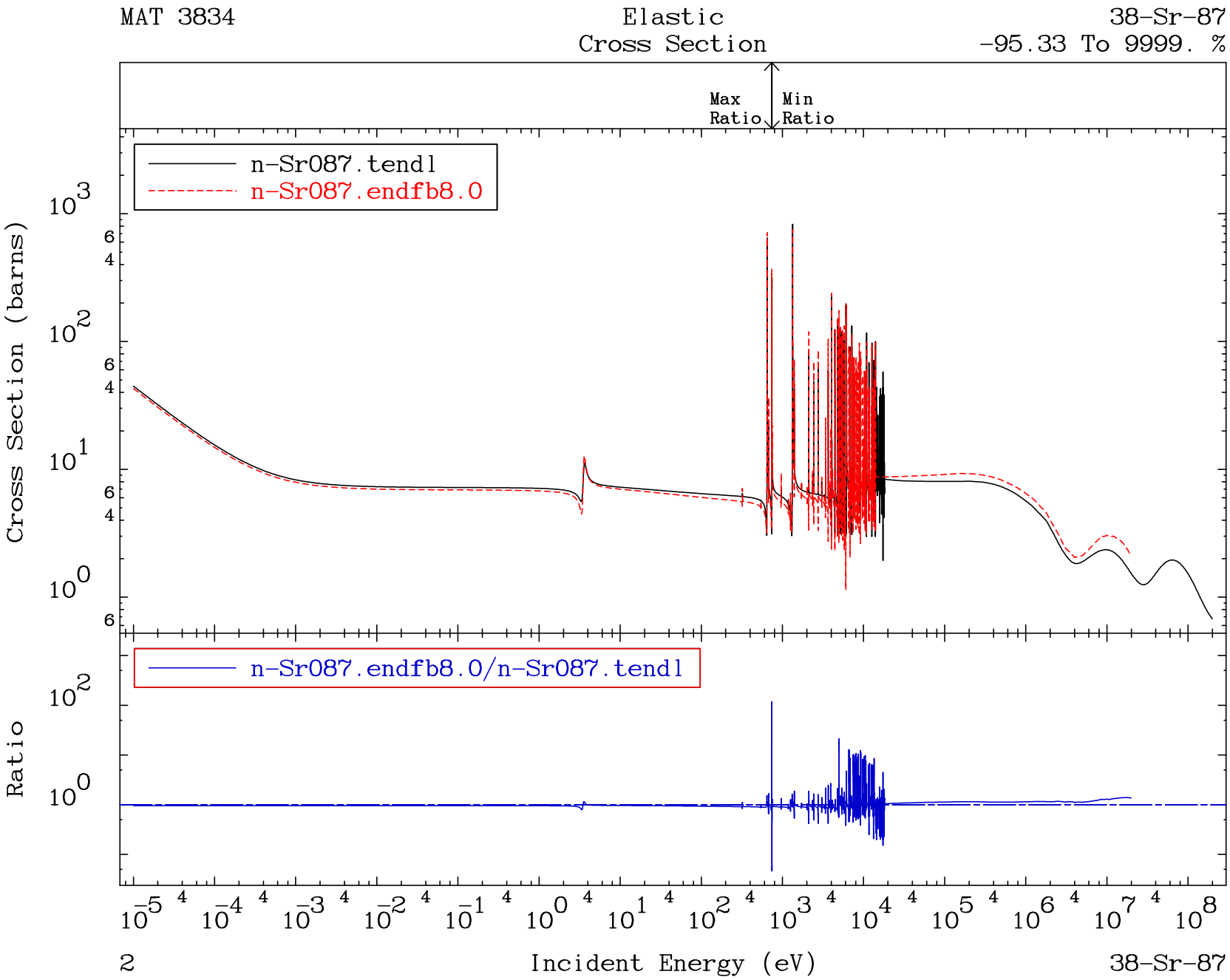
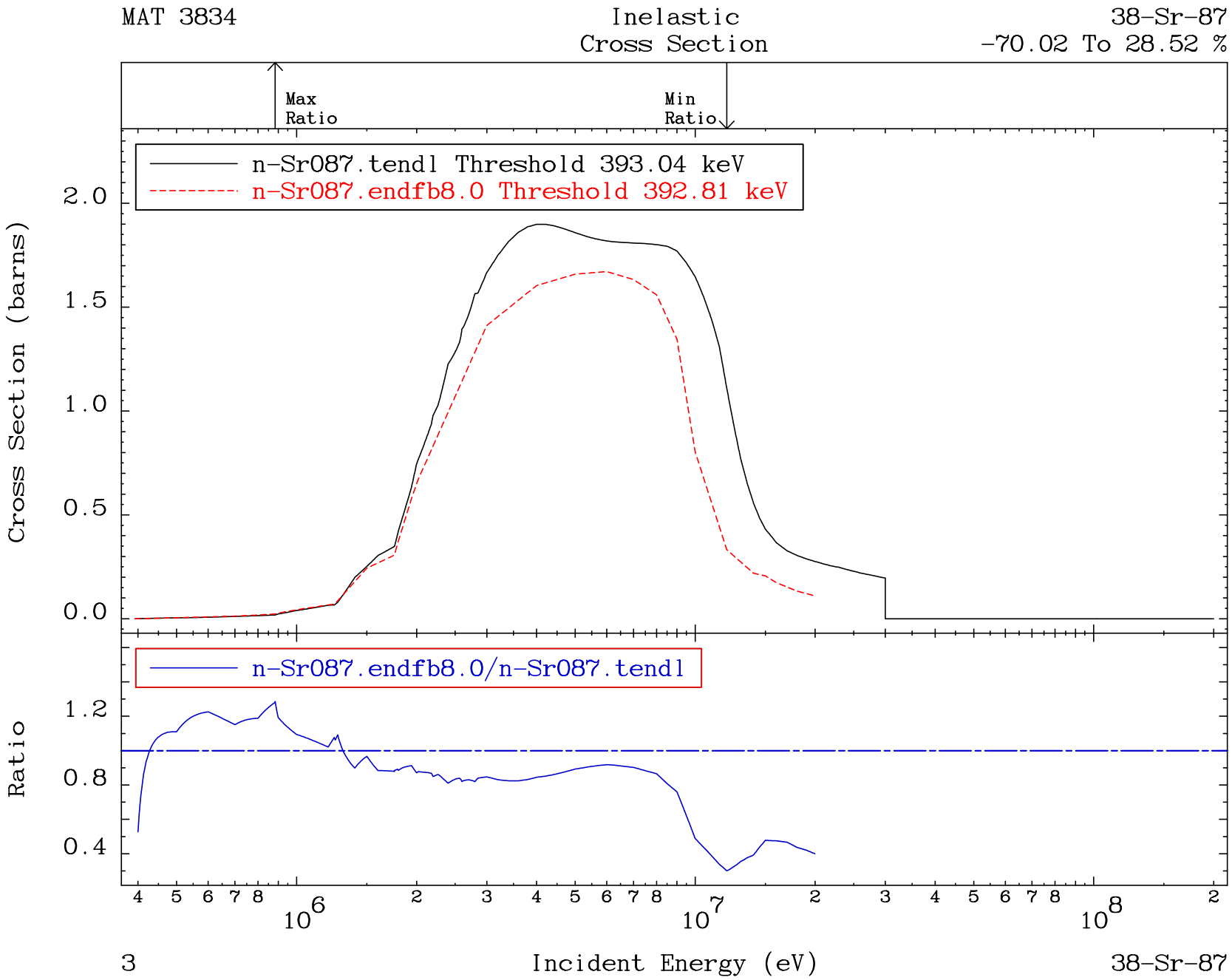
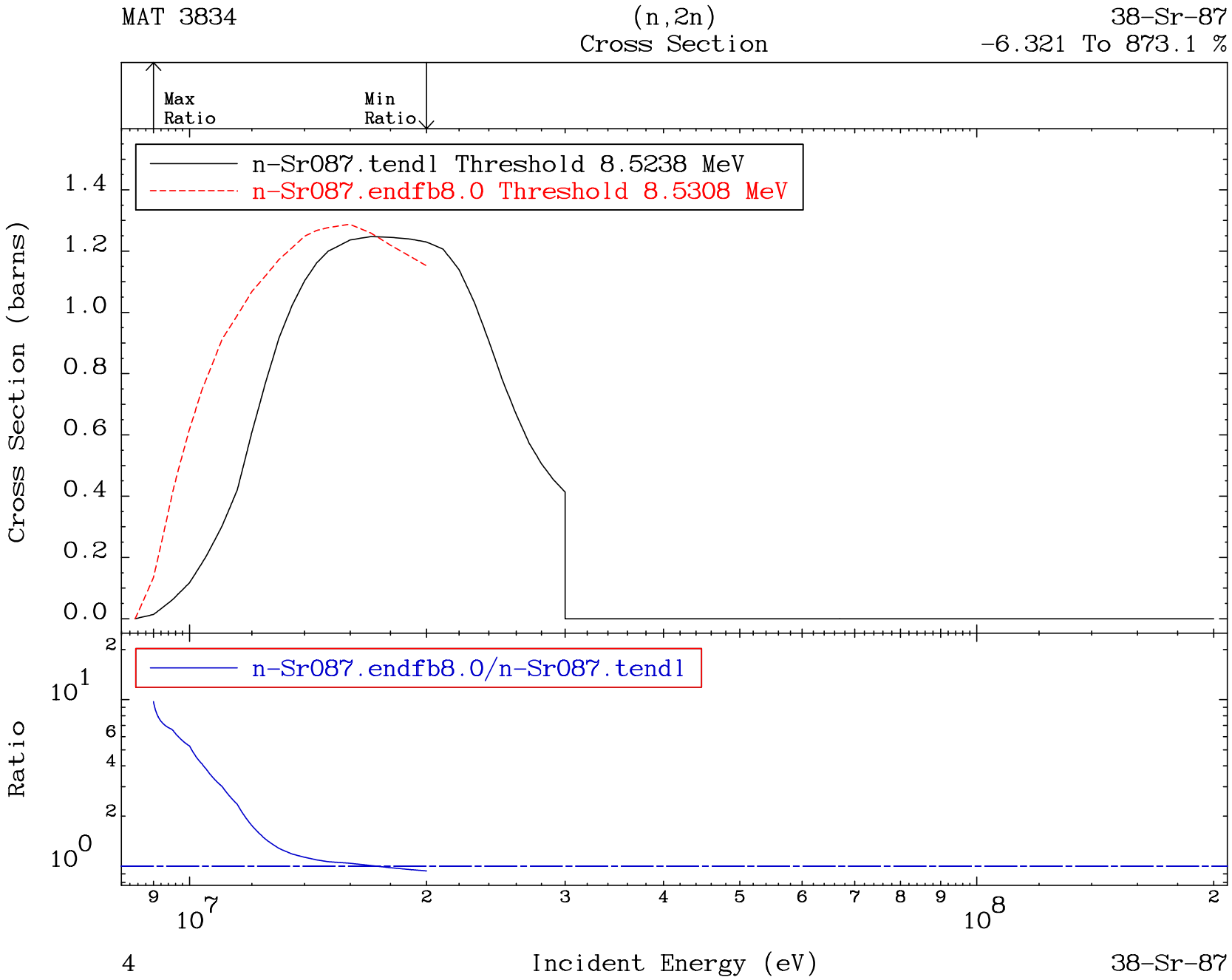
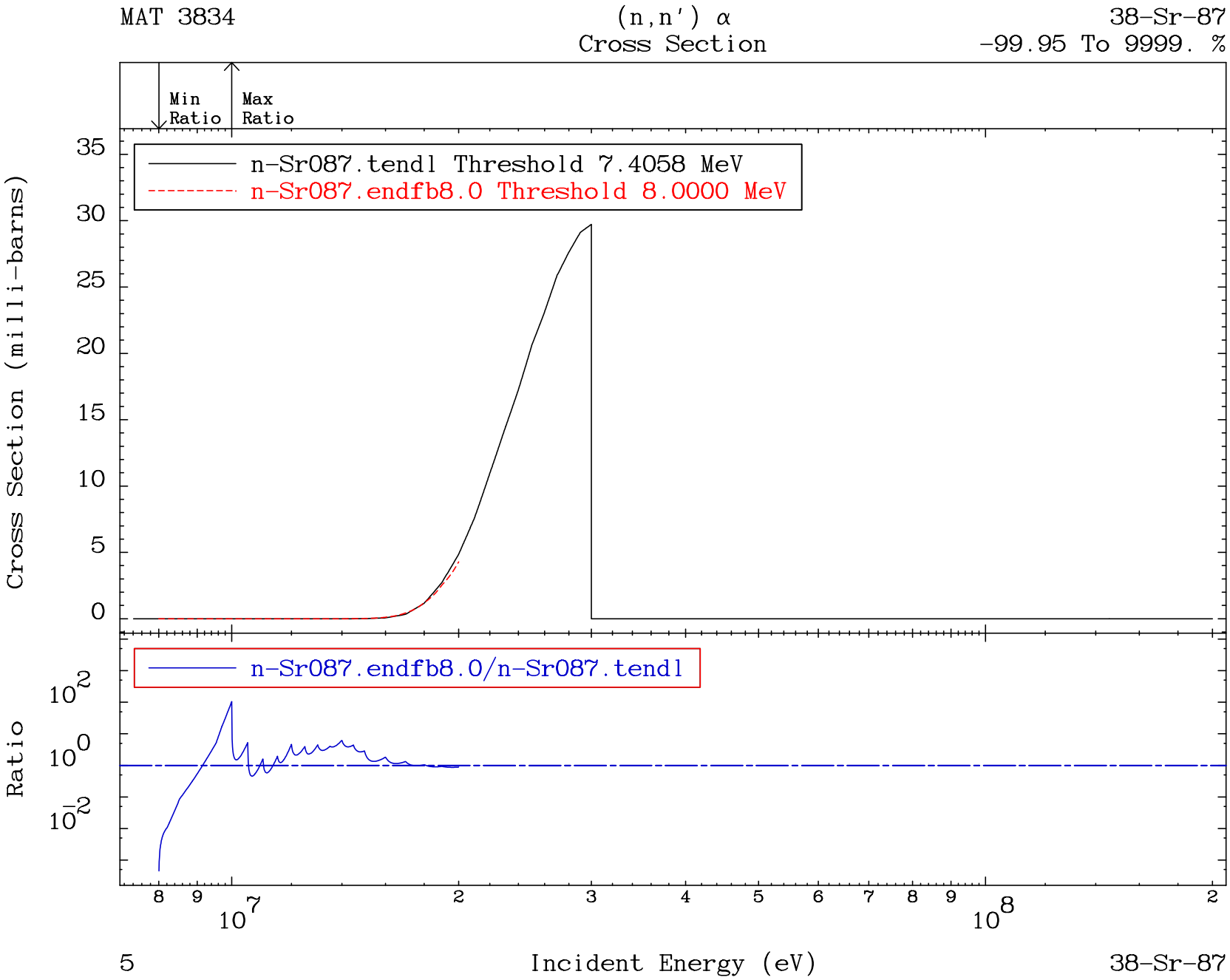
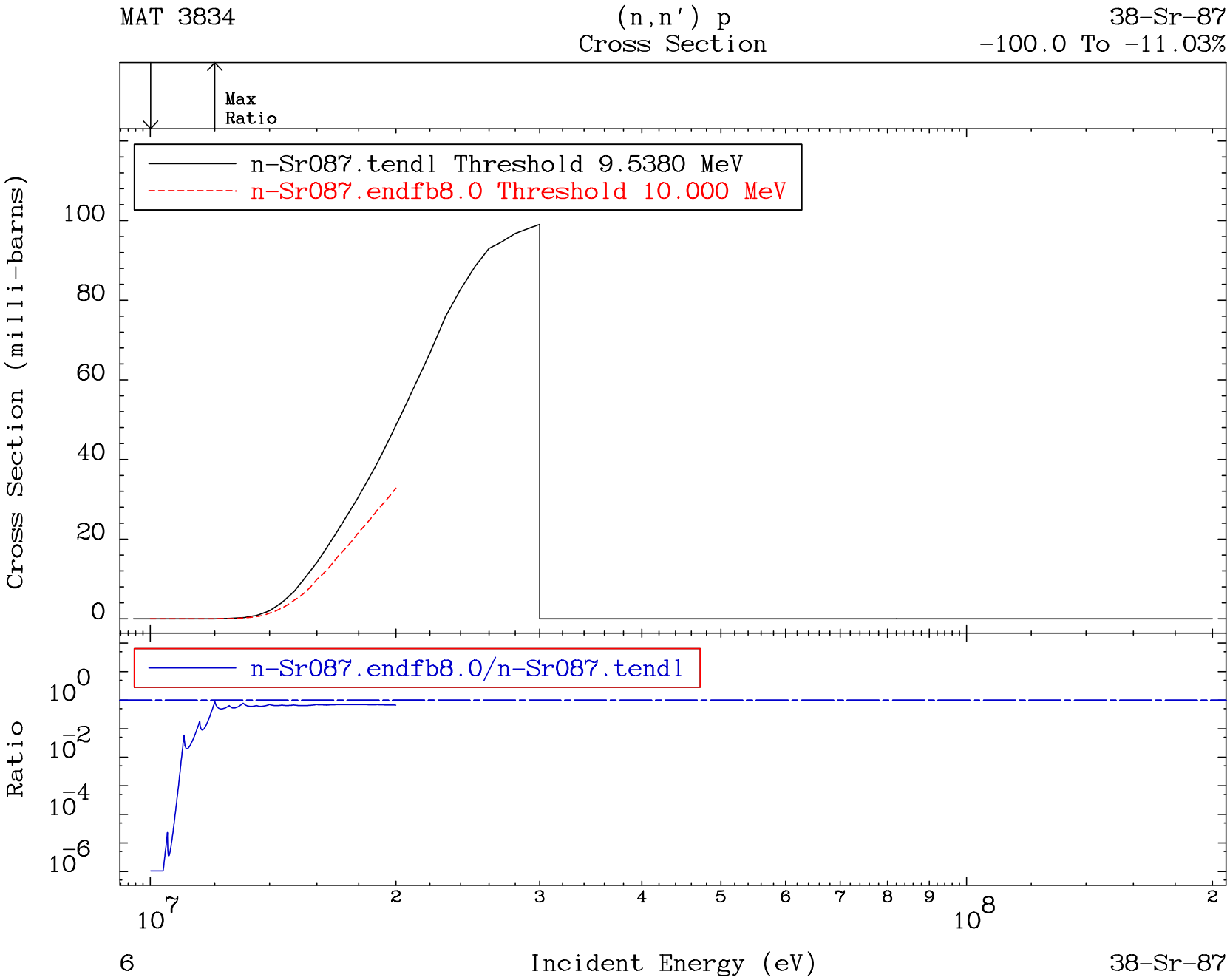

MAT 3834
Total
Cross Section
38-Sr-87
-96.63 To 9852. %
Max Ratio
Min Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
1
38-Sr-87

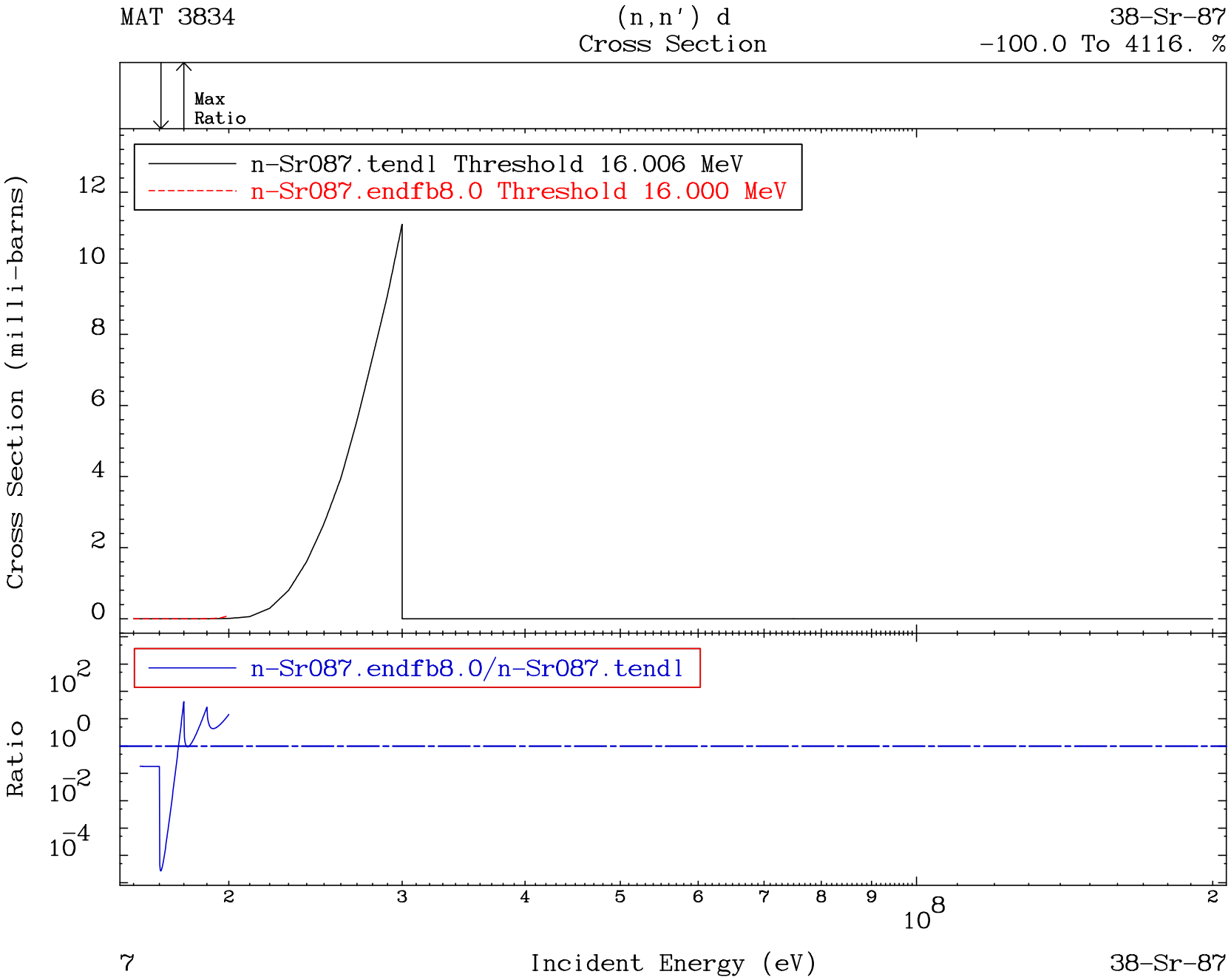

MAT 3834
Elastic
Cross Section
38-Sr-87
-95.33 To 9999. %
Max Ratio
Min Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
2
38-Sr-87

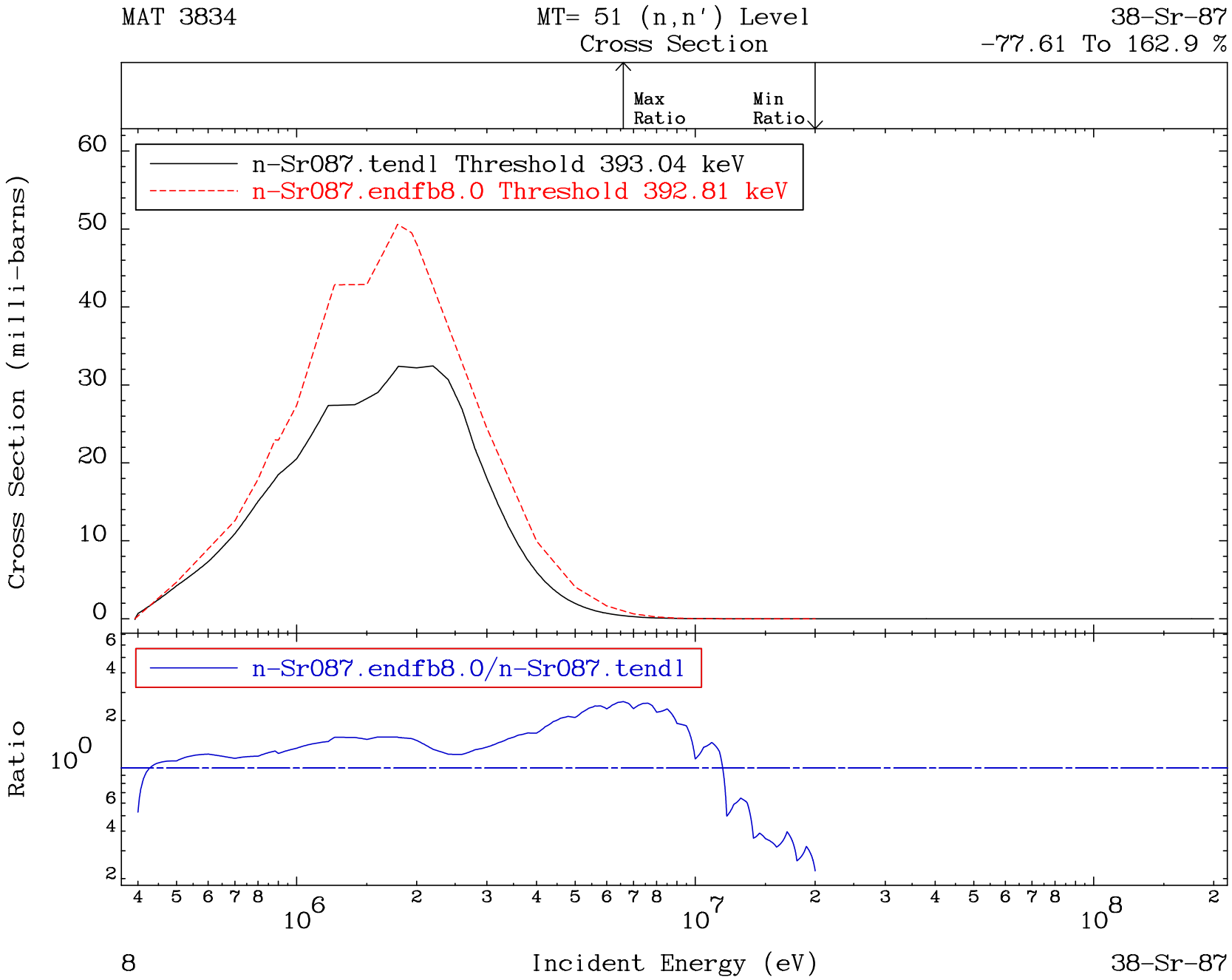

MAT 3834
Inelastic
Cross Section
38-Sr-87
-70.02 To 28.52 %
Max
Ratio
Min
Ratio
n-Sr087.tendl Threshold 393.04 keV
n-Sr087.endfb8.0 Threshold 392.81 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
1.2
0.8
0.4
4 5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
3
Incident Energy (eV)
38-Sr-87

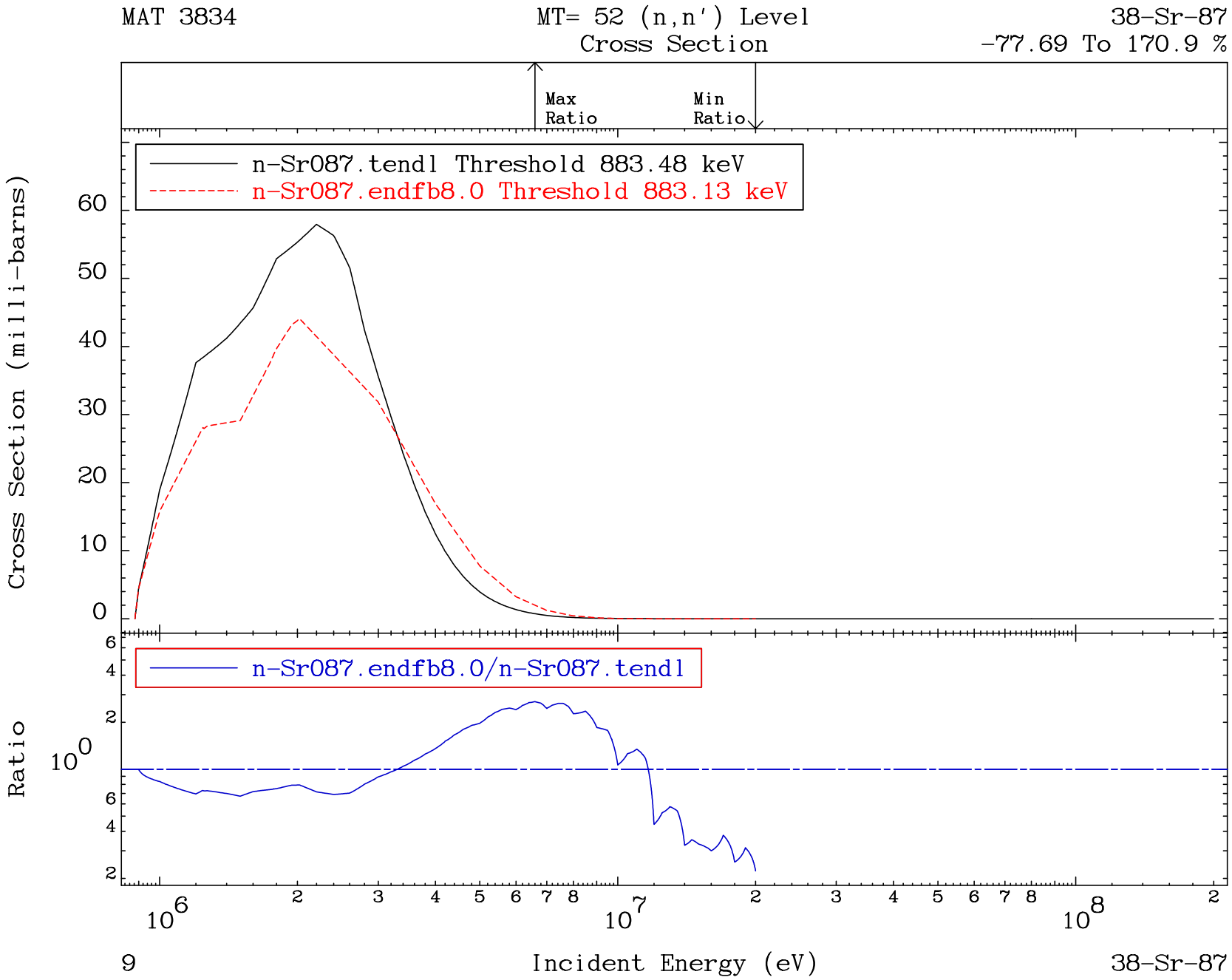

MAT 3834
(n,2n)
Cross Section
38-Sr-87
-6.321 To 873.1 %
Max Ratio
Min Ratio
n-Sr087.tendl Threshold 8.5238 MeV
n-Sr087.endfb8.0 Threshold 8.5308 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
2
10^1
6
4
2
10^0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
38-Sr-87

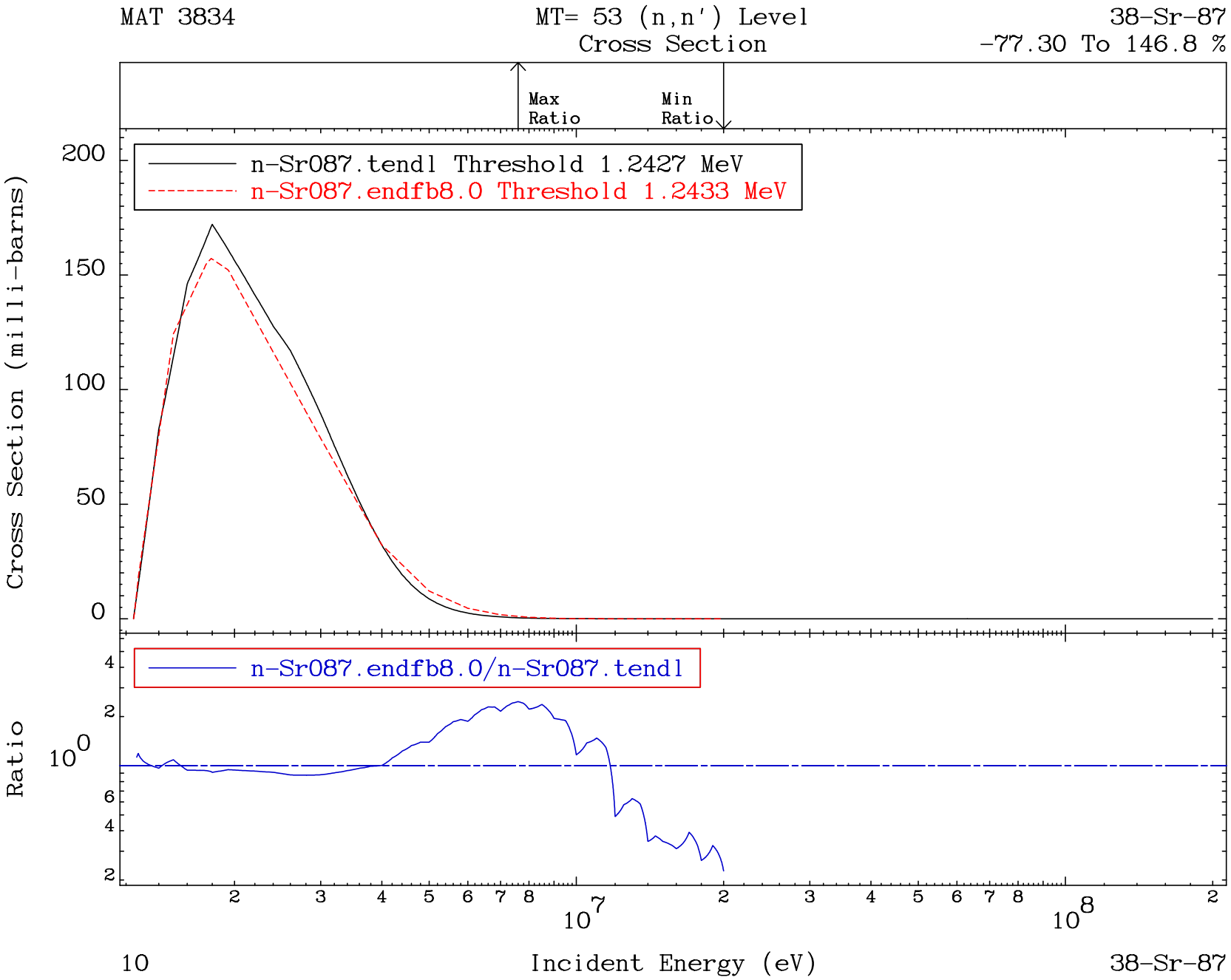

MAT 3834
(n,n') α
Cross Section
38-Sr-87
-99.95 To 9999. %
Min Ratio
Max Ratio
n-Sr087.tendl Threshold 7.4058 MeV
n-Sr087.endfb8.0 Threshold 8.0000 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^0
10^-2
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
38-Sr-87

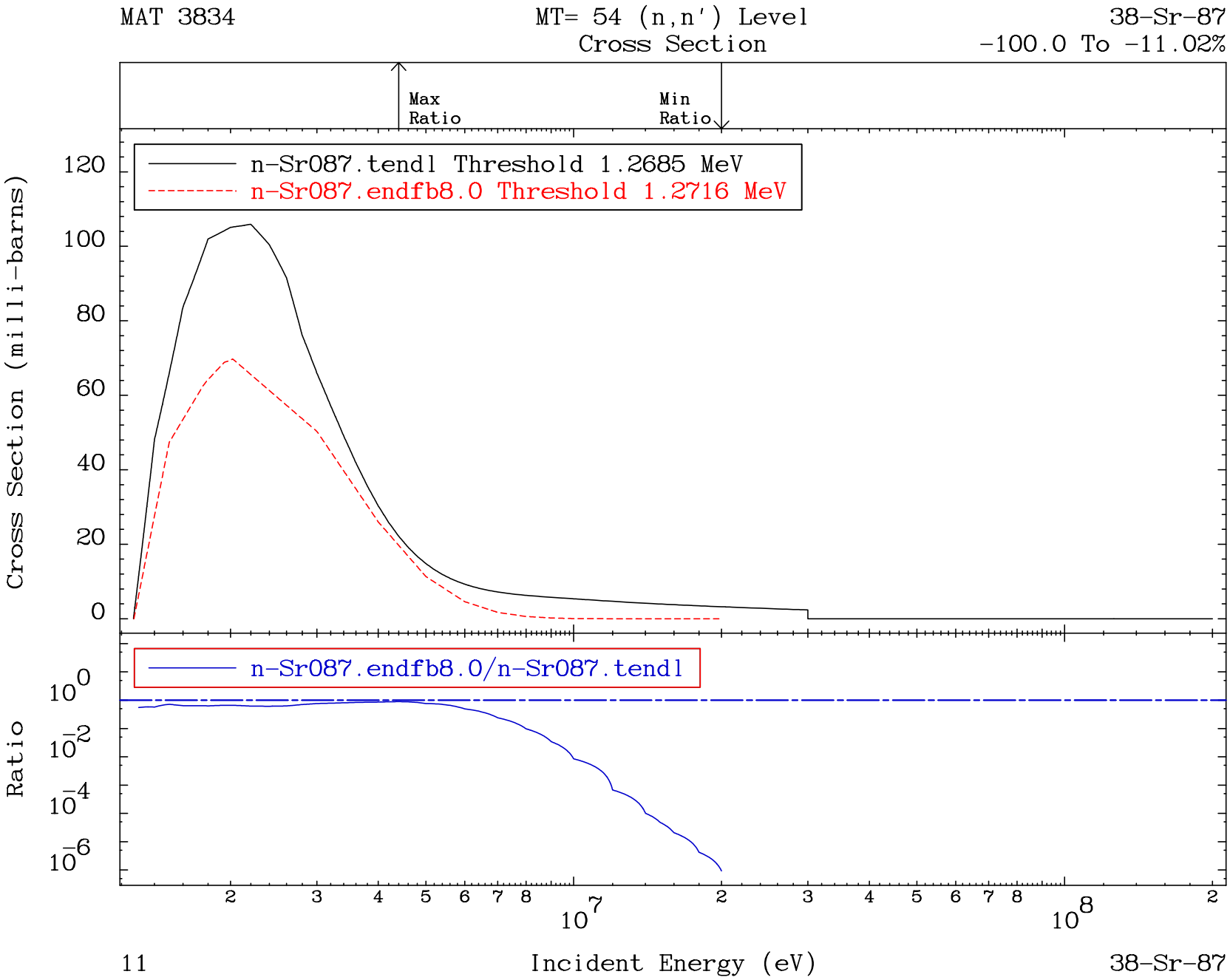

MAT 3834
(n,n') p
Cross Section
38-Sr-87
-100.0 To -11.03%
Max
Ratio
n-Sr087.tendl Threshold 9.5380 MeV
n-Sr087.endfb8.0 Threshold 10.000 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^0
10^-2
10^-4
10^-6
10^7
2
3
4
5
6
7
8
9
10^8
2
6
Incident Energy (eV)
38-Sr-87

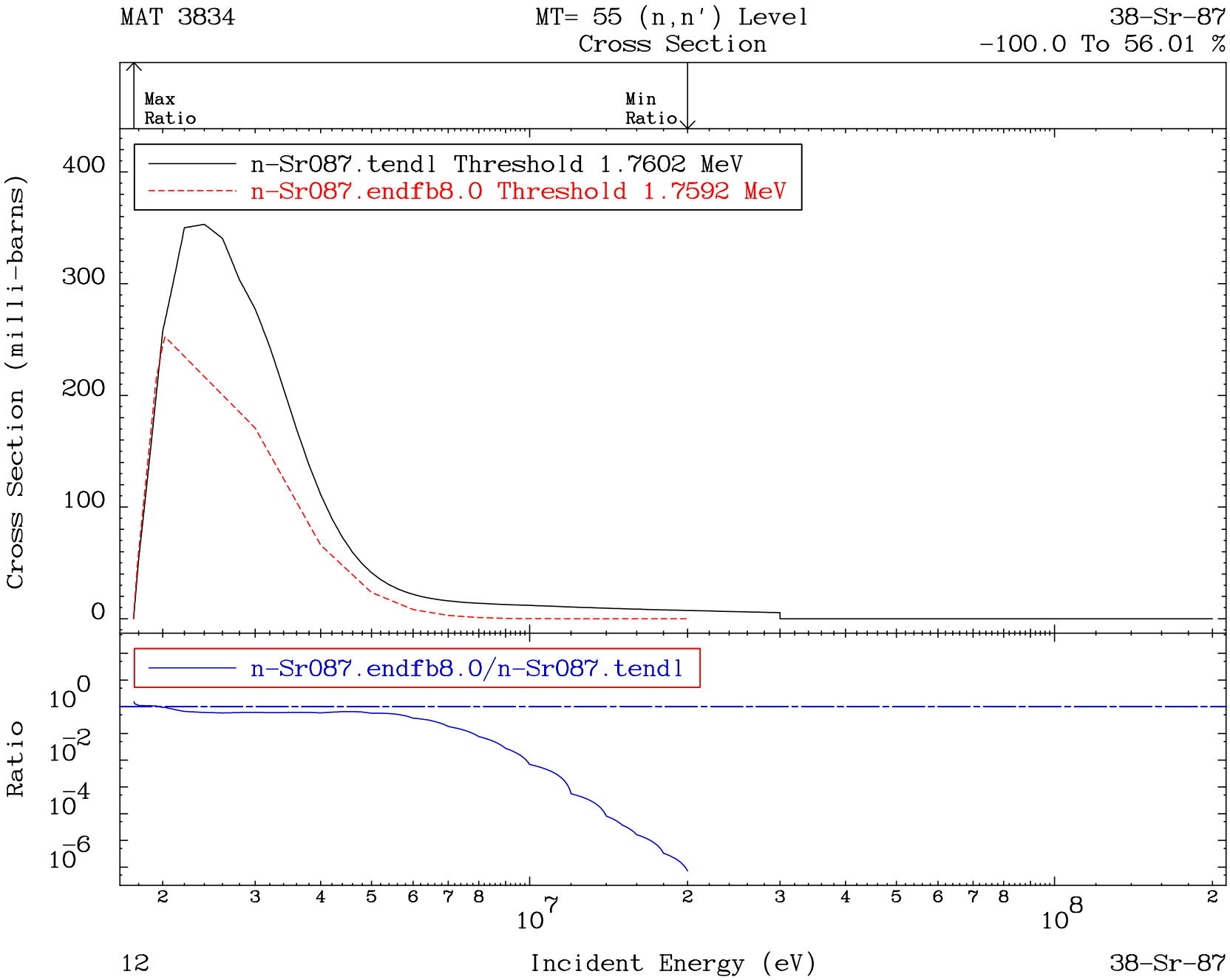

MAT 3834
(n,n') d
Cross Section
38-Sr-87
-100.0 To 4116. %
Max
Ratio
n-Sr087.tendl Threshold 16.006 MeV
n-Sr087.endfb8.0 Threshold 16.000 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^0
10^-2
10^-4
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
38-Sr-87

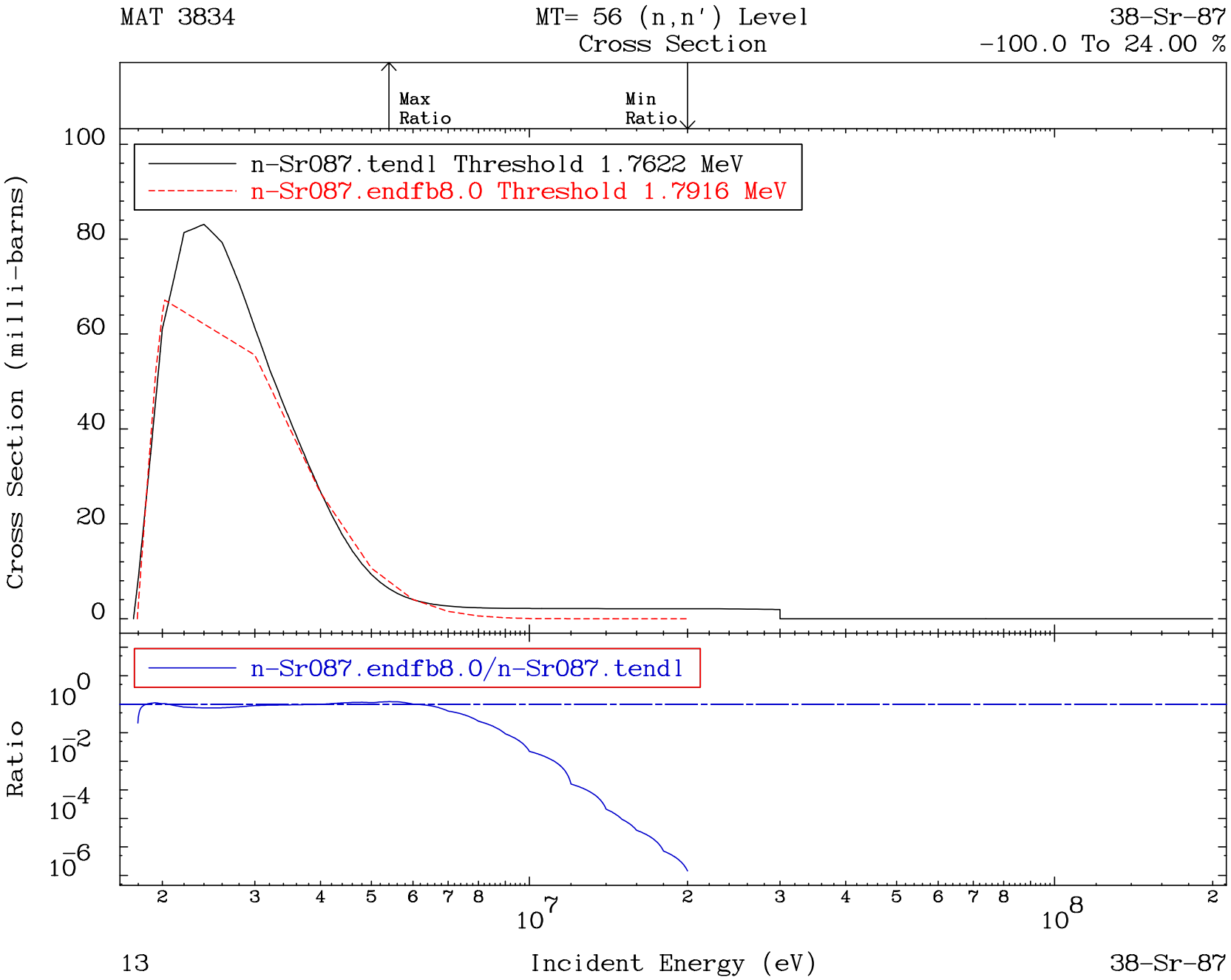

MAT 3834
MT= 51 (n,n') Level
Cross Section
38-Sr-87
-77.61 To 162.9 %
Max Ratio
Min Ratio
n-Sr087.tendl Threshold 393.04 keV
n-Sr087.endfb8.0 Threshold 392.81 keV
Cross Section (milli-barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
8
38-Sr-87

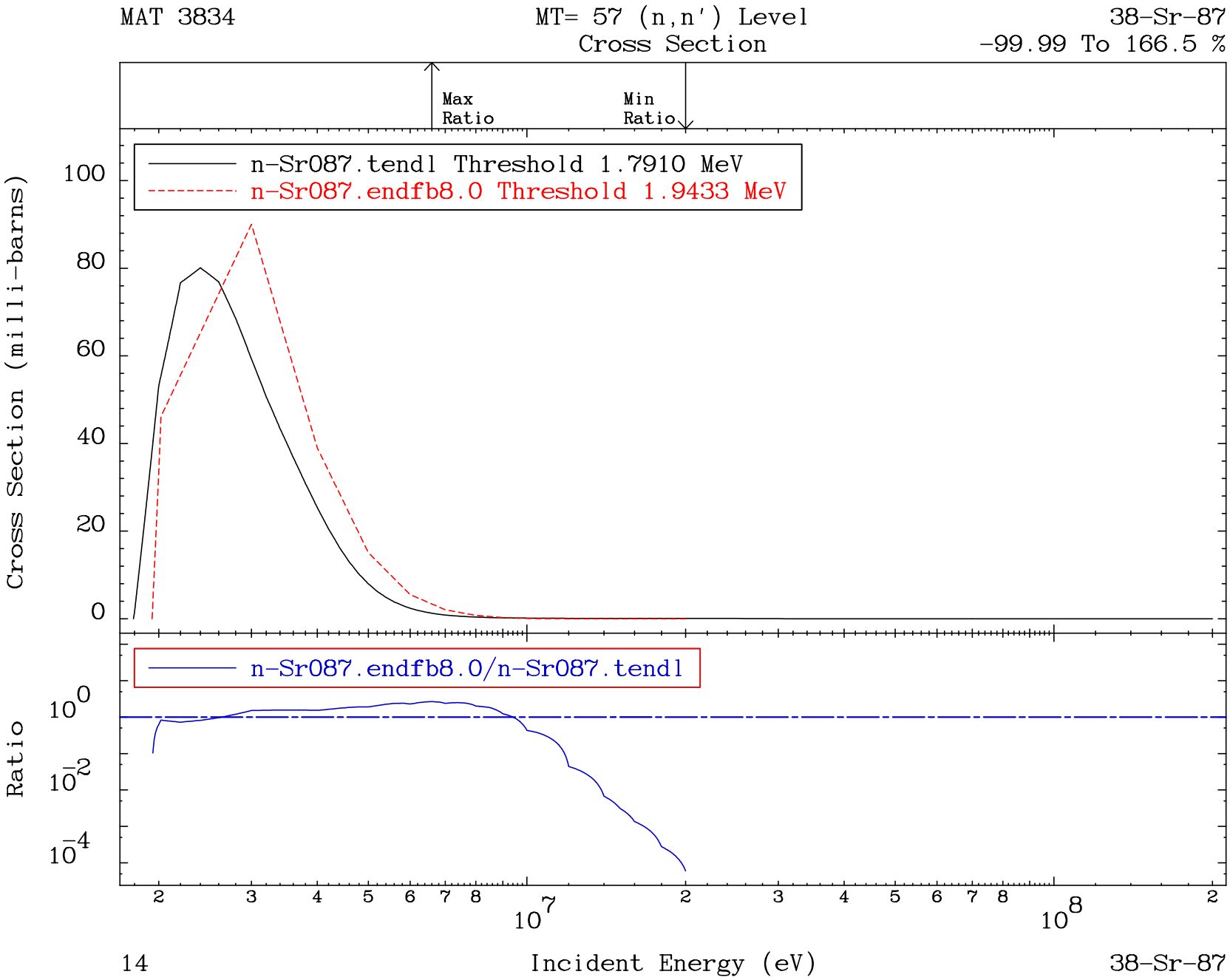

MAT 3834
MT= 52 (n,n') Level
Cross Section
38-Sr-87
-77.69 To 170.9 %
Max Ratio
Min Ratio
n-Sr087.tendl Threshold 883.48 keV
n-Sr087.endfb8.0 Threshold 883.13 keV
Cross Section (milli-barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
9
38-Sr-87

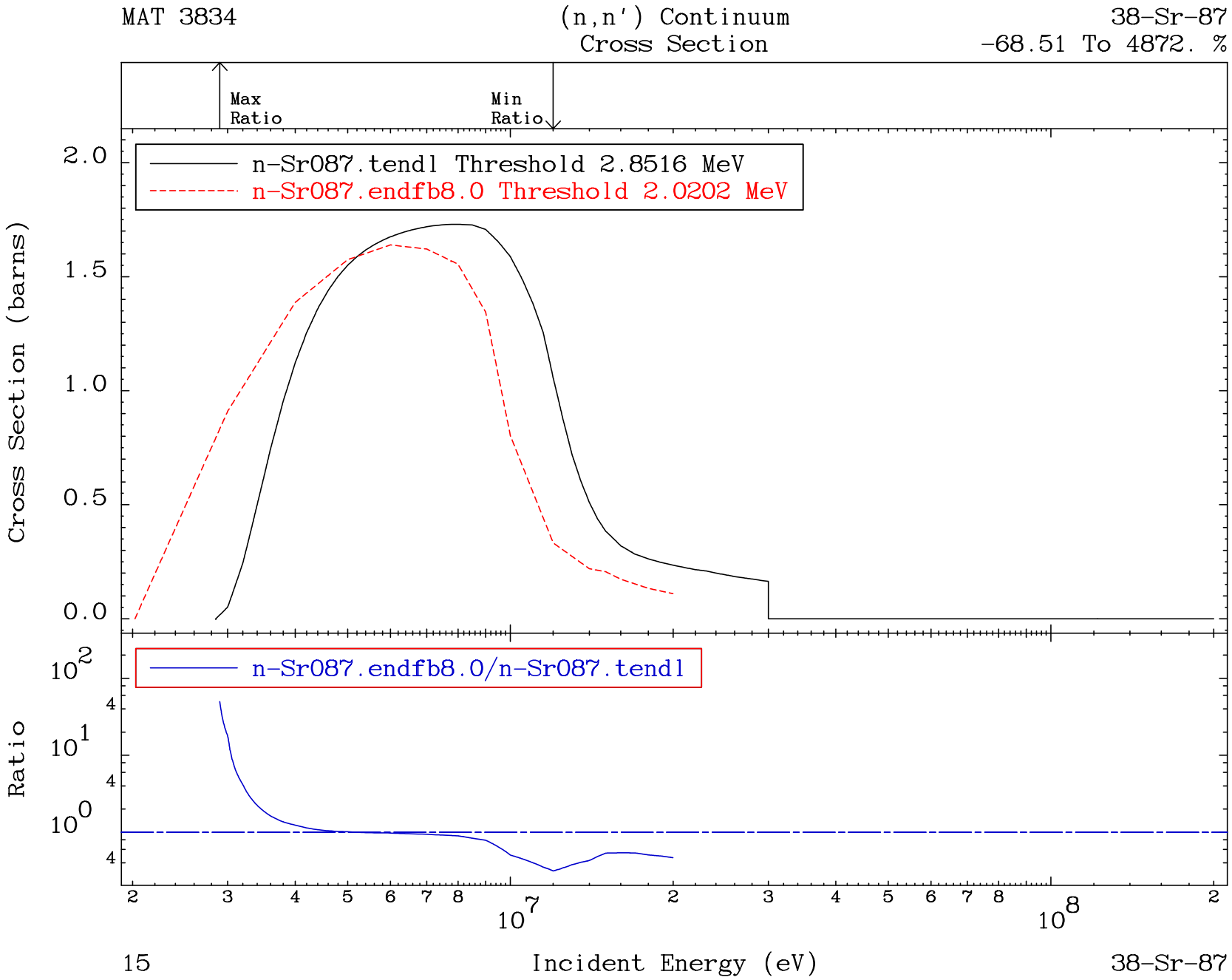

MAT 3834
MT= 53 (n,n') Level
Cross Section
38-Sr-87
-77.30 To 146.8 %
Max Ratio
Min Ratio
n-Sr087.tendl Threshold 1.2427 MeV
n-Sr087.endfb8.0 Threshold 1.2433 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
4
2
10^0
6
4
2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
10
Incident Energy (eV)
38-Sr-87

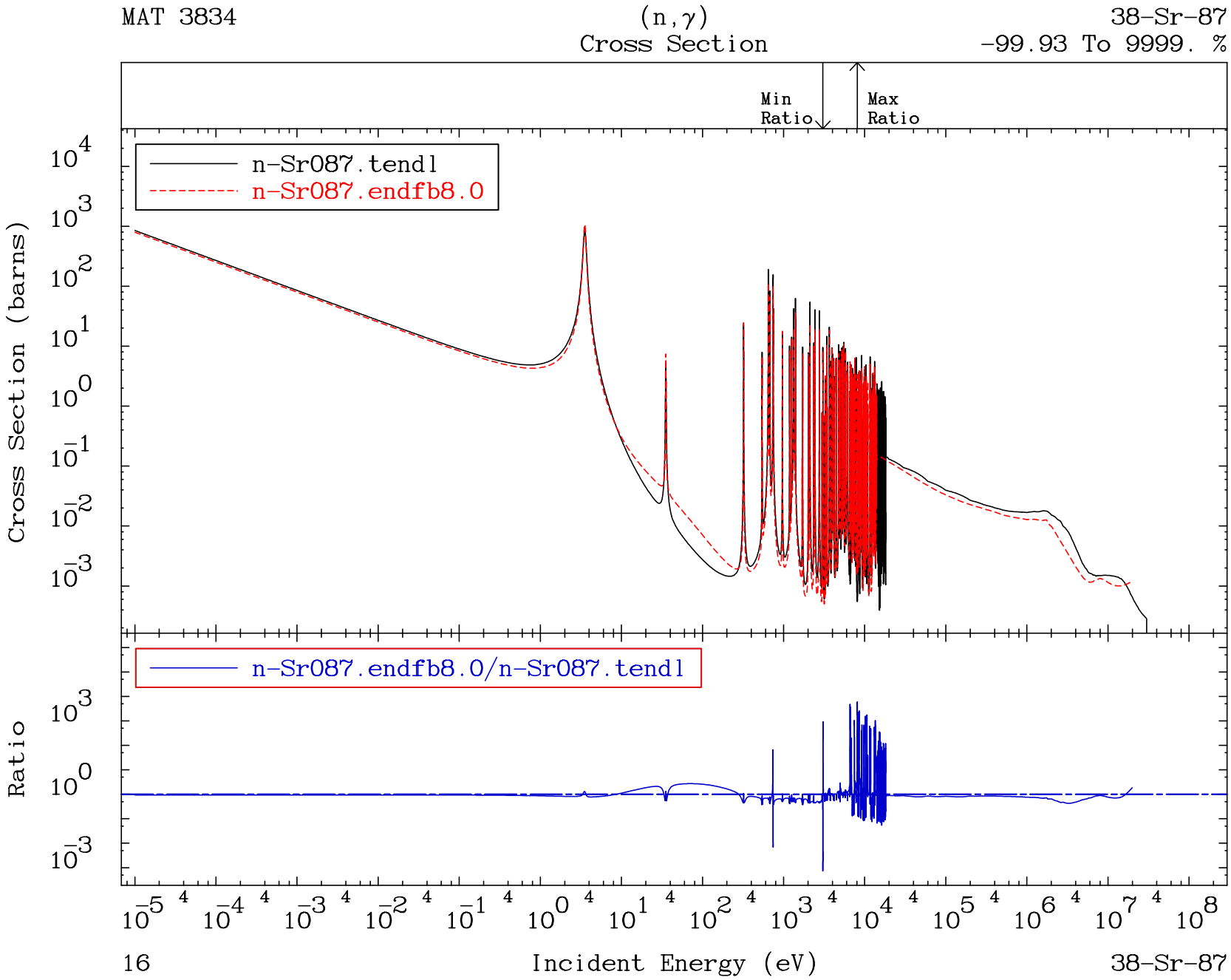

MAT 3834
MT= 54 (n,n') Level
Cross Section
38-Sr-87
-100.0 To -11.02%
Max
Ratio
Min
Ratio
n-Sr087.tendl Threshold 1.2685 MeV
n-Sr087.endfb8.0 Threshold 1.2716 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^0
10^-2
10^-4
10^-6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
11
Incident Energy (eV)
38-Sr-87

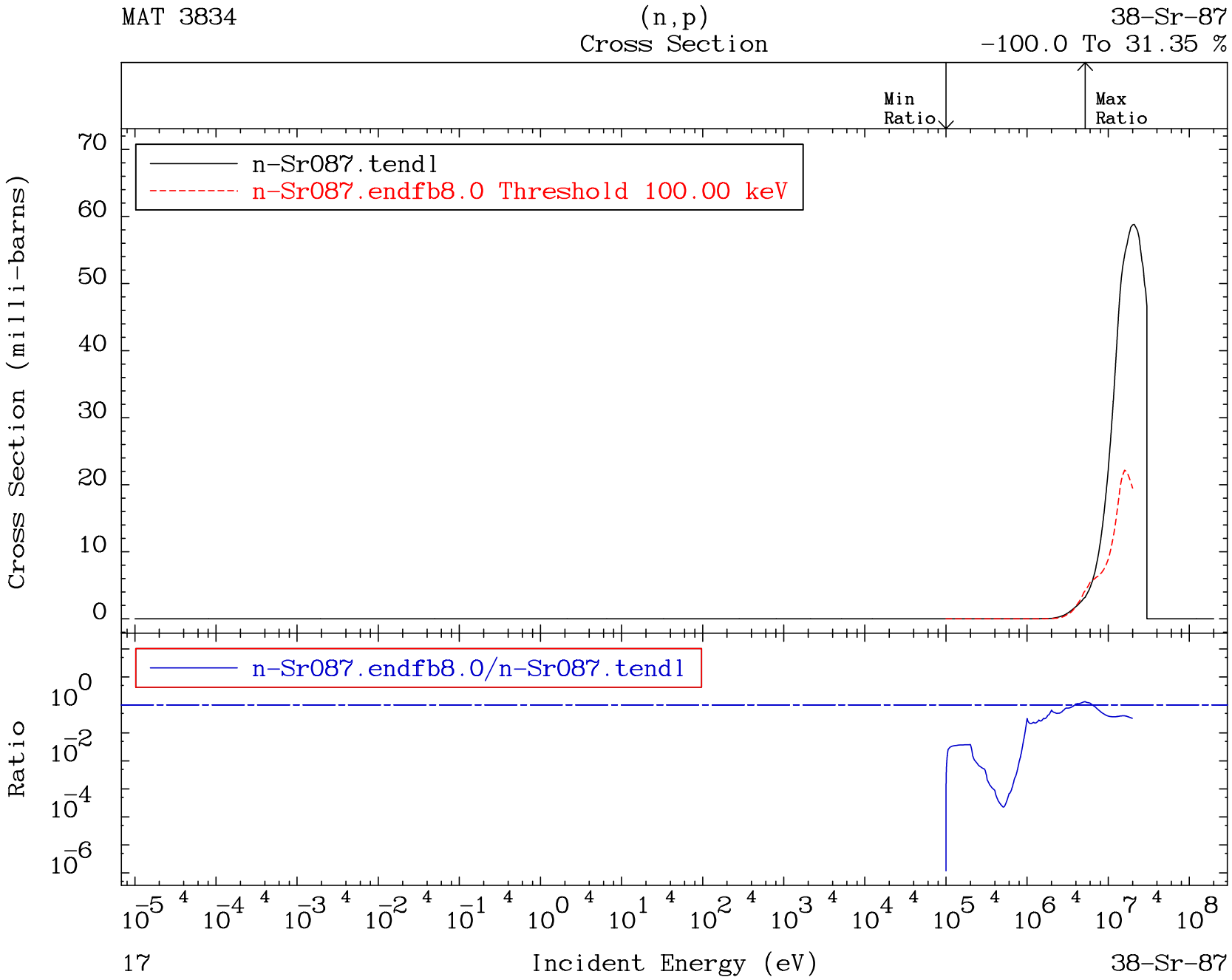

MAT 3834
MT= 55 (n,n') Level
Cross Section
38-Sr-87
-100.0 To 56.01 %
Max
Ratio
Min
Ratio
n-Sr087.tendl Threshold 1.7602 MeV
n-Sr087.endfb8.0 Threshold 1.7592 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^0
10^-2
10^-4
10^-6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
12
Incident Energy (eV)
38-Sr-87

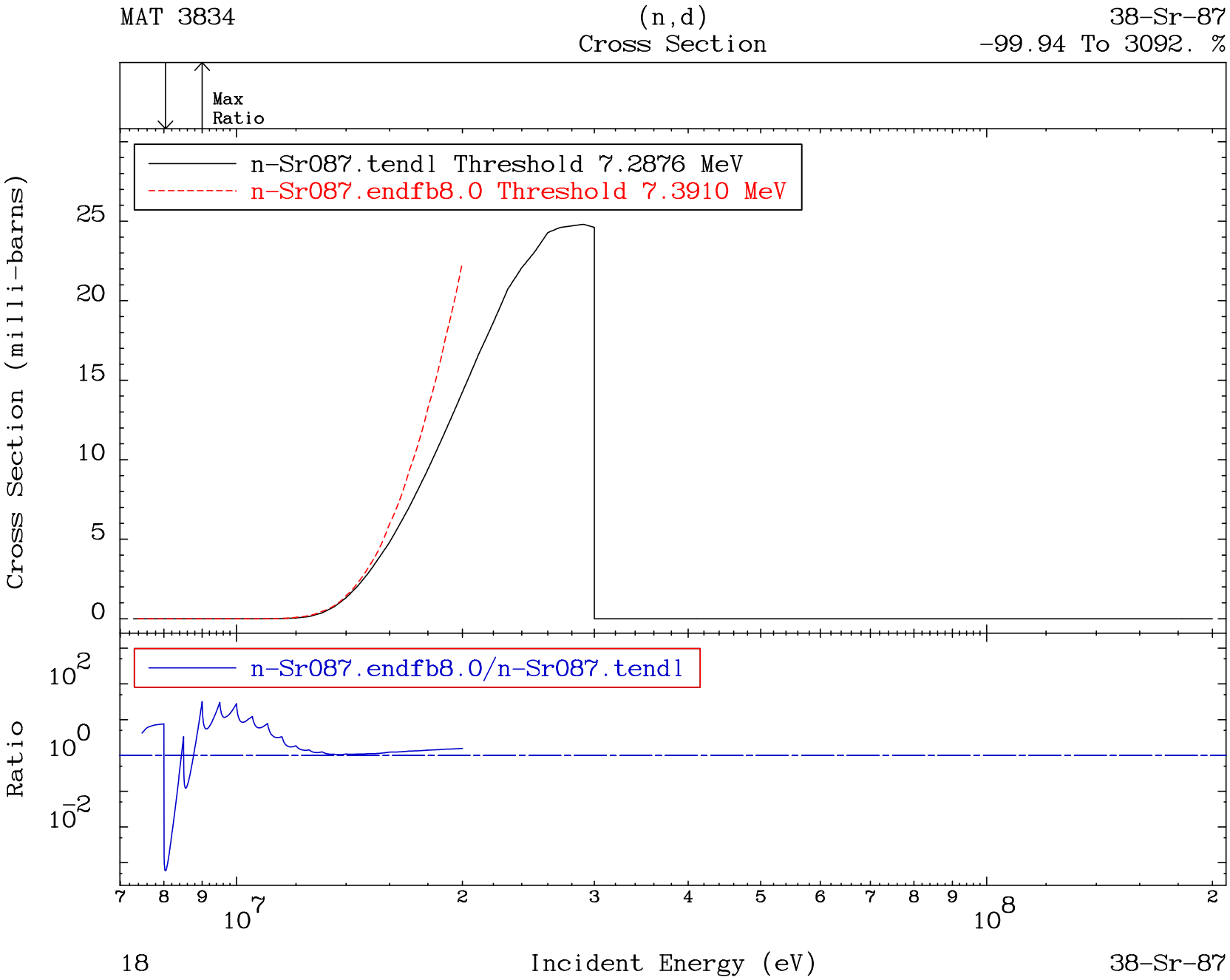

MAT 3834
MT= 56 (n,n') Level
Cross Section
38-Sr-87
-100.0 To 24.00 %
Max
Ratio
Min
Ratio
n-Sr087.tendl Threshold 1.7622 MeV
n-Sr087.endfb8.0 Threshold 1.7916 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^0
10^-2
10^-4
10^-6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
13
Incident Energy (eV)
38-Sr-87

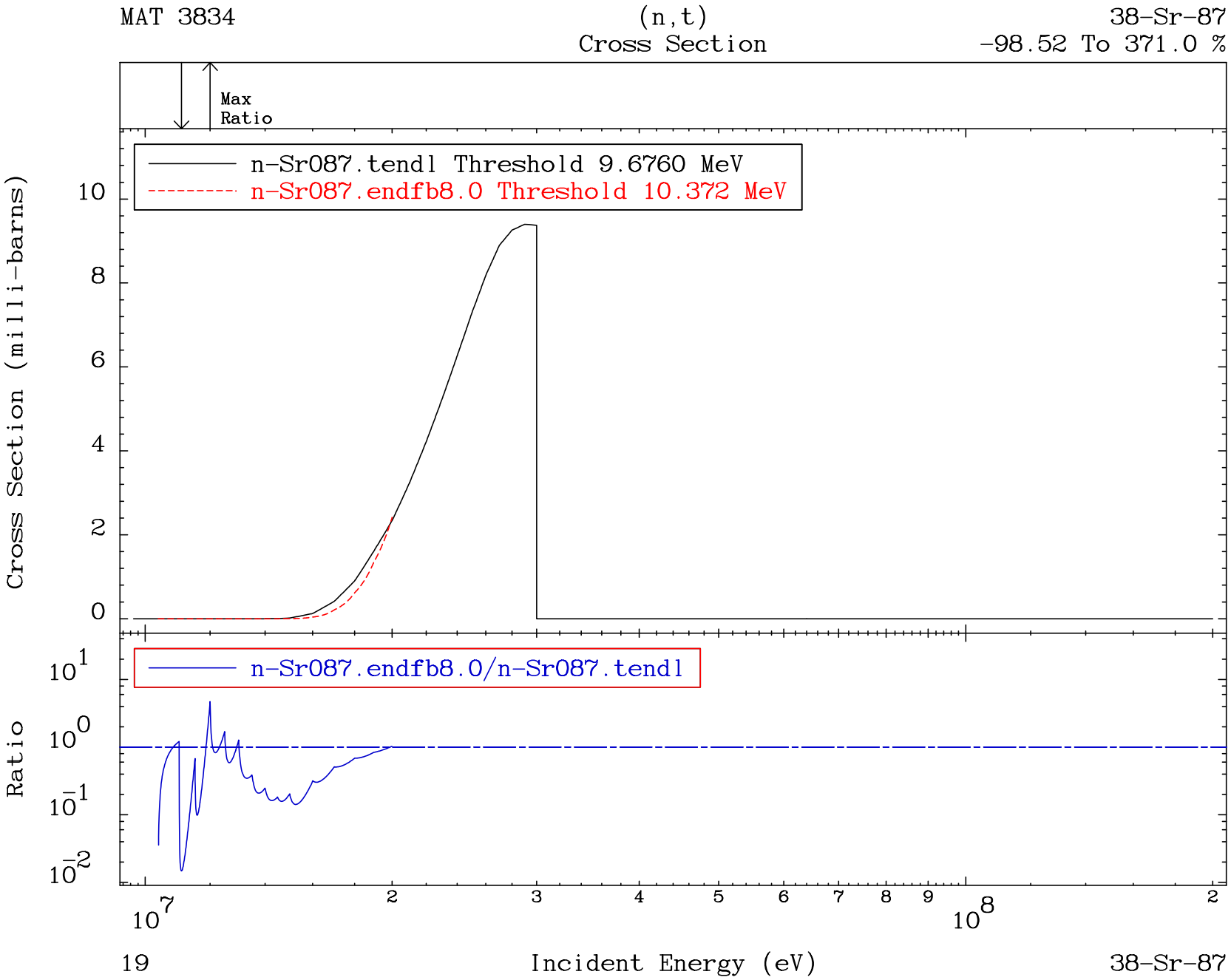

MAT 3834
MT= 57 (n,n') Level
Cross Section
38-Sr-87
-99.99 To 166.5 %
Max Ratio
Min Ratio
n-Sr087.tendl Threshold 1.7910 MeV
n-Sr087.endfb8.0 Threshold 1.9433 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^0
10^-2
10^-4
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
14
Incident Energy (eV)
38-Sr-87

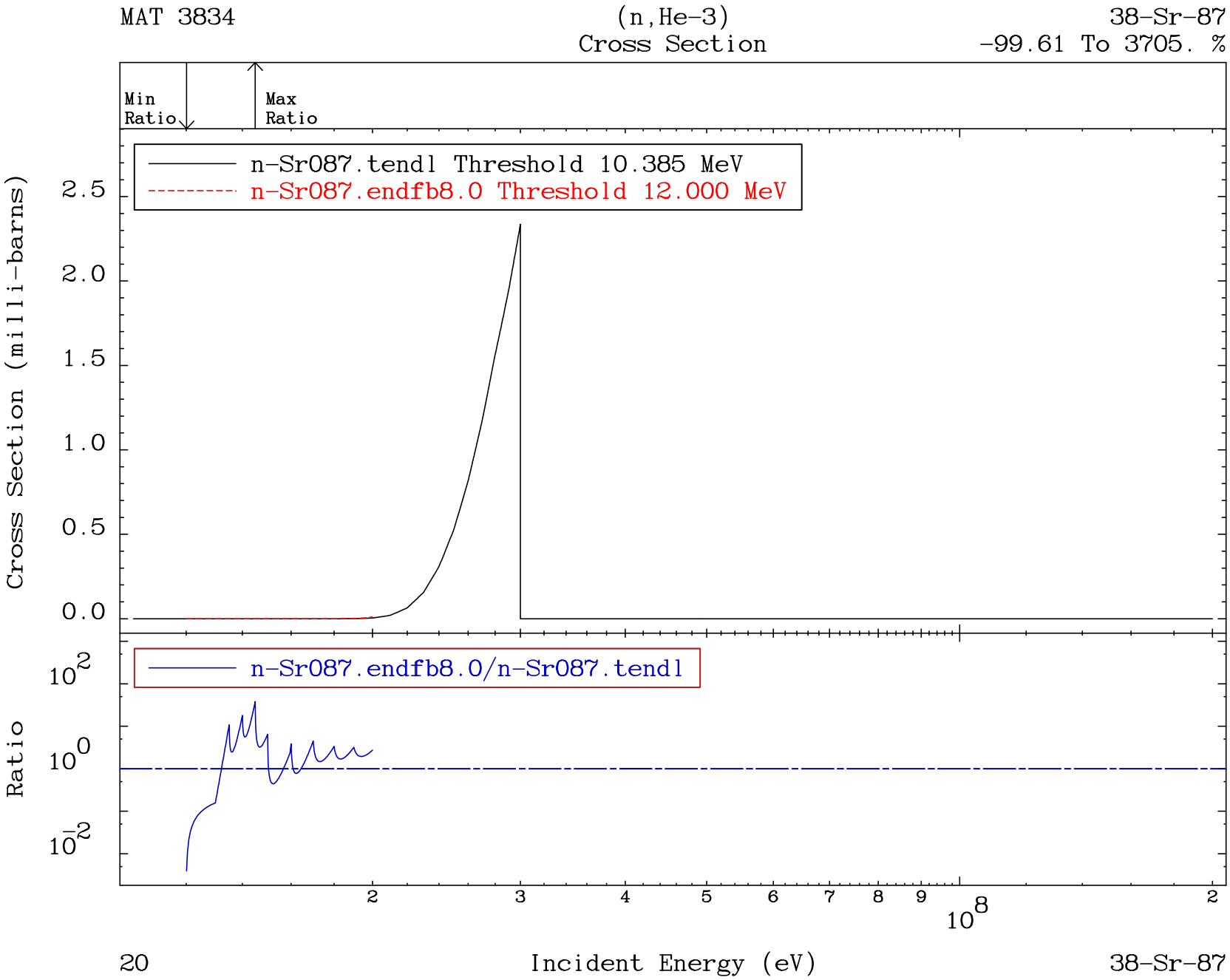

MAT 3834
(n,n') Continuum
Cross Section
38-Sr-87
-68.51 To 4872. %
Max Ratio
Min Ratio
n-Sr087.tendl Threshold 2.8516 MeV
n-Sr087.endfb8.0 Threshold 2.0202 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^1
10^0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
15
Incident Energy (eV)
38-Sr-87

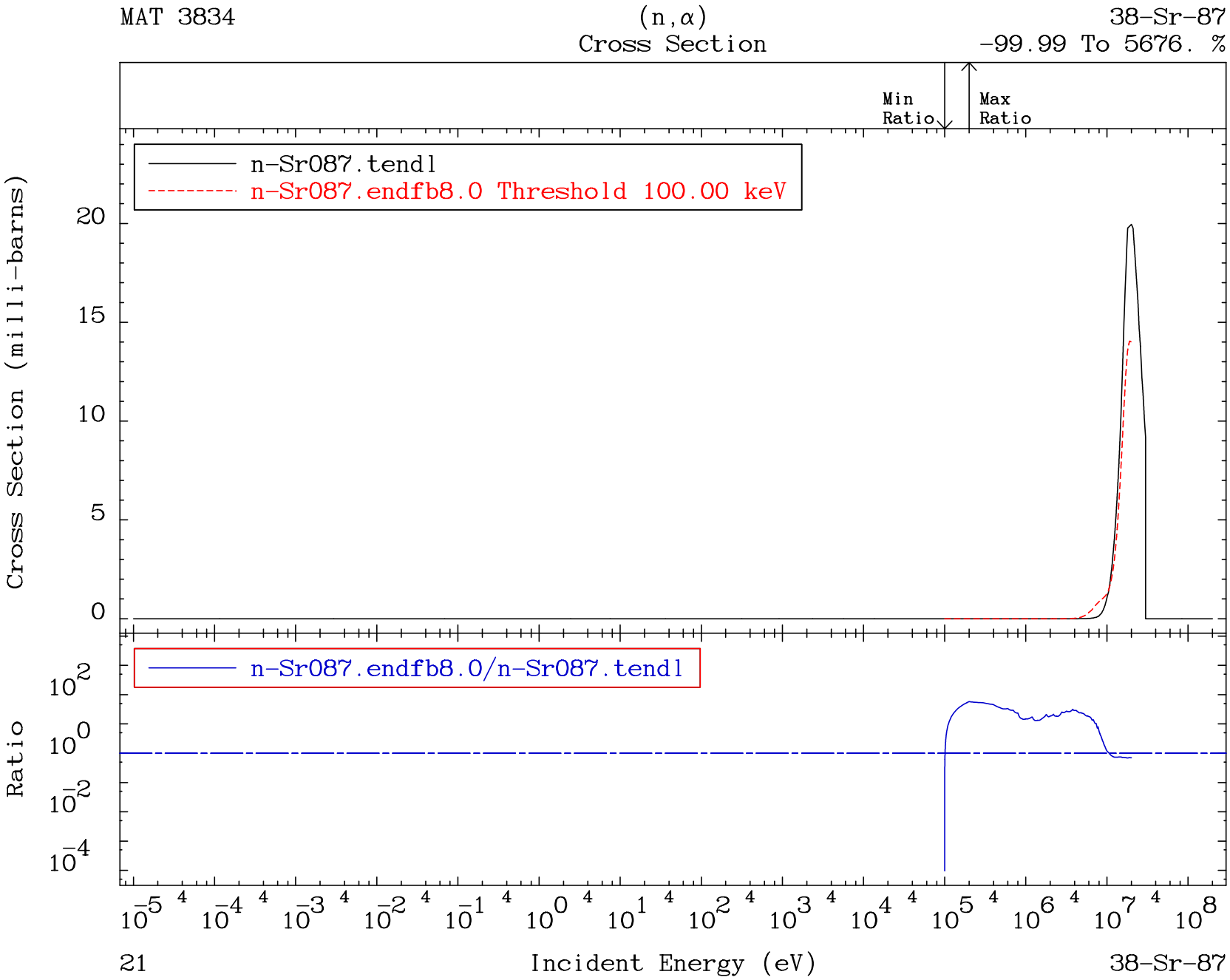

MAT 3834
(n,γ)
Cross Section
38-Sr-87
-99.93 To 9999. %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
16
38-Sr-87

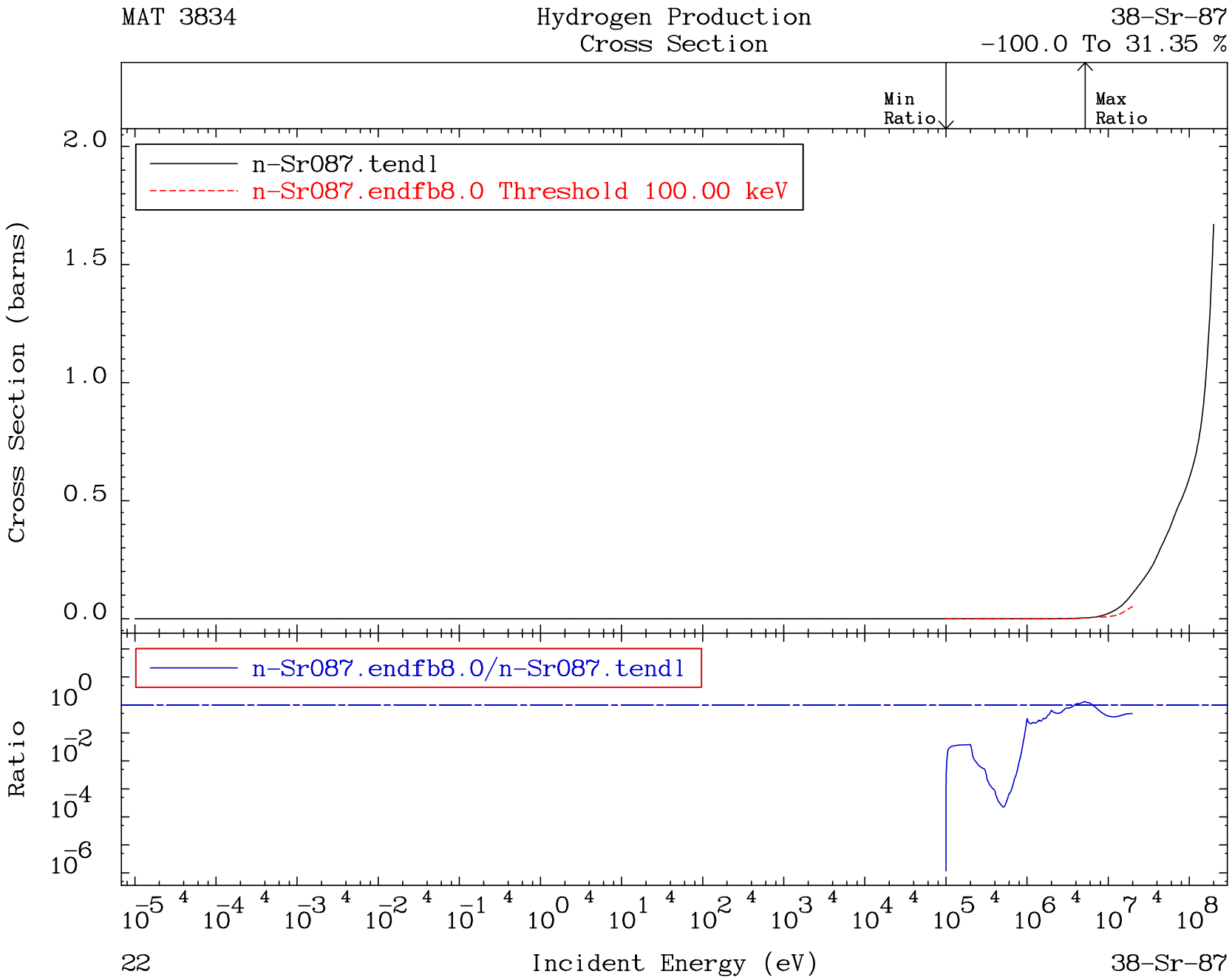

MAT 3834
(n,p)
Cross Section
38-Sr-87
-100.0 To 31.35 %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0 Threshold 100.00 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^0
10^-2
10^-4
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
17
Incident Energy (eV)
38-Sr-87

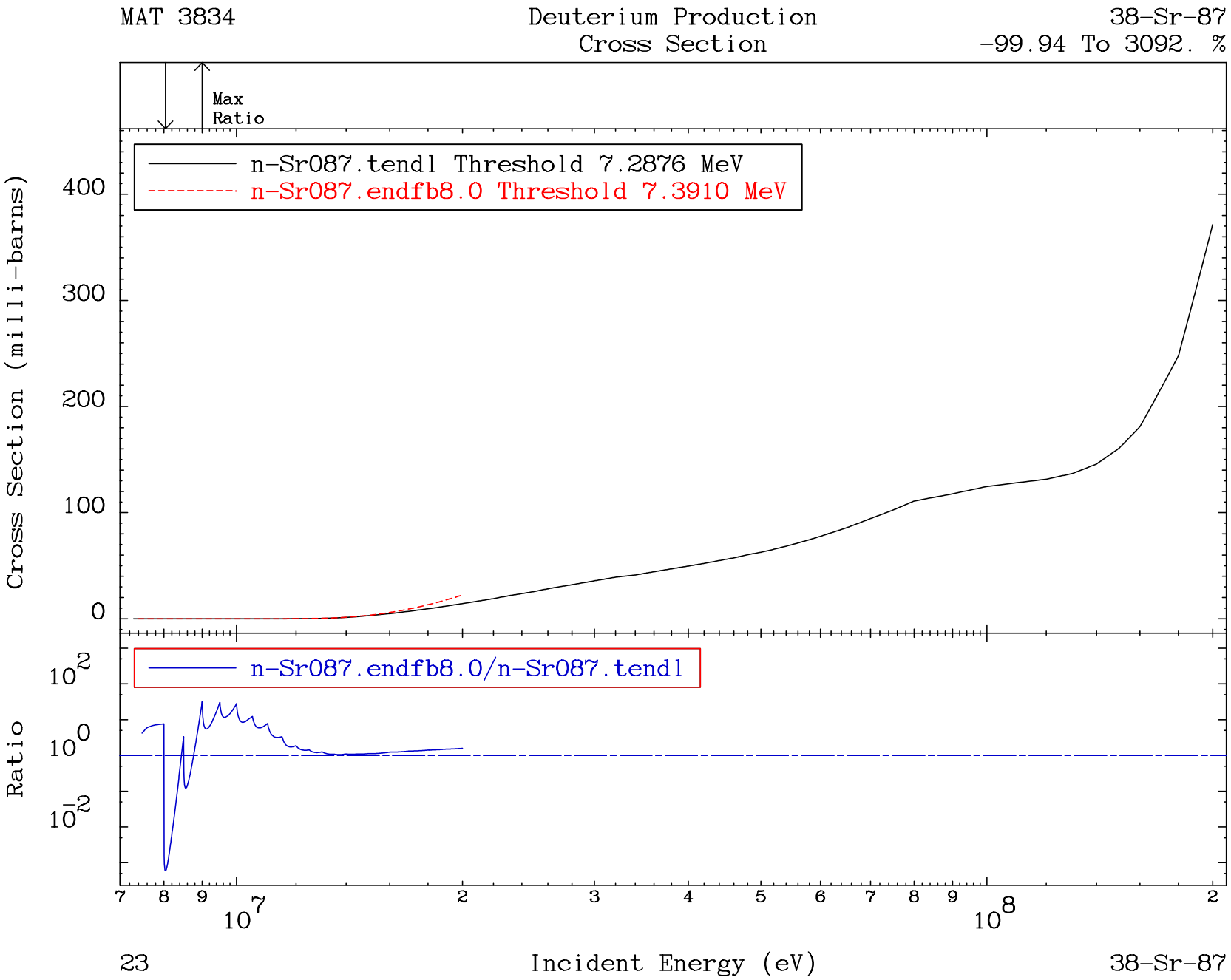

MAT 3834
(n,d)
Cross Section
38-Sr-87
-99.94 To 3092. %
Max
Ratio
n-Sr087.tendl Threshold 7.2876 MeV
n-Sr087.endfb8.0 Threshold 7.3910 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^0
10^-2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
38-Sr-87

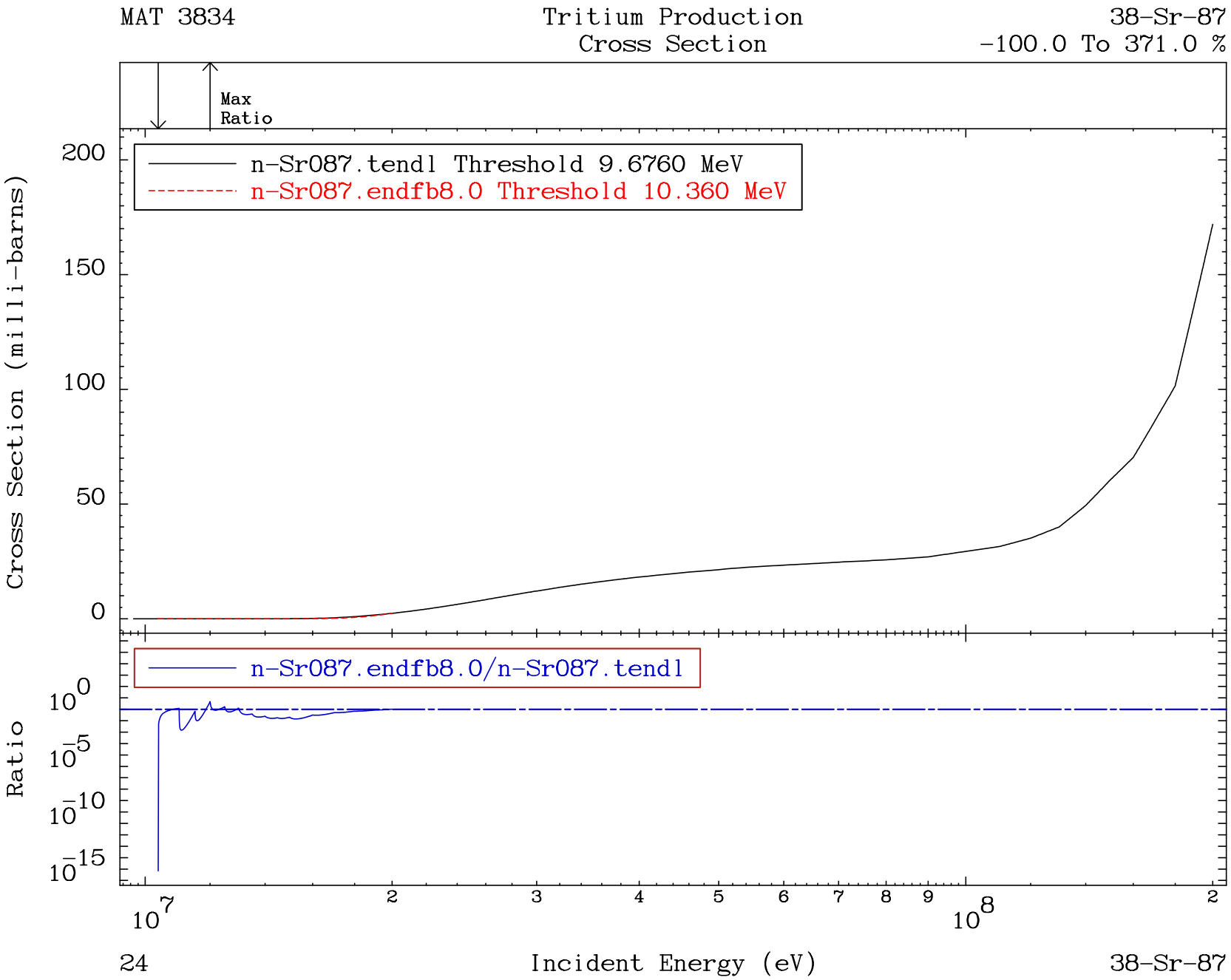

MAT 3834
(n,t)
Cross Section
38-Sr-87
-98.52 To 371.0 %
Max
Ratio
n-Sr087.tendl Threshold 9.6760 MeV
n-Sr087.endfb8.0 Threshold 10.372 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{7}
2
3
4
5
6
7
8
9
10^{8}
2
19
Incident Energy (eV)
38-Sr-87

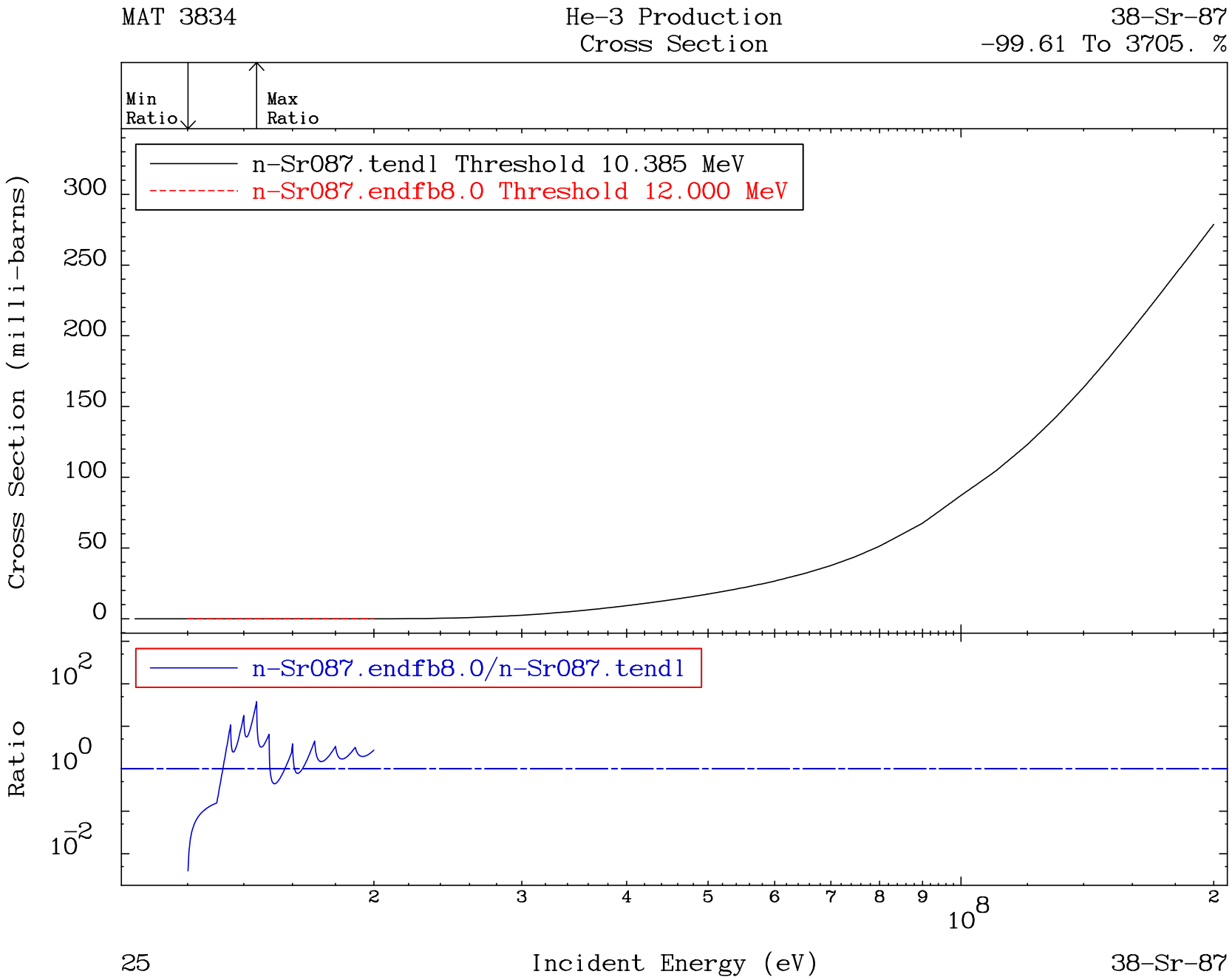

MAT 3834
(n,He-3)
Cross Section
38-Sr-87
-99.61 To 3705. %
Min Ratio
Max Ratio
n-Sr087.tendl Threshold 10.385 MeV
n-Sr087.endfb8.0 Threshold 12.000 MeV
Cross Section (milli-barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
20
Incident Energy (eV)
38-Sr-87

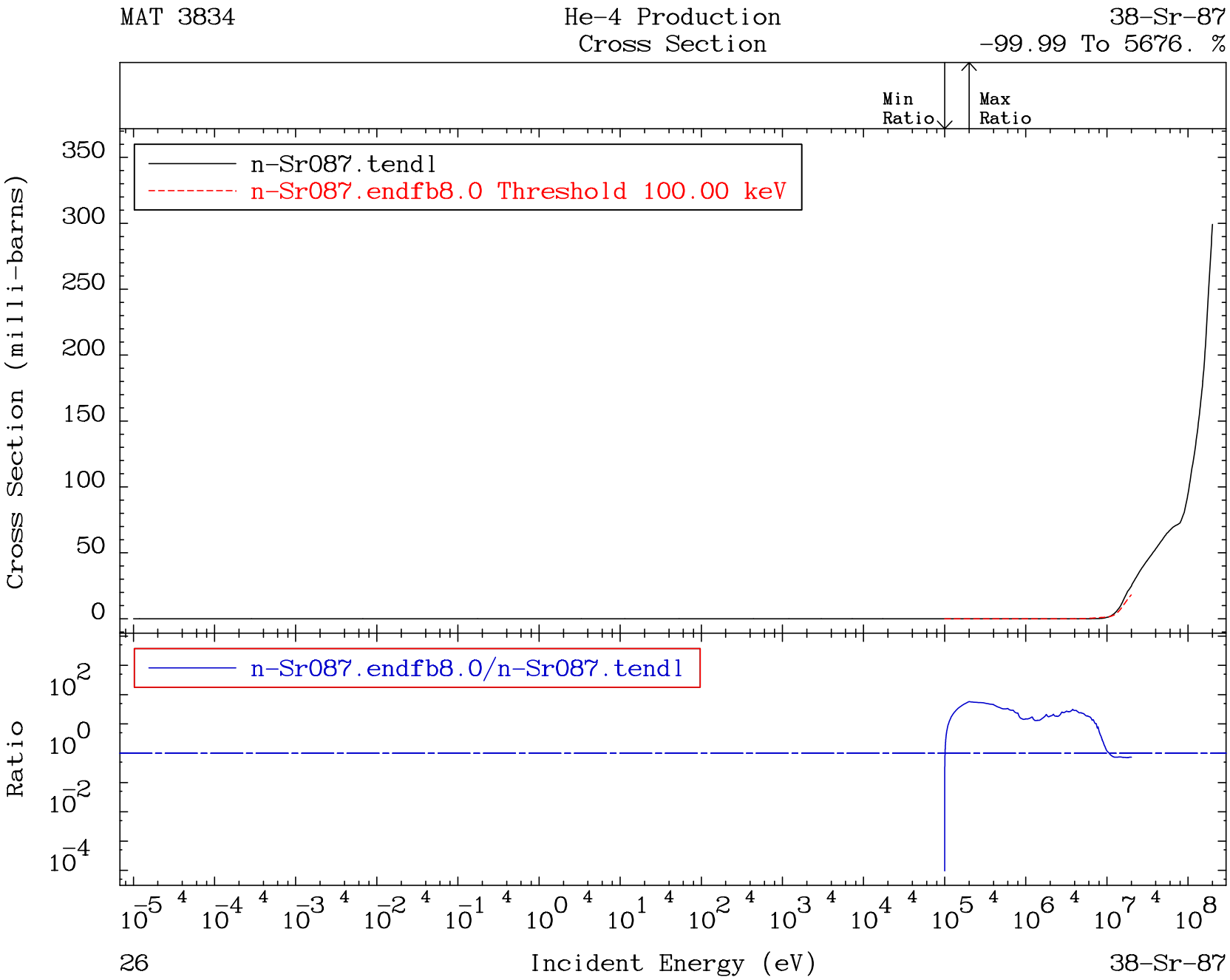

MAT 3834
(n,α)
Cross Section
38-Sr-87
-99.99 To 5676. %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0 Threshold 100.00 keV
Cross Section (milli-barns)
20
15
10
5
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^0
10^-2
10^-4
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
21
Incident Energy (eV)
38-Sr-87

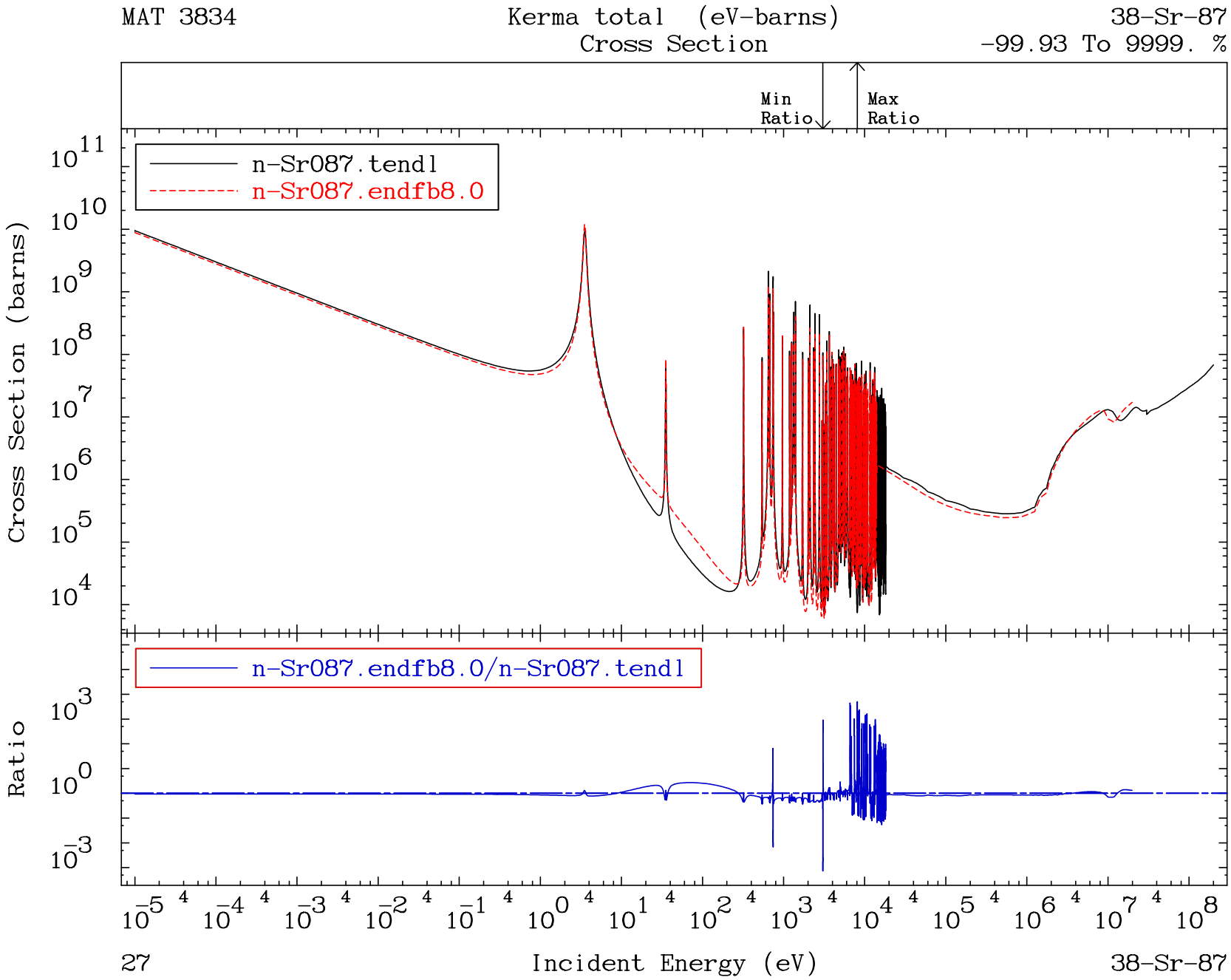

MAT 3834
Hydrogen Production
Cross Section
38-Sr-87
-100.0 To 31.35 %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0 Threshold 100.00 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^0
10^-2
10^-4
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
22
Incident Energy (eV)
38-Sr-87

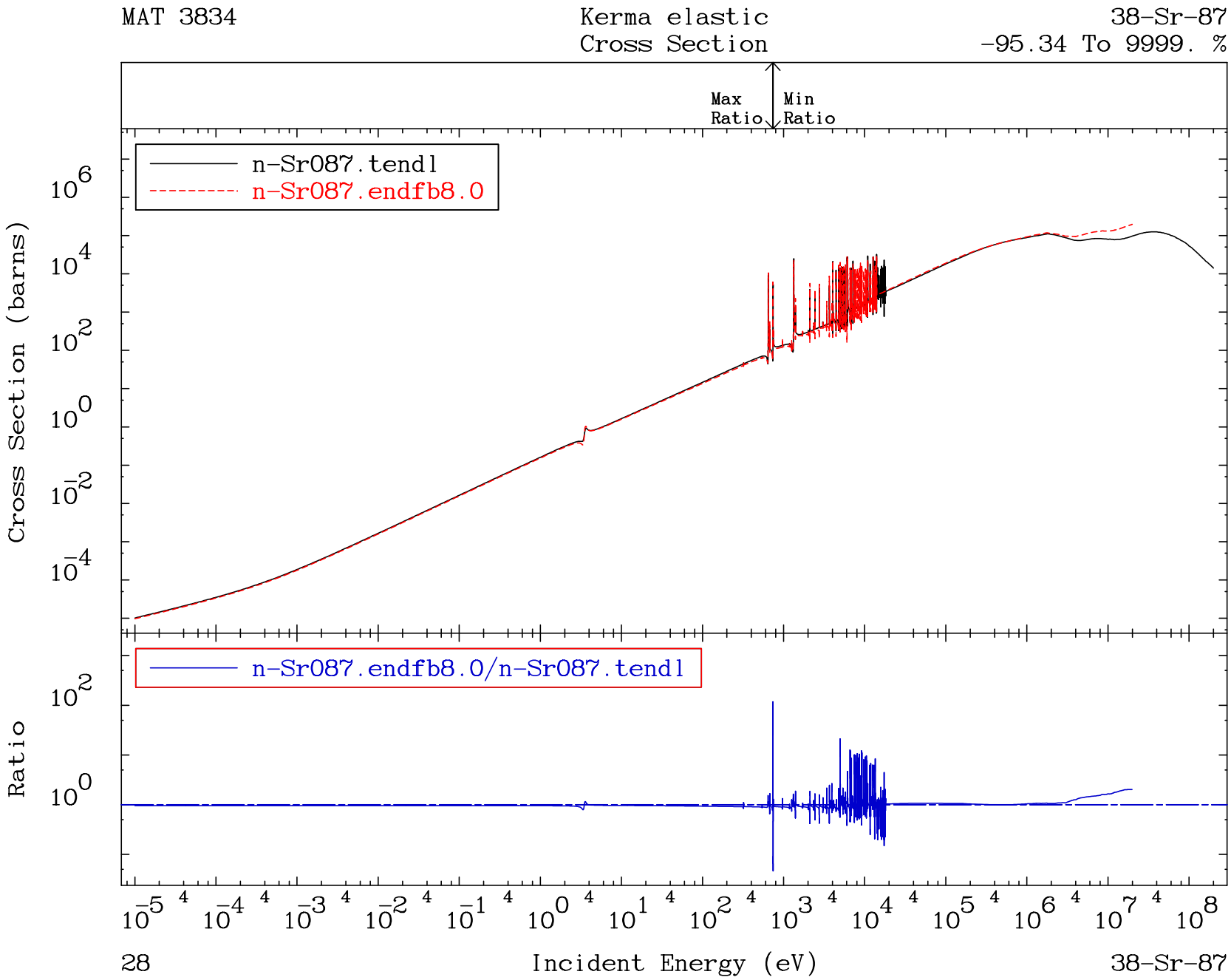

MAT 3834
Deuterium Production
Cross Section
38-Sr-87
-99.94 To 3092. %
Max
Ratio
n-Sr087.tendl Threshold 7.2876 MeV
n-Sr087.endfb8.0 Threshold 7.3910 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^0
10^-2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
38-Sr-87

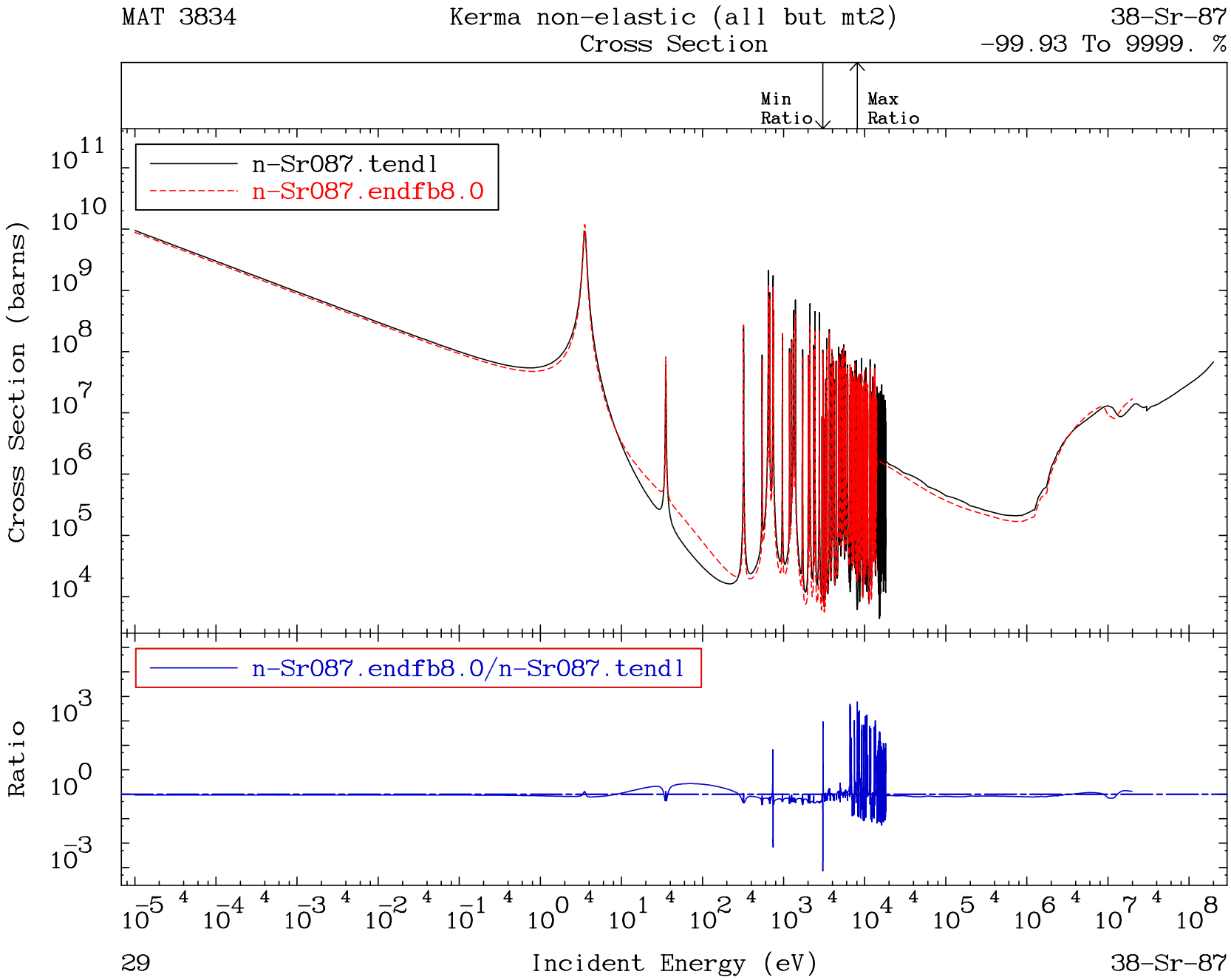

MAT 3834
Tritium Production
Cross Section
38-Sr-87
-100.0 To 371.0 %
Max
Ratio
n-Sr087.tendl Threshold 9.6760 MeV
n-Sr087.endfb8.0 Threshold 10.360 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^0
10^-5
10^-10
10^-15
10^7
2
3
4
5
6
7
8
9
10^8
2
24
Incident Energy (eV)
38-Sr-87

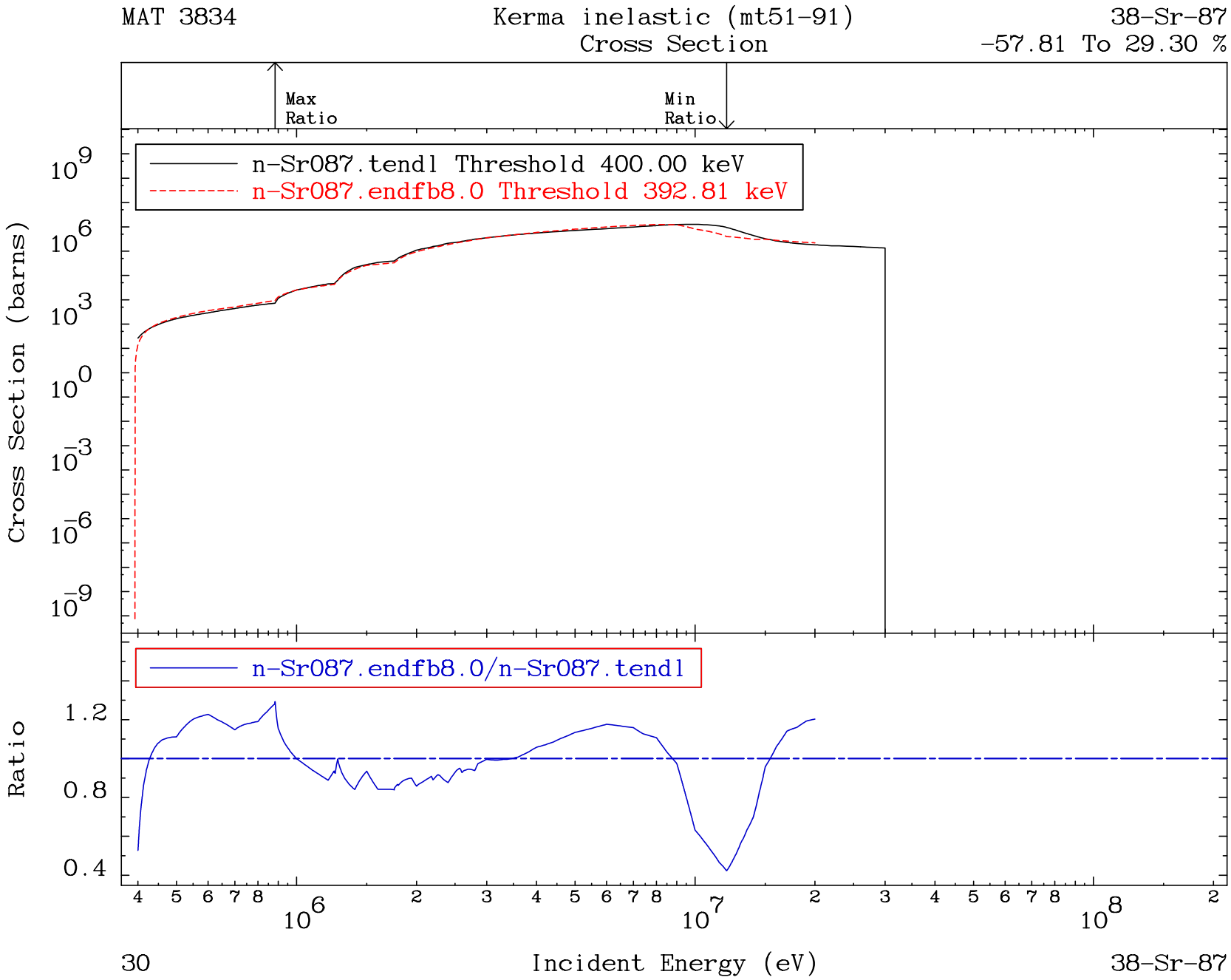

MAT 3834
He-3 Production
Cross Section
38-Sr-87
-99.61 To 3705. %
Min Ratio
Max Ratio
n-Sr087.tendl Threshold 10.385 MeV
n-Sr087.endfb8.0 Threshold 12.000 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^0
10^-2
2
3
4
5
6
7
8
9
10^8
2
25
Incident Energy (eV)
38-Sr-87

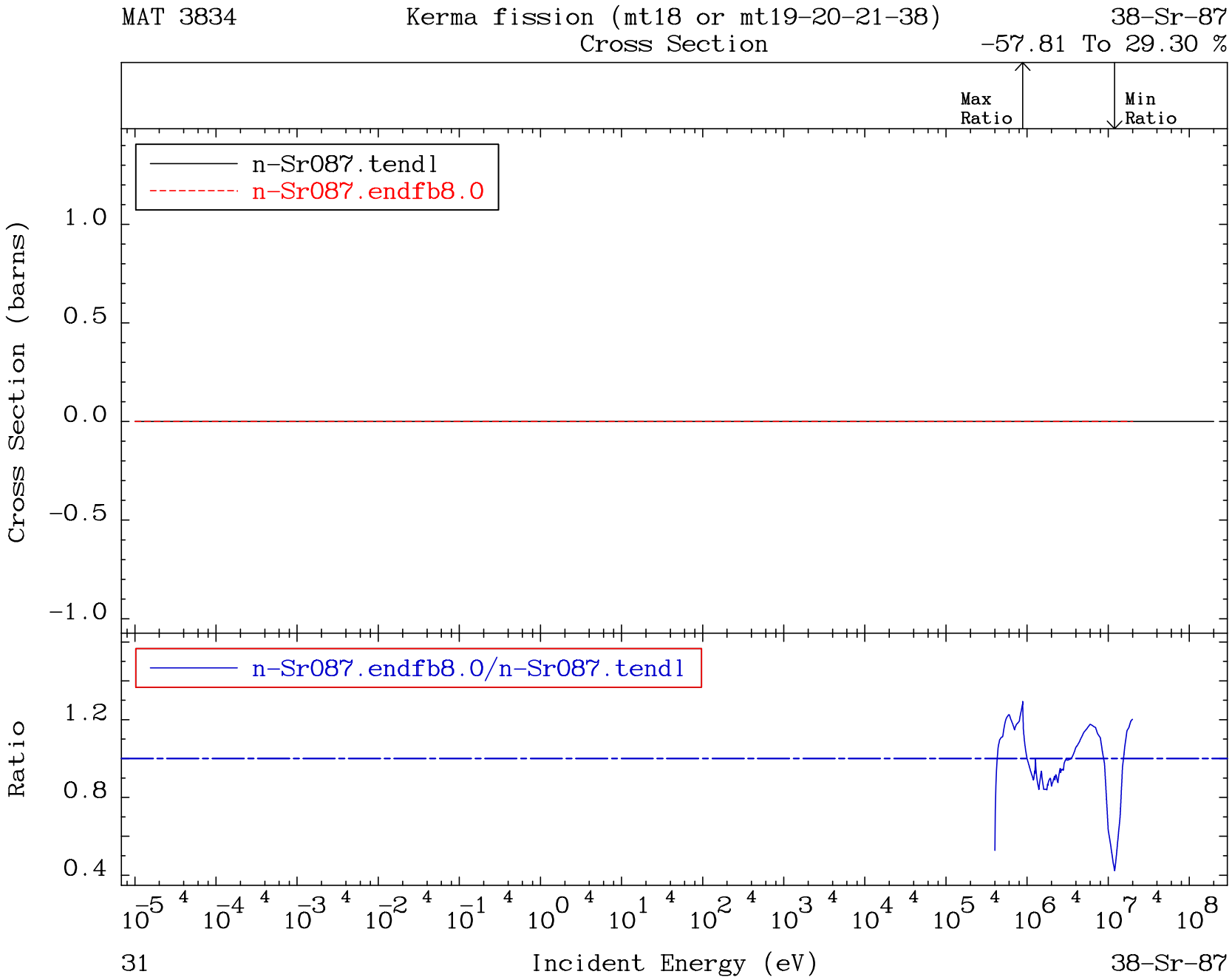

MAT 3834
He-4 Production
Cross Section
38-Sr-87
-99.99 To 5676. %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0 Threshold 100.00 keV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
10^2
10^0
10^-2
10^-4
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
26
Incident Energy (eV)
38-Sr-87

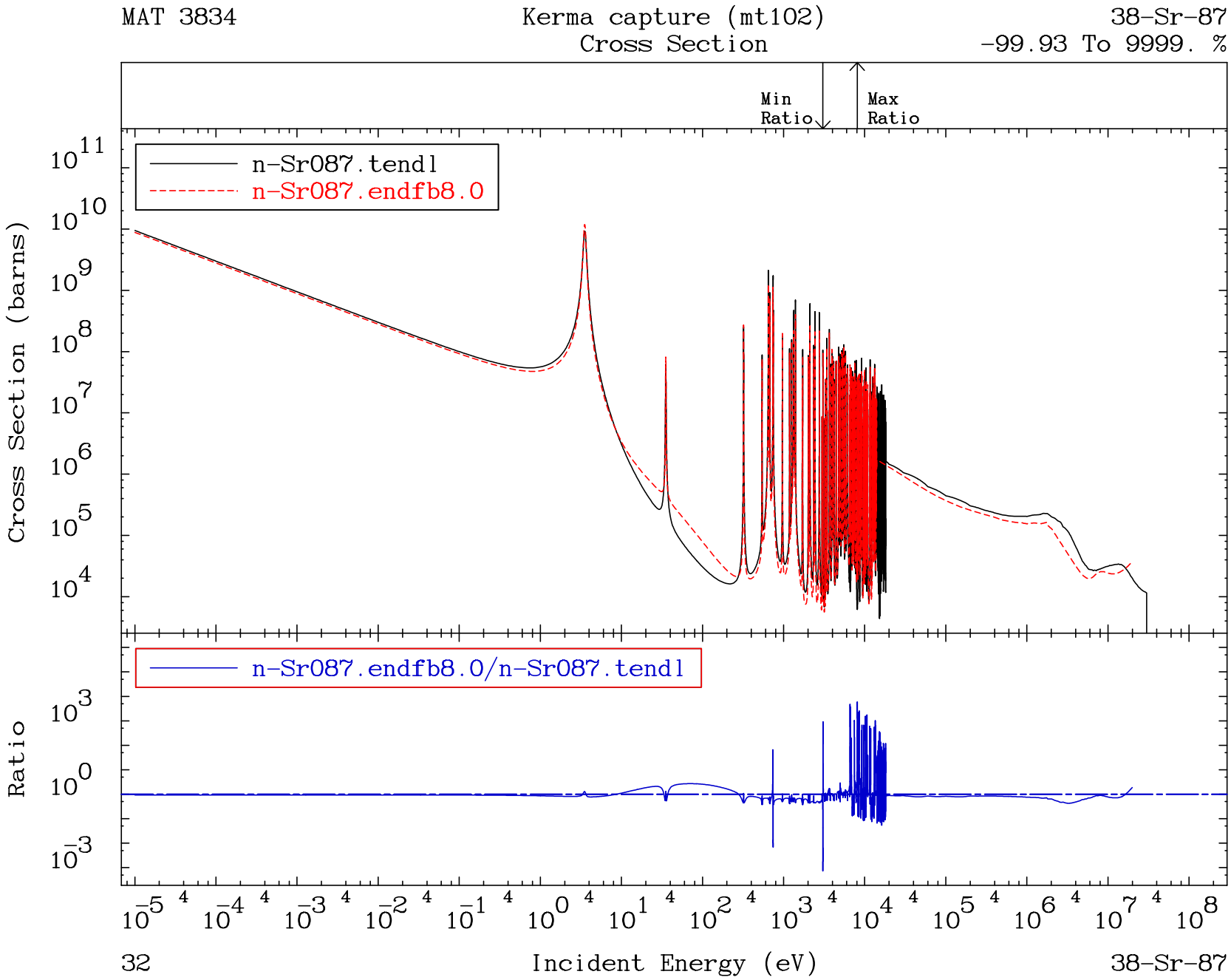

MAT 3834
Kerma total (eV-barns)
Cross Section
38-Sr-87
-99.93 To 9999. %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
27
38-Sr-87

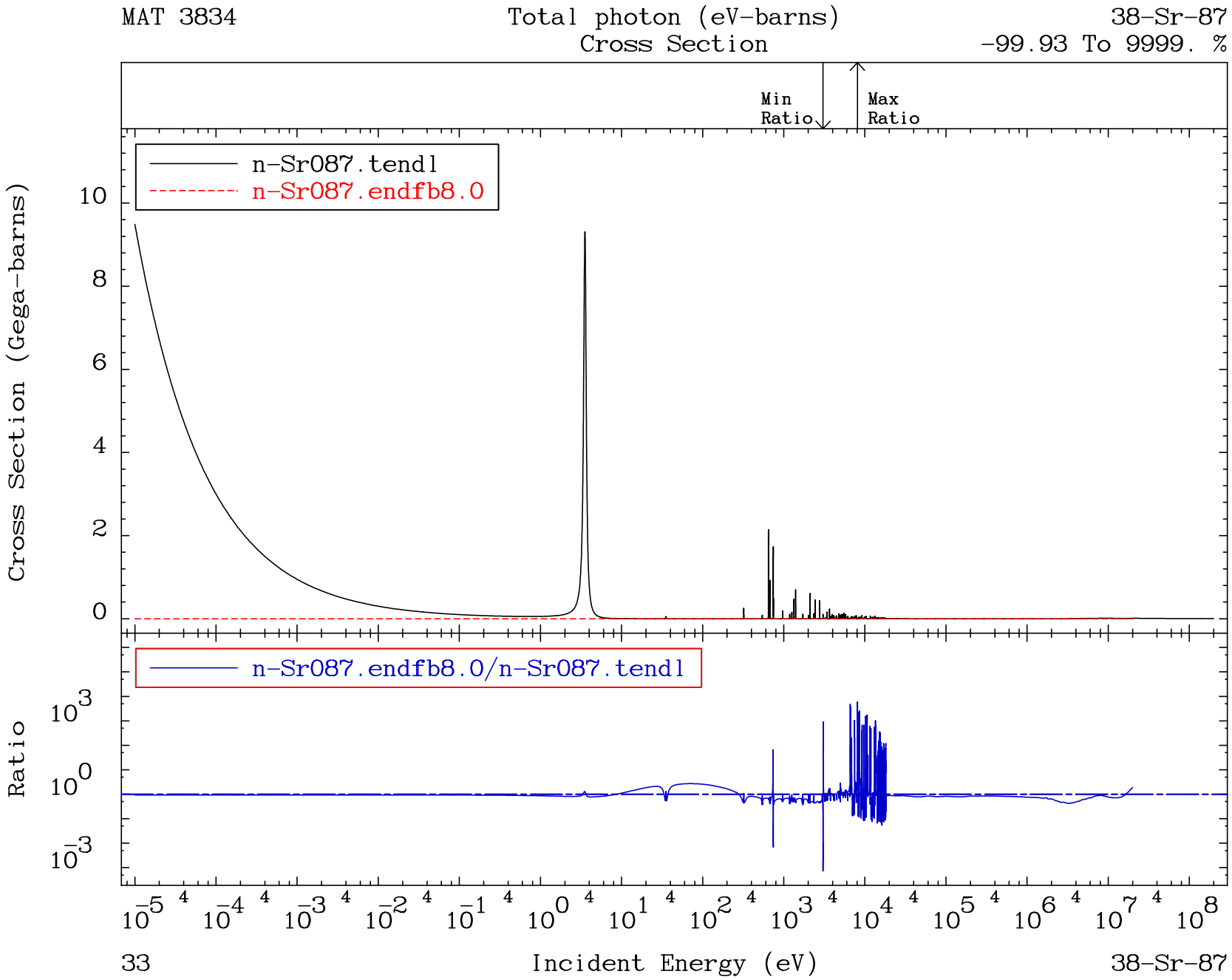

MAT 3834
Kerma elastic
Cross Section
38-Sr-87
-95.34 To 9999. %
Max Ratio
Min Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
28
38-Sr-87

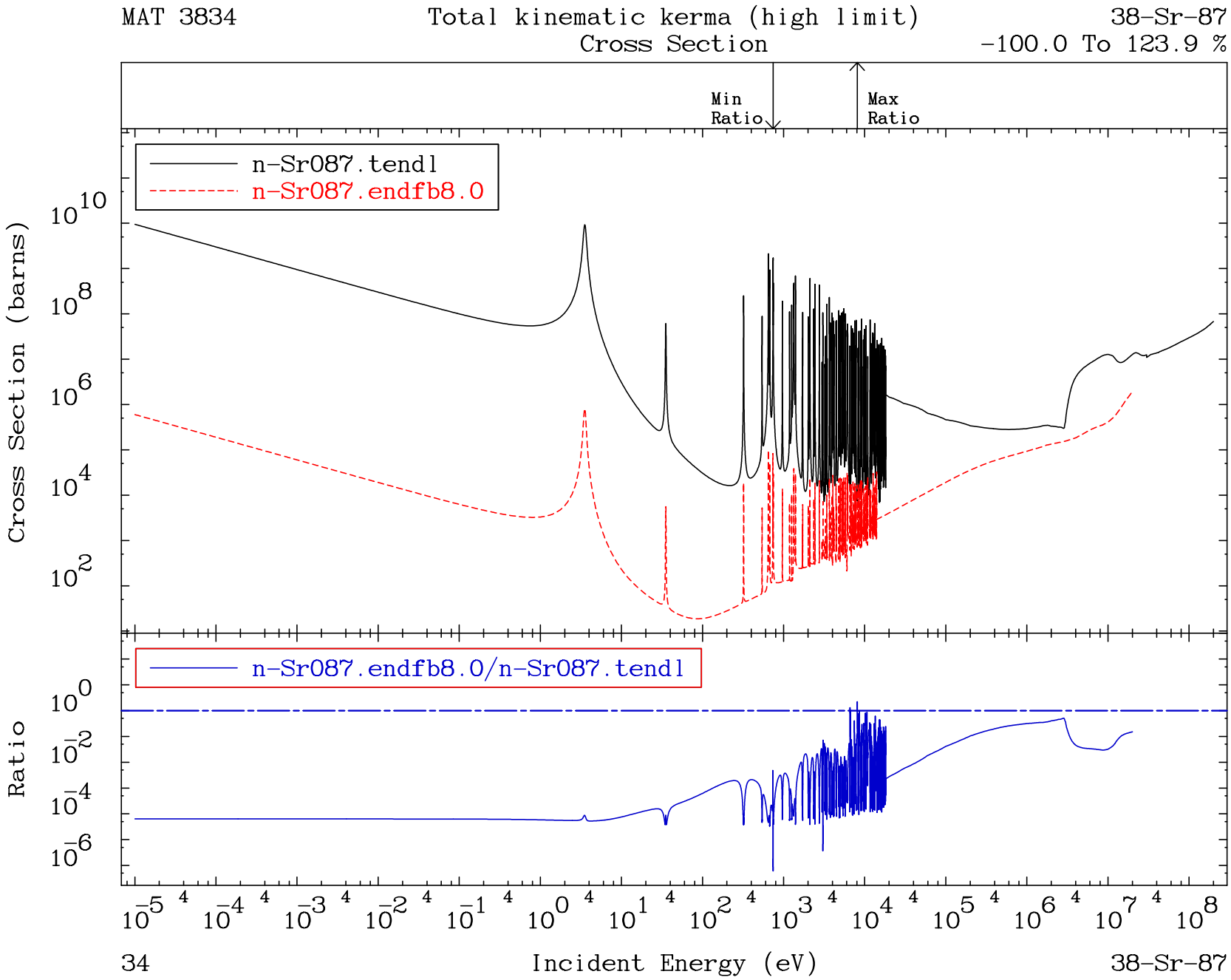

MAT 3834
Kerma non-elastic (all but mt2)
Cross Section
38-Sr-87
-99.93 To 9999. %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
29
38-Sr-87

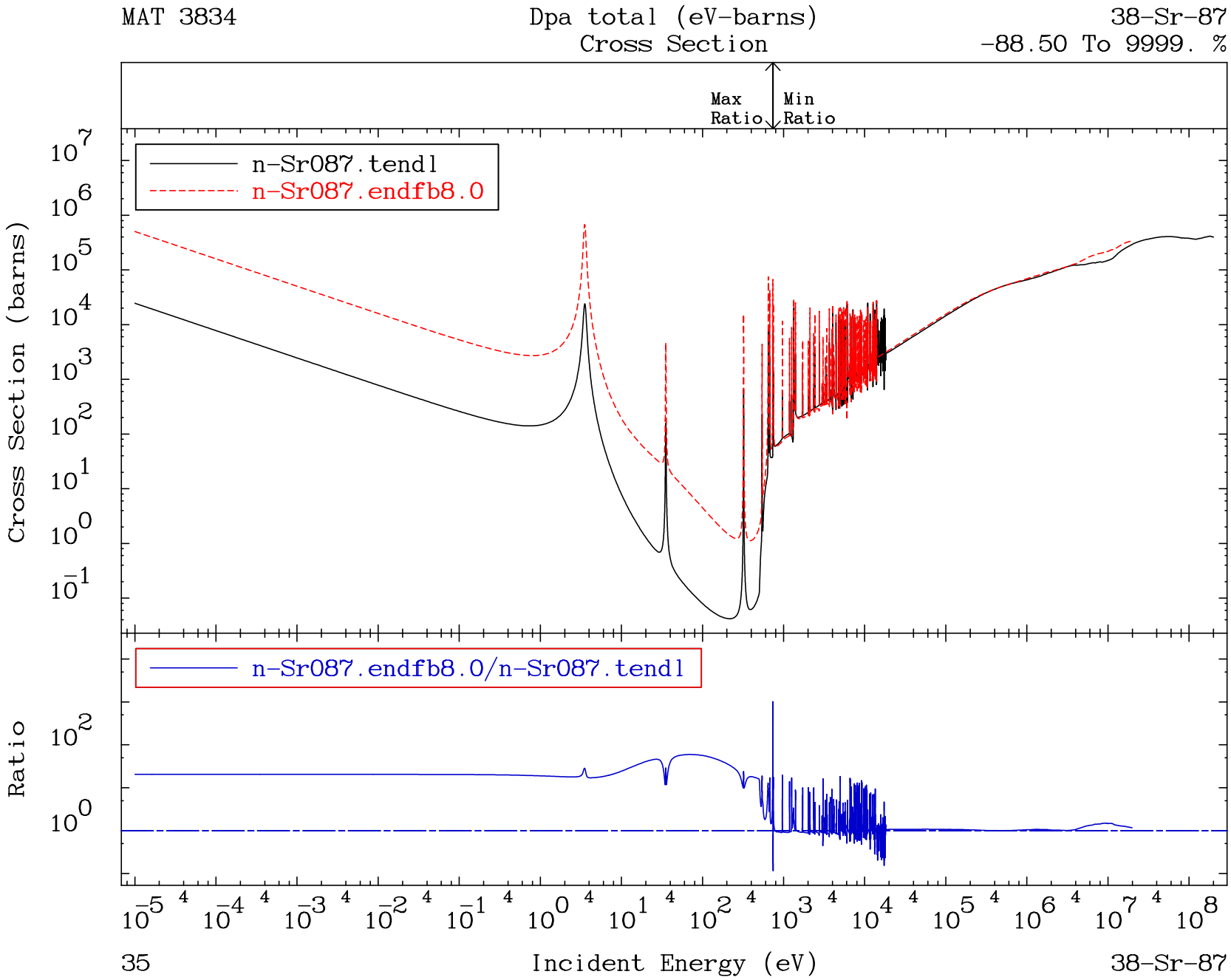

MAT 3834
Kerma inelastic (mt51-91)
Cross Section
38-Sr-87
-57.81 To 29.30 %
Max Ratio
Min Ratio
n-Sr087.tendl Threshold 400.00 keV
n-Sr087.endfb8.0 Threshold 392.81 keV
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
30
38-Sr-87

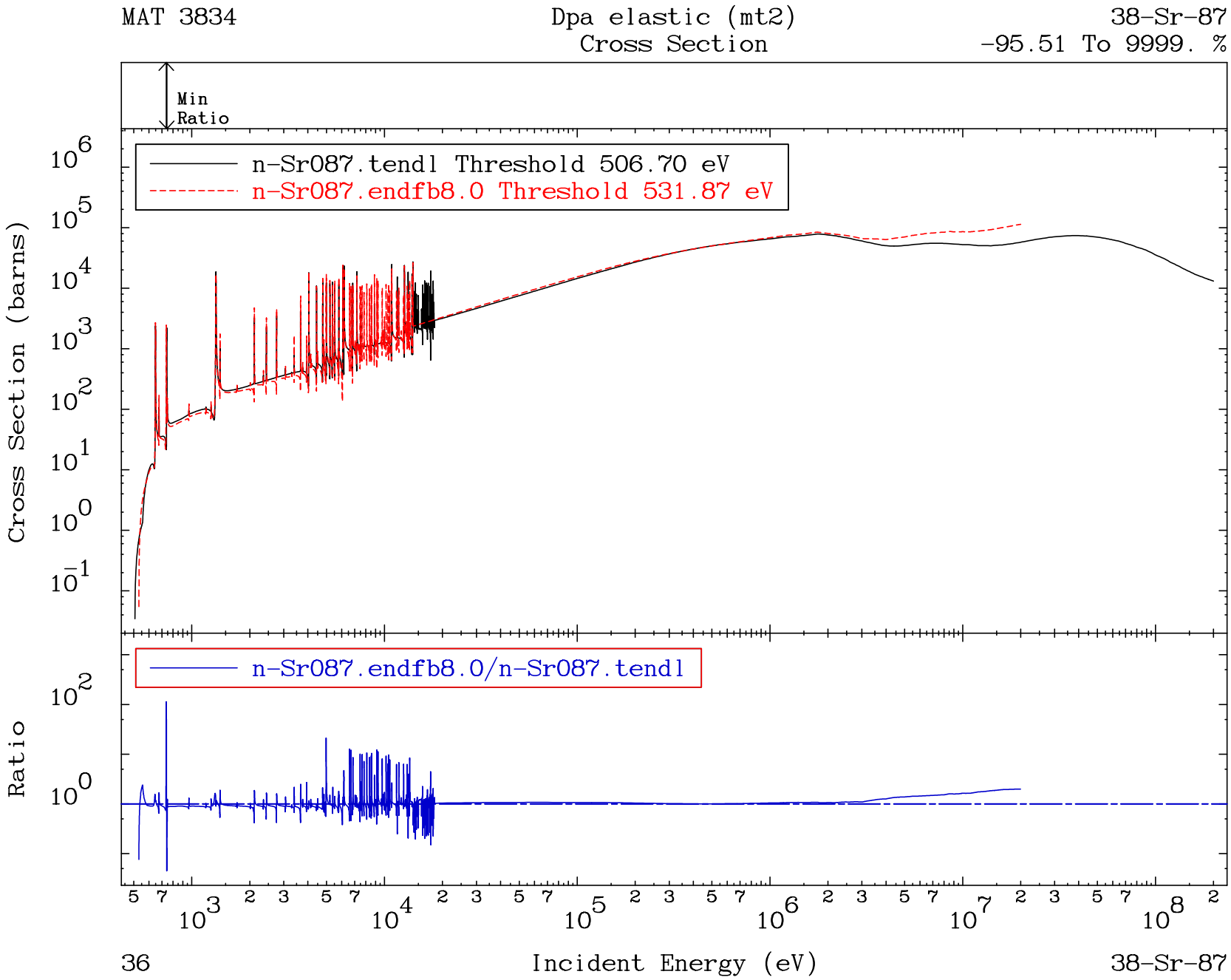

MAT 3834
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
38-Sr-87
-57.81 To 29.30 %
Max Ratio
Min Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
1.2
0.8
0.4
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
31
Incident Energy (eV)
38-Sr-87

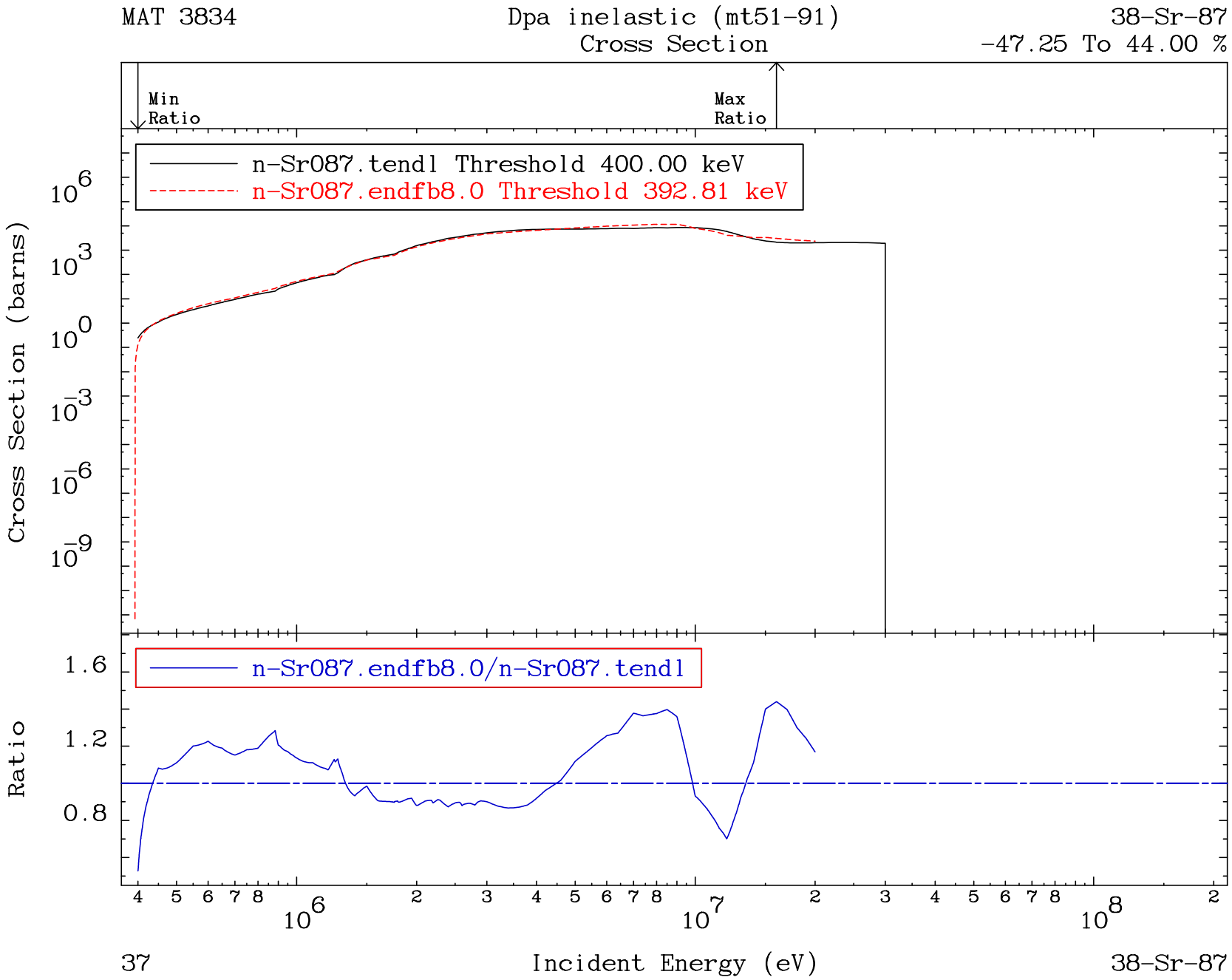

MAT 3834
Kerma capture (mt102)
Cross Section
38-Sr-87
-99.93 To 9999. %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
32
38-Sr-87

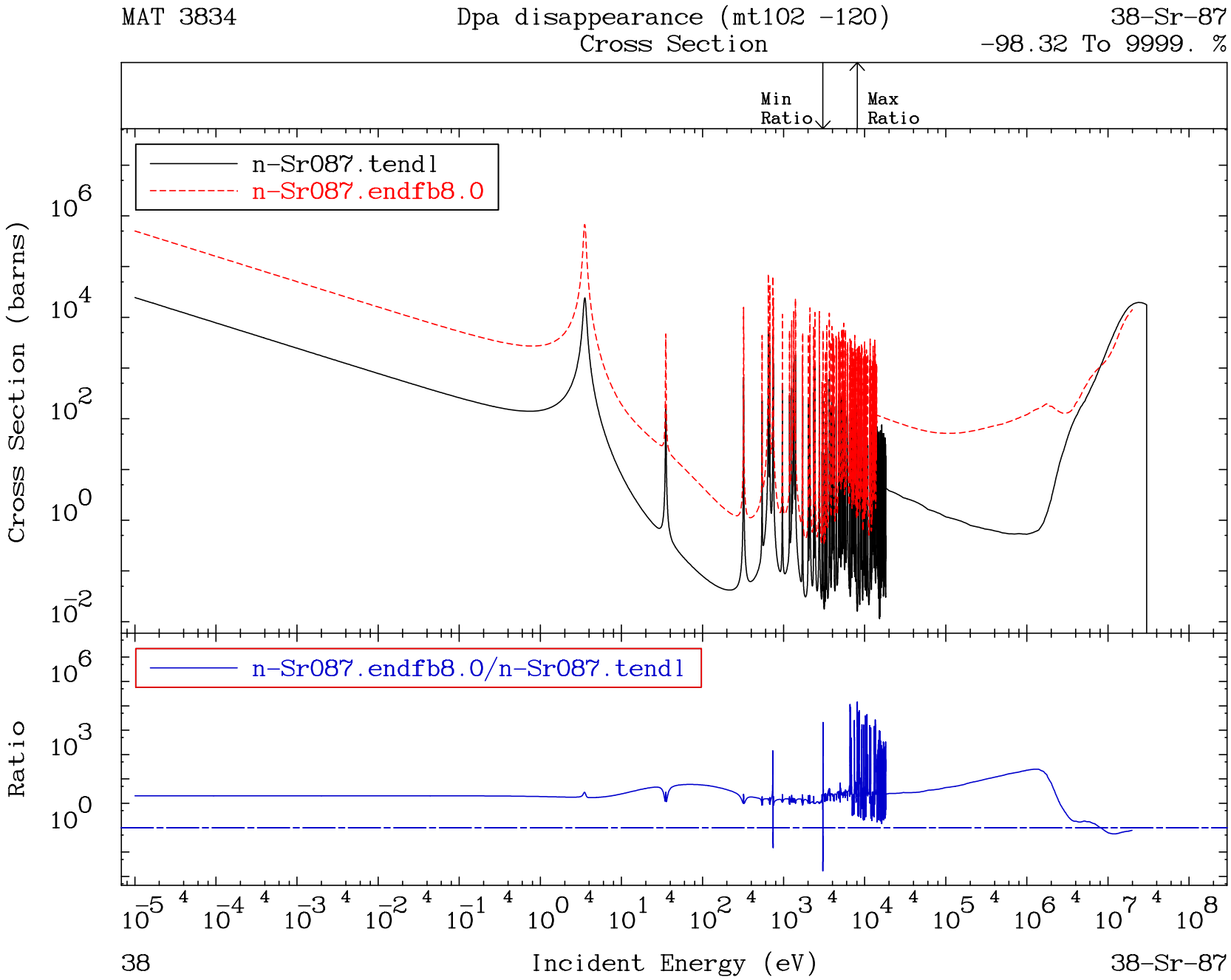

MAT 3834
Total photon (eV-barns)
Cross Section
38-Sr-87
-99.93 To 9999. %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (Gega-barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
33
38-Sr-87


MAT 3834
Total kinematic kerma (high limit)
Cross Section
38-Sr-87
-100.0 To 123.9 %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
34
38-Sr-87


MAT 3834
Dpa total (eV-barns)
Cross Section
38-Sr-87
-88.50 To 9999. %
Max Ratio
Min Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
35
Incident Energy (eV)
38-Sr-87


MAT 3834
Dpa elastic (mt2)
Cross Section
38-Sr-87
-95.51 To 9999. %
Min
Ratio
n-Sr087.tendl Threshold 506.70 eV
n-Sr087.endfb8.0 Threshold 531.87 eV
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
36
38-Sr-87


MAT 3834
Dpa inelastic (mt51-91)
Cross Section
38-Sr-87
-47.25 To 44.00 %
Min Ratio
Max Ratio
n-Sr087.tendl Threshold 400.00 keV
n-Sr087.endfb8.0 Threshold 392.81 keV
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
37
38-Sr-87


MAT 3834
Dpa disappearance (mt102 -120)
Cross Section
38-Sr-87
-98.32 To 9999. %
Min Ratio
Max Ratio
n-Sr087.tendl
n-Sr087.endfb8.0
Cross Section (barns)
n-Sr087.endfb8.0/n-Sr087.tendl
Ratio
Incident Energy (eV)
38
38-Sr-87