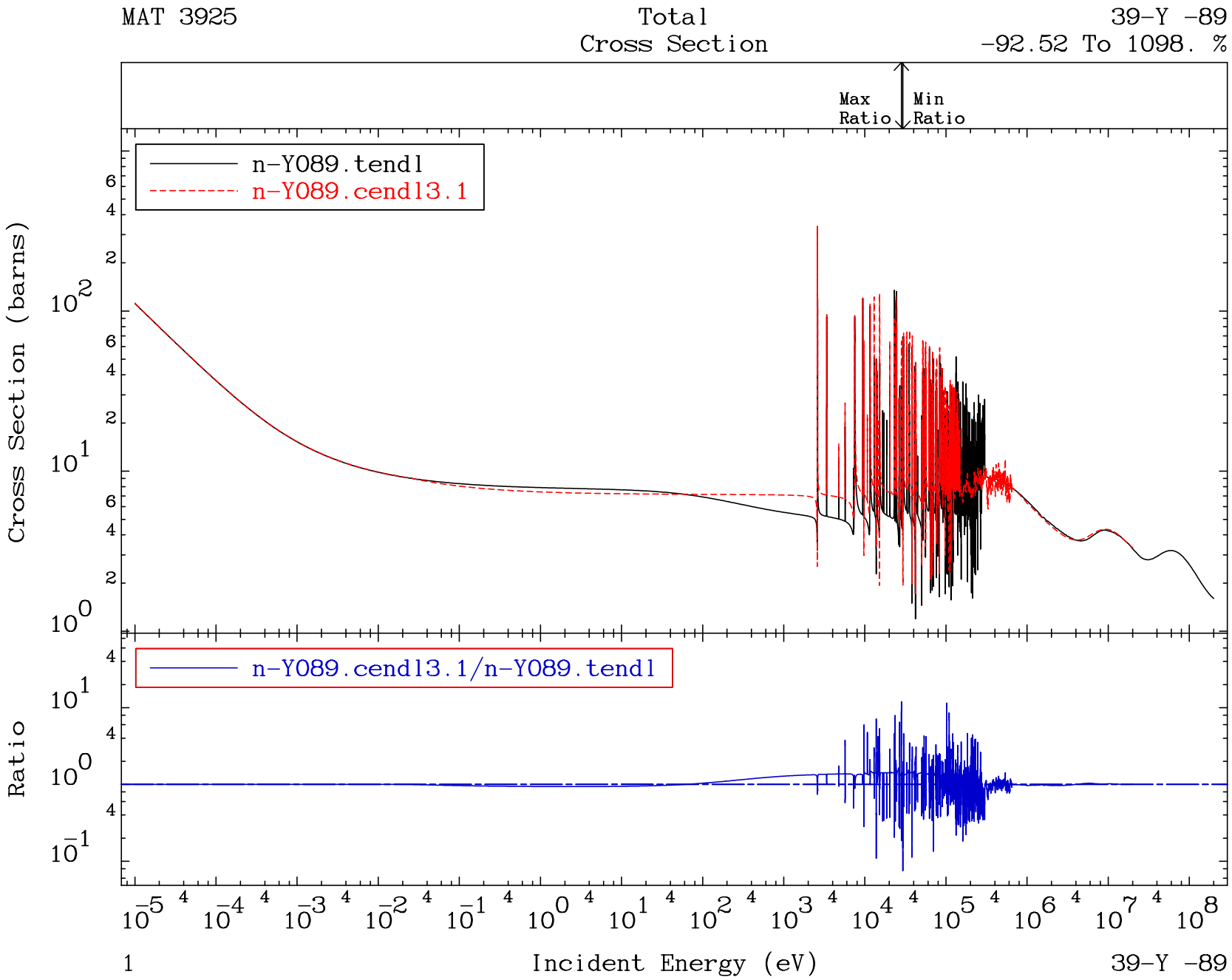
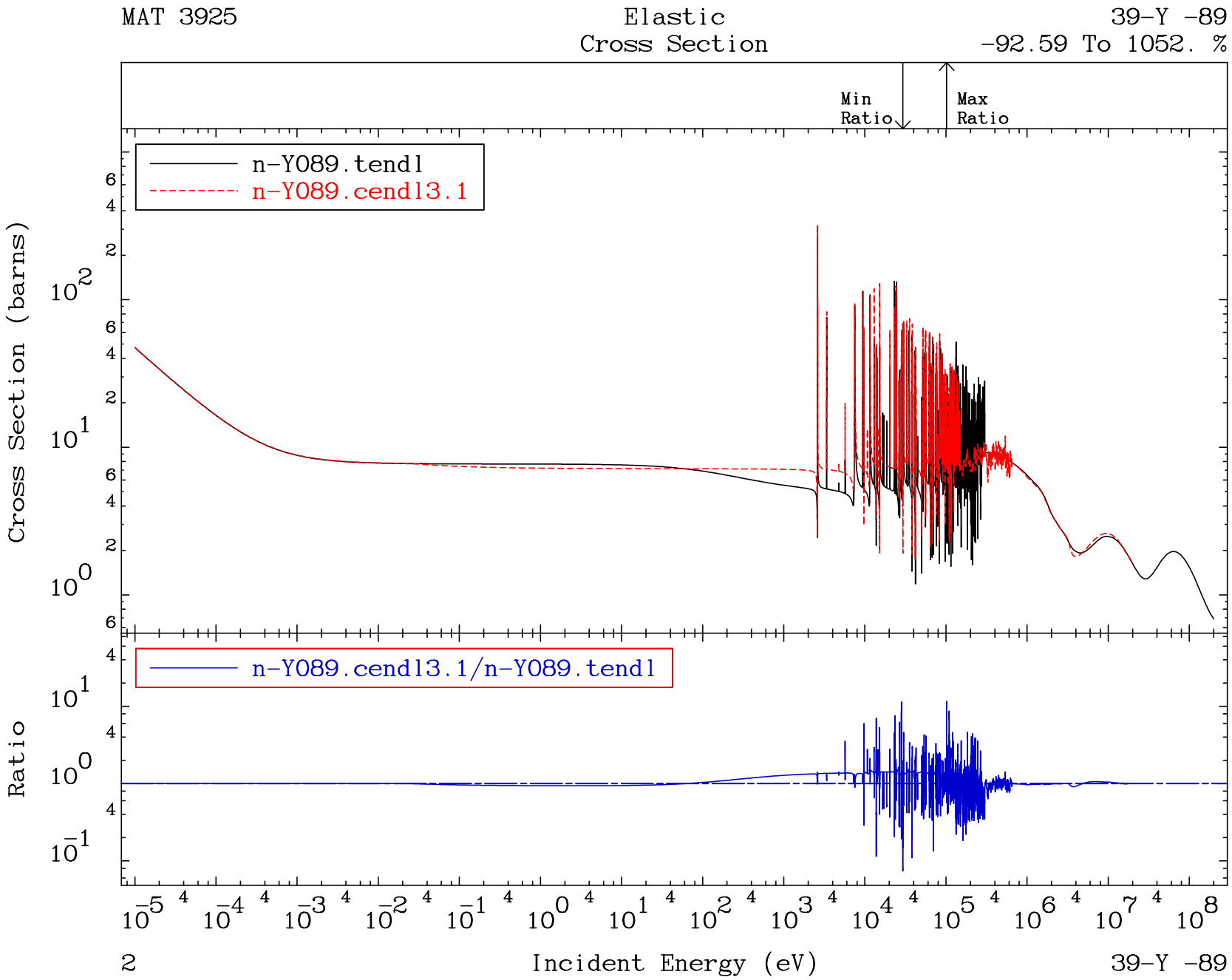
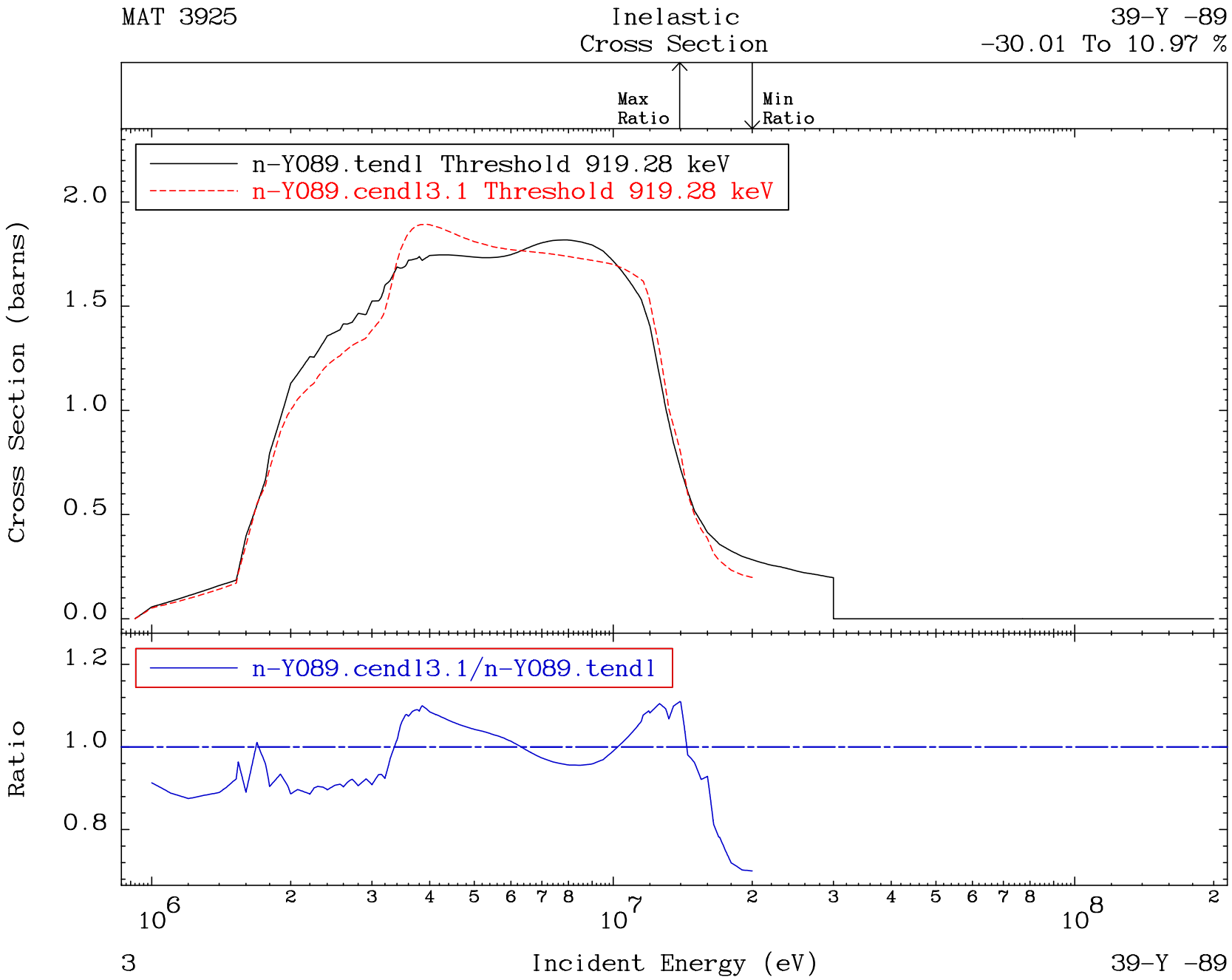
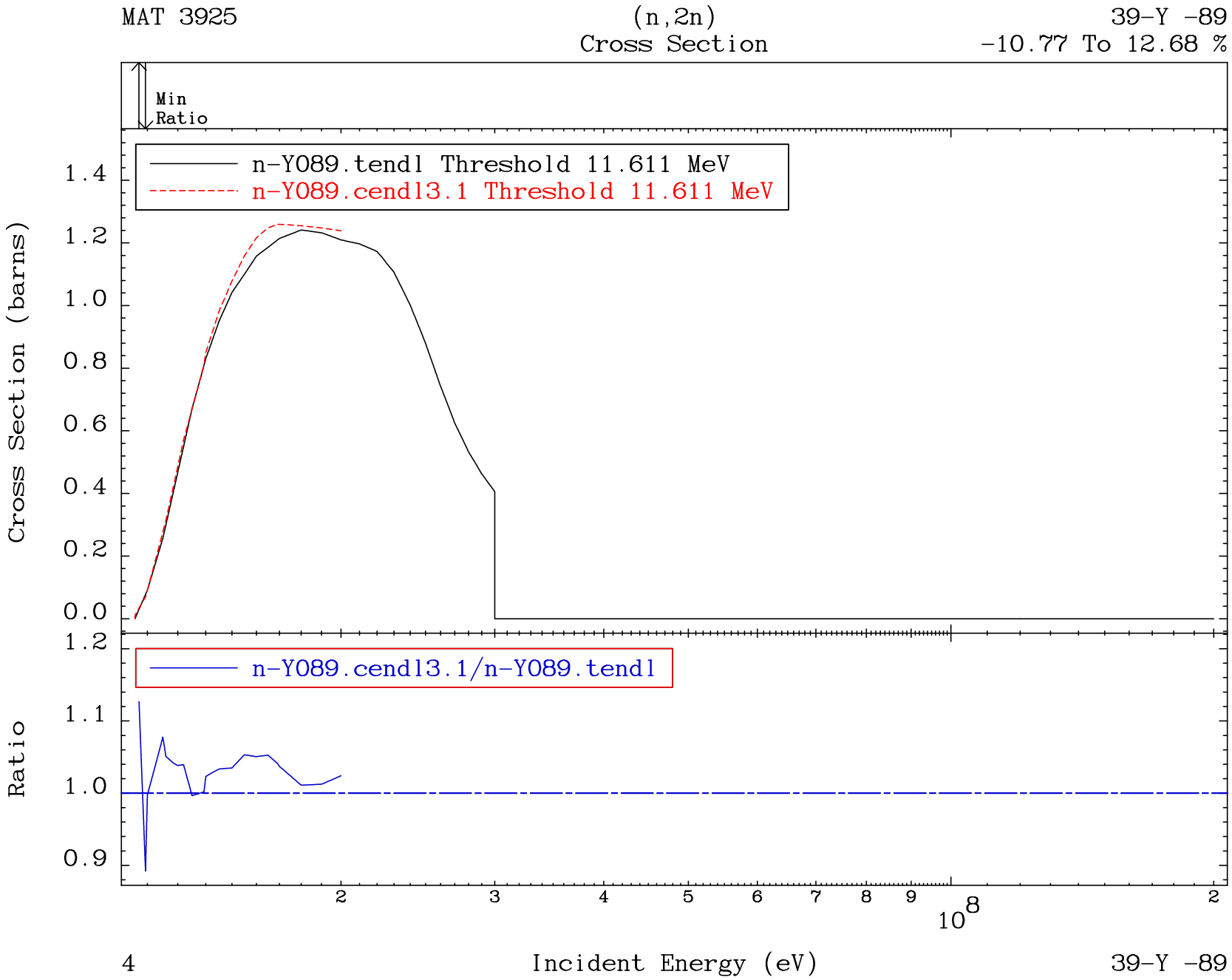
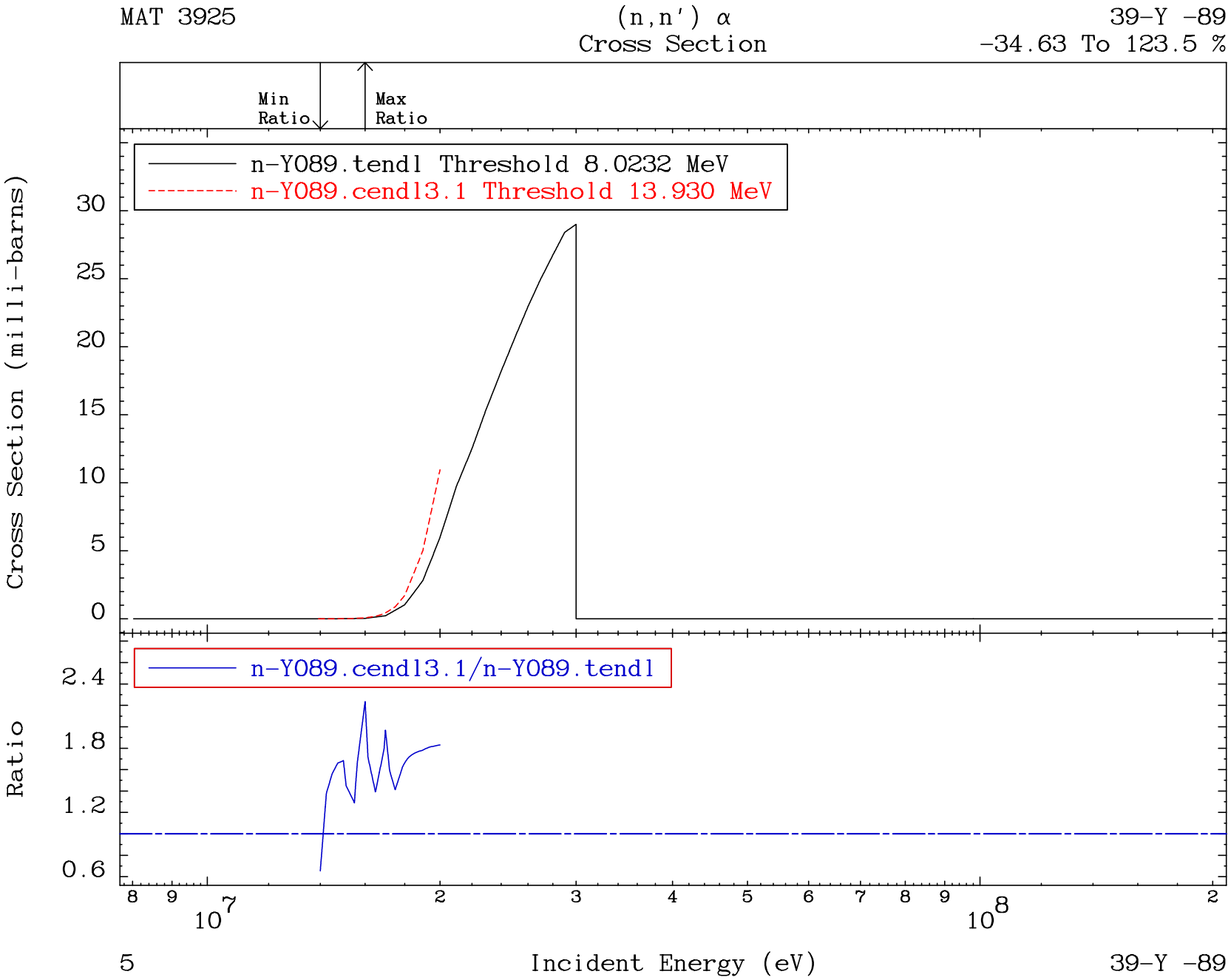
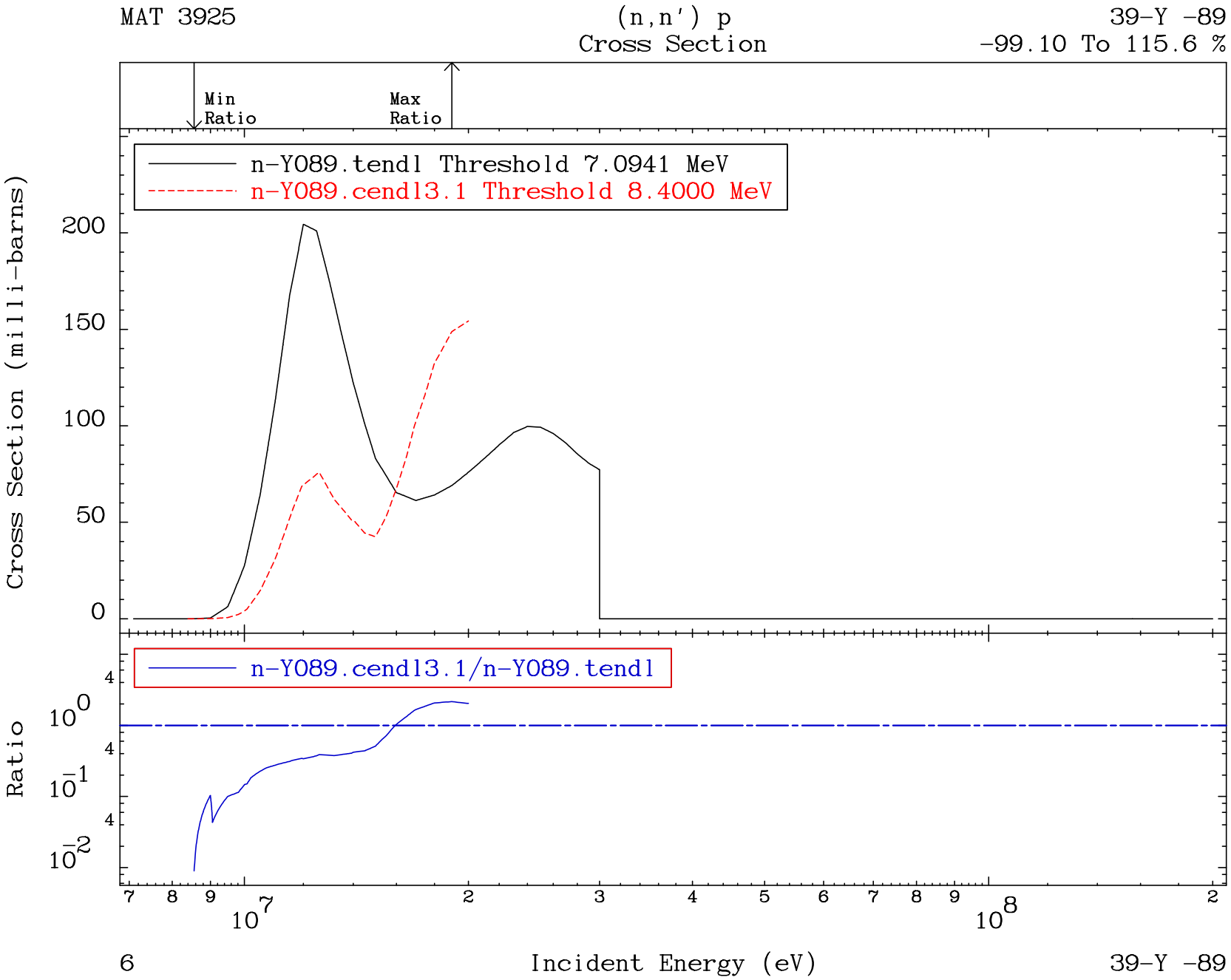

MAT 3925
Total
Cross Section
39-Y -89
-92.52 To 1098. %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
1
39-Y -89

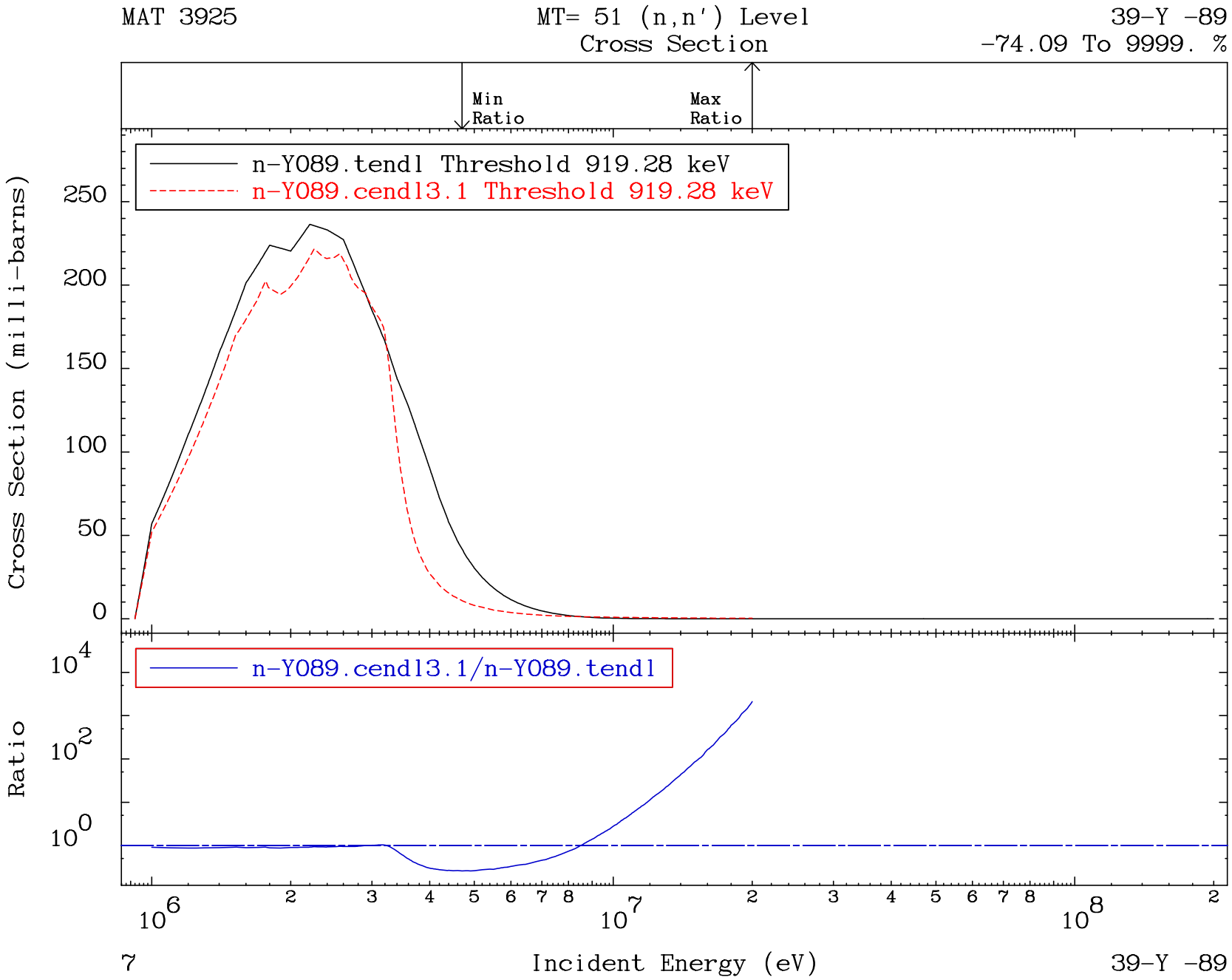

MAT 3925
Elastic
Cross Section
39-Y -89
-92.59 To 1052. %
Min Ratio
Max Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
2
39-Y -89

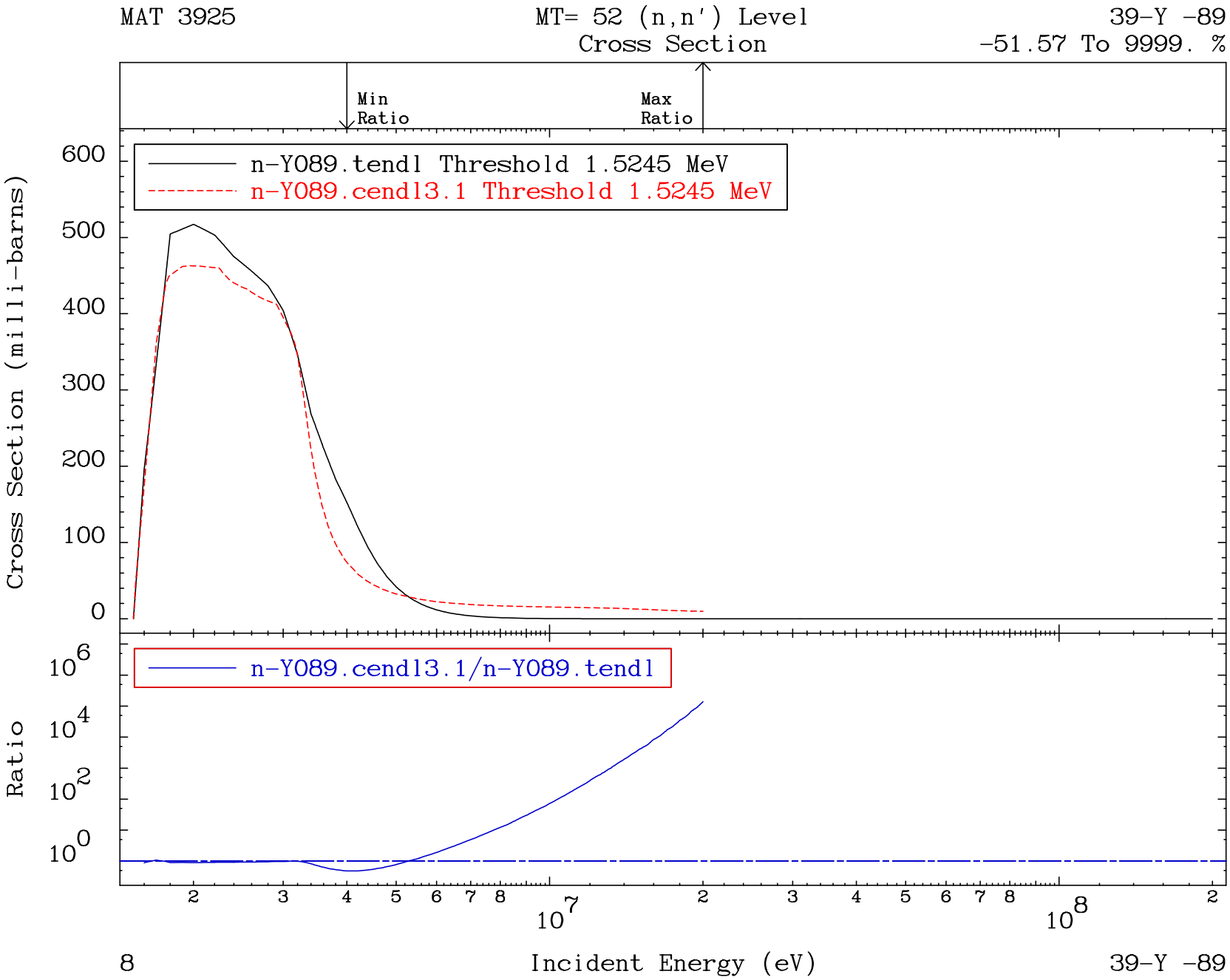

MAT 3925
Inelastic
Cross Section
39-Y -89
-30.01 To 10.97 %
Max
Ratio
Min
Ratio
n-Y089.tendl Threshold 919.28 keV
n-Y089.cendl3.1 Threshold 919.28 keV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
1.2
1.0
0.8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
3
Incident Energy (eV)
39-Y -89

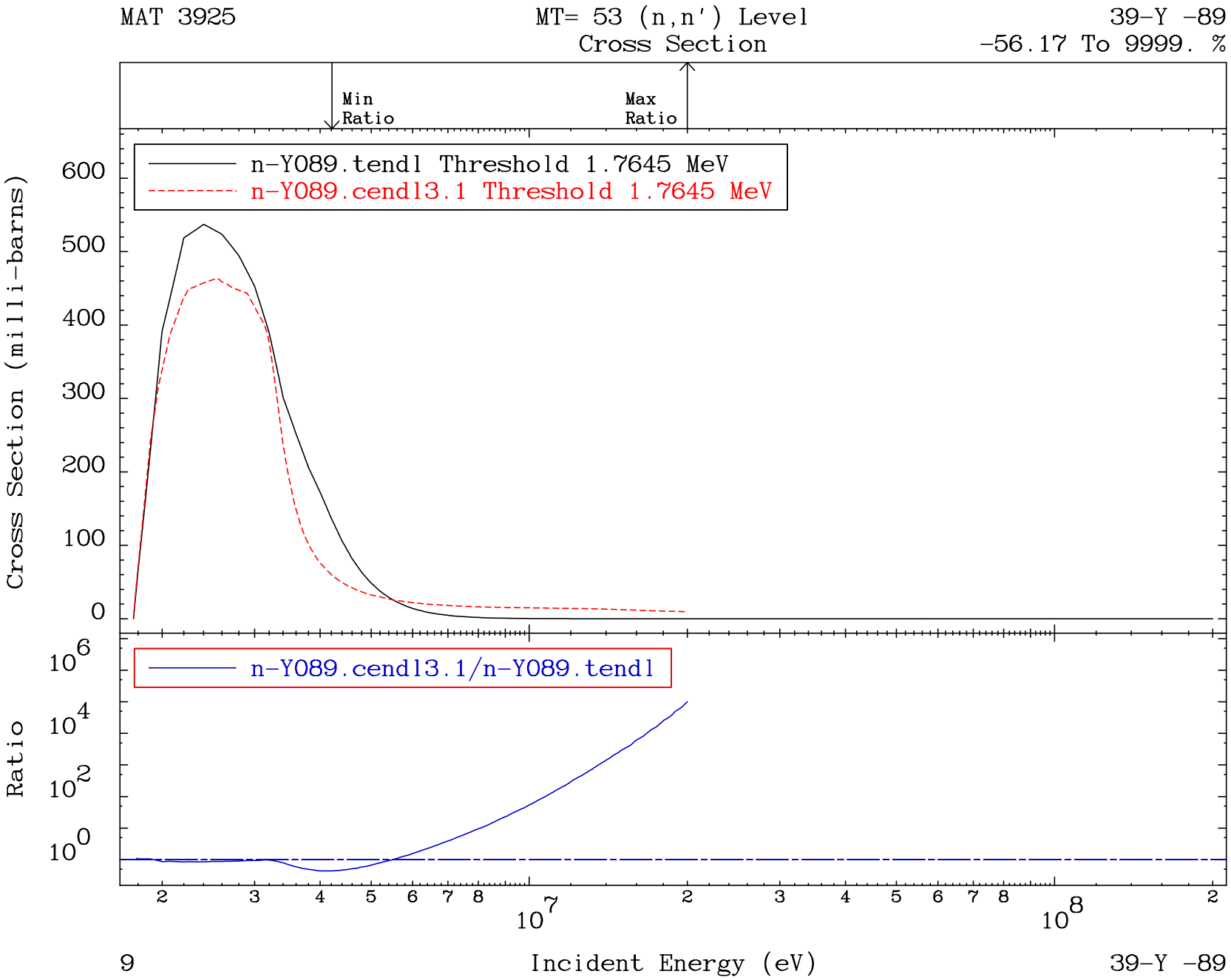

MAT 3925
(n,2n)
Cross Section
39-Y -89
-10.77 To 12.68 %
Min
Ratio
n-Y089.tendl Threshold 11.611 MeV
n-Y089.cendl3.1 Threshold 11.611 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
1.2
1.1
1.0
0.9
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
39-Y -89

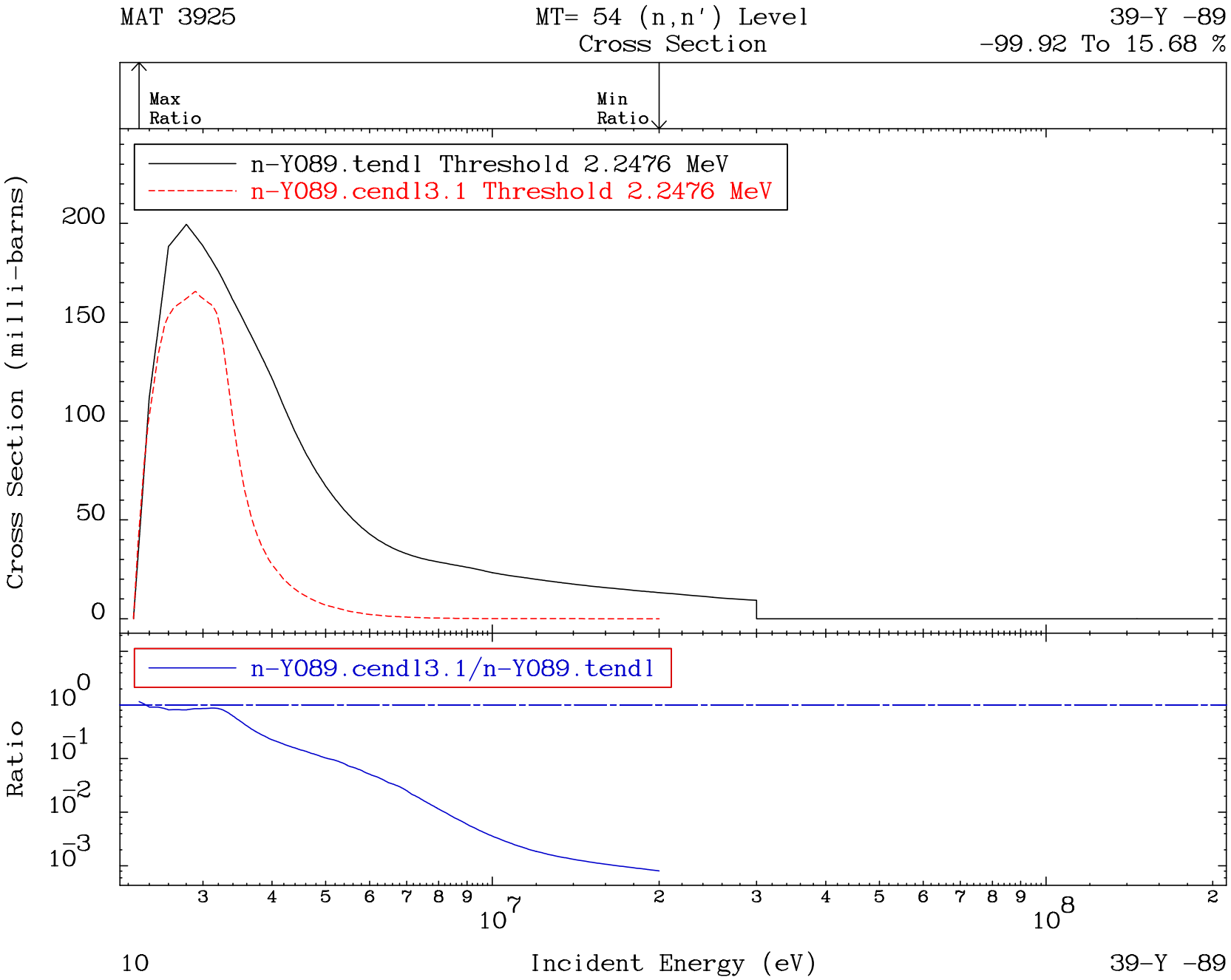

MAT 3925
(n,n') α
Cross Section
39-Y -89
-34.63 To 123.5 %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 8.0232 MeV
n-Y089.cendl3.1 Threshold 13.930 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
2.4
1.8
1.2
0.6
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
5
Incident Energy (eV)
39-Y -89

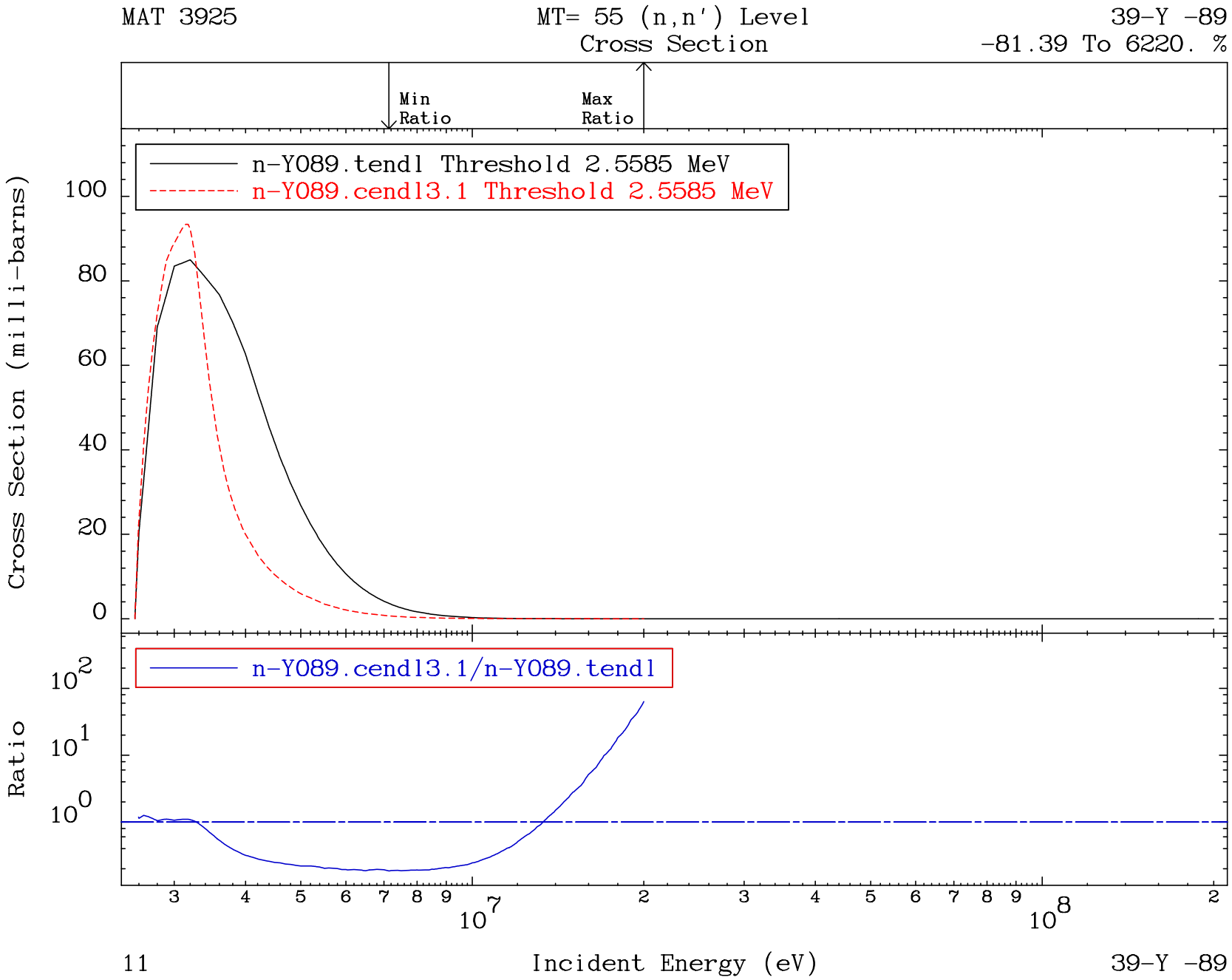

MAT 3925
(n,n') p
Cross Section
39-Y -89
-99.10 To 115.6 %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 7.0941 MeV
n-Y089.cendl3.1 Threshold 8.4000 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^{0}
10^{-1}
10^{-2}
7 8 9 10^{7} 2 3 4 5 6 7 8 9 10^{8} 2
6
Incident Energy (eV)
39-Y -89

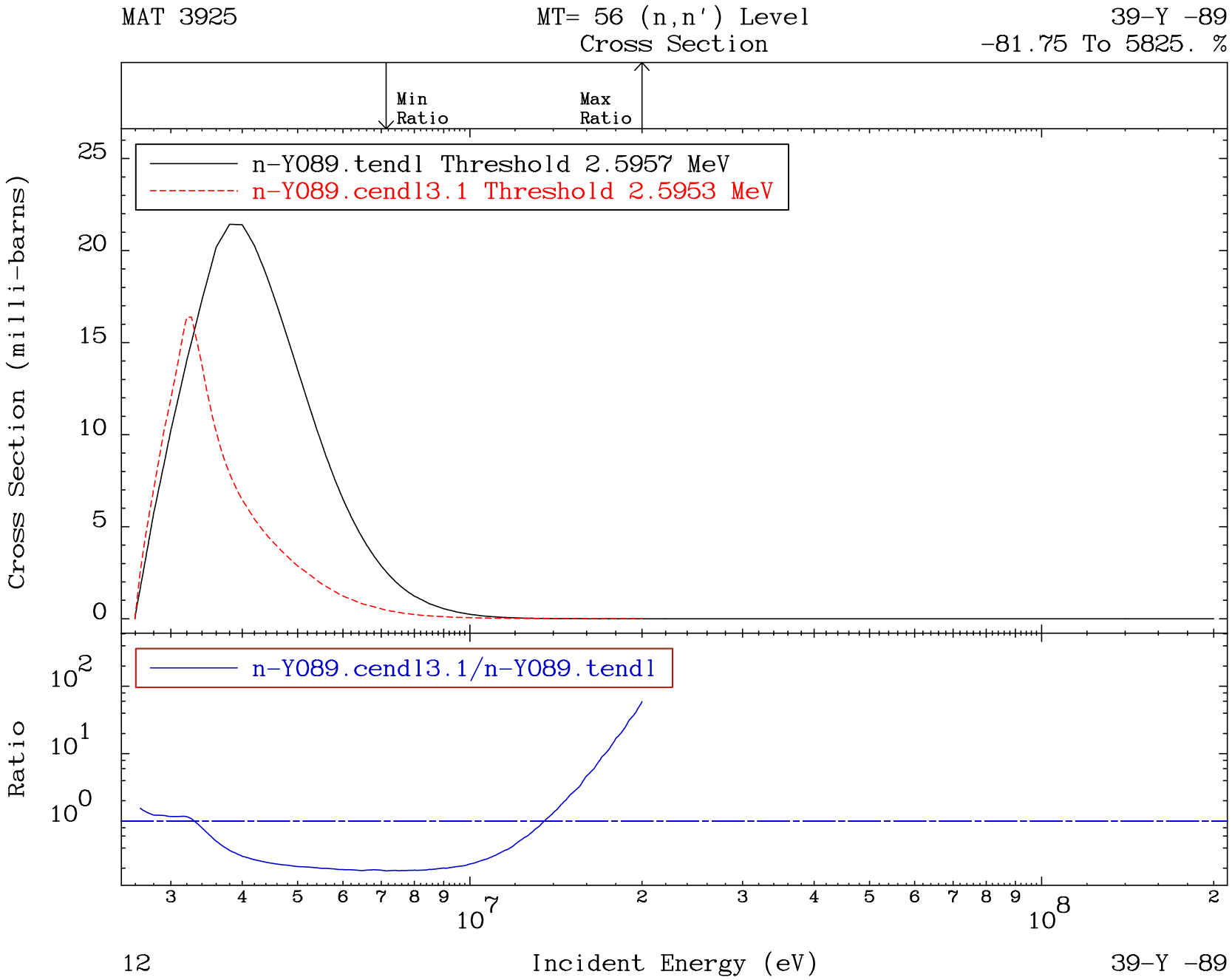

MAT 3925
MT= 51 (n,n') Level
Cross Section
39-Y -89
-74.09 To 9999. %
Min
Ratio
Max
Ratio
n-Y089.tendl Threshold 919.28 keV
n-Y089.cendl3.1 Threshold 919.28 keV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^4
10^2
10^0
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
7
Incident Energy (eV)
39-Y -89

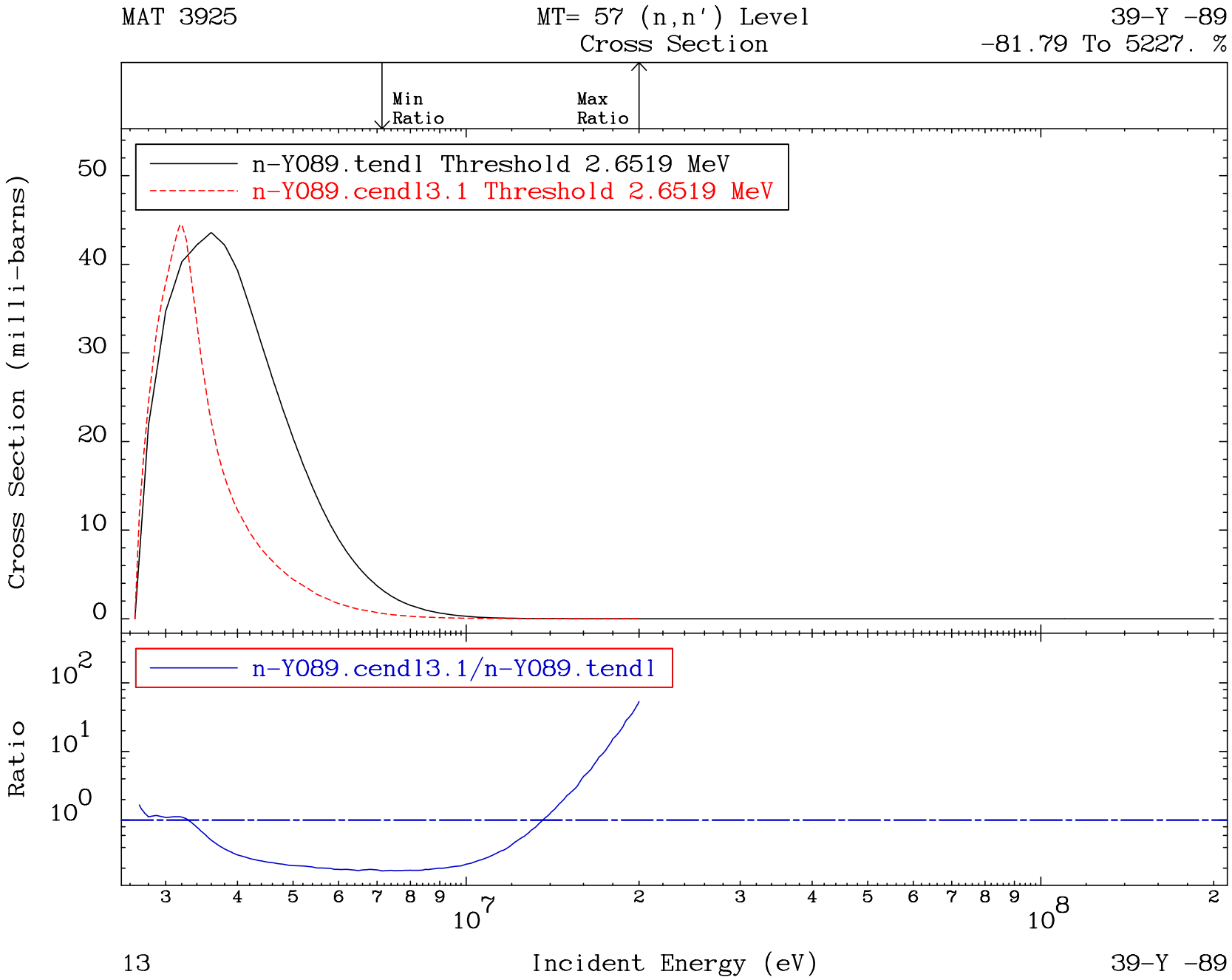

MAT 3925
MT= 52 (n,n') Level
Cross Section
39-Y -89
-51.57 To 9999. %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 1.5245 MeV
n-Y089.cendl3.1 Threshold 1.5245 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
8
Incident Energy (eV)
39-Y -89

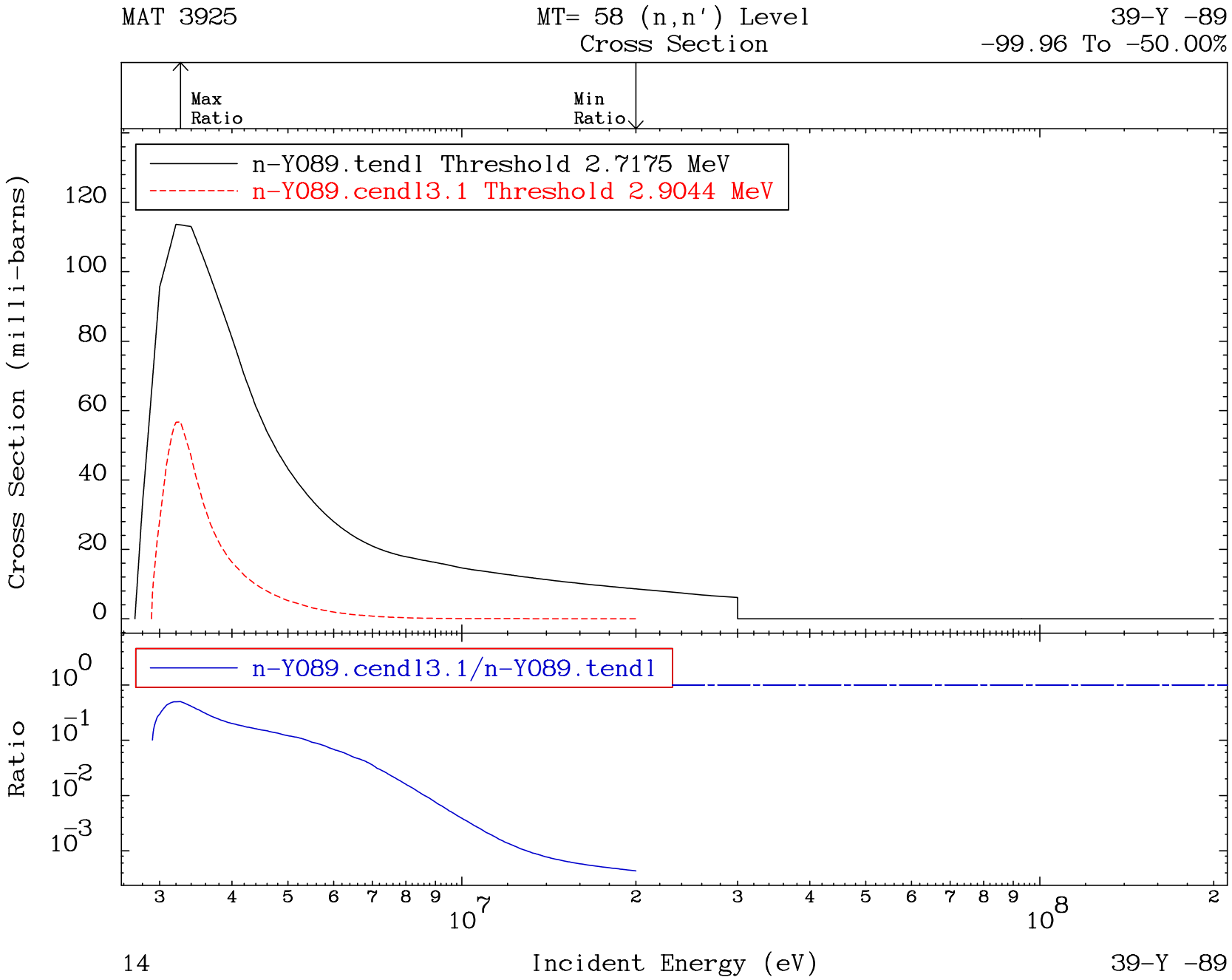

MAT 3925
MT= 53 (n,n') Level
Cross Section
39-Y -89
-56.17 To 9999. %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 1.7645 MeV
n-Y089.cendl3.1 Threshold 1.7645 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
9
Incident Energy (eV)
39-Y -89

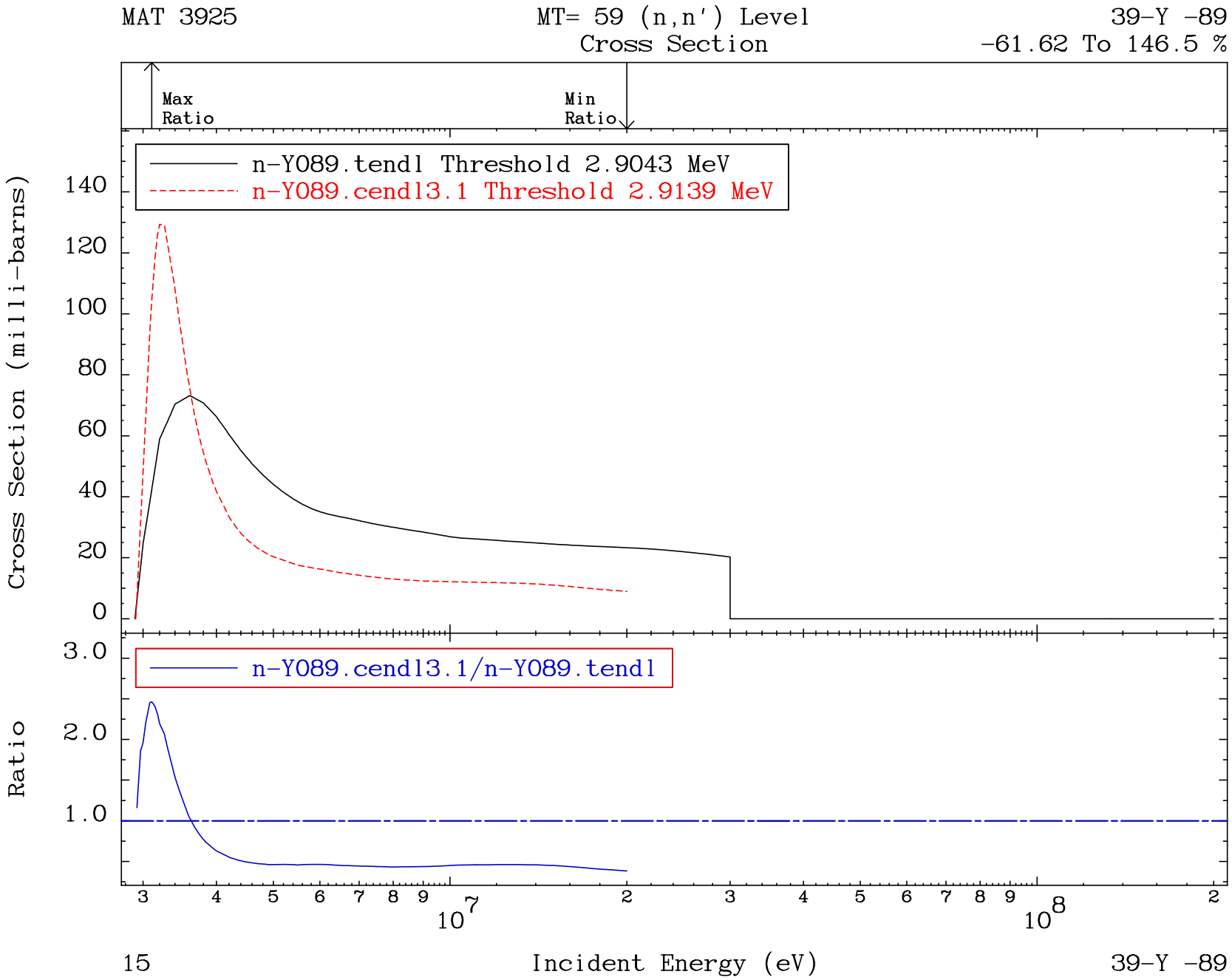

MAT 3925
MT= 54 (n,n') Level
Cross Section
39-Y -89
-99.92 To 15.68 %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 2.2476 MeV
n-Y089.cendl3.1 Threshold 2.2476 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^0
10^-1
10^-2
10^-3
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
10
Incident Energy (eV)
39-Y -89

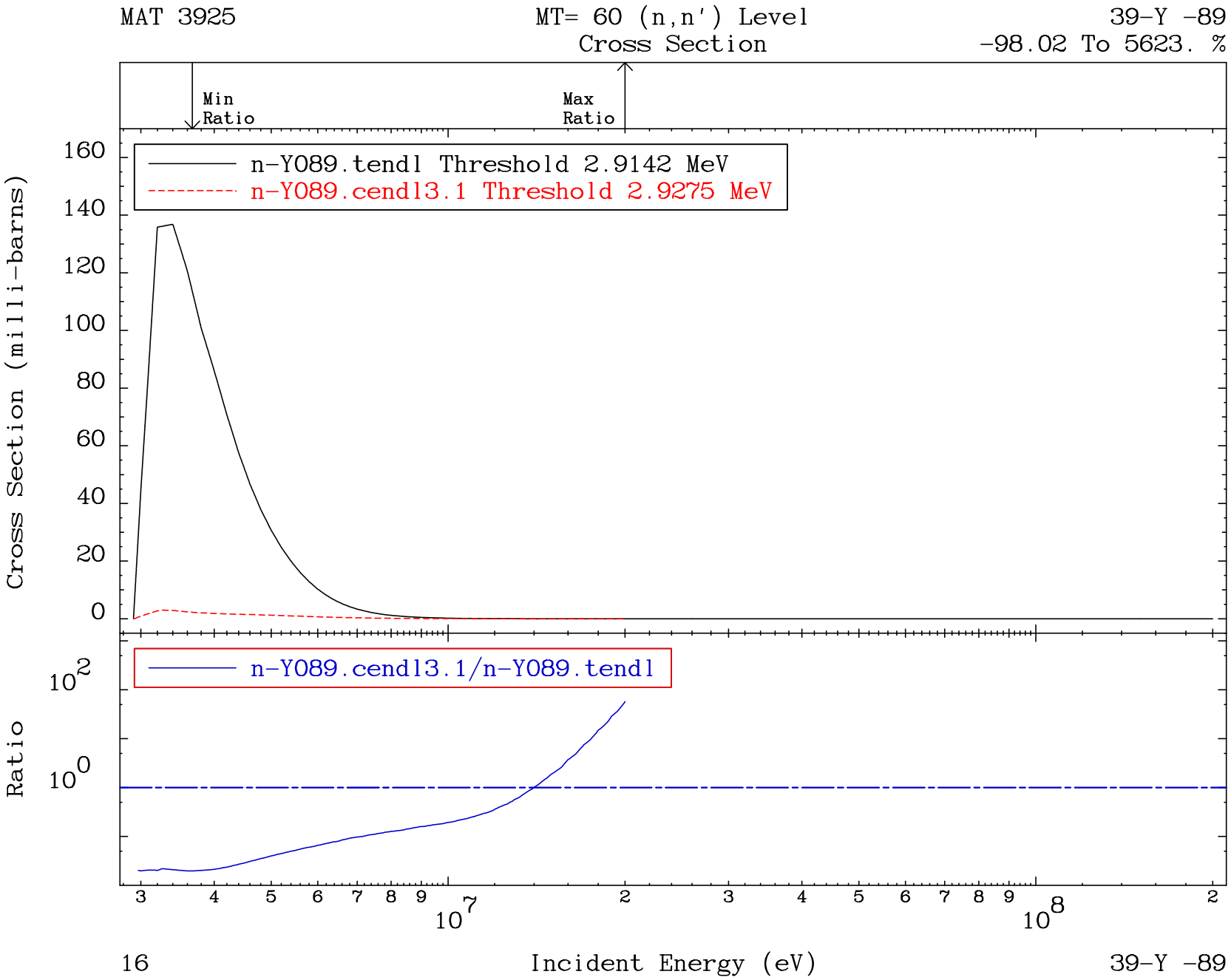

MAT 3925
MT= 55 (n,n') Level
Cross Section
39-Y -89
-81.39 To 6220. %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 2.5585 MeV
n-Y089.cendl3.1 Threshold 2.5585 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
11
Incident Energy (eV)
39-Y -89

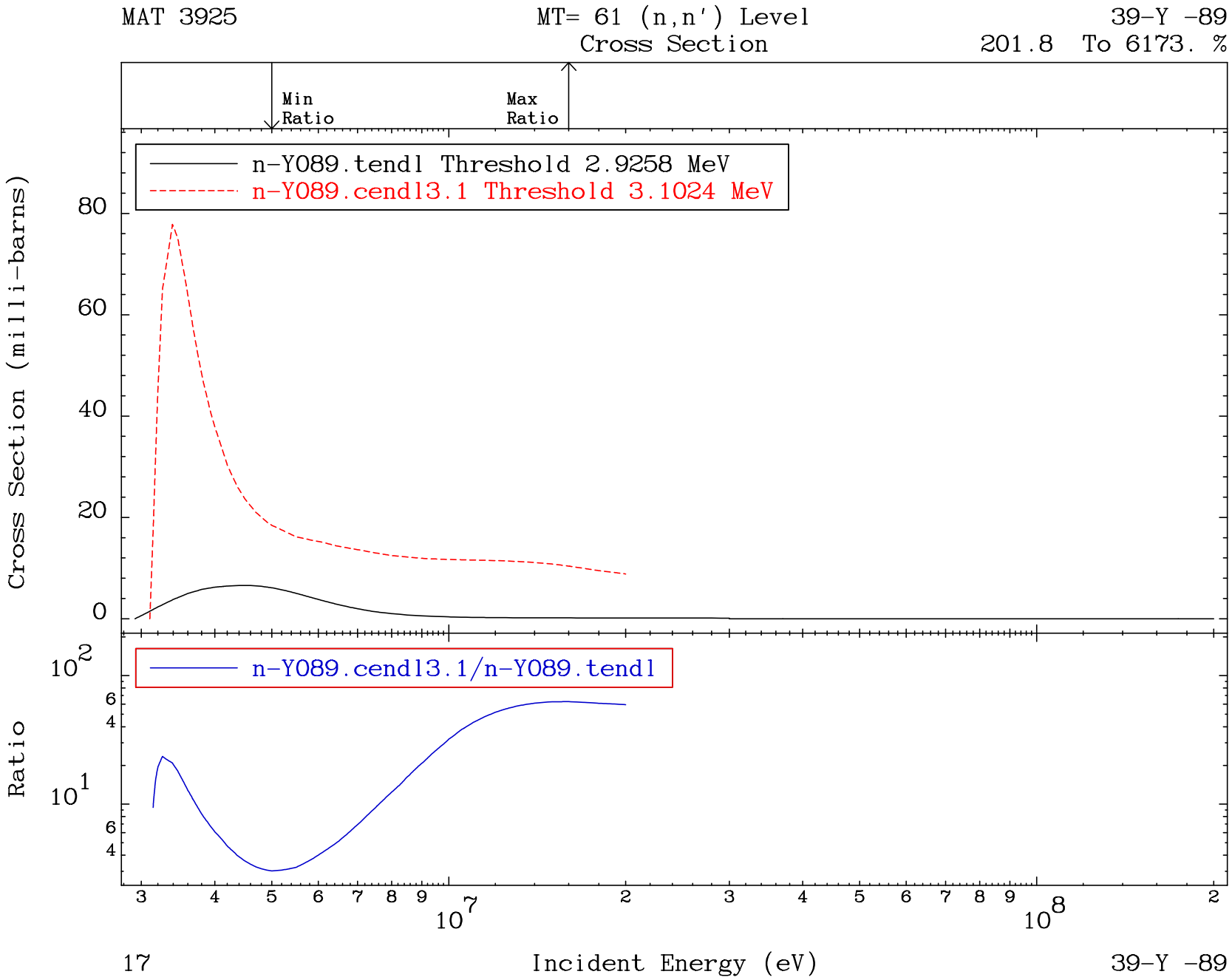

MAT 3925
MT= 56 (n,n') Level
Cross Section
39-Y -89
-81.75 To 5825. %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 2.5957 MeV
n-Y089.cendl3.1 Threshold 2.5953 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
12
Incident Energy (eV)
39-Y -89

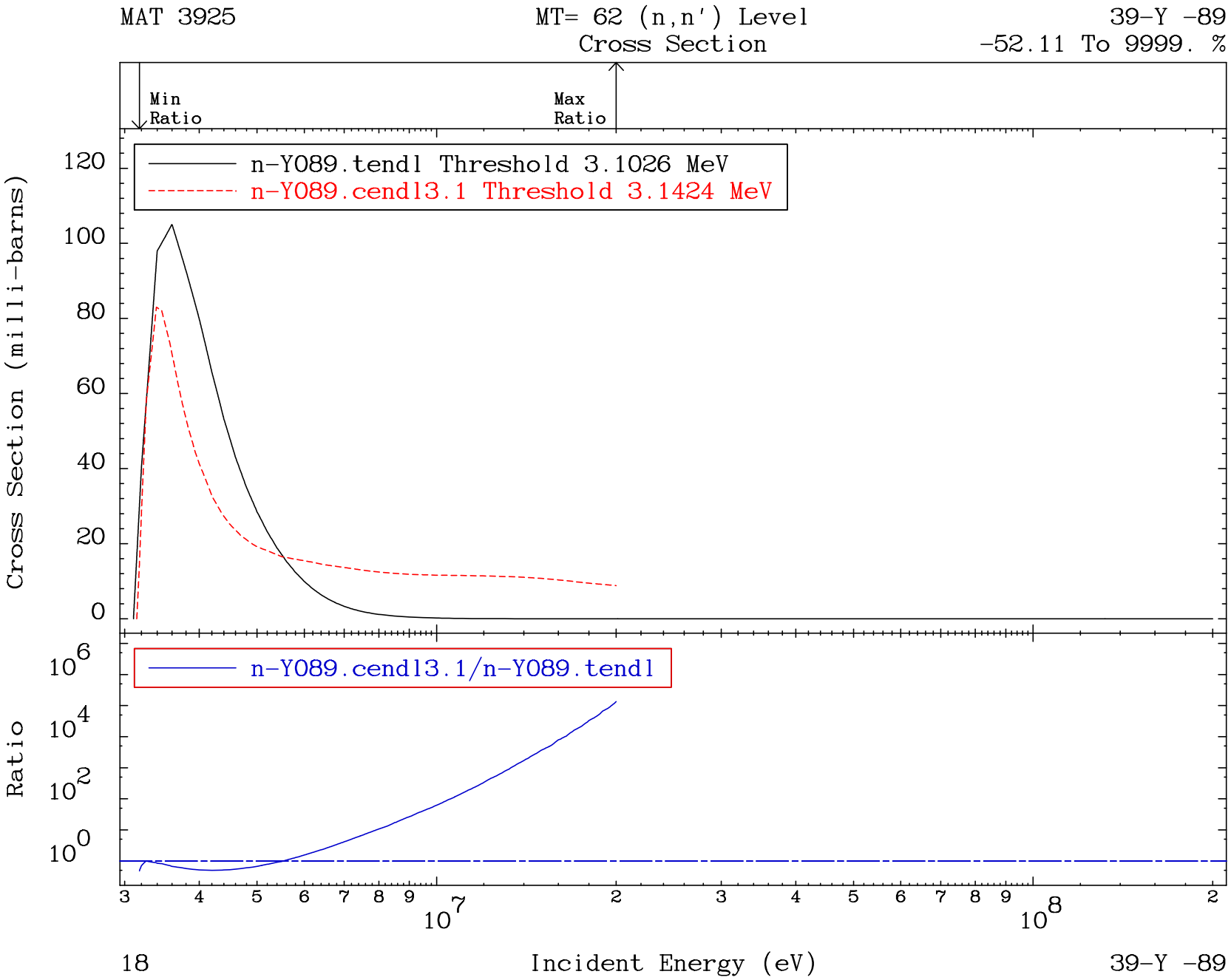

MAT 3925
MT= 57 (n,n') Level
Cross Section
39-Y -89
-81.79 To 5227. %
Min
Ratio
Max
Ratio
n-Y089.tendl Threshold 2.6519 MeV
n-Y089.cendl3.1 Threshold 2.6519 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
13
Incident Energy (eV)
39-Y -89

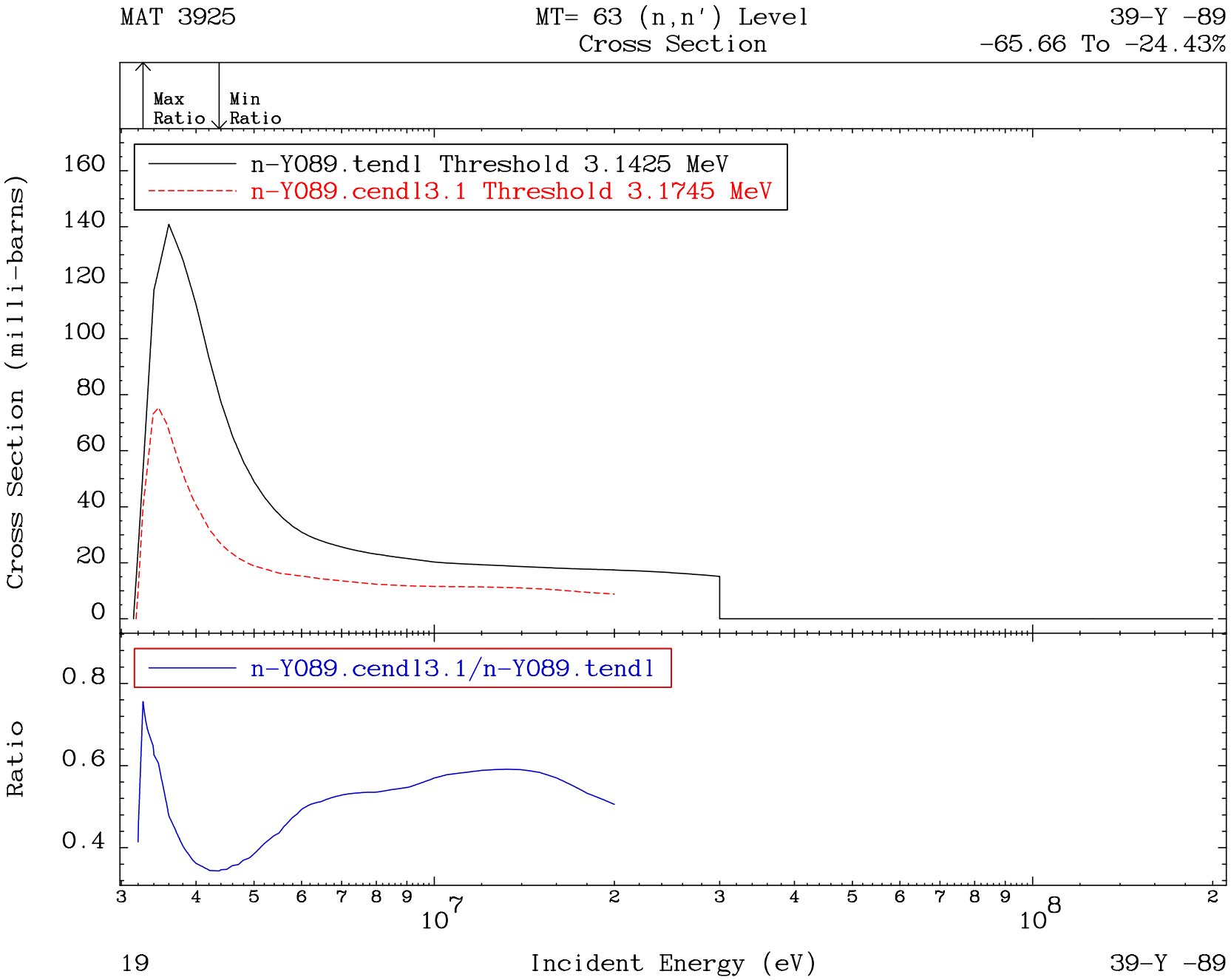

MAT 3925
MT= 58 (n,n') Level
Cross Section
39-Y -89
-99.96 To -50.00%
Max
Ratio
Min
Ratio
n-Y089.tendl Threshold 2.7175 MeV
n-Y089.cendl3.1 Threshold 2.9044 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^0
10^-1
10^-2
10^-3
3
4
5
6
7
8
9
10^7
2
3
4
5
6
7
8
9
10^8
2
14
Incident Energy (eV)
39-Y -89

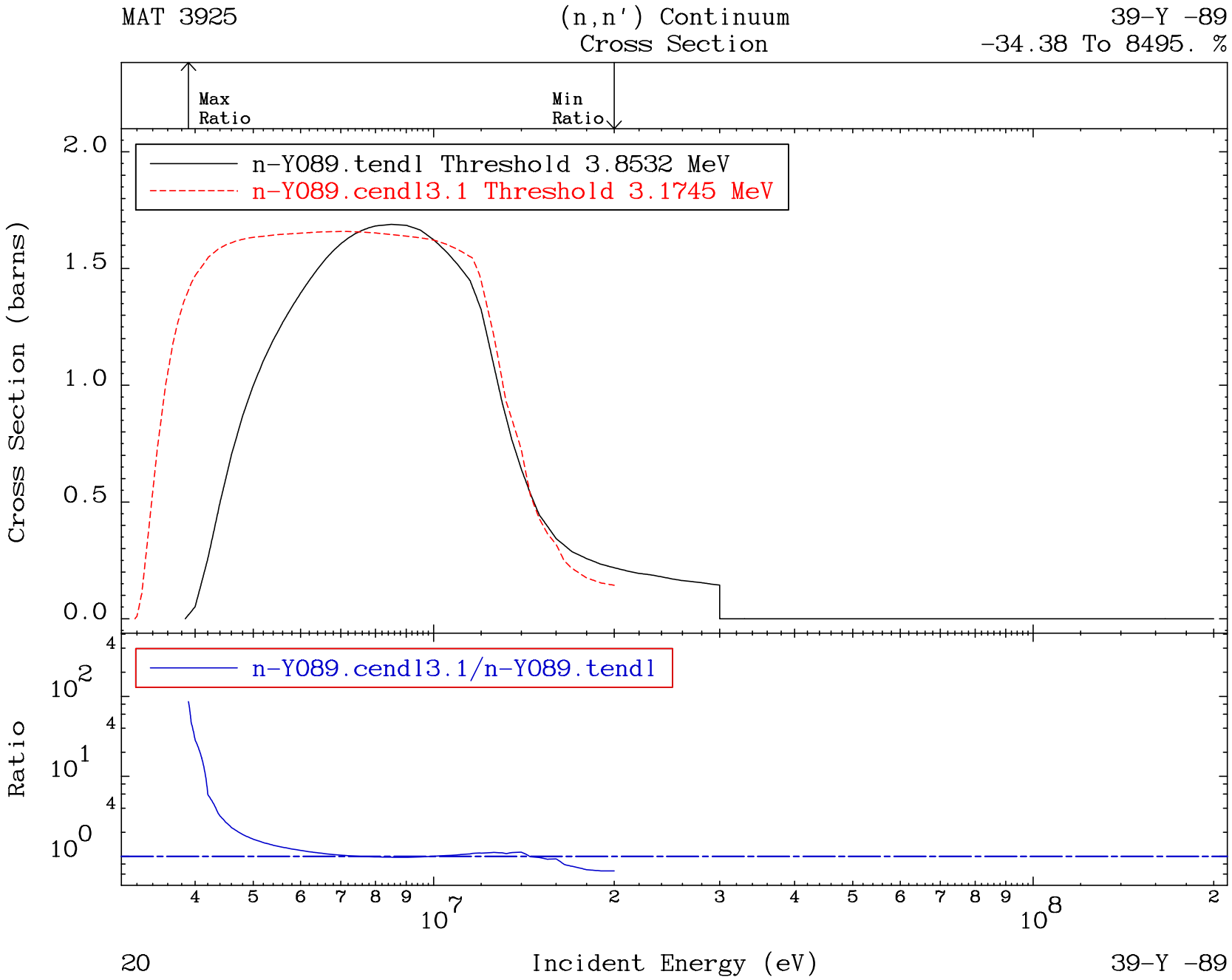

MAT 3925
MT= 59 (n,n') Level
Cross Section
39-Y -89
-61.62 To 146.5 %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 2.9043 MeV
n-Y089.cendl3.1 Threshold 2.9139 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
3.0
2.0
1.0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
15
Incident Energy (eV)
39-Y -89

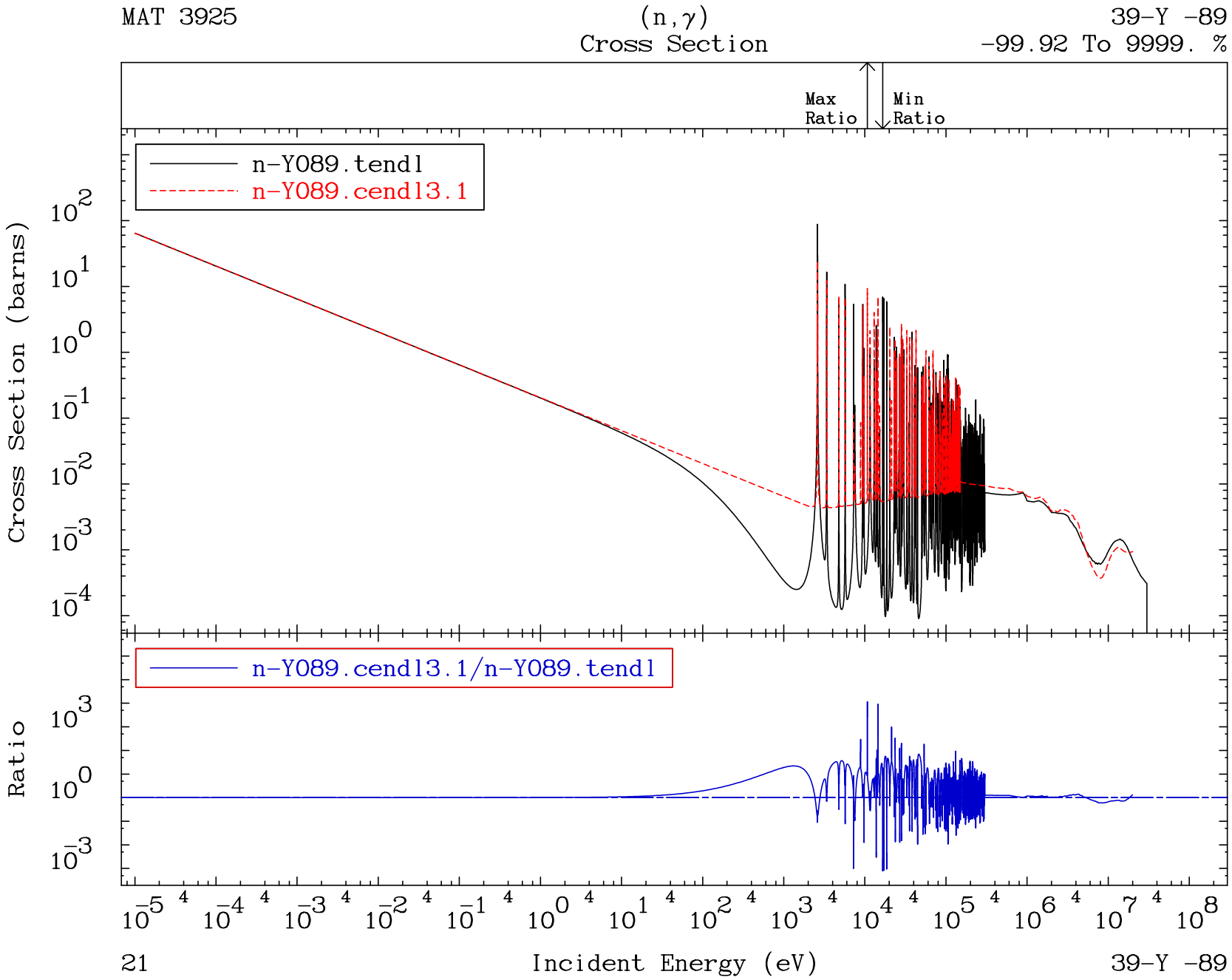

MAT 3925
MT= 60 (n,n') Level
Cross Section
39-Y -89
-98.02 To 5623. %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 2.9142 MeV
n-Y089.cendl3.1 Threshold 2.9275 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
39-Y -89

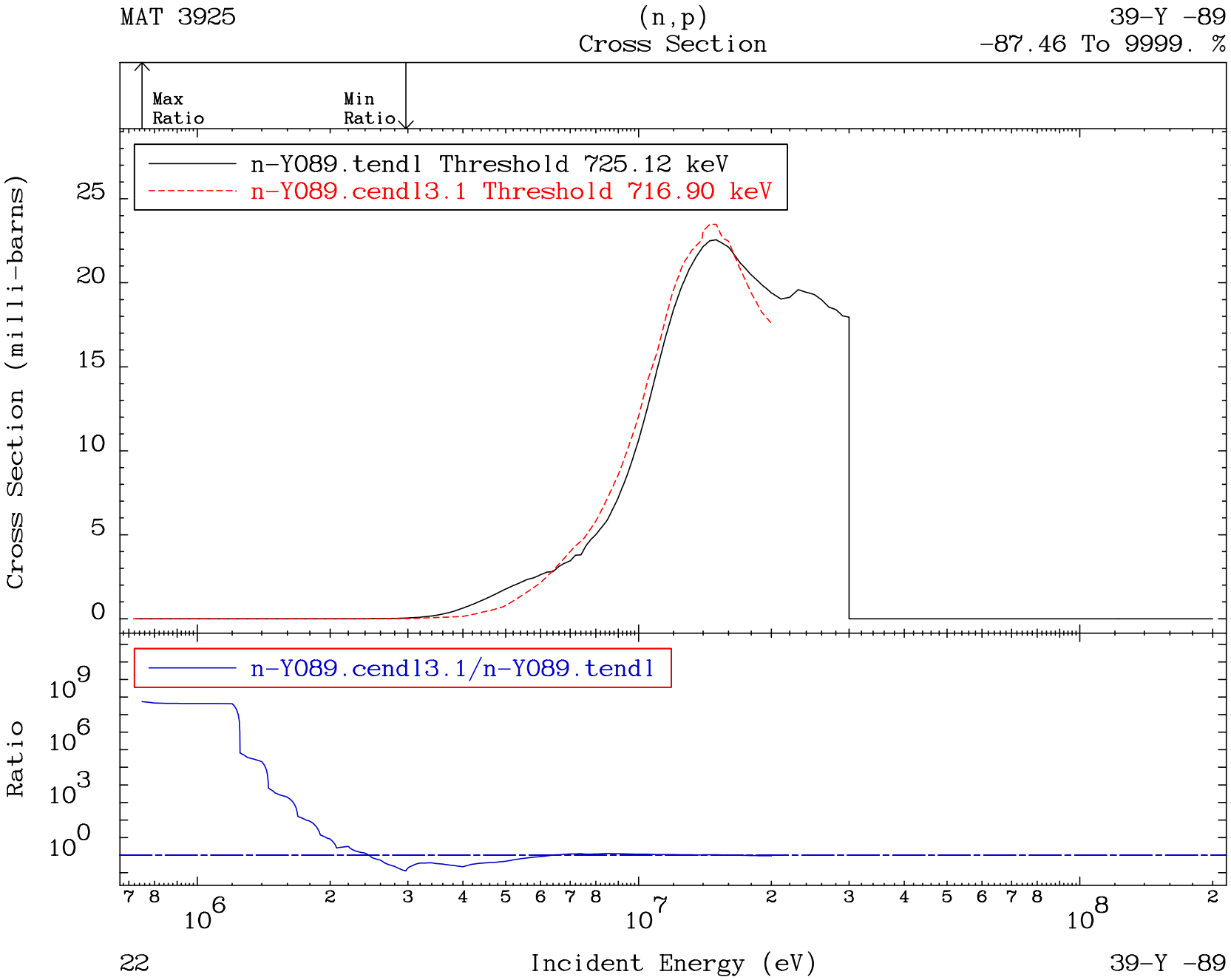

MAT 3925
MT= 61 (n,n') Level
Cross Section
39-Y -89
201.8 To 6173. %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 2.9258 MeV
n-Y089.cendl3.1 Threshold 3.1024 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
10^1
6
4
6
4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
17
Incident Energy (eV)
39-Y -89

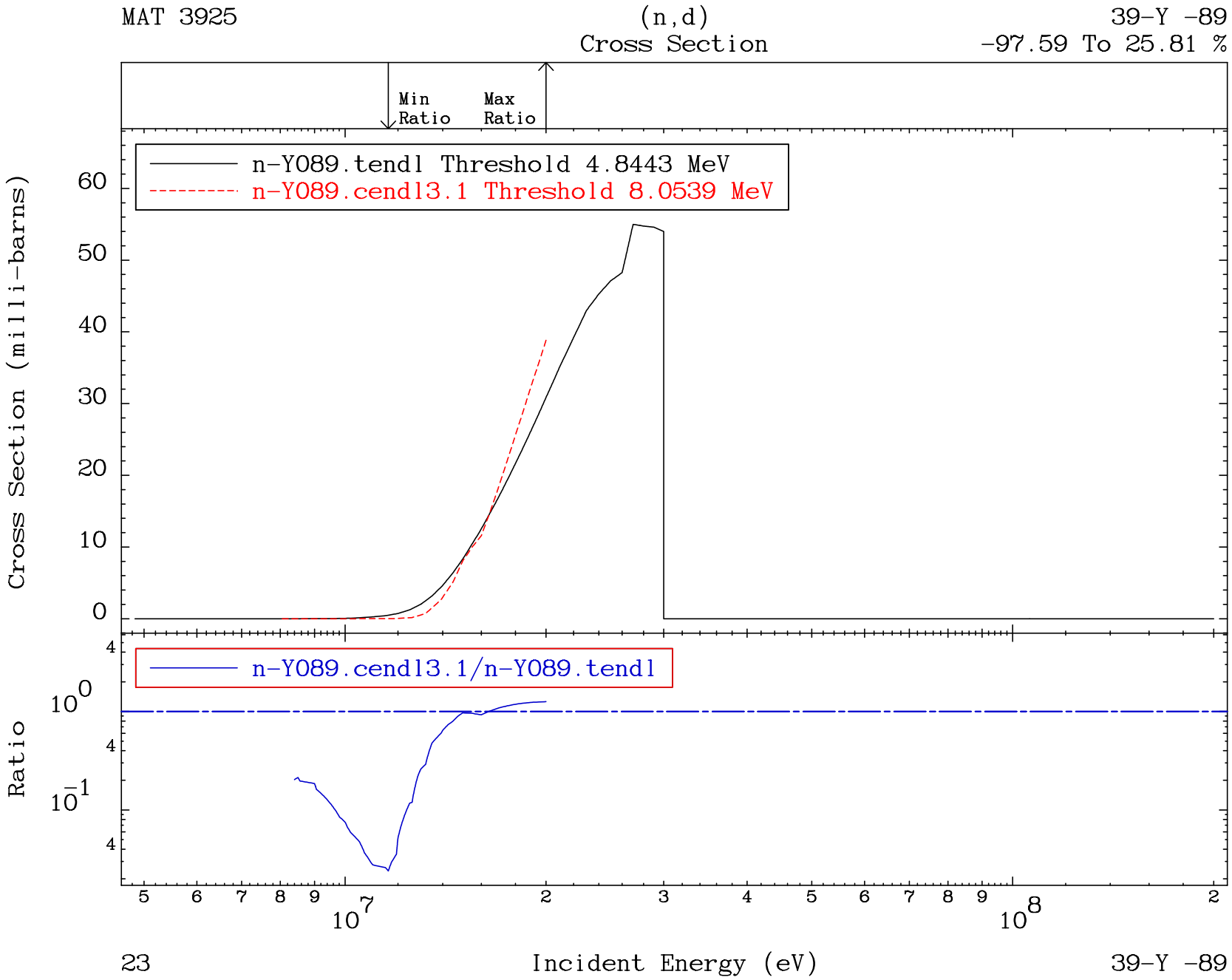

MAT 3925
MT= 62 (n,n') Level
Cross Section
39-Y -89
-52.11 To 9999. %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 3.1026 MeV
n-Y089.cendl3.1 Threshold 3.1424 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^6
10^4
10^2
10^0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
39-Y -89

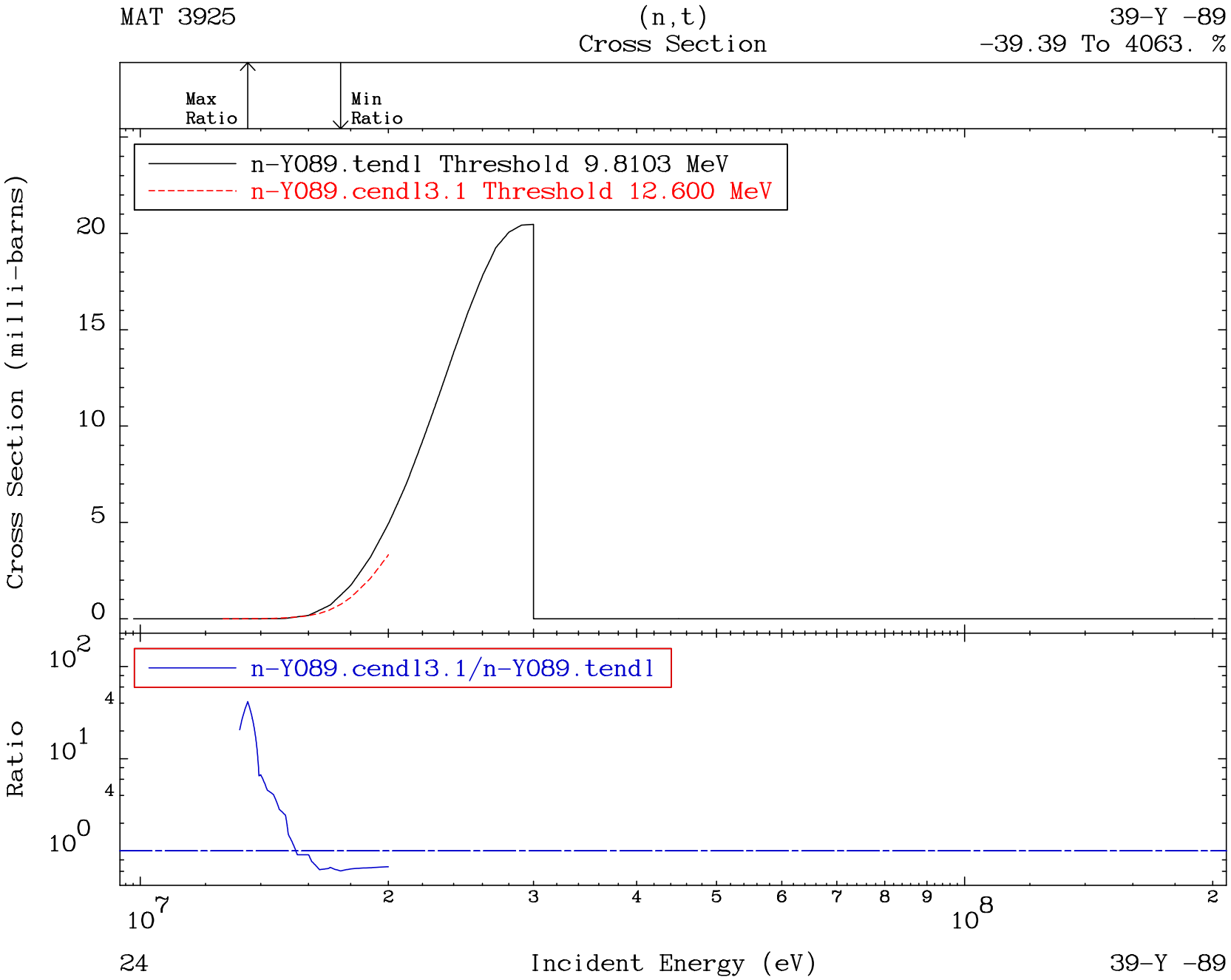

MAT 3925
MT= 63 (n,n') Level
Cross Section
39-Y -89
-65.66 To -24.43%
Max Ratio
Min Ratio
n-Y089.tendl Threshold 3.1425 MeV
n-Y089.cendl3.1 Threshold 3.1745 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
0.8
0.6
0.4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
39-Y -89

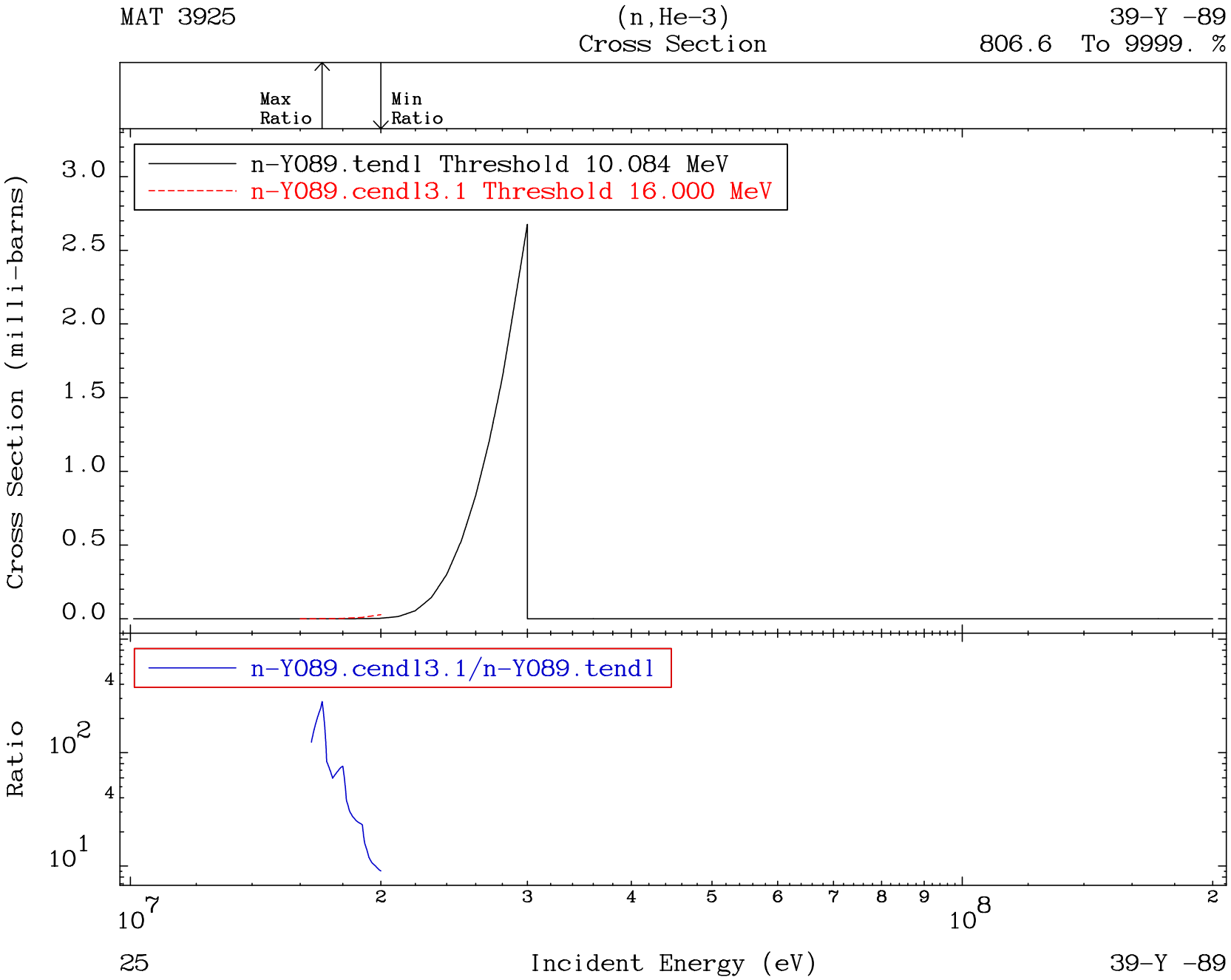

MAT 3925
(n,n') Continuum
Cross Section
39-Y -89
-34.38 To 8495. %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 3.8532 MeV
n-Y089.cendl3.1 Threshold 3.1745 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
10^1
10^0
4
10^7
10^8
Incident Energy (eV)
20
39-Y -89

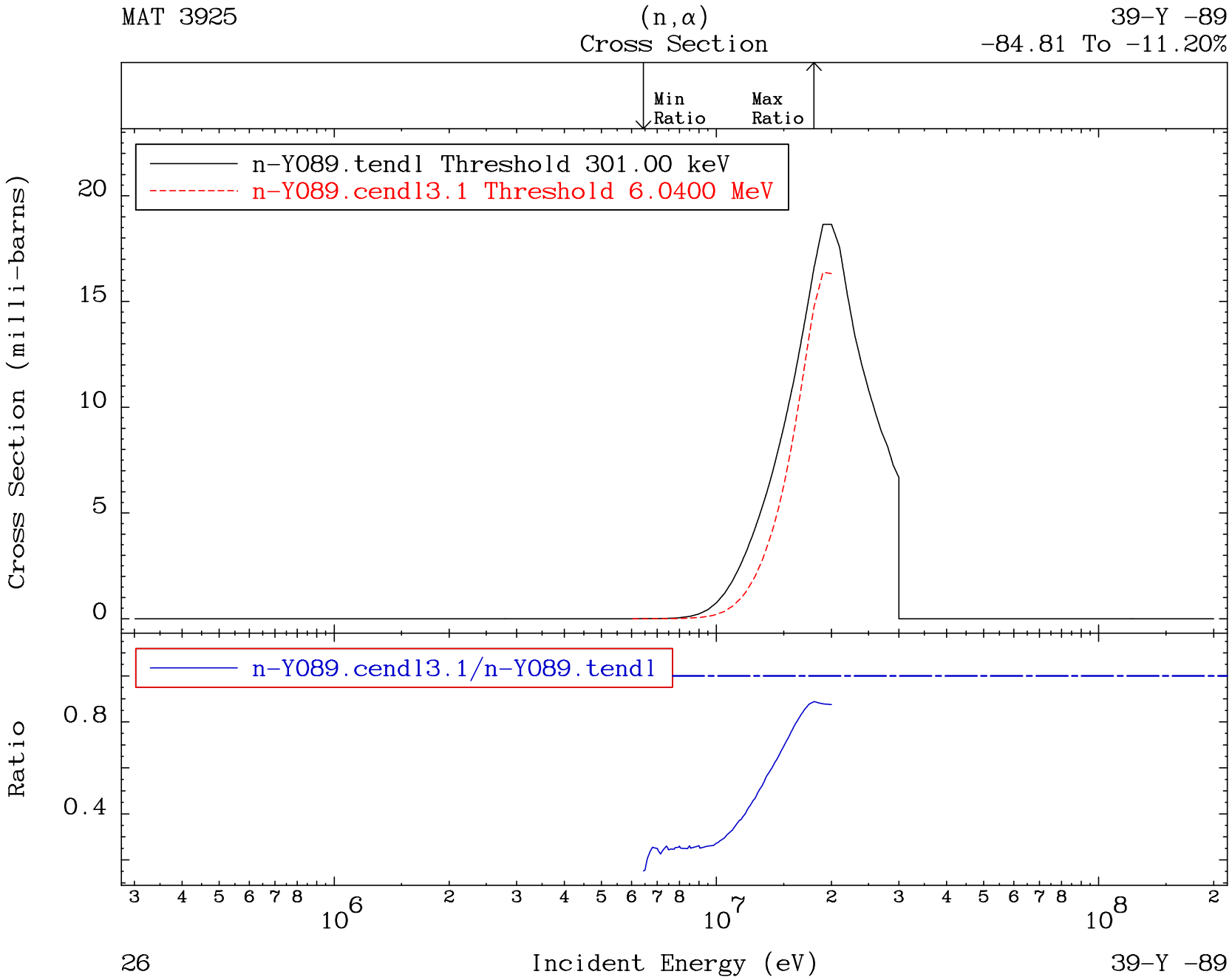

MAT 3925
(n,γ)
Cross Section
39-Y -89
-99.92 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
21
39-Y -89

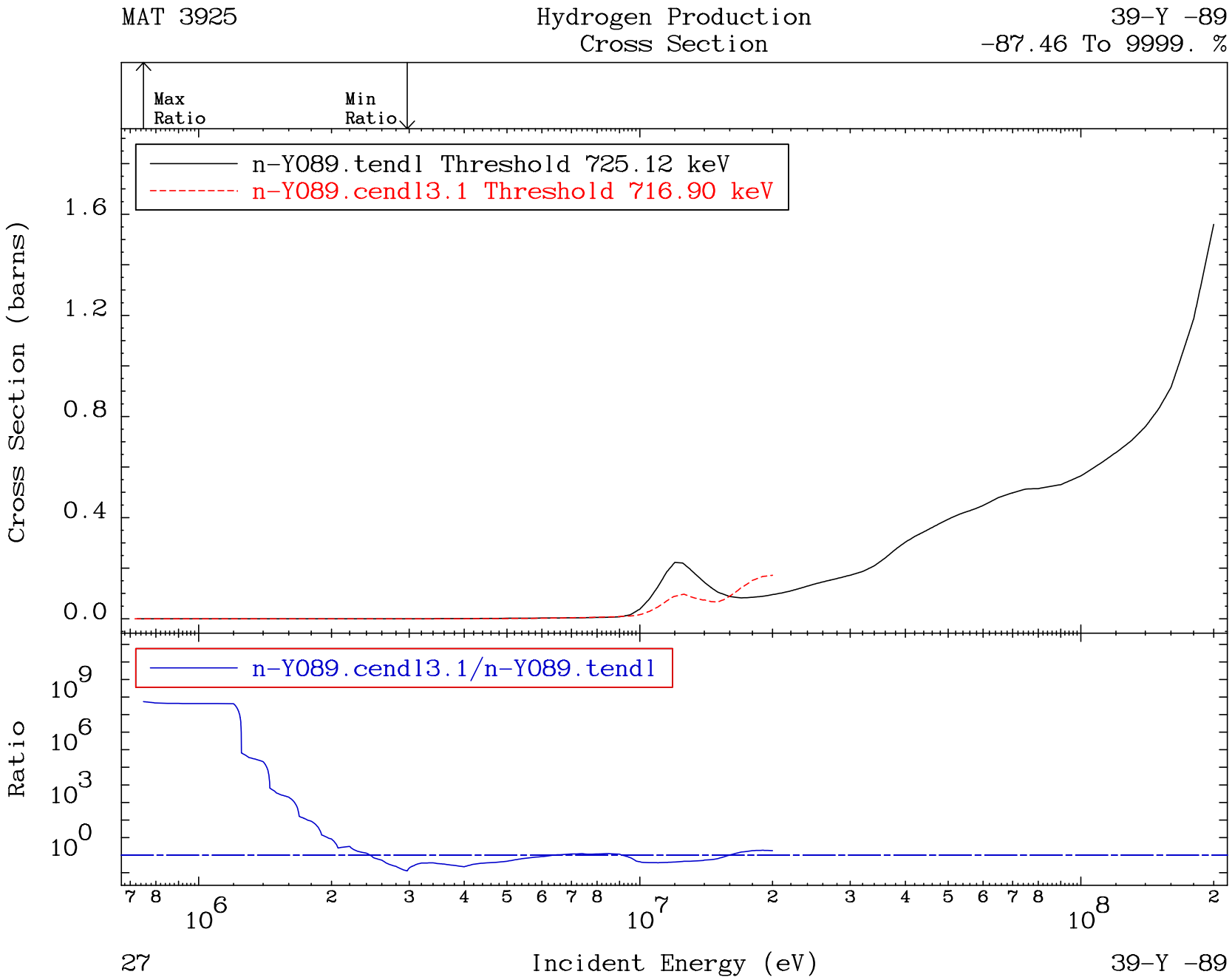

MAT 3925
(n,p)
Cross Section
39-Y -89
-87.46 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 725.12 keV
n-Y089.cendl3.1 Threshold 716.90 keV
Cross Section (milli-barns)
25
20
15
10
5
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^9
10^6
10^3
10^0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
39-Y -89

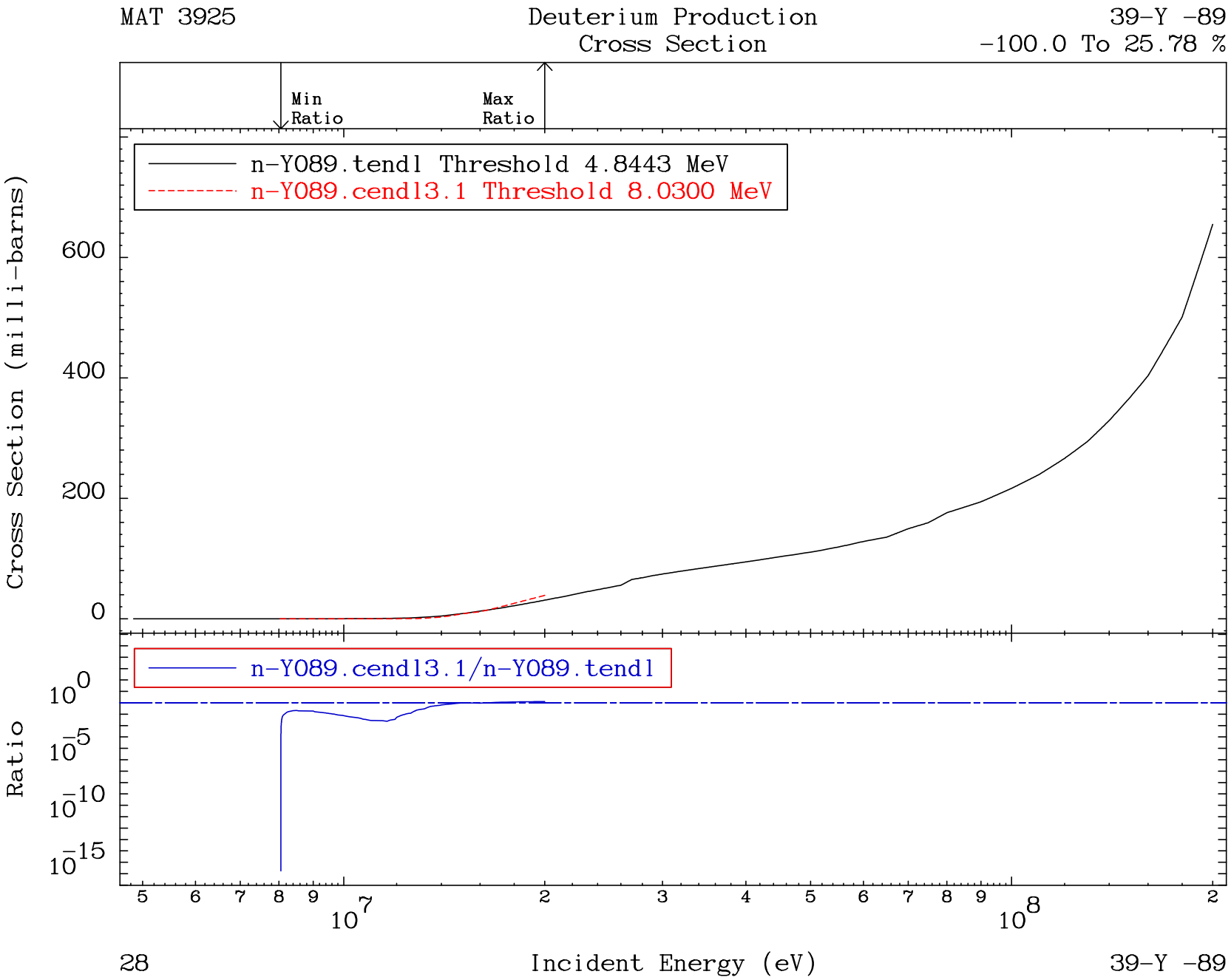

MAT 3925
(n,d)
Cross Section
39-Y -89
-97.59 To 25.81 %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 4.8443 MeV
n-Y089.cendl3.1 Threshold 8.0539 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^0
10^-1
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
39-Y -89

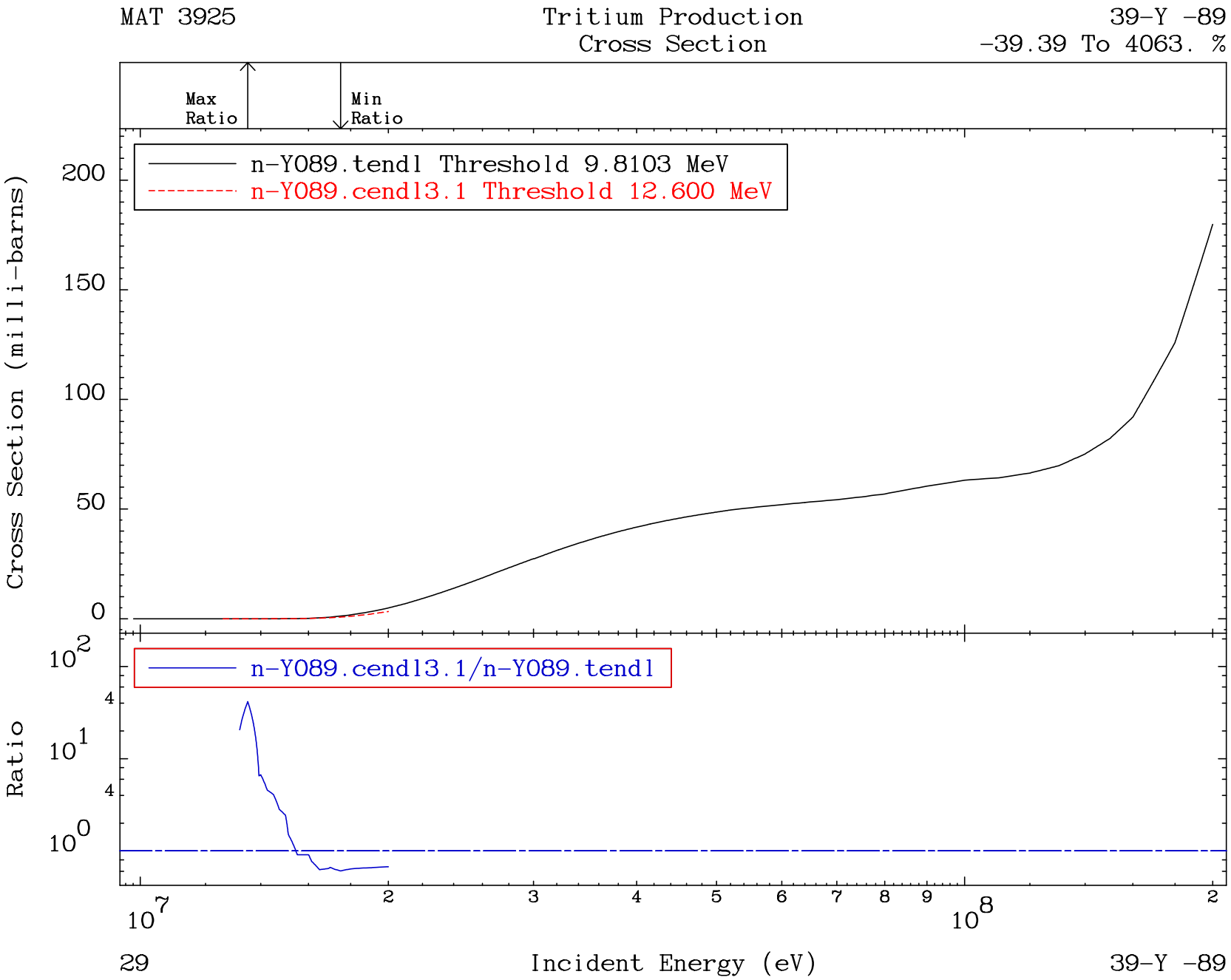

MAT 3925
(n,t)
Cross Section
39-Y -89
-39.39 To 4063. %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 9.8103 MeV
n-Y089.cendl3.1 Threshold 12.600 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
4
10^1
4
10^0
10^7
2
3
4
5
6
7
8
9
10^8
2
24
Incident Energy (eV)
39-Y -89

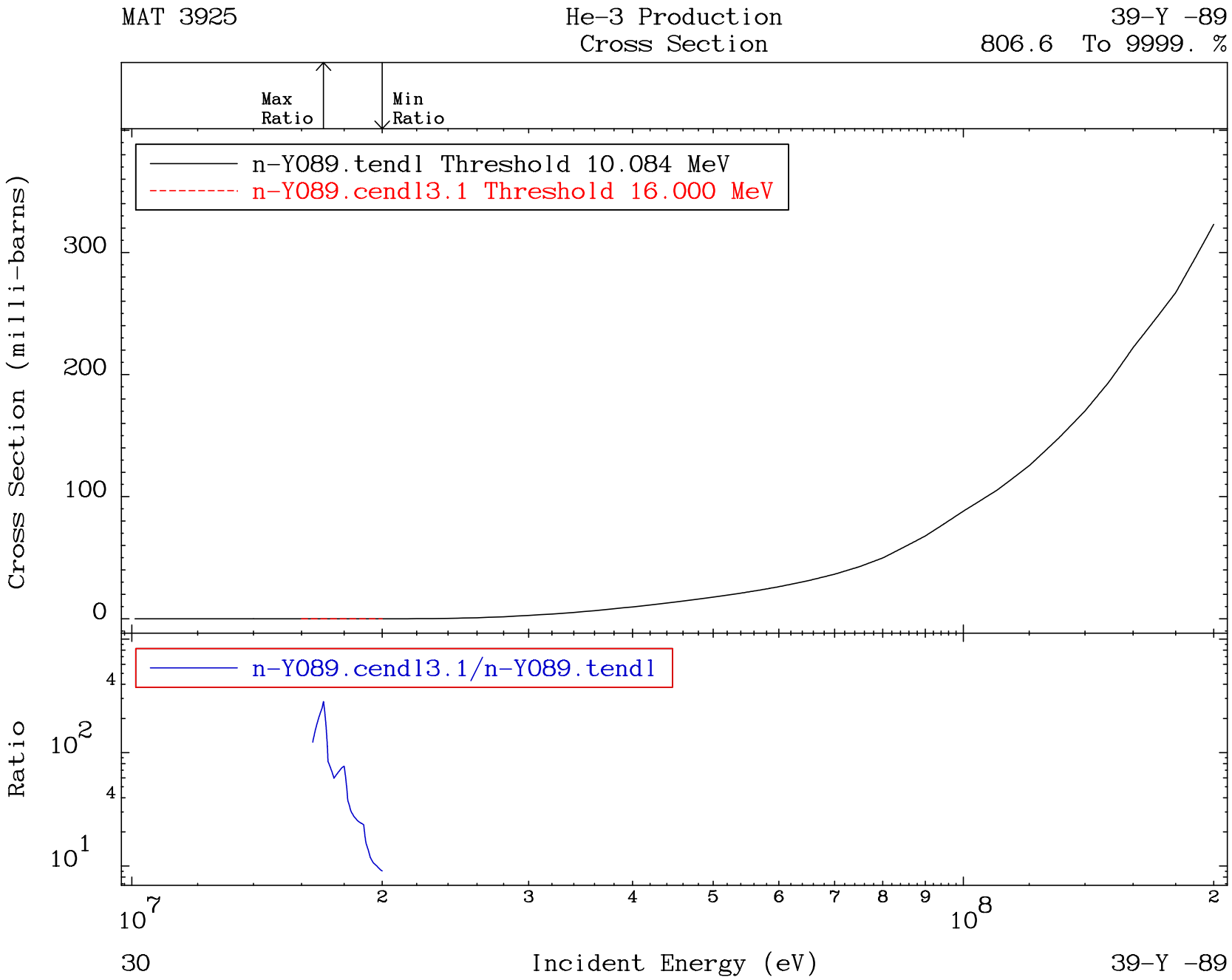

MAT 3925
(n,He-3)
Cross Section
39-Y -89
806.6 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 10.084 MeV
n-Y089.cendl3.1 Threshold 16.000 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
4
10^1
10^7
2
3
4
5
6
7
8
9
10^8
2
25
Incident Energy (eV)
39-Y -89

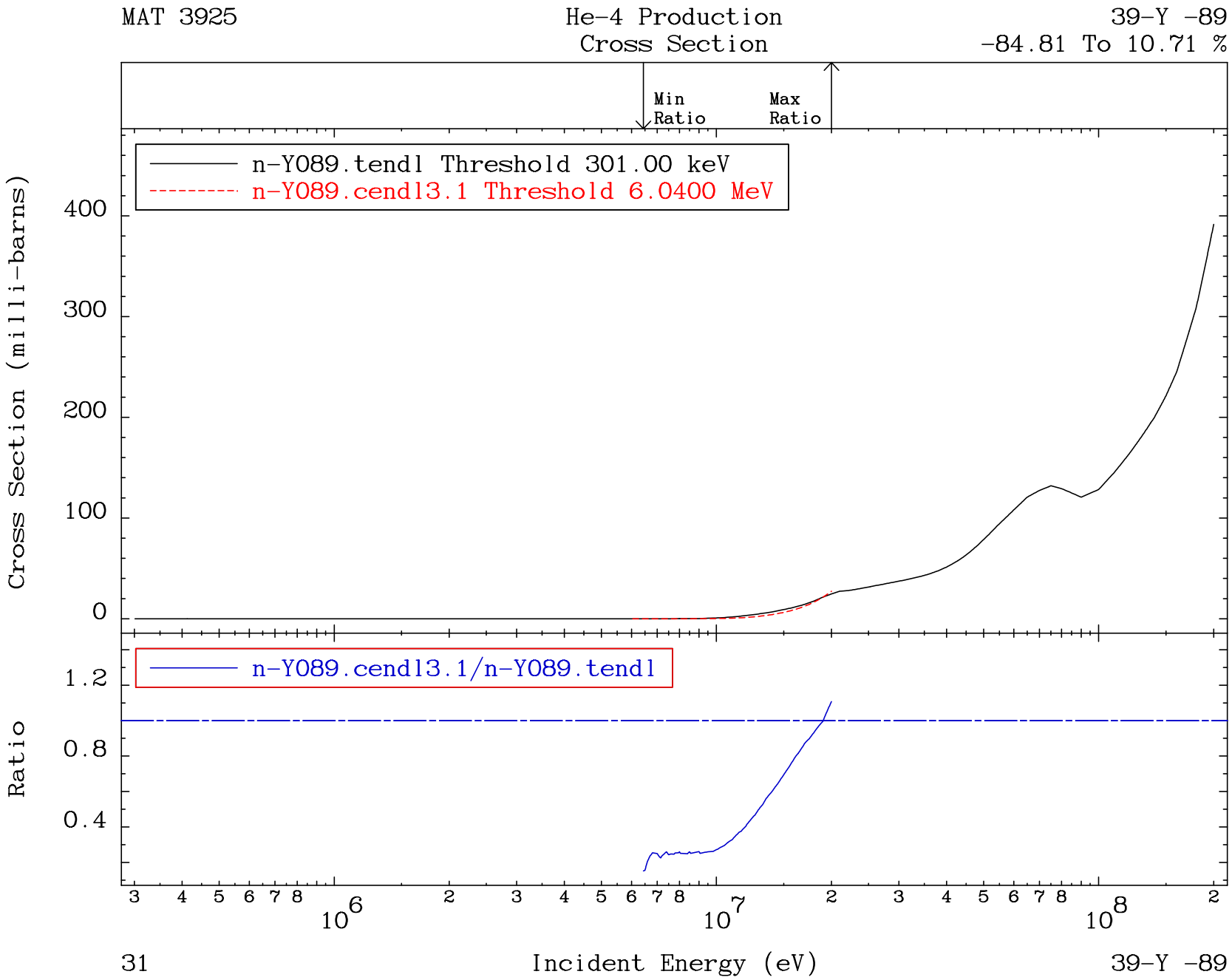

MAT 3925
(n,α)
Cross Section
39-Y -89
-84.81 To -11.20%
Min Ratio
Max Ratio
n-Y089.tendl Threshold 301.00 keV
n-Y089.cendl3.1 Threshold 6.0400 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
0.8
0.4
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
26
Incident Energy (eV)
39-Y -89

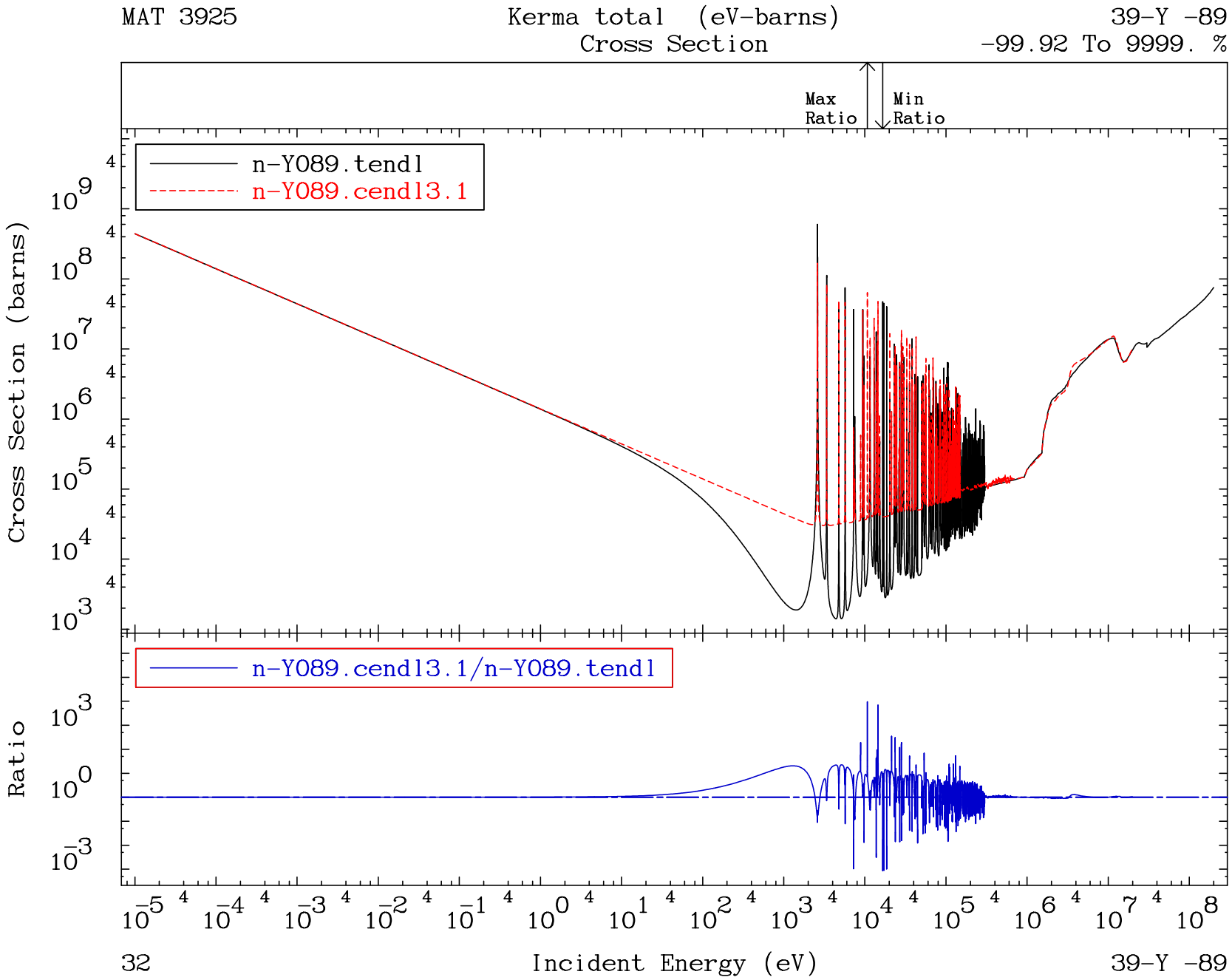

MAT 3925
Hydrogen Production
Cross Section
39-Y -89
-87.46 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 725.12 keV
n-Y089.cendl3.1 Threshold 716.90 keV
Cross Section (barns)
1.6
1.2
0.8
0.4
0.0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^9
10^6
10^3
10^0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
27
Incident Energy (eV)
39-Y -89

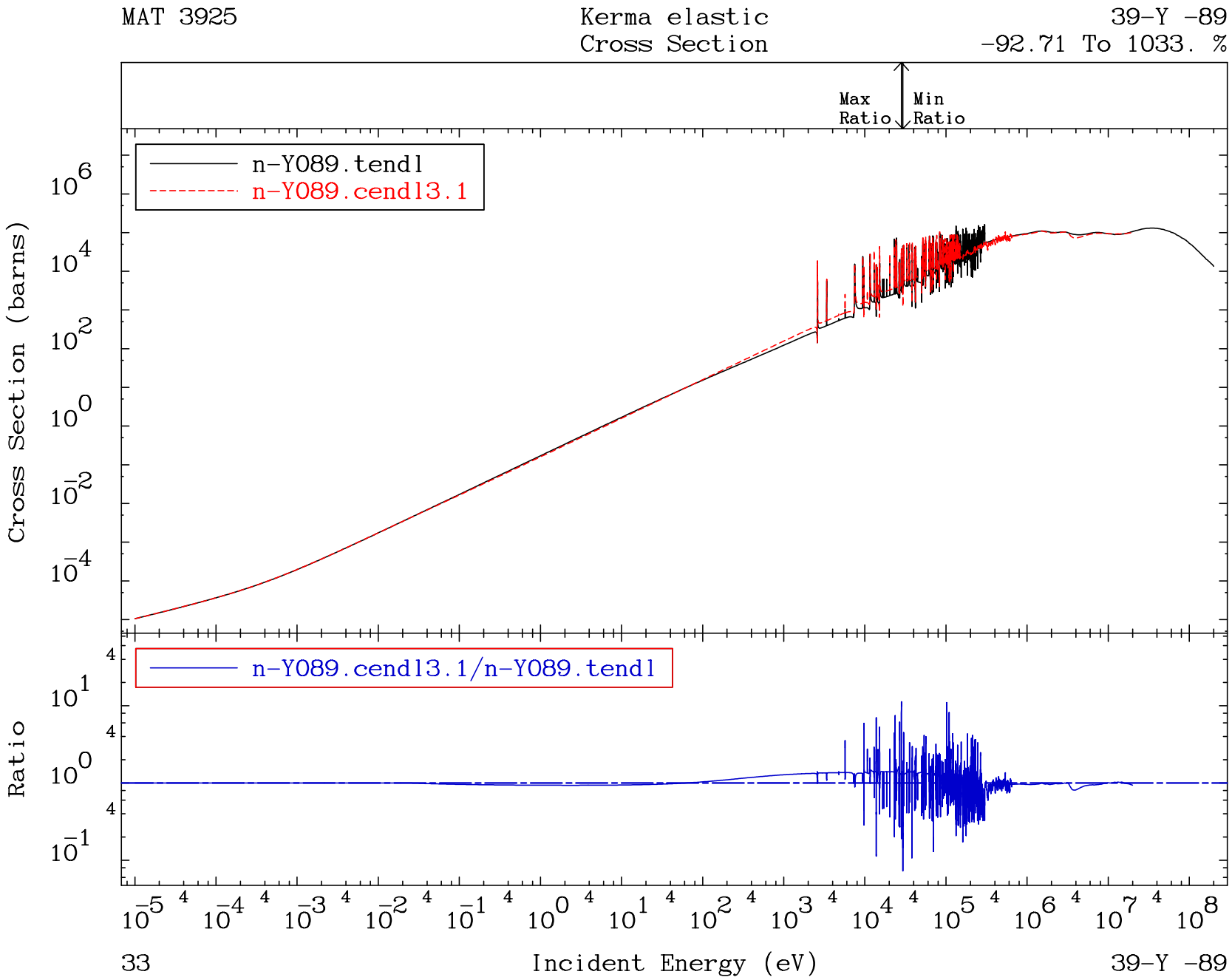

MAT 3925
Deuterium Production
Cross Section
39-Y -89
-100.0 To 25.78 %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 4.8443 MeV
n-Y089.cendl3.1 Threshold 8.0300 MeV
Cross Section (milli-barns)
600
400
200
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^0
10^-5
10^-10
10^-15
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
28
Incident Energy (eV)
39-Y -89

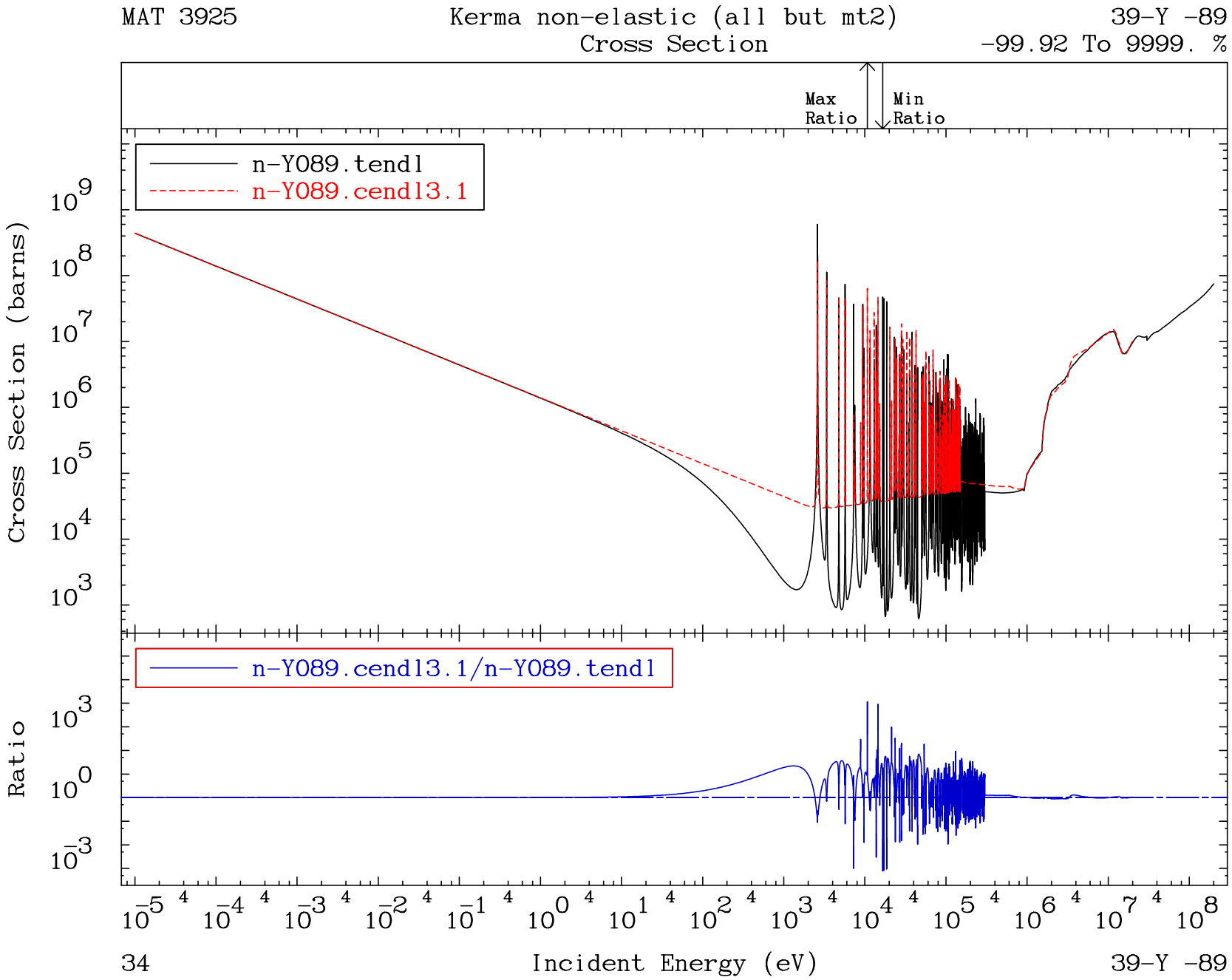

MAT 3925
Tritium Production
Cross Section
39-Y -89
-39.39 To 4063. %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 9.8103 MeV
n-Y089.cendl3.1 Threshold 12.600 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^2
10^1
10^0
4
4
10^7
2
3
4
5
6
7
8
9
10^8
2
29
Incident Energy (eV)
39-Y -89

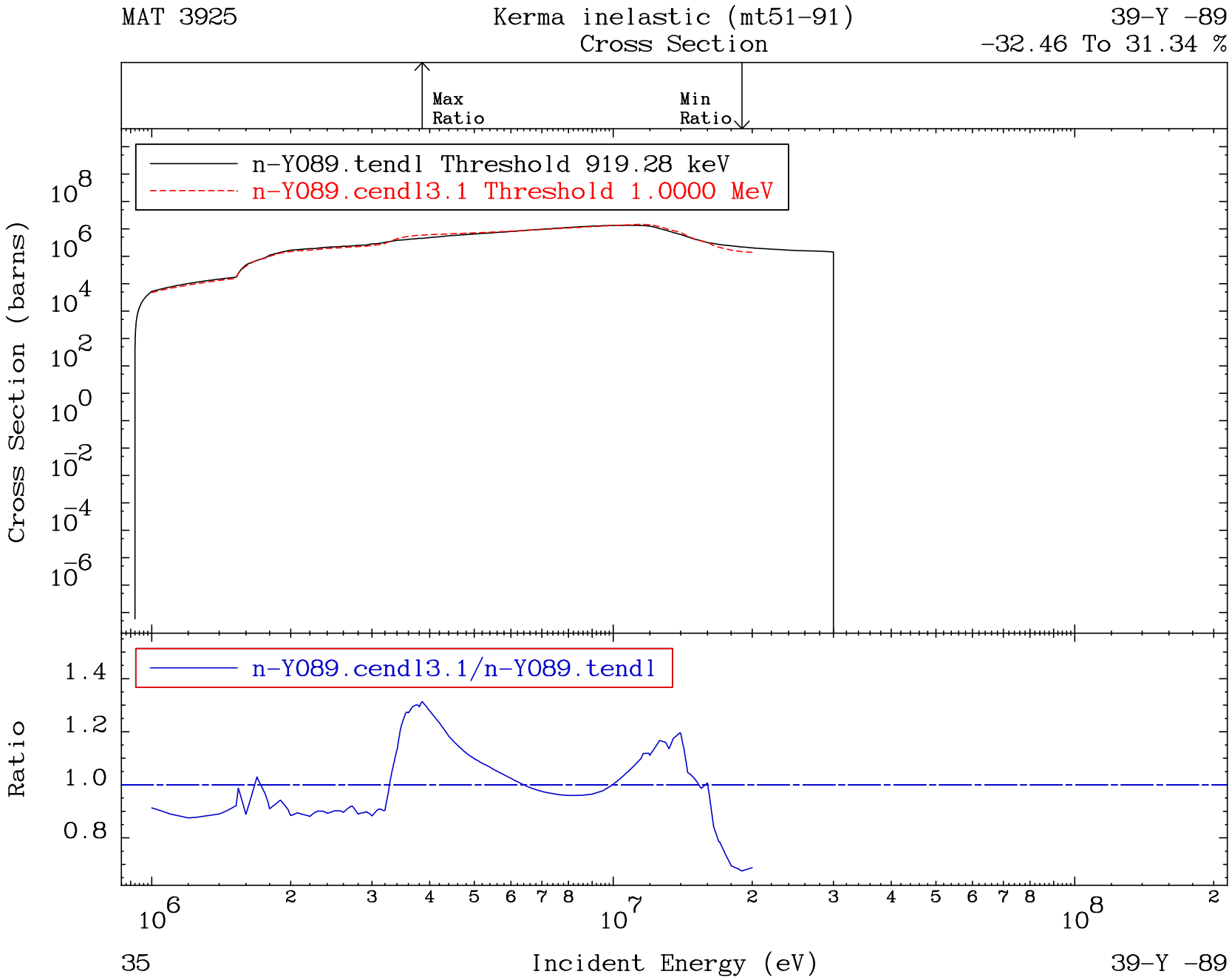

MAT 3925
He-3 Production
Cross Section
39-Y -89
806.6 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 10.084 MeV
n-Y089.cendl3.1 Threshold 16.000 MeV
Cross Section (milli-barns)
300
200
100
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
4
10^2
4
10^1
10^7
2
3
4
5
6
7
8
9
10^8
2
30
Incident Energy (eV)
39-Y -89

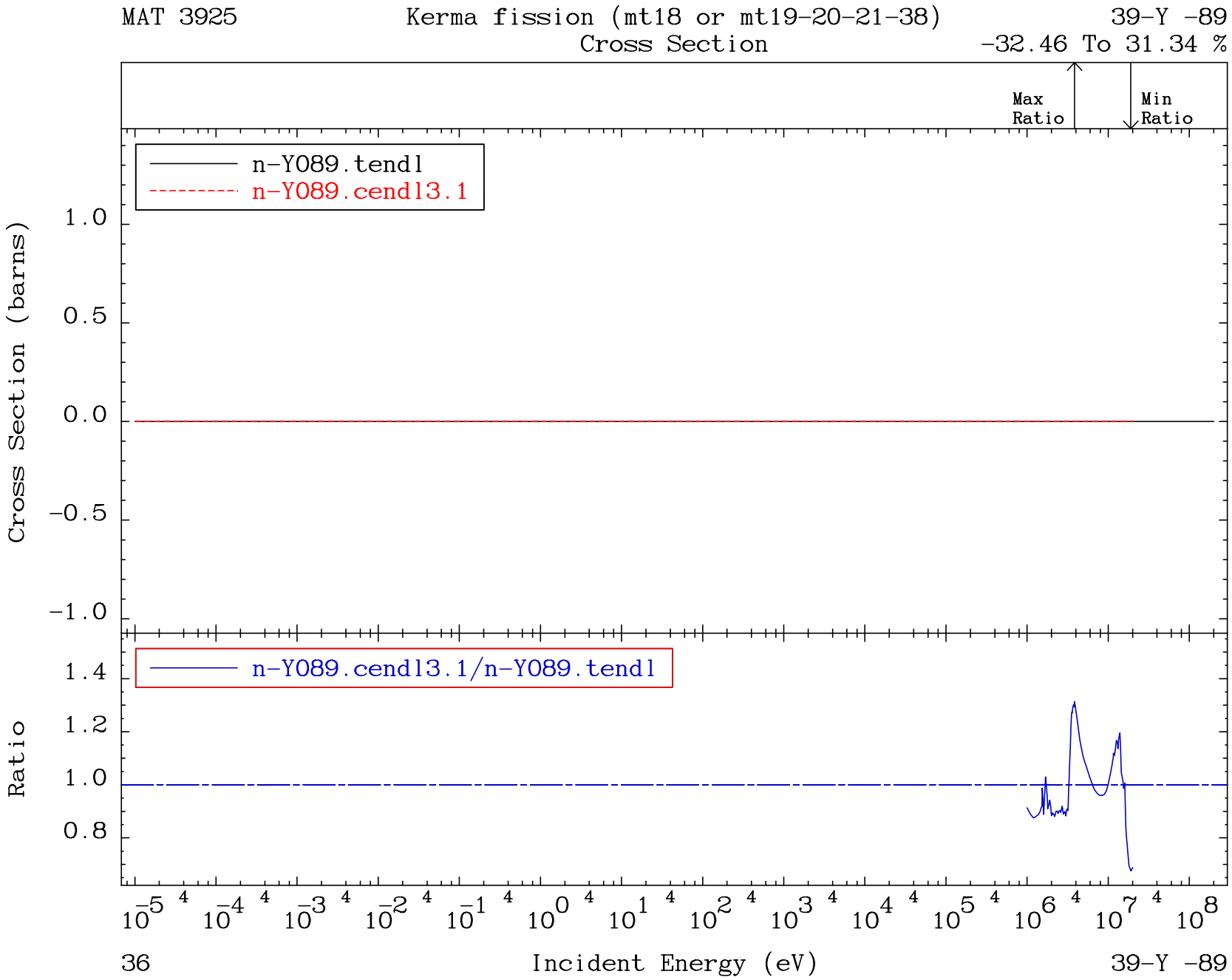

MAT 3925
He-4 Production
Cross Section
39-Y -89
-84.81 To 10.71 %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 301.00 keV
n-Y089.cendl3.1 Threshold 6.0400 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
1.2
0.8
0.4
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
39-Y -89

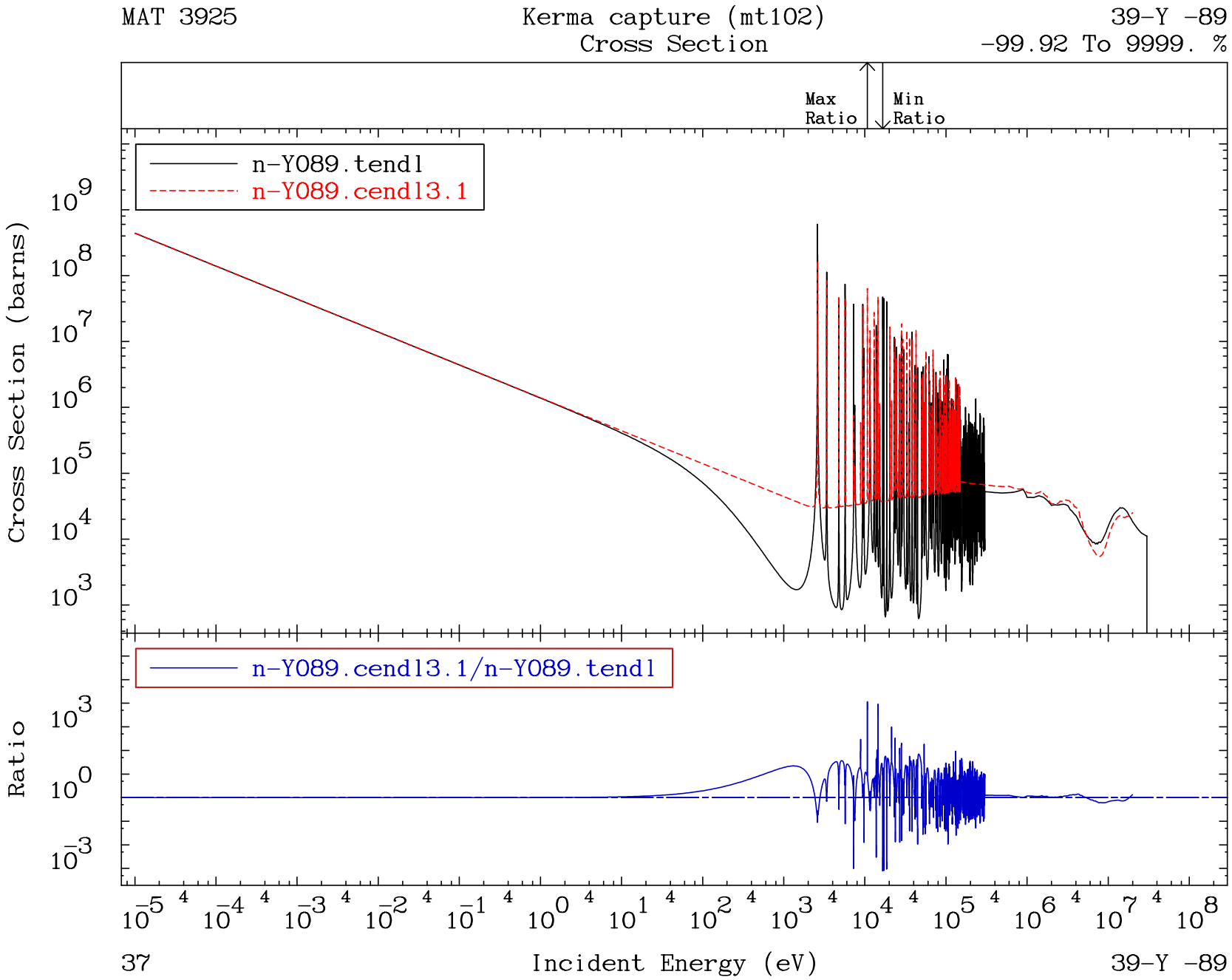

MAT 3925
Kerma total (eV-barns)
Cross Section
39-Y -89
-99.92 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
32
39-Y -89

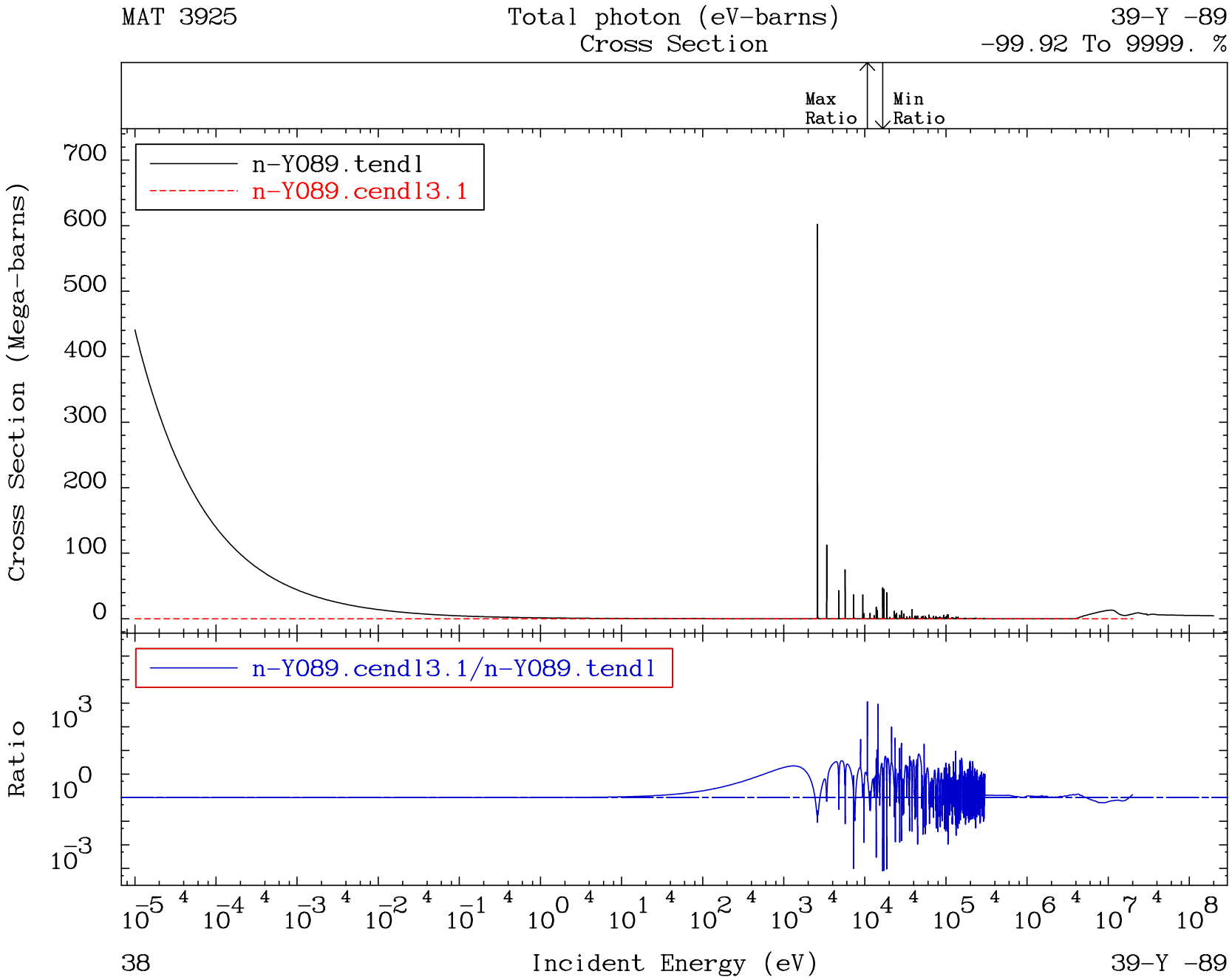

MAT 3925
Kerma elastic
Cross Section
39-Y -89
-92.71 To 1033. %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
33
39-Y -89

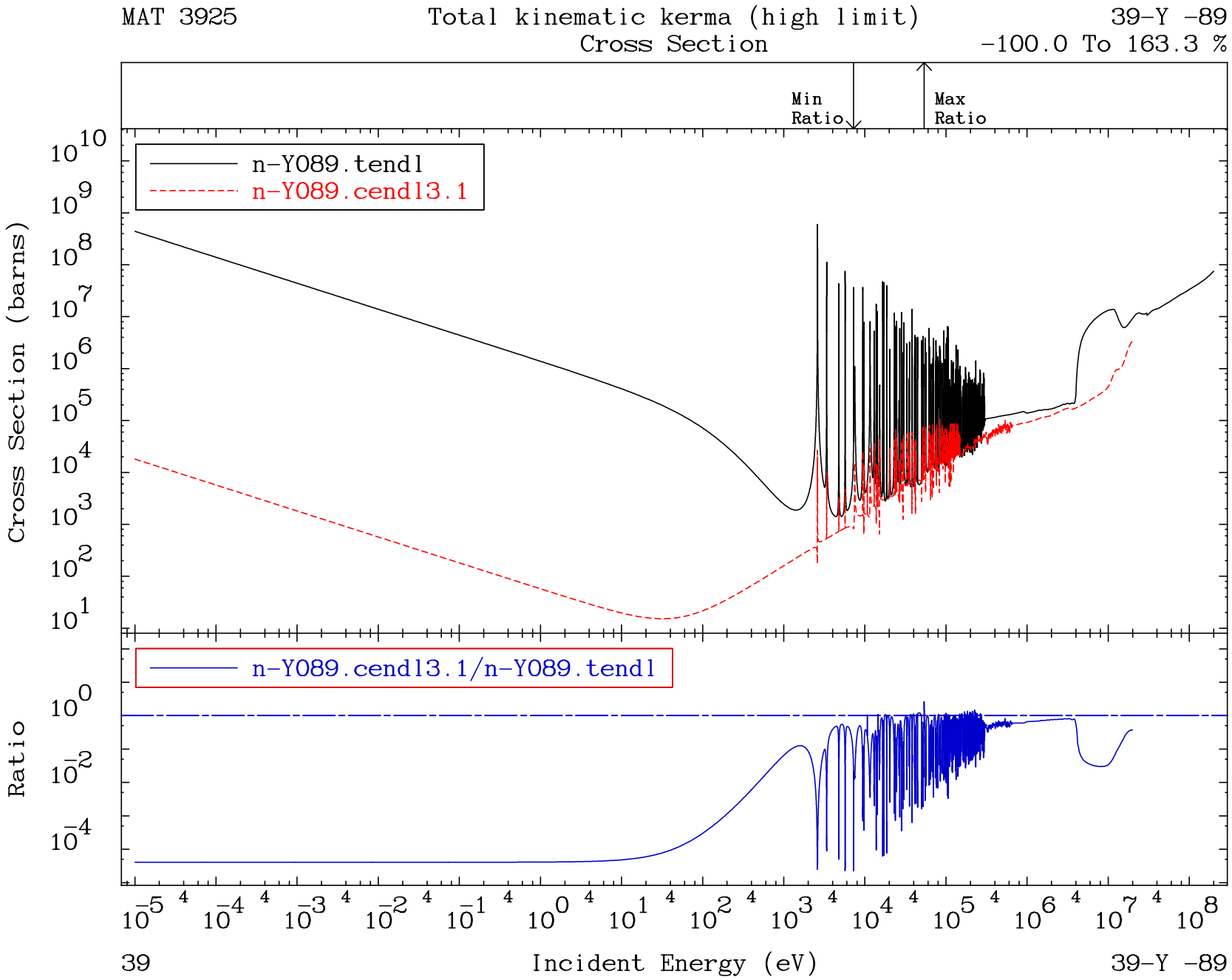

MAT 3925
Kerma non-elastic (all but mt2)
Cross Section
39-Y -89
-99.92 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
34
39-Y -89

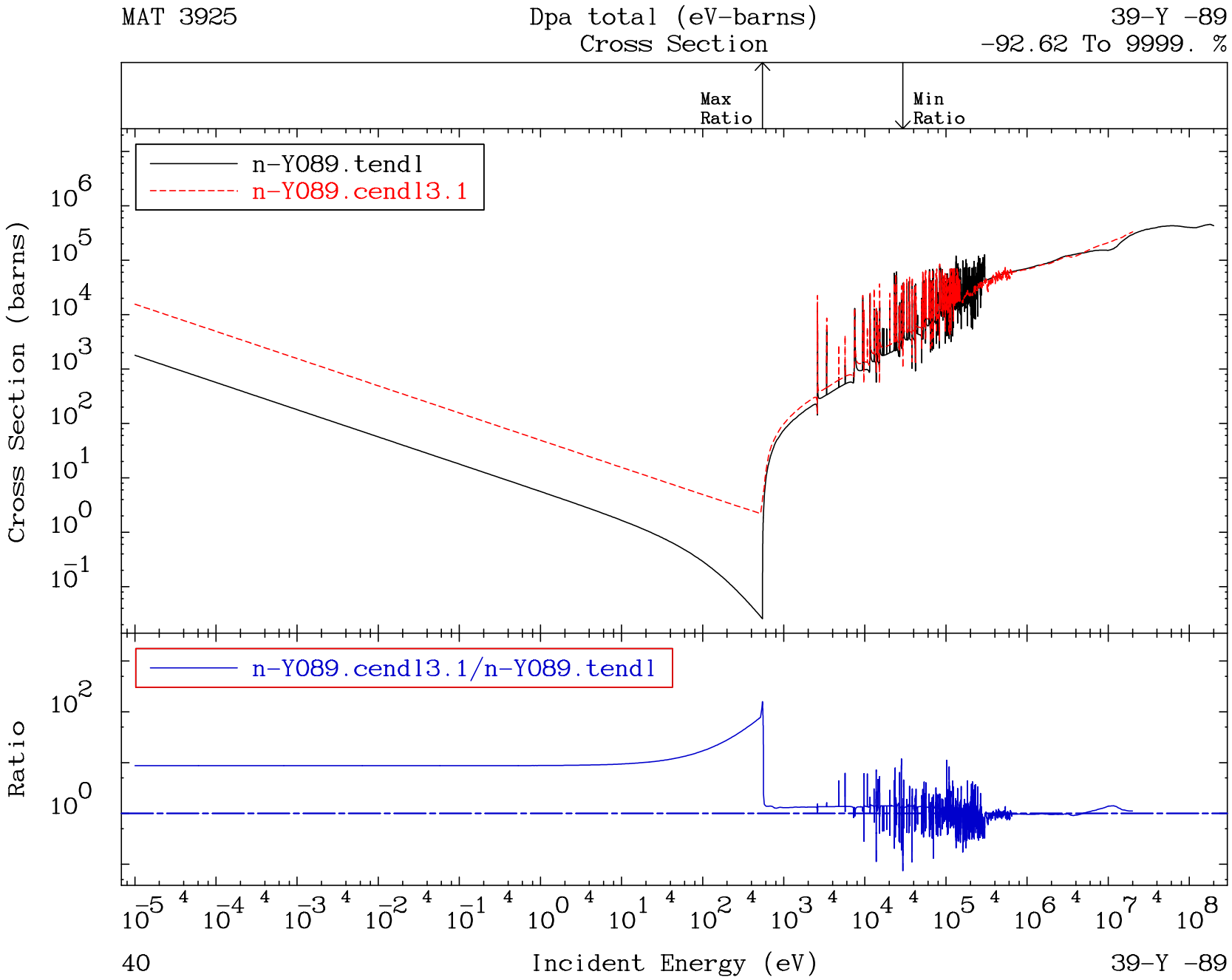

MAT 3925
Kerma inelastic (mt51-91)
Cross Section
39-Y -89
-32.46 To 31.34 %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 919.28 keV
n-Y089.cendl3.1 Threshold 1.0000 MeV
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
35
39-Y -89

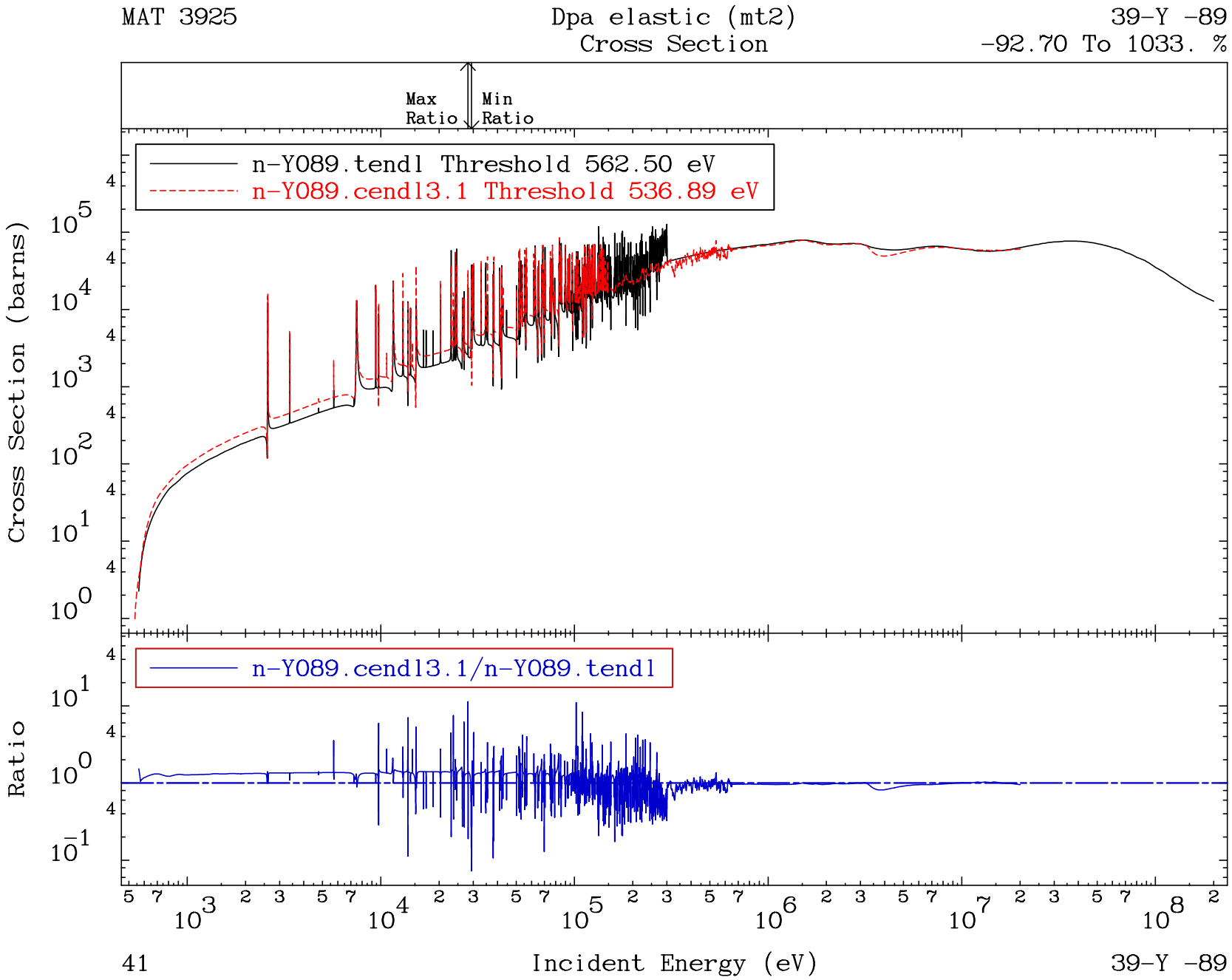

MAT 3925
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
39-Y -89
-32.46 To 31.34 %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
1.4
1.2
1.0
0.8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
36
Incident Energy (eV)
39-Y -89

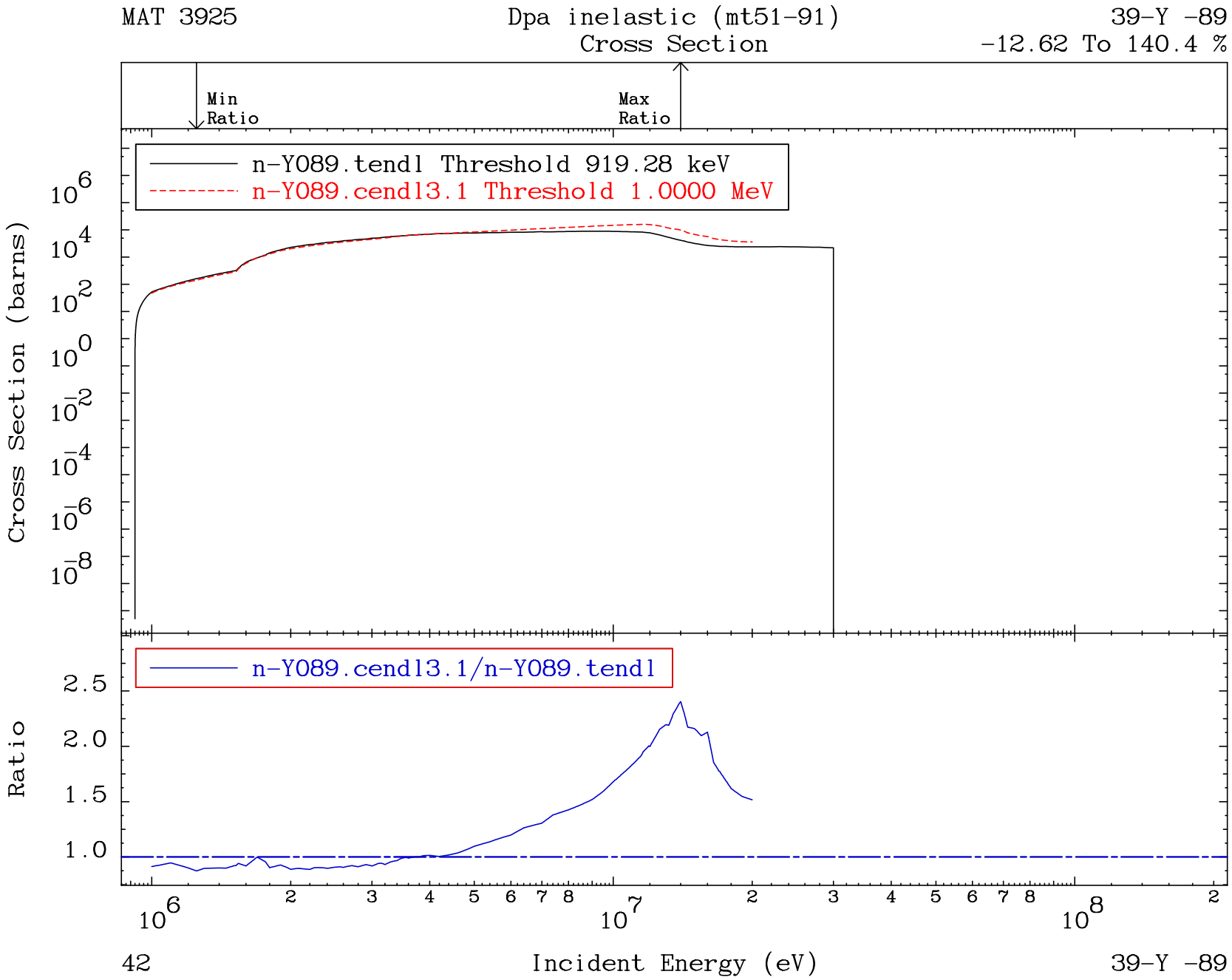

MAT 3925
Kerma capture (mt102)
Cross Section
39-Y -89
-99.92 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
37
39-Y -89

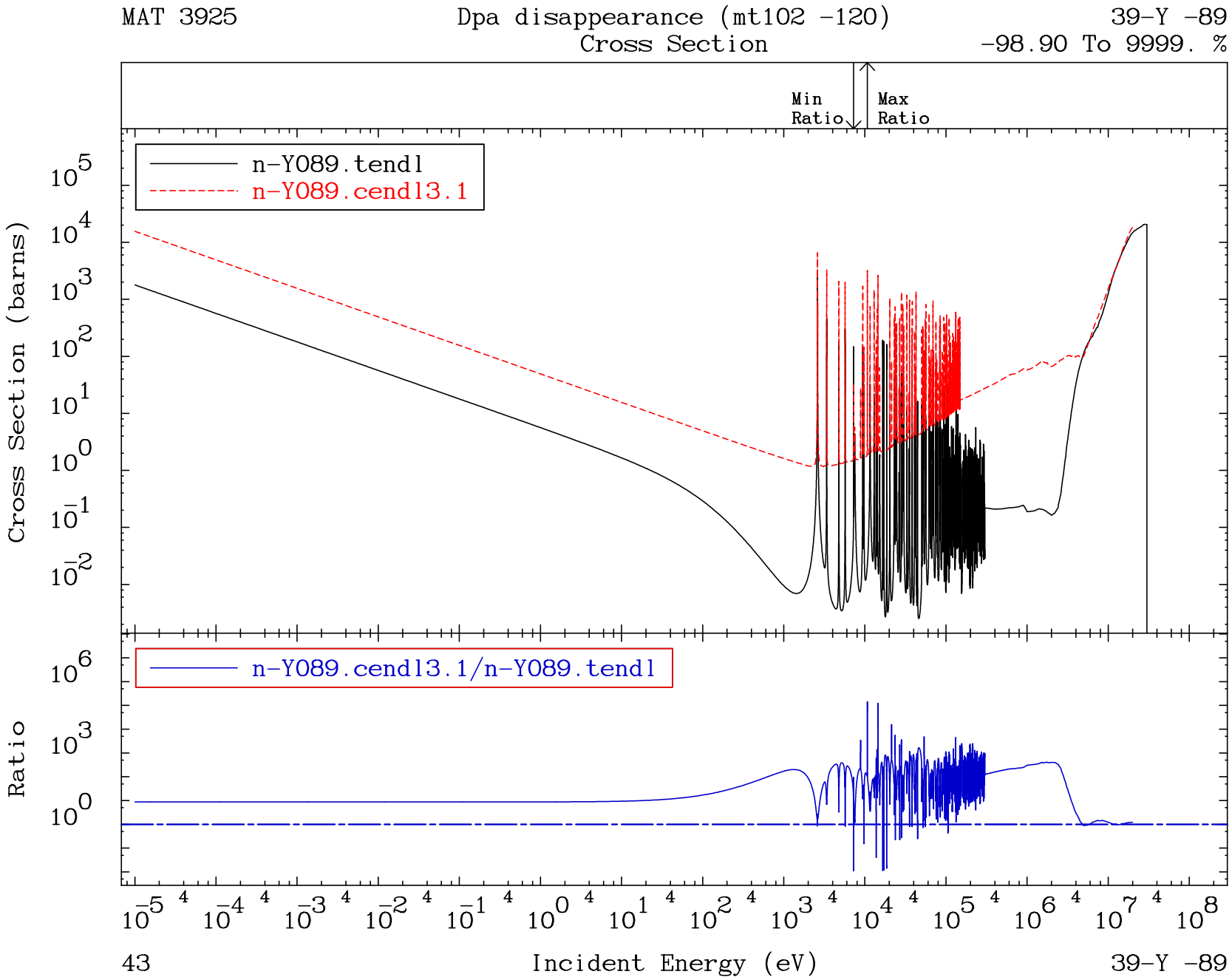

MAT 3925
Total photon (eV-barns)
Cross Section
39-Y -89
-99.92 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (Mega-barns)
700
600
500
400
300
200
100
0
n-Y089.cendl3.1/n-Y089.tendl
Ratio
10^3
10^0
10^-3
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7
10^8
38
Incident Energy (eV)
39-Y -89


MAT 3925
Total kinematic kerma (high limit)
Cross Section
39-Y -89
-100.0 To 163.3 %
Min Ratio
Max Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
39
39-Y -89


MAT 3925
Dpa total (eV-barns)
Cross Section
39-Y -89
-92.62 To 9999. %
Max Ratio
Min Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
40
39-Y -89


MAT 3925
Dpa elastic (mt2)
Cross Section
39-Y -89
-92.70 To 1033. %
Max Ratio
Min Ratio
n-Y089.tendl Threshold 562.50 eV
n-Y089.cendl3.1 Threshold 536.89 eV
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
41
39-Y -89


MAT 3925
Dpa inelastic (mt51-91)
Cross Section
39-Y -89
-12.62 To 140.4 %
Min Ratio
Max Ratio
n-Y089.tendl Threshold 919.28 keV
n-Y089.cendl3.1 Threshold 1.0000 MeV
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
42
39-Y -89


MAT 3925
Dpa disappearance (mt102 -120)
Cross Section
39-Y -89
-98.90 To 9999. %
Min Ratio
Max Ratio
n-Y089.tendl
n-Y089.cendl3.1
Cross Section (barns)
n-Y089.cendl3.1/n-Y089.tendl
Ratio
Incident Energy (eV)
43
39-Y -89