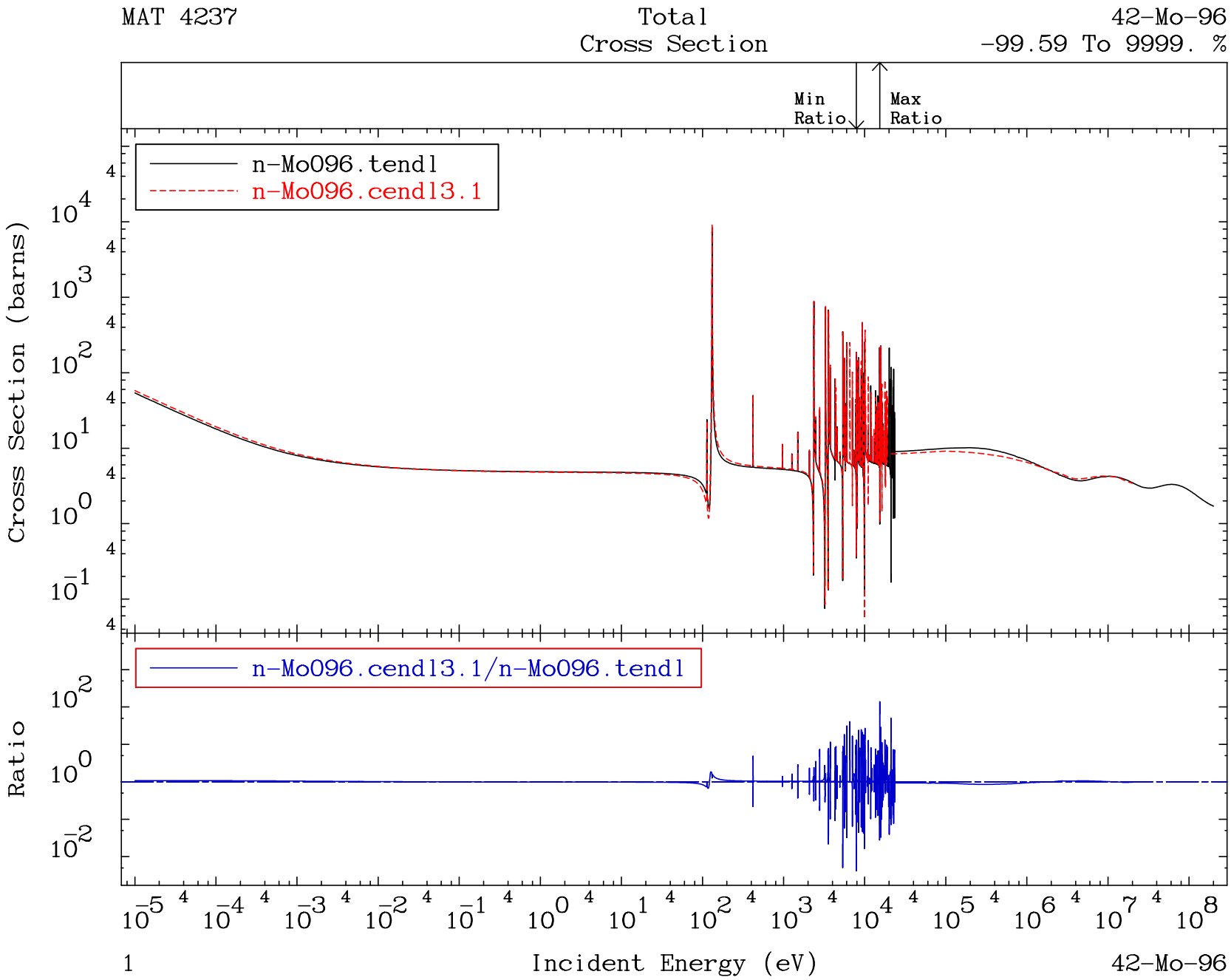
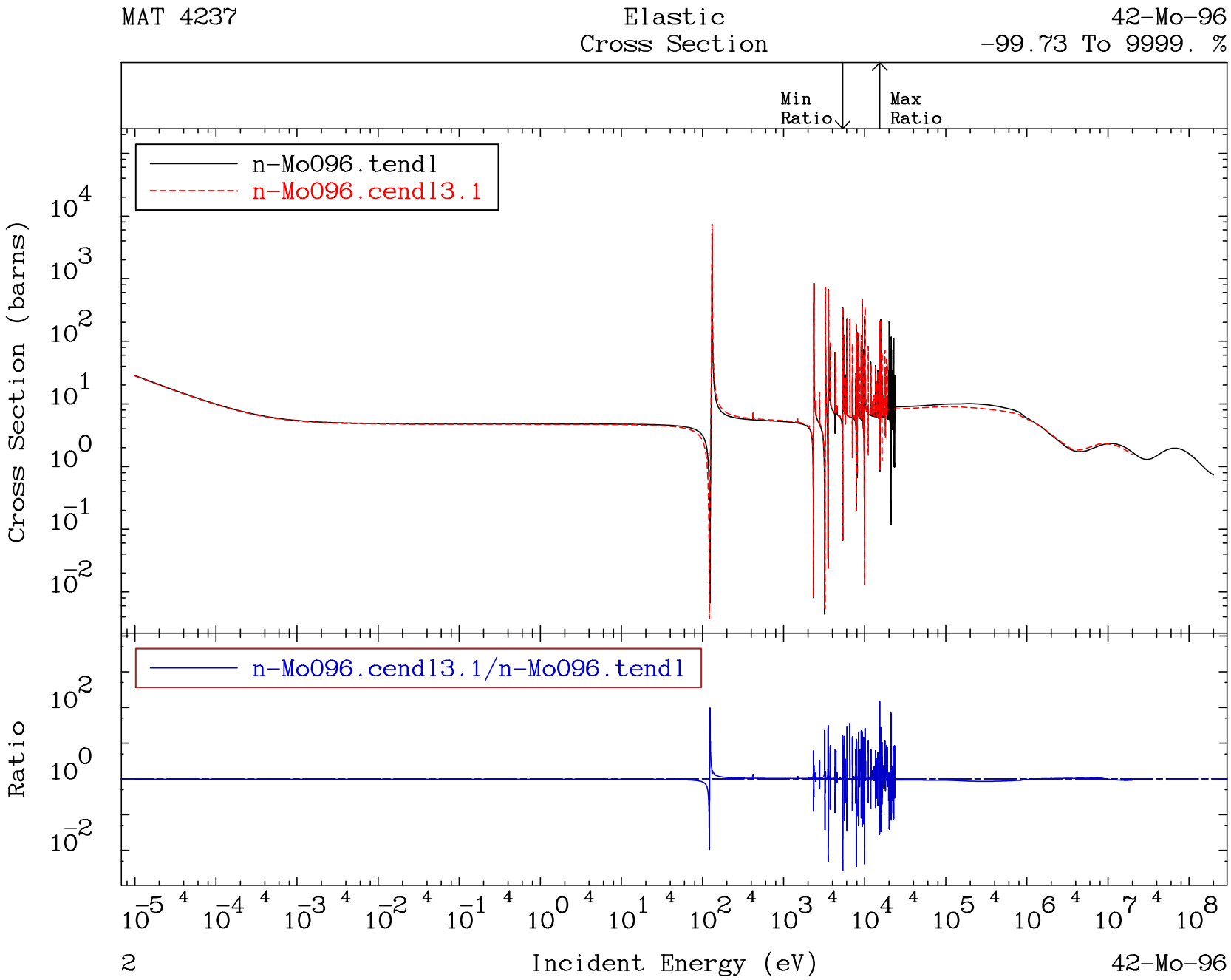
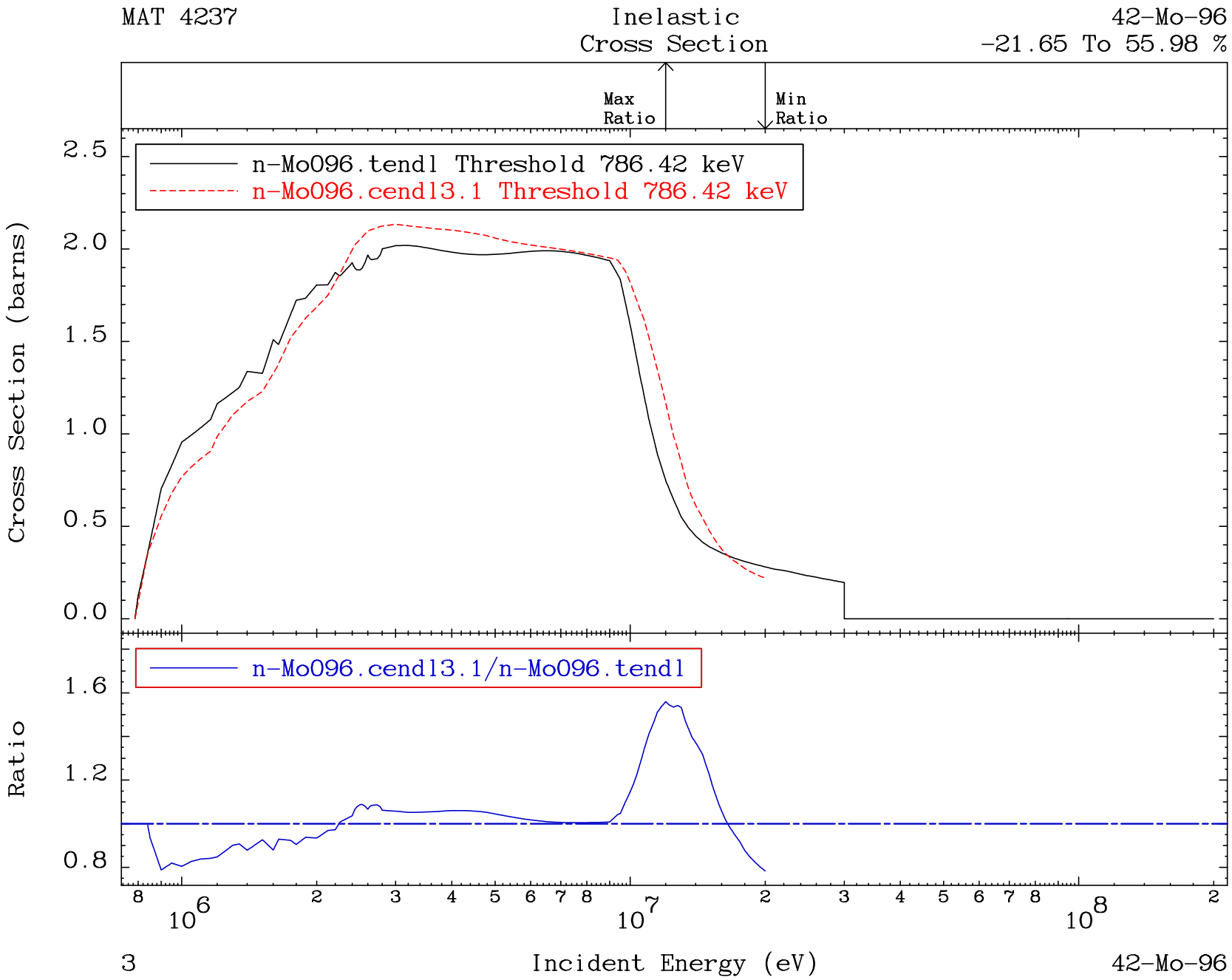
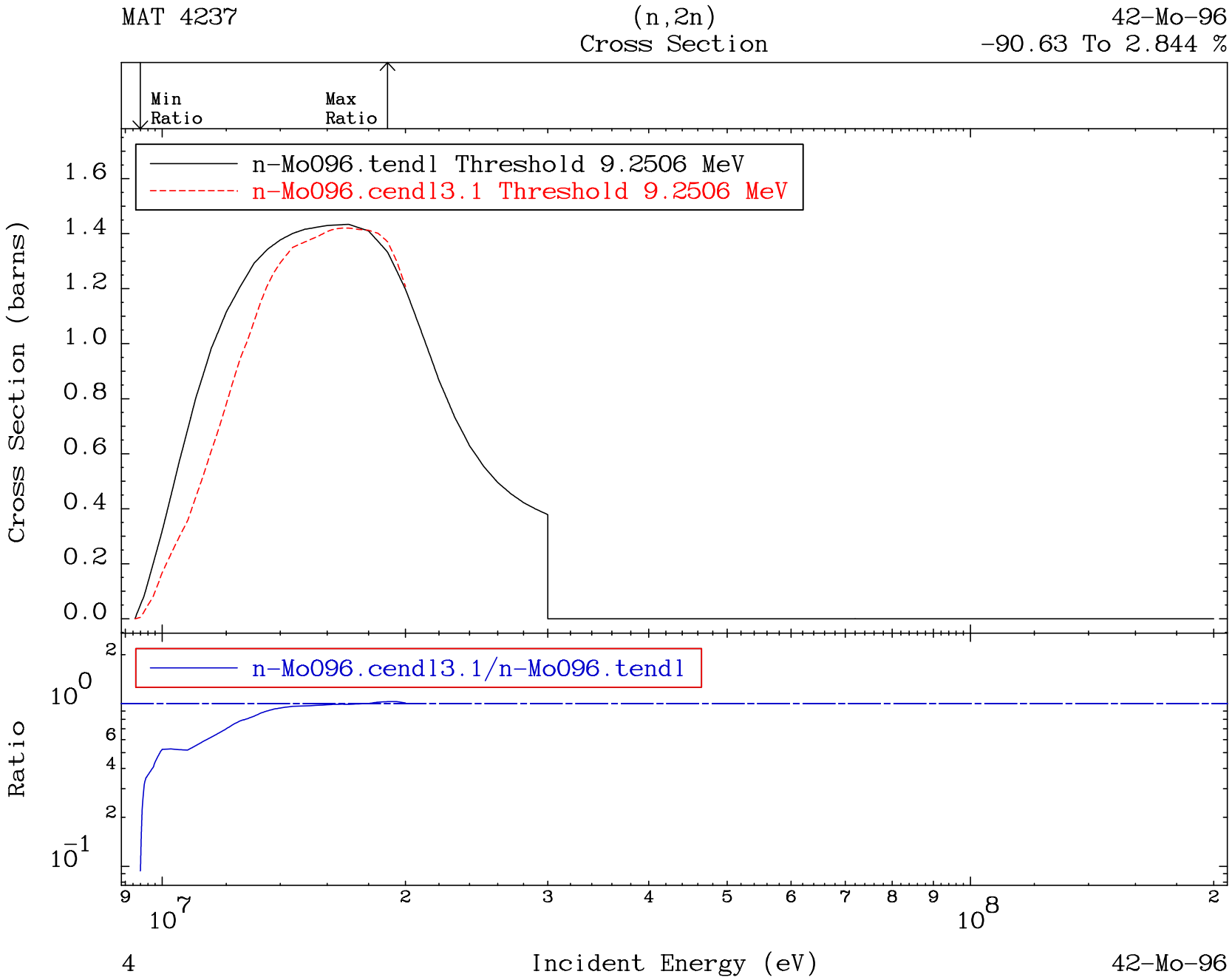
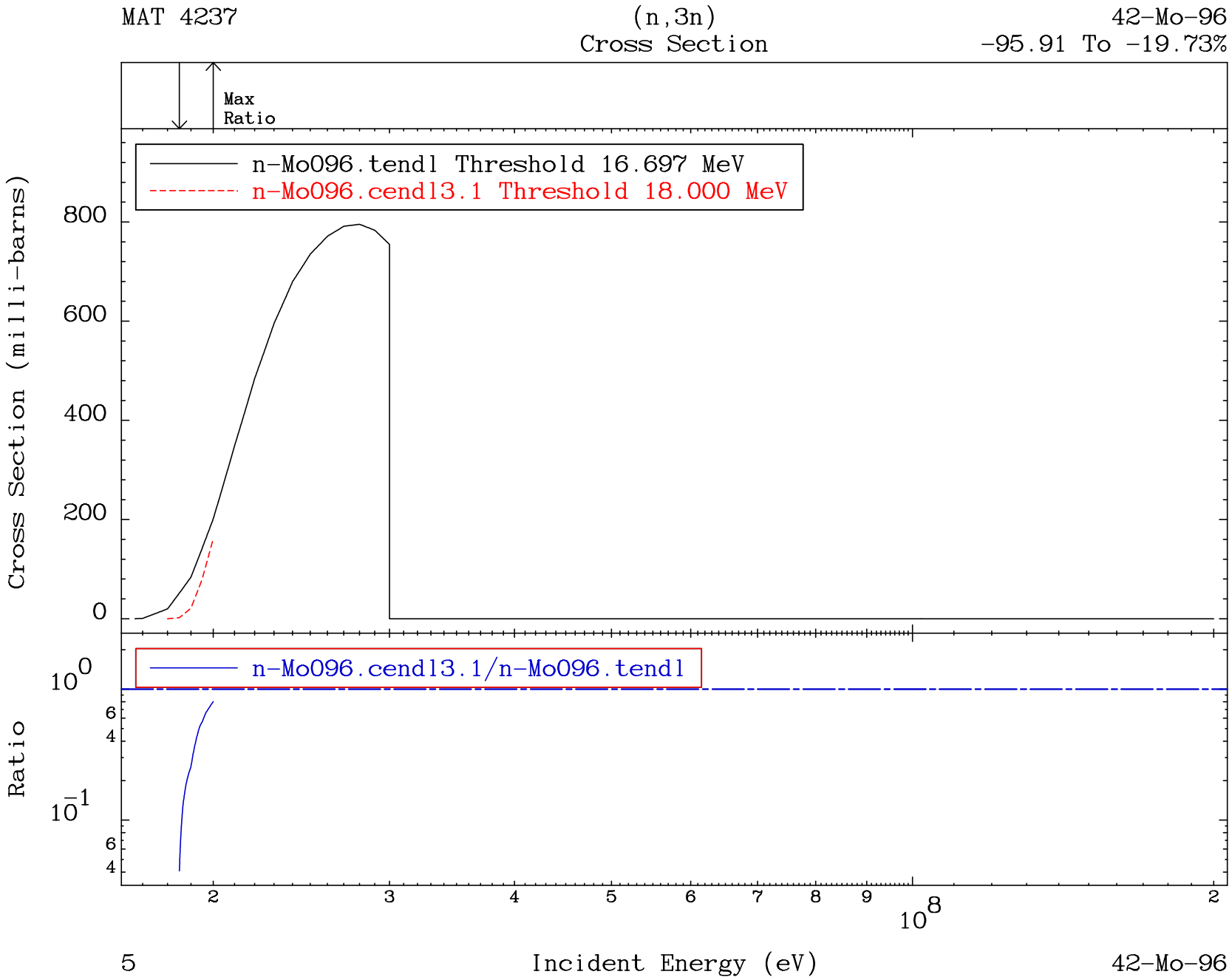
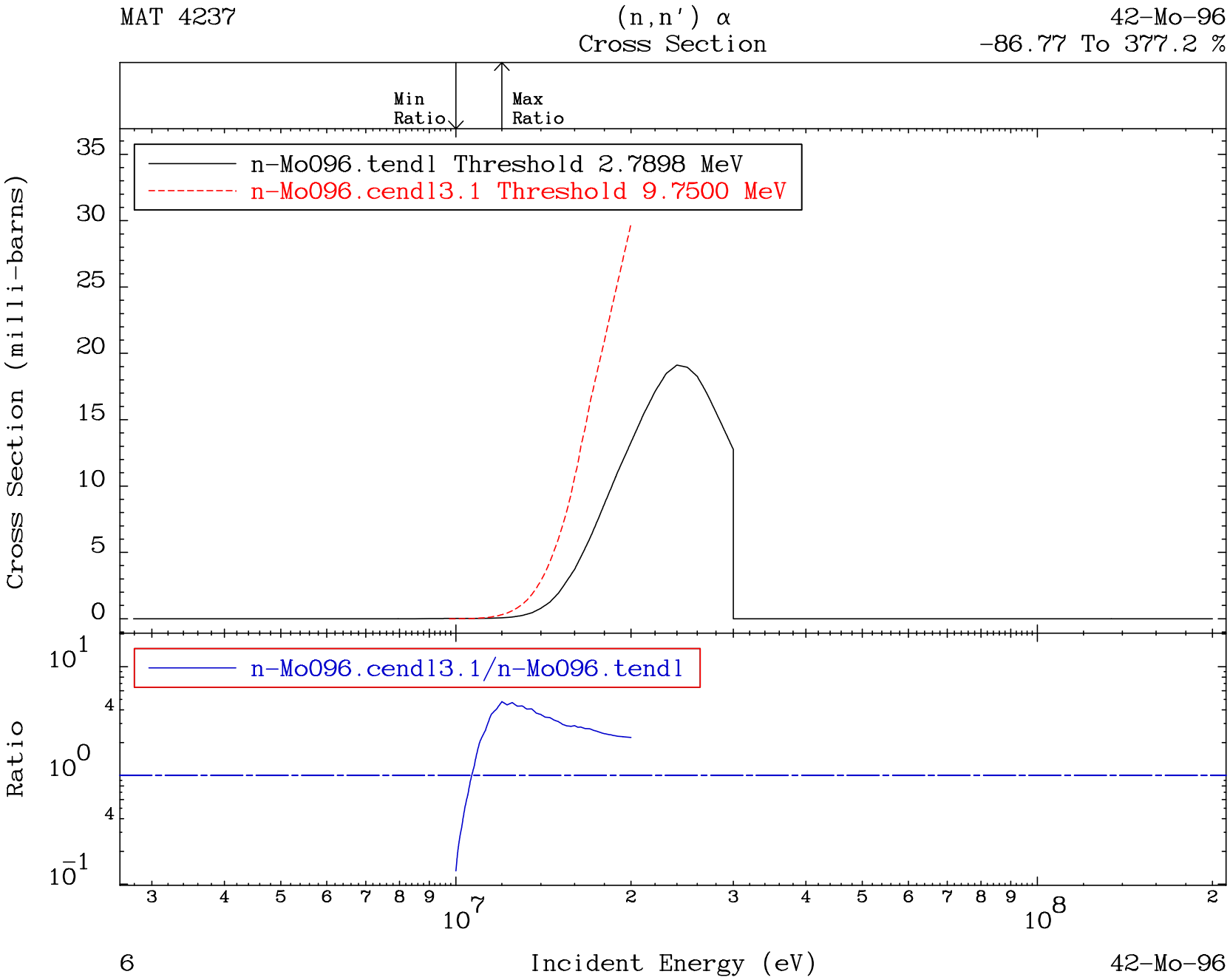

MAT 4237
Total
Cross Section
42-Mo-96
-99.59 To 9999. %
Min
Ratio
Max
Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
1
42-Mo-96

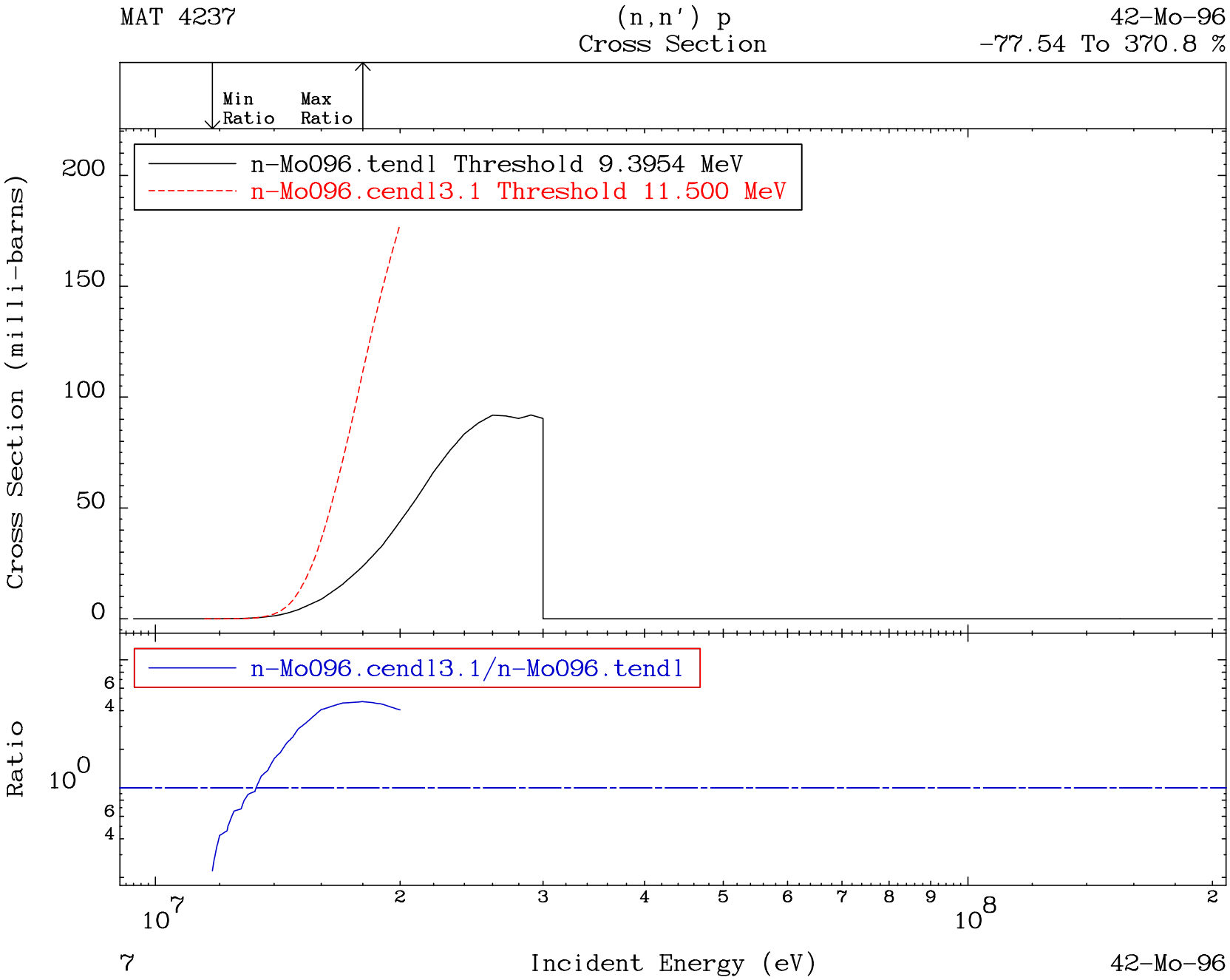

MAT 4237
Elastic
Cross Section
42-Mo-96
-99.73 To 9999. %
Min Ratio
Max Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
2
42-Mo-96

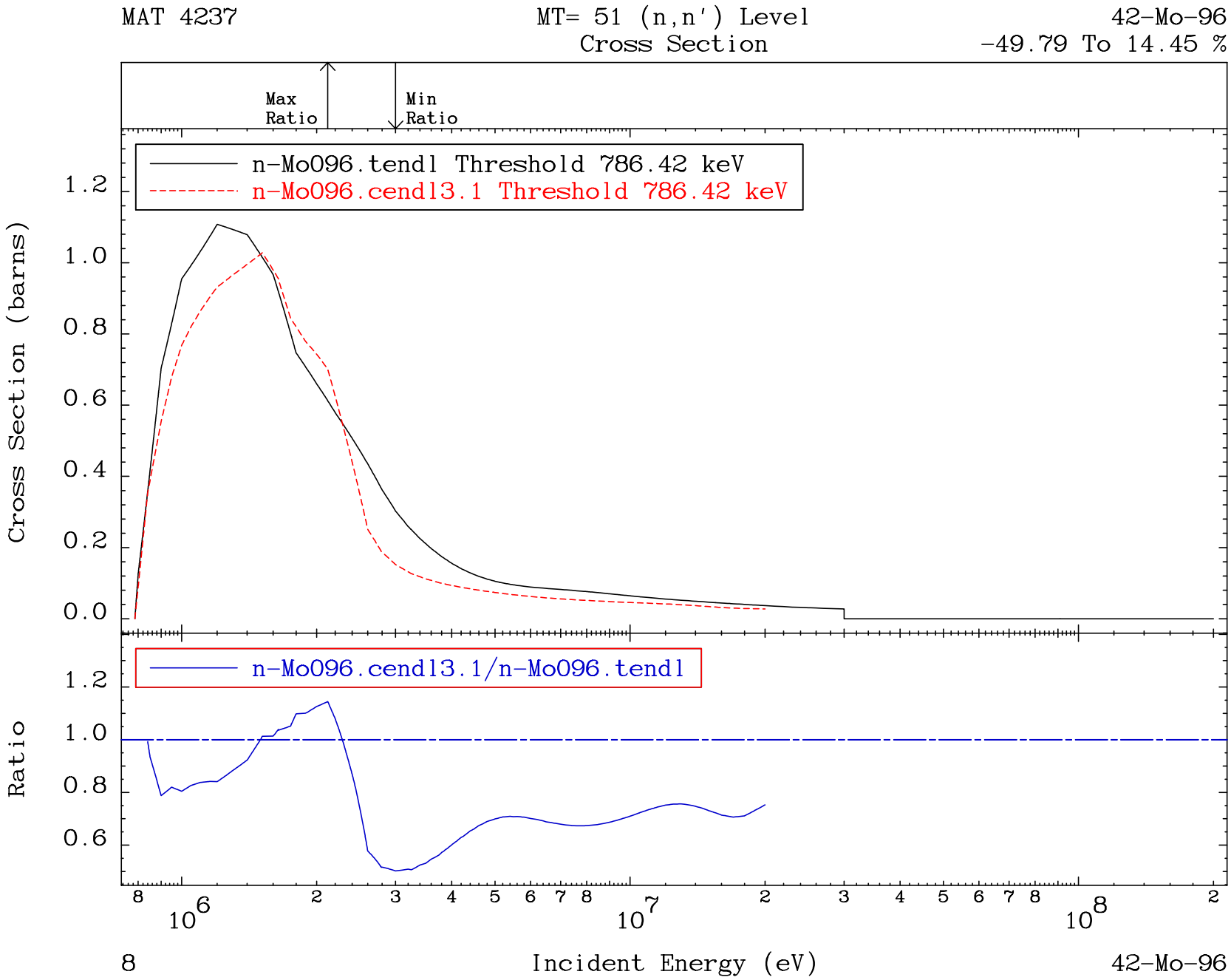

MAT 4237
Inelastic
Cross Section
42-Mo-96
-21.65 To 55.98 %
Max
Ratio
Min
Ratio
n-Mo096.tendl Threshold 786.42 keV
n-Mo096.cendl3.1 Threshold 786.42 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
1.6
1.2
0.8
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
3
Incident Energy (eV)
42-Mo-96

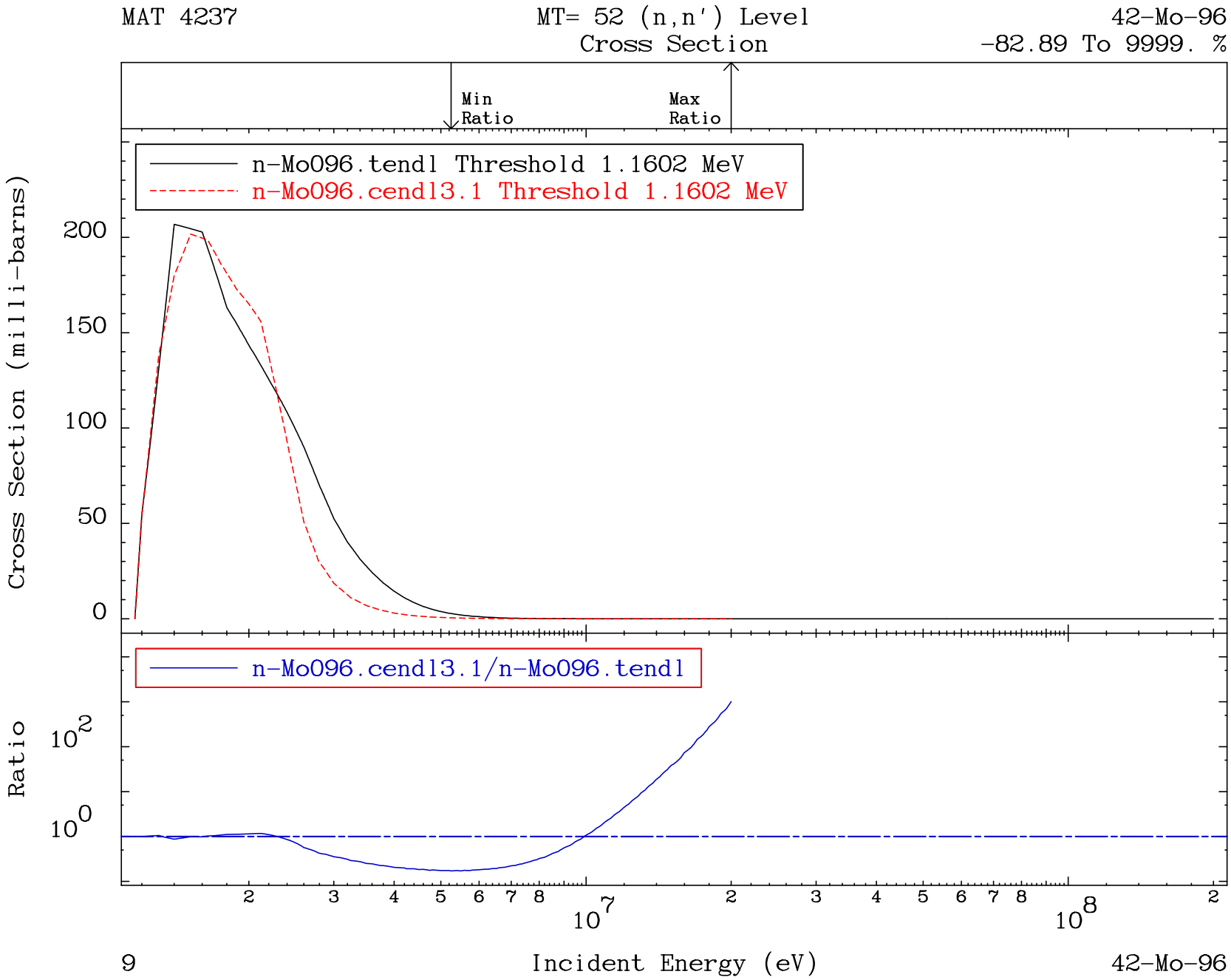

MAT 4237
(n,2n)
Cross Section
42-Mo-96
-90.63 To 2.844 %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 9.2506 MeV
n-Mo096.cendl3.1 Threshold 9.2506 MeV
Cross Section (barns)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
2
10^0
6
4
2
10^-1
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
42-Mo-96

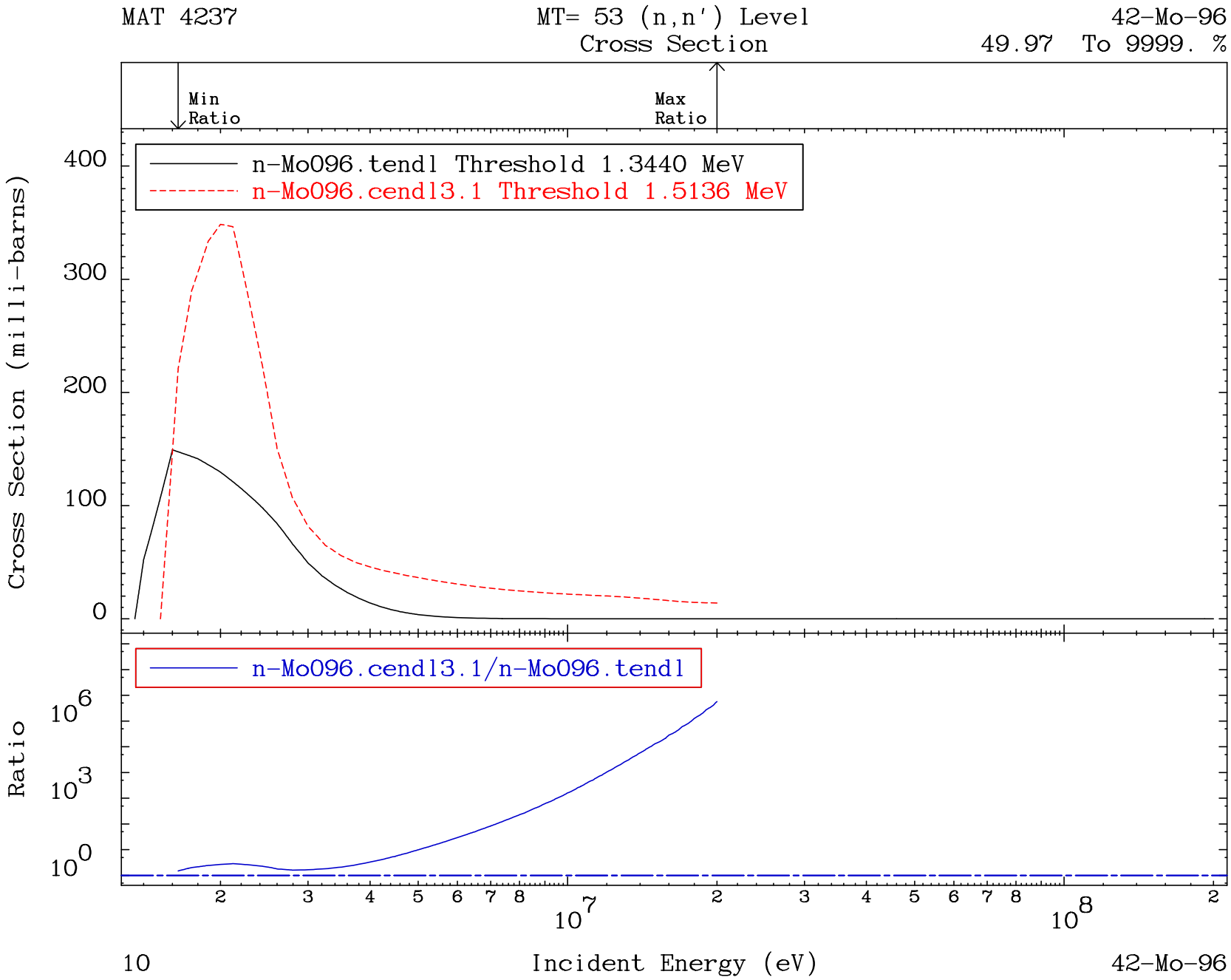

MAT 4237
(n,3n)
Cross Section
42-Mo-96
-95.91 To -19.73%
Max
Ratio
n-Mo096.tendl Threshold 16.697 MeV
n-Mo096.cendl3.1 Threshold 18.000 MeV
Cross Section (milli-barns)
800
600
400
200
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^0
10^-1
6
4
6
4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
42-Mo-96

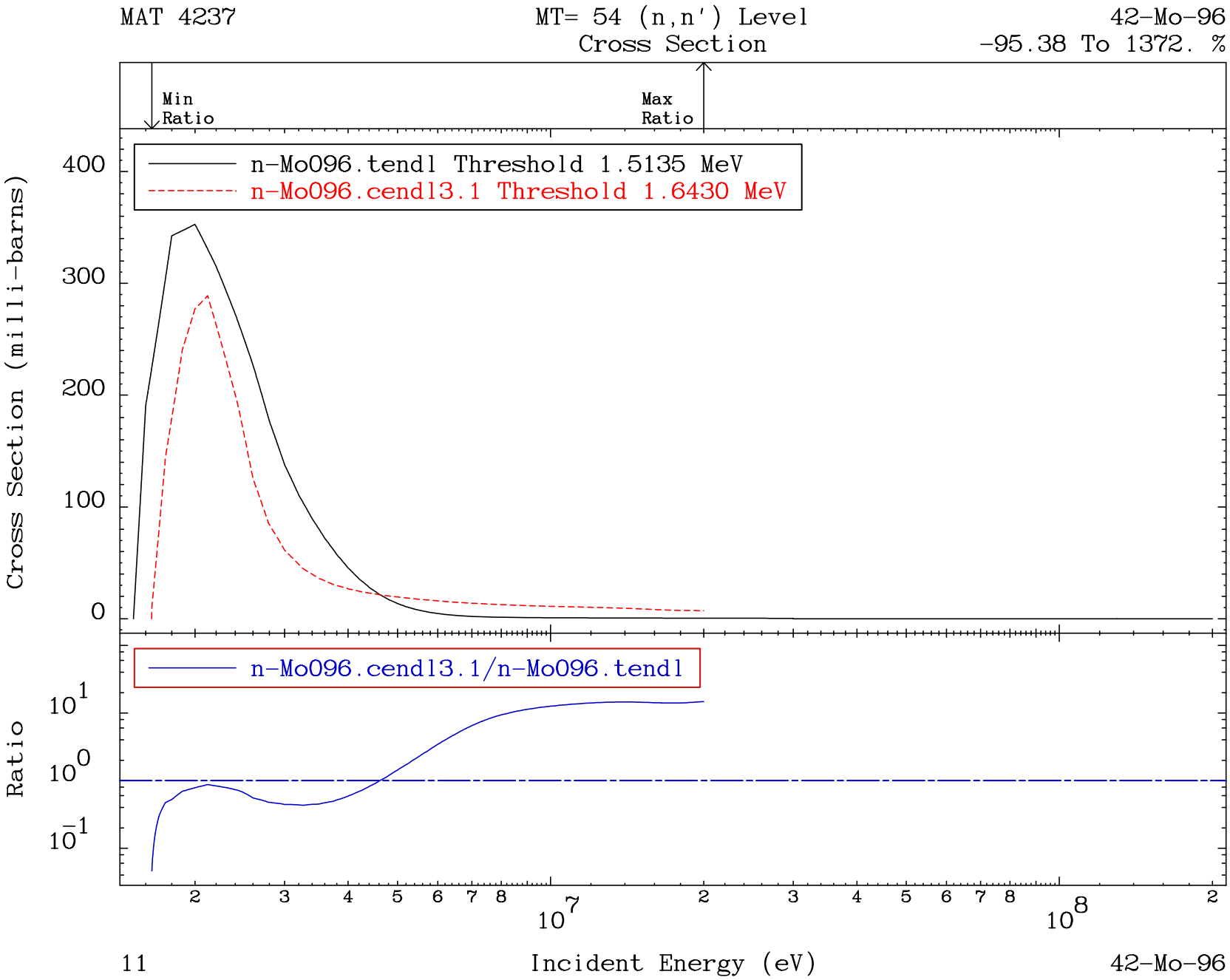

MAT 4237
(n,n') α
Cross Section
42-Mo-96
-86.77 To 377.2 %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 2.7898 MeV
n-Mo096.cendl3.1 Threshold 9.7500 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^1
4
10^0
4
10^-1
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
6
Incident Energy (eV)
42-Mo-96

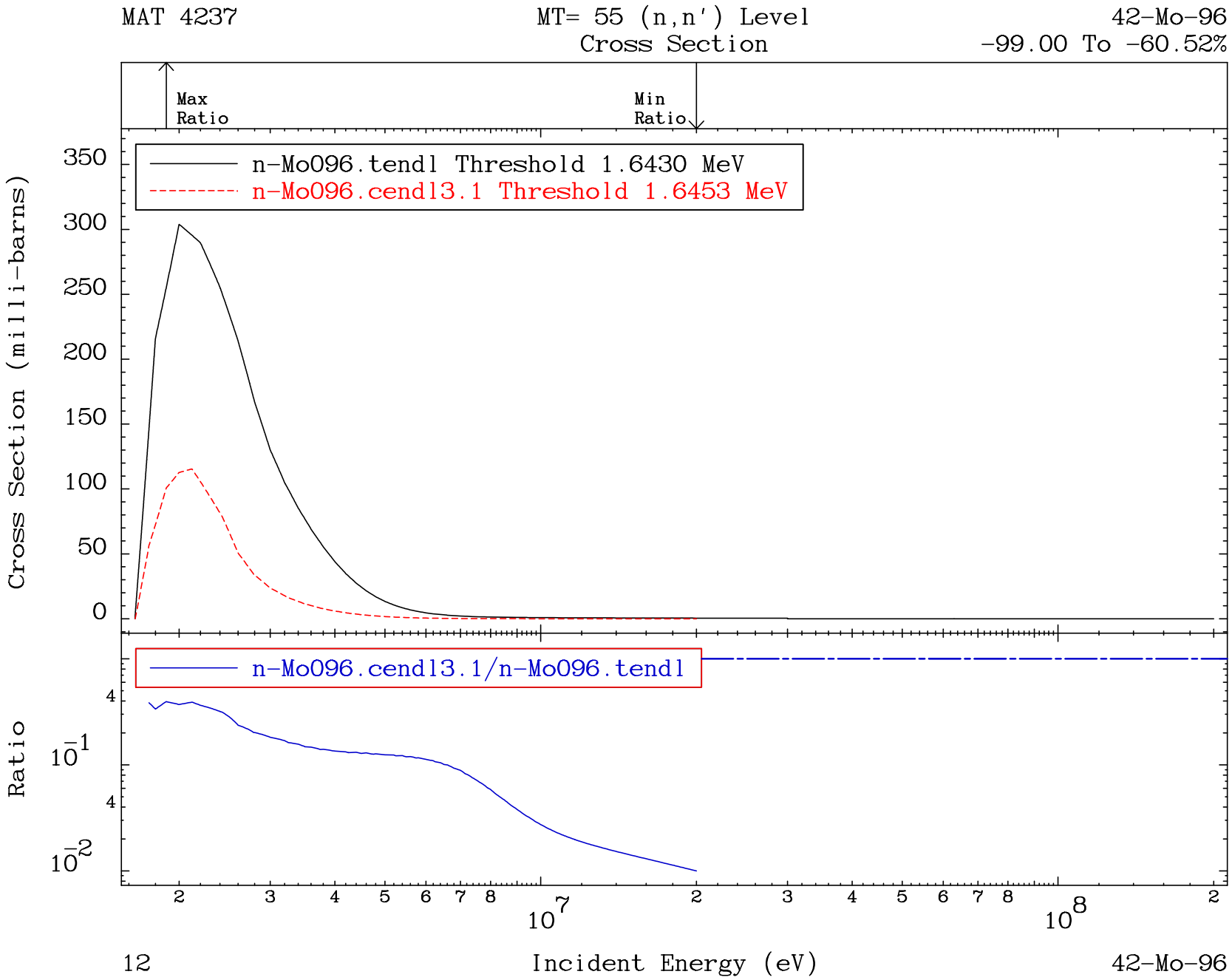

MAT 4237
(n,n') p
Cross Section
42-Mo-96
-77.54 To 370.8 %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 9.3954 MeV
n-Mo096.cendl3.1 Threshold 11.500 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
6
4
10^0
6
4
10^7
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
42-Mo-96

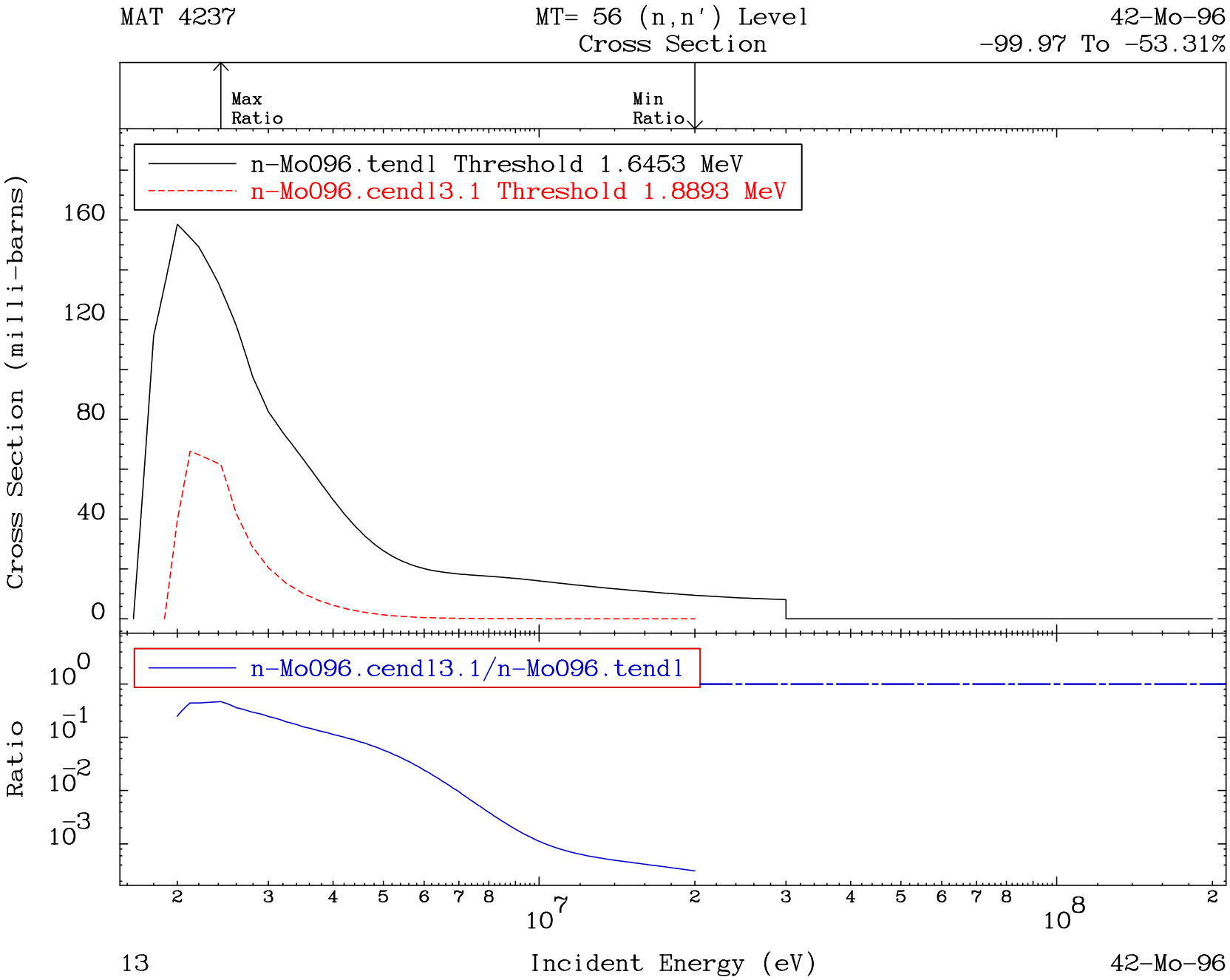

MAT 4237
MT= 51 (n,n') Level
Cross Section
42-Mo-96
-49.79 To 14.45 %
Max Ratio
Min Ratio
n-Mo096.tendl Threshold 786.42 keV
n-Mo096.cendl3.1 Threshold 786.42 keV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
1.2
1.0
0.8
0.6
8
2
3
4
5
6
7
8
10^6
10^7
10^8
8
Incident Energy (eV)
42-Mo-96

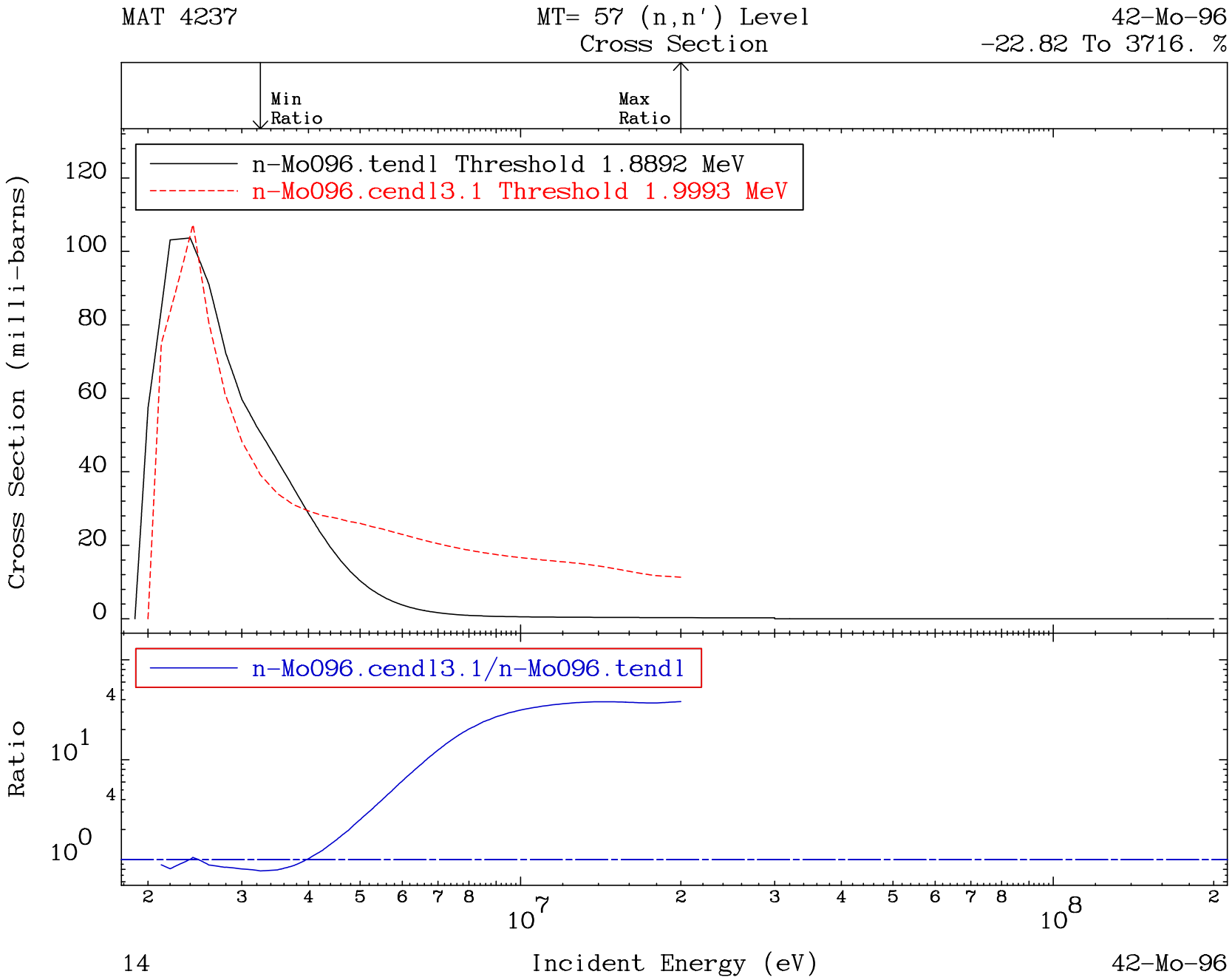

MAT 4237
MT= 52 (n,n') Level
Cross Section
42-Mo-96
-82.89 To 9999. %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 1.1602 MeV
n-Mo096.cendl3.1 Threshold 1.1602 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
9
Incident Energy (eV)
42-Mo-96

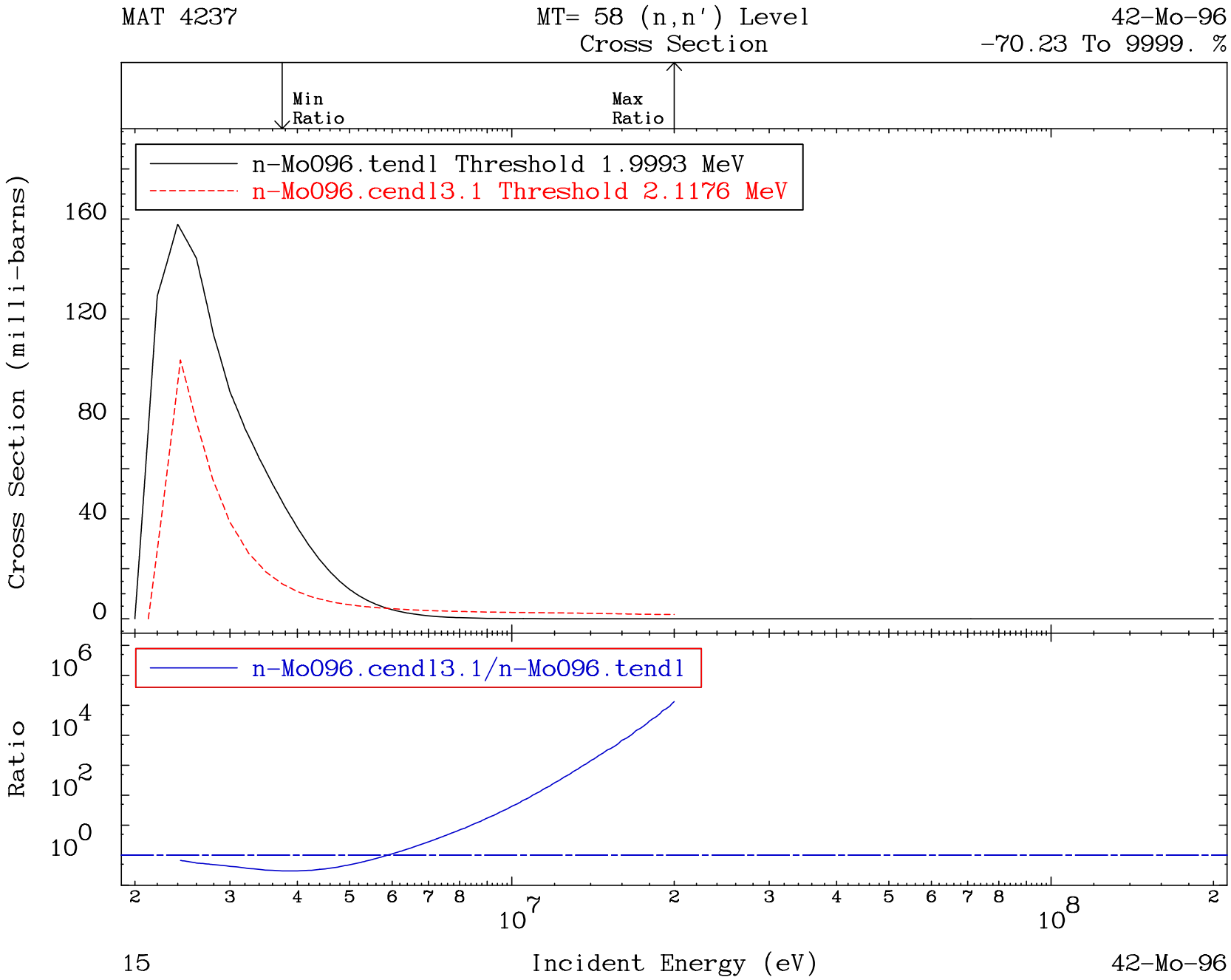

MAT 4237
MT= 53 (n,n') Level
Cross Section
42-Mo-96
49.97 To 9999. %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 1.3440 MeV
n-Mo096.cendl3.1 Threshold 1.5136 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
10
Incident Energy (eV)
42-Mo-96

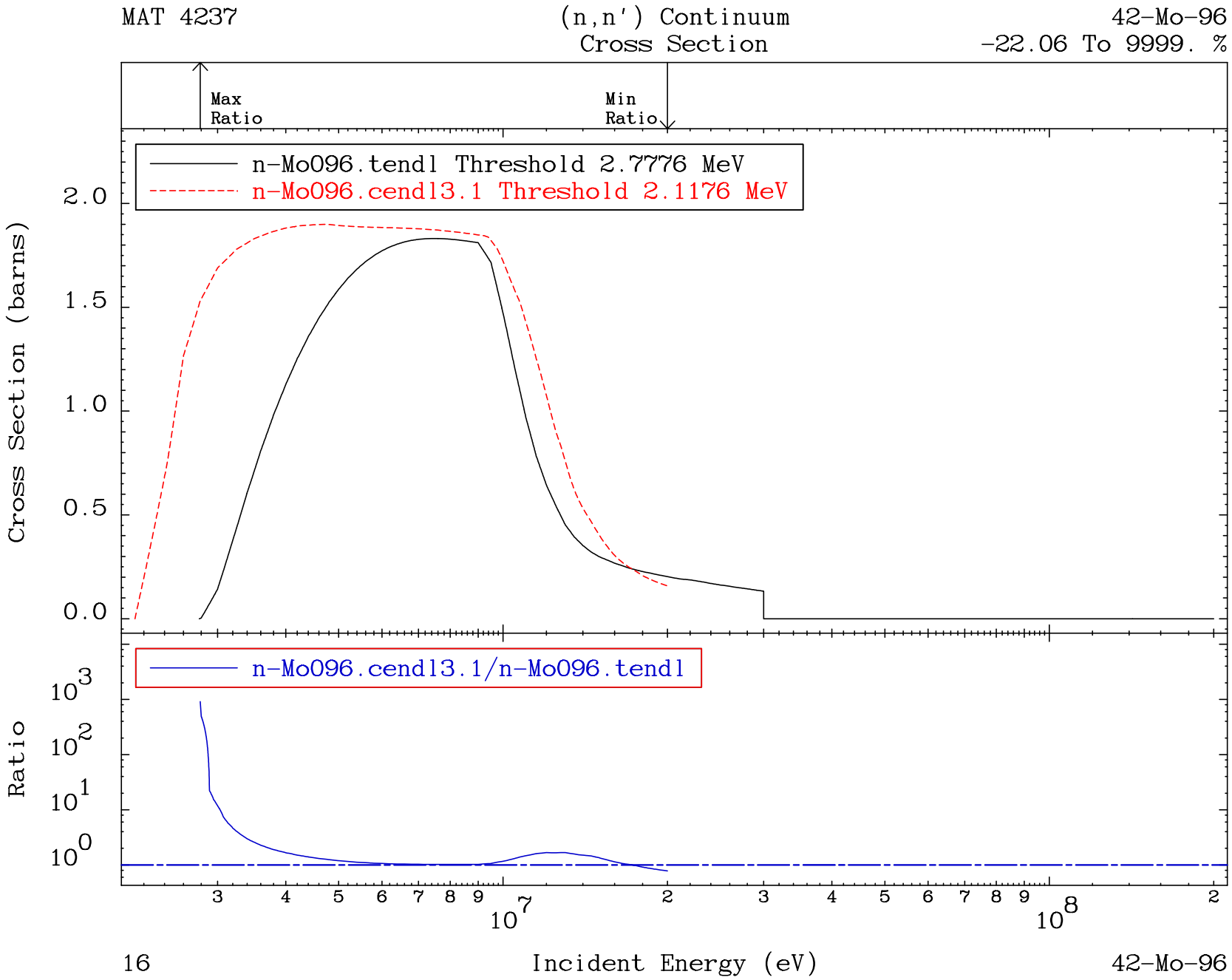

MAT 4237
MT= 54 (n,n') Level
Cross Section
42-Mo-96
-95.38 To 1372. %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 1.5135 MeV
n-Mo096.cendl3.1 Threshold 1.6430 MeV
Cross Section (milli-barns)
400
300
200
100
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^1
10^0
10^-1
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
11
Incident Energy (eV)
42-Mo-96

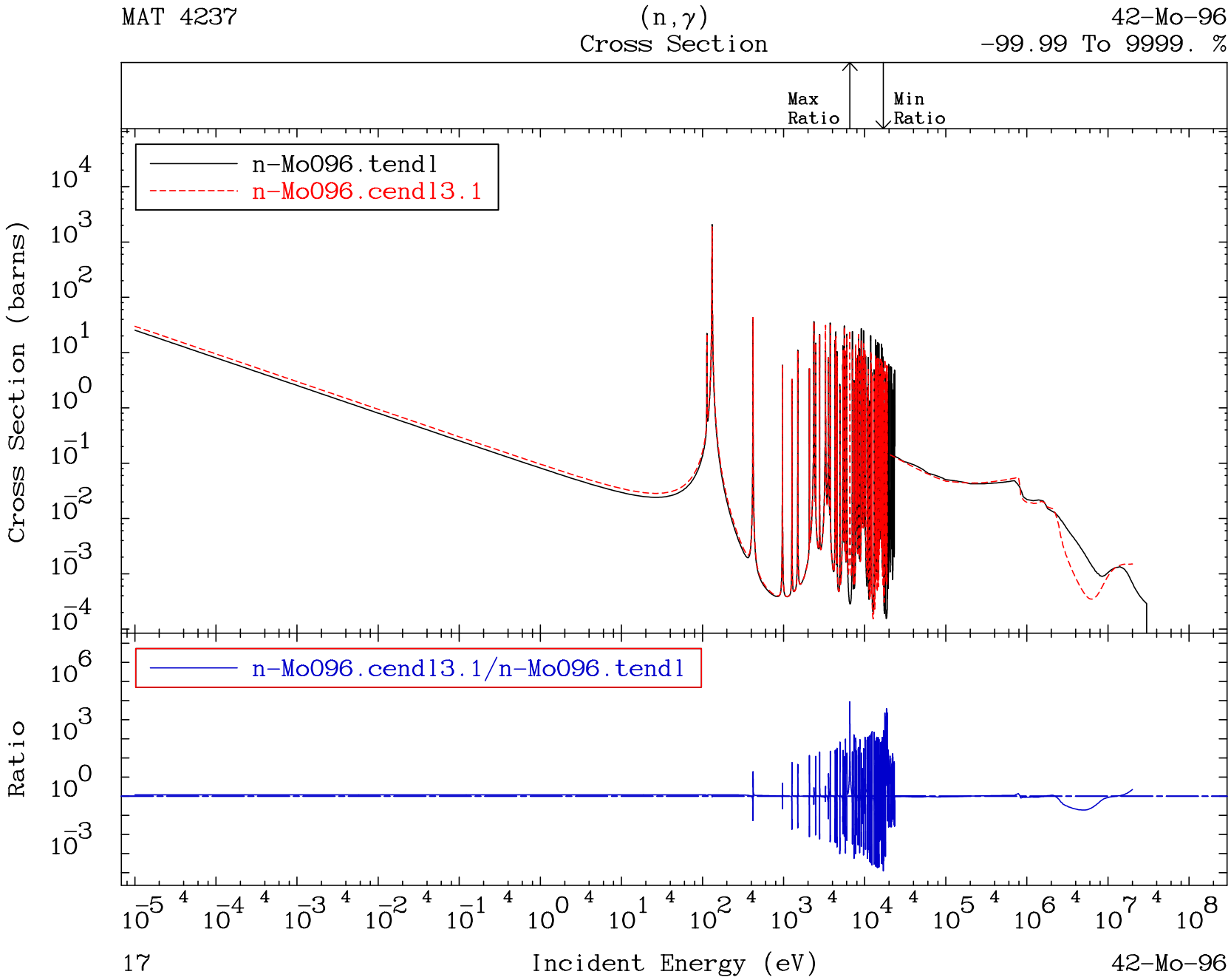

MAT 4237
MT= 55 (n,n') Level
Cross Section
42-Mo-96
-99.00 To -60.52%
Max Ratio
Min Ratio
n-Mo096.tendl Threshold 1.6430 MeV
n-Mo096.cendl3.1 Threshold 1.6453 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
4
10^{-1}
4
10^{-2}
2
3
4
5
6
7
8
10^{7}
2
3
4
5
6
7
8
10^{8}
2
12
Incident Energy (eV)
42-Mo-96

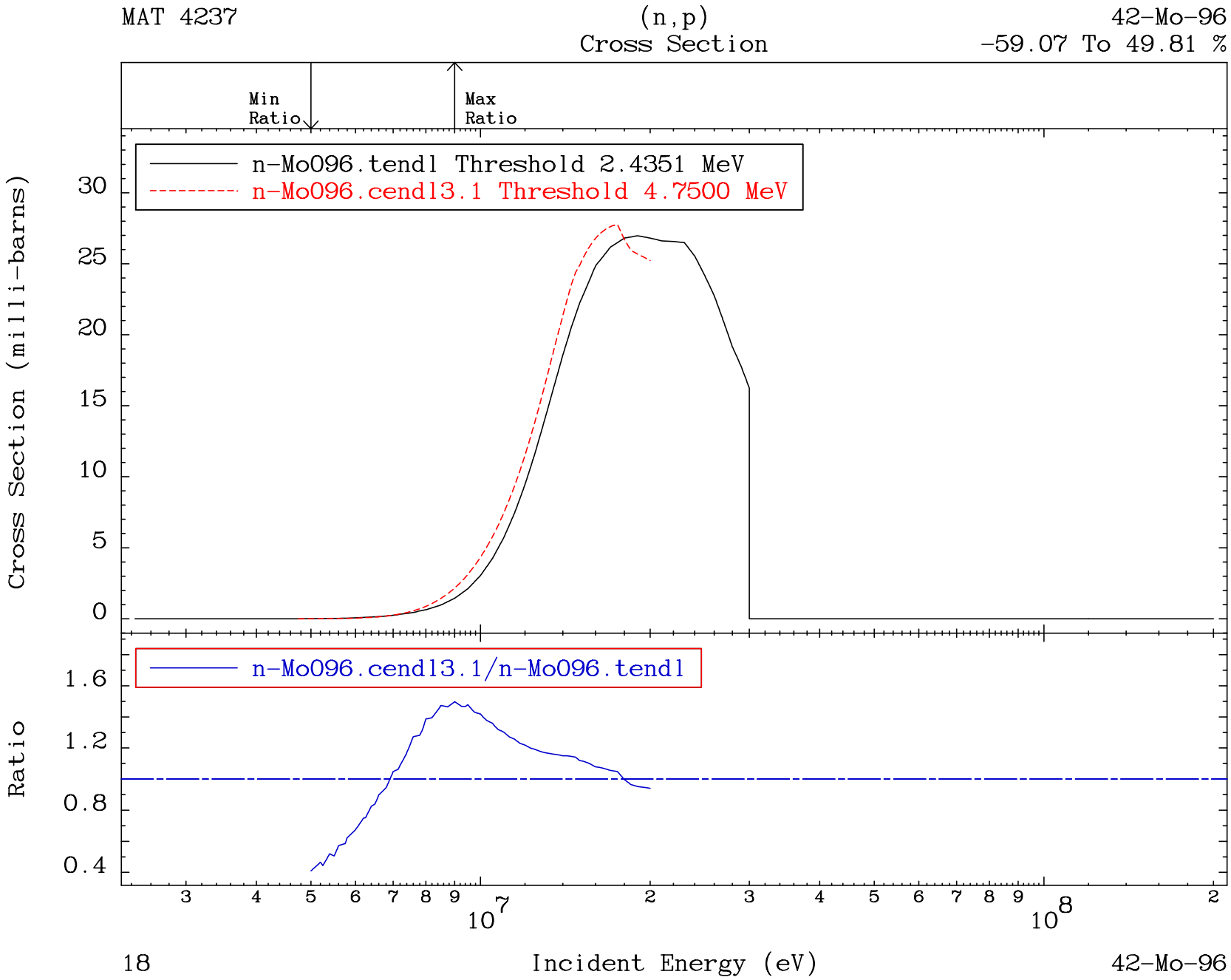

MAT 4237
MT= 56 (n,n') Level
Cross Section
42-Mo-96
-99.97 To -53.31%
Max
Ratio
Min
Ratio
n-Mo096.tendl Threshold 1.6453 MeV
n-Mo096.cendl3.1 Threshold 1.8893 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^0
10^-1
10^-2
10^-3
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
42-Mo-96

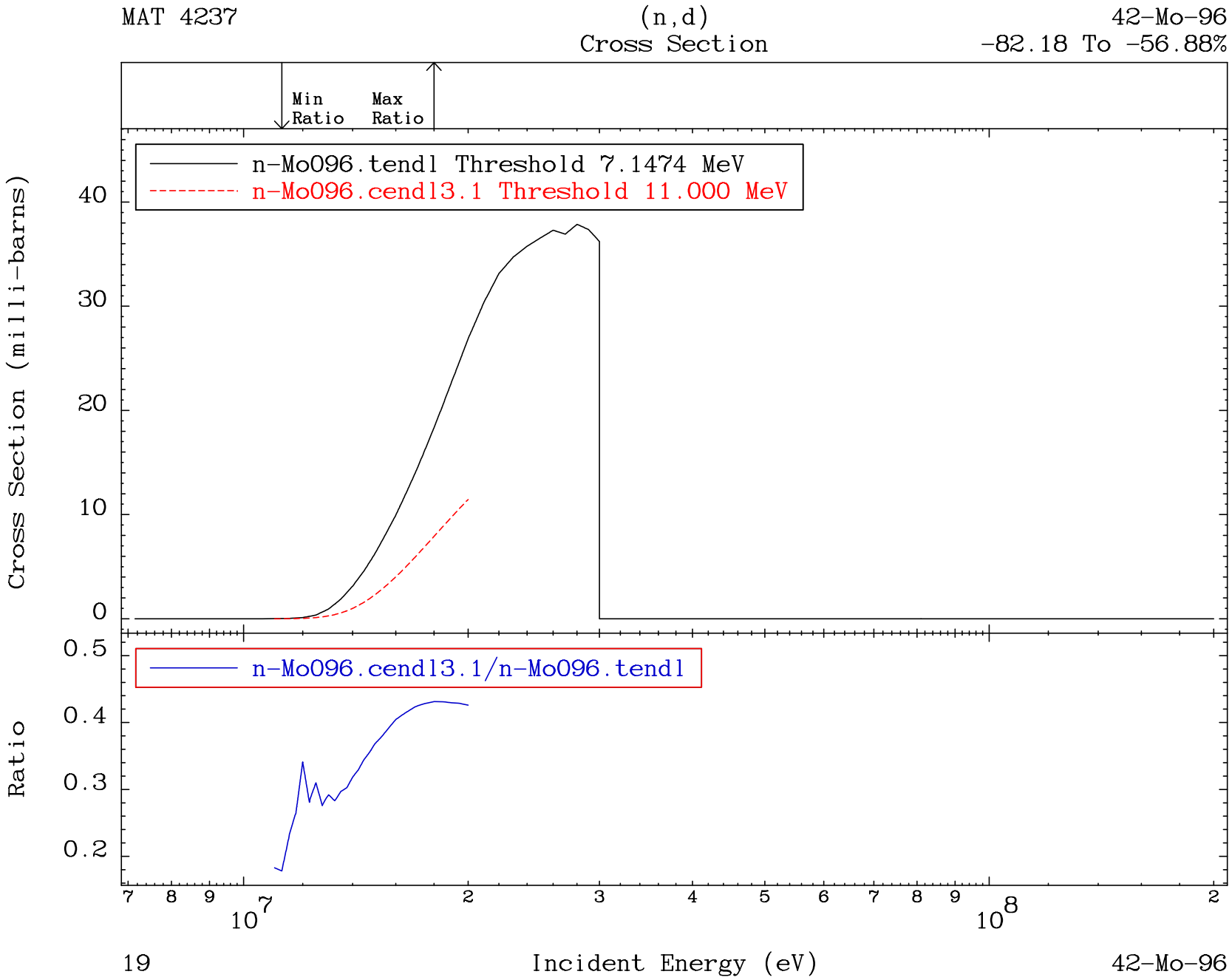

MAT 4237
MT= 57 (n,n') Level
Cross Section
42-Mo-96
-22.82 To 3716. %
Min
Ratio
Max
Ratio
n-Mo096.tendl Threshold 1.8892 MeV
n-Mo096.cendl3.1 Threshold 1.9993 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^1
10^0
4
4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
14
Incident Energy (eV)
42-Mo-96

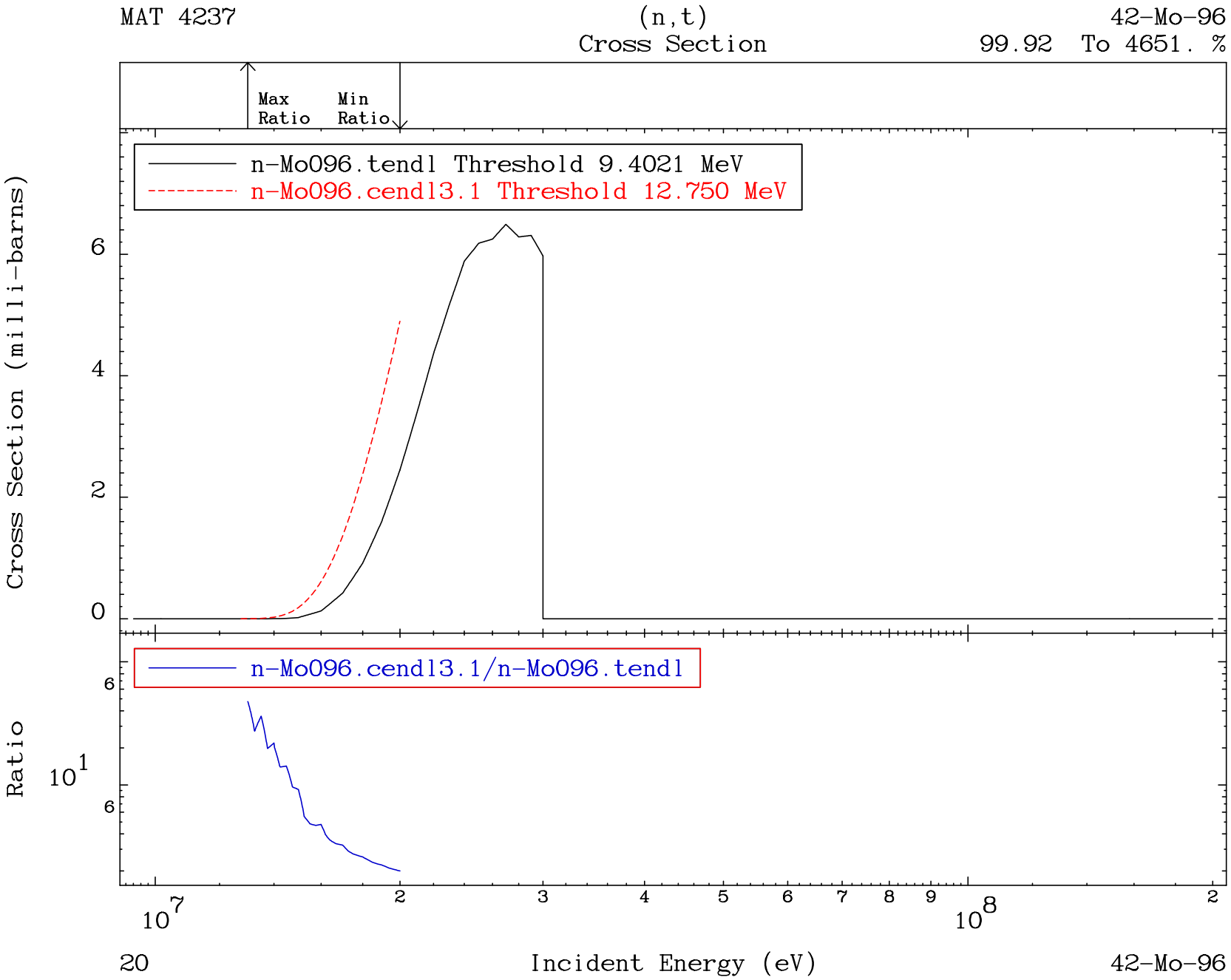

MAT 4237
MT= 58 (n,n') Level
Cross Section
42-Mo-96
-70.23 To 9999. %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 1.9993 MeV
n-Mo096.cendl3.1 Threshold 2.1176 MeV
Cross Section (milli-barns)
160
120
80
40
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
15
Incident Energy (eV)
42-Mo-96

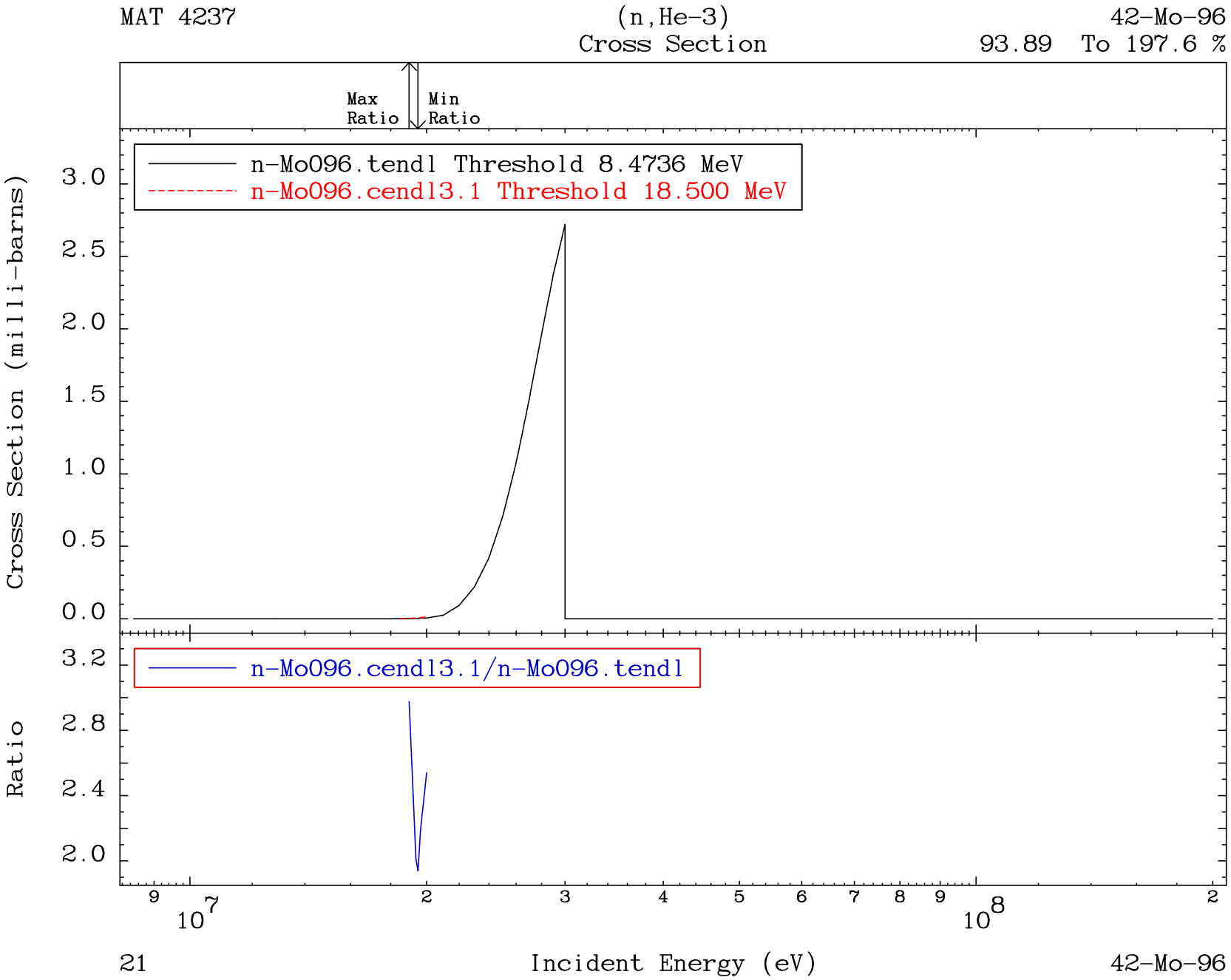

MAT 4237
(n,n') Continuum
Cross Section
42-Mo-96
-22.06 To 9999. %
Max
Ratio
Min
Ratio
n-Mo096.tendl Threshold 2.7776 MeV
n-Mo096.cendl3.1 Threshold 2.1176 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^3
10^2
10^1
10^0
3 4 5 6 7 8 9
10^7
2 3 4 5 6 7 8 9
10^8
2
16
Incident Energy (eV)
42-Mo-96

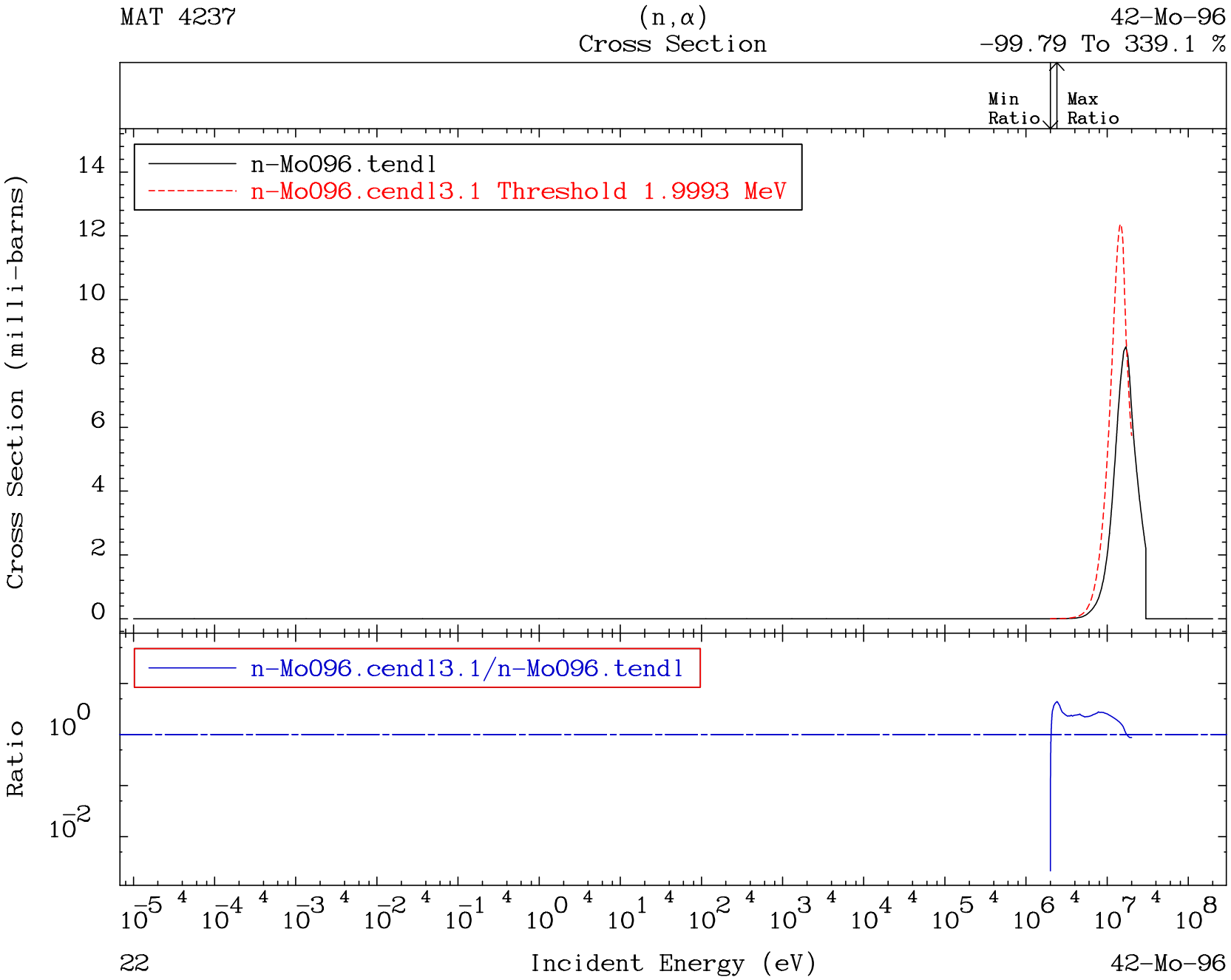

MAT 4237
(n,γ)
Cross Section
42-Mo-96
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
17
42-Mo-96

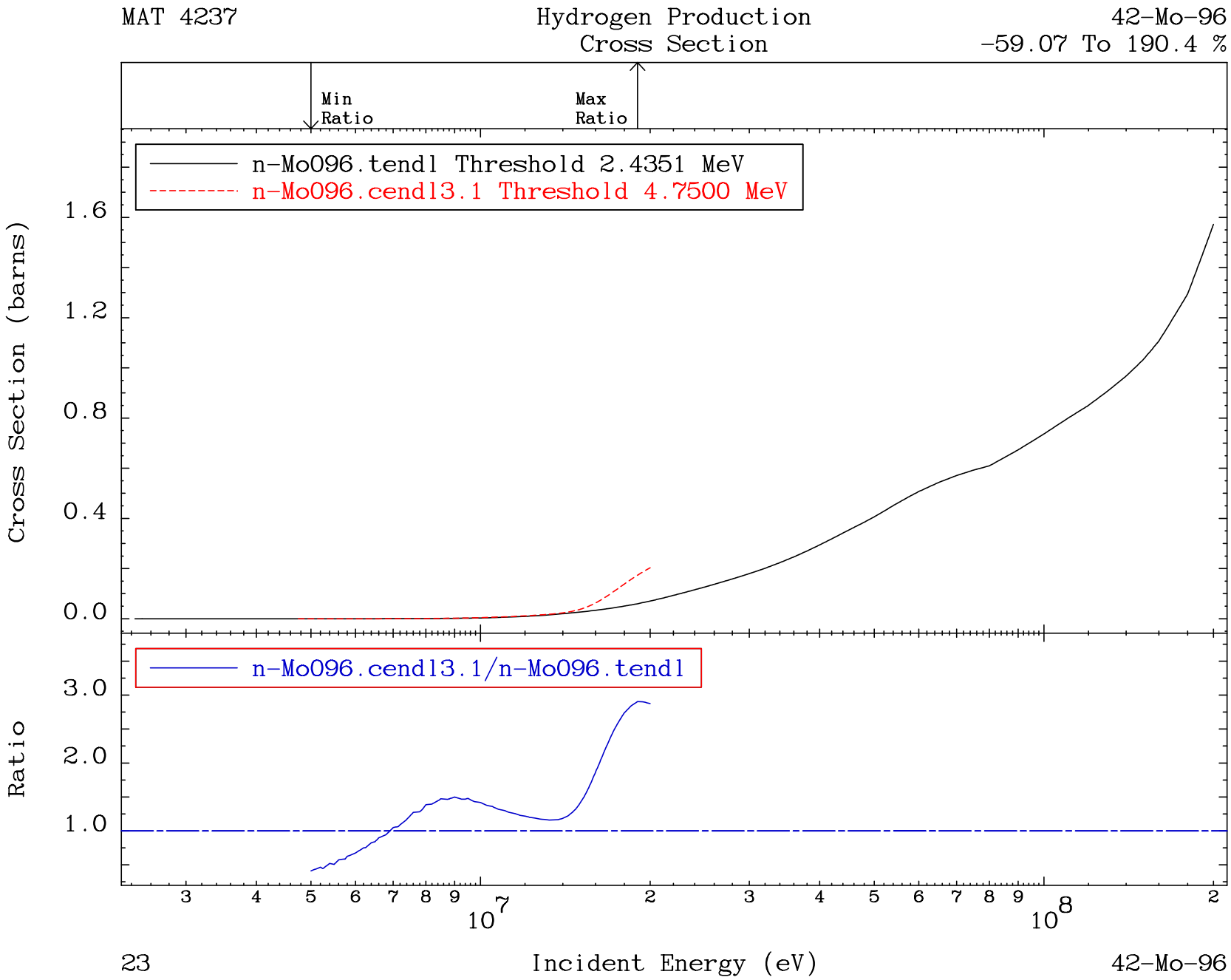

MAT 4237
(n,p)
Cross Section
42-Mo-96
-59.07 To 49.81 %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 2.4351 MeV
n-Mo096.cendl3.1 Threshold 4.7500 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
1.6
1.2
0.8
0.4
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
18
Incident Energy (eV)
42-Mo-96

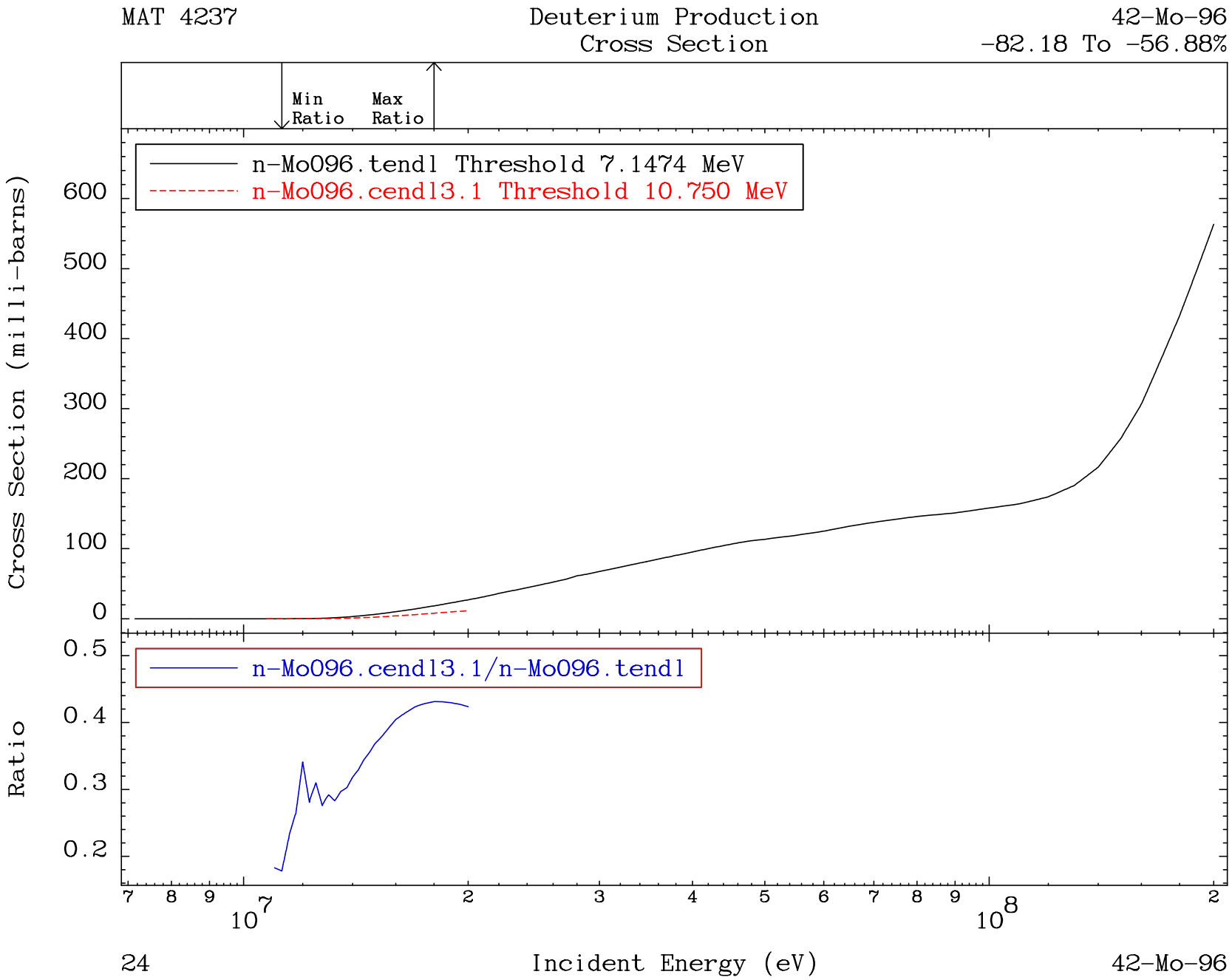

MAT 4237
(n,d)
Cross Section
42-Mo-96
-82.18 To -56.88%
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 7.1474 MeV
n-Mo096.cendl3.1 Threshold 11.000 MeV
Cross Section (milli-barns)
40
30
20
10
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
0.5
0.4
0.3
0.2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
19
Incident Energy (eV)
42-Mo-96

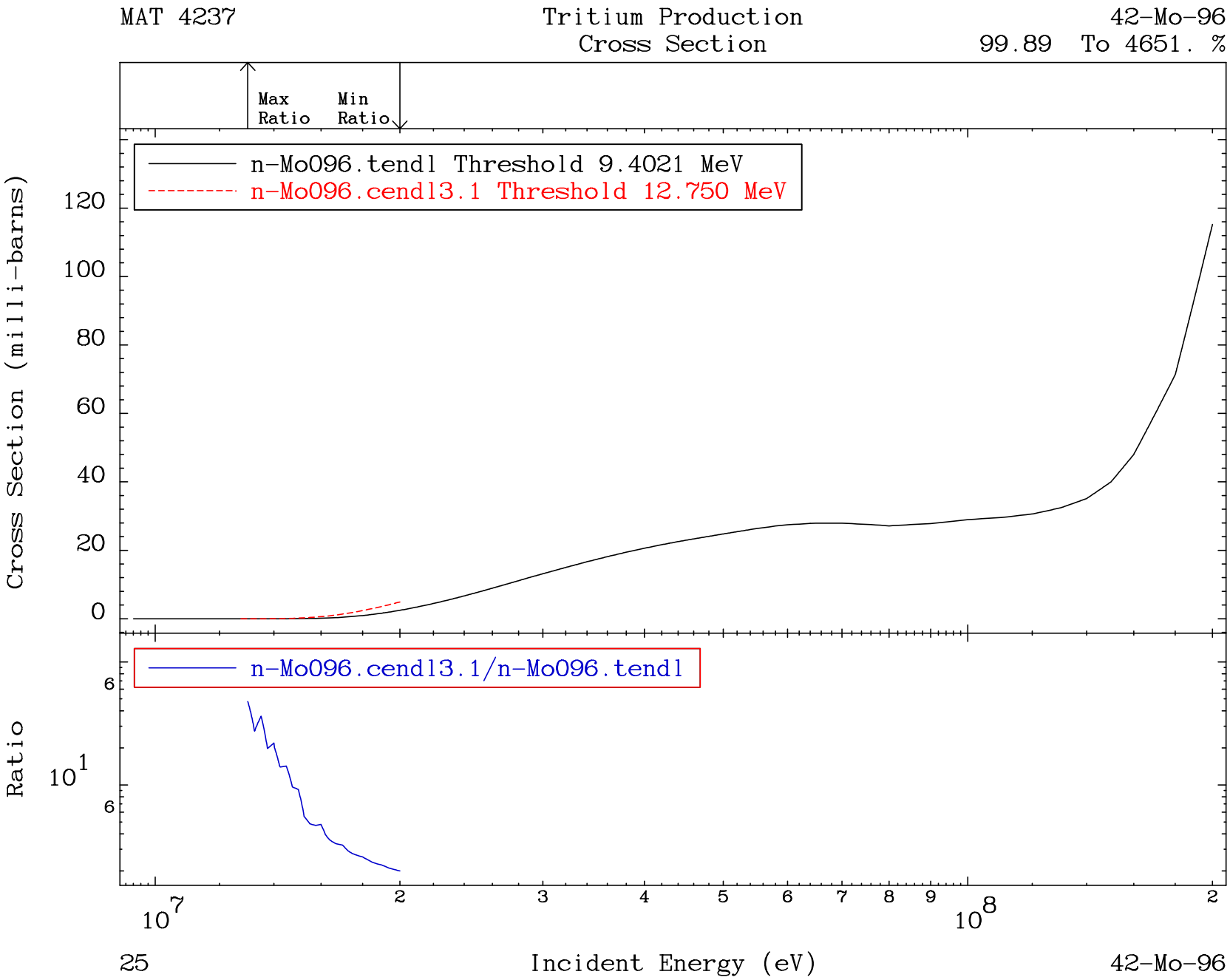

MAT 4237
(n,t)
Cross Section
42-Mo-96
99.92 To 4651. %
Max Ratio
Min Ratio
n-Mo096.tendl Threshold 9.4021 MeV
n-Mo096.cendl3.1 Threshold 12.750 MeV
Cross Section (milli-barns)
0
2
4
6
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^1
6
6
10^7
2
3
4
5
6
7
8
9
10^8
2
20
Incident Energy (eV)
42-Mo-96

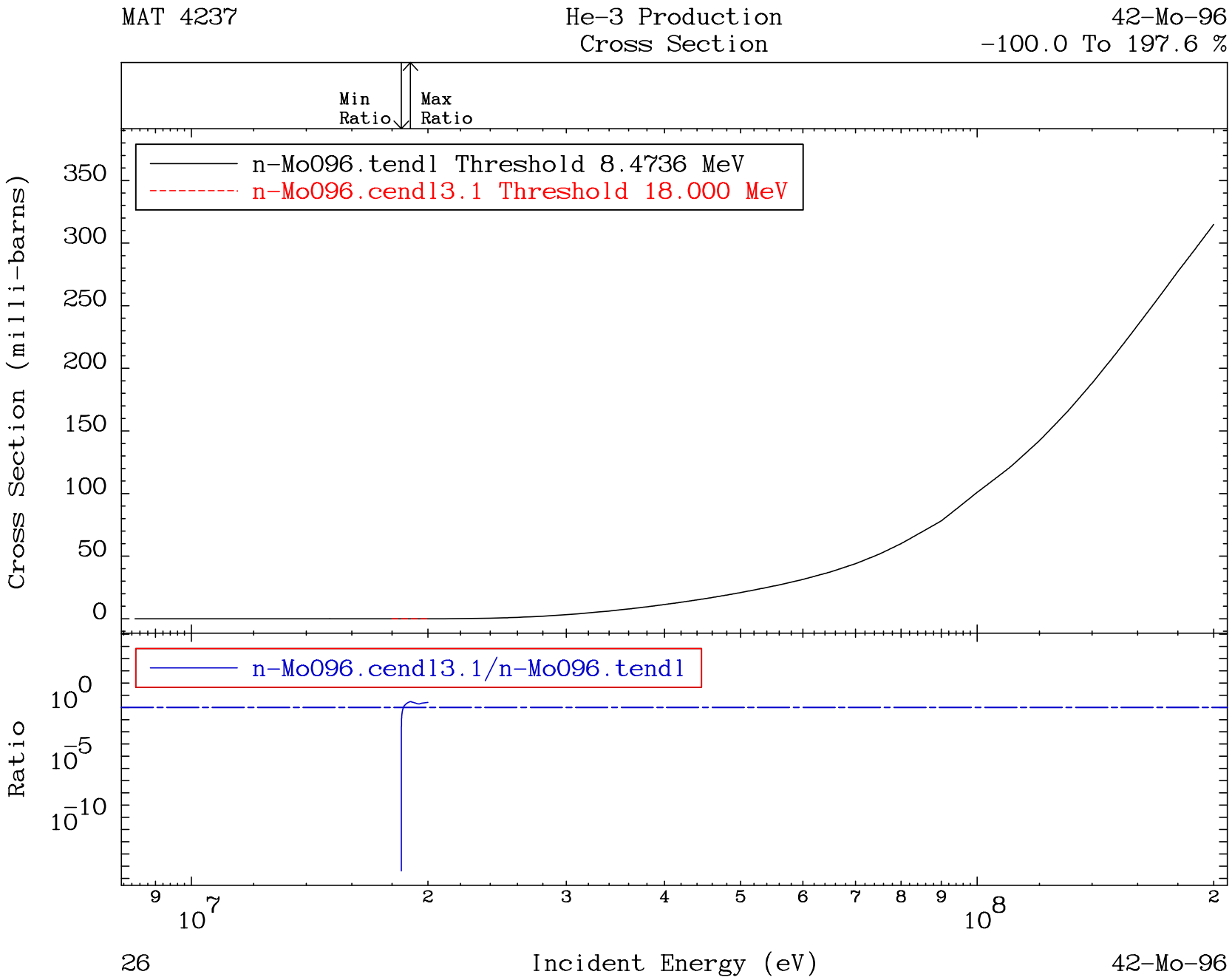

MAT 4237
(n,He-3)
Cross Section
42-Mo-96
93.89 To 197.6 %
Max Ratio
Min Ratio
n-Mo096.tendl Threshold 8.4736 MeV
n-Mo096.cendl3.1 Threshold 18.500 MeV
Cross Section (milli-barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
3.2
2.8
2.4
2.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
21
Incident Energy (eV)
42-Mo-96

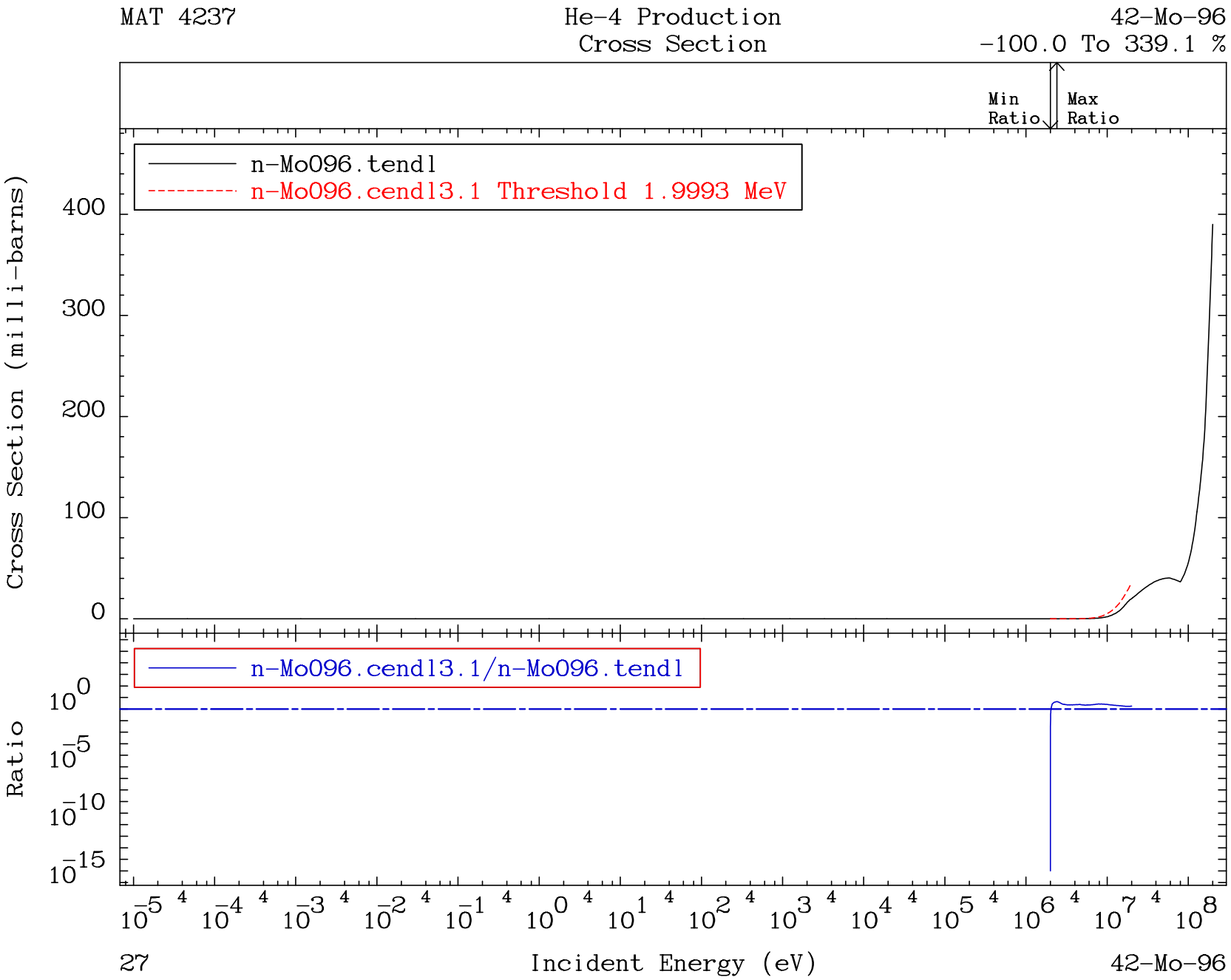

MAT 4237
(n,α)
Cross Section
42-Mo-96
-99.79 To 339.1 %
Min Ratio
Max Ratio
n-Mo096.tendl
n-Mo096.cendl3.1 Threshold 1.9993 MeV
Cross Section (milli-barns)
0
2
4
6
8
10
12
14
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^0
10^-2
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
22
Incident Energy (eV)
42-Mo-96

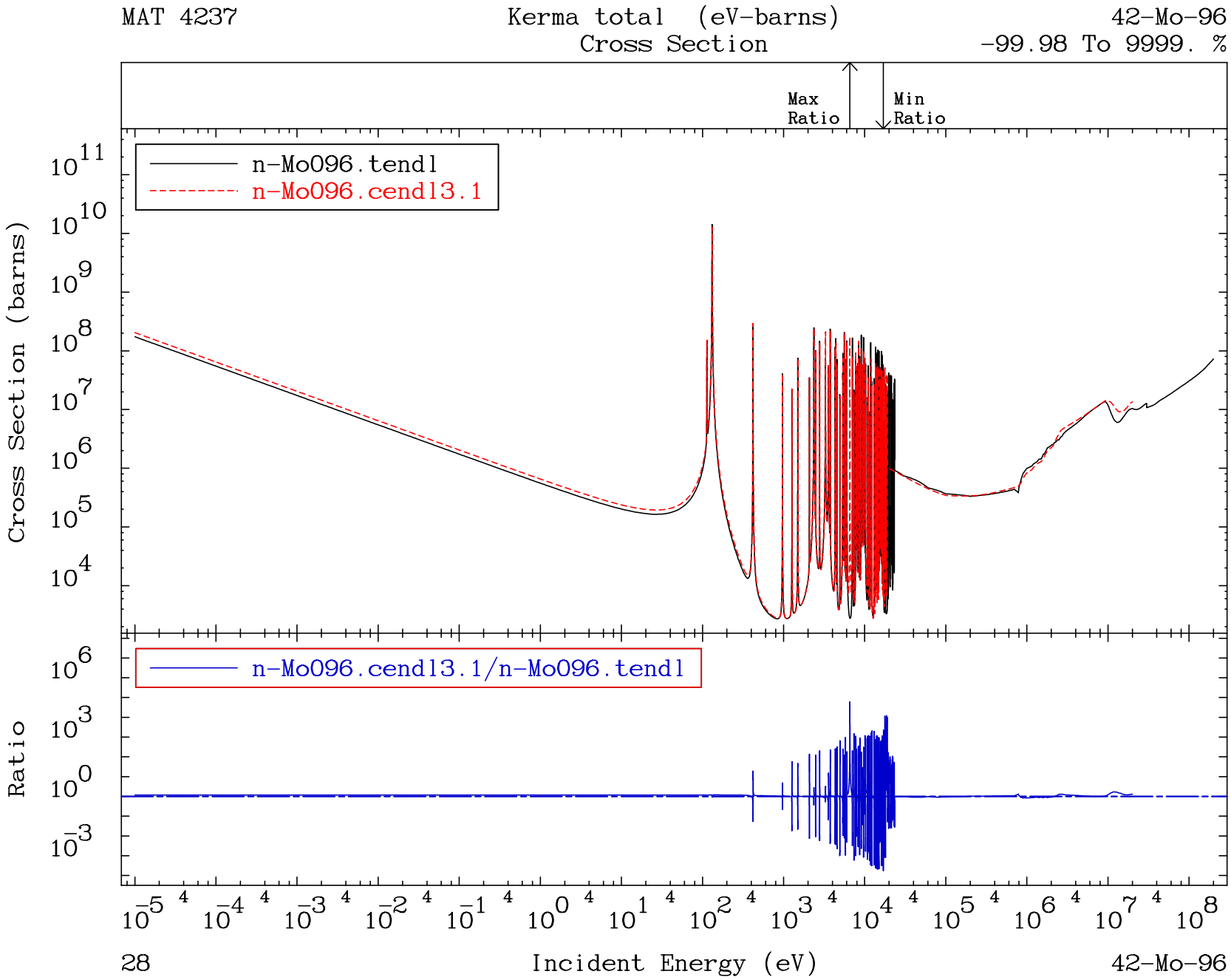

MAT 4237
Hydrogen Production
Cross Section
42-Mo-96
-59.07 To 190.4 %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 2.4351 MeV
n-Mo096.cendl3.1 Threshold 4.7500 MeV
Cross Section (barns)
1.6
1.2
0.8
0.4
0.0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
3.0
2.0
1.0
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
23
Incident Energy (eV)
42-Mo-96

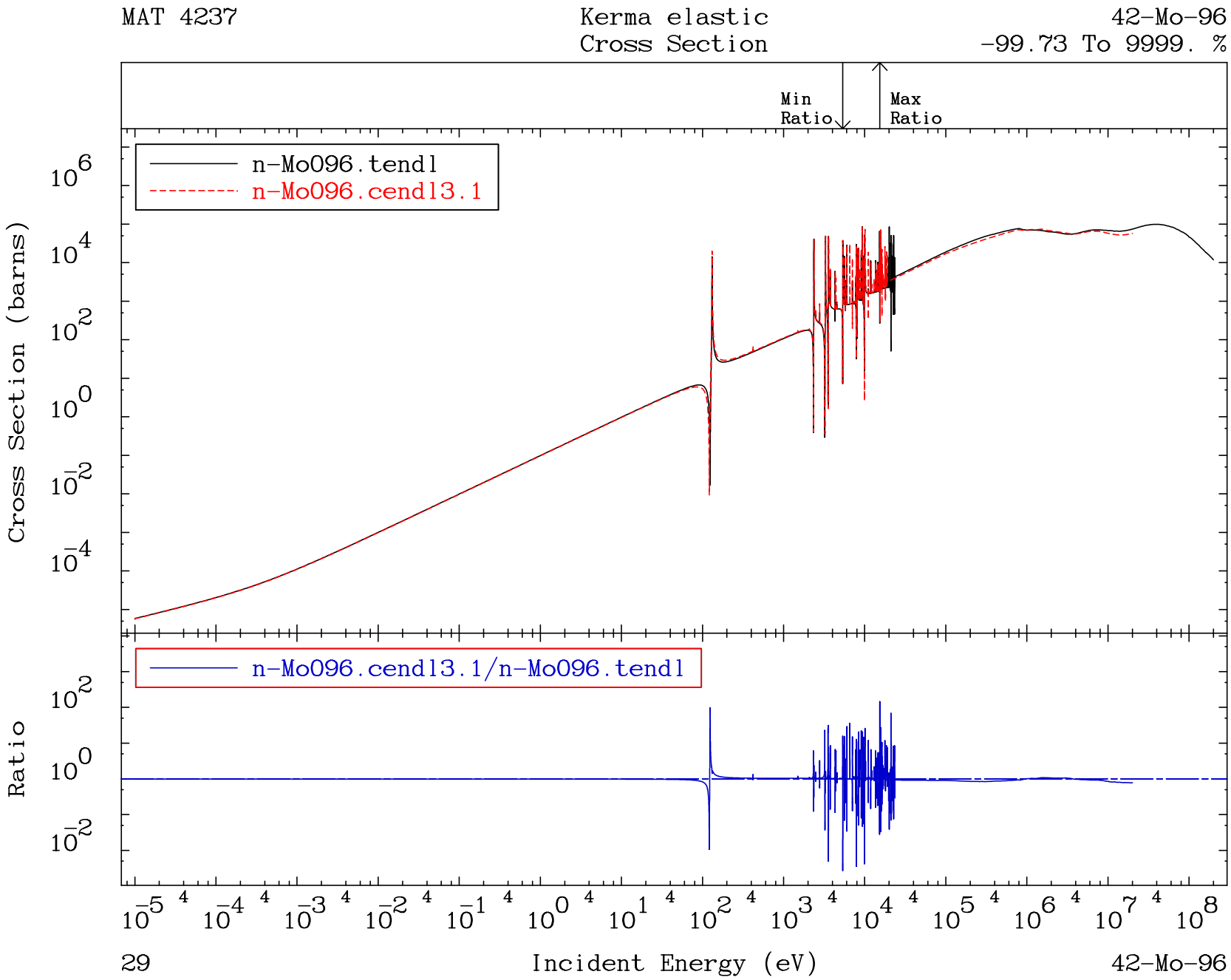

MAT 4237
Deuterium Production
Cross Section
42-Mo-96
-82.18 To -56.88%
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 7.1474 MeV
n-Mo096.cendl3.1 Threshold 10.750 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
0.5
0.4
0.3
0.2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
24
Incident Energy (eV)
42-Mo-96

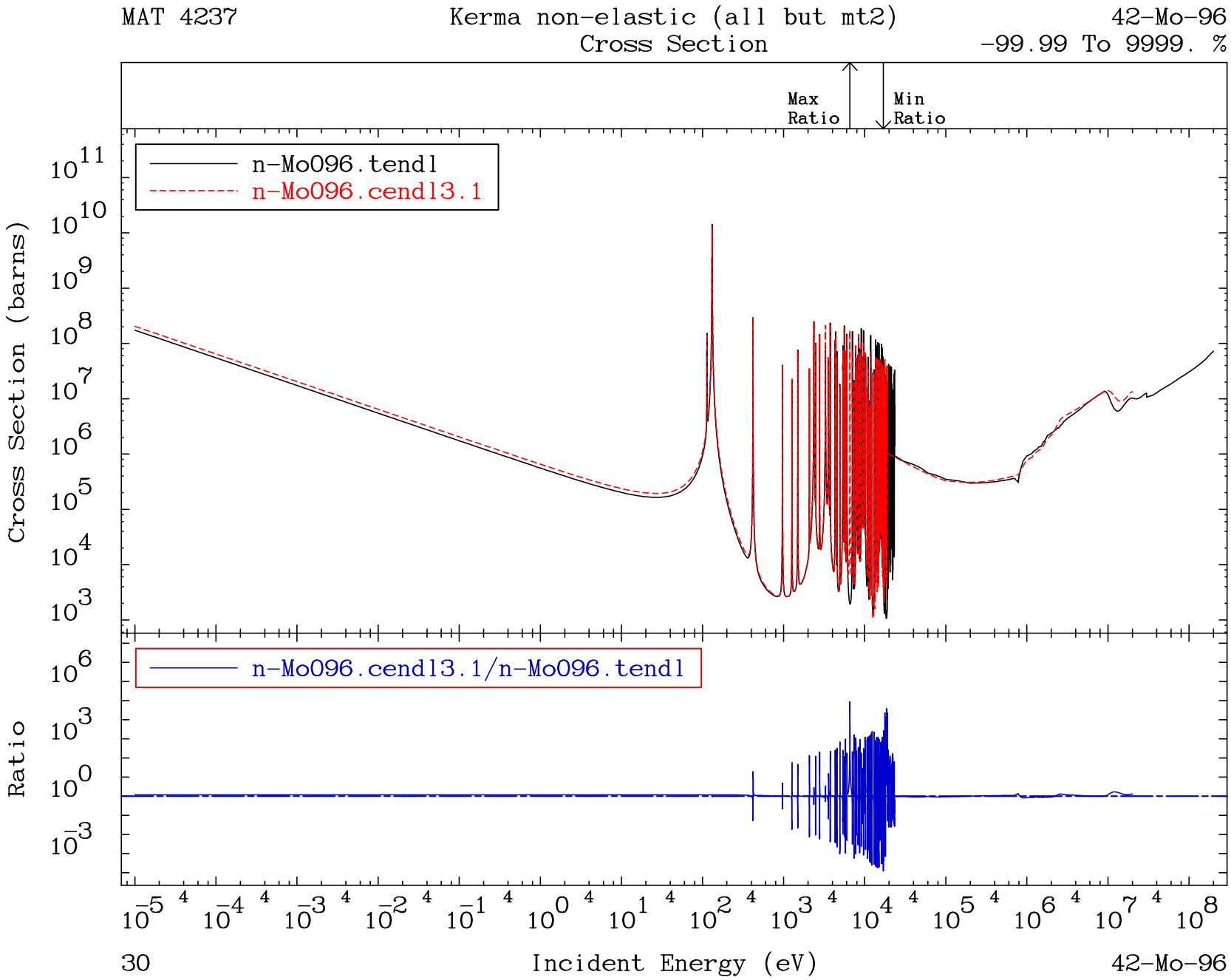

MAT 4237
Tritium Production
Cross Section
42-Mo-96
99.89 To 4651. %
Max Ratio
Min Ratio
n-Mo096.tendl Threshold 9.4021 MeV
n-Mo096.cendl3.1 Threshold 12.750 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
6
10^1
6
10^7
2
3
4
5
6
7
8
9
10^8
2
25
Incident Energy (eV)
42-Mo-96

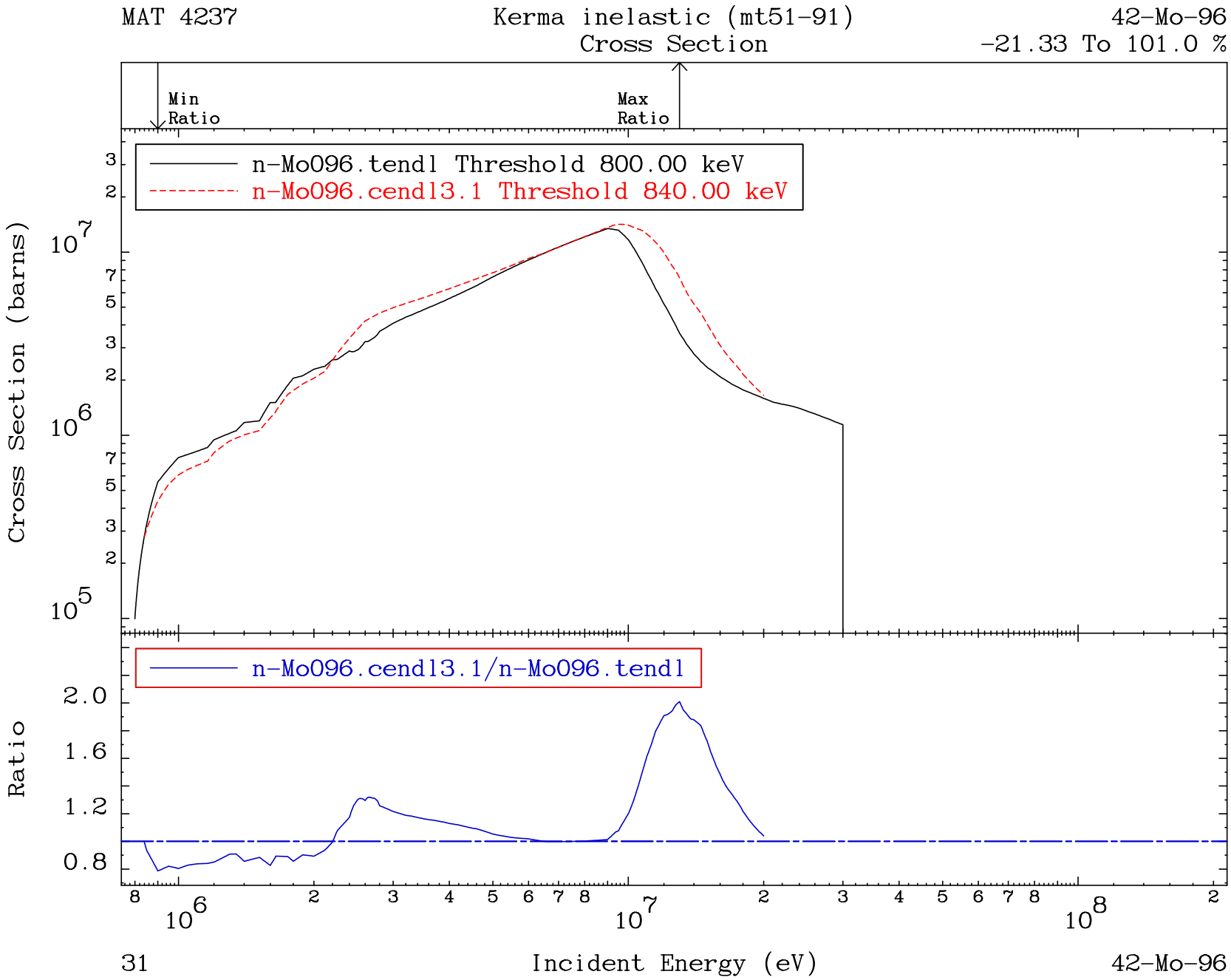

MAT 4237
He-3 Production
Cross Section
42-Mo-96
-100.0 To 197.6 %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 8.4736 MeV
n-Mo096.cendl3.1 Threshold 18.000 MeV
Cross Section (milli-barns)
350
300
250
200
150
100
50
0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^0
10^-5
10^-10
9
10^7
2
3
4
5
6
7
8
9
10^8
2
26
Incident Energy (eV)
42-Mo-96

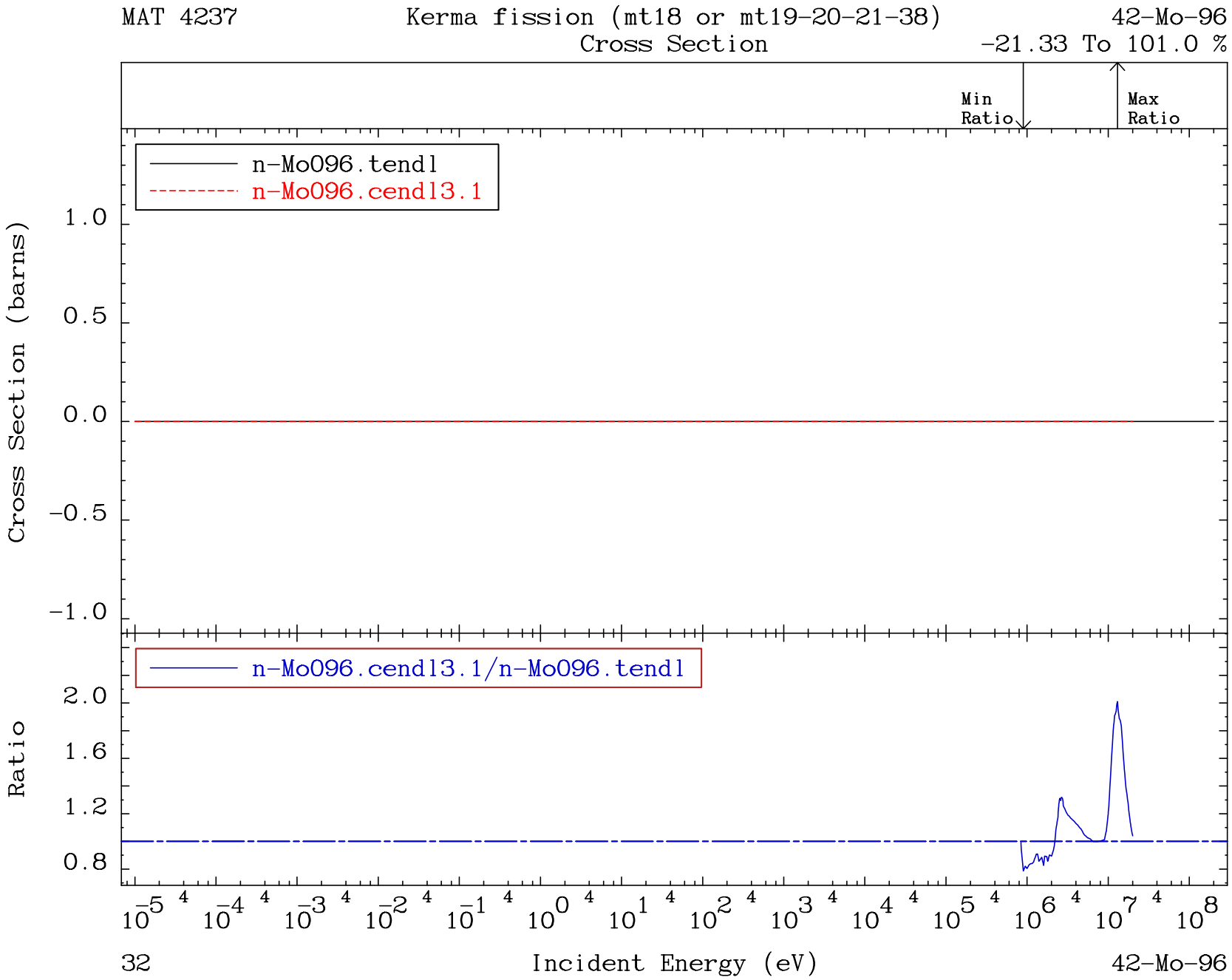

MAT 4237
He-4 Production
Cross Section
42-Mo-96
-100.0 To 339.1 %
Min Ratio
Max Ratio
n-Mo096.tendl
n-Mo096.cendl3.1 Threshold 1.9993 MeV
Cross Section (milli-barns)
0
100
200
300
400
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
10^0
10^-5
10^-10
10^-15
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
27
Incident Energy (eV)
42-Mo-96

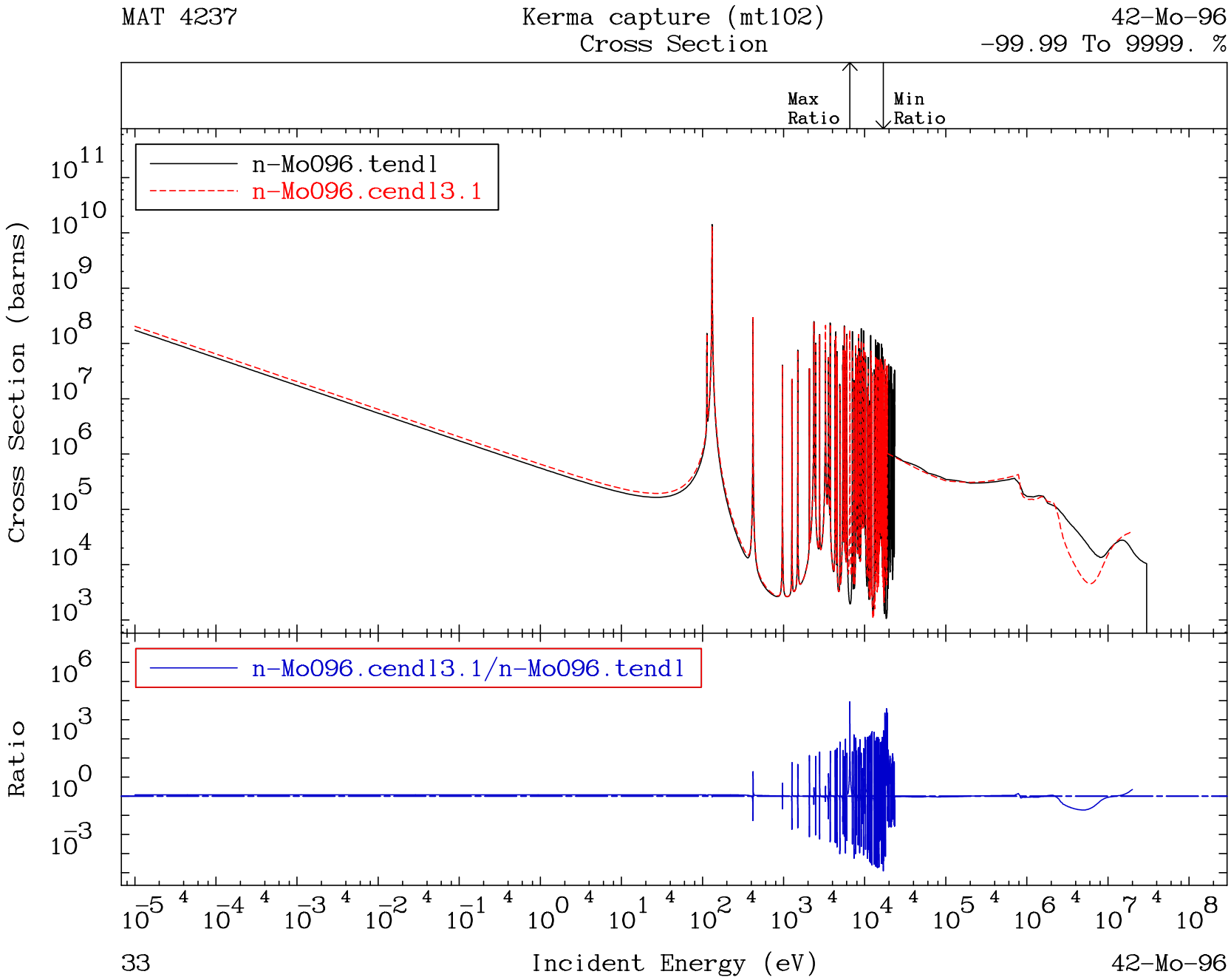

MAT 4237
Kerma total (eV-barns)
Cross Section
42-Mo-96
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
28
42-Mo-96

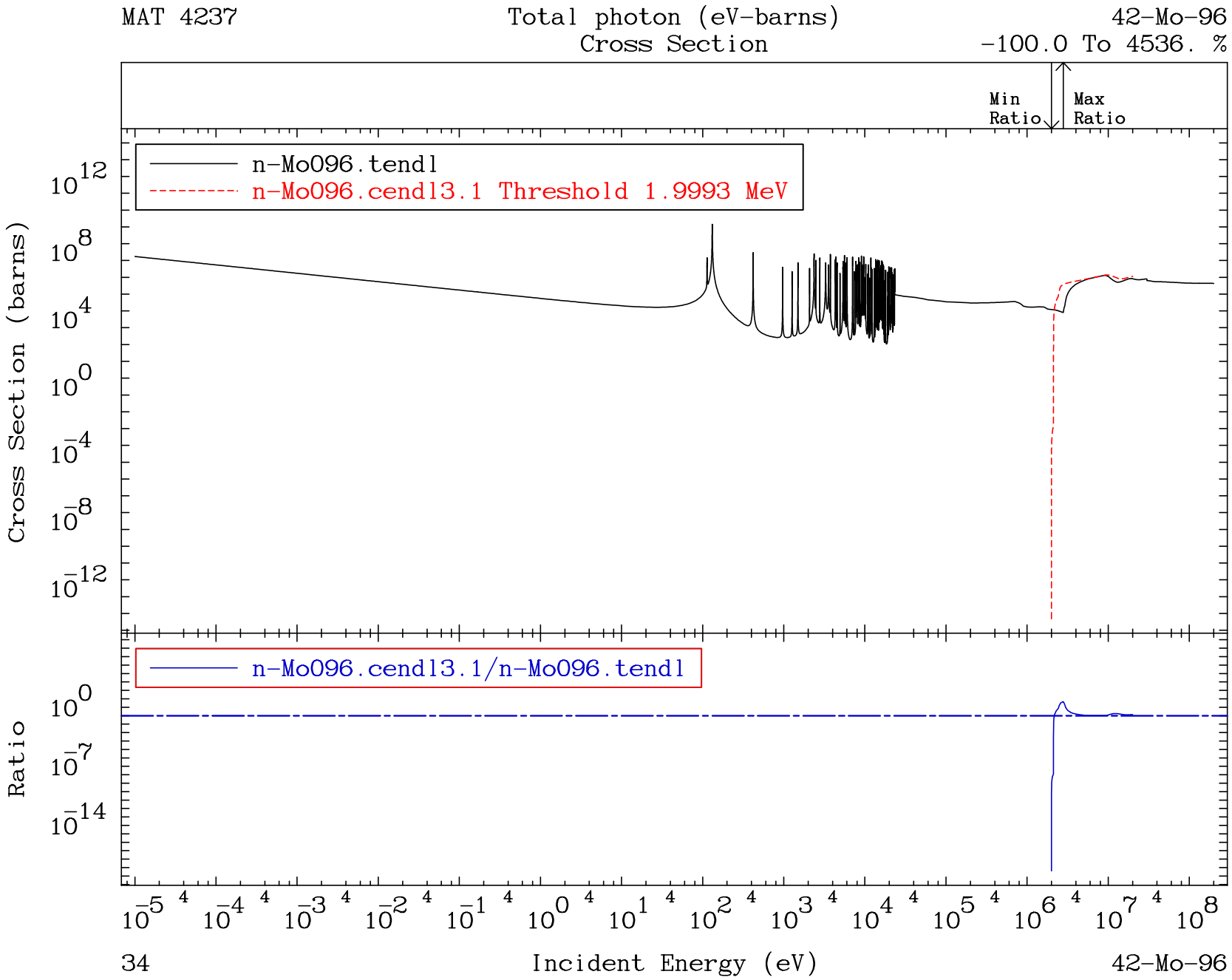

MAT 4237
Kerma elastic
Cross Section
42-Mo-96
-99.73 To 9999. %
Min Ratio
Max Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
29
42-Mo-96

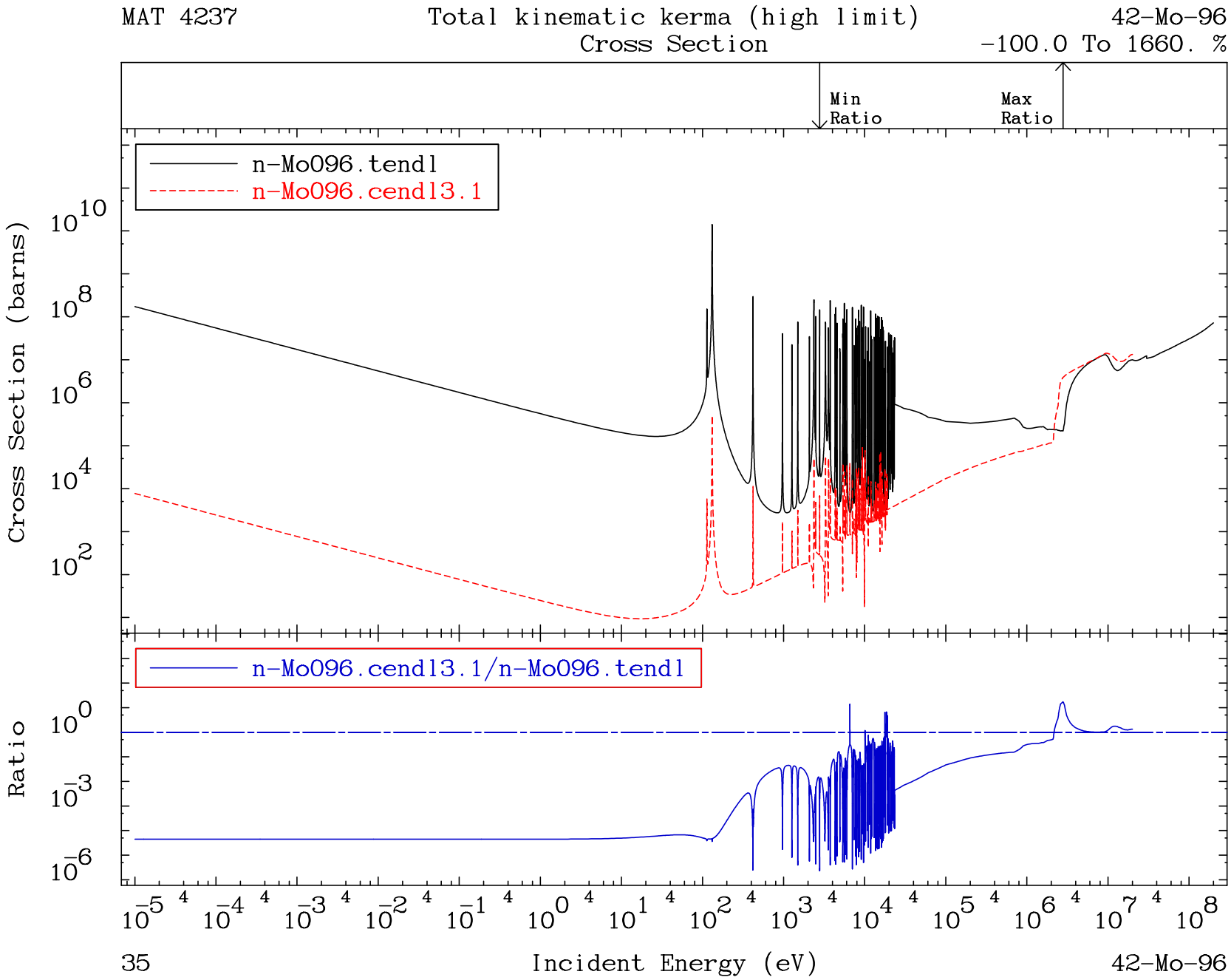

MAT 4237
Kerma non-elastic (all but mt2)
Cross Section
42-Mo-96
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
30
42-Mo-96

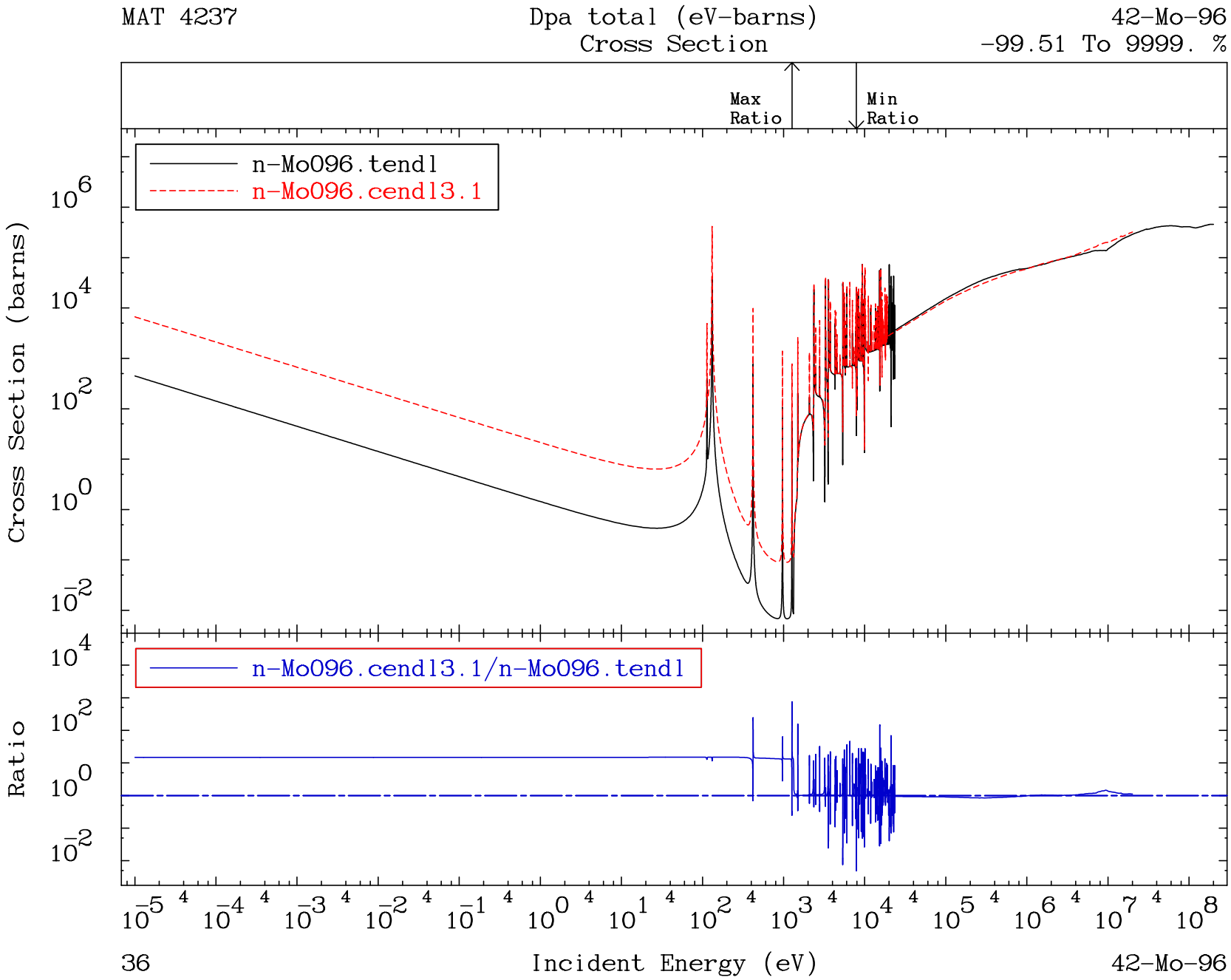

MAT 4237
Kerma inelastic (mt51-91)
Cross Section
42-Mo-96
-21.33 To 101.0 %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 800.00 keV
n-Mo096.cendl3.1 Threshold 840.00 keV
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
31
42-Mo-96

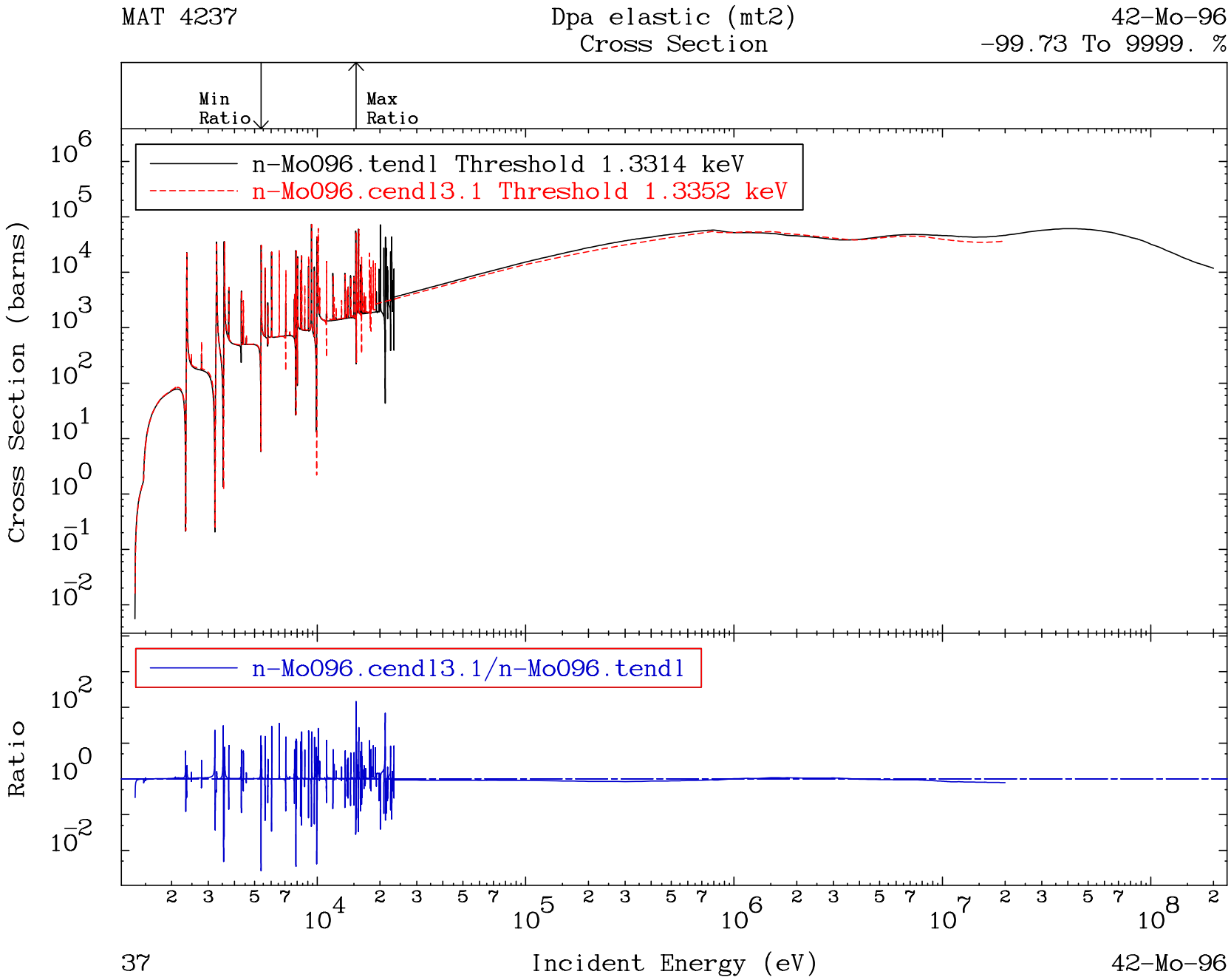

MAT 4237
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
42-Mo-96
-21.33 To 101.0 %
Min Ratio
Max Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
2.0
1.6
1.2
0.8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
32
Incident Energy (eV)
42-Mo-96

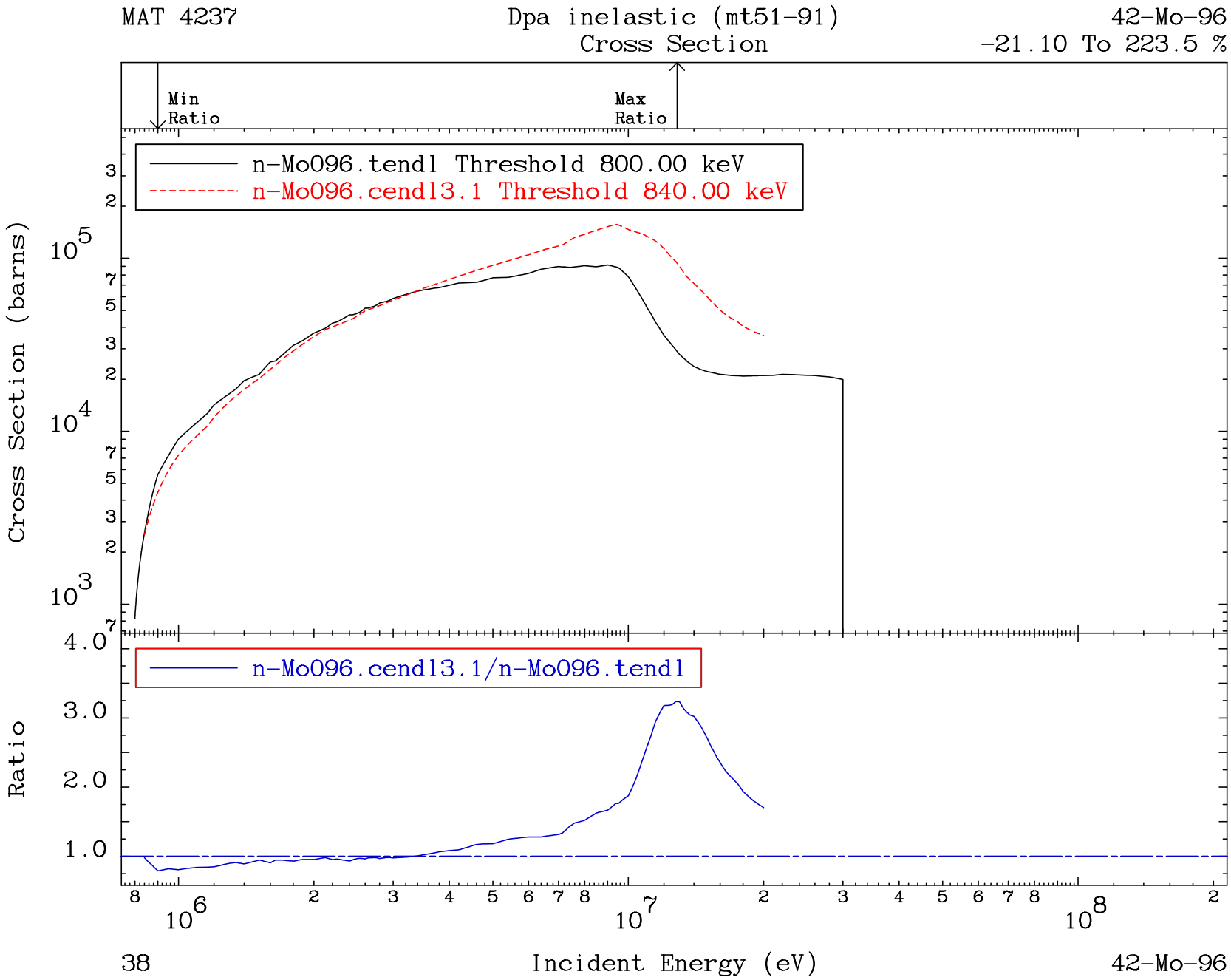

MAT 4237
Kerma capture (mt102)
Cross Section
42-Mo-96
-99.99 To 9999. %
Max Ratio
Min Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
33
42-Mo-96

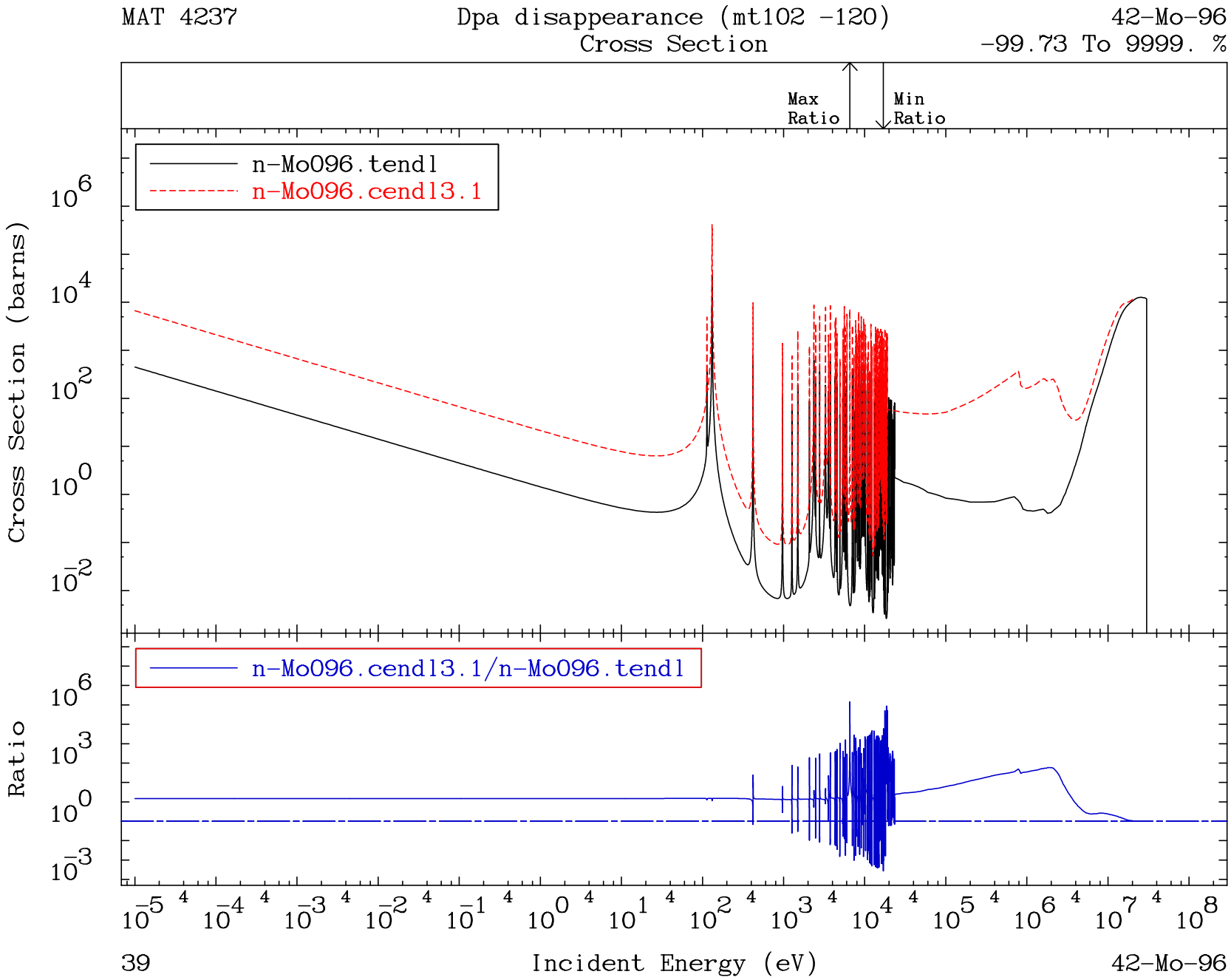

MAT 4237
Total photon (eV-barns)
Cross Section
42-Mo-96
-100.0 To 4536. %
Min Ratio
Max Ratio
n-Mo096.tendl
n-Mo096.cendl3.1 Threshold 1.9993 MeV
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
34
Incident Energy (eV)
42-Mo-96


MAT 4237
Total kinematic kerma (high limit)
Cross Section
42-Mo-96
-100.0 To 1660. %
Min Ratio
Max Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
35
42-Mo-96


MAT 4237
Dpa total (eV-barns)
Cross Section
42-Mo-96
-99.51 To 9999. %
Max Ratio
Min Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
36
42-Mo-96


MAT 4237
Dpa elastic (mt2)
Cross Section
42-Mo-96
-99.73 To 9999. %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 1.3314 keV
n-Mo096.cendl3.1 Threshold 1.3352 keV
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
37
42-Mo-96


MAT 4237
Dpa inelastic (mt51-91)
Cross Section
42-Mo-96
-21.10 To 223.5 %
Min Ratio
Max Ratio
n-Mo096.tendl Threshold 800.00 keV
n-Mo096.cendl3.1 Threshold 840.00 keV
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
38
42-Mo-96


MAT 4237
Dpa disappearance (mt102 -120)
Cross Section
42-Mo-96
-99.73 To 9999. %
Max Ratio
Min Ratio
n-Mo096.tendl
n-Mo096.cendl3.1
Cross Section (barns)
n-Mo096.cendl3.1/n-Mo096.tendl
Ratio
Incident Energy (eV)
39
42-Mo-96