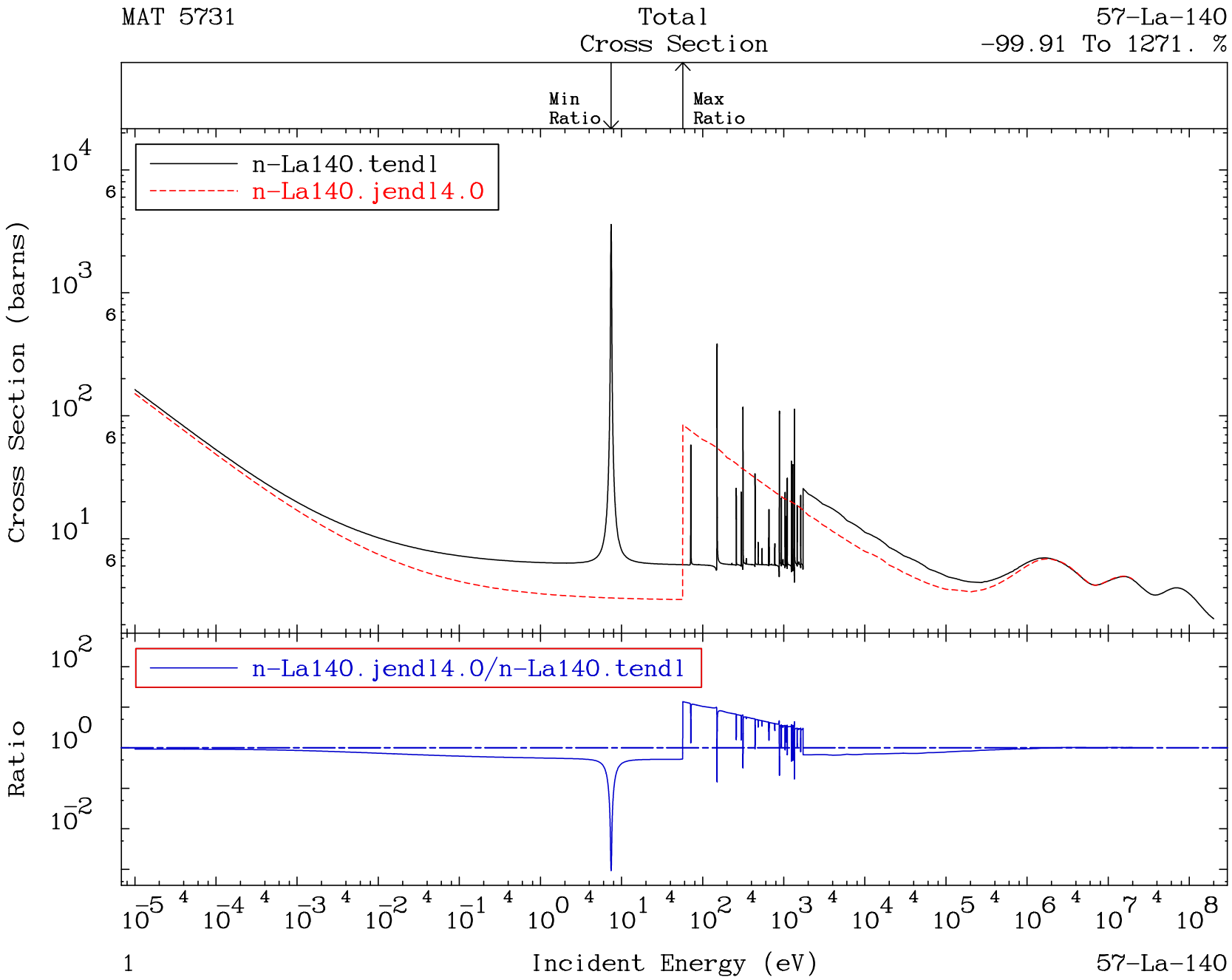
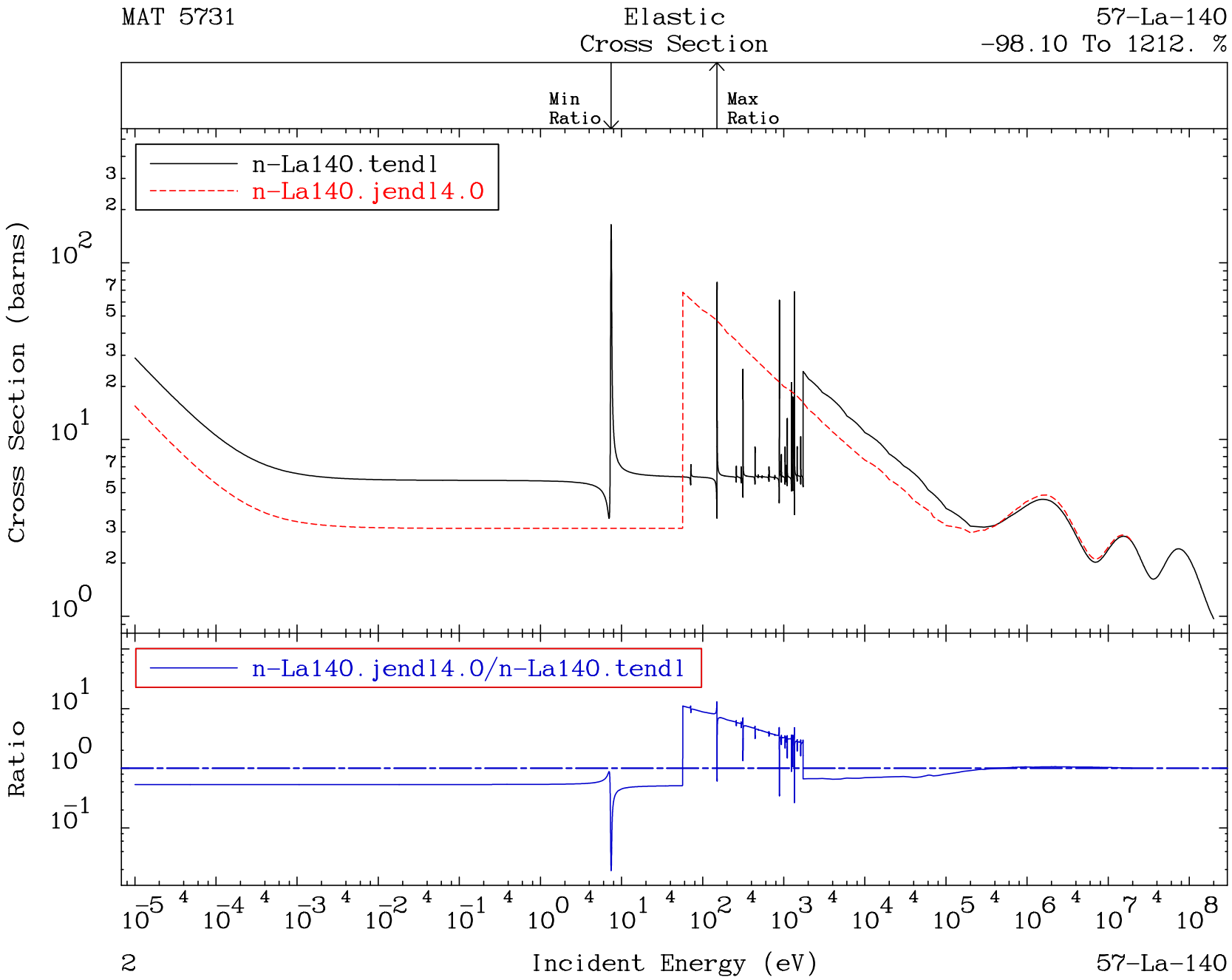
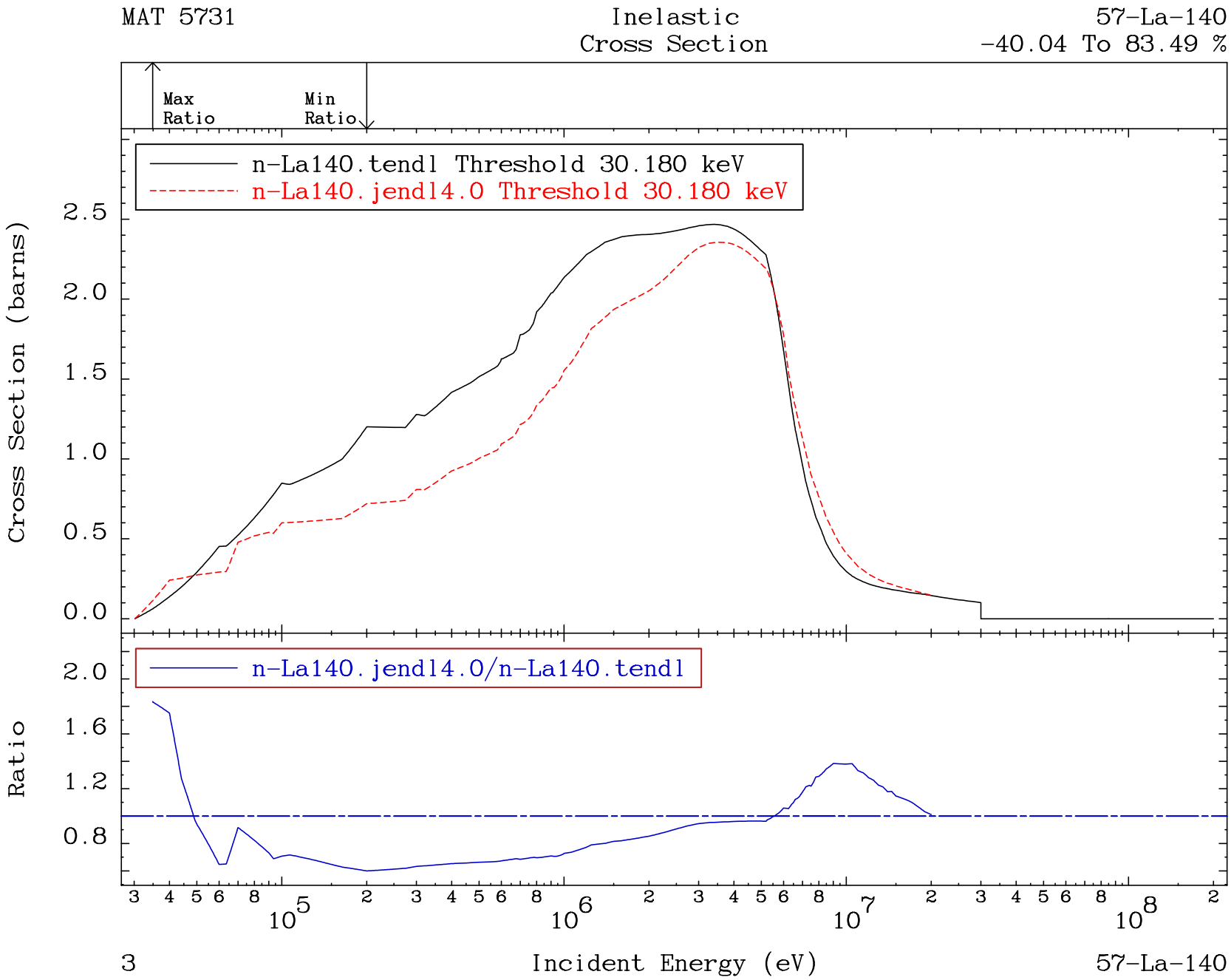
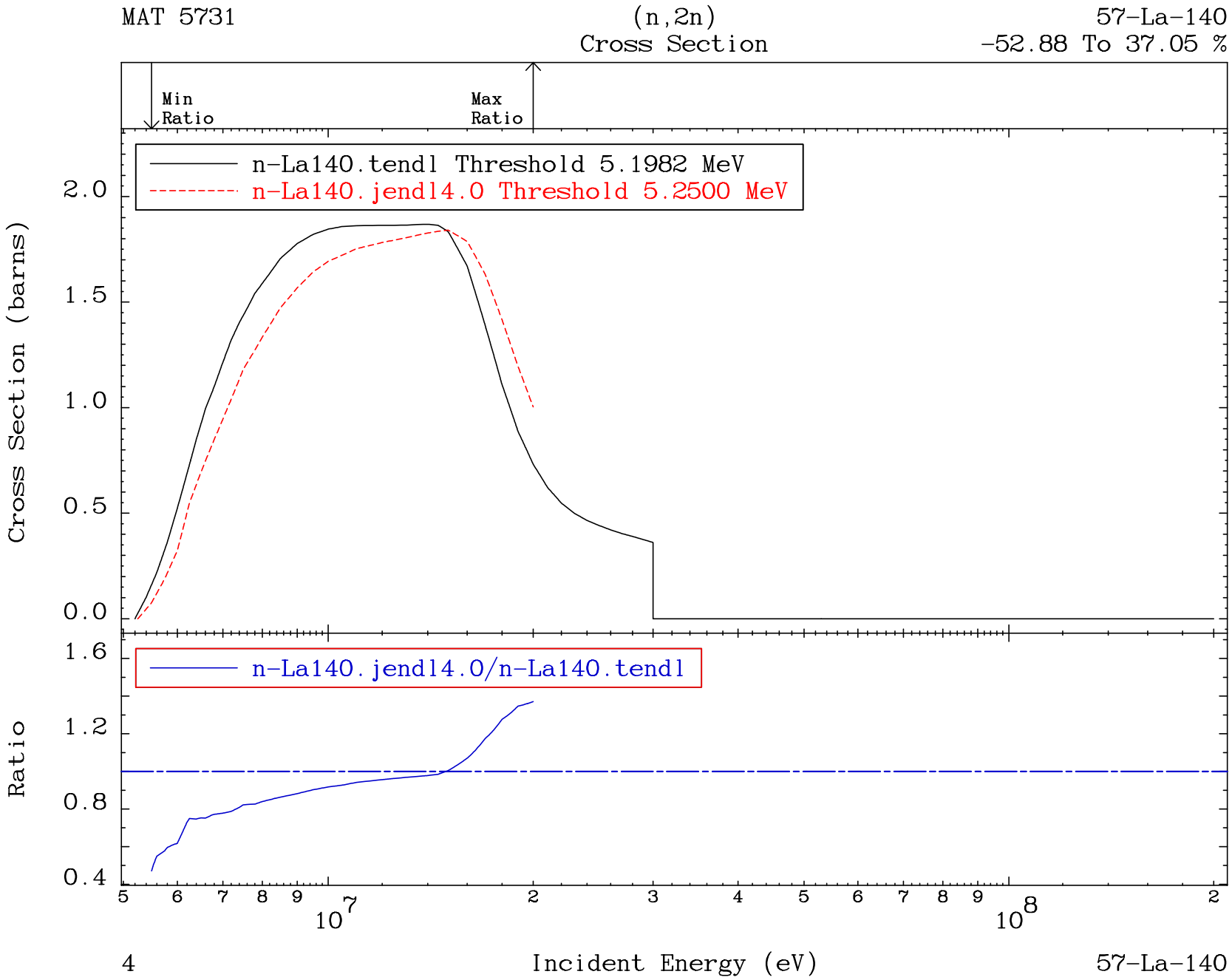
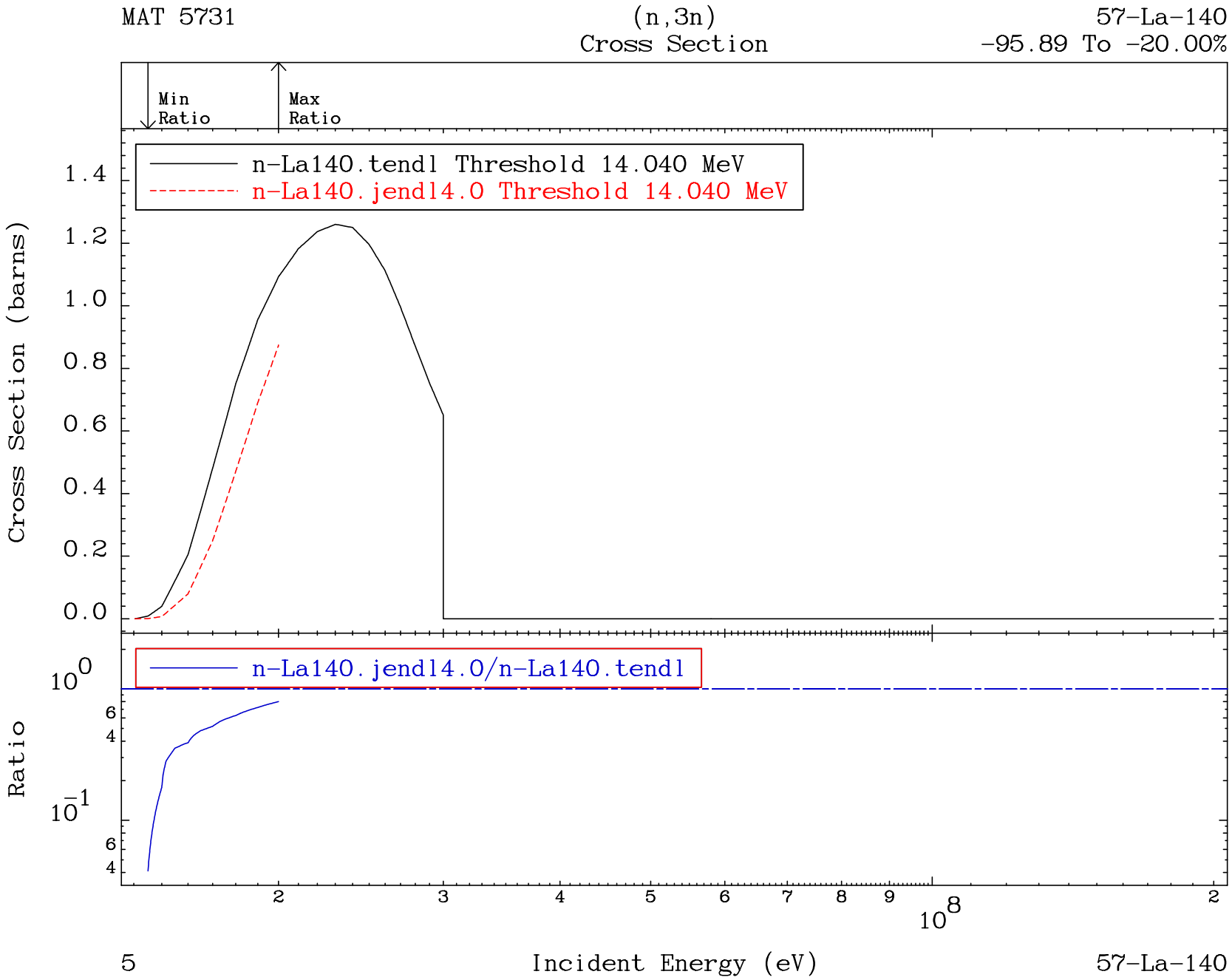
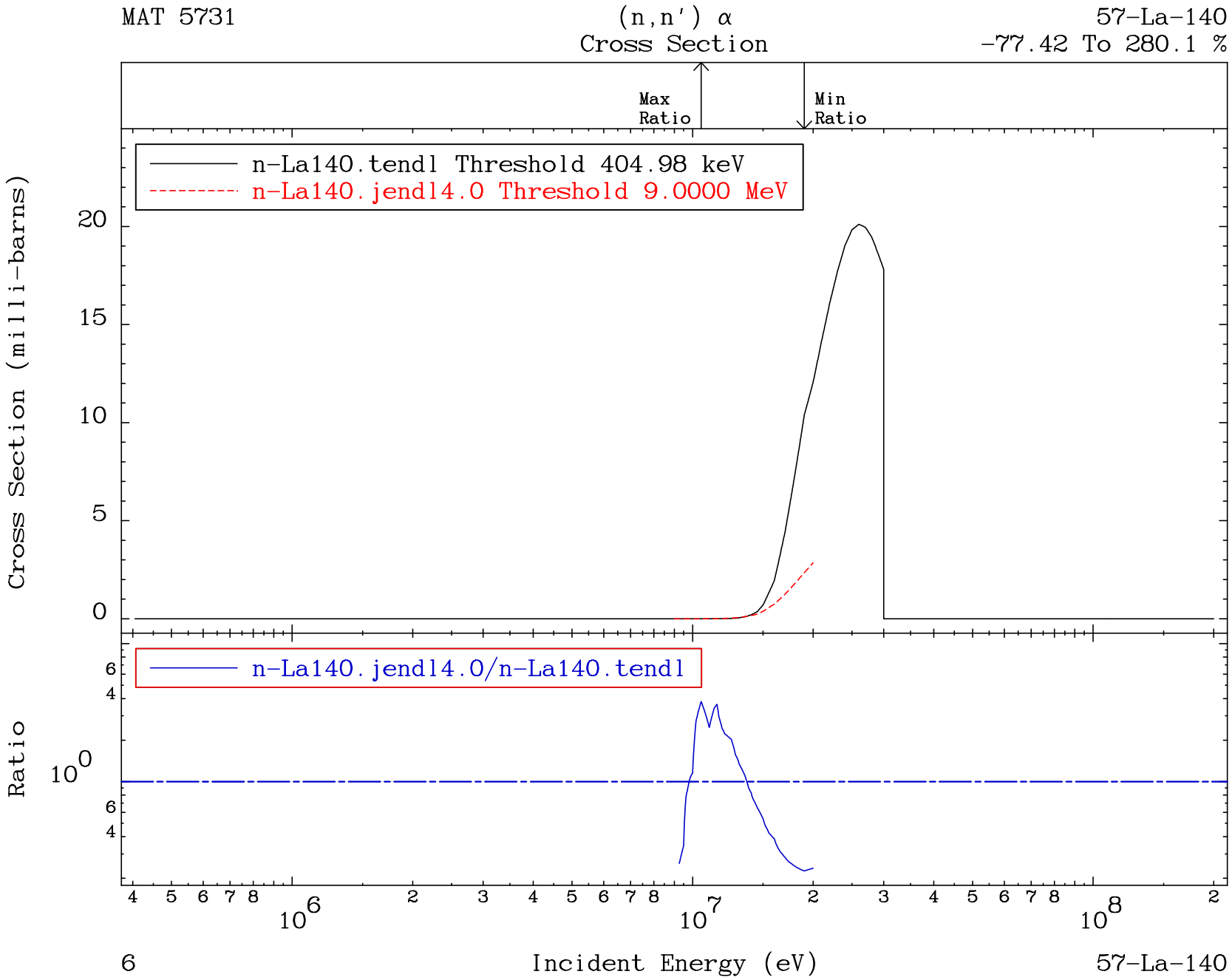

MAT 5731
Total
Cross Section
57-La-140
-99.91 To 1271. %
Min
Ratio
Max
Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
1
57-La-140

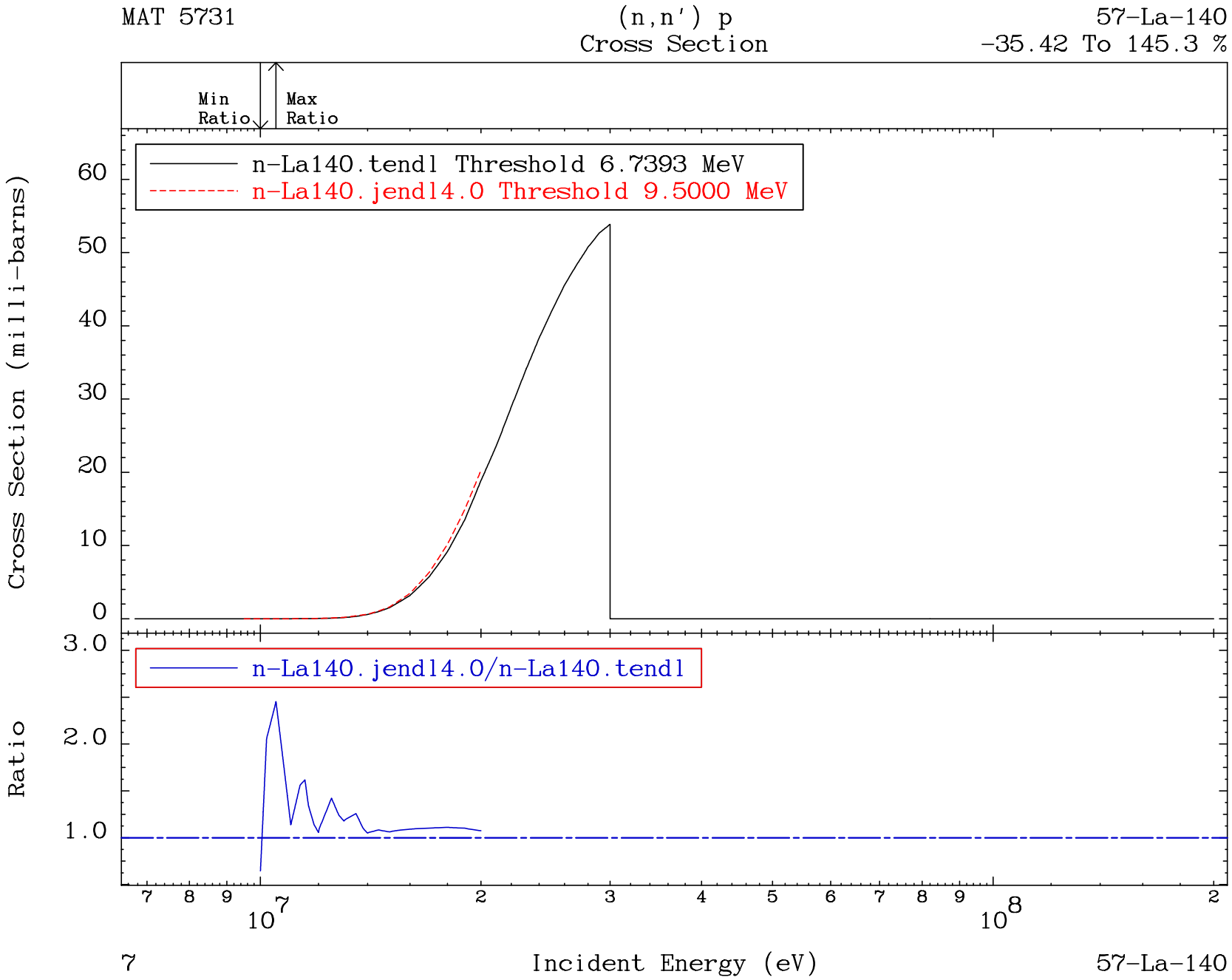

MAT 5731
Elastic
Cross Section
57-La-140
-98.10 To 1212. %
Min
Ratio
Max
Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
2
57-La-140

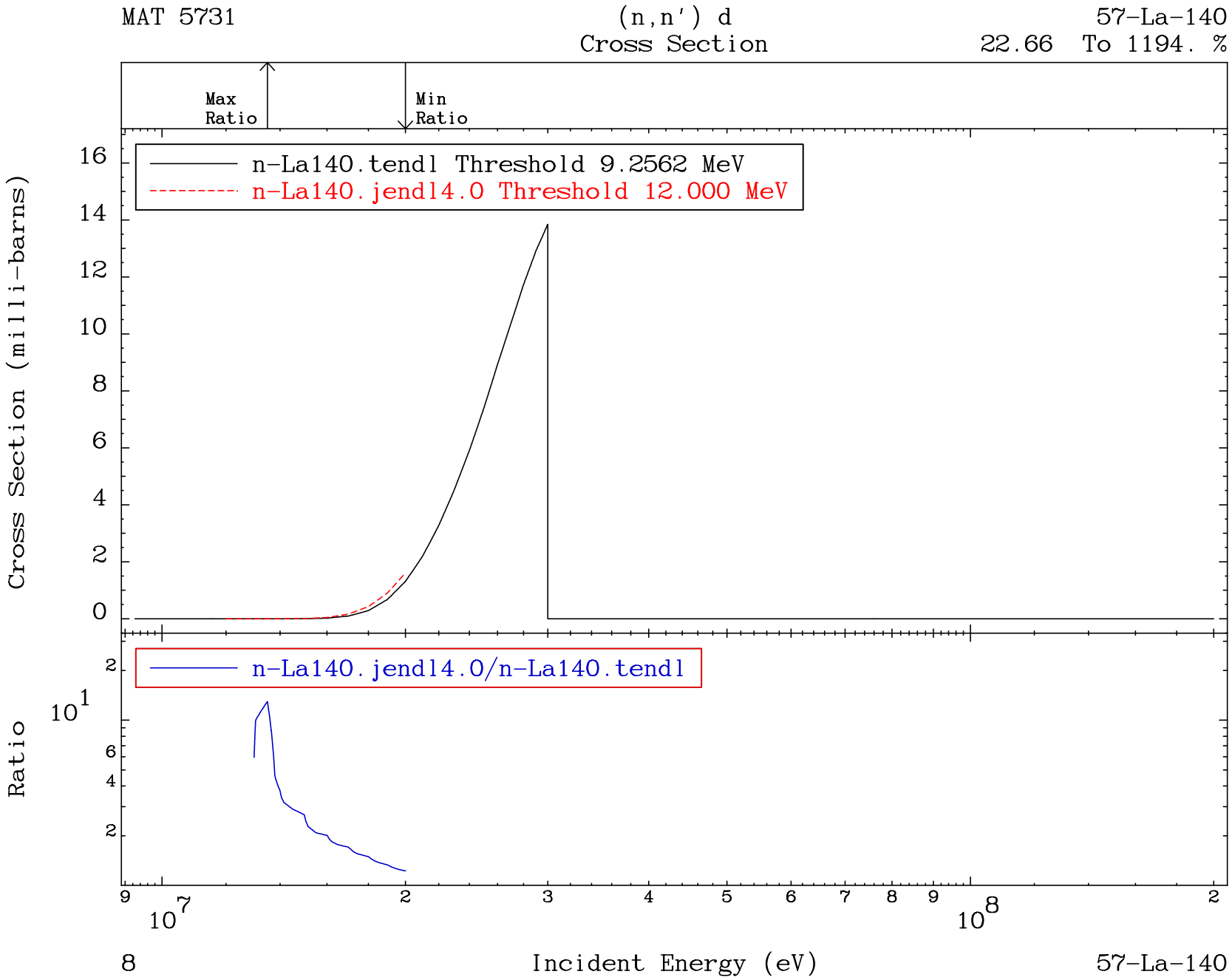

MAT 5731
Inelastic
Cross Section
57-La-140
-40.04 To 83.49 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 30.180 keV
n-La140.jendl4.0 Threshold 30.180 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-La140.jendl4.0/n-La140.tendl
Ratio
2.0
1.6
1.2
0.8
3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
3
57-La-140

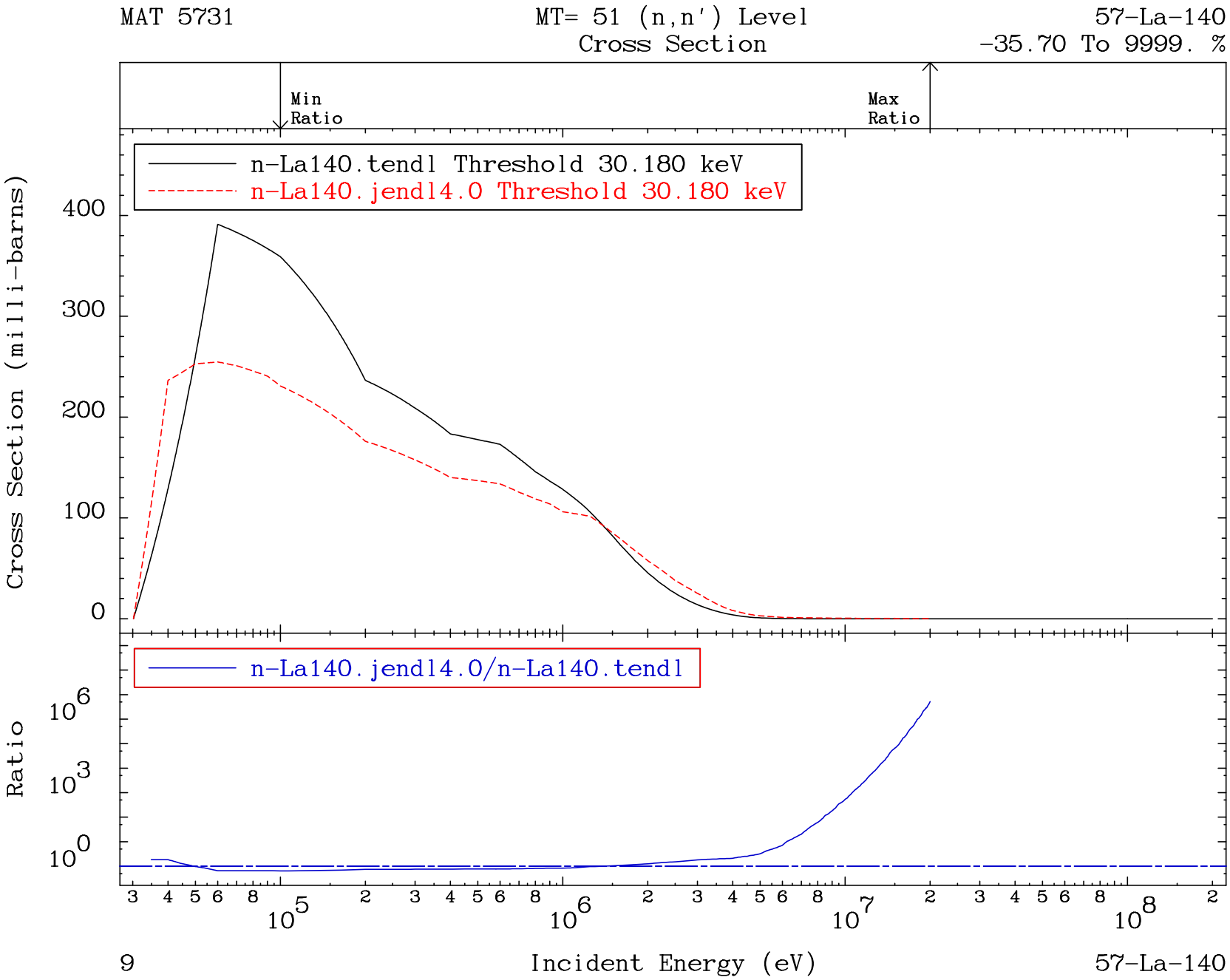

MAT 5731
(n,2n)
Cross Section
57-La-140
-52.88 To 37.05 %
Min Ratio
Max Ratio
n-La140.tendl Threshold 5.1982 MeV
n-La140.jendl4.0 Threshold 5.2500 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-La140.jendl4.0/n-La140.tendl
Ratio
1.6
1.2
0.8
0.4
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
4
Incident Energy (eV)
57-La-140

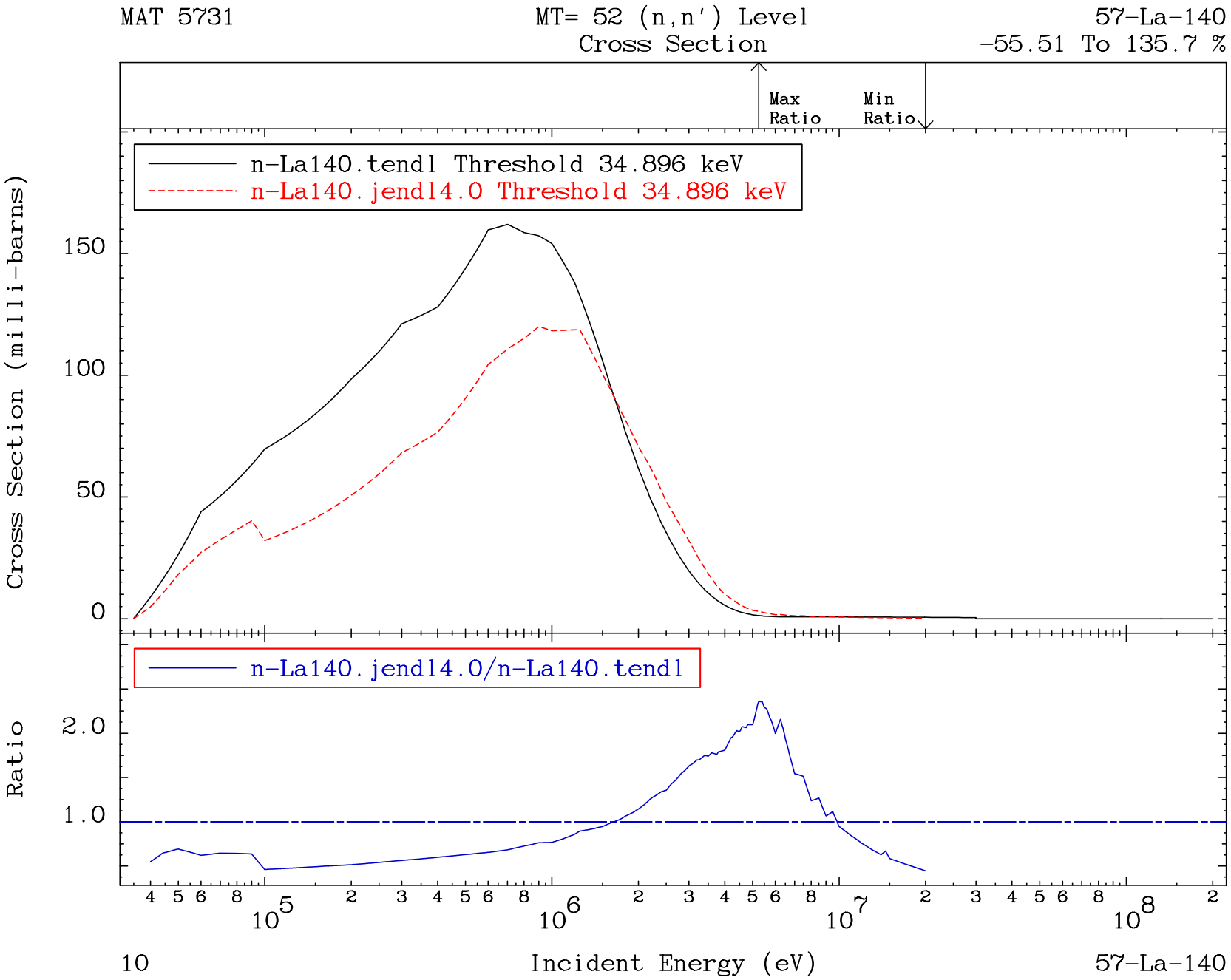

MAT 5731
(n,3n)
Cross Section
57-La-140
-95.89 To -20.00%
Min Ratio
Max Ratio
n-La140.tendl Threshold 14.040 MeV
n-La140.jendl4.0 Threshold 14.040 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^0
10^-1
6
4
6
4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
57-La-140

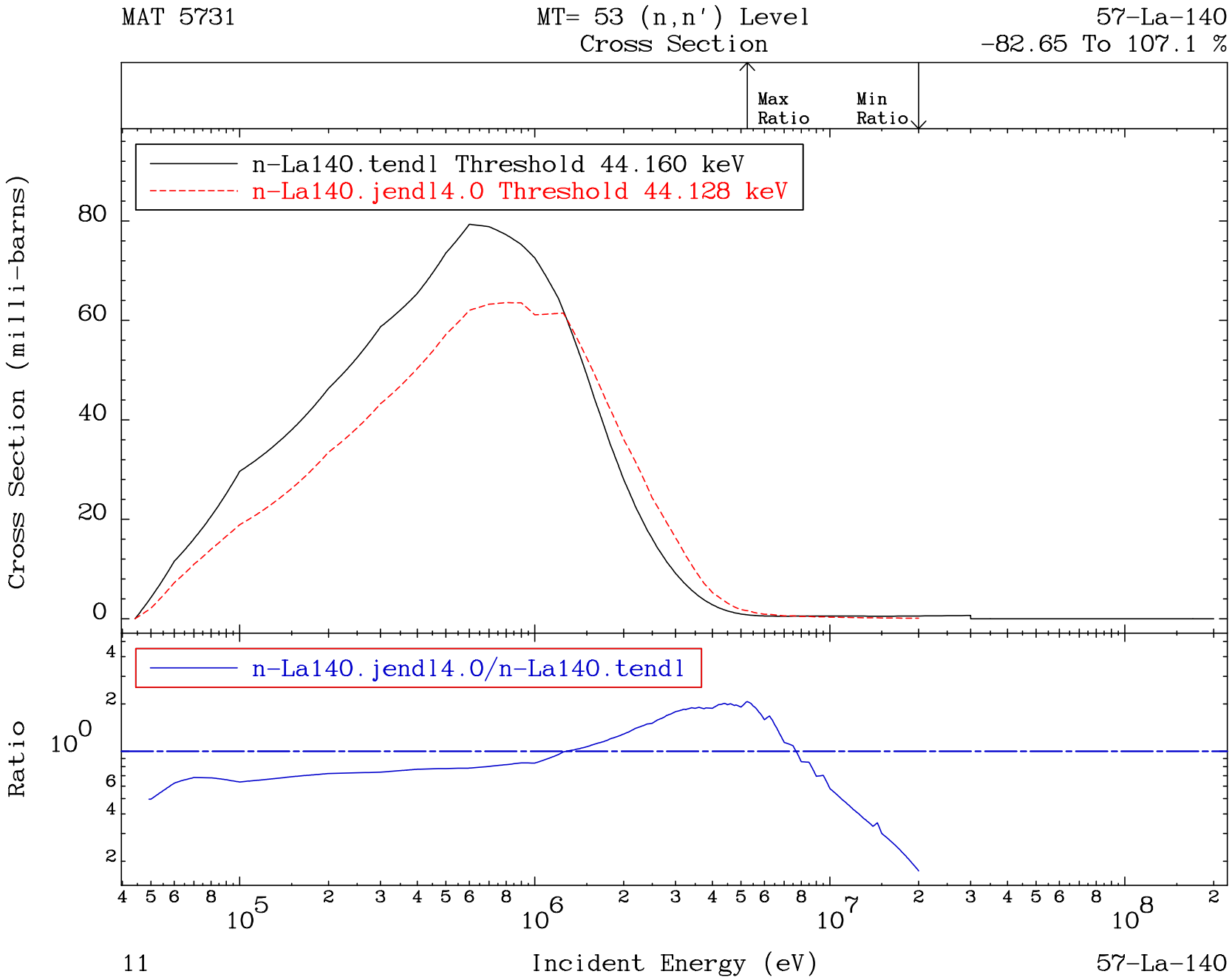

MAT 5731
(n,n') α
Cross Section
57-La-140
-77.42 To 280.1 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 404.98 keV
n-La140.jendl4.0 Threshold 9.0000 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-La140.jendl4.0/n-La140.tendl
Ratio
6
4
10^0
6
4
4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
6
Incident Energy (eV)
57-La-140

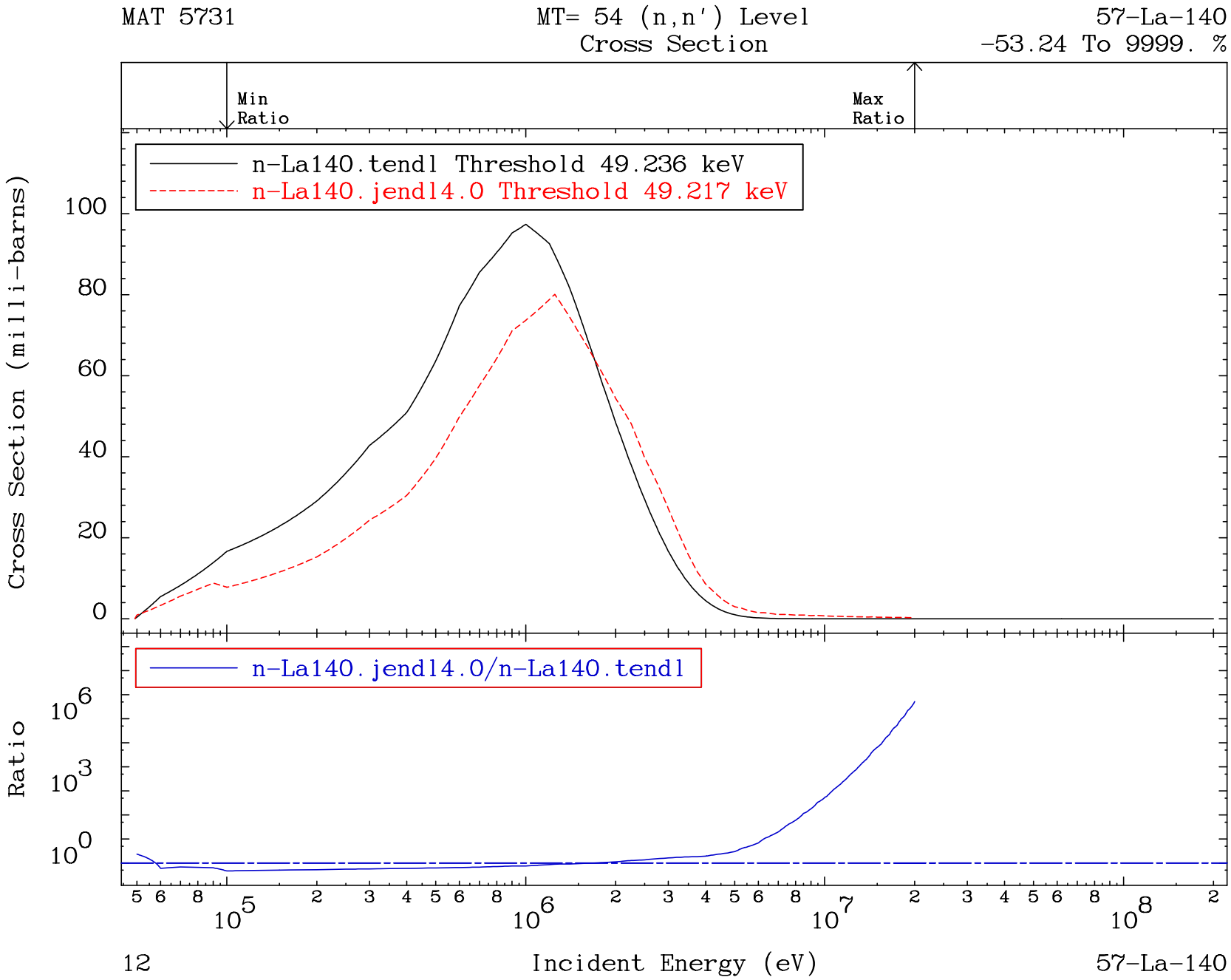

MAT 5731
(n,n') p
Cross Section
57-La-140
-35.42 To 145.3 %
Min Ratio
Max Ratio
n-La140.tendl Threshold 6.7393 MeV
n-La140.jendl4.0 Threshold 9.5000 MeV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
3.0
2.0
1.0
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
57-La-140

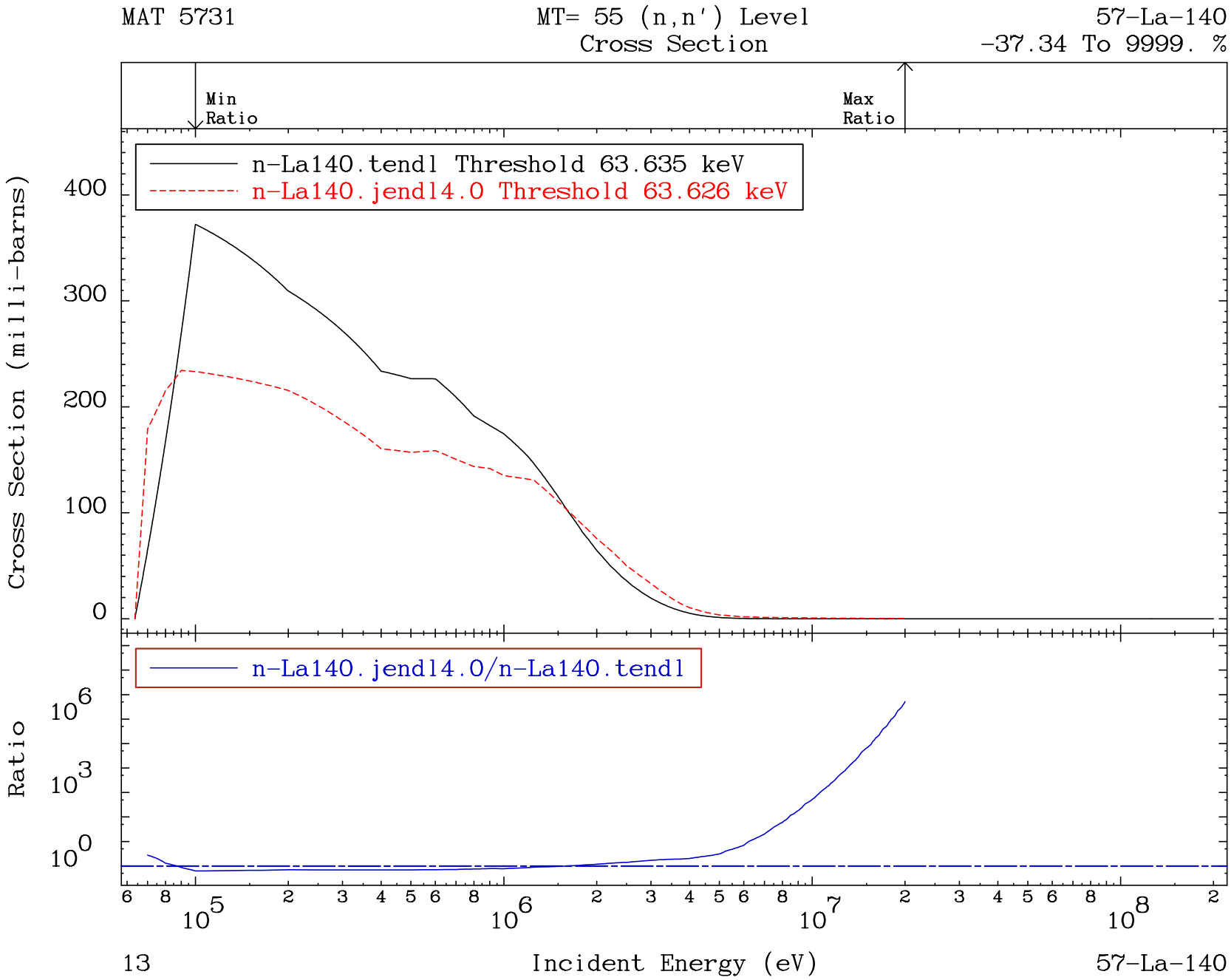

MAT 5731
(n,n') d
Cross Section
57-La-140
22.66 To 1194. %
Max Ratio
Min Ratio
n-La140.tendl Threshold 9.2562 MeV
n-La140.jendl4.0 Threshold 12.000 MeV
Cross Section (milli-barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
8
57-La-140

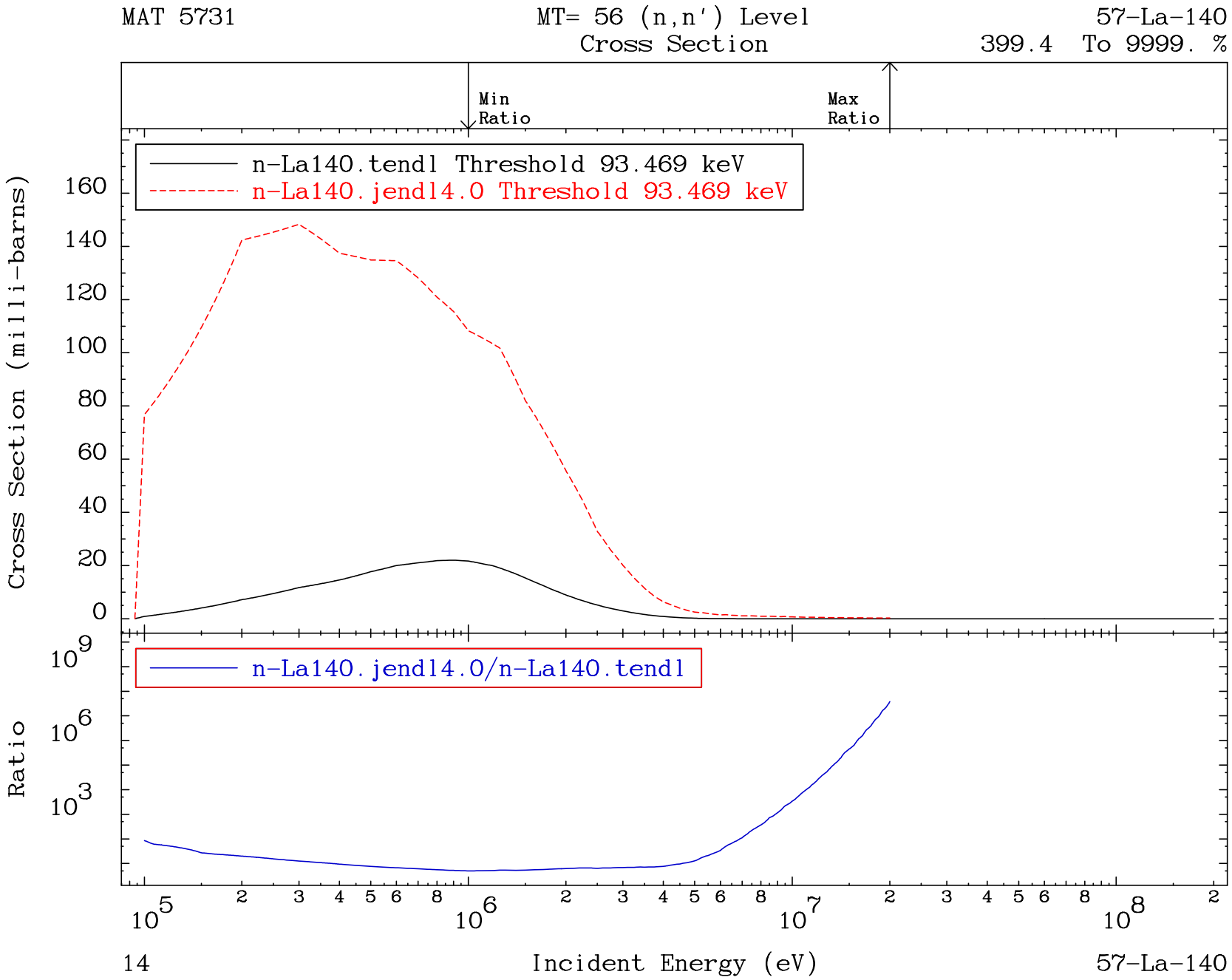

MAT 5731
MT= 51 (n,n') Level
Cross Section
57-La-140
-35.70 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 30.180 keV
n-La140.jendl4.0 Threshold 30.180 keV
Cross Section (milli-barns)
400
300
200
100
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
3 4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
9
Incident Energy (eV)
57-La-140

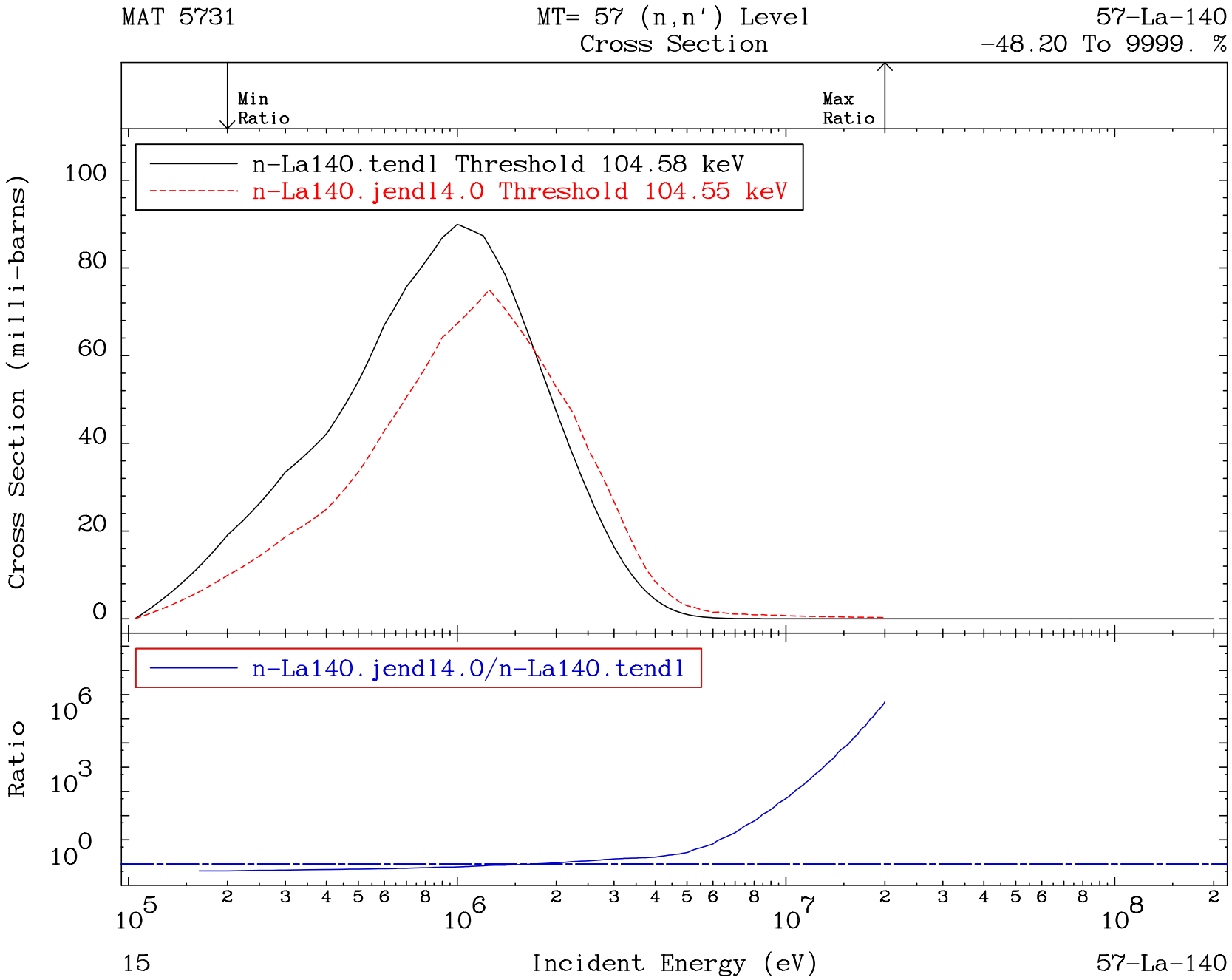

MAT 5731
MT= 52 (n,n') Level
Cross Section
57-La-140
-55.51 To 135.7 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 34.896 keV
n-La140.jendl4.0 Threshold 34.896 keV
Cross Section (milli-barns)
150
100
50
0
n-La140.jendl4.0/n-La140.tendl
Ratio
2.0
1.0
4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
10
Incident Energy (eV)
57-La-140

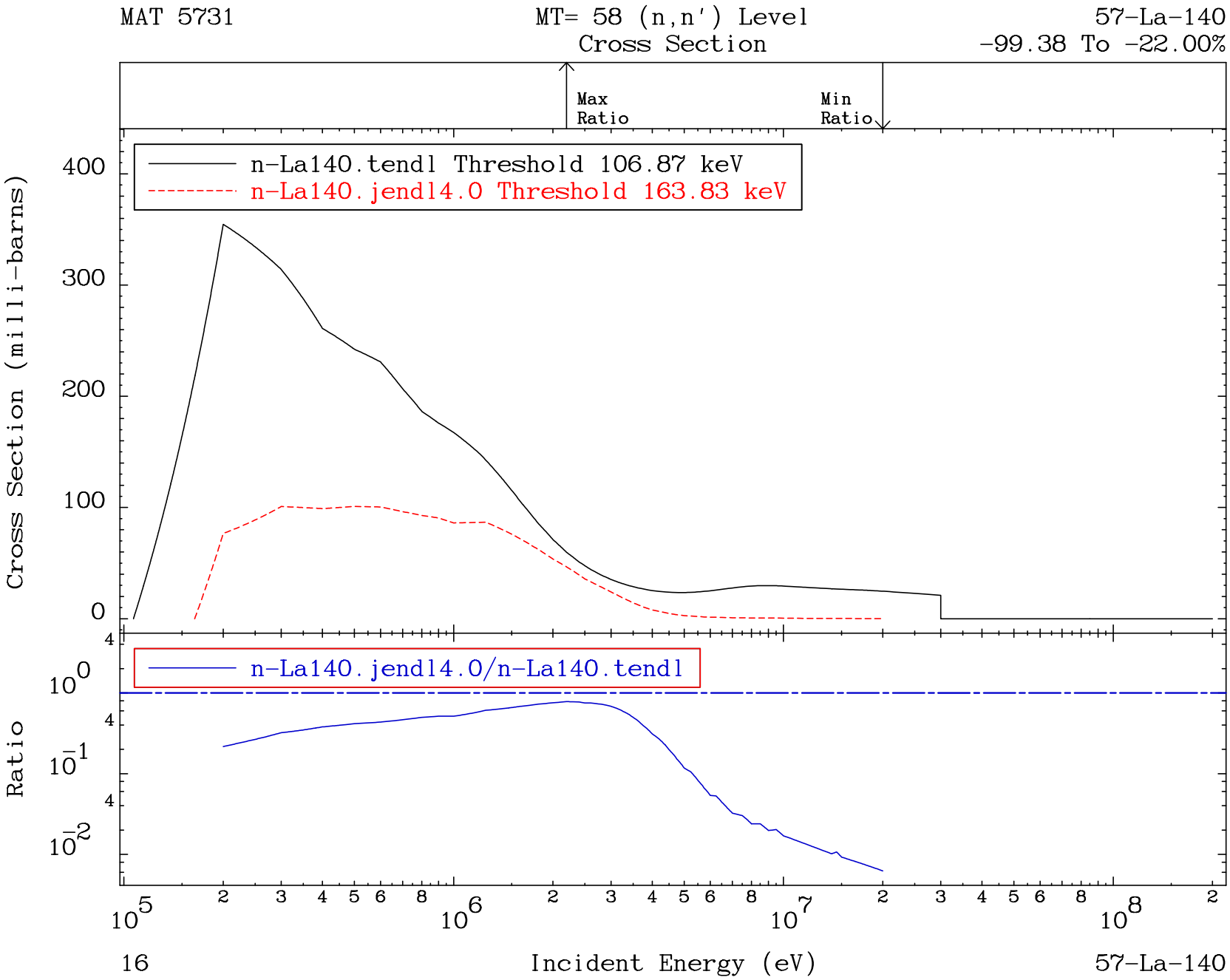

MAT 5731
MT= 53 (n,n') Level
Cross Section
57-La-140
-82.65 To 107.1 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 44.160 keV
n-La140.jendl4.0 Threshold 44.128 keV
Cross Section (milli-barns)
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^0
4
2
6
4
2
4 5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
11
Incident Energy (eV)
57-La-140

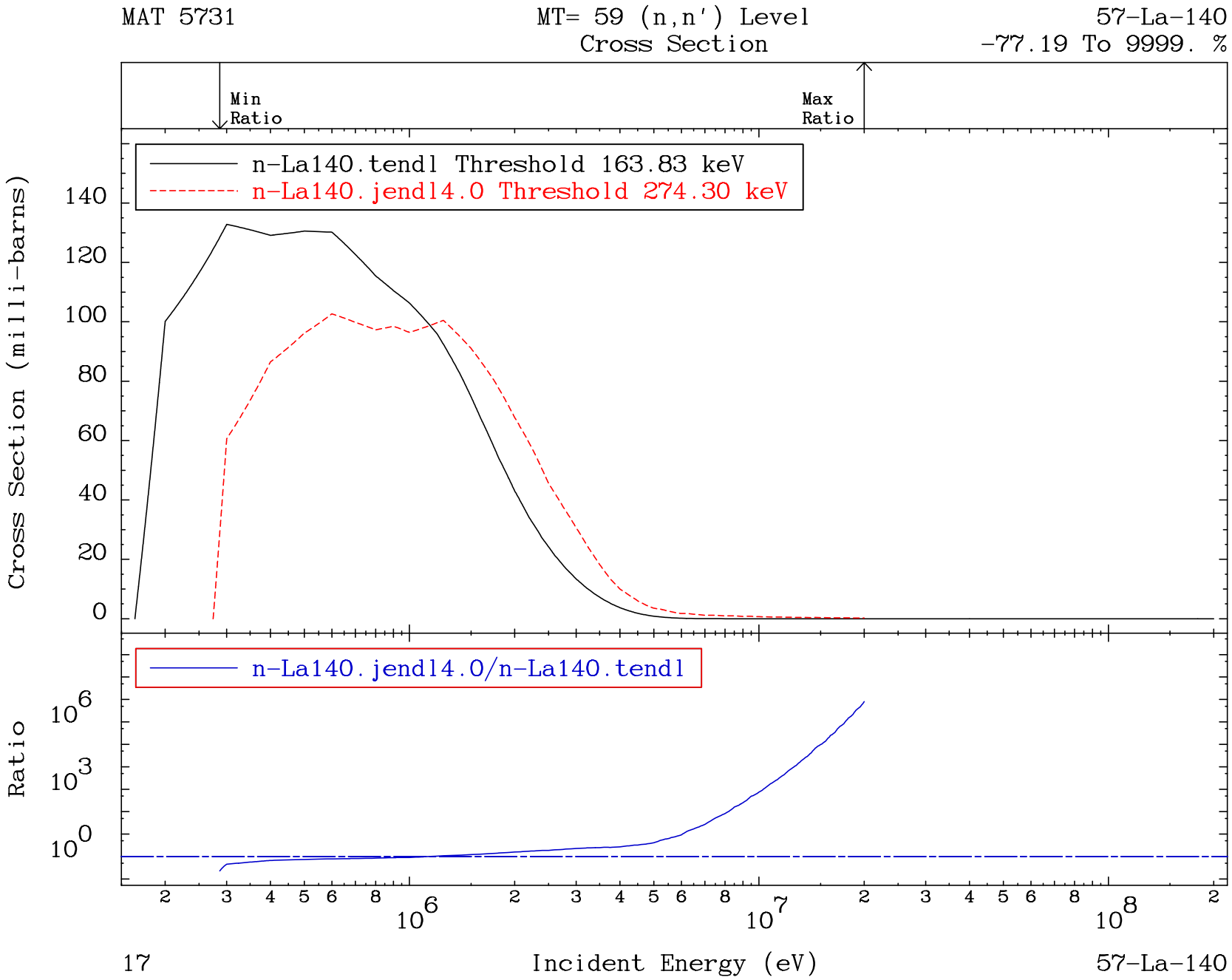

MAT 5731
MT= 54 (n,n') Level
Cross Section
57-La-140
-53.24 To 9999. %
Min
Ratio
Max
Ratio
n-La140.tendl Threshold 49.236 keV
n-La140.jendl4.0 Threshold 49.217 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
5 6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
12
Incident Energy (eV)
57-La-140

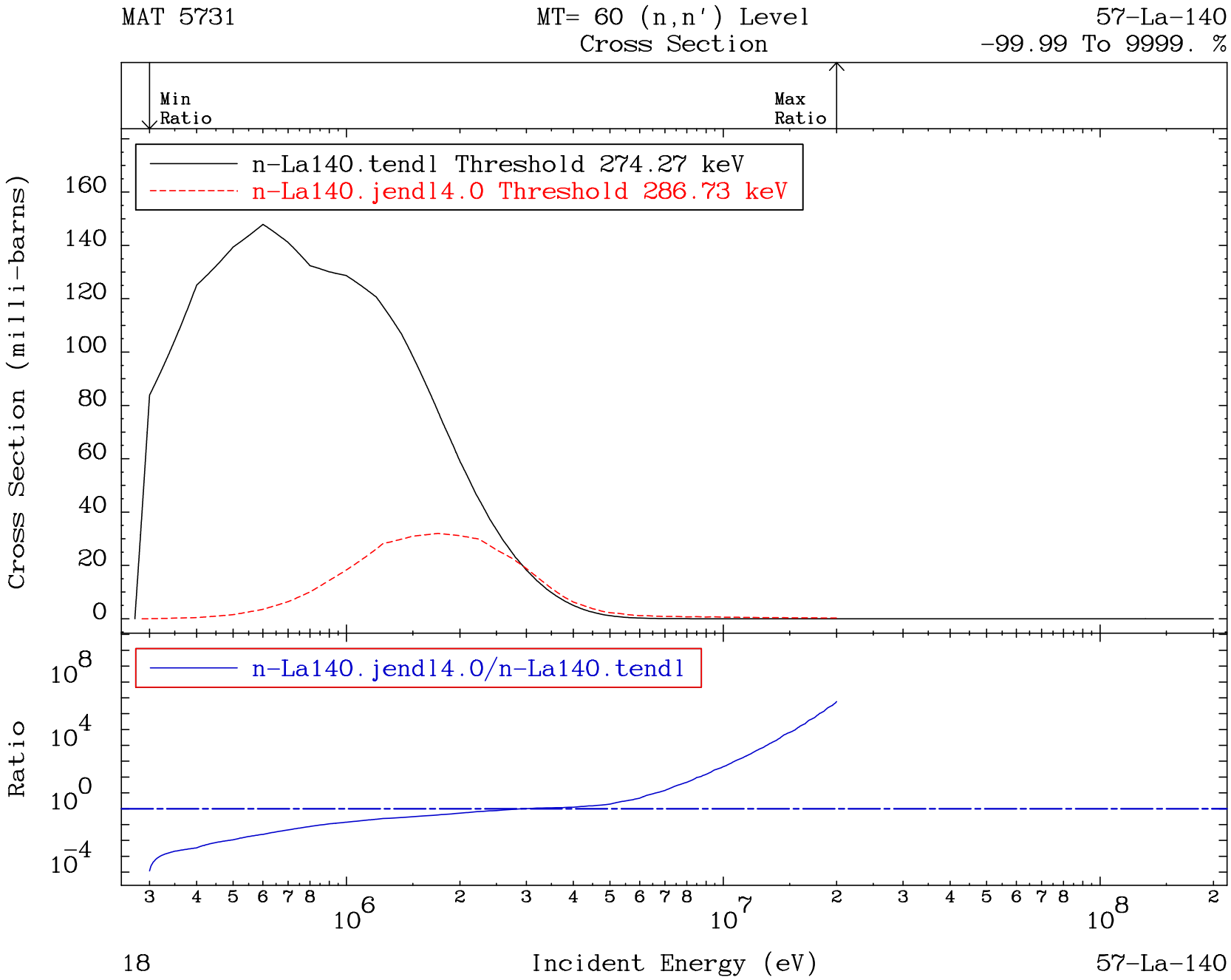

MAT 5731
MT= 55 (n,n') Level
Cross Section
57-La-140
-37.34 To 9999. %
Min
Ratio
Max
Ratio
n-La140.tendl Threshold 63.635 keV
n-La140.jendl4.0 Threshold 63.626 keV
Cross Section (milli-barns)
400
300
200
100
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
13
Incident Energy (eV)
57-La-140

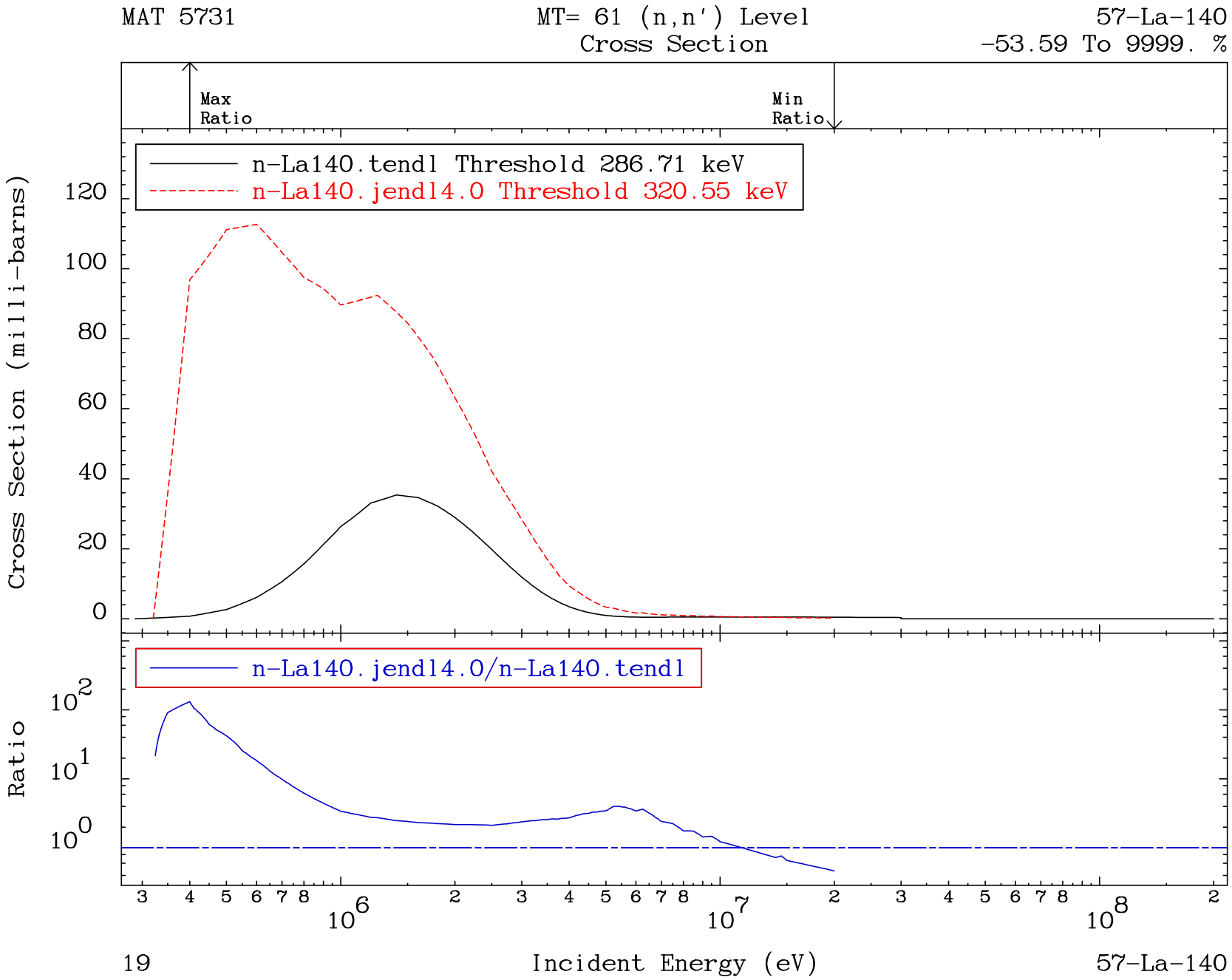

MAT 5731
MT= 56 (n,n') Level
Cross Section
57-La-140
399.4 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 93.469 keV
n-La140.jendl4.0 Threshold 93.469 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^9
10^6
10^3
10^5
2 3 4 5 6 8
10^6
2 3 4 5 6 8
10^7
2 3 4 5 6 8
10^8
2
14
Incident Energy (eV)
57-La-140

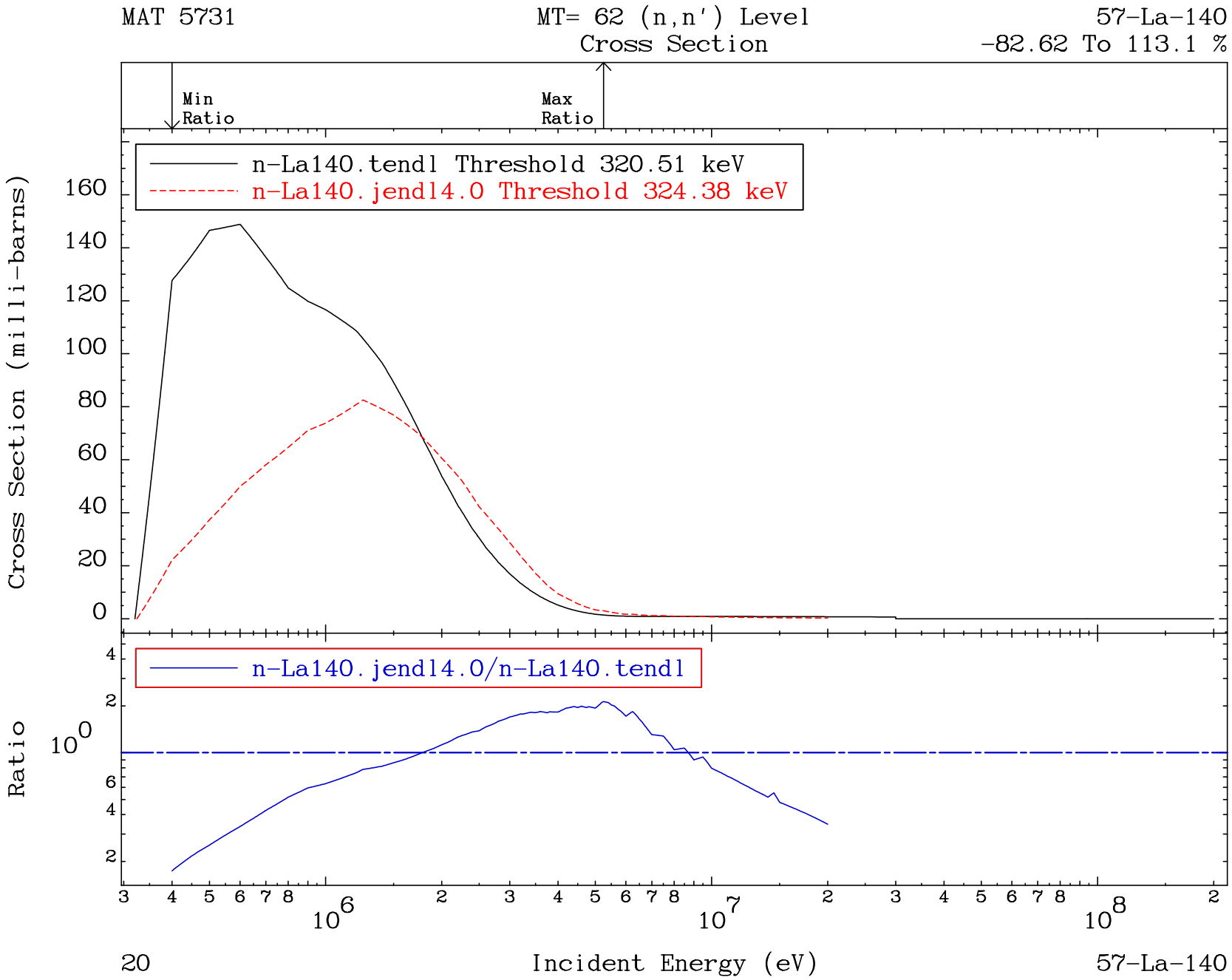

MAT 5731
MT= 57 (n,n') Level
Cross Section
57-La-140
-48.20 To 9999. %
Min
Ratio
Max
Ratio
n-La140.tendl Threshold 104.58 keV
n-La140.jendl4.0 Threshold 104.55 keV
Cross Section (milli-barns)
100
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
10^5
10^6
10^7
10^8
Incident Energy (eV)
15
57-La-140

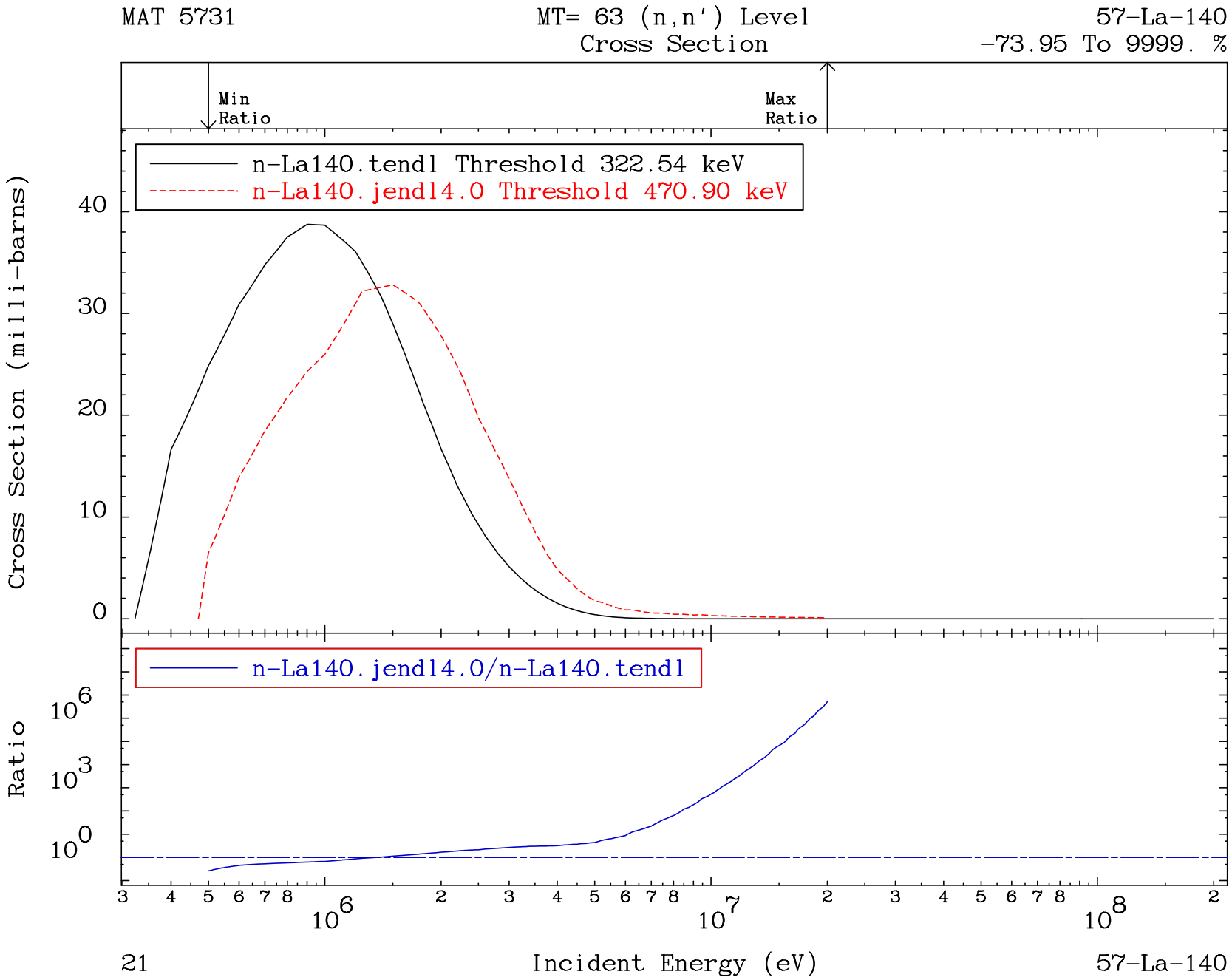

MAT 5731
MT= 58 (n,n') Level
Cross Section
57-La-140
-99.38 To -22.00%
Max
Ratio
Min
Ratio
n-La140.tendl Threshold 106.87 keV
n-La140.jendl4.0 Threshold 163.83 keV
Cross Section (milli-barns)
400
300
200
100
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^0
10^-1
10^-2
10^5
10^6
10^7
10^8
Incident Energy (eV)
16
57-La-140

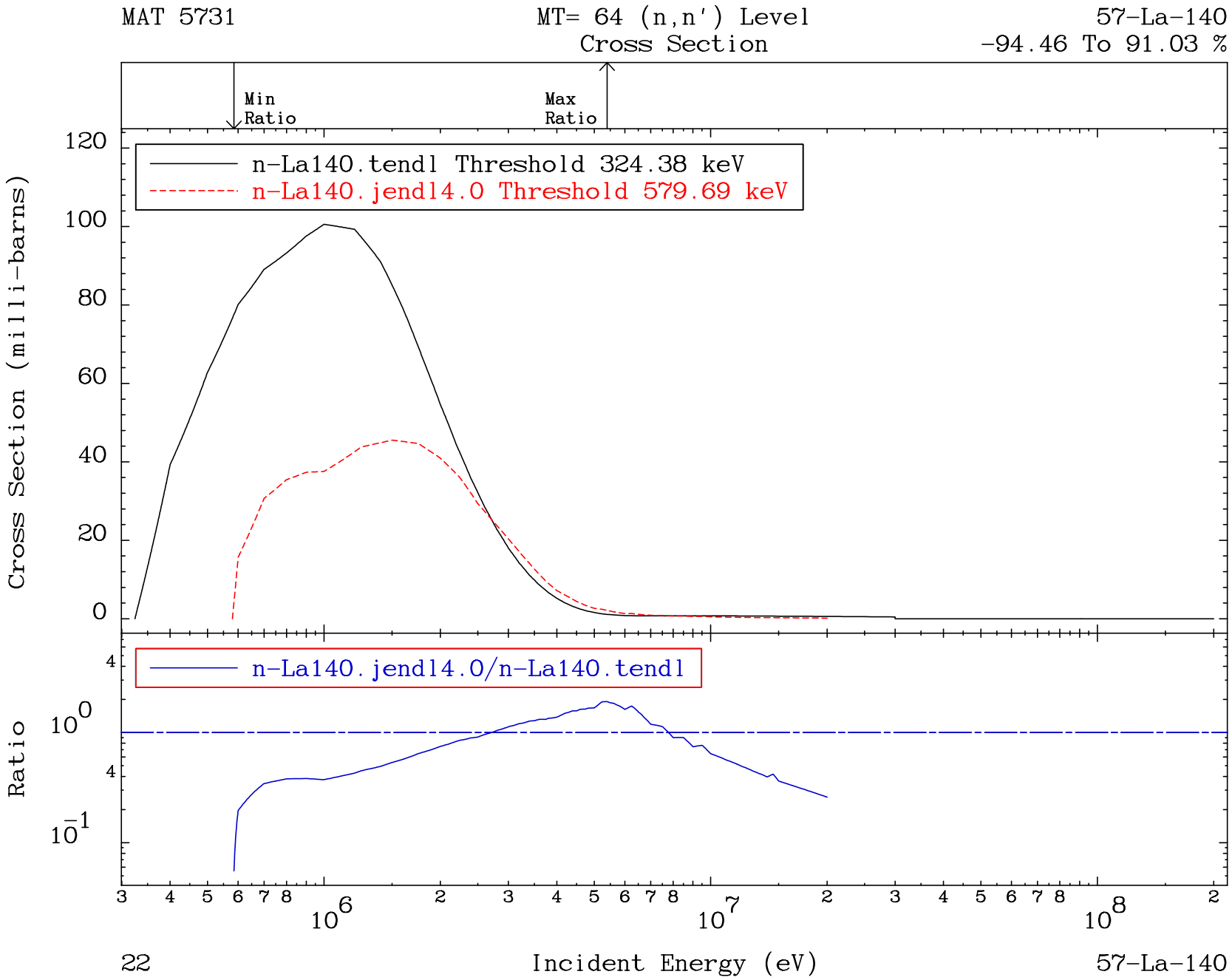

MAT 5731
MT= 59 (n,n') Level
Cross Section
57-La-140
-77.19 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 163.83 keV
n-La140.jendl4.0 Threshold 274.30 keV
Cross Section (milli-barns)
0
20
40
60
80
100
120
140
n-La140.jendl4.0/n-La140.tendl
Ratio
10^0
10^3
10^6
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
17
Incident Energy (eV)
57-La-140

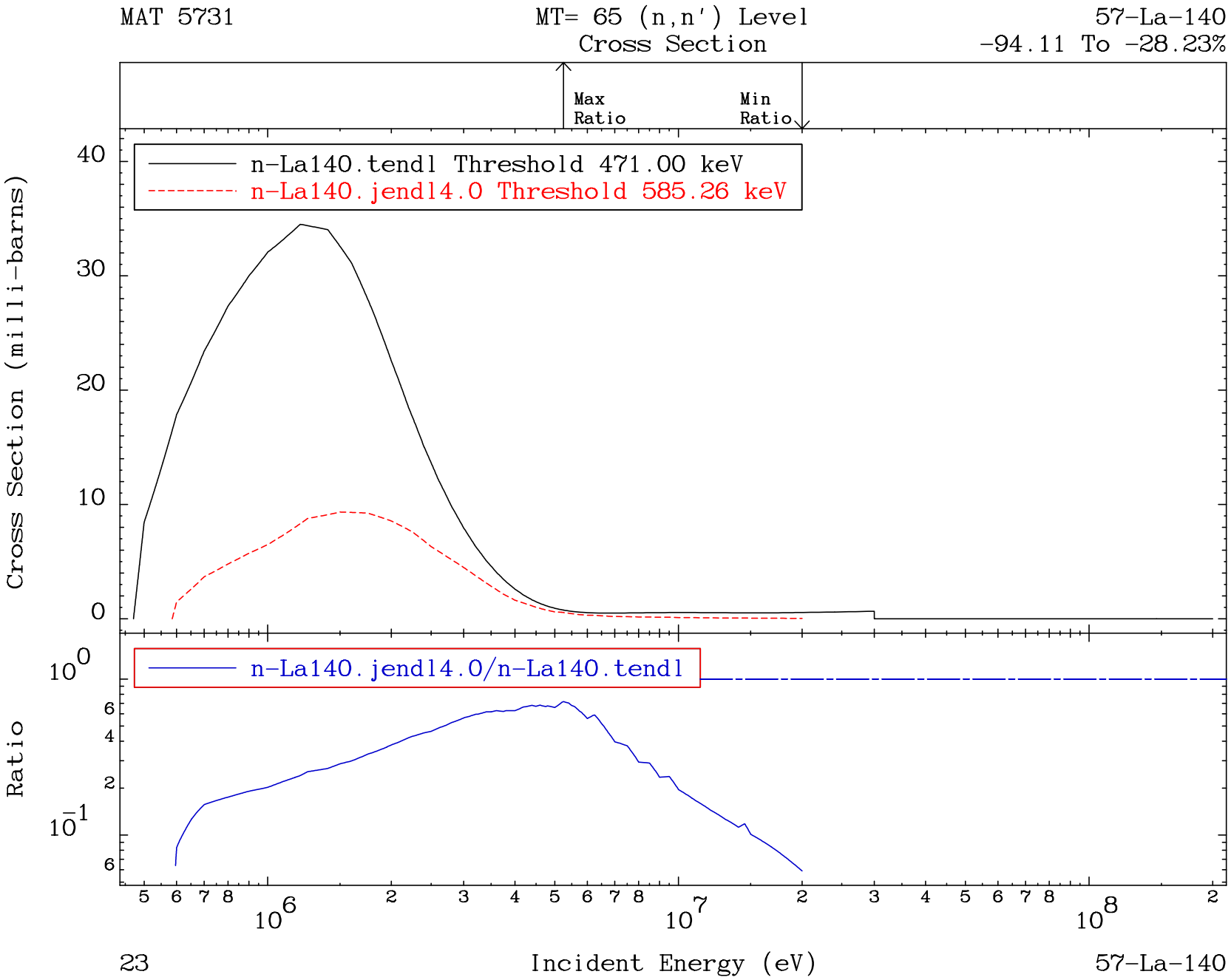

MAT 5731
MT= 60 (n,n') Level
Cross Section
57-La-140
-99.99 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 274.27 keV
n-La140.jendl4.0 Threshold 286.73 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^8
10^4
10^0
10^-4
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
18
Incident Energy (eV)
57-La-140

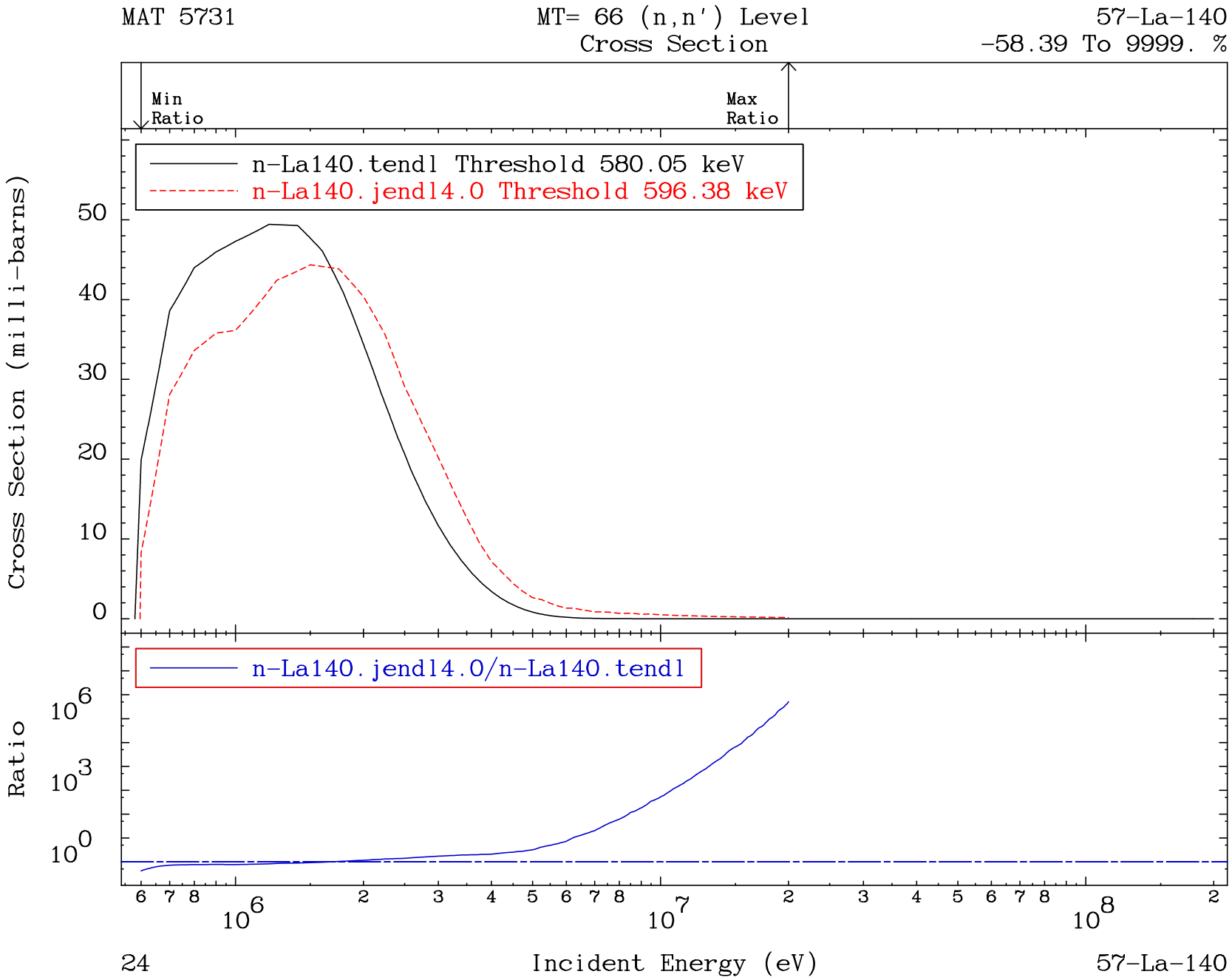

MAT 5731
MT= 61 (n,n') Level
Cross Section
57-La-140
-53.59 To 9999. %
Max
Ratio
Min
Ratio
n-La140.tendl Threshold 286.71 keV
n-La140.jendl4.0 Threshold 320.55 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^2
10^1
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
19
Incident Energy (eV)
57-La-140

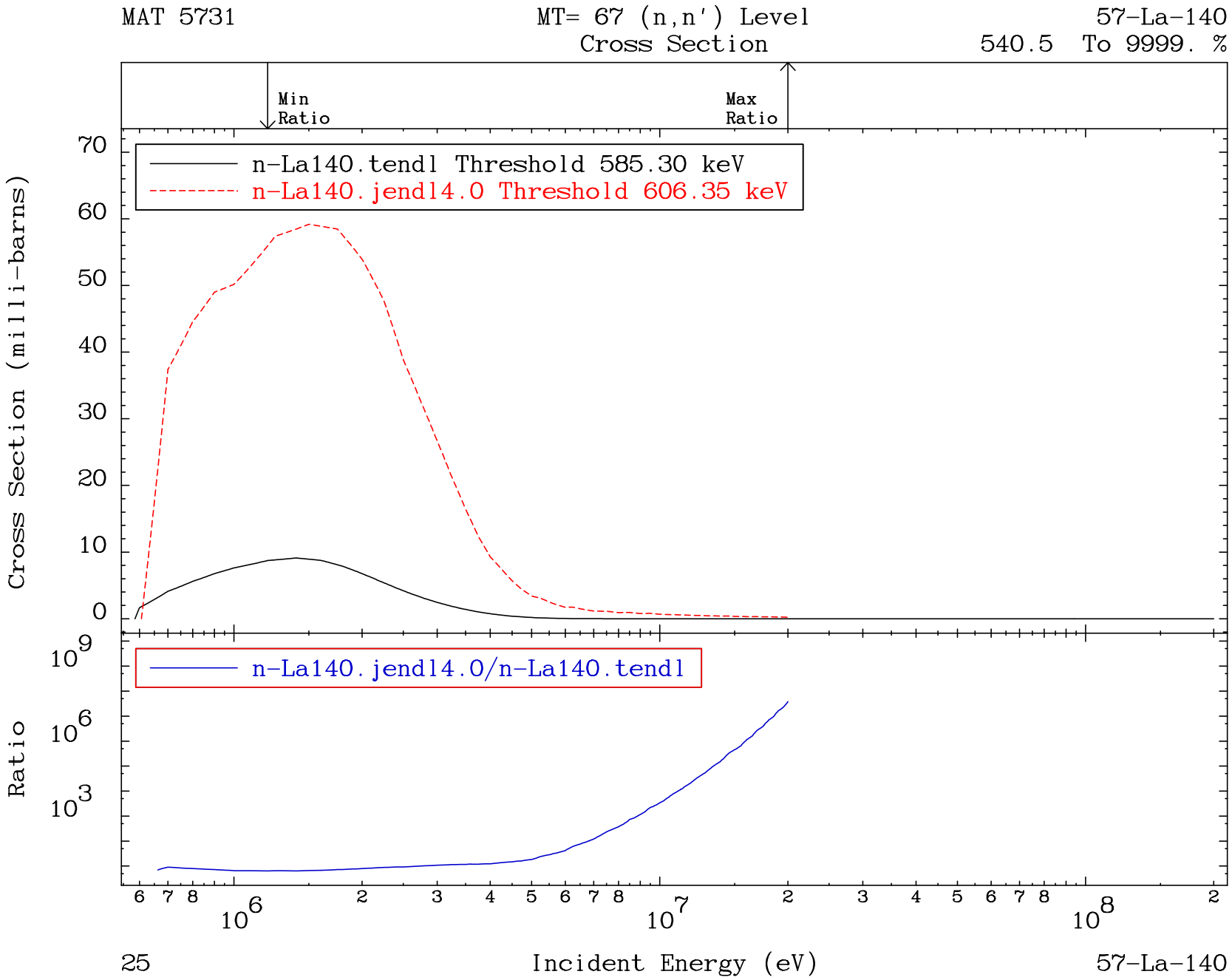

MAT 5731
MT= 62 (n,n') Level
Cross Section
57-La-140
-82.62 To 113.1 %
Min Ratio
Max Ratio
n-La140.tendl Threshold 320.51 keV
n-La140.jendl4.0 Threshold 324.38 keV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
4
2
10^0
6
4
2
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
20
Incident Energy (eV)
57-La-140

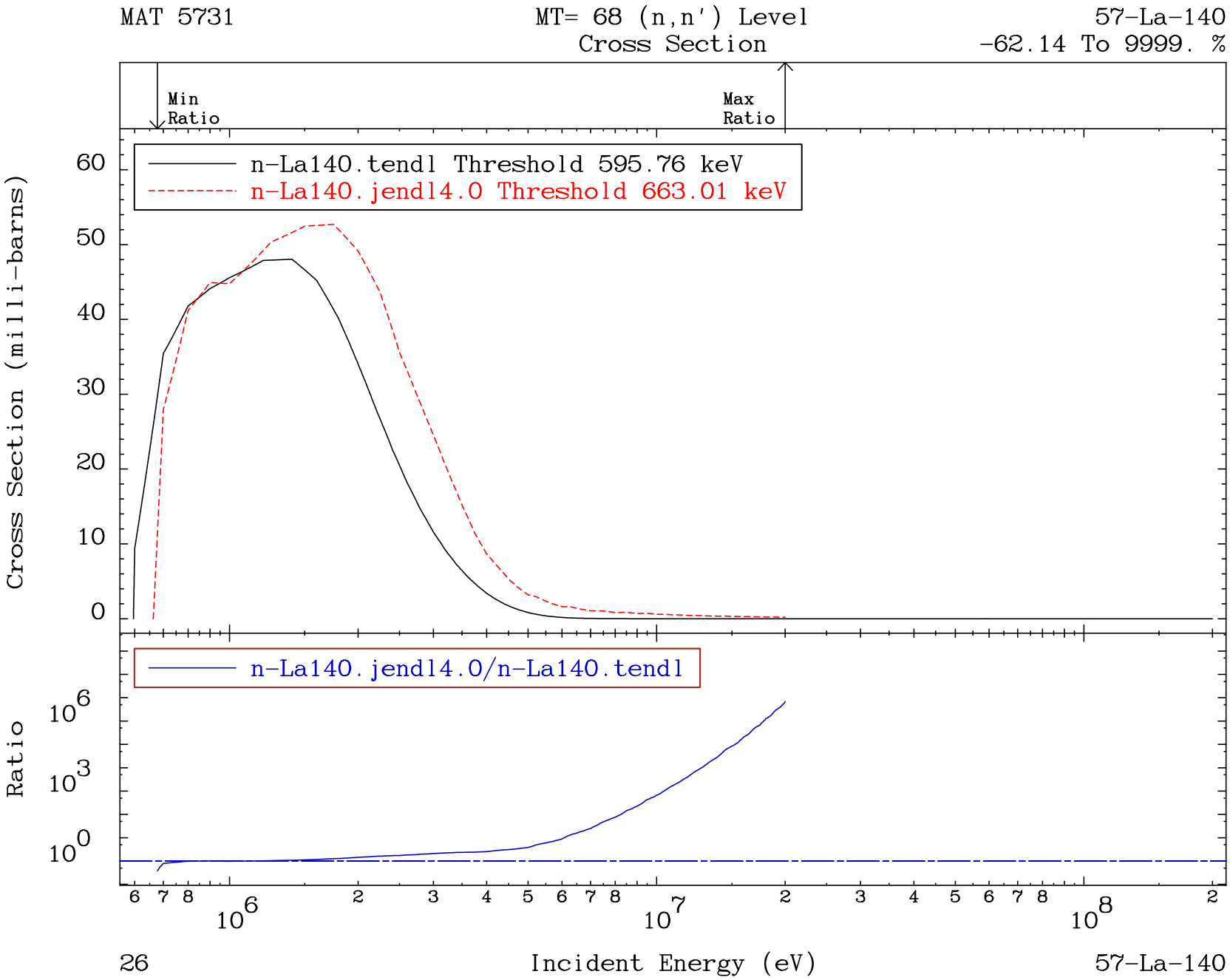

MAT 5731
MT= 63 (n,n') Level
Cross Section
57-La-140
-73.95 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 322.54 keV
n-La140.jendl4.0 Threshold 470.90 keV
Cross Section (milli-barns)
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
21
Incident Energy (eV)
57-La-140

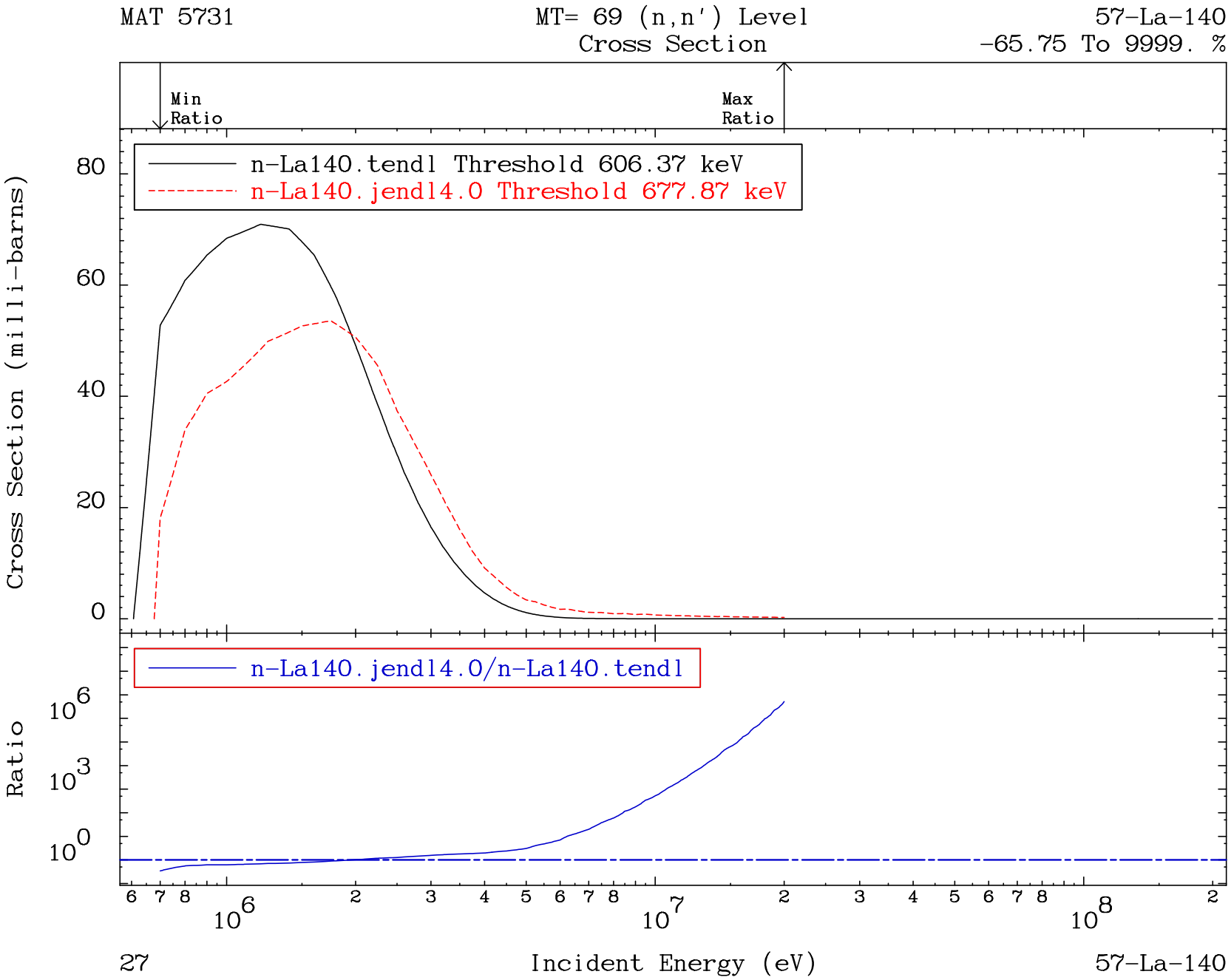

MAT 5731
MT= 64 (n,n') Level
Cross Section
57-La-140
-94.46 To 91.03 %
Min Ratio
Max Ratio
n-La140.tendl Threshold 324.38 keV
n-La140.jendl4.0 Threshold 579.69 keV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
4
10^0
4
10^{-1}
3 4 5 6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
22
Incident Energy (eV)
57-La-140

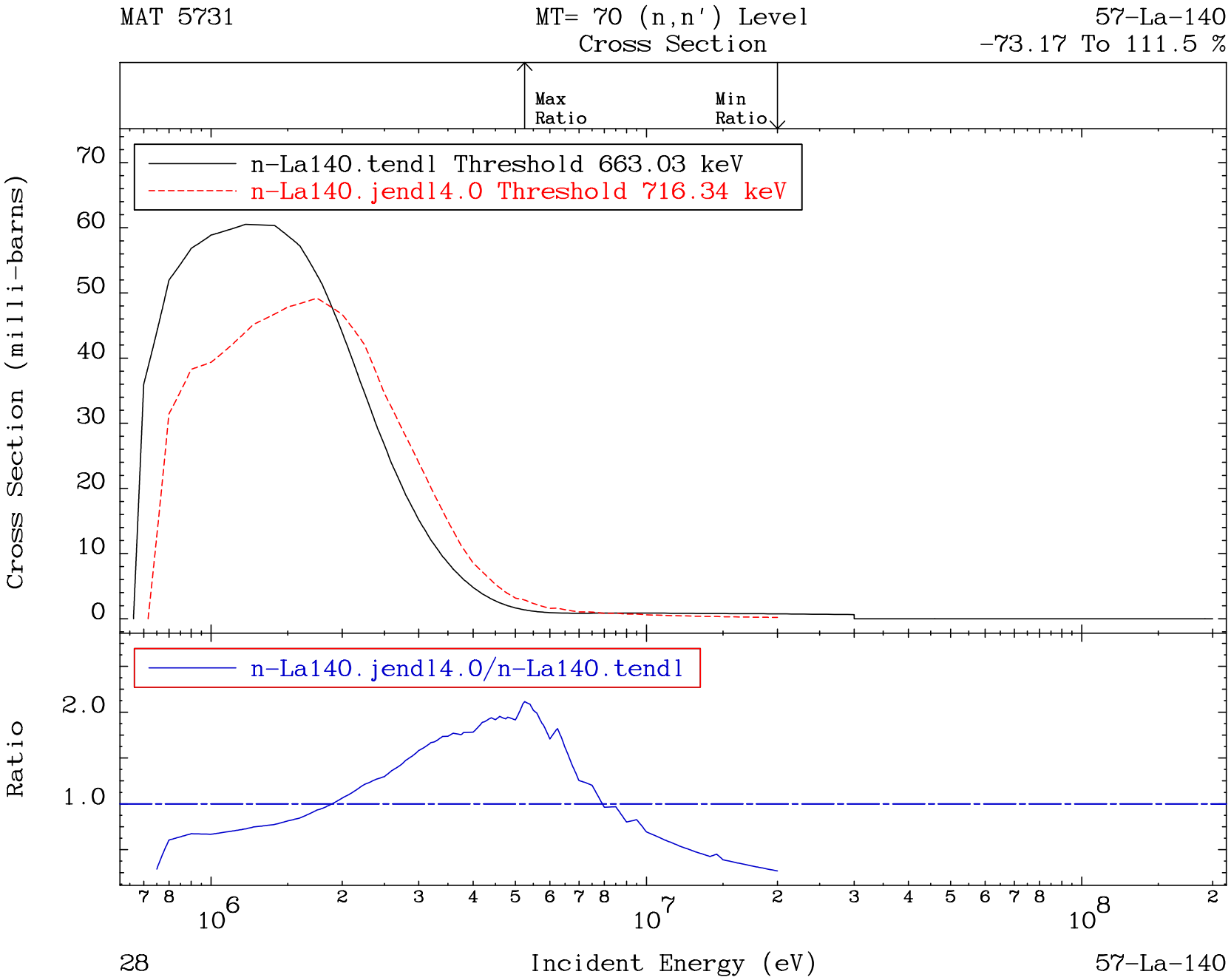

MAT 5731
MT= 65 (n,n') Level
Cross Section
57-La-140
-94.11 To -28.23%
Max Ratio
Min Ratio
n-La140.tendl Threshold 471.00 keV
n-La140.jendl4.0 Threshold 585.26 keV
Cross Section (milli-barns)
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^0
10^-1
6
4
2
6
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
23
Incident Energy (eV)
57-La-140

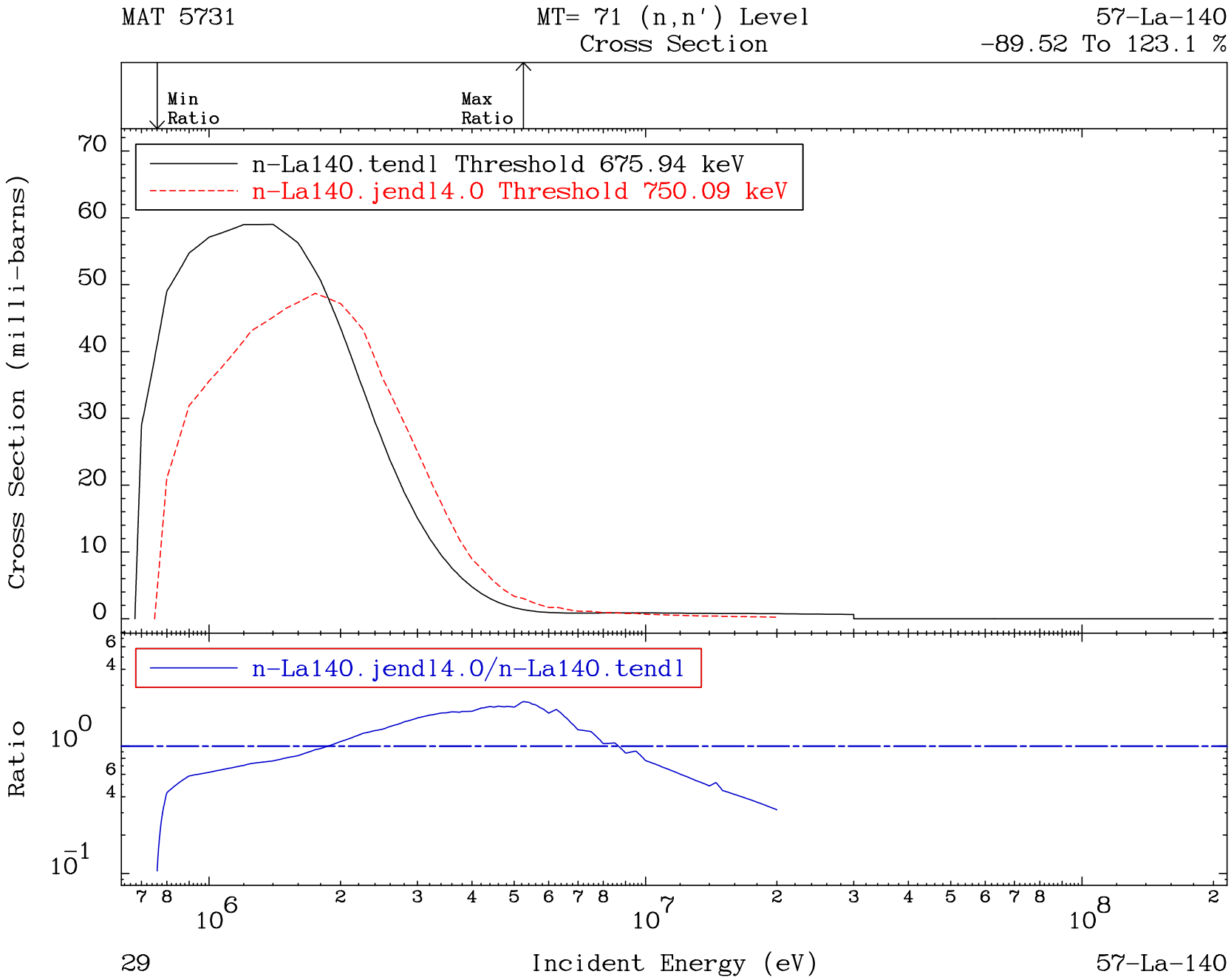

MAT 5731
MT= 66 (n,n') Level
Cross Section
57-La-140
-58.39 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 580.05 keV
n-La140.jendl4.0 Threshold 596.38 keV
Cross Section (milli-barns)
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
24
Incident Energy (eV)
57-La-140

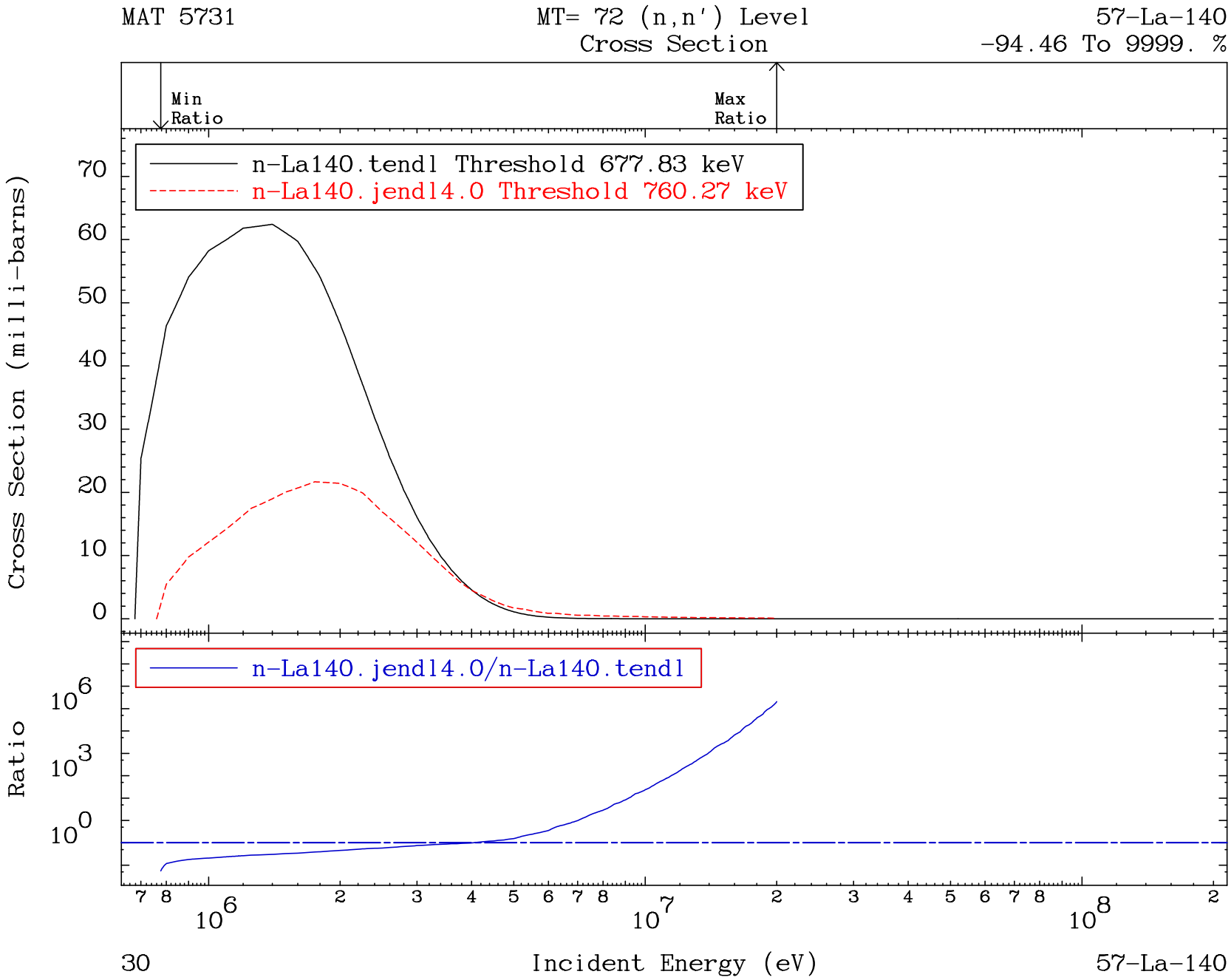

MAT 5731
MT= 67 (n,n') Level
Cross Section
57-La-140
540.5 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 585.30 keV
n-La140.jendl4.0 Threshold 606.35 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^9
10^6
10^3
6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
25
Incident Energy (eV)
57-La-140

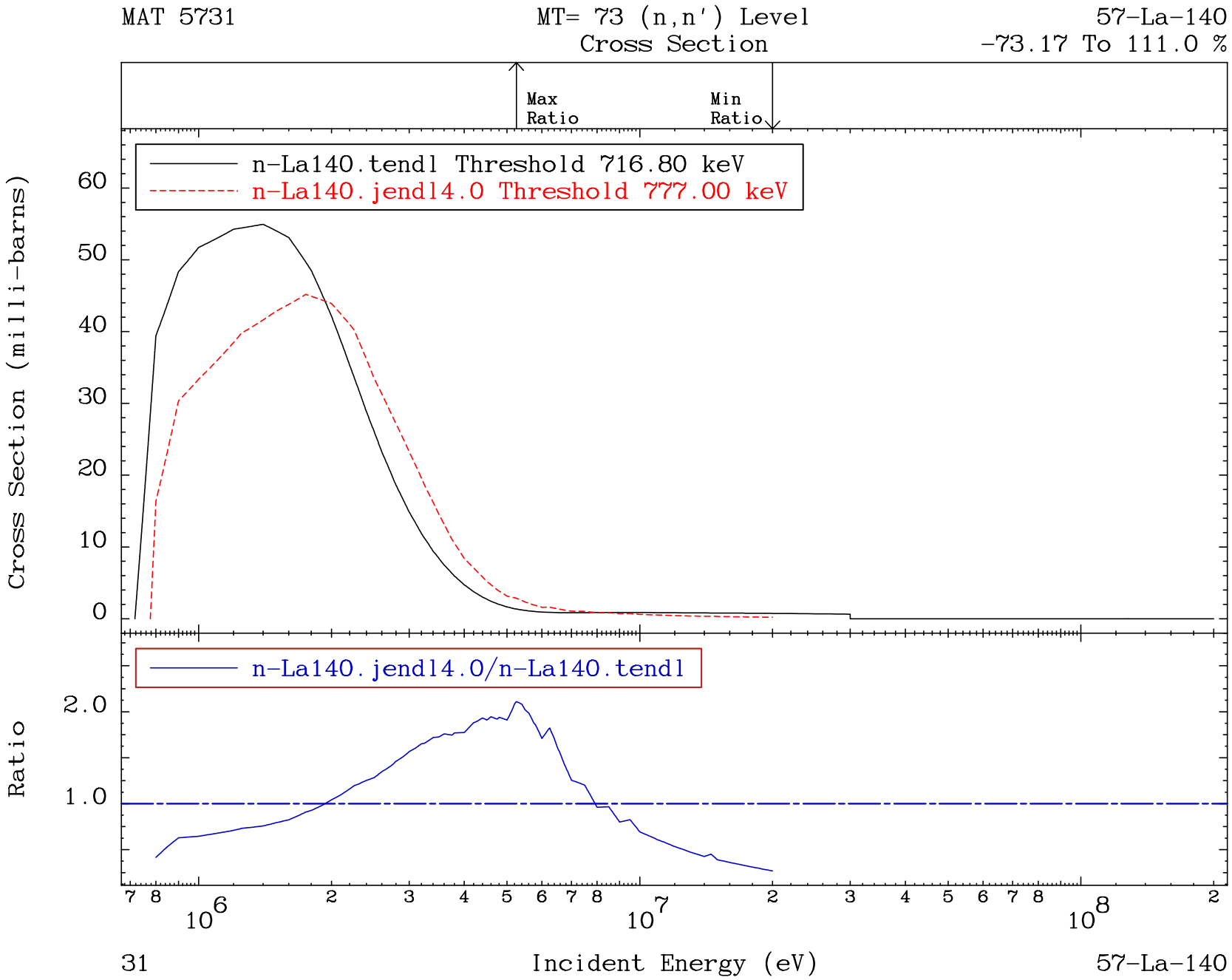

MAT 5731
MT= 68 (n,n') Level
Cross Section
57-La-140
-62.14 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 595.76 keV
n-La140.jendl4.0 Threshold 663.01 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
26
Incident Energy (eV)
57-La-140

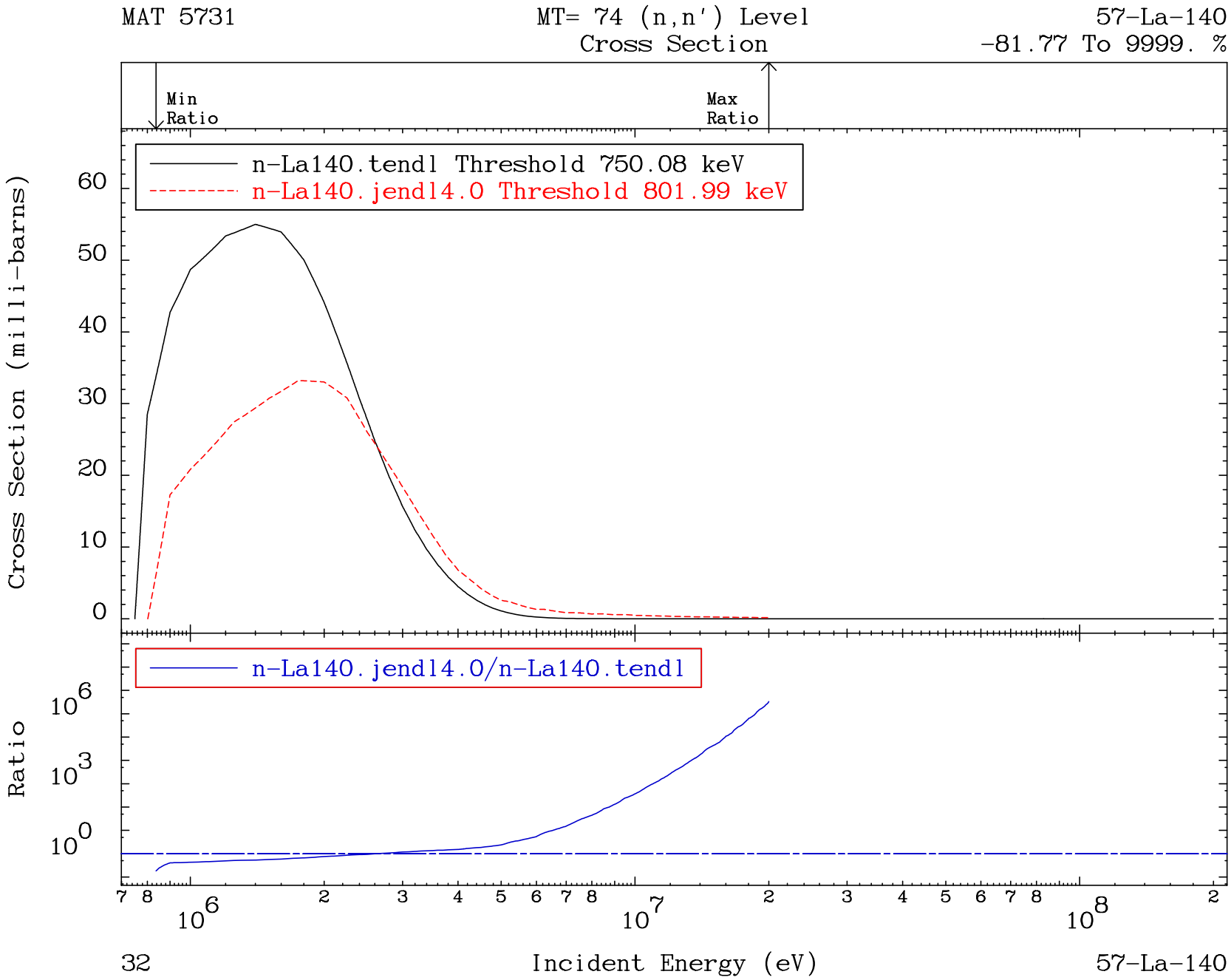

MAT 5731
MT= 69 (n,n') Level
Cross Section
57-La-140
-65.75 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 606.37 keV
n-La140.jendl4.0 Threshold 677.87 keV
Cross Section (milli-barns)
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
6 7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
27
Incident Energy (eV)
57-La-140

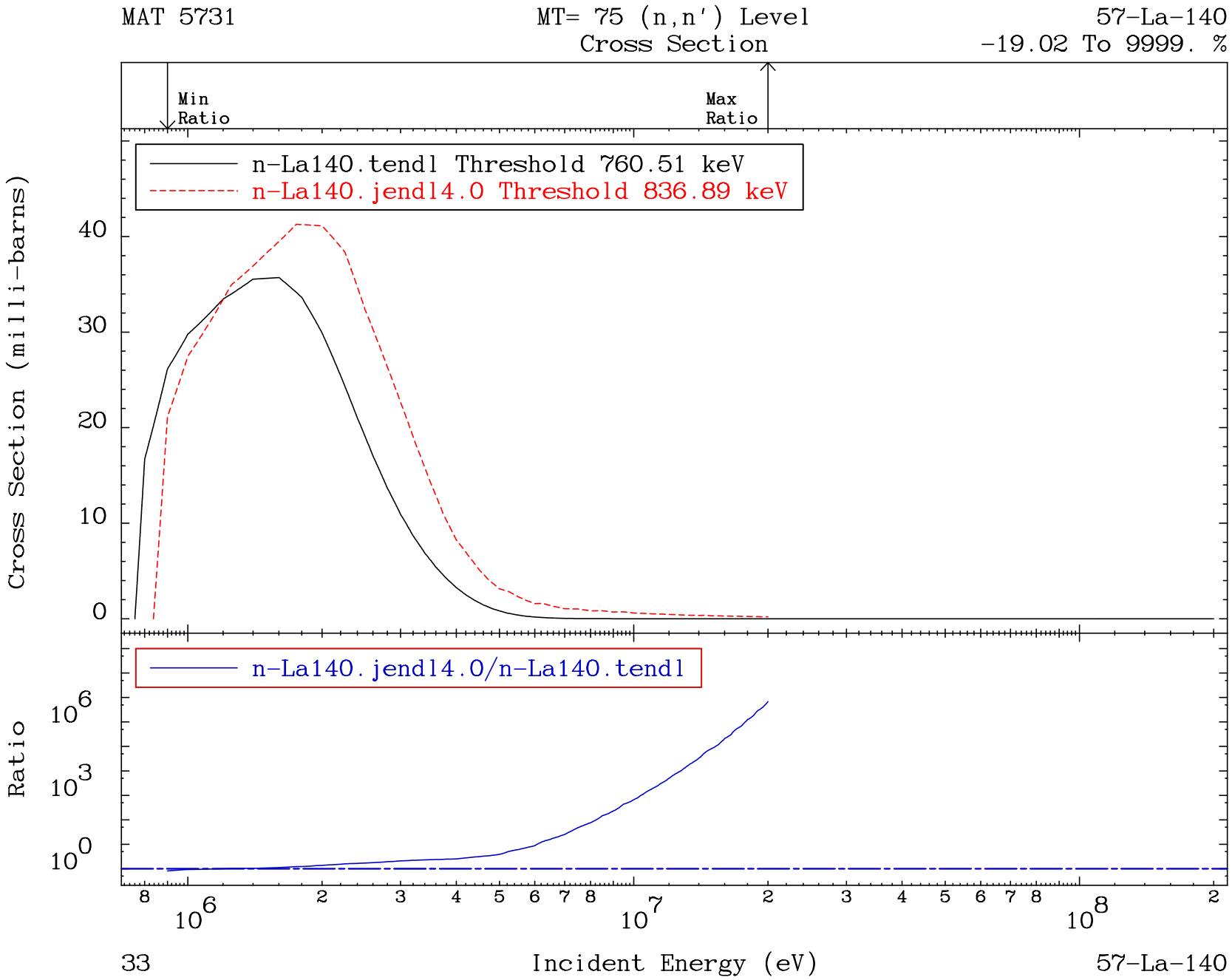

MAT 5731
MT= 70 (n,n') Level
Cross Section
57-La-140
-73.17 To 111.5 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 663.03 keV
n-La140.jendl4.0 Threshold 716.34 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
2.0
1.0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
28
Incident Energy (eV)
57-La-140

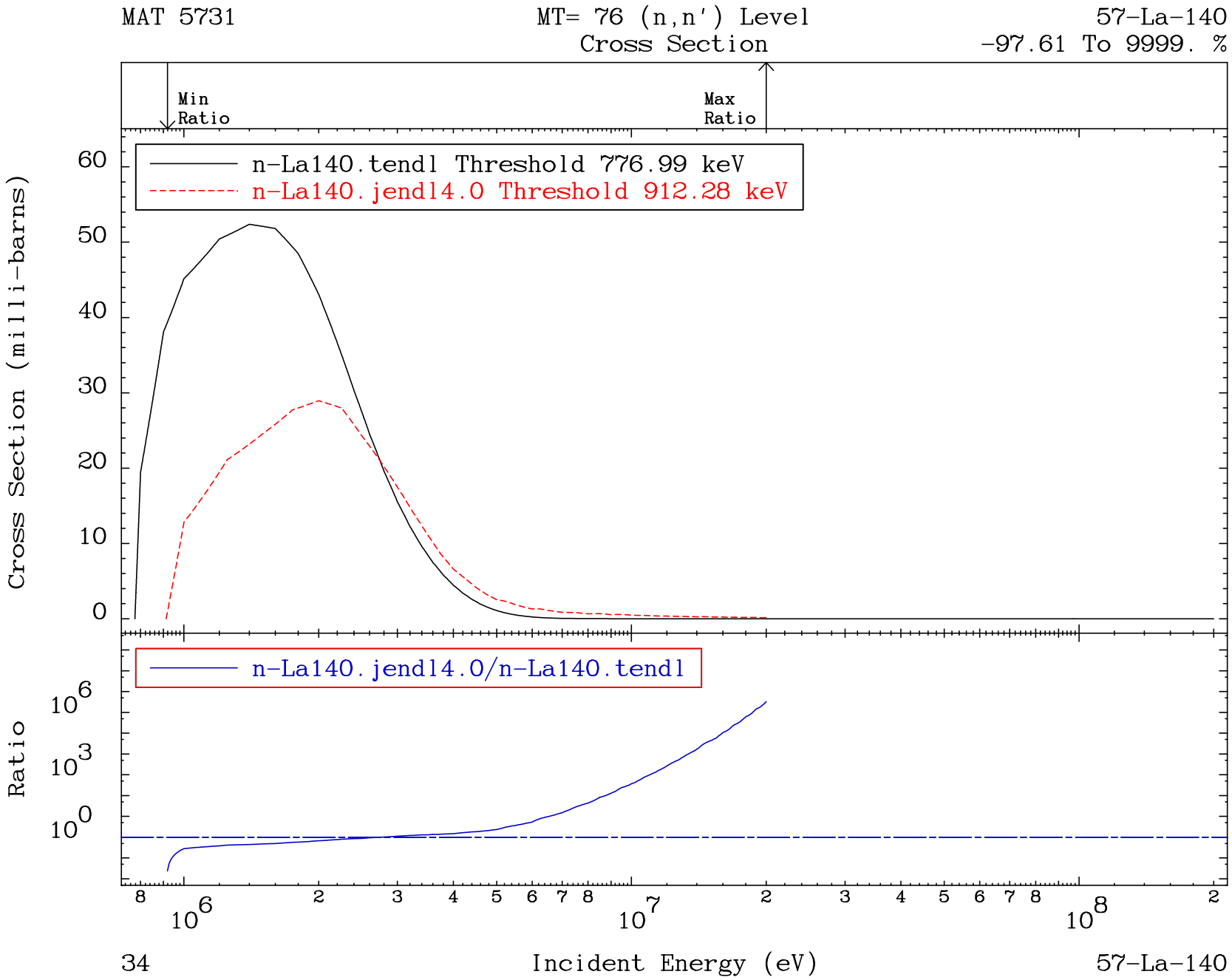

MAT 5731
MT= 71 (n,n') Level
Cross Section
57-La-140
-89.52 To 123.1 %
Min Ratio
Max Ratio
n-La140.tendl Threshold 675.94 keV
n-La140.jendl4.0 Threshold 750.09 keV
Cross Section (milli-barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
29
57-La-140

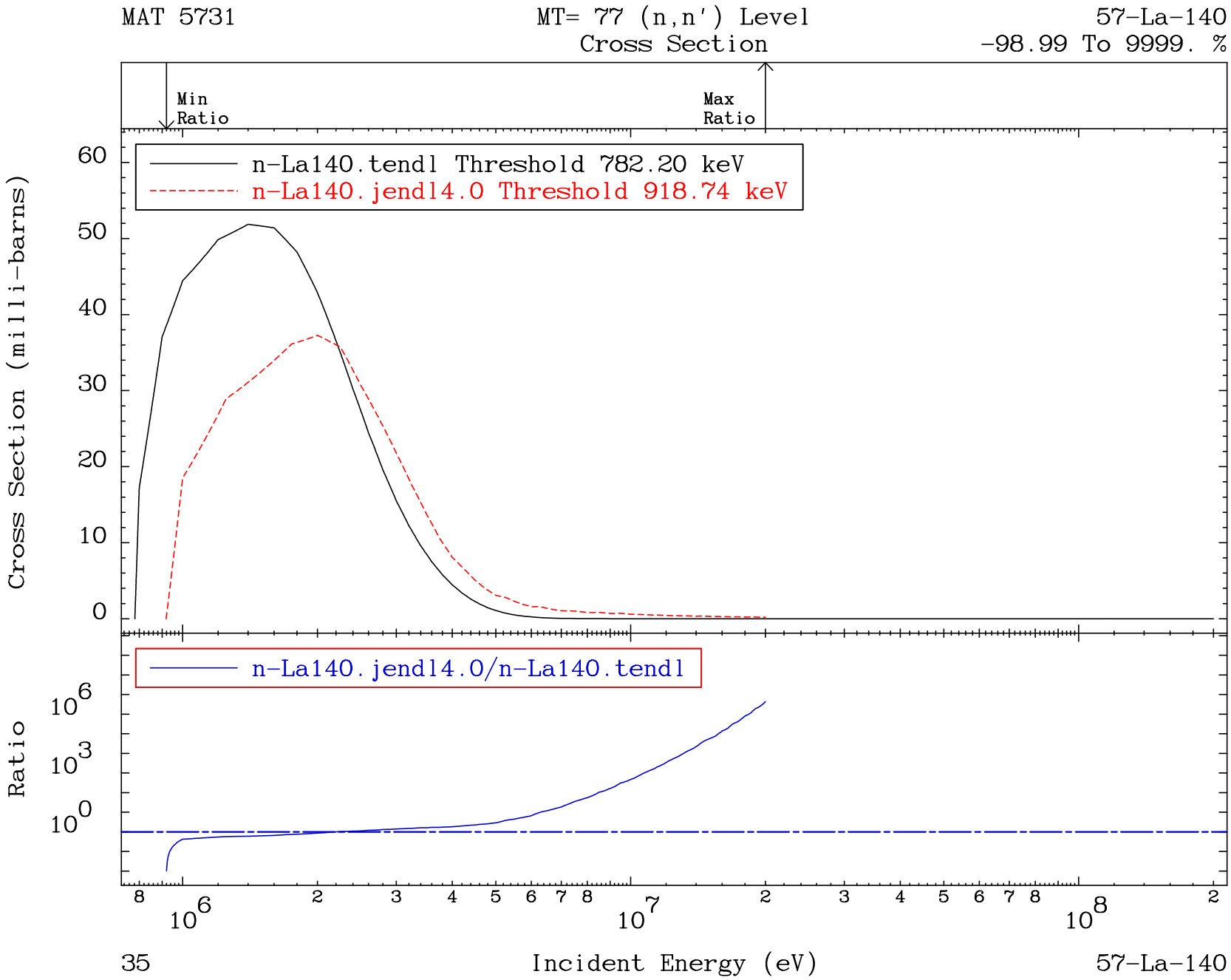

MAT 5731
MT= 72 (n,n') Level
Cross Section
57-La-140
-94.46 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 677.83 keV
n-La140.jendl4.0 Threshold 760.27 keV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
30
Incident Energy (eV)
57-La-140

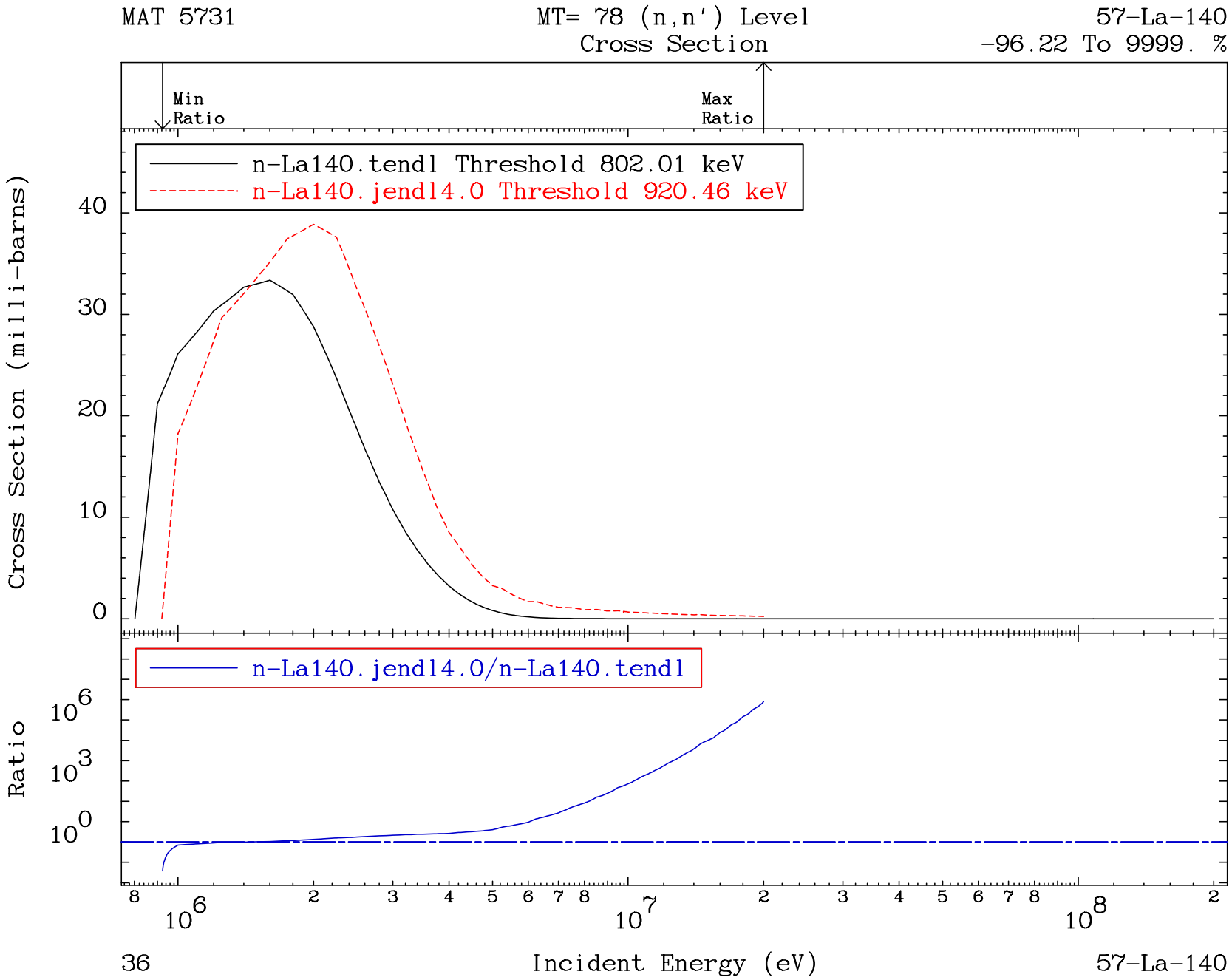

MAT 5731
MT= 73 (n,n') Level
Cross Section
57-La-140
-73.17 To 111.0 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 716.80 keV
n-La140.jendl4.0 Threshold 777.00 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
2.0
1.0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
31
Incident Energy (eV)
57-La-140

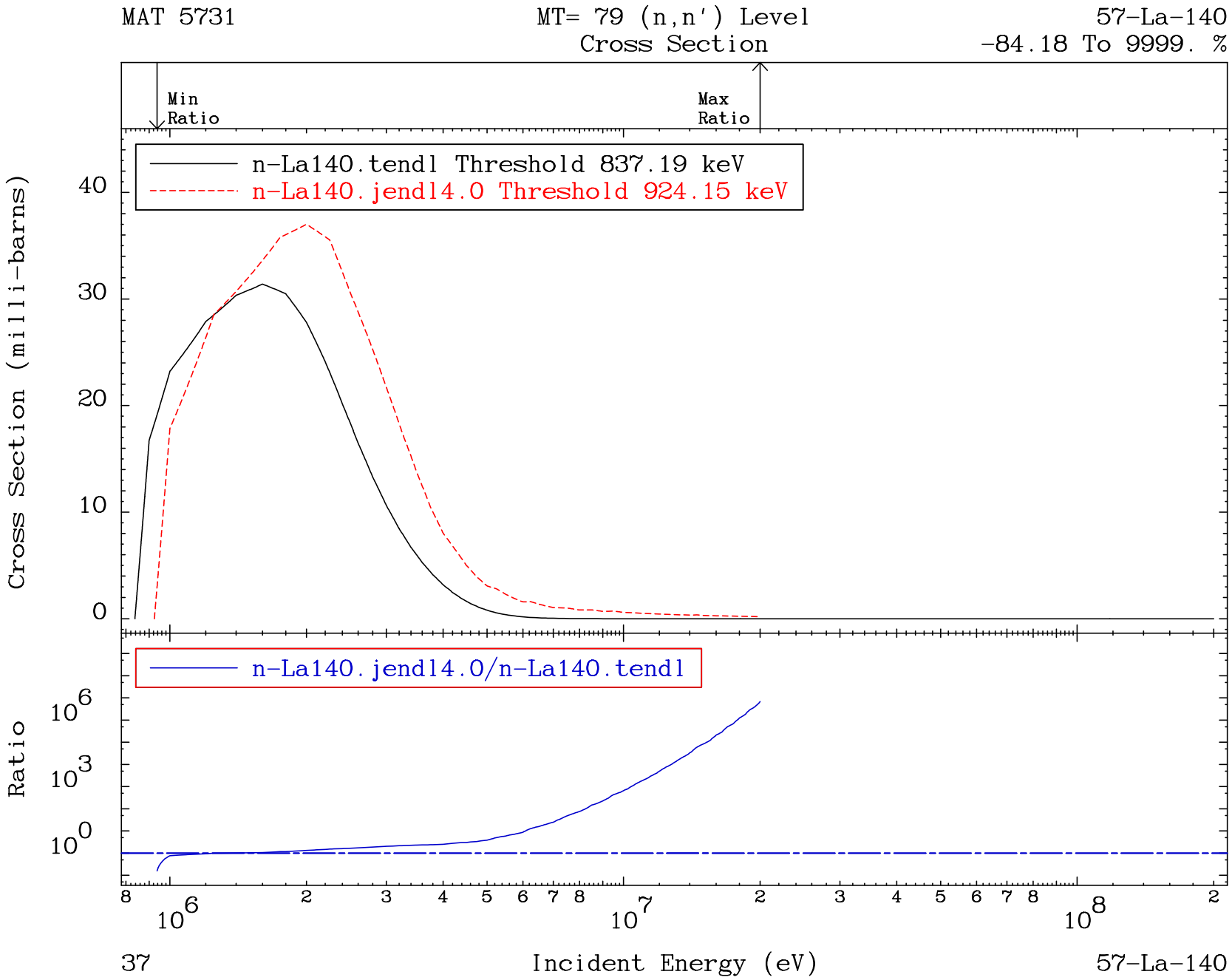

MAT 5731
MT= 74 (n,n') Level
Cross Section
57-La-140
-81.77 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 750.08 keV
n-La140.jendl4.0 Threshold 801.99 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
7 8 10^6 2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
32
Incident Energy (eV)
57-La-140

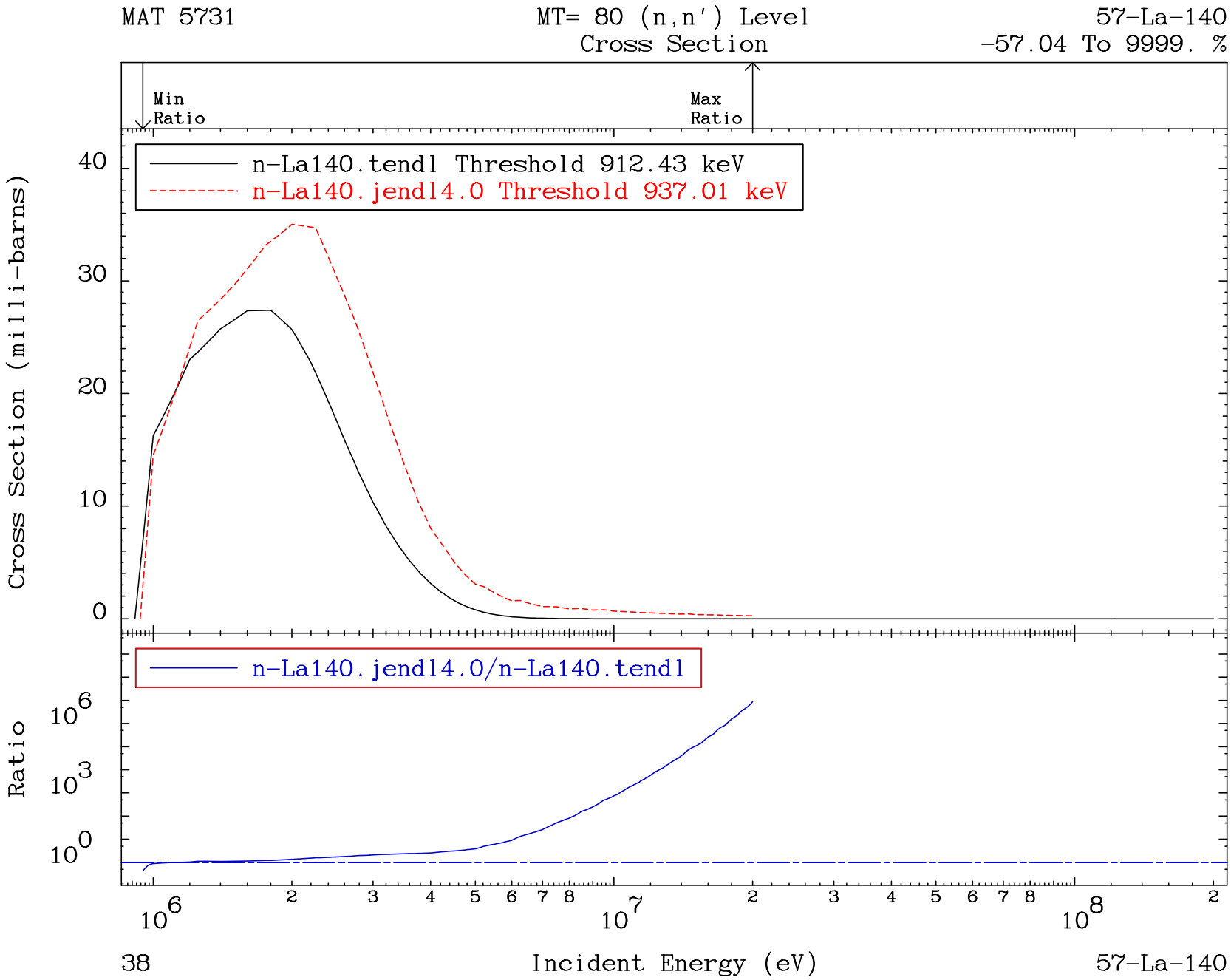

MAT 5731
MT= 75 (n,n') Level
Cross Section
57-La-140
-19.02 To 9999. %
Min
Ratio
Max
Ratio
n-La140.tendl Threshold 760.51 keV
n-La140.jendl4.0 Threshold 836.89 keV
Cross Section (milli-barns)
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
33
Incident Energy (eV)
57-La-140

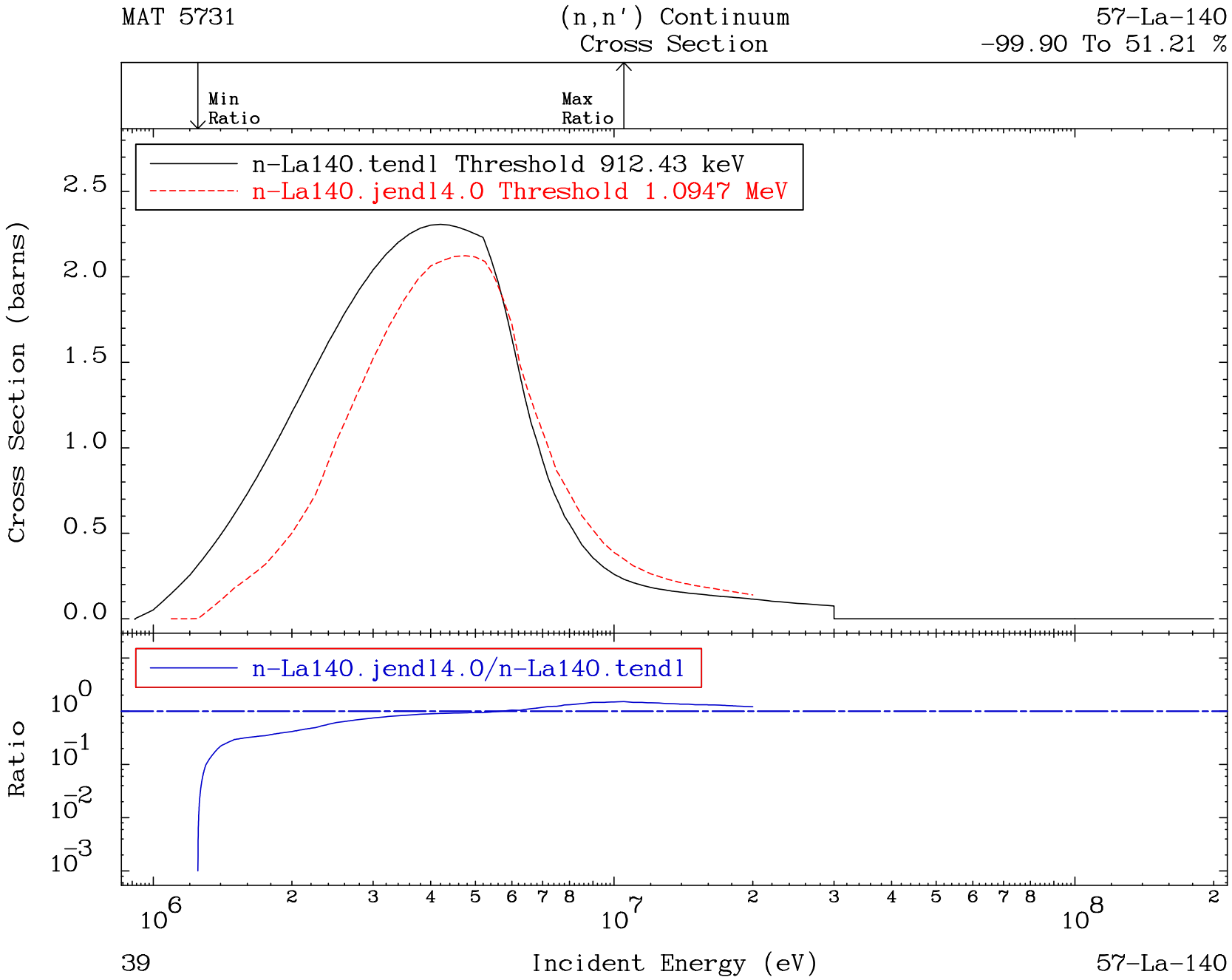

MAT 5731
MT= 76 (n,n') Level
Cross Section
57-La-140
-97.61 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 776.99 keV
n-La140.jendl4.0 Threshold 912.28 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
34
Incident Energy (eV)
57-La-140

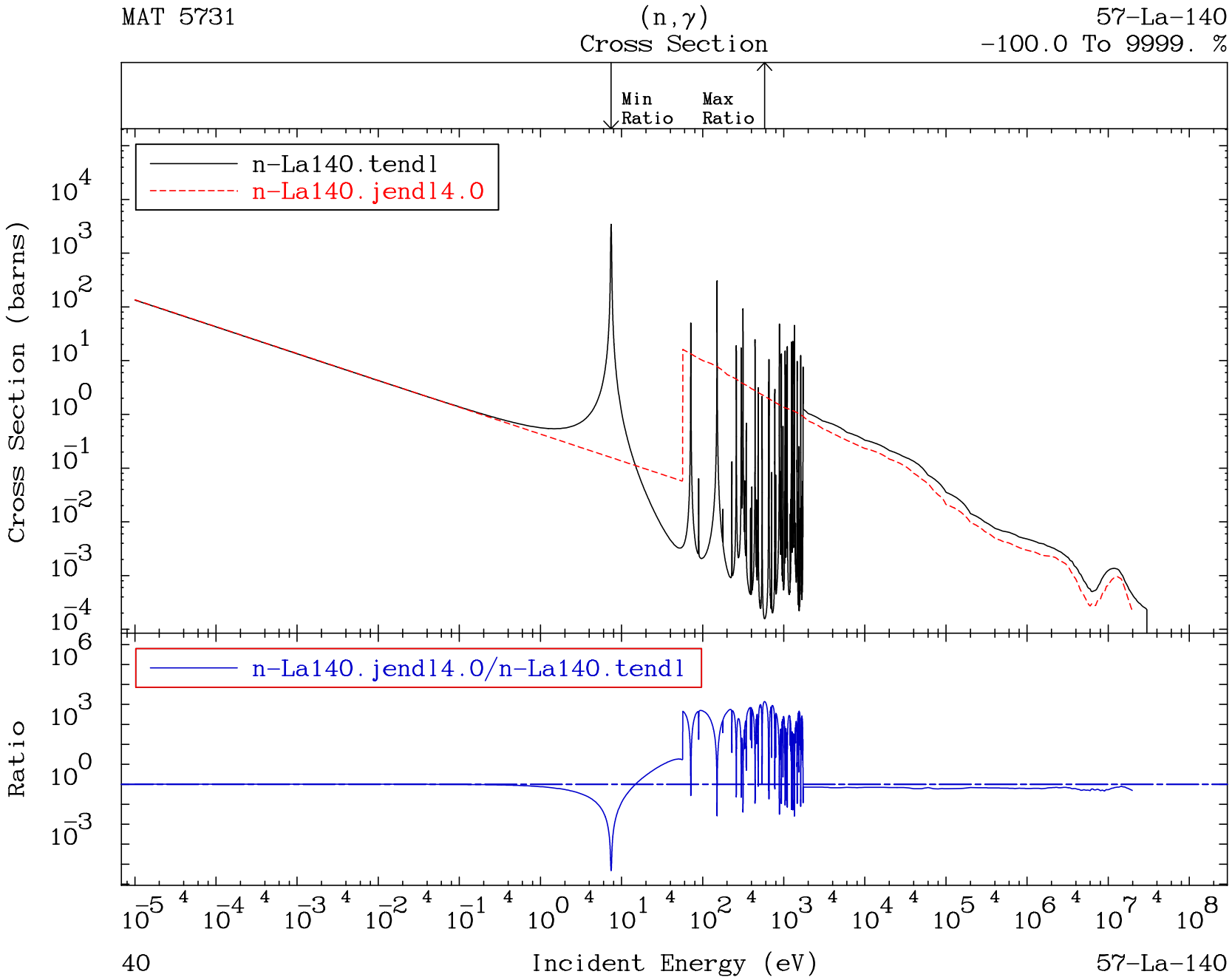

MAT 5731
MT= 77 (n,n') Level
Cross Section
57-La-140
-98.99 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 782.20 keV
n-La140.jendl4.0 Threshold 918.74 keV
Cross Section (milli-barns)
60
50
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
35
Incident Energy (eV)
57-La-140

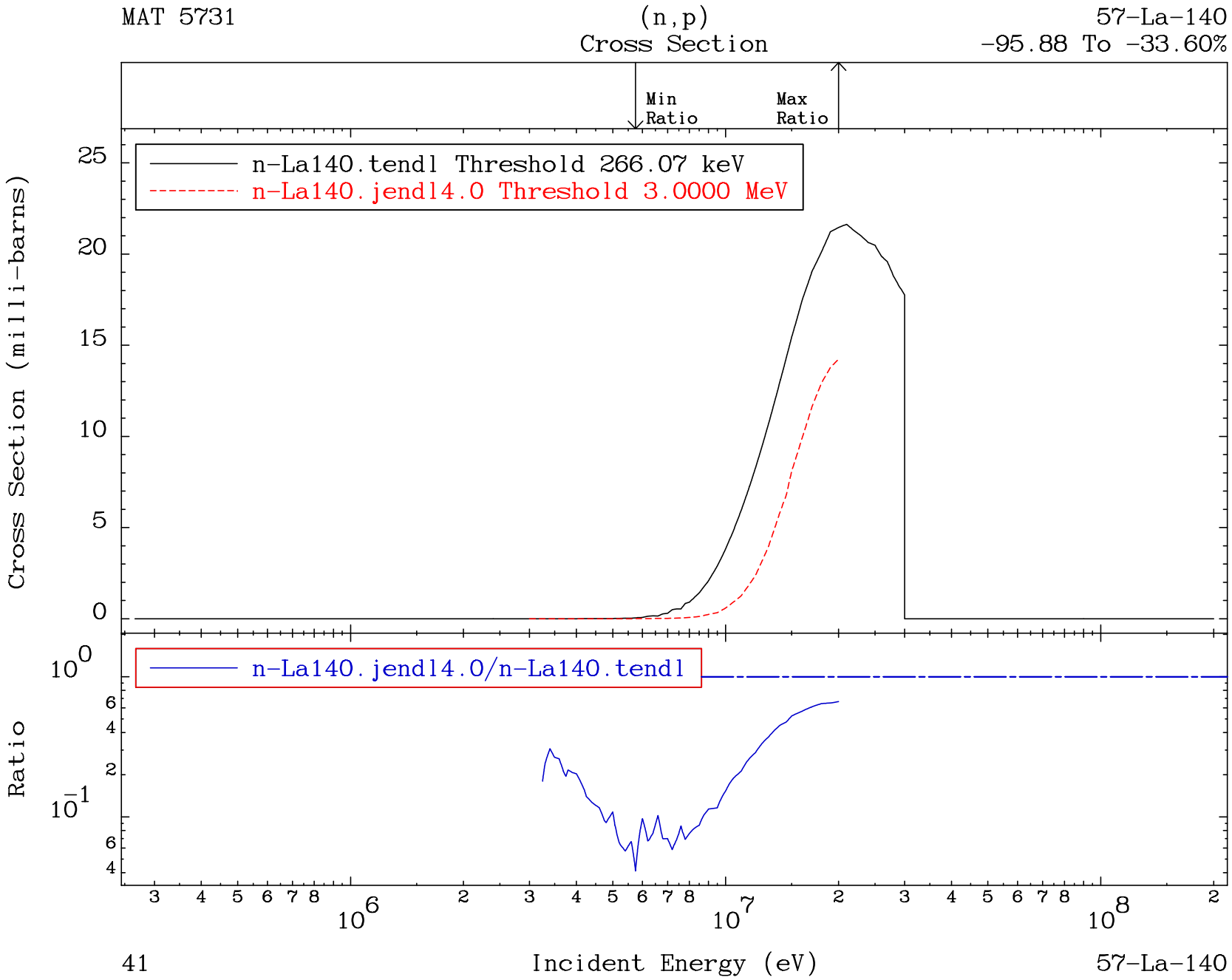

MAT 5731
MT= 78 (n,n') Level
Cross Section
57-La-140
-96.22 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 802.01 keV
n-La140.jendl4.0 Threshold 920.46 keV
Cross Section (milli-barns)
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
36
Incident Energy (eV)
57-La-140

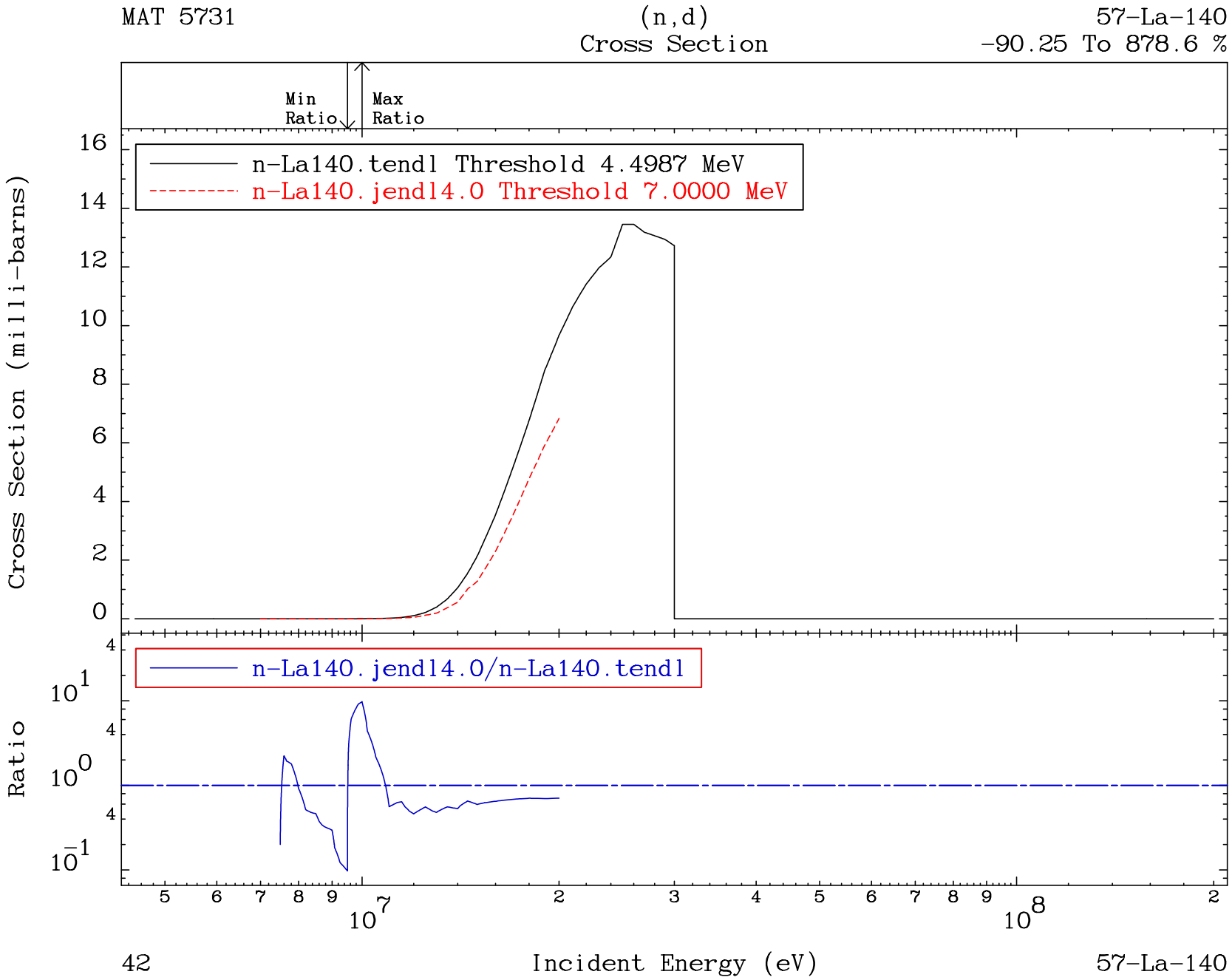

MAT 5731
MT= 79 (n,n') Level
Cross Section
57-La-140
-84.18 To 9999. %
Min
Ratio
Max
Ratio
n-La140.tendl Threshold 837.19 keV
n-La140.jendl4.0 Threshold 924.15 keV
Cross Section (milli-barns)
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
8
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
37
Incident Energy (eV)
57-La-140

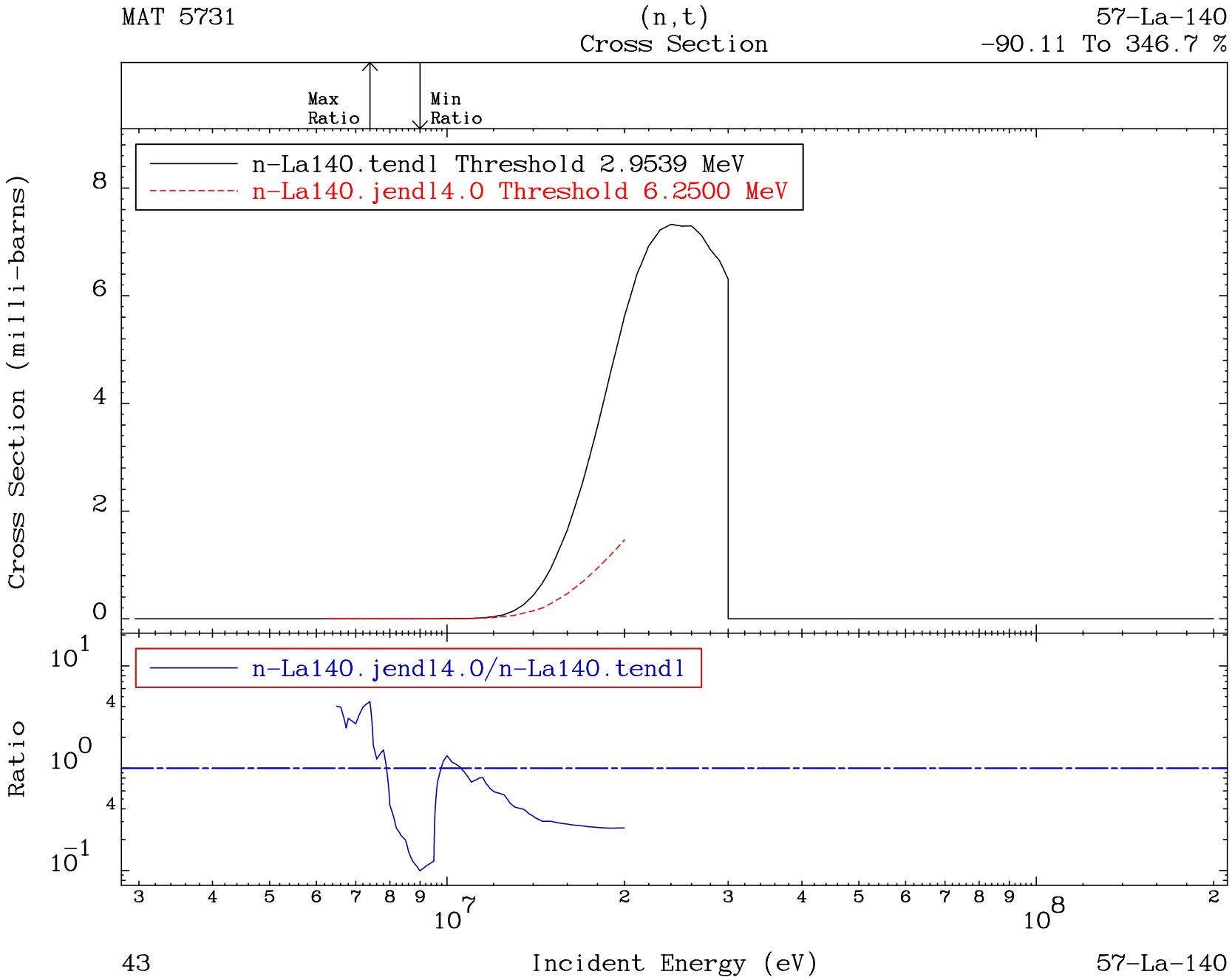

MAT 5731
MT= 80 (n,n') Level
Cross Section
57-La-140
-57.04 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 912.43 keV
n-La140.jendl4.0 Threshold 937.01 keV
Cross Section (milli-barns)
40
30
20
10
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
10^6
10^7
10^8
38
Incident Energy (eV)
57-La-140

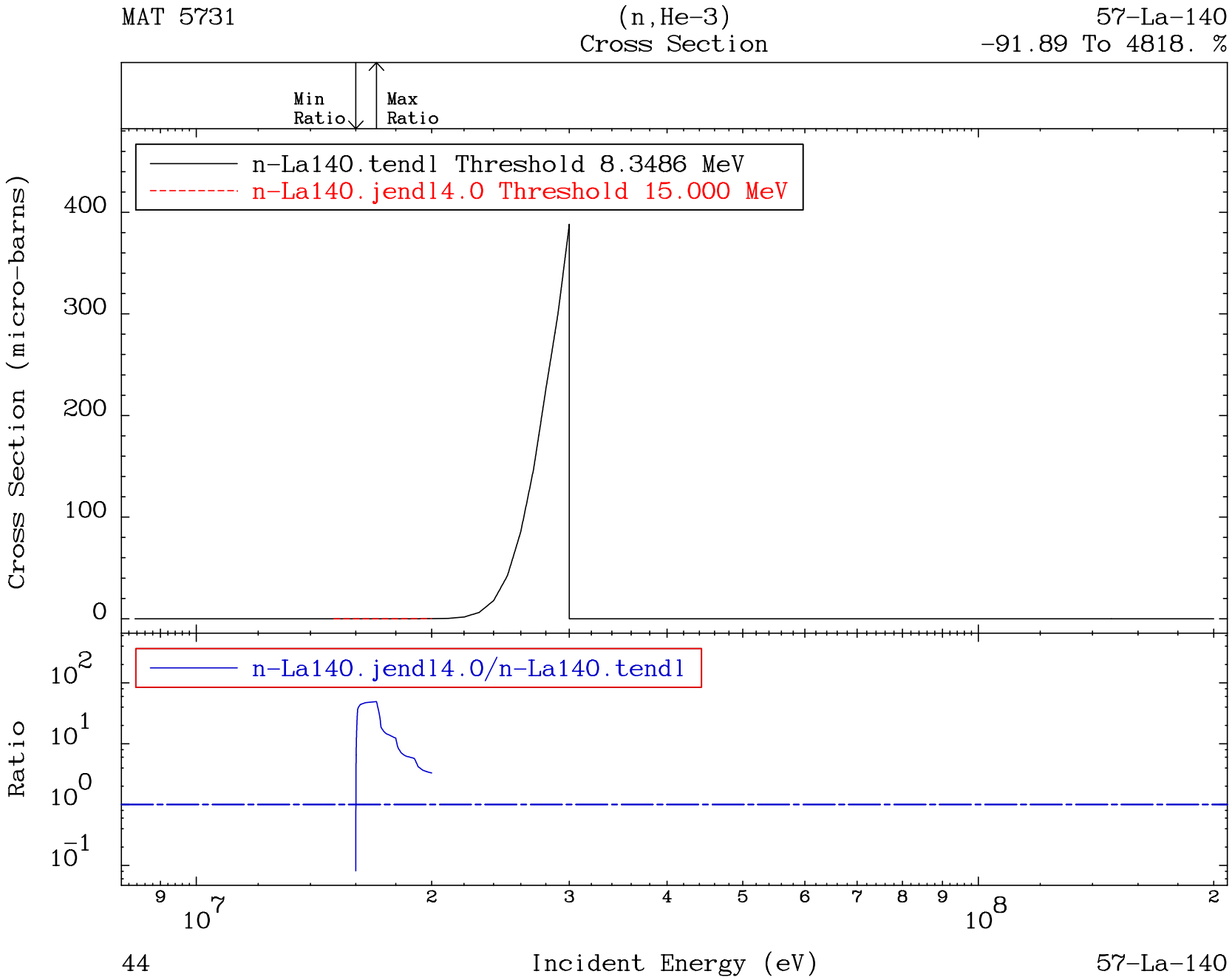

MAT 5731
(n,n') Continuum
Cross Section
57-La-140
-99.90 To 51.21 %
Min
Ratio
Max
Ratio
n-La140.tendl Threshold 912.43 keV
n-La140.jendl4.0 Threshold 1.0947 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^0
10^-1
10^-2
10^-3
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
39
Incident Energy (eV)
57-La-140

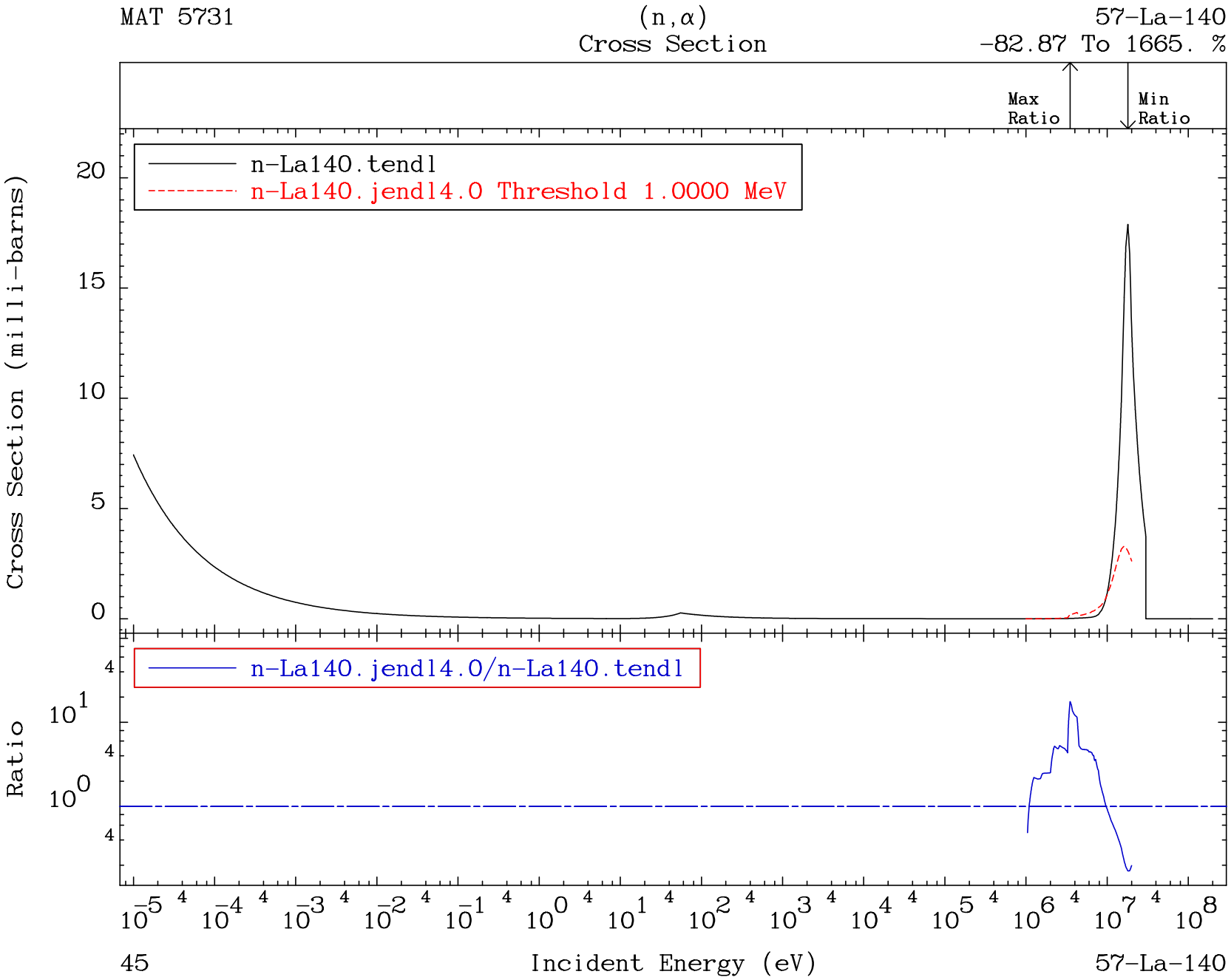

MAT 5731
(n,γ)
Cross Section
57-La-140
-100.0 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
40
57-La-140

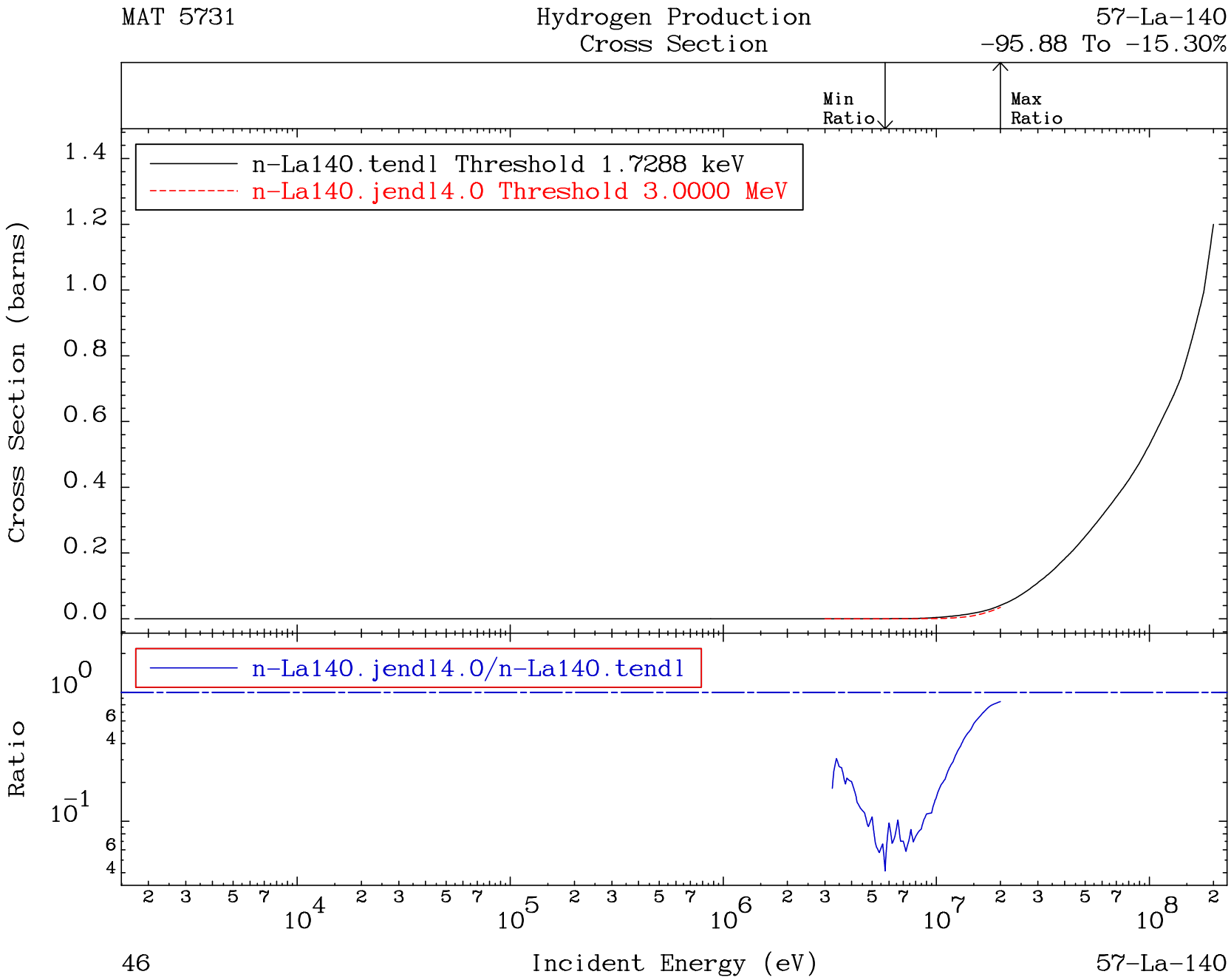

MAT 5731
(n,p)
Cross Section
57-La-140
-95.88 To -33.60%
Min Ratio
Max Ratio
n-La140.tendl Threshold 266.07 keV
n-La140.jendl4.0 Threshold 3.0000 MeV
Cross Section (milli-barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
41
57-La-140

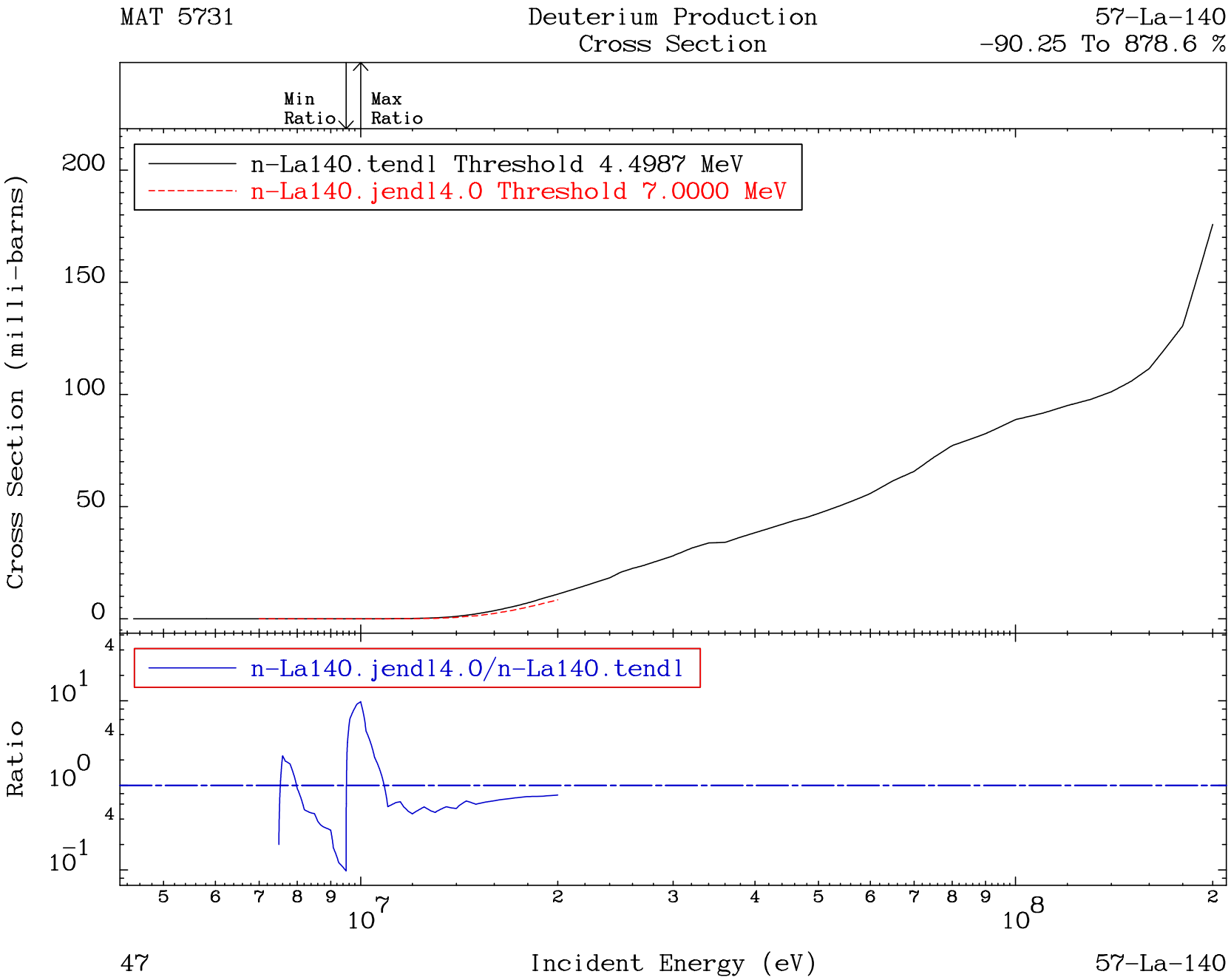

MAT 5731
(n,d)
Cross Section
57-La-140
-90.25 To 878.6 %
Min Ratio
Max Ratio
n-La140.tendl Threshold 4.4987 MeV
n-La140.jendl4.0 Threshold 7.0000 MeV
Cross Section (milli-barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
42
57-La-140

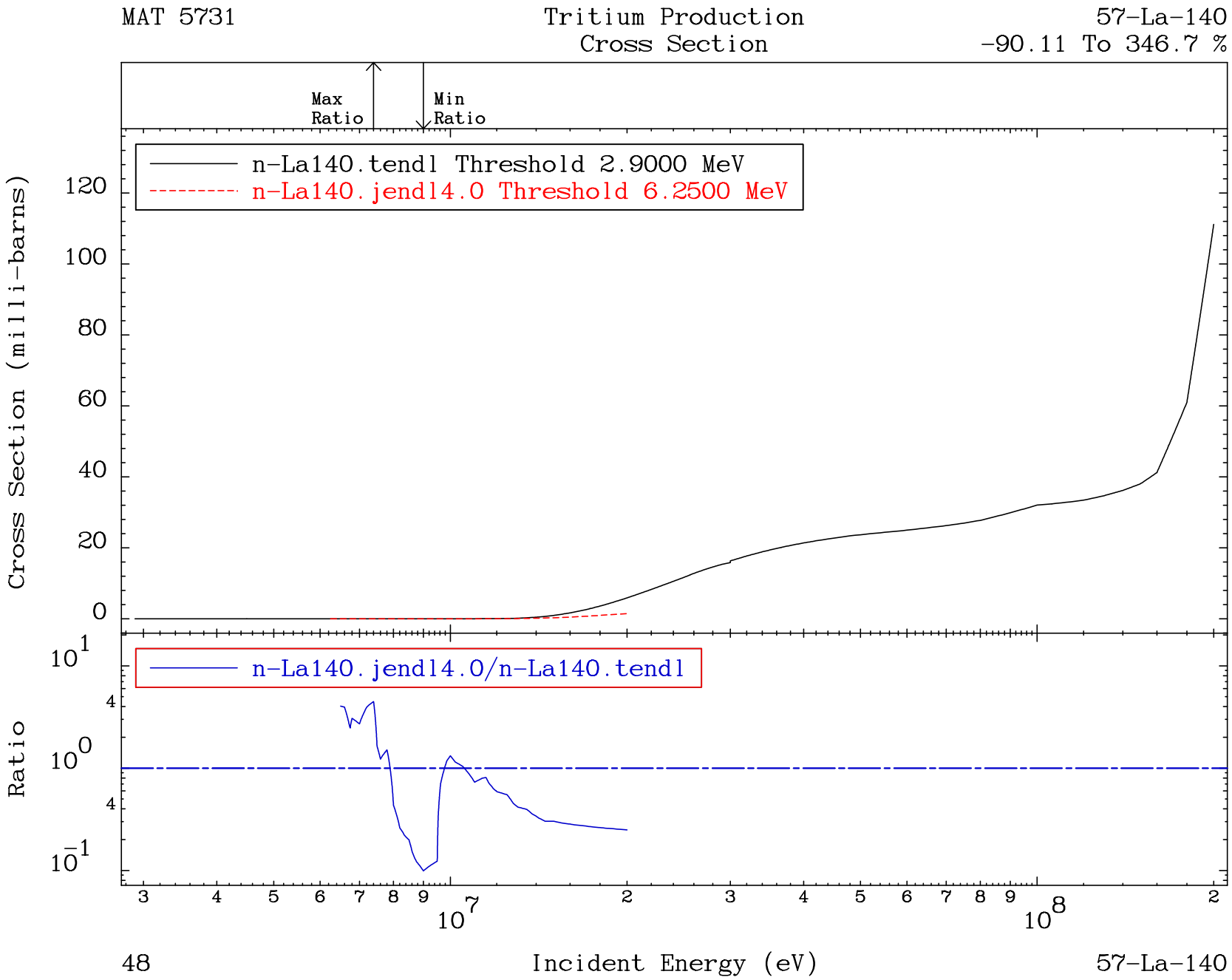

MAT 5731
(n,t)
Cross Section
57-La-140
-90.11 To 346.7 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 2.9539 MeV
n-La140.jendl4.0 Threshold 6.2500 MeV
Cross Section (milli-barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
43
57-La-140

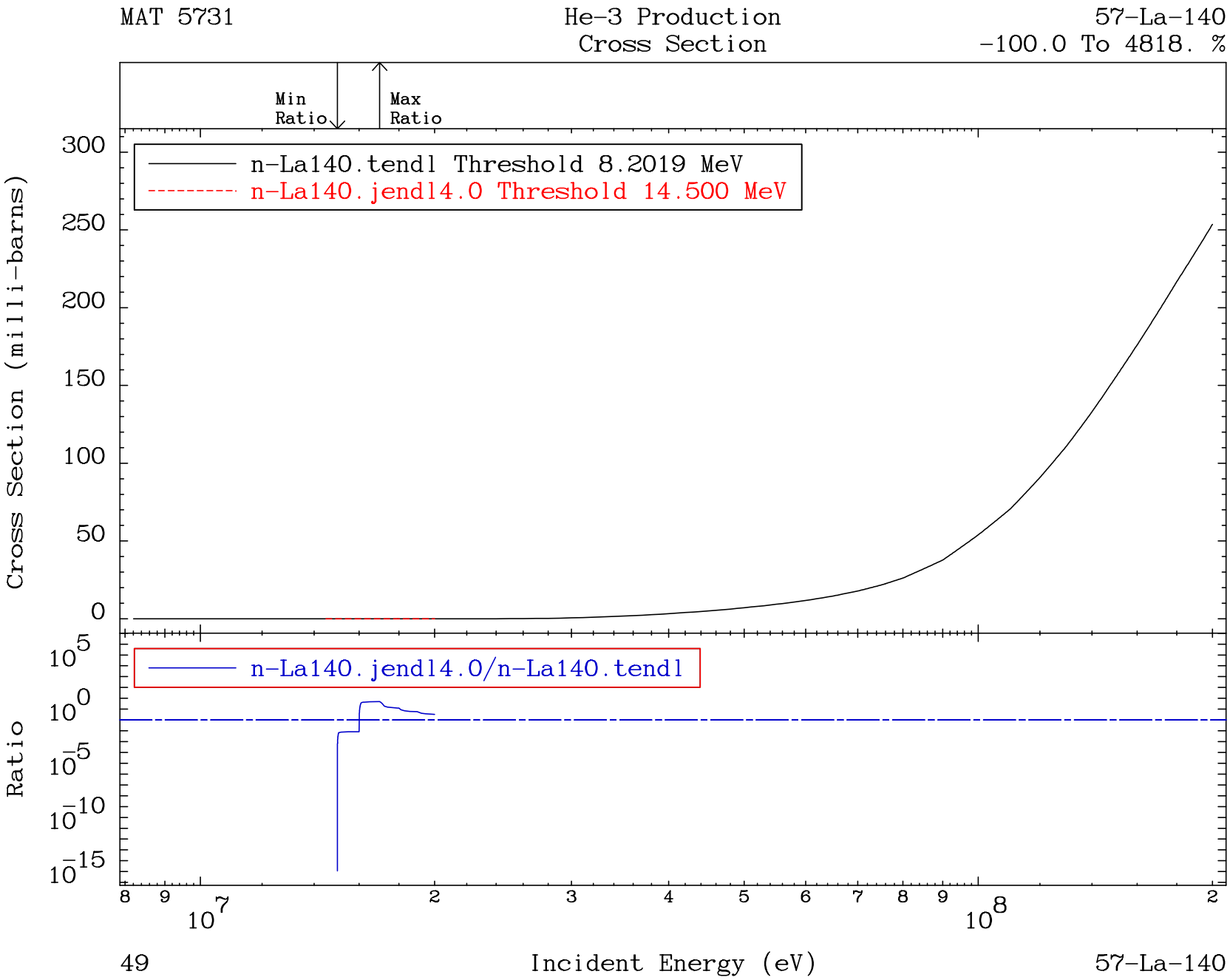

MAT 5731
(n,He-3)
Cross Section
57-La-140
-91.89 To 4818. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 8.3486 MeV
n-La140.jendl4.0 Threshold 15.000 MeV
Cross Section (micro-barns)
400
300
200
100
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^2
10^1
10^0
10^-1
9
10^7
2
3
4
5
6
7
8
9
10^8
2
44
Incident Energy (eV)
57-La-140

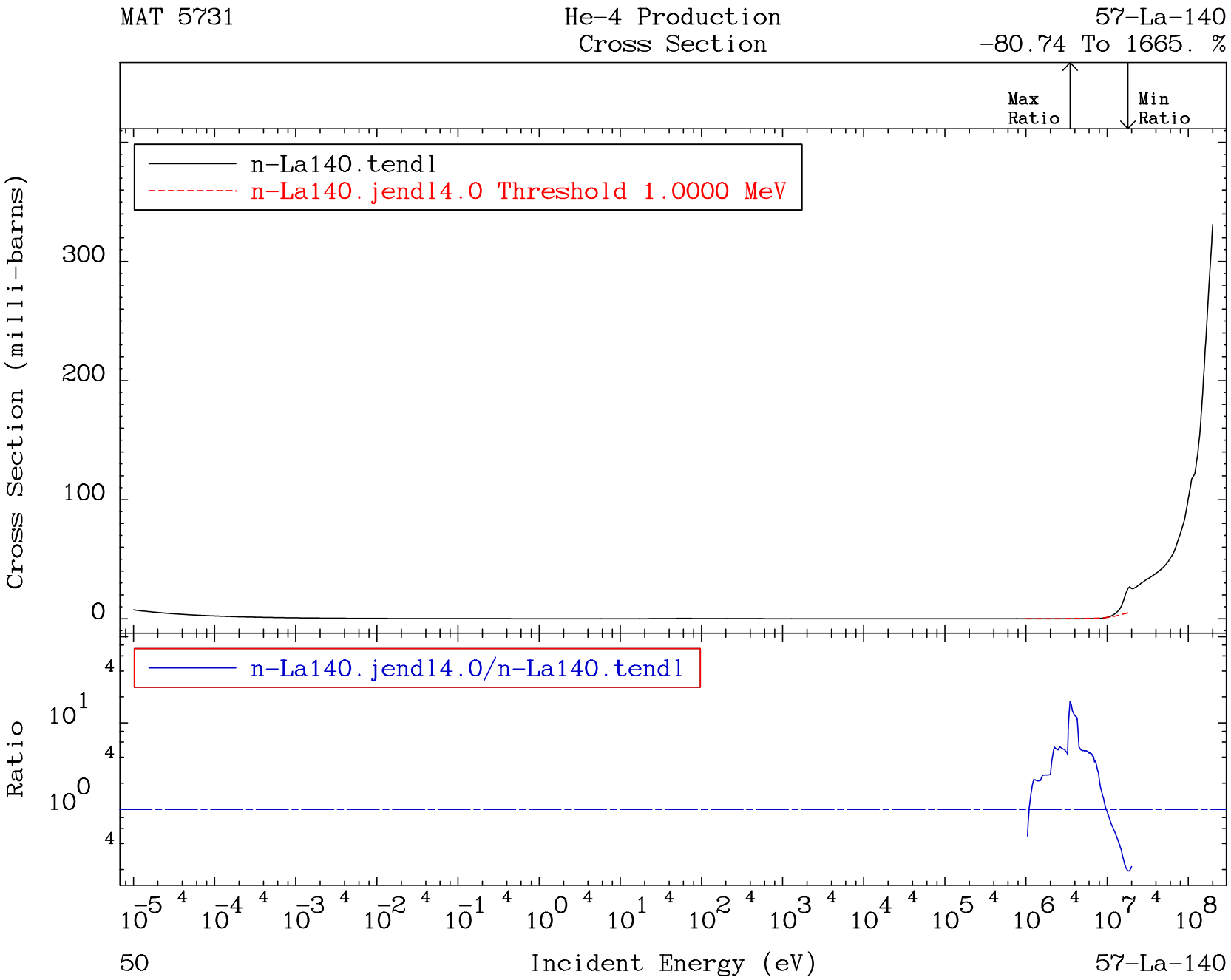

MAT 5731
(n,α)
Cross Section
57-La-140
-82.87 To 1665. %
Max Ratio
Min Ratio
n-La140.tendl
n-La140.jendl4.0 Threshold 1.0000 MeV
Cross Section (milli-barns)
20
15
10
5
0
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
45
57-La-140

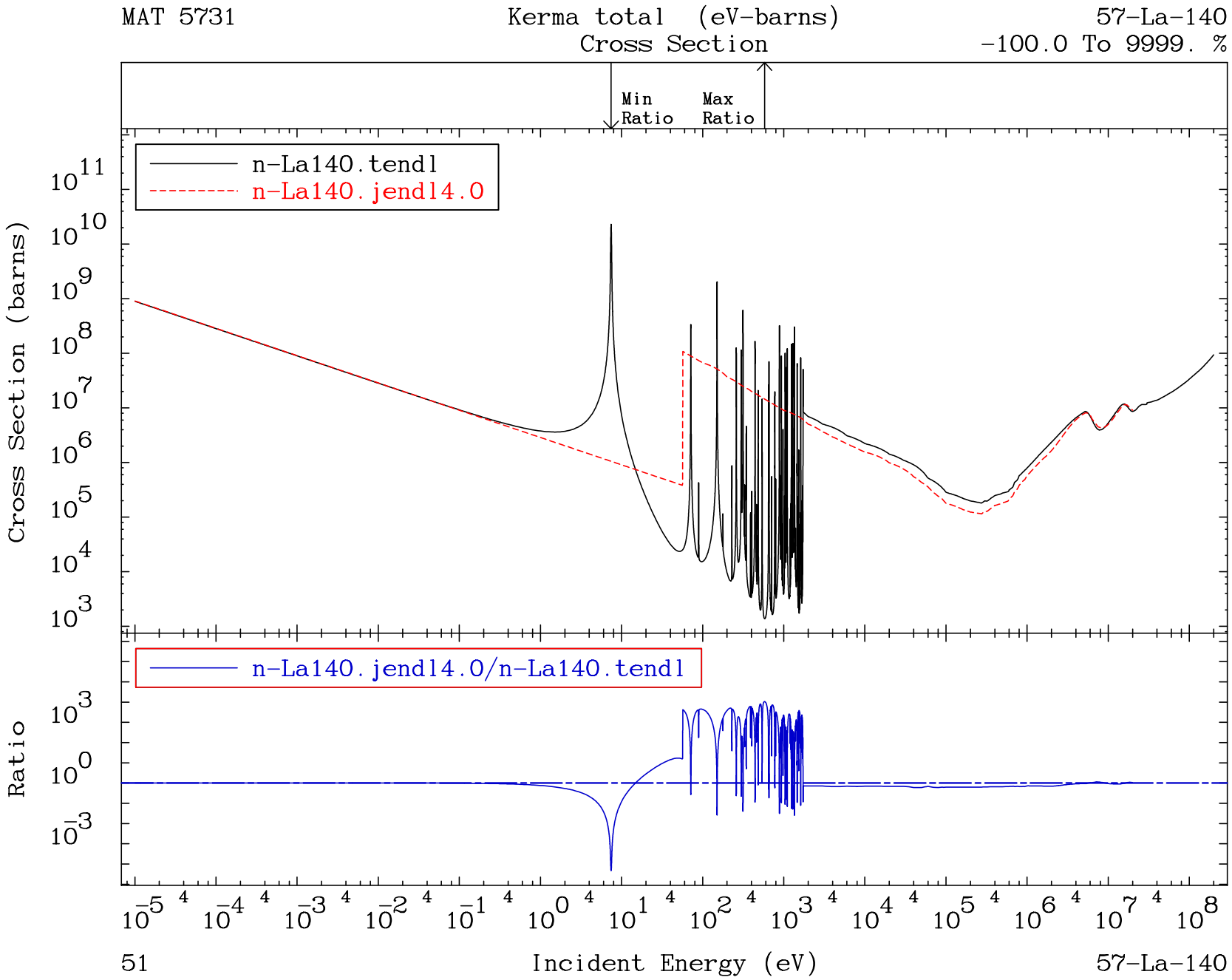

MAT 5731
Hydrogen Production
Cross Section
57-La-140
-95.88 To -15.30%
Min Ratio
Max Ratio
n-La140.tendl Threshold 1.7288 keV
n-La140.jendl4.0 Threshold 3.0000 MeV
Cross Section (barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^0
10^{-1}
6
4
6
4
2 3 5 7 10^4 2 3 5 7 10^5 2 3 5 7 10^6 2 3 5 7 10^7 2 3 5 7 10^8 2
46
Incident Energy (eV)
57-La-140

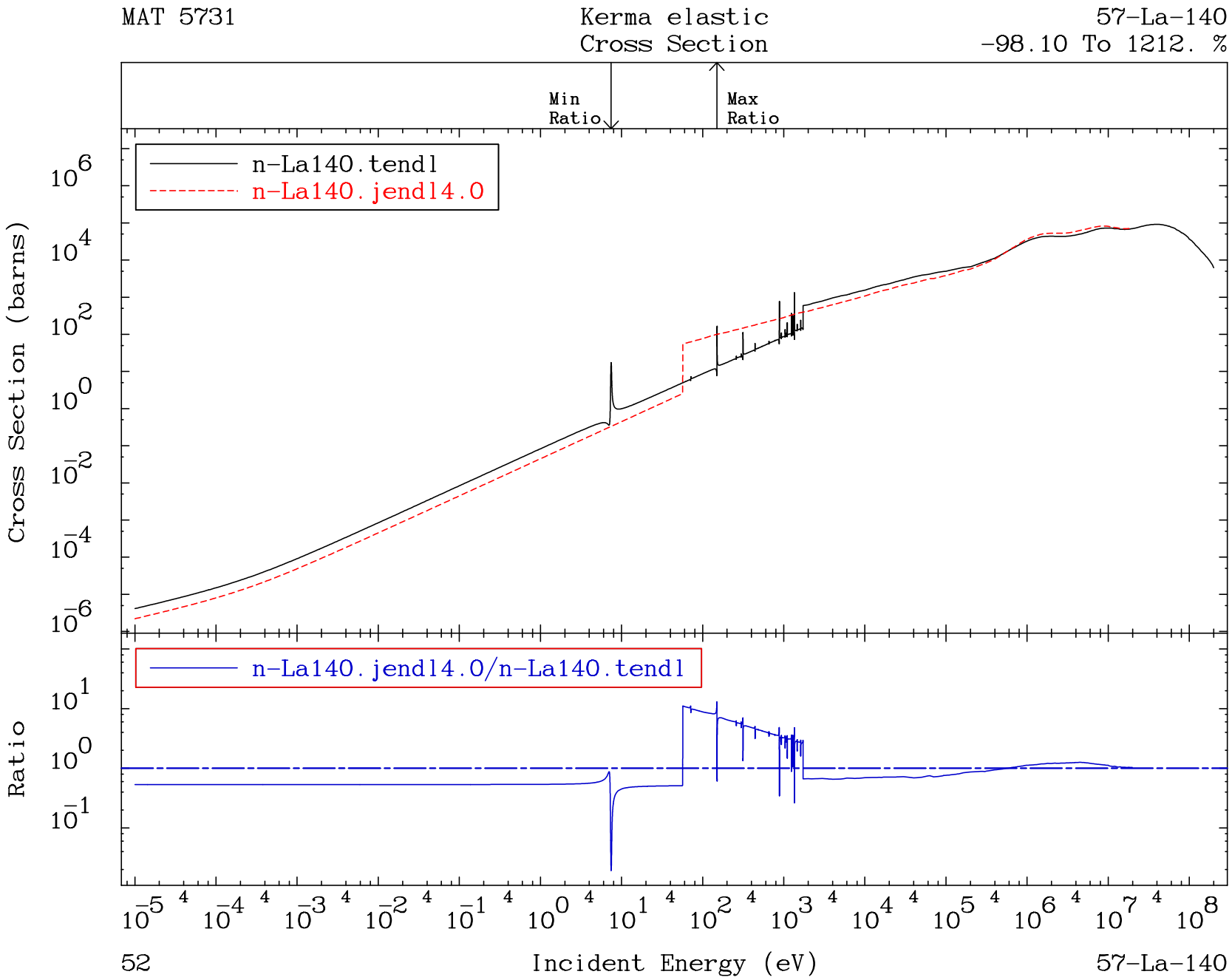

MAT 5731
Deuterium Production
Cross Section
57-La-140
-90.25 To 878.6 %
Min Ratio
Max Ratio
n-La140.tendl Threshold 4.4987 MeV
n-La140.jendl4.0 Threshold 7.0000 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^1
10^0
10^-1
5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
47
Incident Energy (eV)
57-La-140

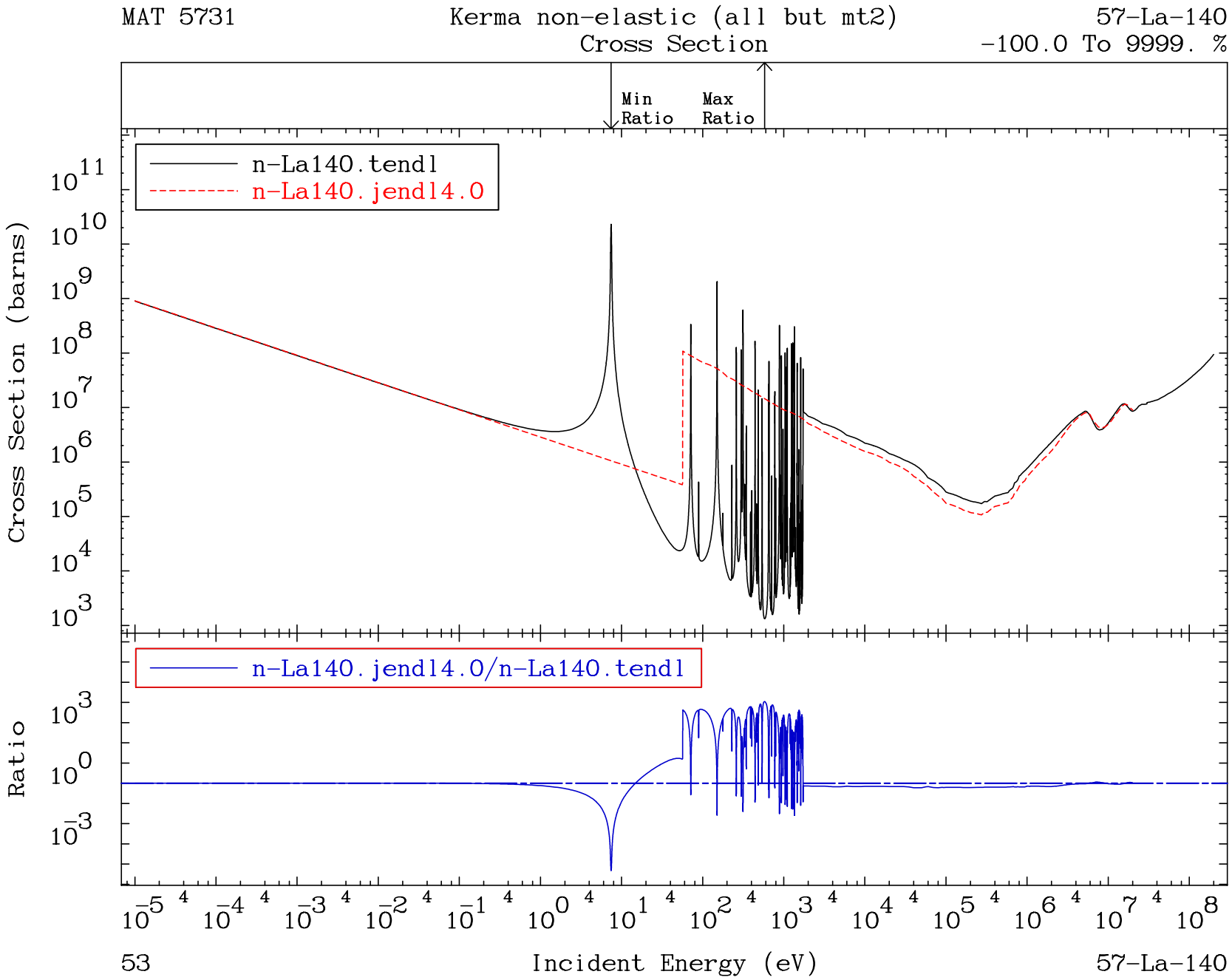

MAT 5731
Tritium Production
Cross Section
57-La-140
-90.11 To 346.7 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 2.9000 MeV
n-La140.jendl4.0 Threshold 6.2500 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^1
4
10^0
4
10^-1
3 4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
48
Incident Energy (eV)
57-La-140

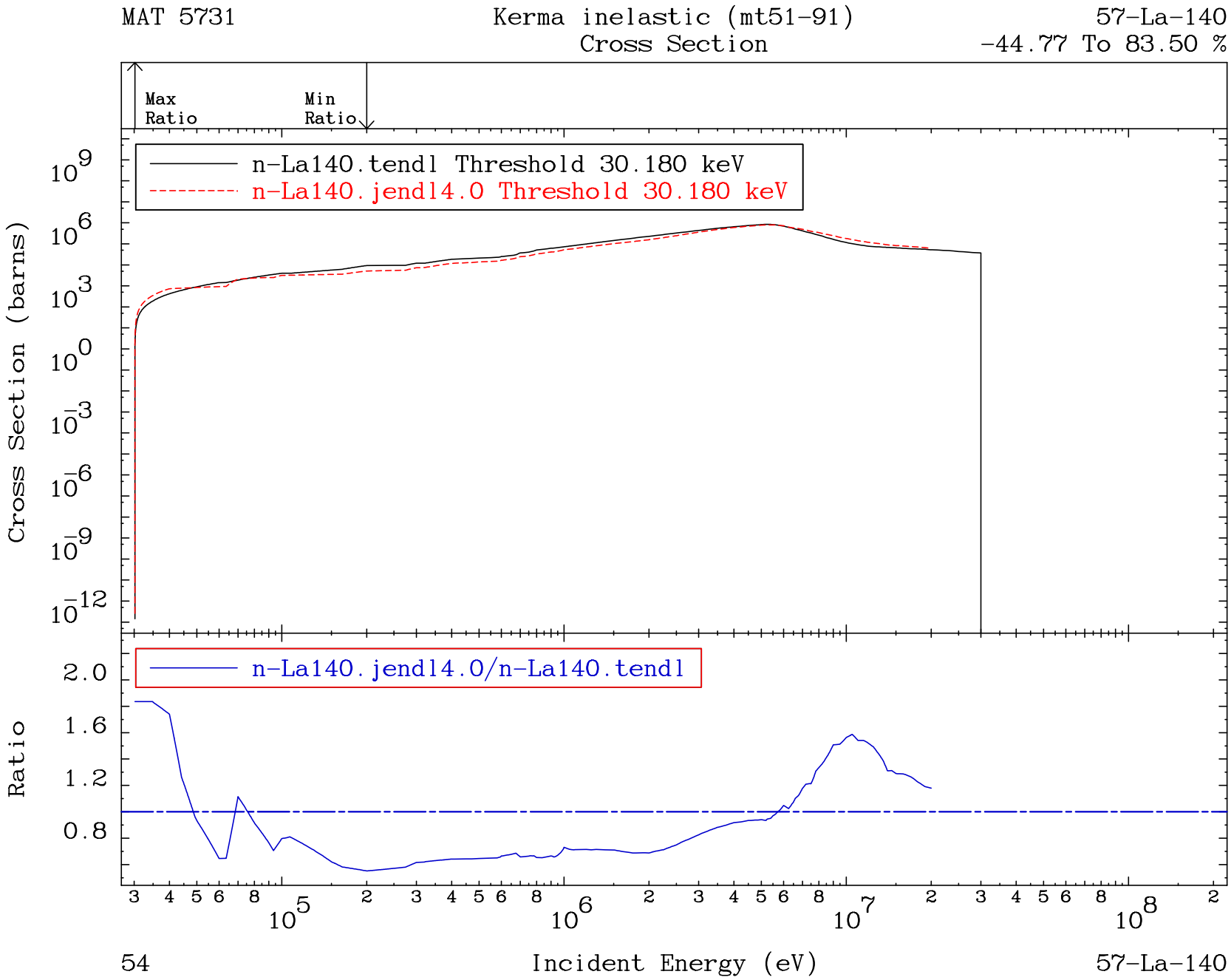

MAT 5731
He-3 Production
Cross Section
57-La-140
-100.0 To 4818. %
Min Ratio
Max Ratio
n-La140.tendl Threshold 8.2019 MeV
n-La140.jendl4.0 Threshold 14.500 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^5
10^0
10^-5
10^-10
10^-15
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
49
Incident Energy (eV)
57-La-140

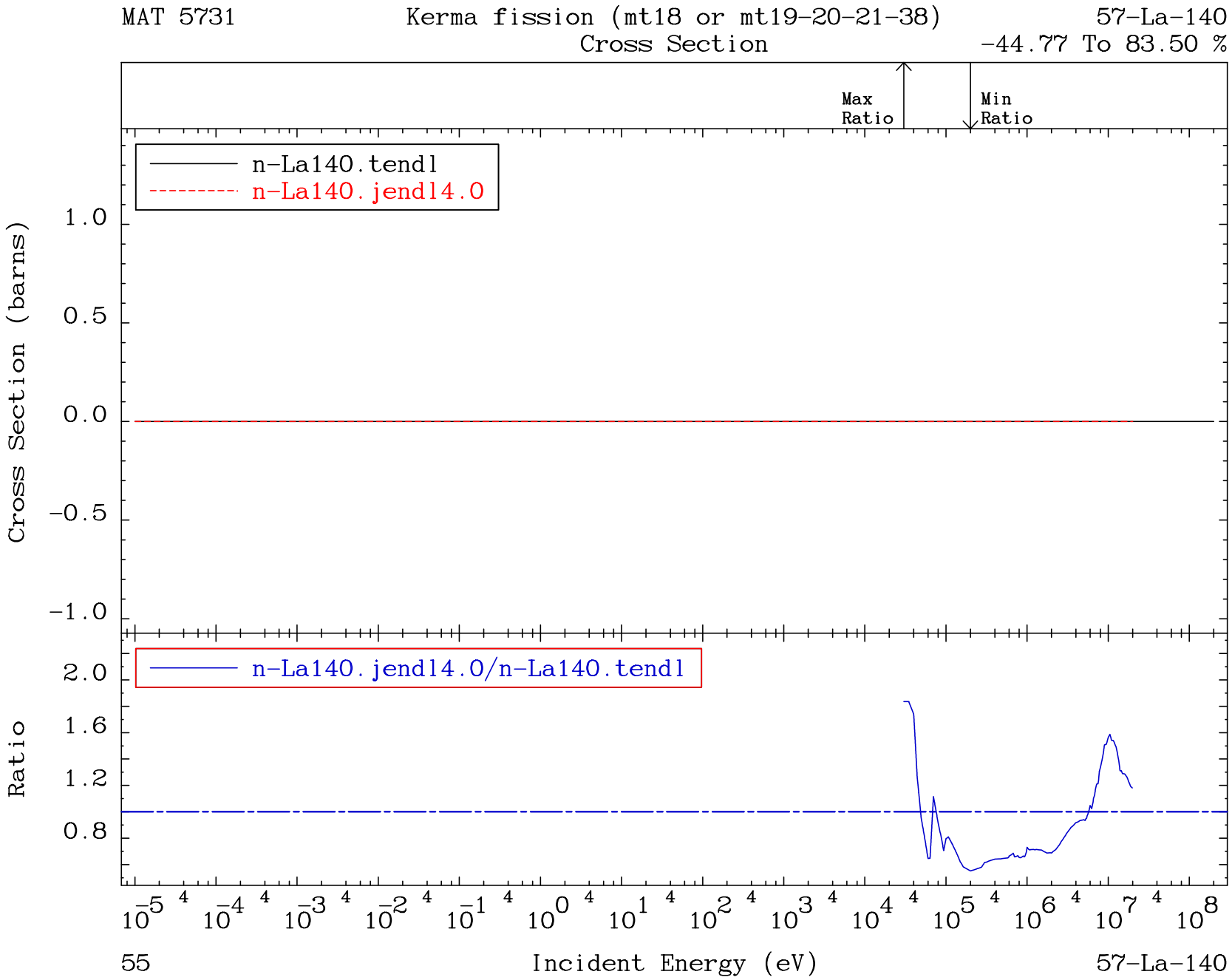

MAT 5731
He-4 Production
Cross Section
57-La-140
-80.74 To 1665. %
Max Ratio
Min Ratio
n-La140.tendl
n-La140.jendl4.0 Threshold 1.0000 MeV
Cross Section (milli-barns)
300
200
100
0
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
50
57-La-140

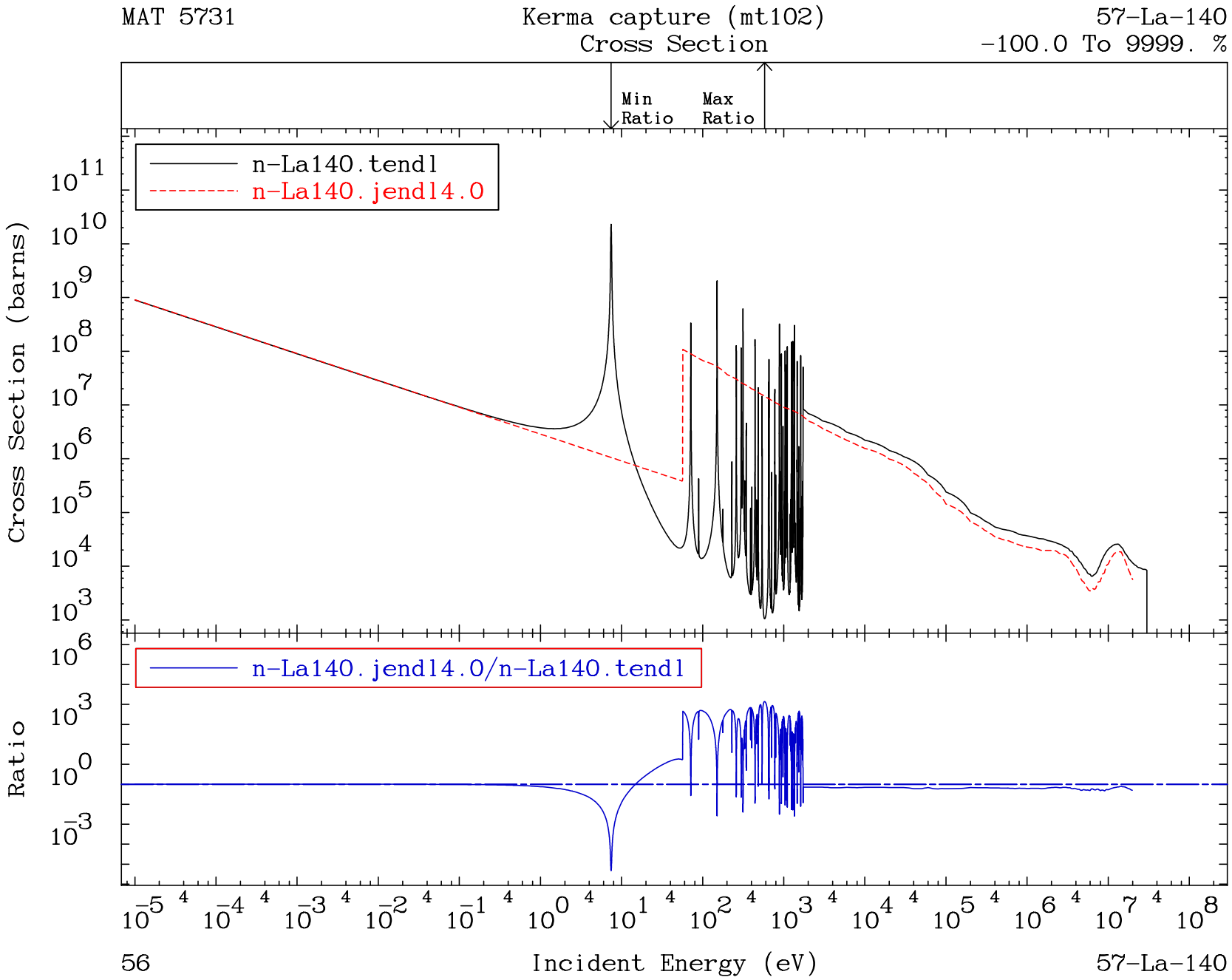

MAT 5731
Kerma total (eV-barns)
Cross Section
57-La-140
-100.0 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
51
57-La-140

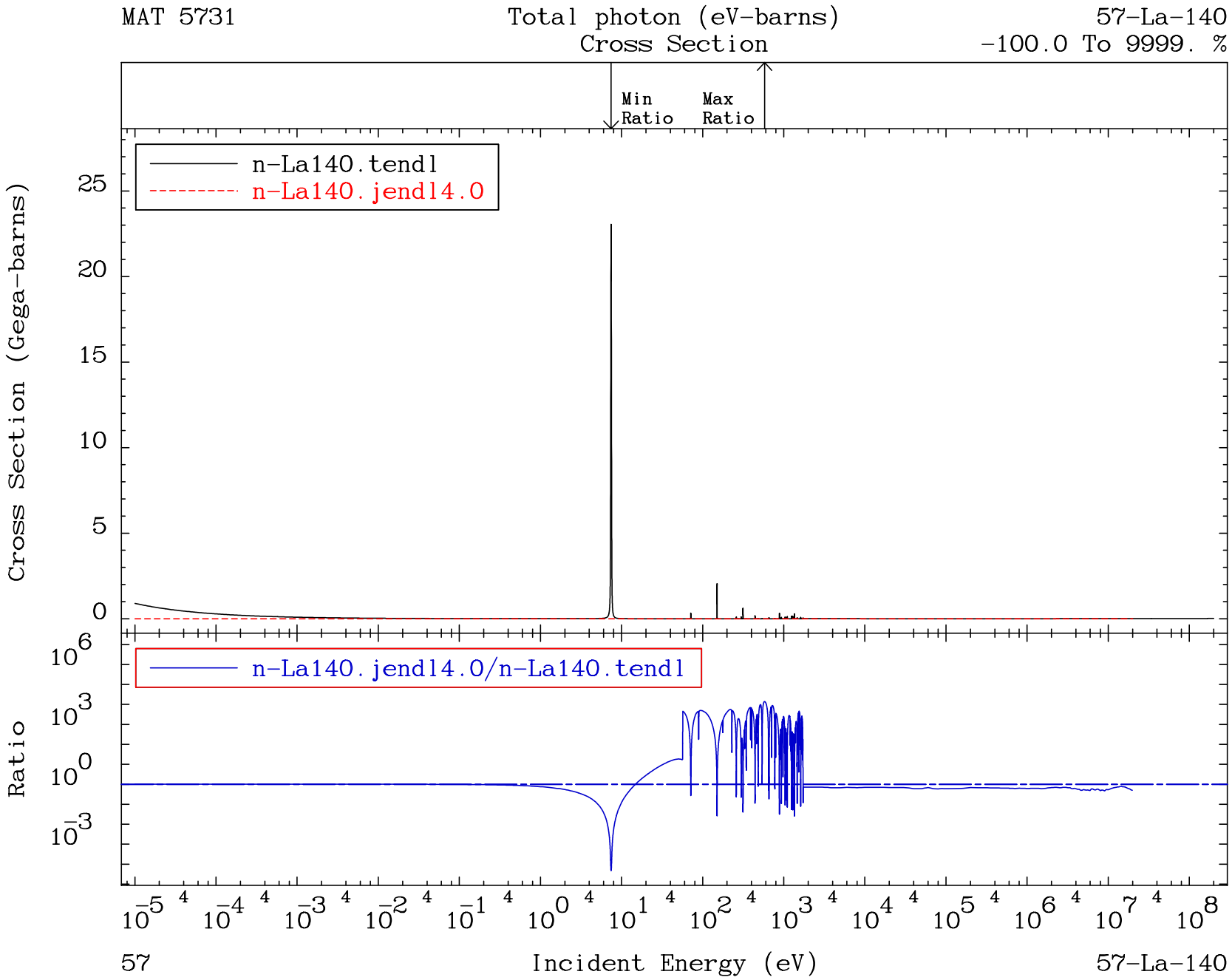

MAT 5731
Kerma elastic
Cross Section
57-La-140
-98.10 To 1212. %
Min
Ratio
Max
Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
52
57-La-140

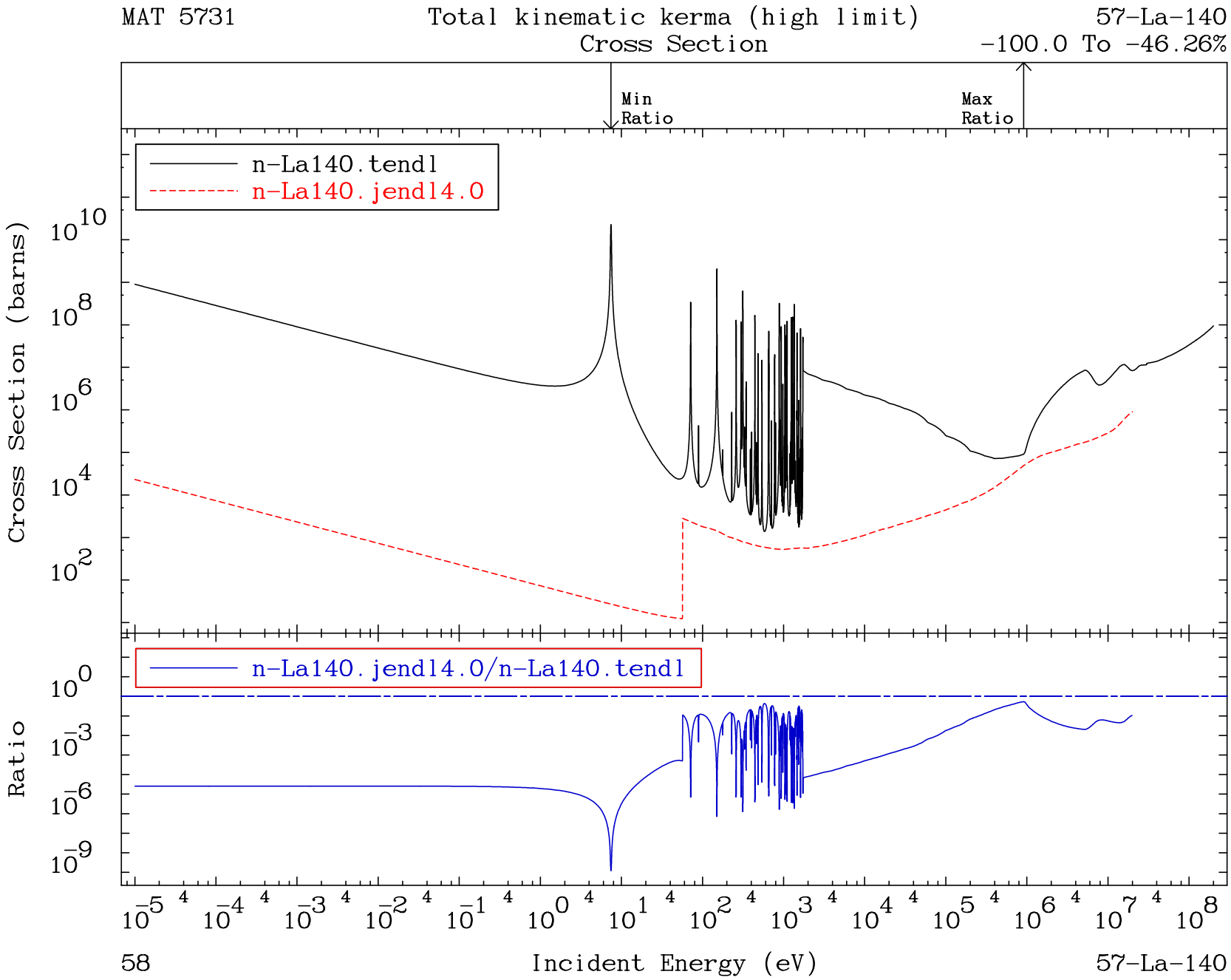

MAT 5731
Kerma non-elastic (all but mt2)
Cross Section
57-La-140
-100.0 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
53
57-La-140

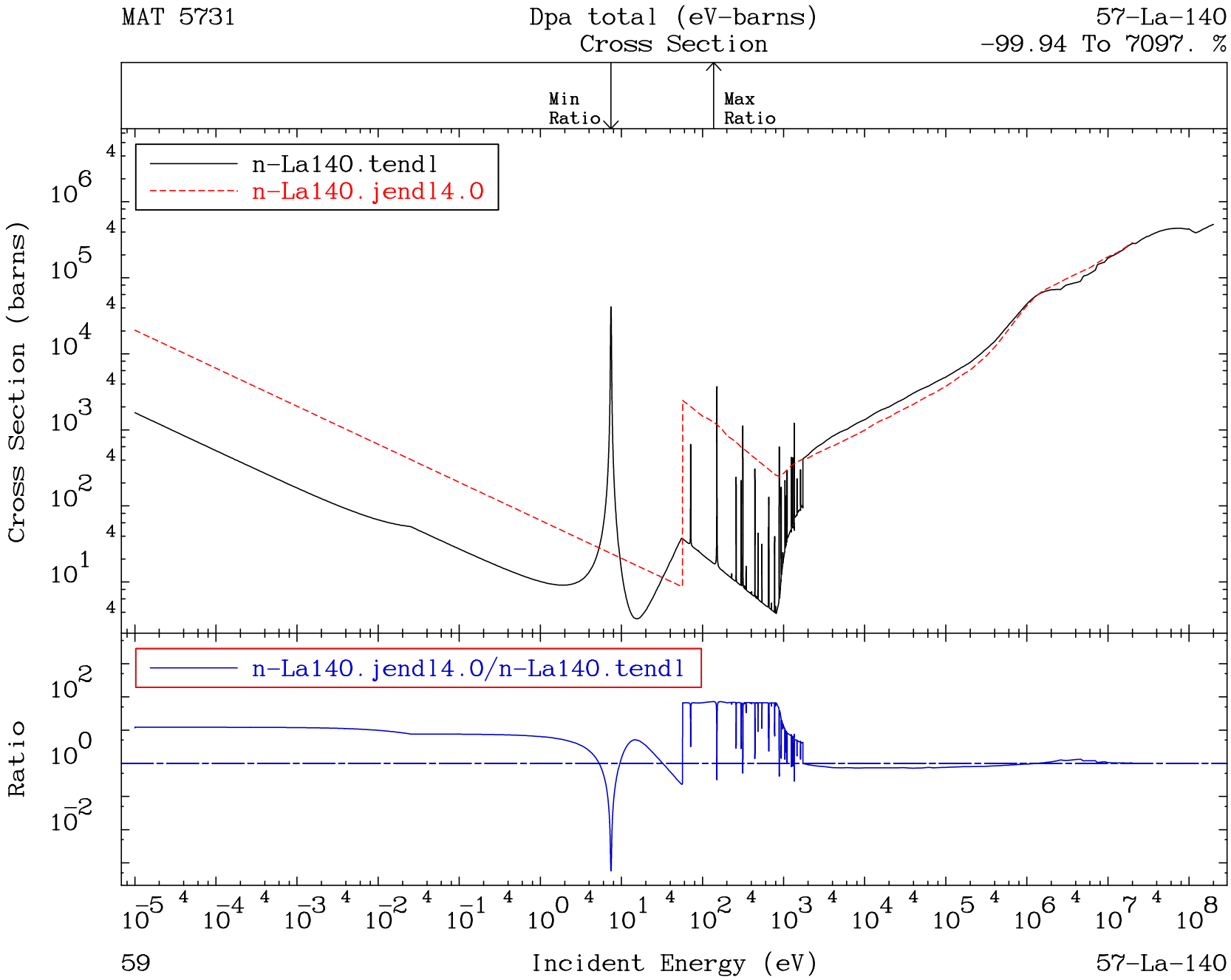

MAT 5731
Kerma inelastic (mt51-91)
Cross Section
57-La-140
-44.77 To 83.50 %
Max Ratio
Min Ratio
n-La140.tendl Threshold 30.180 keV
n-La140.jendl4.0 Threshold 30.180 keV
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
54
57-La-140

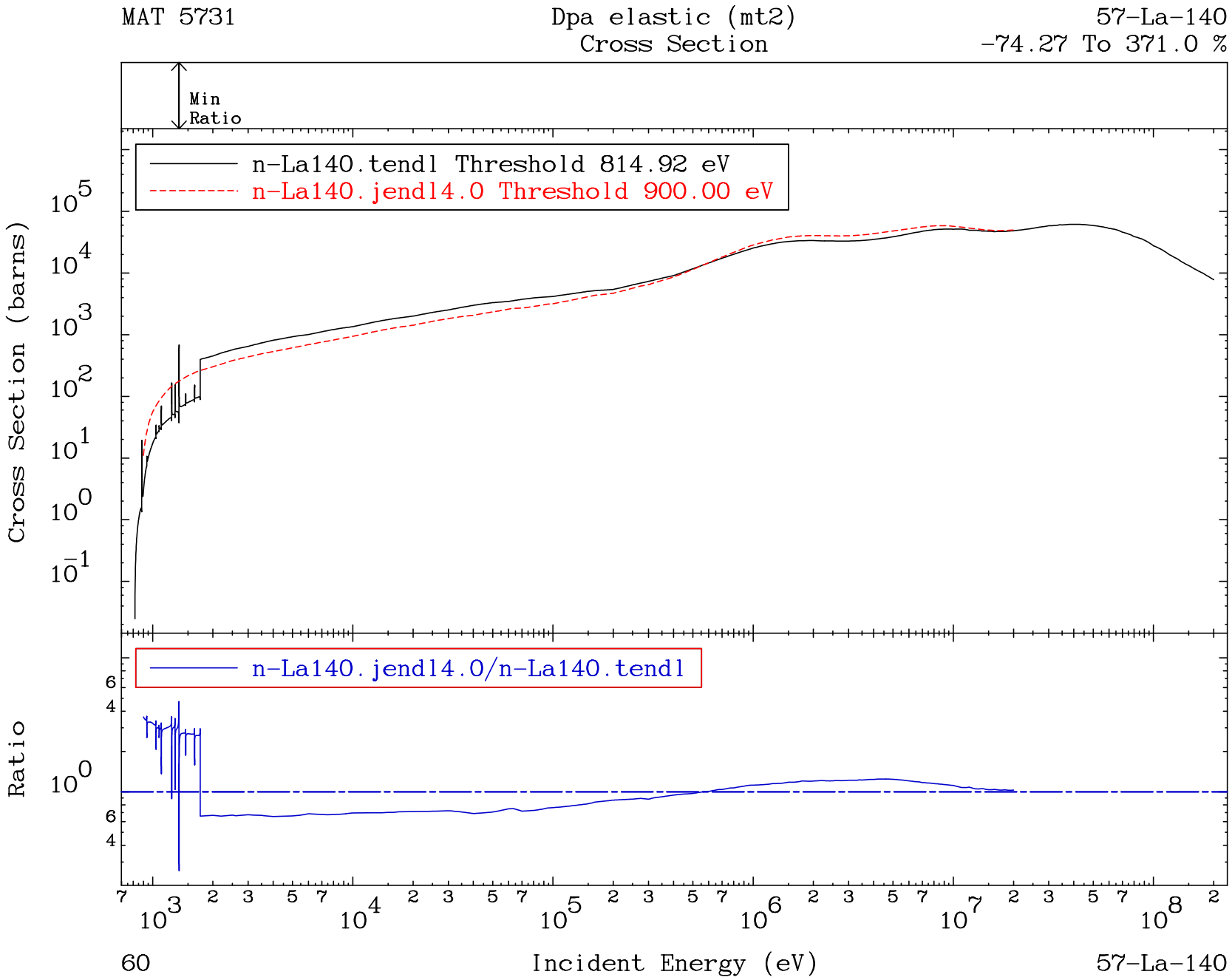

MAT 5731
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
57-La-140
-44.77 To 83.50 %
Max Ratio
Min Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-La140.jendl4.0/n-La140.tendl
Ratio
2.0
1.6
1.2
0.8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
55
Incident Energy (eV)
57-La-140

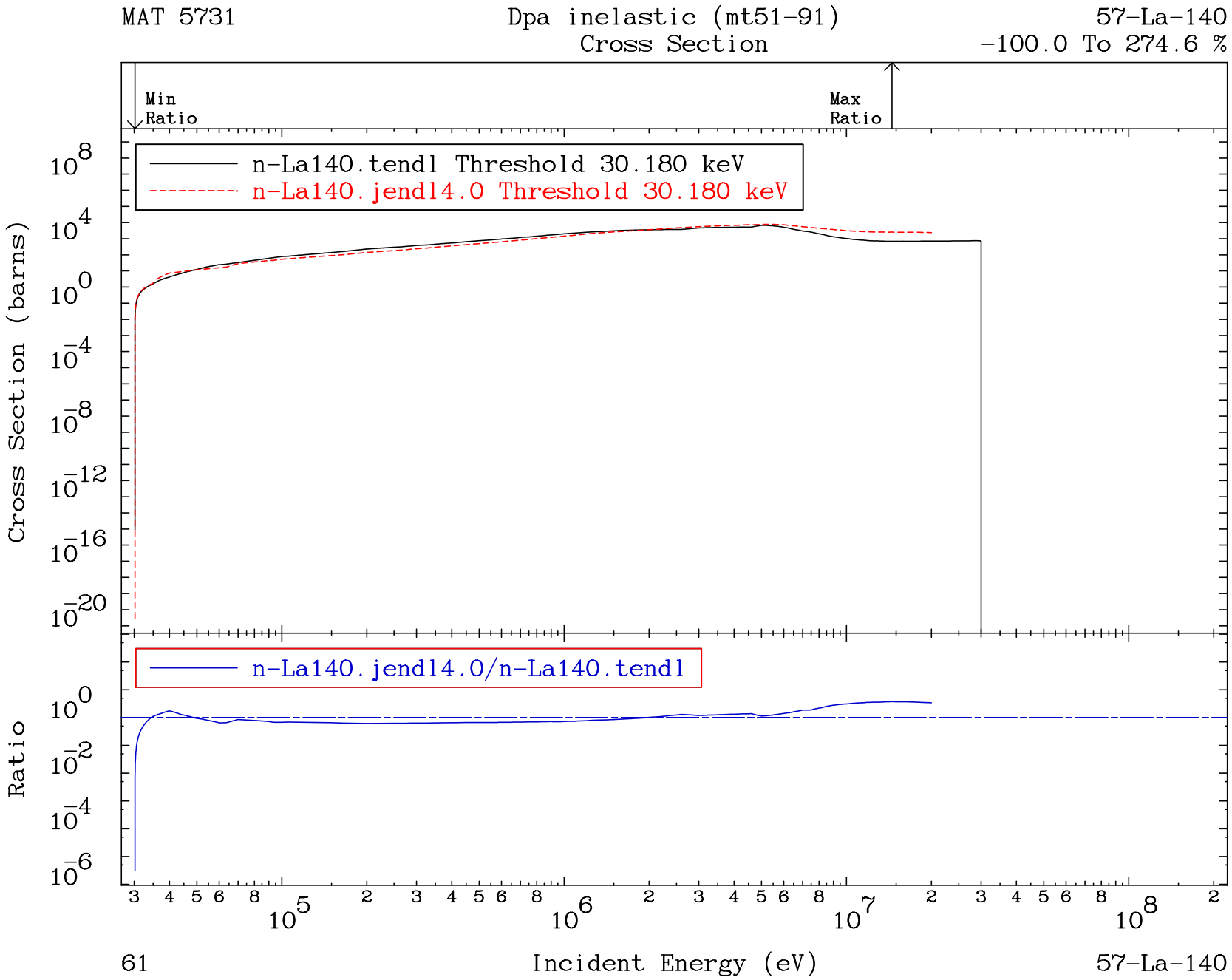

MAT 5731
Kerma capture (mt102)
Cross Section
57-La-140
-100.0 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
56
57-La-140

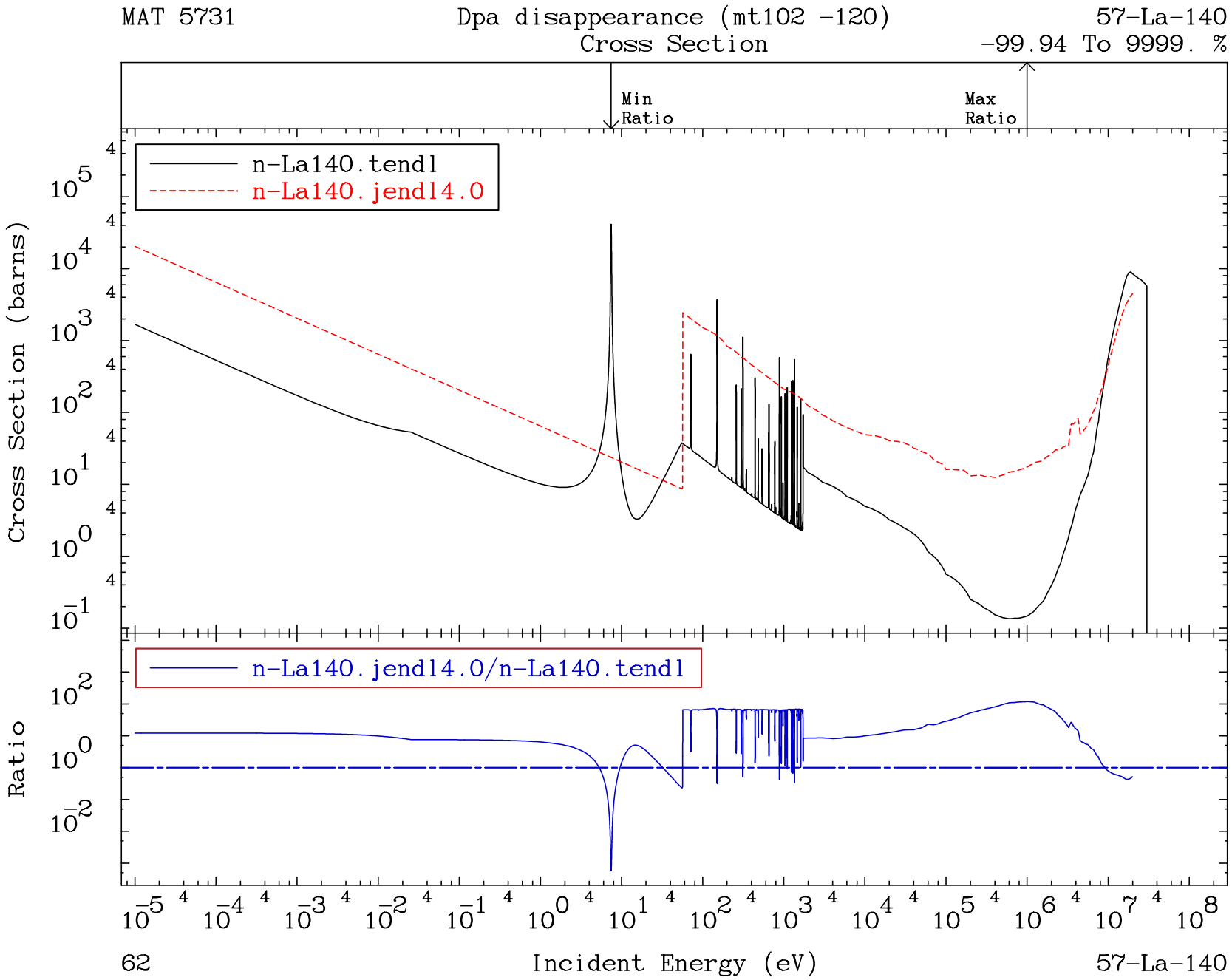

MAT 5731
Total photon (eV-barns)
Cross Section
57-La-140
-100.0 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (Gega-barns)
25
20
15
10
5
0
n-La140.jendl4.0/n-La140.tendl
Ratio
10^6
10^3
10^0
10^-3
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
57
Incident Energy (eV)
57-La-140


MAT 5731
Total kinematic kerma (high limit)
Cross Section
57-La-140
-100.0 To -46.26%
Min Ratio
Max Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
58
57-La-140


MAT 5731
Dpa total (eV-barns)
Cross Section
57-La-140
-99.94 To 7097. %
Min Ratio
Max Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
59
Incident Energy (eV)
57-La-140


MAT 5731
Dpa elastic (mt2)
Cross Section
57-La-140
-74.27 To 371.0 %
Min
Ratio
n-La140.tendl Threshold 814.92 eV
n-La140.jendl4.0 Threshold 900.00 eV
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
60
57-La-140


MAT 5731
Dpa inelastic (mt51-91)
Cross Section
57-La-140
-100.0 To 274.6 %
Min Ratio
Max Ratio
n-La140.tendl Threshold 30.180 keV
n-La140.jendl4.0 Threshold 30.180 keV
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
61
57-La-140


MAT 5731
Dpa disappearance (mt102 -120)
Cross Section
57-La-140
-99.94 To 9999. %
Min Ratio
Max Ratio
n-La140.tendl
n-La140.jendl4.0
Cross Section (barns)
n-La140.jendl4.0/n-La140.tendl
Ratio
Incident Energy (eV)
62
57-La-140