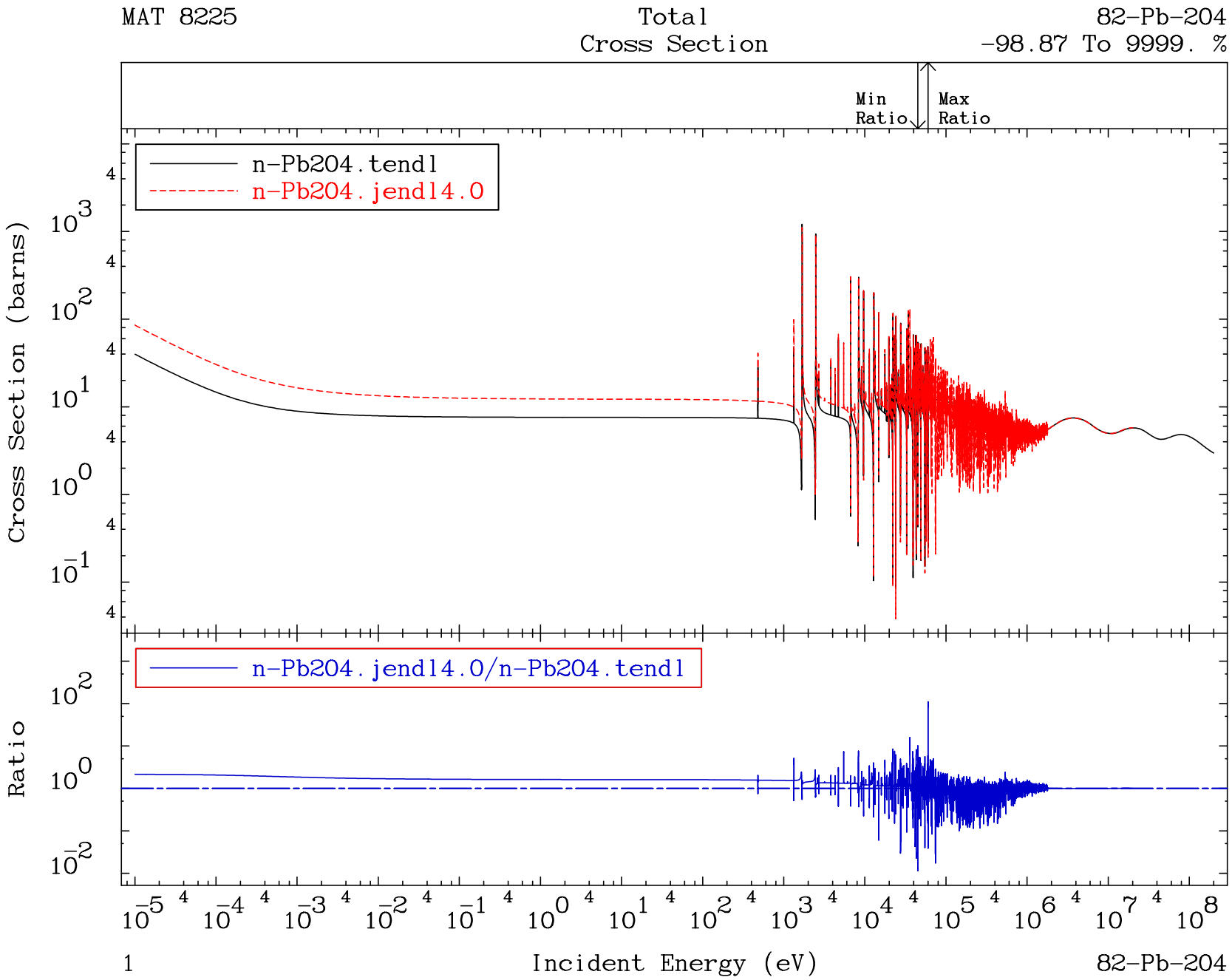
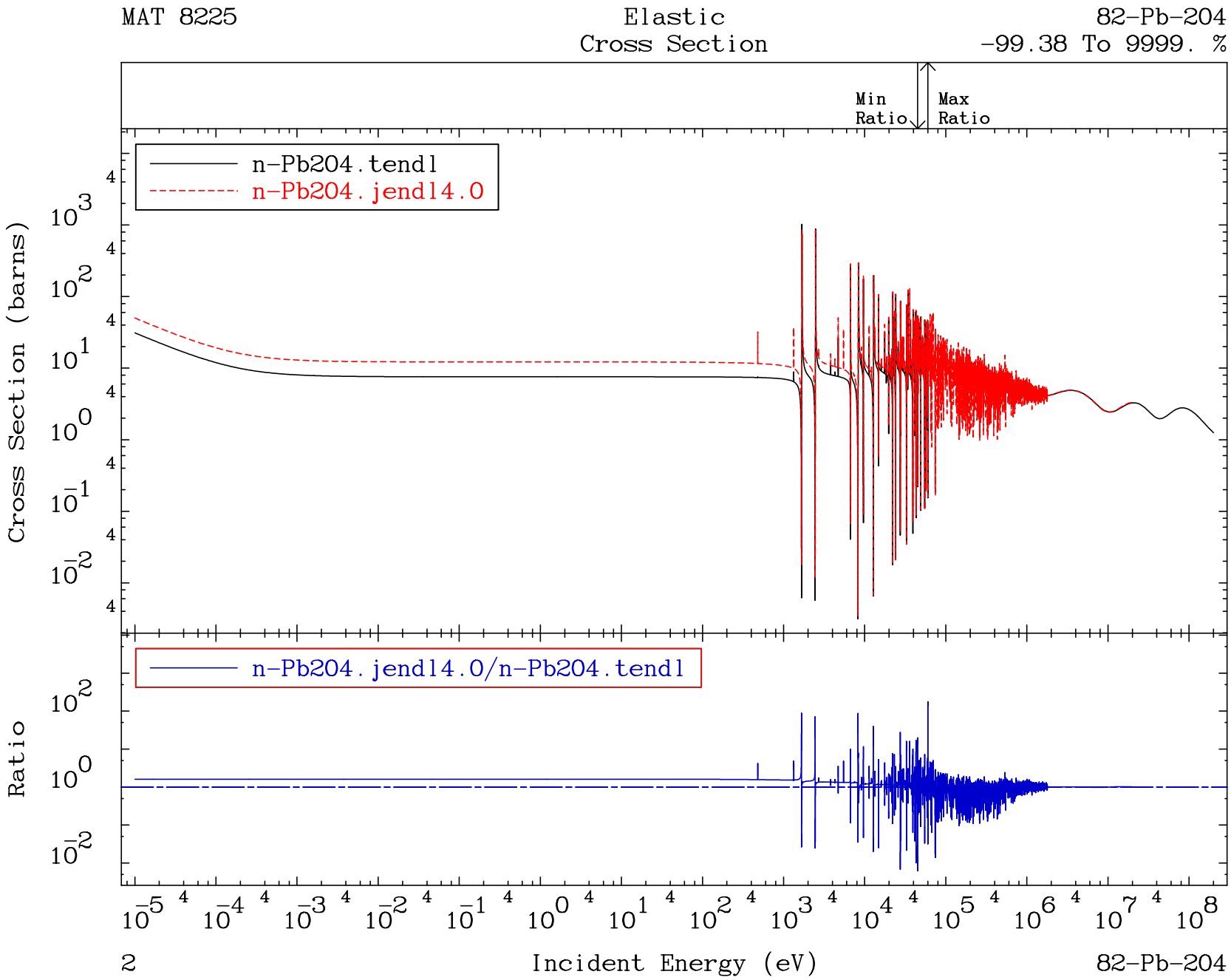
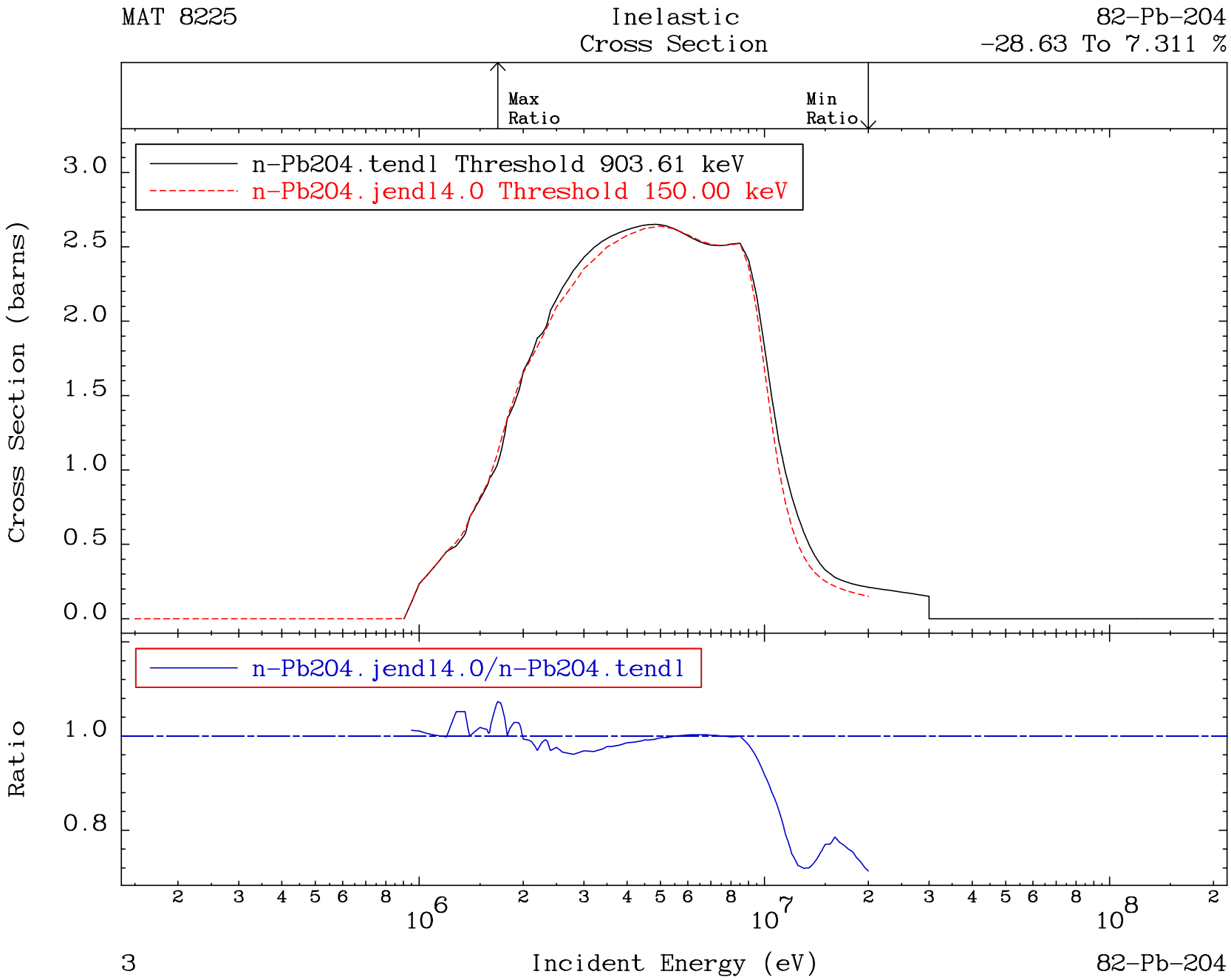
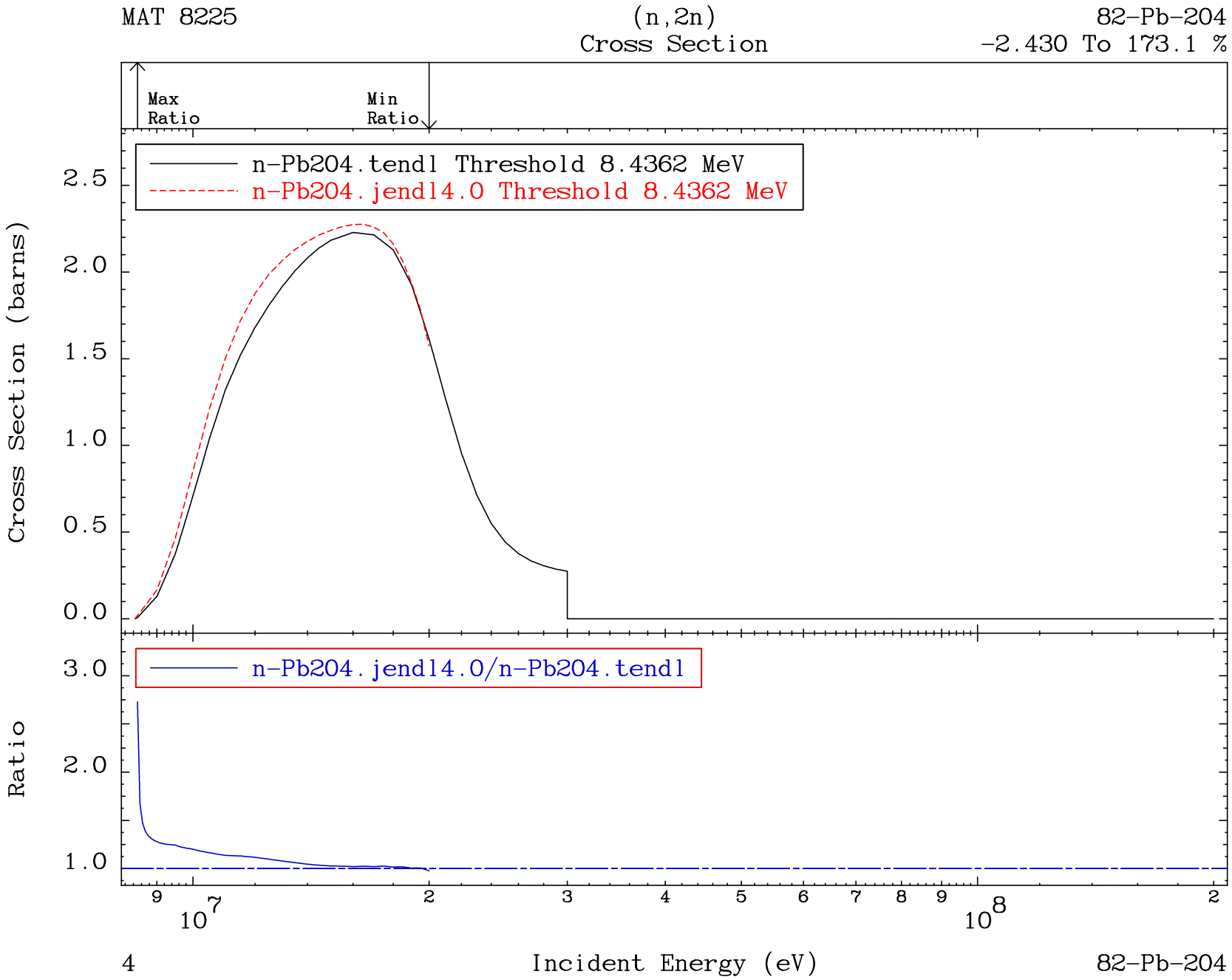
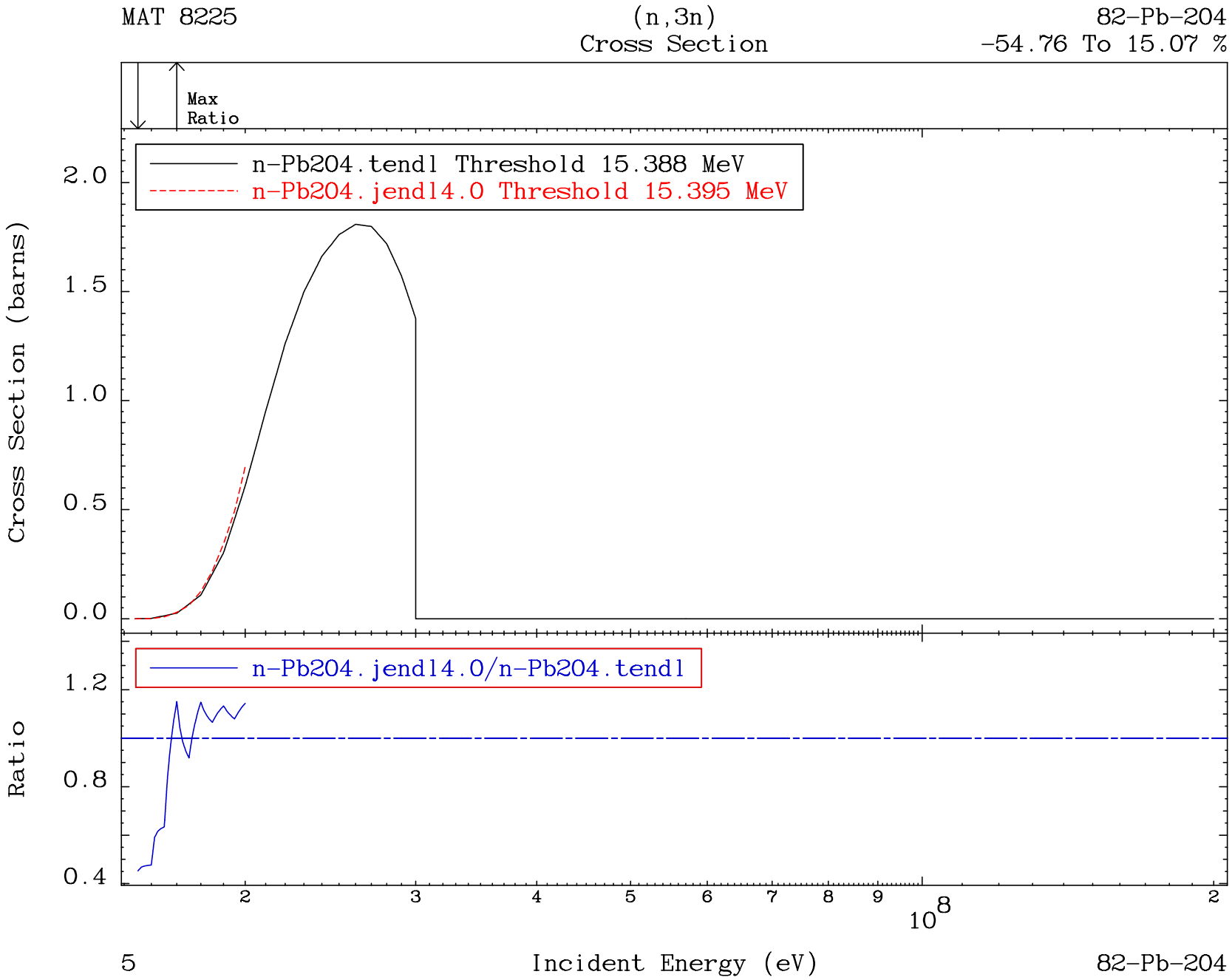
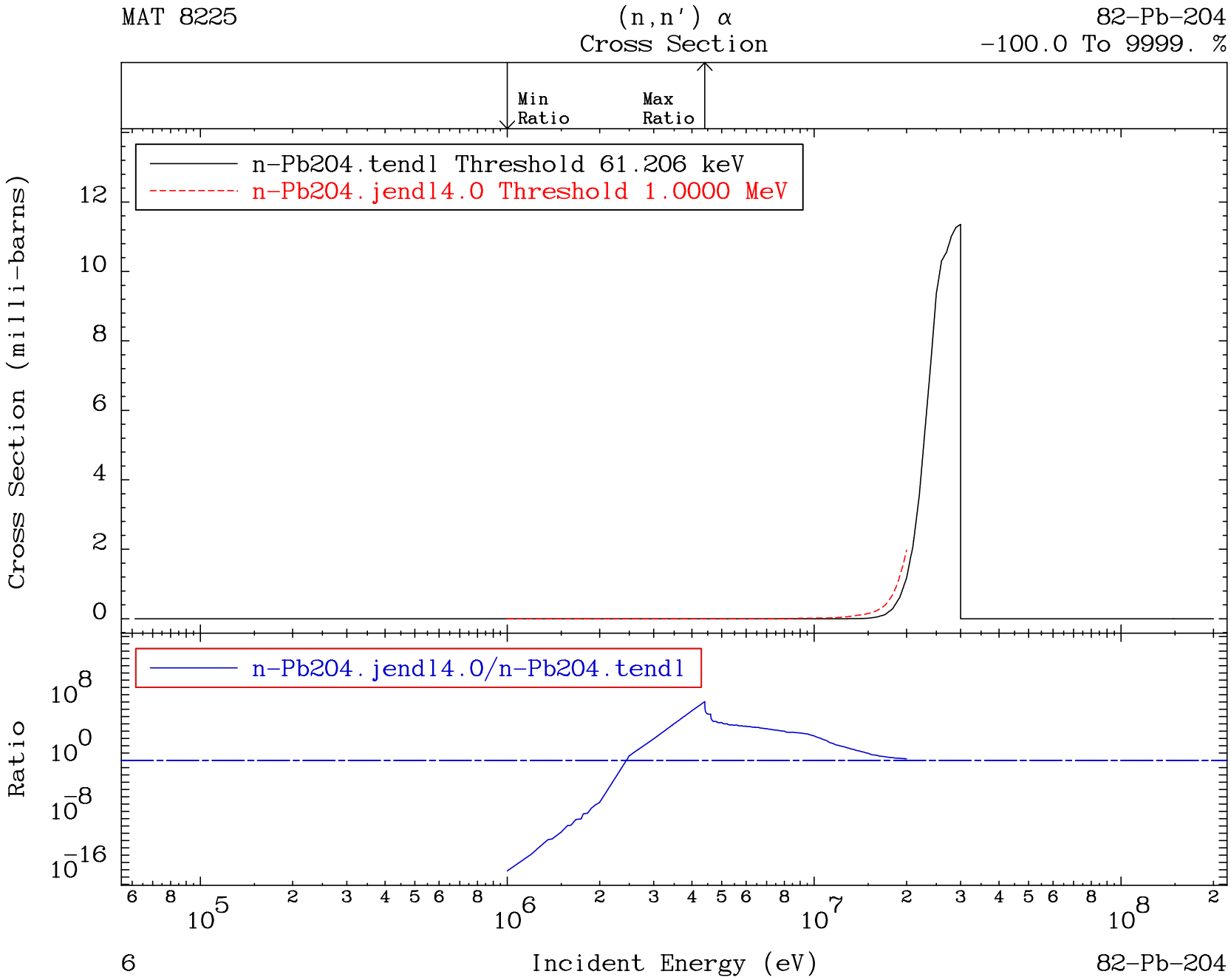

MAT 8225
Total
Cross Section
82-Pb-204
-98.87 To 9999. %
Min
Ratio
Max
Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
1
82-Pb-204

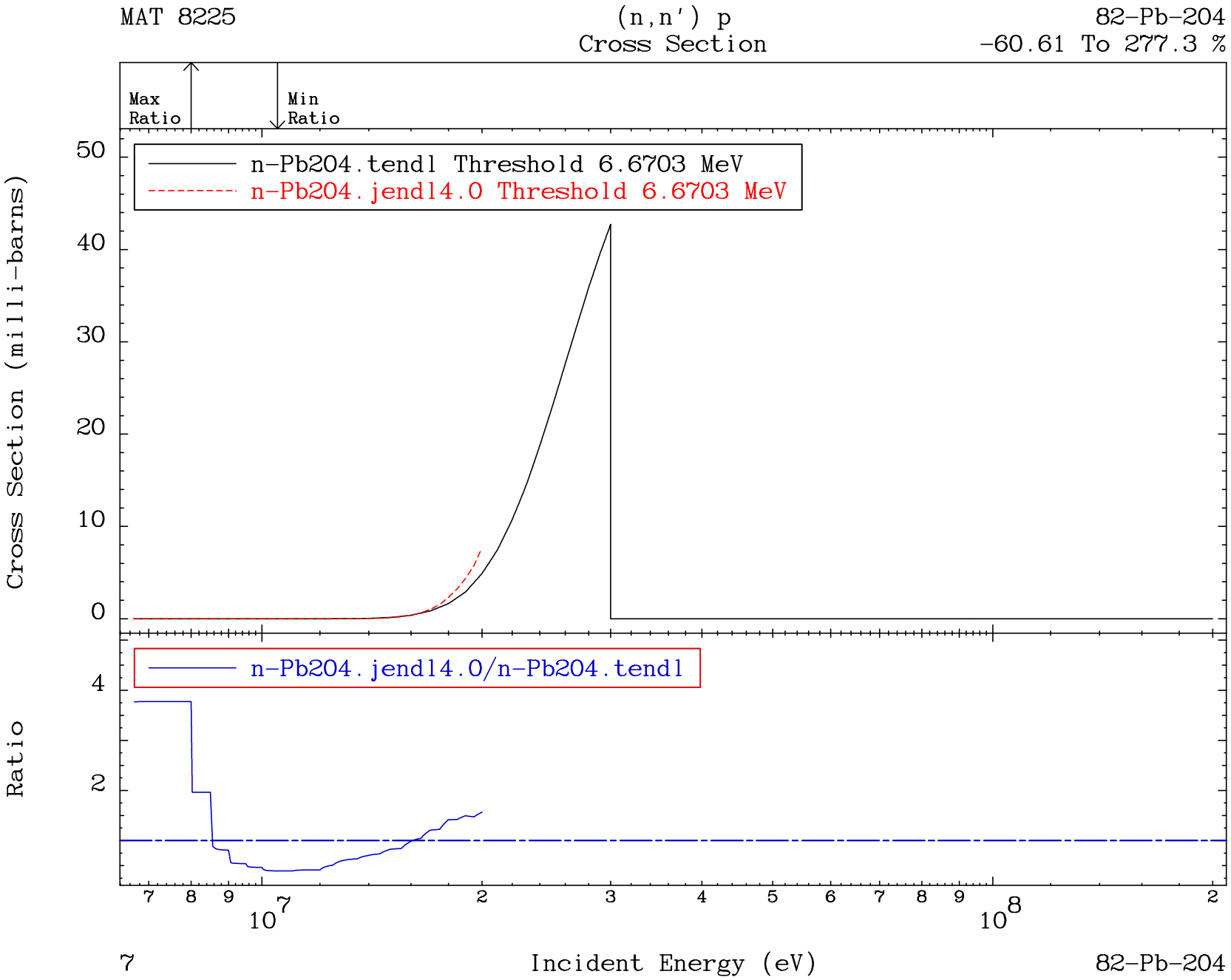

MAT 8225
Elastic
Cross Section
82-Pb-204
-99.38 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
2
82-Pb-204

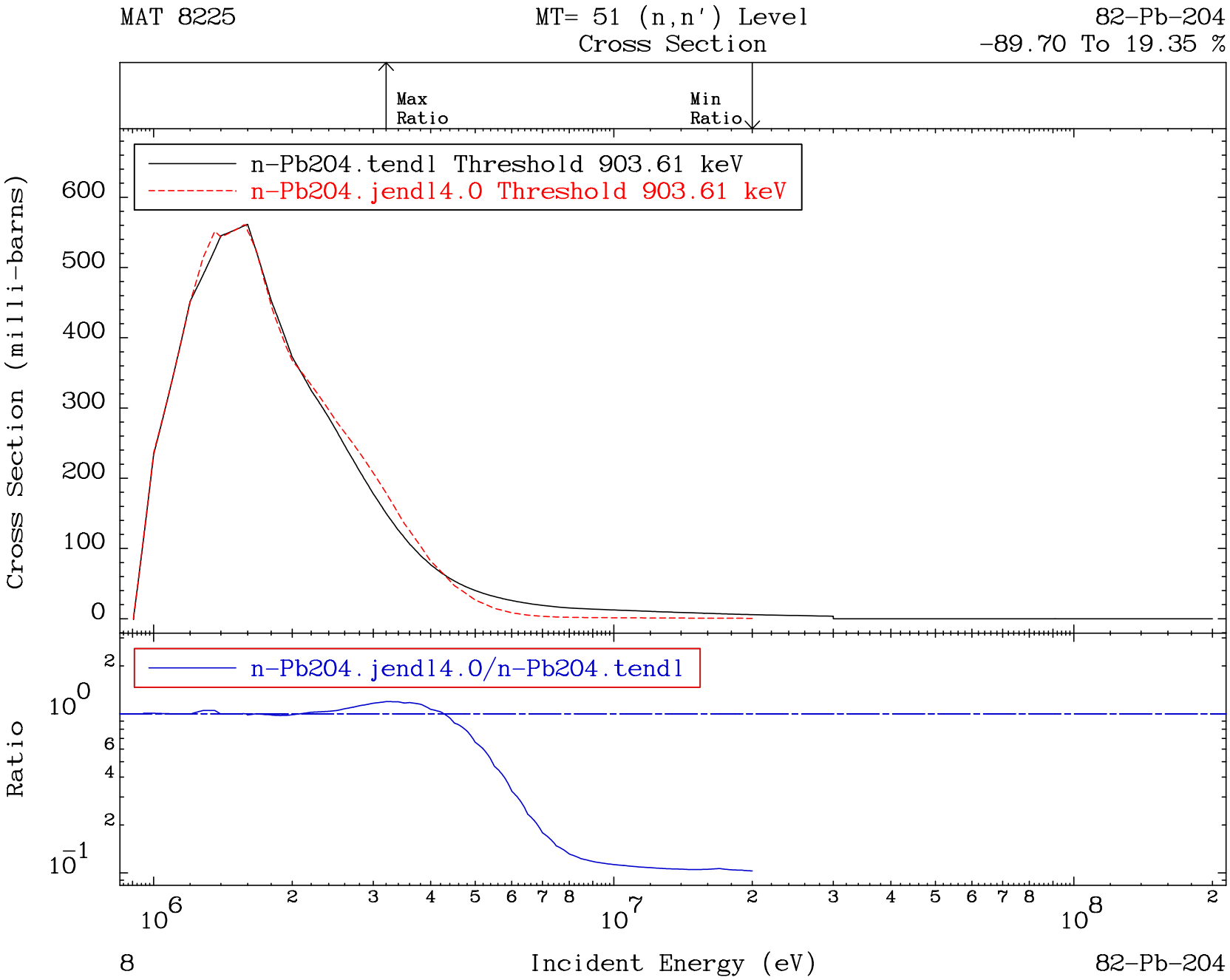

MAT 8225
Inelastic
Cross Section
82-Pb-204
-28.63 To 7.311 %
Max
Ratio
Min
Ratio
n-Pb204.tendl Threshold 903.61 keV
n-Pb204.jendl4.0 Threshold 150.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
1.0
0.8
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
3
Incident Energy (eV)
82-Pb-204

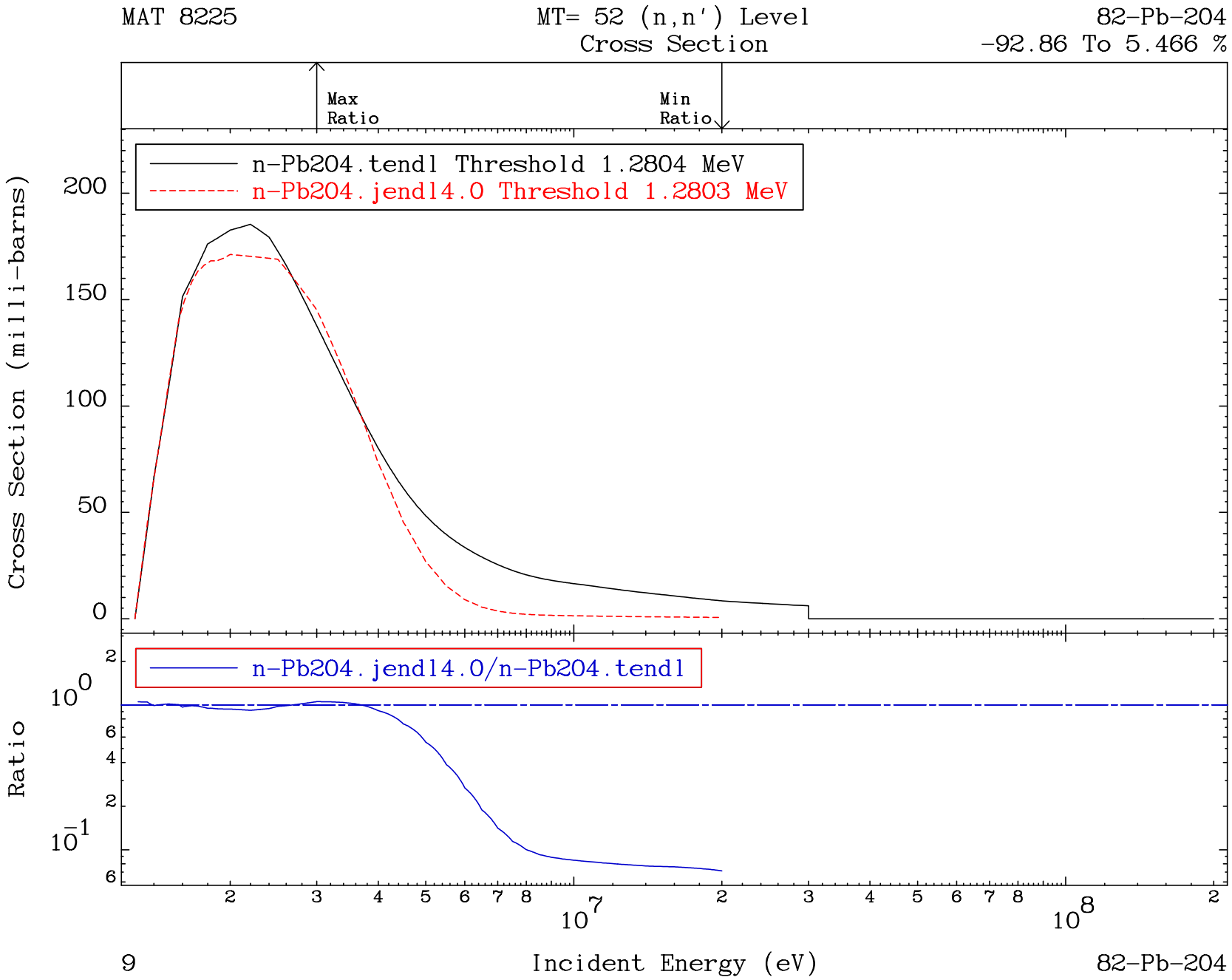

MAT 8225
(n,2n)
Cross Section
82-Pb-204
-2.430 To 173.1 %
Max Ratio
Min Ratio
n-Pb204.tendl Threshold 8.4362 MeV
n-Pb204.jendl4.0 Threshold 8.4362 MeV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
3.0
2.0
1.0
9
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
82-Pb-204

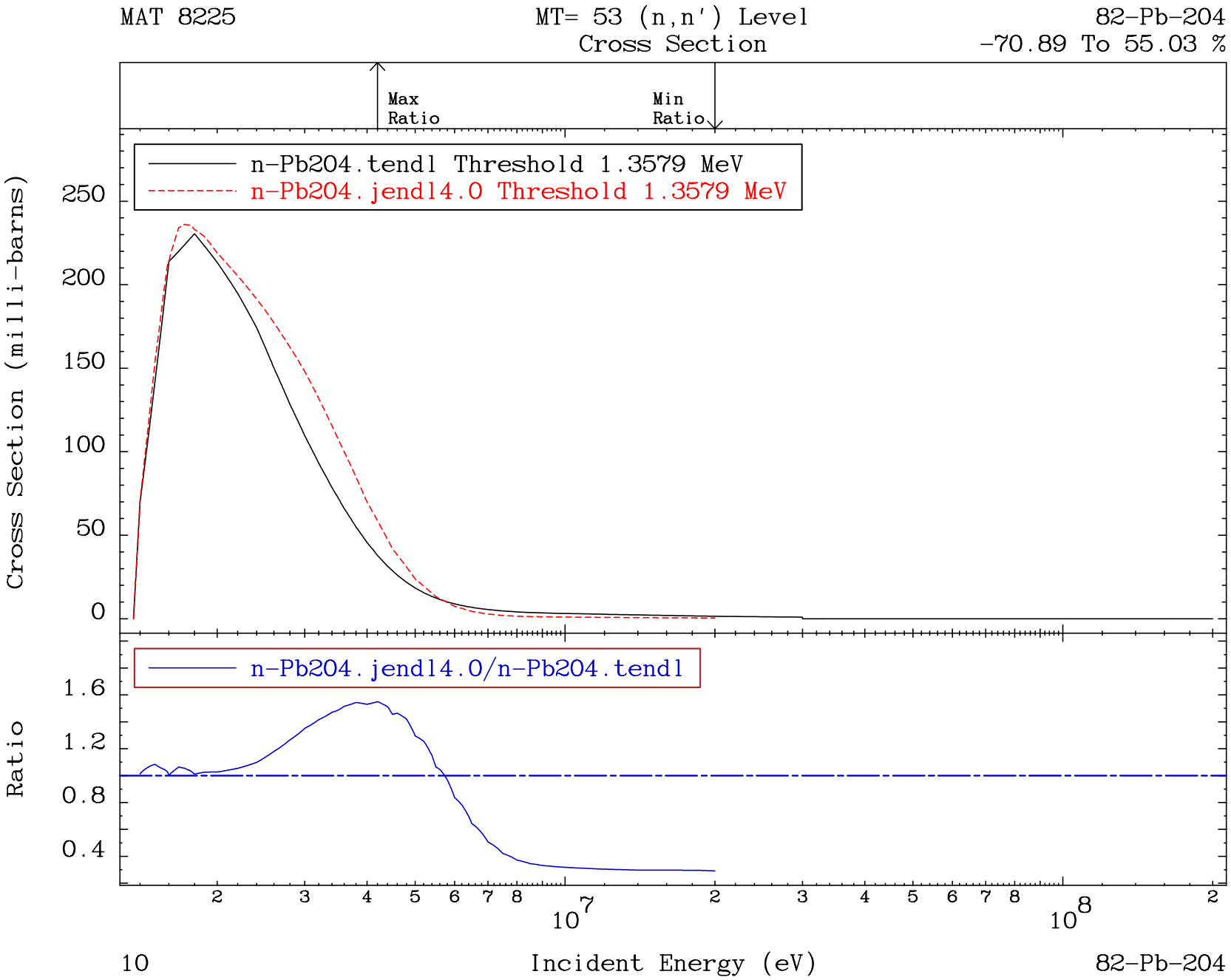

MAT 8225
(n,3n)
Cross Section
82-Pb-204
-54.76 To 15.07 %
Max
Ratio
n-Pb204.tendl Threshold 15.388 MeV
n-Pb204.jendl4.0 Threshold 15.395 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
1.2
0.8
0.4
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
82-Pb-204

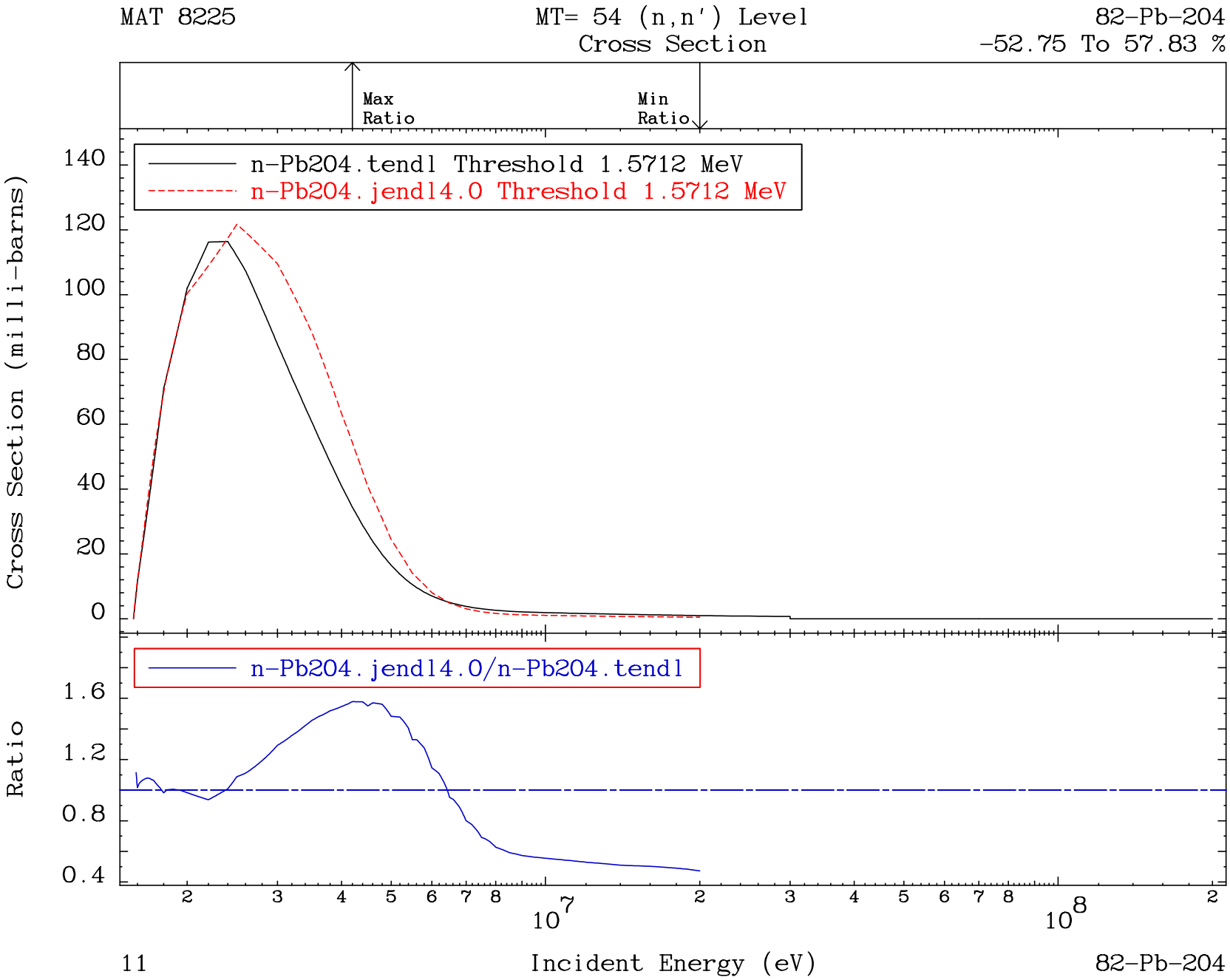

MAT 8225
(n,n') α
Cross Section
82-Pb-204
-100.0 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 61.206 keV
n-Pb204.jendl4.0 Threshold 1.0000 MeV
Cross Section (milli-barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
6
82-Pb-204

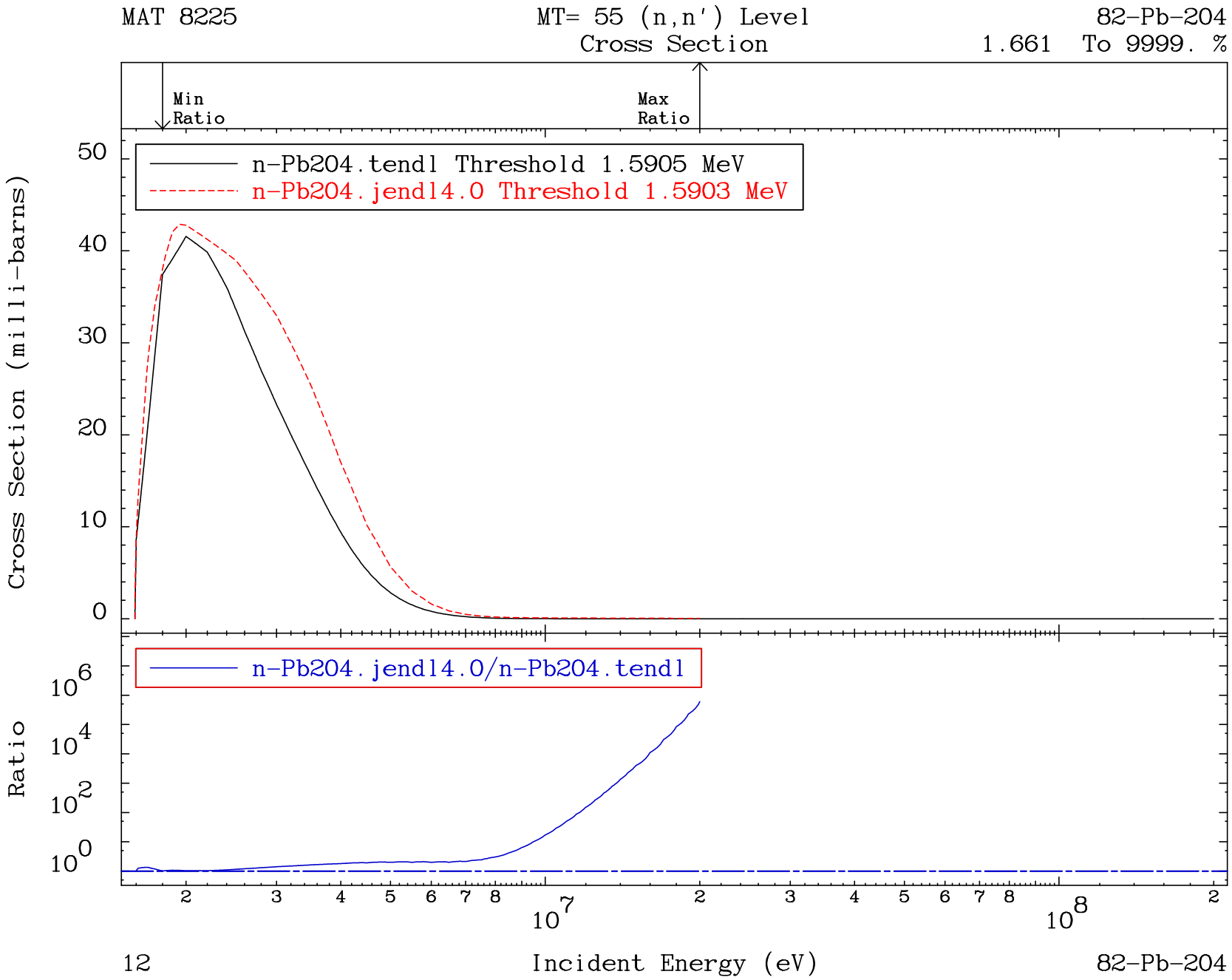

MAT 8225
(n,n') p
Cross Section
82-Pb-204
-60.61 To 277.3 %
Max Ratio
Min Ratio
n-Pb204.tendl Threshold 6.6703 MeV
n-Pb204.jendl4.0 Threshold 6.6703 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
4
2
7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
7
Incident Energy (eV)
82-Pb-204

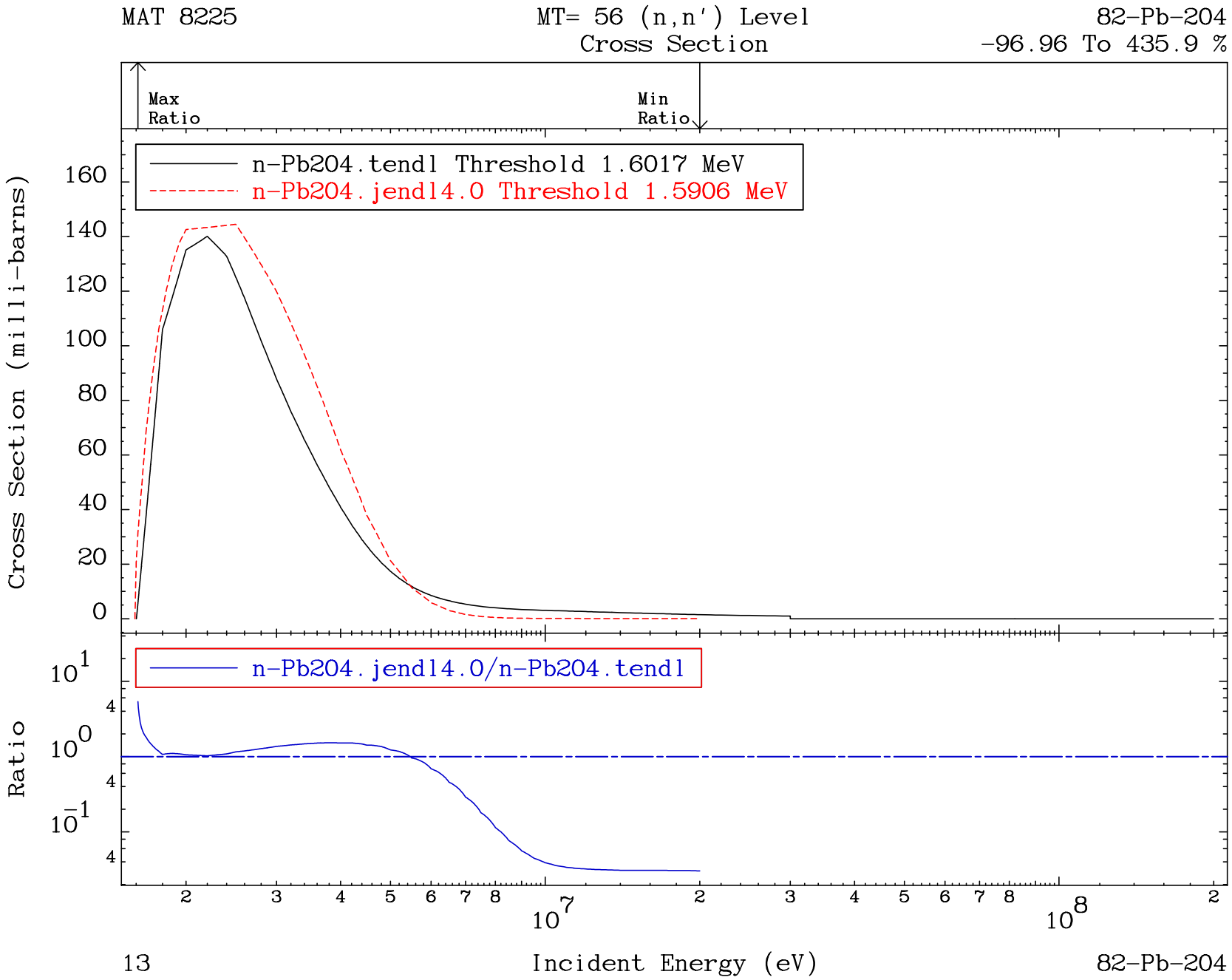

MAT 8225
MT= 51 (n,n') Level
Cross Section
82-Pb-204
-89.70 To 19.35 %
Max
Ratio
Min
Ratio
n-Pb204.tendl Threshold 903.61 keV
n-Pb204.jendl4.0 Threshold 903.61 keV
Cross Section (milli-barns)
600
500
400
300
200
100
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
2
10^0
6
4
2
10^-1
10^6
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
8
Incident Energy (eV)
82-Pb-204

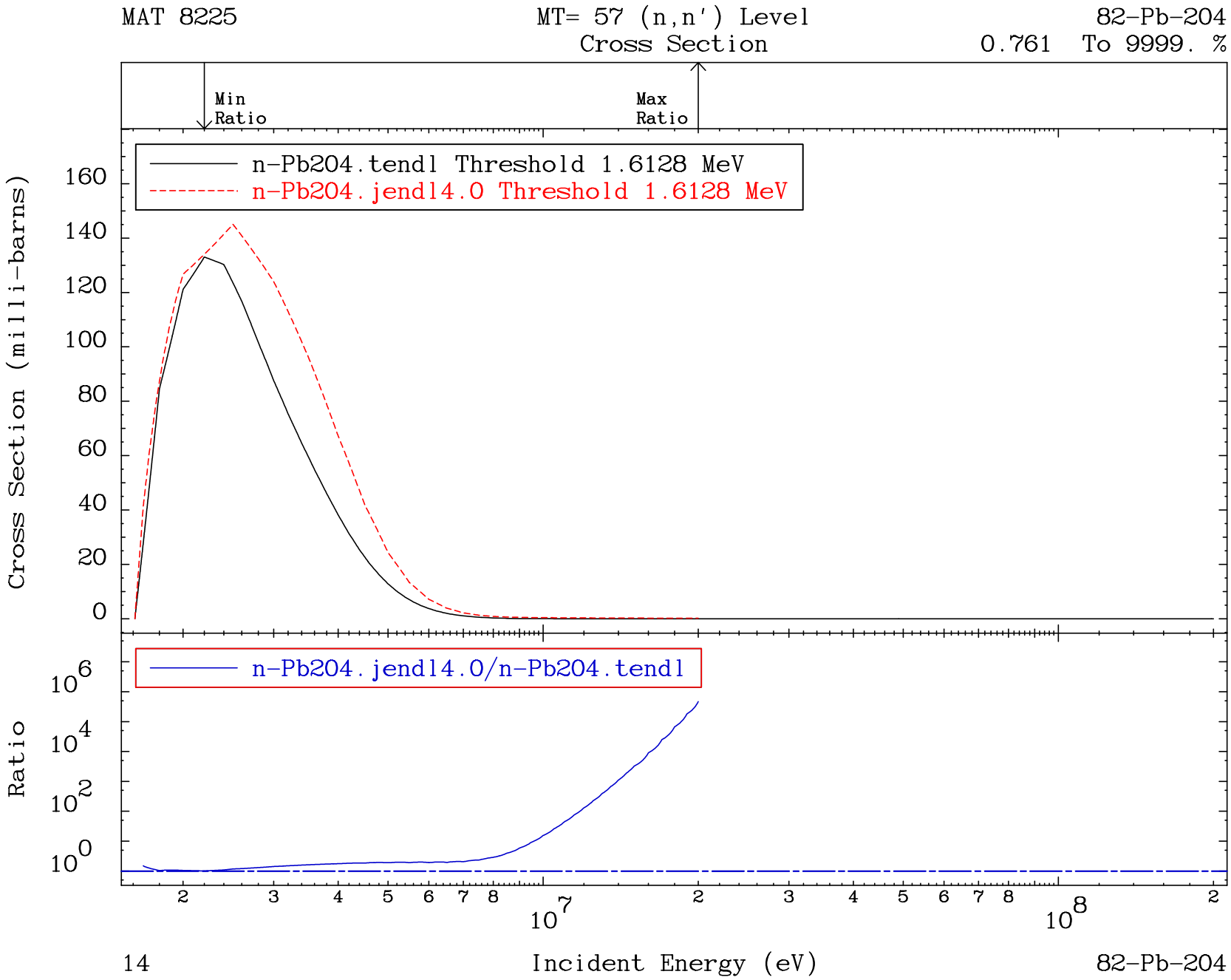

MAT 8225
MT= 52 (n,n') Level
Cross Section
82-Pb-204
-92.86 To 5.466 %
Max Ratio
Min Ratio
n-Pb204.tendl Threshold 1.2804 MeV
n-Pb204.jendl4.0 Threshold 1.2803 MeV
Cross Section (milli-barns)
200
150
100
50
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^0
10^-1
2
6
4
2
6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
9
Incident Energy (eV)
82-Pb-204

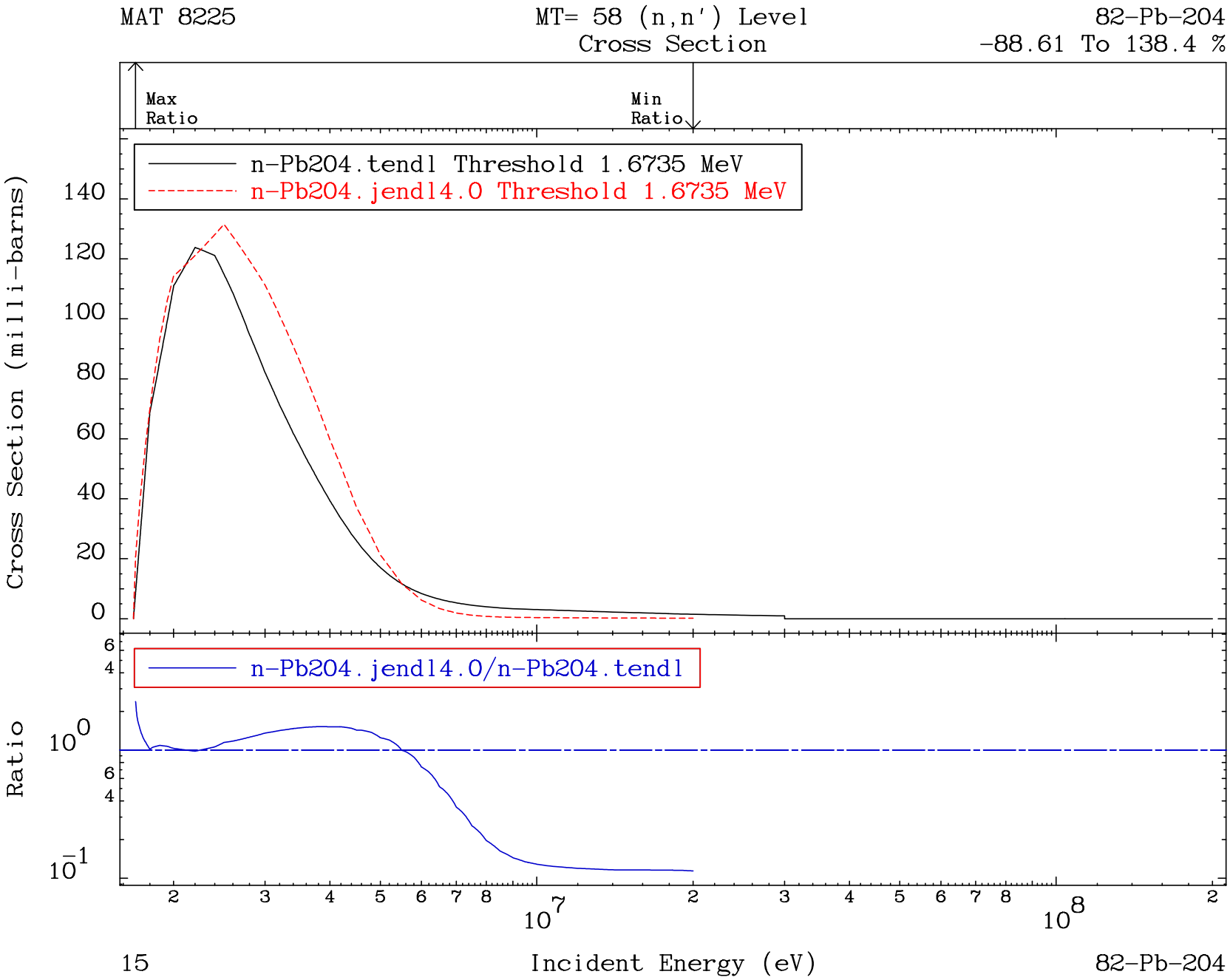

MAT 8225
MT= 53 (n,n') Level
Cross Section
82-Pb-204
-70.89 To 55.03 %
Max
Ratio
Min
Ratio
n-Pb204.tendl Threshold 1.3579 MeV
n-Pb204.jendl4.0 Threshold 1.3579 MeV
Cross Section (milli-barns)
250
200
150
100
50
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
1.6
1.2
0.8
0.4
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
10
Incident Energy (eV)
82-Pb-204

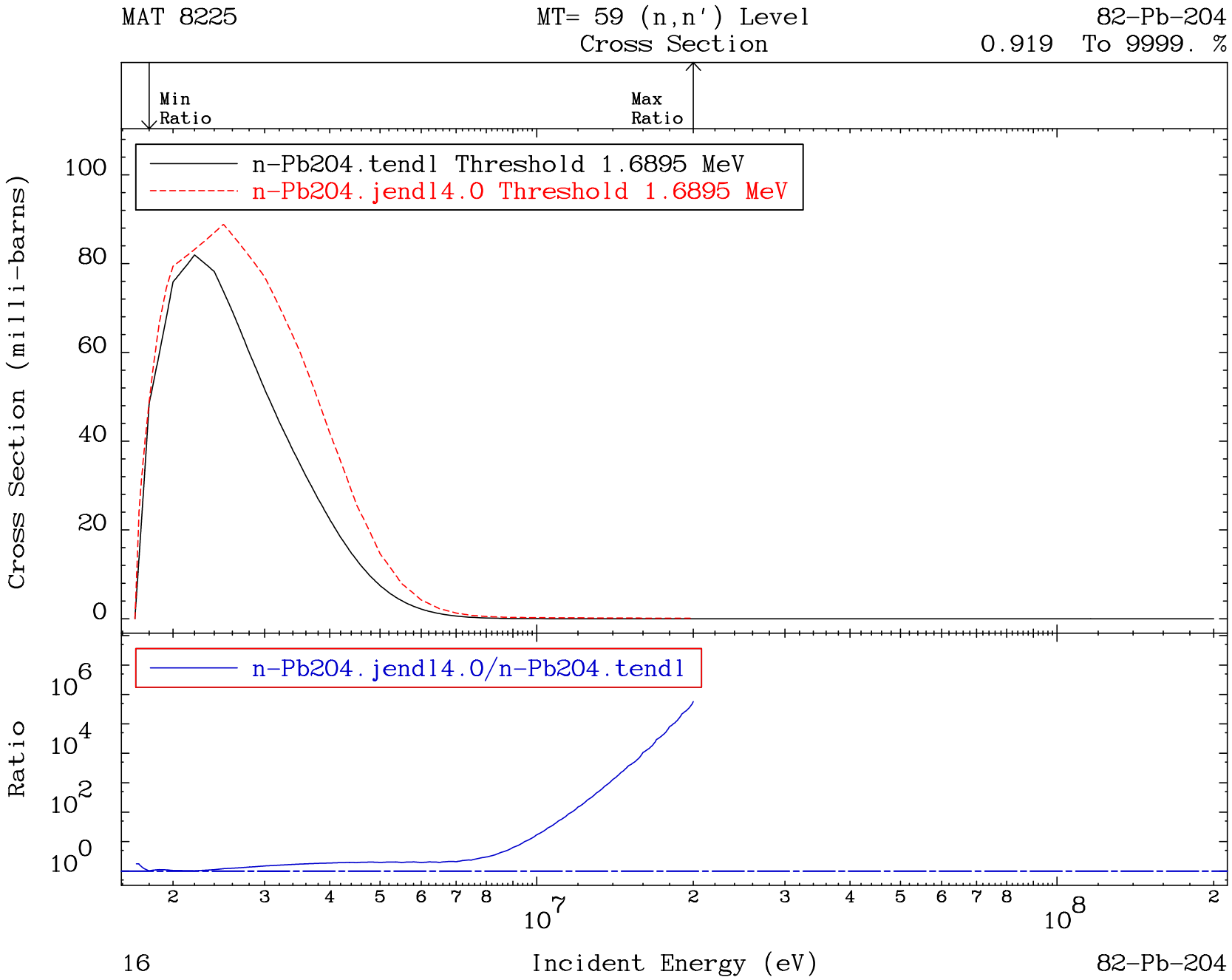

MAT 8225
MT= 54 (n,n') Level
Cross Section
82-Pb-204
-52.75 To 57.83 %
Max Ratio
Min Ratio
n-Pb204.tendl Threshold 1.5712 MeV
n-Pb204.jendl4.0 Threshold 1.5712 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
1.6
1.2
0.8
0.4
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
82-Pb-204

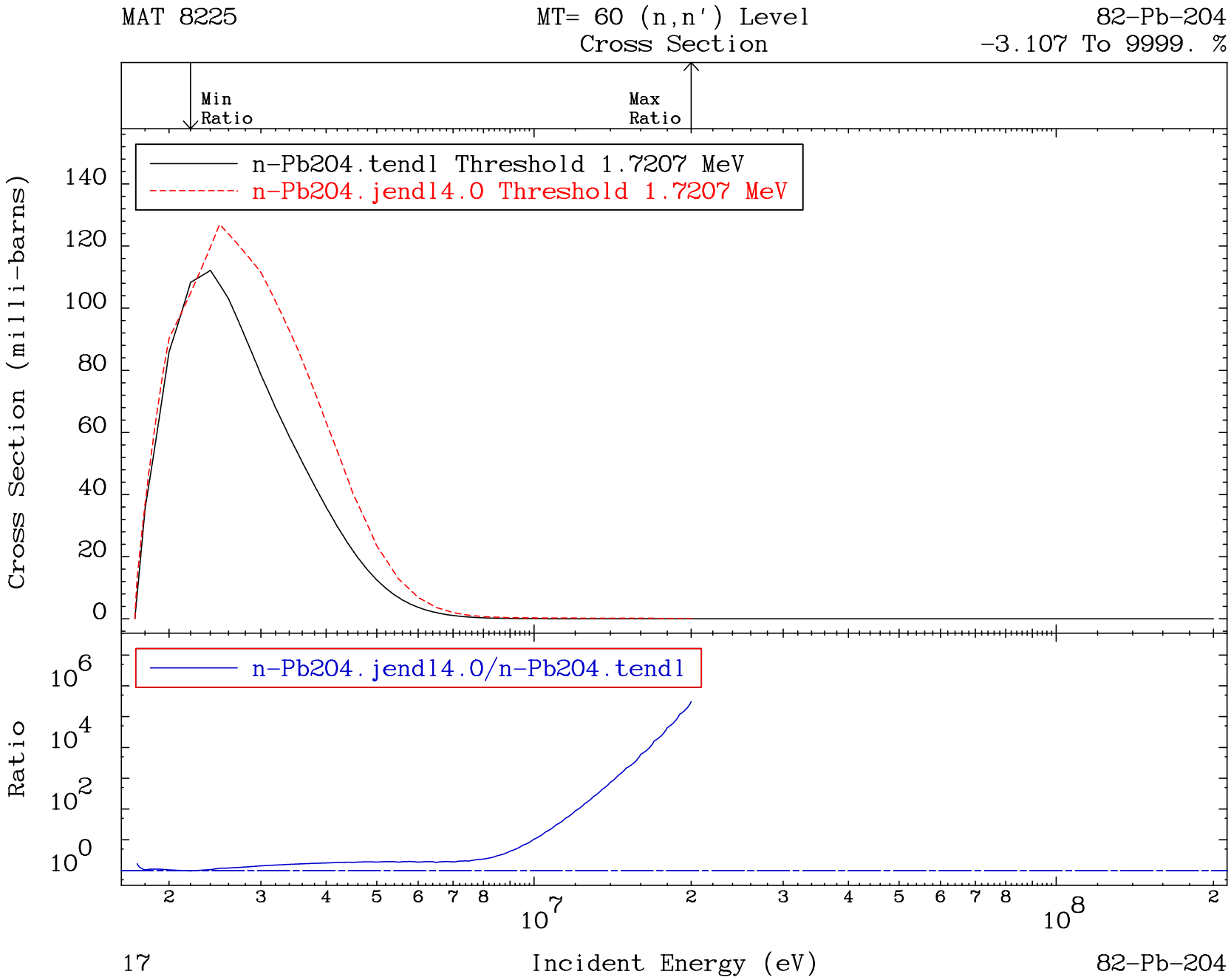

MAT 8225
MT= 55 (n,n') Level
Cross Section
82-Pb-204
1.661 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 1.5905 MeV
n-Pb204.jendl4.0 Threshold 1.5903 MeV
Cross Section (milli-barns)
50
40
30
20
10
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
82-Pb-204

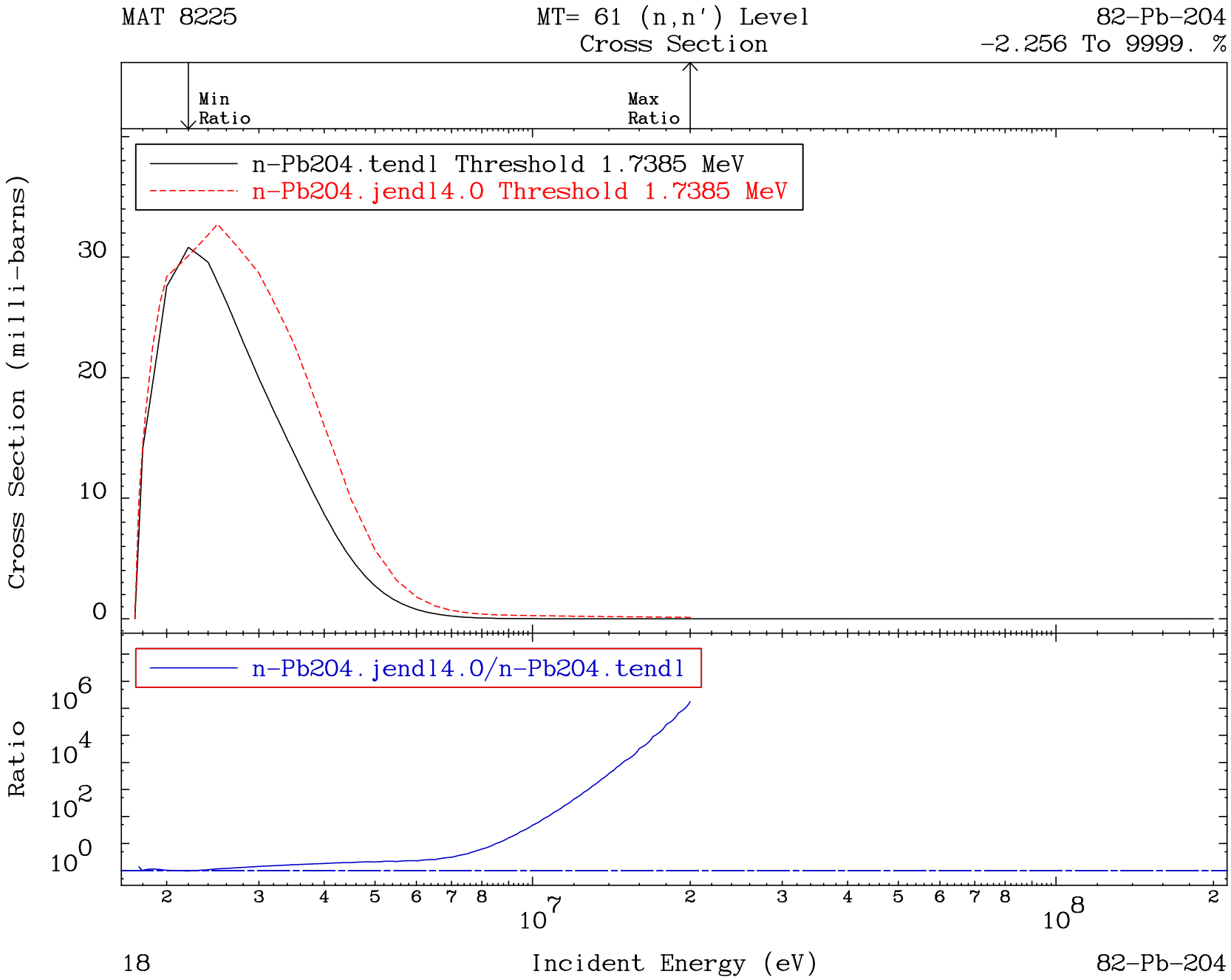

MAT 8225
MT= 56 (n,n') Level
Cross Section
82-Pb-204
-96.96 To 435.9 %
Max
Ratio
Min
Ratio
n-Pb204.tendl Threshold 1.6017 MeV
n-Pb204.jendl4.0 Threshold 1.5906 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^1
10^0
10^-1
2
3
4
5
6
7
8
10^7
10^8
13
Incident Energy (eV)
82-Pb-204

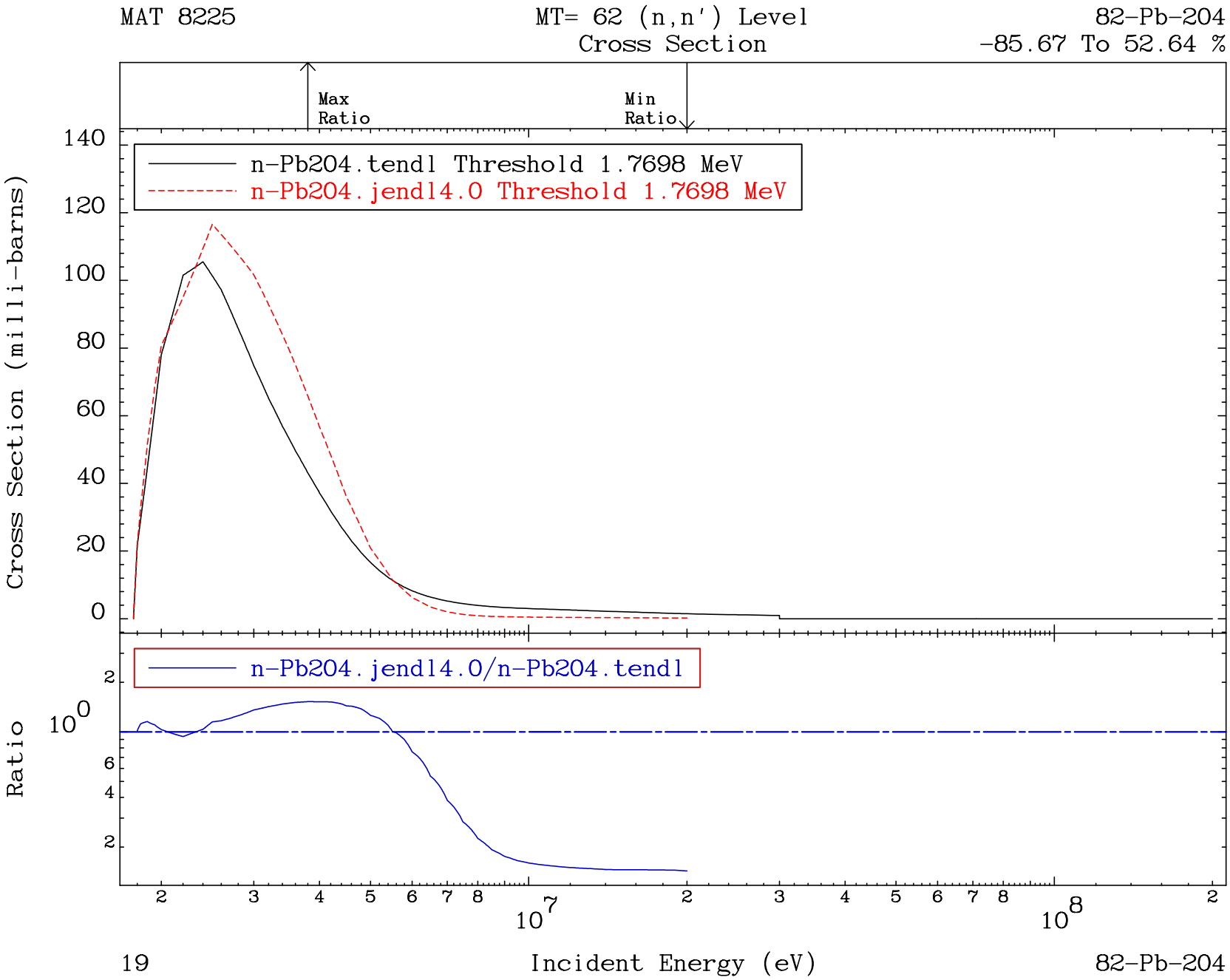

MAT 8225
MT= 57 (n,n') Level
Cross Section
82-Pb-204
0.761 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 1.6128 MeV
n-Pb204.jendl4.0 Threshold 1.6128 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
14
Incident Energy (eV)
82-Pb-204

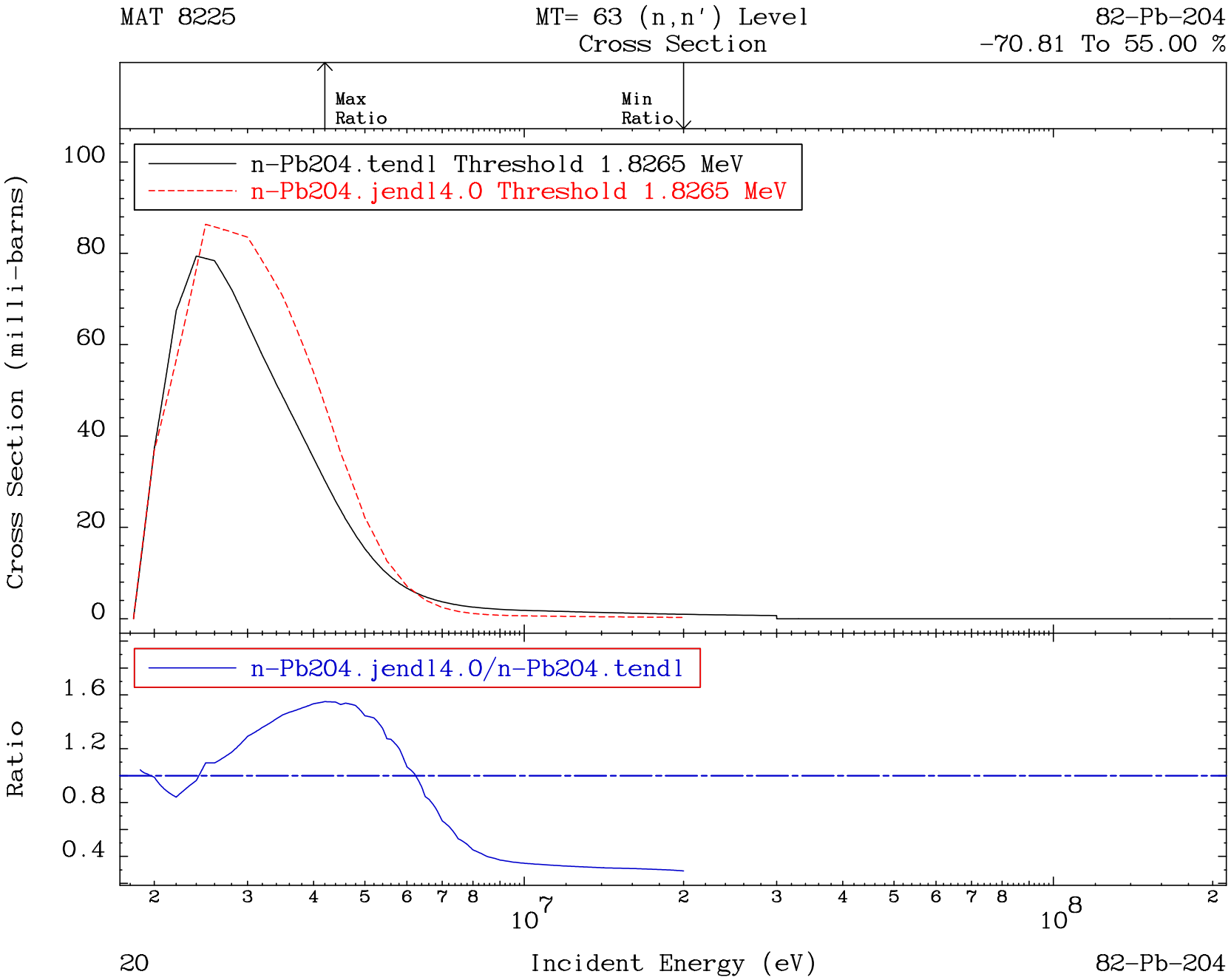

MAT 8225
MT= 58 (n,n') Level
Cross Section
82-Pb-204
-88.61 To 138.4 %
Max Ratio
Min Ratio
n-Pb204.tendl Threshold 1.6735 MeV
n-Pb204.jendl4.0 Threshold 1.6735 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
6
4
10^0
6
4
10^-1
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
15
Incident Energy (eV)
82-Pb-204

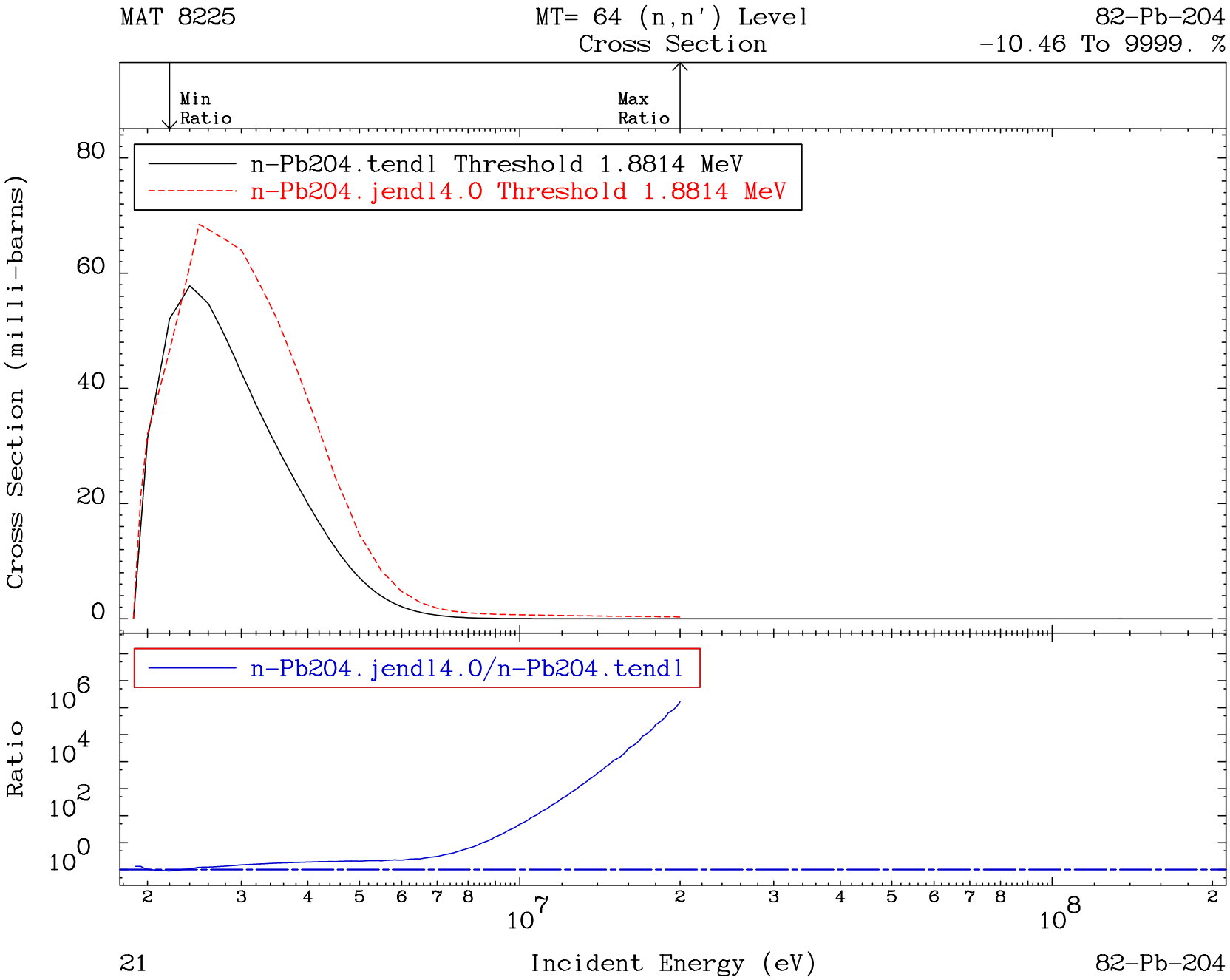

MAT 8225
MT= 59 (n,n') Level
Cross Section
82-Pb-204
0.919 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 1.6895 MeV
n-Pb204.jendl4.0 Threshold 1.6895 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
16
Incident Energy (eV)
82-Pb-204

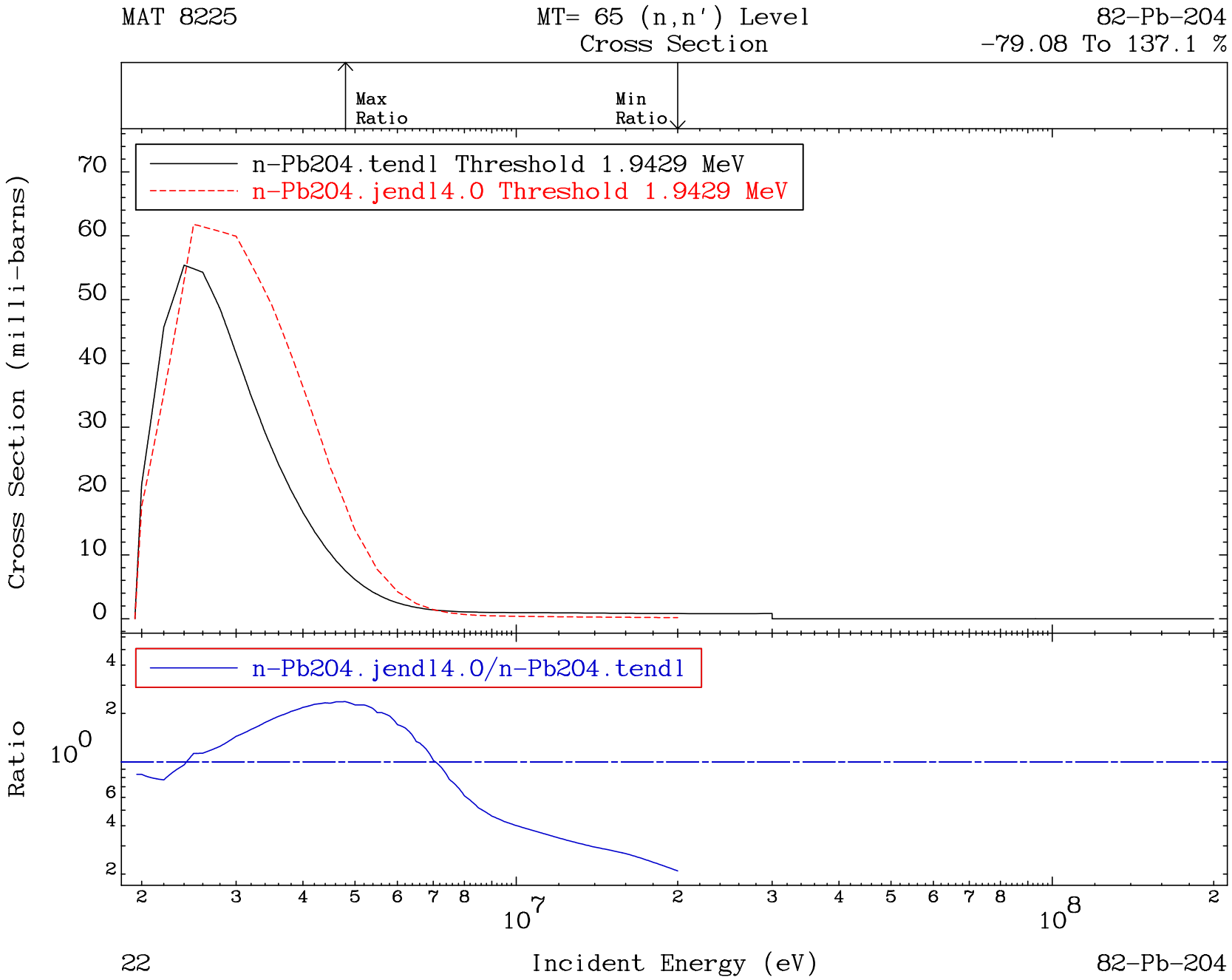

MAT 8225
MT= 60 (n,n') Level
Cross Section
82-Pb-204
-3.107 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 1.7207 MeV
n-Pb204.jendl4.0 Threshold 1.7207 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
82-Pb-204

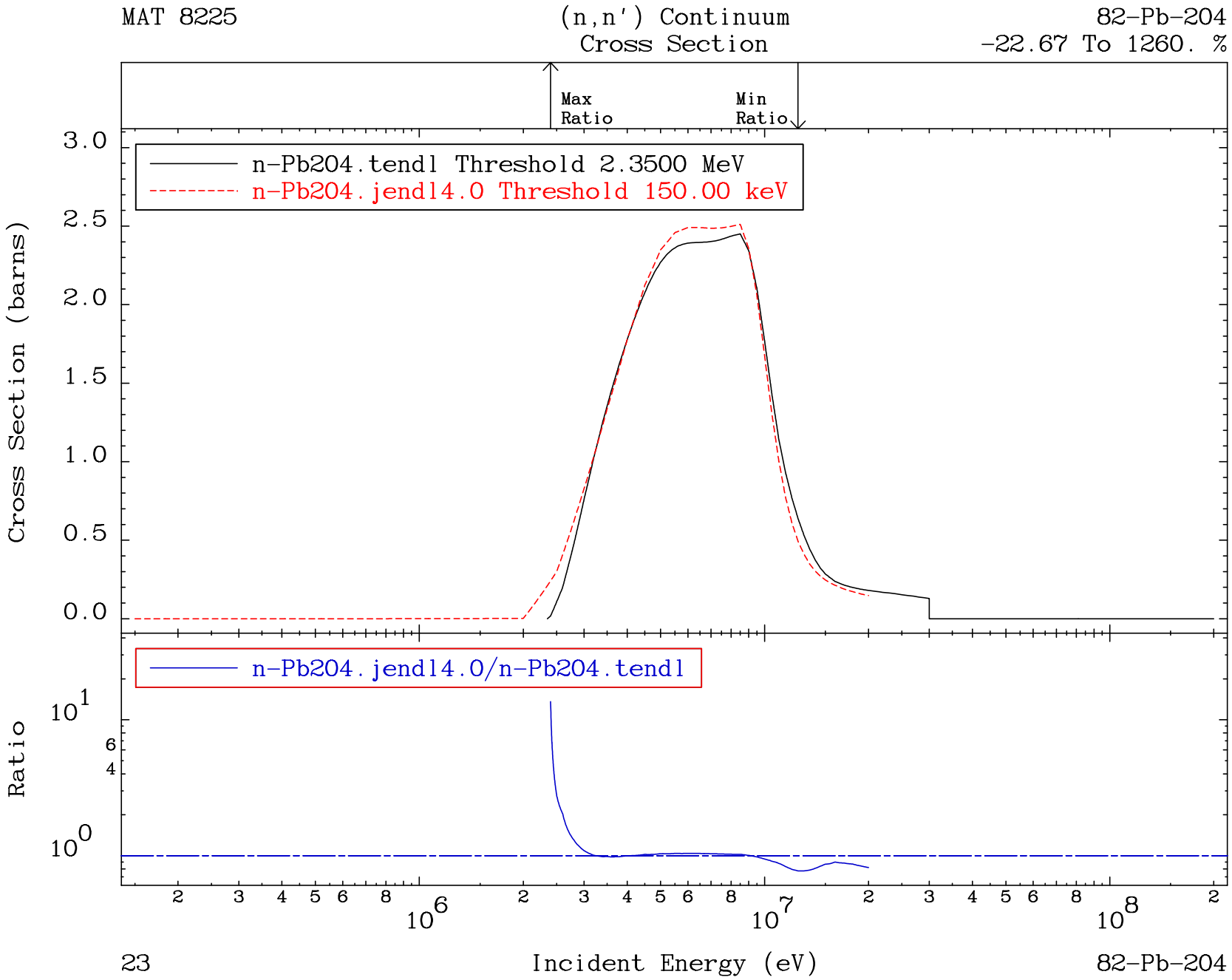

MAT 8225
MT= 61 (n,n') Level
Cross Section
82-Pb-204
-2.256 To 9999. %
Min
Ratio
Max
Ratio
n-Pb204.tendl Threshold 1.7385 MeV
n-Pb204.jendl4.0 Threshold 1.7385 MeV
Cross Section (milli-barns)
30
20
10
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^6
10^4
10^2
10^0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
18
Incident Energy (eV)
82-Pb-204

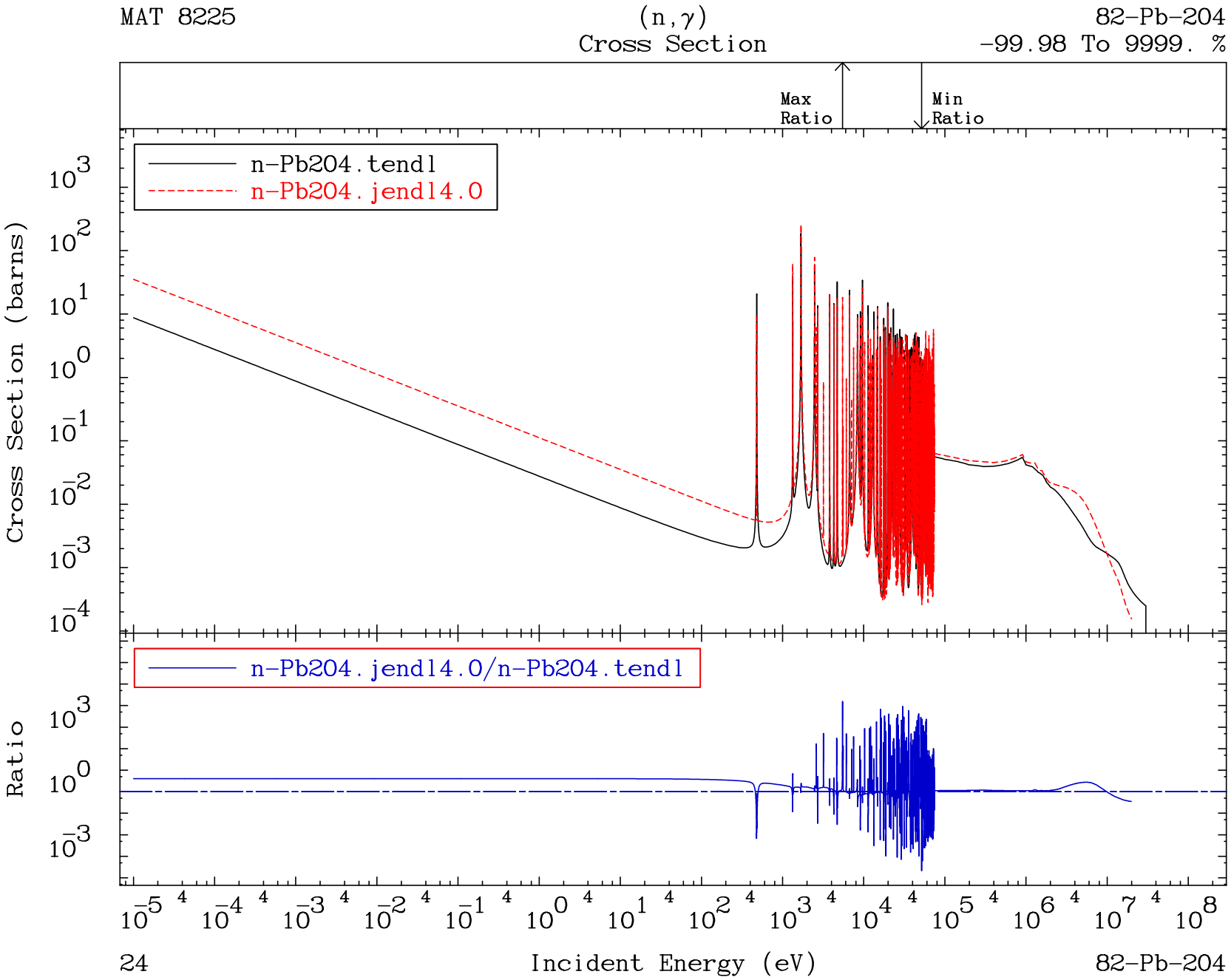

MAT 8225
MT= 62 (n,n') Level
Cross Section
82-Pb-204
-85.67 To 52.64 %
Max
Ratio
Min
Ratio
n-Pb204.tendl Threshold 1.7698 MeV
n-Pb204.jendl4.0 Threshold 1.7698 MeV
Cross Section (milli-barns)
140
120
100
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^0
2
6
4
2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
19
Incident Energy (eV)
82-Pb-204

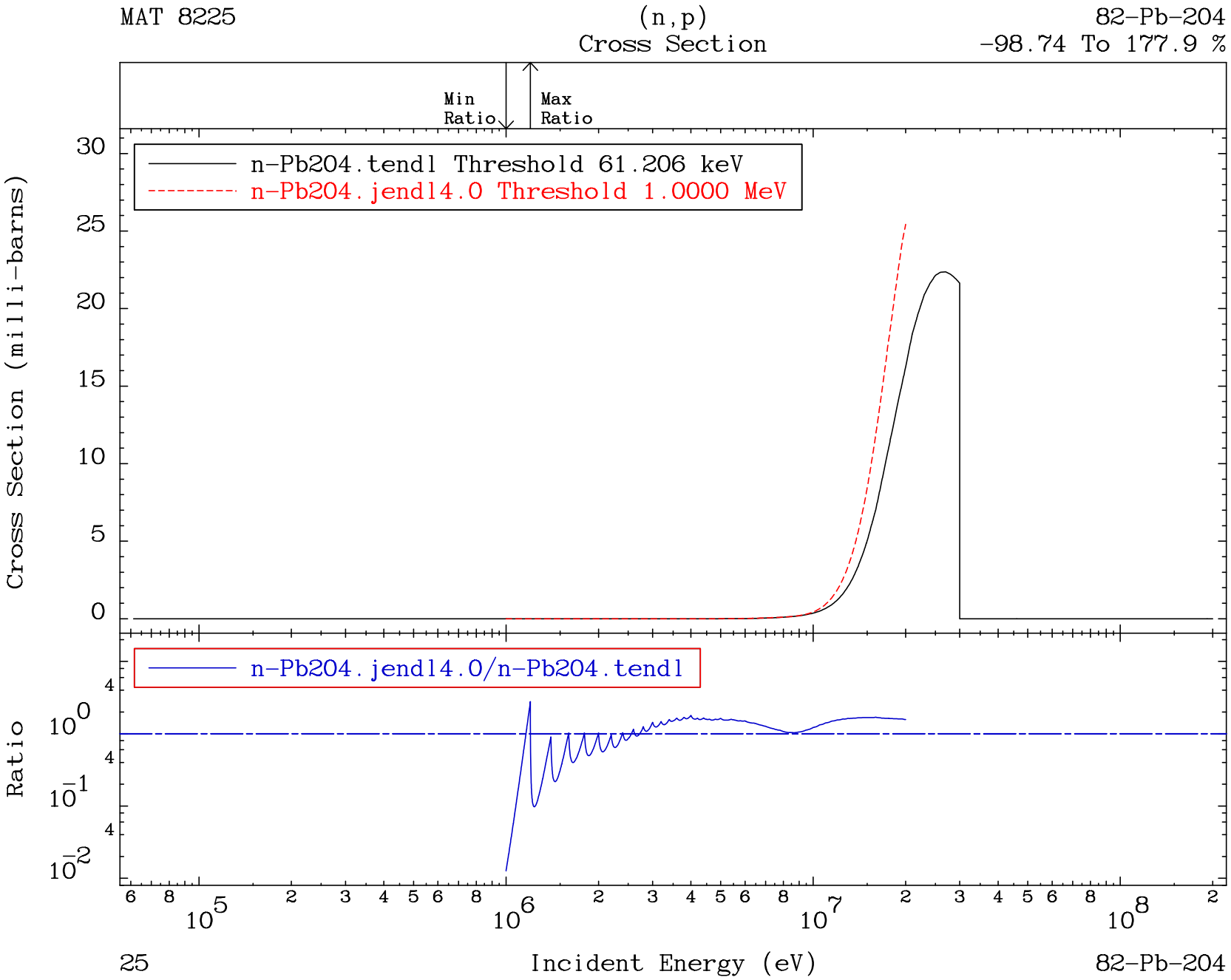

MAT 8225
MT= 63 (n,n') Level
Cross Section
82-Pb-204
-70.81 To 55.00 %
Max Ratio
Min Ratio
n-Pb204.tendl Threshold 1.8265 MeV
n-Pb204.jendl4.0 Threshold 1.8265 MeV
Cross Section (milli-barns)
100
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
1.6
1.2
0.8
0.4
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
20
Incident Energy (eV)
82-Pb-204

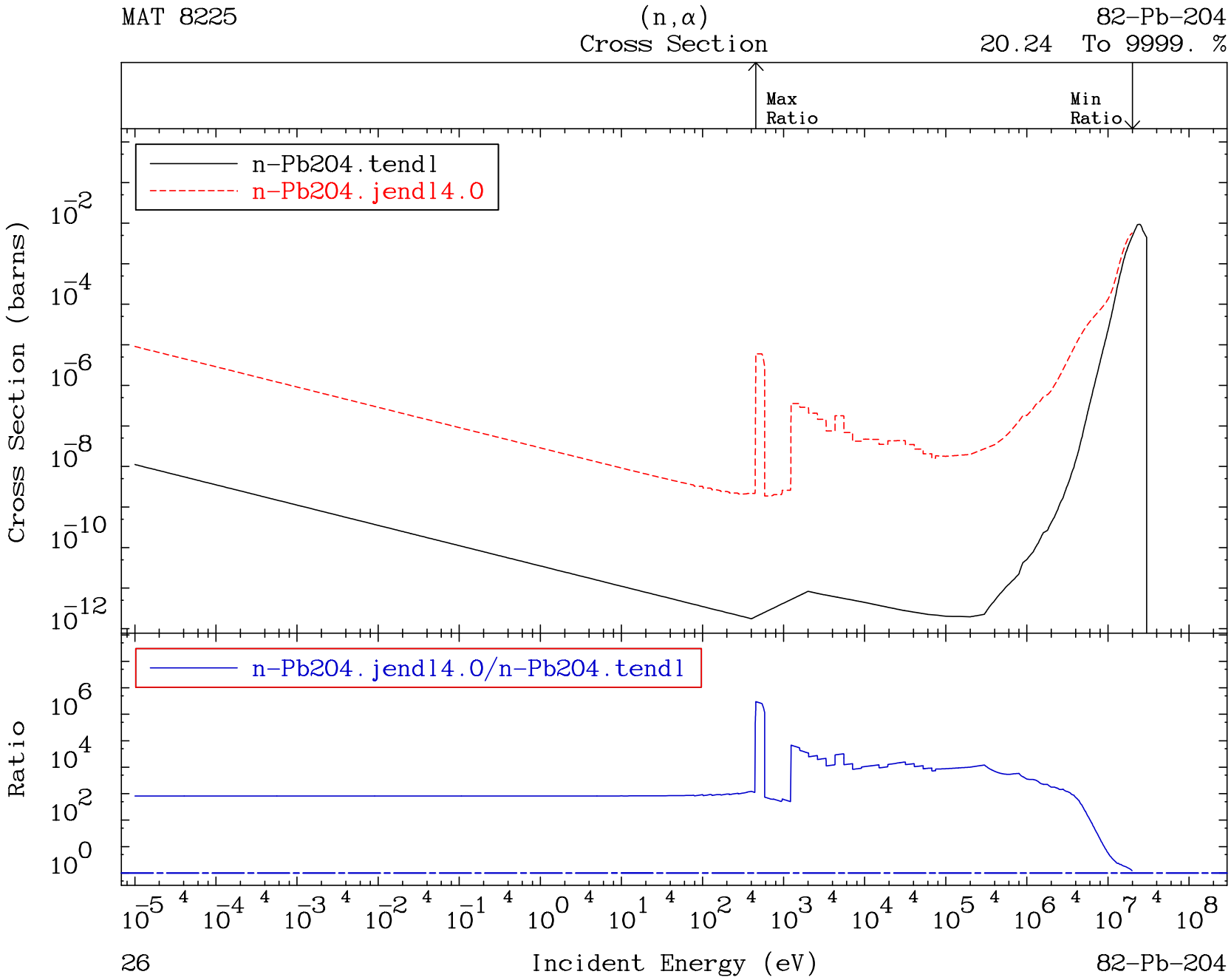

MAT 8225
MT= 64 (n,n') Level
Cross Section
82-Pb-204
-10.46 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 1.8814 MeV
n-Pb204.jendl4.0 Threshold 1.8814 MeV
Cross Section (milli-barns)
80
60
40
20
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^6
10^4
10^2
10^0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
21
Incident Energy (eV)
82-Pb-204

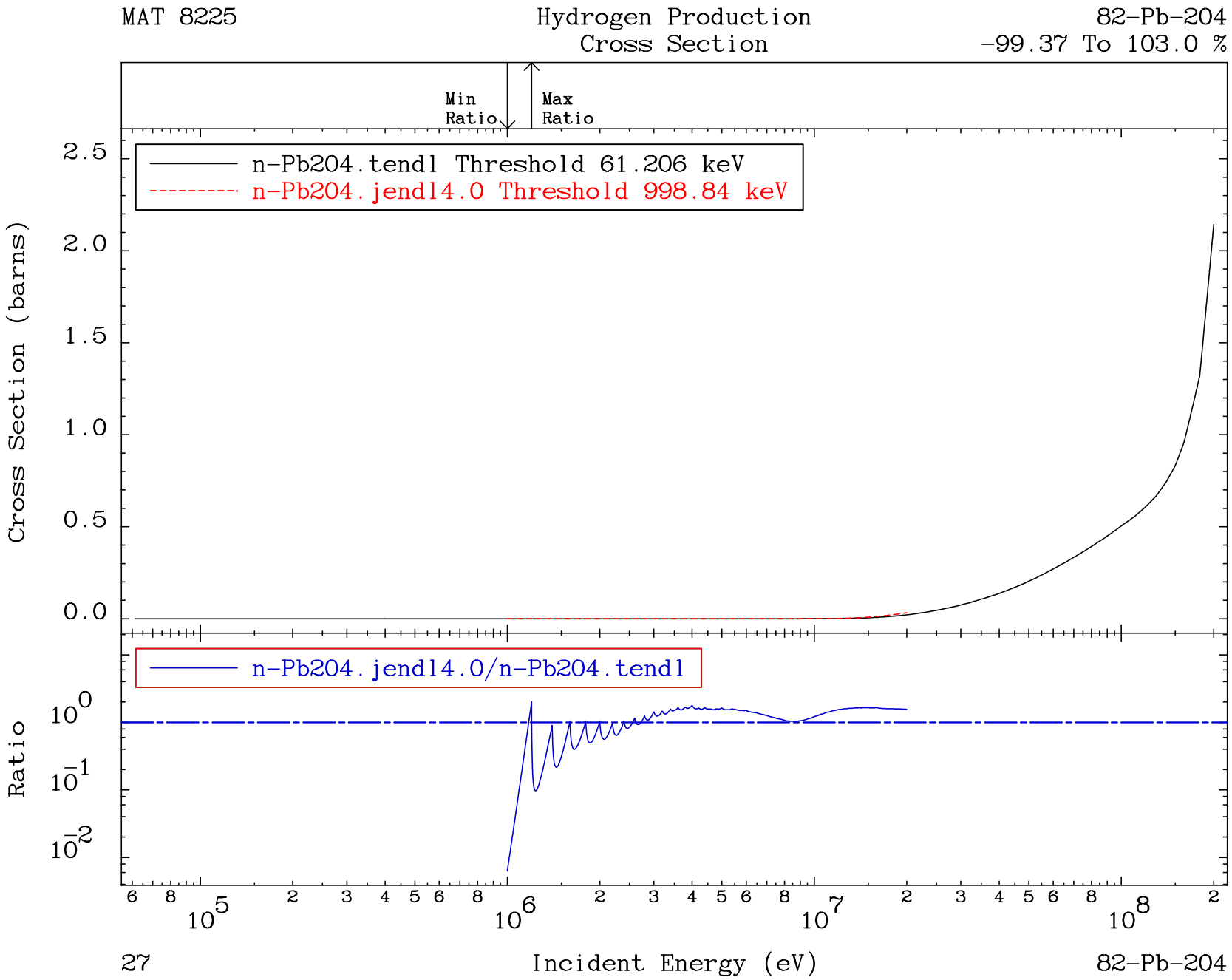

MAT 8225
MT= 65 (n,n') Level
Cross Section
82-Pb-204
-79.08 To 137.1 %
Max Ratio
Min Ratio
n-Pb204.tendl Threshold 1.9429 MeV
n-Pb204.jendl4.0 Threshold 1.9429 MeV
Cross Section (milli-barns)
70
60
50
40
30
20
10
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^0
4
2
6
4
2
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
22
Incident Energy (eV)
82-Pb-204

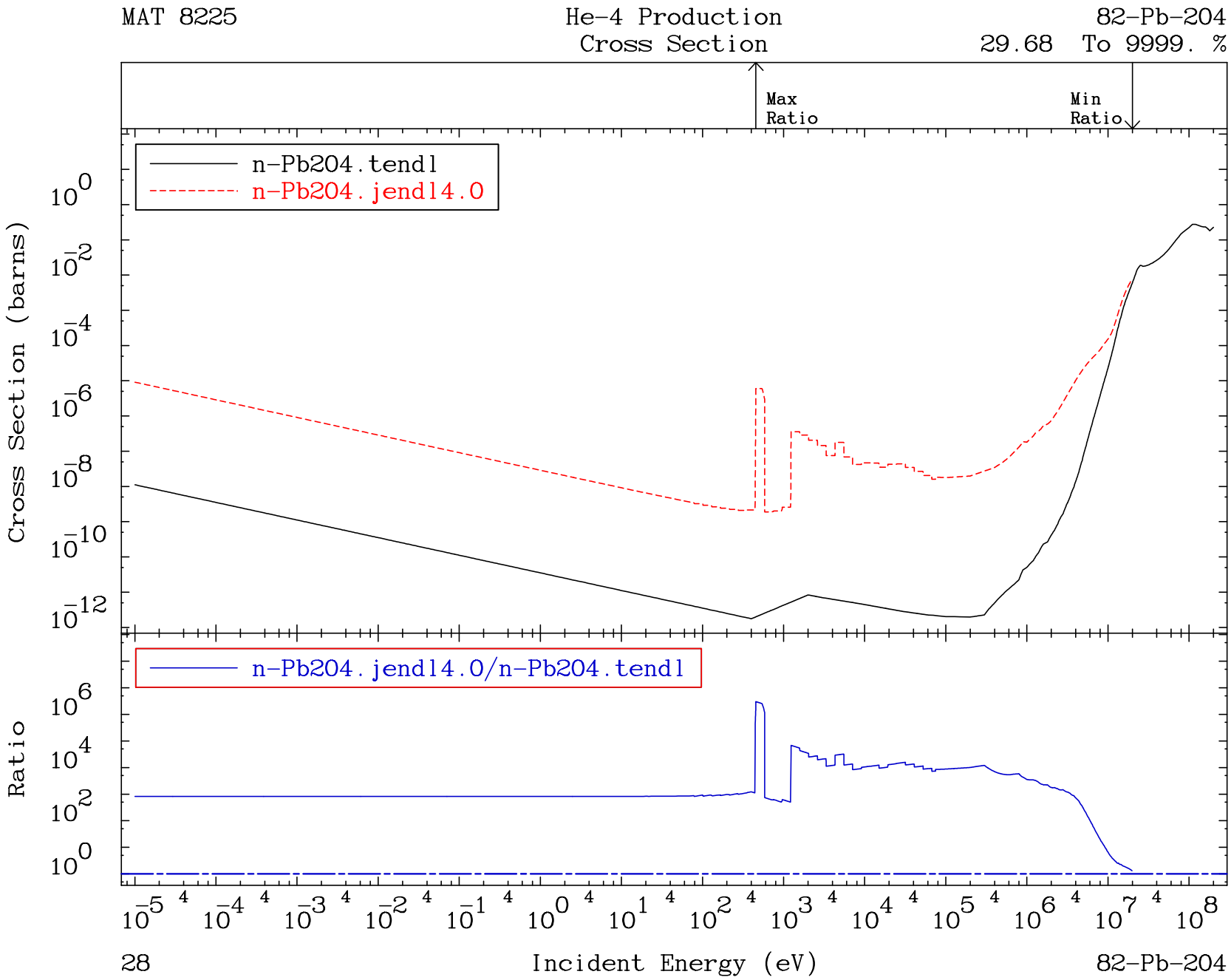

MAT 8225
(n,n') Continuum
Cross Section
82-Pb-204
-22.67 To 1260. %
Max
Ratio
Min
Ratio
n-Pb204.tendl Threshold 2.3500 MeV
n-Pb204.jendl4.0 Threshold 150.00 keV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^1
6
4
10^0
2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
23
Incident Energy (eV)
82-Pb-204

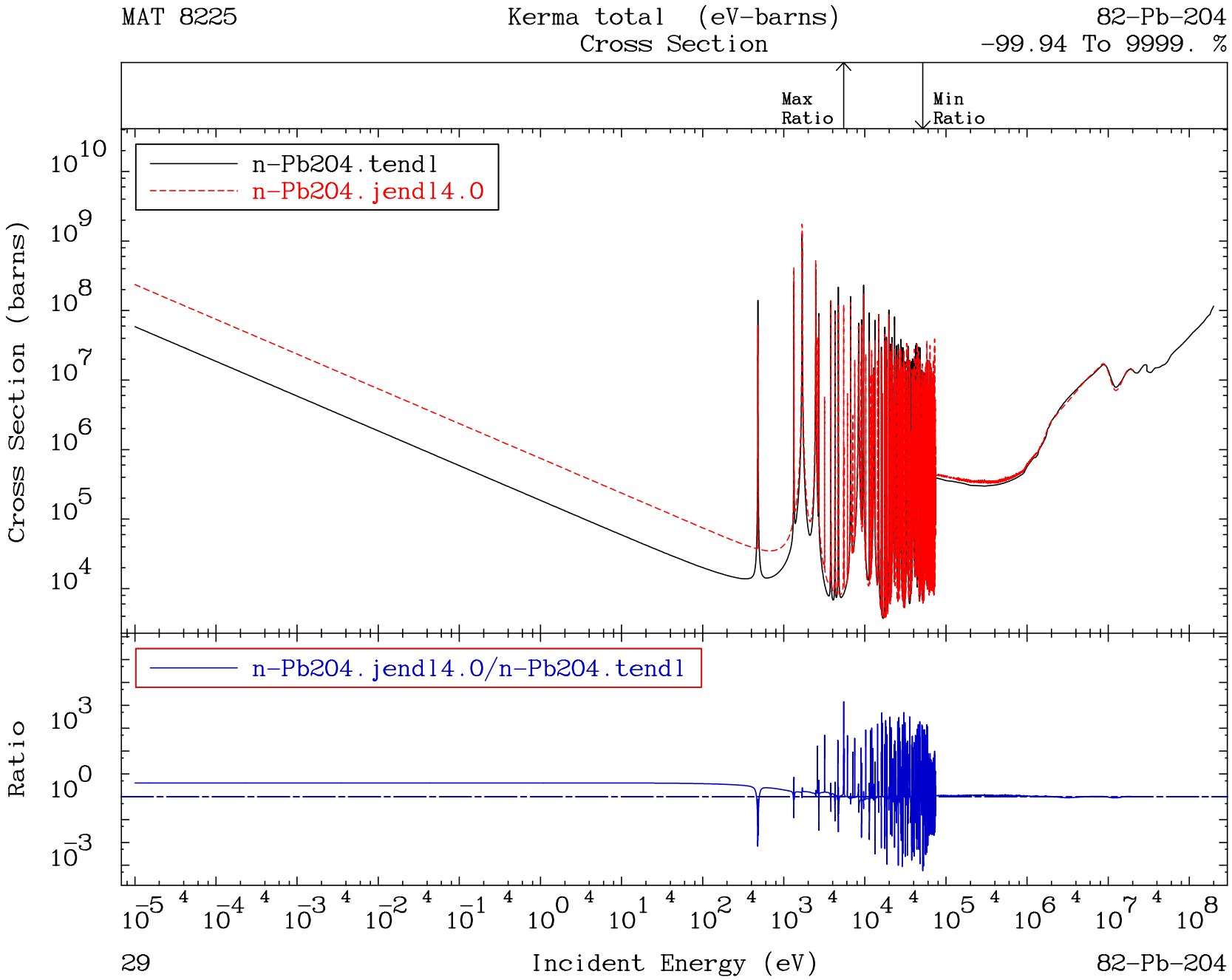

MAT 8225
(n,γ)
Cross Section
82-Pb-204
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
24
82-Pb-204

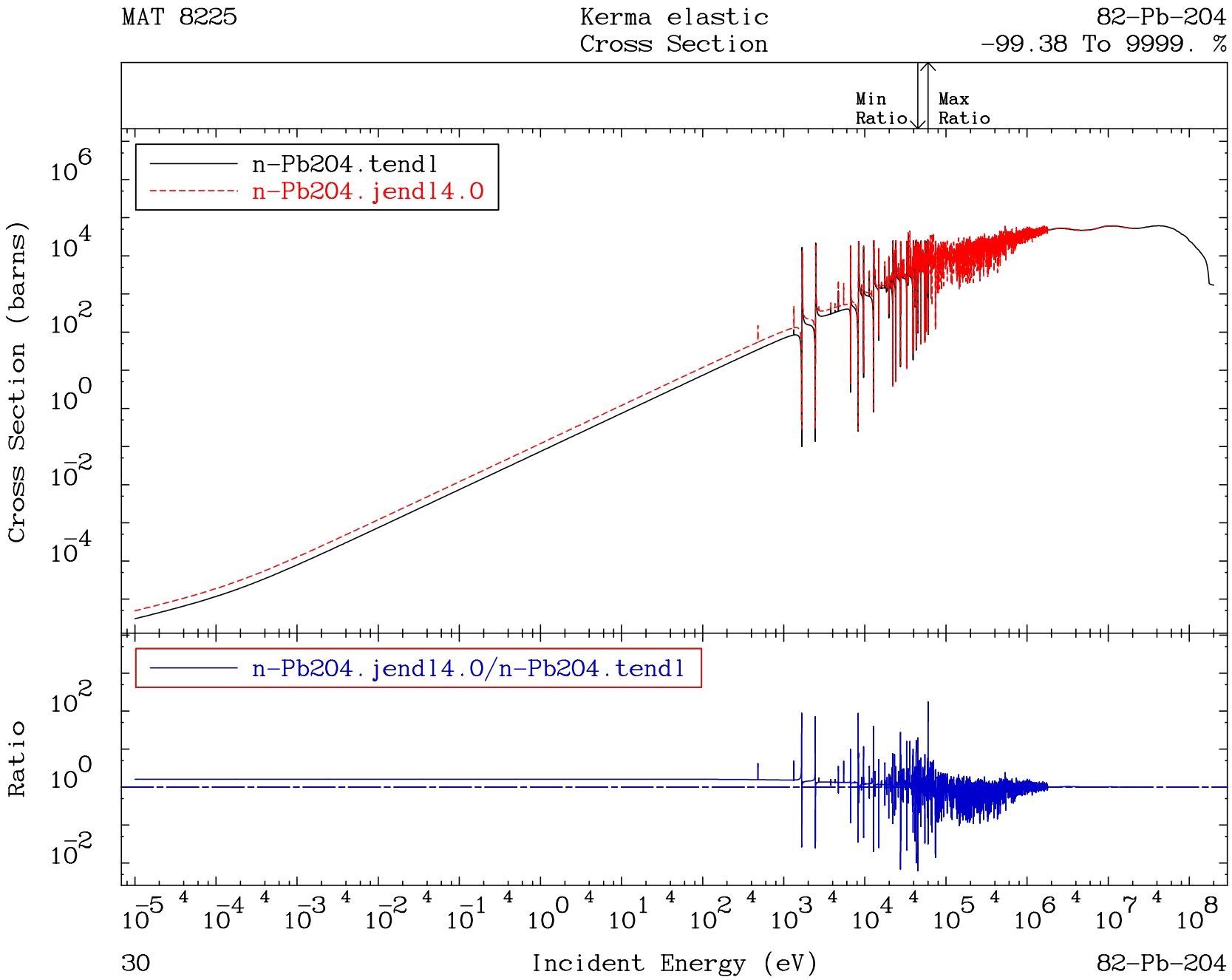

MAT 8225
(n,p)
Cross Section
82-Pb-204
-98.74 To 177.9 %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 61.206 keV
n-Pb204.jendl4.0 Threshold 1.0000 MeV
Cross Section (milli-barns)
30
25
20
15
10
5
0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^0
10^-1
10^-2
10^5
10^6
10^7
10^8
Incident Energy (eV)
25
82-Pb-204

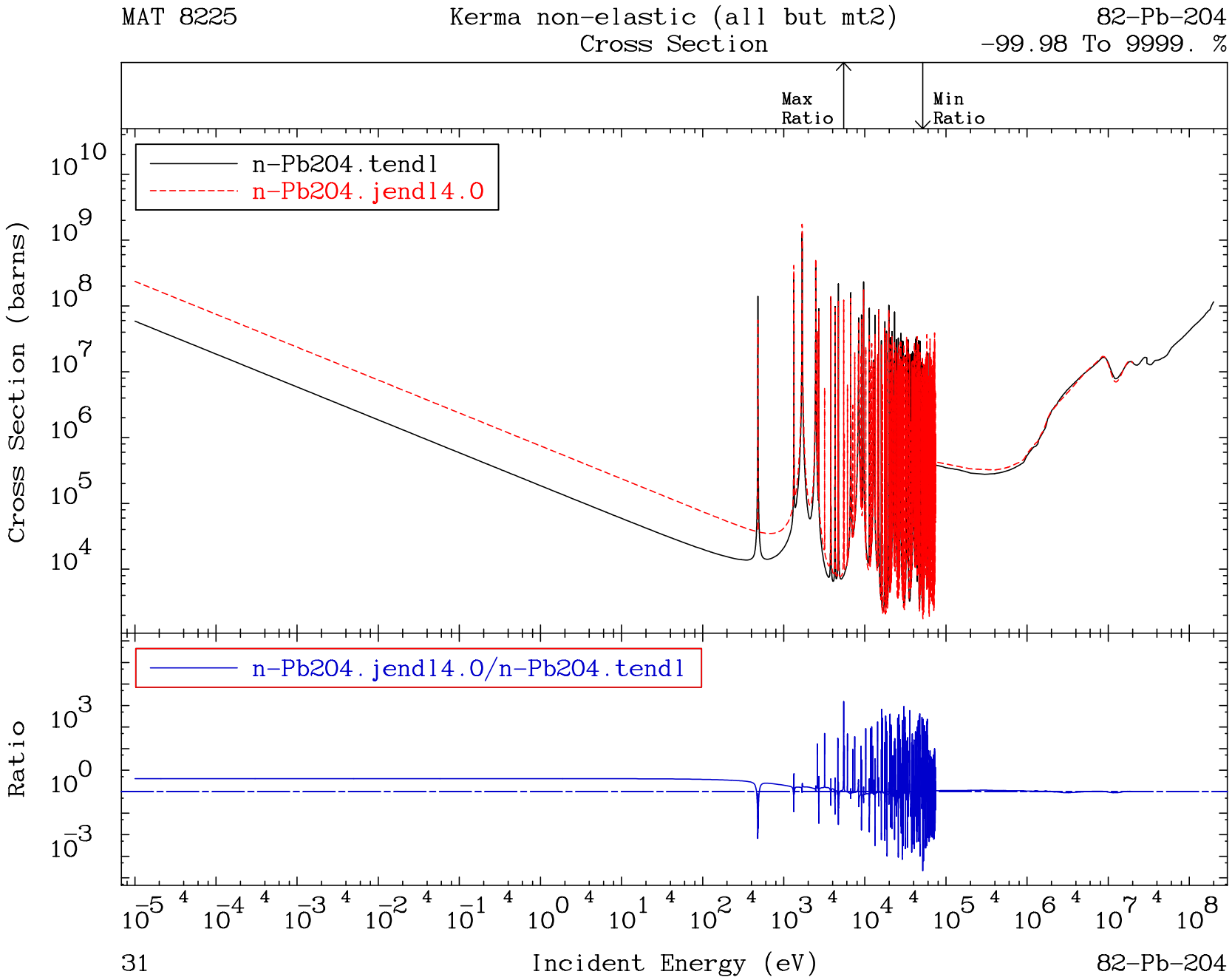

MAT 8225
(n,α)
Cross Section
82-Pb-204
20.24 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
26
82-Pb-204

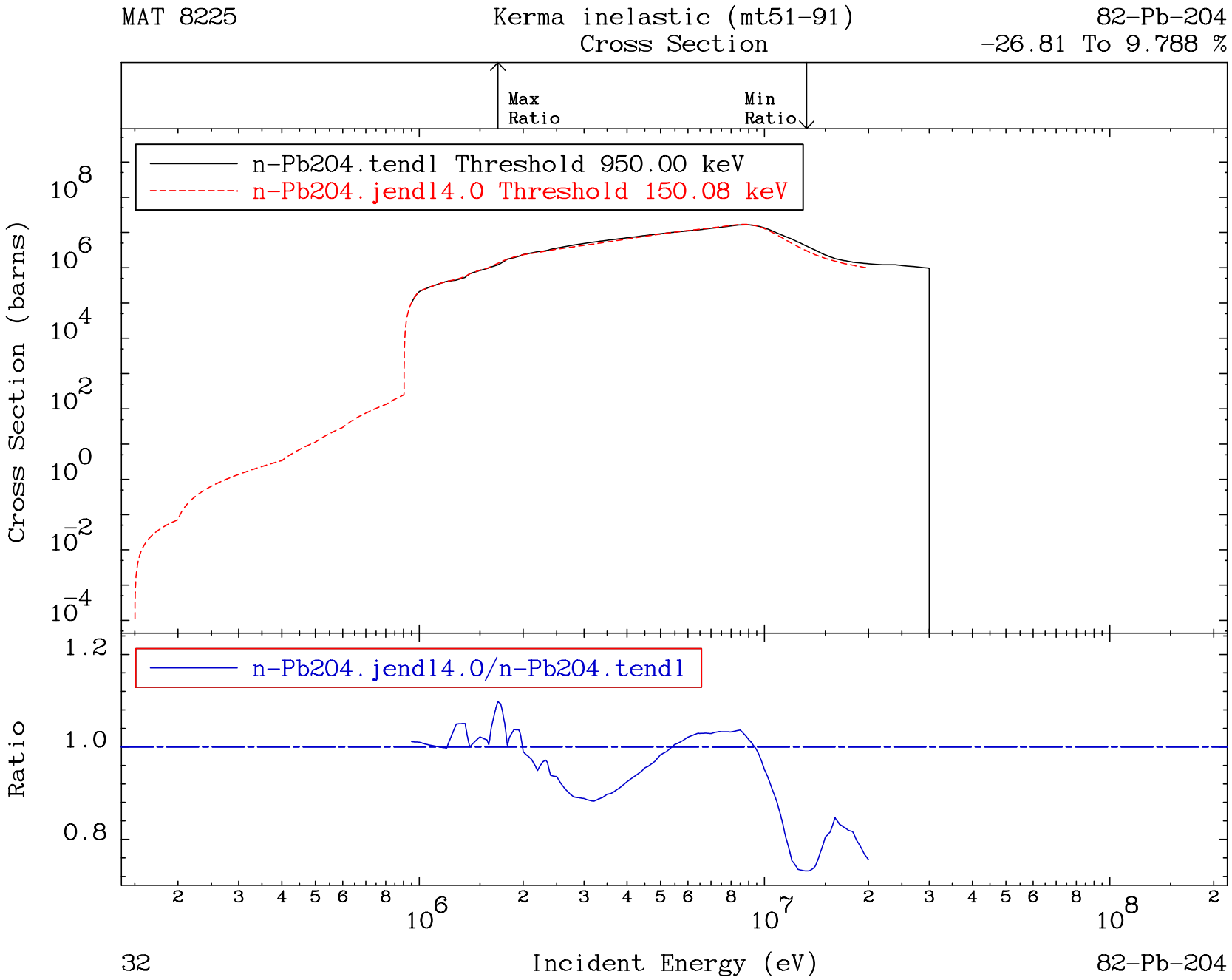

MAT 8225
Hydrogen Production
Cross Section
82-Pb-204
-99.37 To 103.0 %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 61.206 keV
n-Pb204.jendl4.0 Threshold 998.84 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
10^0
10^-1
10^-2
6 8 10^5 2 3 4 5 6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
27
Incident Energy (eV)
82-Pb-204

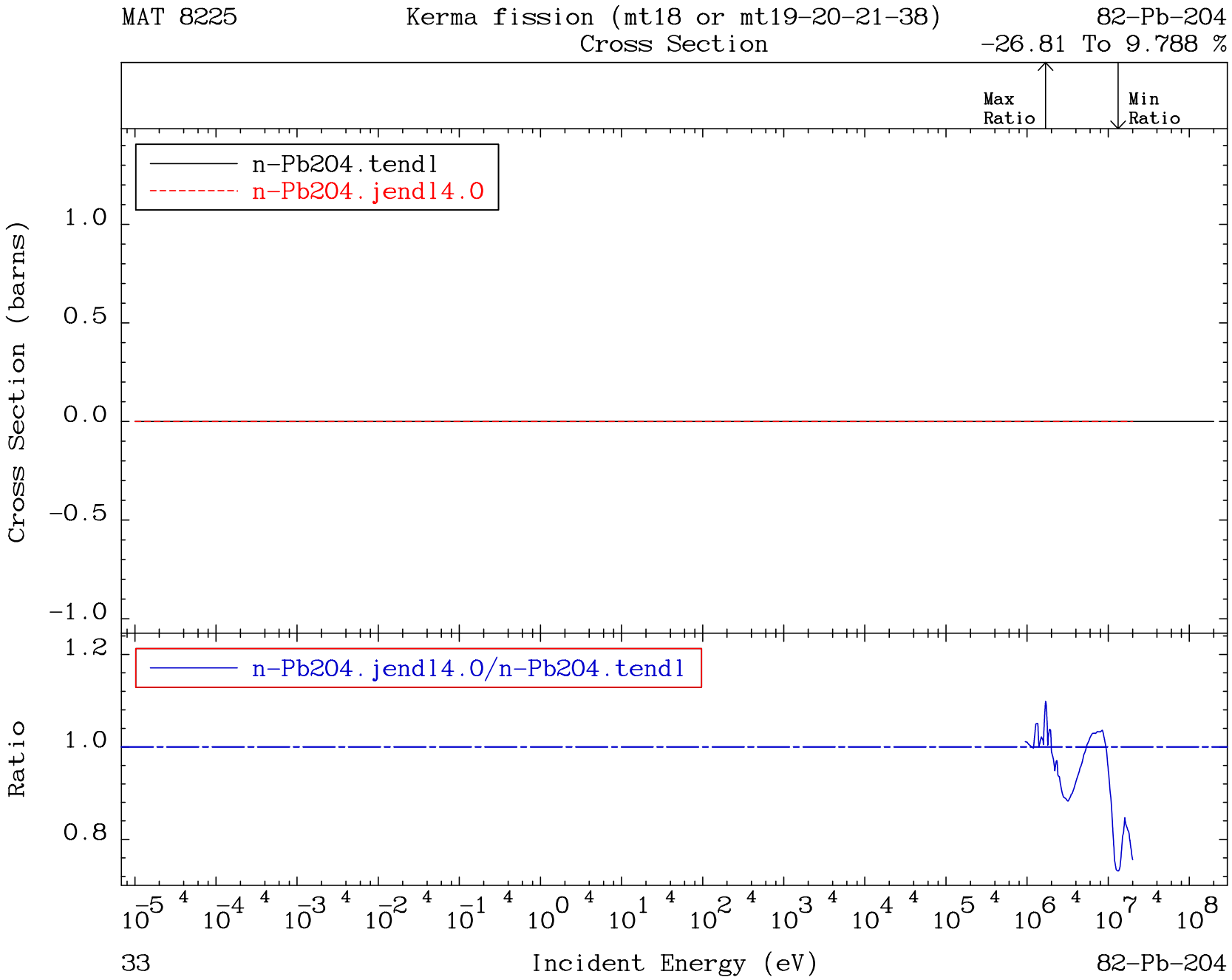

MAT 8225
He-4 Production
Cross Section
82-Pb-204
29.68 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
28
82-Pb-204

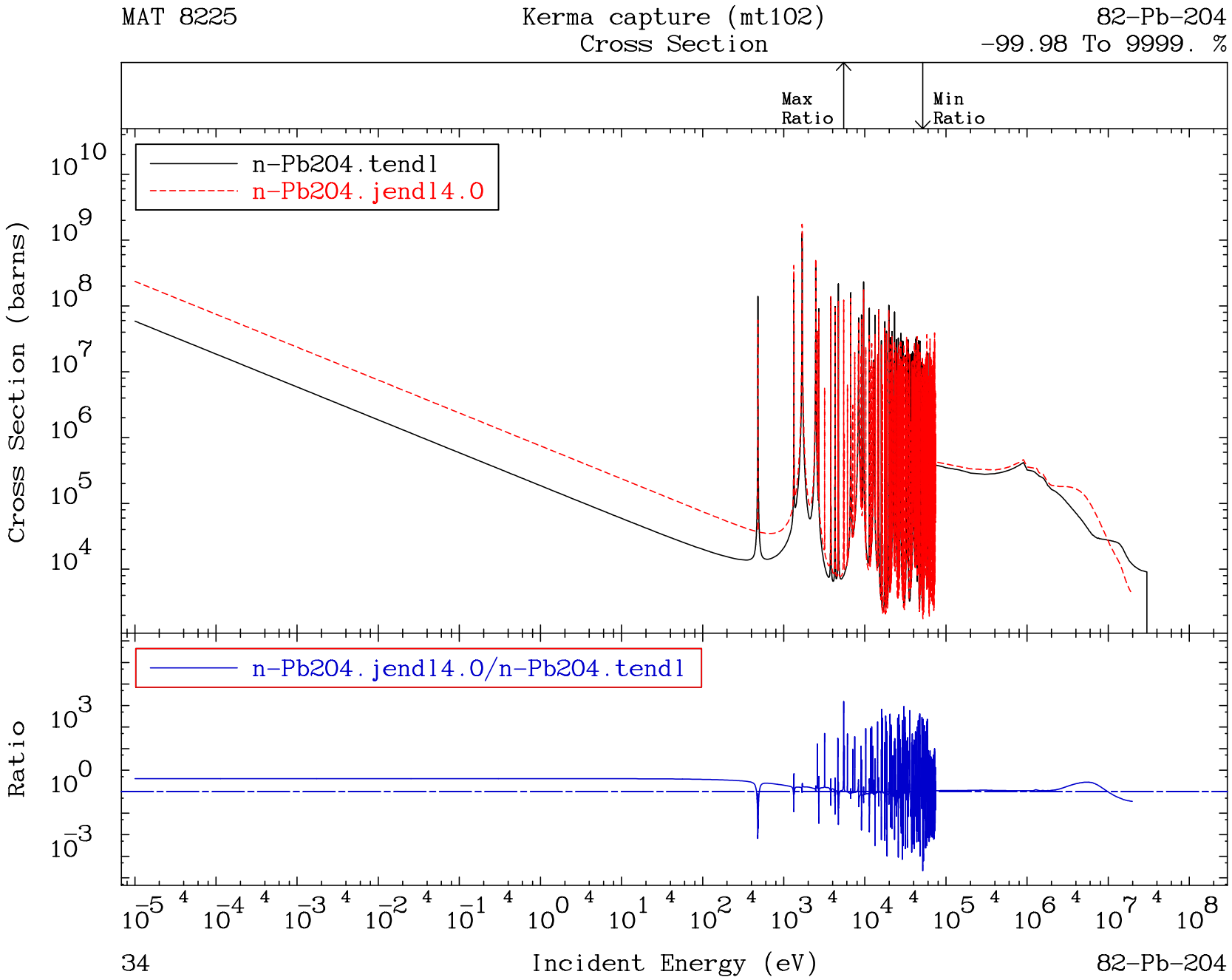

MAT 8225
Kerma total (eV-barns)
Cross Section
82-Pb-204
-99.94 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
29
Incident Energy (eV)
82-Pb-204

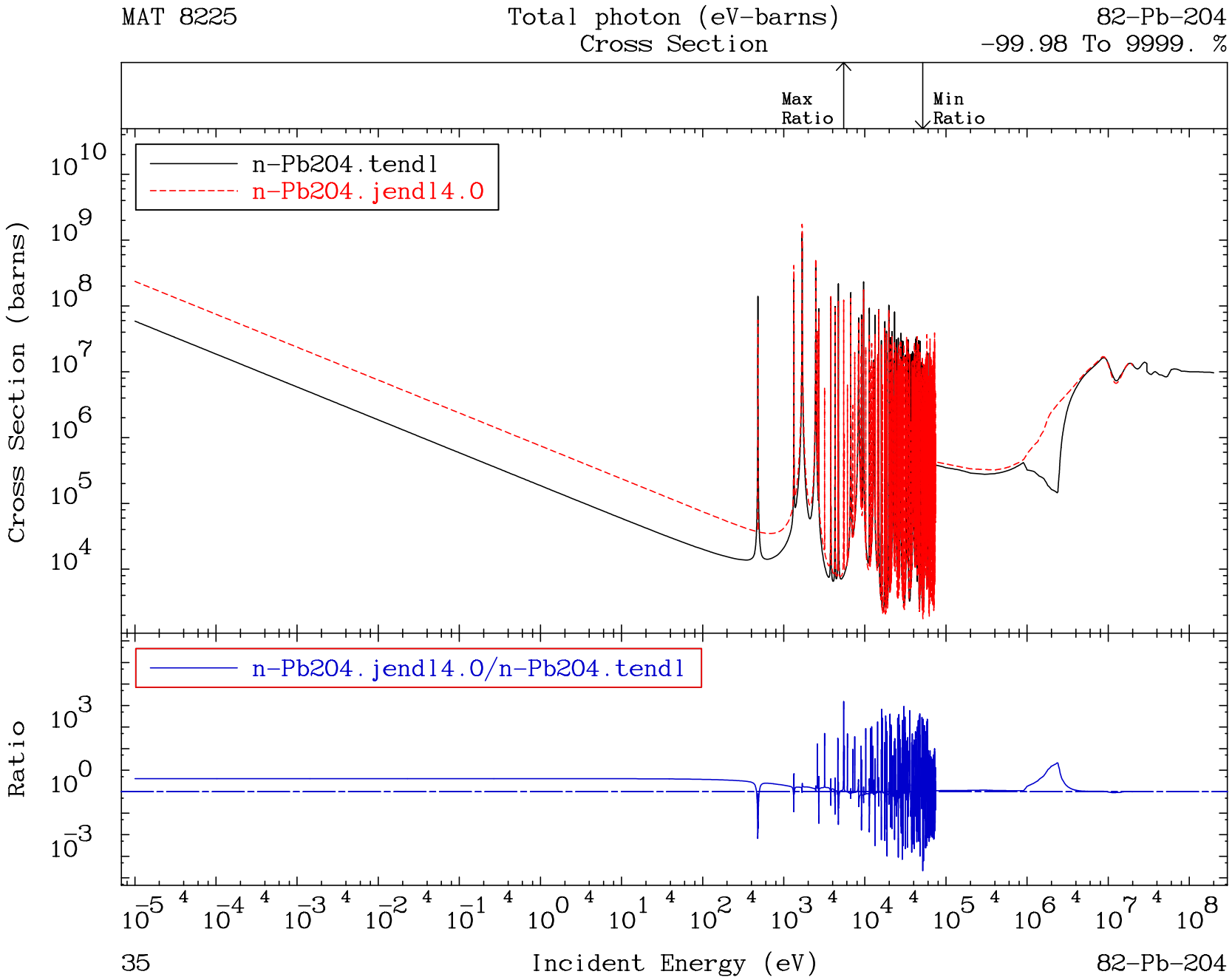

MAT 8225
Kerma elastic
Cross Section
82-Pb-204
-99.38 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
30
82-Pb-204

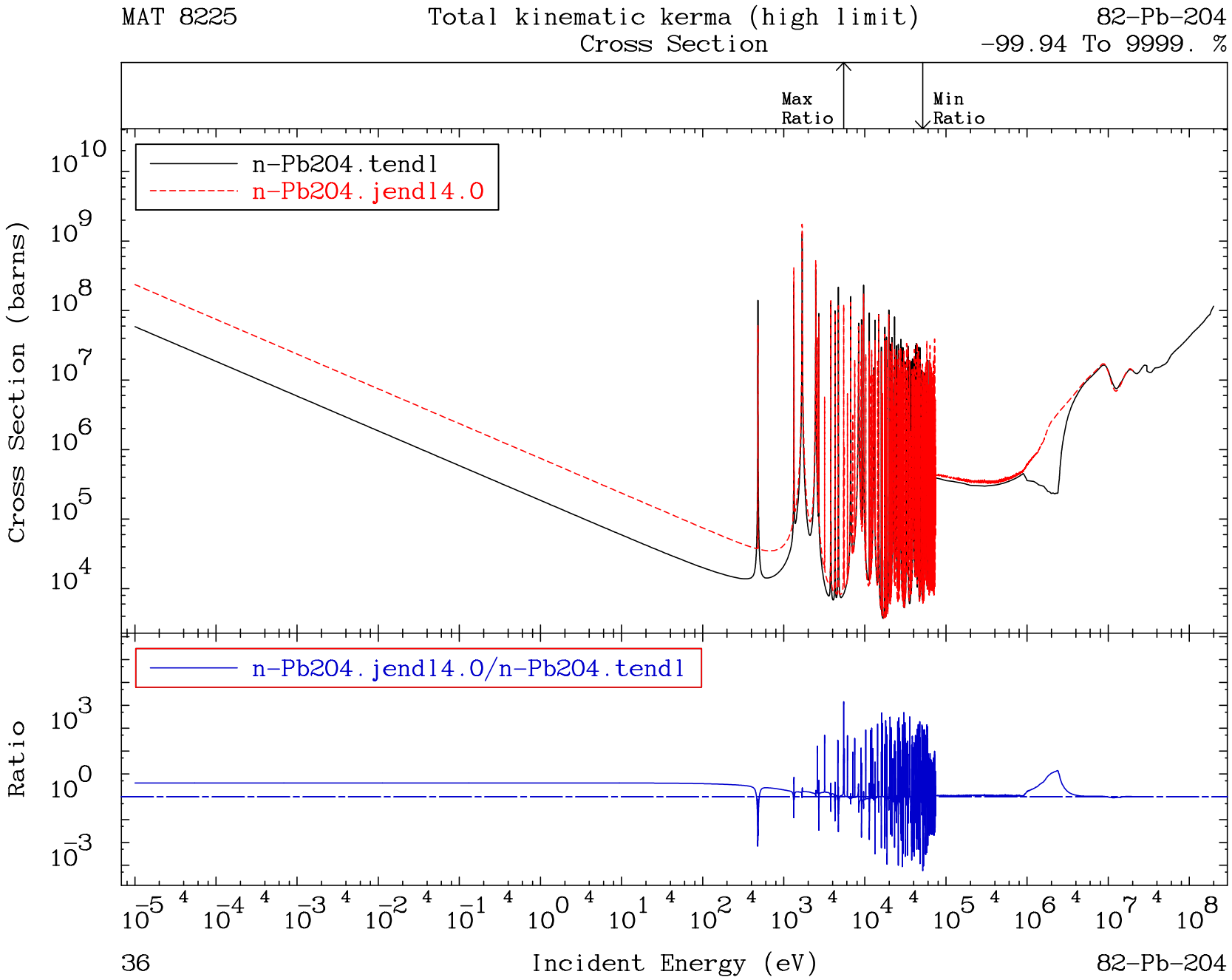

MAT 8225
Kerma non-elastic (all but mt2)
Cross Section
82-Pb-204
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
31
82-Pb-204

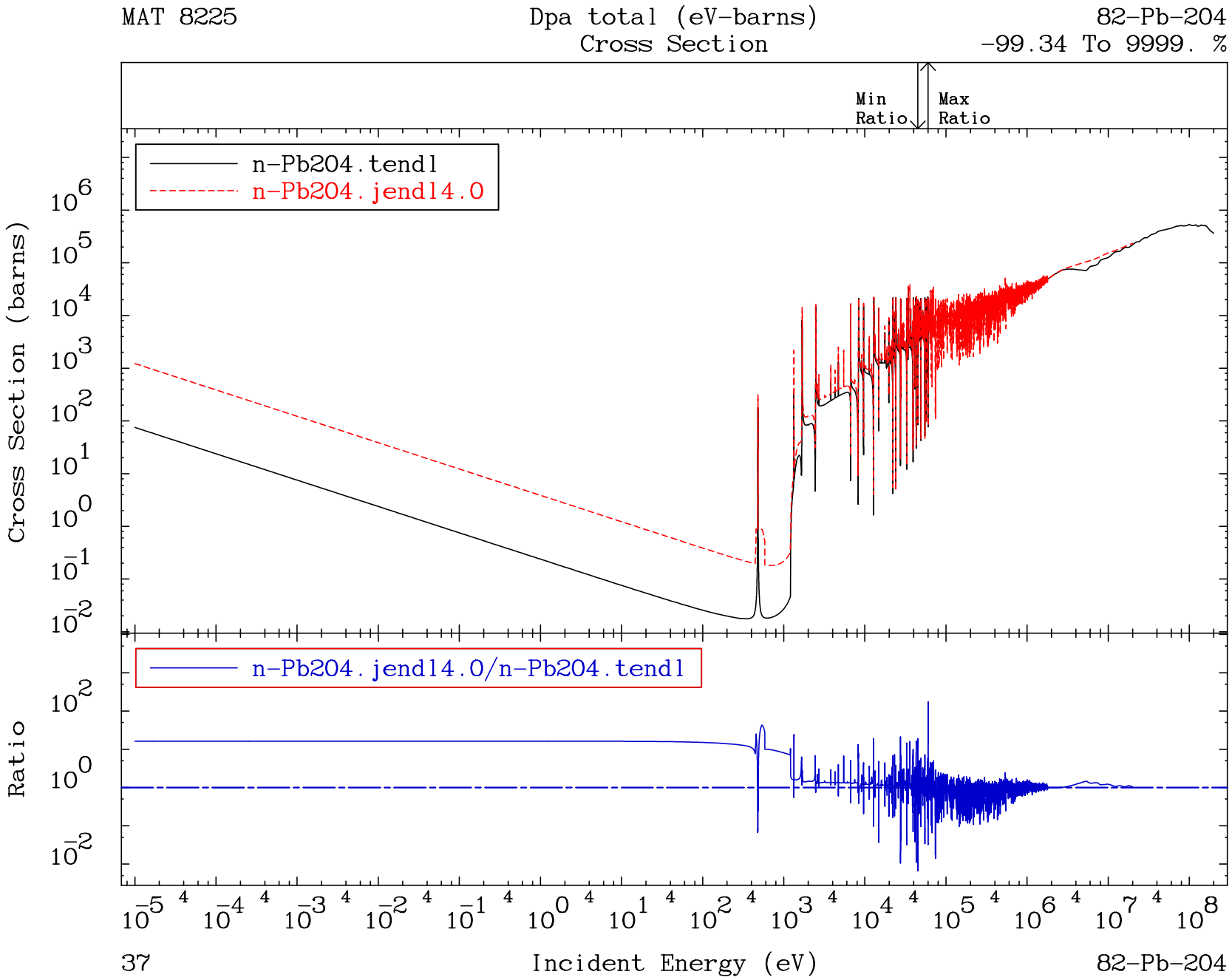

MAT 8225
Kerma inelastic (mt51-91)
Cross Section
82-Pb-204
-26.81 To 9.788 %
Max Ratio
Min Ratio
n-Pb204.tendl Threshold 950.00 keV
n-Pb204.jendl4.0 Threshold 150.08 keV
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
32
82-Pb-204

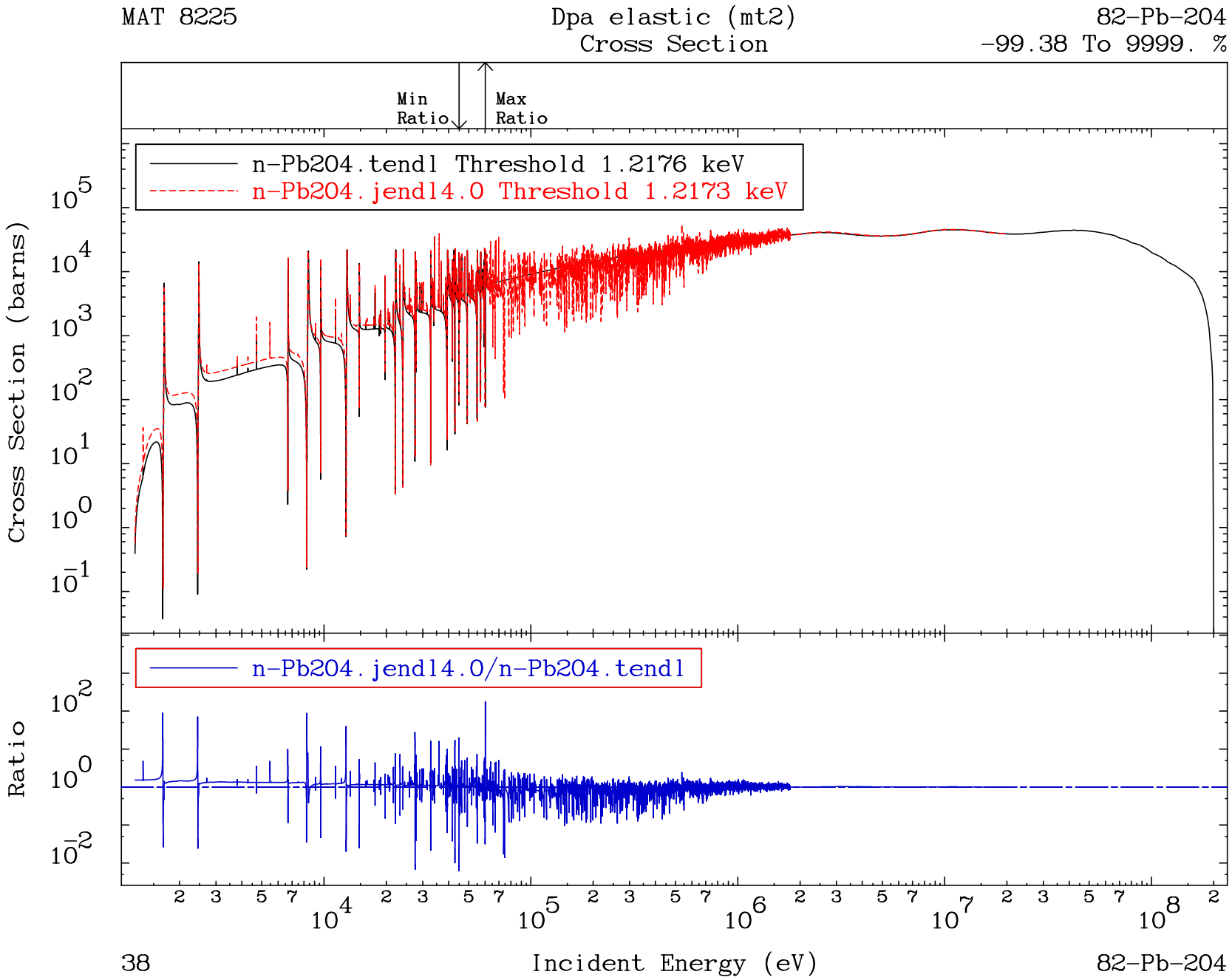

MAT 8225
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
82-Pb-204
-26.81 To 9.788 %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
1.2
1.0
0.8
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
33
Incident Energy (eV)
82-Pb-204

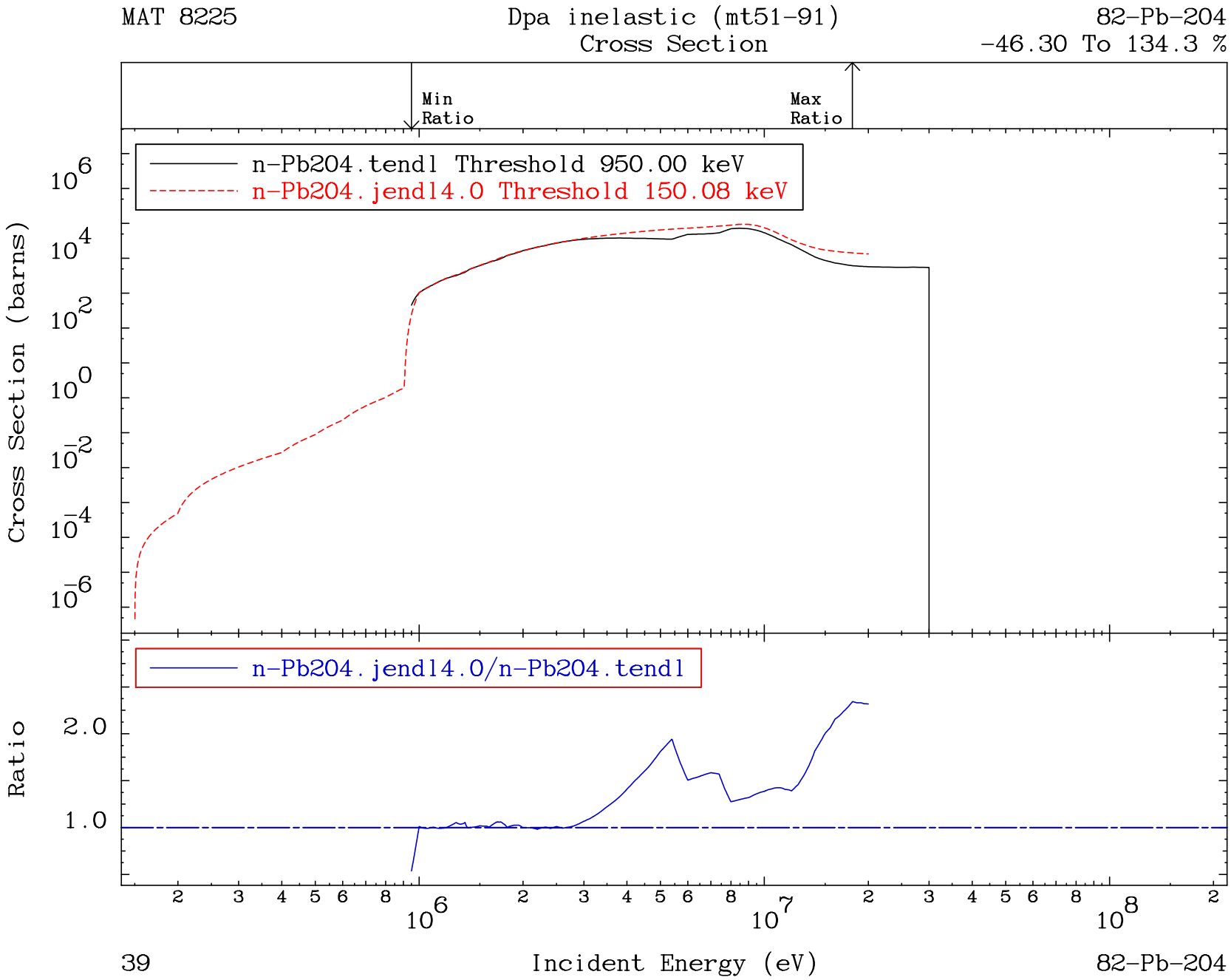

MAT 8225
Kerma capture (mt102)
Cross Section
82-Pb-204
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
34
Incident Energy (eV)
82-Pb-204

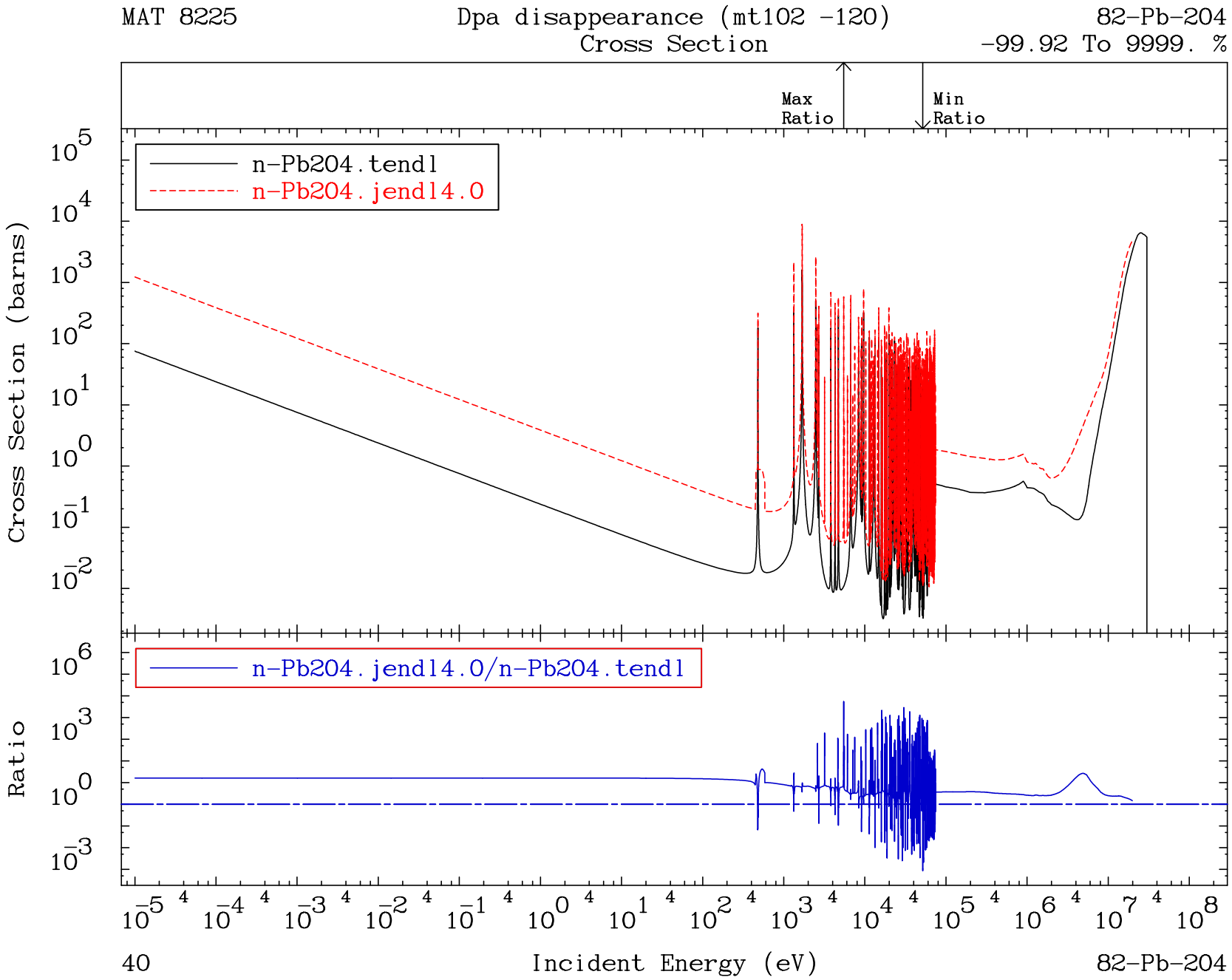

MAT 8225
Total photon (eV-barns)
Cross Section
82-Pb-204
-99.98 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
35
82-Pb-204


MAT 8225
Total kinematic kerma (high limit)
Cross Section
82-Pb-204
-99.94 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
36
82-Pb-204


MAT 8225
Dpa total (eV-barns)
Cross Section
82-Pb-204
-99.34 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
37
82-Pb-204


MAT 8225
Dpa elastic (mt2)
Cross Section
82-Pb-204
-99.38 To 9999. %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 1.2176 keV
n-Pb204.jendl4.0 Threshold 1.2173 keV
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
38
82-Pb-204


MAT 8225
Dpa inelastic (mt51-91)
Cross Section
82-Pb-204
-46.30 To 134.3 %
Min Ratio
Max Ratio
n-Pb204.tendl Threshold 950.00 keV
n-Pb204.jendl4.0 Threshold 150.08 keV
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
39
82-Pb-204


MAT 8225
Dpa disappearance (mt102 -120)
Cross Section
82-Pb-204
-99.92 To 9999. %
Max Ratio
Min Ratio
n-Pb204.tendl
n-Pb204.jendl4.0
Cross Section (barns)
n-Pb204.jendl4.0/n-Pb204.tendl
Ratio
Incident Energy (eV)
40
82-Pb-204