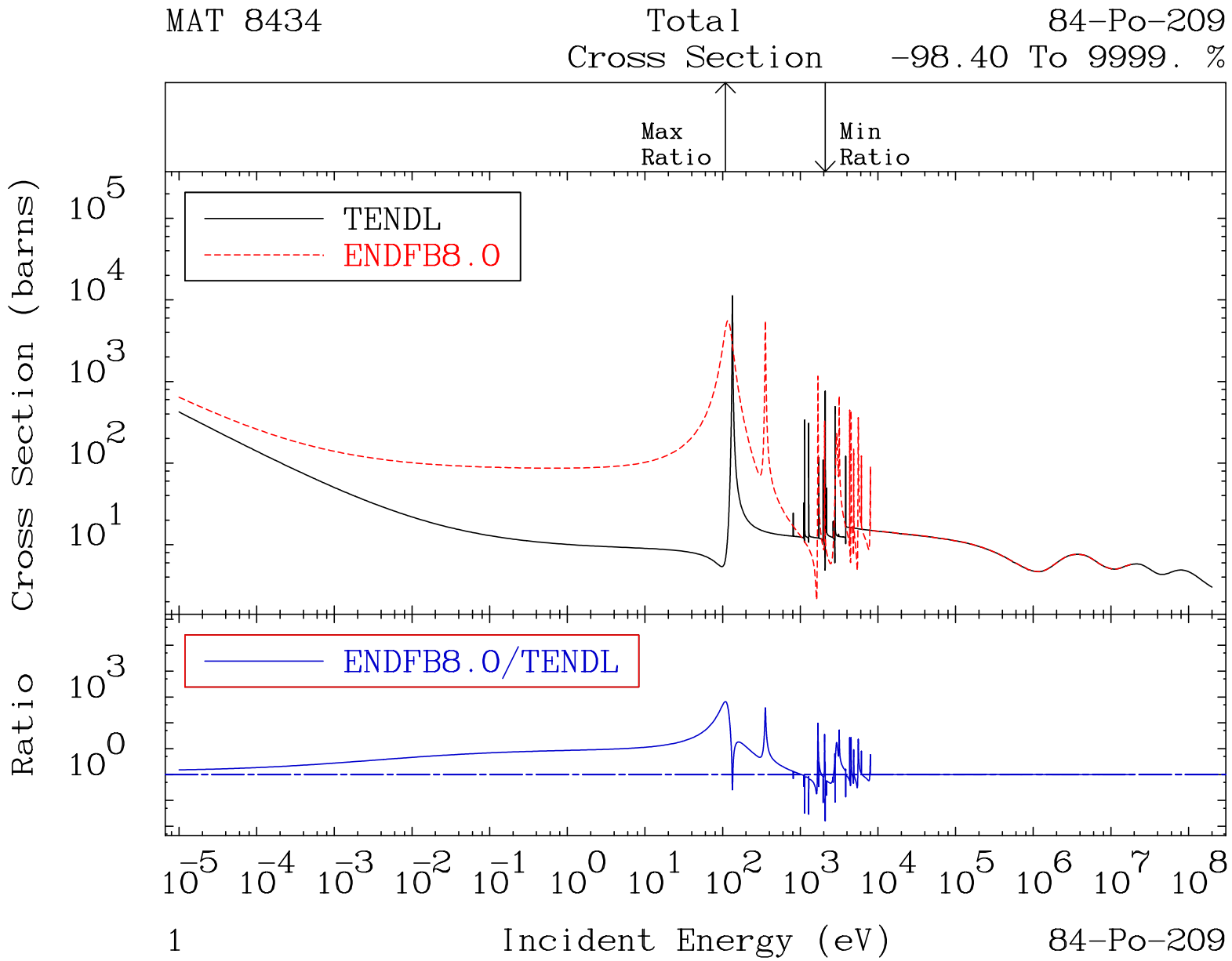
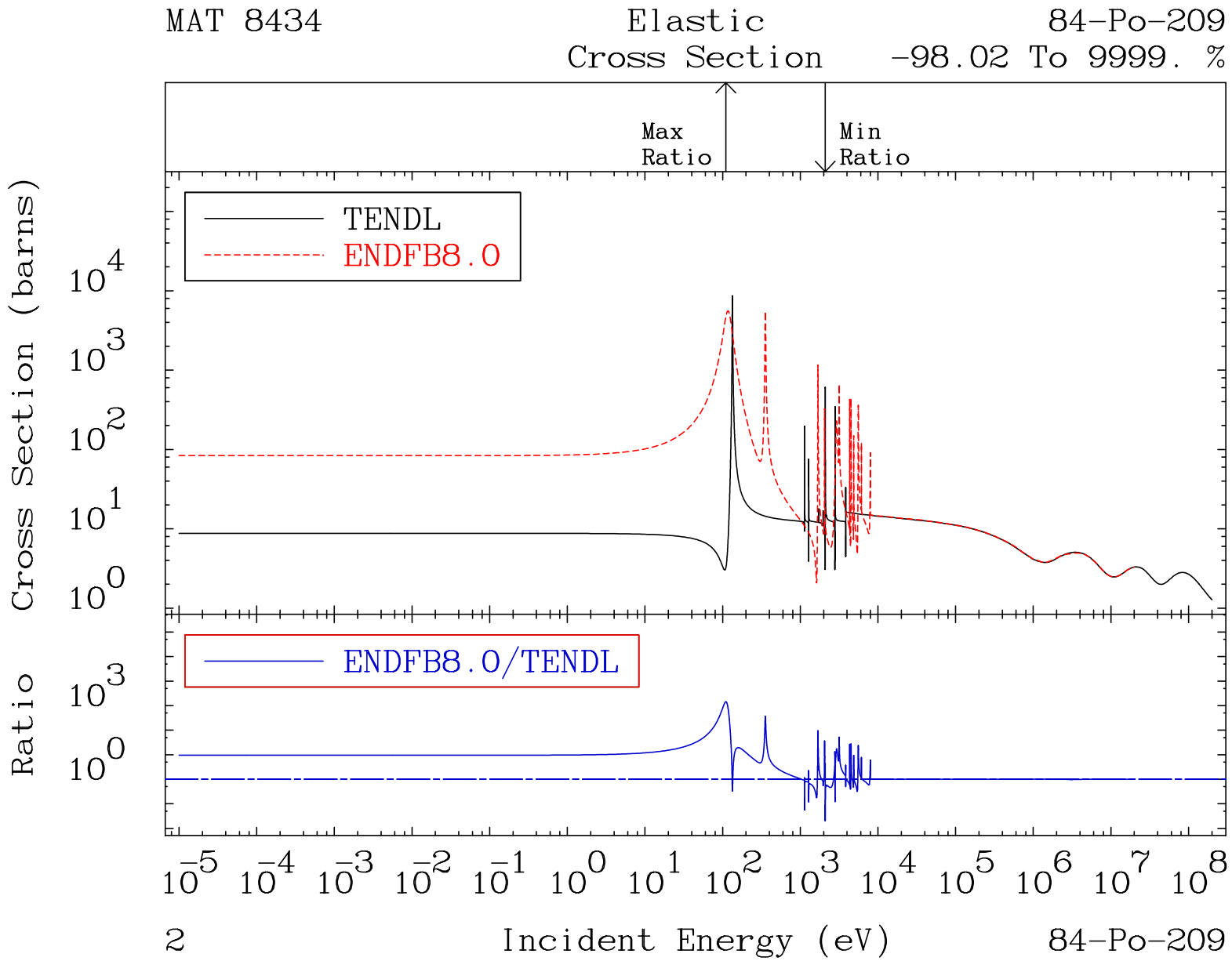
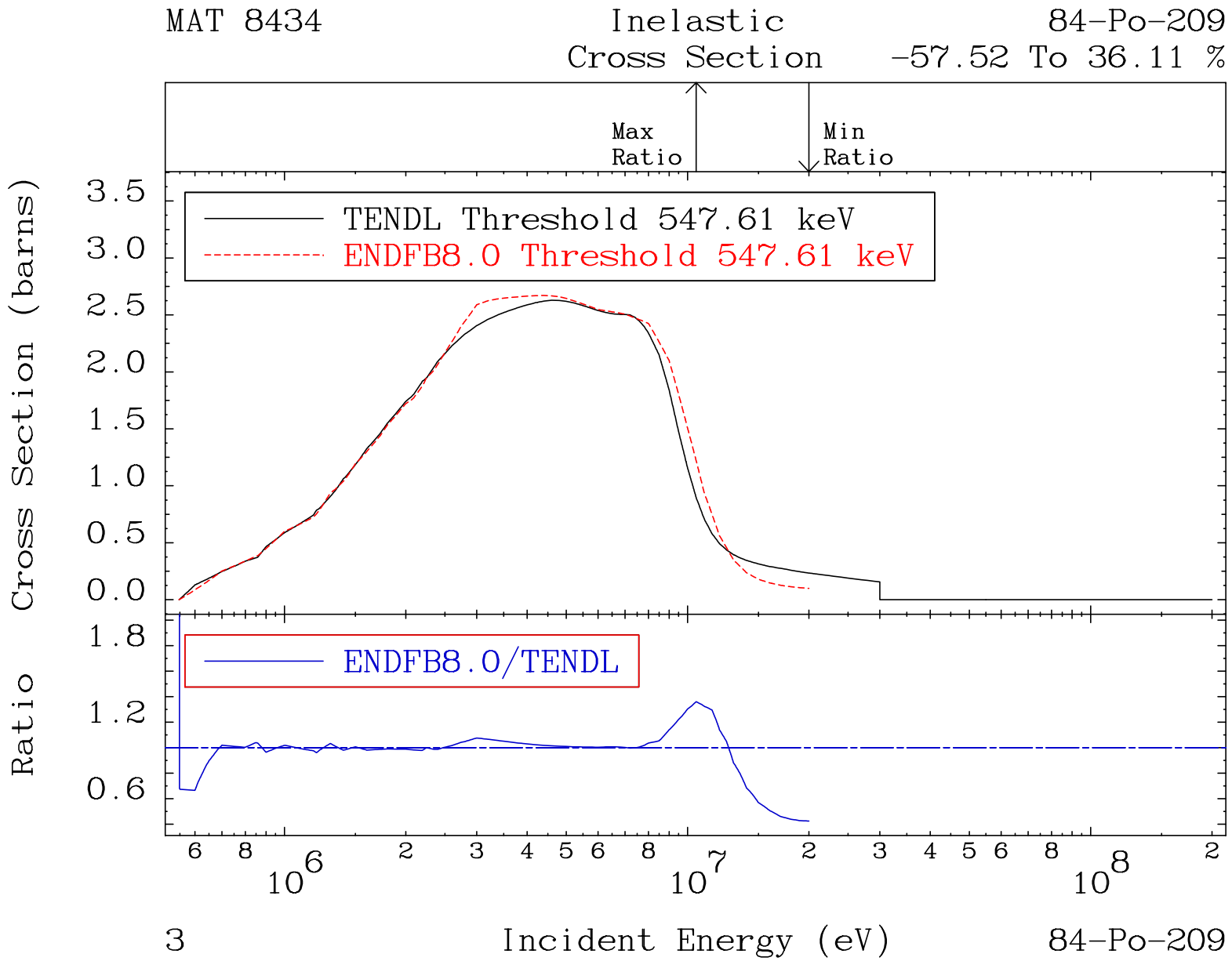
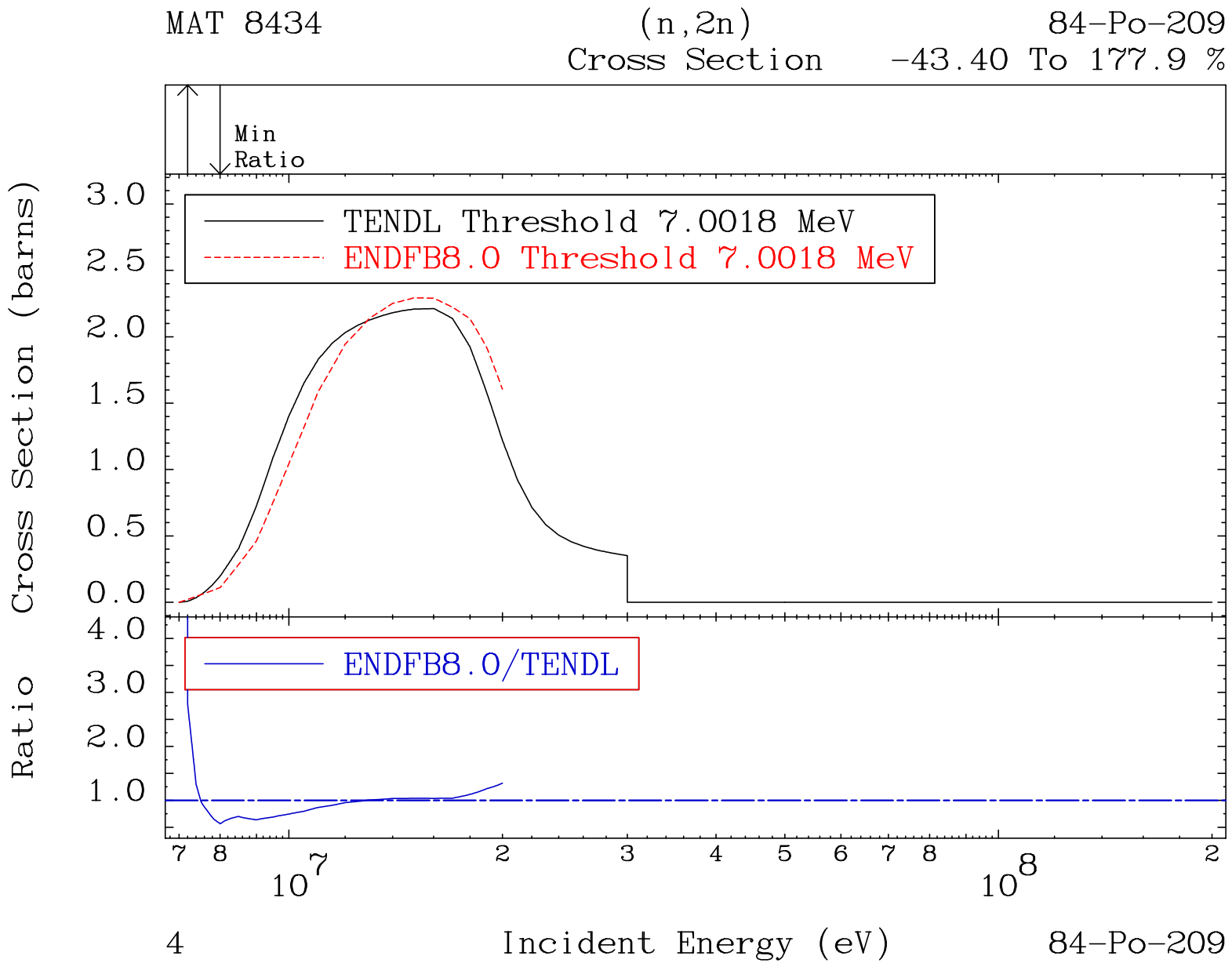
Program Complot
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

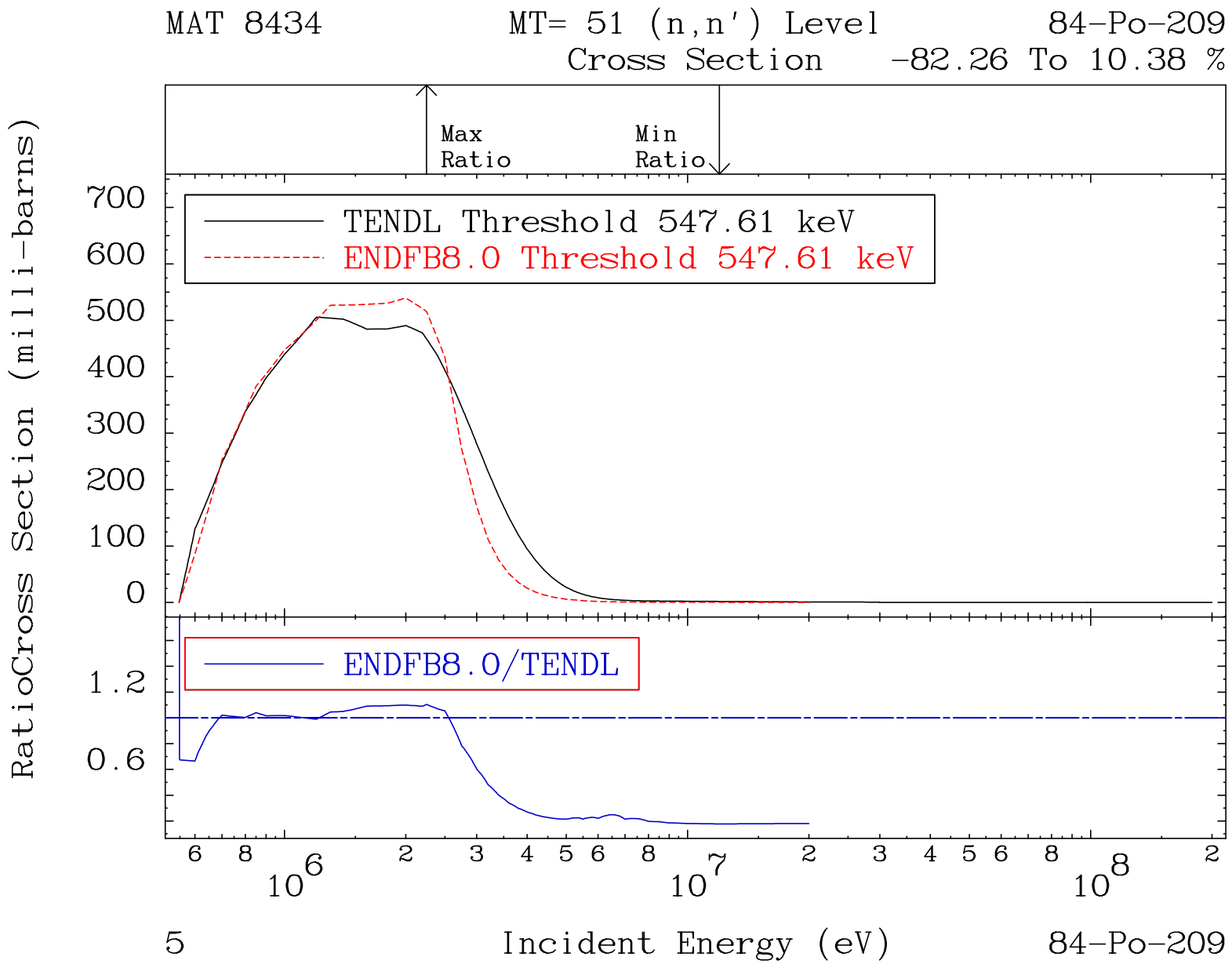
Press Mouse Button to Start

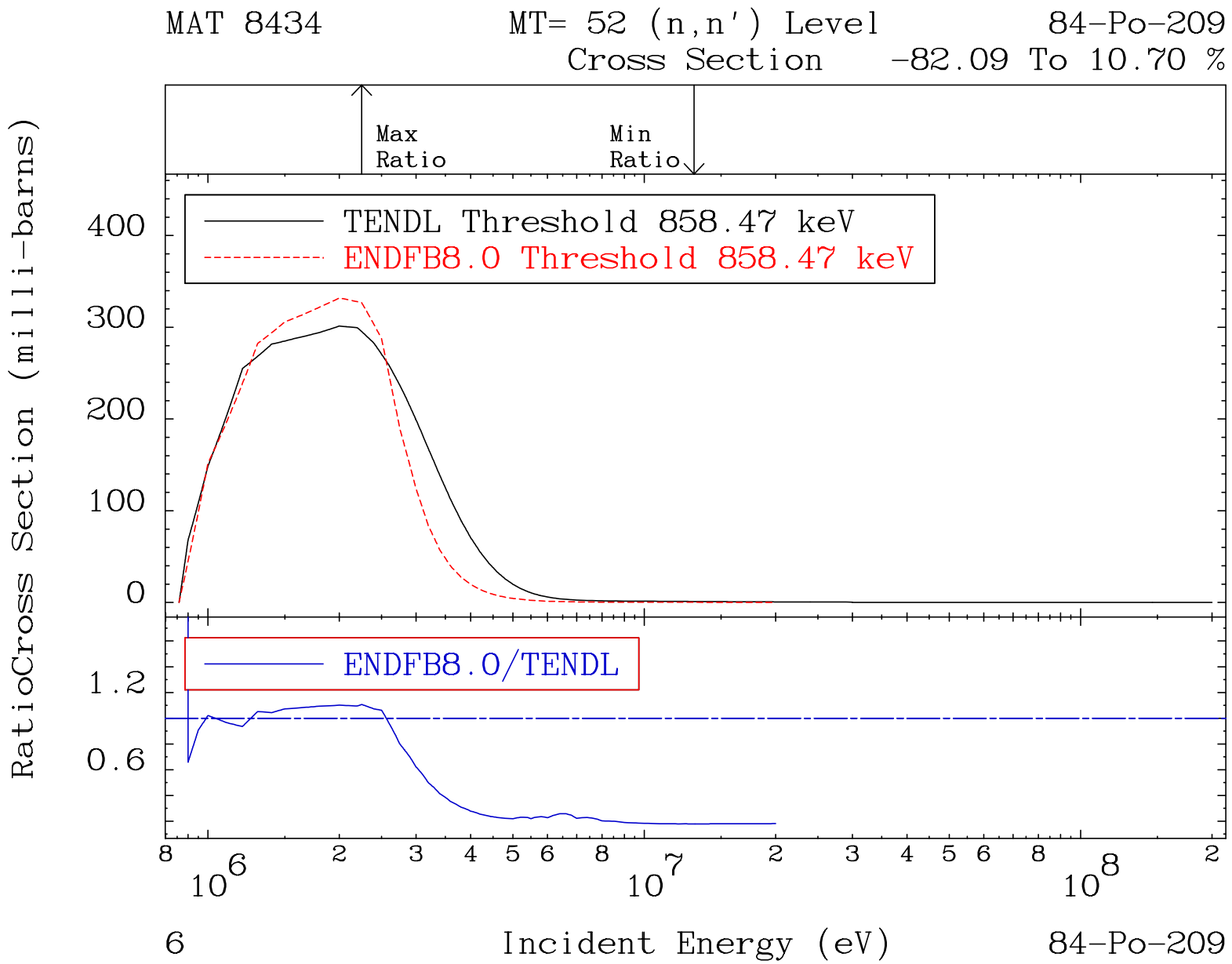

MAT 8434
Total
Cross Section
84-Po-209
-98.40 To 9999. %
Max
Ratio
Min
Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
84-Po-209

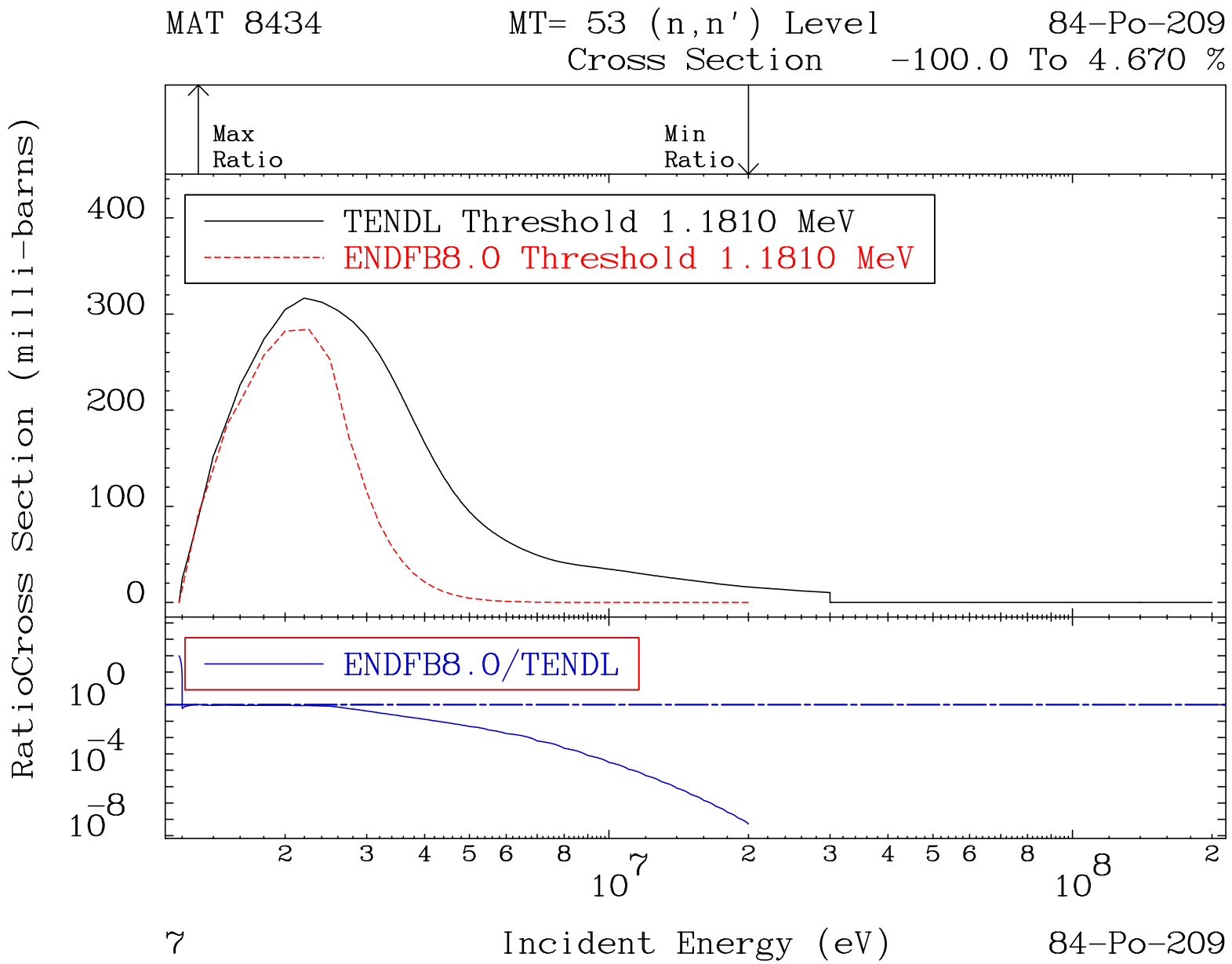

MAT 8434
Elastic
Cross Section
84-Po-209
-98.02 To 9999. %
Max
Ratio
Min
Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
2
84-Po-209

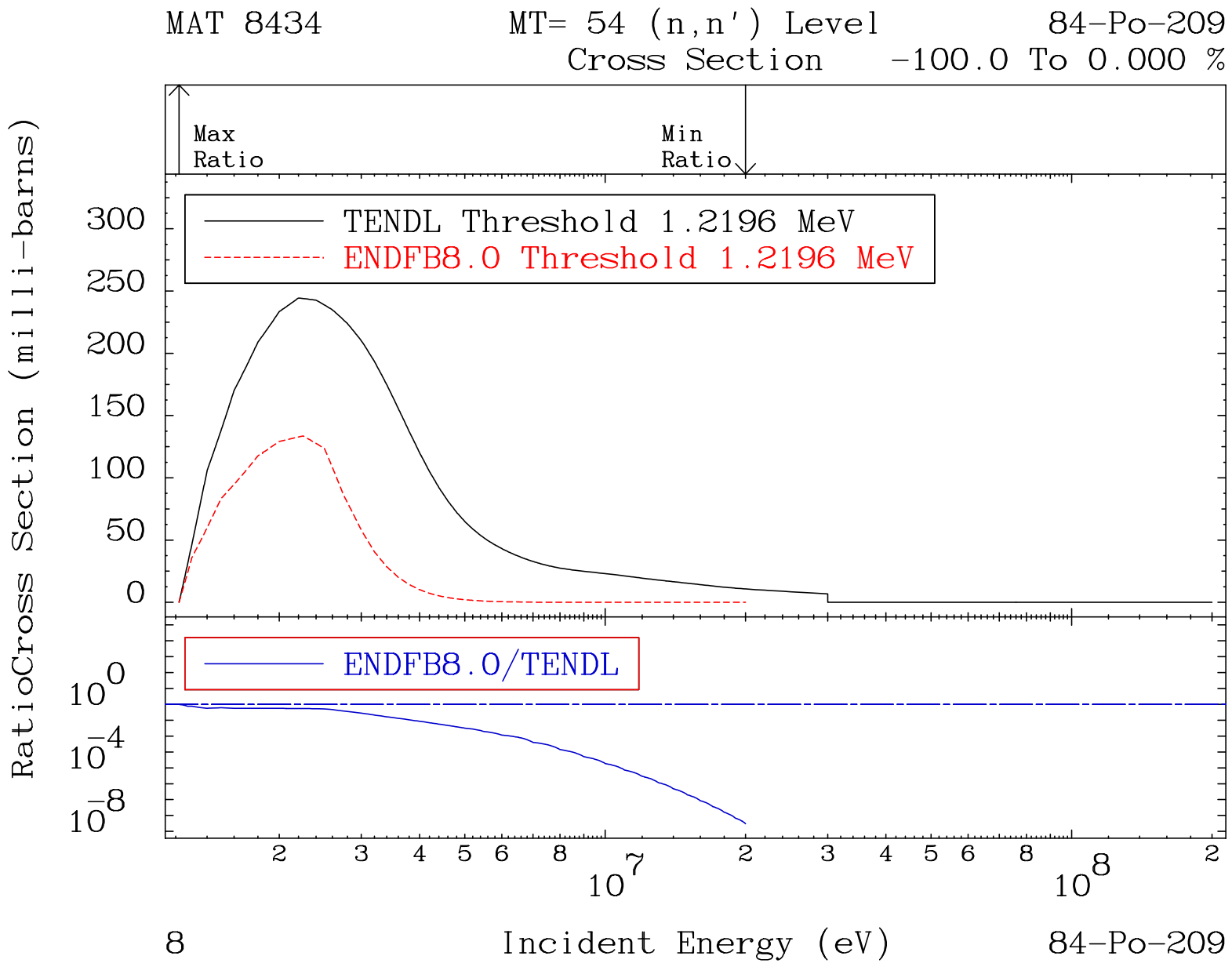

MAT 8434
Inelastic
Cross Section
84-Po-209
-57.52 To 36.11 %
Max
Ratio
Min
Ratio
TENDL Threshold 547.61 keV
ENDFB8.0 Threshold 547.61 keV
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
3
84-Po-209

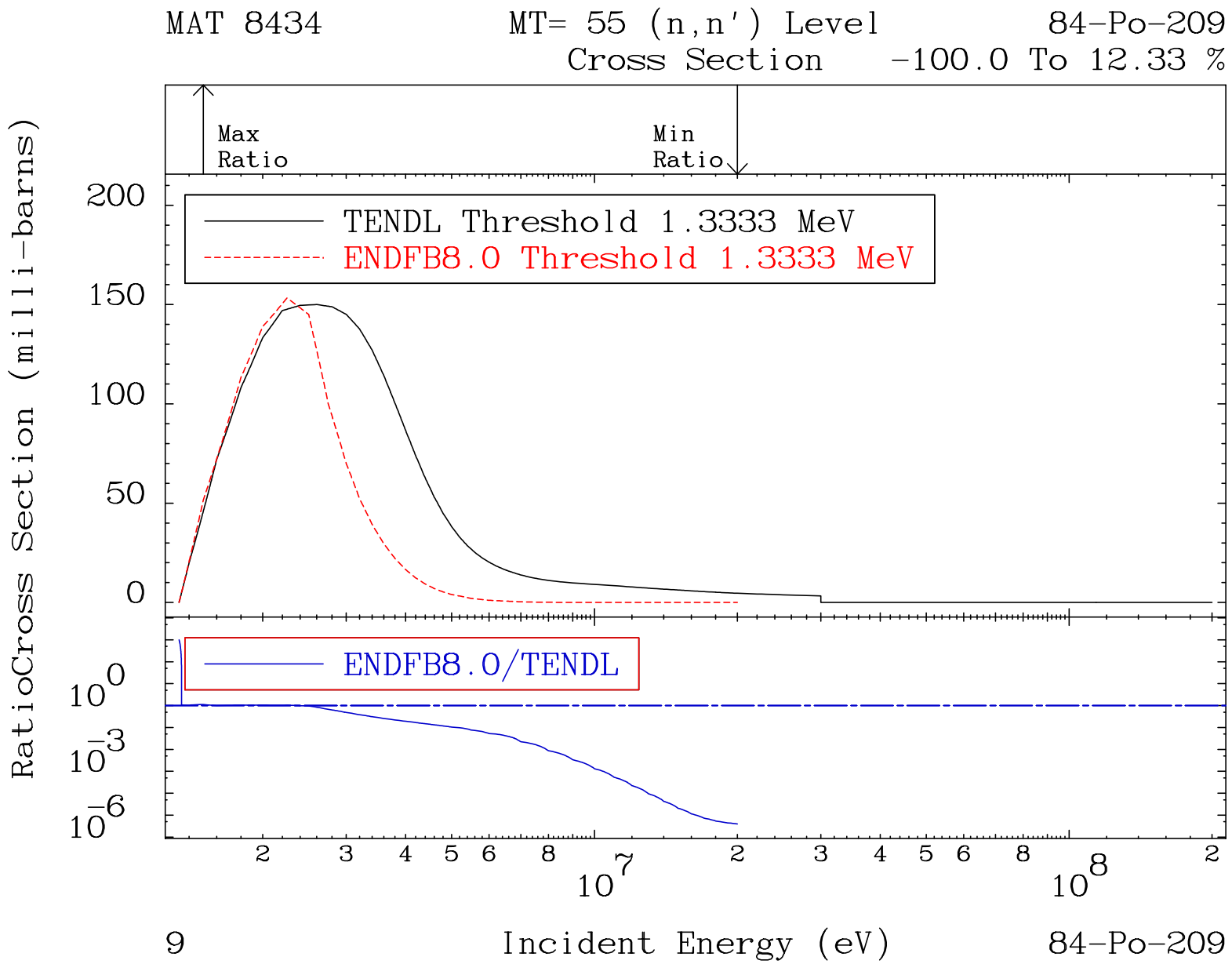

MAT 8434
(n,2n)
Cross Section
84-Po-209
-43.40 To 177.9 %
Min
Ratio
TENDL Threshold 7.0018 MeV
ENDFB8.0 Threshold 7.0018 MeV
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
4
84-Po-209

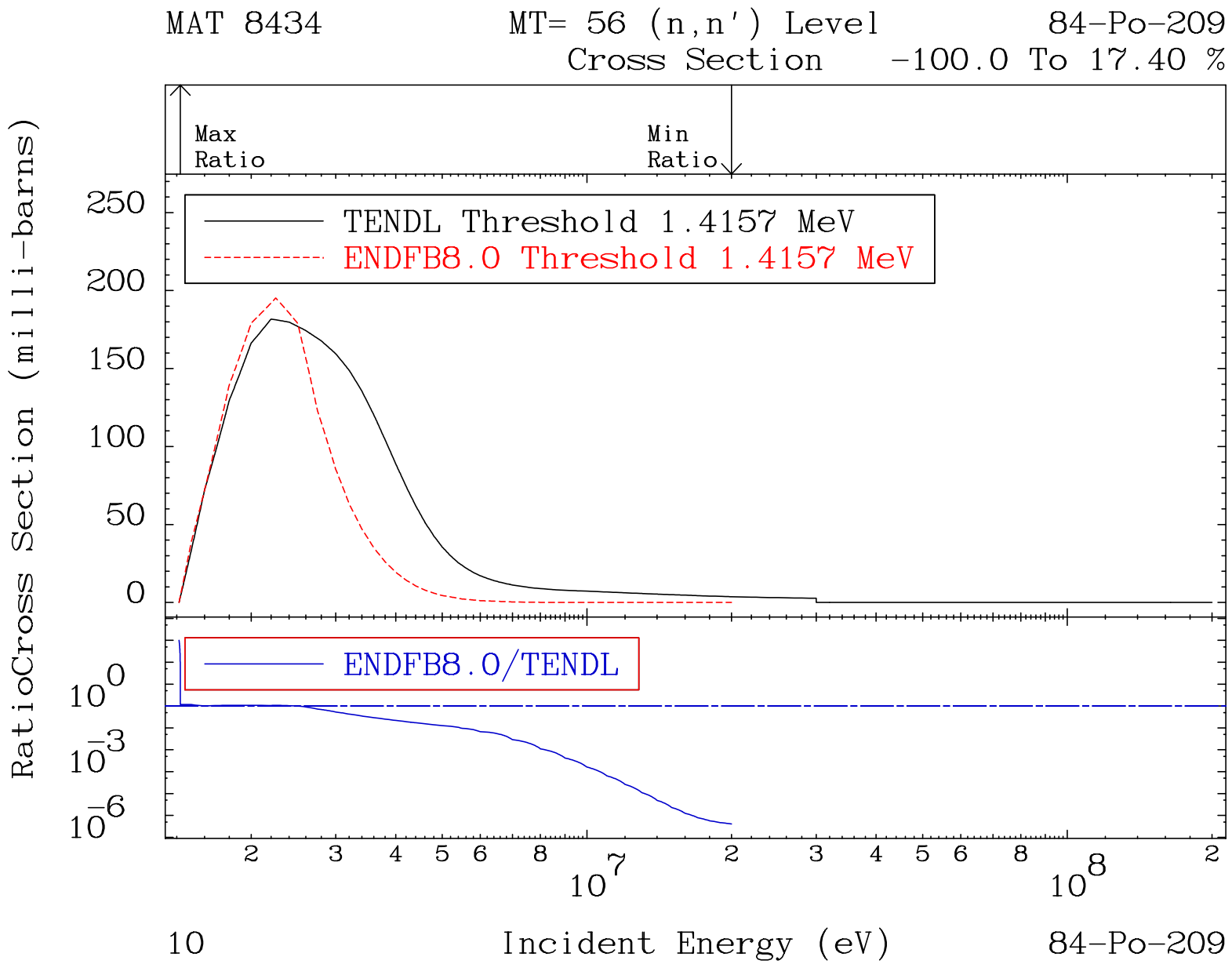

MAT 8434
MT= 51 (n,n') Level
84-Po-209
Cross Section -82.26 To 10.38 %
Max Ratio
Min Ratio
TENDL Threshold 547.61 keV
ENDFB8.0 Threshold 547.61 keV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
700
600
500
400
300
200
100
0
1.2
0.6
6 8 10^6 2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
Incident Energy (eV)
5
84-Po-209

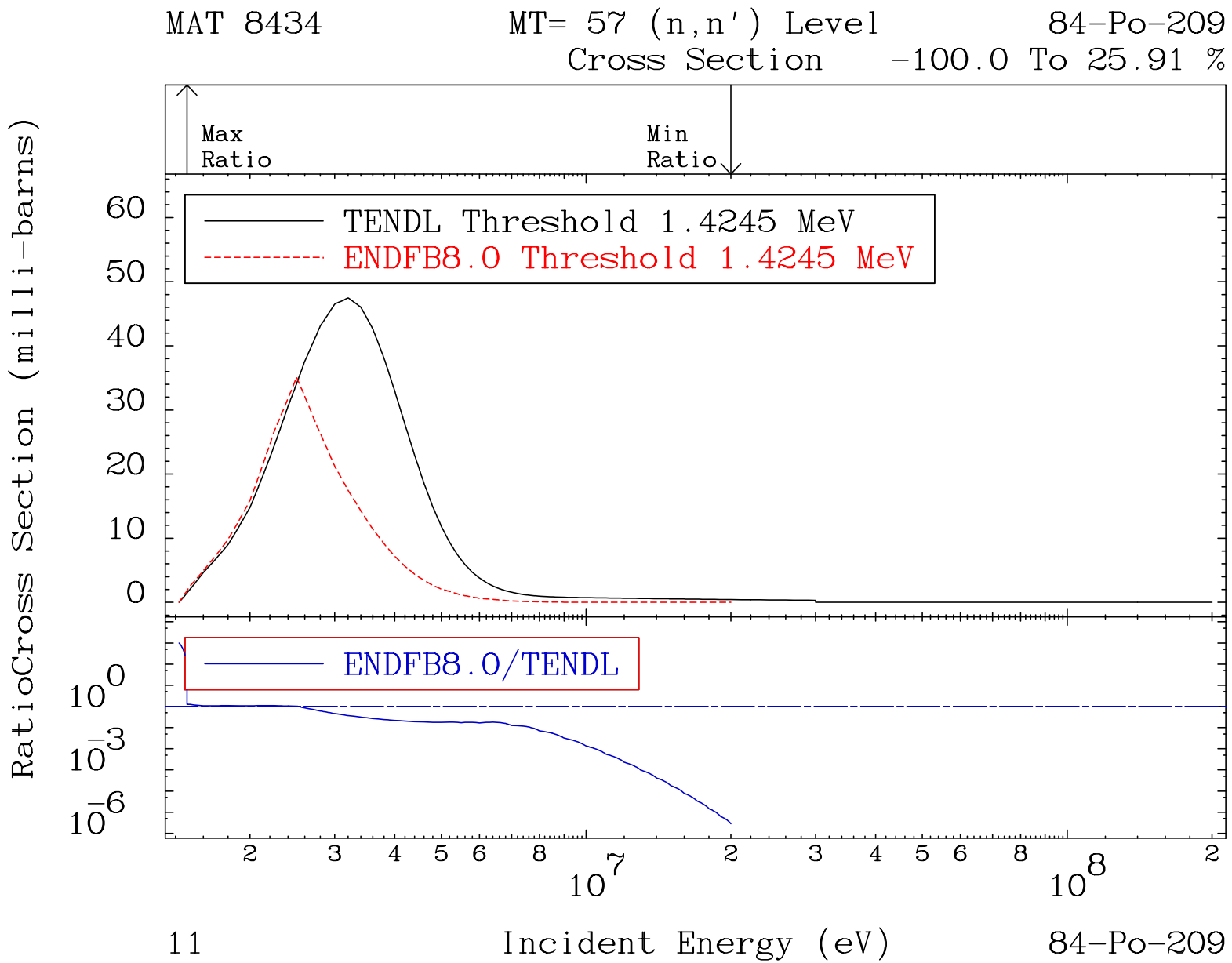

MAT 8434
MT= 52 (n,n') Level
84-Po-209
Cross Section -82.09 To 10.70 %
Max Ratio
Min Ratio
TENDL Threshold 858.47 keV
ENDFB8.0 Threshold 858.47 keV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
1.2
0.6
8
10^6
2
3
4
5
6
8
10^7
2
3
4
5
6
8
10^8
2
6
Incident Energy (eV)
84-Po-209

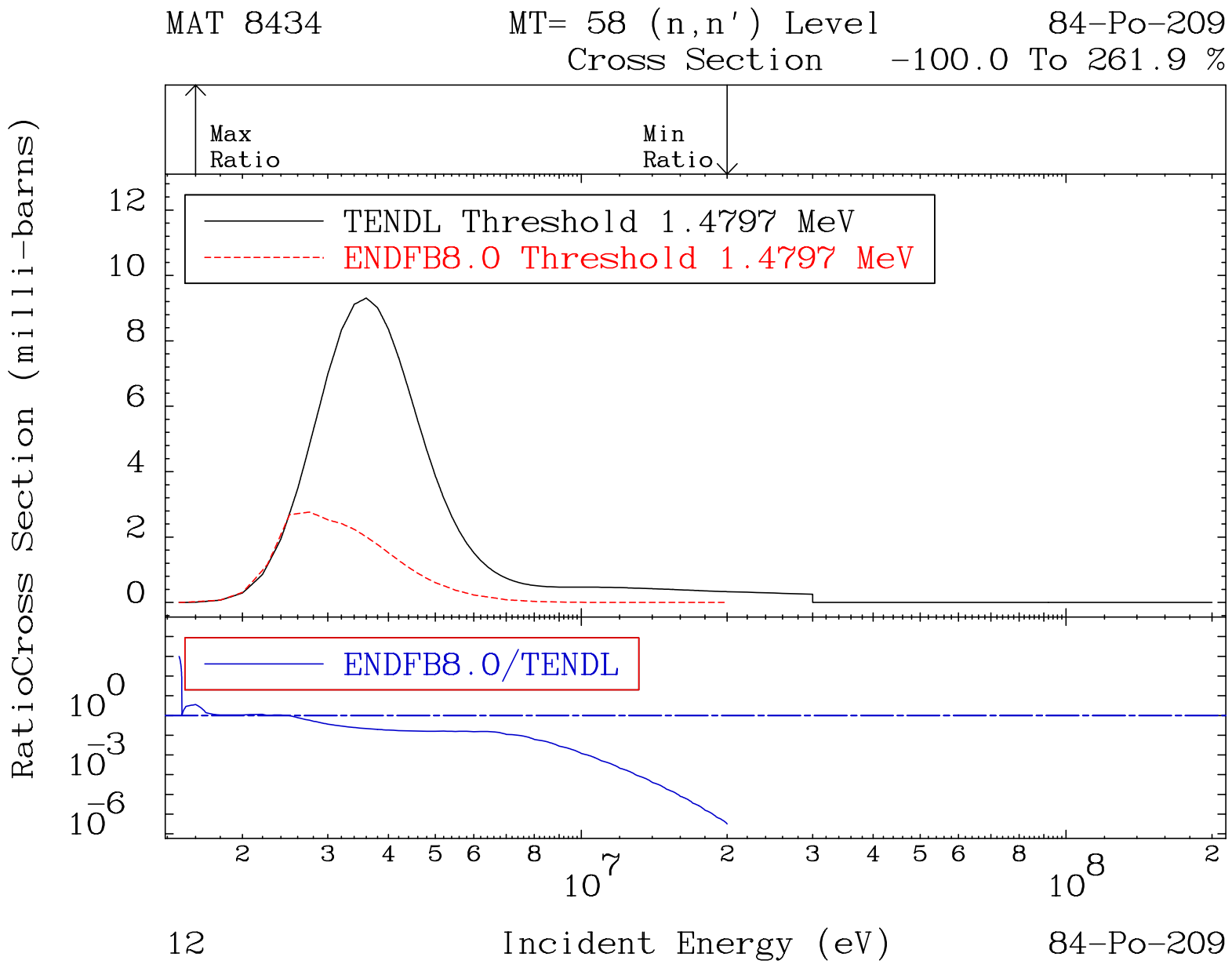

MAT 8434
MT= 53 (n,n') Level
84-Po-209
Cross Section
-100.0 To 4.670 %
Max Ratio
Min Ratio
TENDL Threshold 1.1810 MeV
ENDFB8.0 Threshold 1.1810 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
10^{0}
10^{-4}
10^{-8}
2 3 4 5 6 8 10^{7} 2 3 4 5 6 8 10^{8} 2
7
Incident Energy (eV)
84-Po-209

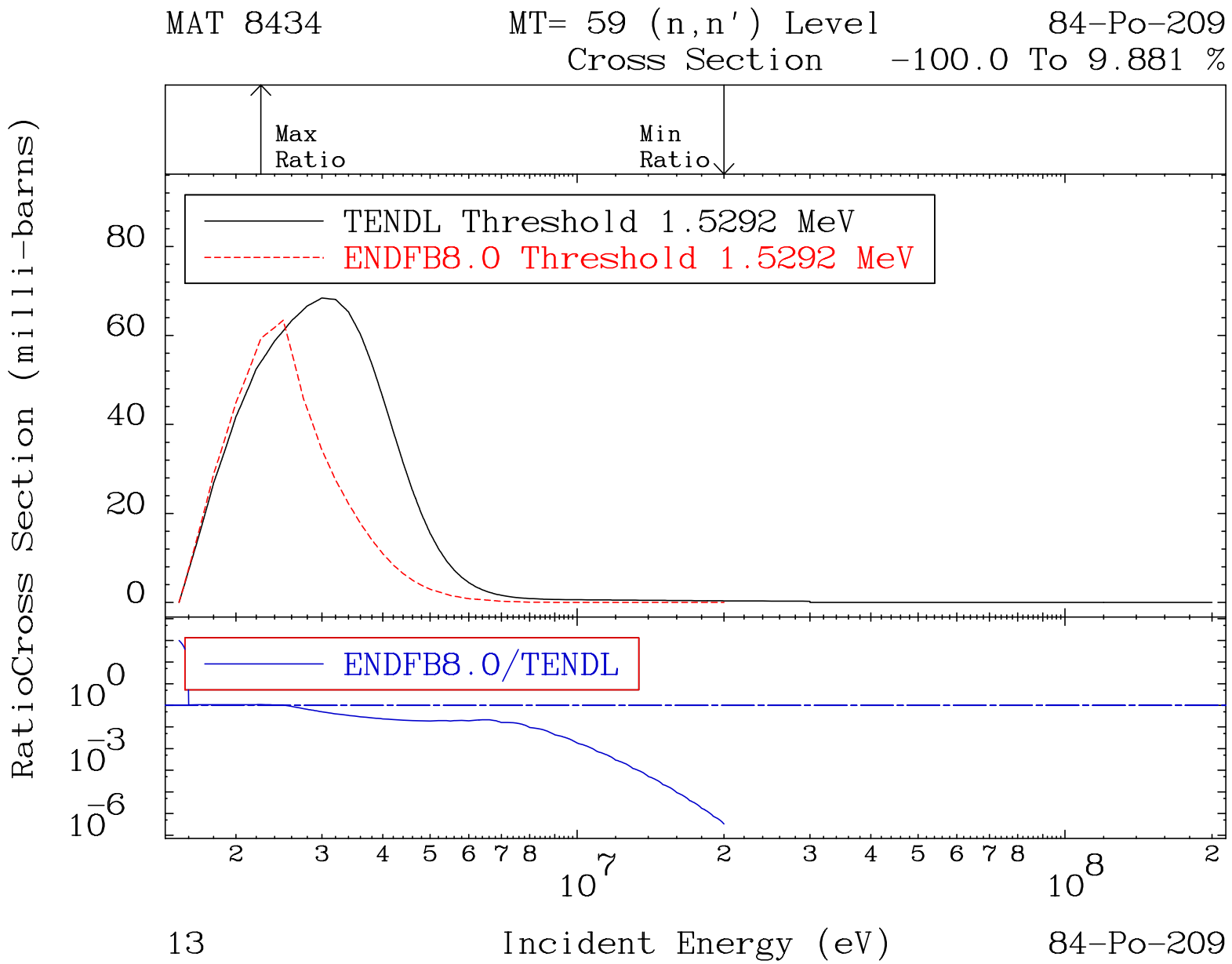

MAT 8434
MT= 54 (n,n') Level
84-Po-209
Cross Section -100.0 To 0.000 %
Max Ratio
Min Ratio
TENDL Threshold 1.2196 MeV
ENDFB8.0 Threshold 1.2196 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
300
250
200
150
100
50
0
10^0
10^-4
10^-8
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
8
Incident Energy (eV)
84-Po-209

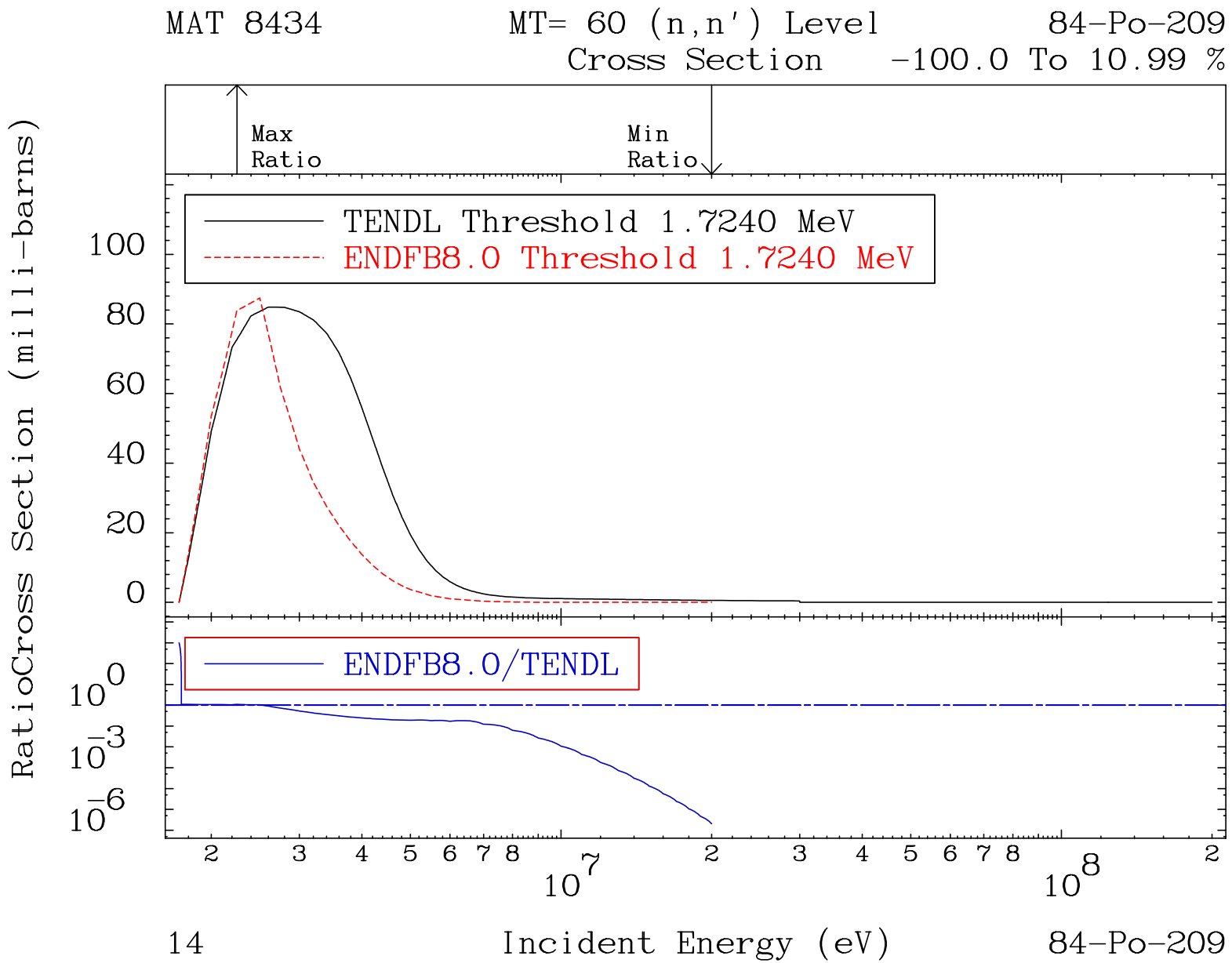

MAT 8434
MT= 55 (n,n') Level
84-Po-209
Cross Section -100.0 To 12.33 %
Max Ratio
Min Ratio
TENDL Threshold 1.3333 MeV
ENDFB8.0 Threshold 1.3333 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
10^0
10^-3
10^-6
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
9
Incident Energy (eV)
84-Po-209

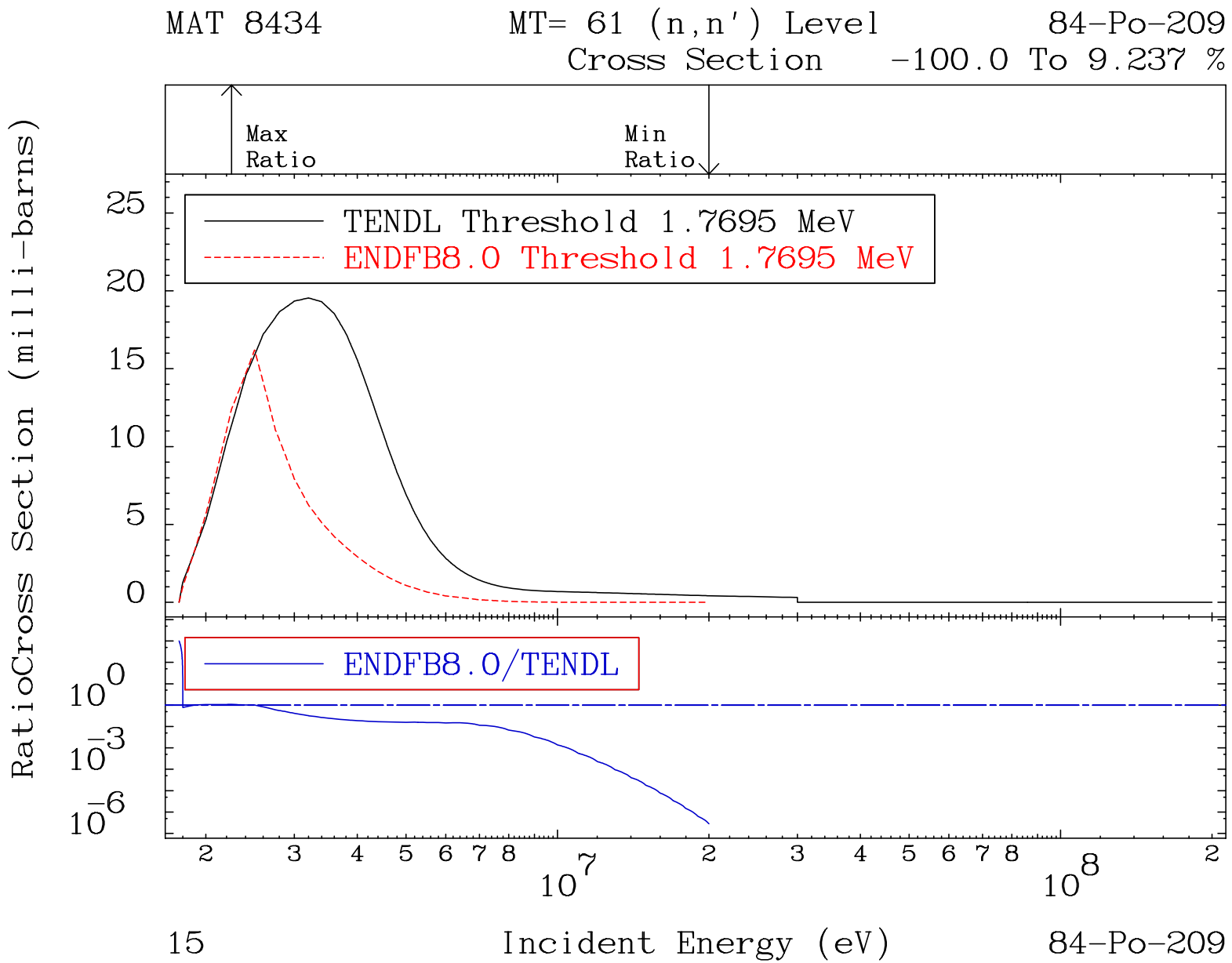

MAT 8434
MT= 56 (n,n') Level
84-Po-209
Cross Section -100.0 To 17.40 %
Max Ratio
Min Ratio
TENDL Threshold 1.4157 MeV
ENDFB8.0 Threshold 1.4157 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
10^{0}
10^{-3}
10^{-6}
2 3 4 5 6 8 10^{7} 2 3 4 5 6 8 10^{8} 2
10
Incident Energy (eV)
84-Po-209

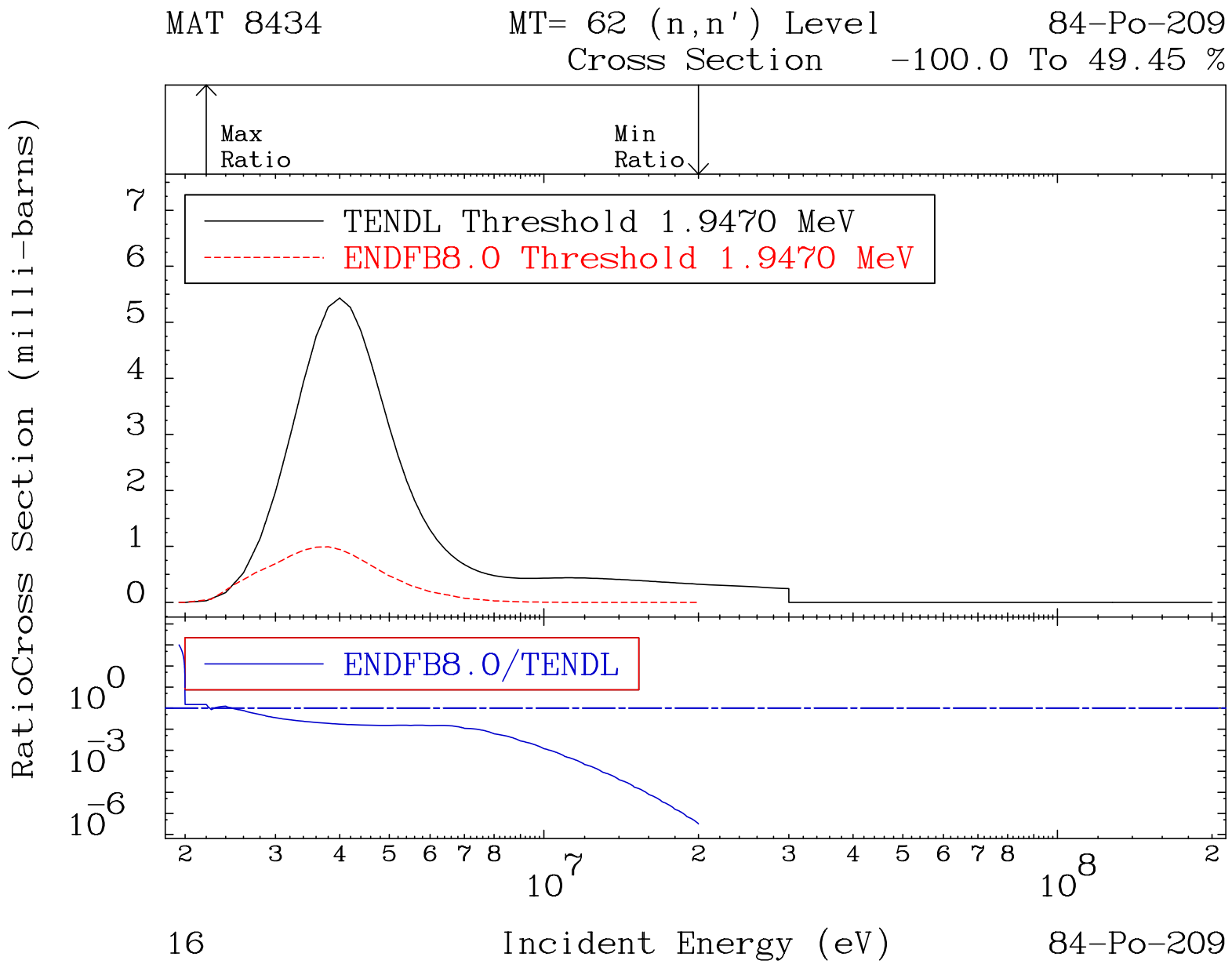

MAT 8434
MT= 57 (n,n') Level
84-Po-209
Cross Section -100.0 To 25.91 %
Max Ratio
Min Ratio
TENDL Threshold 1.4245 MeV
ENDFB8.0 Threshold 1.4245 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
11
84-Po-209

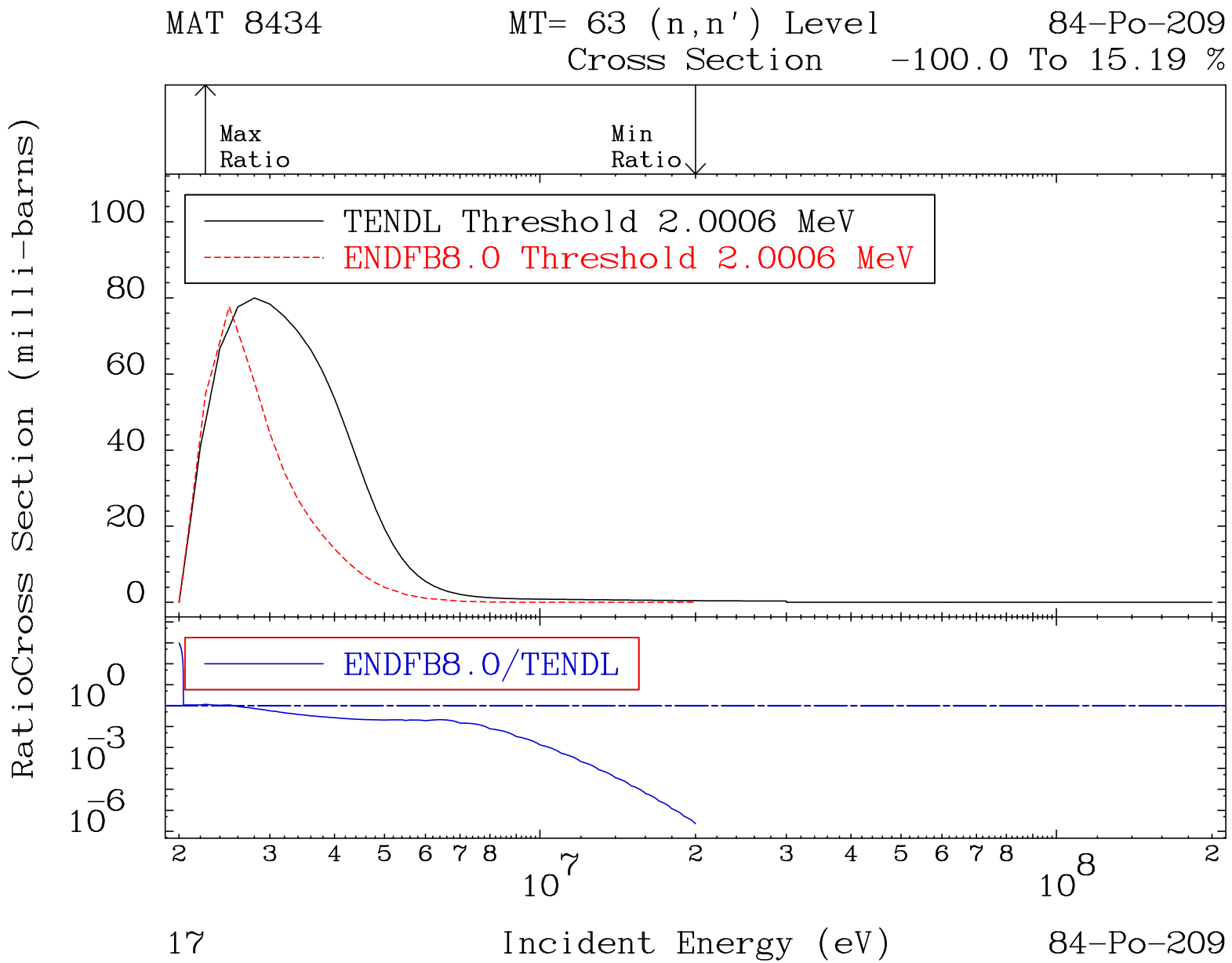

MAT 8434
MT= 58 (n,n') Level
84-Po-209
Cross Section -100.0 To 261.9 %
Max Ratio
Min Ratio
TENDL Threshold 1.4797 MeV
ENDFB8.0 Threshold 1.4797 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
12
10
8
6
4
2
0
10^{0}
10^{-3}
10^{-6}
2 3 4 5 6 8 10^{7} 2 3 4 5 6 8 10^{8} 2
12
Incident Energy (eV)
84-Po-209

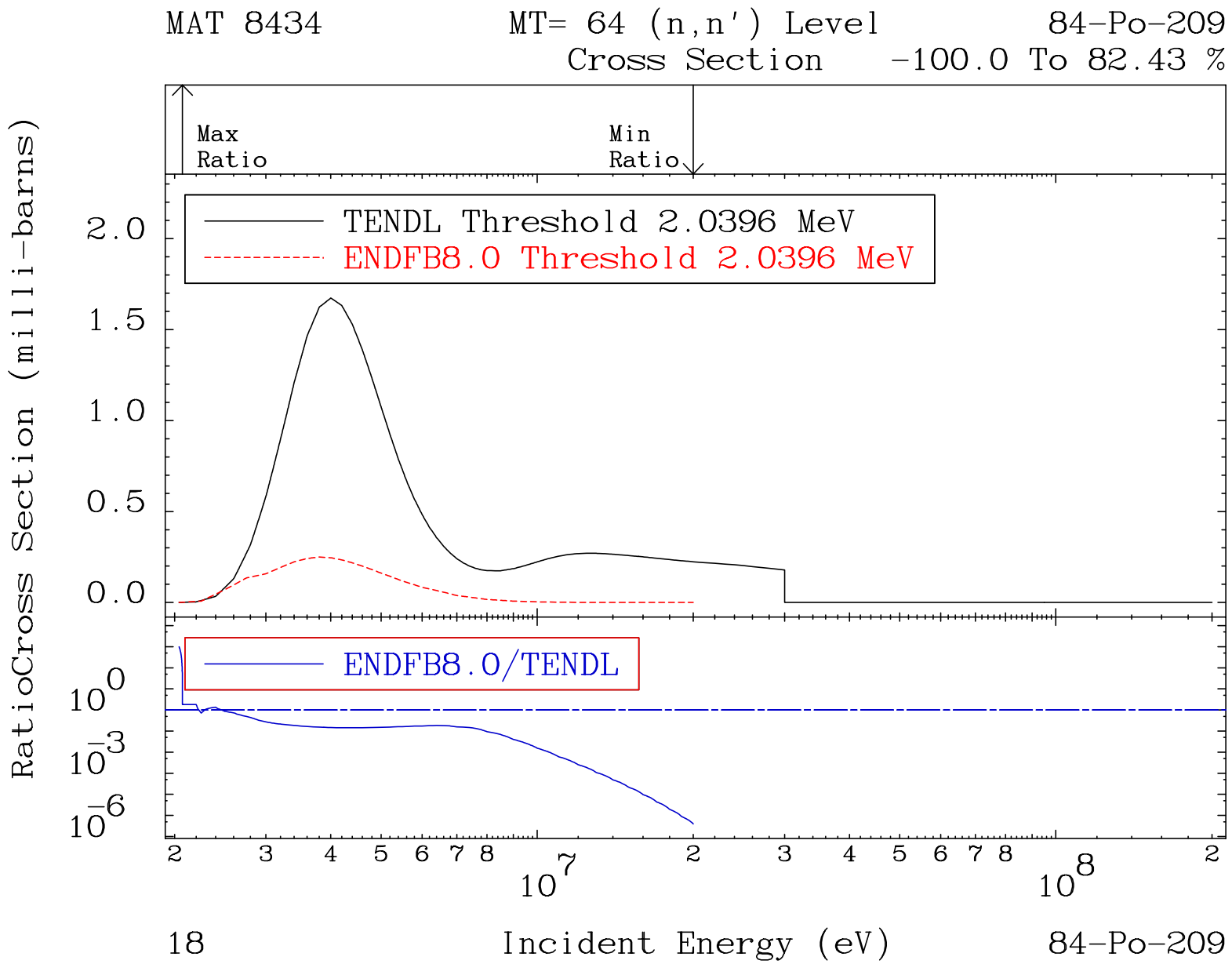

MAT 8434
MT= 59 (n,n') Level
84-Po-209
Cross Section -100.0 To 9.881 %
Max Ratio
Min Ratio
TENDL Threshold 1.5292 MeV
ENDFB8.0 Threshold 1.5292 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
80
60
40
20
0
10^0
10^-3
10^-6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
84-Po-209

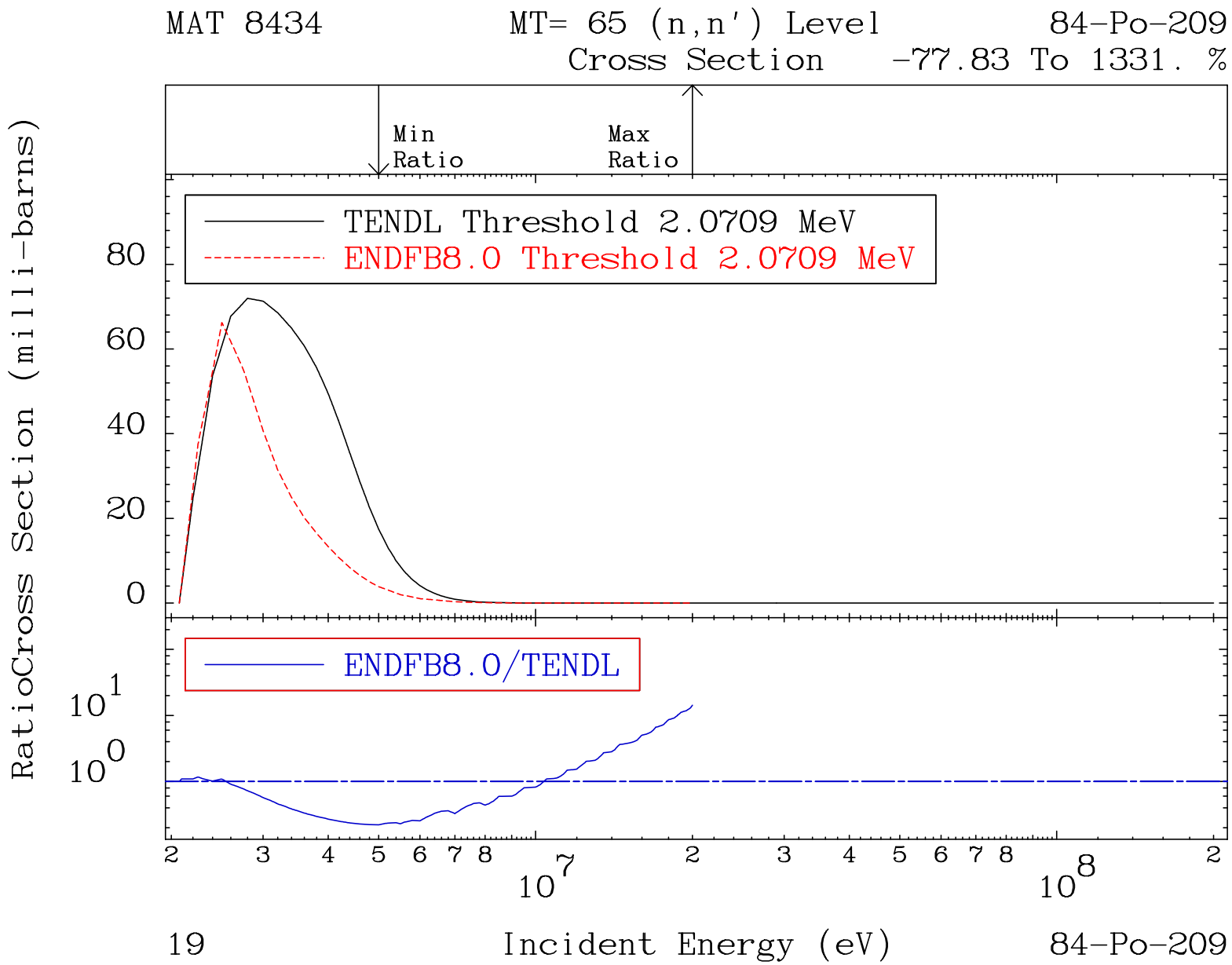

MAT 8434
MT= 60 (n,n') Level
84-Po-209
Cross Section -100.0 To 10.99 %
Max Ratio
Min Ratio
TENDL Threshold 1.7240 MeV
ENDFB8.0 Threshold 1.7240 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
10^0
10^-3
10^-6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
14
Incident Energy (eV)
84-Po-209

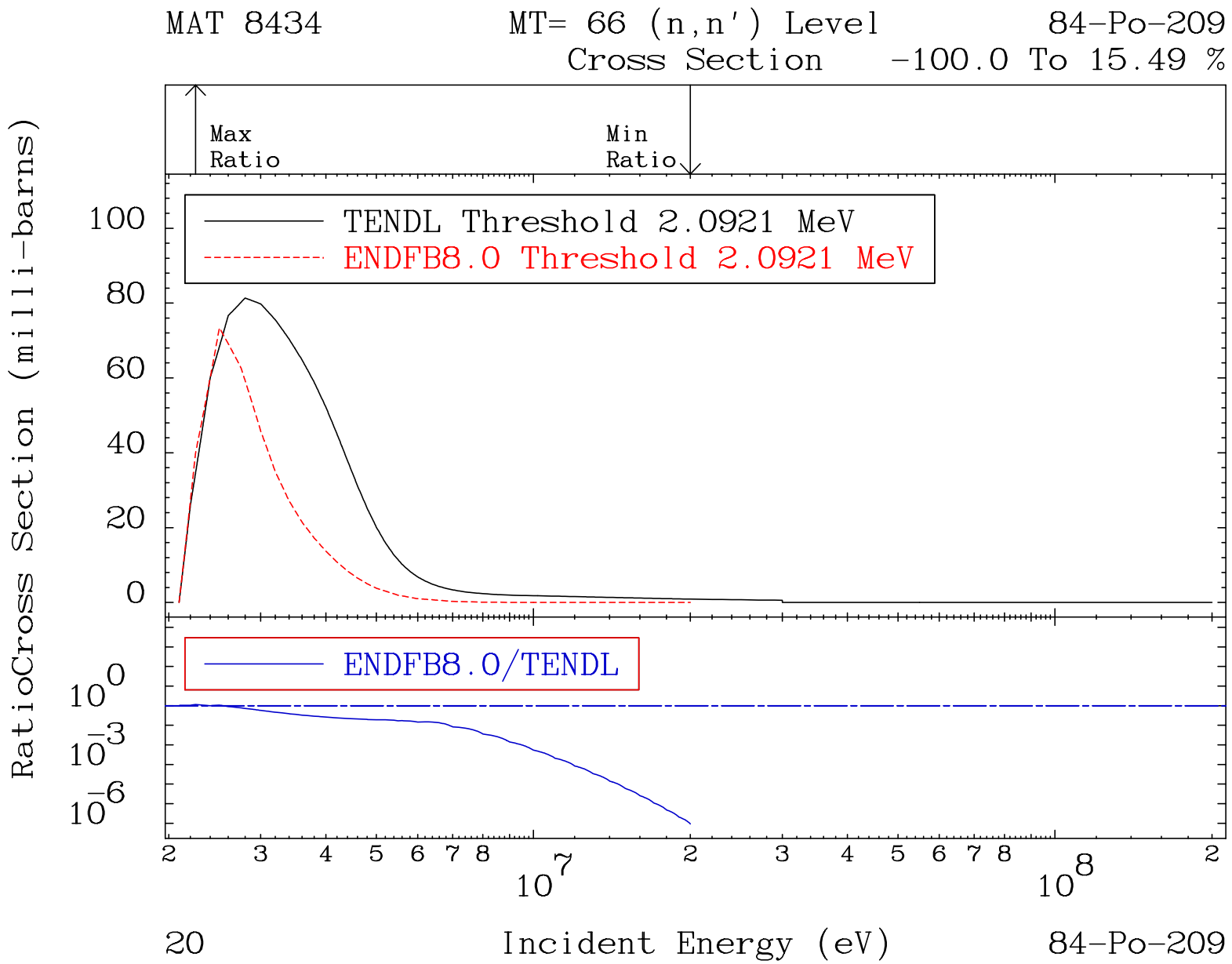

MAT 8434
MT= 61 (n,n') Level
84-Po-209
Cross Section -100.0 To 9.237 %
Max Ratio
Min Ratio
TENDL Threshold 1.7695 MeV
ENDFB8.0 Threshold 1.7695 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
25
20
15
10
5
0
10^{0}
10^{-3}
10^{-6}
2 3 4 5 6 7 8
10^{7}
2 3 4 5 6 7 8
10^{8}
2
15
Incident Energy (eV)
84-Po-209

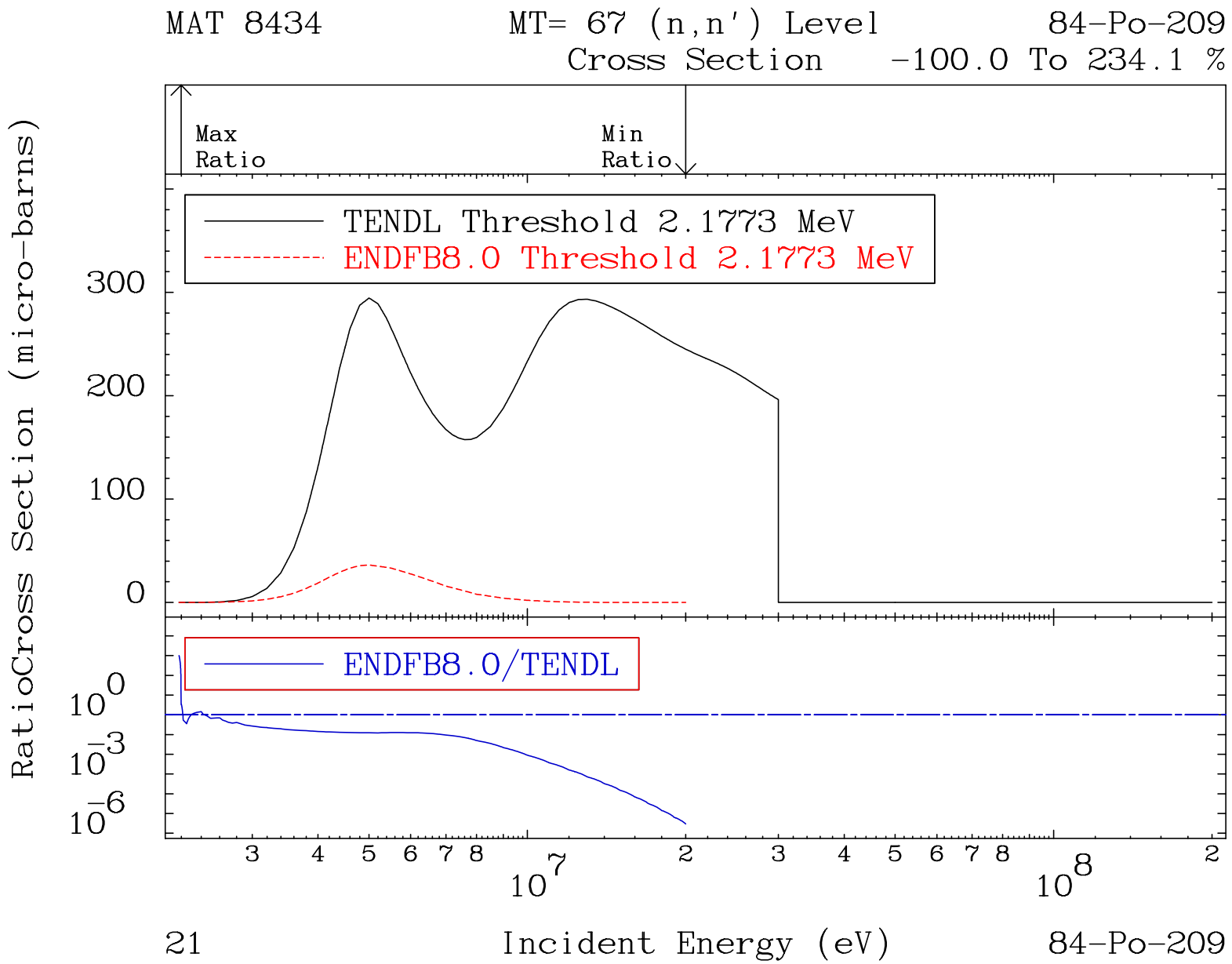

MAT 8434
MT= 62 (n,n') Level
84-Po-209
Cross Section -100.0 To 49.45 %
Max Ratio
Min Ratio
TENDL Threshold 1.9470 MeV
ENDFB8.0 Threshold 1.9470 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
16
84-Po-209

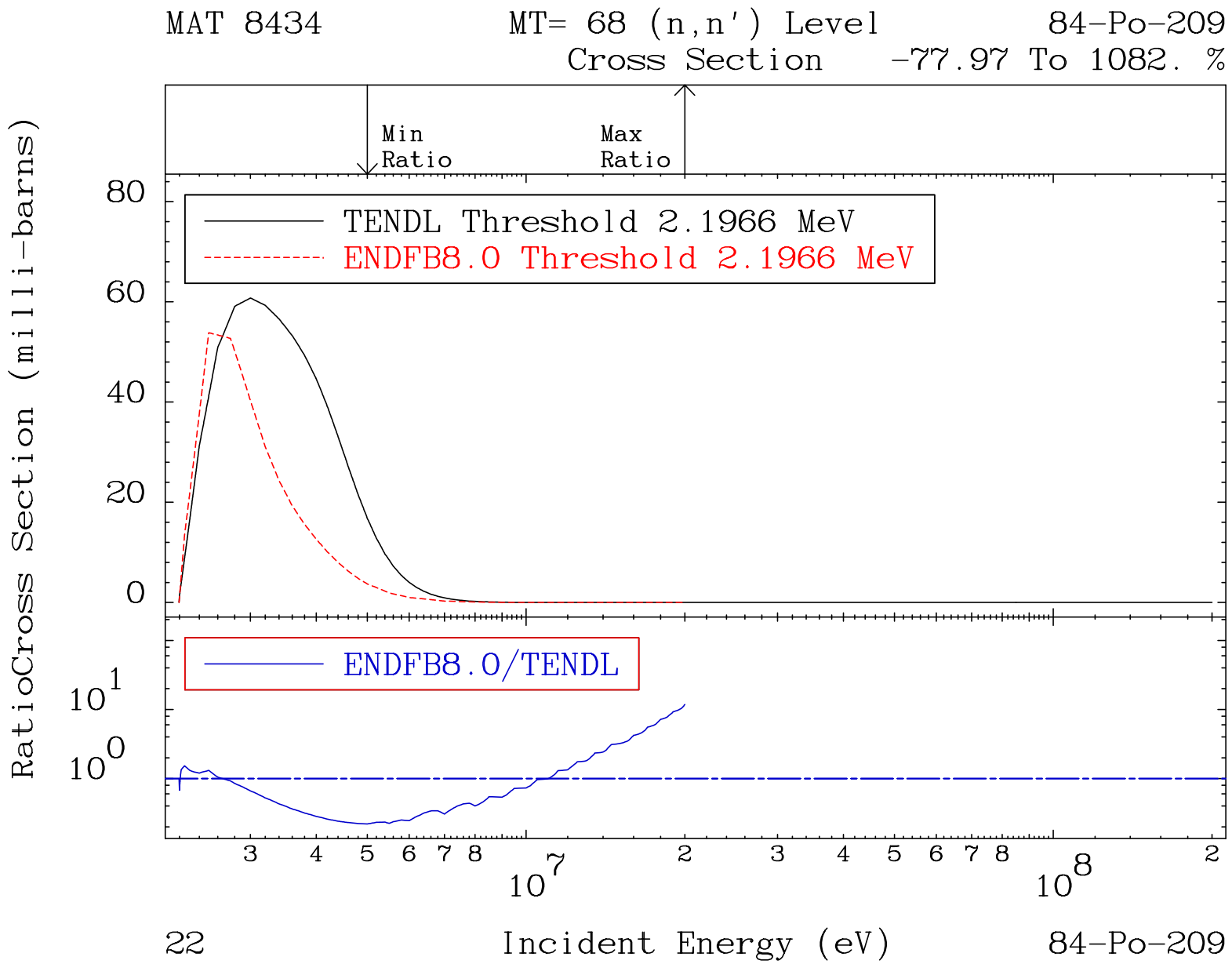

MAT 8434
MT= 63 (n,n') Level
84-Po-209
Cross Section -100.0 To 15.19 %
Max Ratio
Min Ratio
TENDL Threshold 2.0006 MeV
ENDFB8.0 Threshold 2.0006 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
10^0
10^-3
10^-6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
17
Incident Energy (eV)
84-Po-209

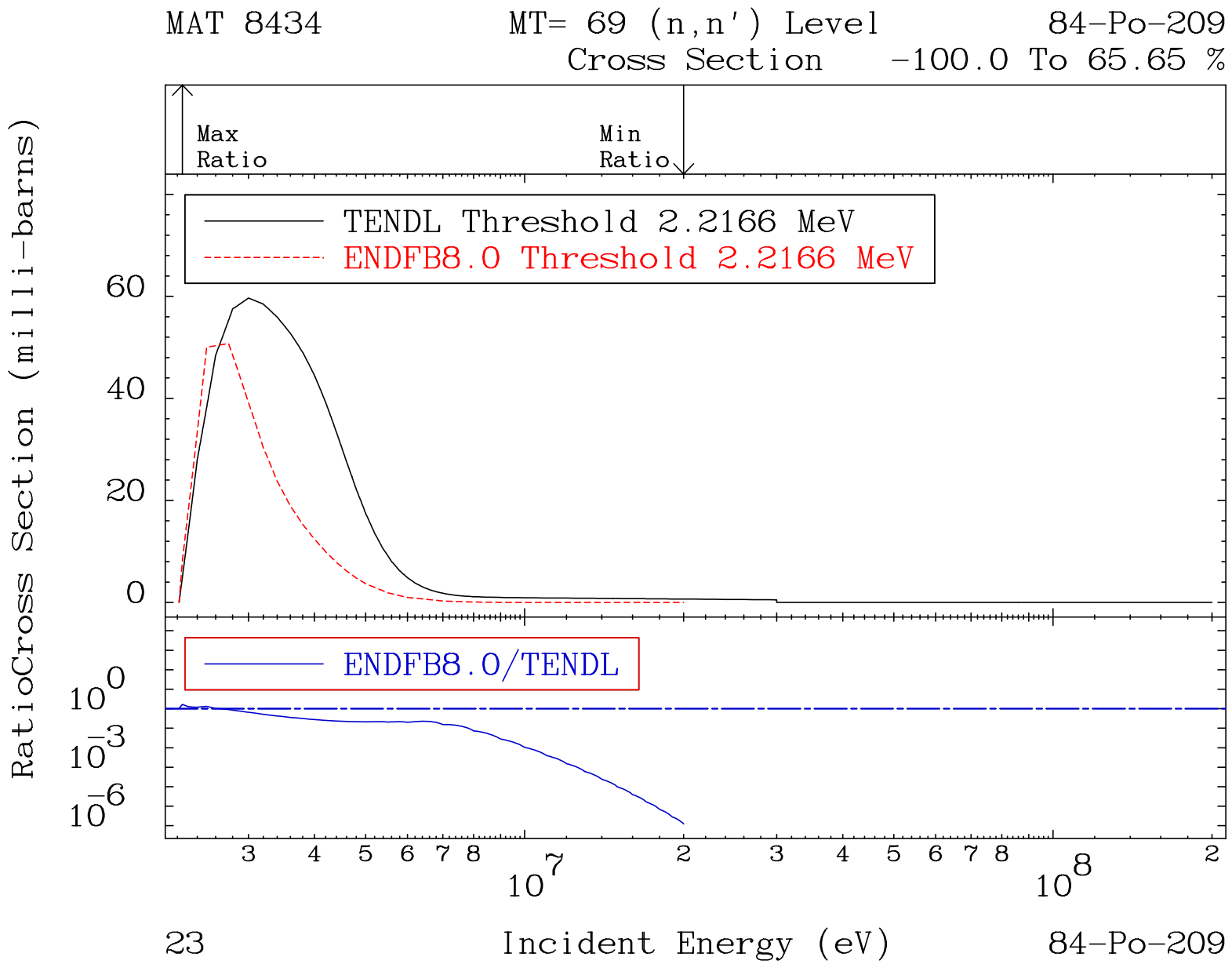

MAT 8434
MT= 64 (n,n') Level
84-Po-209
Cross Section -100.0 To 82.43 %
Max Ratio
Min Ratio
TENDL Threshold 2.0396 MeV
ENDFB8.0 Threshold 2.0396 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
2.0
1.5
1.0
0.5
0.0
10^0
10^-3
10^-6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
18
Incident Energy (eV)
84-Po-209

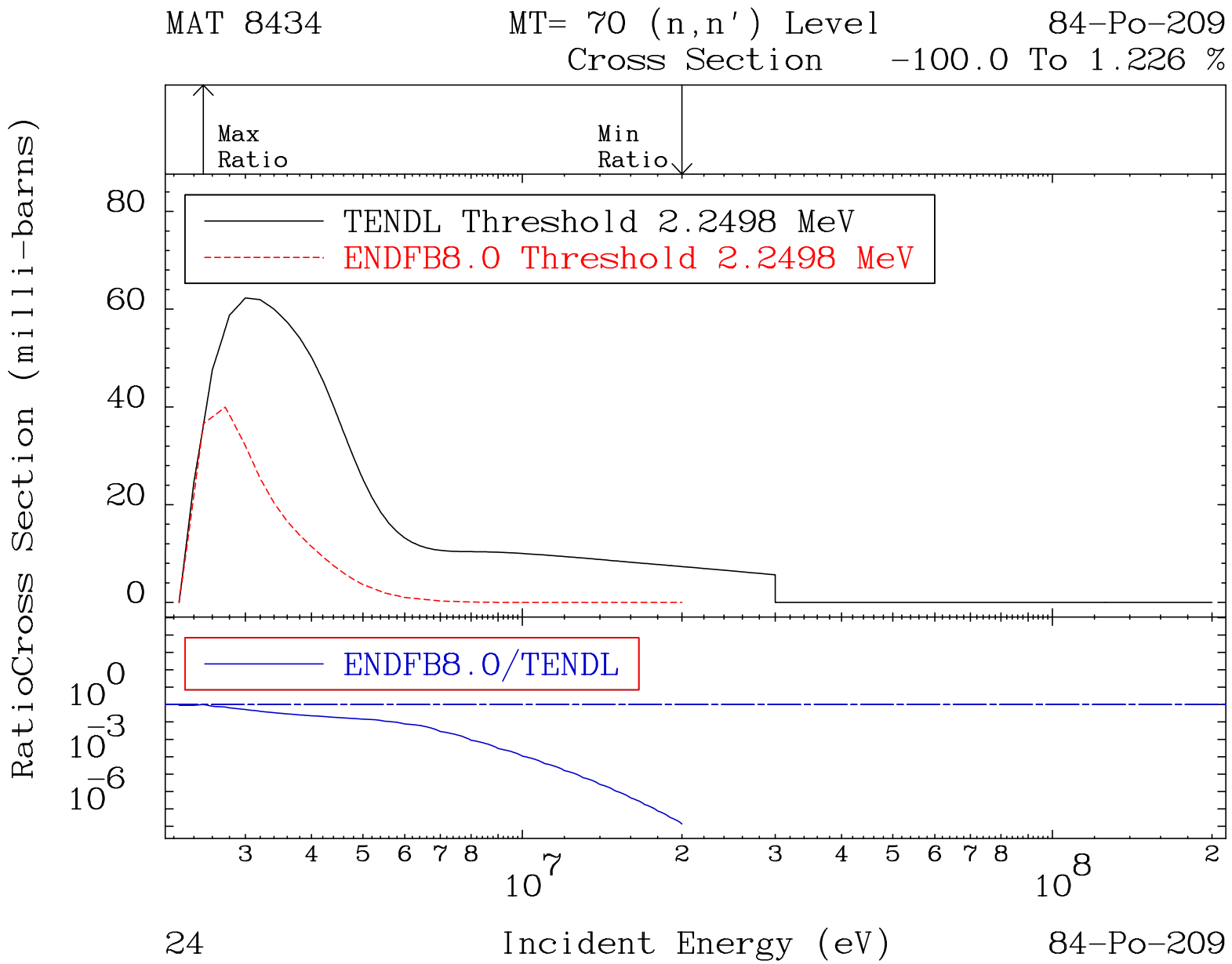

MAT 8434
MT= 65 (n,n') Level
84-Po-209
Cross Section -77.83 To 1331. %
Min Ratio
Max Ratio
TENDL Threshold 2.0709 MeV
ENDFB8.0 Threshold 2.0709 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
19
84-Po-209

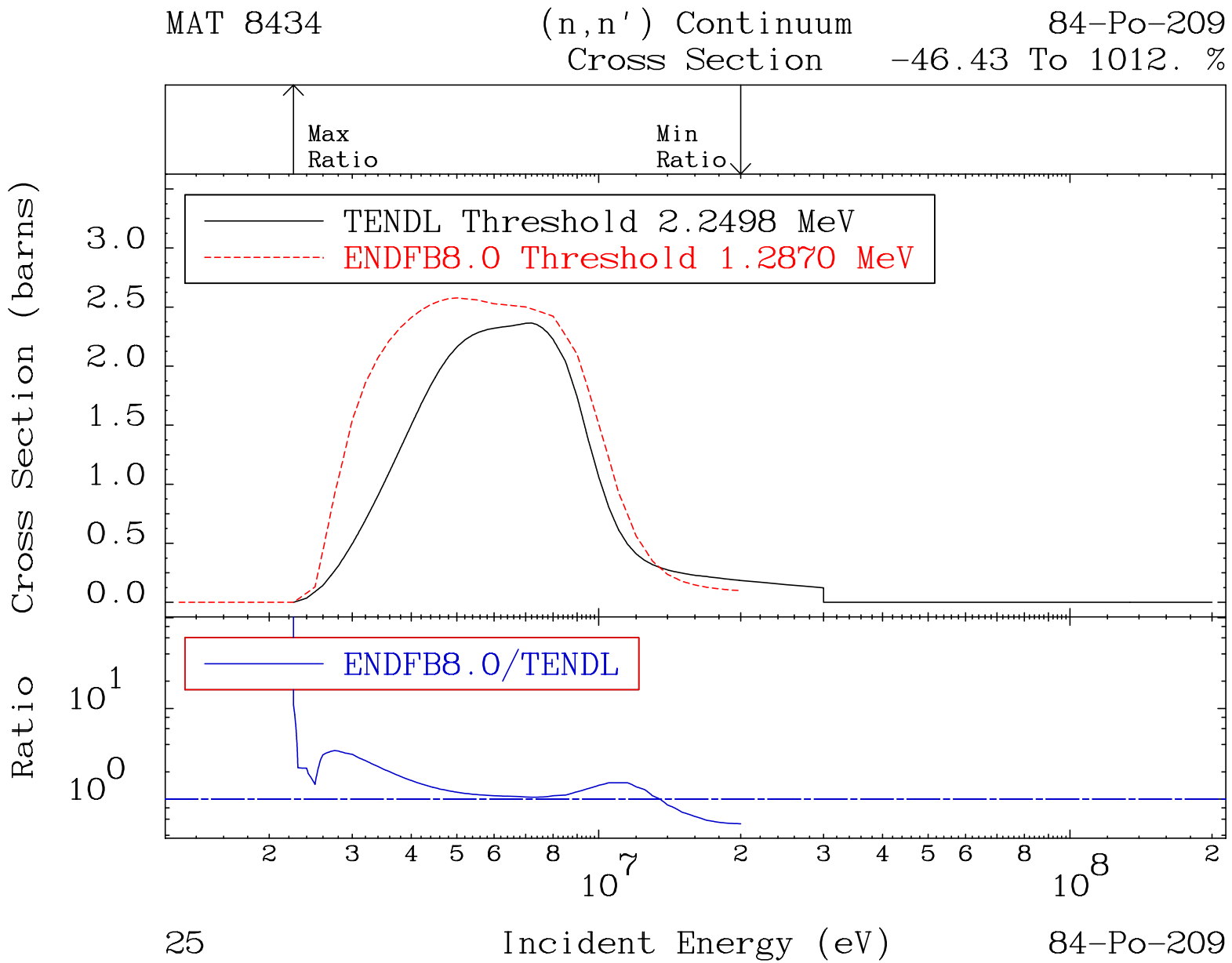

MAT 8434
MT= 66 (n,n') Level
84-Po-209
Cross Section -100.0 To 15.49 %
Max Ratio
Min Ratio
TENDL Threshold 2.0921 MeV
ENDFB8.0 Threshold 2.0921 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
20
84-Po-209

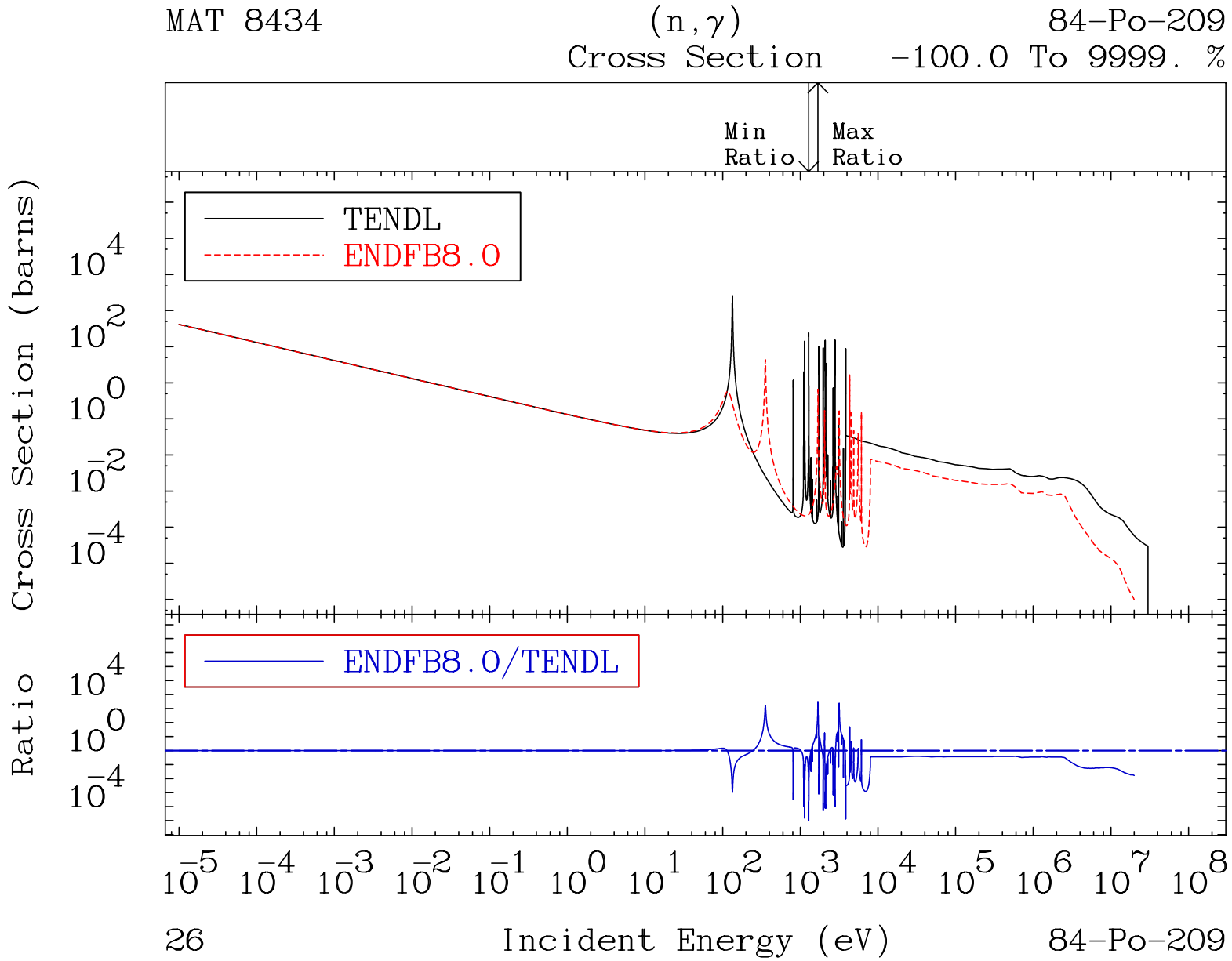

MAT 8434
MT= 67 (n,n') Level
84-Po-209
Cross Section -100.0 To 234.1 %
Max Ratio
Min Ratio
TENDL Threshold 2.1773 MeV
ENDFB8.0 Threshold 2.1773 MeV
300
200
100
0
ENDFB8.0/TENDL
10^0
10^-3
10^-6
3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
RatioCross Section (micro-barns)
21
Incident Energy (eV)
84-Po-209

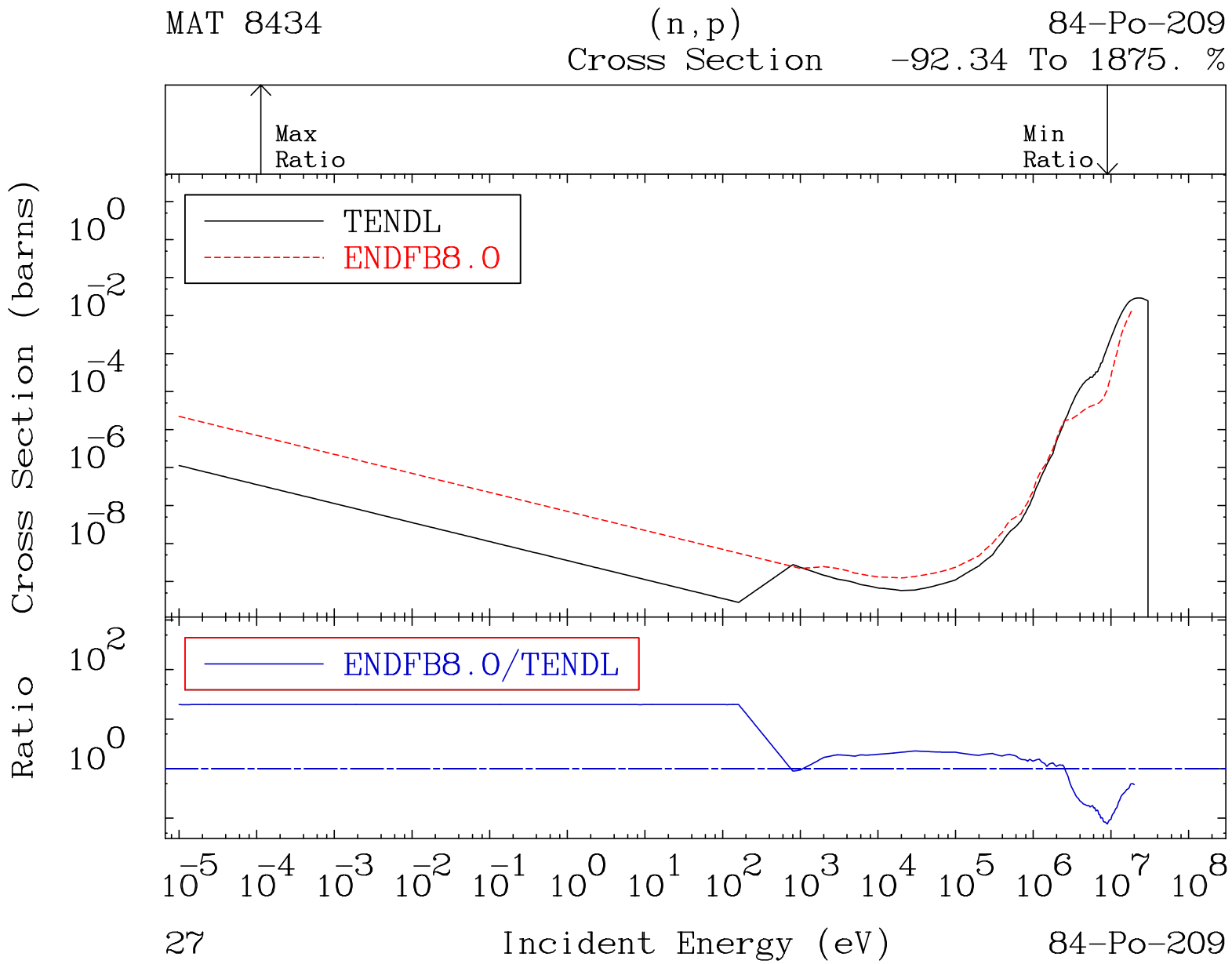

MAT 8434
MT= 68 (n,n') Level
84-Po-209
Cross Section -77.97 To 1082. %
Min Ratio
Max Ratio
TENDL Threshold 2.1966 MeV
ENDFB8.0 Threshold 2.1966 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
22
84-Po-209

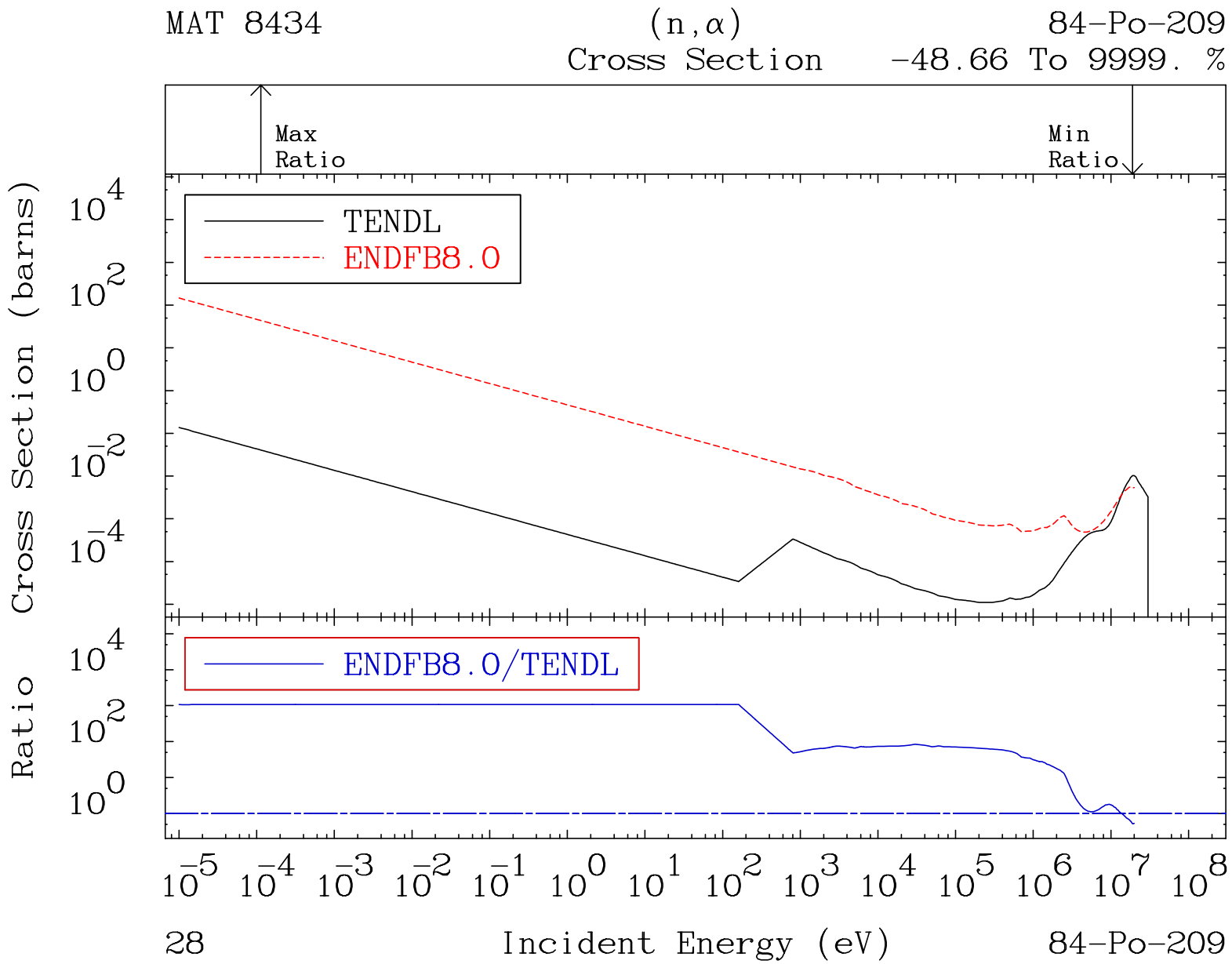

MAT 8434
MT= 69 (n,n') Level
84-Po-209
Cross Section
-100.0 To 65.65 %
Max Ratio
Min Ratio
TENDL Threshold 2.2166 MeV
ENDFB8.0 Threshold 2.2166 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
23
84-Po-209

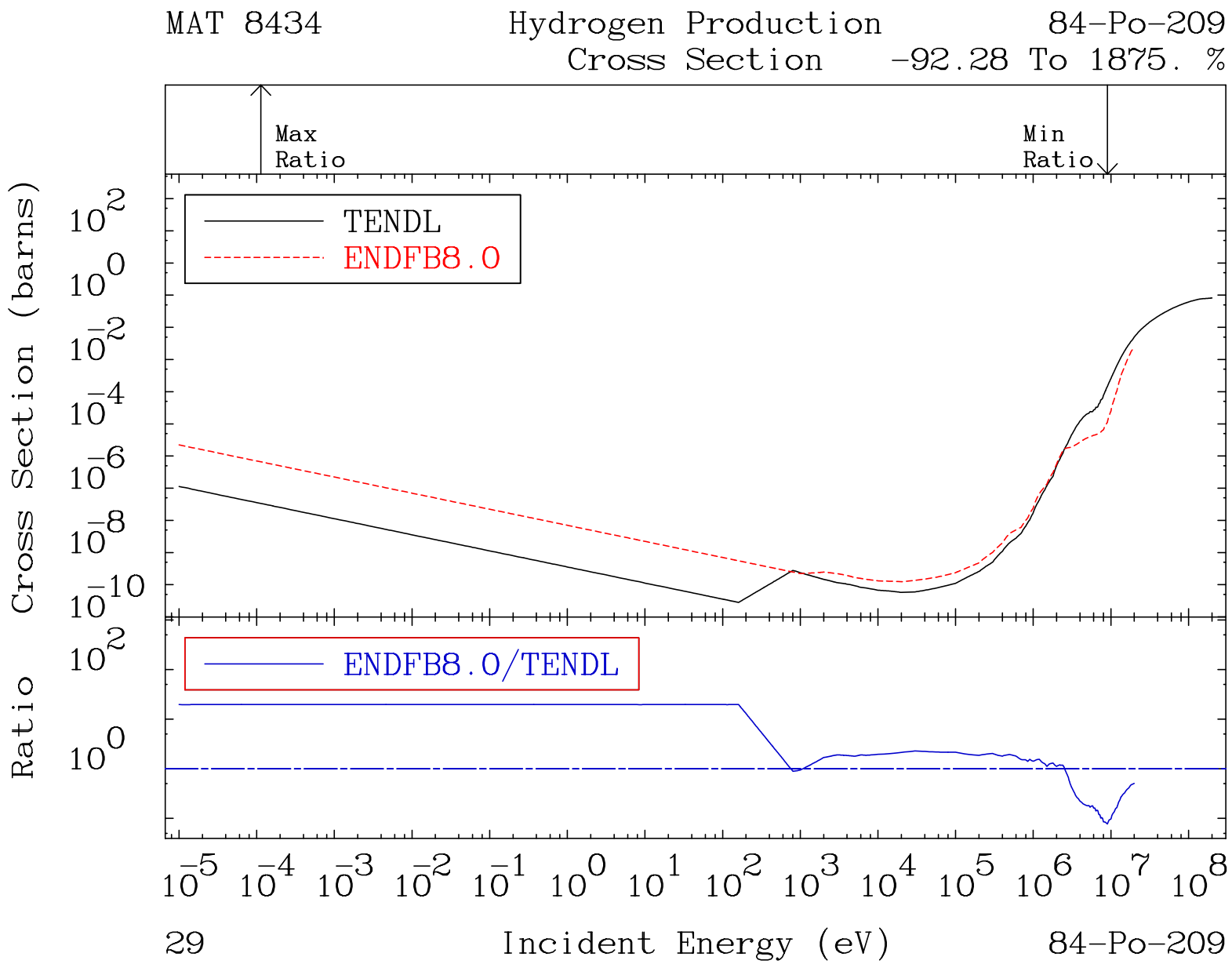

MAT 8434
MT= 70 (n,n') Level
84-Po-209
Cross Section -100.0 To 1.226 %
Max Ratio
Min Ratio
TENDL Threshold 2.2498 MeV
ENDFB8.0 Threshold 2.2498 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
24
84-Po-209

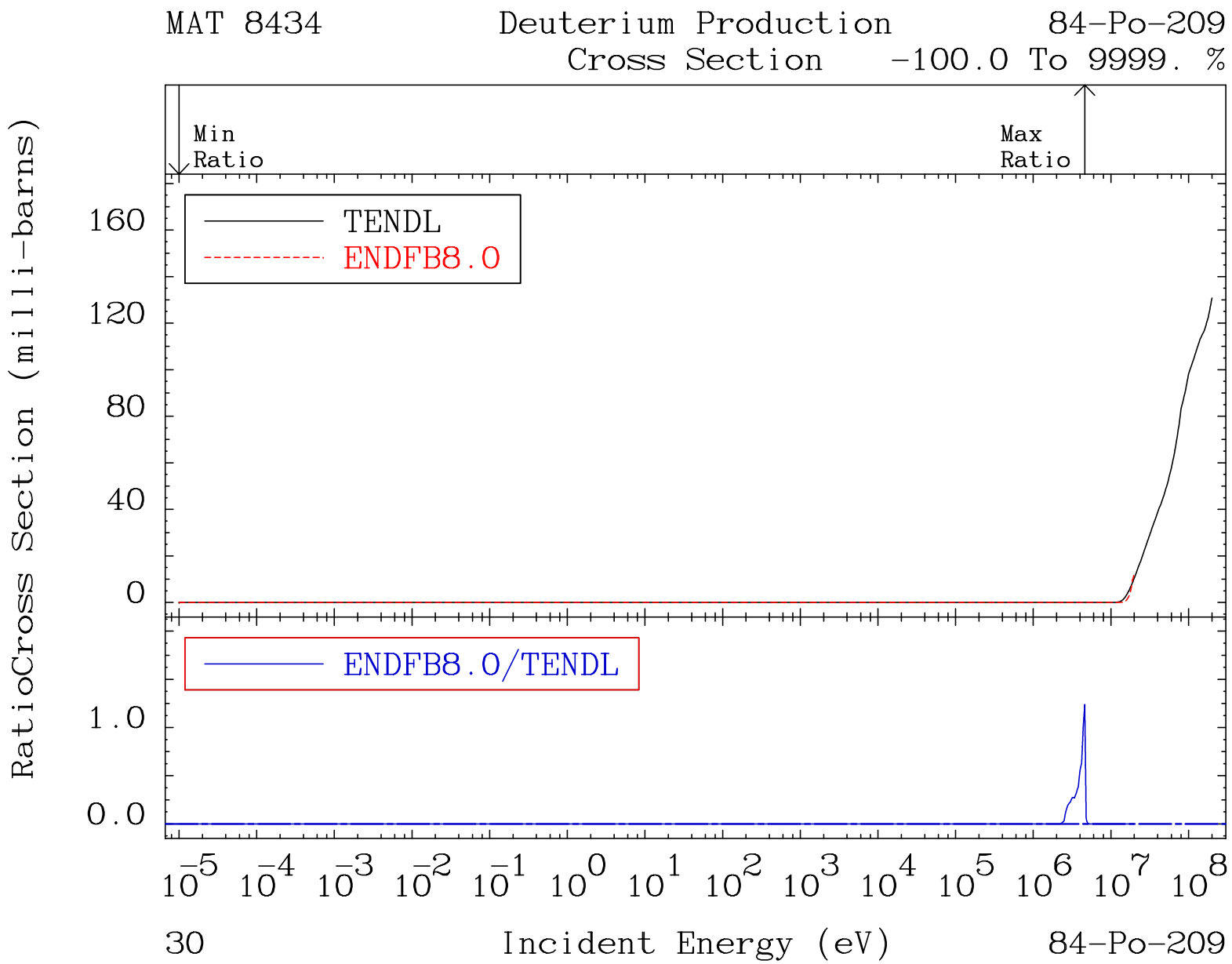

MAT 8434
(n,n') Continuum
Cross Section
84-Po-209
-46.43 To 1012. %
Max Ratio
Min Ratio
TENDL Threshold 2.2498 MeV
ENDFB8.0 Threshold 1.2870 MeV
Cross Section (barns)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
10^1
10^0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
25
Incident Energy (eV)
84-Po-209

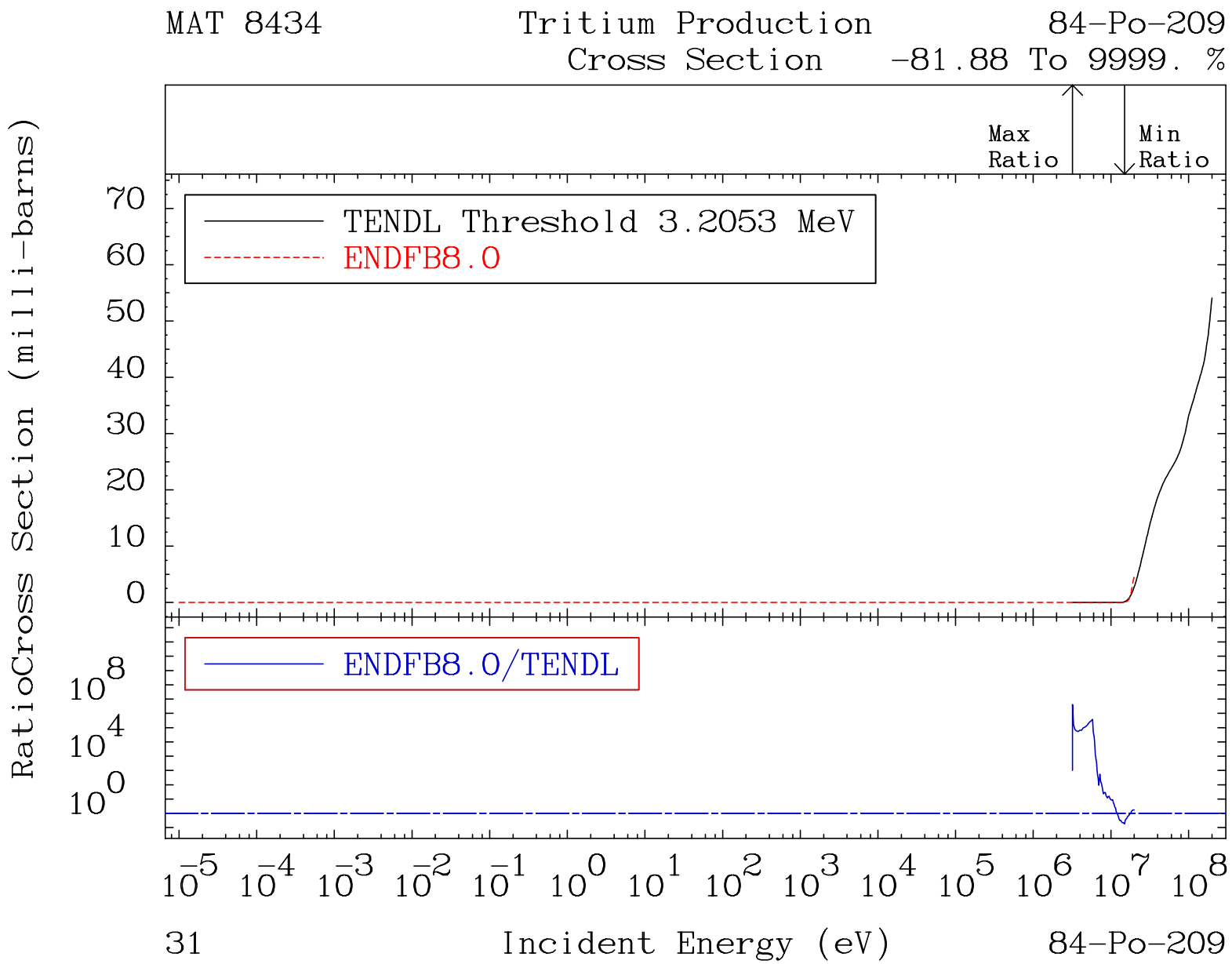

MAT 8434
(n,γ)
Cross Section
84-Po-209
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
26
84-Po-209

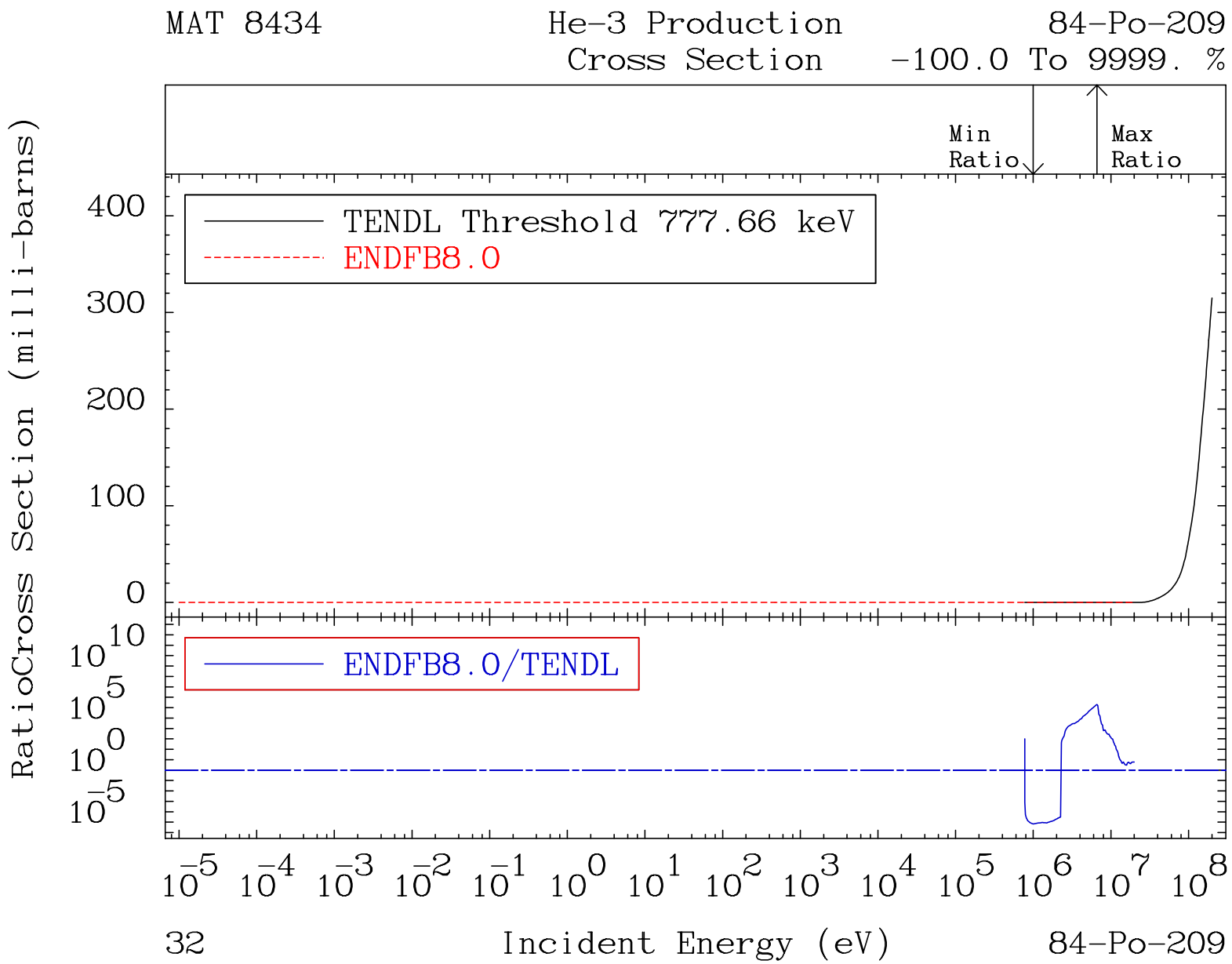

MAT 8434
(n,p)
84-Po-209
Cross Section
-92.34 To 1875. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
27
84-Po-209

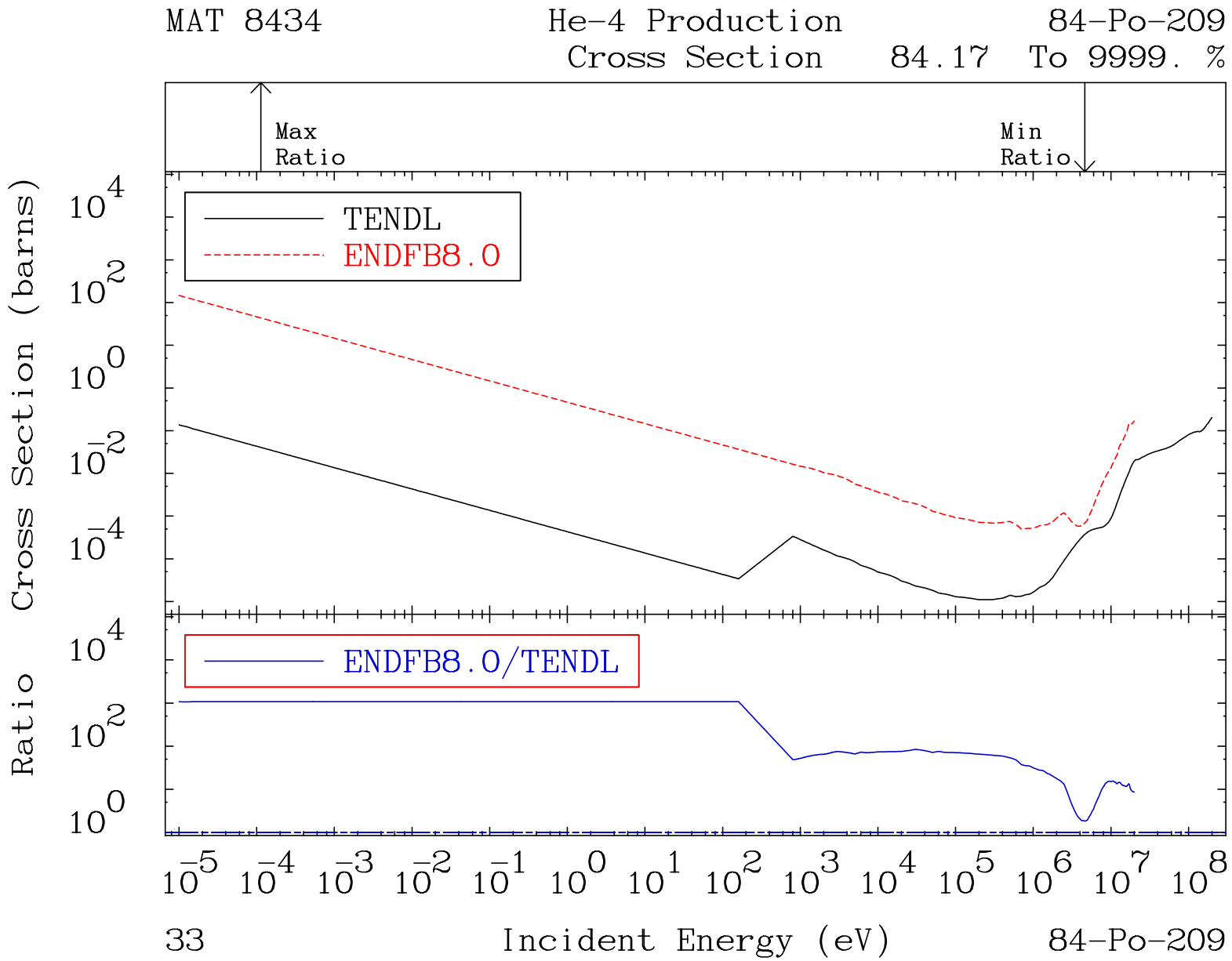

MAT 8434
(n,α)
84-Po-209
Cross Section
-48.66 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
28
84-Po-209

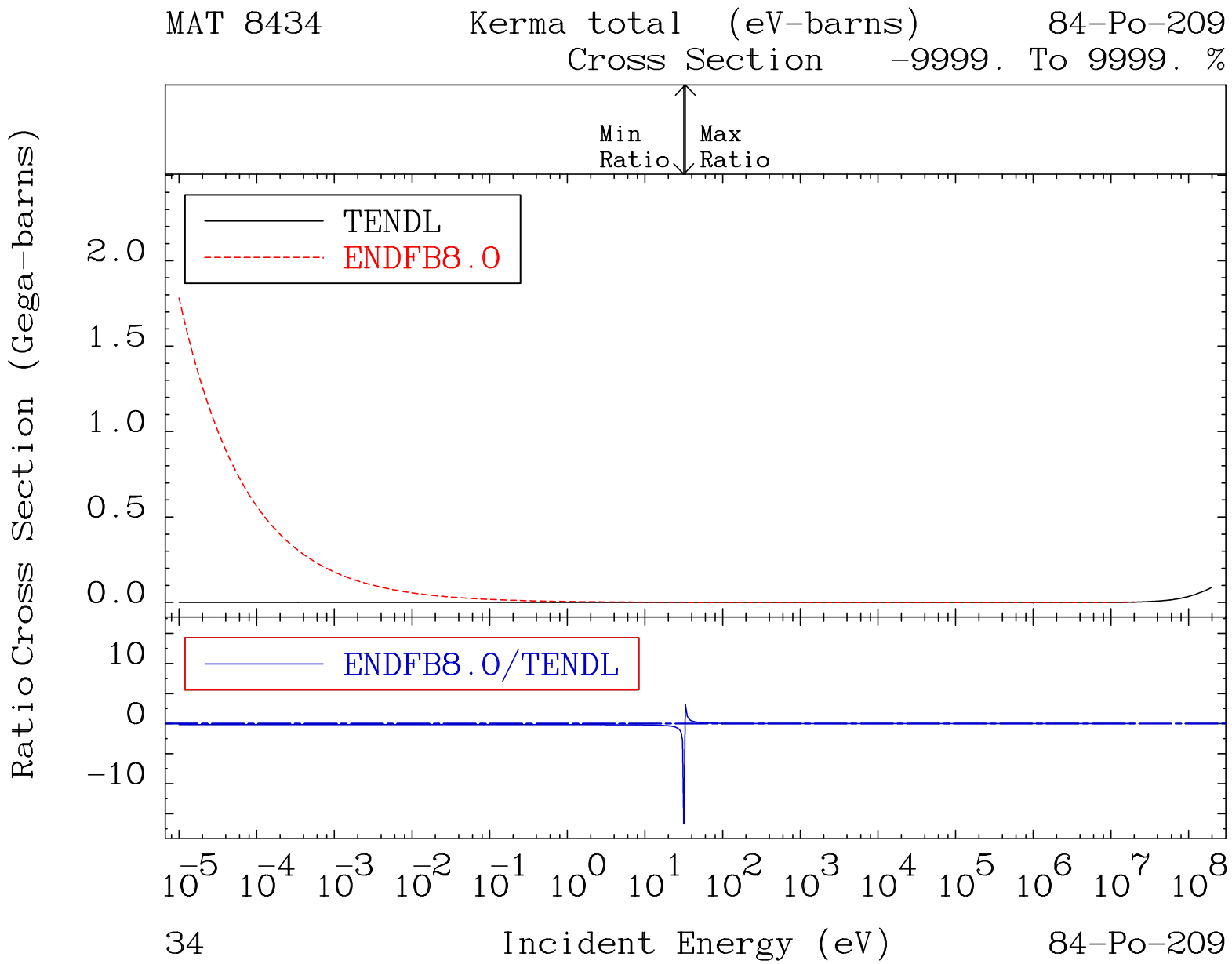

MAT 8434
Hydrogen Production
84-Po-209
Cross Section
-92.28 To 1875. %
Max
Ratio
Min
Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
29
84-Po-209

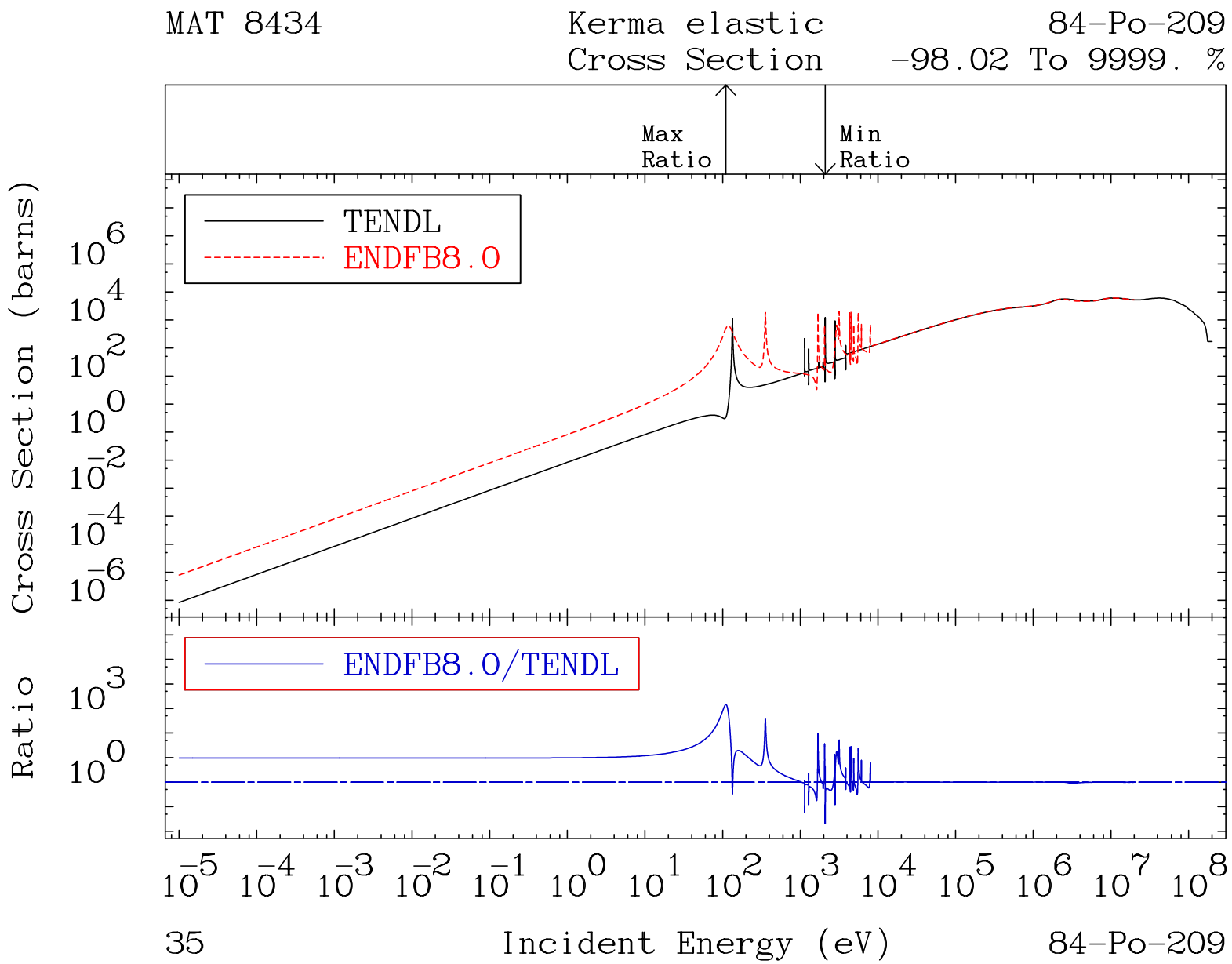

MAT 8434
Deuterium Production
84-Po-209
Cross Section
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
160
120
80
40
0
1.0
0.0
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
Incident Energy (eV)
30
84-Po-209

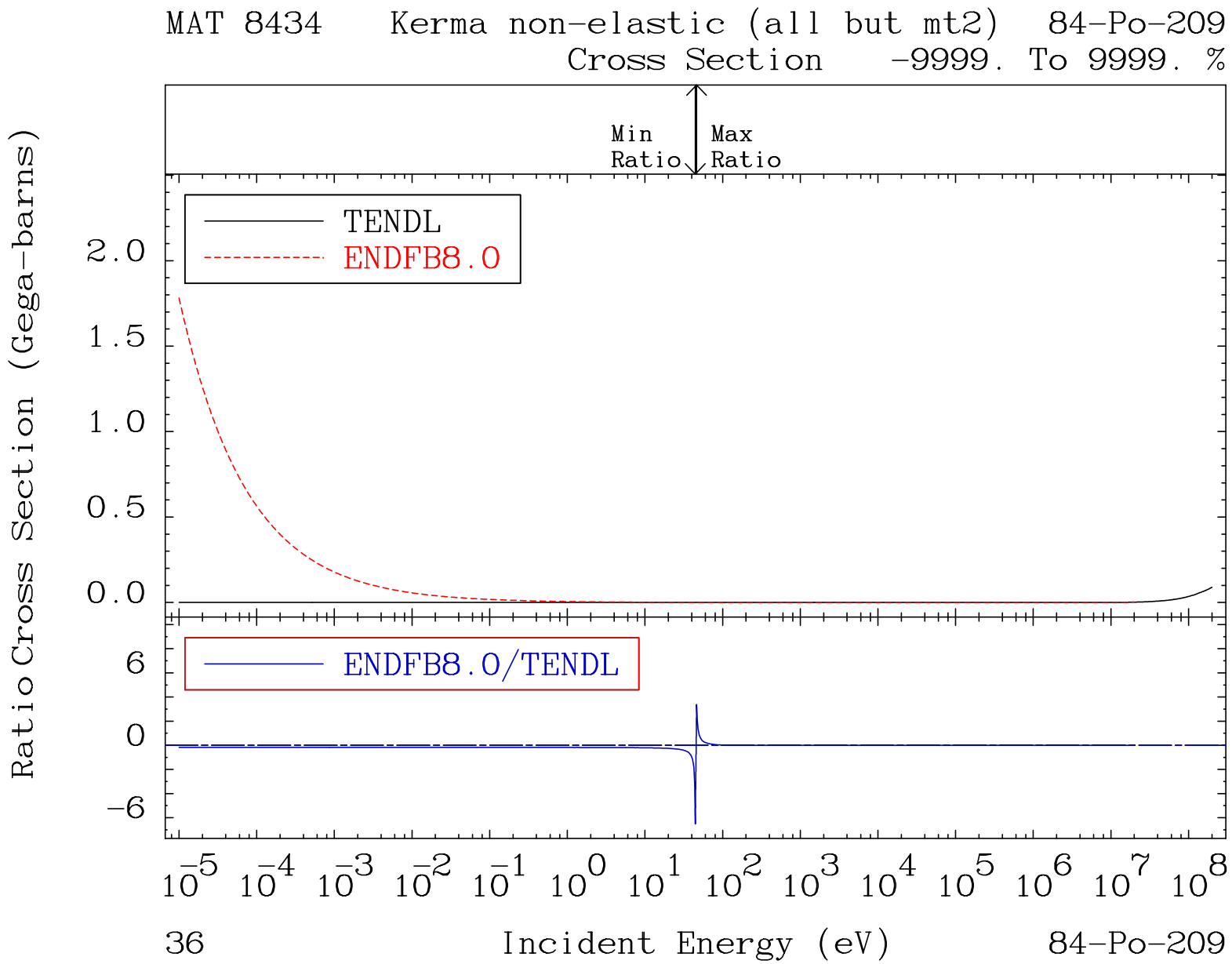

MAT 8434
Tritium Production
84-Po-209
Cross Section
-81.88 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 3.2053 MeV
ENDFB8.0
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
70
60
50
40
30
20
10
0
10^8
10^4
10^0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
31
Incident Energy (eV)
84-Po-209

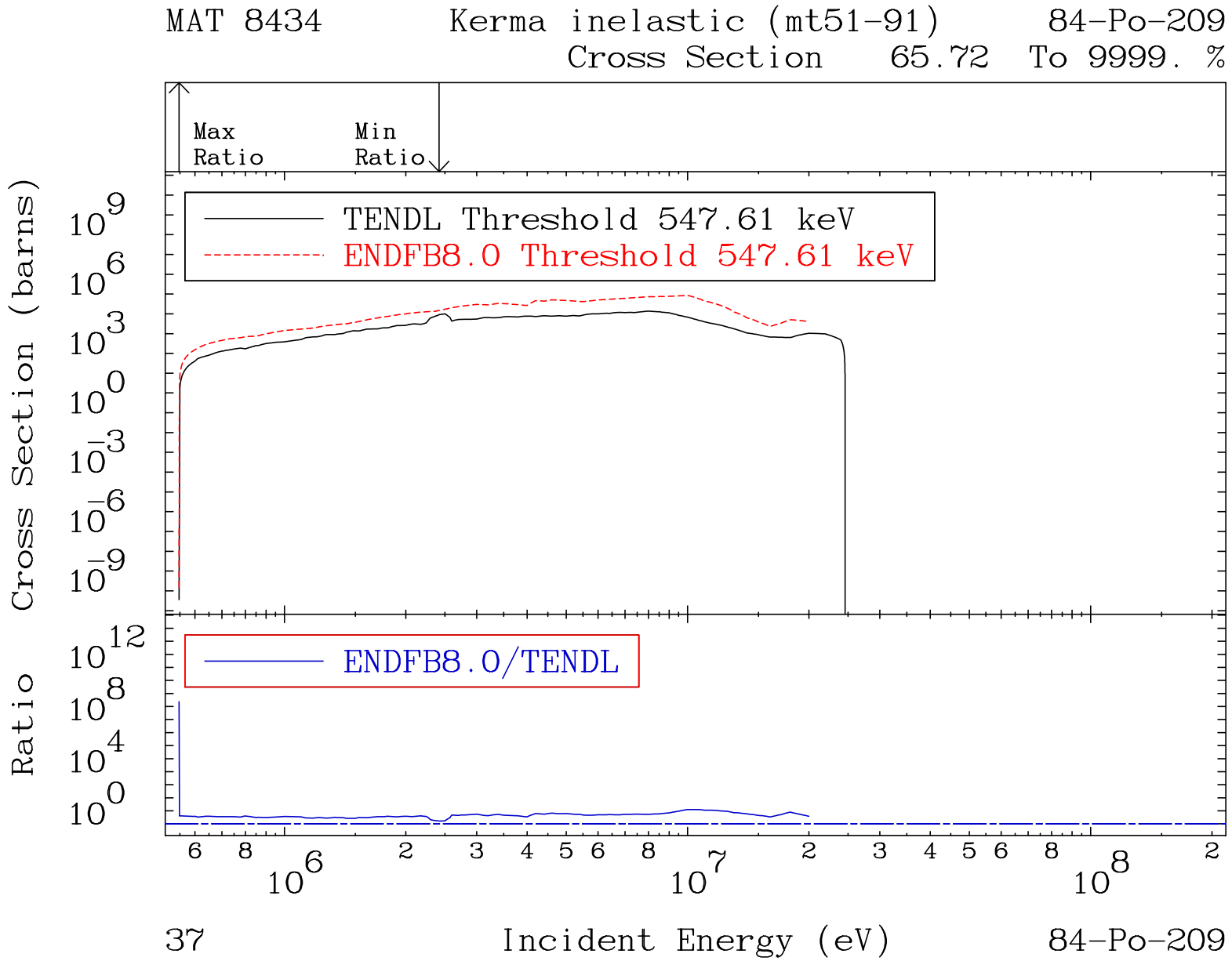

MAT 8434
He-3 Production
Cross Section
84-Po-209
-100.0 To 9999. %
Min Ratio
Max Ratio
TENDL Threshold 777.66 keV
ENDFB8.0
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
400
300
200
100
0
10^10
10^5
10^0
10^-5
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
32
Incident Energy (eV)
84-Po-209

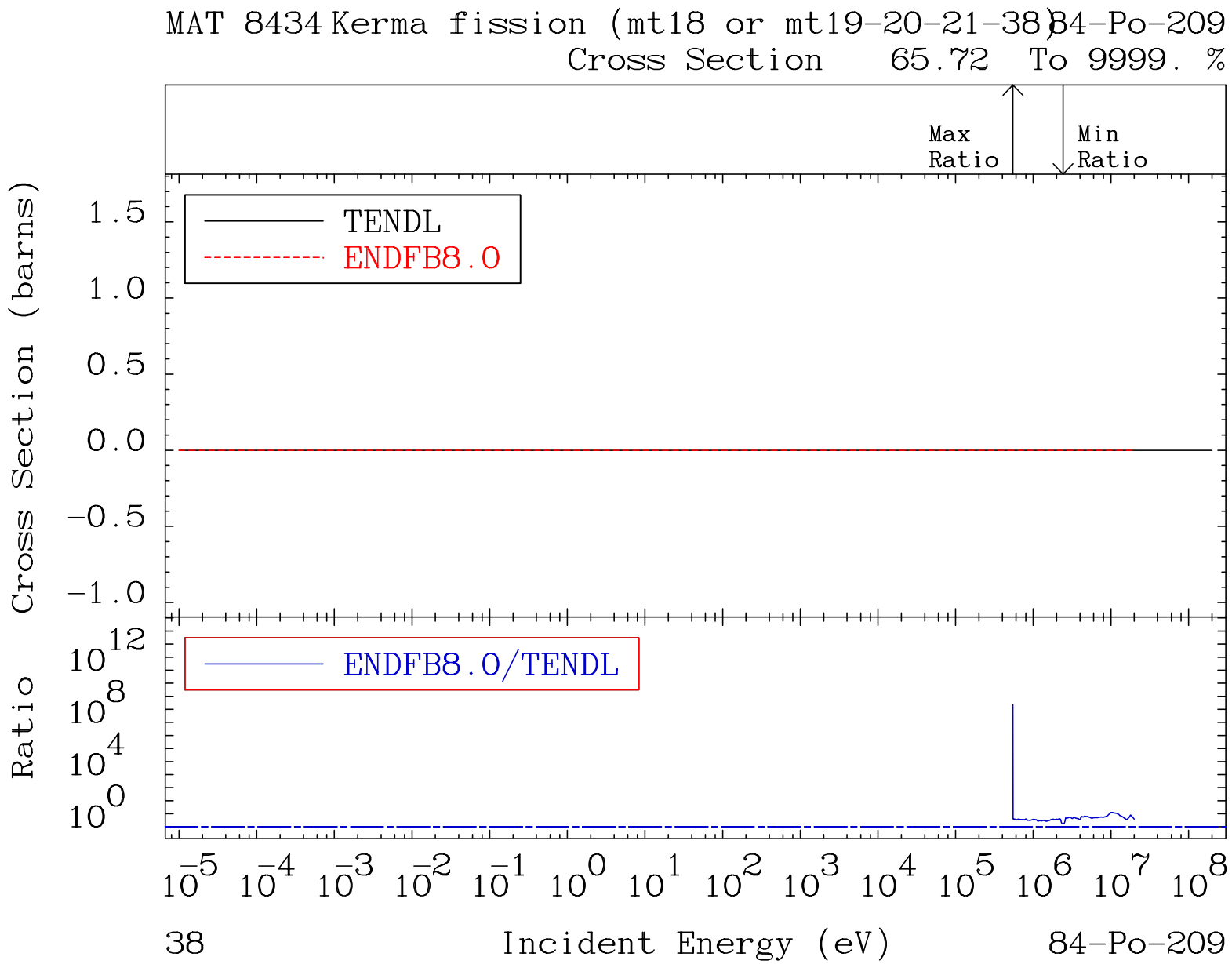

MAT 8434
He-4 Production
Cross Section
84-Po-209
84.17 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
33
84-Po-209

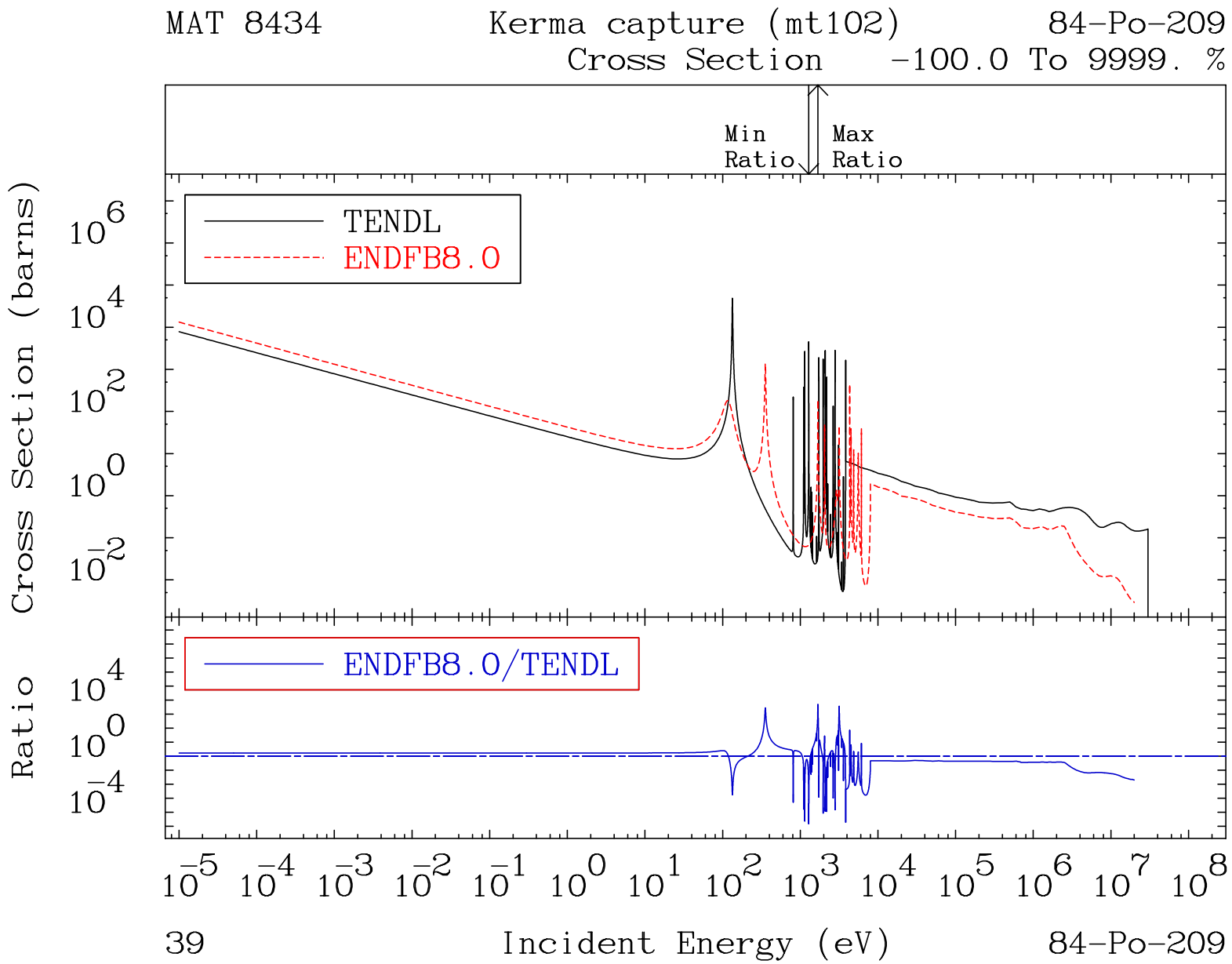

MAT 8434
Kerma total (eV-barns)
84-Po-209
Cross Section -9999. To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
10
0
-10
Ratio Cross Section (Gega-barns)
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
34
Incident Energy (eV)
84-Po-209

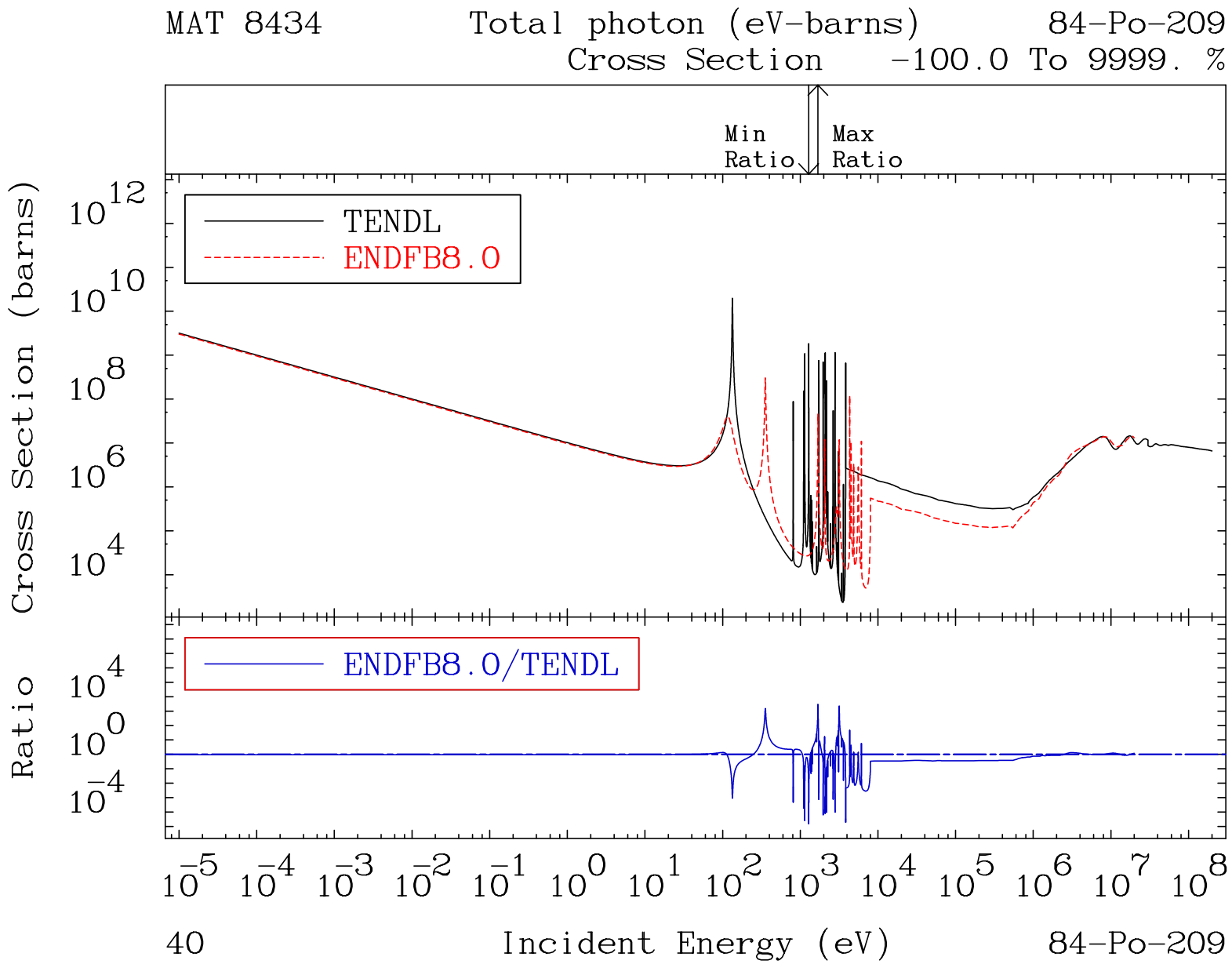

MAT 8434
Kerma elastic
Cross Section
84-Po-209
-98.02 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
35
84-Po-209

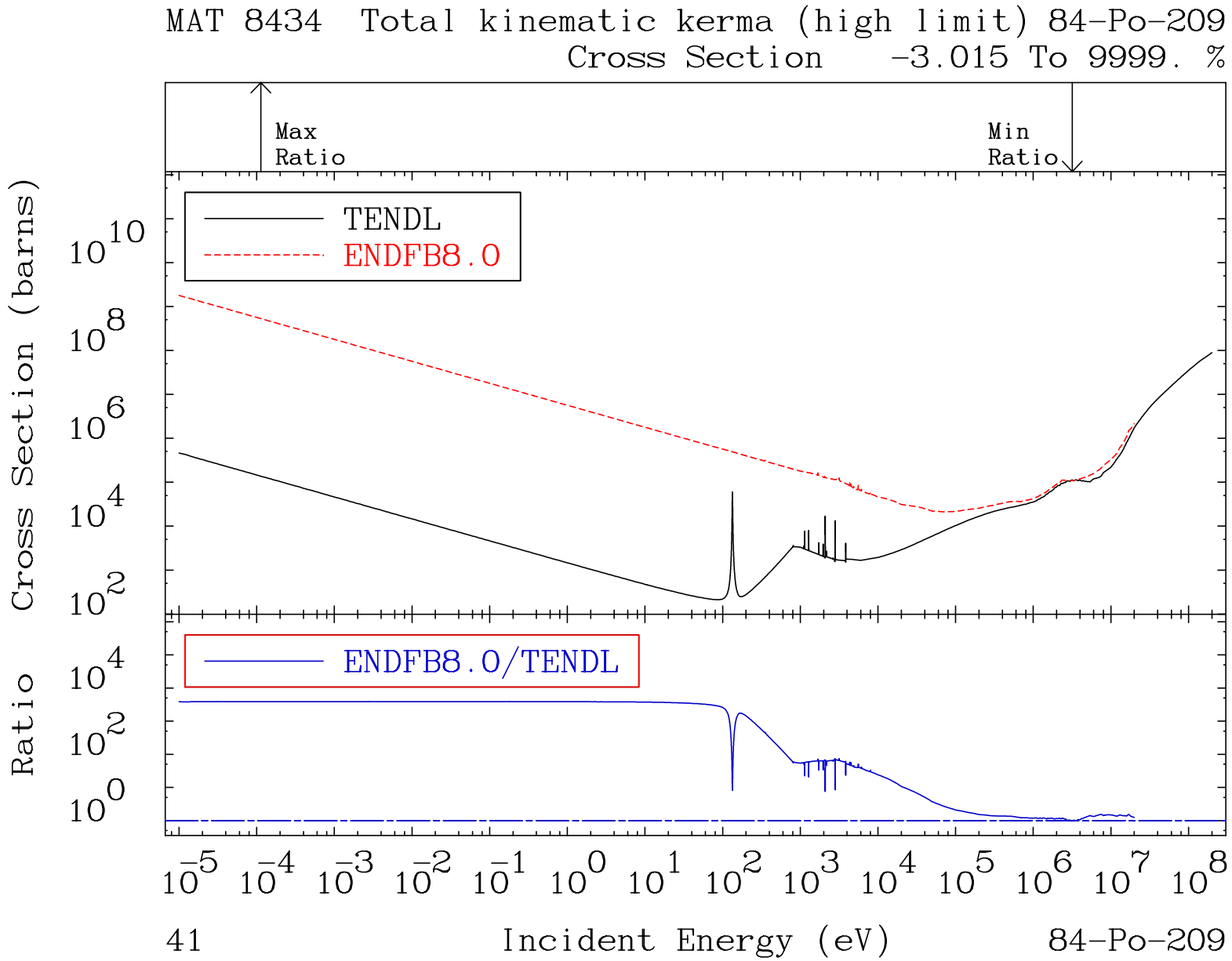

MAT 8434 Kerma non-elastic (all but mt2) 84-Po-209
Cross Section -9999. To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
6
0
-6
Ratio Cross Section (Giga-barns)
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
36
Incident Energy (eV)
84-Po-209

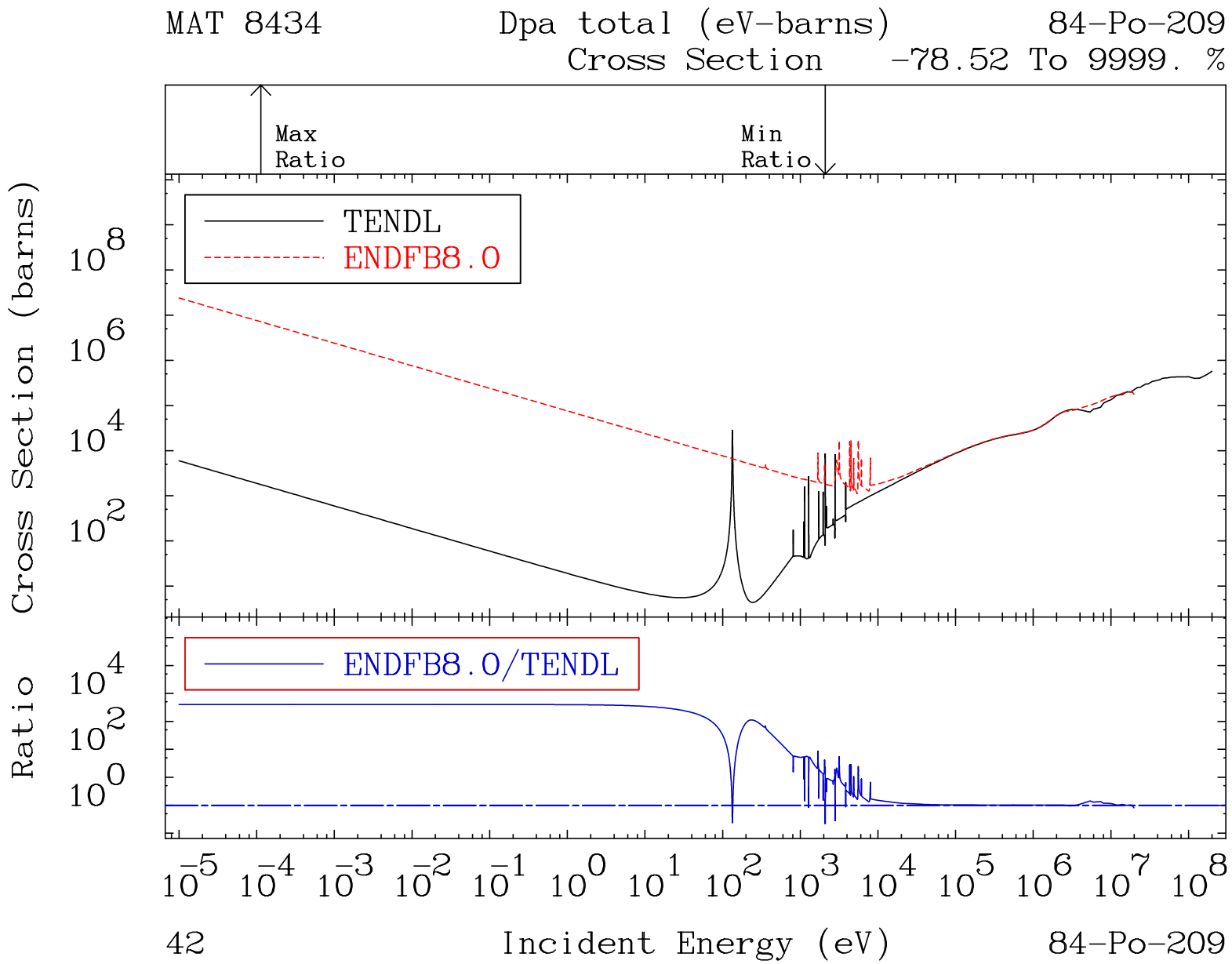

MAT 8434
Kerma inelastic (mt51-91)
84-Po-209
Cross Section 65.72 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 547.61 keV
ENDFB8.0 Threshold 547.61 keV
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
37
84-Po-209

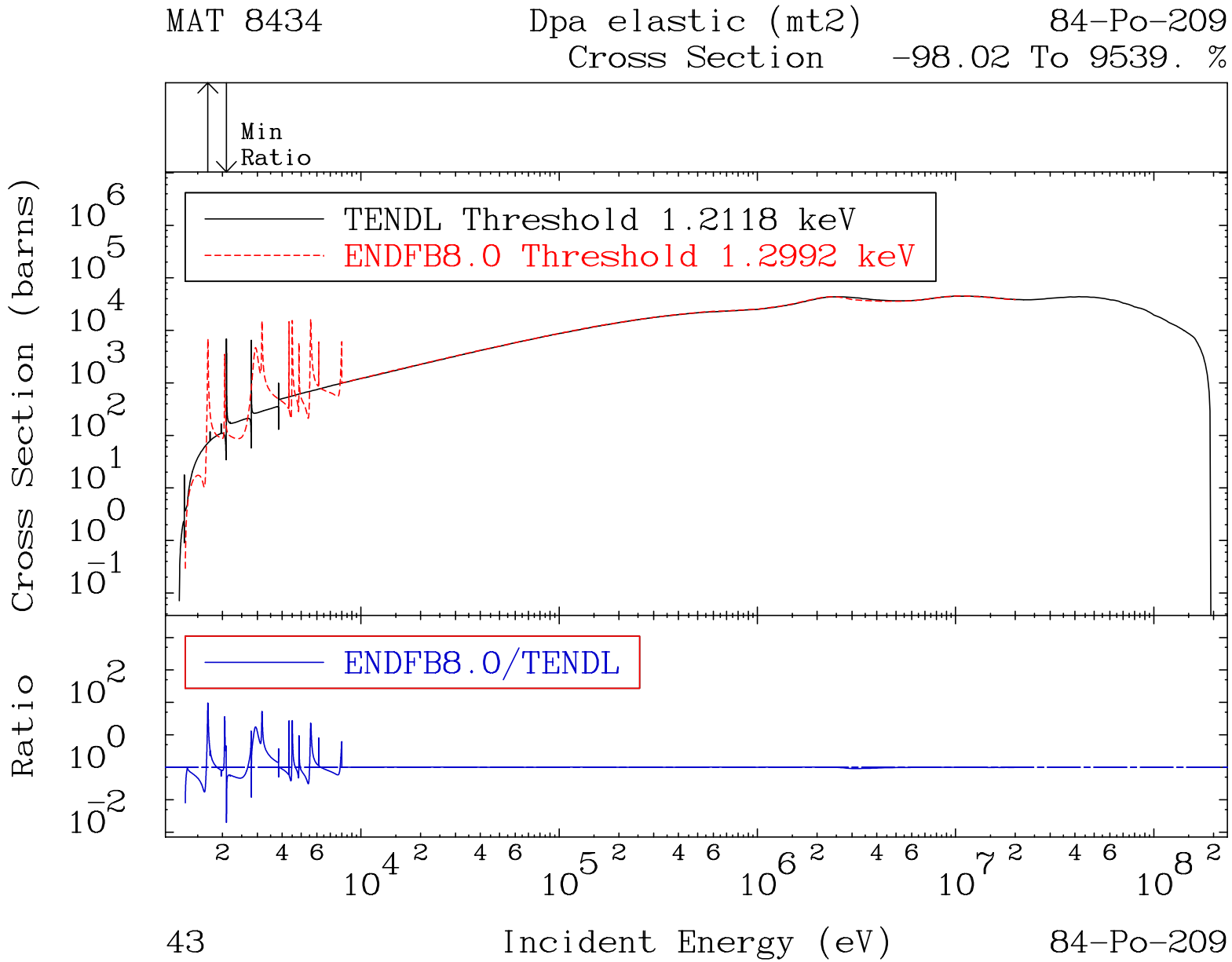

MAT 8434 Kerma fission (mt18 or mt19-20-21-38) 84-Po-209
Cross Section 65.72 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{12}
10^{8}
10^{4}
10^{0}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
38
Incident Energy (eV)
84-Po-209

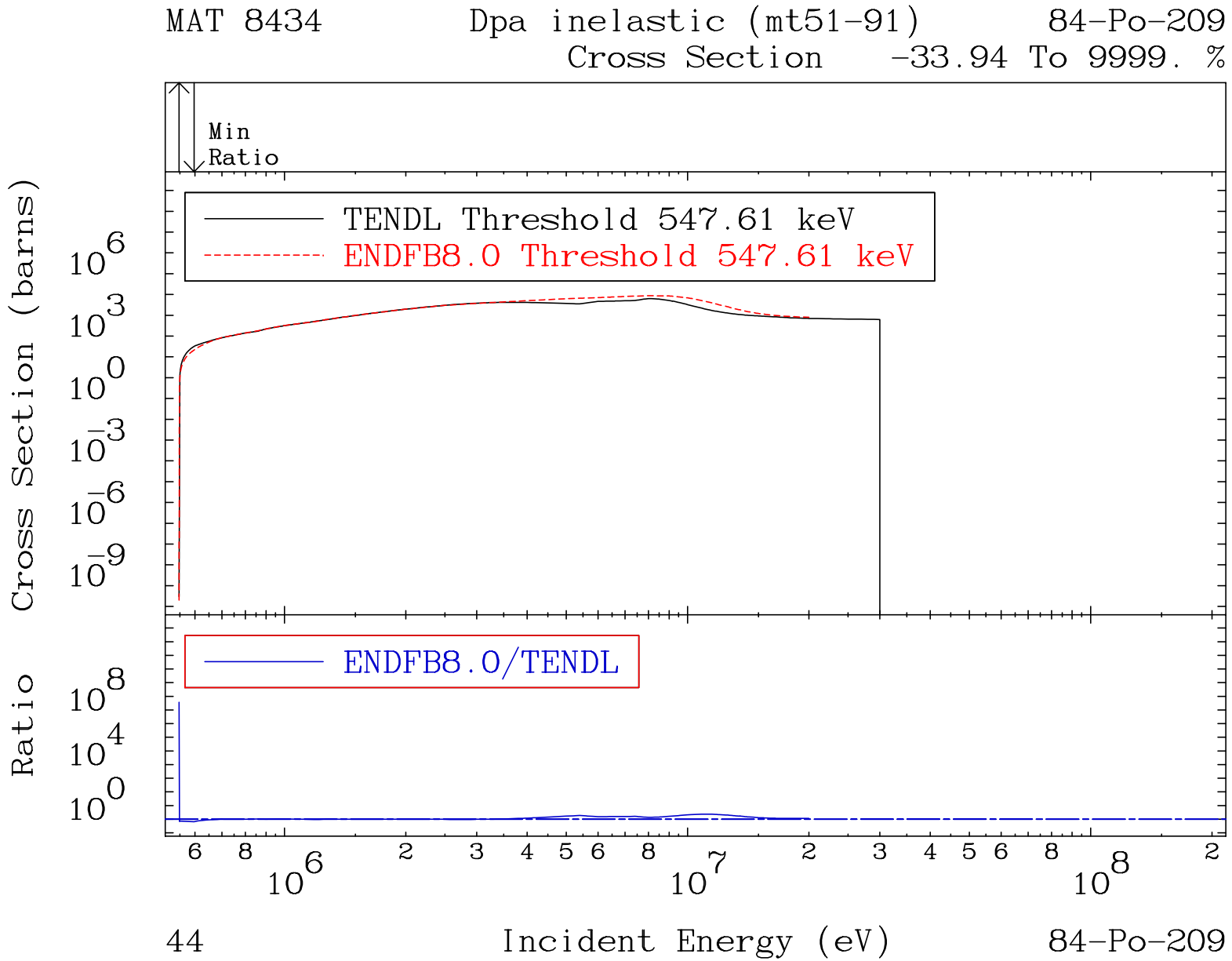

MAT 8434
Kerma capture (mt102)
84-Po-209
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
39
84-Po-209

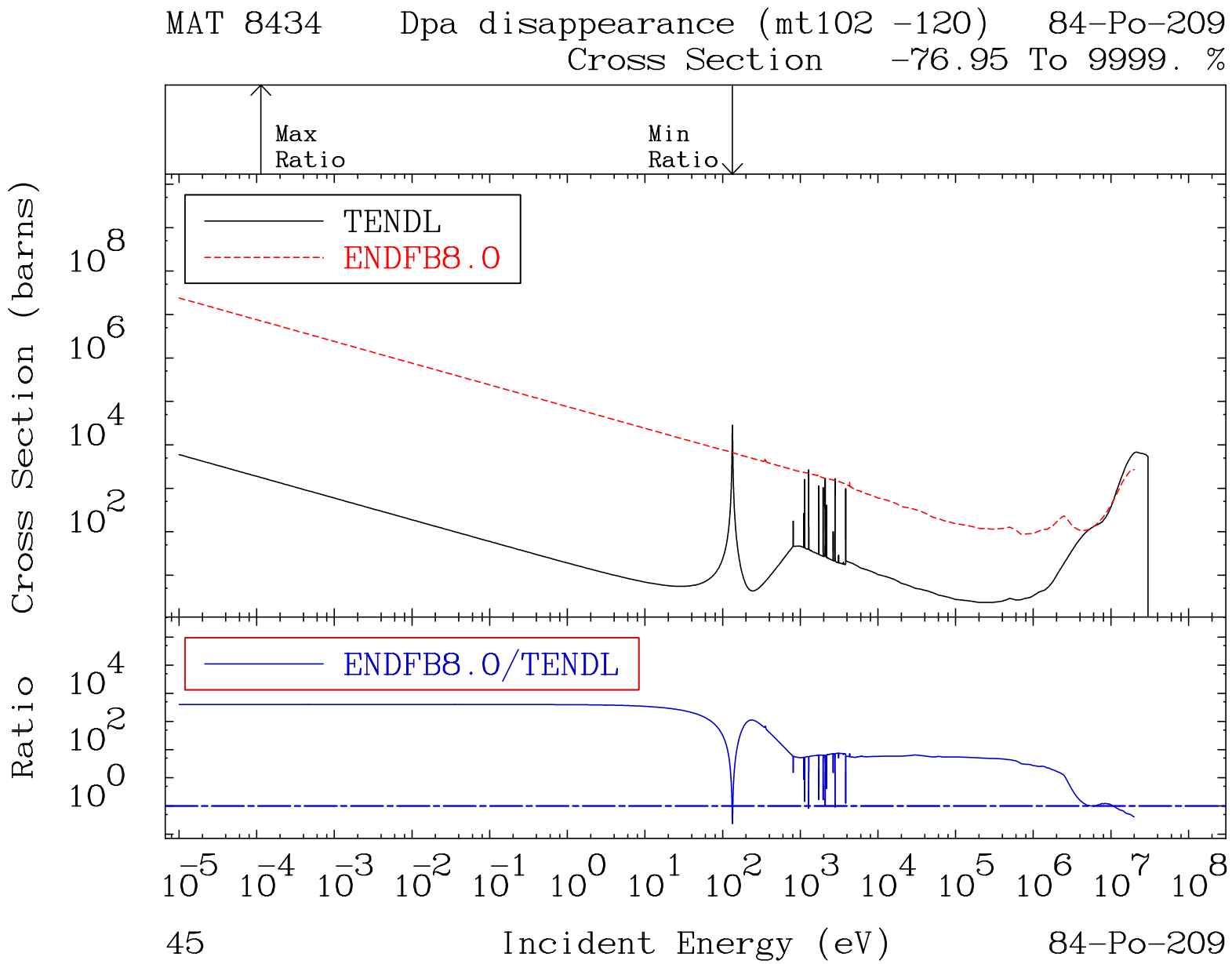

MAT 8434
Total photon (eV-barns)
84-Po-209
Cross Section -100.0 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
40
84-Po-209


MAT 8434 Total kinematic kerma (high limit) 84-Po-209
Cross Section -3.015 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
41
84-Po-209


MAT 8434
Dpa total (eV-barns)
84-Po-209
Cross Section
-78.52 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
42
84-Po-209


MAT 8434
Dpa elastic (mt2)
Cross Section
84-Po-209
-98.02 To 9539. %
Min
Ratio
TENDL Threshold 1.2118 keV
ENDFB8.0 Threshold 1.2992 keV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
43
84-Po-209


MAT 8434
Dpa inelastic (mt51-91)
84-Po-209
Cross Section
-33.94 To 9999. %
Min
Ratio
TENDL Threshold 547.61 keV
ENDFB8.0 Threshold 547.61 keV
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
44
84-Po-209


MAT 8434 Dpa disappearance (mt102 -120) 84-Po-209
Cross Section -76.95 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
45
84-Po-209