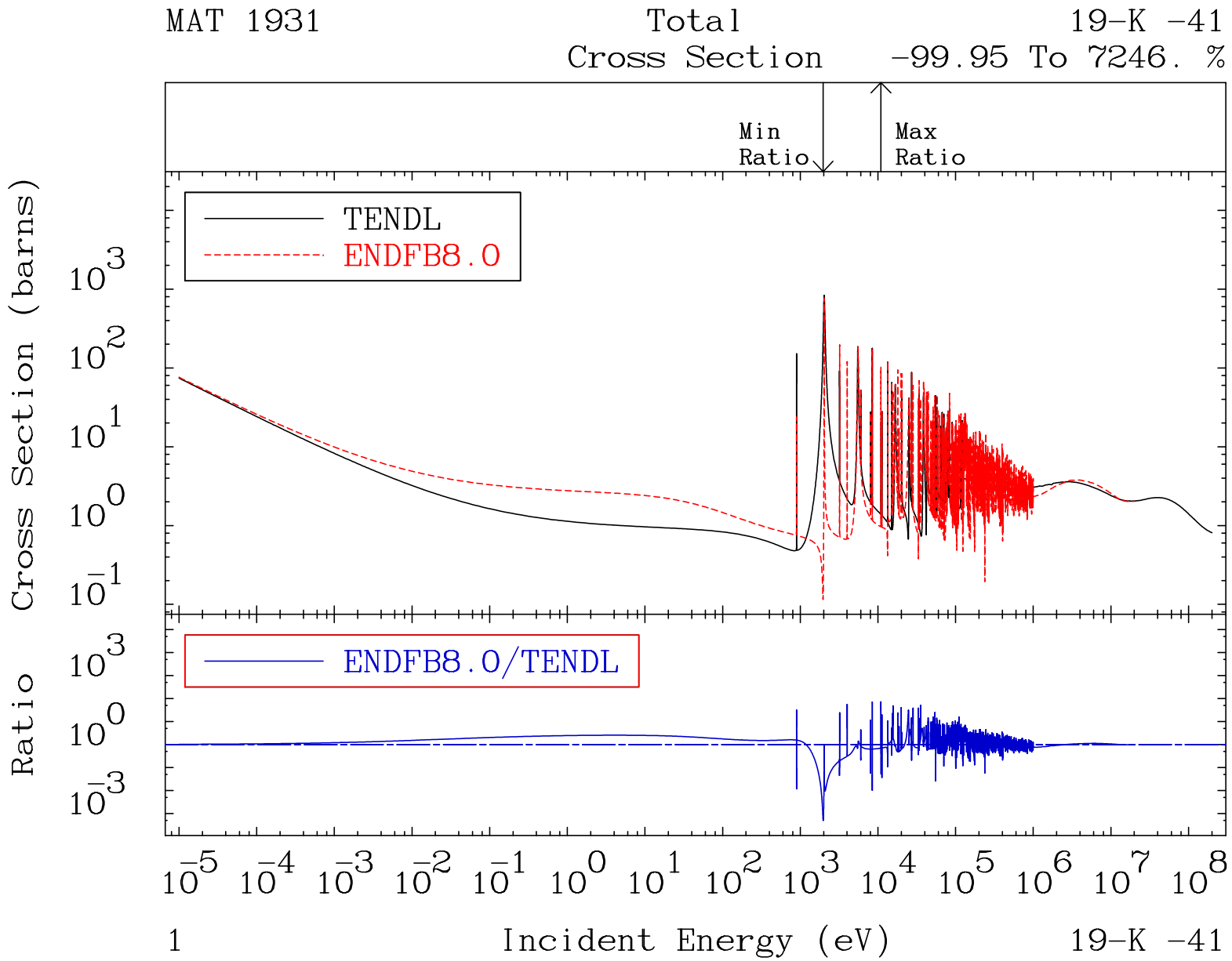
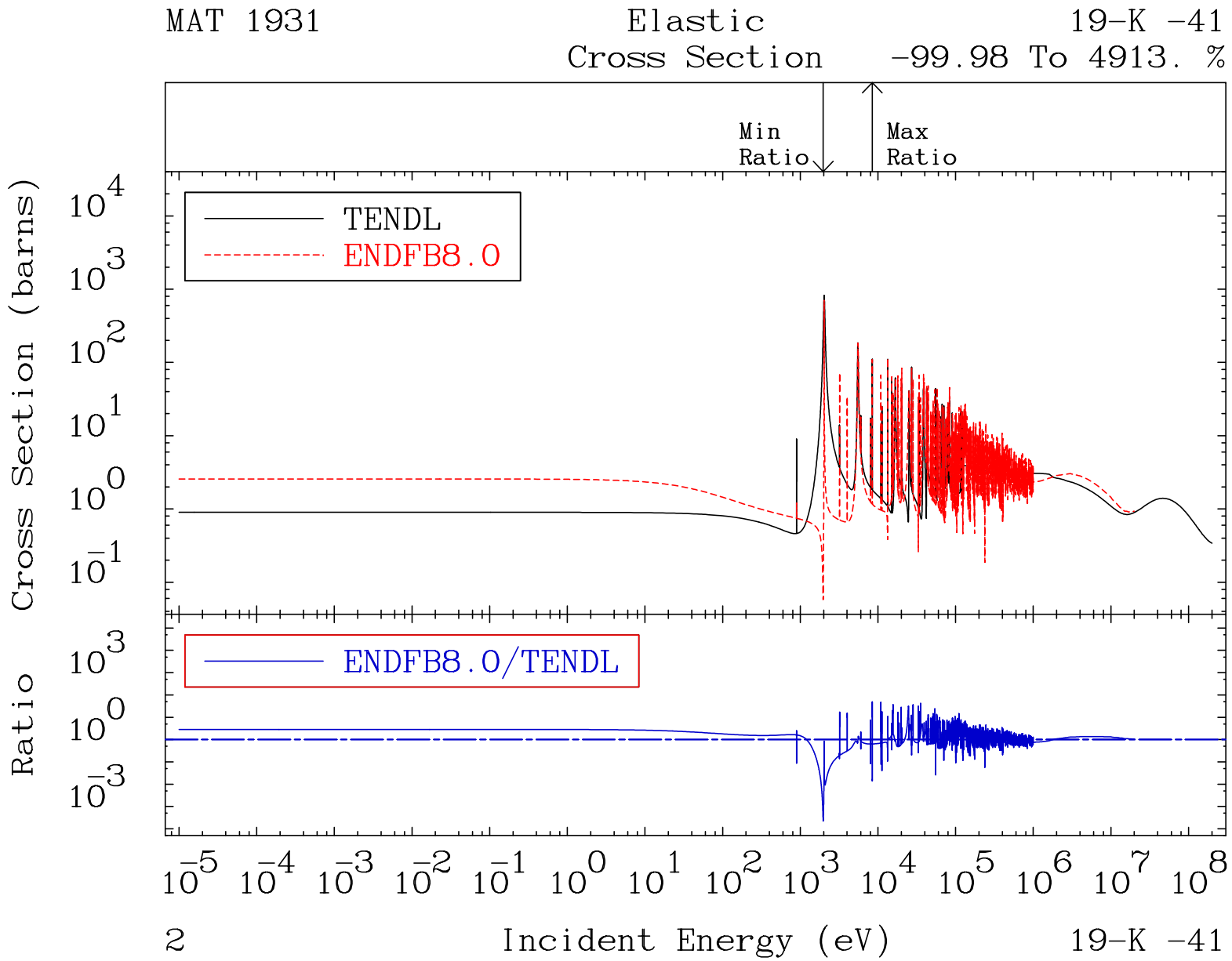
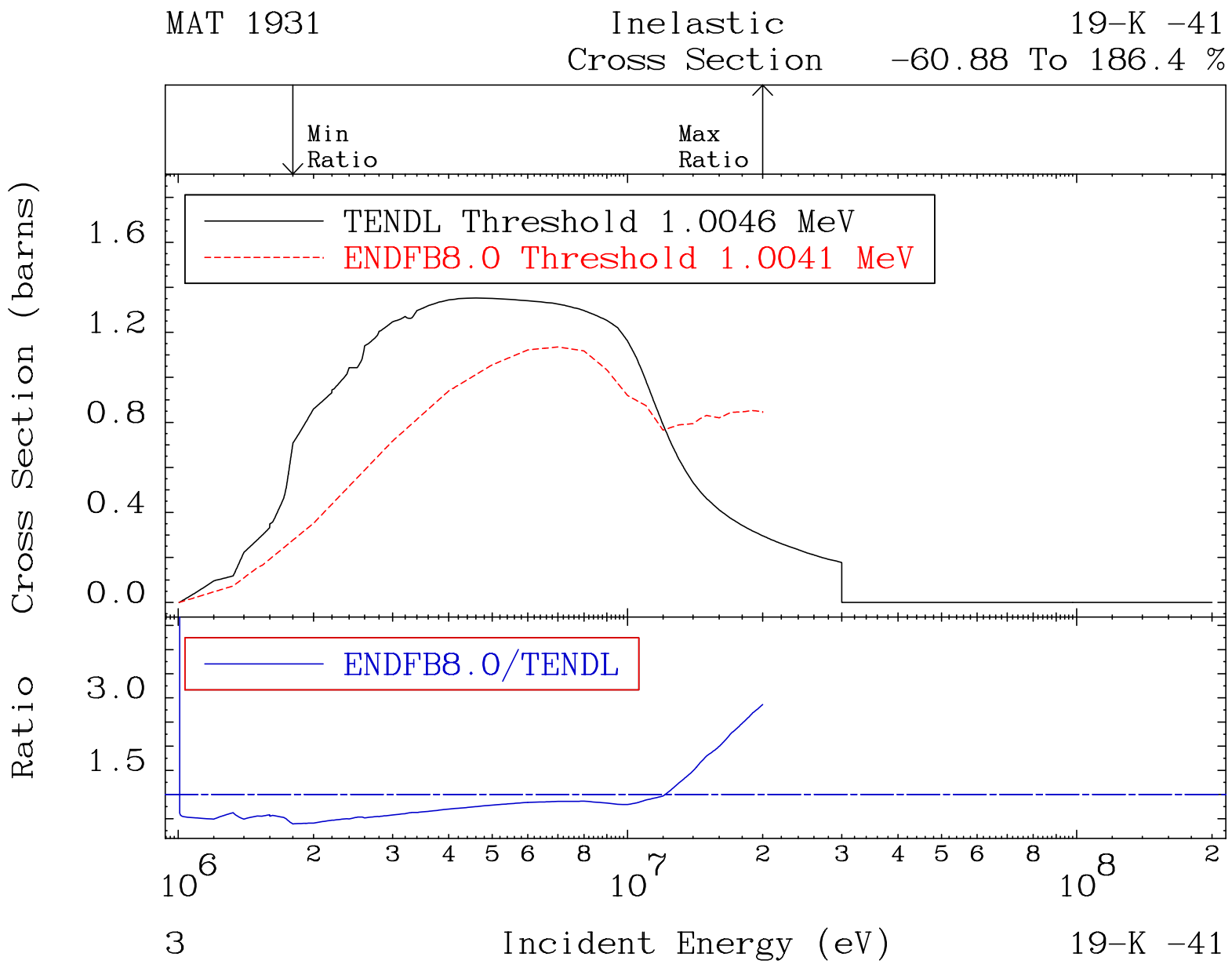
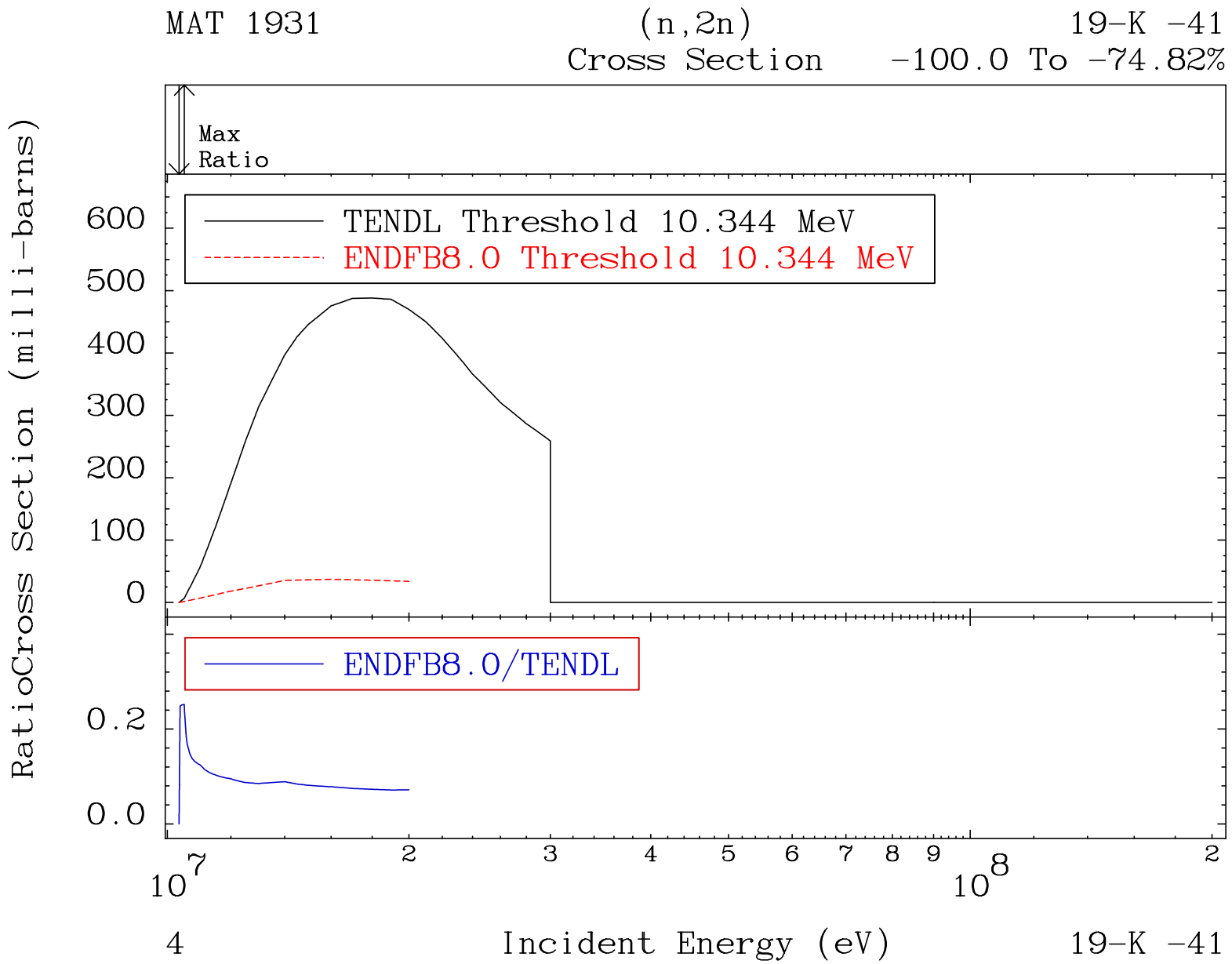
Program Complot
(Version 2021-1)
by
Dermott E. Cullen
(Present Contact Information)
Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550
U.S.A.
Tele: 925-443-1911
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

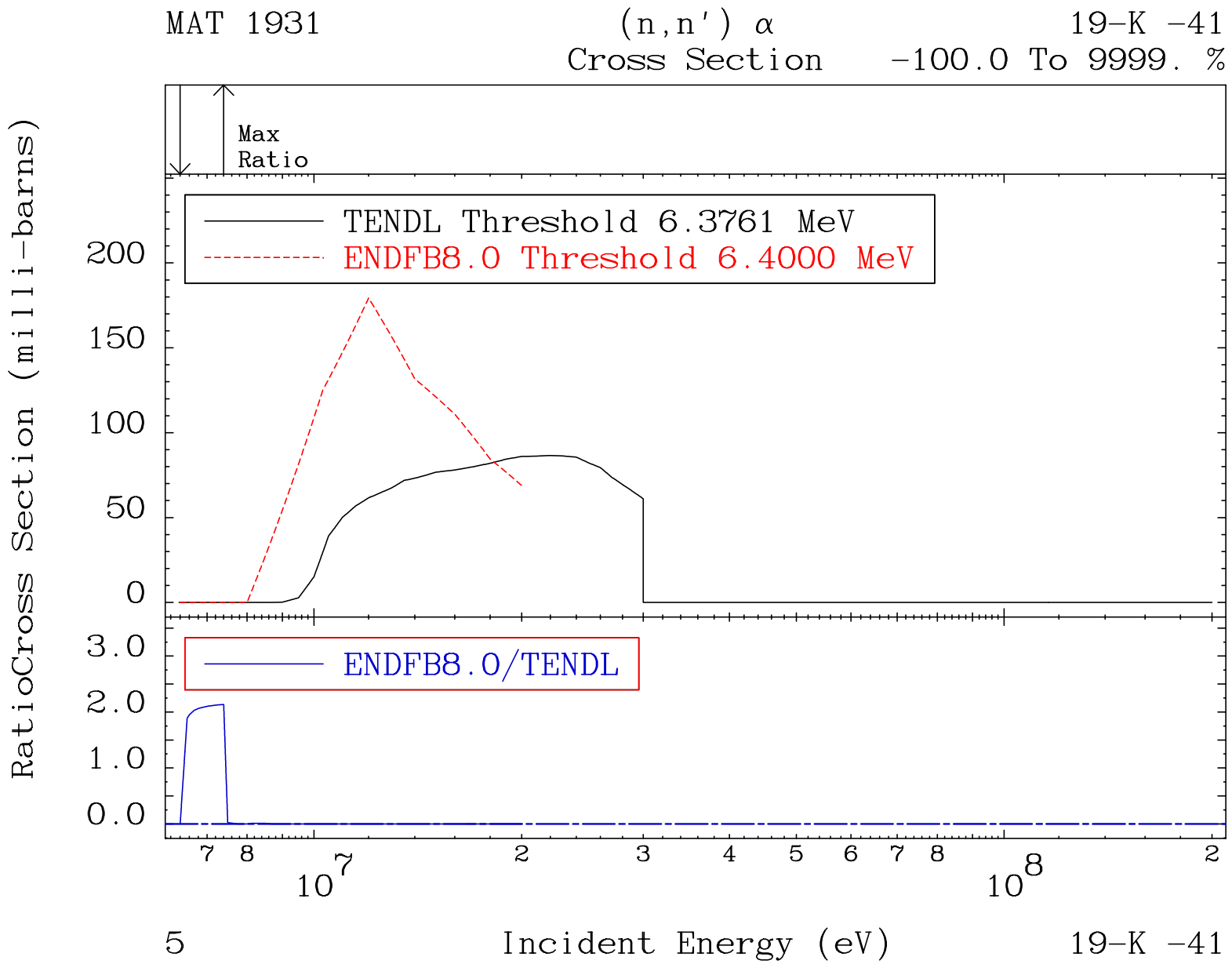
Press Mouse Button to Start

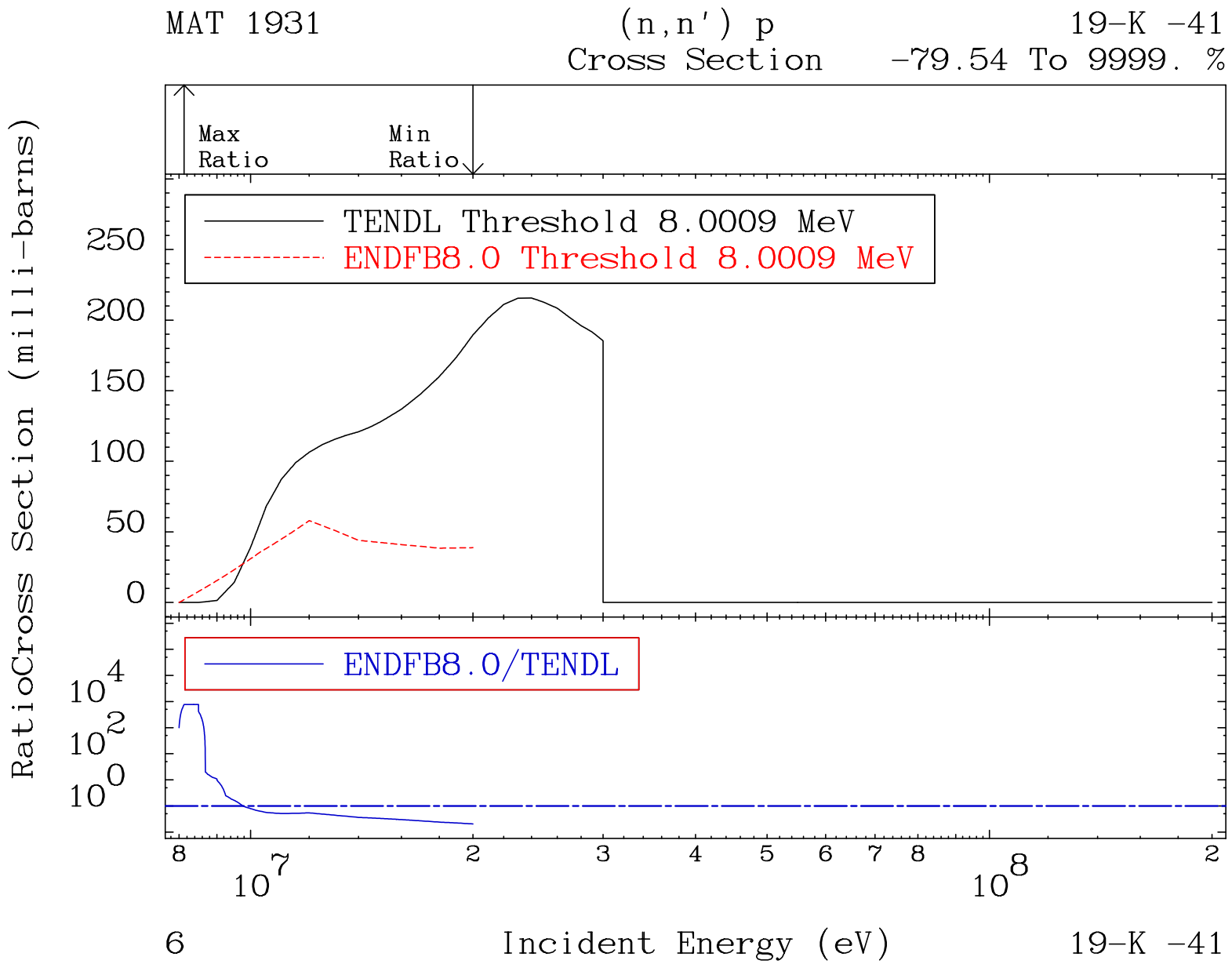

MAT 1931
Total
Cross Section
19-K -41
-99.95 To 7246. %
Min
Ratio
Max
Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
1
19-K -41

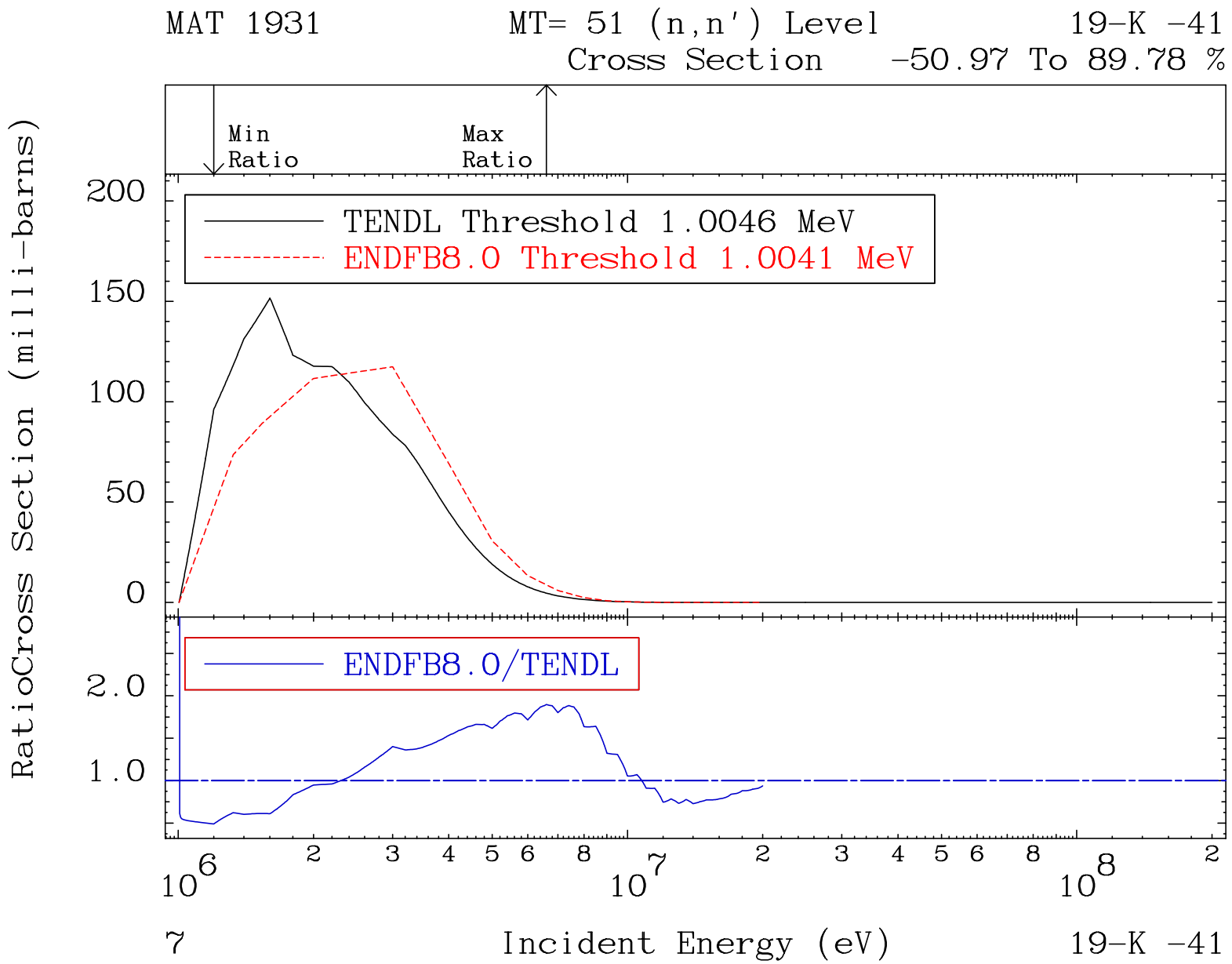

MAT 1931
Elastic
Cross Section
19-K -41
-99.98 To 4913. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
2
19-K -41

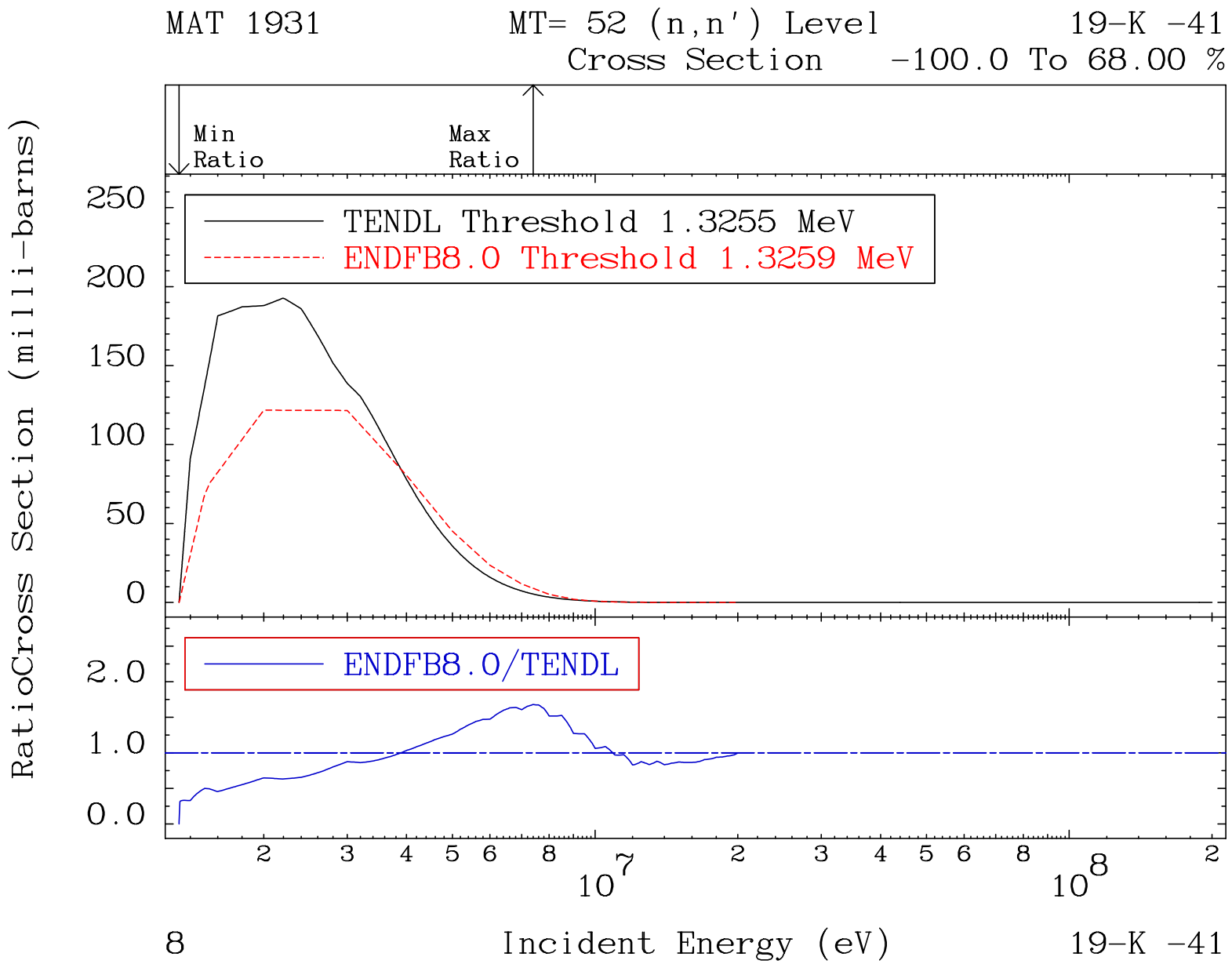

MAT 1931
Inelastic
Cross Section
19-K -41
-60.88 To 186.4 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.0046 MeV
ENDFB8.0 Threshold 1.0041 MeV
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
1.6
1.2
0.8
0.4
0.0
3.0
1.5
10^6
10^7
10^8
Incident Energy (eV)
3
19-K -41

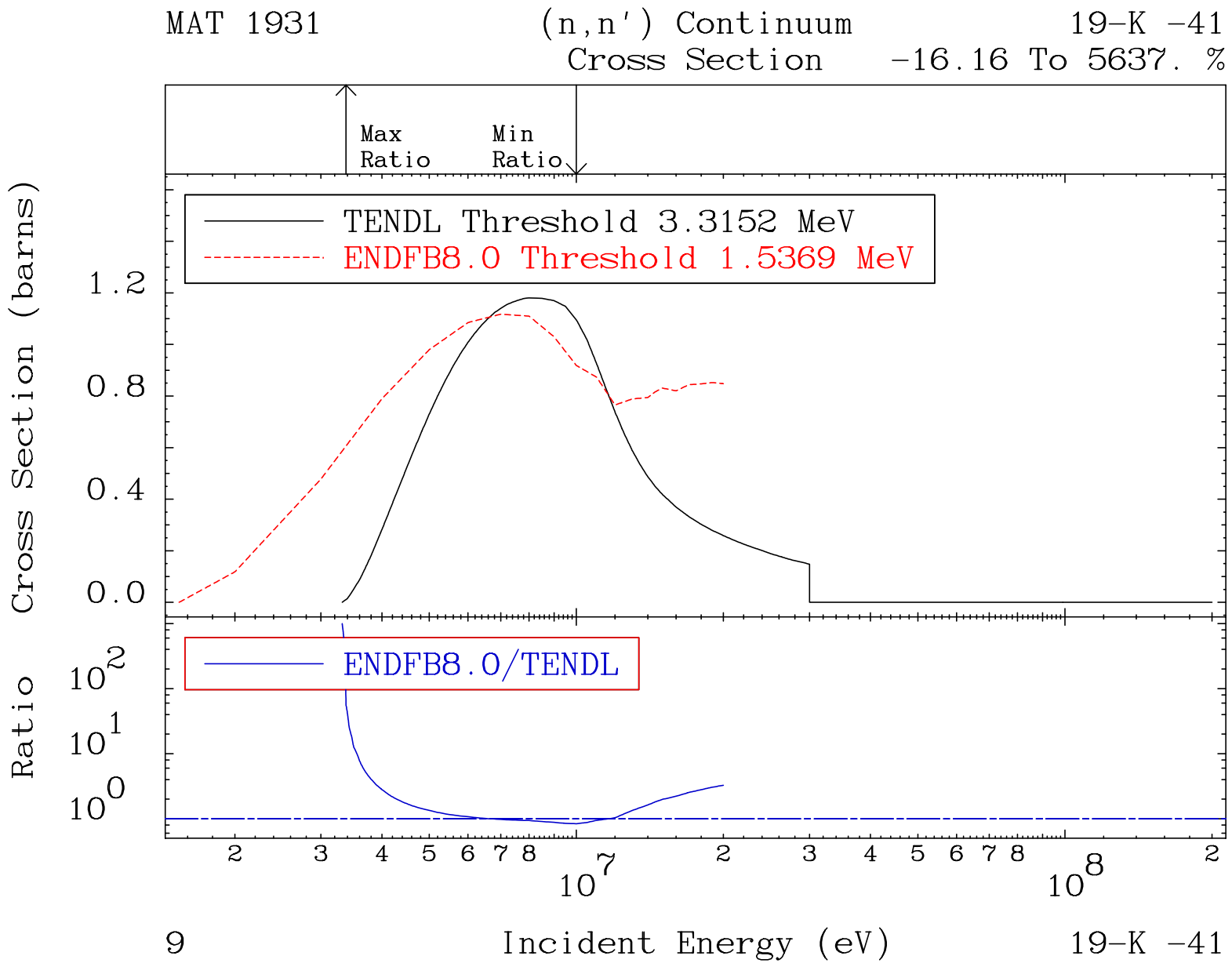

MAT 1931
(n,2n)
Cross Section
19-K -41
-100.0 To -74.82%
Max
Ratio
TENDL Threshold 10.344 MeV
ENDFB8.0 Threshold 10.344 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
600
500
400
300
200
100
0
0.2
0.0
10^7
2
3
4
5
6
7
8
9
10^8
2
4
Incident Energy (eV)
19-K -41

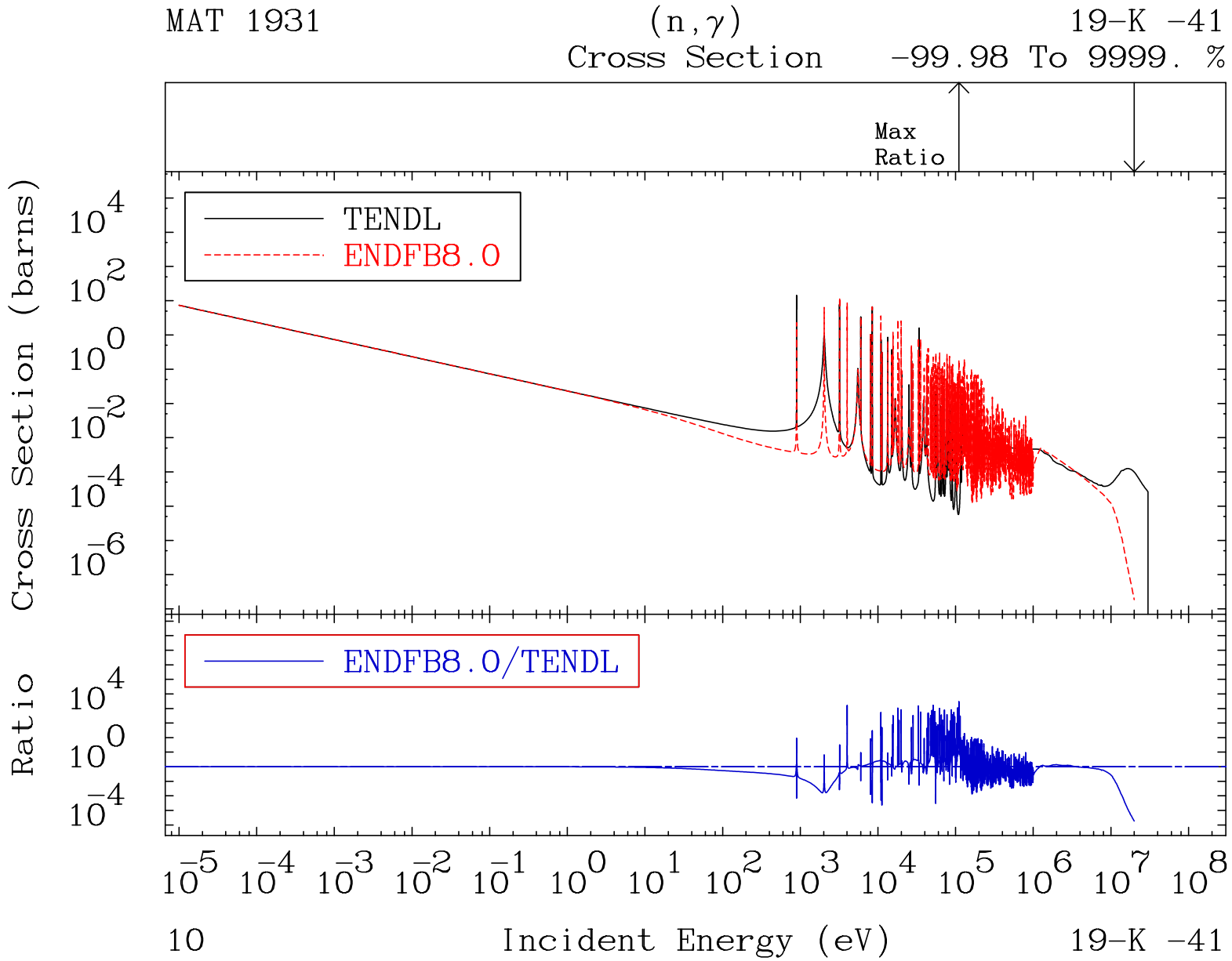

MAT 1931
(n,n') α
Cross Section
19-K -41
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 6.3761 MeV
ENDFB8.0 Threshold 6.4000 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
3.0
2.0
1.0
0.0
7 8
10^7
2 3 4 5 6 7 8
10^8
2
5
Incident Energy (eV)
19-K -41

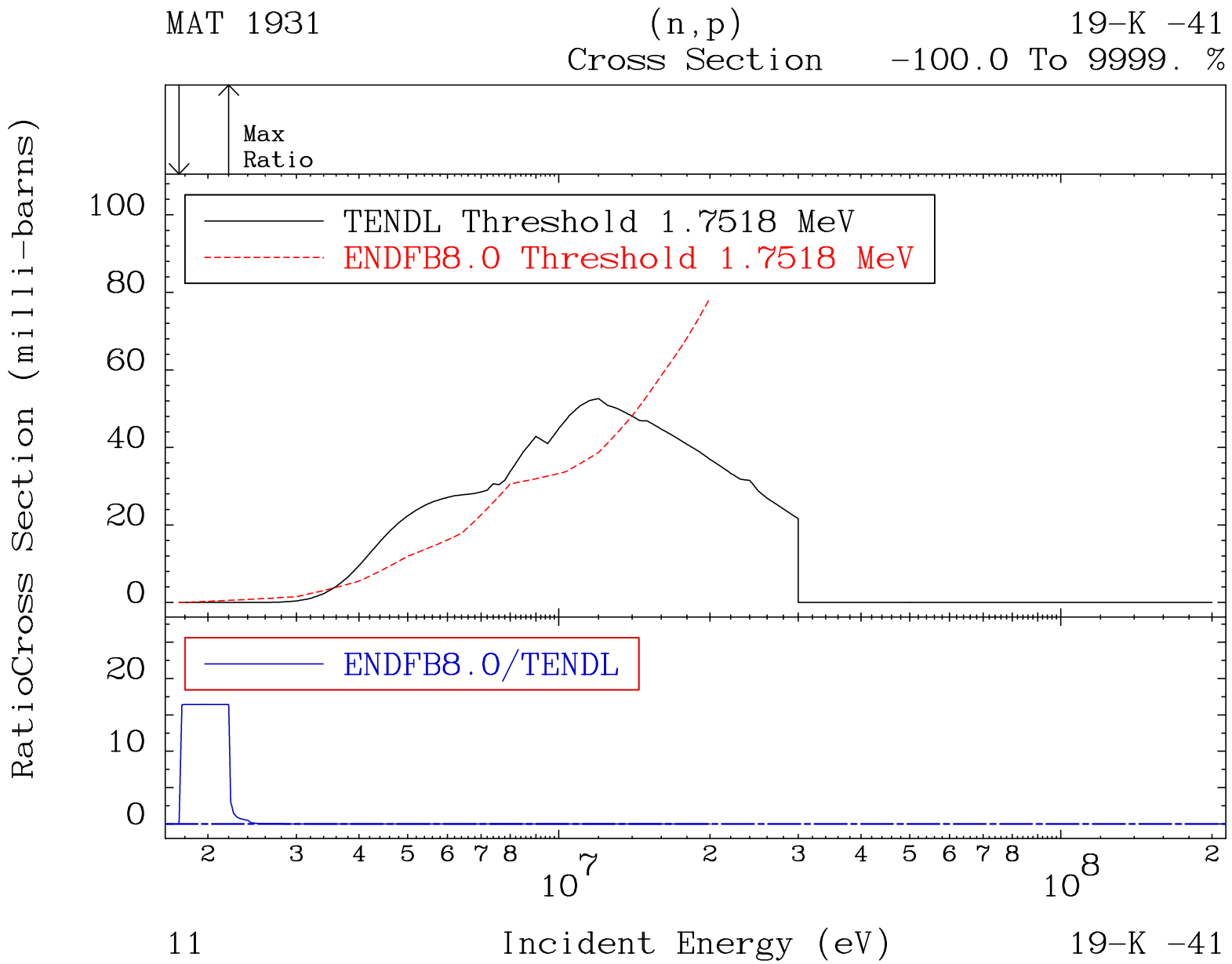

MAT 1931
(n,n') p
Cross Section
19-K -41
-79.54 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 8.0009 MeV
ENDFB8.0 Threshold 8.0009 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
10^4
10^2
10^0
8
10^7
2
3
4
5
6
7
8
10^8
2
6
Incident Energy (eV)
19-K -41

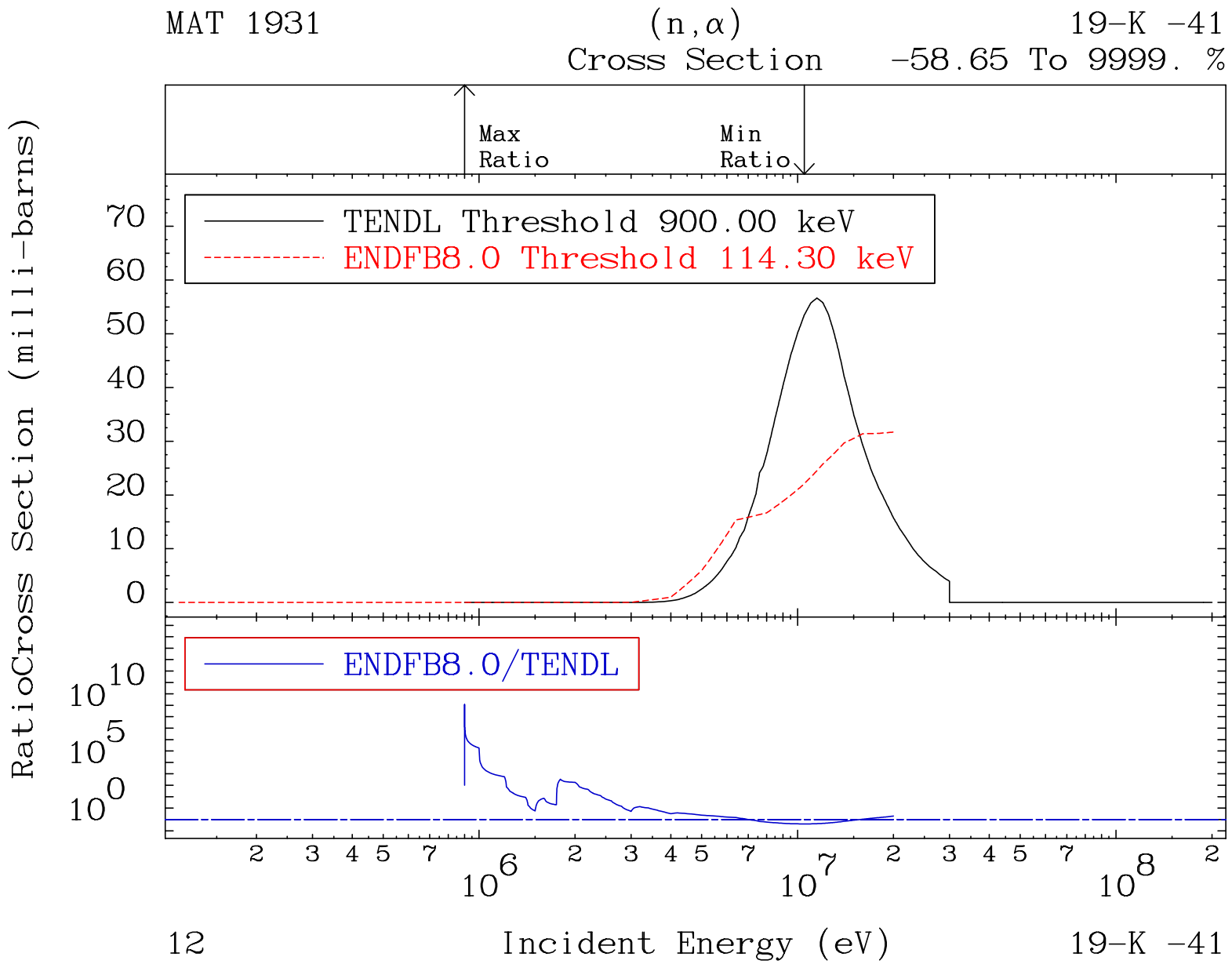

MAT 1931
MT= 51 (n,n') Level
19-K -41
Cross Section -50.97 To 89.78 %
Min Ratio
Max Ratio
TENDL Threshold 1.0046 MeV
ENDFB8.0 Threshold 1.0041 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
200
150
100
50
0
2.0
1.0
10^6
10^7
10^8
Incident Energy (eV)
19-K -41

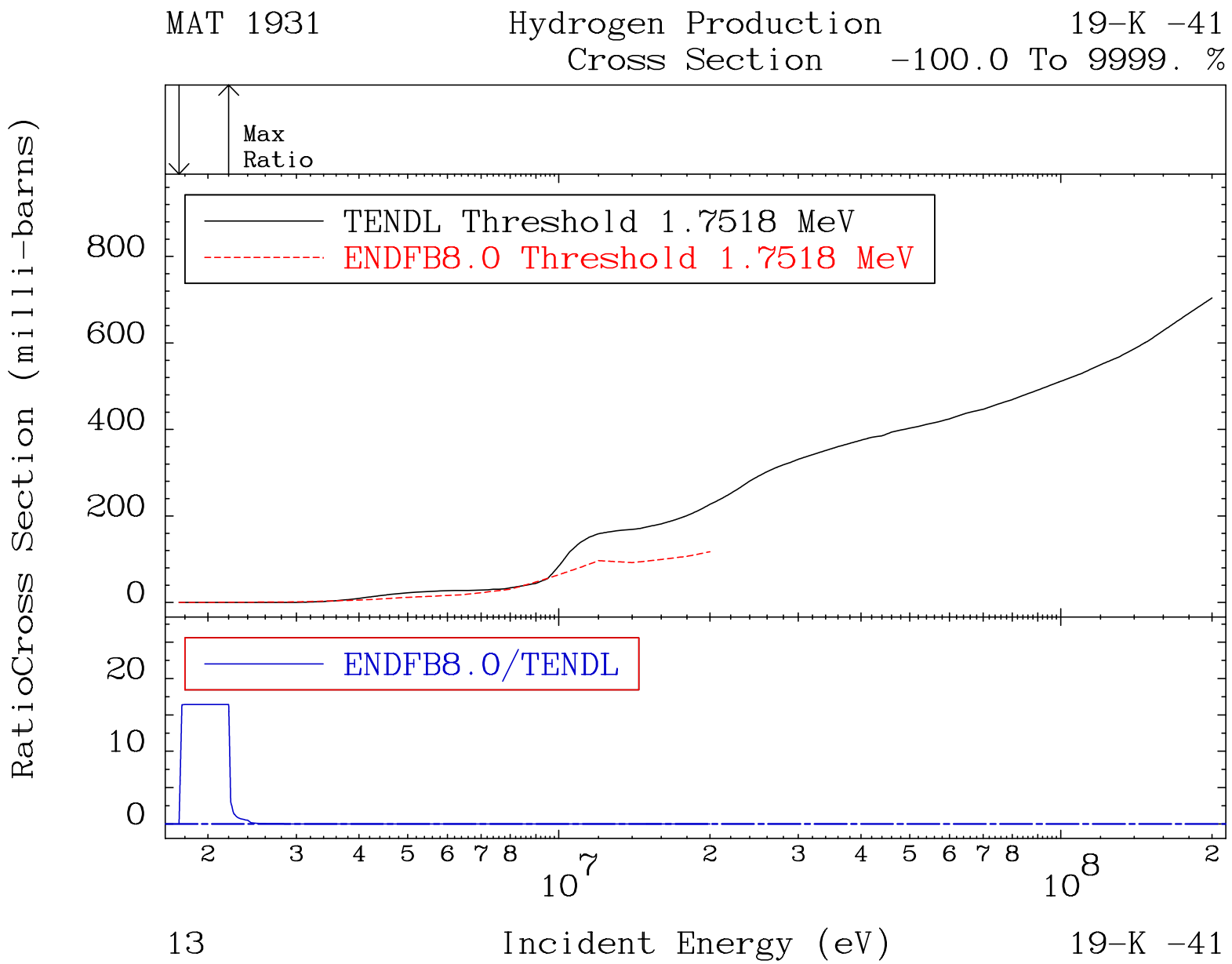

MAT 1931
MT= 52 (n,n') Level
19-K -41
Cross Section -100.0 To 68.00 %
Min Ratio
Max Ratio
TENDL Threshold 1.3255 MeV
ENDFB8.0 Threshold 1.3259 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
2.0
1.0
0.0
2 3 4 5 6 8 10^7 2 3 4 5 6 8 10^8 2
8
Incident Energy (eV)
19-K -41

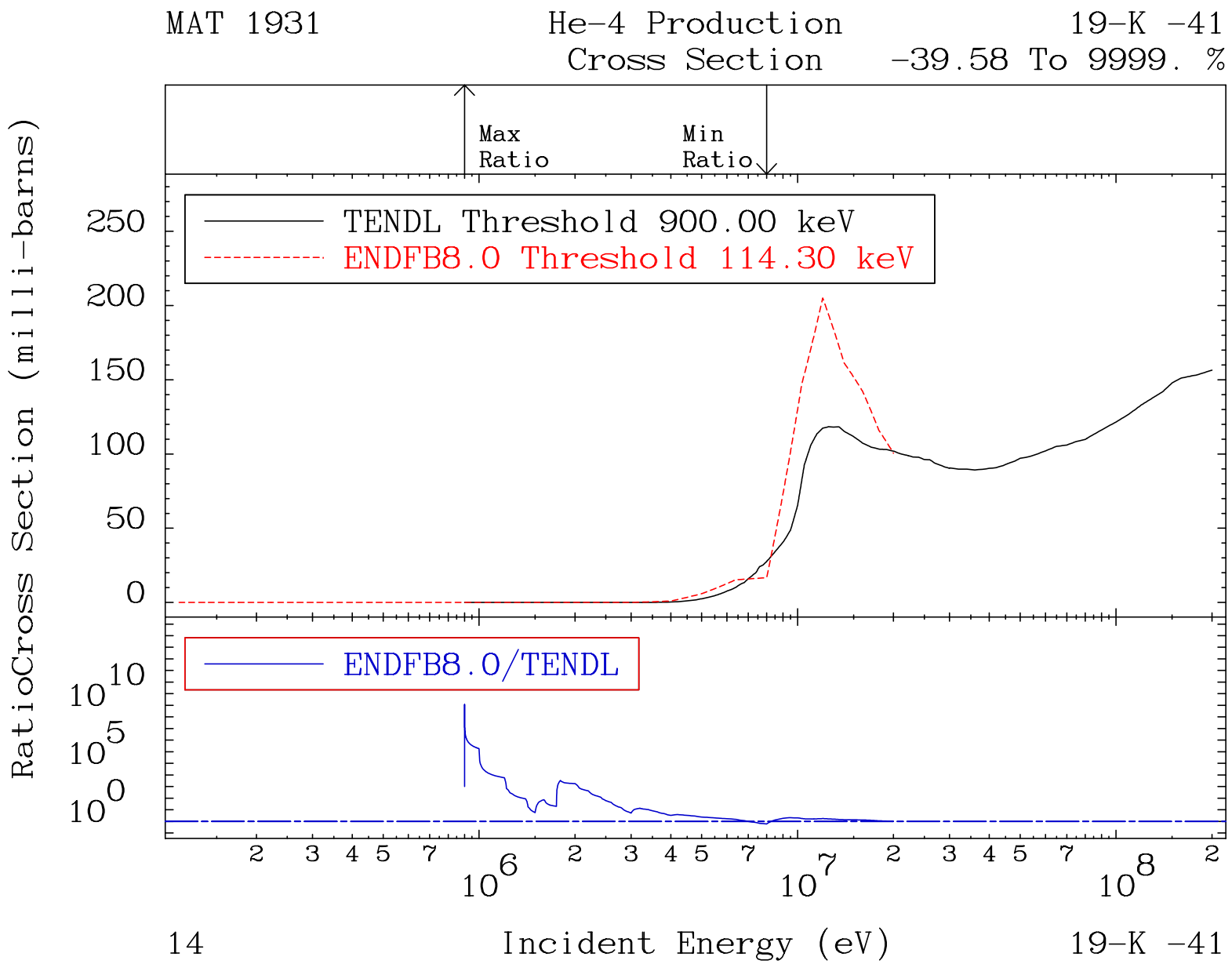

MAT 1931
(n,n') Continuum
Cross Section
19-K -41
-16.16 To 5637. %
Max Ratio
Min Ratio
TENDL Threshold 3.3152 MeV
ENDFB8.0 Threshold 1.5369 MeV
Cross Section (barns)
1.2
0.8
0.4
0.0
ENDFB8.0/TENDL
Ratio
10^2
10^1
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
9
Incident Energy (eV)
19-K -41

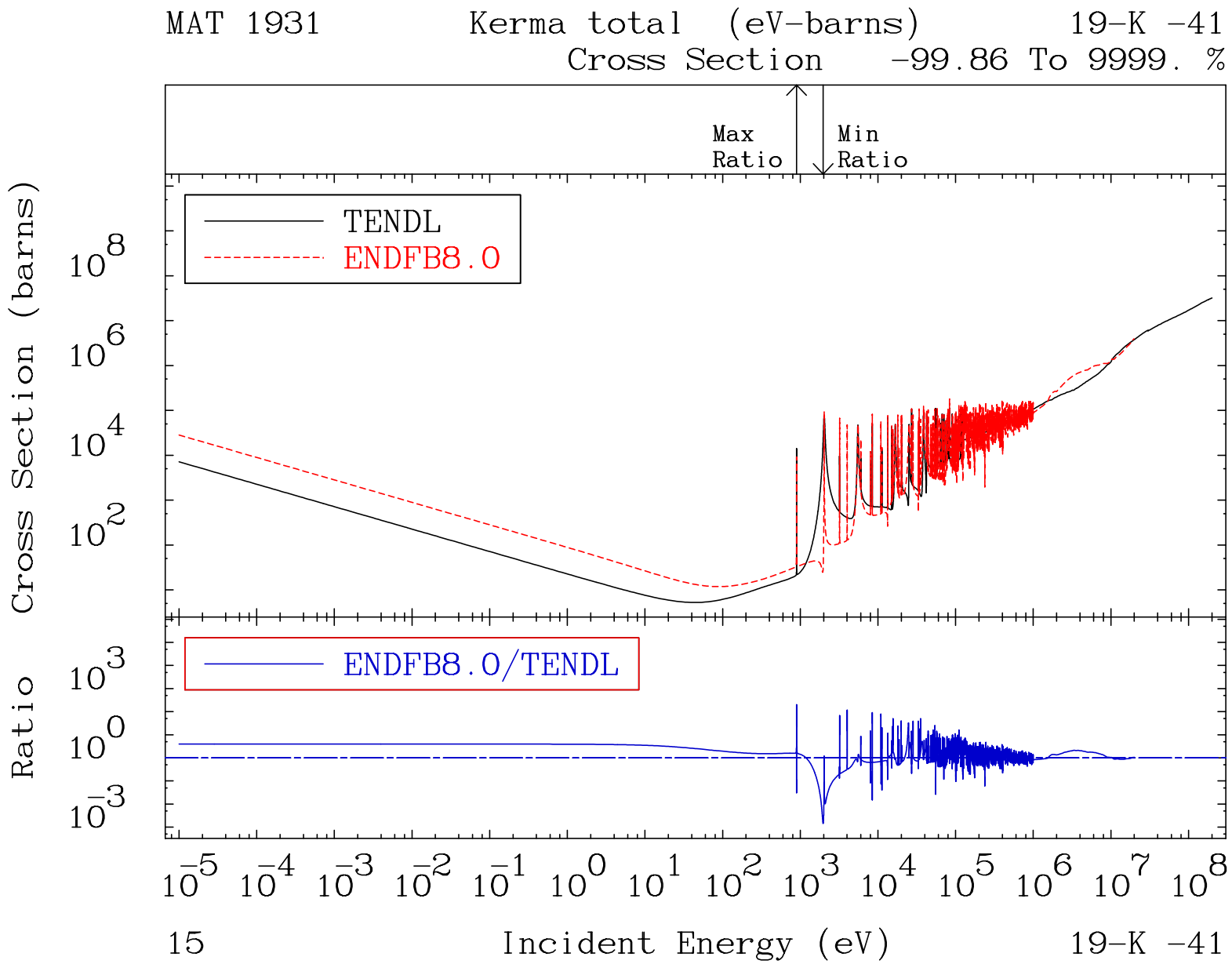

MAT 1931
(n,γ)
Cross Section
19-K -41
-99.98 To 9999. %
Max
Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
10
19-K -41

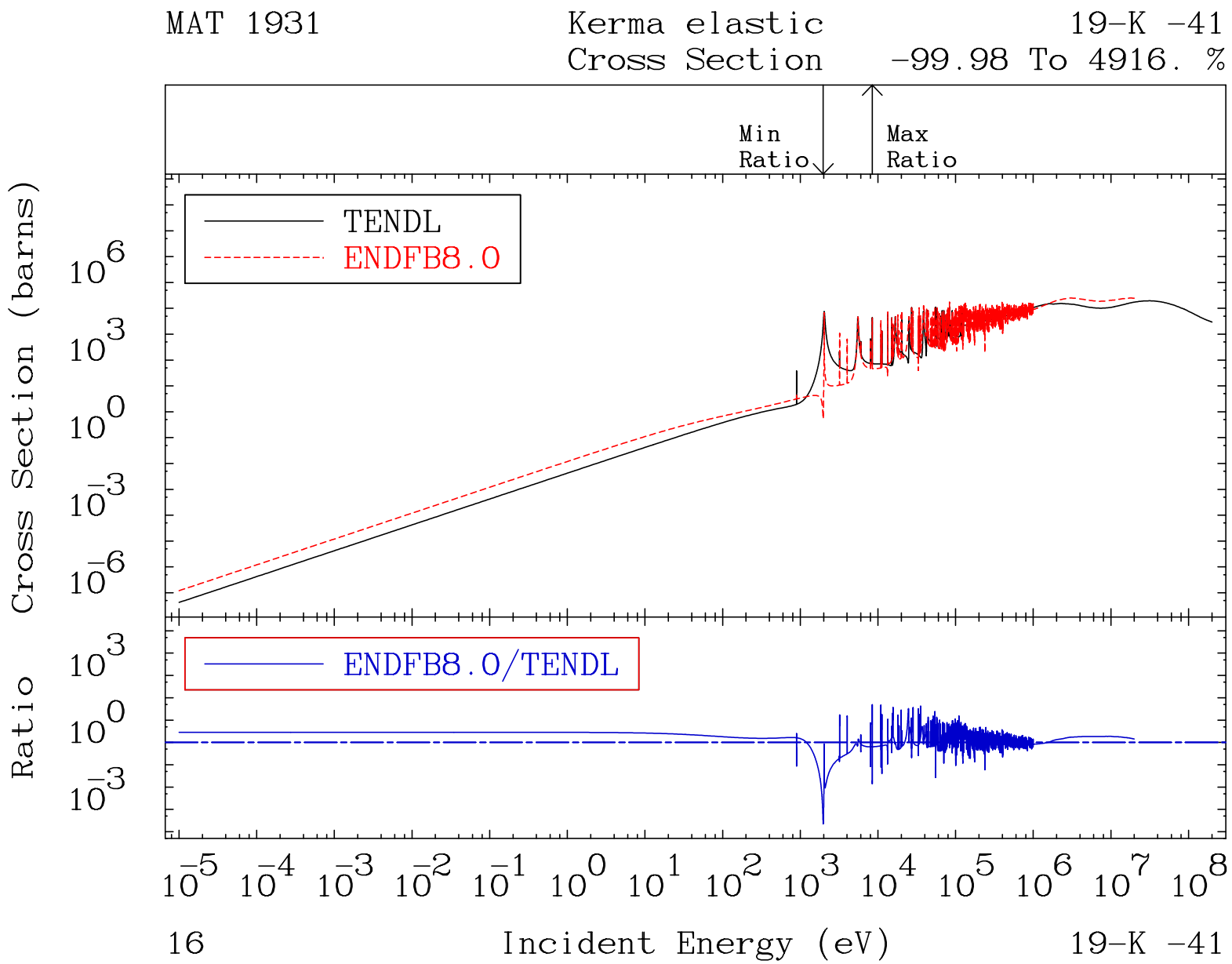

MAT 1931
(n,p)
19-K -41
Cross Section
-100.0 To 9999. %
Max
Ratio
TENDL Threshold 1.7518 MeV
ENDFB8.0 Threshold 1.7518 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
100
80
60
40
20
0
20
10
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
11
Incident Energy (eV)
19-K -41

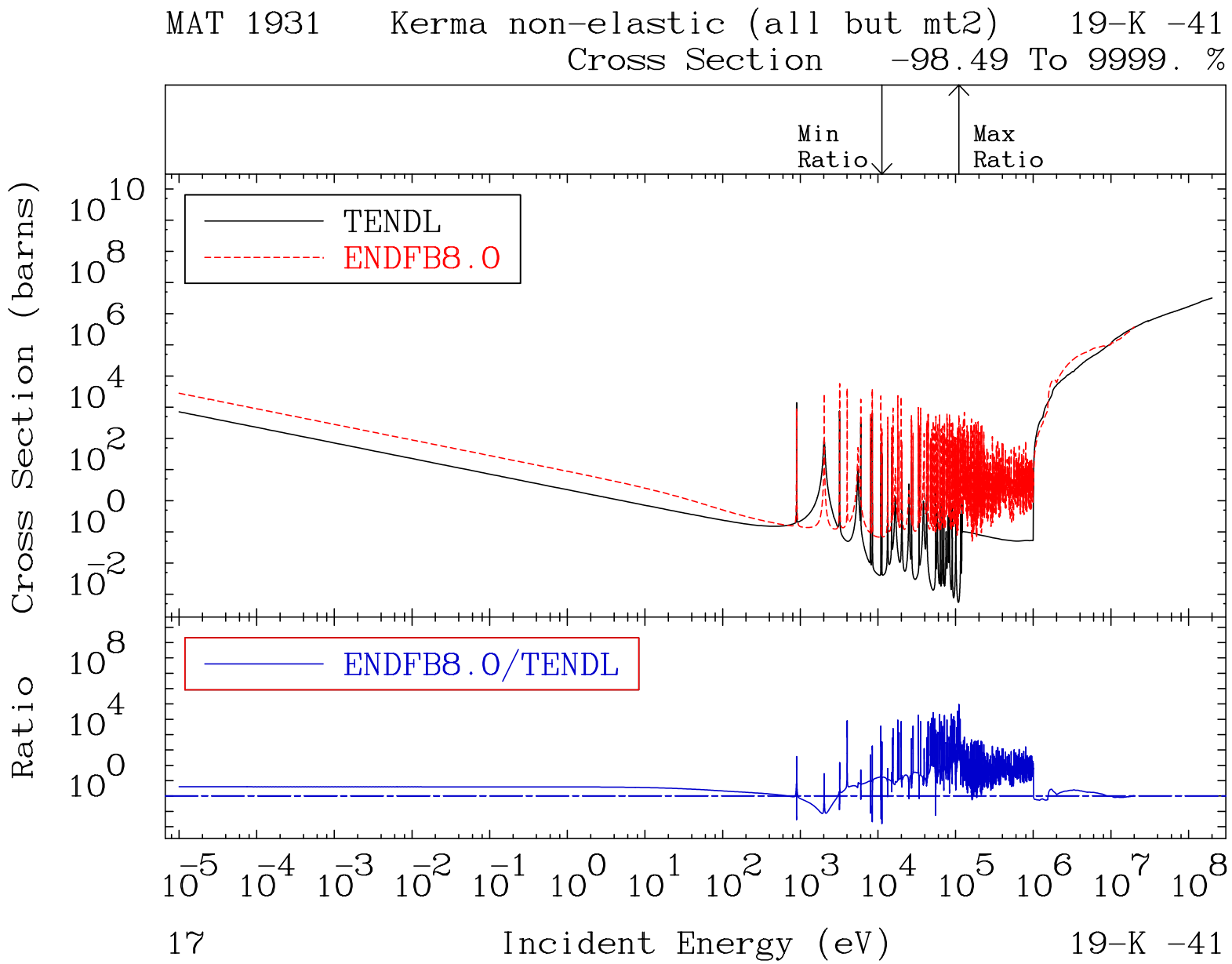

MAT 1931
(n,α)
Cross Section
19-K -41
-58.65 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 900.00 keV
ENDFB8.0 Threshold 114.30 keV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
Incident Energy (eV)
12
19-K -41

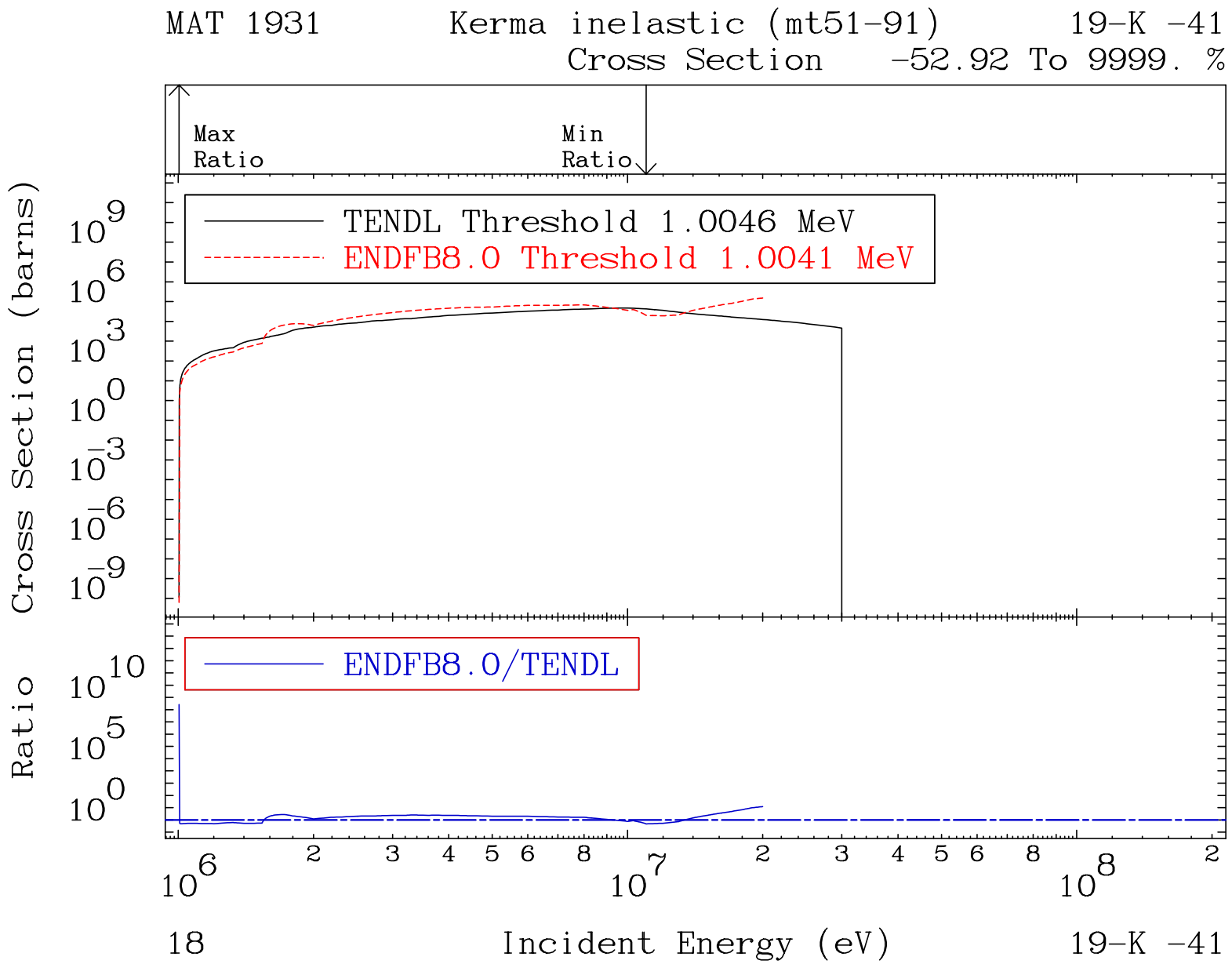

MAT 1931
Hydrogen Production
19-K -41
Cross Section -100.0 To 9999. %
Max
Ratio
TENDL Threshold 1.7518 MeV
ENDFB8.0 Threshold 1.7518 MeV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
800
600
400
200
0
20
10
0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
13
Incident Energy (eV)
19-K -41

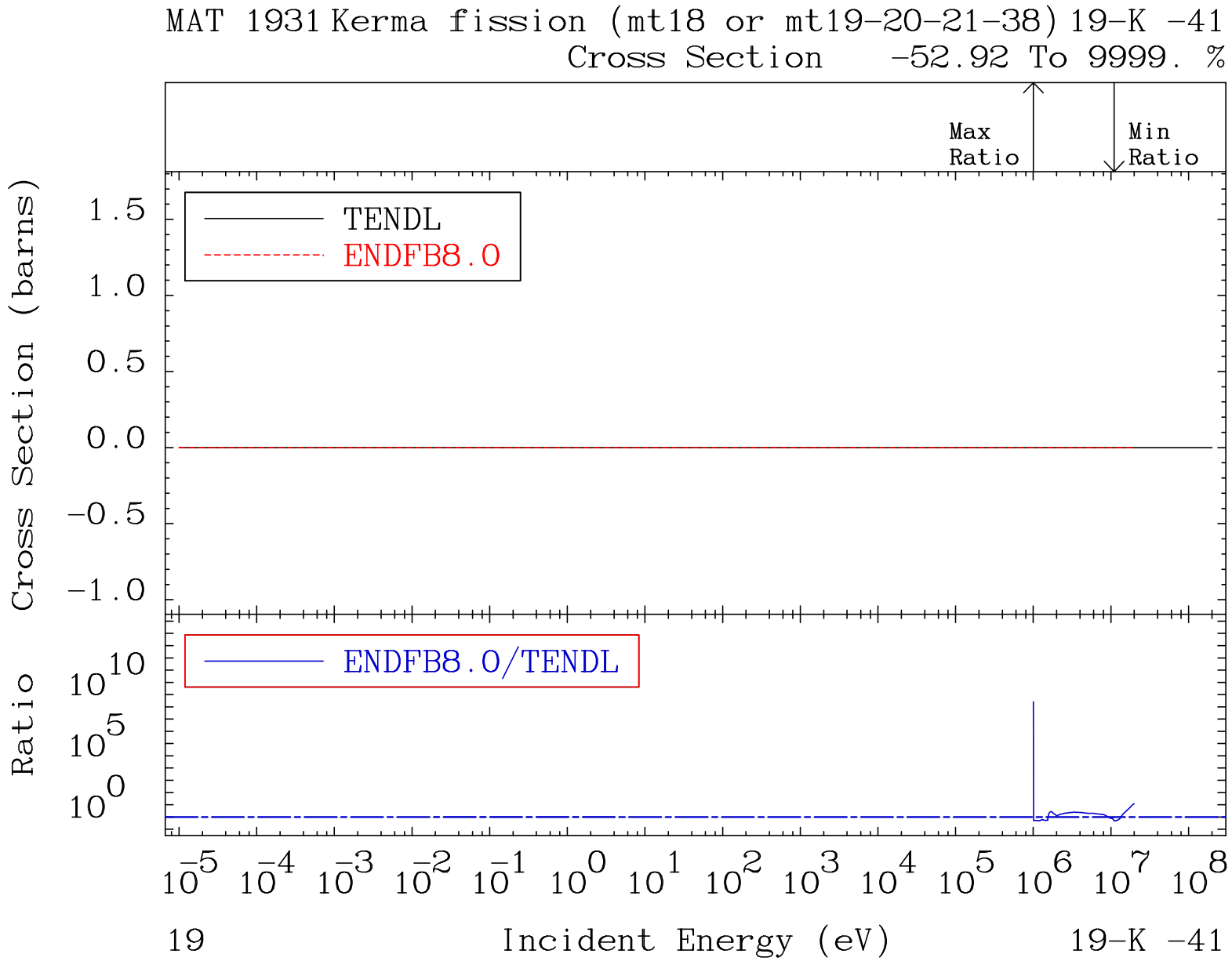

MAT 1931
He-4 Production
Cross Section
19-K -41
-39.58 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 900.00 keV
ENDFB8.0 Threshold 114.30 keV
ENDFB8.0/TENDL
RatioCross Section (milli-barns)
250
200
150
100
50
0
10^10
10^5
10^0
2 3 4 5 7 10^6 2 3 4 5 7 10^7 2 3 4 5 7 10^8 2
14
Incident Energy (eV)
19-K -41

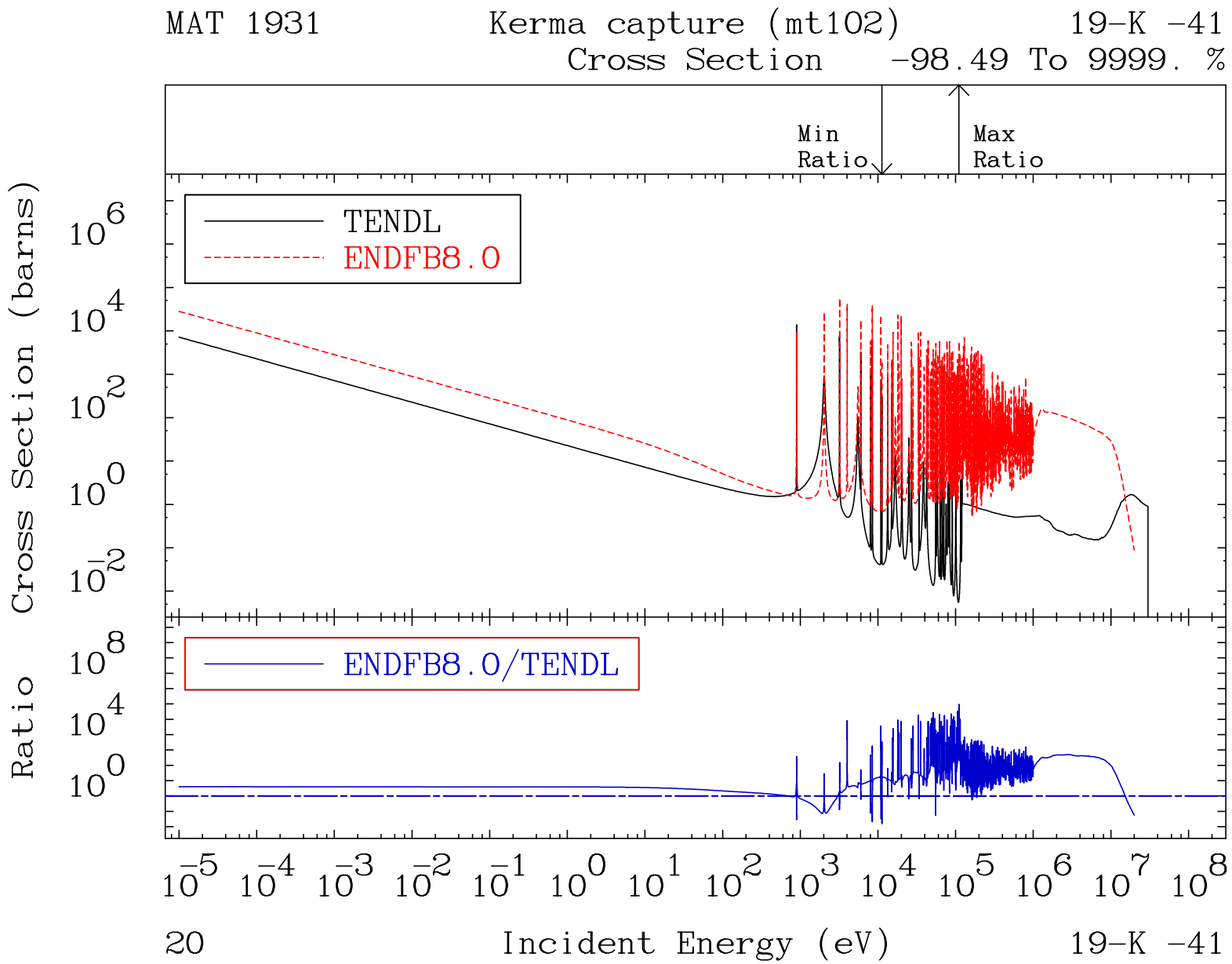

MAT 1931
Kerma total (eV-barns)
19-K -41
Cross Section -99.86 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
15
19-K -41

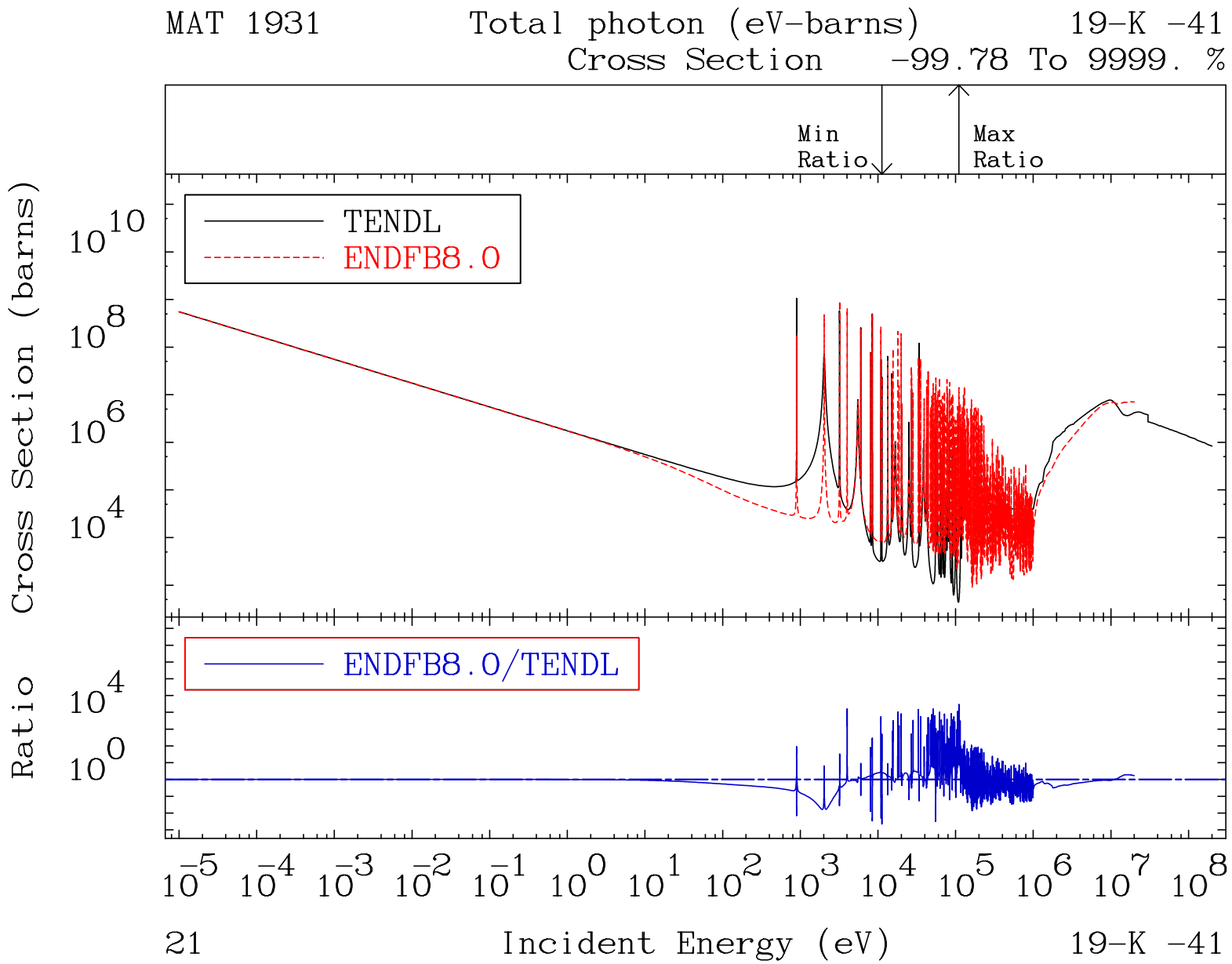

MAT 1931
Kerma elastic
Cross Section
19-K -41
-99.98 To 4916. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
16
19-K -41

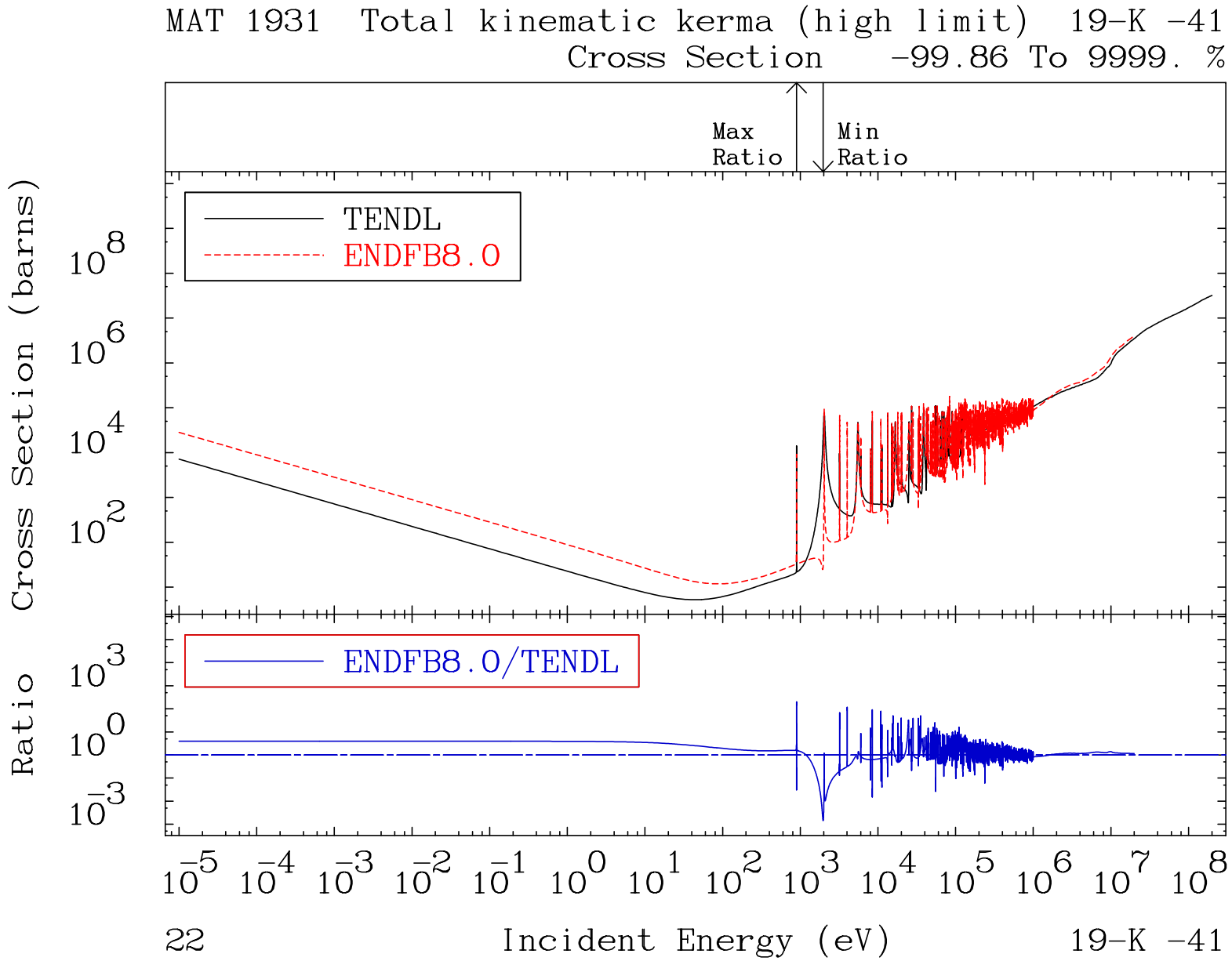

MAT 1931 Kerma non-elastic (all but mt2) 19-K -41
Cross Section -98.49 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
17
19-K -41

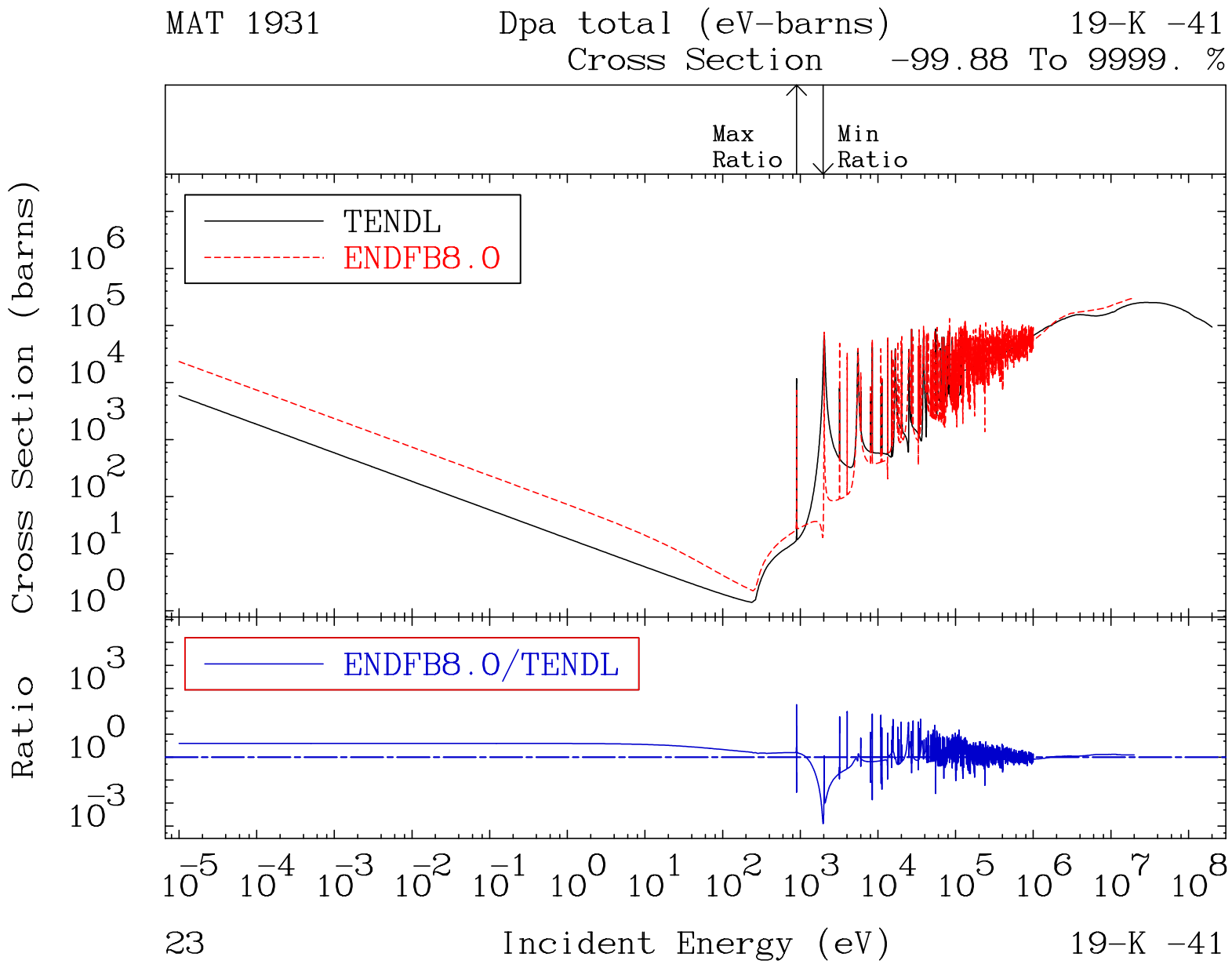

MAT 1931
Kerma inelastic (mt51-91)
19-K -41
Cross Section -52.92 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.0046 MeV
ENDFB8.0 Threshold 1.0041 MeV
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
18
19-K -41

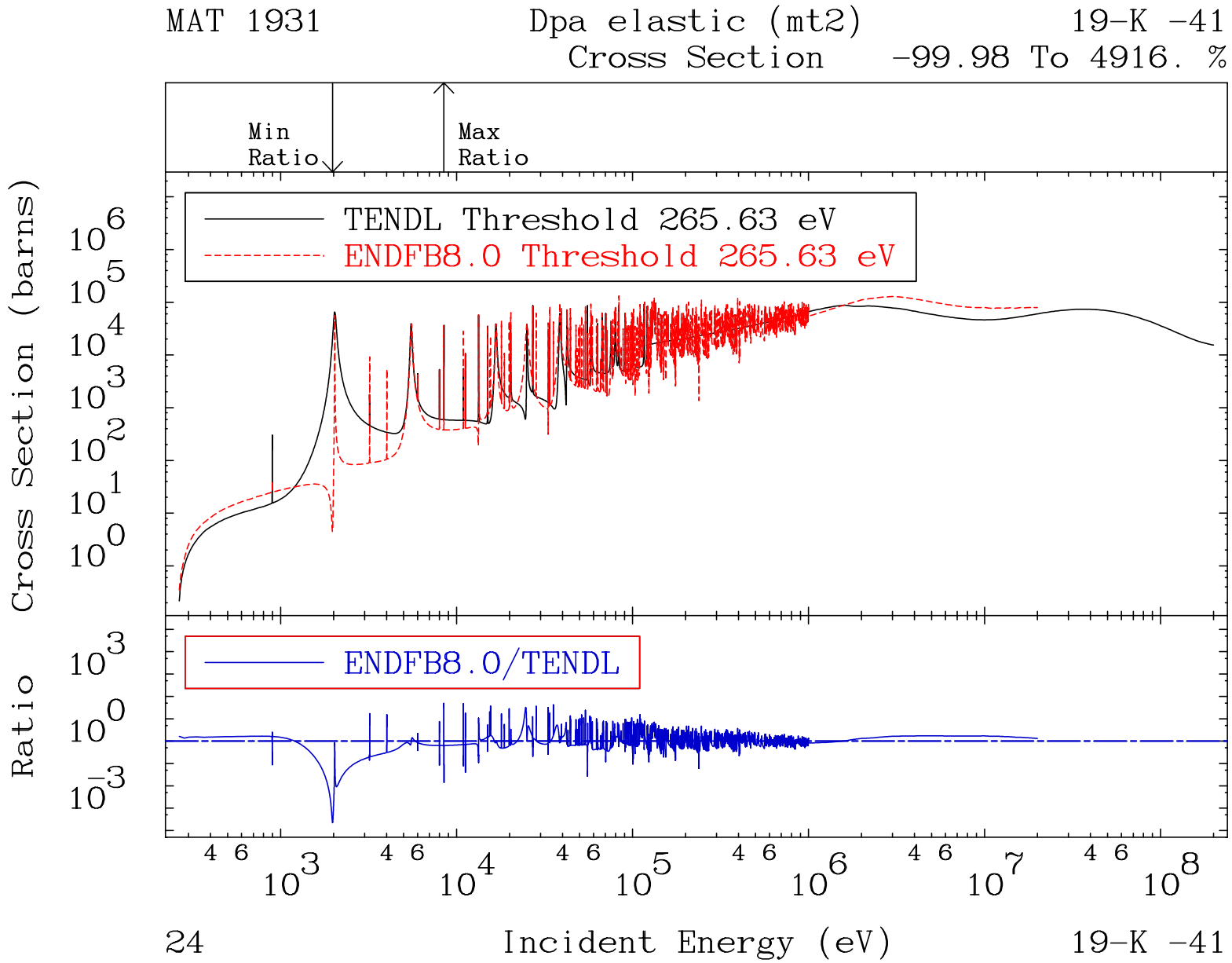

MAT 1931 Kerma fission (mt18 or mt19-20-21-38) 19-K -41
Cross Section -52.92 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
1.5
1.0
0.5
0.0
-0.5
-1.0
10^{10}
10^{5}
10^{0}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
19
Incident Energy (eV)
19-K -41

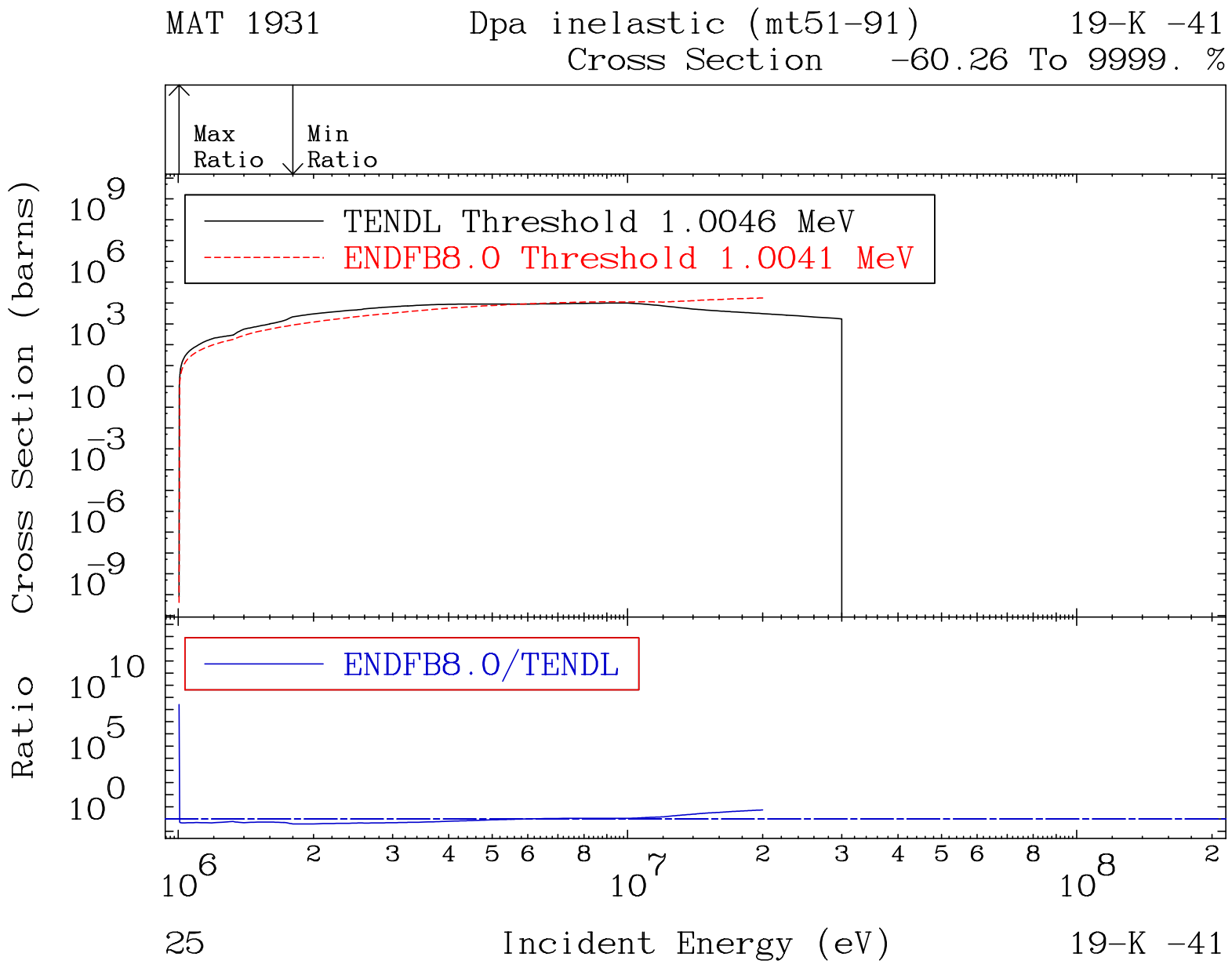

MAT 1931
Kerma capture (mt102)
19-K -41
Cross Section -98.49 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
20
19-K -41

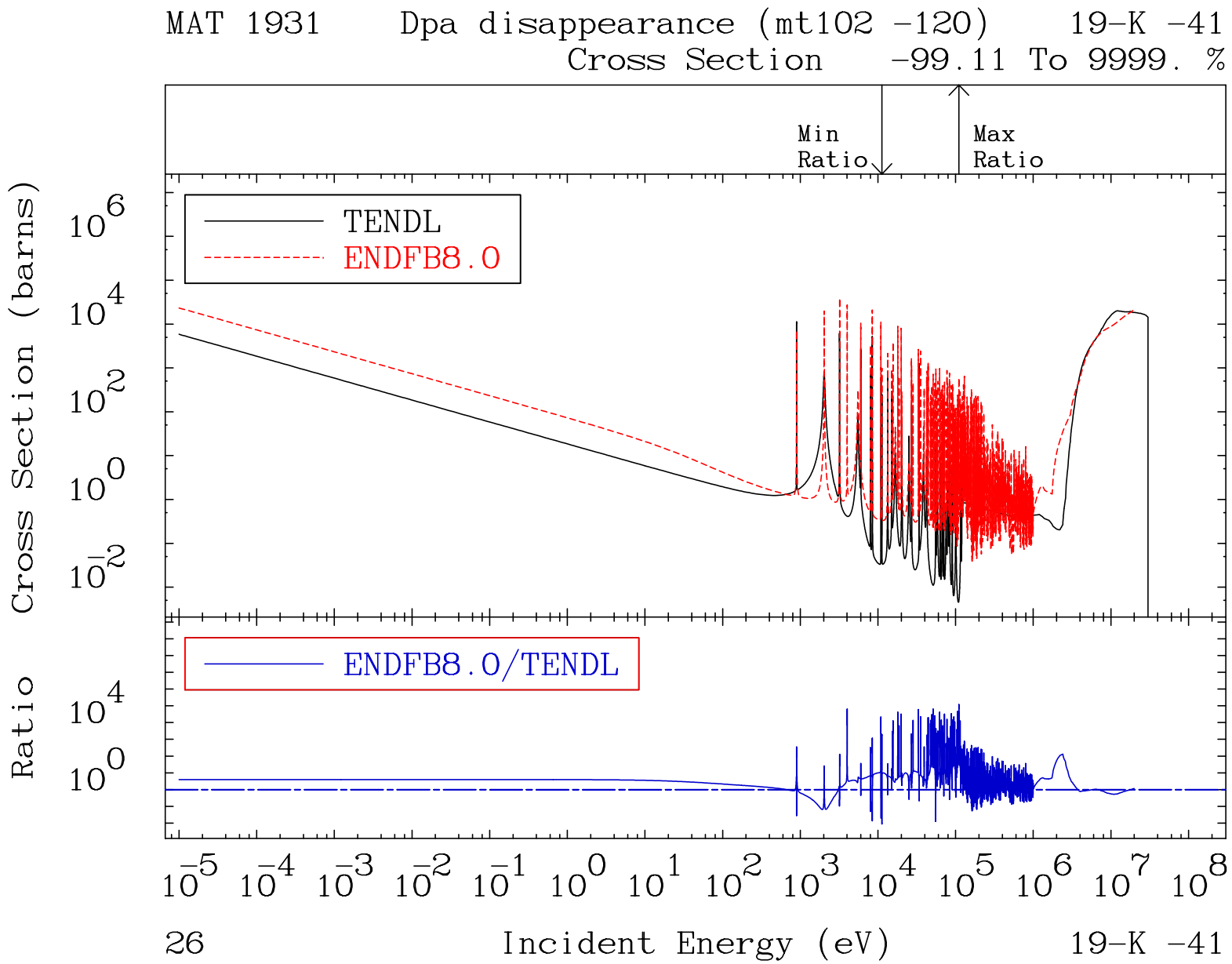

MAT 1931
Total photon (eV-barns)
19-K -41
Cross Section -99.78 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
21
19-K -41


MAT 1931 Total kinematic kerma (high limit) 19-K -41
Cross Section -99.86 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
22
19-K -41


MAT 1931
Dpa total (eV-barns)
19-K -41
Cross Section -99.88 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
23
19-K -41


MAT 1931
Dpa elastic (mt2)
Cross Section
19-K -41
-99.98 To 4916. %
Min Ratio
Max Ratio
TENDL Threshold 265.63 eV
ENDFB8.0 Threshold 265.63 eV
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
24
19-K -41


MAT 1931
Dpa inelastic (mt51-91)
19-K -41
Cross Section -60.26 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 1.0046 MeV
ENDFB8.0 Threshold 1.0041 MeV
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
25
19-K -41


MAT 1931 Dpa disappearance (mt102 -120) 19-K -41
Cross Section -99.11 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
ENDFB8.0/TENDL
Cross Section (barns)
Ratio
Incident Energy (eV)
26
19-K -41