Program Complot
(Version 2018-1)
by
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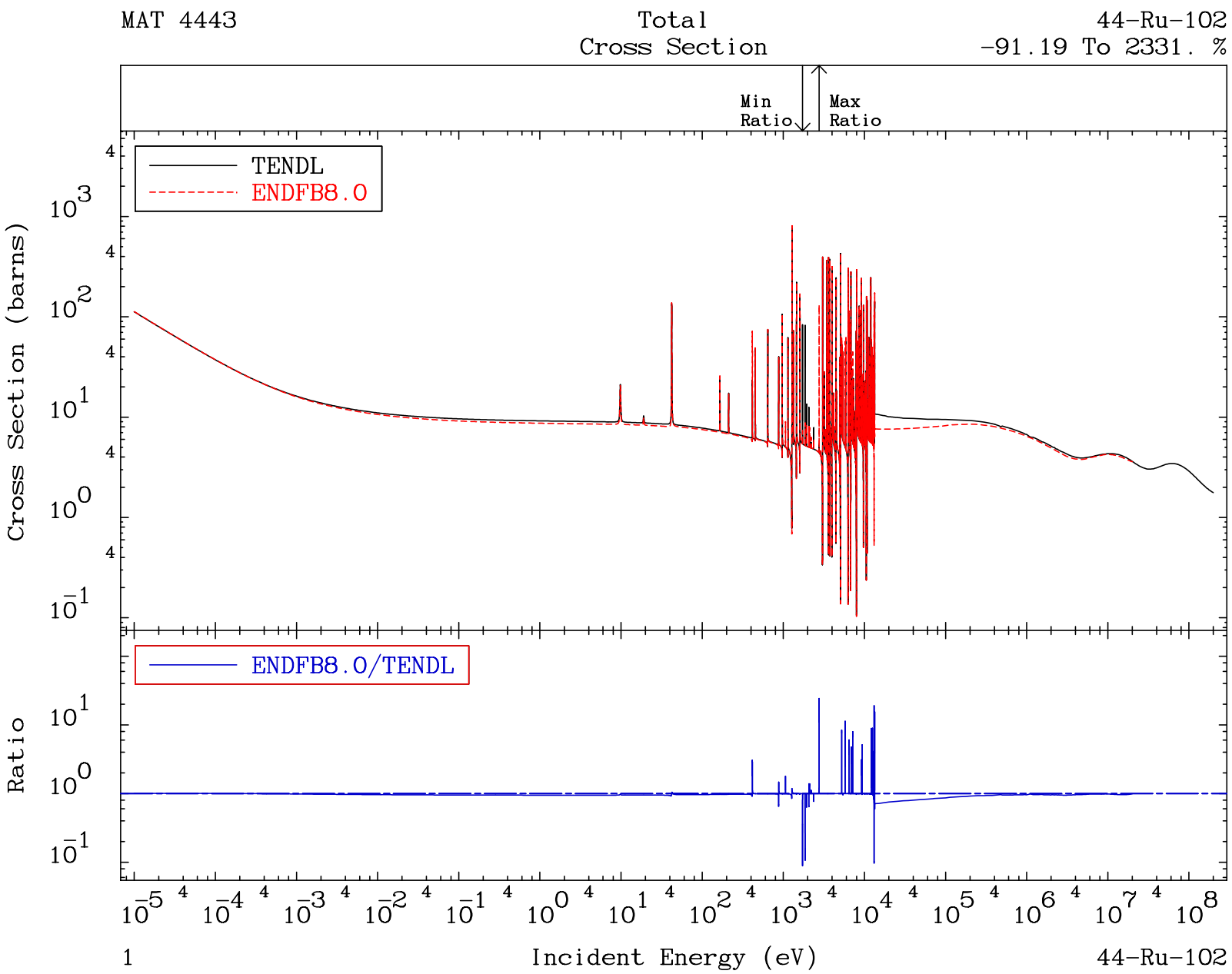
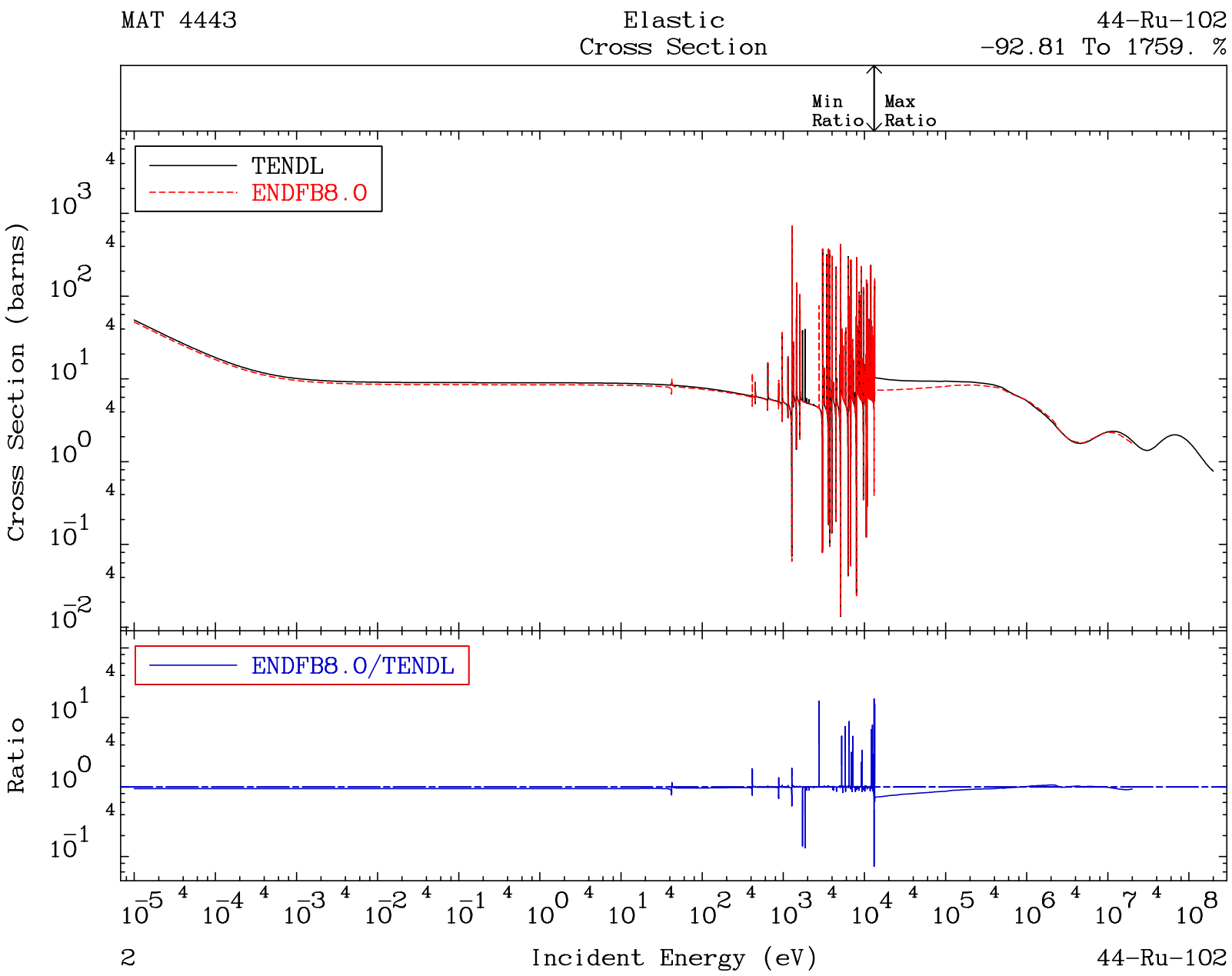
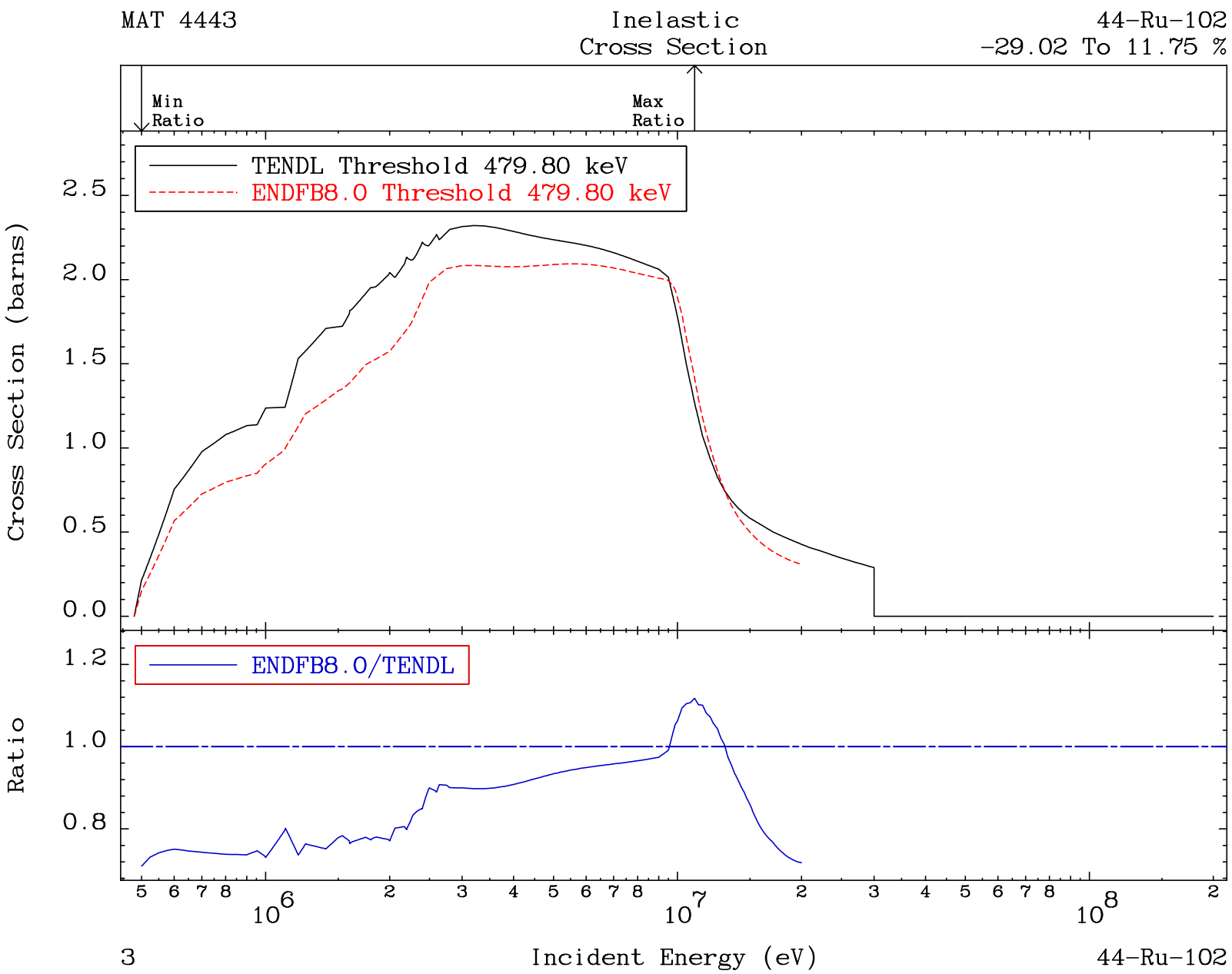
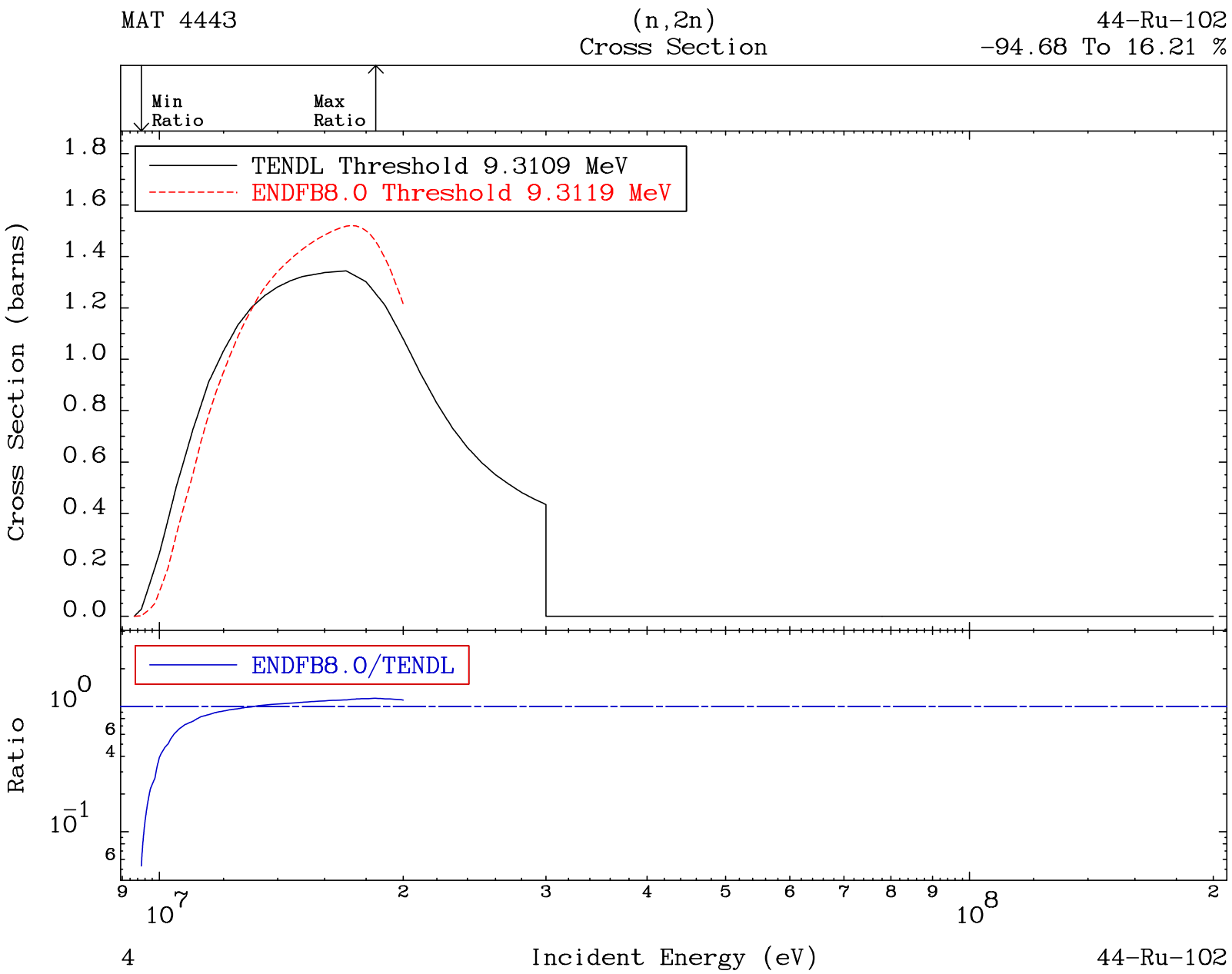
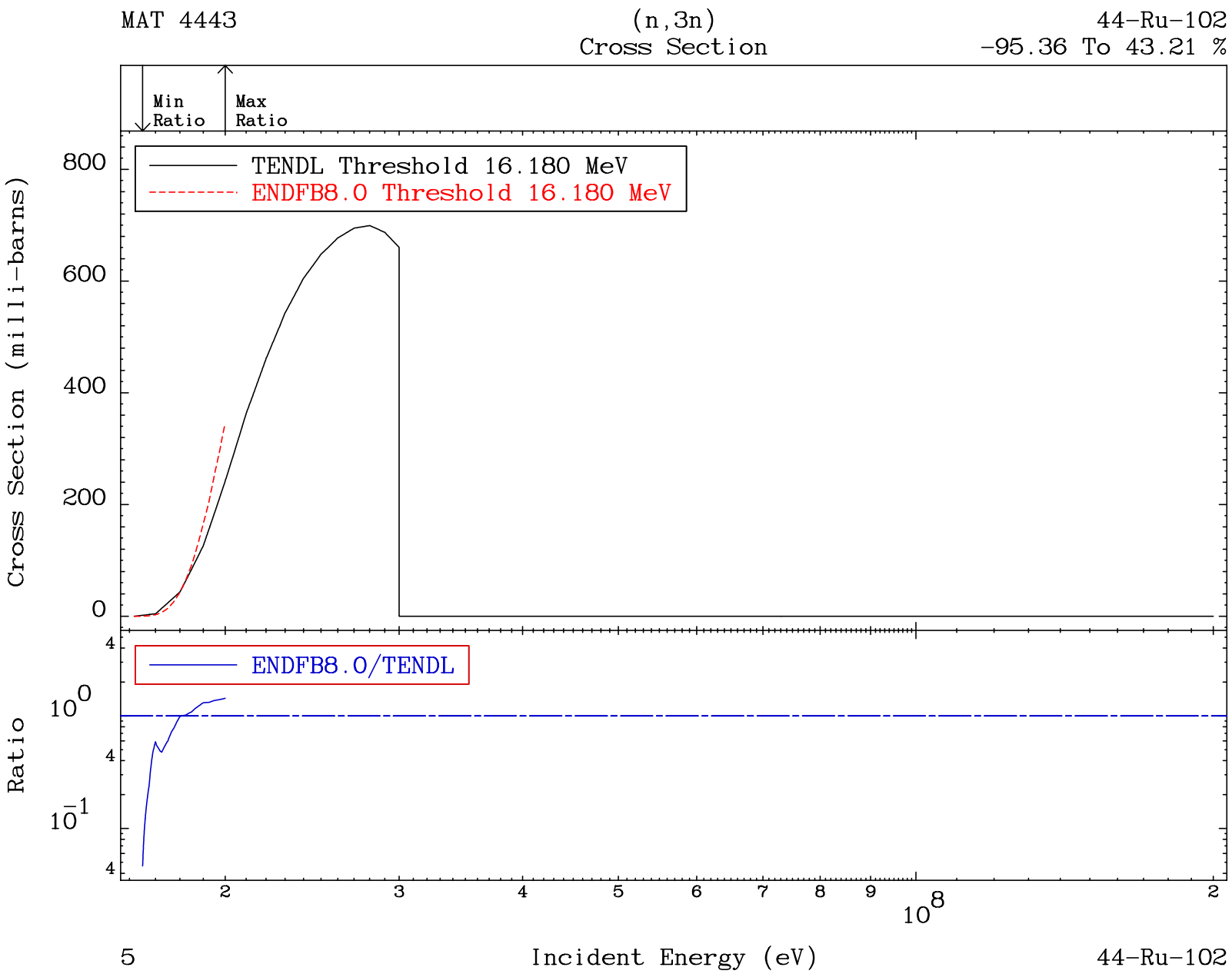
Press Mouse Button to Start

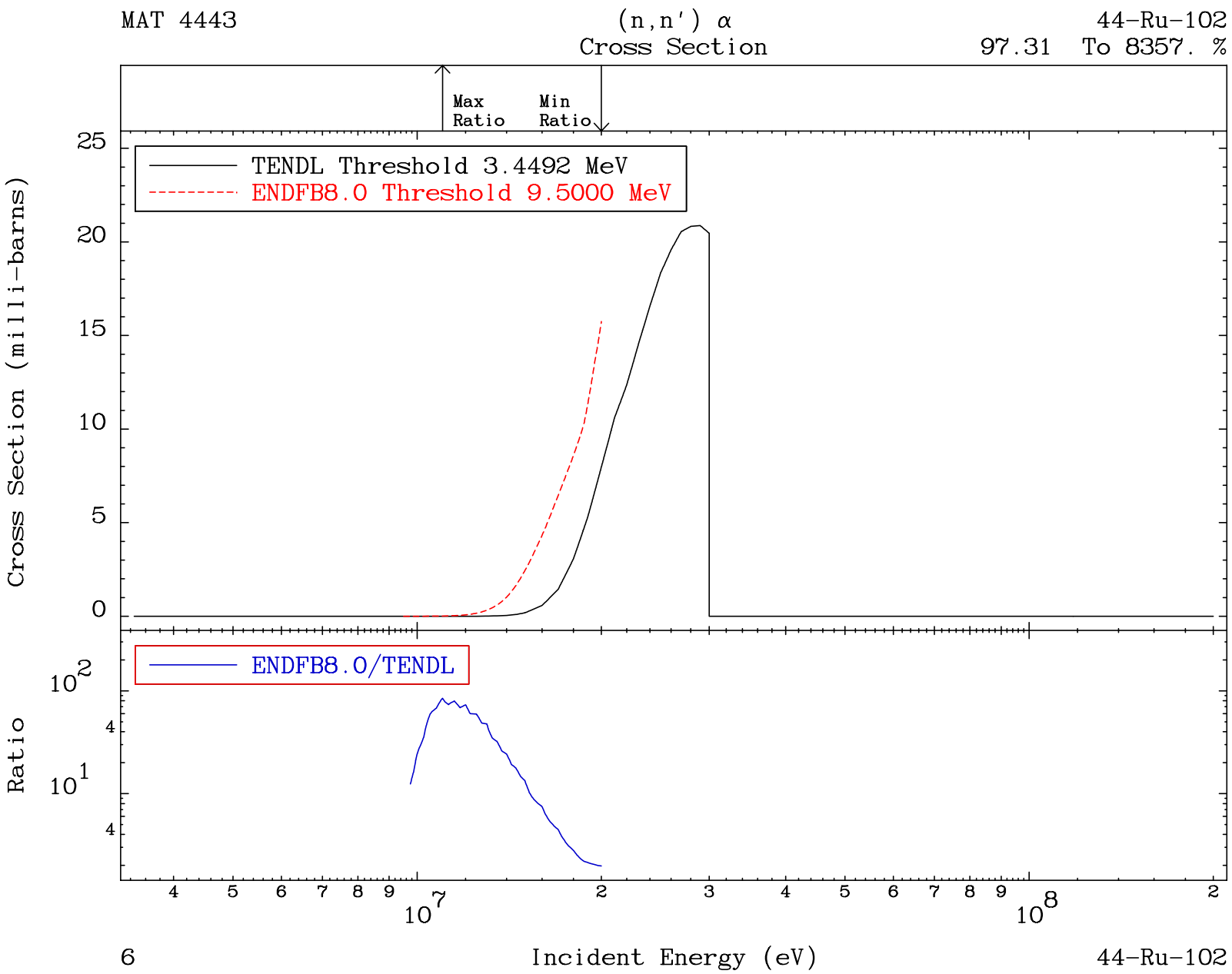

MAT 4443
Total
Cross Section
44-Ru-102
-91.19 To 2331. %
Min
Ratio
Max
Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
1
44-Ru-102

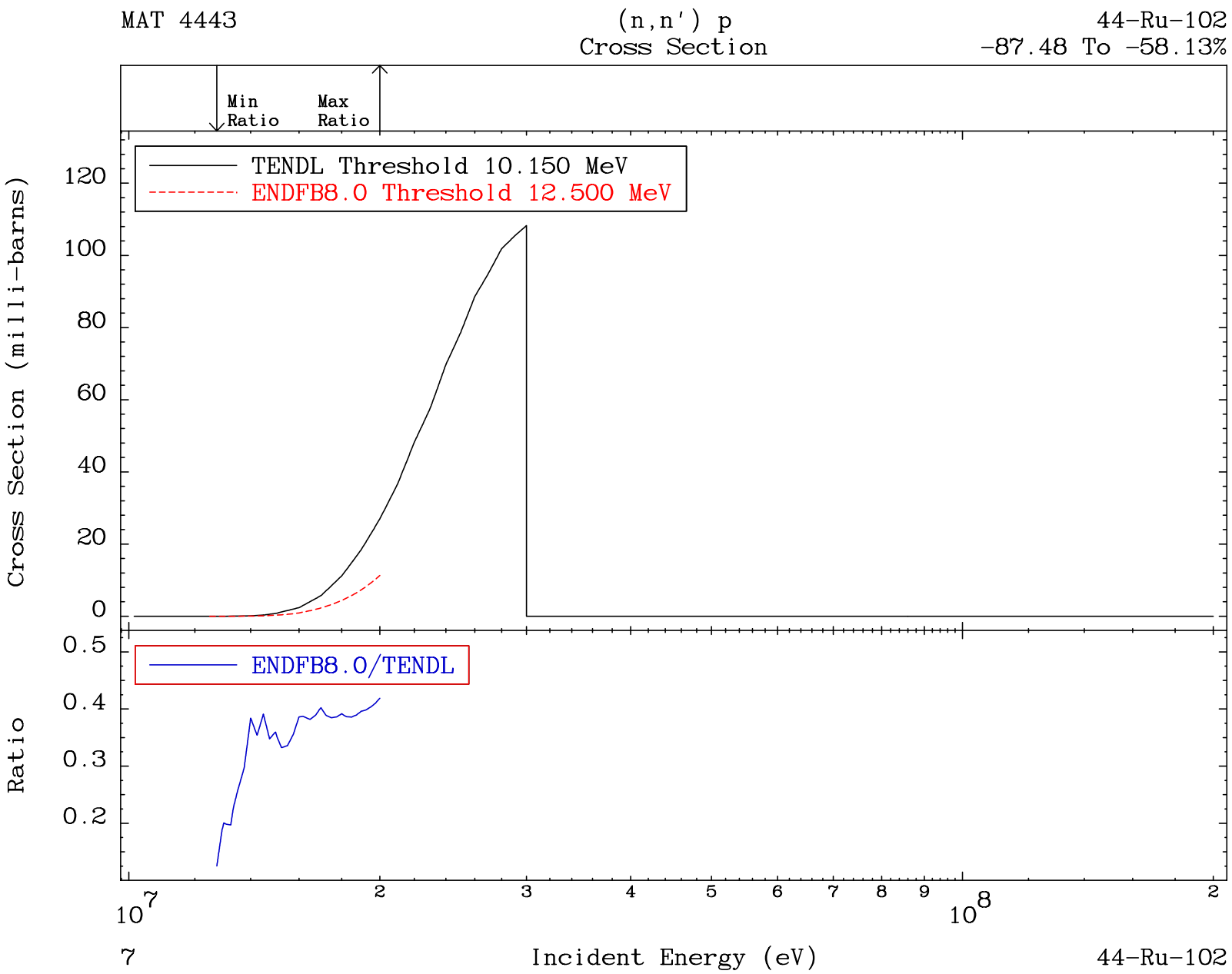

MAT 4443
Elastic
Cross Section
44-Ru-102
-92.81 To 1759. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
2
44-Ru-102

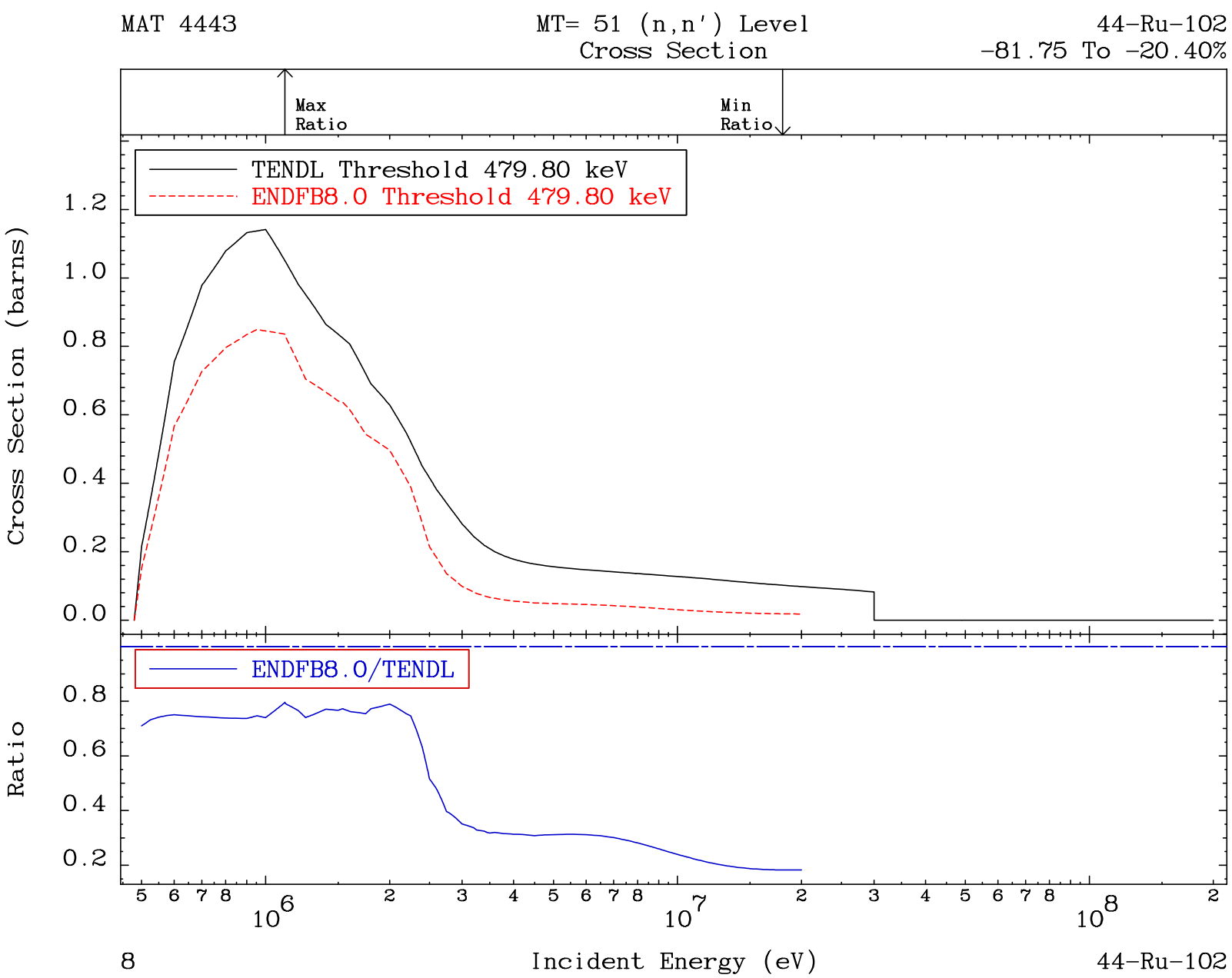

MAT 4443
Inelastic
Cross Section
44-Ru-102
-29.02 To 11.75 %
Min
Ratio
Max
Ratio
TENDL Threshold 479.80 keV
ENDFB8.0 Threshold 479.80 keV
Cross Section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
1.2
1.0
0.8
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
3
Incident Energy (eV)
44-Ru-102

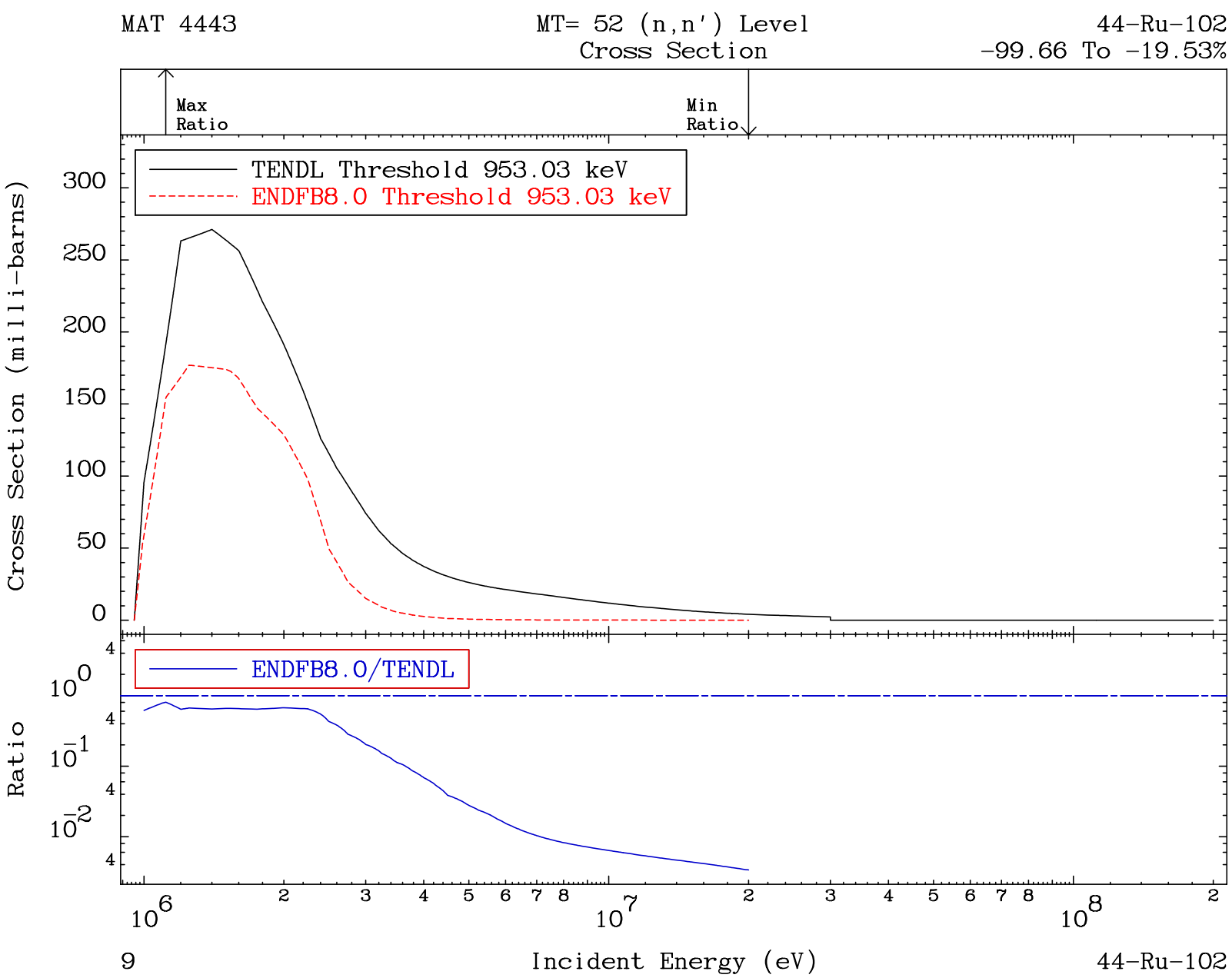

MAT 4443
(n,2n)
Cross Section
44-Ru-102
-94.68 To 16.21 %
Min Ratio
Max Ratio
TENDL Threshold 9.3109 MeV
ENDFB8.0 Threshold 9.3119 MeV
Cross Section (barns)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
ENDFB8.0/TENDL
Ratio
10^0
10^-1
Incident Energy (eV)
10^7
10^8
44-Ru-102

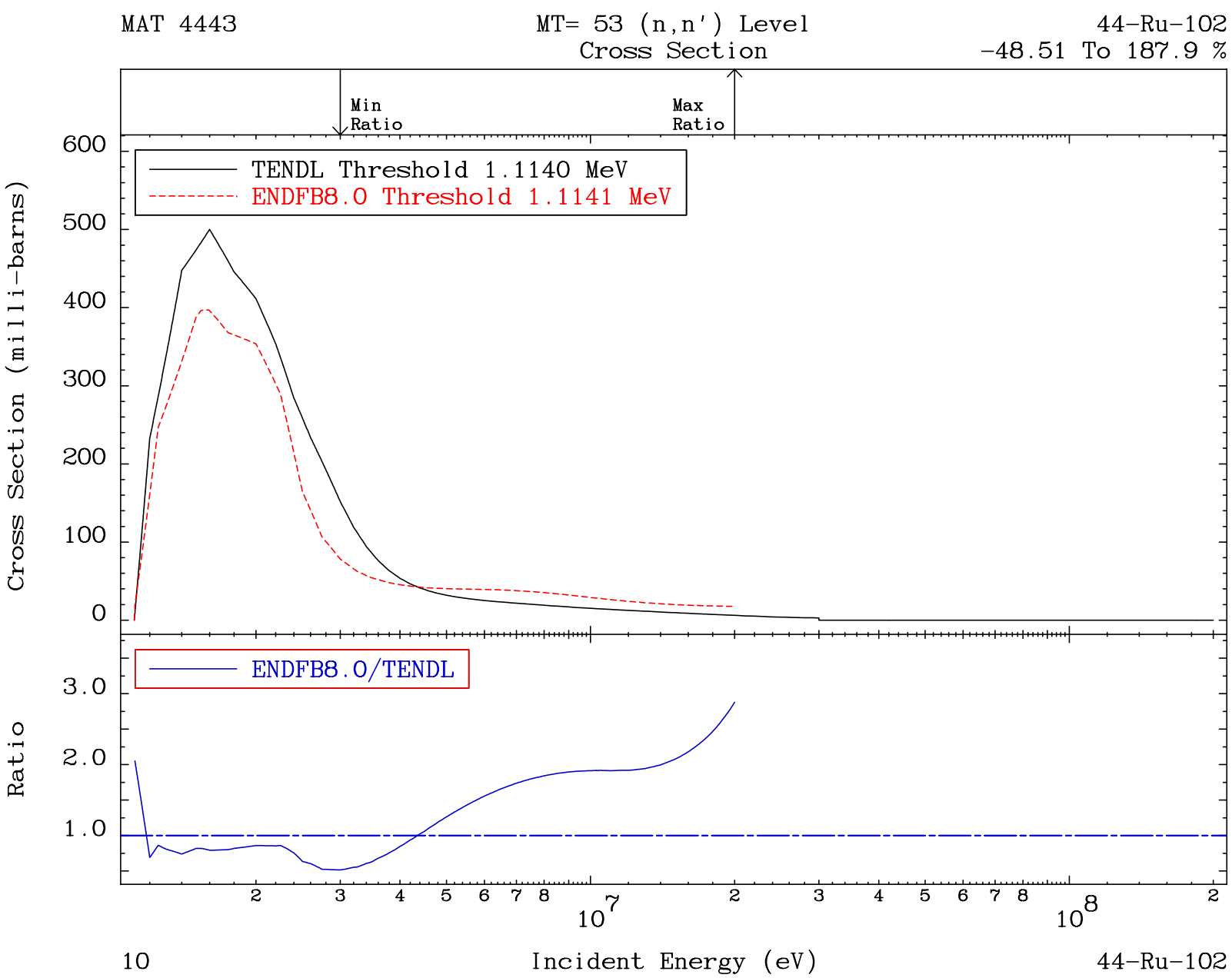

MAT 4443
(n,3n)
Cross Section
44-Ru-102
-95.36 To 43.21 %
Min Ratio
Max Ratio
TENDL Threshold 16.180 MeV
ENDFB8.0 Threshold 16.180 MeV
Cross Section (milli-barns)
800
600
400
200
0
ENDFB8.0/TENDL
Ratio
10^0
10^-1
2
3
4
5
6
7
8
9
10^8
2
5
Incident Energy (eV)
44-Ru-102

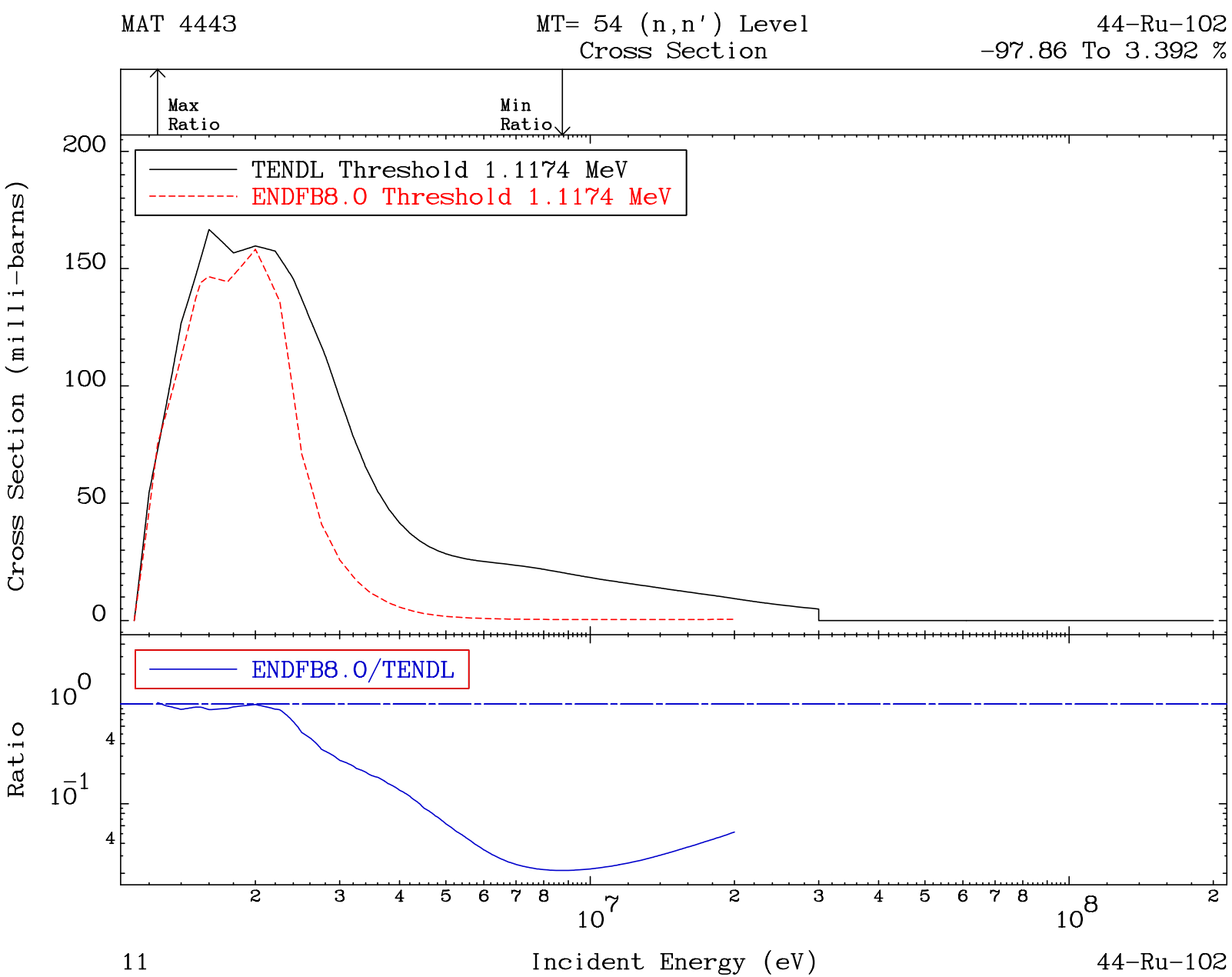

MAT 4443
(n,n') α
Cross Section
44-Ru-102
97.31 To 8357. %
Max Ratio
Min Ratio
TENDL Threshold 3.4492 MeV
ENDFB8.0 Threshold 9.5000 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
ENDFB8.0/TENDL
Ratio
10^2
4
10^1
4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
Incident Energy (eV)
6
44-Ru-102

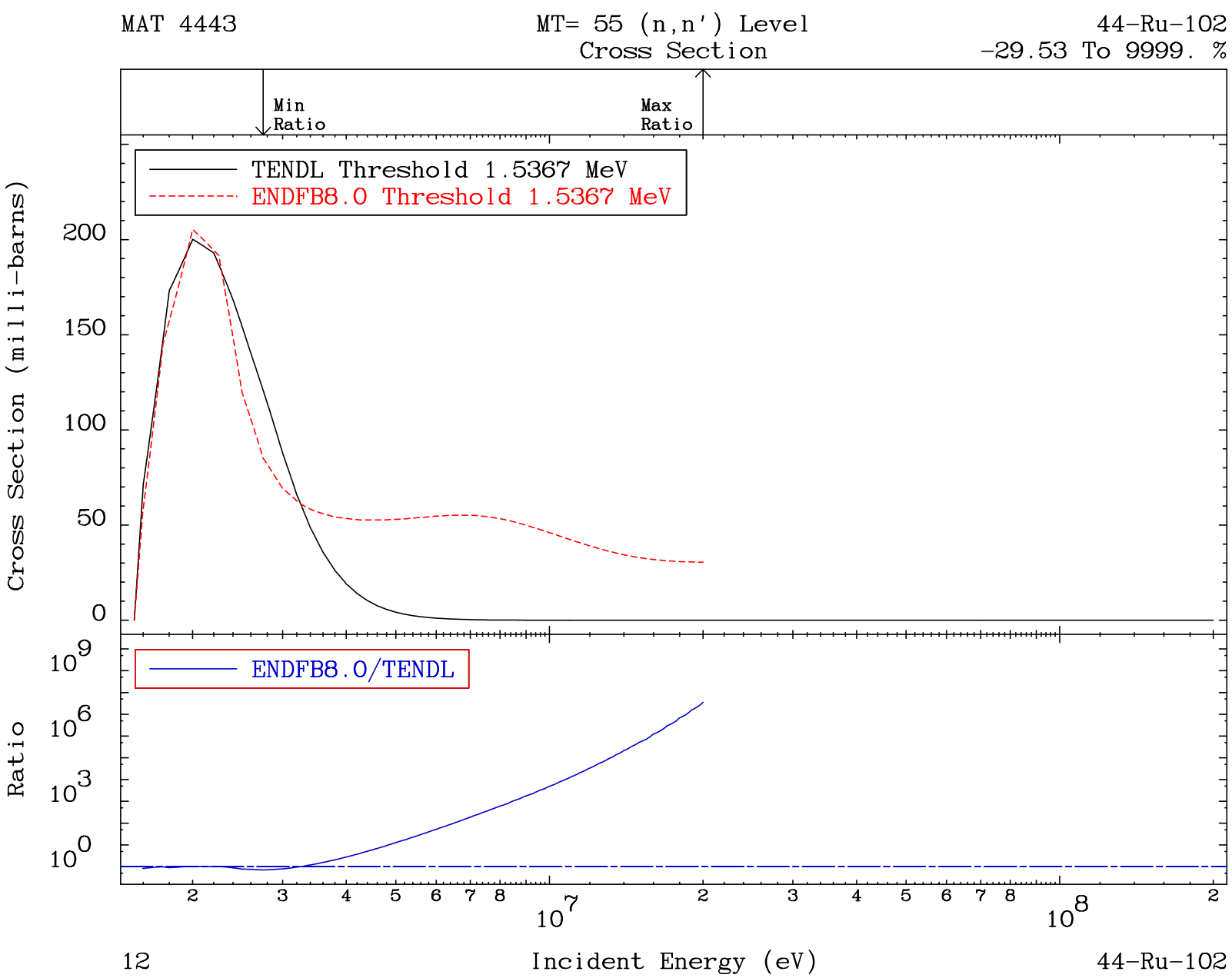

MAT 4443
(n,n') p
Cross Section
44-Ru-102
-87.48 To -58.13%
Min Ratio
Max Ratio
TENDL Threshold 10.150 MeV
ENDFB8.0 Threshold 12.500 MeV
Cross Section (milli-barns)
120
100
80
60
40
20
0
ENDFB8.0/TENDL
Ratio
0.5
0.4
0.3
0.2
10^7
2
3
4
5
6
7
8
9
10^8
2
7
Incident Energy (eV)
44-Ru-102

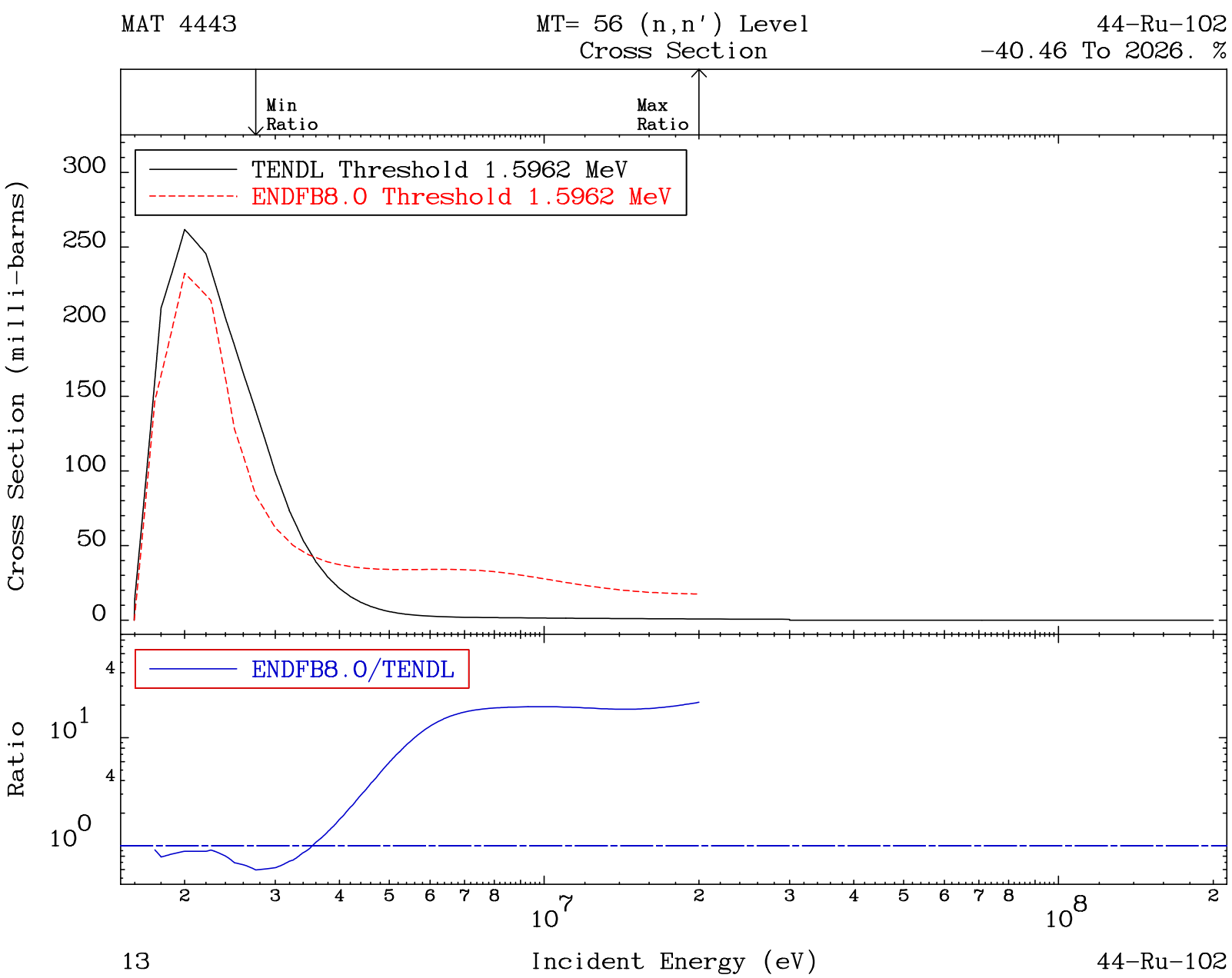

MAT 4443
MT= 51 (n,n') Level
Cross Section
44-Ru-102
-81.75 To -20.40%
Max
Ratio
Min
Ratio
TENDL Threshold 479.80 keV
ENDFB8.0 Threshold 479.80 keV
Cross Section (barns)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
ENDFB8.0/TENDL
Ratio
0.8
0.6
0.4
0.2
5 6 7 8
10^6
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
8
Incident Energy (eV)
44-Ru-102

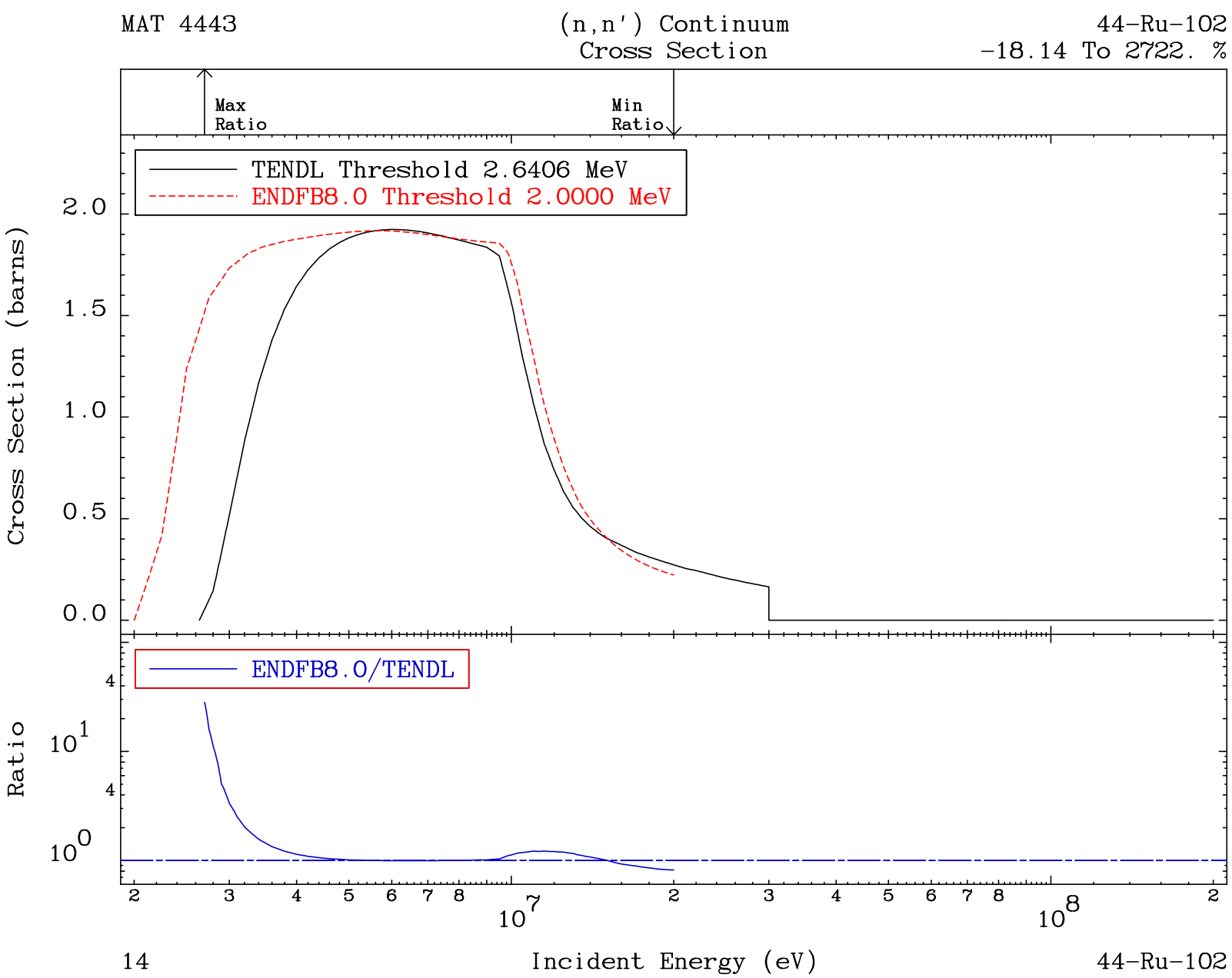

MAT 4443
MT= 52 (n,n') Level
Cross Section
44-Ru-102
-99.66 To -19.53%
Max
Ratio
Min
Ratio
TENDL Threshold 953.03 keV
ENDFB8.0 Threshold 953.03 keV
Cross Section (milli-barns)
300
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^0
10^-1
10^-2
10^6
10^7
10^8
Incident Energy (eV)
9
44-Ru-102

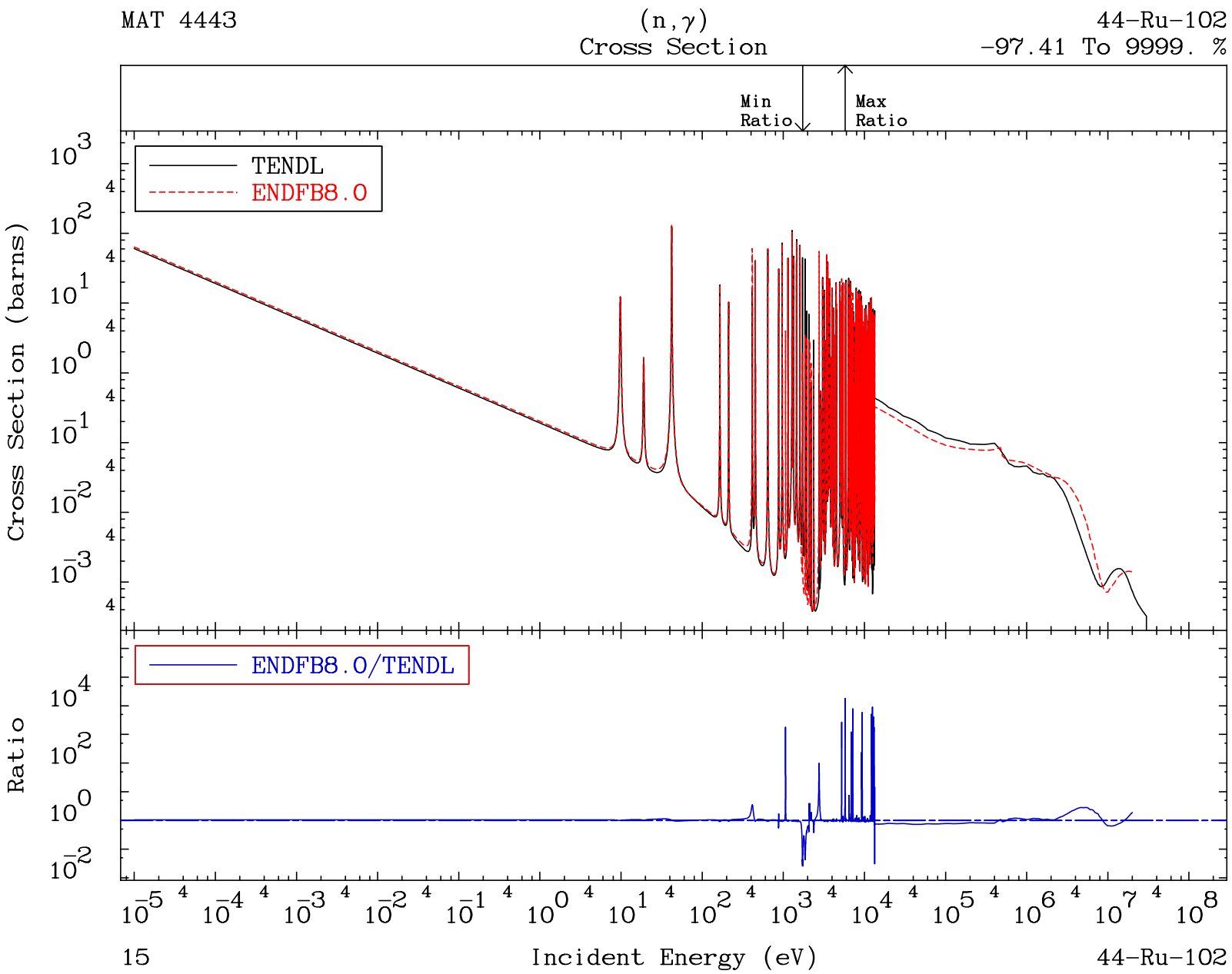

MAT 4443
MT= 53 (n,n') Level
Cross Section
44-Ru-102
-48.51 To 187.9 %
Min
Ratio
Max
Ratio
TENDL Threshold 1.1140 MeV
ENDFB8.0 Threshold 1.1141 MeV
Cross Section (milli-barns)
600
500
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
3.0
2.0
1.0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
10
Incident Energy (eV)
44-Ru-102

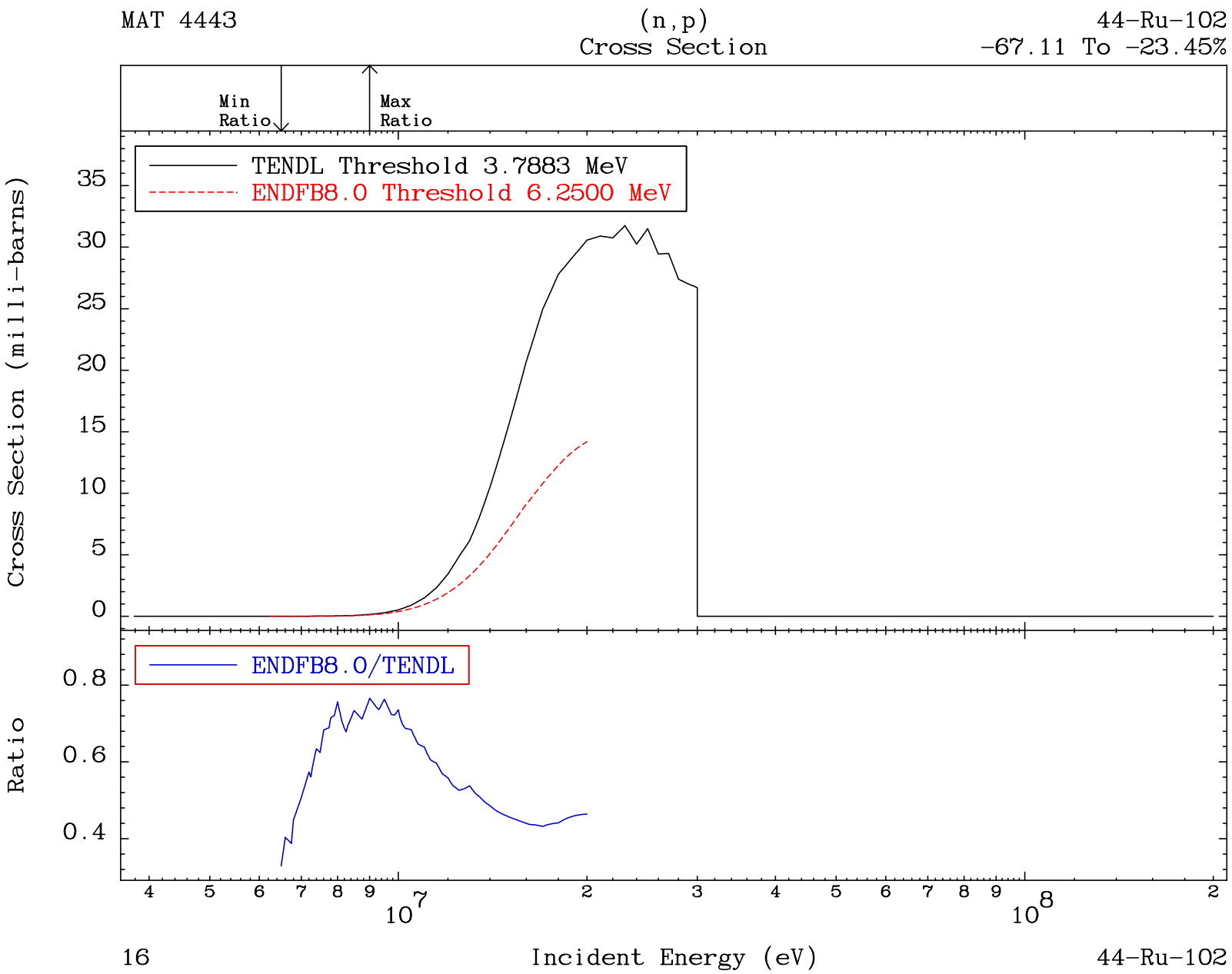

MAT 4443
MT= 54 (n,n') Level
Cross Section
44-Ru-102
-97.86 To 3.392 %
Max
Ratio
Min
Ratio
TENDL Threshold 1.1174 MeV
ENDFB8.0 Threshold 1.1174 MeV
Cross Section (milli-barns)
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^0
4
10^-1
4
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
11
Incident Energy (eV)
44-Ru-102

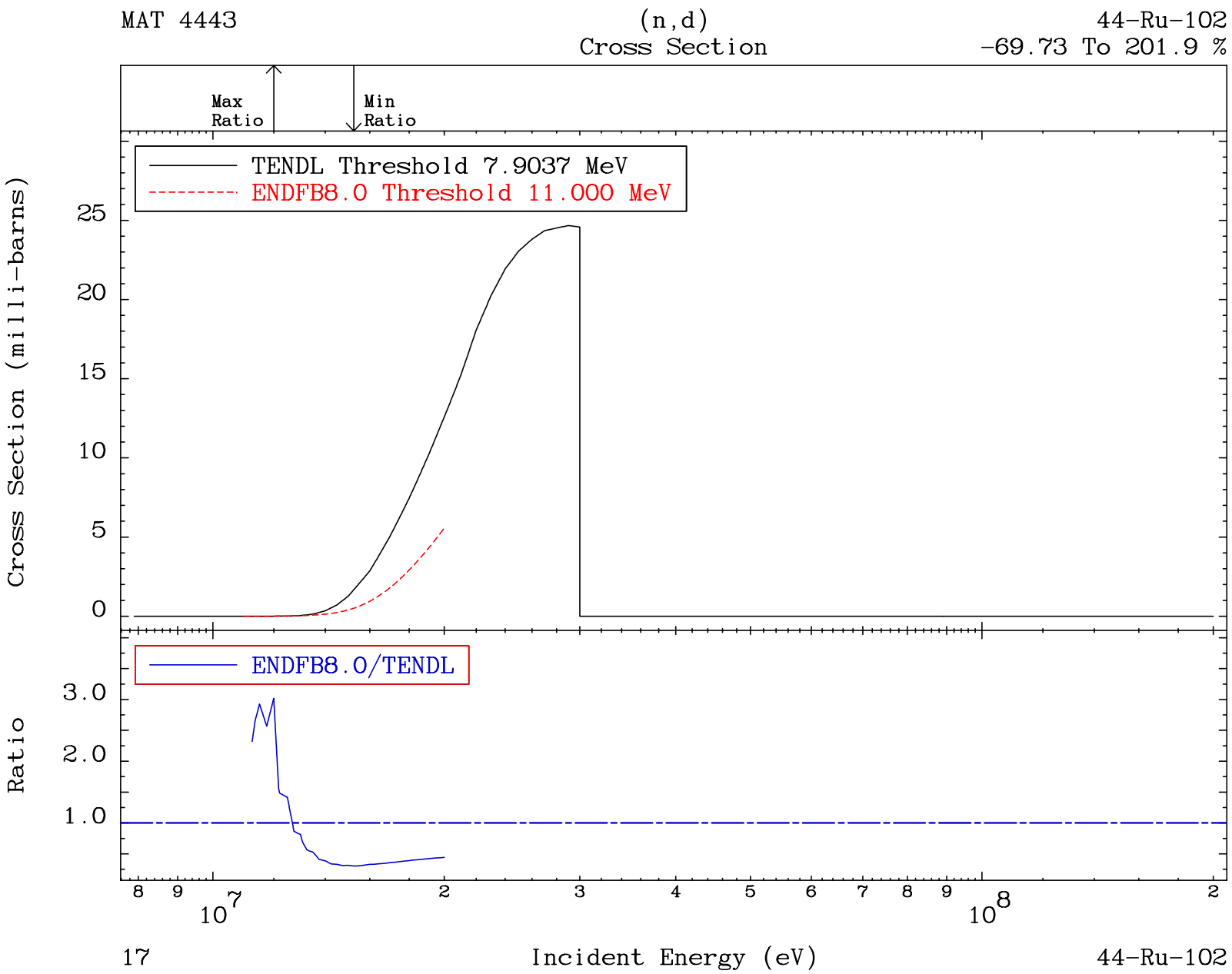

MAT 4443
MT= 55 (n,n') Level
Cross Section
44-Ru-102
-29.53 To 9999. %
Min
Ratio
Max
Ratio
TENDL Threshold 1.5367 MeV
ENDFB8.0 Threshold 1.5367 MeV
Cross Section (milli-barns)
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^9
10^6
10^3
10^0
2 3 4 5 6 7 8
10^7
2 3 4 5 6 7 8
10^8
2
12
Incident Energy (eV)
44-Ru-102

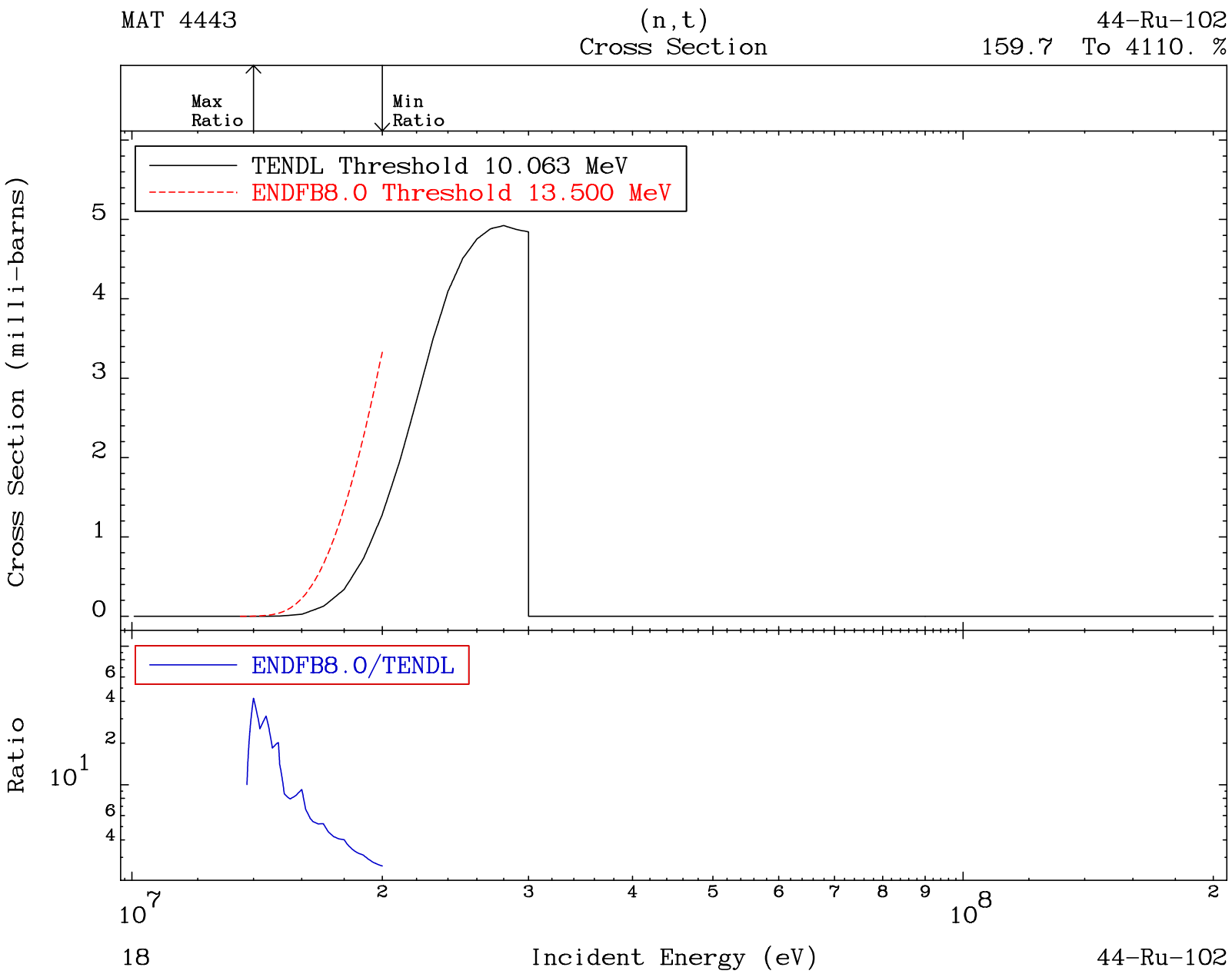

MAT 4443
MT= 56 (n,n') Level
Cross Section
44-Ru-102
-40.46 To 2026. %
Min
Ratio
Max
Ratio
TENDL Threshold 1.5962 MeV
ENDFB8.0 Threshold 1.5962 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
4
10^1
4
10^0
2
3
4
5
6
7
8
10^7
2
3
4
5
6
7
8
10^8
2
13
Incident Energy (eV)
44-Ru-102

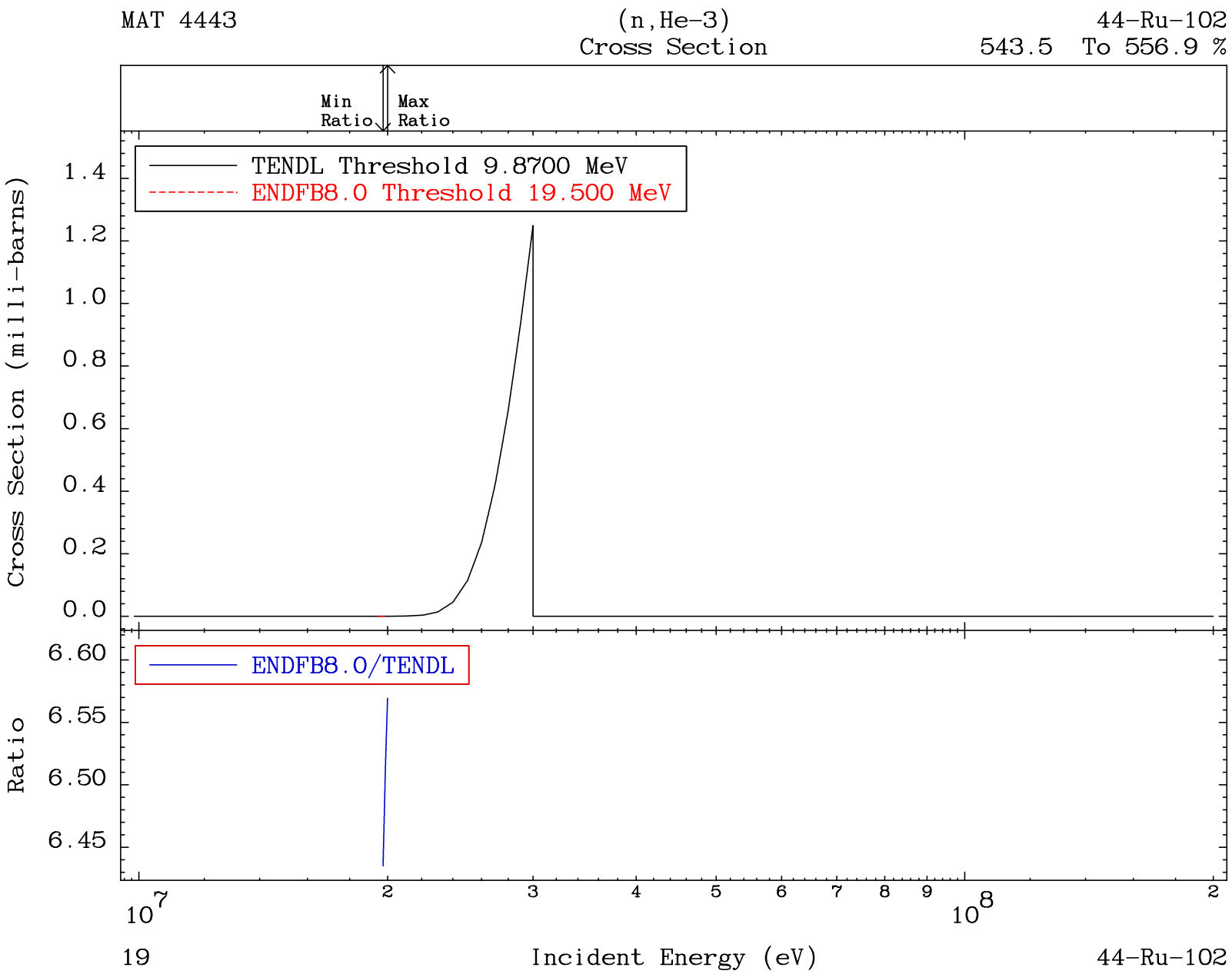

MAT 4443
(n,n') Continuum
Cross Section
44-Ru-102
-18.14 To 2722. %
Max Ratio
Min Ratio
TENDL Threshold 2.6406 MeV
ENDFB8.0 Threshold 2.0000 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
10^1
10^0
2 3 4 5 6 7 8 10^7 2 3 4 5 6 7 8 10^8 2
14
Incident Energy (eV)
44-Ru-102

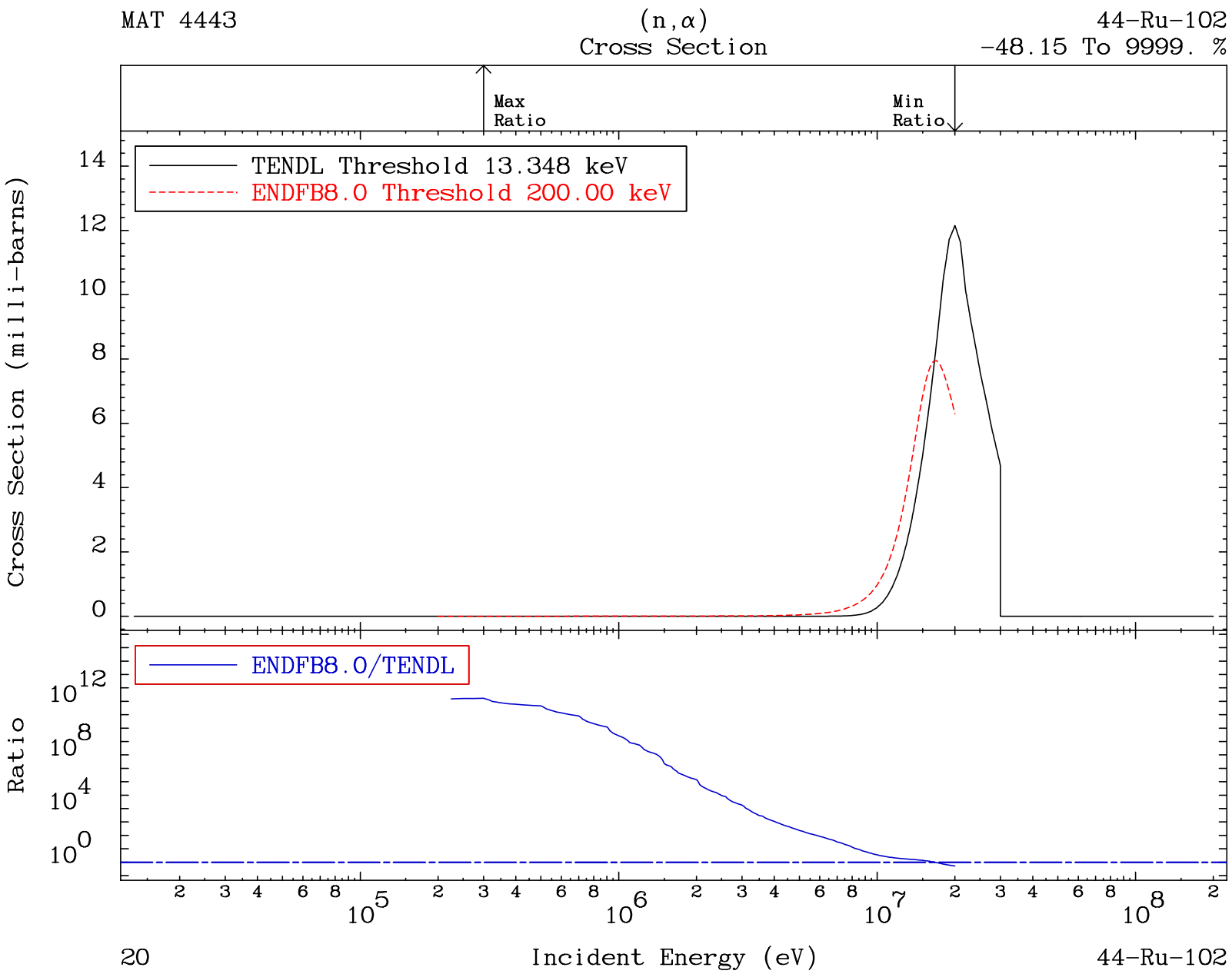

MAT 4443
(n,γ)
Cross Section
44-Ru-102
-97.41 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
15
44-Ru-102

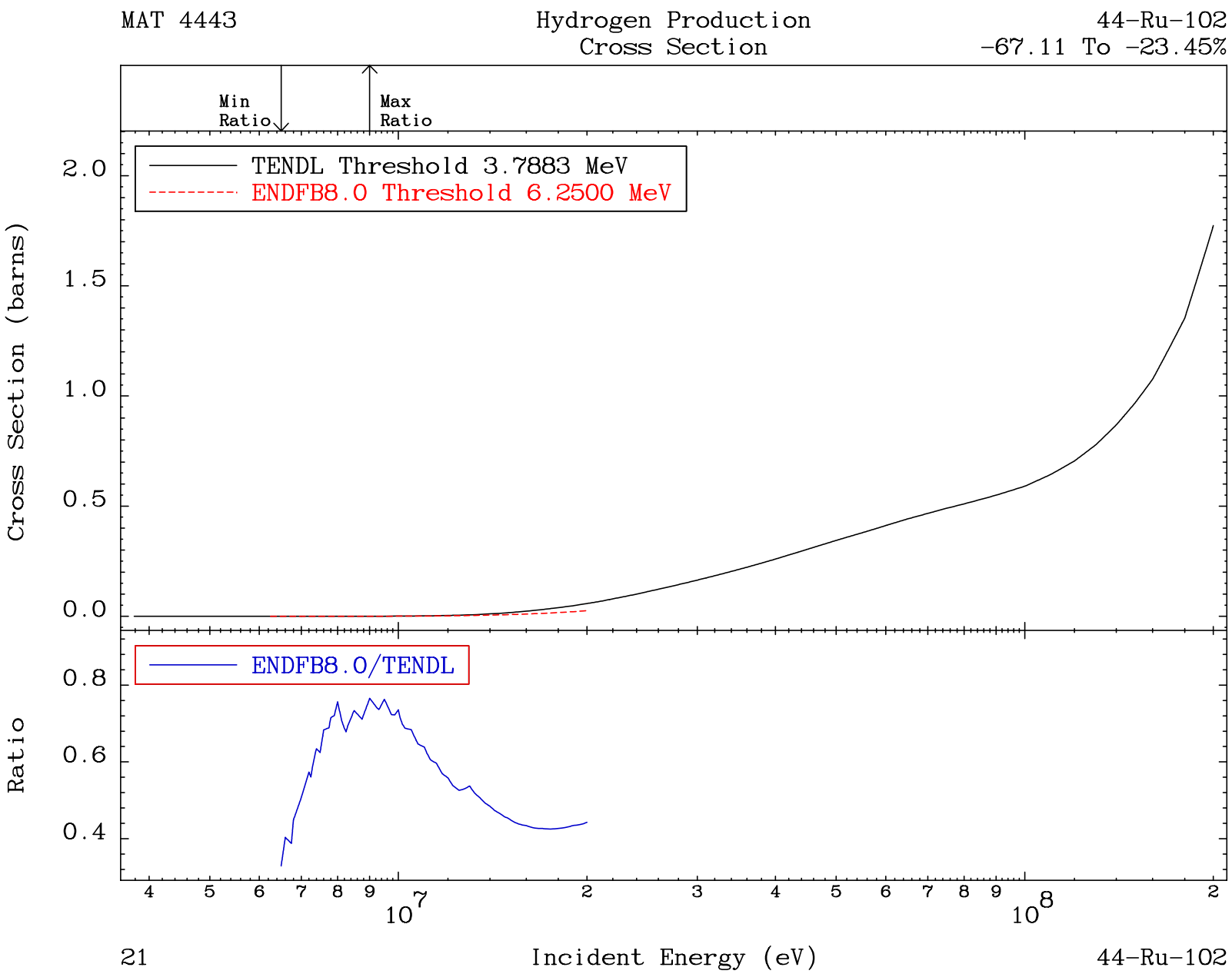

MAT 4443
(n,p)
Cross Section
44-Ru-102
-67.11 To -23.45%
Min Ratio
Max Ratio
TENDL Threshold 3.7883 MeV
ENDFB8.0 Threshold 6.2500 MeV
Cross Section (milli-barns)
35
30
25
20
15
10
5
0
ENDFB8.0/TENDL
Ratio
0.8
0.6
0.4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
16
Incident Energy (eV)
44-Ru-102

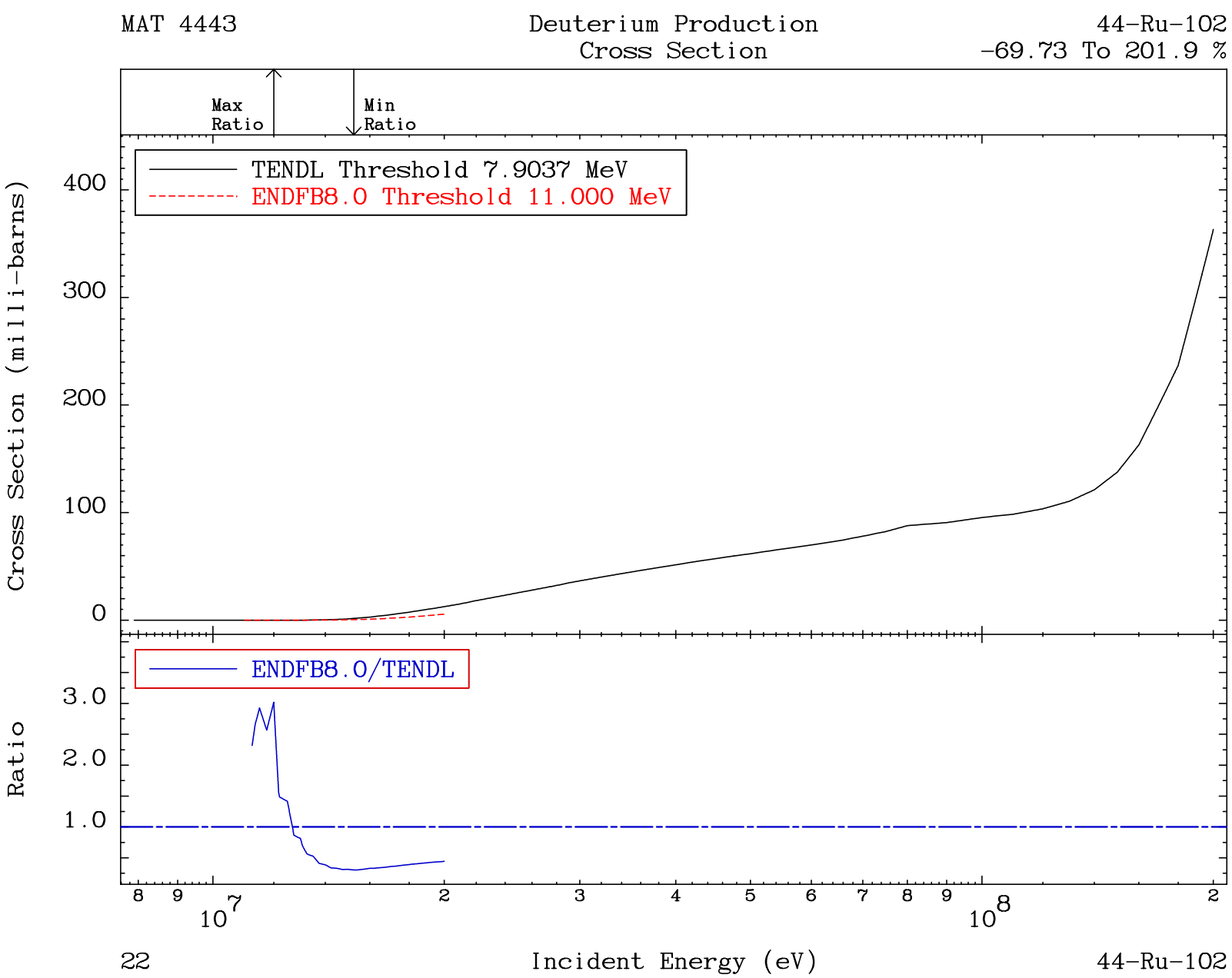

MAT 4443
(n,d)
Cross Section
44-Ru-102
-69.73 To 201.9 %
Max Ratio
Min Ratio
TENDL Threshold 7.9037 MeV
ENDFB8.0 Threshold 11.000 MeV
Cross Section (milli-barns)
25
20
15
10
5
0
ENDFB8.0/TENDL
Ratio
3.0
2.0
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
17
Incident Energy (eV)
44-Ru-102

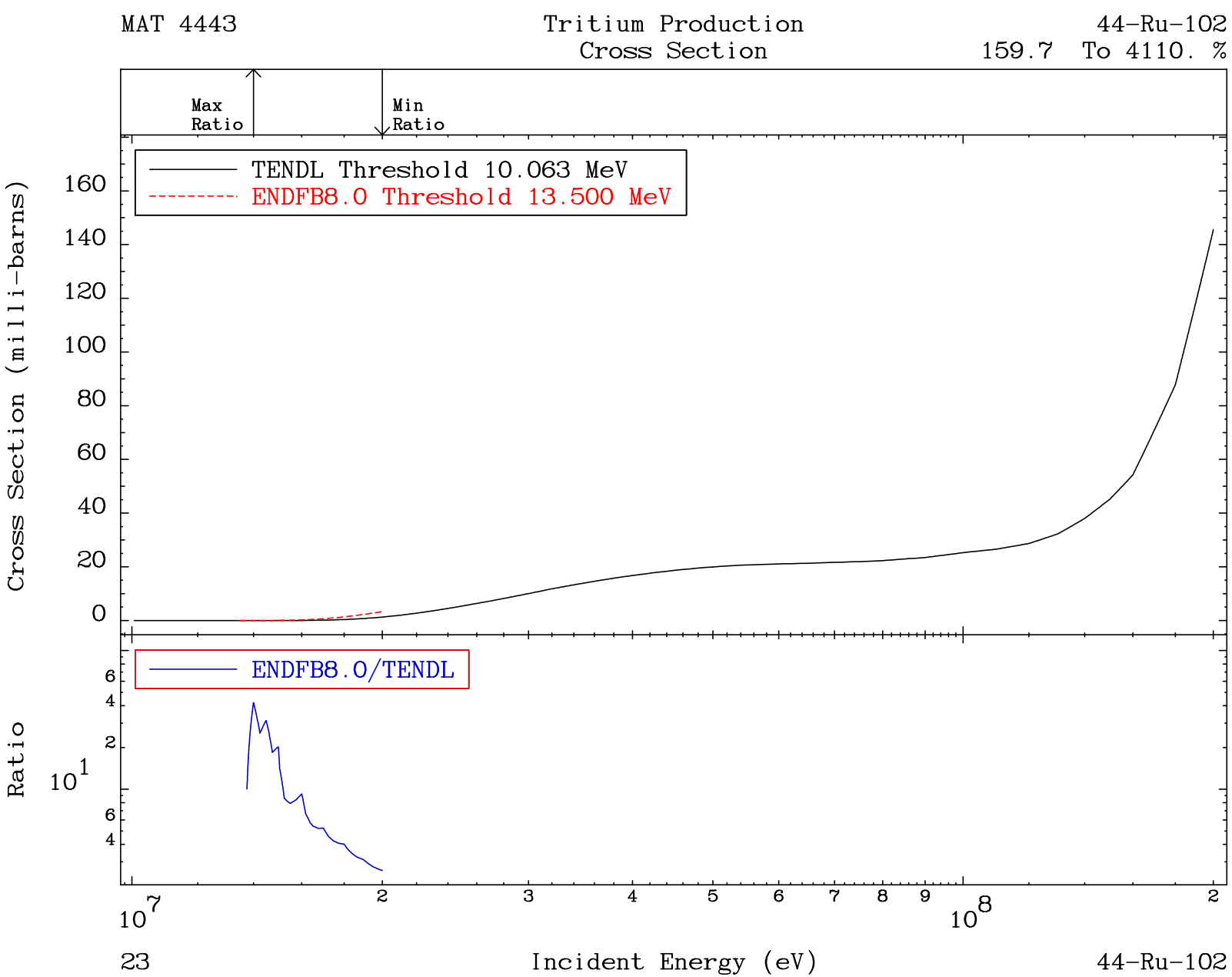

MAT 4443
(n,t)
Cross Section
44-Ru-102
159.7 To 4110. %
Max Ratio
Min Ratio
TENDL Threshold 10.063 MeV
ENDFB8.0 Threshold 13.500 MeV
Cross Section (milli-barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
18
44-Ru-102

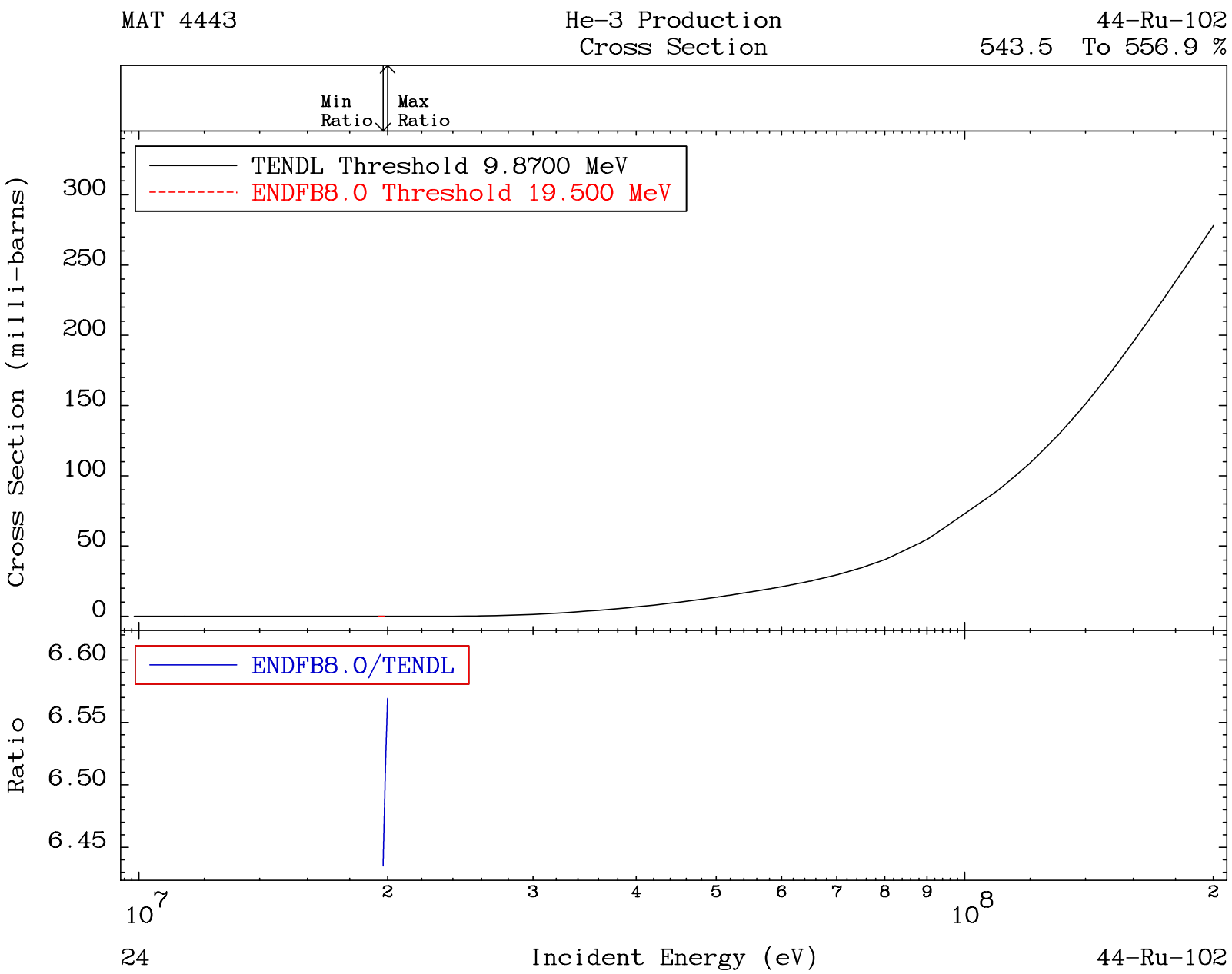

MAT 4443
(n,He-3)
Cross Section
44-Ru-102
543.5 To 556.9 %
Min Ratio
Max Ratio
TENDL Threshold 9.8700 MeV
ENDFB8.0 Threshold 19.500 MeV
Cross Section (milli-barns)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
ENDFB8.0/TENDL
Ratio
6.60
6.55
6.50
6.45
10^7
2
3
4
5
6
7
8
9
10^8
2
19
Incident Energy (eV)
44-Ru-102

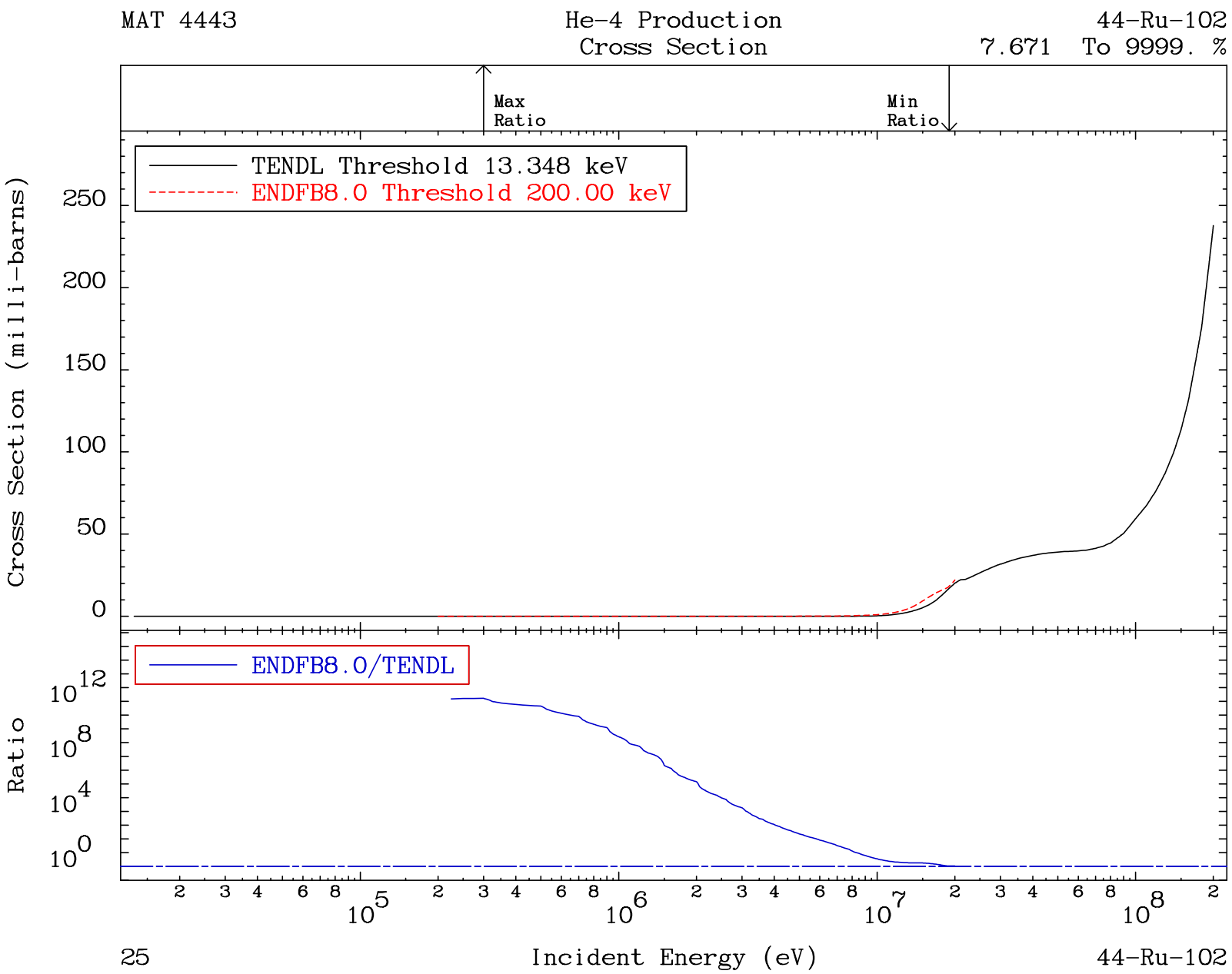

MAT 4443
(n,α)
Cross Section
44-Ru-102
-48.15 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.348 keV
ENDFB8.0 Threshold 200.00 keV
Cross Section (milli-barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
20
44-Ru-102

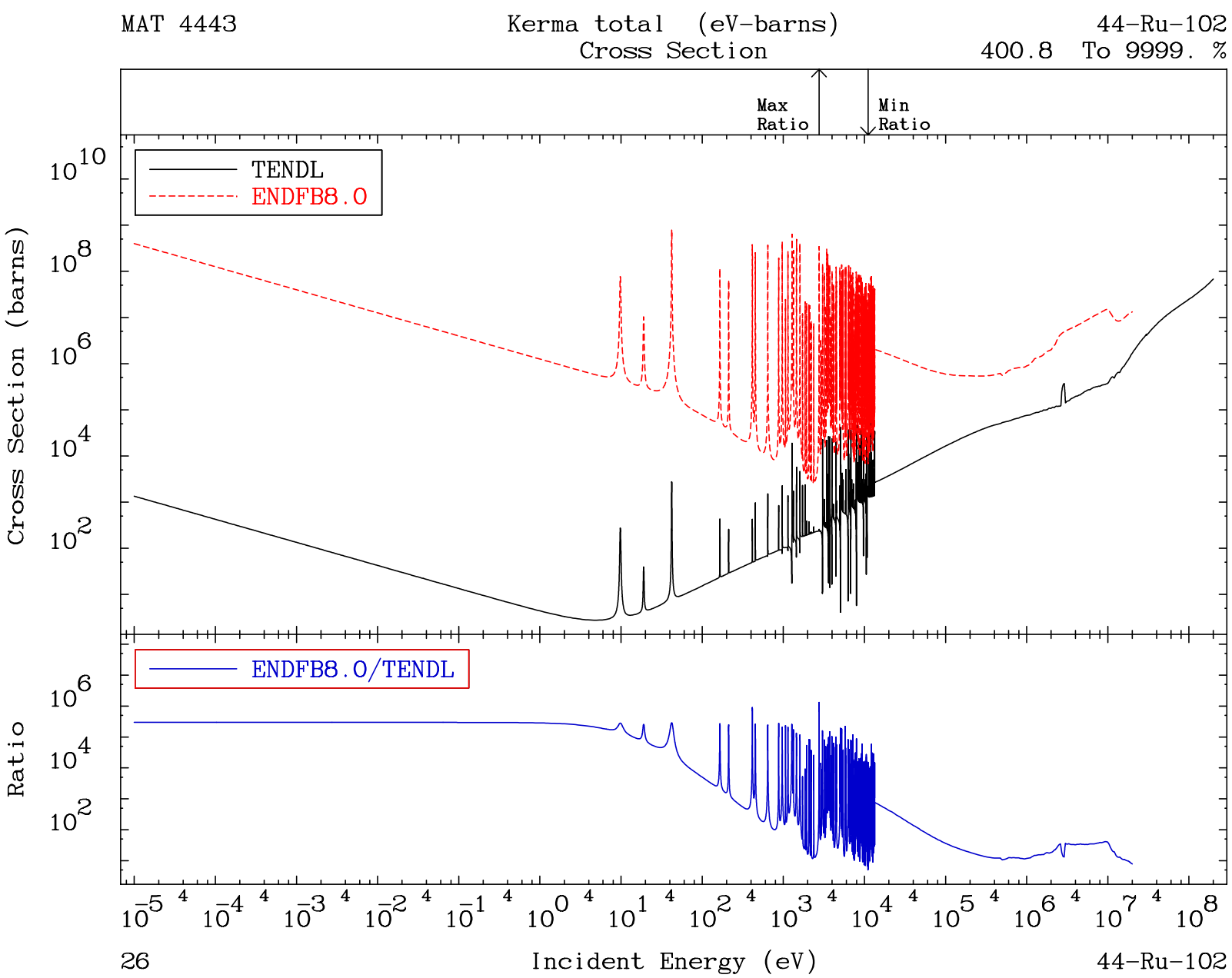

MAT 4443
Hydrogen Production
Cross Section
44-Ru-102
-67.11 To -23.45%
Min Ratio
Max Ratio
TENDL Threshold 3.7883 MeV
ENDFB8.0 Threshold 6.2500 MeV
Cross Section (barns)
2.0
1.5
1.0
0.5
0.0
ENDFB8.0/TENDL
Ratio
0.8
0.6
0.4
4 5 6 7 8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
21
Incident Energy (eV)
44-Ru-102

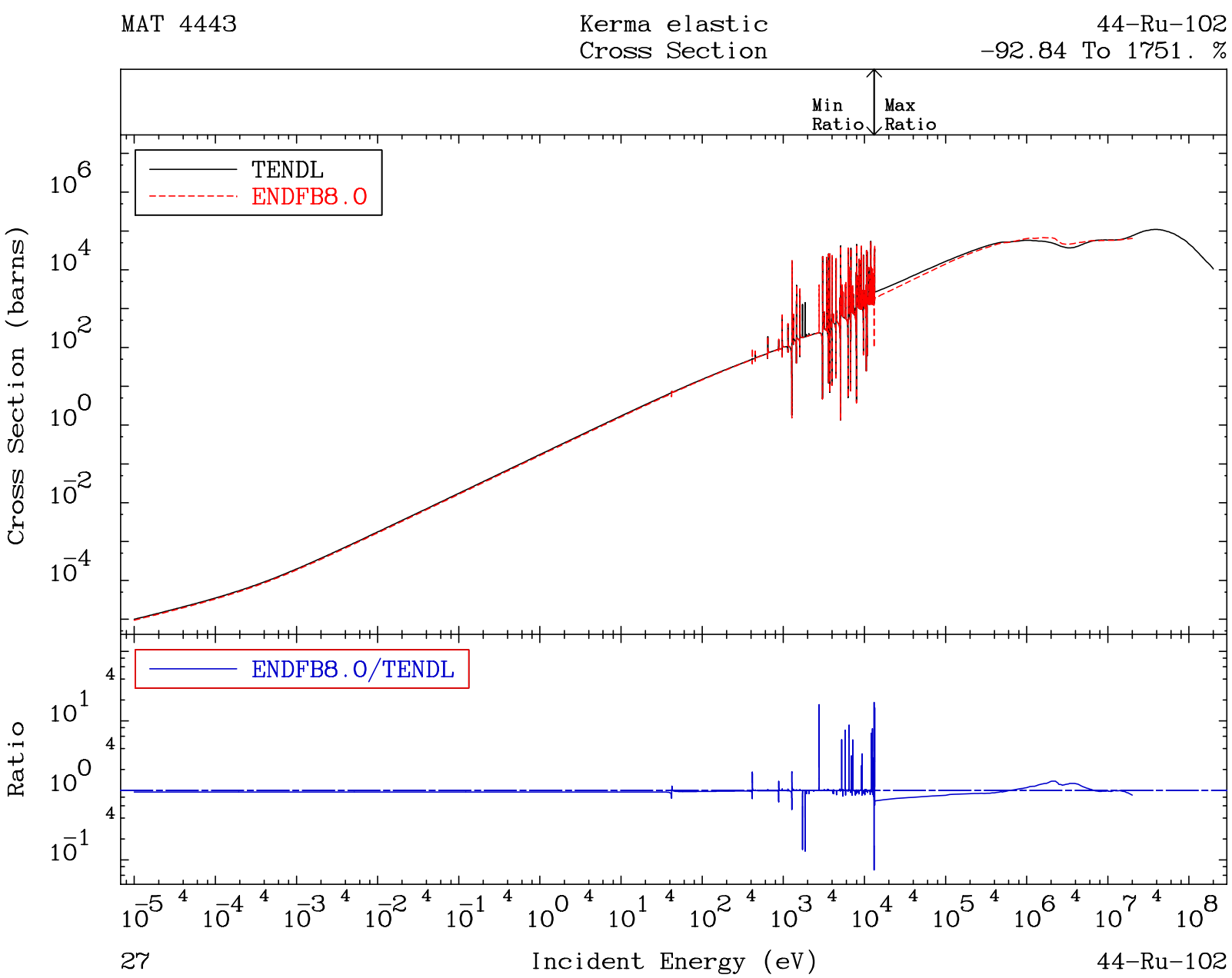

MAT 4443
Deuterium Production
Cross Section
44-Ru-102
-69.73 To 201.9 %
Max Ratio
Min Ratio
TENDL Threshold 7.9037 MeV
ENDFB8.0 Threshold 11.000 MeV
Cross Section (milli-barns)
400
300
200
100
0
ENDFB8.0/TENDL
Ratio
3.0
2.0
1.0
8 9 10^7 2 3 4 5 6 7 8 9 10^8 2
22
Incident Energy (eV)
44-Ru-102

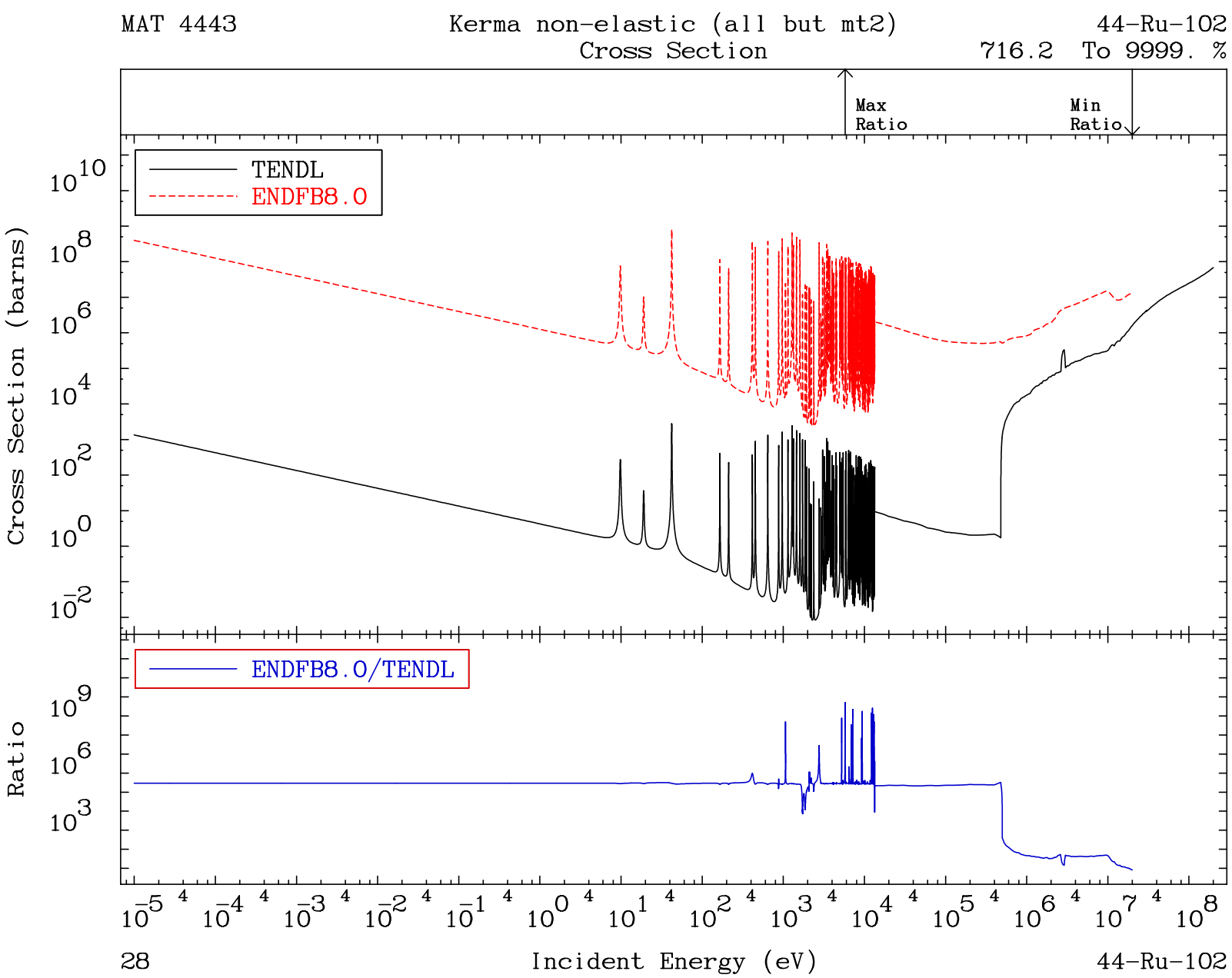

MAT 4443
Tritium Production
Cross Section
44-Ru-102
159.7 To 4110. %
Max Ratio
Min Ratio
TENDL Threshold 10.063 MeV
ENDFB8.0 Threshold 13.500 MeV
Cross Section (milli-barns)
160
140
120
100
80
60
40
20
0
ENDFB8.0/TENDL
Ratio
6
4
2
10^1
6
4
10^7
2
3
4
5
6
7
8
9
10^8
2
23
Incident Energy (eV)
44-Ru-102

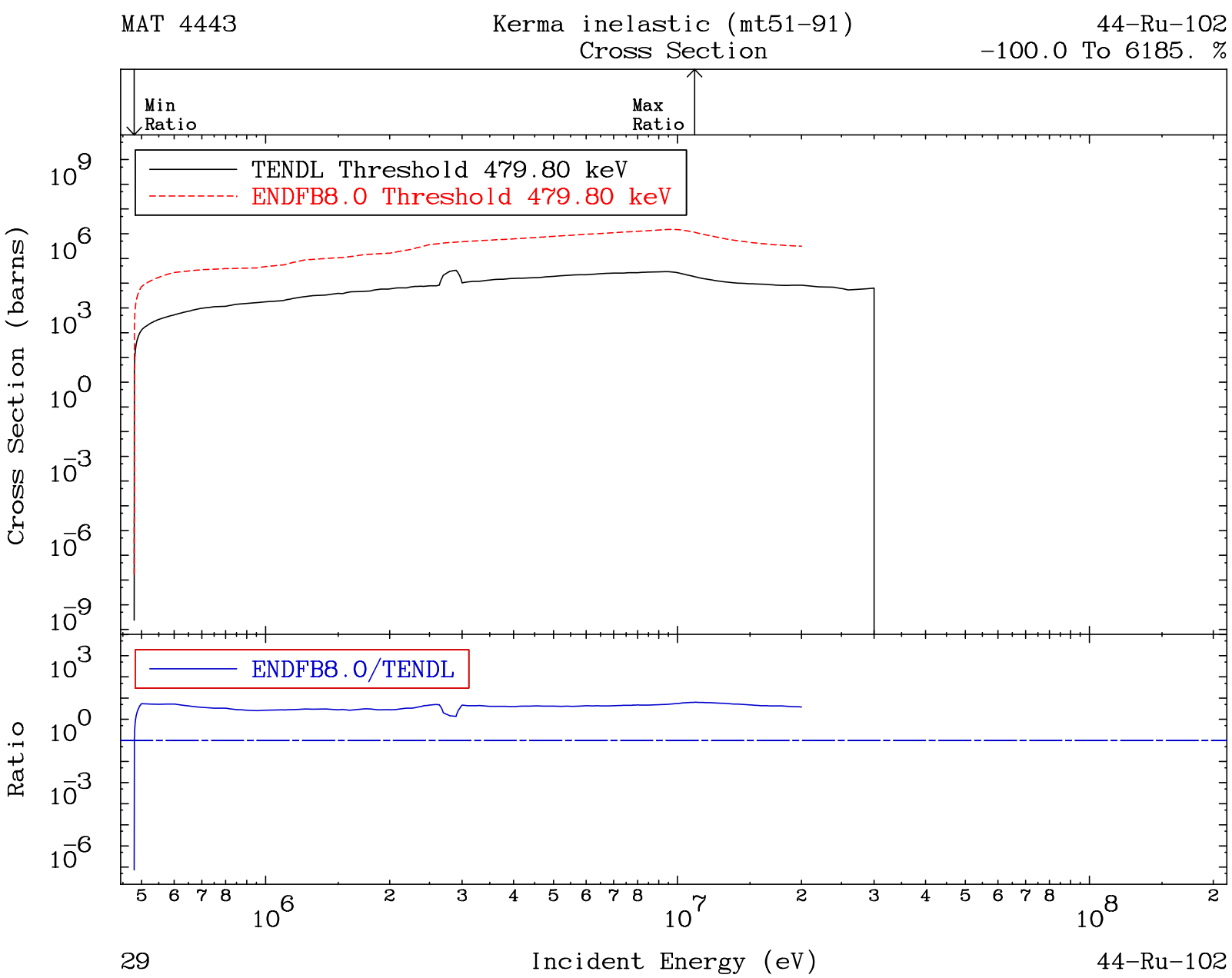

MAT 4443
He-3 Production
Cross Section
44-Ru-102
543.5 To 556.9 %
Min Ratio
Max Ratio
TENDL Threshold 9.8700 MeV
ENDFB8.0 Threshold 19.500 MeV
Cross Section (milli-barns)
300
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
6.60
6.55
6.50
6.45
10^7
2
3
4
5
6
7
8
9
10^8
2
24
Incident Energy (eV)
44-Ru-102

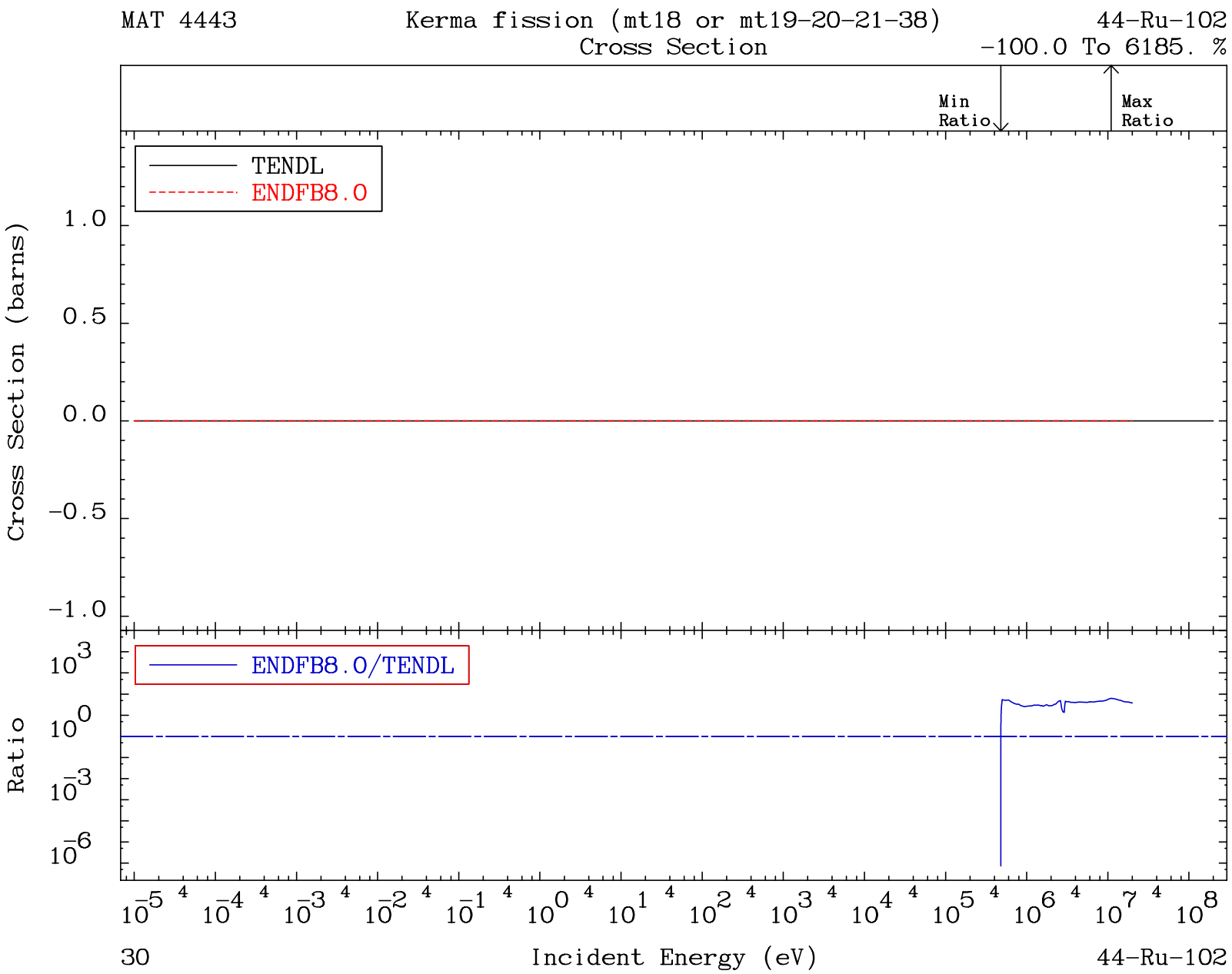

MAT 4443
He-4 Production
Cross Section
44-Ru-102
7.671 To 9999. %
Max Ratio
Min Ratio
TENDL Threshold 13.348 keV
ENDFB8.0 Threshold 200.00 keV
Cross Section (milli-barns)
250
200
150
100
50
0
ENDFB8.0/TENDL
Ratio
10^12
10^8
10^4
10^0
2 3 4 6 8 10^5 2 3 4 6 8 10^6 2 3 4 6 8 10^7 2 3 4 6 8 10^8 2
25
Incident Energy (eV)
44-Ru-102

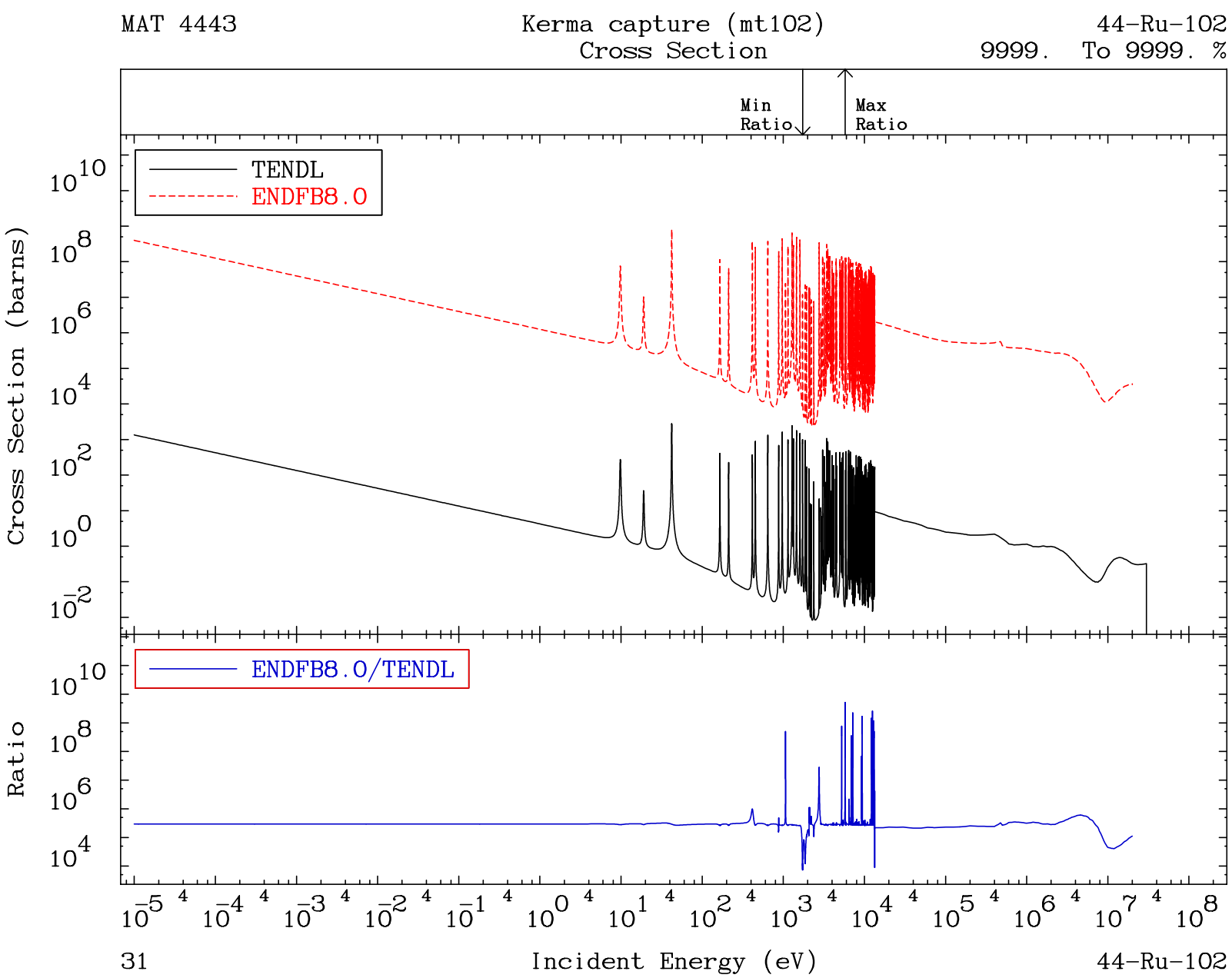

MAT 4443
Kerma total (eV-barns)
Cross Section
44-Ru-102
400.8 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
26
44-Ru-102

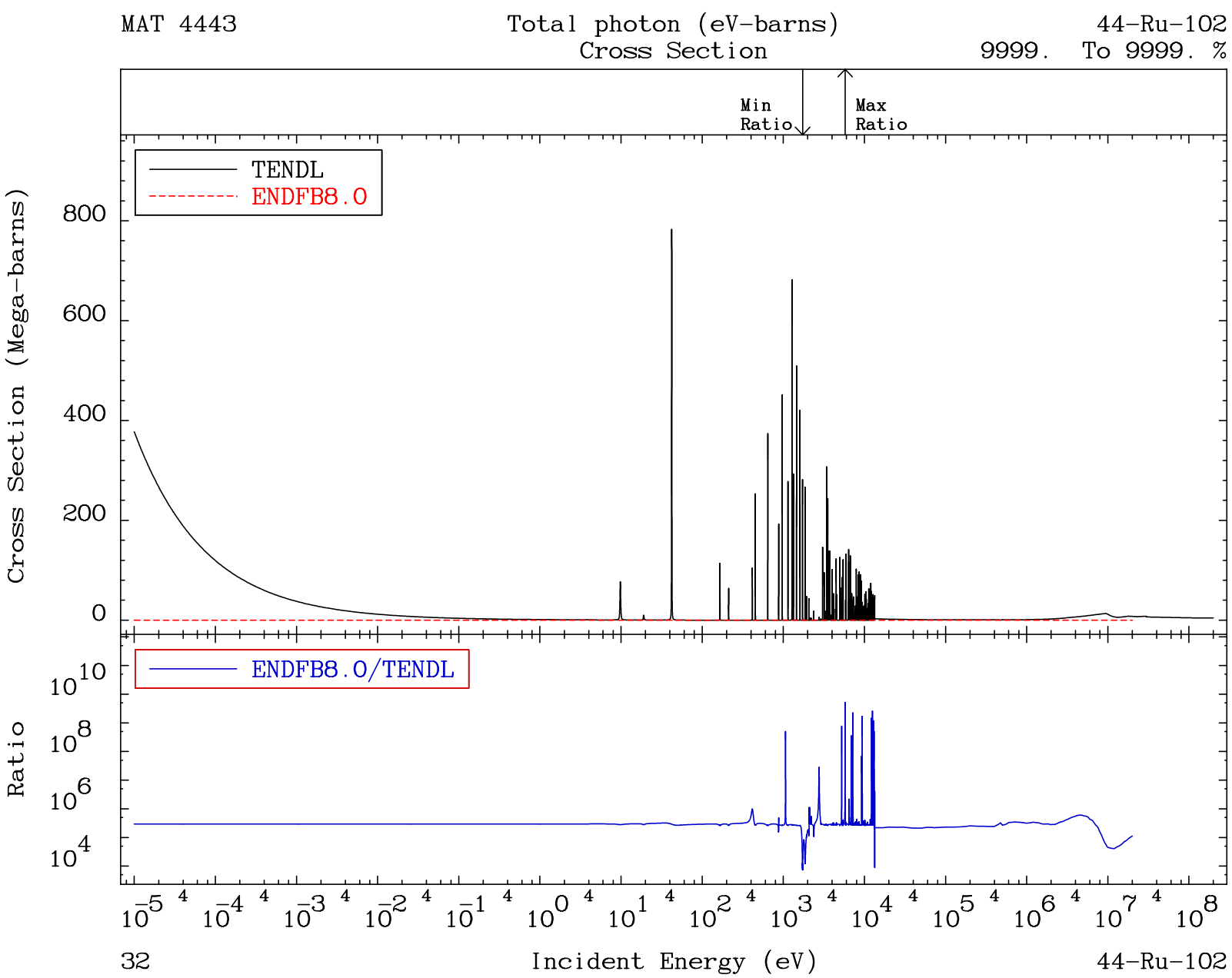

MAT 4443
Kerma elastic
Cross Section
44-Ru-102
-92.84 To 1751. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
27
44-Ru-102

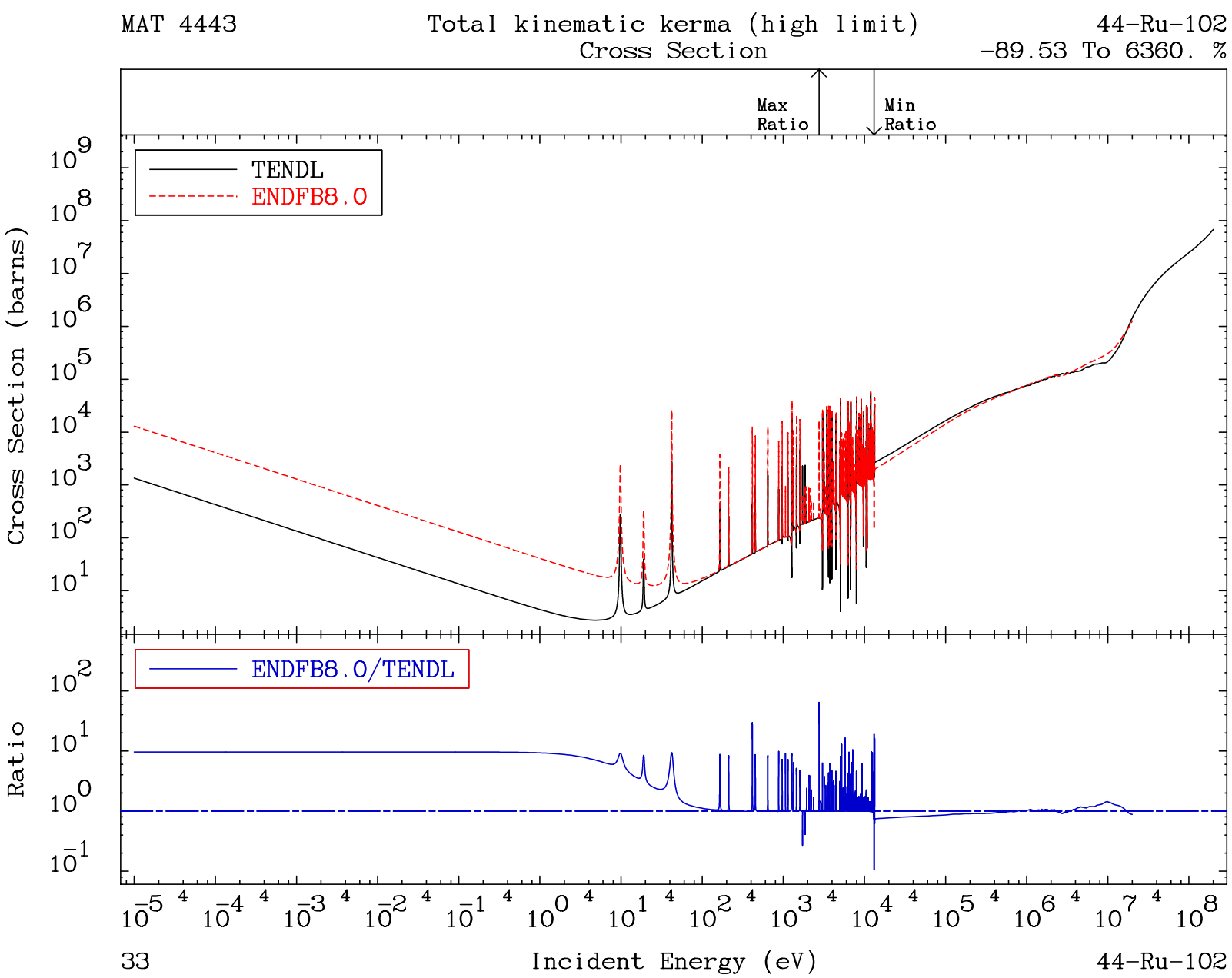

MAT 4443
Kerma non-elastic (all but mt2)
Cross Section
44-Ru-102
716.2 To 9999. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
28
44-Ru-102

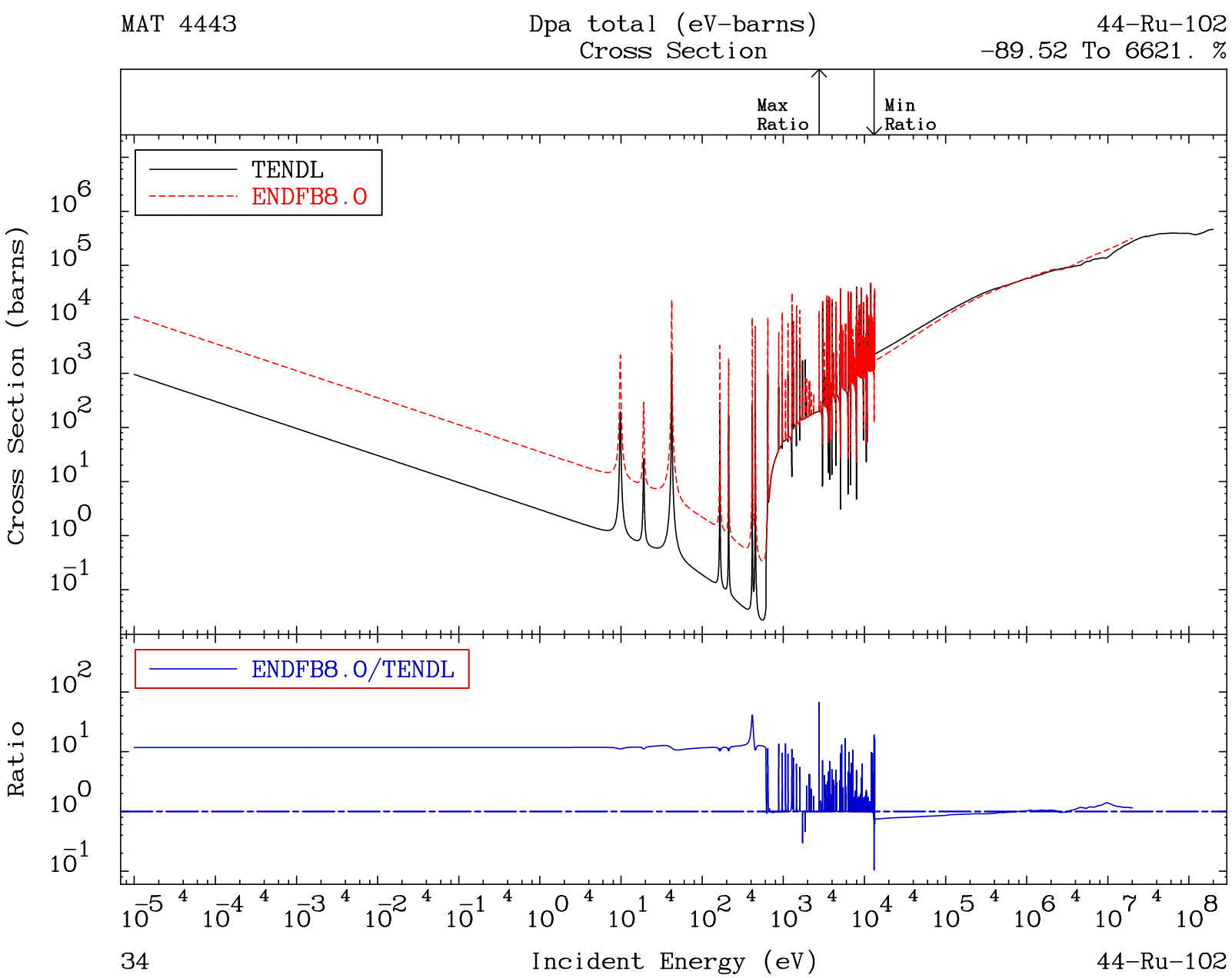

MAT 4443
Kerma inelastic (mt51-91)
Cross Section
44-Ru-102
-100.0 To 6185. %
Min Ratio
Max Ratio
TENDL Threshold 479.80 keV
ENDFB8.0 Threshold 479.80 keV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
29
44-Ru-102

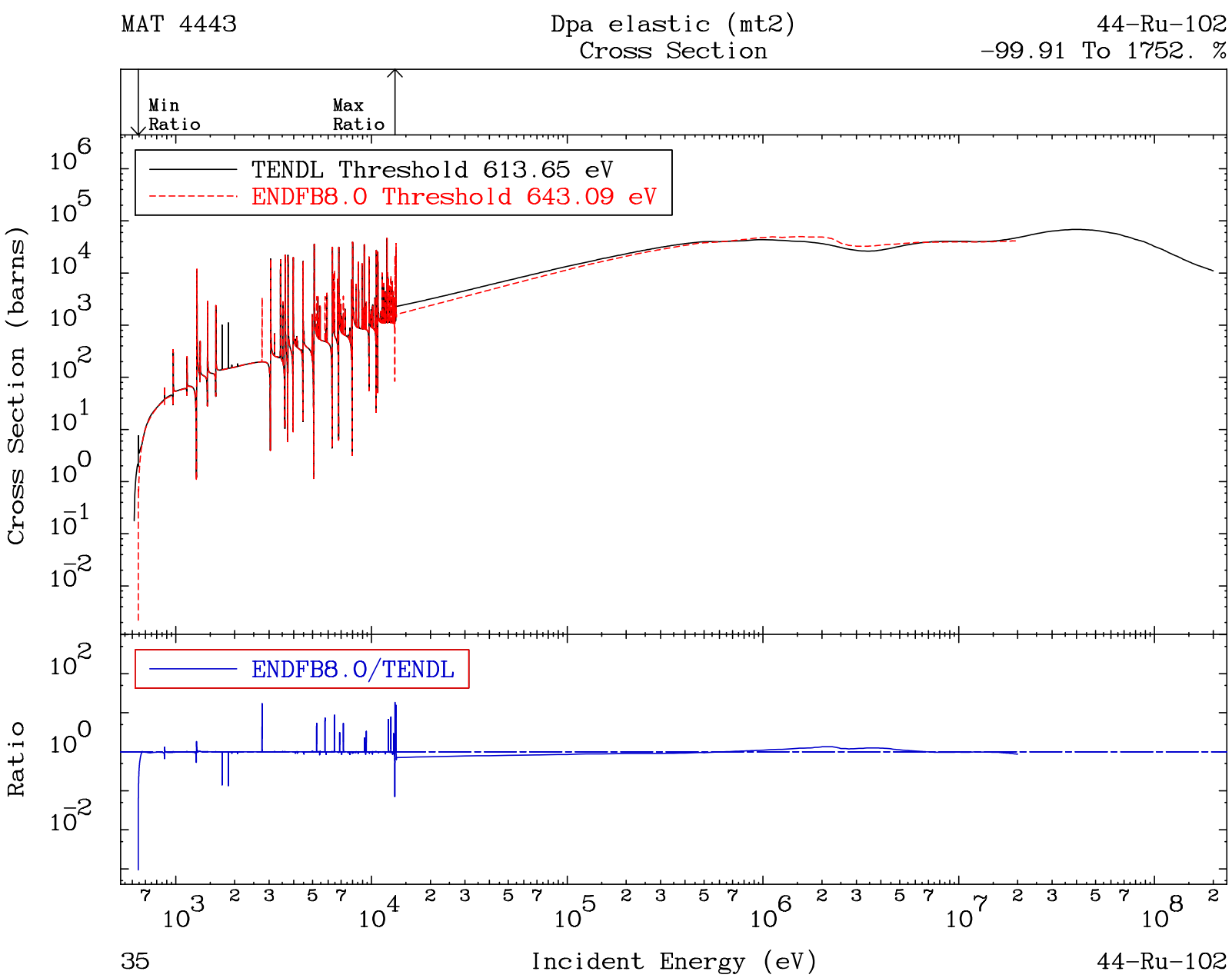

MAT 4443
Kerma fission (mt18 or mt19-20-21-38)
Cross Section
44-Ru-102
-100.0 To 6185. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
1.0
0.5
0.0
-0.5
-1.0
ENDFB8.0/TENDL
Ratio
10^3
10^0
10^-3
10^-6
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8
30
Incident Energy (eV)
44-Ru-102

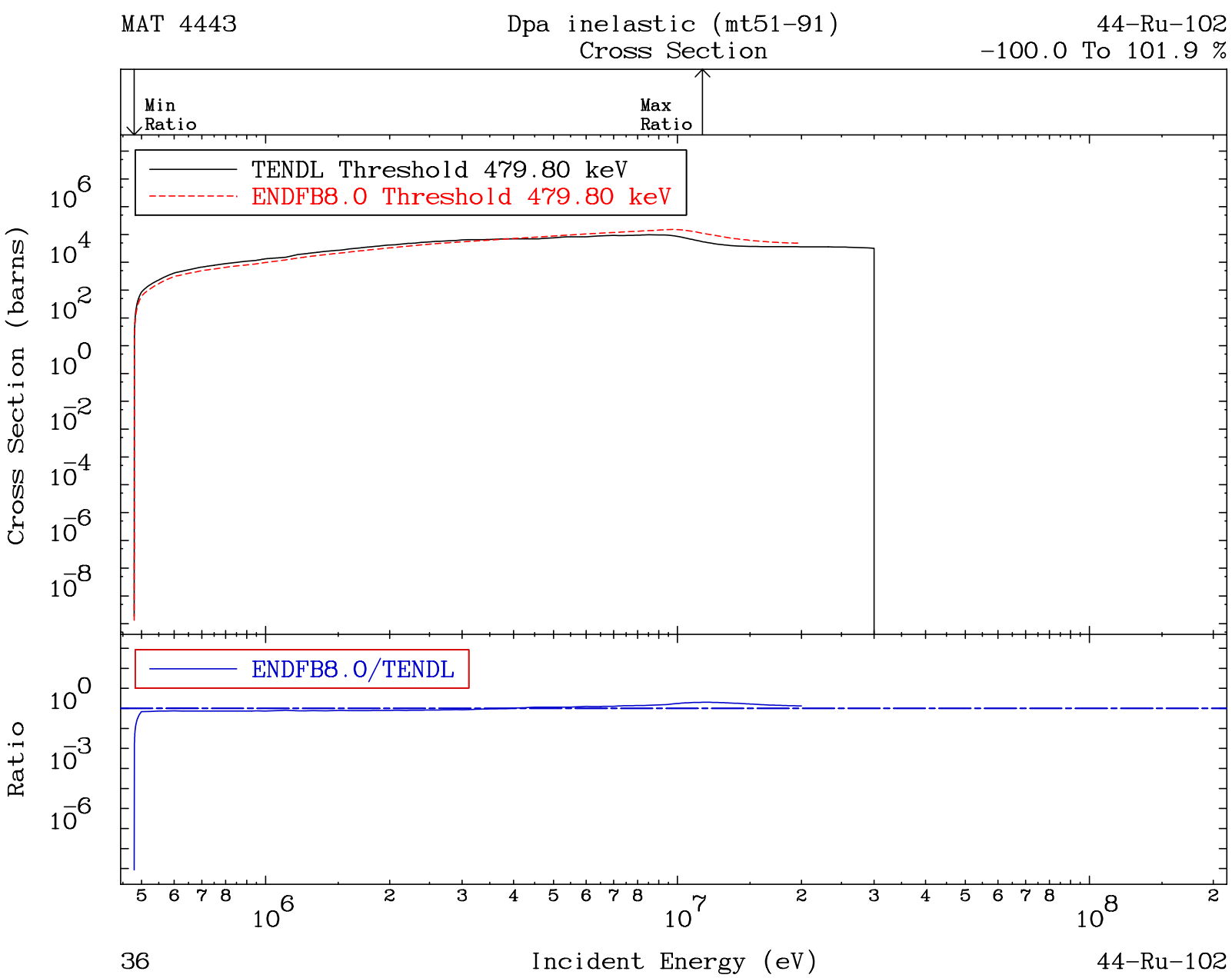

MAT 4443
Kerma capture (mt102)
Cross Section
44-Ru-102
9999. To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
31
44-Ru-102

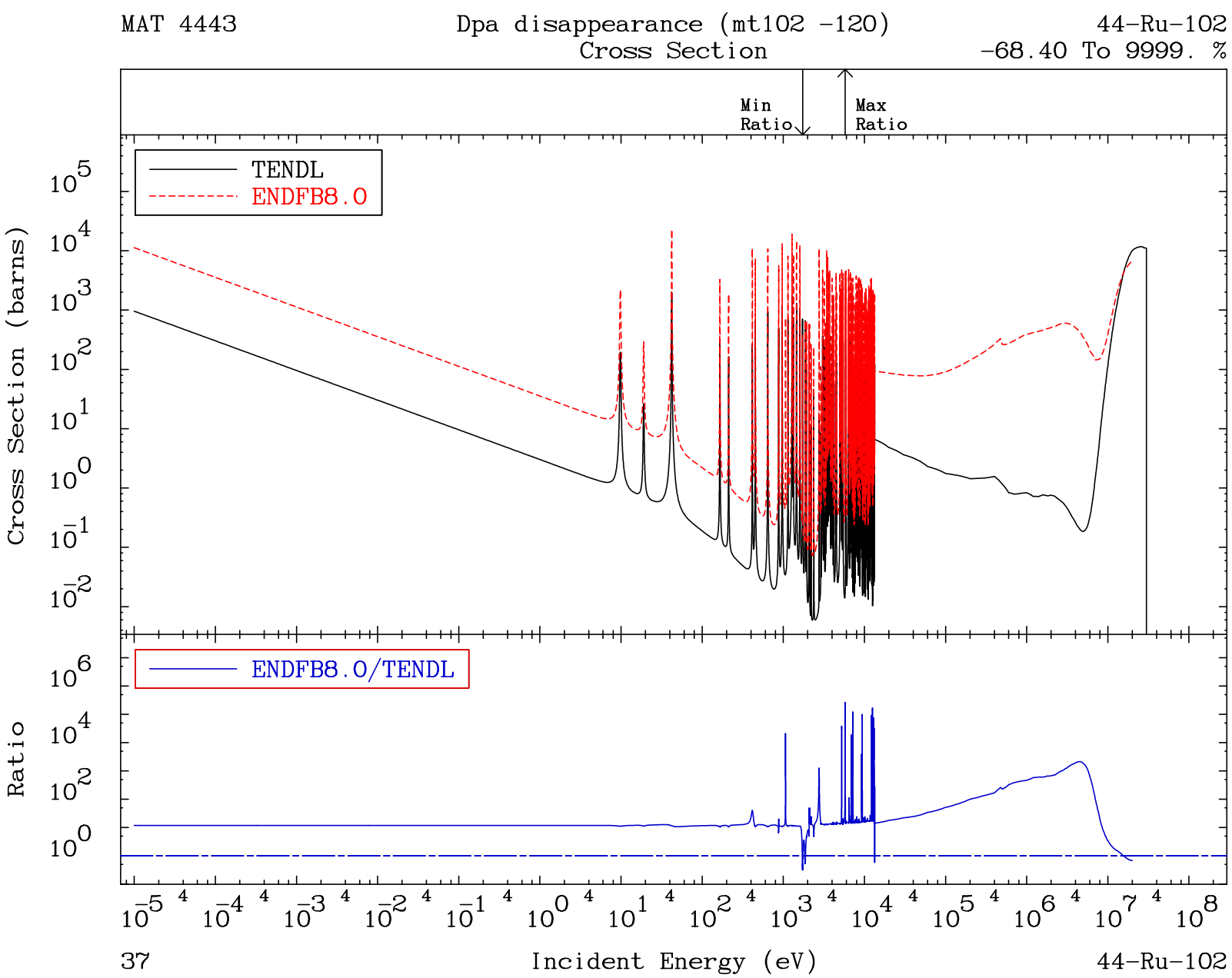

MAT 4443
Total photon (eV-barns)
Cross Section
44-Ru-102
9999. To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (Mega-barns)
800
600
400
200
0
ENDFB8.0/TENDL
Ratio
10^{10}
10^{8}
10^{6}
10^{4}
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8}
32
Incident Energy (eV)
44-Ru-102


MAT 4443
Total kinematic kerma (high limit)
Cross Section
44-Ru-102
-89.53 To 6360. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
33
44-Ru-102


MAT 4443
Dpa total (eV-barns)
Cross Section
44-Ru-102
-89.52 To 6621. %
Max Ratio
Min Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
34
44-Ru-102


MAT 4443
Dpa elastic (mt2)
Cross Section
44-Ru-102
-99.91 To 1752. %
Min Ratio
Max Ratio
TENDL Threshold 613.65 eV
ENDFB8.0 Threshold 643.09 eV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
35
44-Ru-102


MAT 4443
Dpa inelastic (mt51-91)
Cross Section
44-Ru-102
-100.0 To 101.9 %
Min Ratio
Max Ratio
TENDL Threshold 479.80 keV
ENDFB8.0 Threshold 479.80 keV
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
36
44-Ru-102


MAT 4443
Dpa disappearance (mt102 -120)
Cross Section
44-Ru-102
-68.40 To 9999. %
Min Ratio
Max Ratio
TENDL
ENDFB8.0
Cross Section (barns)
ENDFB8.0/TENDL
Ratio
Incident Energy (eV)
37
44-Ru-102