

Program Complot  
(Version 2018-1)

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](mailto:redcullen1@comcast.net)  
Web: [redcullen1.net/HOMEPAGE.NEW](http://redcullen1.net/HOMEPAGE.NEW)

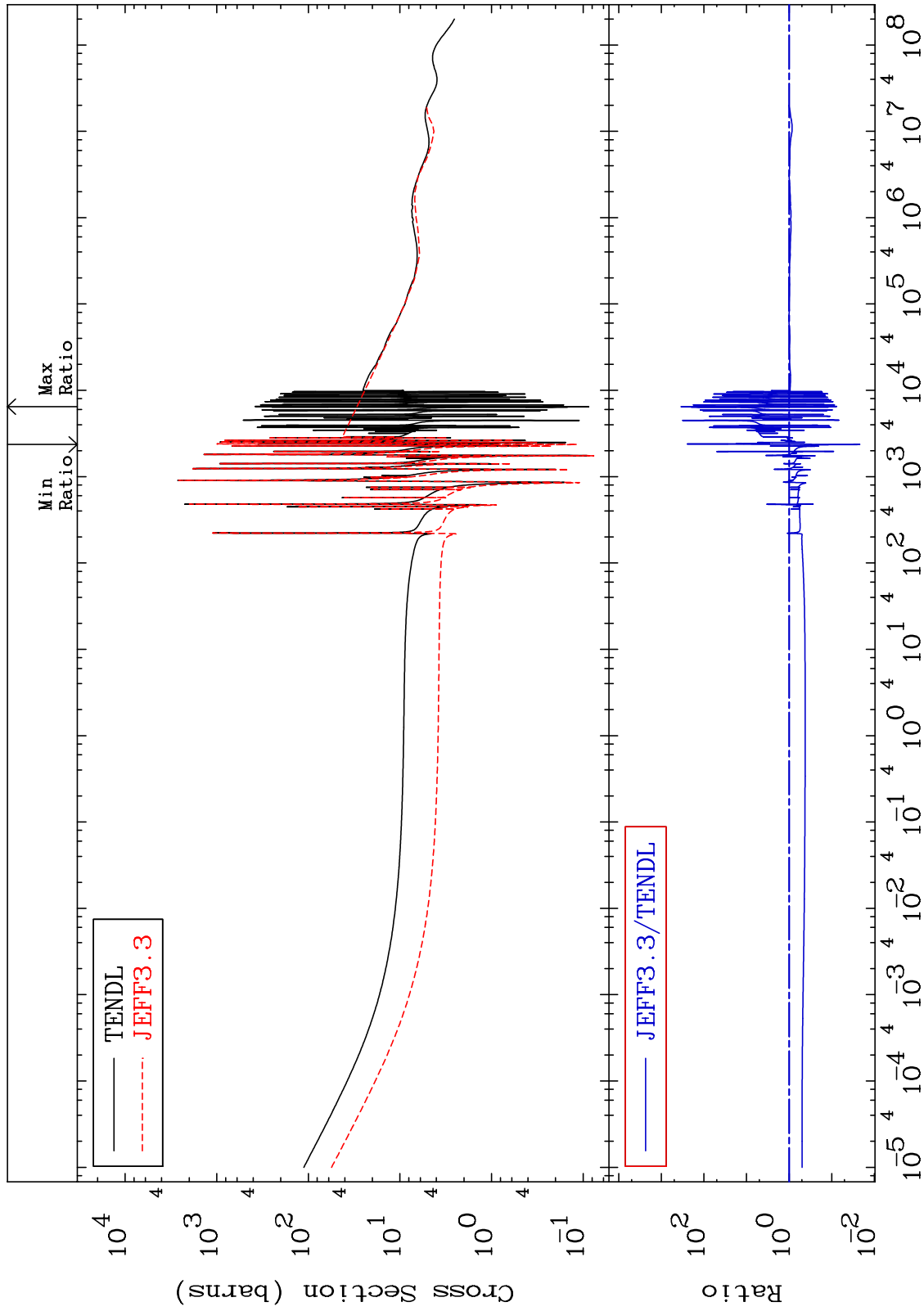
Press Mouse Button to Start

MAT 6449

Total  
Cross Section

64-Gd-160

-97.80 To 9999. %



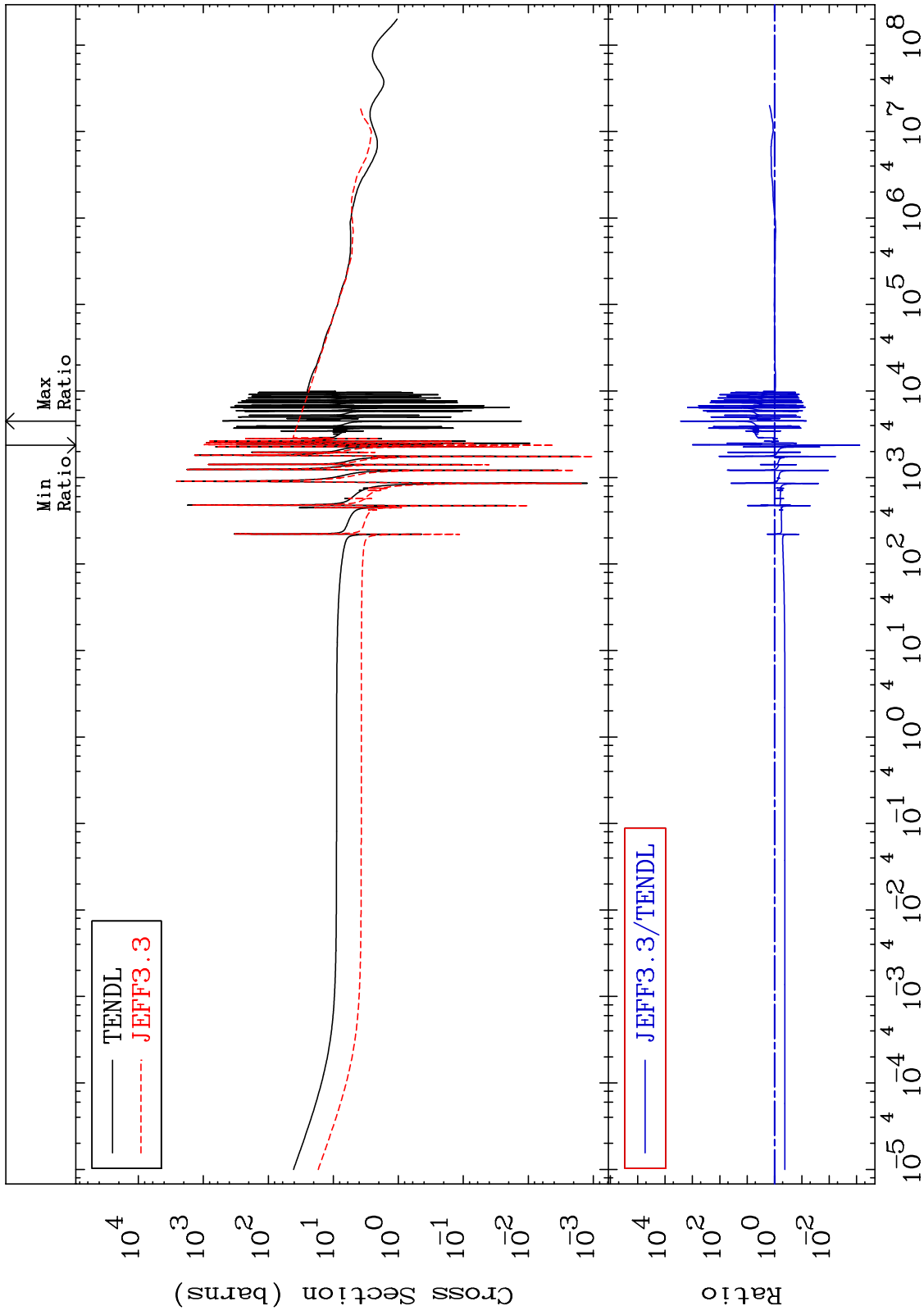
Incident Energy (eV)

64-Gd-160

MAT 6449

Elastic  
Cross Section

64-Gd-160  
-99.92 To 9999. %



2

Incident Energy (eV)

64-Gd-160

MAT 6449

Inelastic  
Cross Section

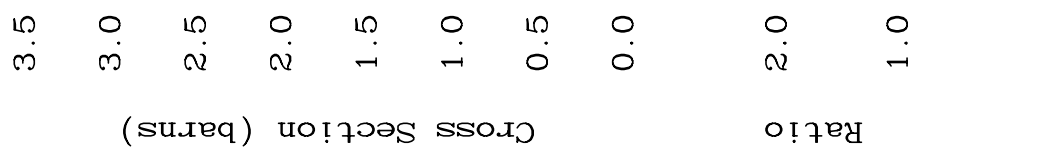
64-Gd-160  
-41.57 To 138.3 %

Min  
Ratio

Max  
Ratio

— TENDL Threshold 75.735 keV  
- - - JEFF3.3 Threshold 75.775 keV

— JEFF3.3/TENDL

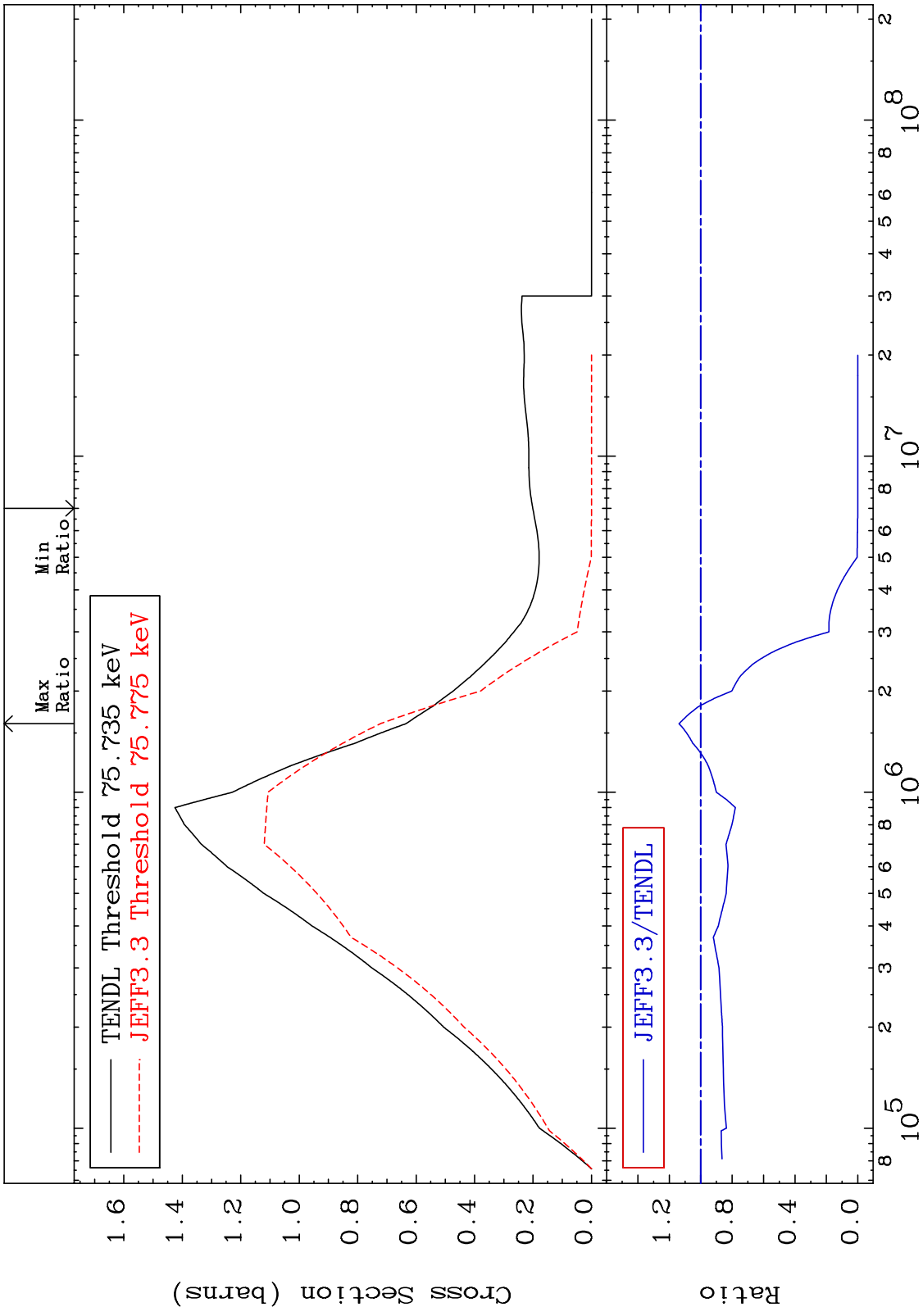


3

Incident Energy (eV)

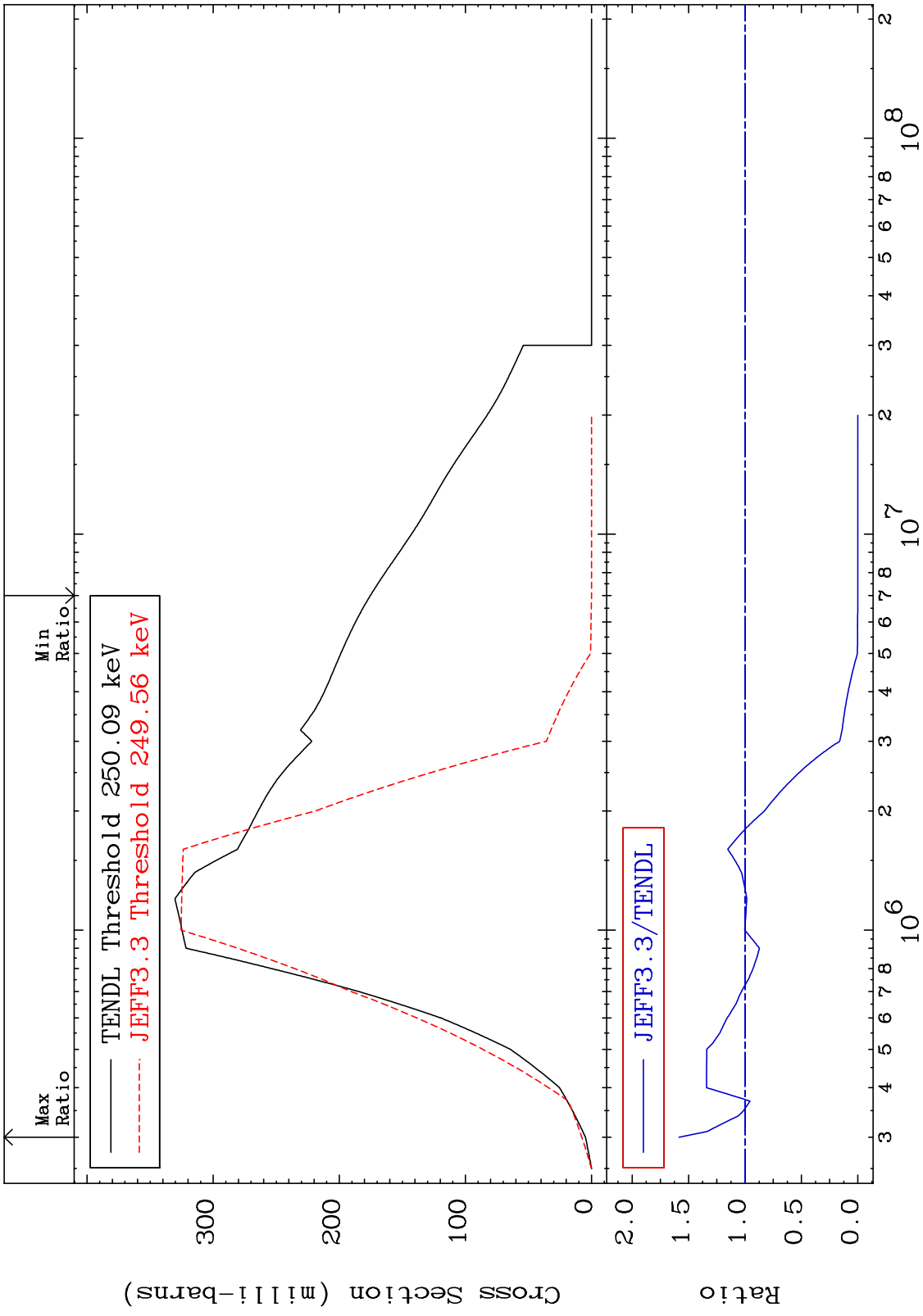
64-Gd-160

MAT 6449      MT= 51 (n,n') Level      64-Gd-160  
 Cross Section      -100.0 To 13.78 %

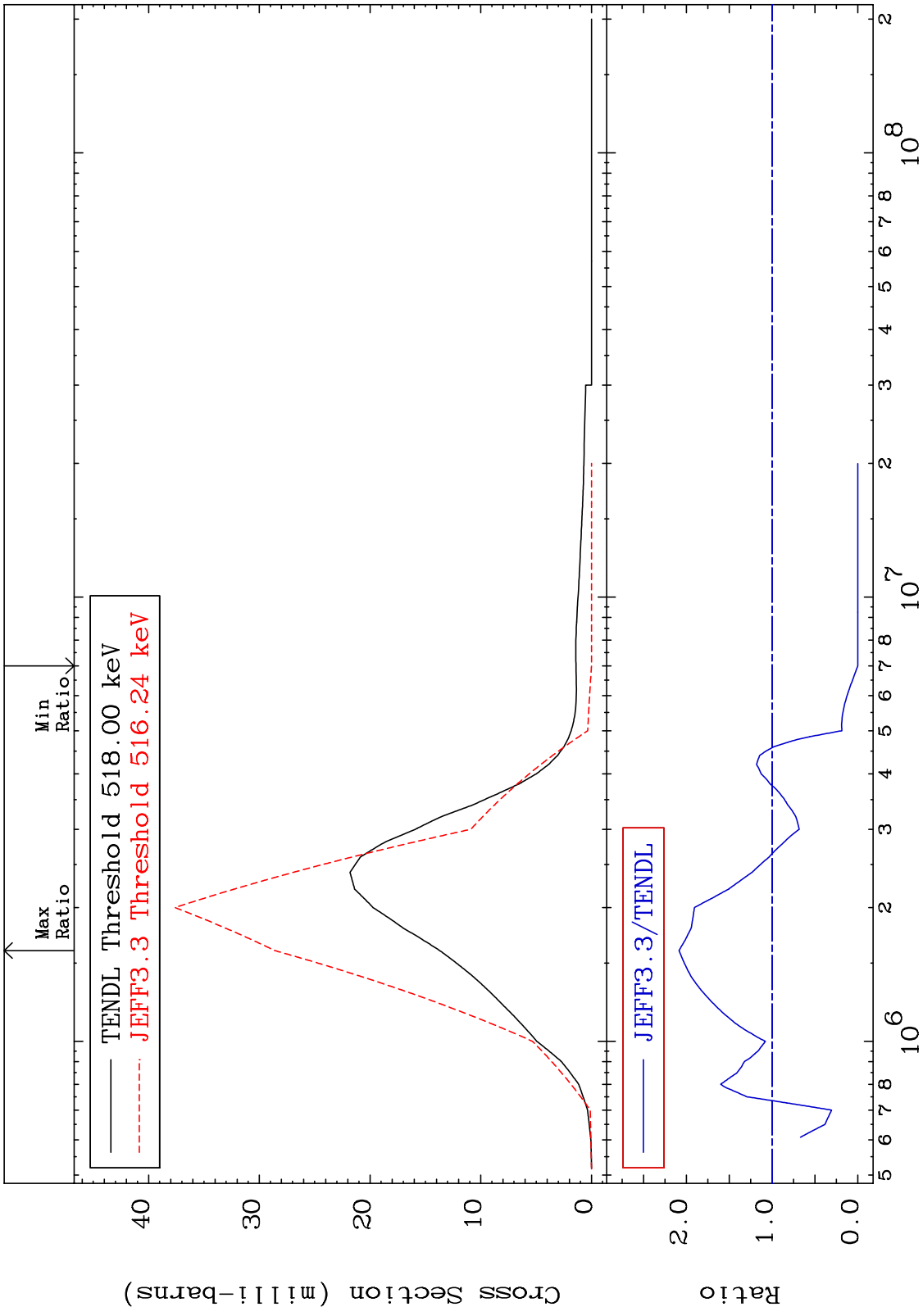


Incident Energy (eV)      64-Gd-160

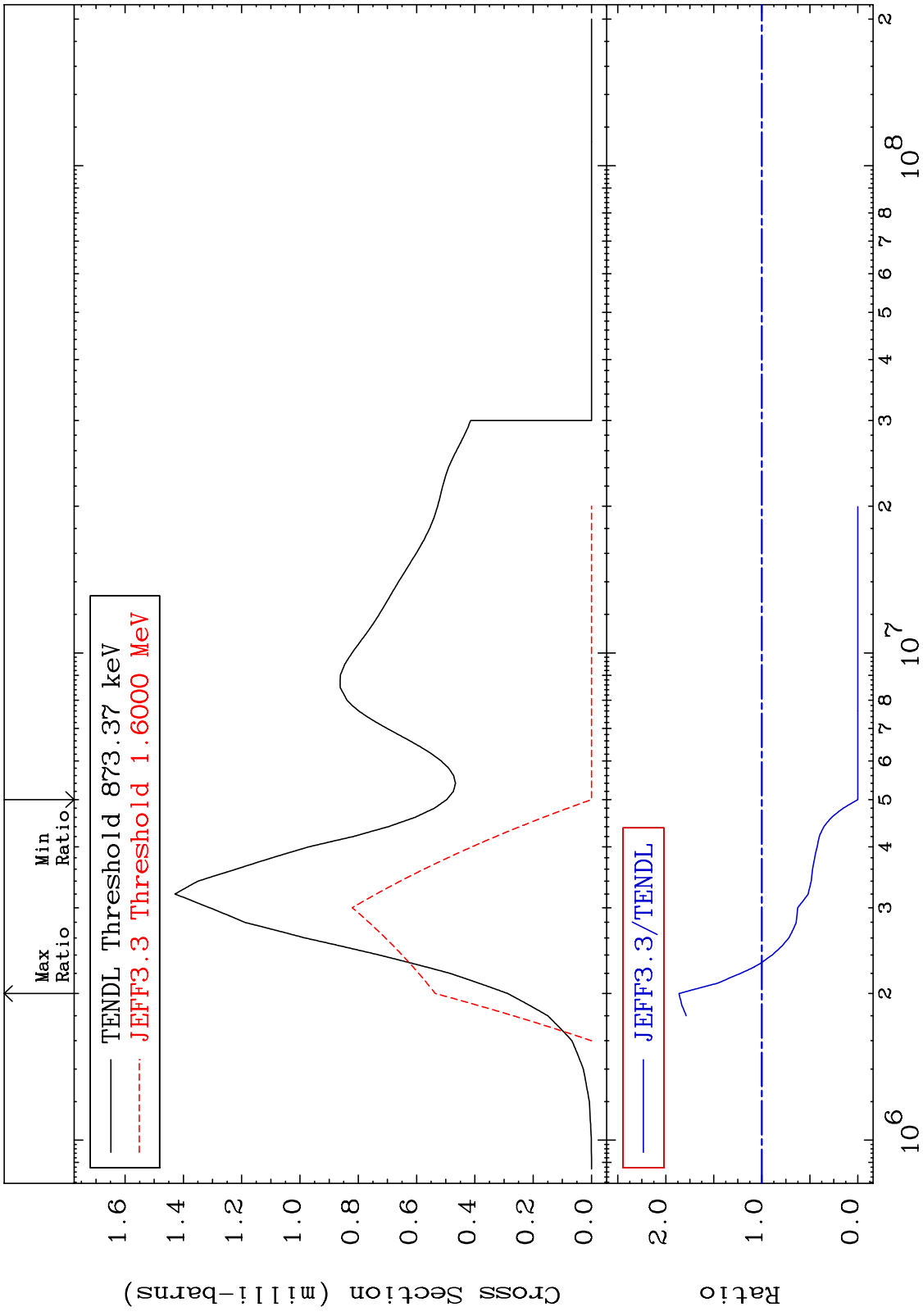
MAT 6449      MT= 52 (n,n') Level      64-Gd-160  
 Cross Section      -100.0 To 58.46 %



MAT 6449      MT= 53 (n,n') Level      64-Gd-160  
 Cross Section      -100.0 To 108.7 %



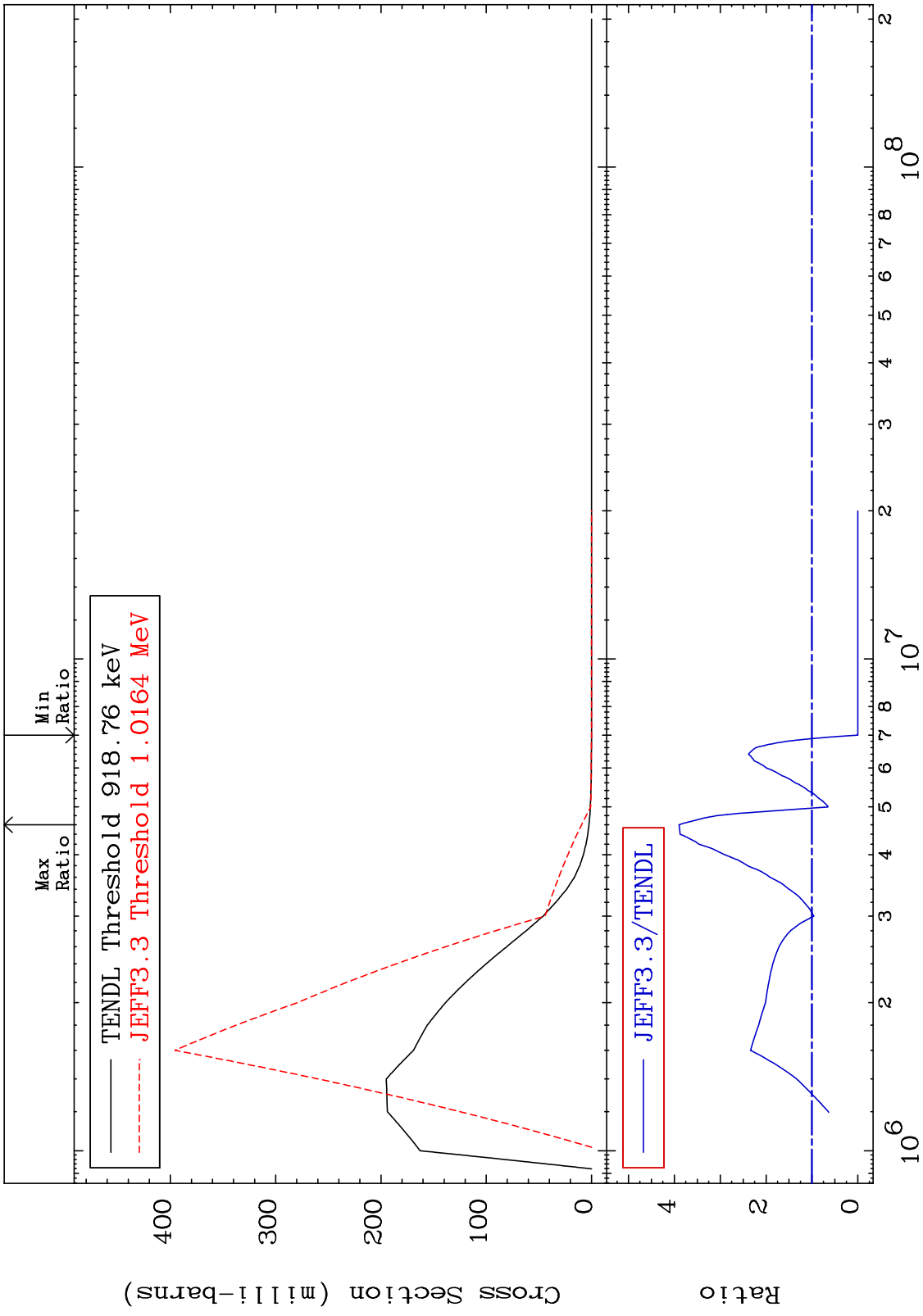
MAT 6449      MT= 54 (n,n') Level      64-Gd-160  
 Cross Section      -100.0 To 86.20 %



7      10<sup>6</sup>      10<sup>7</sup>      10<sup>8</sup>      2

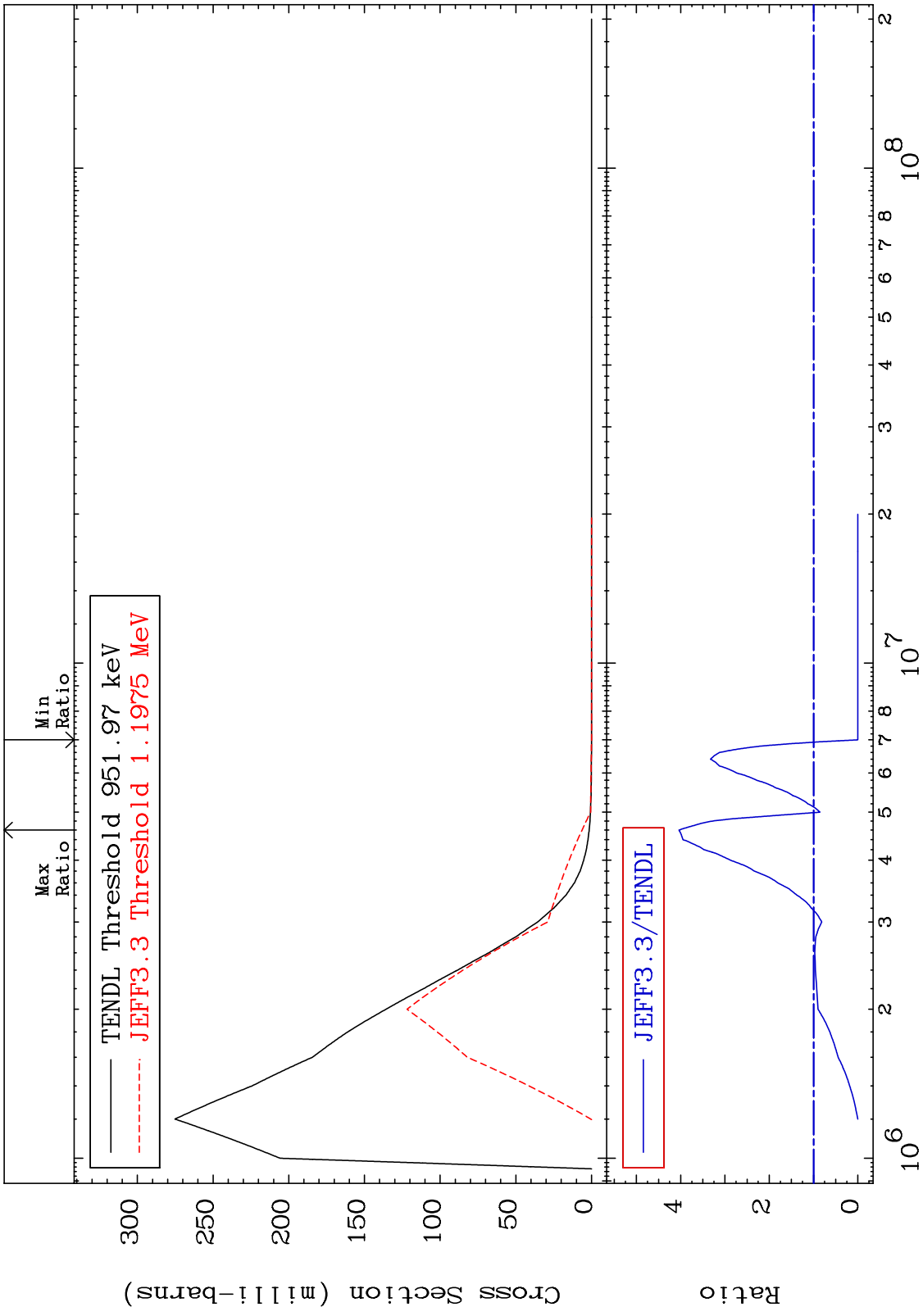


MAT 6449      MT= 55 (n,n') Level Cross Section      64-Gd-160  
-100.0 To 289.8 %



8      10<sup>6</sup>      10<sup>7</sup>      10<sup>8</sup>      Incident Energy (eV)      64-Gd-160

MAT 6449      MT= 56 (n,n') Level Cross Section      64-Gd-160  
-100.0 To 303.8 %

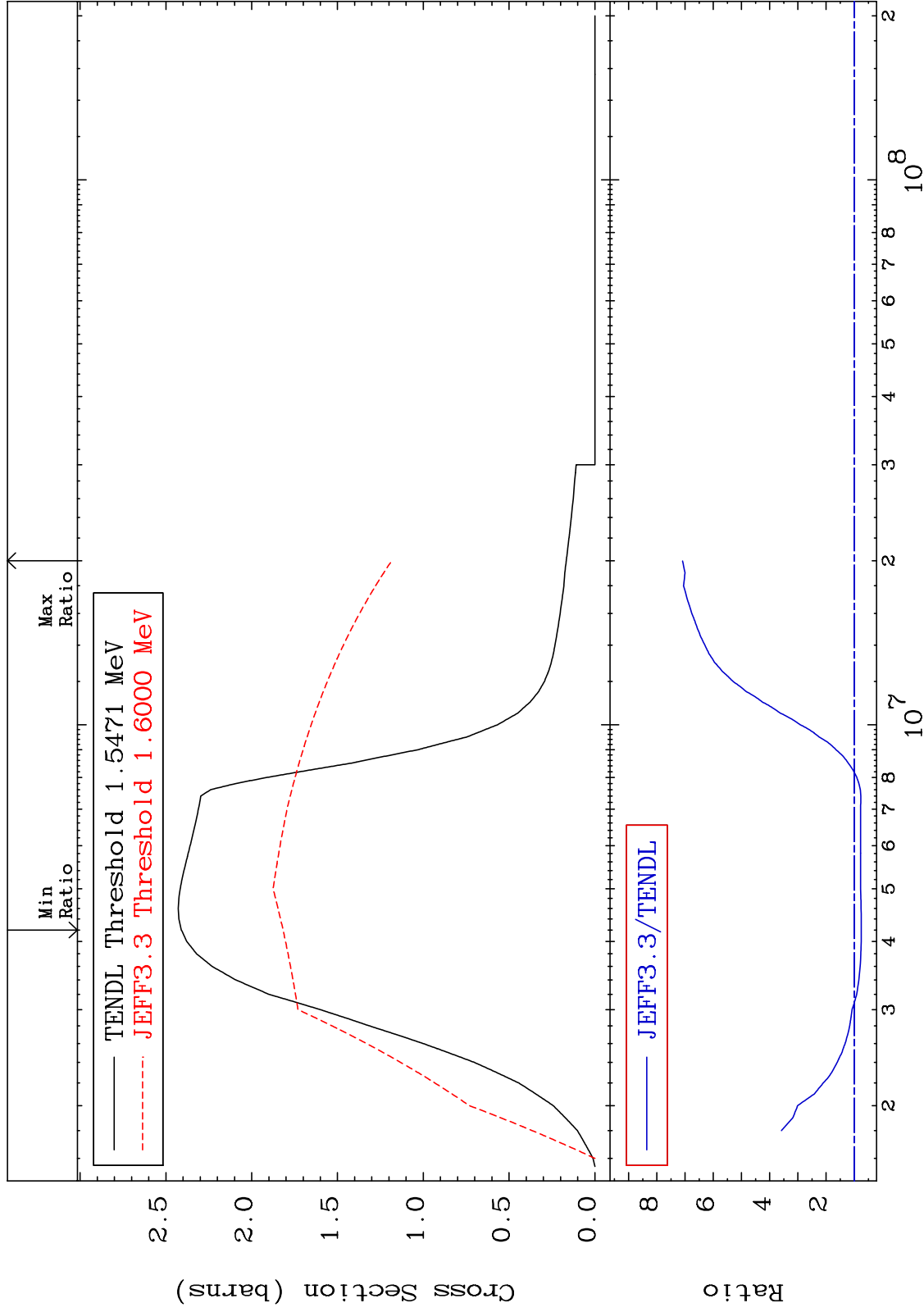


Incident Energy (eV)      64-Gd-160

MAT 6449

(n, n') Continuum  
Cross Section

64-Gd-160  
-24.58 To 609.1 %

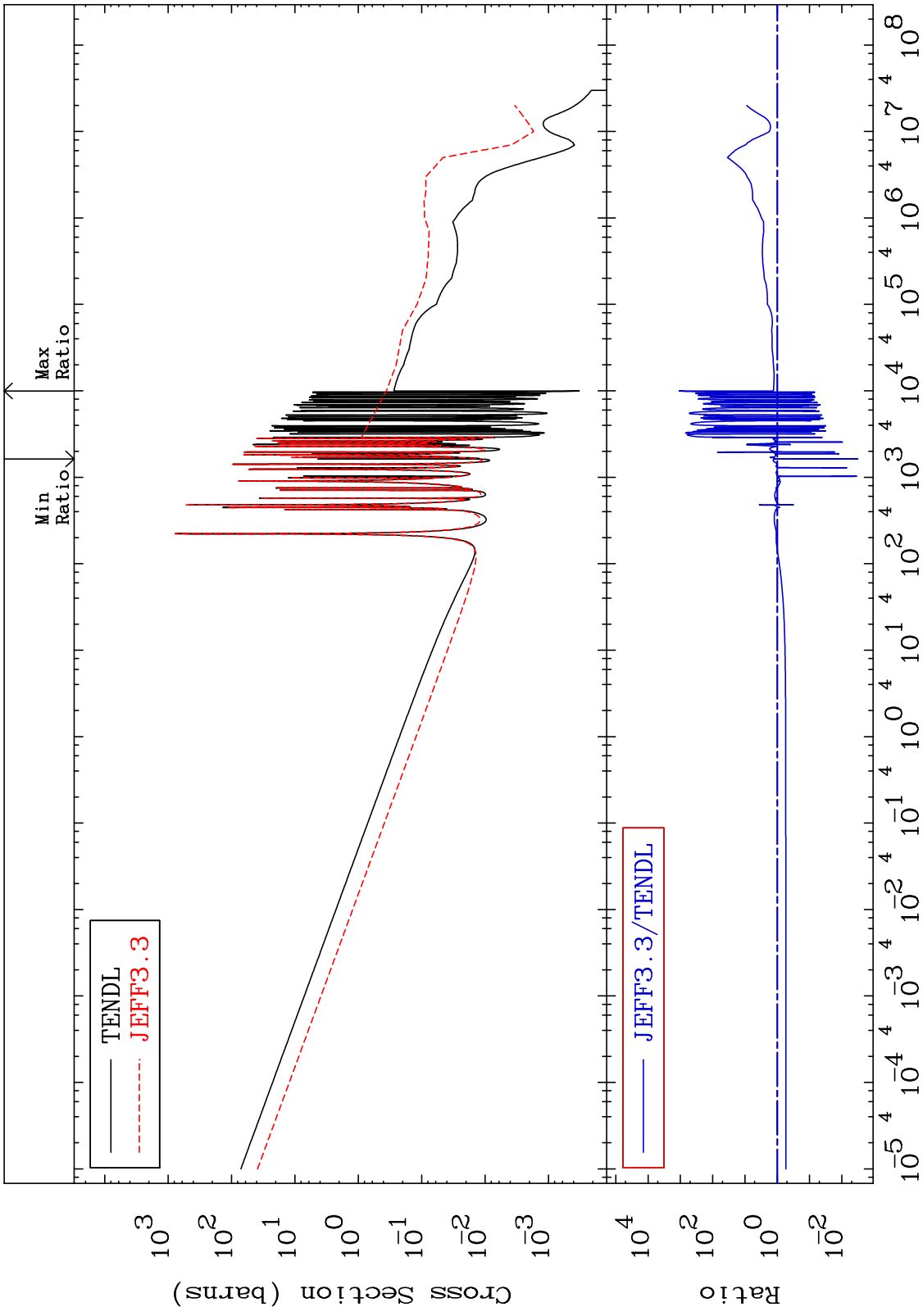


10

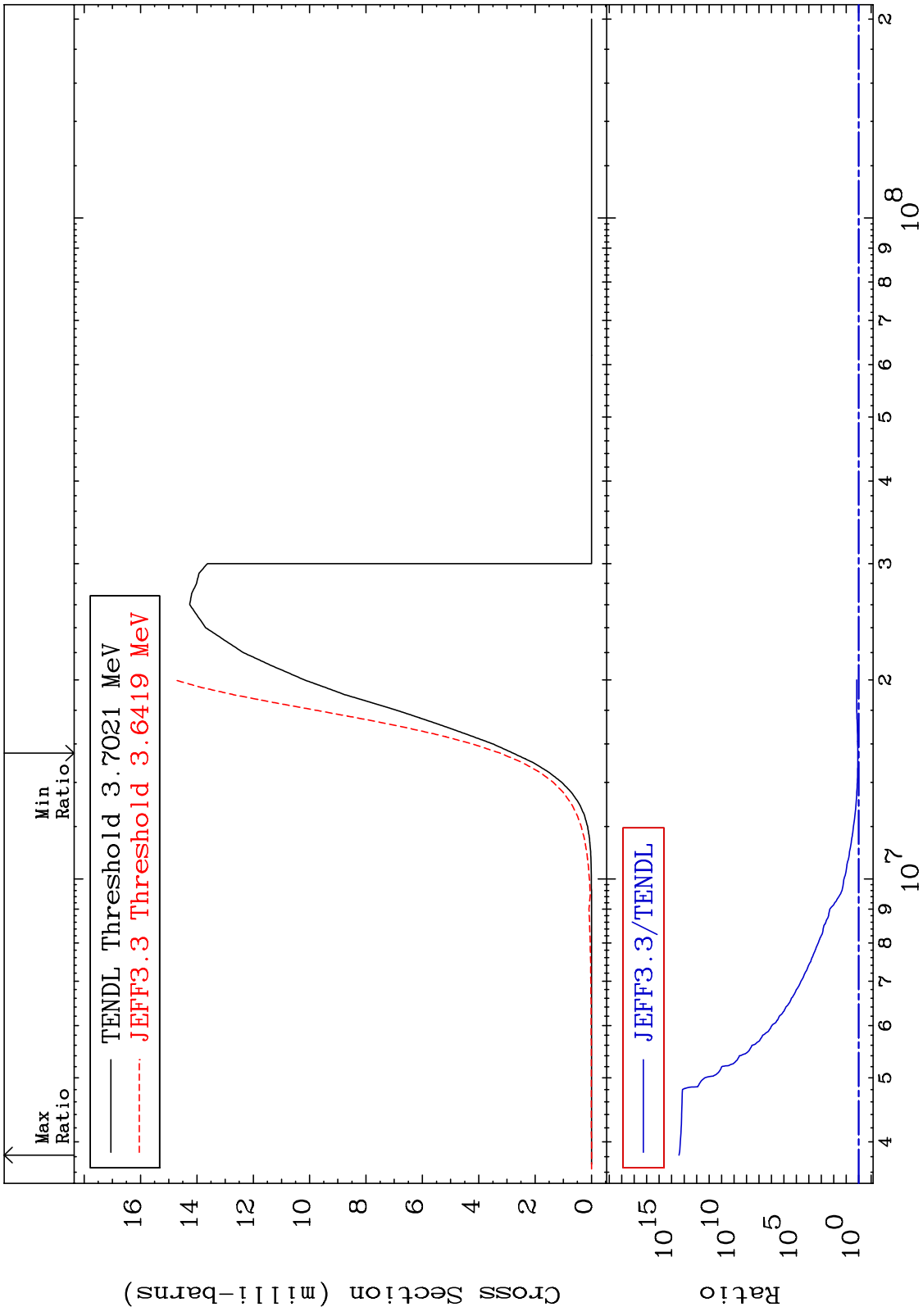
Incident Energy (eV)

64-Gd-160

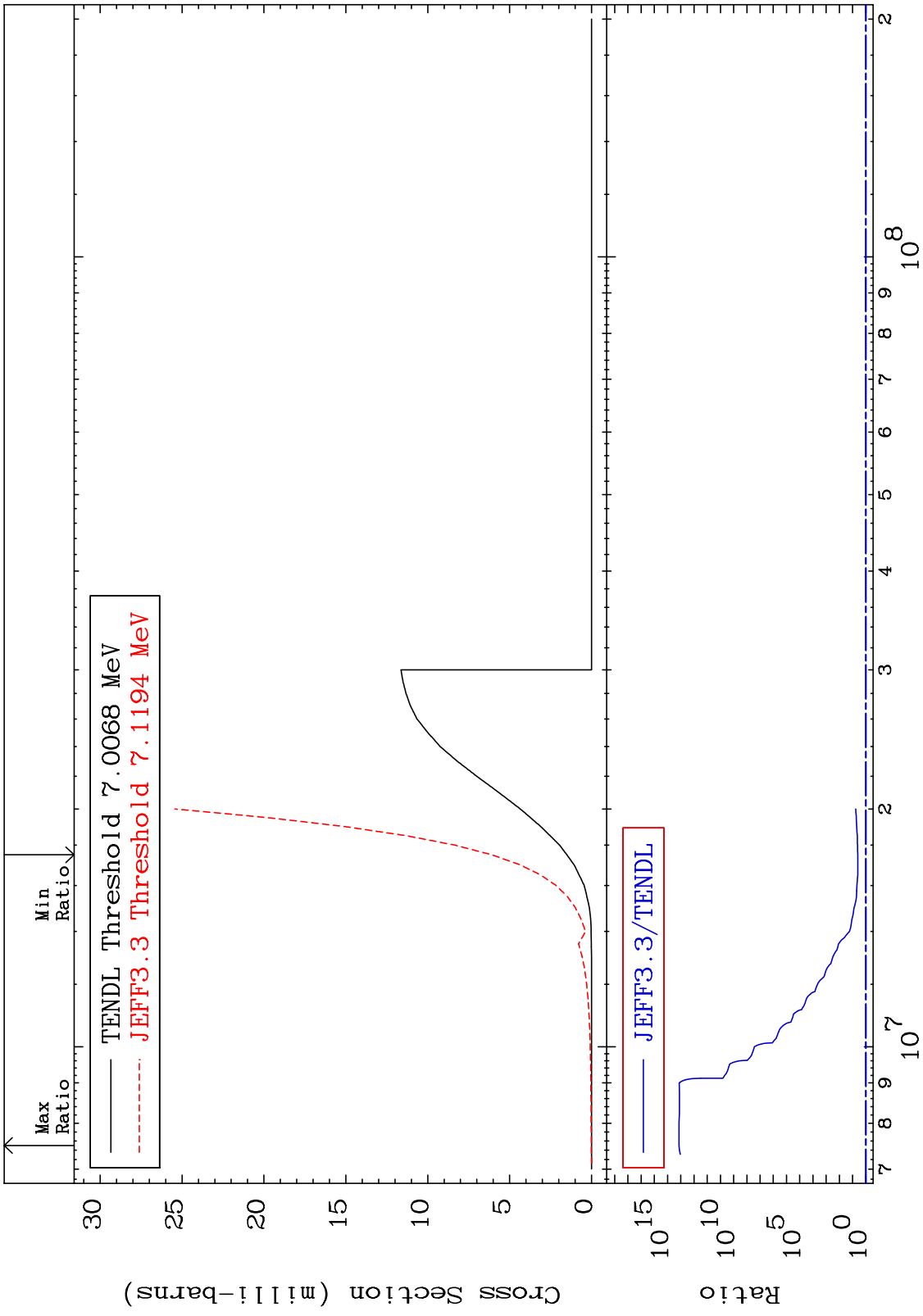
MAT 6449  $(n, \gamma)$  Cross Section 64-Gd-160 -99.68 To 9999. %



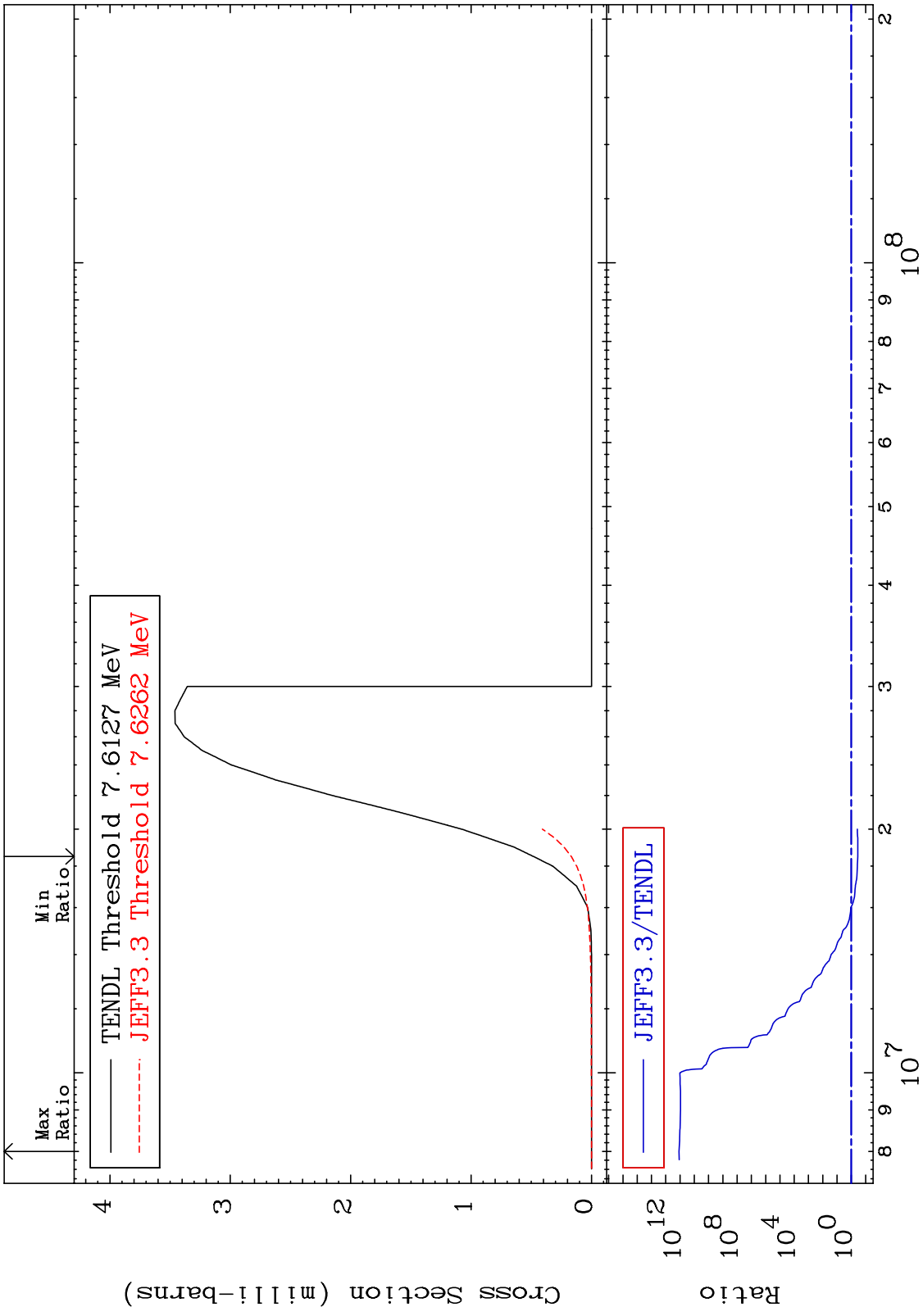
MAT 6449 (n,p) Cross Section 64-Gd-160 To 9999. %  
 16.39



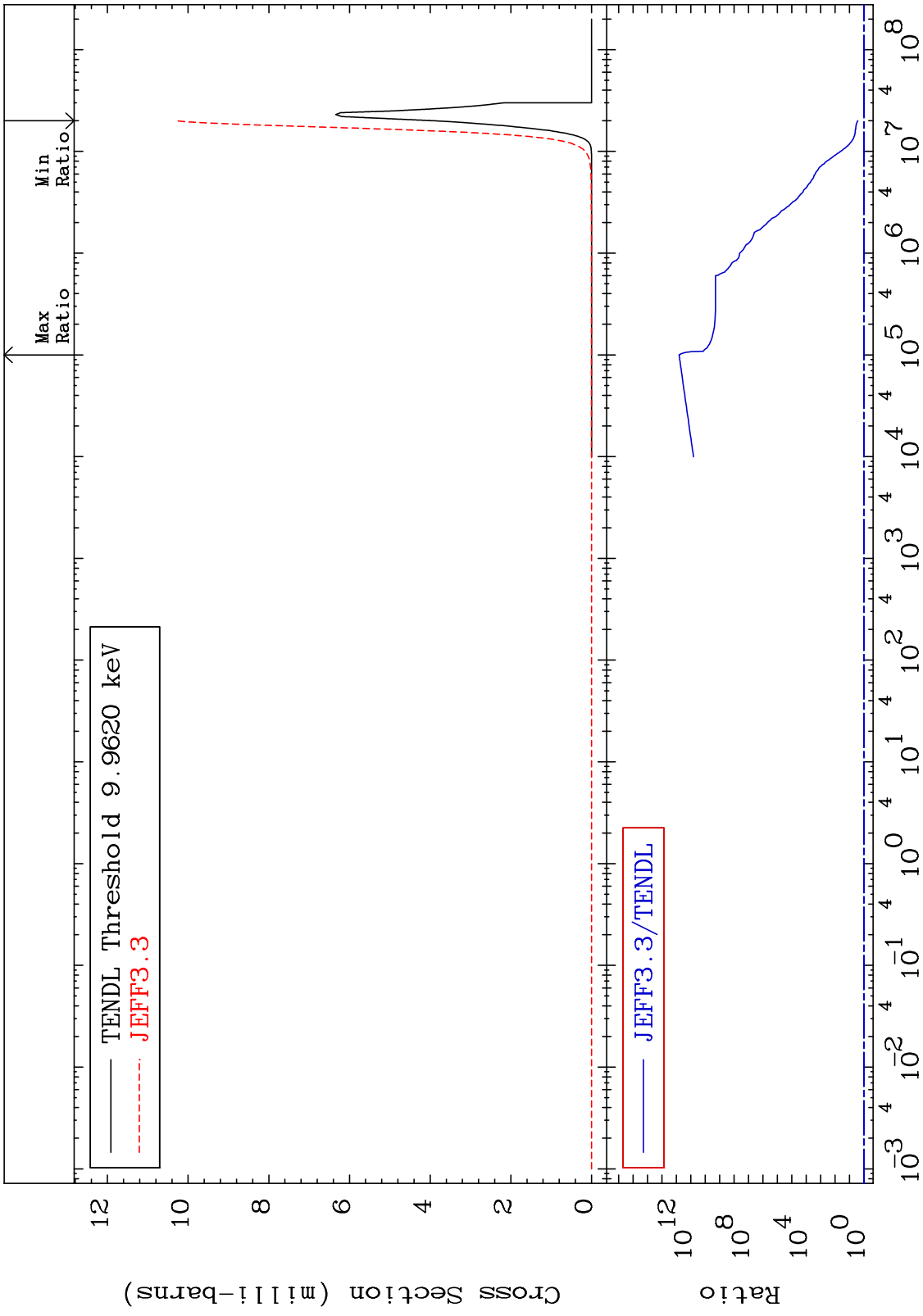
MAT 6449 (n,d) Cross Section 64-Gd-160  
 303.5 To 9999. %



MAT 6449 (n,t) 64-Gd-160  
 Cross Section -65.15 To 9999. %

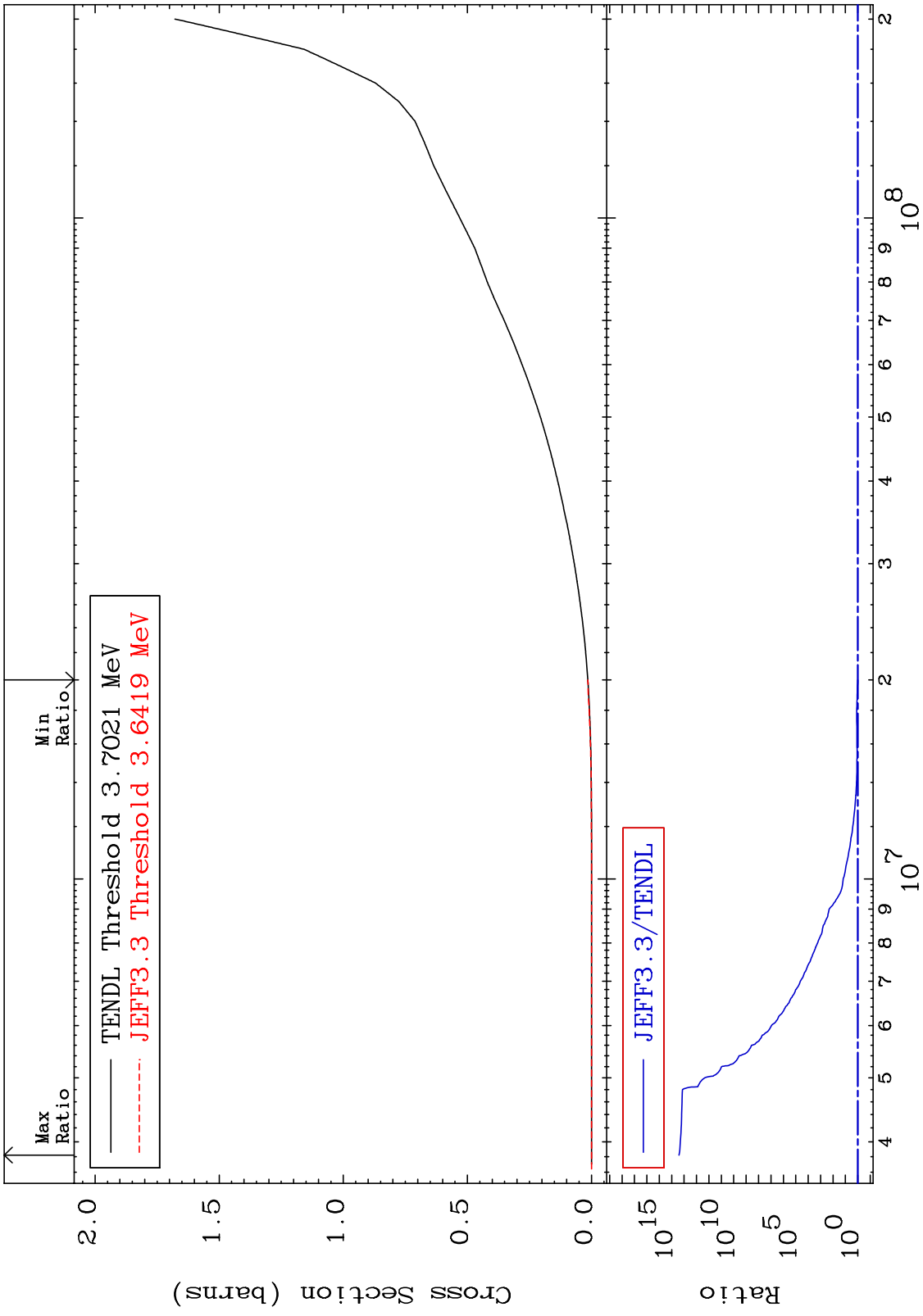


MAT 6449  $(n, \alpha)$  Cross Section 64-Gd-160 164.4 To 9999. %



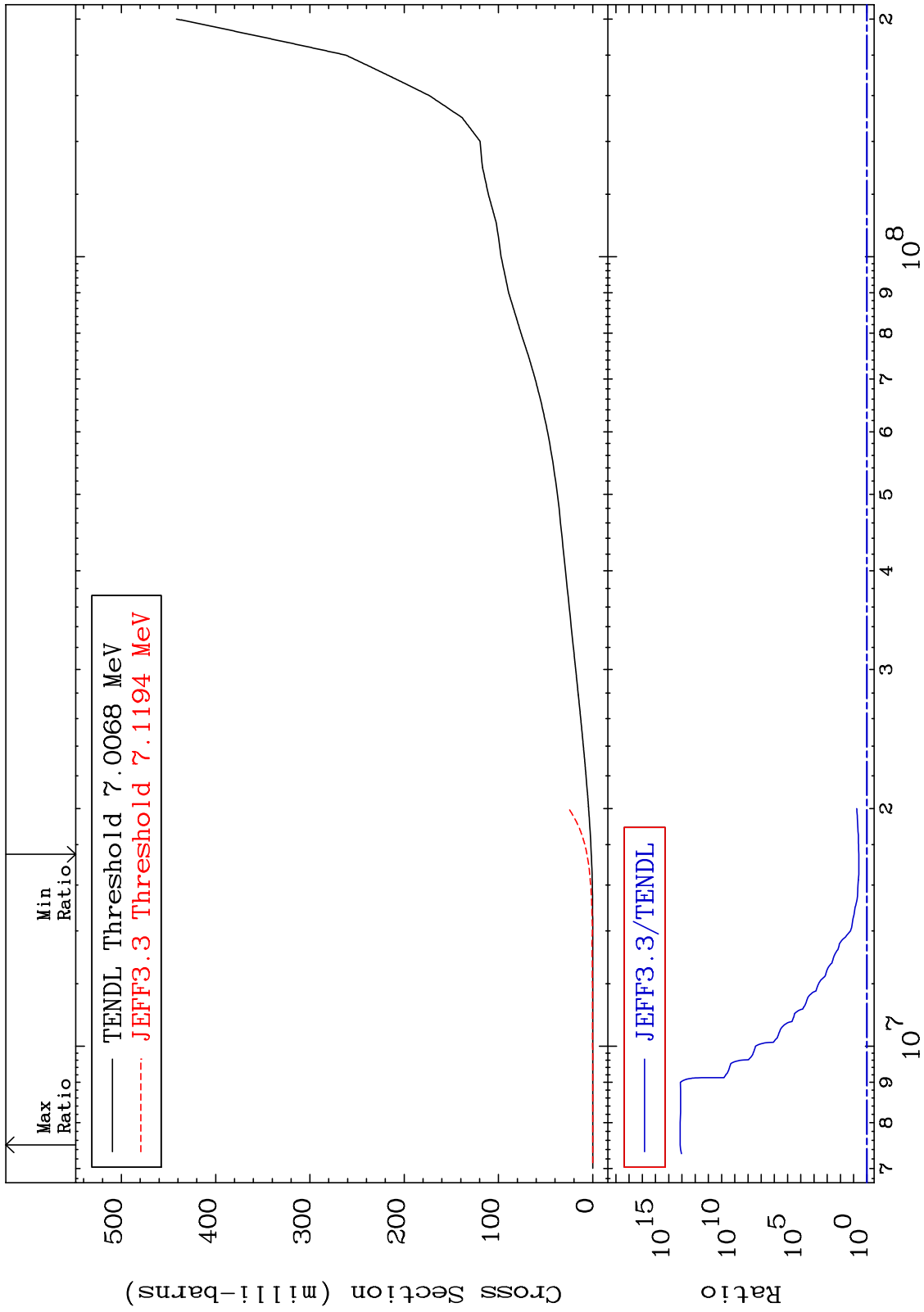


MAT 6449 Hydrogen Production Cross Section 64-Gd-160 -0.136 To 9999. %



16 64-Gd-160 Incident Energy (eV)

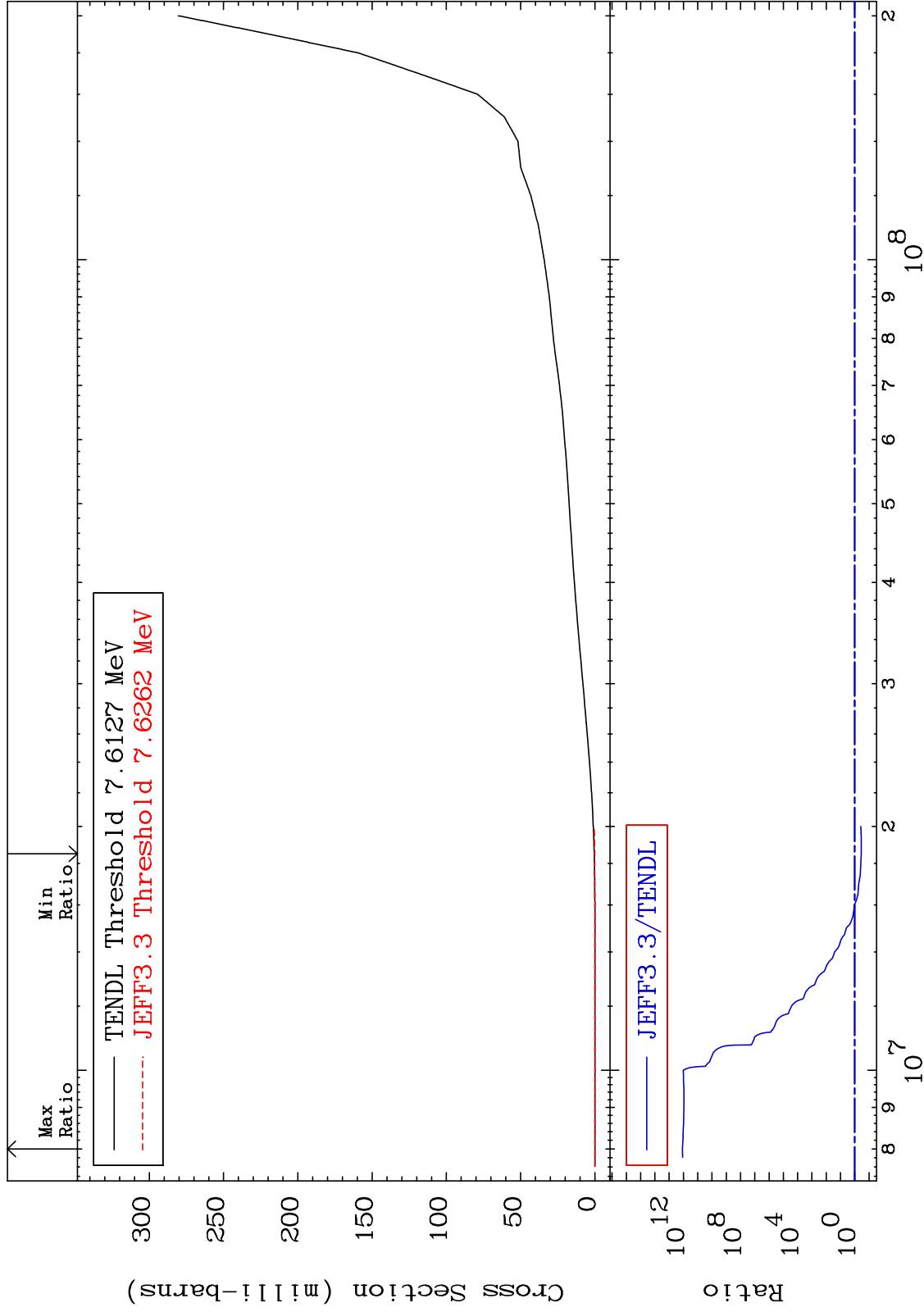
MAT 6449 Deuterium Production Cross Section 64-Gd-160 303.5 To 9999. %



MAT 6449

Tritium Production  
Cross Section

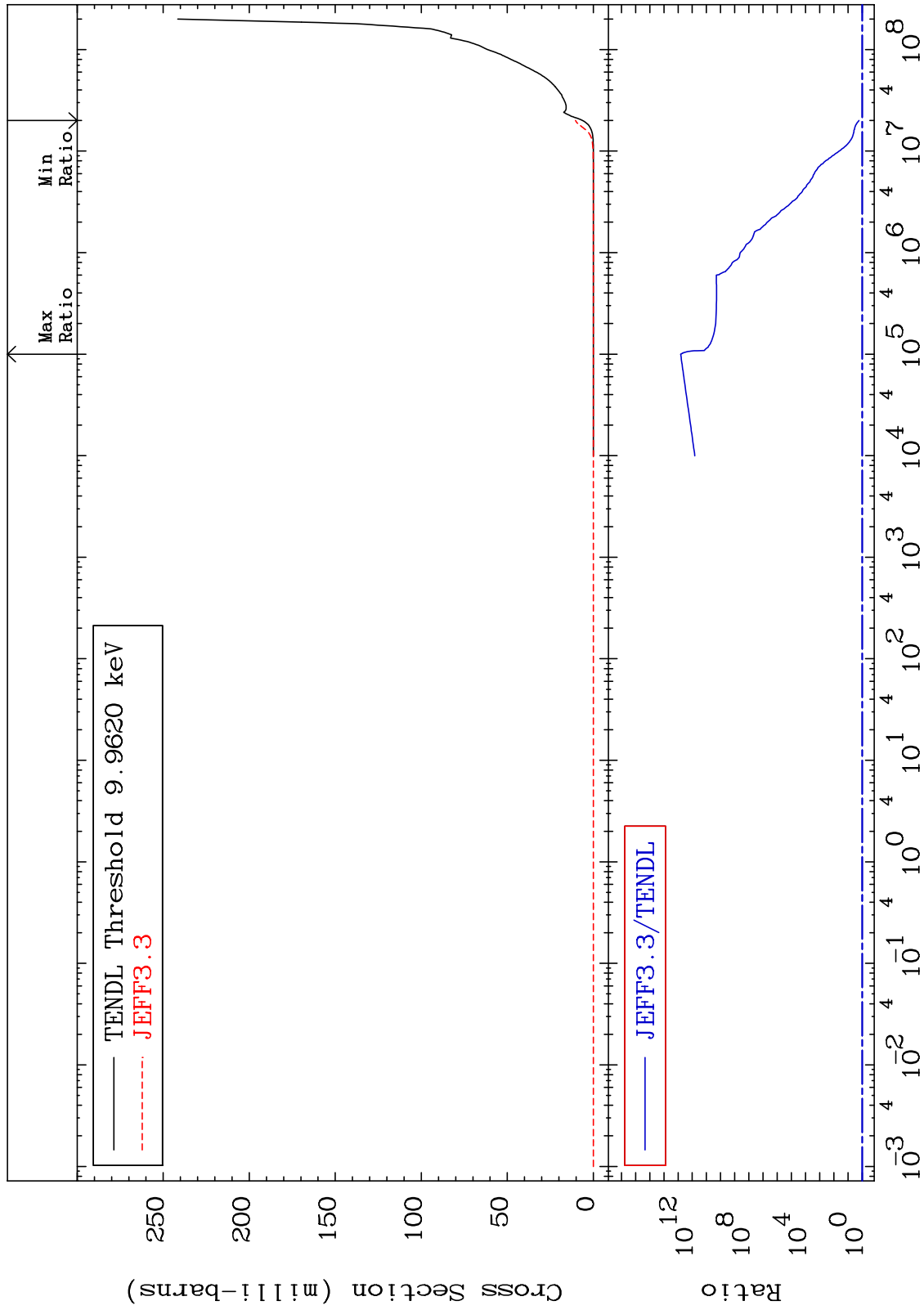
64-Gd-160  
-65.16 To 9999. %



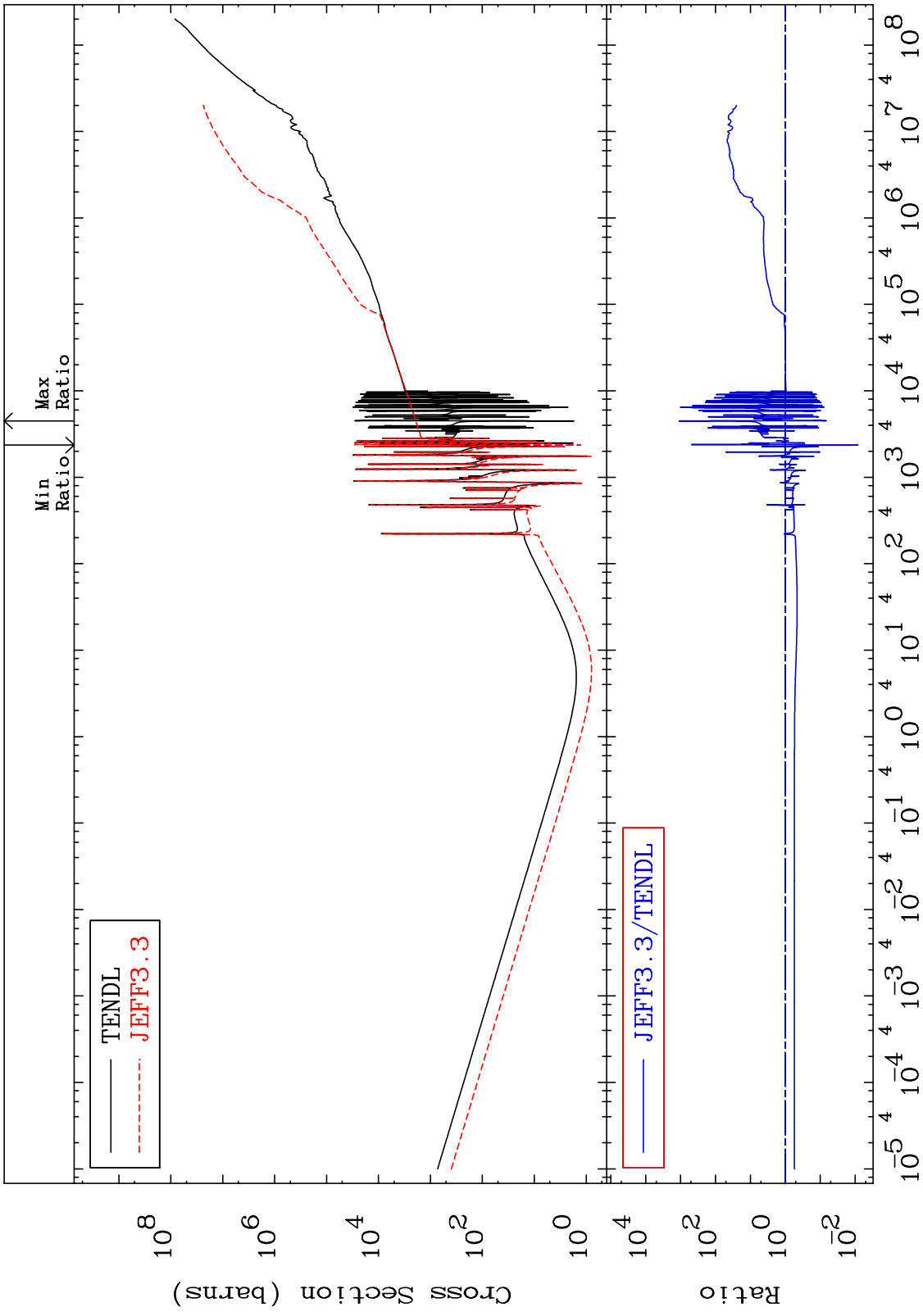
MAT 6449

He-4 Production  
Cross Section

64-Gd-160  
67.02 To 9999. %



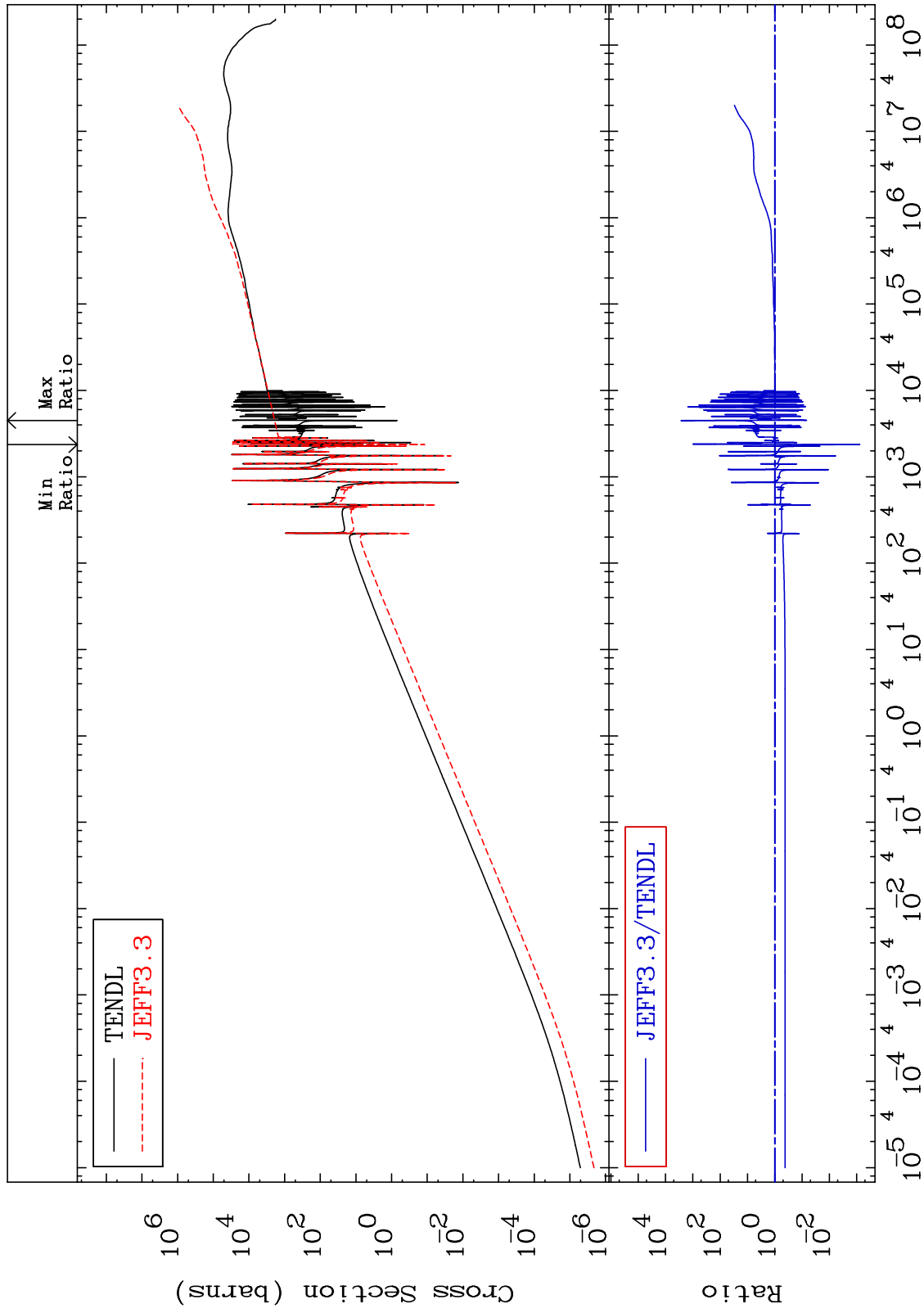
MAT 6449      Kerma total (eV-barns)  
 Cross Section      64-Gd-160  
 -99.17 To 9999. %



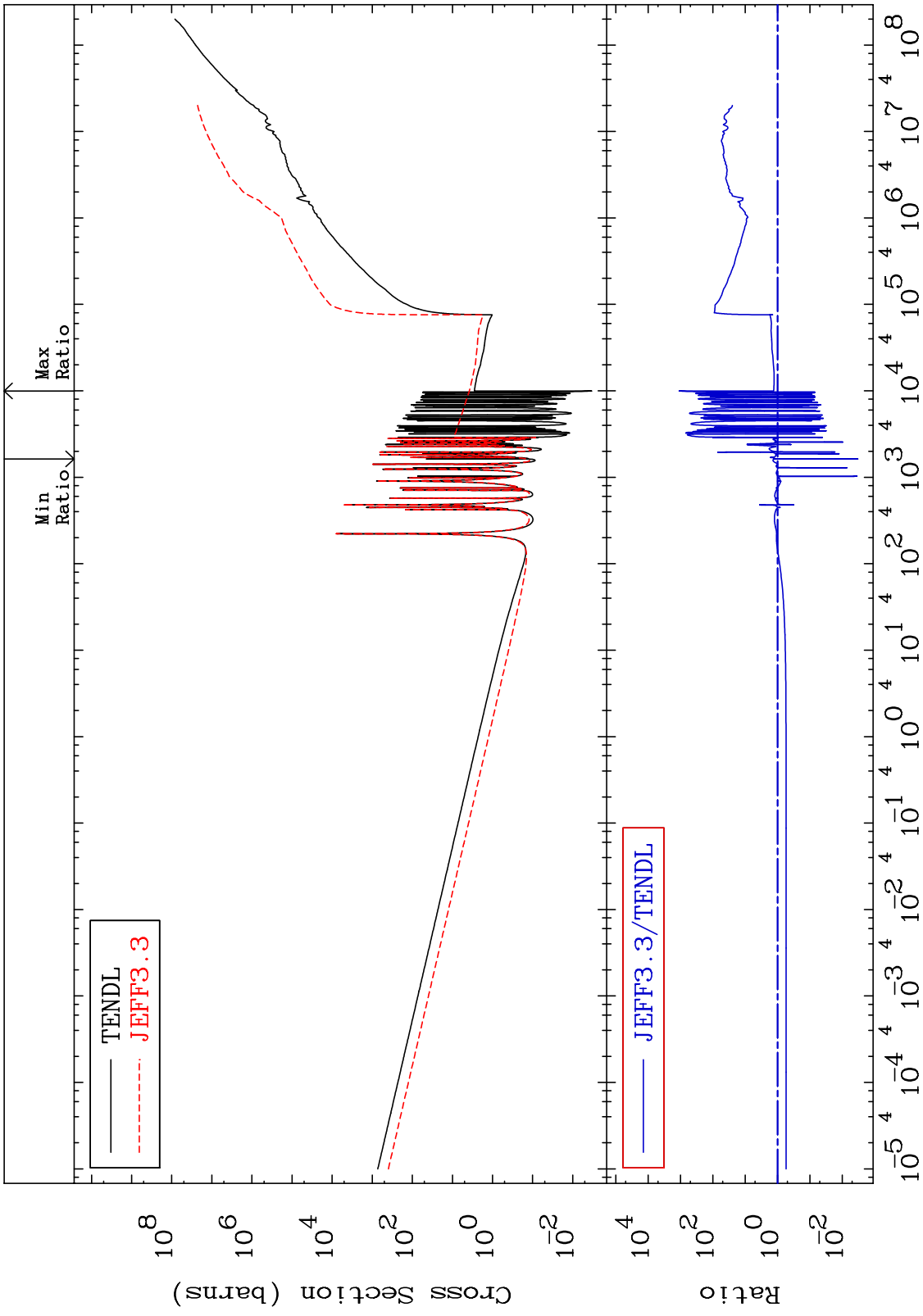
MAT 6449

Kerma elastic  
Cross Section

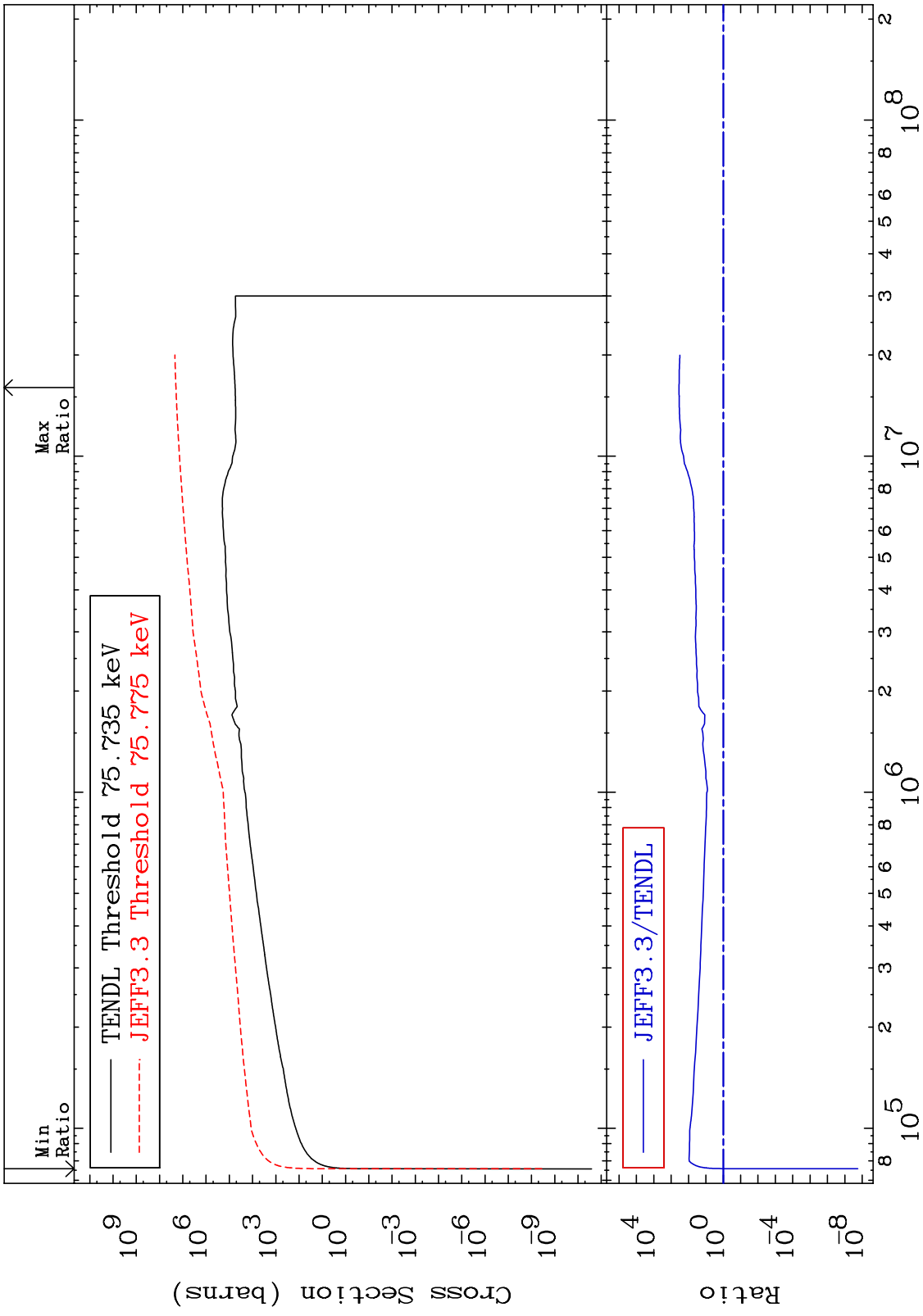
64-Gd-160  
-99.92 To 9999. %



MAT 6449 Kerma non-elastic (all but mt2) Cross Section 64-Gd-160 -99.67 To 9999. %

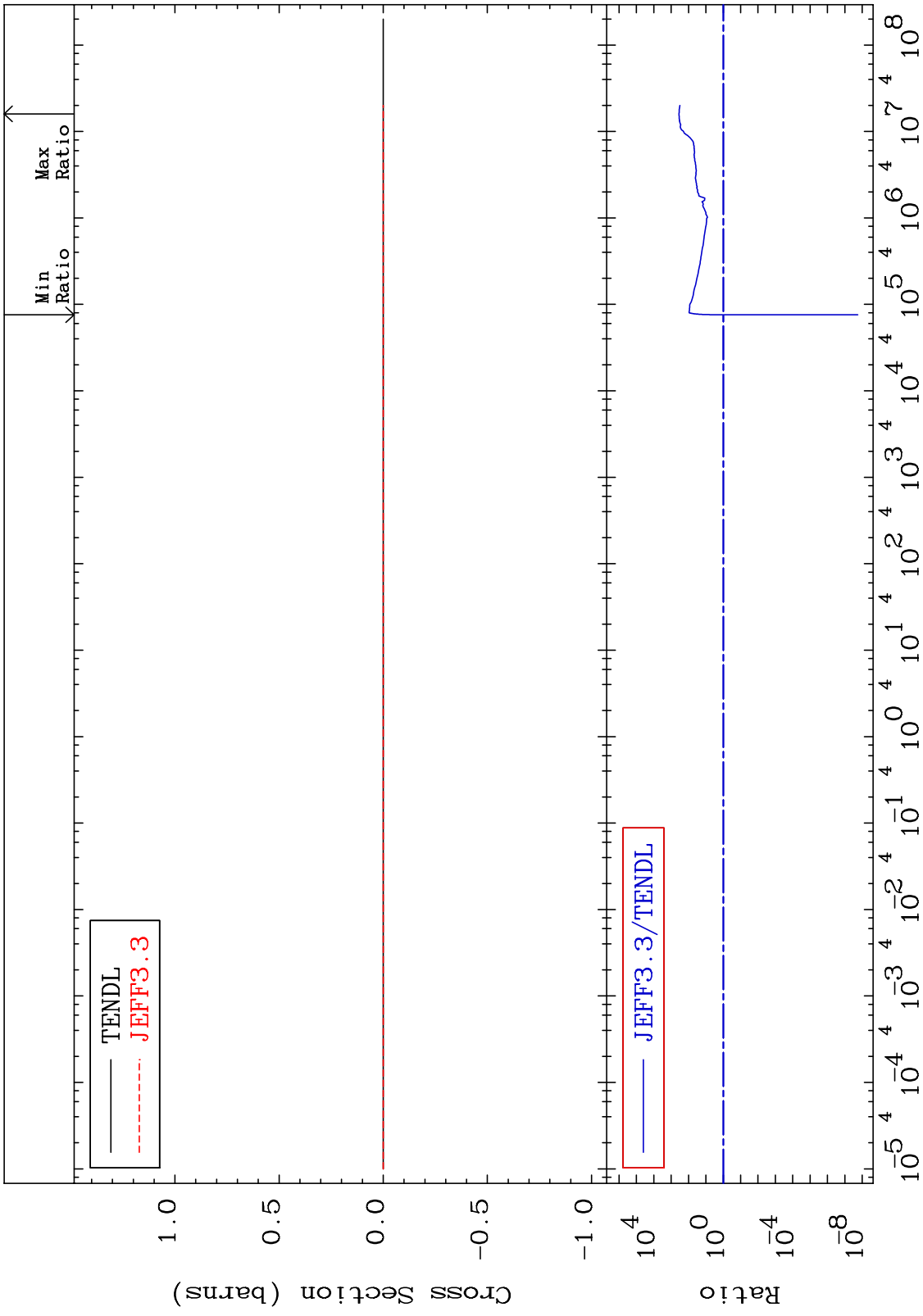


MAT 6449 Kerma inelastic (mt51-91) 64-Gd-160  
 -100.0 To 9999. %





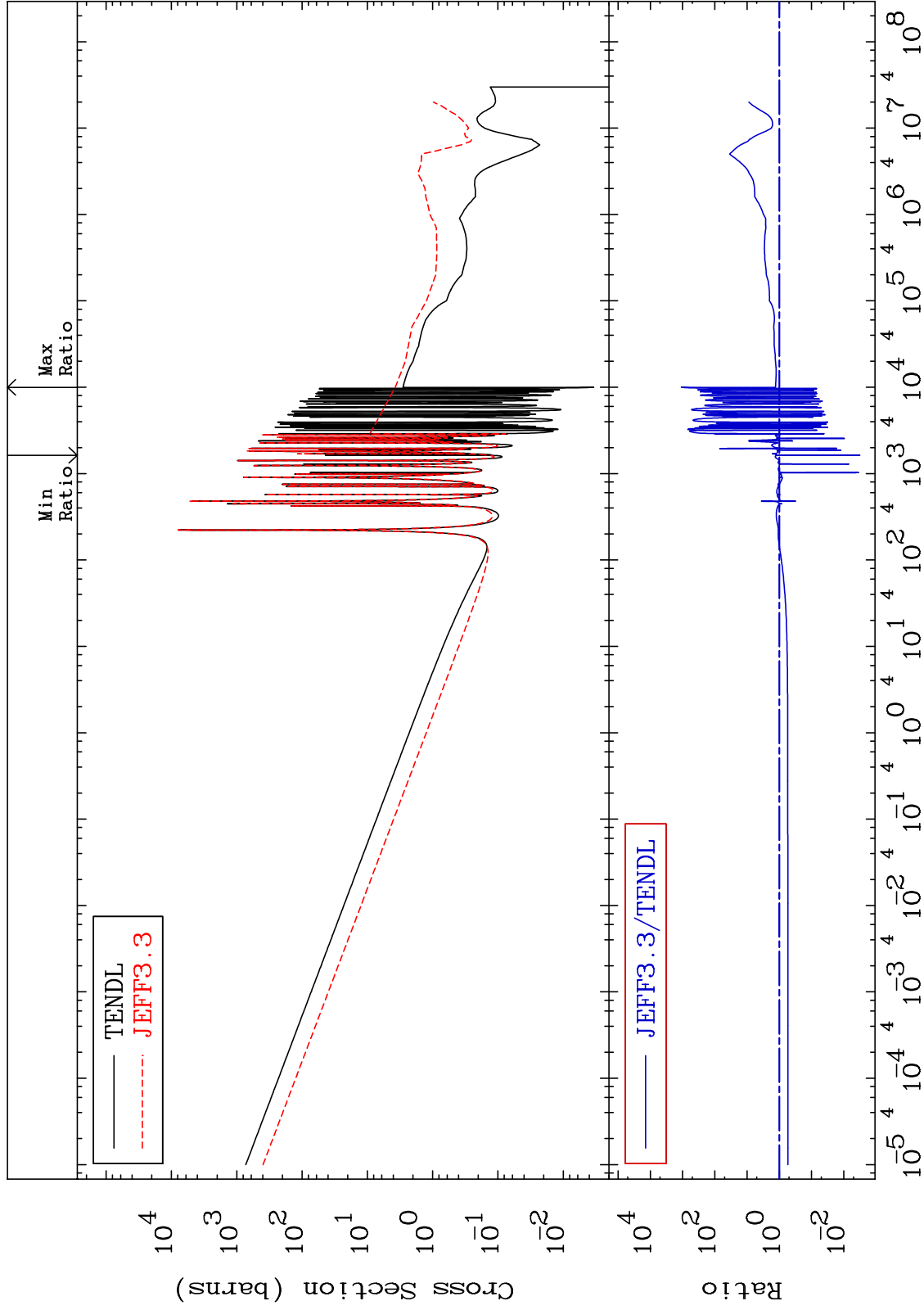
MAT 6449 Kerma fission (mt18 or mt19-20-21-38) 64-Gd-160  
 Cross Section -100.0 To 9999. %



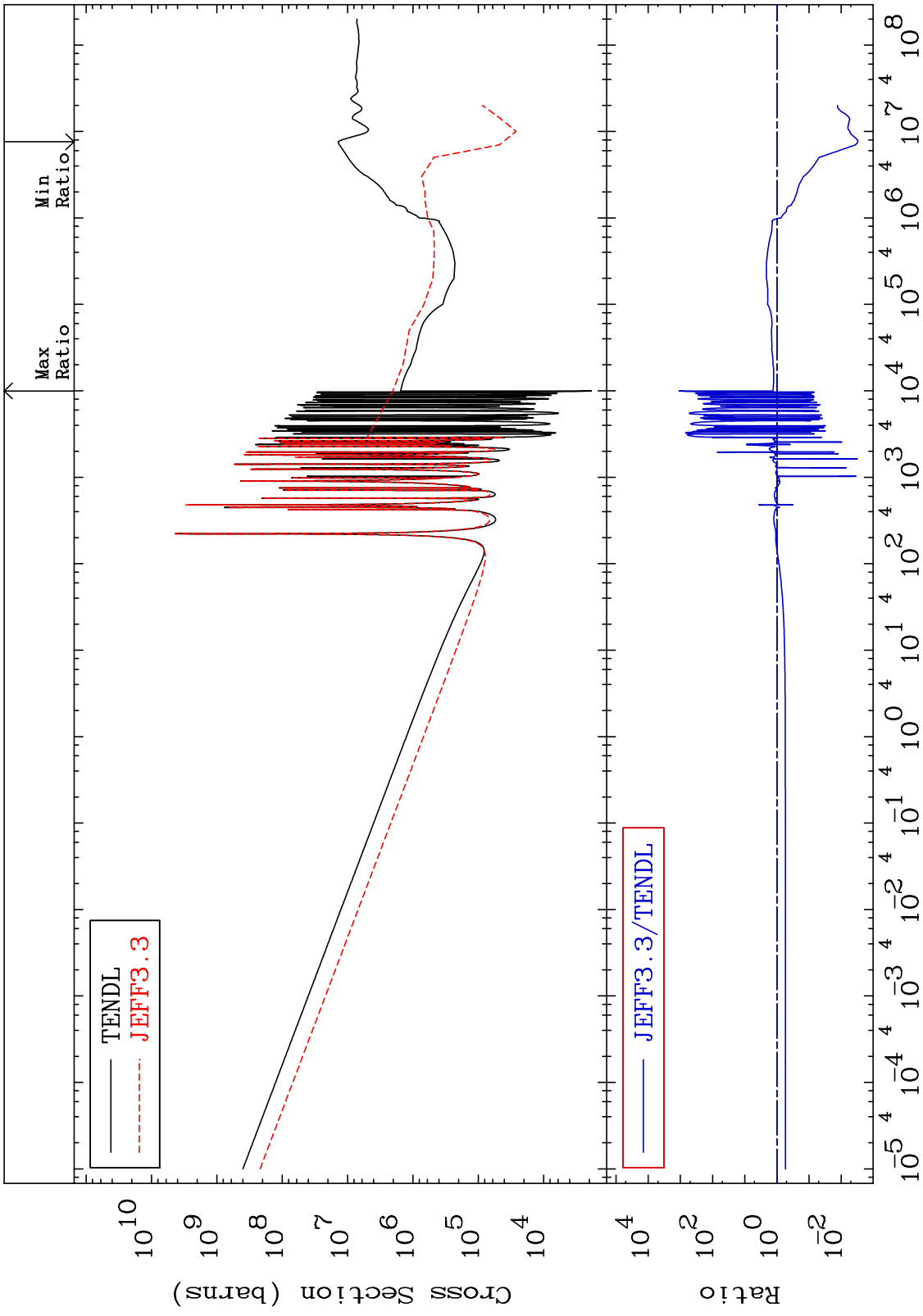
MAT 6449

Kerma capture (mt102)  
Cross Section

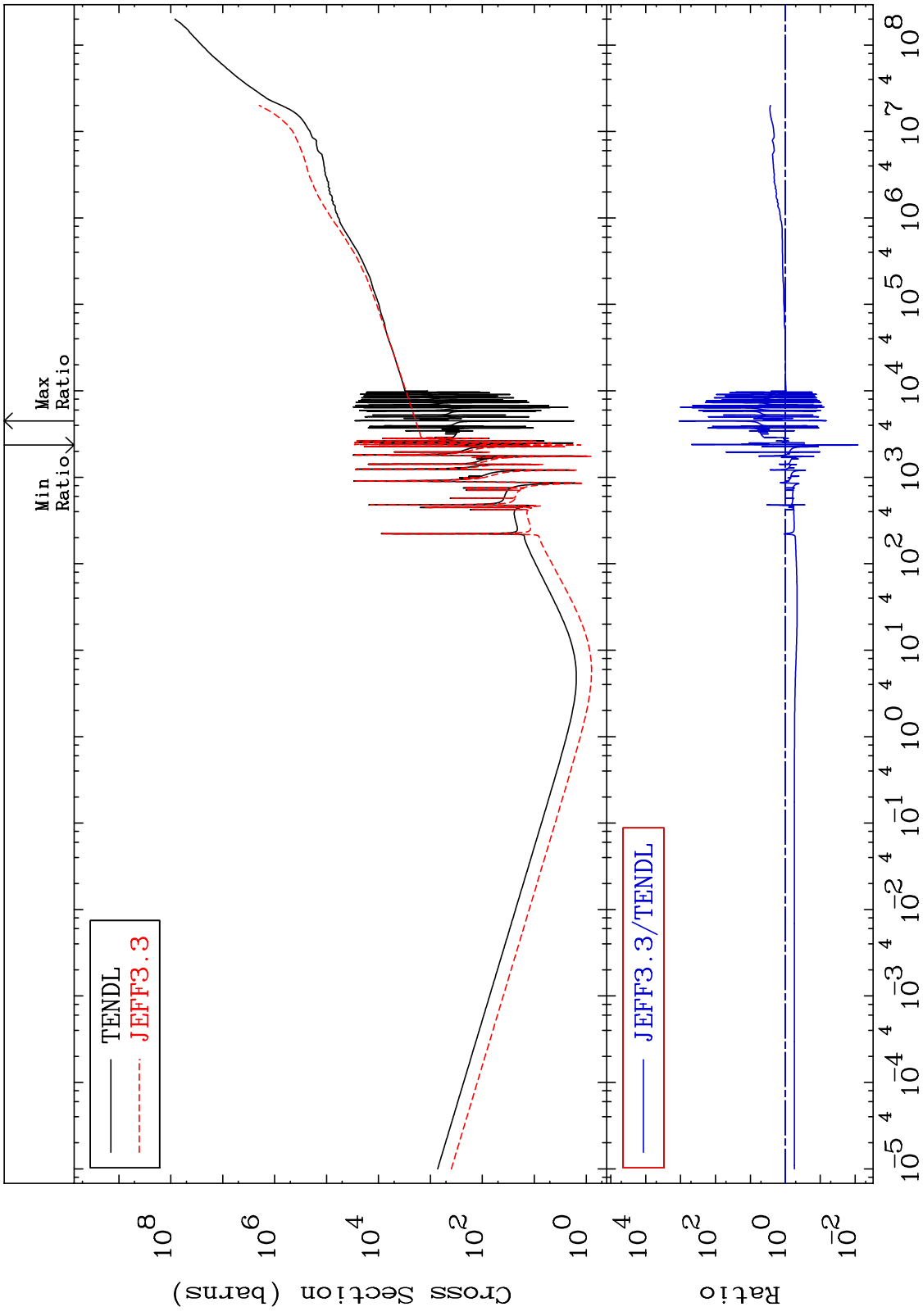
64-Gd-160  
-99.68 To 9999. %



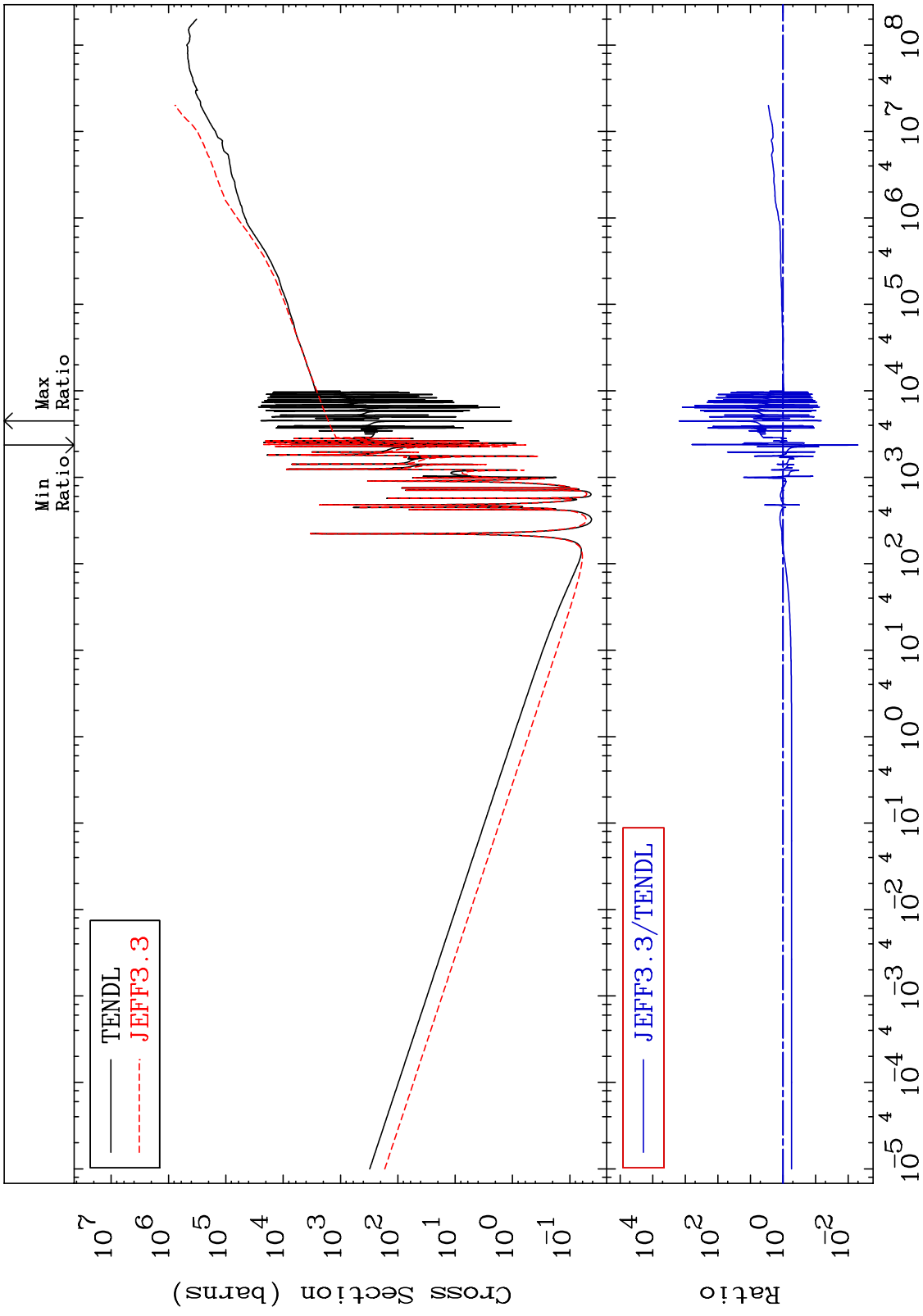
MAT 6449 64-Gd-160  
 Total photon (eV-barns) -99.70 To 9999. %  
 Cross Section

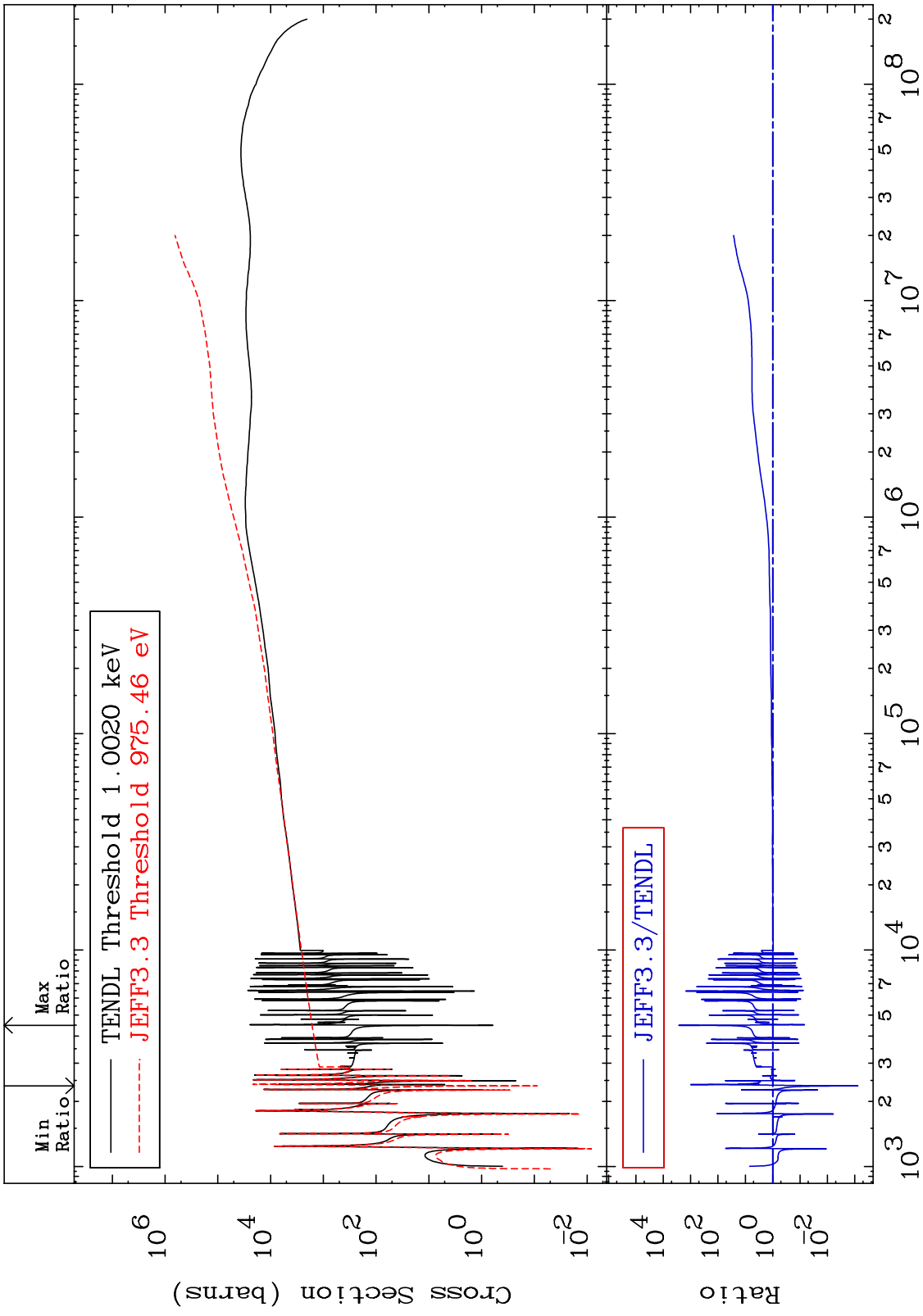


MAT 6449 Total kinematic kerma (high limit) 64-Gd-160  
 Cross Section -99.17 To 9999. %

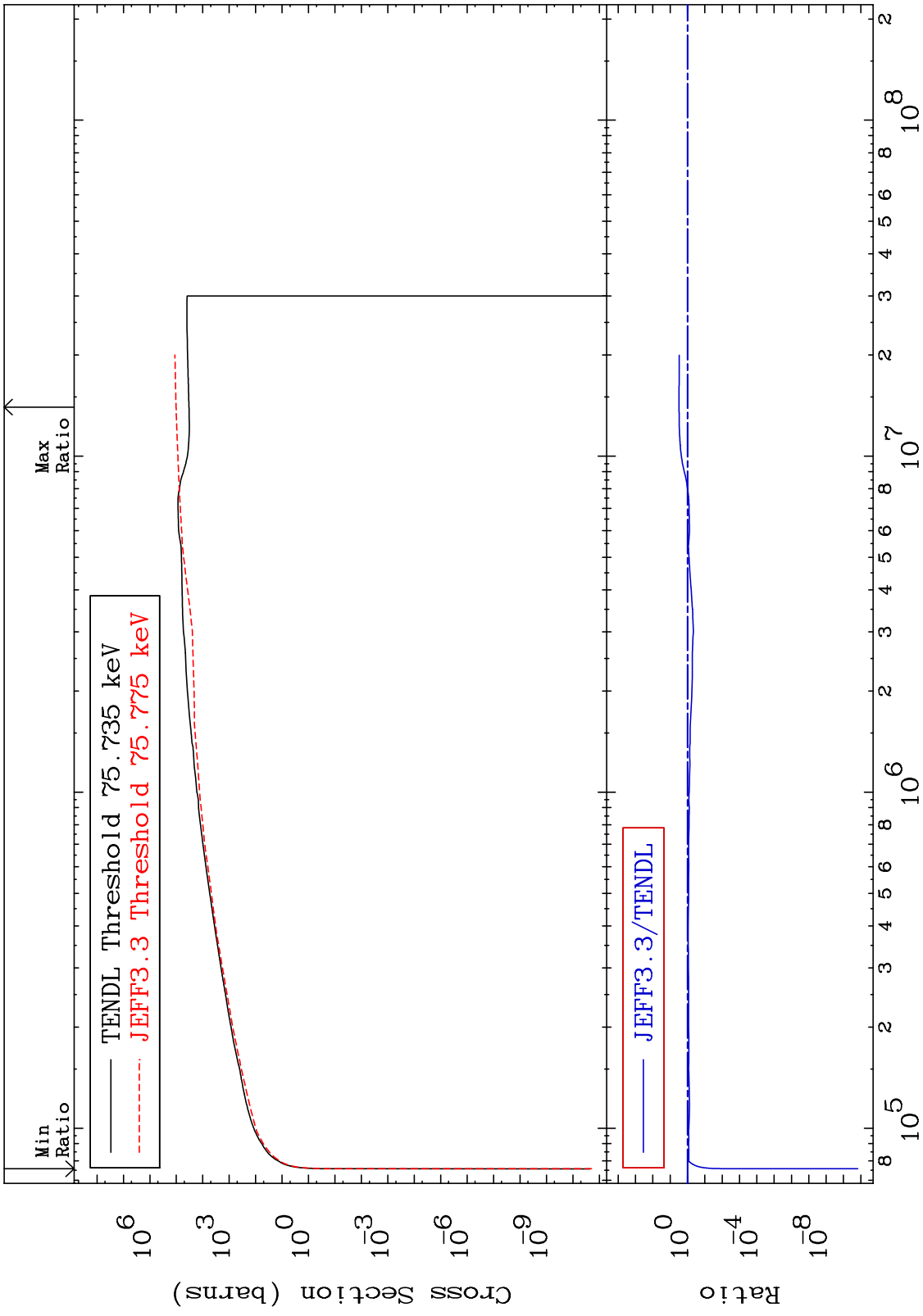


MAT 6449      Dpa total (eV-barns)      64-Gd-160  
 Cross Section      -99.49 To 9999. %

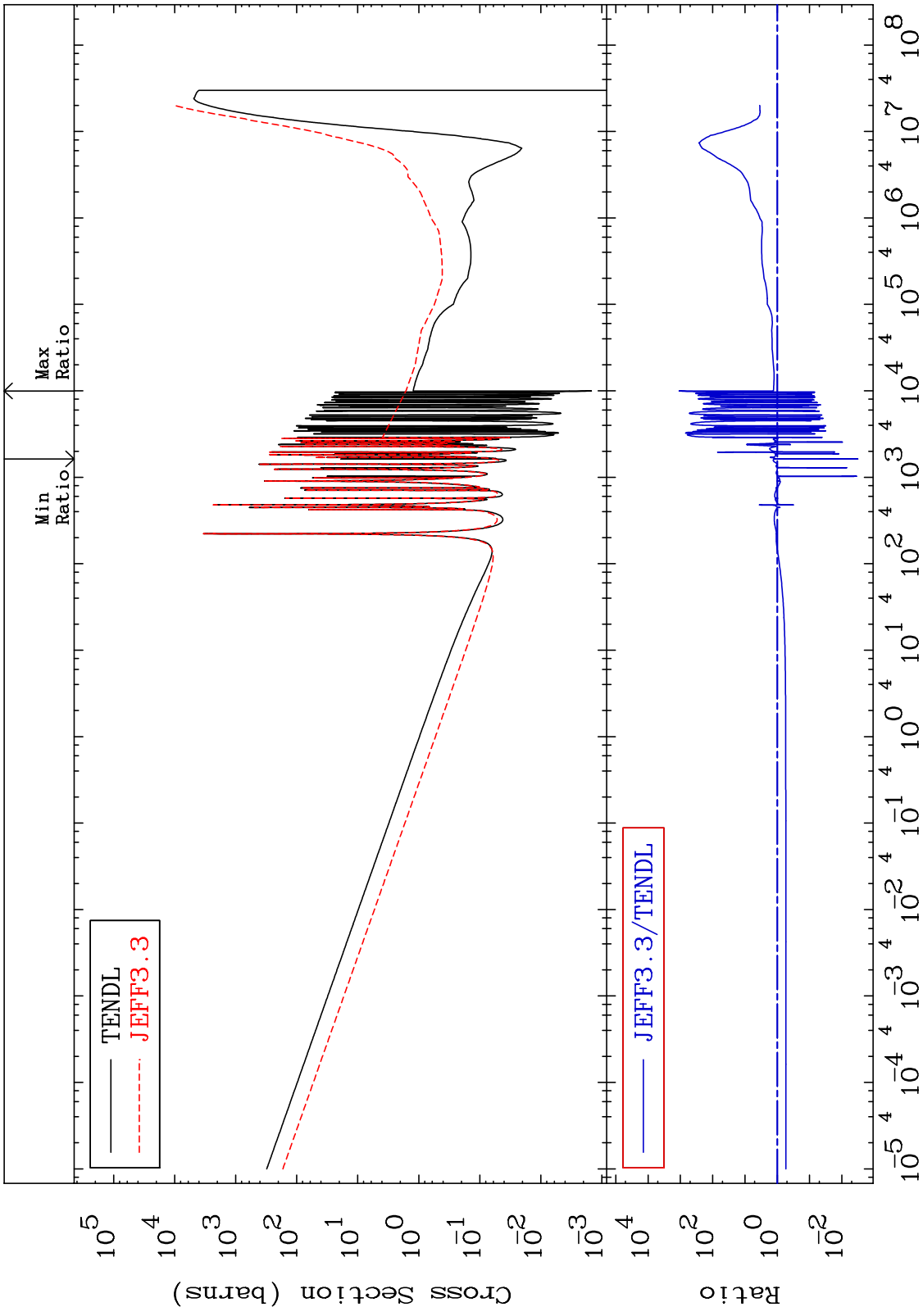




MAT 6449      Dpa inelastic (mt51-91)      64-Gd-160  
 Cross Section      -100.0 To 207.8 %

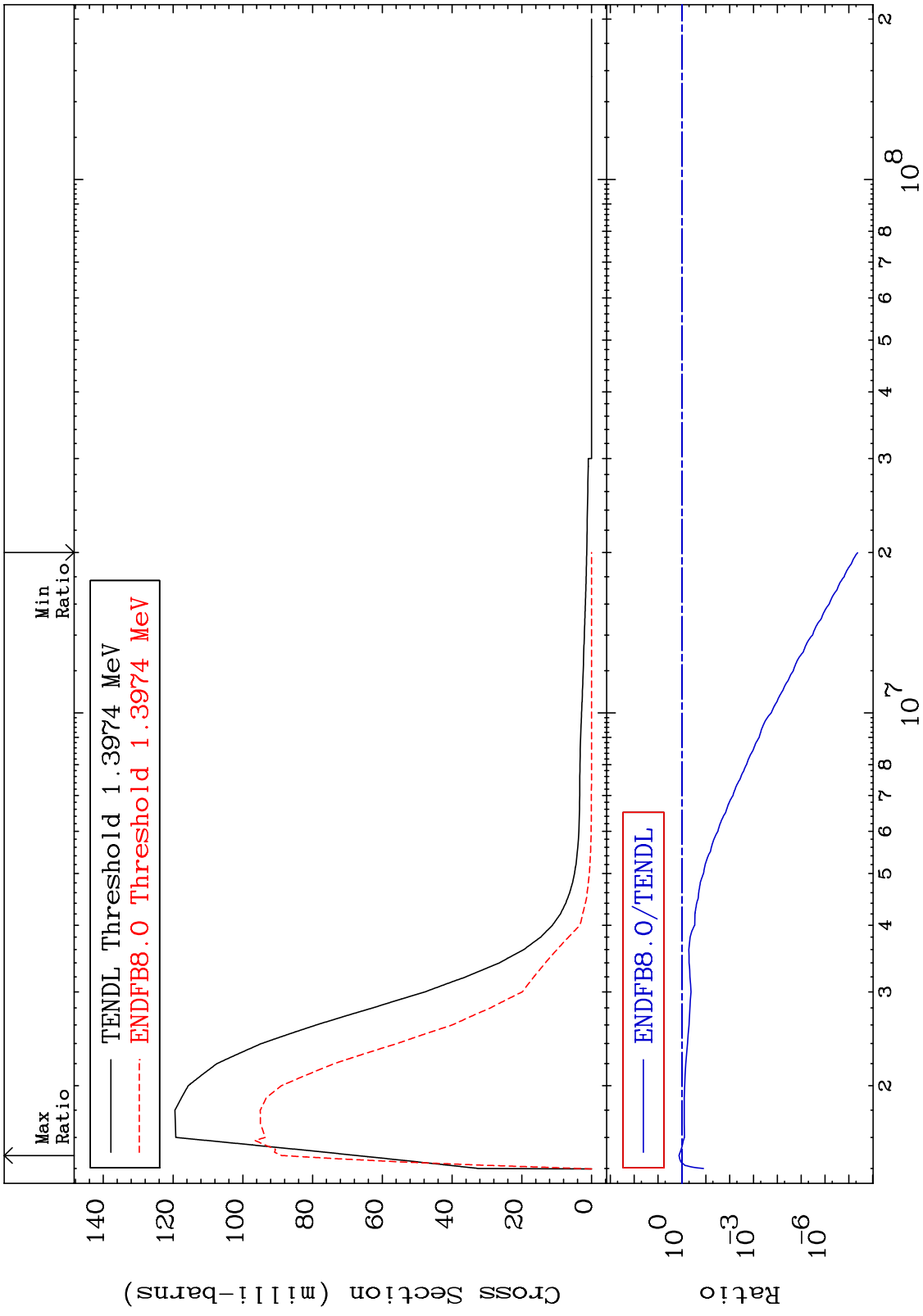


MAT 6449      Dpa disappearance (mt102 -120)      64-Gd-160  
 Cross Section      -99.68 To 9999. %

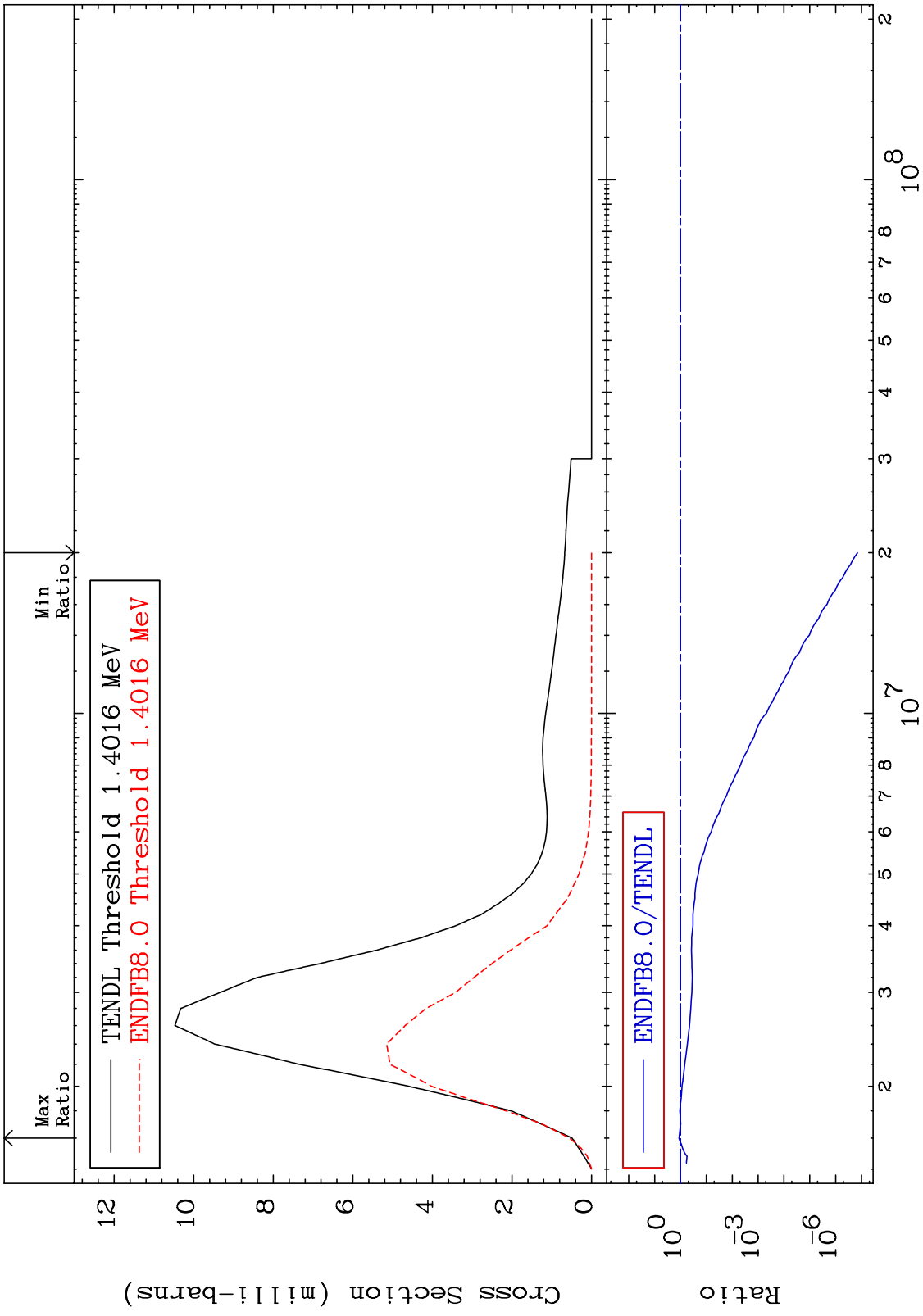




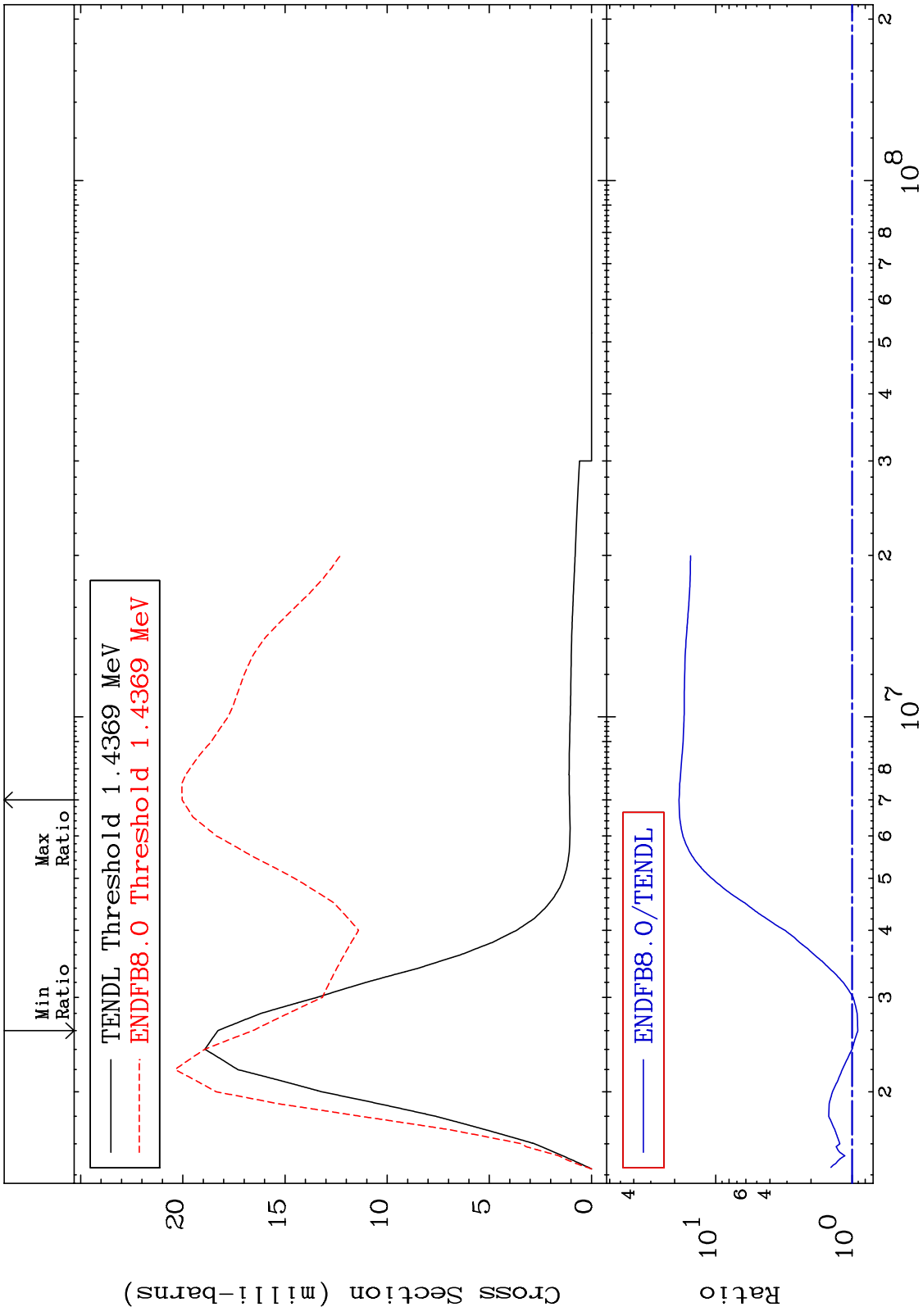
MAT 6449      MT= 73 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 32.14 %



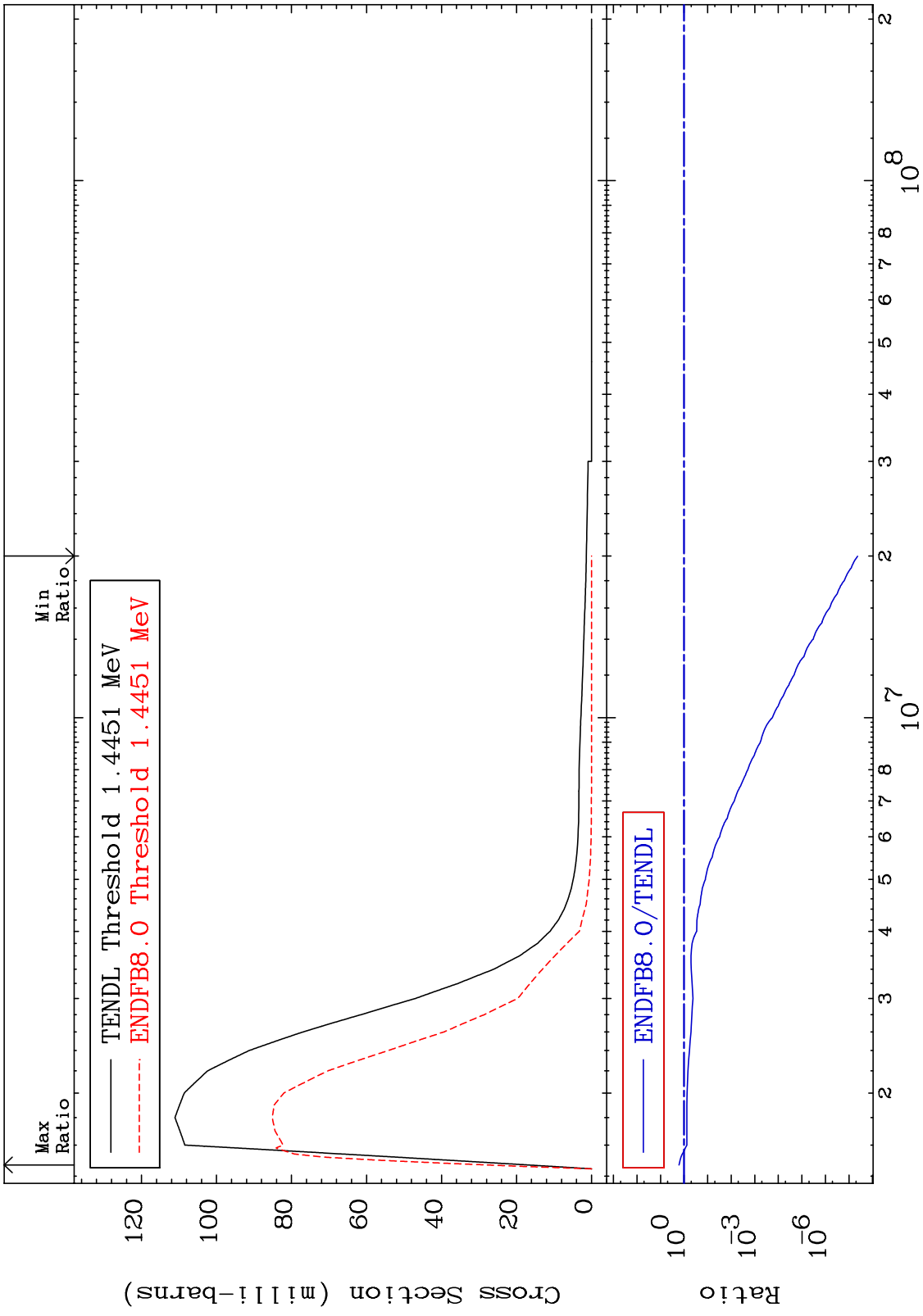
MAT 6449      MT= 74 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 13.98 %



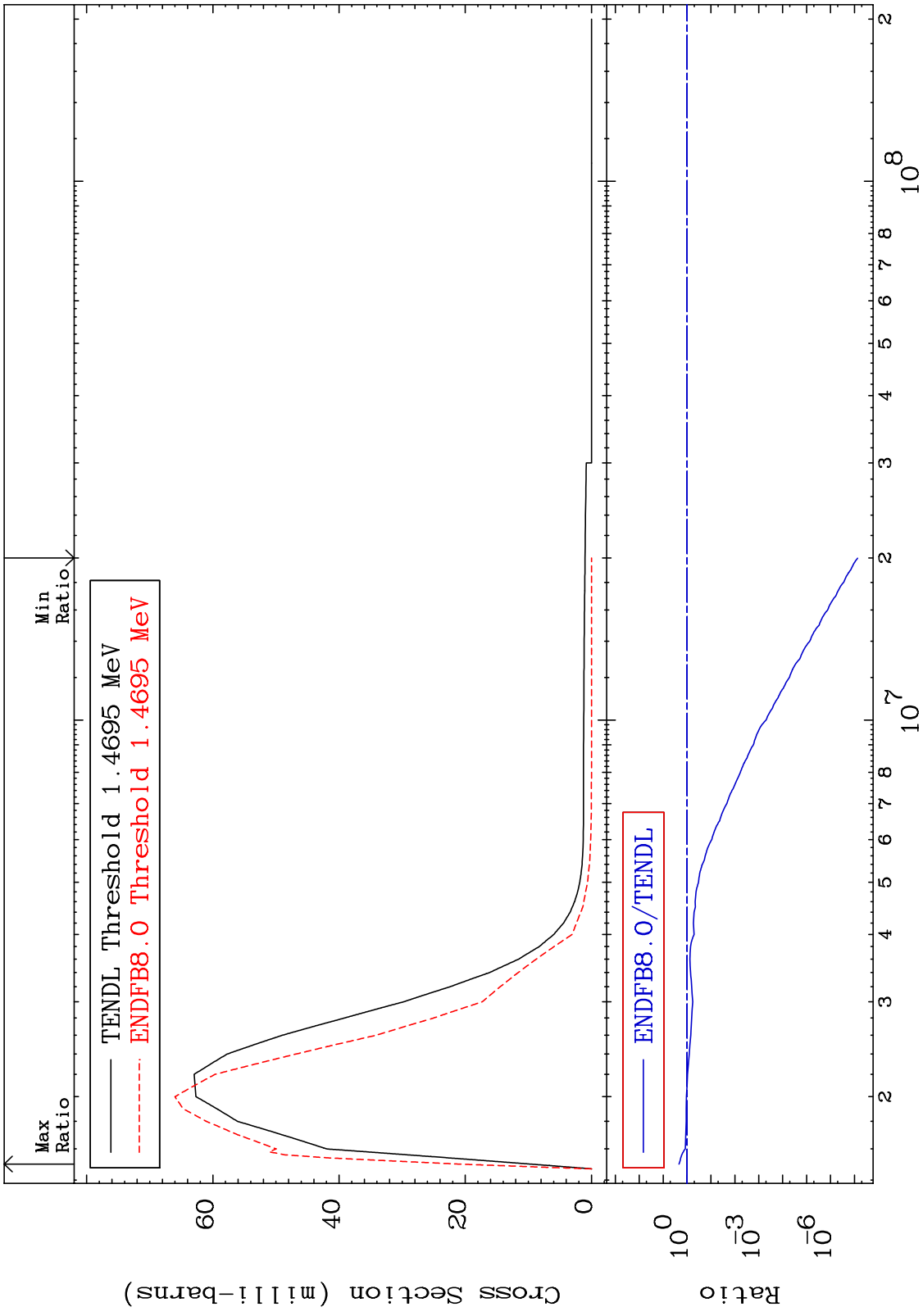
MAT 6449      MT= 75 (n,n') Level Cross Section      64-Gd-160  
 -9.342 To 1758. %



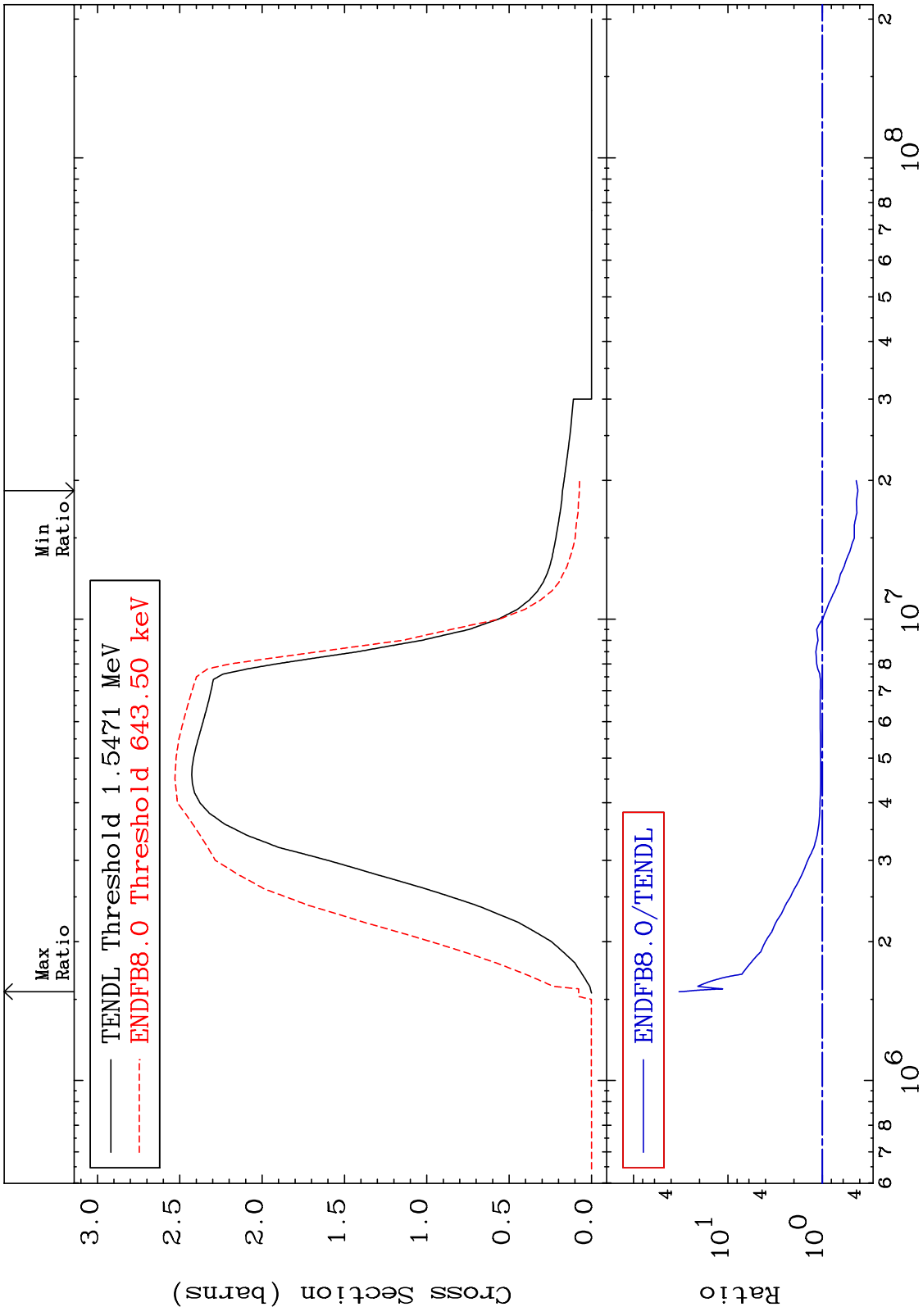
MAT 6449      MT= 76 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 63.89 %



MAT 6449      MT= 77 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 116.1 %



MAT 6449 (n, n') Continuum Cross Section 64-Gd-160 -57.98 To 3191. %



37 Incident Energy (eV) 64-Gd-160

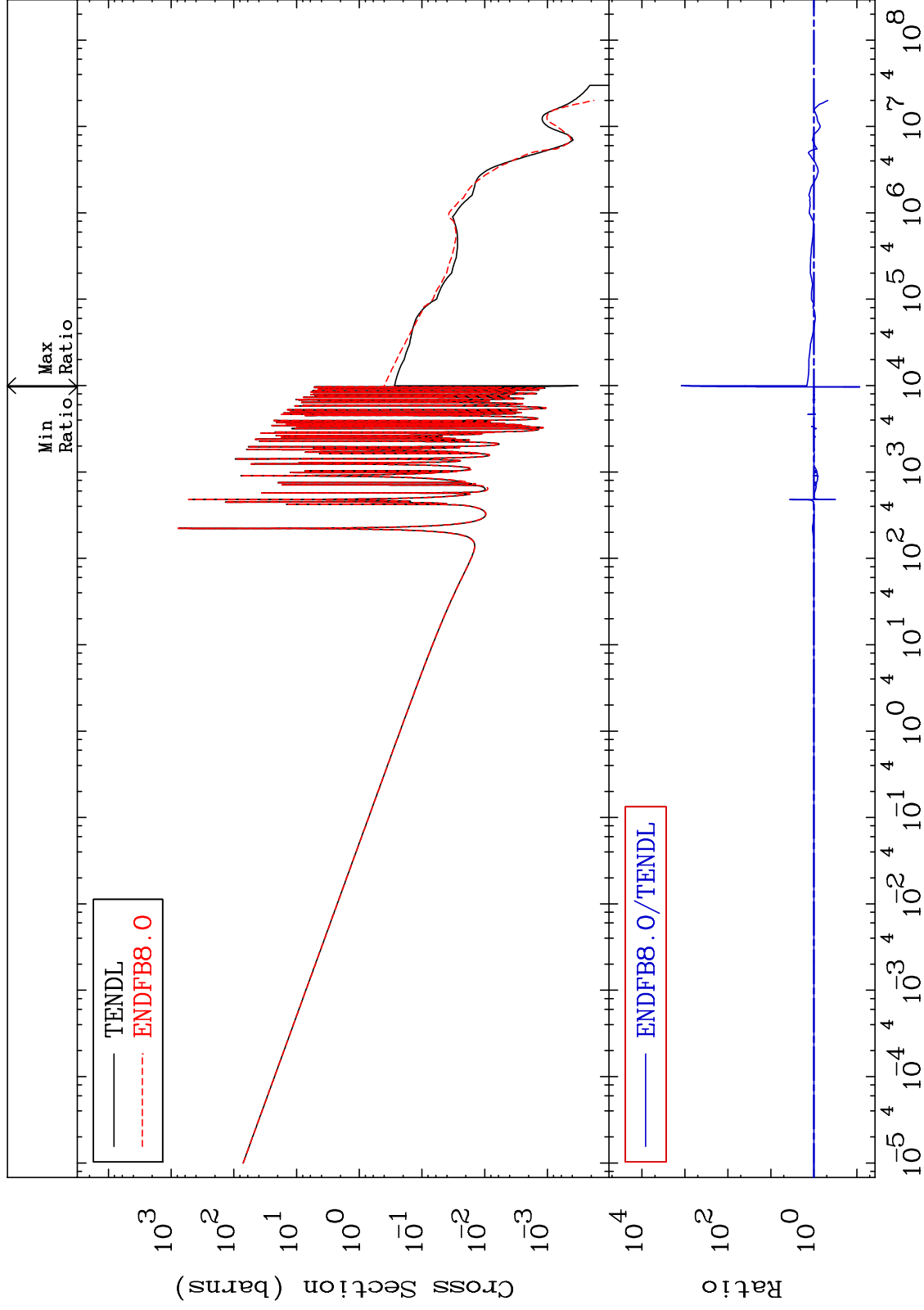
MAT 6449

(n,  $\gamma$ )

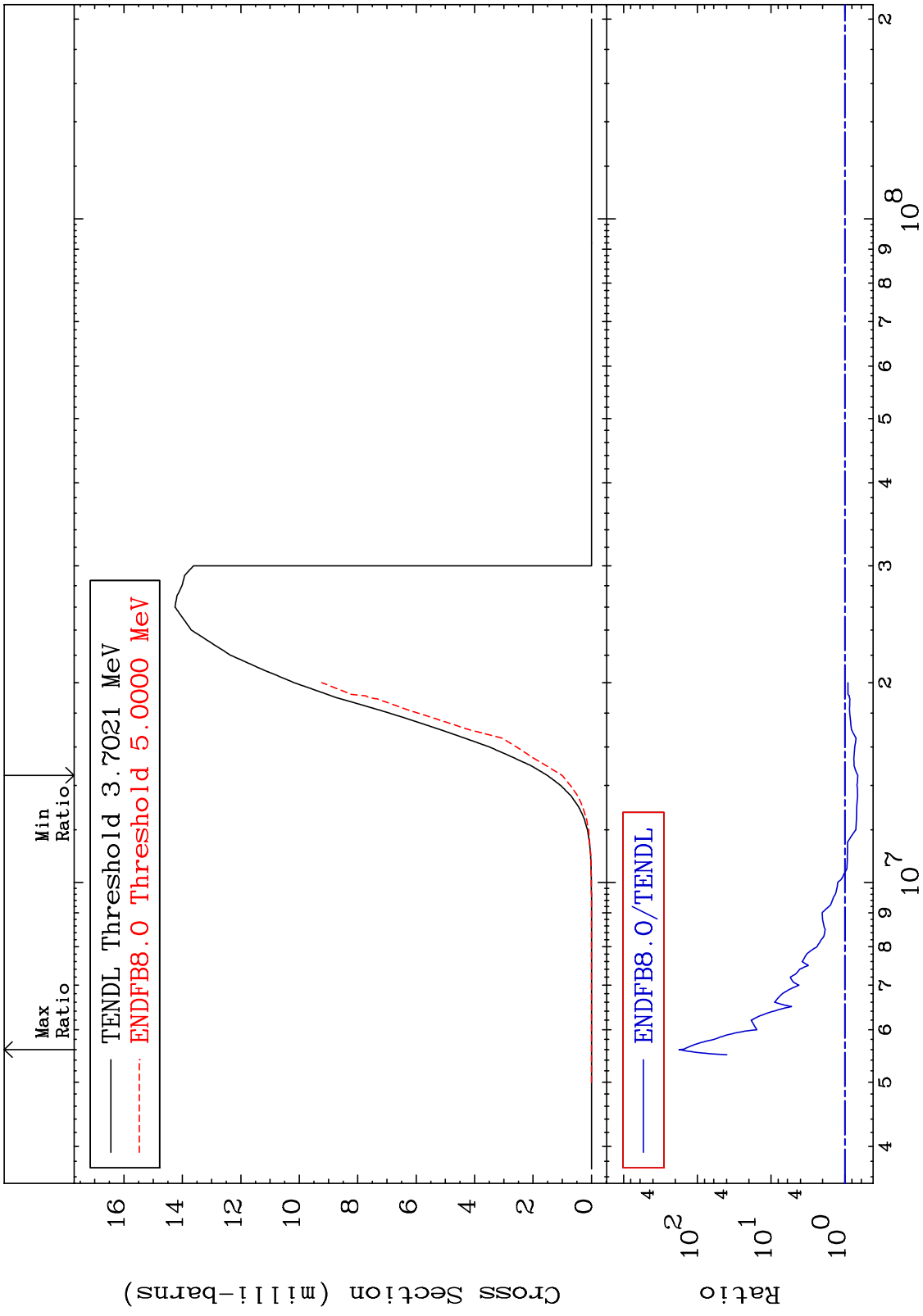
64-Gd-160

Cross Section

-91.43 To 9999. %

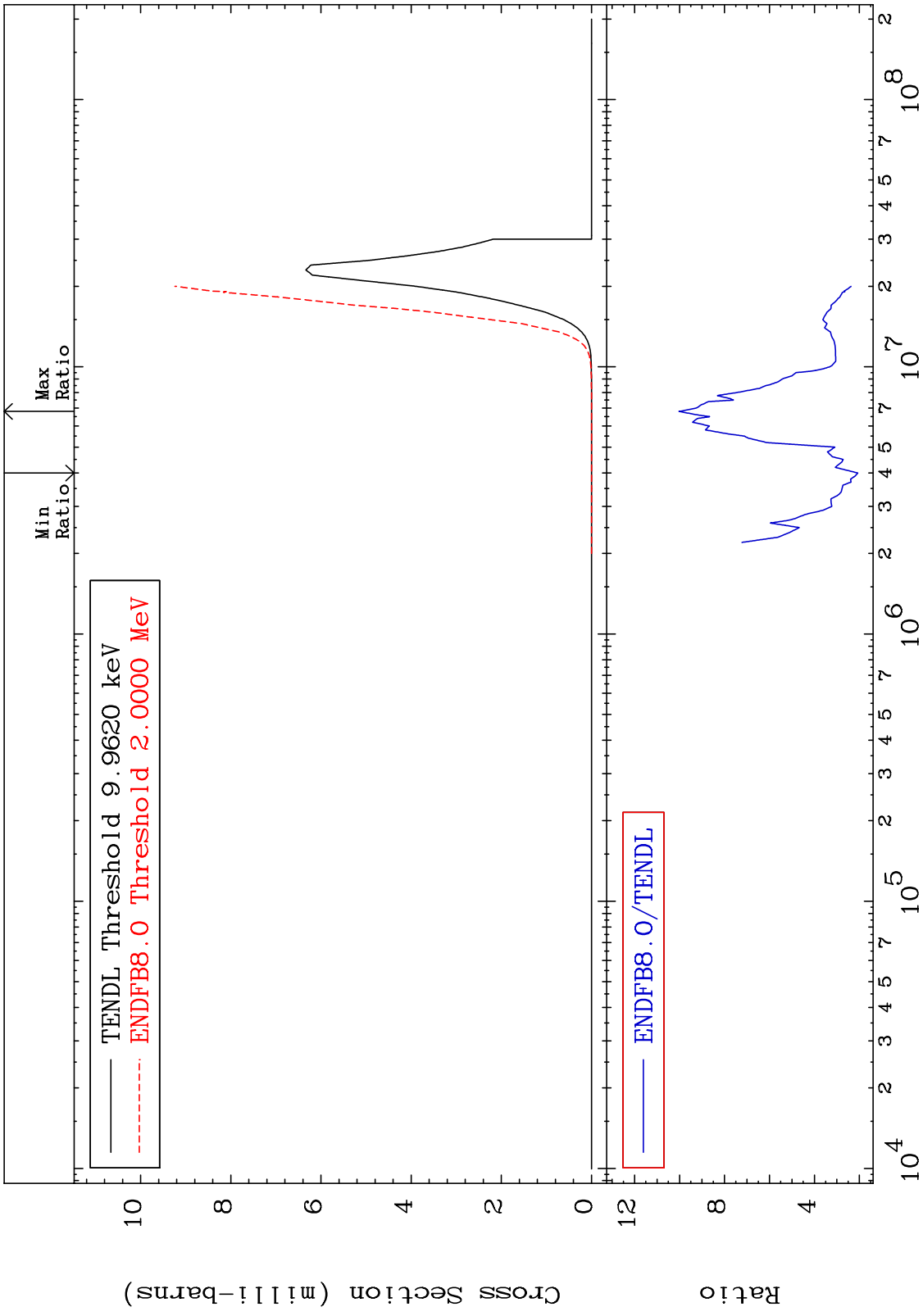


MAT 6449 (n,p) Cross Section 64-Gd-160  
 -33.35 To 9999. %

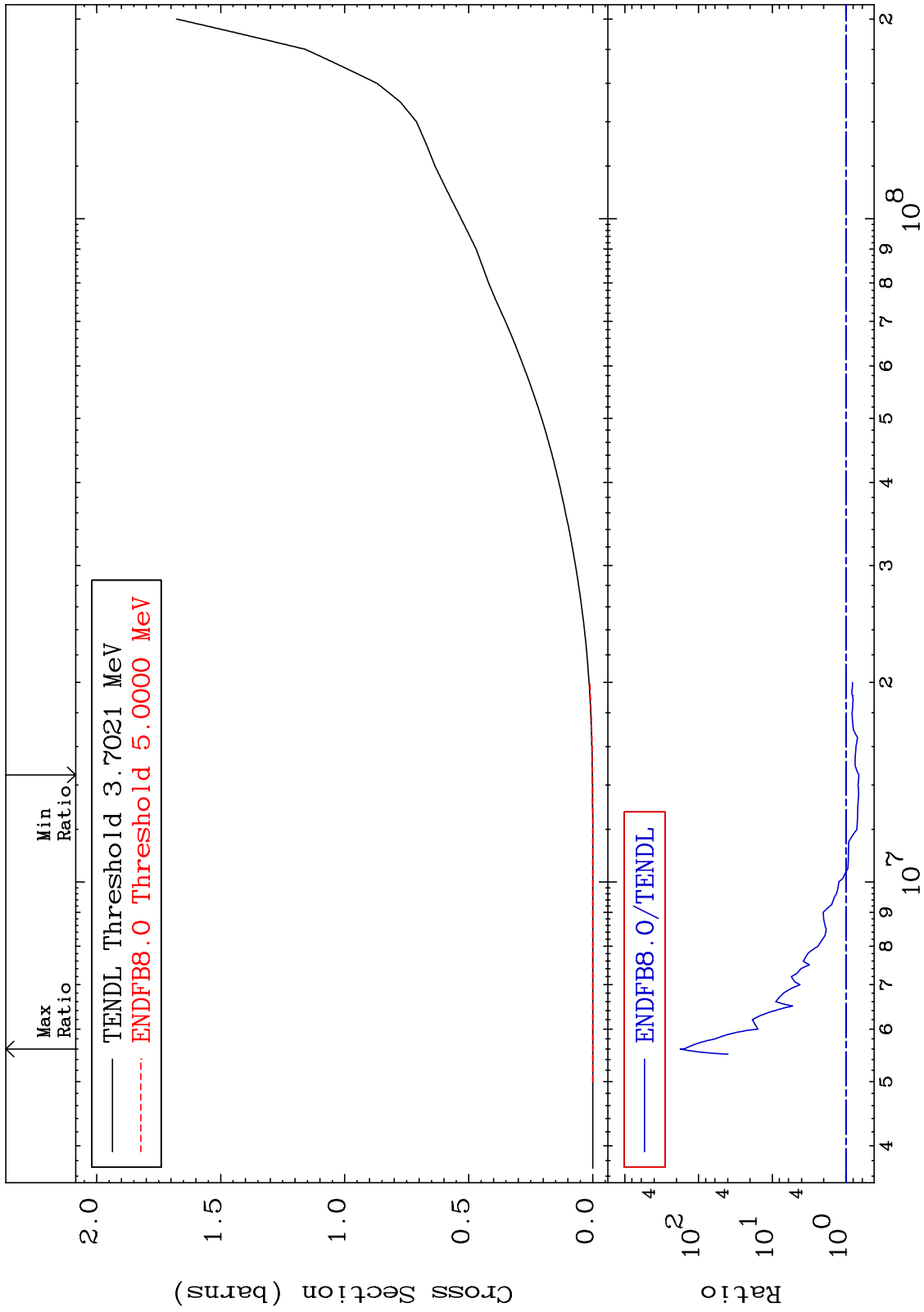




MAT 6449  $(n, \alpha)$  Cross Section 64-Gd-160  
106.8 To 902.3 %



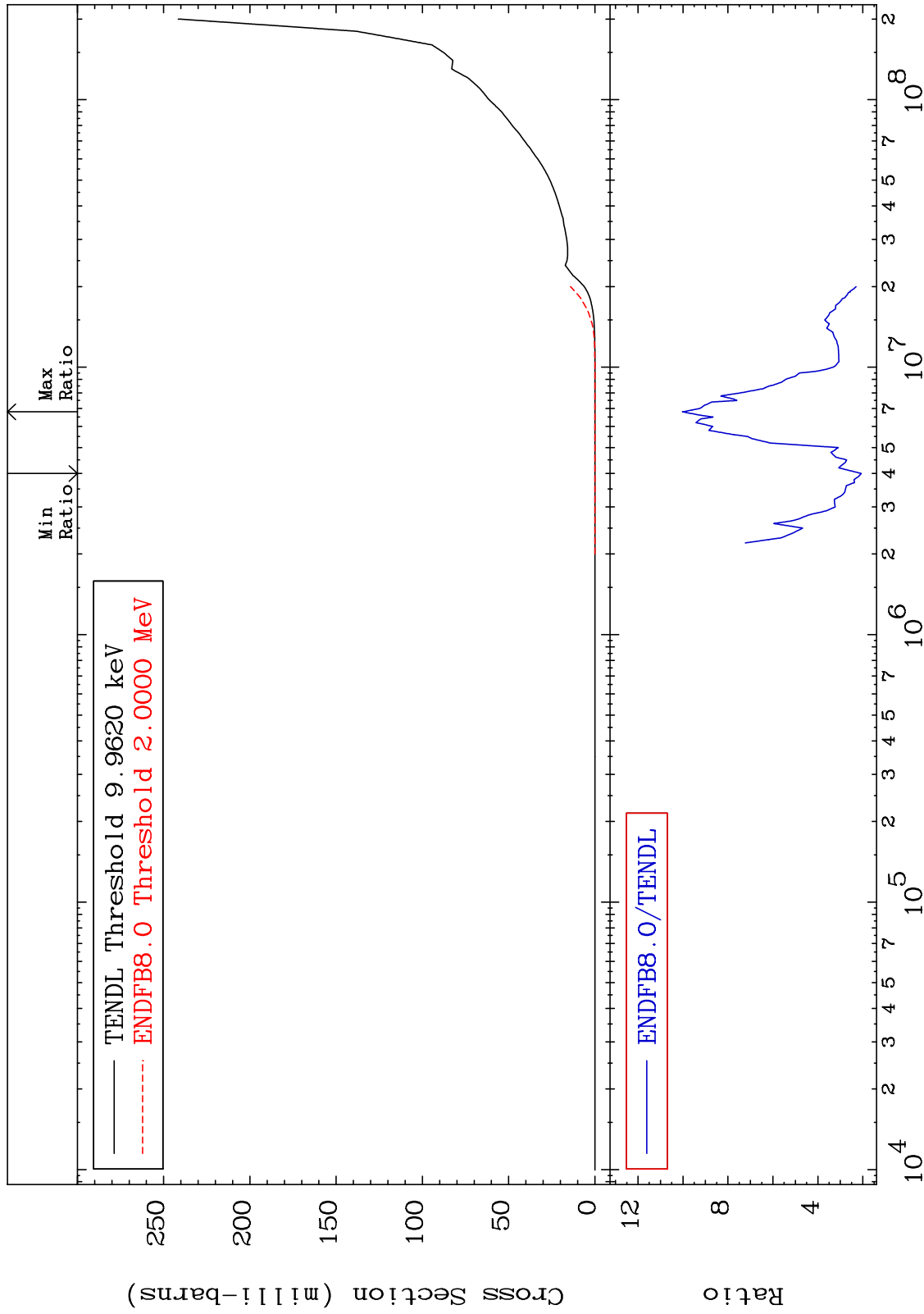
64-Gd-160



MAT 6449

He-4 Production  
Cross Section

64-Gd-160  
106.8 To 902.3 %

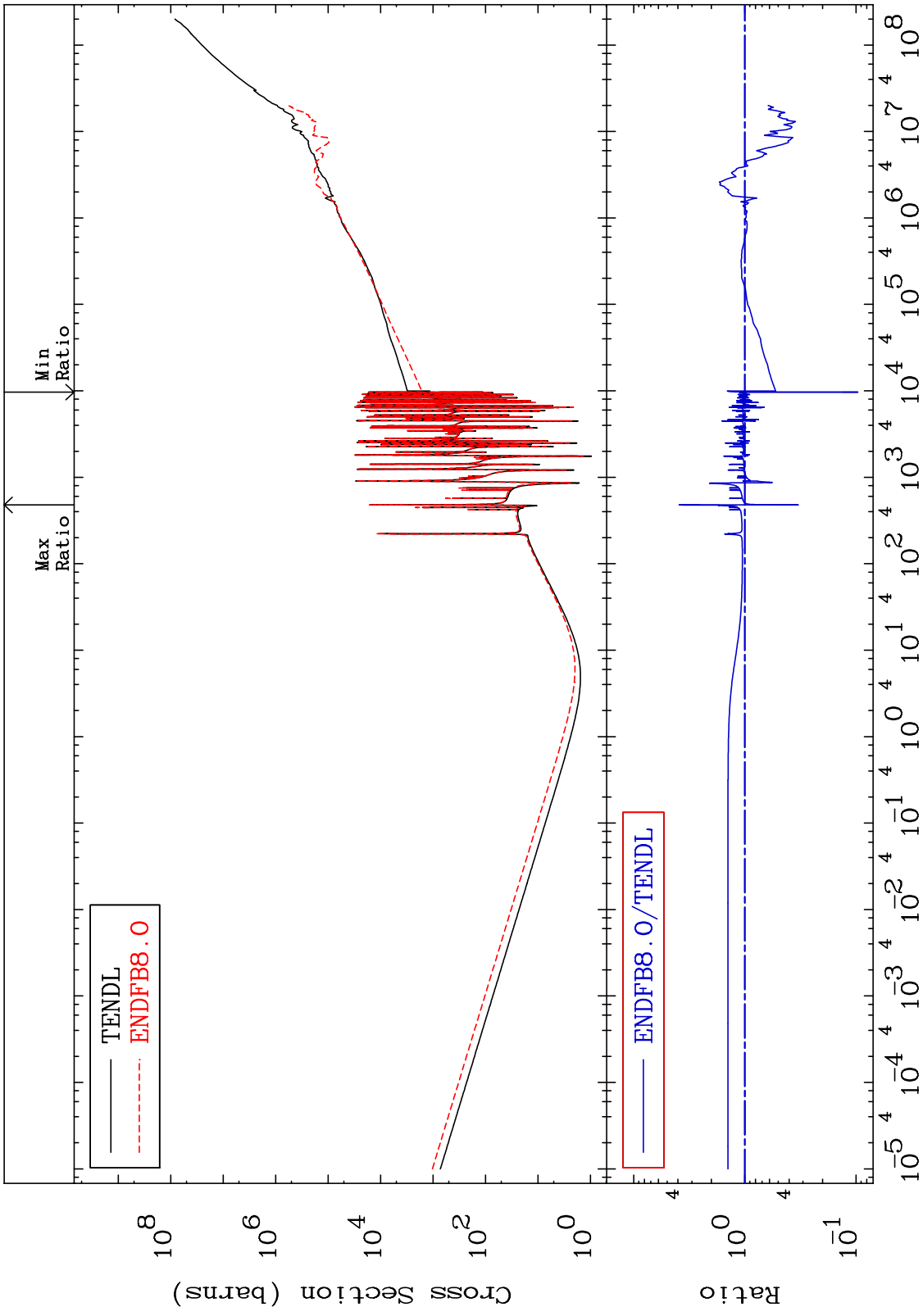


42

Incident Energy (eV)

64-Gd-160

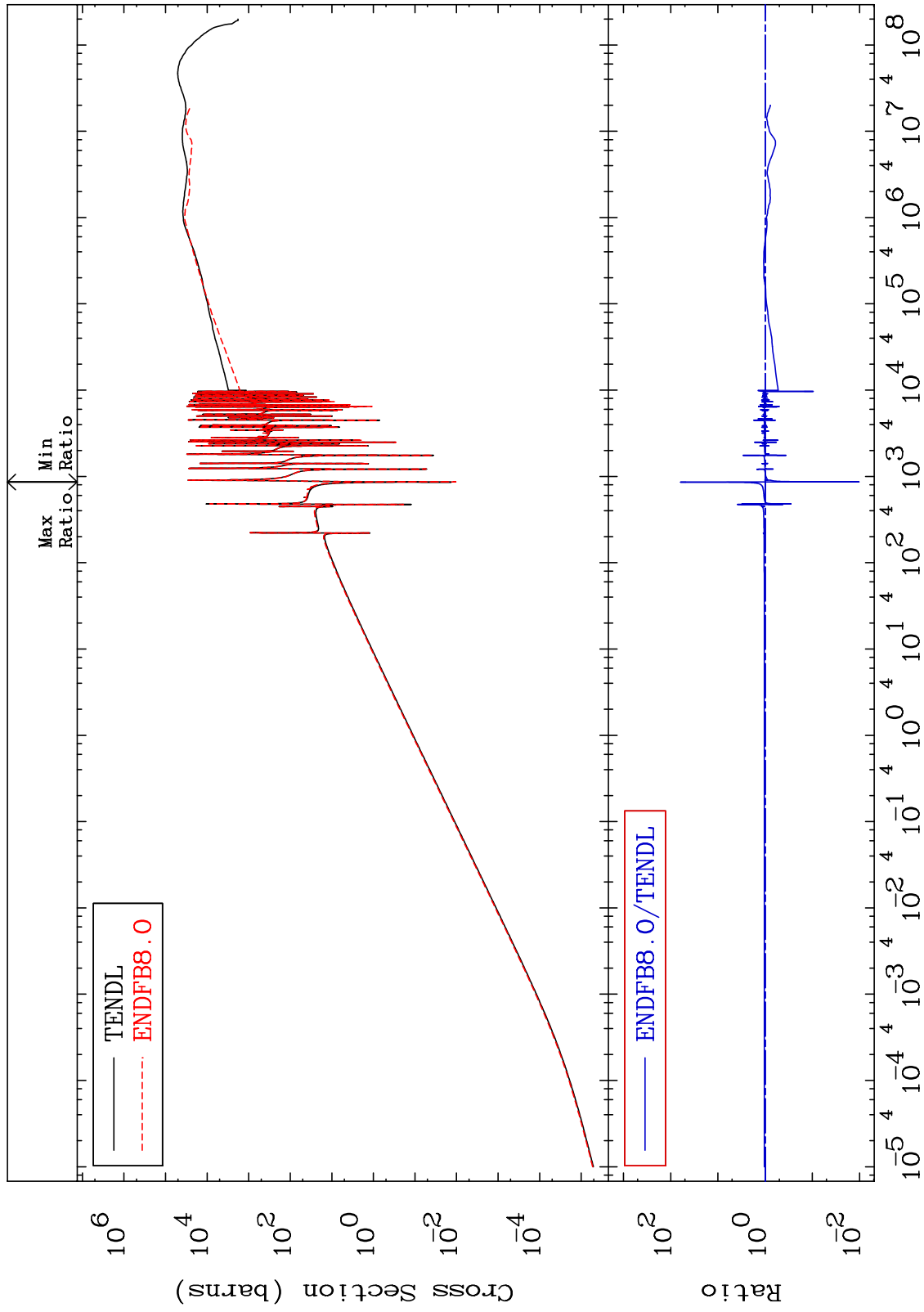
MAT 6449      Kerma total (eV-barns)  
 Cross Section      -90.38 To 290.6 %      64-Gd-160



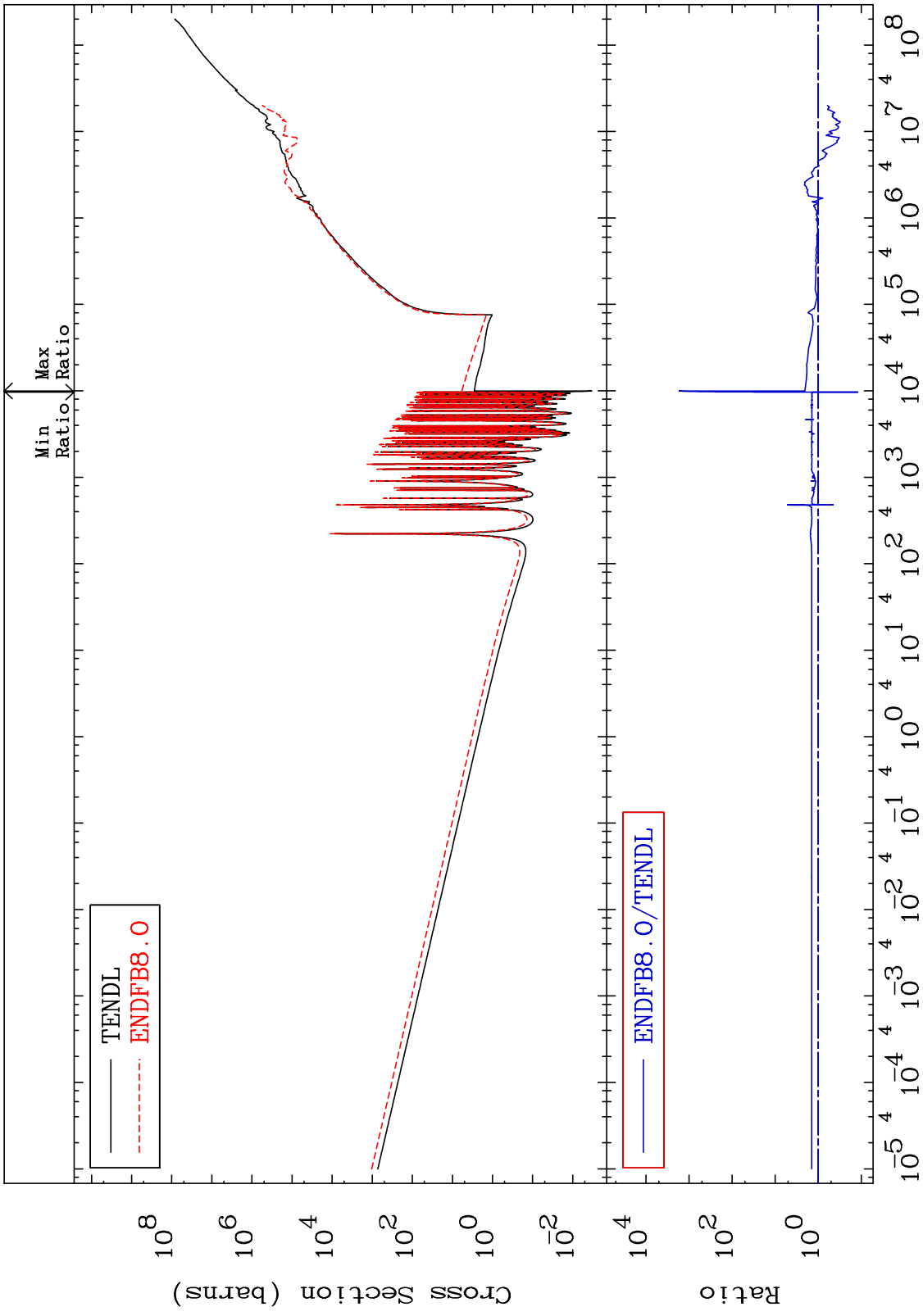
MAT 6449

Kerma elastic  
Cross Section

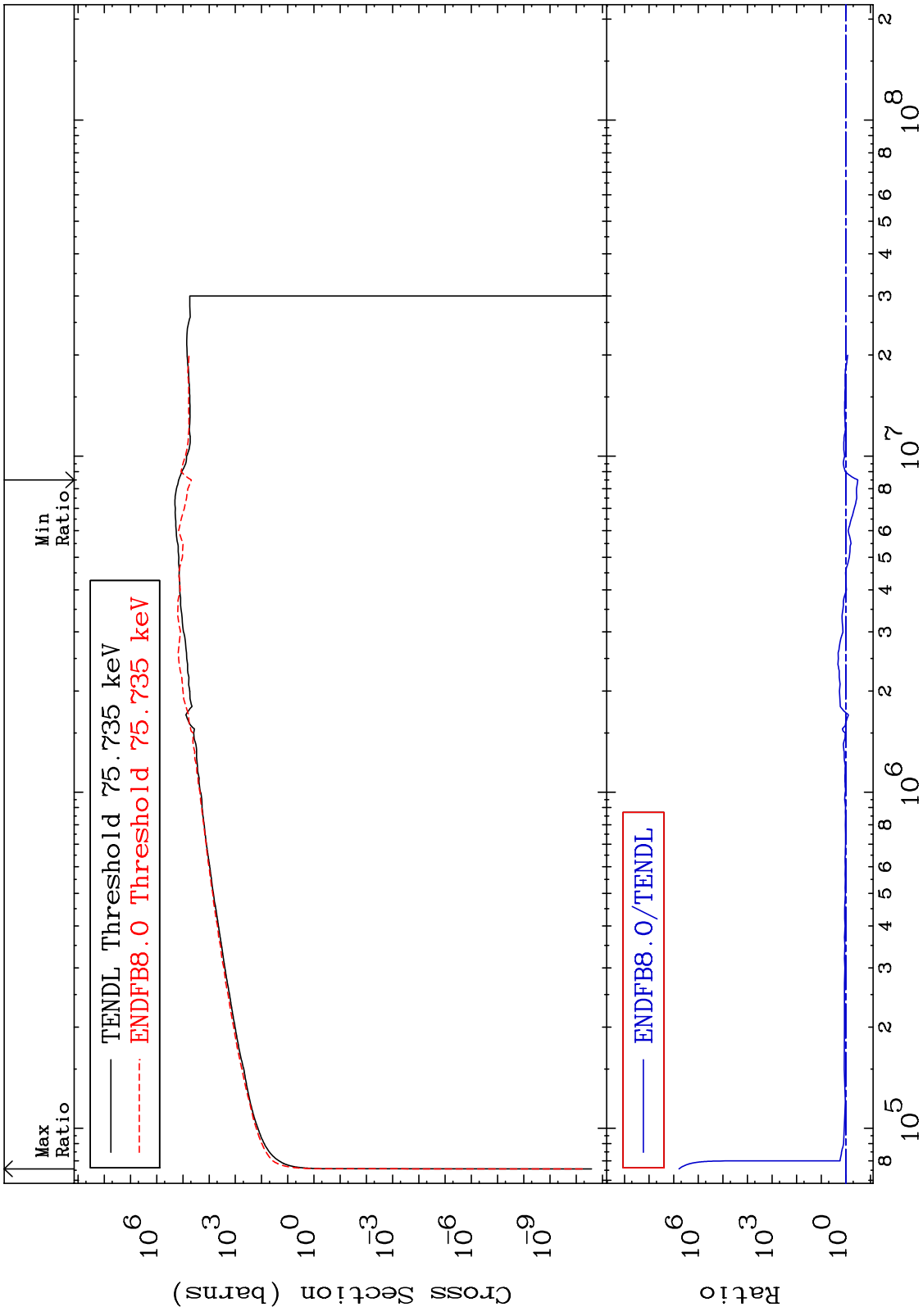
64-Gd-160  
-98.97 To 6059. %



MAT 6449      Kerma non-elastic (all but mt2)      64-Gd-160  
 Cross Section      -88.00 To 9999. %



MAT 6449 Kerma inelastic (mt51-91) 64-Gd-160  
 -67.36 To 9999. %

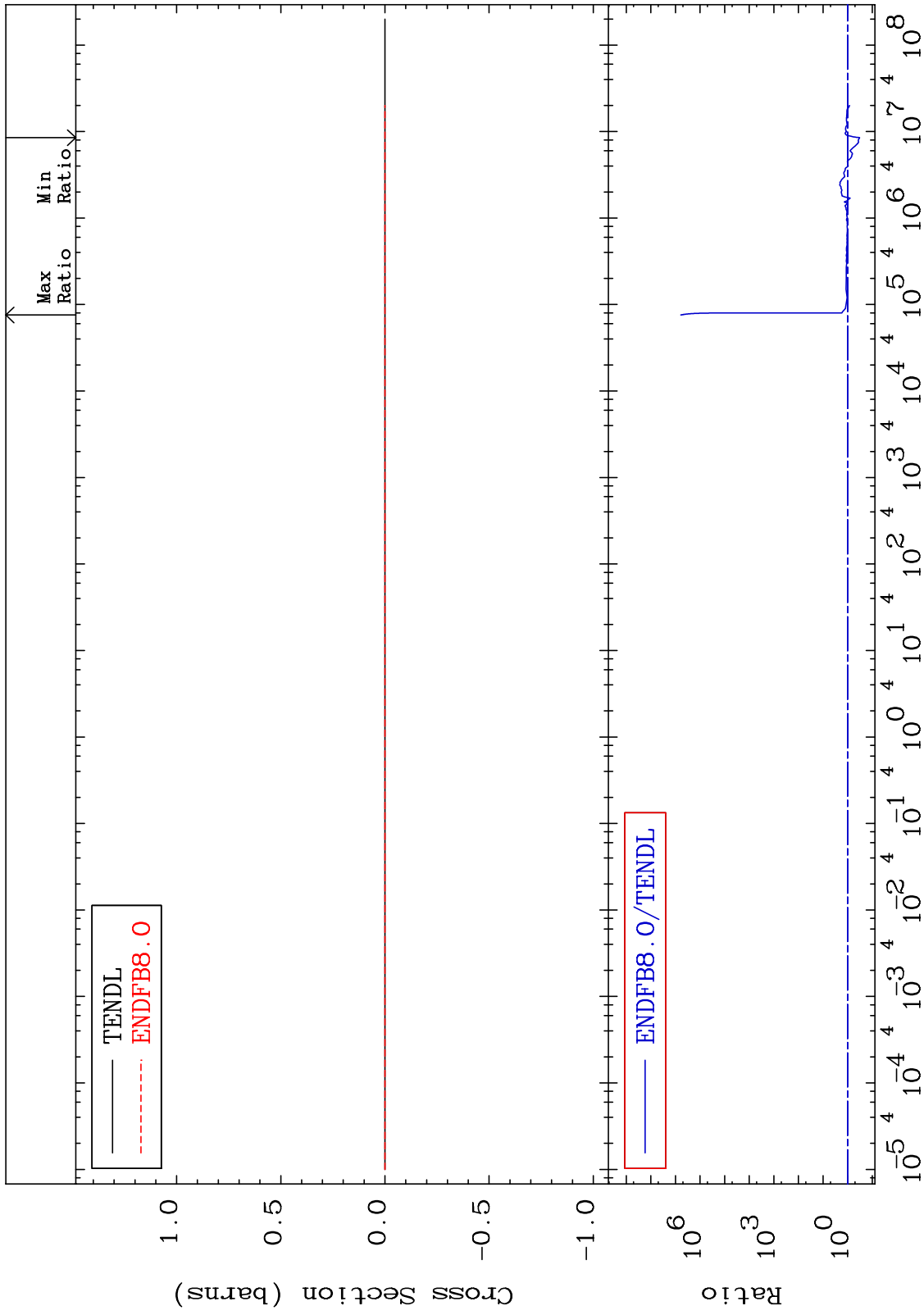


46 Incident Energy (eV) 64-Gd-160

MAT 6449

Kerma fission (mt18 or mt19-20-21-38)  
Cross Section

64-Gd-160  
-67.36 To 9999. %



47

Incident Energy (eV)

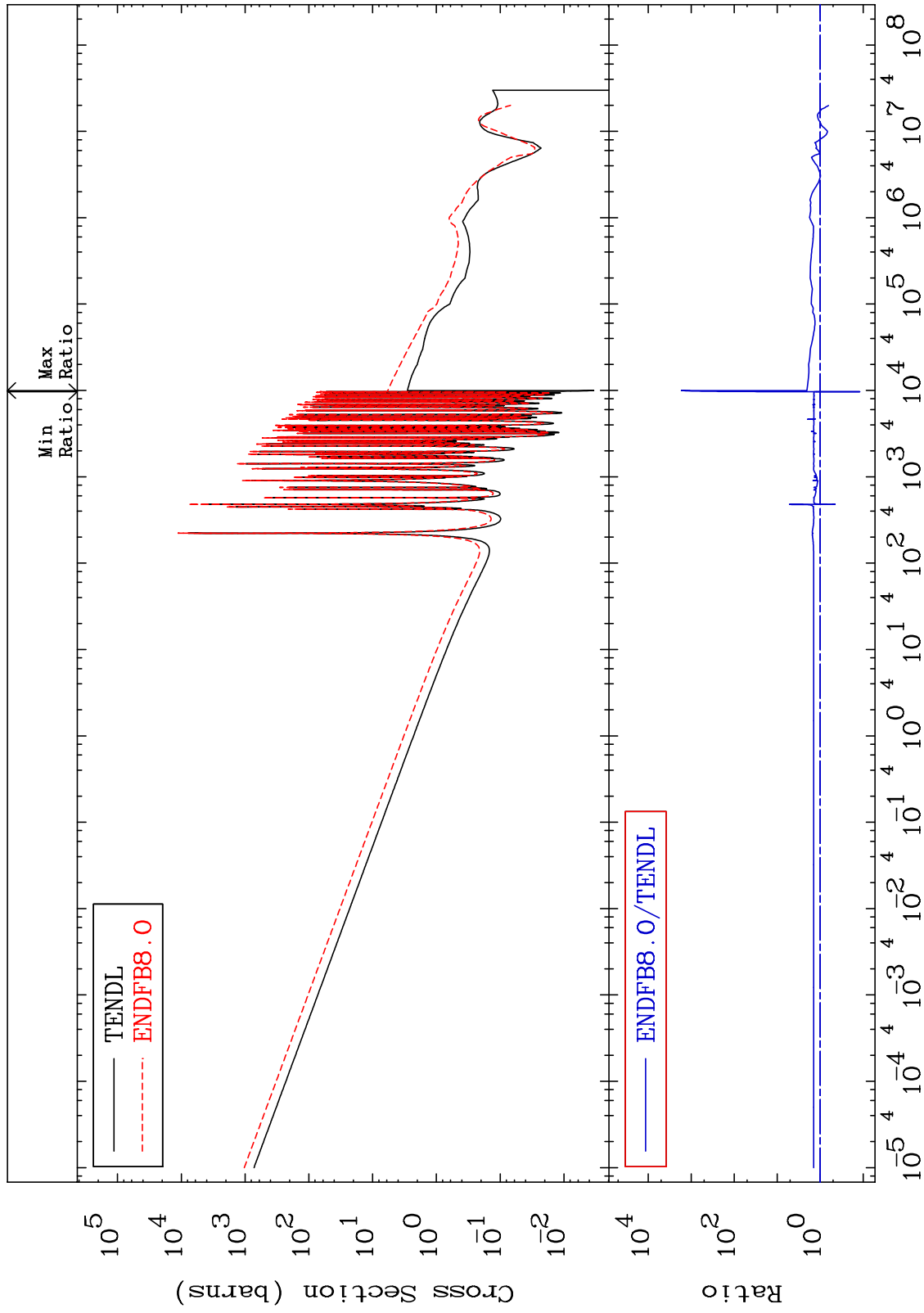
64-Gd-160



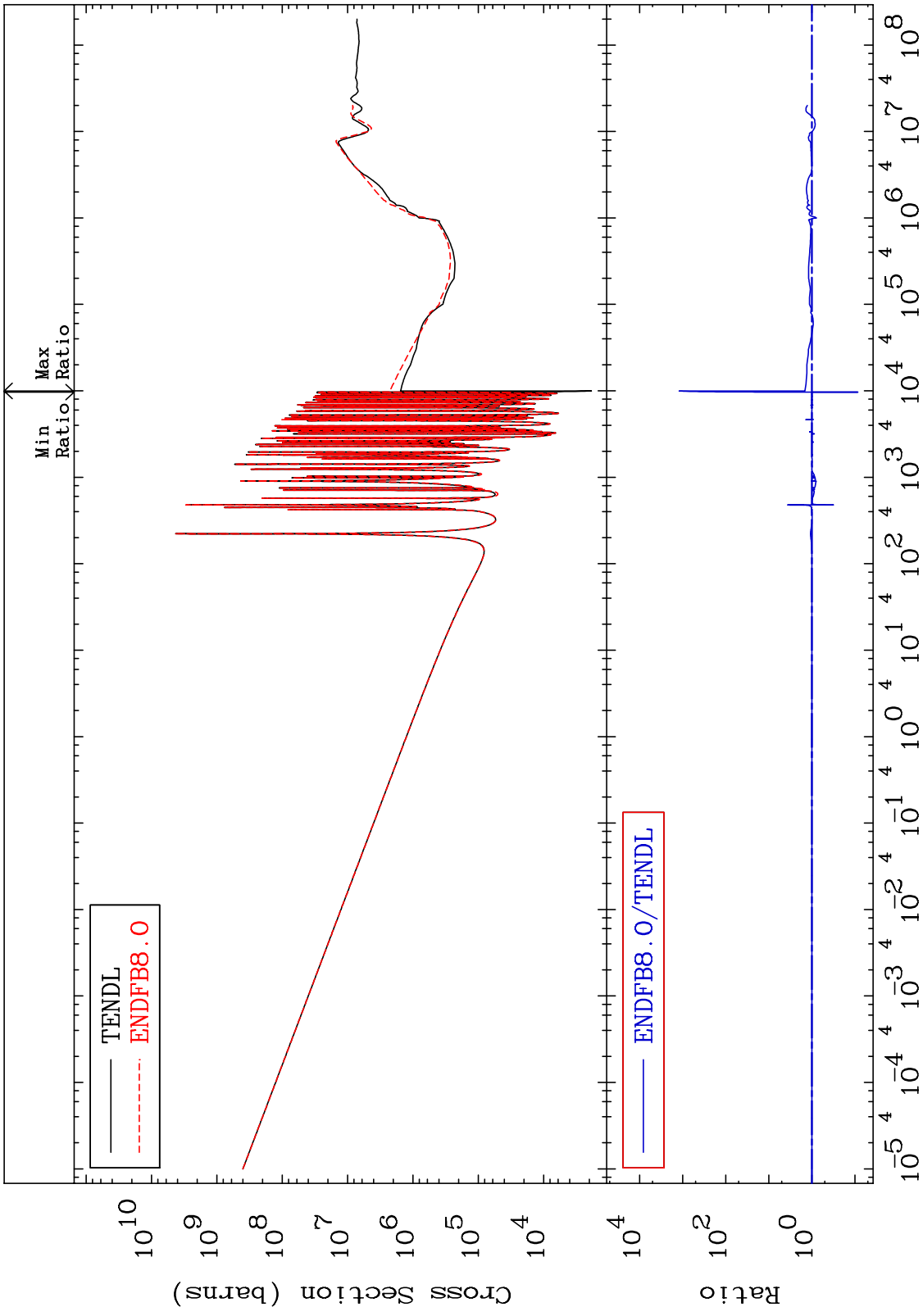
MAT 6449

Kerma capture (mt102)  
Cross Section

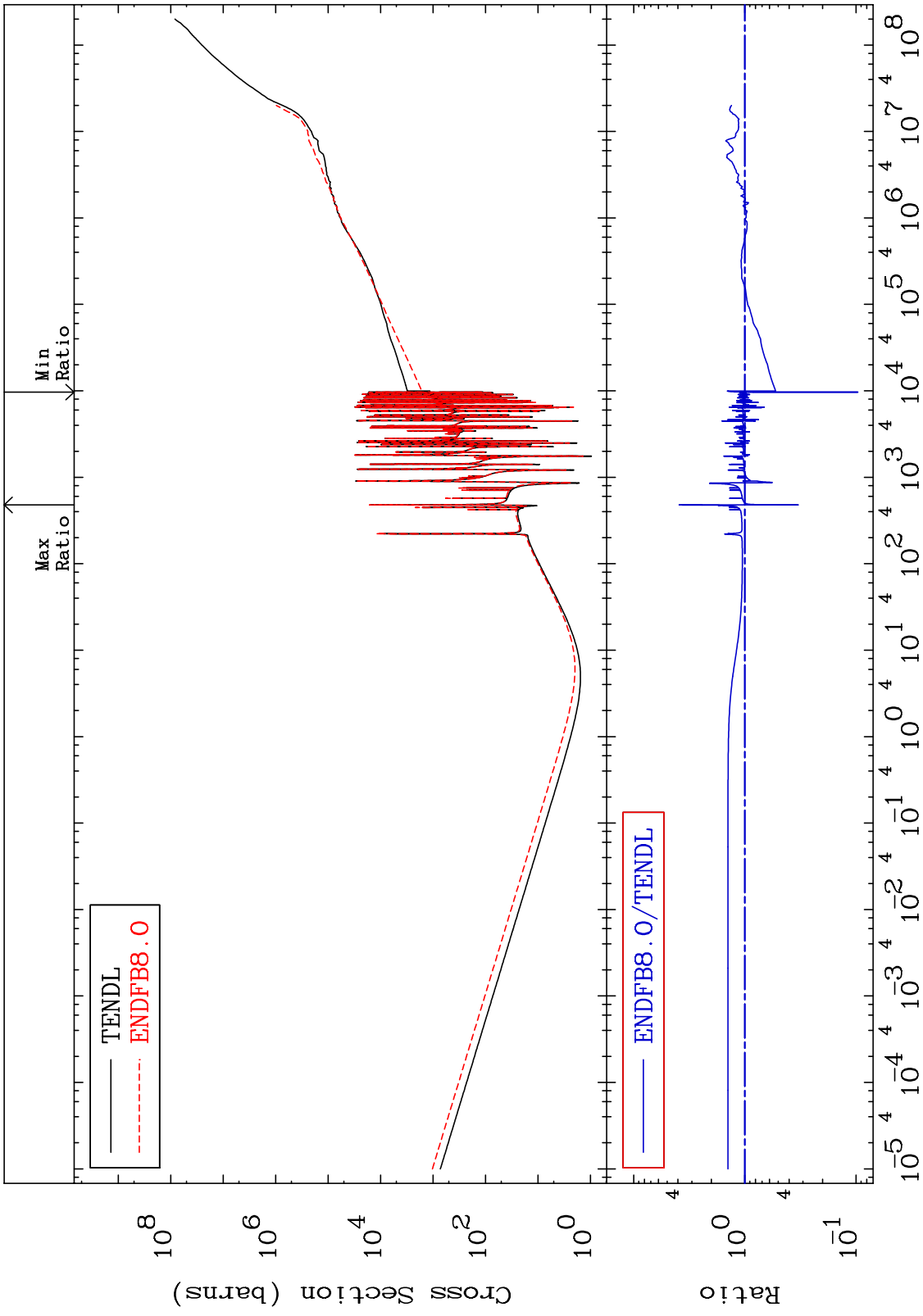
64-Gd-160  
-88.00 To 9999. %



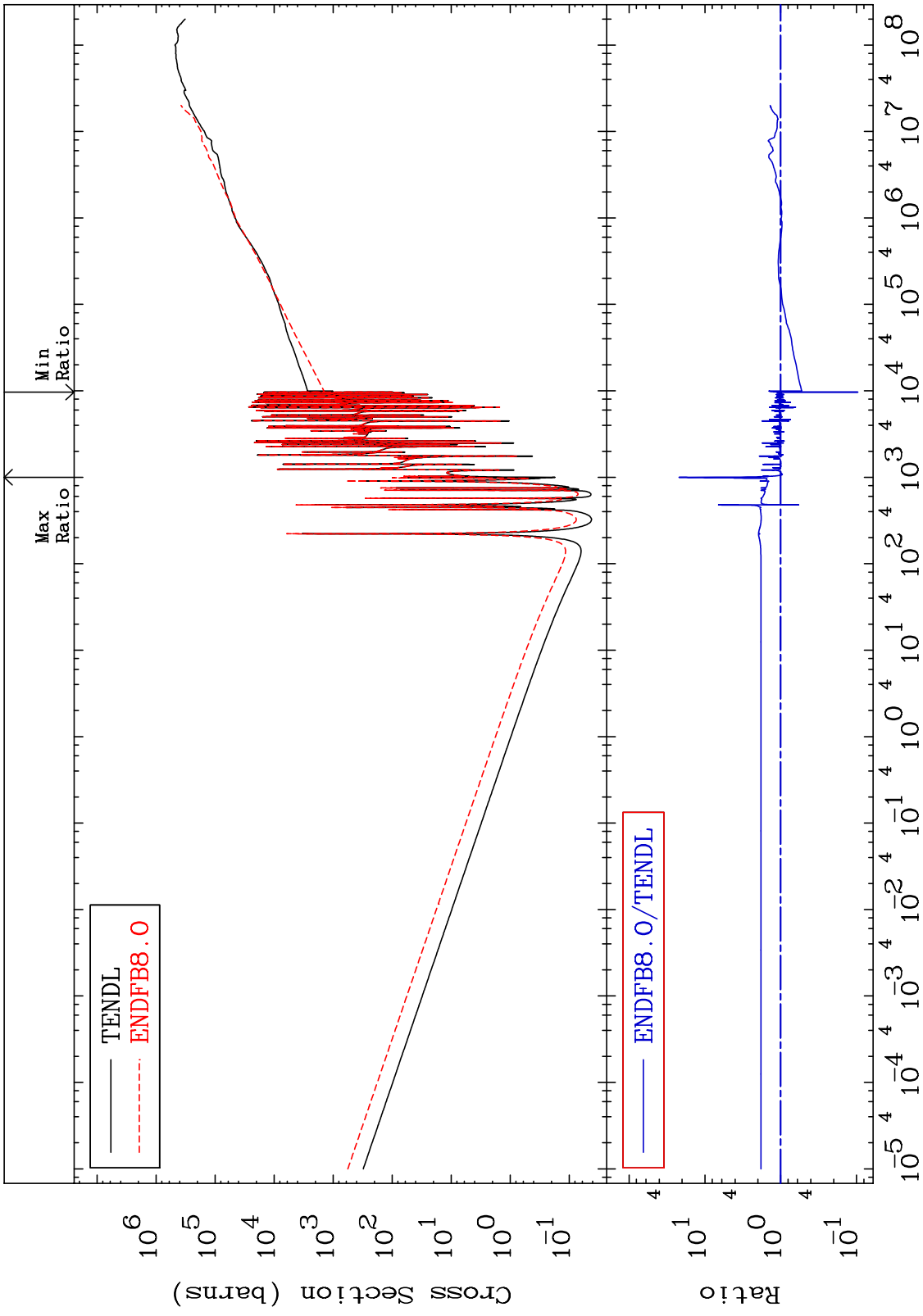
MAT 6449      Total photon (eV-barns) Cross Section      64-Gd-160  
 -91.44 To 9999. %



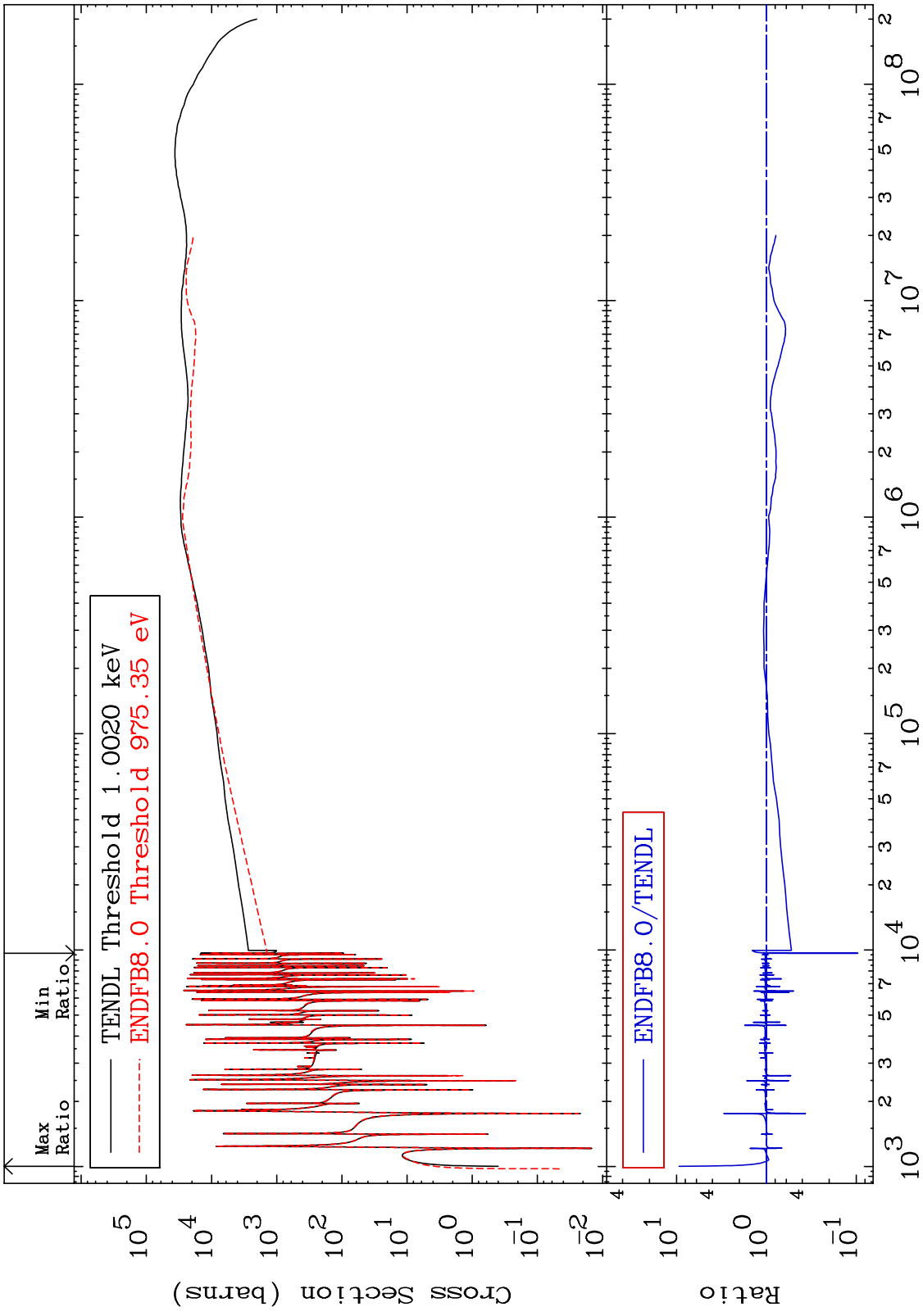
MAT 6449      Total kinematic kerma (high limit)      64-Gd-160  
 Cross Section      -90.38 To 290.6 %



MAT 6449      Dpa total (eV-barns)      64-Gd-160  
 Cross Section      -90.39 To 2092. %

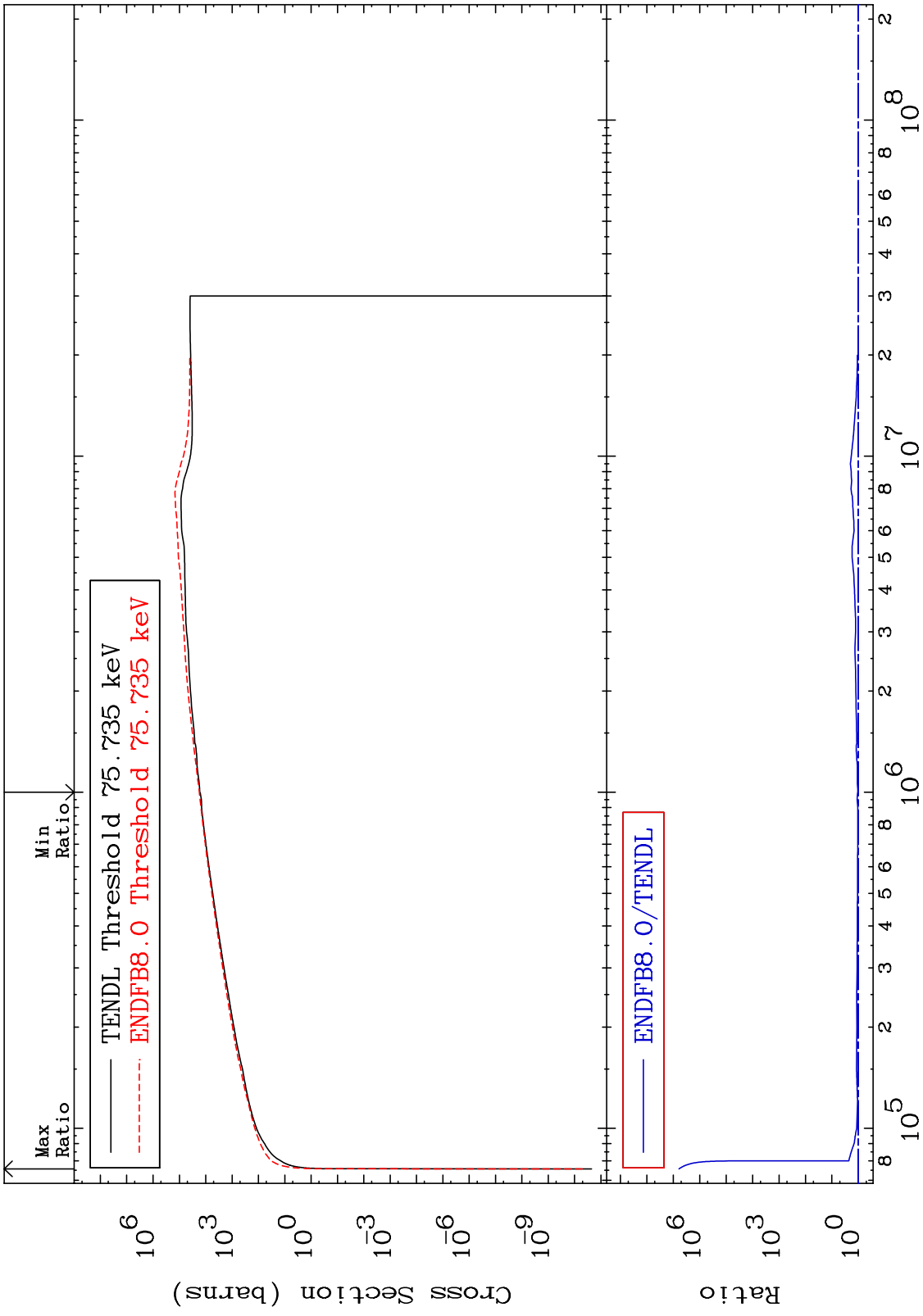


MAT 6449      Dpa elastic (mt2)      64-Gd-160  
 Cross Section      -90.40 To 838.9 %



52      Incident Energy (eV)      64-Gd-160

MAT 6449      Dpa inelastic (mt51-91)      64-Gd-160  
 Cross Section      4.301 To 9999. %



MAT 6449      Dpa disappearance (mt102 -120)      64-Gd-160  
 Cross Section      -84.85 To 9999. %

