

Program Complot  
(Version 2018-1)

by

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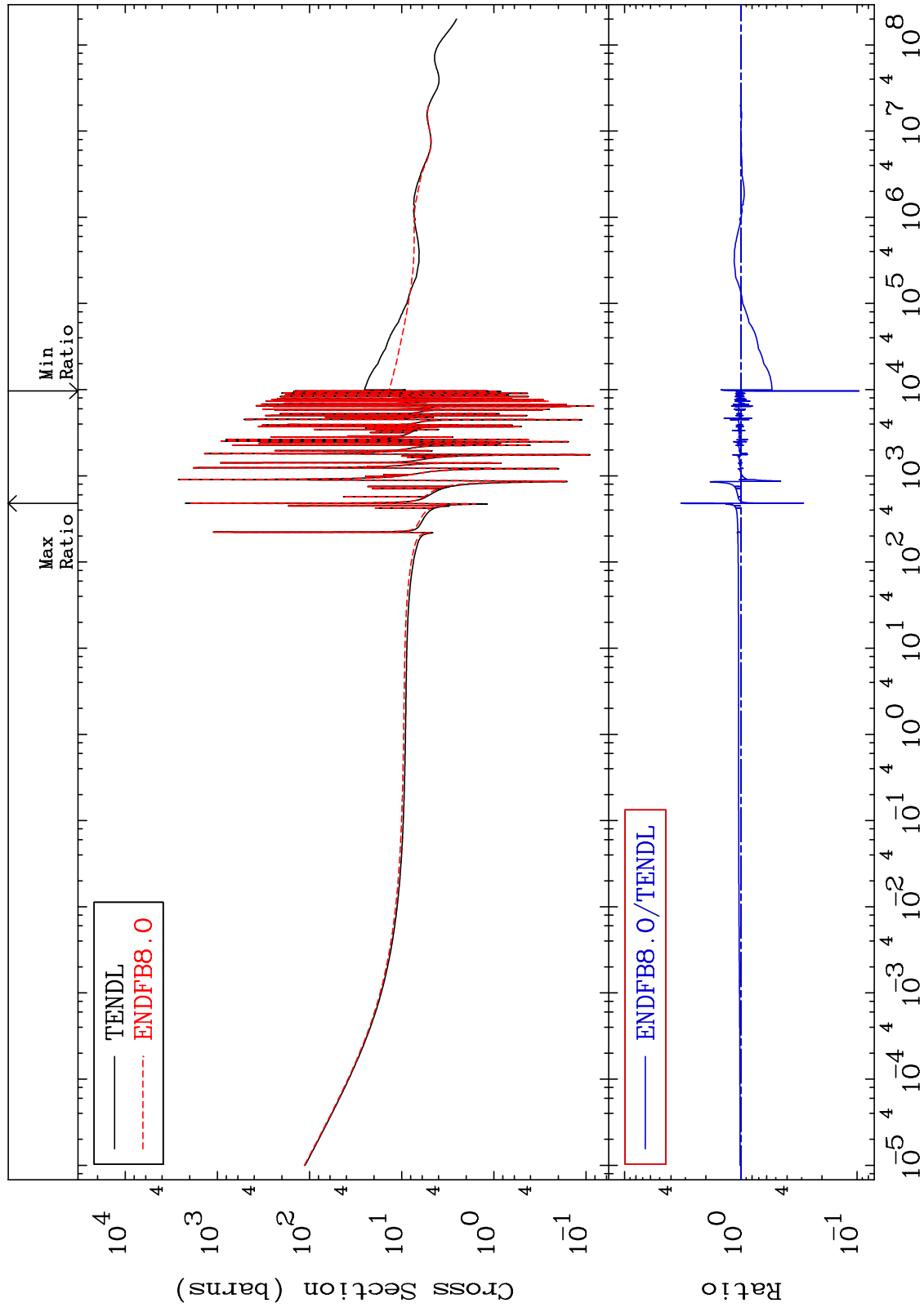
E.Mail: [redcullen1@comcast.net](mailto:redcullen1@comcast.net)  
Web: [redcullen1.net/HOMEPAGE.NEW](http://redcullen1.net/HOMEPAGE.NEW)

Press Mouse Button to Start

MAT 6449

Total  
Cross Section

64-Gd-160  
-90.39 To 228.5 %



Incident Energy (eV)

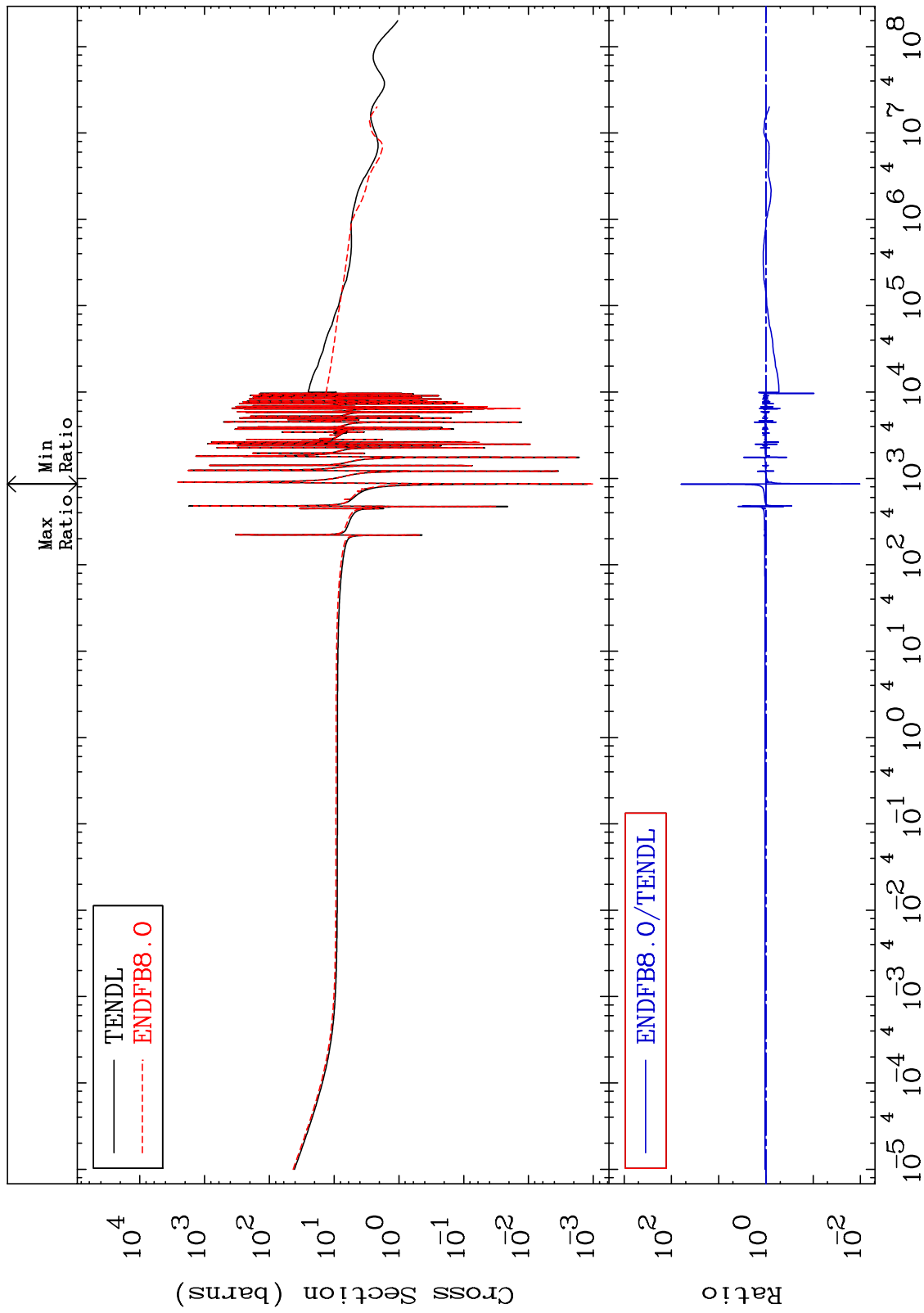
64-Gd-160

1

MAT 6449

Elastic  
Cross Section

64-Gd-160  
-98.97 To 6105. %

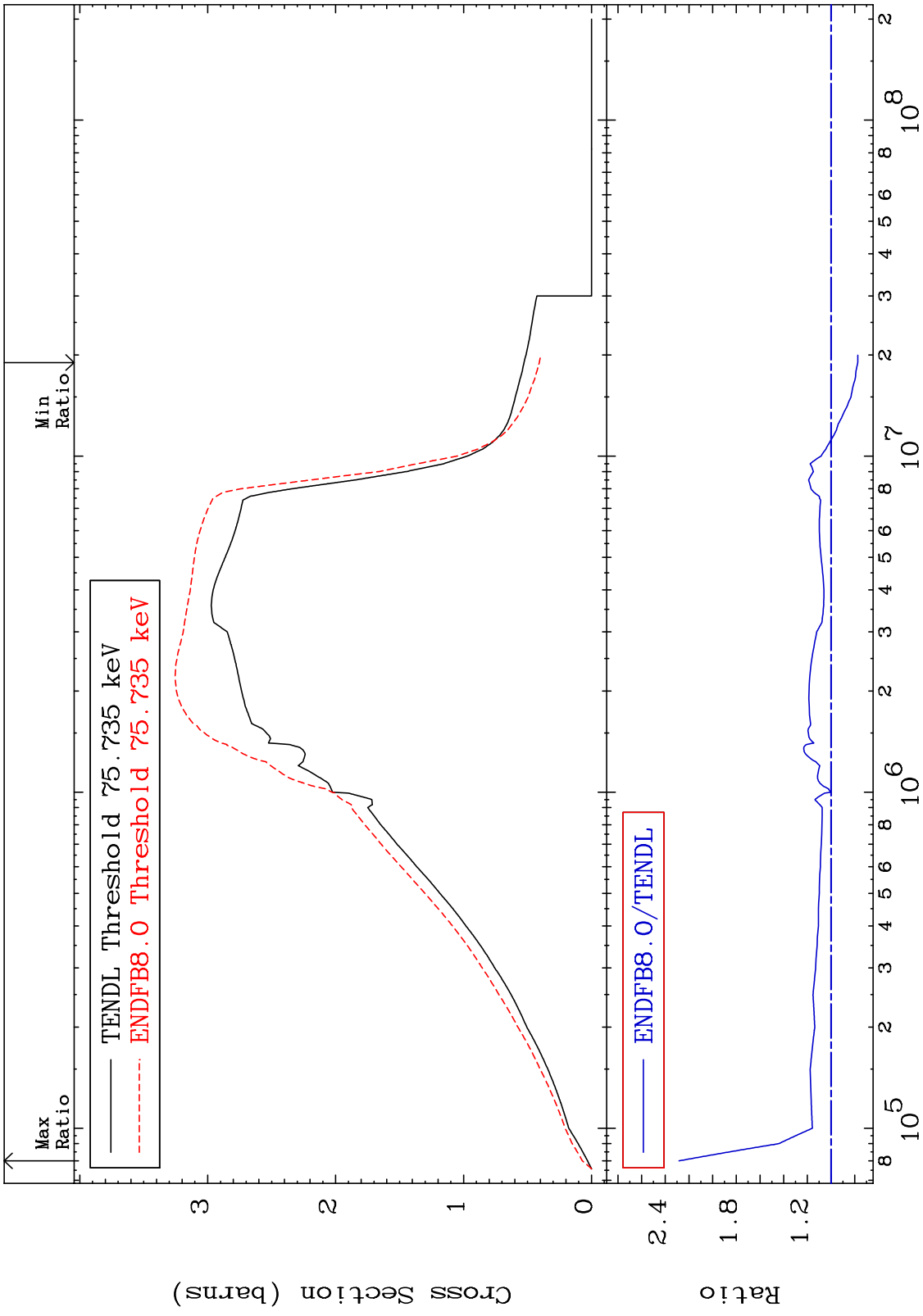


2

Incident Energy (eV)

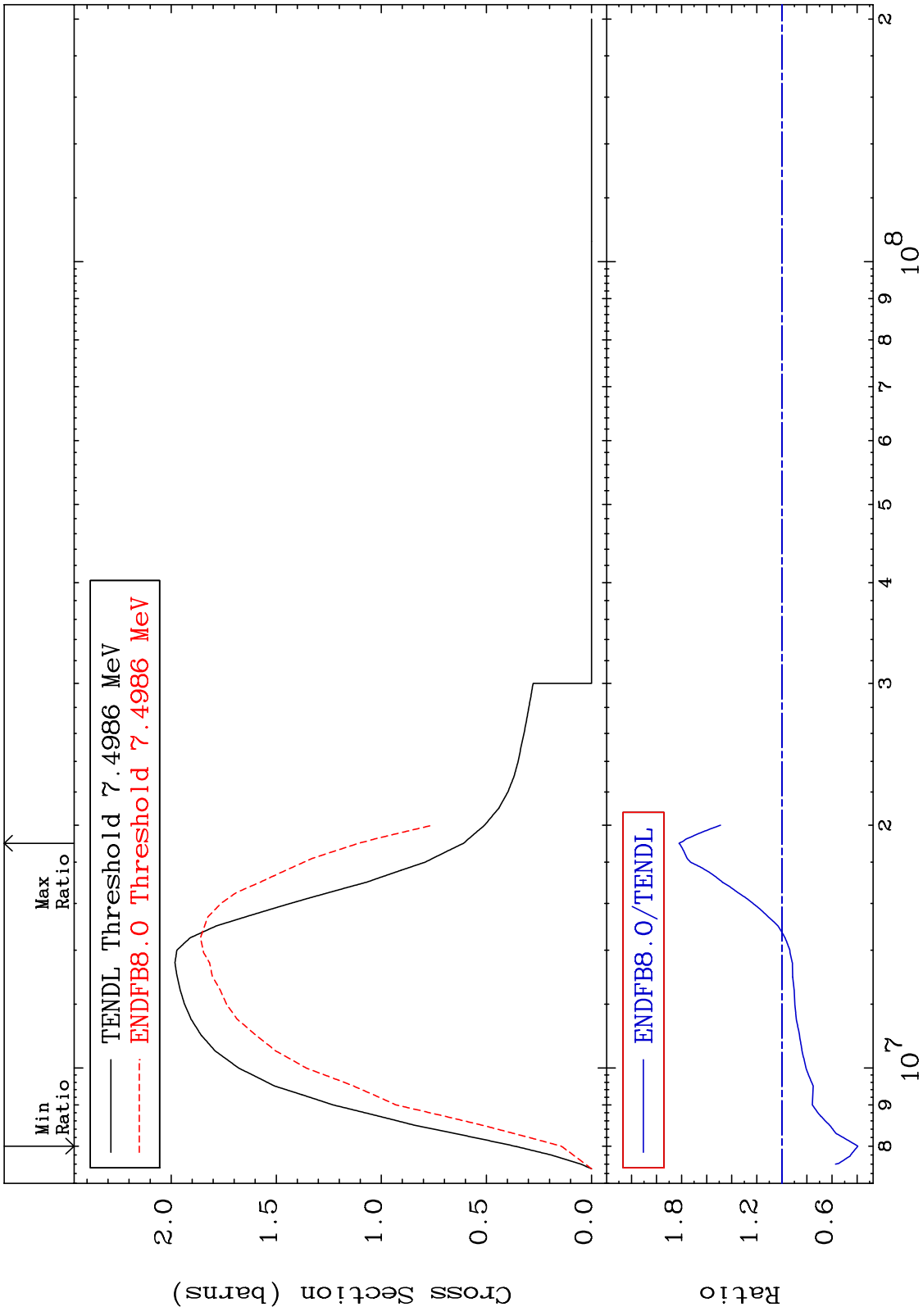
64-Gd-160

MAT 6449 Inelastic Cross Section 64-Gd-160 -22.66 To 128.4 %



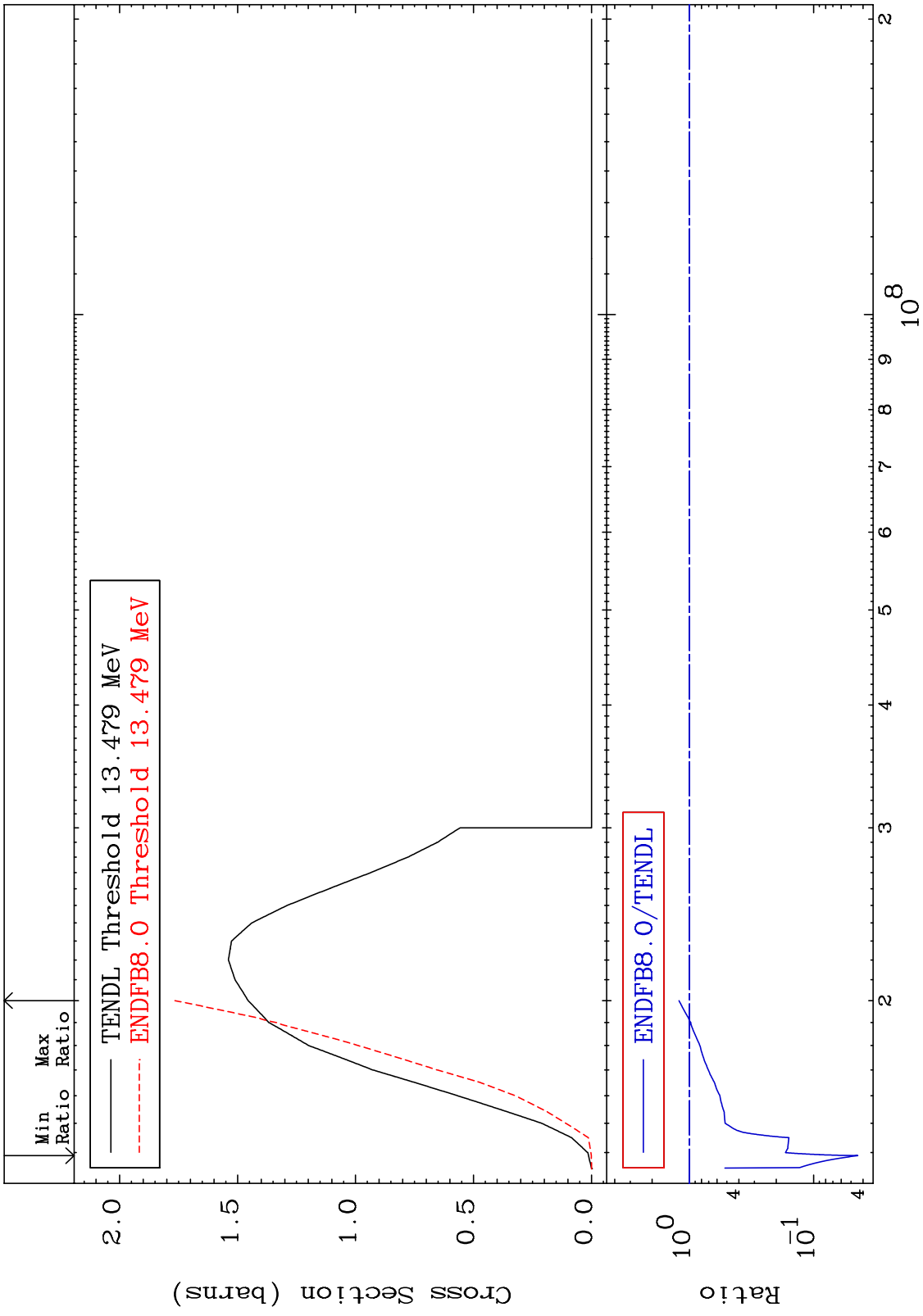
3 64-Gd-160

MAT 6449 64-Gd-160  
-60.59 To 82.04 %  
 (n,2n)  
 Cross Section



4 64-Gd-160

MAT 6449 64-Gd-160  
-95.59 To 21.32 %  
 (n,3n)  
 Cross Section



MAT 6449

(n, n')  $\alpha$

64-Gd-160

-5.110 To 2967. %

Cross Section

Min Ratio

Max Ratio

TENDL Threshold 1.0126 MeV  
ENDFB8.0 Threshold 7.5000 MeV

Cross Section (milli-barns)

12  
10  
8  
6  
4  
2  
0

ENDFB8.0/TENDL

Ratio

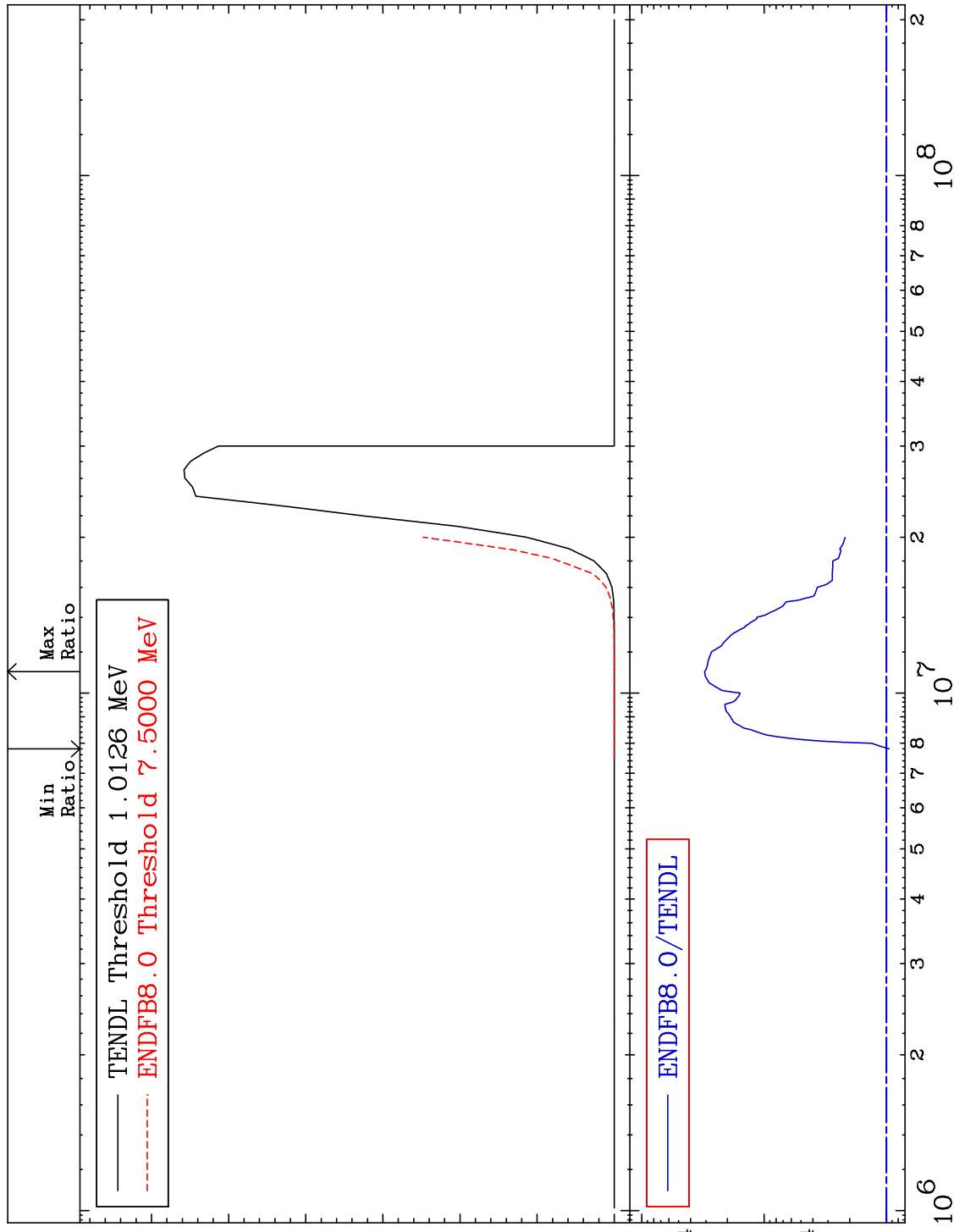
10<sup>1</sup>  
4  
10<sup>0</sup>

Incident Energy (eV)

6

64-Gd-160

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



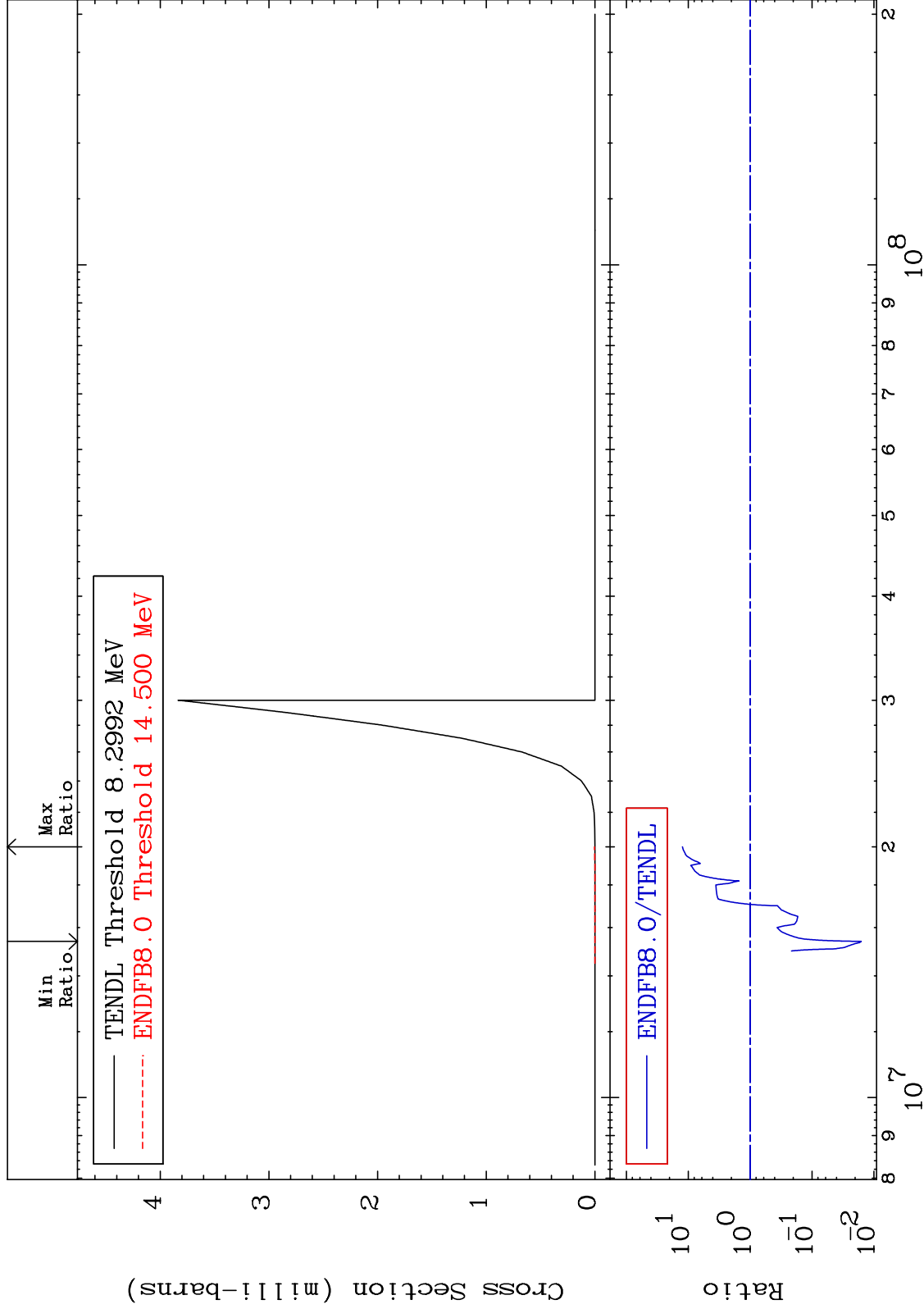
MAT 6449

(n,2n)  $\alpha$

64-Gd-160

-98.40 To 1138. %

Cross Section



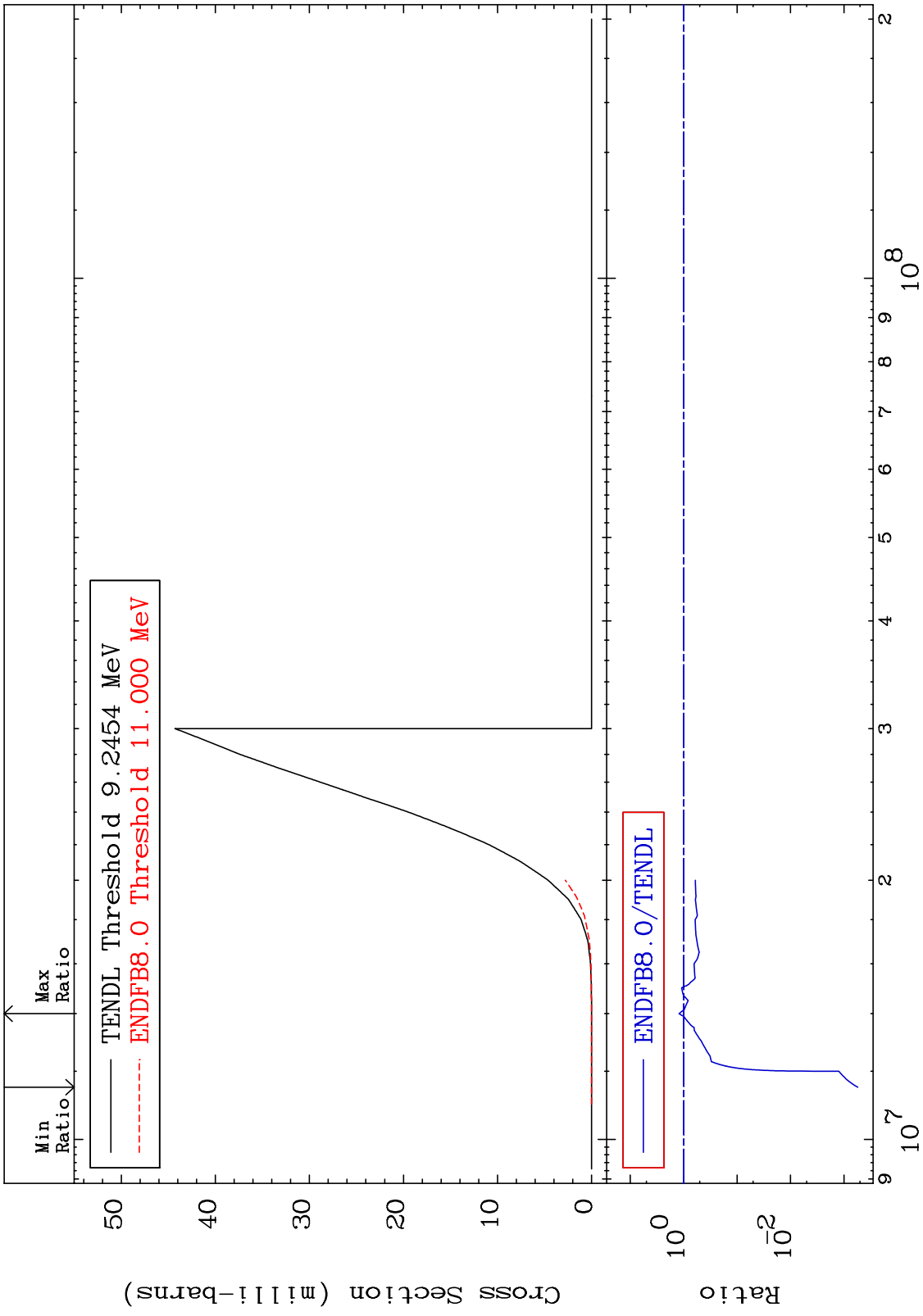
7

Incident Energy (eV)

64-Gd-160

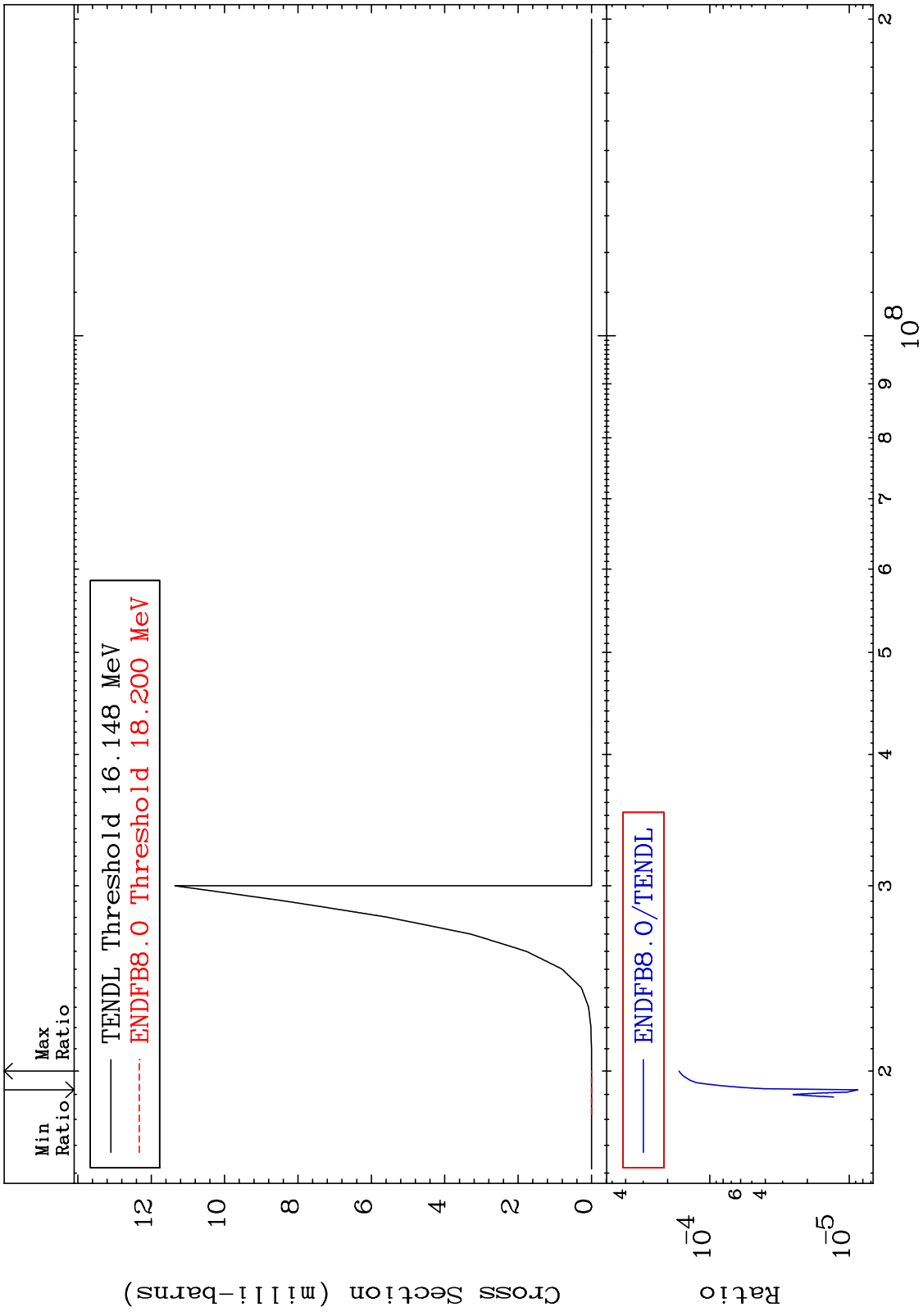


MAT 6449 (n,n') p 64-Gd-160  
Cross Section -99.95 To 22.13 %

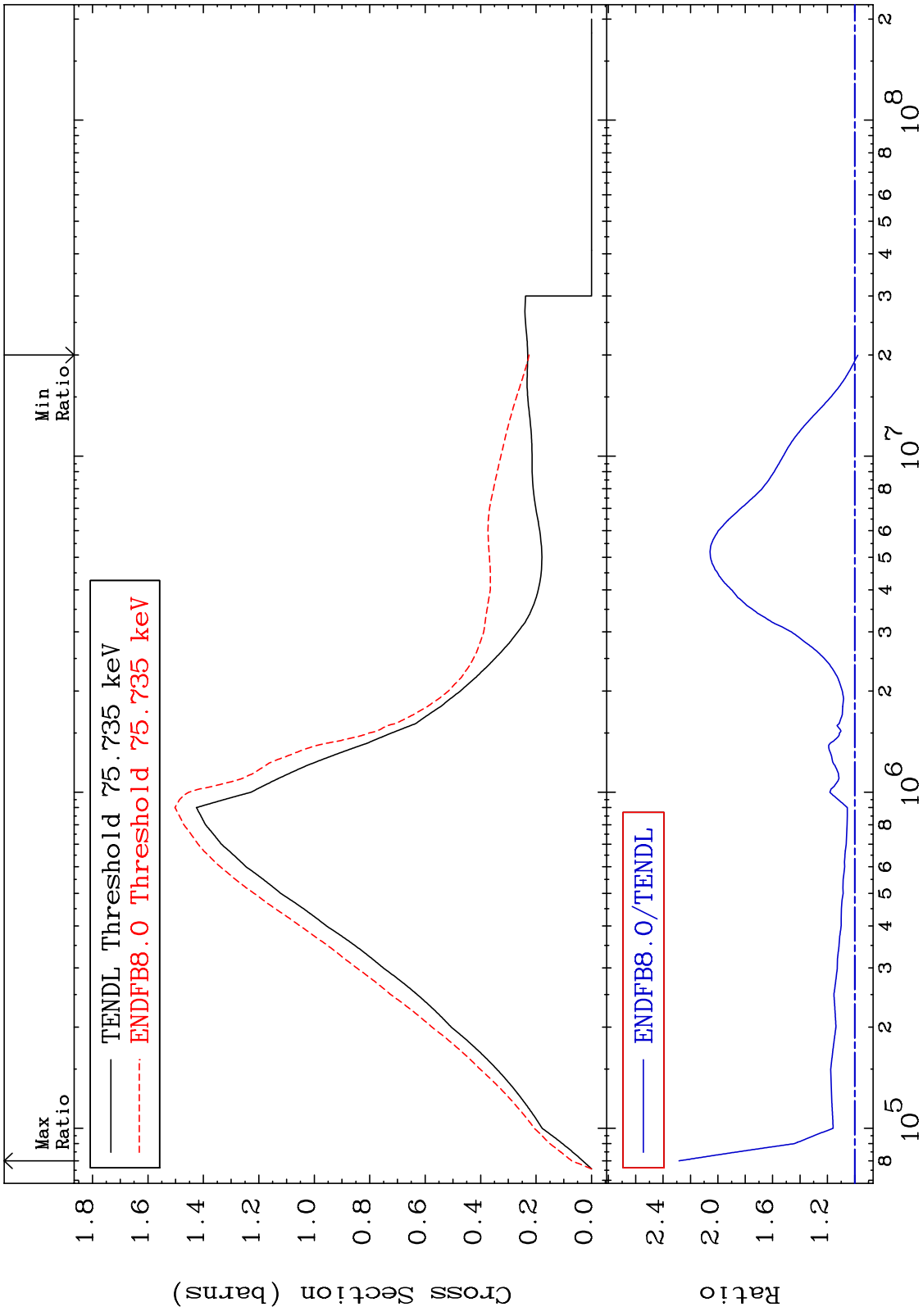


8 9 10<sup>7</sup> 2 3 4 5 6 7 8 9 10<sup>8</sup> 2 64-Gd-160

MAT 6449 (n,2n) p 64-Gd-160  
 Cross Section -100.0 To -99.98%

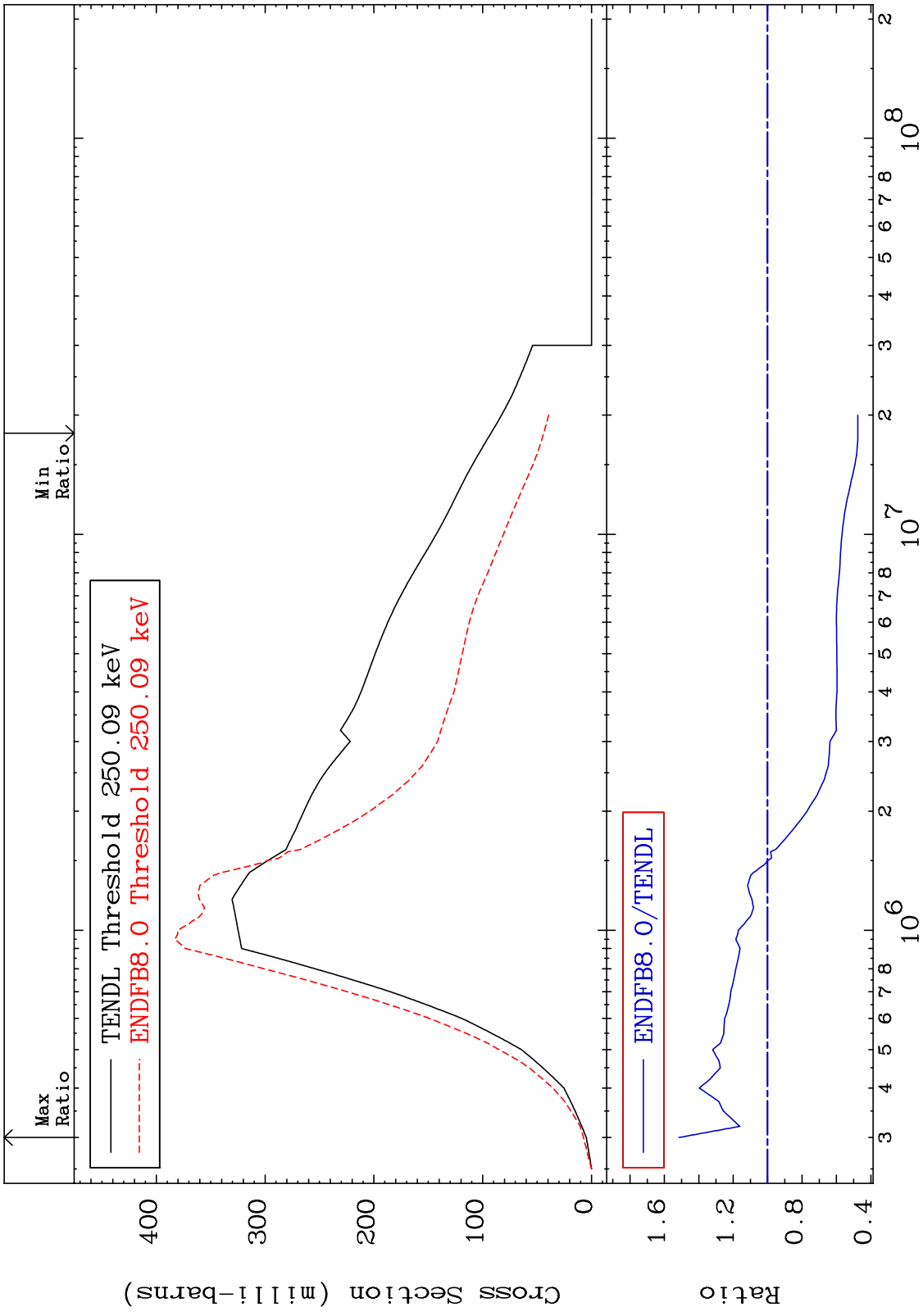


MAT 6449      MT= 51 (n,n') Level      64-Gd-160  
Cross Section      -2.239 To 128.4 %



10      8      10<sup>5</sup>      2      3      4      5      6      8      10<sup>7</sup>      2      3      4      5      6      8      10<sup>8</sup>      64-Gd-160

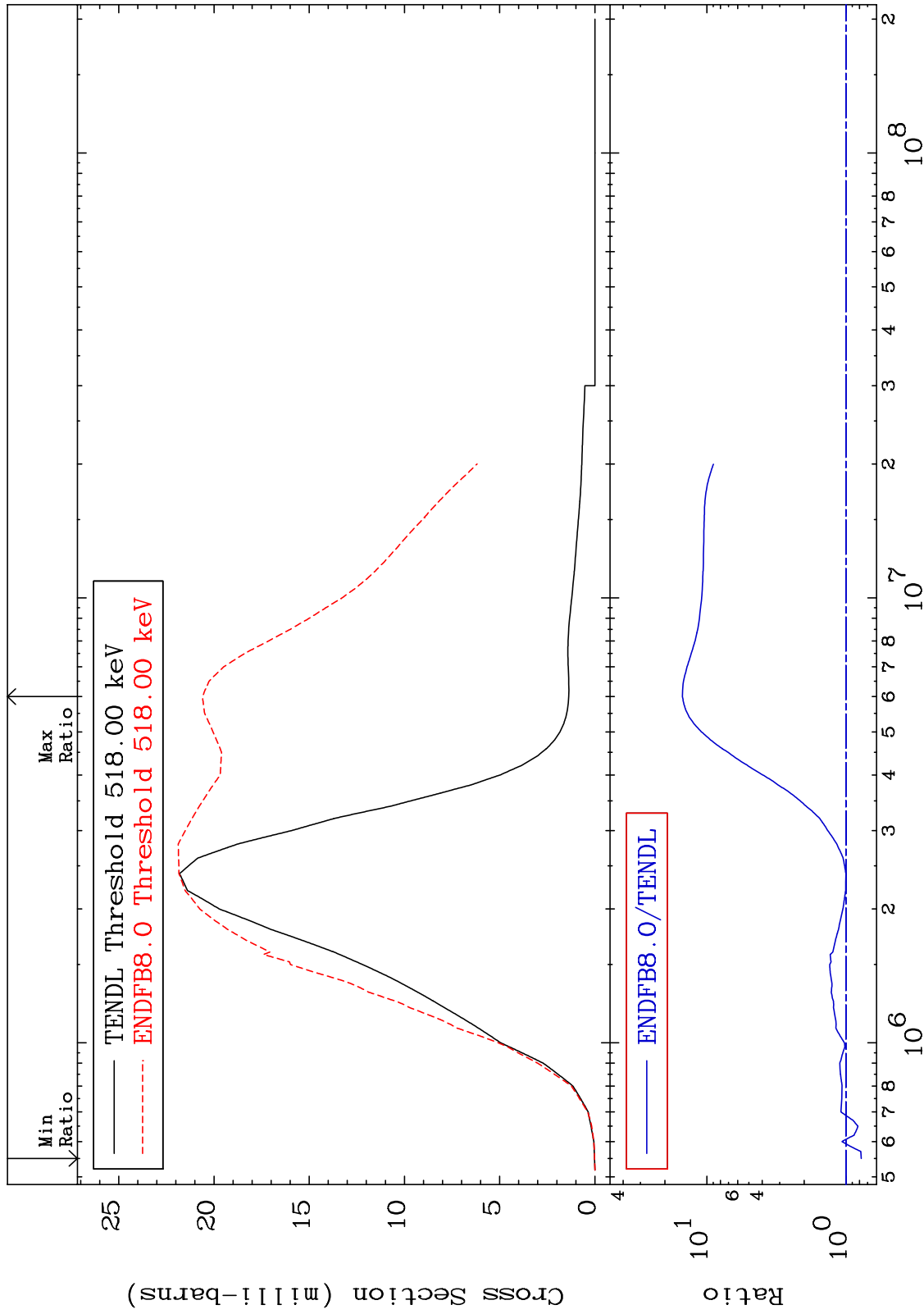
MAT 6449      MT= 52 (n,n') Level Cross Section      64-Gd-160  
 -52.45 To 51.47 %



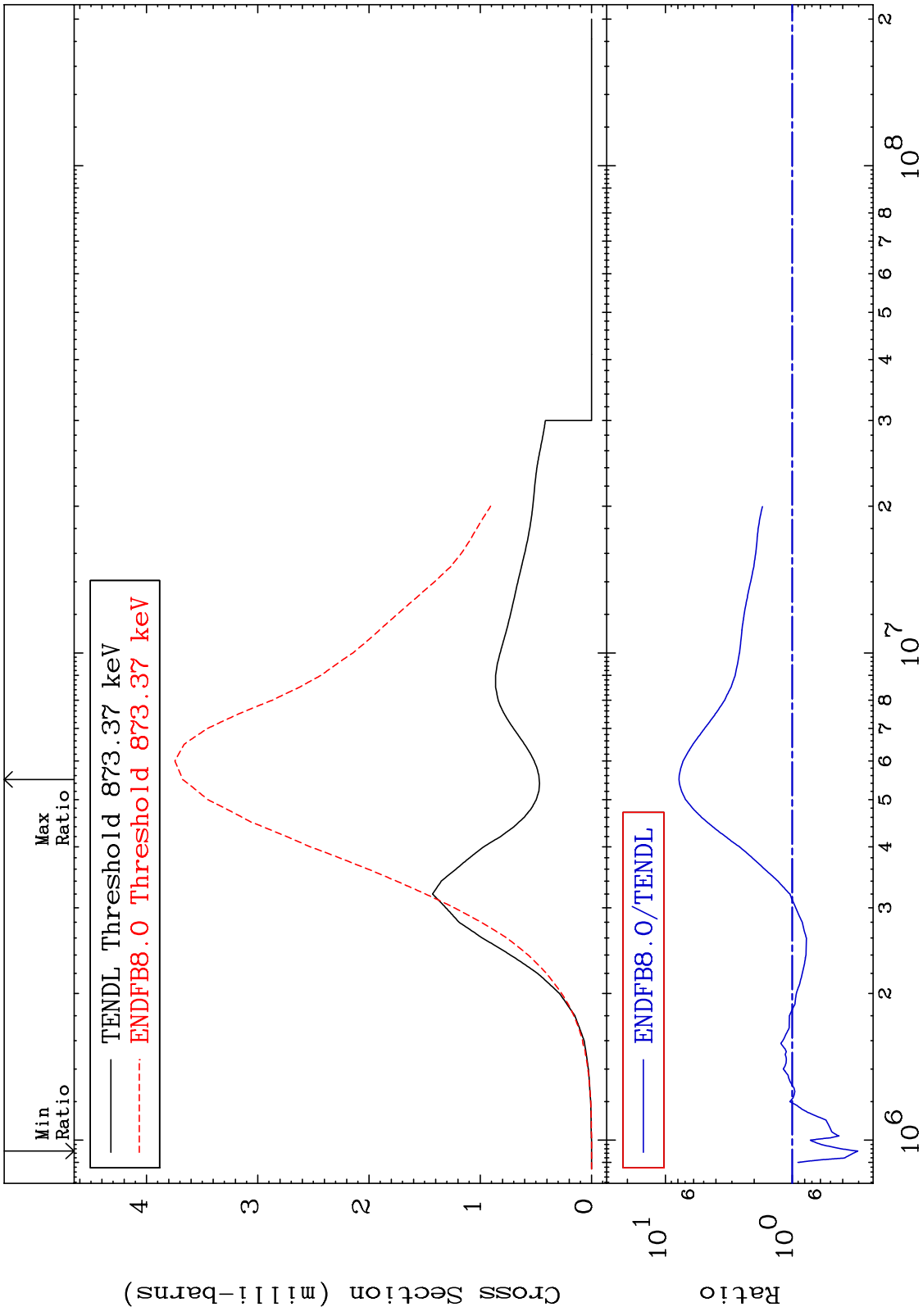
MAT 6449

MT= 53 (n,n') Level  
Cross Section

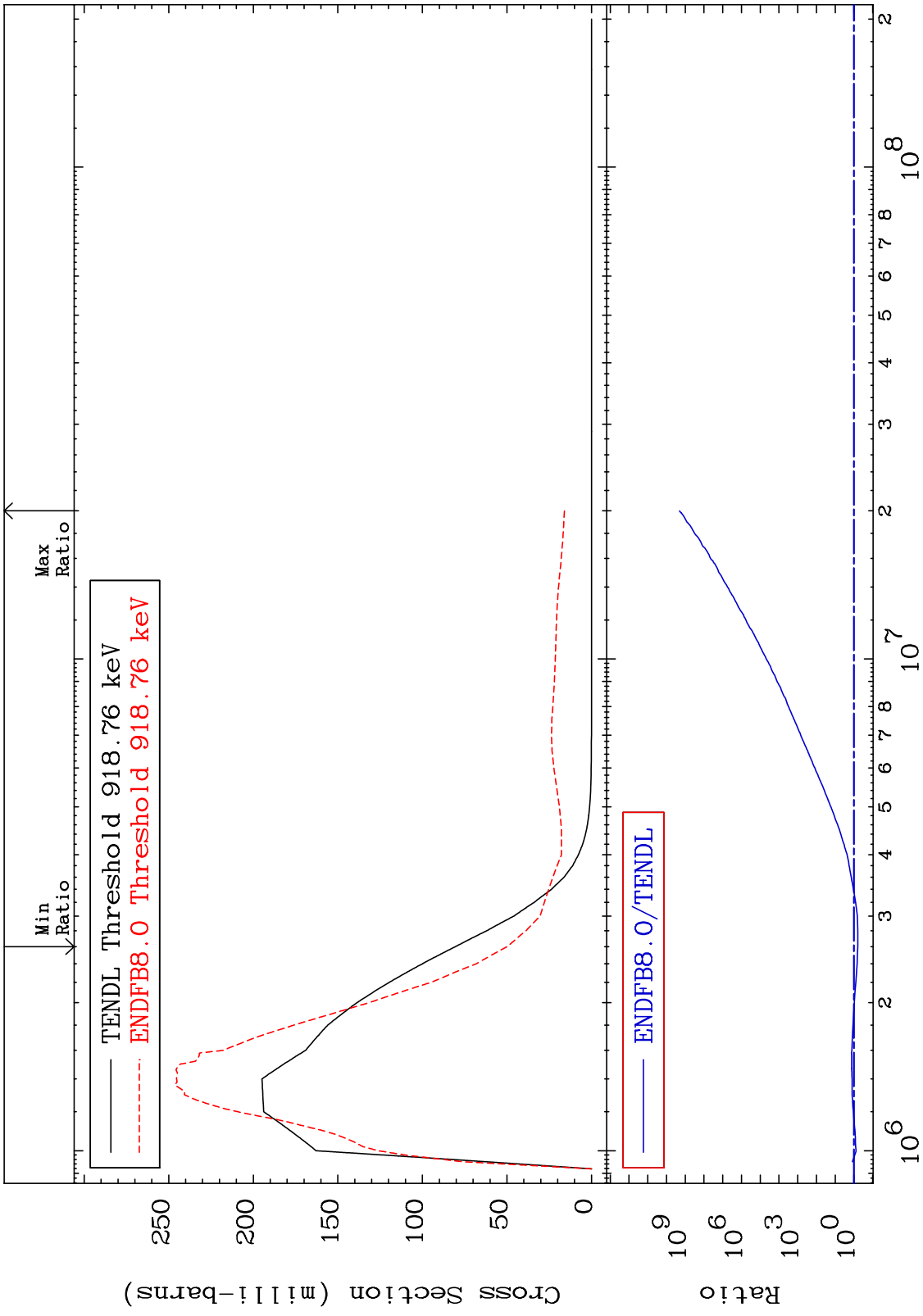
64-Gd-160  
-22.34 To 1398. %



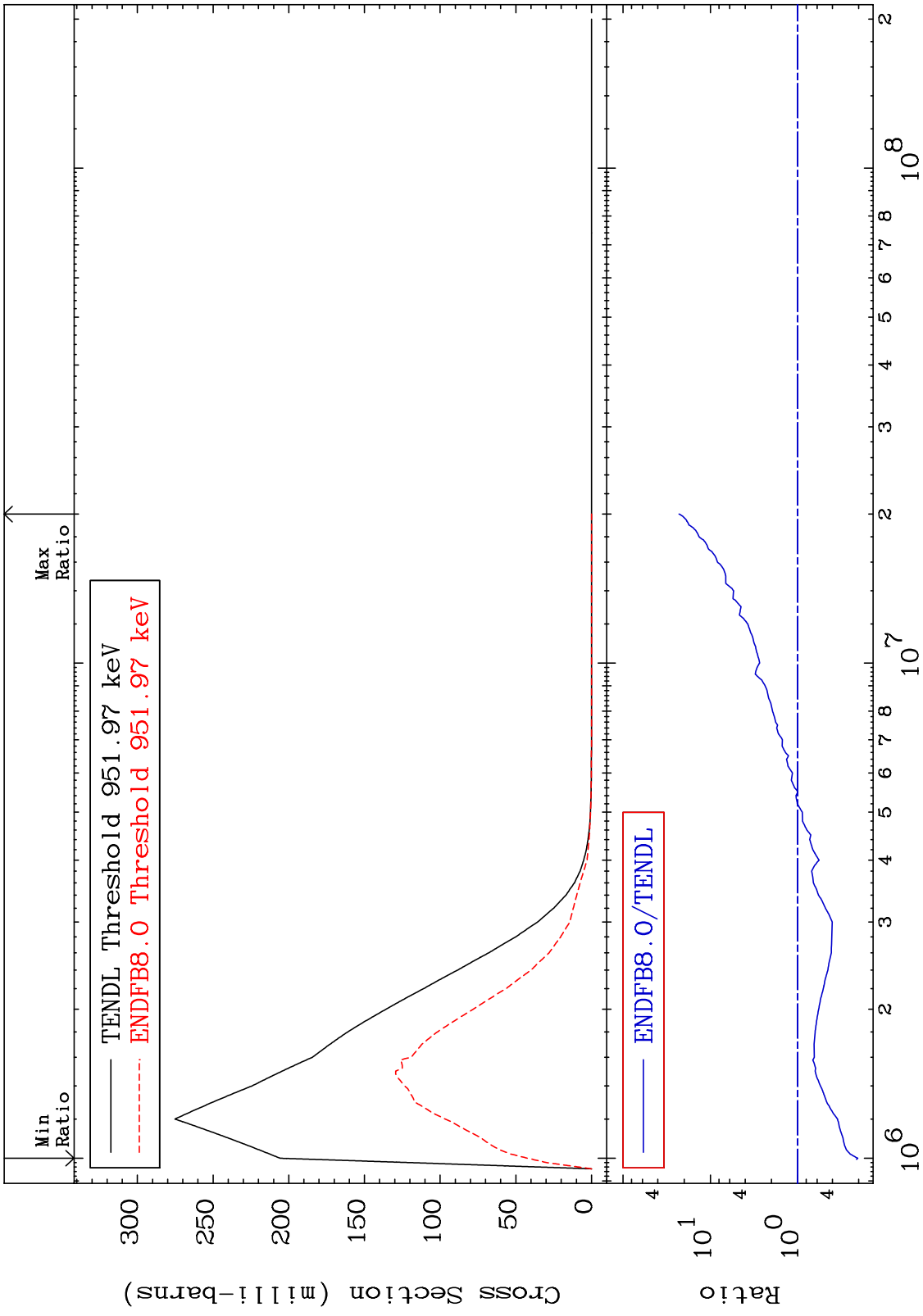
MAT 6449      MT= 54 (n,n') Level      64-Gd-160  
 Cross Section      -69.59 To 682.3 %



MAT 6449      MT= 55 (n,n') Level Cross Section      64-Gd-160  
 -38.01 To 9999. %



MAT 6449      MT= 56 (n,n') Level      64-Gd-160  
 Cross Section      -79.51 To 2188. %



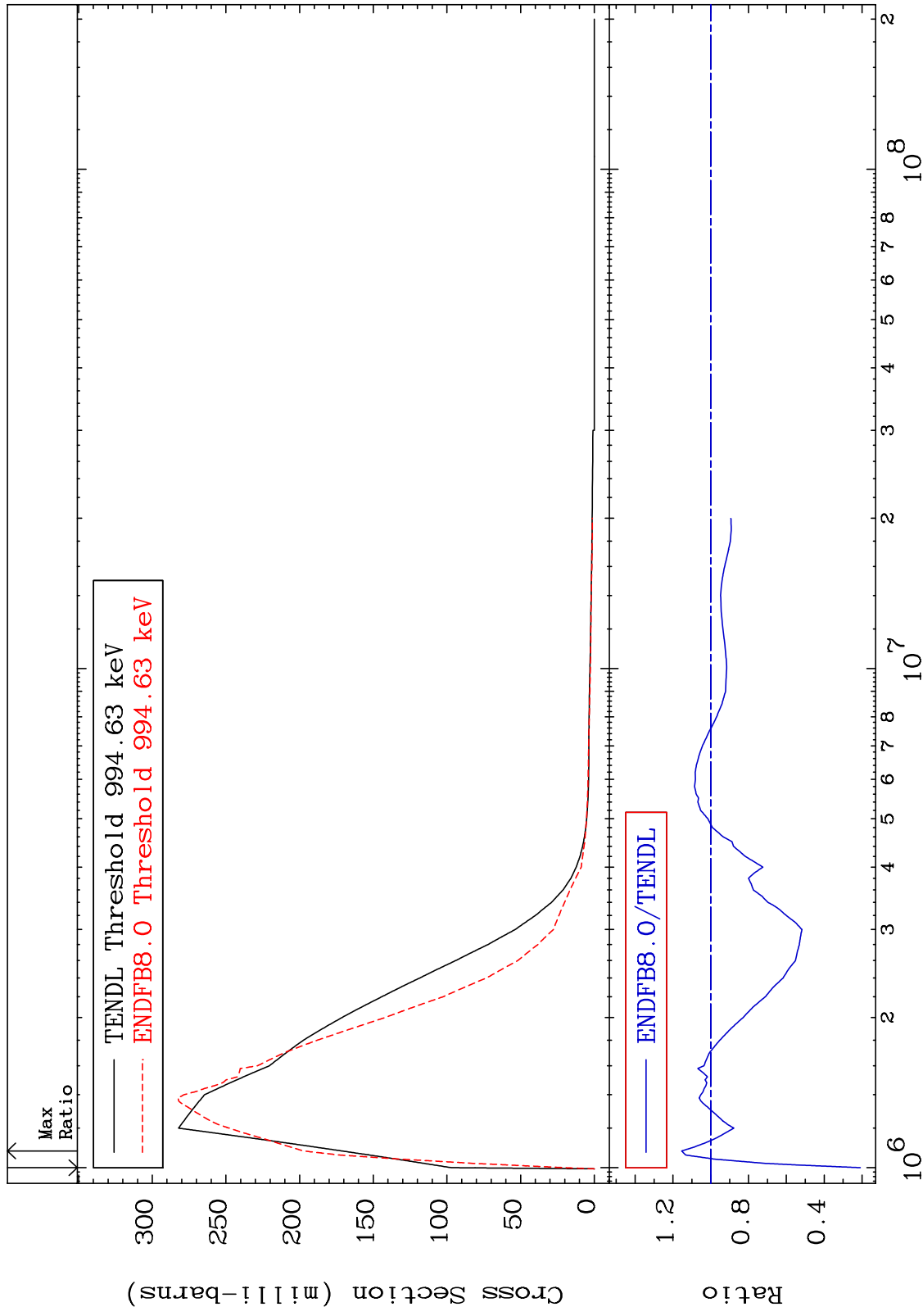
15      Incident Energy (eV)      64-Gd-160



MAT 6449

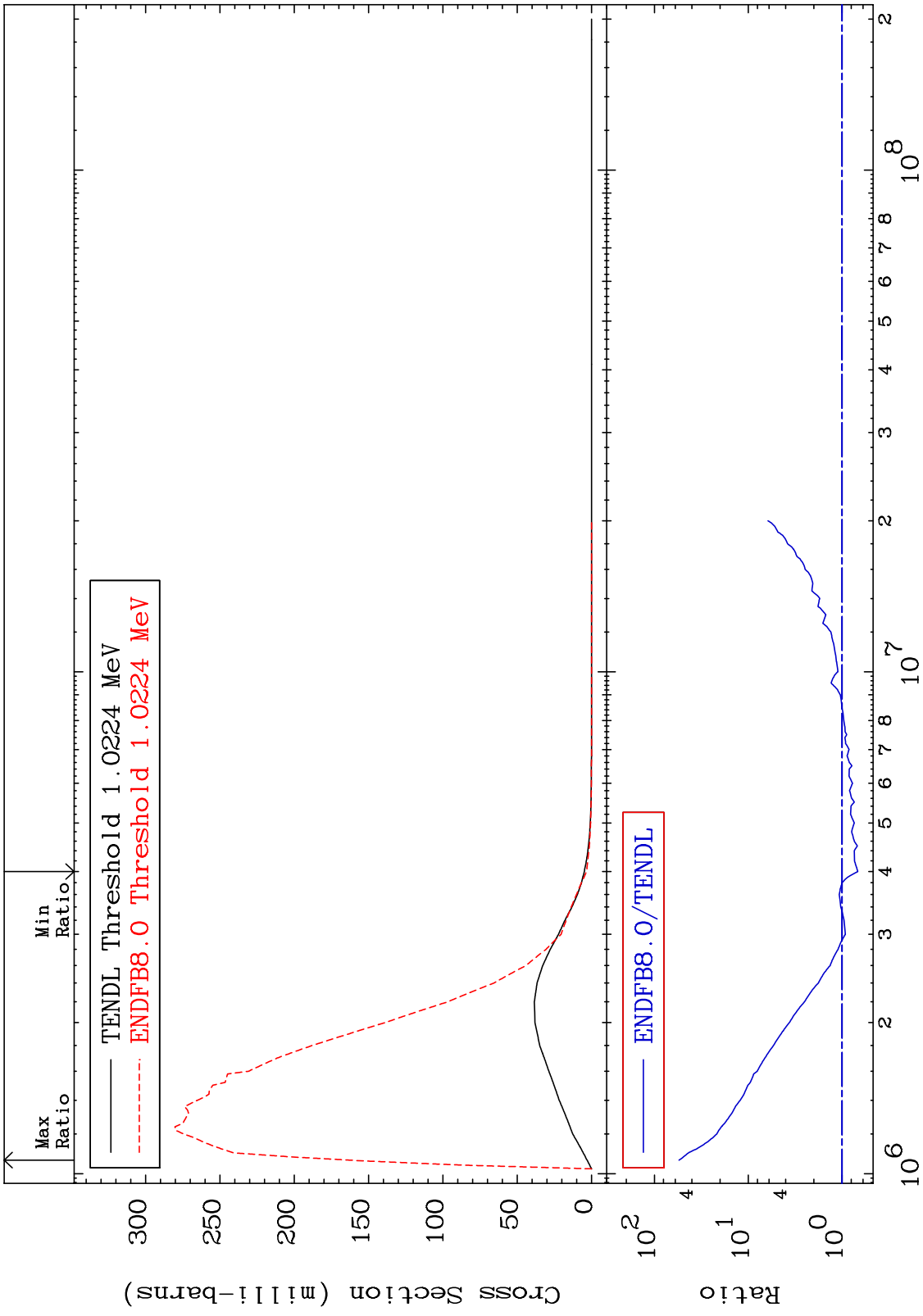
MT= 57 (n,n') Level  
Cross Section

64-Gd-160  
-79.14 To 15.36 %



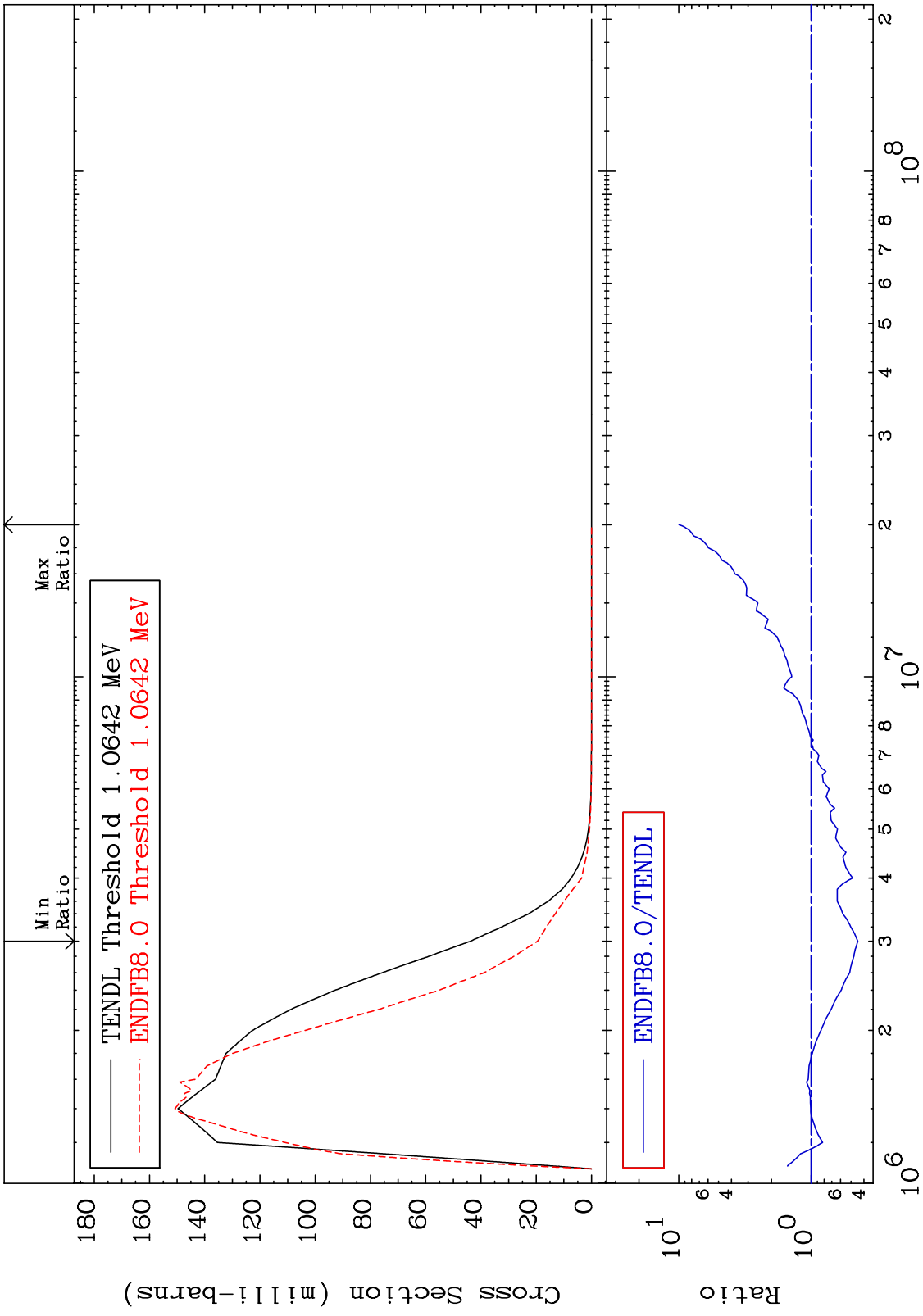
64-Gd-160

MAT 6449      MT= 58 (n,n') Level      64-Gd-160  
 Cross Section      -31.98 To 5371. %



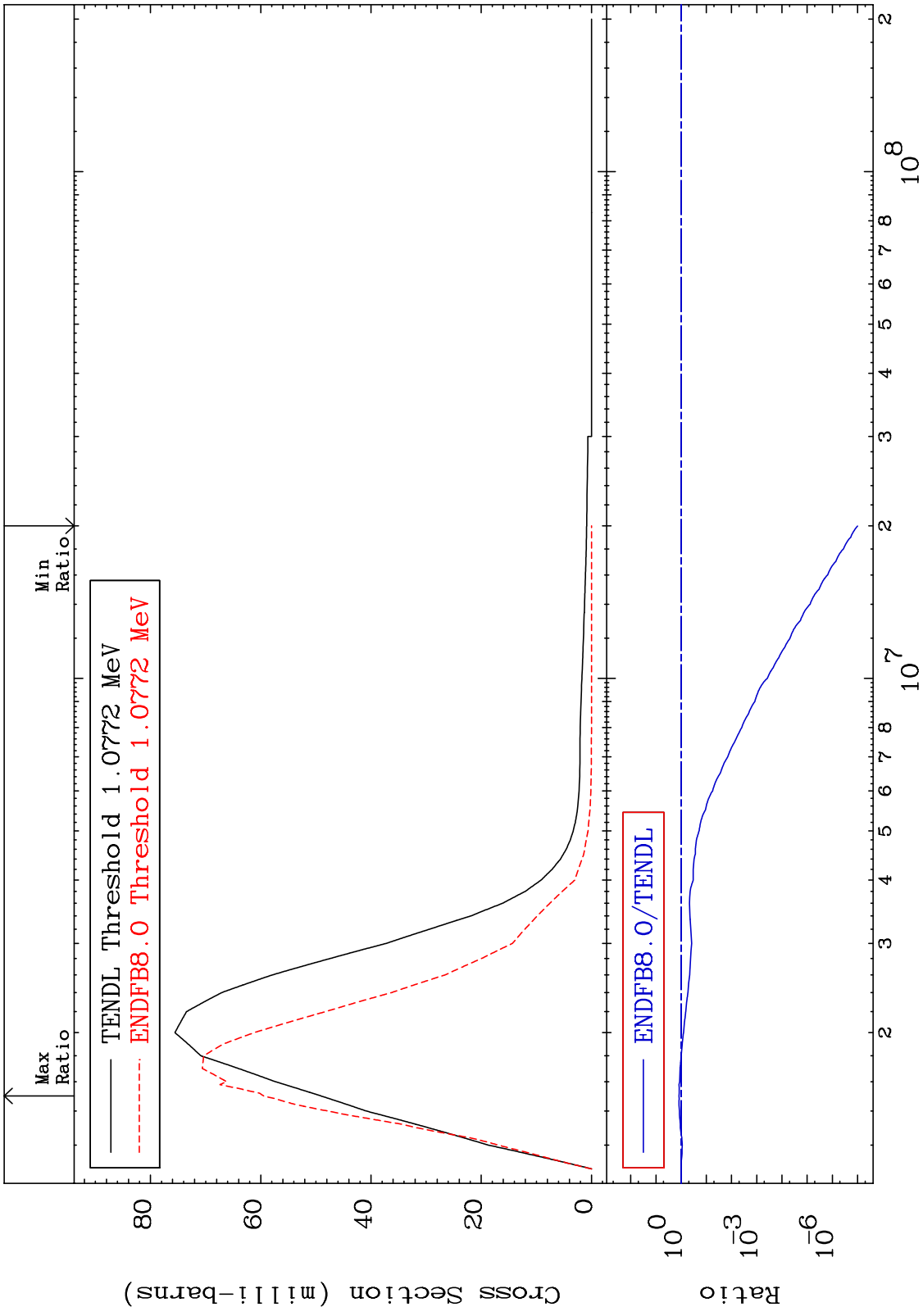
17      Incident Energy (eV)      64-Gd-160

MAT 6449      MT= 59 (n,n') Level Cross Section      64-Gd-160  
 -55.54 To 895.3 %

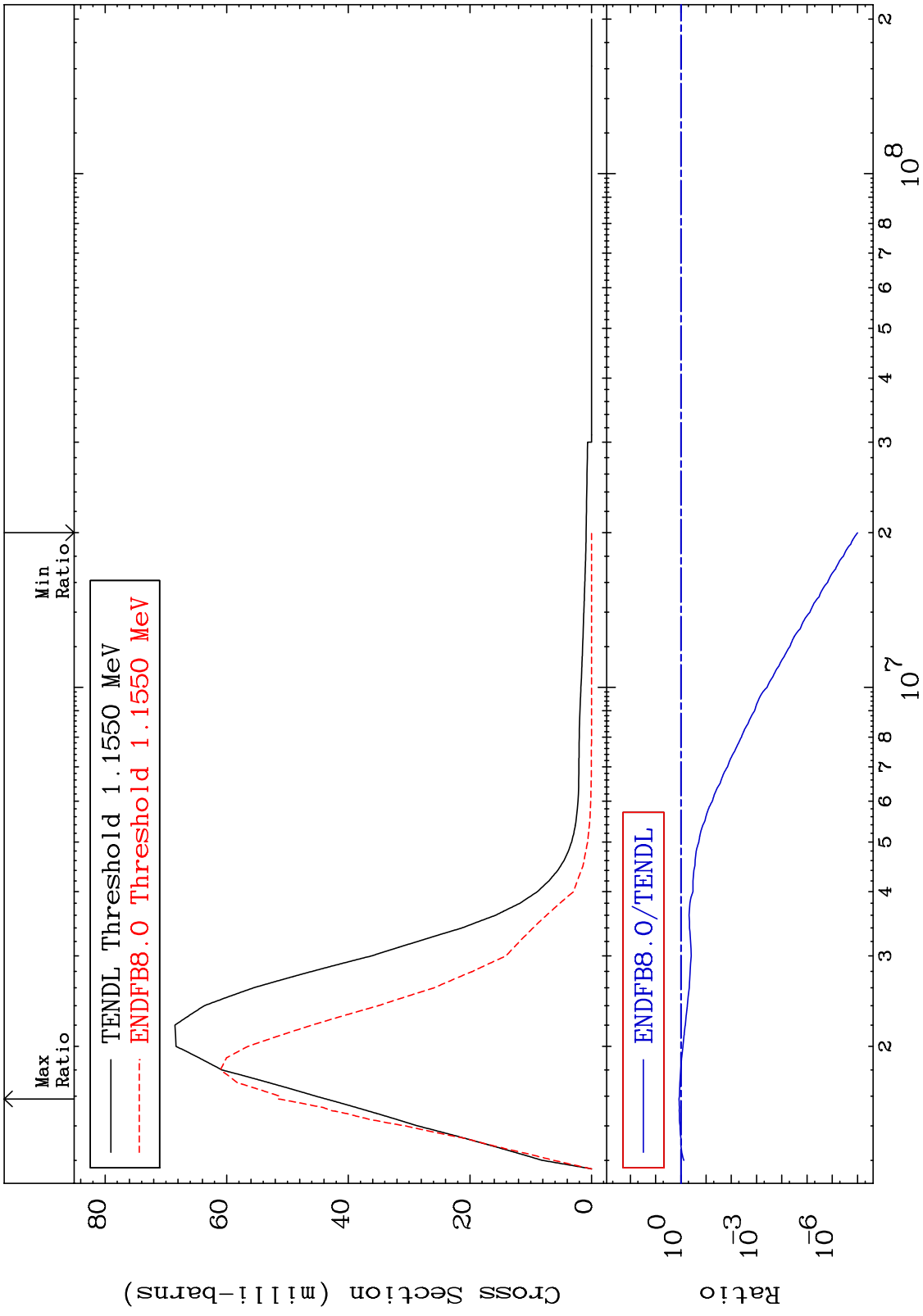


18      Incident Energy (eV)      64-Gd-160

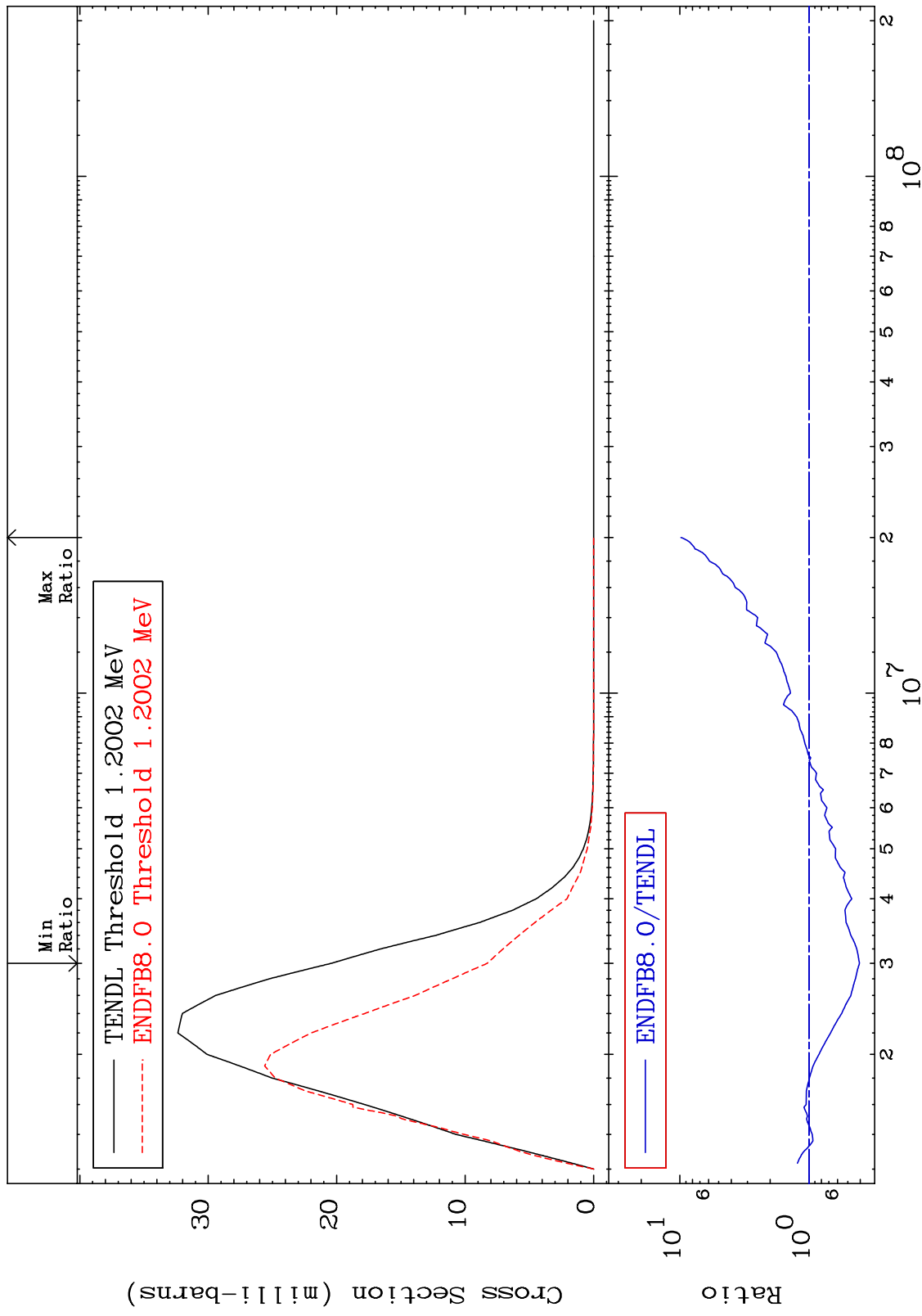
MAT 6449      MT= 60 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 21.23 %



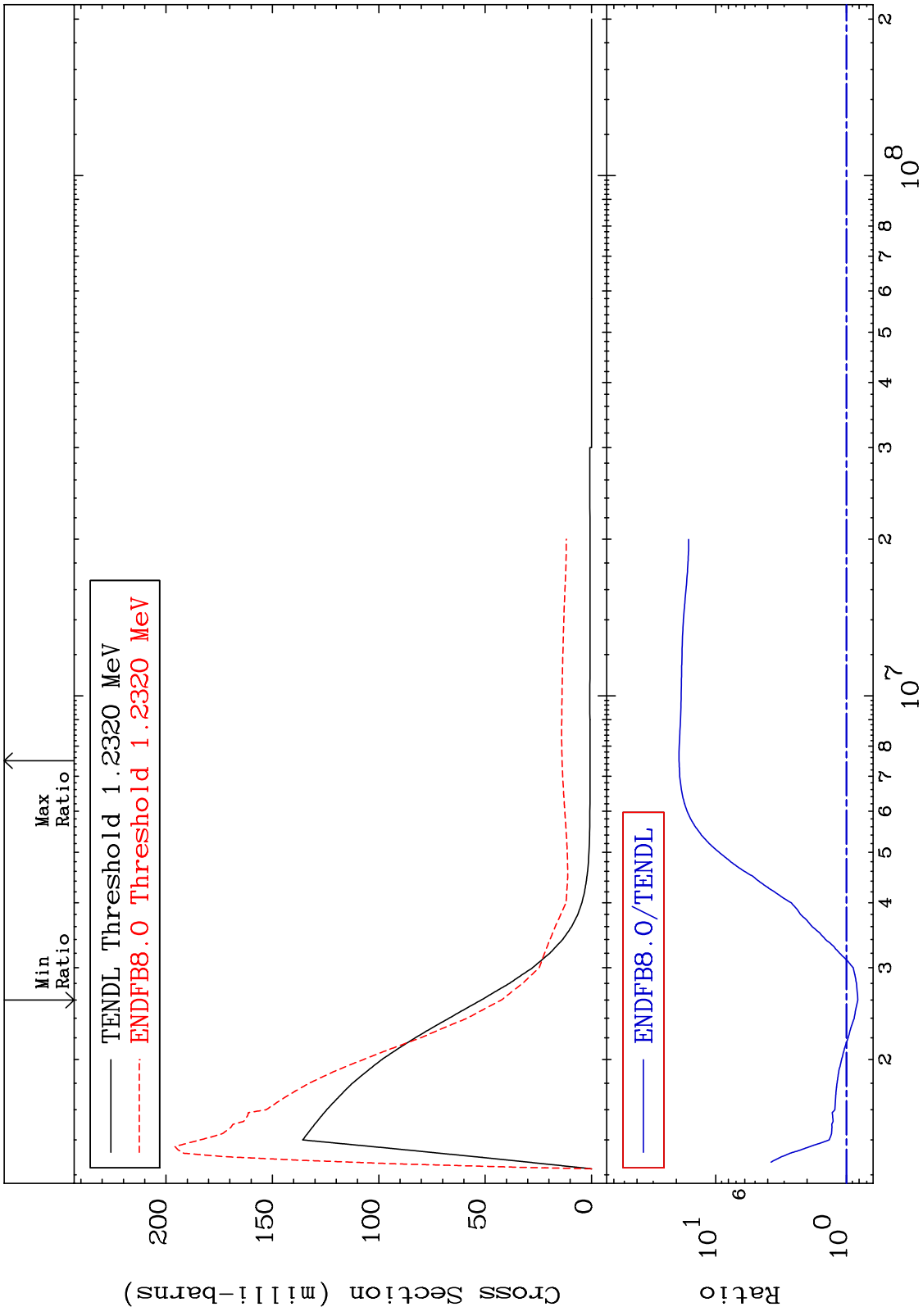
MAT 6449 MT= 61 (n,n') Level Cross Section 64-Gd-160 -100.0 To 17.82 %



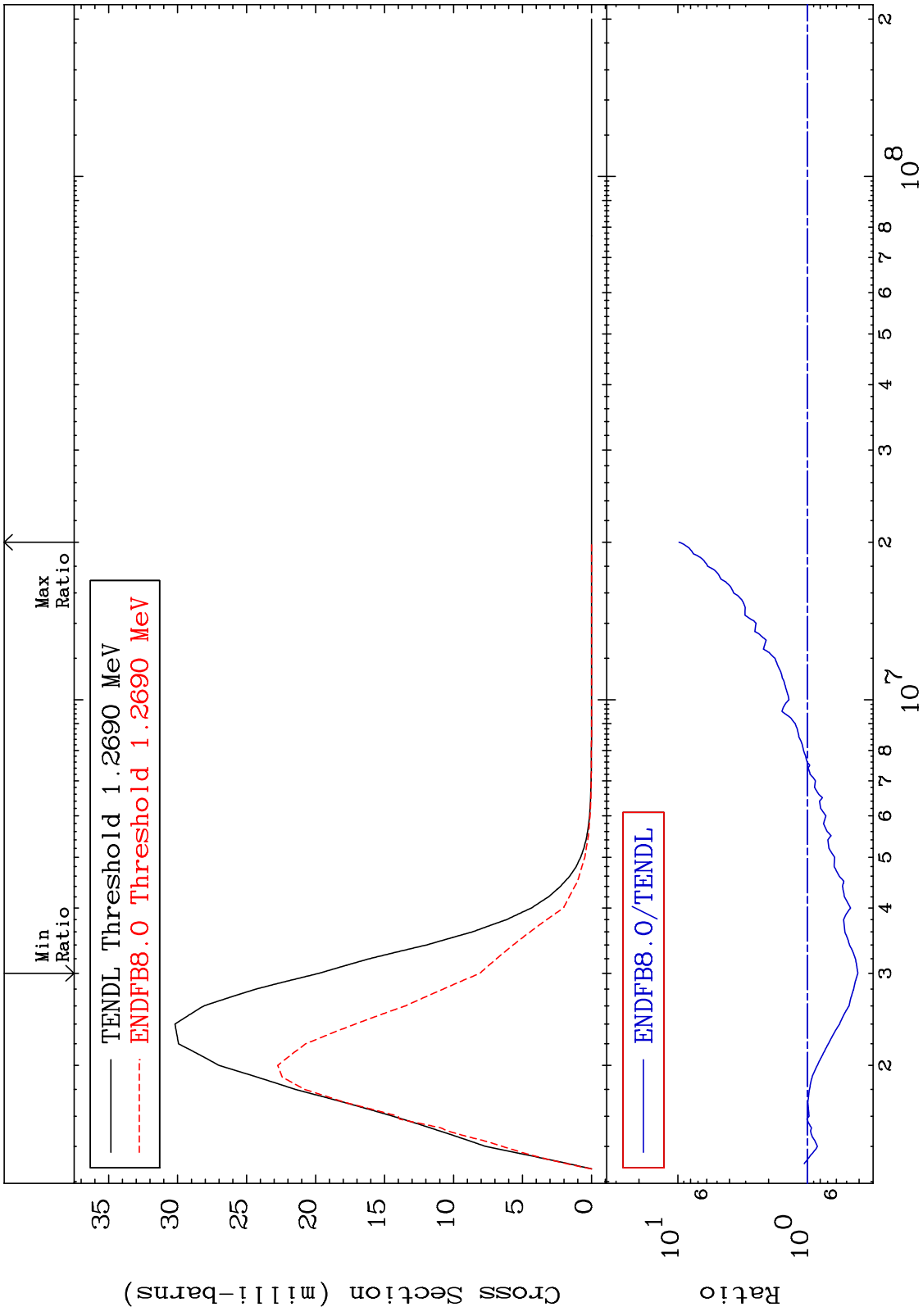
MAT 6449 MT= 62 (n,n') Level Cross Section 64-Gd-160  
-59.42 To 881.4 %



MAT 6449 MT= 63 (n,n') Level Cross Section 64-Gd-160  
 -18.20 To 1806. %

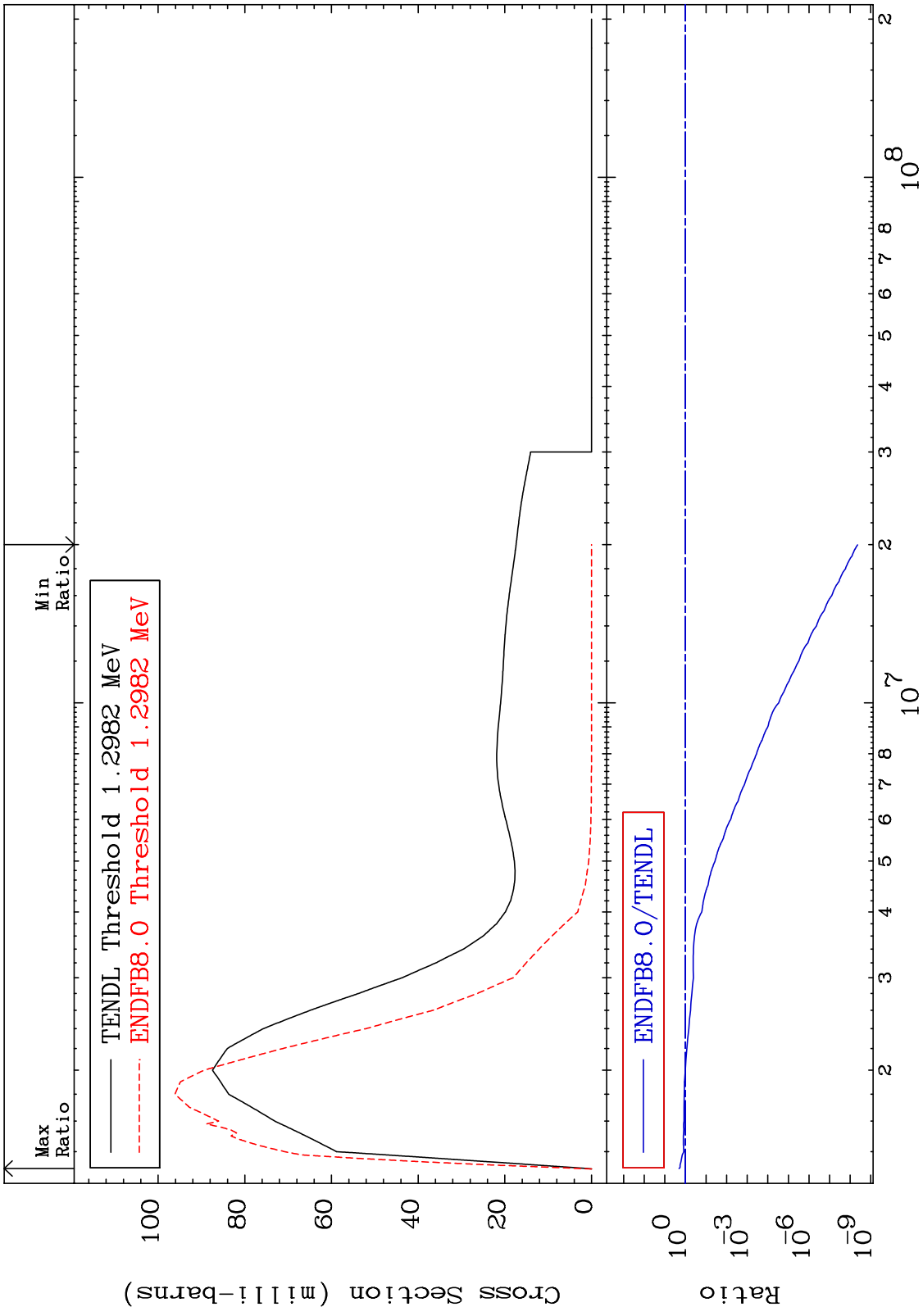


MAT 6449 MT= 64 (n,n') Level Cross Section 64-Gd-160  
 -59.01 To 880.9 %

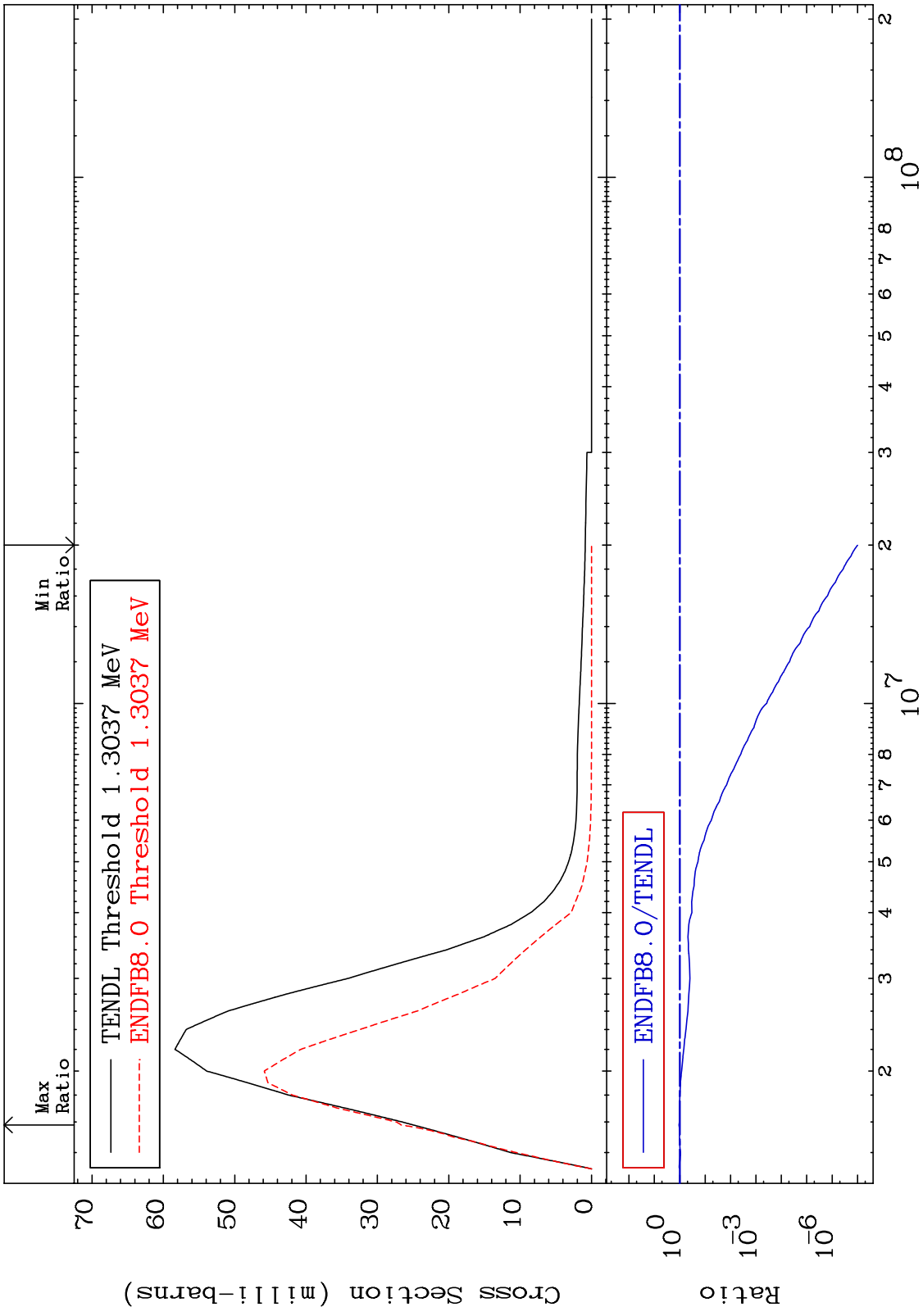




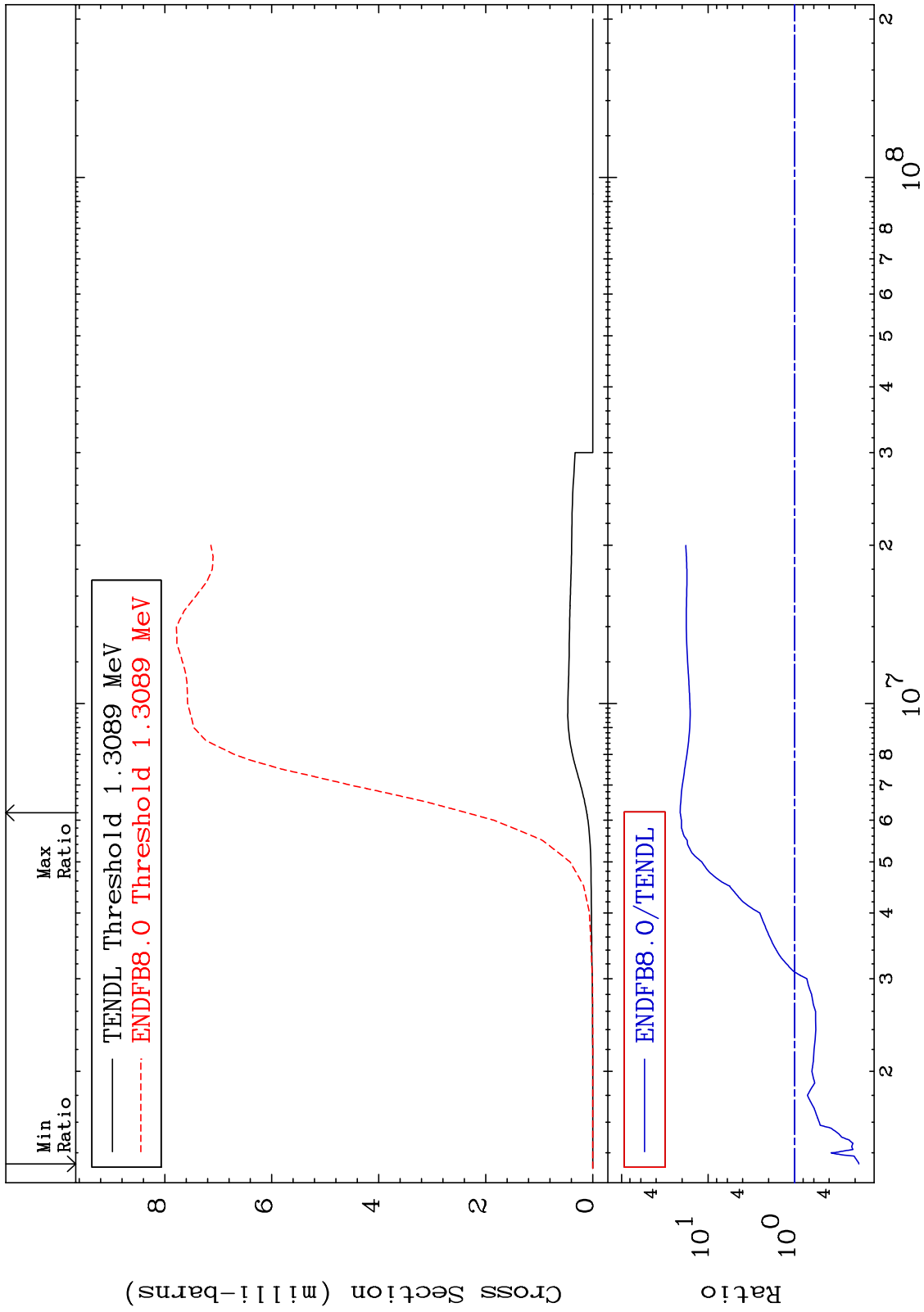
MAT 6449 MT= 65 (n,n') Level Cross Section 64-Gd-160  
 -100.0 To 103.8 %



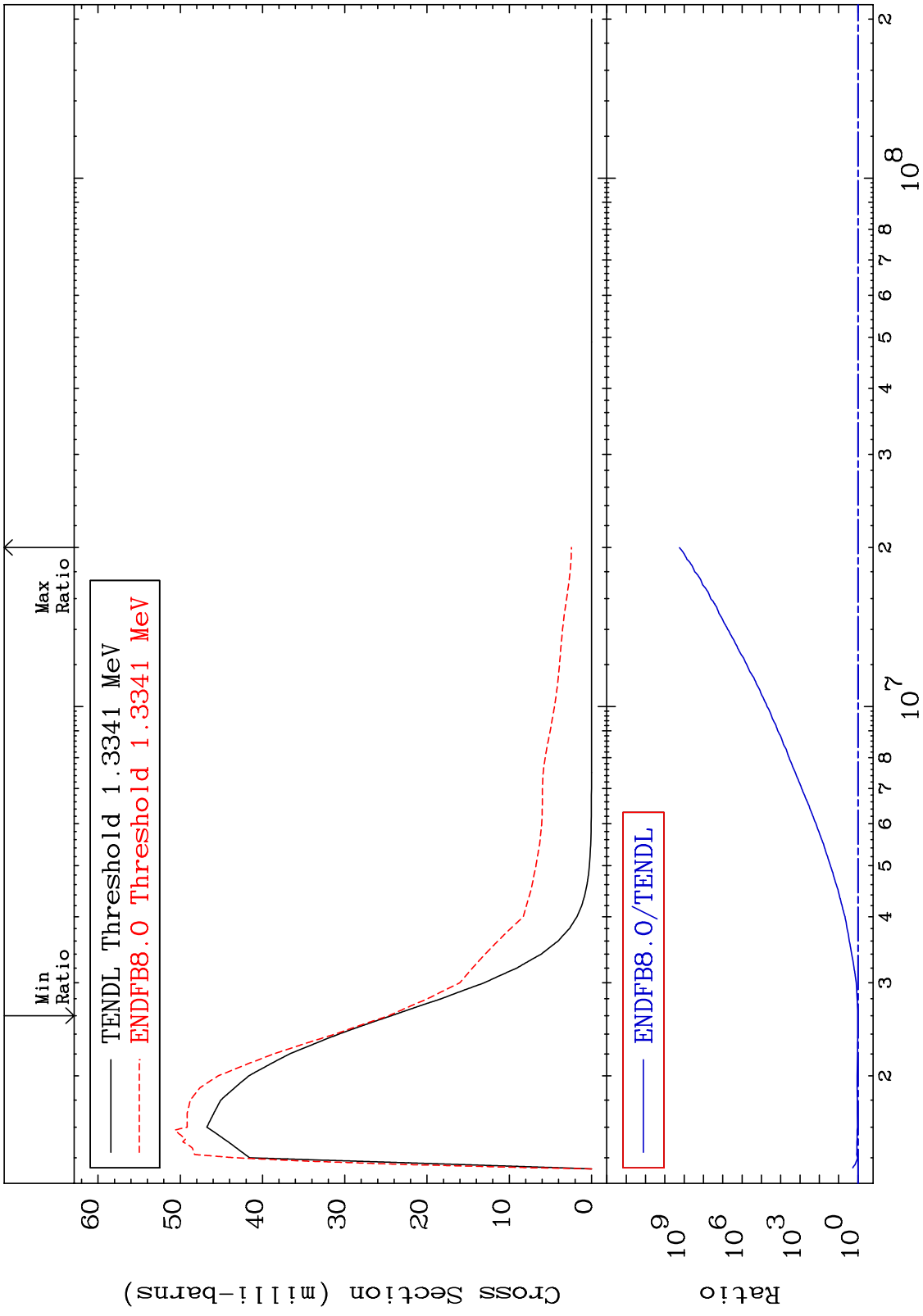
MAT 6449      MT= 66 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 6.727 %



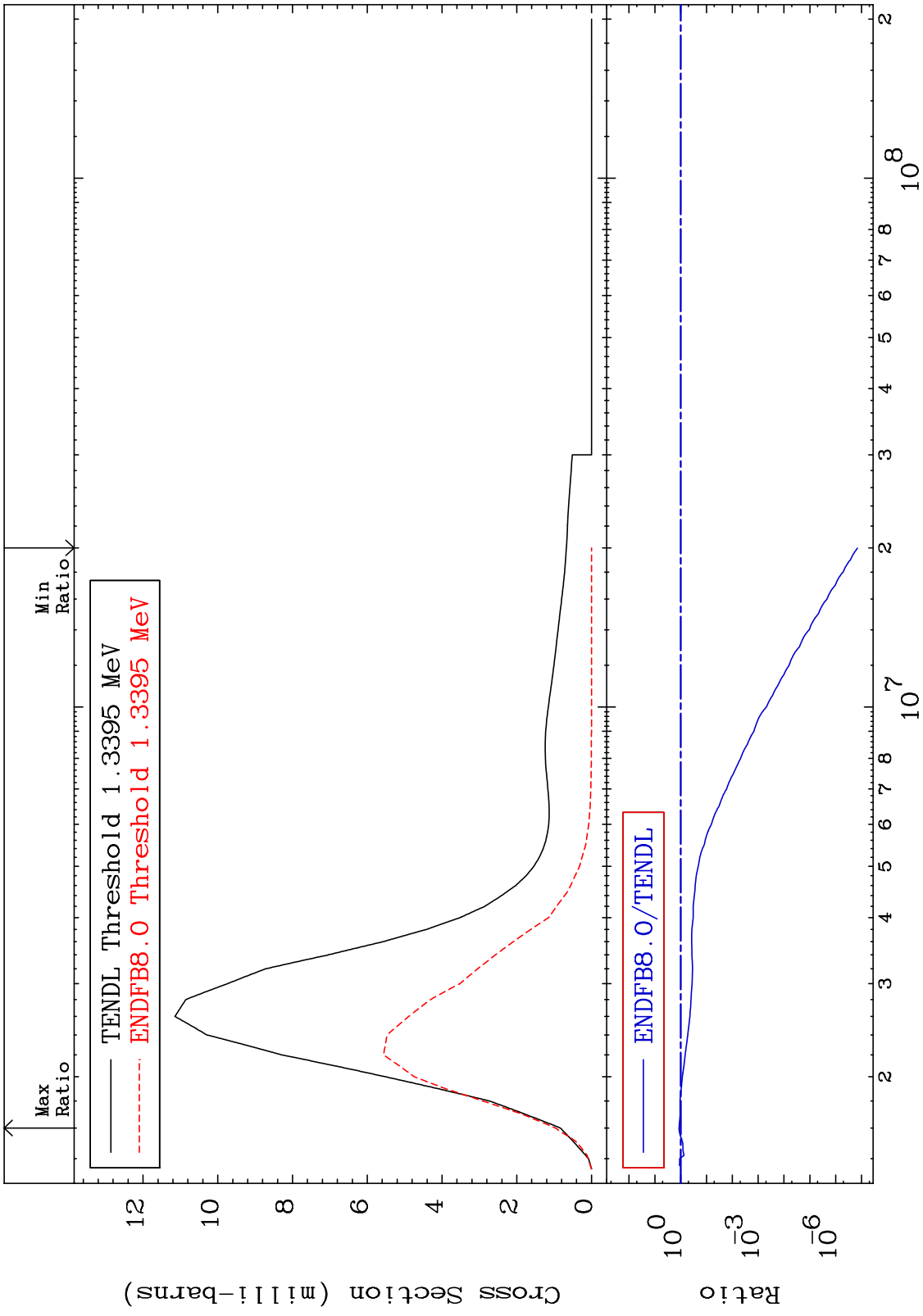
MAT 6449      MT= 67 (n,n') Level      64-Gd-160  
 Cross Section      -81.89 To 2003. %



MAT 6449 MT= 68 (n,n') Level Cross Section 64-Gd-160 To 9999. %  
 1.298



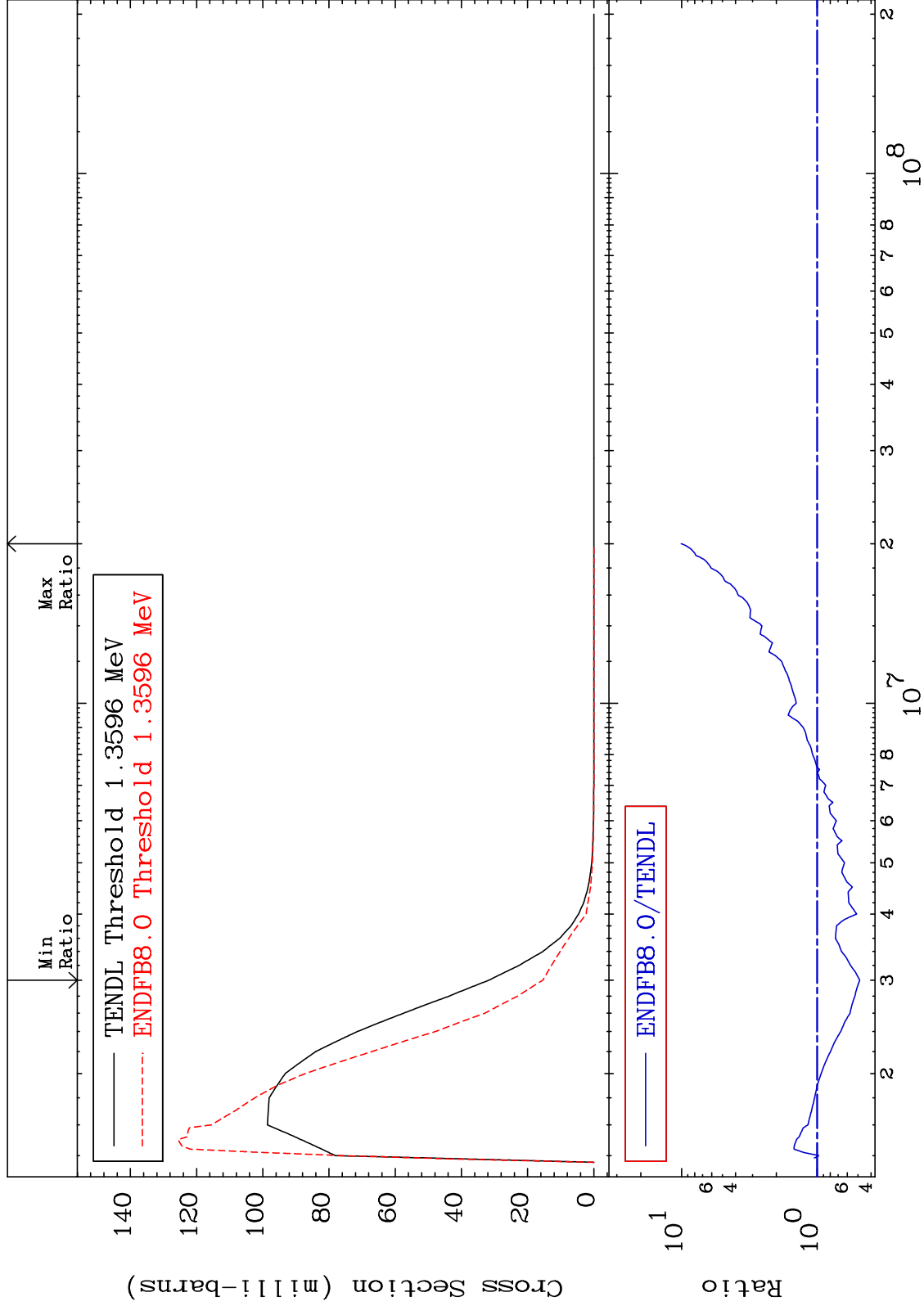
MAT 6449      MT= 69 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 15.58 %



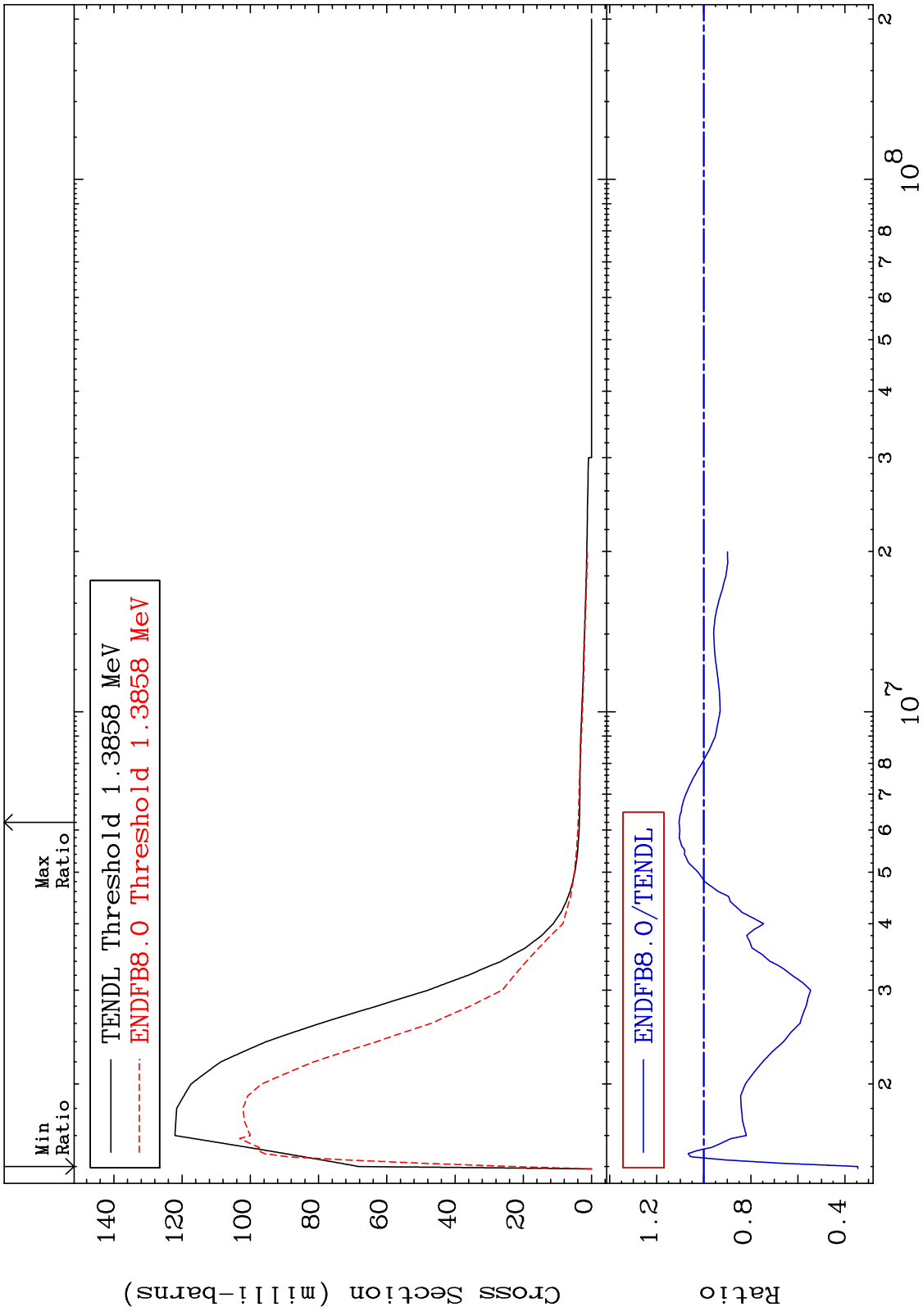
MAT 6449

MT= 70 (n,n') Level  
Cross Section

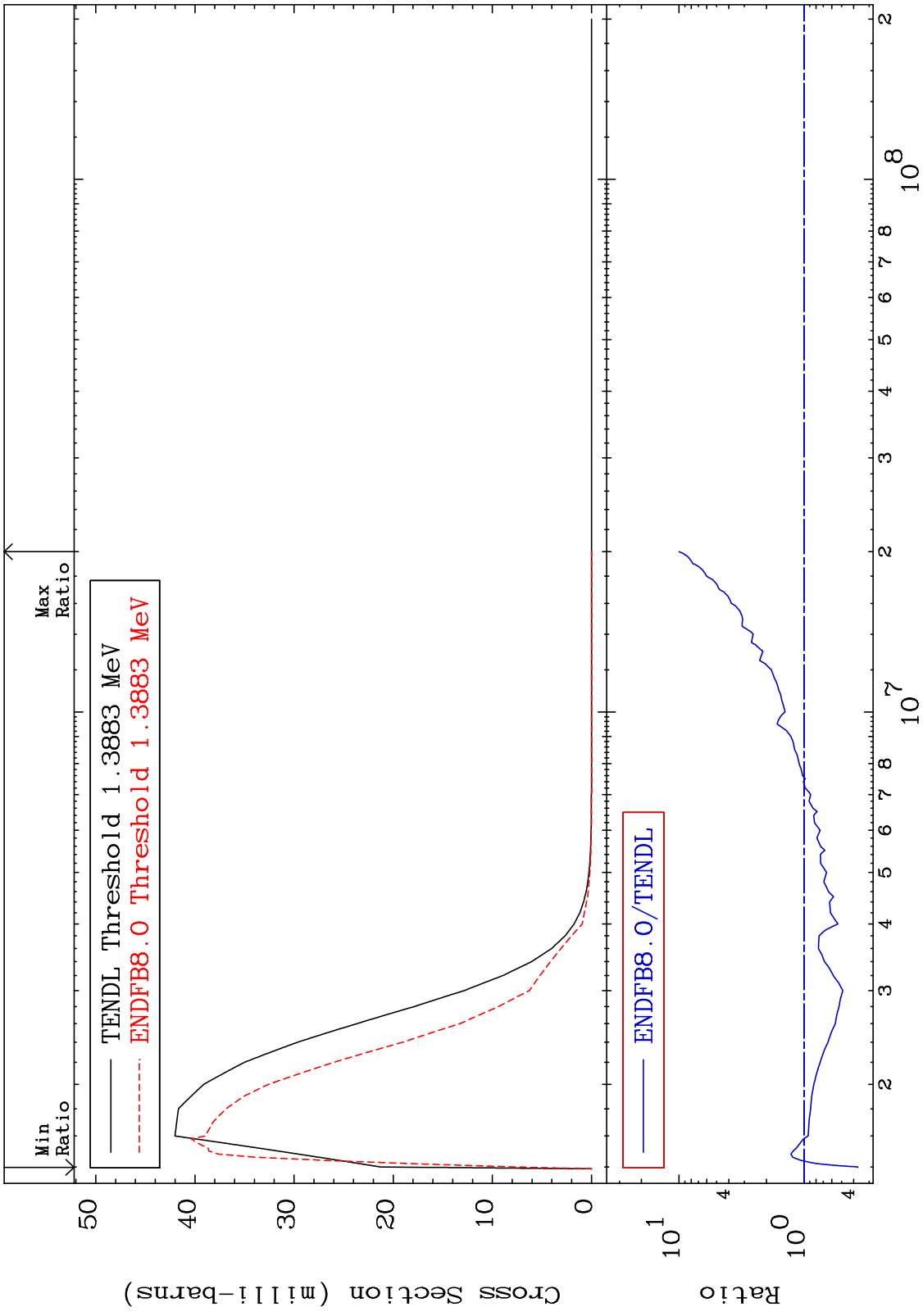
64-Gd-160  
-51.47 To 905.6 %



MAT 6449      MT= 71 (n,n') Level      64-Gd-160  
 Cross Section      -65.49 To 10.52 %

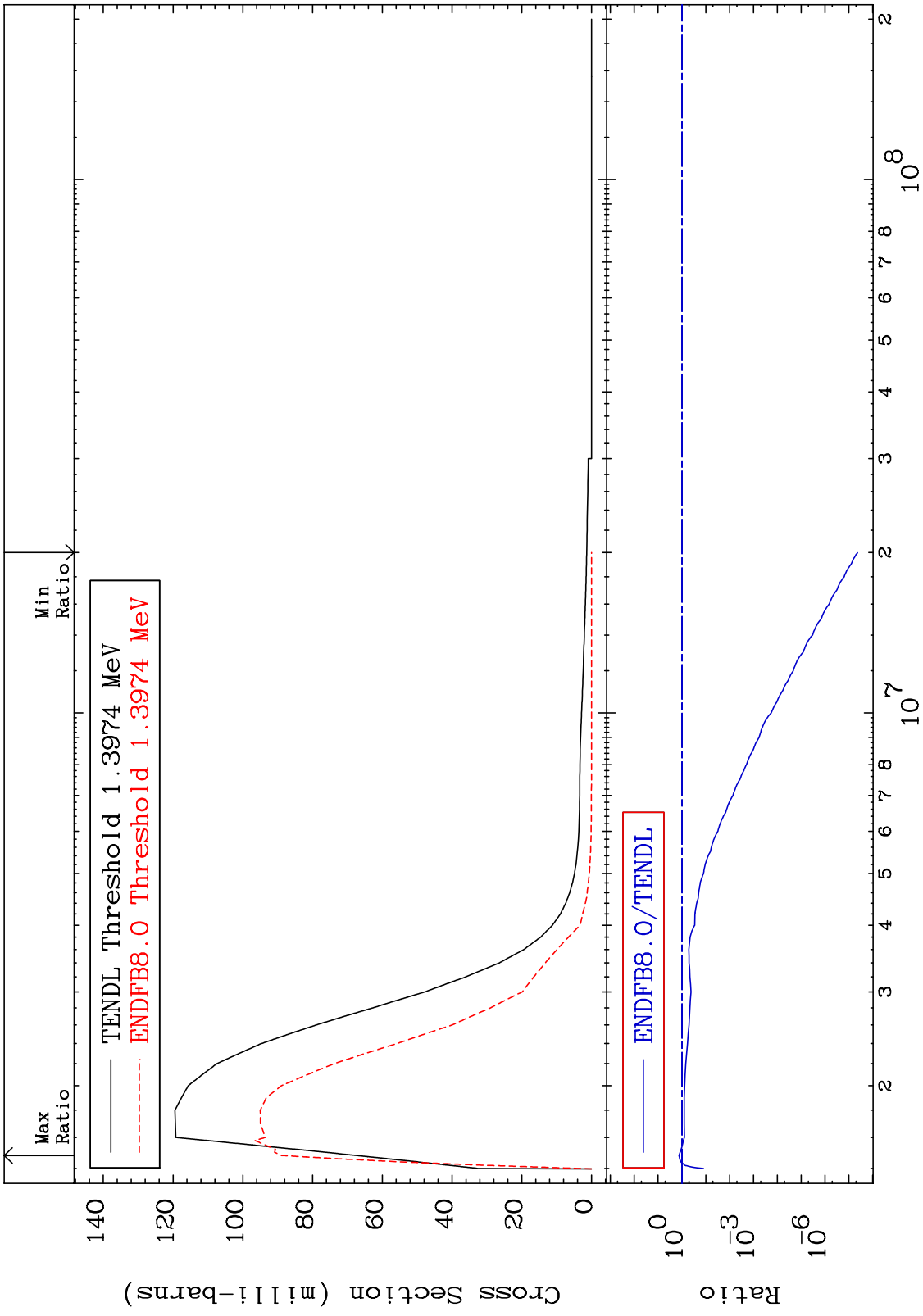


MAT 6449      MT= 72 (n,n') Level Cross Section      64-Gd-160  
 -62.96 To 900.3 %

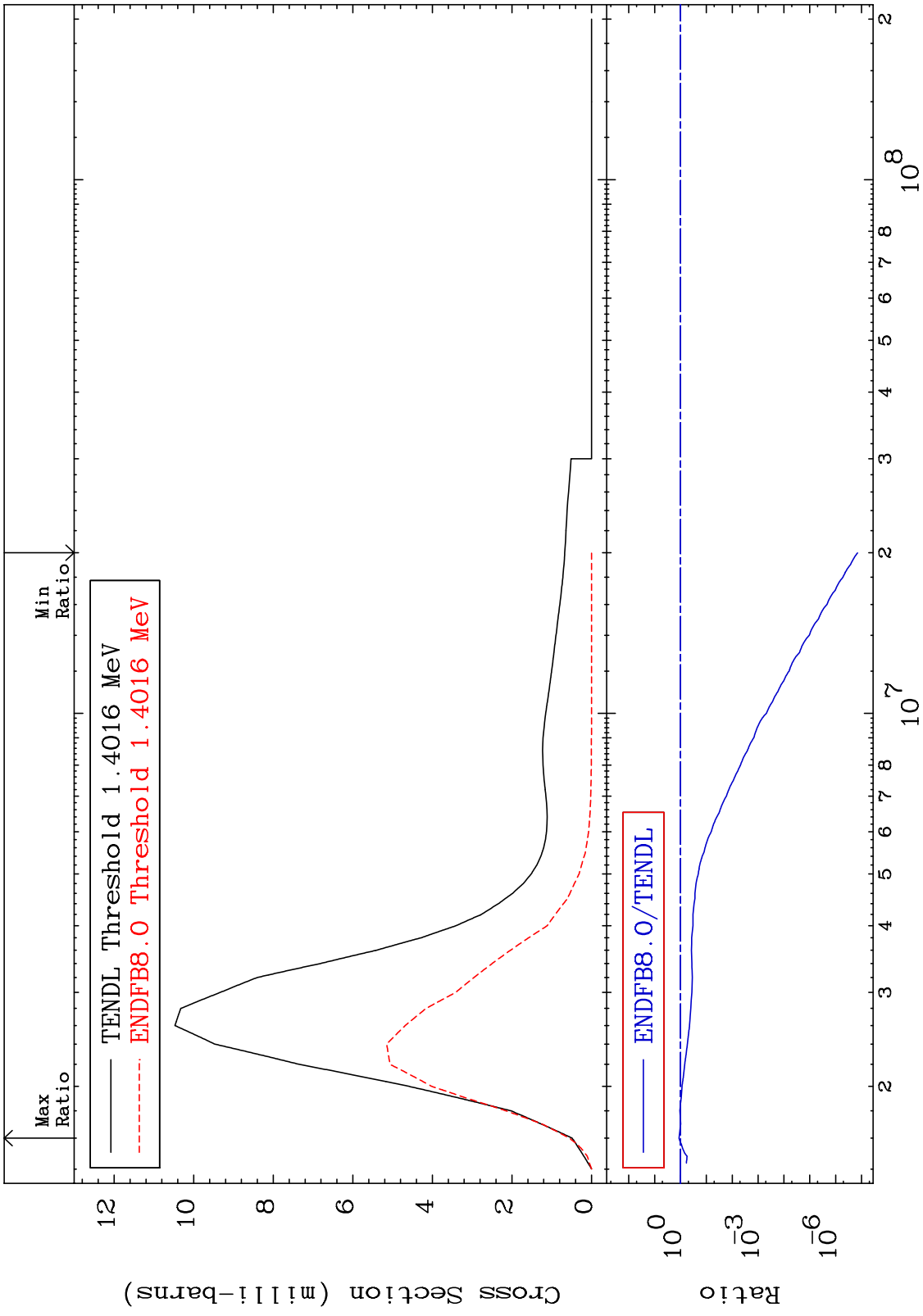




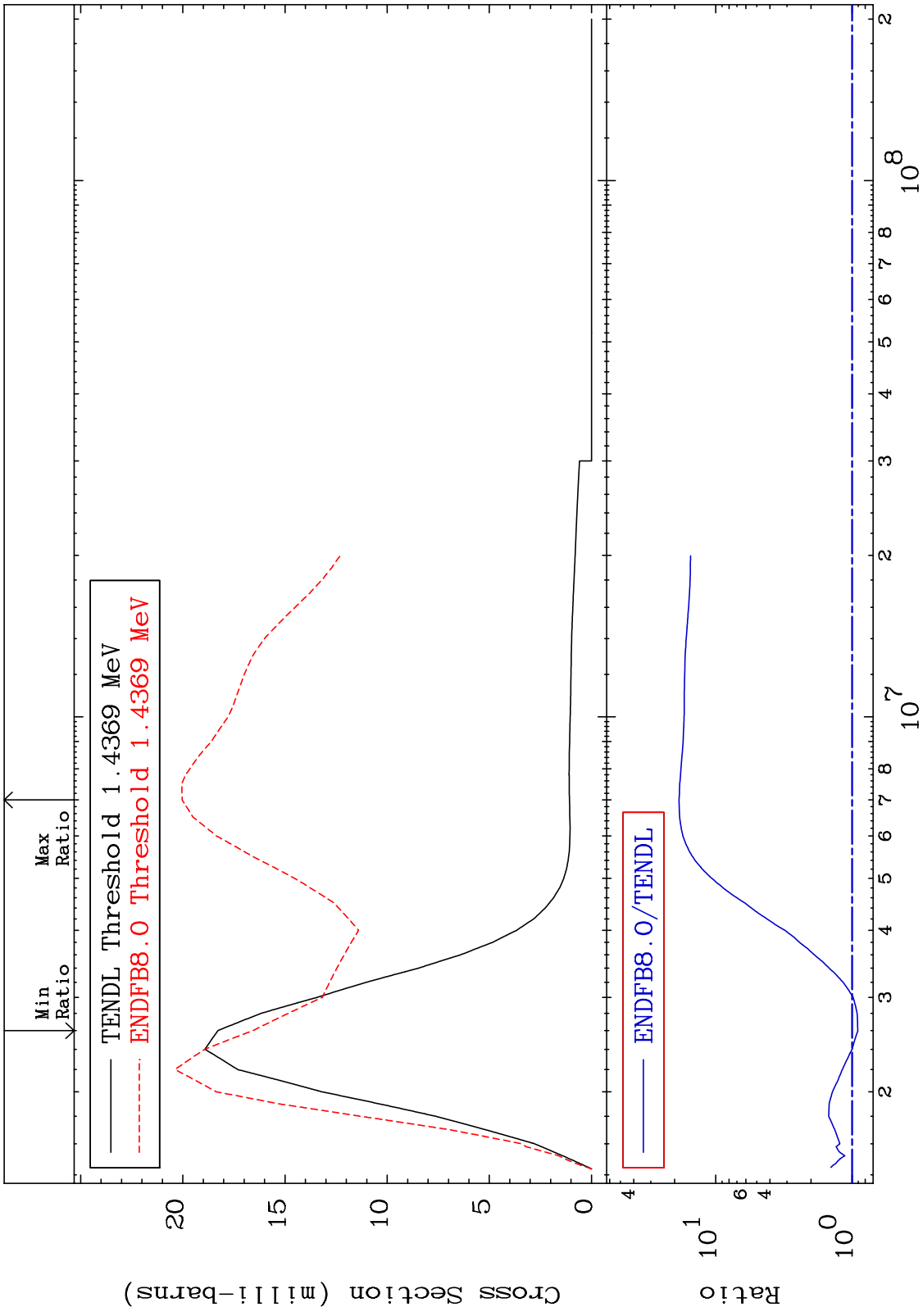
MAT 6449      MT= 73 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 32.14 %



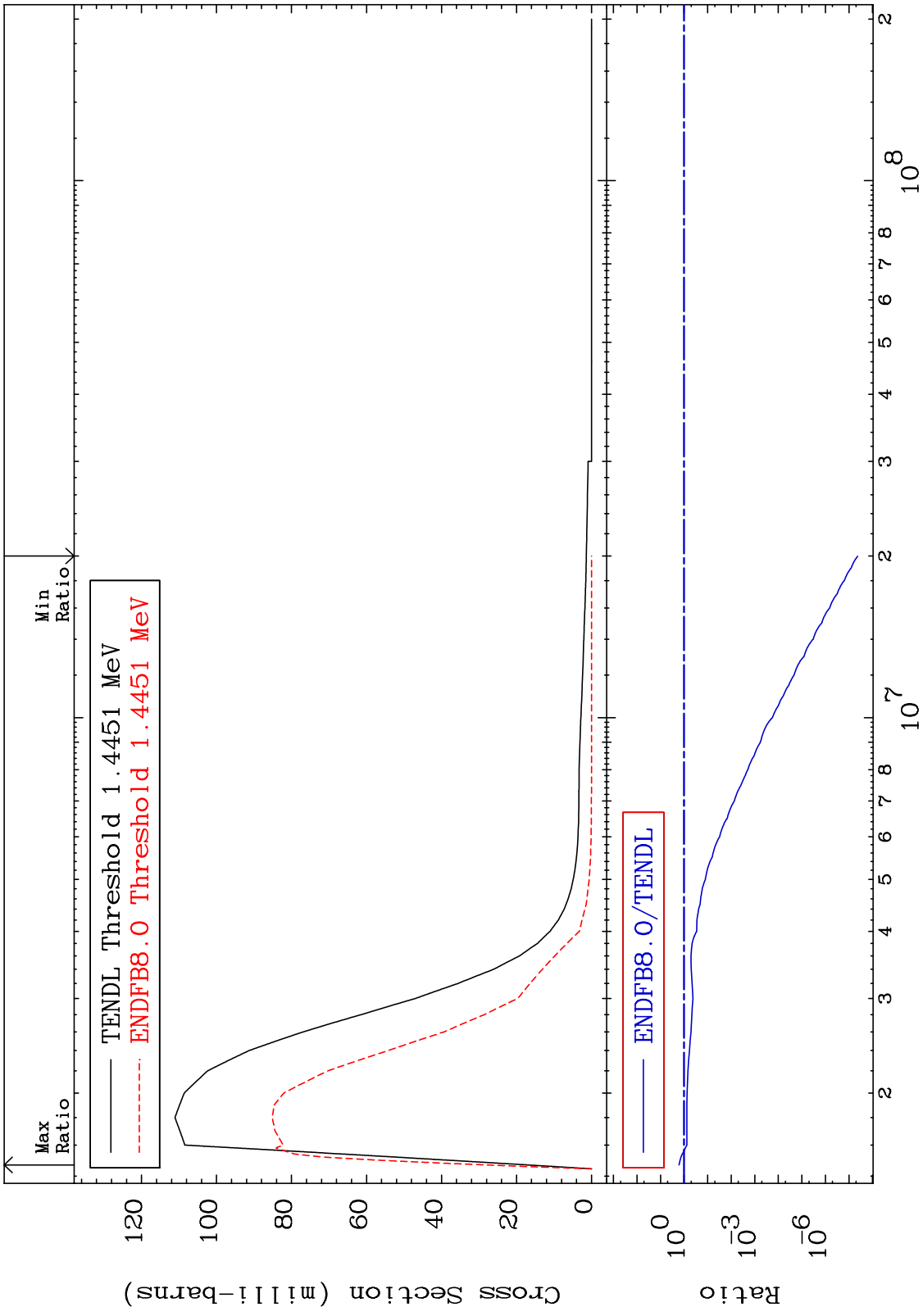
MAT 6449      MT= 74 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 13.98 %



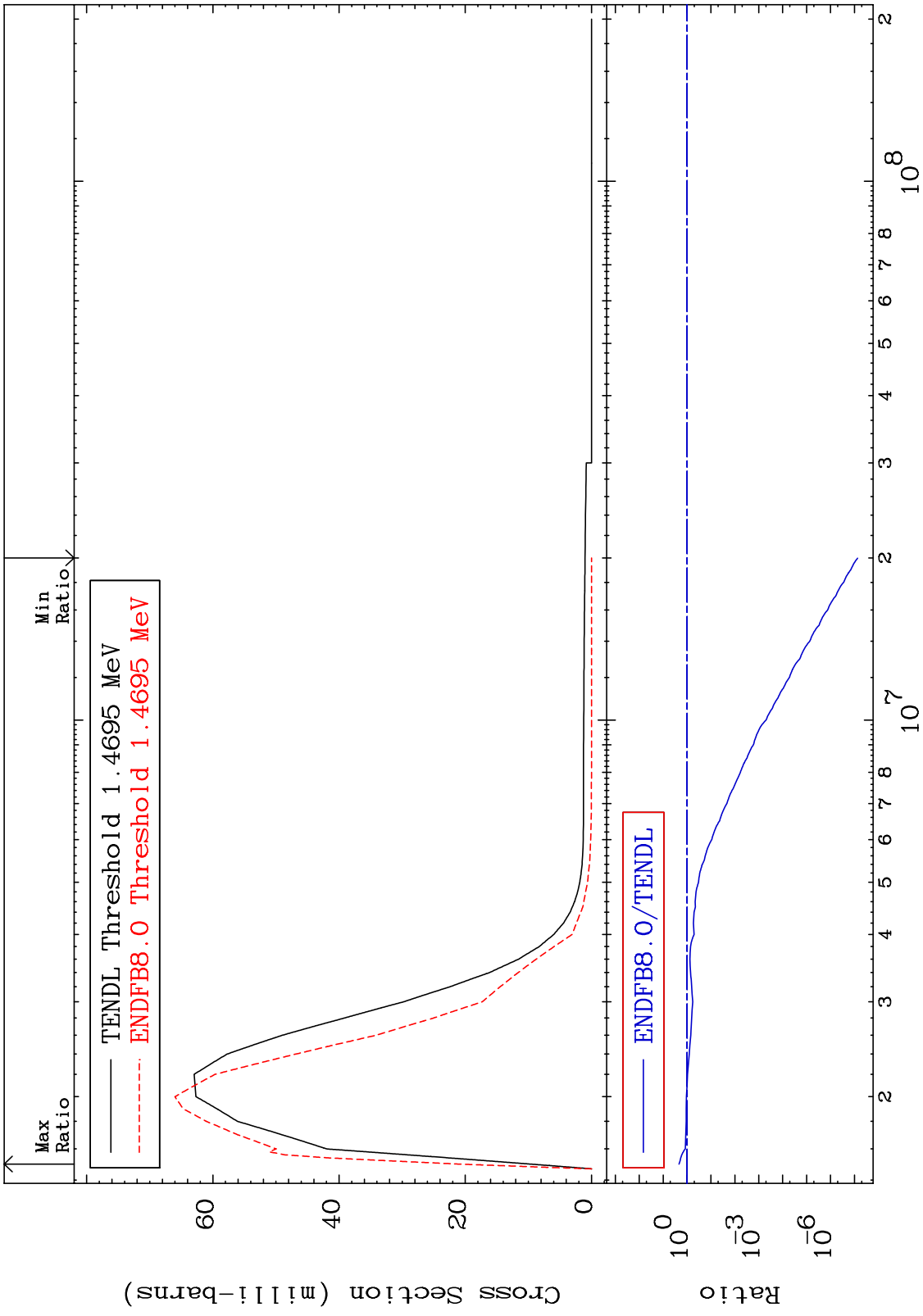
MAT 6449      MT= 75 (n,n') Level Cross Section      64-Gd-160  
 -9.342 To 1758. %

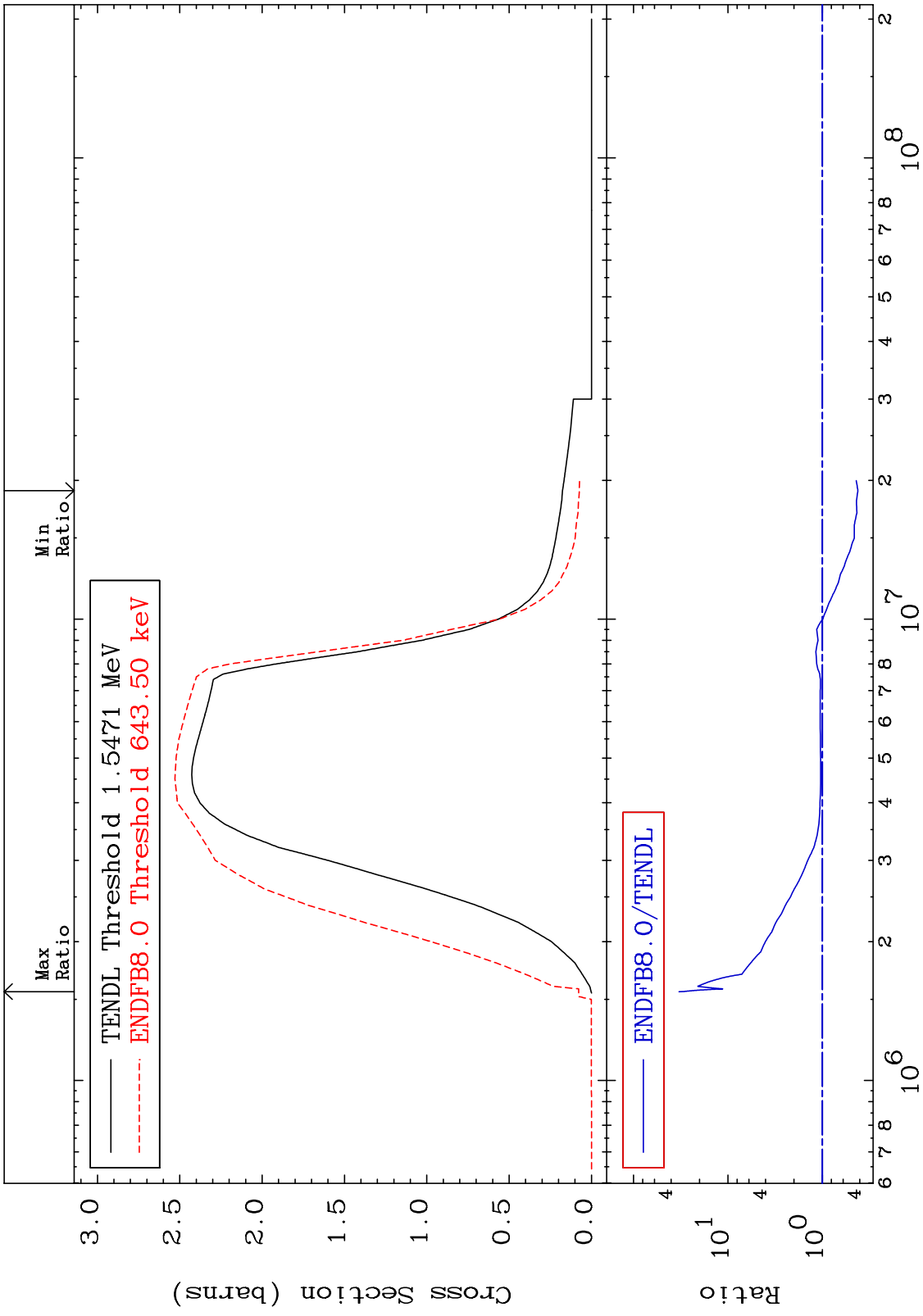


MAT 6449      MT= 76 (n,n') Level Cross Section      64-Gd-160  
 -100.0 To 63.89 %



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





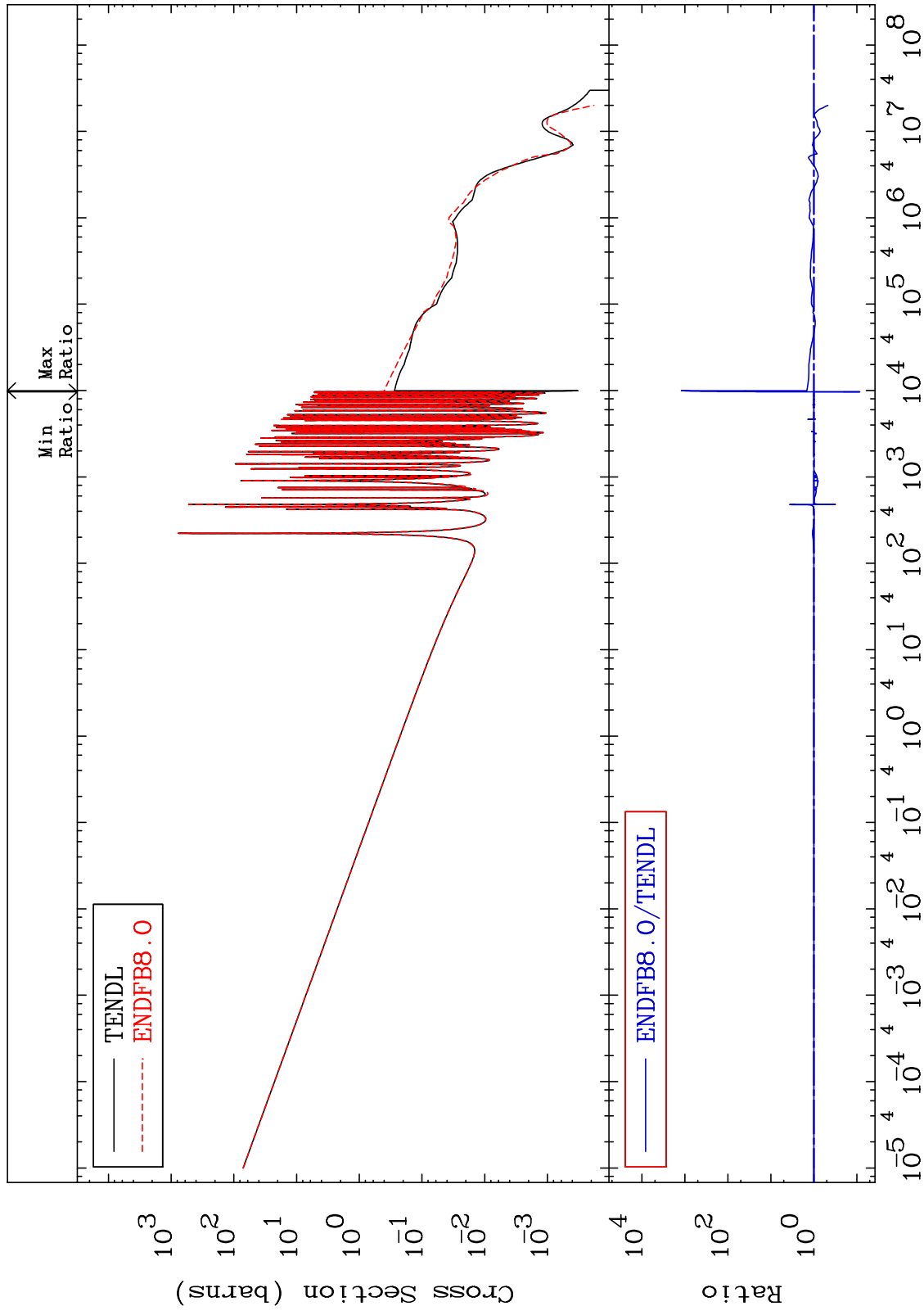
MAT 6449

(n,  $\gamma$ )

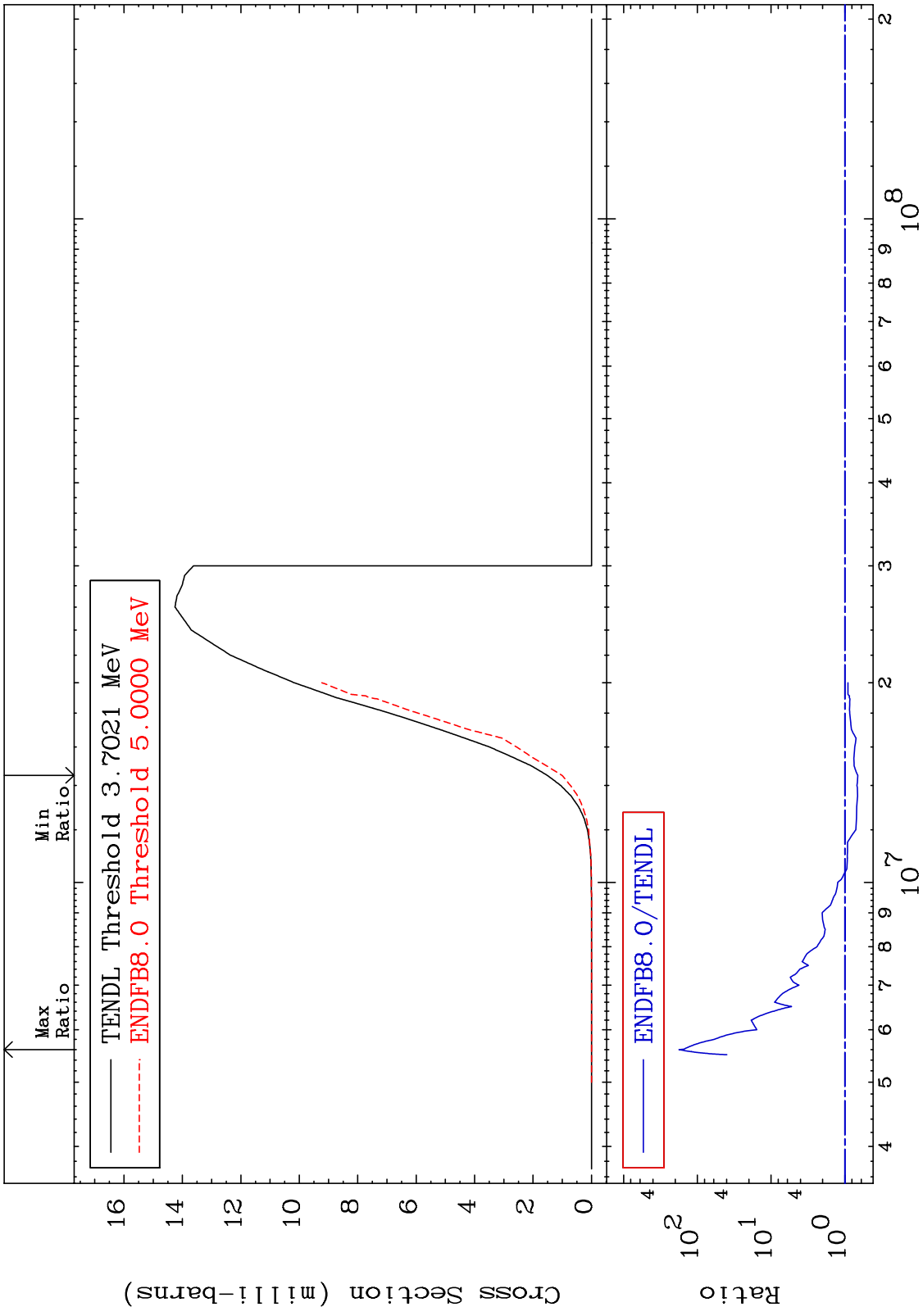
64-Gd-160

Cross Section

-91.43 To 9999. %



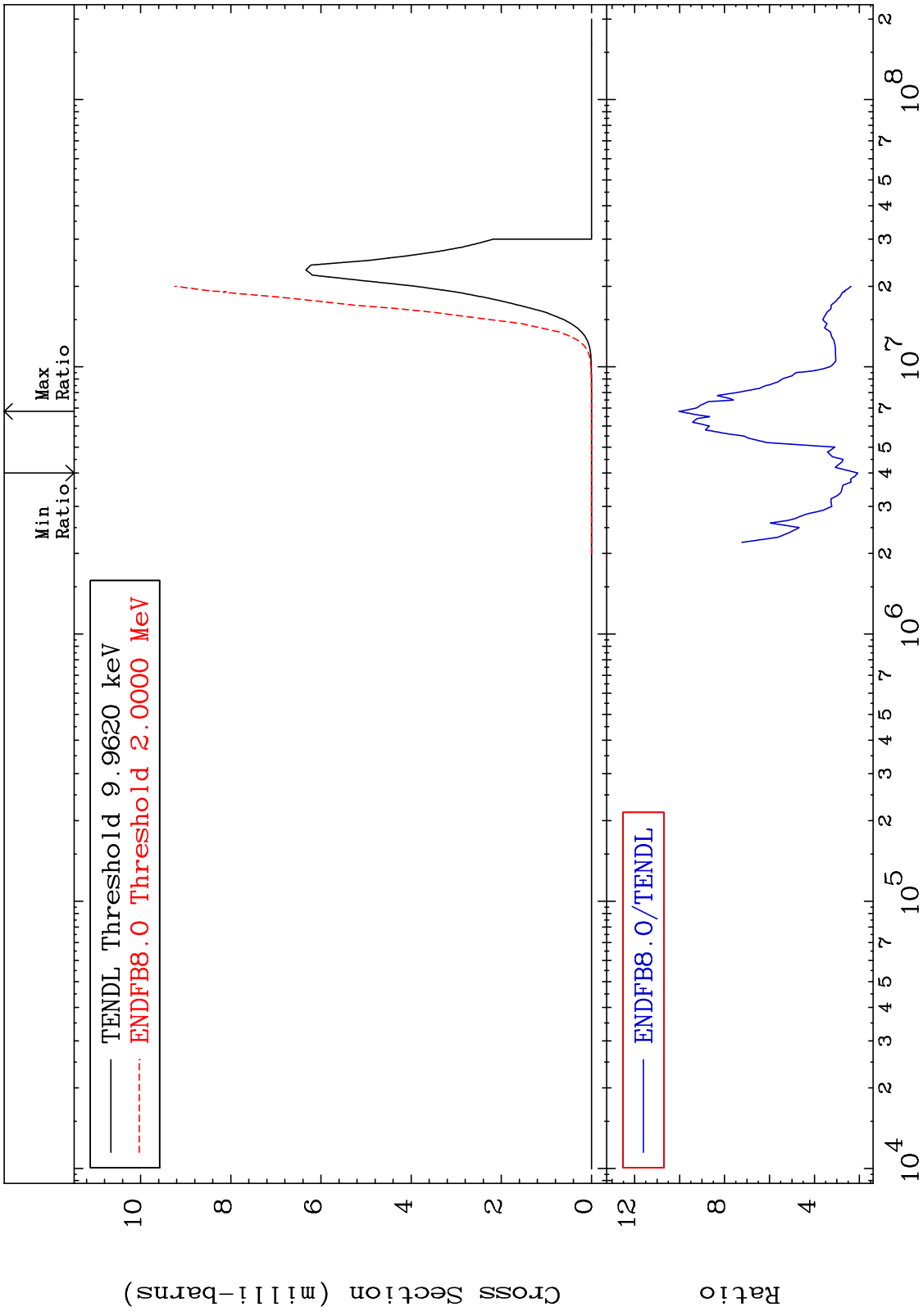
MAT 6449 (n,p) Cross Section 64-Gd-160  
 -33.35 To 9999. %



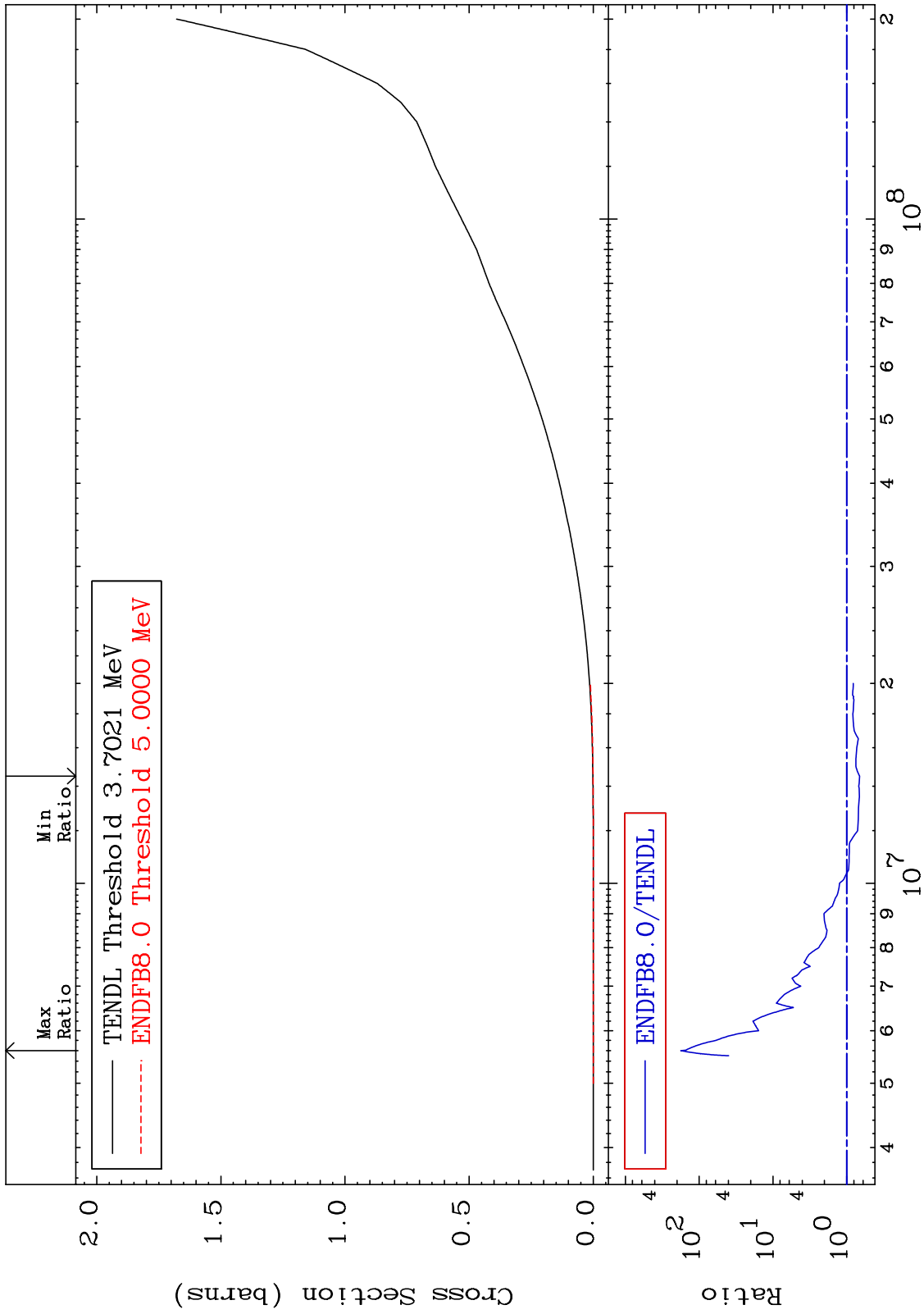
39 Incident Energy (eV) 64-Gd-160



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



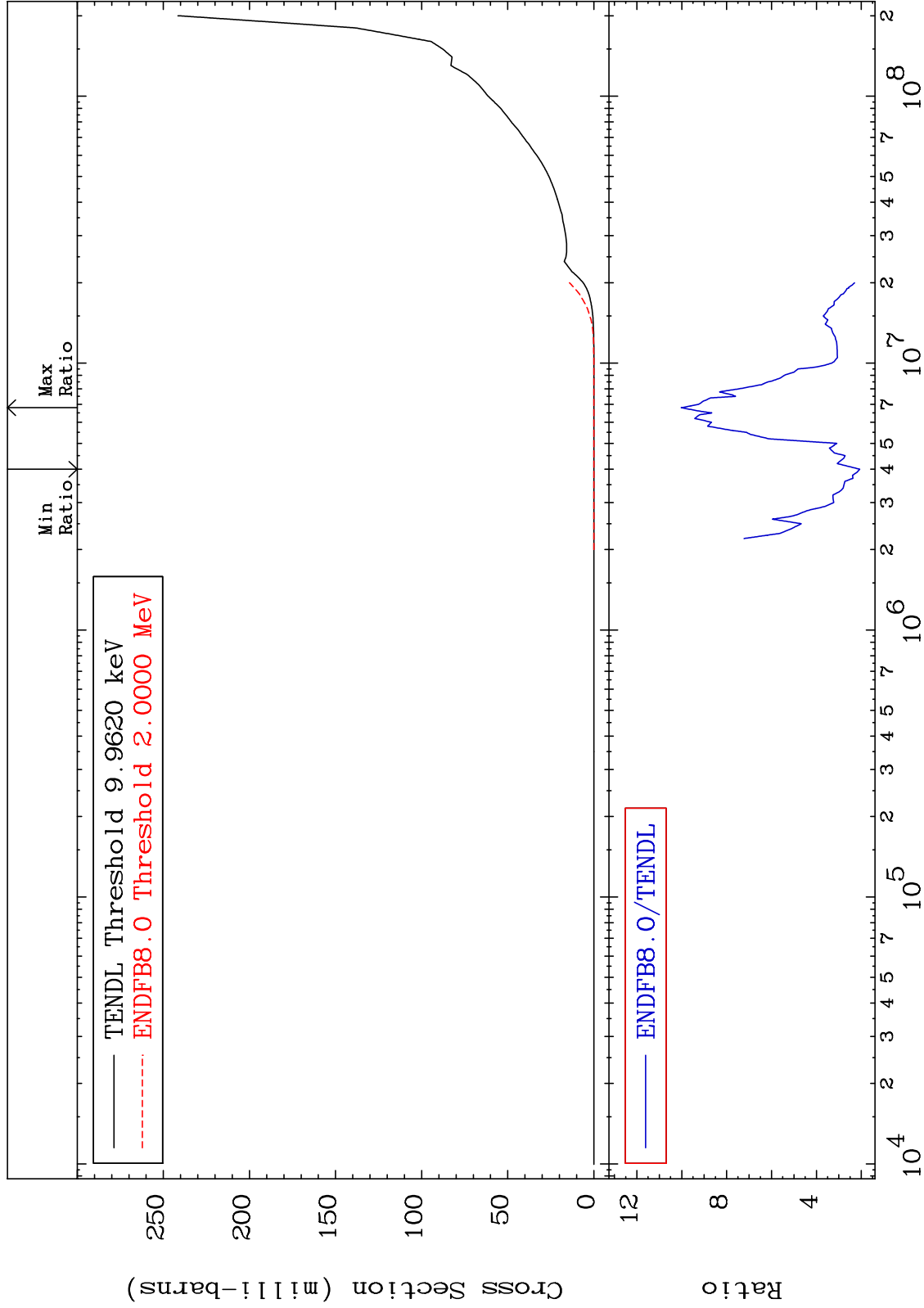
64-Gd-160 Incident Energy (eV)



MAT 6449

He-4 Production  
Cross Section

64-Gd-160  
106.8 To 902.3 %

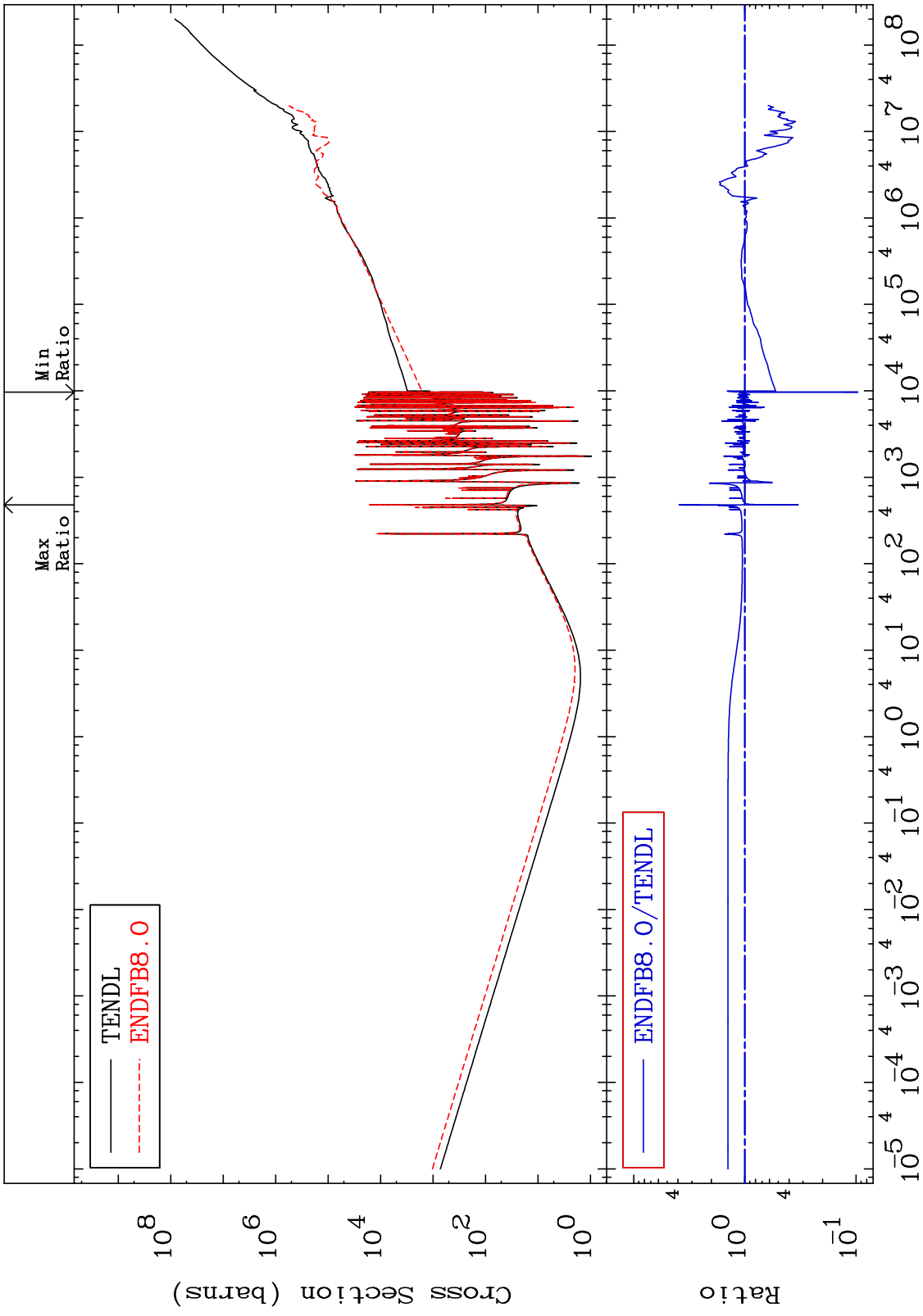


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Incident Energy (eV)

64-Gd-160

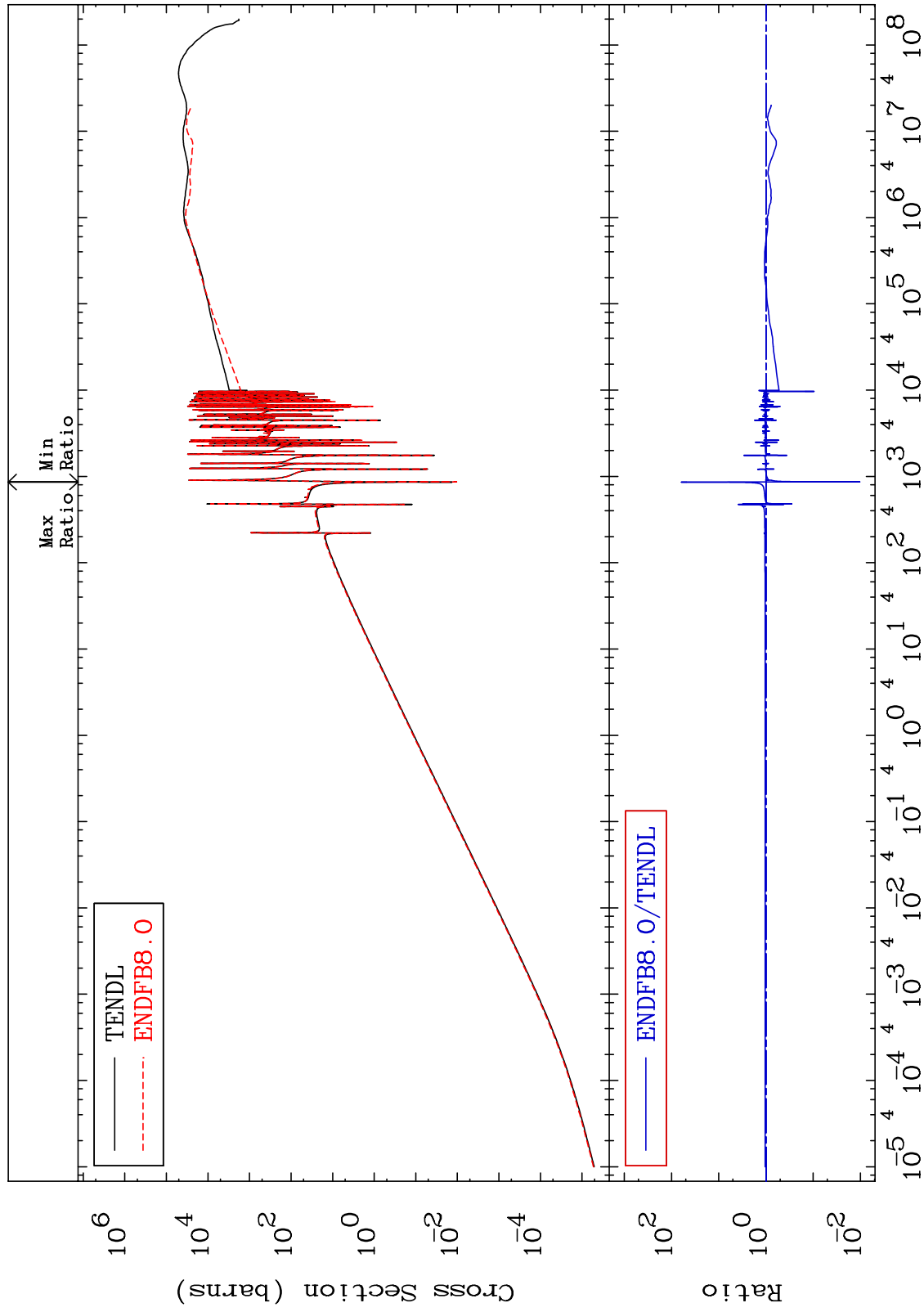
MAT 6449      Kerma total (eV-barns)      64-Gd-160  
 Cross Section      -90.38 To 290.6 %



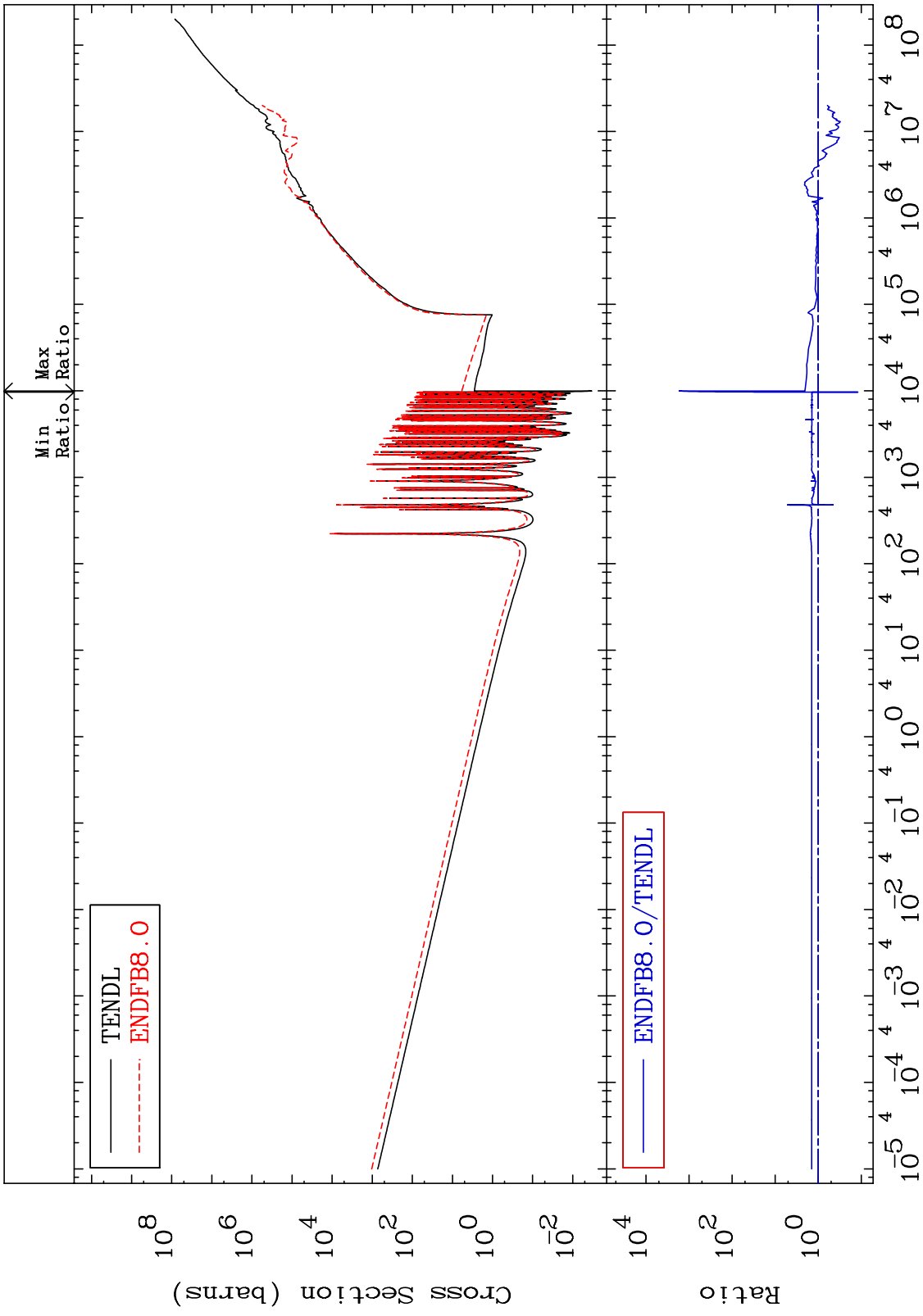
MAT 6449

Kerma elastic  
Cross Section

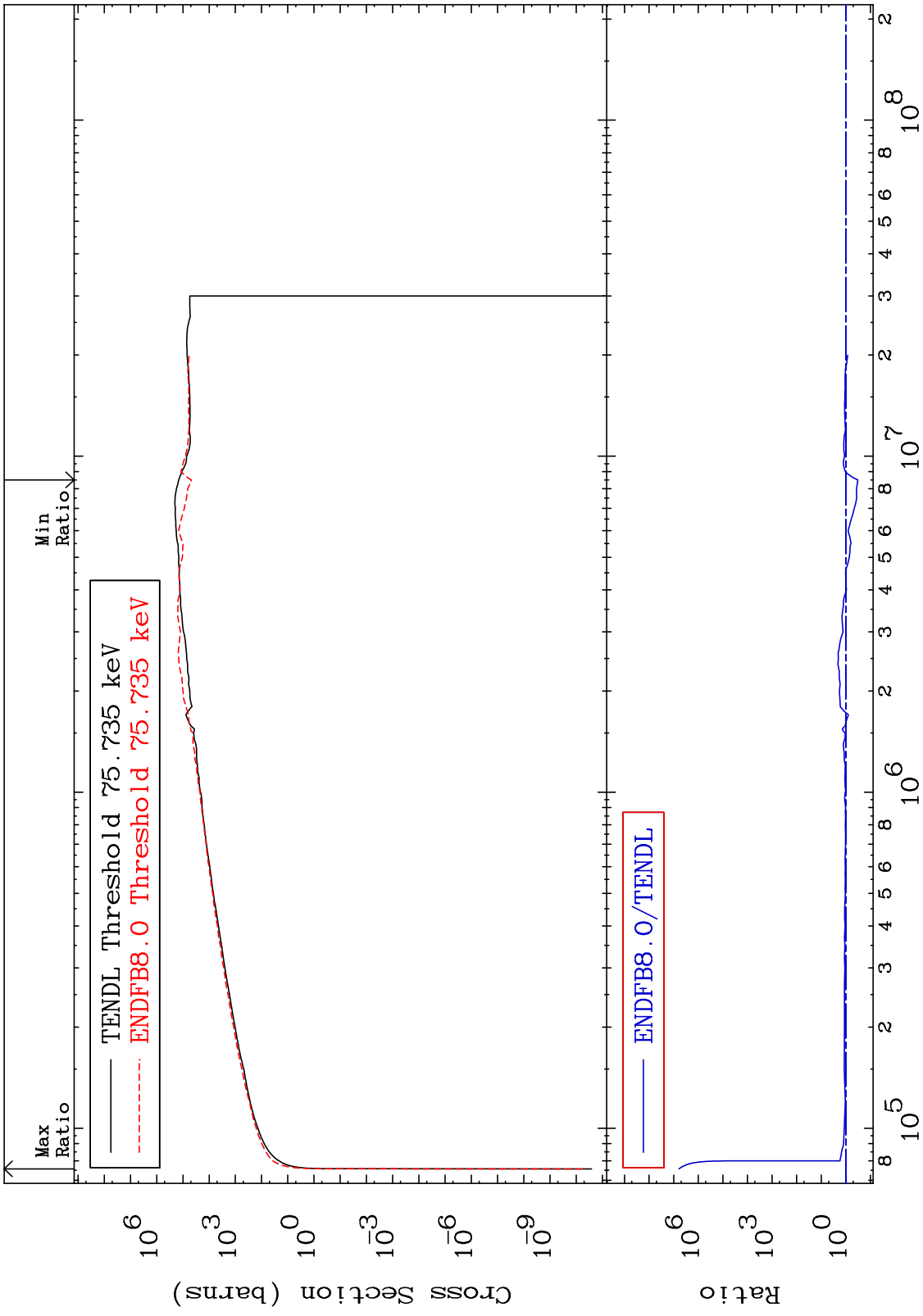
64-Gd-160  
-98.97 To 6059. %



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



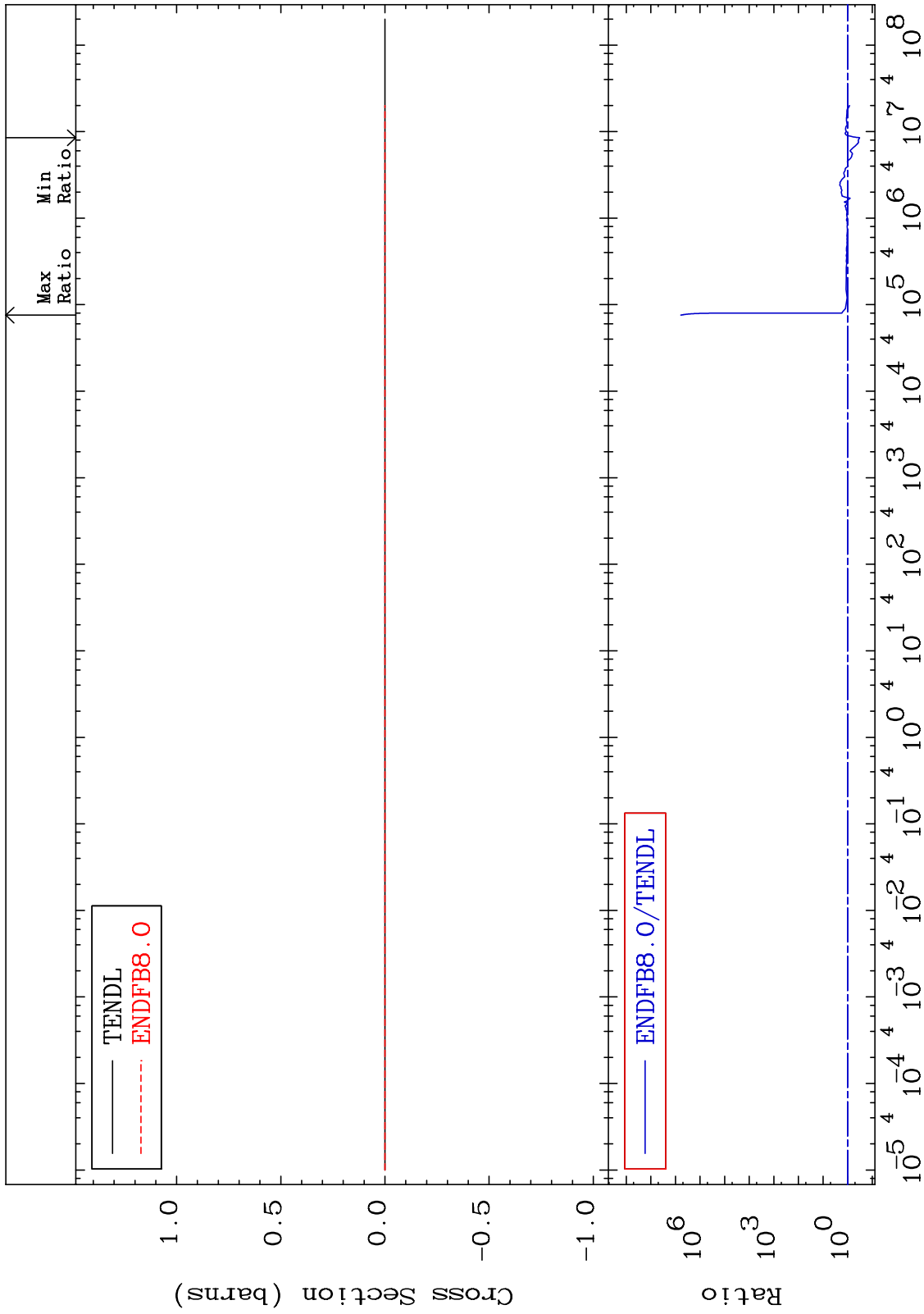
MAT 6449 Kerma inelastic (mt51-91) 64-Gd-160  
-67.36 To 9999. %



MAT 6449

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

64-Gd-160  
-67.36 To 9999. %



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Incident Energy (eV)

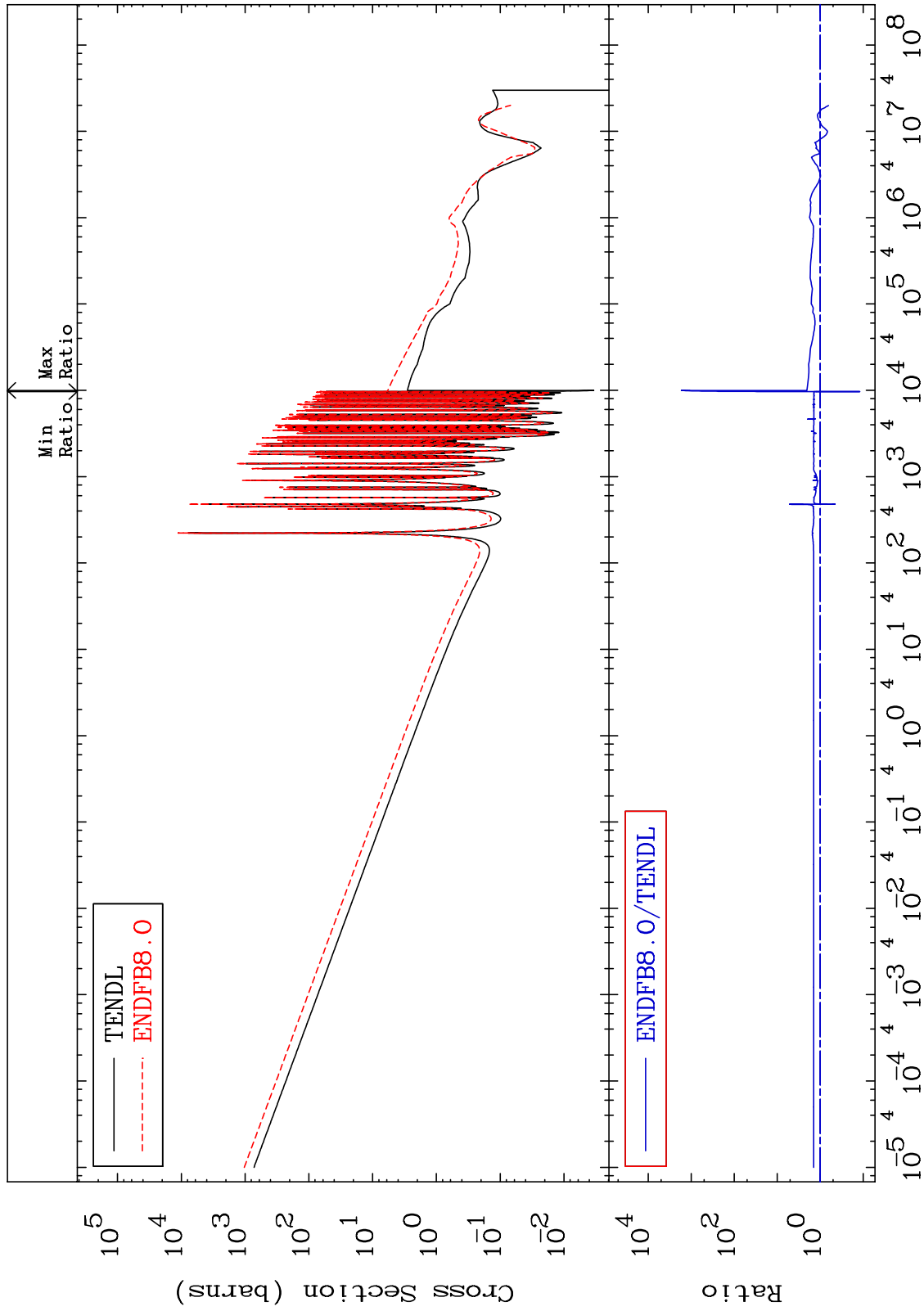
64-Gd-160



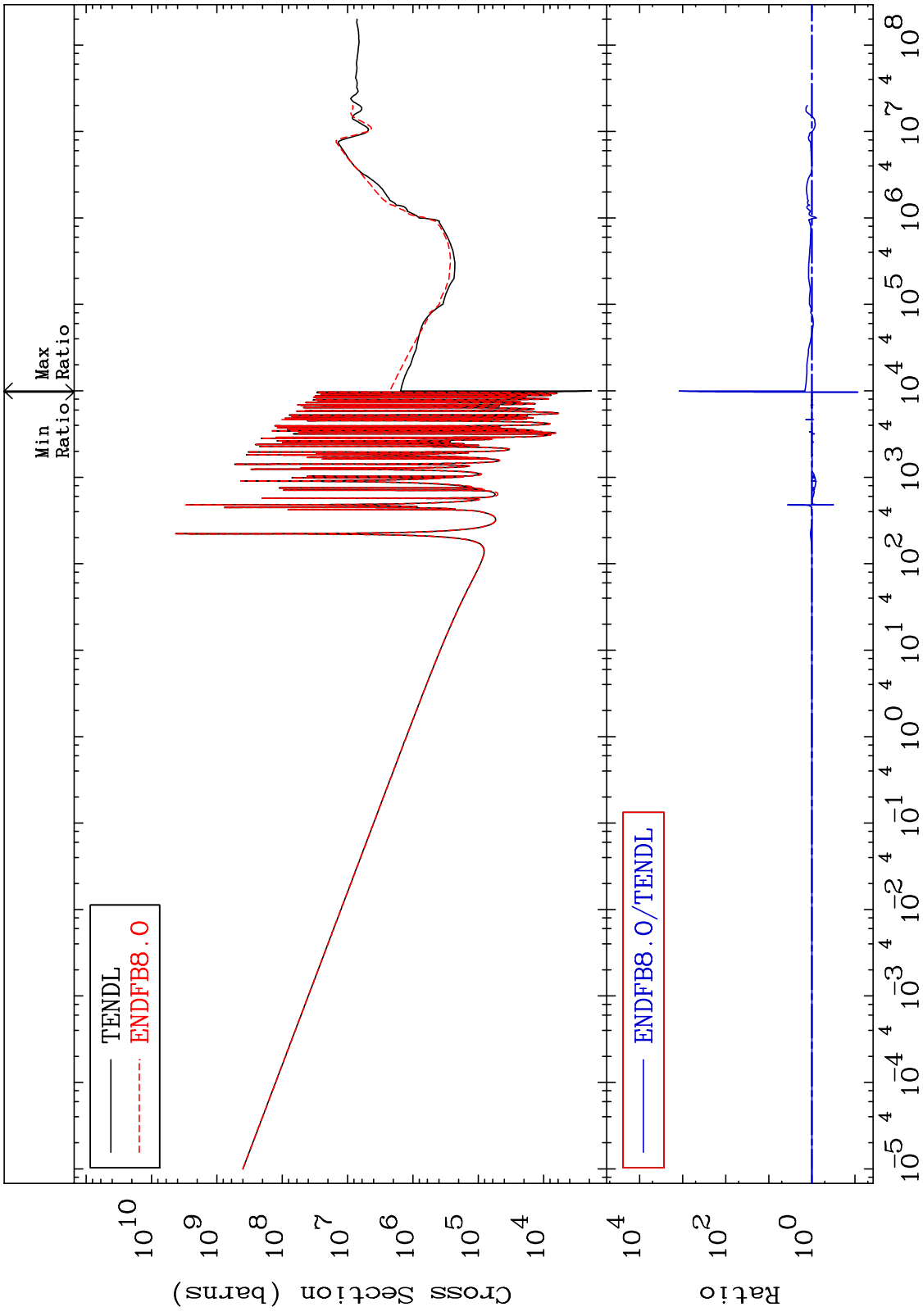
MAT 6449

Kerma capture (mt102)  
Cross Section

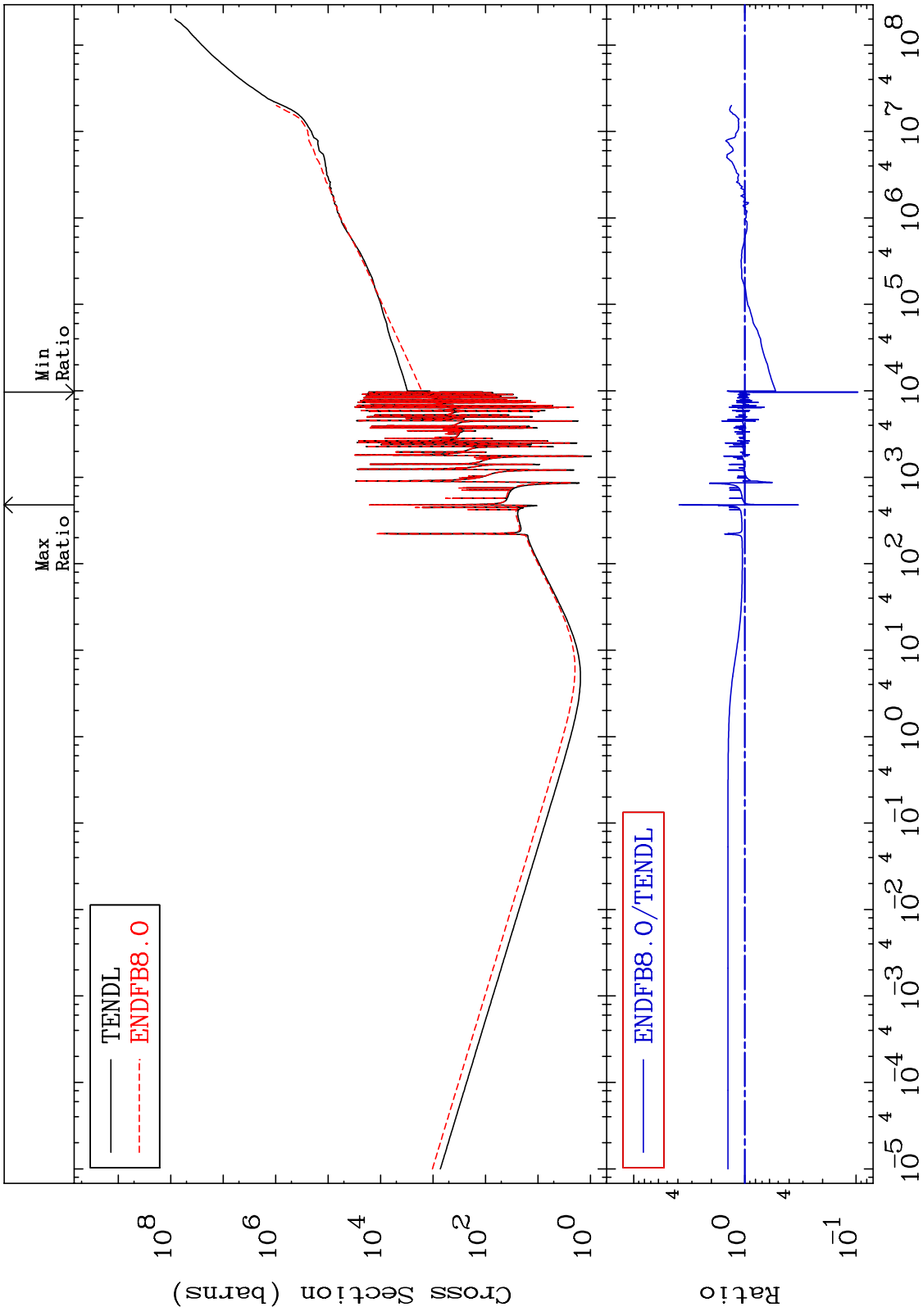
64-Gd-160  
-88.00 To 9999. %



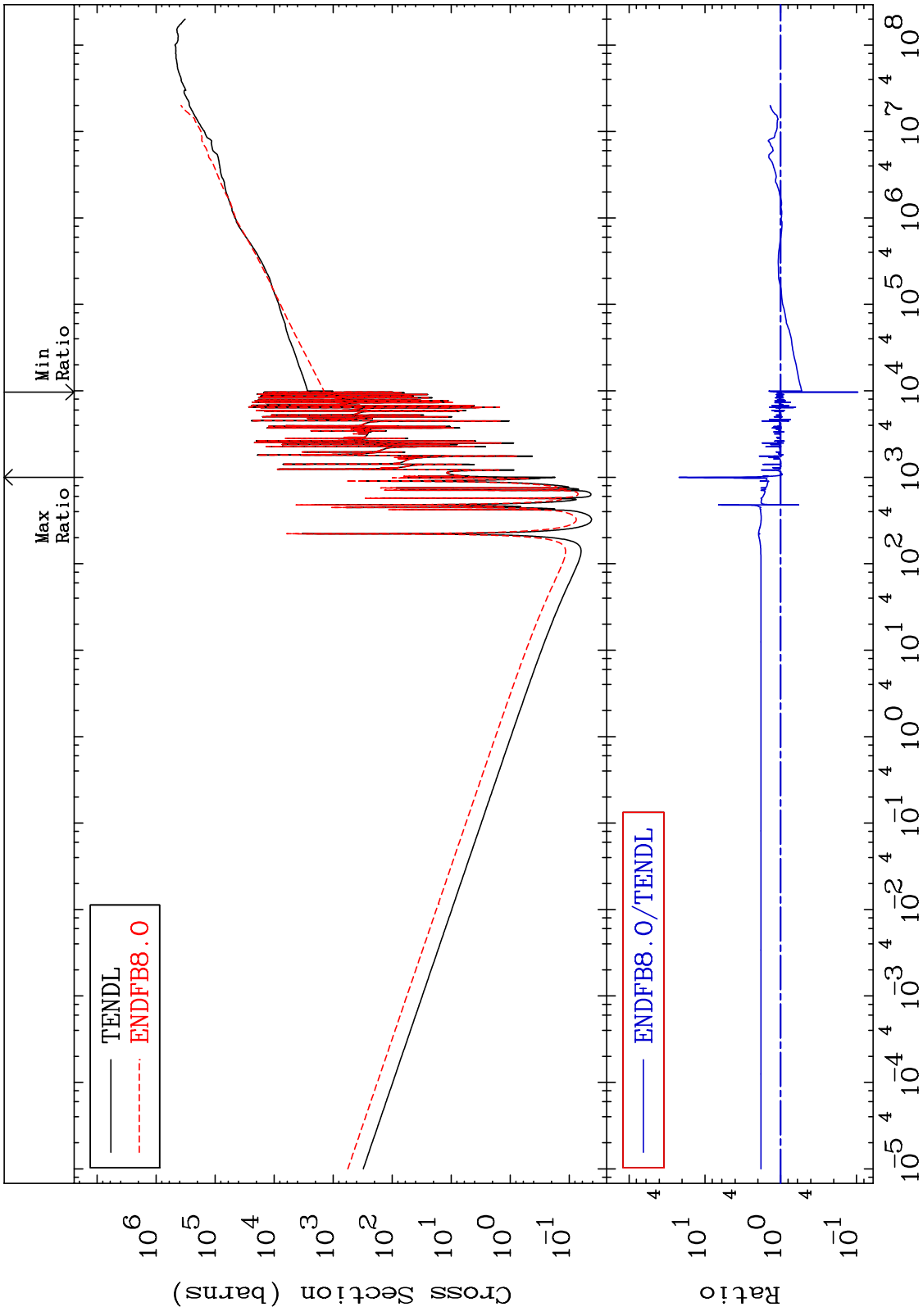
MAT 6449      Total photon (eV-barns) Cross Section      64-Gd-160  
 -91.44 To 9999. %



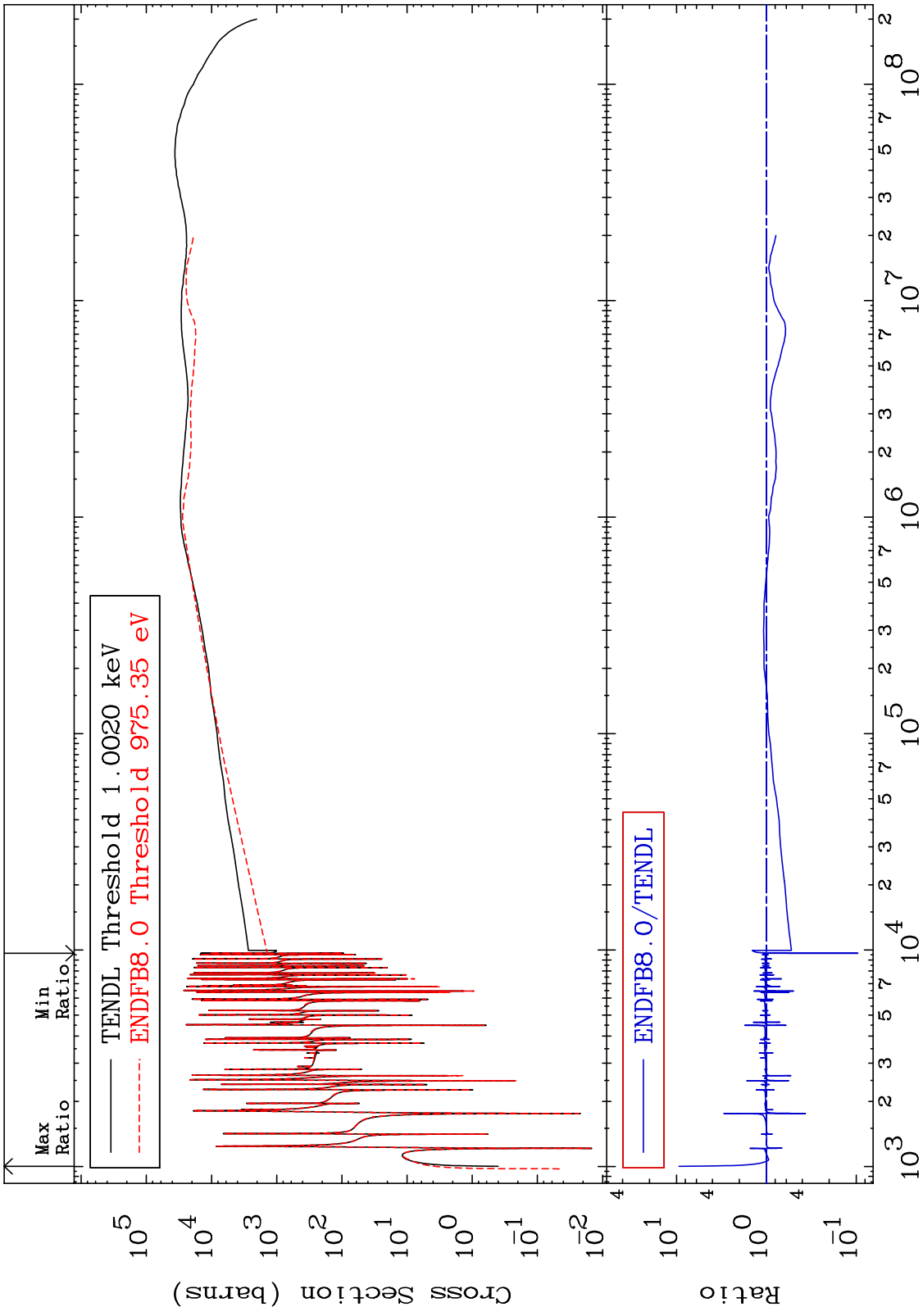
MAT 6449      Total kinematic kerma (high limit)      64-Gd-160  
Cross Section      -90.38 To 290.6 %



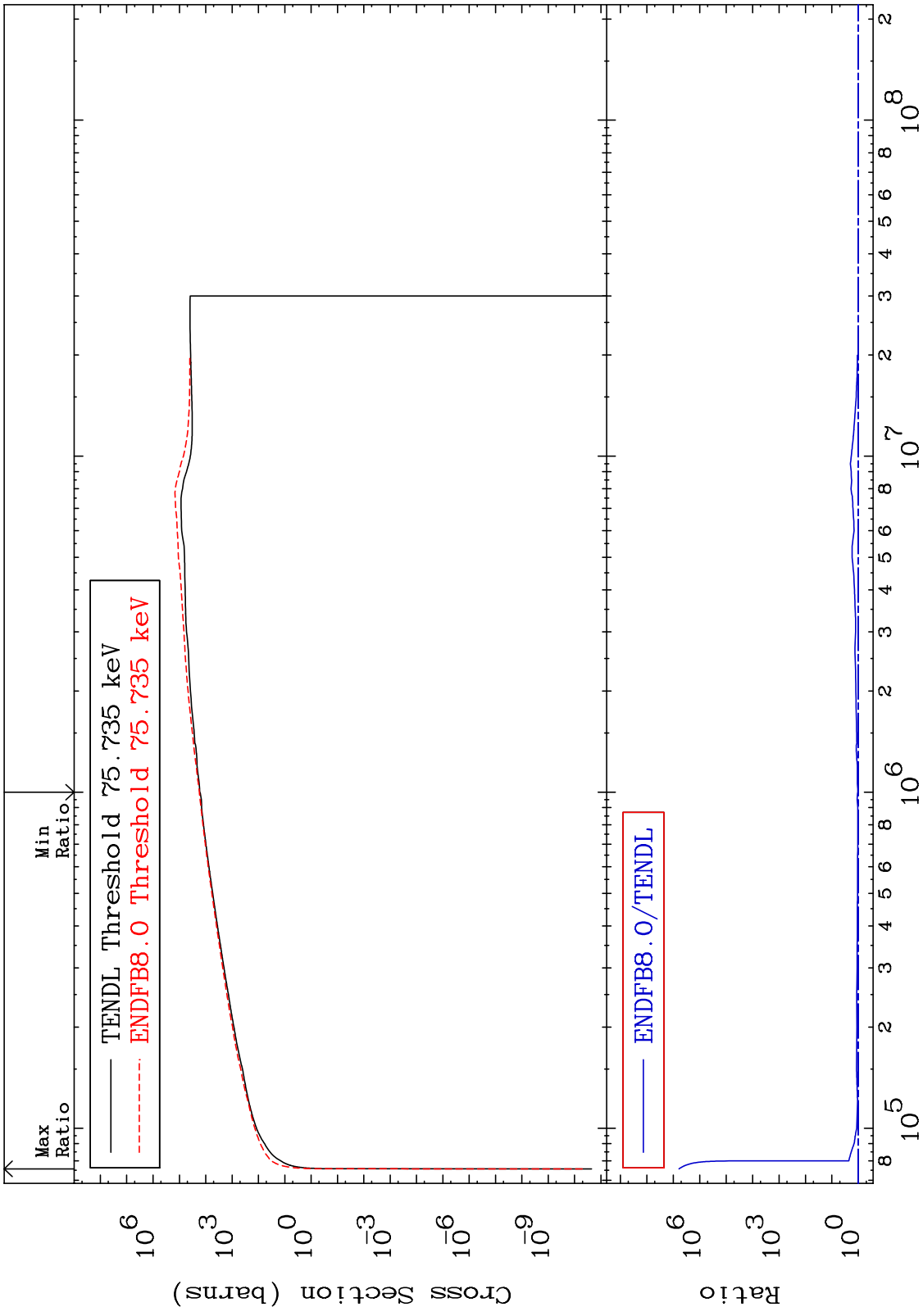
MAT 6449      Dpa total (eV-barns)      64-Gd-160  
 Cross Section      -90.39 To 2092. %



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



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. %

