

Program Complot  
(Version 2018-1)

by

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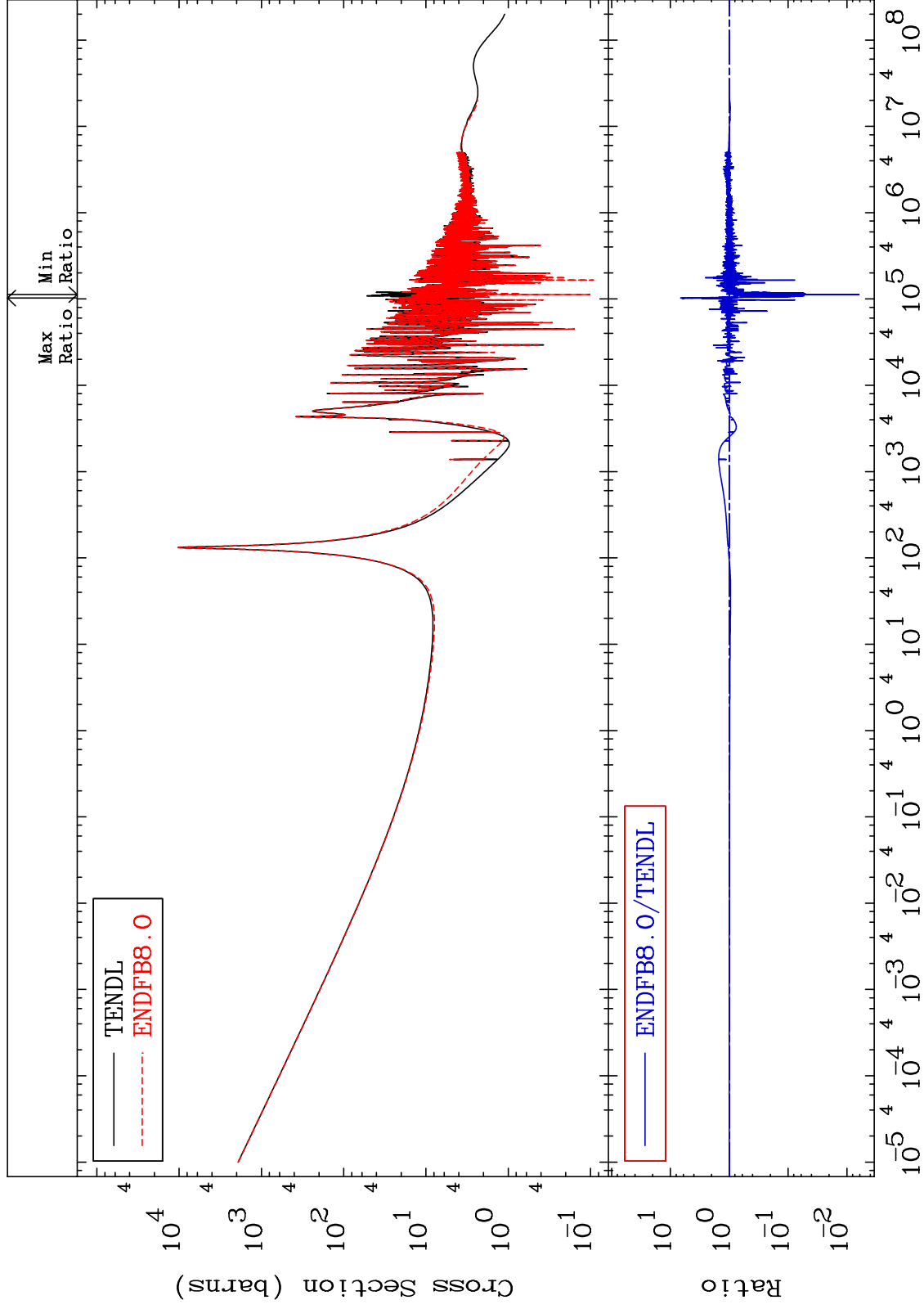
E.Mail: [redcullen1@comcast.net](mailto:redcullen1@comcast.net)  
Web: [redcullen1.net/HOMEPAGE.NEW](http://redcullen1.net/HOMEPAGE.NEW)

Press Mouse Button to Start

MAT 2725

Total  
Cross Section

27-Co-59  
-99.38 To 569.9 %



1

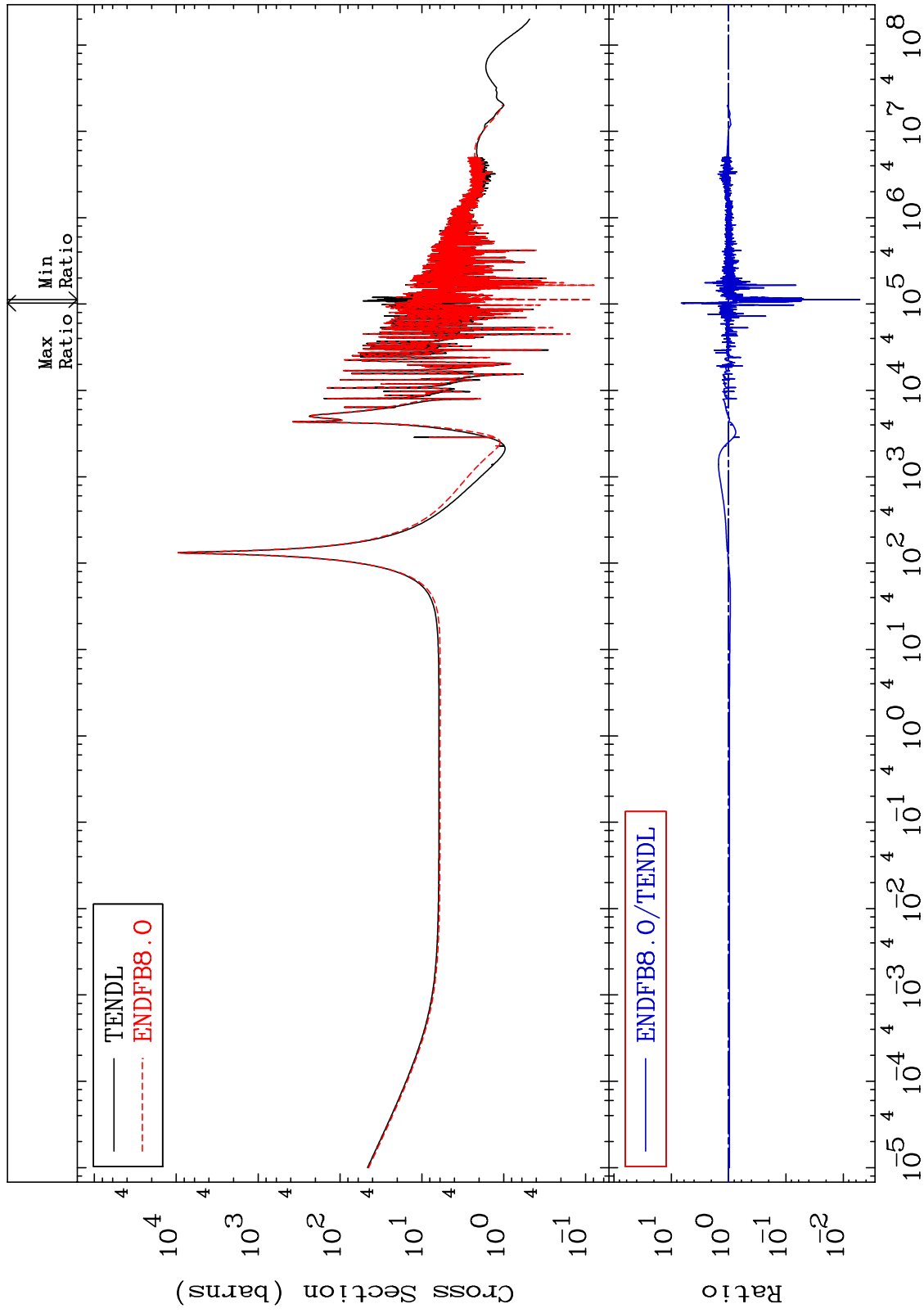
Incident Energy (eV)

27-Co-59

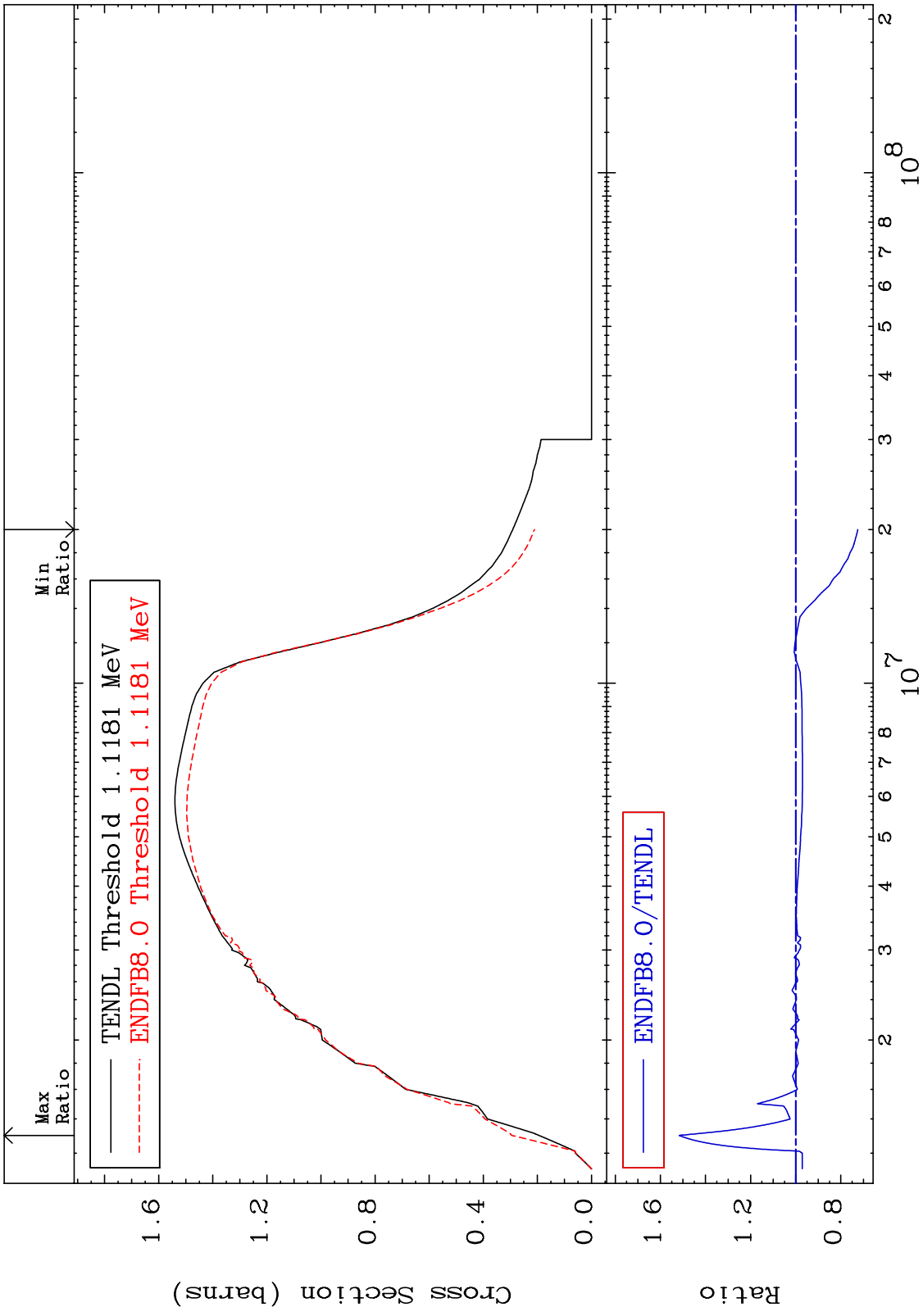
MAT 2725

Elastic  
Cross Section

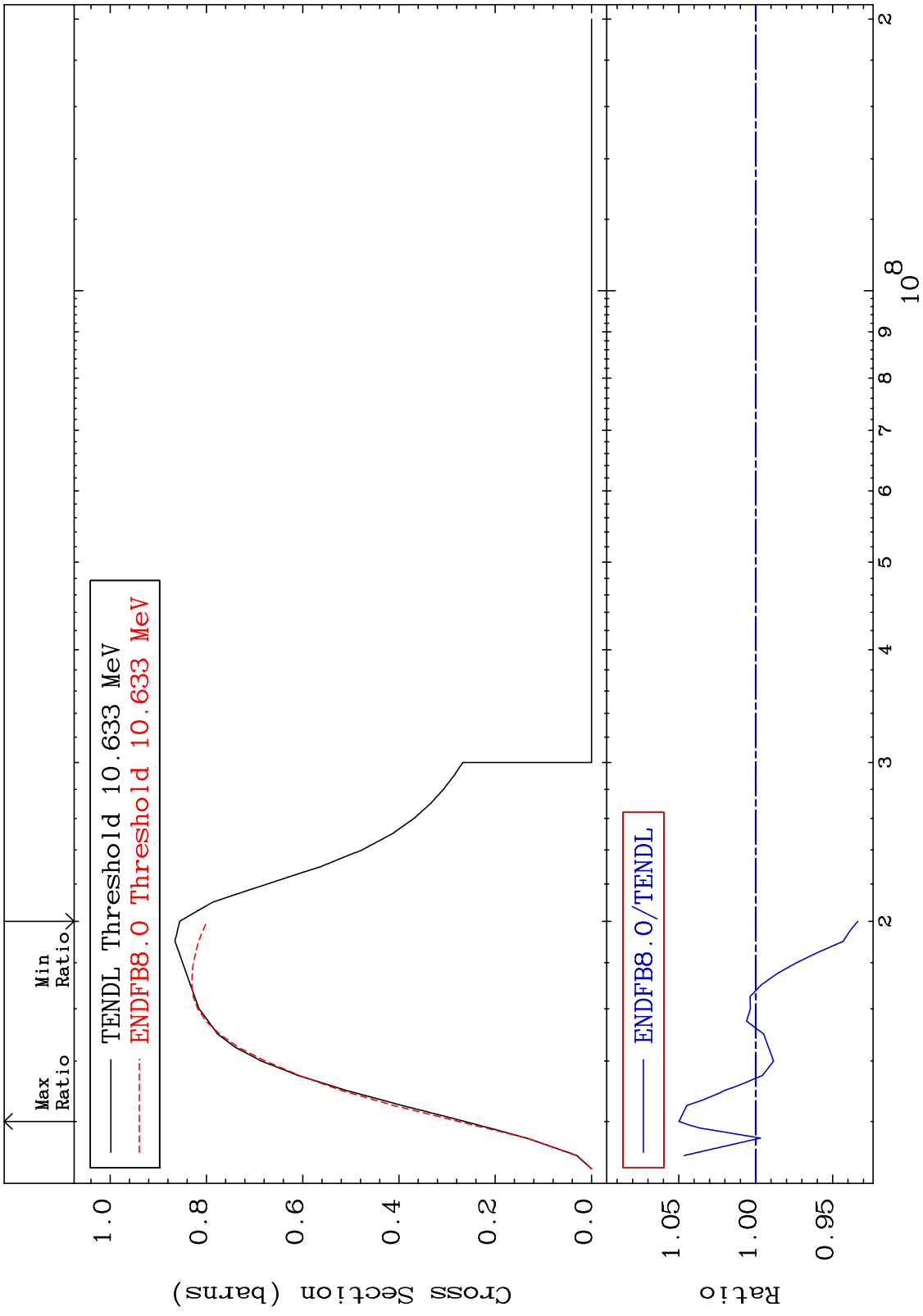
27-Co-59  
-99.48 To 569.6 %



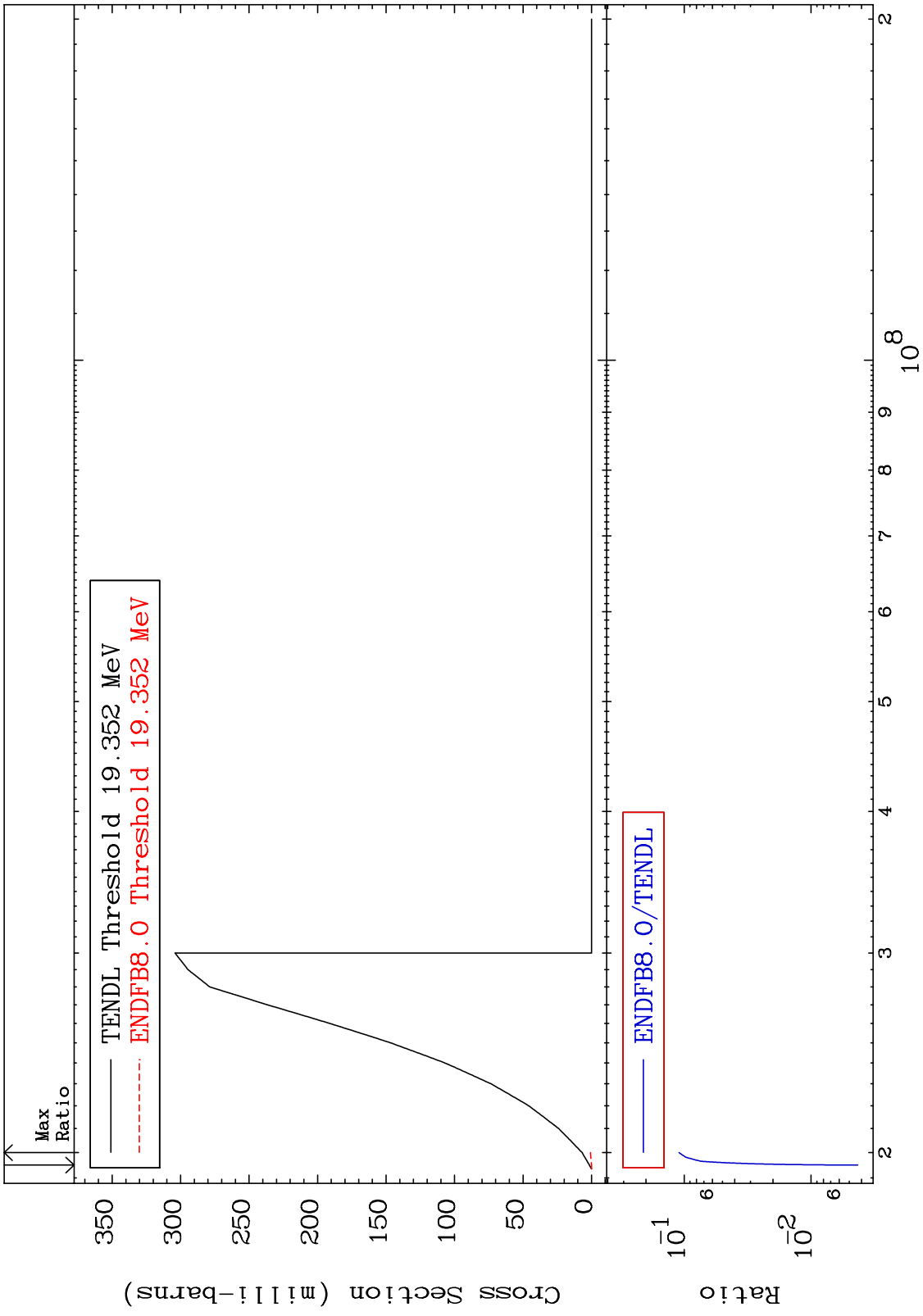
MAT 2725 Inelastic Cross Section 27-Co-59 -27.53 To 51.73 %



MAT 2725  $(n,2n)$  Cross Section  $^{27}\text{Co-59}$  -6.638 To 4.981 %



MAT 2725 (n,3n) Cross Section 27-Co-59 -99.57 To -89.02%



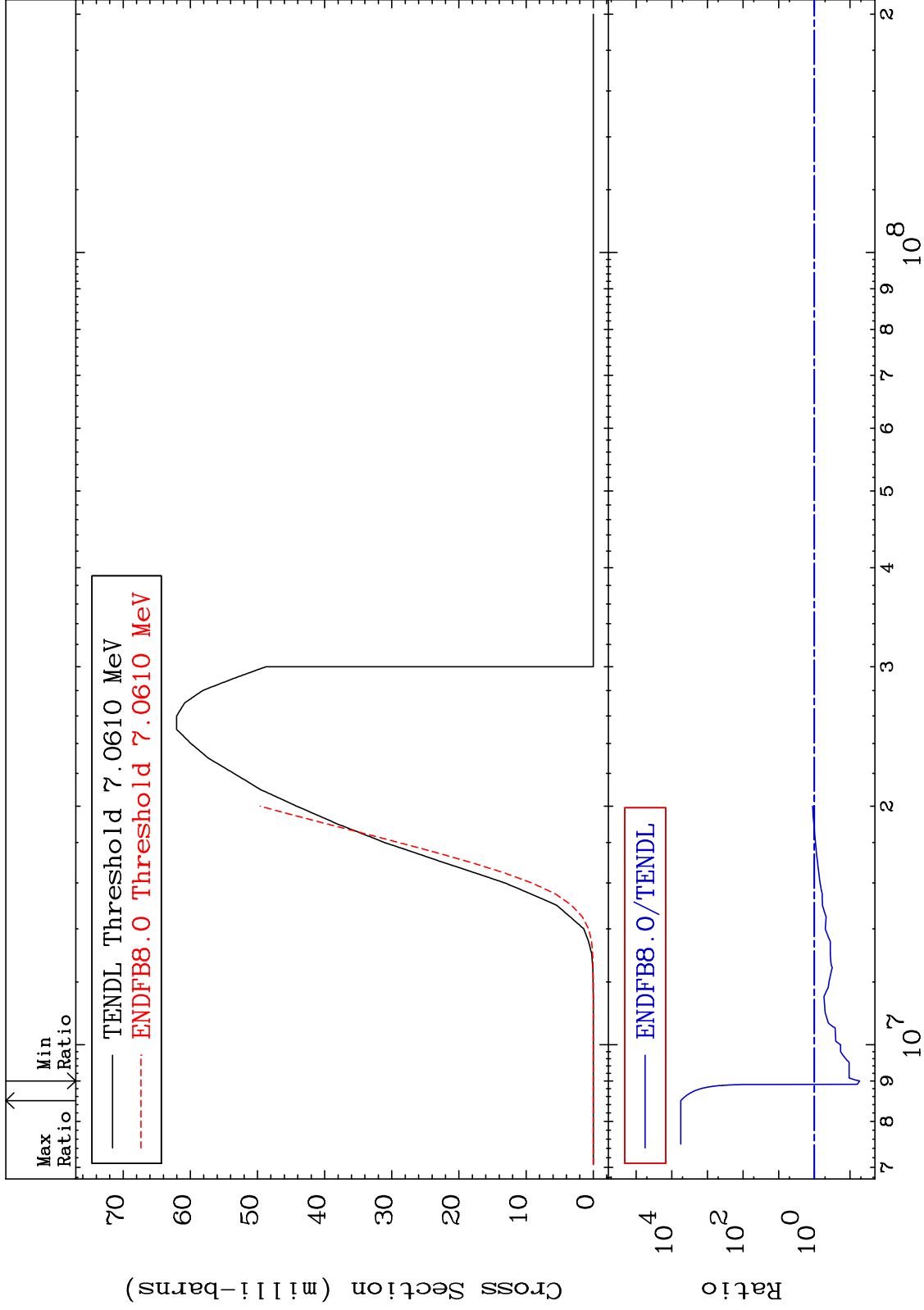
MAT 2725

(n,n')  $\alpha$

27-Co-59

Cross Section

-94.61 To 9999. %

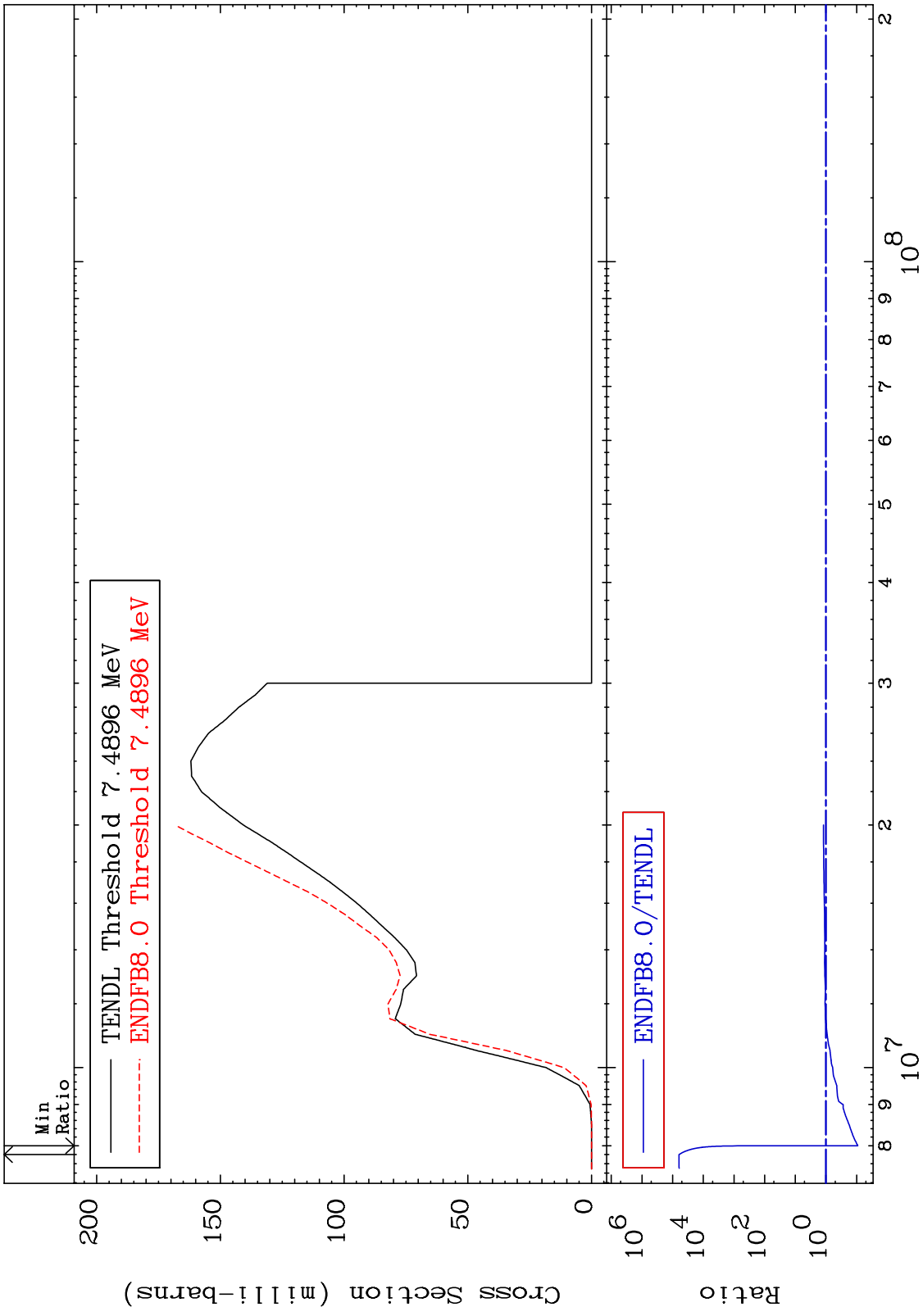


6

Incident Energy (eV)

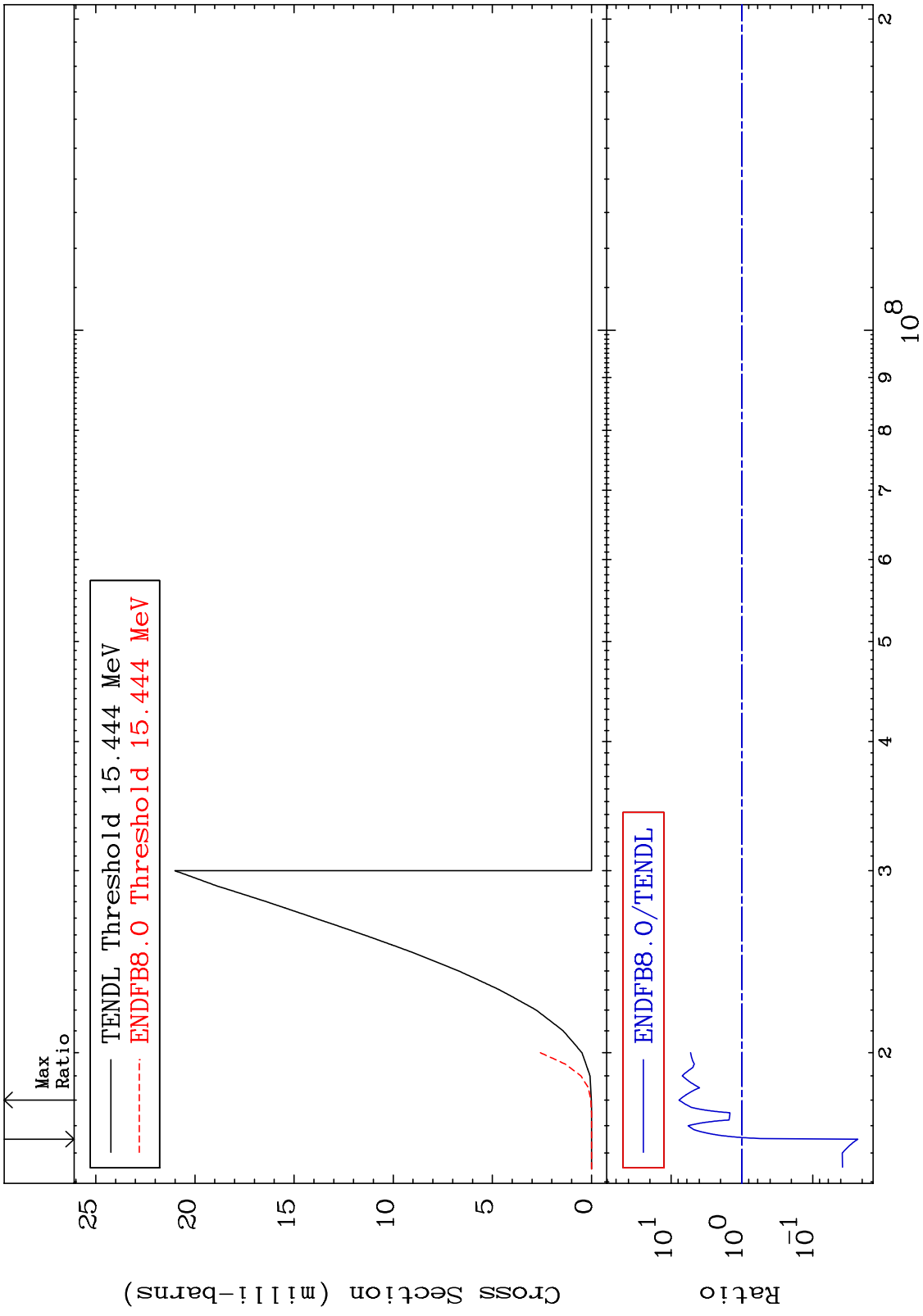
27-Co-59

MAT 2725 (n,n') p 27-Co-59  
 Cross Section -90.88 To 9999. %



7 27-Co-59

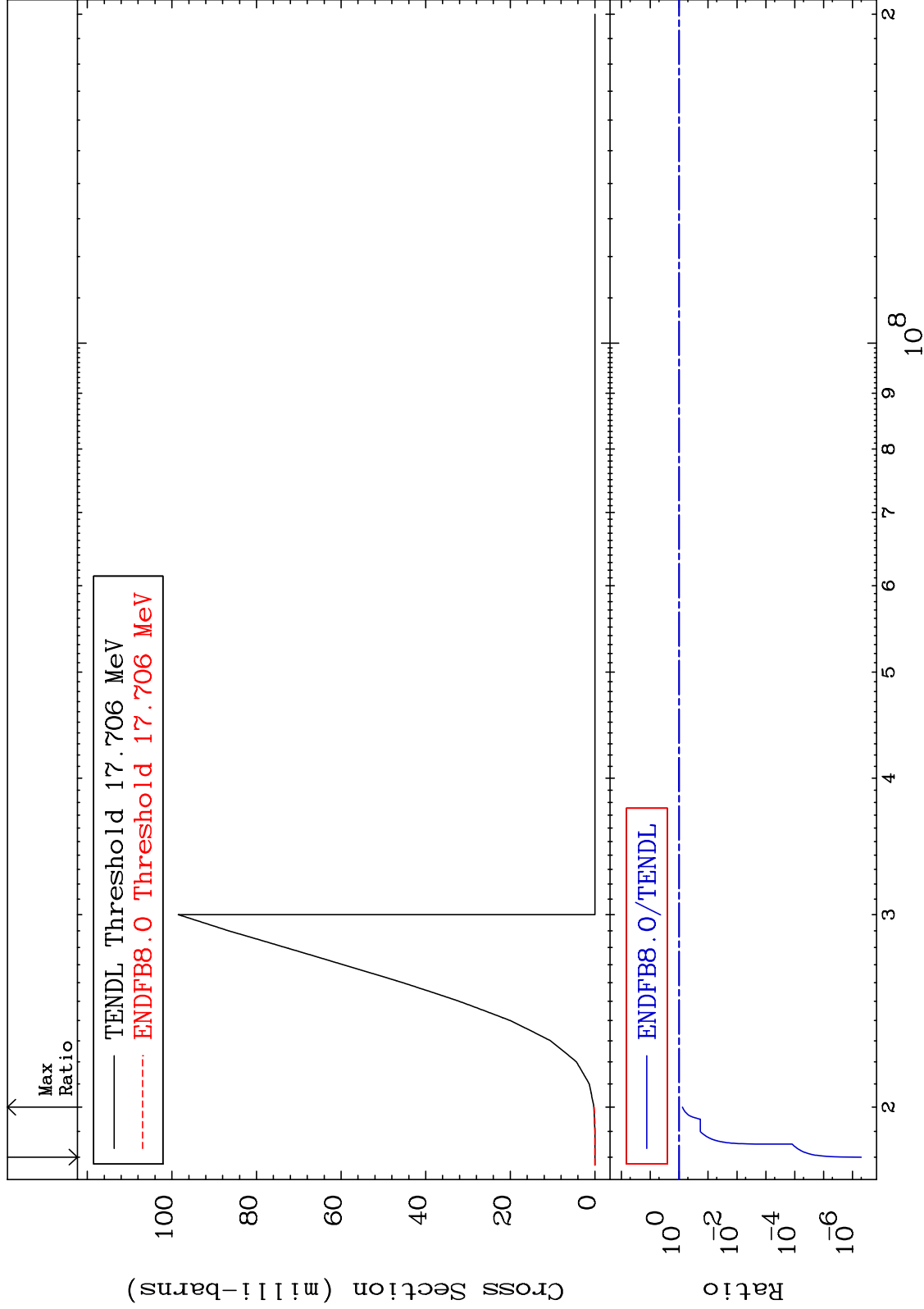




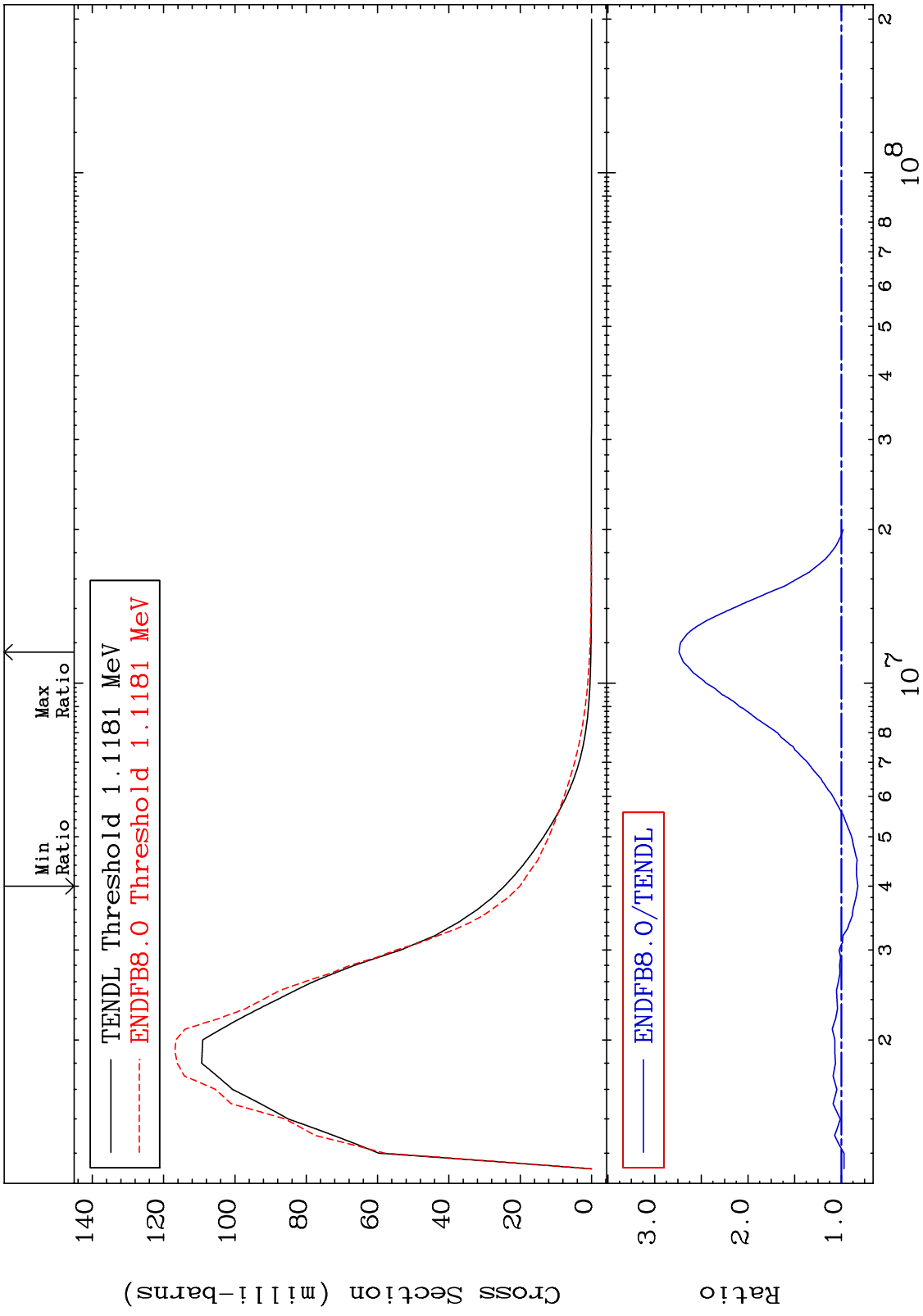
MAT 2725

(n,2n) p  
Cross Section

<sup>27</sup>Co-59  
-100.0 To -23.00%

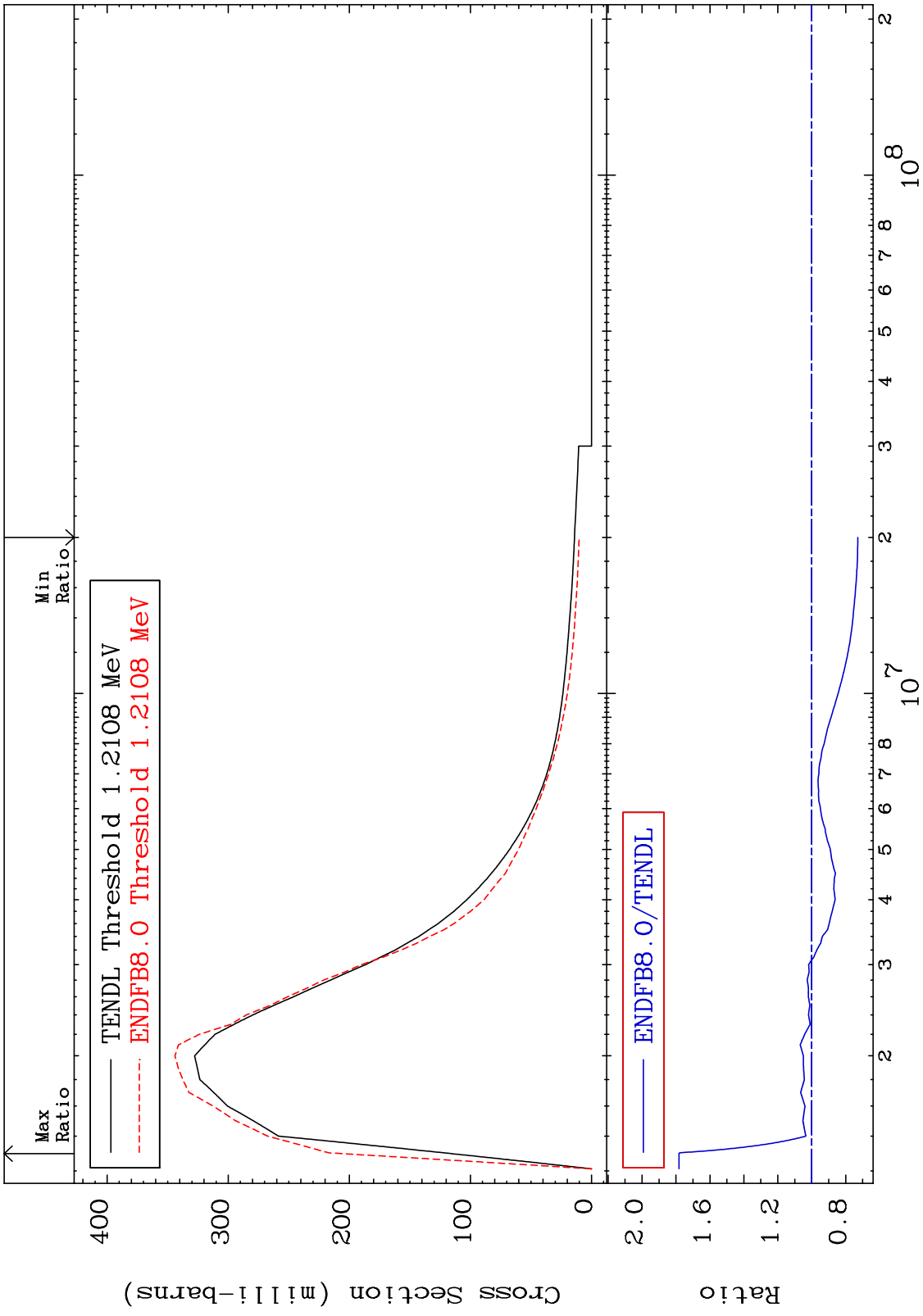


MAT 2725 MT= 51 (n,n') Level Cross Section -17.72 To 173.8 % 27-Co-59

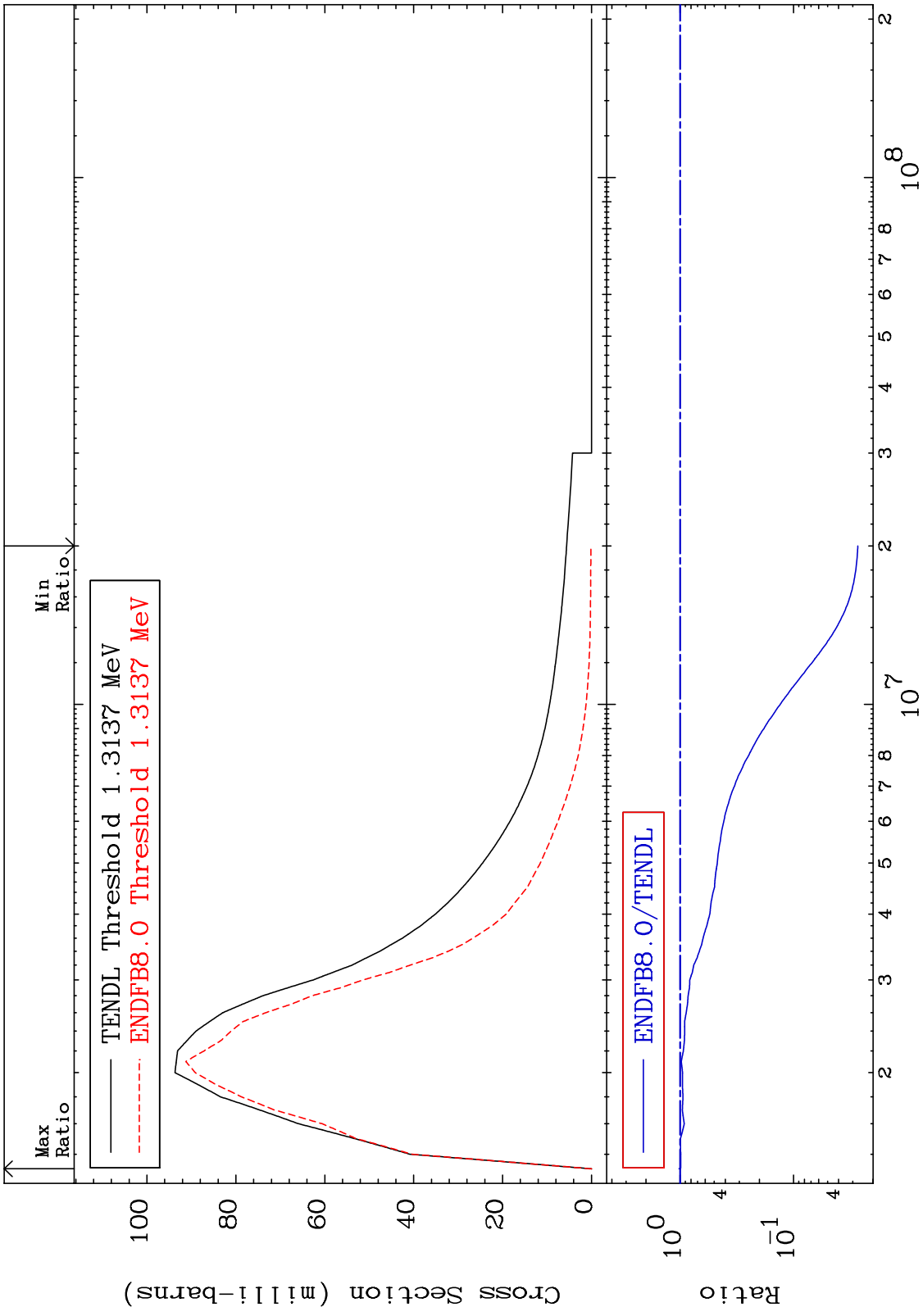


10 Incident Energy (eV) 27-Co-59

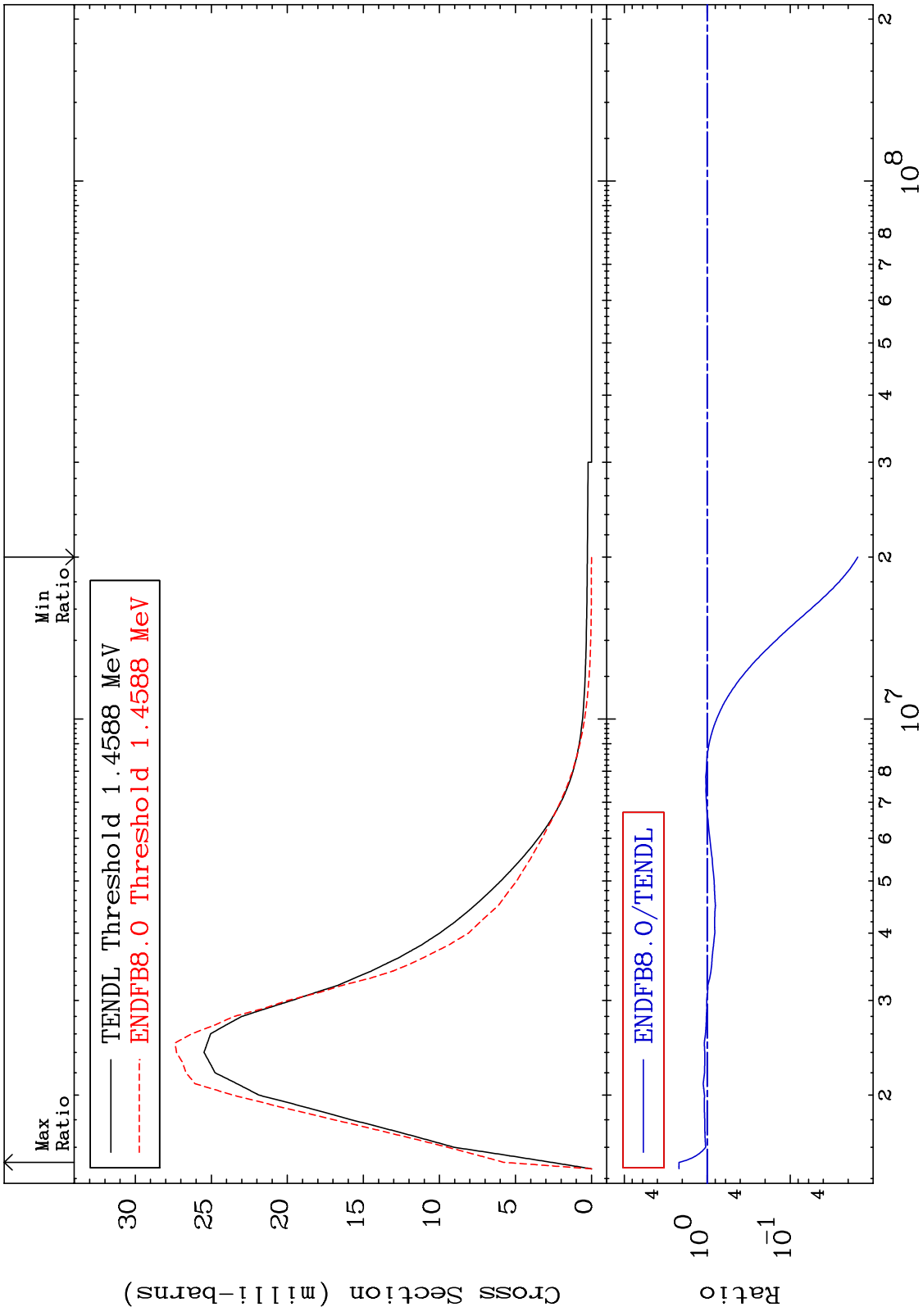
MAT 2725 MT= 52 (n,n') Level Cross Section -27.18 To 78.20 % 27-Co-59



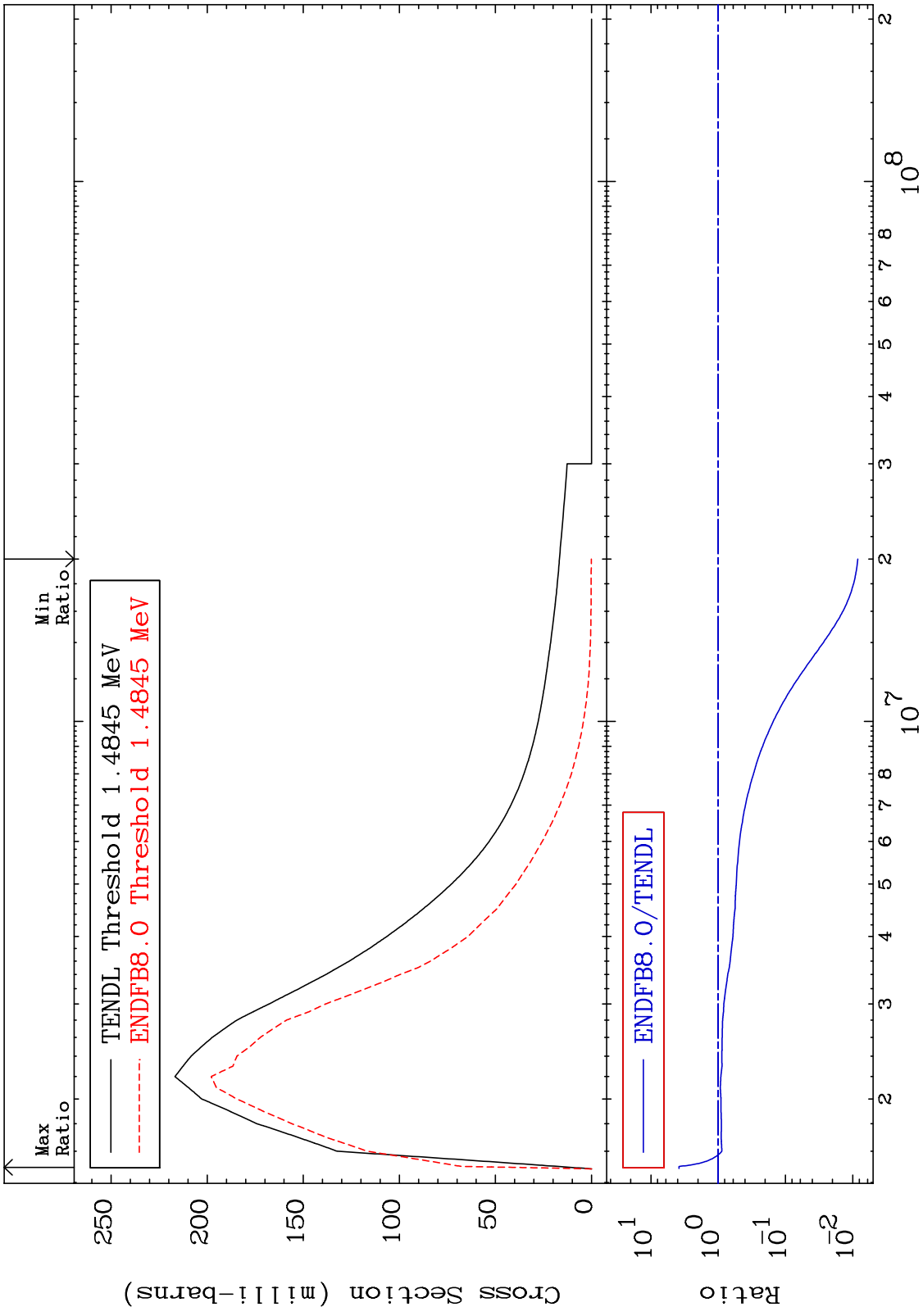
MAT 2725 MT= 53 (n,n') Level Cross Section -97.29 To 2.154 % 27-Co-59



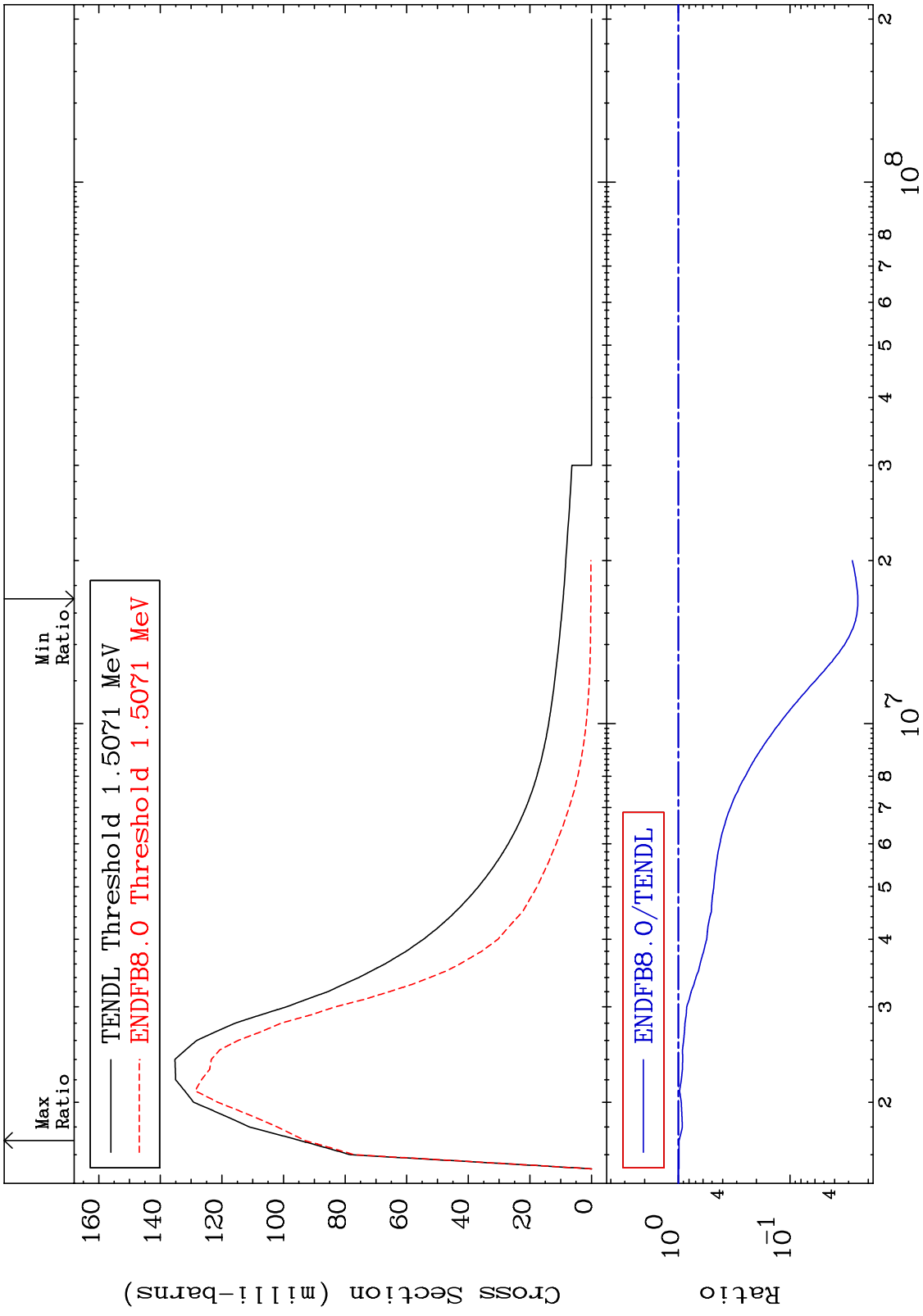
MAT 2725      MT= 54 (n,n') Level Cross Section      27-Co-59  
 -98.47 To 118.5 %



MAT 2725      MT= 55 (n,n') Level Cross Section      27-Co-59  
 -99.16 To 282.1 %

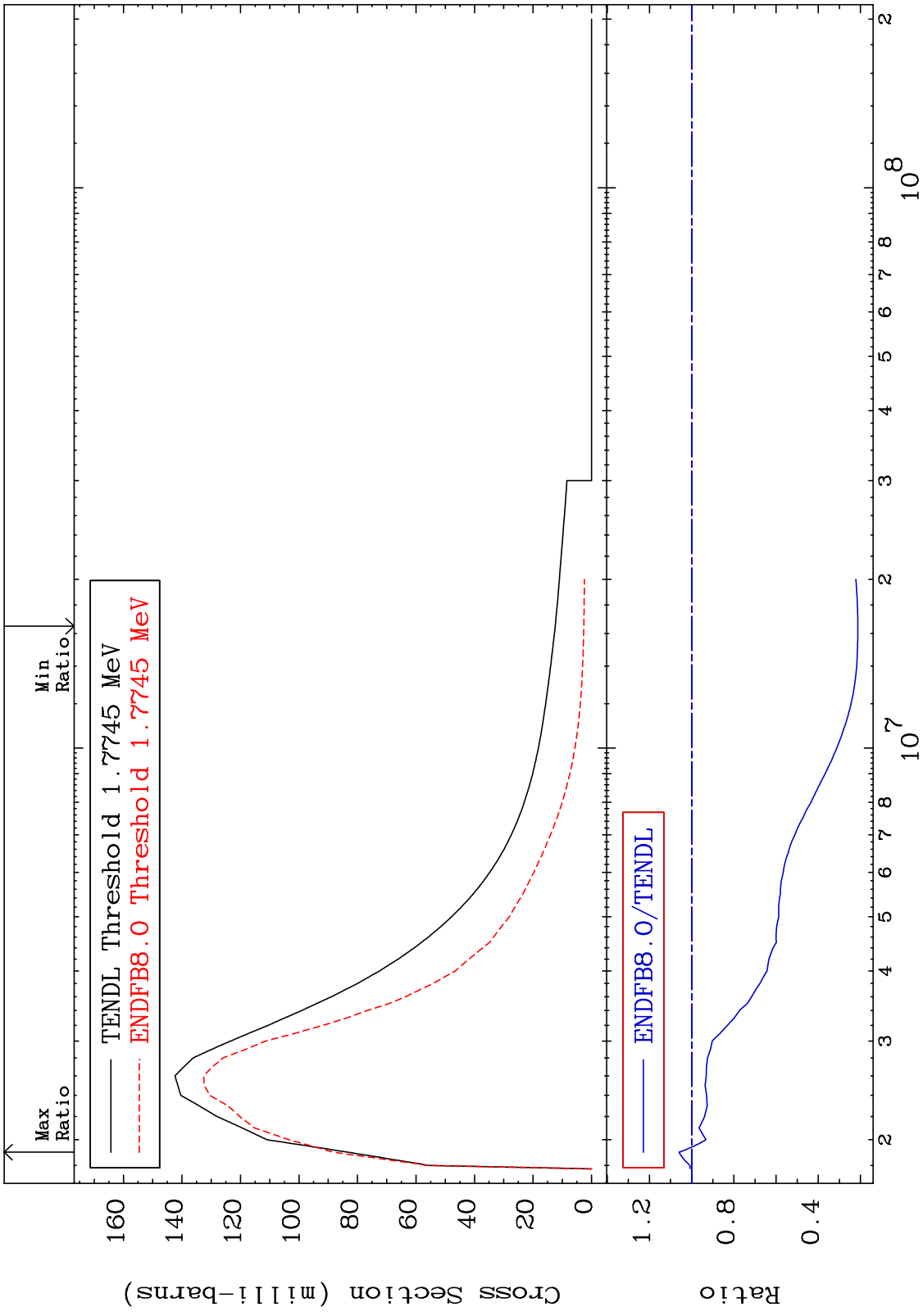


MAT 2725 MT= 56 (n,n') Level Cross Section -97.52 To -1.659% 27-Co-59

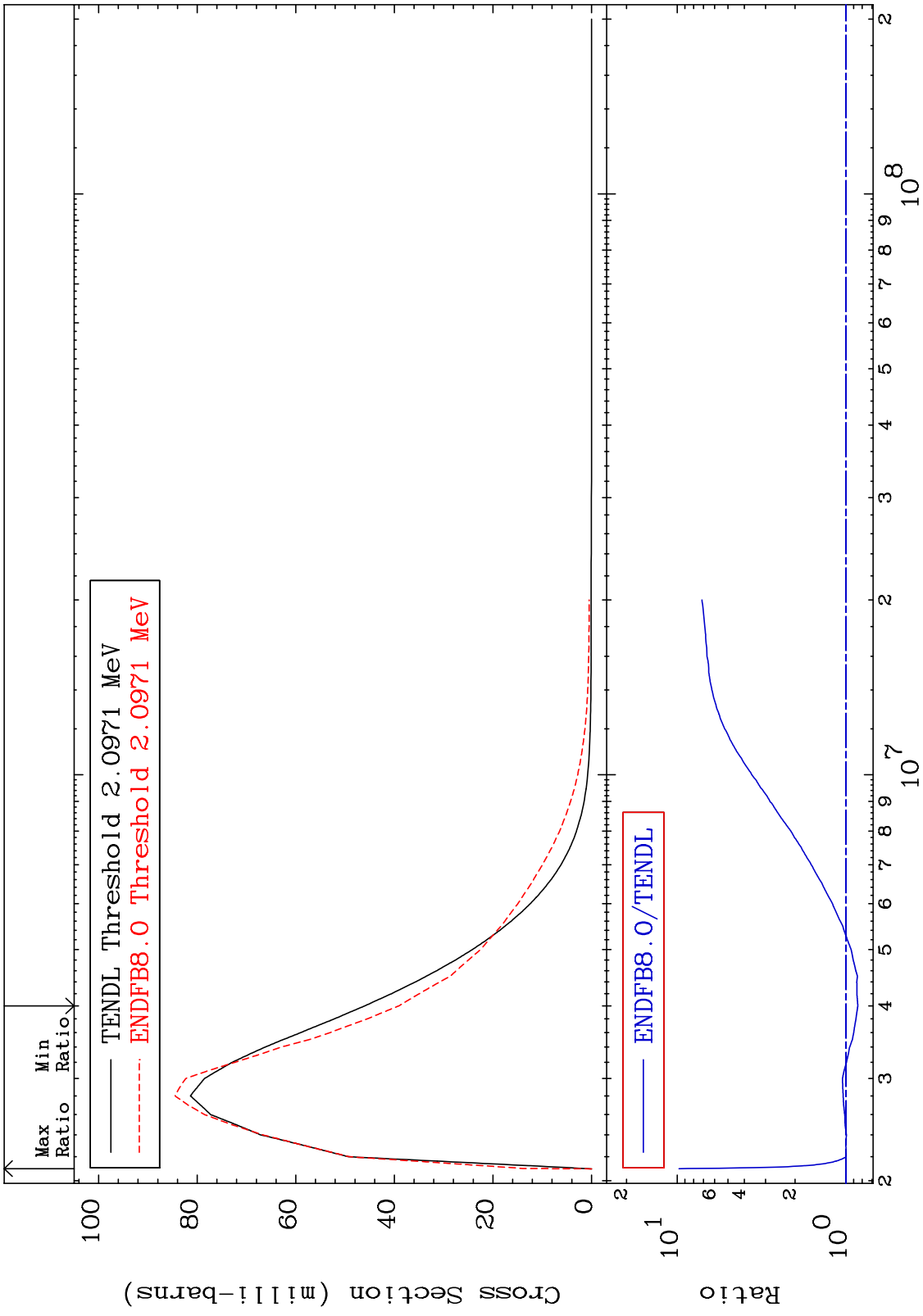




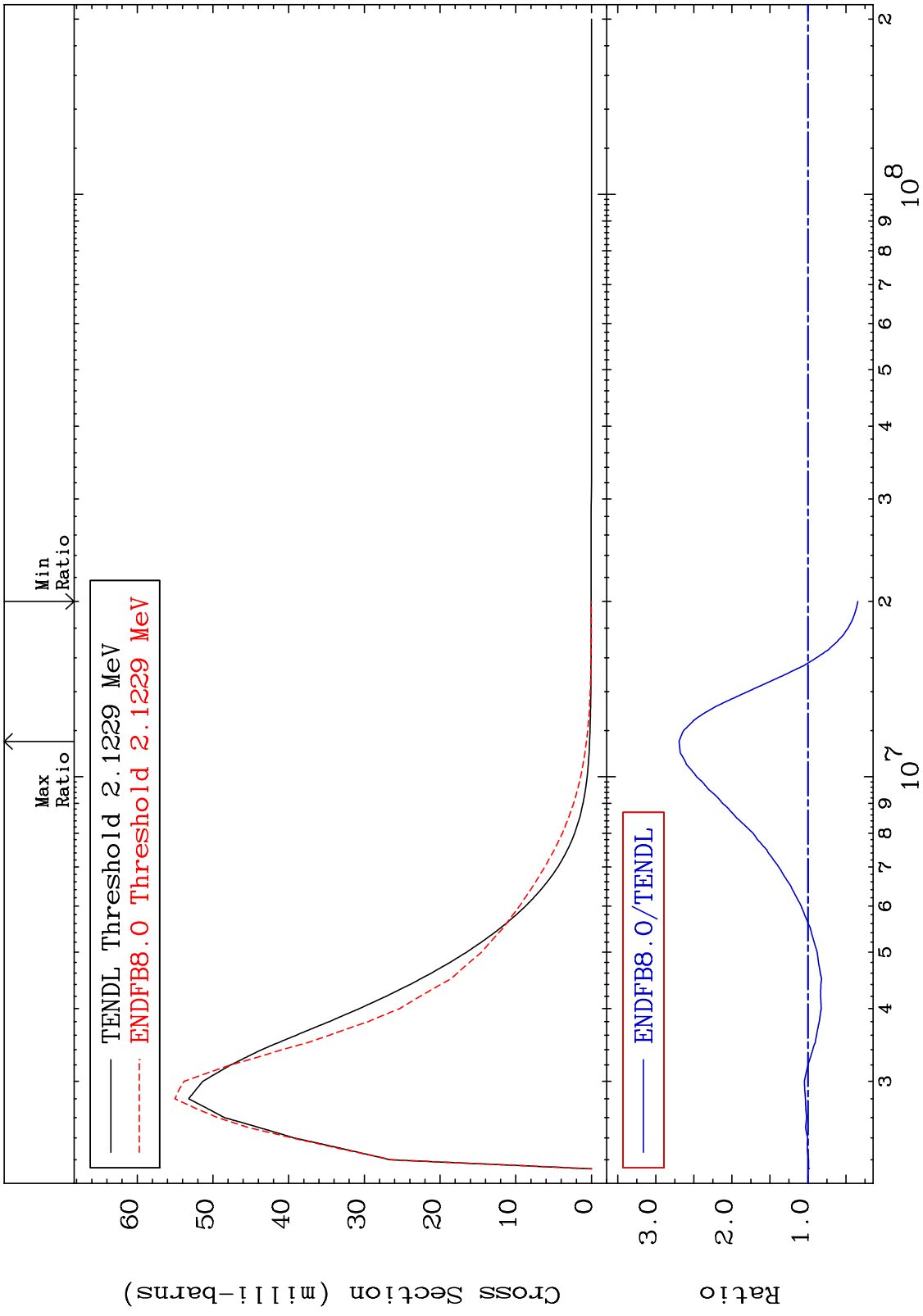
MAT 2725 MT= 57 (n,n') Level Cross Section -78.74 To 5.978 % 27-Co-59



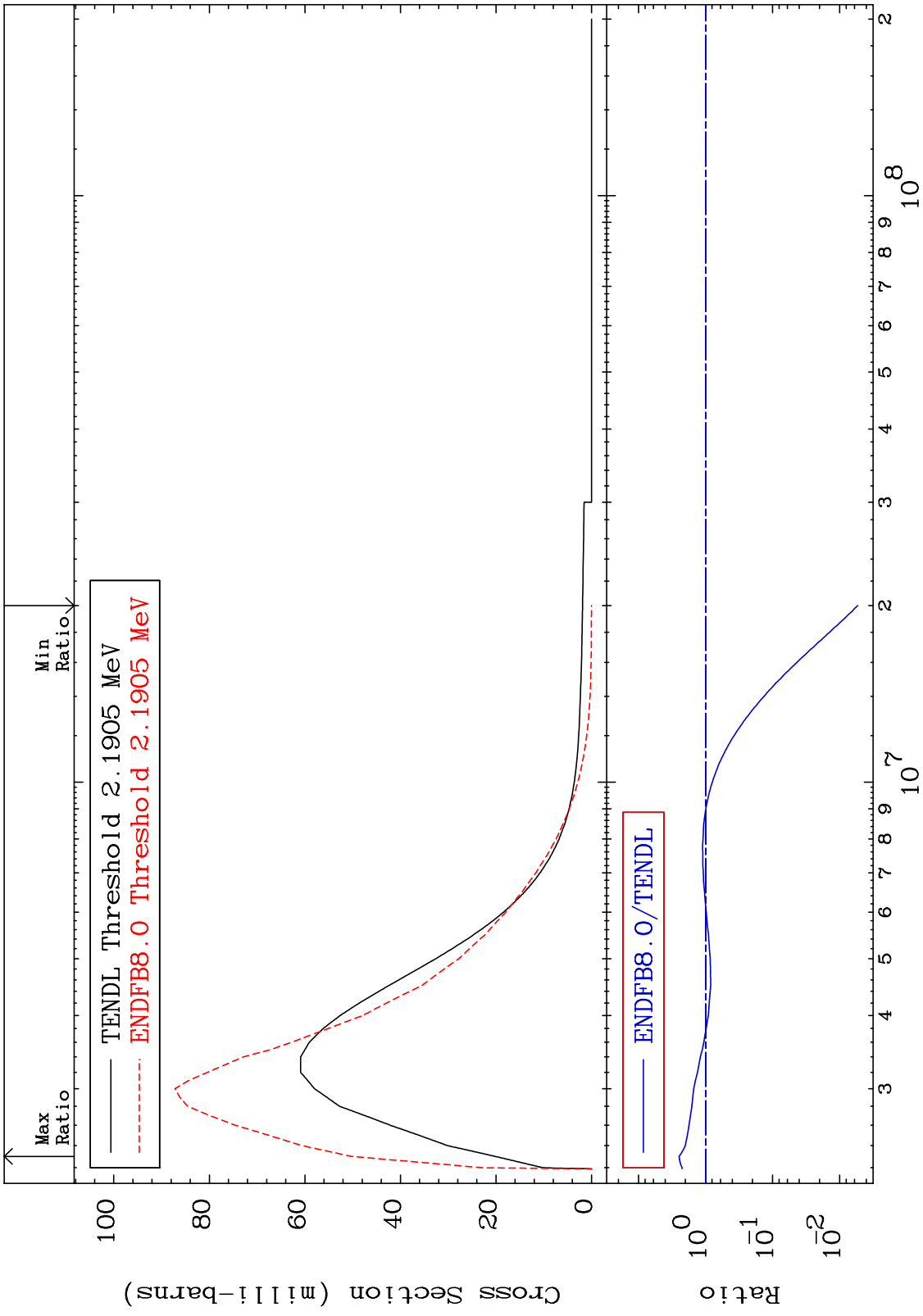
MAT 2725 MT= 58 (n,n') Level Cross Section -15.02 To 875.7 % 27-Co-59



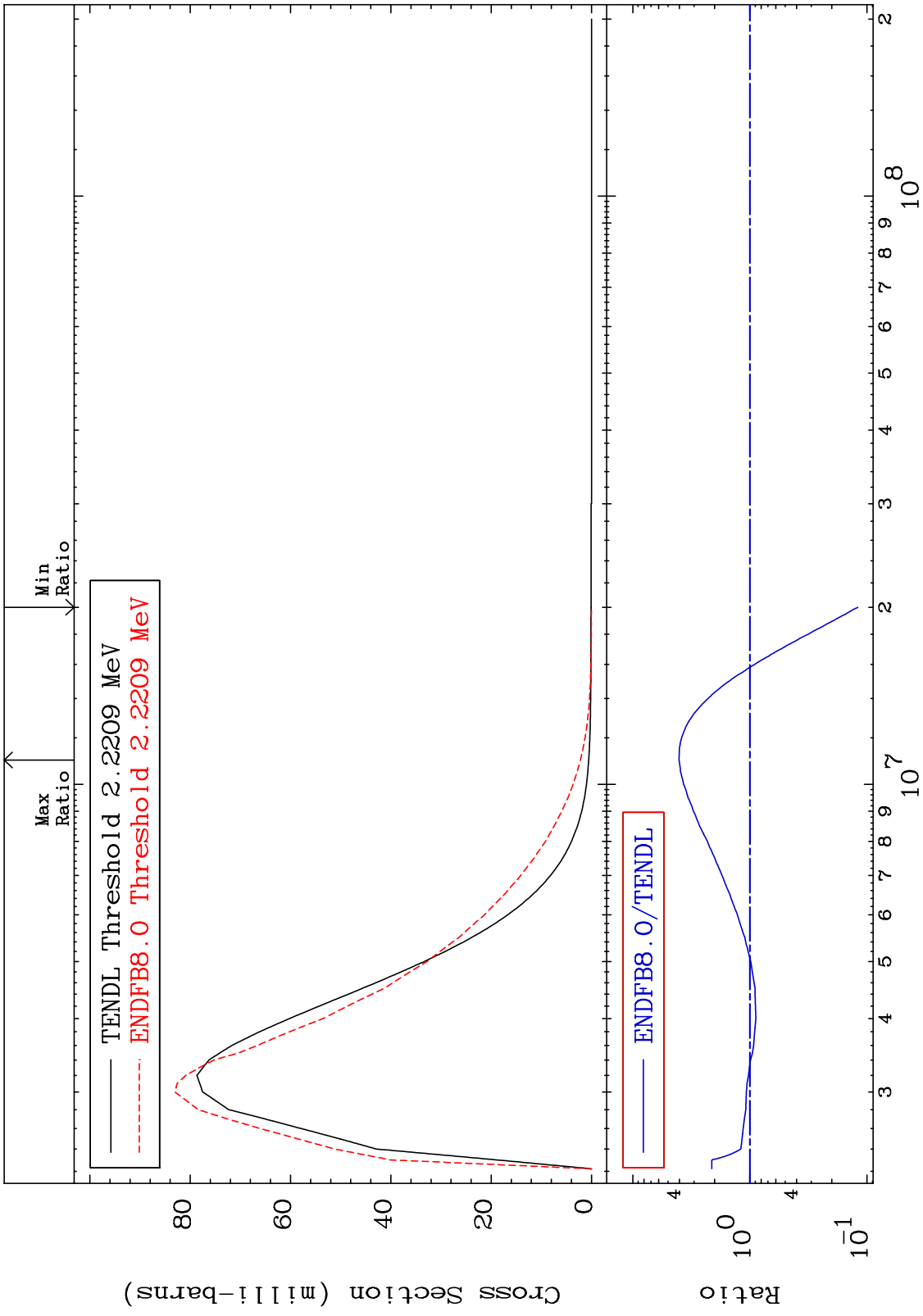
MAT 2725 MT= 59 (n,n') Level Cross Section -65.51 To 169.6 % 27-Co-59



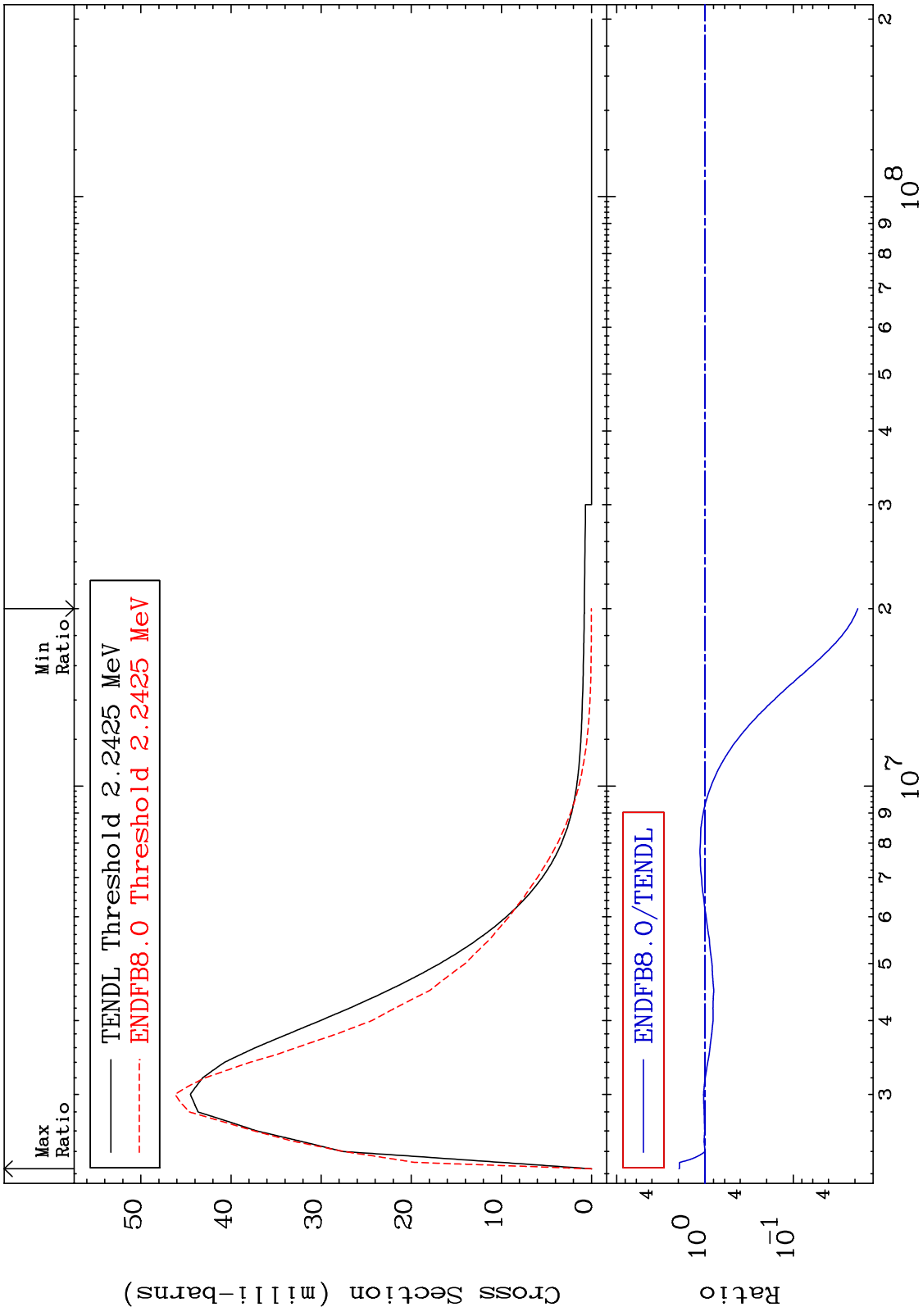
MAT 2725      MT= 60 (n,n') Level Cross Section      27-Co-59  
 -99.46 To 148.9 %



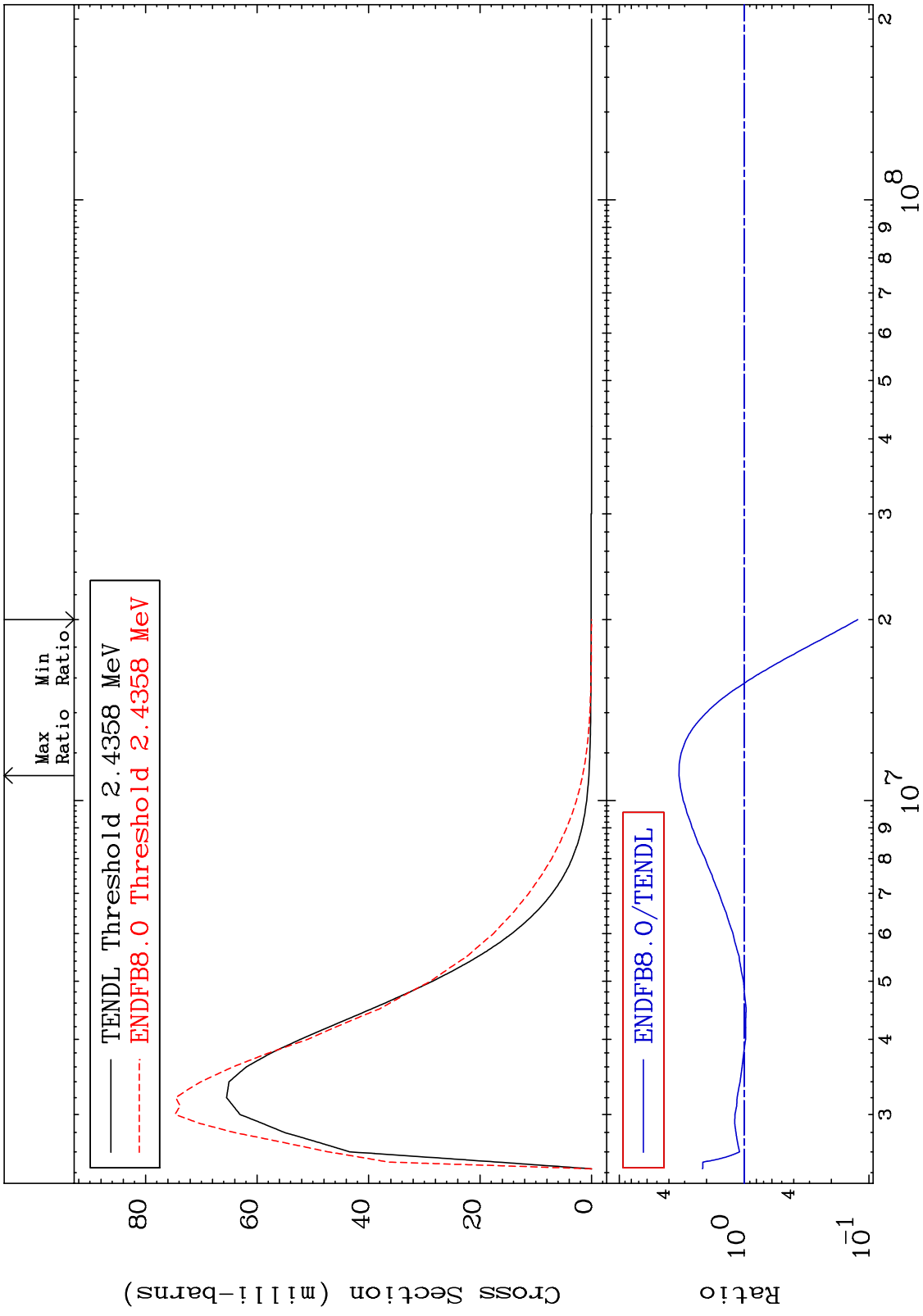
MAT 2725 MT= 61 (n,n') Level Cross Section -88.02 To 302.5 % 27-Co-59



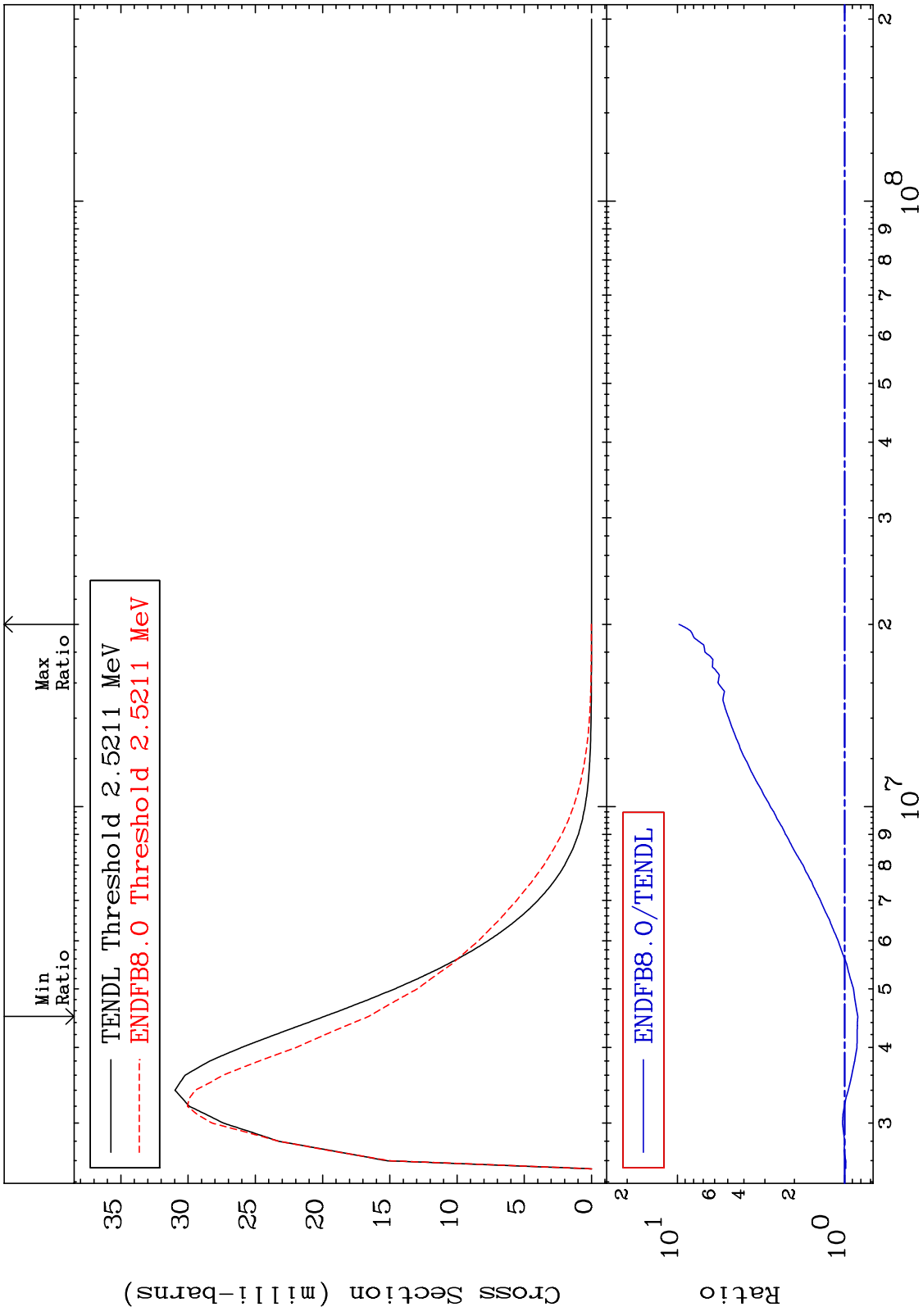
MAT 2725 MT= 62 (n,n') Level Cross Section -98.14 To 96.70 % 27-Co-59



MAT 2725 MT= 63 (n,n') Level Cross Section -87.72 To 232.4 % 27-Co-59



MAT 2725 MT= 64 (n,n') Level Cross Section -16.63 To 878.0 % 27-Co-59

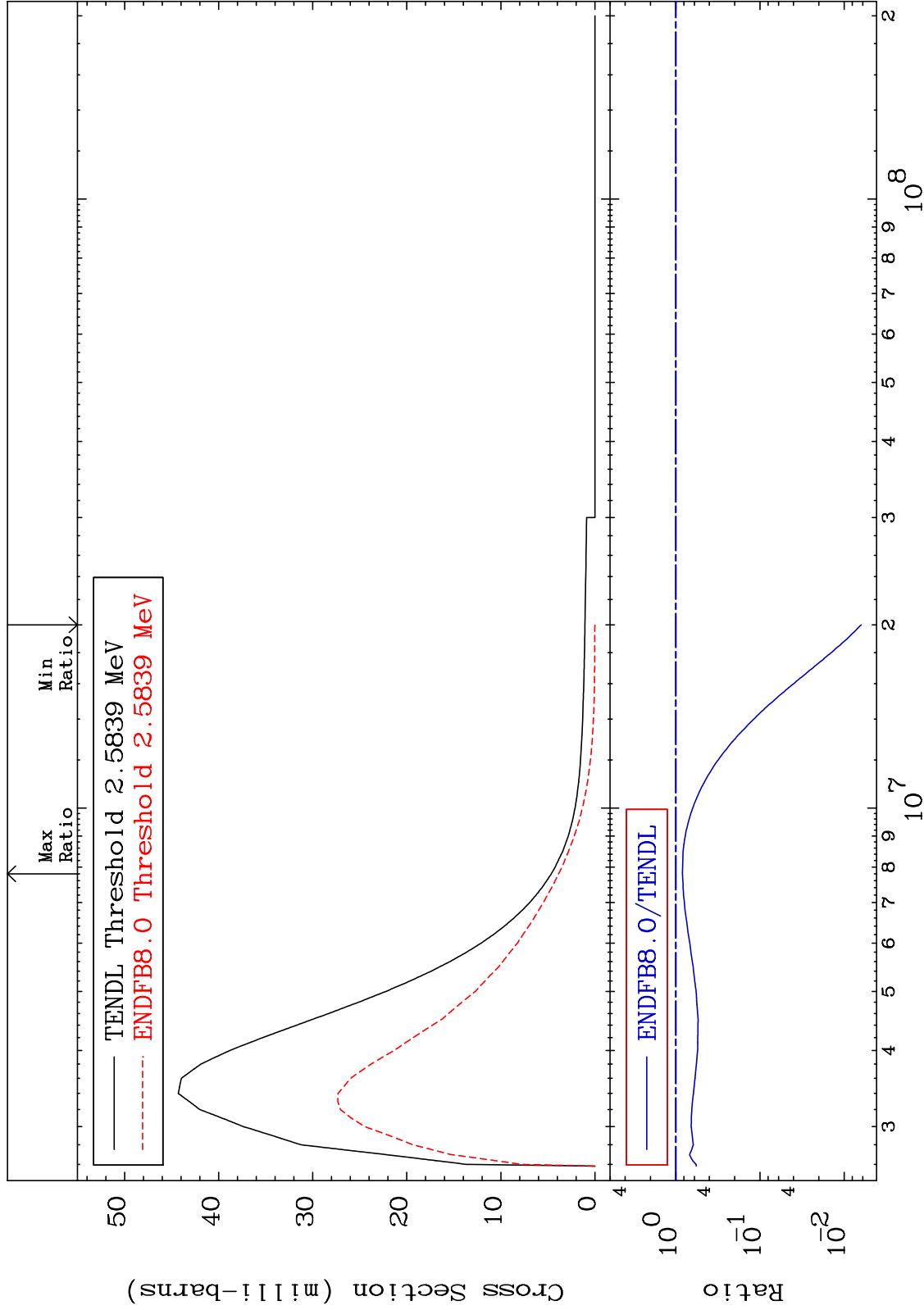




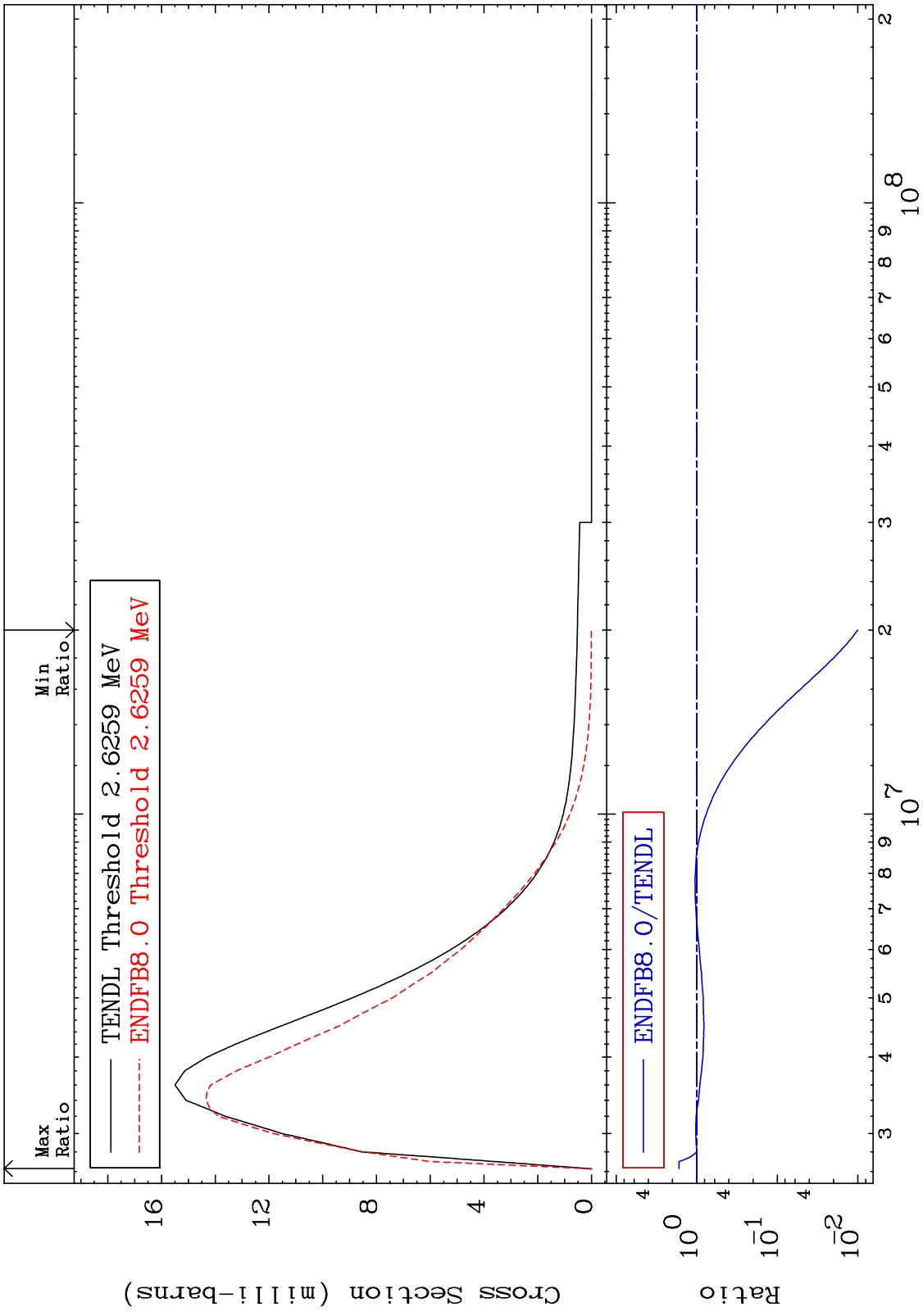
MAT 2725

MT= 65 (n,n') Level  
Cross Section

27-Co-59  
-99.37 To -16.81%



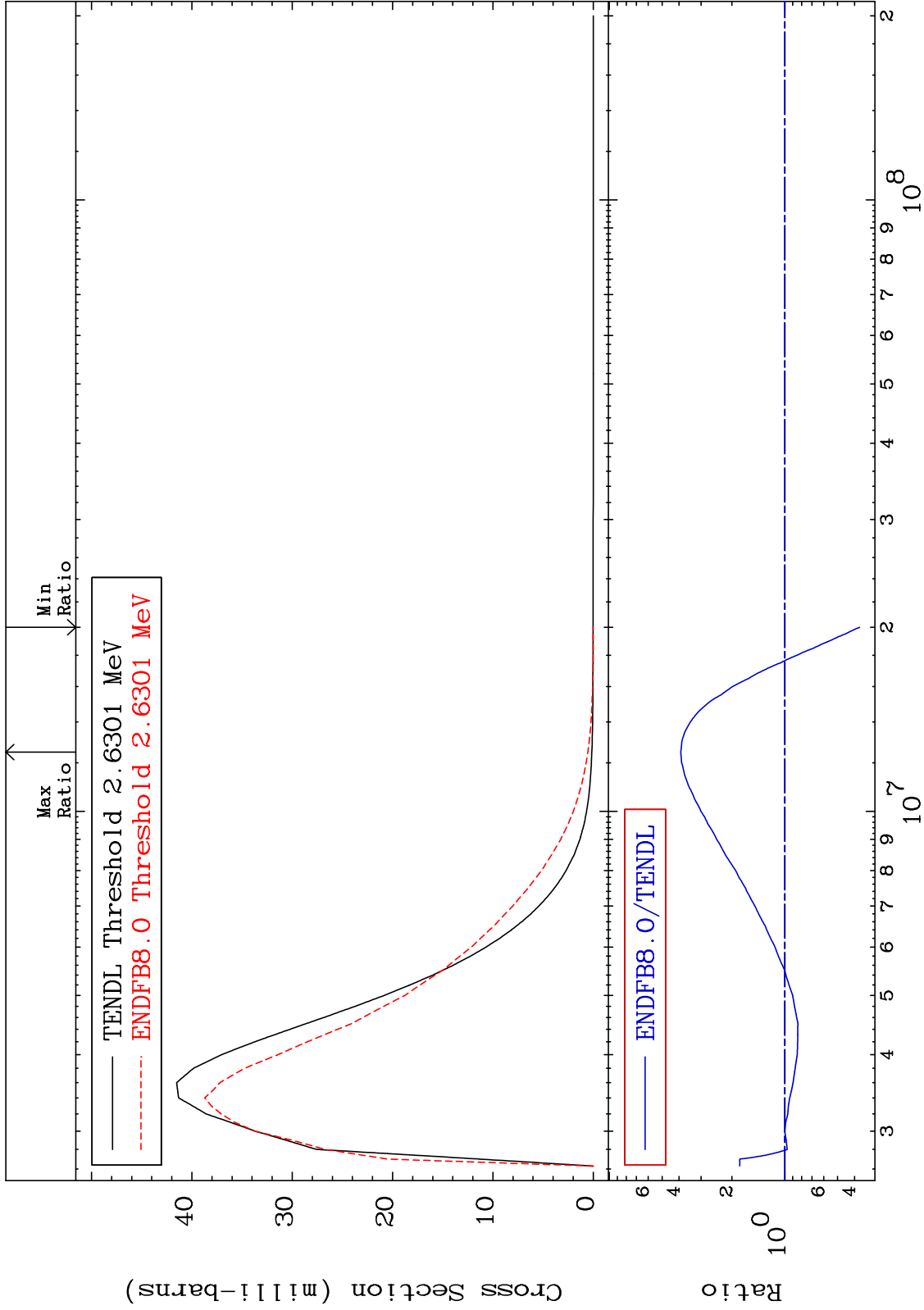
MAT 2725 MT= 66 (n,n') Level Cross Section -99.00 To 65.88 % 27-Co-59



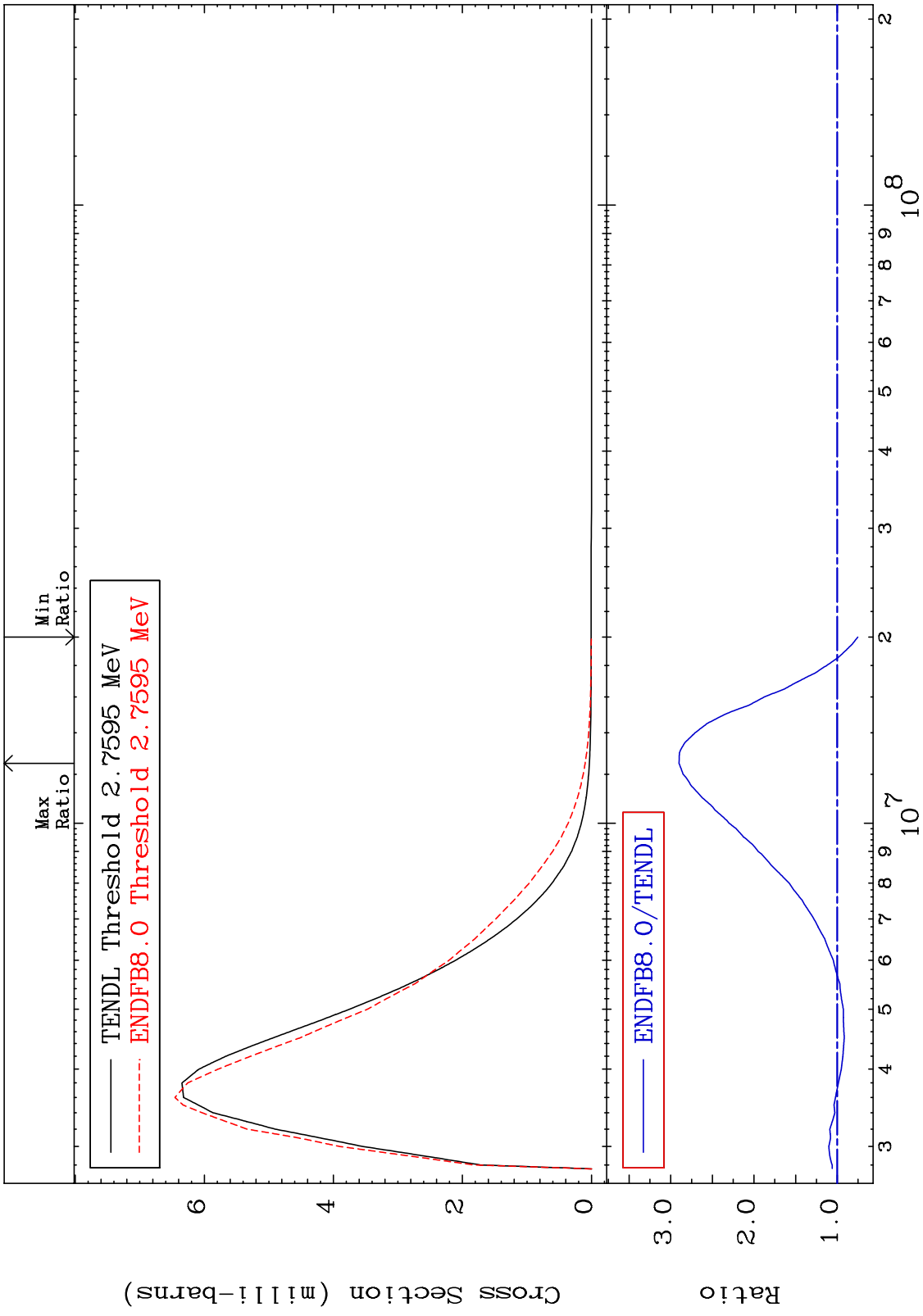
MAT 2725

MT= 67 (n,n') Level  
Cross Section

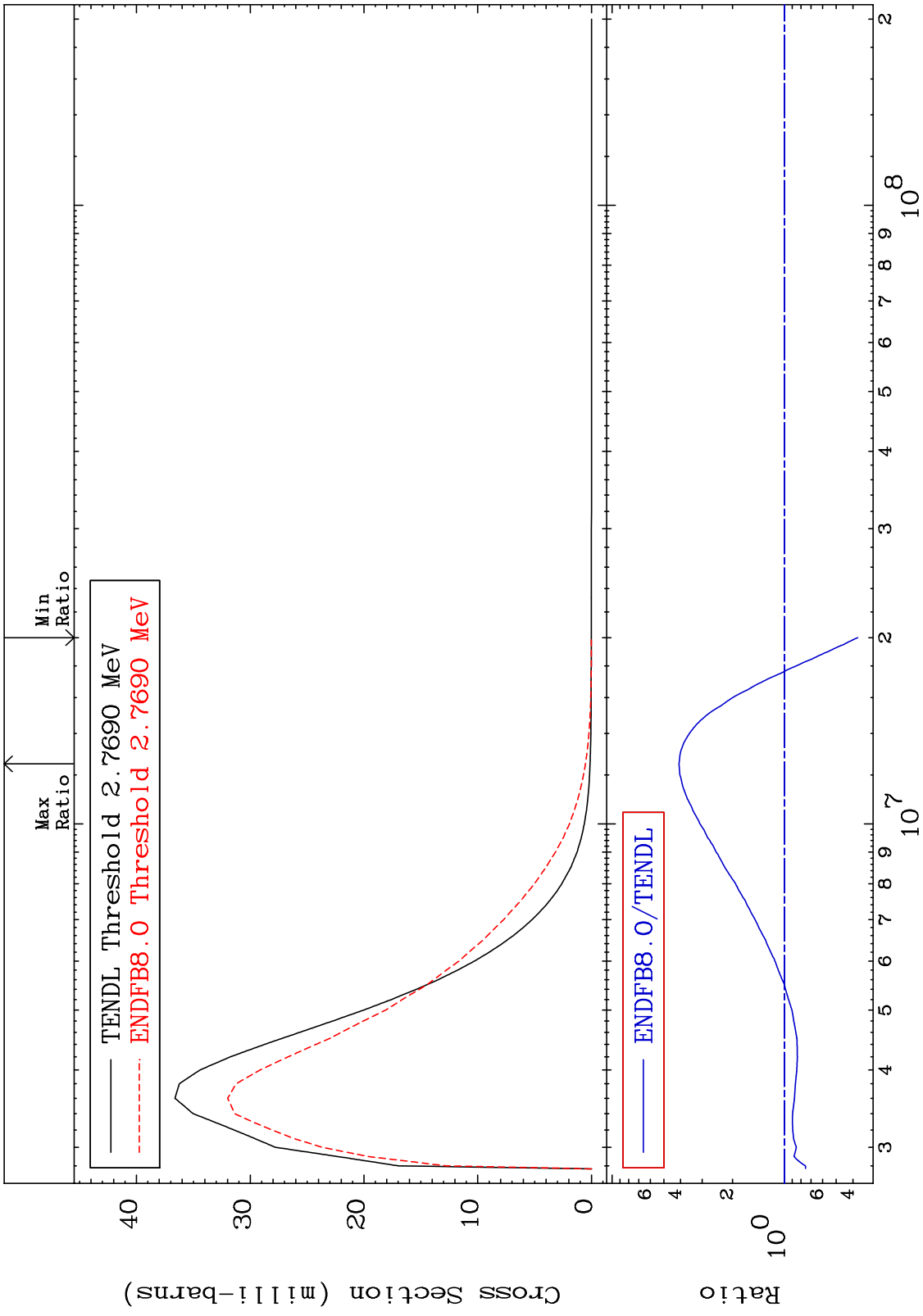
27-Co-59  
-62.57 To 290.9 %



MAT 2725 MT= 68 (n,n') Level Cross Section -24.76 To 190.0 % 27-Co-59



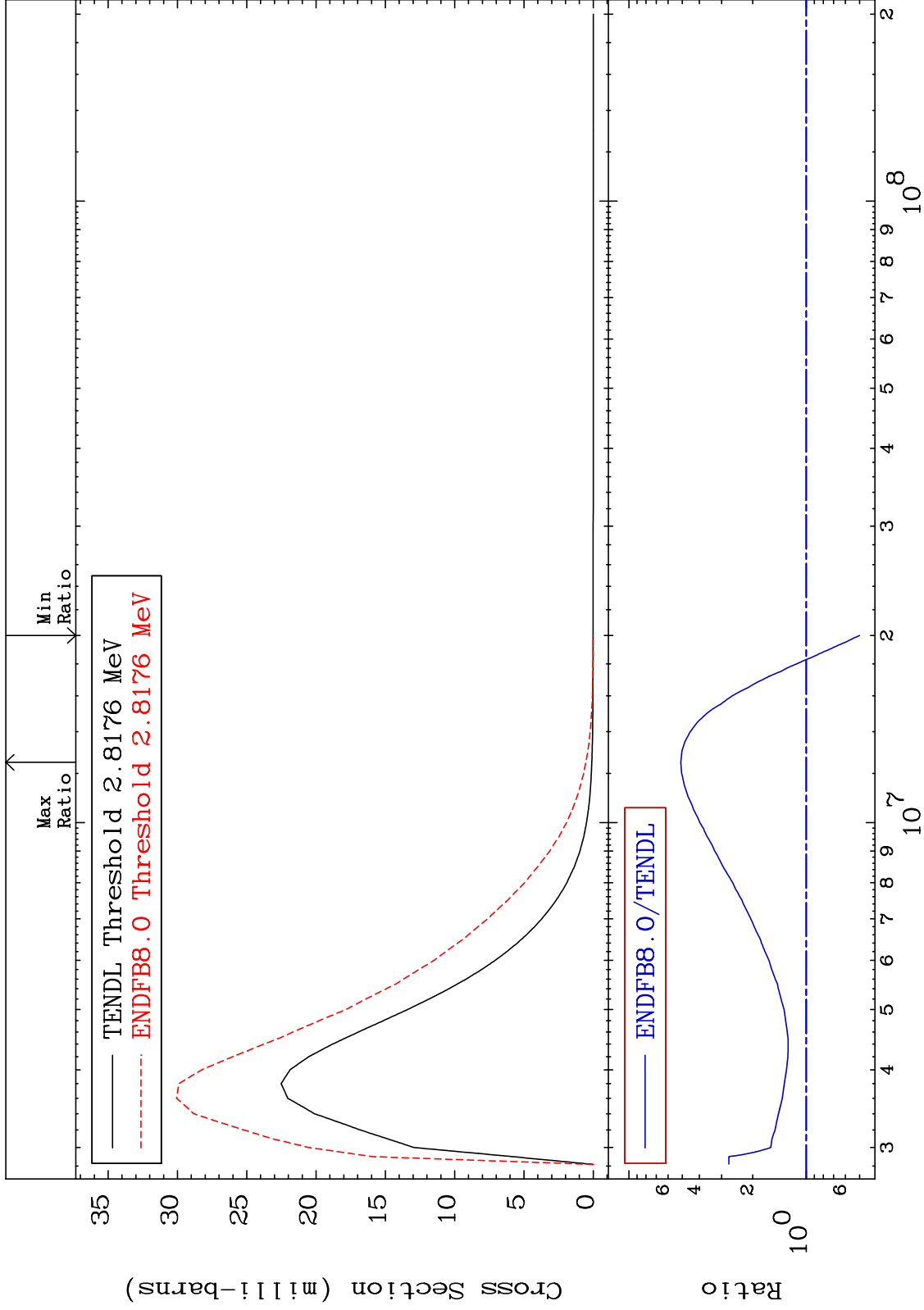
MAT 2725 MT= 69 (n,n') Level Cross Section -62.56 To 308.4 % 27-Co-59



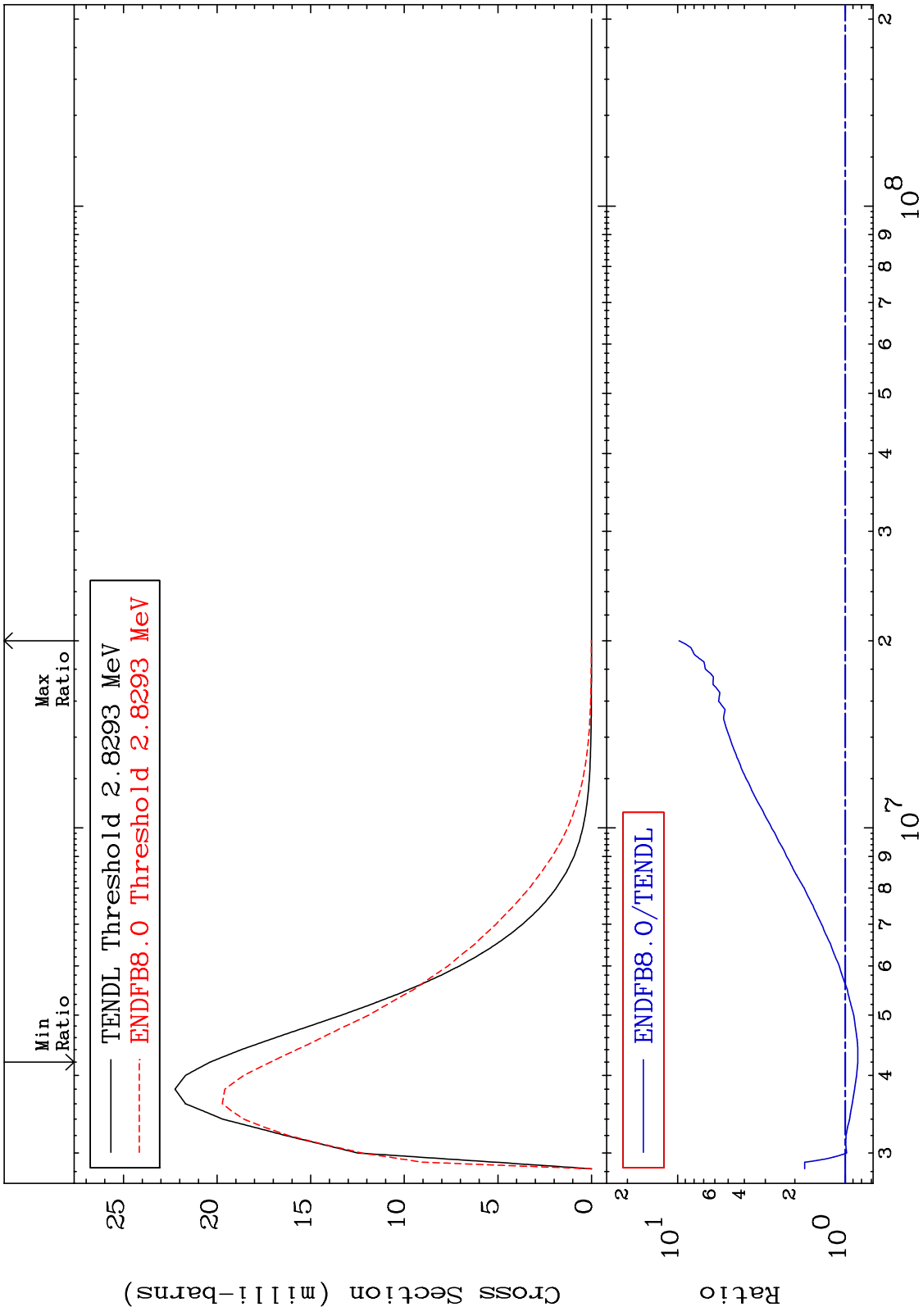
MAT 2725

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

27-Co-59  
-50.07 To 409.1 %

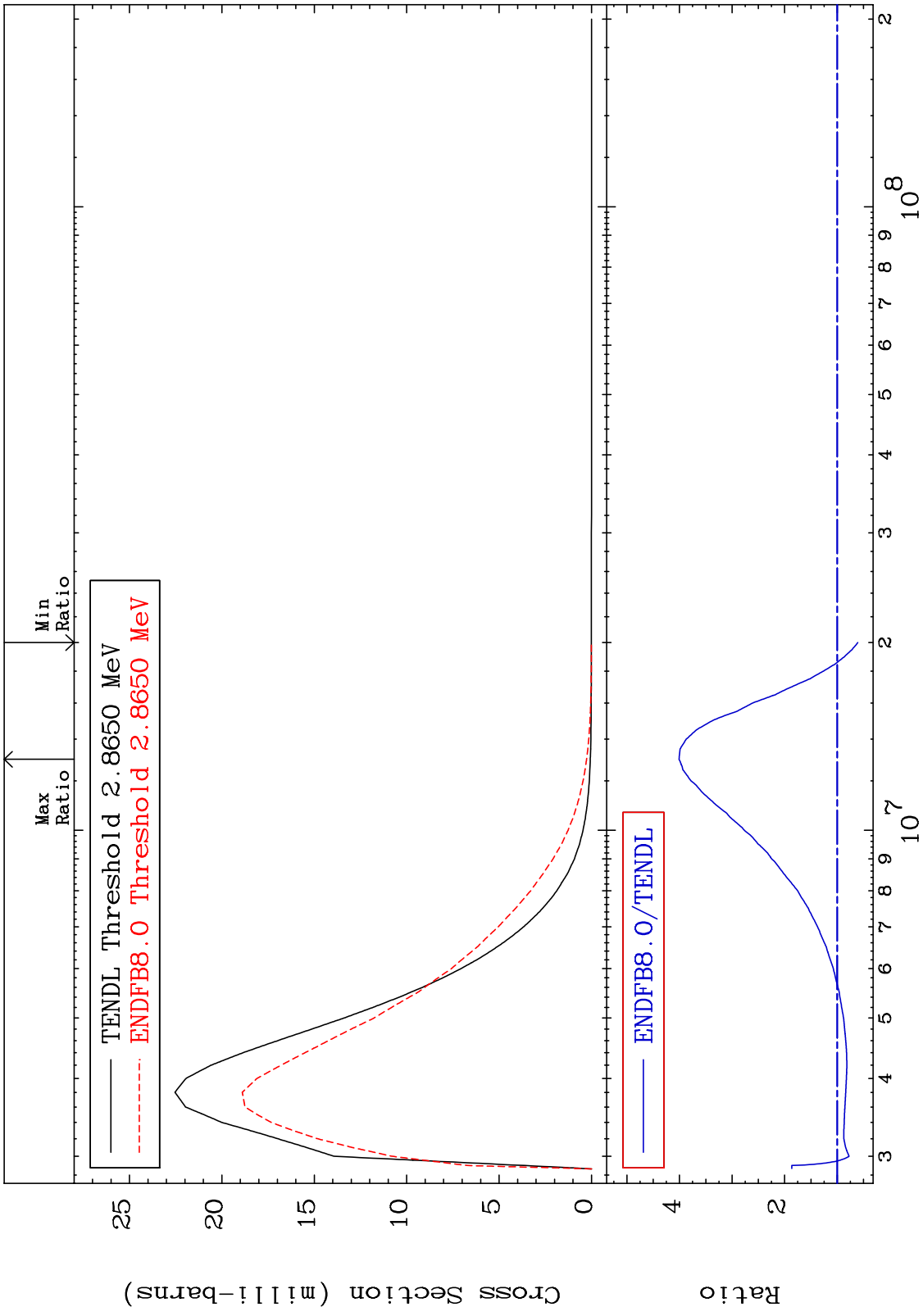


MAT 2725 MT= 71 (n,n') Level Cross Section -15.83 To 882.1 % 27-Co-59



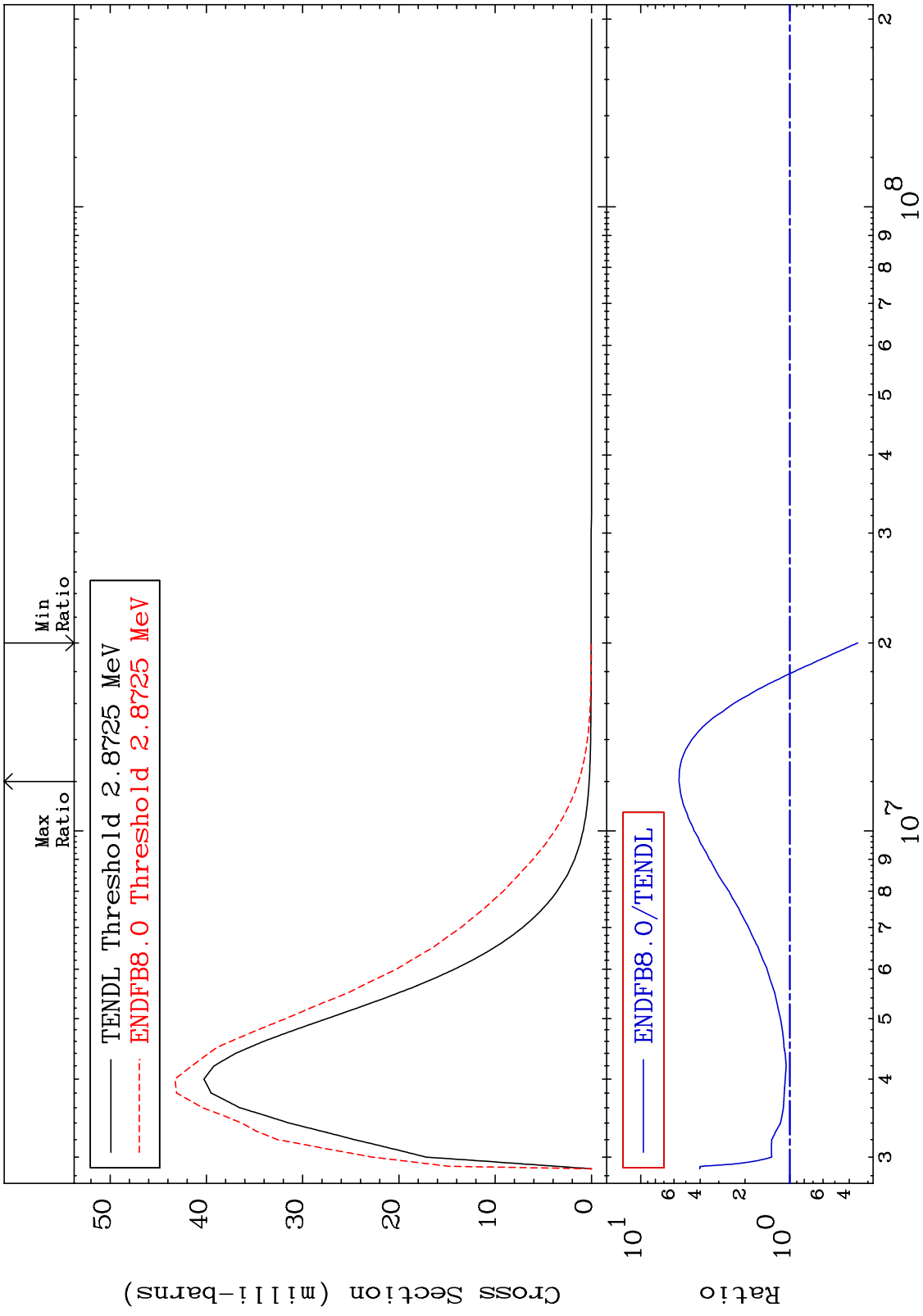
30 Incident Energy (eV) 27-Co-59

MAT 2725 MT= 72 (n,n') Level Cross Section -39.25 To 300.8 % 27-Co-59

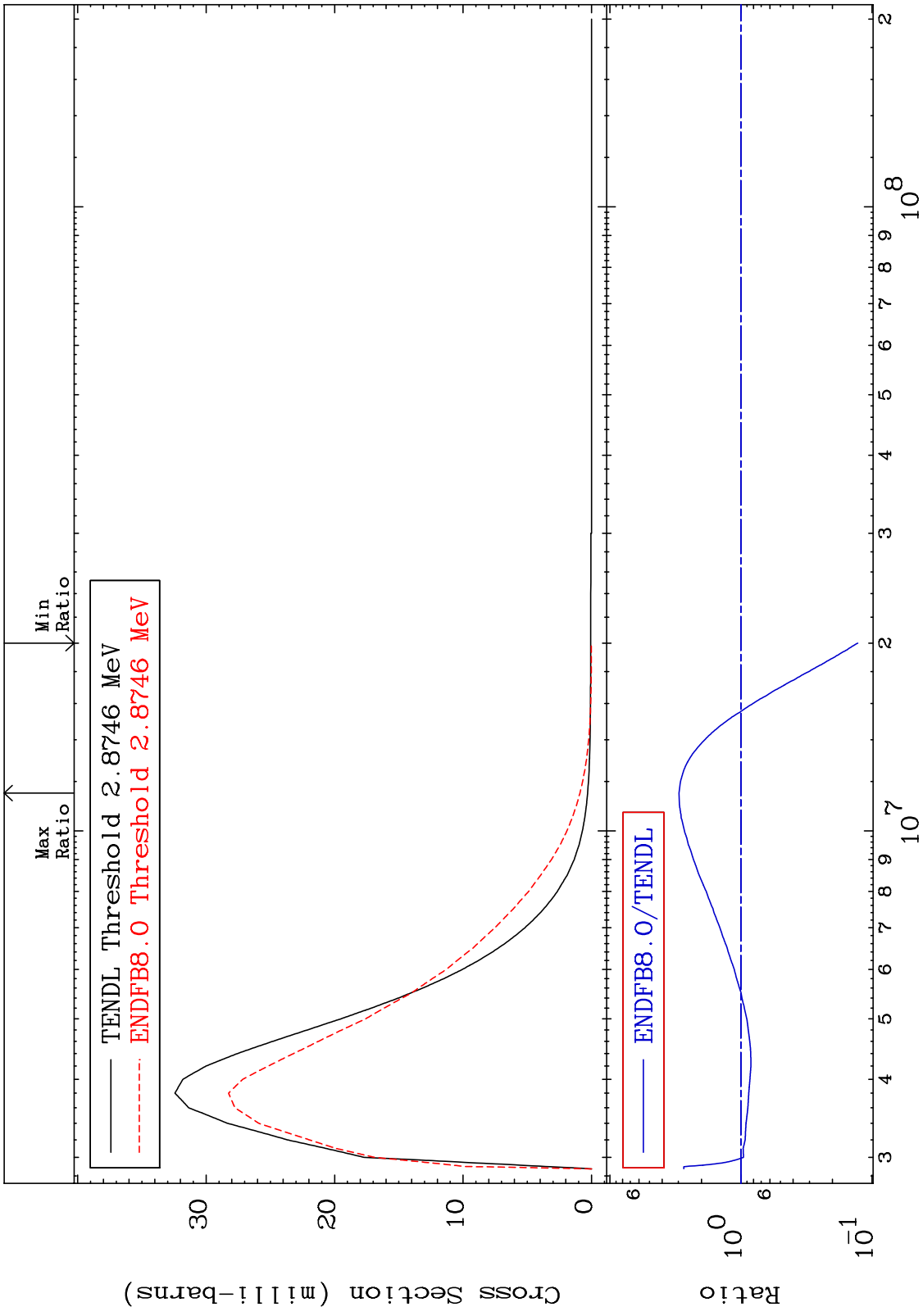




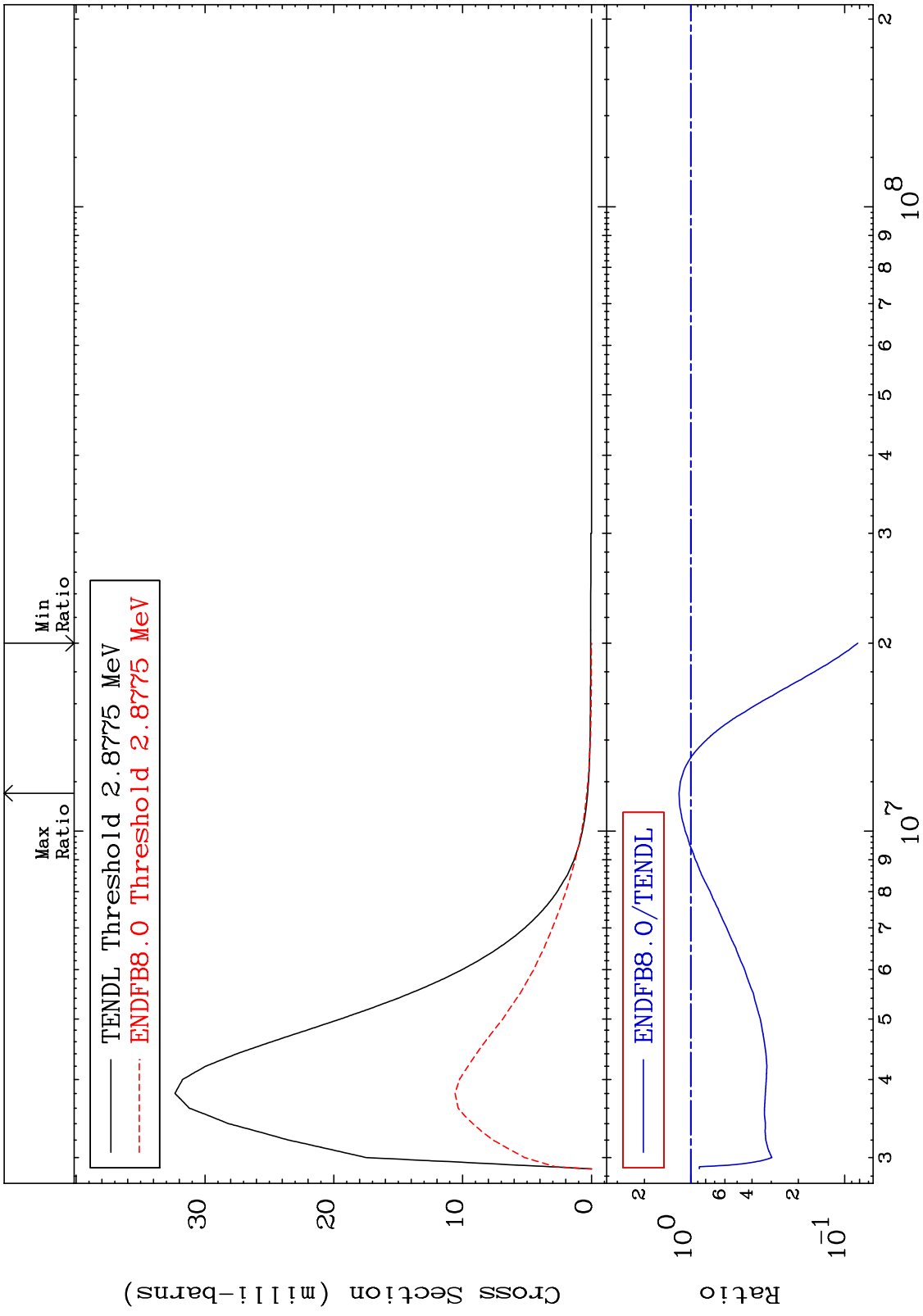
MAT 2725 MT= 73 (n,n') Level Cross Section -65.00 To 454.1 % 27-Co-59



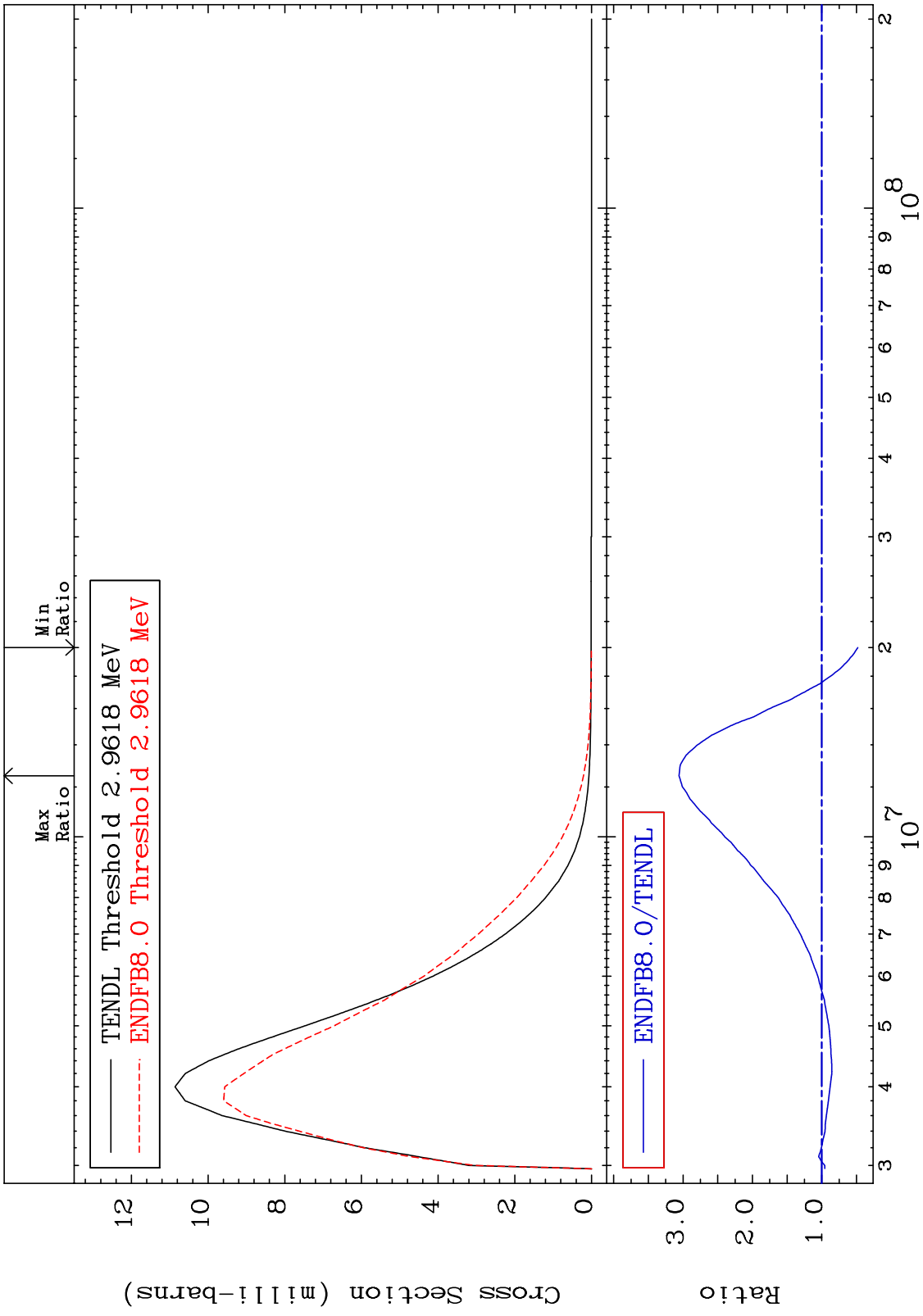
MAT 2725 MT= 74 (n,n') Level Cross Section -87.20 To 196.7 % 27-Co-59



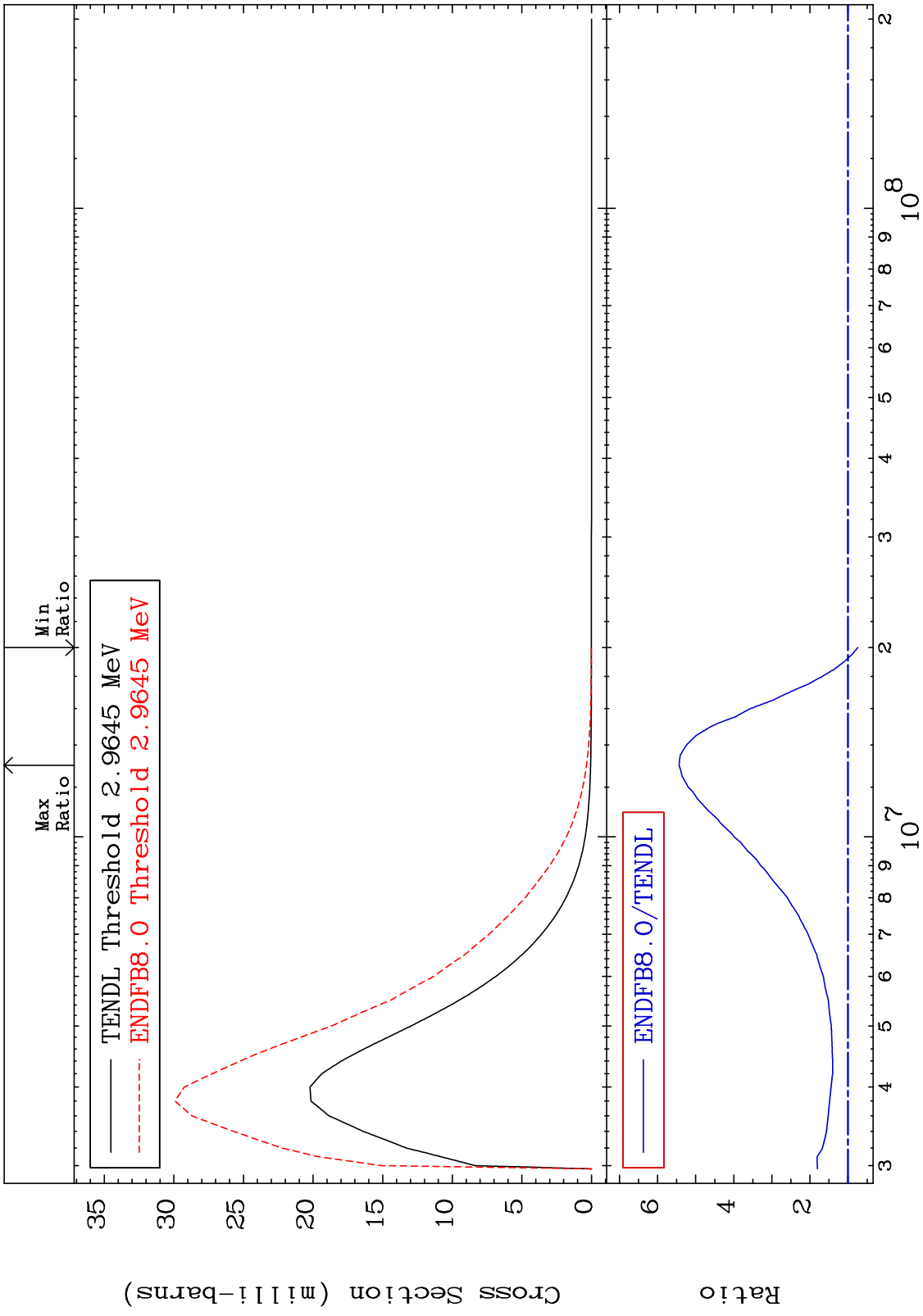
MAT 2725 MT= 75 (n,n') Level Cross Section -91.79 To 19.06 % 27-Co-59



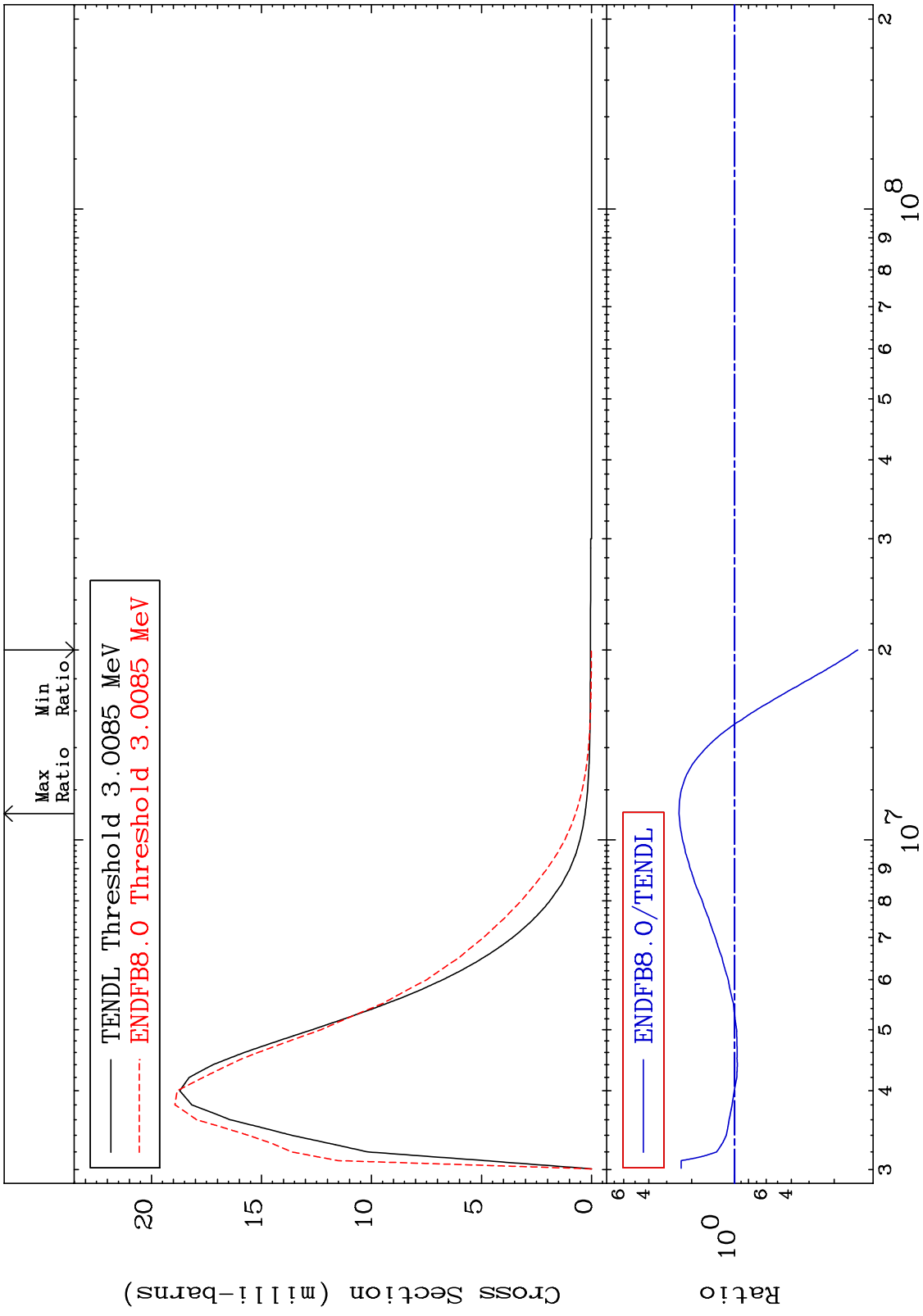
MAT 2725 MT= 76 (n,n') Level Cross Section -51.93 To 205.8 % 27-Co-59



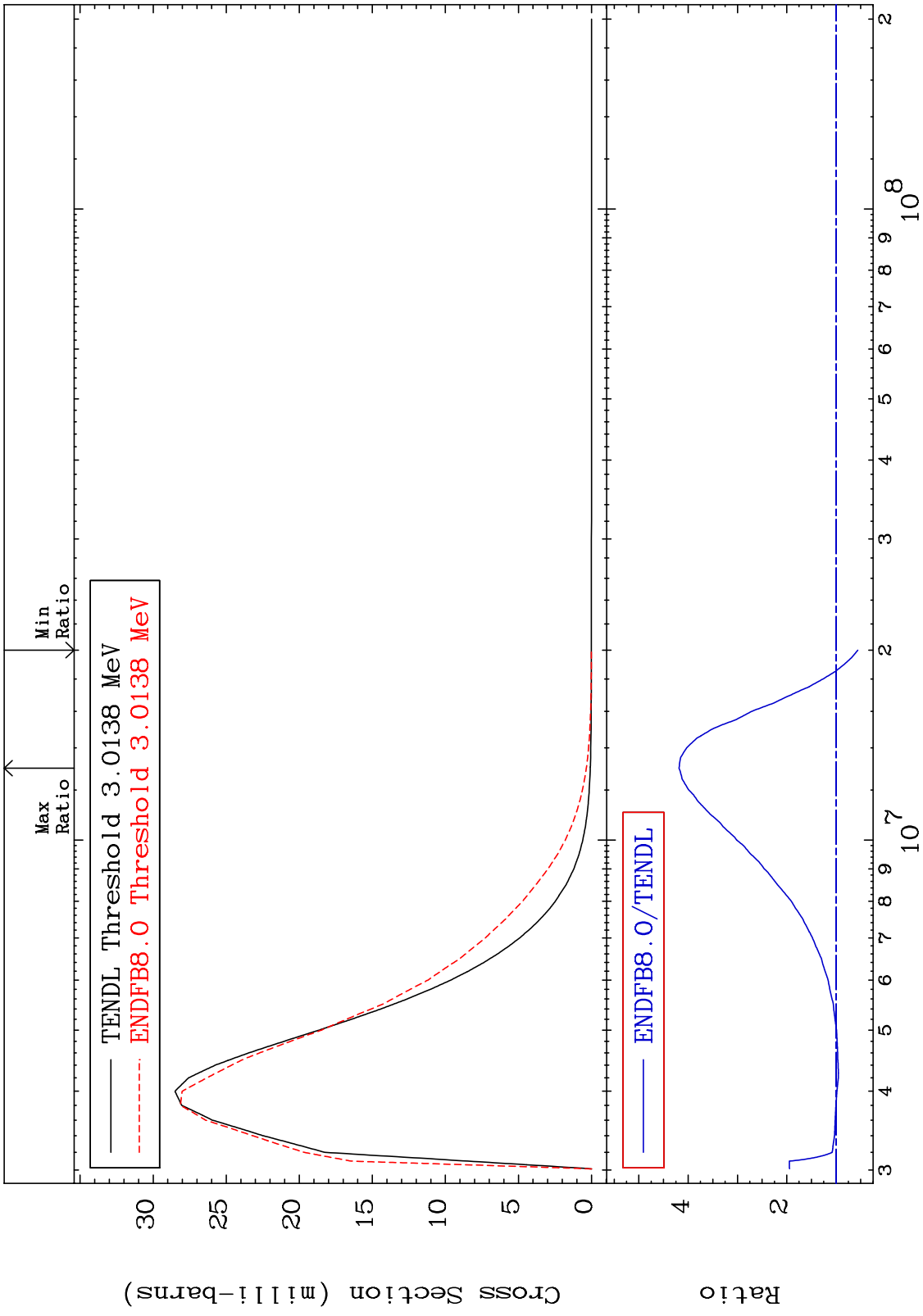
MAT 2725 MT= 77 (n,n') Level Cross Section -25.69 To 443.7 % 27-Co-59



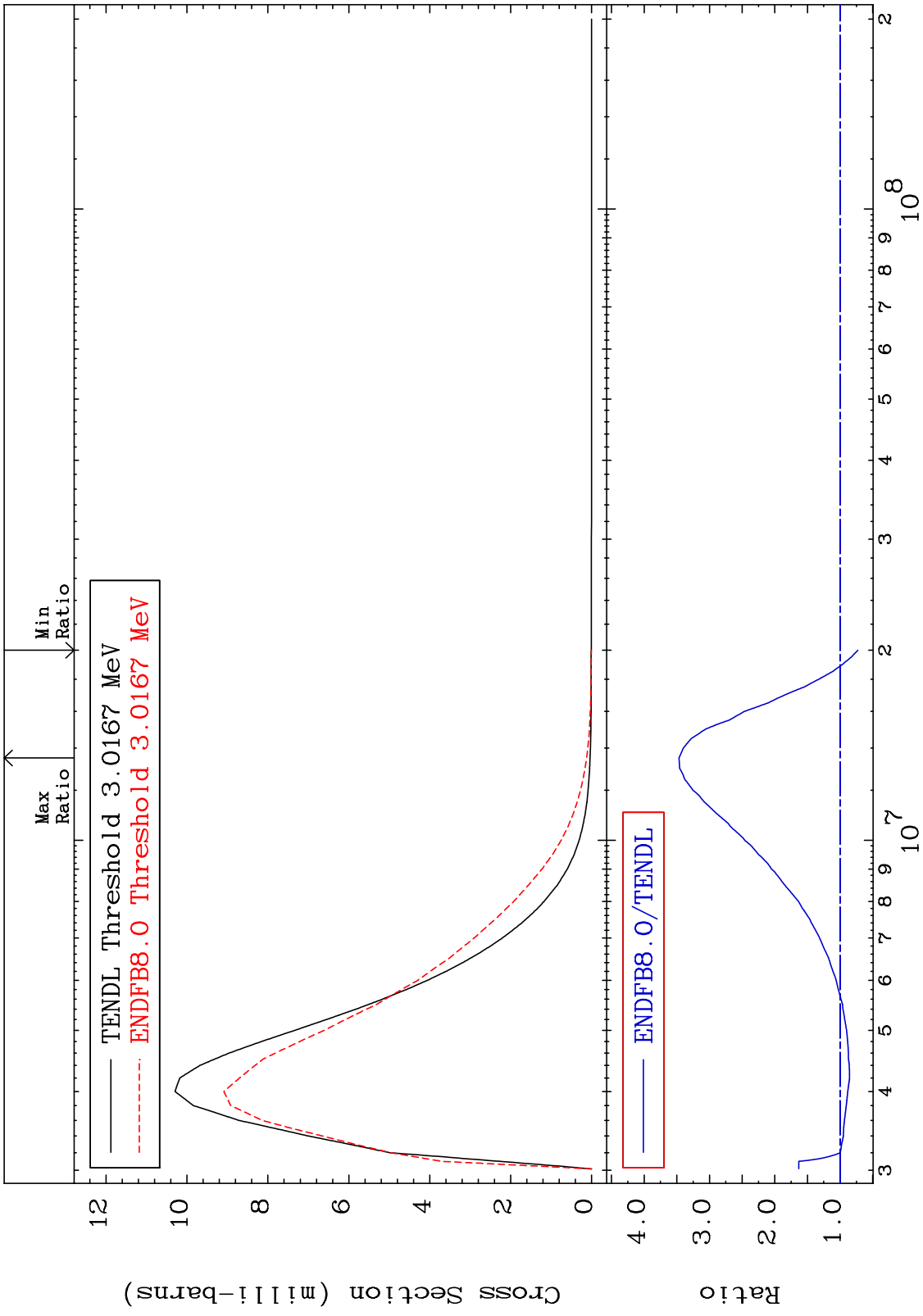
MAT 2725 MT= 78 (n,n') Level Cross Section -86.36 To 145.5 % 27-Co-59



MAT 2725 MT= 79 (n,n') Level Cross Section -44.19 To 318.5 % 27-Co-59

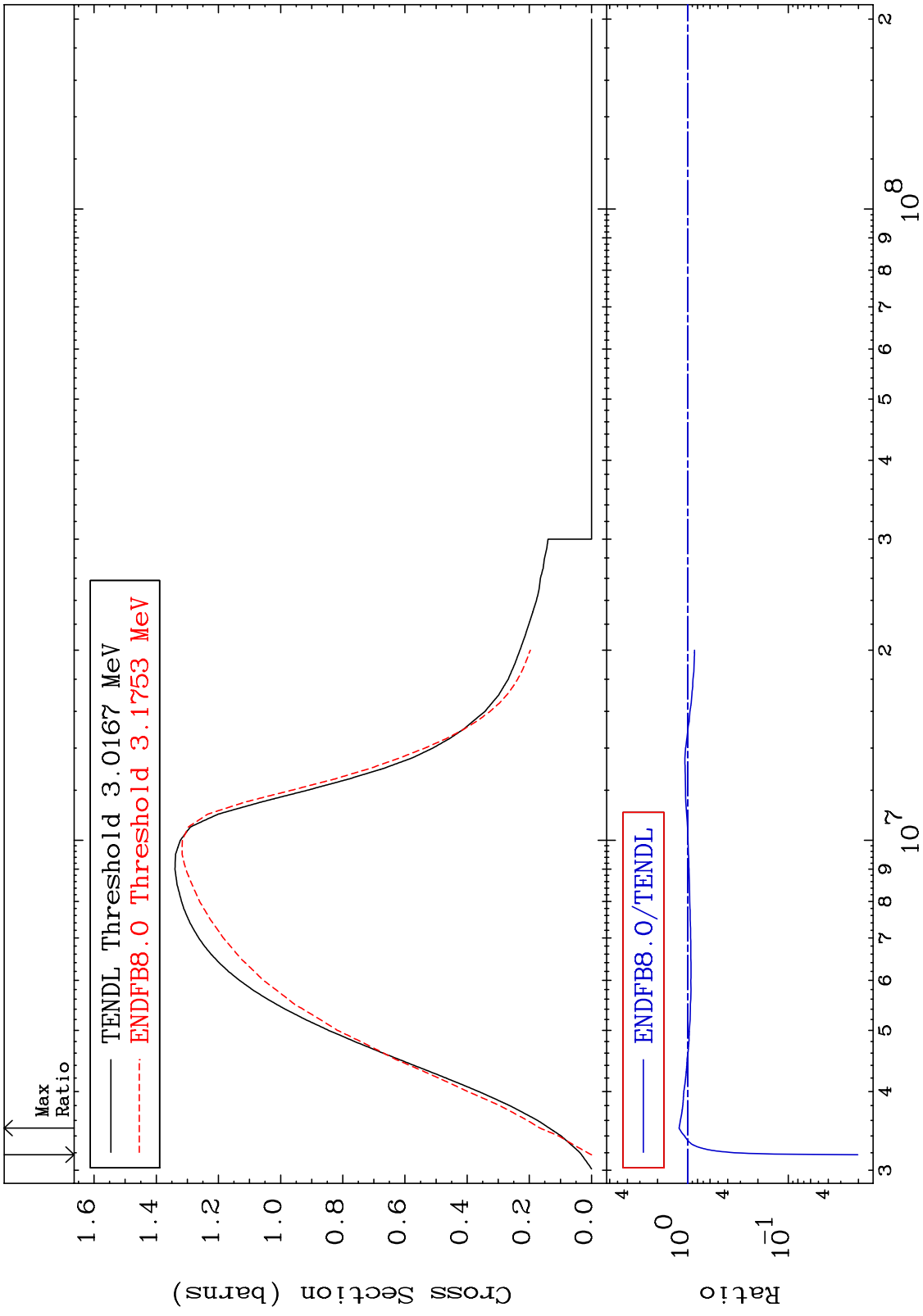


MAT 2725 MT= 80 (n,n') Level Cross Section -27.16 To 246.6 % 27-Co-59





MAT 2725 (n,n') Continuum Cross Section 27-Co-59 -97.97 To 22.22 %



40 Incident Energy (eV) 27-Co-59

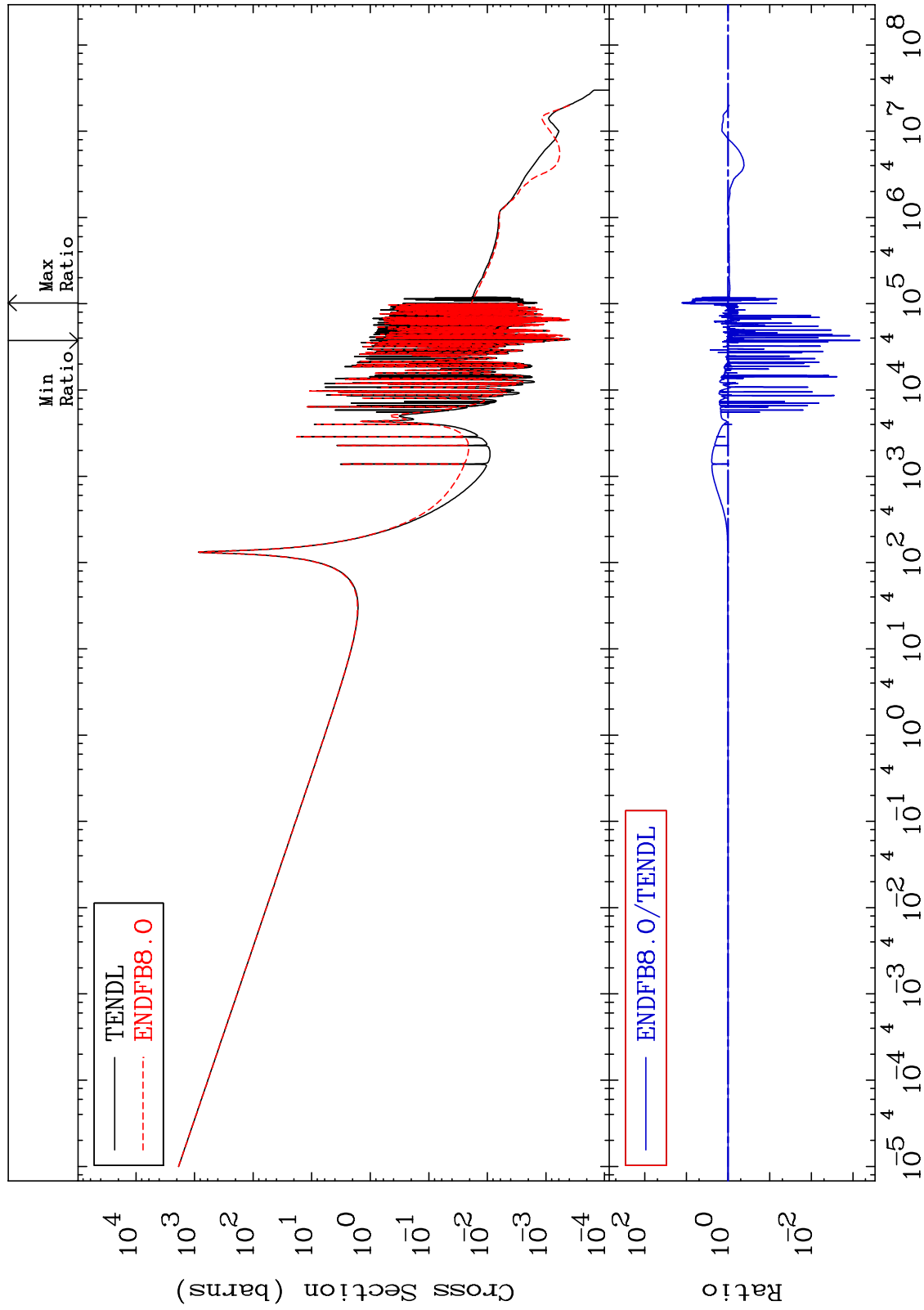
MAT 2725

(n,  $\gamma$ )

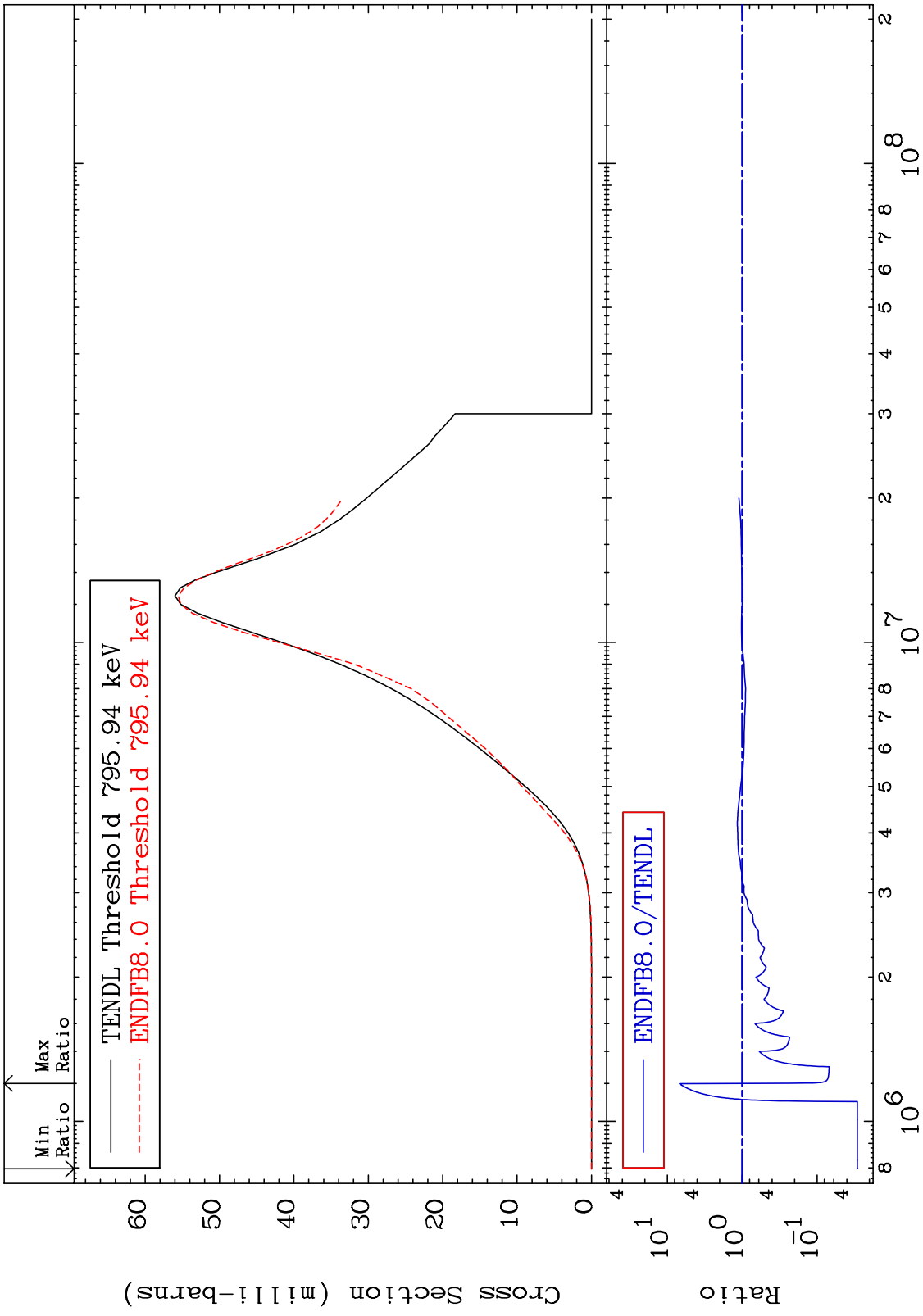
27-Co-59

Cross Section

-99.93 To 1216. %

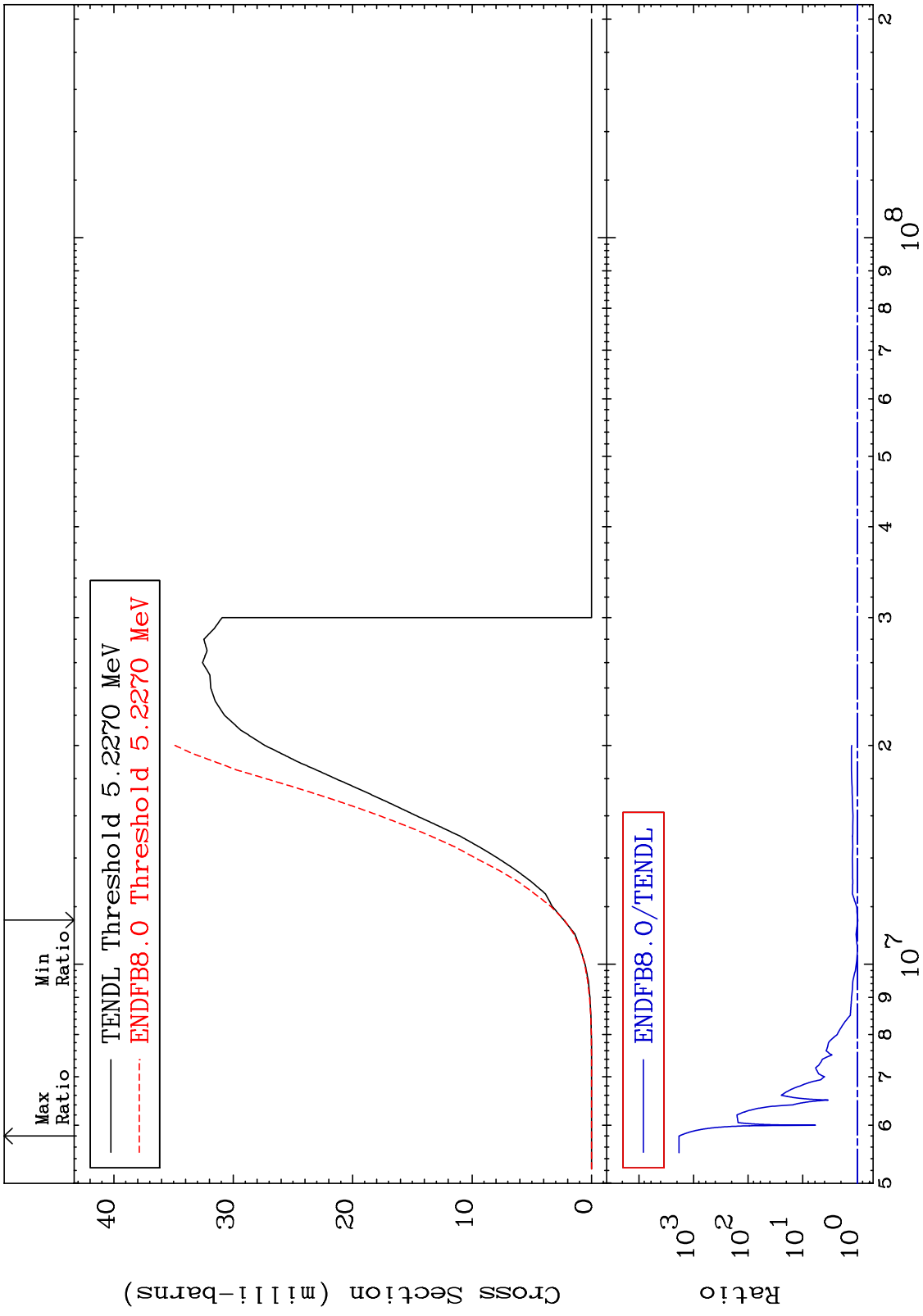


MAT 2725 (n,p) Cross Section 27-Co-59 -97.14 To 597.9 %

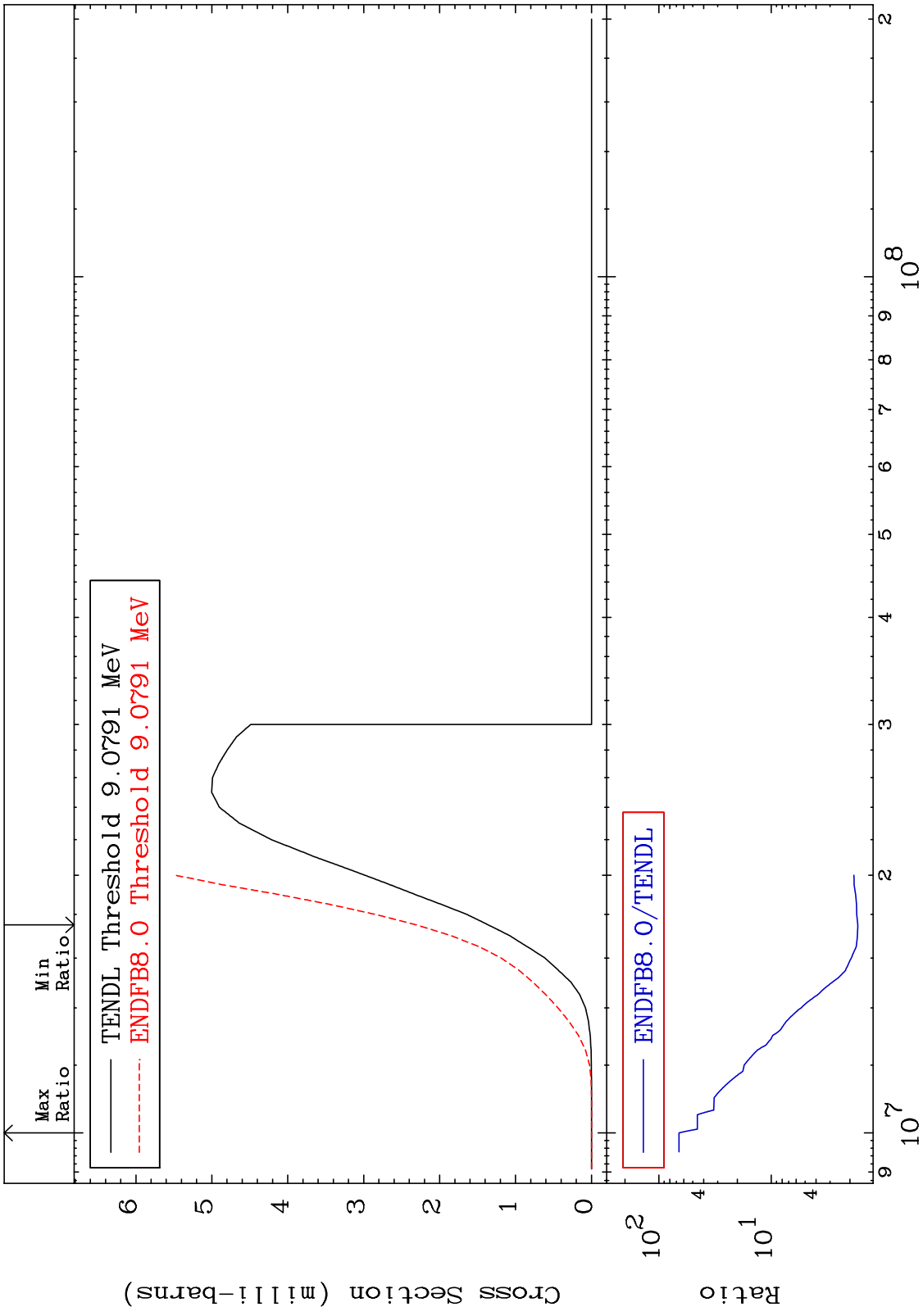


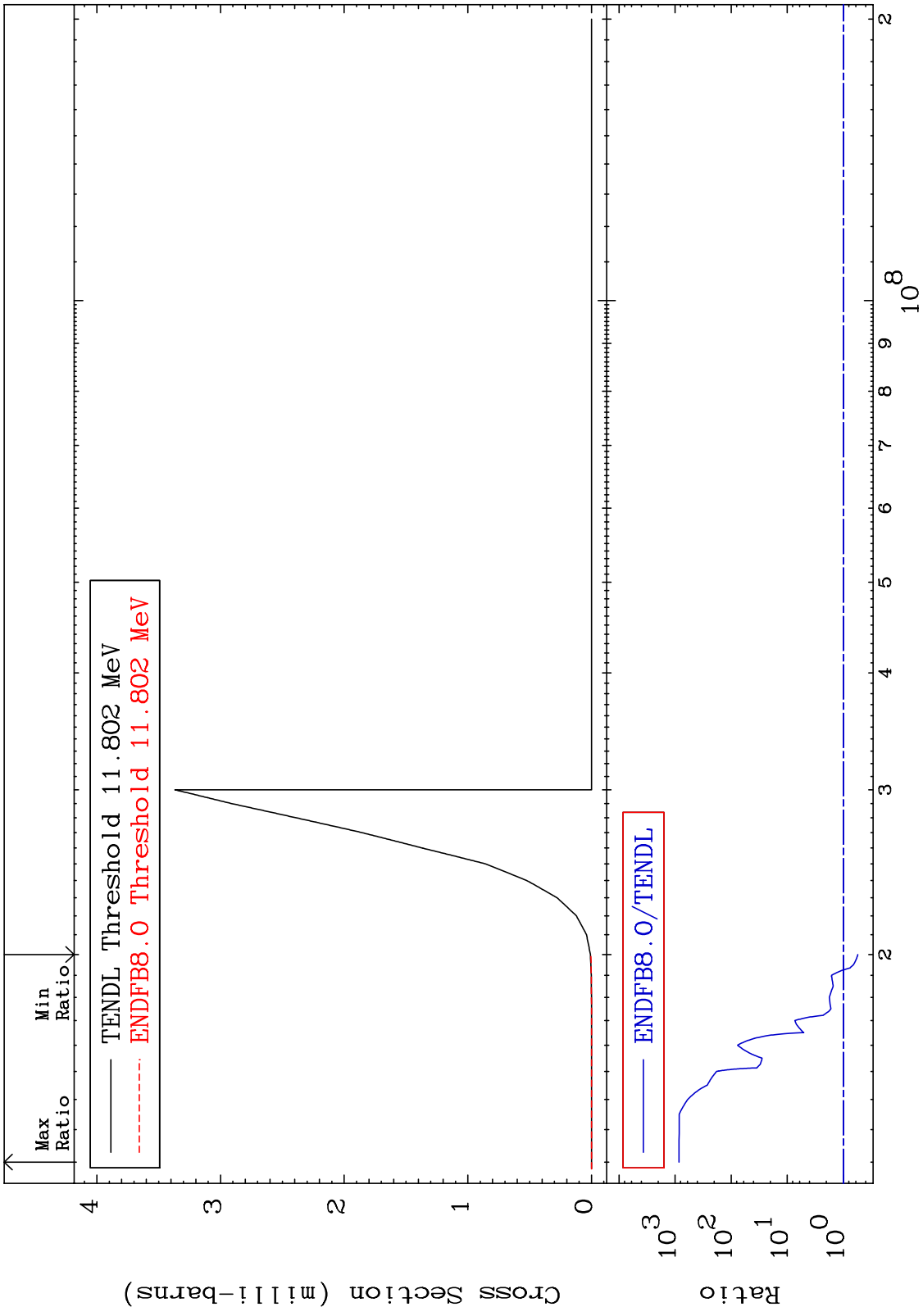
42 27-Co-59 Incident Energy (eV)

MAT 2725 (n,d) 27-Co-59  
 Cross Section -1.846 To 9999. %



MAT 2725 (n,t) 27-Co-59  
 Cross Section 69.67 To 6519. %





MAT 2725

(n,  $\alpha$ )

27-Co-59

-99.79 To 177.7 %

Cross Section

Min Ratio

Max Ratio

TENDL Threshold 119.41 keV  
ENDFB8.0 Threshold 1.4000 MeV

Cross Section (milli-barns)

35

30

25

20

15

10

5

0

$10^1$

$10^0$

$10^{-1}$

$10^{-2}$

ENDFB8.0/TENDL

Ratio

2

3

4

5

6

8

$10^6$

2

3

4

5

6

8

$10^7$

2

3

4

5

6

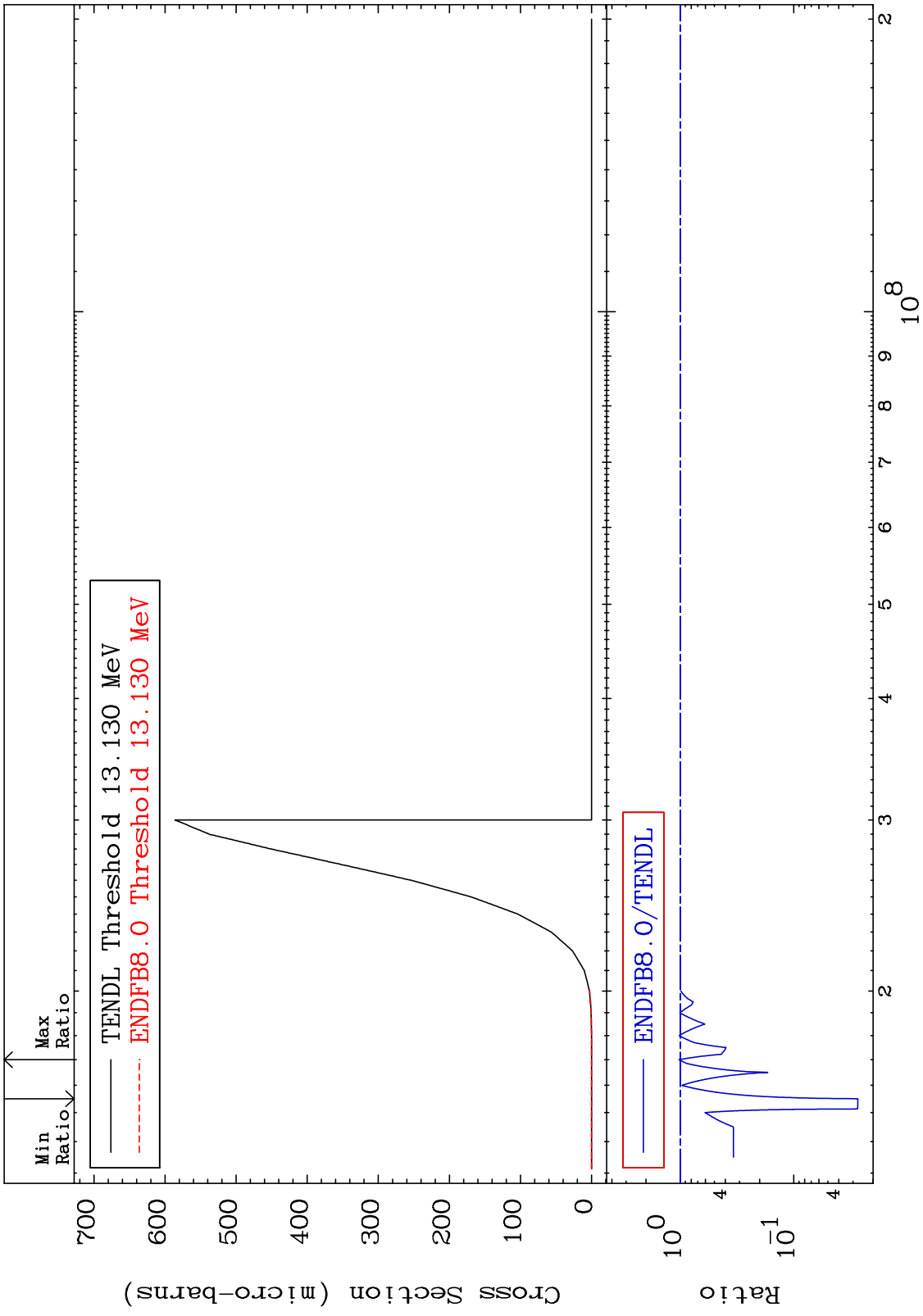
8

$10^8$

Incident Energy (eV)

27-Co-59

46





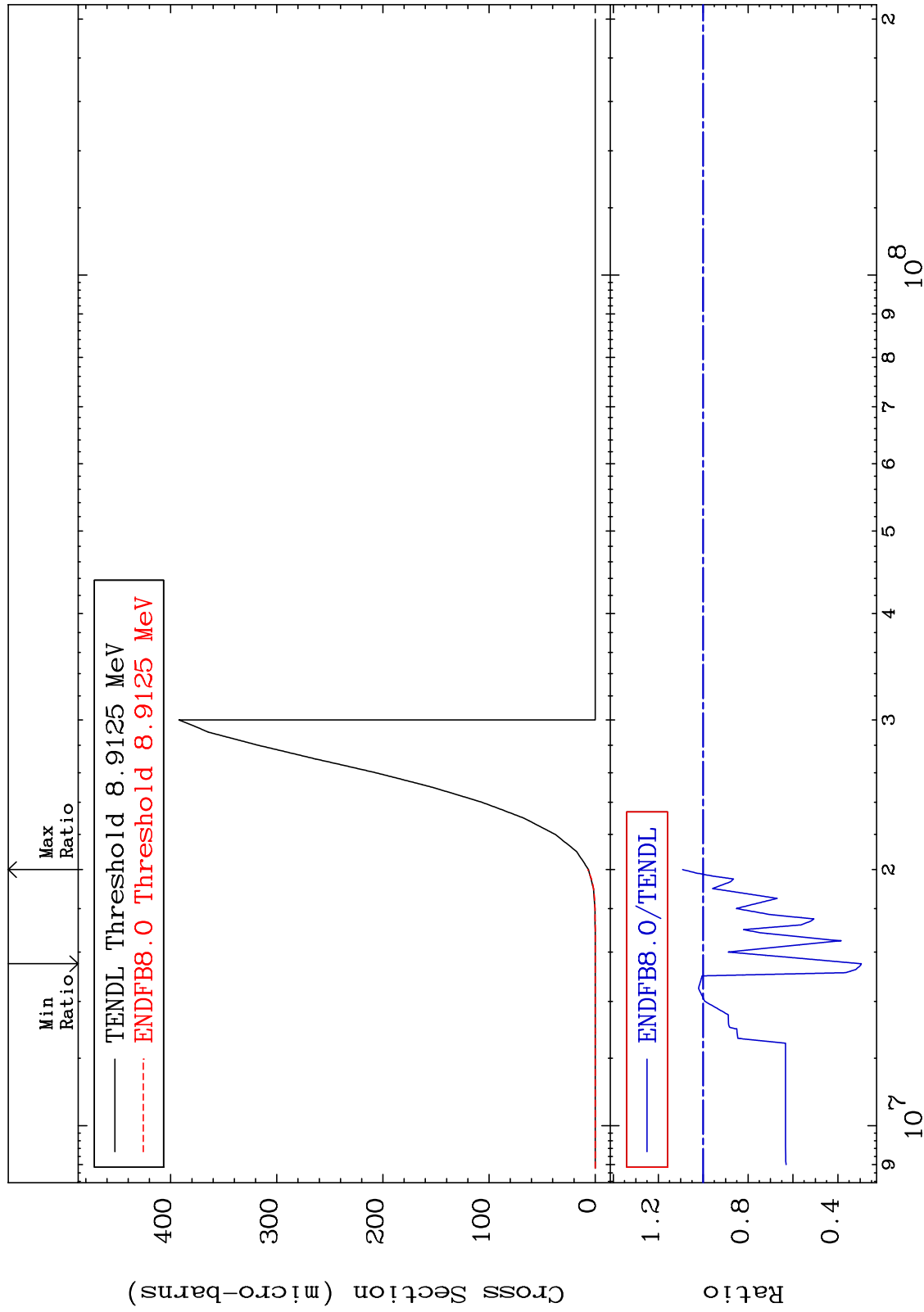
MAT 2725

(n,p)  $\alpha$

27-Co-59

Cross Section

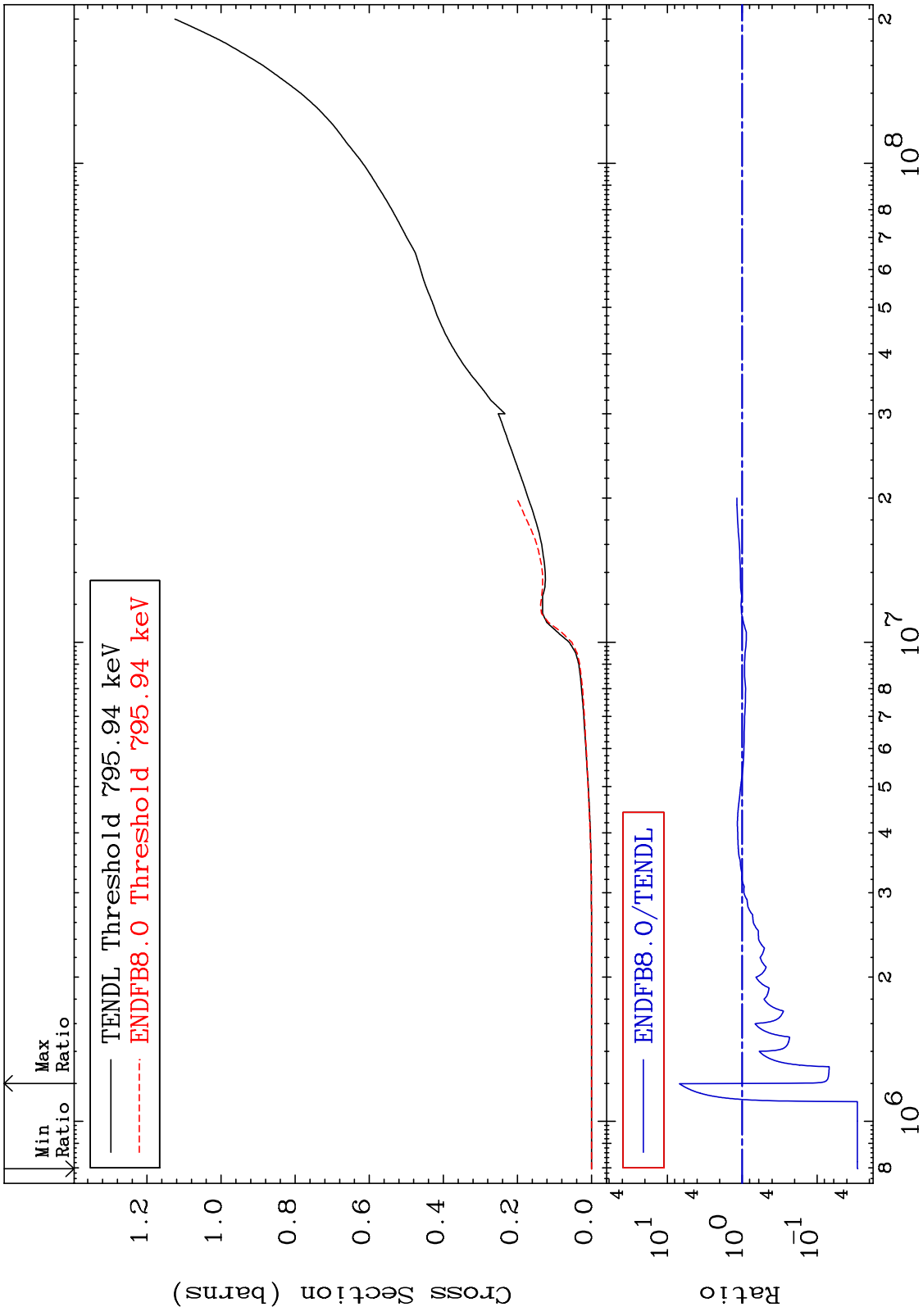
-70.48 To 9.125 %



48

Incident Energy (eV)

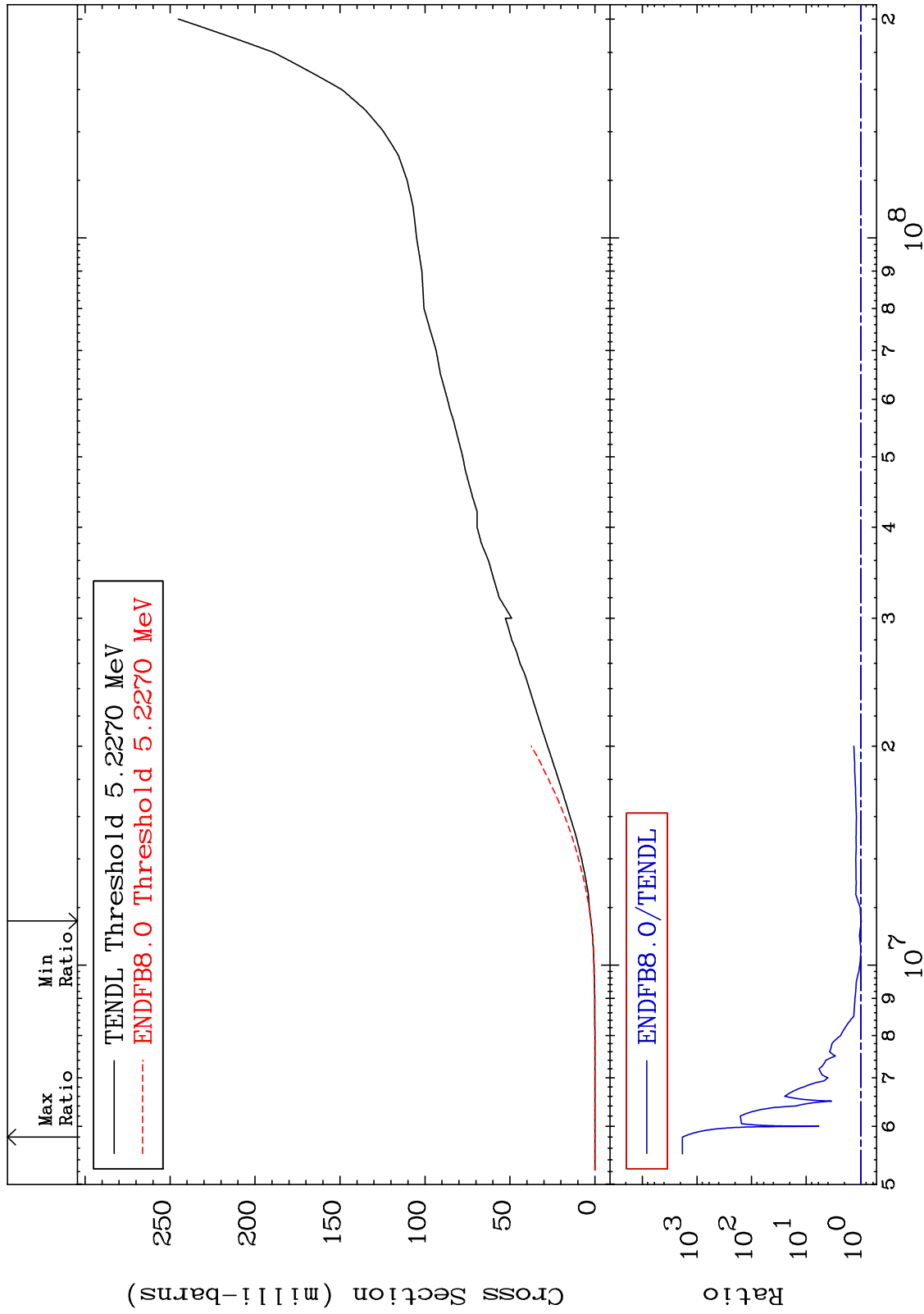
27-Co-59

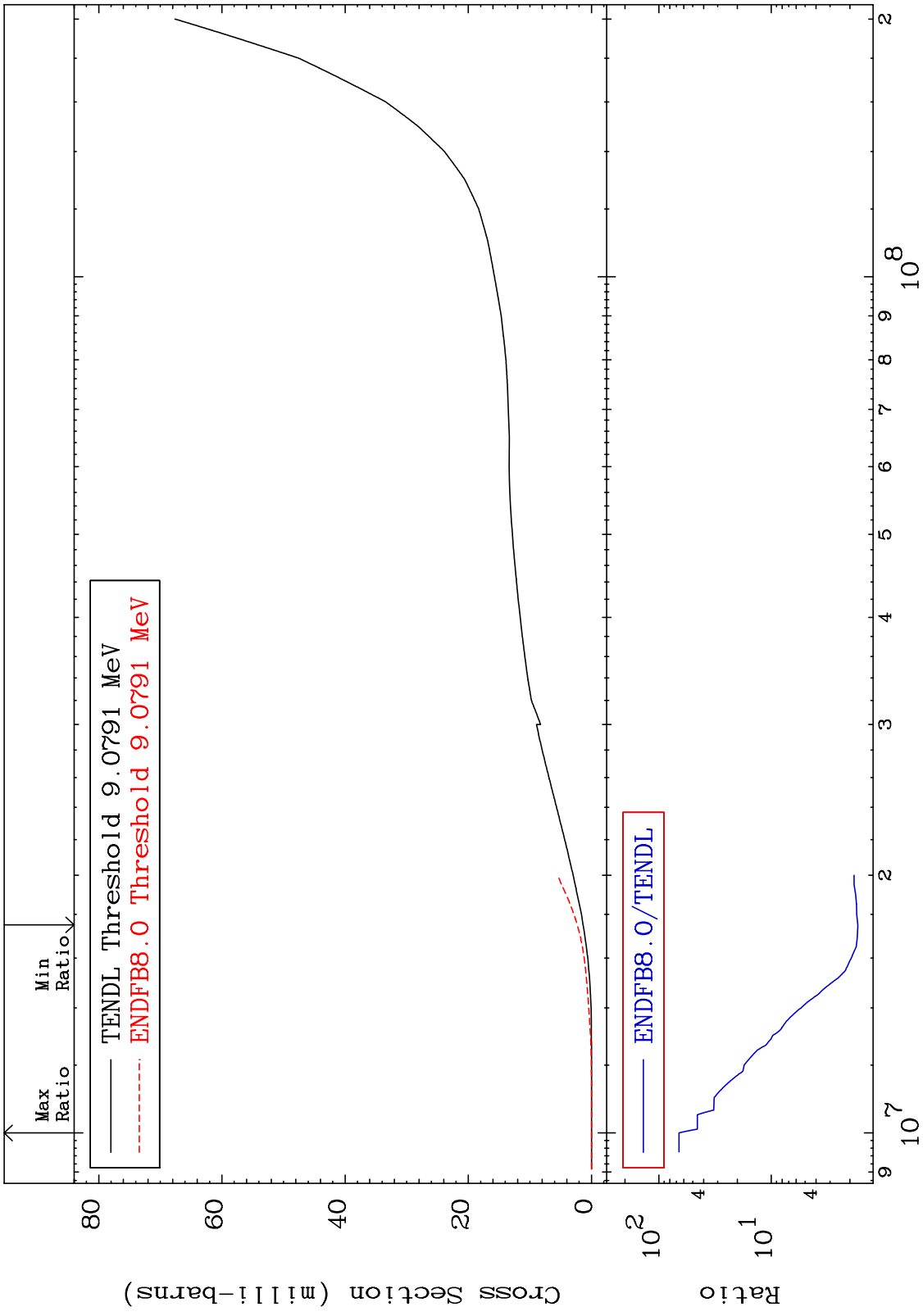


MAT 2725

### Deuterium Production Cross Section

<sup>27</sup>Co-59  
-1.846 To 9999. %

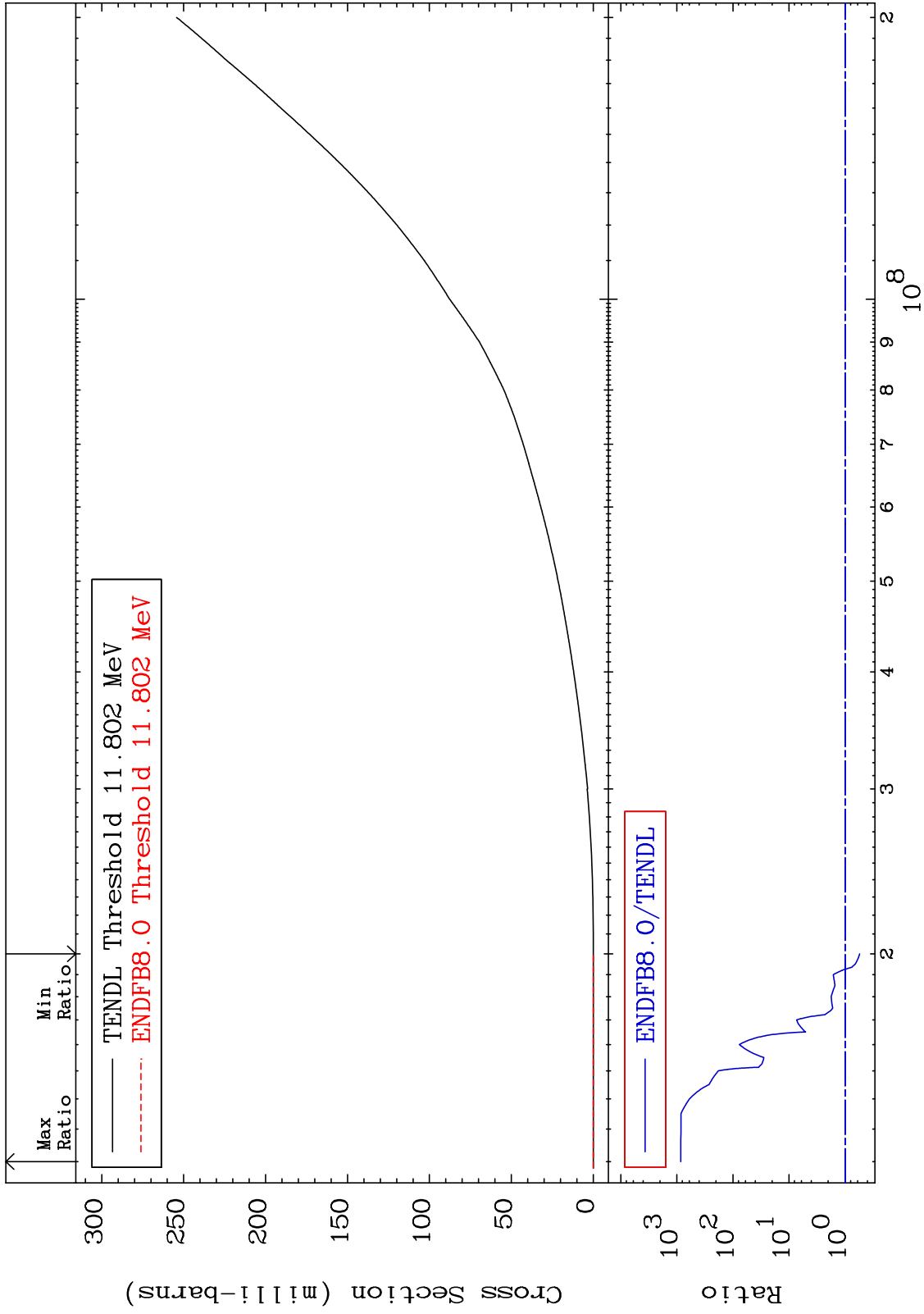




MAT 2725

He-3 Production  
Cross Section

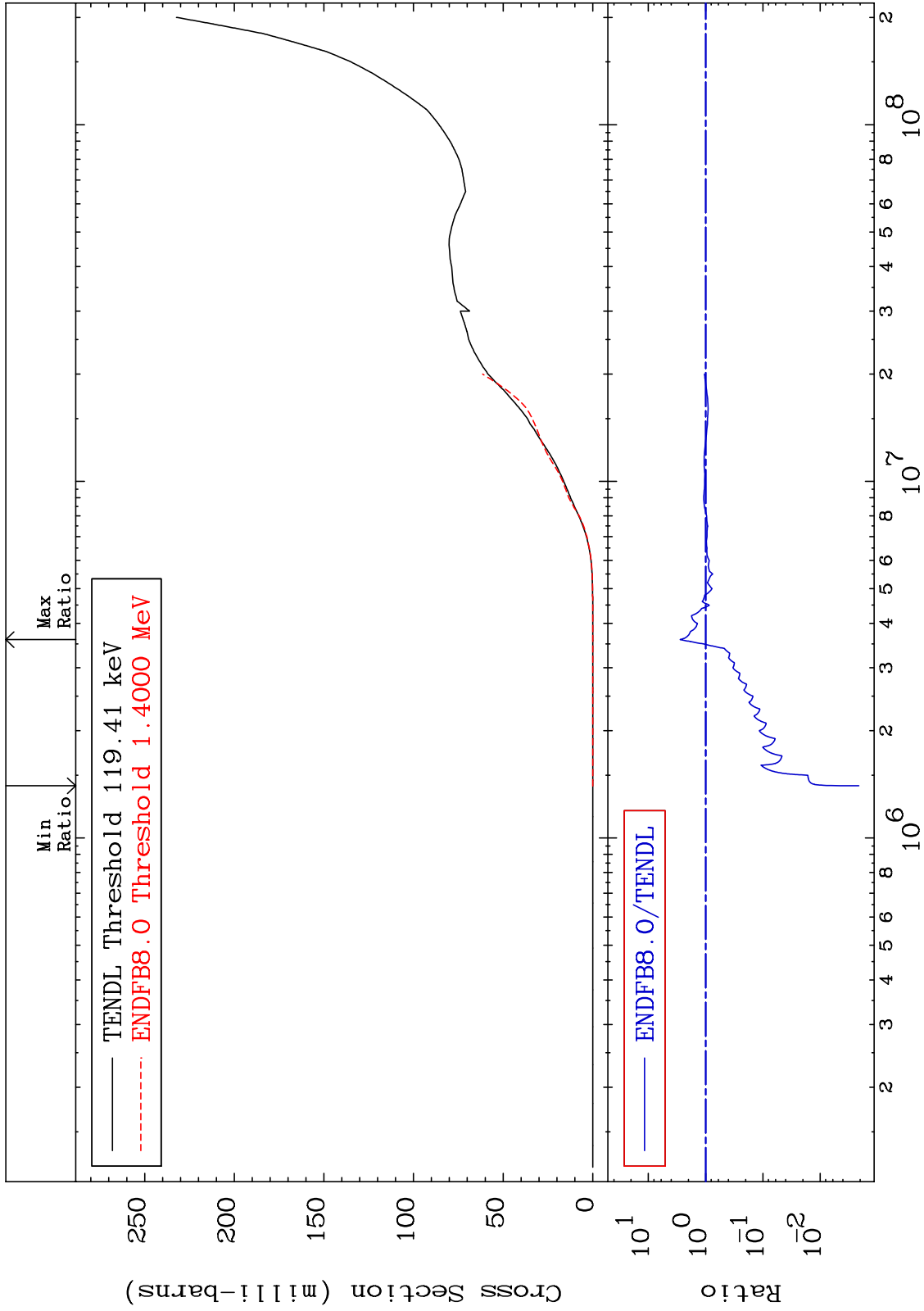
27-Co-59  
-44.98 To 9999. %



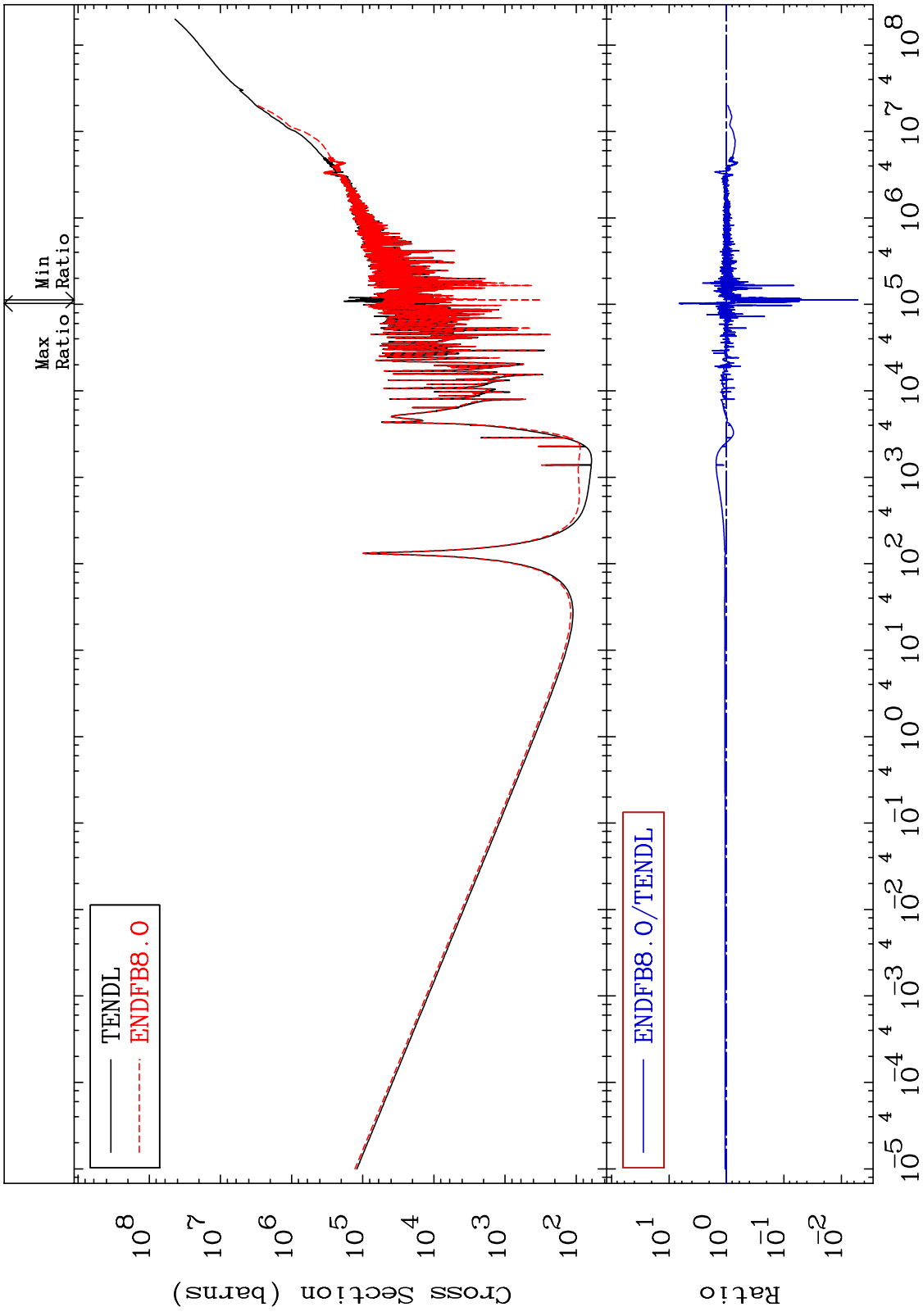
MAT 2725

He-4 Production  
Cross Section

27-Co-59  
-99.79 To 177.7 %



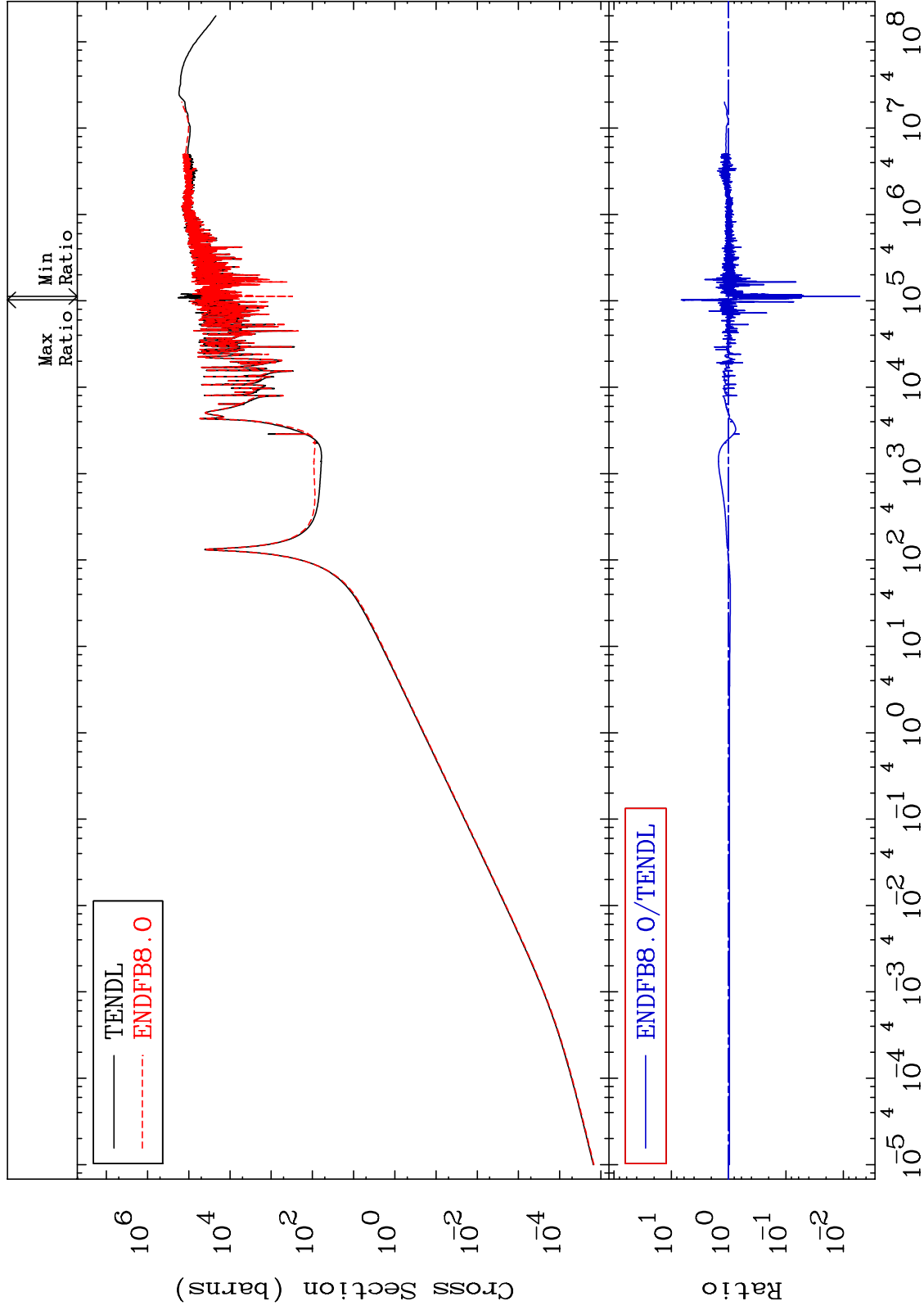
MAT 2725      Kerma total (eV-barns)      27-Co-59  
 Cross Section      -99.48 To 569.9 %



MAT 2725

Kerma elastic  
Cross Section

27-Co-59  
-99.48 To 569.9 %

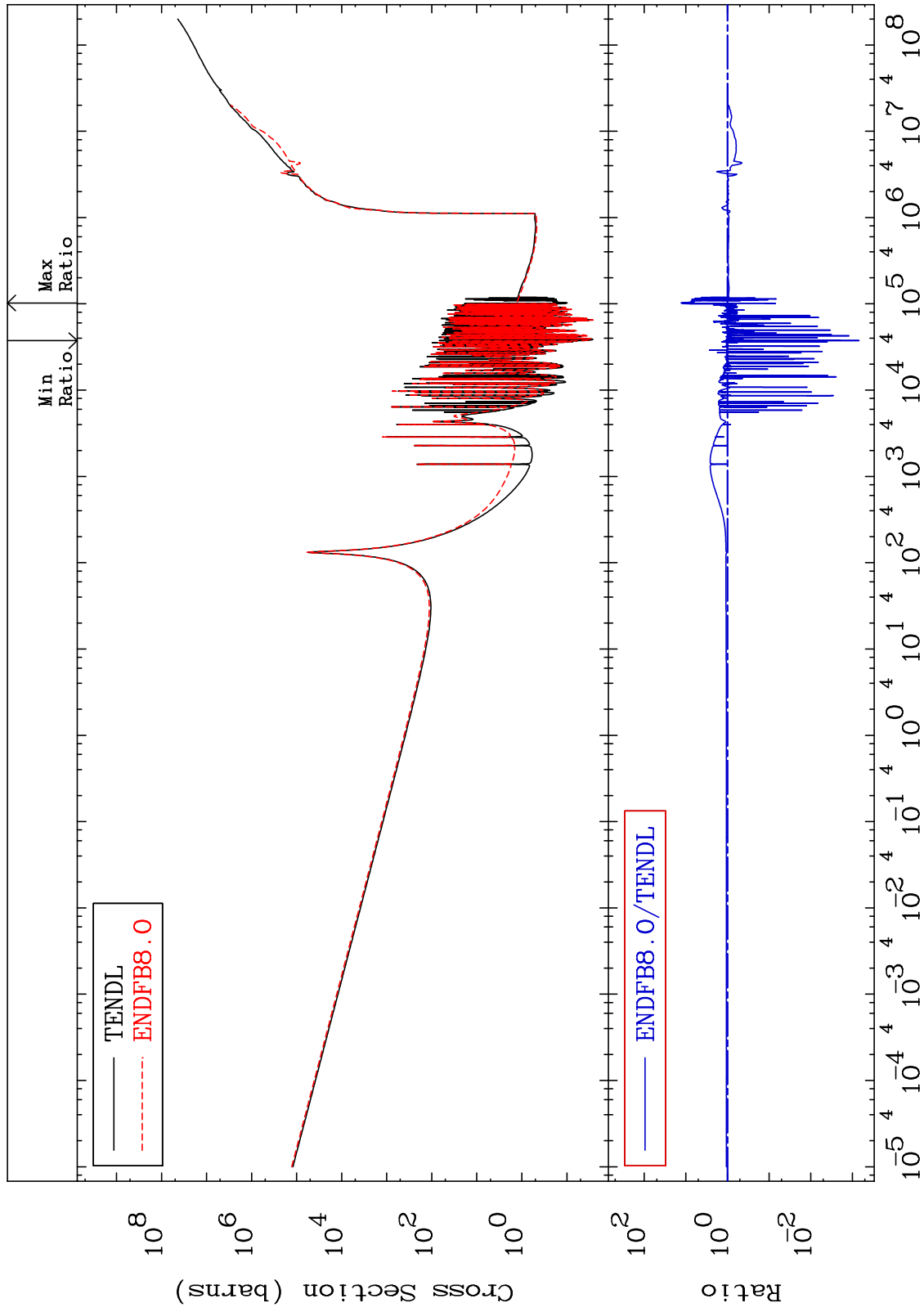




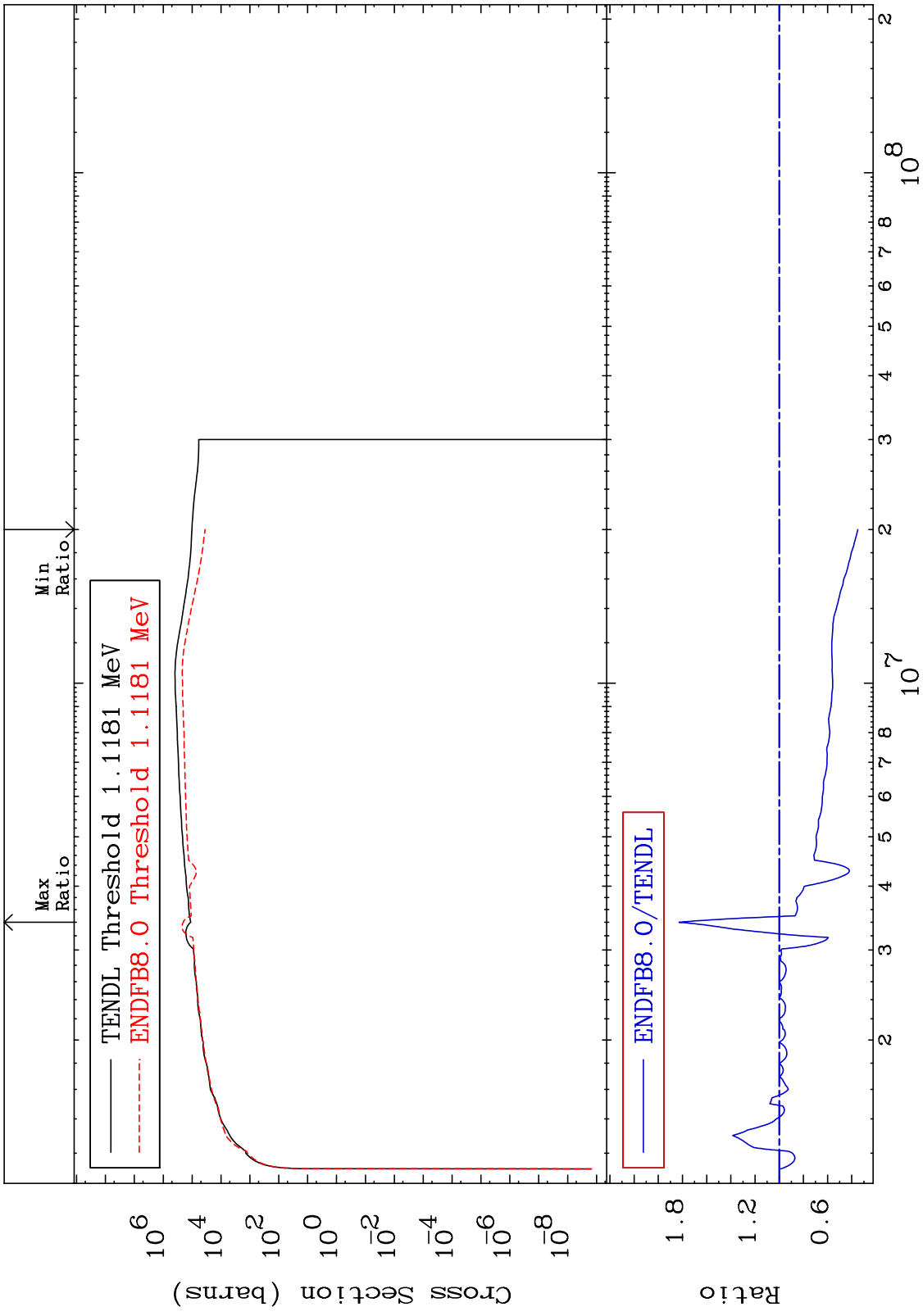
MAT 2725

Kerma non-elastic (all but mt2)  
Cross Section

27-Co-59  
-99.93 To 1231. %



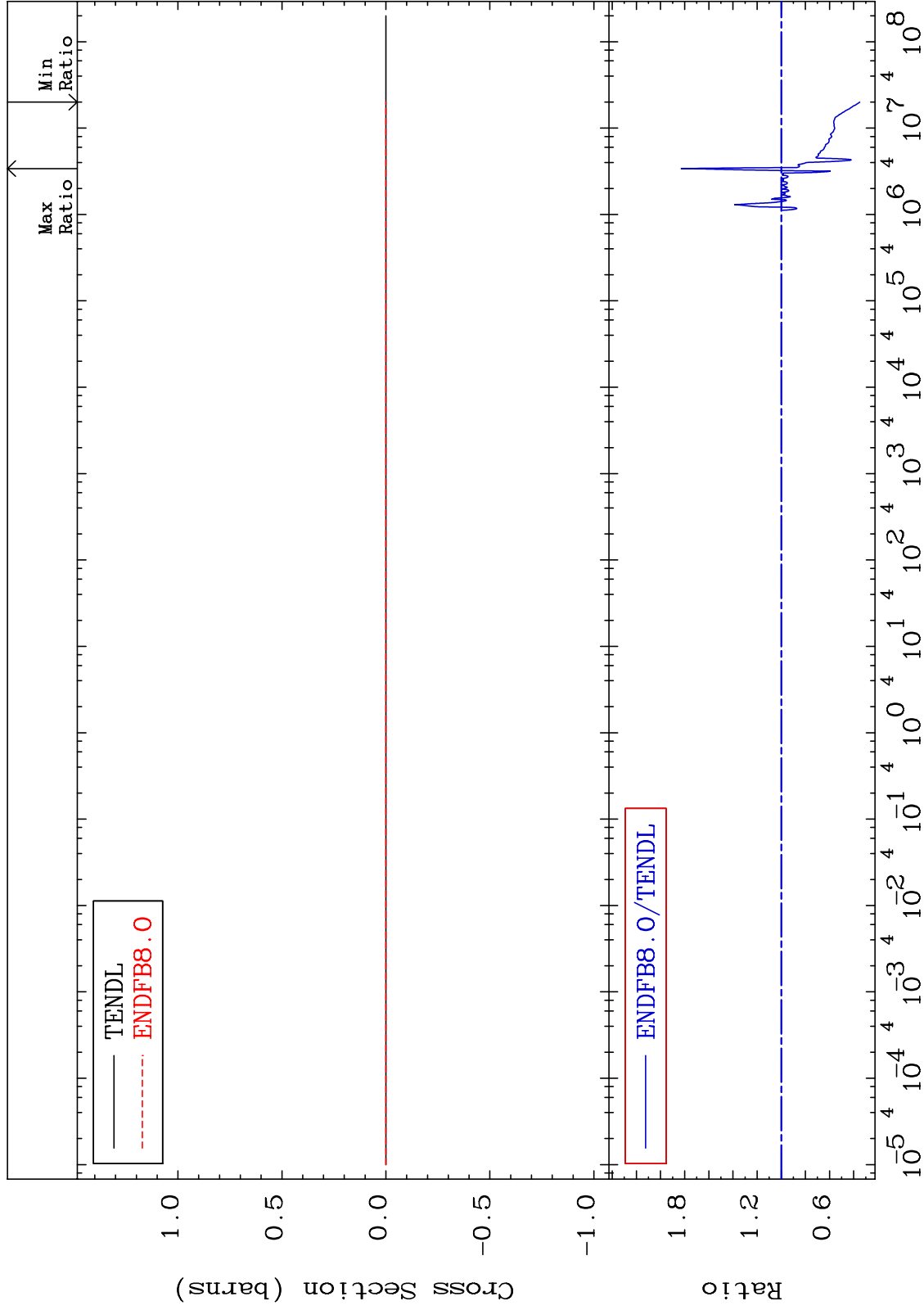
MAT 2725 Kerma inelastic (mt51-91) 27-Co-59  
 Cross Section -65.02 To 82.83 %



MAT 2725

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

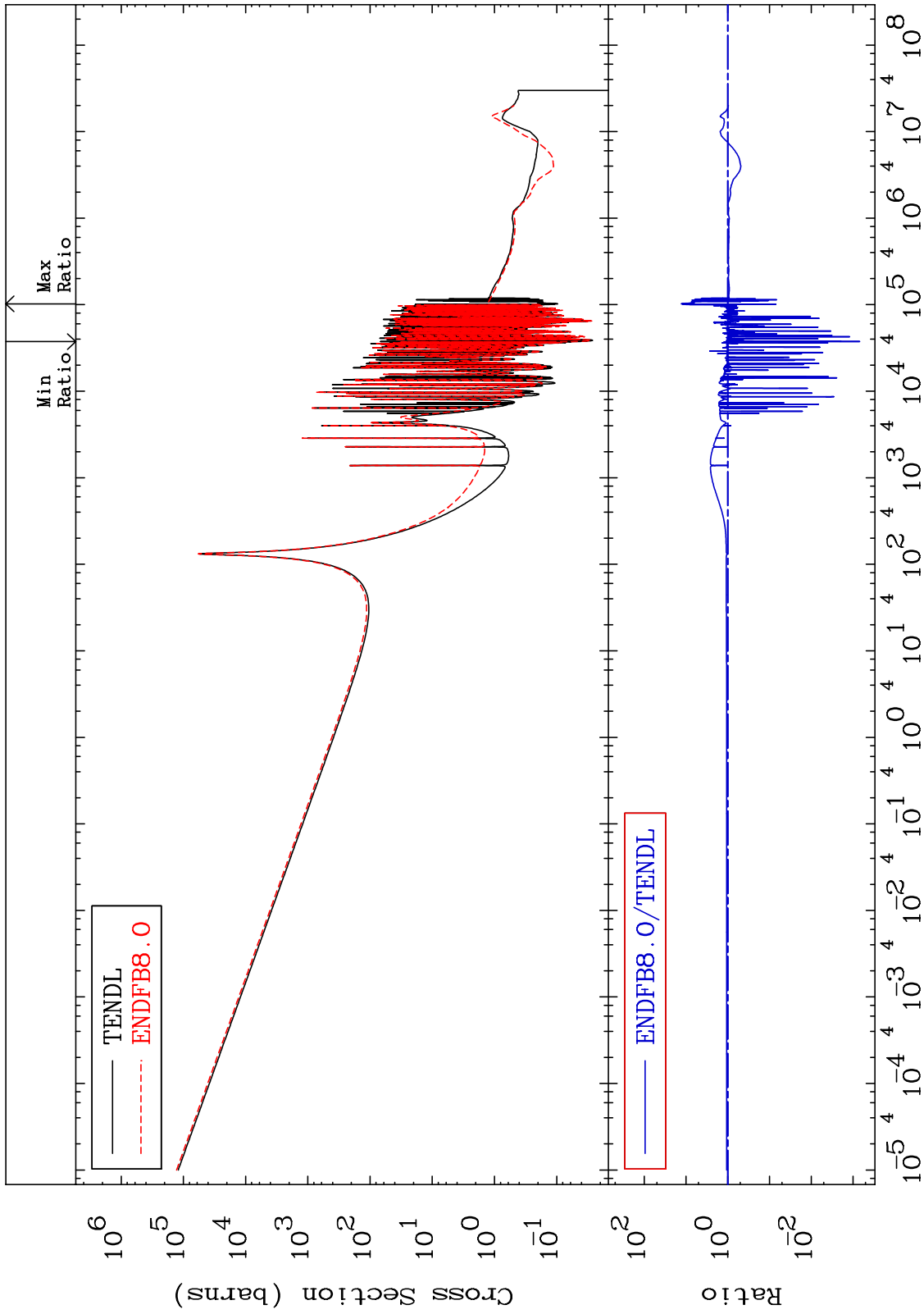
27-Co-59  
-65.02 To 82.83 %



MAT 2725

Kerma capture (mt102)  
Cross Section

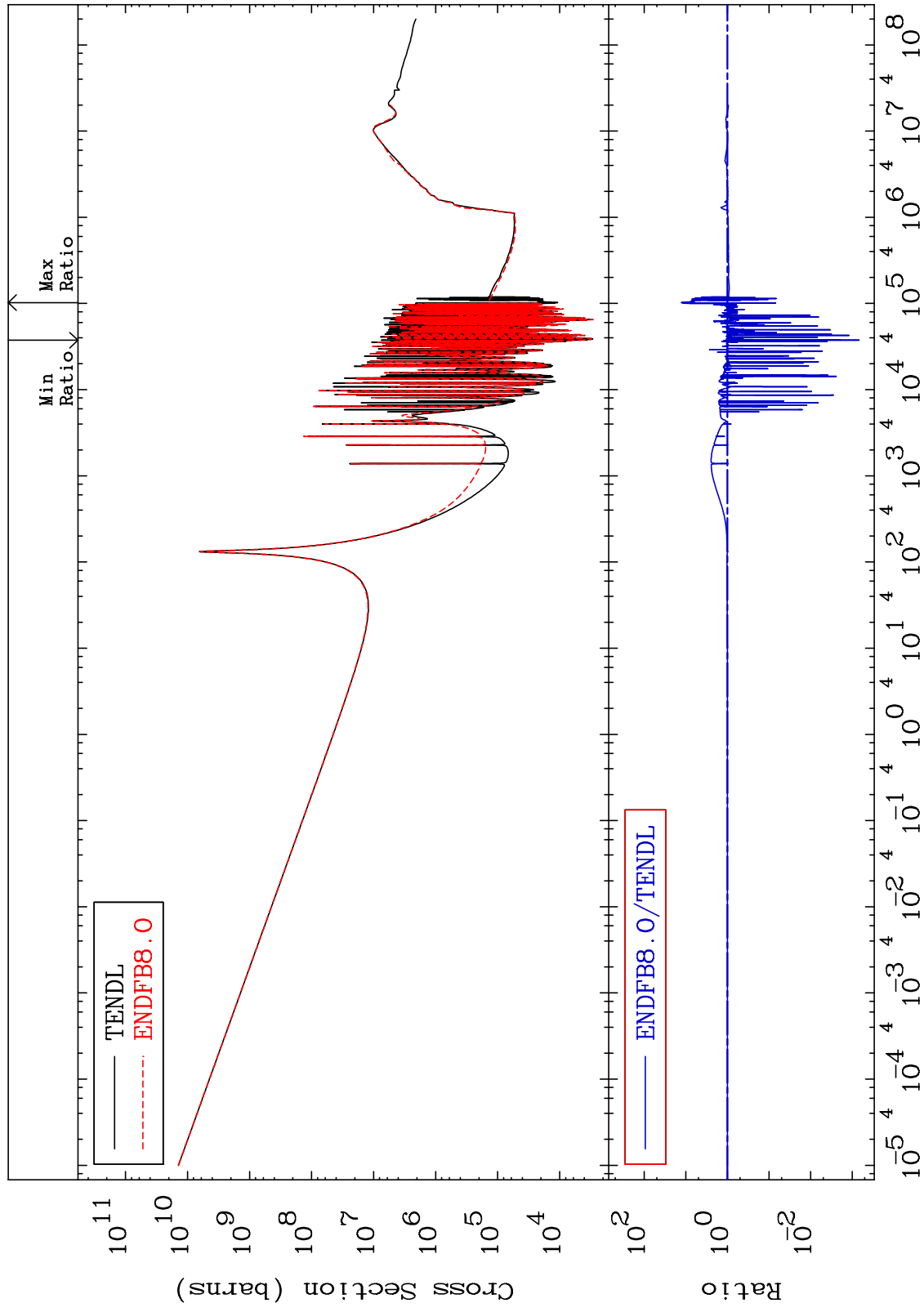
27-Co-59  
-99.93 To 1231. %



MAT 2725

Total photon (eV-barns)  
Cross Section

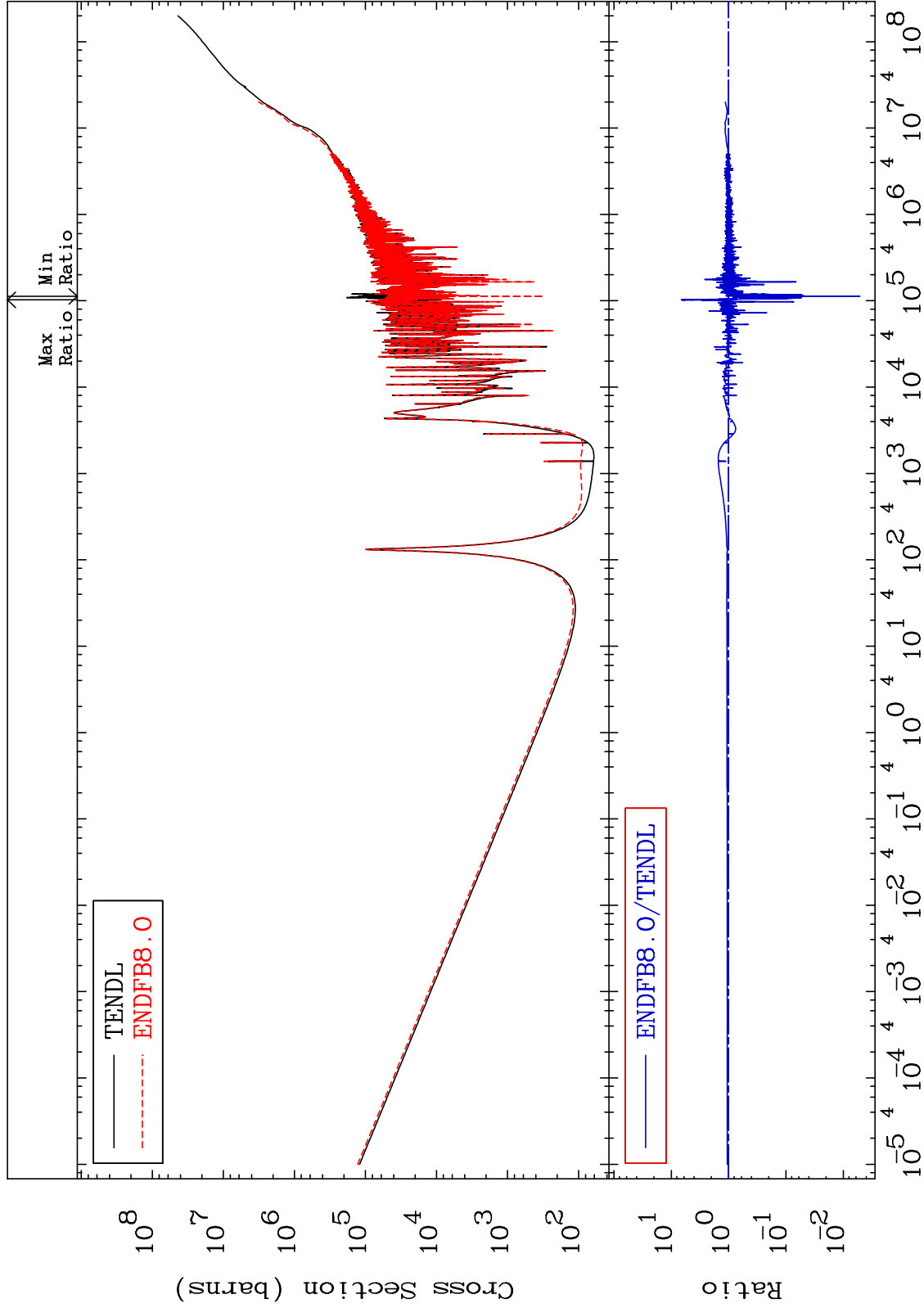
27-Co-59  
-99.93 To 1217. %



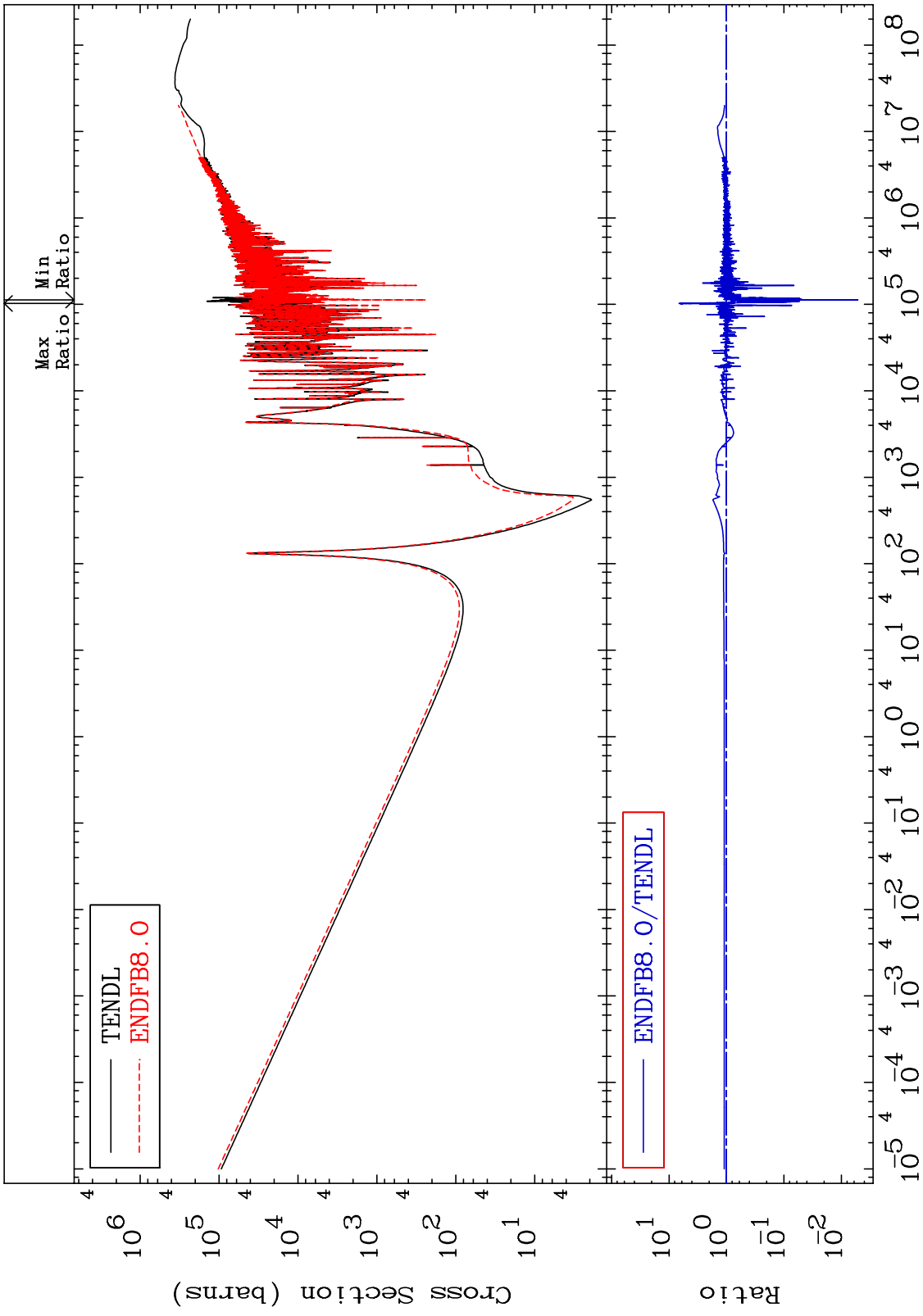
MAT 2725

Total kinematic kerma (high limit)  
Cross Section

27-Co-59  
-99.48 To 569.9 %



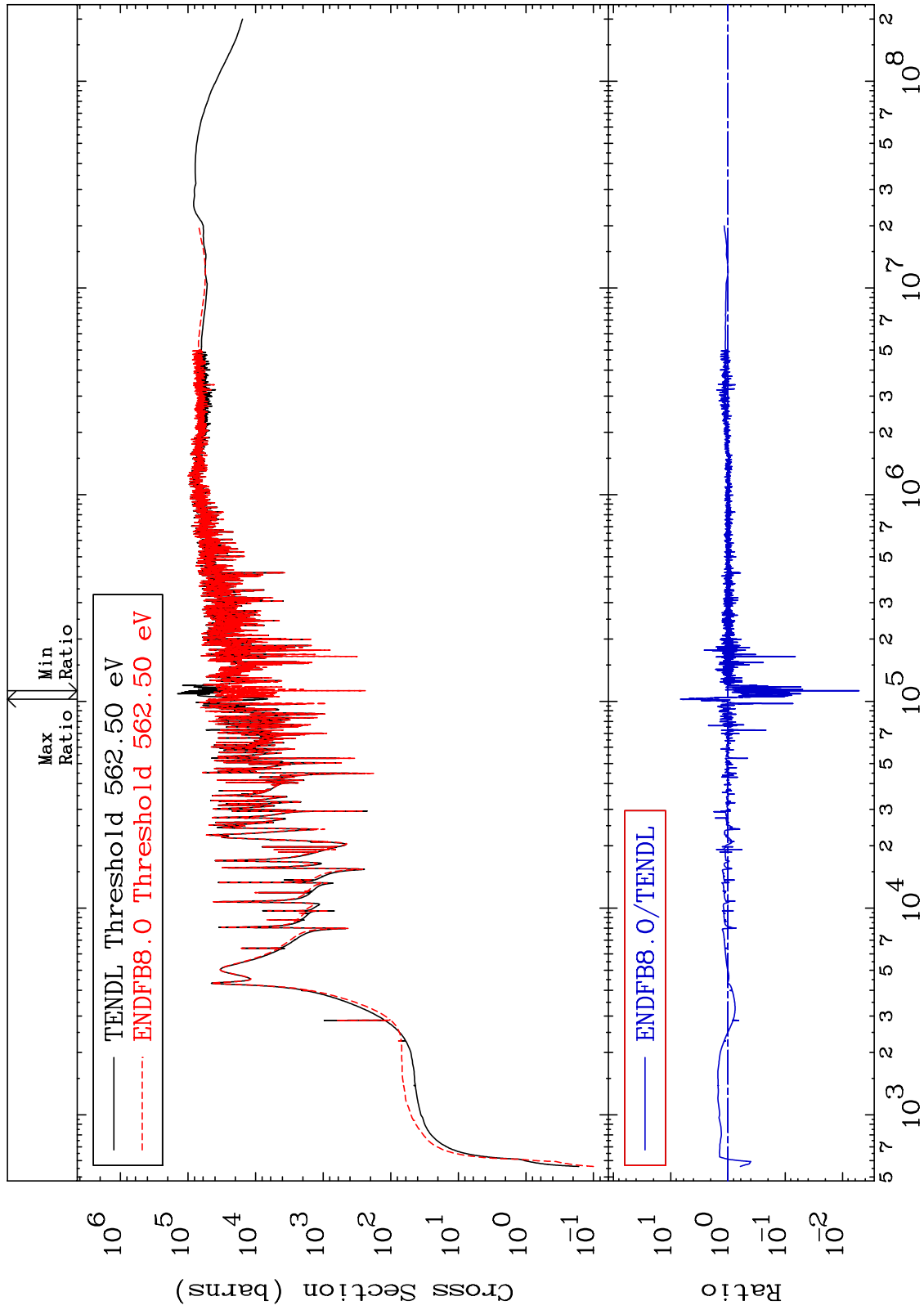
MAT 2725      Dpa total (eV-barns)      27-Co-59  
 Cross Section      -99.48 To 569.9 %



MAT 2725

Dpa elastic (mt2)  
Cross Section

27-Co-59  
-99.48 To 569.8 %



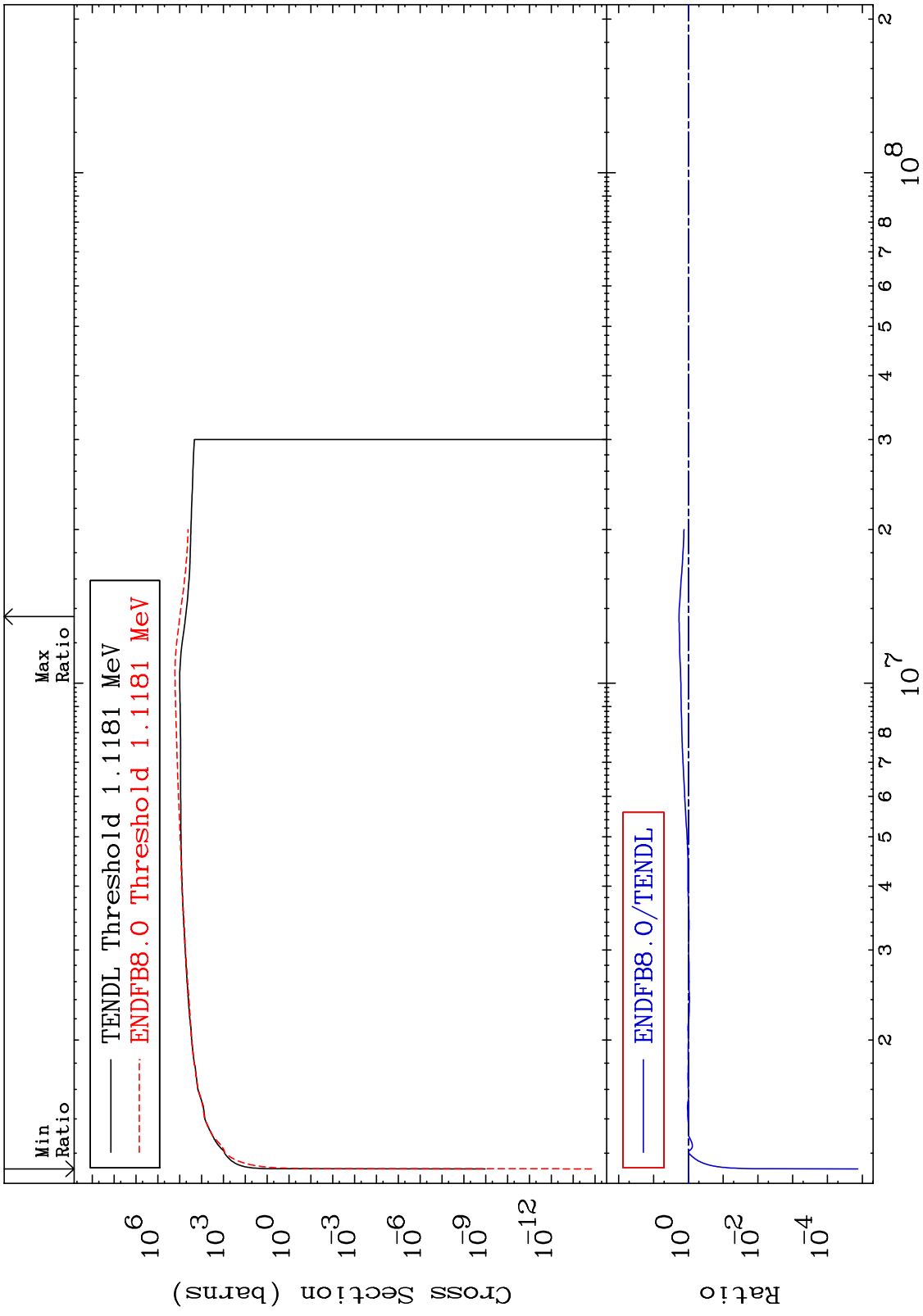
63

Incident Energy (eV)

27-Co-59



MAT 2725      Dpa inelastic (mt51-91)      27-Co-59  
 Cross Section      -100.0 To 84.85 %



MAT 2725

Dpa disappearance (mt102 -120)  
Cross Section

27-Co-59  
-99.93 To 1264. %

