

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

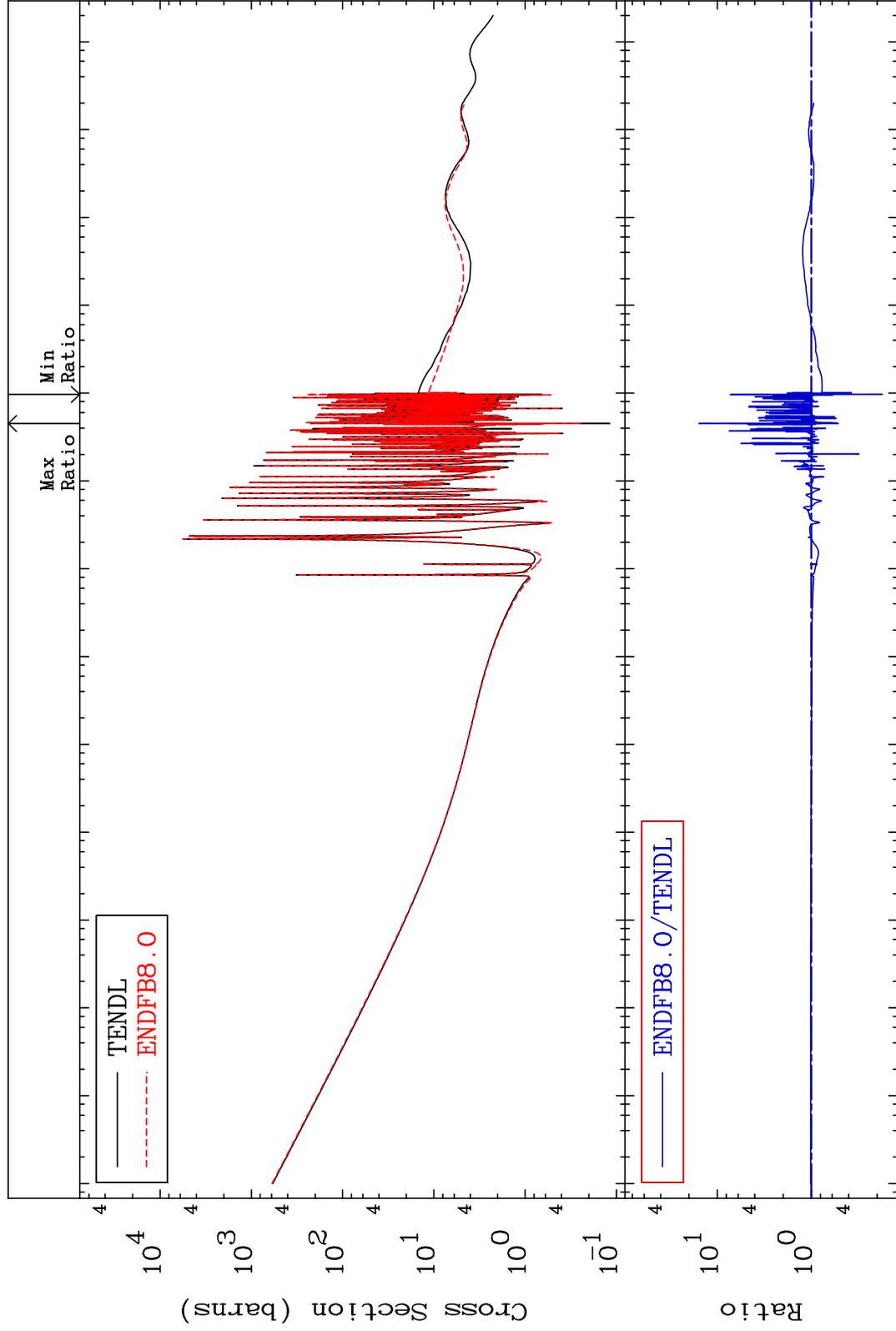
MAT 5925

Total

59-Pr-141

Cross Section

-82.29 To 1462. %



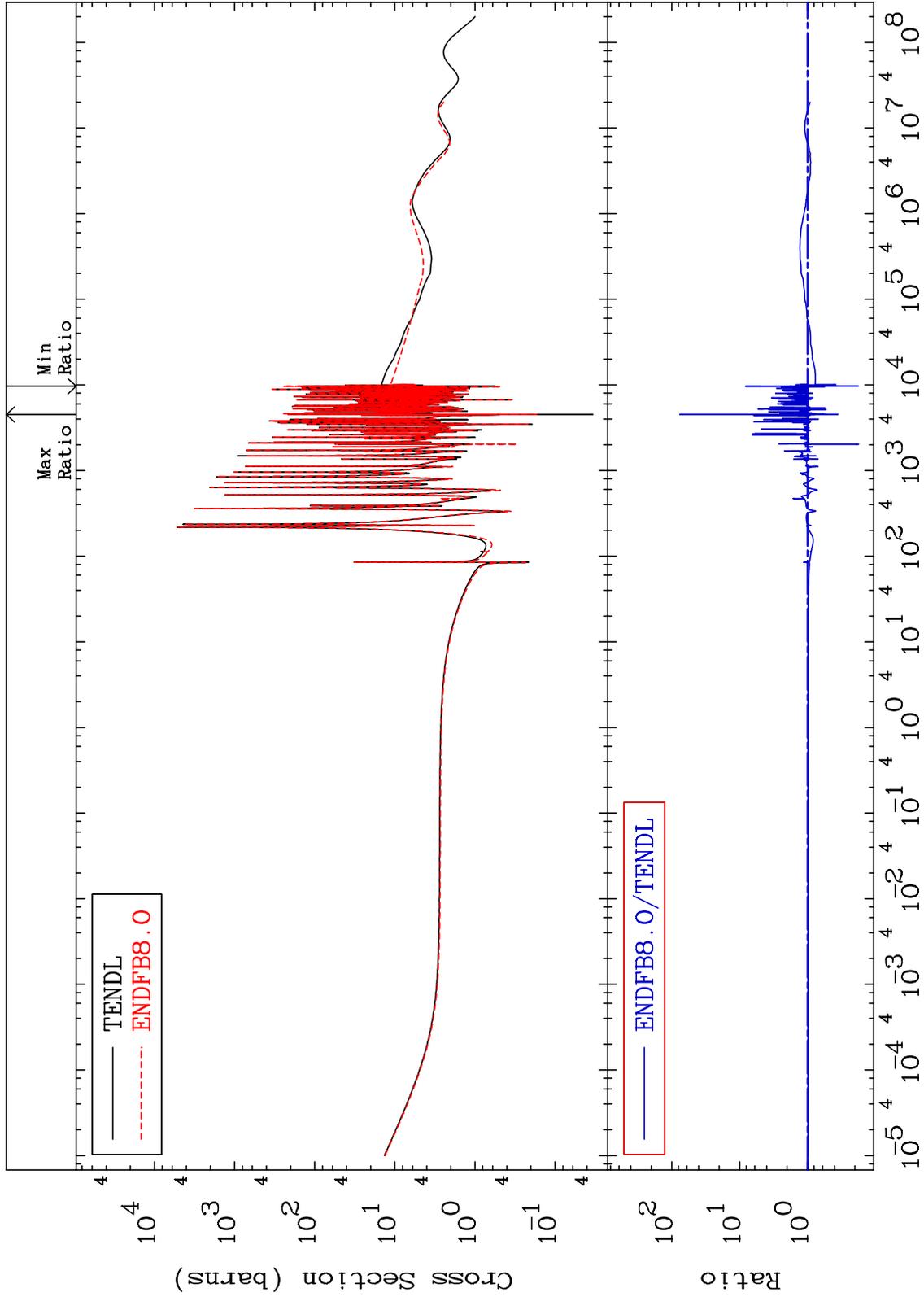
Incident Energy (eV)

59-Pr-141

MAT 5925

Elastic  
Cross Section

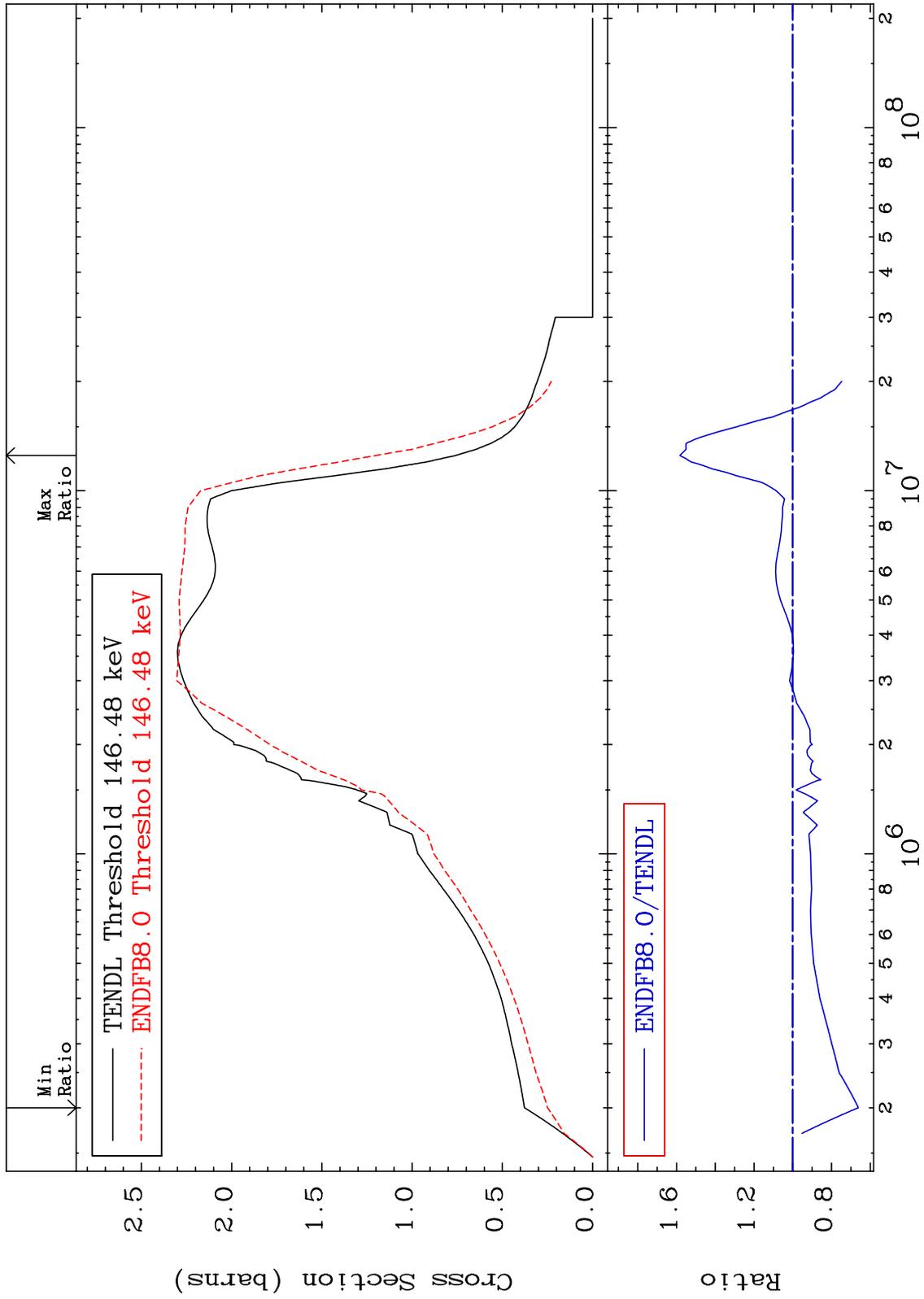
59-Pr-141  
-82.23 To 7466. %



Incident Energy (eV)

59-Pr-141

MAT 5925 59-Pr-141 -33.88 To 58.24 % Inelastic Cross Section



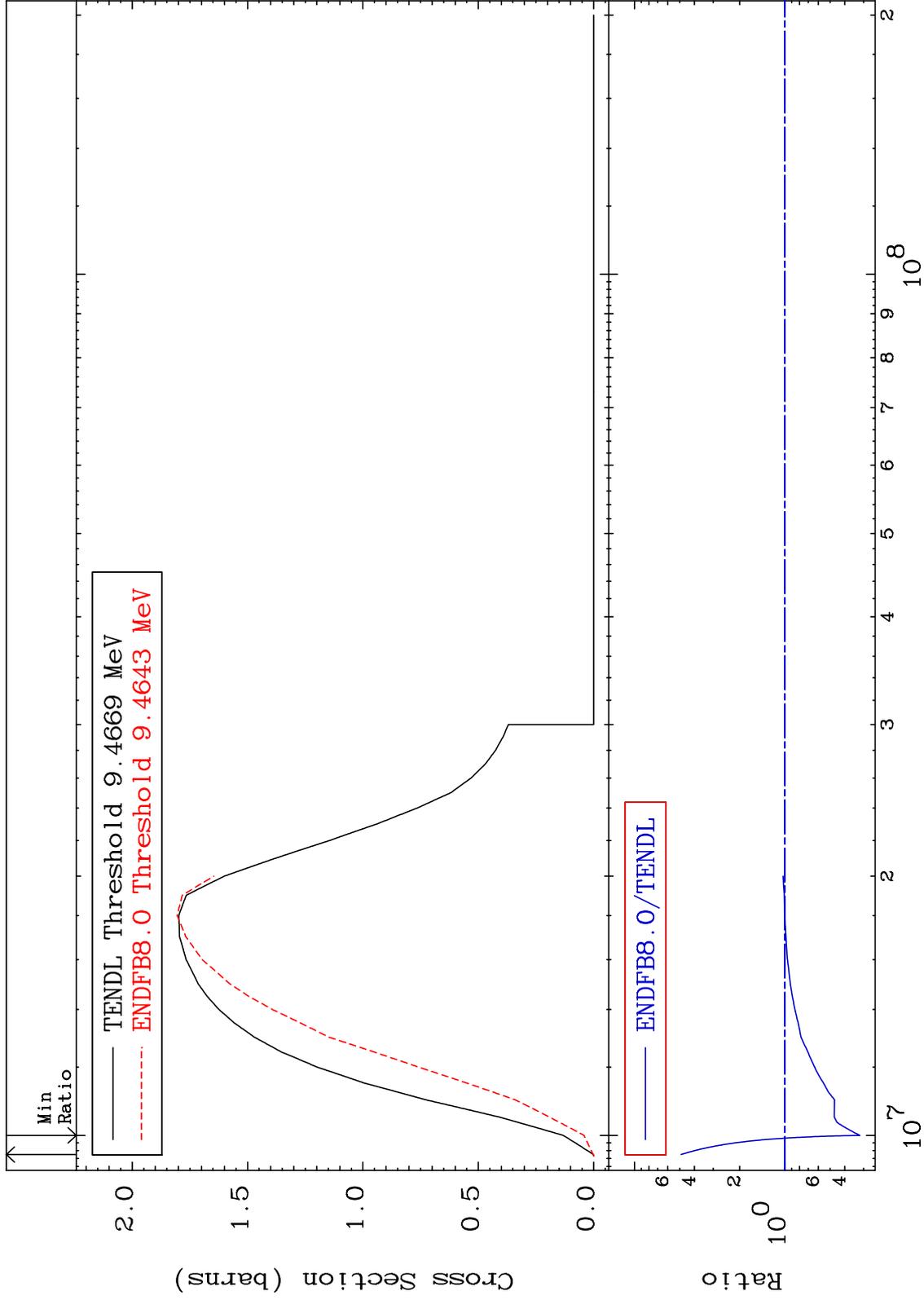
MAT 5925

(n,2n)

59-Pr-141

Cross Section

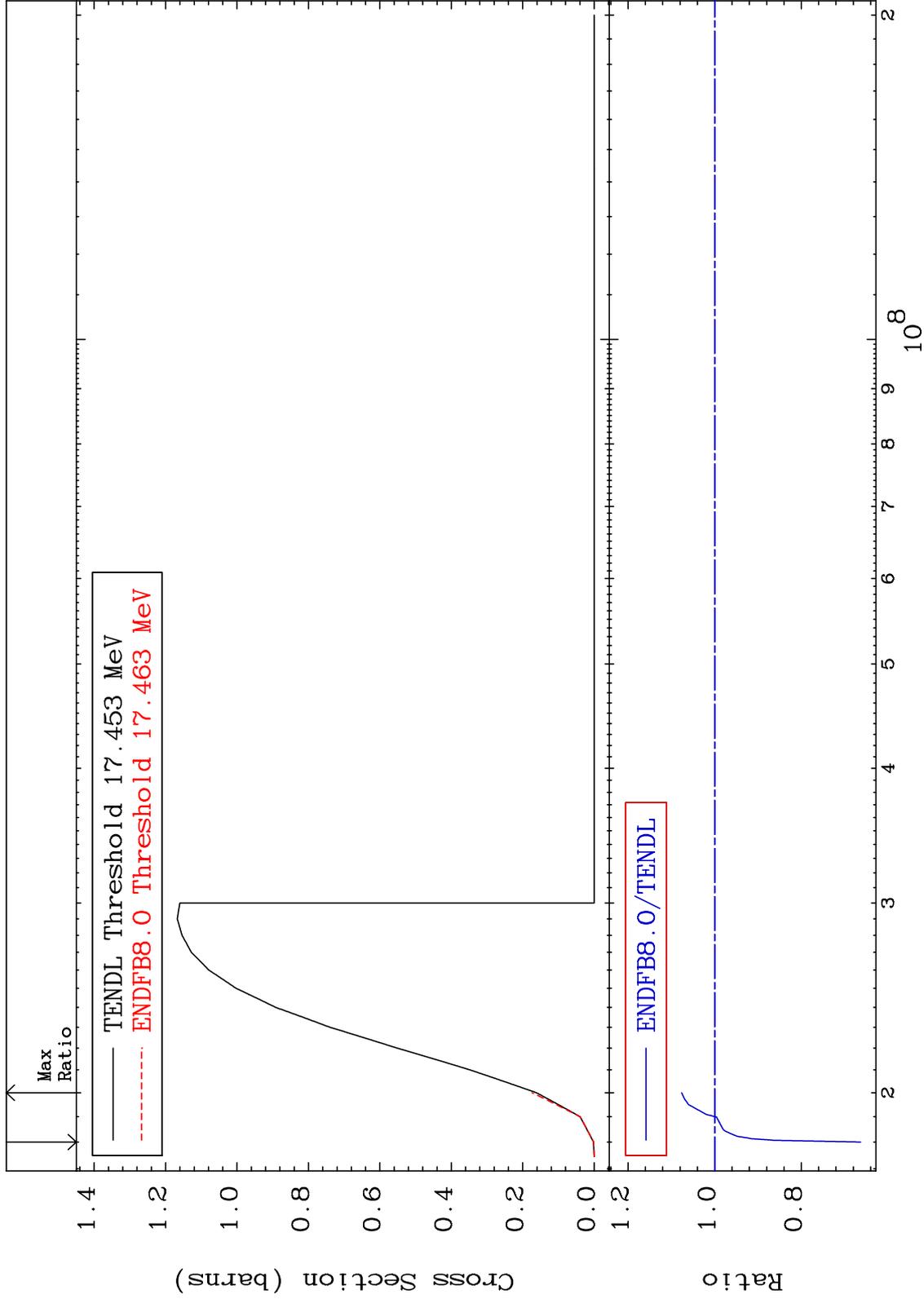
-68.28 To 389.2 %



4

Incident Energy (eV)

59-Pr-141



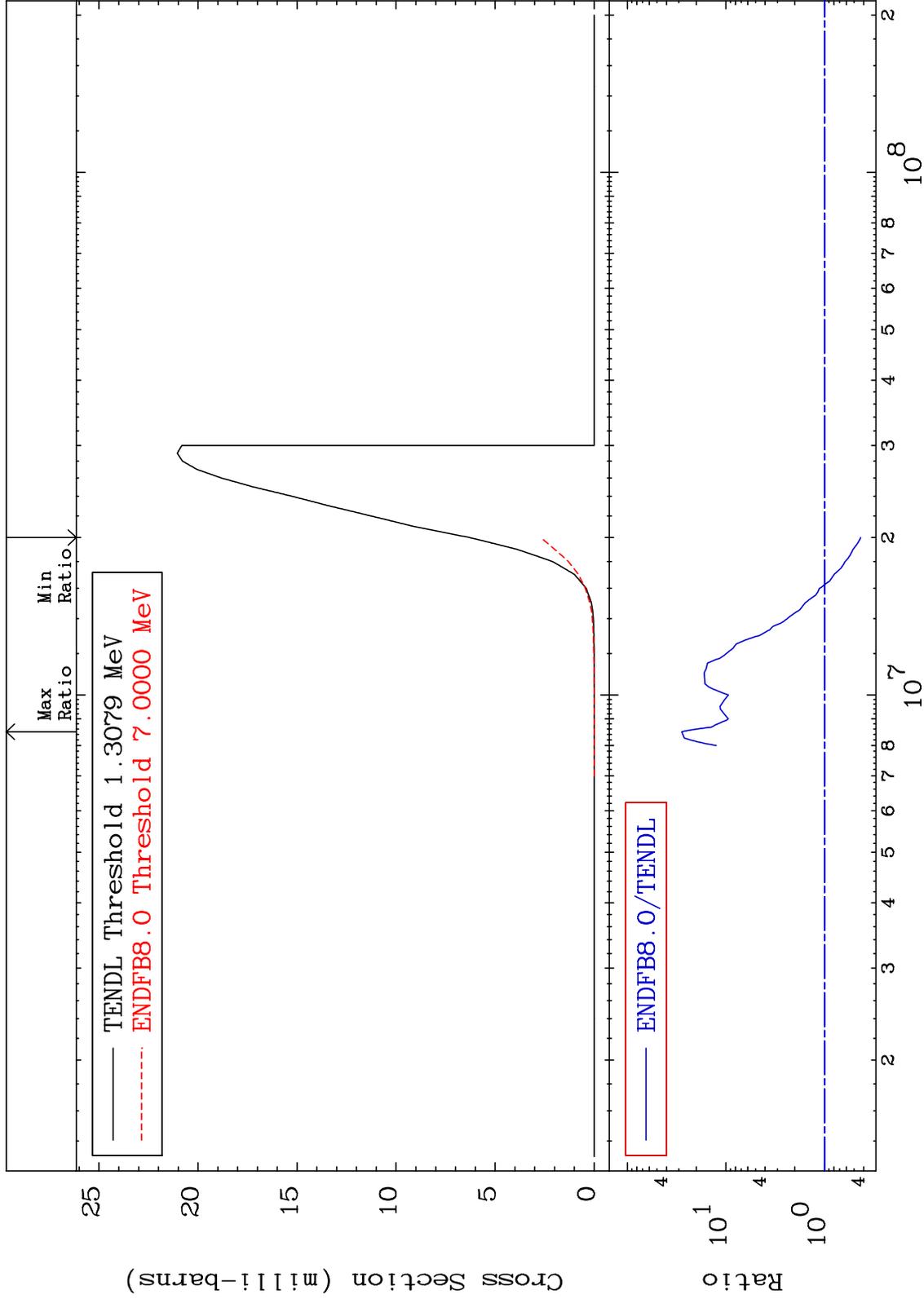
MAT 5925

(n, n')  $\alpha$

59-Pr-141

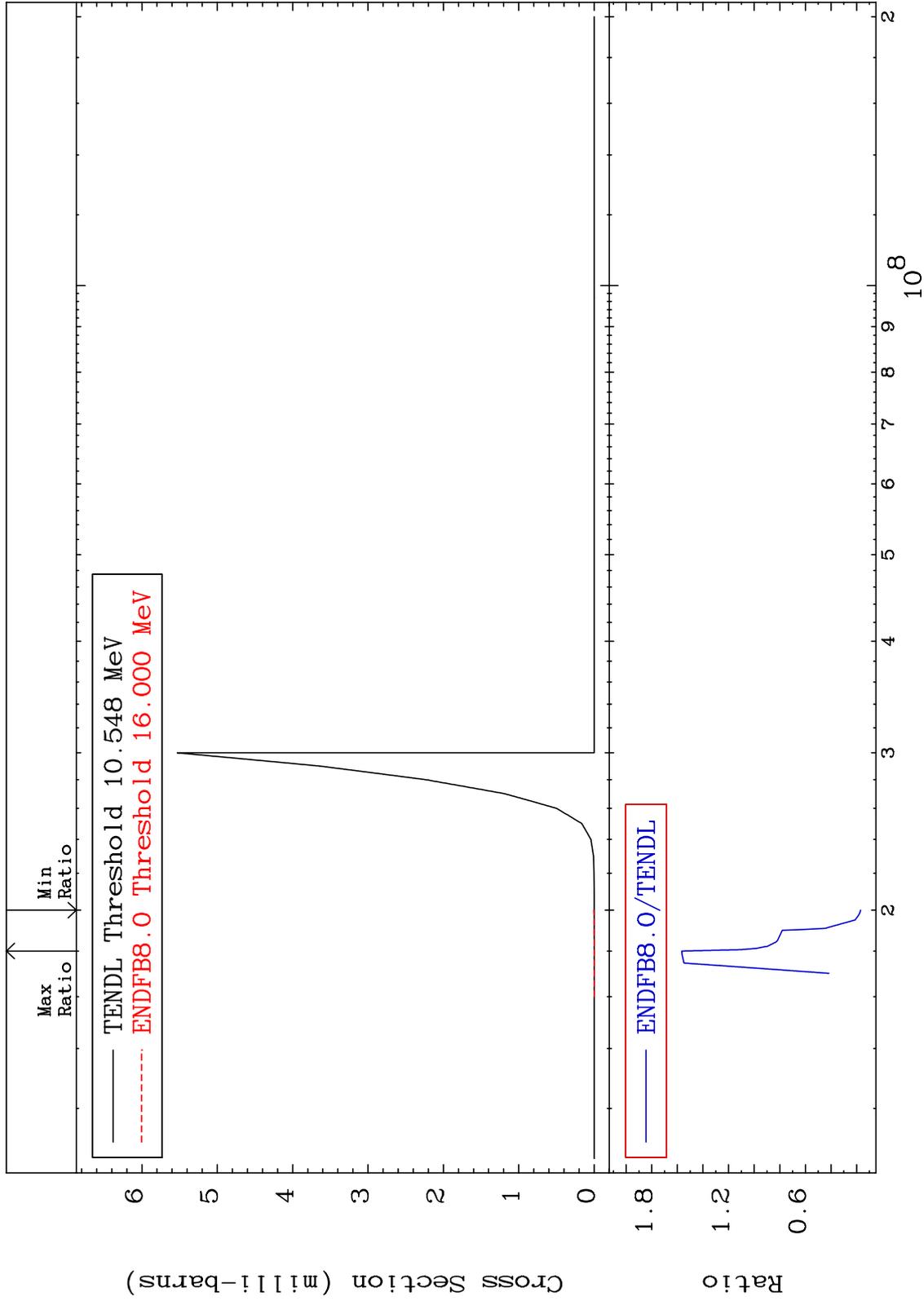
-57.11 To 2706. %

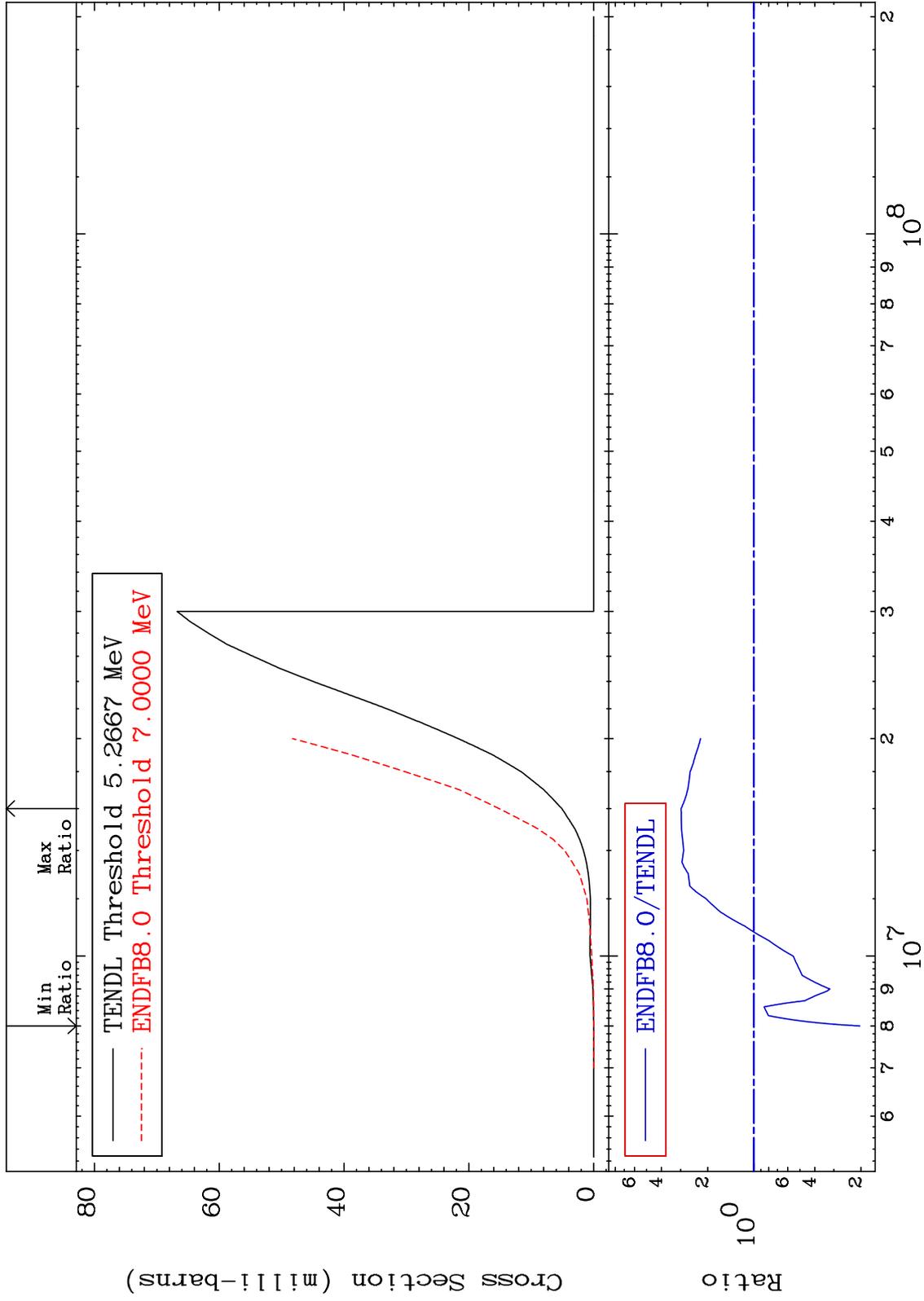
Cross Section

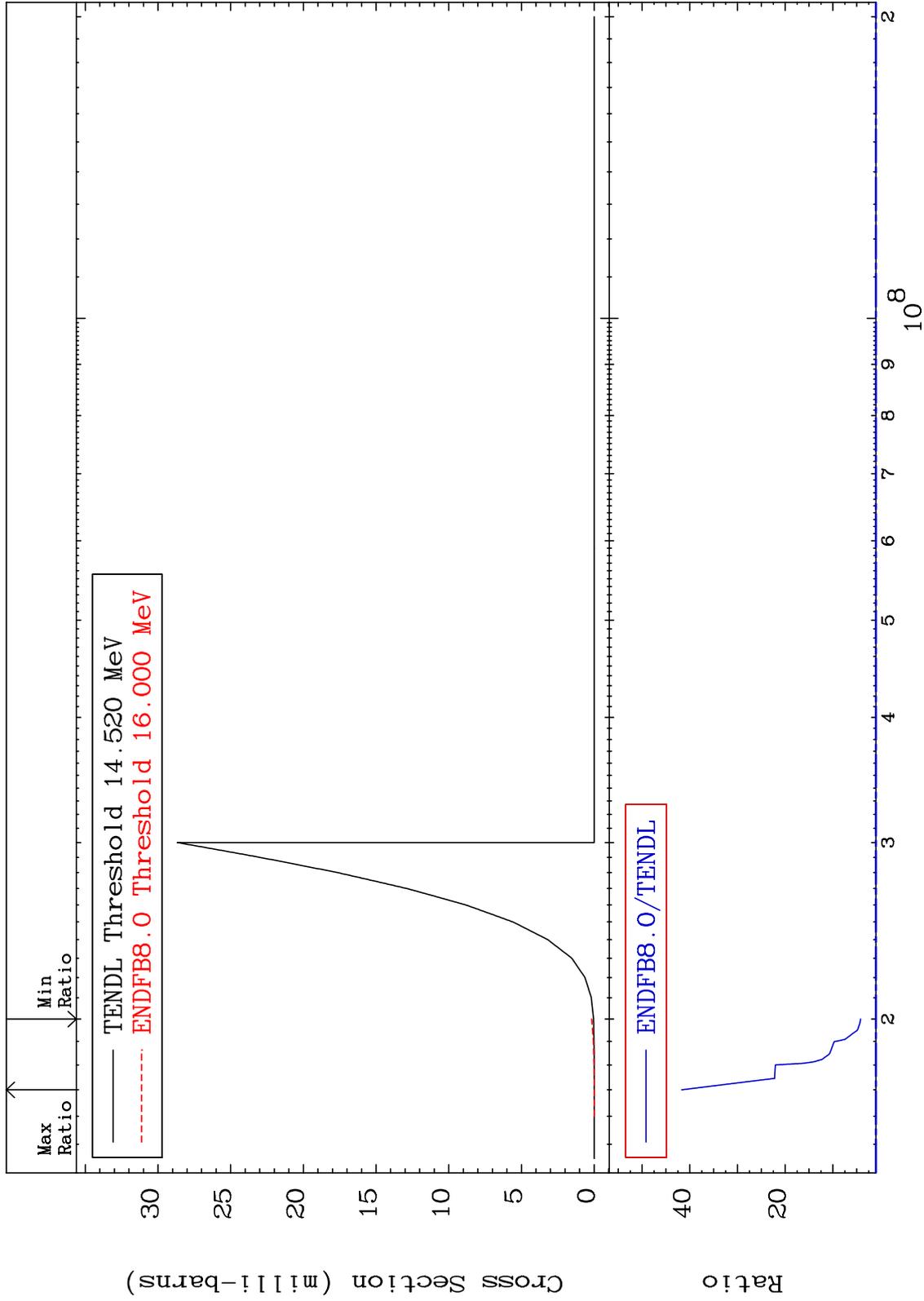


Cross Section

9999. To 9999. %



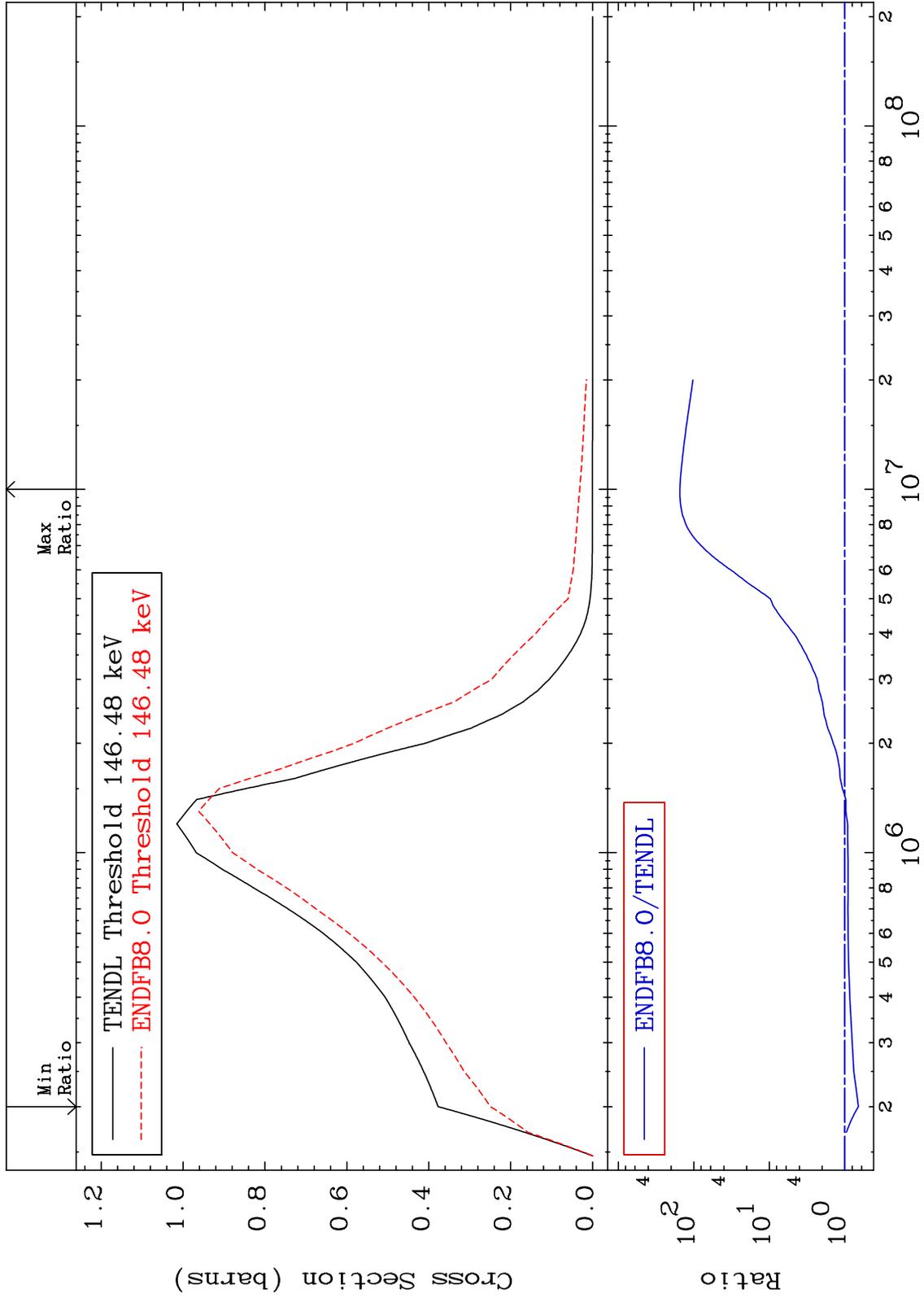




MAT 5925

MT= 51 (n,n') Level  
Cross Section

59-Pr-141  
-33.88 To 9999. %



10

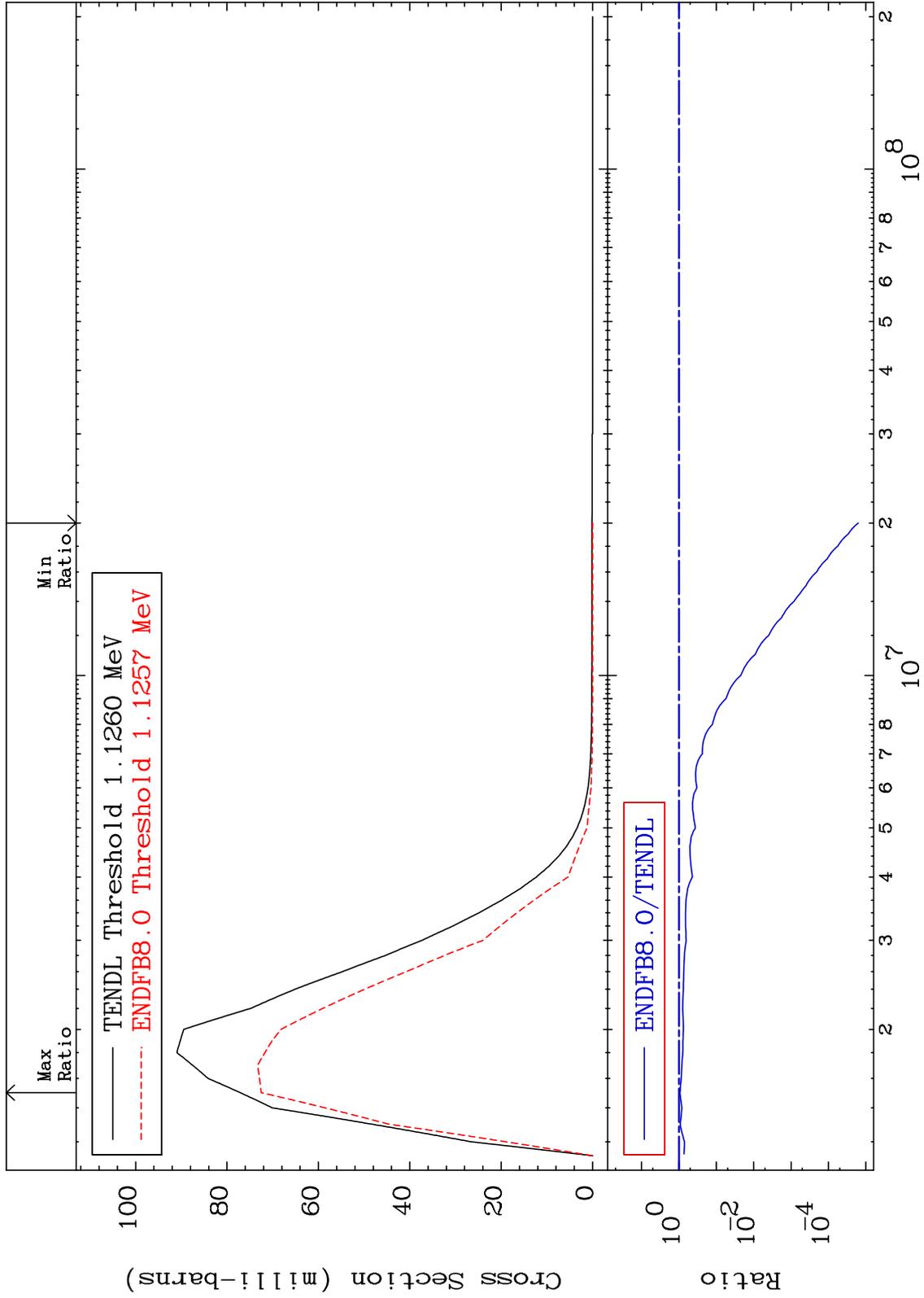
Incident Energy (eV)

59-Pr-141

MAT 5925

MT= 52 (n, n') Level  
Cross Section

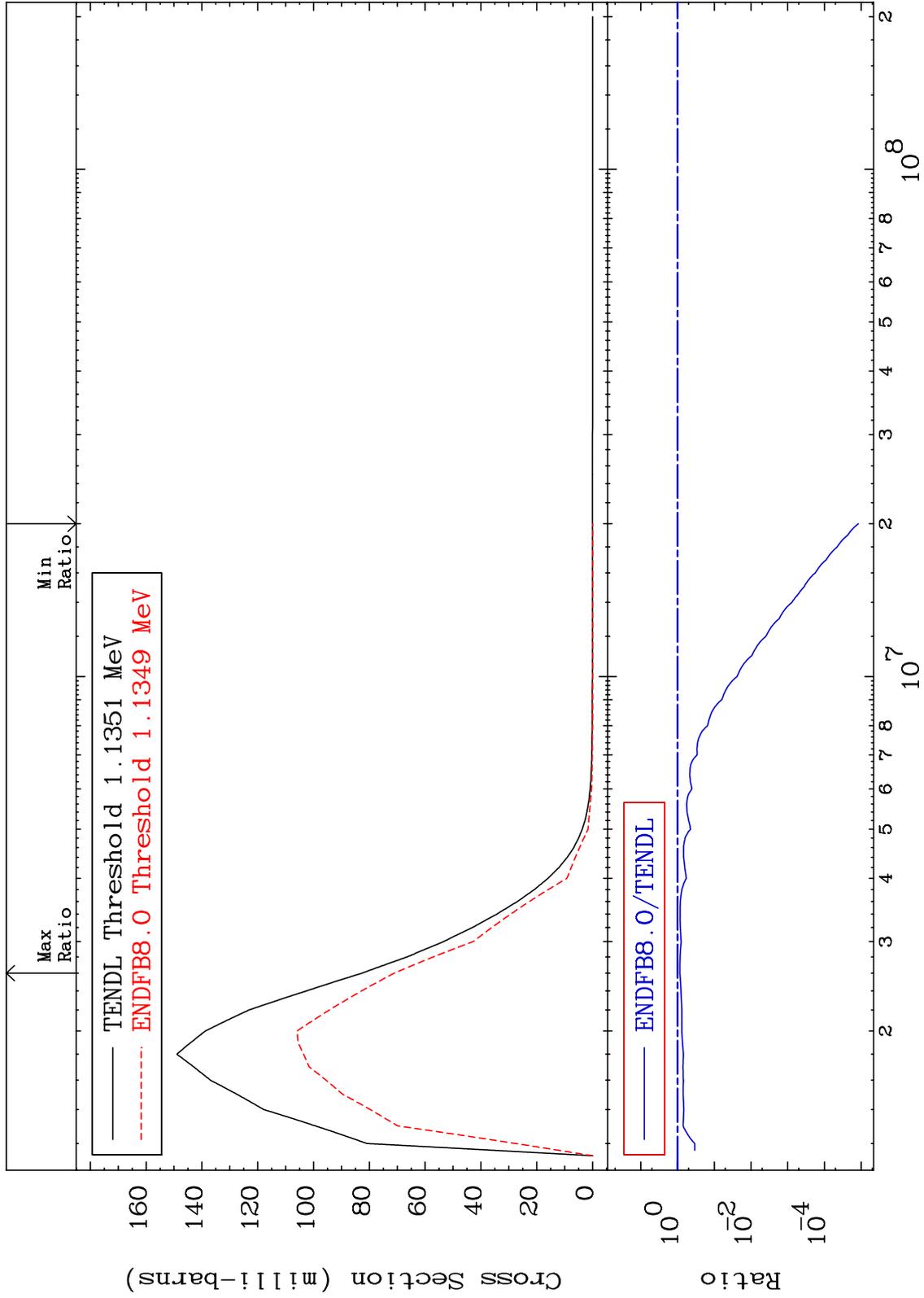
59-Pr-141  
-100.0 To -5.987%

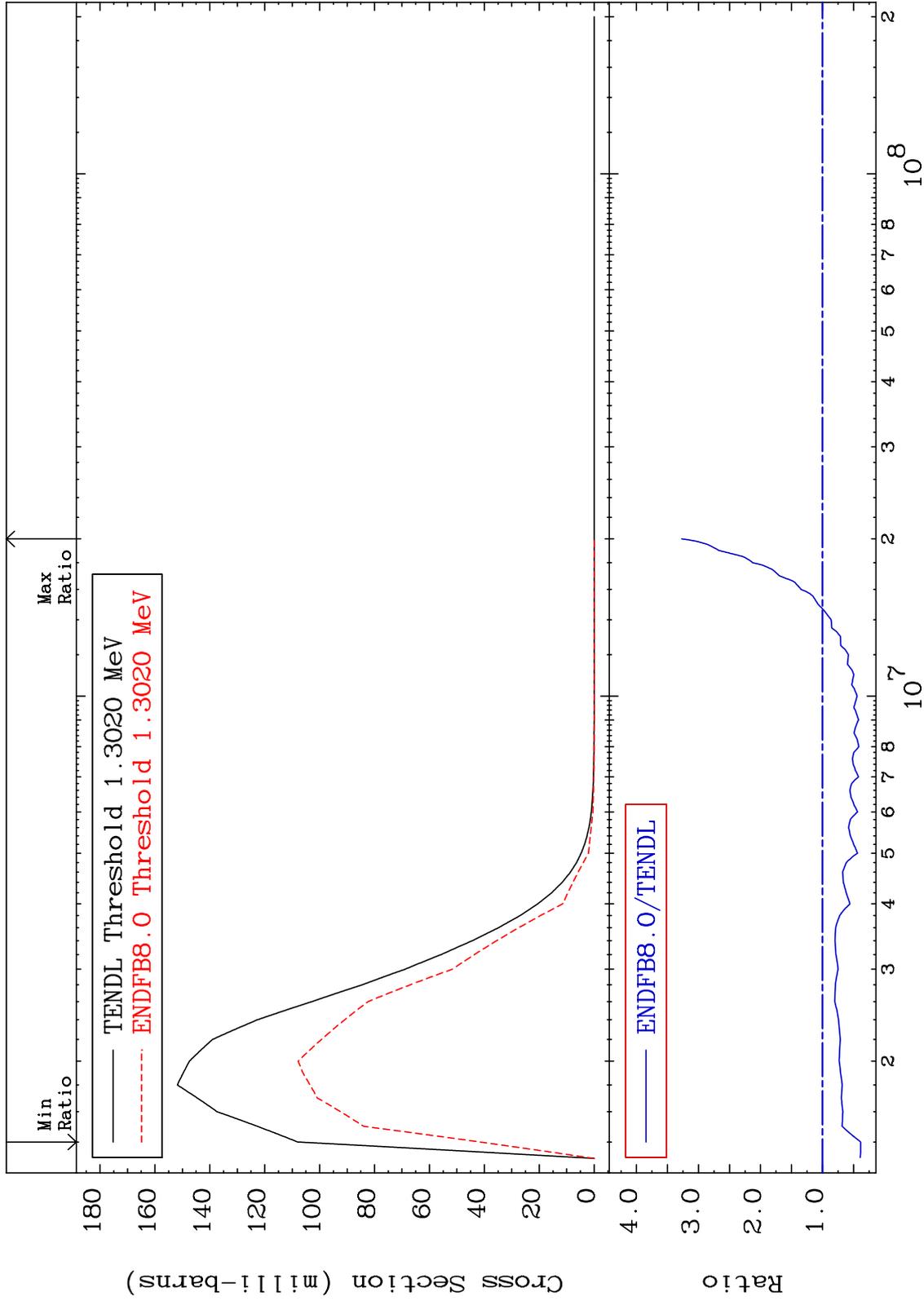


MAT 5925

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

59-Pr-141  
-100.0 To -13.95%

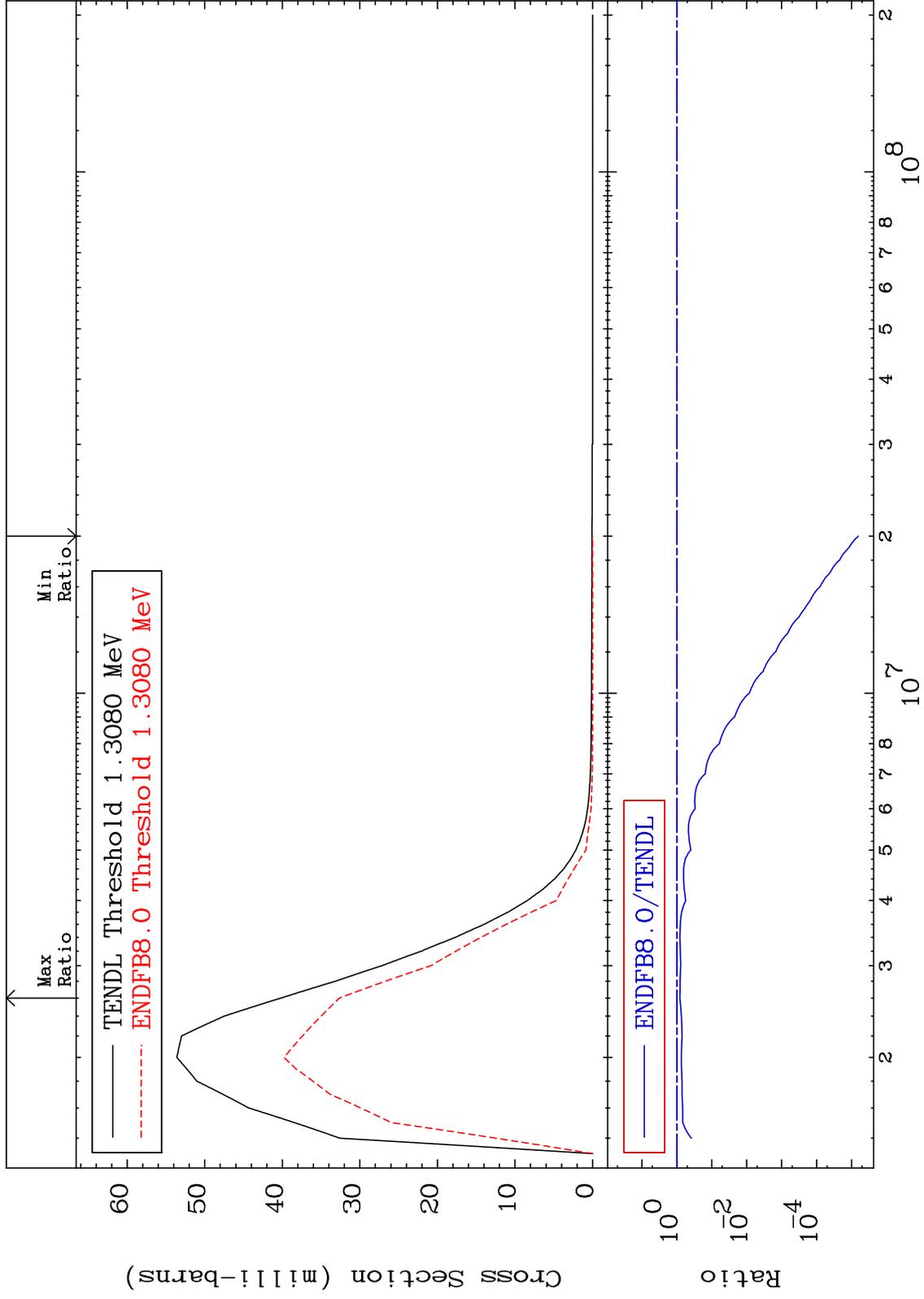




MAT 5925

MT= 55 (n,n') Level  
Cross Section

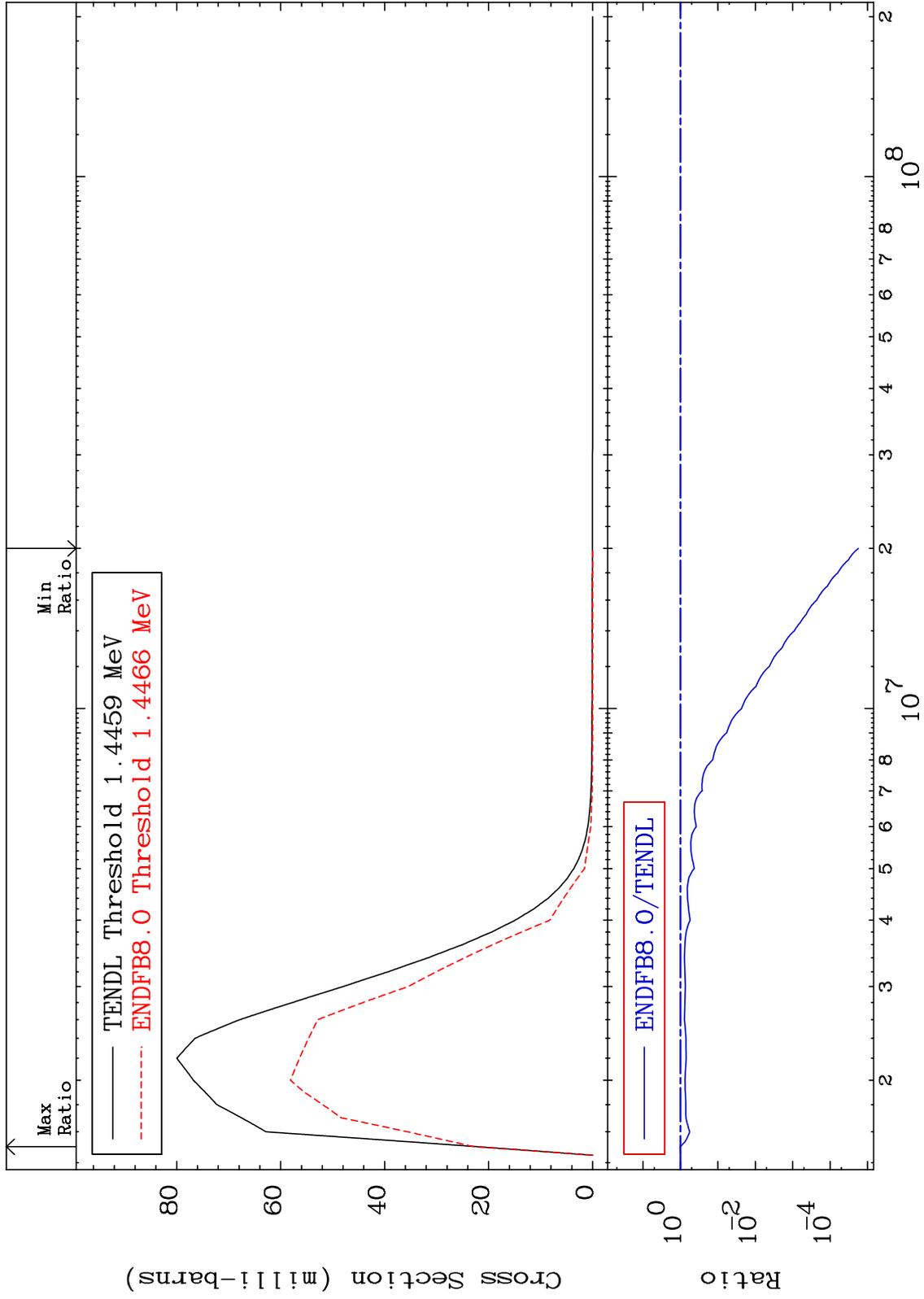
59-Pr-141  
-100.0 To -18.78%



MAT 5925

MT= 56 (n,n') Level  
Cross Section

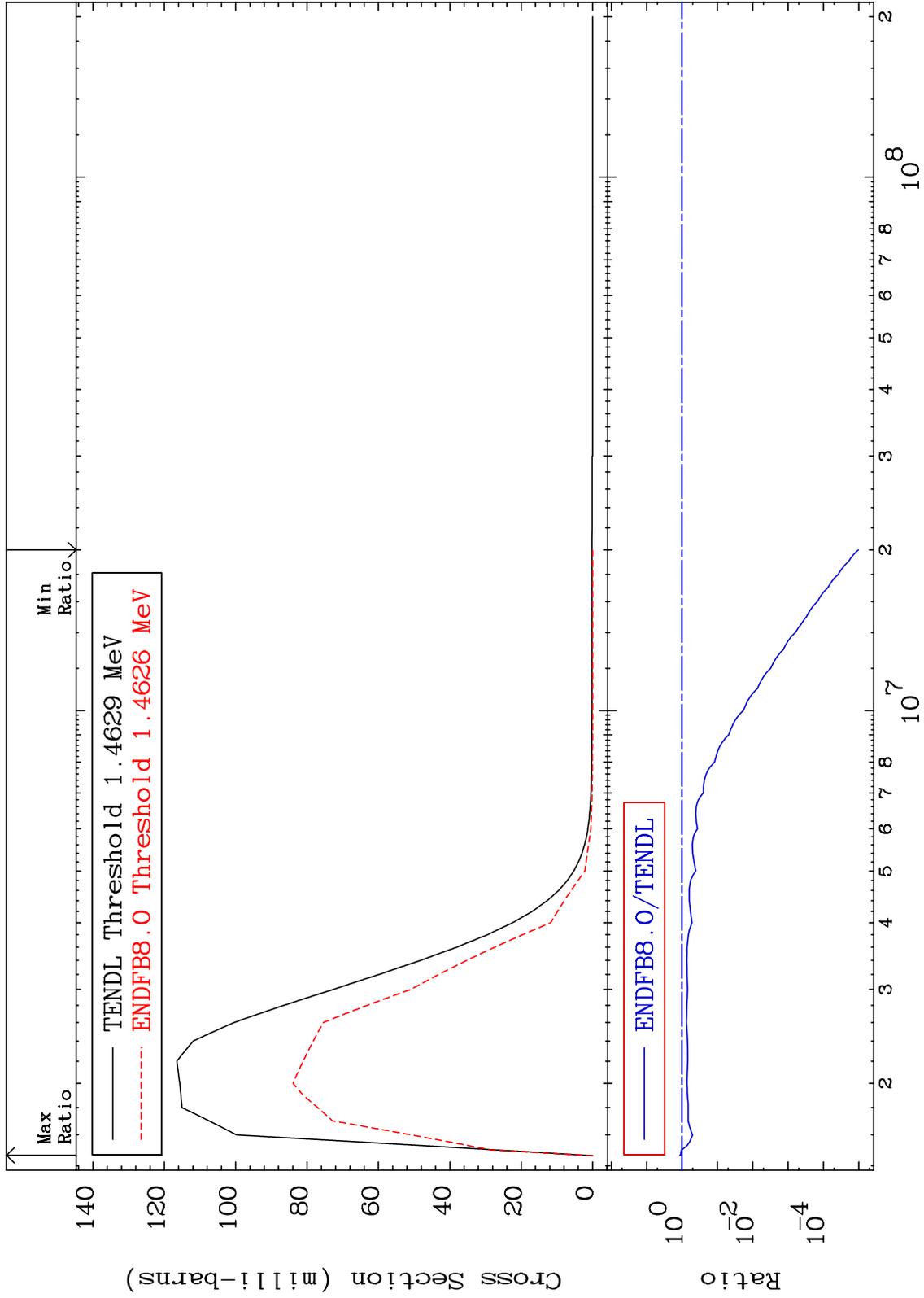
59-Pr-141  
-100.0 To 3.236 %



MAT 5925

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

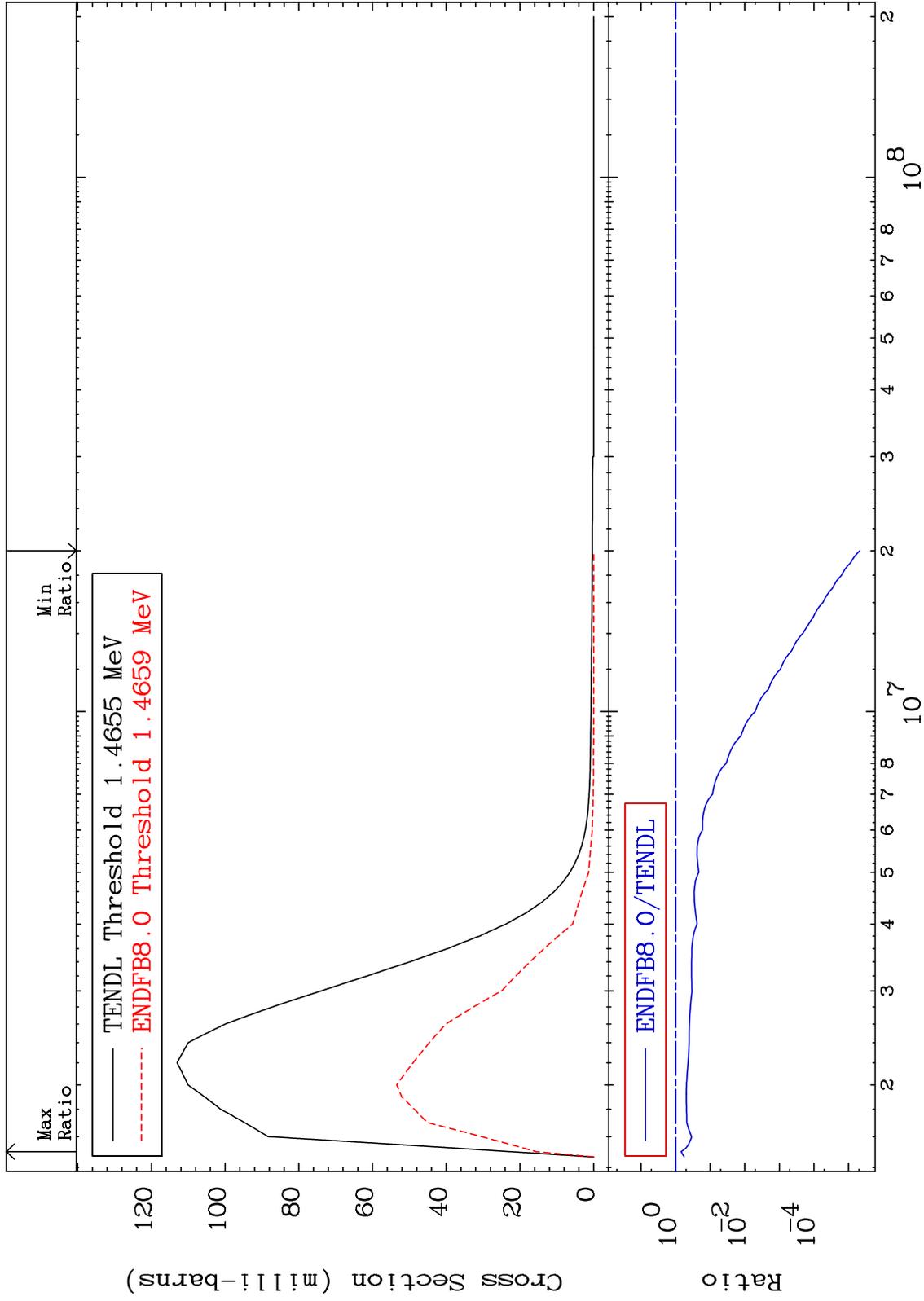
59-Pr-141  
-100.0 To 15.14 %



MAT 5925

MT= 58 (n,n') Level  
Cross Section

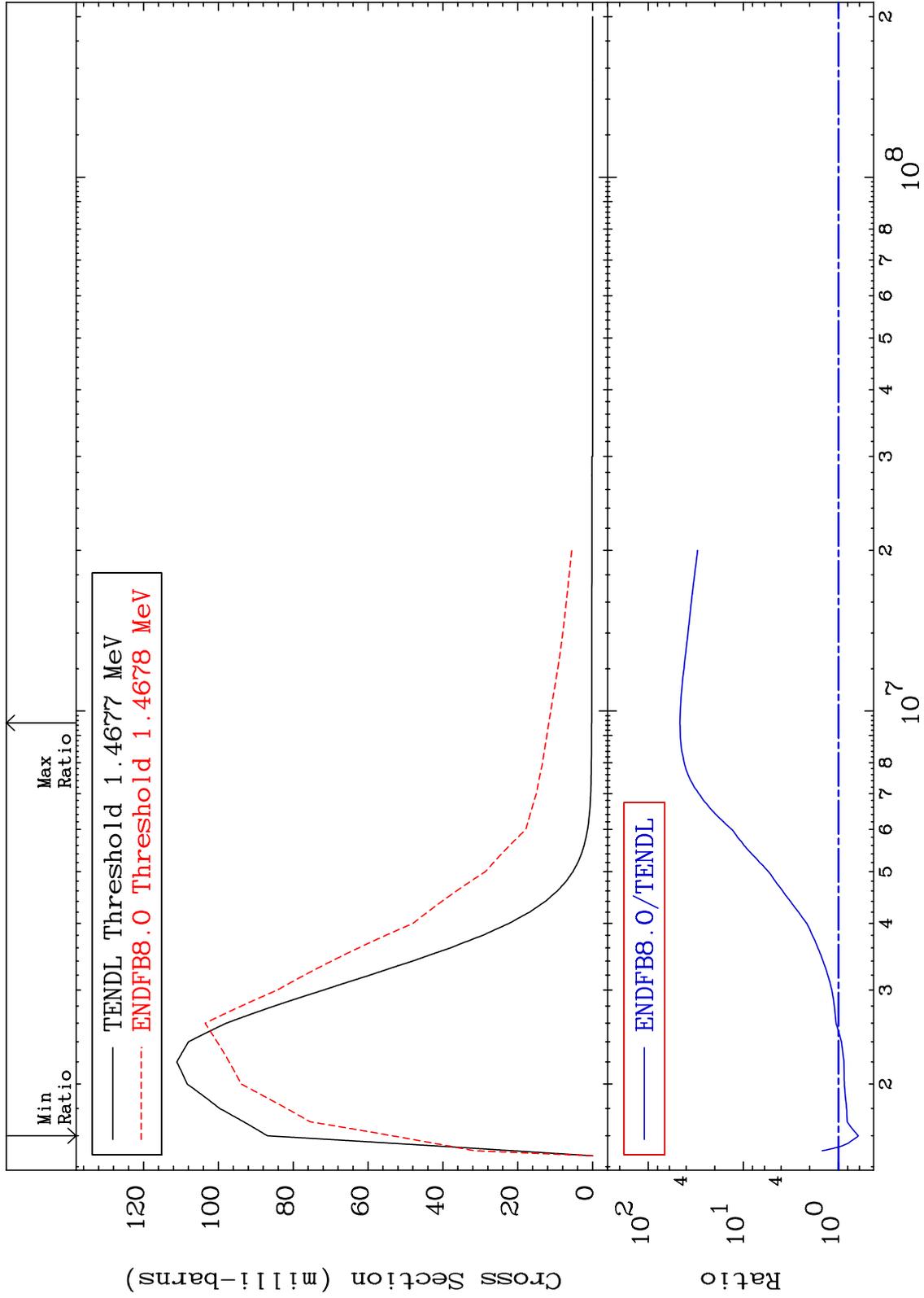
59-Pr-141  
-100.0 To -30.84%

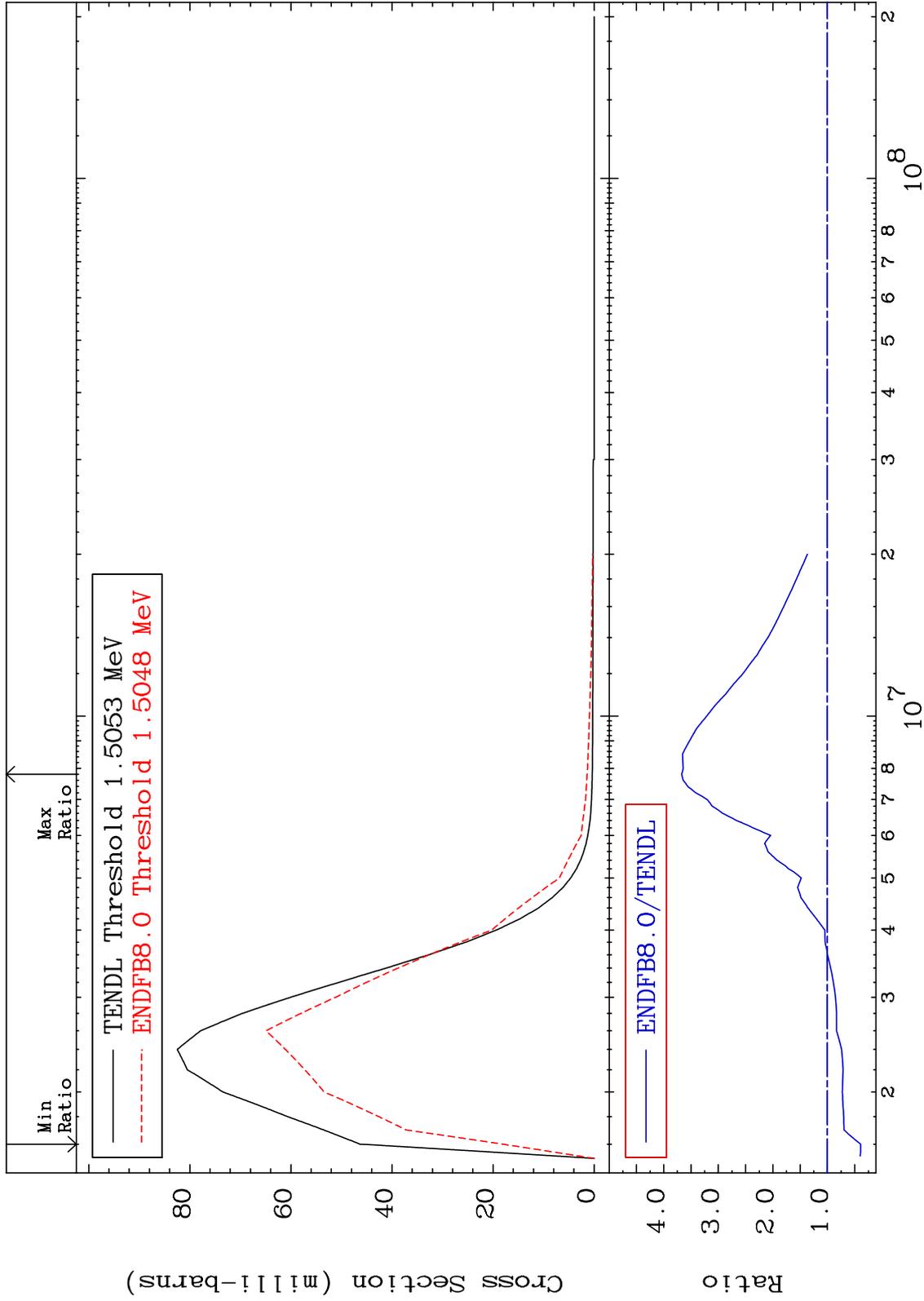


MAT 5925

MT= 59 (n,n') Level  
Cross Section

59-Pr-141  
-38.38 To 4549. %

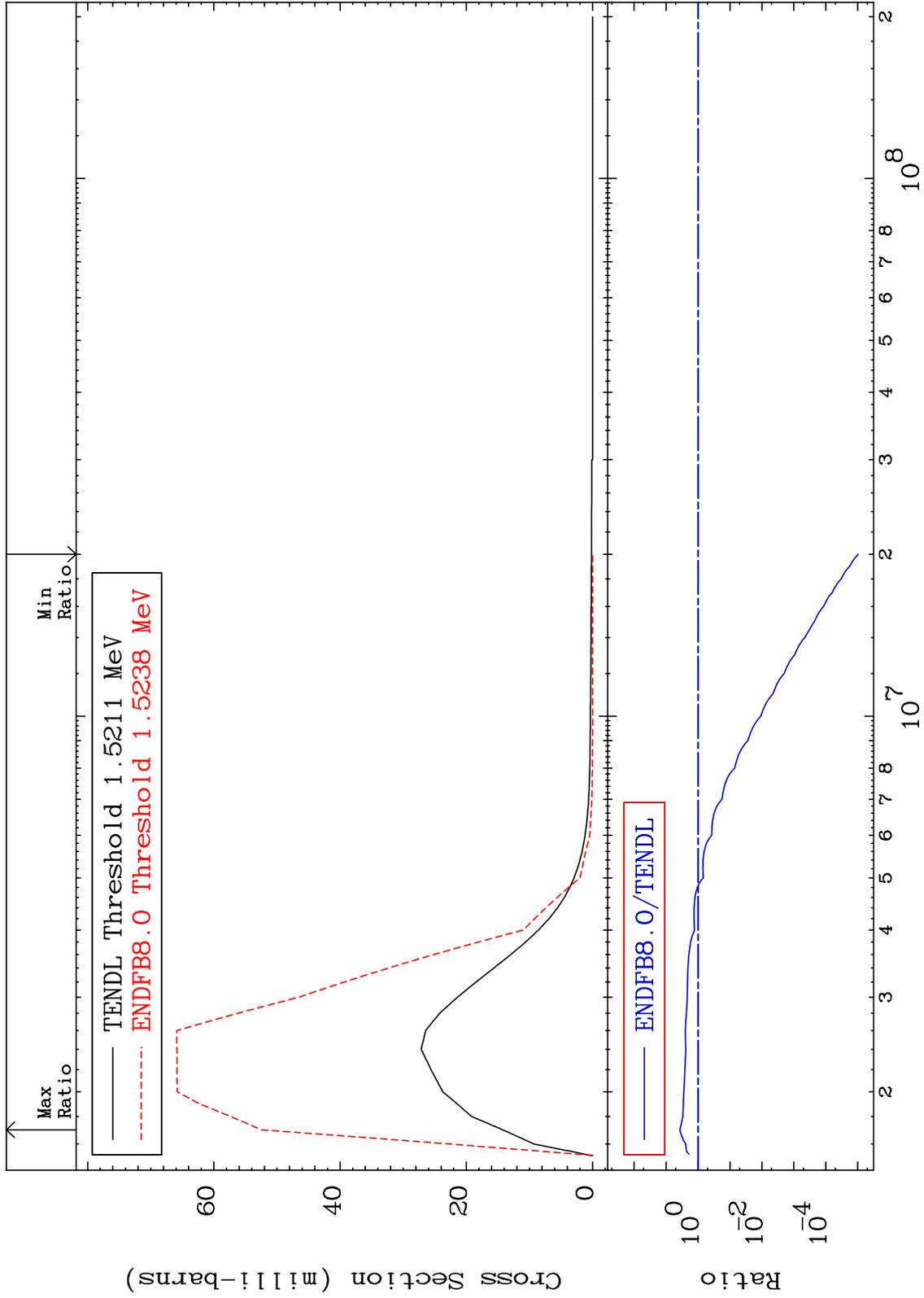




MAT 5925

MT= 61 (n,n') Level  
Cross Section

59-Pr-141  
-100.0 To 268.4 %



20

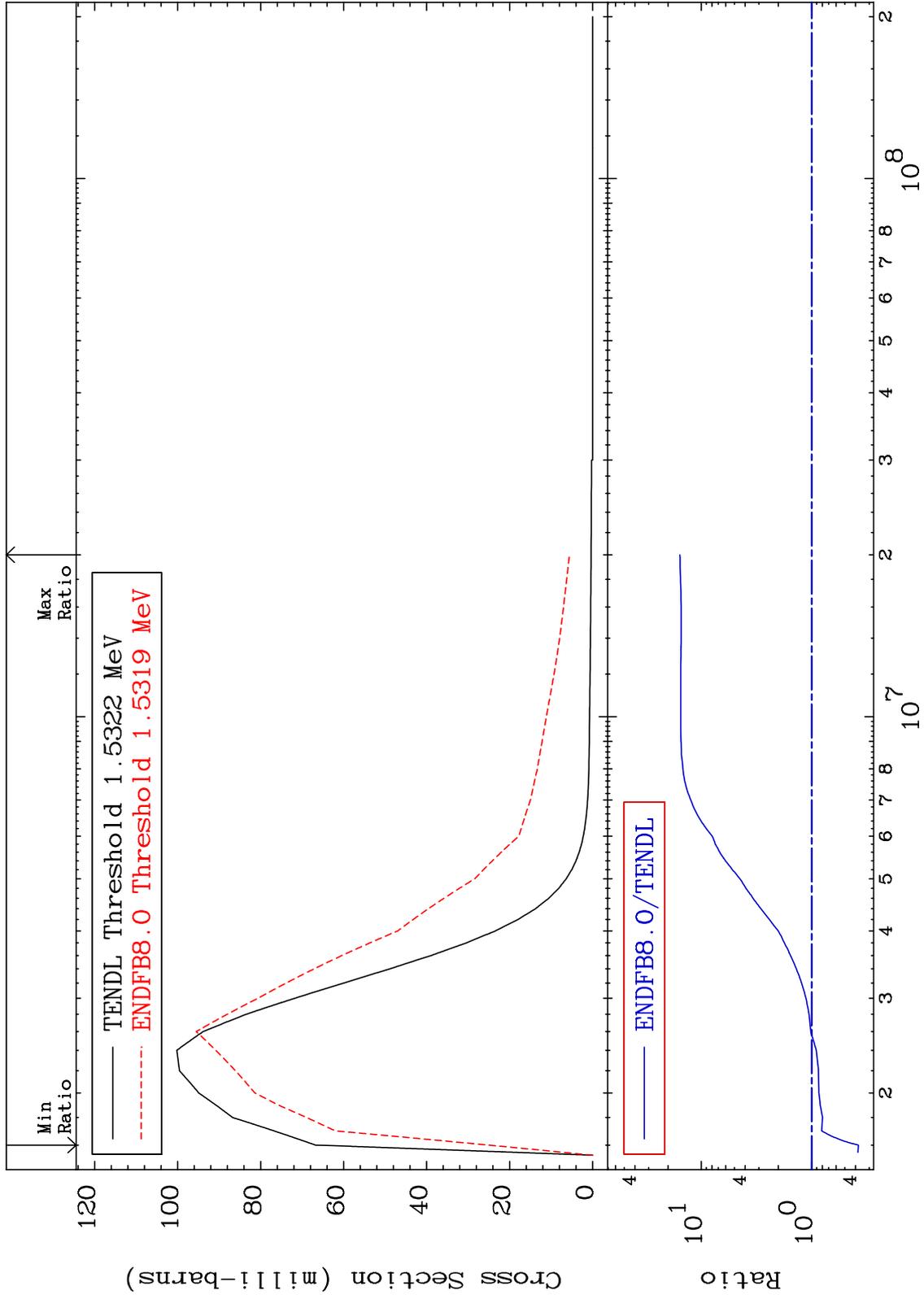
Incident Energy (eV)

59-Pr-141

MAT 5925

MT= 62 (n, n') Level  
Cross Section

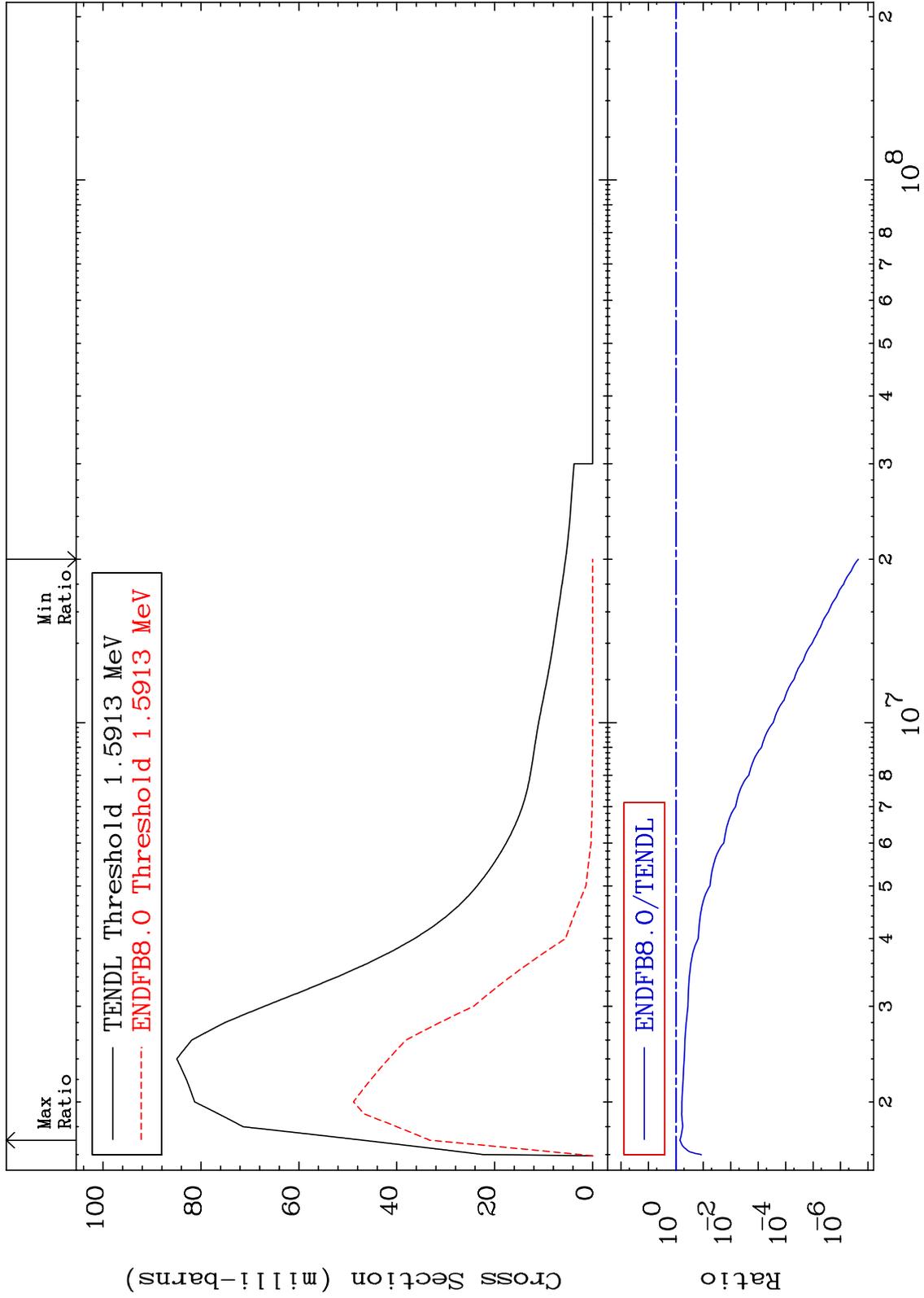
59-Pr-141  
-62.38 To 1460. %

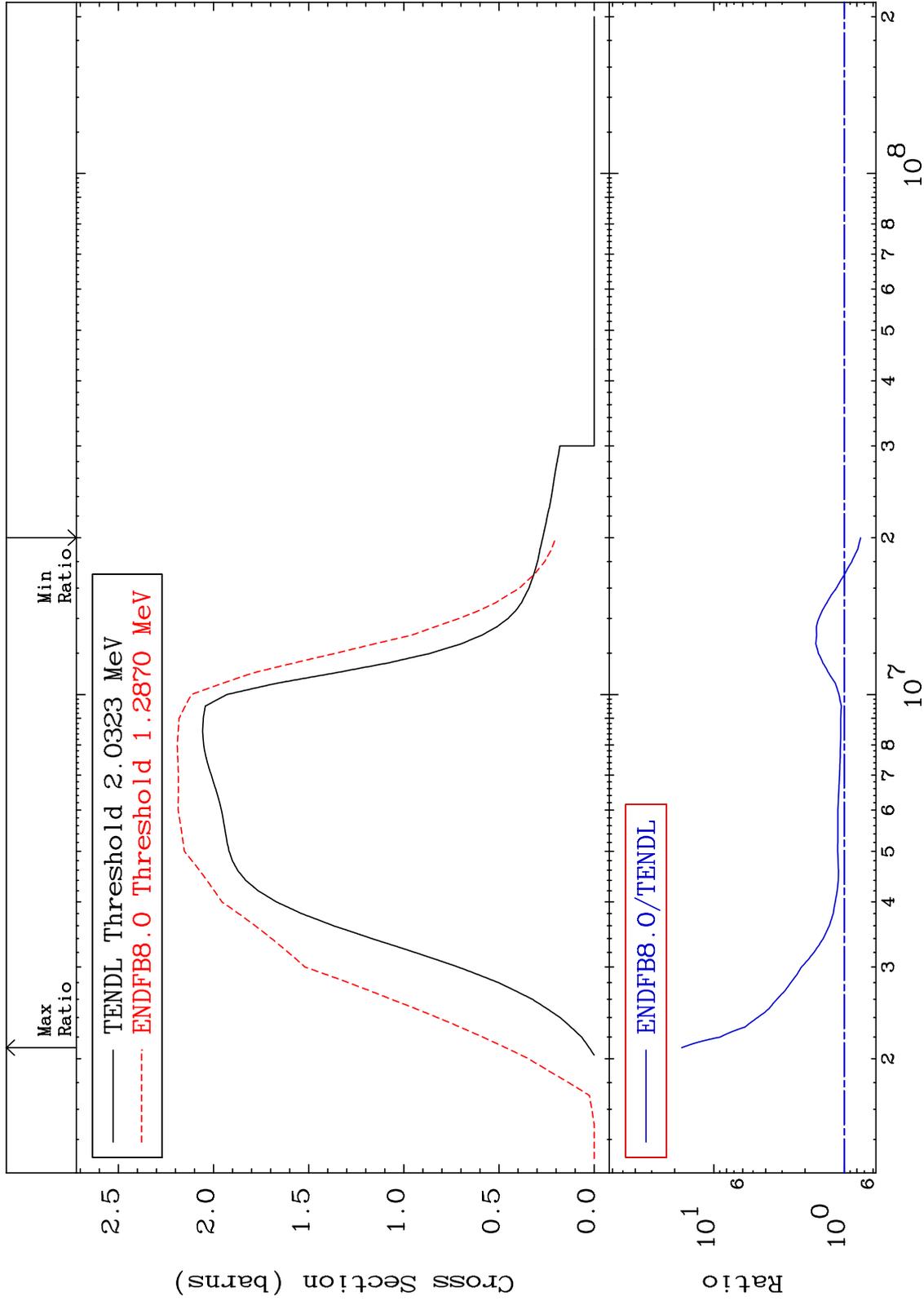


MAT 5925

MT= 63 (n,n') Level  
Cross Section

59-Pr-141  
-100.0 To -29.11%





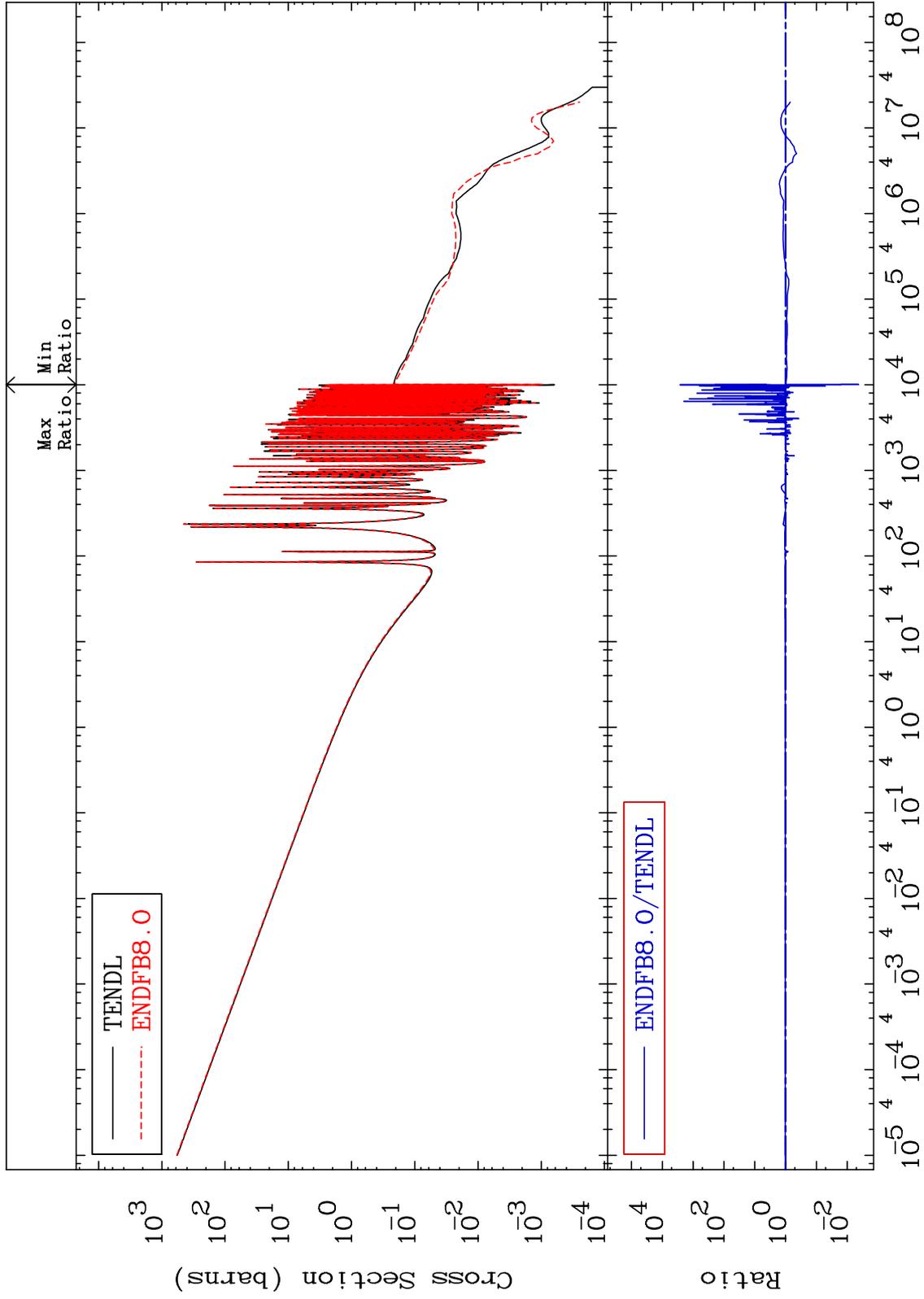
MAT 5925

(n,  $\gamma$ )

59-Pr-141

Cross Section

-99.57 To 9999. %



MAT 5925

59-Pr-141

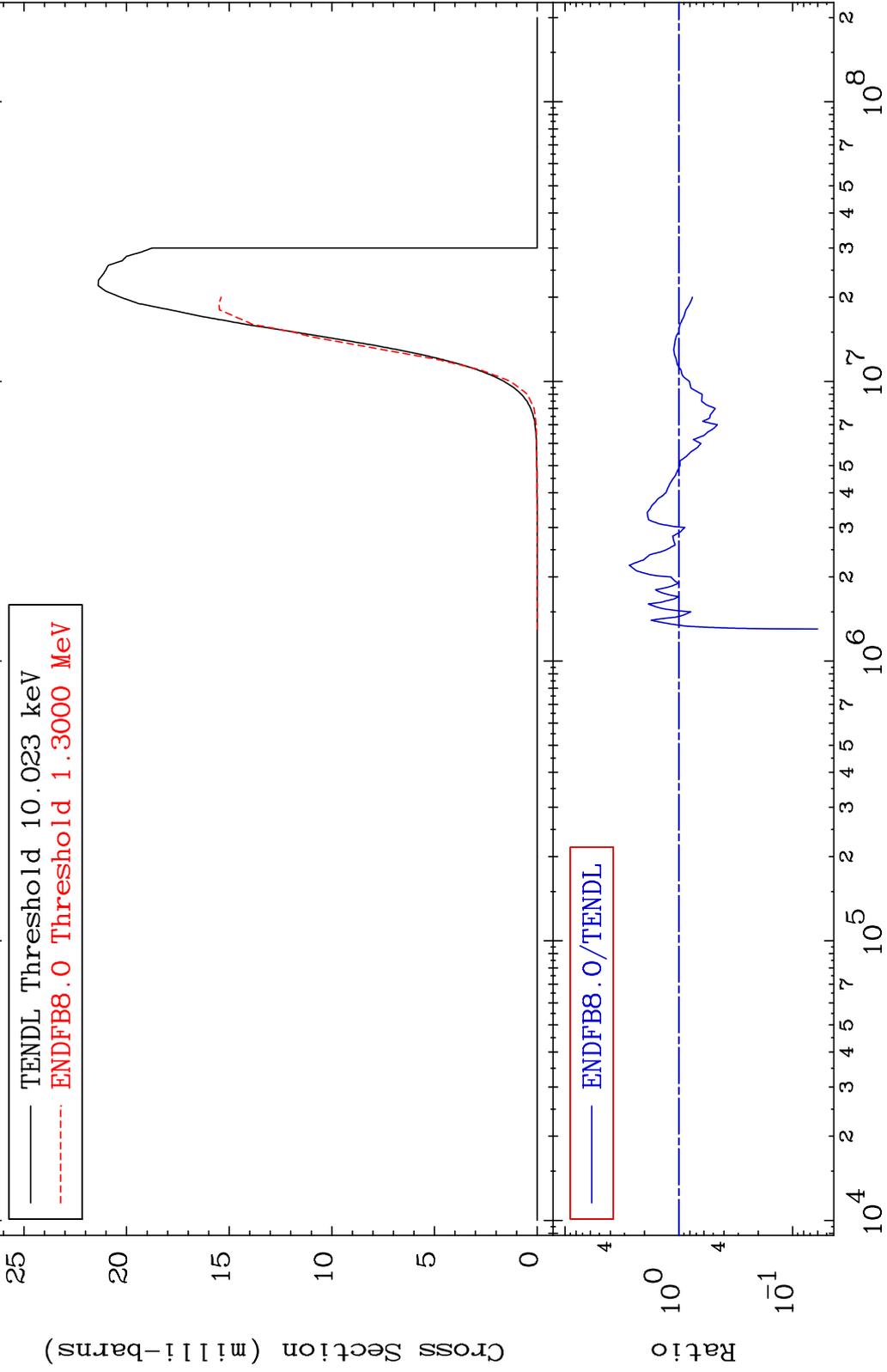
(n,p)  
Cross Section

Min Ratio

Max Ratio

TENDL Threshold 10.023 keV  
ENDFB8.0 Threshold 1.3000 MeV

-94.00 To 171.9 %



Cross Section (milli-barns)

Ratio

4

10<sup>0</sup>

10<sup>-1</sup>

10<sup>4</sup>

10<sup>5</sup>

10<sup>6</sup>

10<sup>7</sup>

10<sup>8</sup>

25

20

15

10

5

0

59-Pr-141

Incident Energy (eV)

25

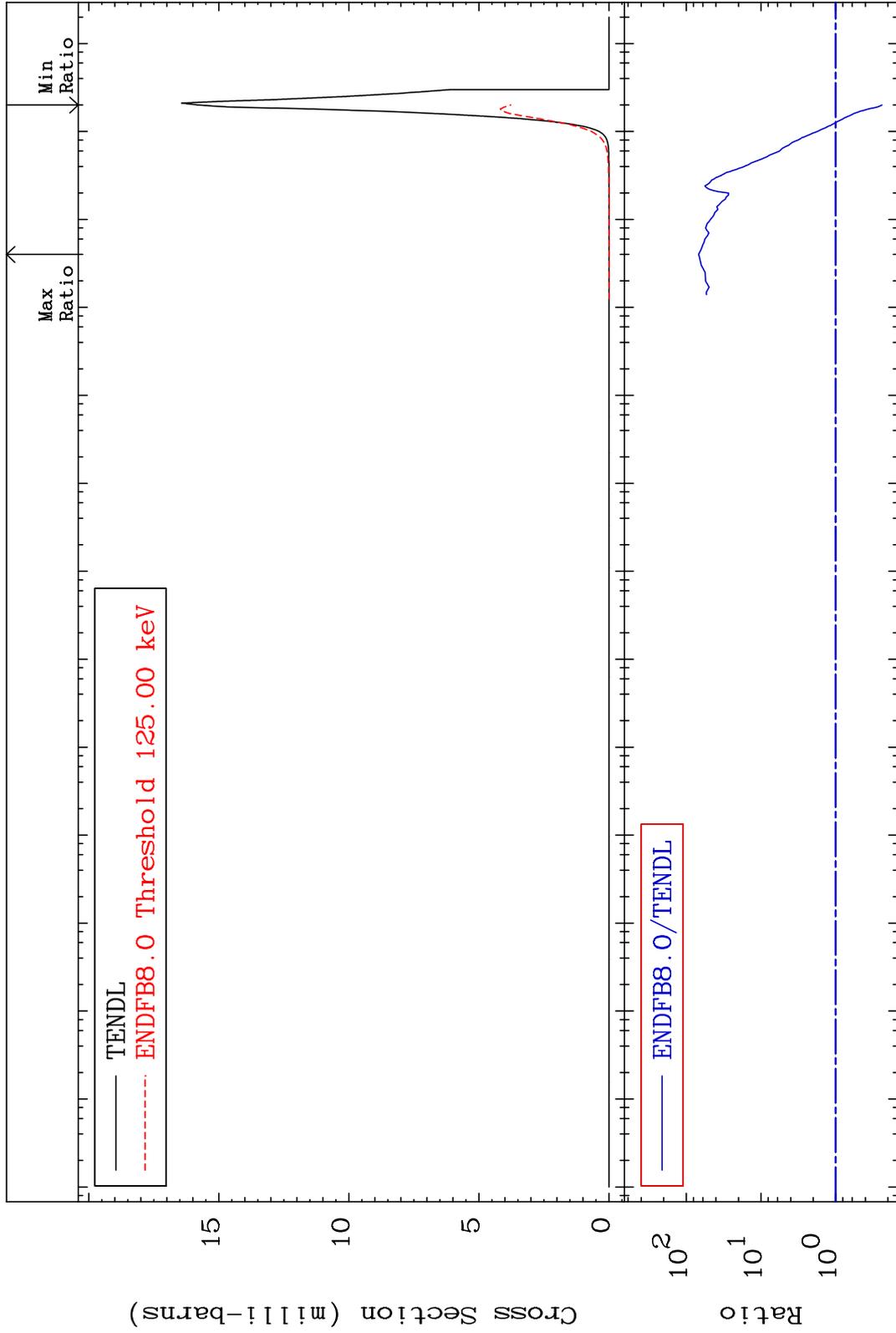
MAT 5925

(n,  $\alpha$ )

59-Pr-141

Cross Section

-76.08 To 6710. %



— TENDL  
- - - ENDFB8.0 Threshold 125.00 keV

— ENDFB8.0/TENDL

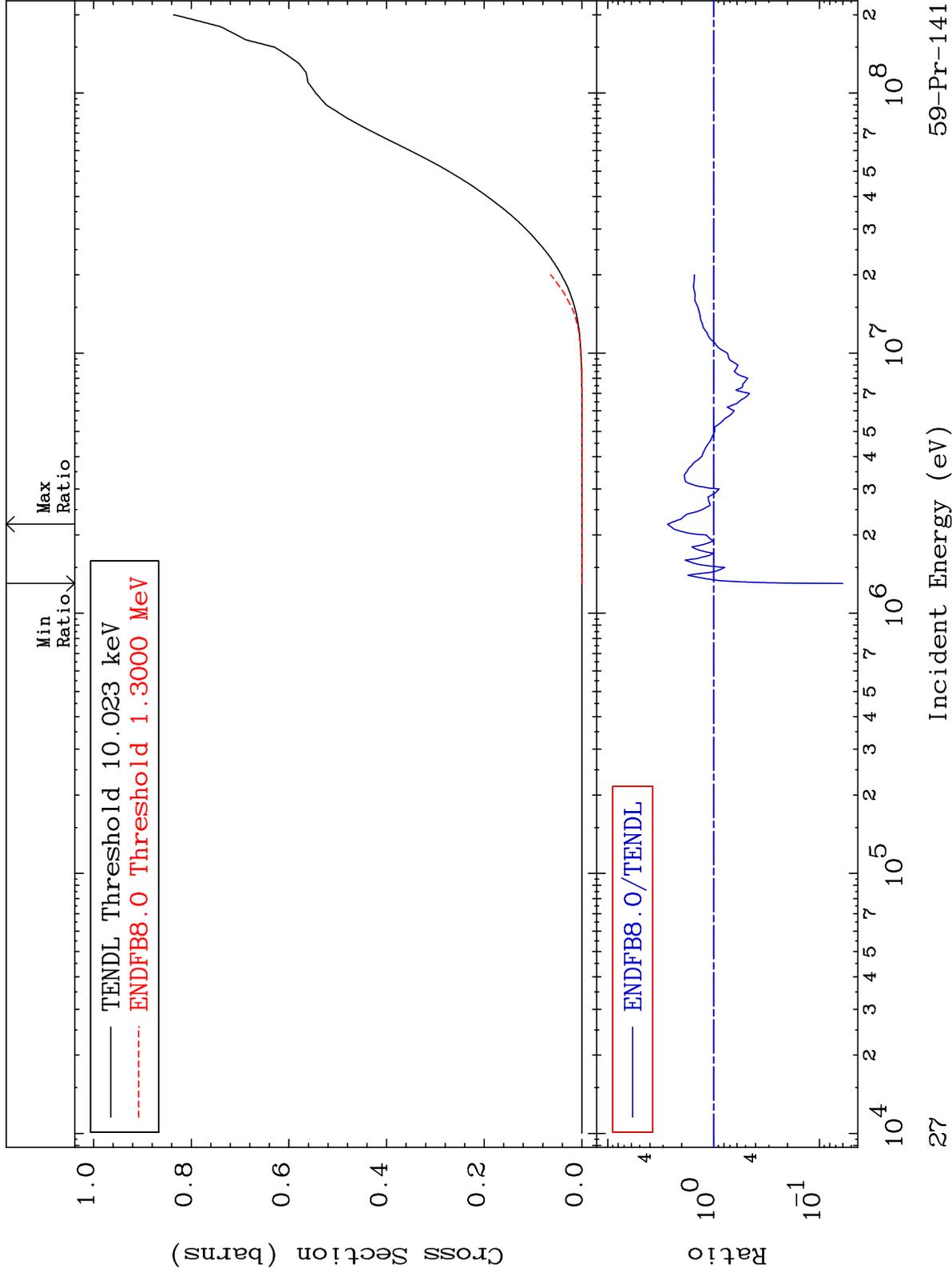
10<sup>-5</sup> 10<sup>-4</sup> 10<sup>-3</sup> 10<sup>-2</sup> 10<sup>-1</sup> 10<sup>0</sup> 10<sup>1</sup> 10<sup>2</sup> 10<sup>3</sup> 10<sup>4</sup> 10<sup>5</sup> 10<sup>6</sup> 10<sup>7</sup> 10<sup>8</sup>

Incident Energy (eV) 59-Pr-141

MAT 5925

Hydrogen Production  
Cross Section

59-Pr-141  
-94.00 To 171.9 %



27

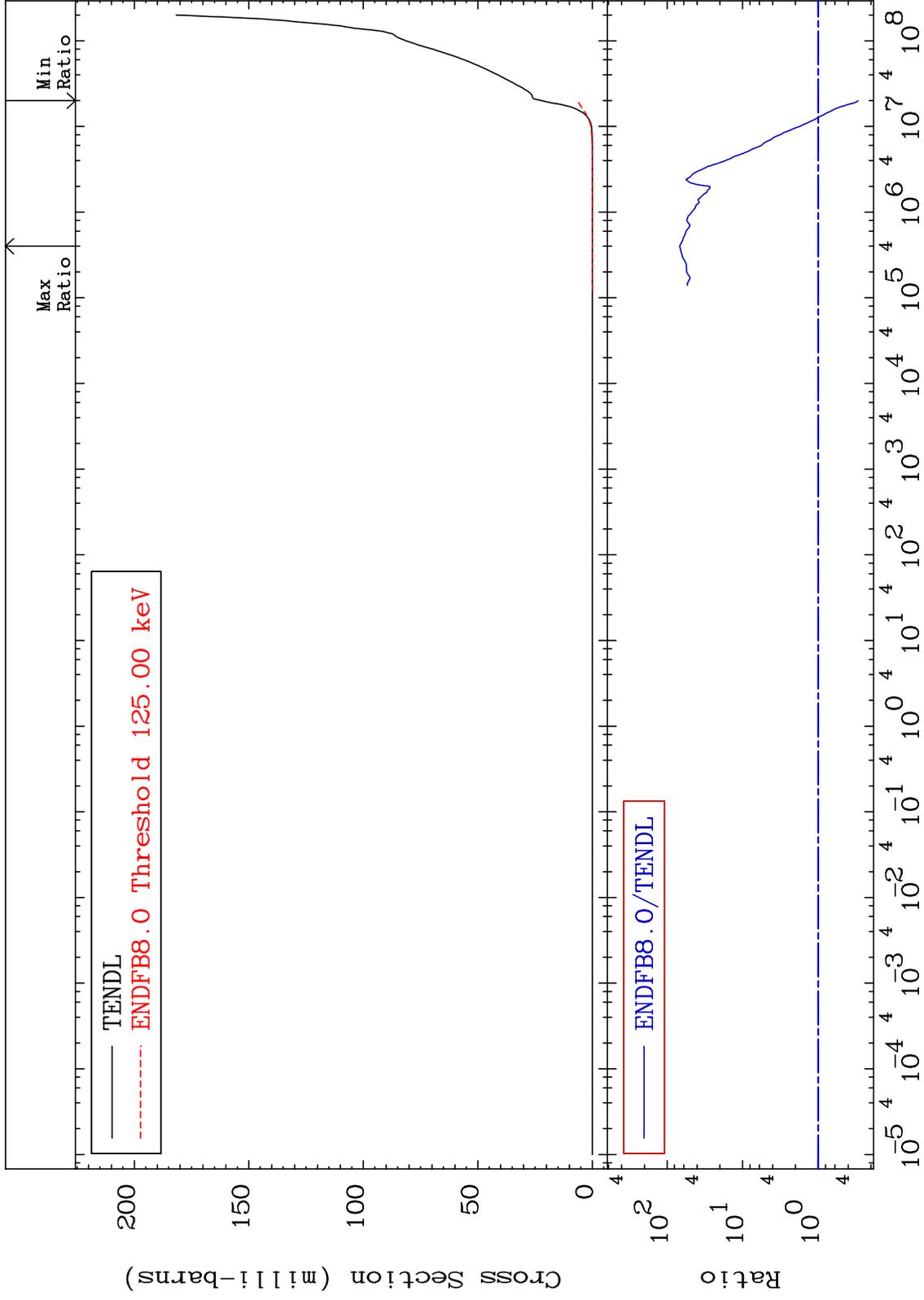
59-Pr-141

59-Pr-141

MAT 5925

He-4 Production  
Cross Section

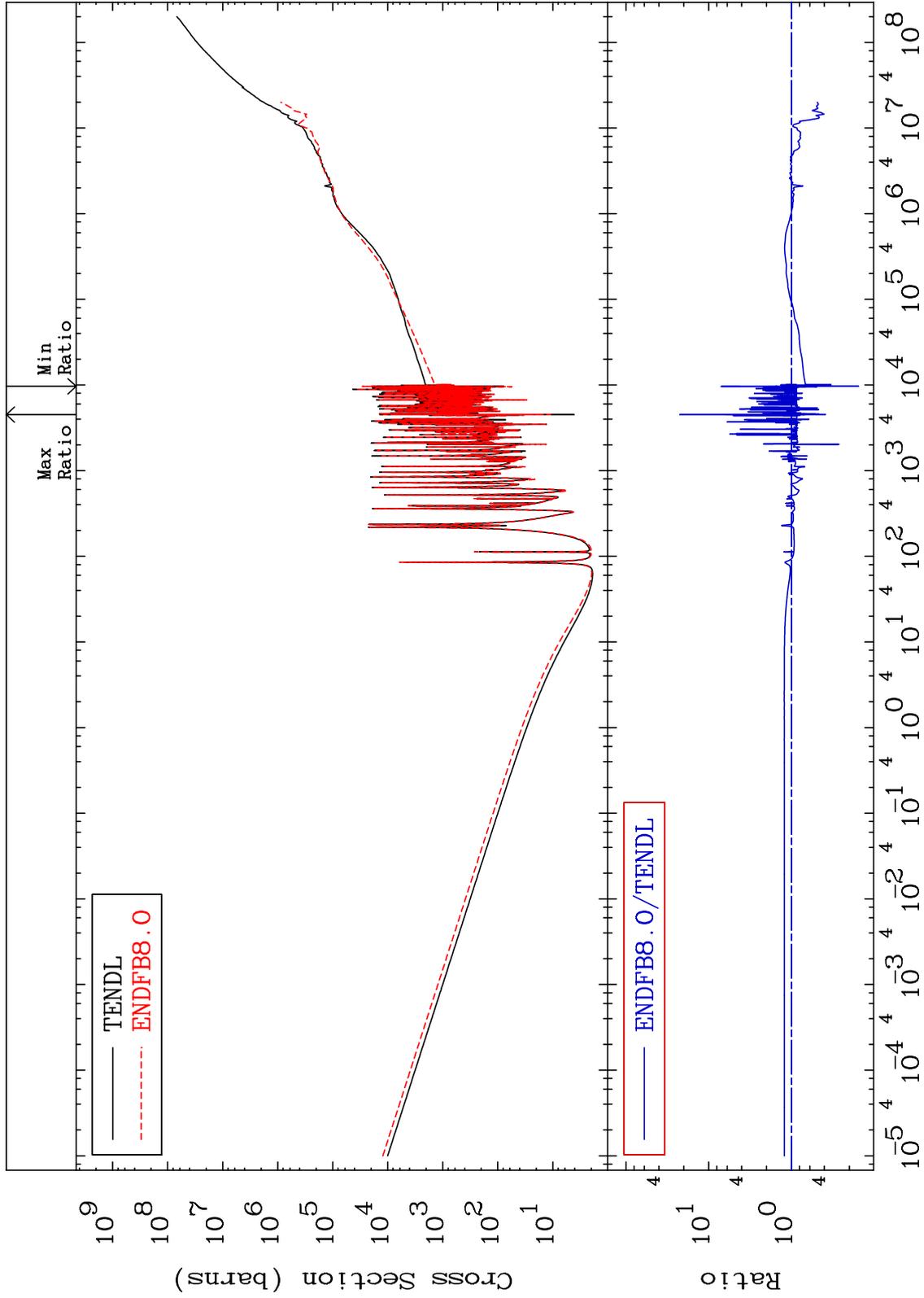
59-Pr-141  
-70.66 To 6710. %



MAT 5925

Kerma total (eV-barns)  
Cross Section

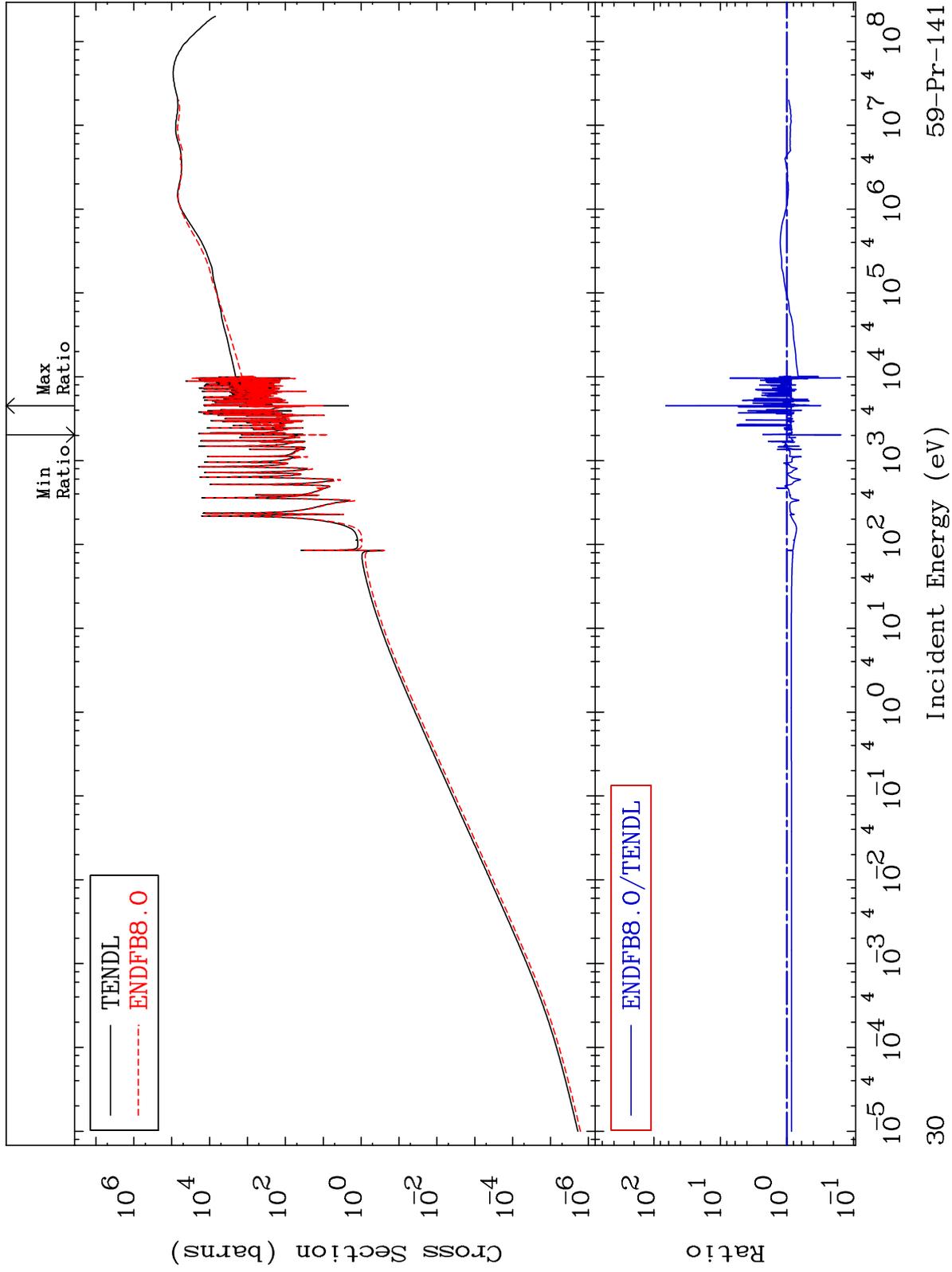
59-Pr-141  
-84.46 To 2131. %



MAT 5925

Kerma elastic  
Cross Section

59-Pr-141  
-84.49 To 6502. %



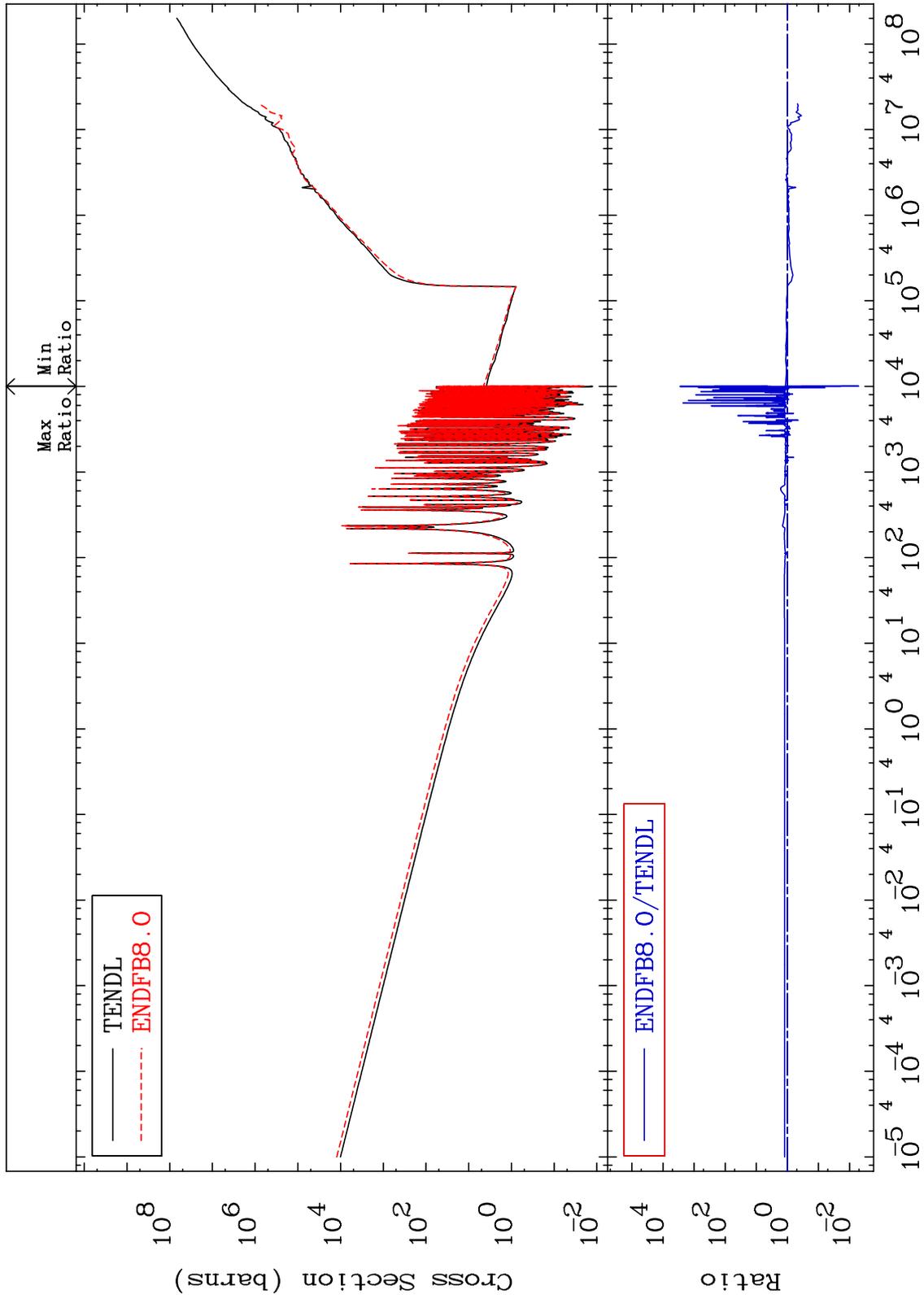
30

59-Pr-141

MAT 5925

Kerma non-elastic (all but mt2)  
Cross Section

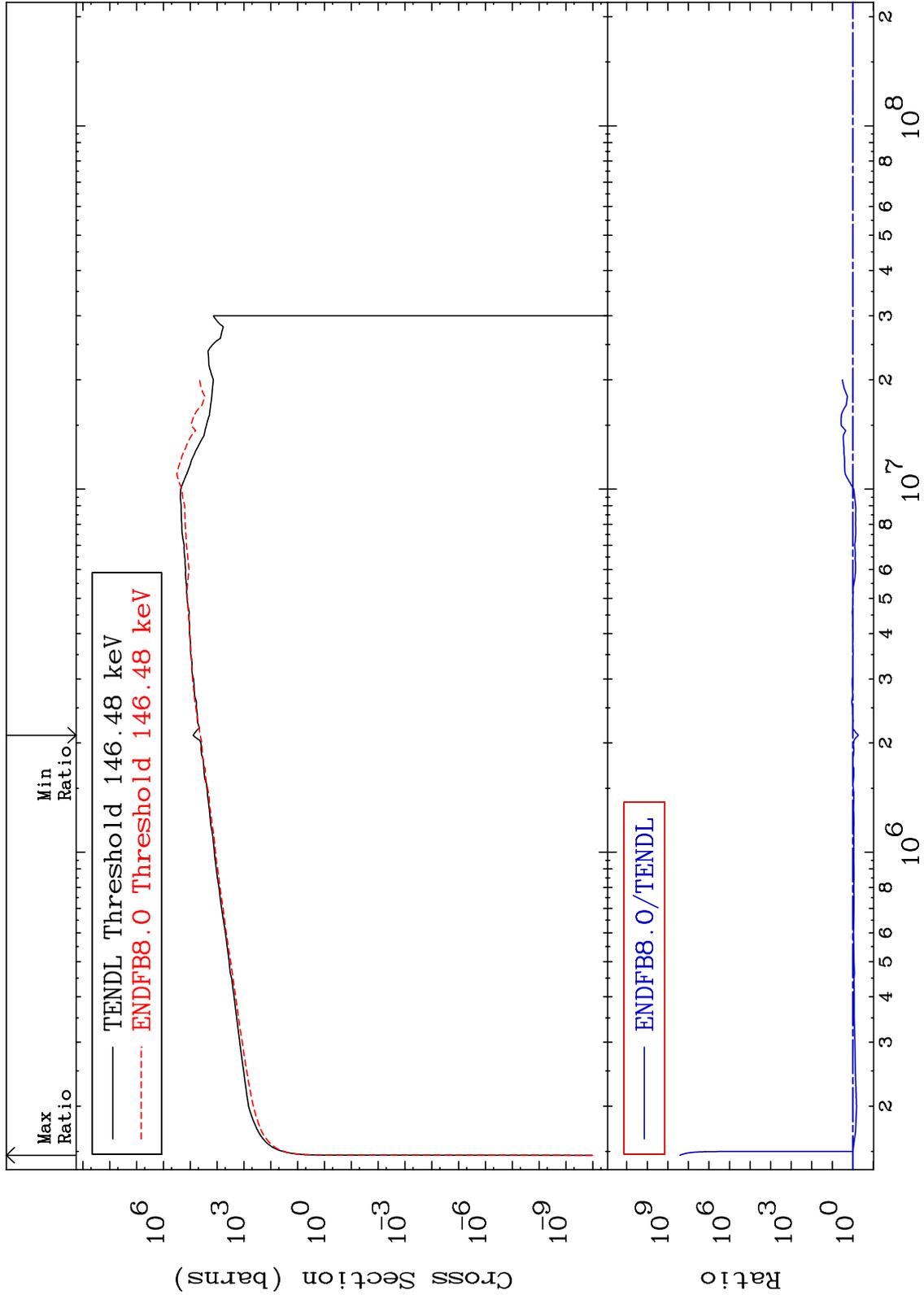
59-Pr-141  
-99.48 To 9999. %

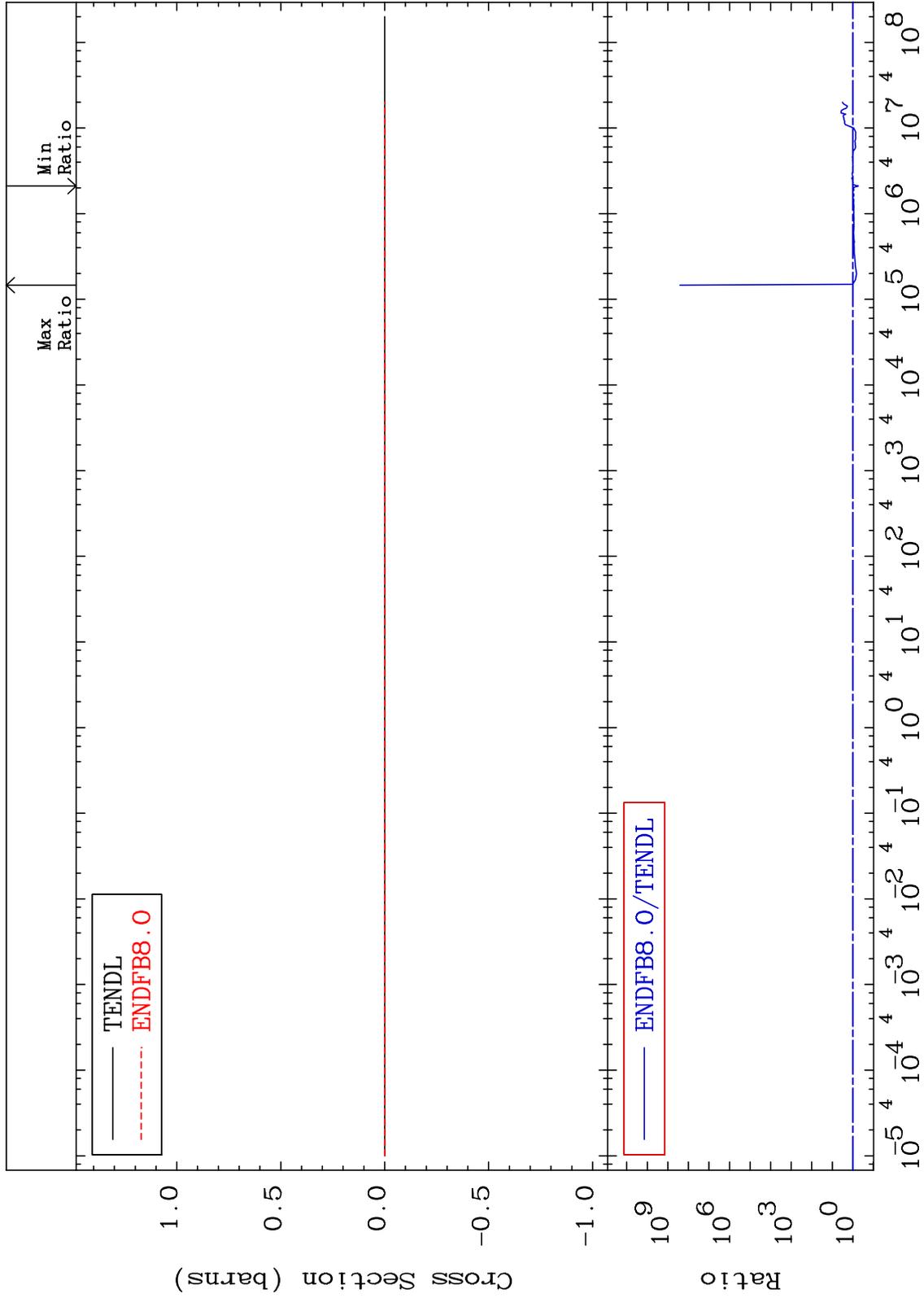


MAT 5925

Kerma inelastic (mt51-91)  
Cross Section

59-Pr-141  
-46.19 To 9999. %

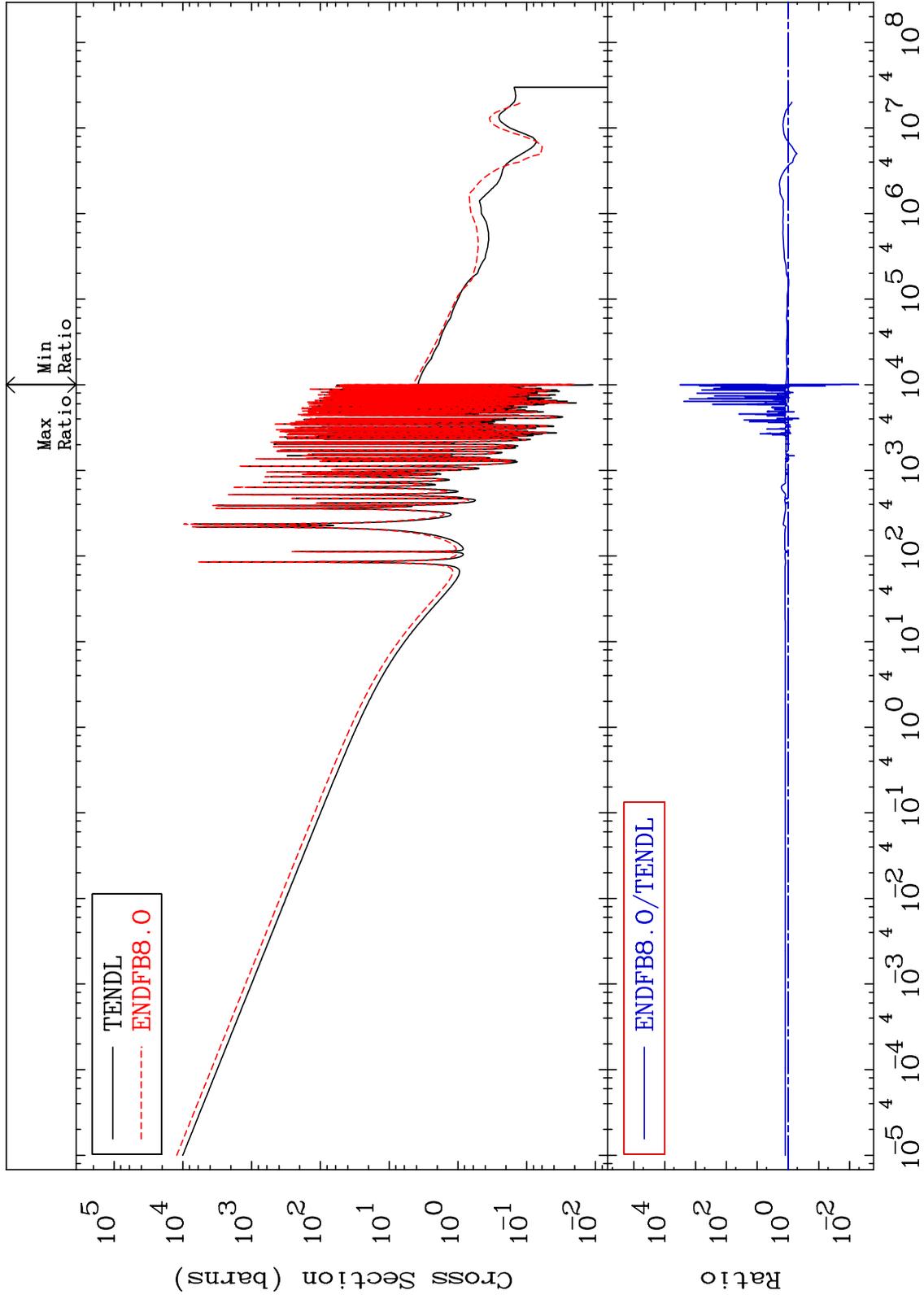




MAT 5925

Kerma capture (mt102)  
Cross Section

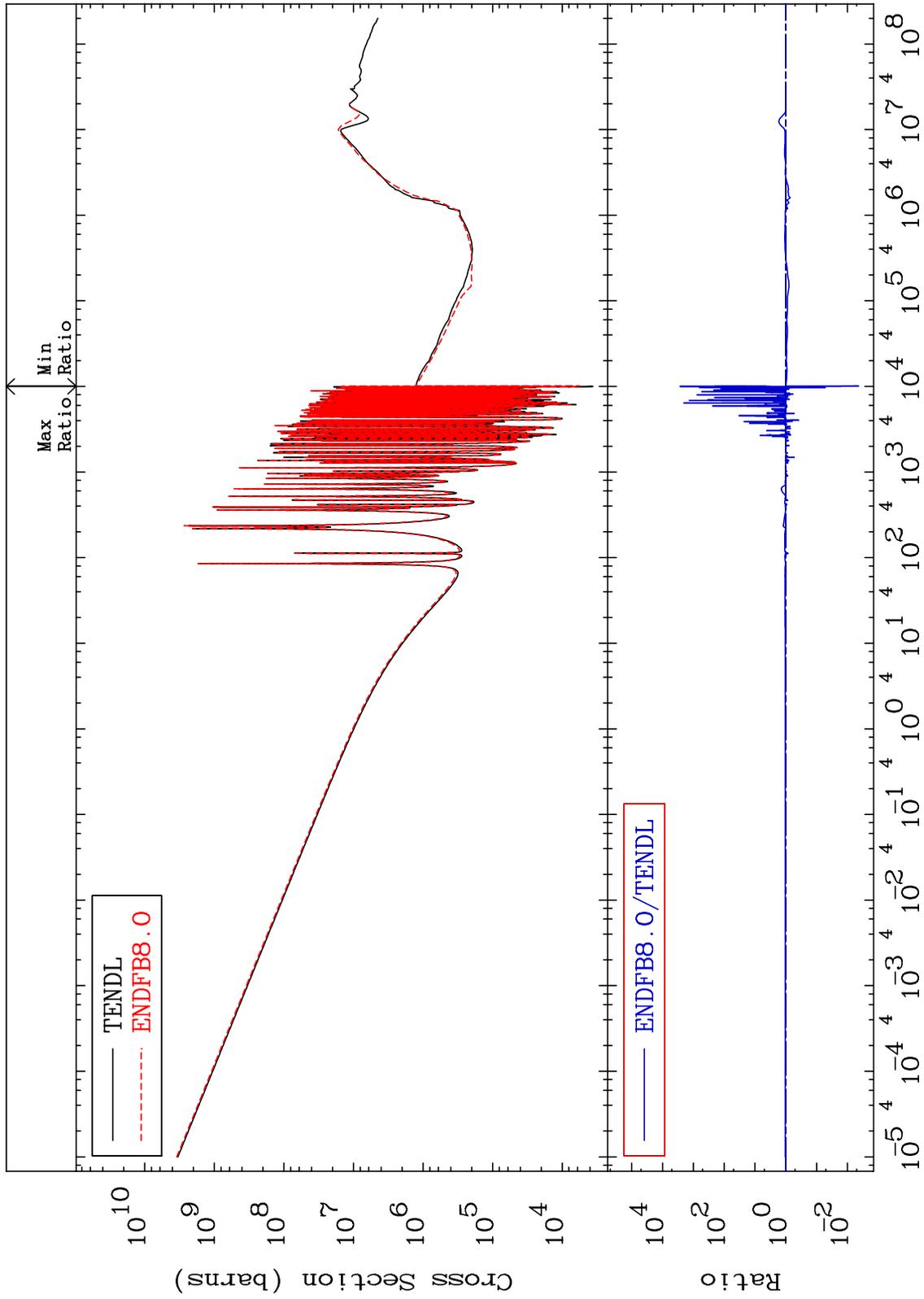
59-Pr-141  
-99.48 To 9999. %



MAT 5925

Total photon (eV-barns)  
Cross Section

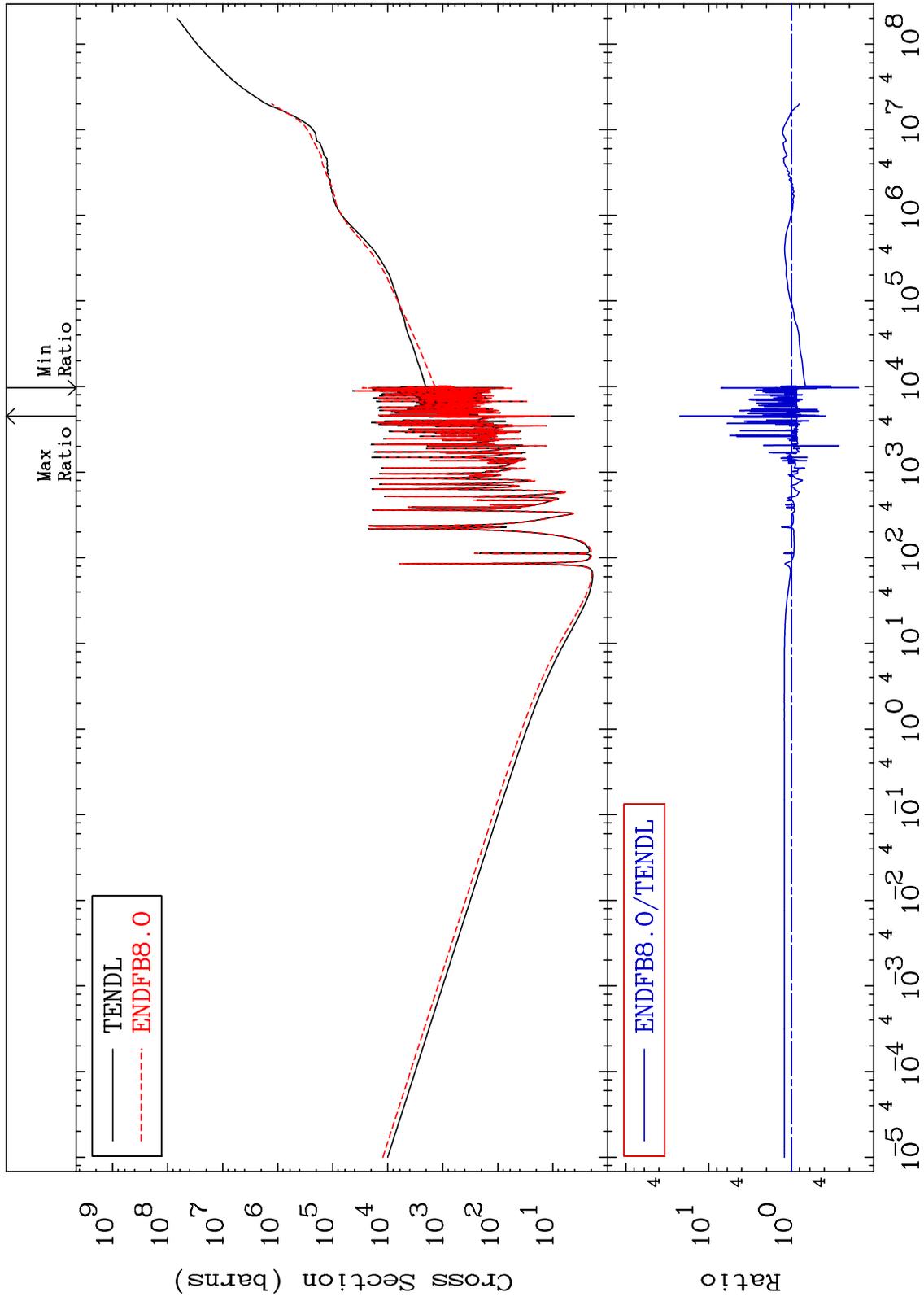
59-Pr-141  
-99.56 To 9999. %



MAT 5925

Total kinematic kerma (high limit)  
Cross Section

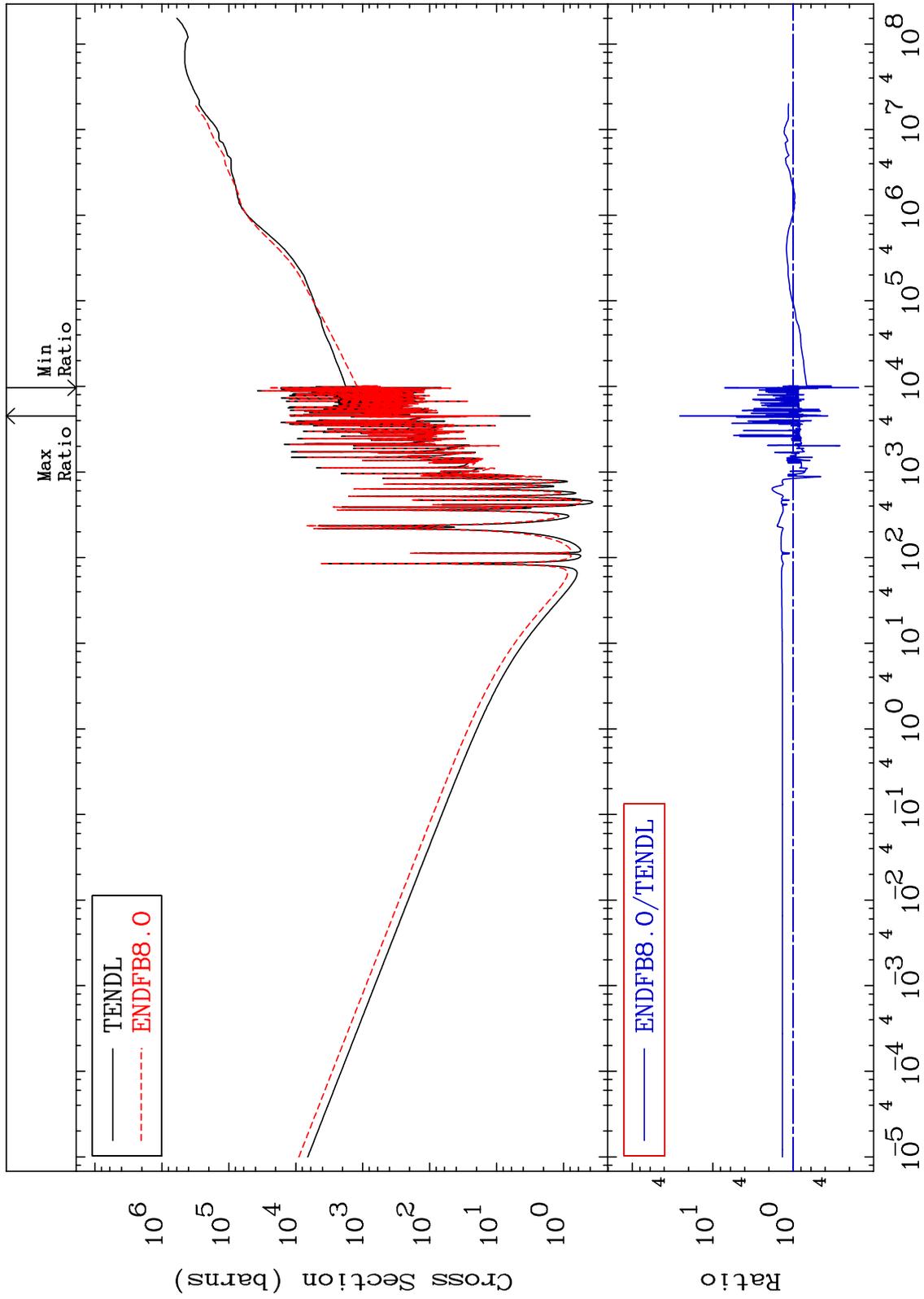
59-Pr-141  
-84.46 To 2131. %



MAT 5925

Dpa total (eV-barns)  
Cross Section

59-Pr-141  
-84.52 To 2455. %



37

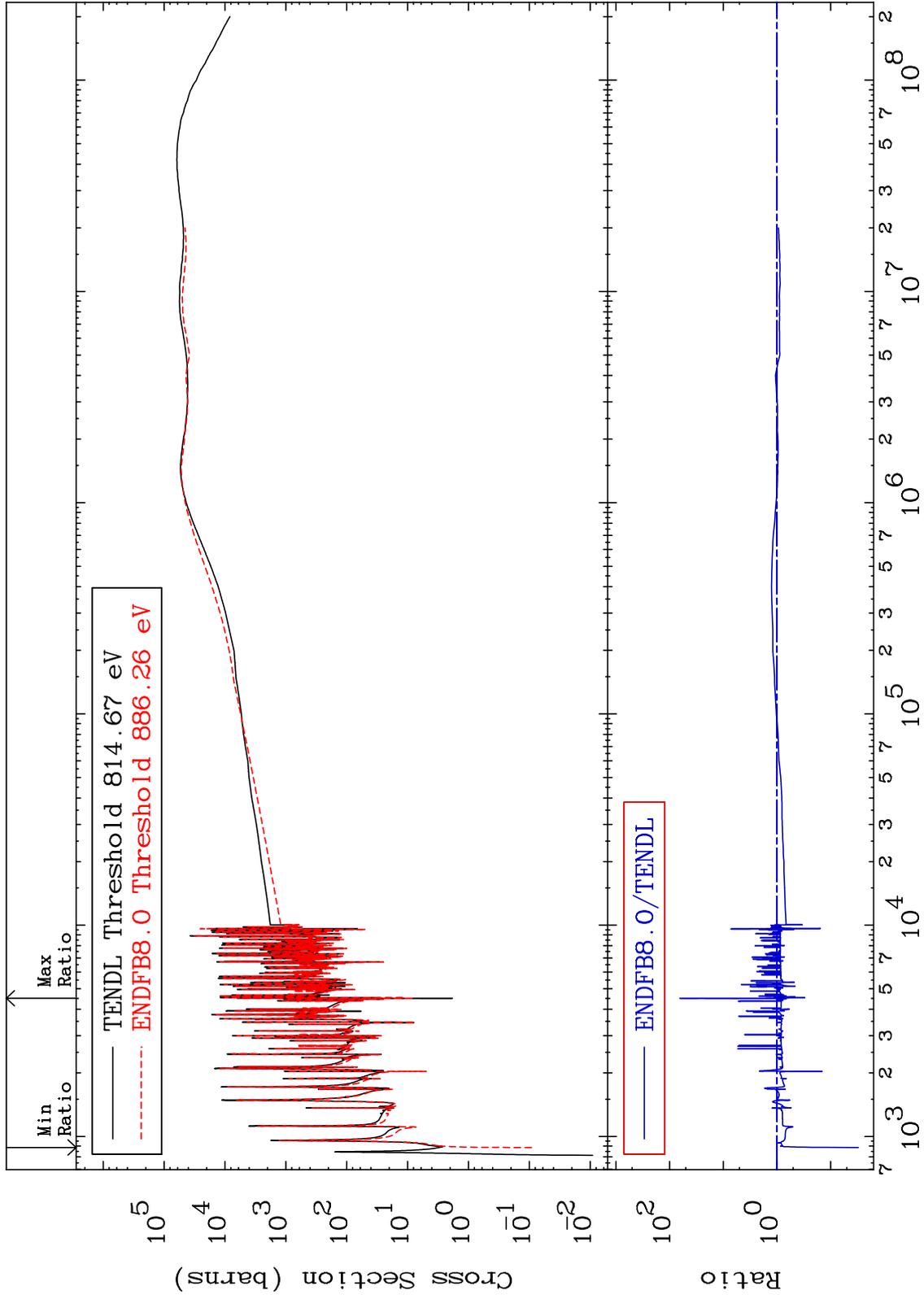
Incident Energy (eV)

59-Pr-141

MAT 5925

Dpa elastic (mt2)  
Cross Section

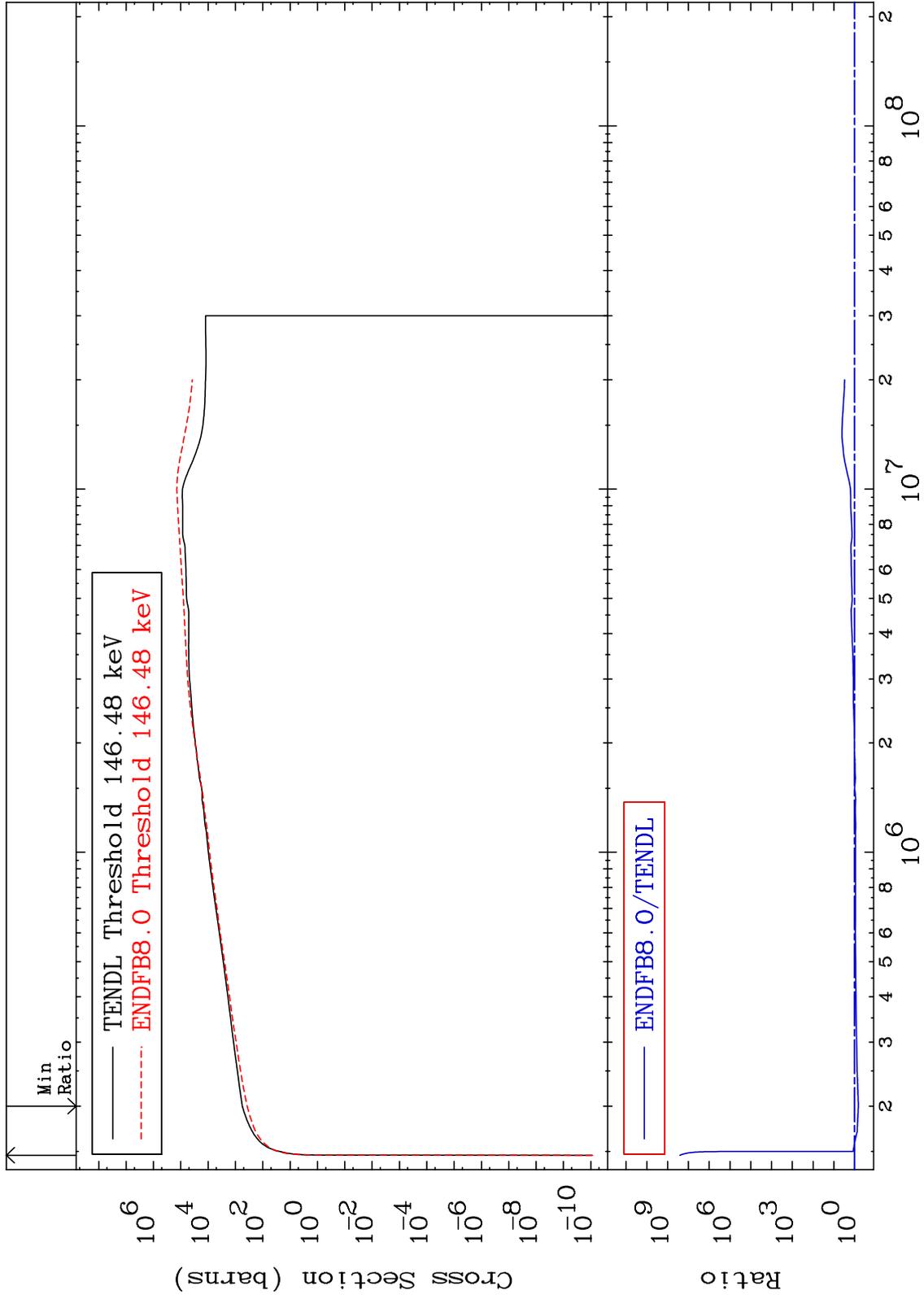
59-Pr-141  
-96.97 To 6335. %



38

Incident Energy (eV)

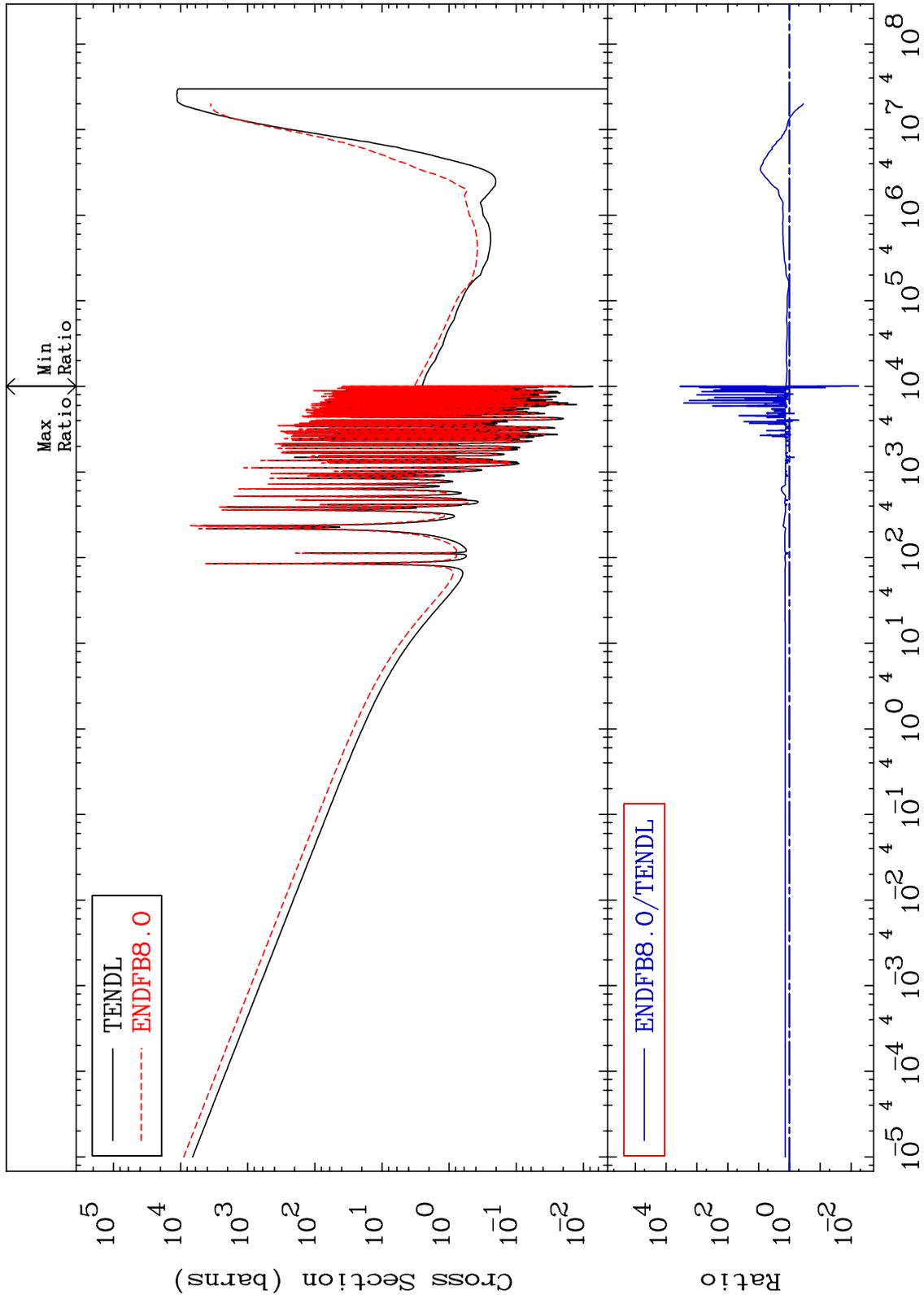
59-Pr-141



MAT 5925

Dpa disappearance (mt102 -120)  
Cross Section

59-Pr-141  
-99.42 To 9999. %



40

Incident Energy (eV)

59-Pr-141