

Program Complot  
(Version 2018-1)

by

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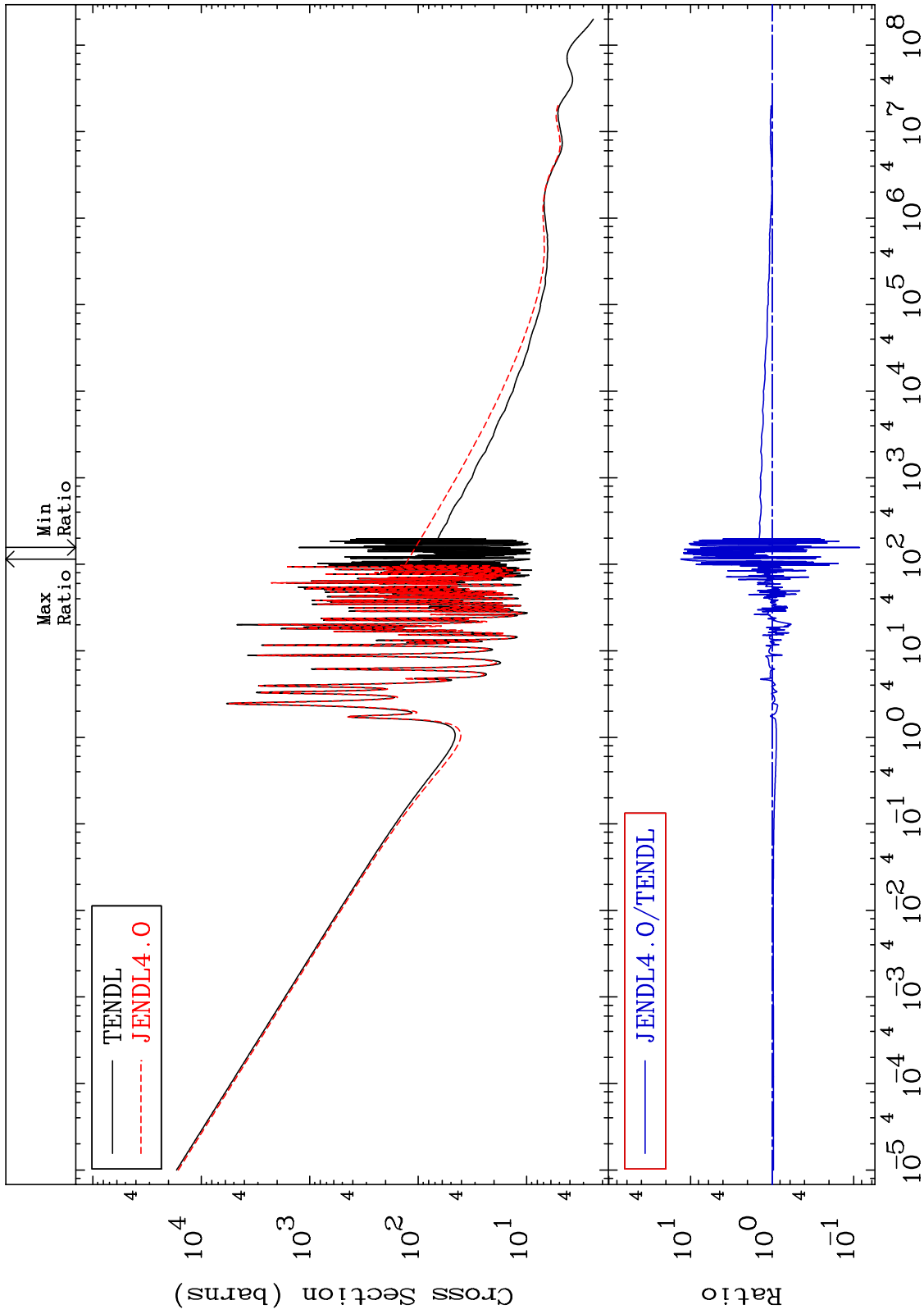
E.Mail: [redcullen1@comcast.net](mailto:redcullen1@comcast.net)  
Web: [redcullen1.net/HOMEPAGE.NEW](http://redcullen1.net/HOMEPAGE.NEW)

Press Mouse Button to Start

MAT 6331

Total  
Cross Section

63-Eu-153  
-91.56 To 1214. %



1

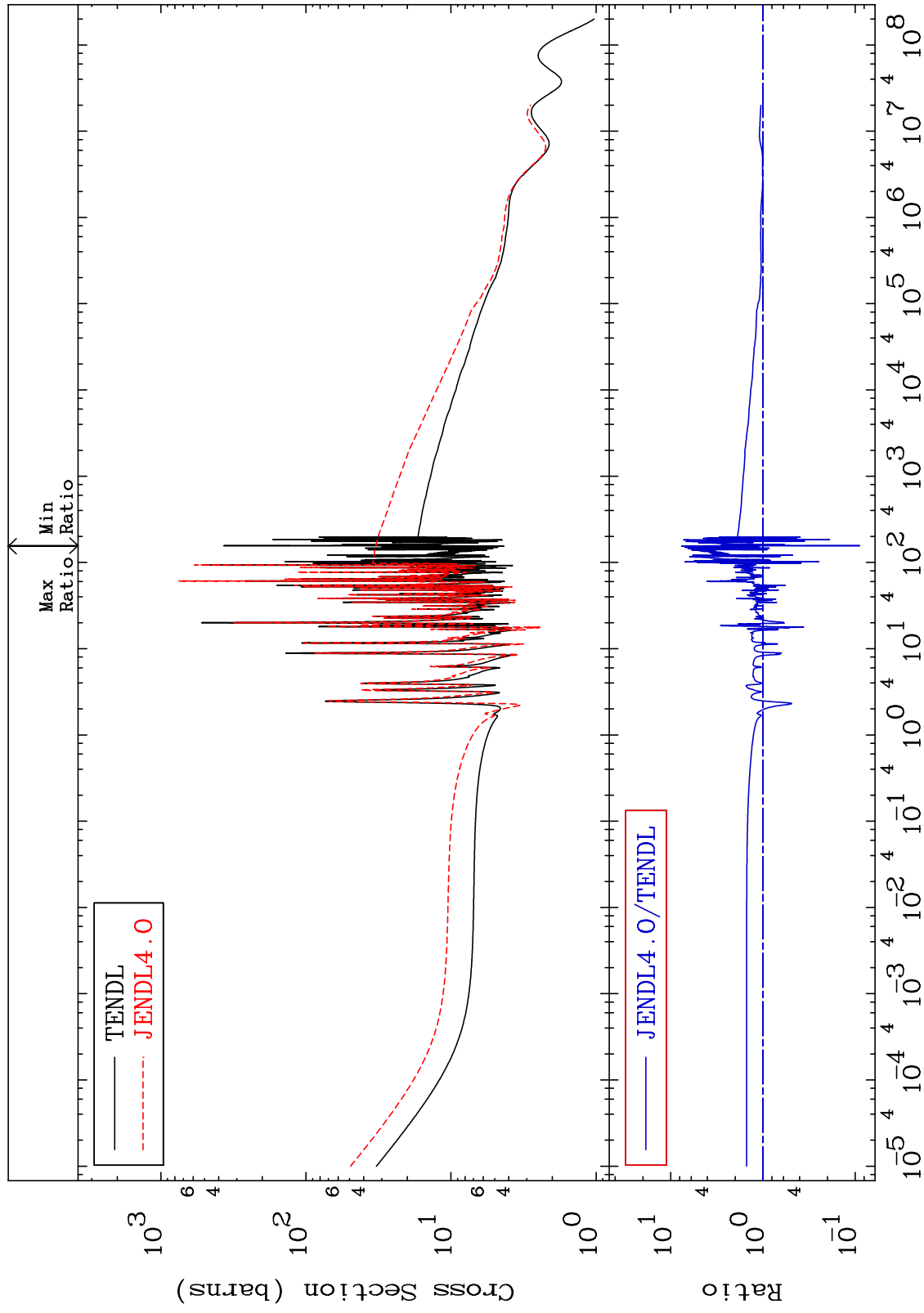
Incident Energy (eV)

63-Eu-153

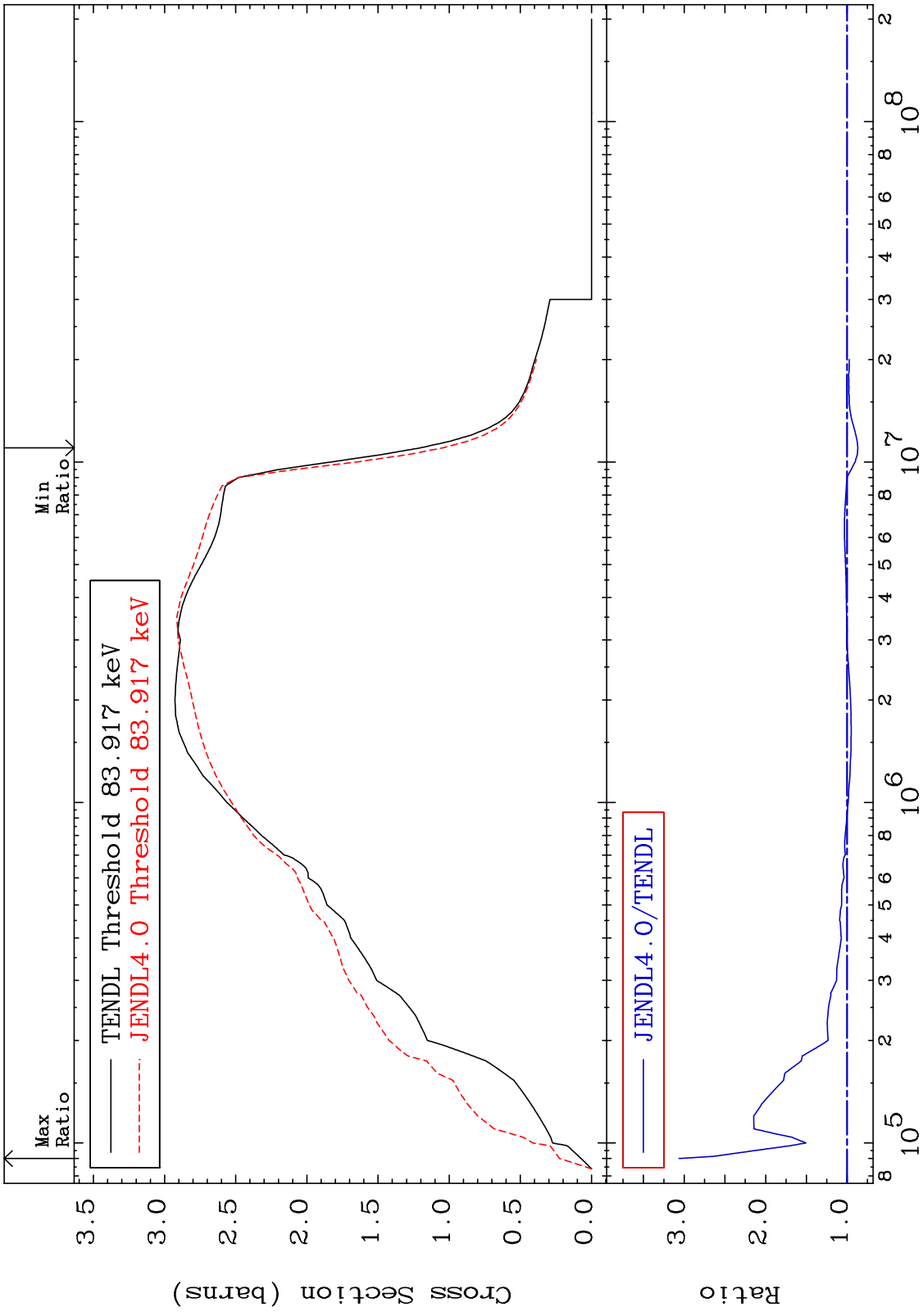
MAT 6331

Elastic  
Cross Section

63-Eu-153  
-91.08 To 664.9 %

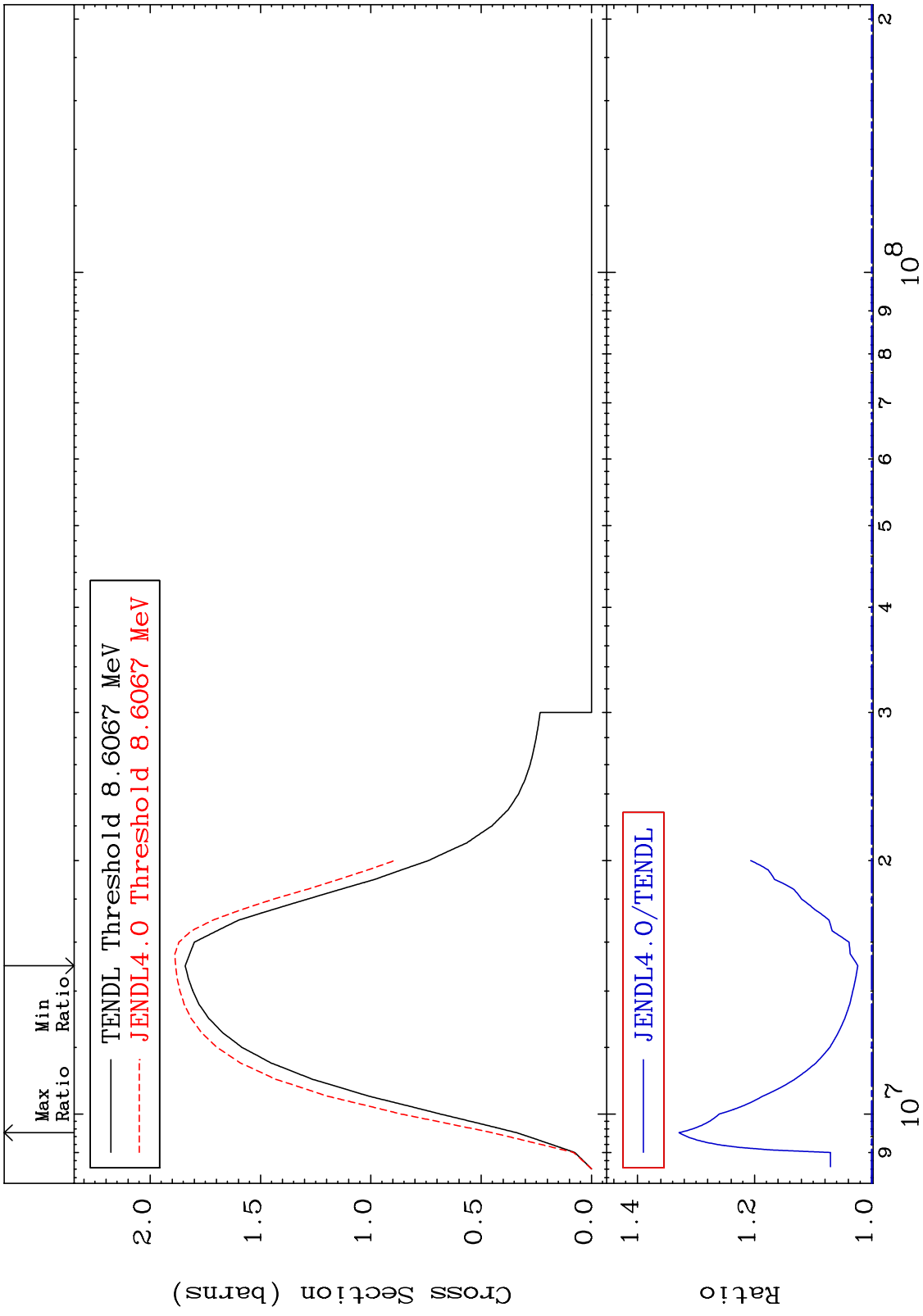


MAT 6331 Inelastic Cross Section 63-Eu-153 -13.13 To 206.3 %



3 Incident Energy (eV) 63-Eu-153

MAT 6331 (n,2n) Cross Section 63-Eu-153 2.385 To 32.89 %



63-Eu-153

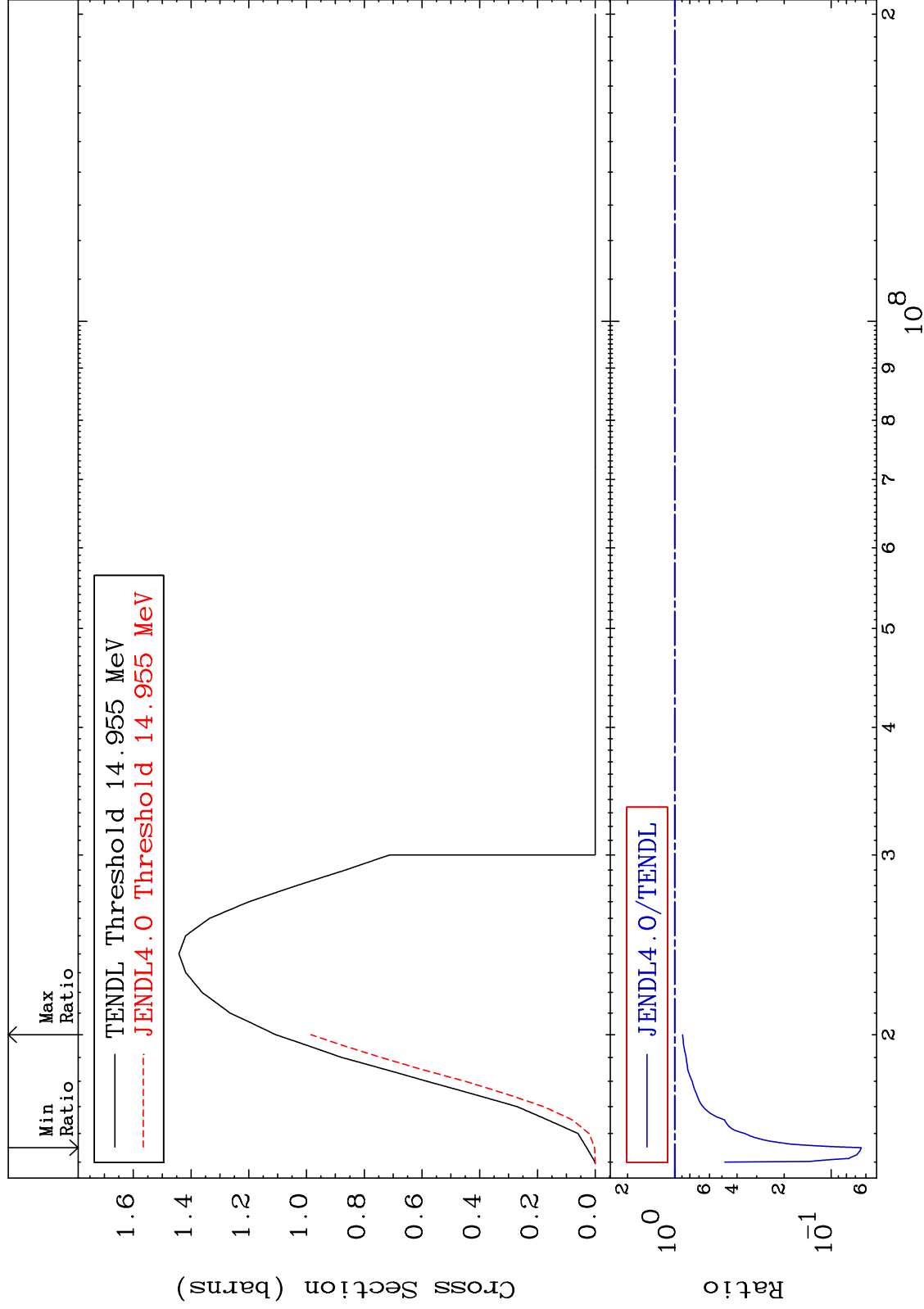
MAT 6331

(n,3n)

63-Eu-153

Cross Section

-93.58 To -11.02%



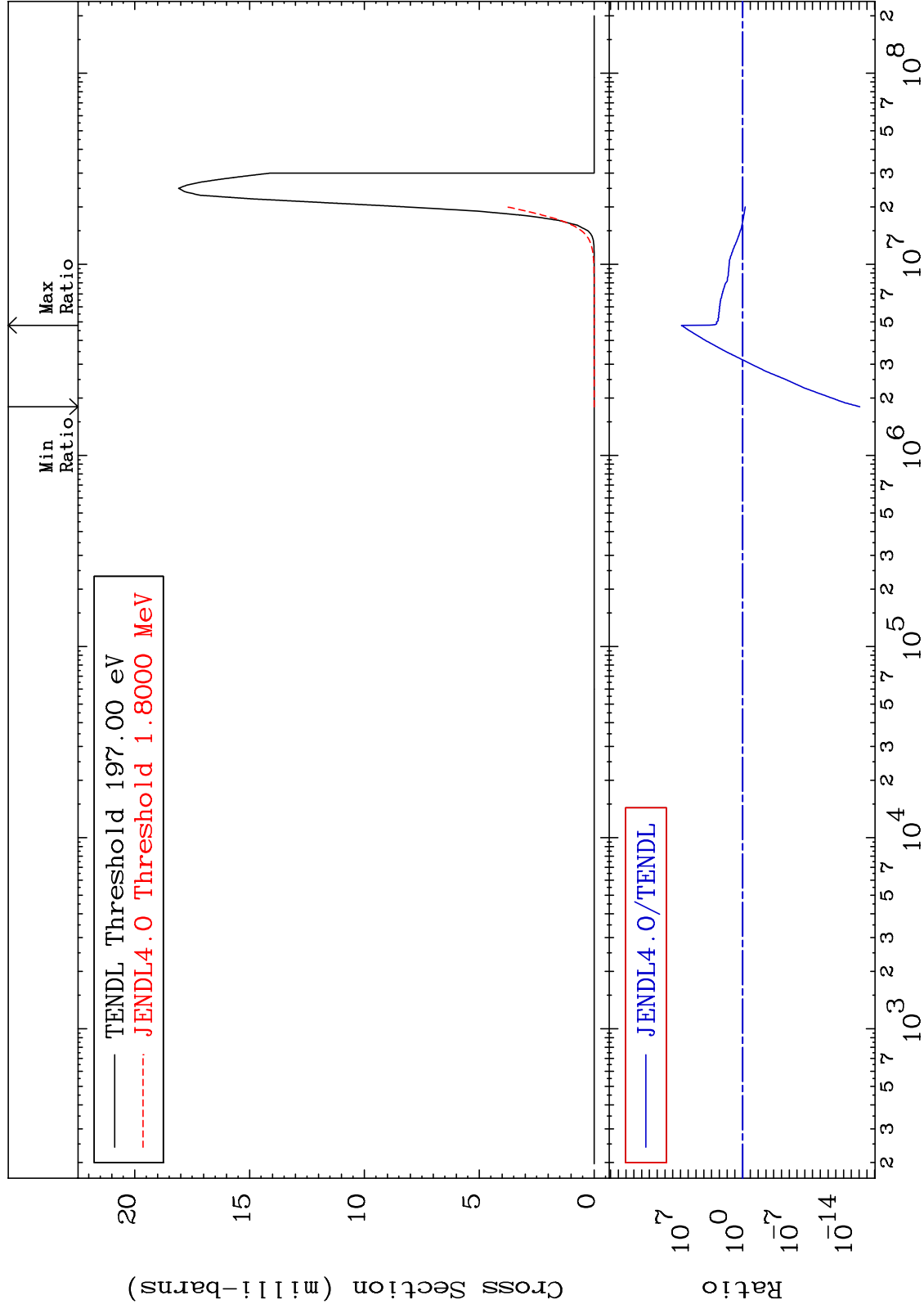
MAT 6331

(n, n')  $\alpha$

63-Eu-153

Cross Section

-100.0 To 9999. %



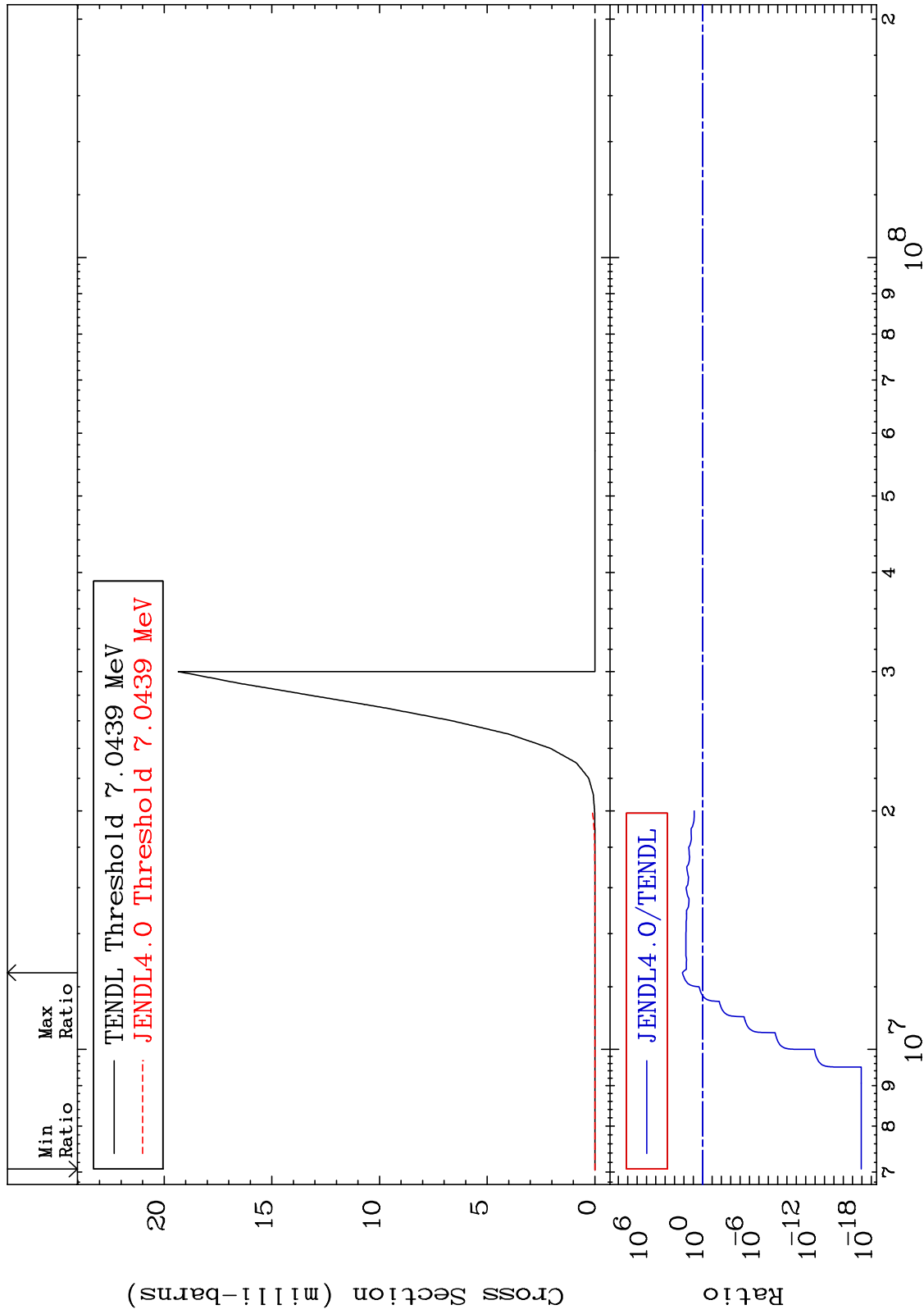
MAT 6331

(n,2n)  $\alpha$

63-Eu-153

Cross Section

-100.0 To 9999. %

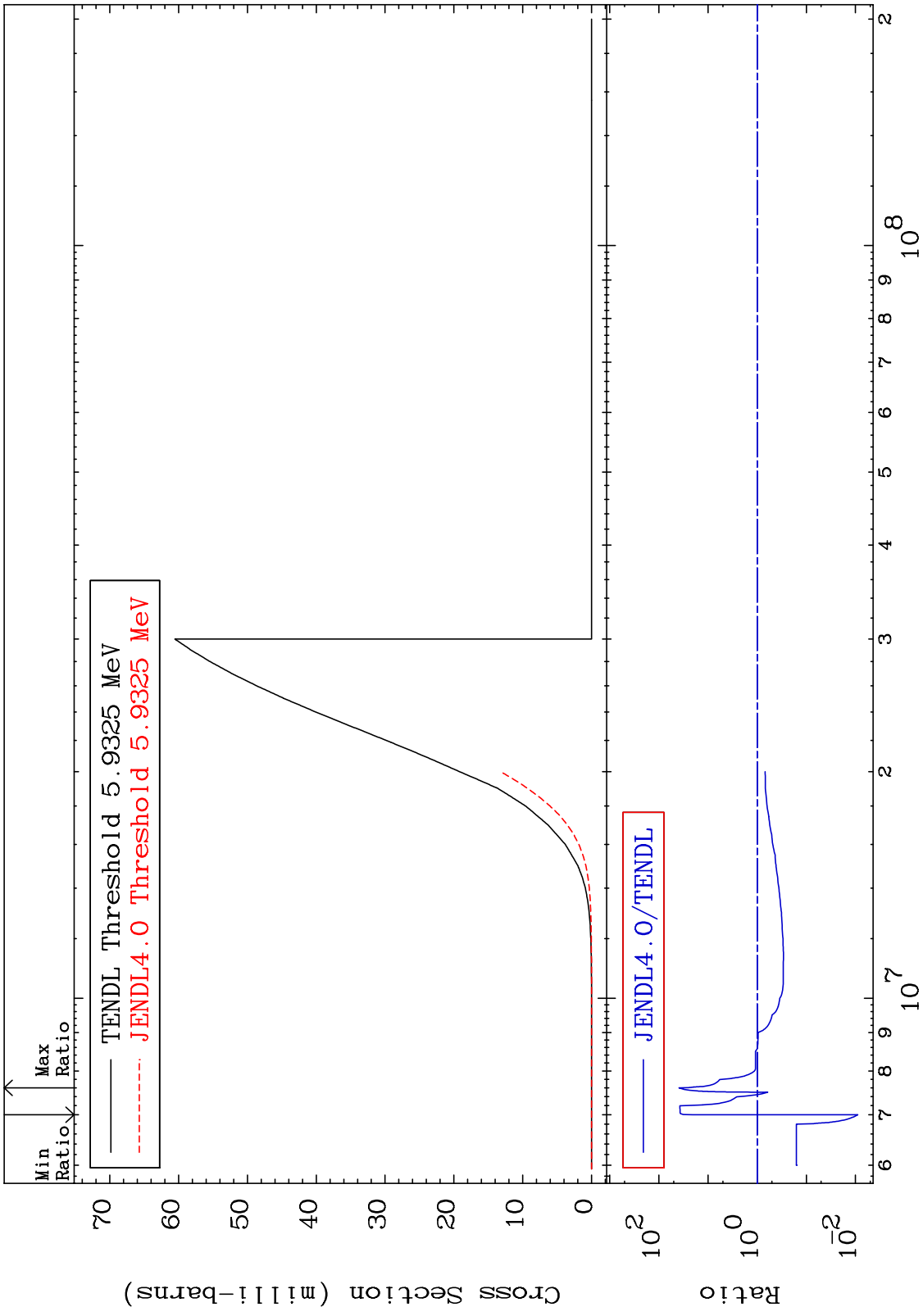


7

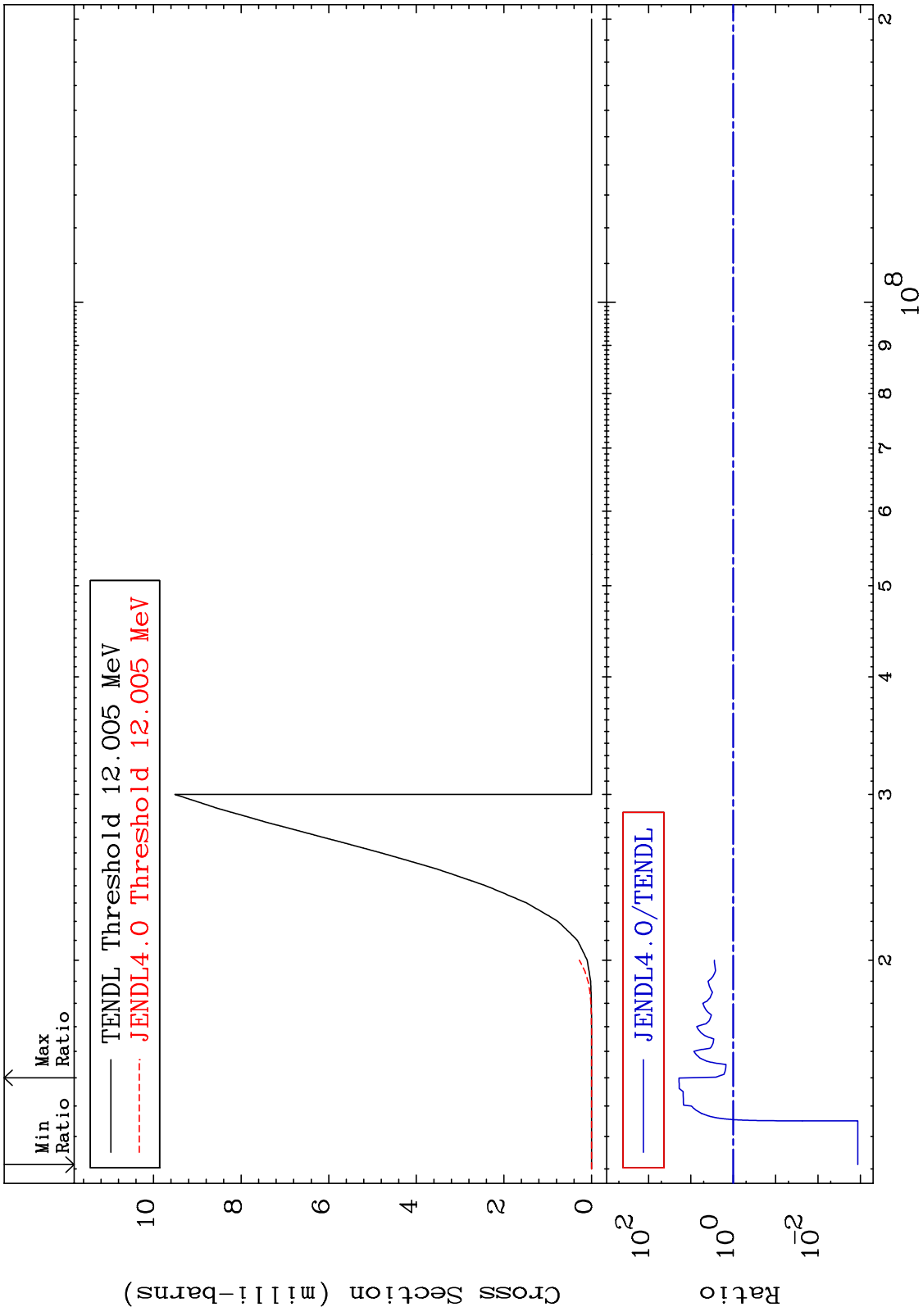
Incident Energy (eV)

63-Eu-153

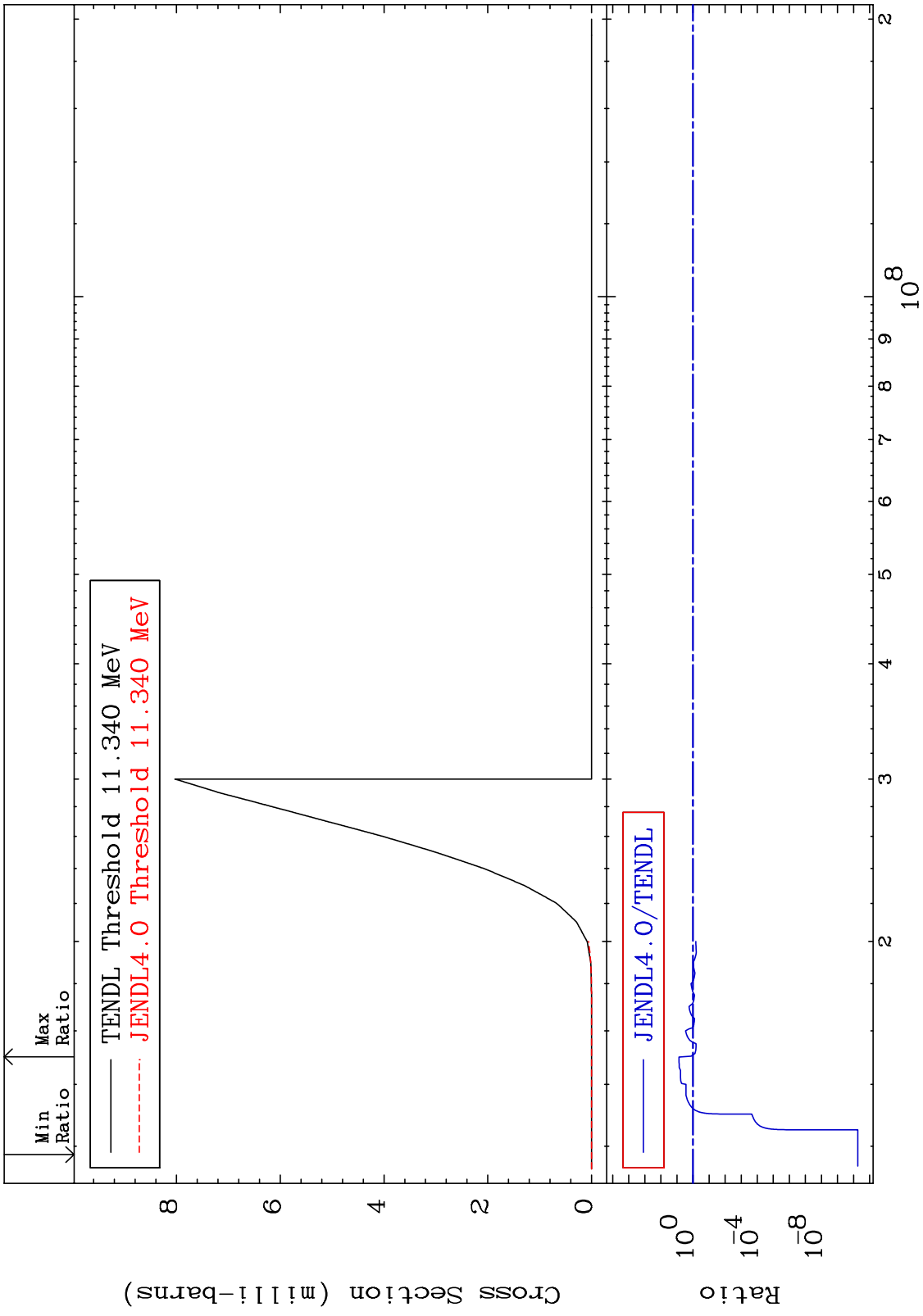


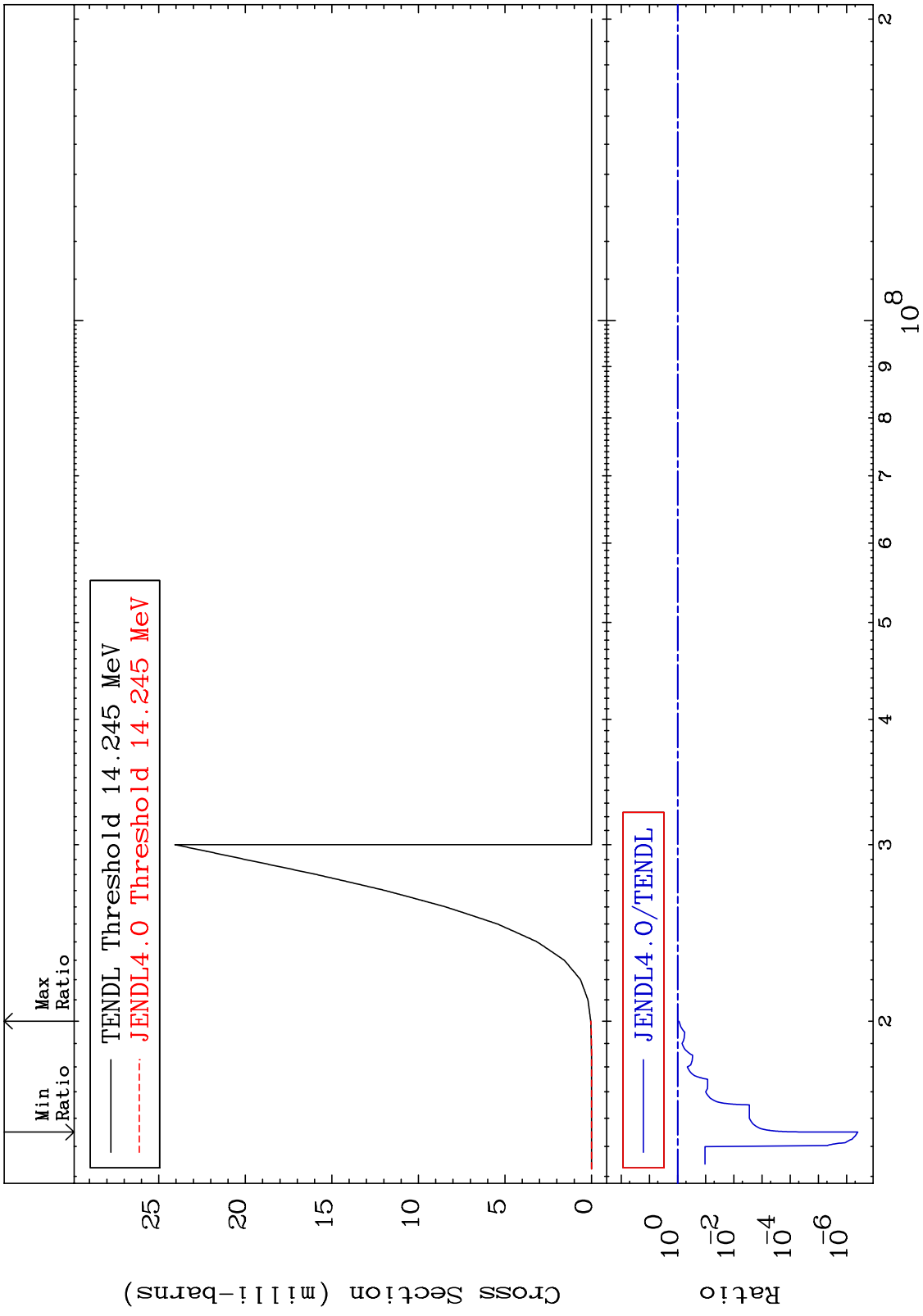


MAT 6331 (n,n') d 63-Eu-153  
 Cross Section -99.89 To 1802. %

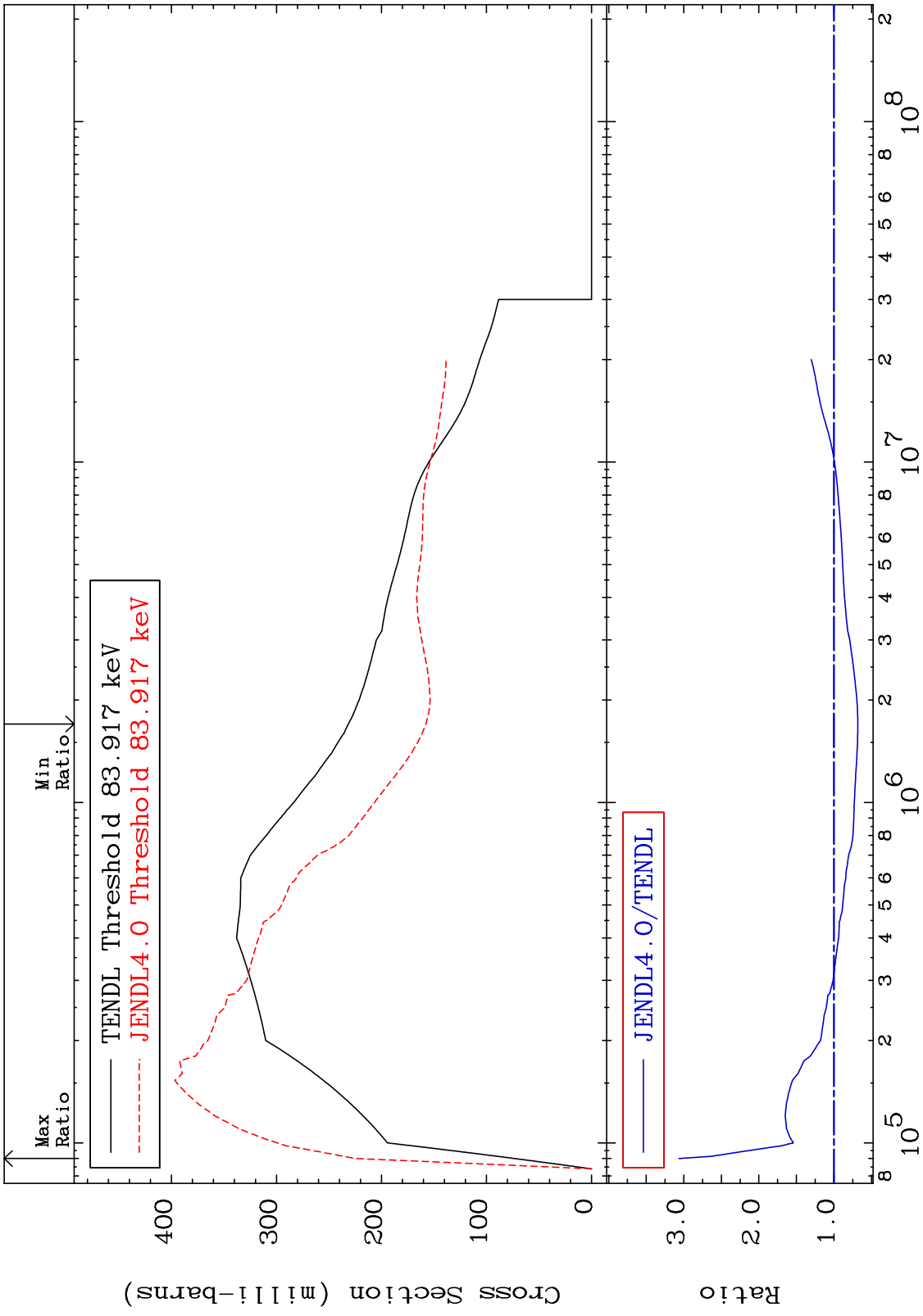


MAT 6331 (n,n') t 63-Eu-153  
Cross Section -100.0 To 637.3 %





MAT 6331 MT= 51 (n,n') Level Cross Section 63-Eu-153 -31.85 To 206.3 %

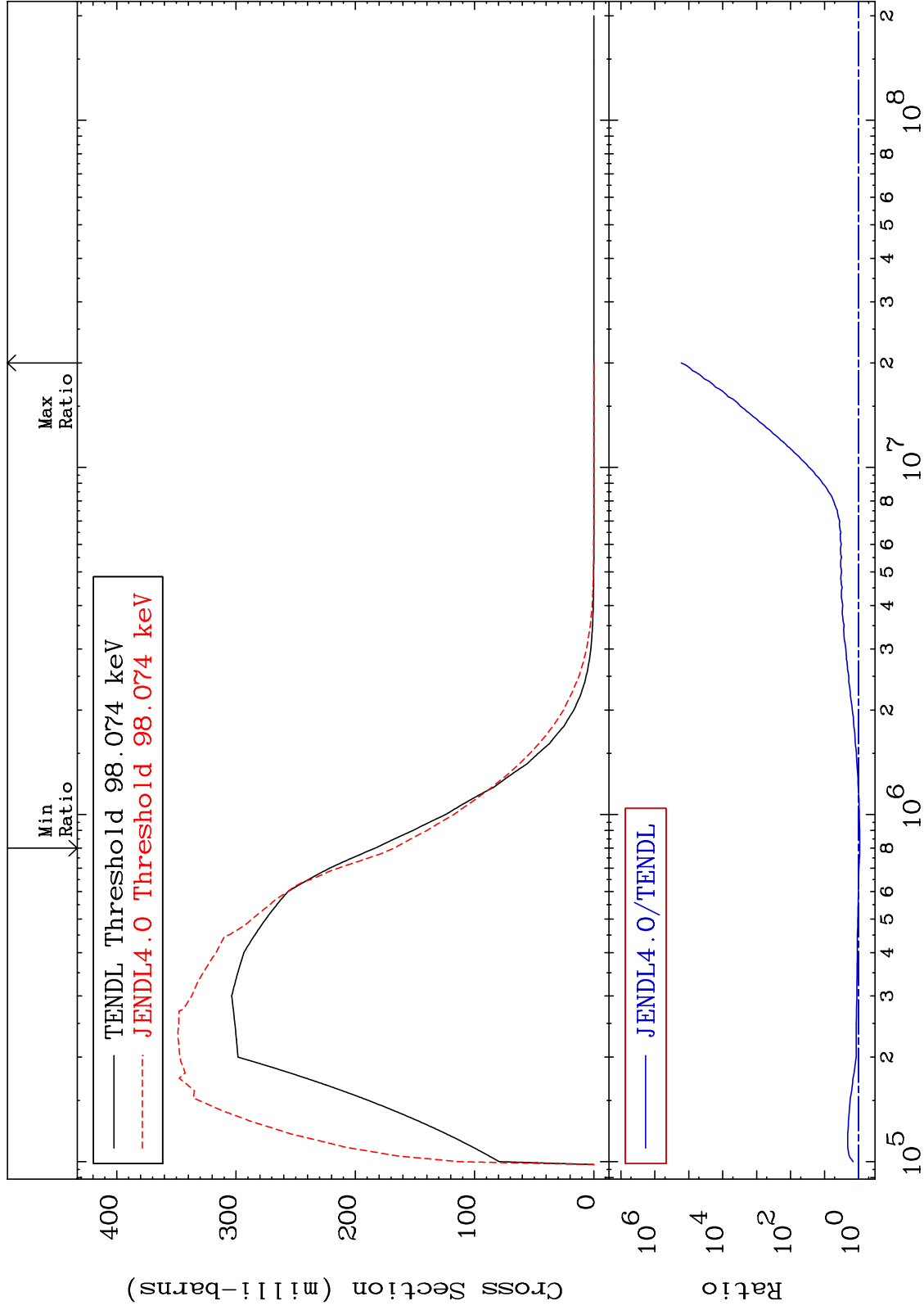


12 63-Eu-153

MAT 6331

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

63-Eu-153  
-8.629 To 9999. %

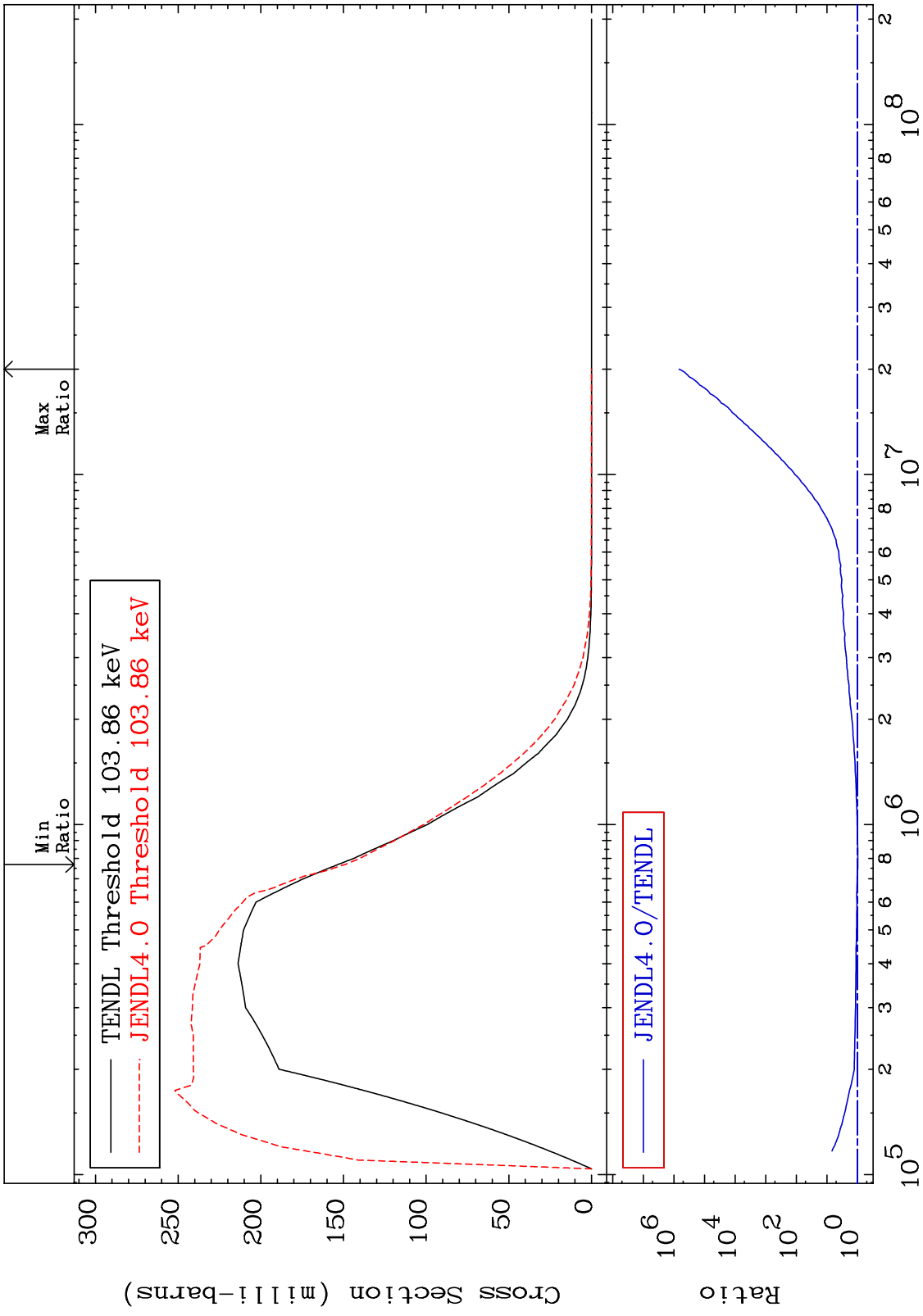


13

Incident Energy (eV)

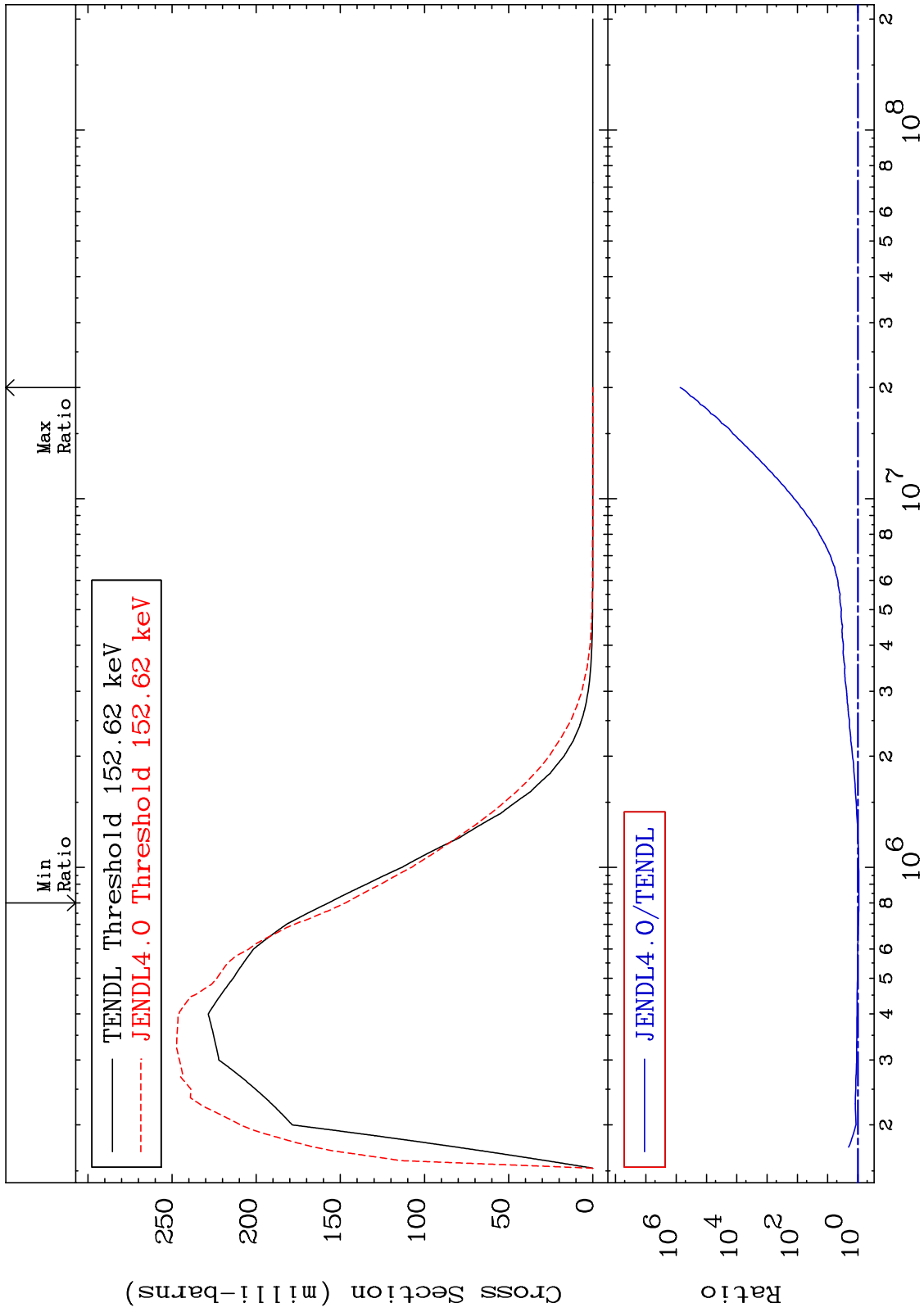
63-Eu-153

MAT 6331 MT= 53 (n,n') Level Cross Section 63-Eu-153  
 -2.777 To 9999. %



14 63-Eu-153

MAT 6331 MT= 54 (n,n') Level Cross Section 63-Eu-153  
 -6.417 To 9999. %

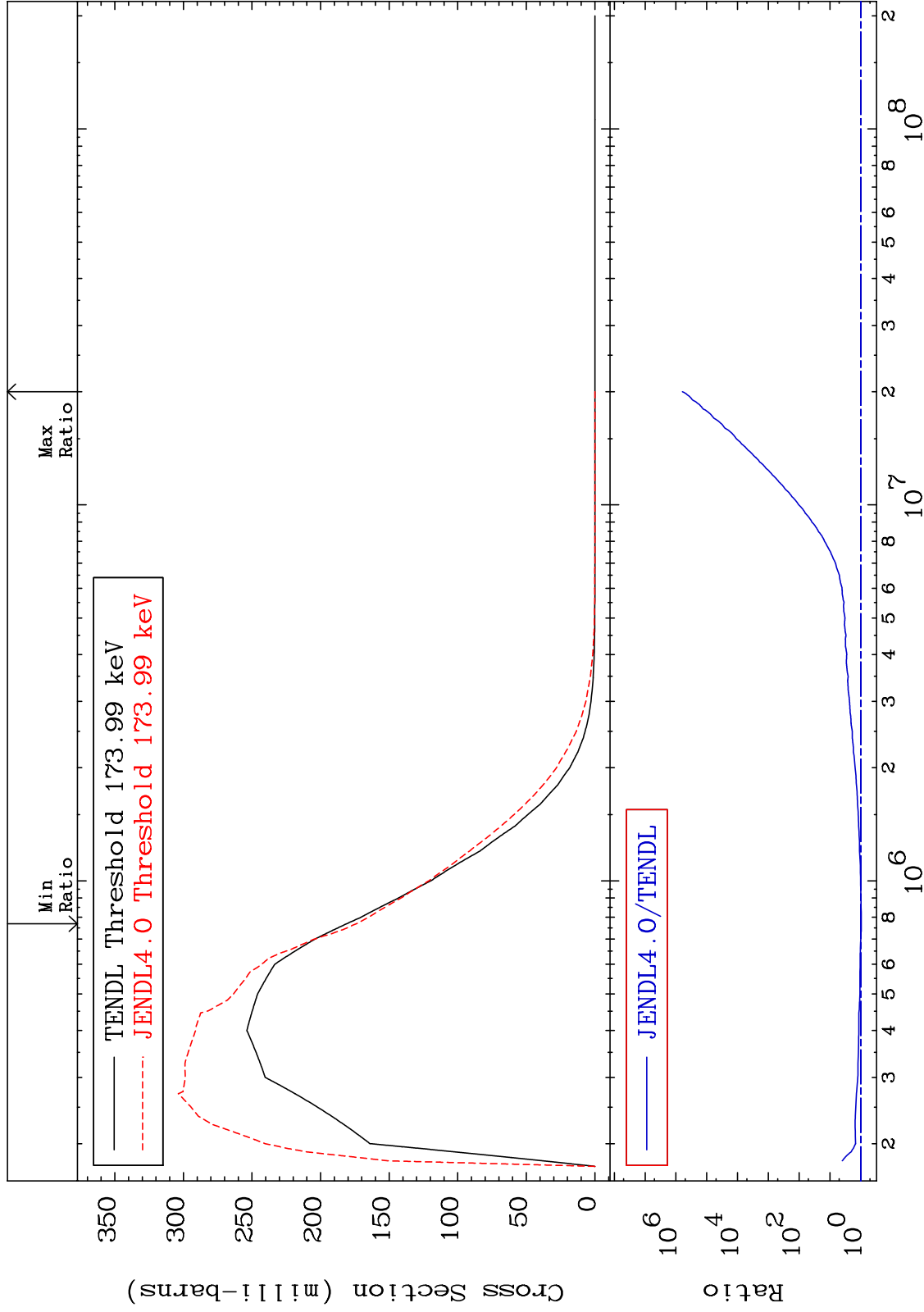




MAT 6331

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

63-Eu-153  
-3.947 To 9999. %

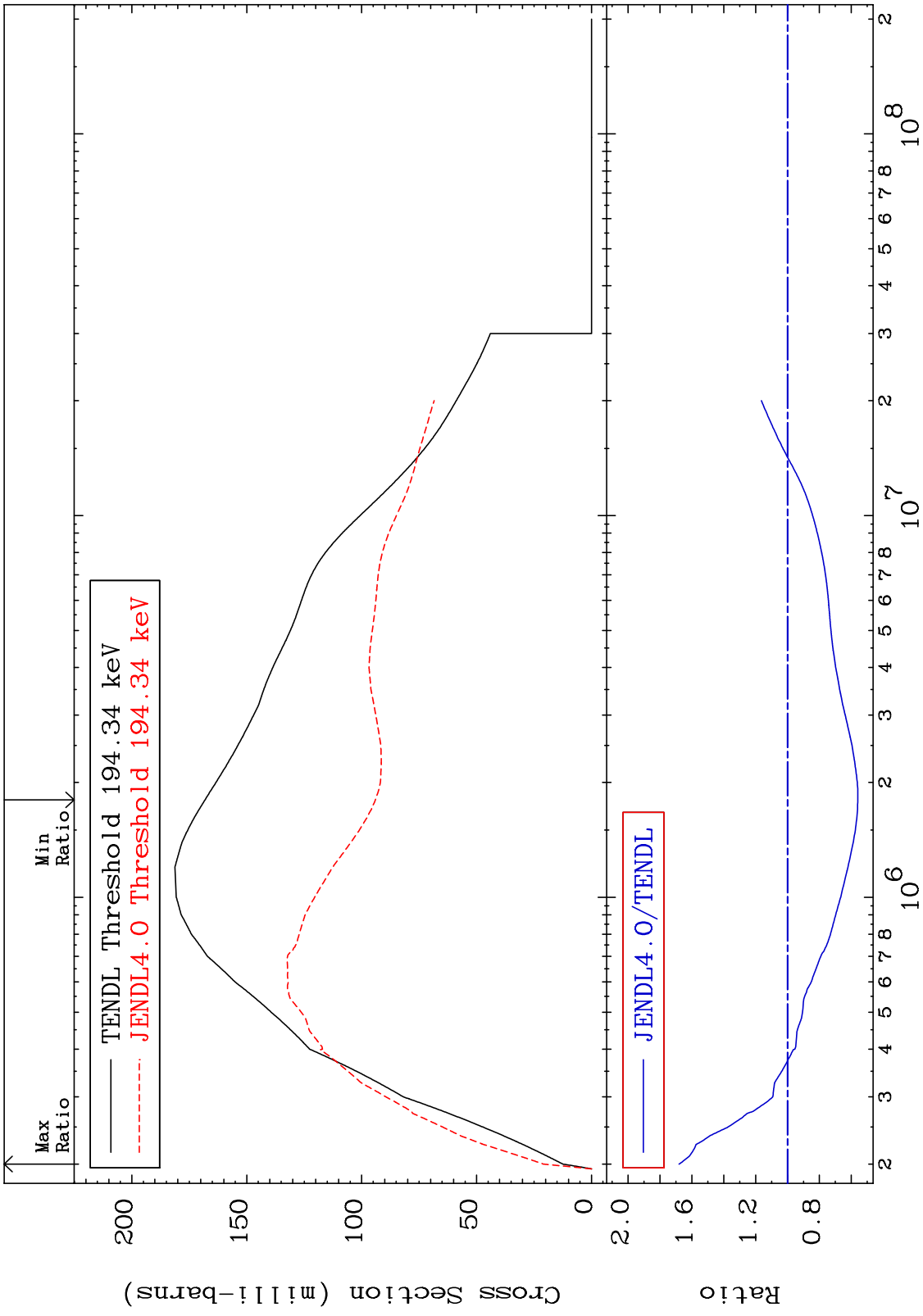


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Incident Energy (eV)

63-Eu-153

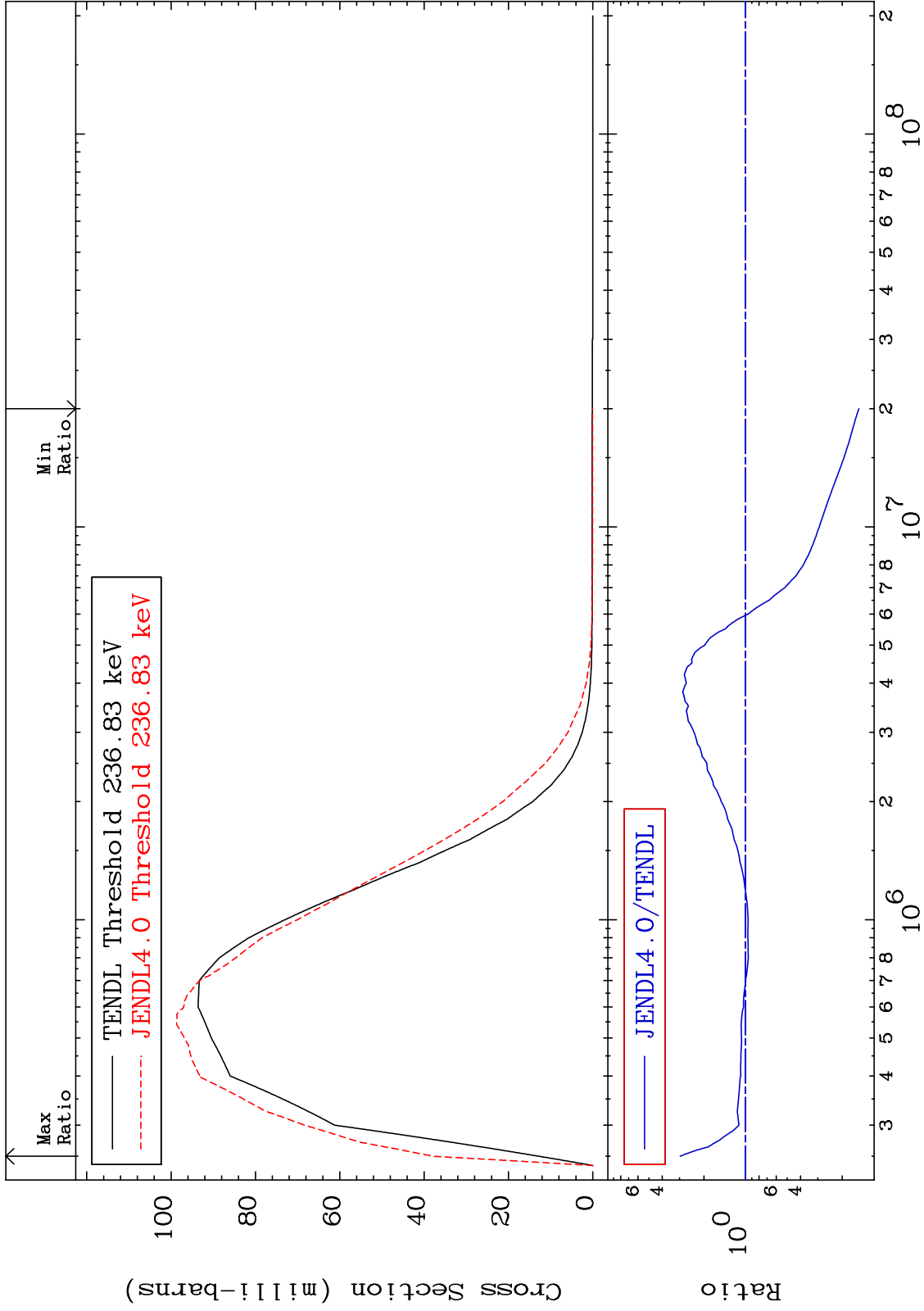
MAT 6331 MT= 56 (n,n') Level Cross Section 63-Eu-153  
 -44.09 To 68.02 %



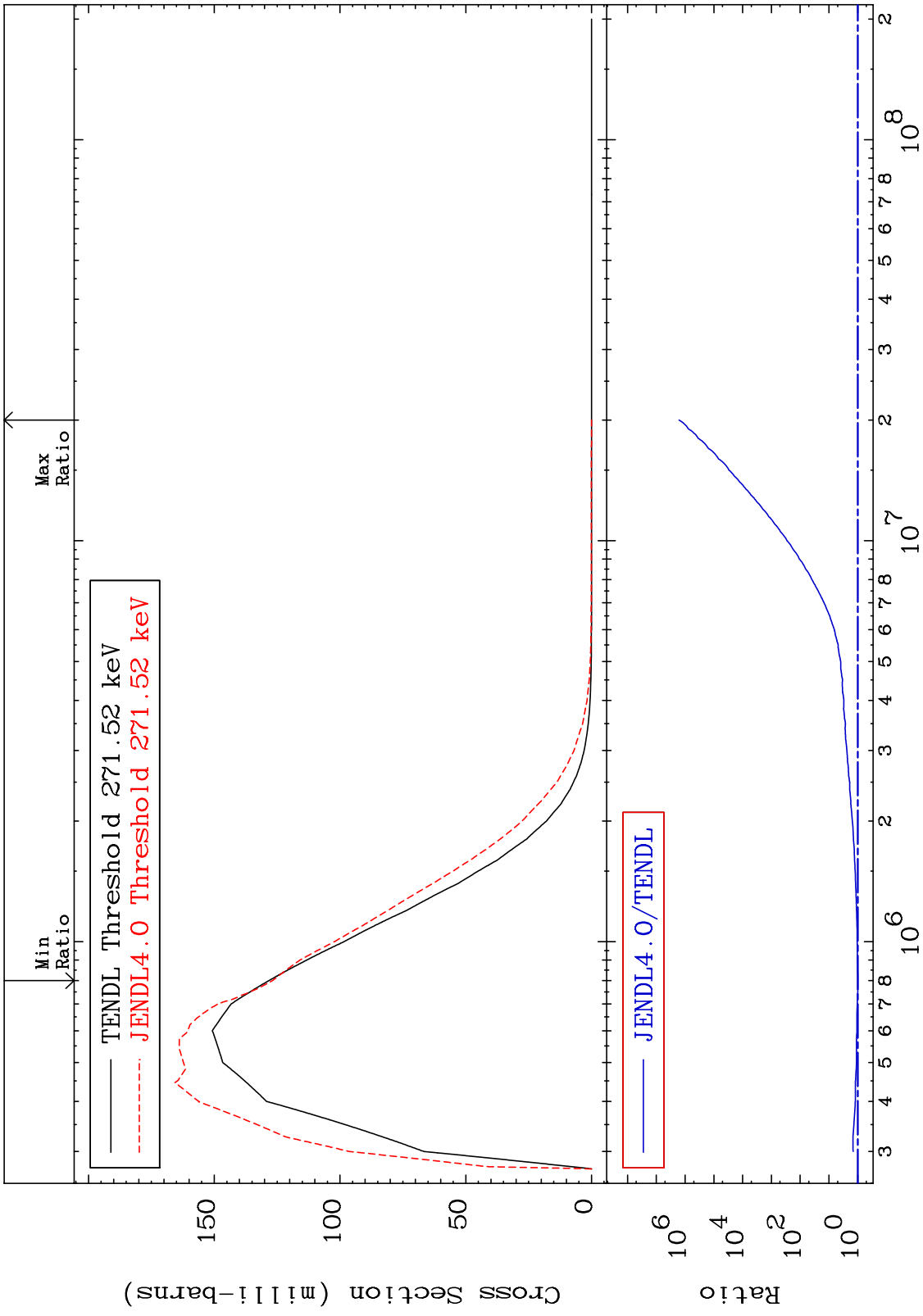
MAT 6331

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

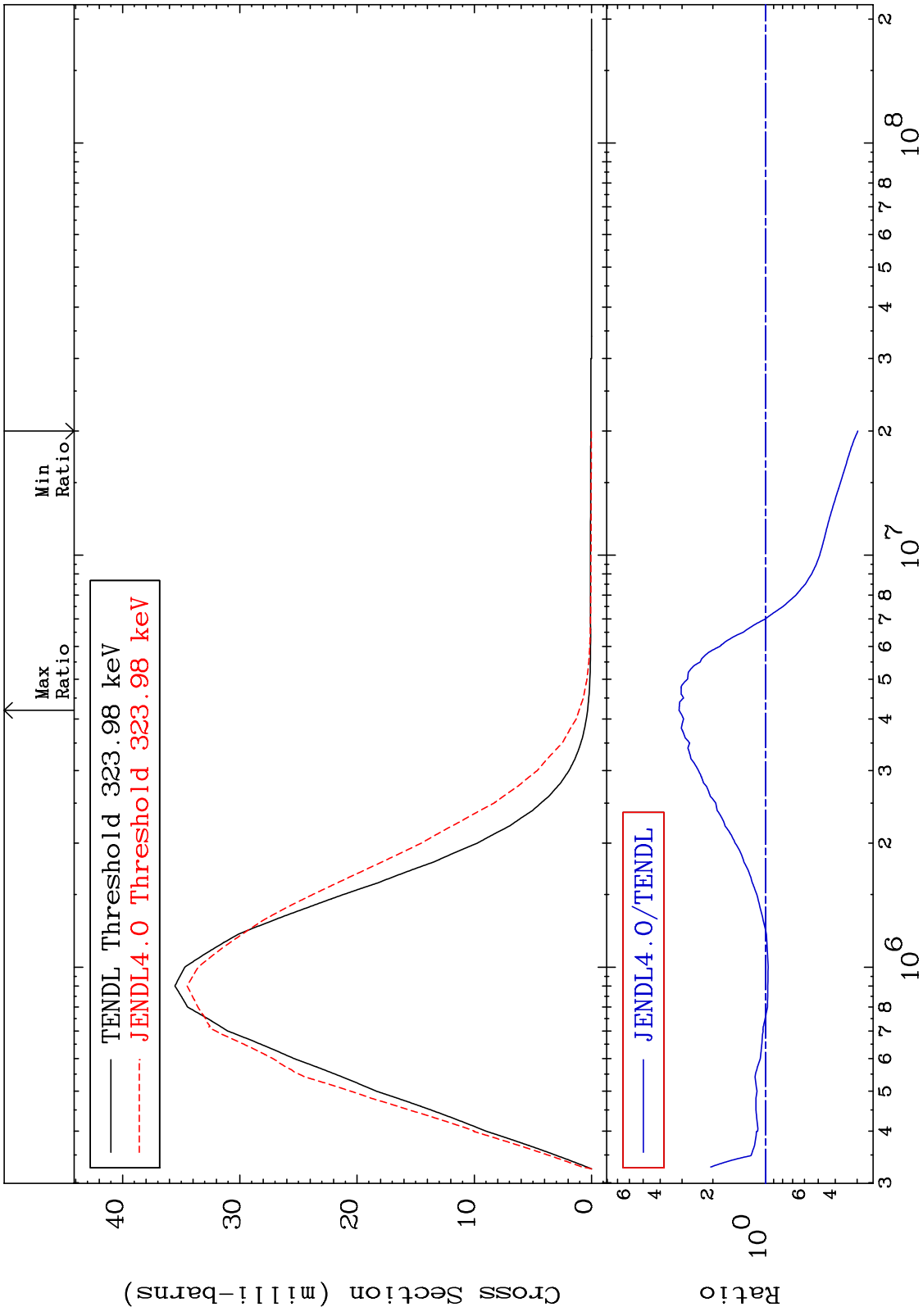
63-Eu-153  
-84.85 To 196.8 %



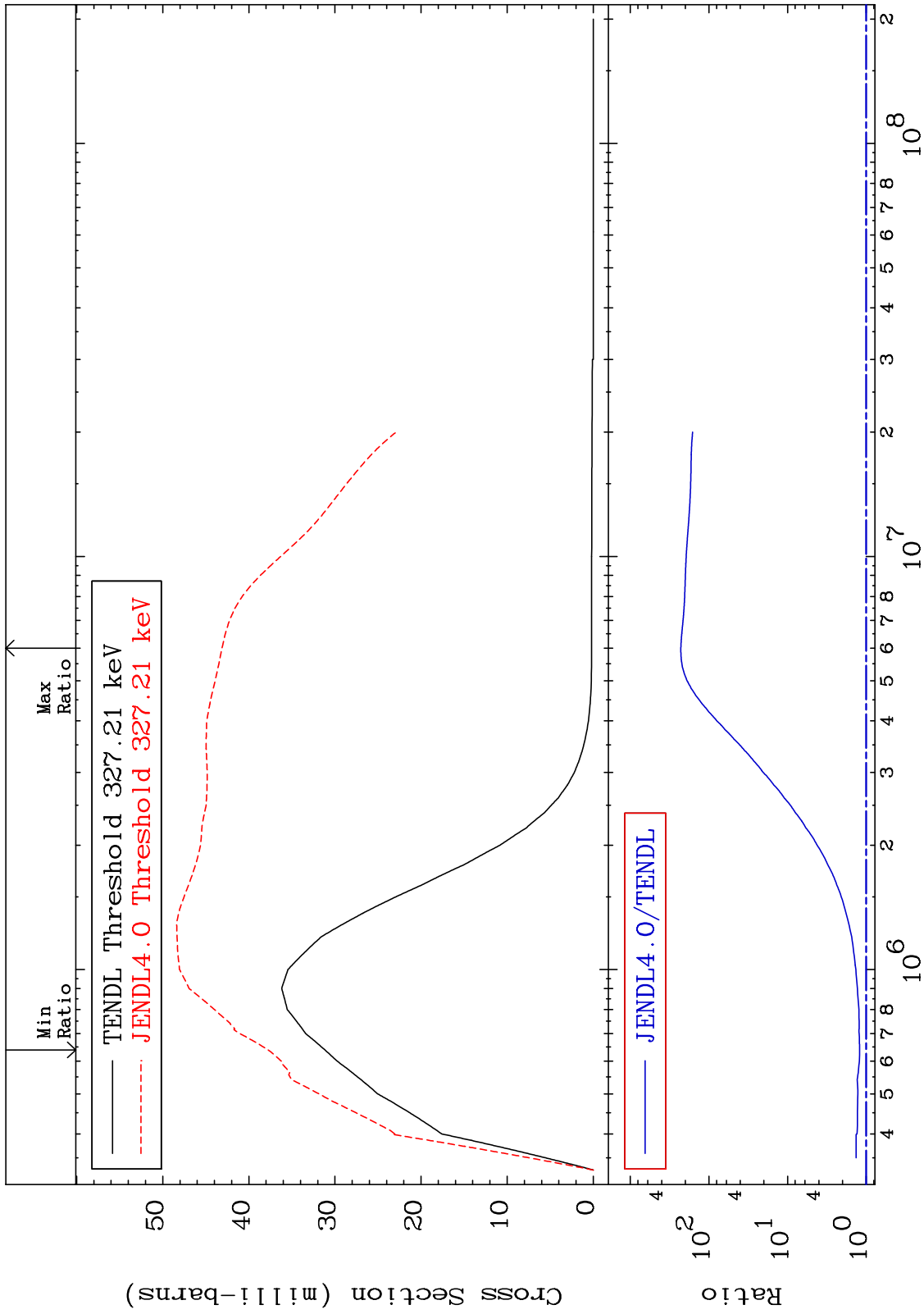
MAT 6331 MT= 58 (n,n') Level Cross Section 63-Eu-153  
 -1.130 To 9999. %



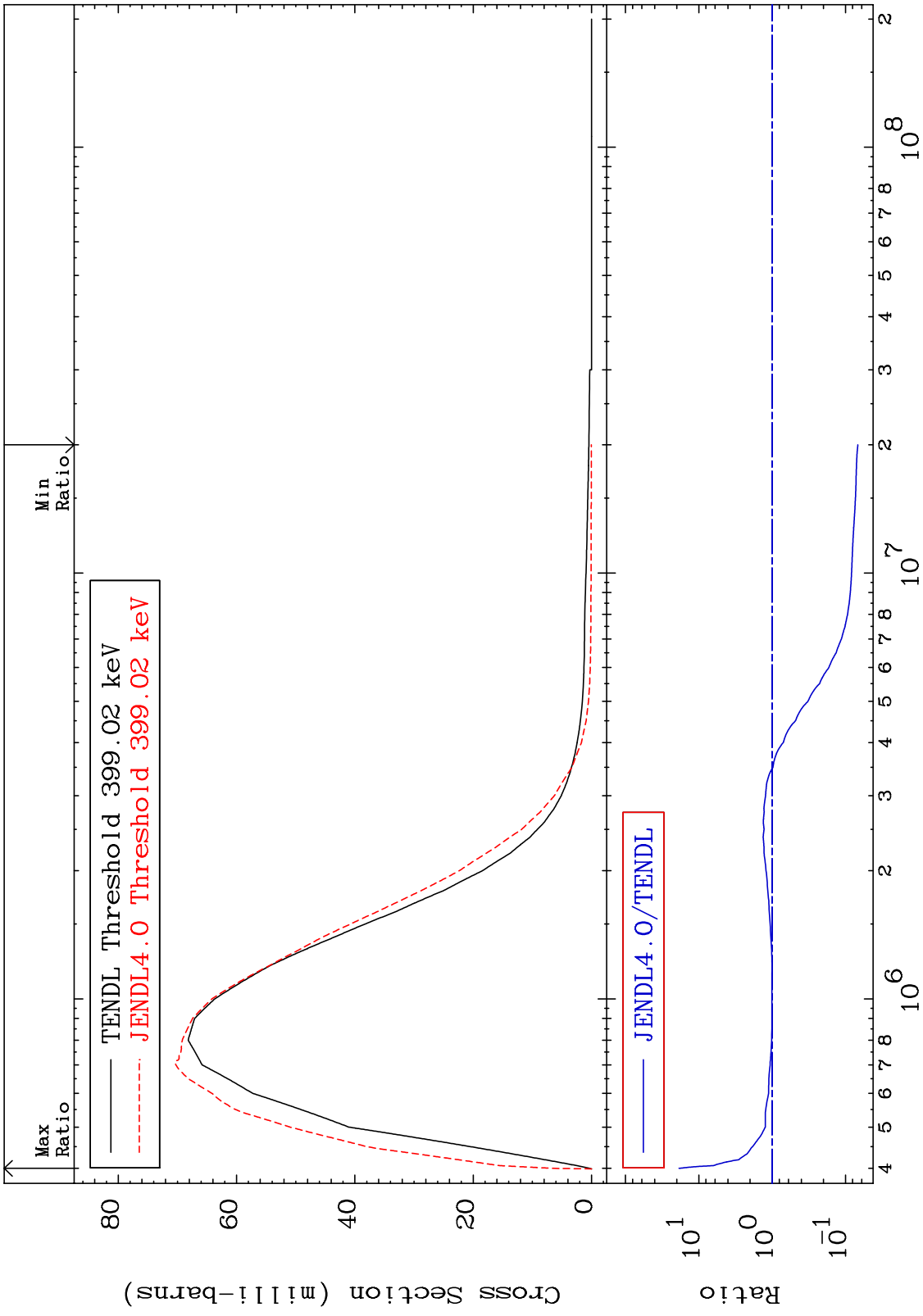
MAT 6331 MT= 59 (n,n') Level Cross Section 63-Eu-153  
 -70.27 To 211.8 %



MAT 6331 MT= 60 (n,n') Level Cross Section 63-Eu-153 21.13 To 9999. %



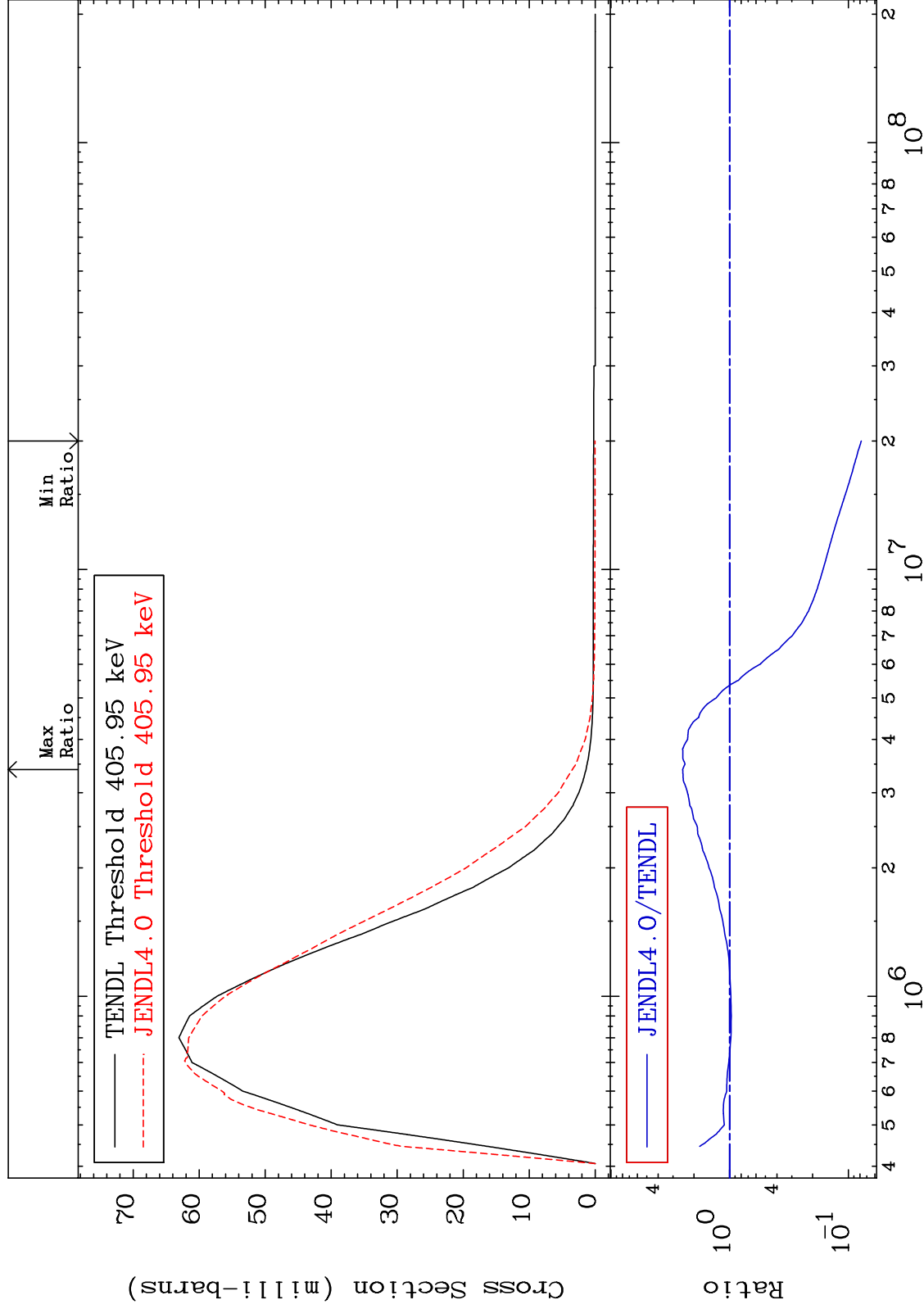
MAT 6331 MT= 61 (n,n') Level Cross Section 63-Eu-153 -93.22 To 1760. %



MAT 6331

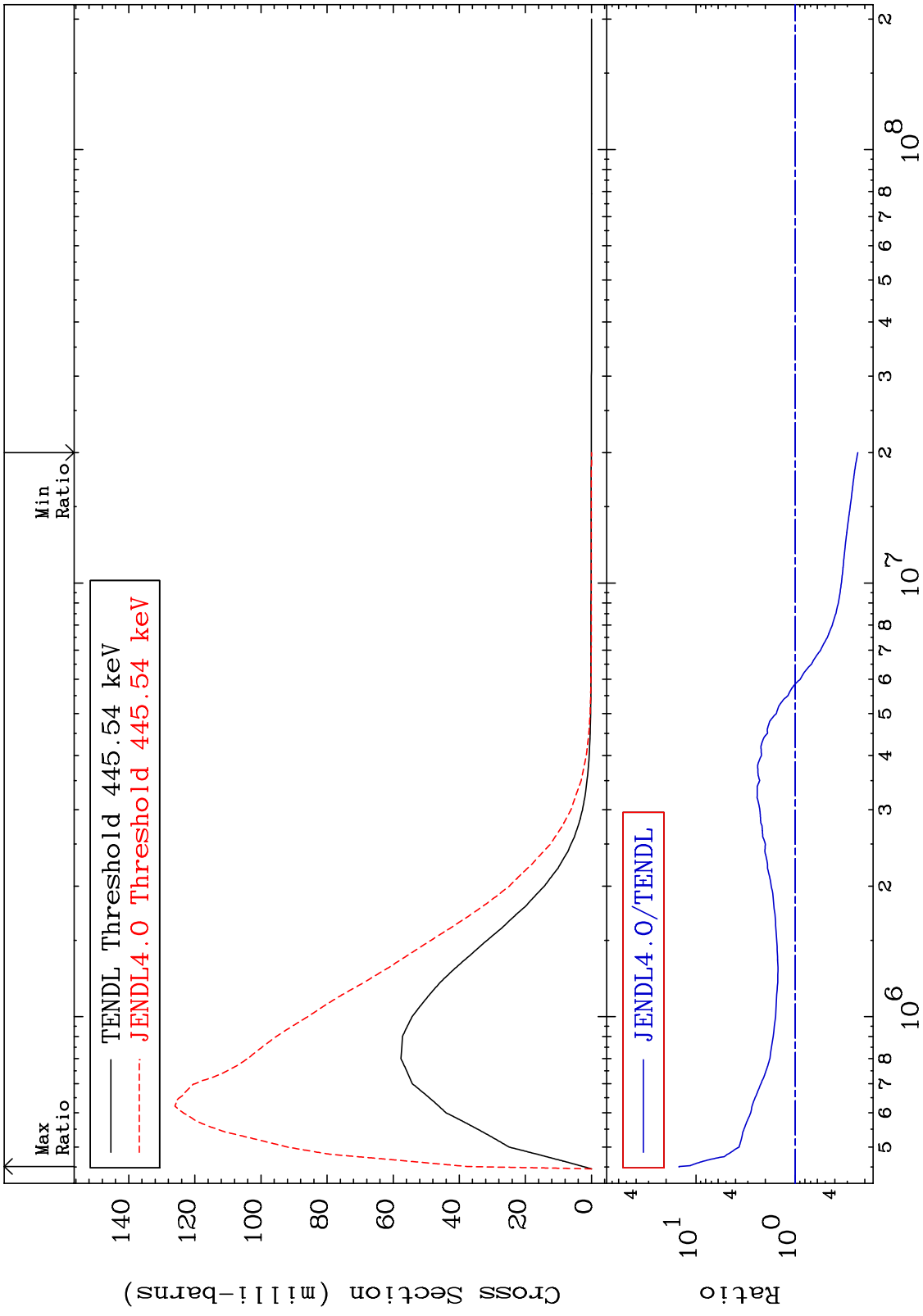
MT= 62 (n,n') Level  
Cross Section

63-Eu-153  
-92.22 To 148.8 %

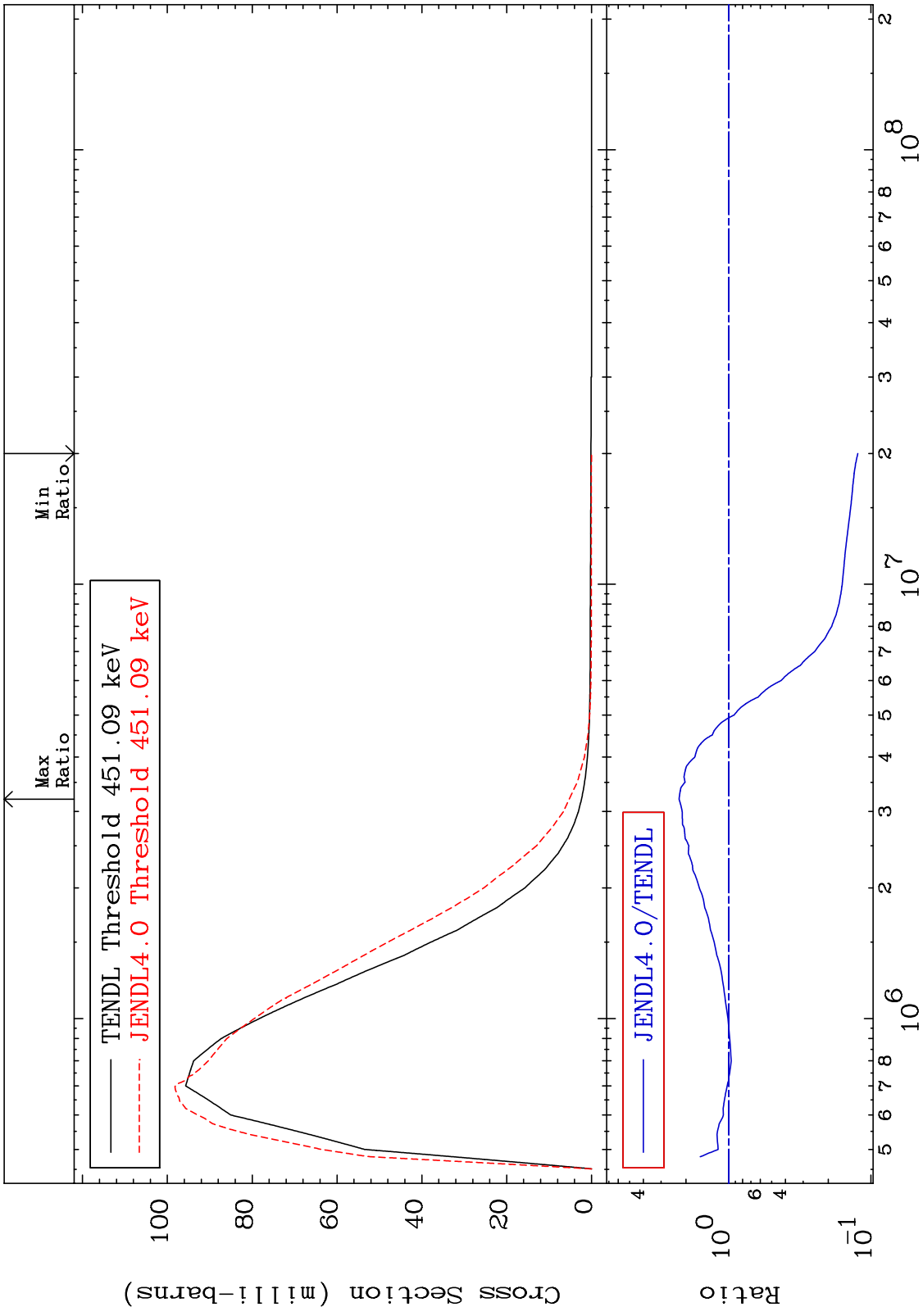




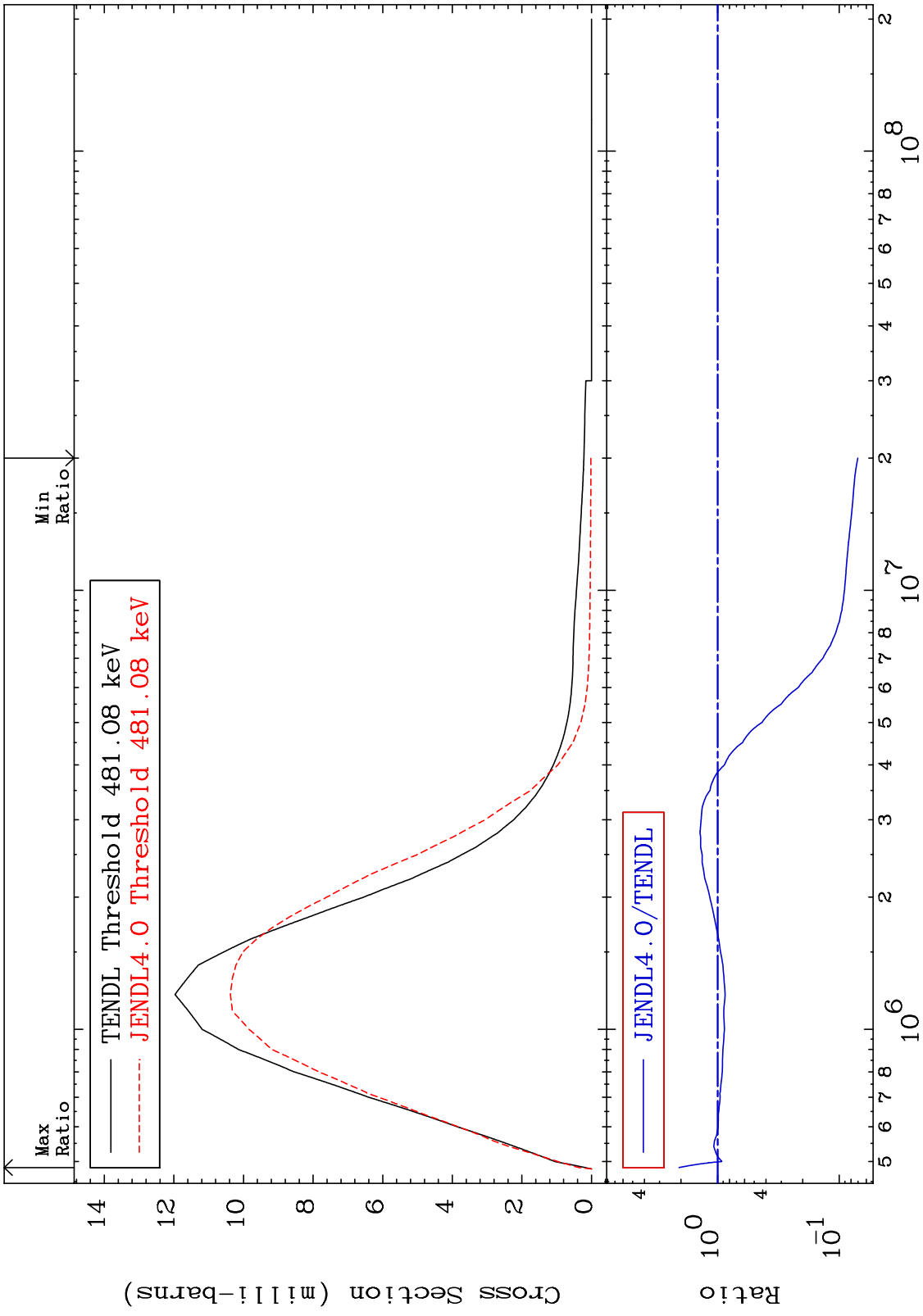
MAT 6331 MT= 63 (n,n') Level Cross Section 63-Eu-153  
 -76.55 To 1382. %



MAT 6331 MT= 64 (n,n') Level Cross Section 63-Eu-153  
 -87.63 To 124.0 %



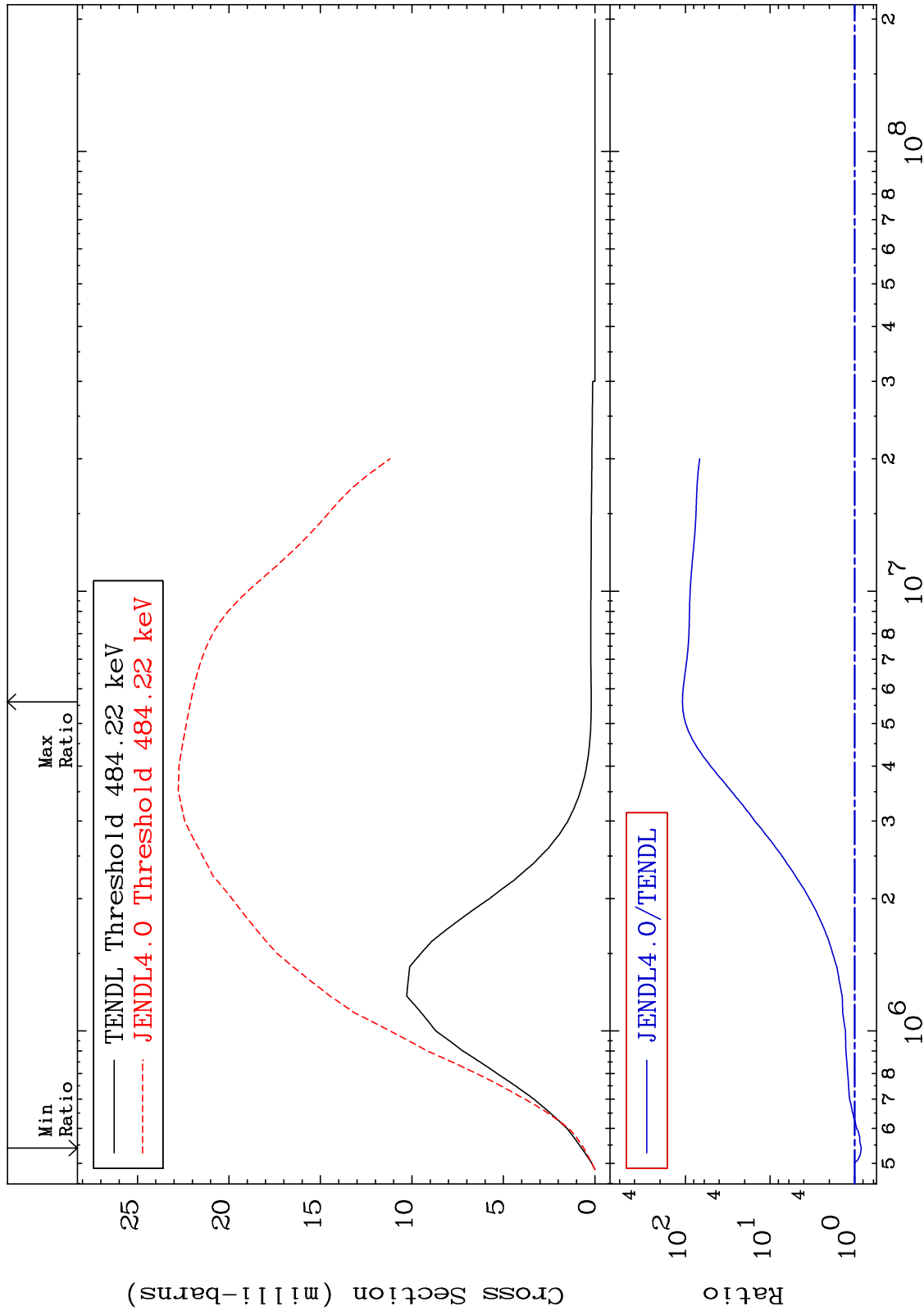
MAT 6331 MT= 65 (n,n') Level Cross Section 63-Eu-153  
 -92.97 To 107.7 %



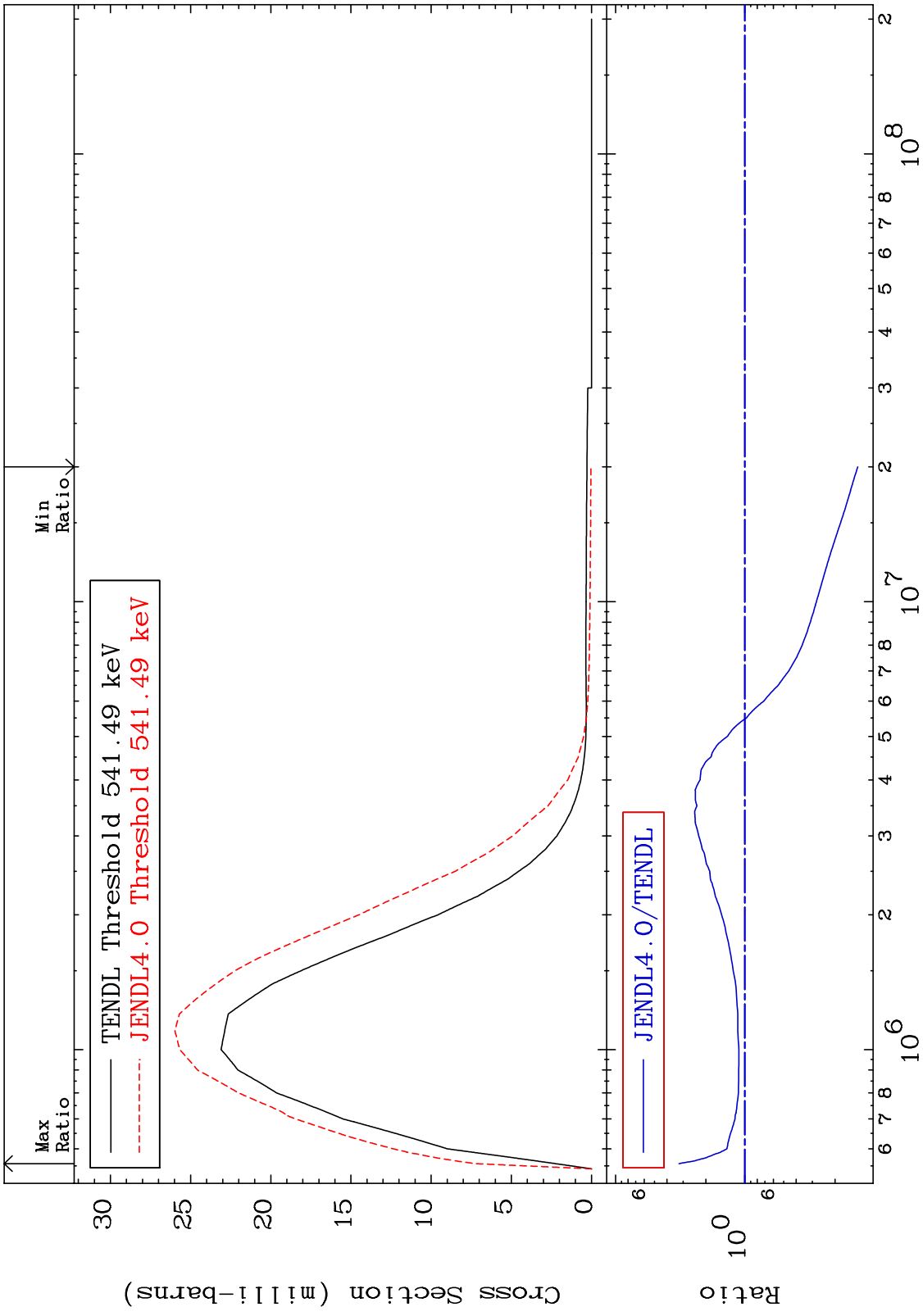
MAT 6331

MT= 66 (n,n') Level  
Cross Section

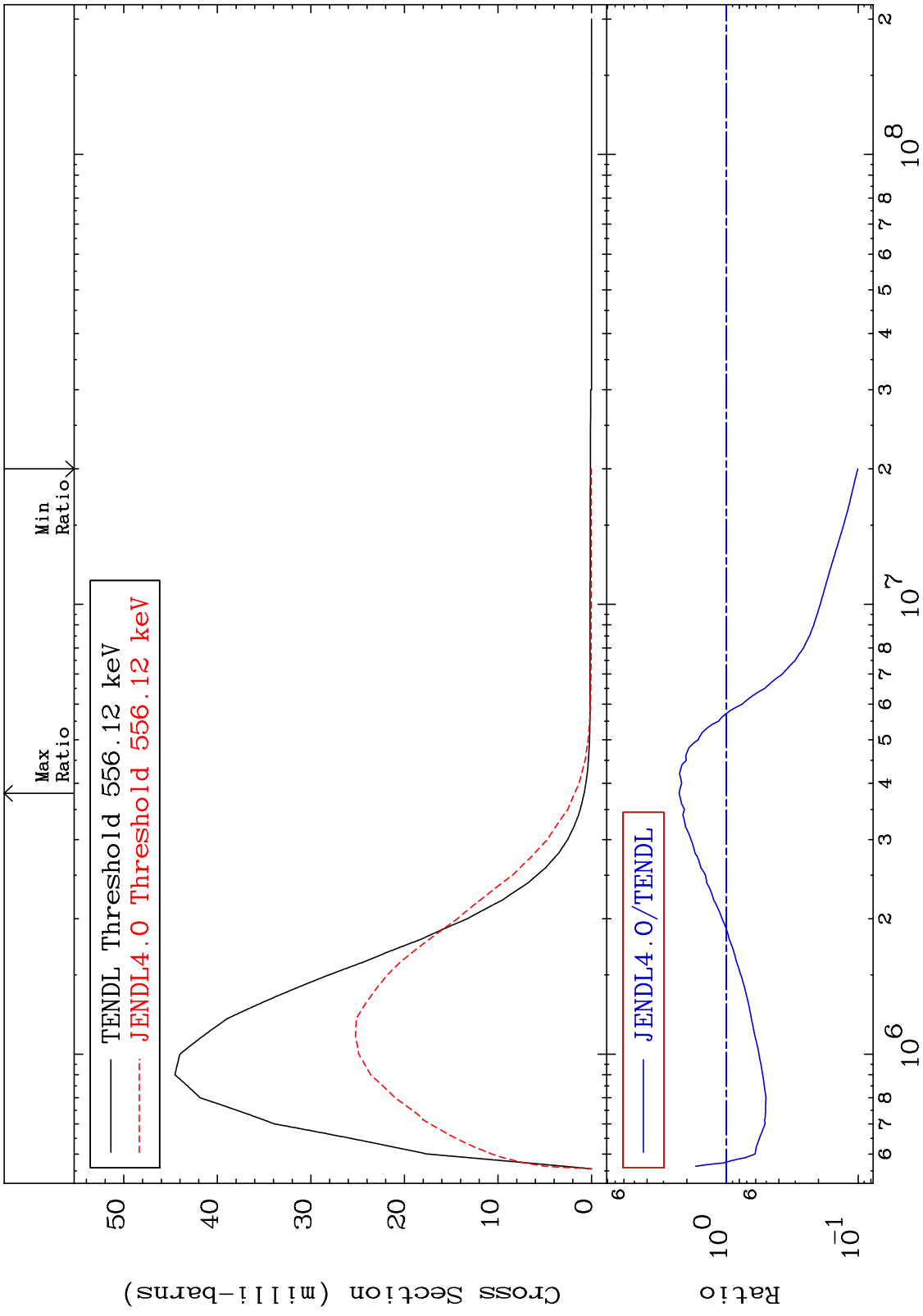
63-Eu-153  
-16.31 To 9999. %



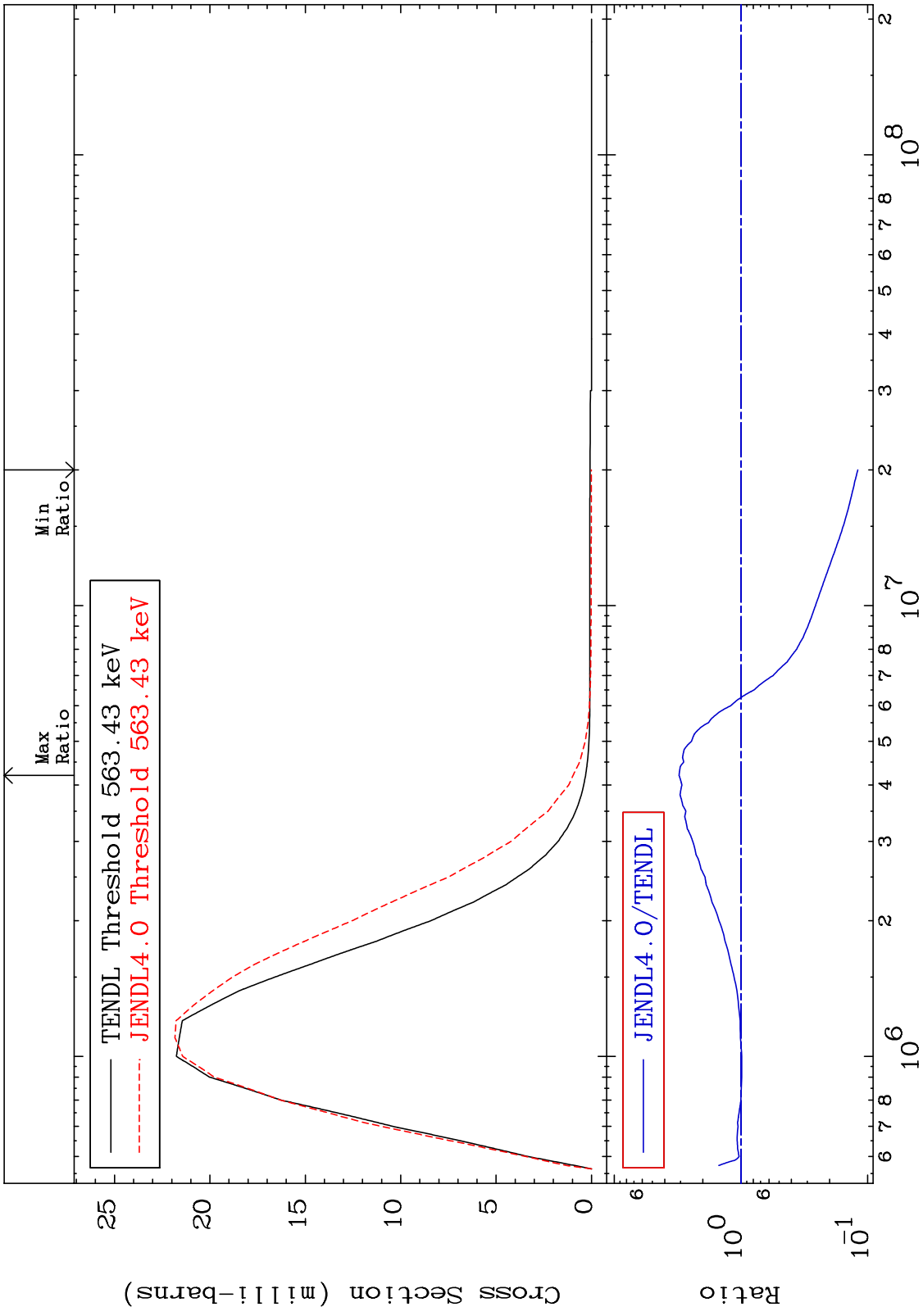
MAT 6331 MT= 67 (n,n') Level Cross Section 63-Eu-153  
 -86.66 To 222.9 %



MAT 6331 MT= 68 (n,n') Level Cross Section 63-Eu-153 -89.94 To 128.9 %



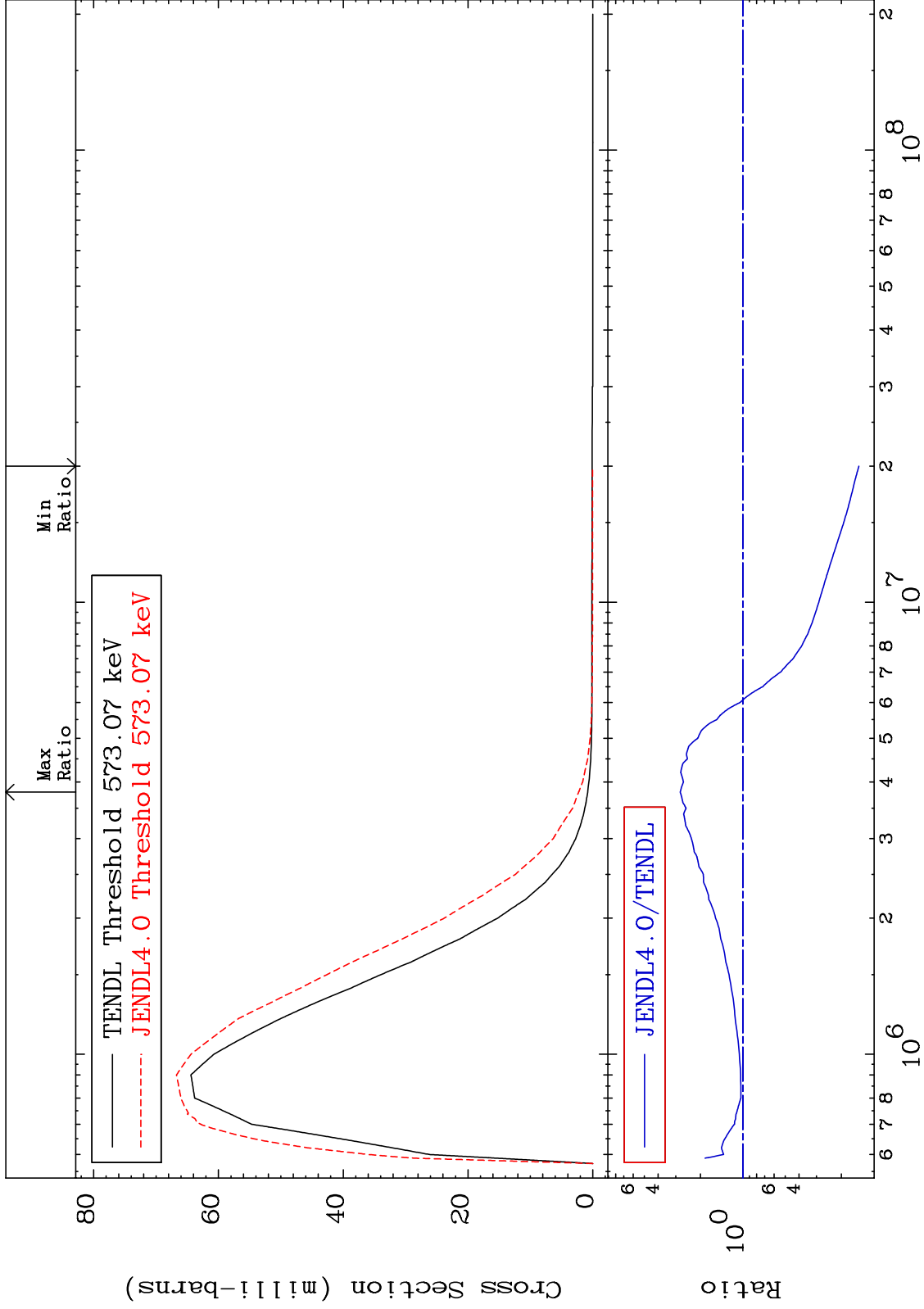
MAT 6331 MT= 69 (n,n') Level Cross Section 63-Eu-153 -88.04 To 208.0 %



MAT 6331

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

63-Eu-153  
-84.98 To 178.5 %

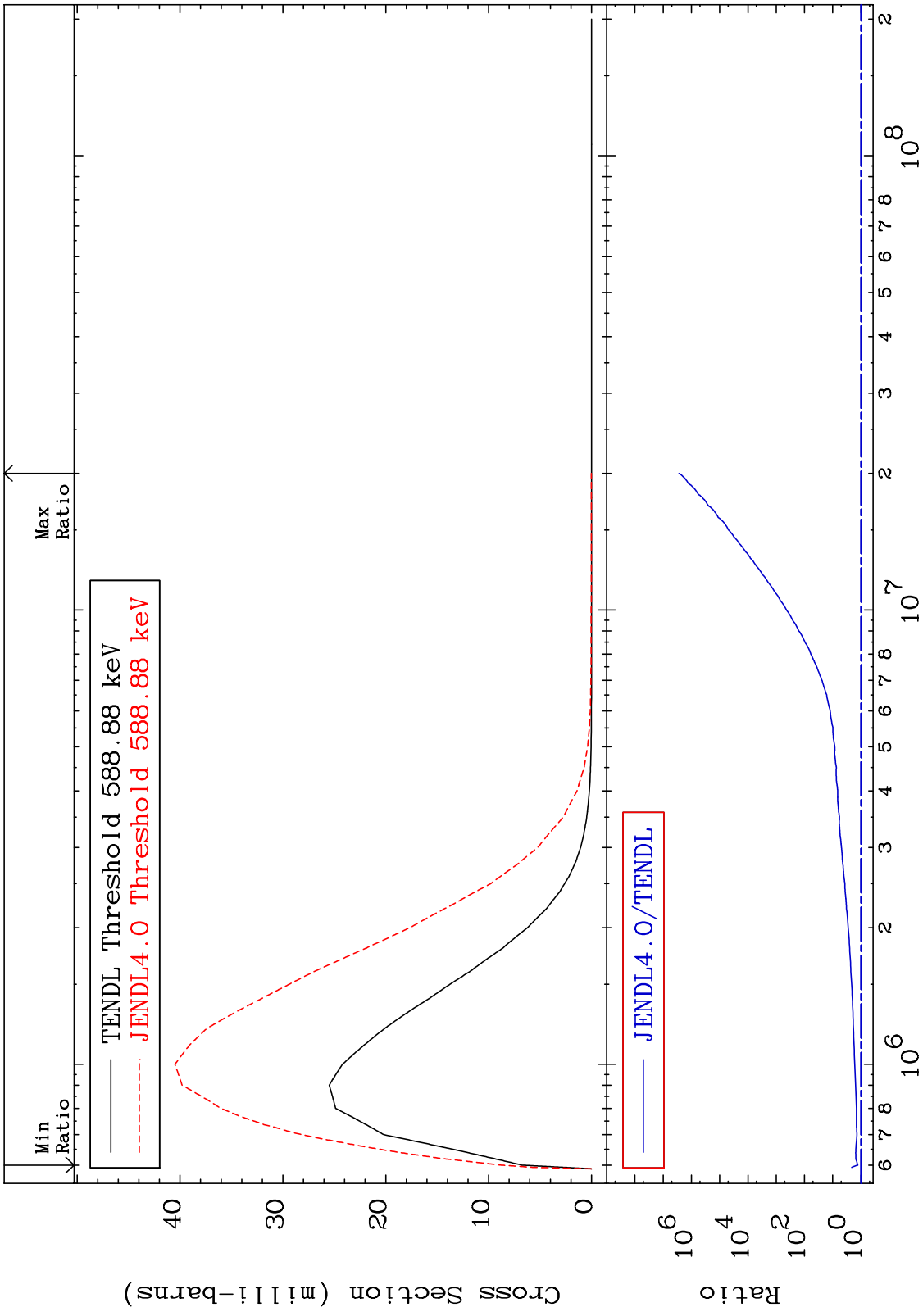


31

63-Eu-153



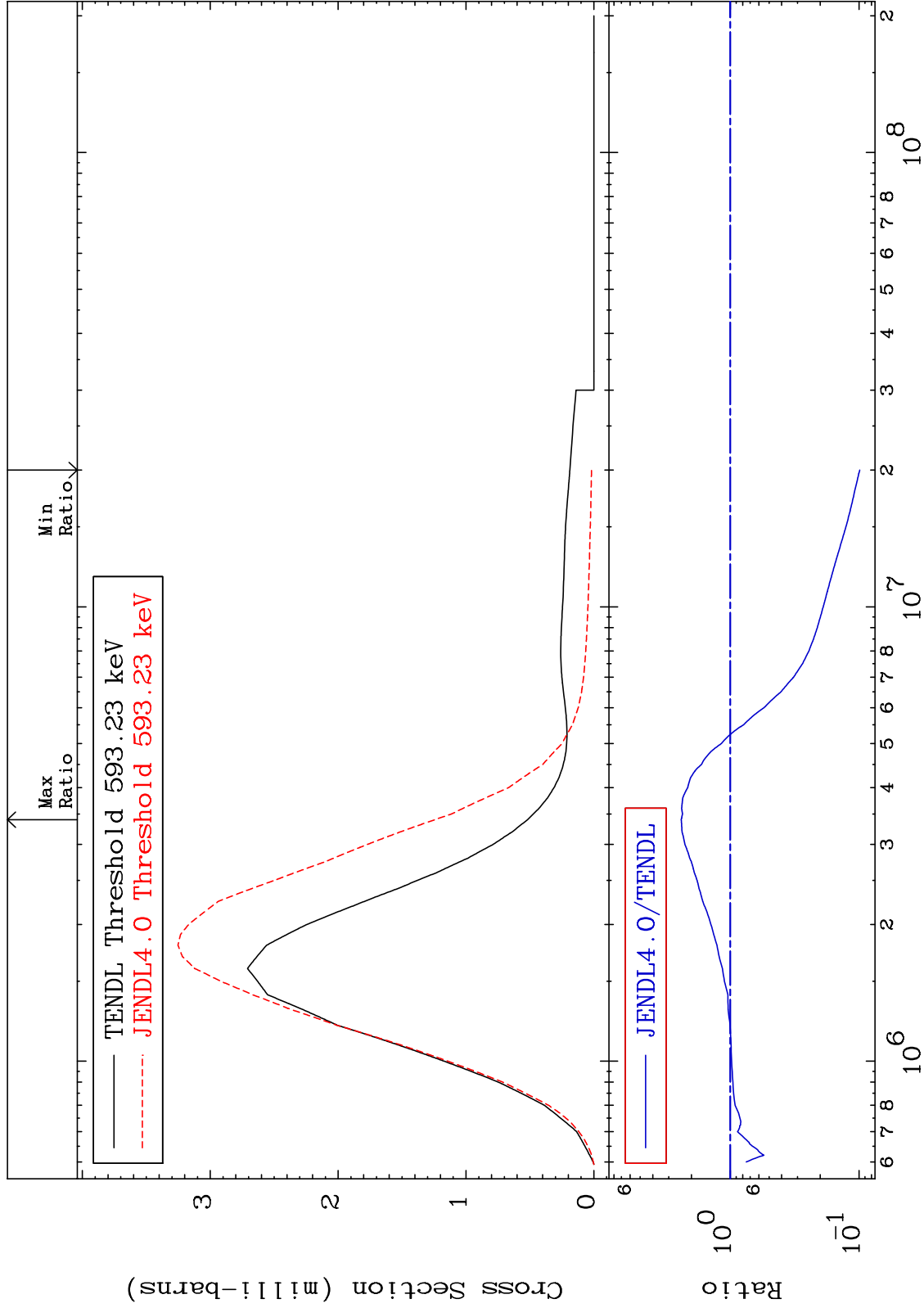
MAT 6331 MT= 71 (n,n') Level Cross Section 63-Eu-153 To 9999. %



MAT 6331

MT= 72 (n,n') Level  
Cross Section

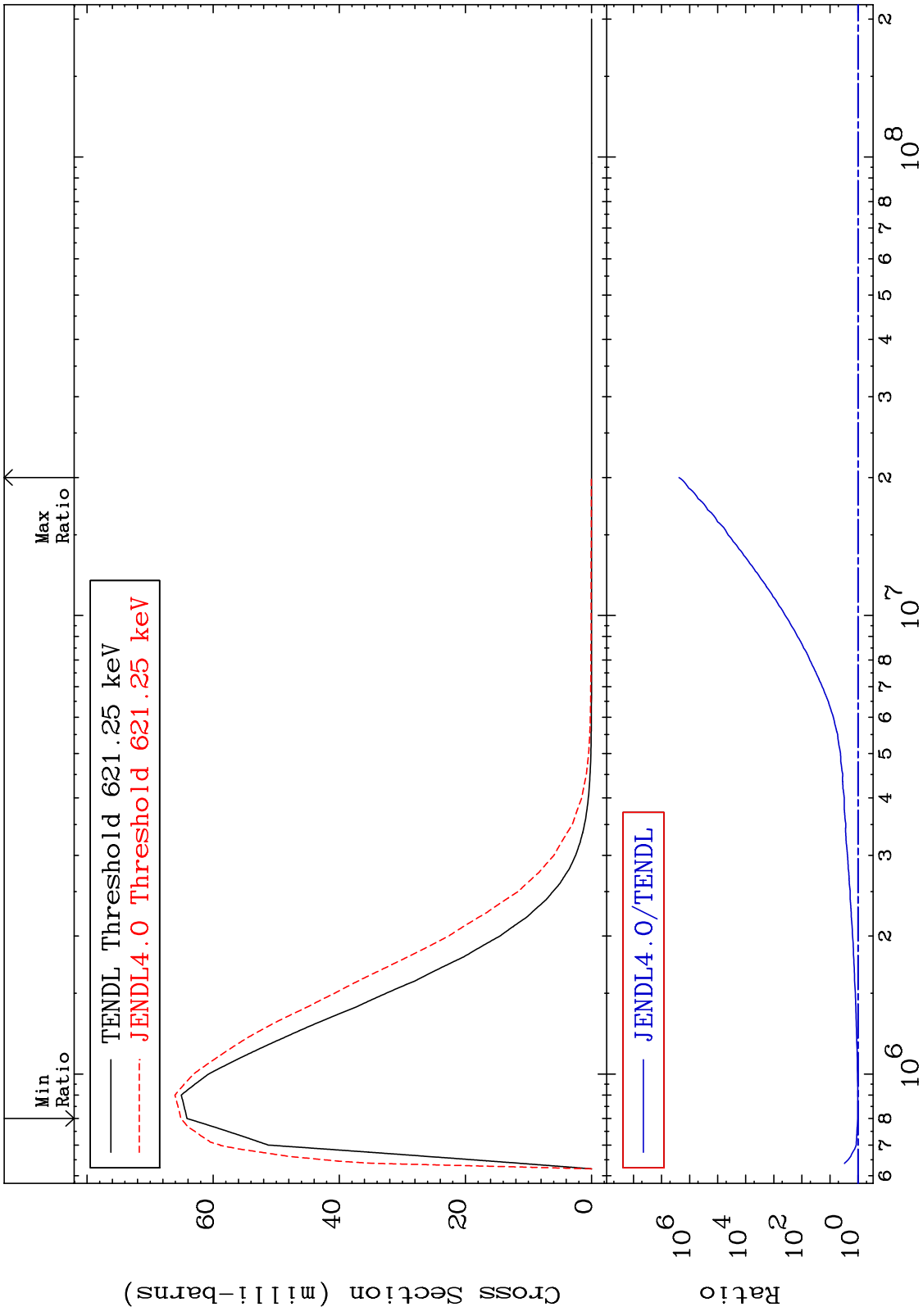
63-Eu-153  
-90.13 To 140.2 %



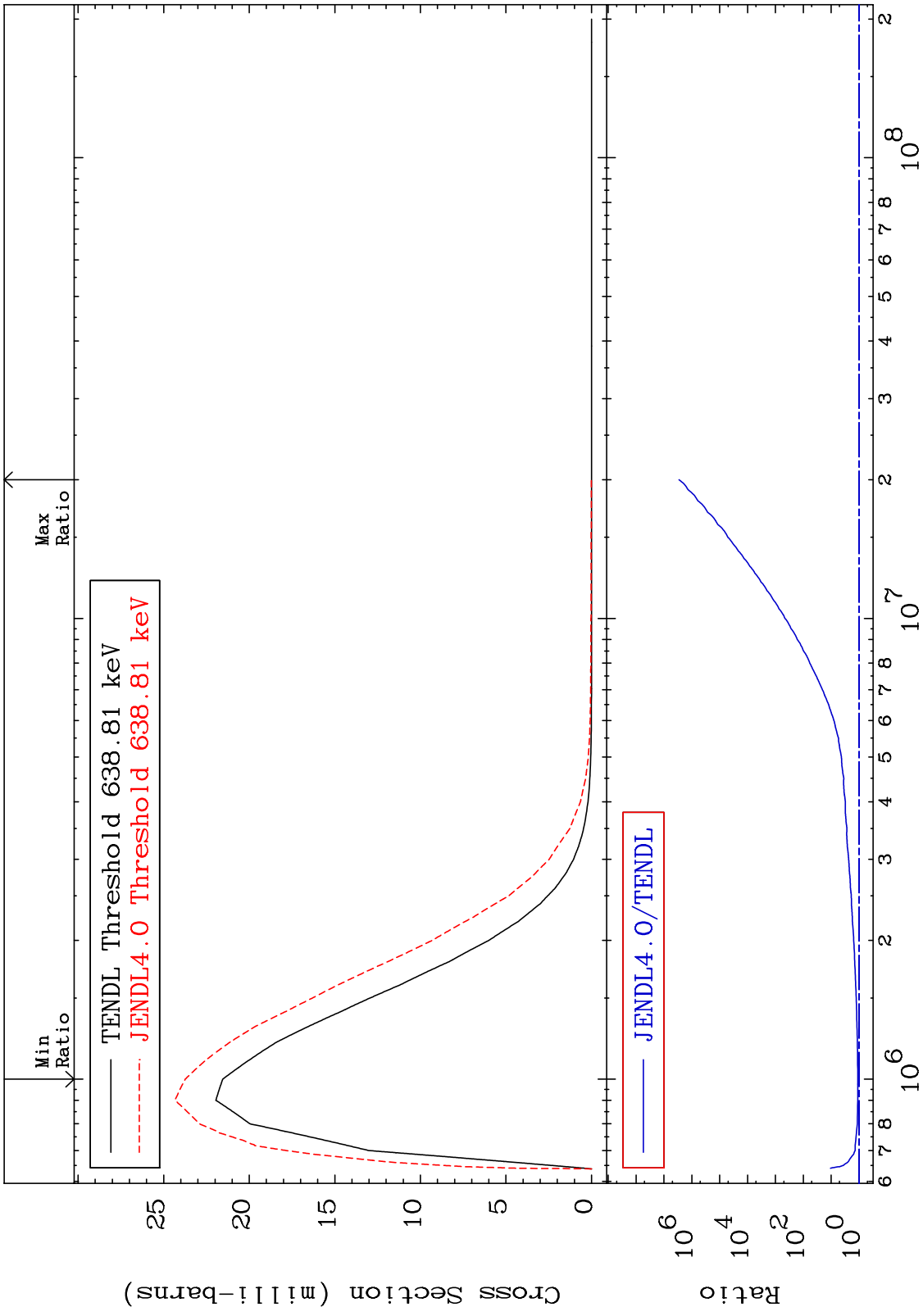
33

63-Eu-153

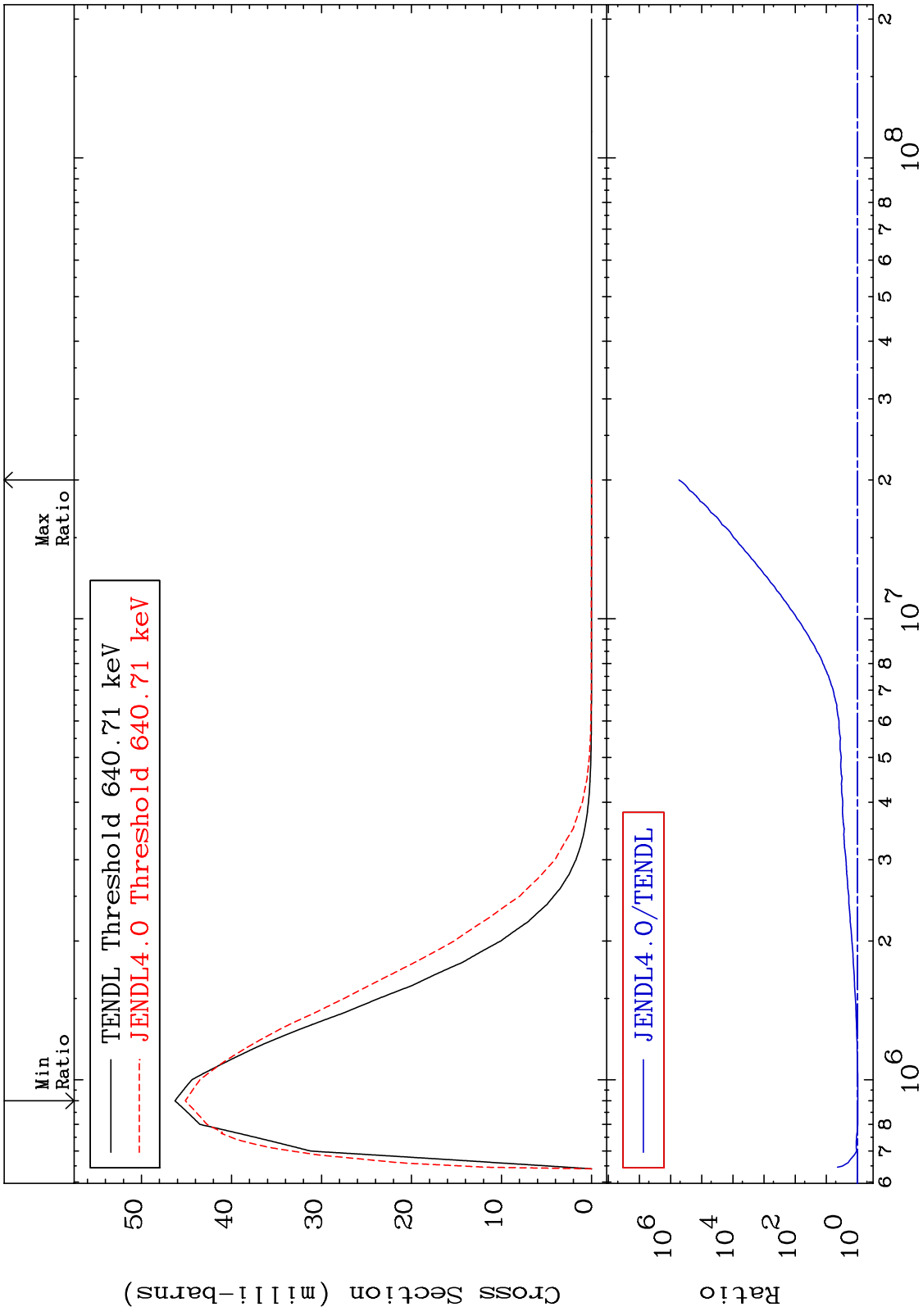
MAT 6331 MT= 73 (n,n') Level Cross Section 63-Eu-153  
 1.496 To 9999. %



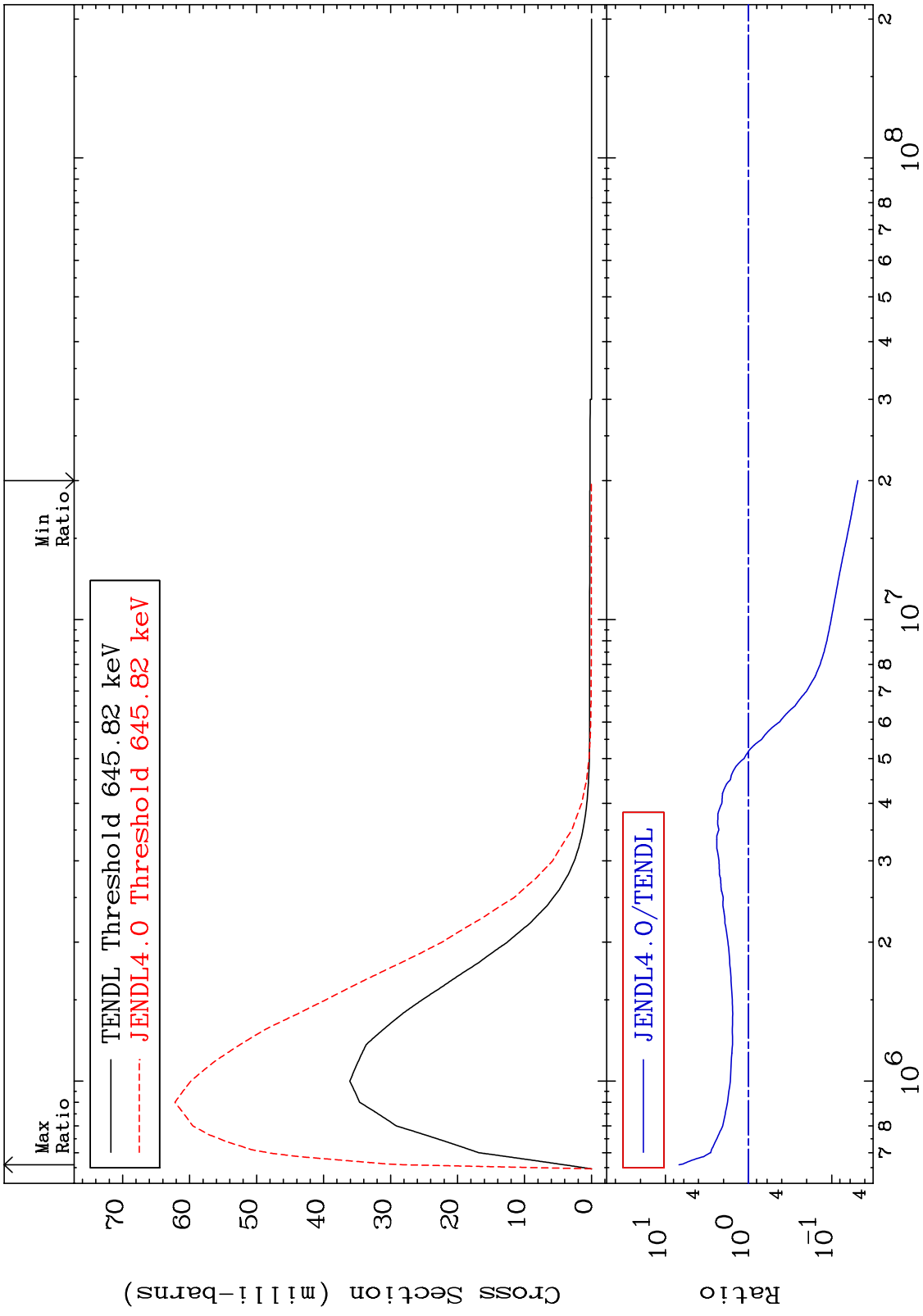
MAT 6331 MT= 74 (n,n') Level Cross Section 63-Eu-153 10.17 To 9999. %



MAT 6331 MT= 75 (n,n') Level Cross Section 63-Eu-153  
 -2.486 To 9999. %



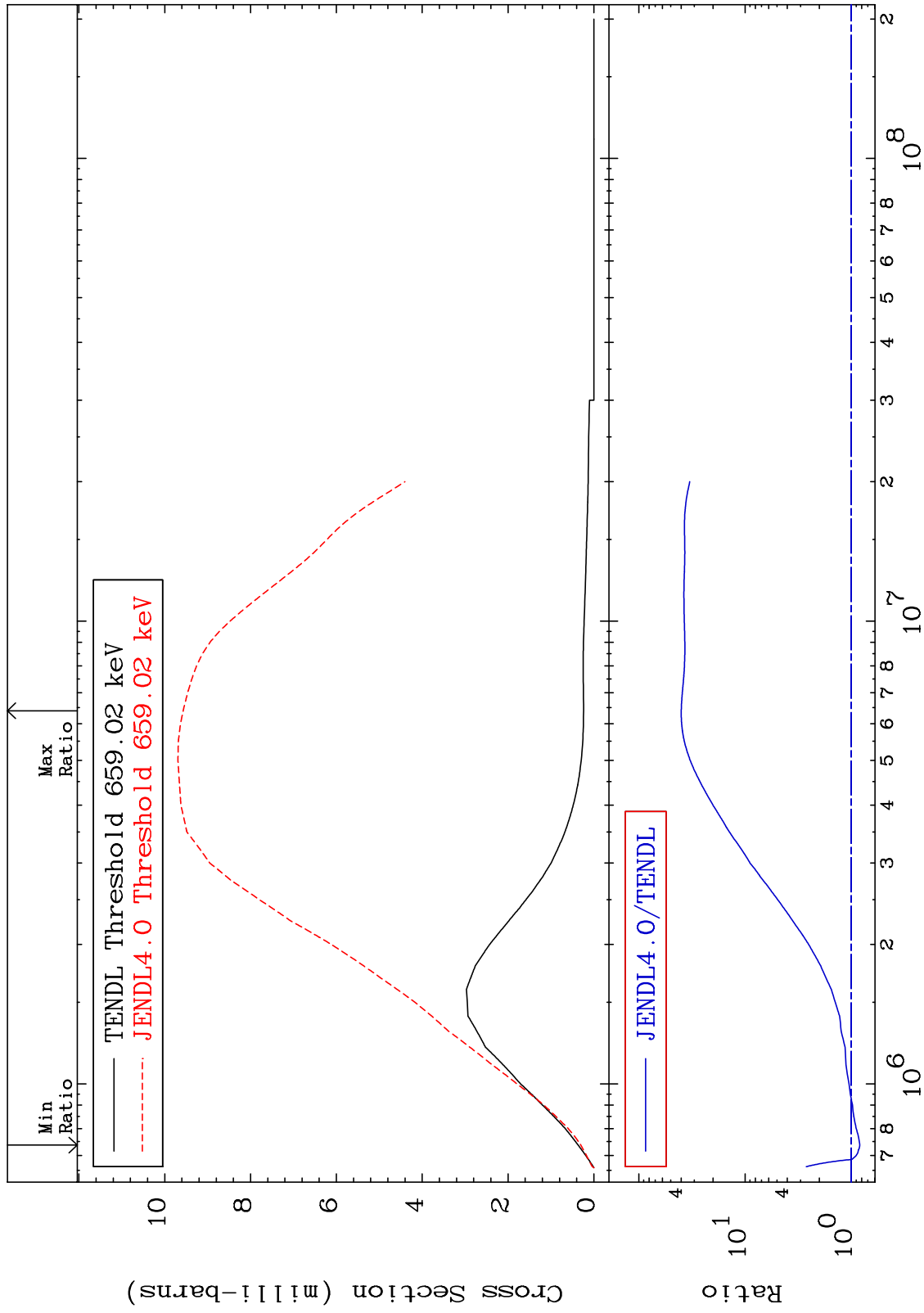
MAT 6331 MT= 76 (n,n') Level Cross Section 63-Eu-153  
 -95.15 To 585.8 %



MAT 6331

MT= 77 (n,n') Level  
Cross Section

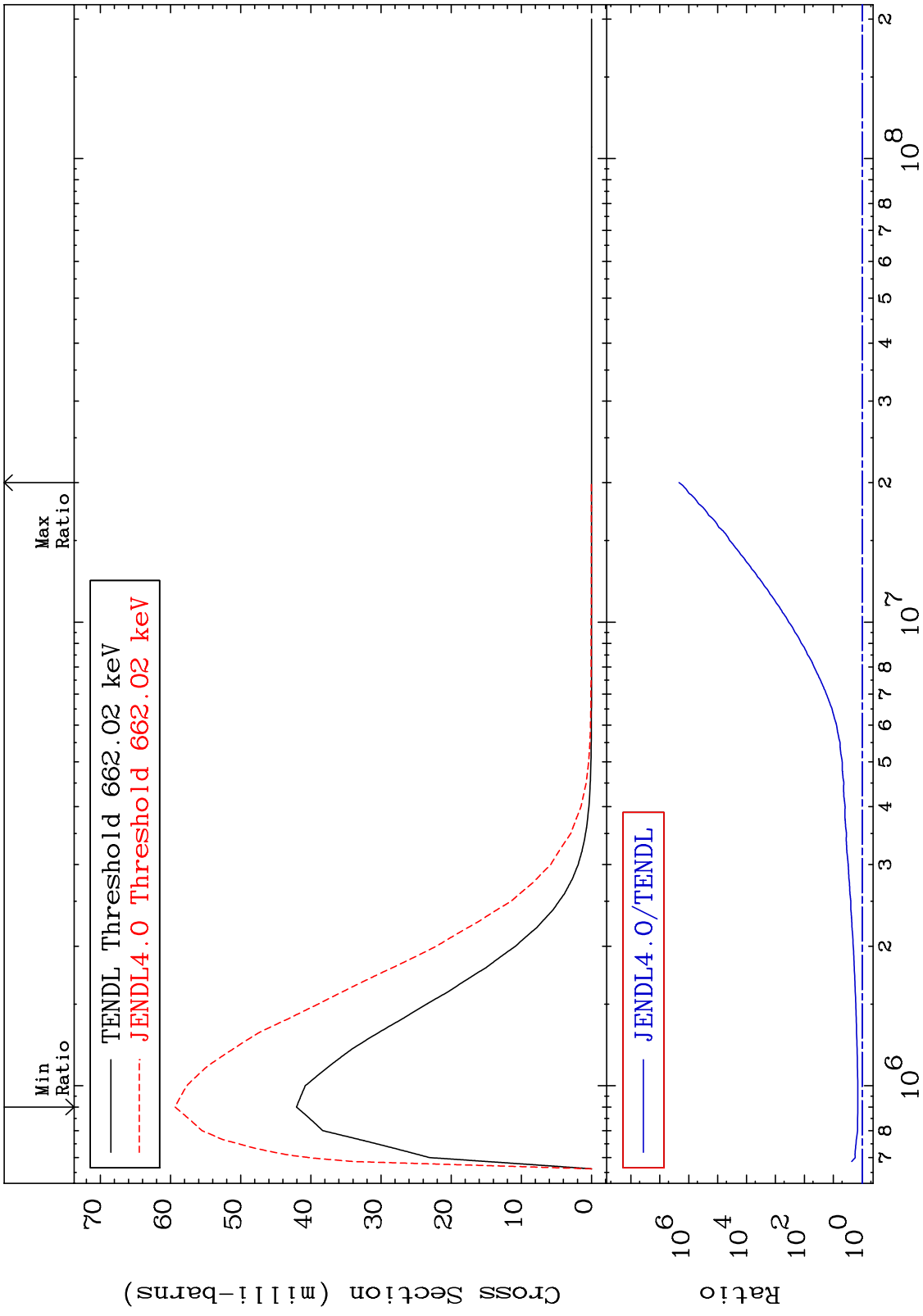
63-Eu-153  
-16.79 To 3887. %



38

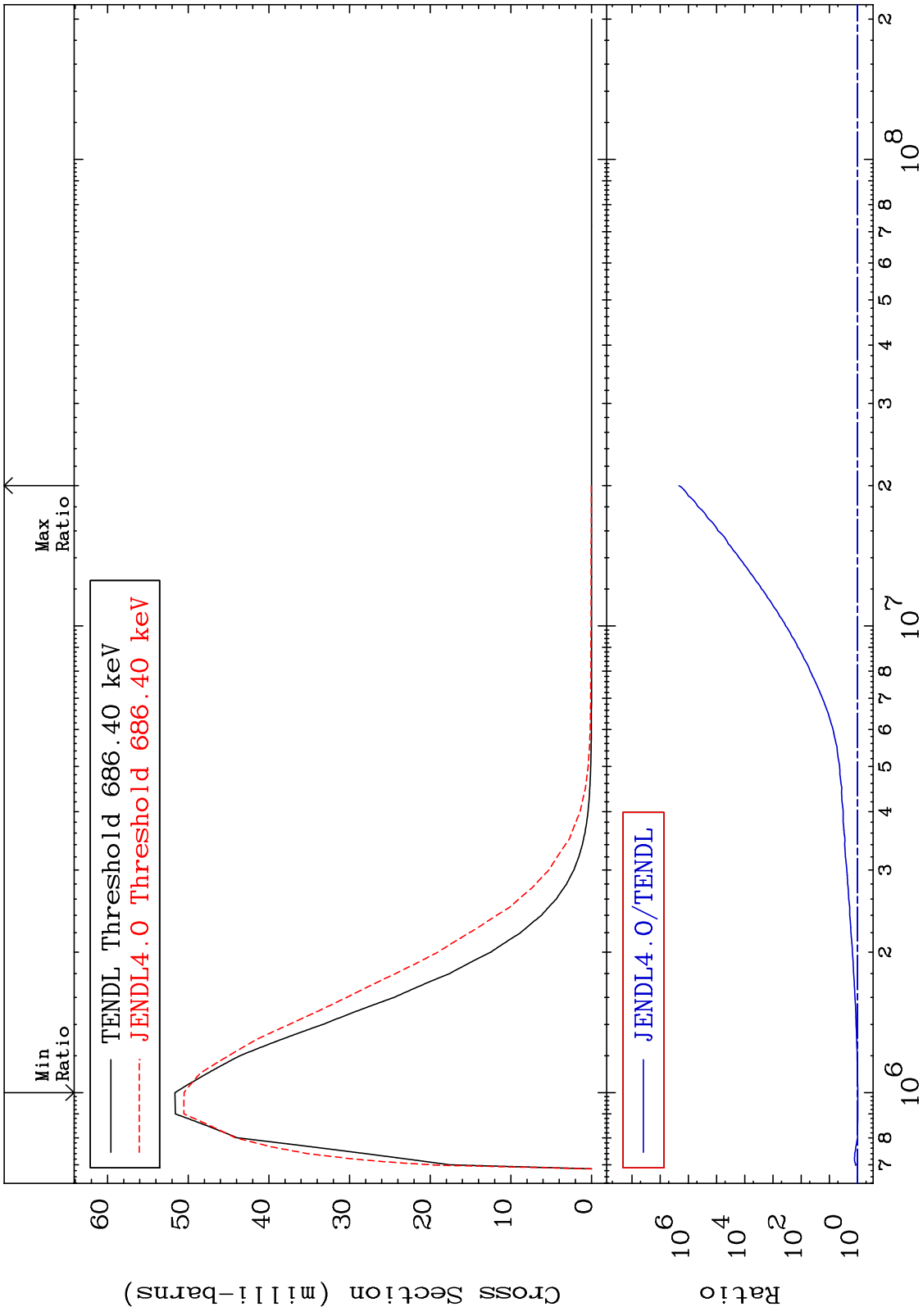
63-Eu-153

MAT 6331 MT= 78 (n,n') Level Cross Section 63-Eu-153 41.21 To 9999. %



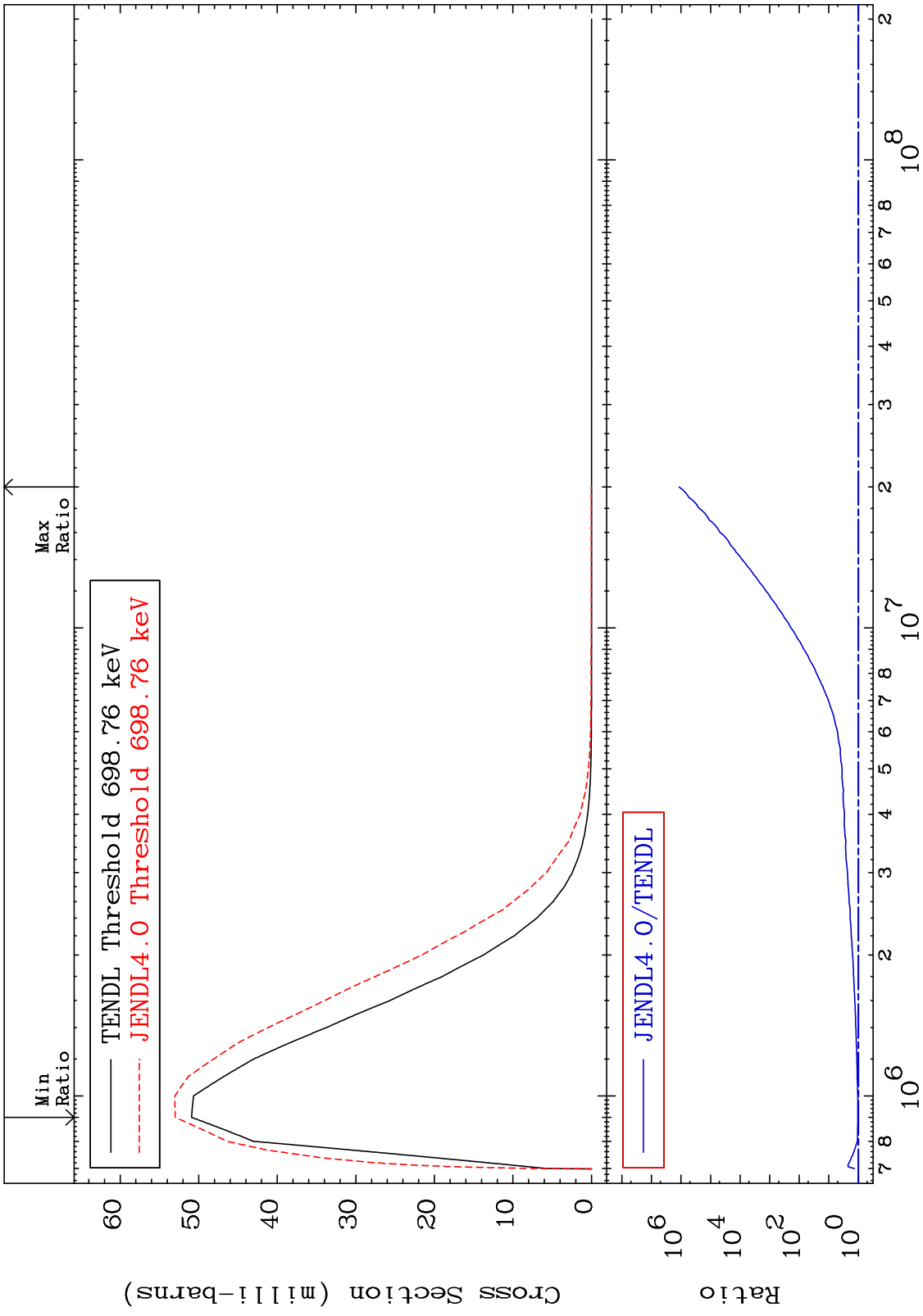


MAT 6331 MT= 79 (n,n') Level Cross Section 63-Eu-153  
 -2.171 To 9999. %



40 Incident Energy (eV) 63-Eu-153

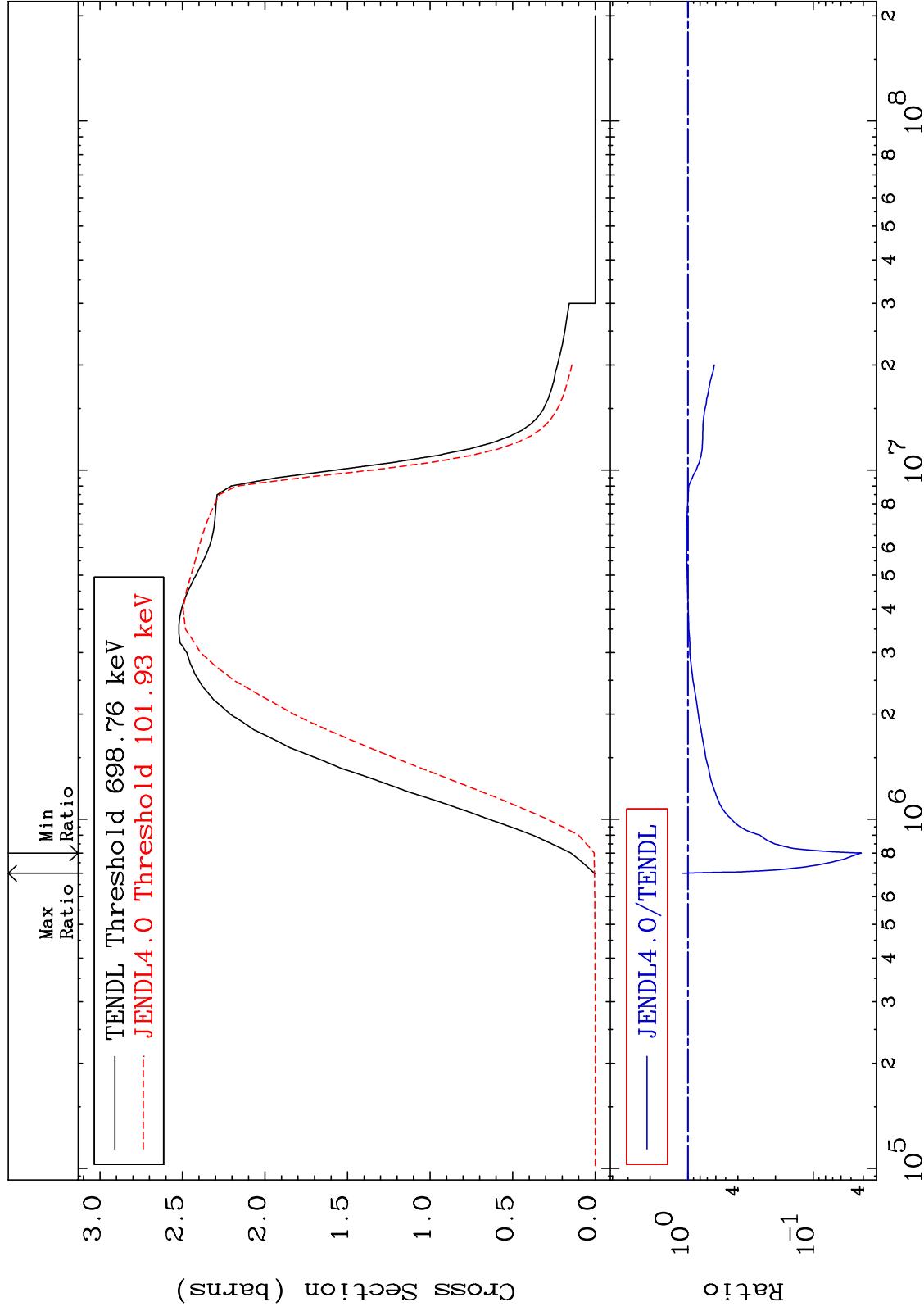
MAT 6331 MT= 80 (n,n') Level Cross Section 63-Eu-153 To 9999. %



MAT 6331

(n, n') Continuum  
Cross Section

63-Eu-153  
-95.86 To 10.05 %



42

63-Eu-153

MAT 6331

(n,  $\gamma$ )

63-Eu-153

-91.75 To 9999. %

Cross Section

Max Ratio

Min Ratio

— TENDL  
- - - JENDL4.0

Cross Section (barns)

— JENDL4.0/TENDL

Ratio

10<sup>4</sup> 10<sup>2</sup> 10<sup>0</sup> 10<sup>-2</sup> 10<sup>-4</sup> 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)

63-Eu-153

43

MAT 6331

(n,p)

63-Eu-153

-93.09 To 9999. %

Cross Section

Max Ratio

Min Ratio

TENDL Threshold 25.349 keV  
JENDL4.0 Threshold 25.441 keV

Cross Section (milli-barns)

20

15

10

5

0

10<sup>2</sup>

10<sup>0</sup>

JENDL4.0/TENDL

Ratio

3

4

5

6

8

10<sup>5</sup>

10<sup>6</sup>

2

3

4

5

6

8

10<sup>7</sup>

10<sup>8</sup>

2

3

4

5

6

8

10<sup>8</sup>

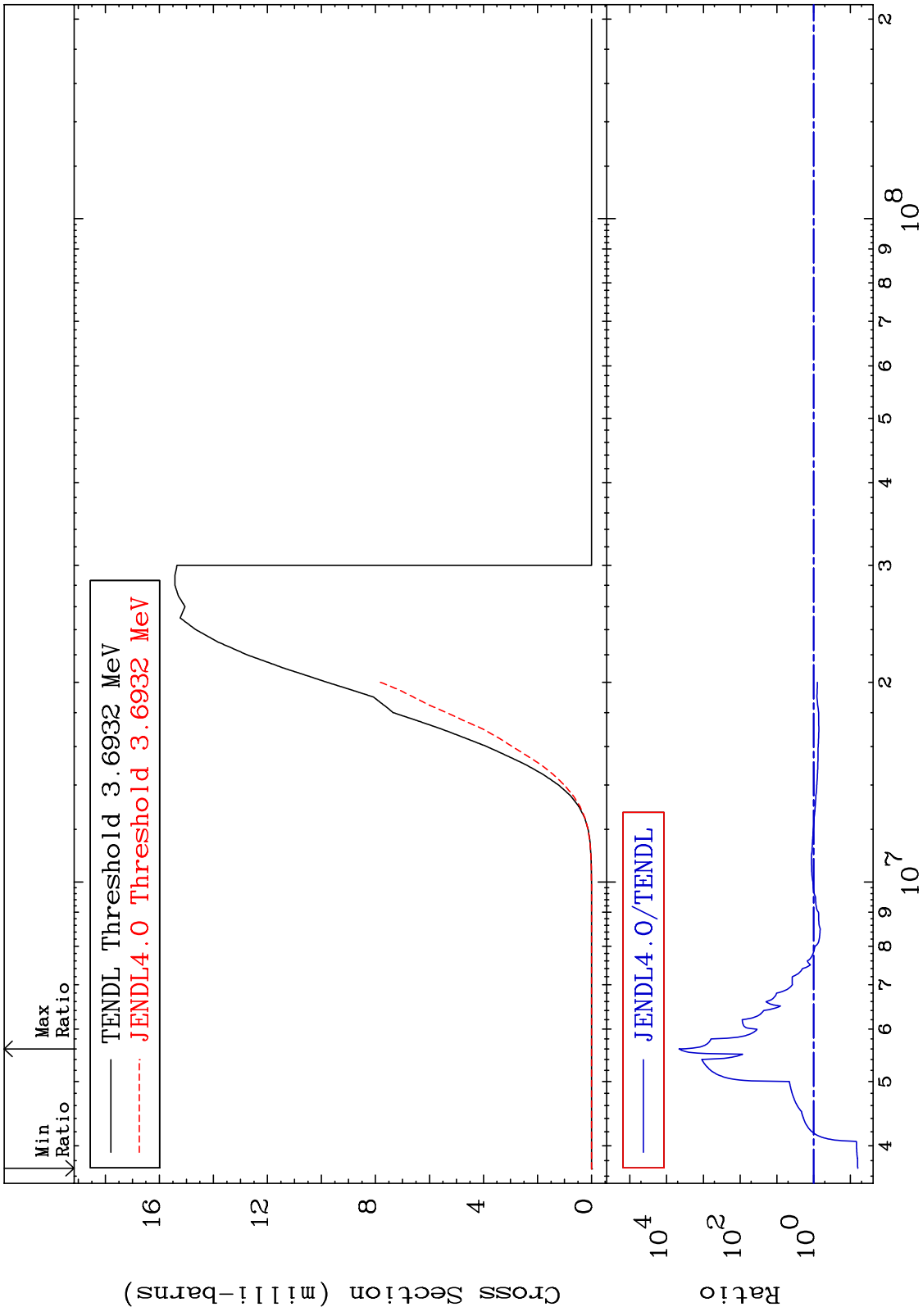
2

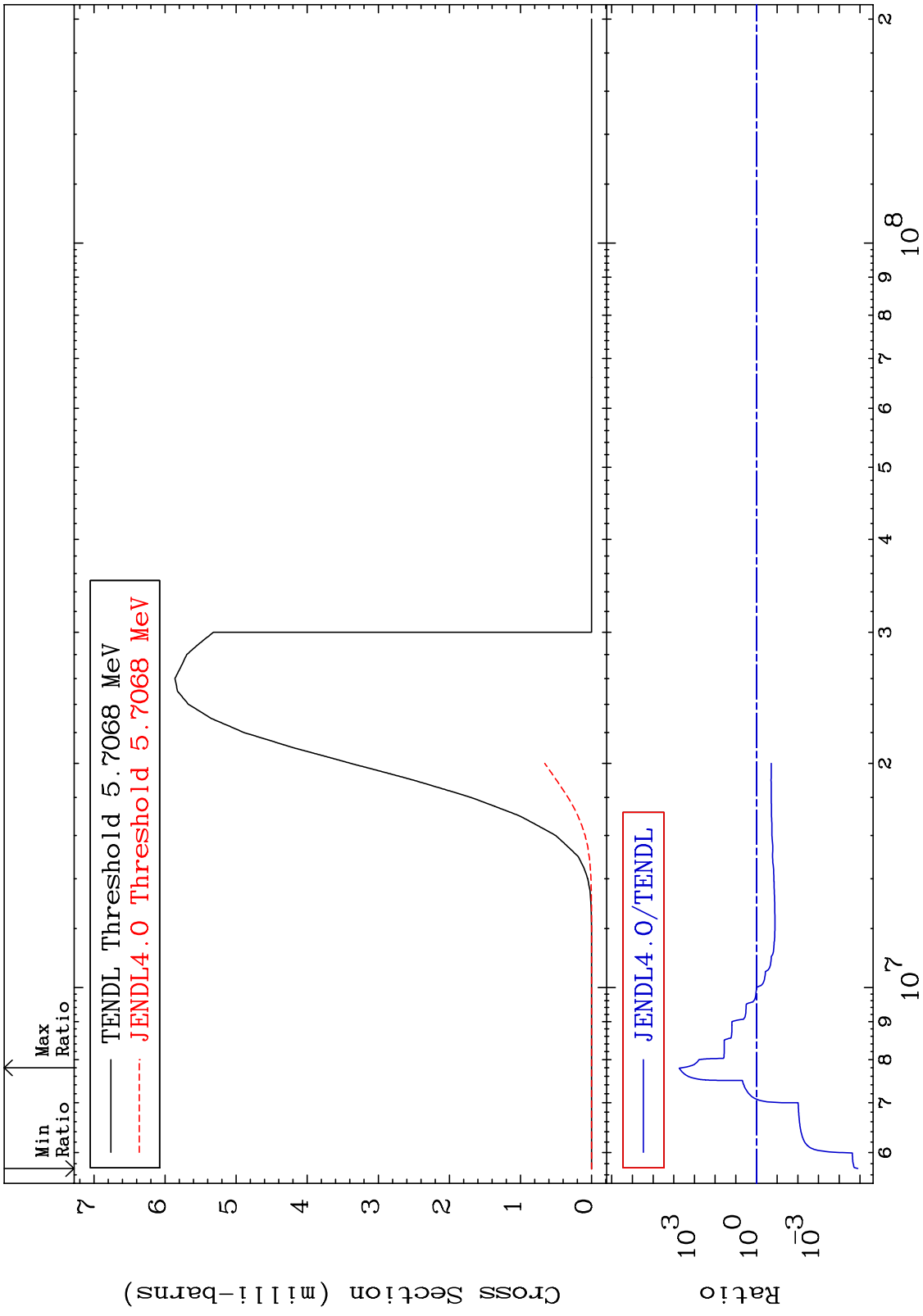
Incident Energy (eV)

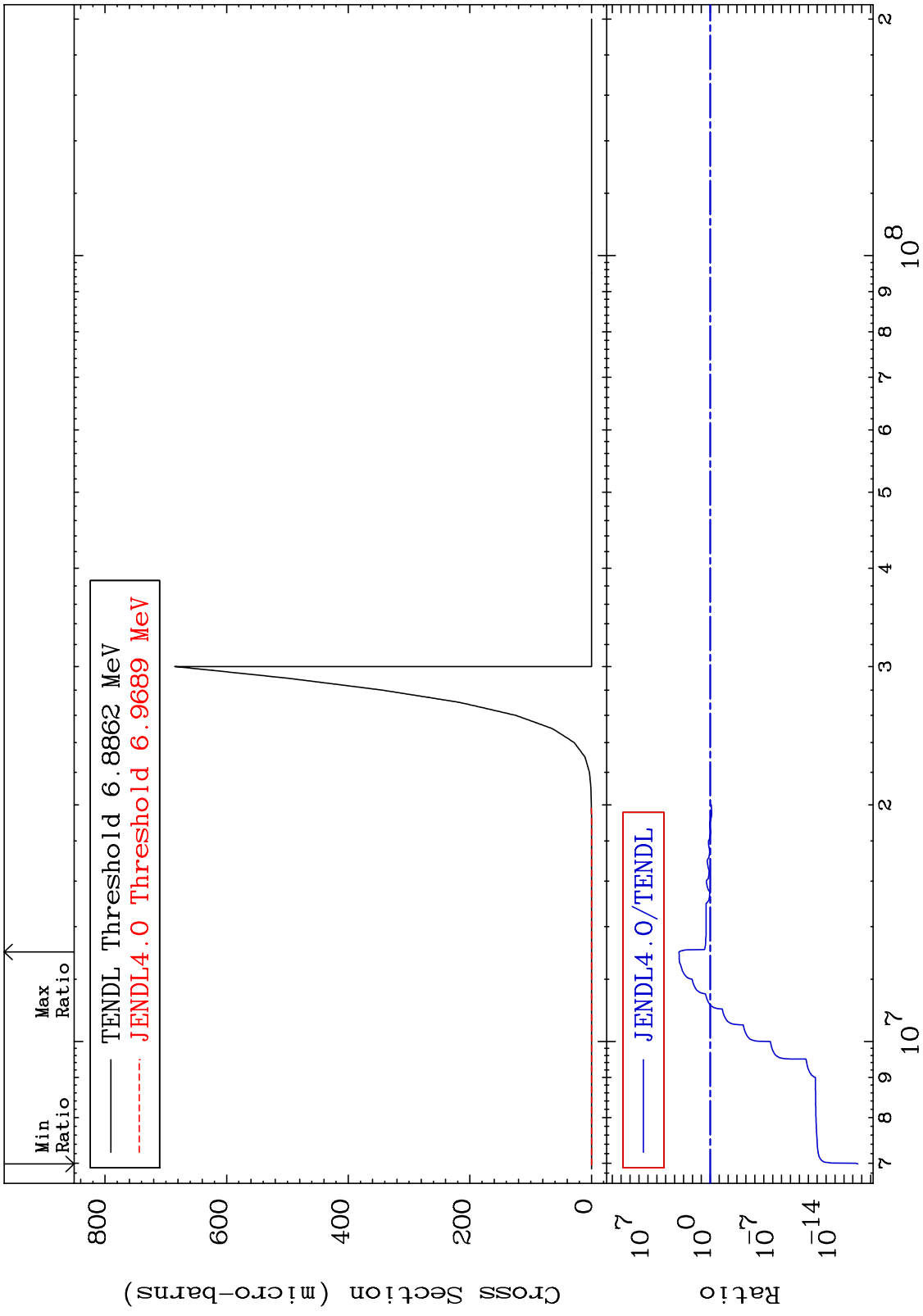
63-Eu-153

44

MAT 6331 (n,d) 63-Eu-153  
 Cross Section -93.70 To 9999. %









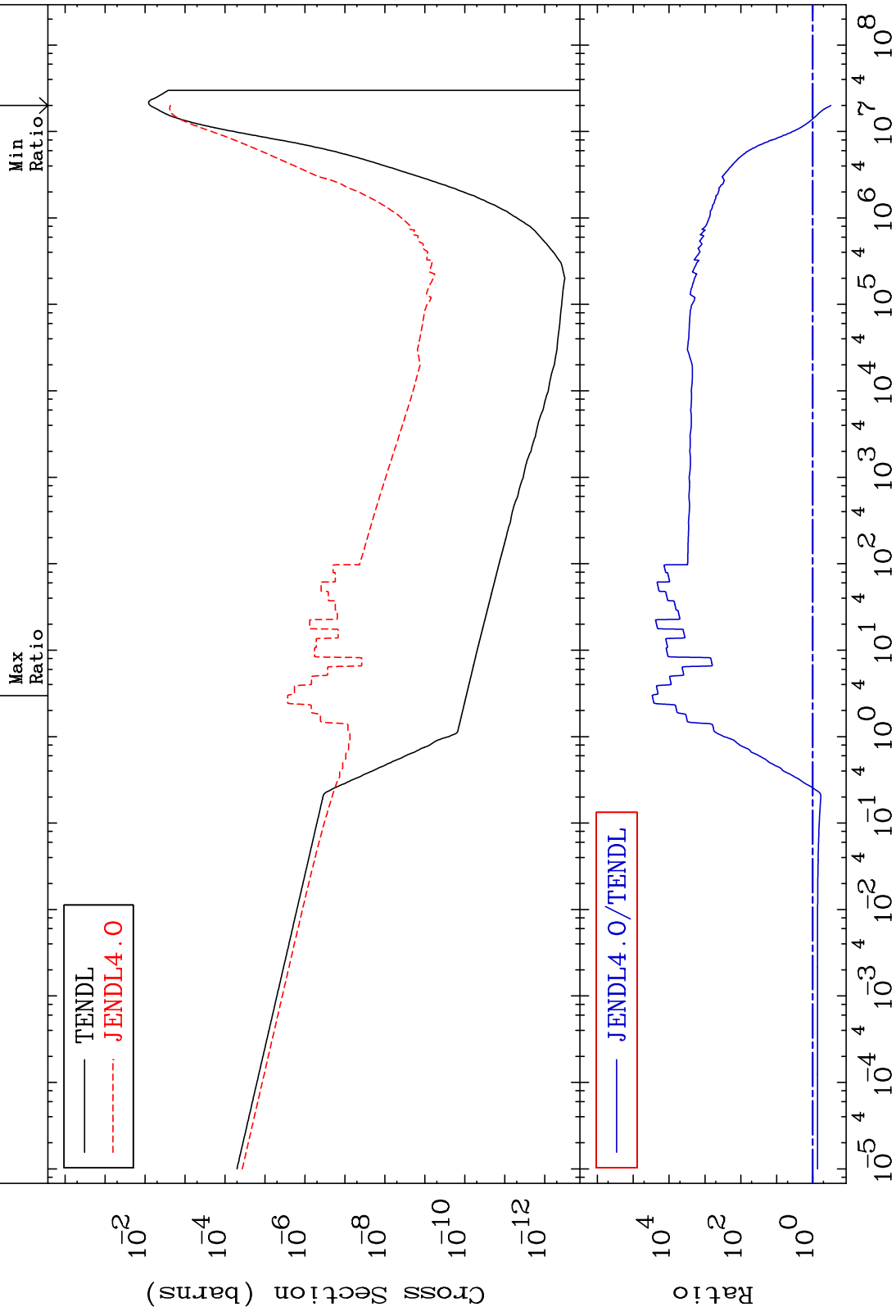
MAT 6331

(n,  $\alpha$ )

63-Eu-153

-69.05 To 9999. %

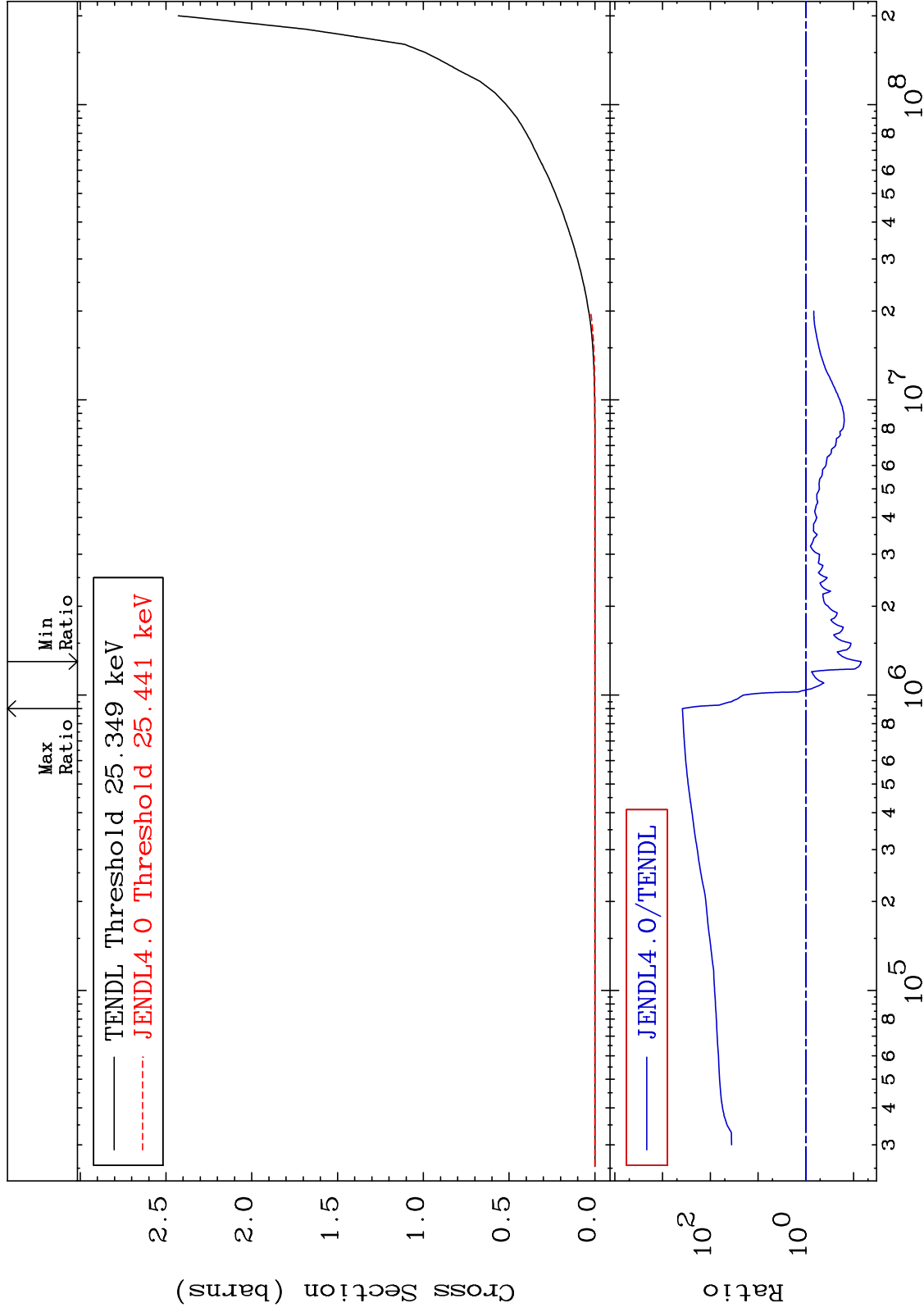
Cross Section



MAT 6331

Hydrogen Production  
Cross Section

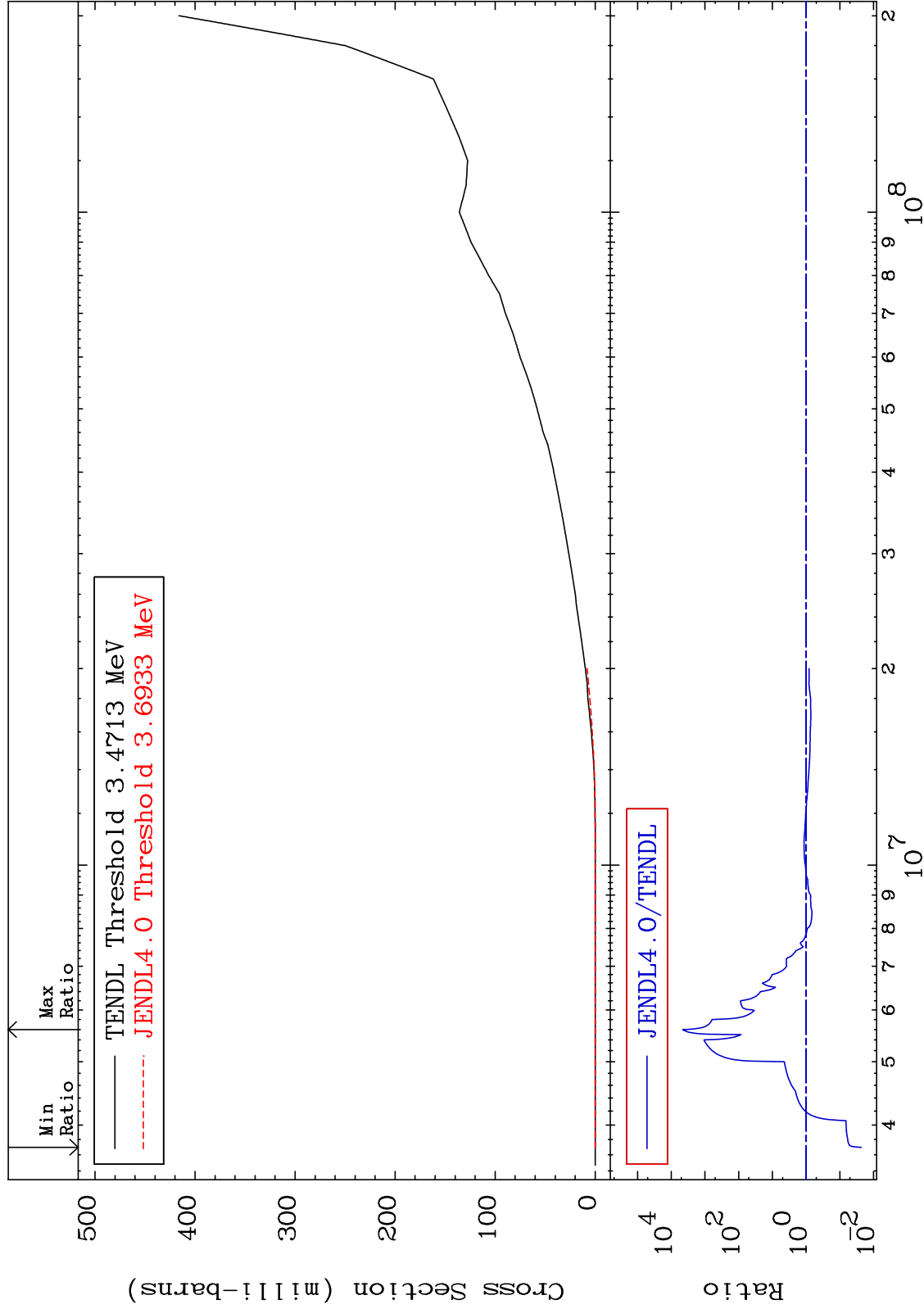
63-Eu-153  
-93.09 To 9999. %



MAT 6331

### Deuterium Production Cross Section

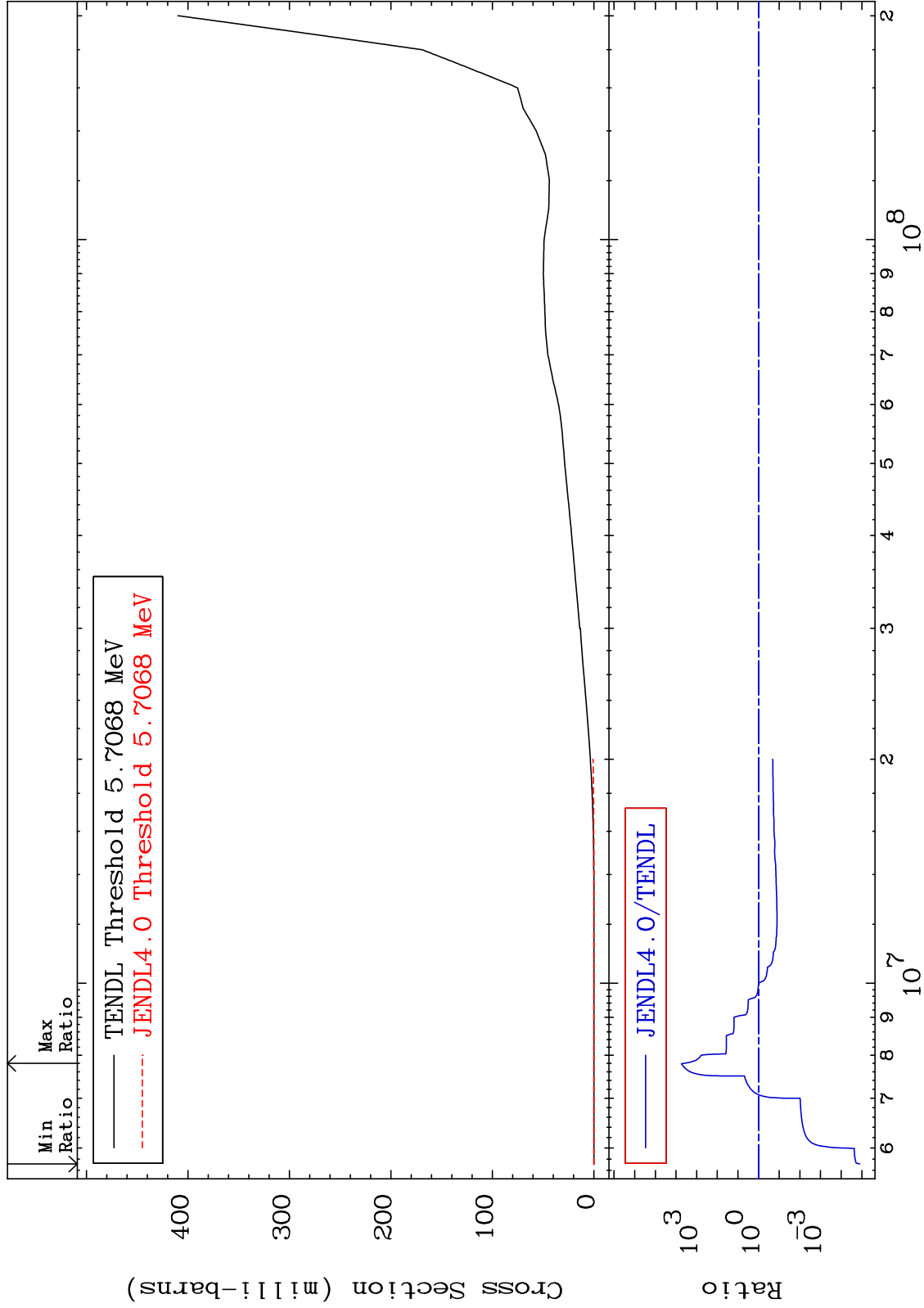
63-Eu-153  
-97.70 To 9999. %



MAT 6331

Tritium Production  
Cross Section

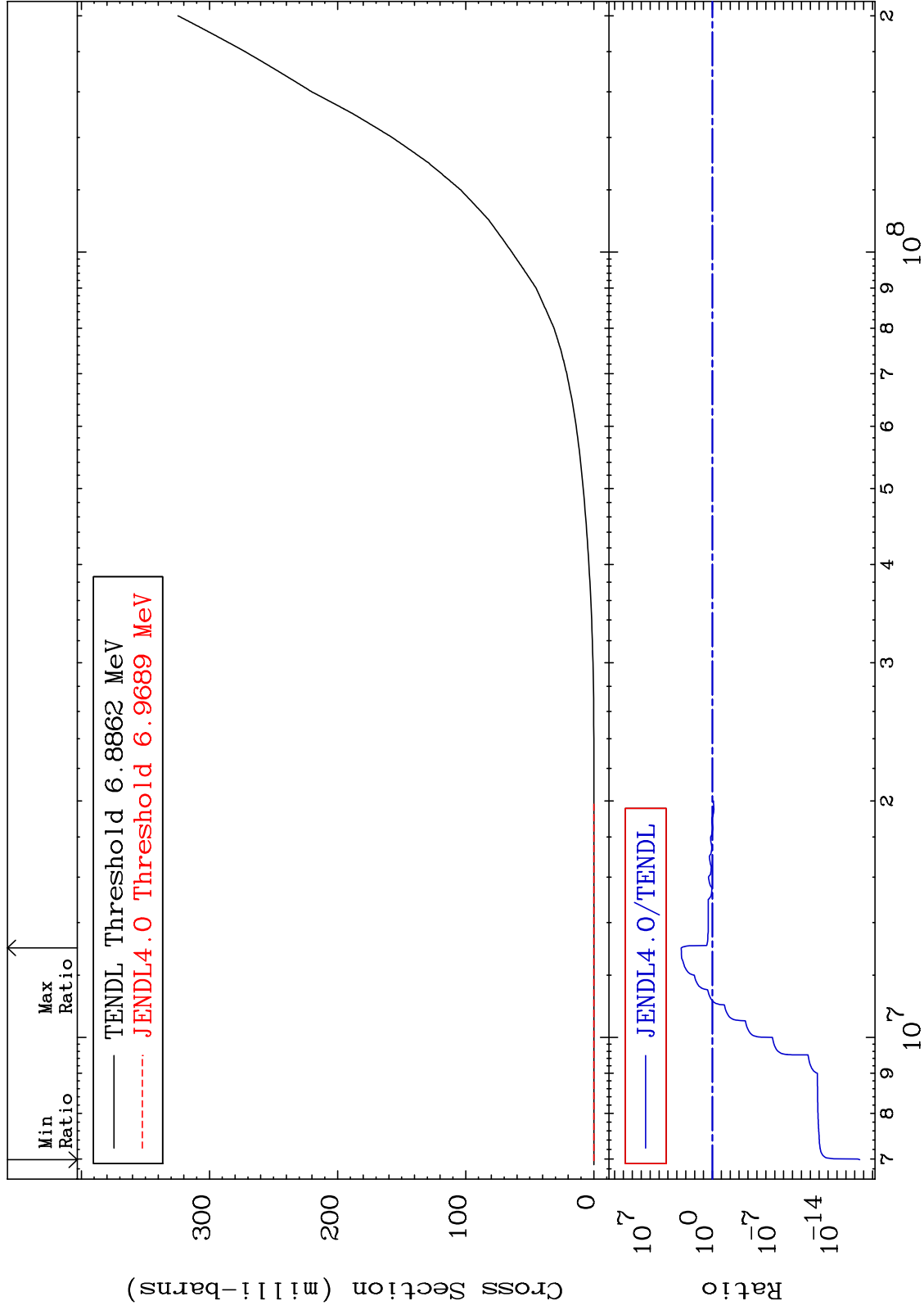
63-Eu-153  
-100.0 To 9999. %



MAT 6331

He-3 Production  
Cross Section

63-Eu-153  
-100.0 To 9999. %



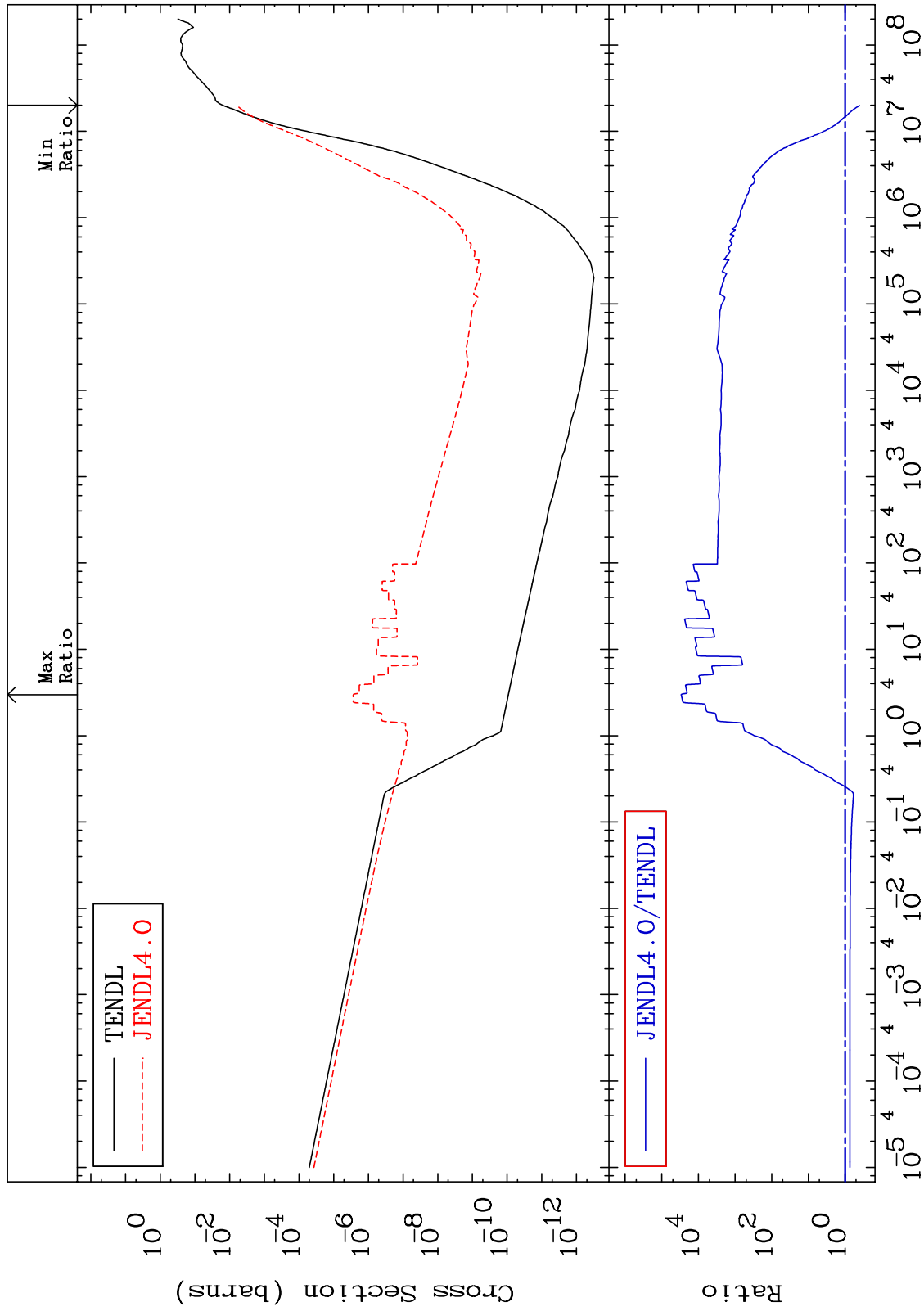
52

63-Eu-153

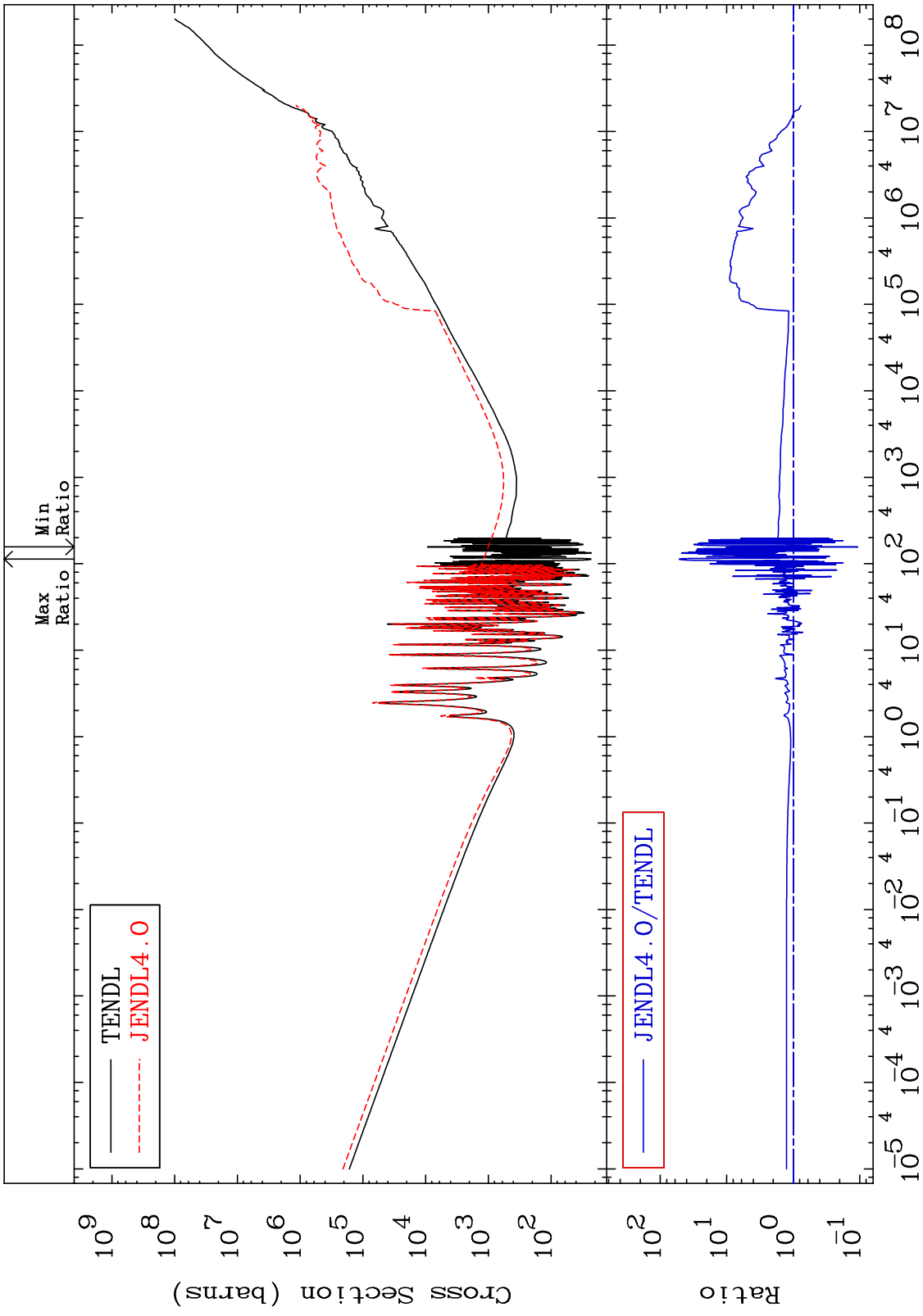
MAT 6331

He-4 Production  
Cross Section

63-Eu-153  
-60.37 To 9999. %



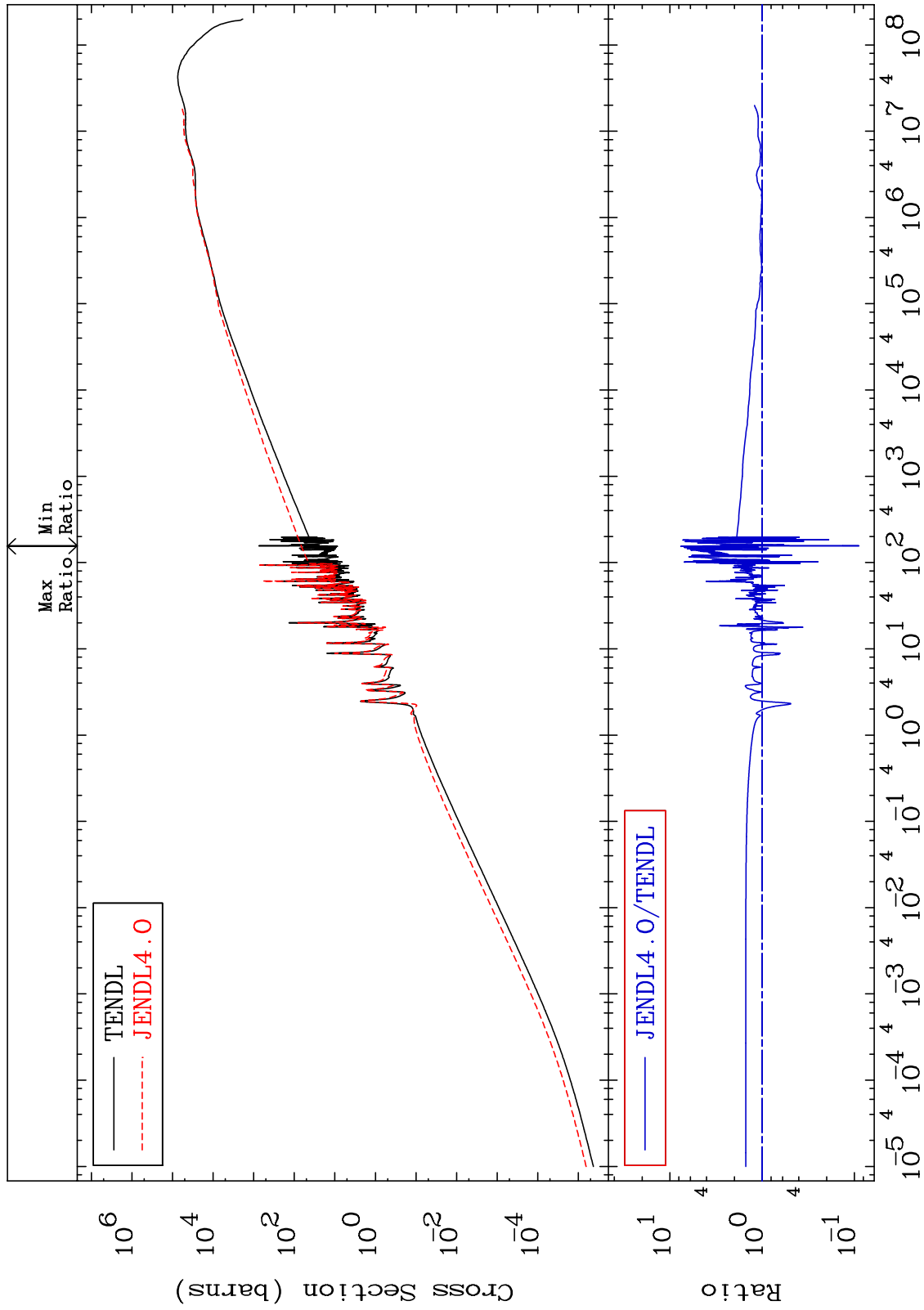
MAT 6331 Kerma total (eV-barns) 63-Eu-153  
 Cross Section -89.33 To 5114. %



MAT 6331

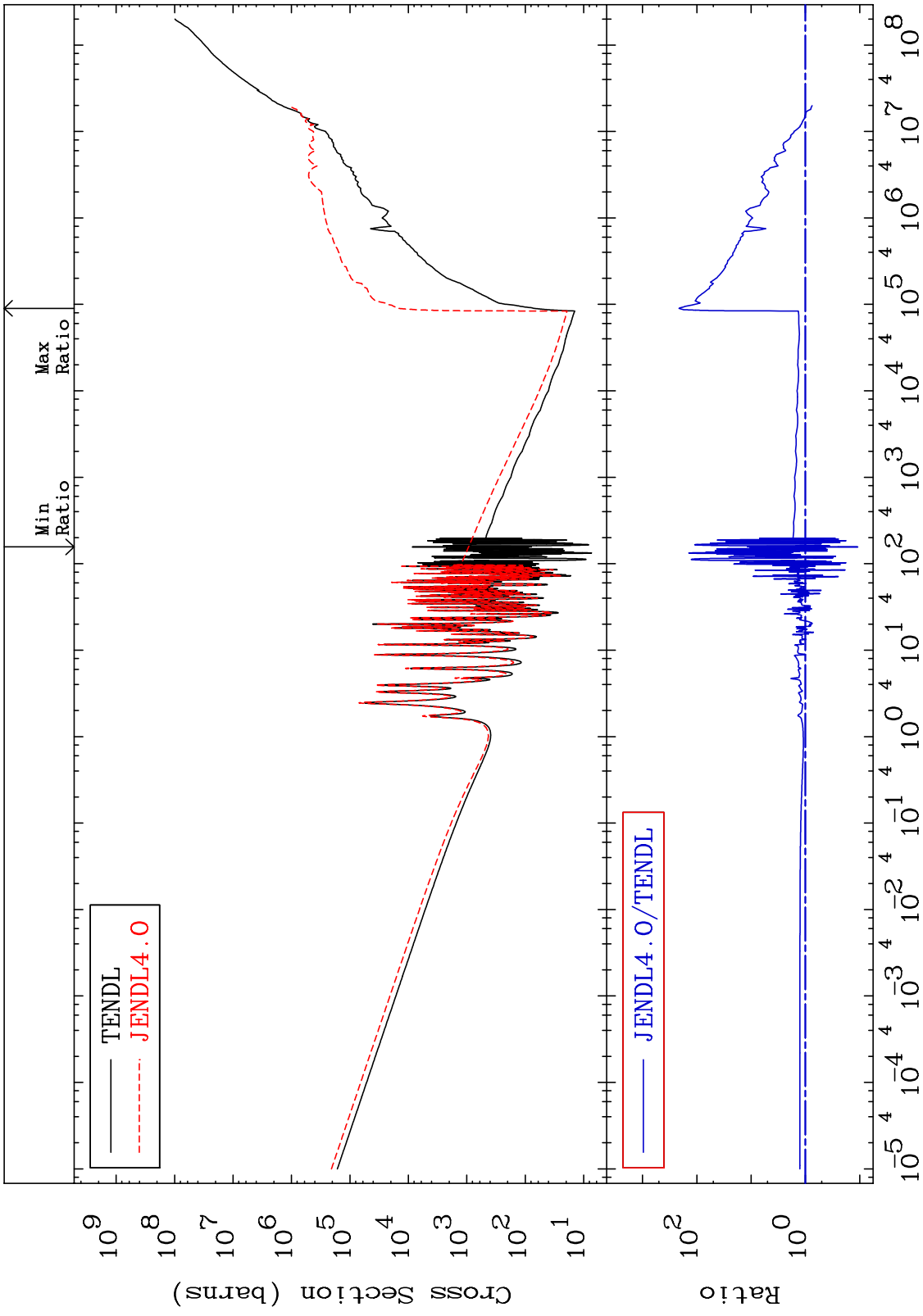
Kerma elastic  
Cross Section

63-Eu-153  
-91.08 To 665.0 %

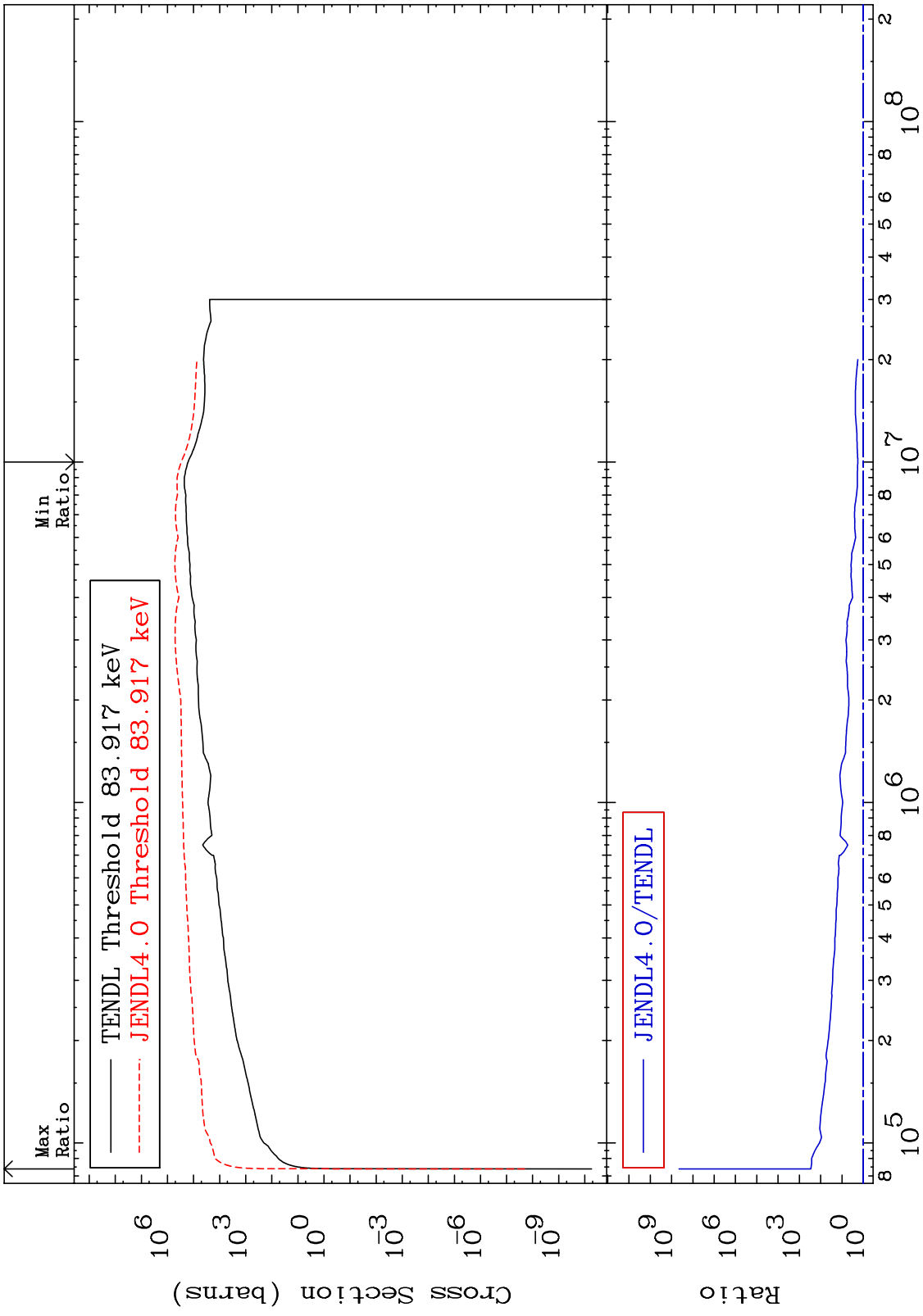




MAT 6331 Kerma non-elastic (all but mt2) 63-Eu-153  
 Cross Section -89.17 To 9999. %



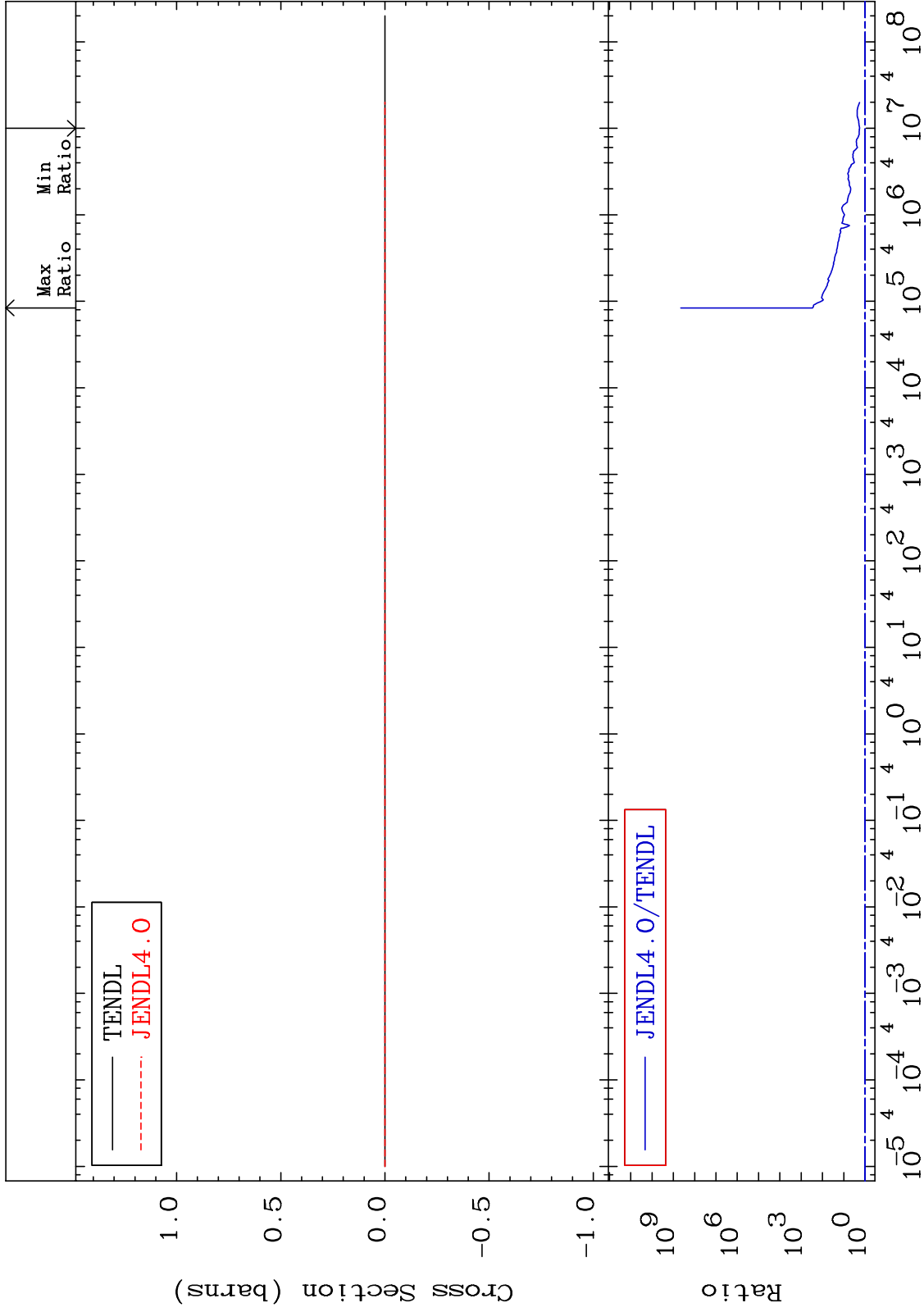
MAT 6331 Kerma inelastic (mt51-91) 63-Eu-153  
 Cross Section 80.50 To 9999. %



MAT 6331

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

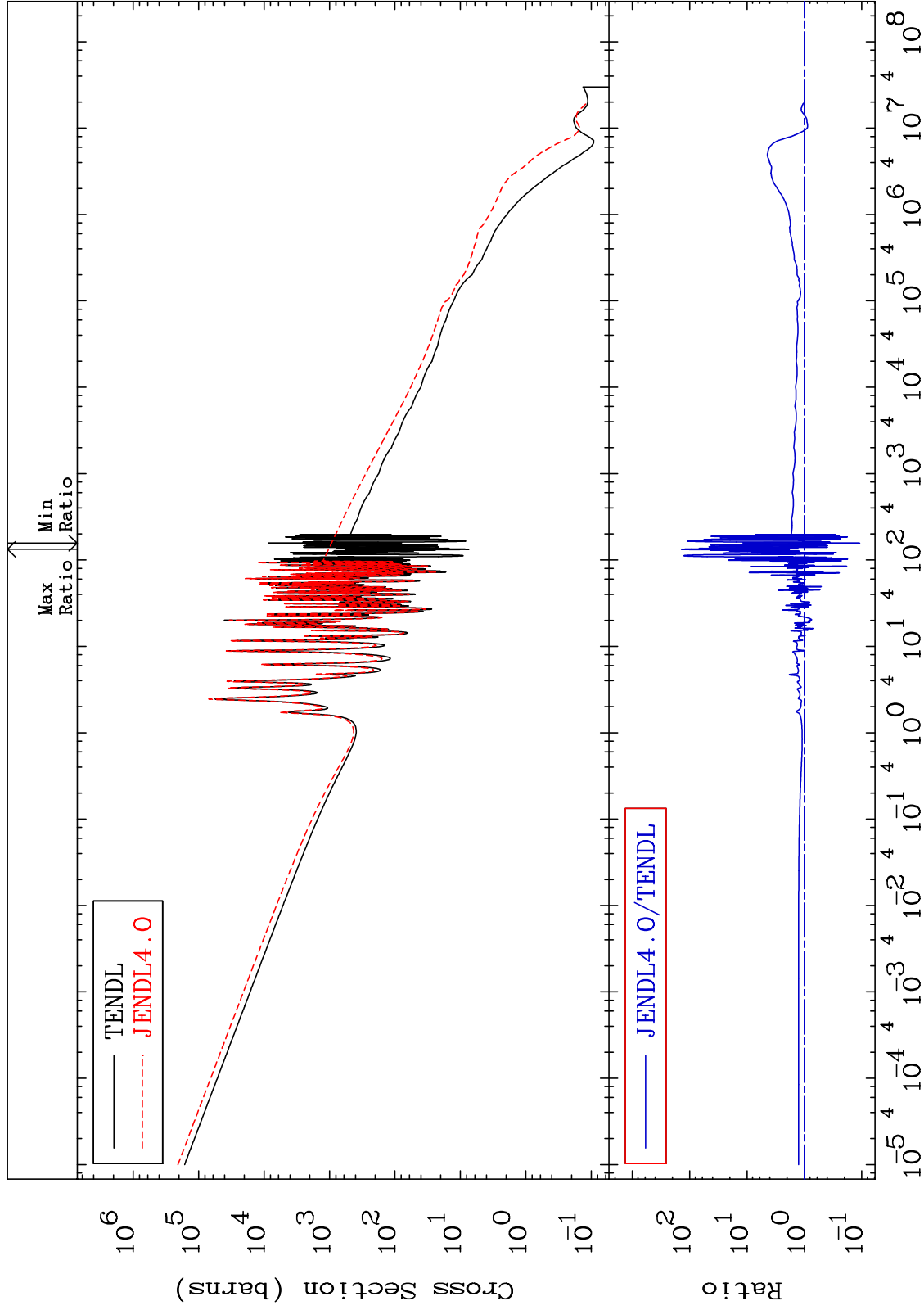
63-Eu-153  
80.50 To 9999. %



MAT 6331

Kerma capture (mt102)  
Cross Section

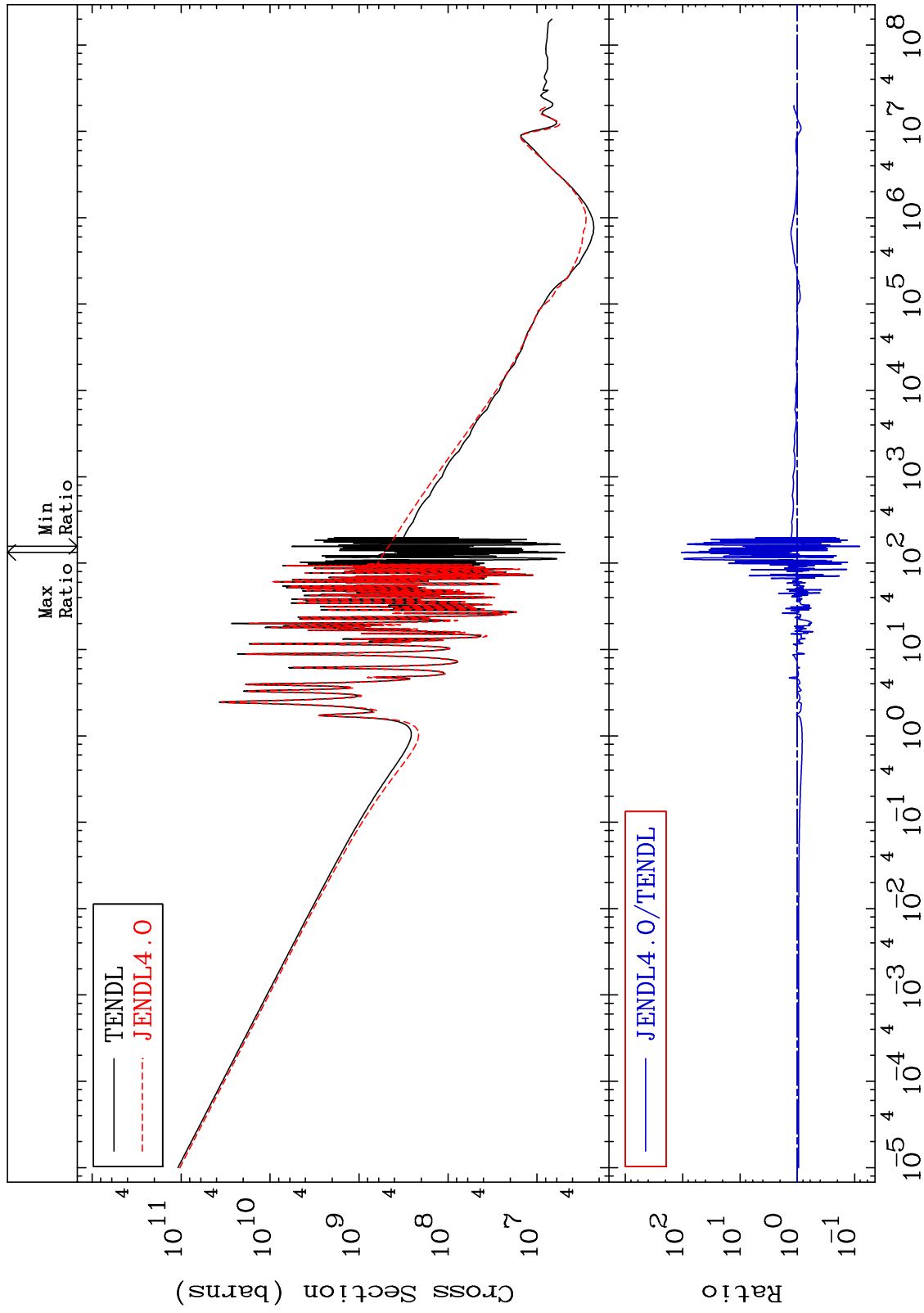
63-Eu-153  
-89.17 To 9999. %



MAT 6331

Total photon (eV-barns)  
Cross Section

63-Eu-153  
-91.84 To 9999. %

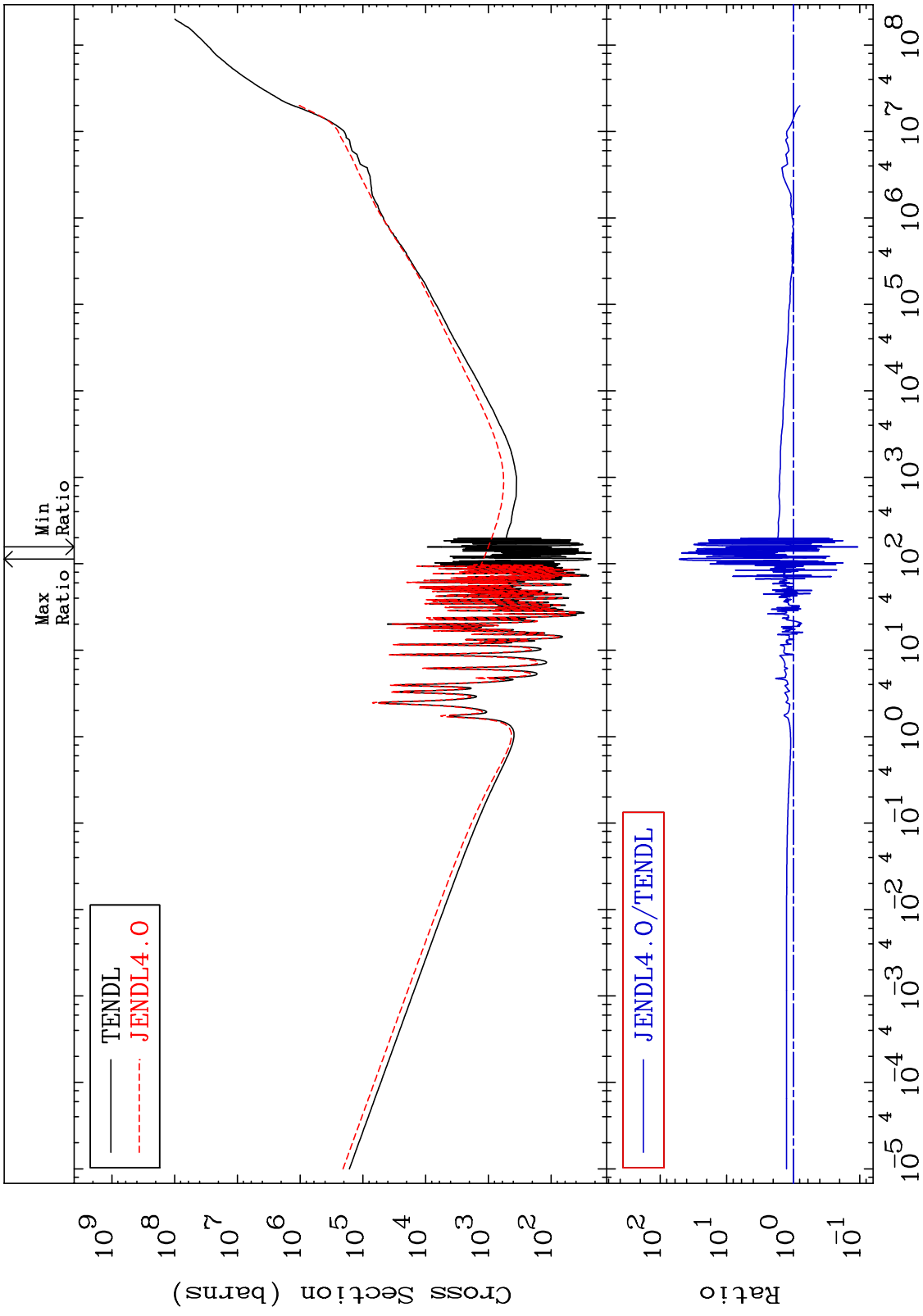


60

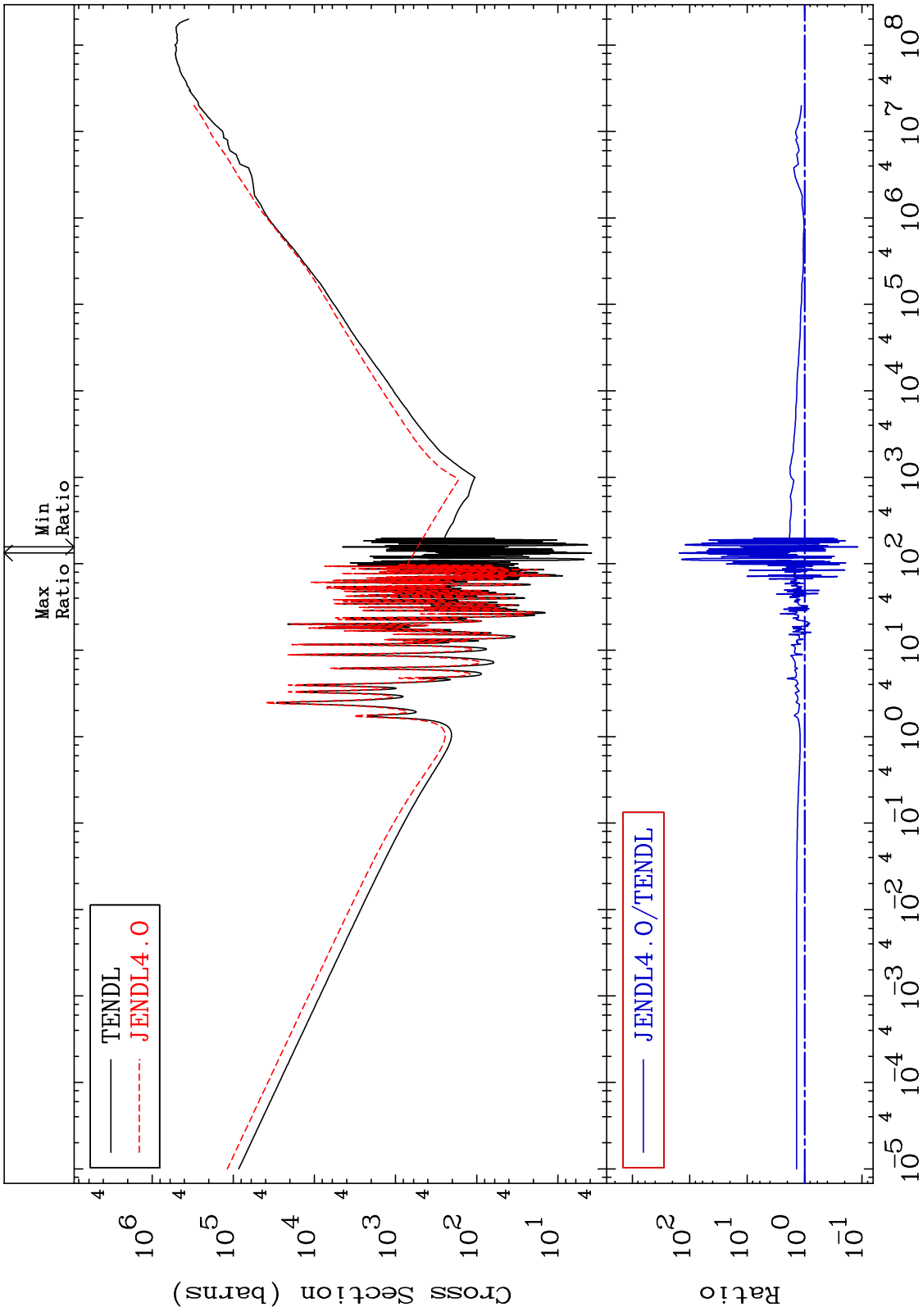
Incident Energy (eV)

63-Eu-153

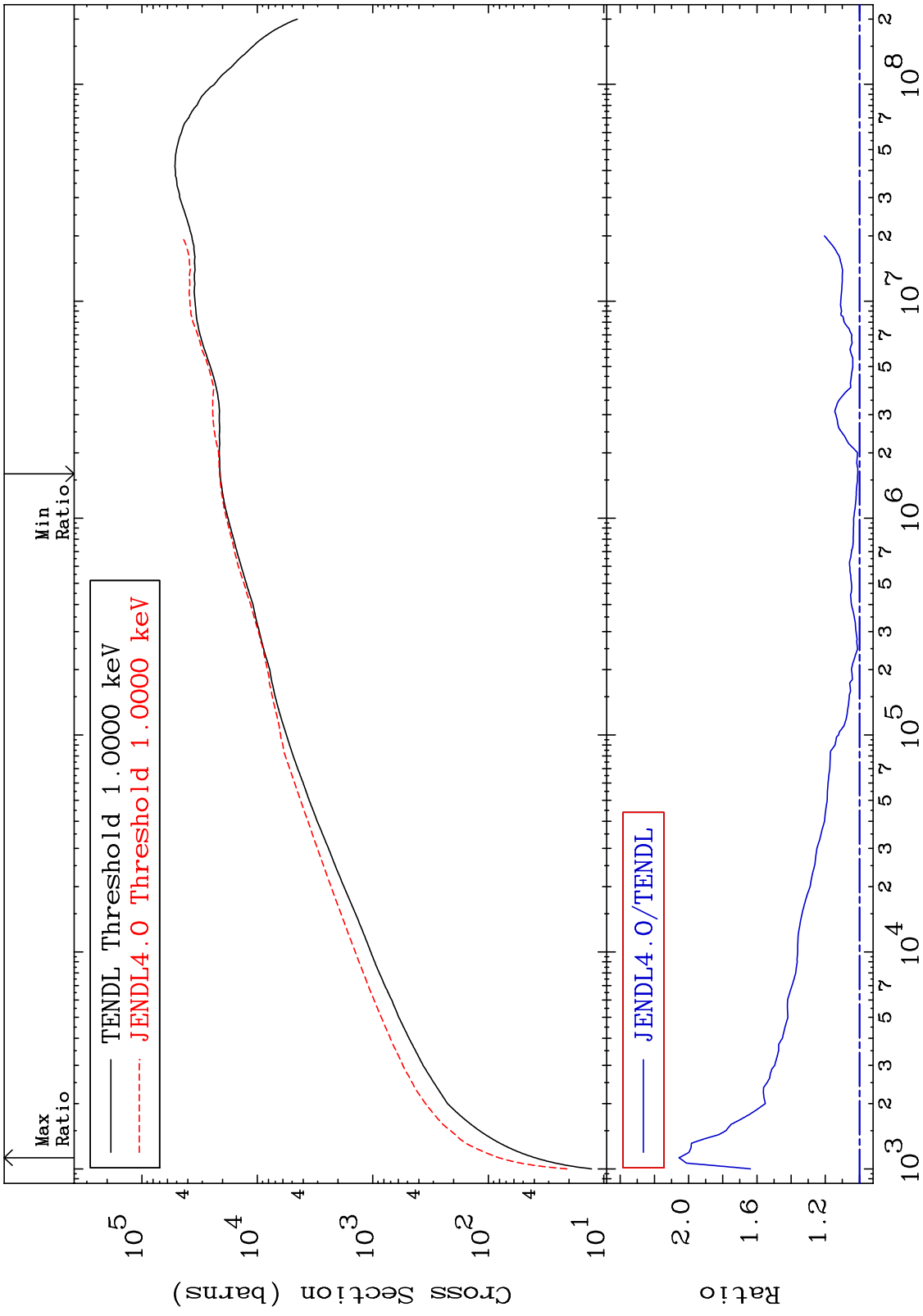
MAT 6331 Total kinematic kerma (high limit) 63-Eu-153  
 Cross Section -89.33 To 5114. %



MAT 6331      Dpa total (eV-barns)      63-Eu-153  
 Cross Section      -88.17 To 9999. %

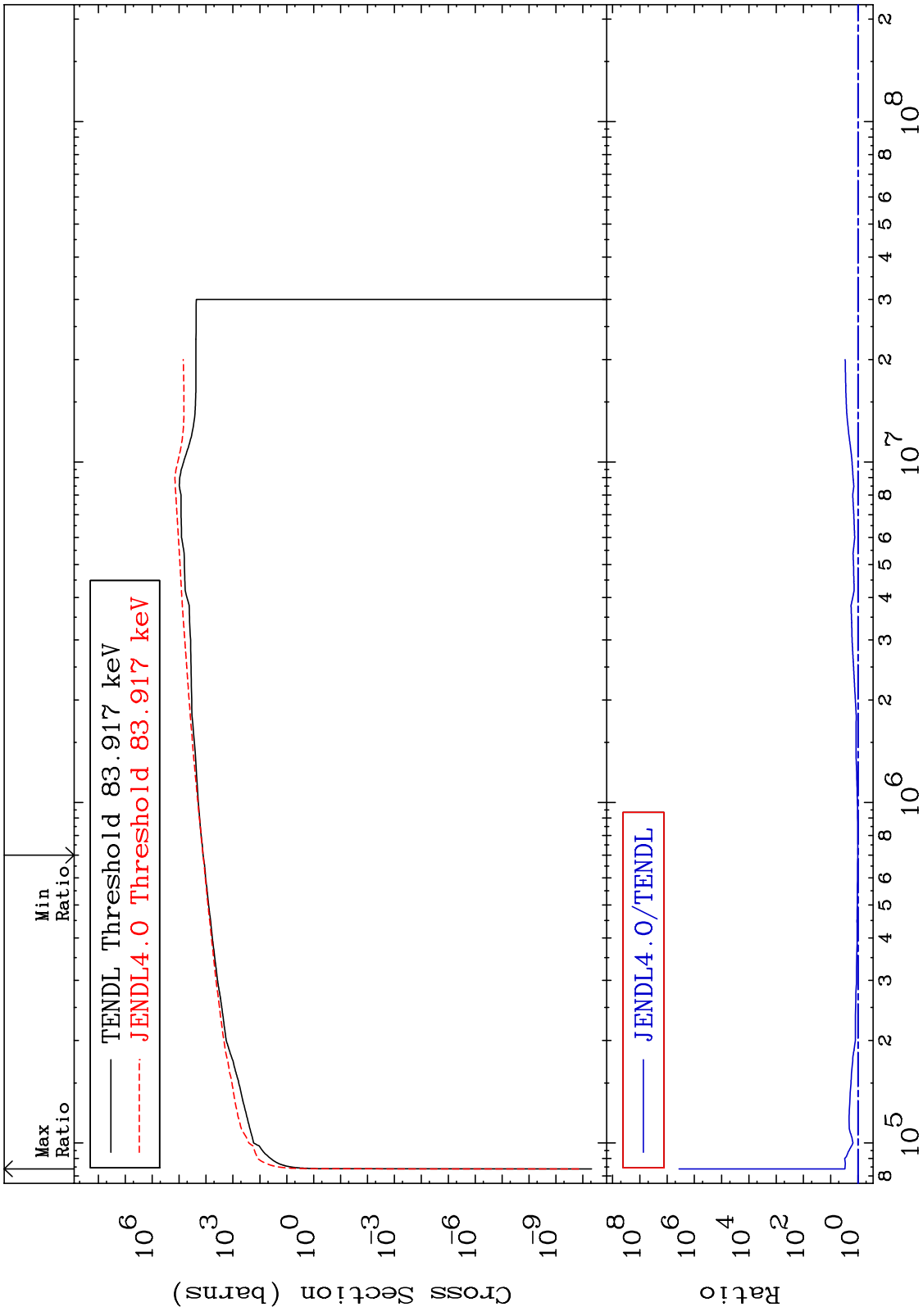


MAT 6331 63-Eu-153 0.948 To 105.6 %  
Dpa elastic (mt2)  
Cross Section



63 63-Eu-153  
Incident Energy (eV)





MAT 6331      Dpa disappearance (mt102 -120)      63-Eu-153  
 Cross Section      -88.17 To 9999. %

