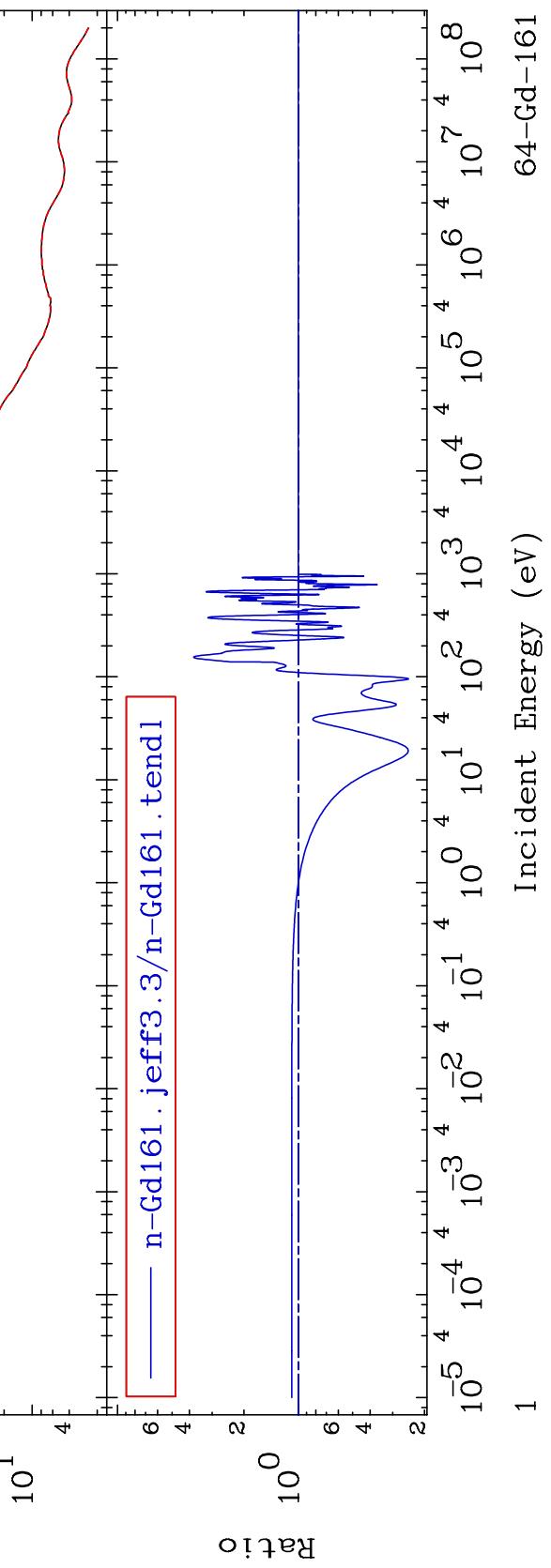
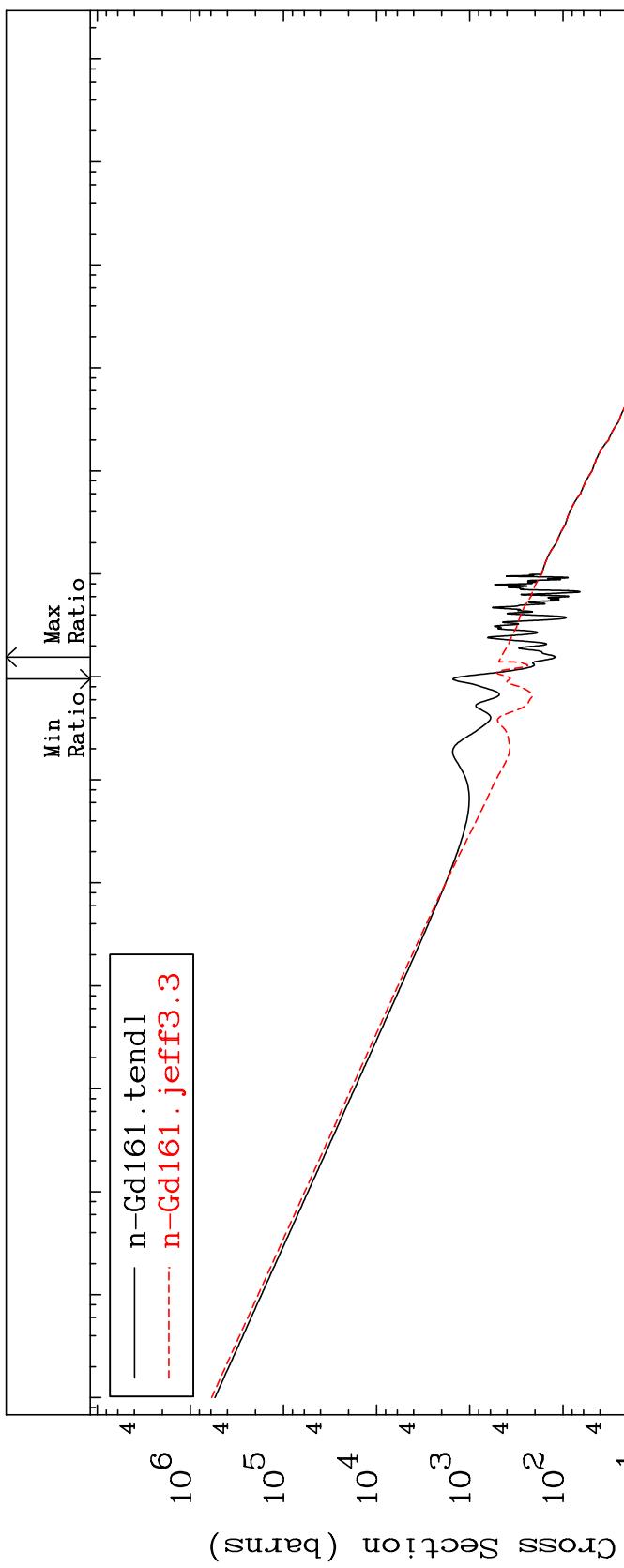


MAT 6452

Total Cross Section  
64-Gd-161  
-75.53 To 279.2 %

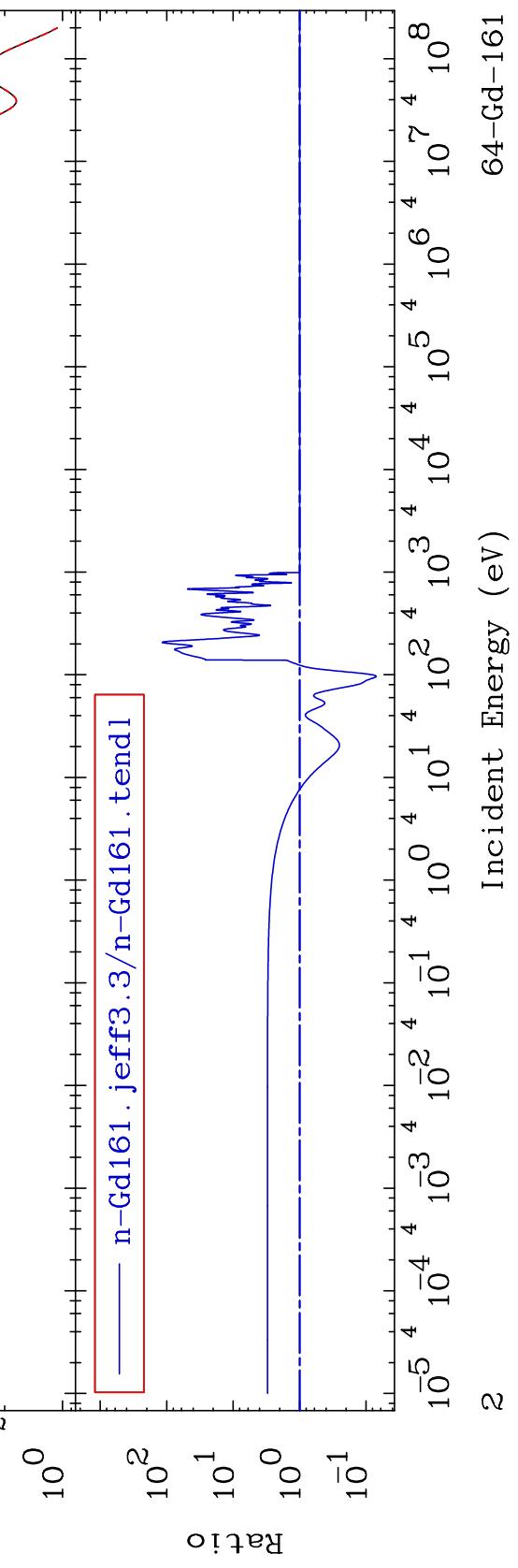
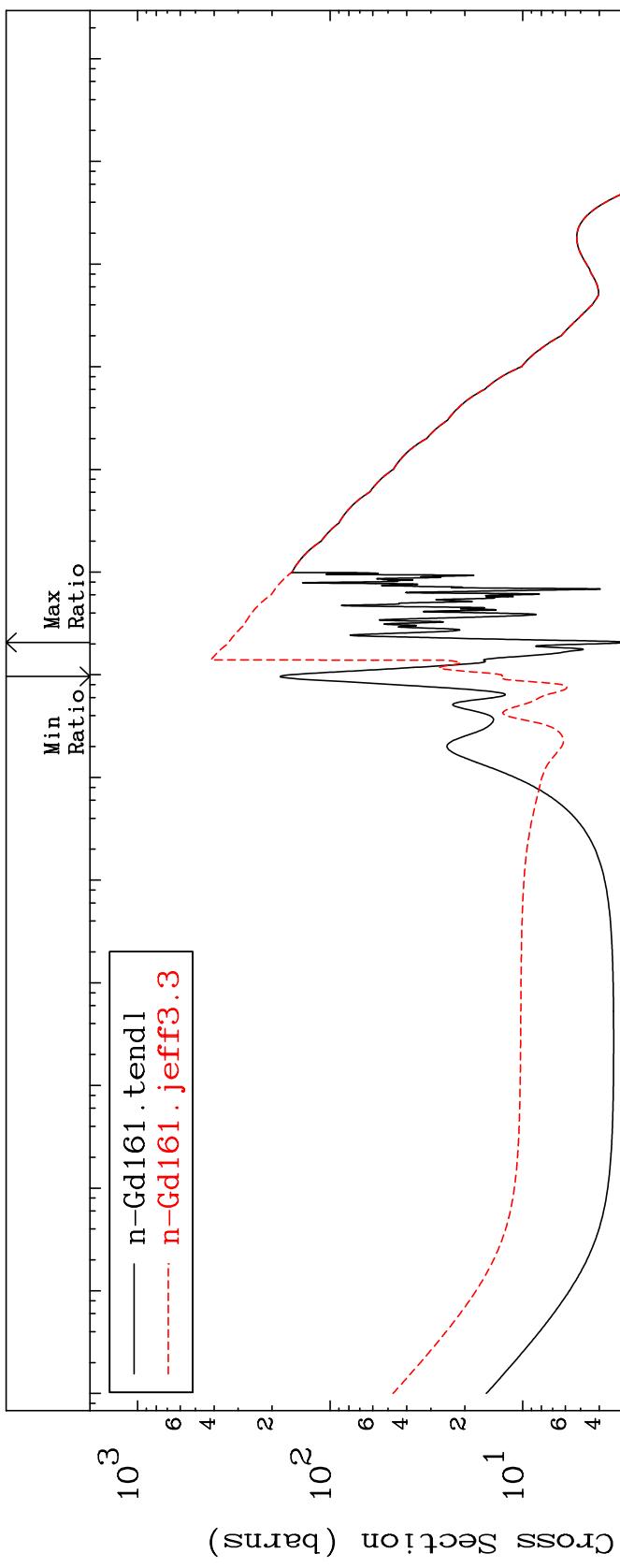


64-Gd-161  
-75.53 To 279.2 %

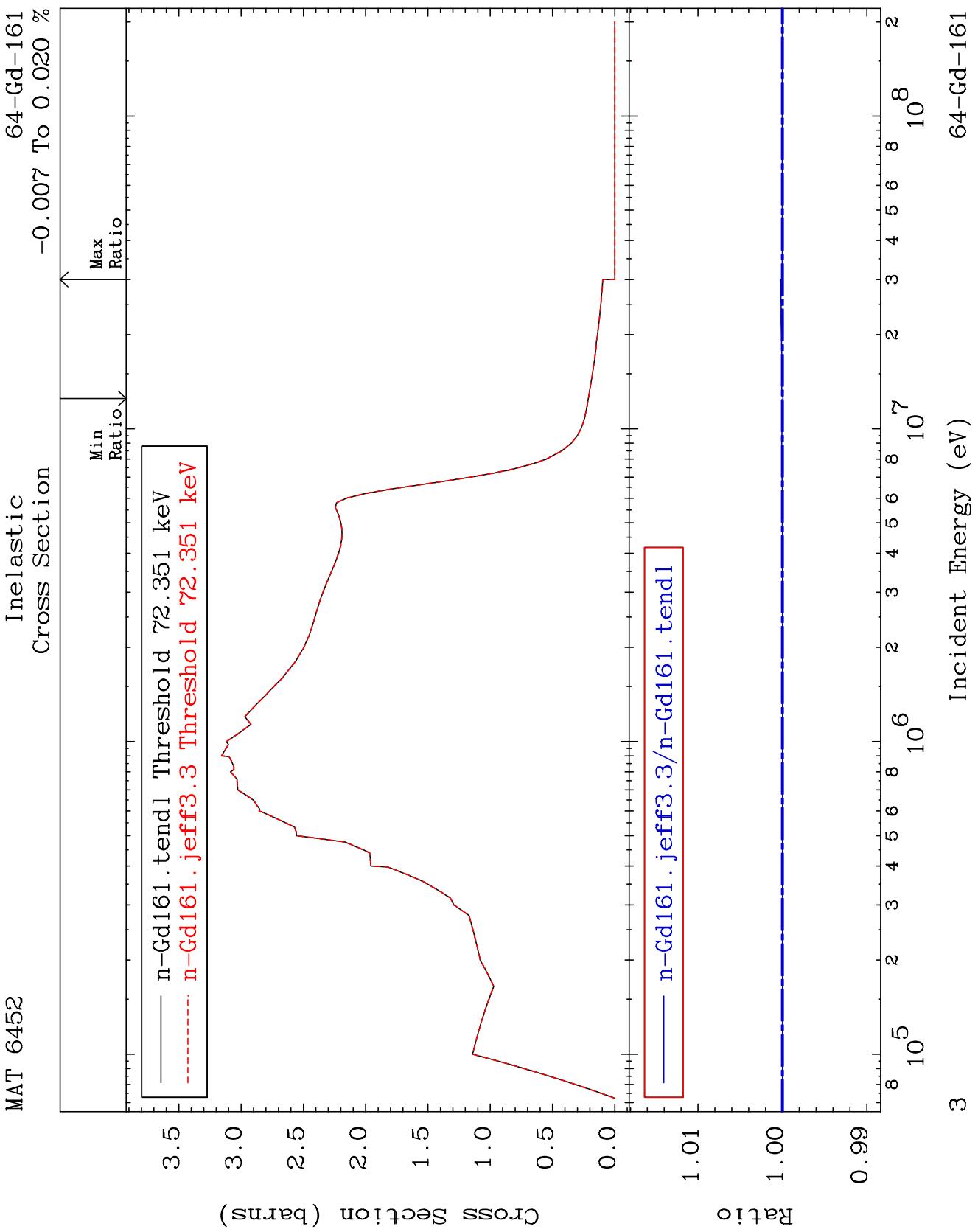
1

MAT 6452

Elastic Cross Section  
64-Gd-161  
-92.96 To 9999 .%

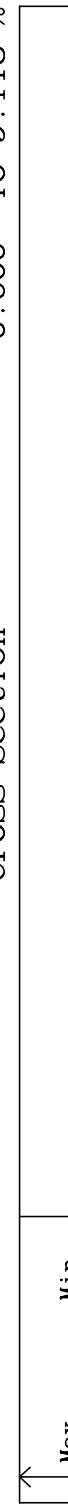


MAT 6452



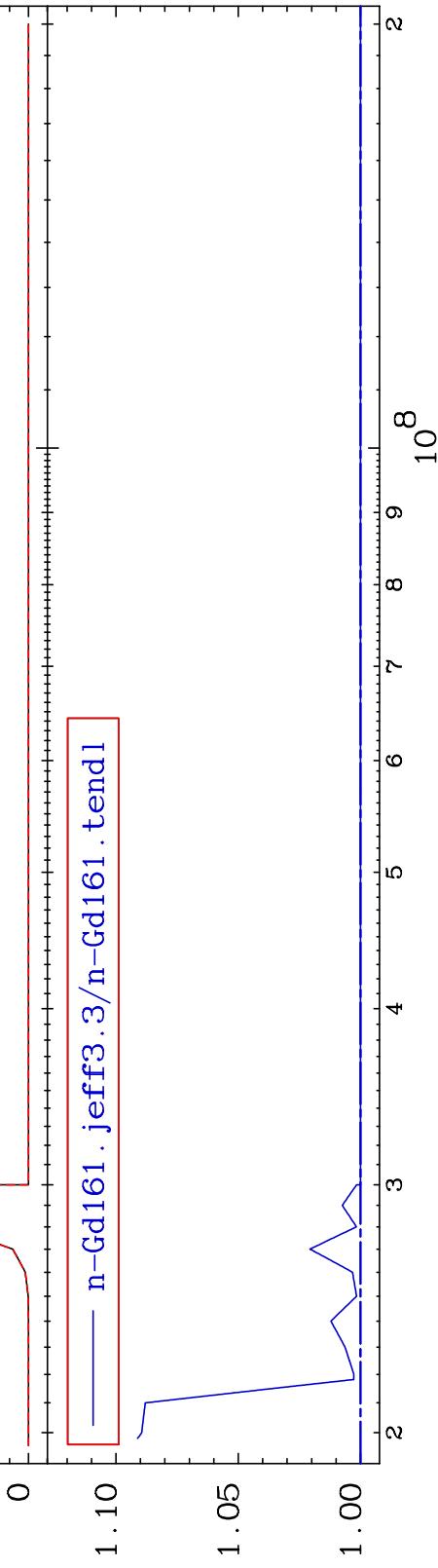
MAT 6452

(n,2n) d  
Cross Section



n-Gd161.tendl Threshold 19.580 MeV  
n-Gd161.jeff3.3 Threshold 19.580 MeV

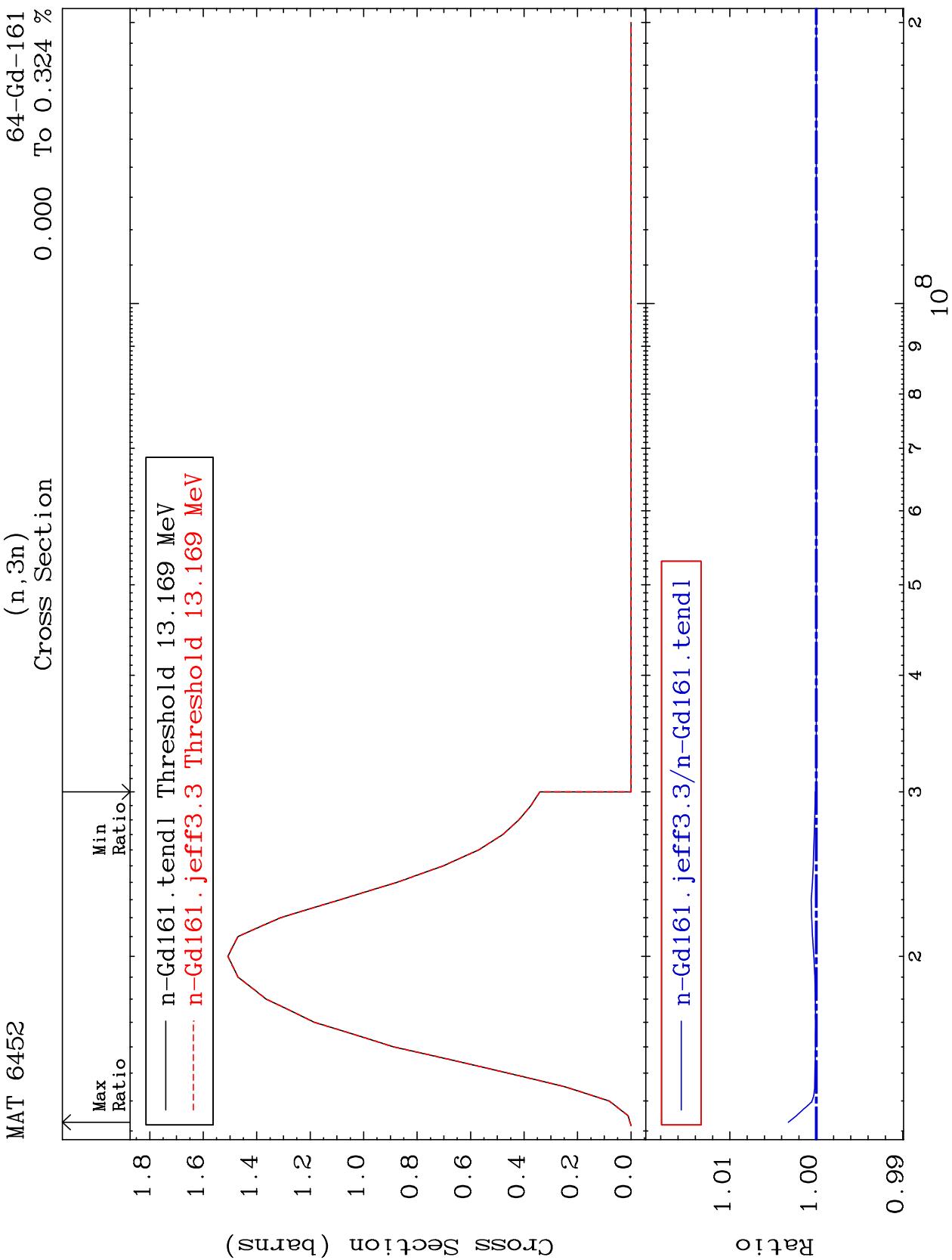
Cross Section (micro-barns)

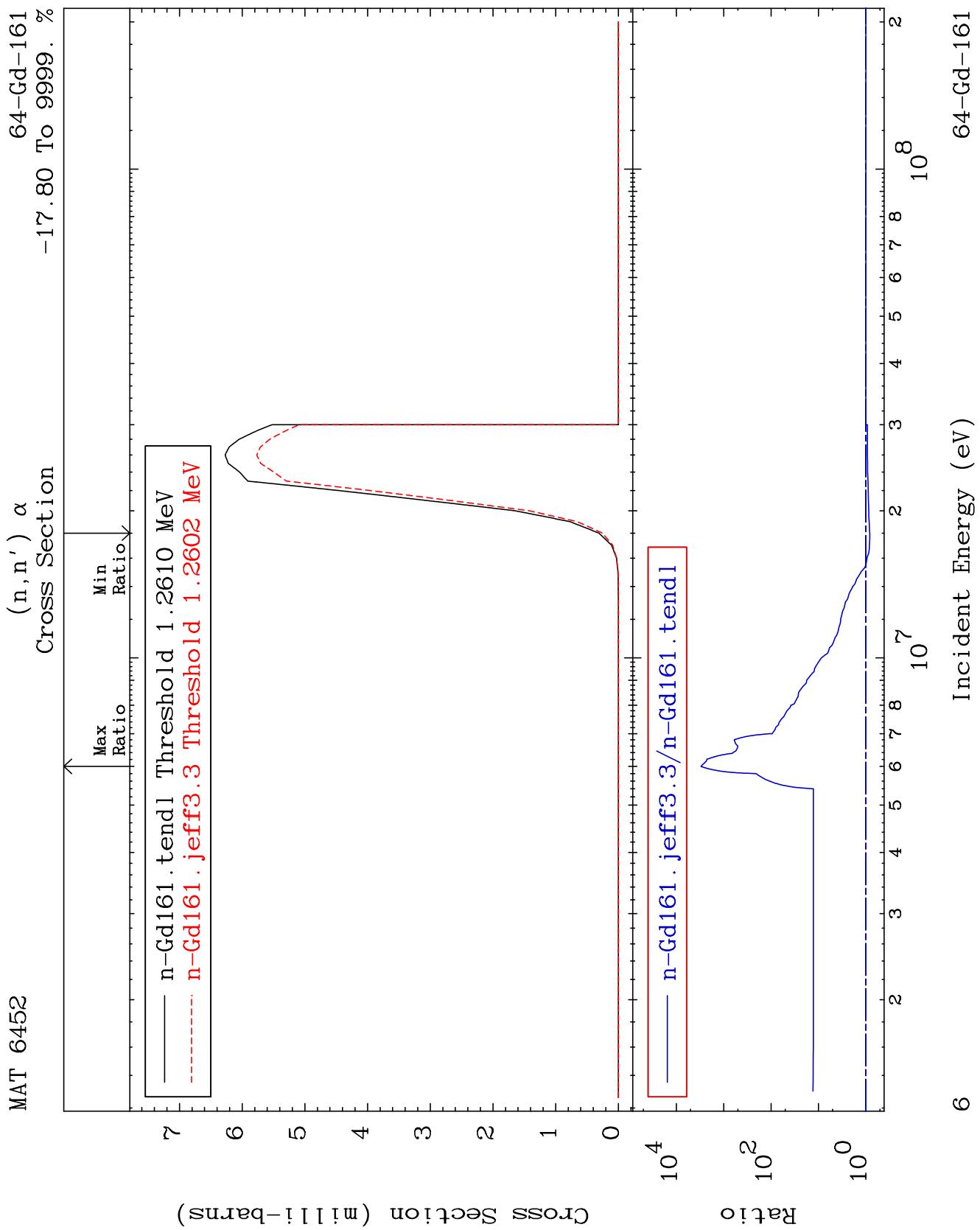


4

64-Gd-161

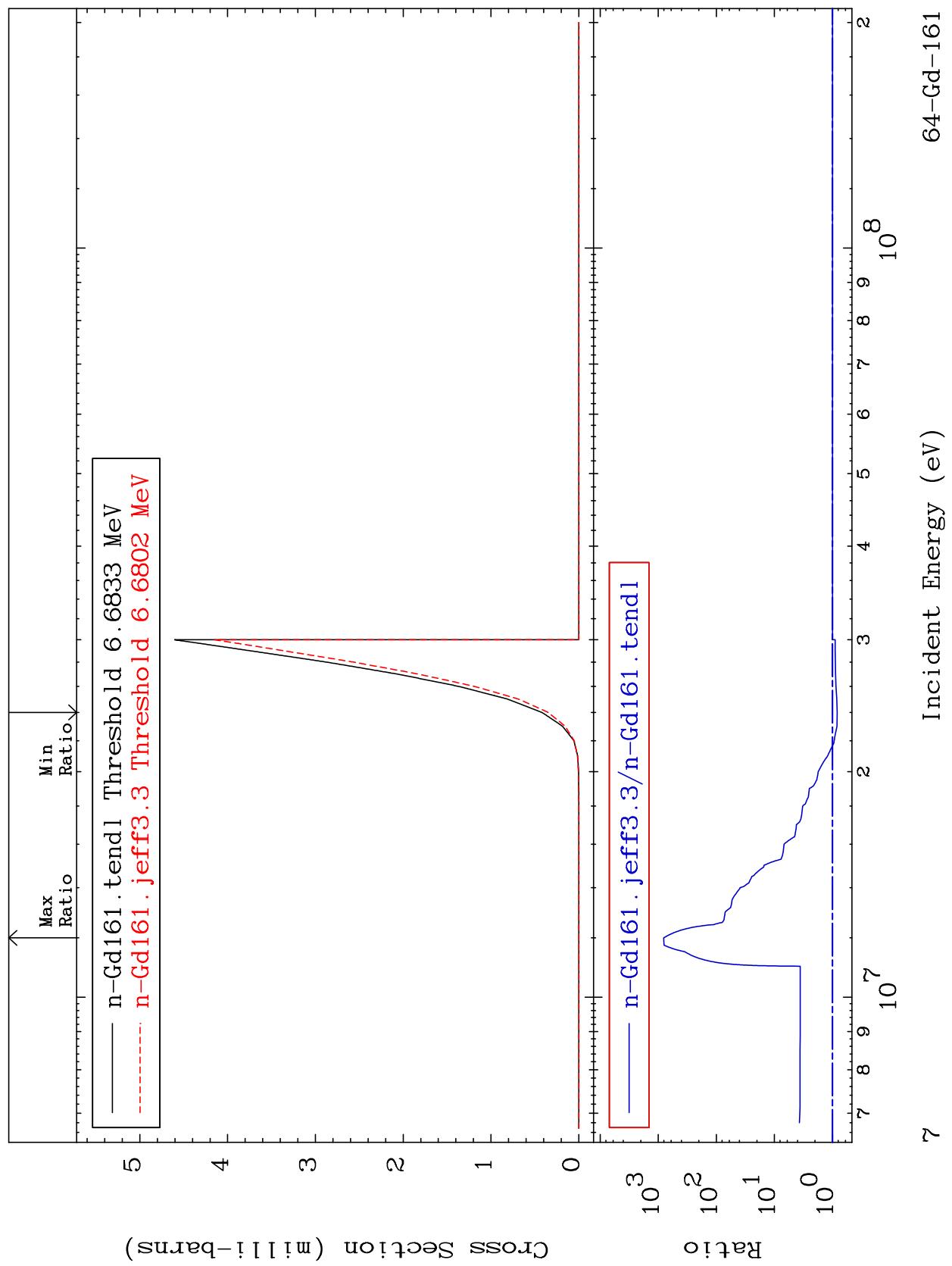
64-Gd-161





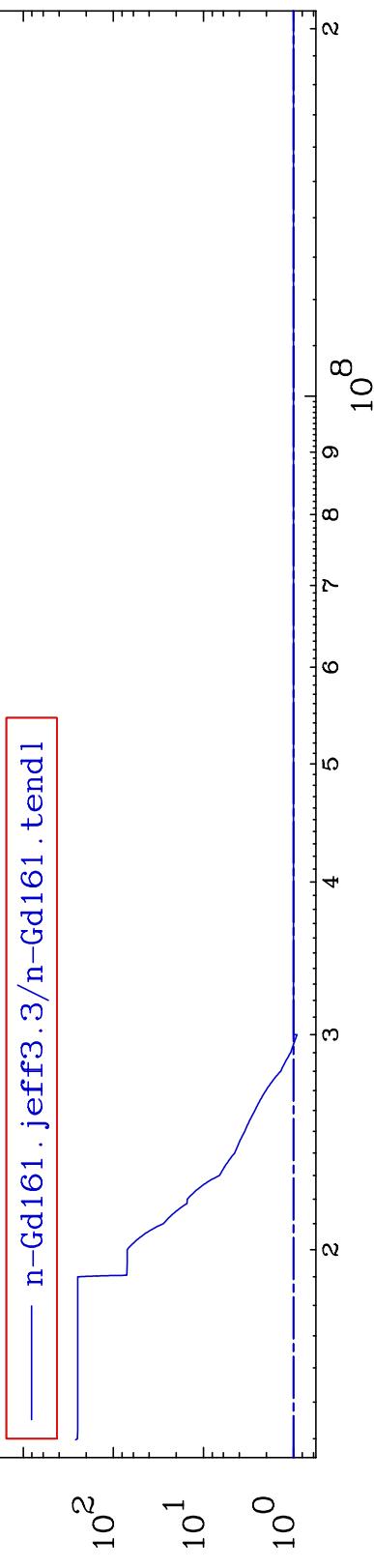
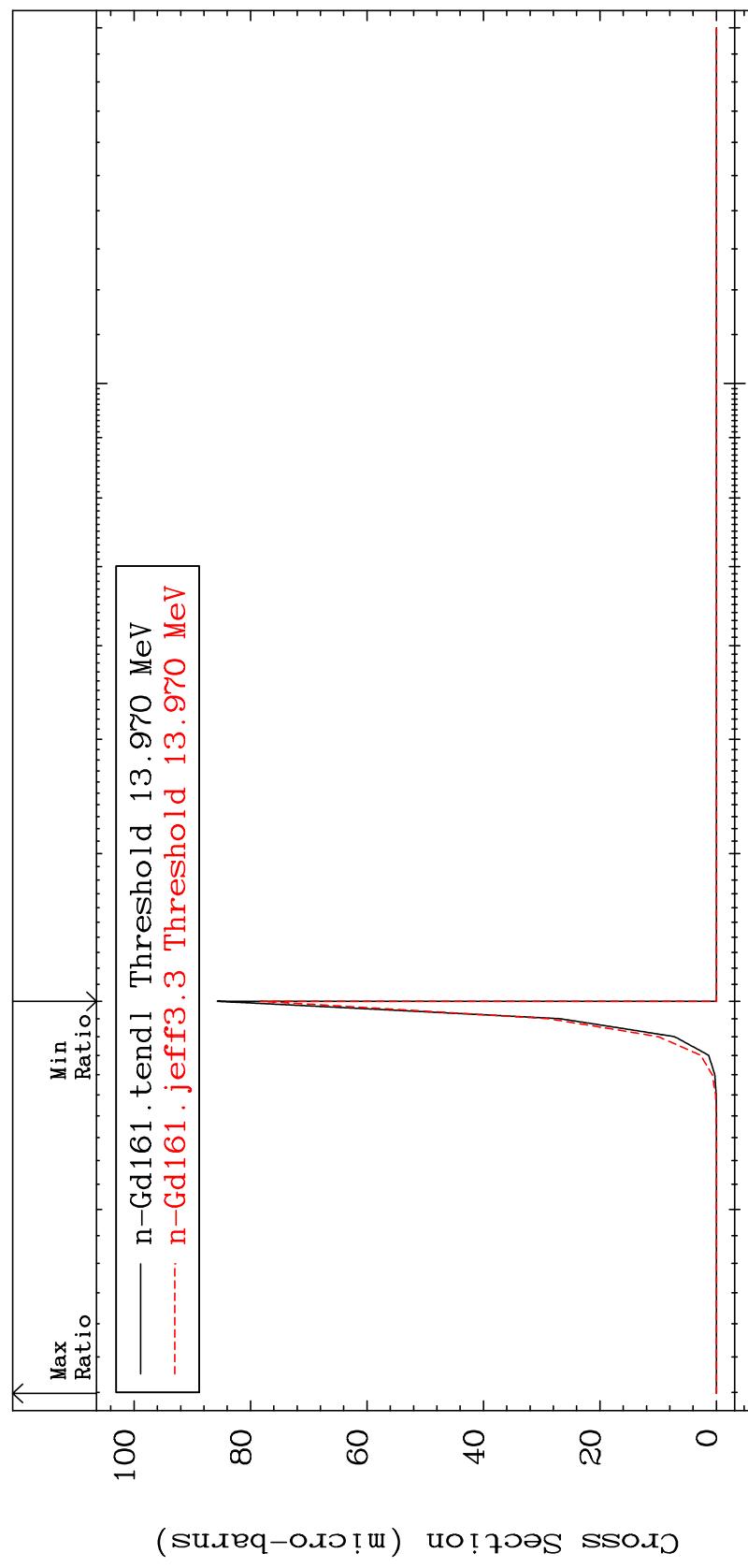
MAT 6452

(n,2n)  $\alpha$   
Cross Section  
 $64\text{-Gd-161}$   
 $-16.92 \text{ To } 9999. \%$



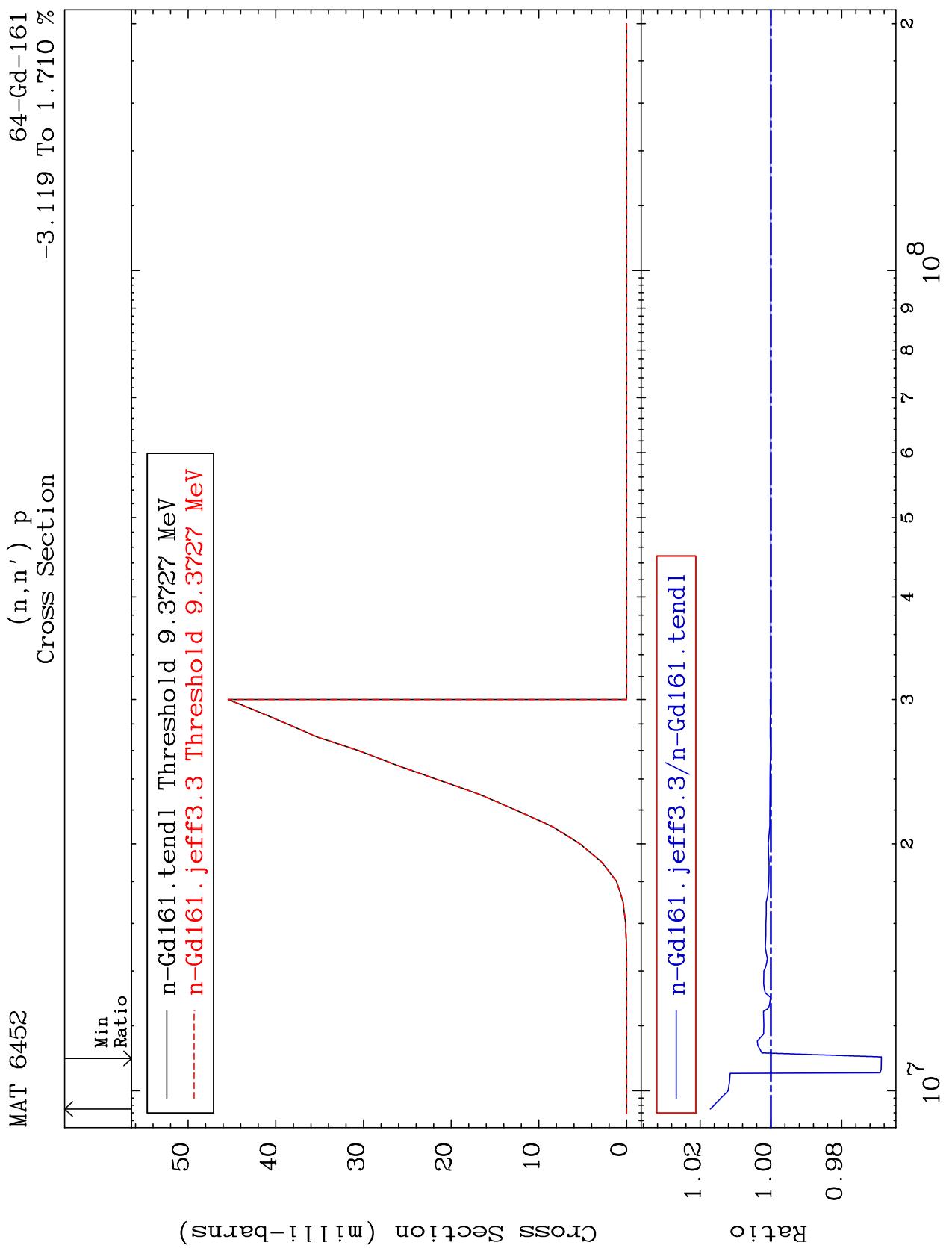
MAT 6452

(n,3n)  $\alpha$   
Cross Section  
 $-8.734 \text{ To } 9999. \%$



8

64-Gd-161  
Incident Energy (eV)



64-Gd-161

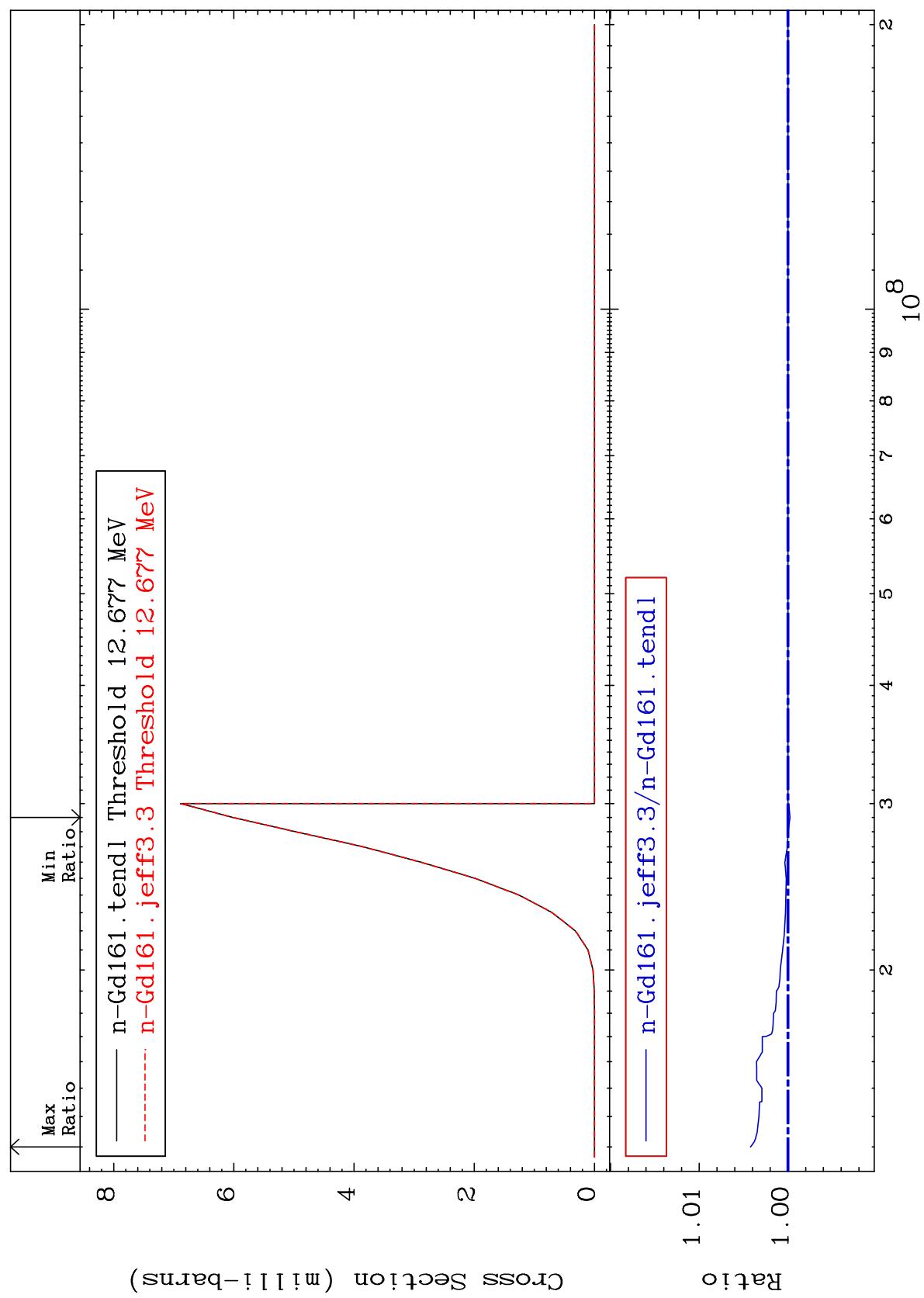
Incident Energy (eV)

३

MAT 6452

(n, n') d  
Cross Section

64-Gd-161  
-0.023 To 0.421 %



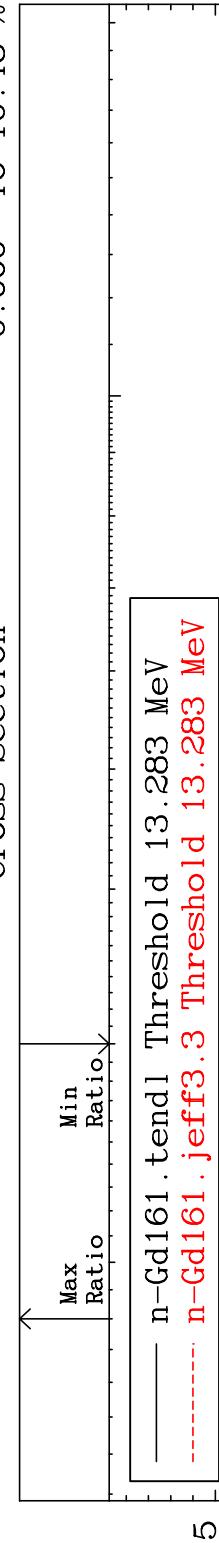
10

Incident Energy (eV)

64-Gd-161

MAT 6452

(n, n') t  
Cross Section



Cross Section (mili-barns)

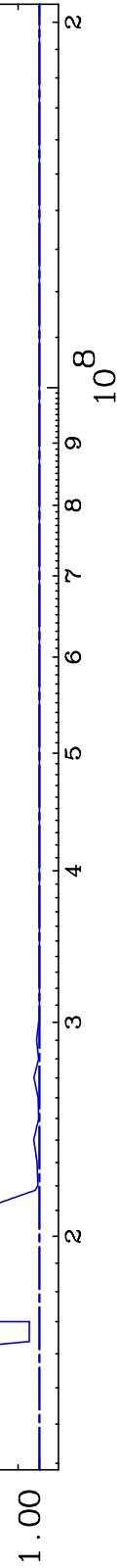
Ratio

11

Incident Energy (eV)

64-Gd-161

64-Gd-161

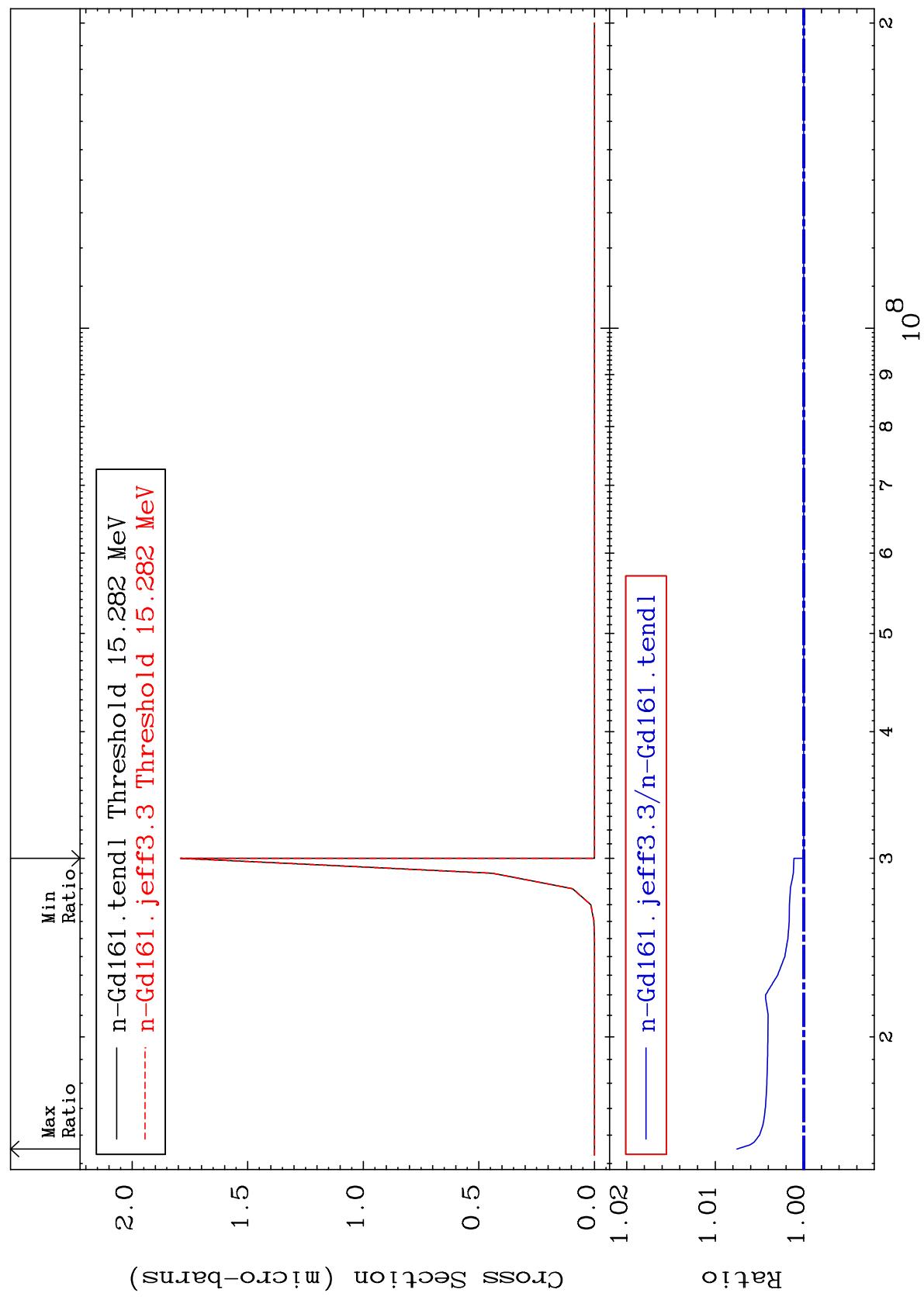


64-Gd-161

64-Gd-161

MAT 6452

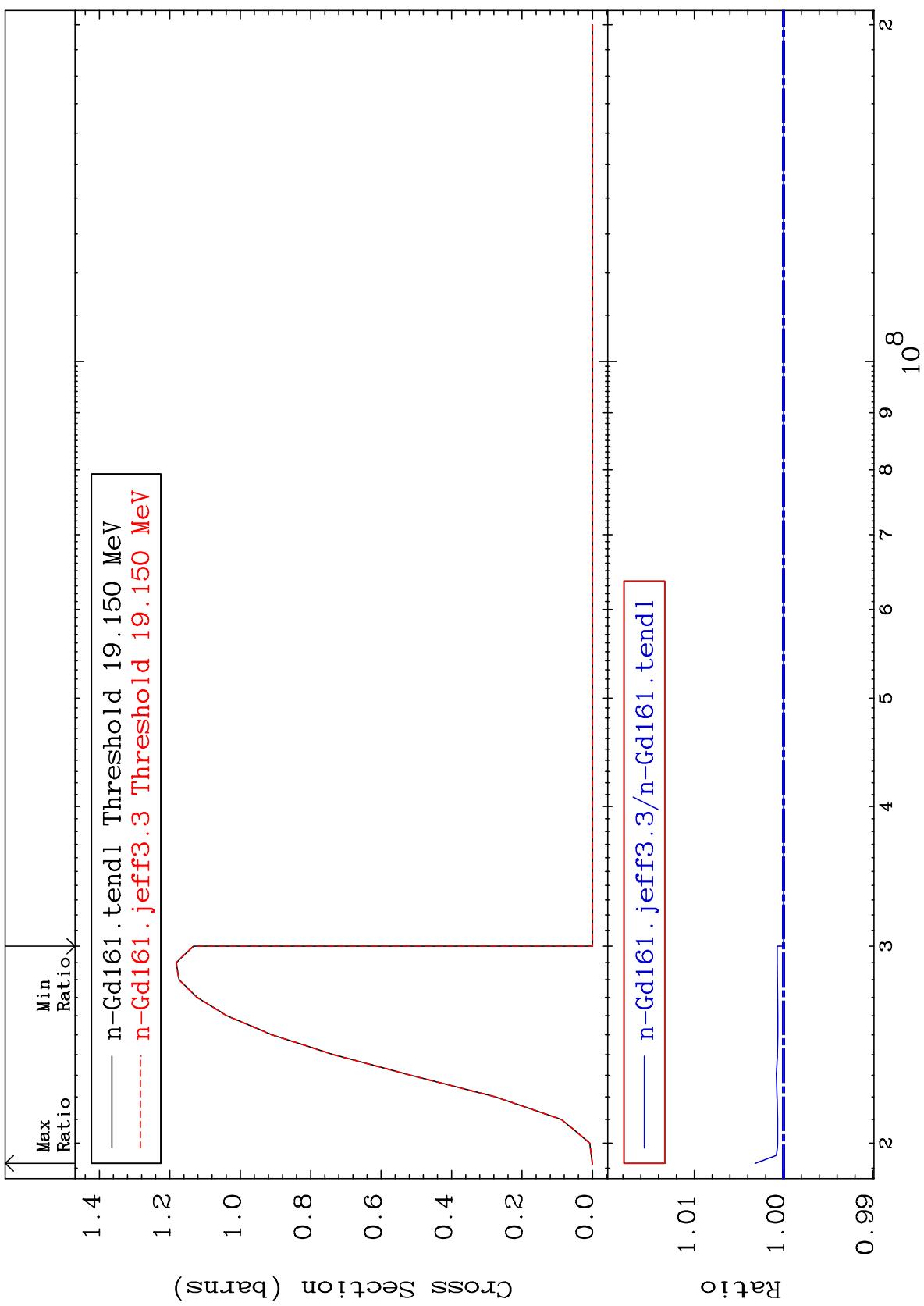
(n, n') He-3  
Cross Section



12

MAT 6452

(n,4n) Cross Section  
64-Gd-161 To 0.317 %

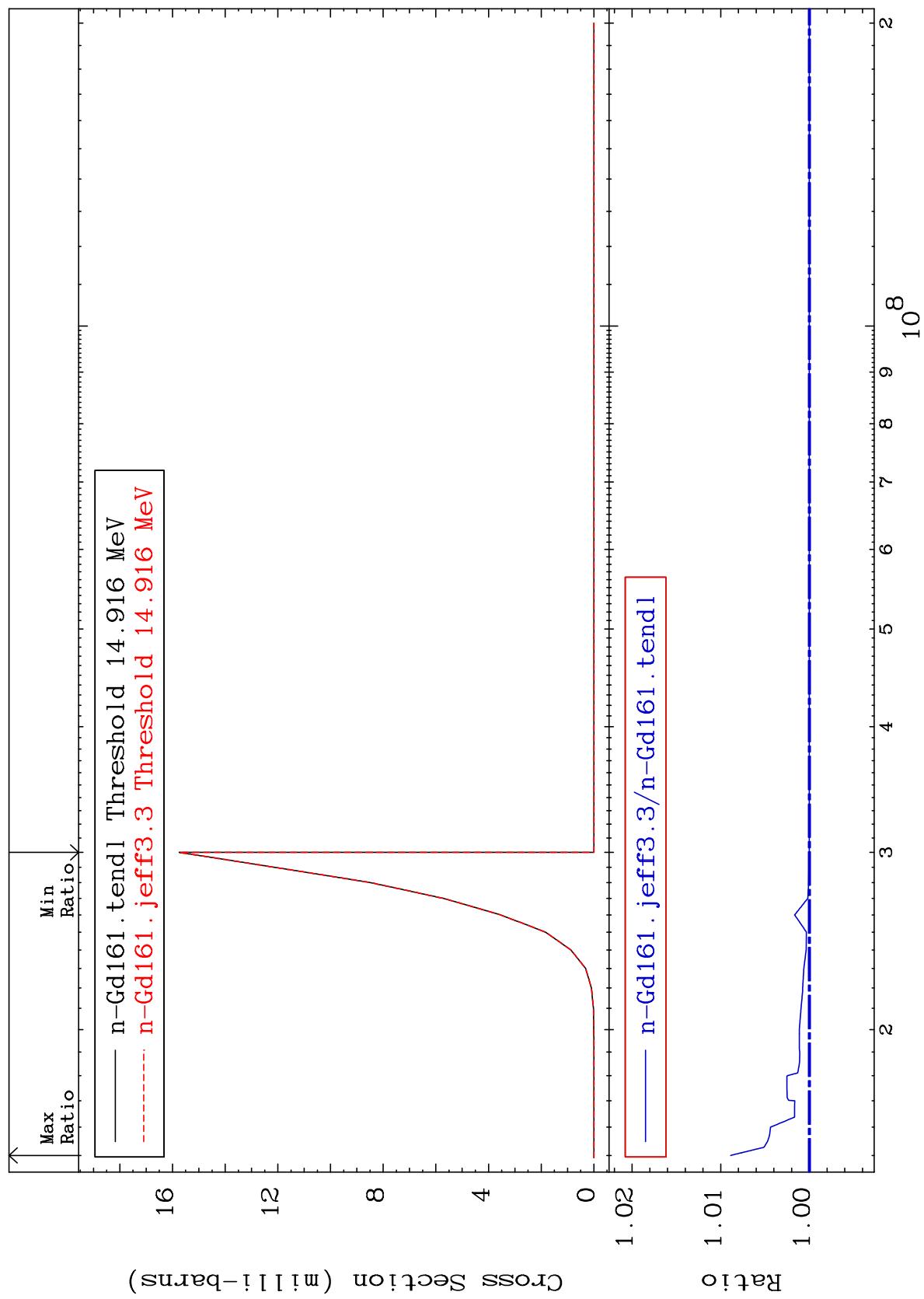


13

64-Gd-161

MAT 6452

(n,2n) p  
Cross Section



14

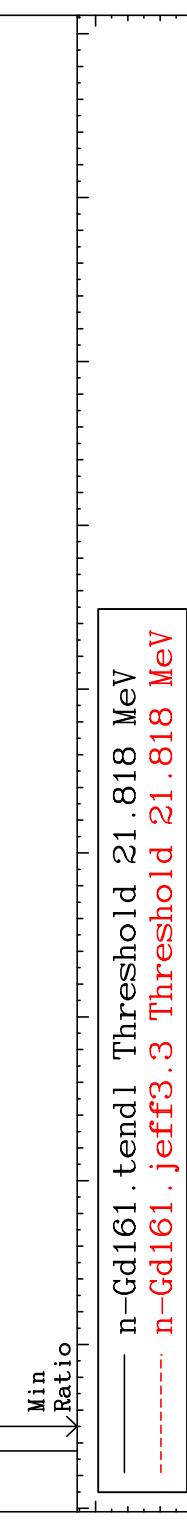
64-Gd-161

MAT 6452

(n,3n) p  
Cross Section

To

64-Gd-161  
2.148 %



Cross Section (micro-barns)

Ratio

To

64-Gd-161  
2.148 %



Ratio

To

64-Gd-161  
2.148 %

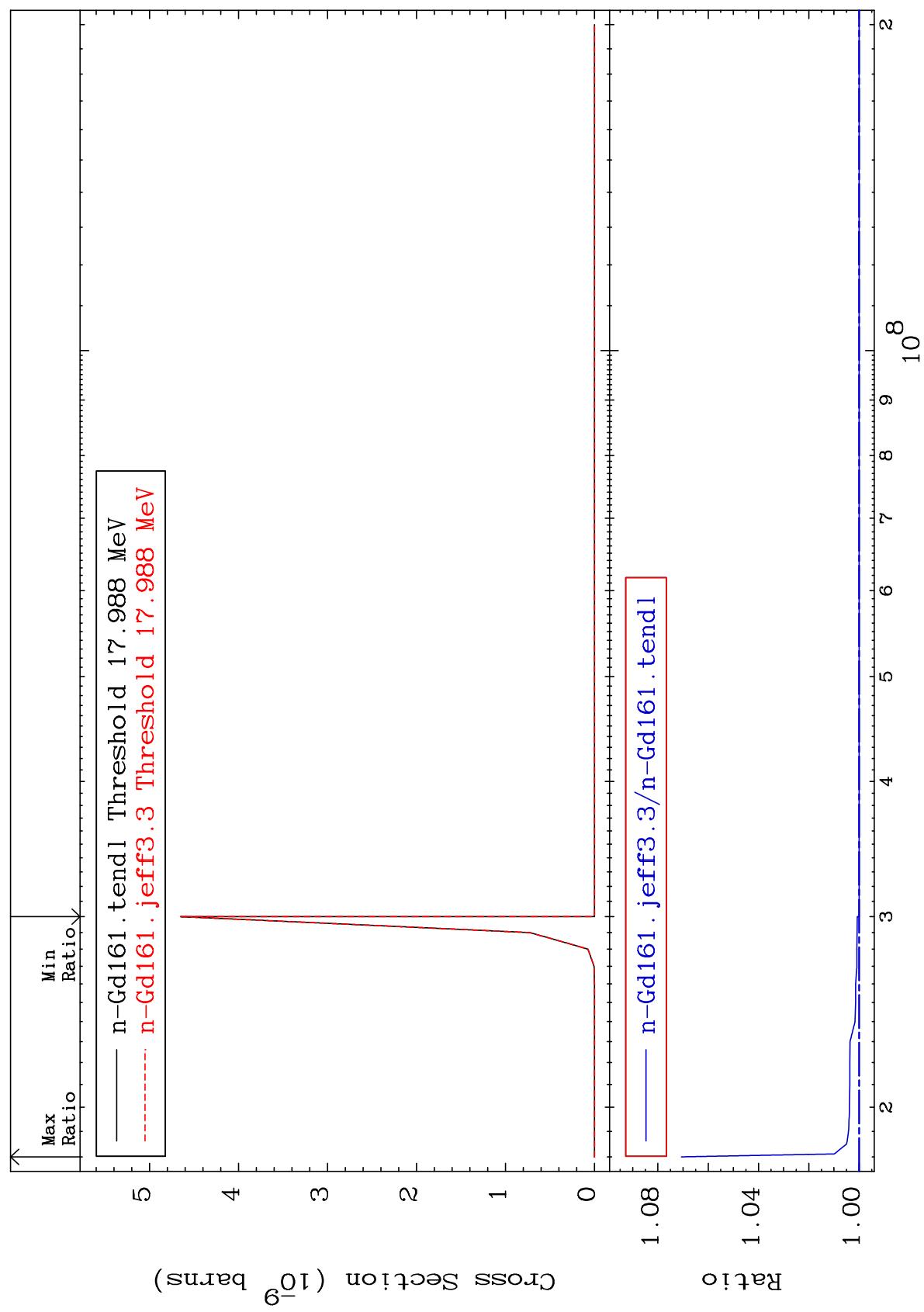
15

Incident Energy (MeV)

64-Gd-161

MAT 6452

(n,2n) p  
Cross Section

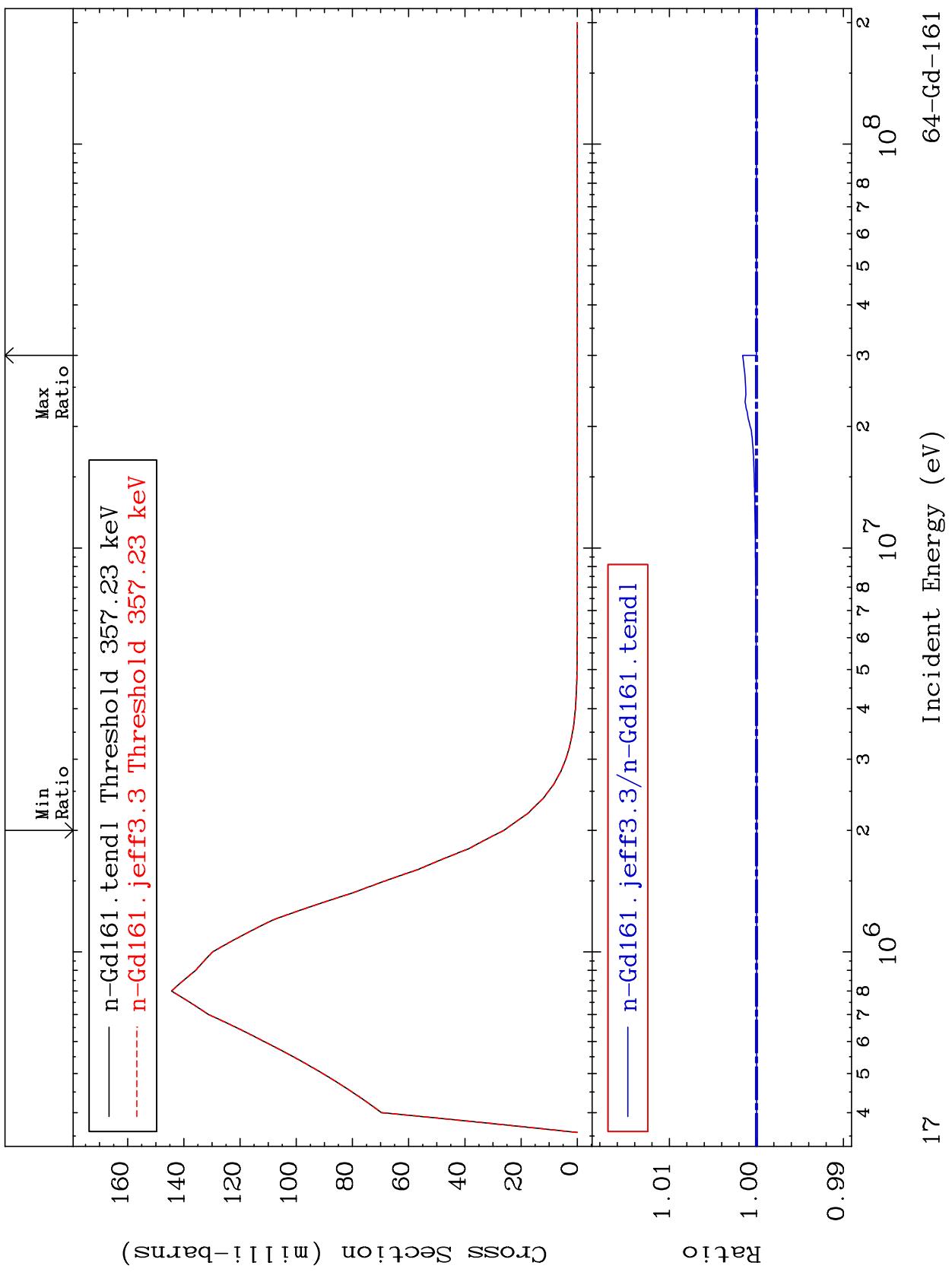


16

64-Gd-161

MAT 6452

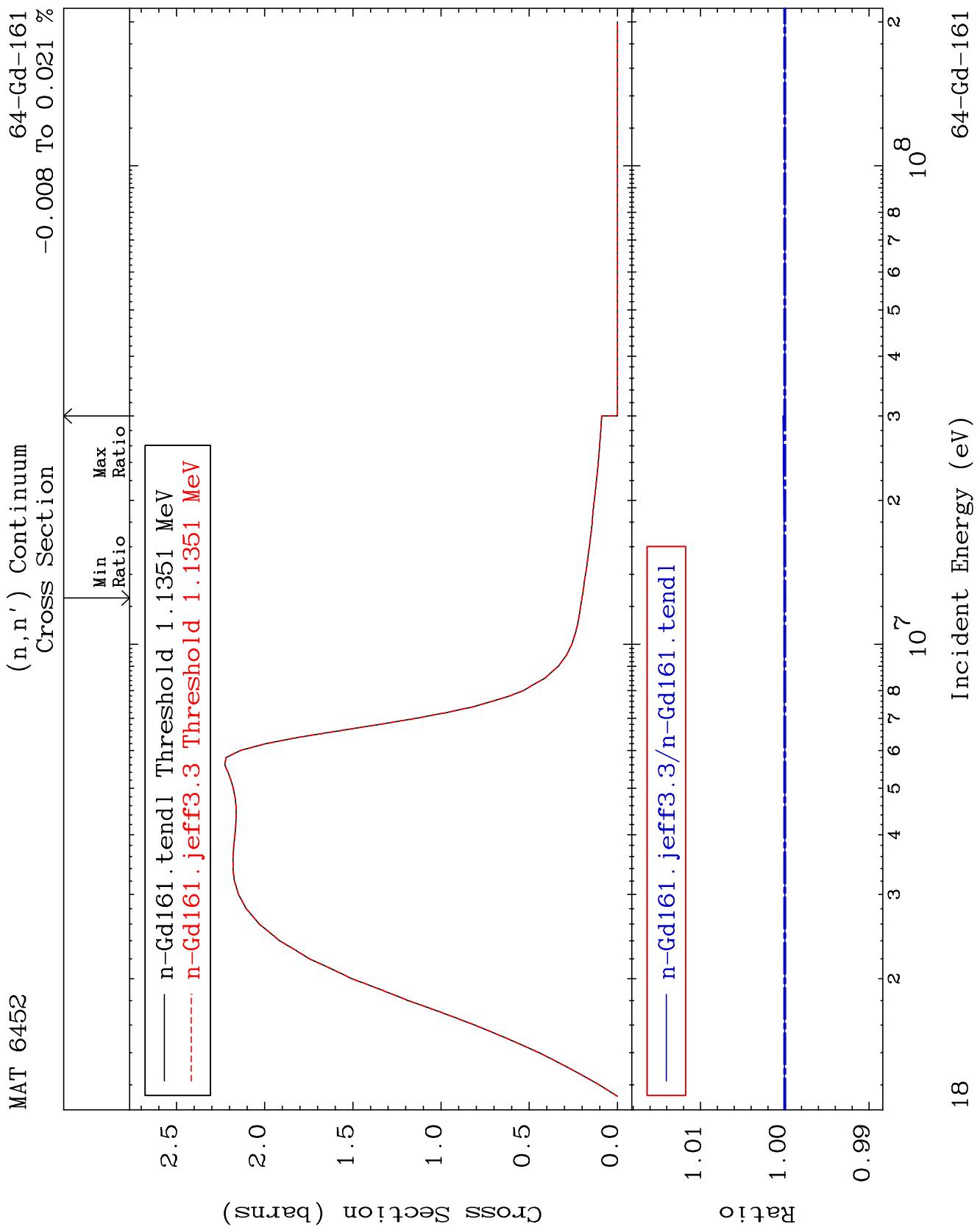
MT= 55 (n,n') Level  
Cross Section



17

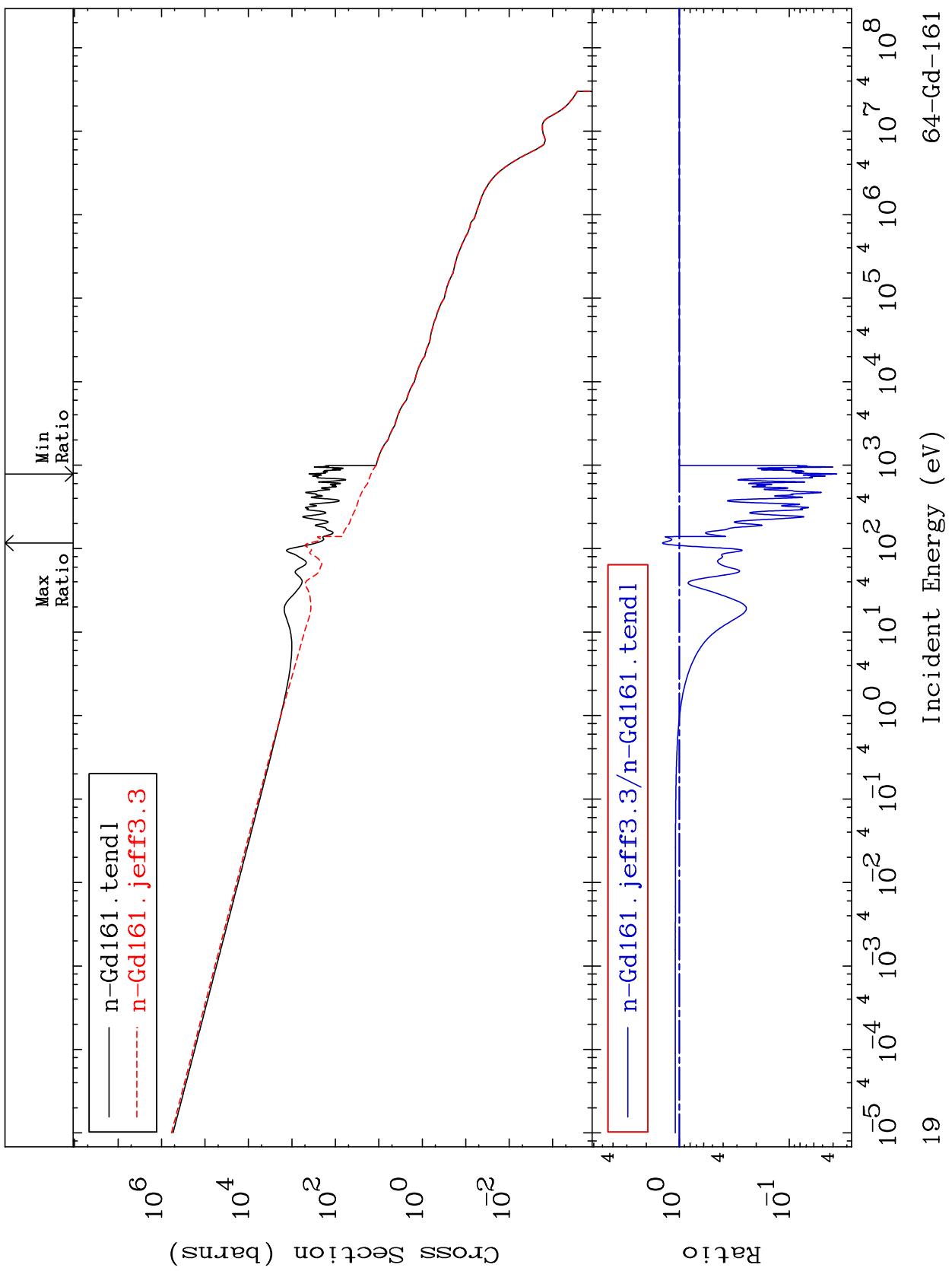
64-Gd-161

MAT 6452



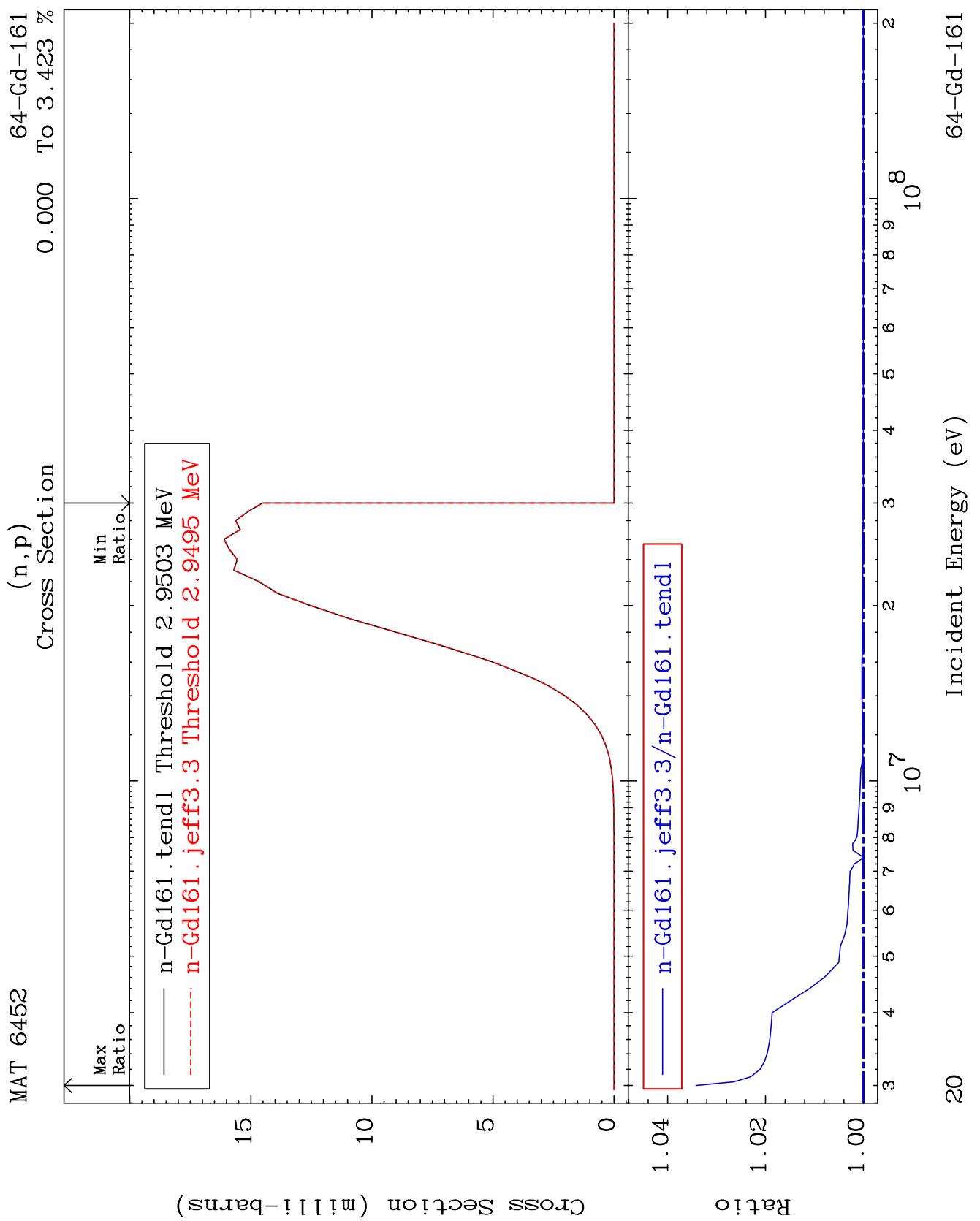
MAT 6452

(n,γ)  
Cross Section  
 $^{64}\text{-Gd-161}$   
 $-96.29 \text{ To } 42.05 \%$



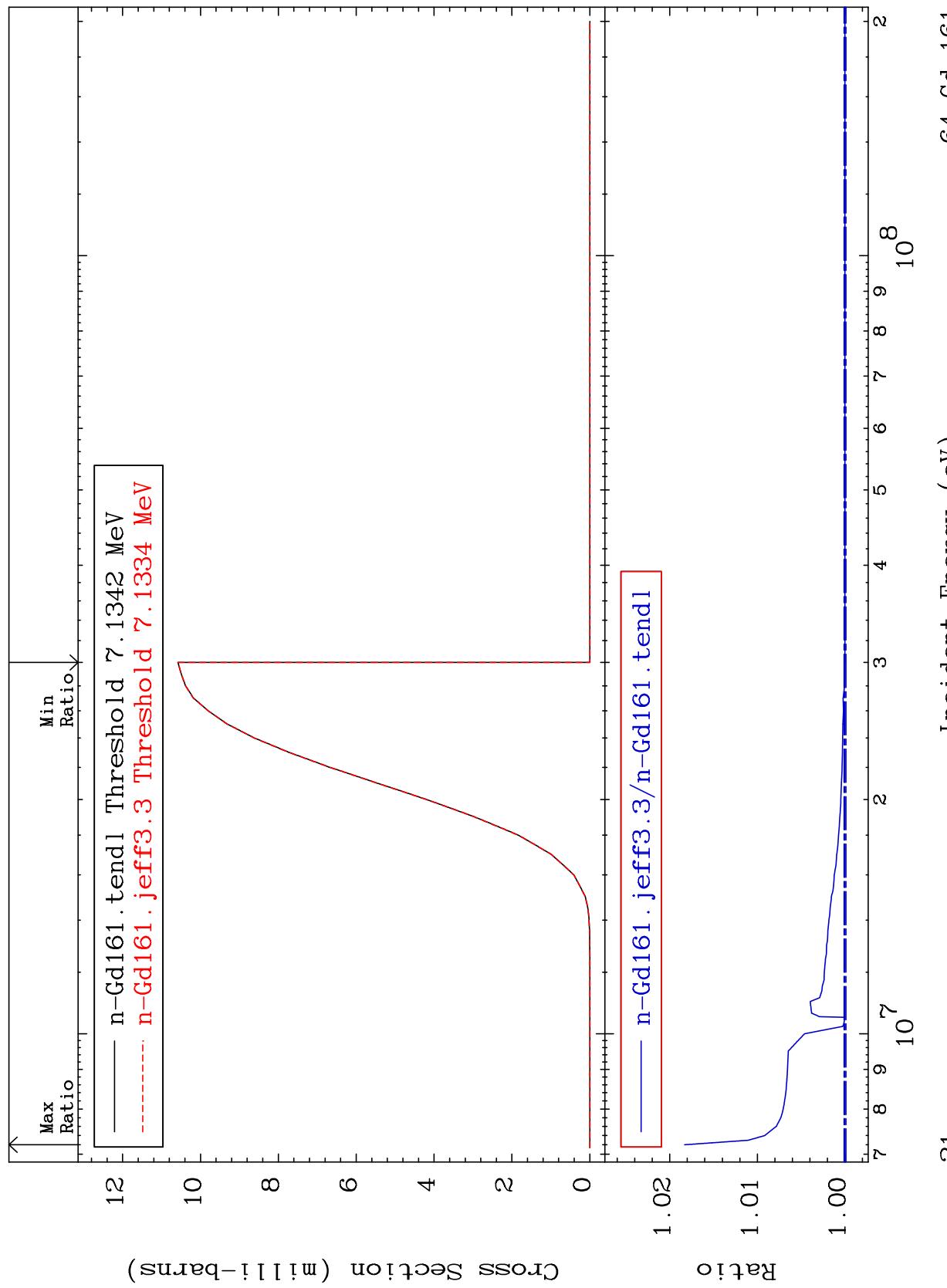
$^{64}\text{-Gd-161}$

19



MAT 6452

(n,d)  
Cross Section  
 $64\text{-Gd-161}$   
To 1.831 %



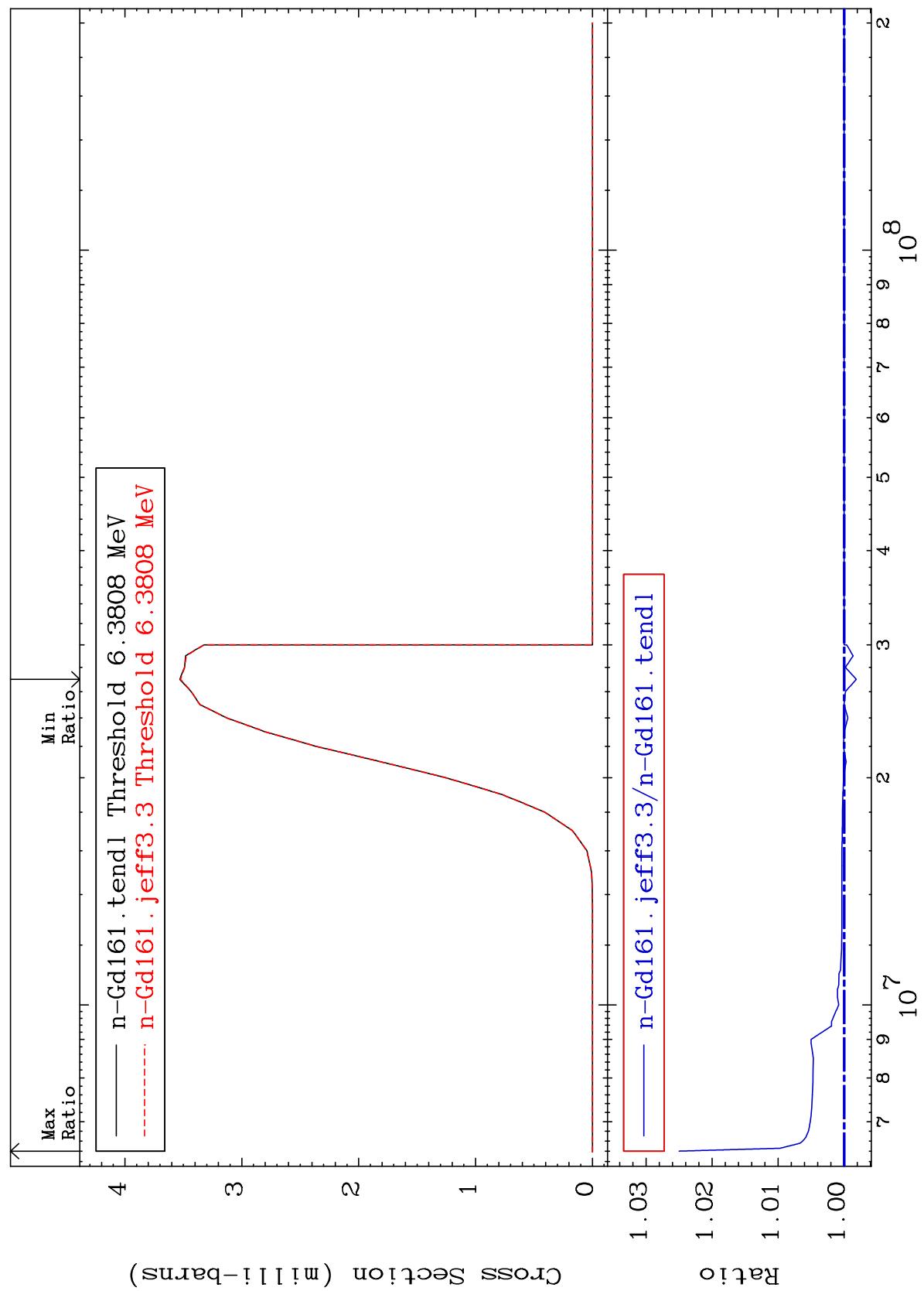
21

Incident Energy (eV)

$64\text{-Gd-161}$

MAT 6452

(n,t)  
Cross Section  
 $^{64}\text{-Gd-161}$   
 $-0.183 \text{ To } 2.500 \%$

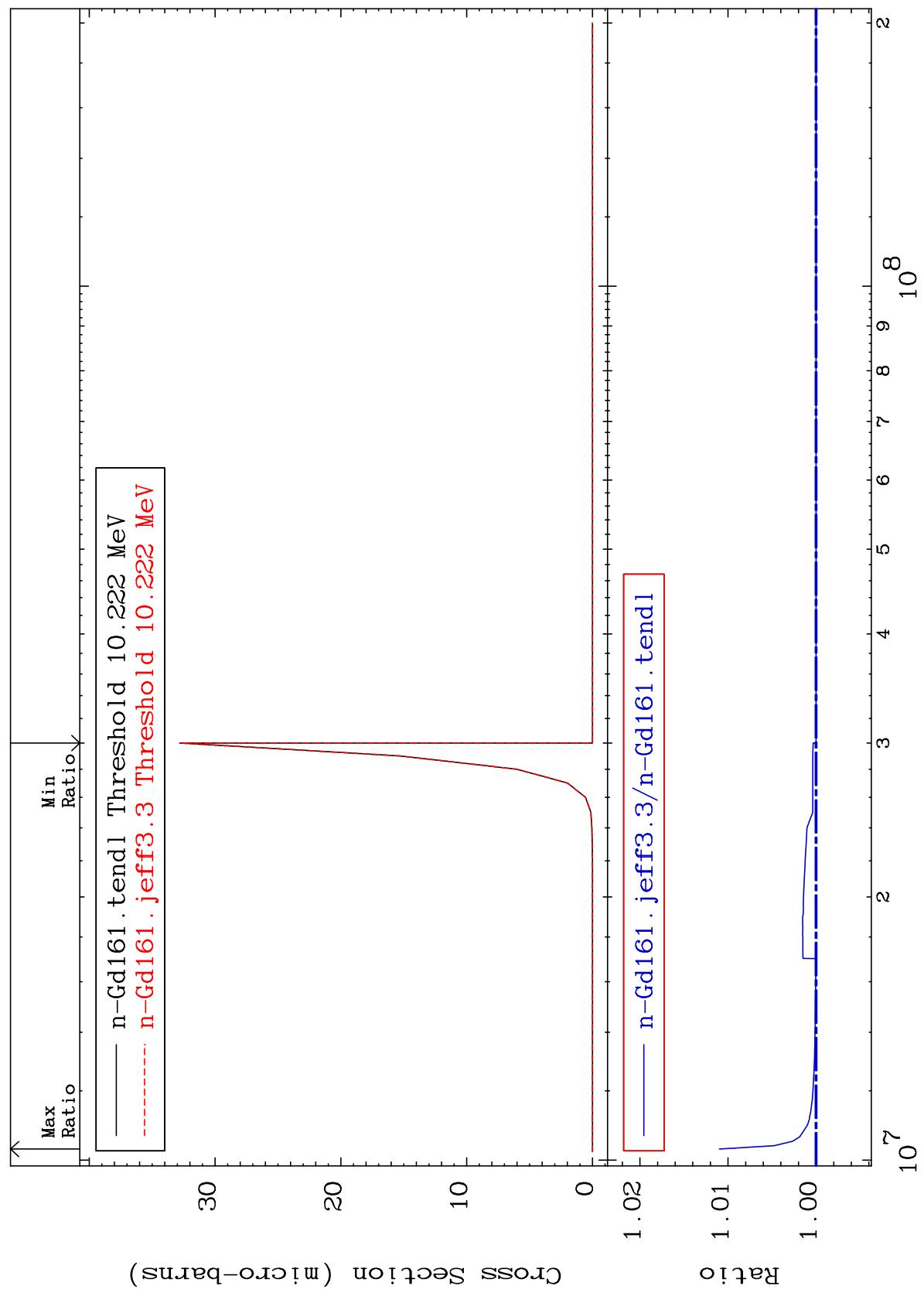


22

64-Gd-161

MAT 6452

(n,He-3) Cross Section 0.000 To 1.099 %



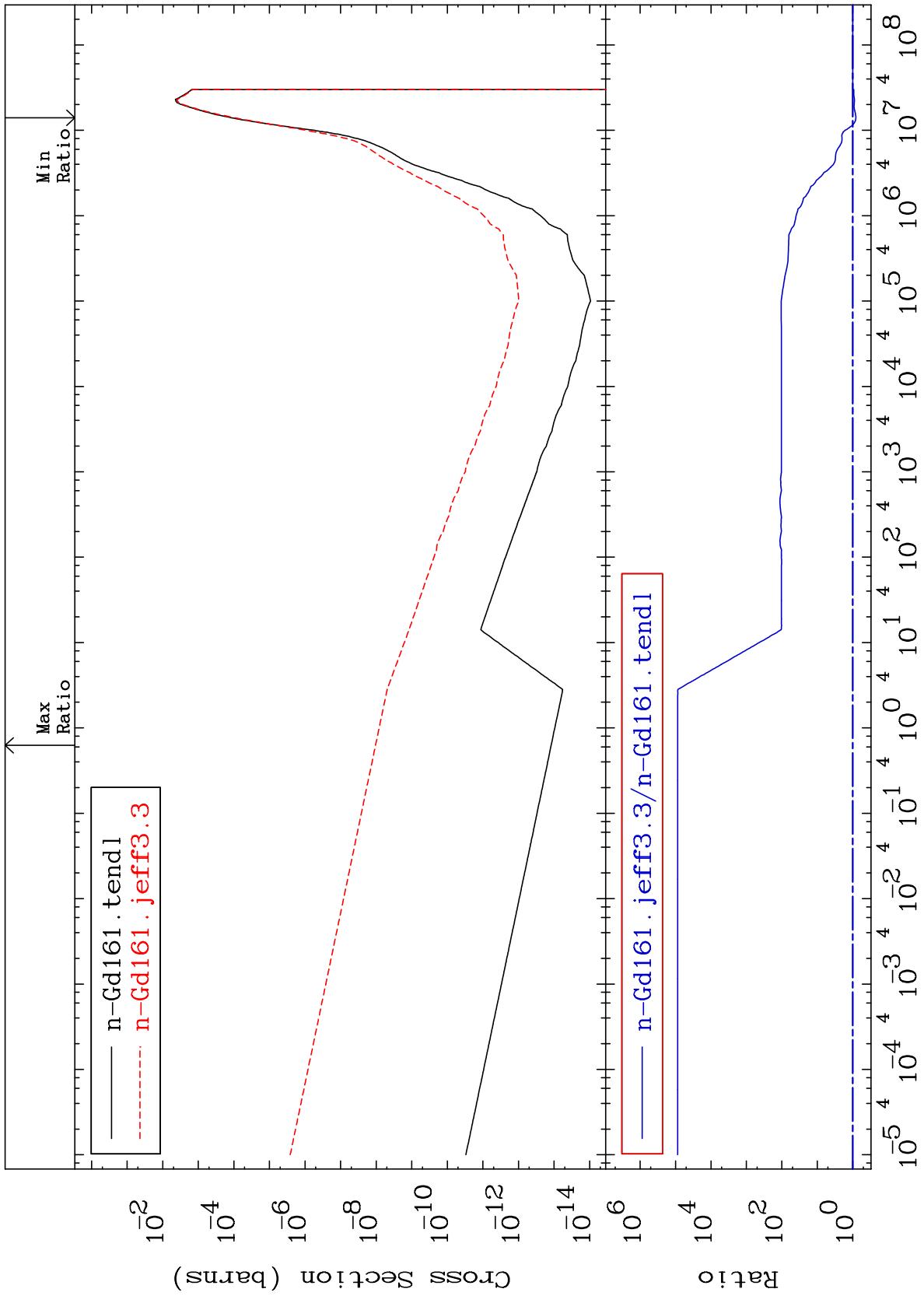
23

Incident Energy (eV)

64-Gd-161

MAT 6452

(n, $\alpha$ )  
Cross Section  
 $-18.48 \text{ To } 9999. \%$

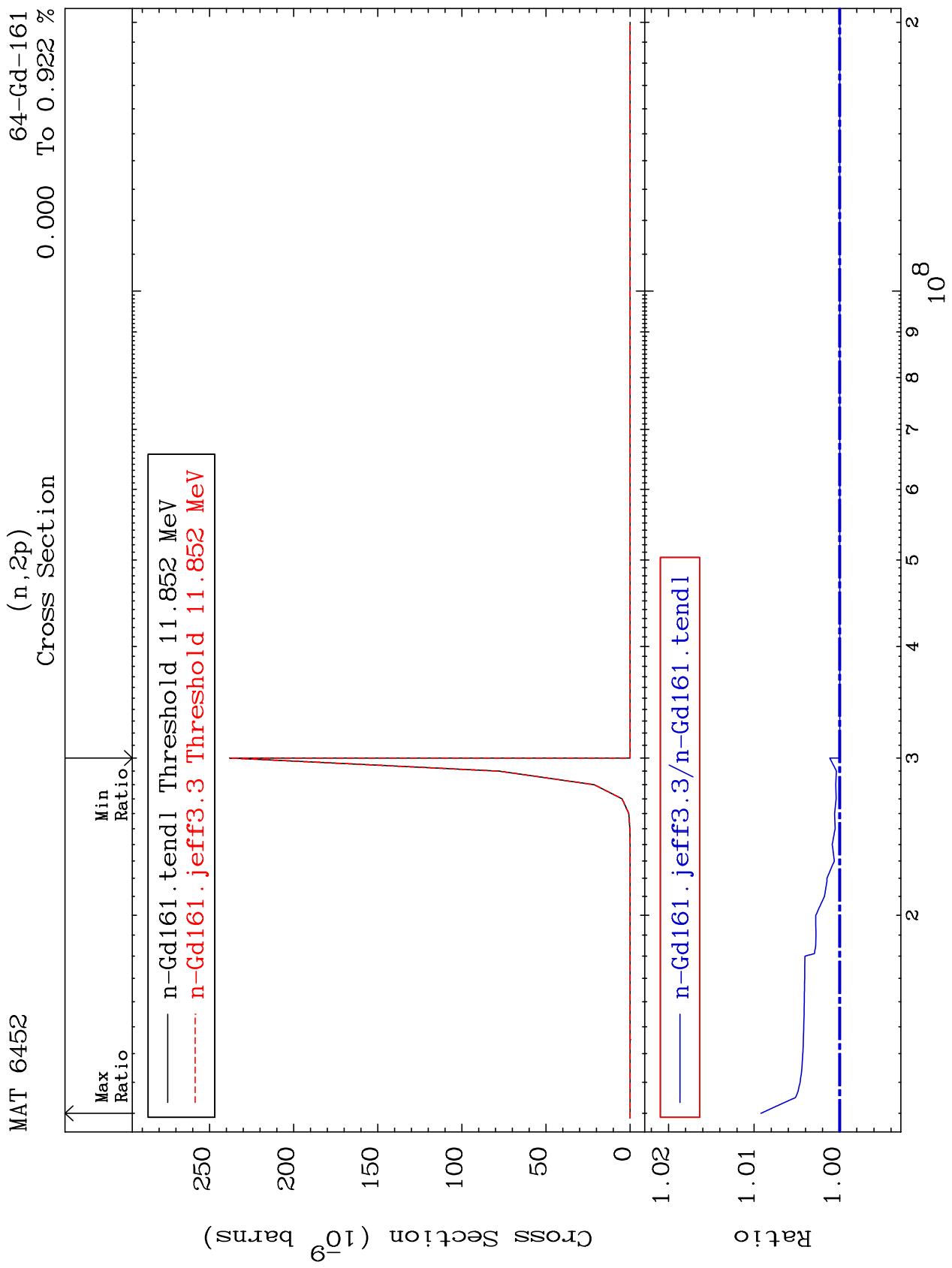


$64-Gd-161$

Incident Energy (eV)

24

MAT 6452



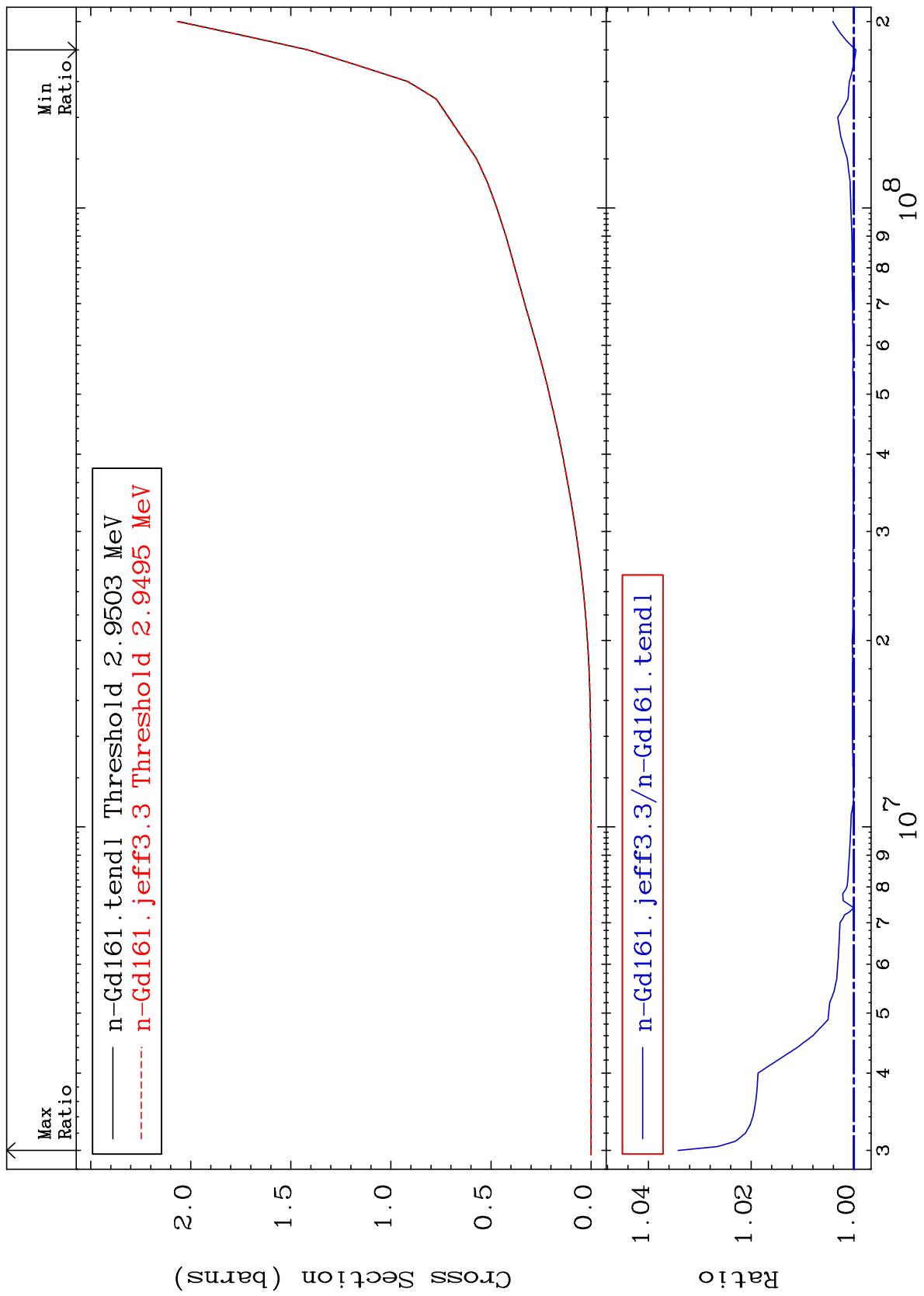
25

64-Gd-161

MAT 6452

Hydrogen Production  
Cross Section

$^{64}\text{-Gd-161}$   
 $\rightarrow 0.041 \text{ To } 3.423 \%$



26

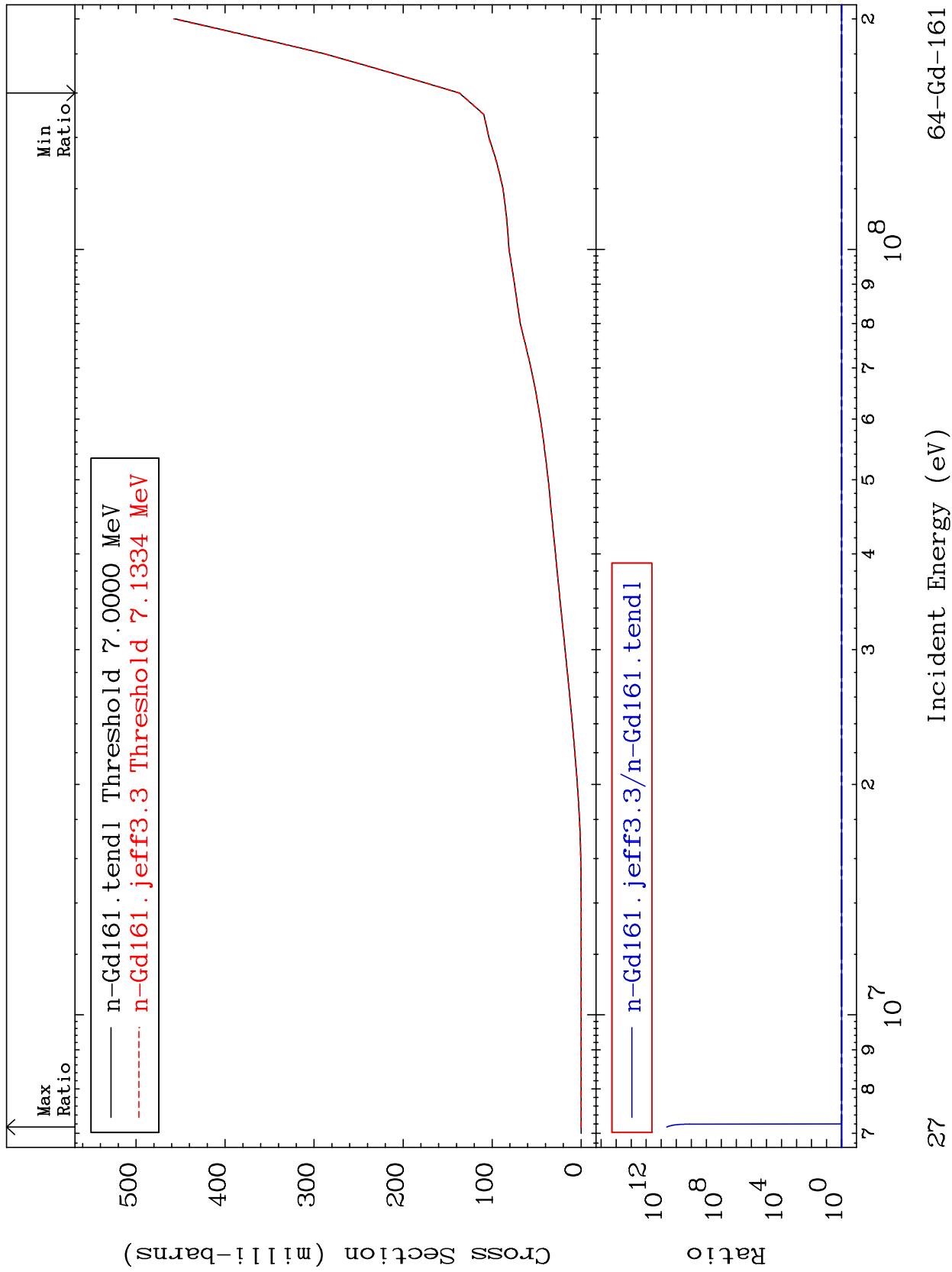
Incident Energy (eV)

$^{64}\text{-Gd-161}$

MAT 6452

Deuterium Production  
Cross Section

$^{64}\text{-Gd-161}$   
 $-0.115 \text{ To } 9999. \%$



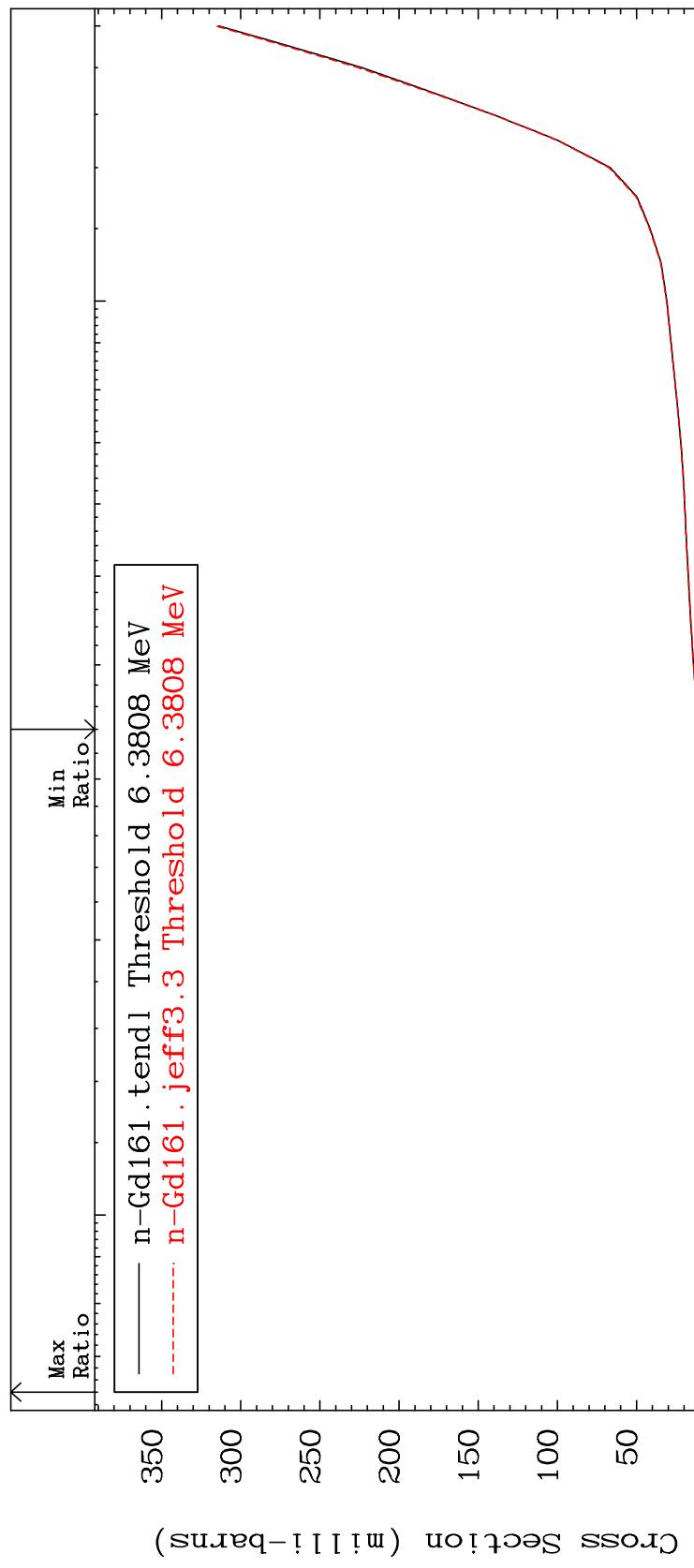
27

$^{64}\text{-Gd-161}$   
Incident Energy (eV)

MAT 6452

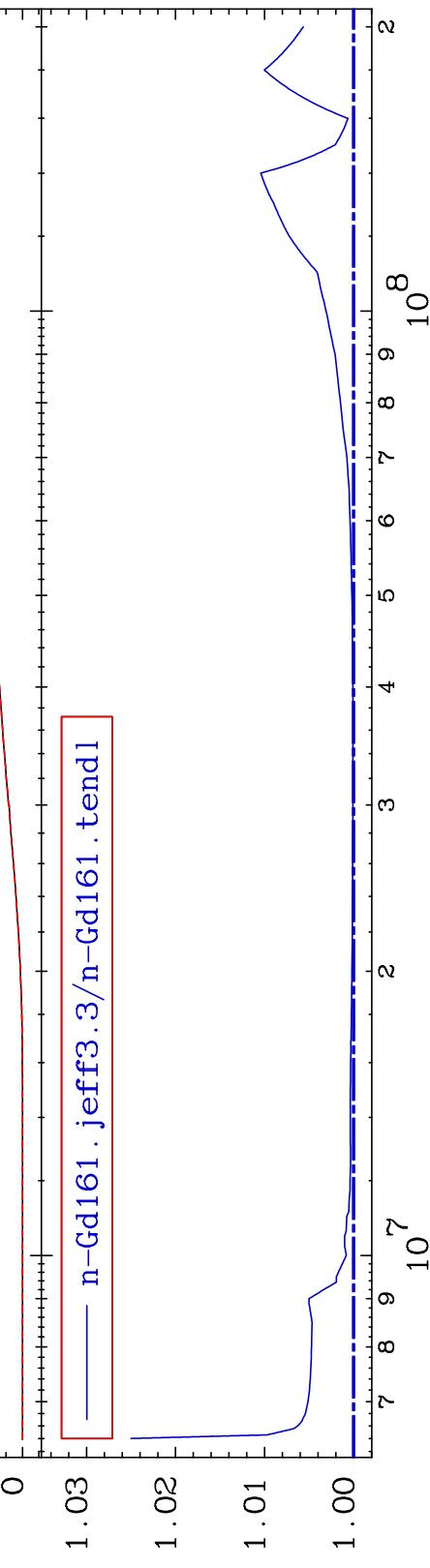
Tritium Production  
Cross Section

64-Gd-161  
To 2.500 %



Ratio  
1.03  
1.02  
1.01  
1.00

Cross Section (milli-bars)



28

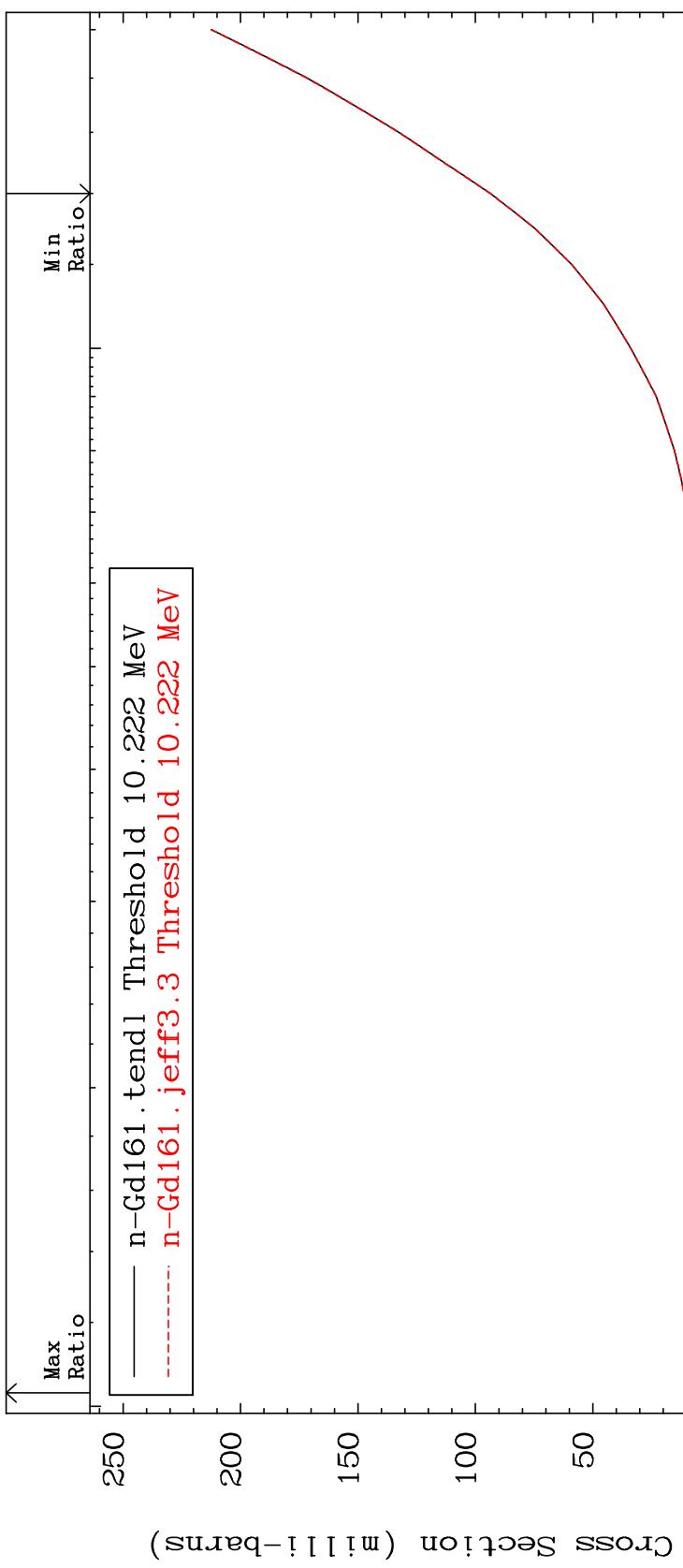
Incident Energy (eV)

64-Gd-161

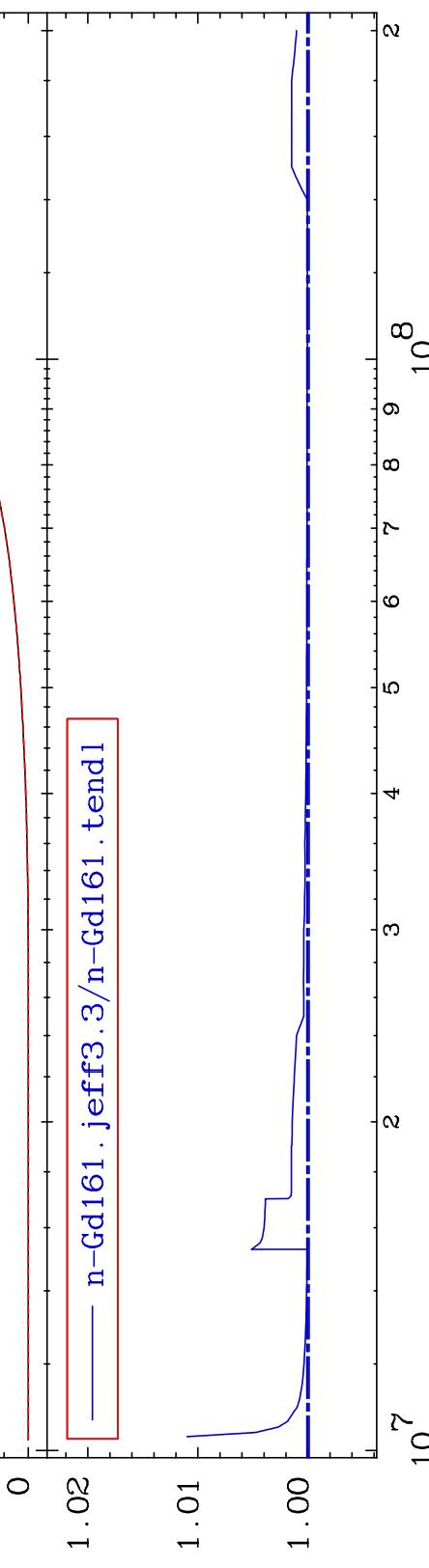
MAT 6452

He-3 Production  
Cross Section

64-Gd-161  
To 1.099 %



Ratio  
0  
1.01  
1.02

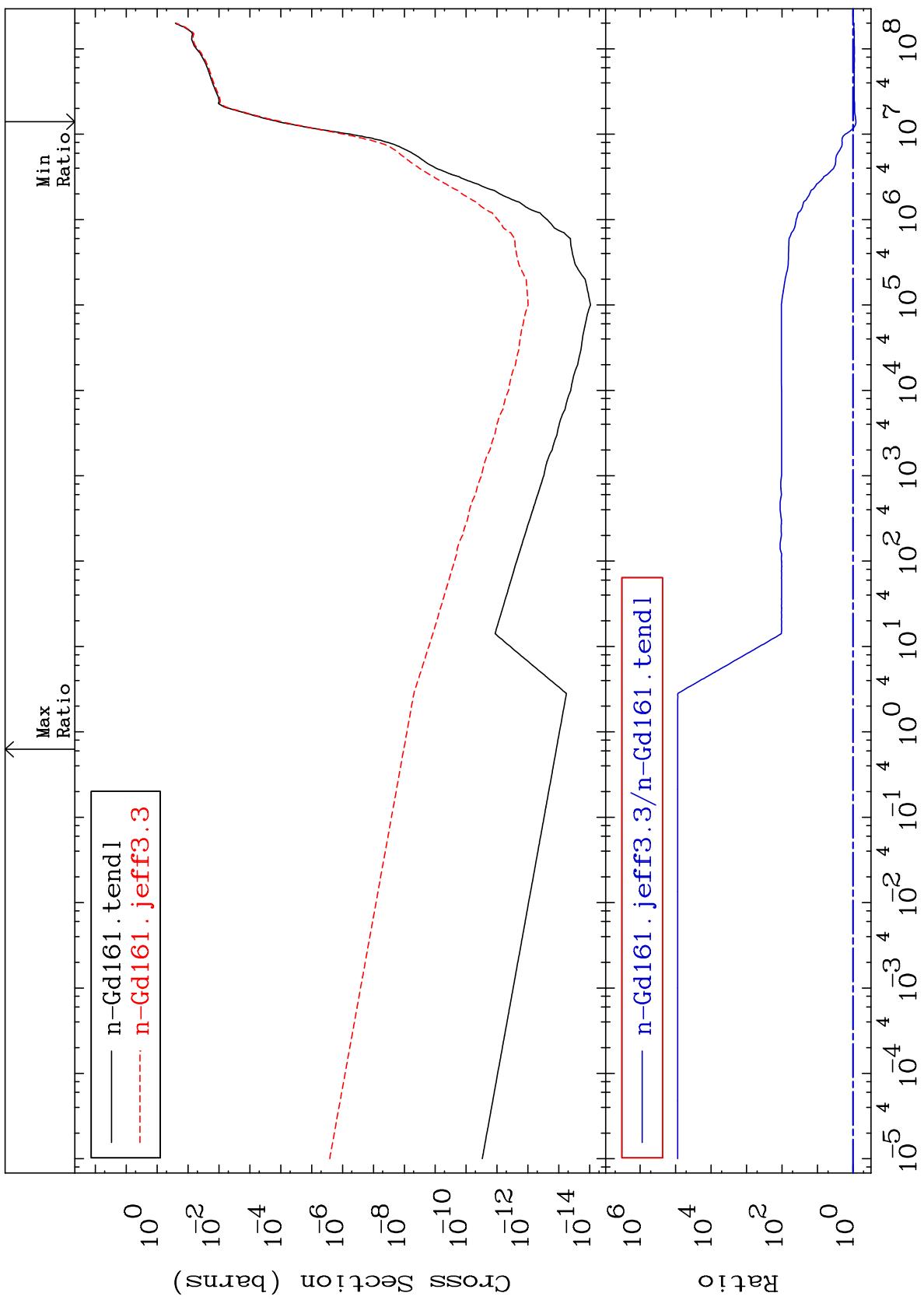


29

64-Gd-161  
Incident Energy (eV)

MAT 6452

He-4 Production  
Cross Section  
 $-17.54 \text{ To } 9999. \%$

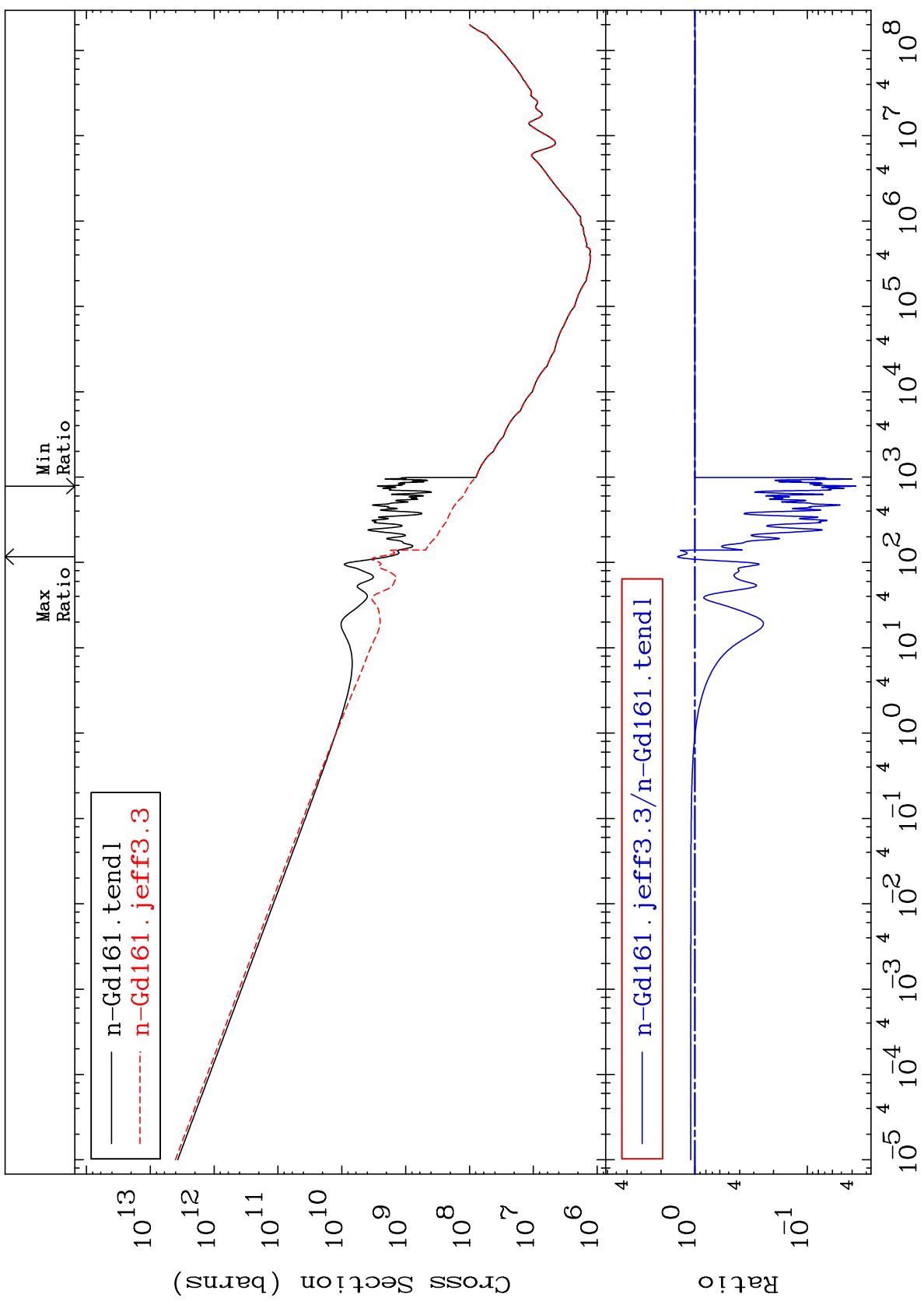


30

64-Gd-161  
Incident Energy (eV)

MAT 6452

Kerma total (eV-barns)  
Cross Section  
 $^{64}\text{-Gd-161}$  To 42.05 %

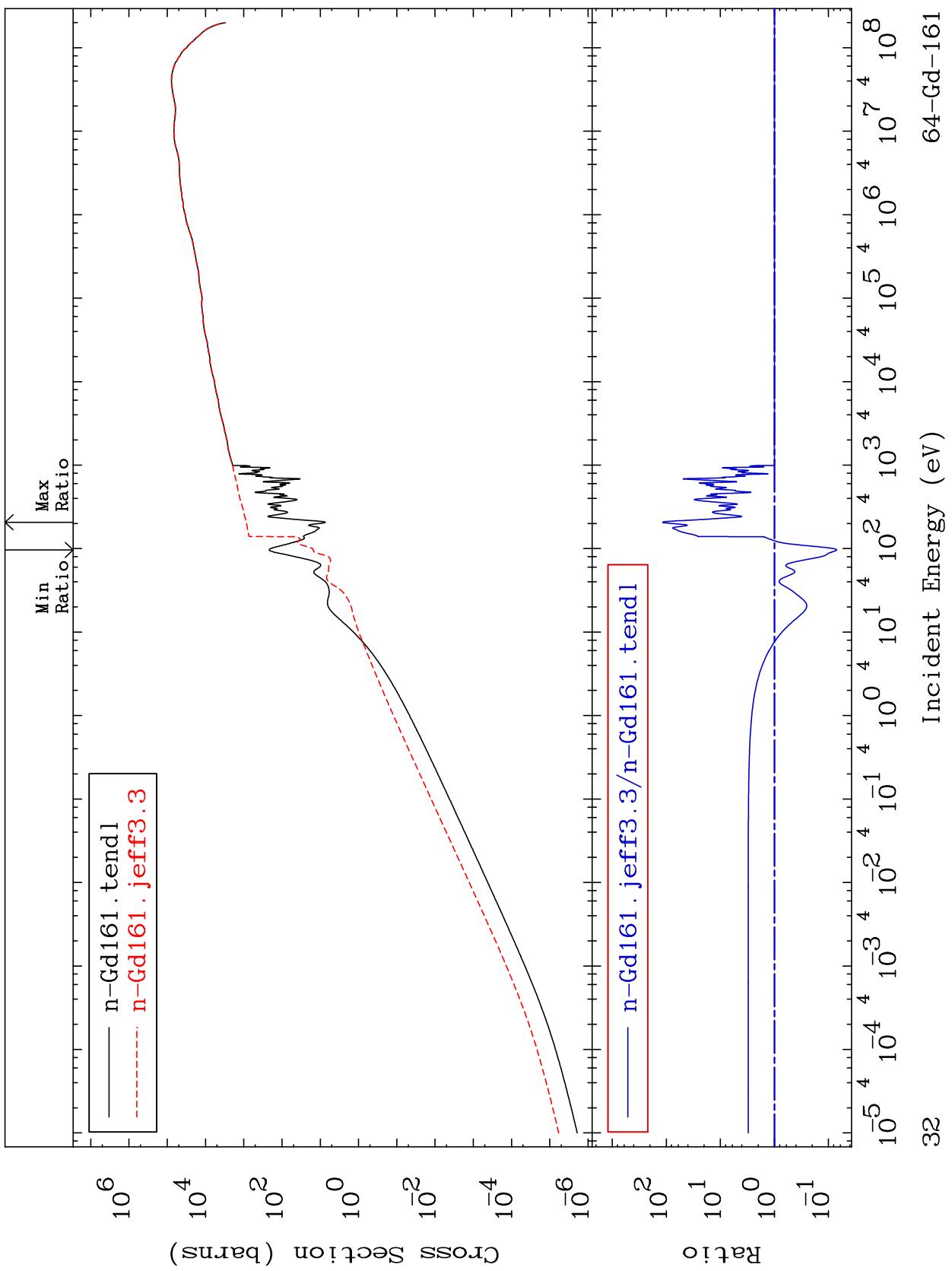


31

$^{64}\text{-Gd-161}$

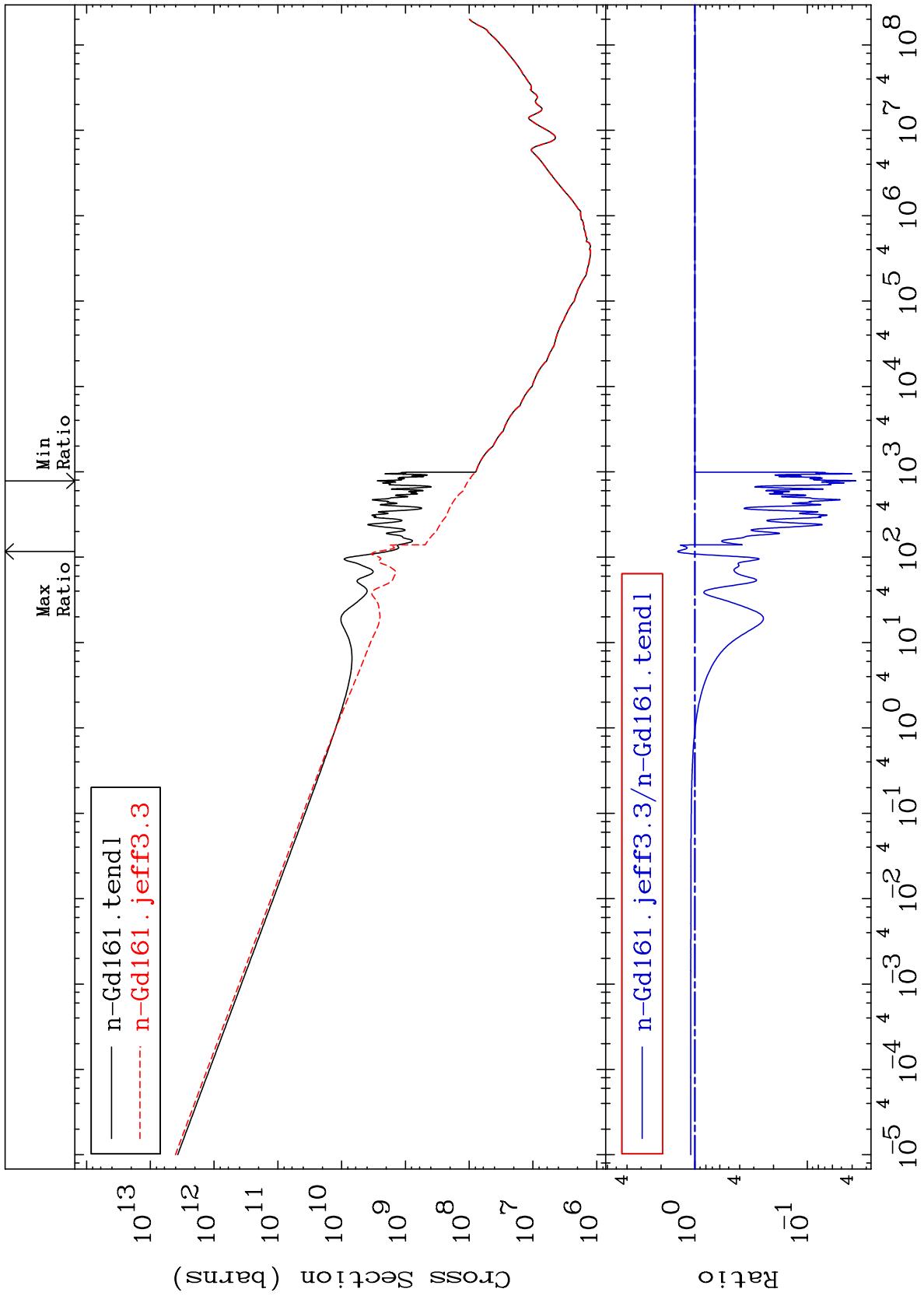
MAT 6452

Kerma elastic  
Cross Section  
 $\frac{-92.96 \text{ To } 9999}{64-\text{Gd}-161} \%$



MAT 6452

Kerma non-elastic (all but mt2)  
Cross Section  
 $^{64}\text{-Gd-161}$        $^{96.29}$  To  $42.05\%$

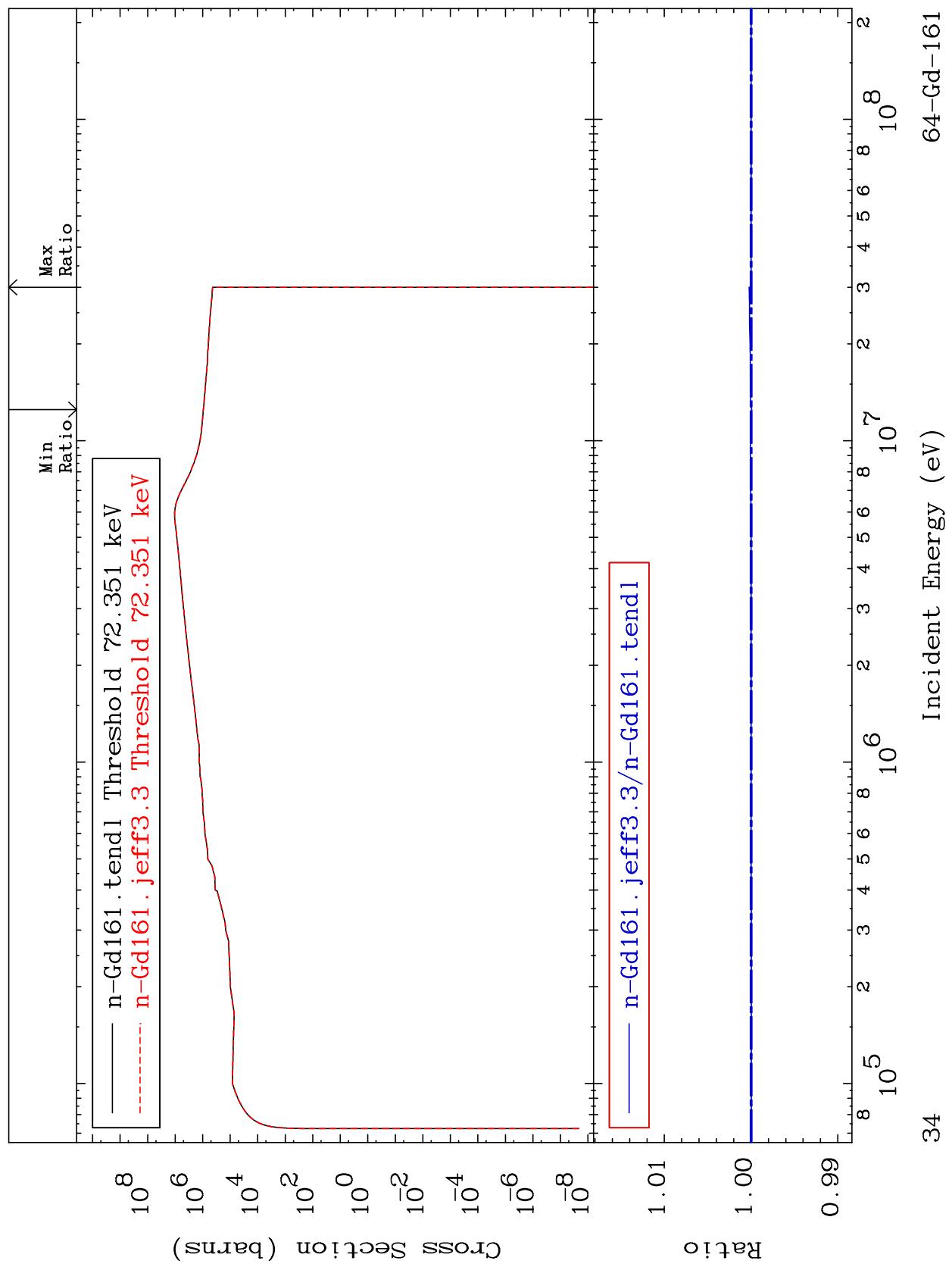


33

$^{64}\text{-Gd-161}$

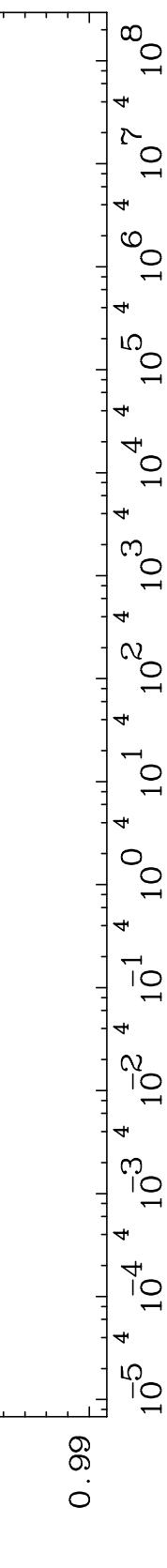
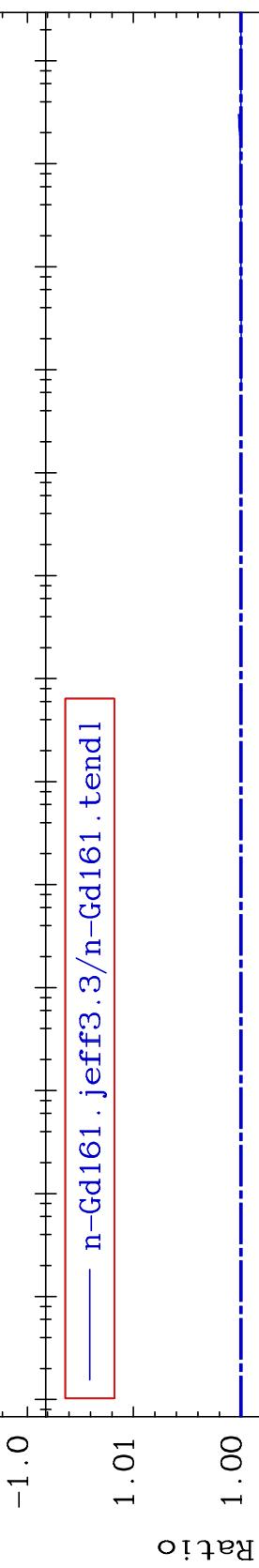
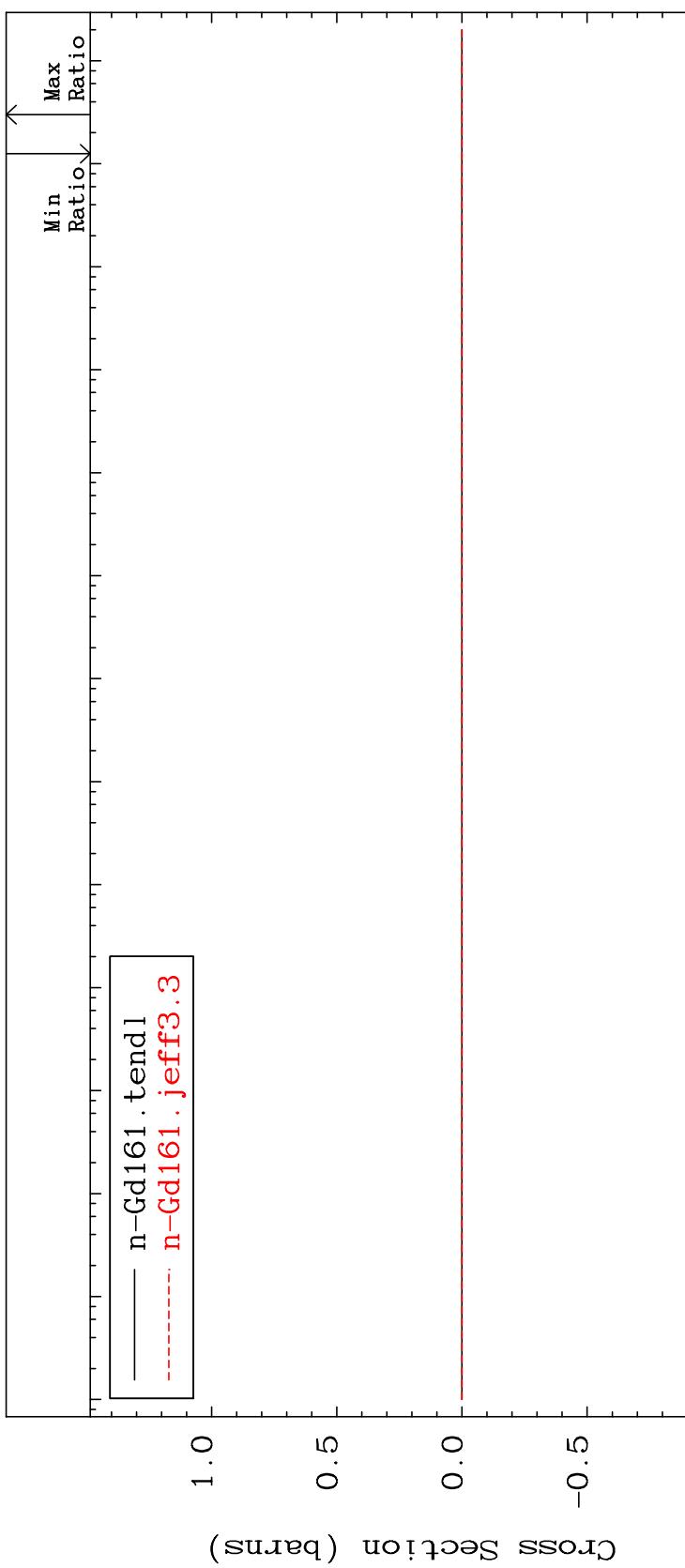
MAT 6452

Kerma inelastic (mt51-91)  
Cross Section



MAT 6452

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

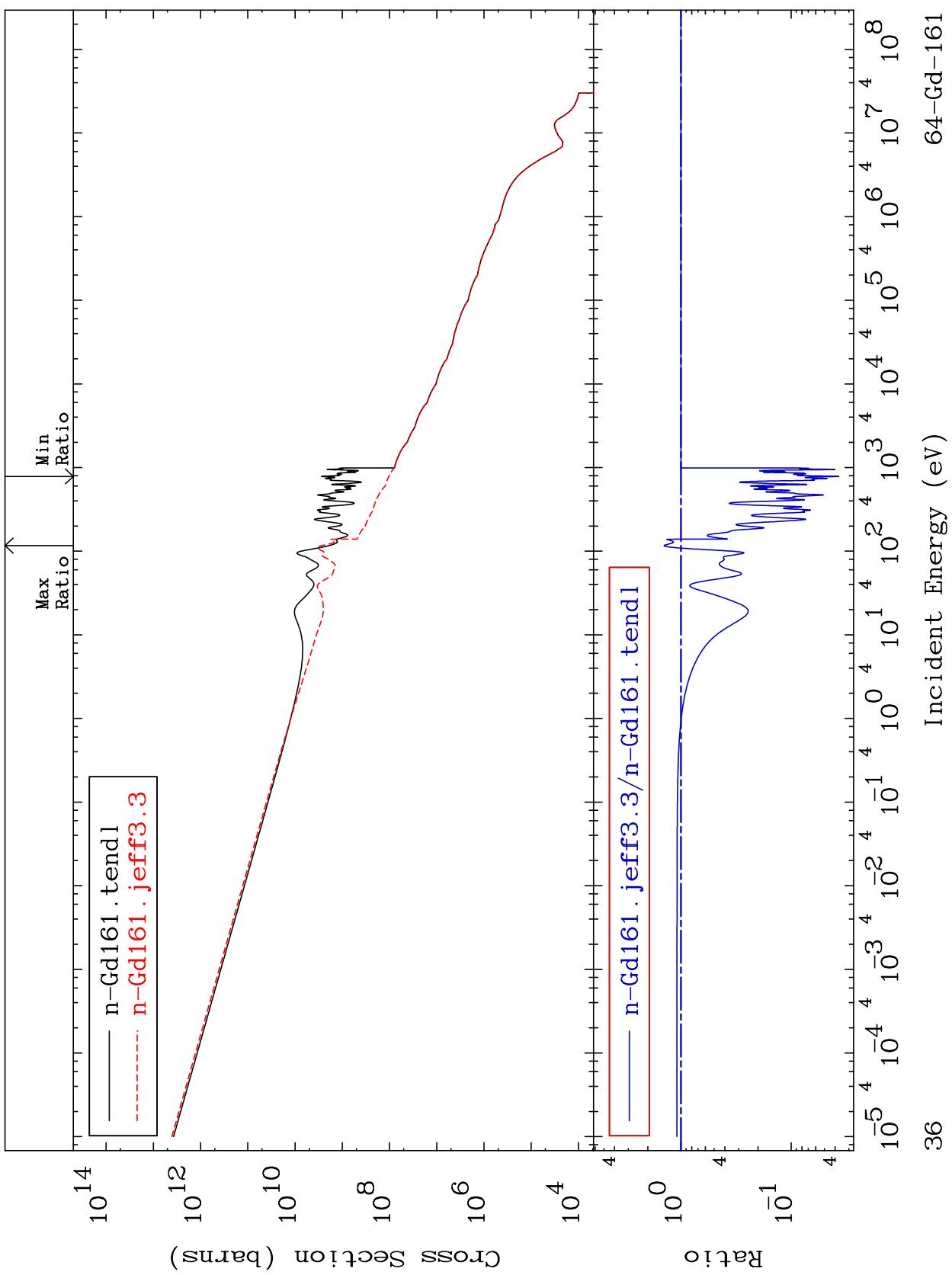


35

64-Gd-161  
Incident Energy (eV)

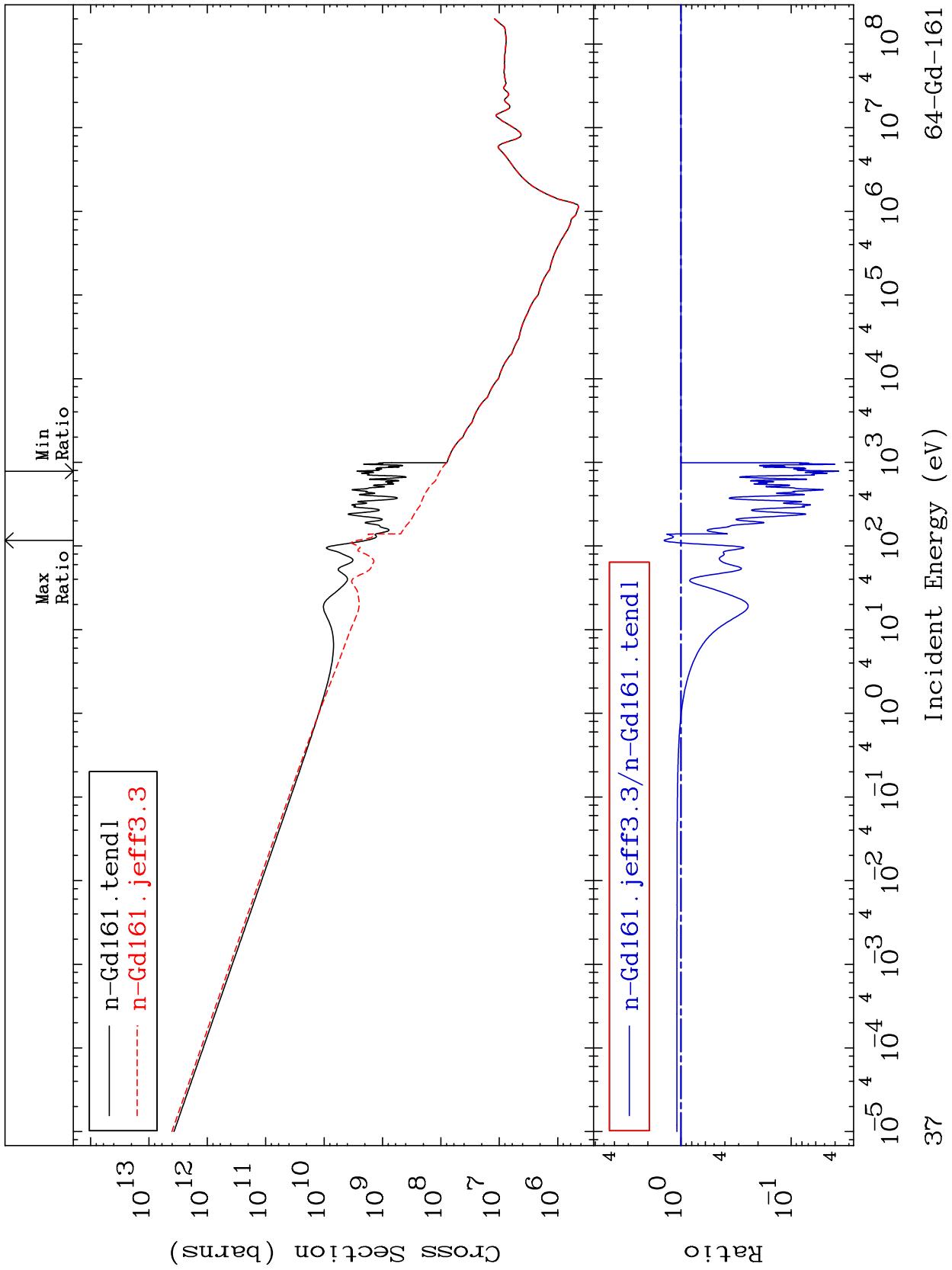
MAT 6452

Kerma capture (mt102)  
Cross Section  
-96.29 To 42.05 %



MAT 6452

Total photon (eV-barns)  
Cross Section  
 $^{64}\text{-Gd-161}$   
 $-96.29 \text{ To } 42.05 \%$

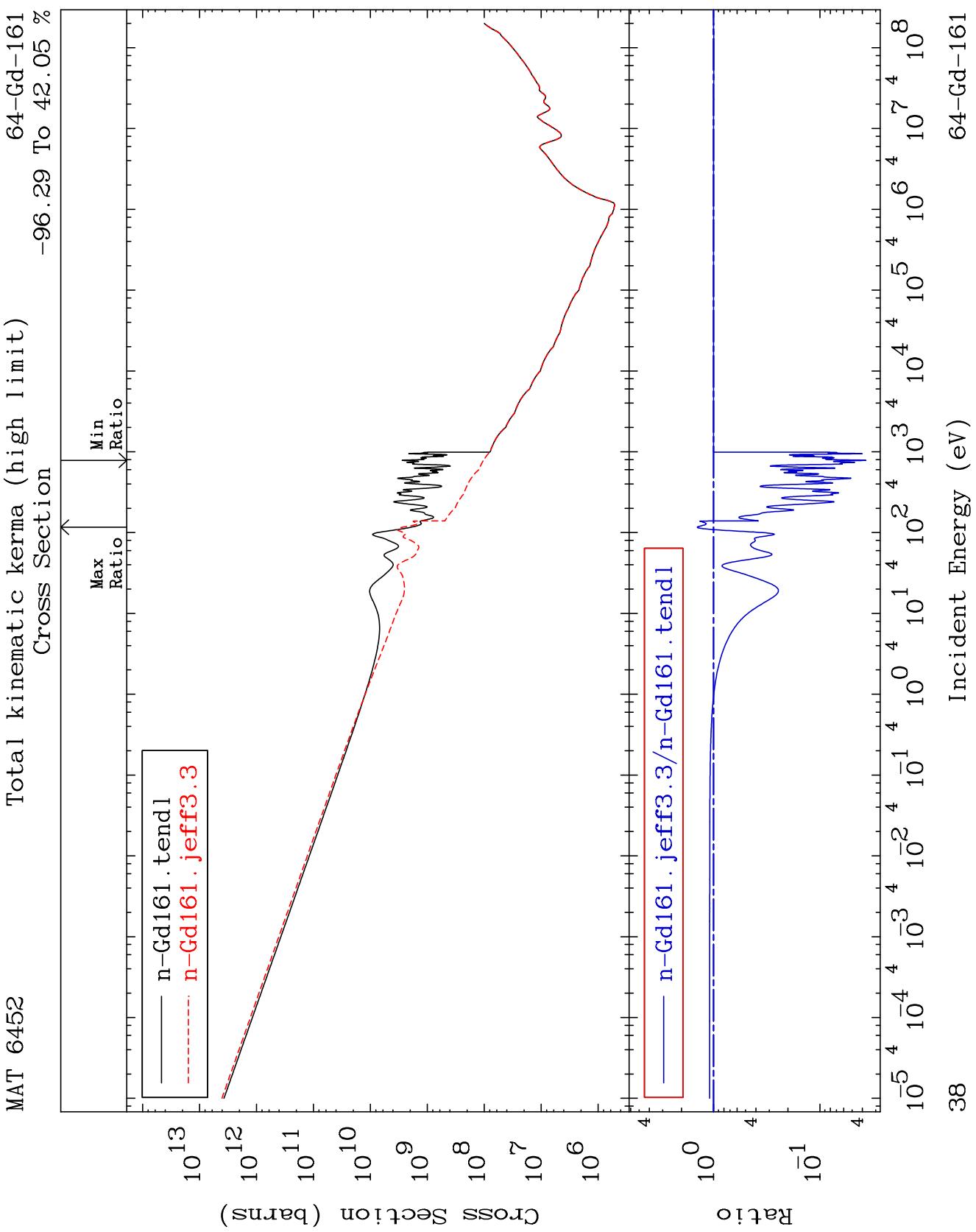
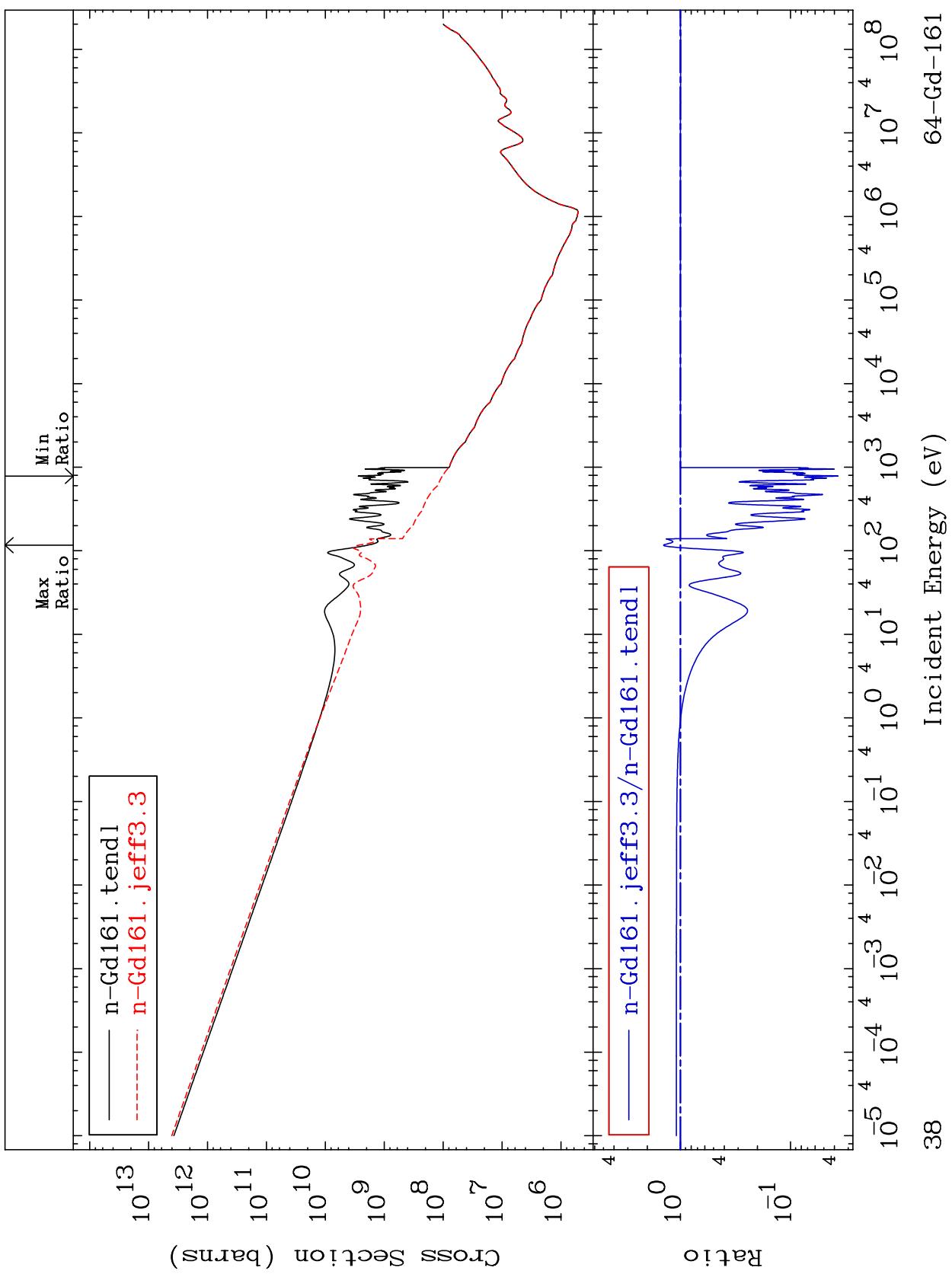


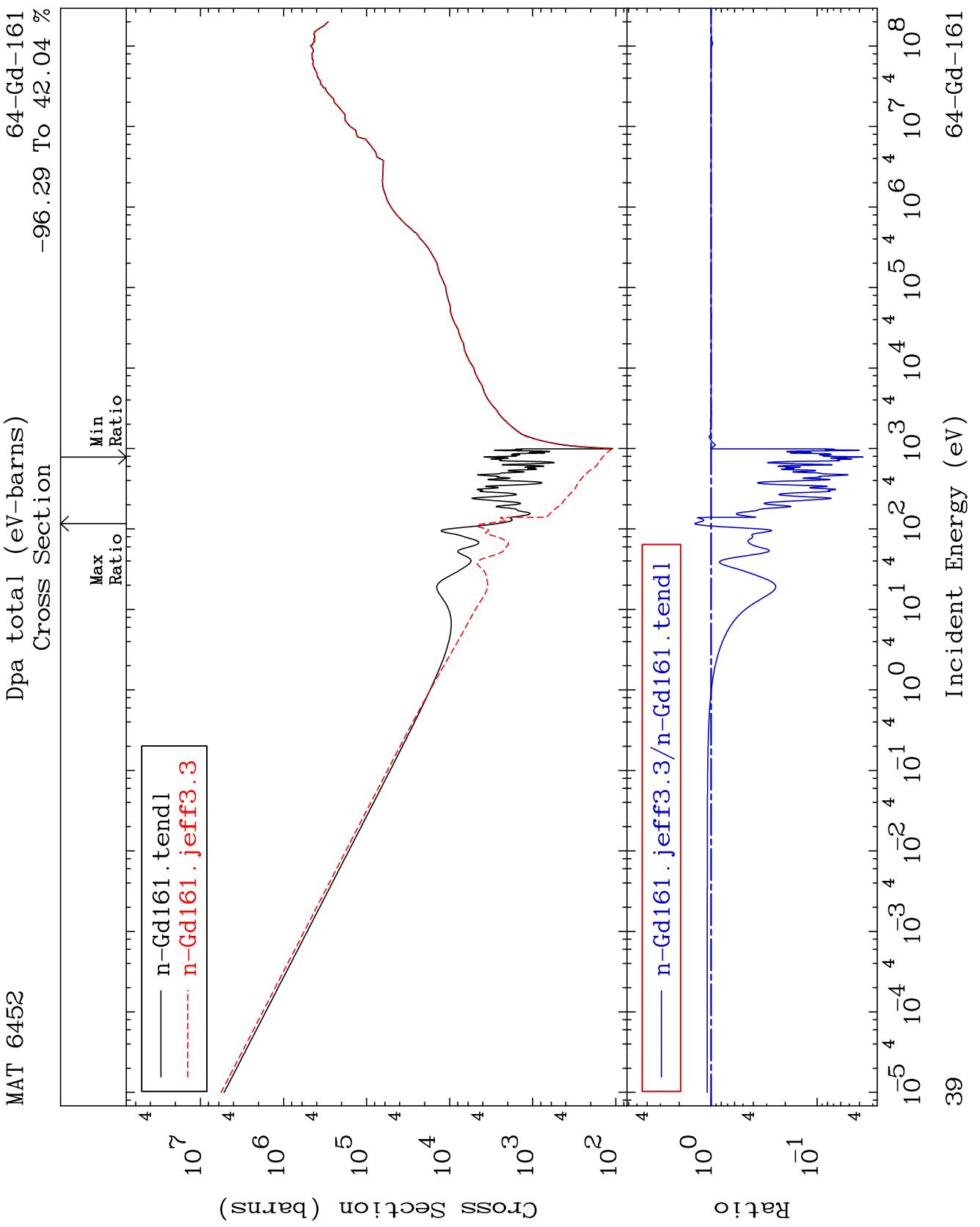
37

$^{64}\text{-Gd-161}$   
Incident Energy (eV)

MAT 6452

Total kinematic kerma (high limit)  
Cross Section -96.29 To 42.05 %

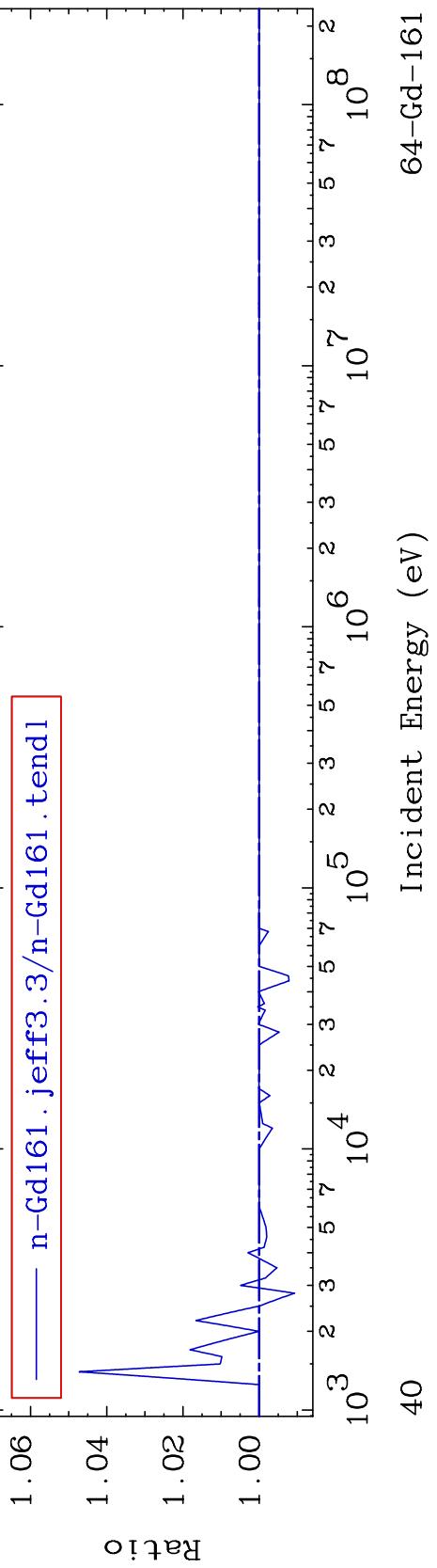
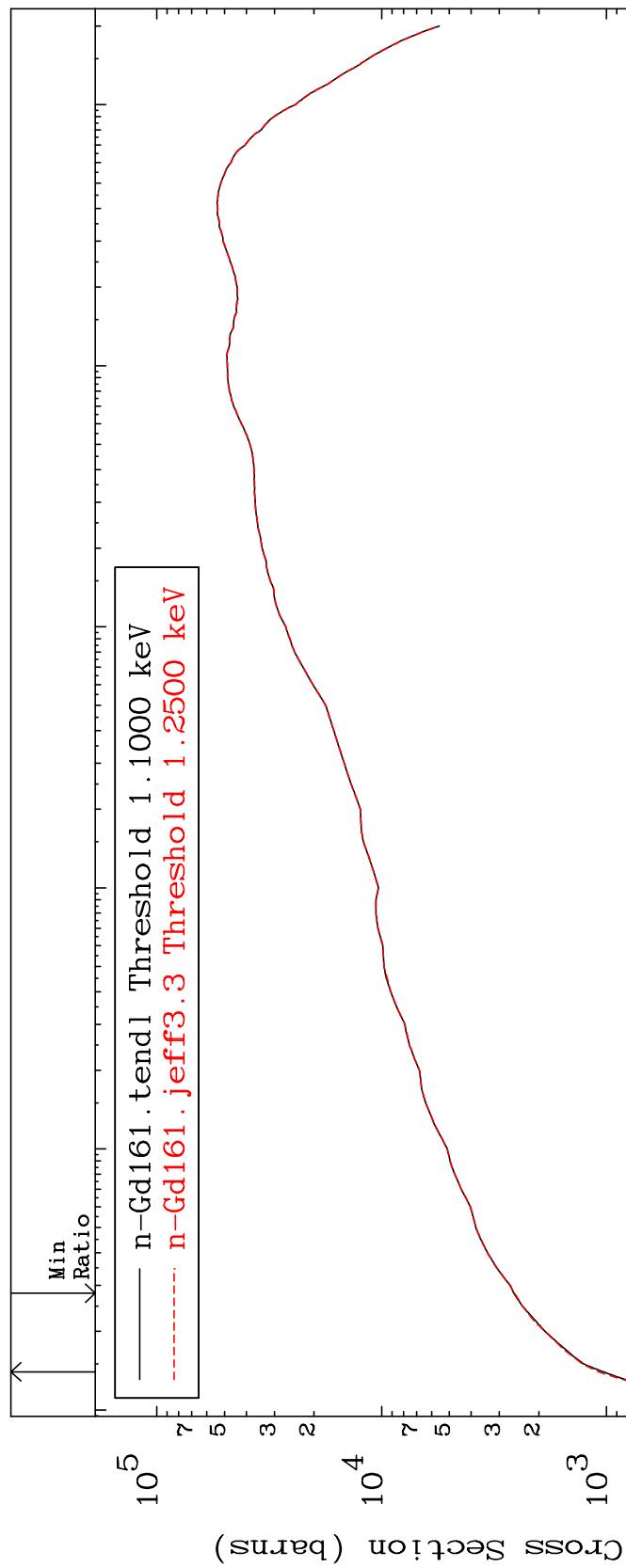




MAT 6452

Dpa elastic ( $\text{mt2}$ )  
Cross Section

$^{64}\text{-Gd-161}$   
 $-0.930 \text{ To } 4.721 \%$



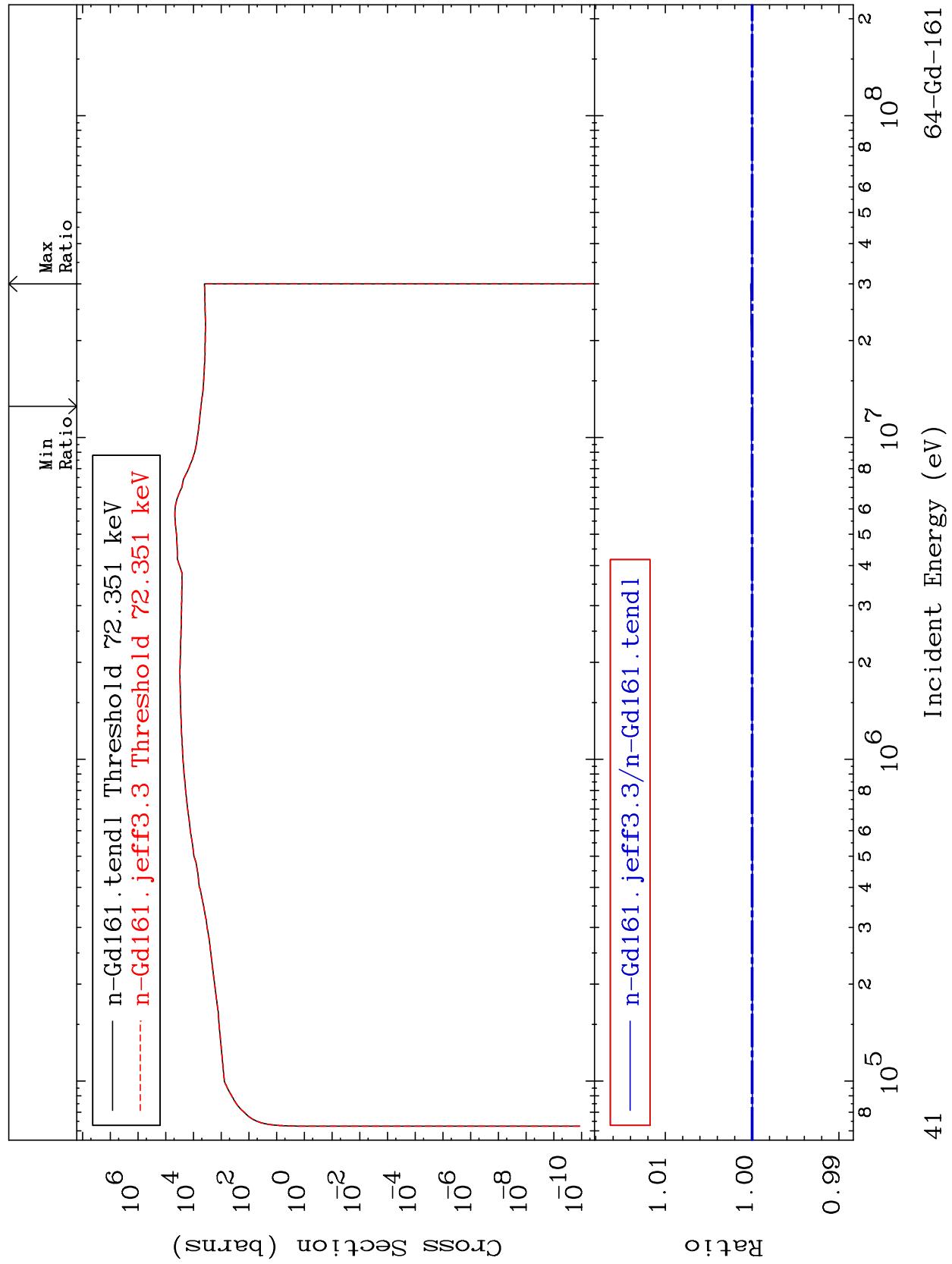
$^{64}\text{-Gd-161}$   
64-Gd-161

40

MAT 6452

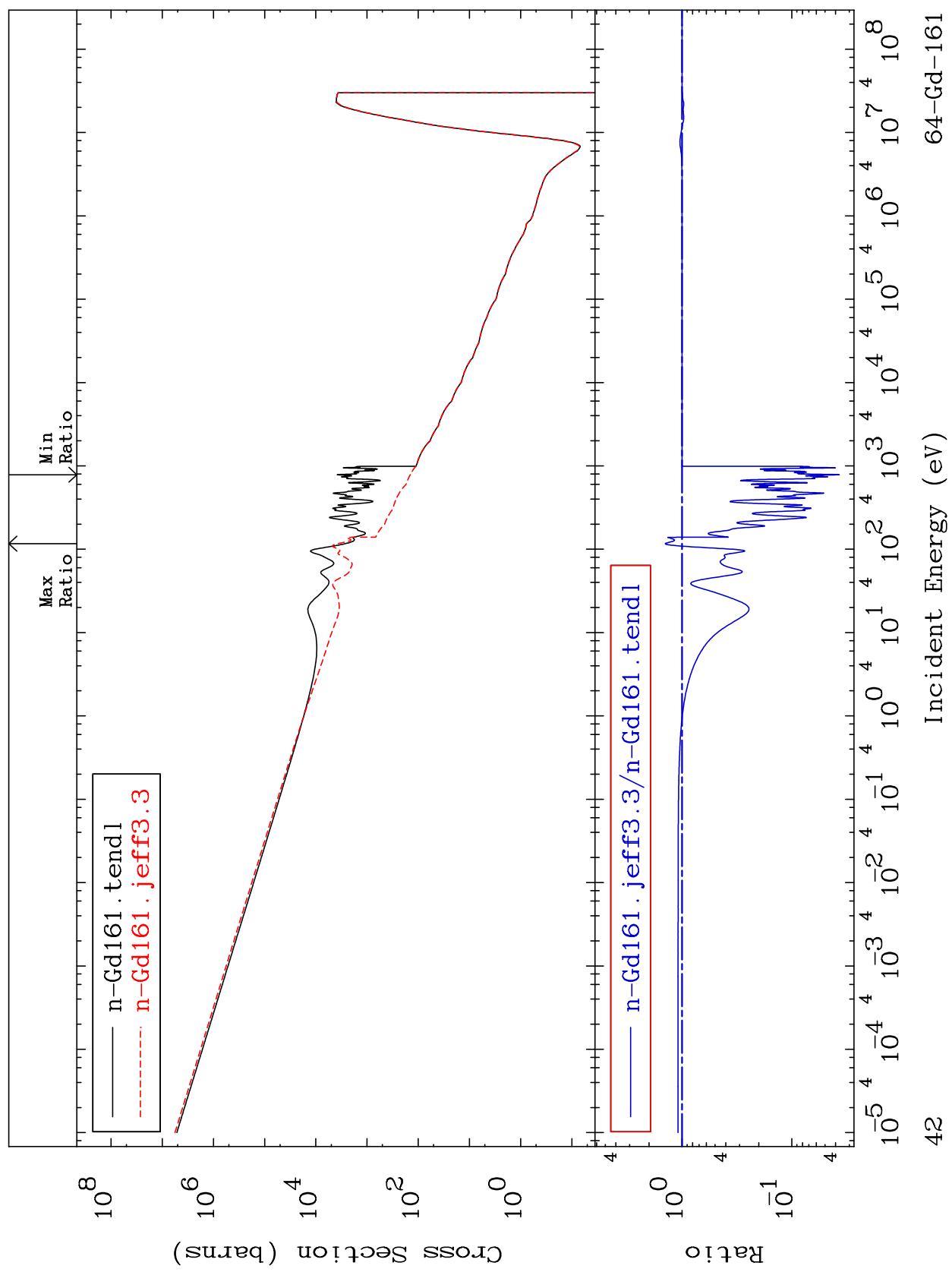
Dpa inelastic ( $\text{mt51-91}$ )  
Cross Section

$^{64}\text{-Gd-161}$   
 $-0.006 \text{ To } 0.01\gamma \%$



MAT 6452

Dpa disappearance (mt102 -120)  
Cross Section



42

64-Gd-161  
Incident Energy (eV)

64-Gd-161