

Program Complot  
(Version 2018-1)

by

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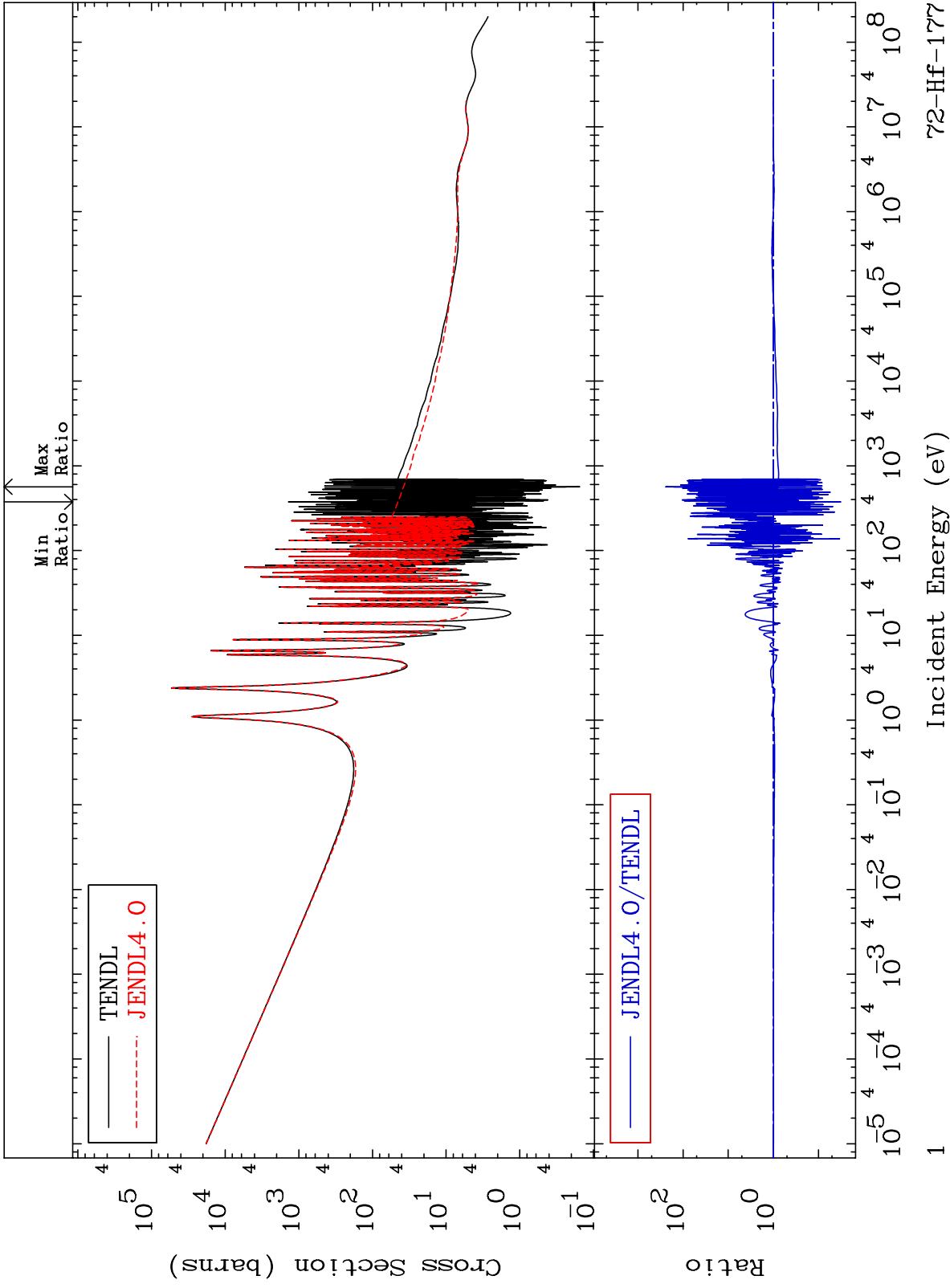
Press Mouse Button to Start

MAT 7234

Total  
Cross Section

72-Hf-177

-96.77 To 9999. %



72-Hf-177

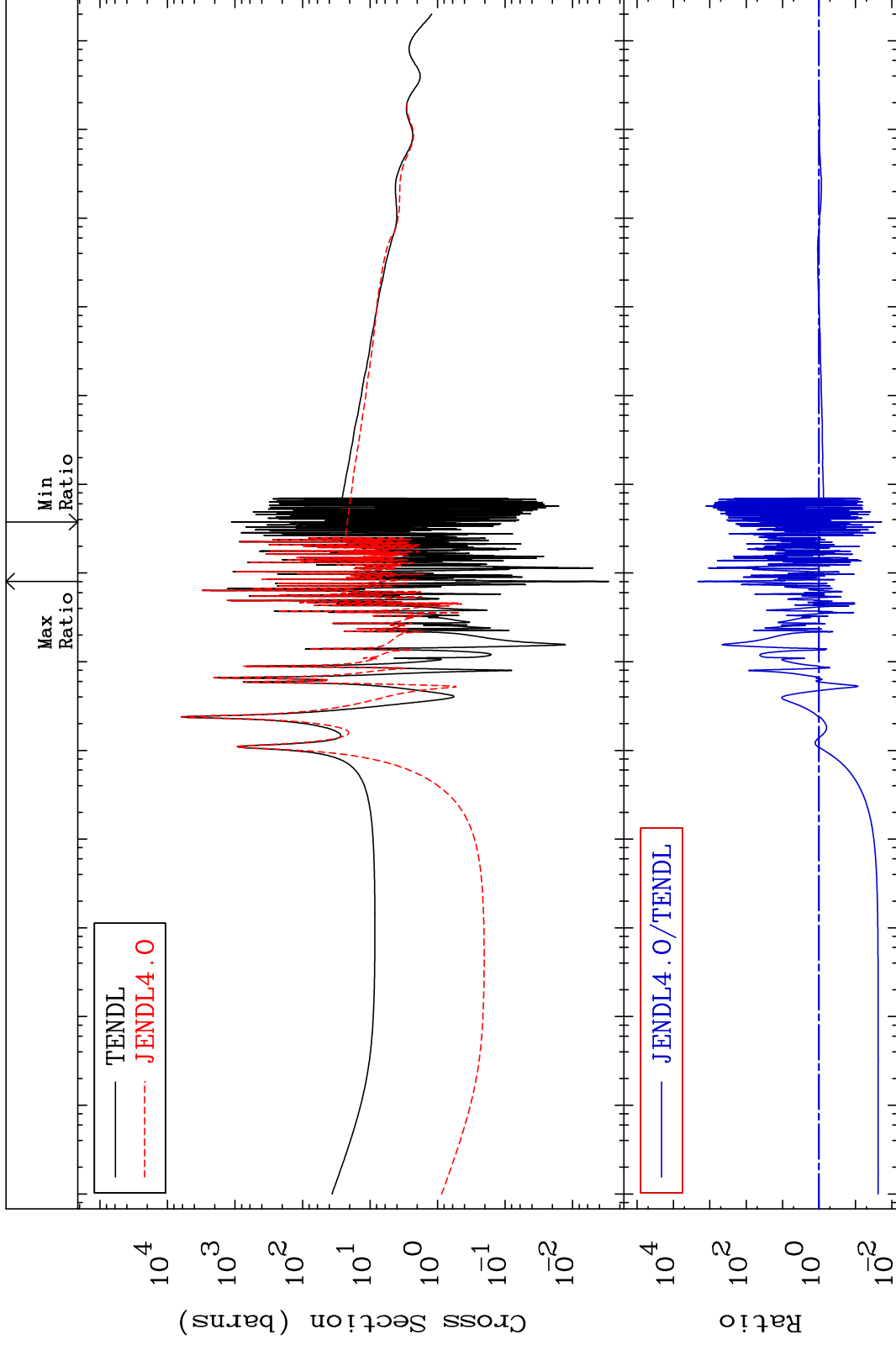
MAT 7234

Elastic

72-Hf-177

Cross Section

-98.08 To 9999. %



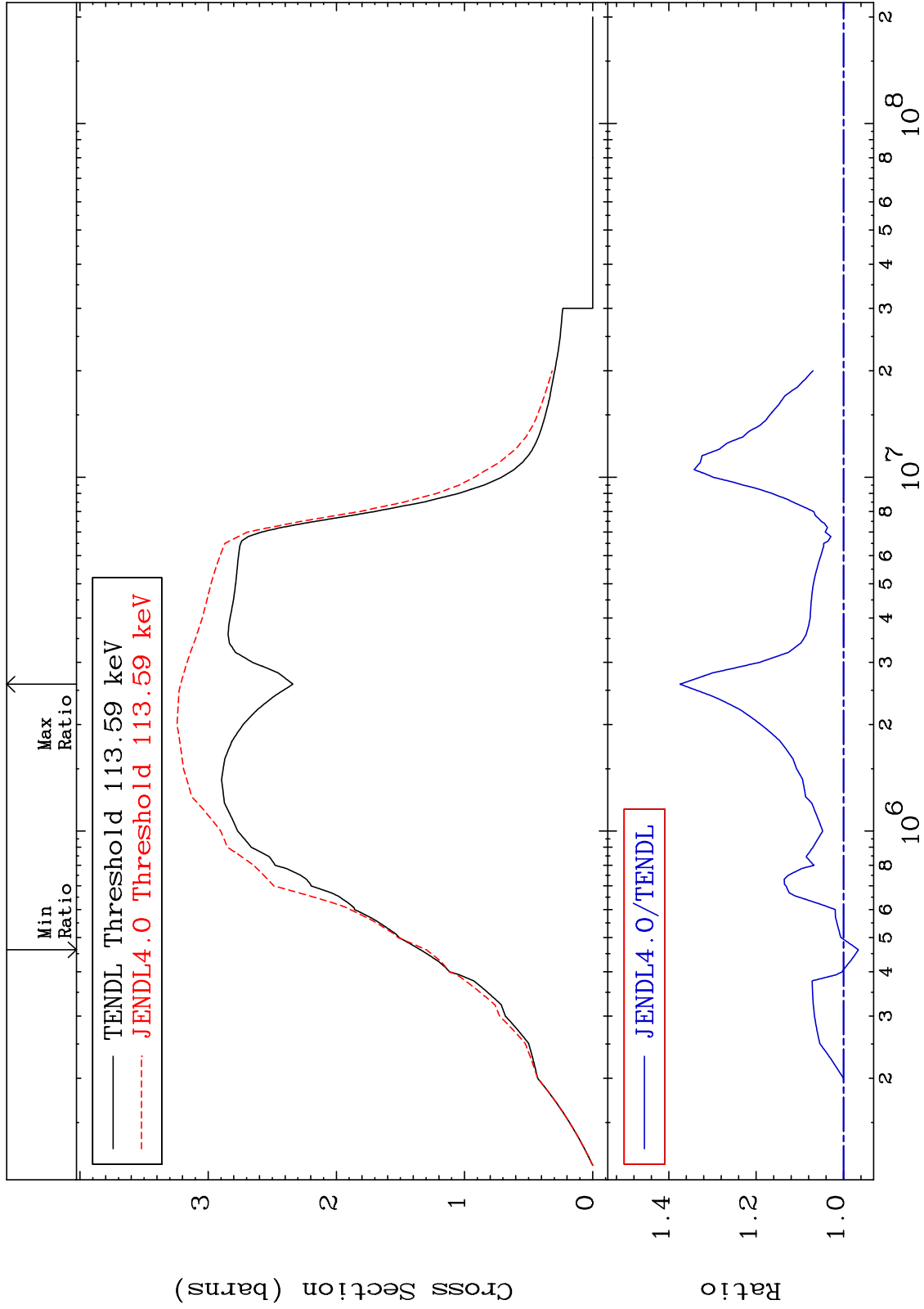
MAT 7234

Inelastic

<sup>72</sup>Hf-177

Cross Section

-3.415 To 37.44 %



3

Incident Energy (eV)

<sup>72</sup>Hf-177

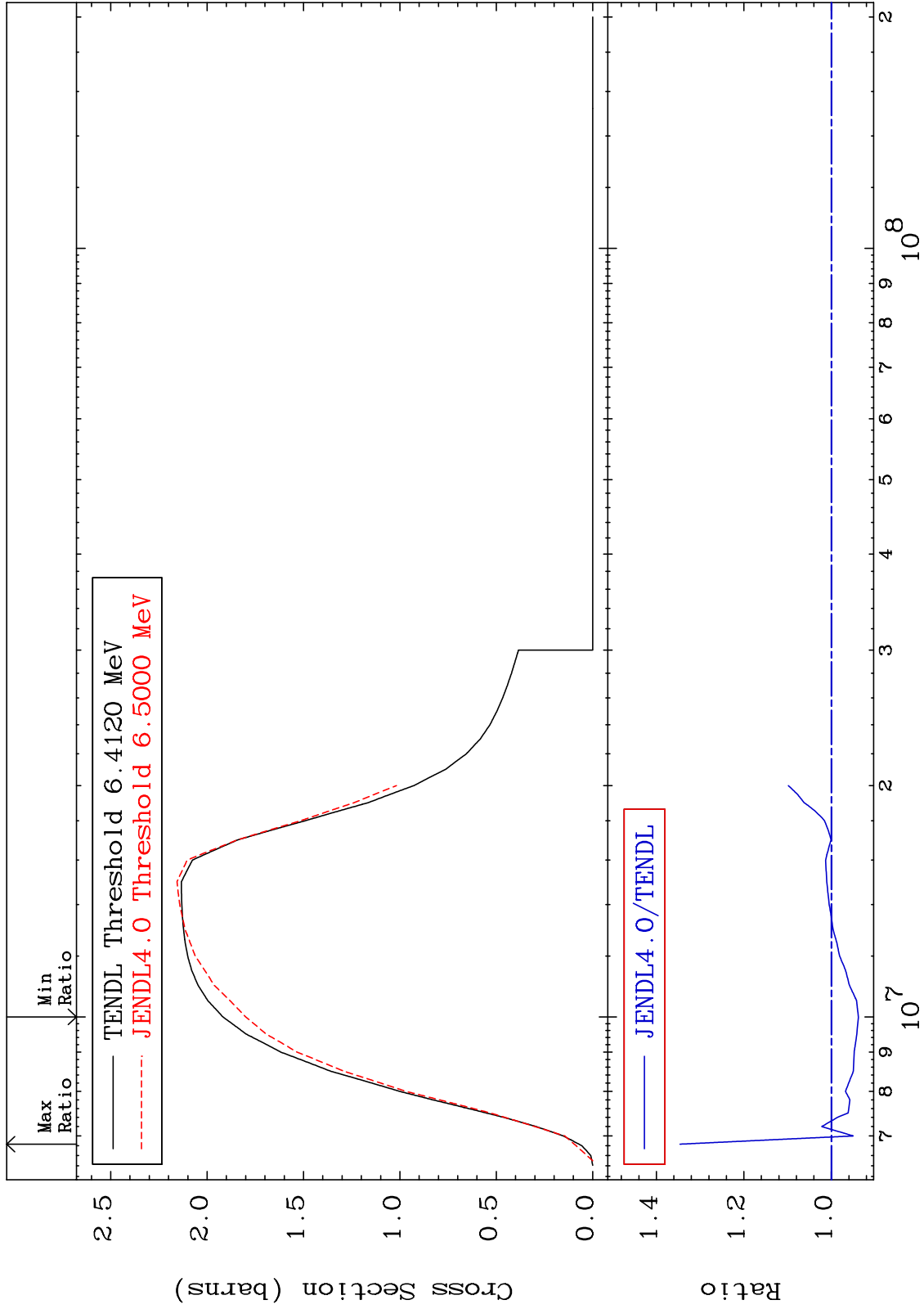
MAT 7234

(n,2n)

72-Hf-177

Cross Section

-6.176 To 34.60 %



MAT 7234

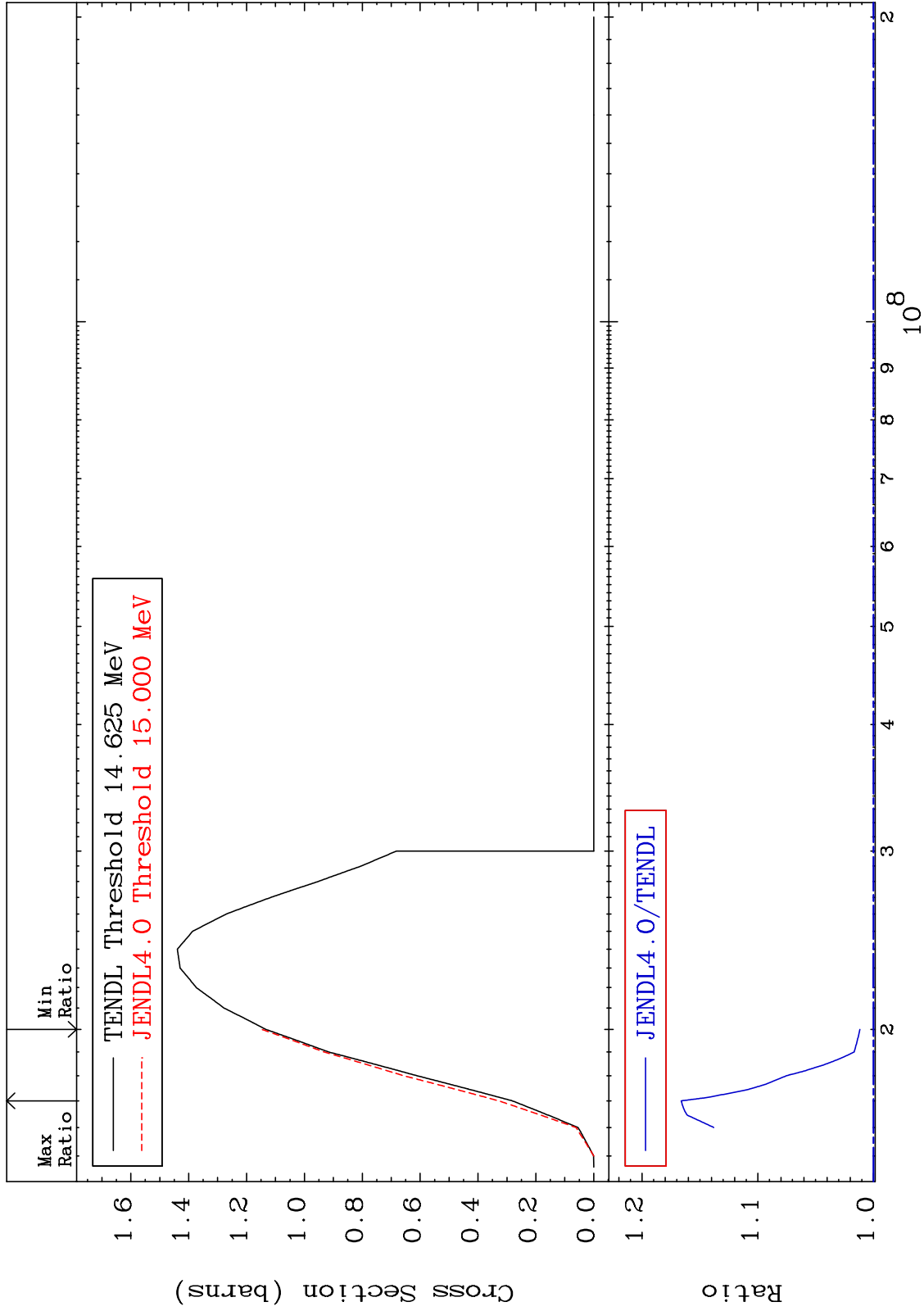
(n, 3n)

72-Hf-177

Cross Section

1.170

To 16.62 %



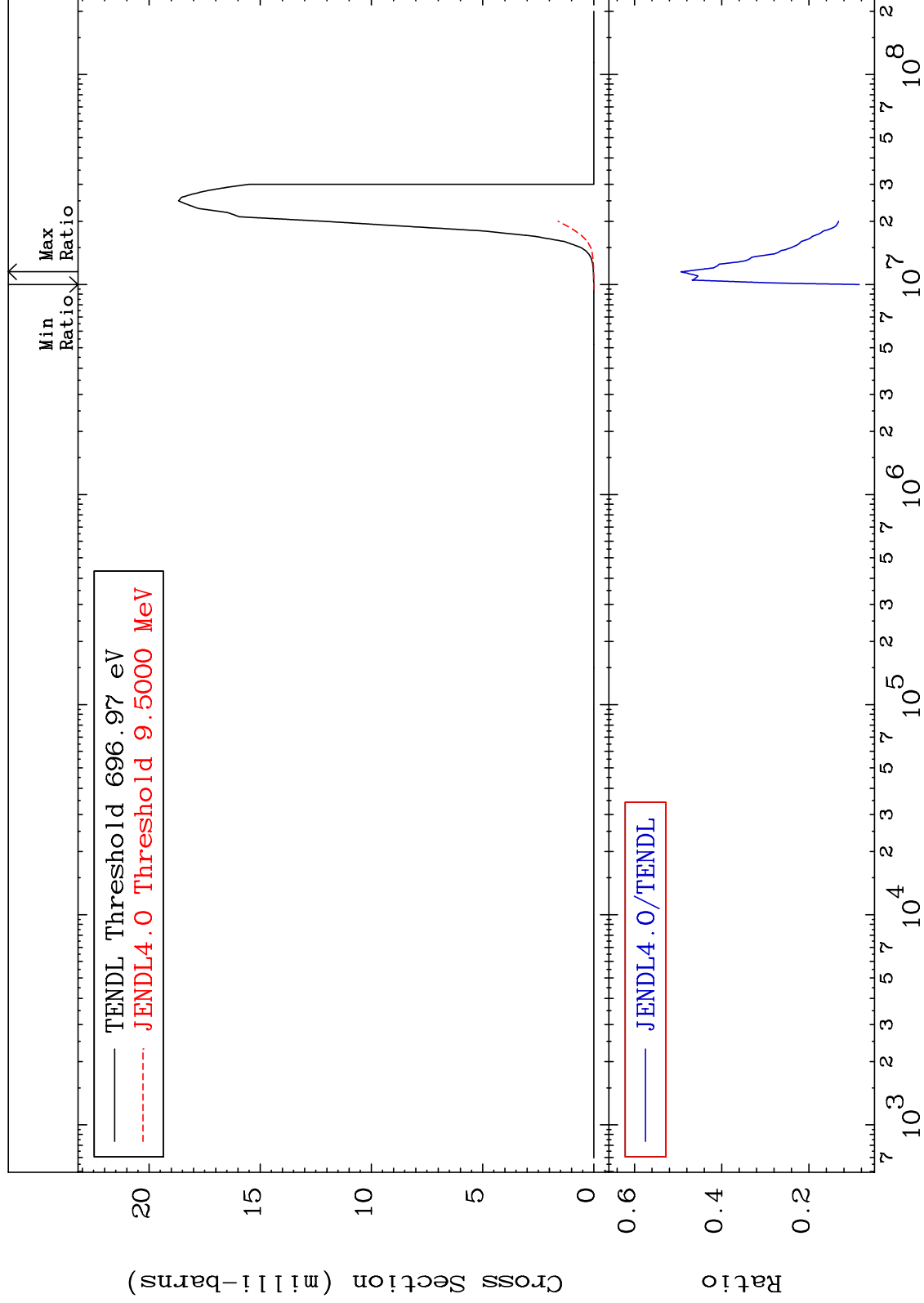
MAT 7234

(n,n')  $\alpha$

Cross Section

72-Hf-177

-91.53 To -50.67%



6

Incident Energy (eV)

72-Hf-177

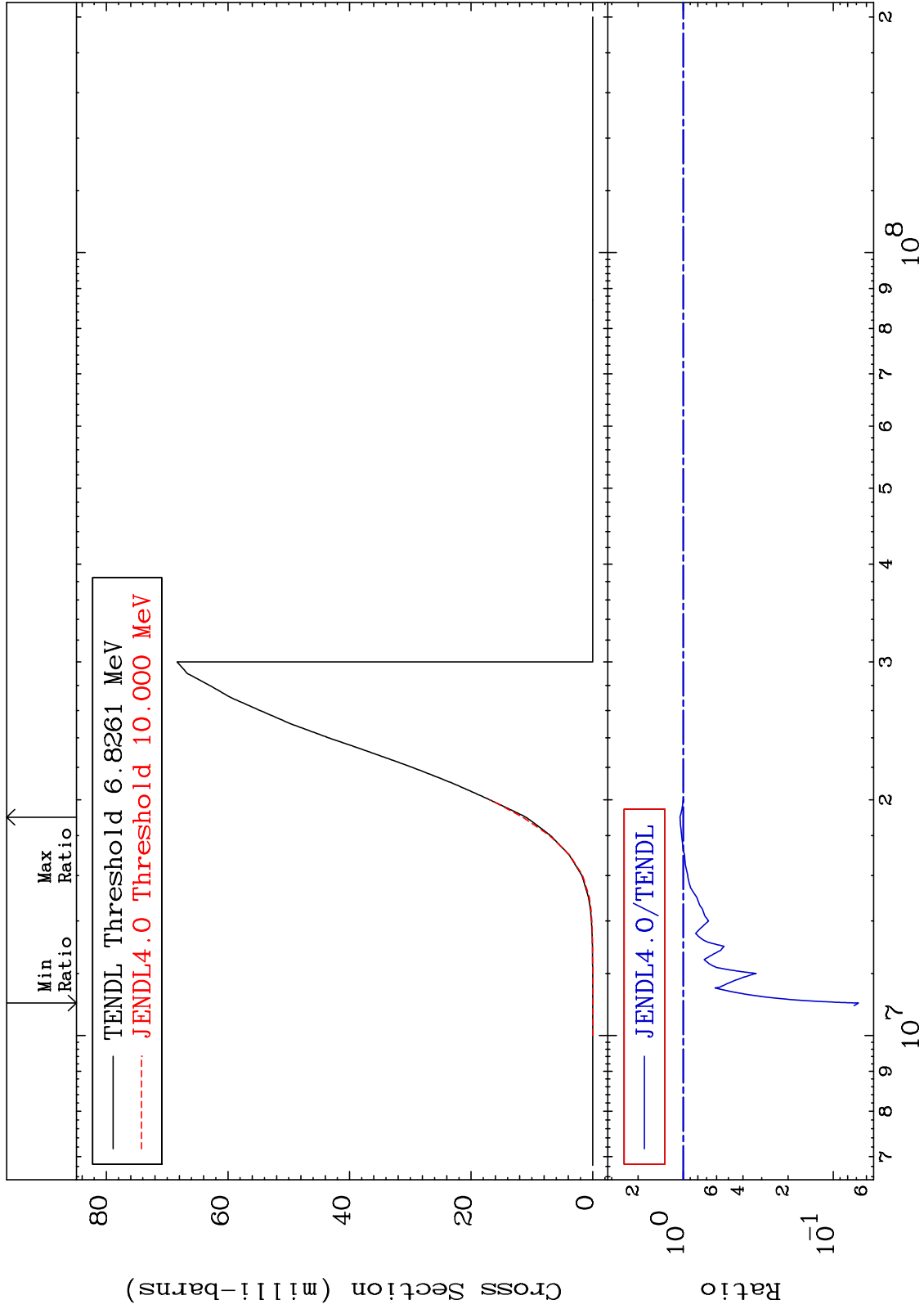
MAT 7234

(n,n') p

72-Hf-177

Cross Section

-93.21 To 5.104 %



7

Incident Energy (eV)

72-Hf-177



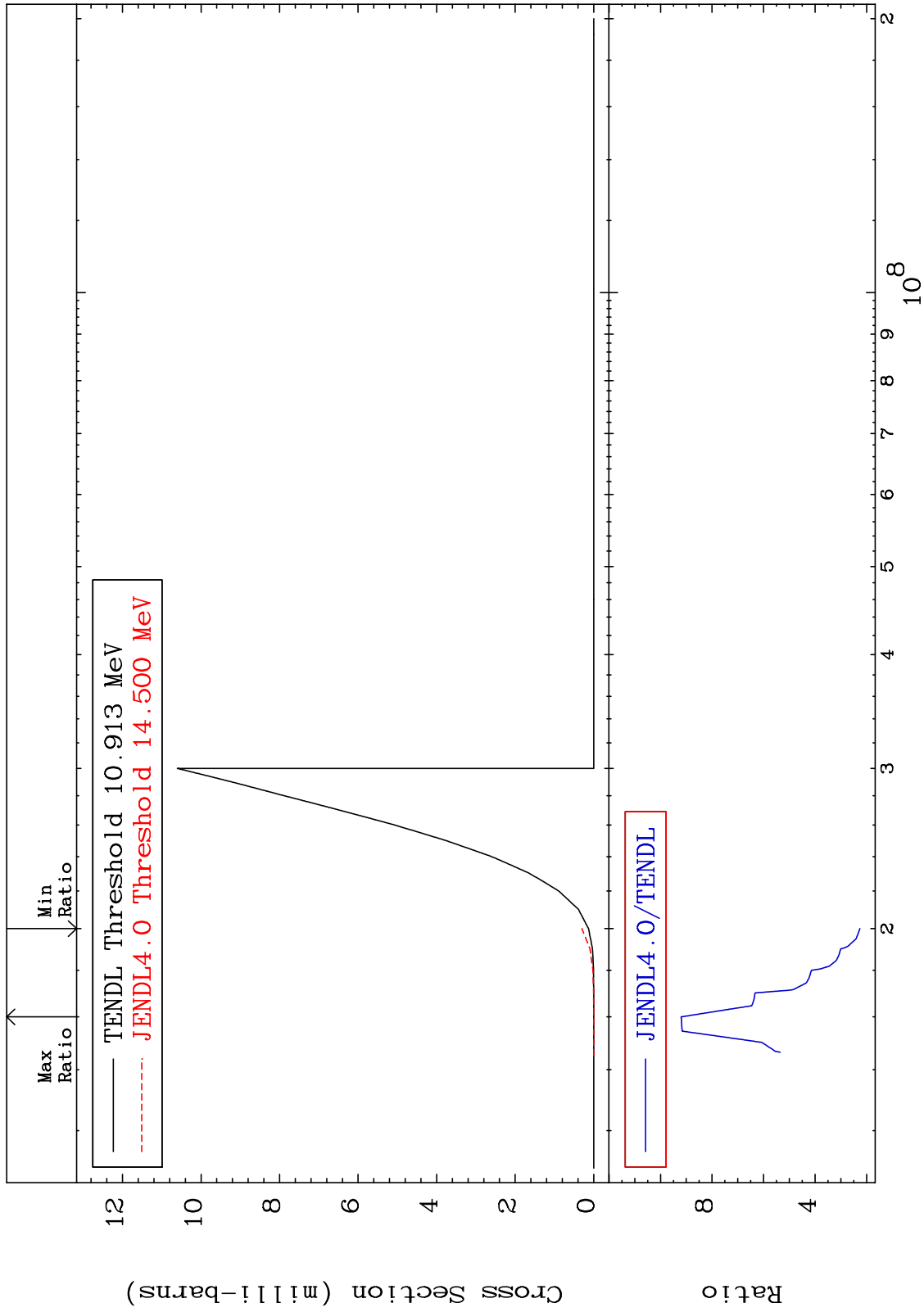
MAT 7234

(n,n') d

72-Hf-177

Cross Section

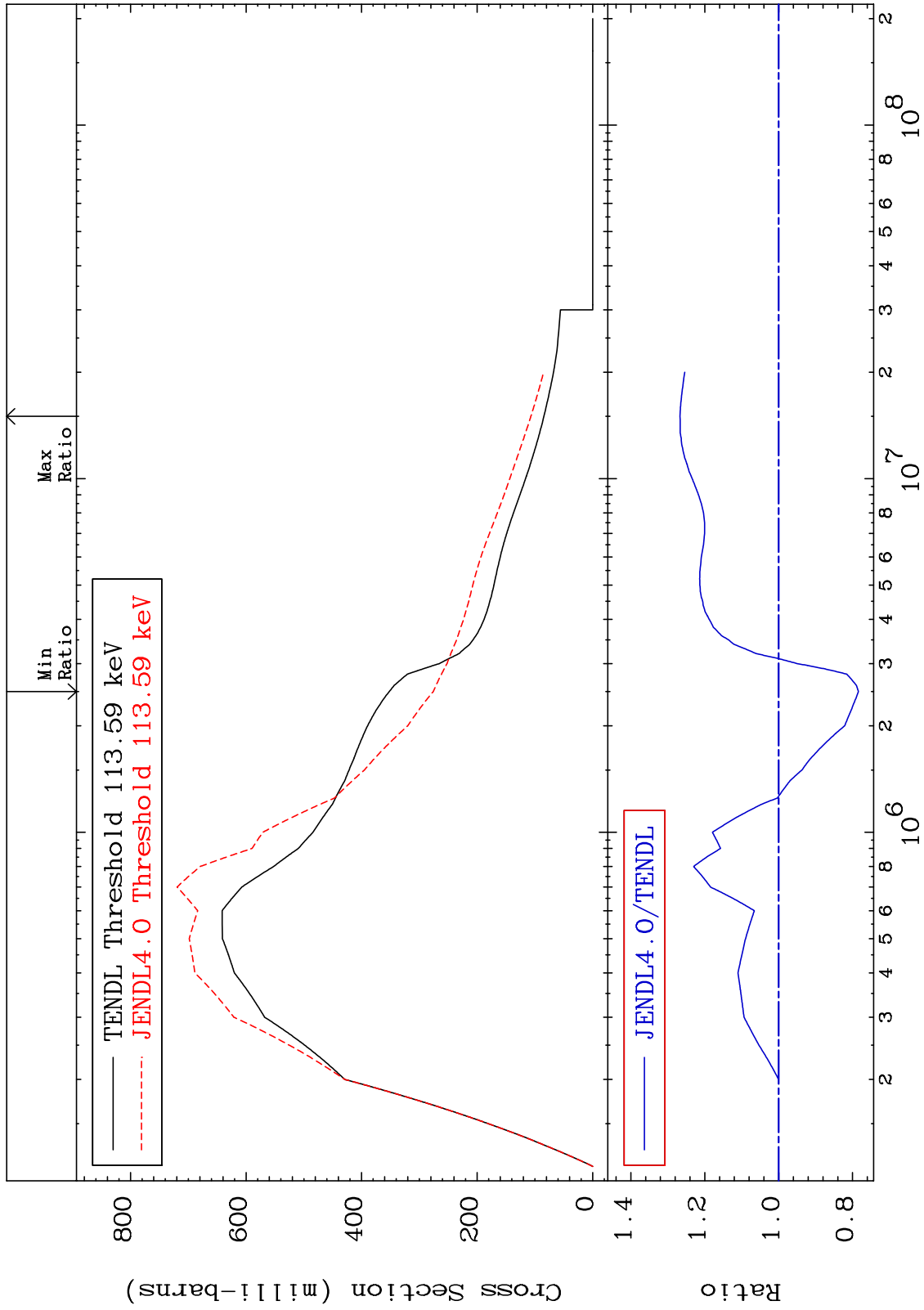
126.2 To 819.7 %



MAT 7234

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

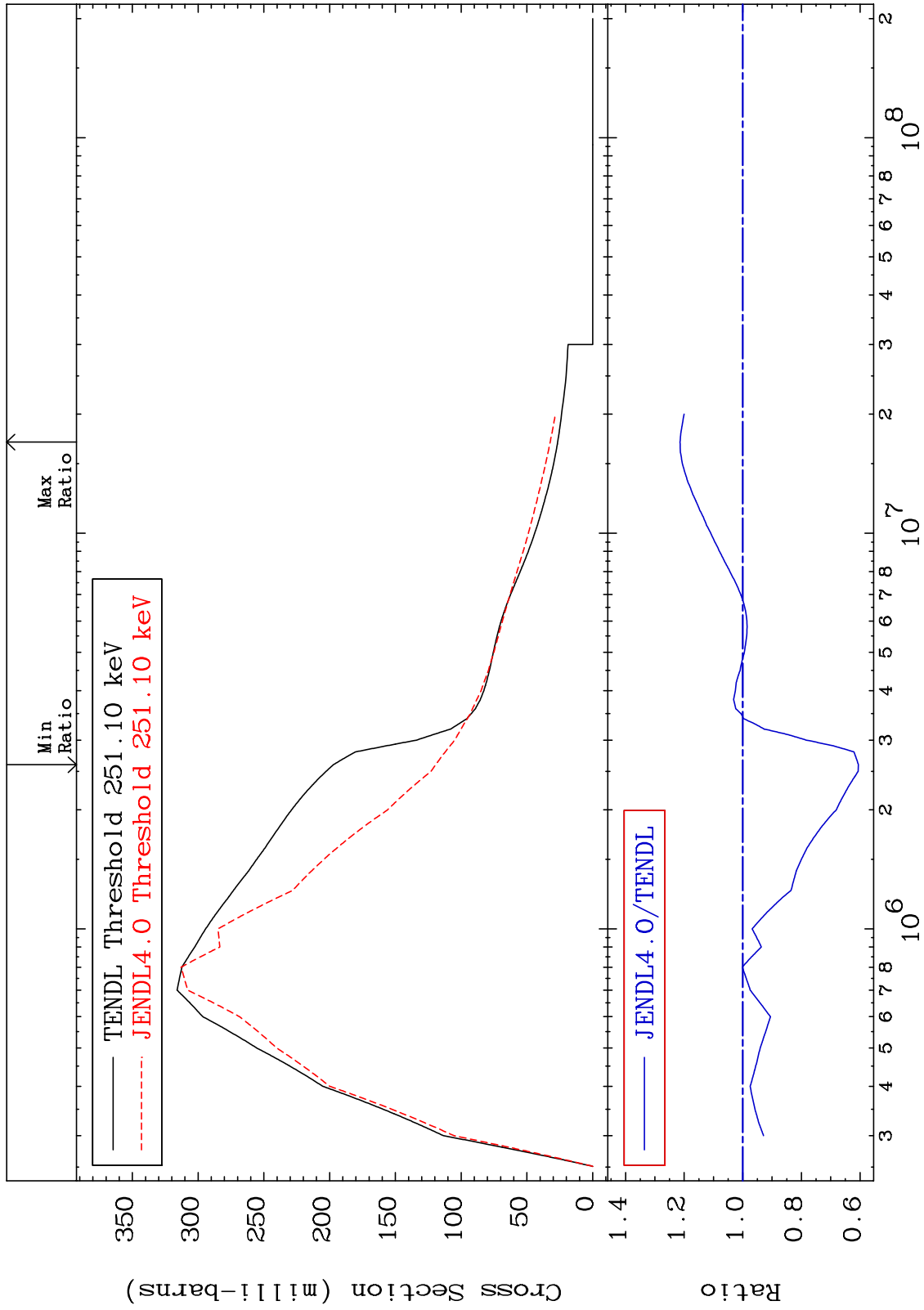
72-Hf-177  
-21.58 To 26.70 %



MAT 7234

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

72-Hf-177  
-39.46 To 21.43 %

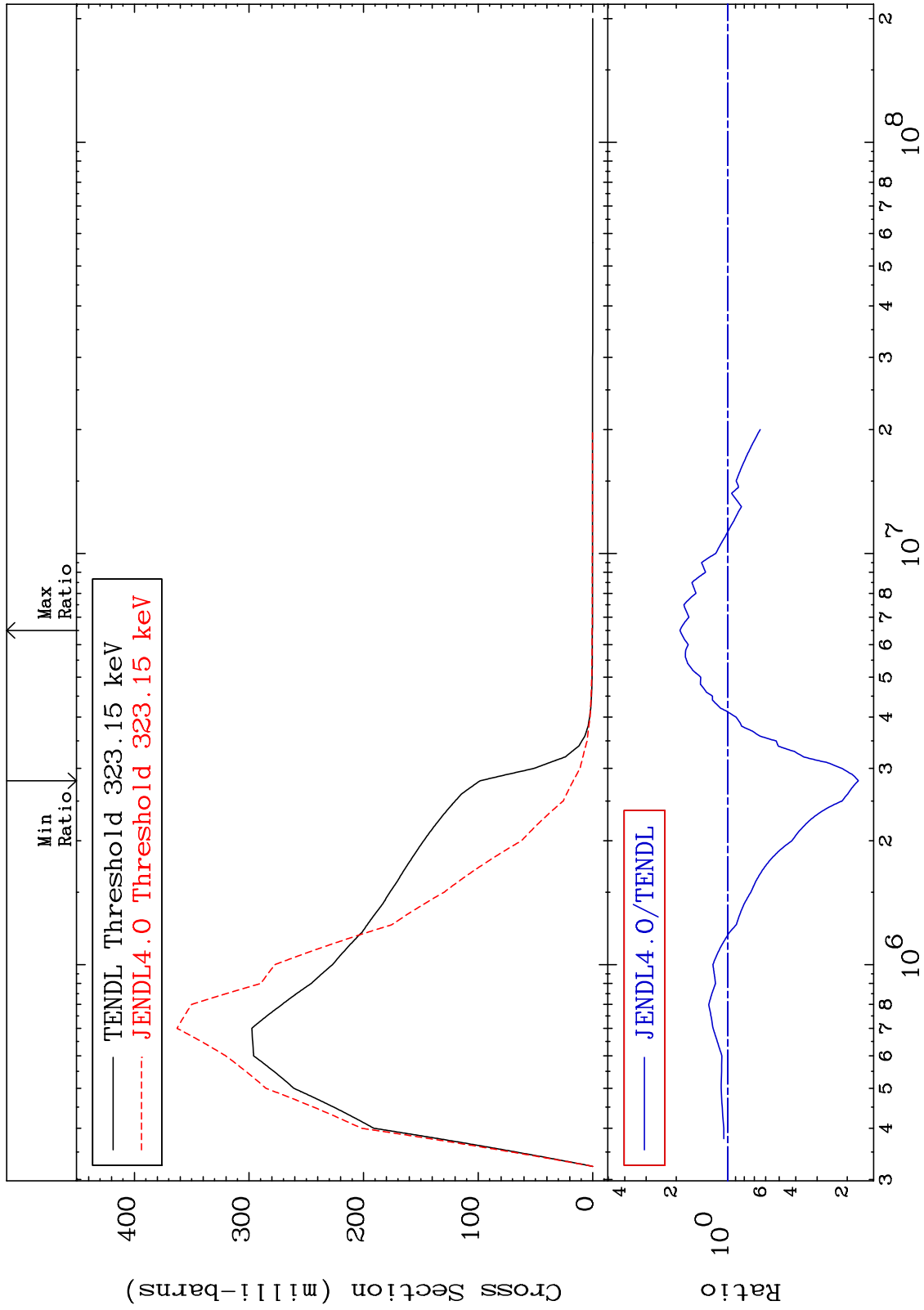


10

Incident Energy (eV)

72-Hf-177

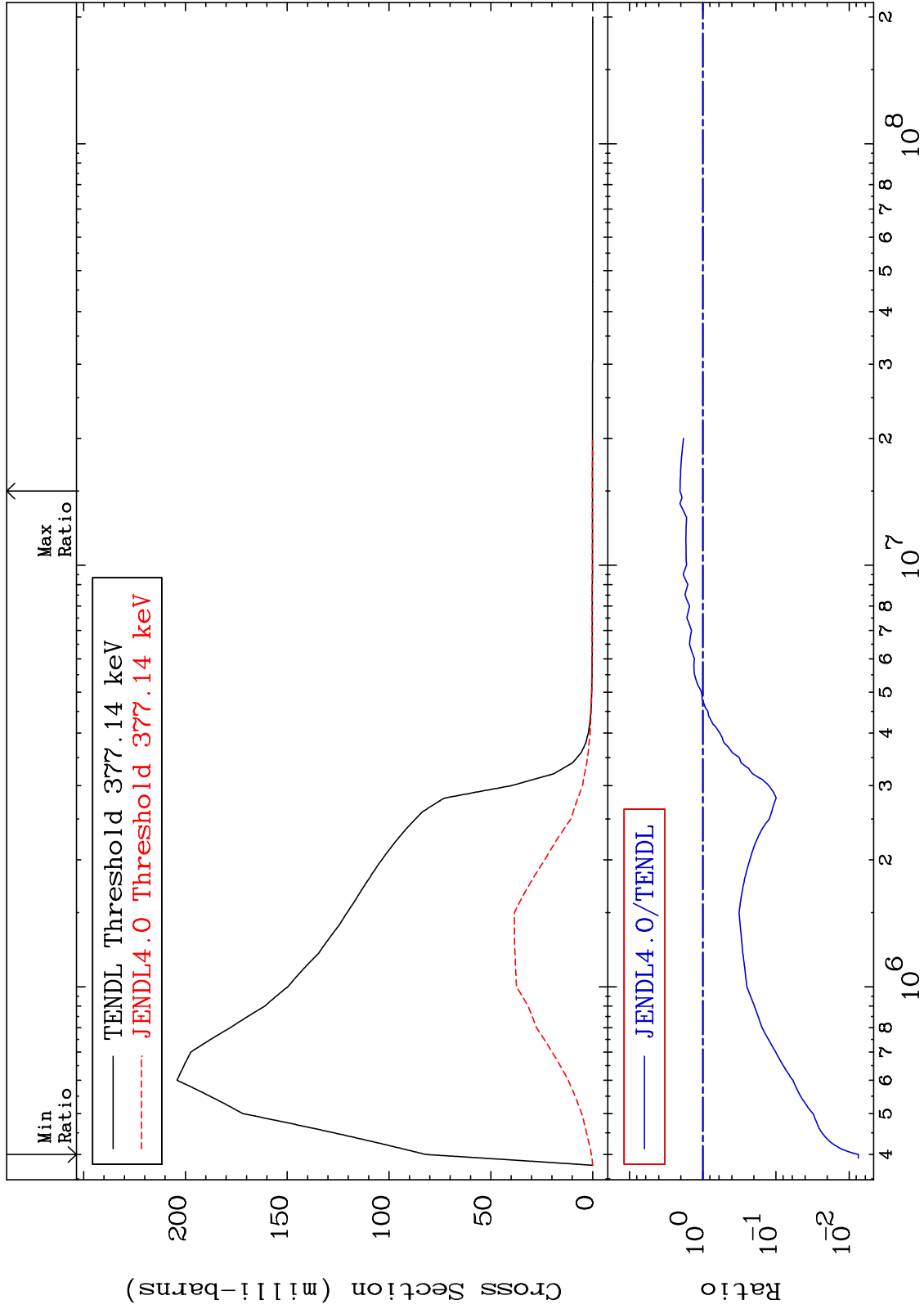
MAT 7234 MT= 53 (n, n') Level 72-Hf-177  
 Cross Section -82.78 To 90.12 %



MAT 7234

MT= 54 (n,n') Level  
Cross Section

72-Hf-177  
-99.25 To 104.6 %



12

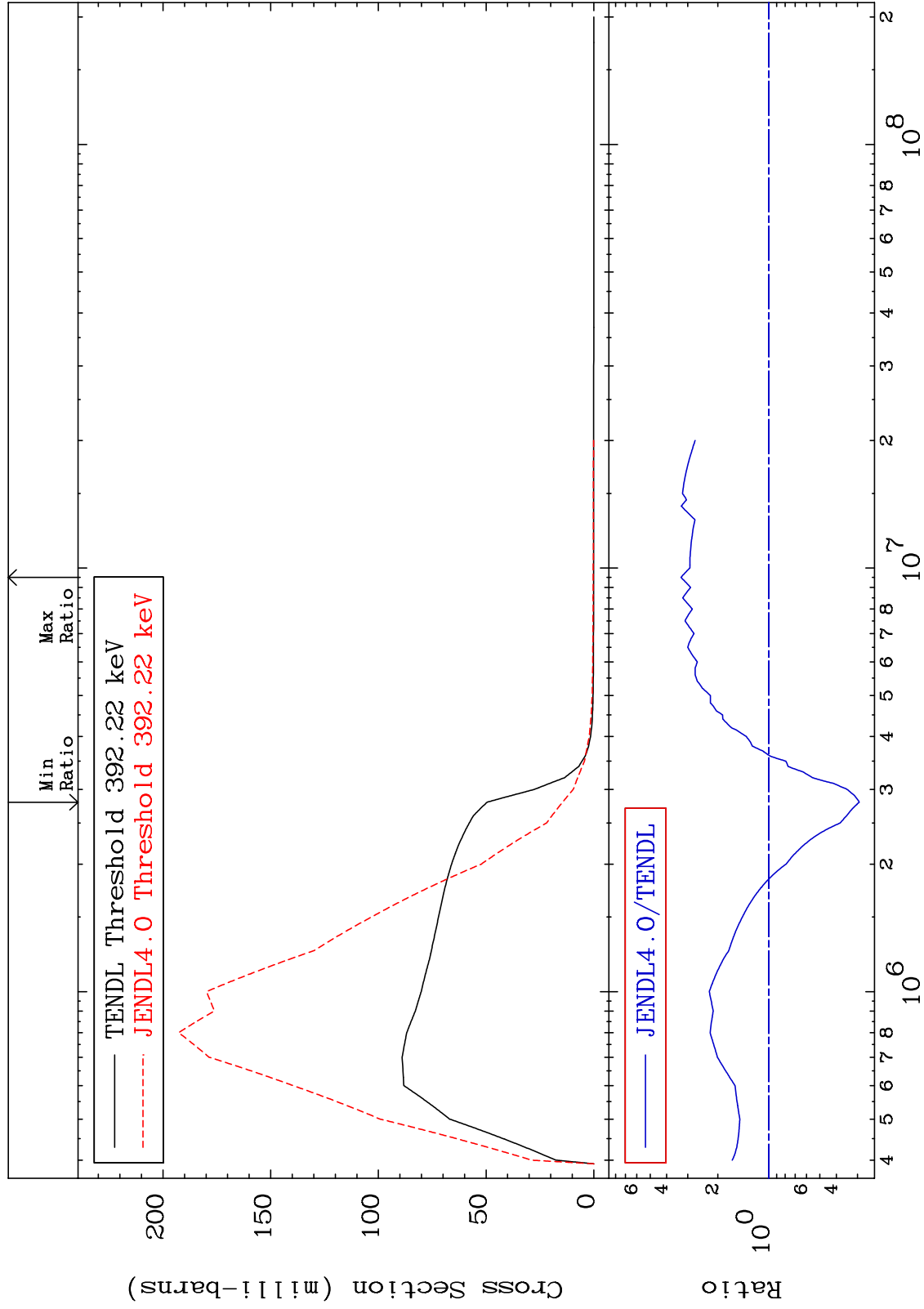
Incident Energy (eV)

72-Hf-177

MAT 7234

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

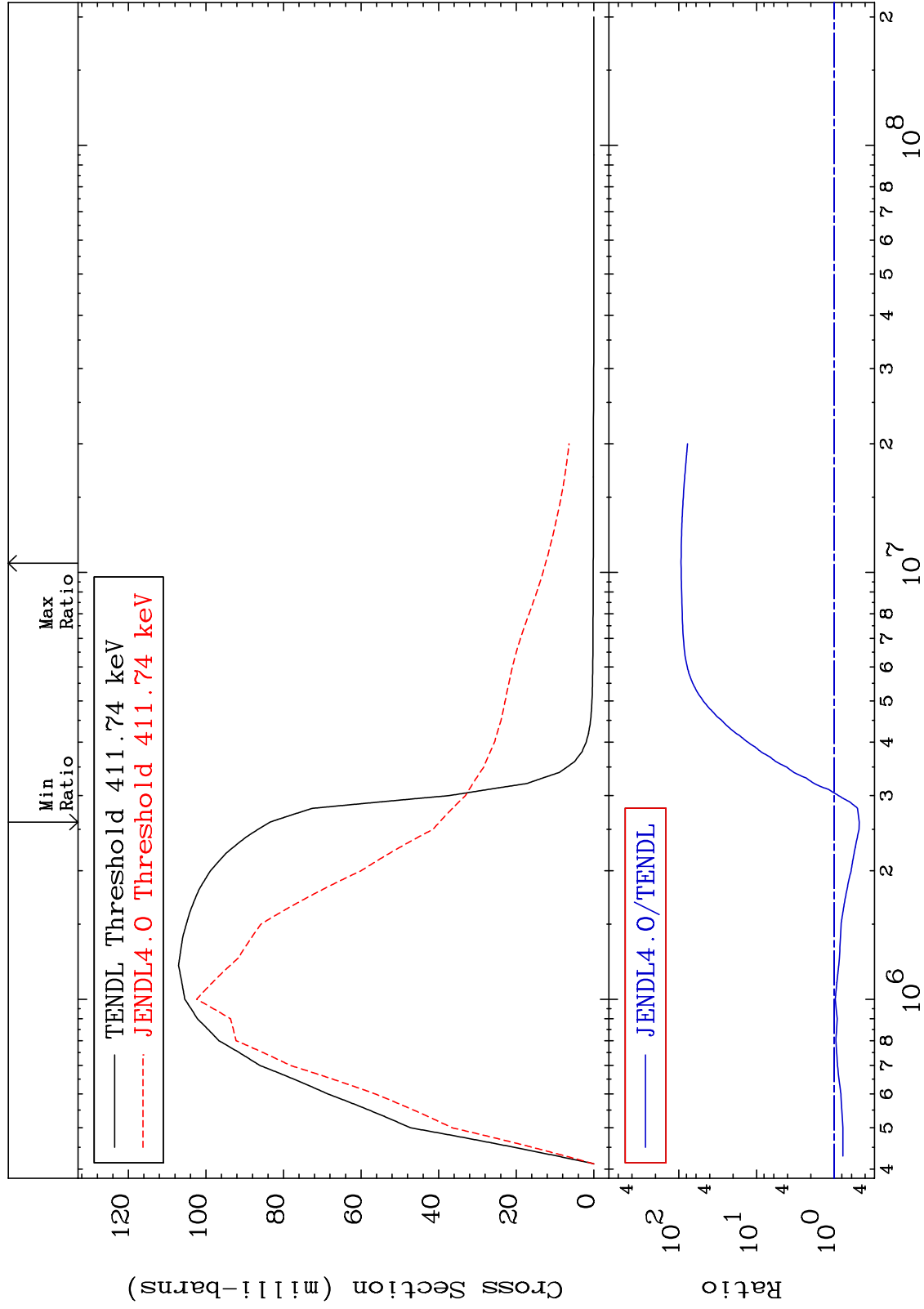
72-Hf-177  
-70.71 To 228.9 %



MAT 7234

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

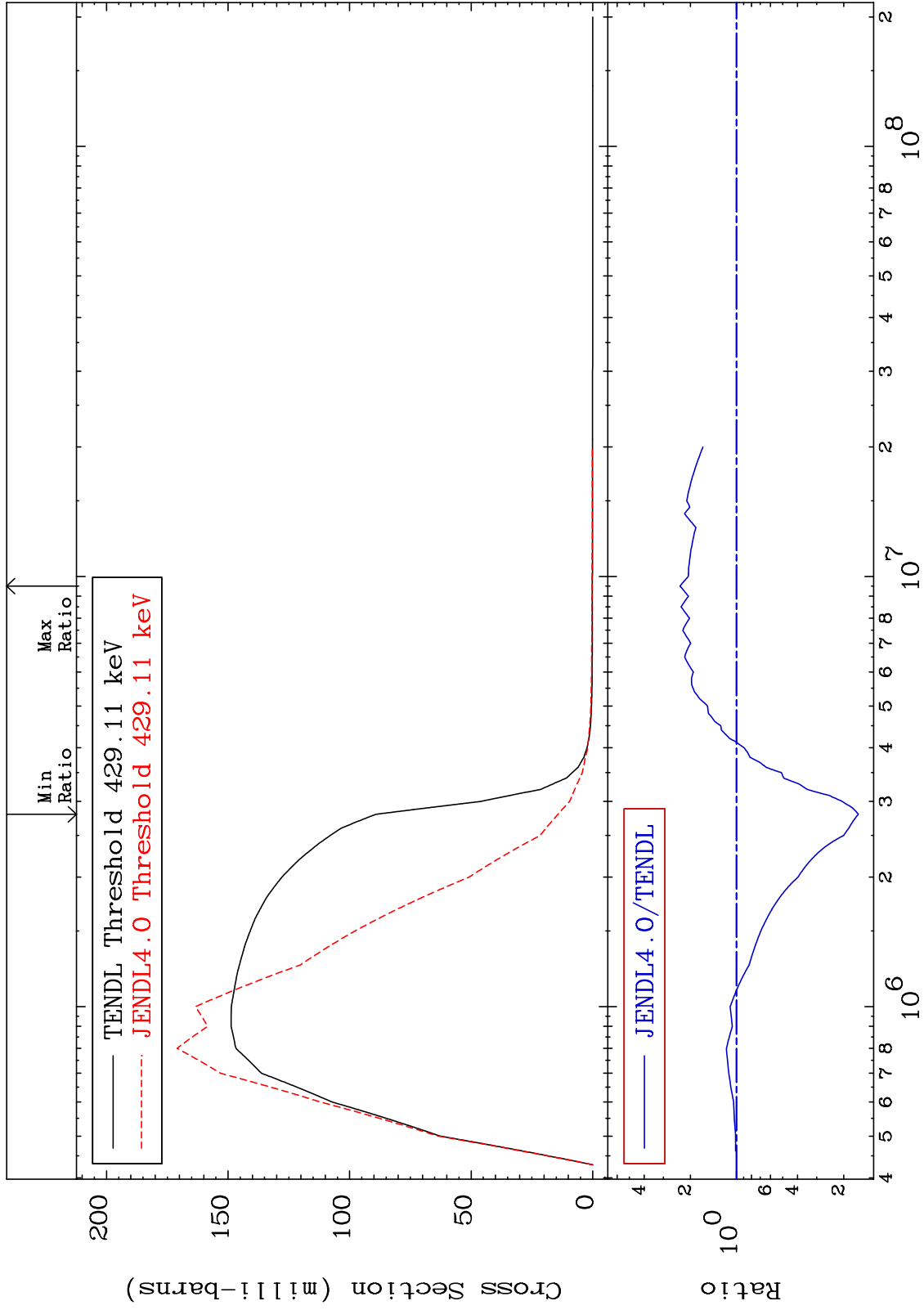
72-Hf-177  
-52.34 To 9255. %



MAT 7234

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

72-Hf-177  
-83.94 To 133.5 %



15

Incident Energy (eV)

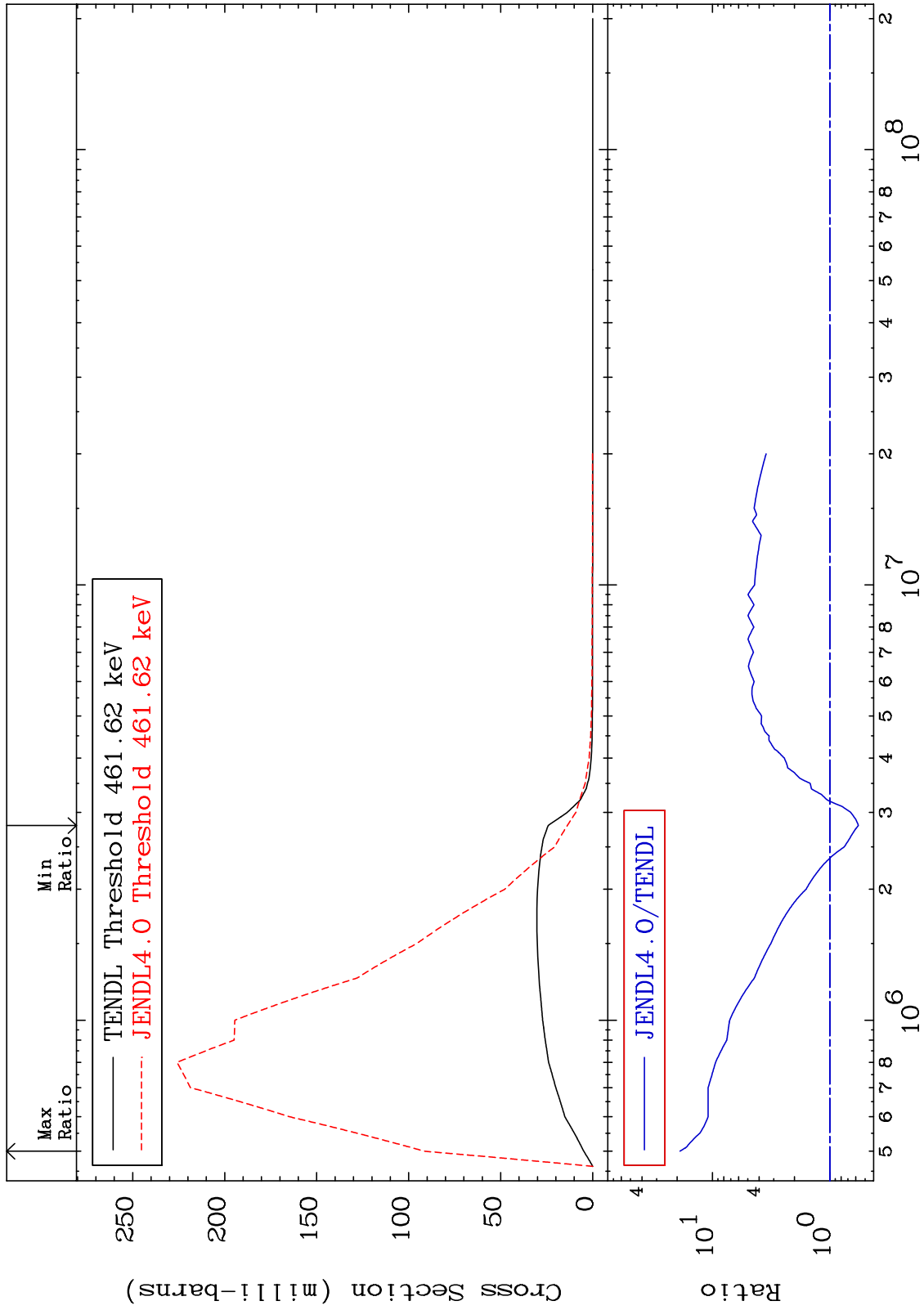
72-Hf-177



MAT 7234

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

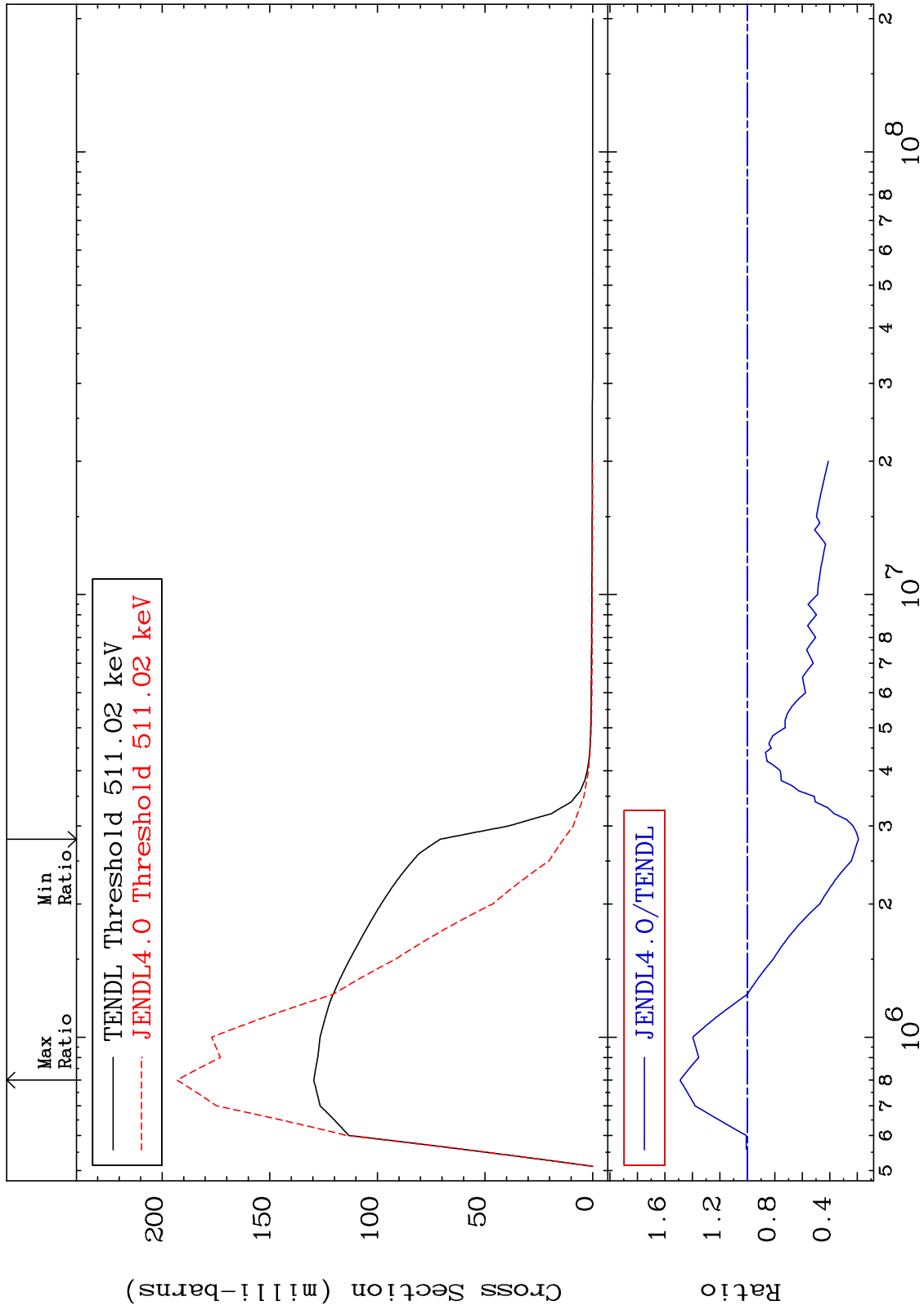
72-Hf-177  
-43.00 To 1792. %



MAT 7234

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

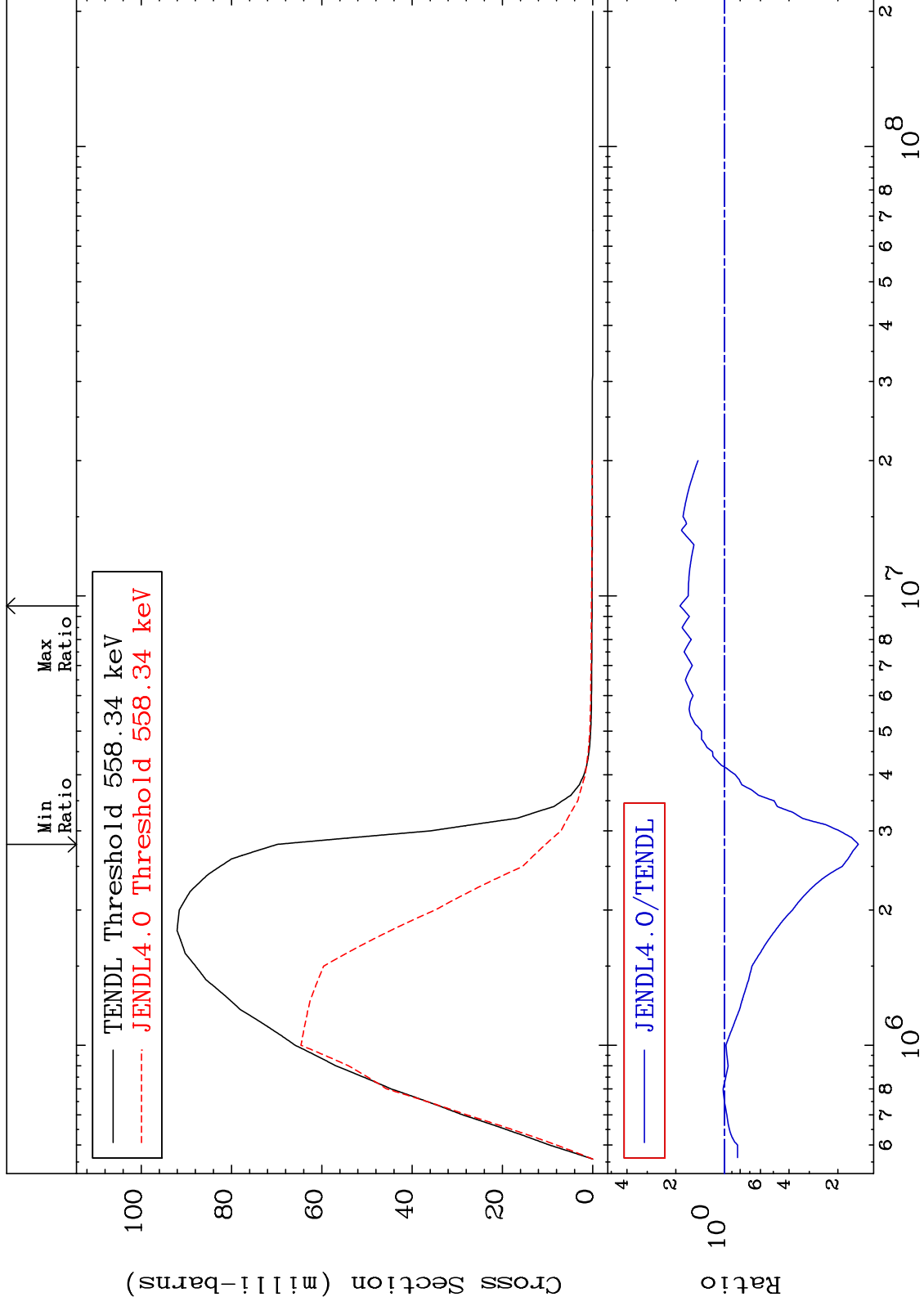
72-Hf-177  
-80.86 To 49.00 %



MAT 7234

MT= 60 (n,n') Level  
Cross Section

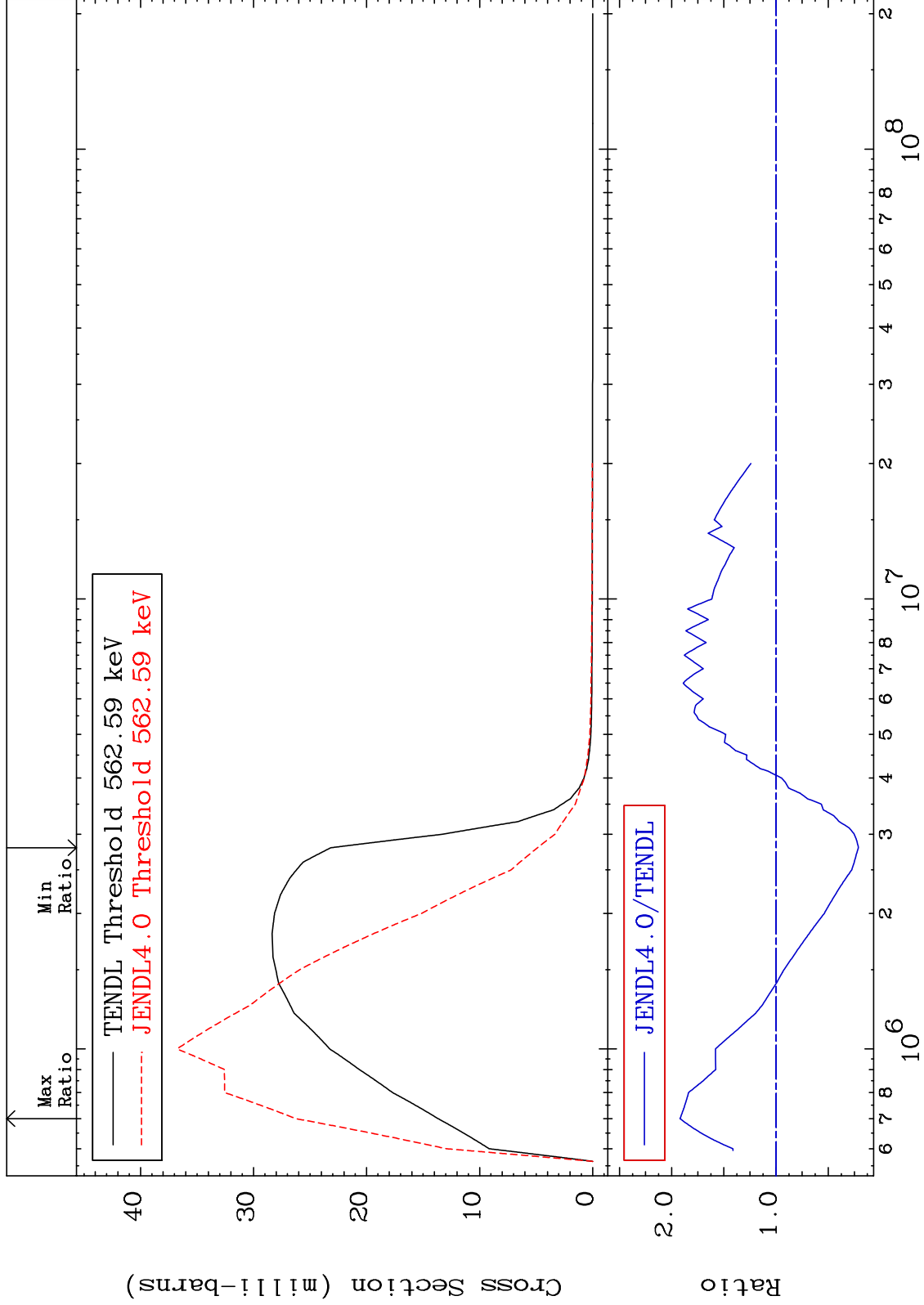
72-Hf-177  
-85.07 To 88.21 %



MAT 7234

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

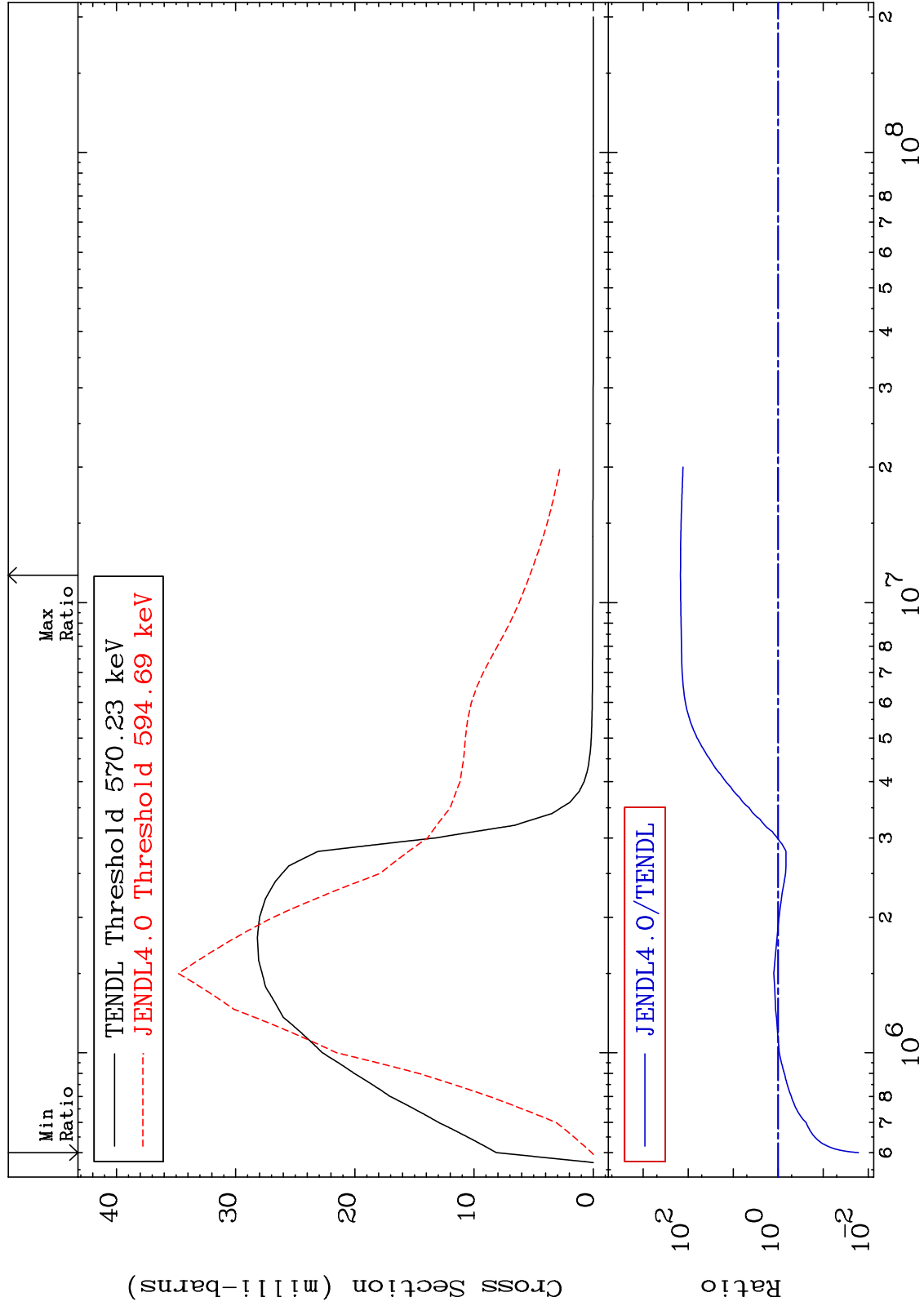
72-Hf-177  
-78.90 To 92.01 %



MAT 7234

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

72-Hf-177  
-98.36 To 9999. %



20

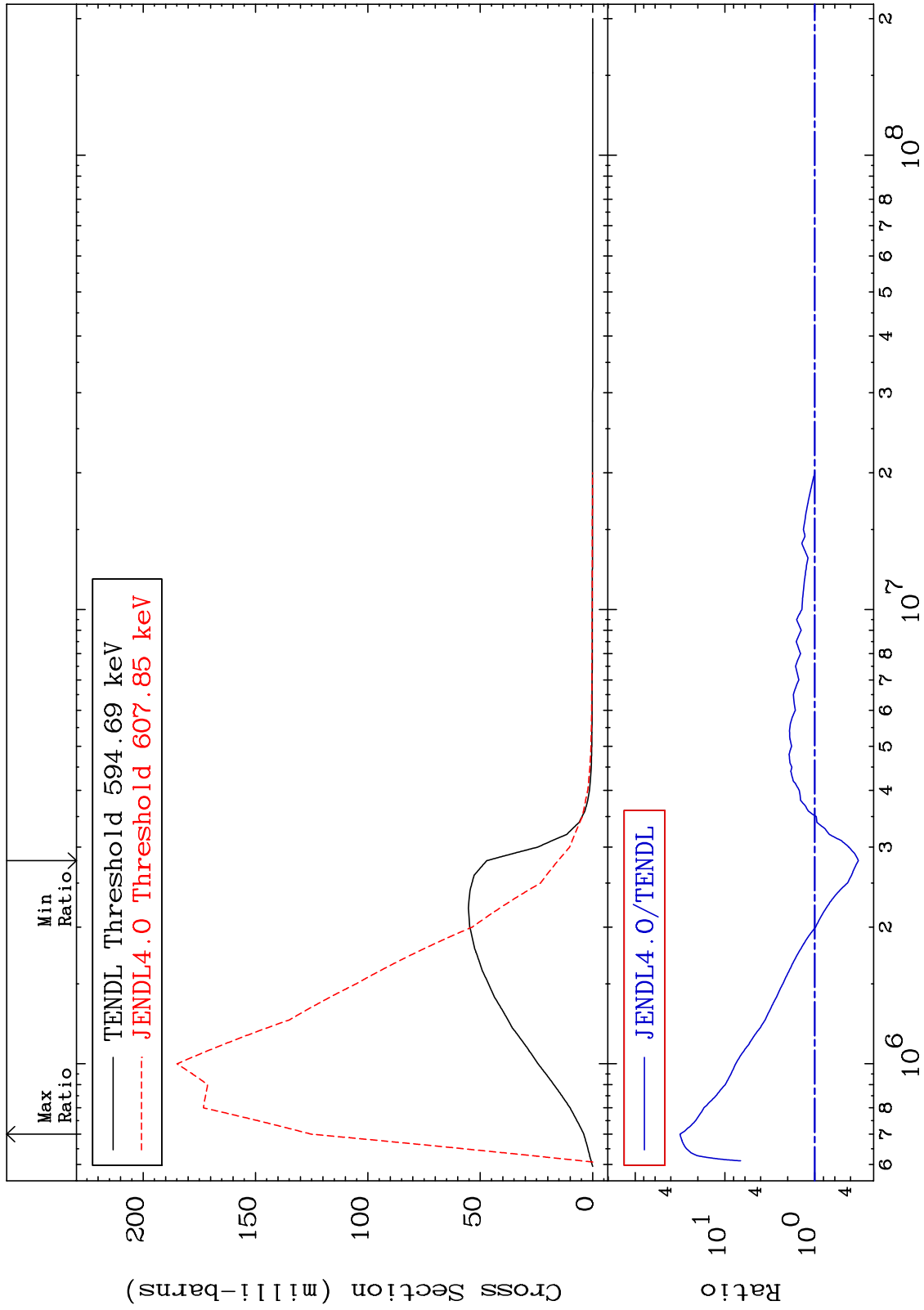
Incident Energy (eV)

72-Hf-177

MAT 7234

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

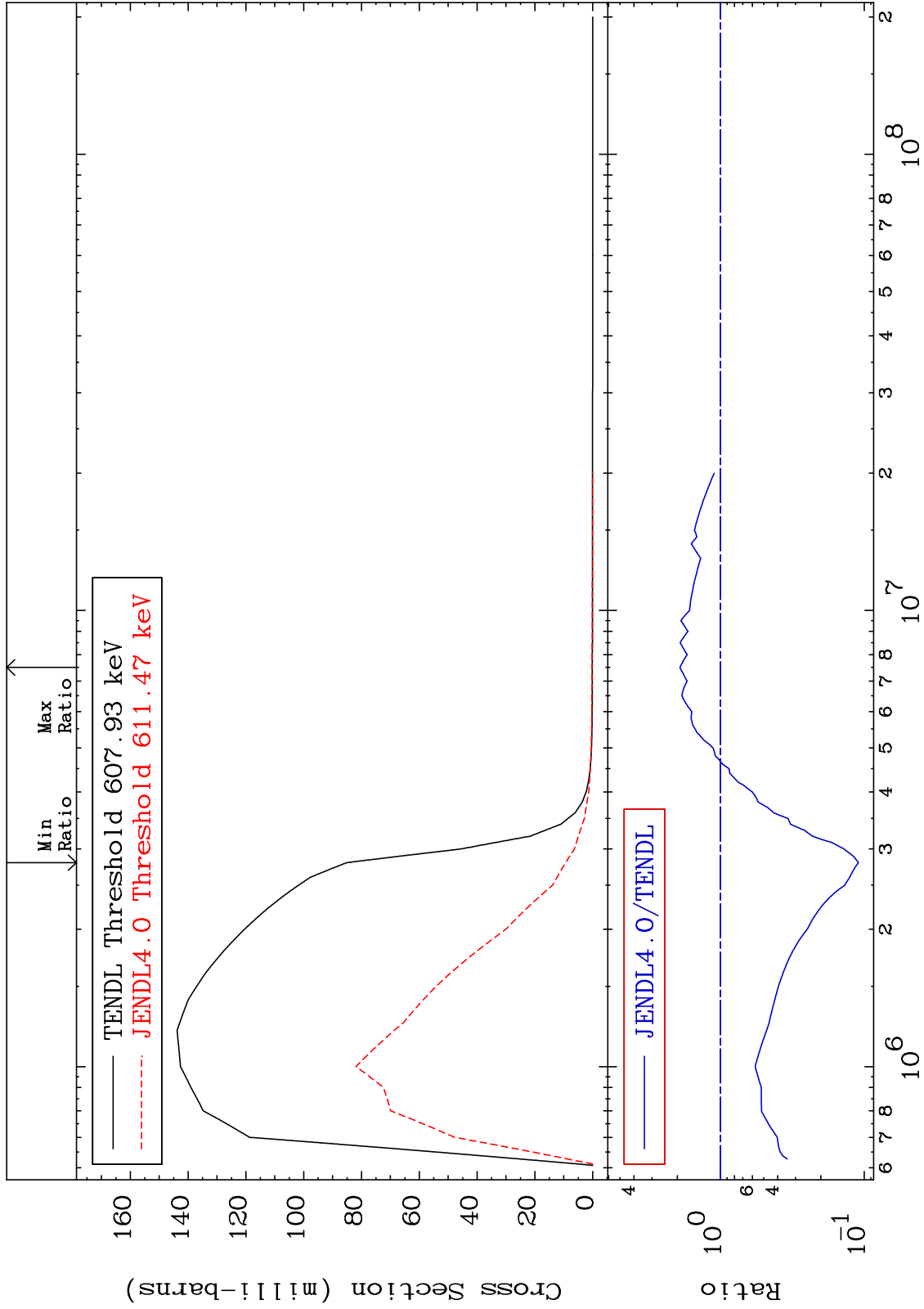
72-Hf-177  
-67.27 To 3065. %



MAT 7234

MT= 64 (n,n') Level  
Cross Section

72-Hf-177  
-89.03 To 91.32 %



22

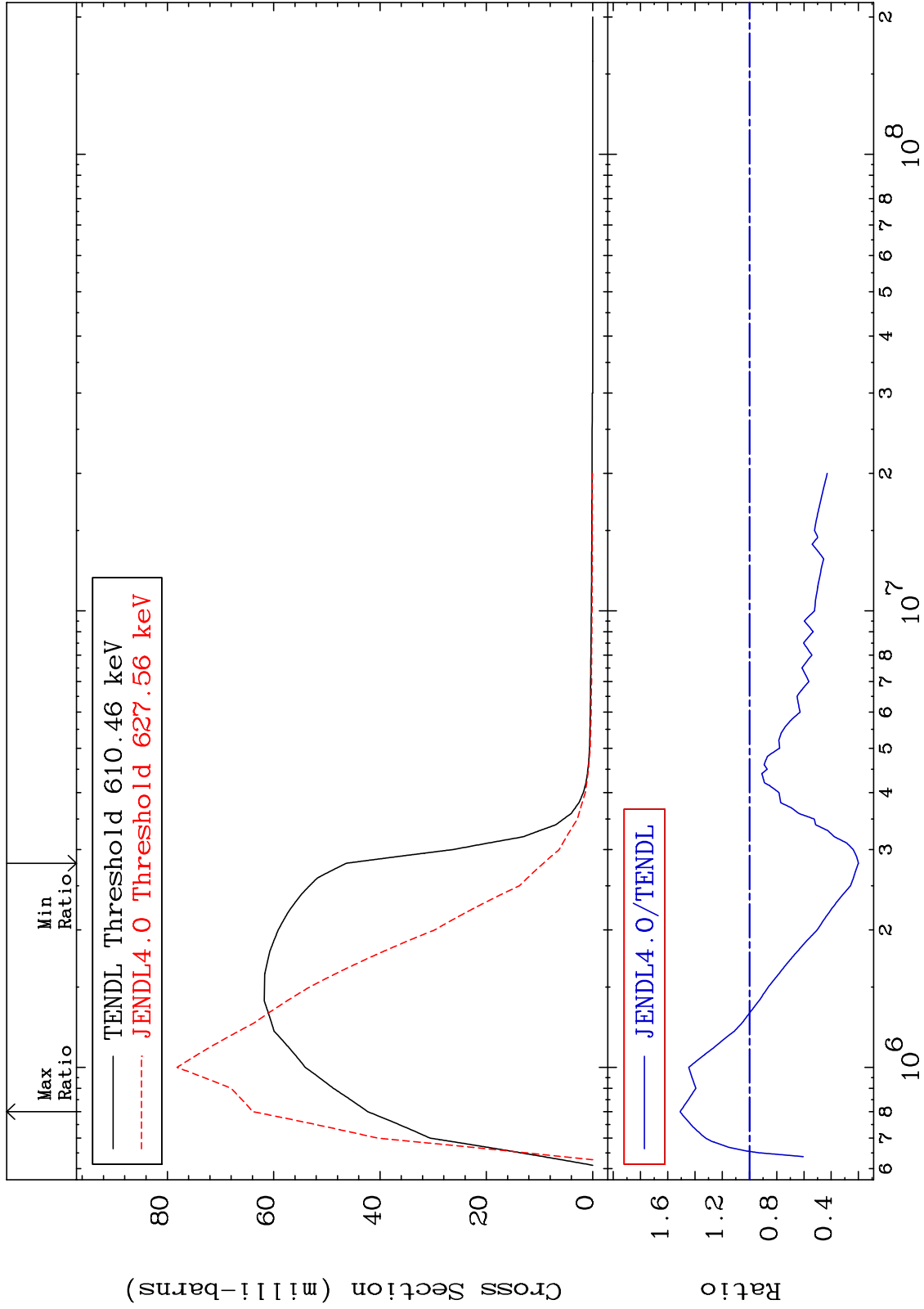
Incident Energy (eV)

72-Hf-177

MAT 7234

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

72-Hf-177  
-79.97 To 50.99 %

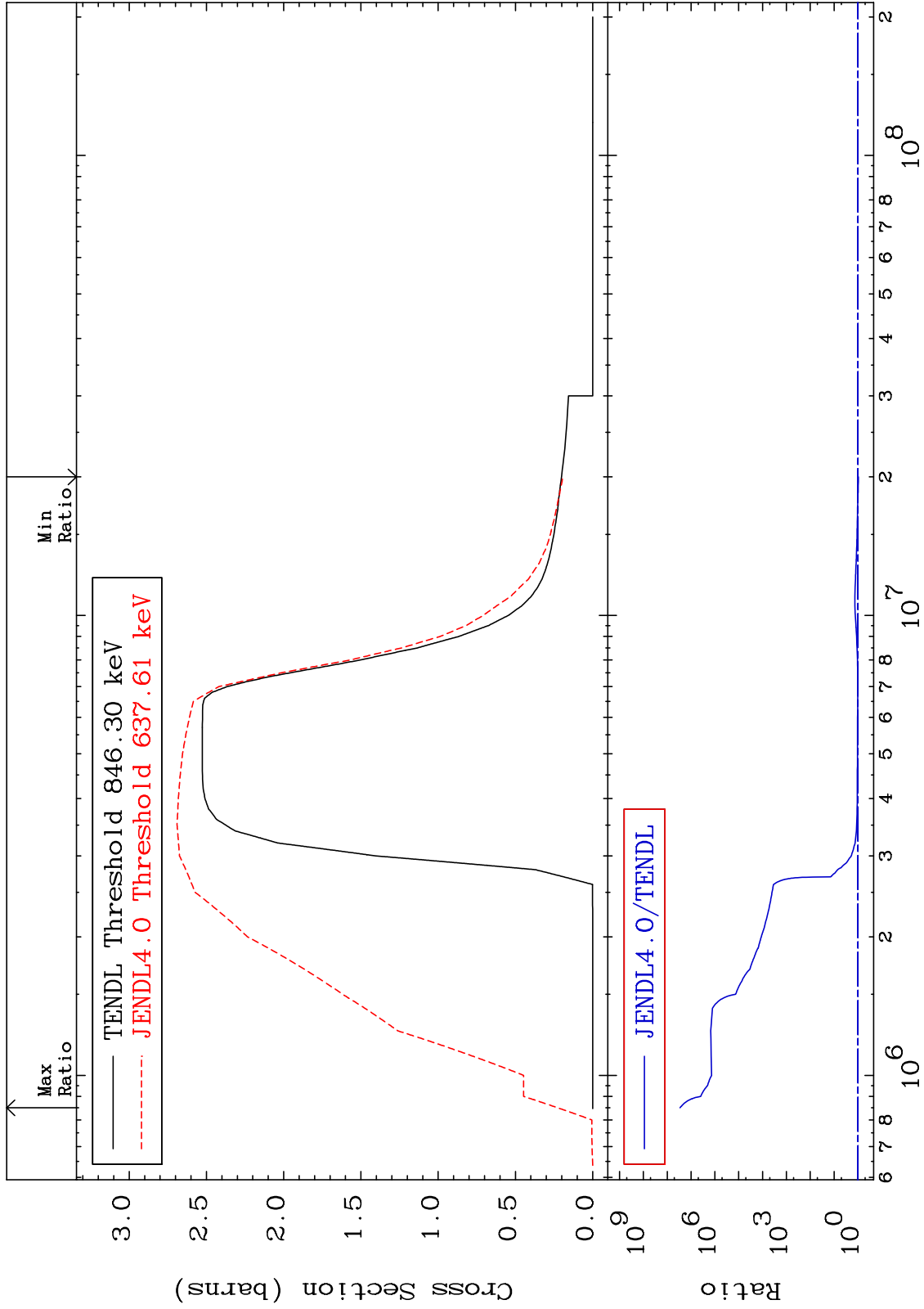




MAT 7234

(n, n') Continuum  
Cross Section

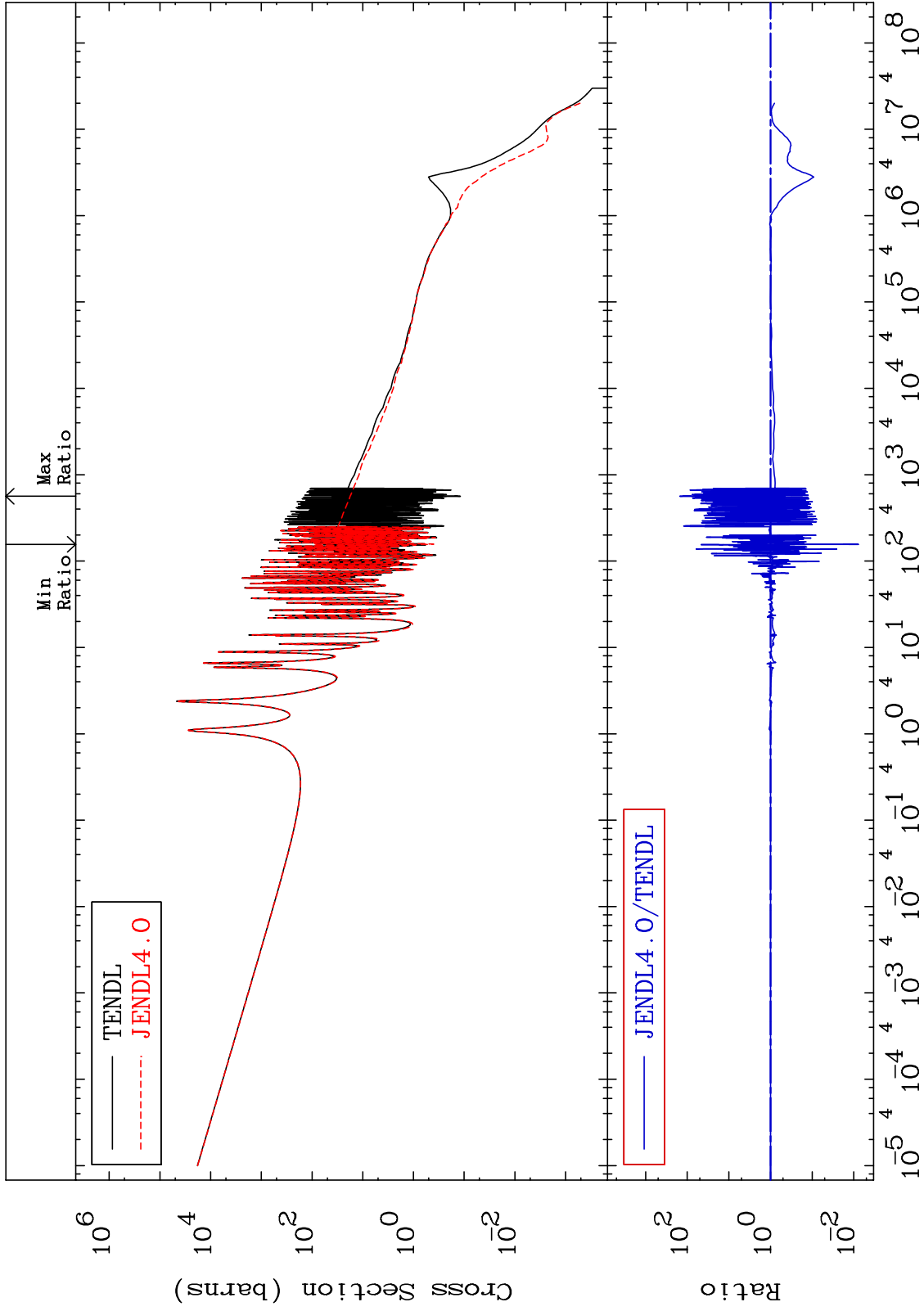
<sup>72</sup>Hf-177  
-4.493 To 9999. %



MAT 7234

(n,  $\gamma$ )  
Cross Section

72-Hf-177  
-99.22 To 9999. %



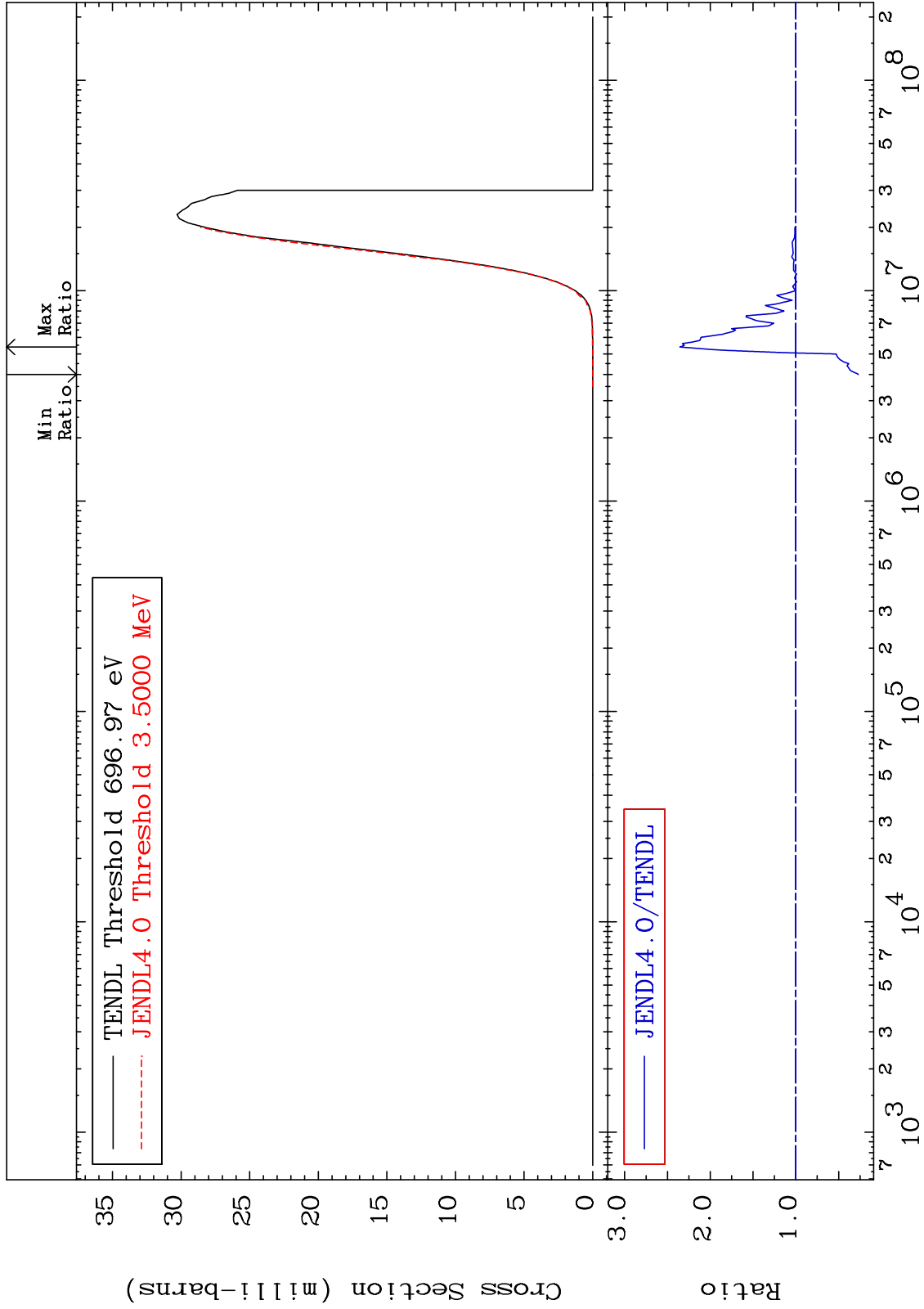
MAT 7234

(n, p)

72-Hf-177

Cross Section

-73.09 To 135.3 %



26

Incident Energy (eV)

72-Hf-177

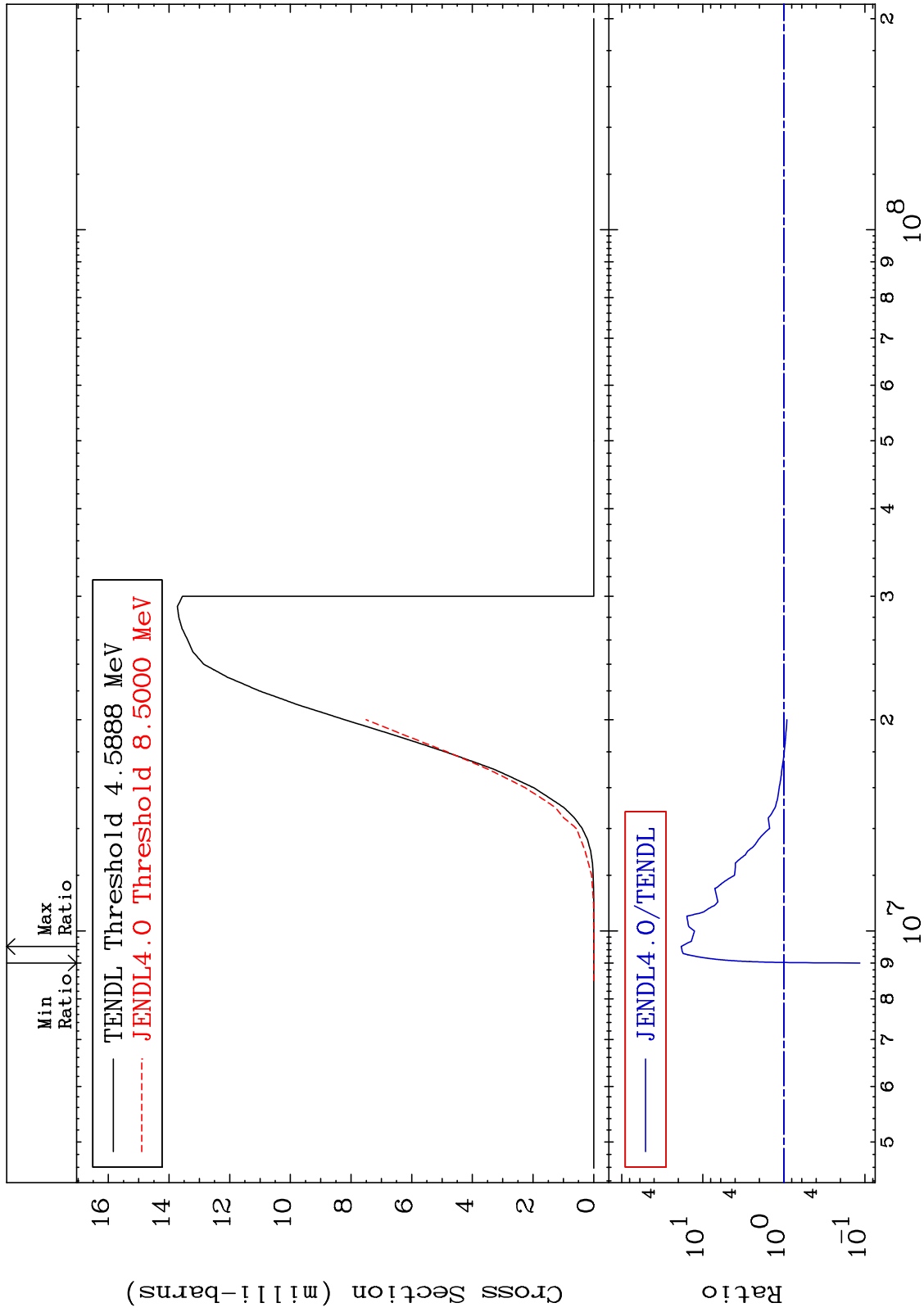
MAT 7234

(n, d)

72-Hf-177

Cross Section

-88.48 To 1747. %



72-Hf-177

Incident Energy (eV)

27

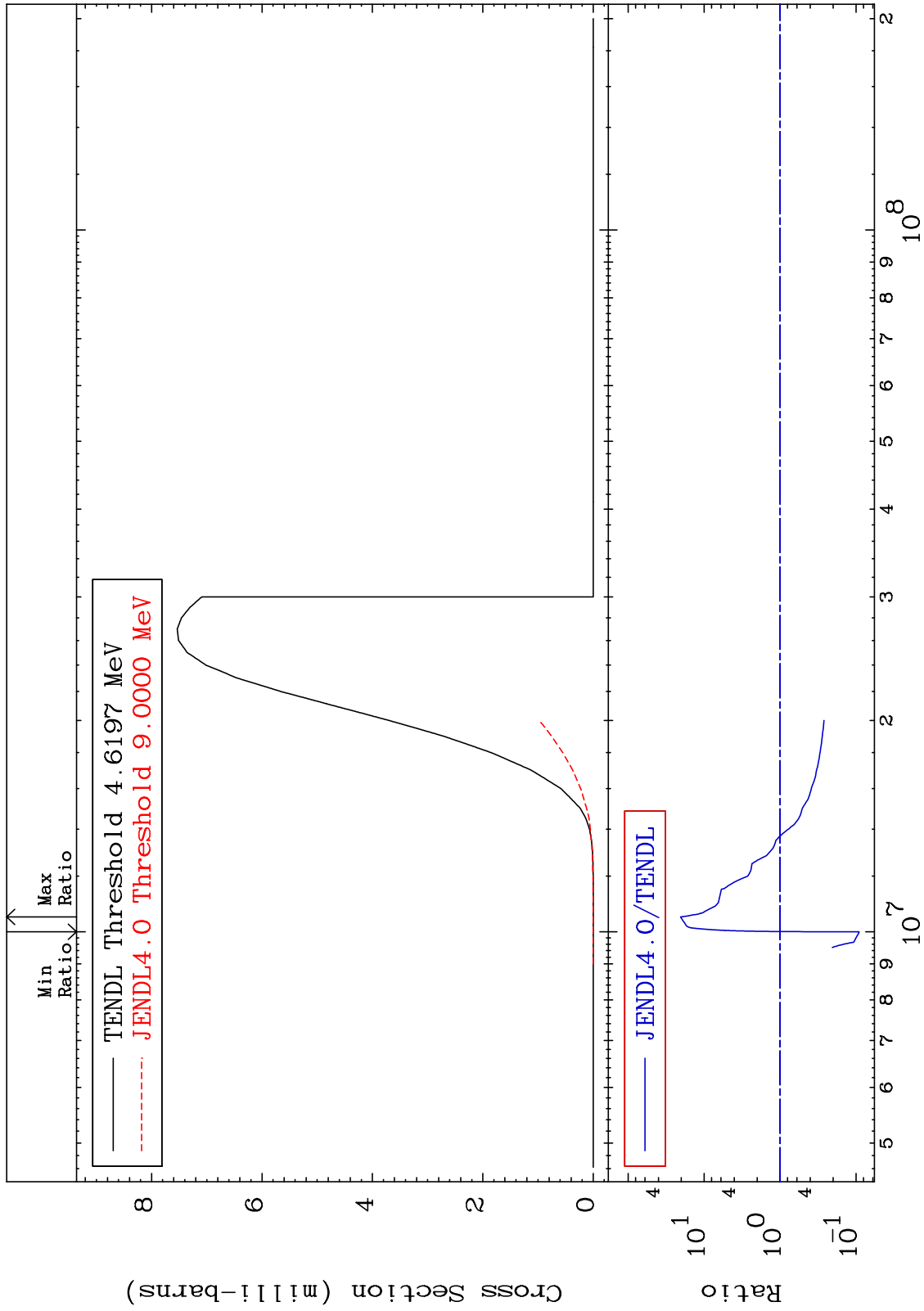
MAT 7234

(n, t)

72-Hf-177

Cross Section

-90.91 To 1940. %



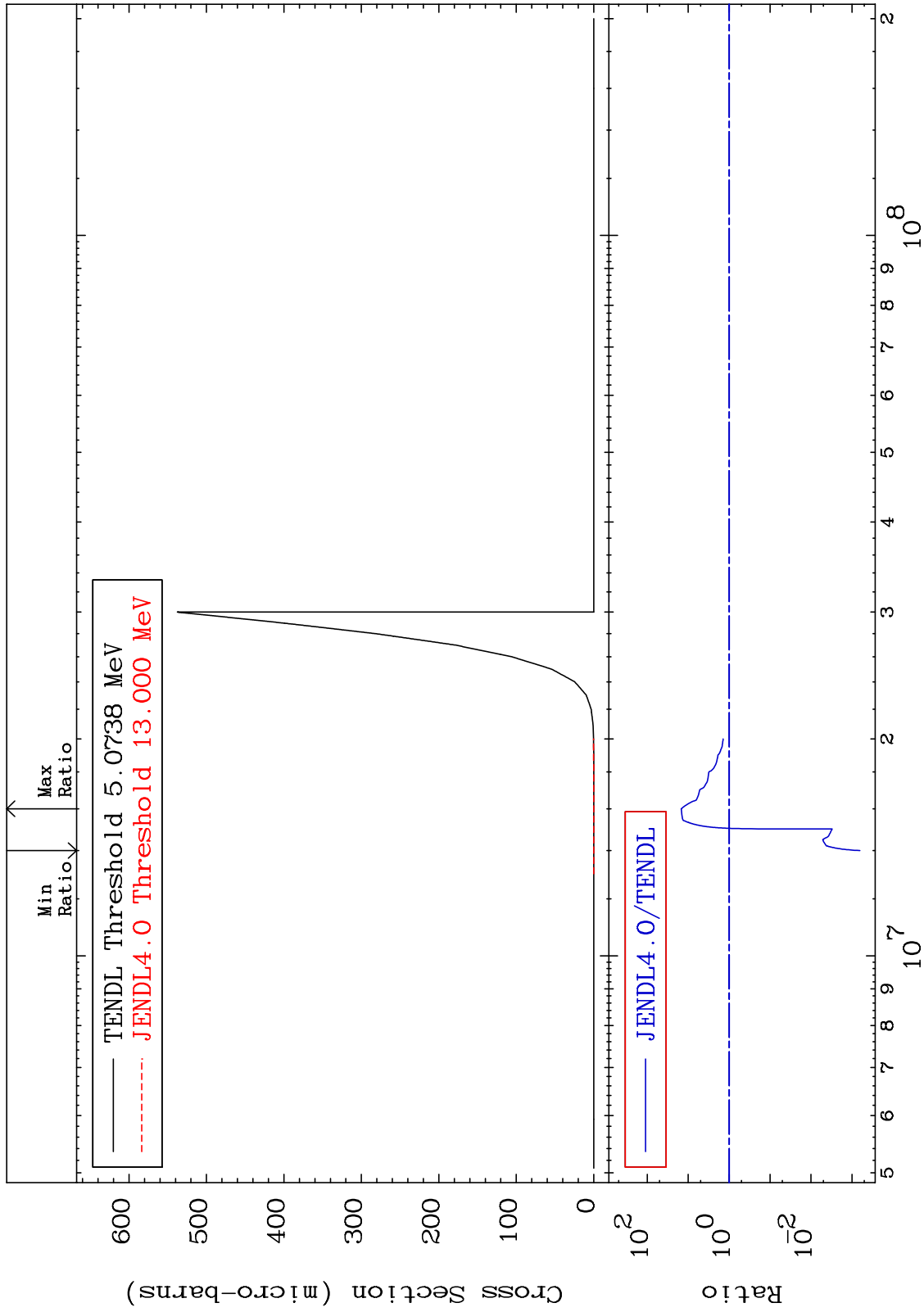
MAT 7234

(n, He-3)

72-Hf-177

Cross Section

-99.94 To 1382. %



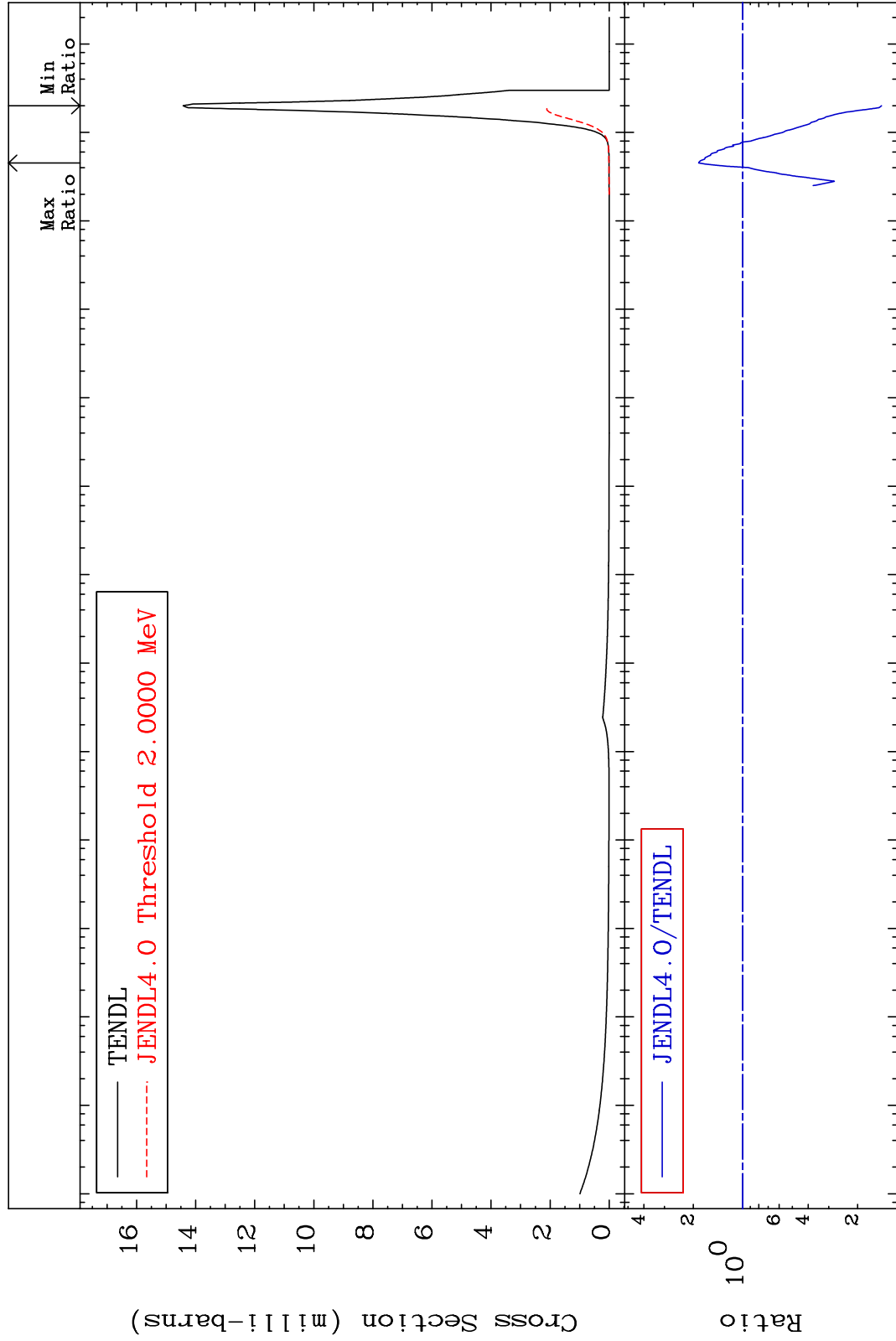
MAT 7234

(n,  $\alpha$ )

72-Hf-177

Cross Section

-85.71 To 85.41 %



30

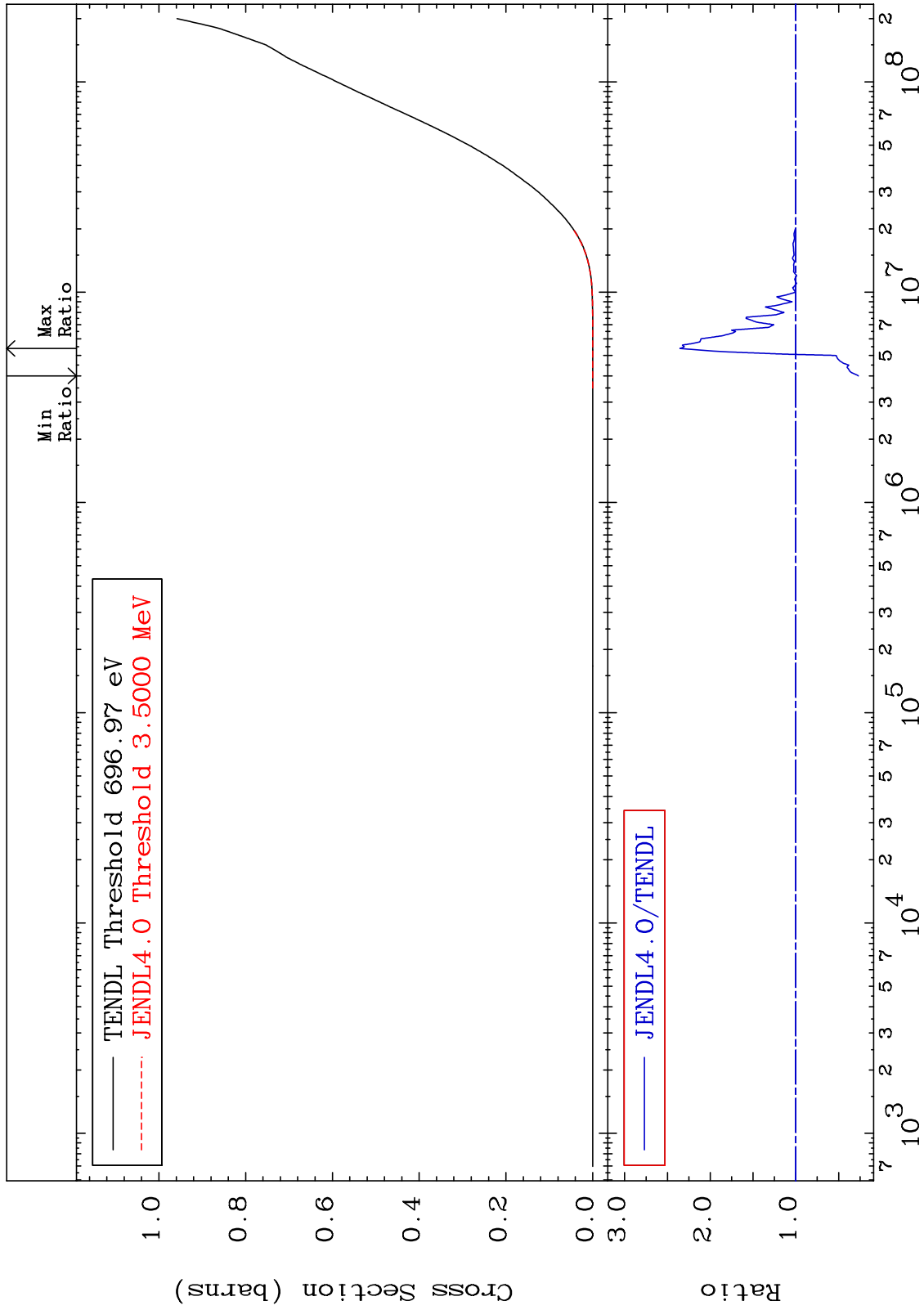
Incident Energy (eV)

72-Hf-177

MAT 7234

Hydrogen Production  
Cross Section

72-Hf-177  
-73.09 To 135.3 %

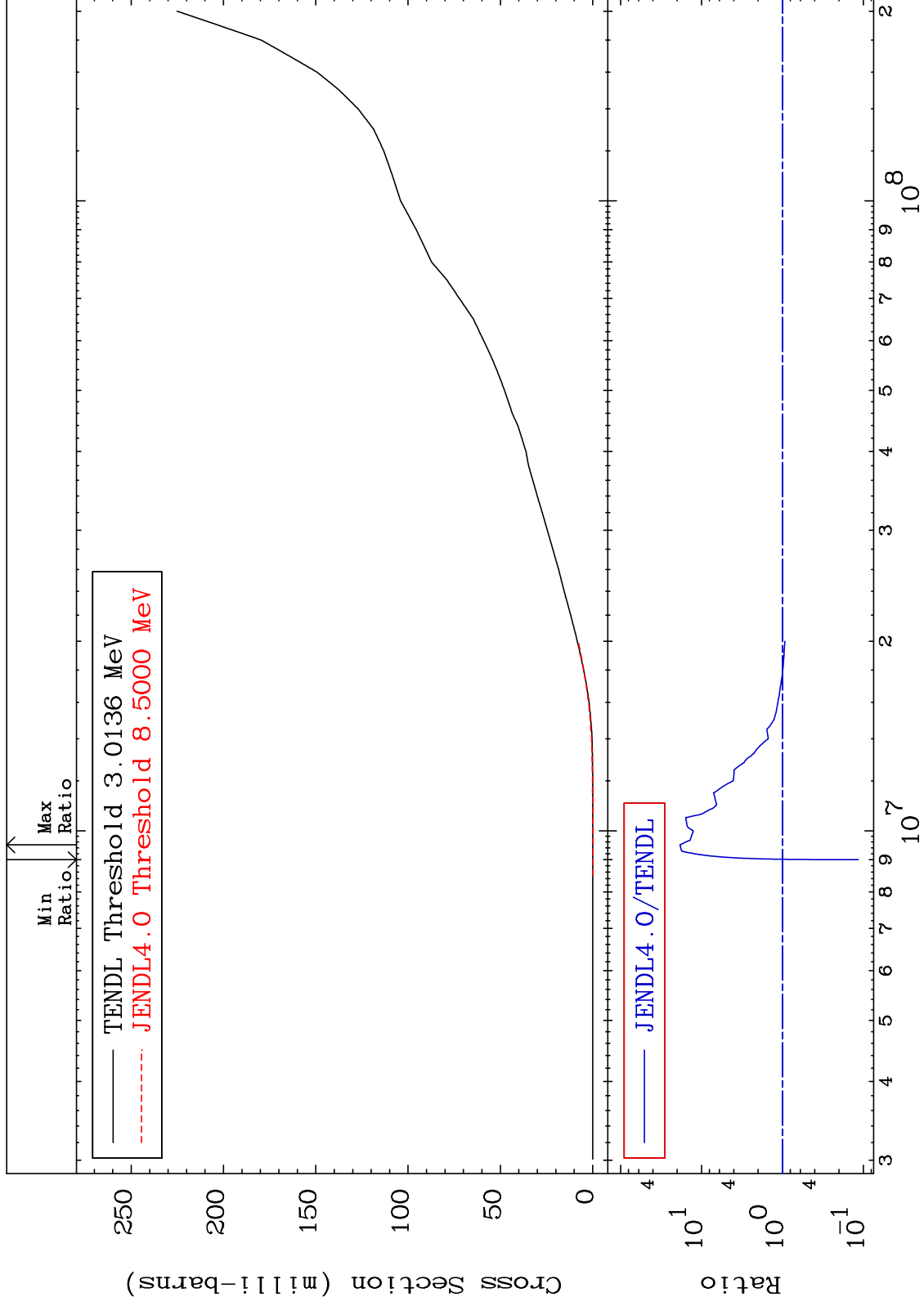




MAT 7234

Deuterium Production  
Cross Section

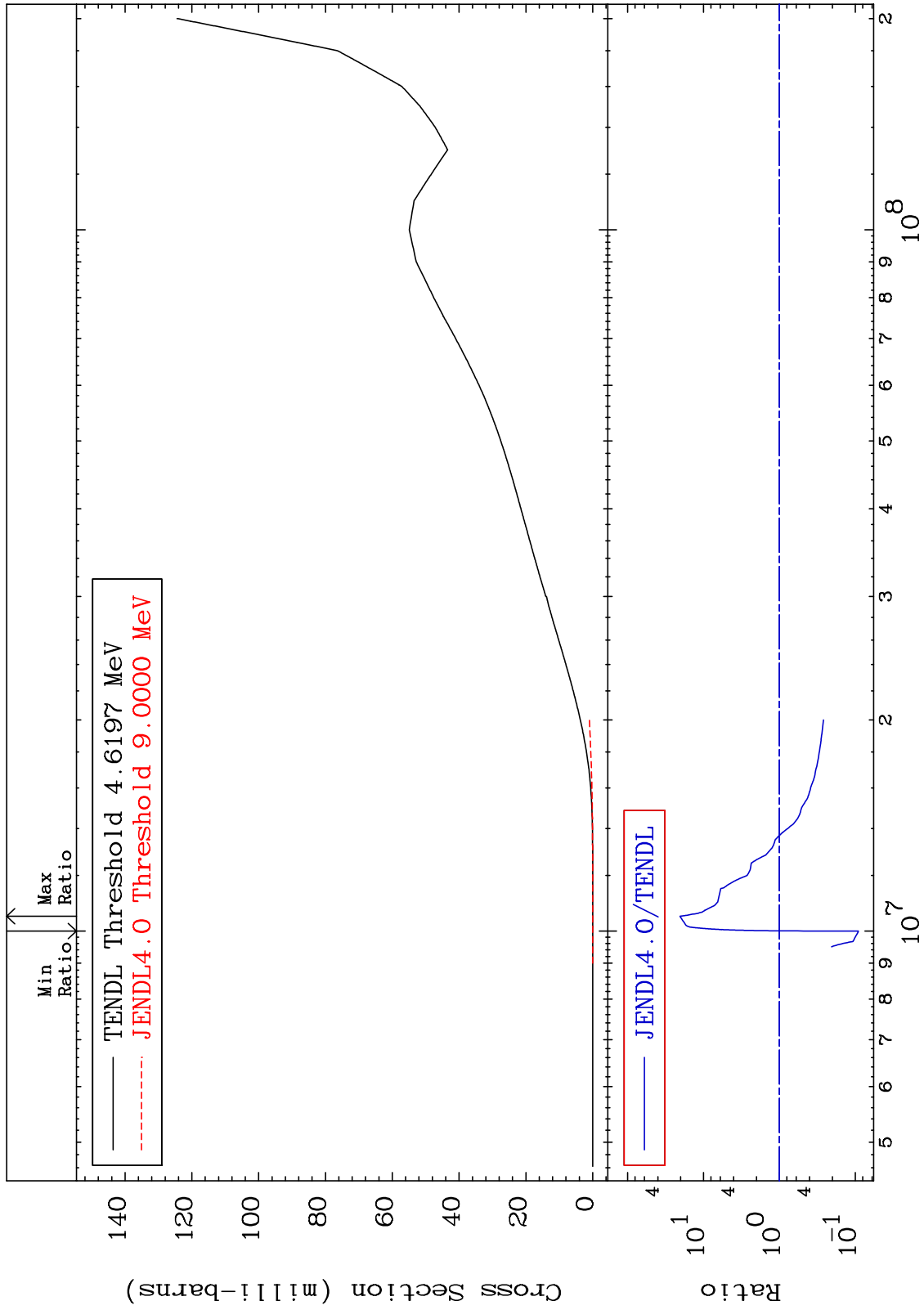
72-Hf-177  
-88.48 To 1747. %



MAT 7234

Tritium Production  
Cross Section

72-Hf-177  
-90.91 To 1940. %



33

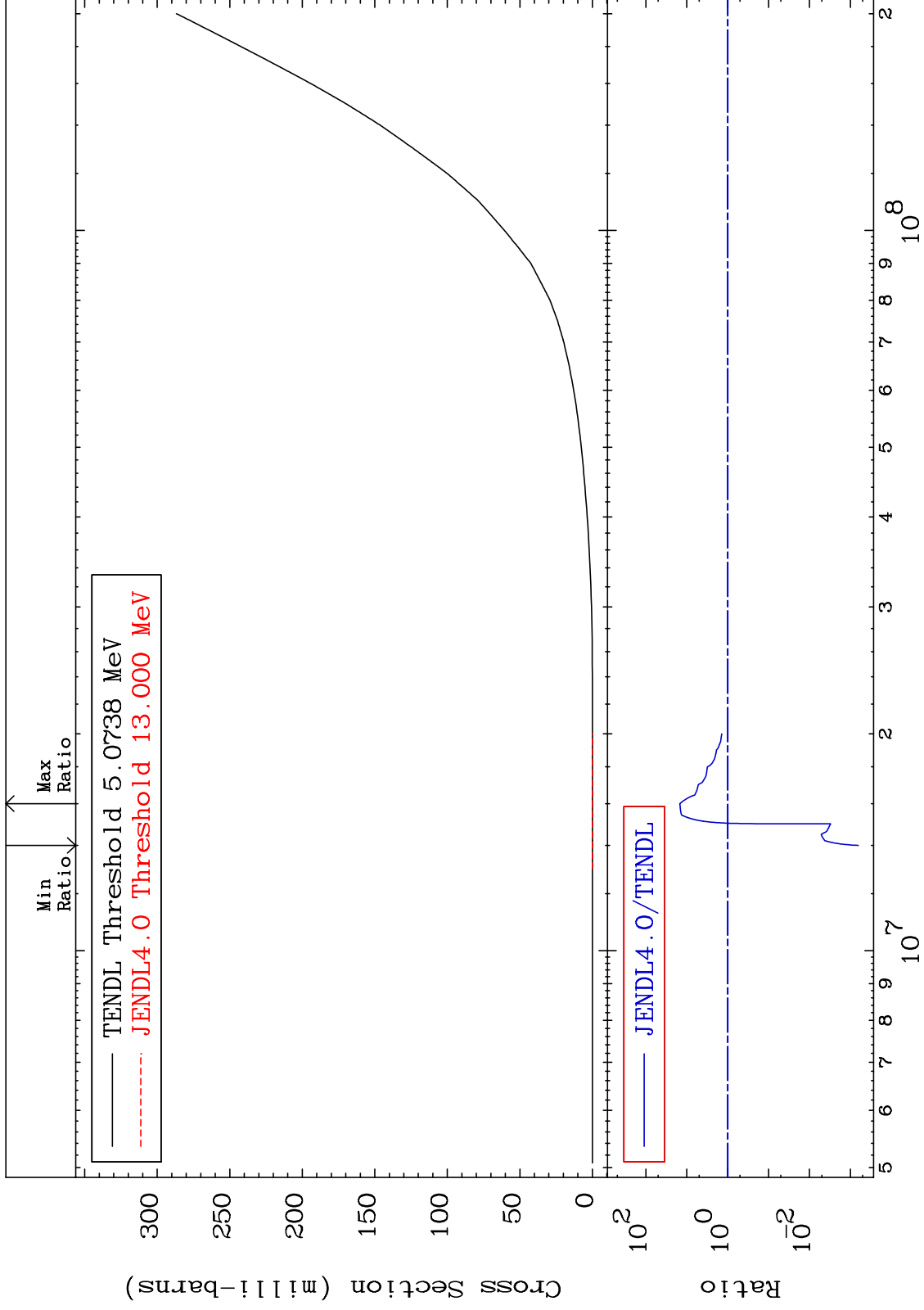
Incident Energy (eV)

72-Hf-177

MAT 7234

He-3 Production  
Cross Section

<sup>72</sup>Hf-177  
-99.94 To 1382. %



34

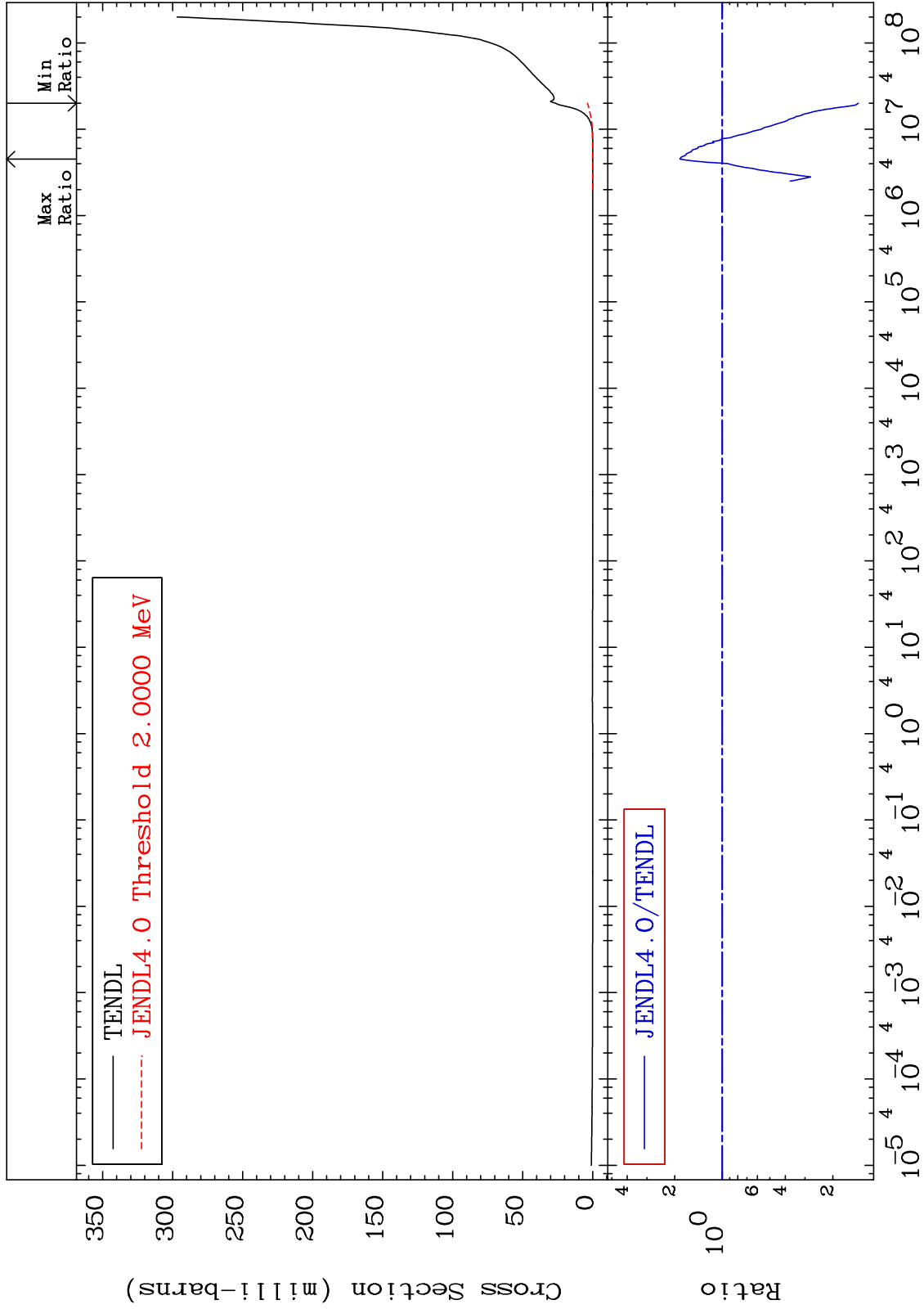
Incident Energy (eV)

<sup>72</sup>Hf-177

MAT 7234

He-4 Production  
Cross Section

72-Hf-177  
-86.24 To 85.40 %



35

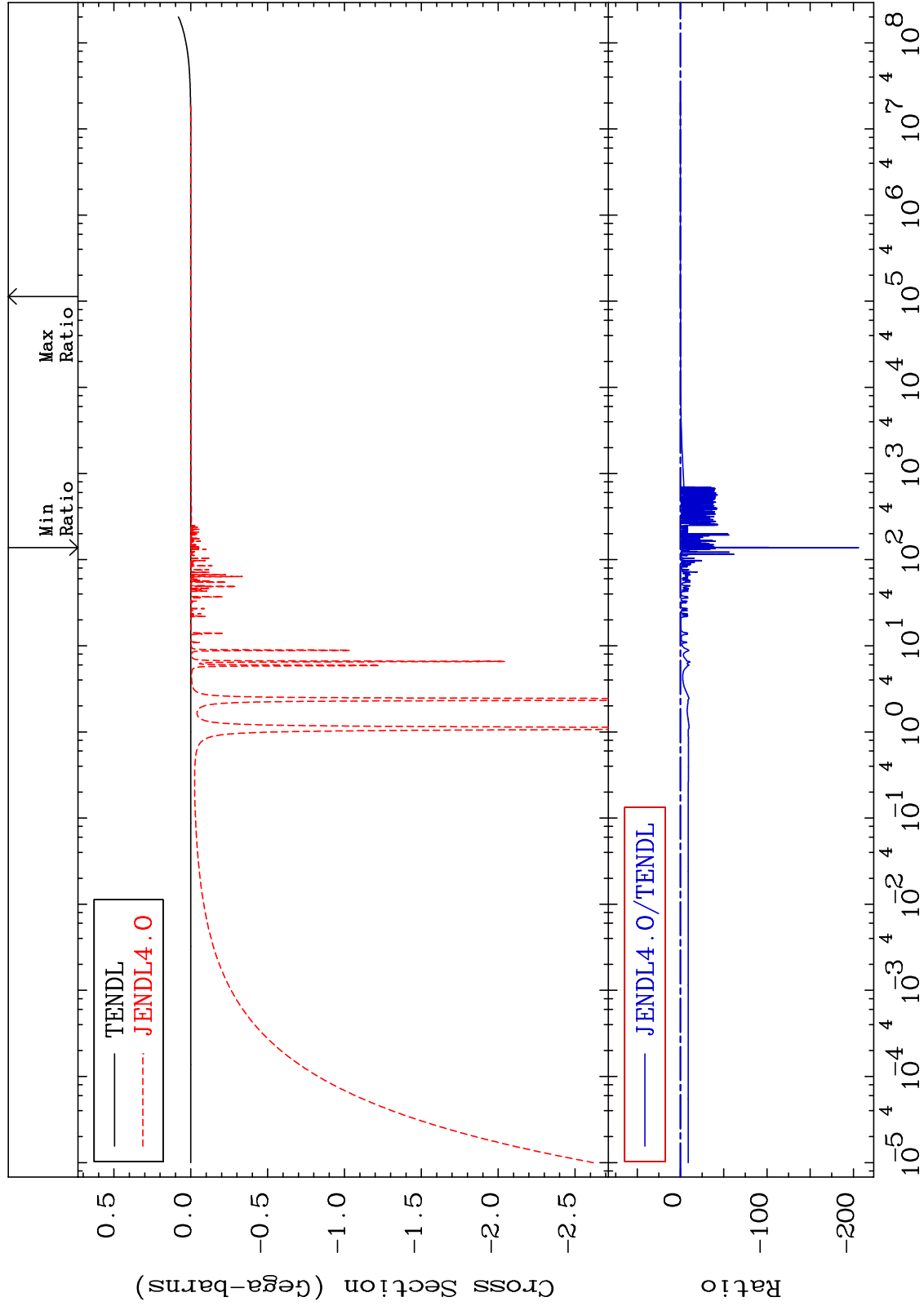
Incident Energy (eV)

72-Hf-177

MAT 7234

Kerma total (eV-barns)  
Cross Section

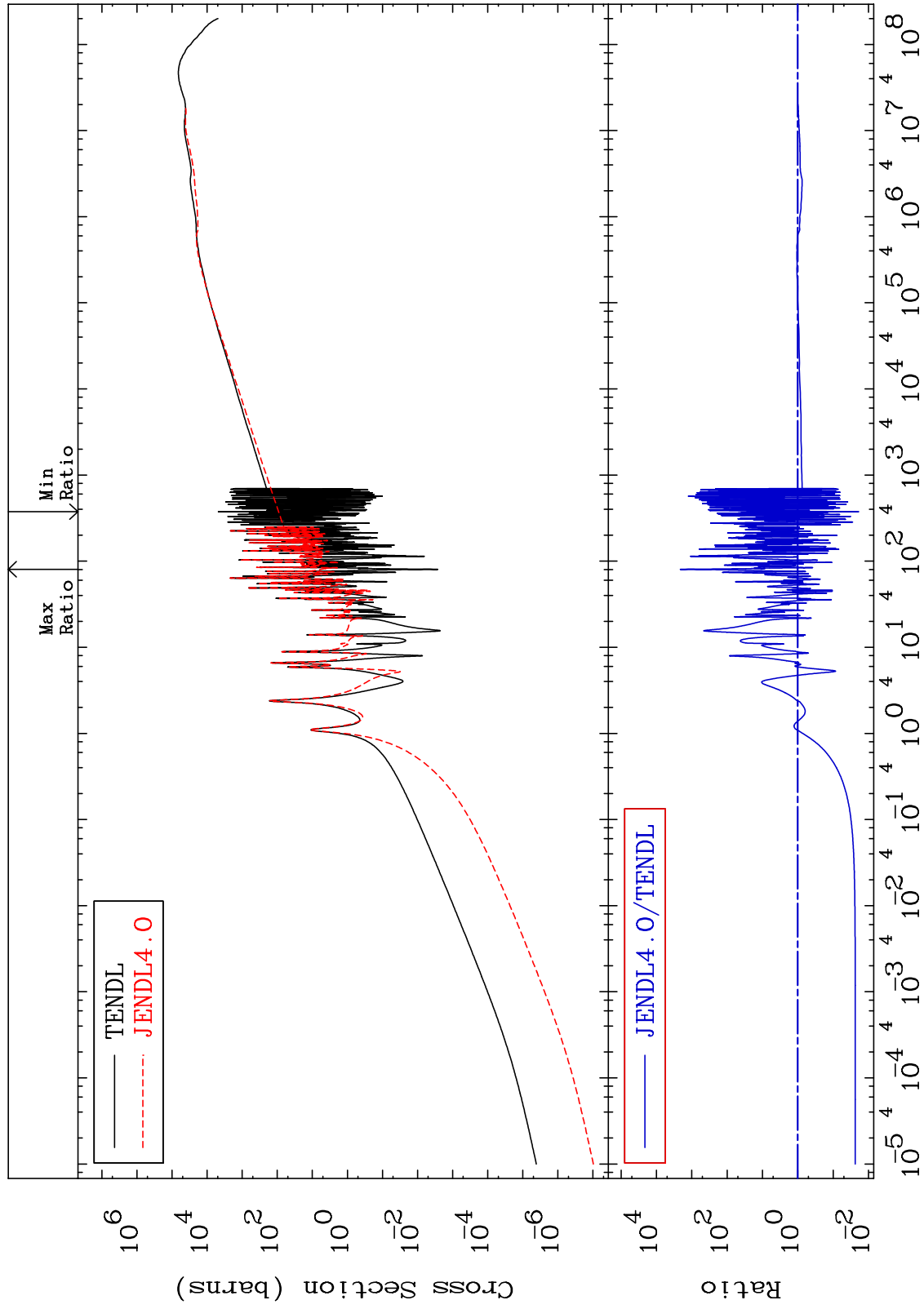
72-Hf-177  
-9999. To 3585. %



MAT 7234

Kerma elastic  
Cross Section

72-Hf-177  
-98.08 To 9999. %



37

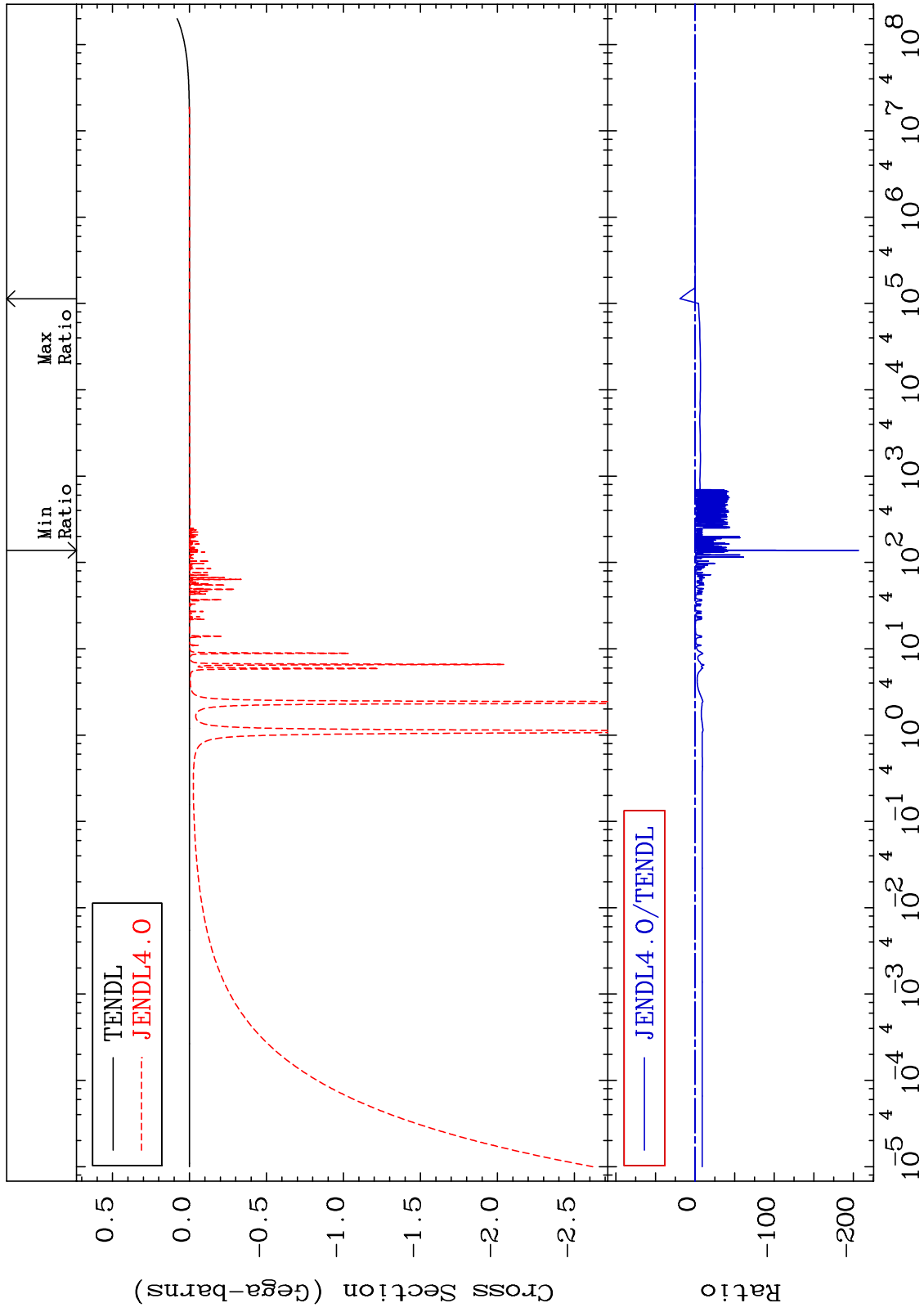
Incident Energy (eV)

72-Hf-177

MAT 7234

Kerma non-elastic (all but mt2)  
Cross Section

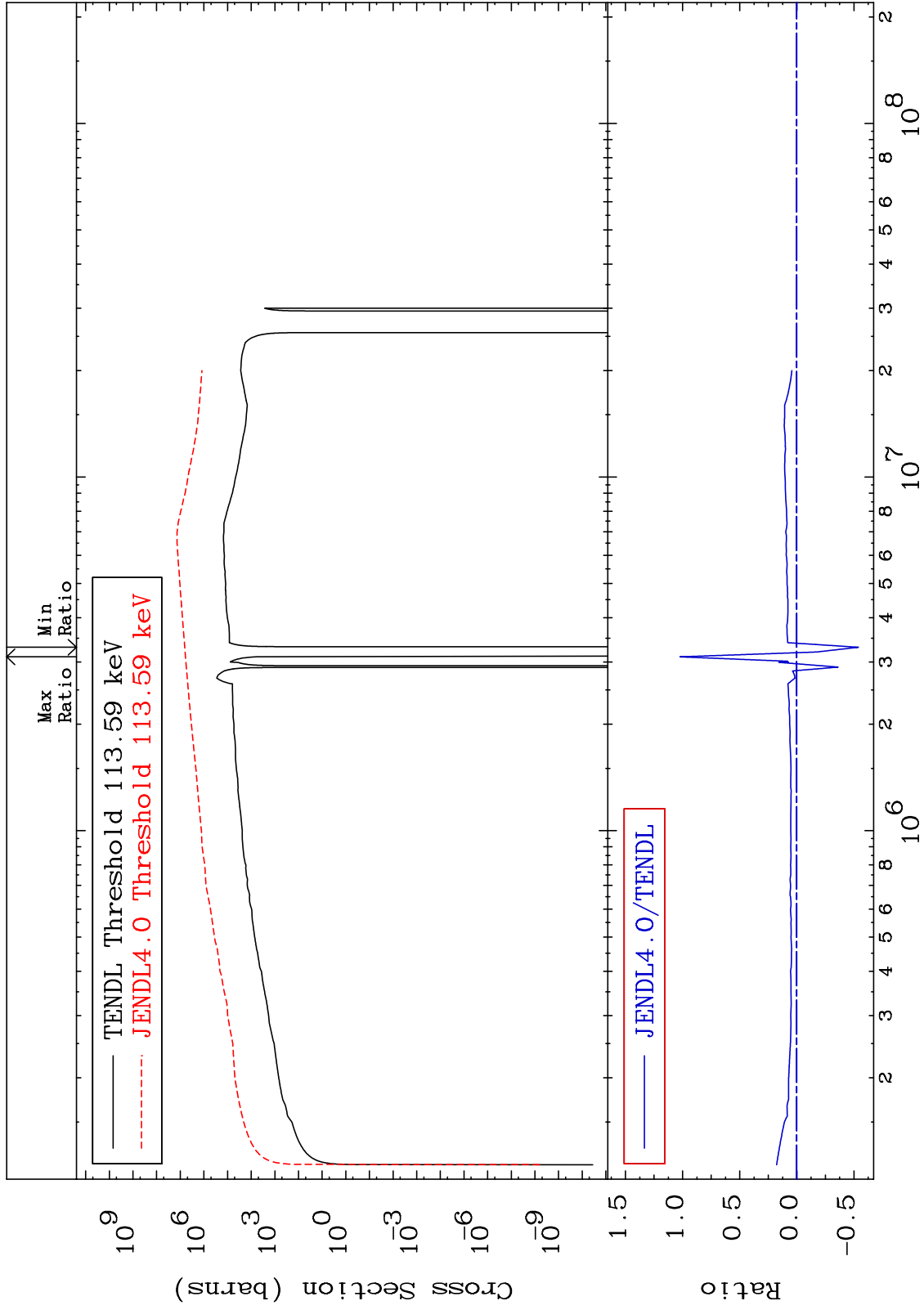
72-Hf-177  
-9999. To 9999. %



MAT 7234

Kerma inelastic (mt51-91)  
Cross Section

72-Hf-177  
-9999. To 9999. %

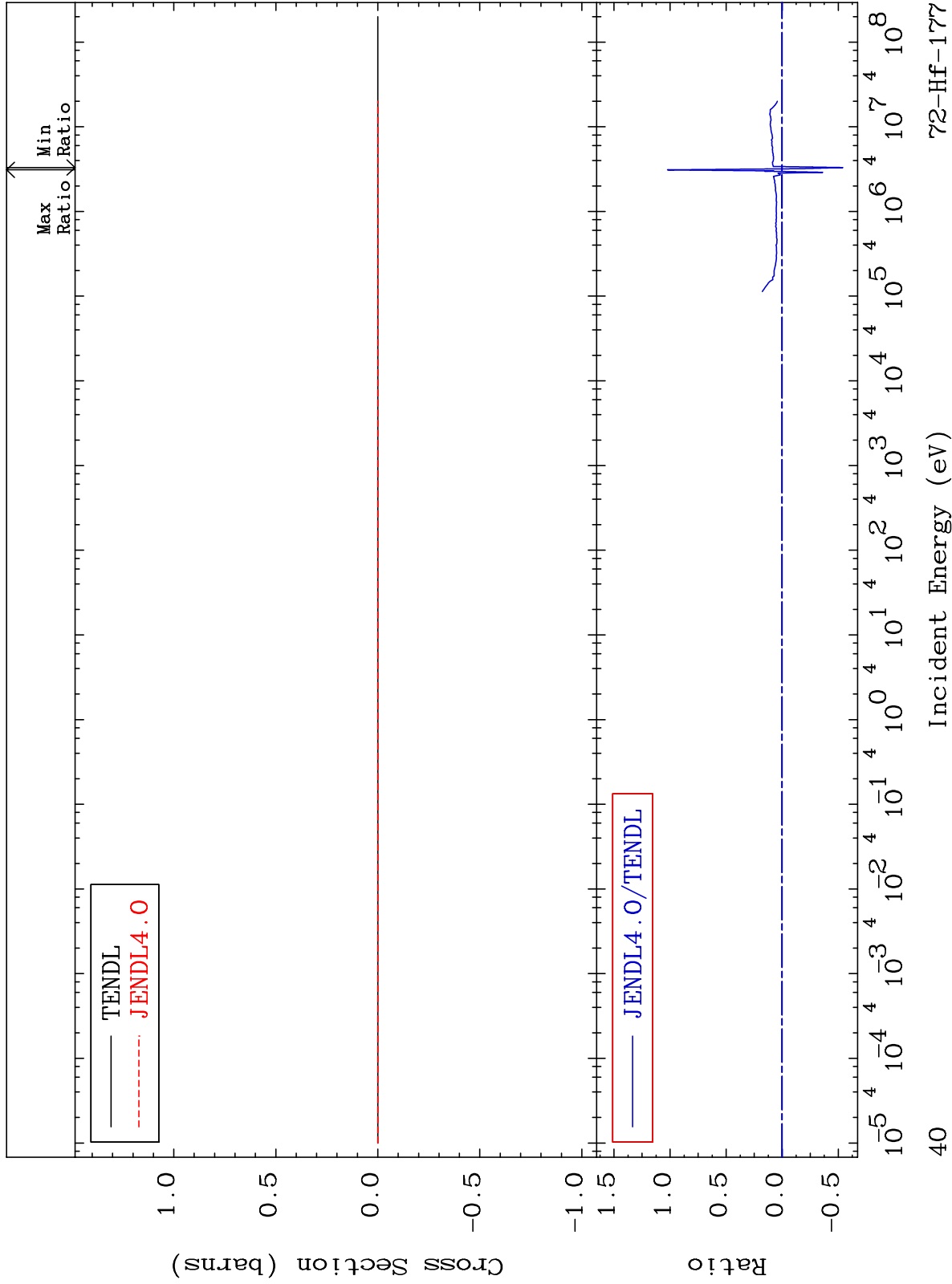




MAT 7234

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

72-Hf-177  
-9999. To 9999. %



72-Hf-177

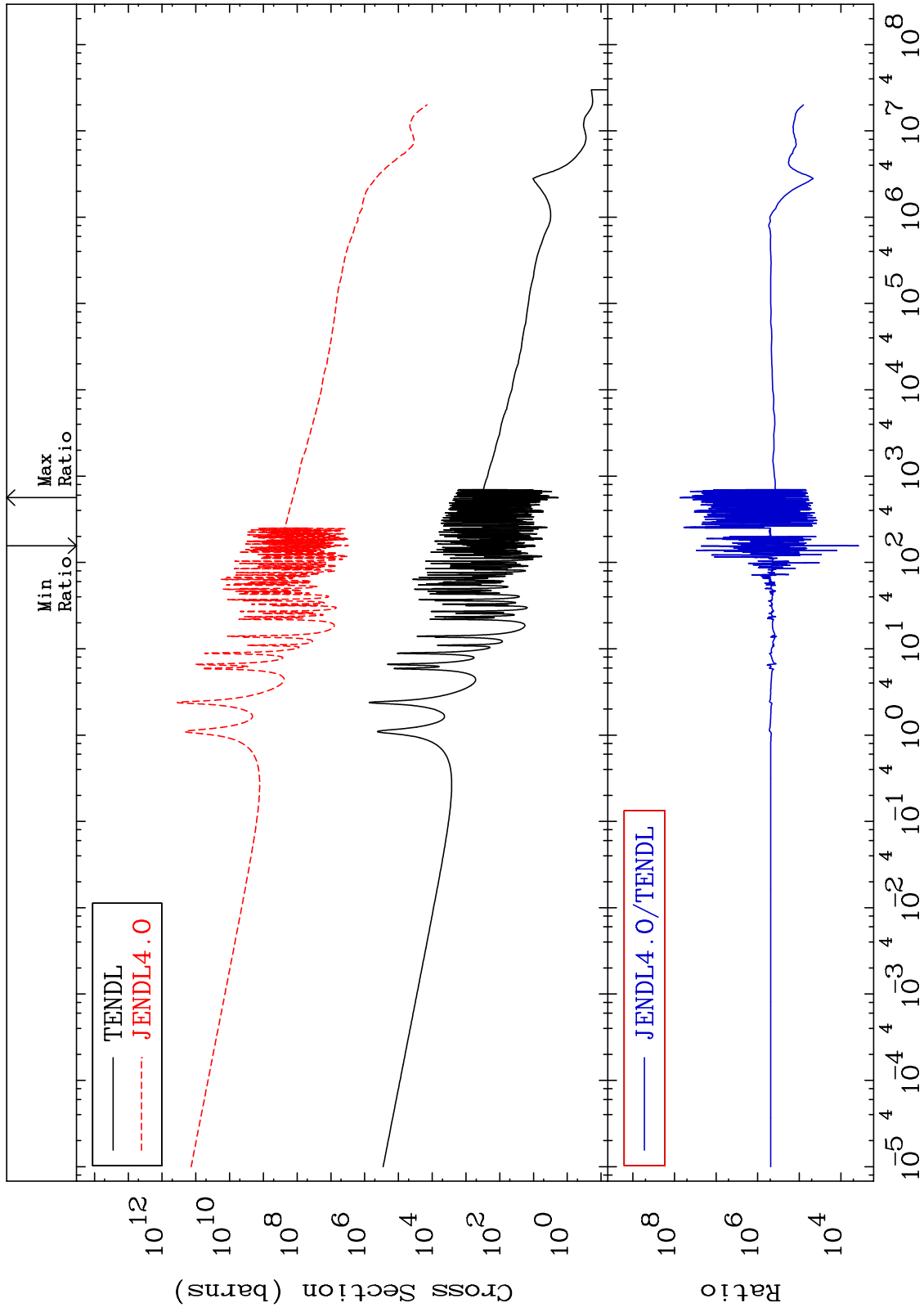
Incident Energy (eV)

40

MAT 7234

Kerma capture (mt102)  
Cross Section

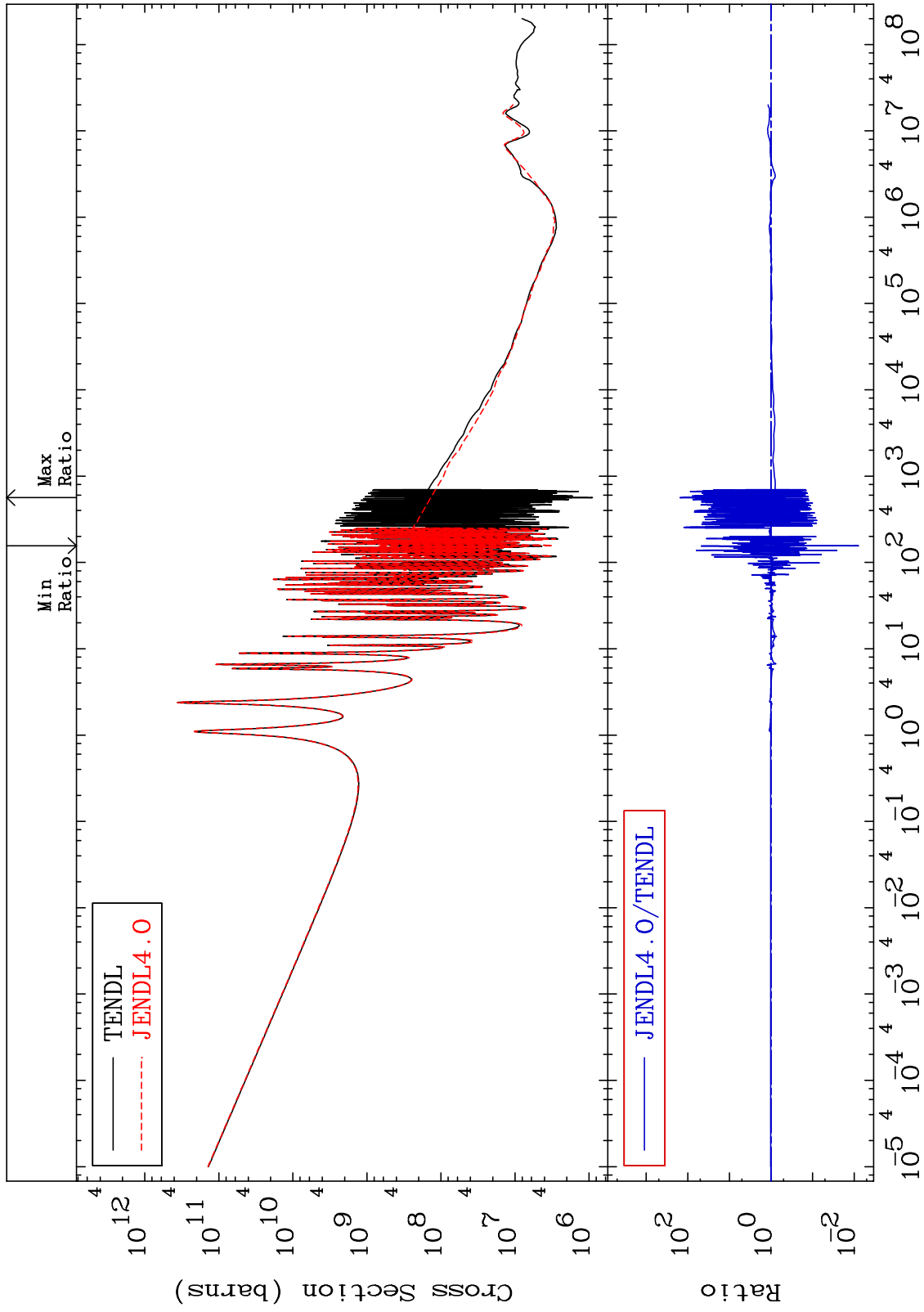
72-Hf-177  
9999. To 9999. %



MAT 7234

Total photon (eV-barns)  
Cross Section

72-Hf-177  
-99.21 To 9999. %



42

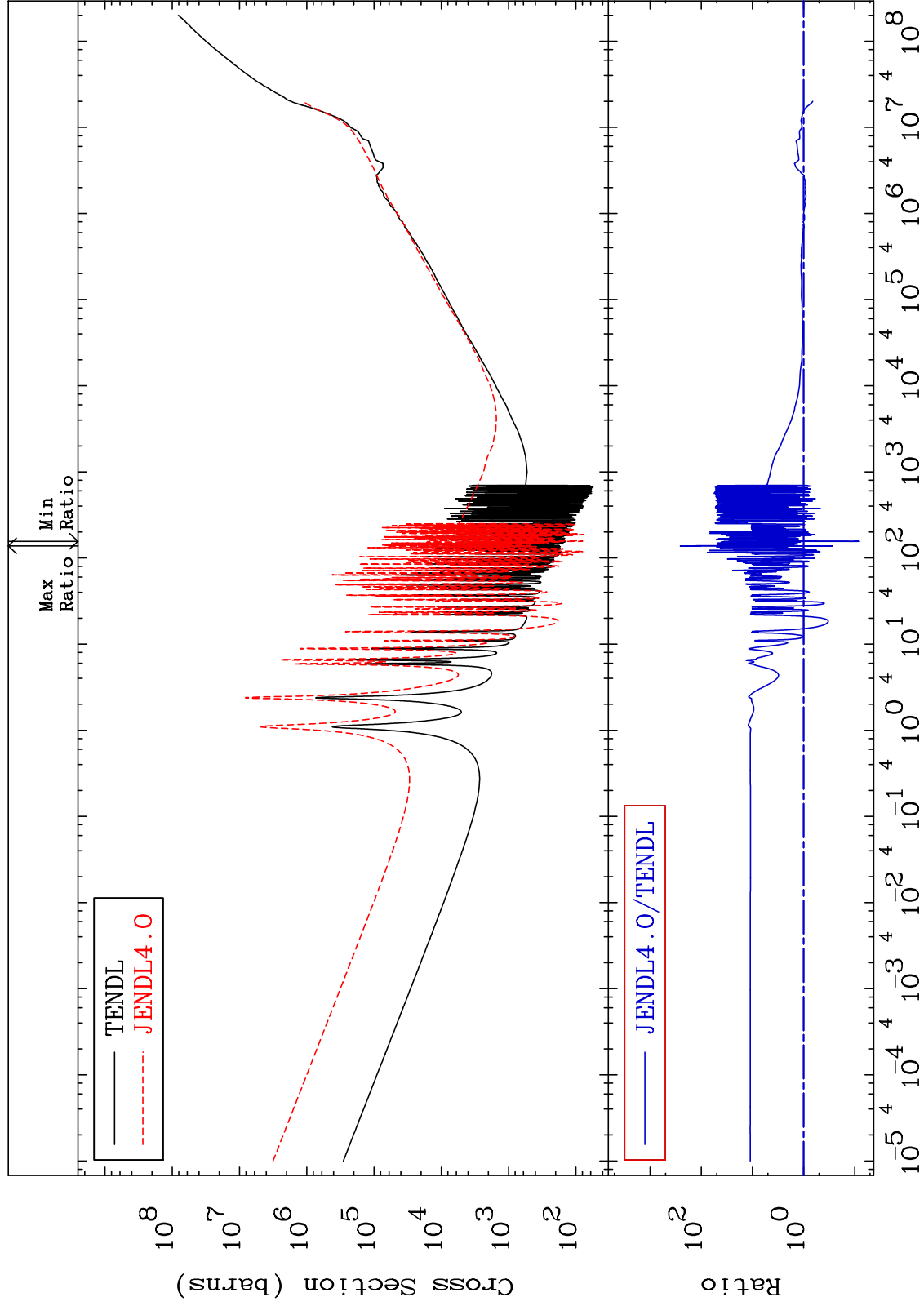
Incident Energy (eV)

72-Hf-177

MAT 7234

Total kinematic kerma (high limit)  
Cross Section

72-Hf-177  
-91.58 To 9999. %



43

Incident Energy (eV)

72-Hf-177

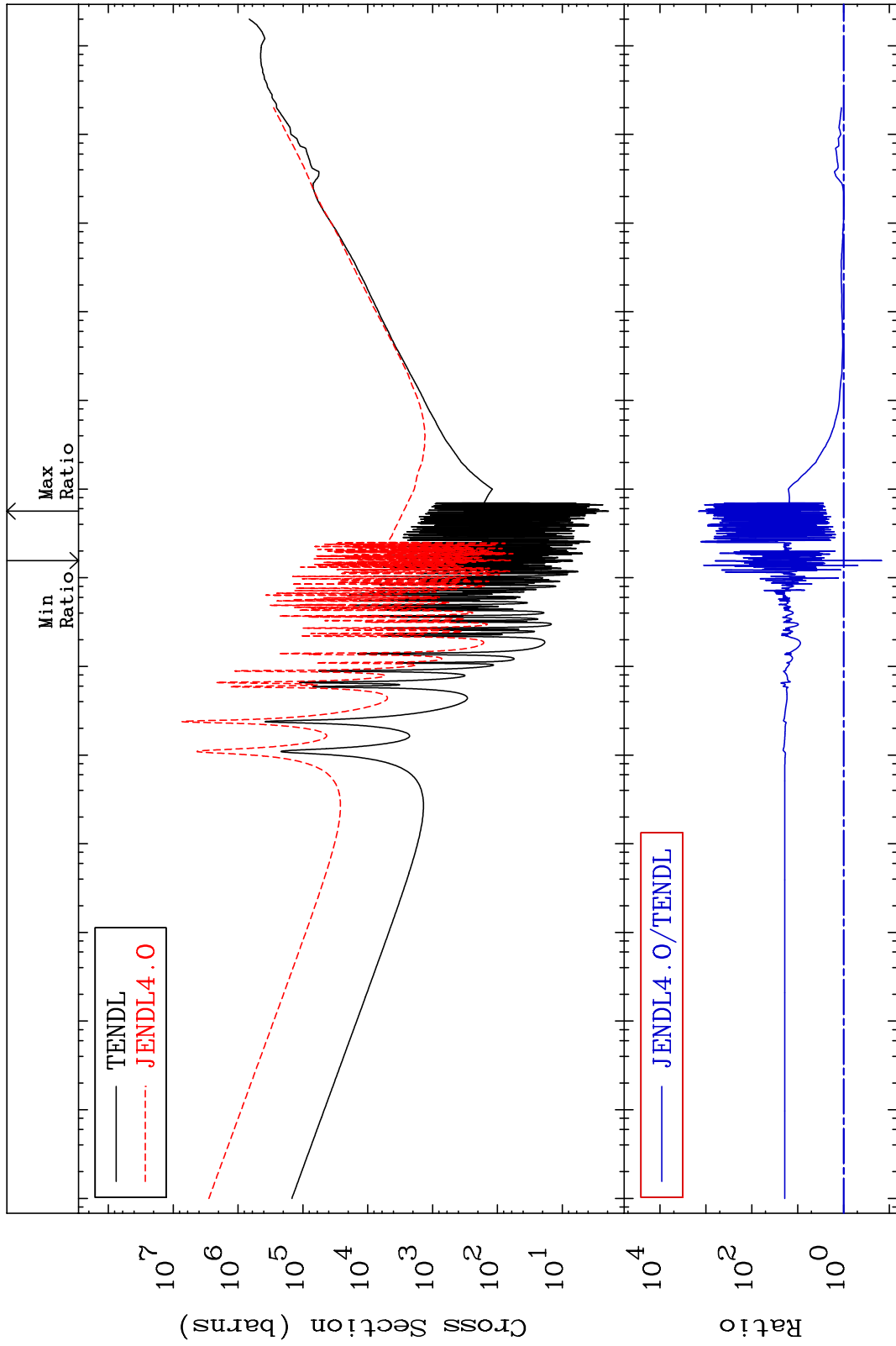
MAT 7234

Dpa total (eV-barns)

72-Hf-177

-85.14 To 9999. %

Cross Section



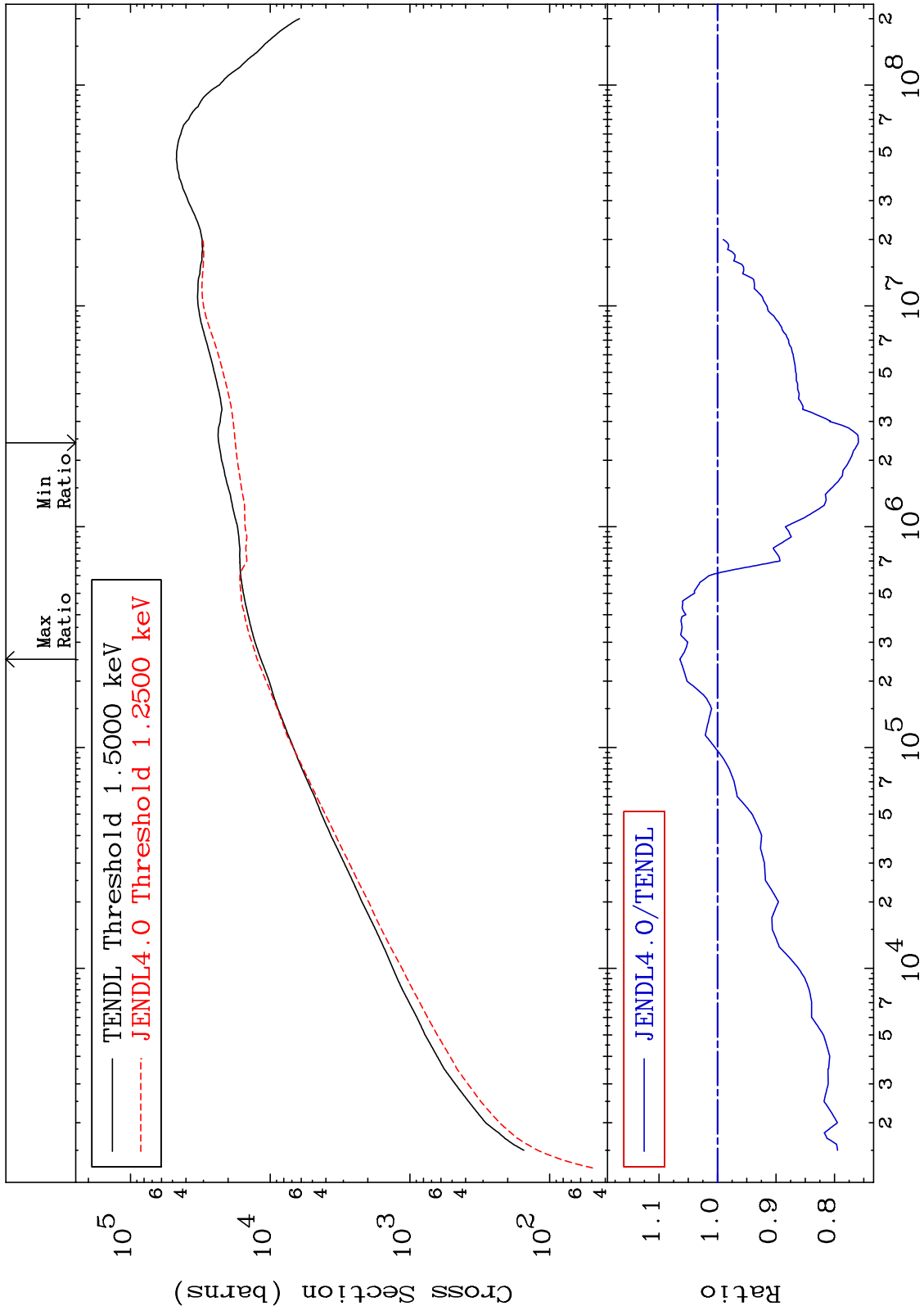
Incident Energy (eV)

72-Hf-177

MAT 7234

Dpa elastic (mt2)  
Cross Section

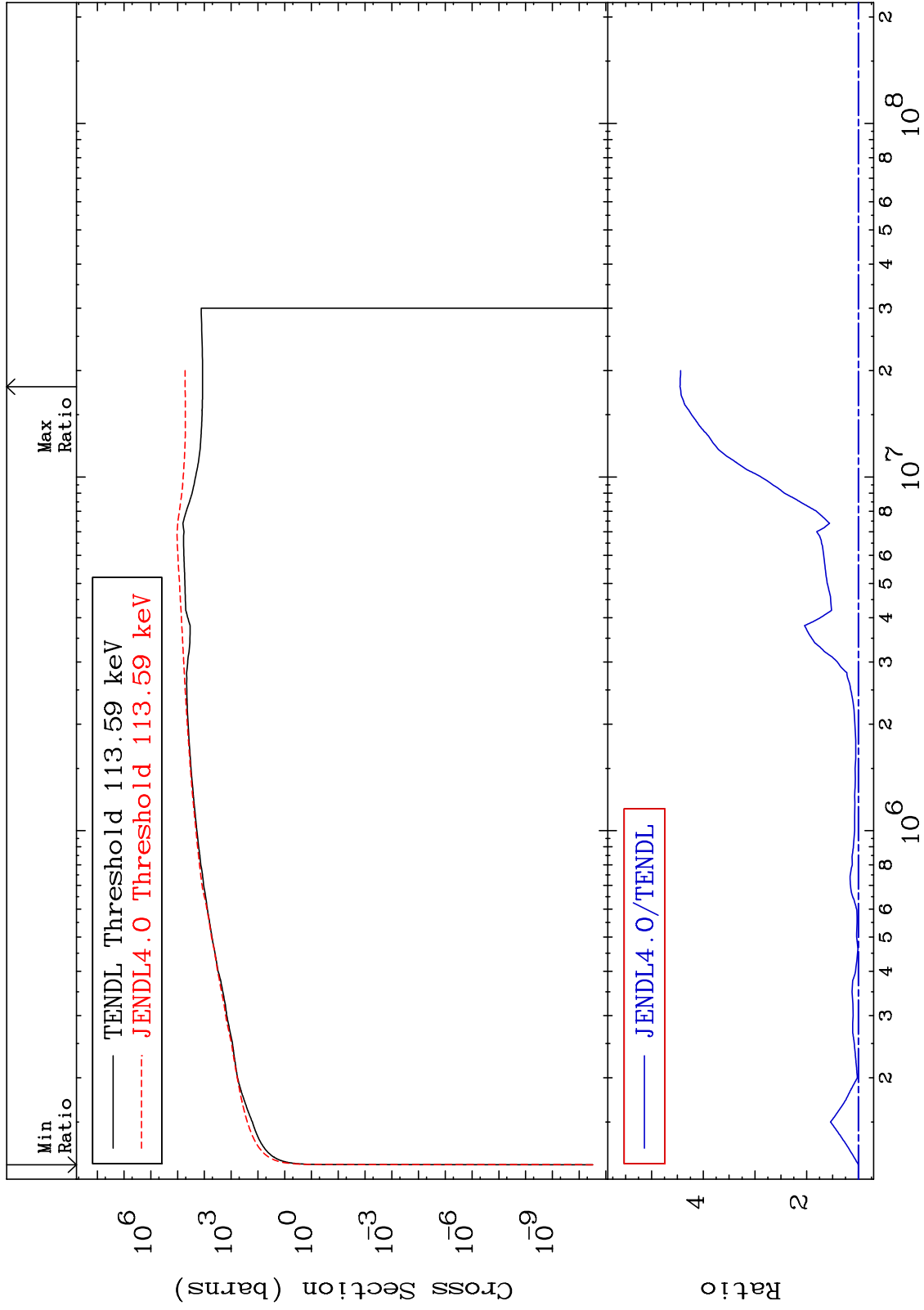
72-Hf-177  
-24.07 To 6.447 %



MAT 7234

Dpa inelastic (mt51-91)  
Cross Section

72-Hf-177  
0.020 To 344.9 %



46

72-Hf-177

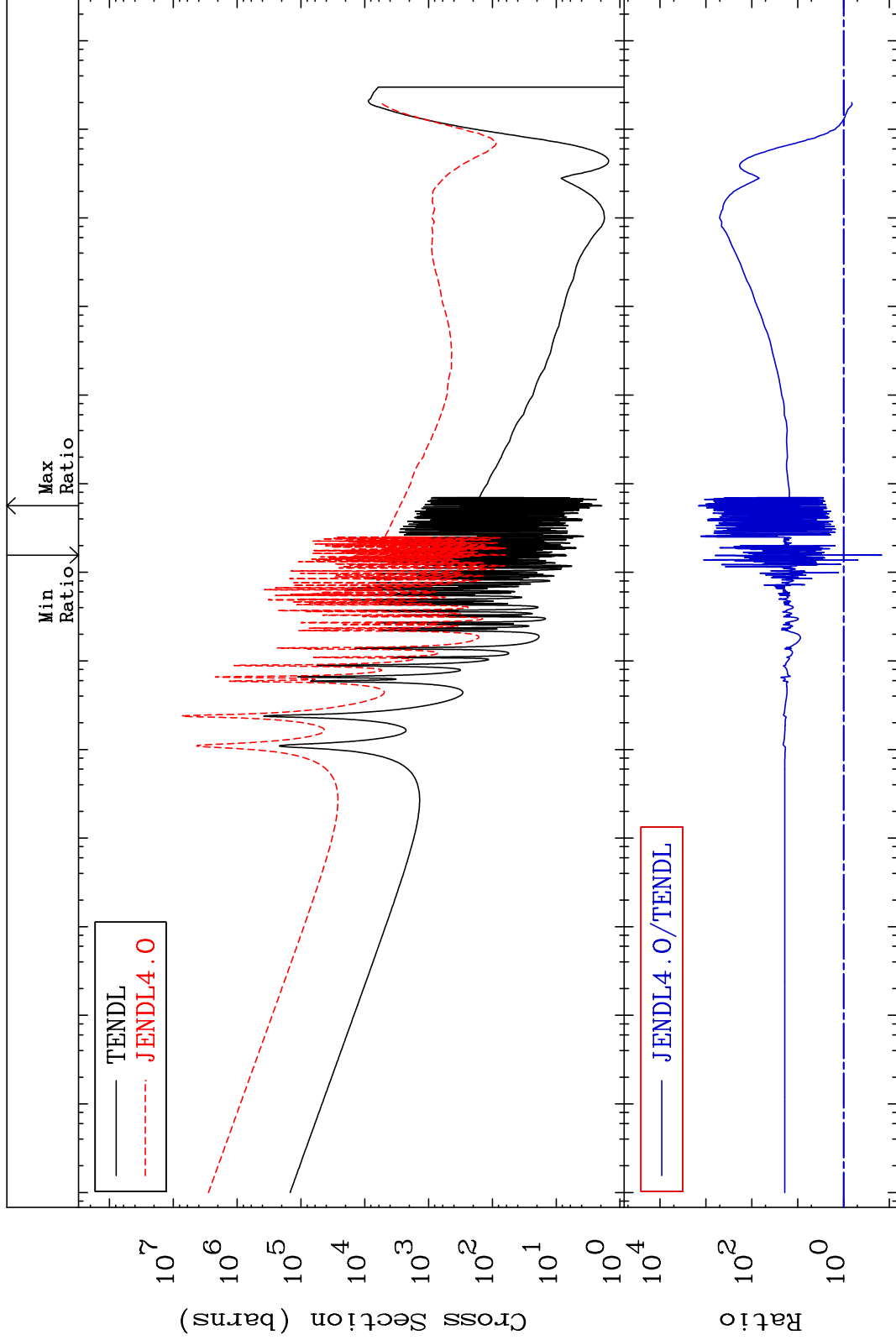
MAT 7234

Dpa disappearance (mt102 -120)

72-Hf-177

-85.14 To 9999. %

Cross Section



Incident Energy (eV)

47

72-Hf-177



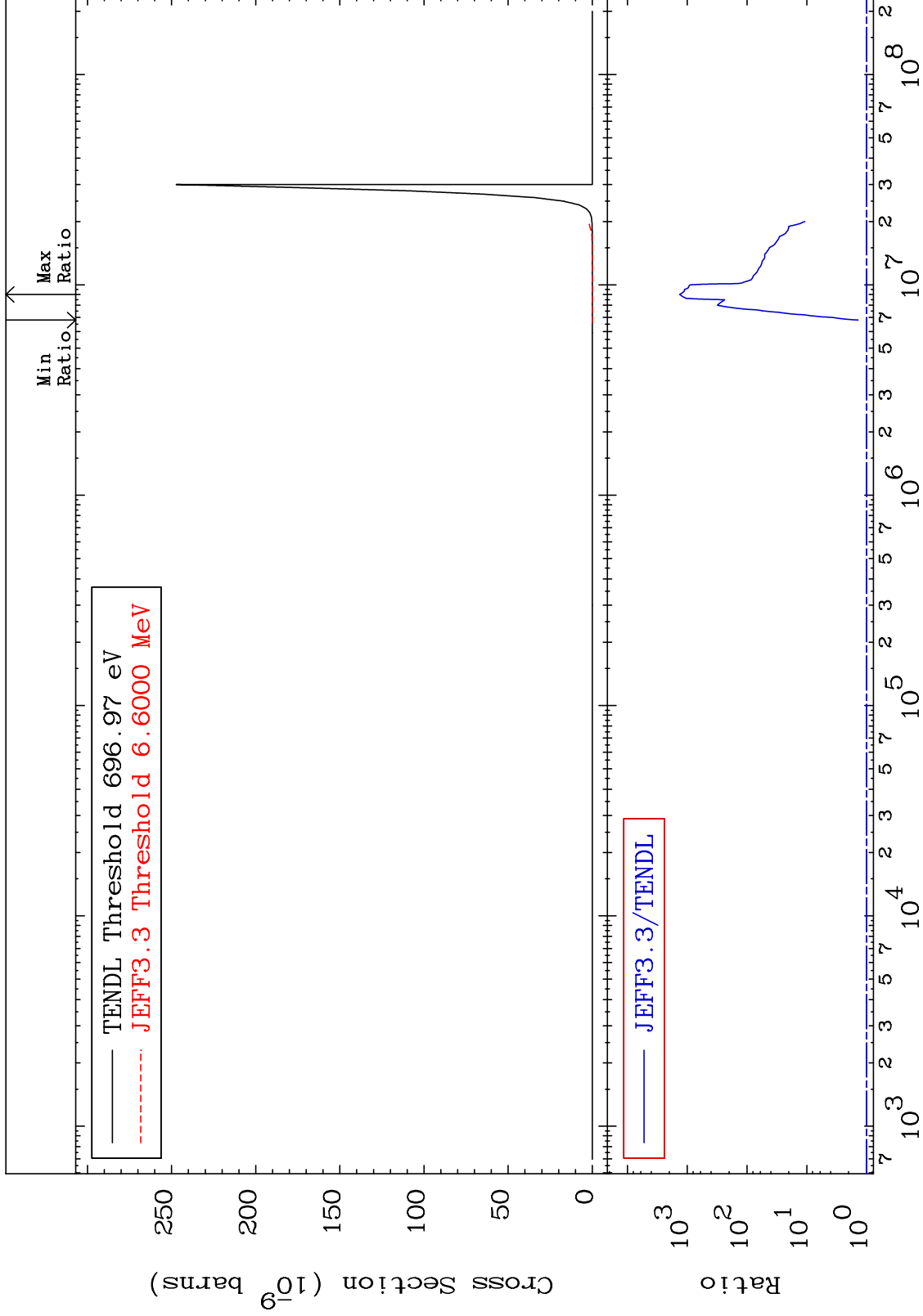
MAT 7234

(n,p)  $\alpha$

Cross Section

72-Hf-177

38.16 To 9999. %



48

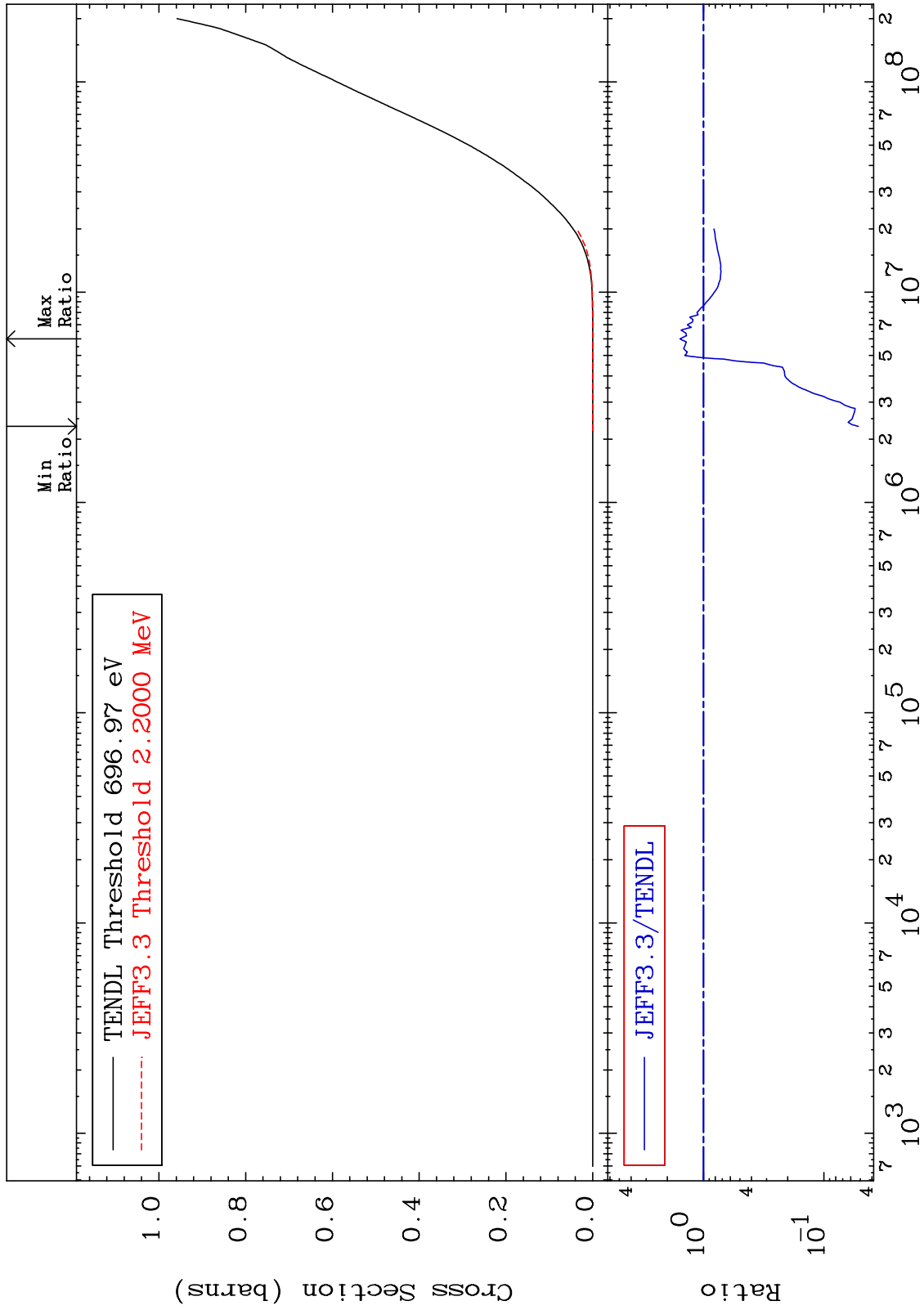
Incident Energy (eV)

72-Hf-177

MAT 7234

Hydrogen Production  
Cross Section

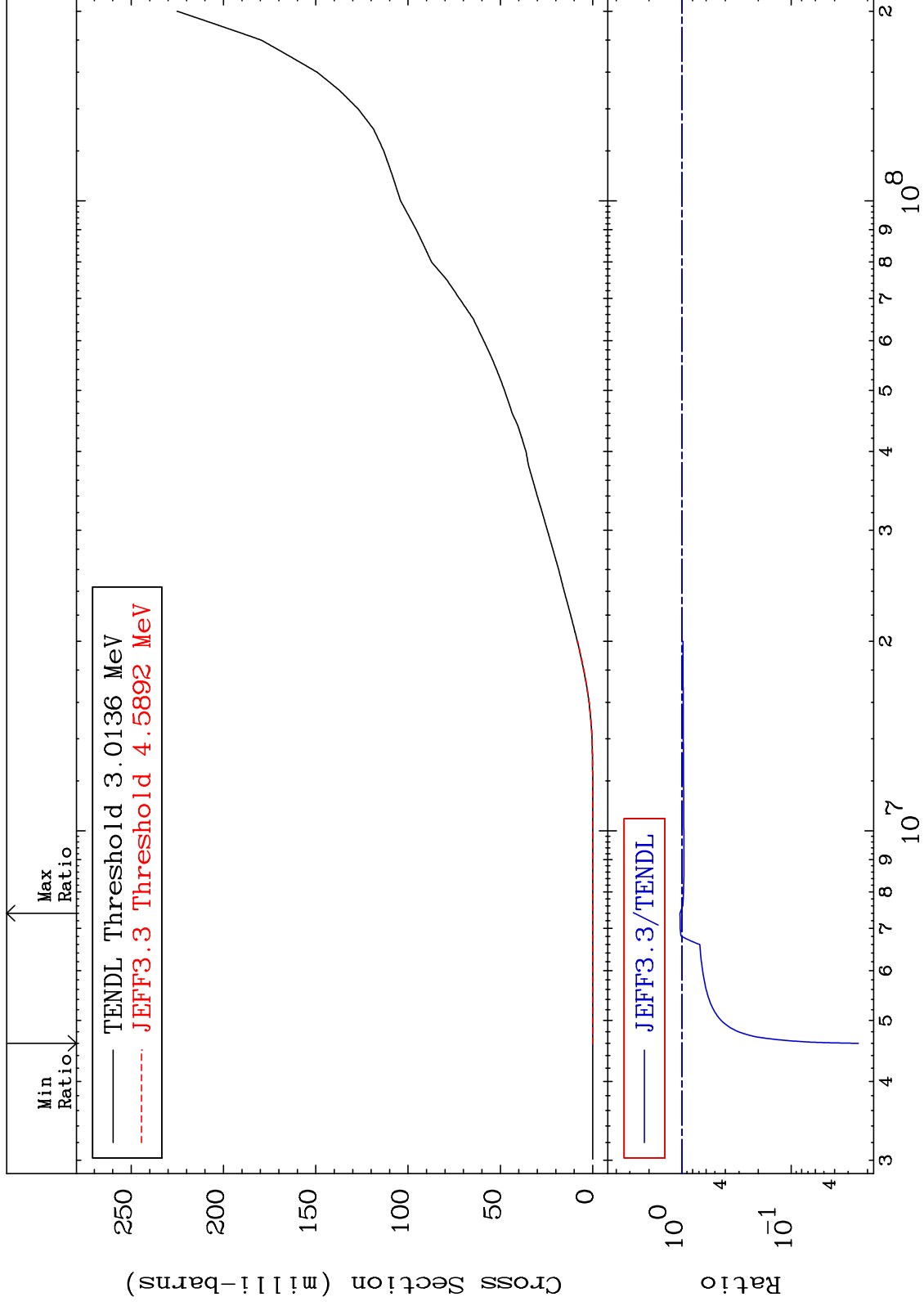
<sup>72</sup>Hf-177  
-94.82 To 56.91 %



MAT 7234

Deuterium Production  
Cross Section

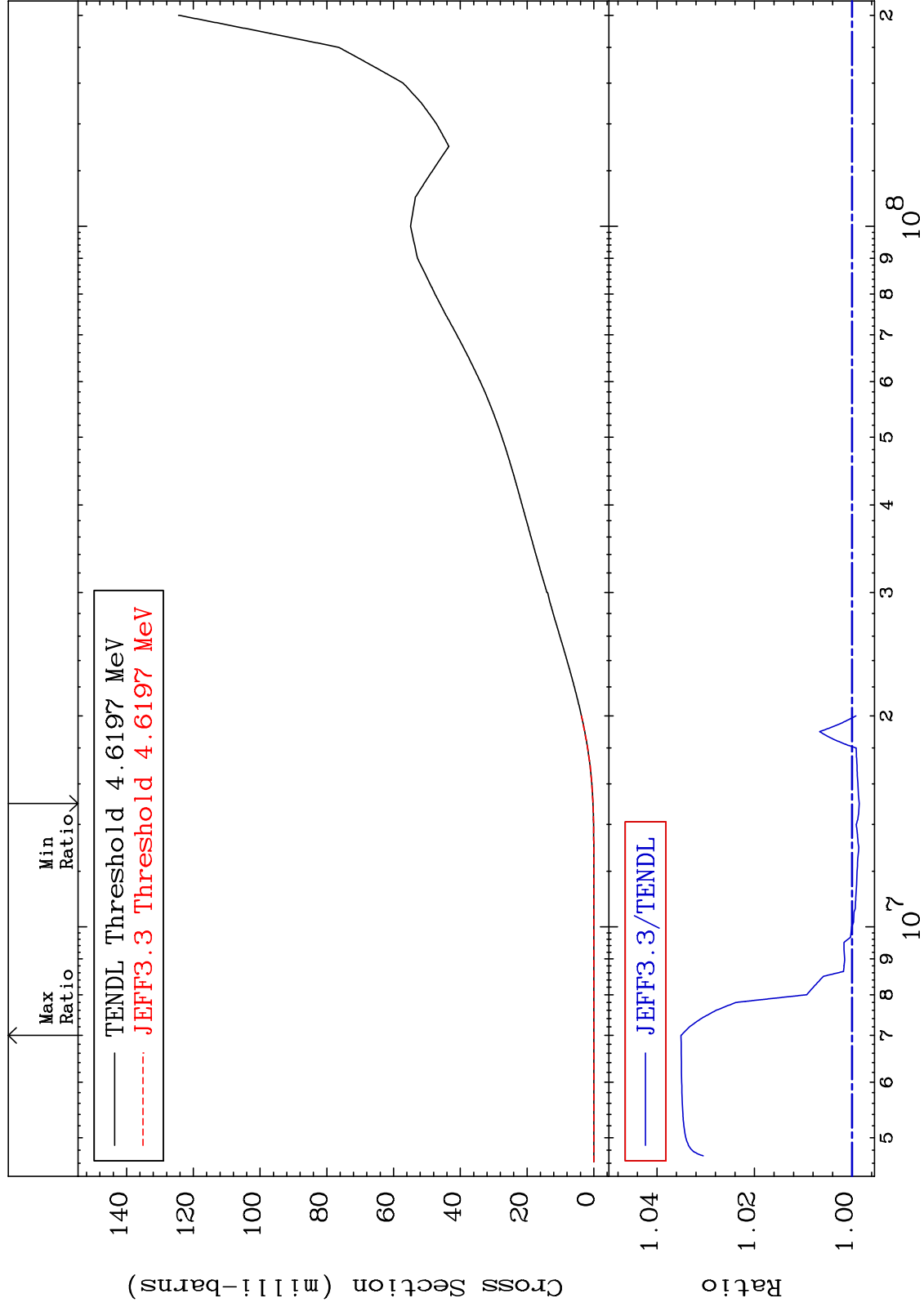
<sup>72</sup>Hf-177  
-97.58 To 4.114 %



MAT 7234

Tritium Production  
Cross Section

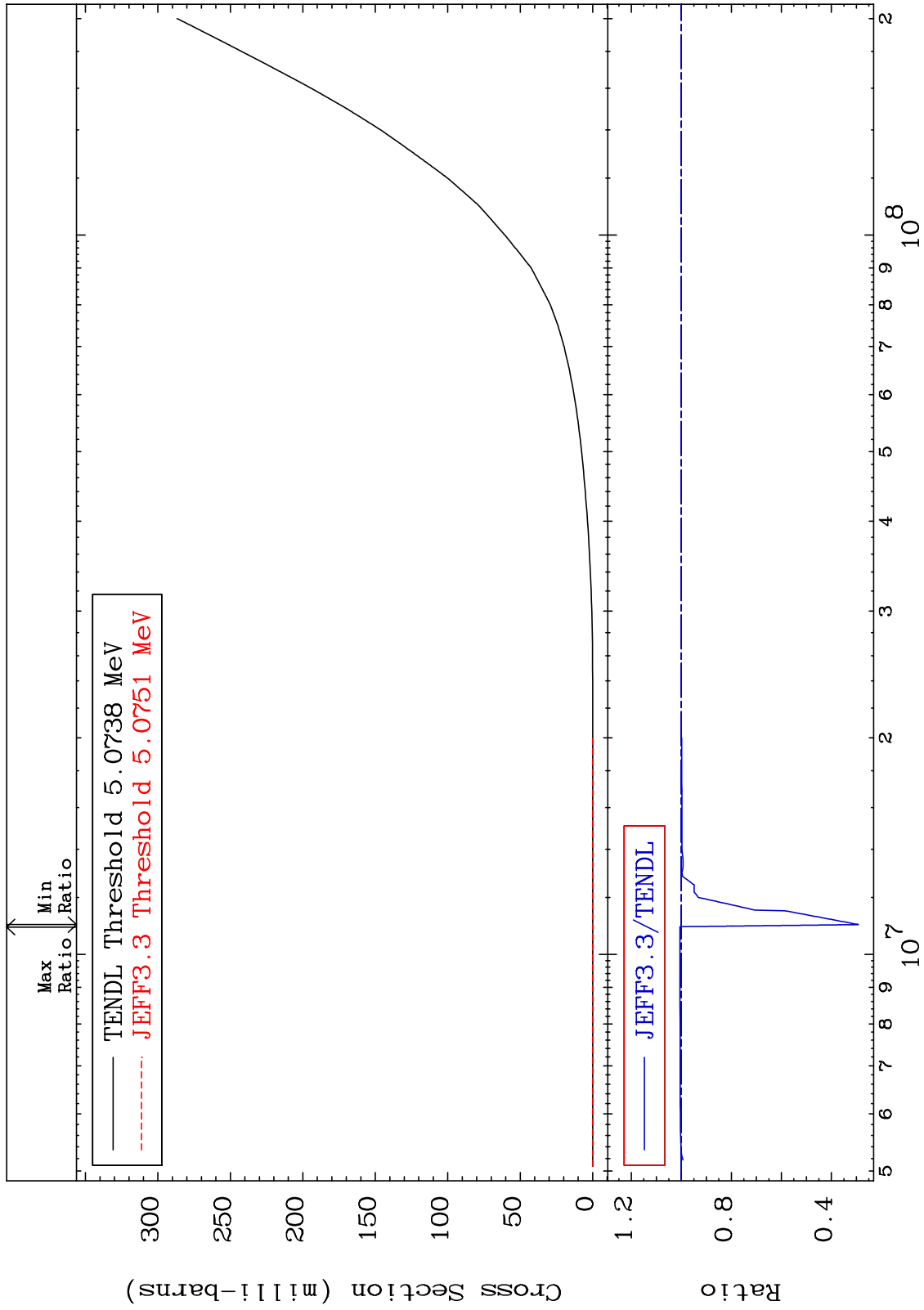
<sup>72</sup>Hf-177  
-0.148 To 3.507 %



MAT 7234

He-3 Production  
Cross Section

<sup>72</sup>Hf-177  
-70.81 To 0.522 %



52

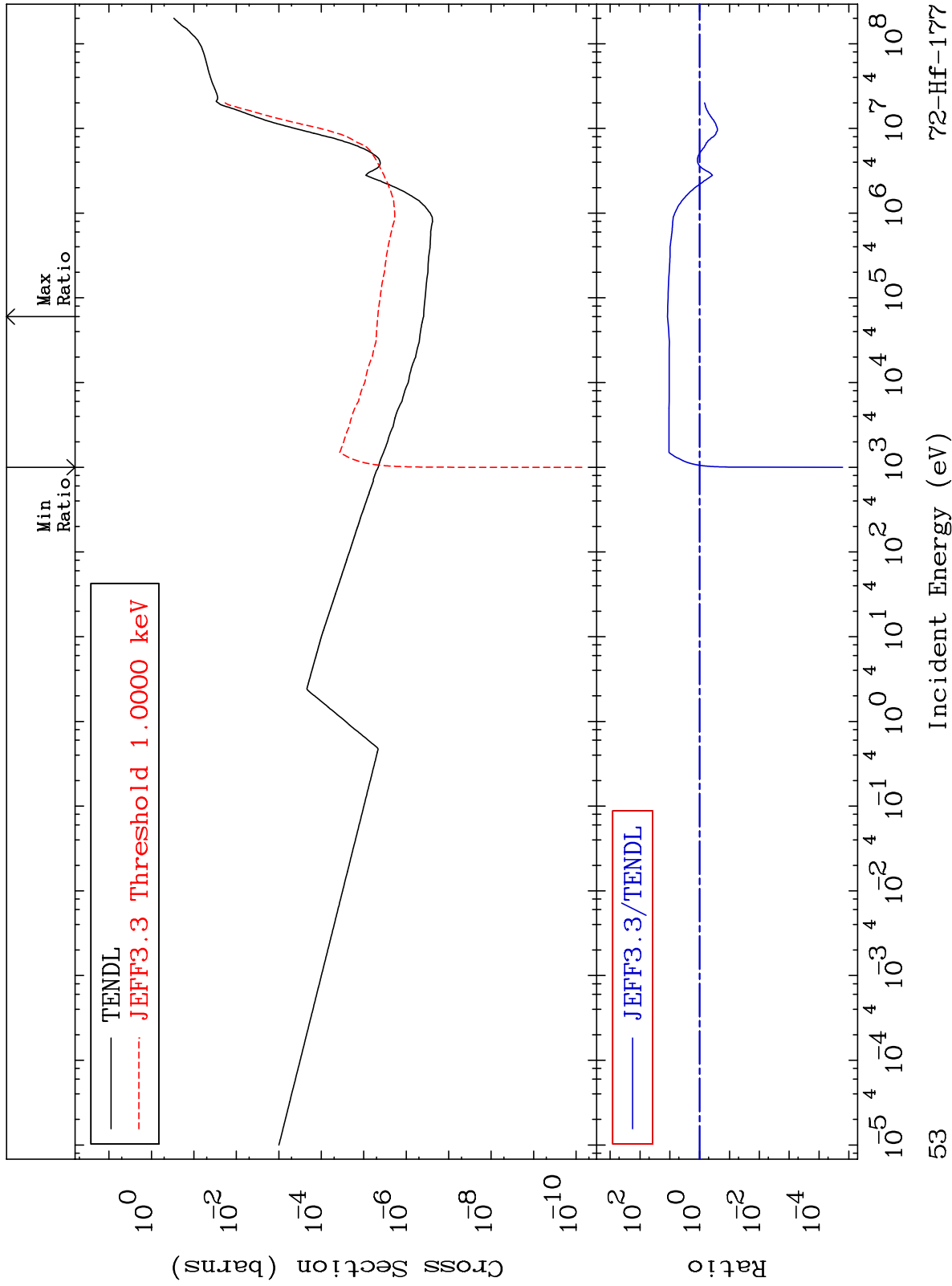
Incident Energy (eV)

<sup>72</sup>Hf-177

MAT 7234

He-4 Production  
Cross Section

72-Hf-177  
-100.0 To 1095. %



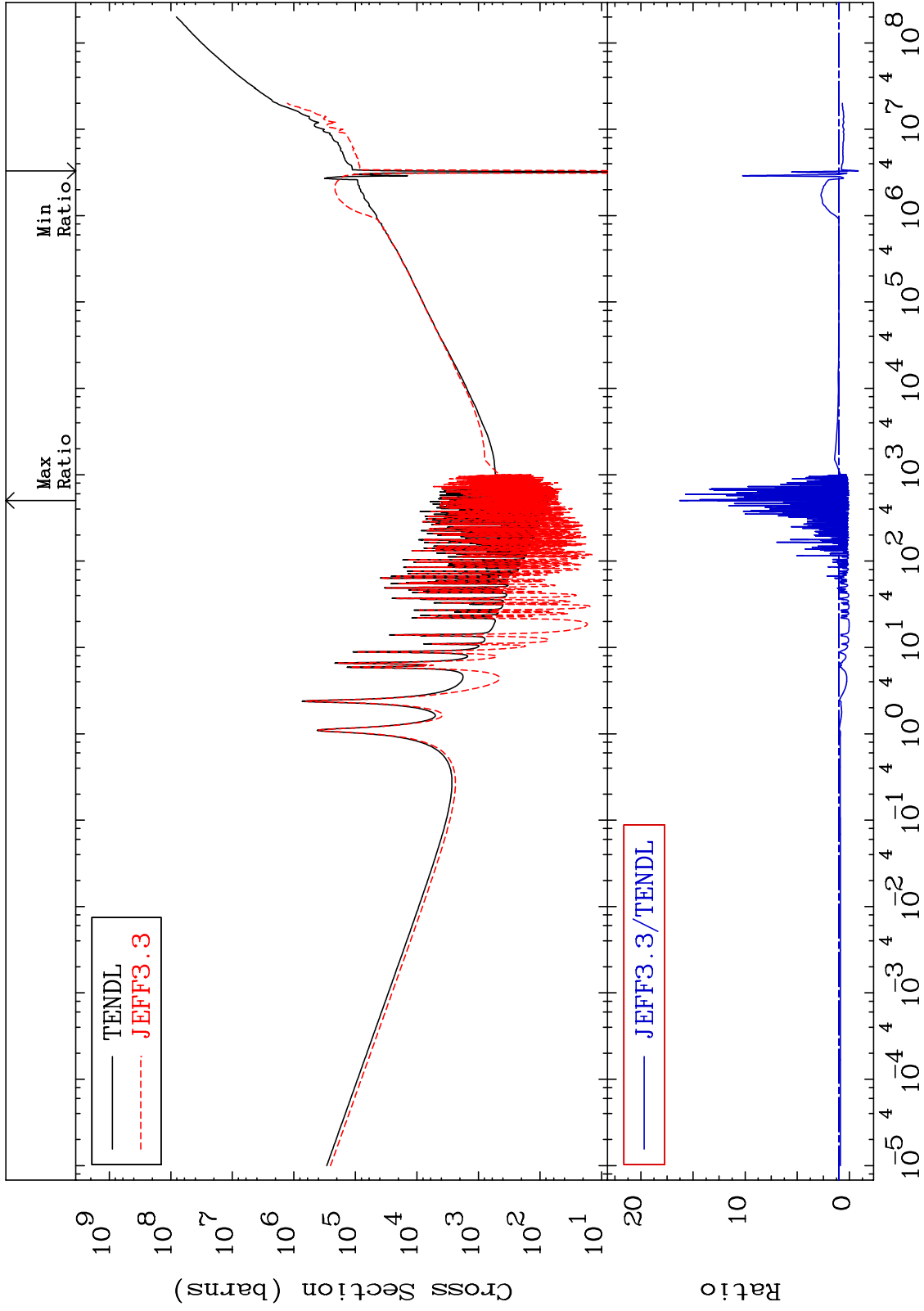
MAT 7234

Kerma total (eV-barns)

72-Hf-177

-186.0 To 1527. %

Cross Section



54

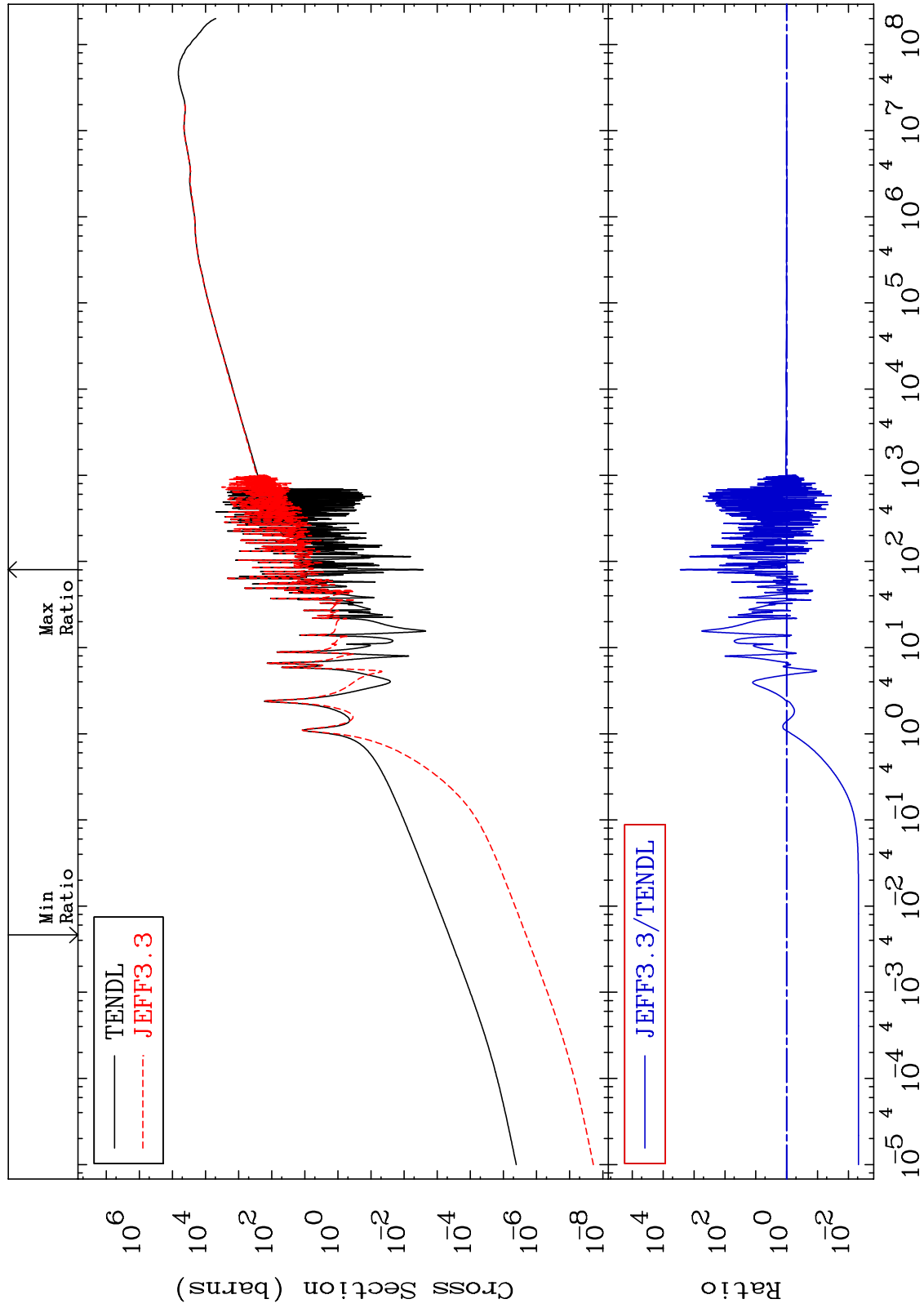
Incident Energy (eV)

72-Hf-177

MAT 7234

Kerma elastic  
Cross Section

72-Hf-177  
-99.53 To 9999. %



55

Incident Energy (eV)

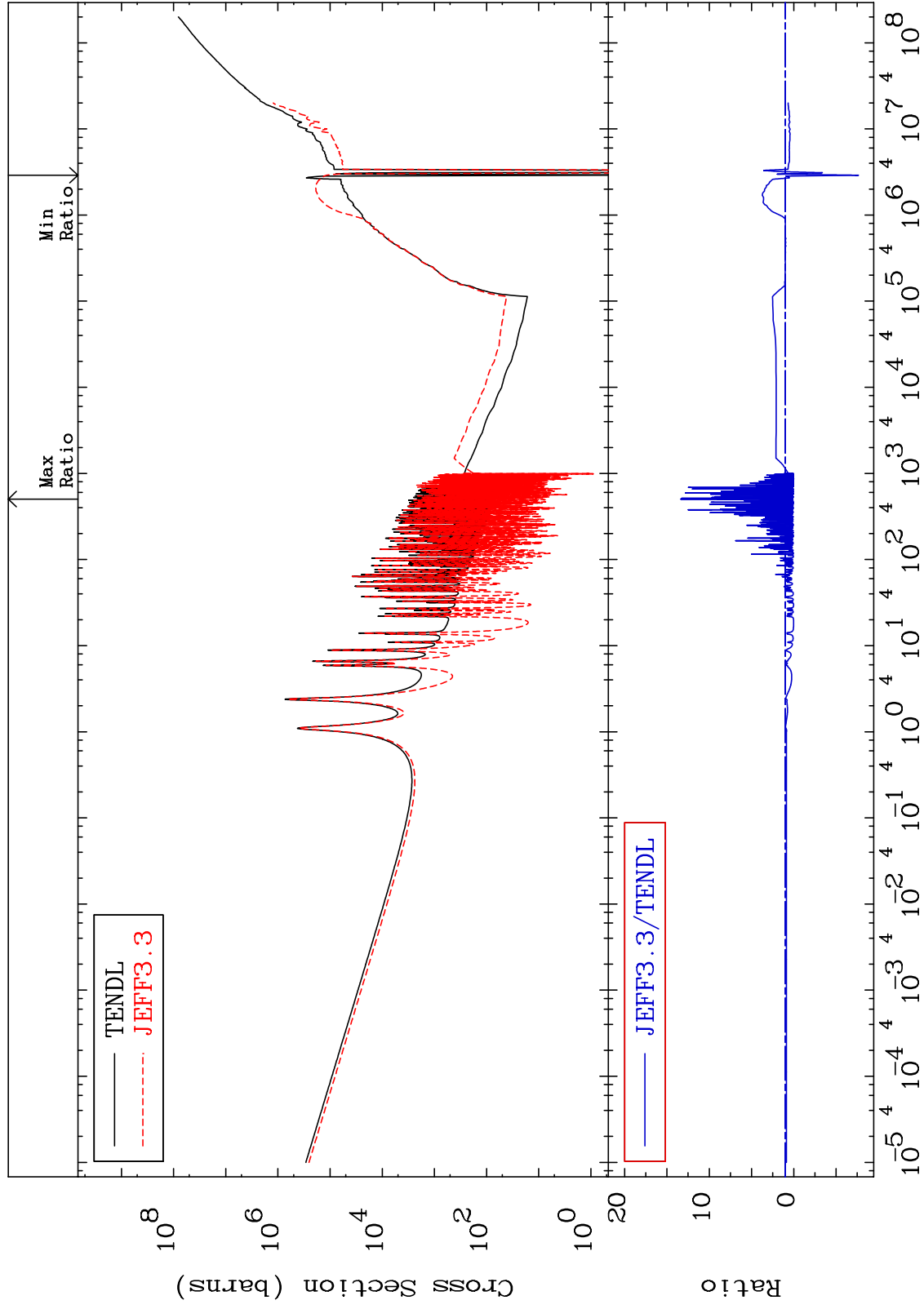
72-Hf-177



MAT 7234

Kerma non-elastic (all but mt2)  
Cross Section

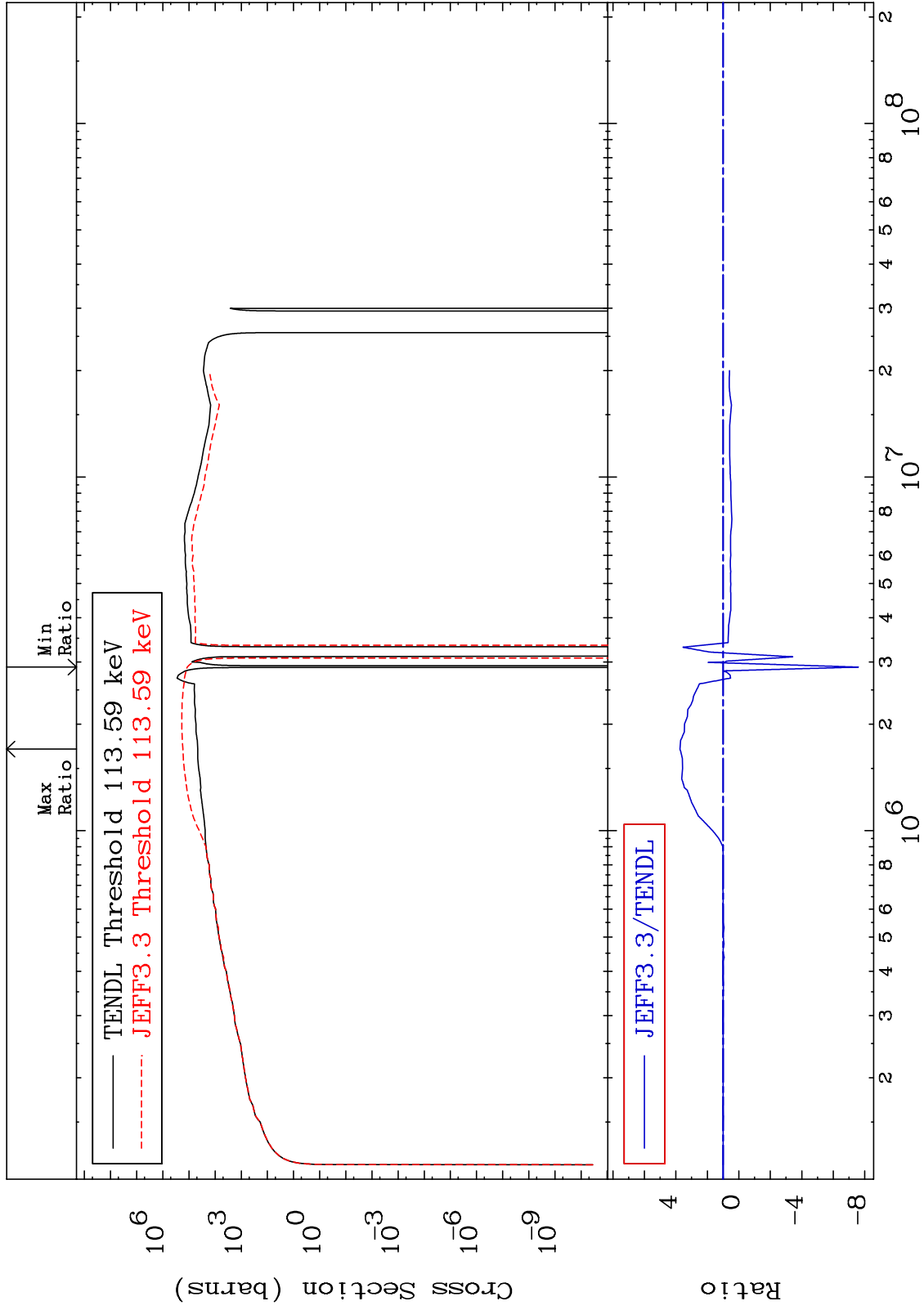
72-Hf-177  
-865.1 To 1241. %



MAT 7234

Kerma inelastic (mt51-91)  
Cross Section

72-Hf-177  
-860.0 To 273.7 %



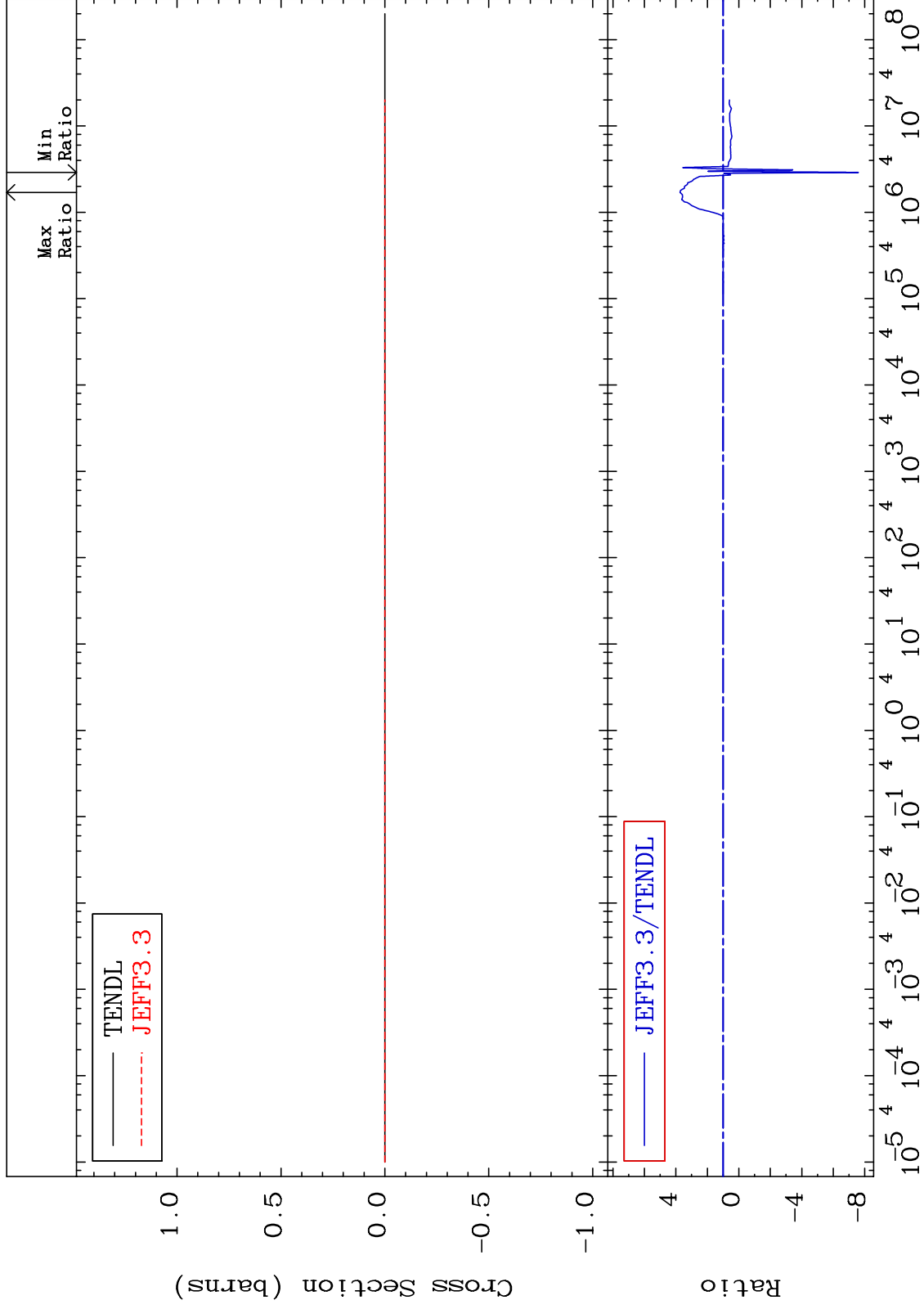
57

72-Hf-177

MAT 7234

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

72-Hf-177  
-860.0 To 273.7 %



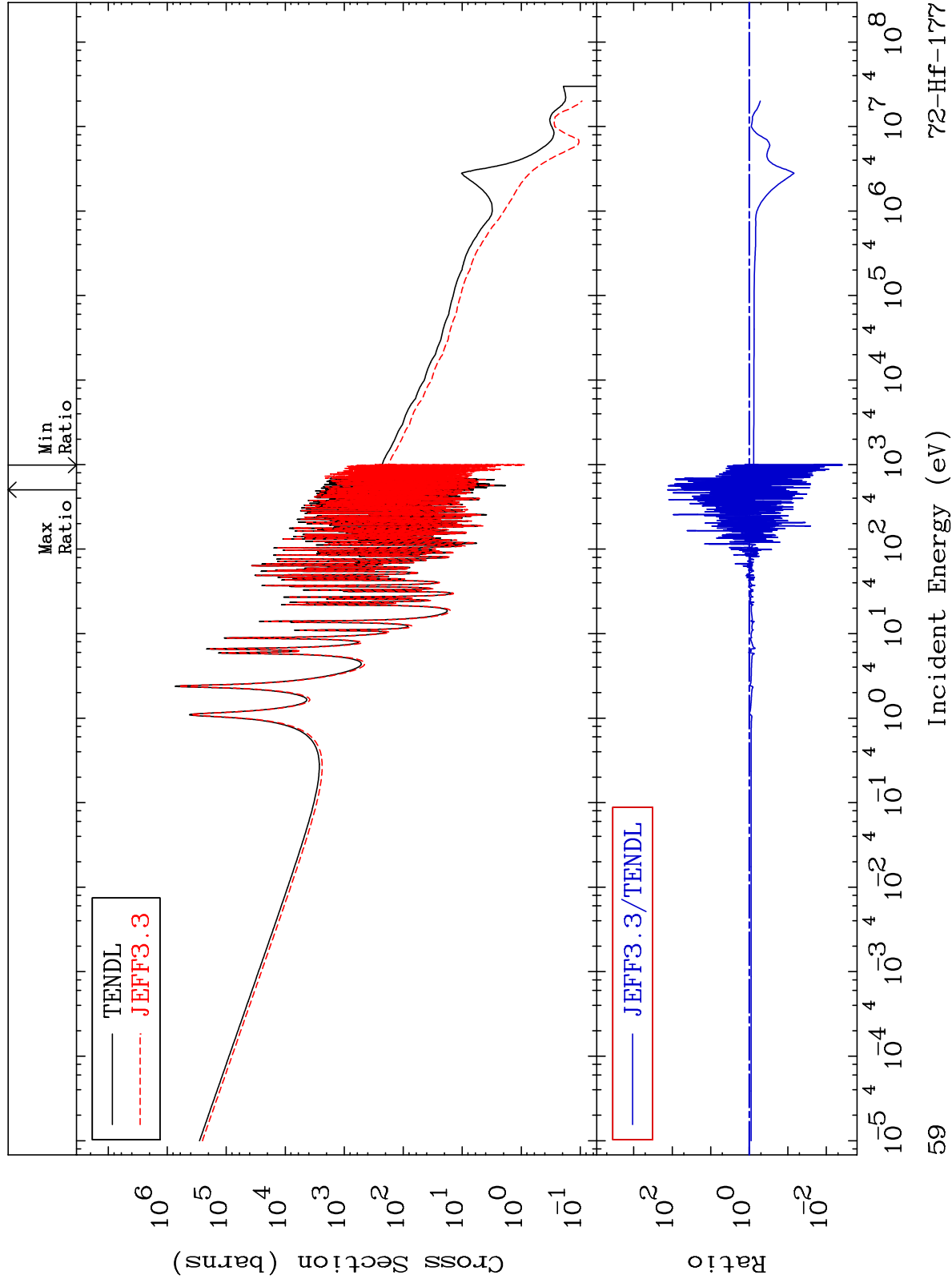
— TENDL  
- - - JEFF3.3

— JEFF3.3/TENDL

MAT 7234

Kerma capture (mt102)  
Cross Section

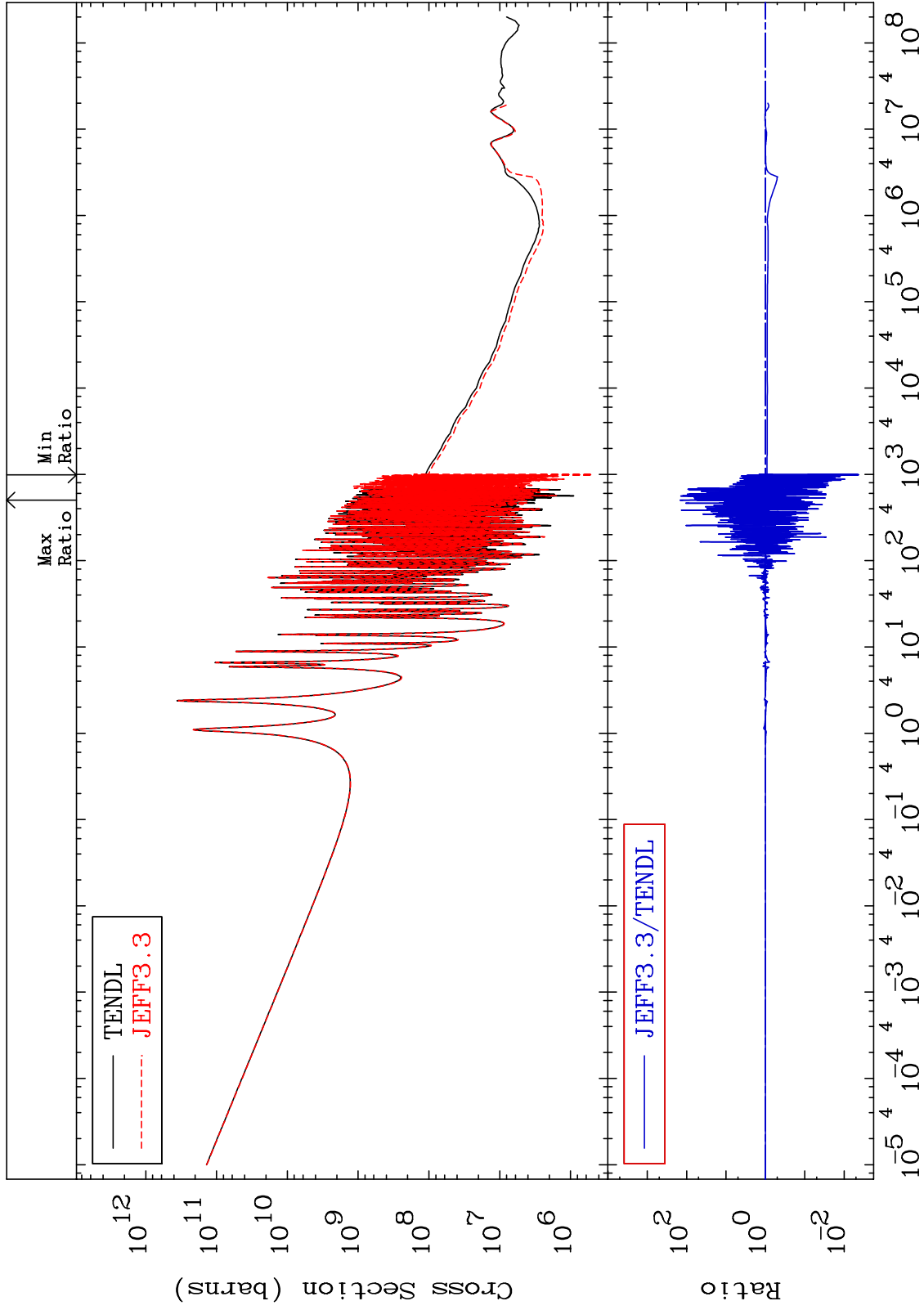
72-Hf-177  
-99.61 To 9999. %



MAT 7234

Total photon (eV-barns)  
Cross Section

72-Hf-177  
-99.57 To 9999. %



60

Incident Energy (eV)

72-Hf-177

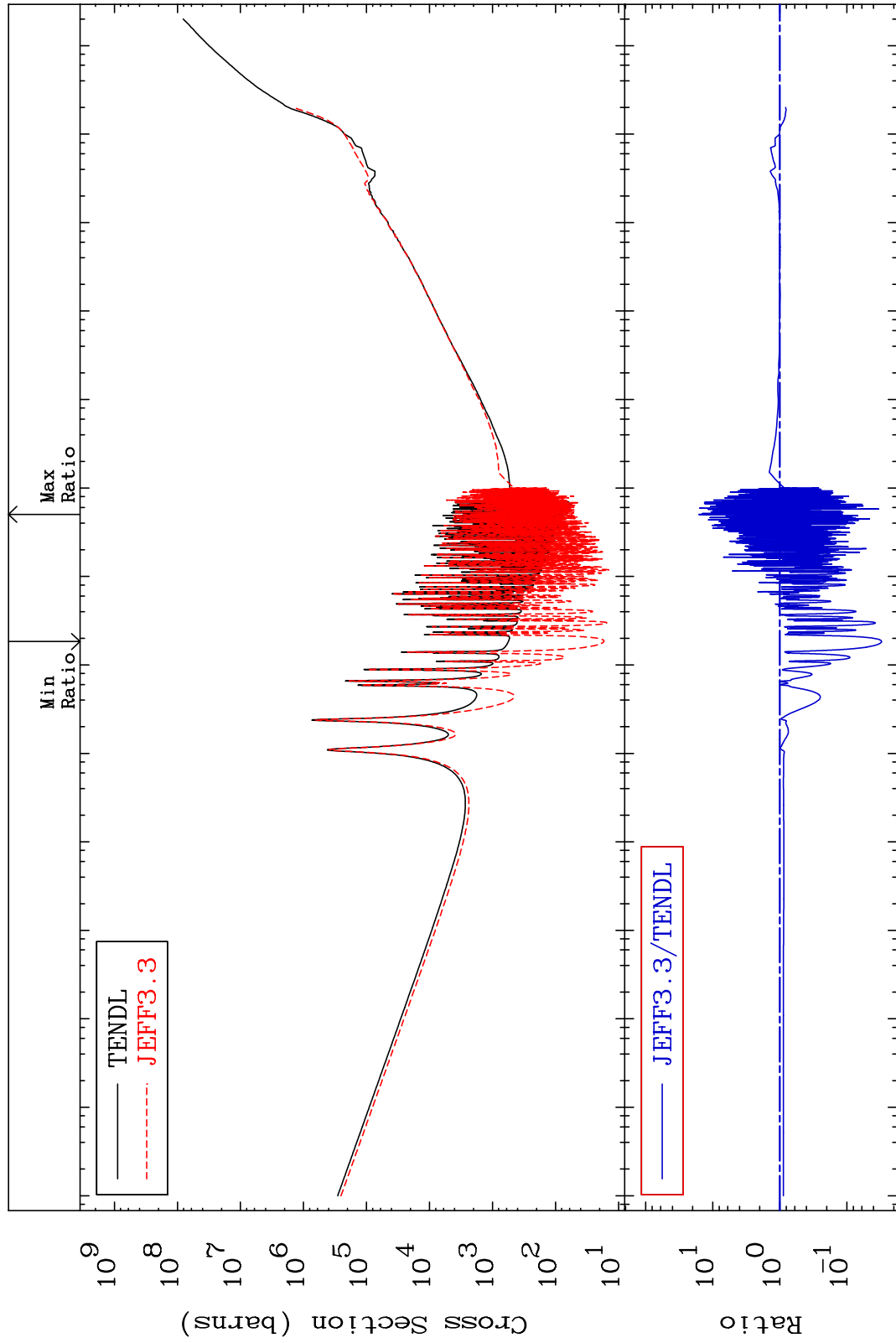
MAT 7234

Total kinematic kerma (high limit)

72-Hf-177

-96.96 To 1520. %

Cross Section



61

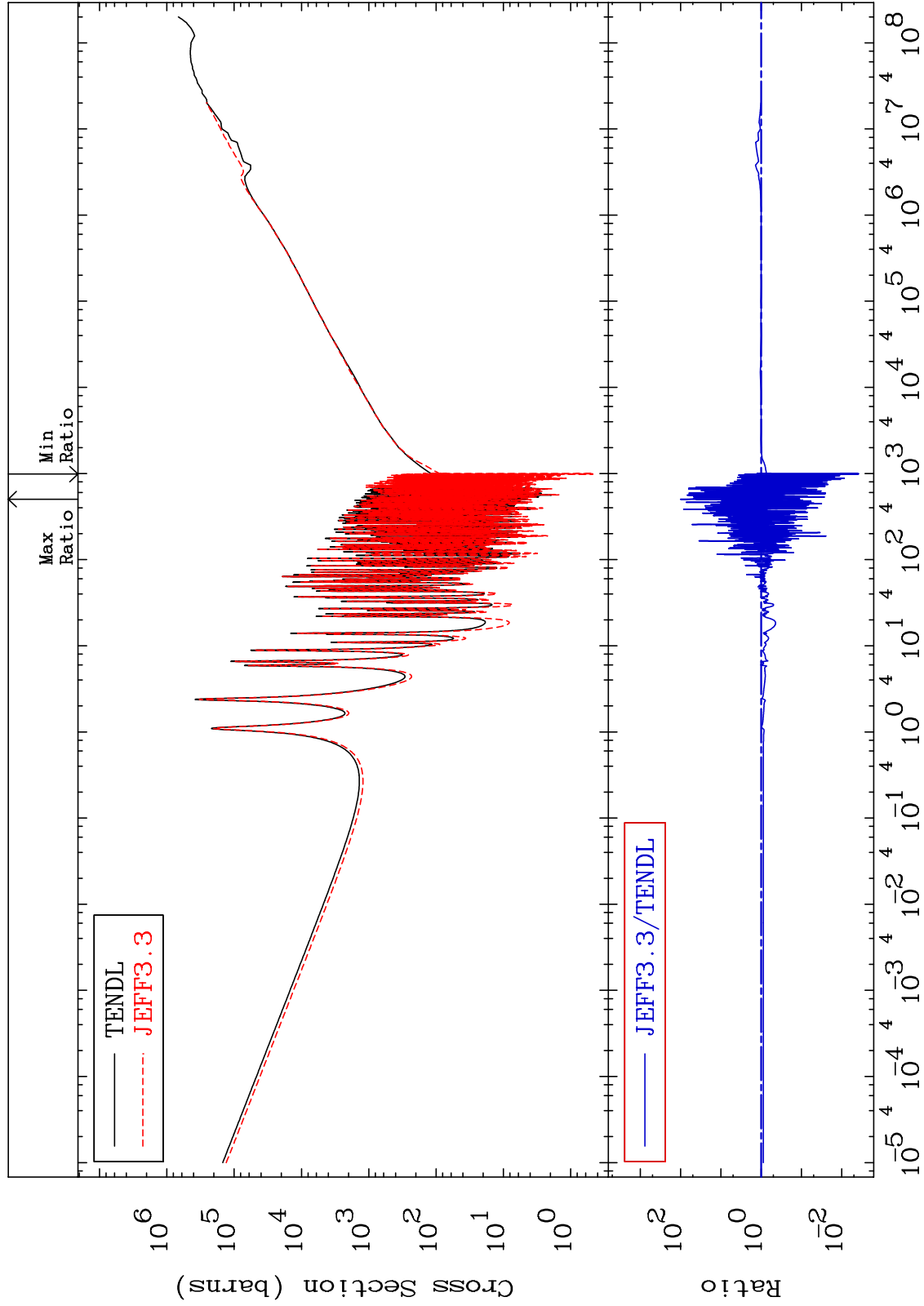
Incident Energy (eV)

72-Hf-177

MAT 7234

Dpa total (eV-barns)  
Cross Section

72-Hf-177  
-99.62 To 9999. %



62

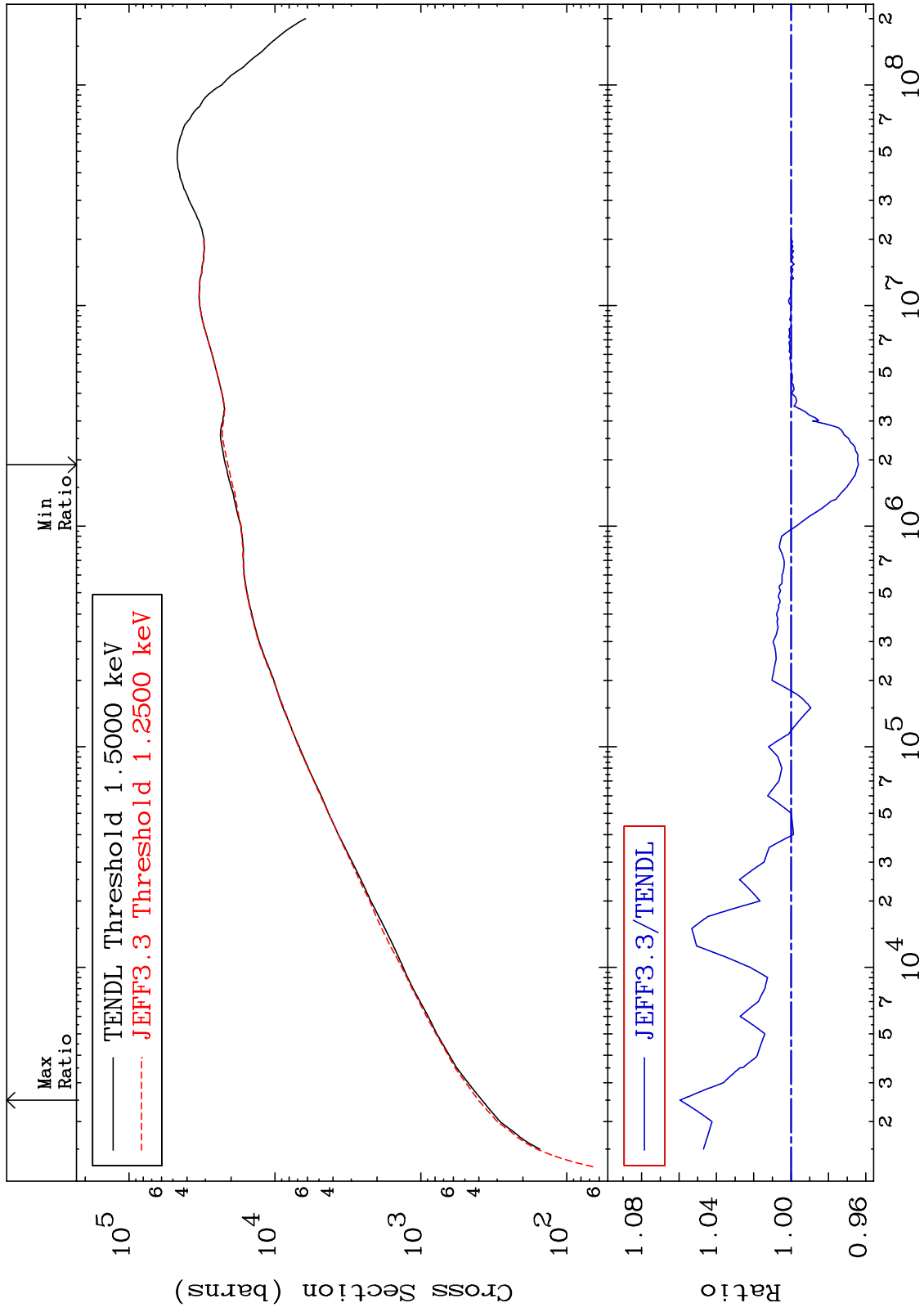
Incident Energy (eV)

72-Hf-177

MAT 7234

Dpa elastic (mt2)  
Cross Section

72-Hf-177  
-3.603 To 5.945 %

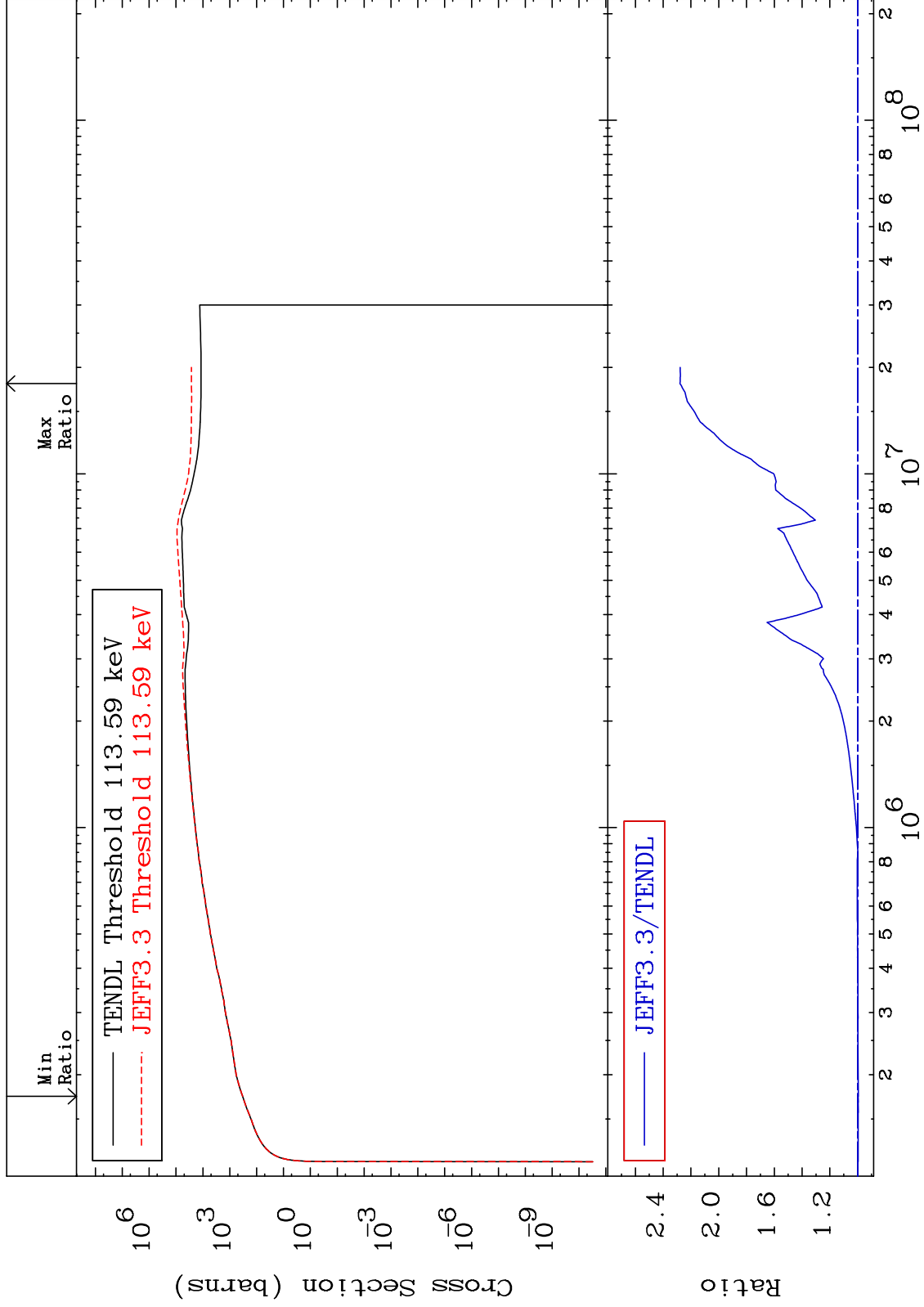




MAT 7234

Dpa inelastic (mt51-91)  
Cross Section

72-Hf-177  
-0.550 To 127.9 %



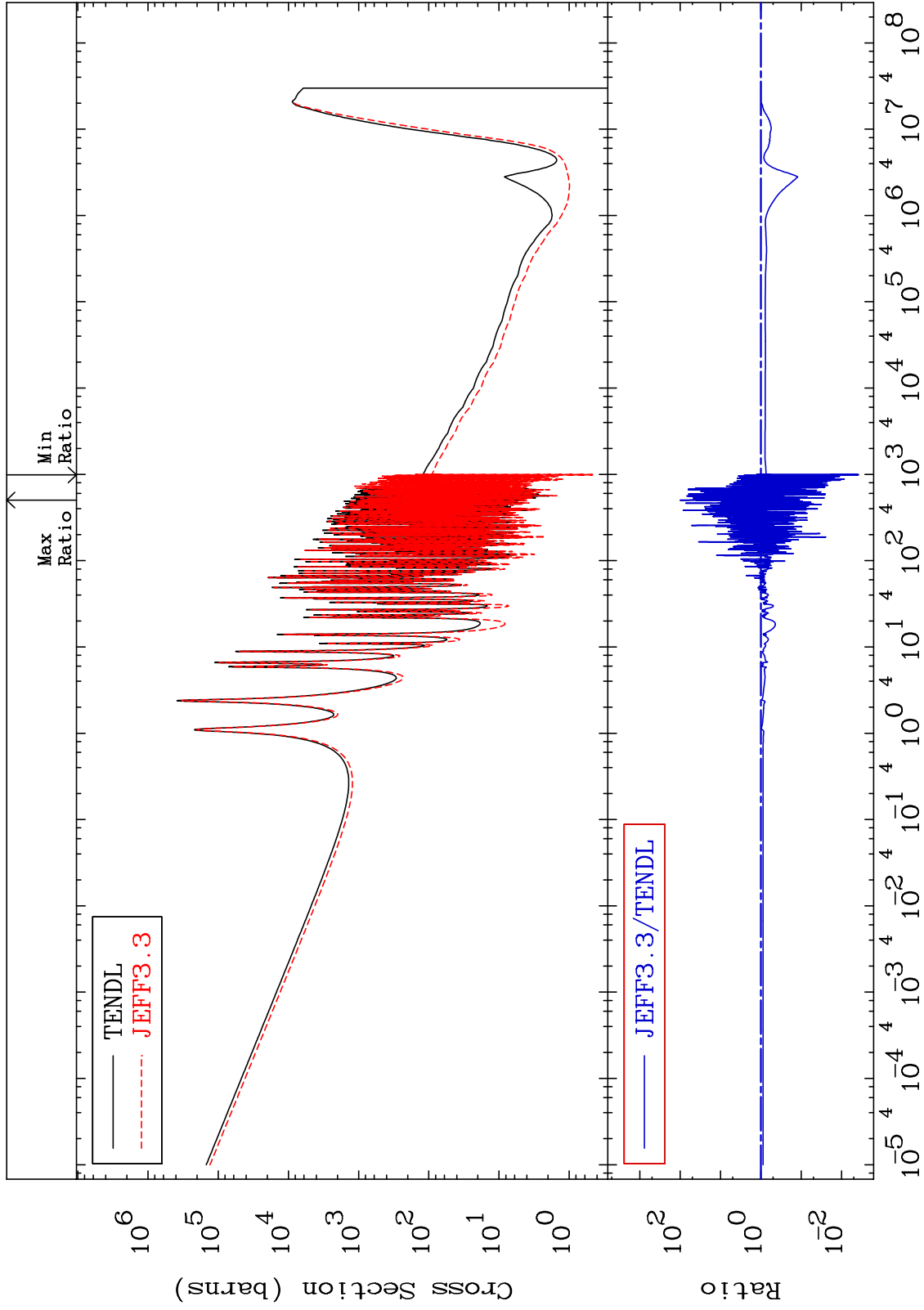
MAT 7234

Dpa disappearance (mt102 -120)

72-Hf-177

-99.62 To 9999. %

Cross Section



65

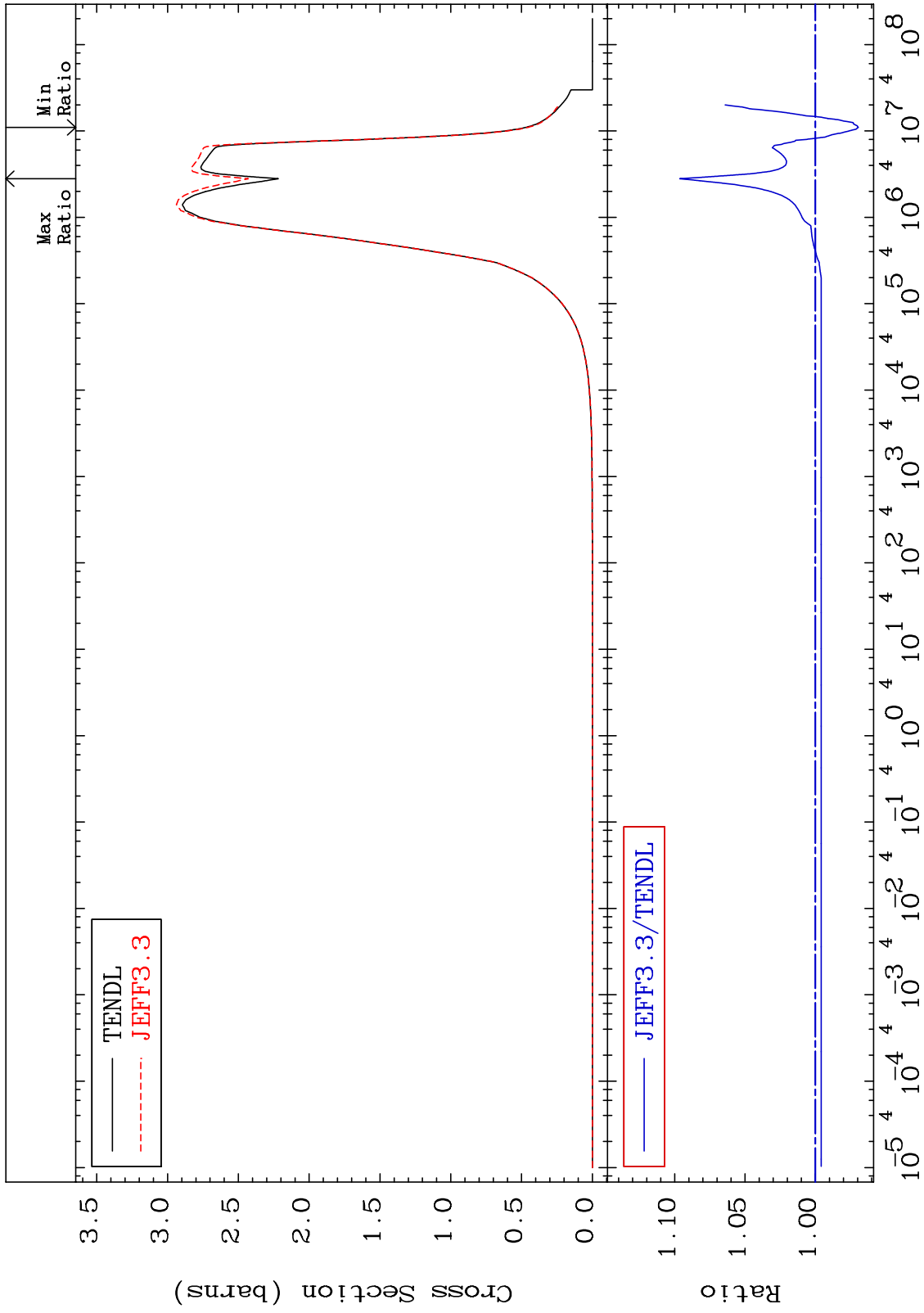
Incident Energy (eV)

72-Hf-177

MAT 7234

Inelastic: 72-Hf-177  
Radionuclide Production Cross Section -3.057 To 9.644 %

72-Hf-177



66

Incident Energy (eV)

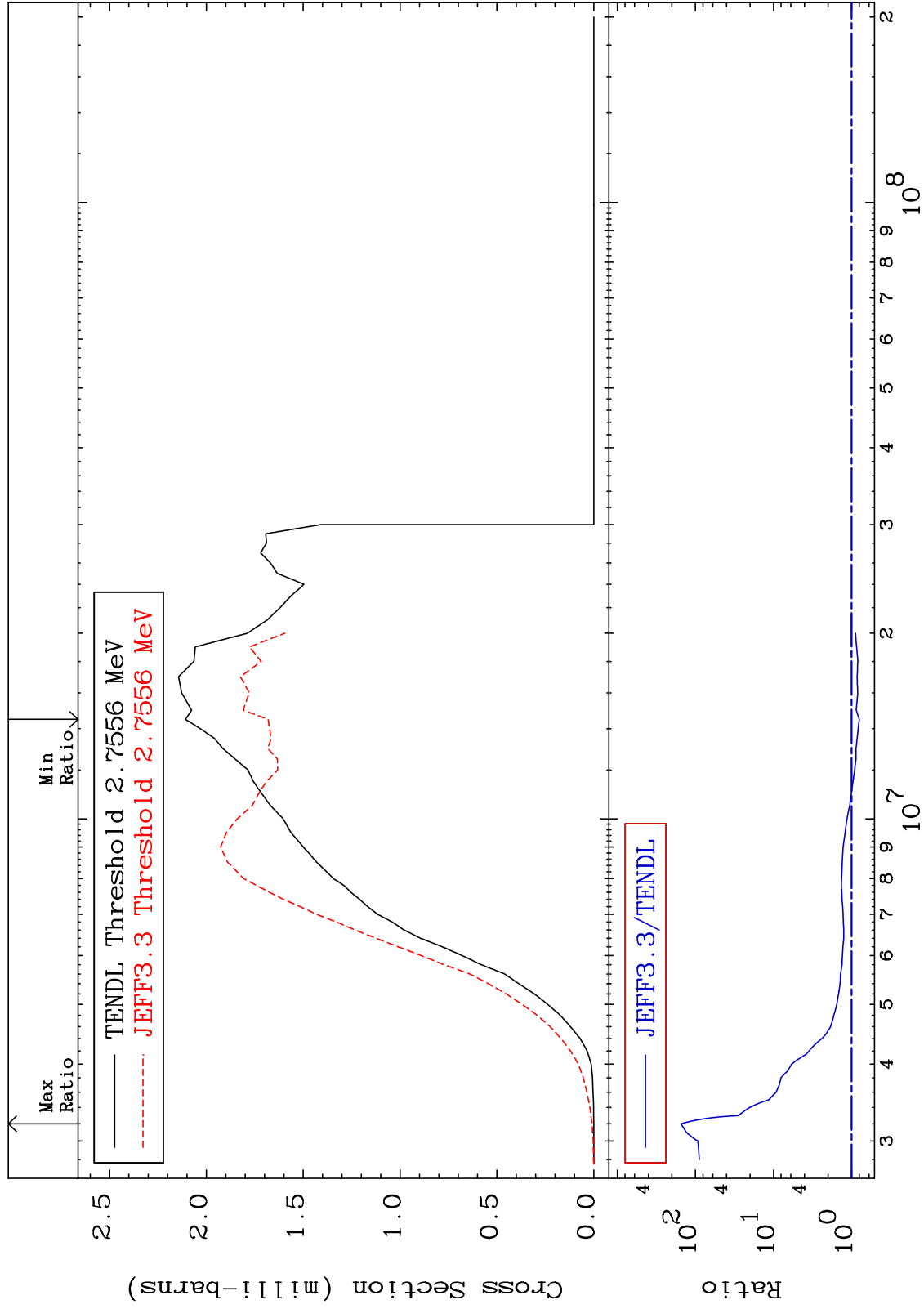
72-Hf-177

MAT 7234

Inelastic: 72-Hf-177m30

72-Hf-177

Radionuclide Production Cross Section -20.25 To 9999. %



67

Incident Energy (eV)

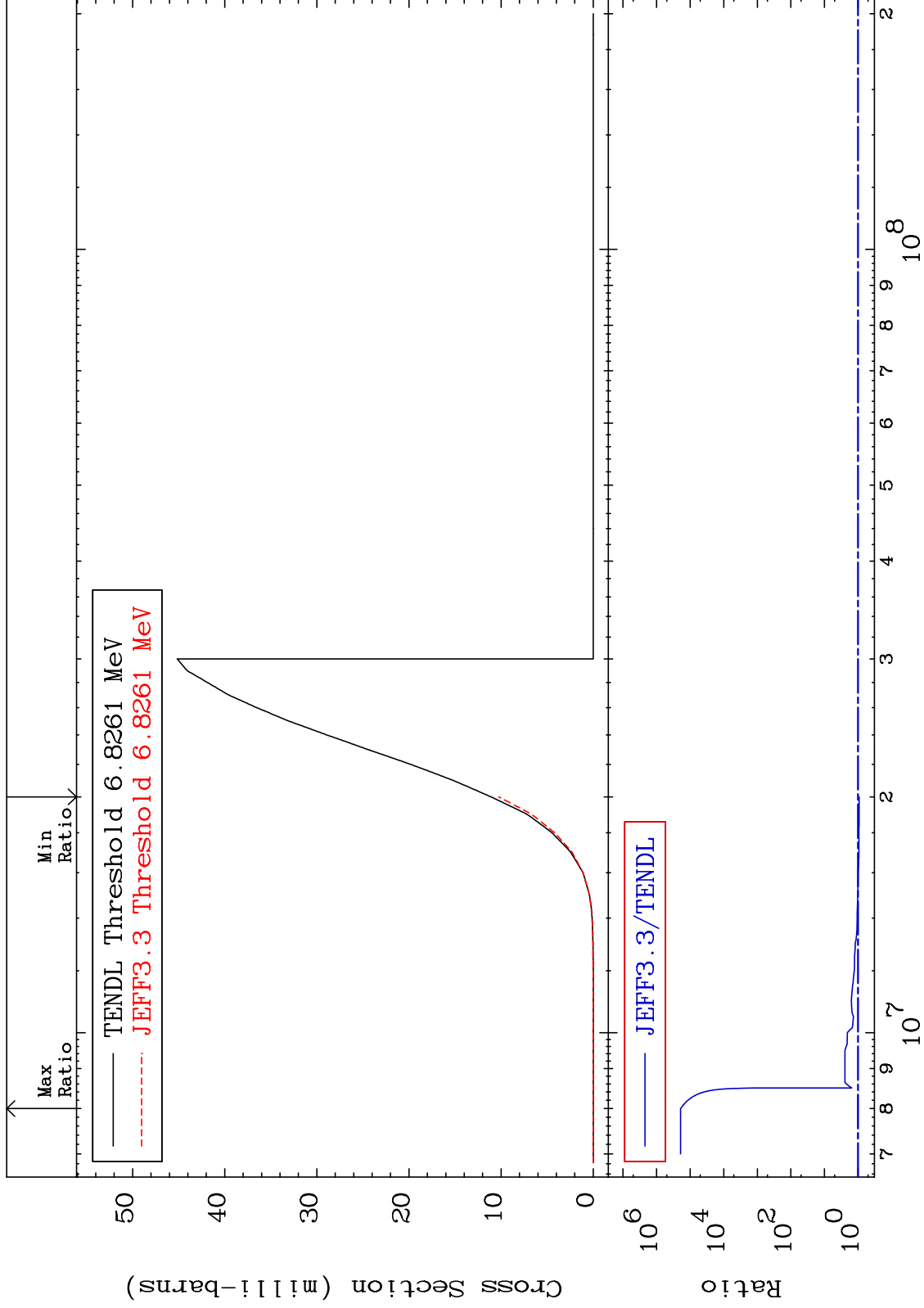
72-Hf-177

MAT 7234

(n, n') p:71-Lu-176g

72-Hf-177

Radionuclide Production Cross Section -7.476 To 9999. %

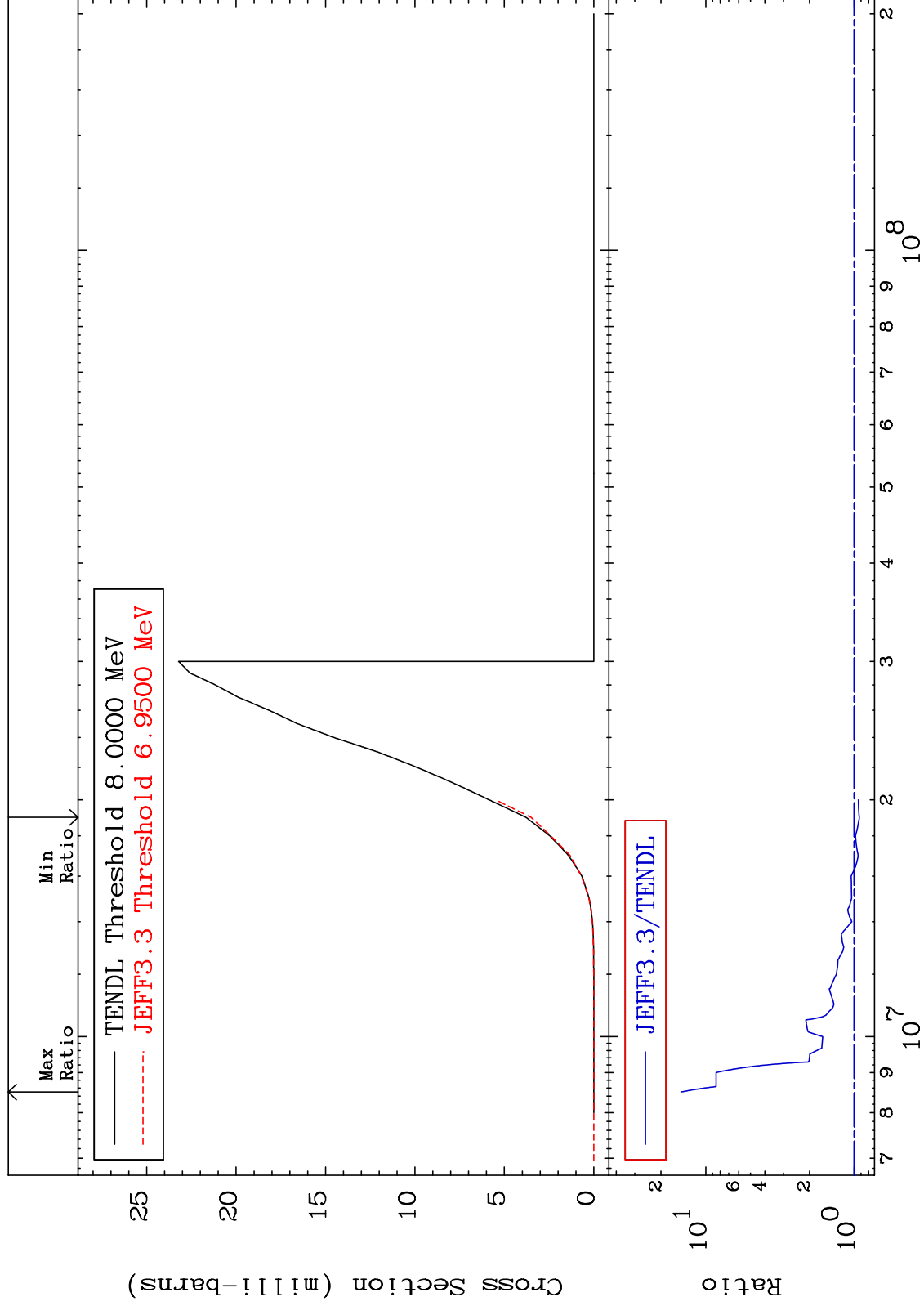


MAT 7234

(n, n') p:71-Lu-176m1

72-Hf-177

Radionuclide Production Cross Section -7.591 To 1366. %



69

Incident Energy (eV)

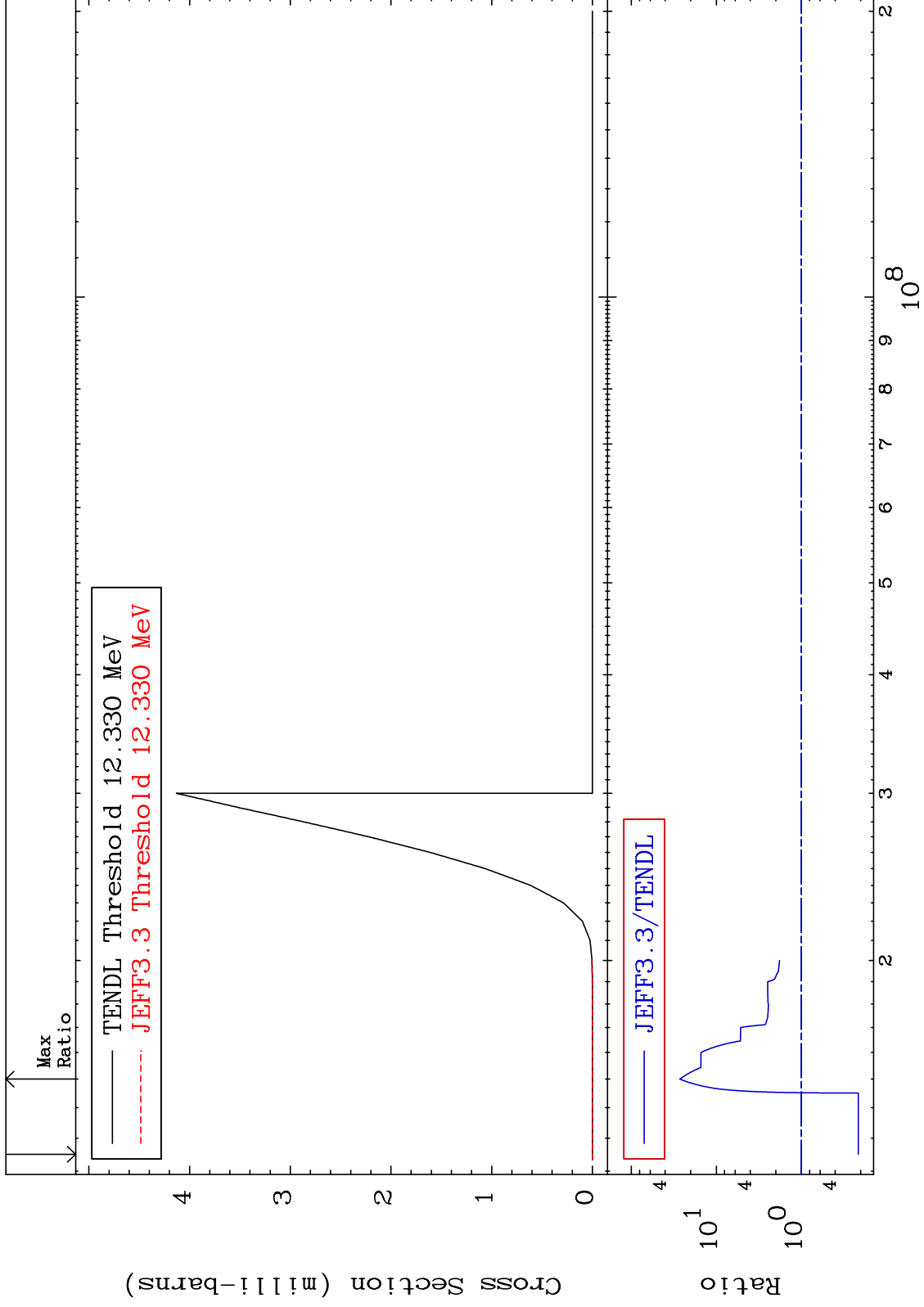
72-Hf-177

MAT 7234

(n, n') t:71-Lu-174g

72-Hf-177

Radionuclide Production Cross Section -78.67 To 2590. %



70

Incident Energy (eV)

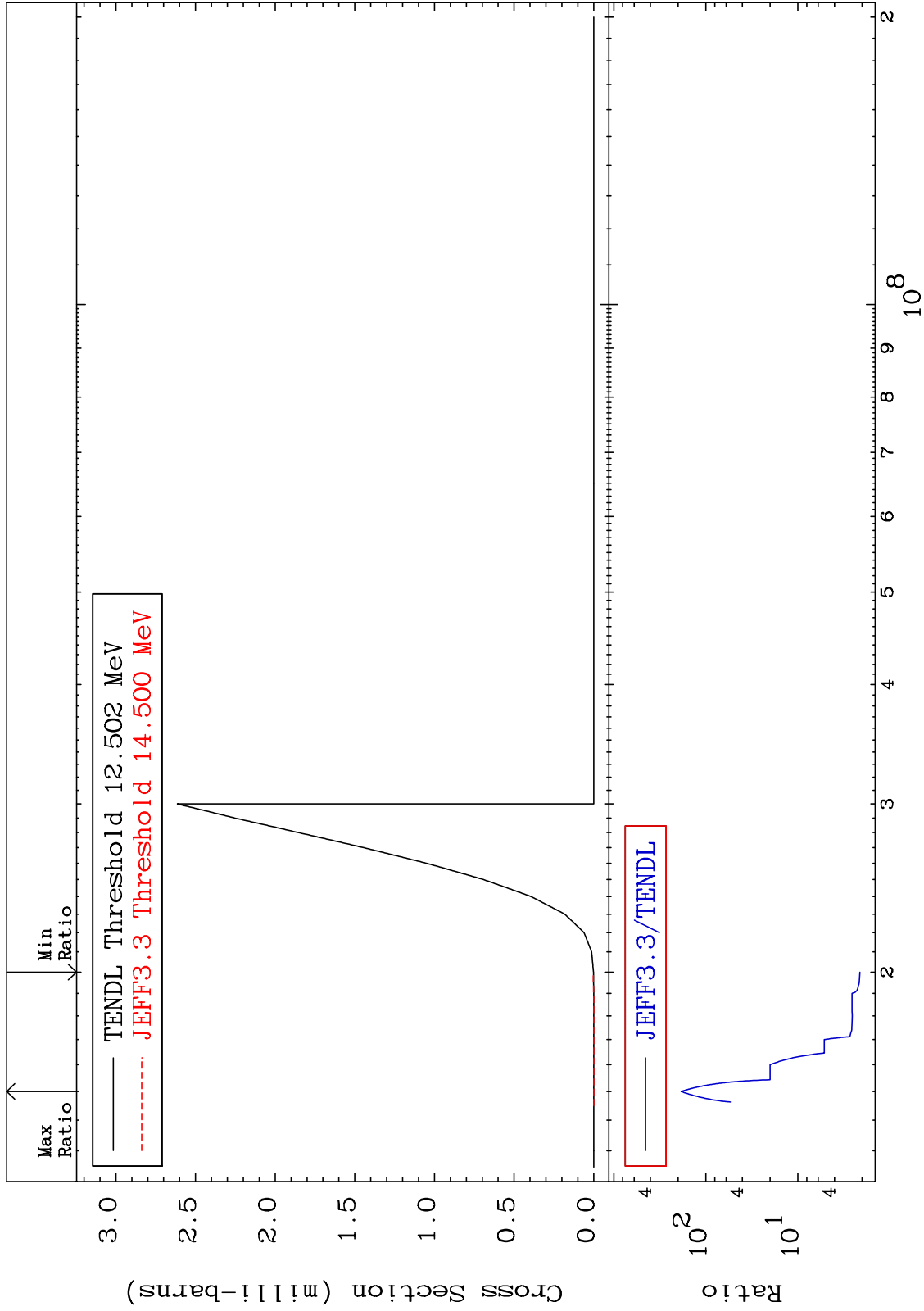
72-Hf-177

MAT 7234

(n, n') t:71-Lu-174m3

72-Hf-177

Radionuclide Production Cross Section 111.5 To 9999. %





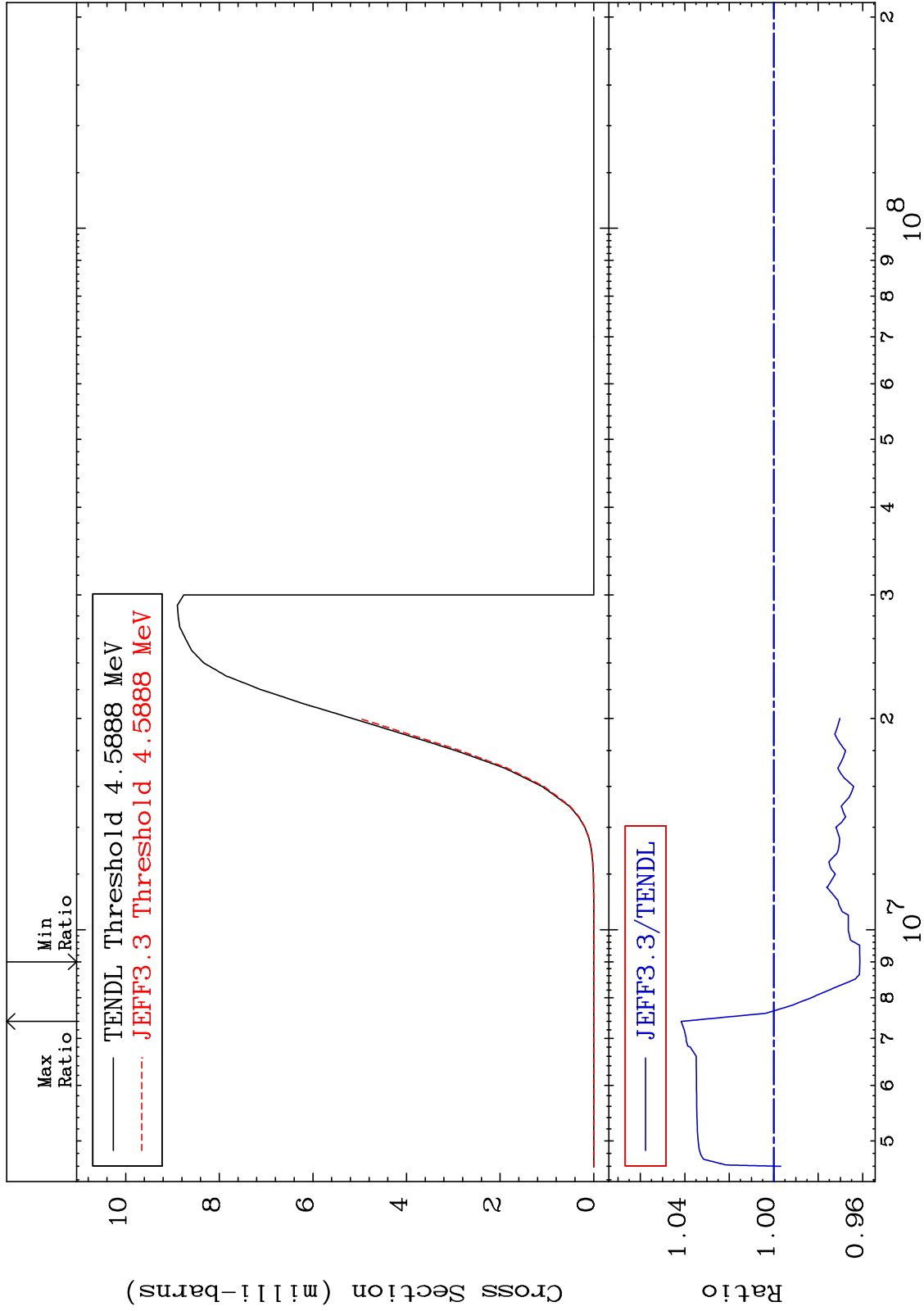
MAT 7234

(n,d):71-Lu-176g

72-Hf-177

Radionuclide Production Cross Section

-3.878 To 4.161 %



72

Incident Energy (eV)

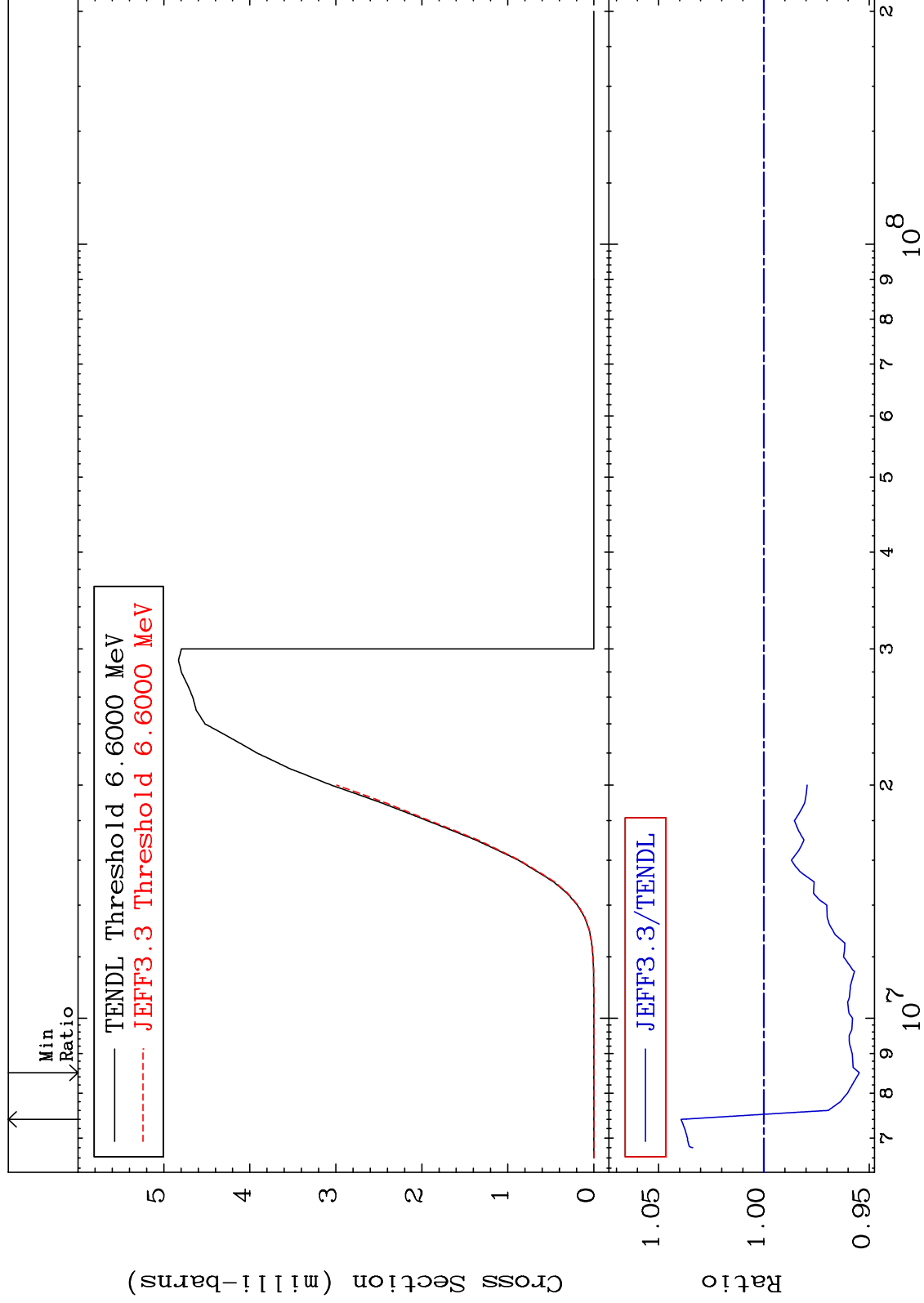
72-Hf-177

MAT 7234

(n,d):71-Lu-176m1

72-Hf-177

Radionuclide Production Cross Section -4.531 To 3.932 %



73

Incident Energy (eV)

72-Hf-177