

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

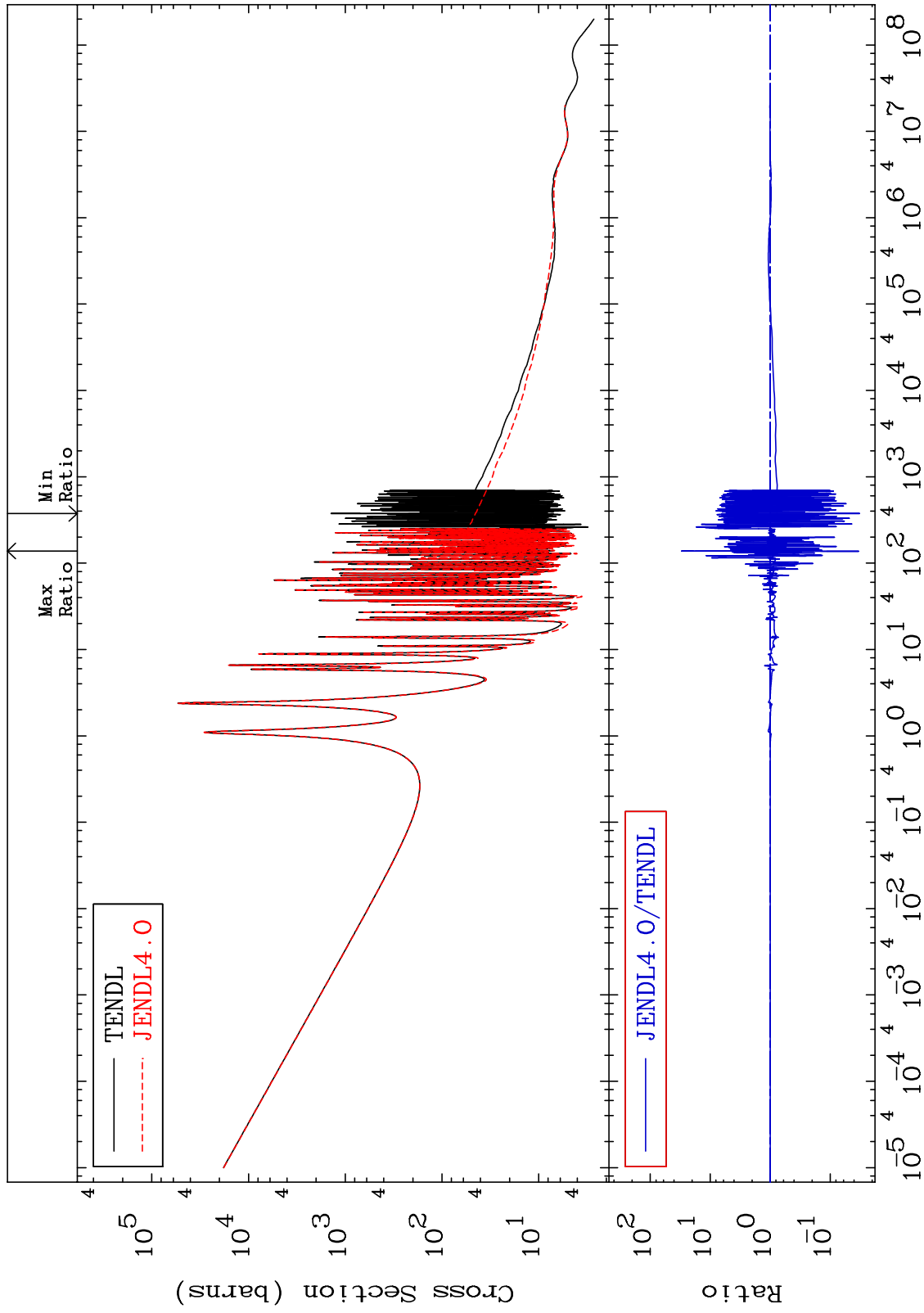
E.Mail: [redcullen1@comcast.net](mailto:redcullen1@comcast.net)  
Web: [redcullen1.net/HOMEPAGE.NEW](http://redcullen1.net/HOMEPAGE.NEW)

Press Mouse Button to Start

MAT 7234

Total  
Cross Section

72-Hf-177  
-96.79 To 2934. %



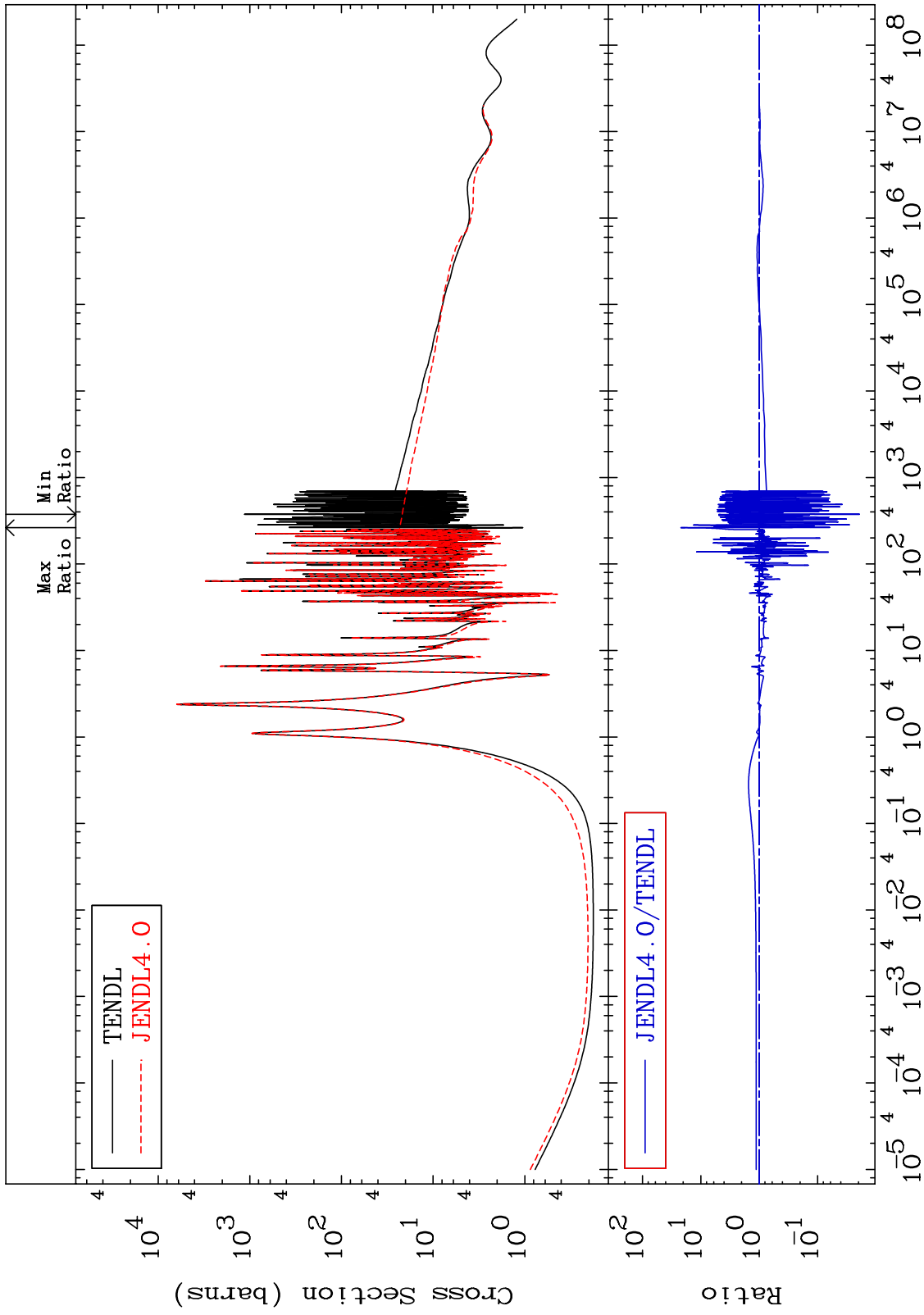
MAT 7234

Elastic

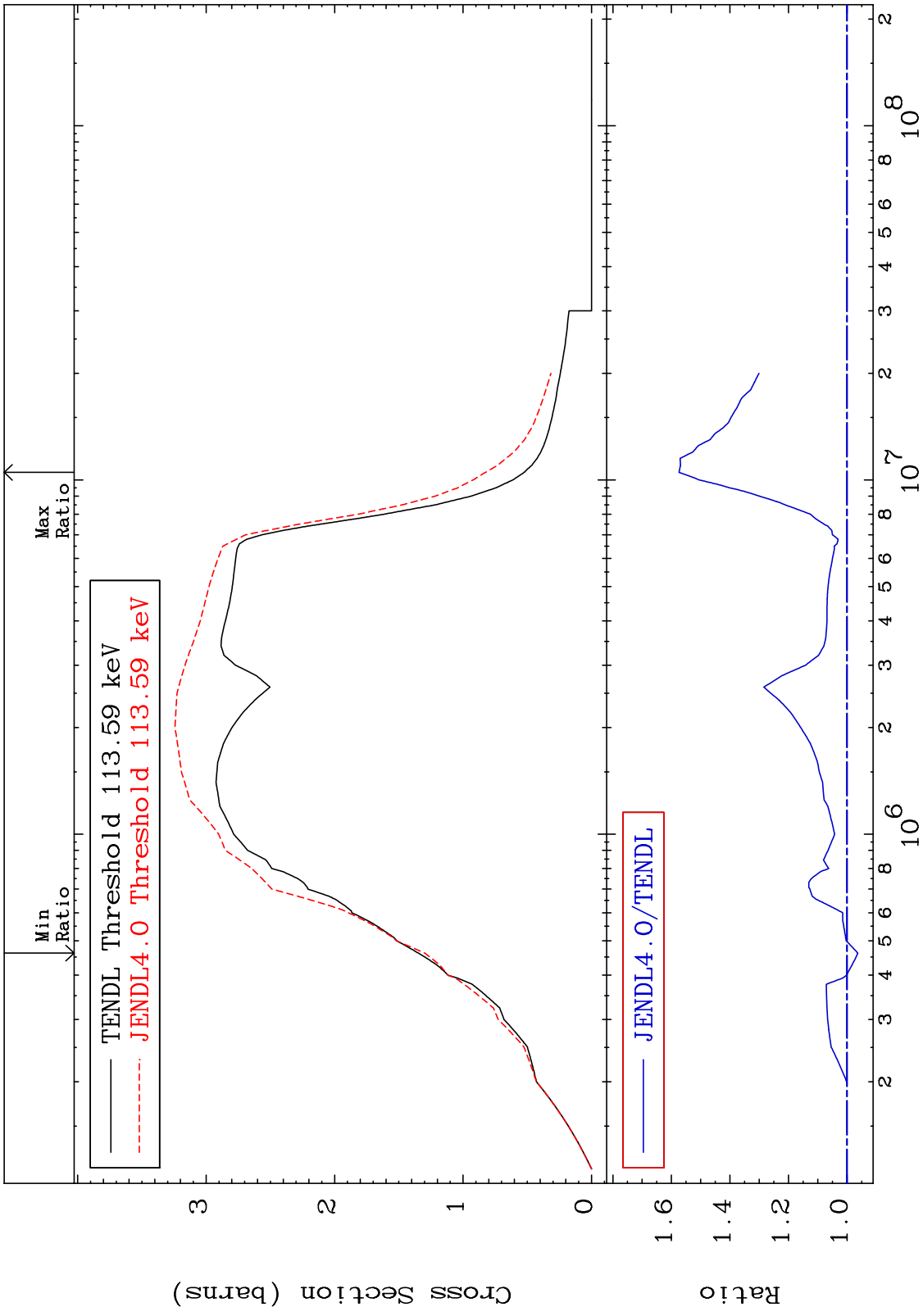
72-Hf-177

Cross Section

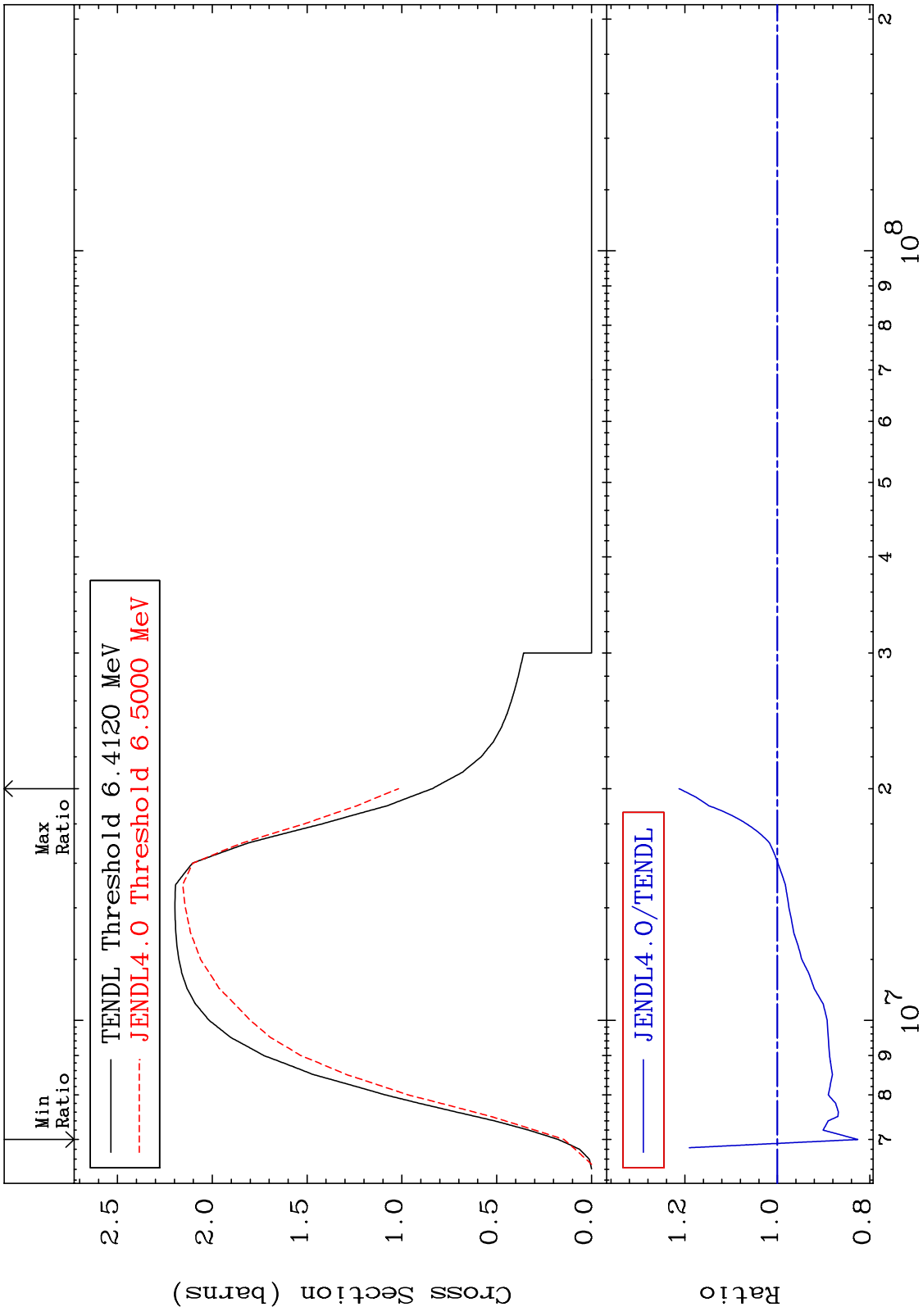
-98.10 To 2102. %



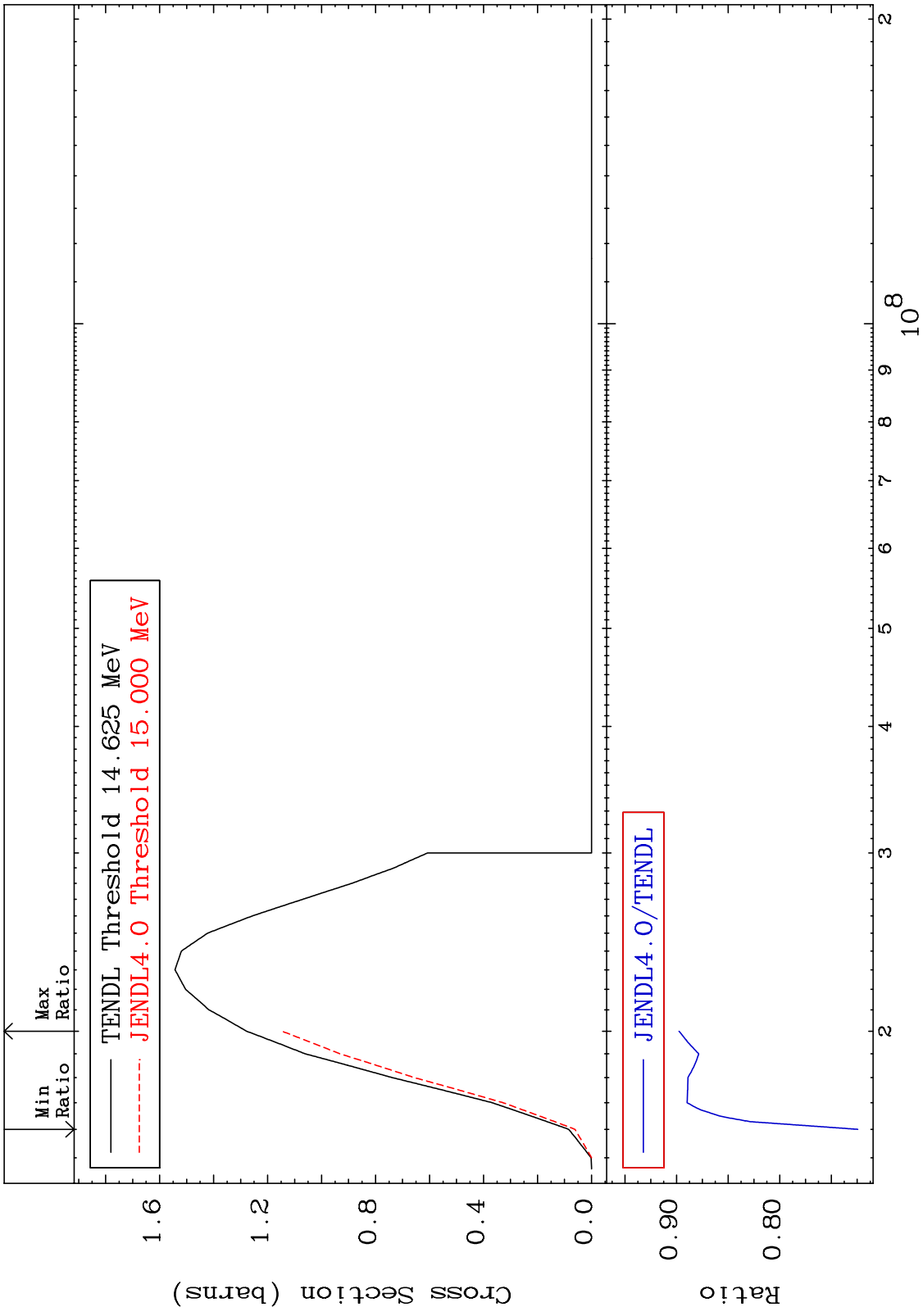
MAT 7234 Inelastic Cross Section 72-Hf-177 -3.704 To 57.39 %



MAT 7234 (n,2n) Cross Section 72-Hf-177 -17.40 To 21.27 %



MAT 7234 (n,3n) Cross Section 72-Hf-177 -27.56 To -10.24%



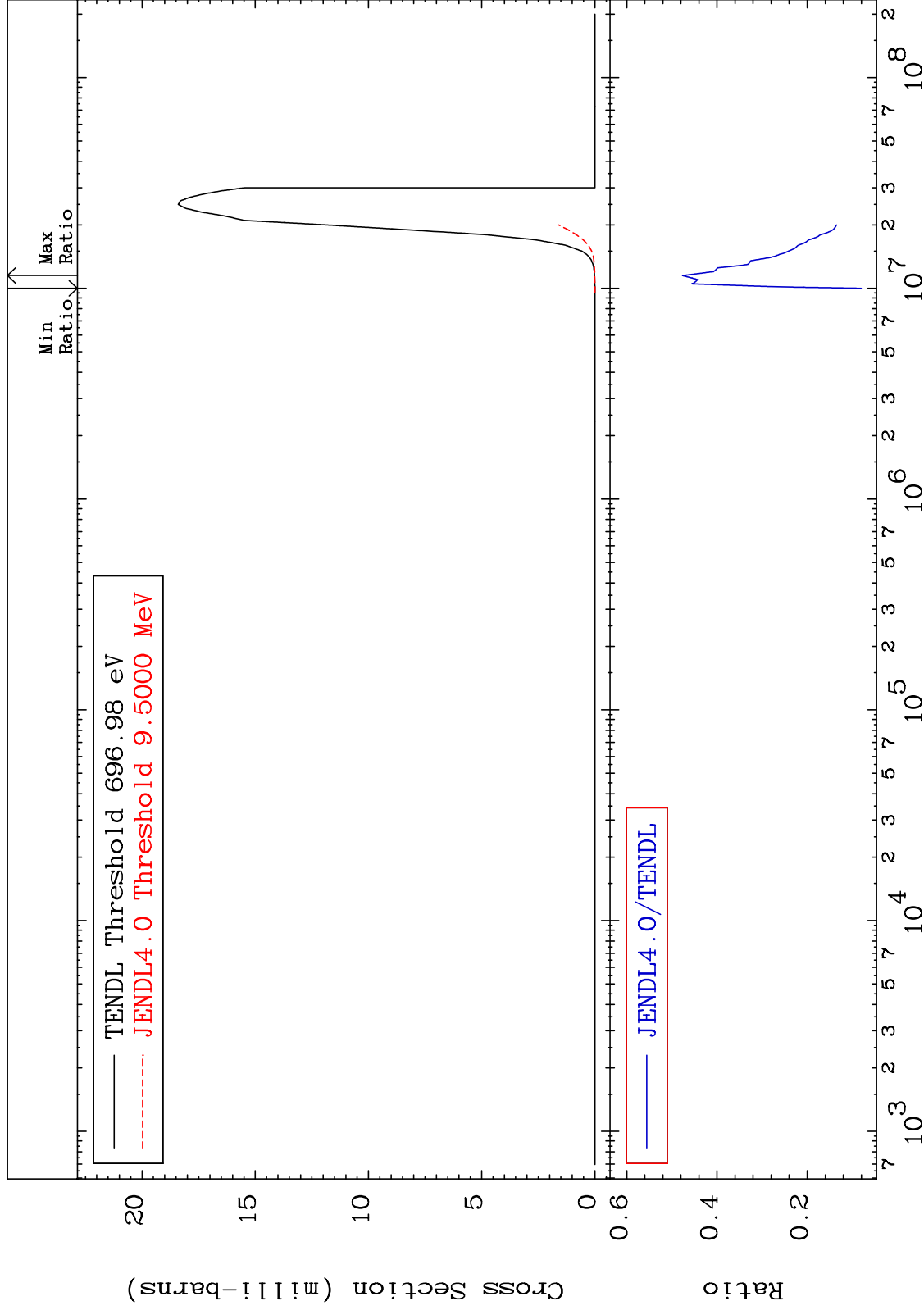
MAT 7234

(n, n')  $\alpha$

72-Hf-177

Cross Section

-91.98 To -52.34%

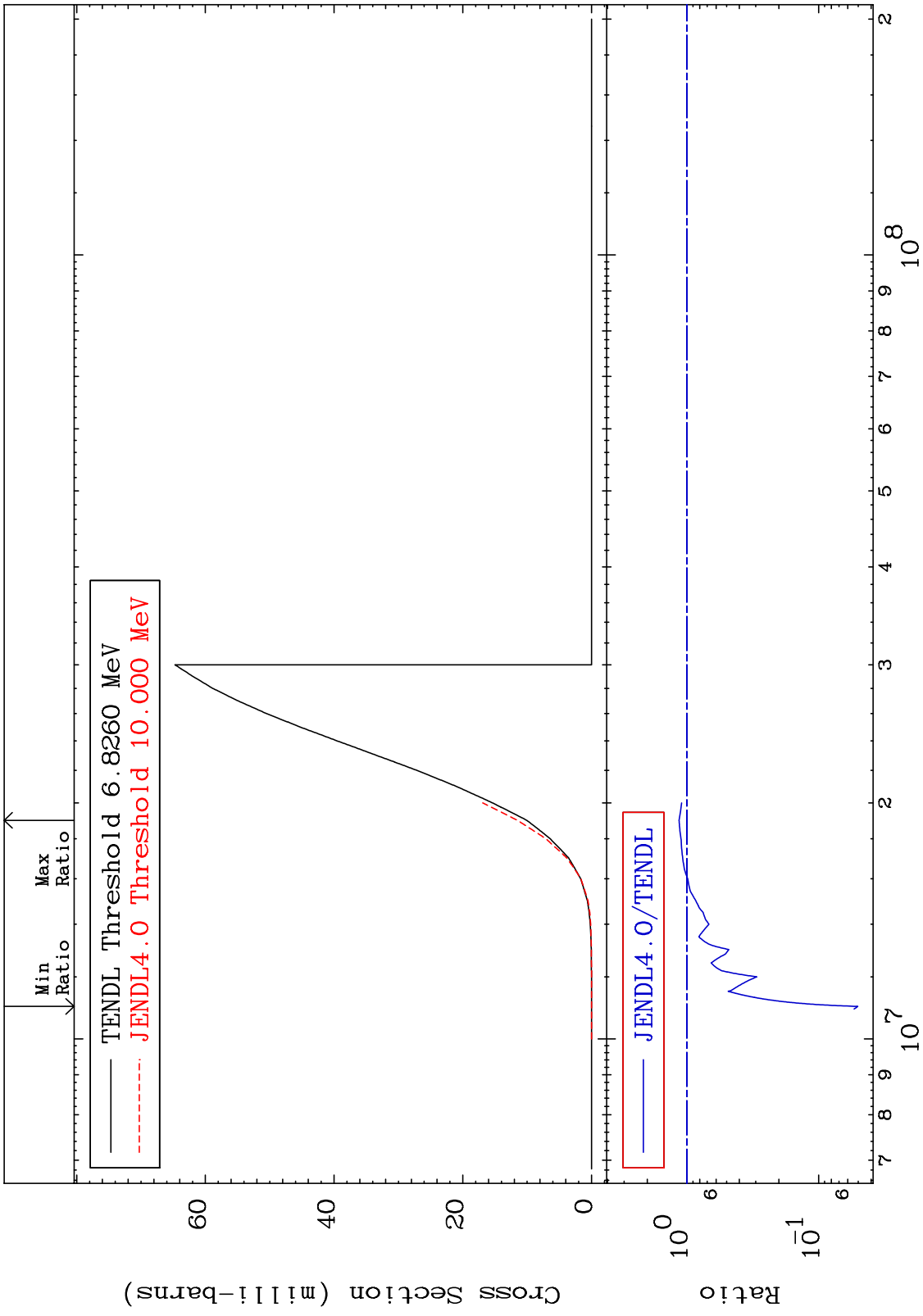


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Incident Energy (eV)

72-Hf-177

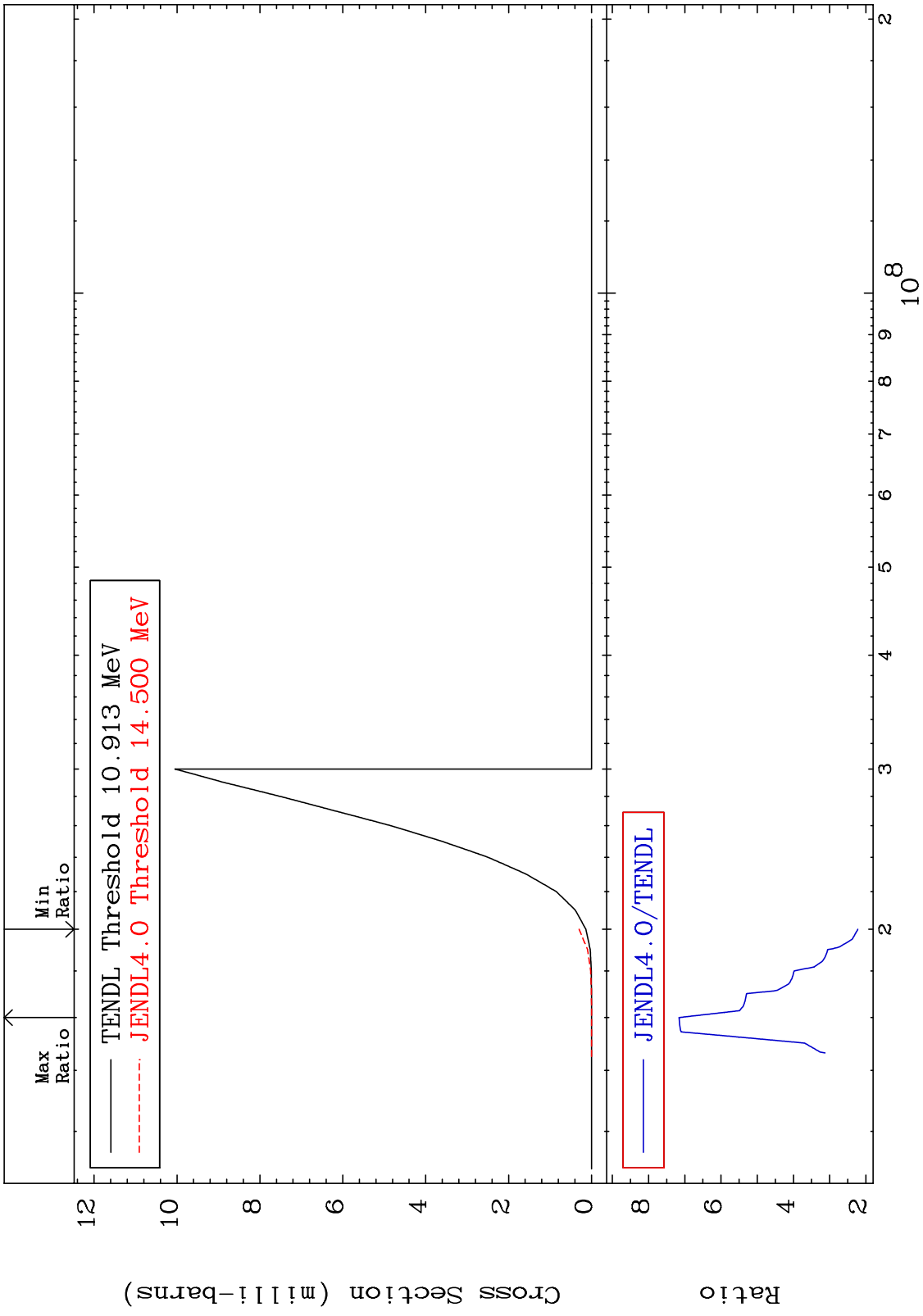
MAT 7234 72-Hf-177  
-94.96 To 14.68 %  
 (n,n') p  
 Cross Section



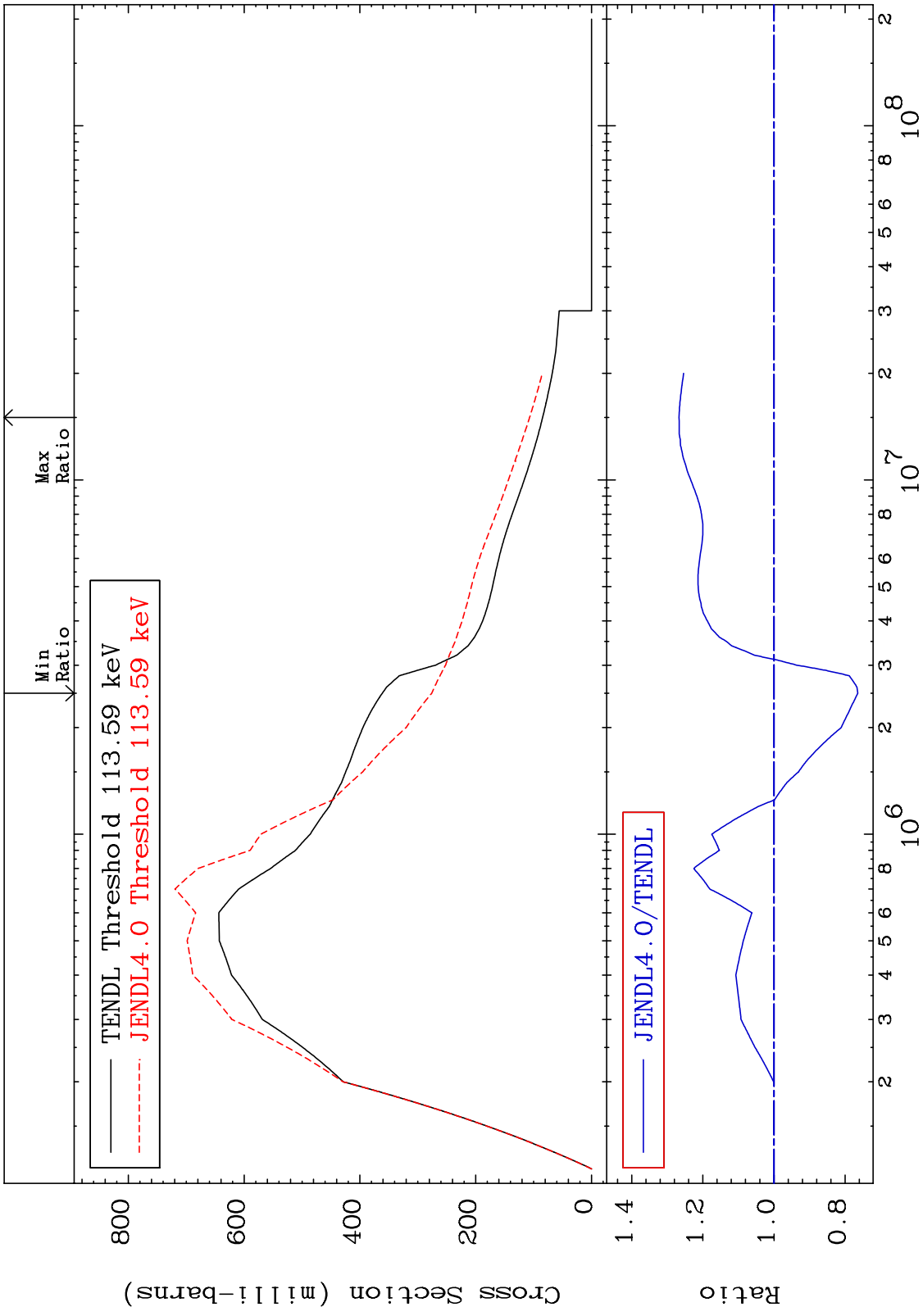
7 72-Hf-177  
 Incident Energy (eV)



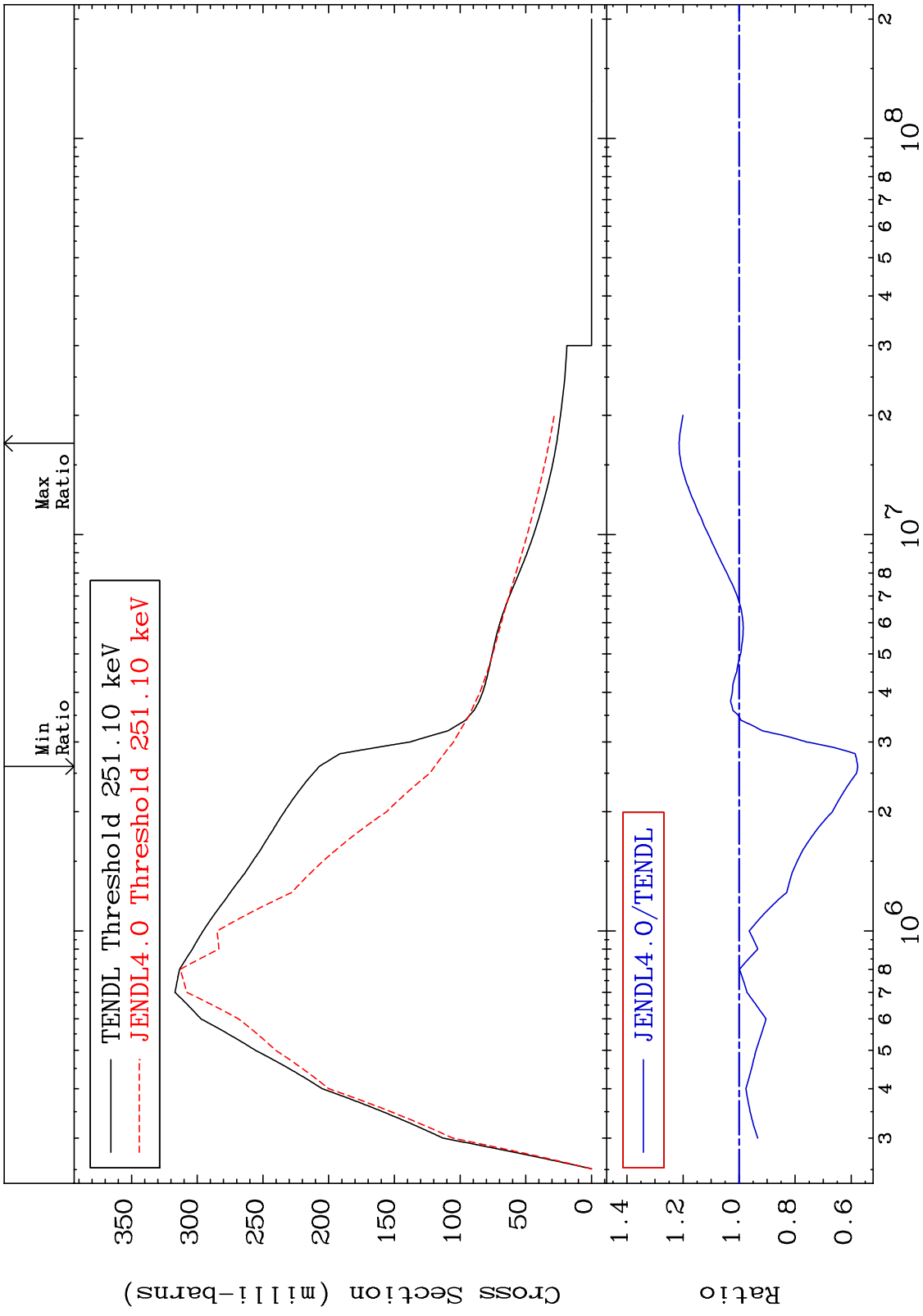
MAT 7234 (n,n') d 72-Hf-177  
 Cross Section 122.2 To 615.8 %



MAT 7234 MT= 51 (n,n') Level Cross Section 72-Hf-177 -23.58 To 26.70 %

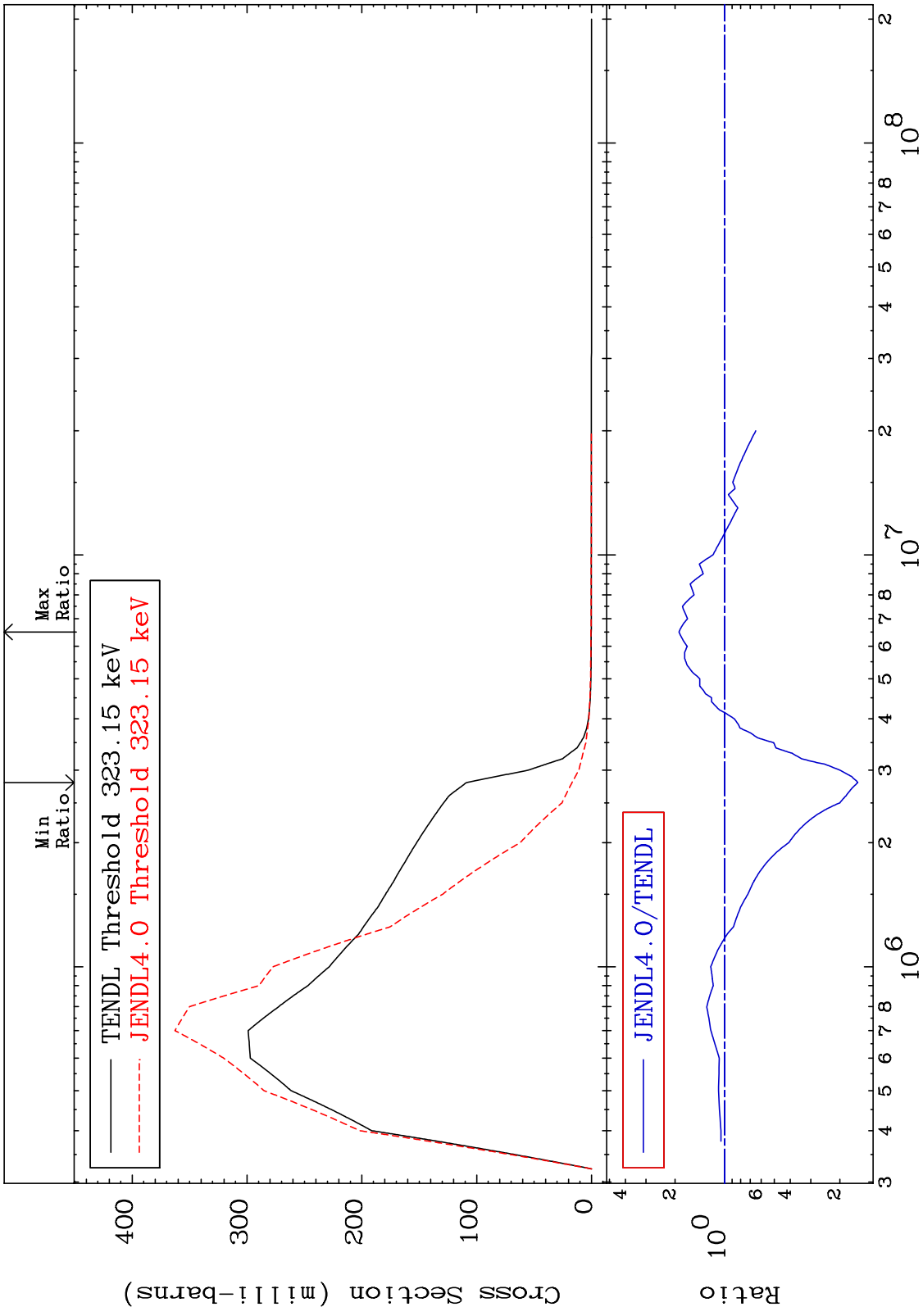


MAT 7234 MT= 52 (n,n') Level Cross Section 72-Hf-177 -42.37 To 21.43 %

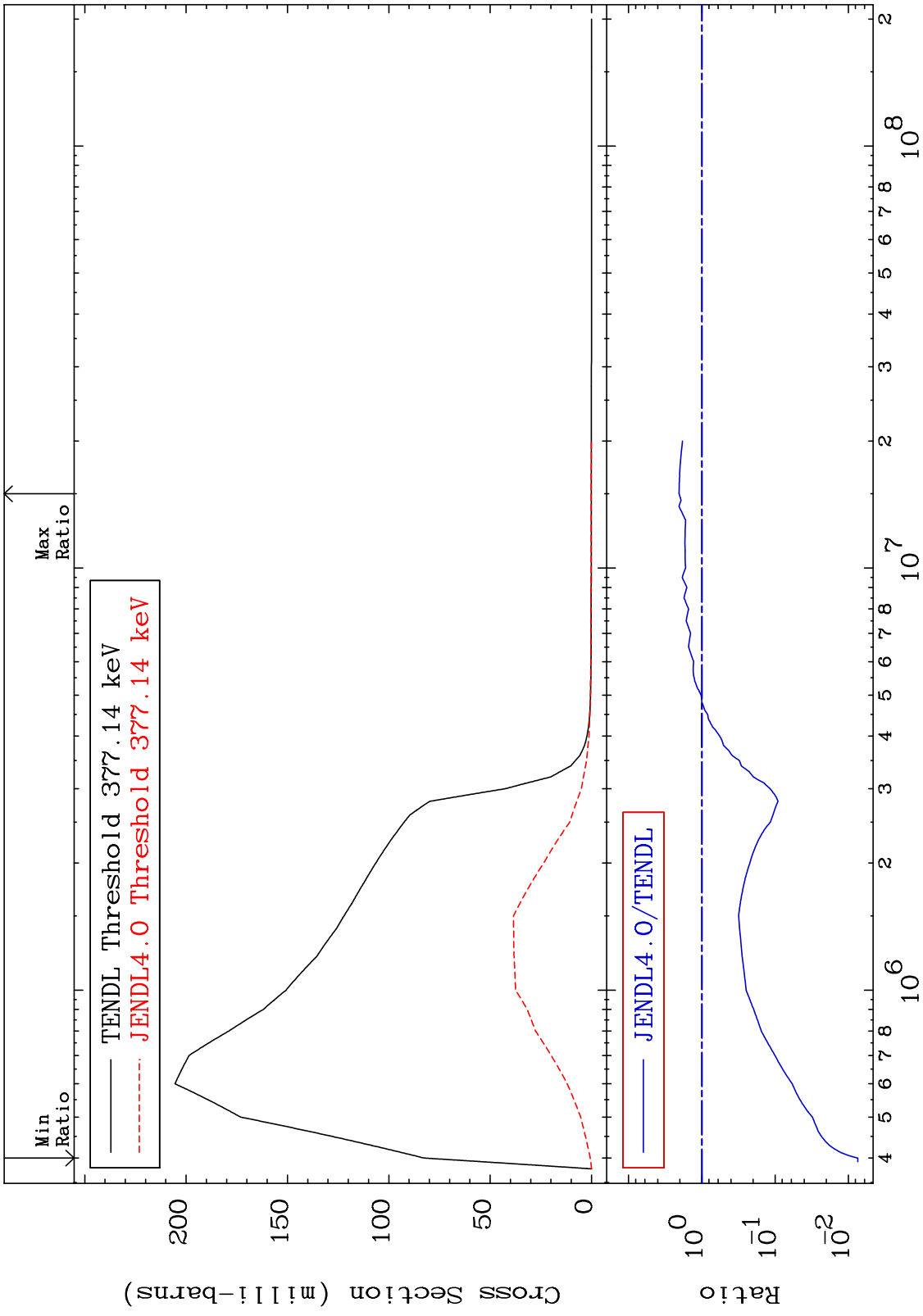


10 72-Hf-177

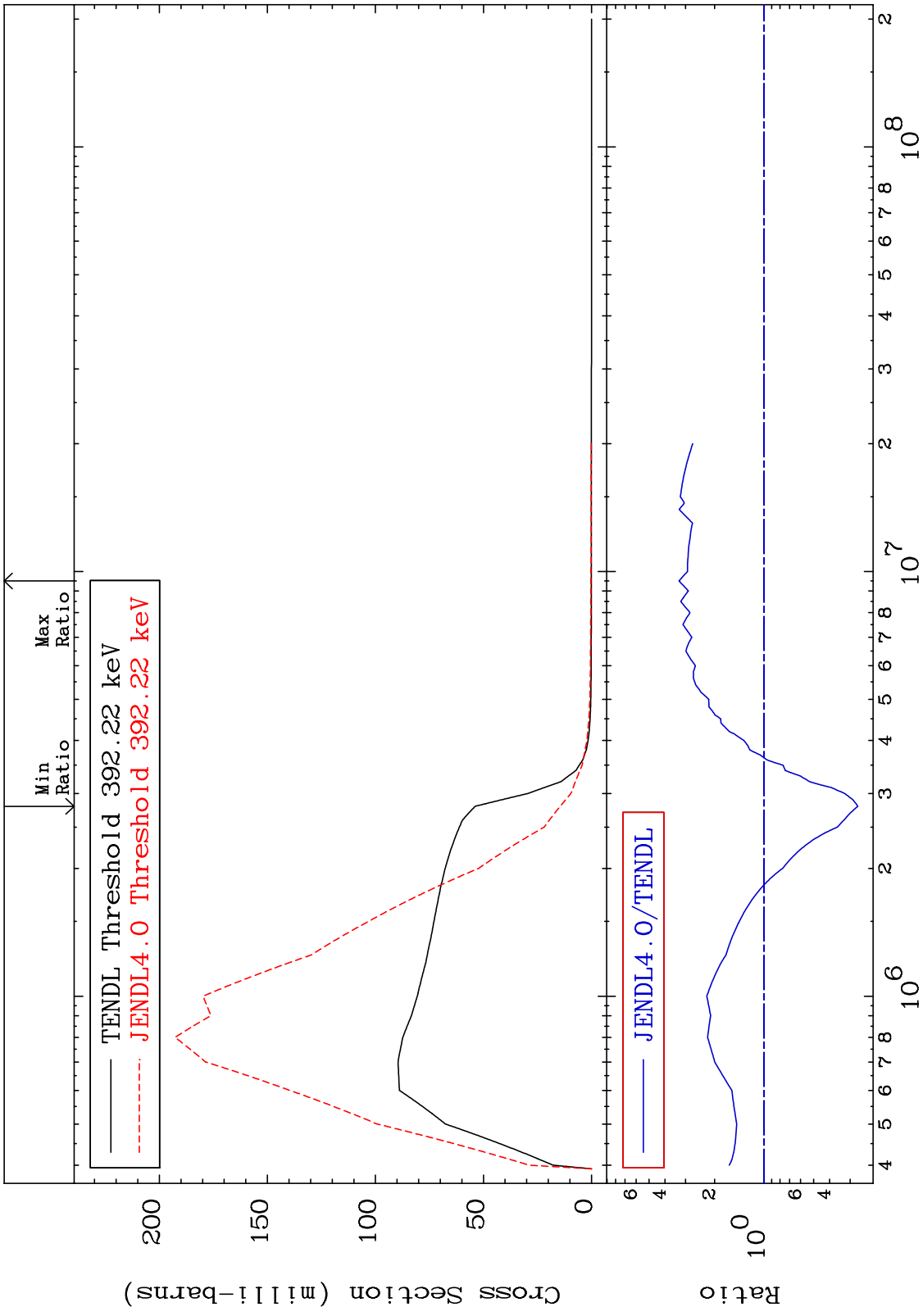
MAT 7234 MT= 53 (n,n') Level Cross Section 72-Hf-177  
 -84.46 To 89.09 %



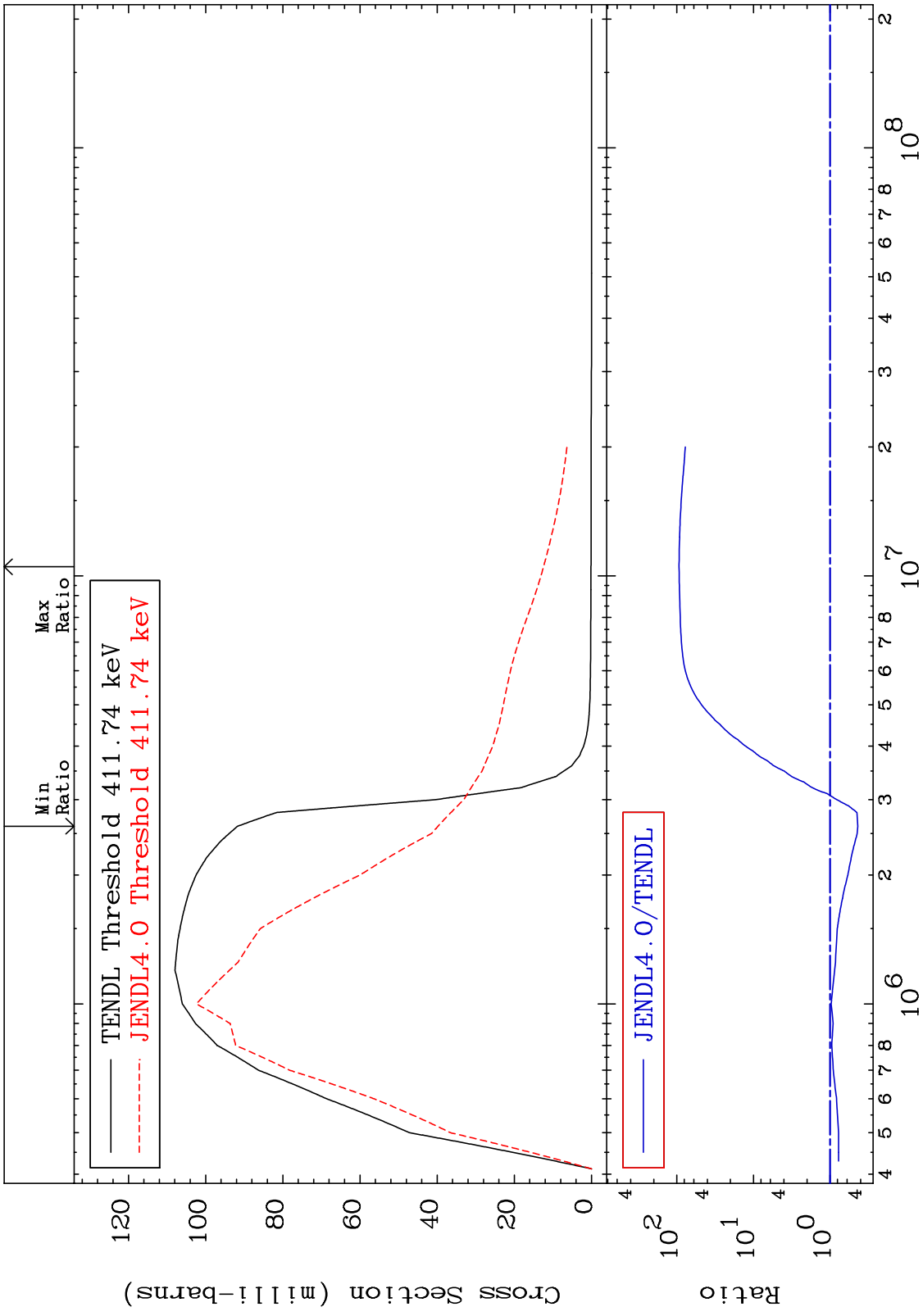
MAT 7234 MT= 54 (n,n') Level Cross Section 72-Hf-177  
 -99.26 To 104.6 %



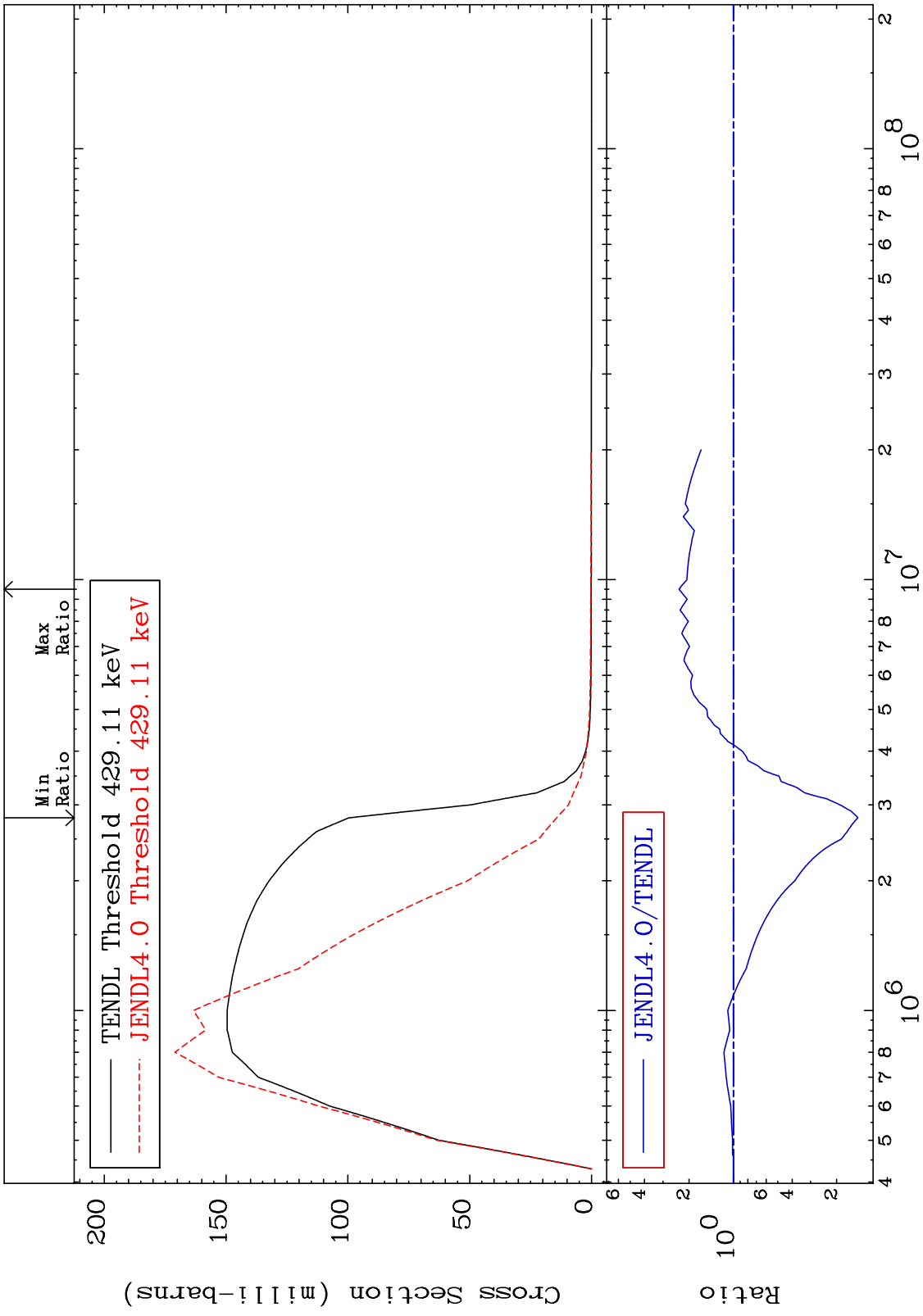
MAT 7234 MT= 55 (n,n') Level Cross Section -73.07 To 228.9 % 72-Hf-177



MAT 7234 MT= 56 (n,n') Level 72-Hf-177  
 Cross Section -56.63 To 9255. %

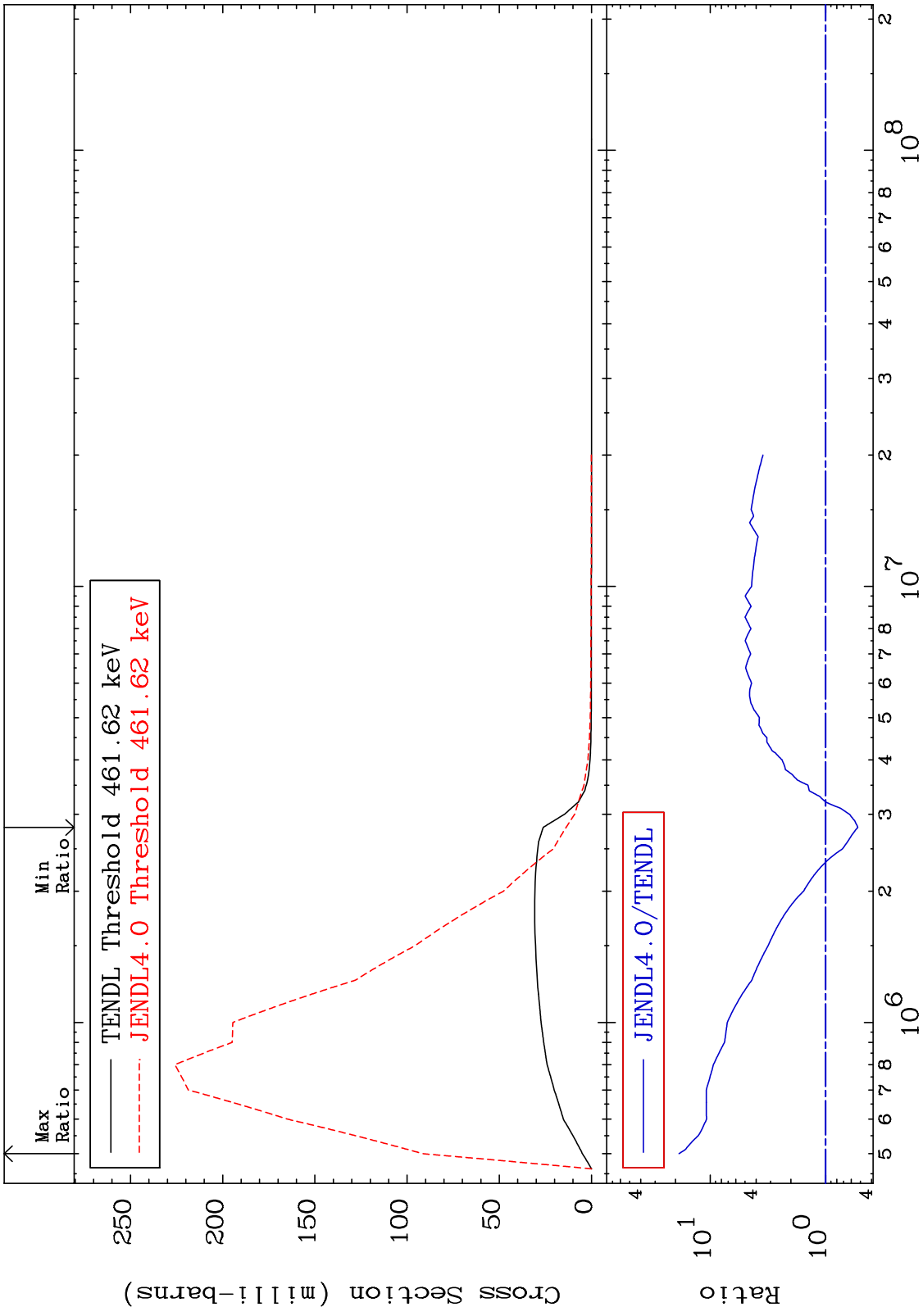


MAT 7234 MT= 57 (n,n') Level Cross Section 72-Hf-177  
 -85.62 To 133.4 %

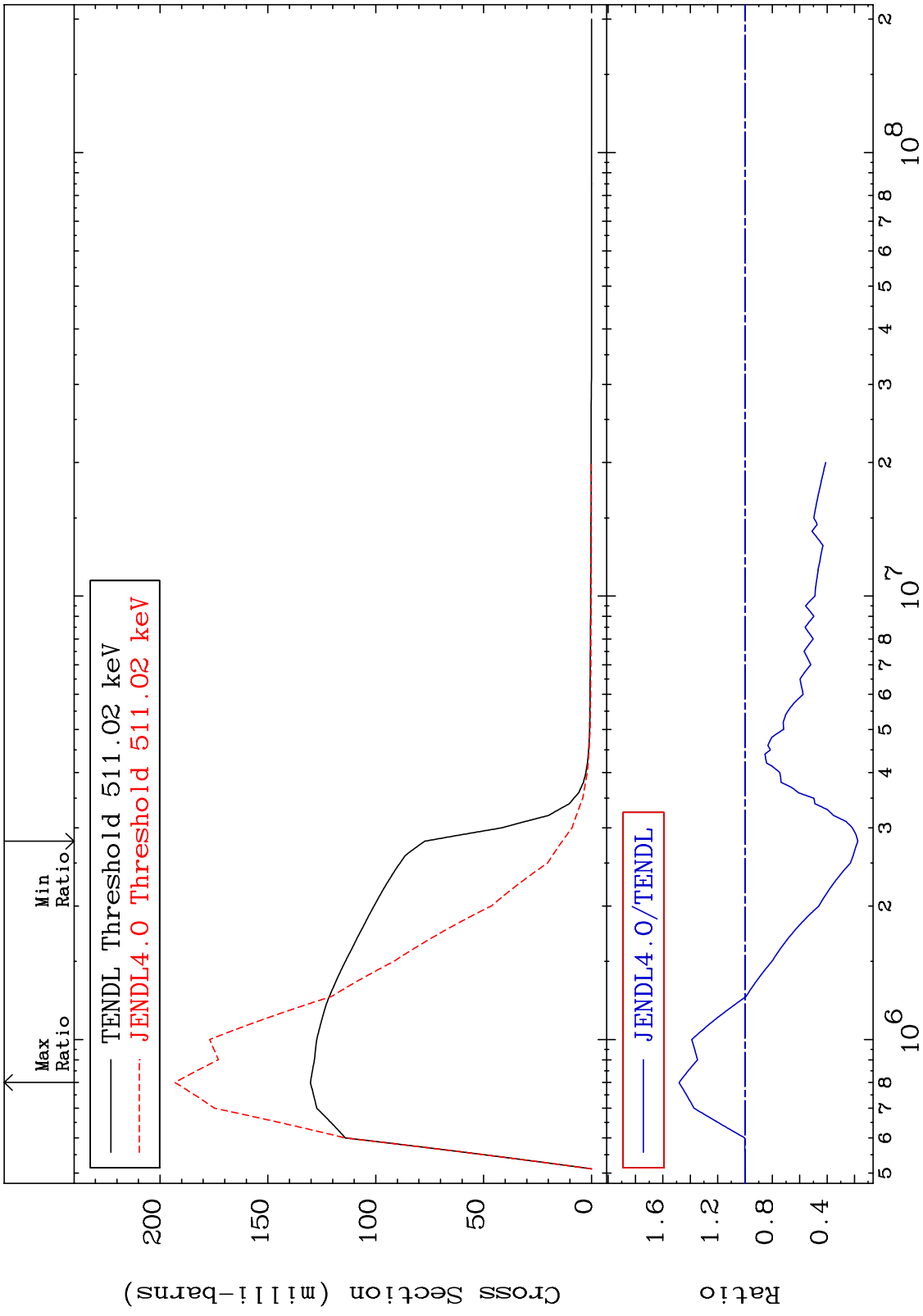




MAT 7234 MT= 58 (n,n') Level 72-Hf-177  
 Cross Section -47.39 To 1761. %



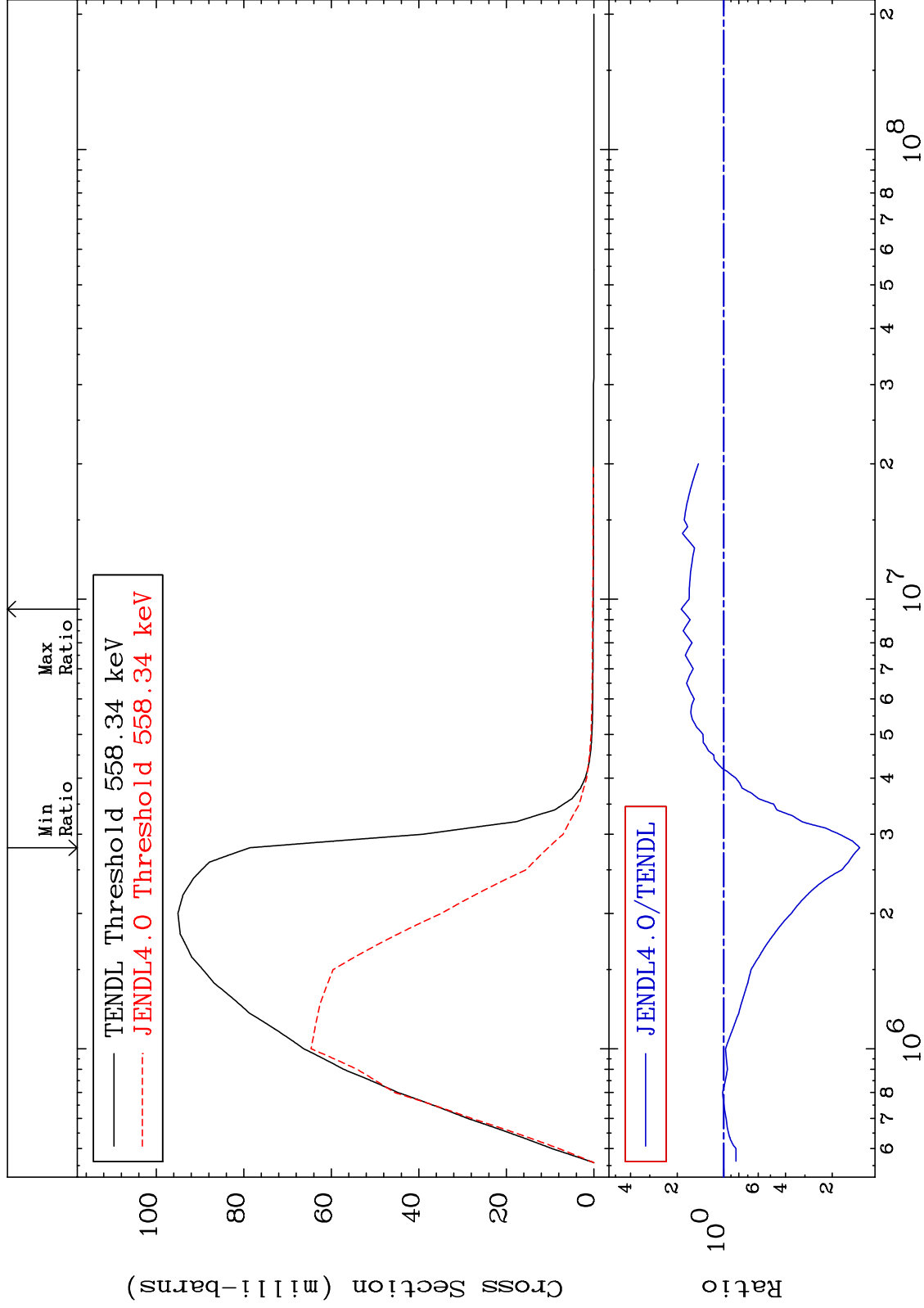
MAT 7234 MT= 59 (n,n') Level Cross Section 72-Hf-177  
 -82.46 To 48.18 %



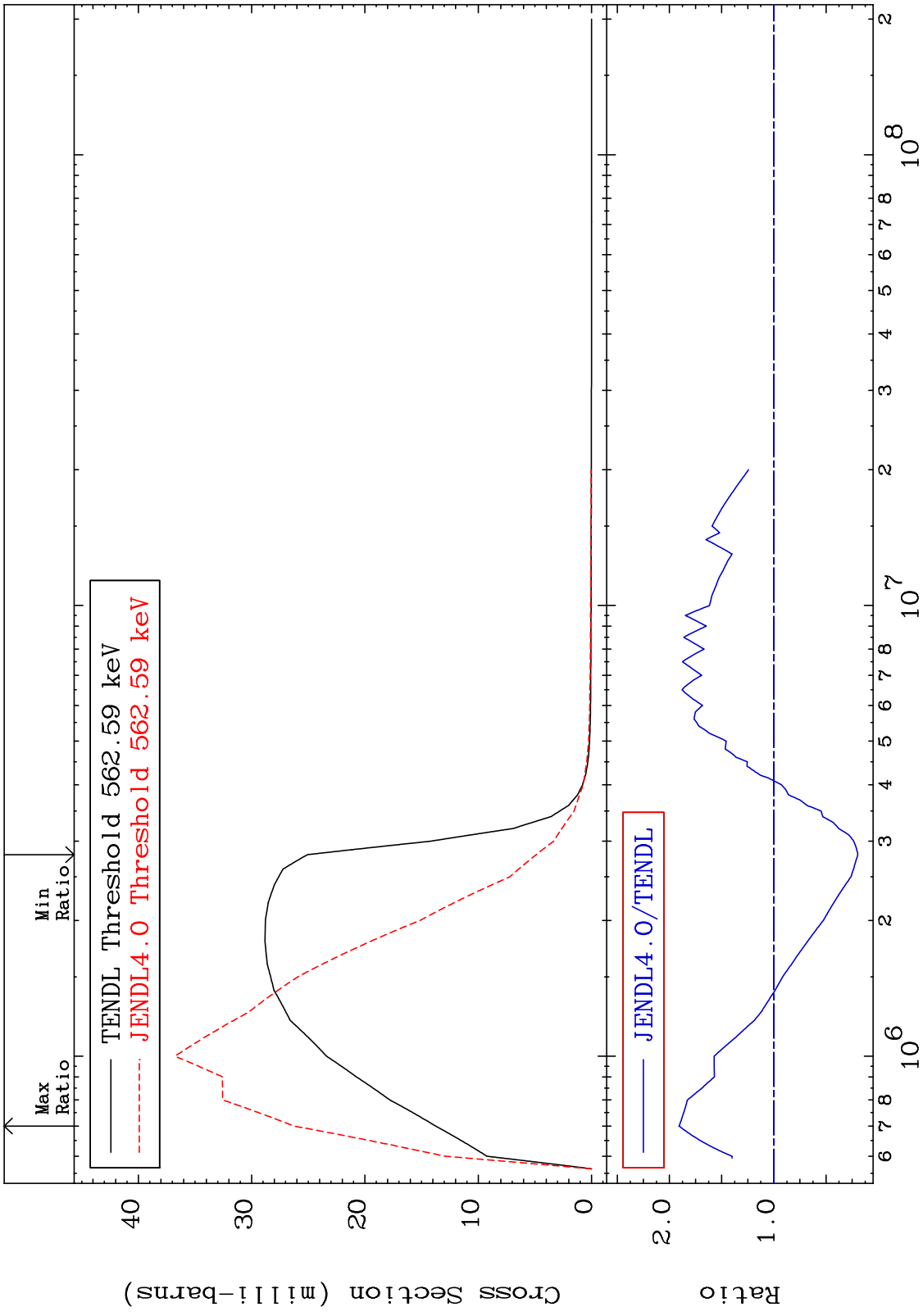
MAT 7234

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

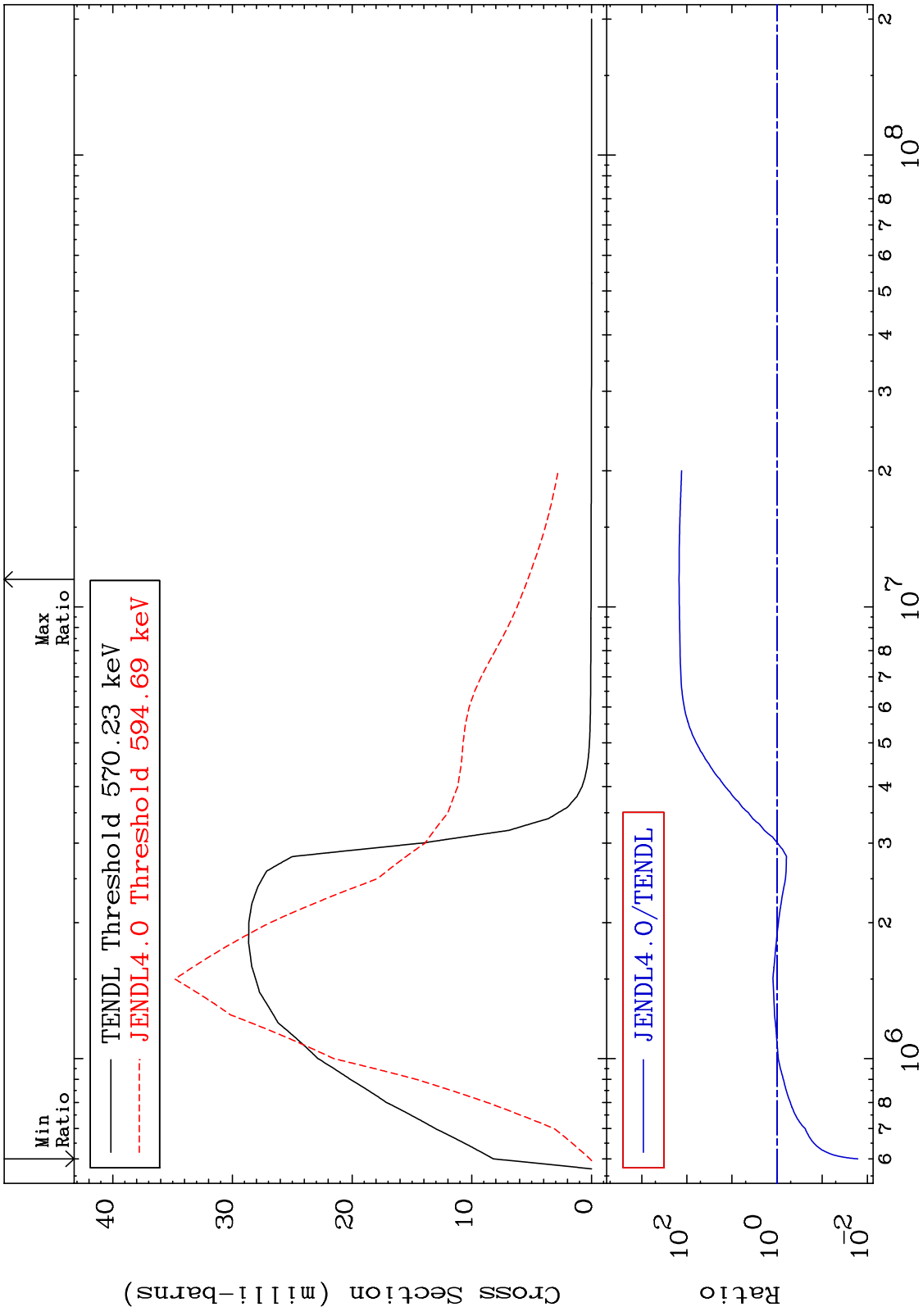
72-Hf-177  
-86.73 To 88.17 %



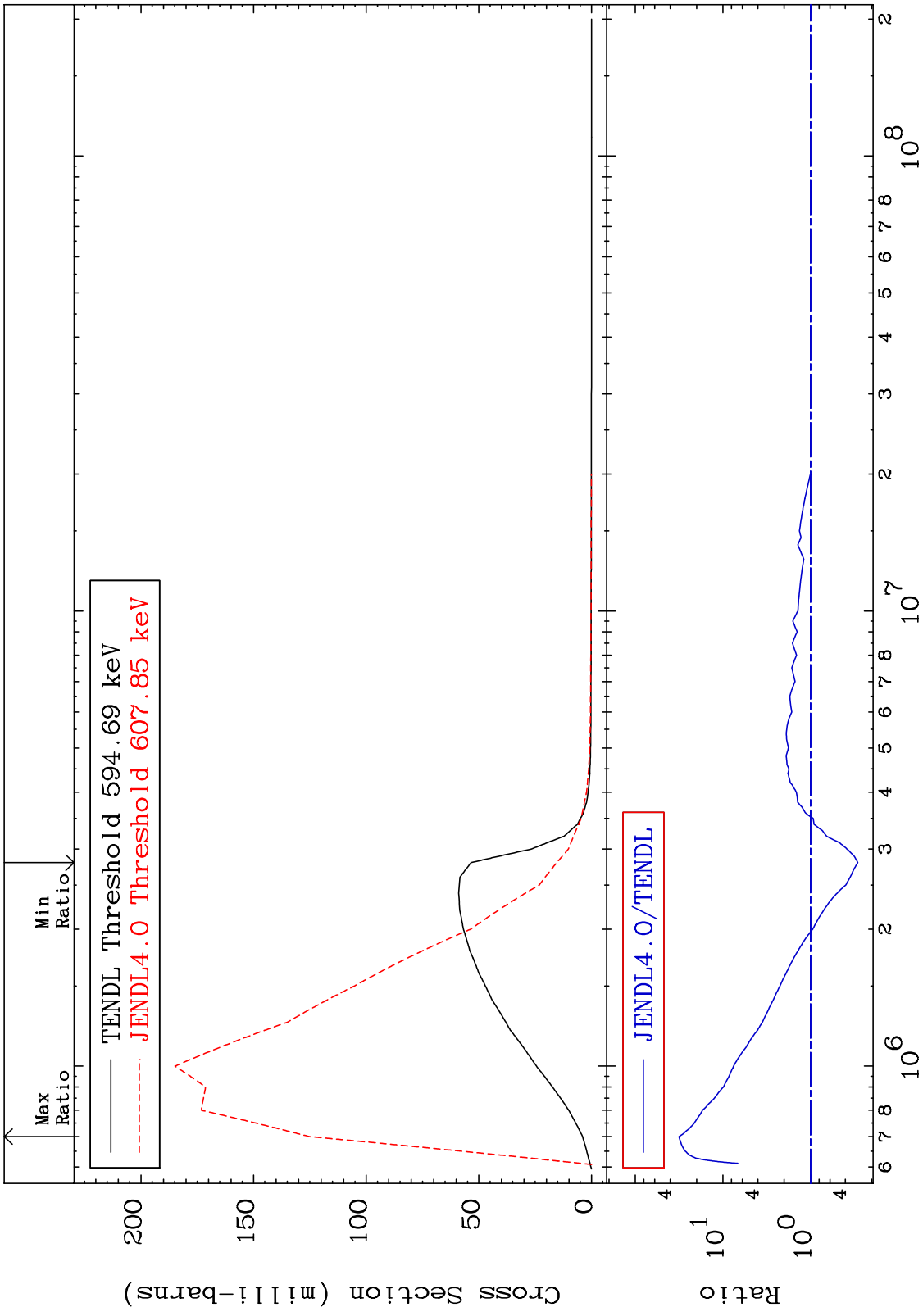
MAT 7234 MT= 61 (n,n') Level Cross Section 72-Hf-177  
 -80.51 To 90.82 %



MAT 7234 MT= 62 (n,n') Level Cross Section 72-Hf-177  
 -98.38 To 9999. %



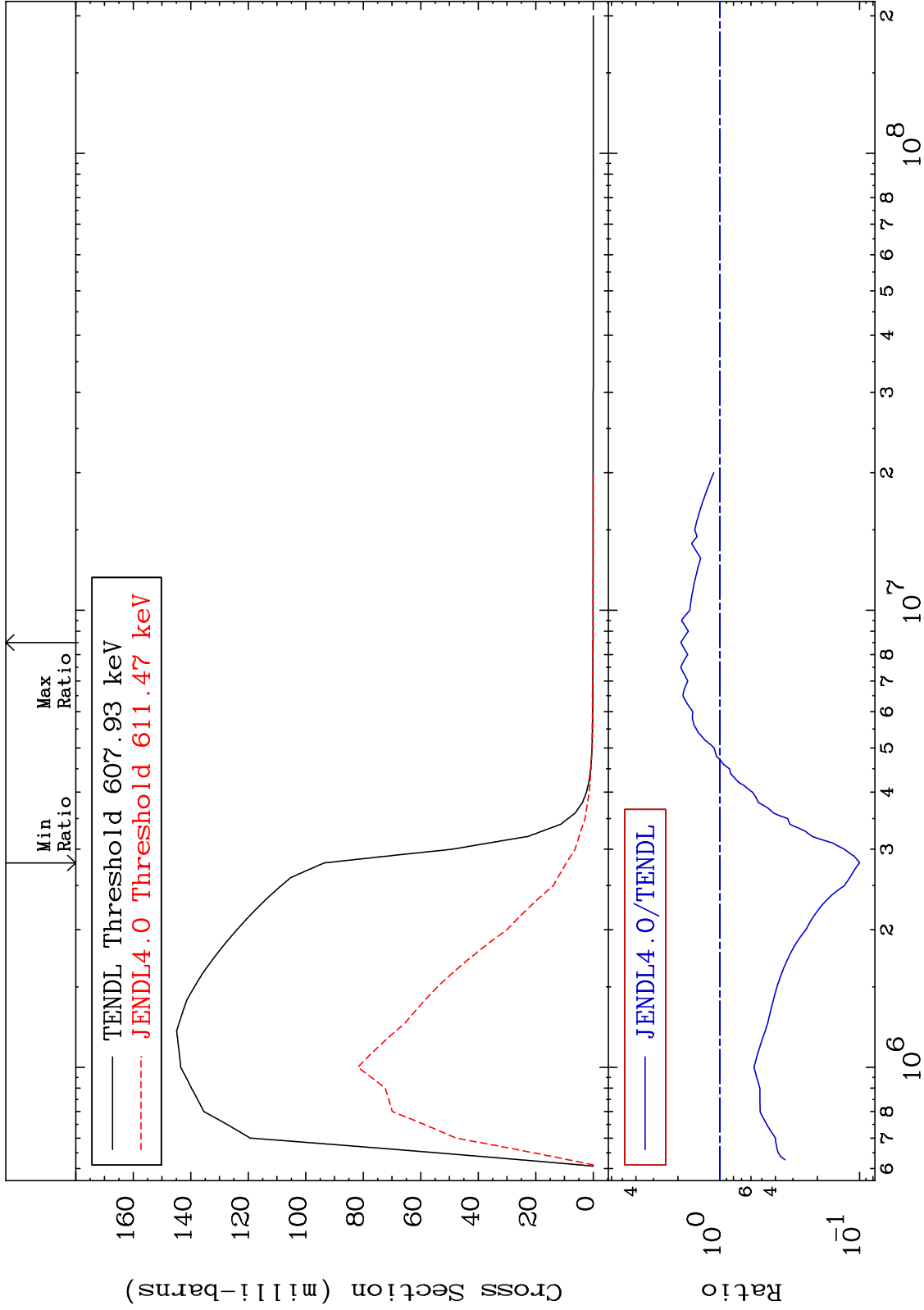
MAT 7234 MT= 63 (n,n') Level Cross Section 72-Hf-177  
 -71.16 To 3071. %



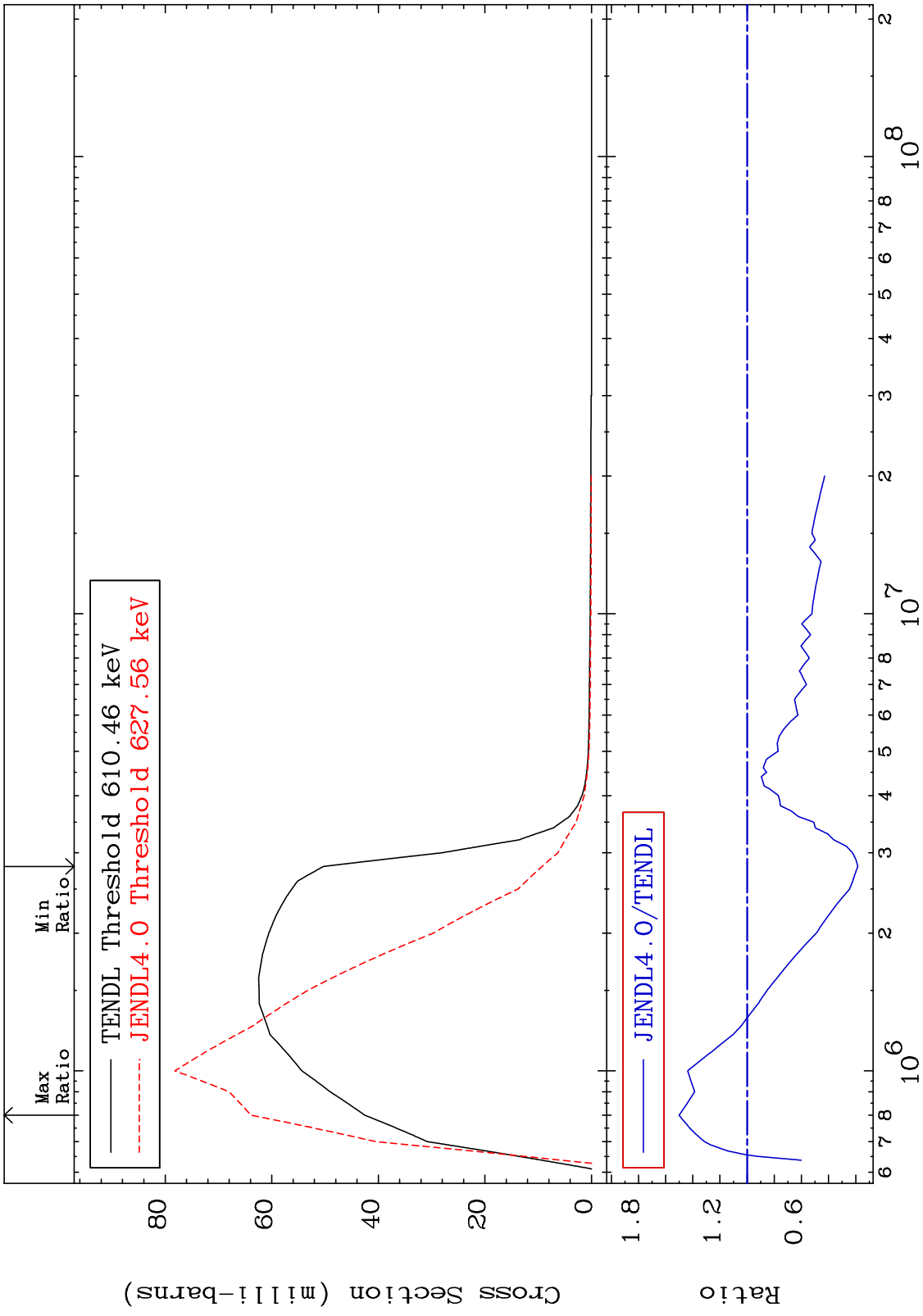
MAT 7234

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

72-Hf-177  
-90.02 To 90.74 %

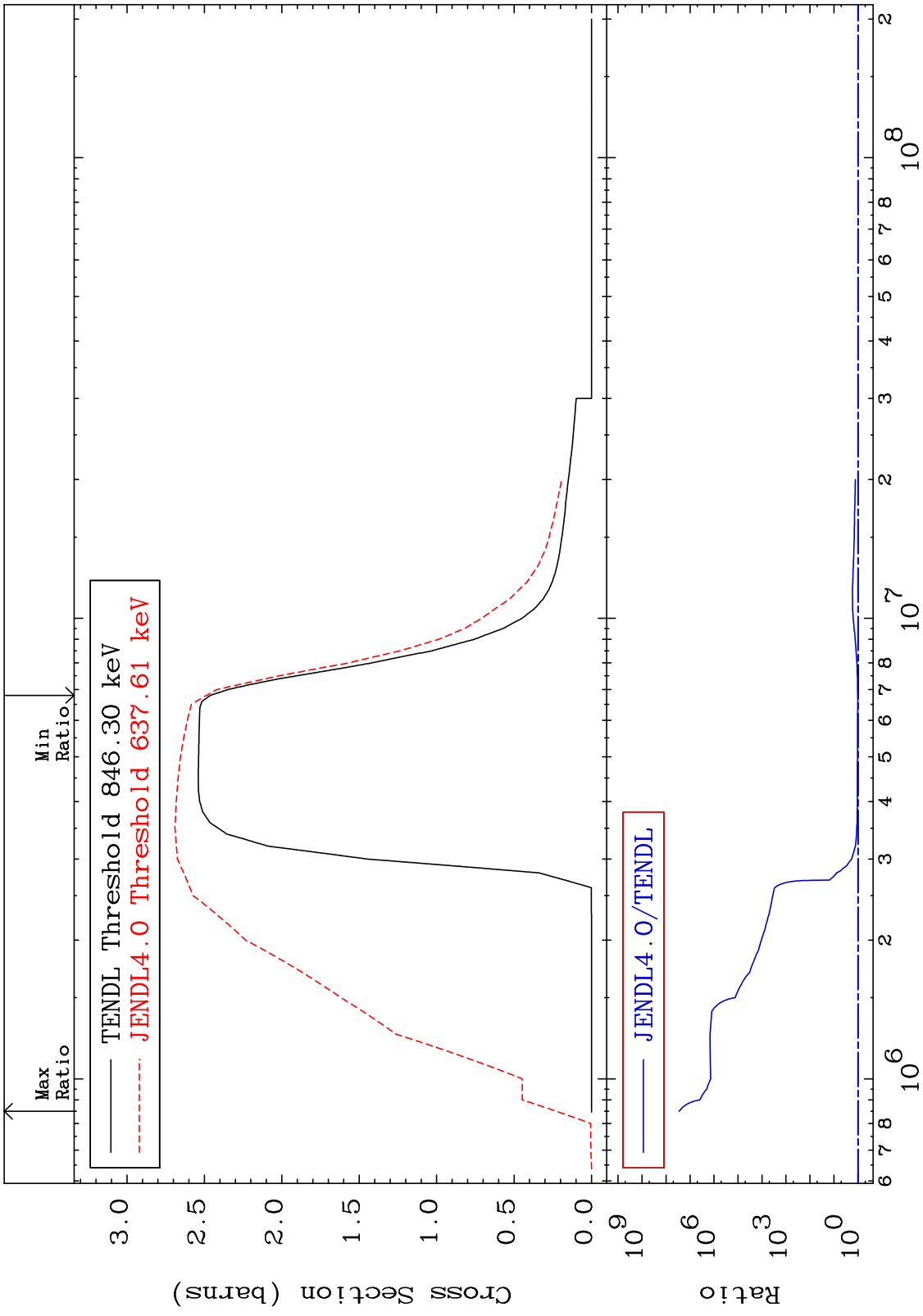


MAT 7234 MT= 65 (n,n') Level 72-Hf-177  
 Cross Section -81.55 To 50.13 %





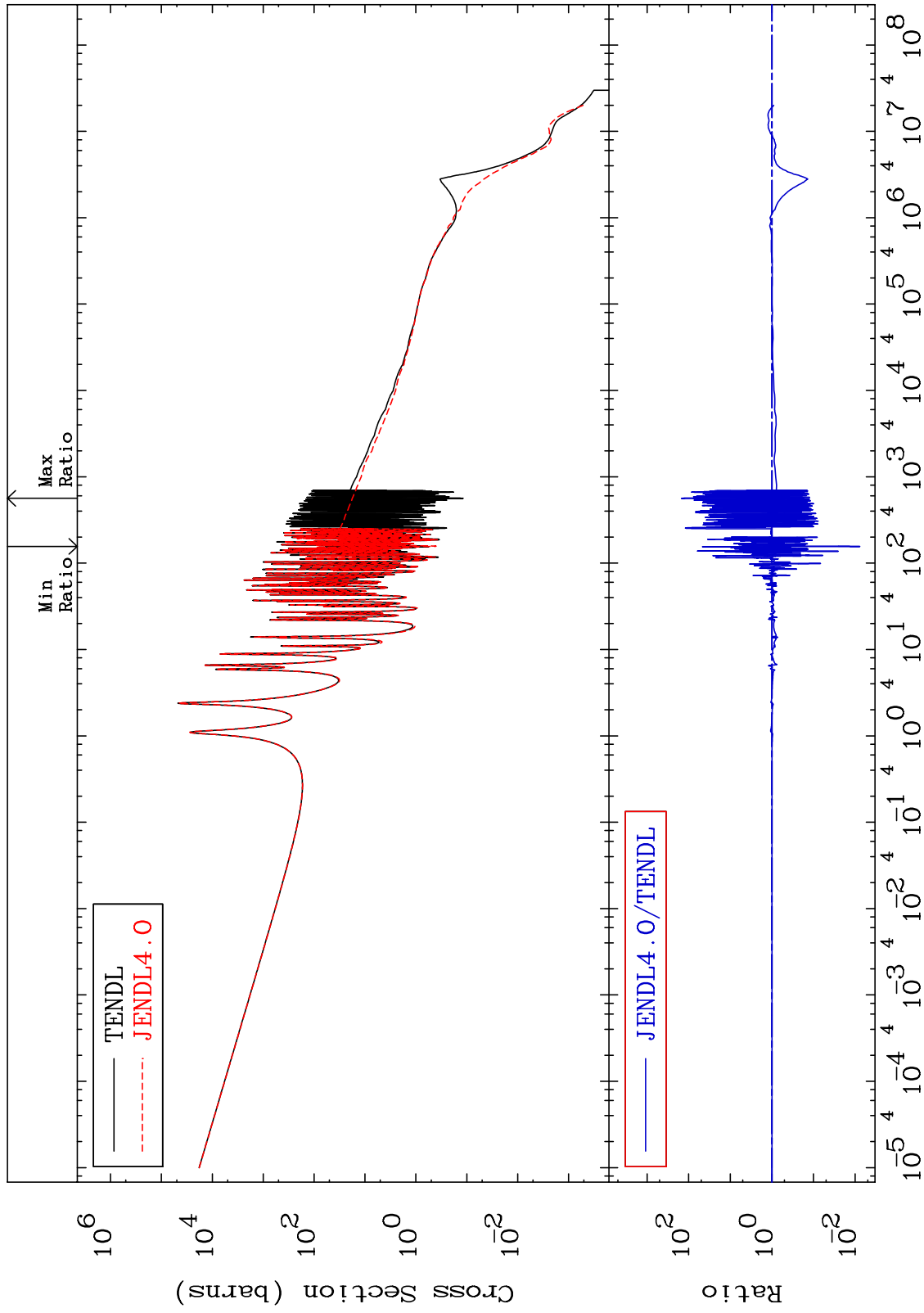
MAT 7234 (n,n') Continuum Cross Section 72-Hf-177 0.989 To 9999. %



MAT 7234

(n,  $\gamma$ )  
Cross Section

72-Hf-177  
-99.22 To 9999. %



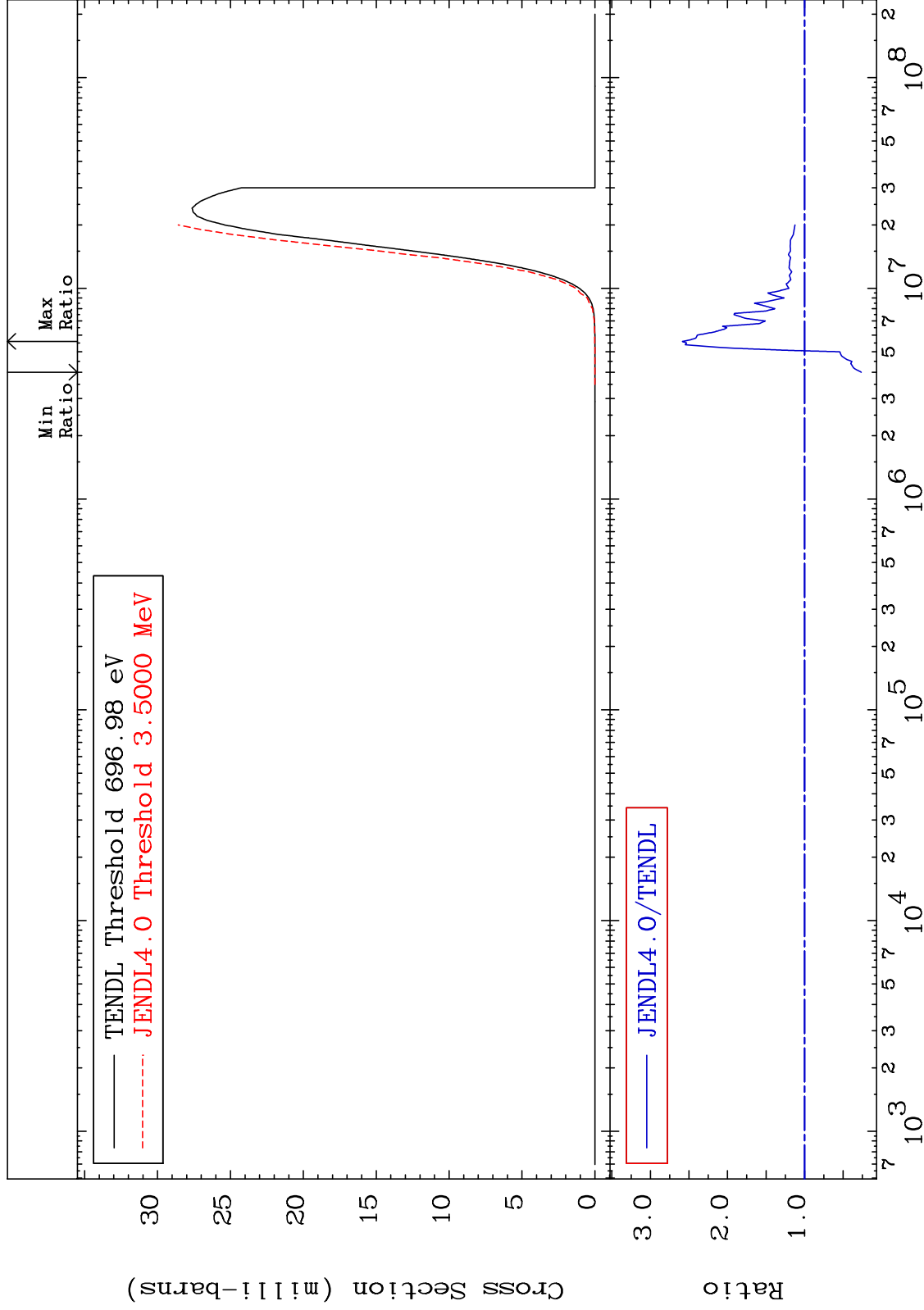
MAT 7234

(n,p)

72-Hf-177

Cross Section

-73.52 To 158.4 %



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Incident Energy (eV)

72-Hf-177

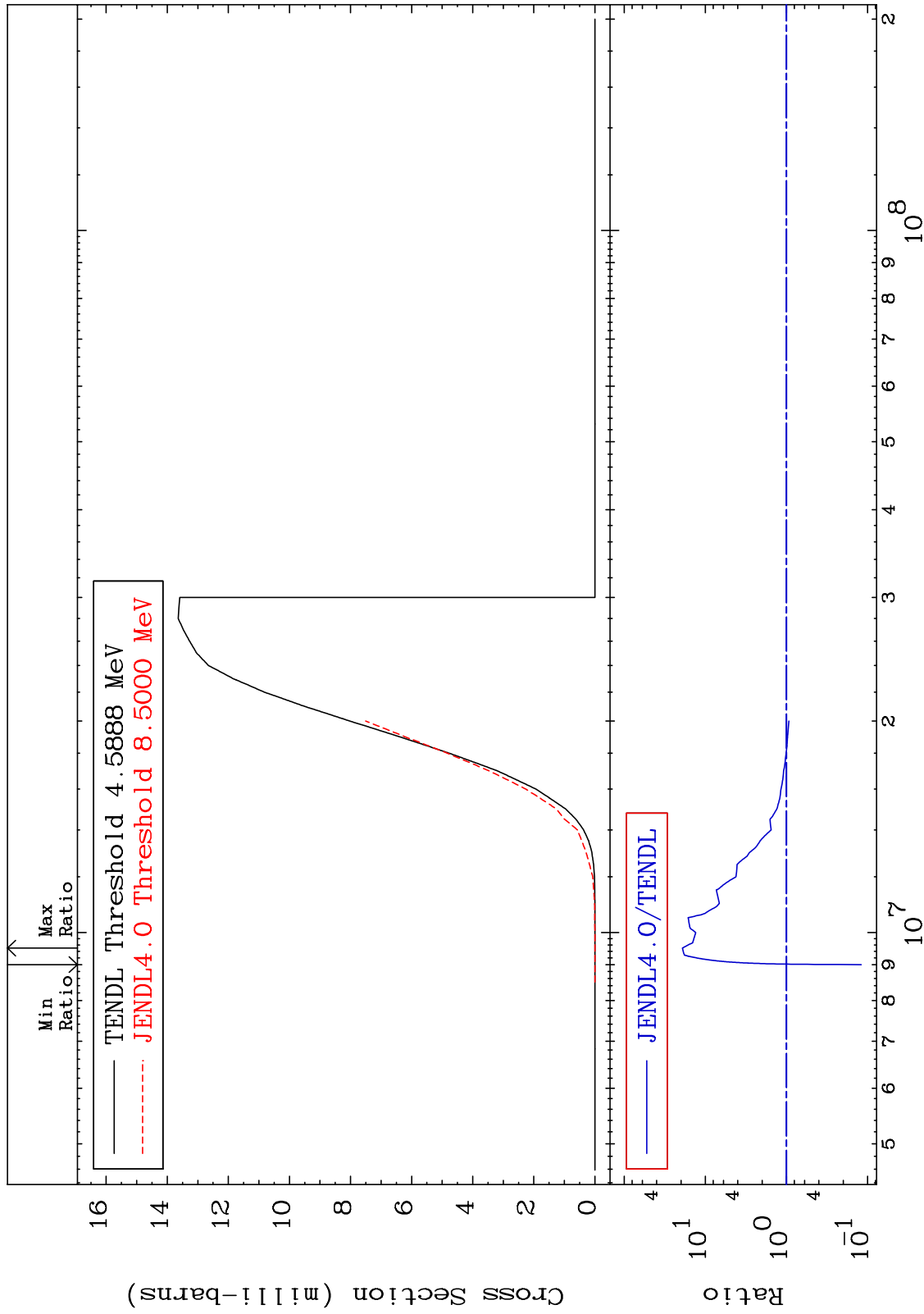
MAT 7234

(n,d)

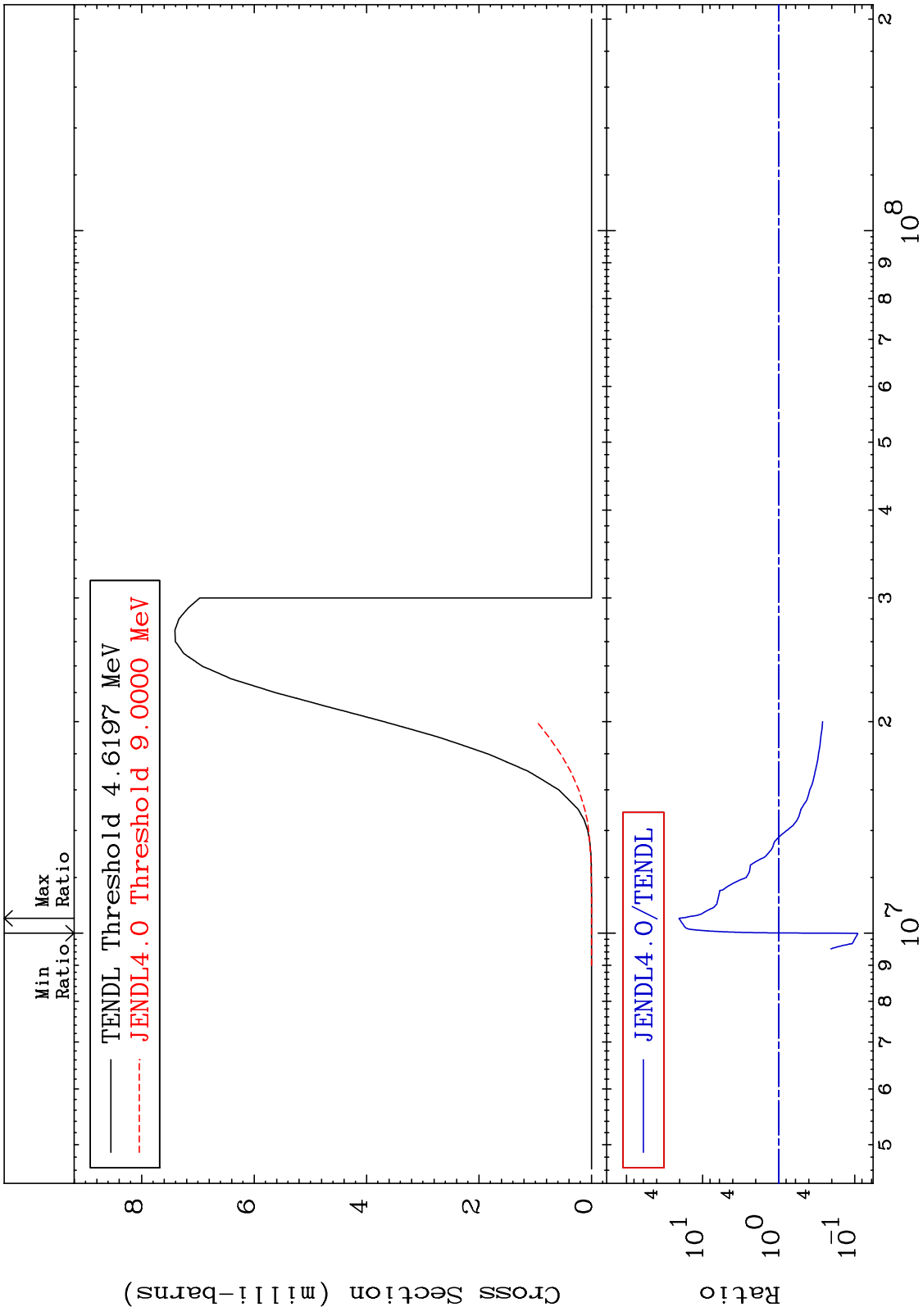
72-Hf-177

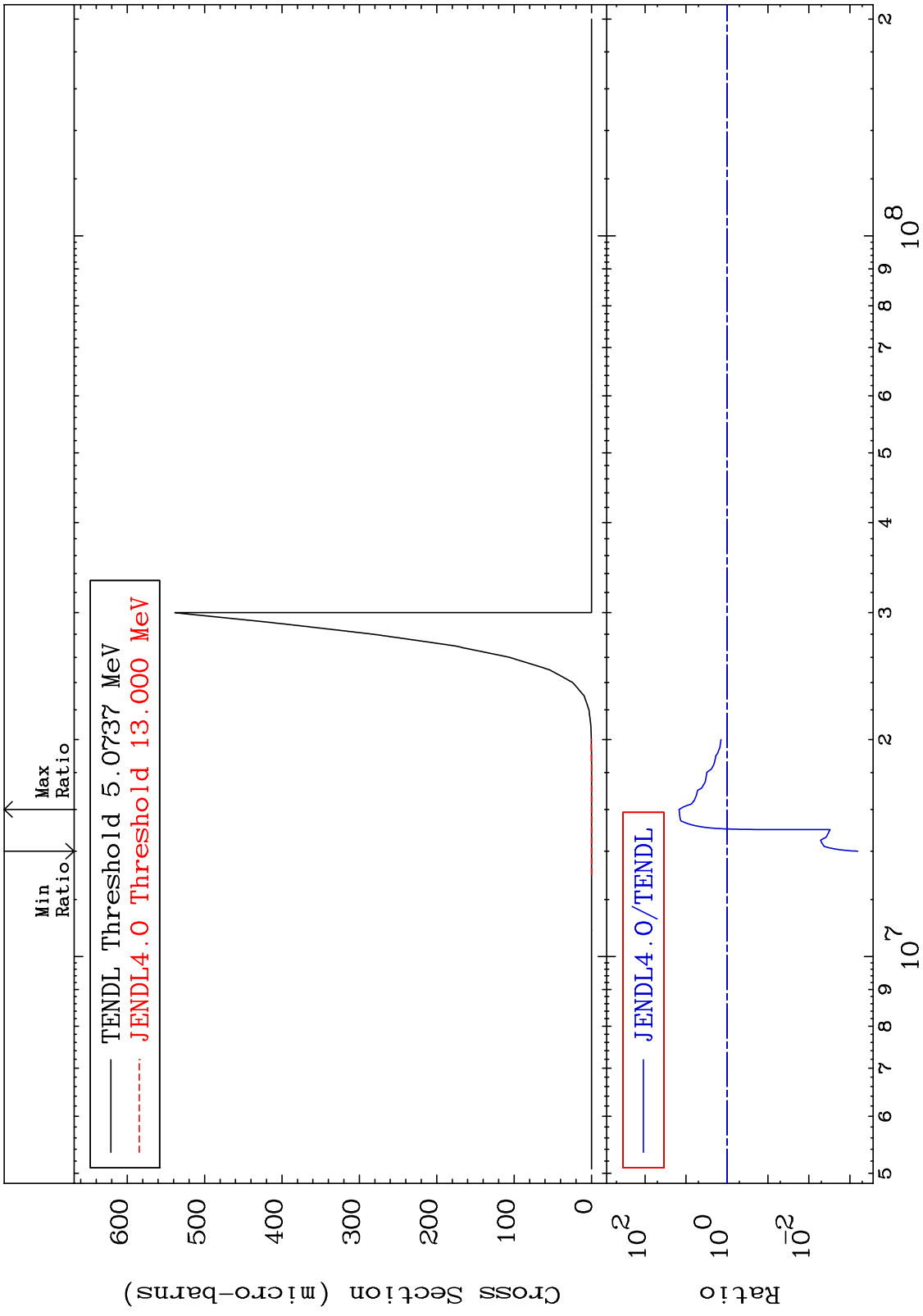
Cross Section

-88.01 To 1821. %



MAT 7234 (n,t) 72-Hf-177  
 Cross Section -90.92 To 1939. %





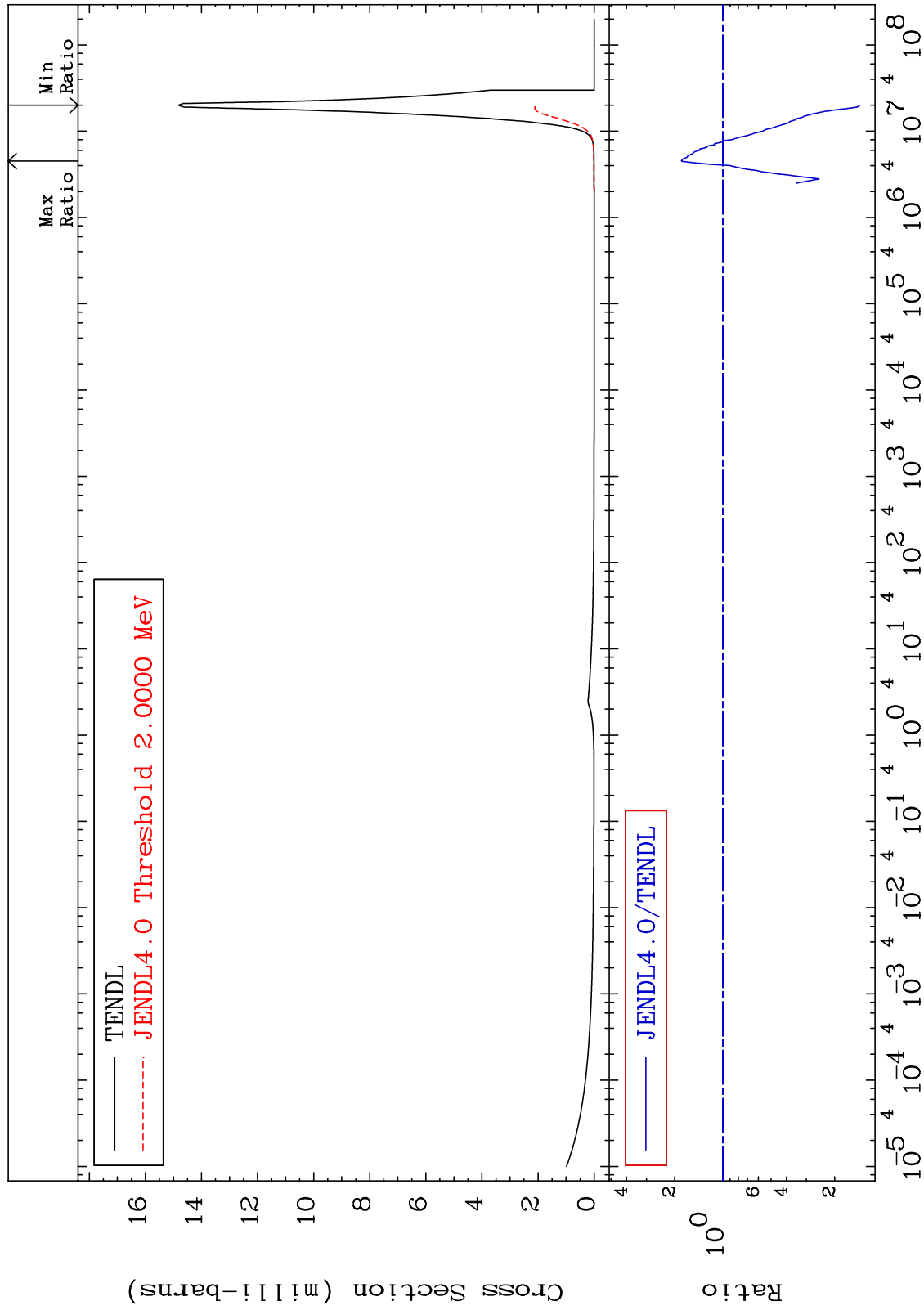
MAT 7234

(n,  $\alpha$ )

72-Hf-177

Cross Section

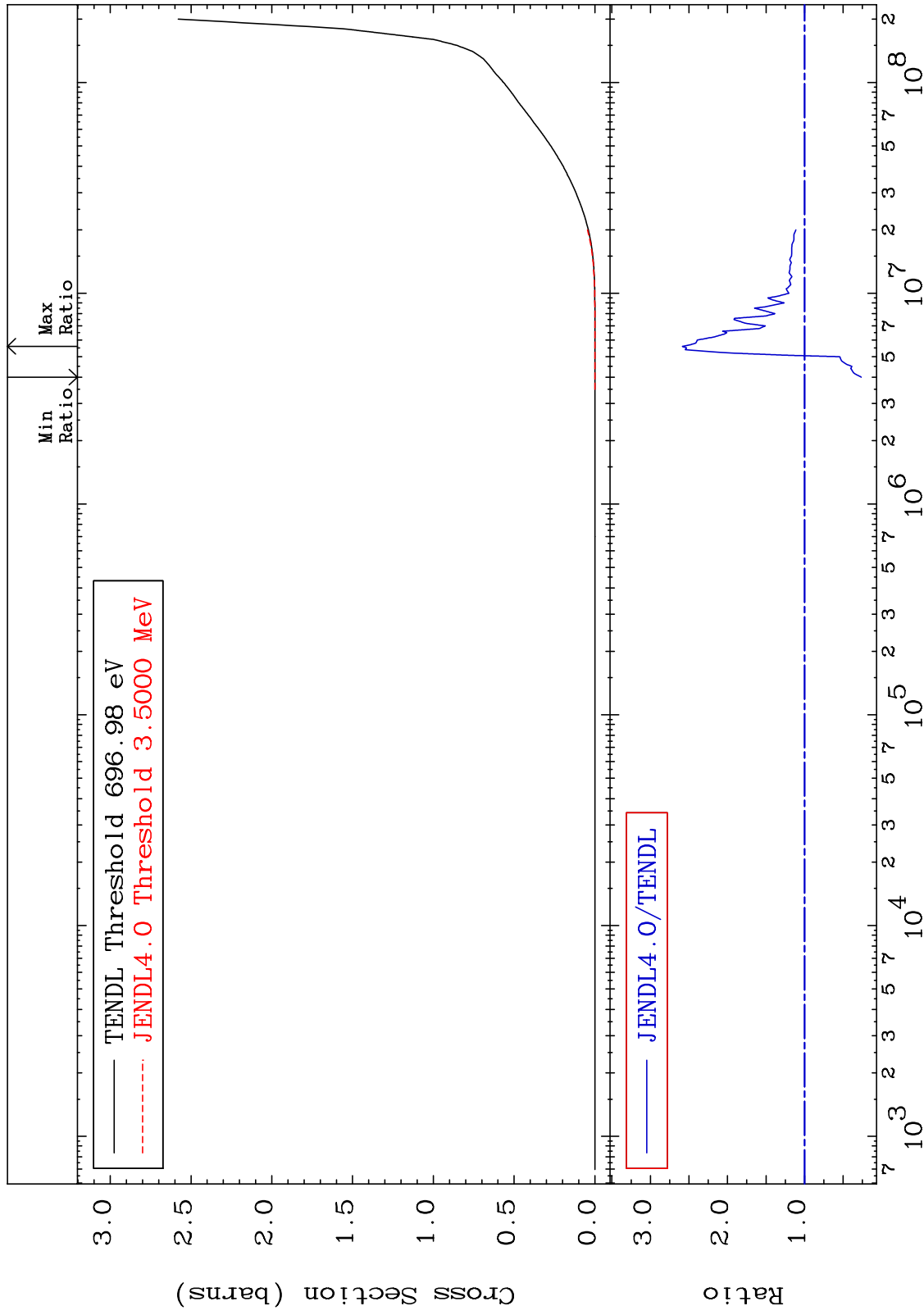
-86.09 To 81.30 %



MAT 7234

Hydrogen Production  
Cross Section

72-Hf-177  
-73.52 To 158.4 %

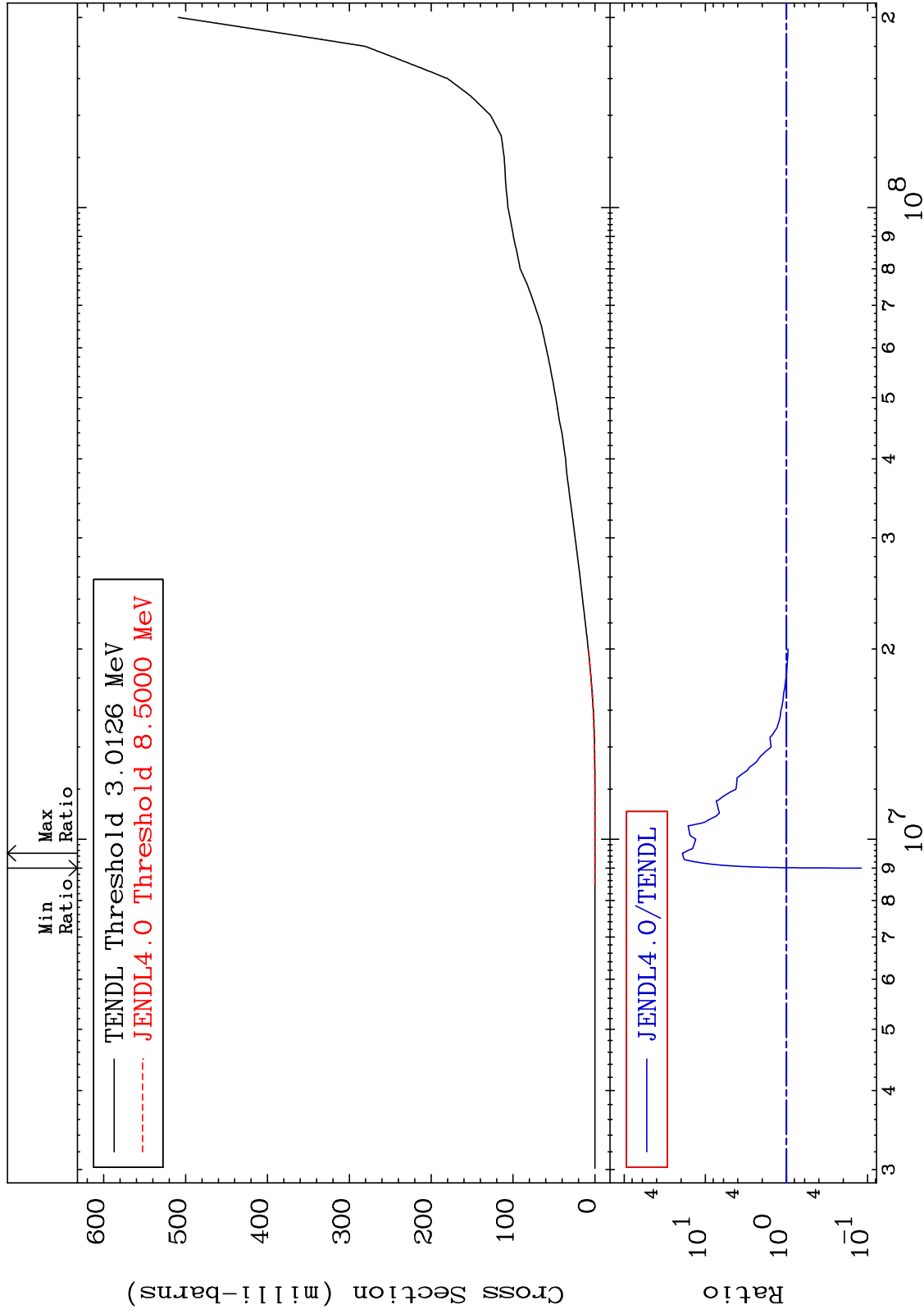




MAT 7234

Deuterium Production  
Cross Section

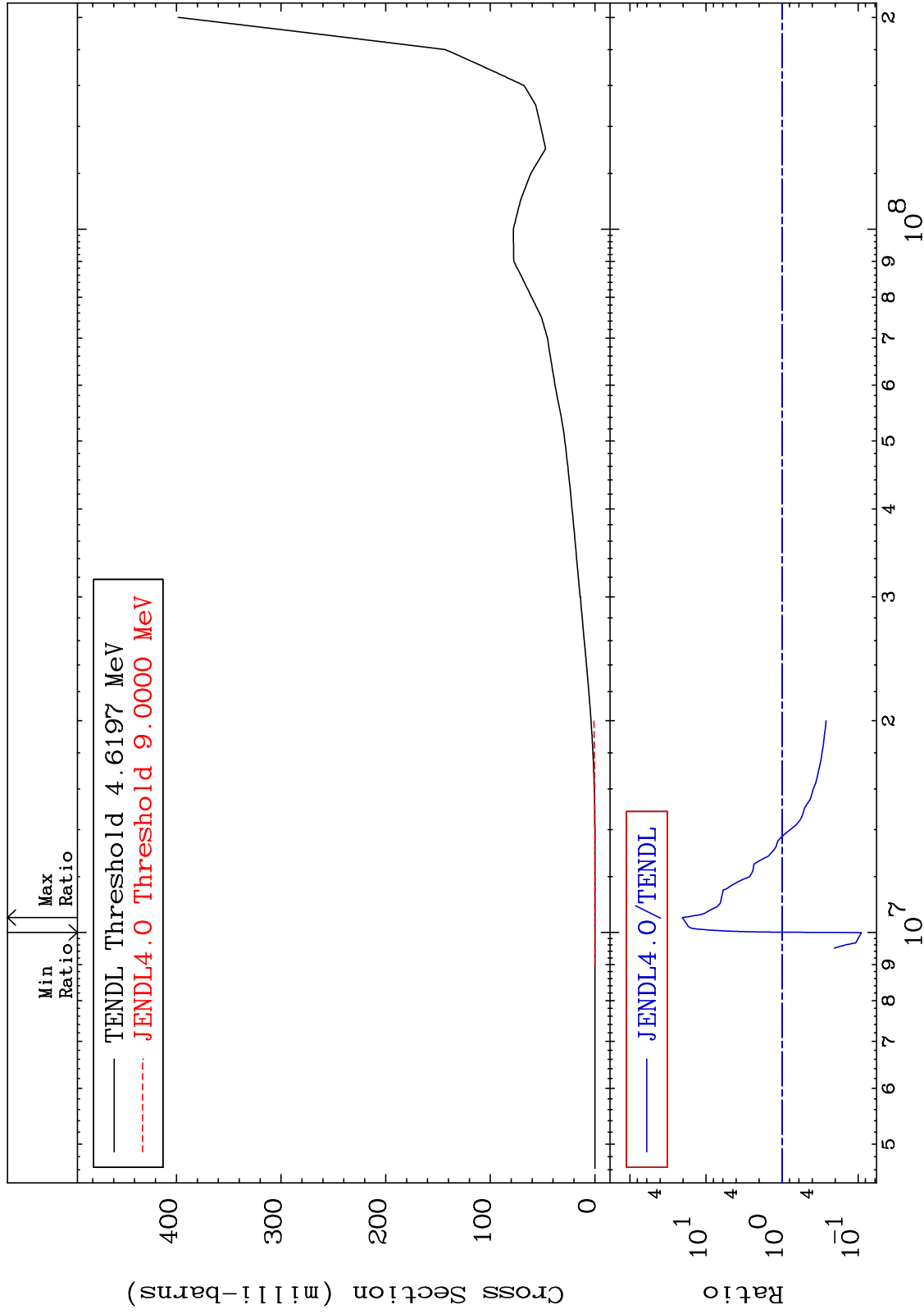
72-Hf-177  
-88.01 To 1821. %



MAT 7234

Tritium Production  
Cross Section

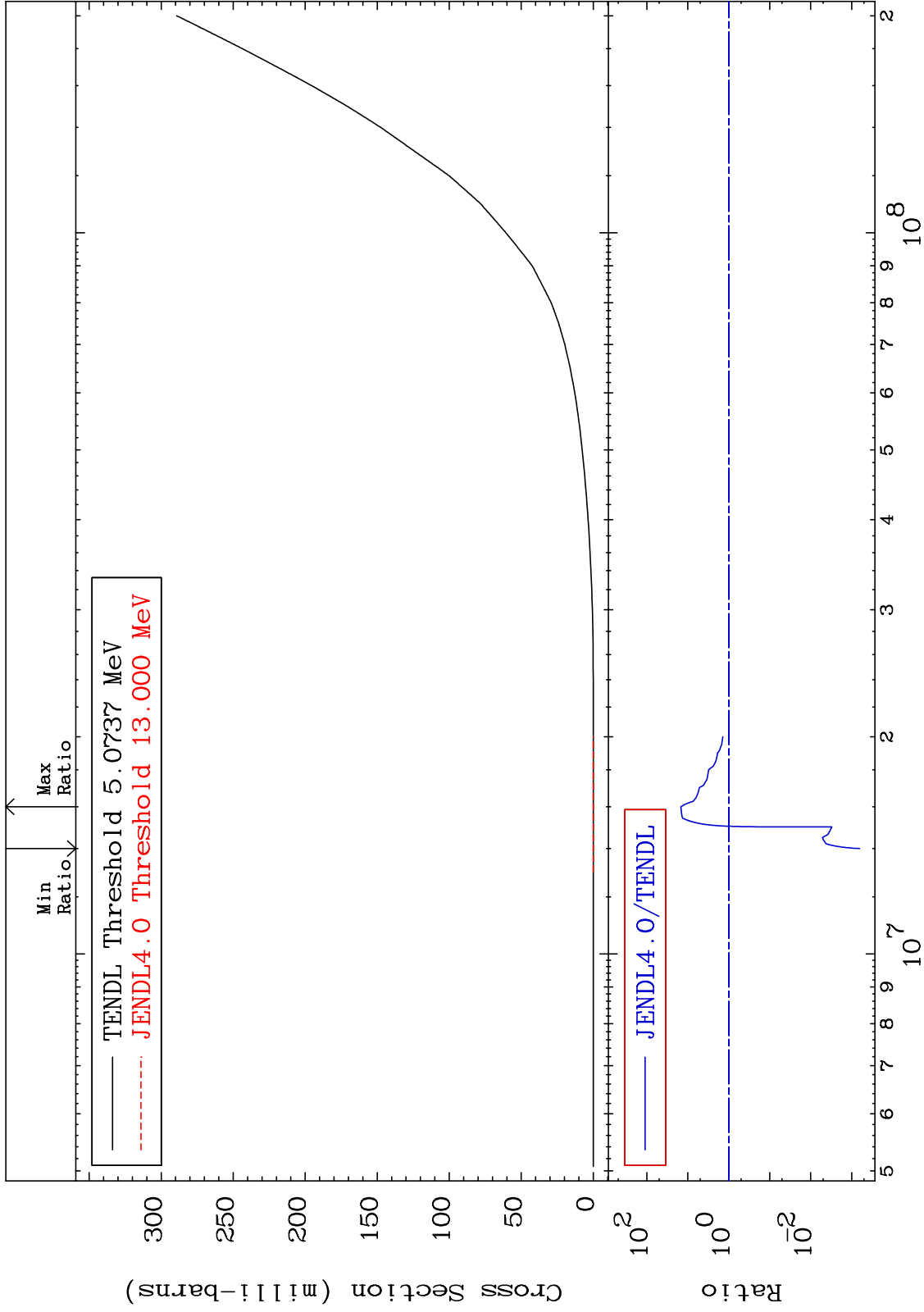
72-Hf-177  
-90.92 To 1939. %



MAT 7234

He-3 Production  
Cross Section

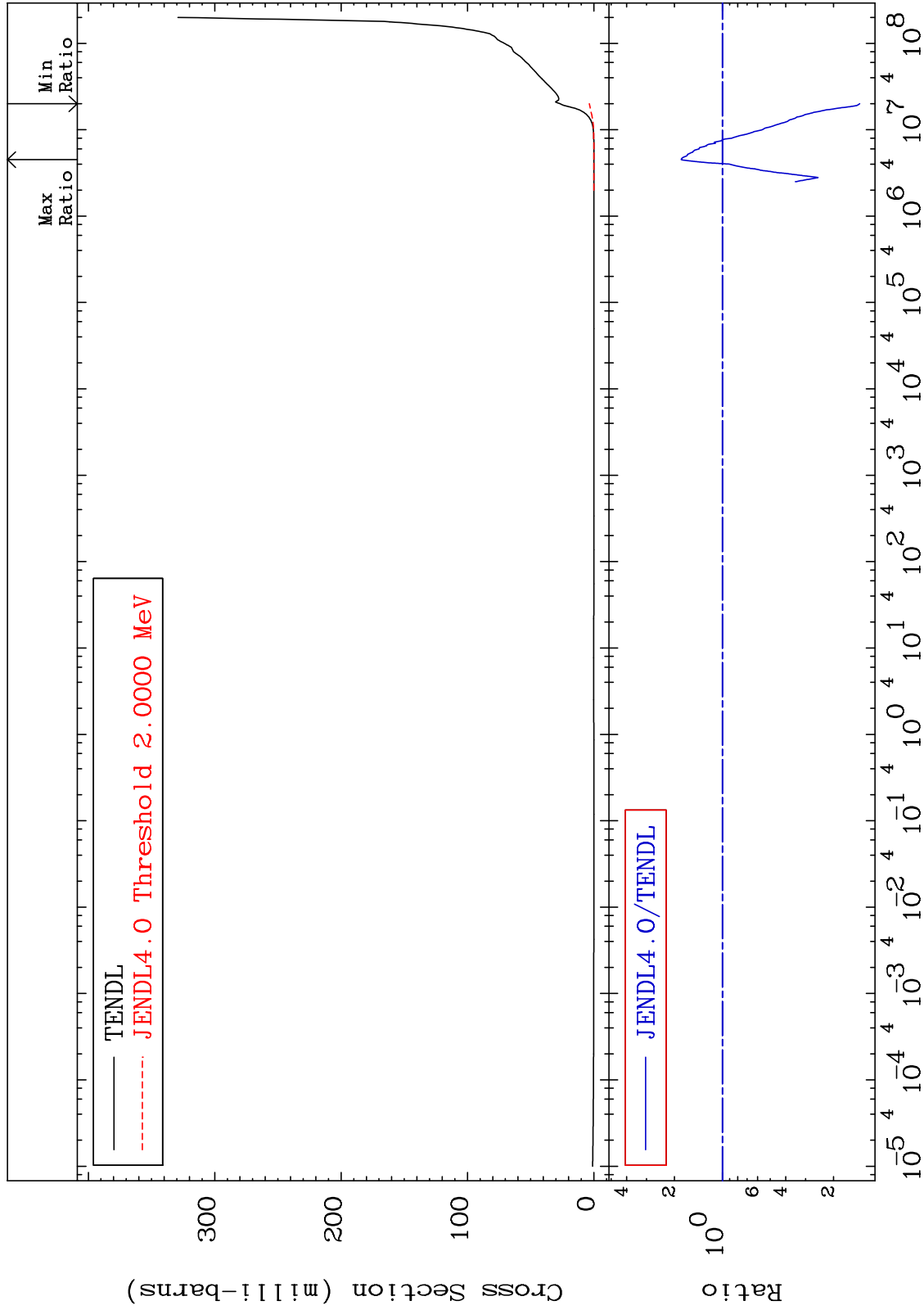
72-Hf-177  
-99.94 To 1383. %



MAT 7234

He-4 Production  
Cross Section

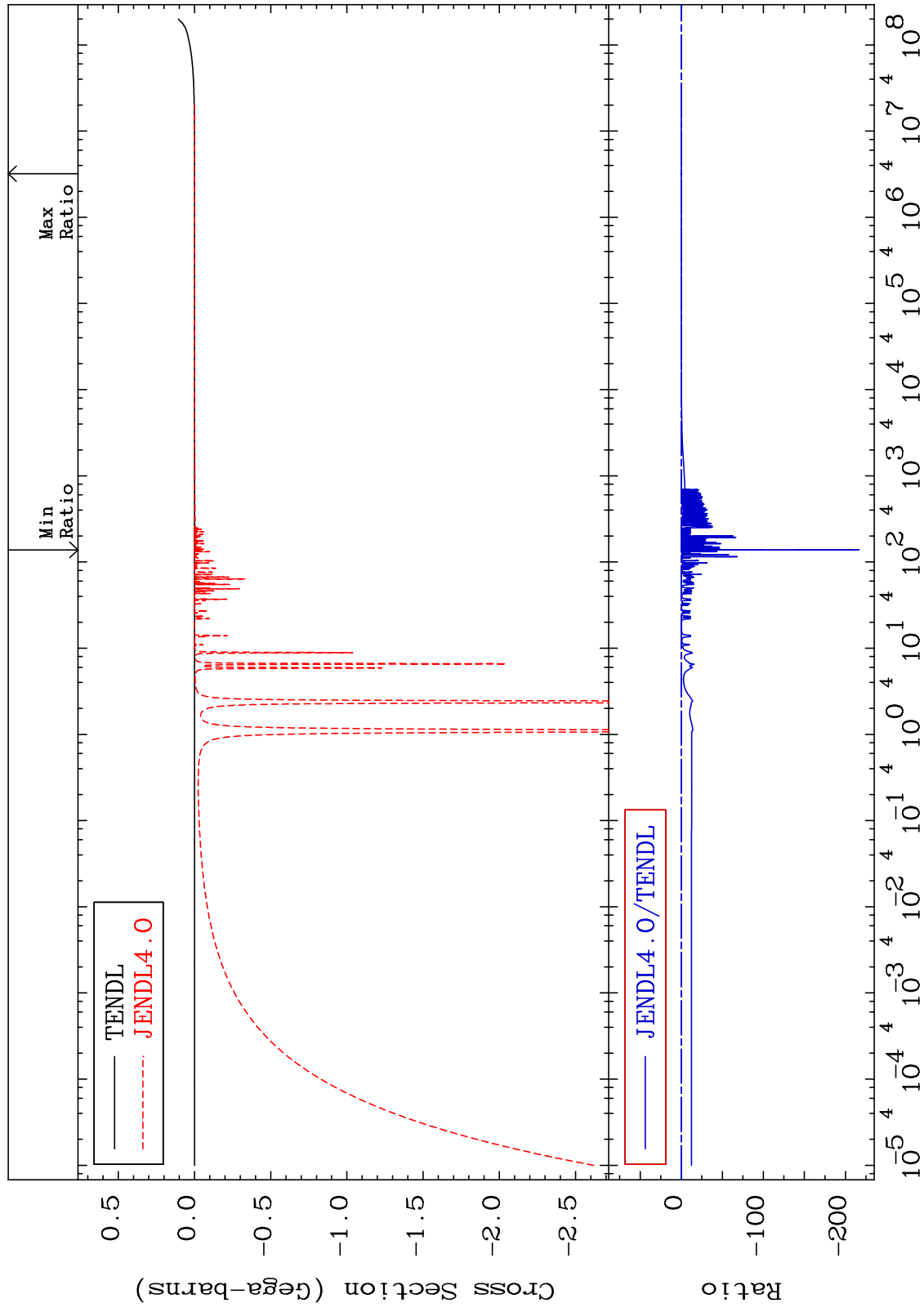
72-Hf-177  
-86.31 To 81.29 %



MAT 7234

Kerma total (eV-barns)  
Cross Section

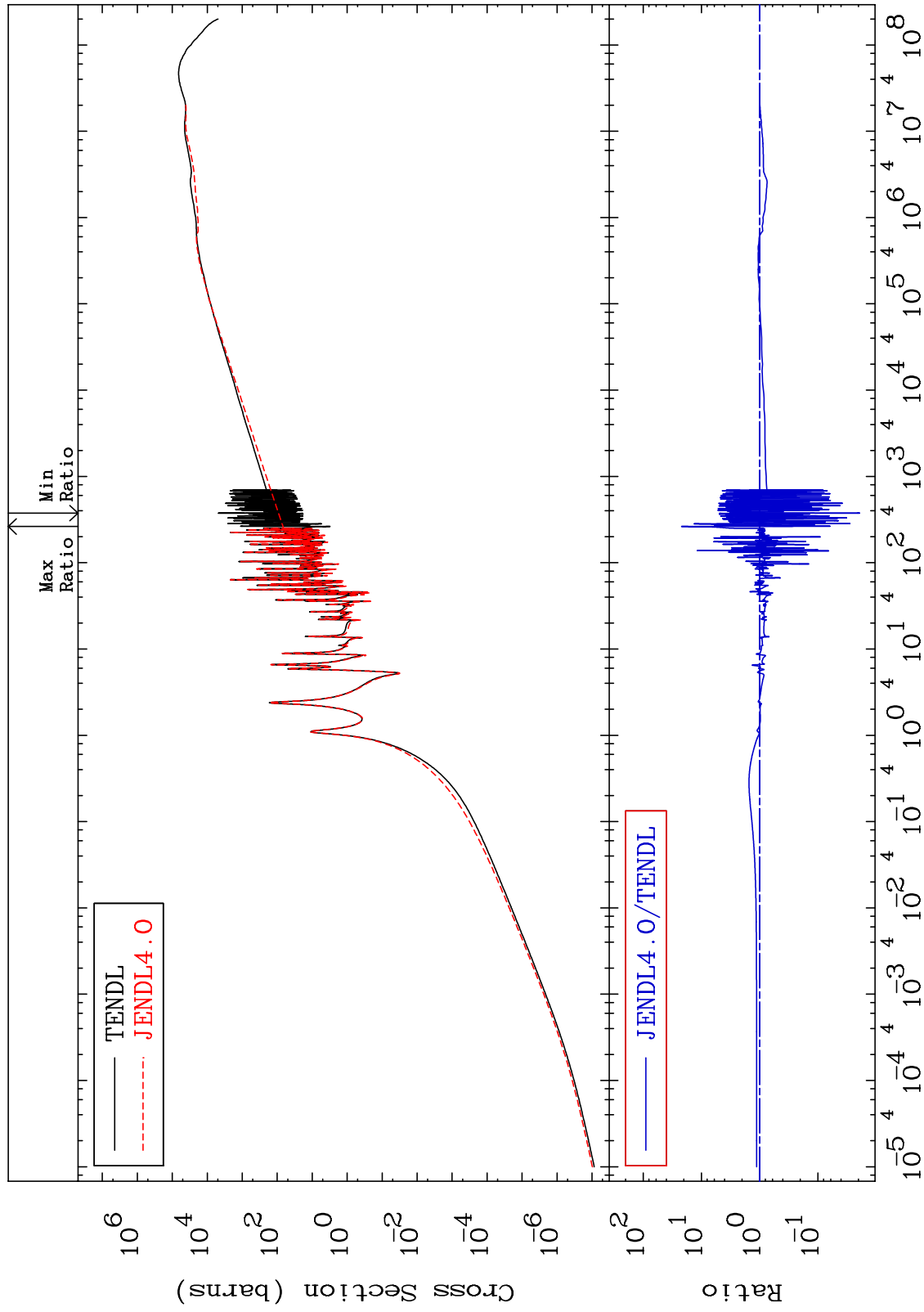
72-Hf-177  
-9999. To 9999. %



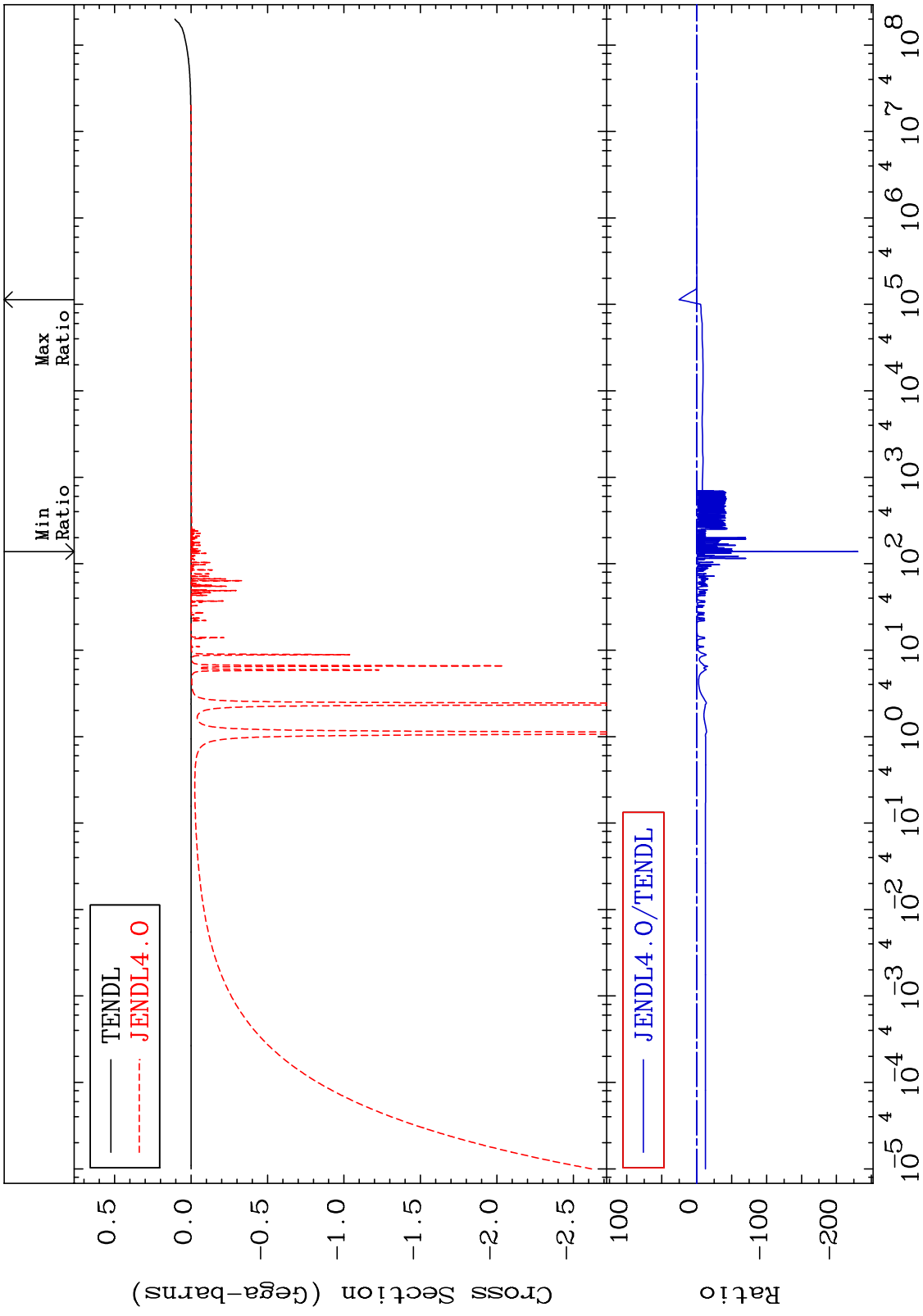
MAT 7234

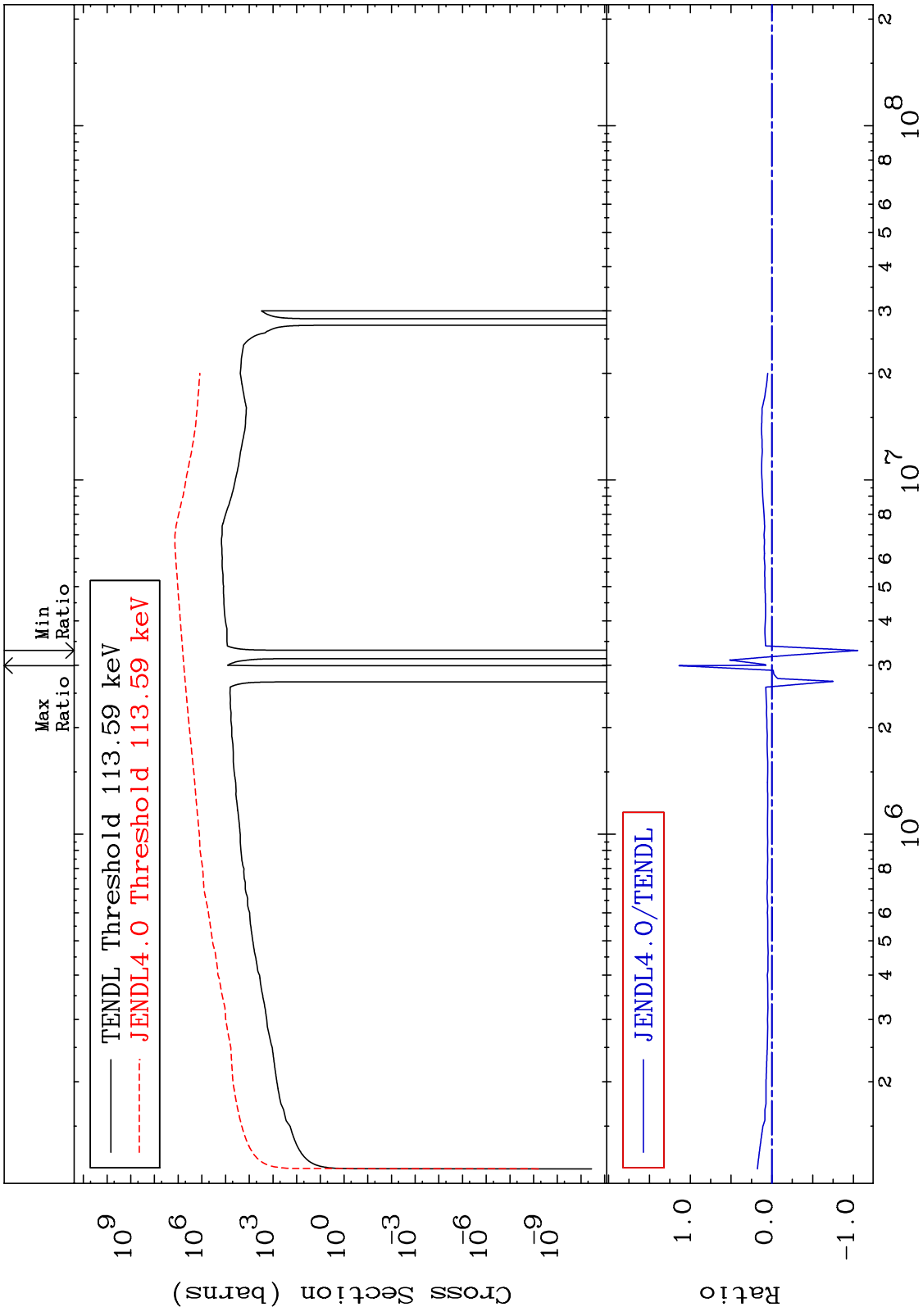
Kerma elastic  
Cross Section

72-Hf-177  
-98.10 To 2099. %



MAT 7234 Kerma non-elastic (all but mt2) 72-Hf-177  
 Cross Section -9999. To 9999. %



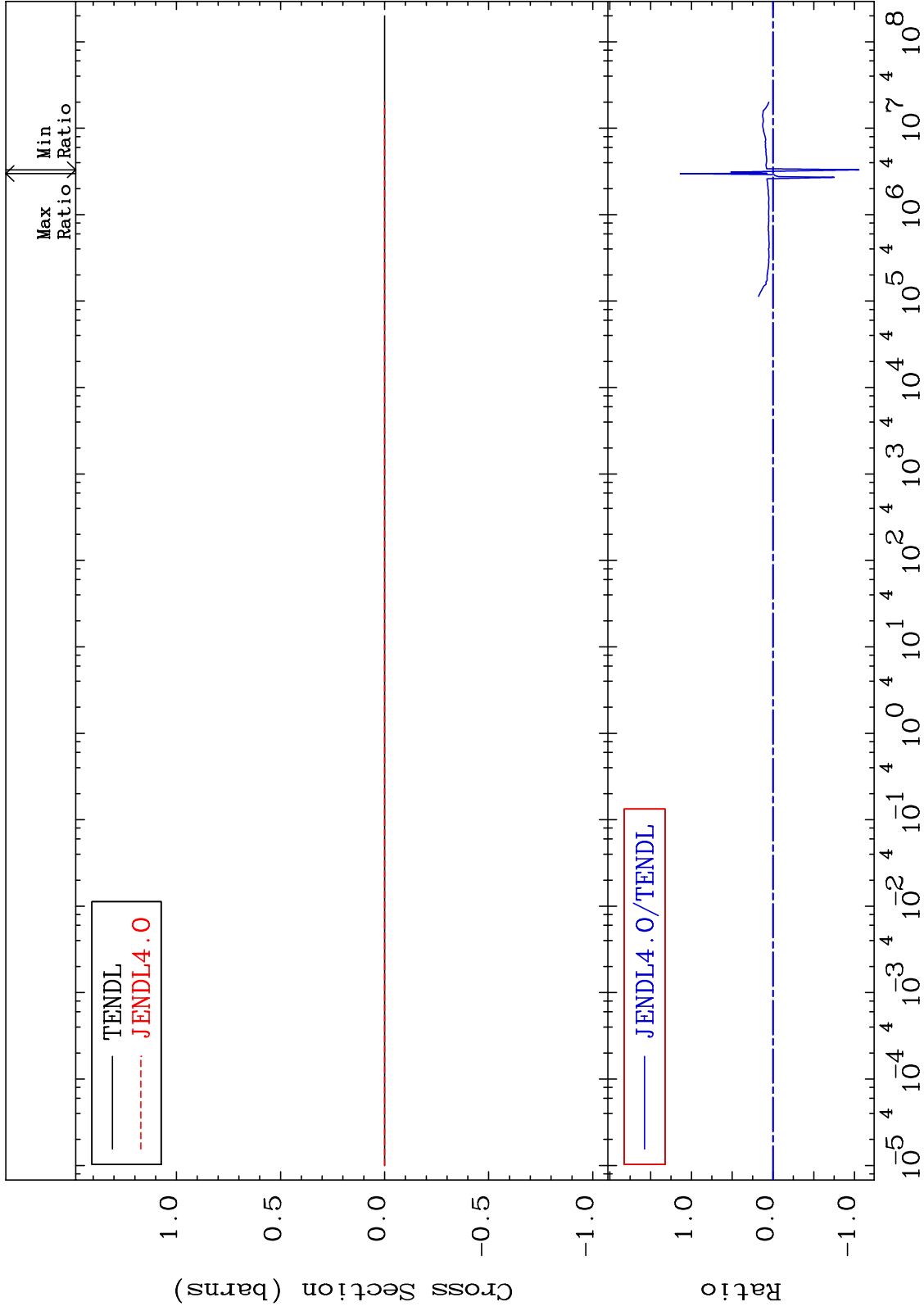




MAT 7234

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

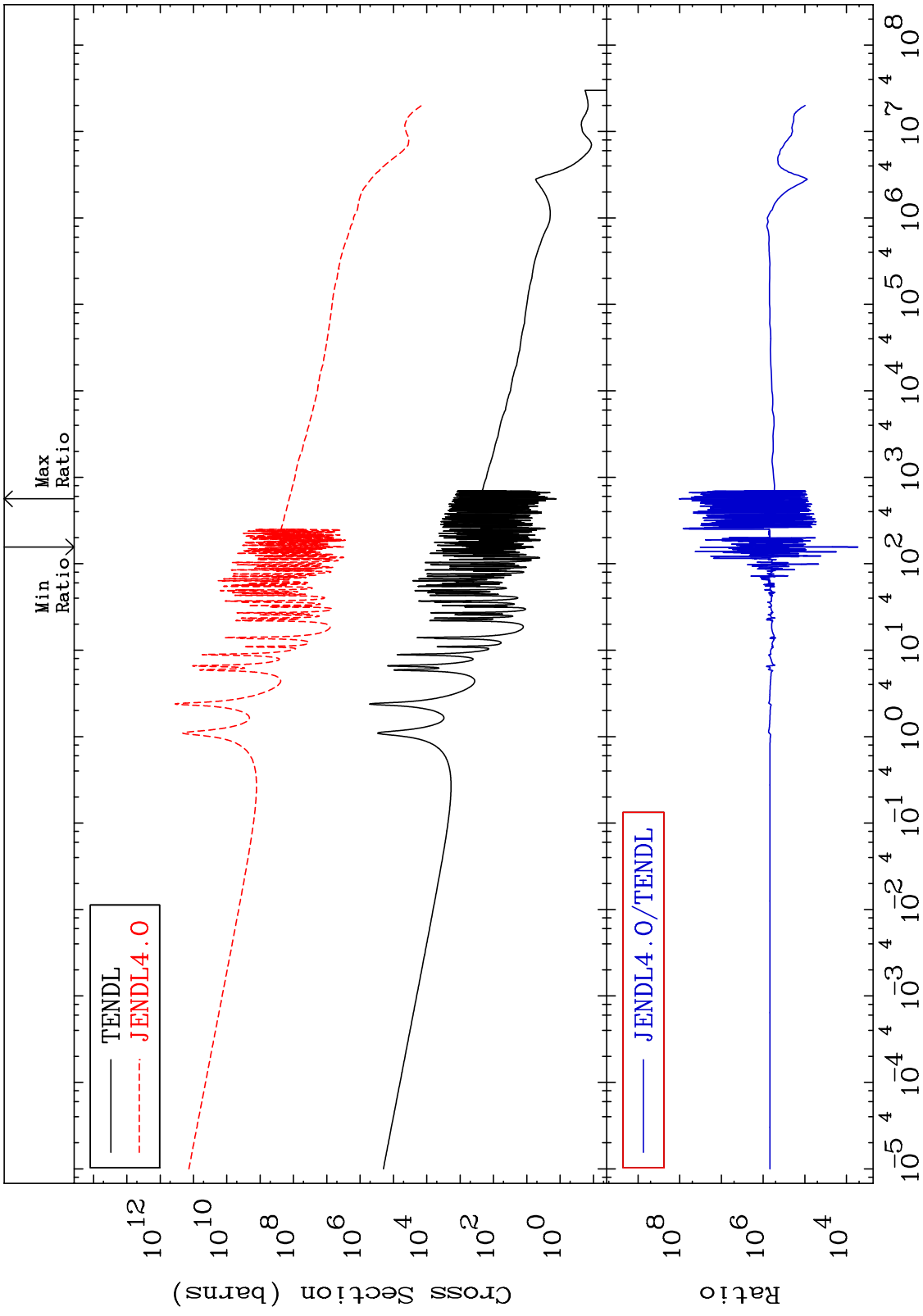
72-Hf-177  
-9999. To 9999. %



40

Incident Energy (eV)

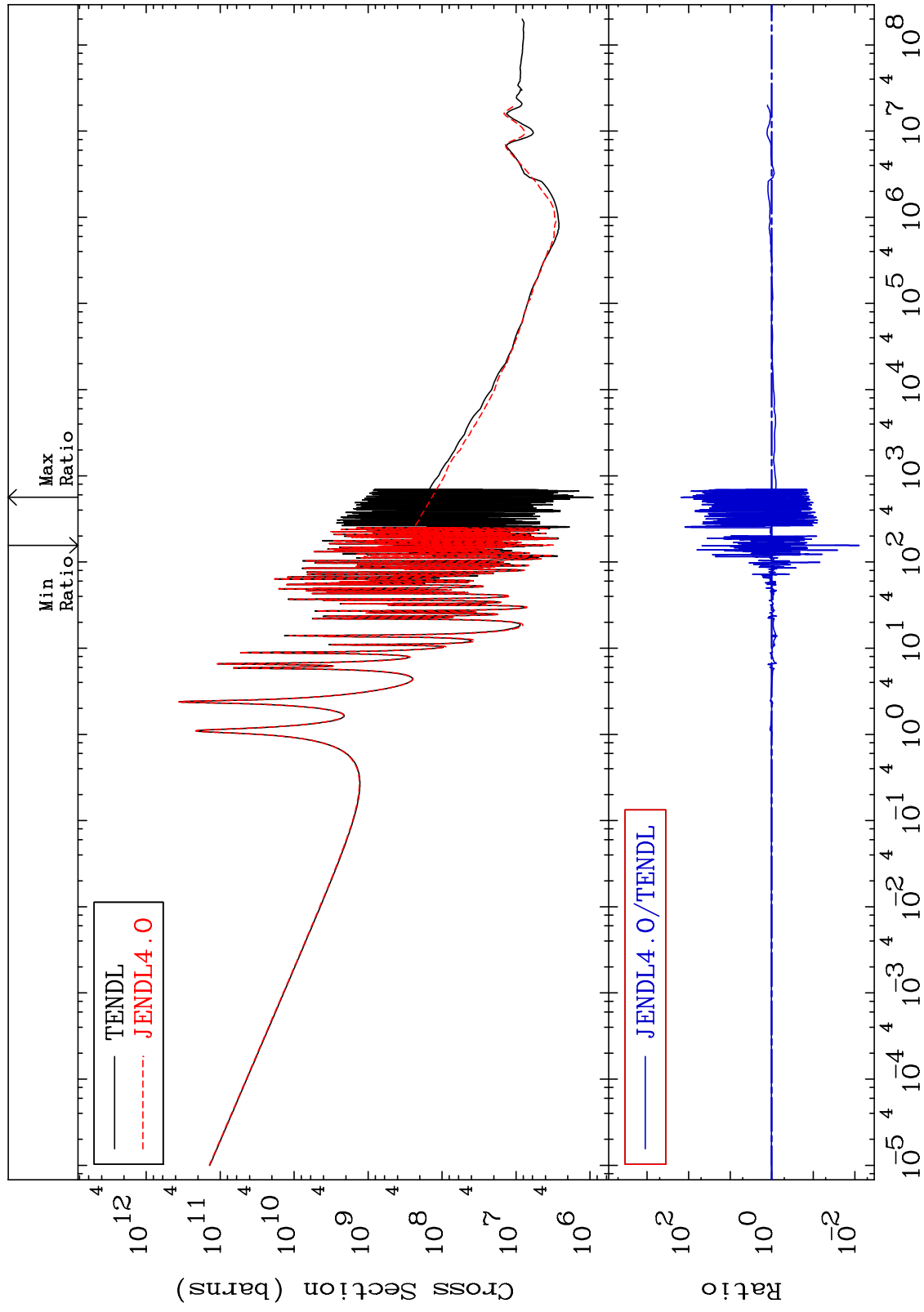
72-Hf-177



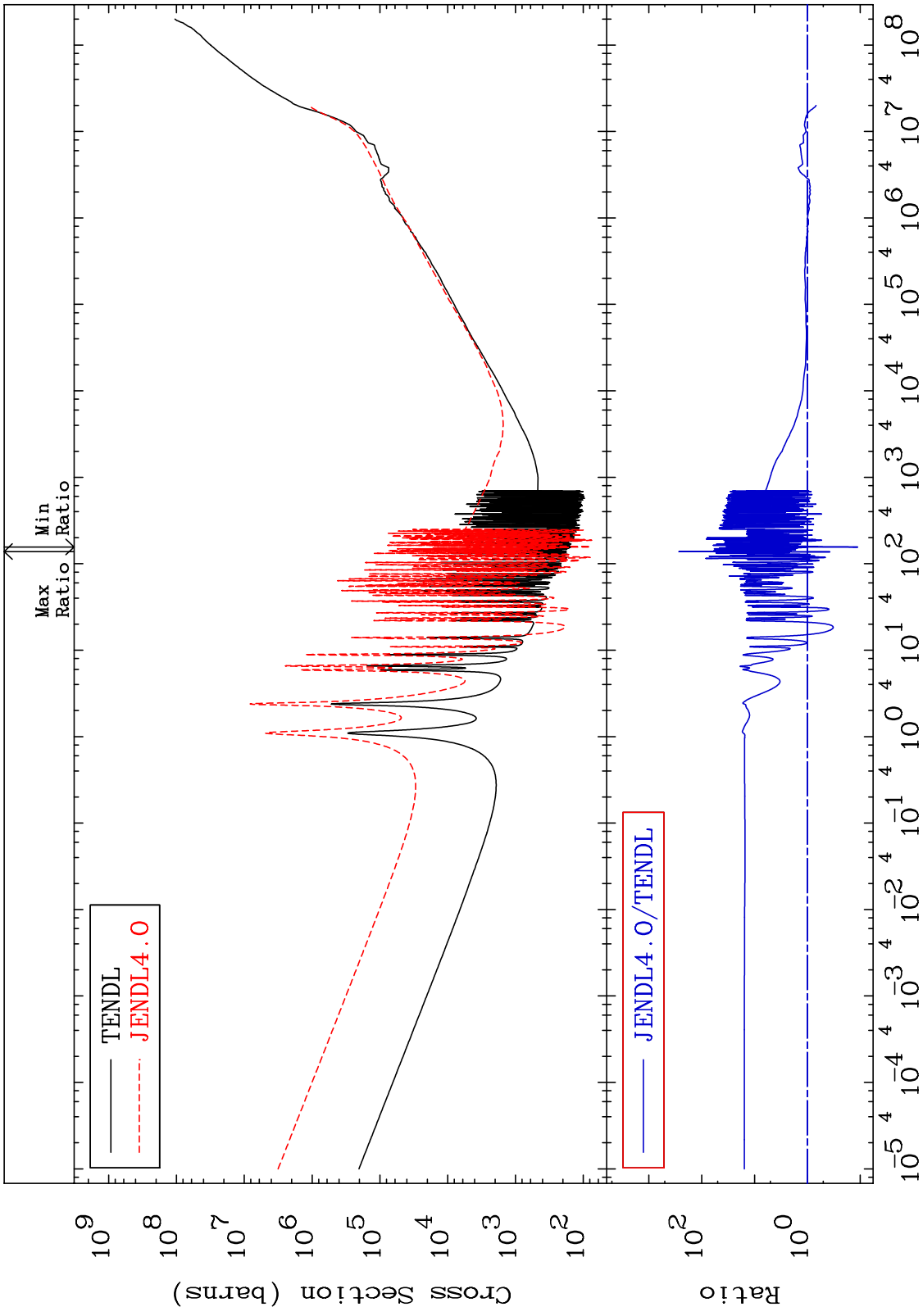
MAT 7234

Total photon (eV-barns)  
Cross Section

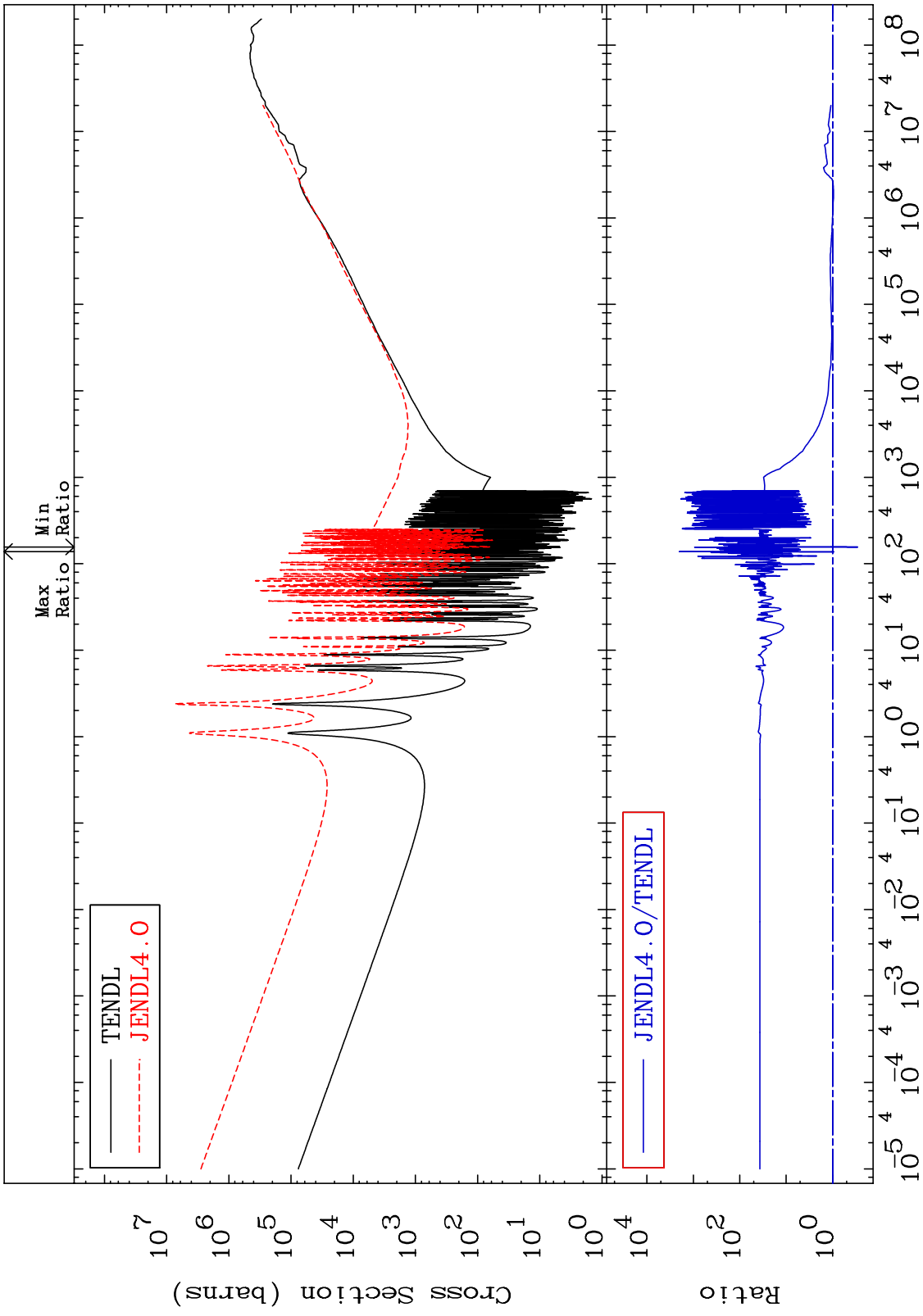
72-Hf-177  
-99.21 To 9999. %



MAT 7234 Total kinematic kerma (high limit) 72-Hf-177  
 Cross Section -88.91 To 9999. %



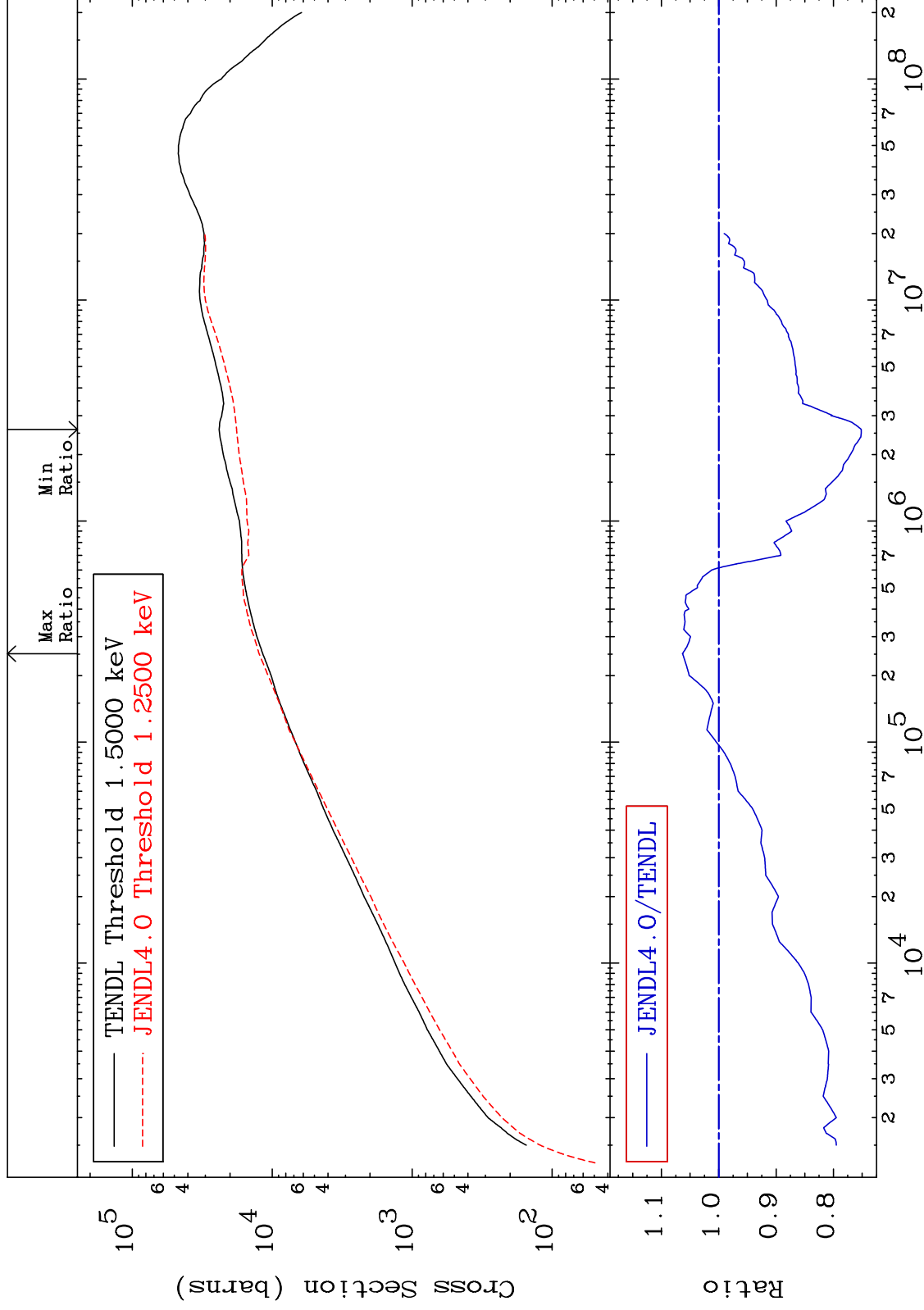
MAT 7234      Dpa total (eV-barns)      72-Hf-177  
 -71.39 To 9999. %



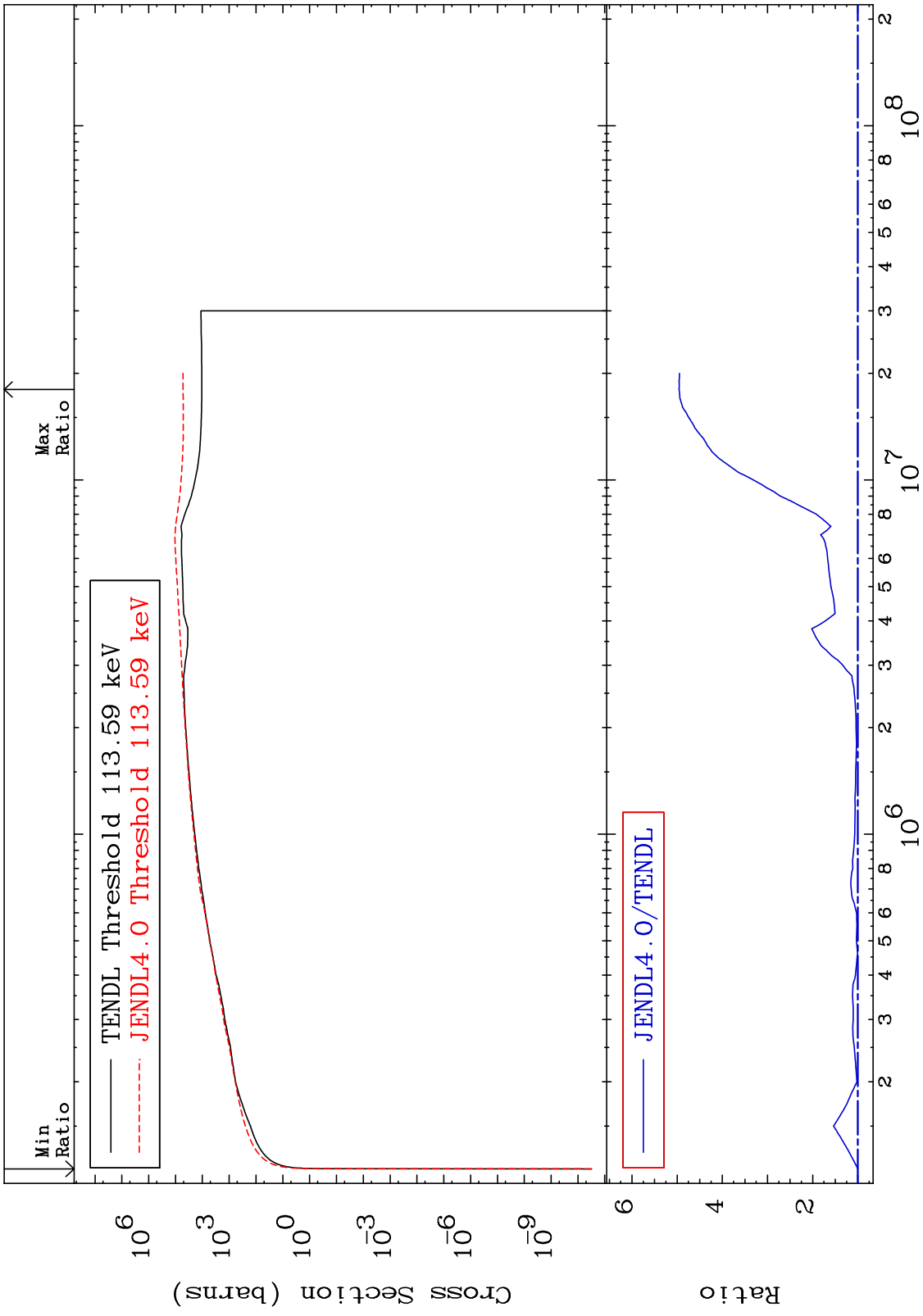
MAT 7234

Dpa elastic (mt2)  
Cross Section

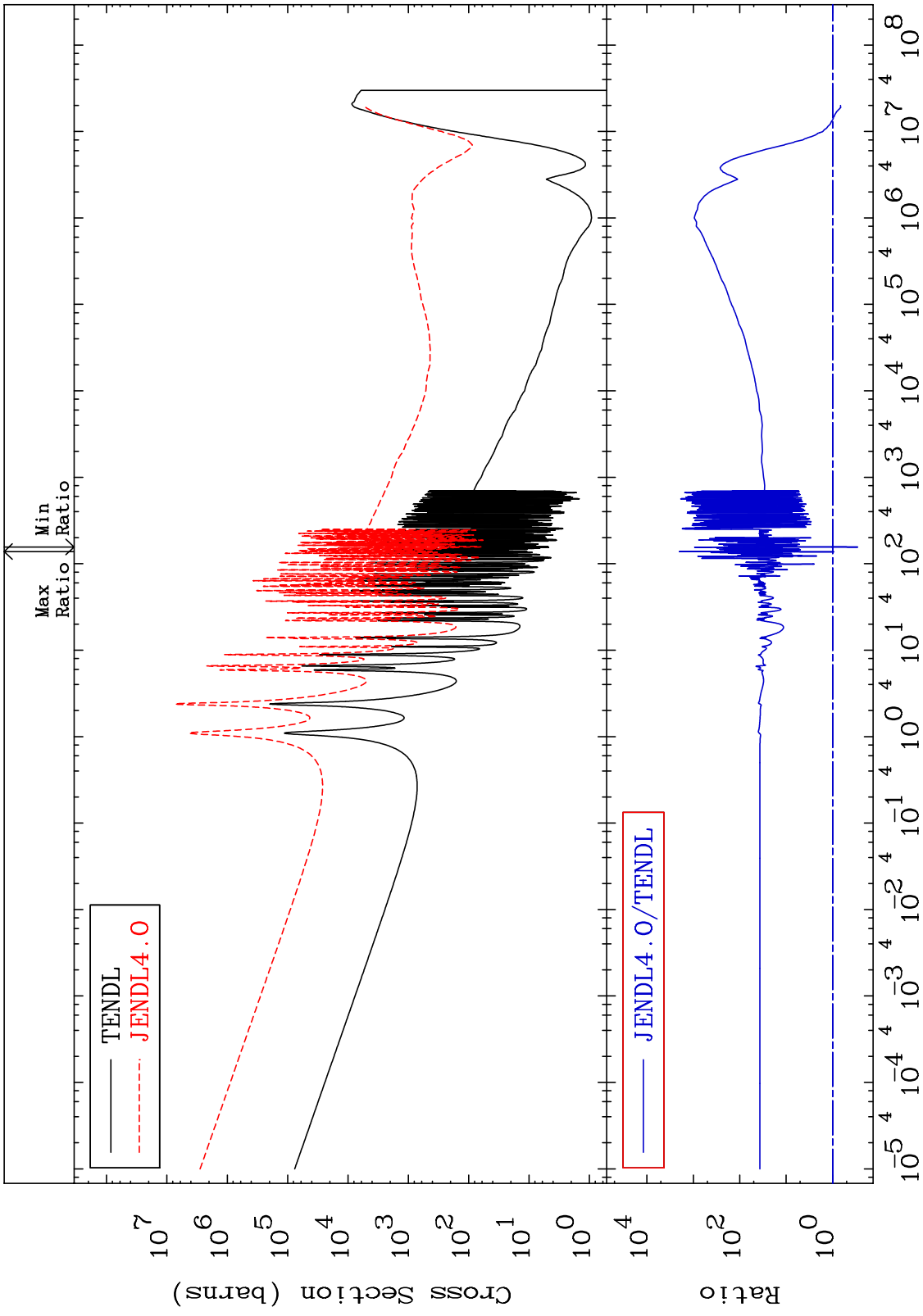
72-Hf-177  
-24.86 To 6.329 %



MAT 7234      Dpa inelastic (mt51-91)      72-Hf-177  
 Cross Section      0.110 To 395.8 %



MAT 7234      Dpa disappearance (mt102 -120)      72-Hf-177  
 Cross Section      -71.39 To 9999. %



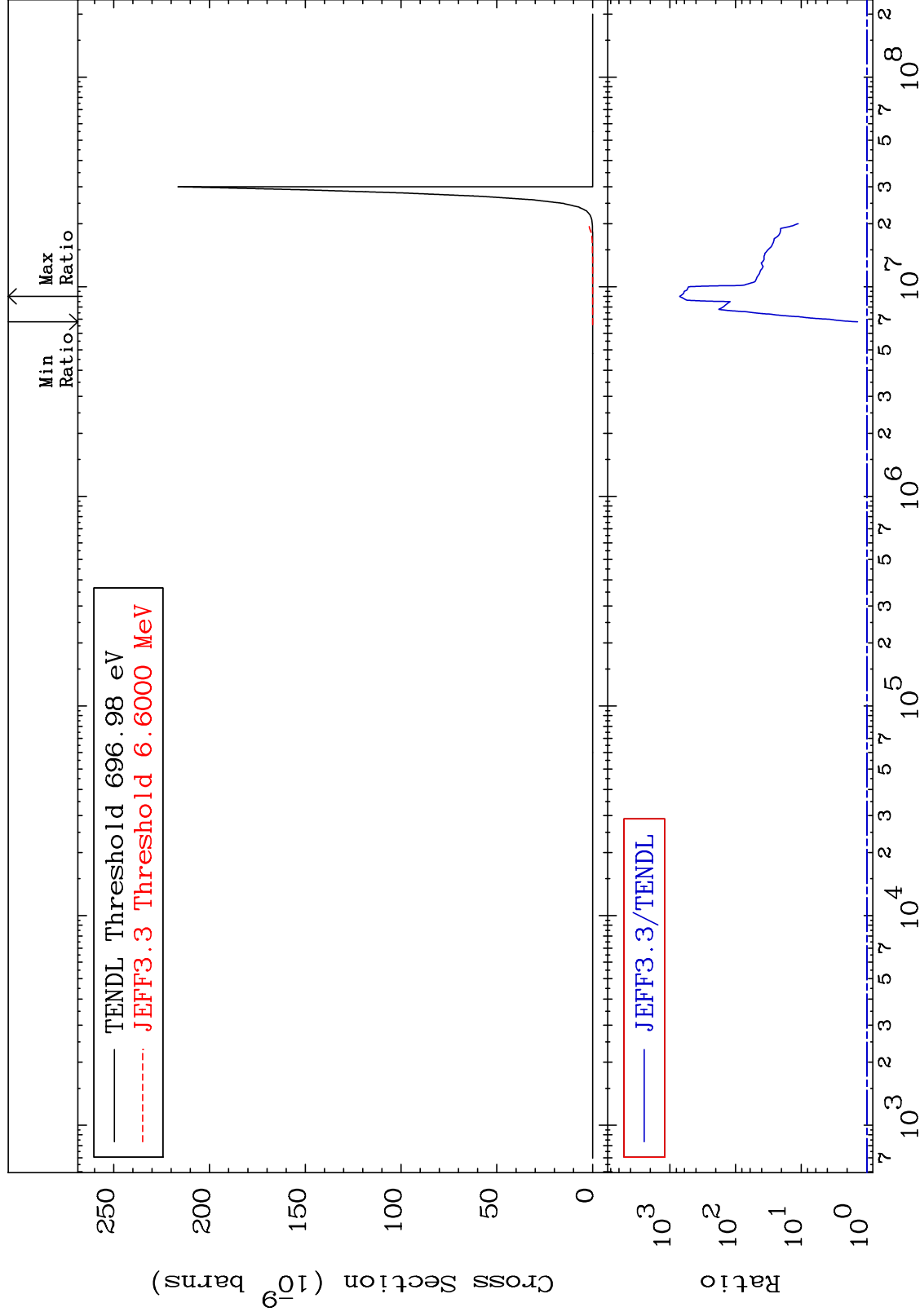


MAT 7234

(n,p)  $\alpha$

Cross Section

72-Hf-177  
38.16 To 9999. %



48

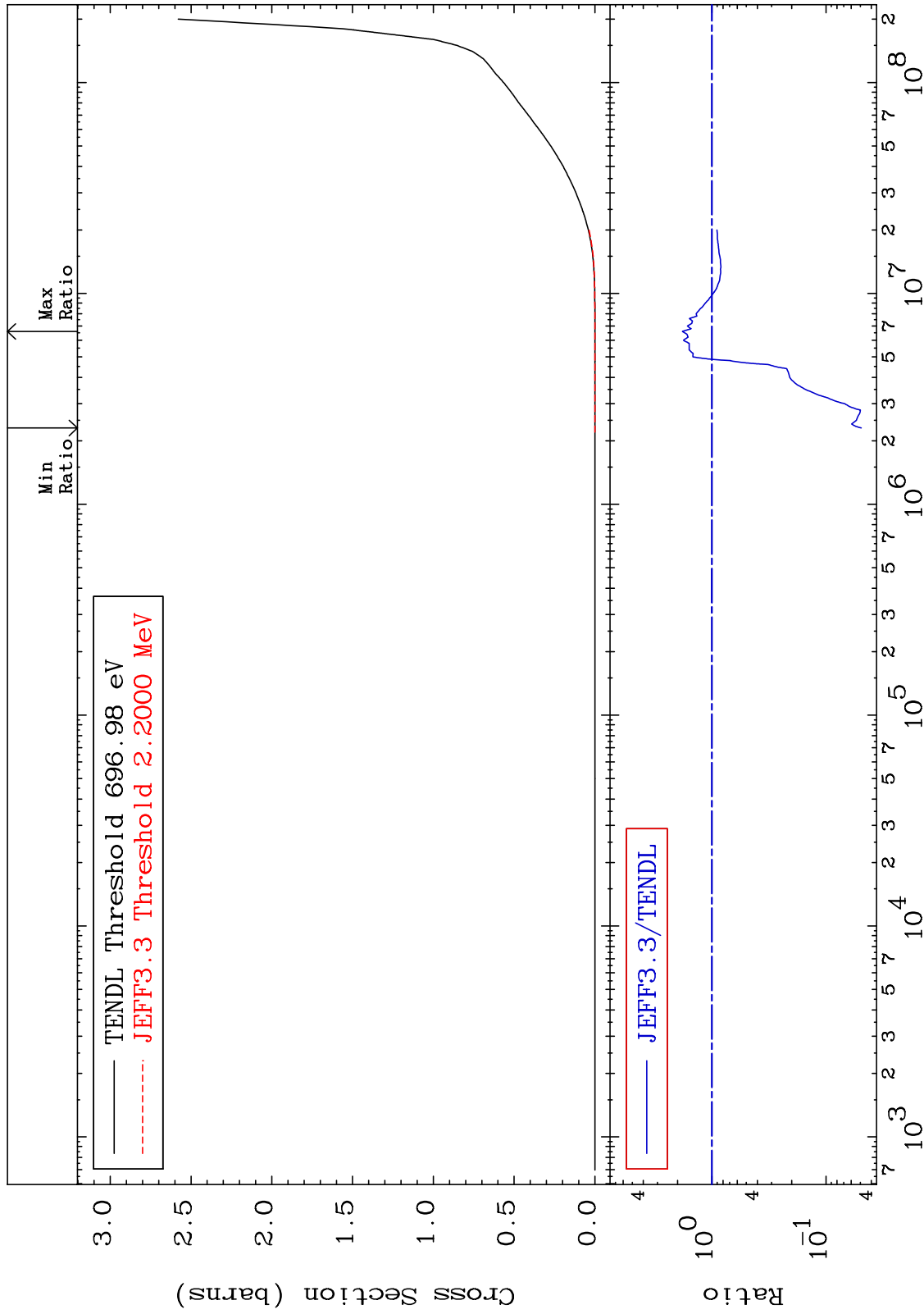
Incident Energy (eV)

72-Hf-177

MAT 7234

### Hydrogen Production Cross Section

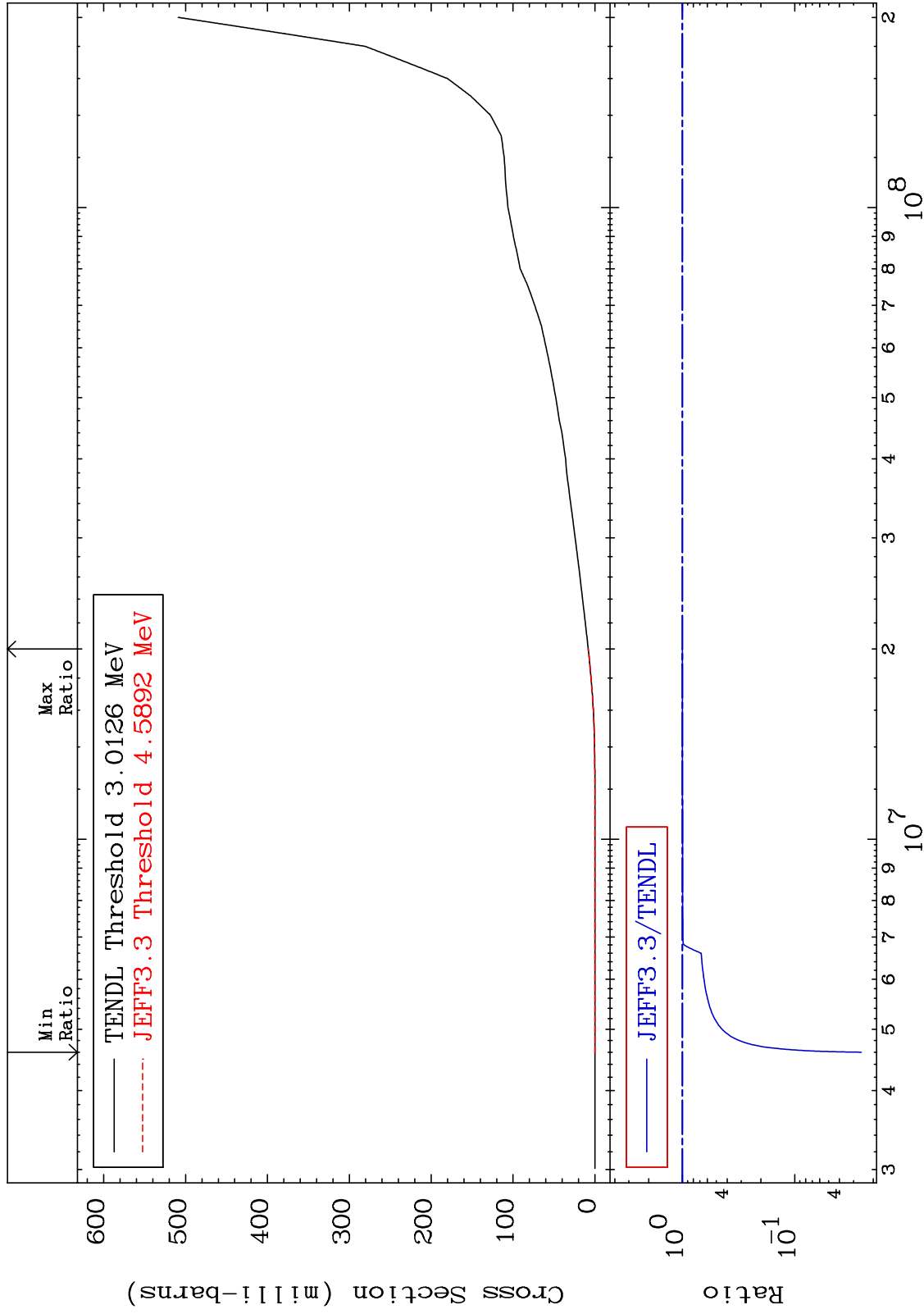
72-Hf-177  
-95.10 To 81.38 %



MAT 7234

Deuterium Production  
Cross Section

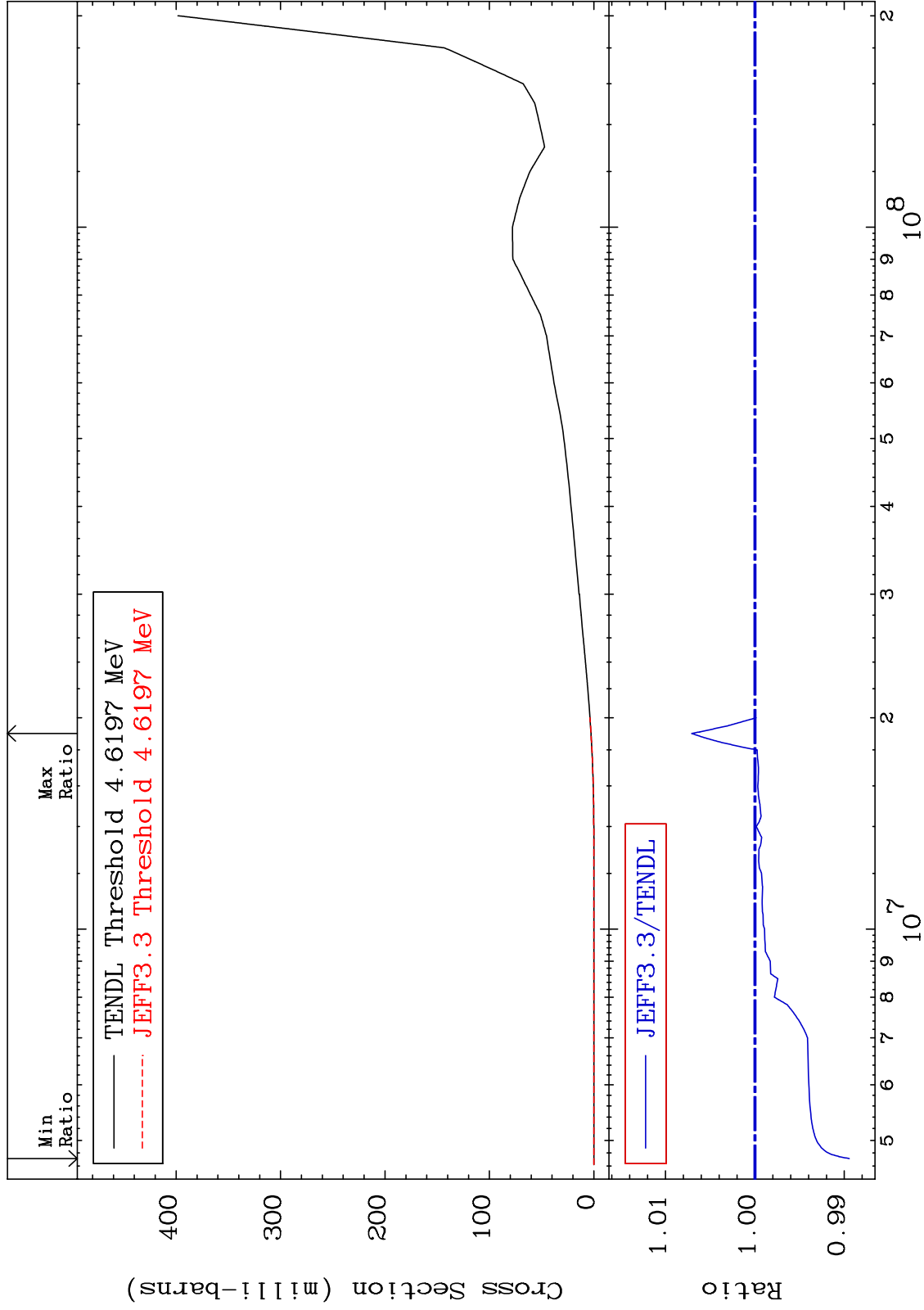
72-Hf-177  
-97.44 To -0.029%



MAT 7234

Tritium Production  
Cross Section

72-Hf-177  
-1.055 To 0.707 %



51

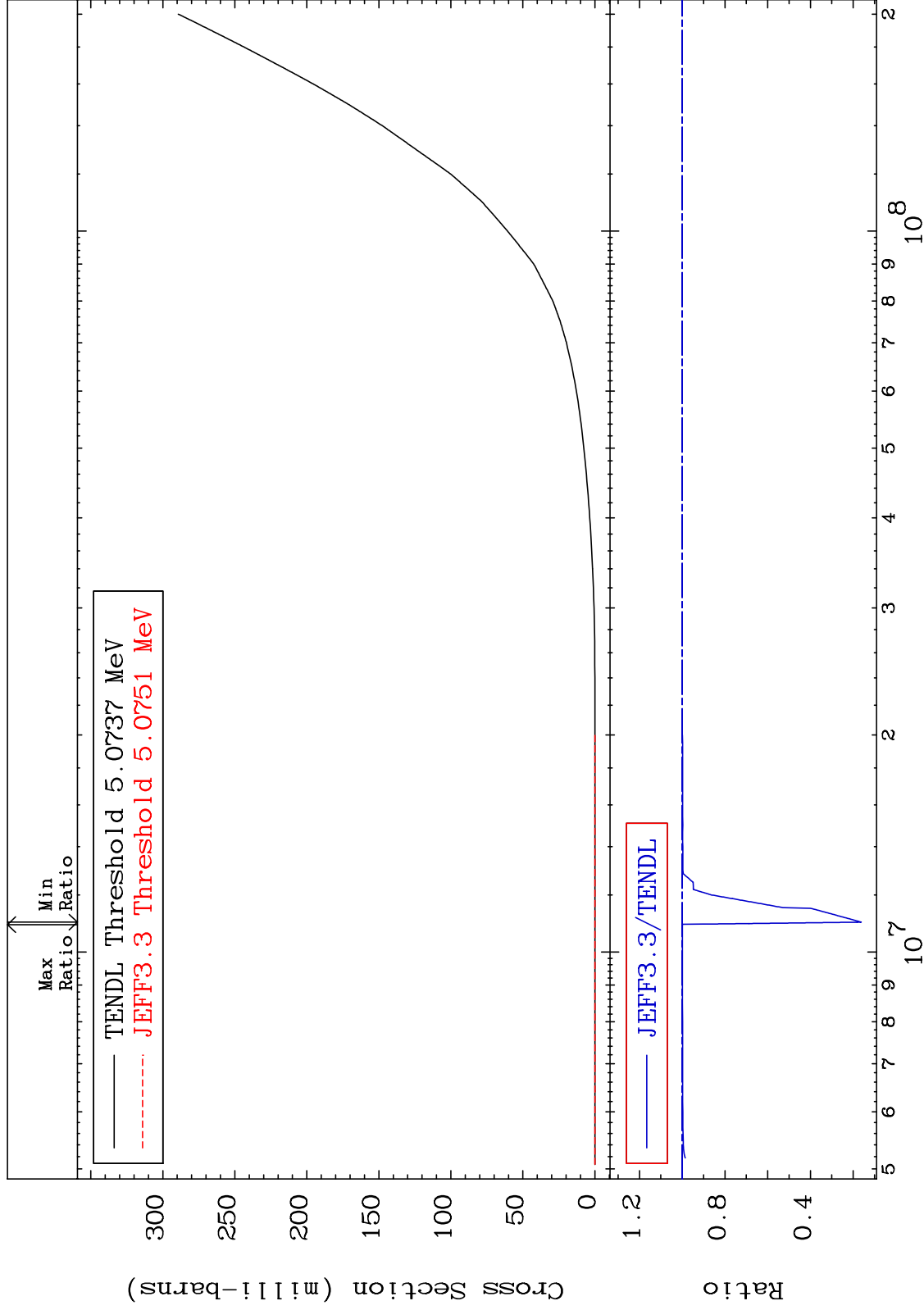
Incident Energy (eV)

72-Hf-177

MAT 7234

He-3 Production  
Cross Section

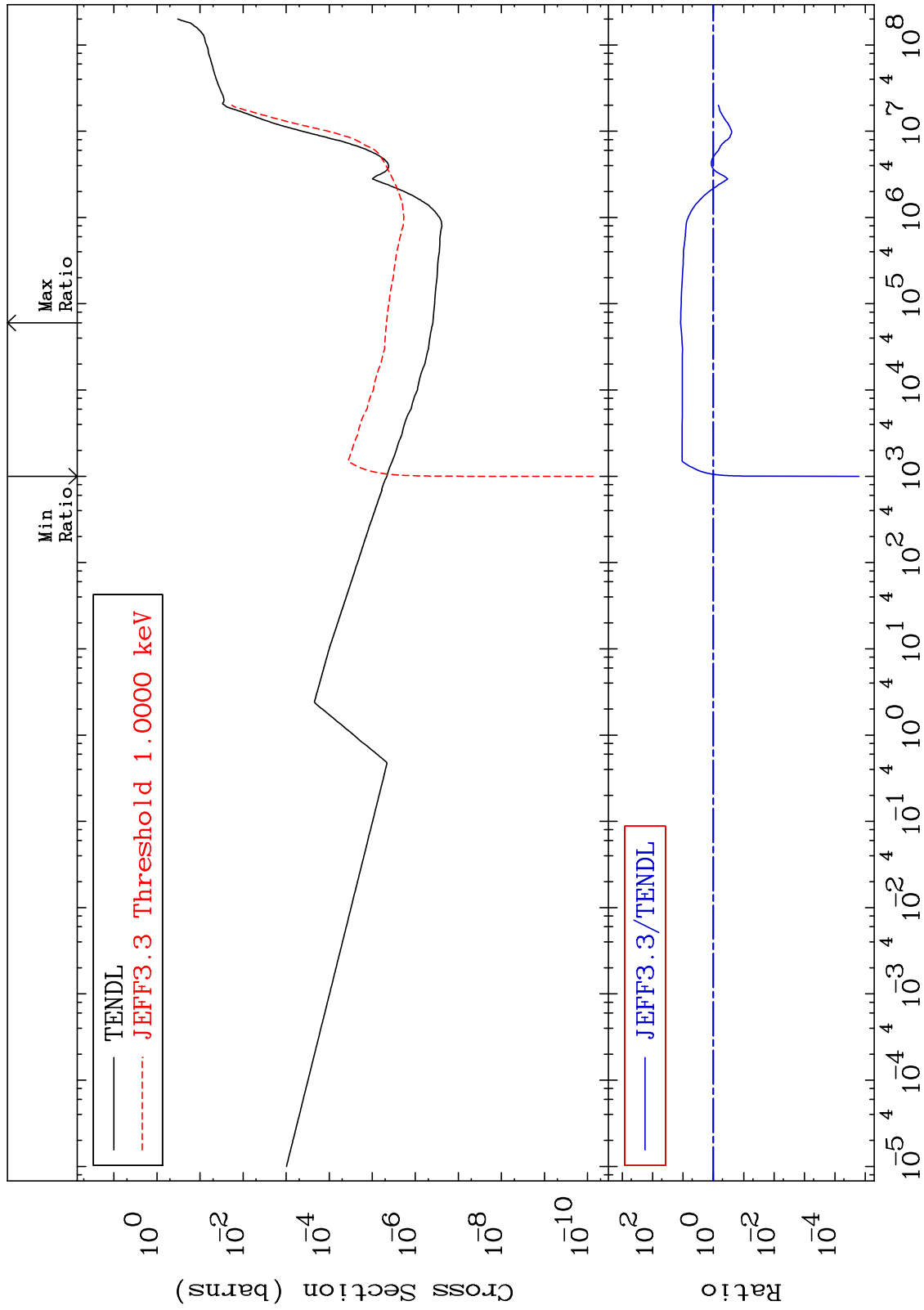
72-Hf-177  
-83.78 To -0.114%



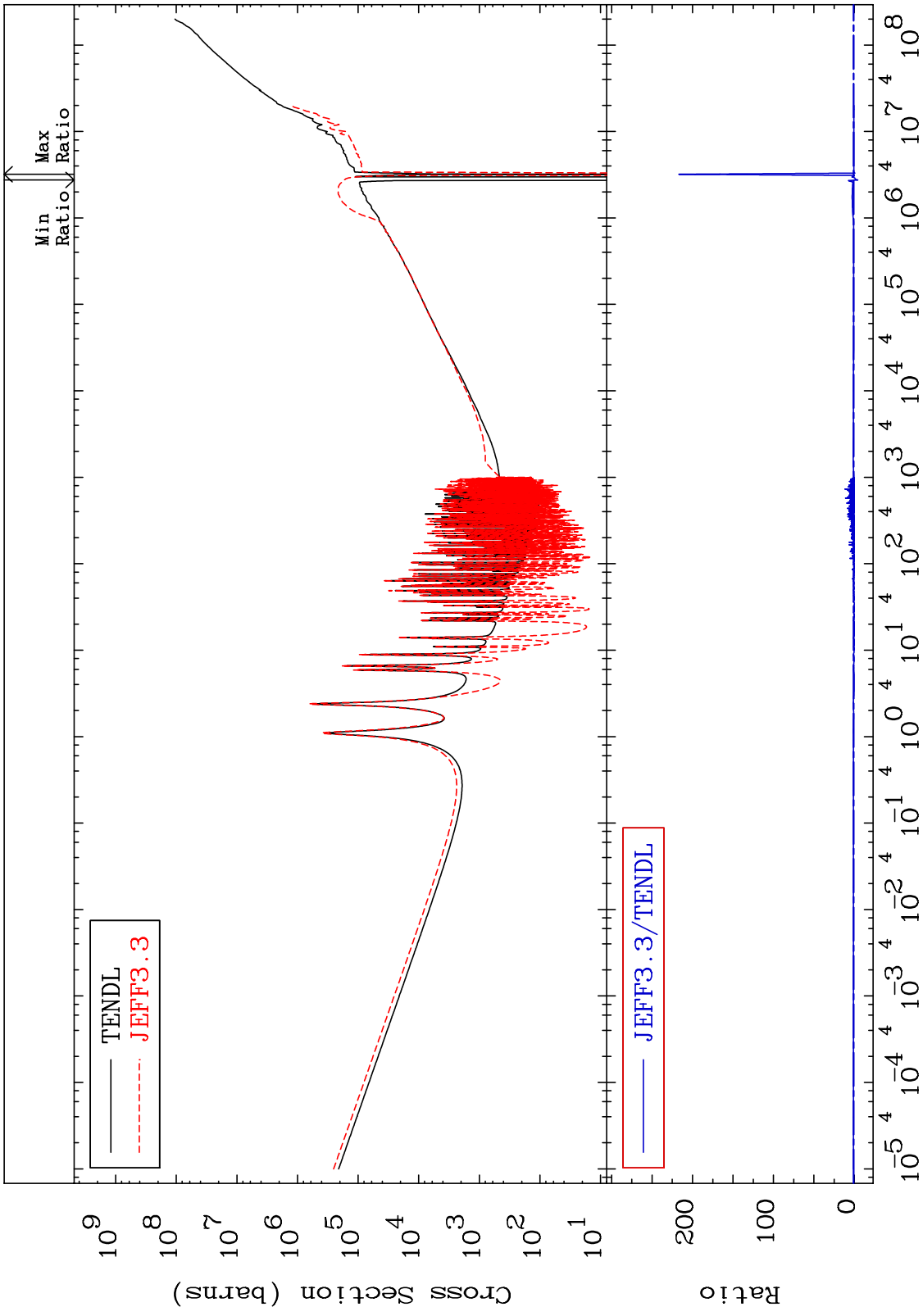
MAT 7234

He-4 Production  
Cross Section

72-Hf-177  
-100.0 To 1095. %



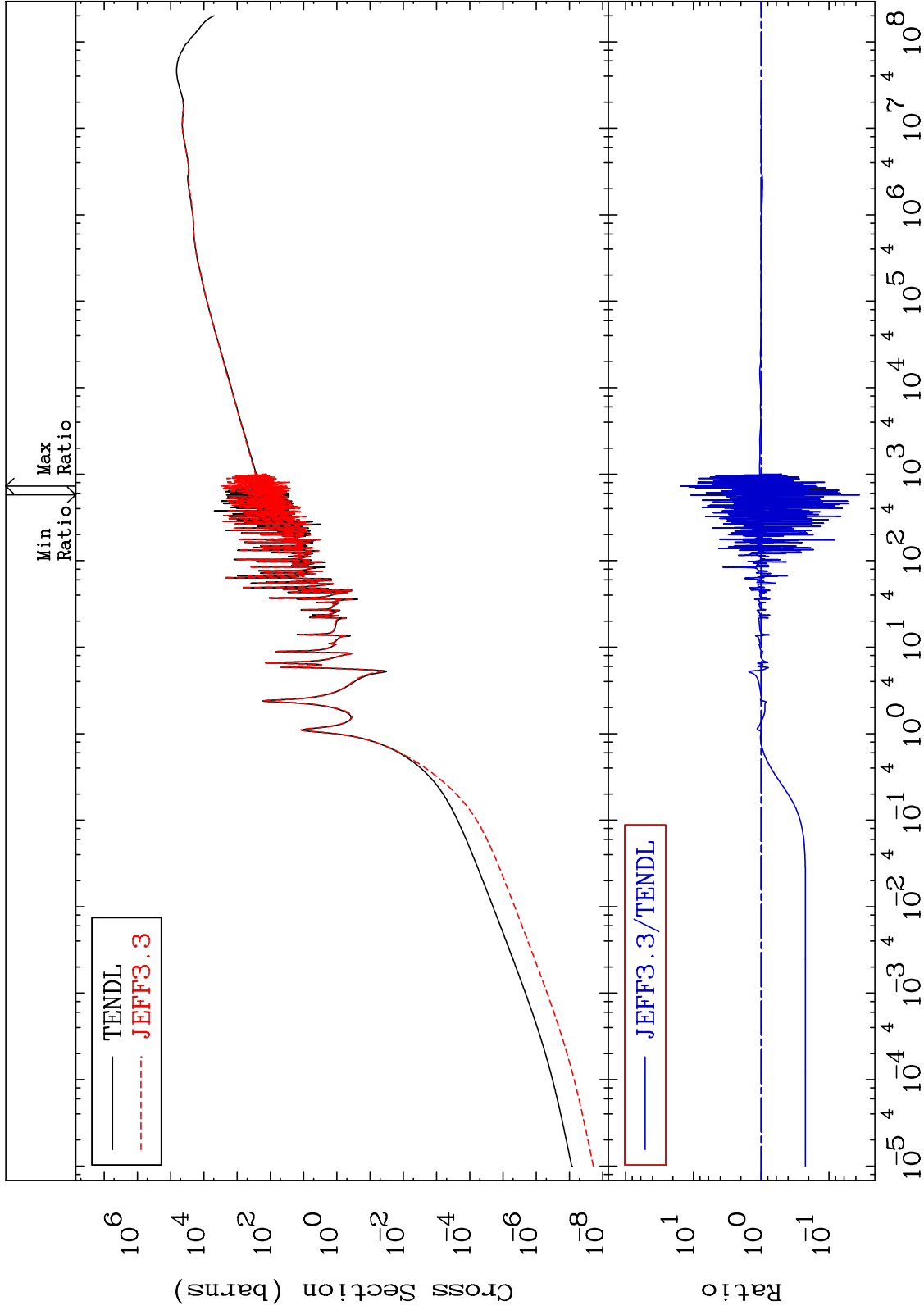
MAT 7234 Kerma total (eV-barns) 72-Hf-177  
 Cross Section -529.0 To 9999. %



MAT 7234

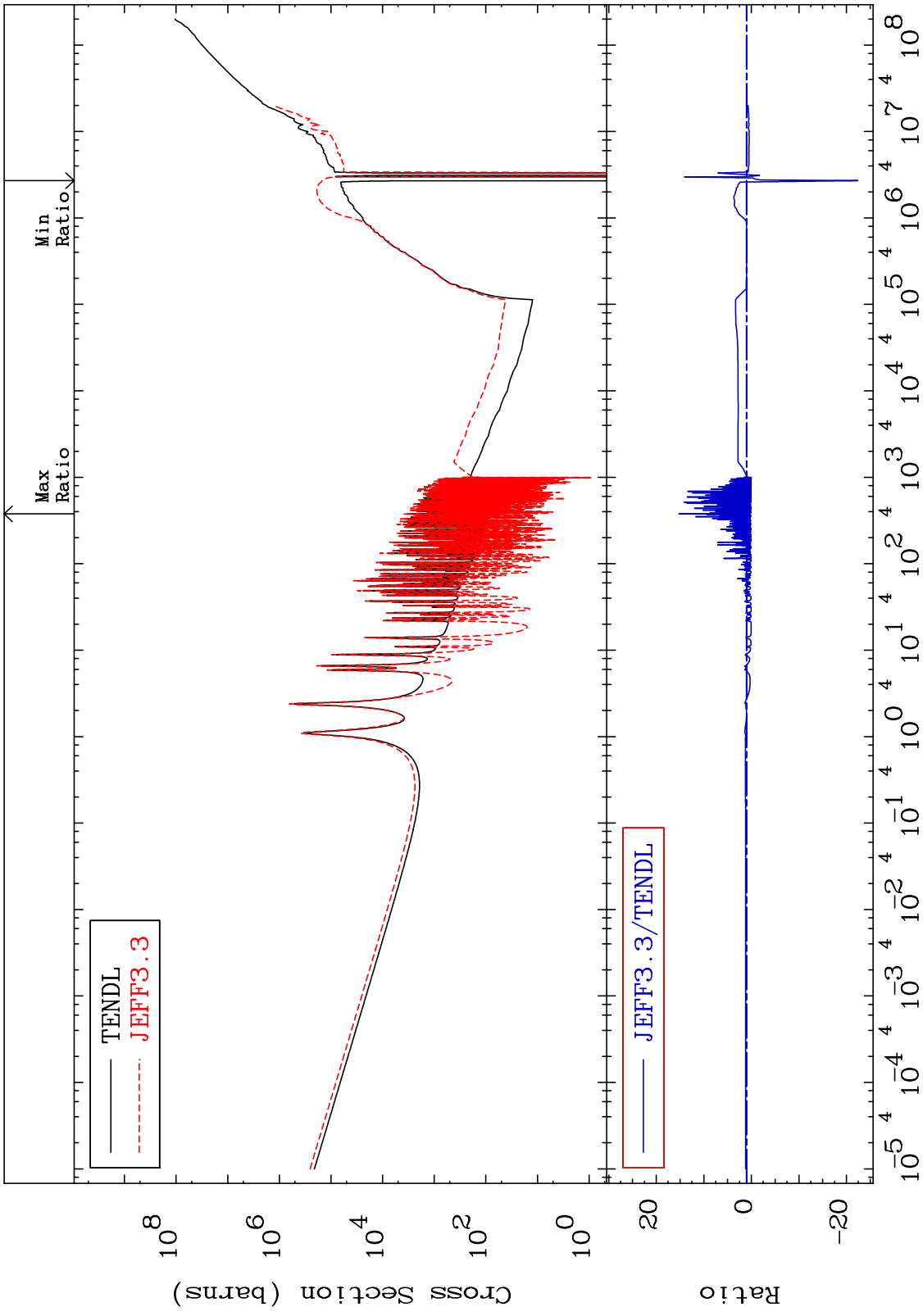
Kerma elastic  
Cross Section

72-Hf-177  
-96.47 To 1433. %





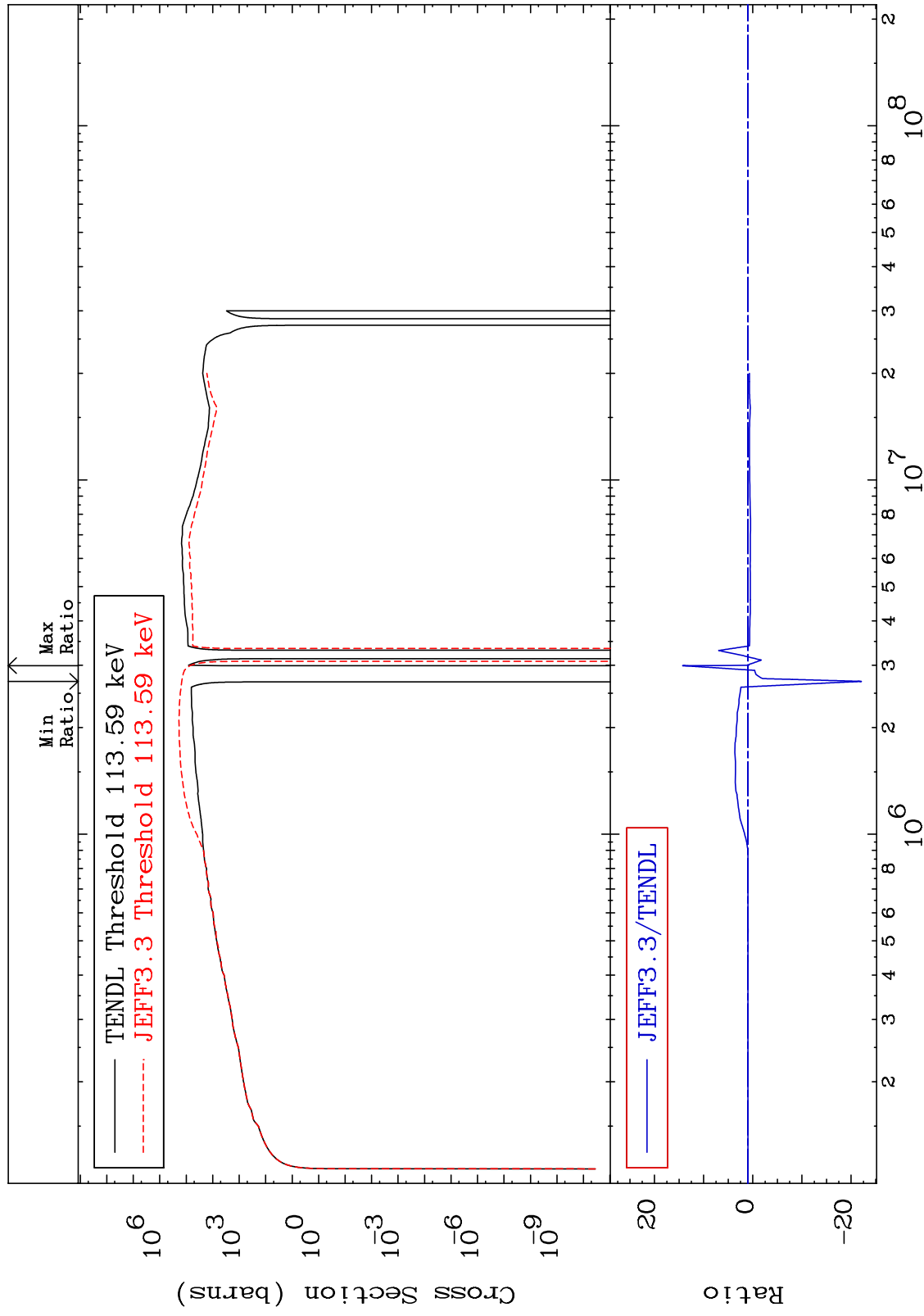
MAT 7234      Kerma non-elastic (all but mt2)      72-Hf-177  
Cross Section      -2340. To 1421. %



MAT 7234

Kerma inelastic (mt51-91)  
Cross Section

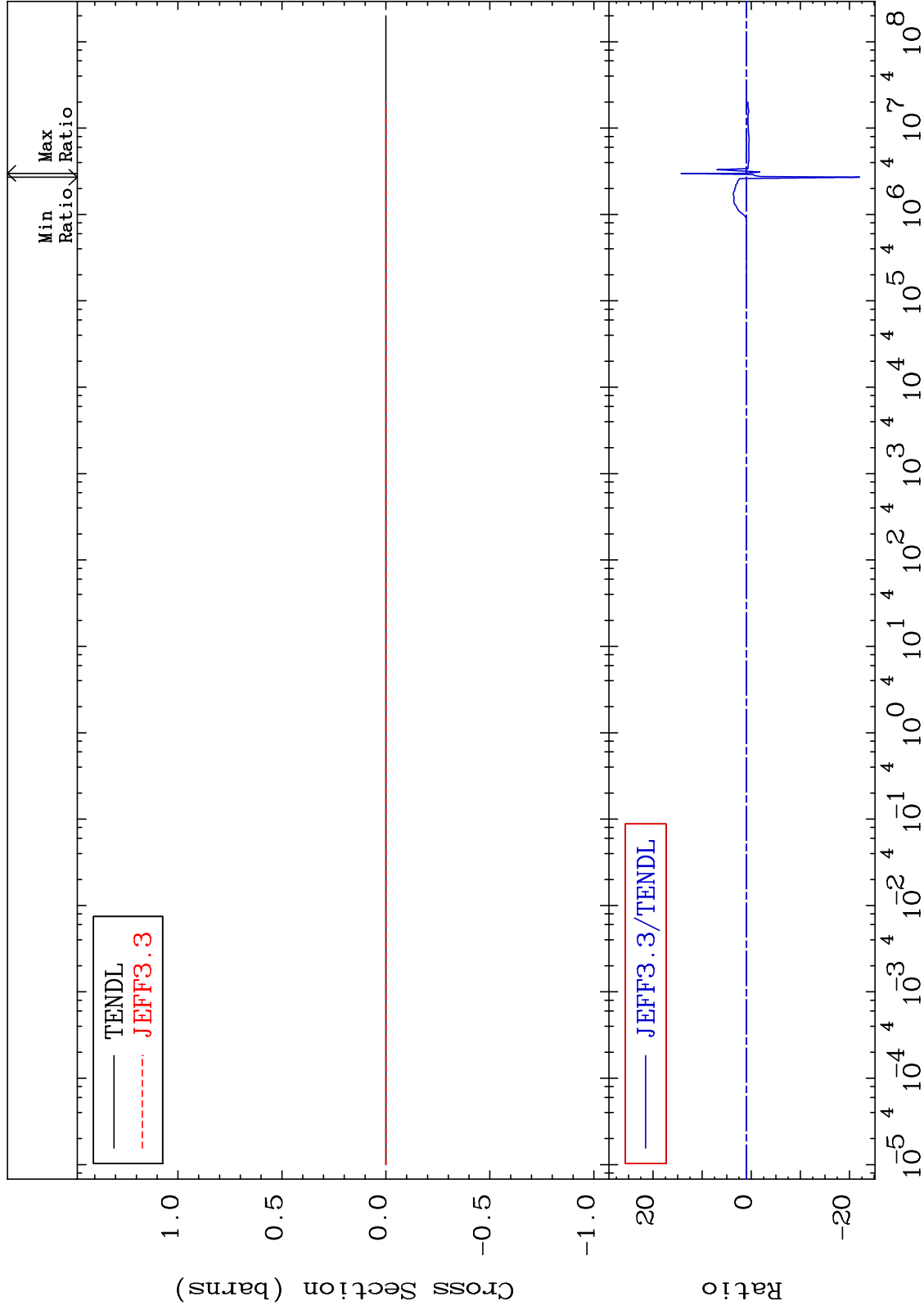
72-Hf-177  
-2308. To 1327. %



MAT 7234

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

72-Hf-177  
-2308. To 1327. %



58

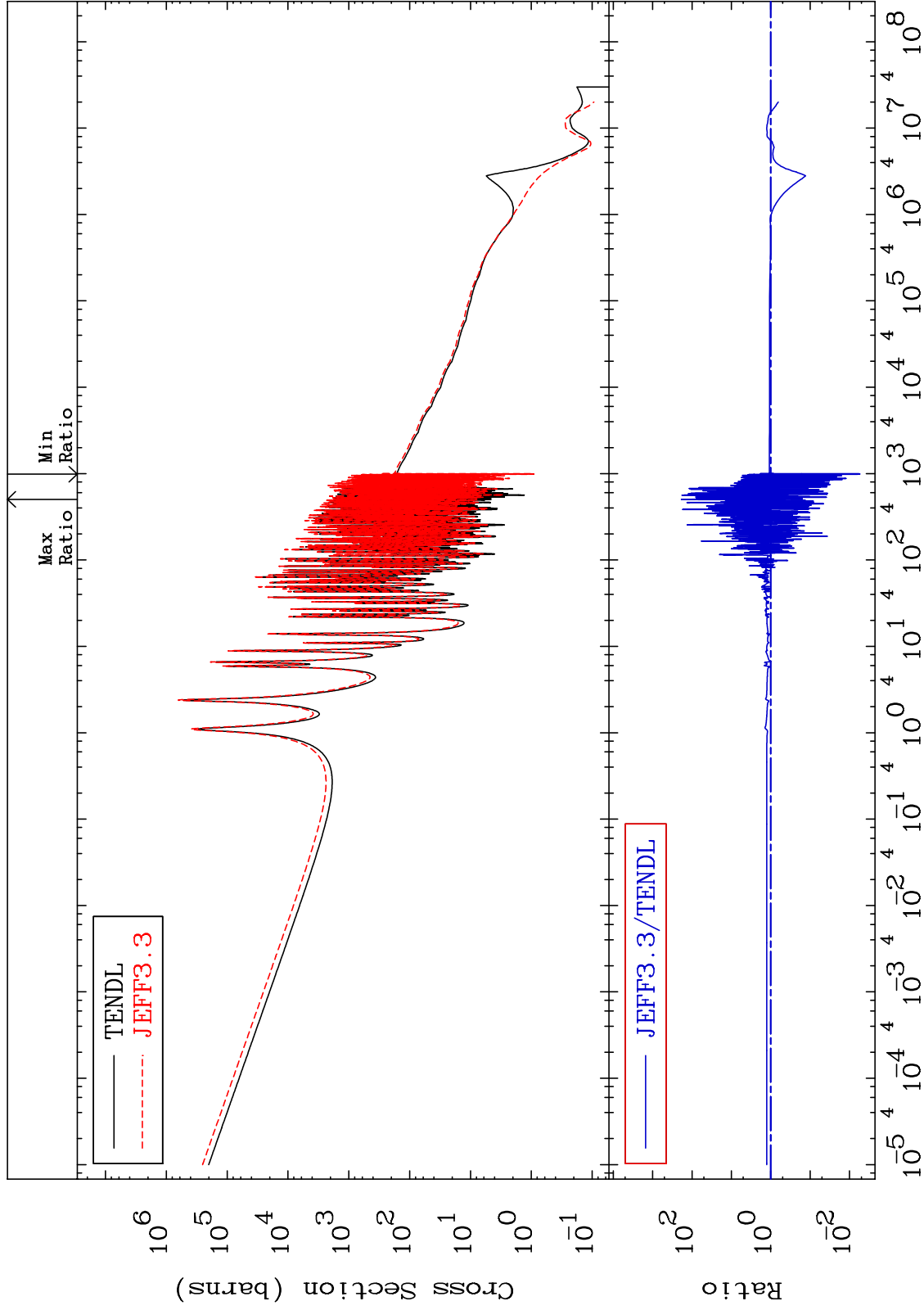
Incident Energy (eV)

72-Hf-177

MAT 7234

Kerma capture (mt102)  
Cross Section

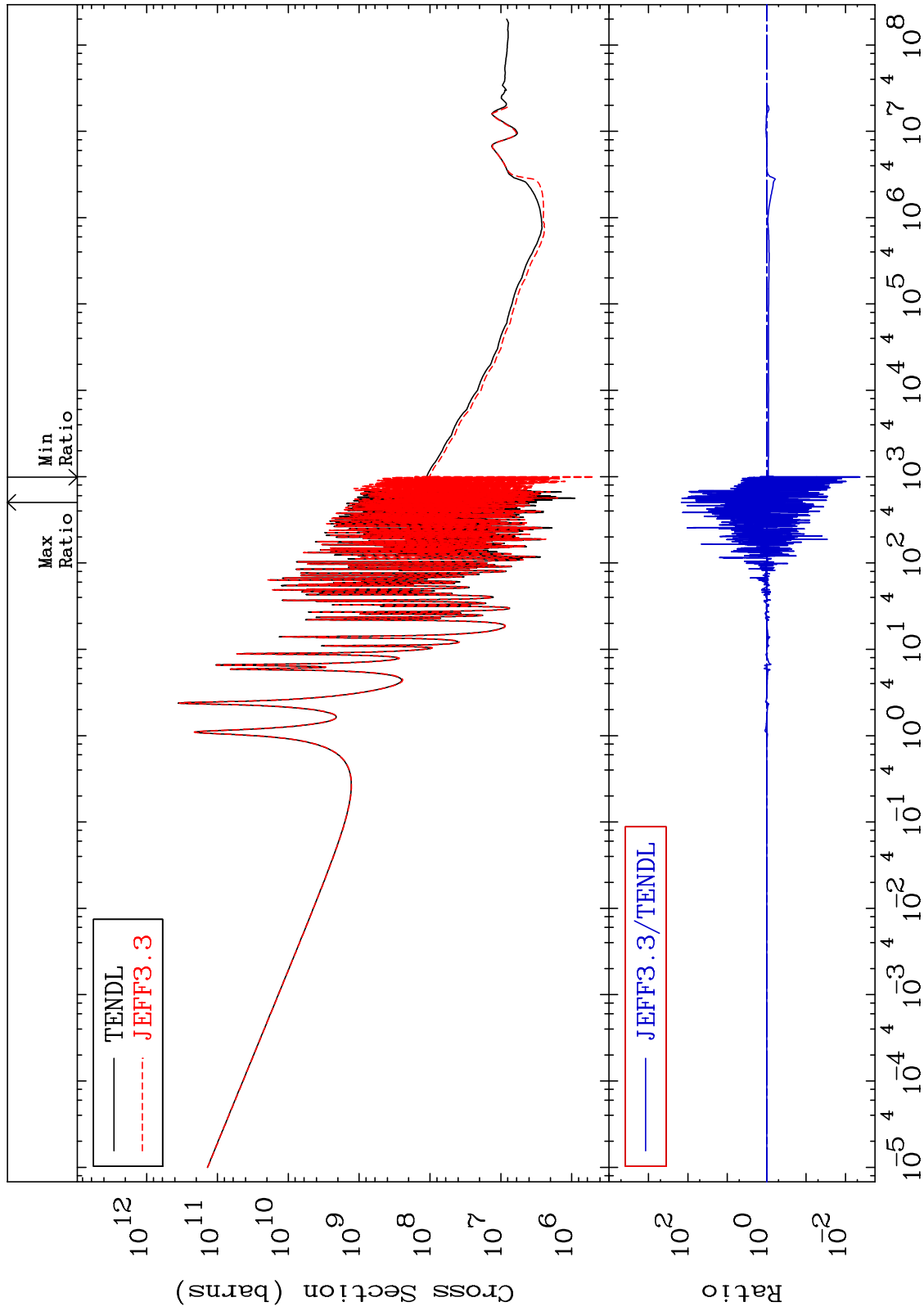
72-Hf-177  
-99.45 To 9999. %



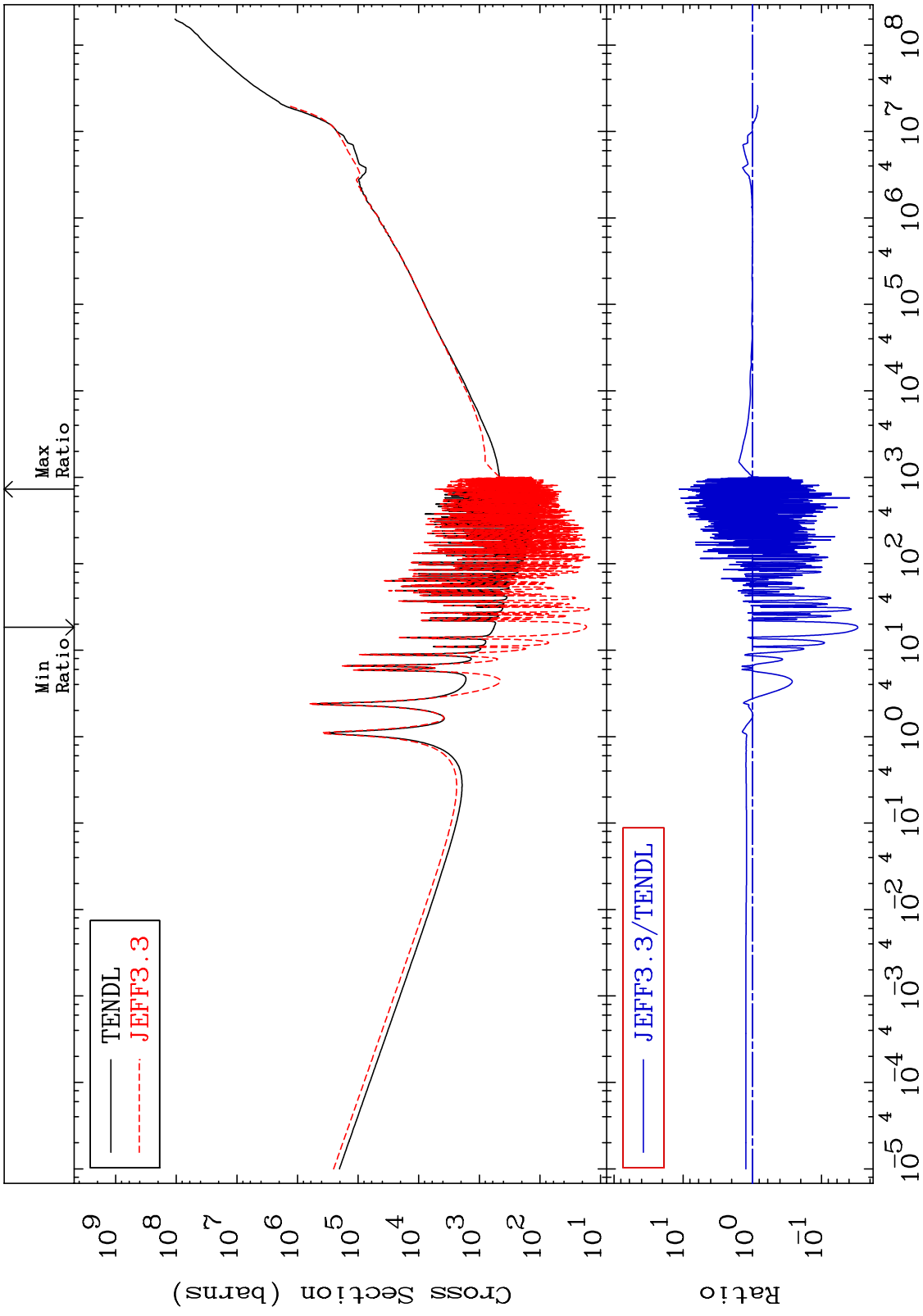
MAT 7234

Total photon (eV-barns)  
Cross Section

72-Hf-177  
-99.57 To 9999. %



MAT 7234      Total kinematic kerma (high limit)      72-Hf-177  
 -97.01 To 1050. %  
 Cross Section



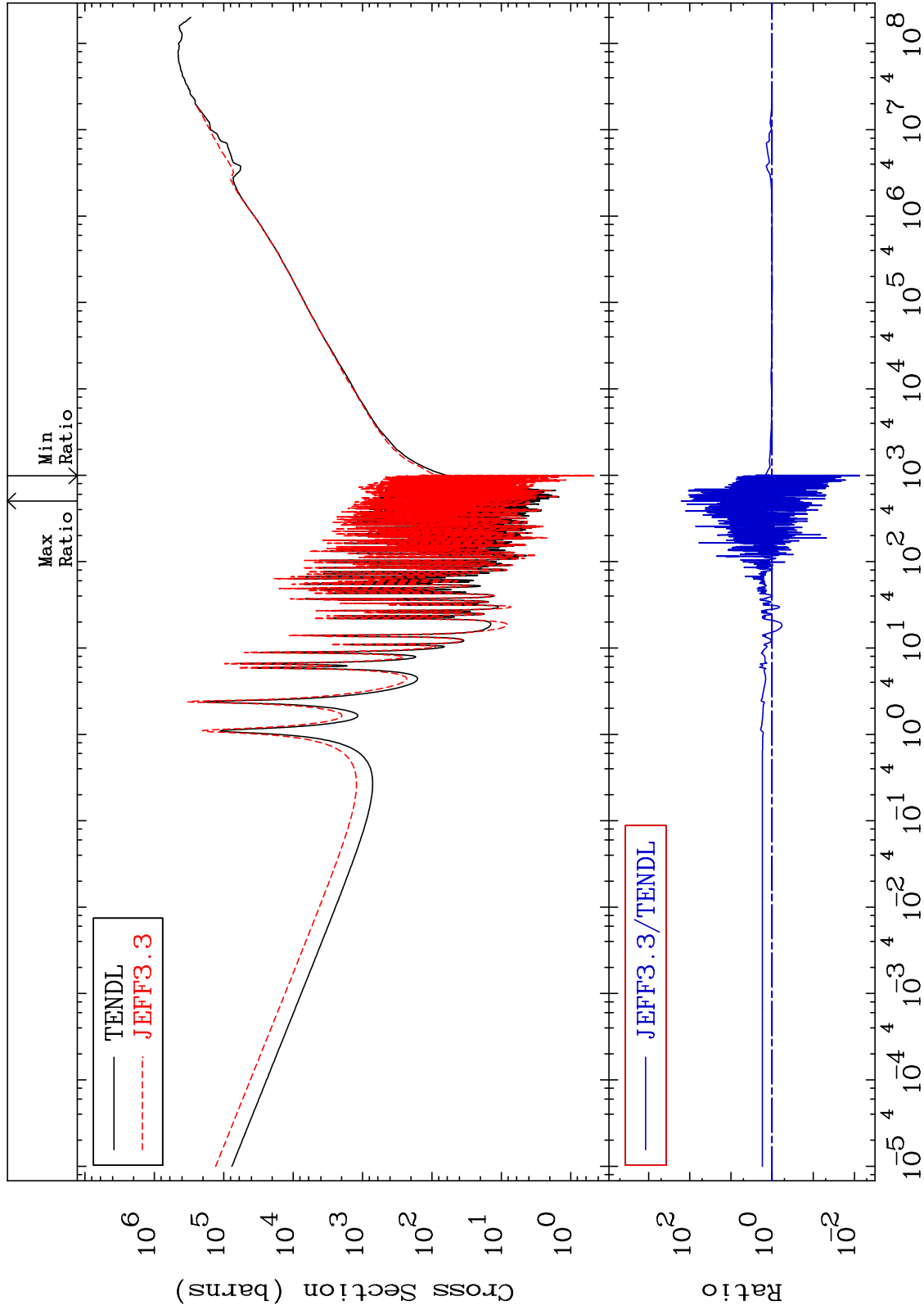
MAT 7234

Dpa total (eV-barns)

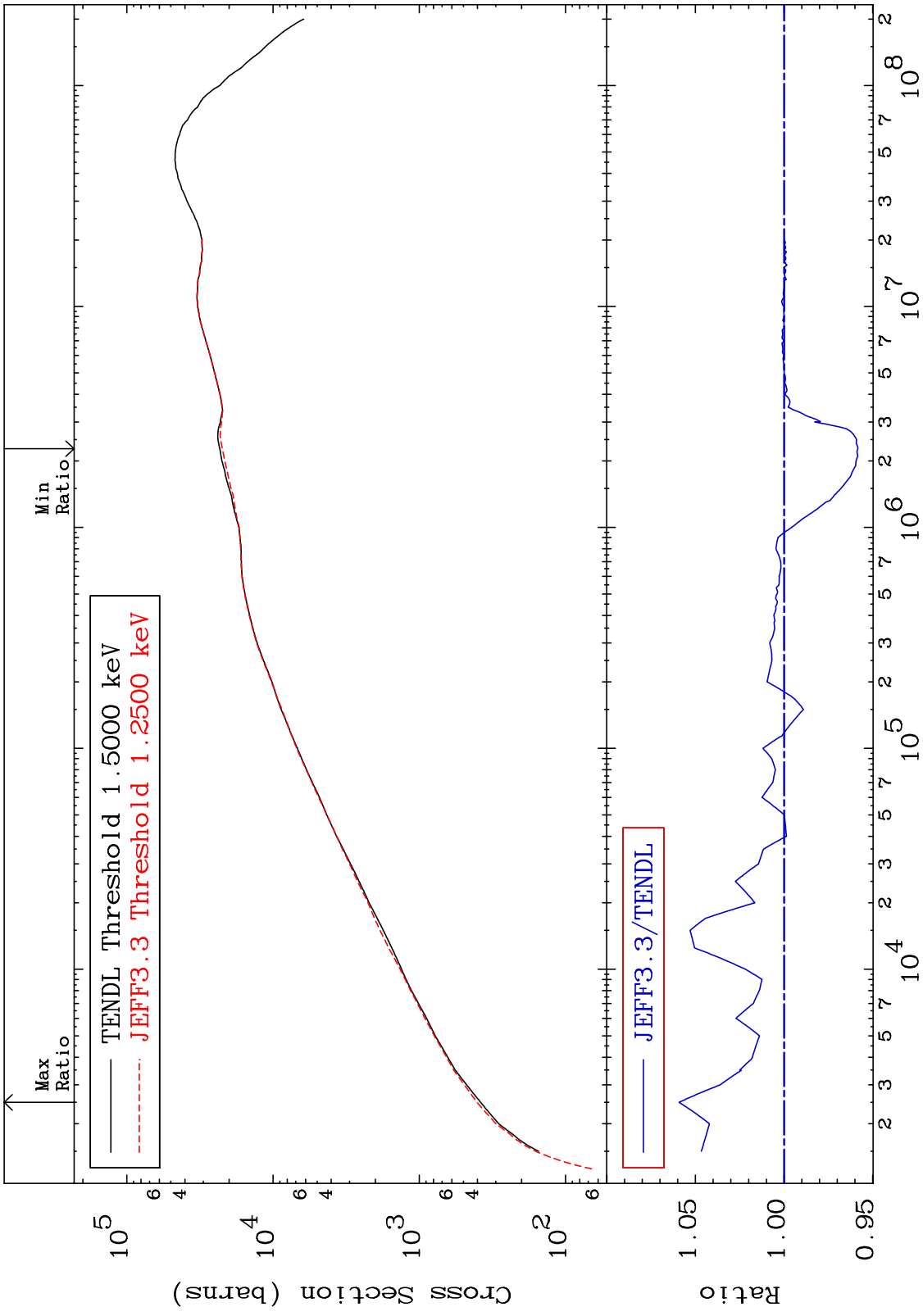
72-Hf-177

-99.26 To 9999. %

Cross Section

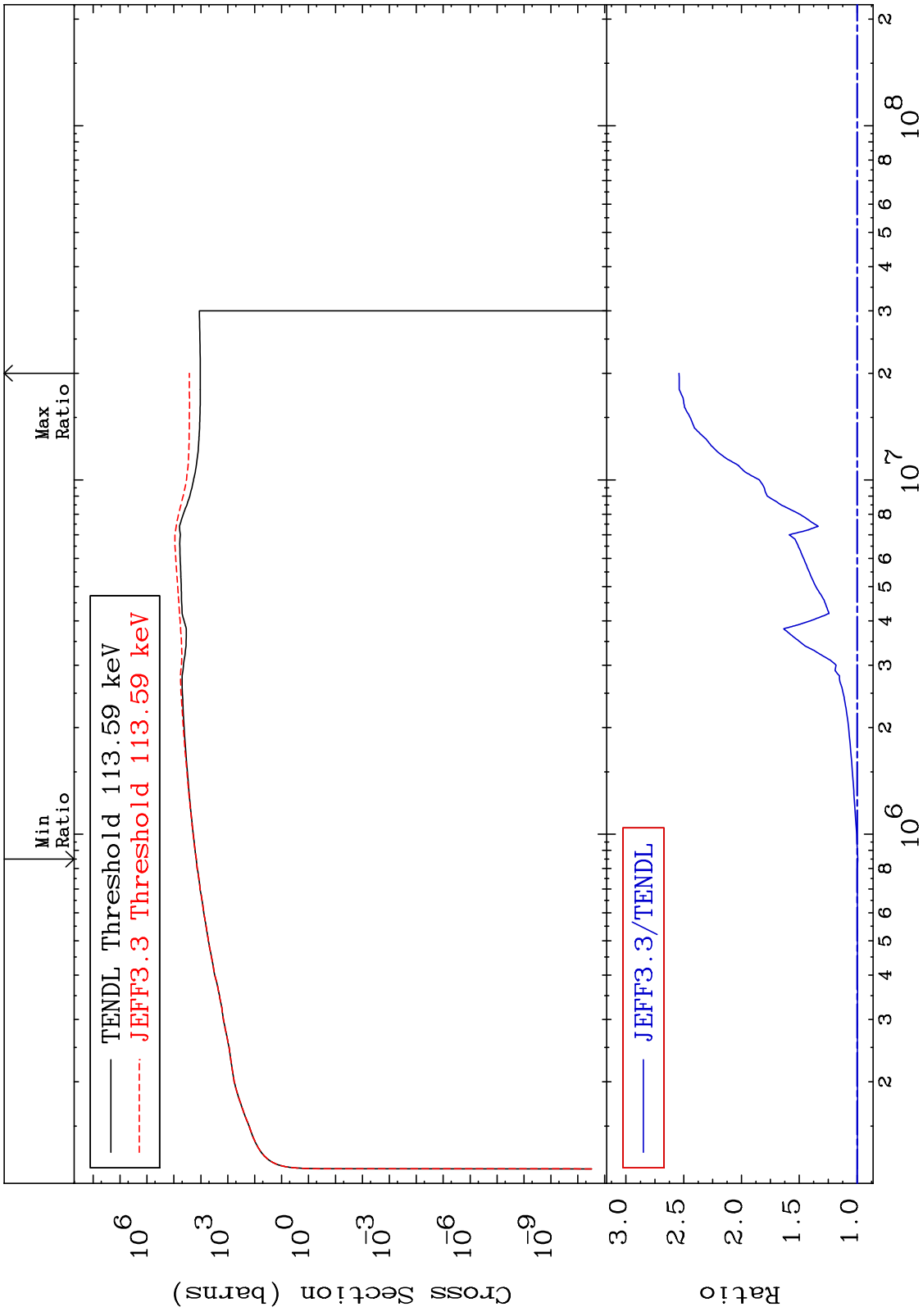


MAT 7234 72-Hf-177  
 Dpa elastic (mt2) -4.163 To 5.925 %  
 Cross Section





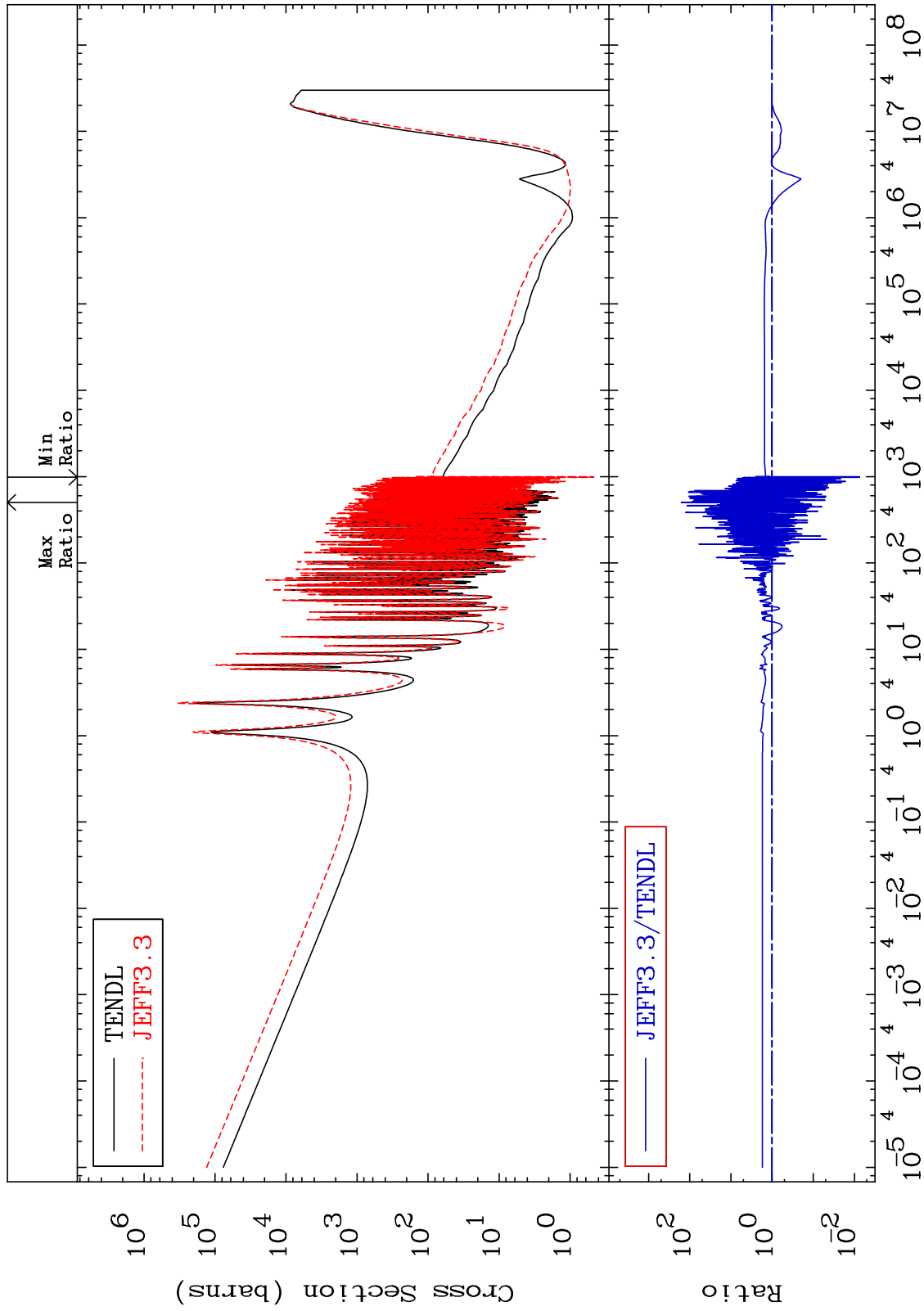
MAT 7234      Dpa inelastic (mt51-91)      72-Hf-177  
 Cross Section      -0.666 To 154.1 %



MAT 7234

Dpa disappearance (mt102 -120)  
Cross Section

72-Hf-177  
-99.26 To 9999. %

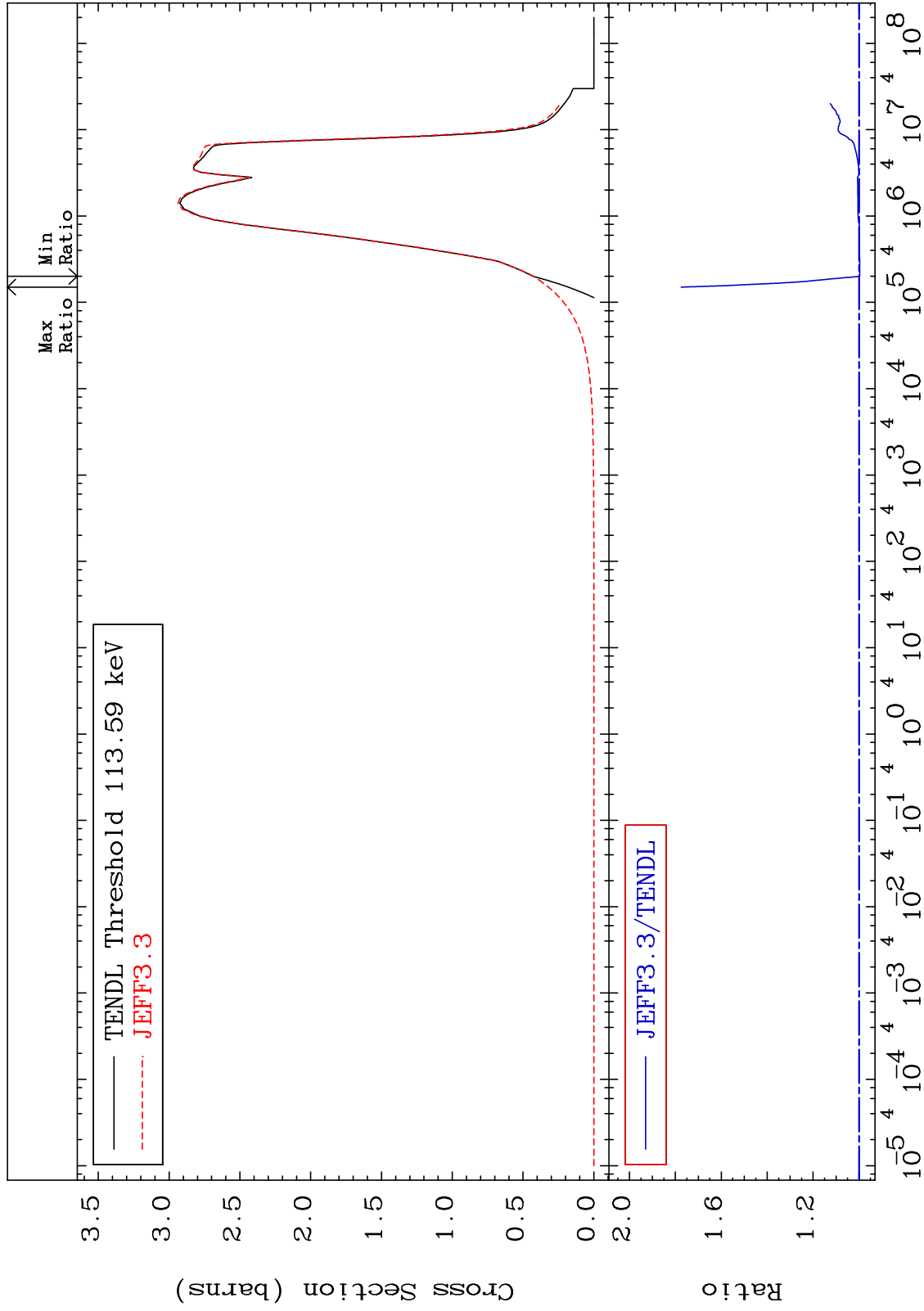


MAT 7234

Inelastic: 72-Hf-177g

72-Hf-177

Radionuclide Production Cross Section -0.319 To 77.44 %

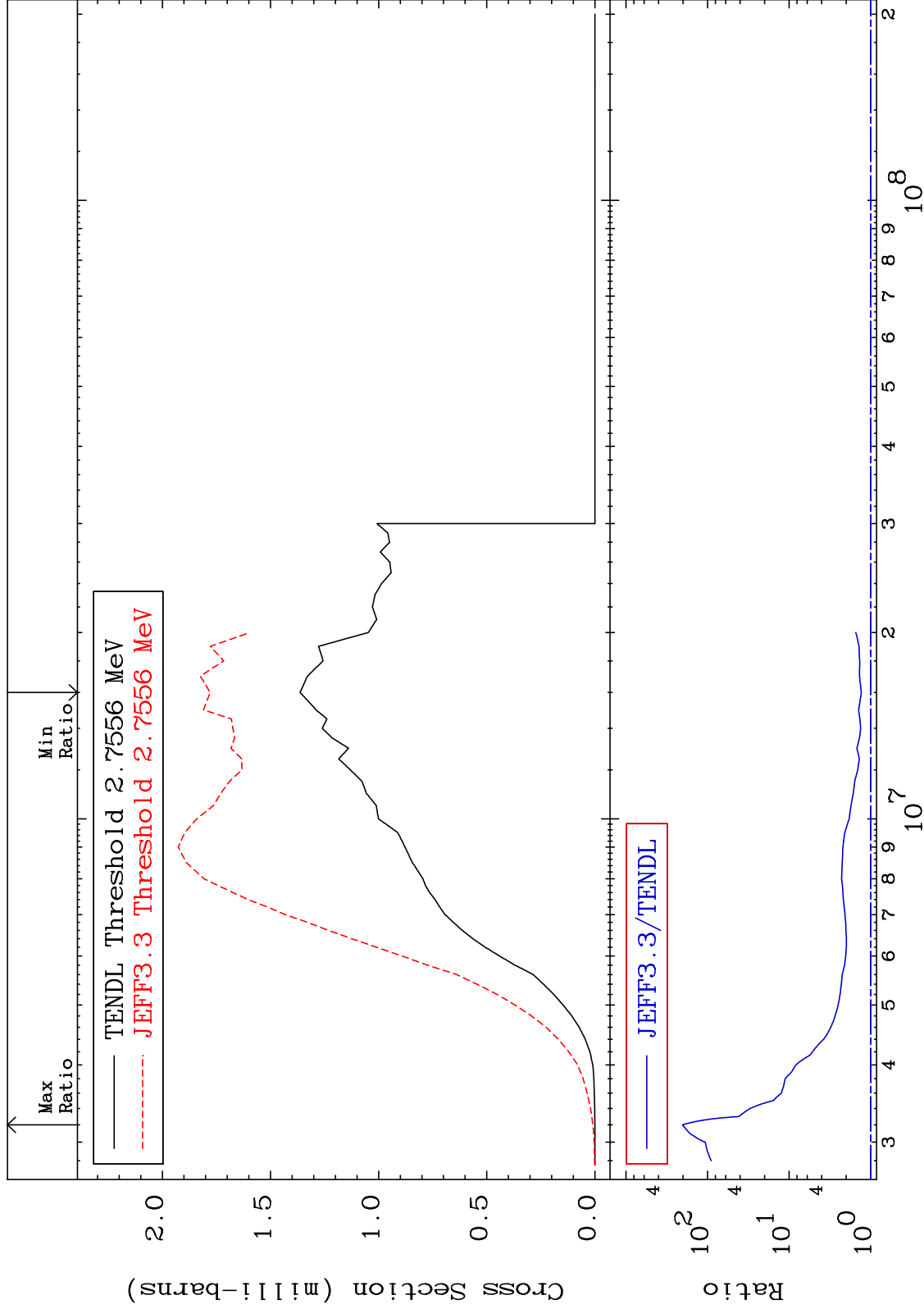


MAT 7234

Inelastic: 72-Hf-177m30

72-Hf-177

Radionuclide Production Cross Section 30.49 To 9999. %



67

Incident Energy (eV)

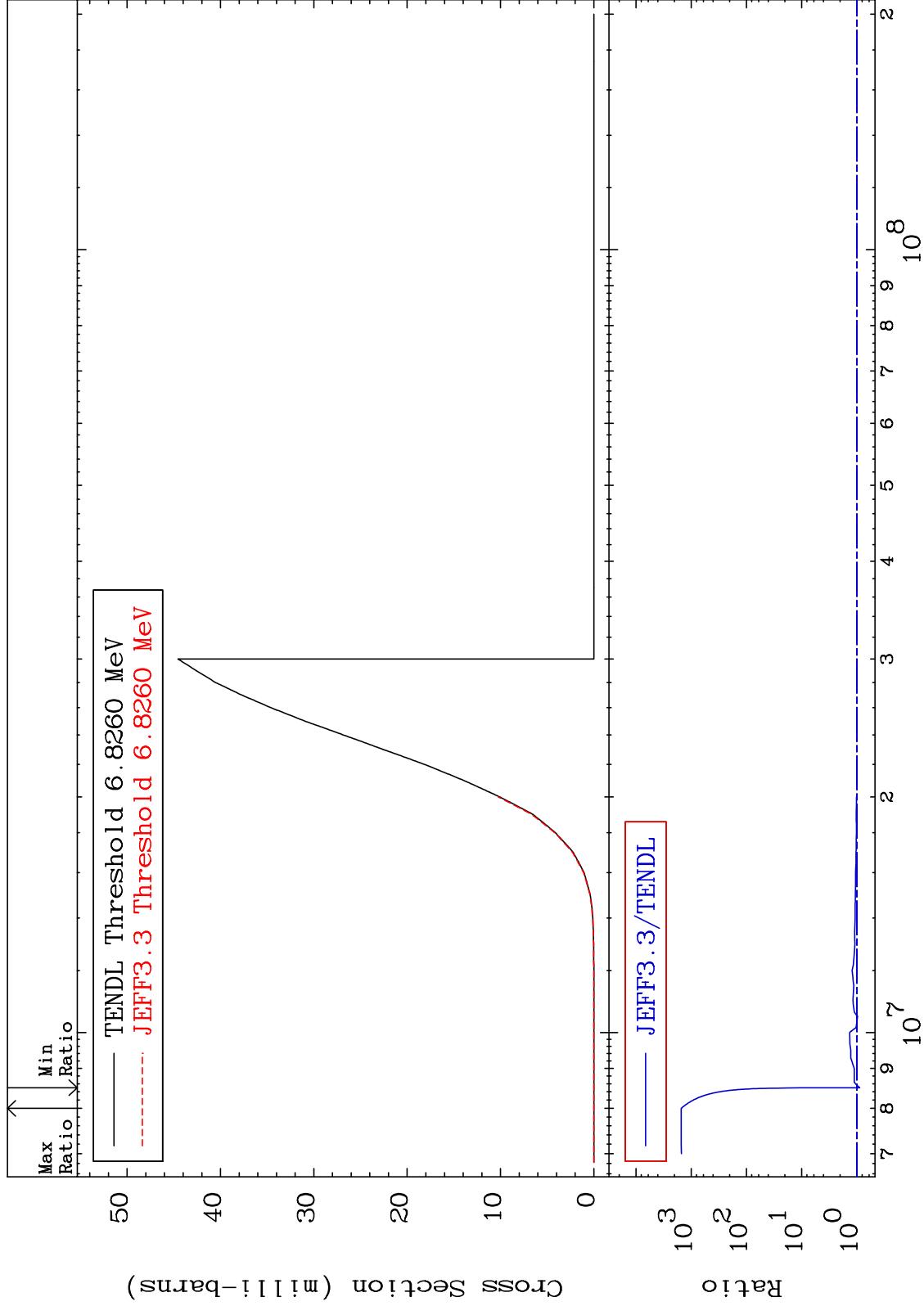
72-Hf-177

MAT 7234

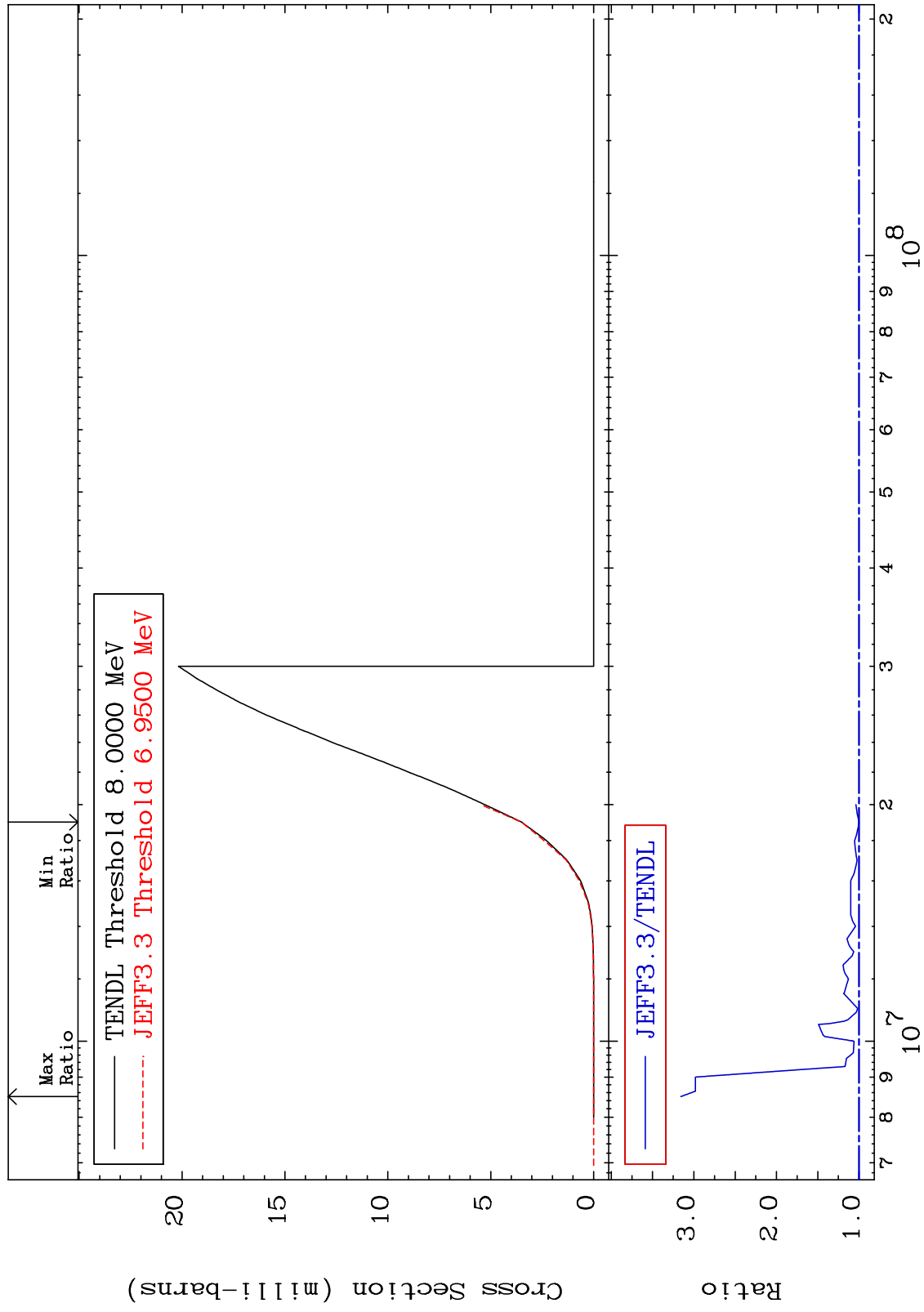
(n, n') p:71-Lu-176g

72-Hf-177

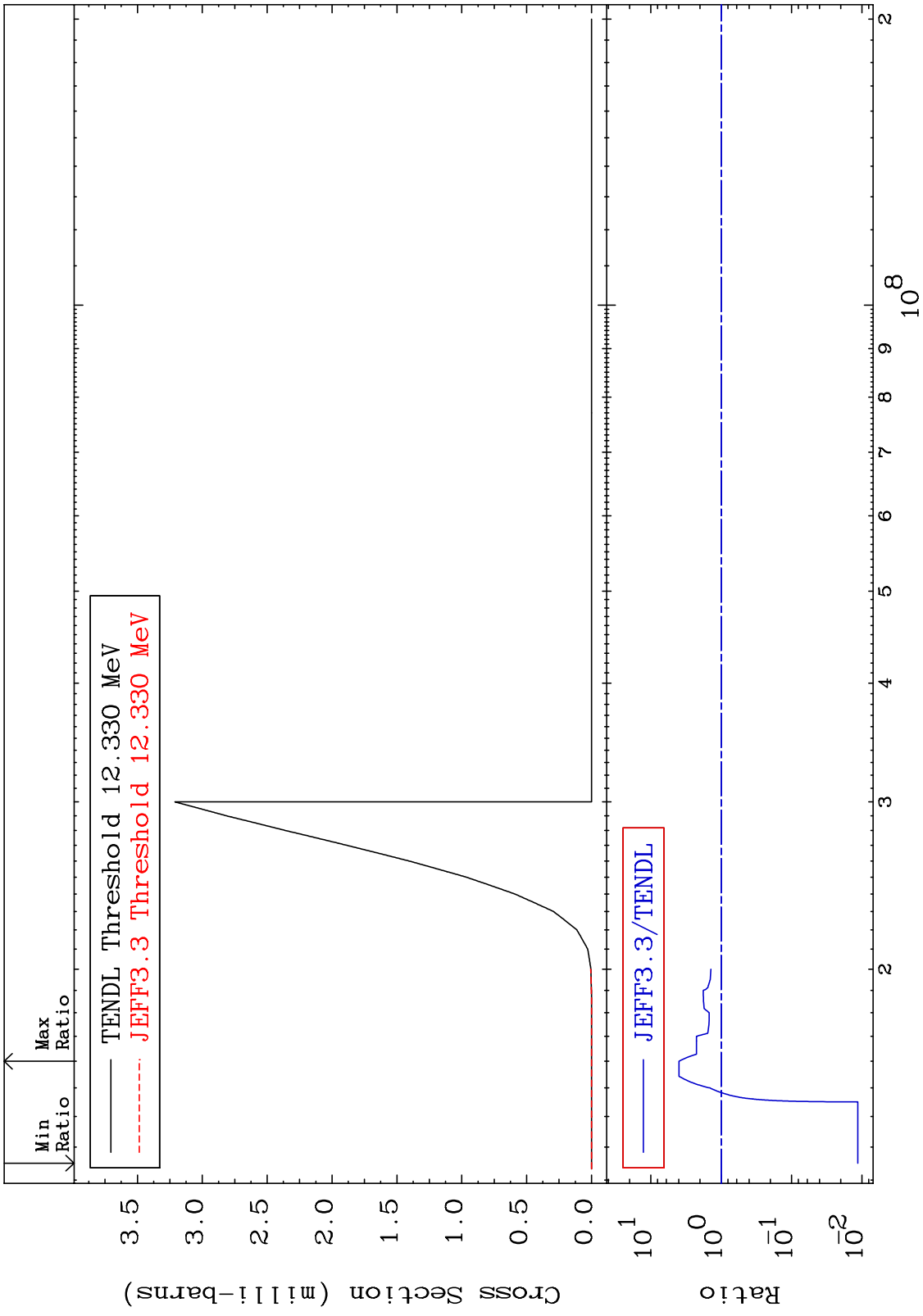
Radionuclide Production Cross Section -11.60 To 9999. %



MAT 7234 (n, n') p:71-Lu-176m1 72-Hf-177  
Radionuclide Production Cross Section 0.000 To 215.8 %



MAT 7234 (n, n') t:71-Lu-174g 72-Hf-177  
 Radionuclide Production Cross Section -98.85 To 296.4 %

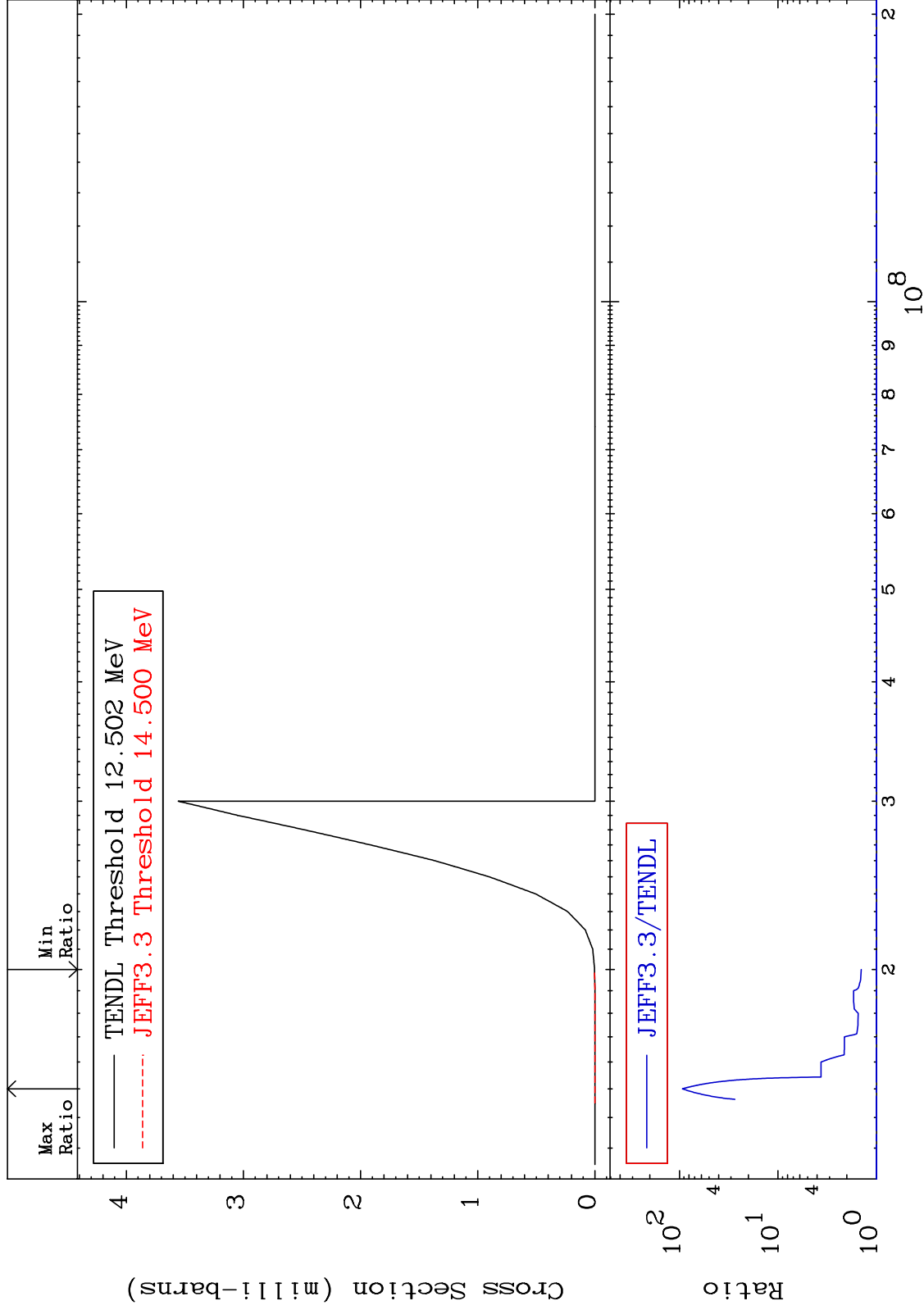


MAT 7234

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

72-Hf-177

Radionuclide Production Cross Section 42.61 To 9224. %



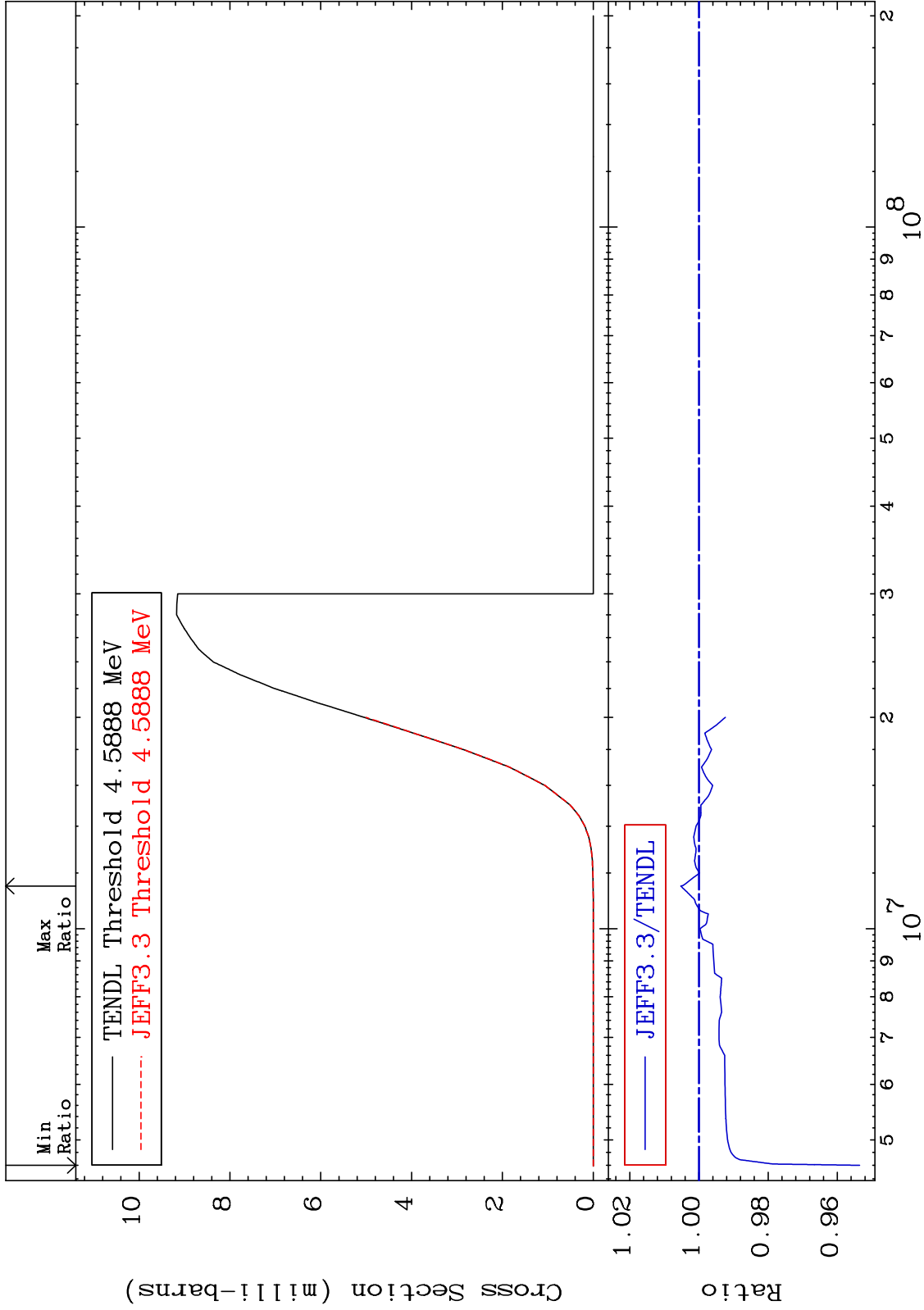


MAT 7234

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

72-Hf-177

Radionuclide Production Cross Section -4.645 To 0.524 %



72

Incident Energy (eV)

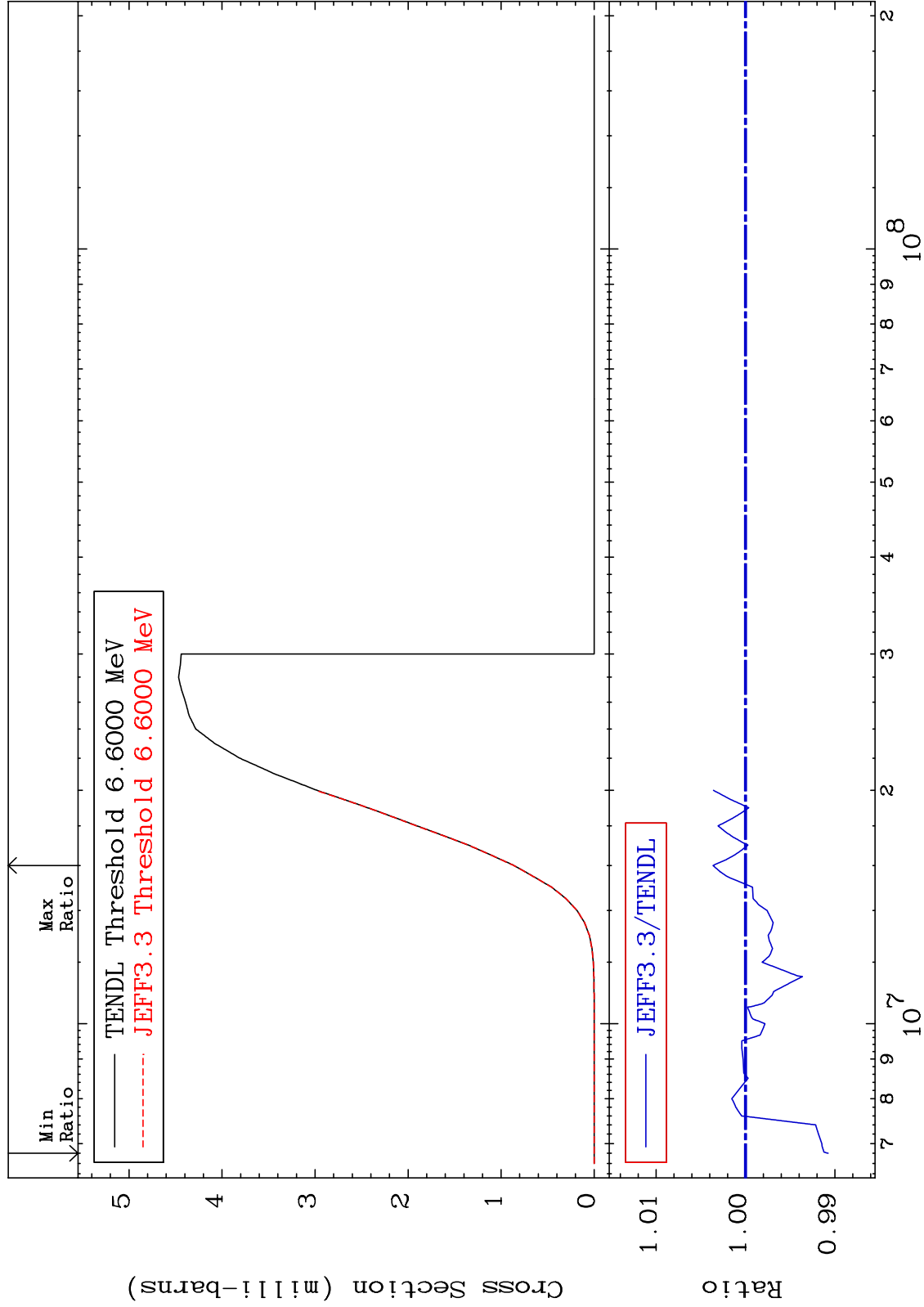
72-Hf-177

MAT 7234

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

72-Hf-177

Radionuclide Production Cross Section -0.924 To 0.363 %



73

Incident Energy (eV)

72-Hf-177