

Program Complot  
(Version 2018-1)

by

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(Present Contact Information)

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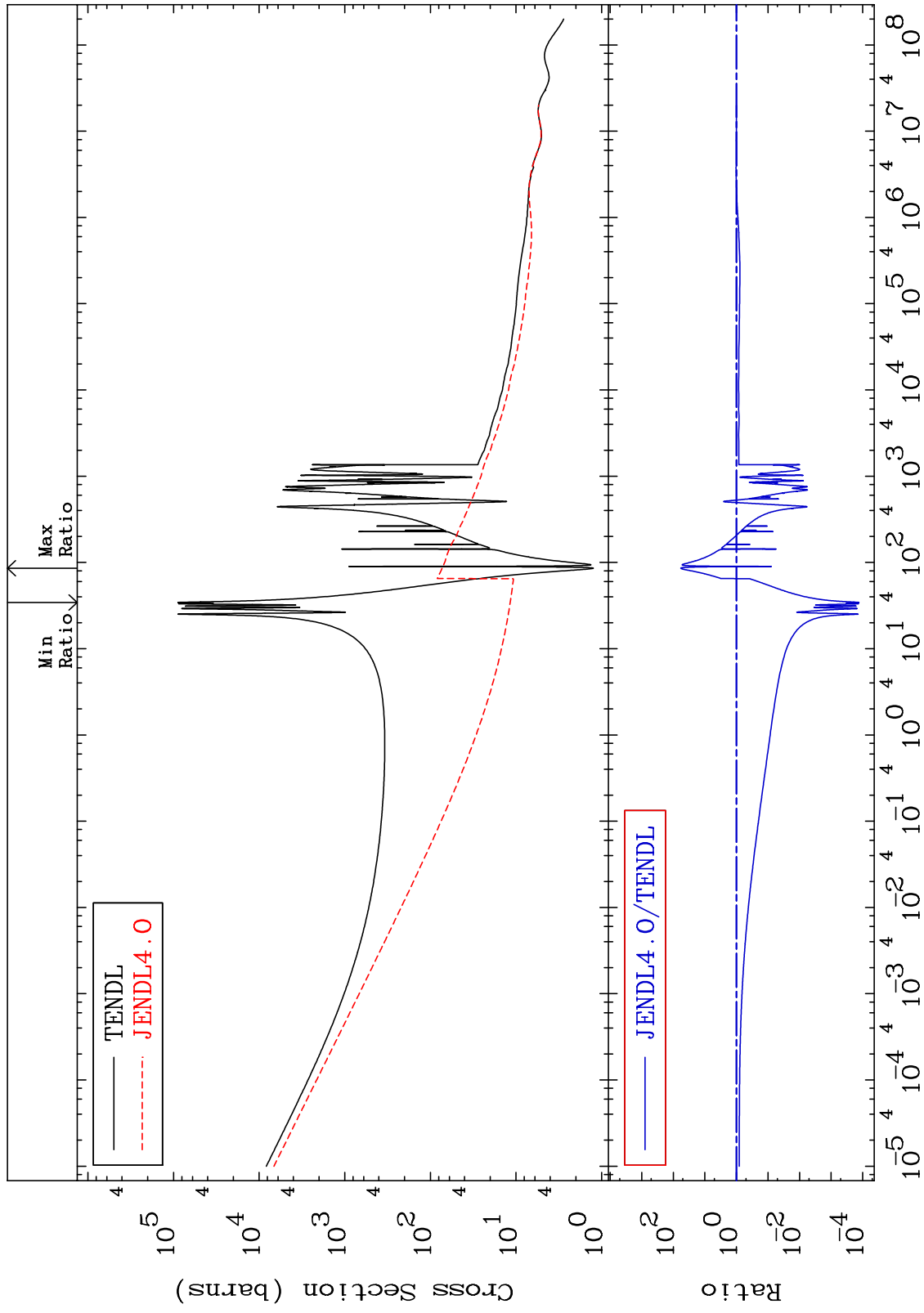
U.S.A.

Tele: 925-443-1911

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

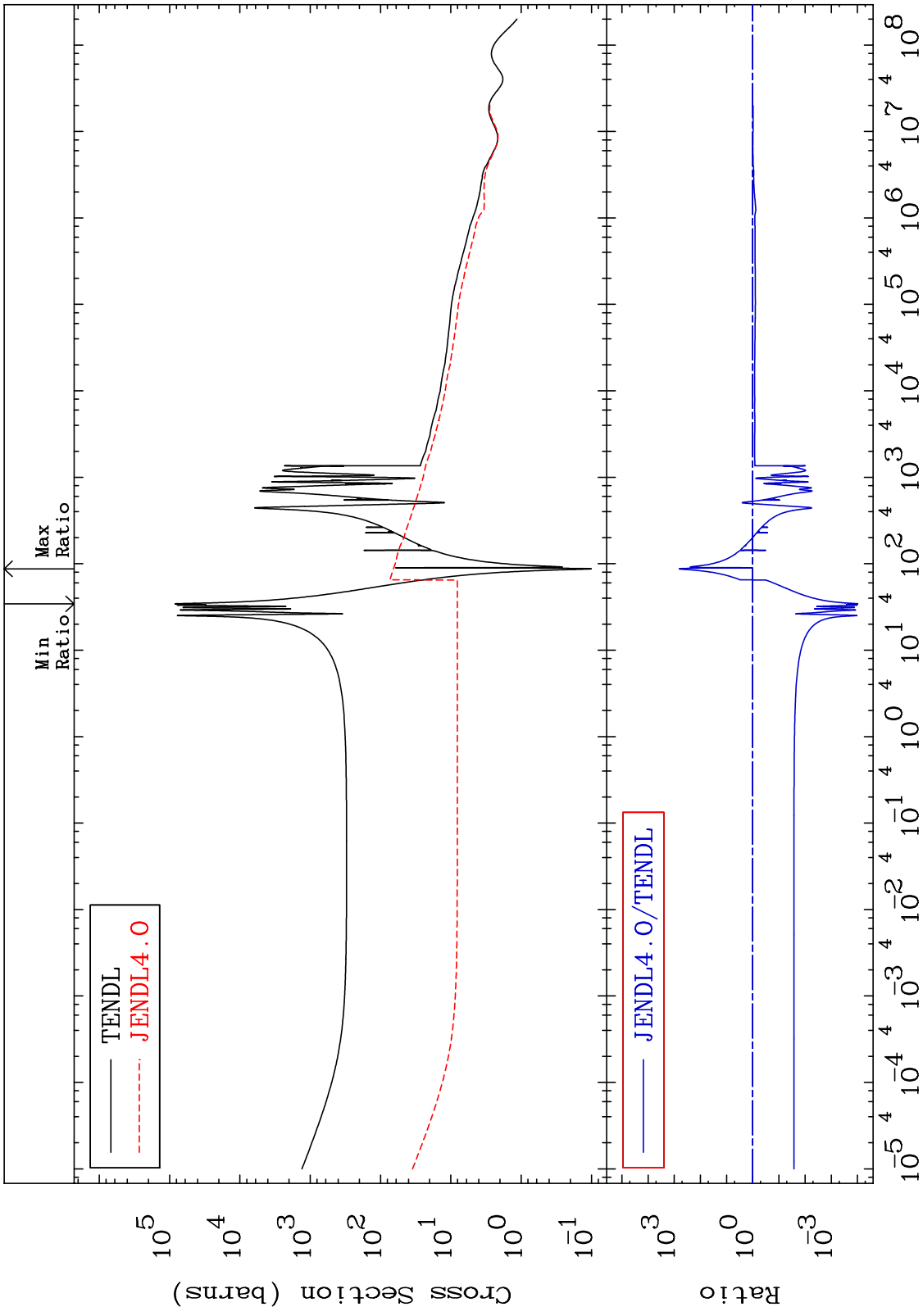
Press Mouse Button to Start

MAT 7249 Total Cross Section 72-Hf-182 -99.99 To 5744. %



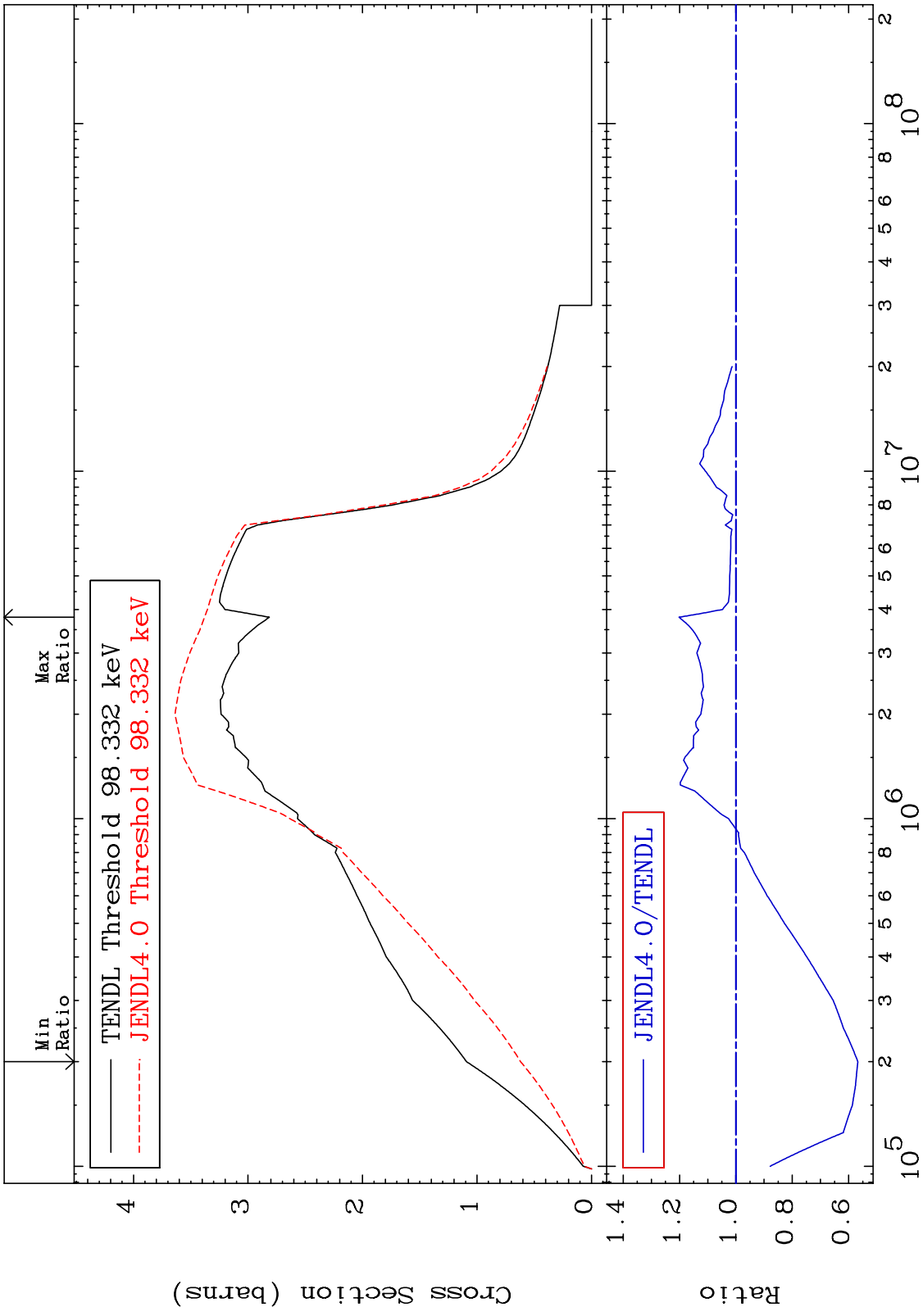
1 Incident Energy (eV) 72-Hf-182

MAT 7249 Elastic Cross Section 72-Hf-182 -99.99 To 9999. %



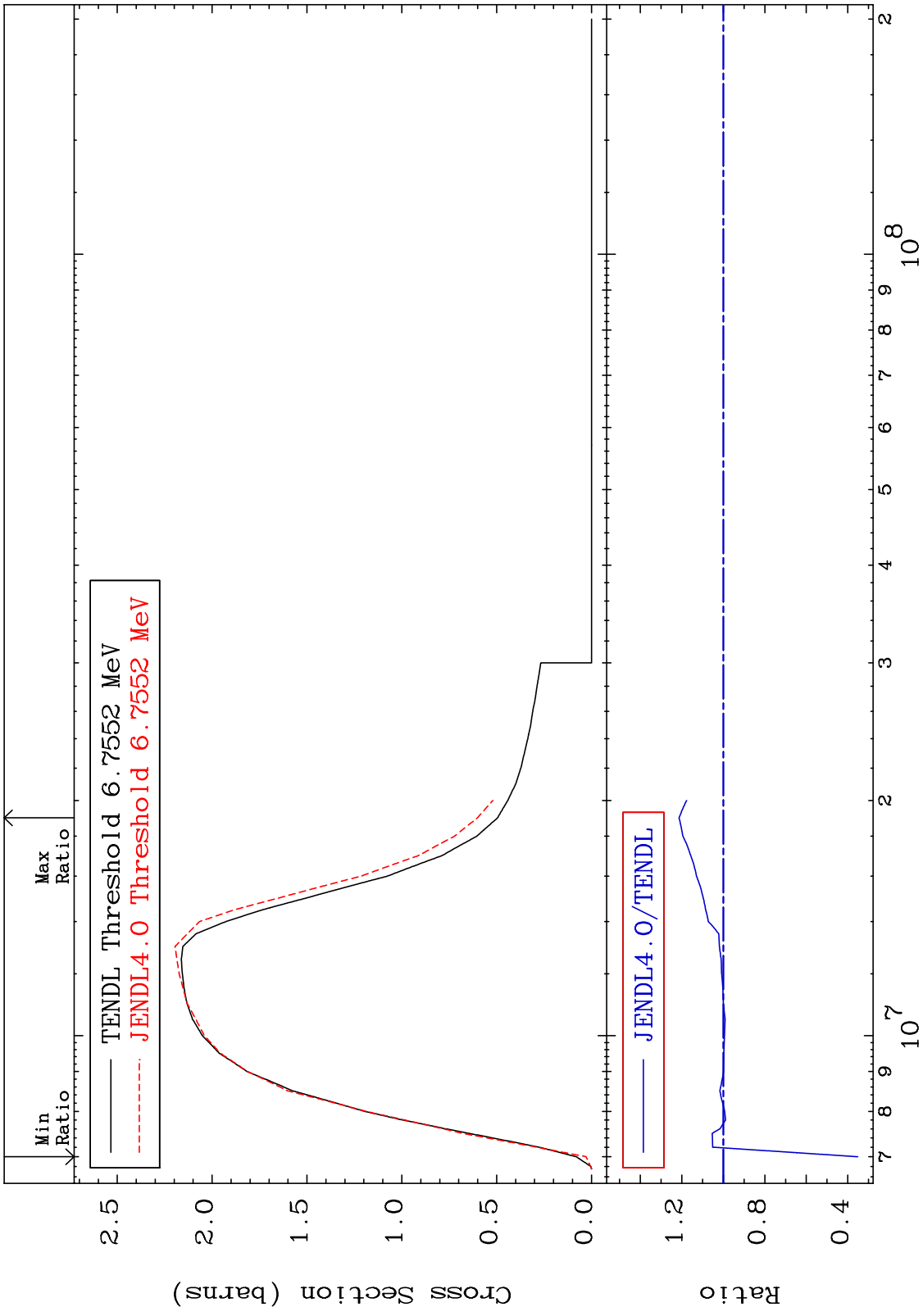
2 72-Hf-182

MAT 7249 72-Hf-182  
-43.25 To 20.17 %  
Inelastic Cross Section

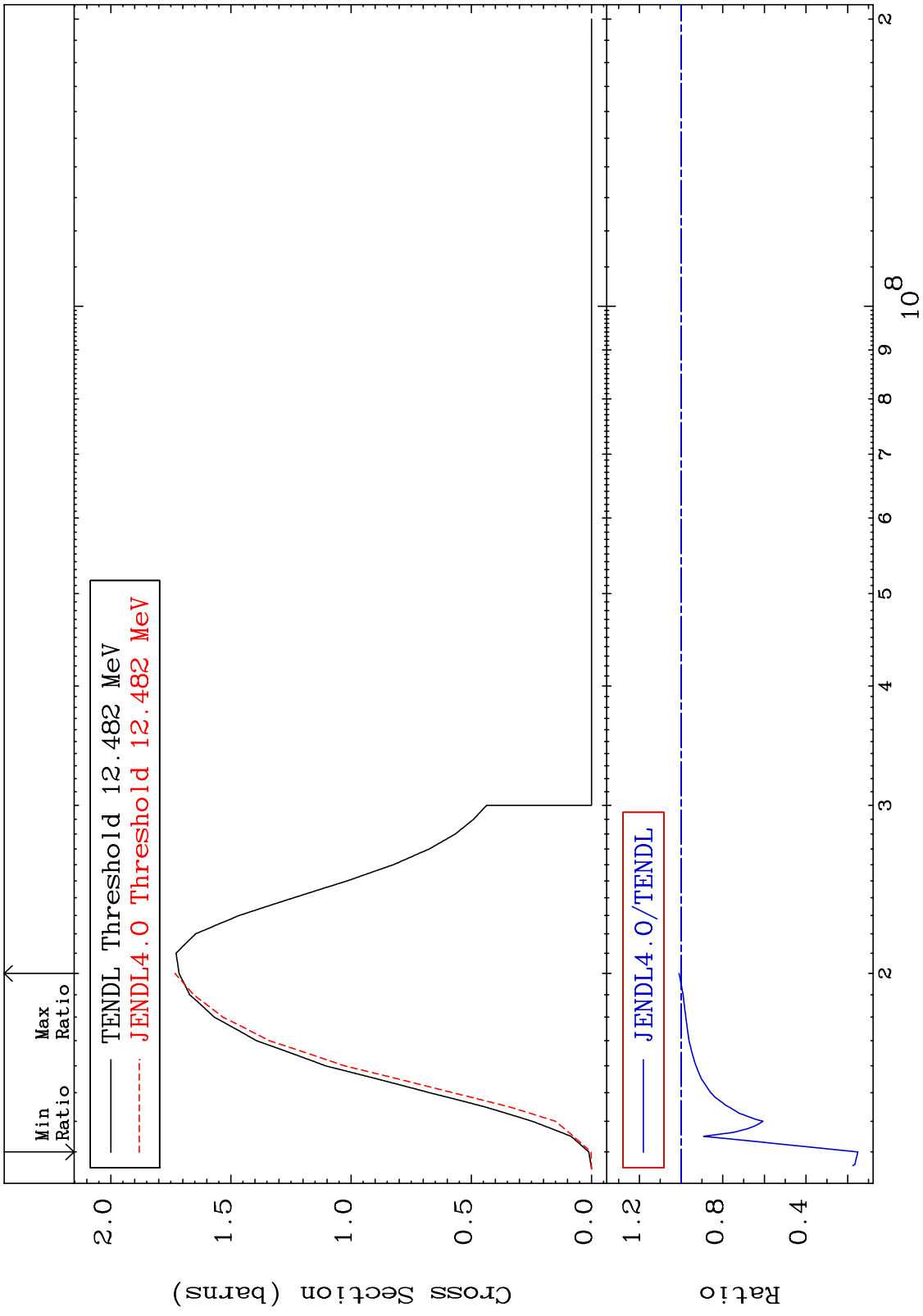


Ratio  
Incident Energy (eV)  
72-Hf-182

MAT 7249 72-Hf-182  
-64.84 To 21.35 %  
 (n,2n)  
 Cross Section



MAT 7249 (n,3n) Cross Section 72-Hf-182 -84.84 To 0.986 %



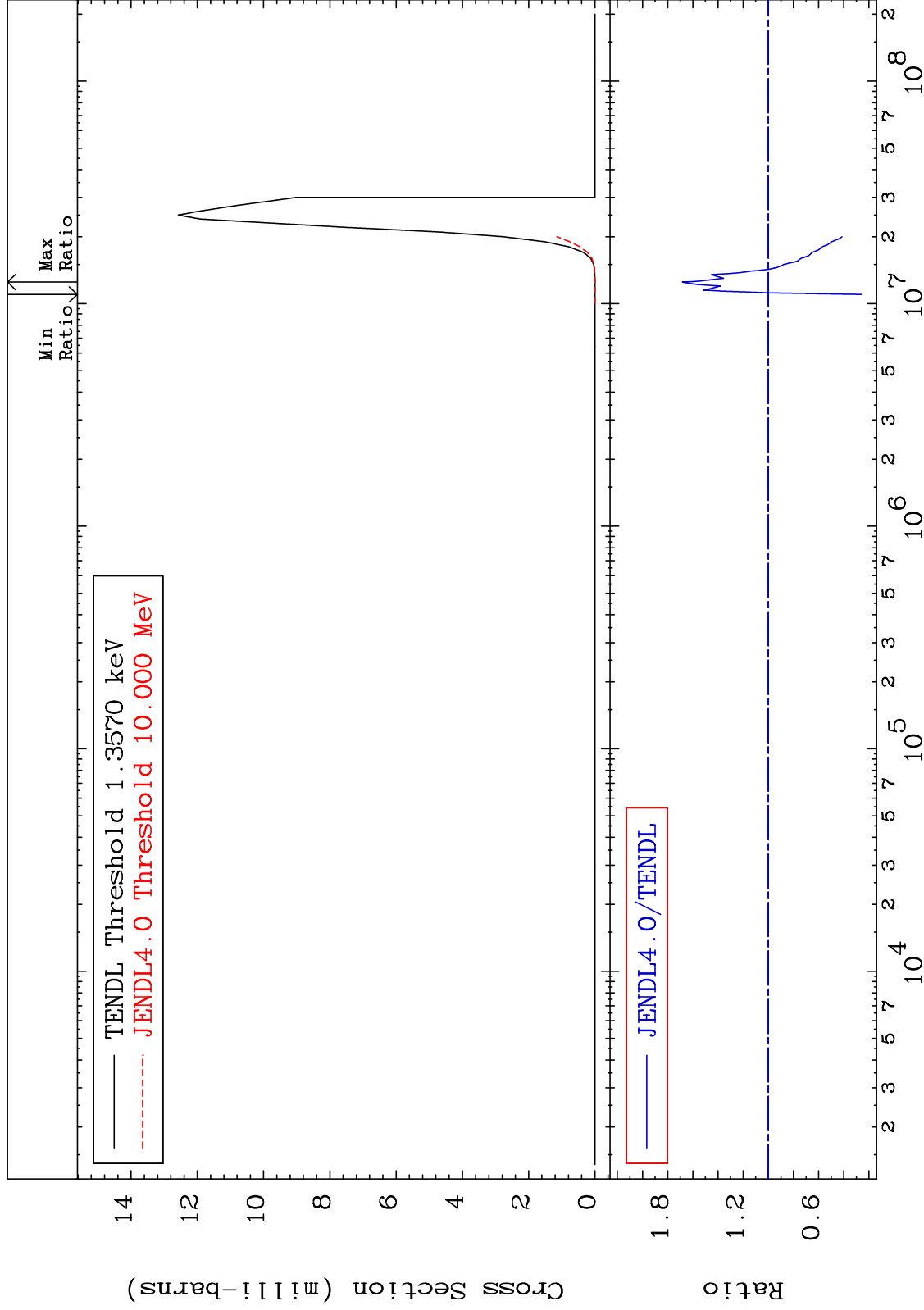
MAT 7249

(n, n')  $\alpha$

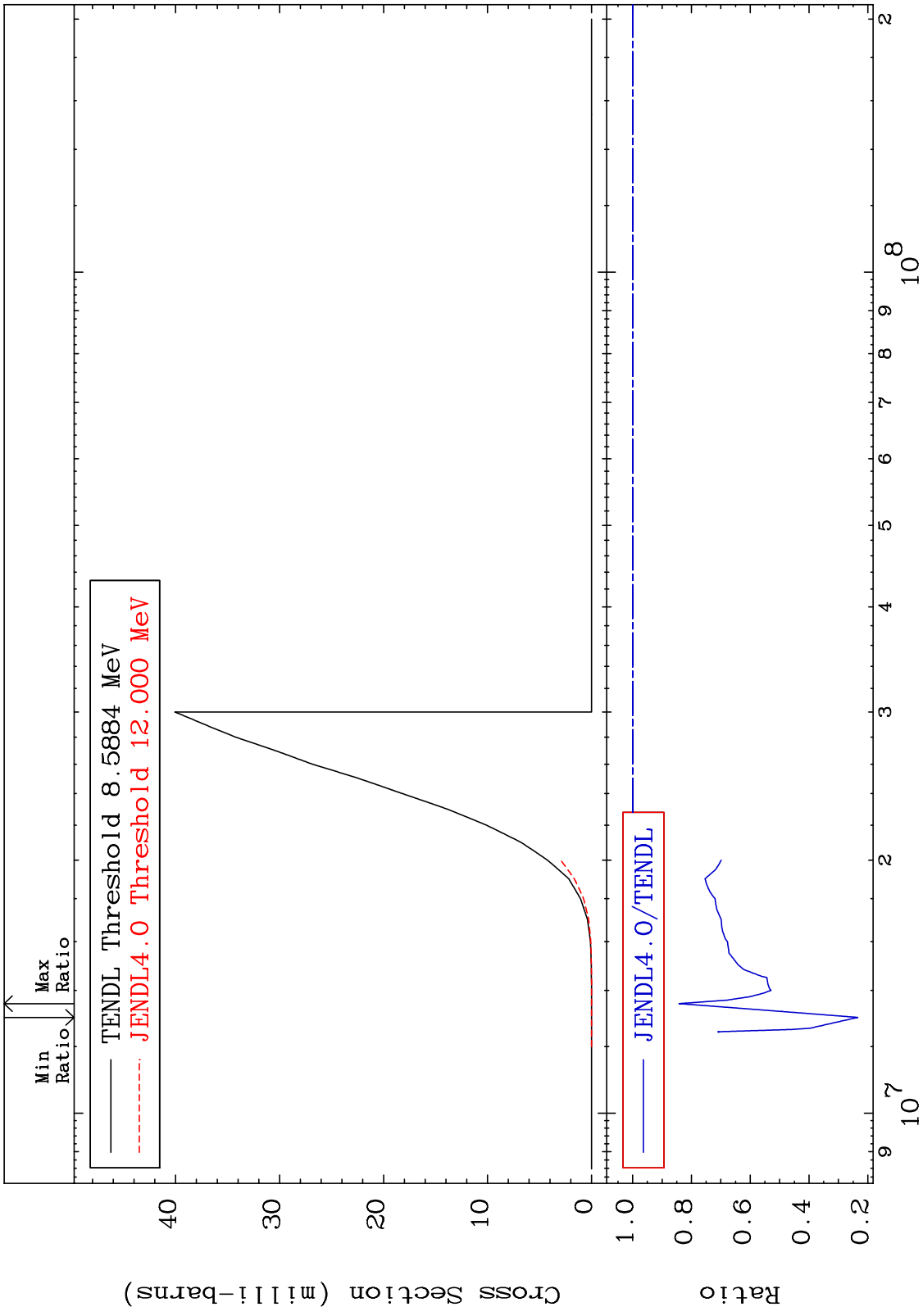
72-Hf-182

Cross Section

-73.88 To 68.24 %



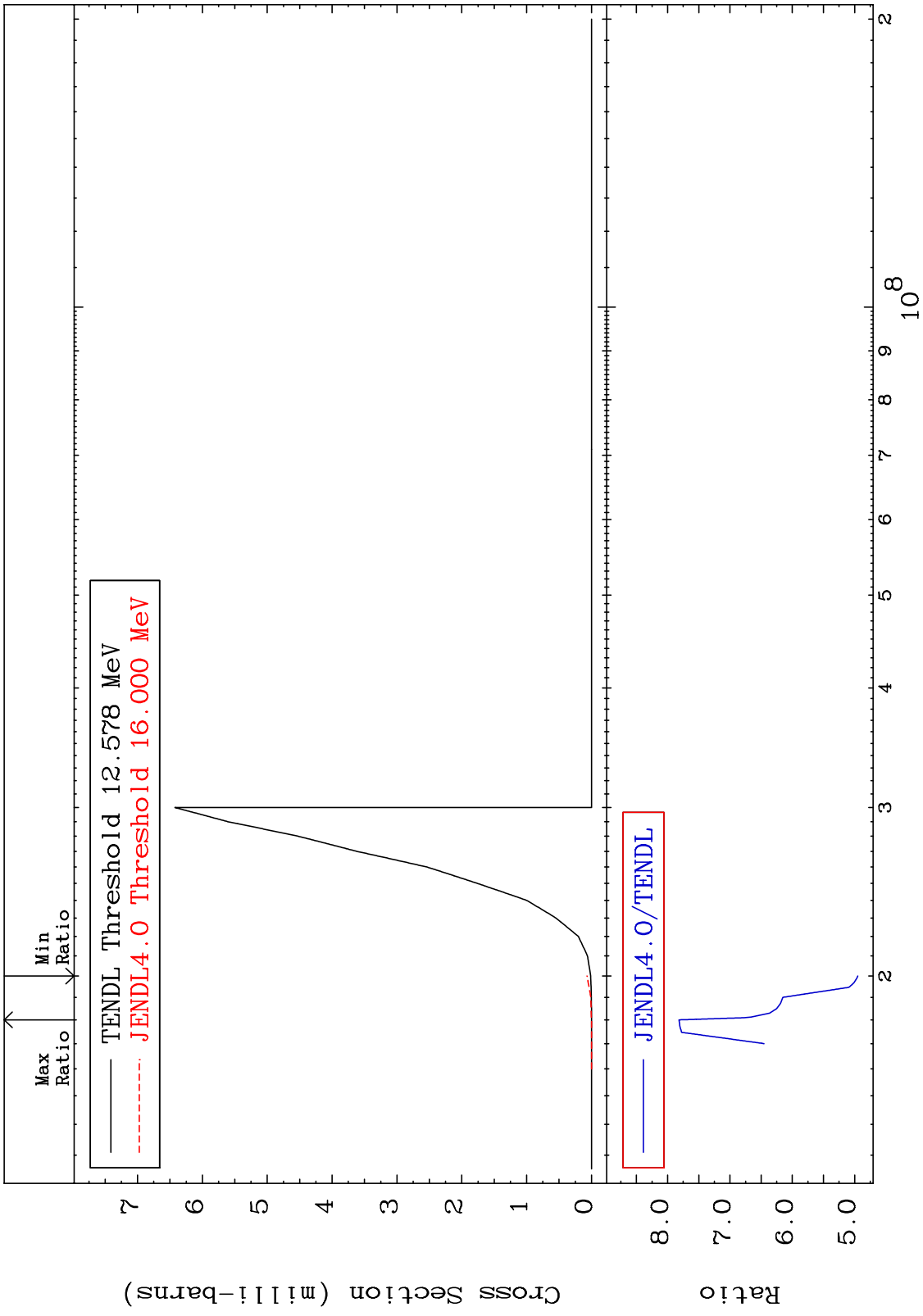
MAT 7249 (n,n') p 72-Hf-182  
 Cross Section -76.61 To -15.78%



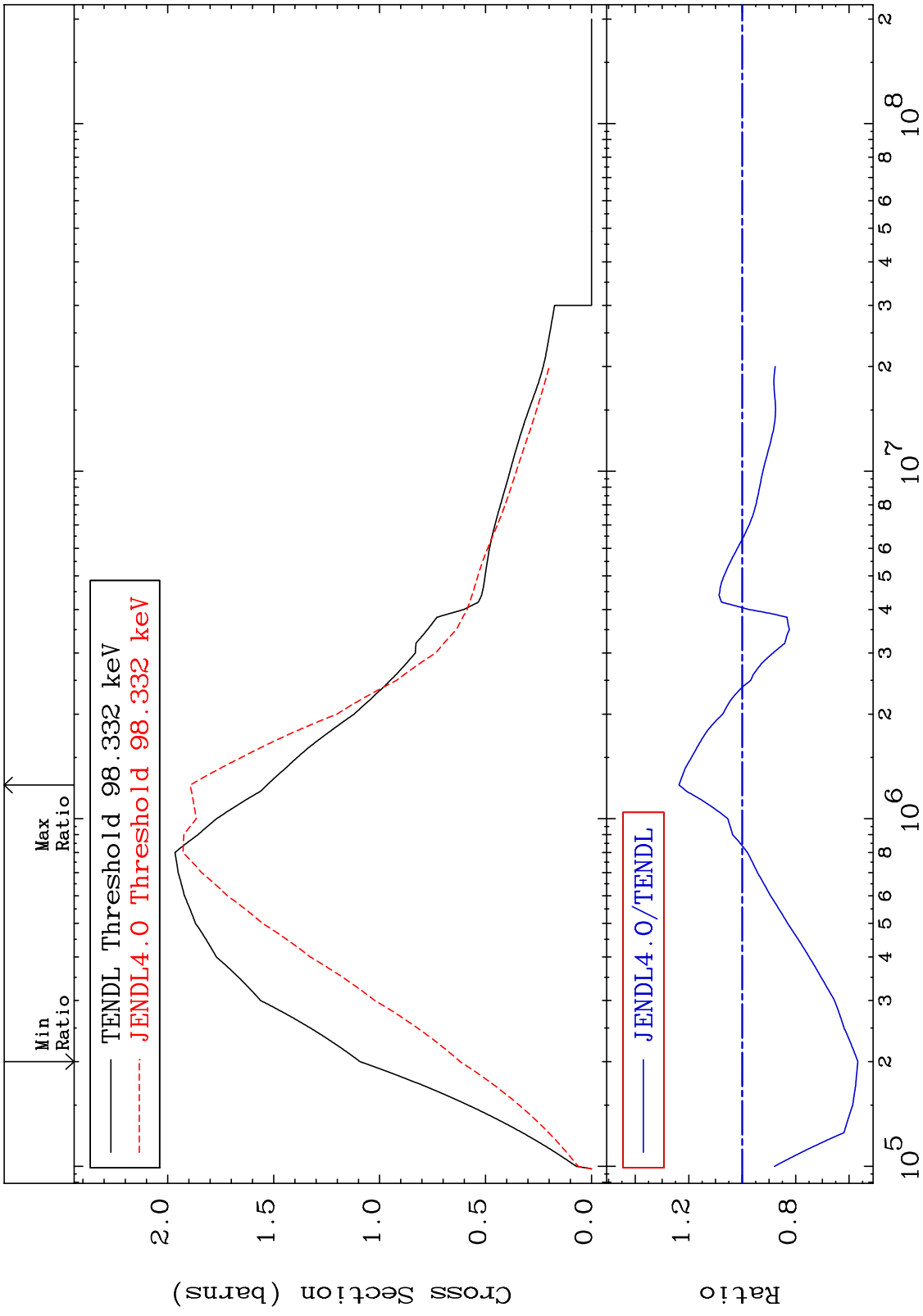
72-Hf-182



MAT 7249 (n,n') d 72-Hf-182  
 Cross Section 394.9 To 681.6 %

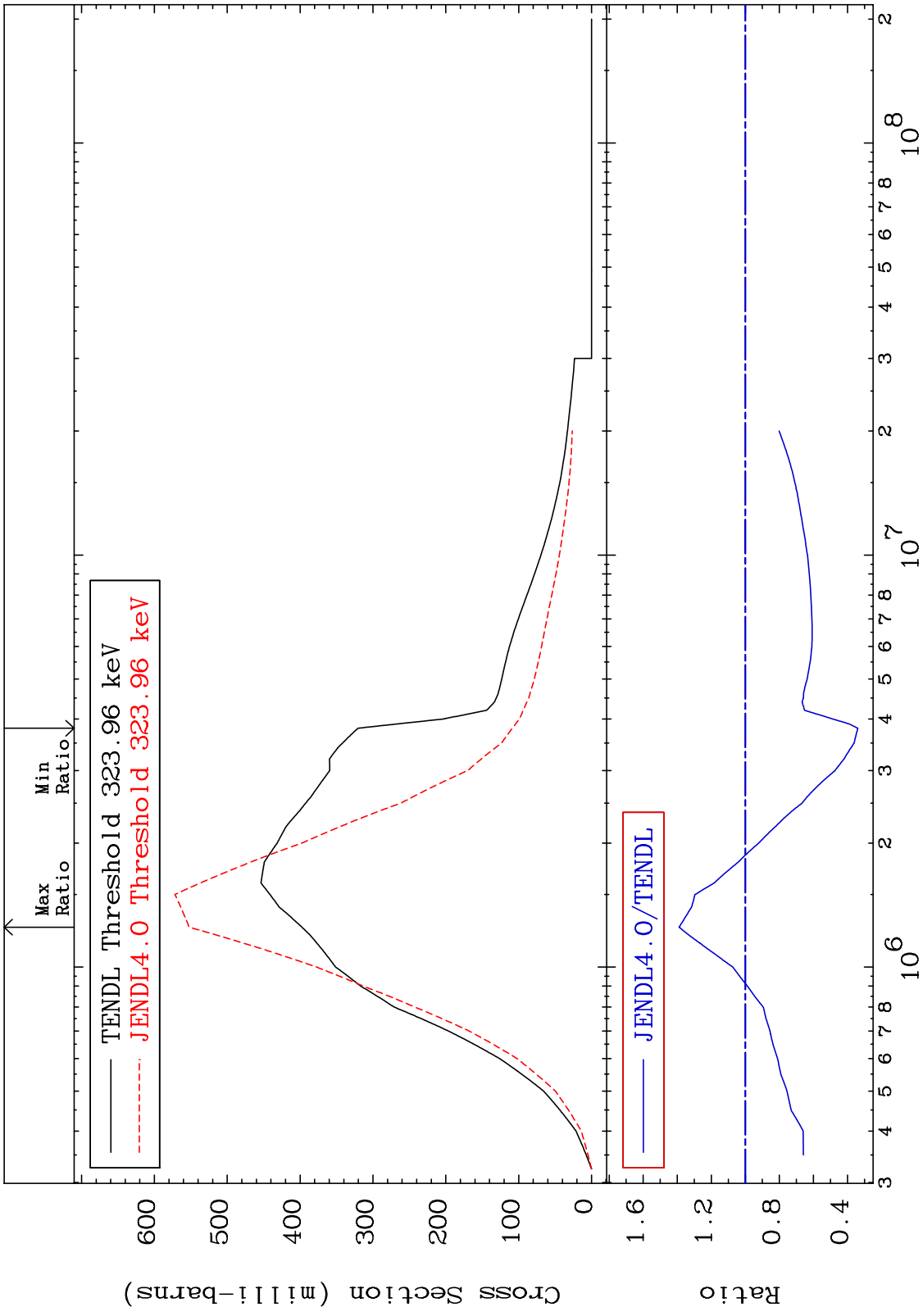


MAT 7249 MT= 51 (n,n') Level Cross Section 72-Hf-182  
 -43.25 To 23.64 %



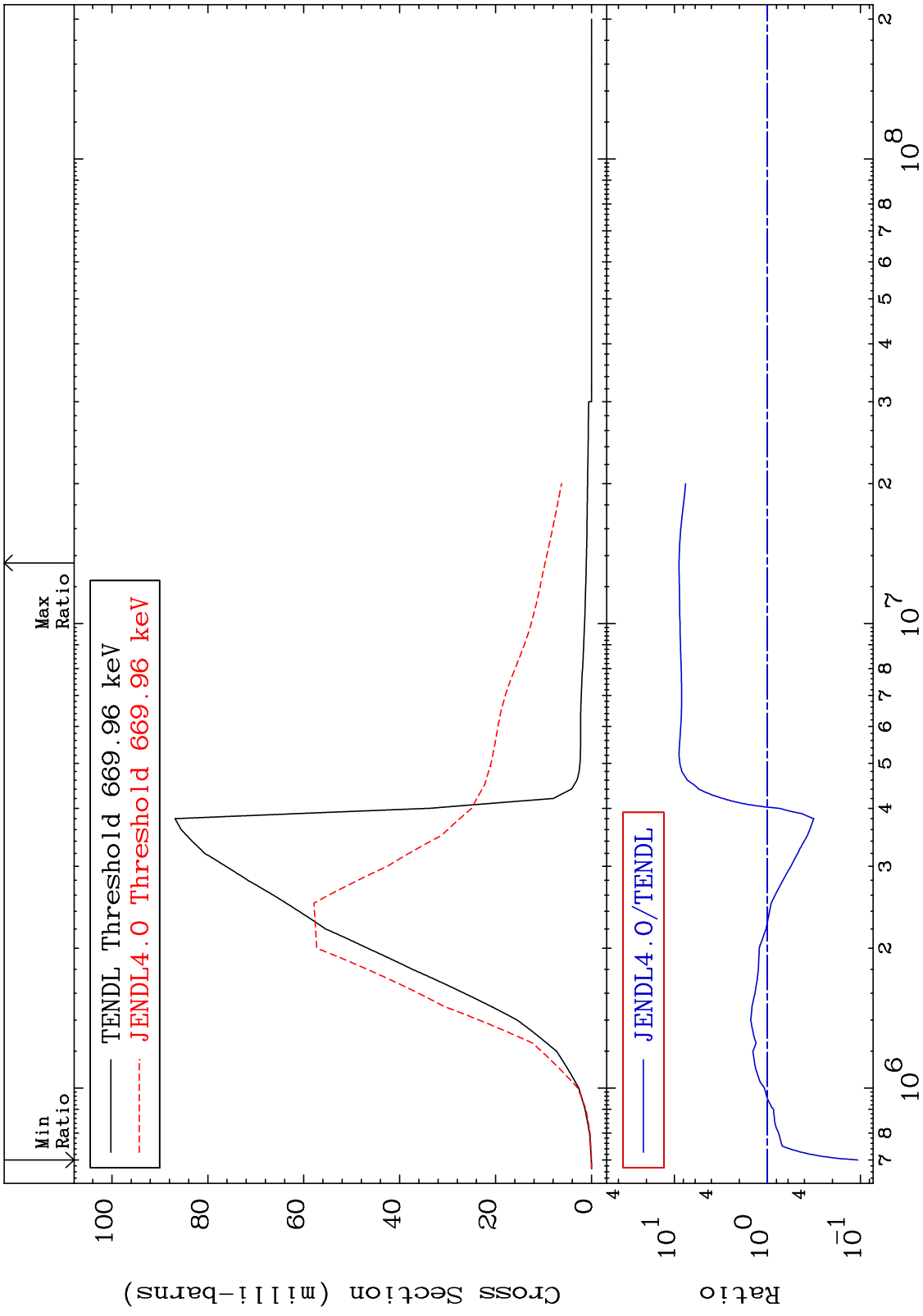
9 Incident Energy (eV) 72-Hf-182

MAT 7249 MT= 52 (n,n') Level Cross Section 72-Hf-182  
 -66.09 To 38.94 %

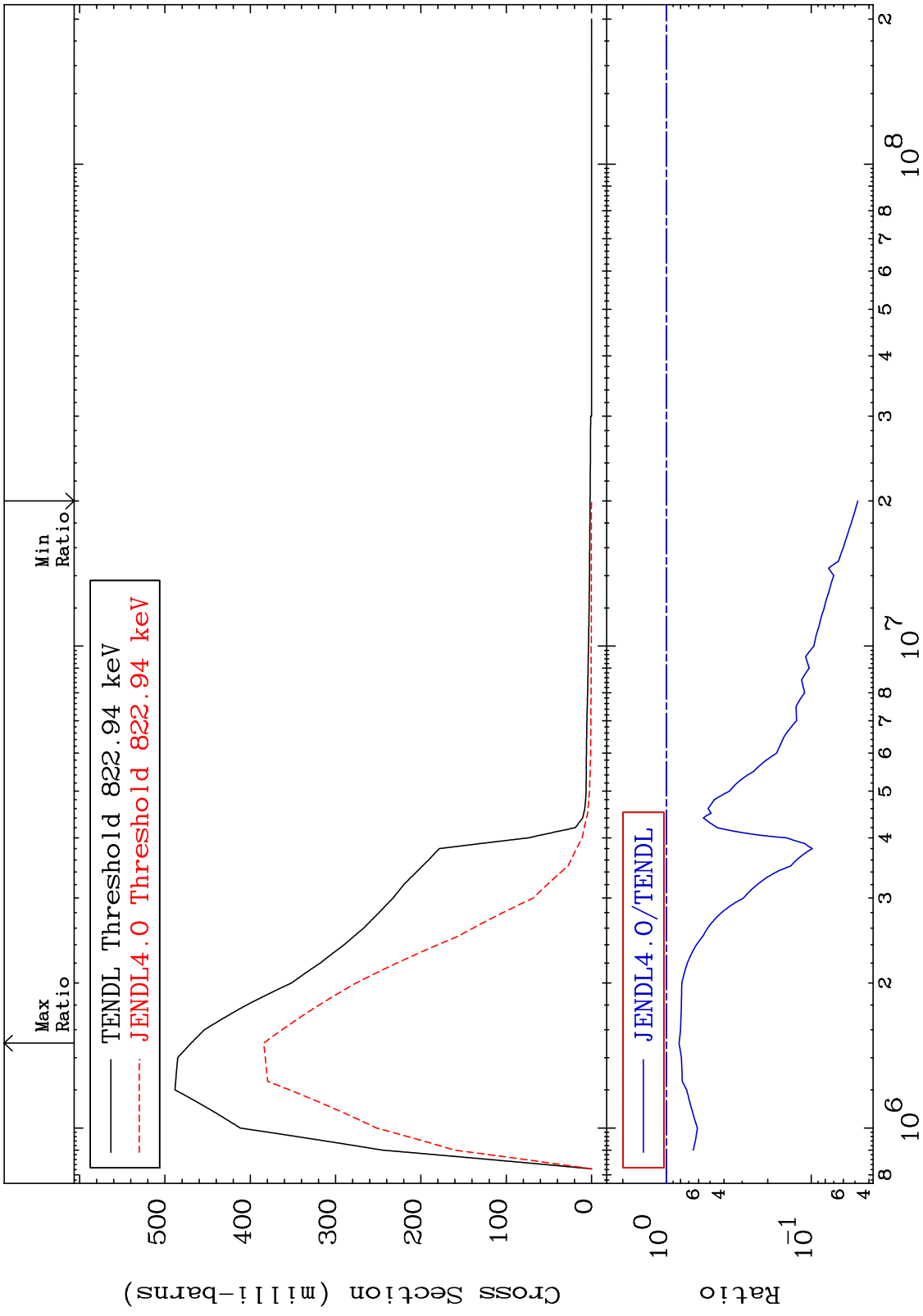


10 72-Hf-182

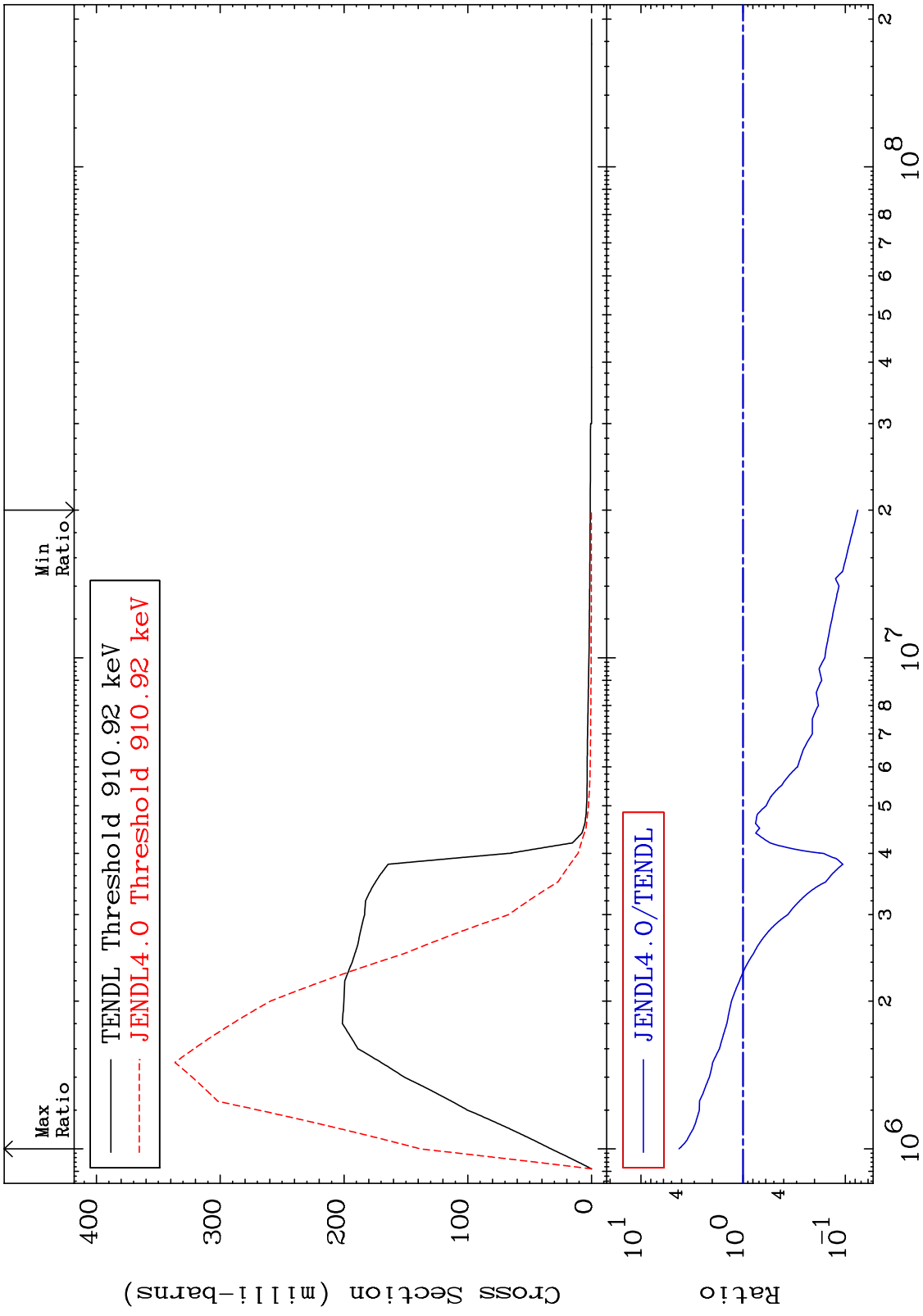
MAT 7249      MT= 53 (n,n') Level      72-Hf-182  
 Cross Section      -89.36 To 792.0 %



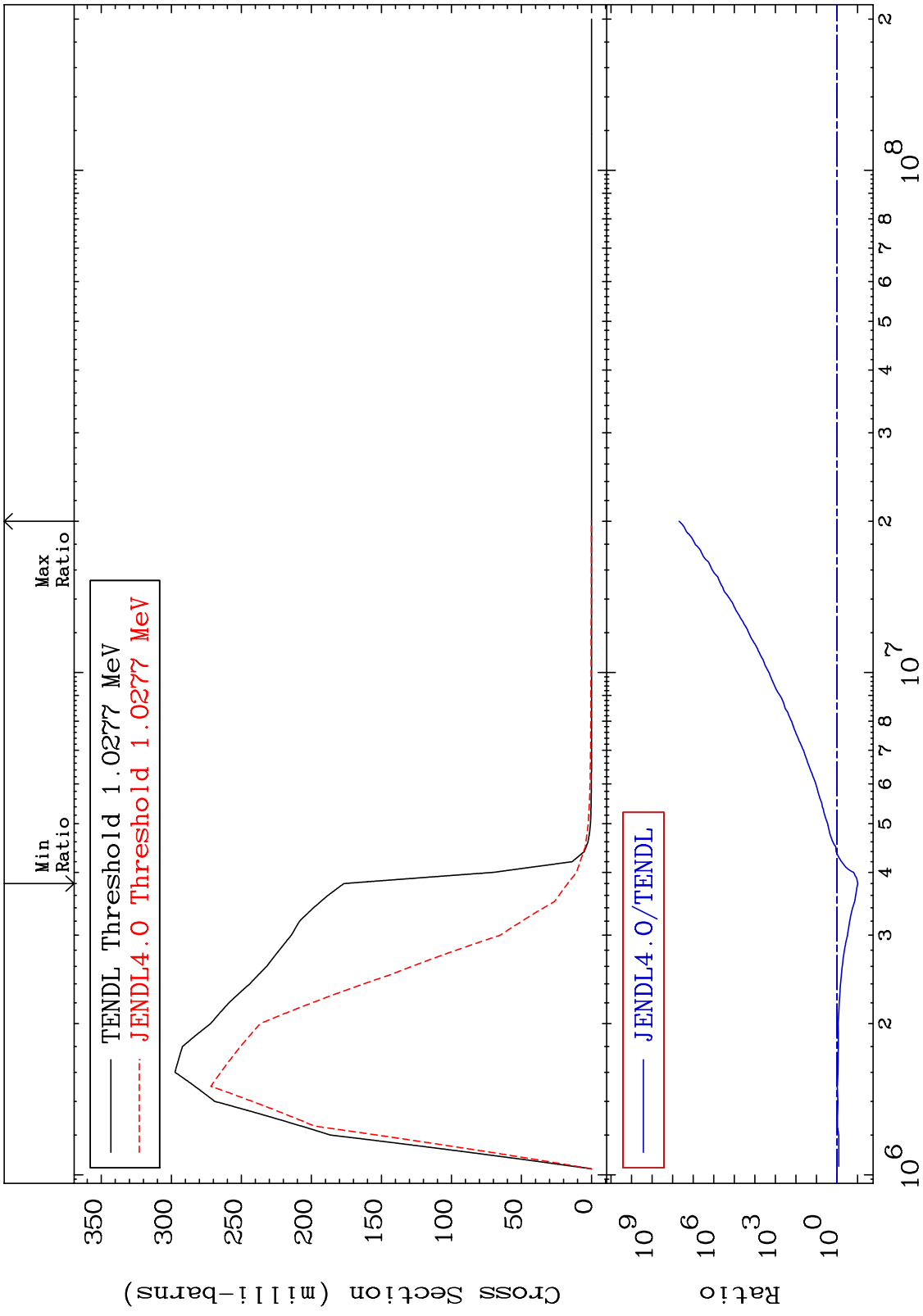
MAT 7249 MT= 54 (n,n') Level Cross Section 72-Hf-182  
 -95.23 To -18.12%



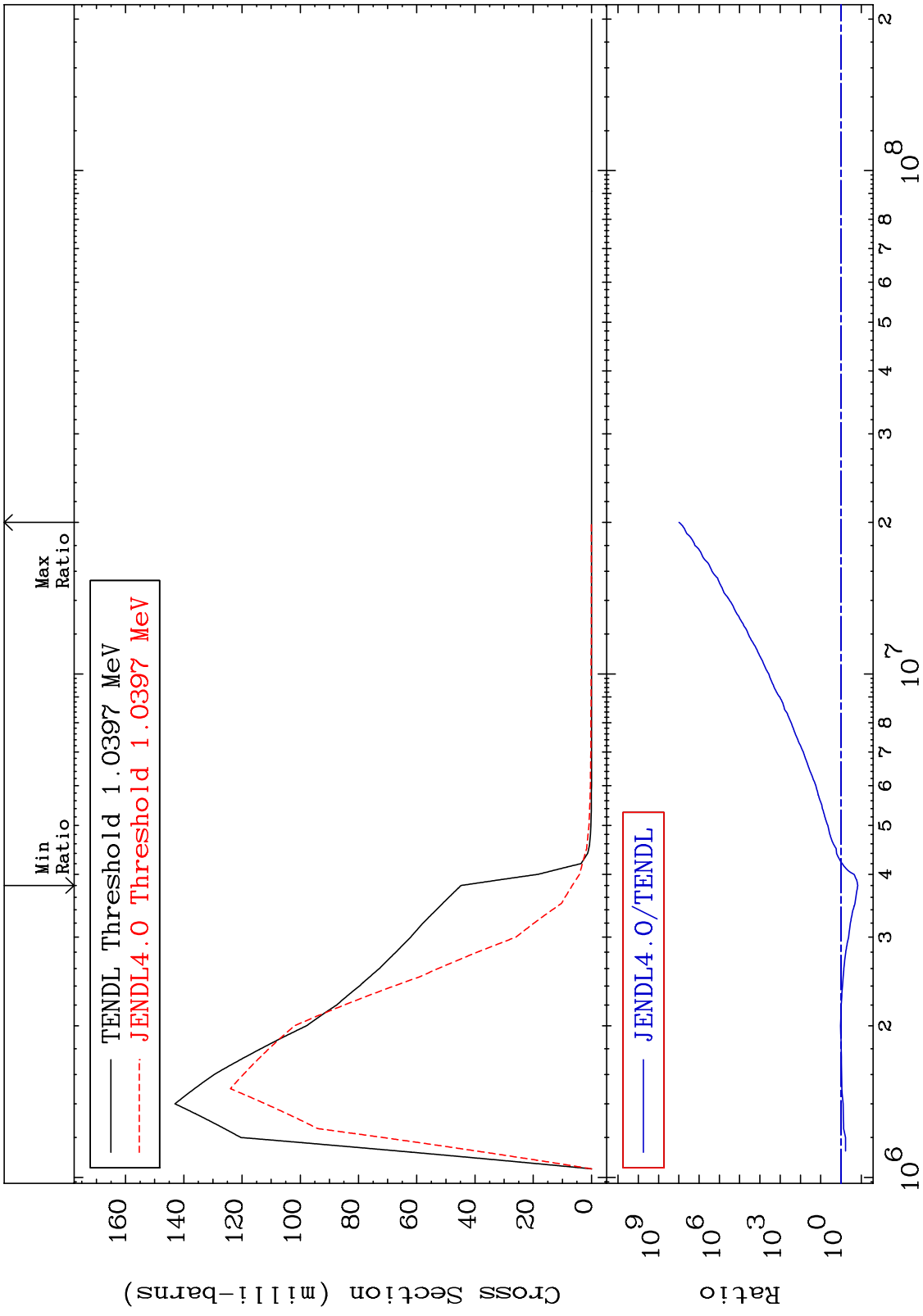
MAT 7249      MT= 55 (n,n') Level      72-Hf-182  
 Cross Section      -92.46 To 322.9 %



MAT 7249 MT= 56 (n,n') Level Cross Section 72-Hf-182  
 -90.38 To 9999. %



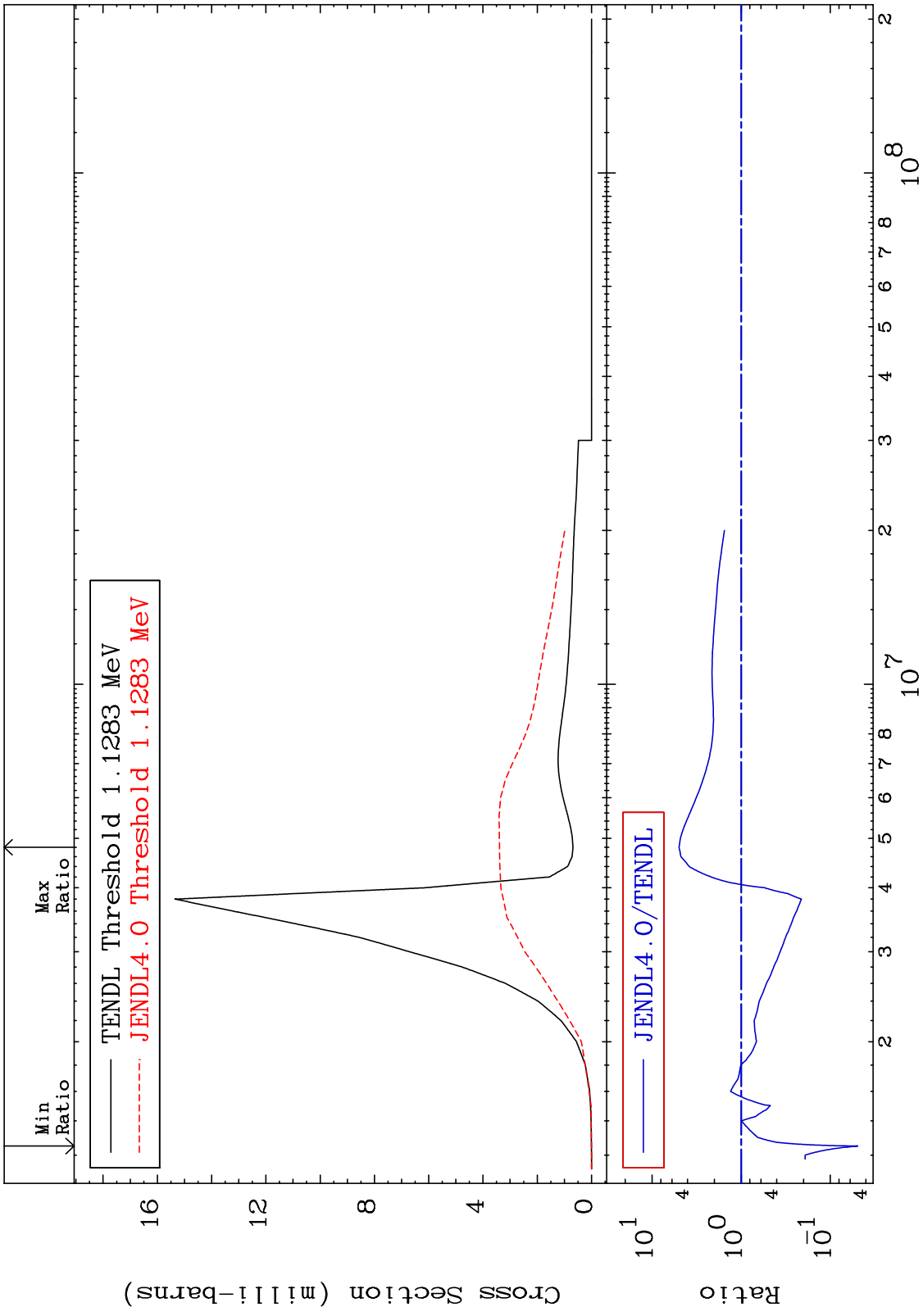
MAT 7249      MT= 57 (n,n') Level Cross Section      72-Hf-182  
 -85.28 To 9999. %



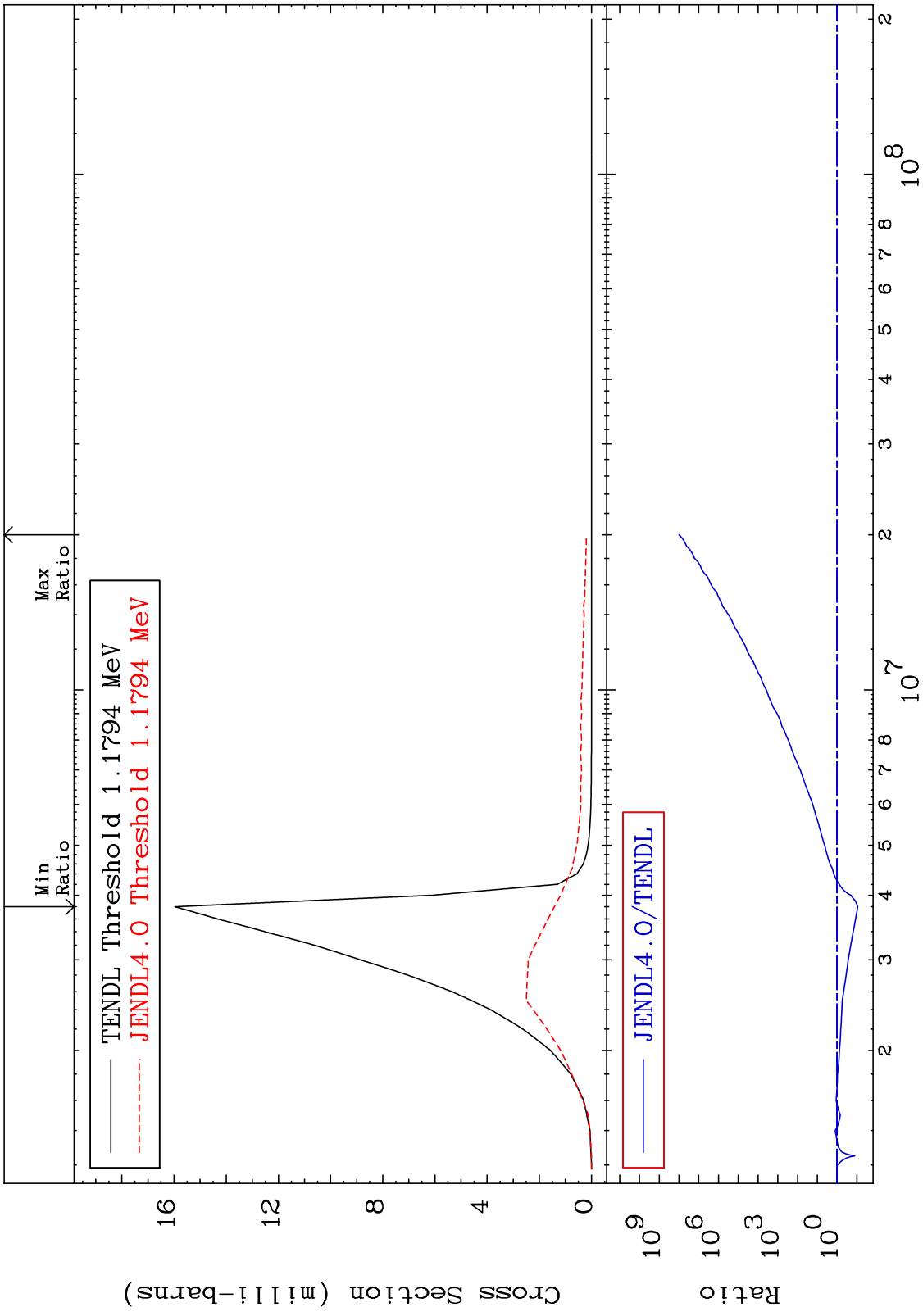
15      Incident Energy (eV)      72-Hf-182

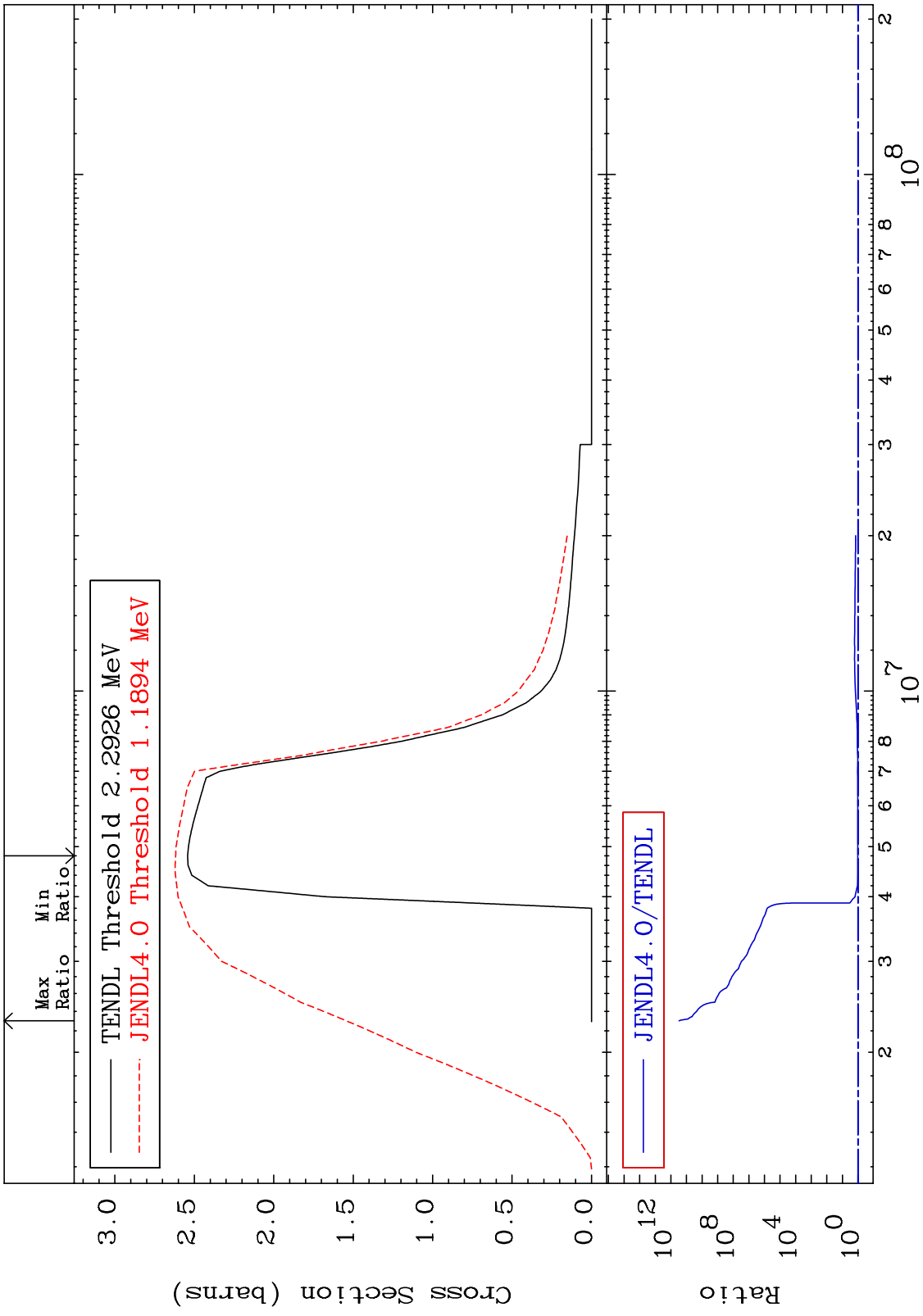


MAT 7249 MT= 58 (n,n') Level Cross Section 72-Hf-182  
 -95.09 To 398.6 %



MAT 7249 MT= 59 (n,n') Level Cross Section 72-Hf-182  
 -91.09 To 9999. %





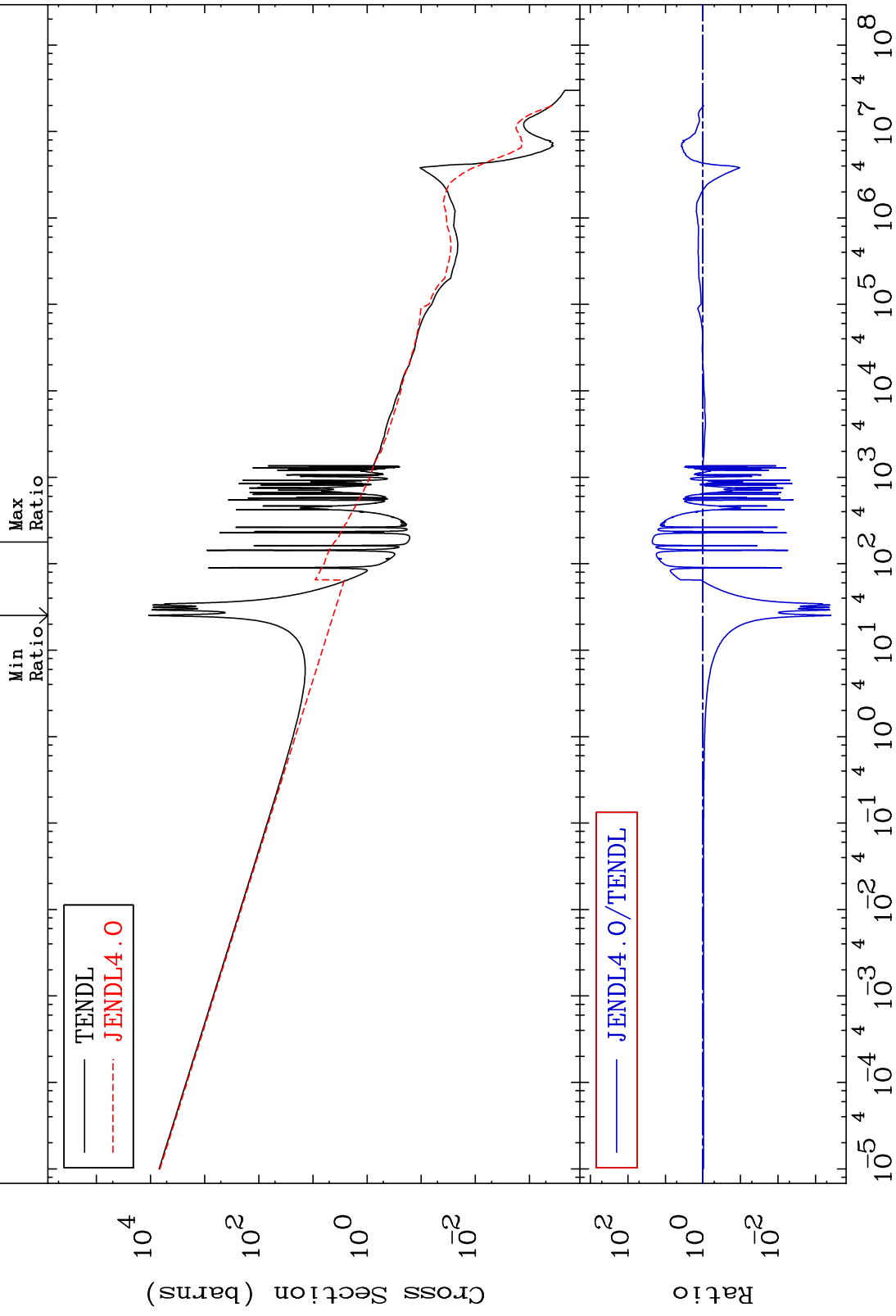
MAT 7249

(n,  $\gamma$ )

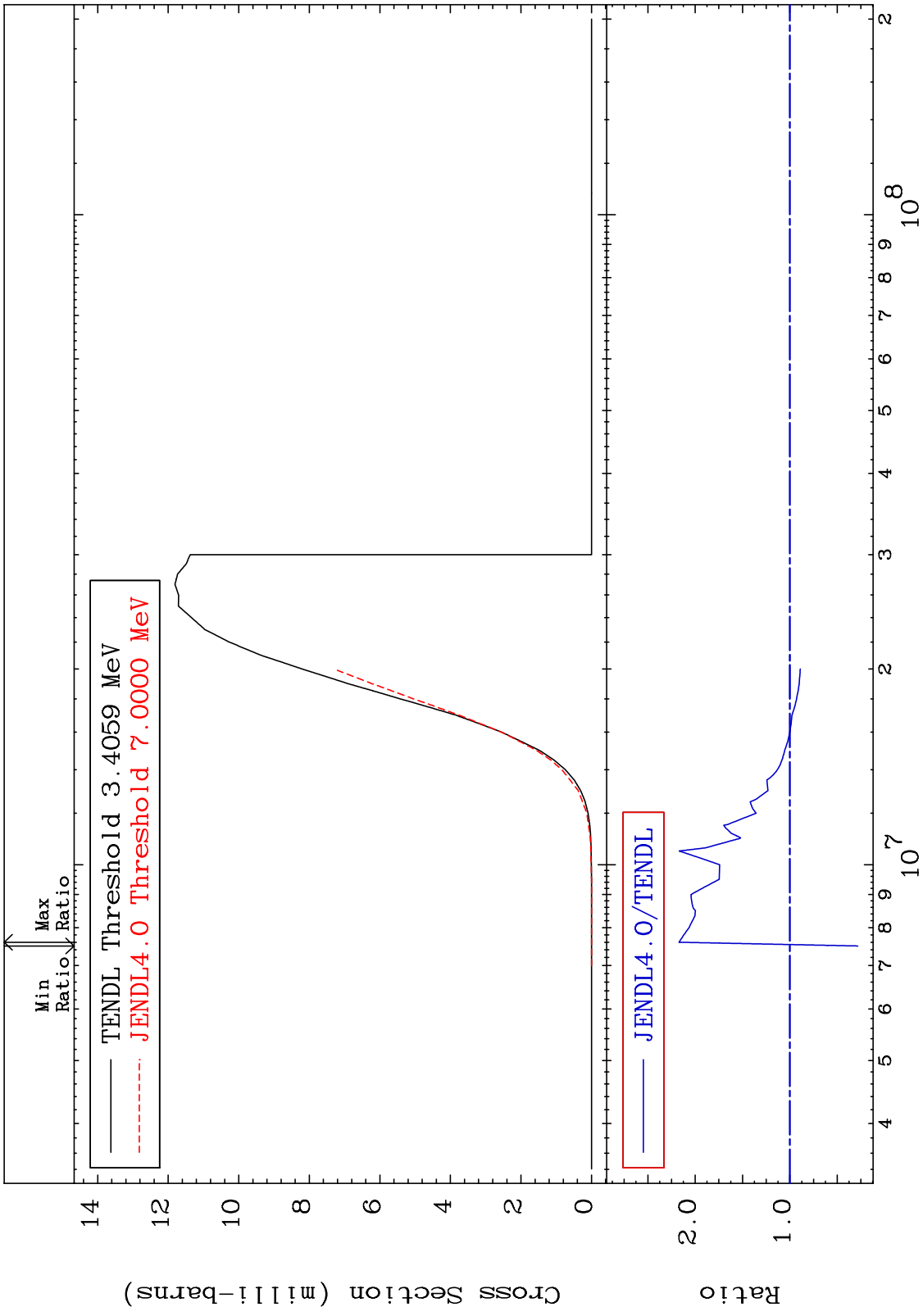
72-Hf-182

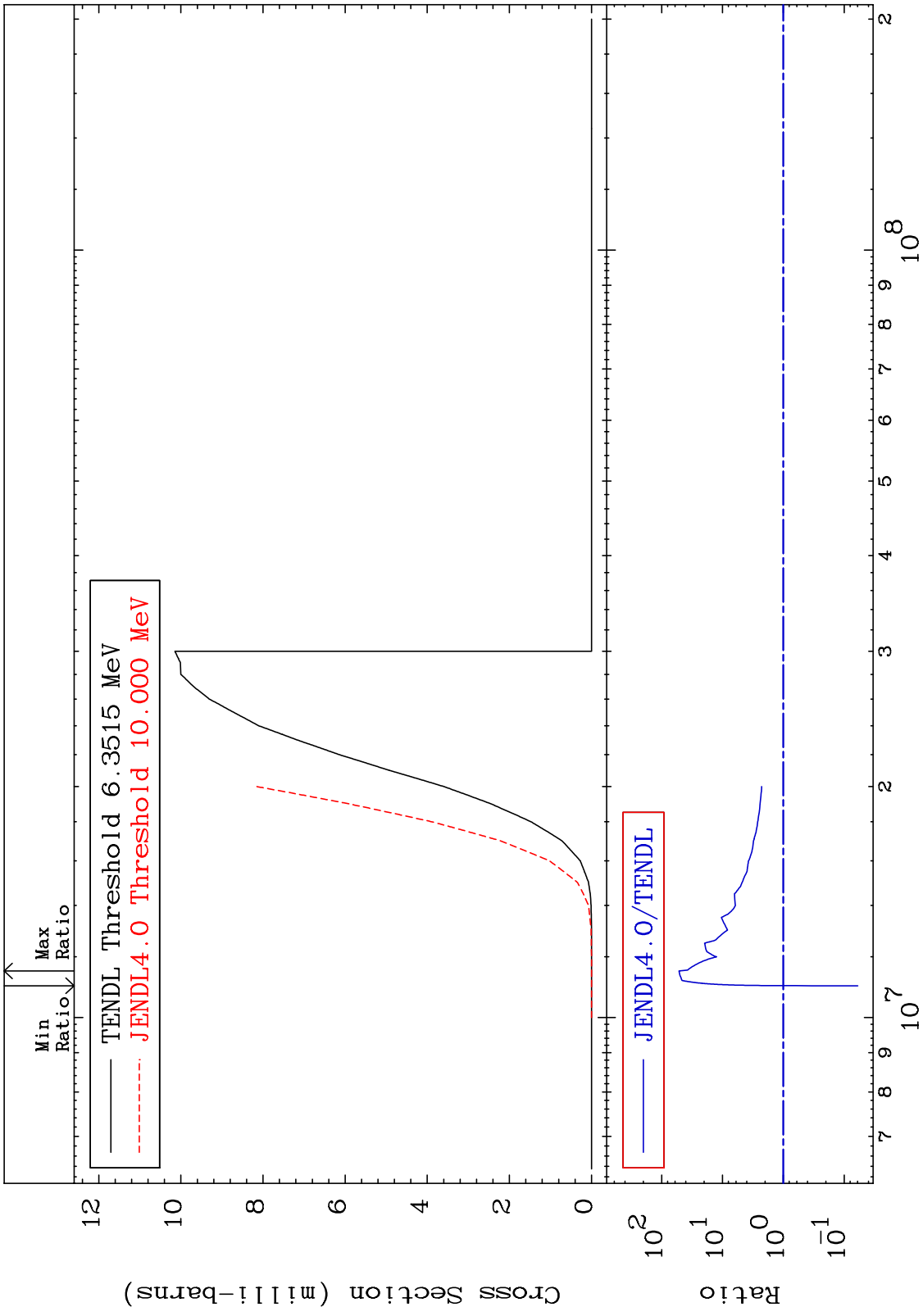
-99.96 To 2141. %

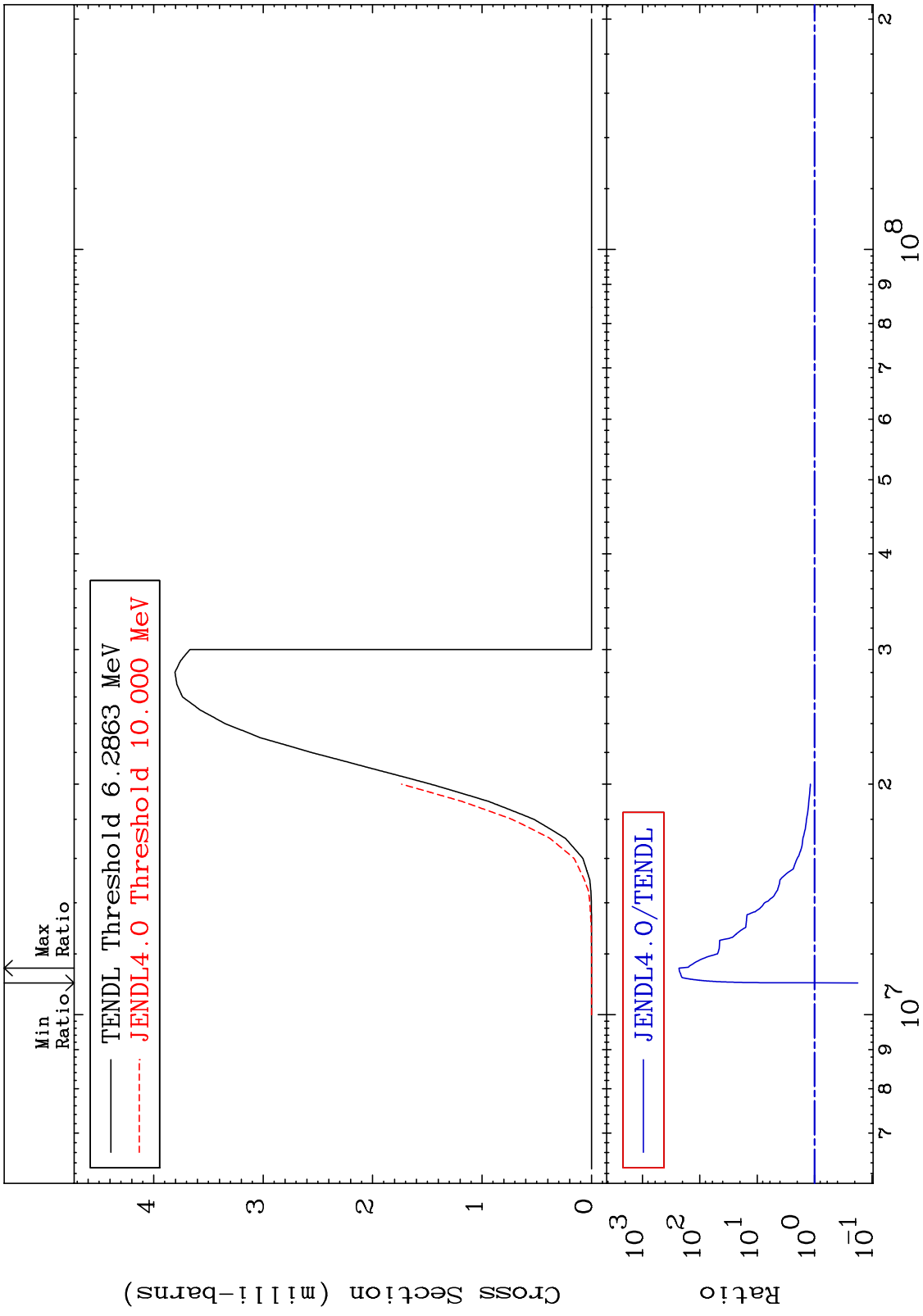
Cross Section



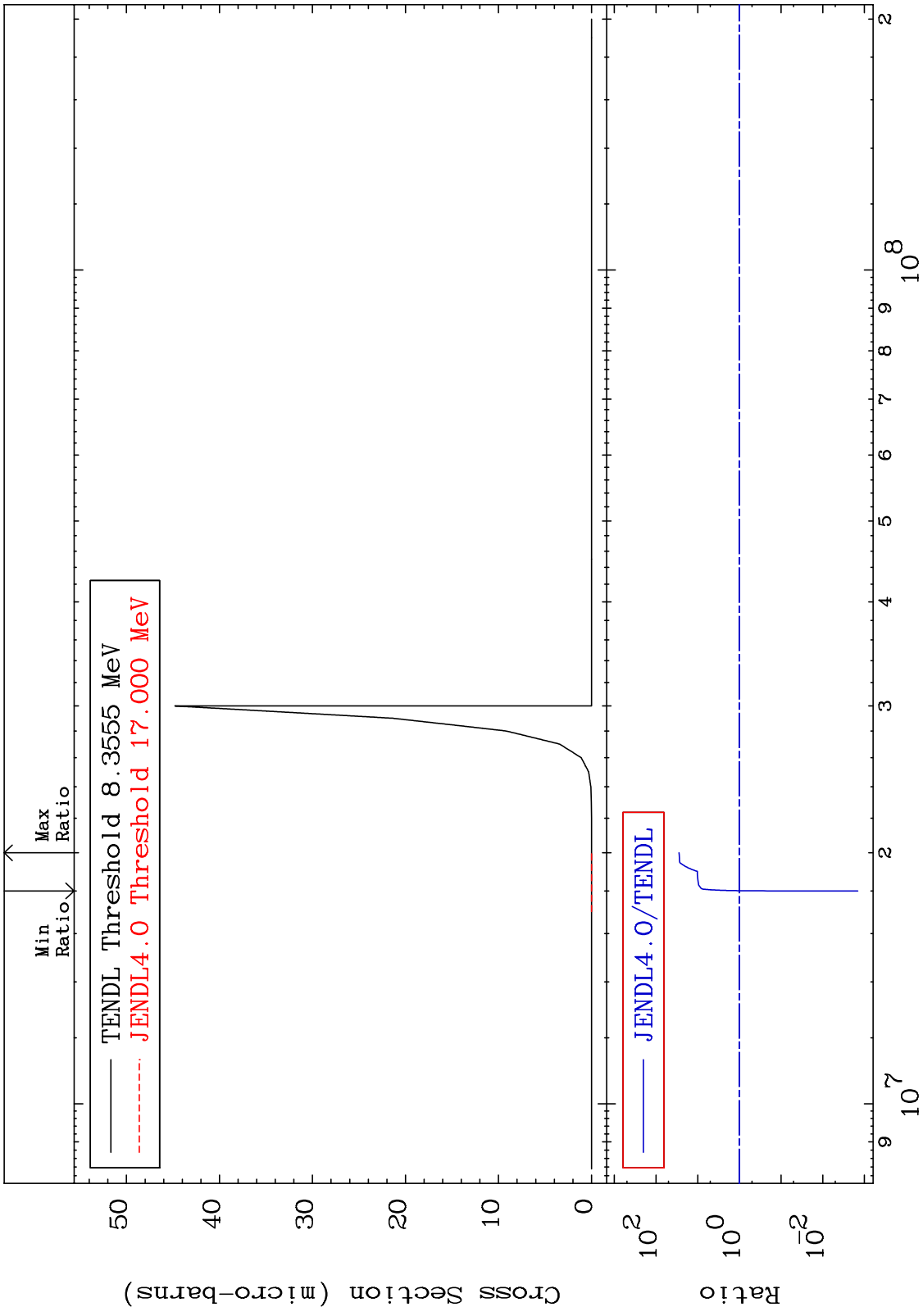
MAT 7249 (n,p) Cross Section 72-Hf-182  
 -71.75 To 117.0 %





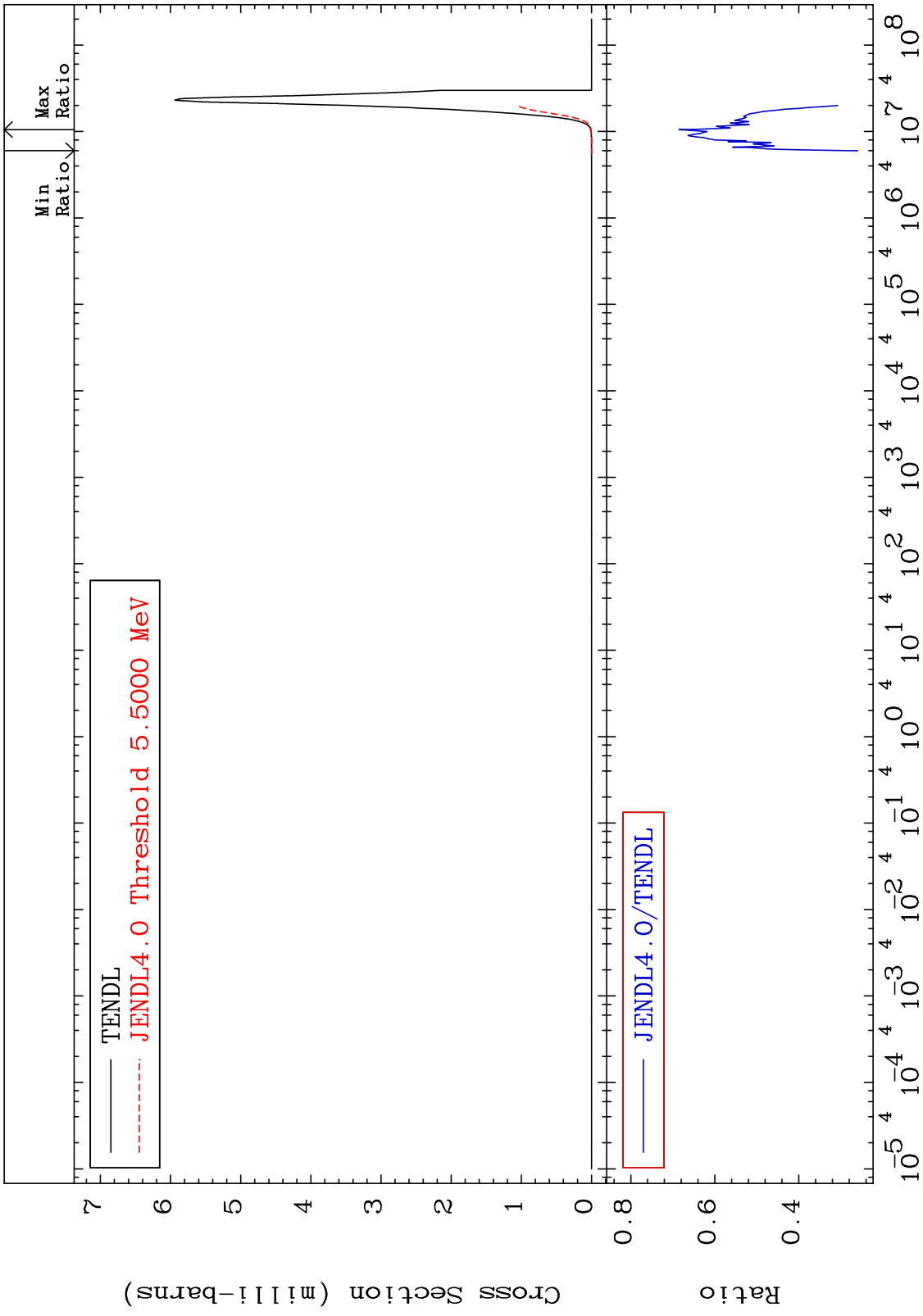


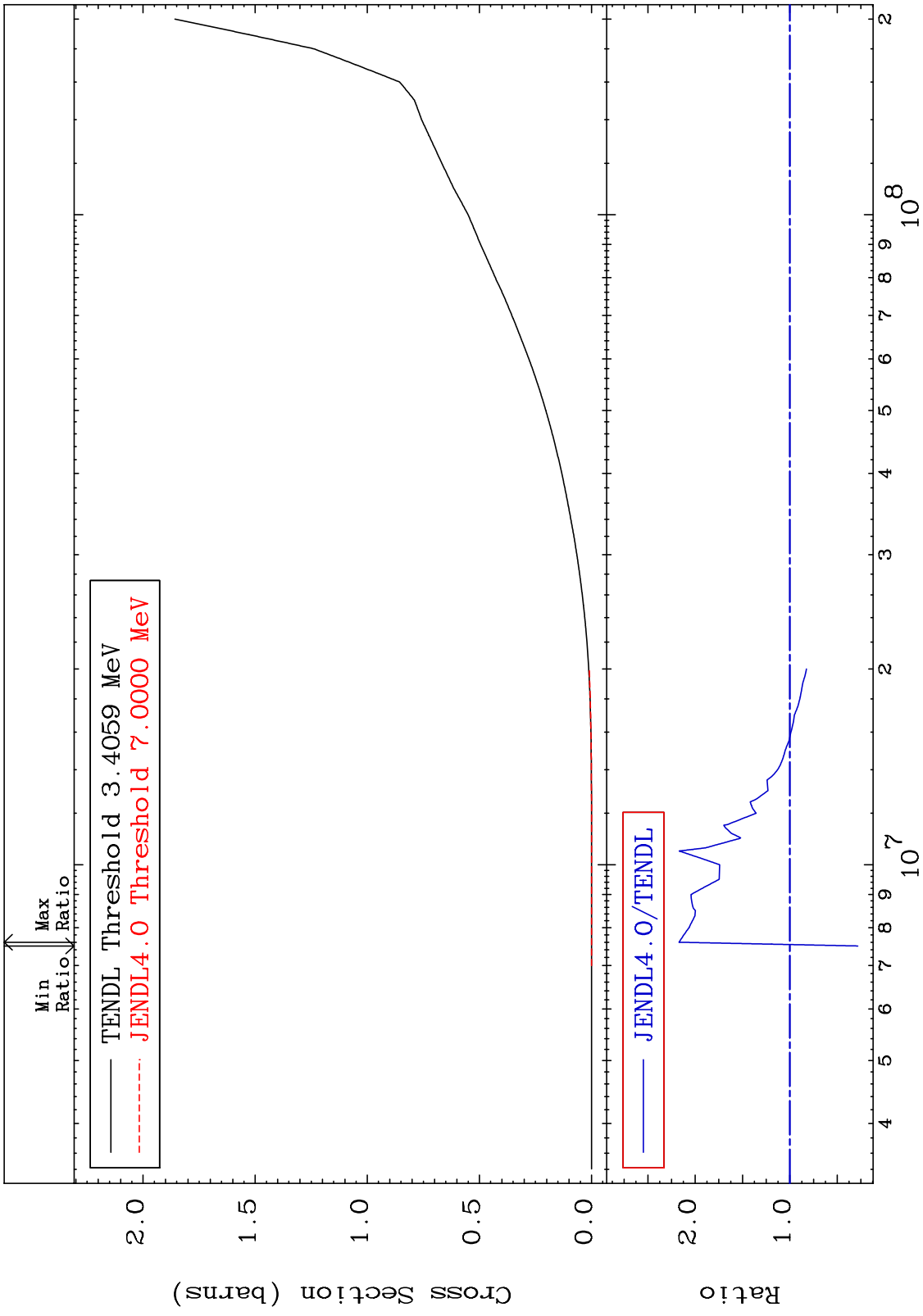
MAT 7249 (n, He-3) 72-Hf-182  
 Cross Section -99.86 To 2704. %





MAT 7249 (n,α) Cross Section 72-Hf-182  
 -74.06 To -31.49%

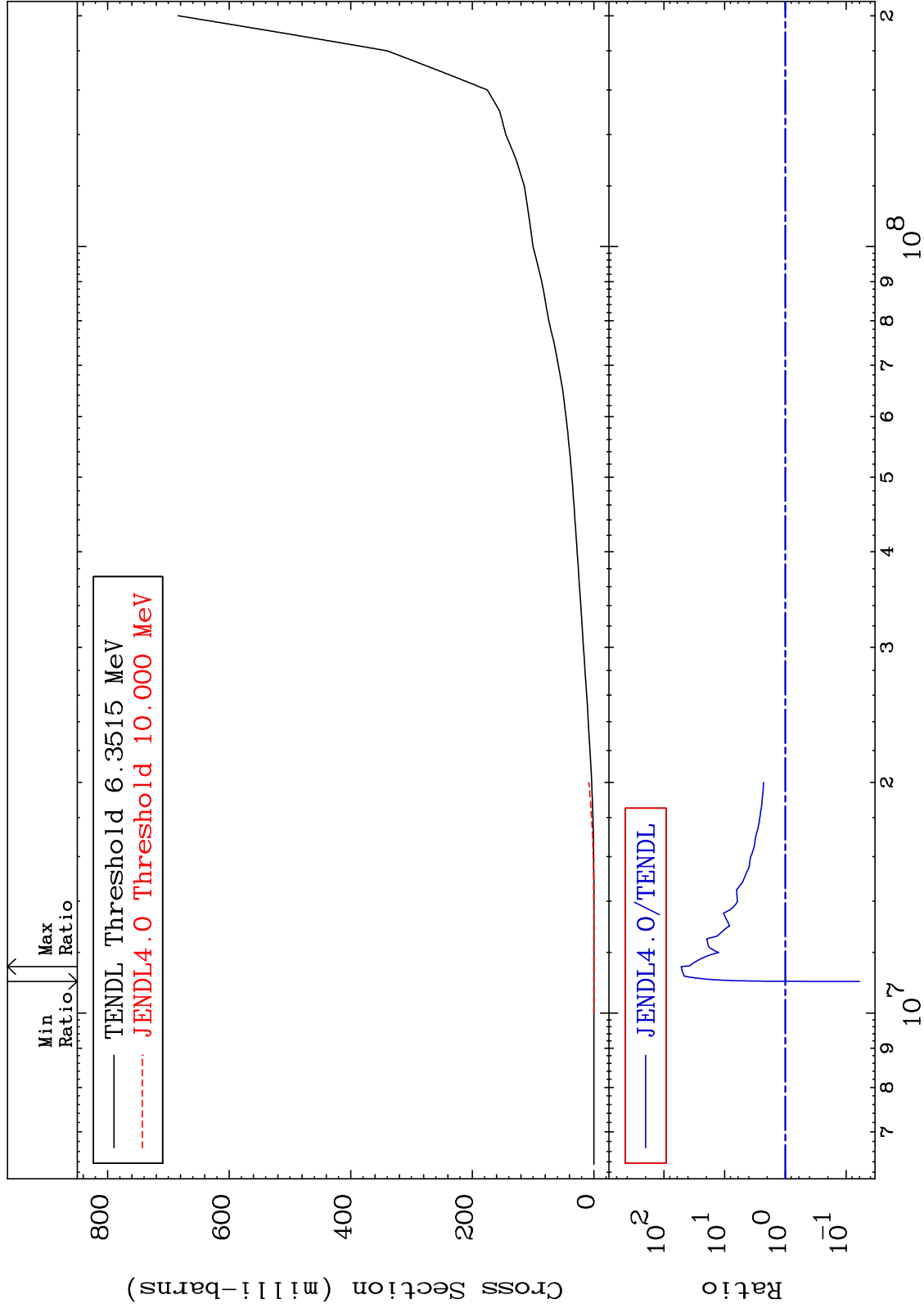




MAT 7249

Deuterium Production  
Cross Section

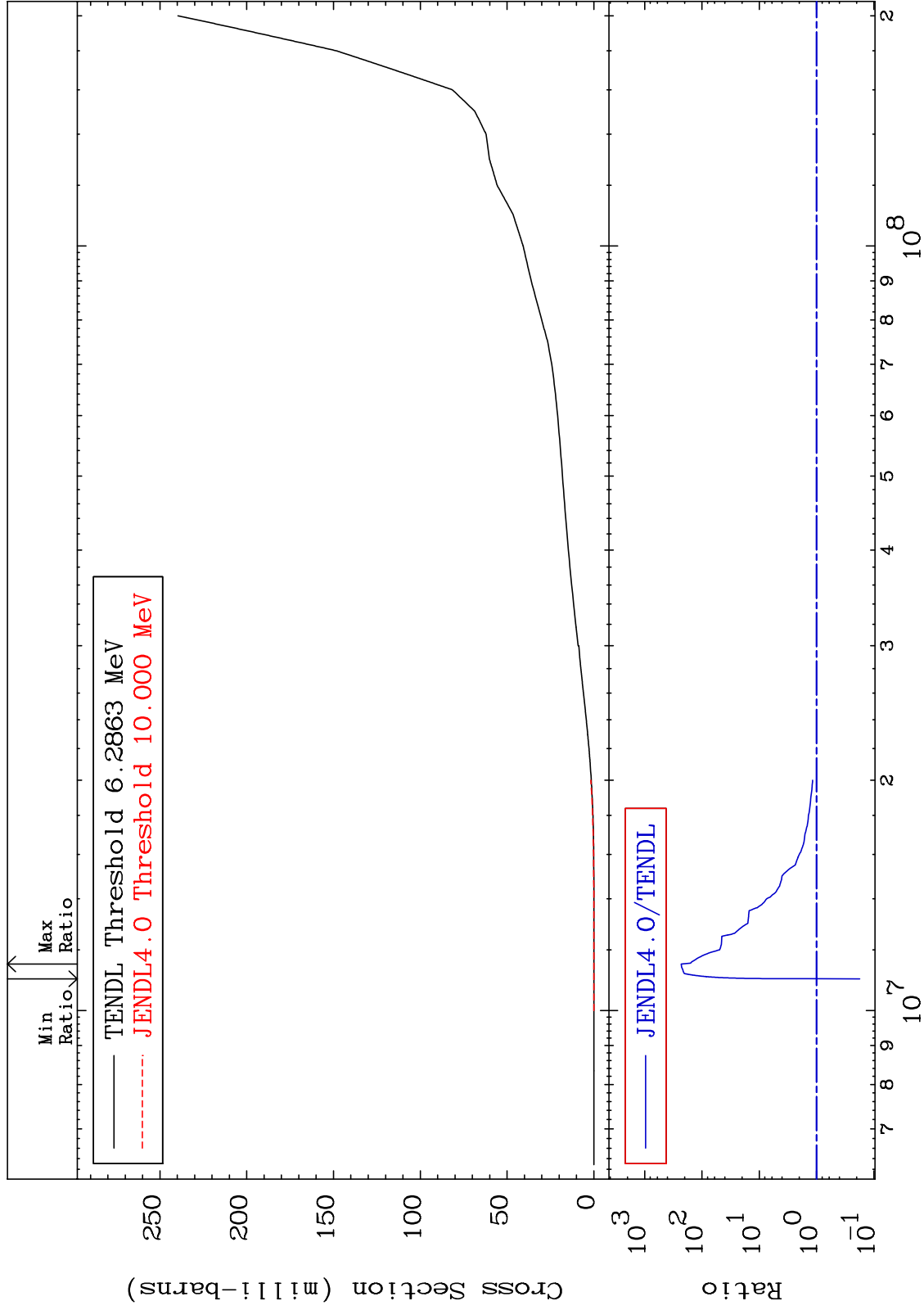
72-Hf-182  
-94.04 To 5075. %



MAT 7249

Tritium Production  
Cross Section

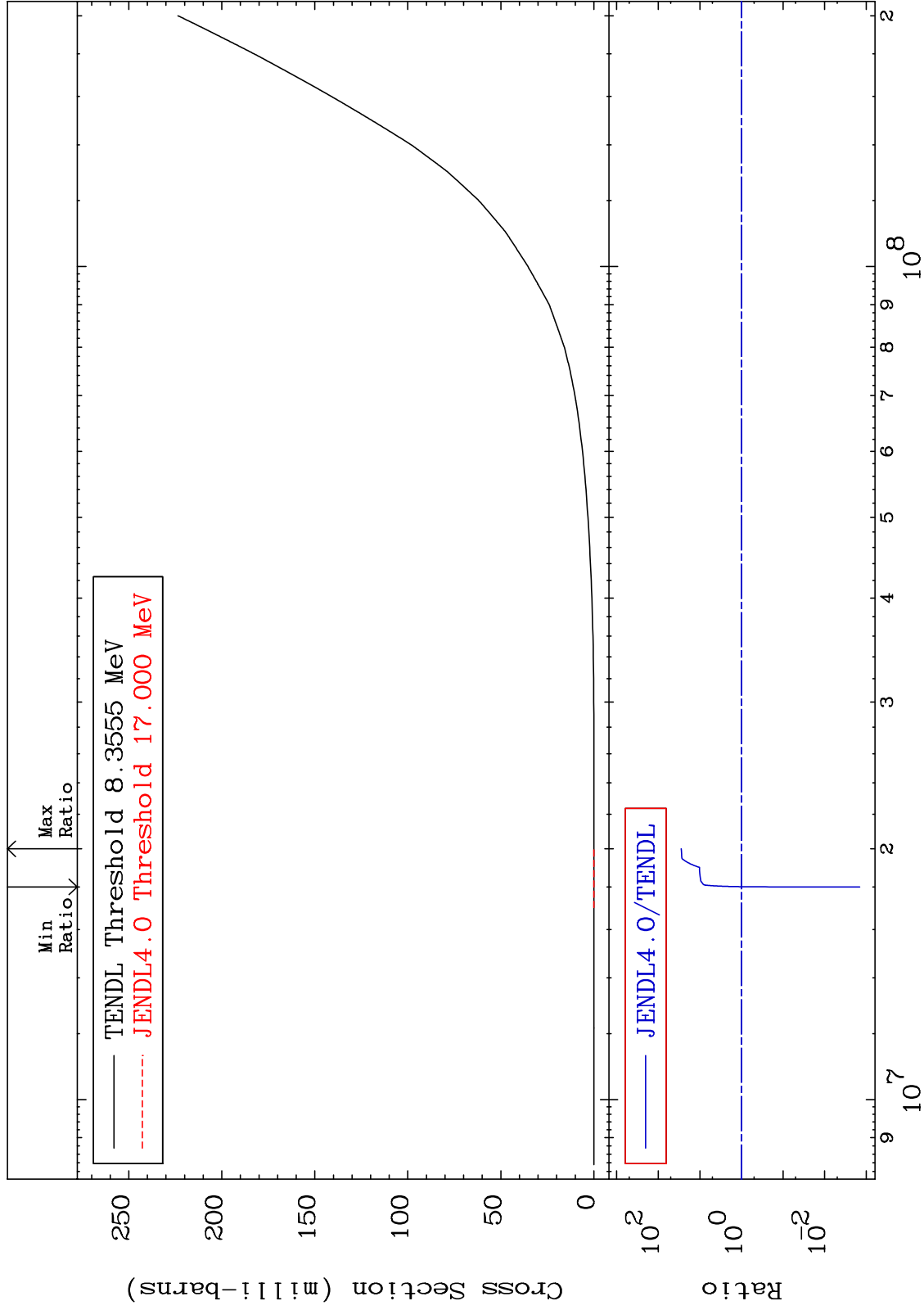
72-Hf-182  
-82.40 To 9999. %



MAT 7249

He-3 Production  
Cross Section

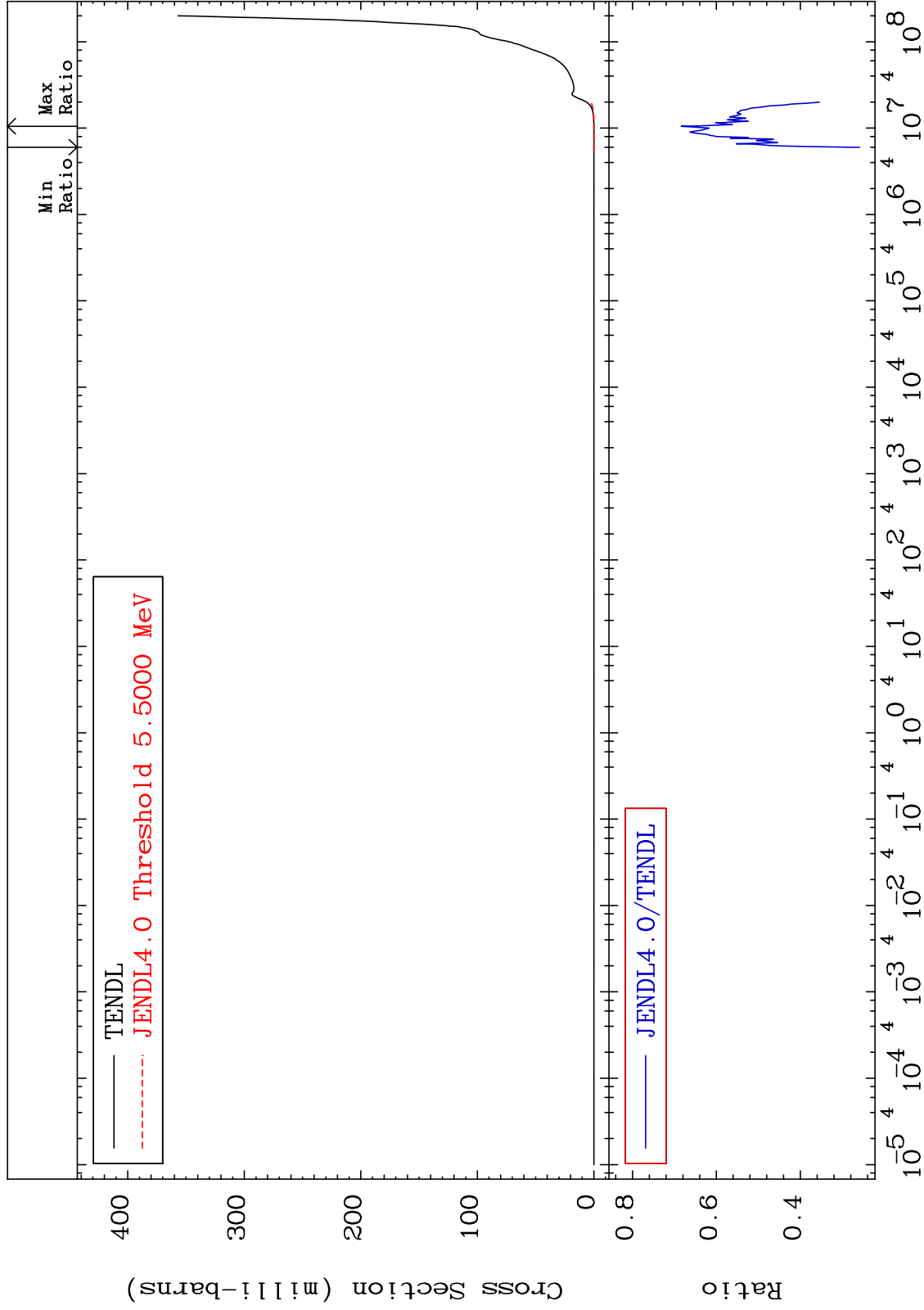
72-Hf-182  
-99.86 To 2704. %



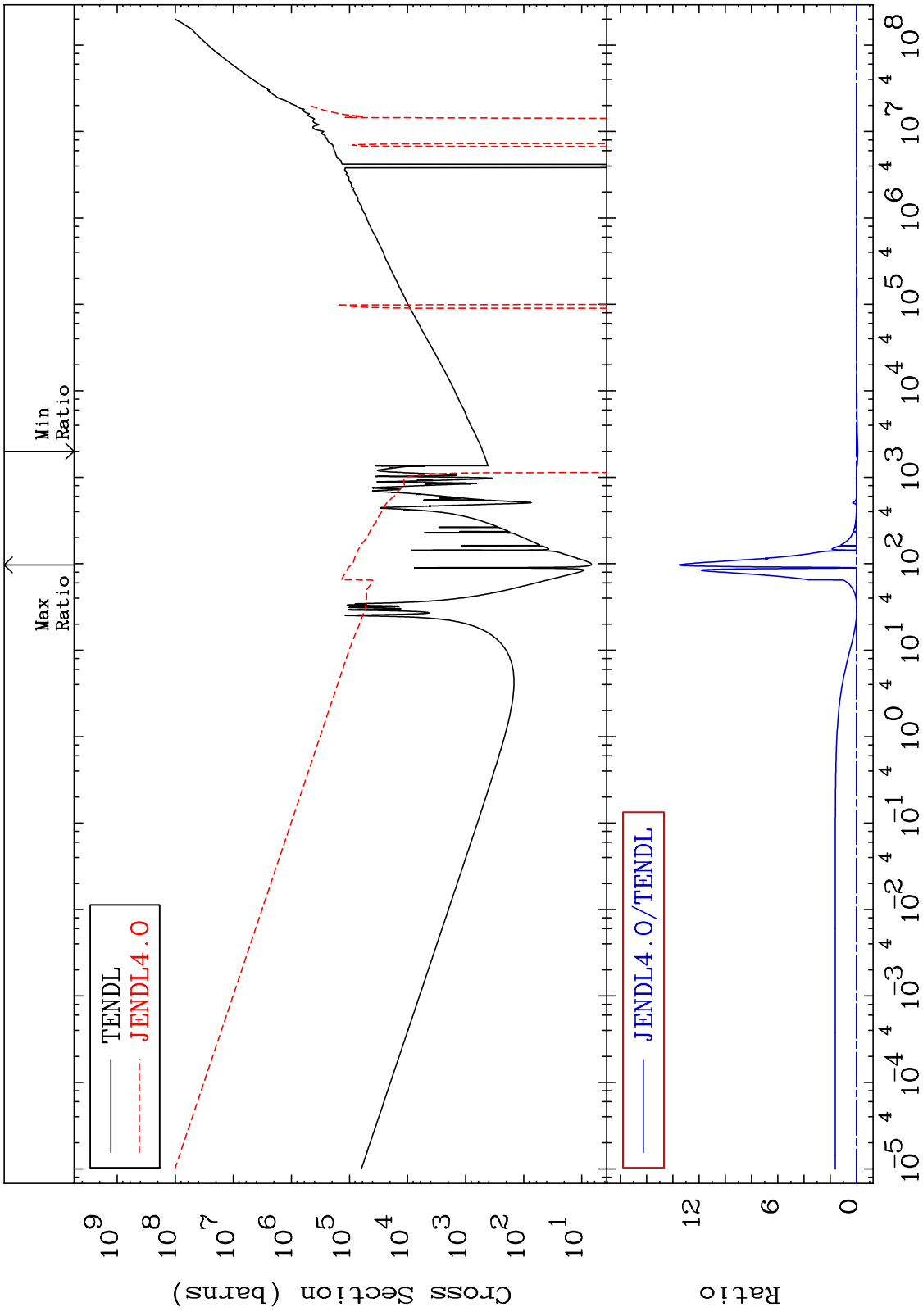
MAT 7249

He-4 Production  
Cross Section

72-Hf-182  
-74.16 To -31.62%

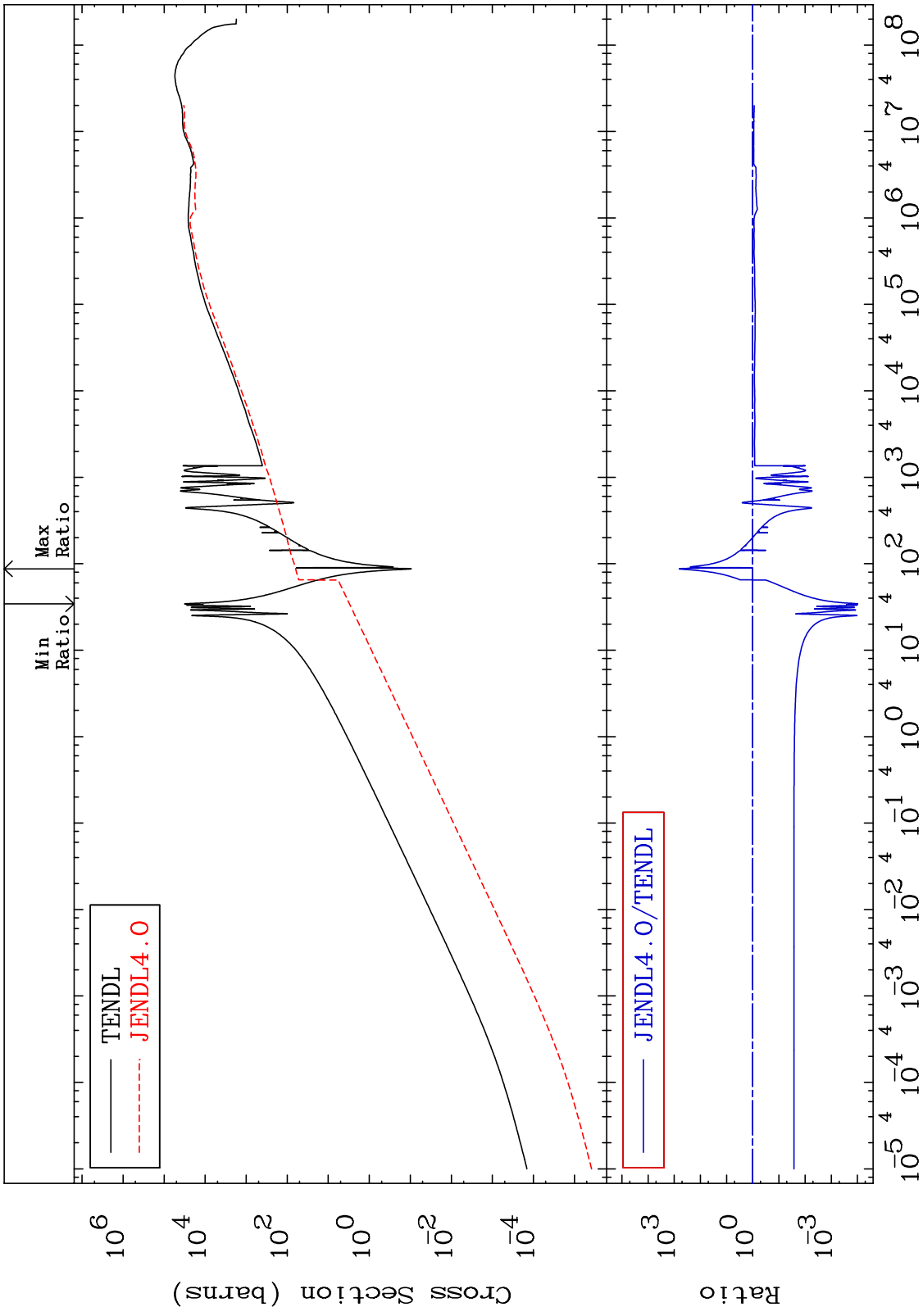


MAT 7249 Kerma total (eV-barns) 72-Hf-182  
 Cross Section -9702. To 9999. %



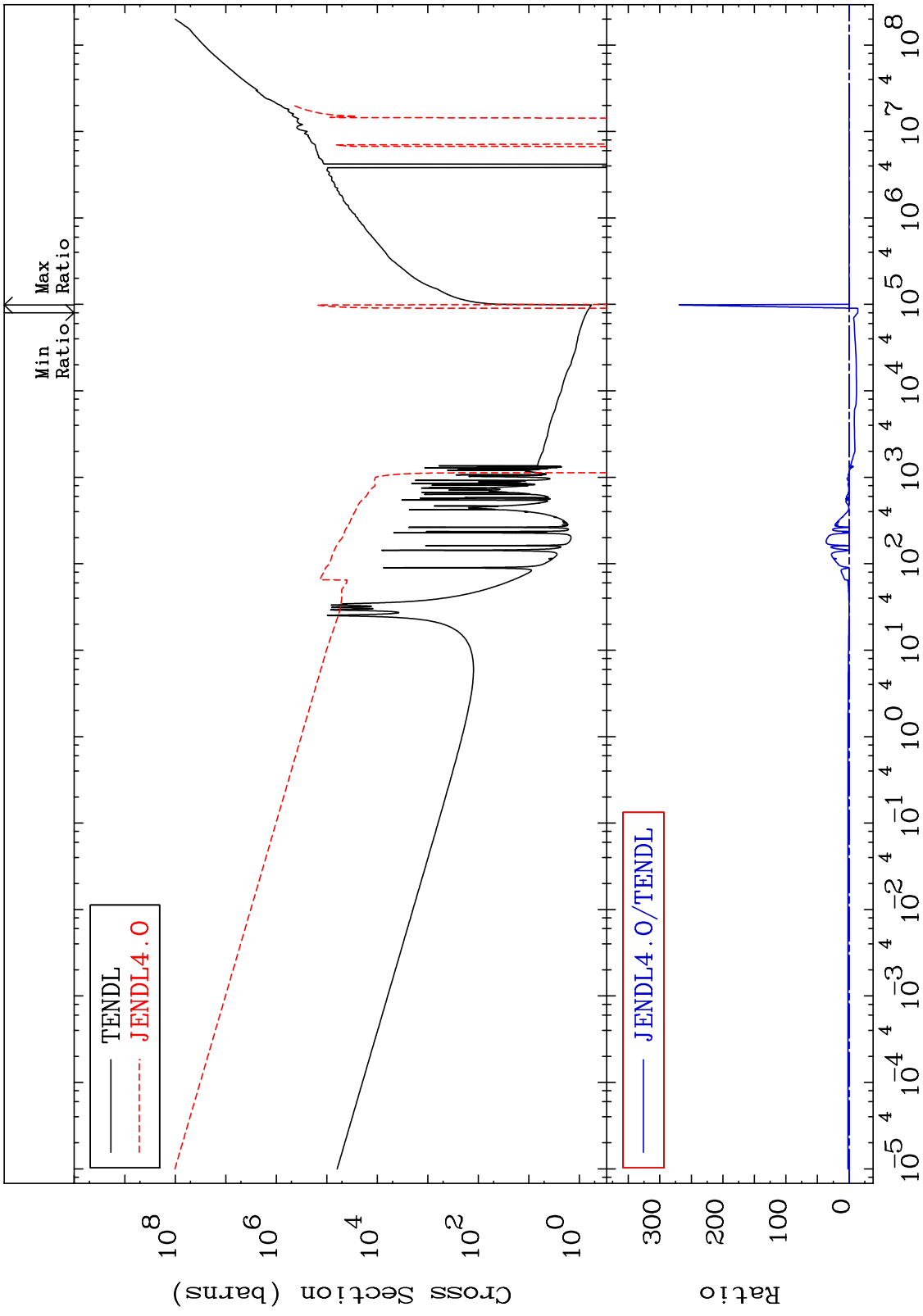
30 Incident Energy (eV) 72-Hf-182

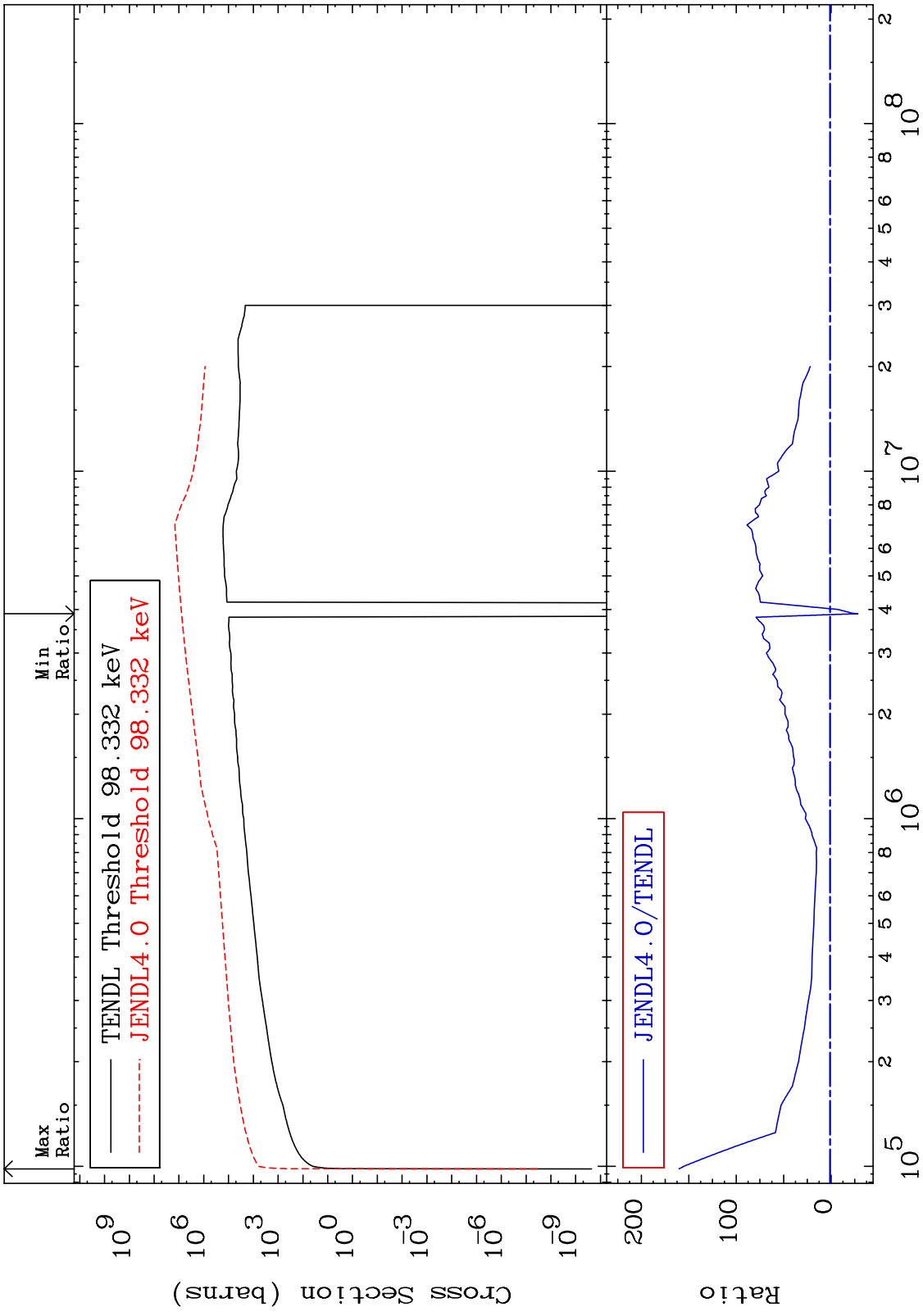
MAT 7249 72-Hf-182  
-99.99 To 9999. %  
 Kerma elastic Cross Section



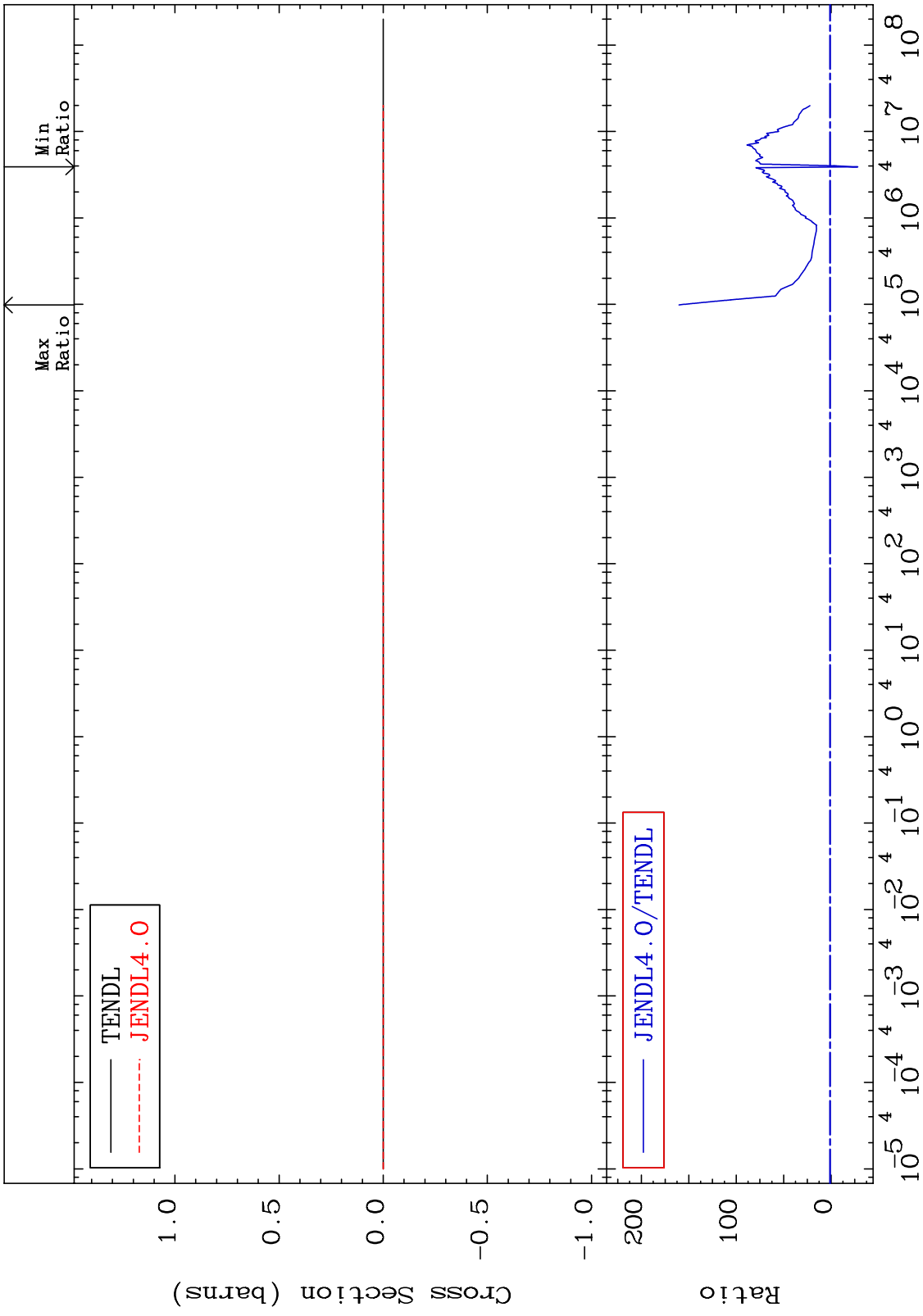


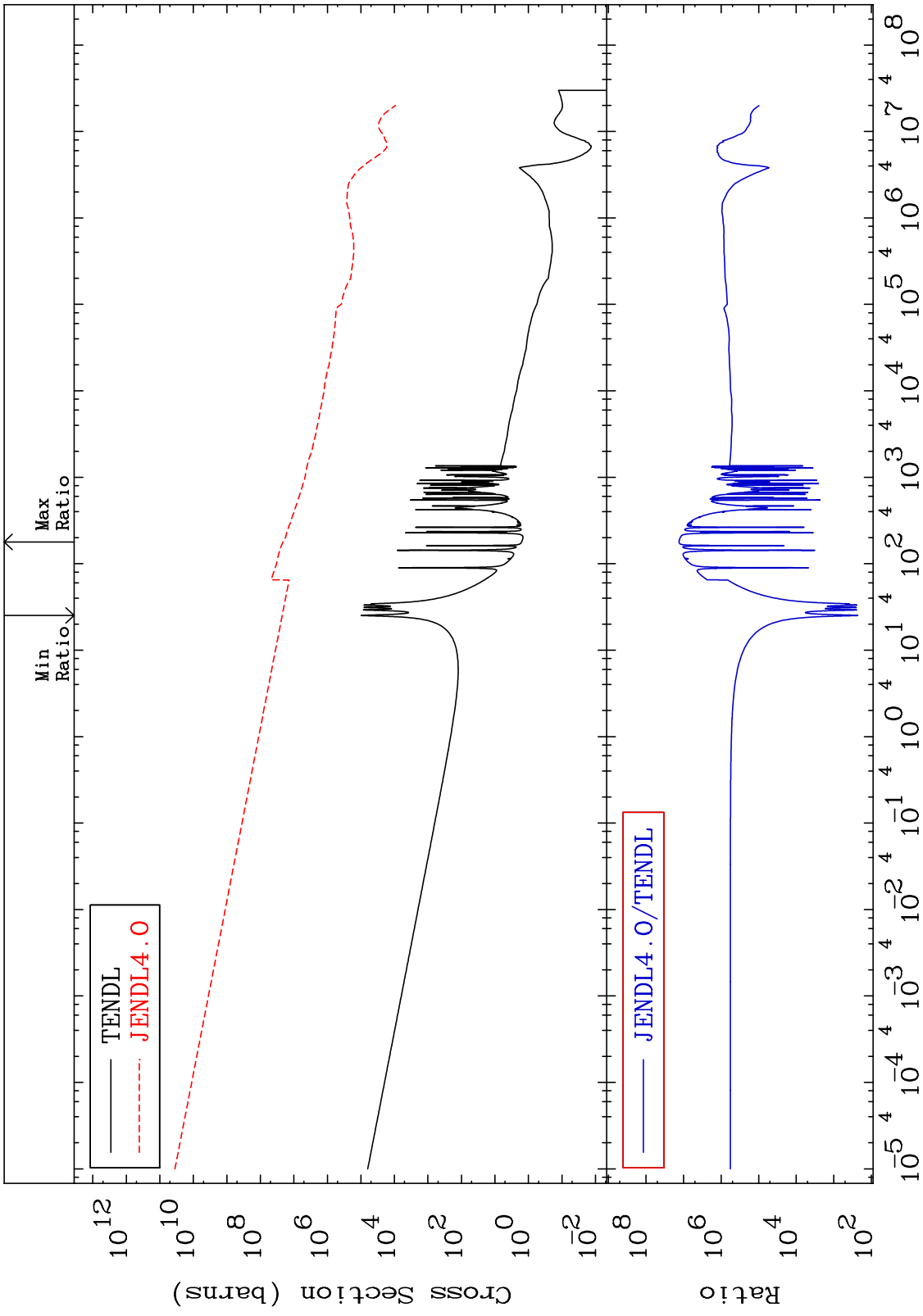
MAT 7249 Kerma non-elastic (all but mt2) 72-Hf-182  
 Cross Section -9999. To 9999. %



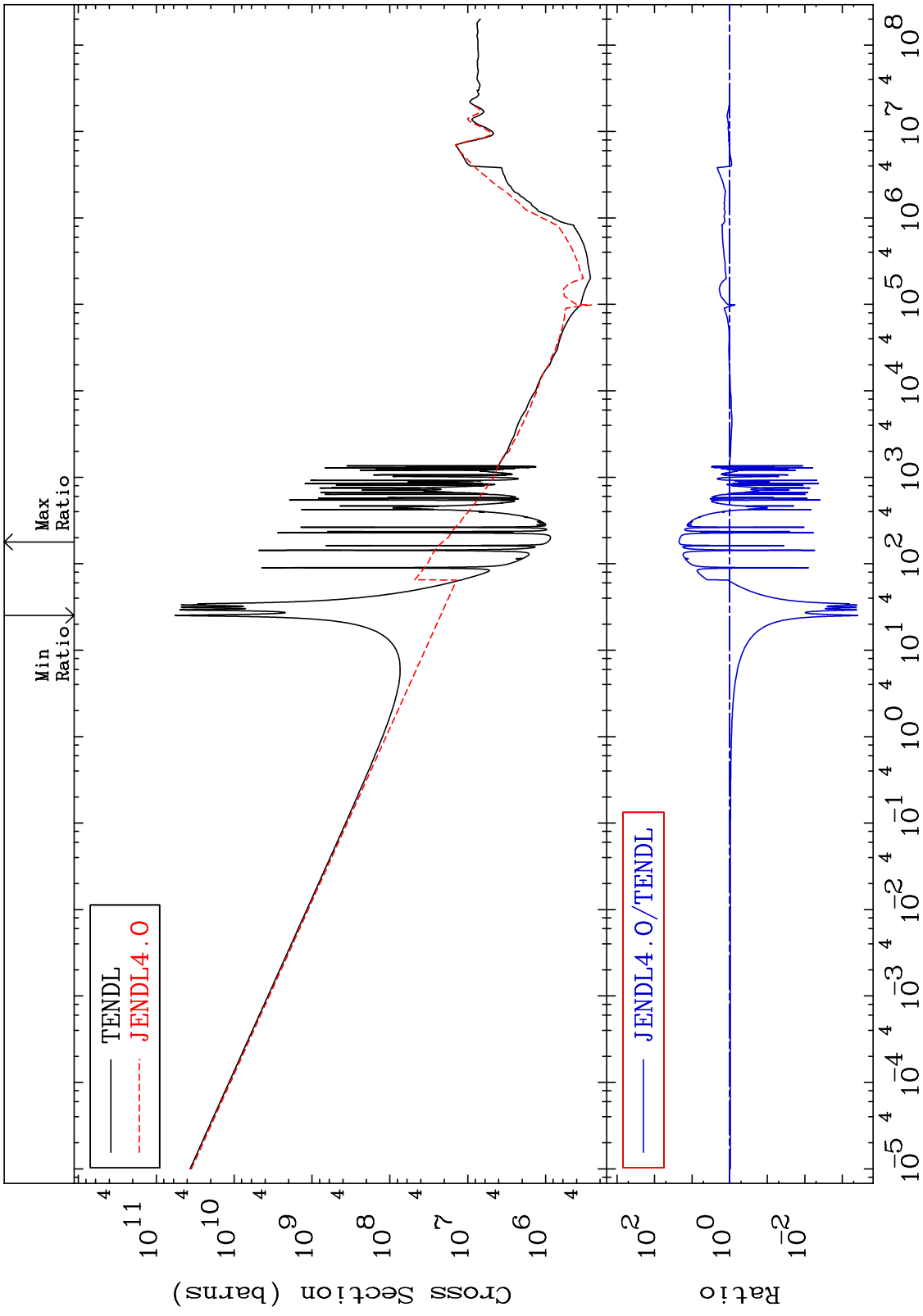


MAT 7249 Kerma fission (mt18 or mt19-20-21-38) 72-Hf-182  
 Cross Section -2925. To 9999. %

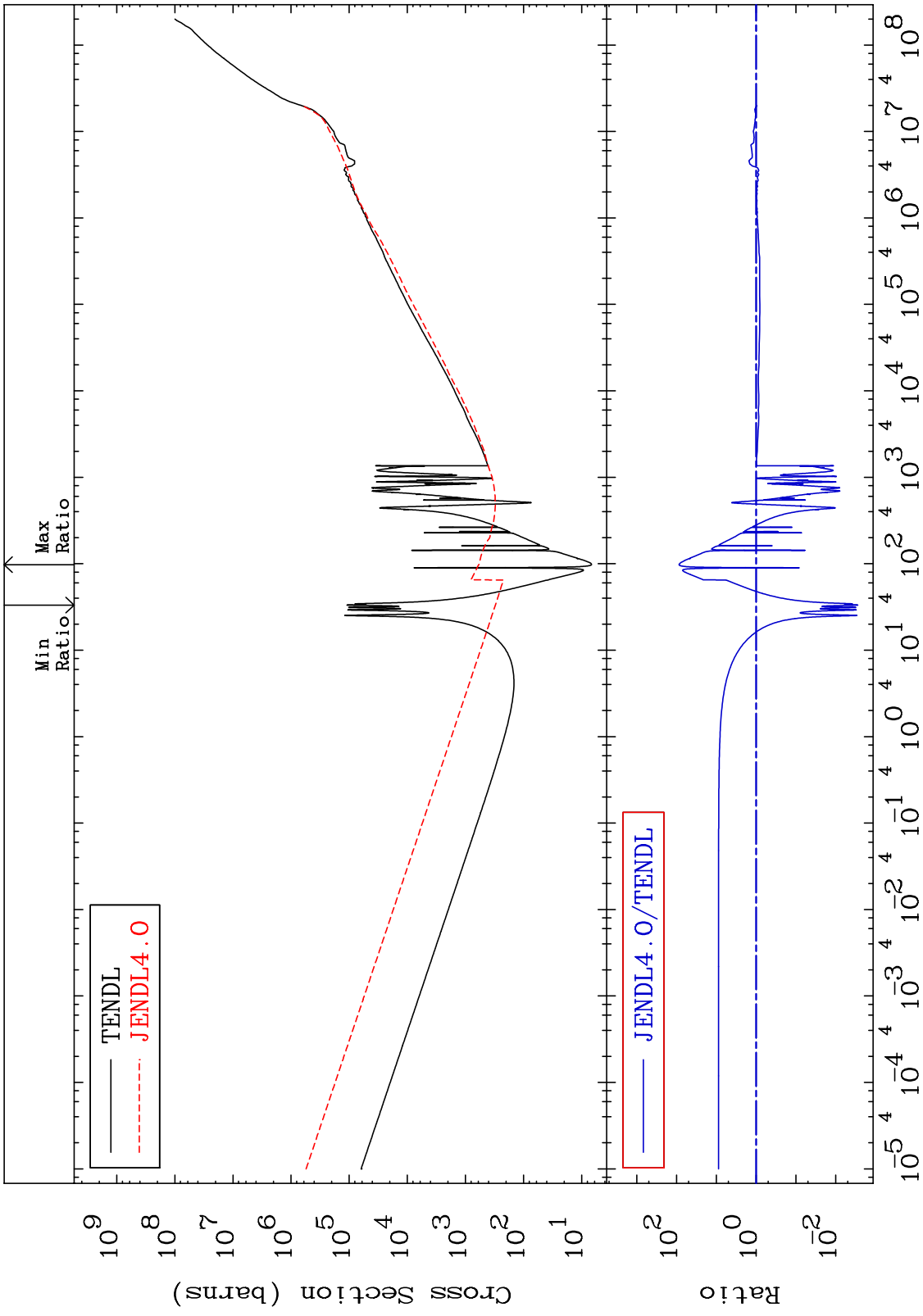




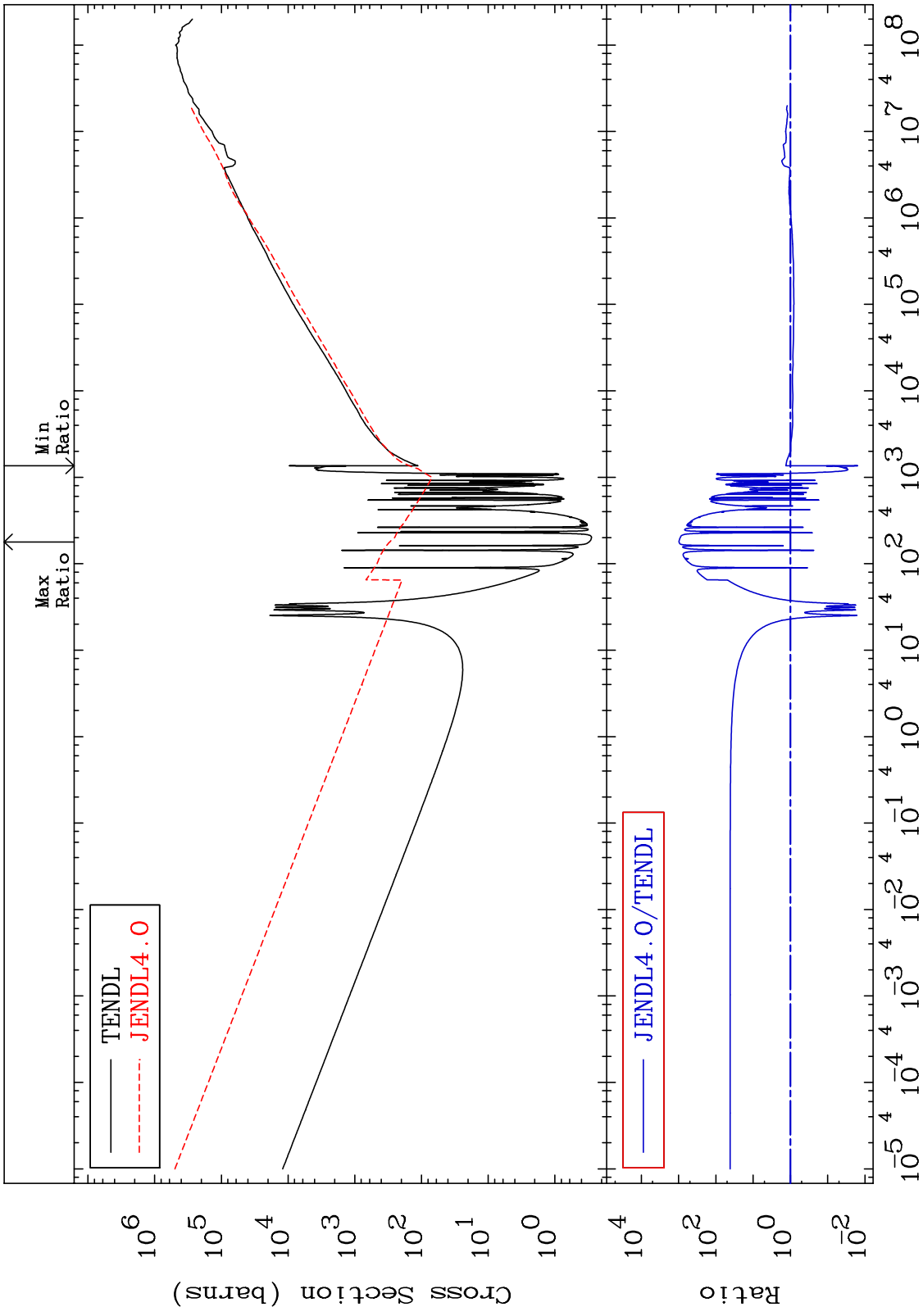
MAT 7249 72-Hf-182  
 Total photon (eV-barns) -99.96 To 2133. %  
 Cross Section



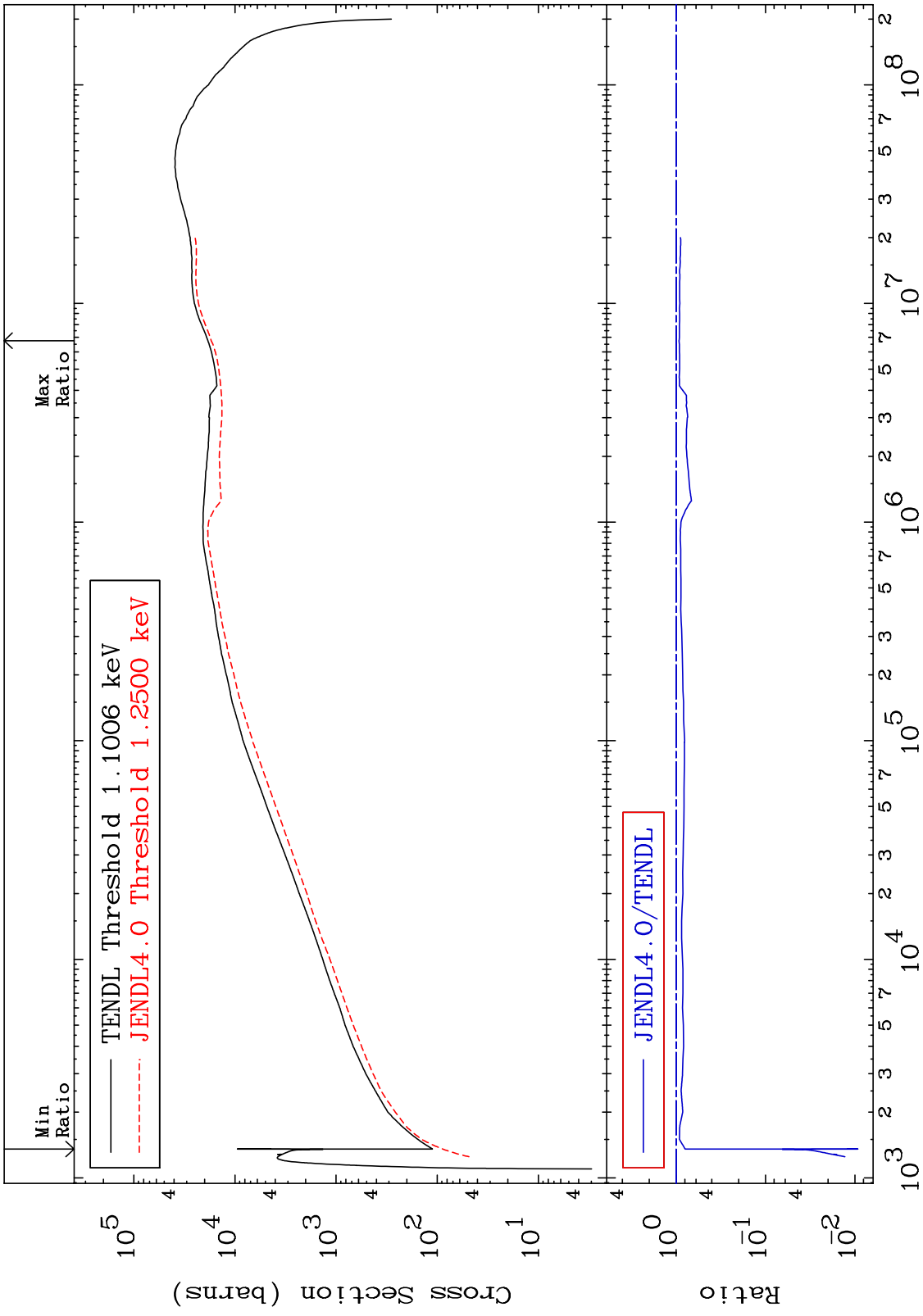
MAT 7249      Total kinematic kerma (high limit)      72-Hf-182  
 -99.72 To 8602. %  
 Cross Section



MAT 7249      Dpa total (eV-barns)      72-Hf-182  
 Cross Section      -98.45 To 9999. %

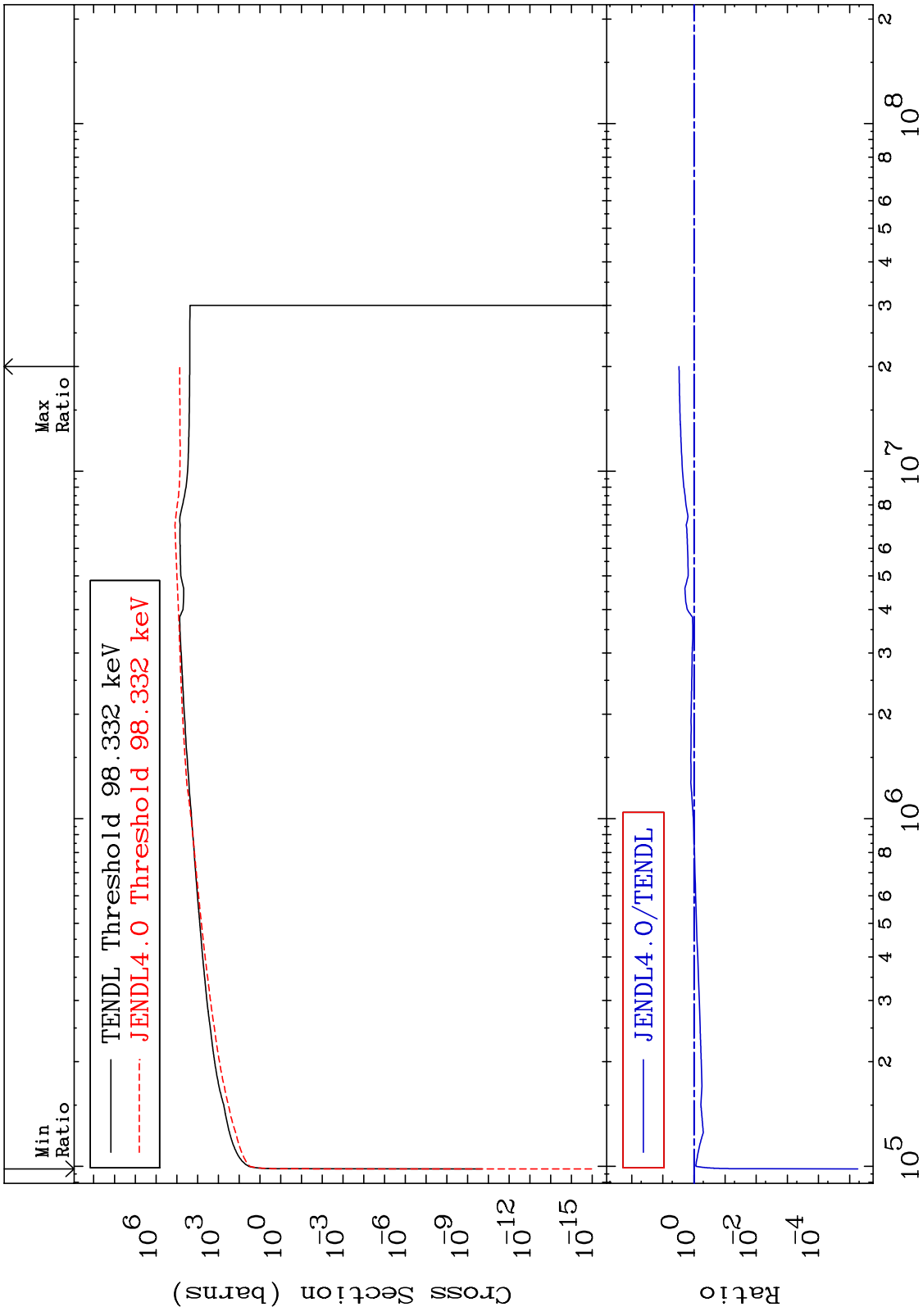


MAT 7249 72-Hf-182  
 Dpa elastic (mt2) -99.07 To -7.242%  
 Cross Section



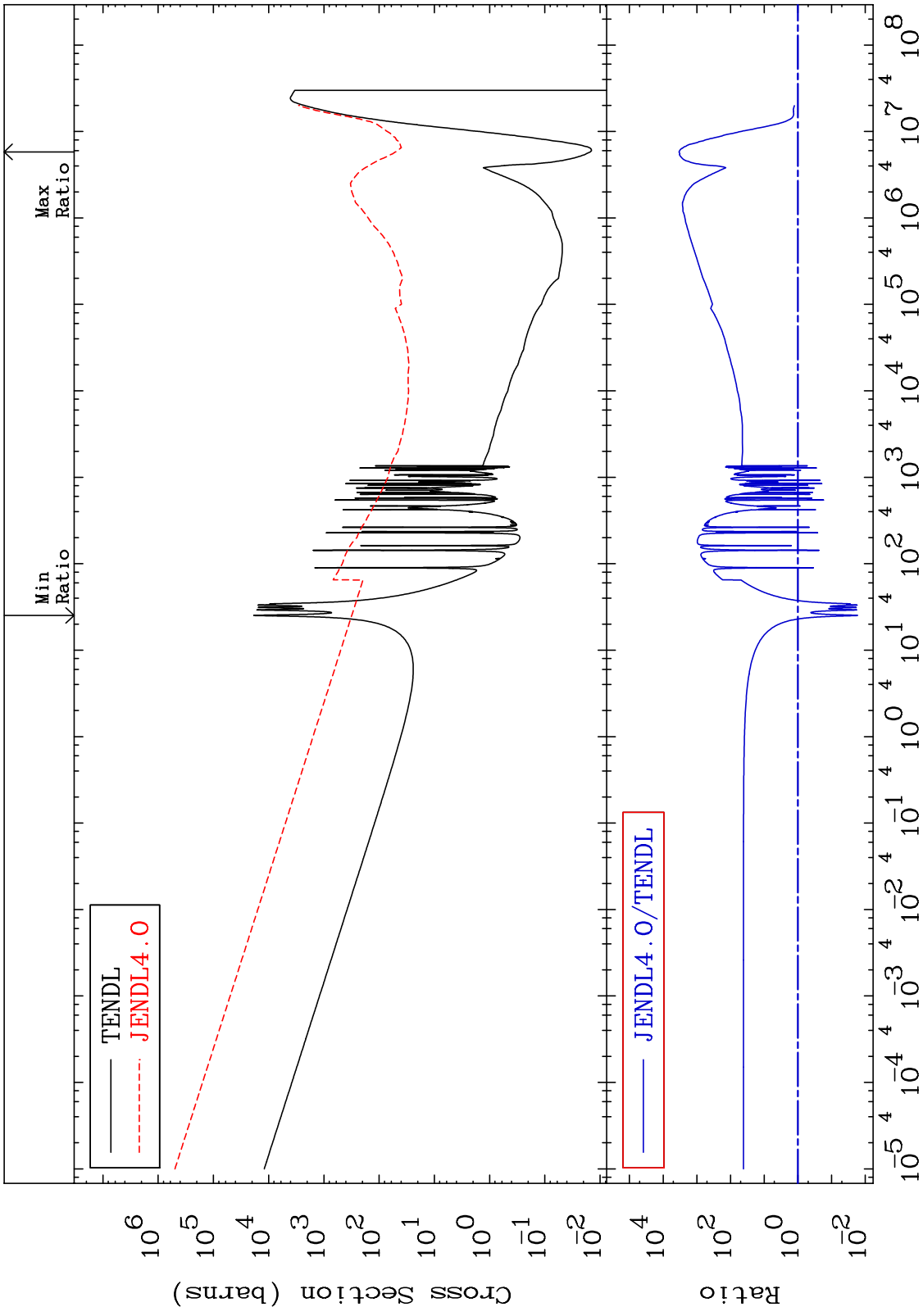


MAT 7249      Dpa inelastic (mt51-91)      72-Hf-182  
Cross Section      -100.0 To 201.8 %



40      Incident Energy (eV)      72-Hf-182

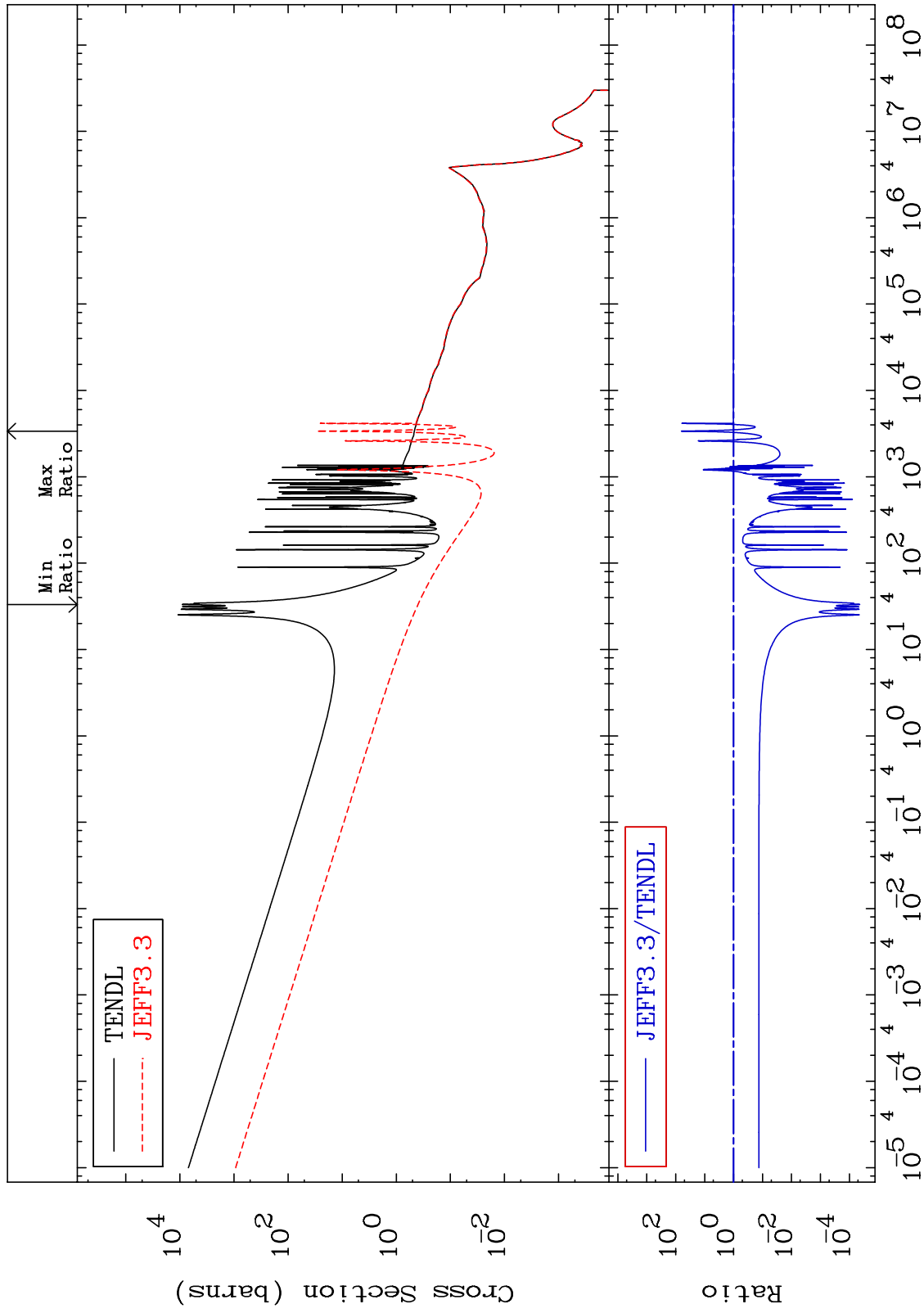
MAT 7249      Dpa disappearance (mt102 -120)      72-Hf-182  
 Cross Section      -98.33 To 9999. %



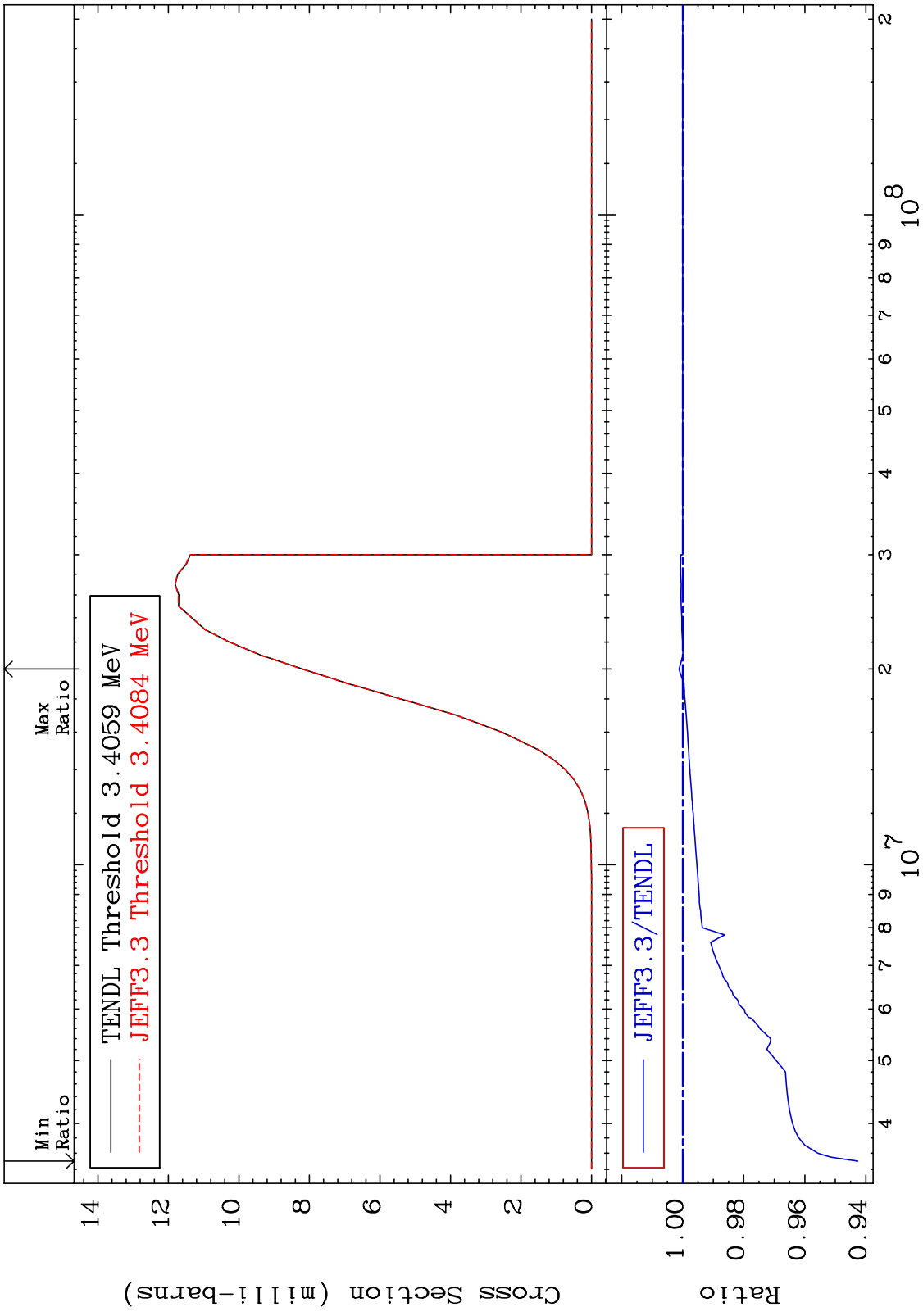
MAT 7249

(n,  $\gamma$ )  
Cross Section

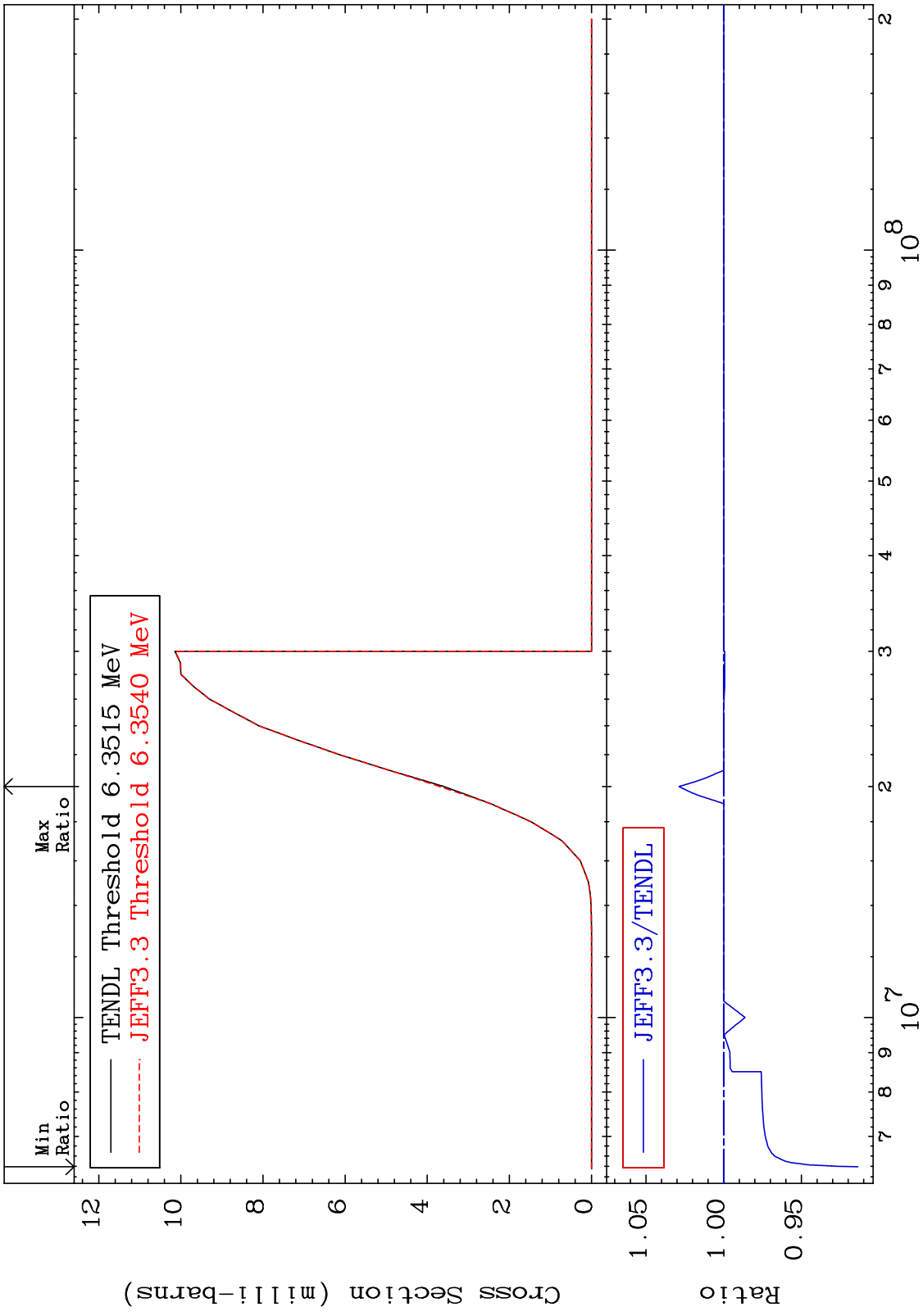
72-Hf-182  
-100.0 To 6341. %



MAT 7249 (n,p) Cross Section 72-Hf-182  
 -5.739 To 0.121 %

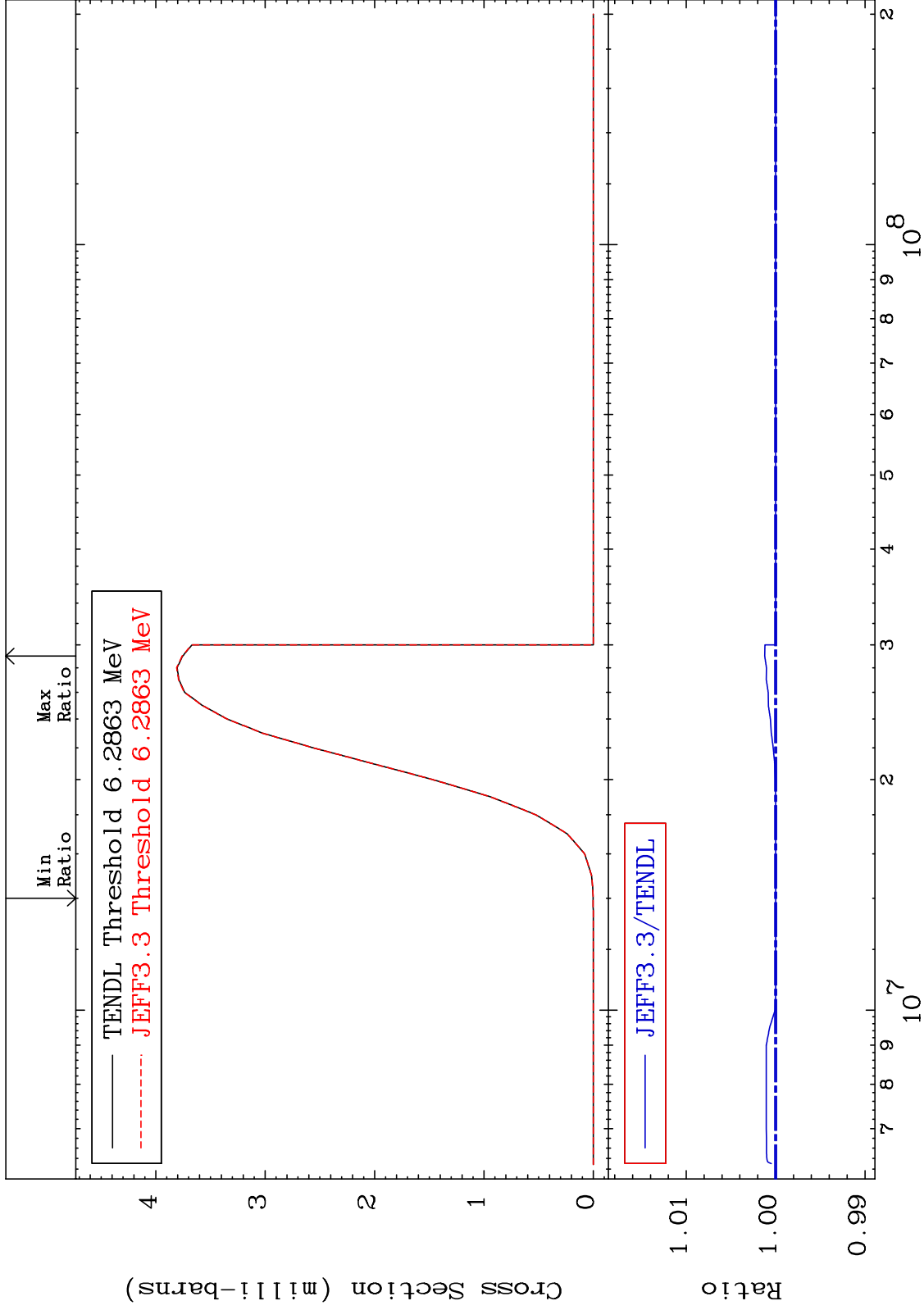


MAT 7249 (n,d) Cross Section 72-Hf-182  
 -8.621 To 2.870 %



MAT 7249

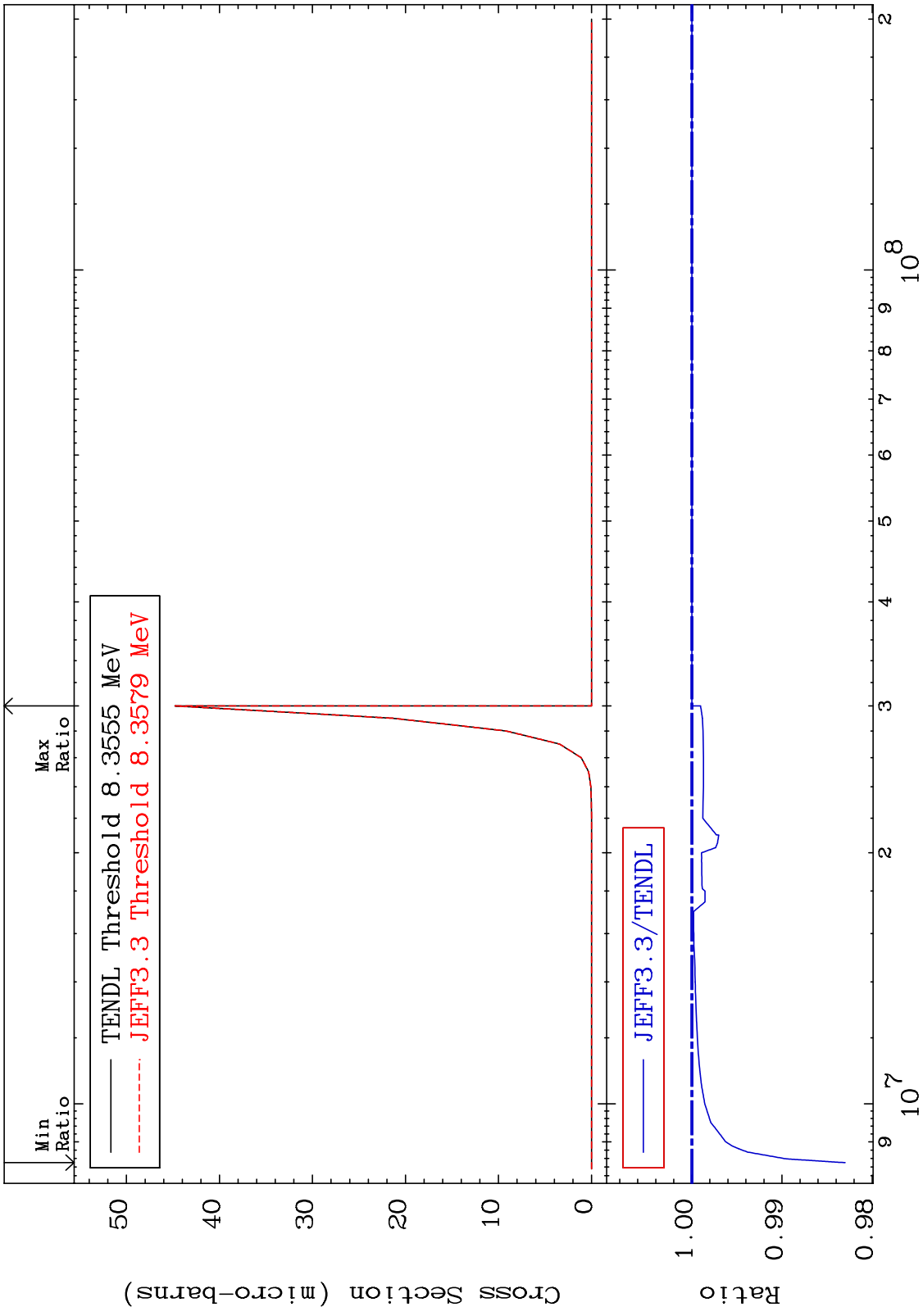
(n, t) Cross Section 72-Hf-182  
0.000 To 0.122 %



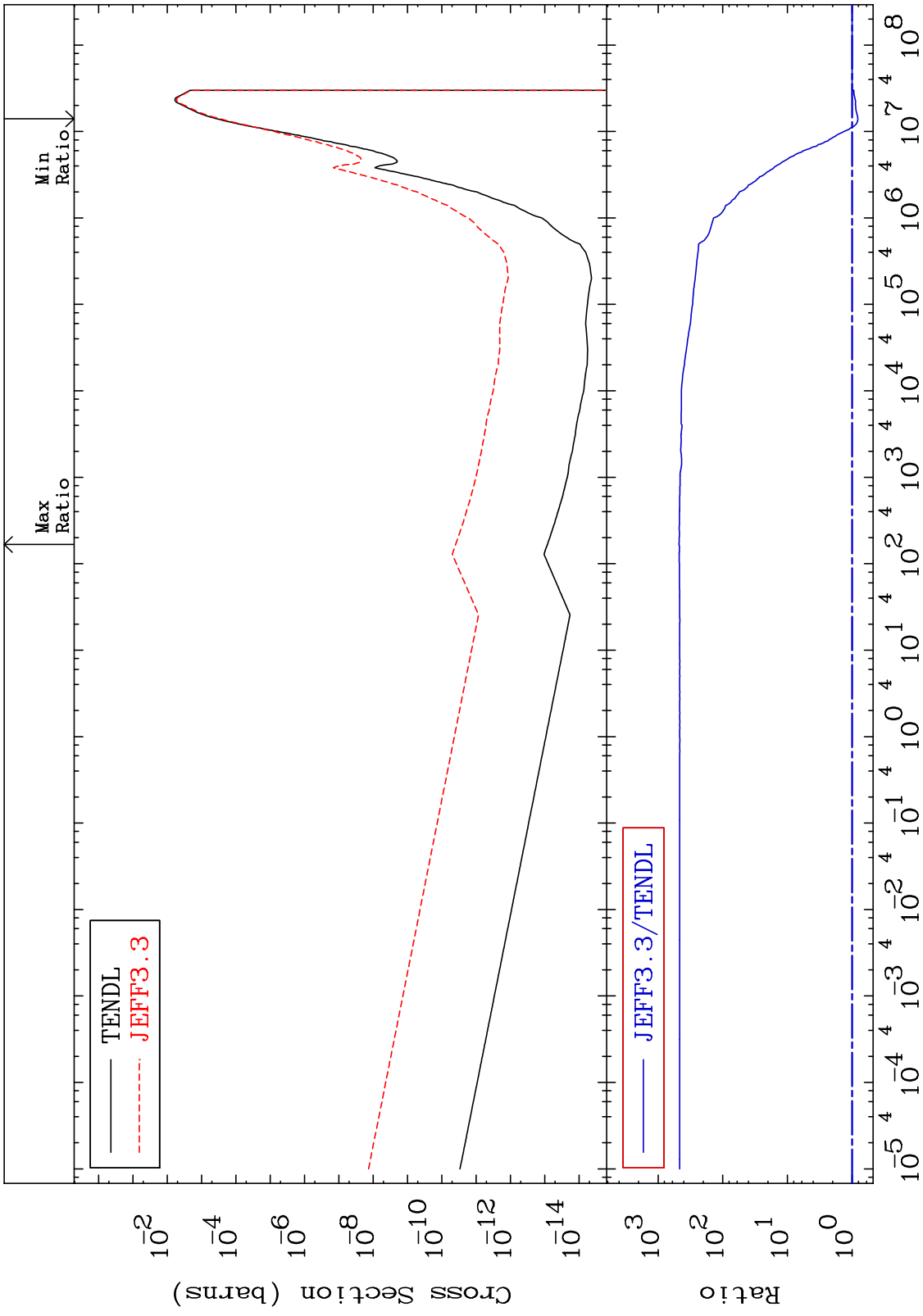
45

72-Hf-182

MAT 7249 (n, He-3) 72-Hf-182  
Cross Section -1.699 To 0.000 %

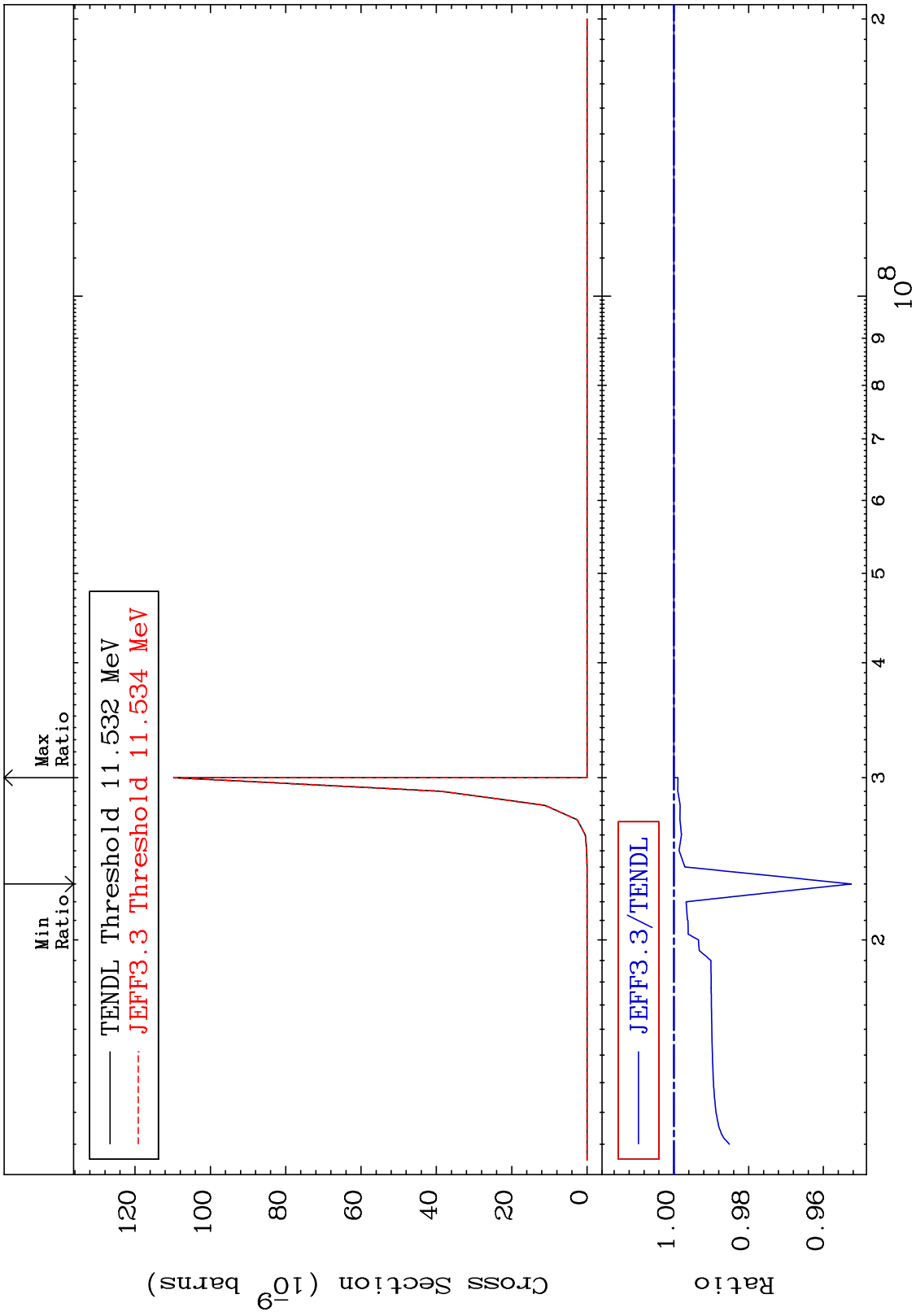


MAT 7249 72-Hf-182  
-18.33 To 9999. %  
 (n,α) Cross Section

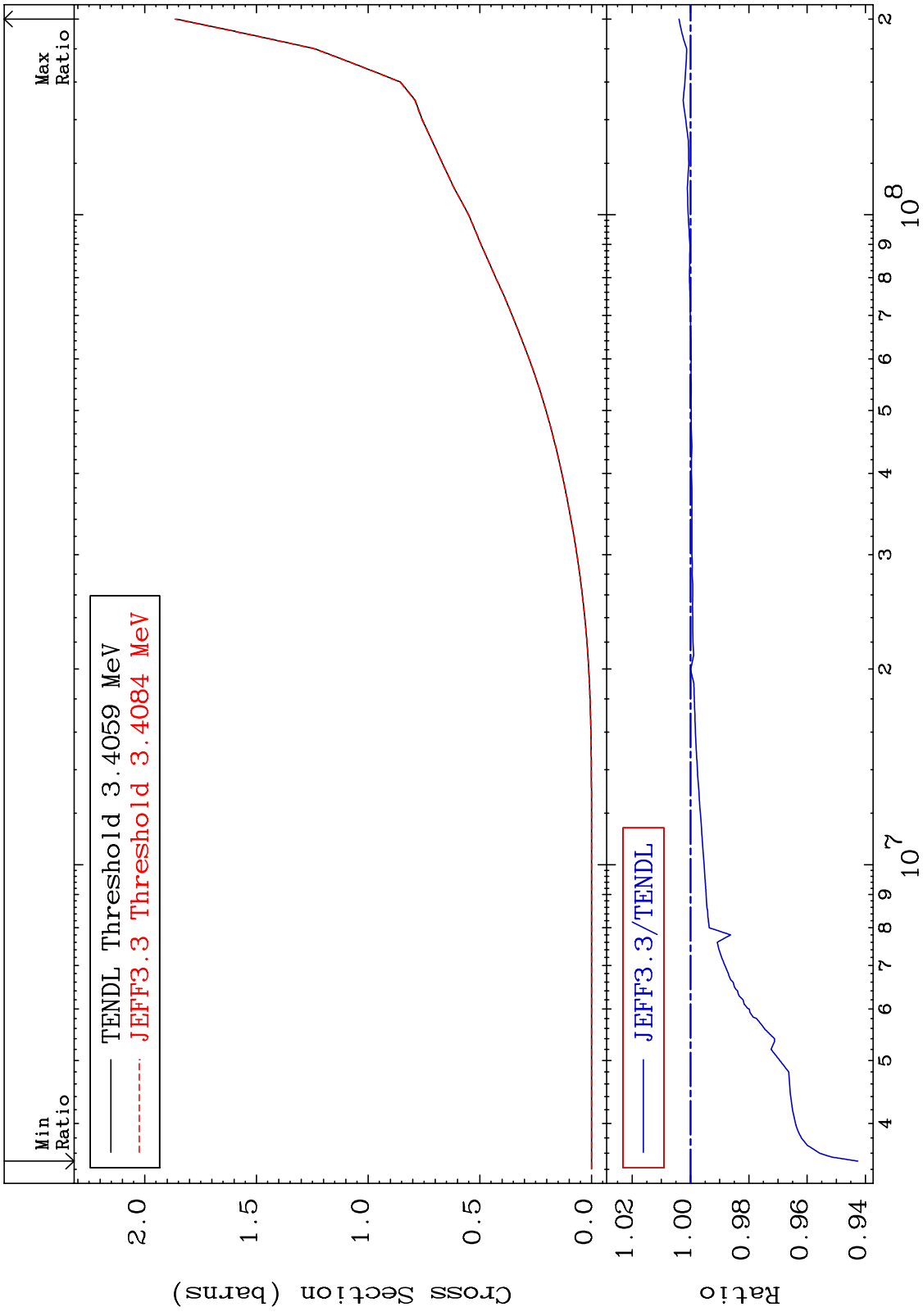




MAT 7249 (n,2p) 72-Hf-182  
 Cross Section -4.750 To 0.000 %

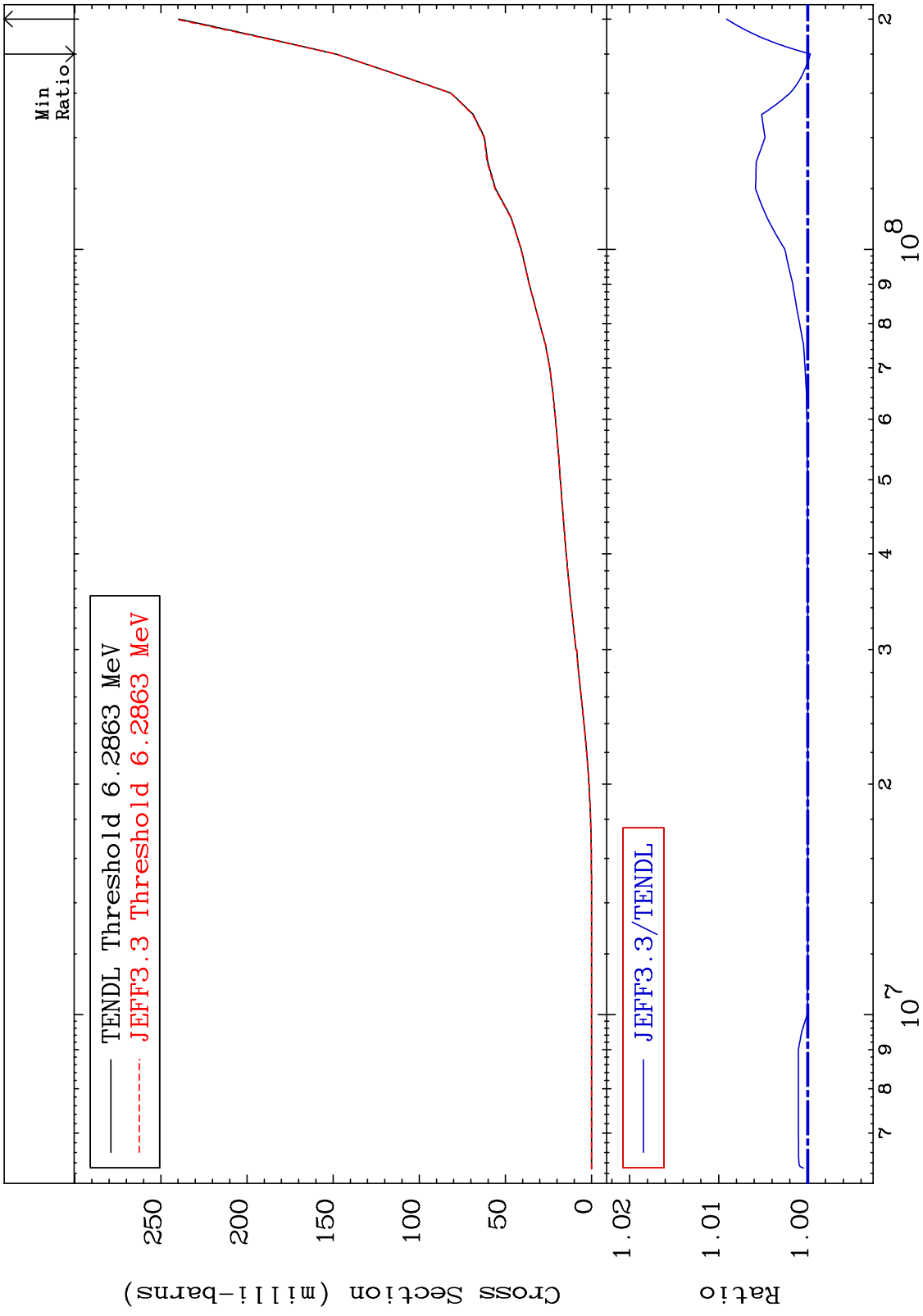


MAT 7249 Hydrogen Production Cross Section 72-Hf-182  
 -5.739 To 0.394 %

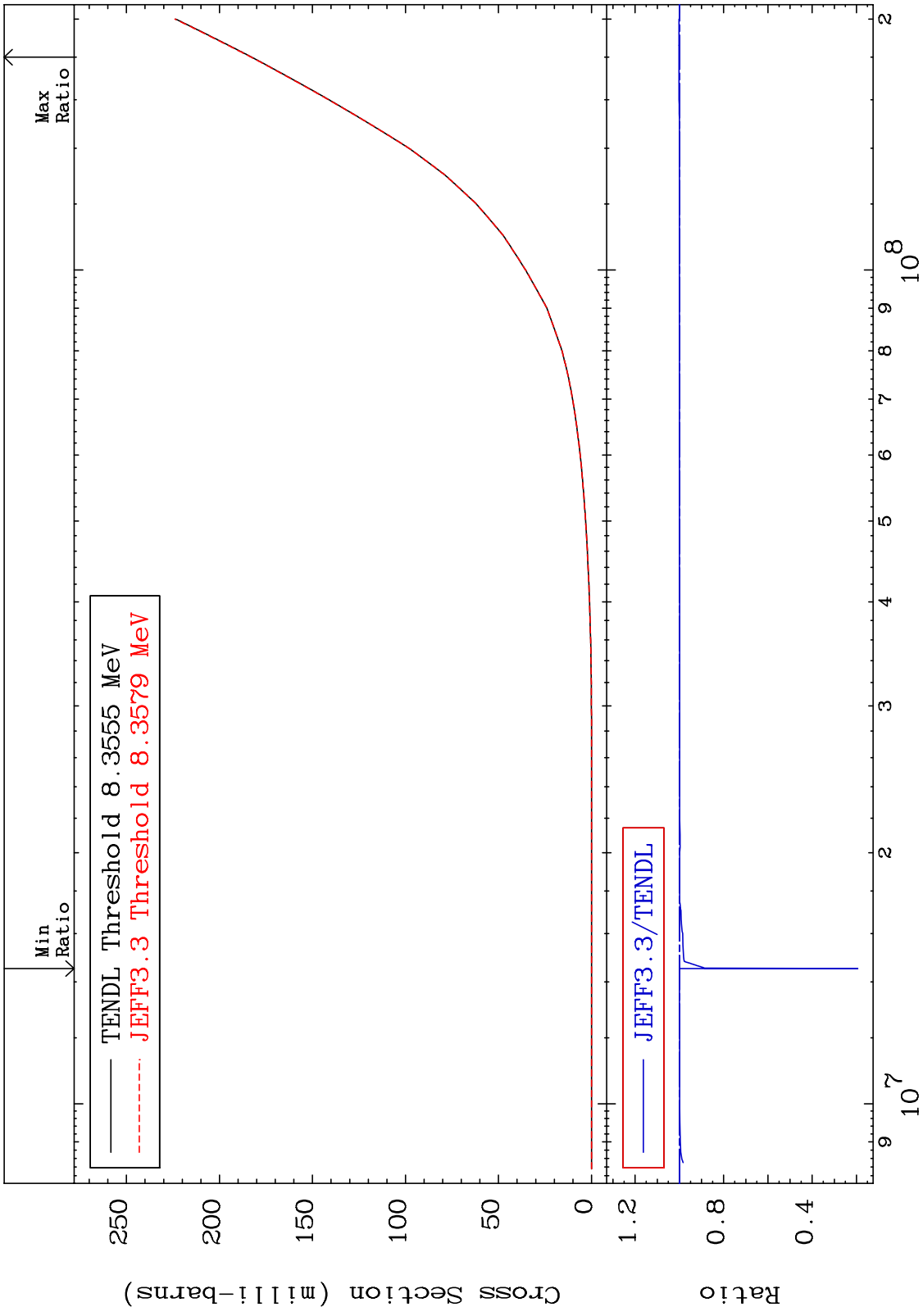




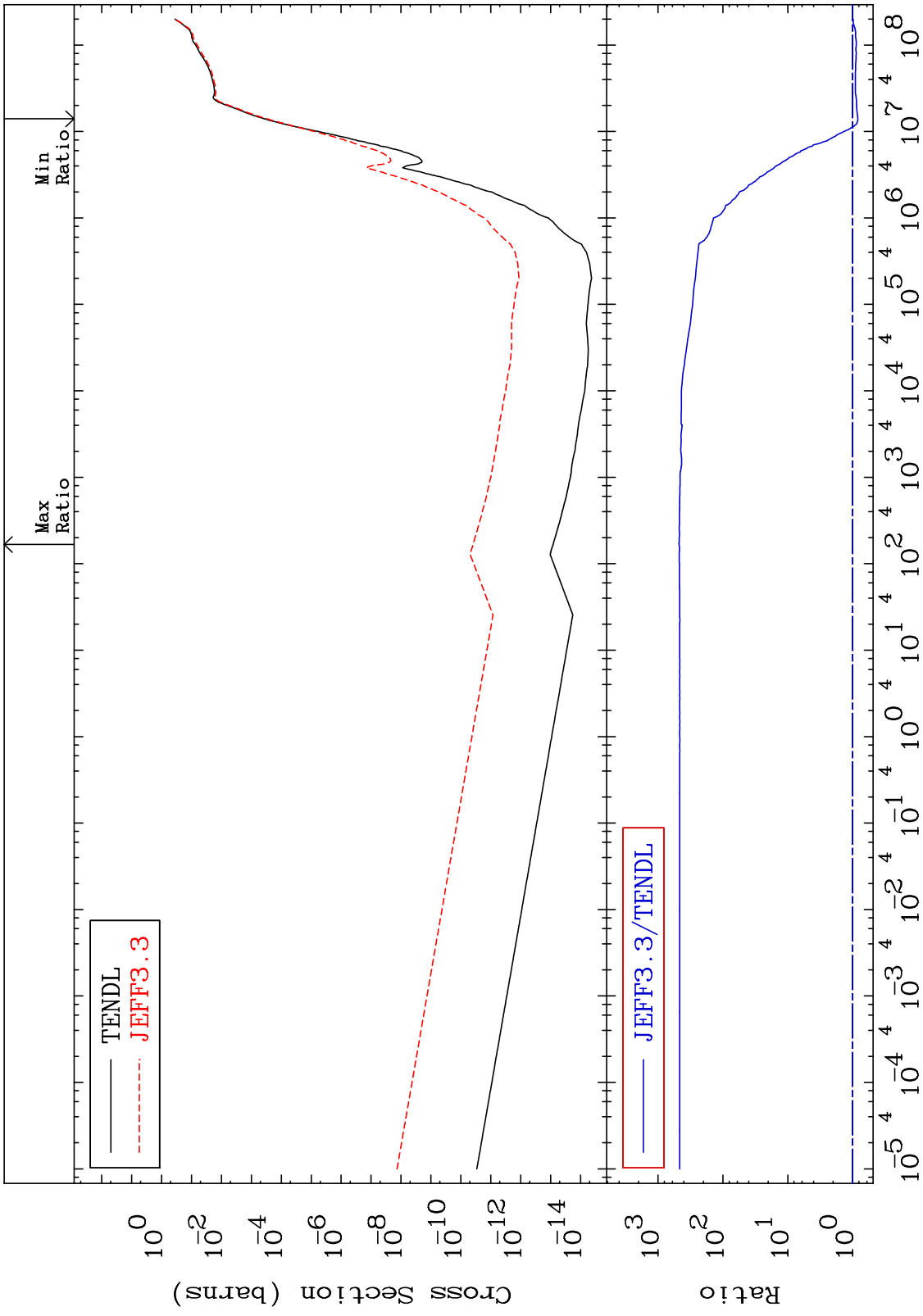
MAT 7249 Tritium Production Cross Section 72-Hf-182 -0.030 To 0.911 %



MAT 7249 He-3 Production Cross Section 72-Hf-182  
-80.63 To 0.160 %

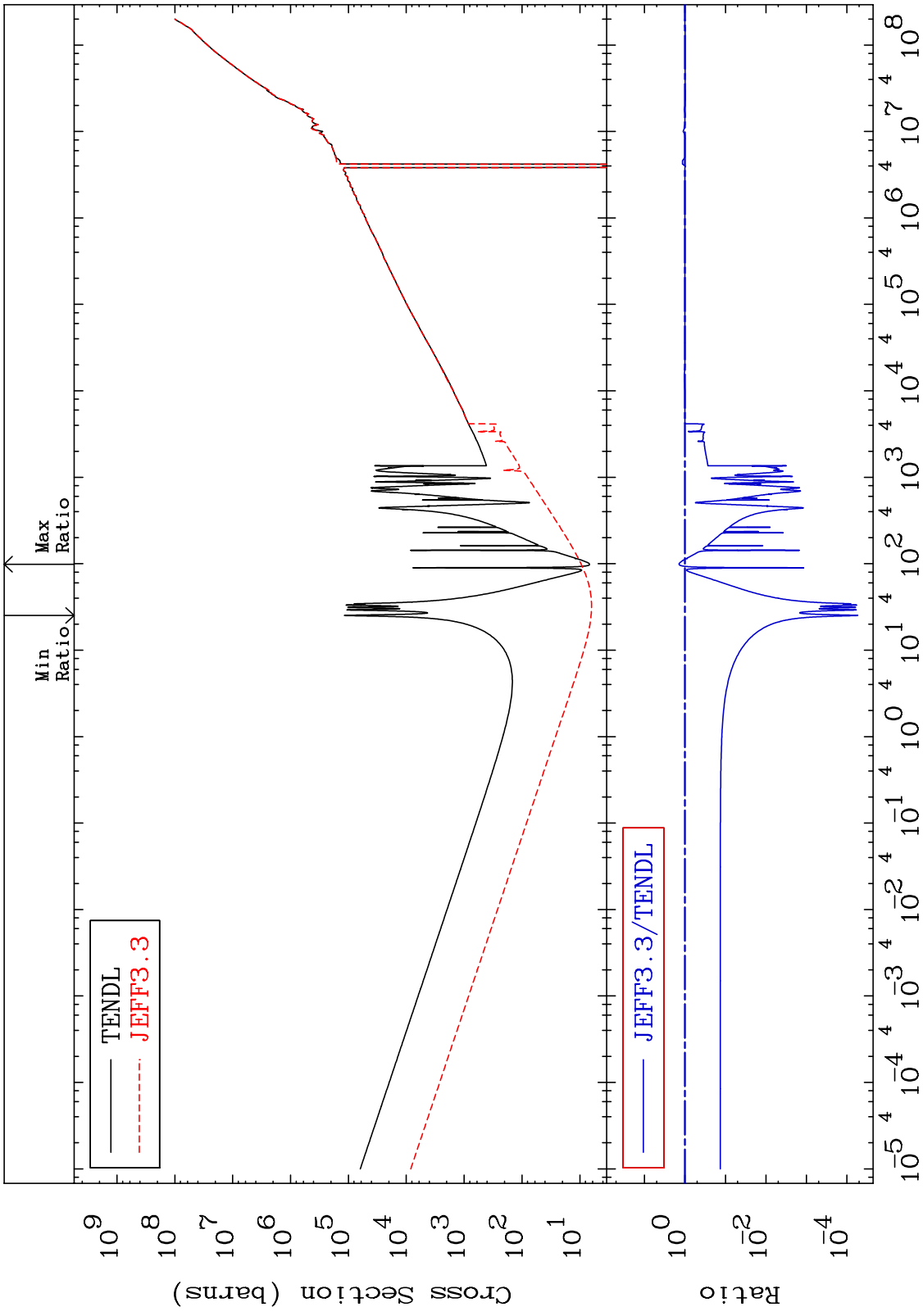


MAT 7249 He-4 Production Cross Section 72-Hf-182  
 -16.97 To 9999. %



53 72-Hf-182

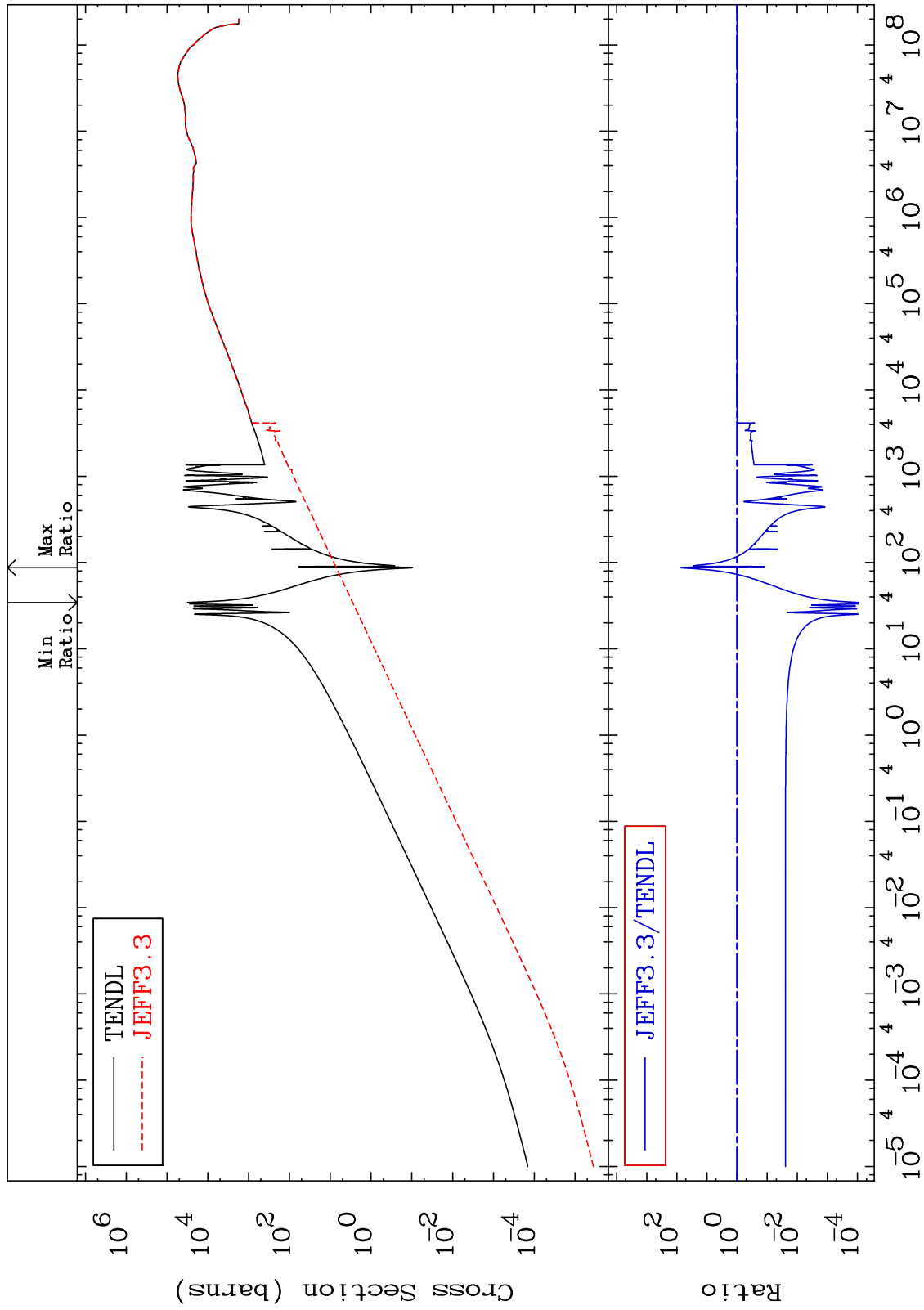
MAT 7249 Kerma total (eV-barns) 72-Hf-182  
 Cross Section -99.99 To 39.70 %



MAT 7249

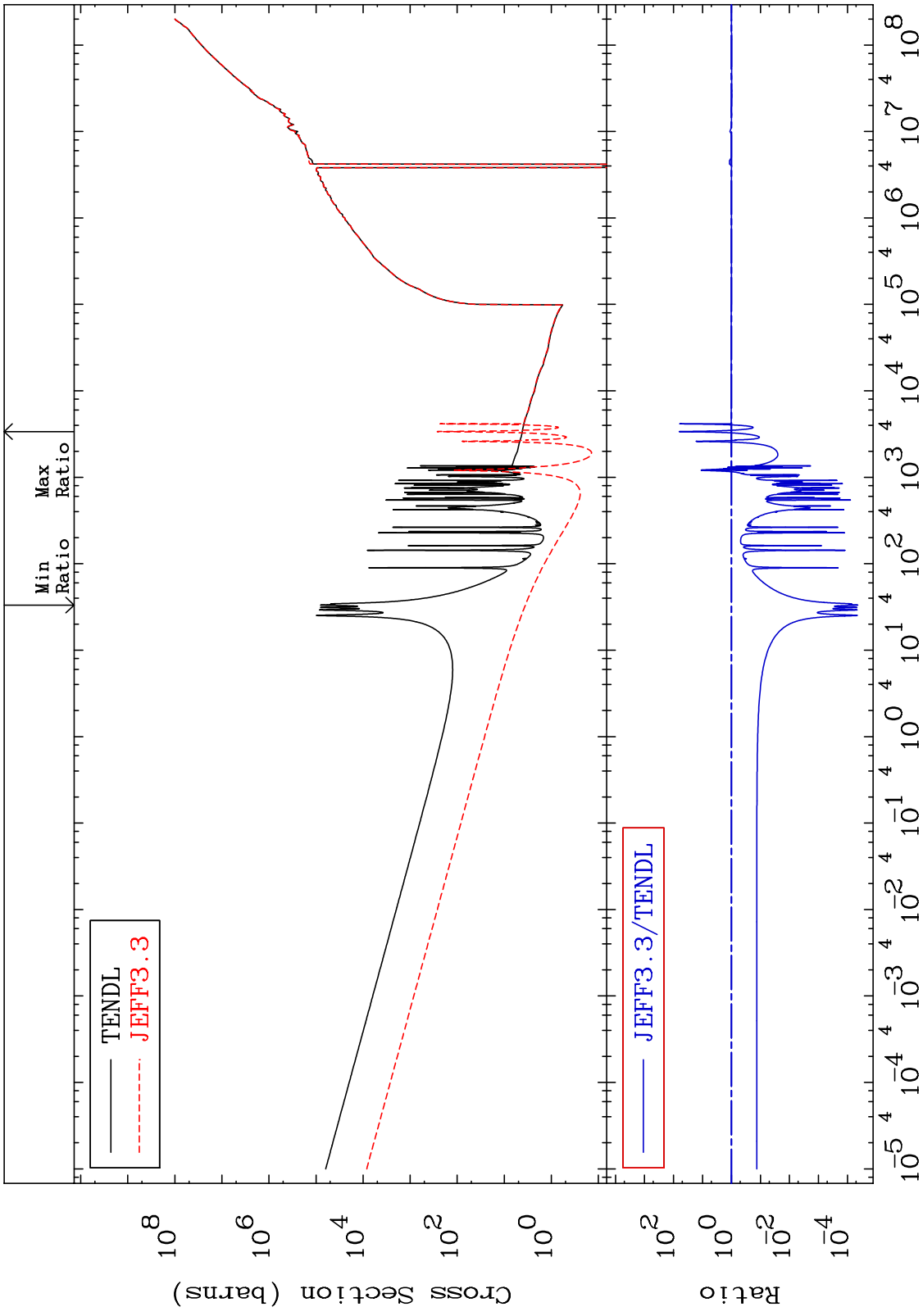
Kerma elastic  
Cross Section

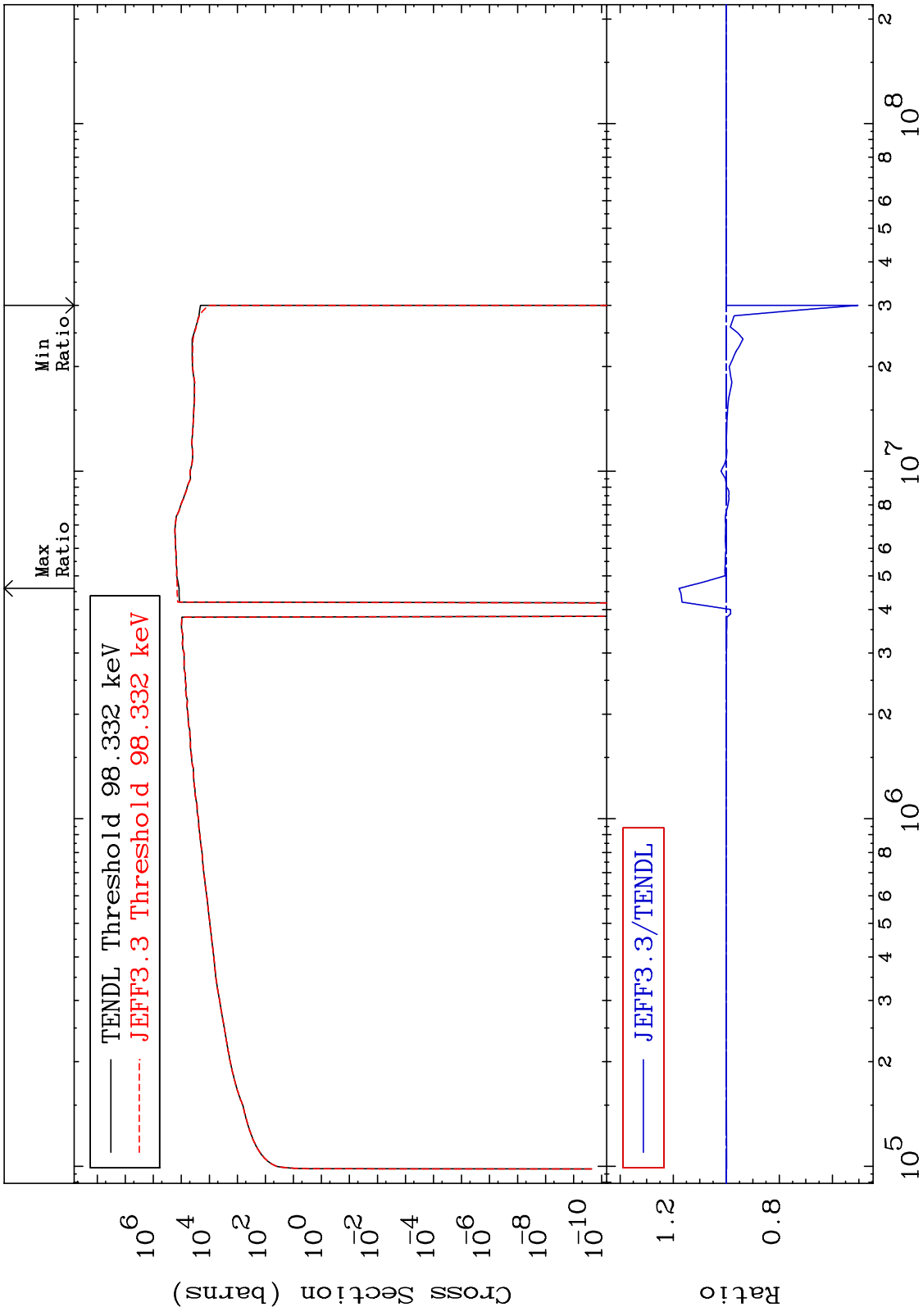
72-Hf-182  
-99.99 To 7373. %





MAT 7249 Kerma non-elastic (all but mt2) 72-Hf-182  
 Cross Section -100.0 To 6343. %

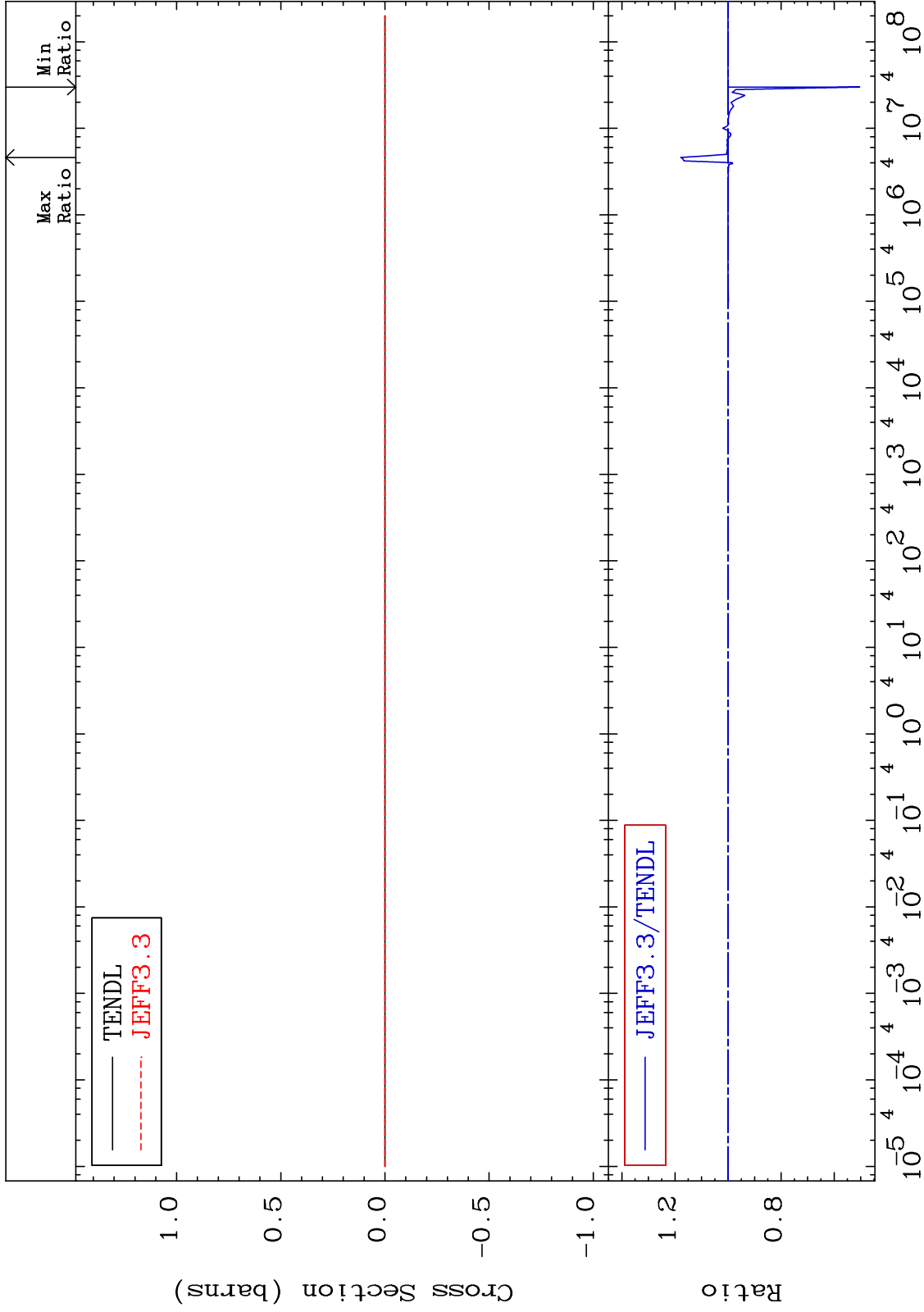




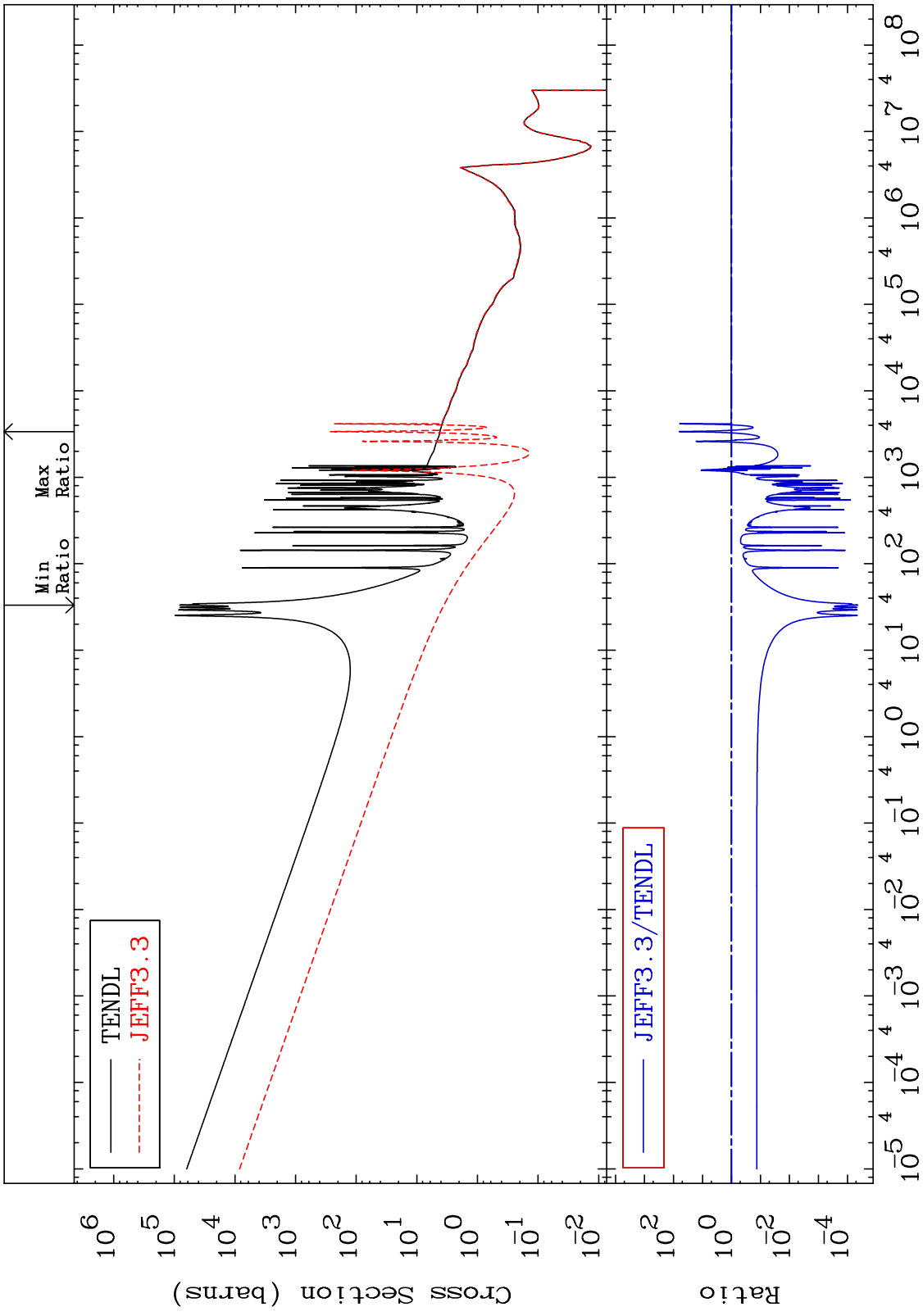
MAT 7249

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

72-Hf-182  
-49.60 To 17.79 %

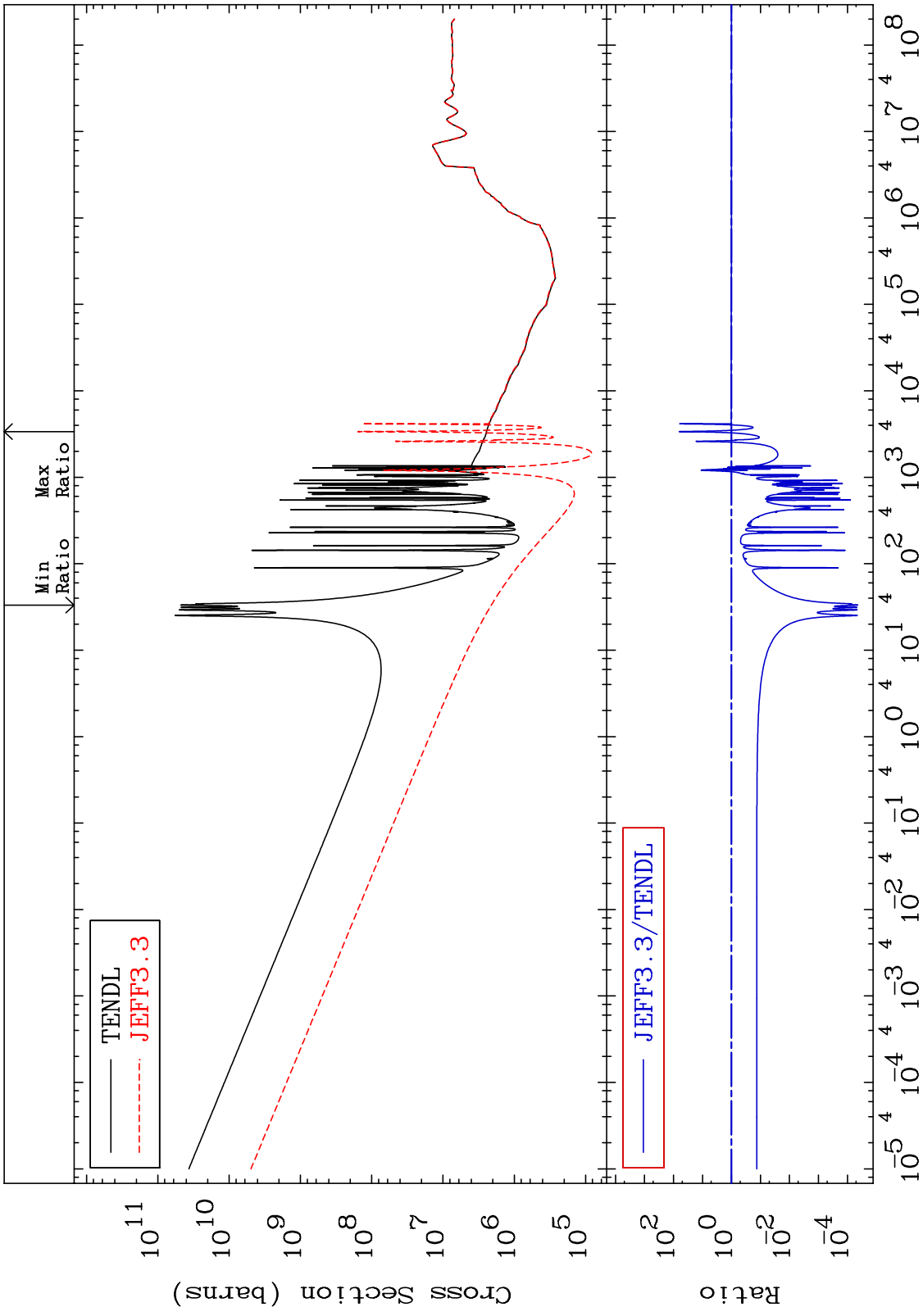


MAT 7249 Kerma capture (mt102) 72-Hf-182  
 Cross Section -100.0 To 6343. %



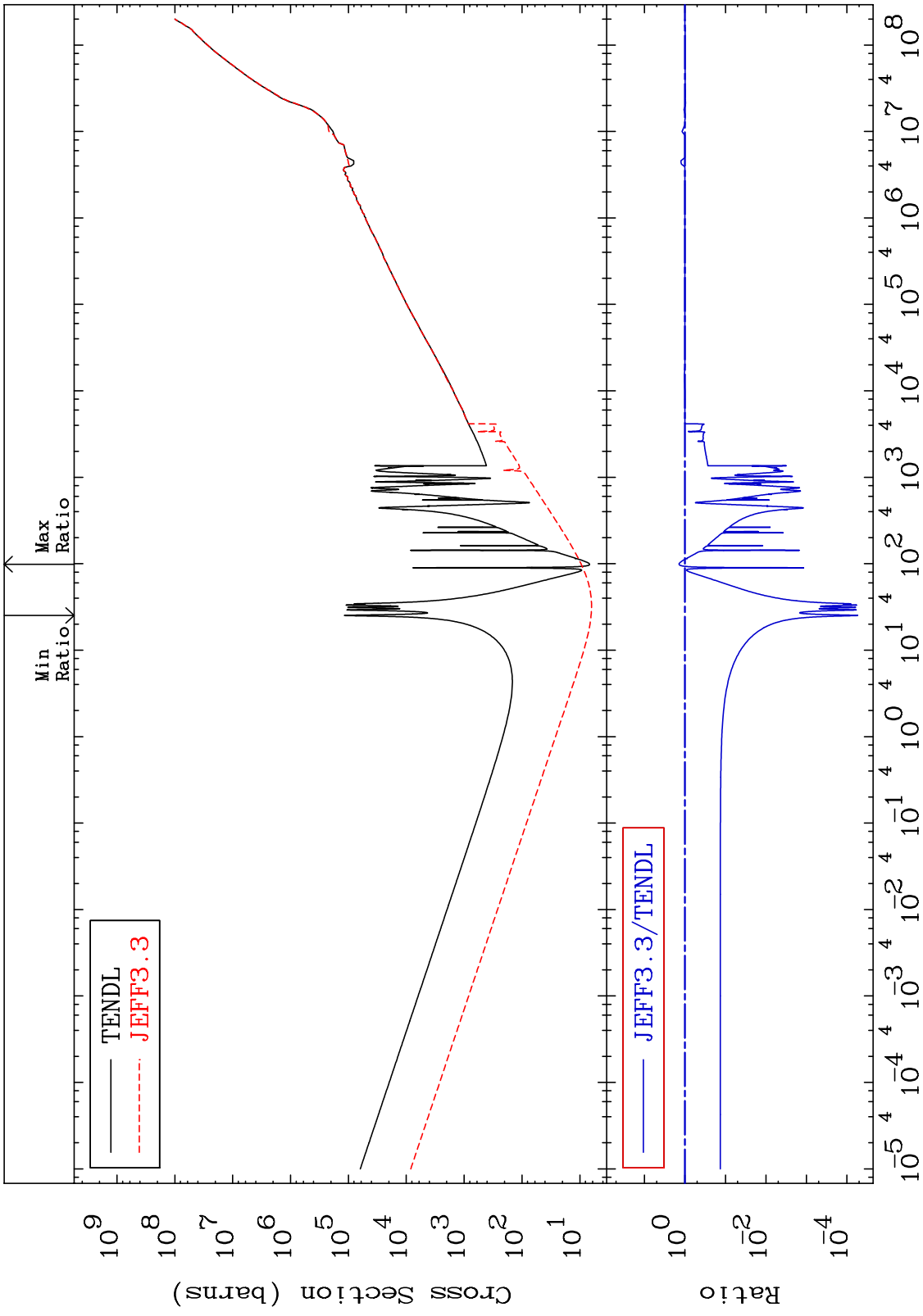
59 Incident Energy (eV) 72-Hf-182

MAT 7249 72-Hf-182  
 Total photon (eV-barns) -100.0 To 6342. %  
 Cross Section

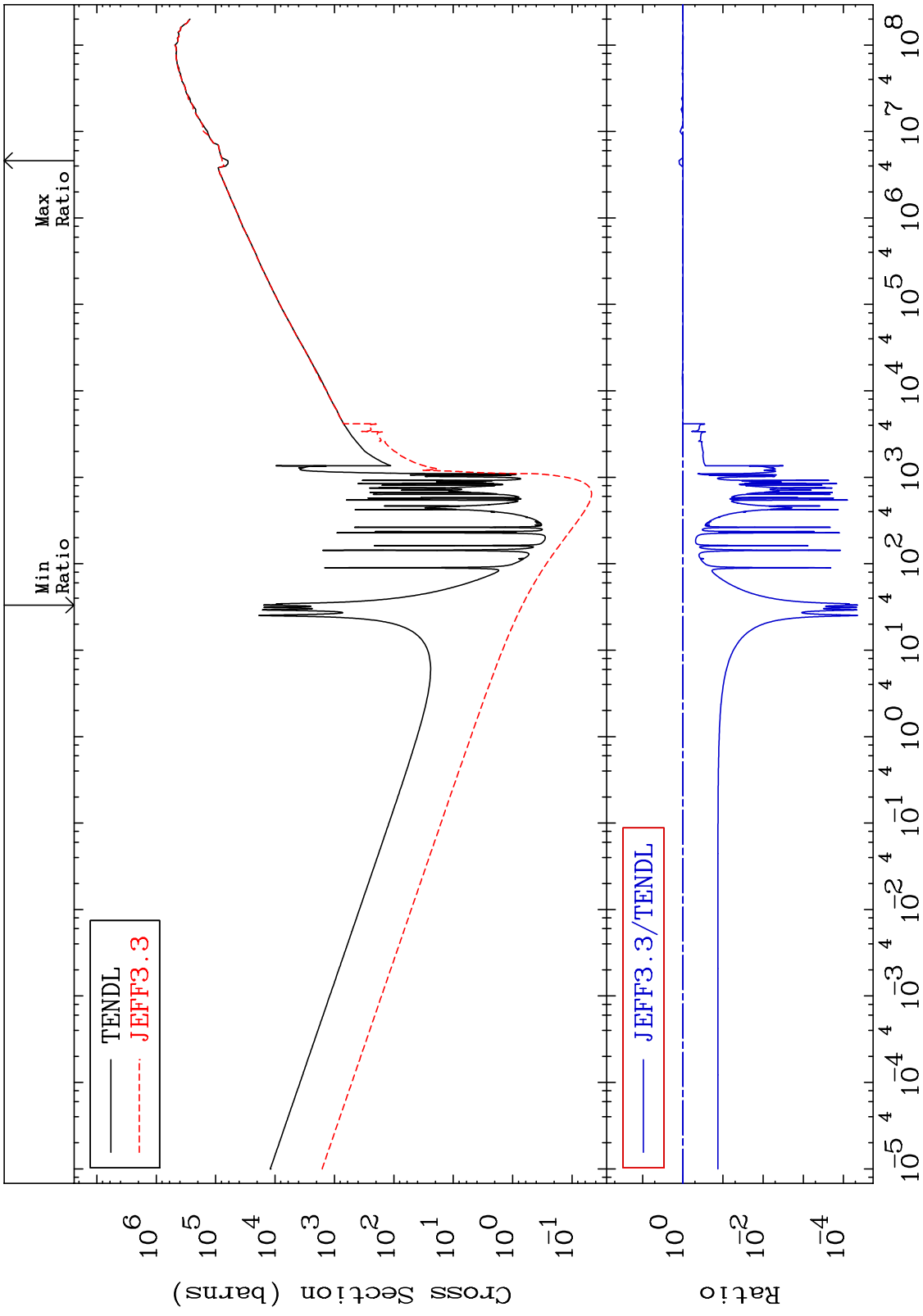


60 72-Hf-182

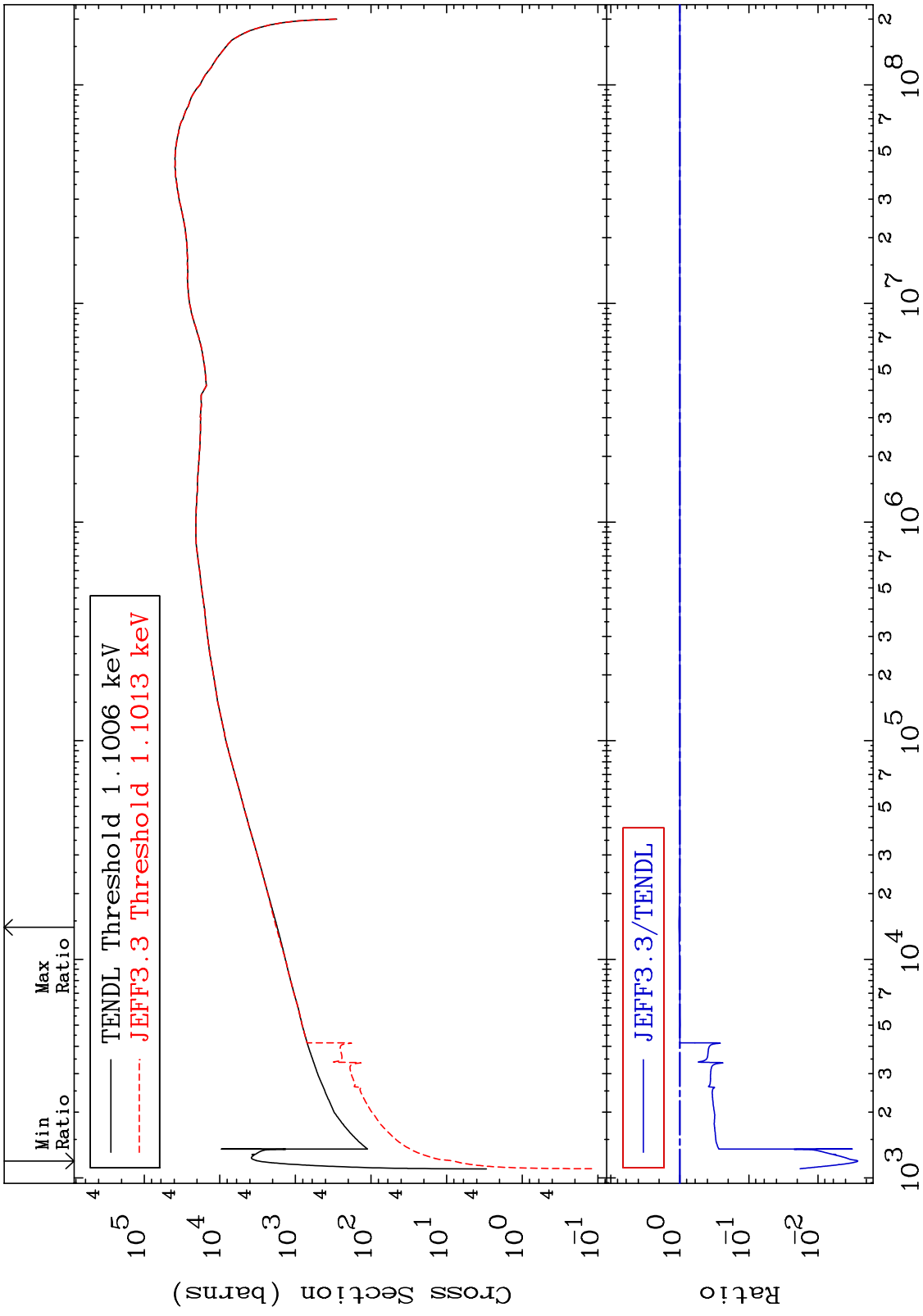
MAT 7249 Total kinematic kerma (high limit) 72-Hf-182  
 Cross Section -99.99 To 39.70 %



MAT 7249      Dpa total (eV-barns)      72-Hf-182  
 Cross Section      -100.0 To 24.51 %

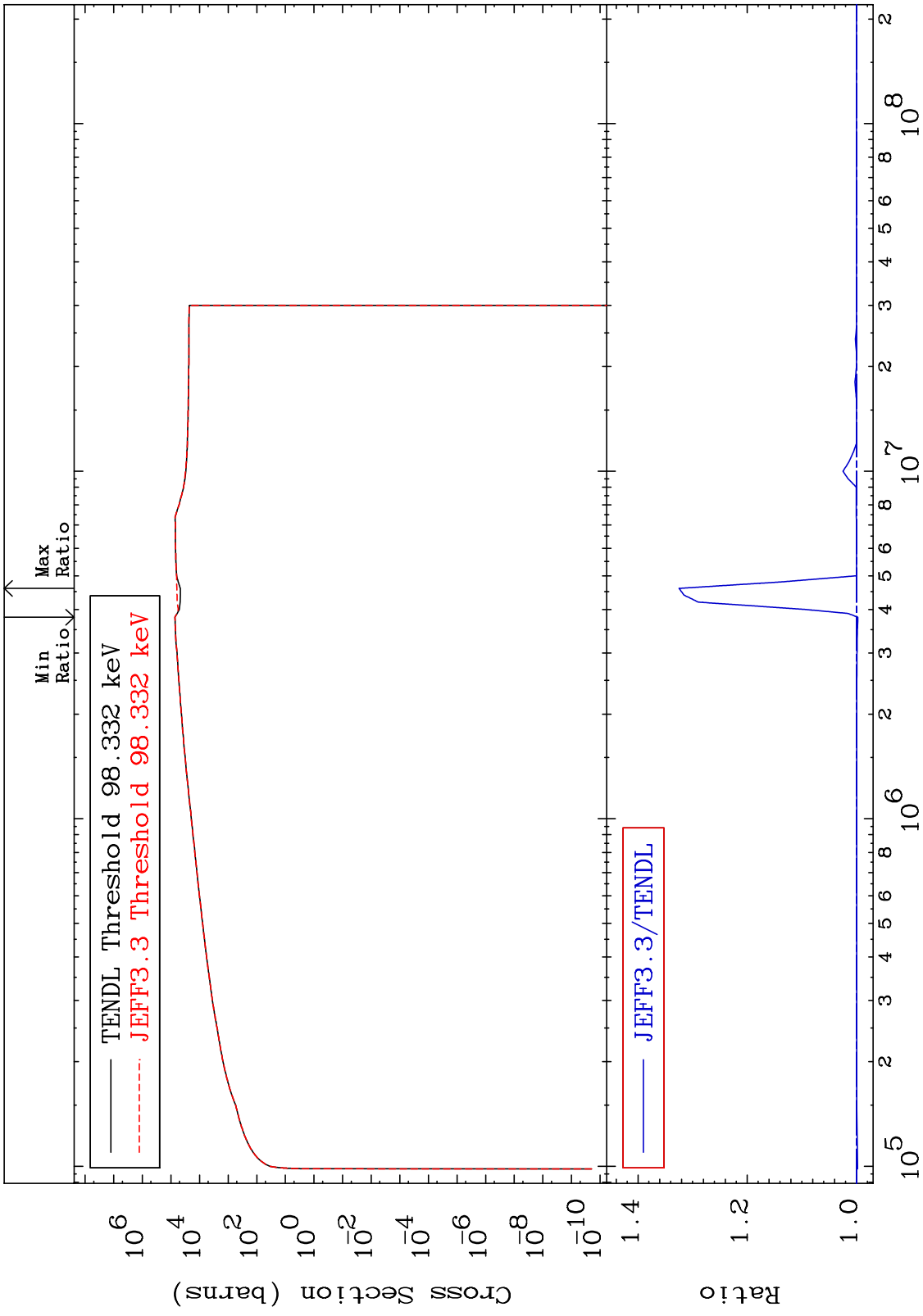


MAT 7249 72-Hf-182  
 Dpa elastic (mt2) -99.73 To 2.930 %  
 Cross Section





MAT 7249      Dpa inelastic (mt51-91)      72-Hf-182  
Cross Section      -0.240 To 32.49 %

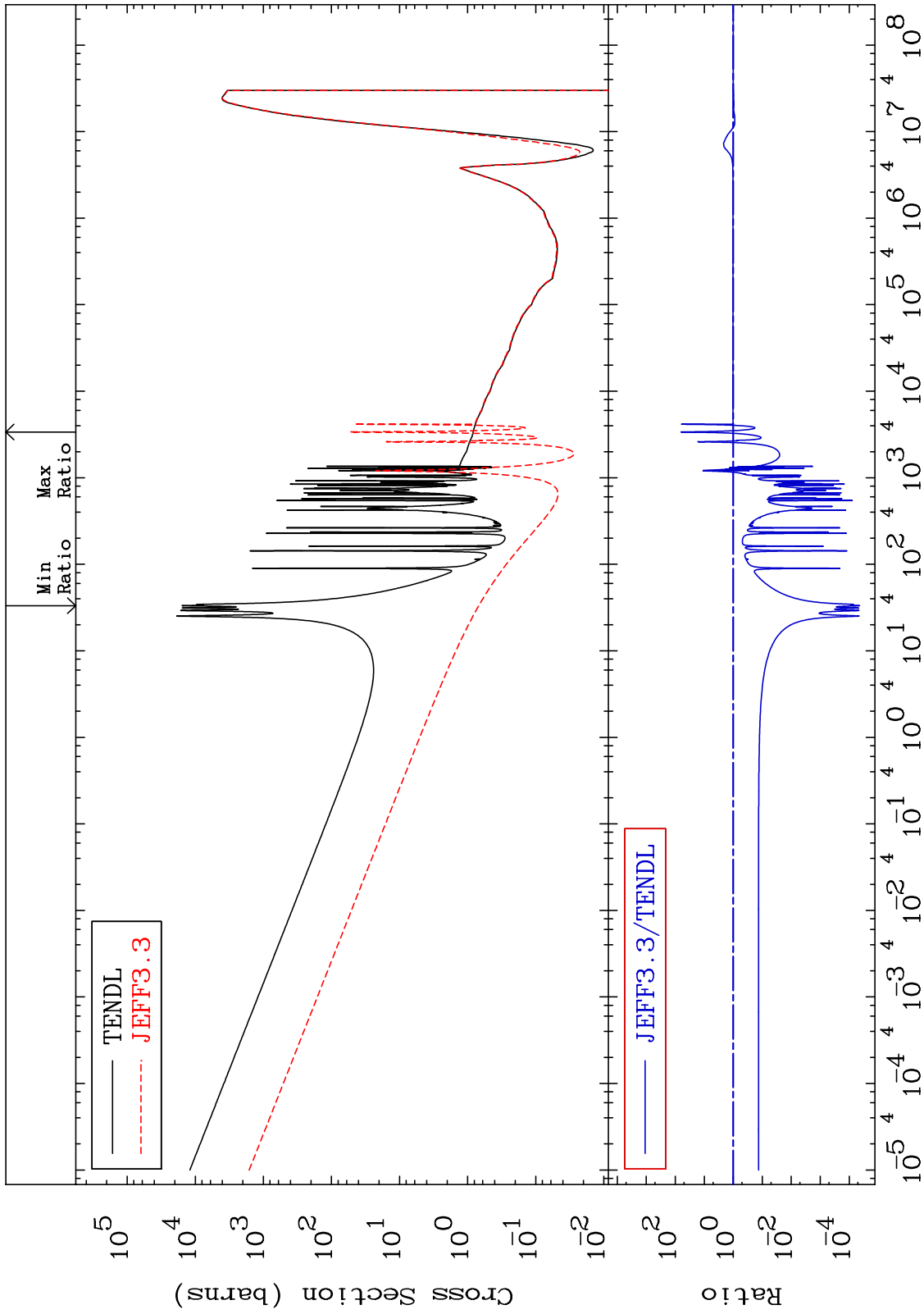


64      Incident Energy (eV)      72-Hf-182

MAT 7249

Dpa disappearance (mt102 -120)  
Cross Section

72-Hf-182  
-100.0 To 6346. %

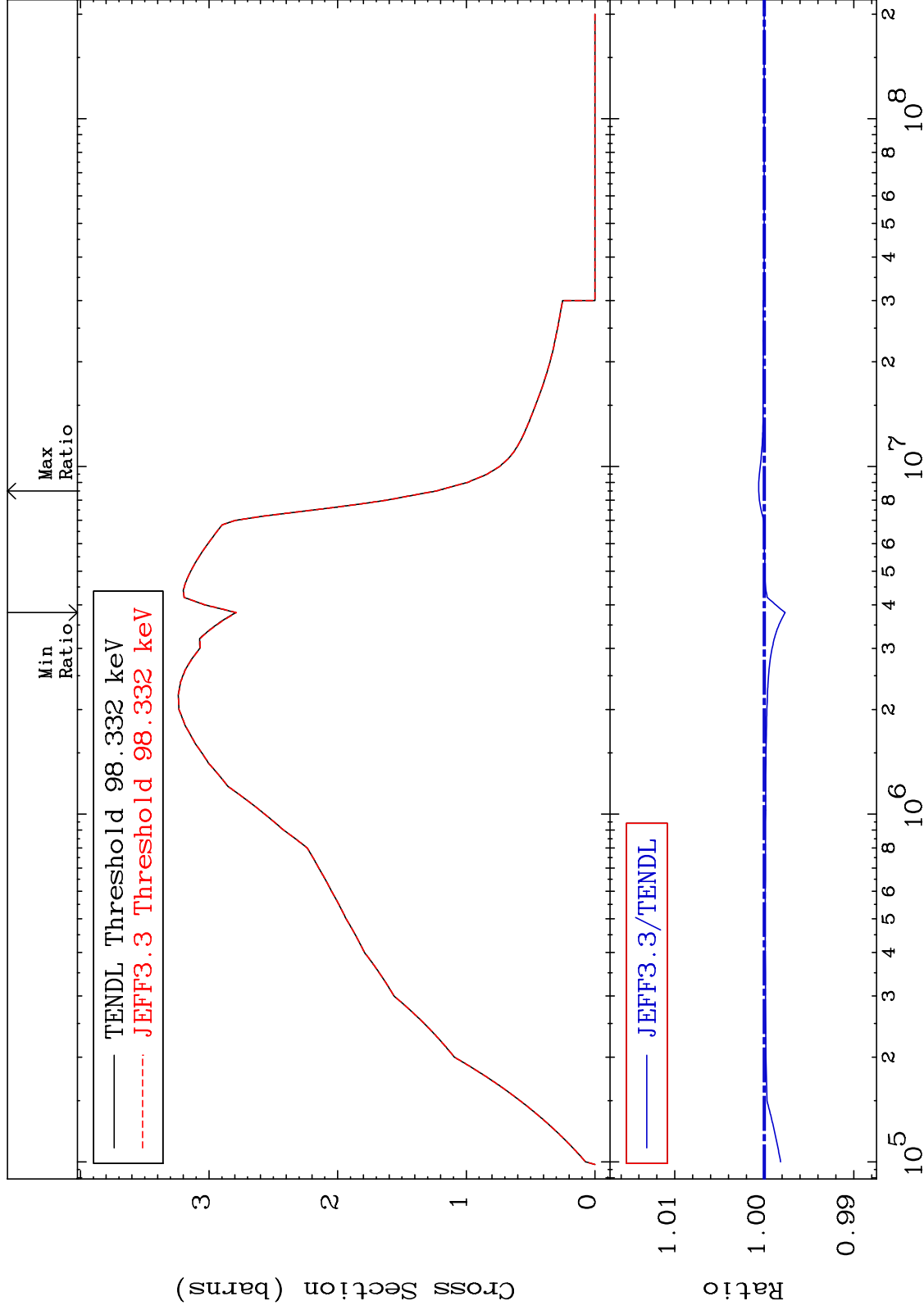


MAT 7249

Inelastic: 72-Hf-182g

72-Hf-182

Radionuclide Production Cross Section -0.2332 To 0.062 %



66

Incident Energy (eV)

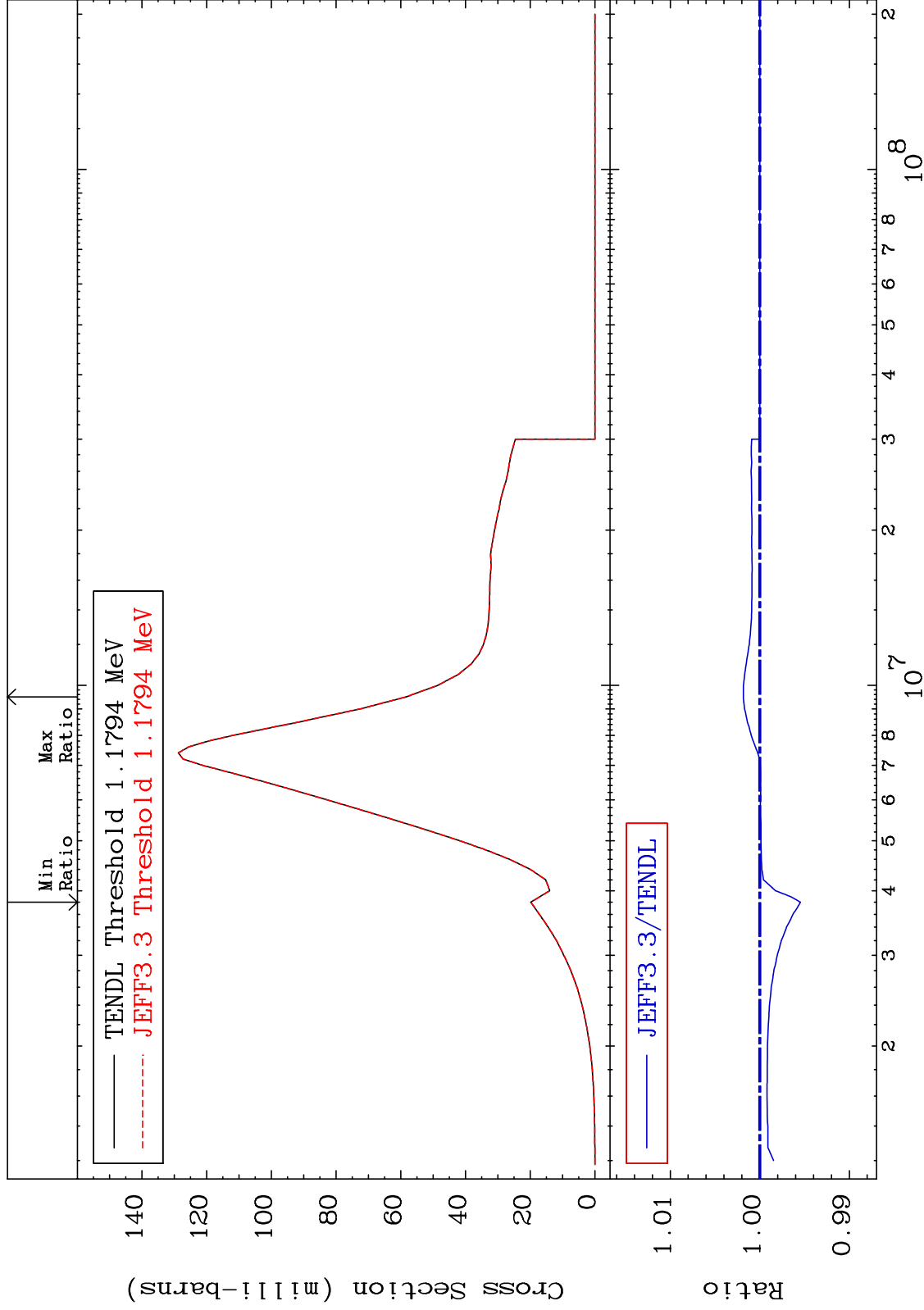
72-Hf-182

MAT 7249

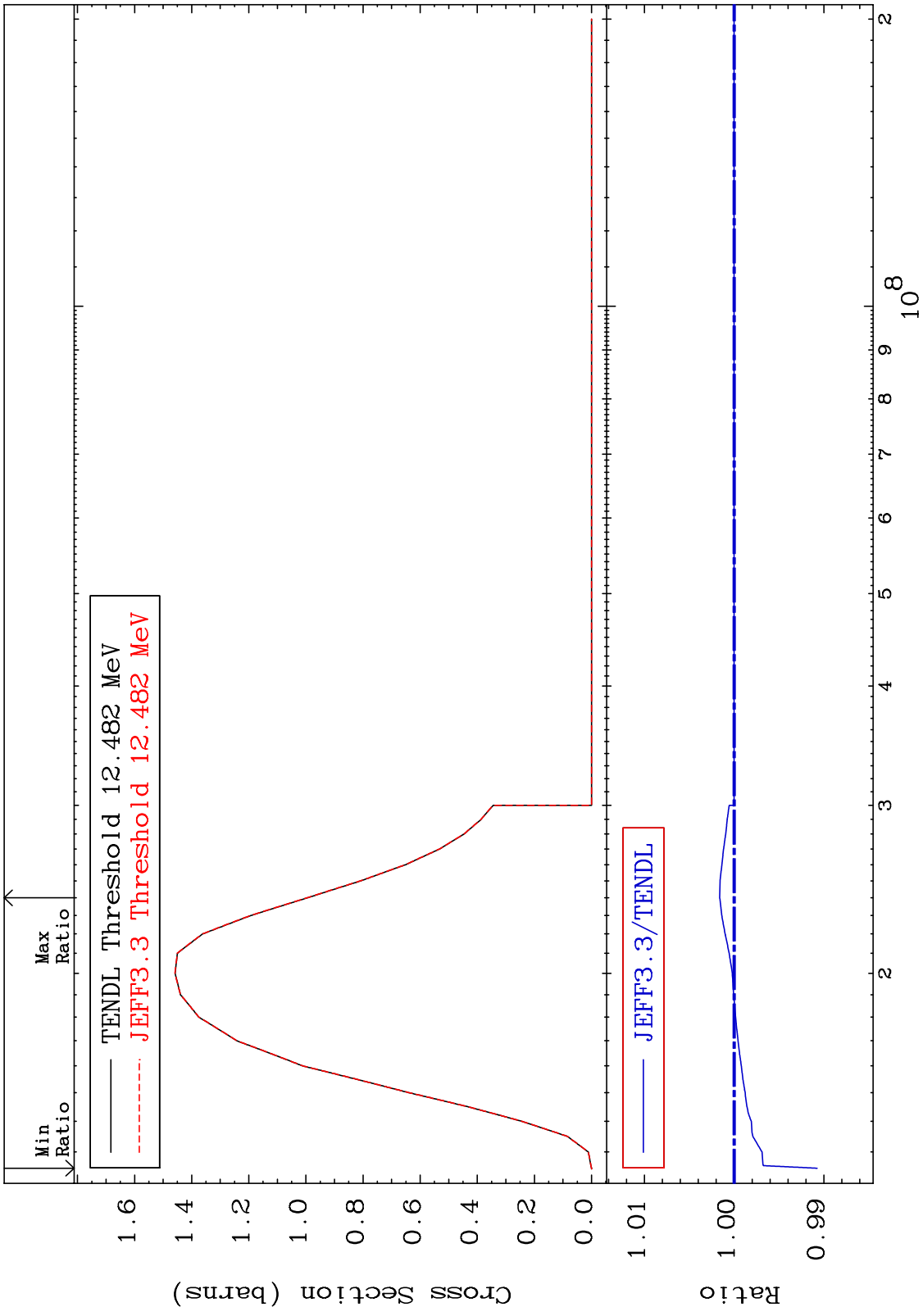
Inelastic: 72-Hf-182m9

72-Hf-182

Radionuclide Production Cross Section -0.454 To 0.184 %



MAT 7249 (n,3n):72-Hf-180g 72-Hf-182  
 Radionuclide Production Cross Section -0.925 To 0.161 %

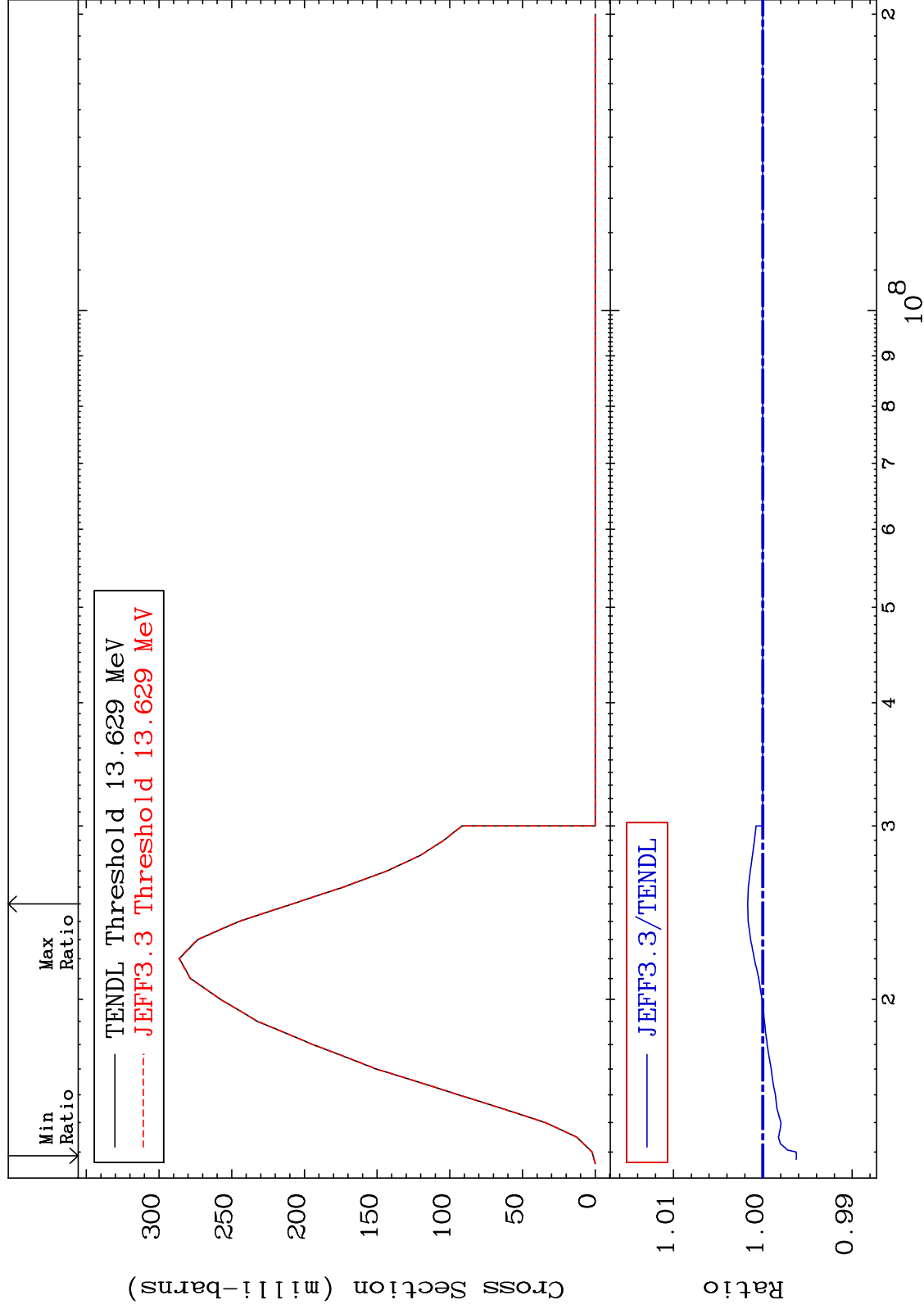


MAT 7249

(n, 3n) : 72-Hf-180m7

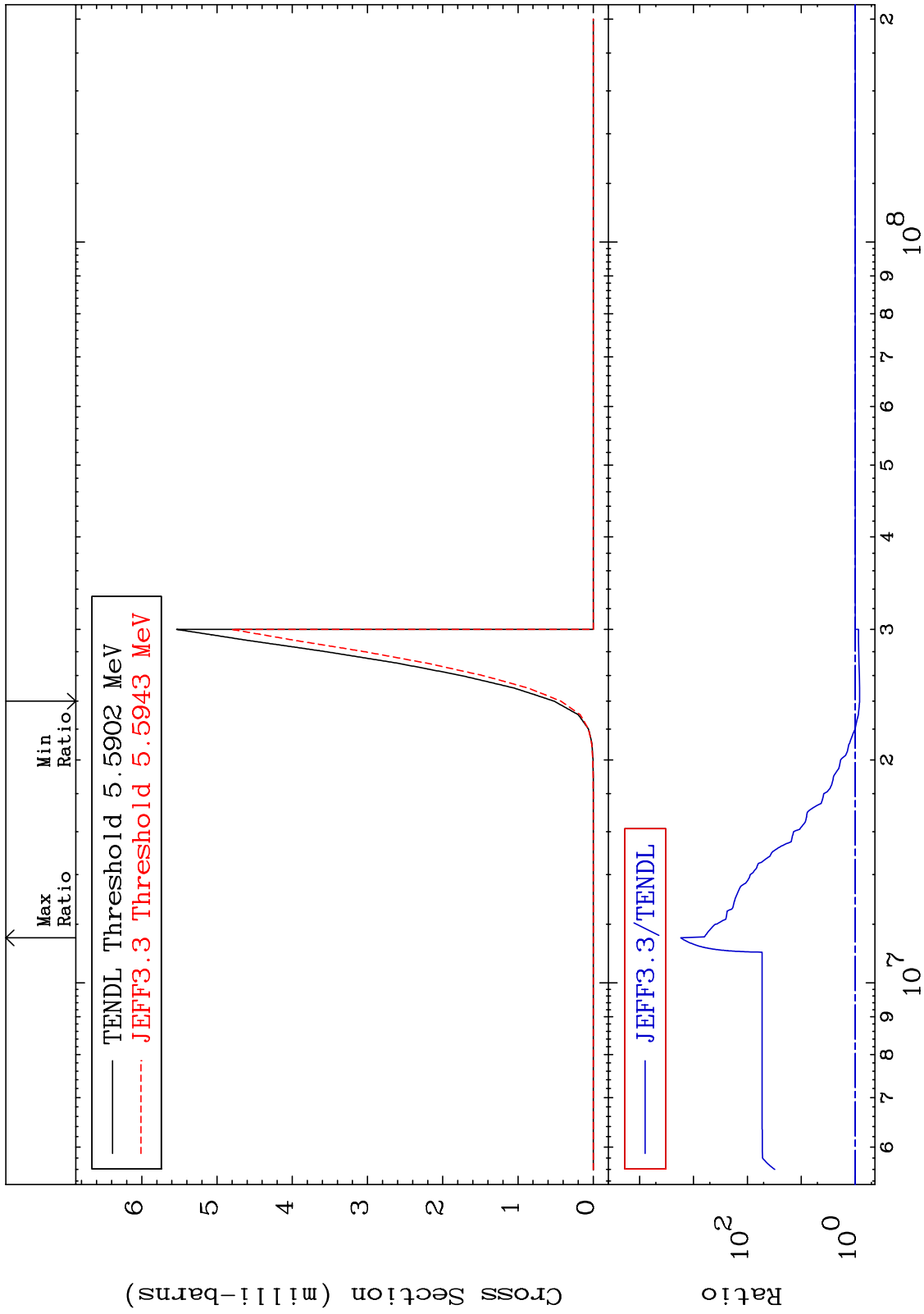
72-Hf-182

Radionuclide Production Cross Section -0.375 To 0.169 %



MAT 7249

(n,2n)  $\alpha$ : 70-Yb-177g 72-Hf-182  
Radionuclide Production Cross Section -17.52 To 9999. %

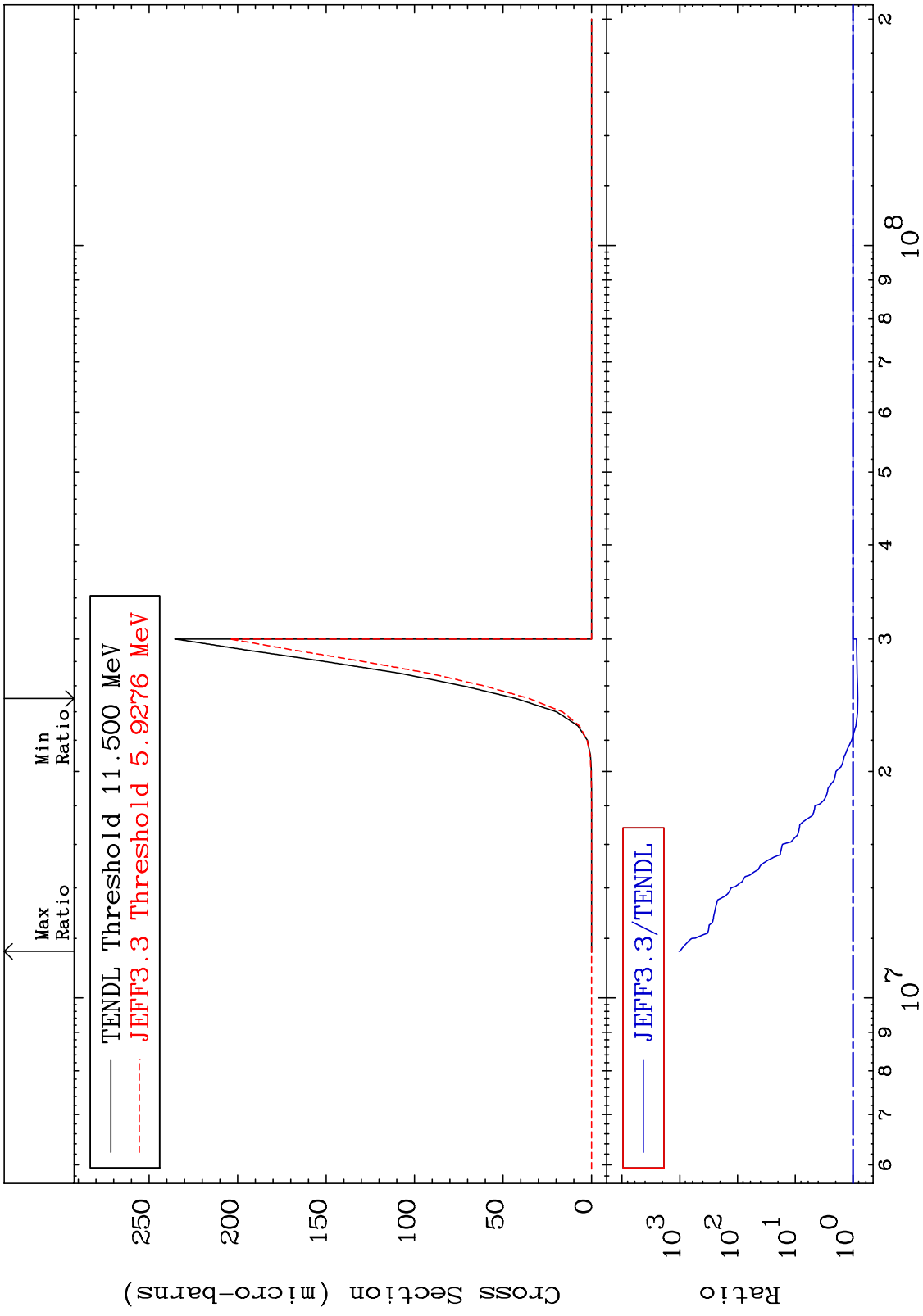


70

Incident Energy (eV)

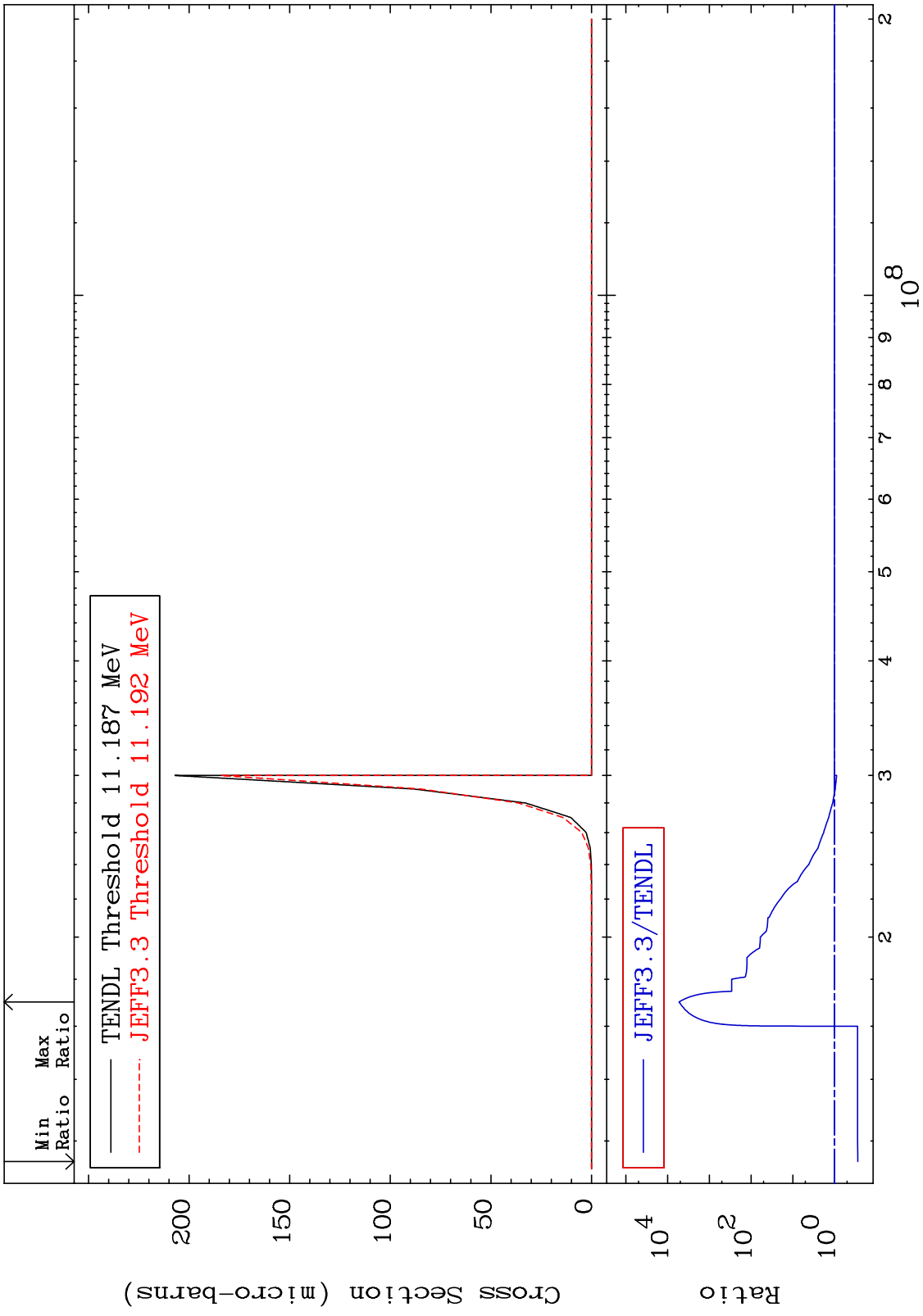
72-Hf-182

MAT 7249 (n,2n)  $\alpha$ :70-Yb-177m6 72-Hf-182  
 Radionuclide Production Cross Section -17.39 To 9999. %





MAT 7249 (n,3n)  $\alpha$ : 70-Yb-176g 72-Hf-182  
 Radionuclide Production Cross Section -72.44 To 9999. %

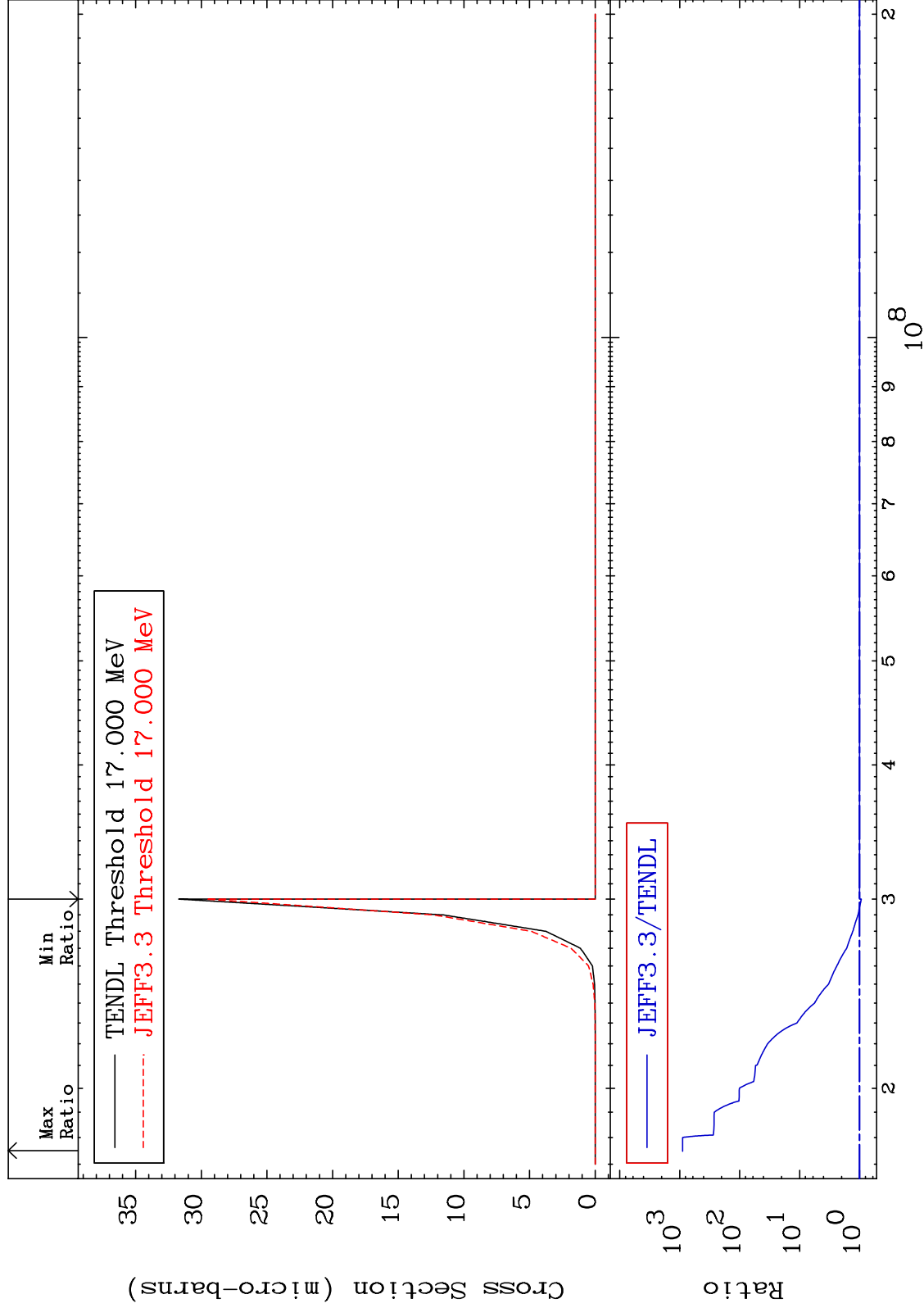


MAT 7249

(n,3n)  $\alpha$ :70-Yb-176m5

72-Hf-182

Radionuclide Production Cross Section -6.516 To 9999. %



73

Incident Energy (eV)

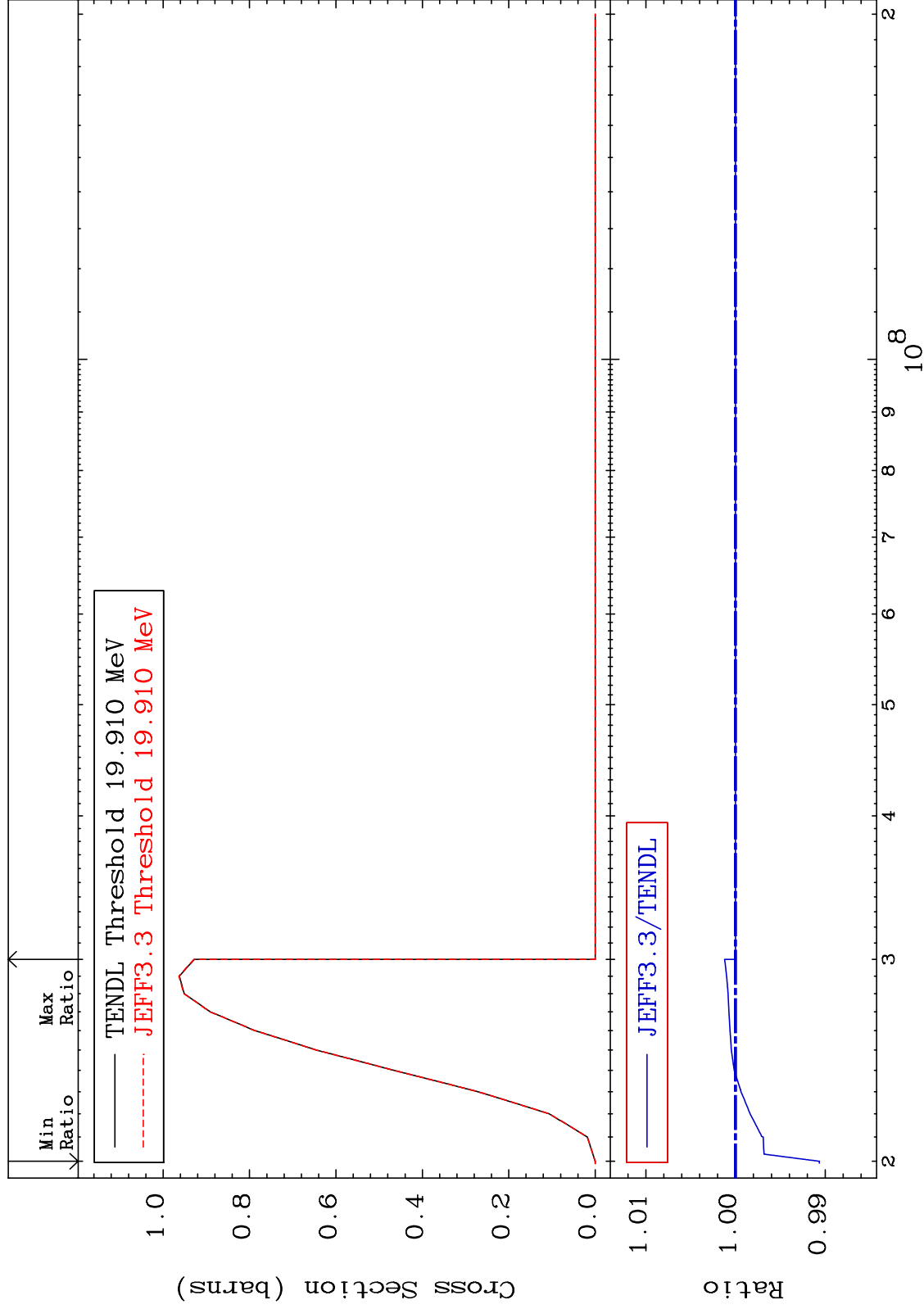
72-Hf-182

MAT 7249

(n,4n):72-Hf-179g

72-Hf-182

Radionuclide Production Cross Section -0.935 To 0.121 %

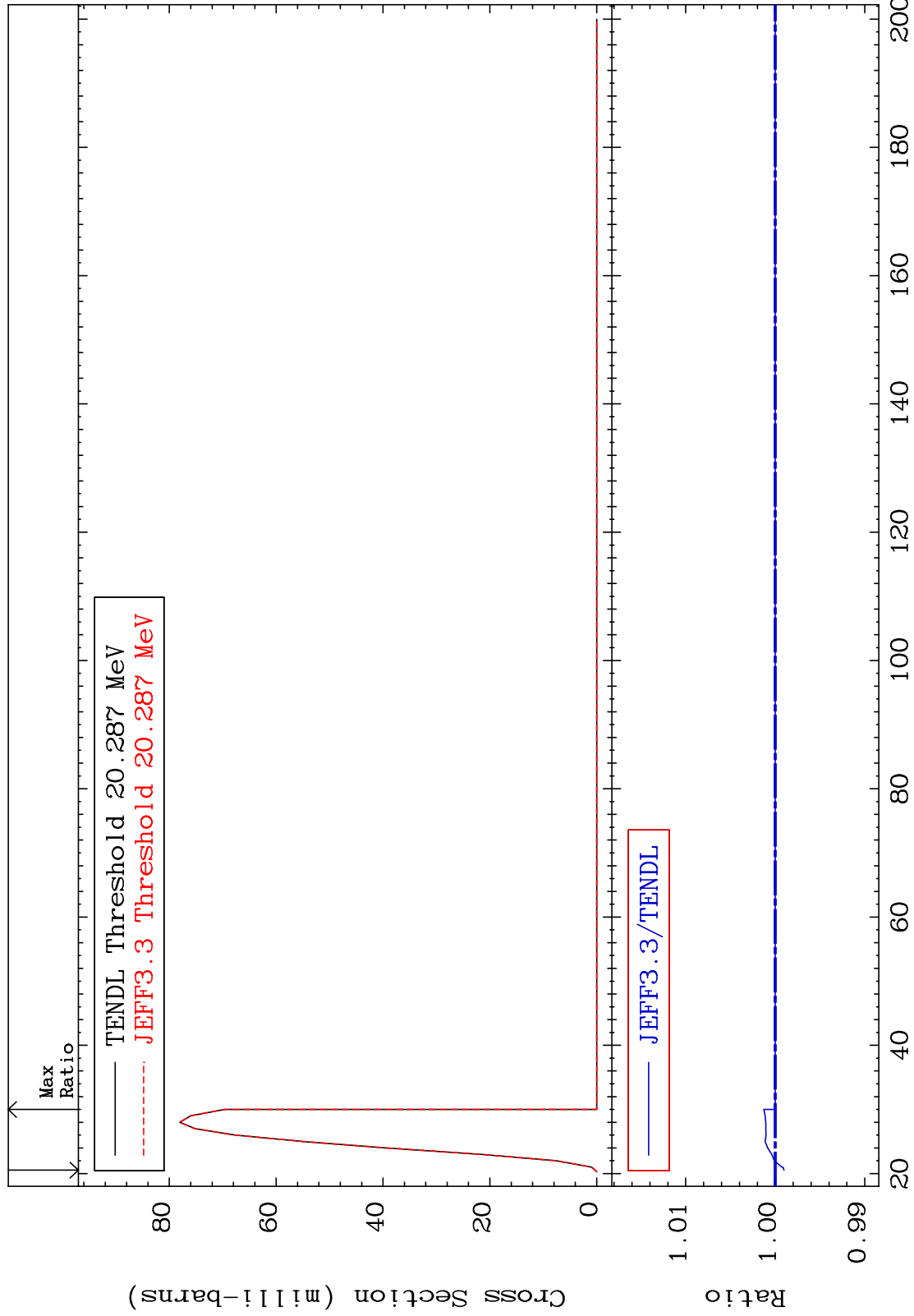


MAT 7249

(n, 4n) : 72-Hf-179m5

72-Hf-182

Radionuclide Production Cross Section -0.098 To 0.128 %



75

Incident Energy (MeV)

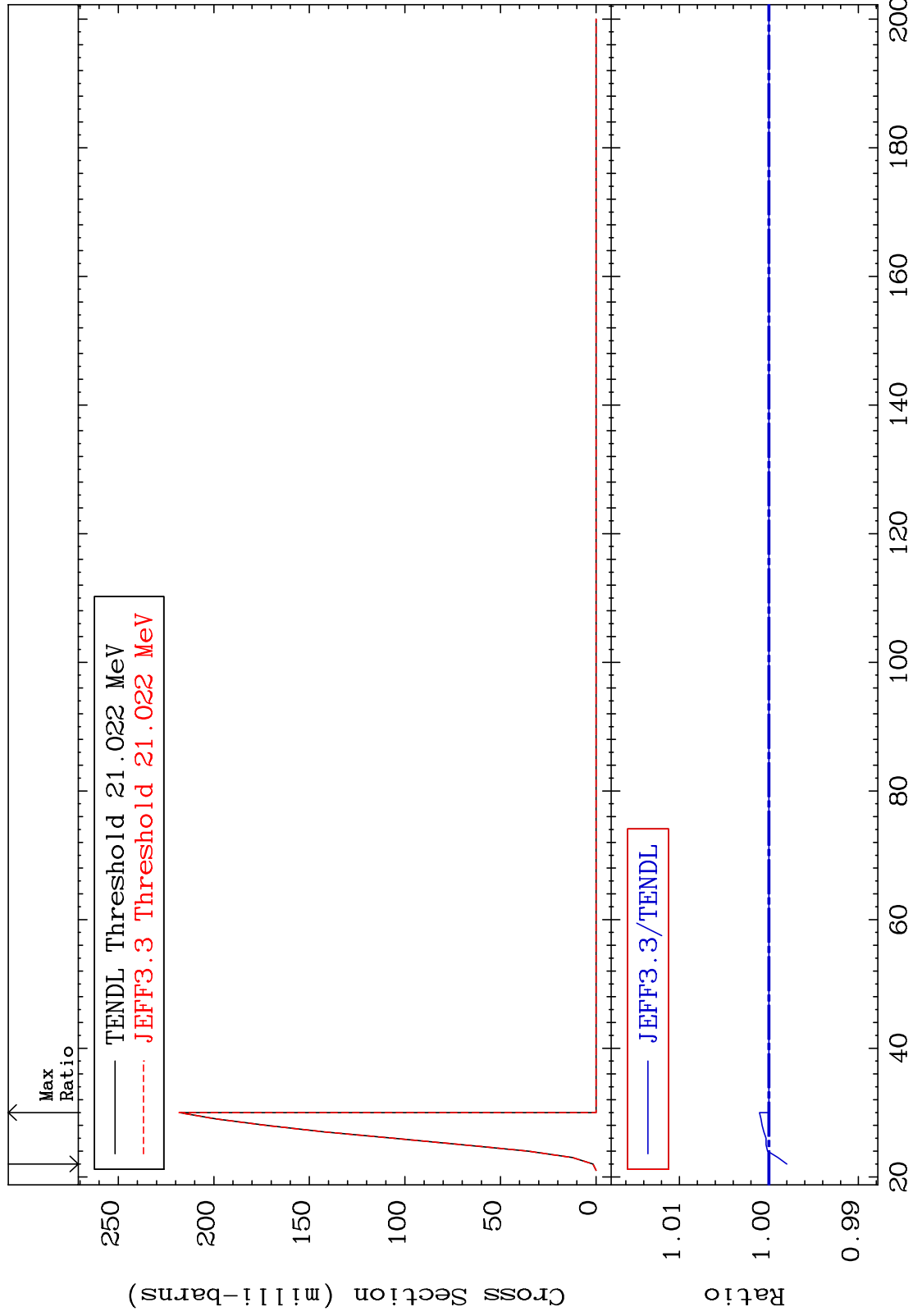
72-Hf-182

MAT 7249

(n,4n) : 72-Hf-179m10

72-Hf-182

Radionuclide Production Cross Section -0.199 To 0.106 %



76

Incident Energy (MeV)

72-Hf-182