

Program Complot
(Version 2018-1)

by

Dermott E. Cullen
(Present Contact Information)

Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550

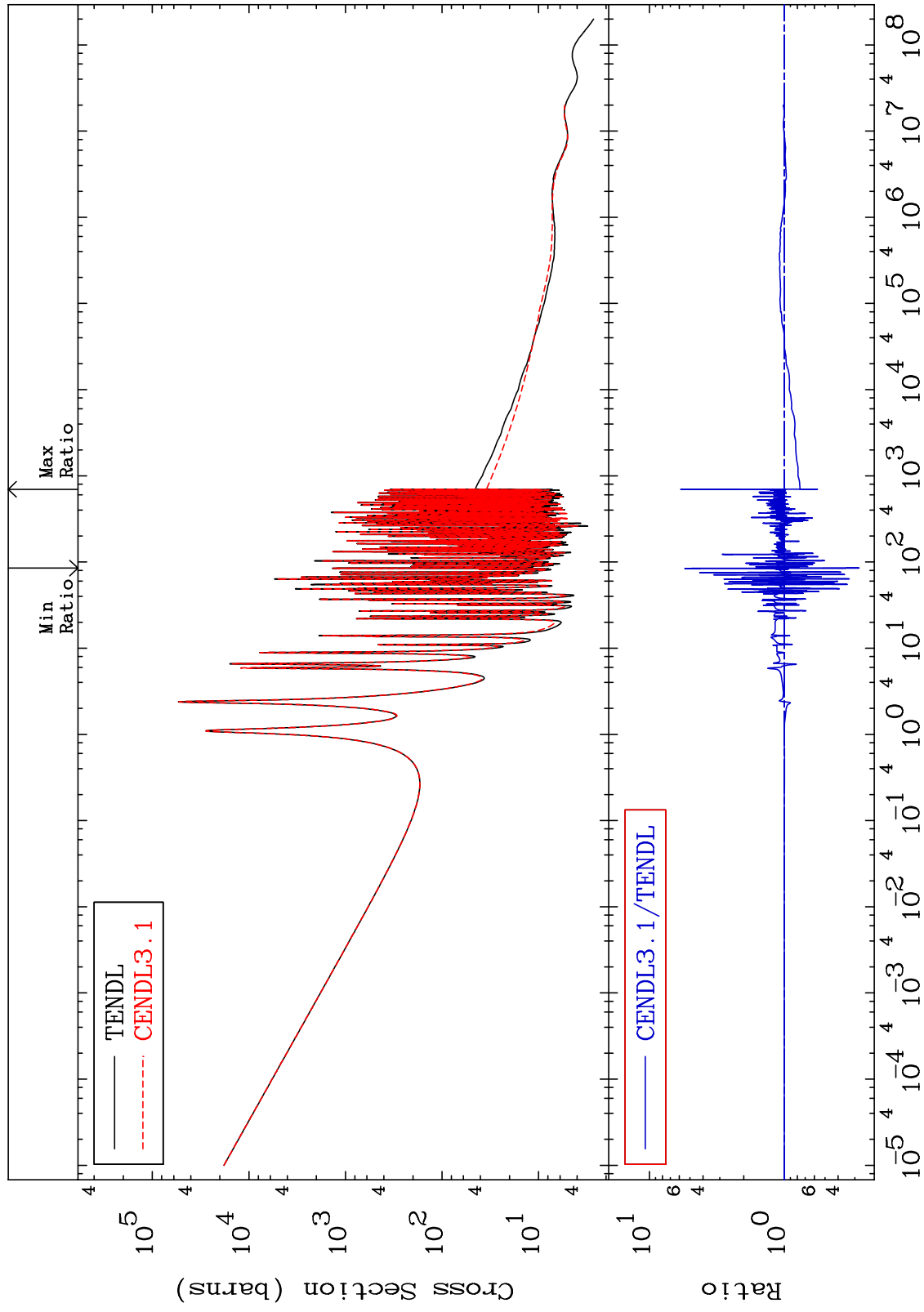
U.S.A.

Tele: 925-443-1911

E.Mail: redcullen1@comcast.net
Web: redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 7234 72-Hf-177
Total Cross Section -72.06 To 483.9 %



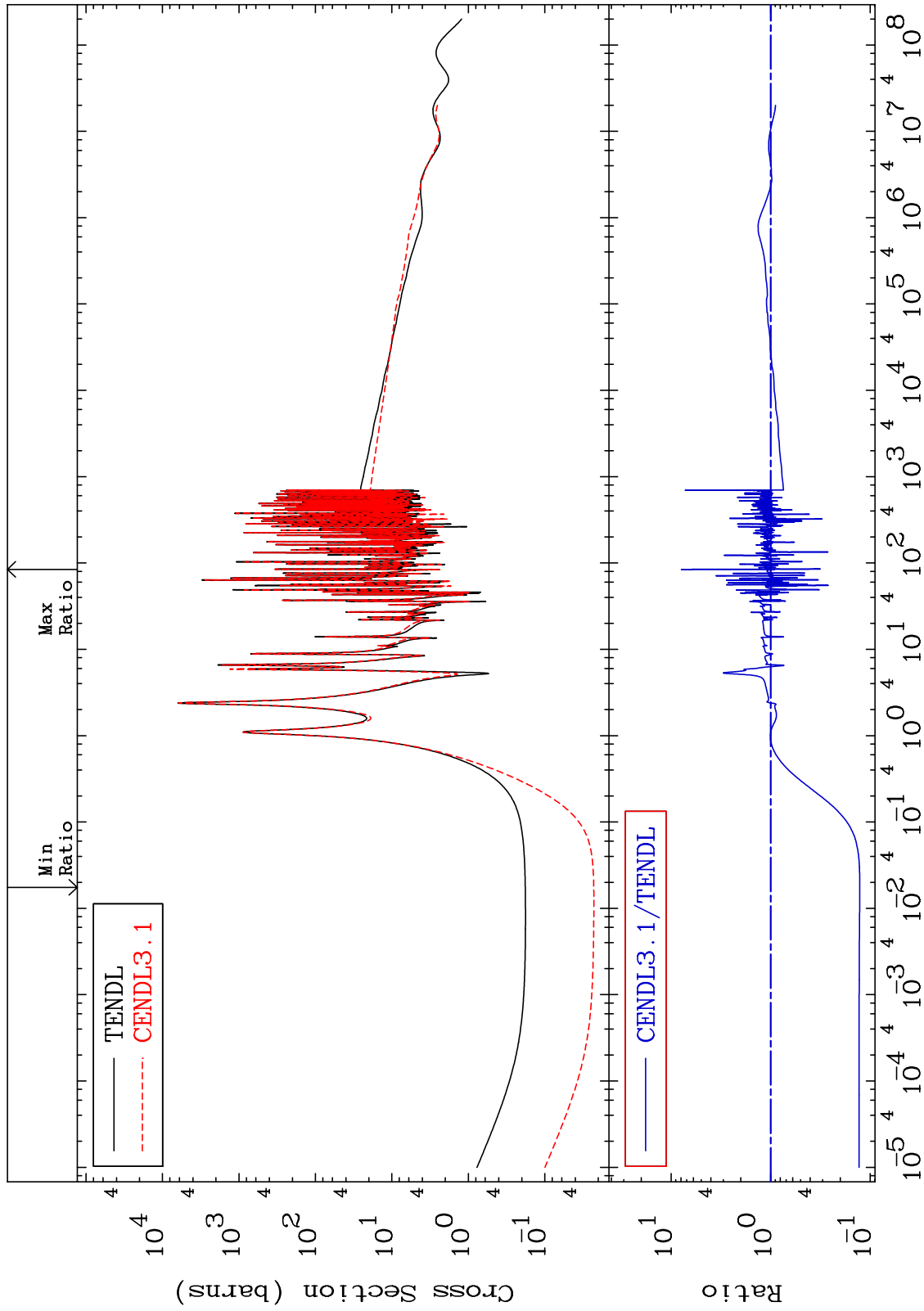
1 Incident Energy (eV) 72-Hf-177

MAT 7234

Elastic
Cross Section

72-Hf-177

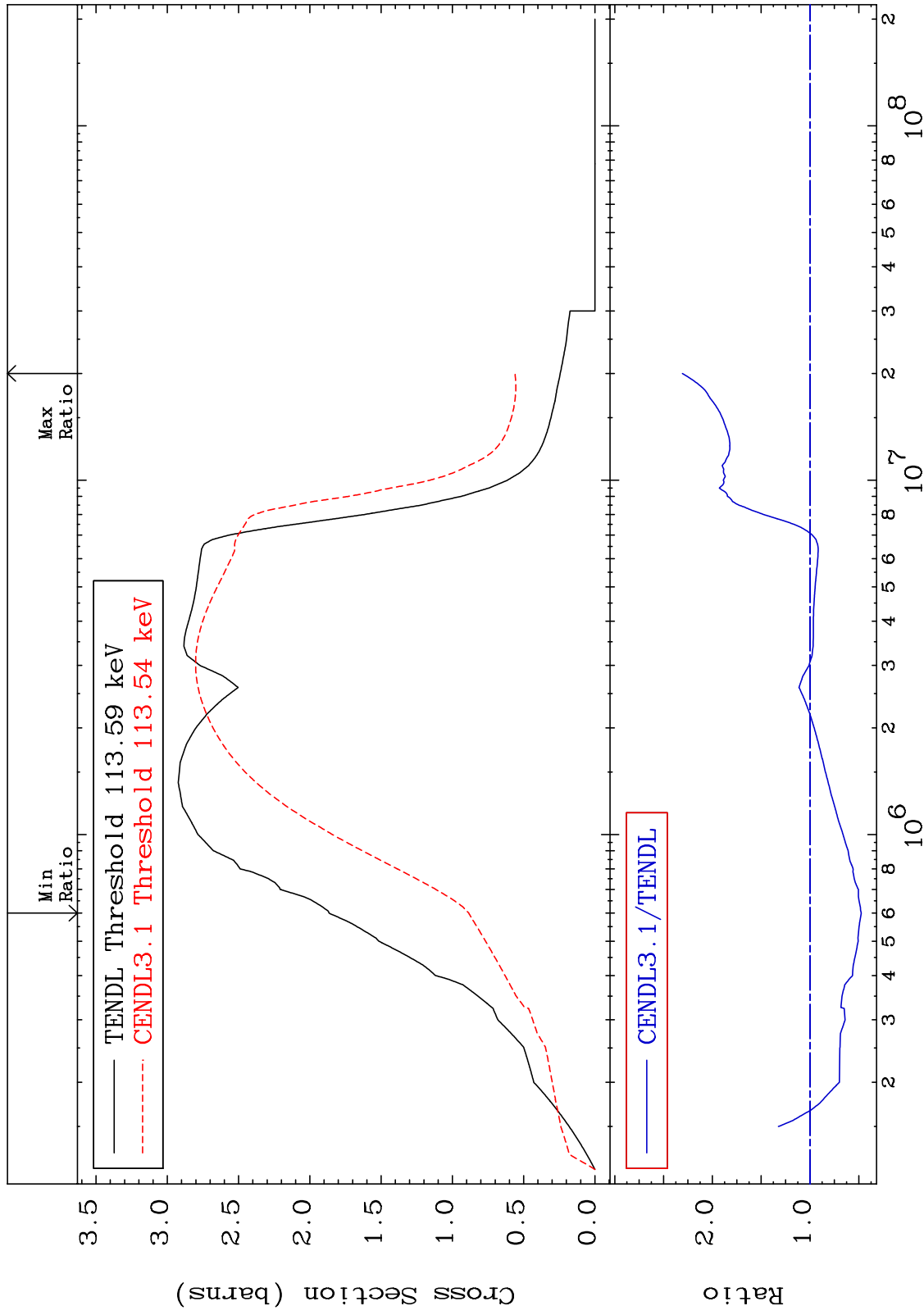
-87.28 To 693.2 %



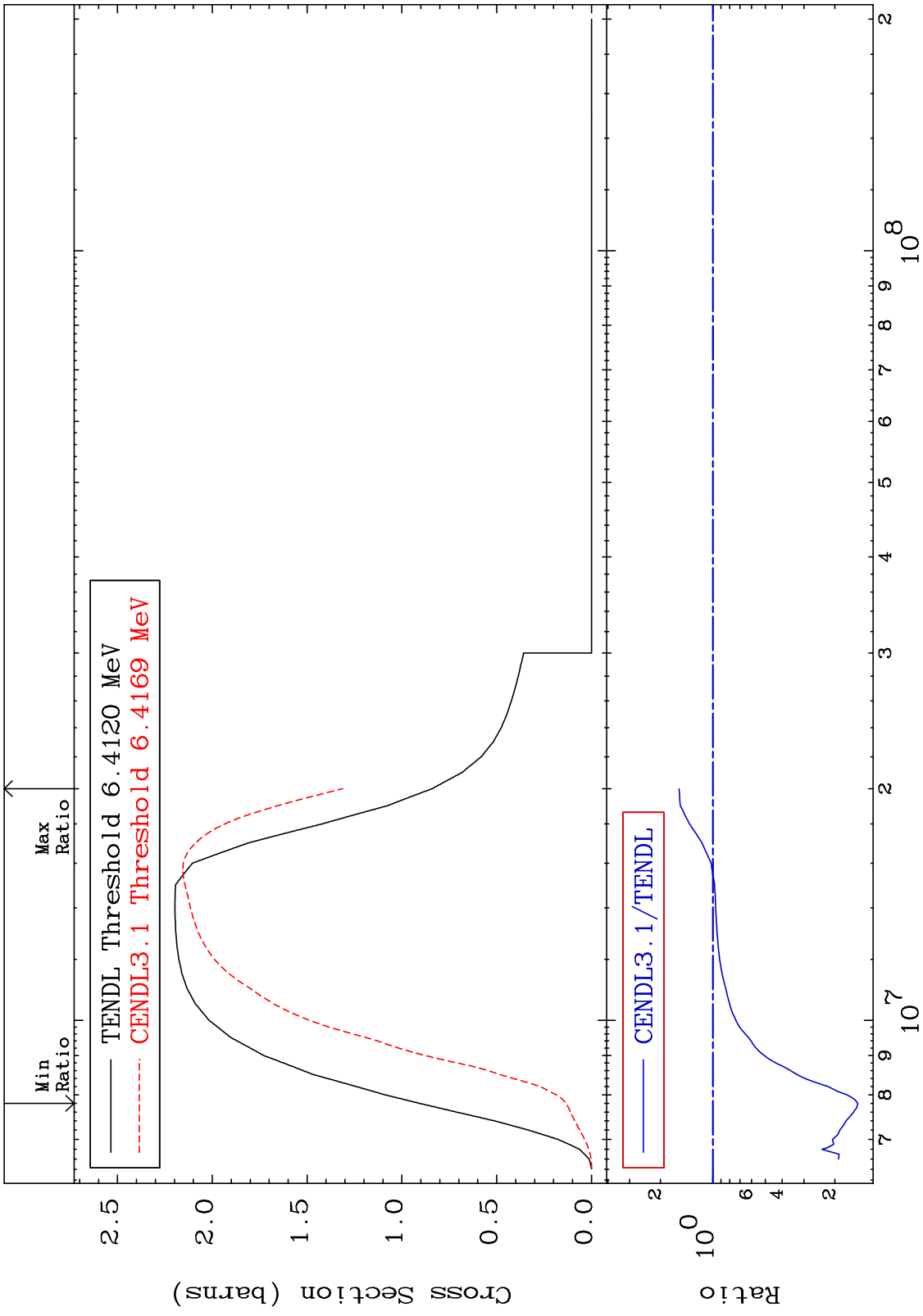
MAT 7234

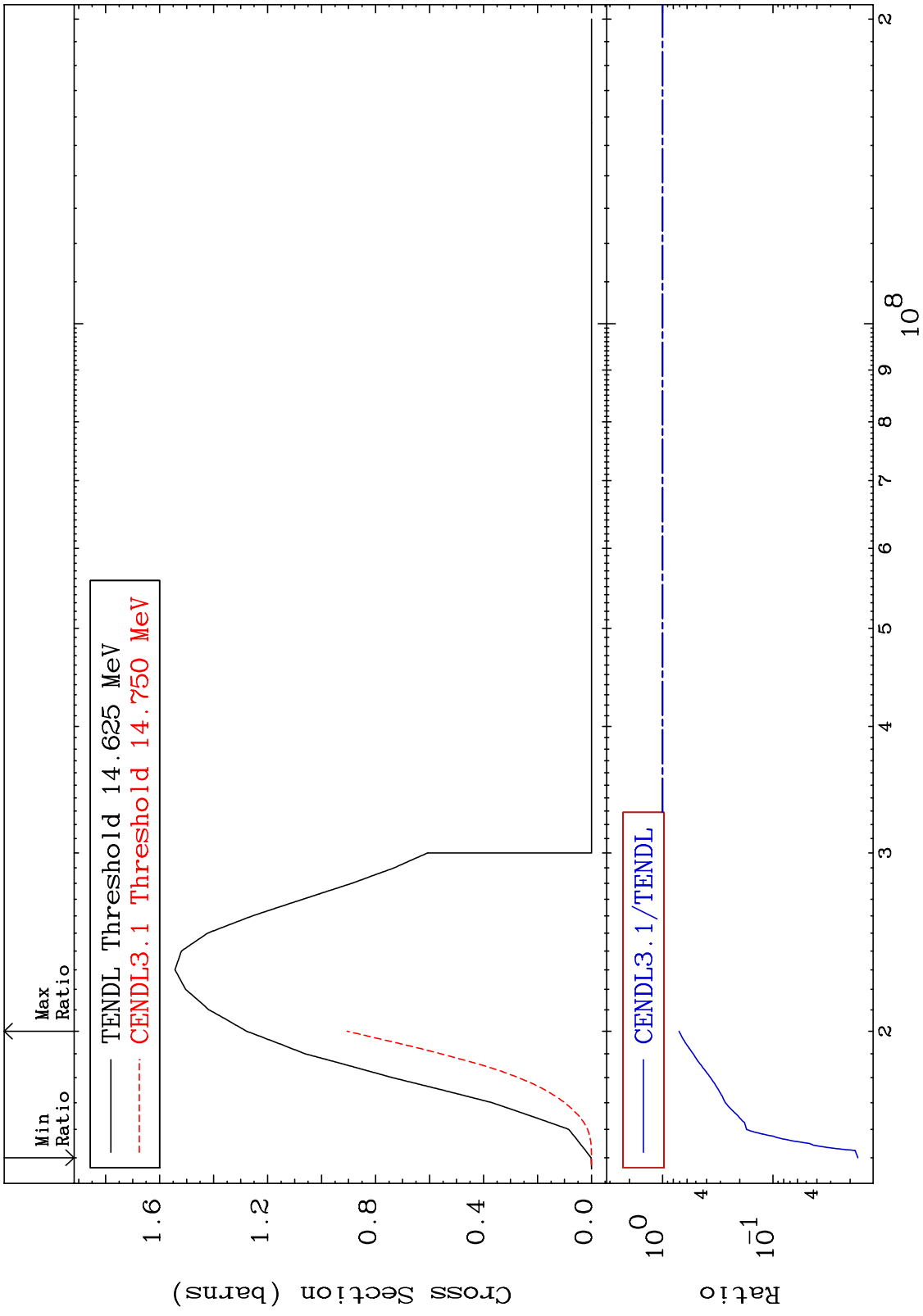
Inelastic
Cross Section

72-Hf-177
-52.53 To 130.6 %



MAT 7234 (n,2n) 72-Hf-177
Cross Section -85.26 To 56.32 %





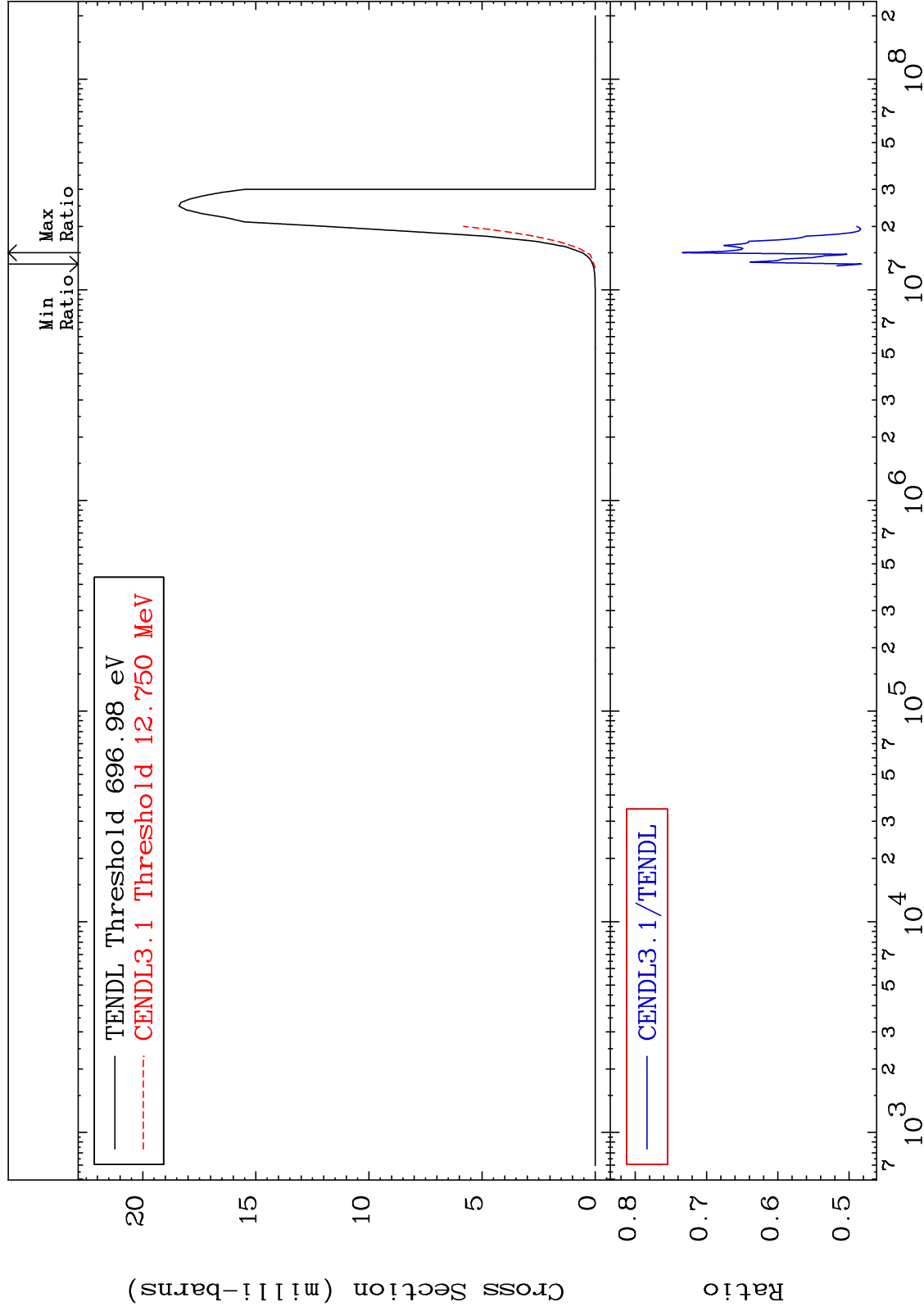
MAT 7234

(n, n') α

Cross Section

72-Hf-177

-51.71 To -26.65%

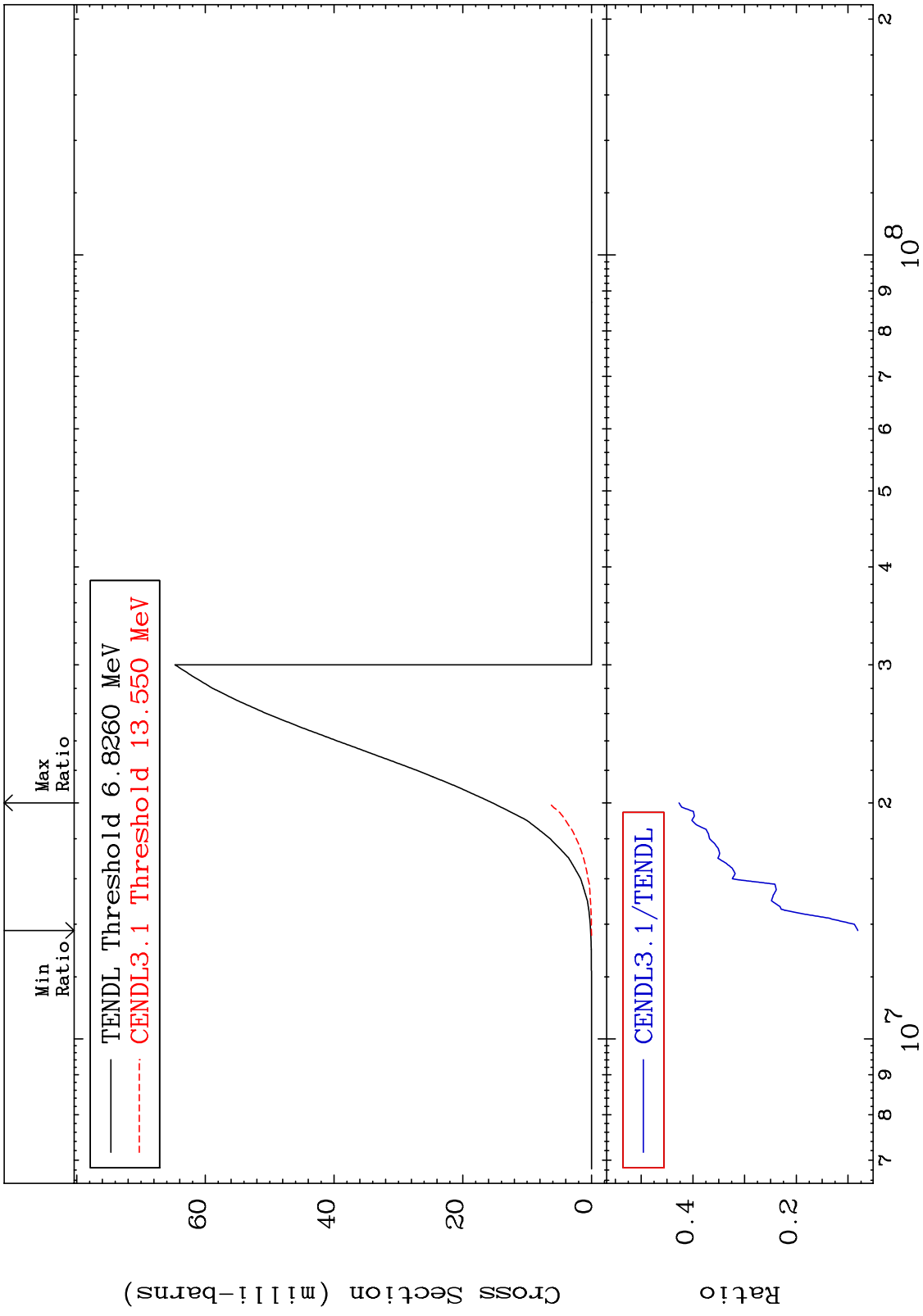


Incident Energy (eV)

72-Hf-177

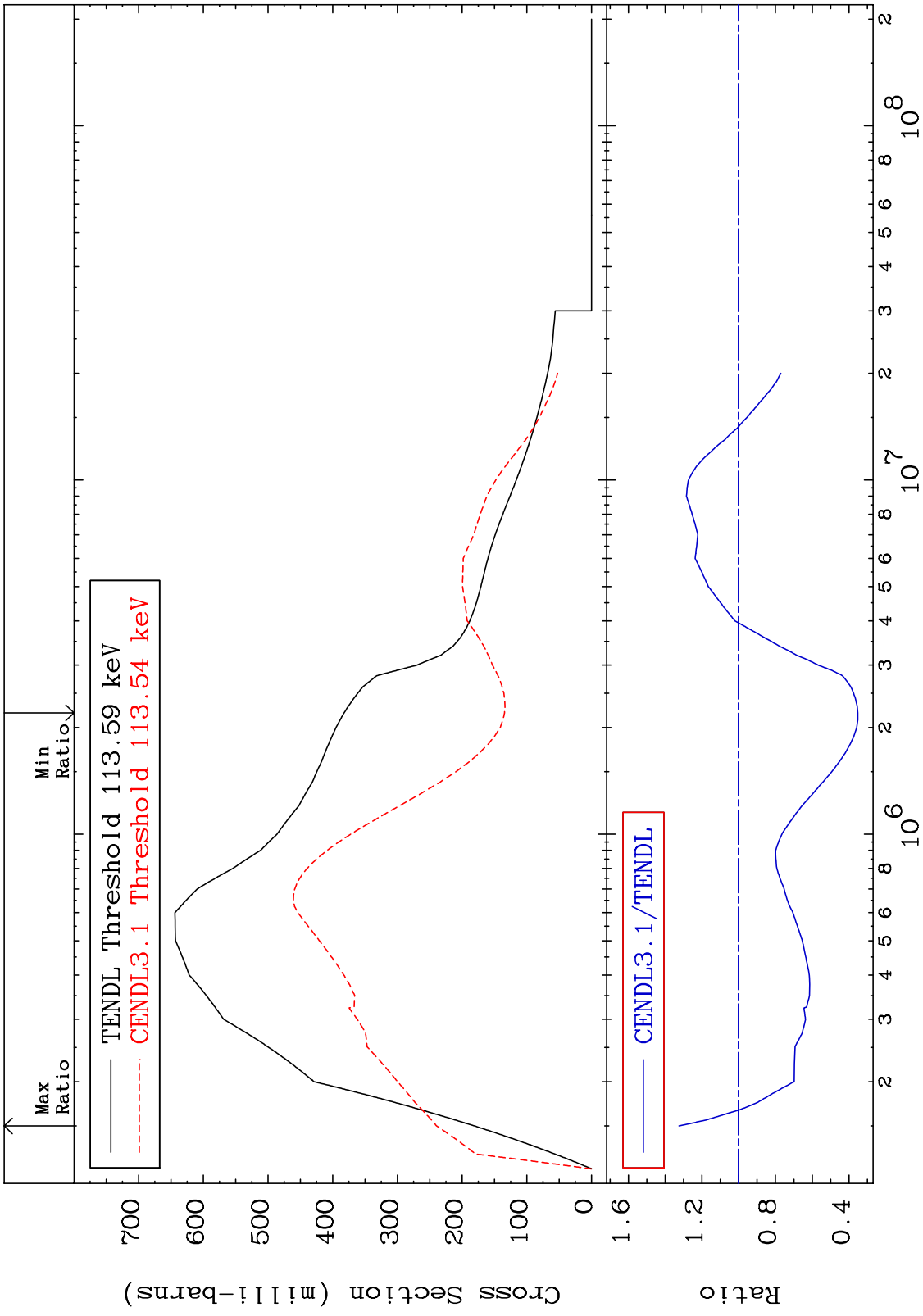
6

MAT 7234 (n, n') p $^{72}\text{Hf}-177$
 Cross Section -91.89 To -57.32%



72-Hf-177

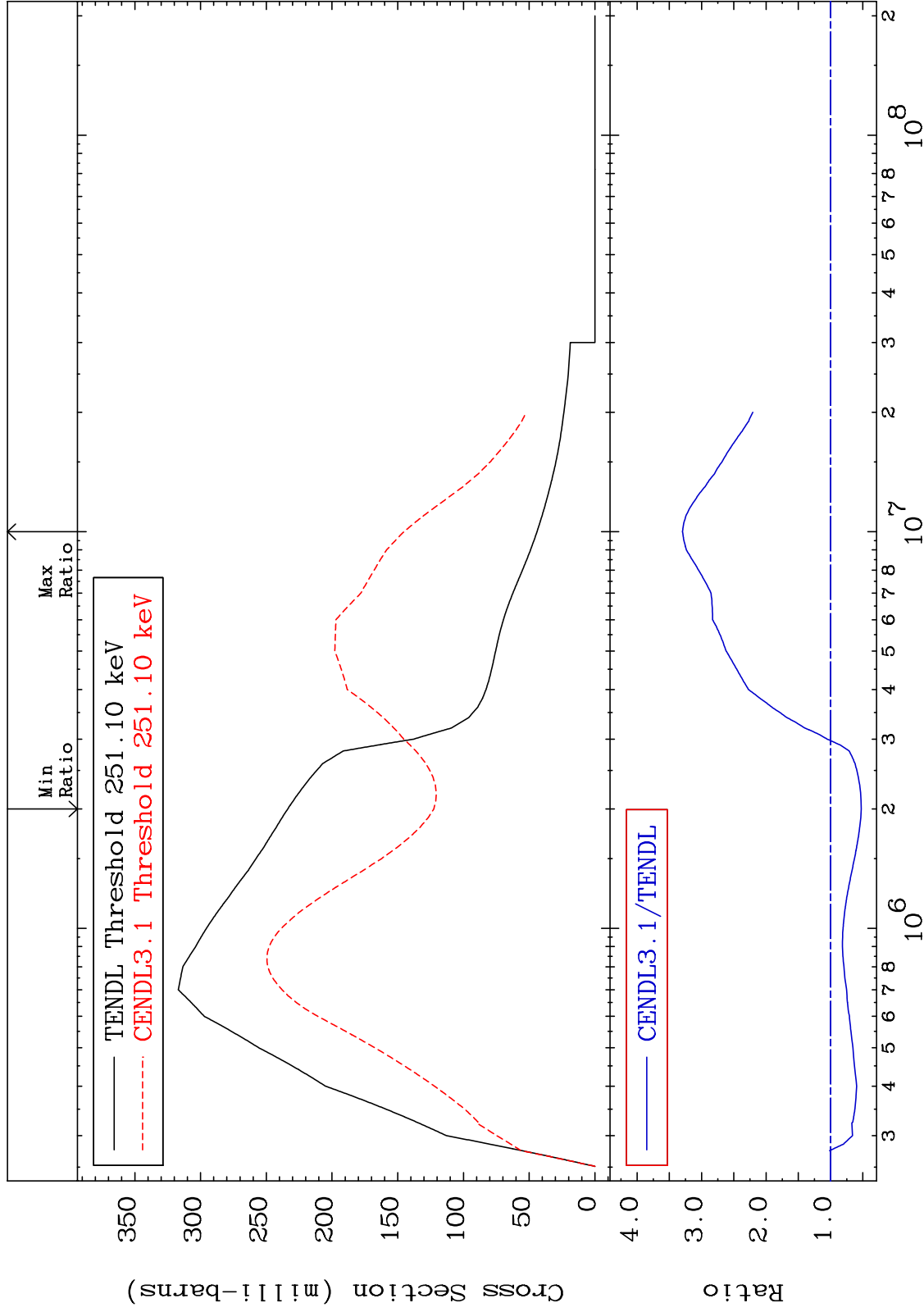
MAT 7234 MT= 51 (n,n') Level Cross Section 72-Hf-177
 -64.82 To 32.47 %



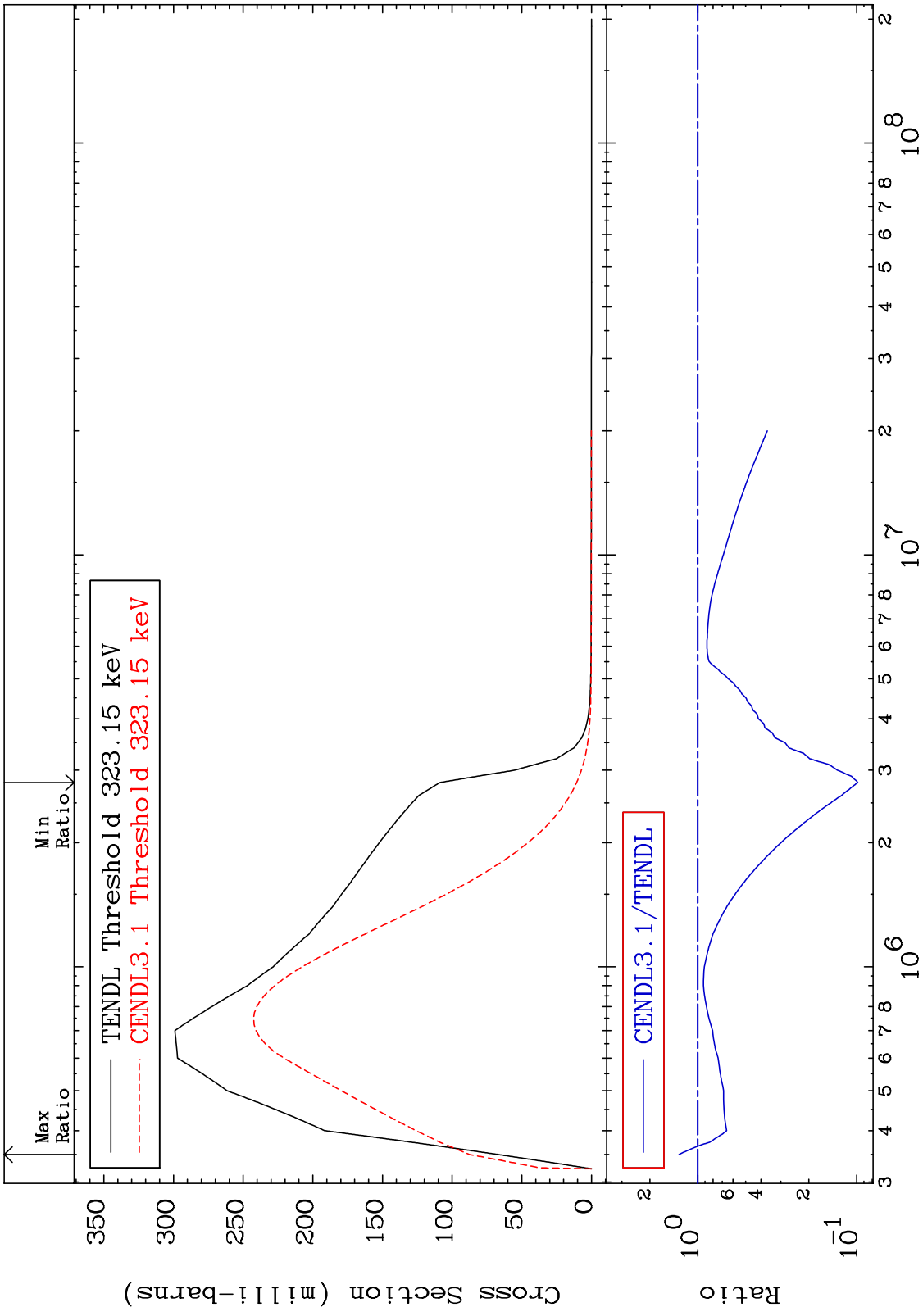
MAT 7234

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

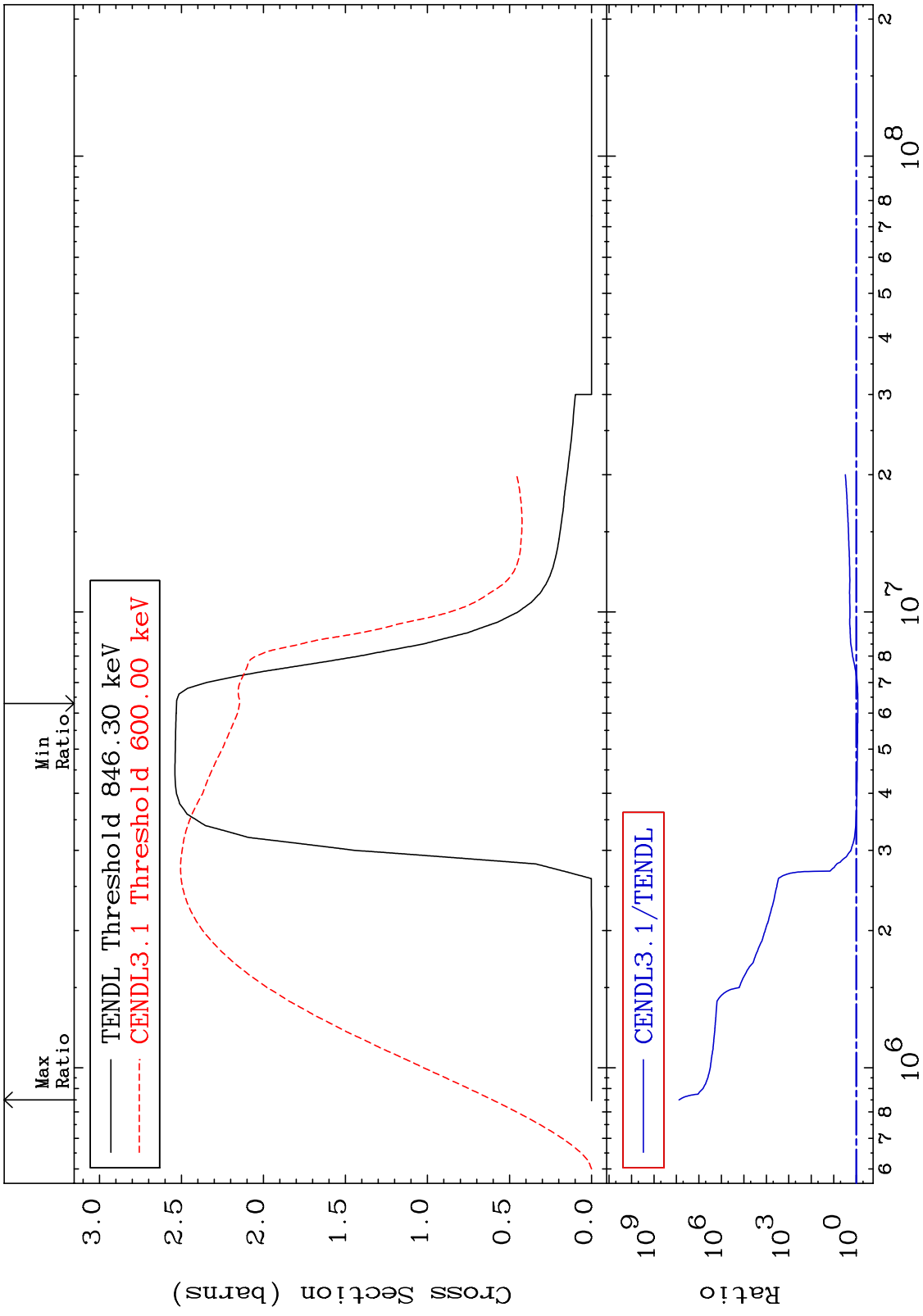
72-Hf-177
-47.57 To 229.7 %



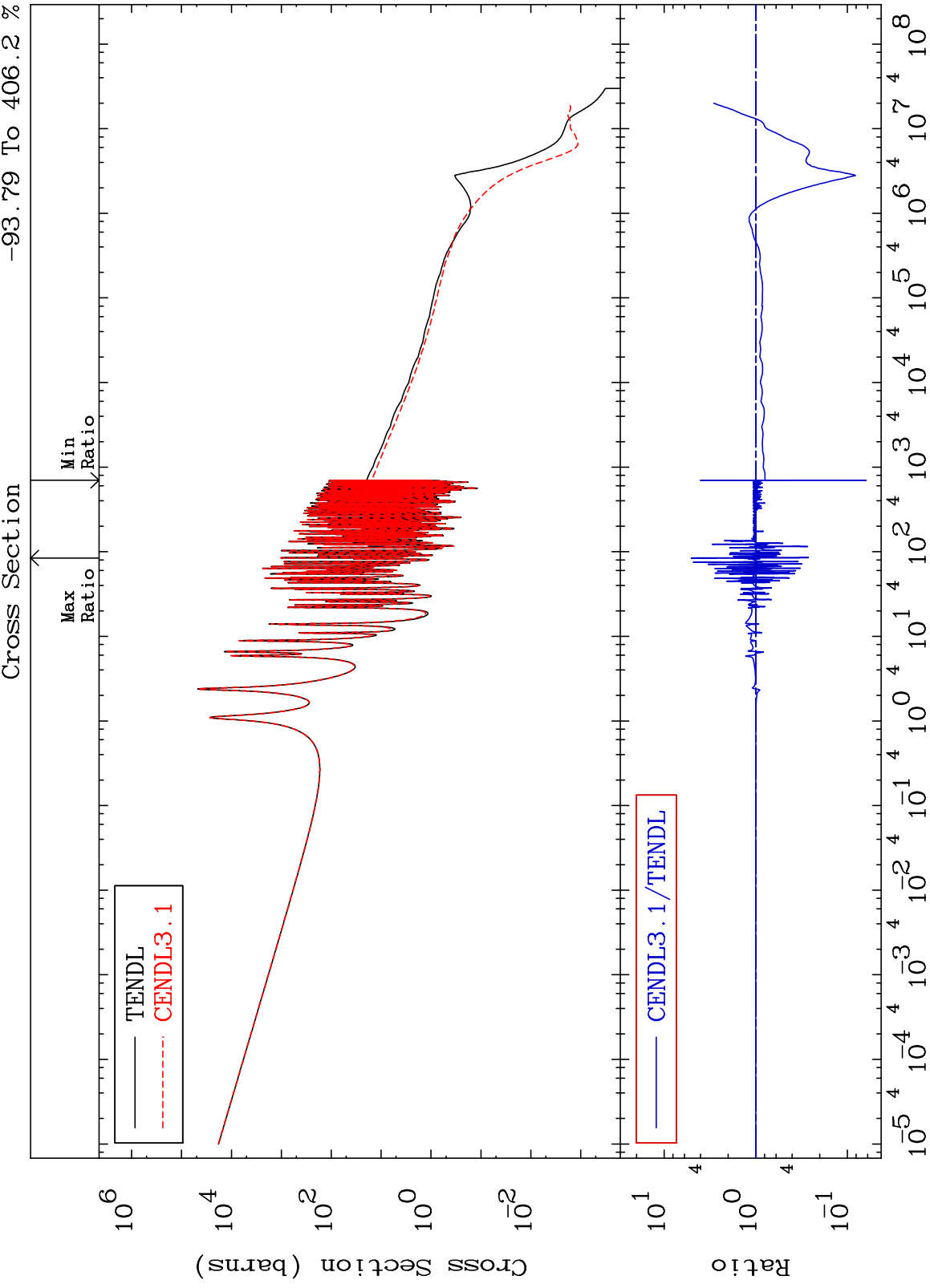
MAT 7234 MT= 53 (n,n') Level Cross Section 72-Hf-177
 -90.16 To 30.98 %



10 72-Hf-177



MAT 7234 (n, γ) 72-Hf-177 -93.79 To 406.2 %



12 72-Hf-177

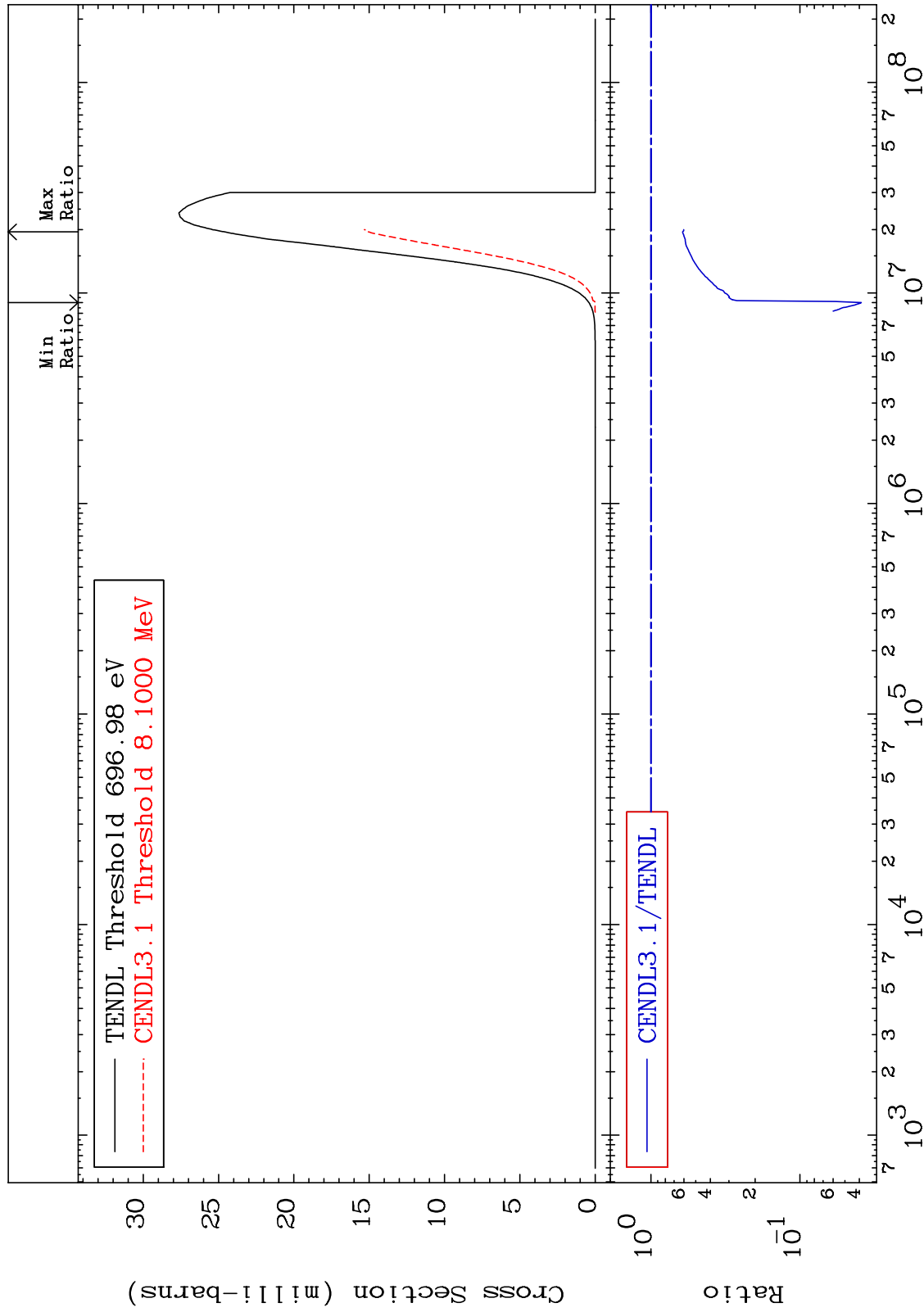
MAT 7234

(n,p)

72-Hf-177

Cross Section

-96.13 To -38.75%

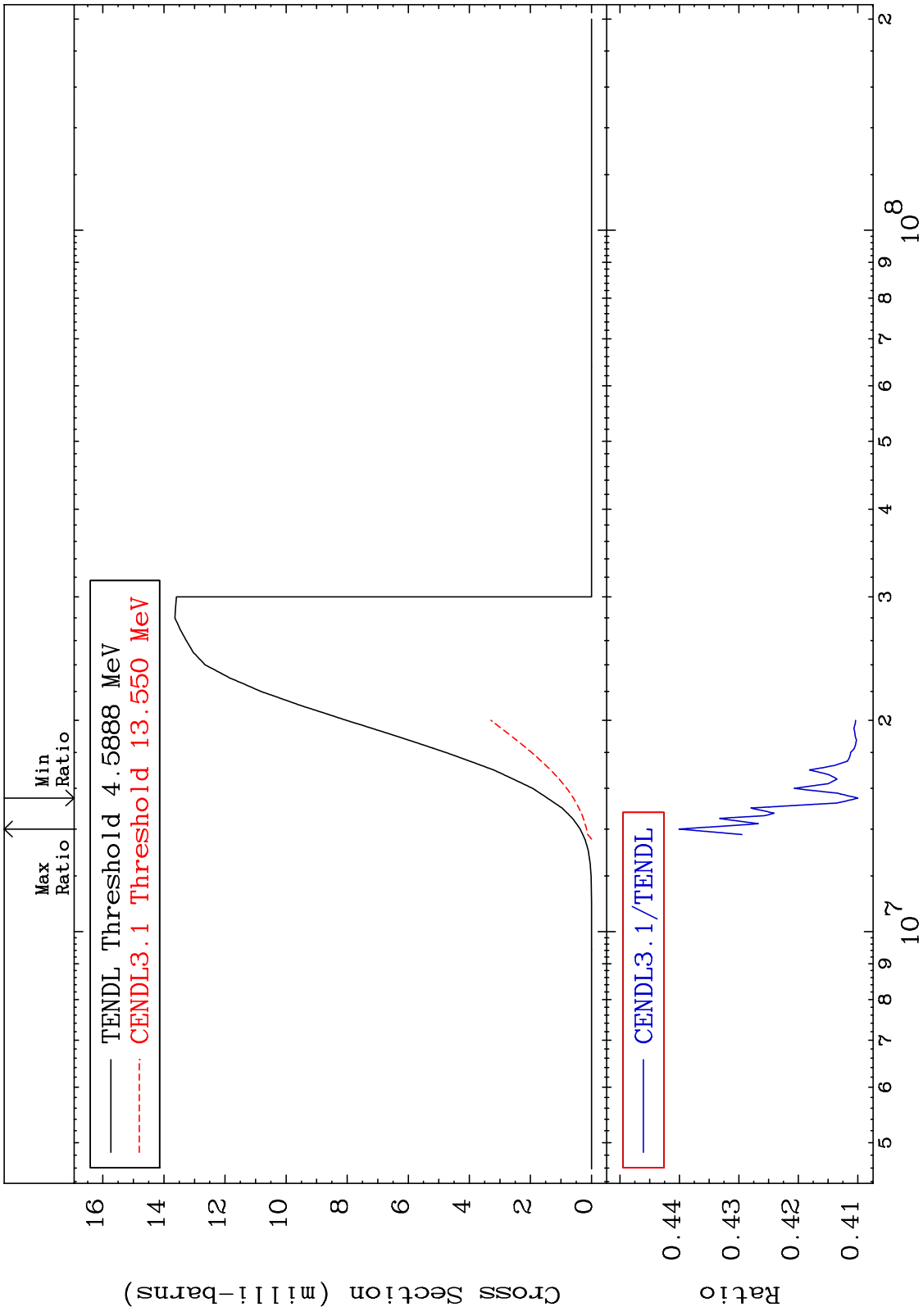


13

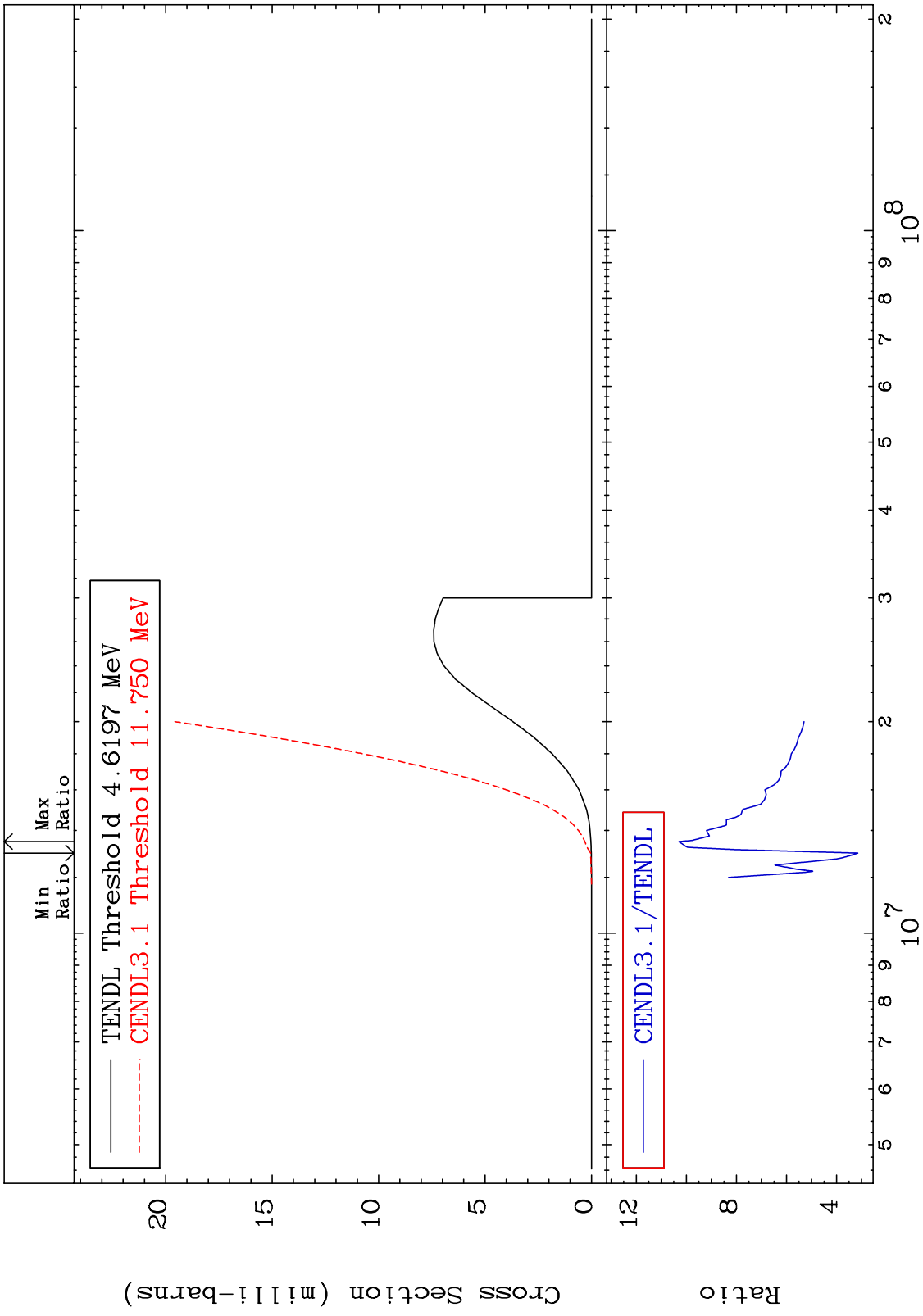
Incident Energy (eV)

72-Hf-177

MAT 7234 (n,d) Cross Section 72-Hf-177 -59.00 To -55.99%



MAT 7234 (n,t) Cross Section 72-Hf-177
 215.0 To 929.2 %



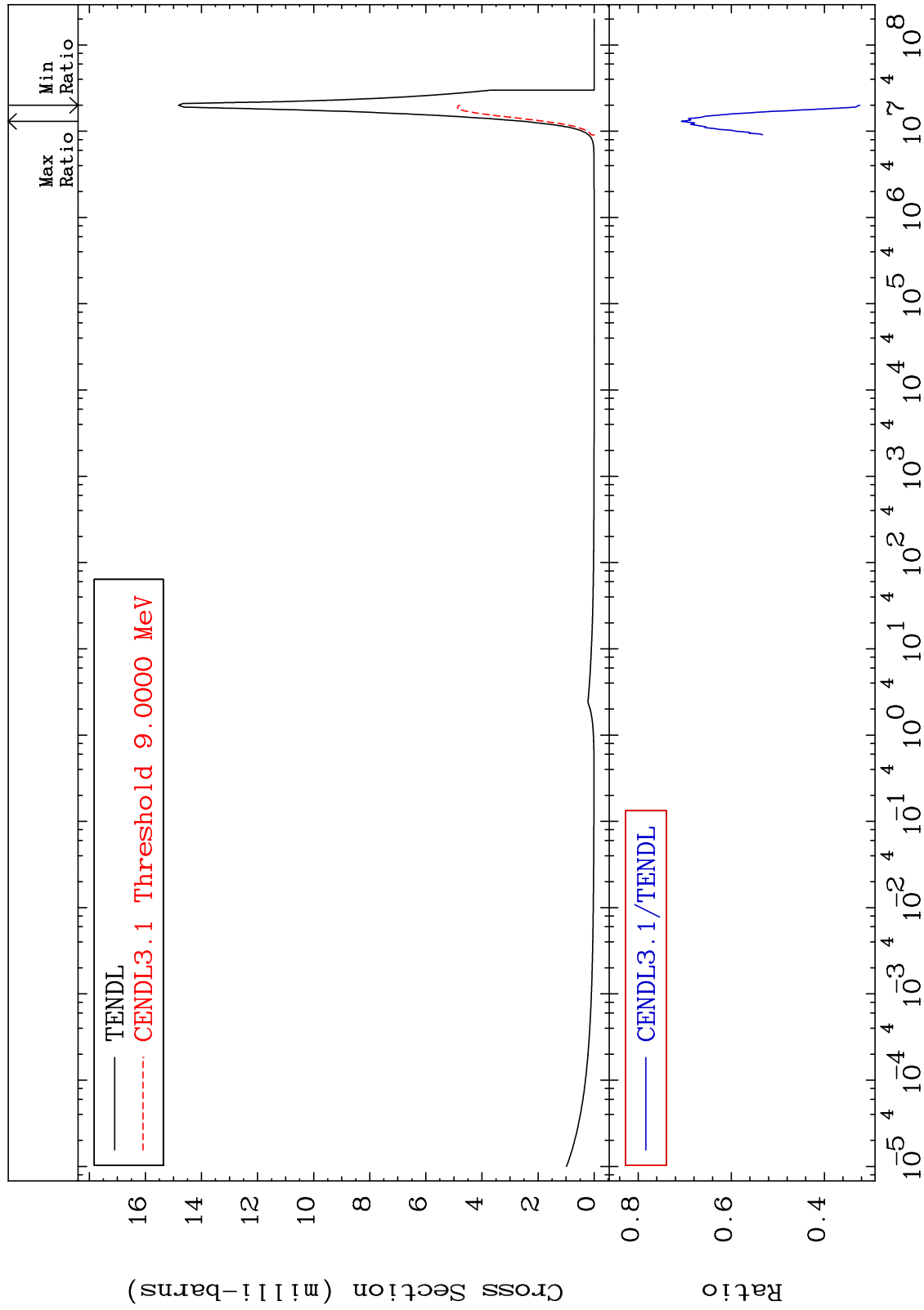
MAT 7234

(n, α)

72-Hf-177

Cross Section

-67.62 To -29.29%



16

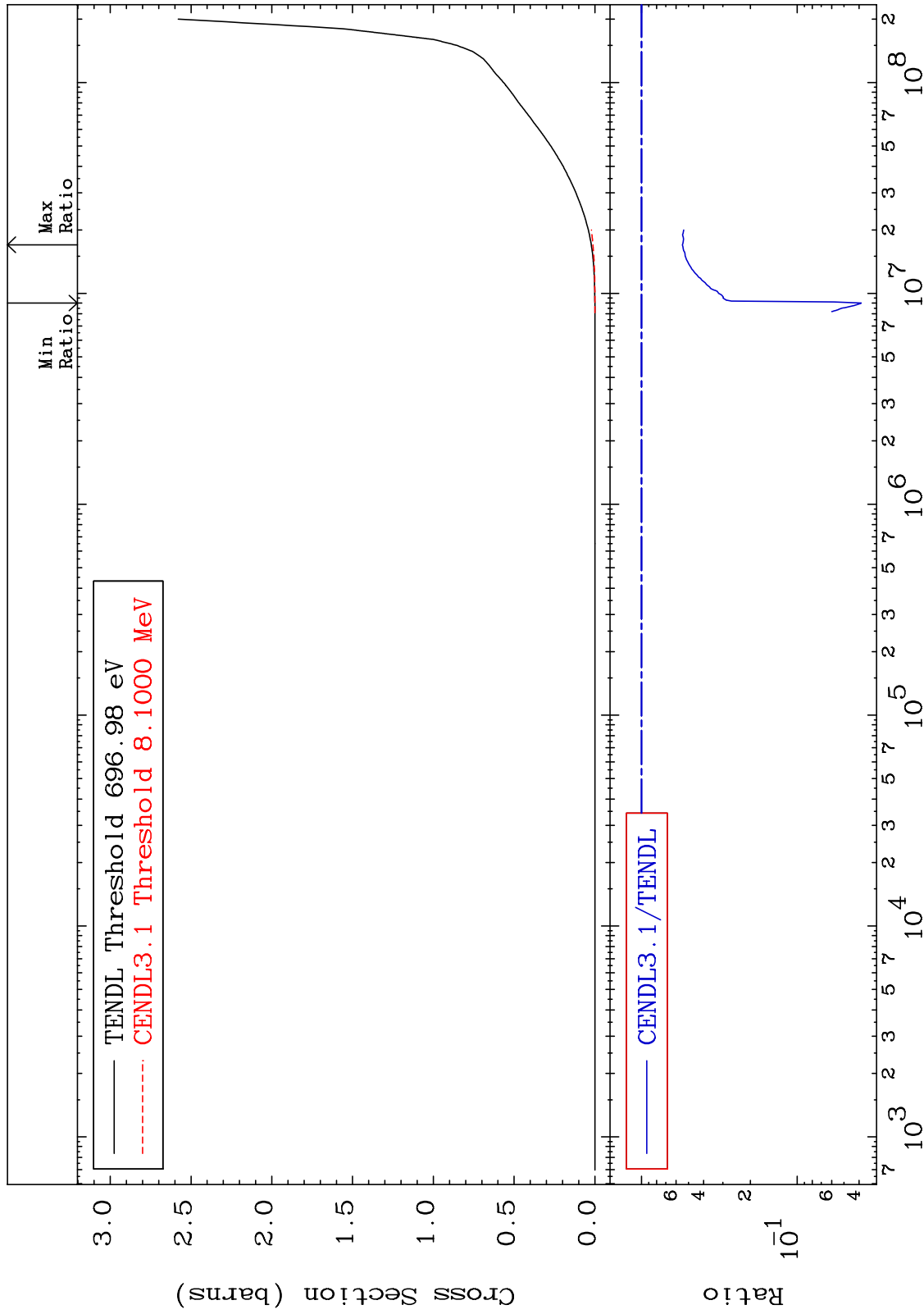
Incident Energy (eV)

72-Hf-177

MAT 7234

Hydrogen Production Cross Section

72-Hf-177
-96.13 To -45.39%



17

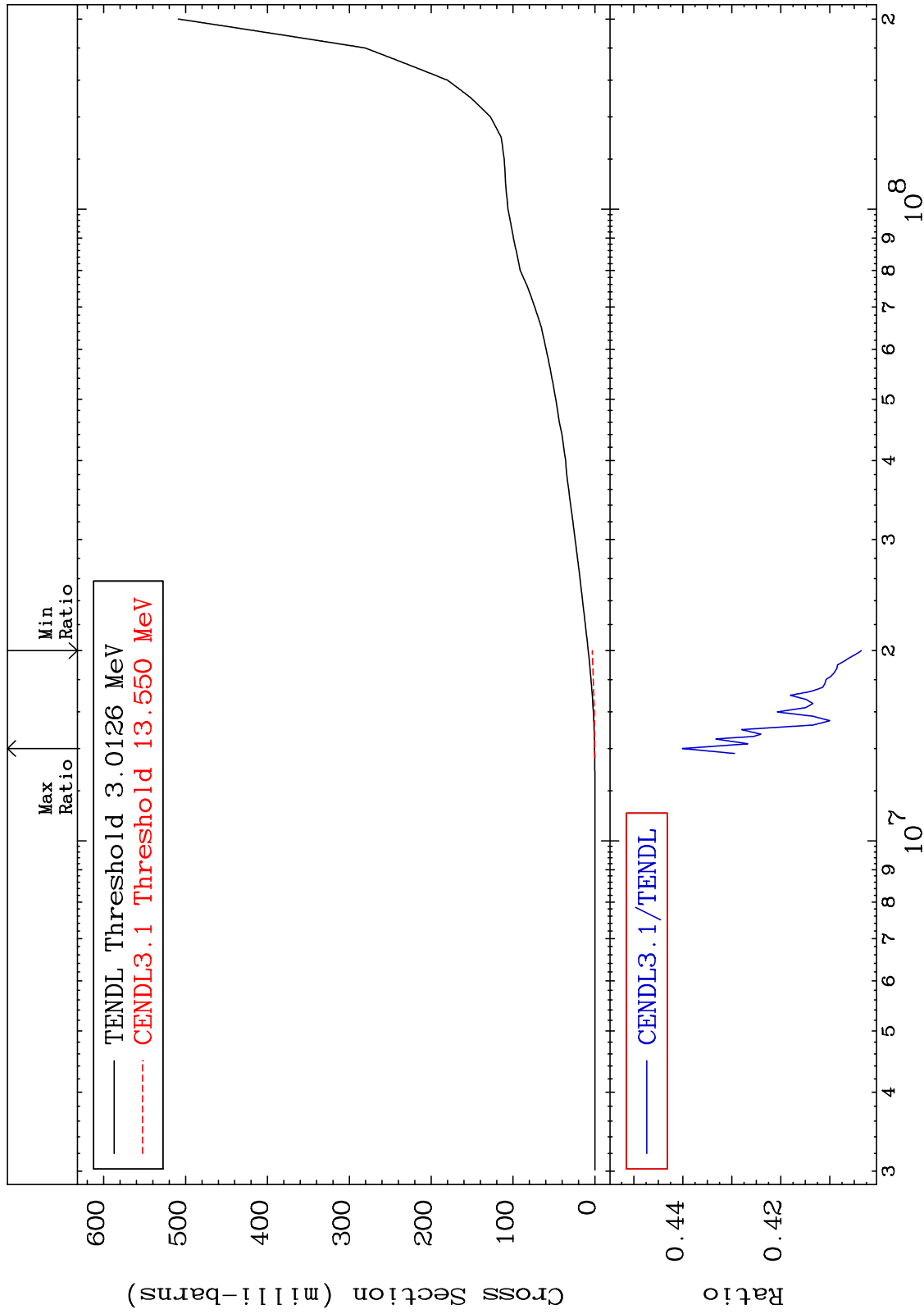
Incident Energy (eV)

72-Hf-177

MAT 7234

Deuterium Production
Cross Section

72-Hf-177
-59.64 To -55.99%



18

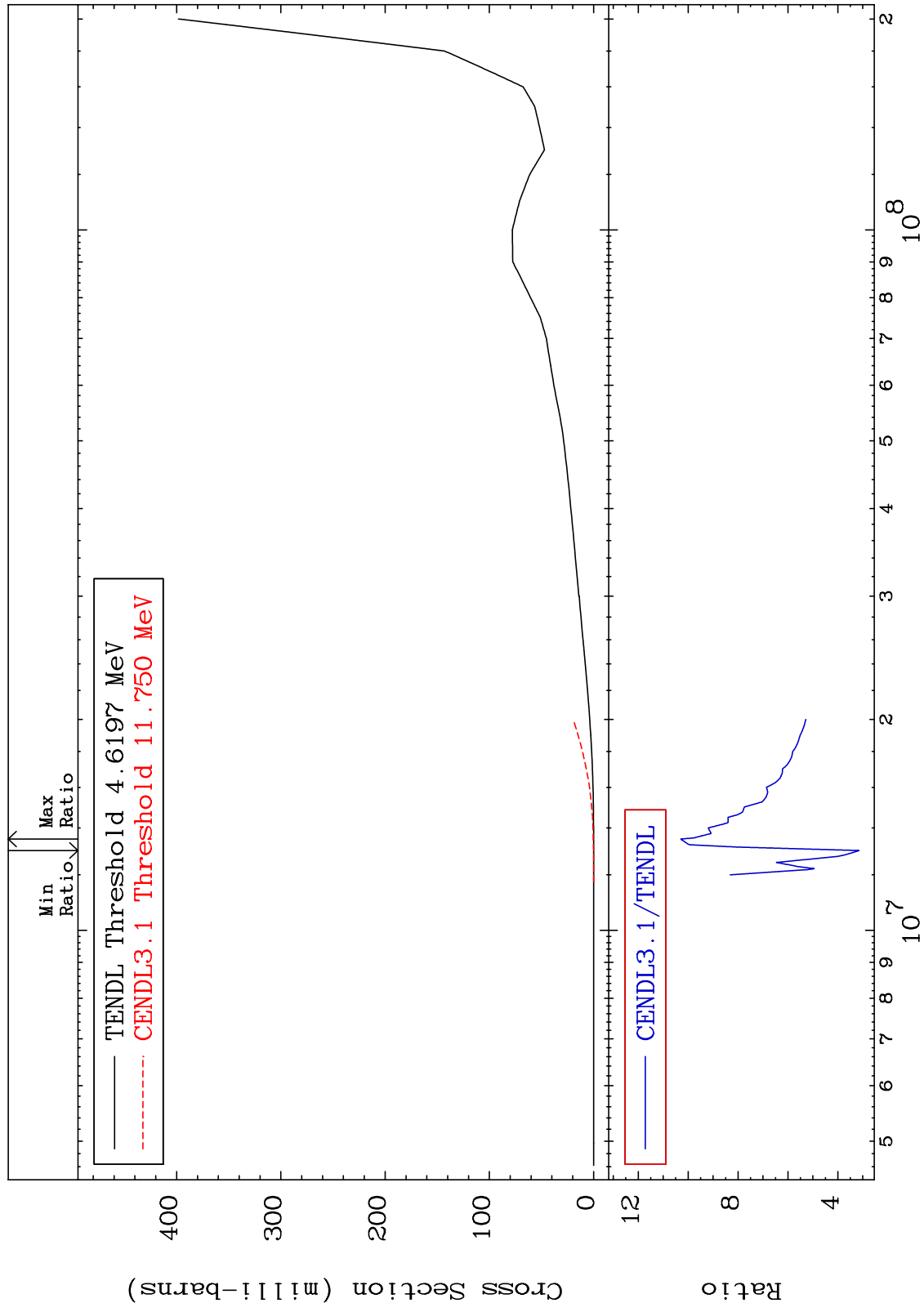
Incident Energy (eV)

72-Hf-177

MAT 7234

Tritium Production
Cross Section

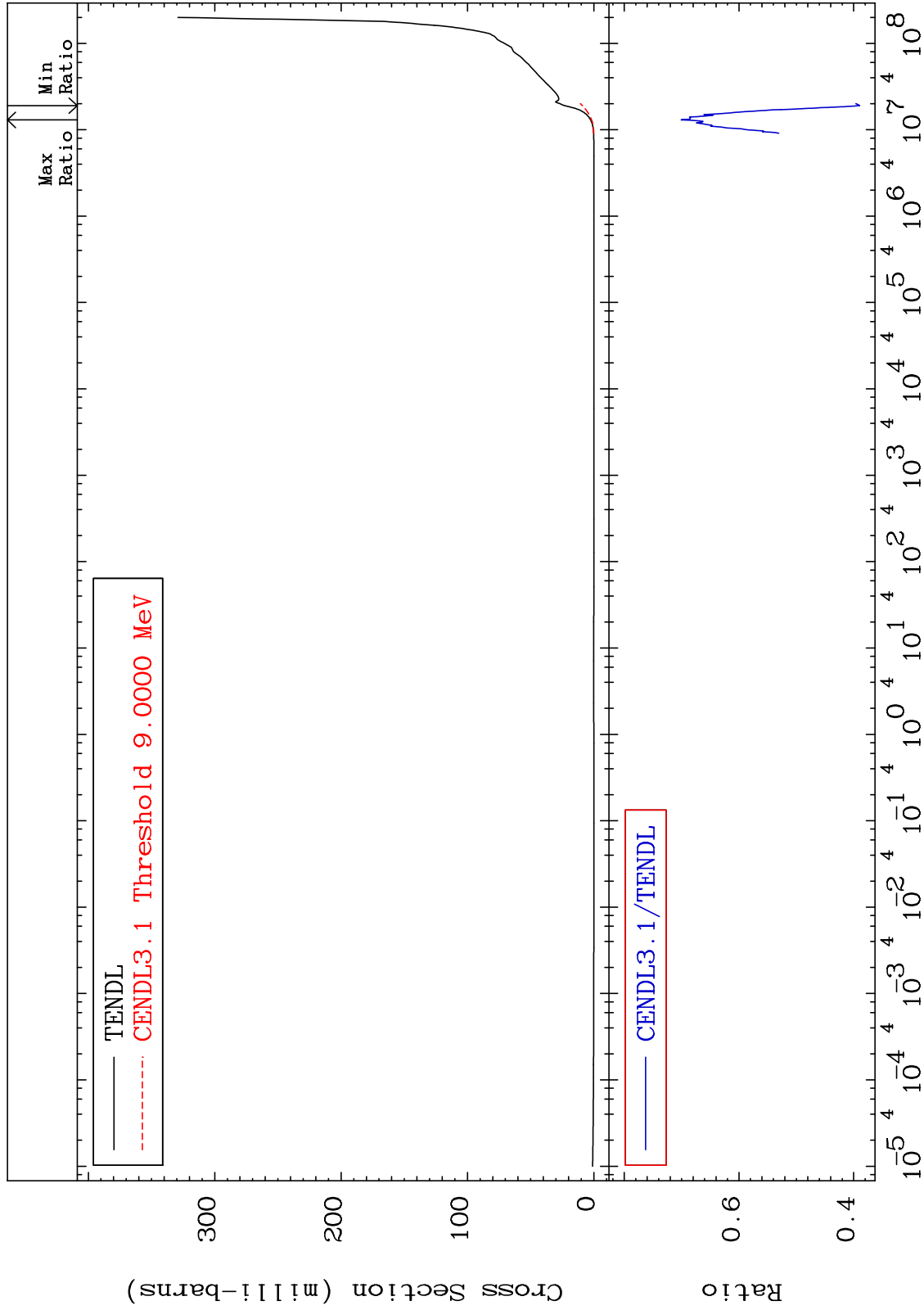
72-Hf-177
215.0 To 929.2 %



MAT 7234

He-4 Production
Cross Section

72-Hf-177
-61.06 To -29.93%

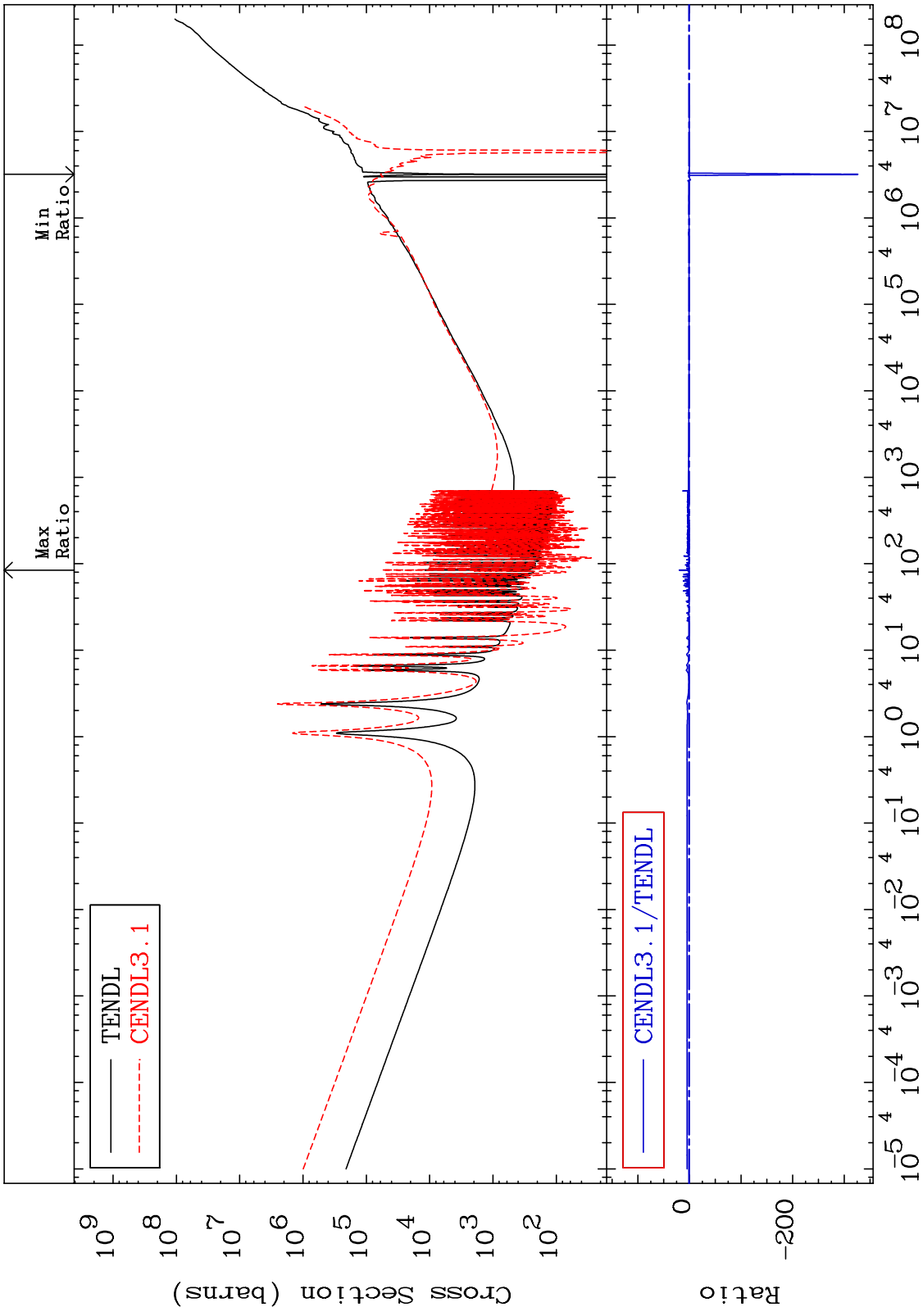


20

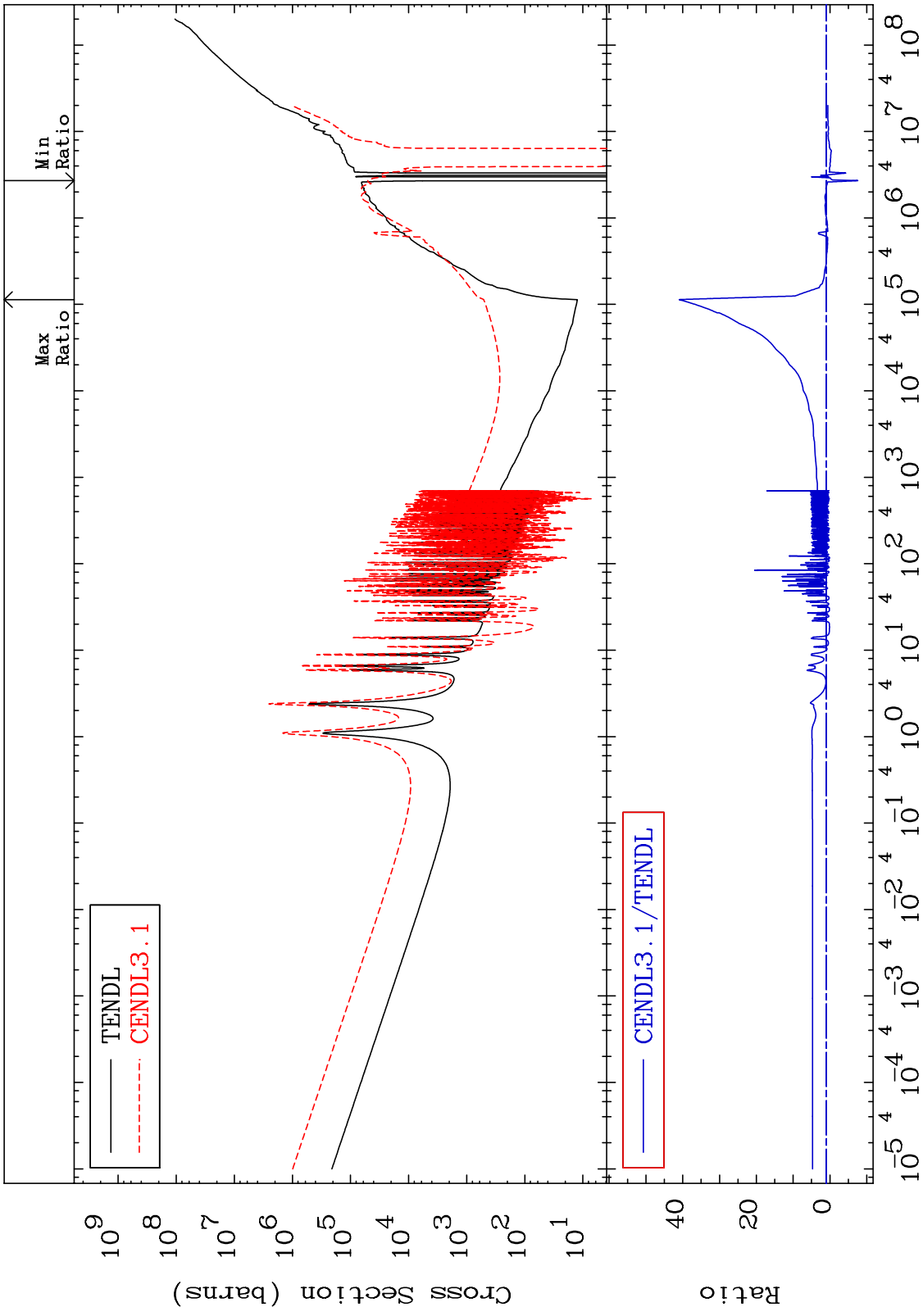
Incident Energy (eV)

72-Hf-177

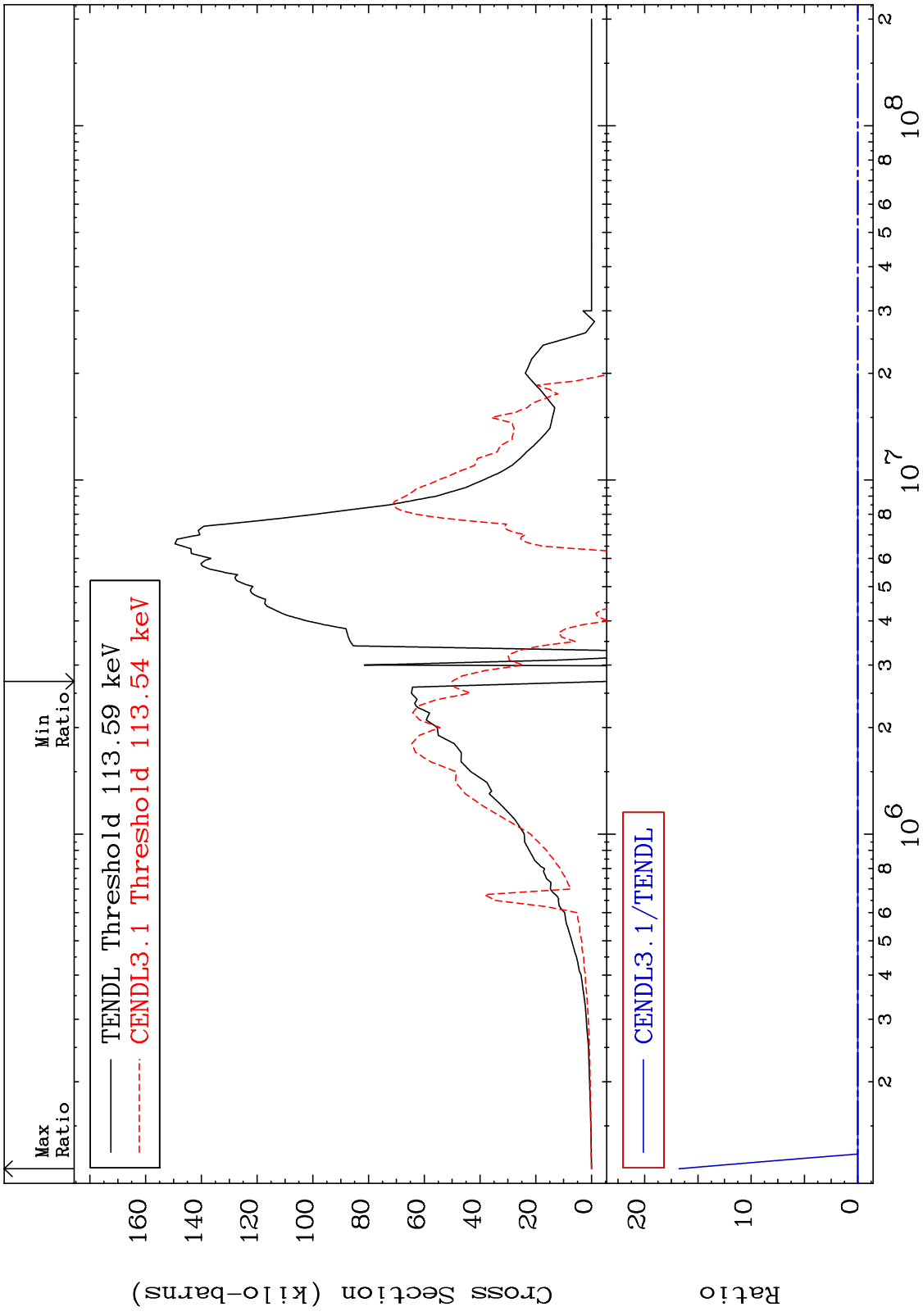
MAT 7234 Kerma total (eV-barns) Cross Section 72-Hf-177 -9999. To 1927. %



MAT 7234 Kerma non-elastic (all but mt2) 72-Hf-177
 Cross Section -857.8 To 4000. %



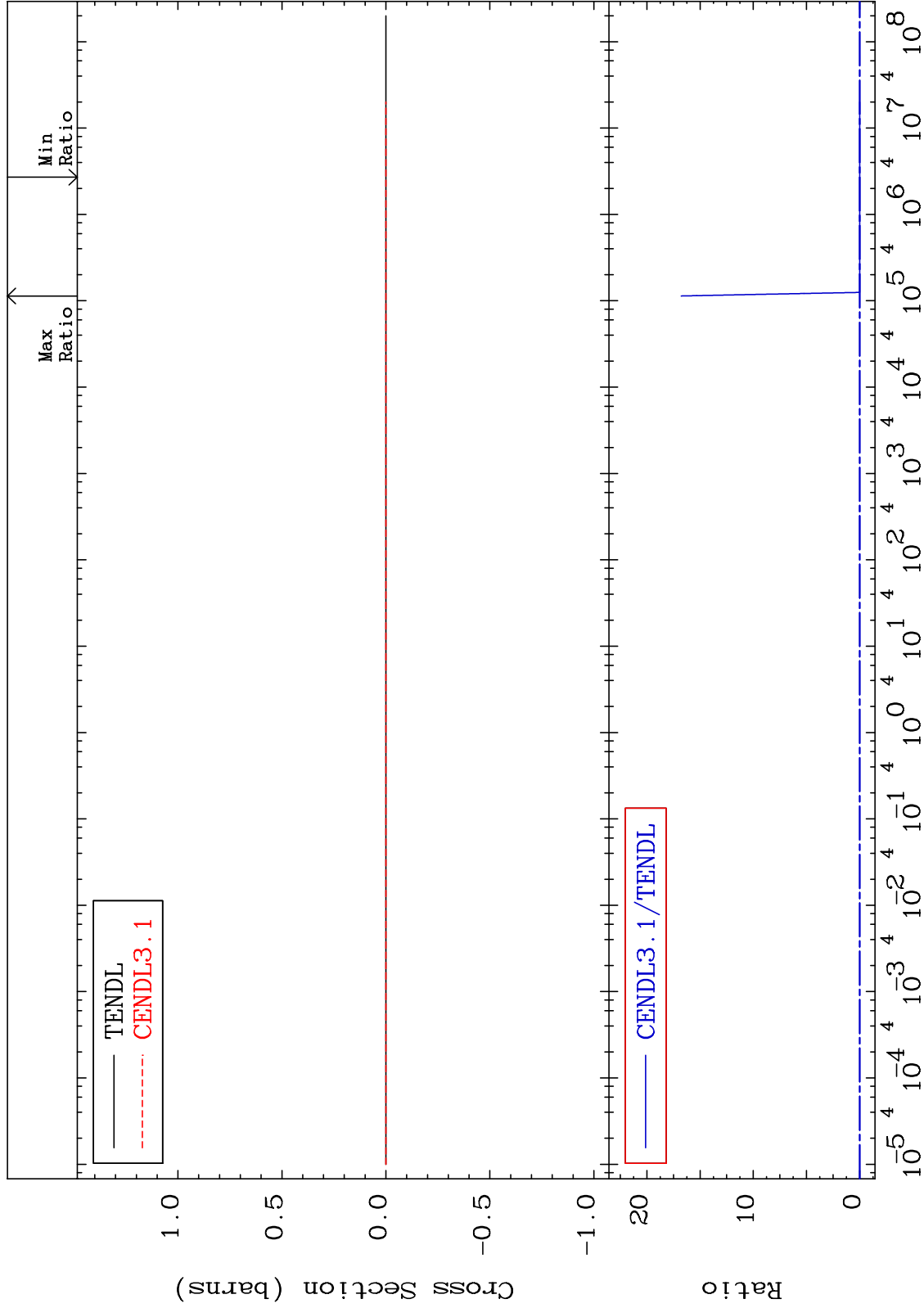
MAT 7234 Kerma inelastic (mt51-91) 72-Hf-177
 -840.4 To 9999. %
 Cross Section



MAT 7234

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

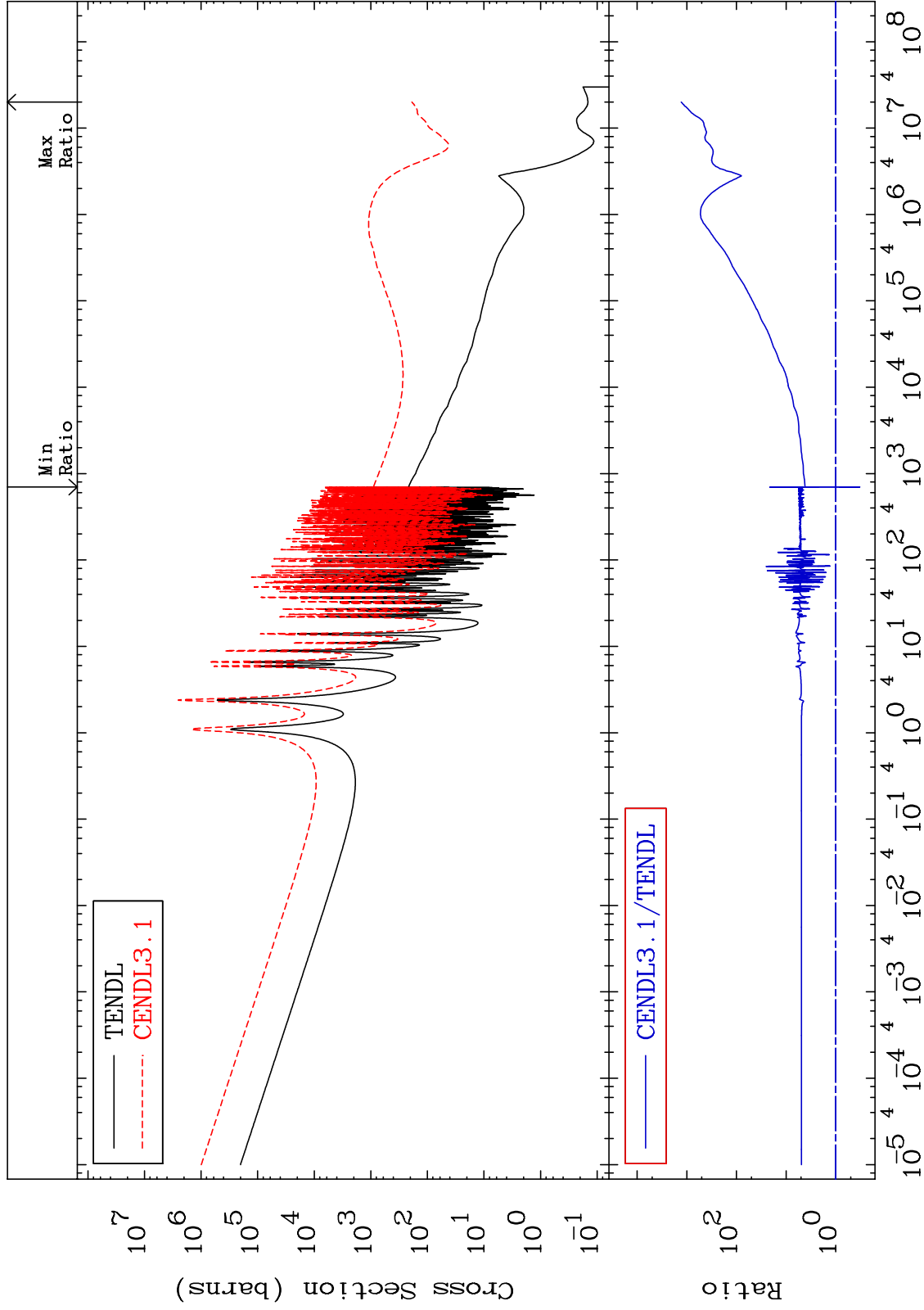
72-Hf-177
-840.4 To 9999. %



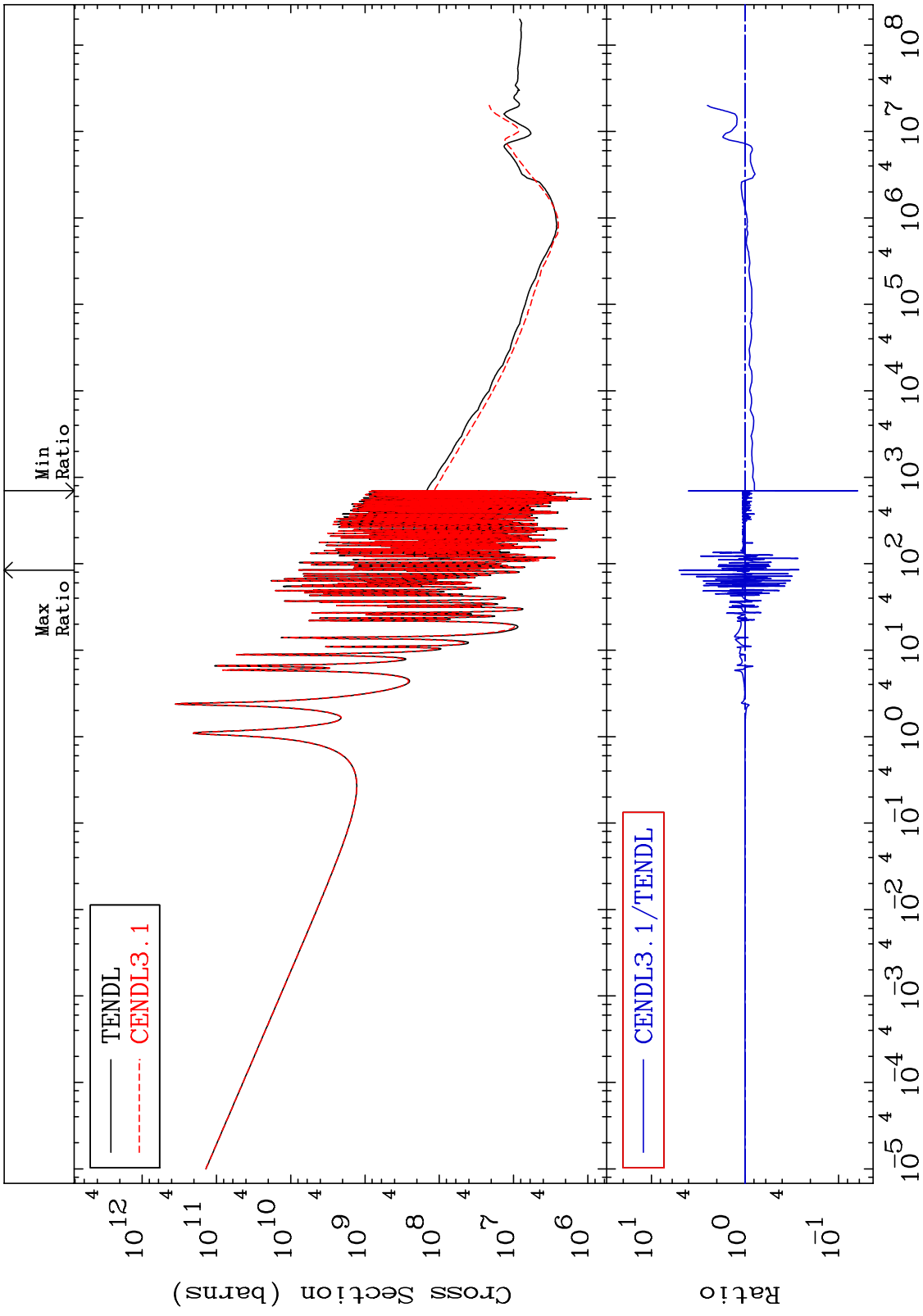
MAT 7234

Kerma capture (mt102)
Cross Section

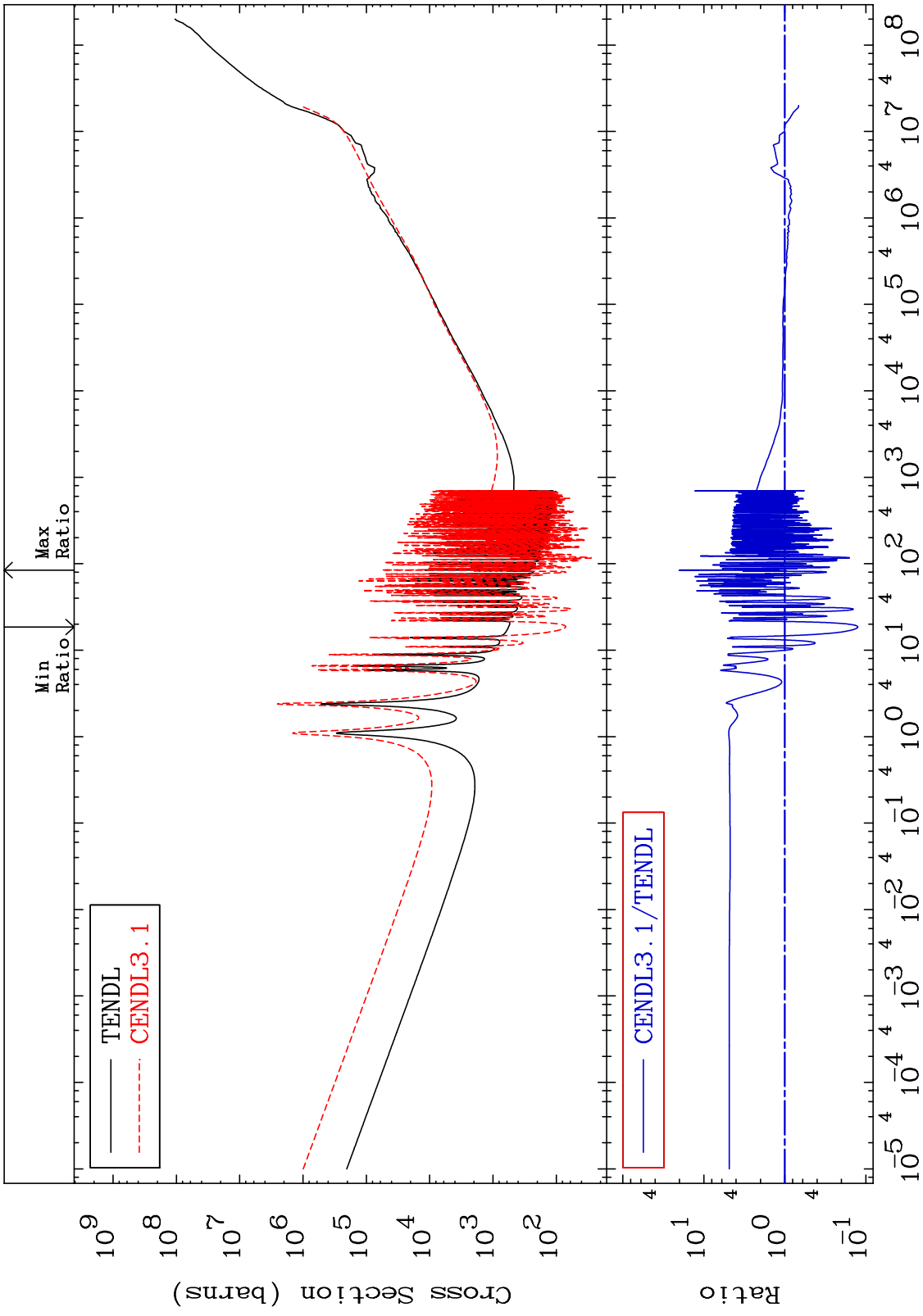
72-Hf-177
-67.19 To 9999. %



MAT 7234 72-Hf-177
-93.79 To 406.2 %
 Total photon (eV-barns)
 Cross Section

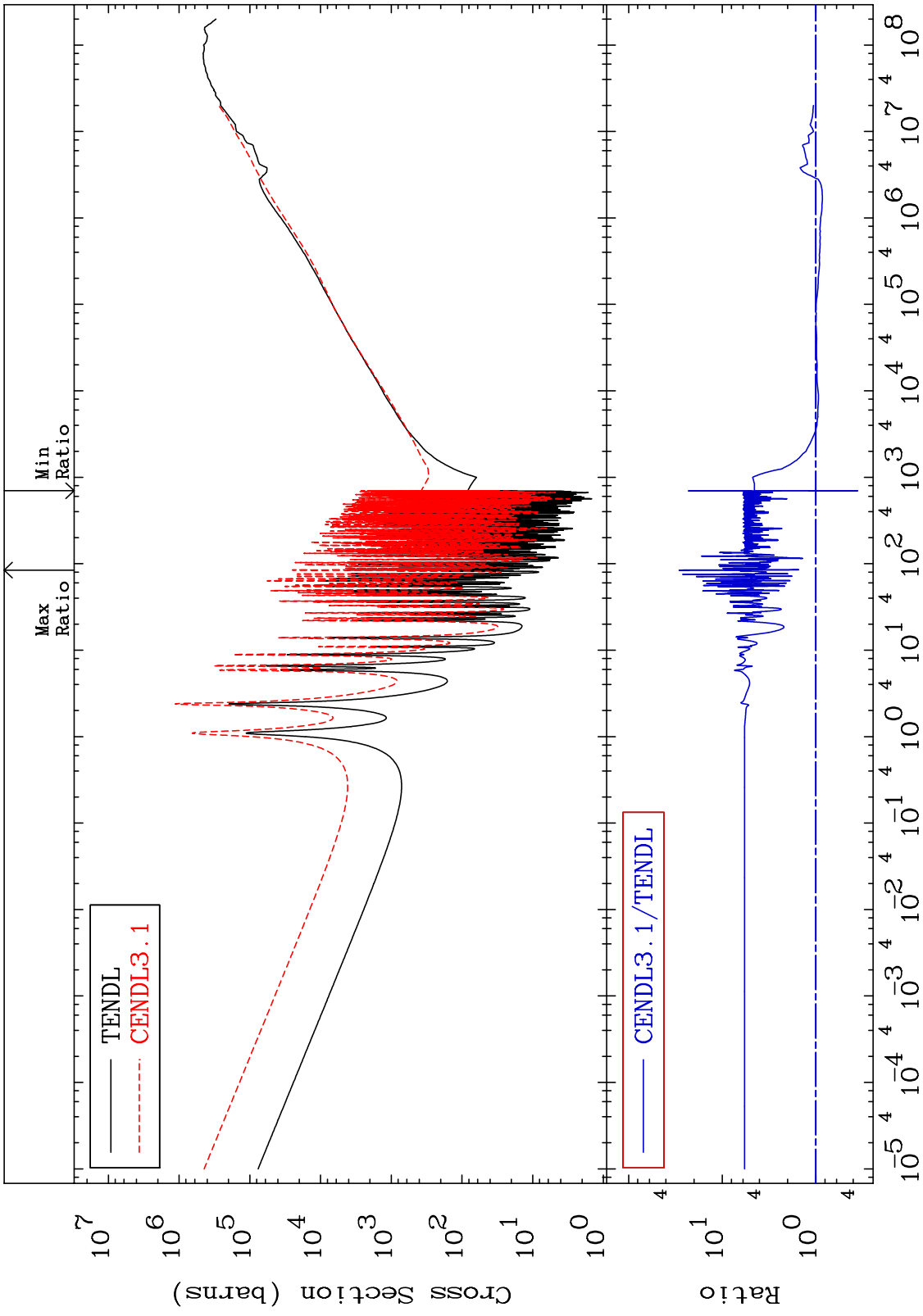


MAT 7234 Total kinematic kerma (high limit) 72-Hf-177
 -87.45 To 1925. %
 Cross Section



28 Incident Energy (eV) 72-Hf-177

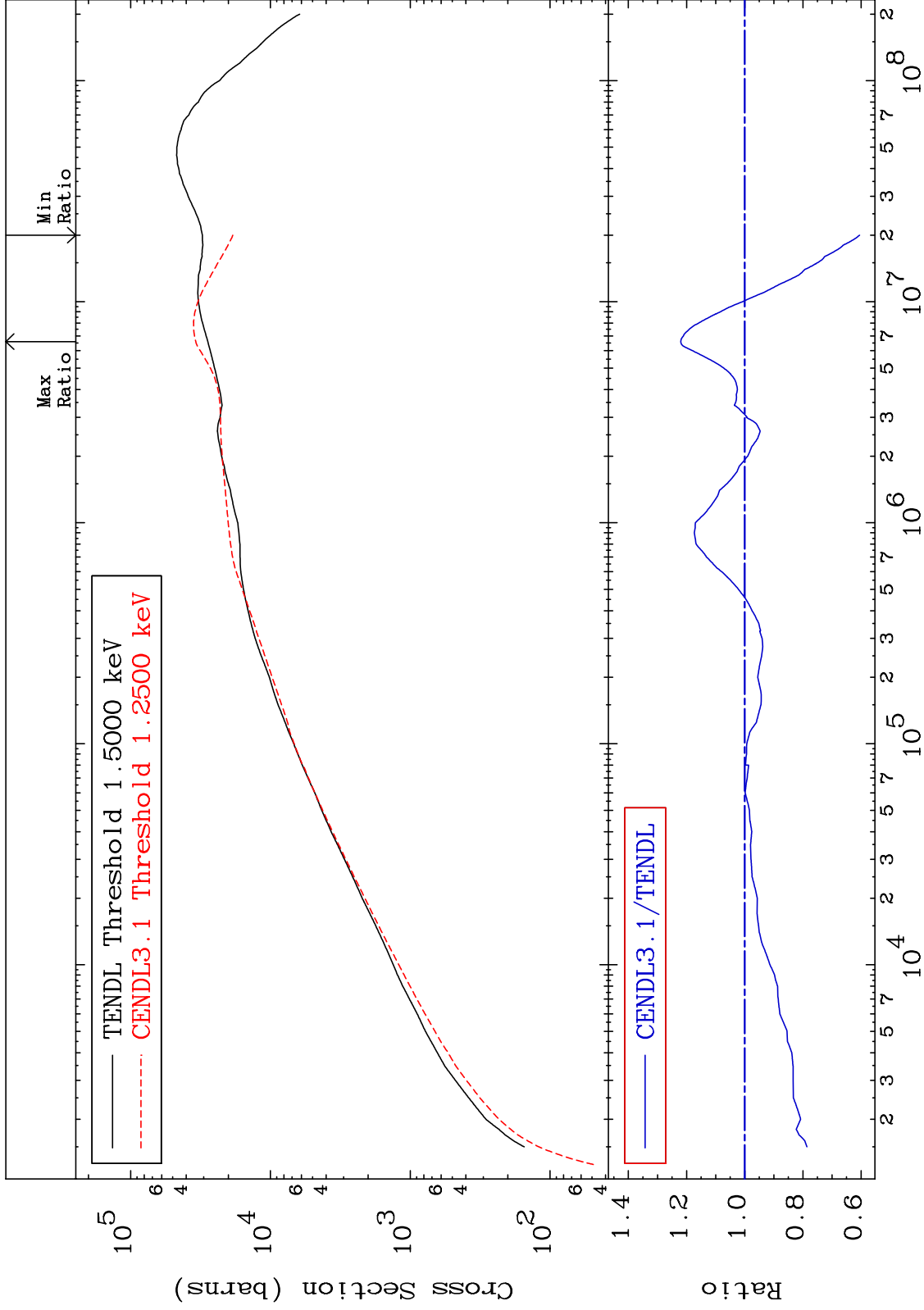
MAT 7234 Dpa total (eV-barns) 72-Hf-177
 -64.39 To 2797. %
 Cross Section



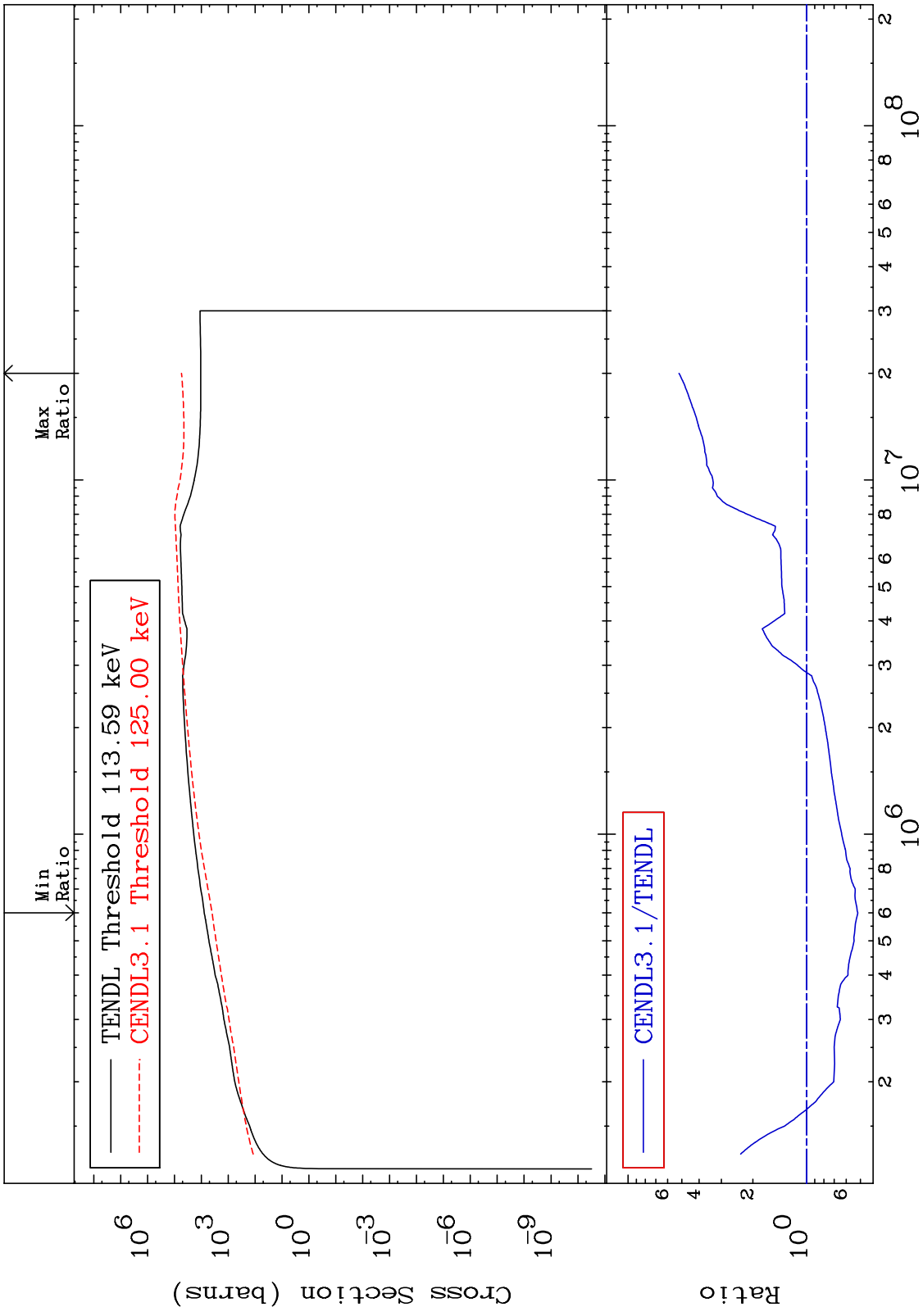
MAT 7234

Dpa elastic (mt2)
Cross Section

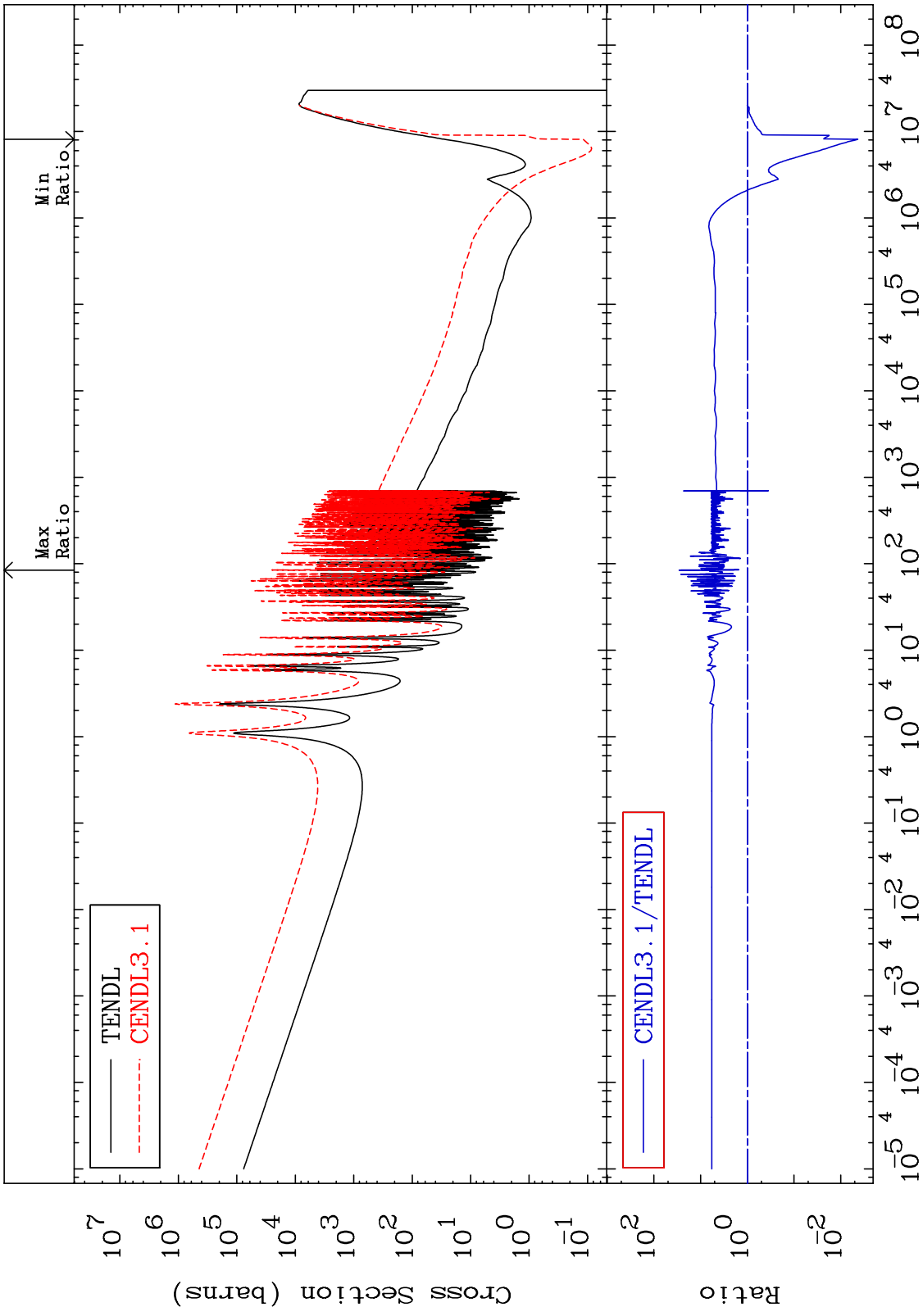
72-Hf-177
-39.53 To 21.97 %



MAT 7234 Dpa inelastic (mt51-91) 72-Hf-177
 Cross Section -48.38 To 418.2 %



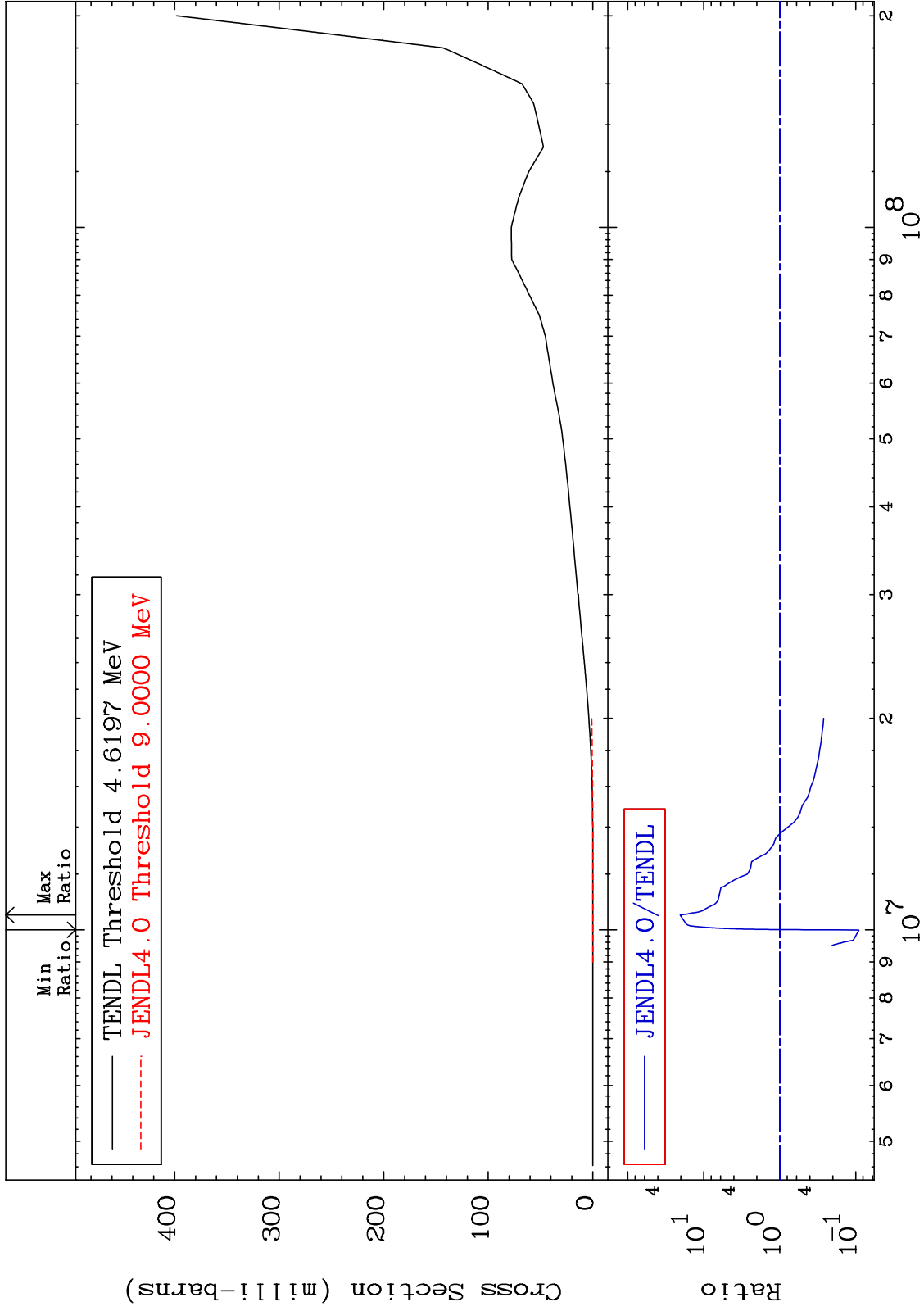
MAT 7234 Dpa disappearance (mt102 -120) 72-Hf-177
 Cross Section -99.57 To 2797. %



MAT 7234

Tritium Production
Cross Section

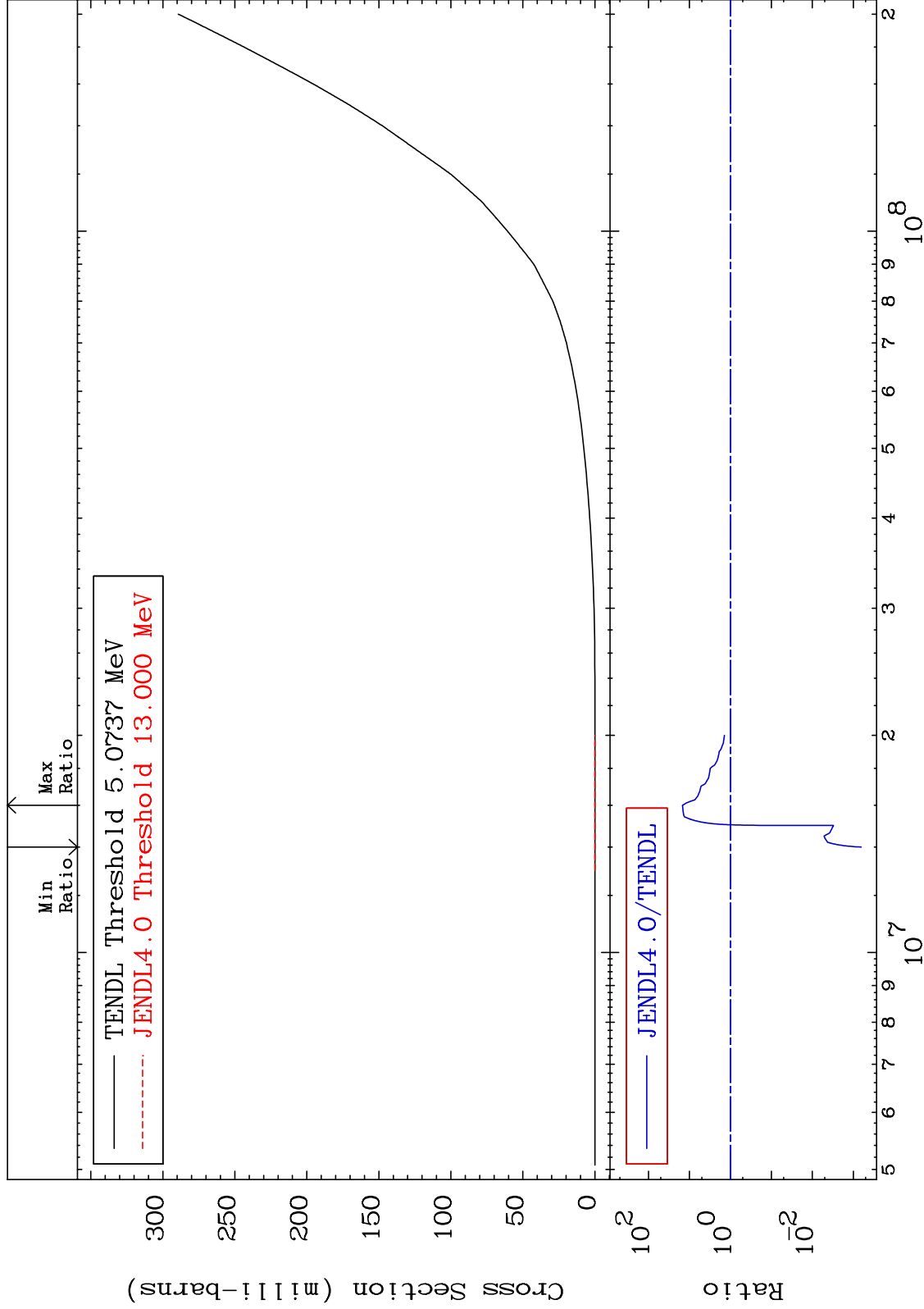
72-Hf-177
-90.92 To 1939. %



MAT 7234

He-3 Production
Cross Section

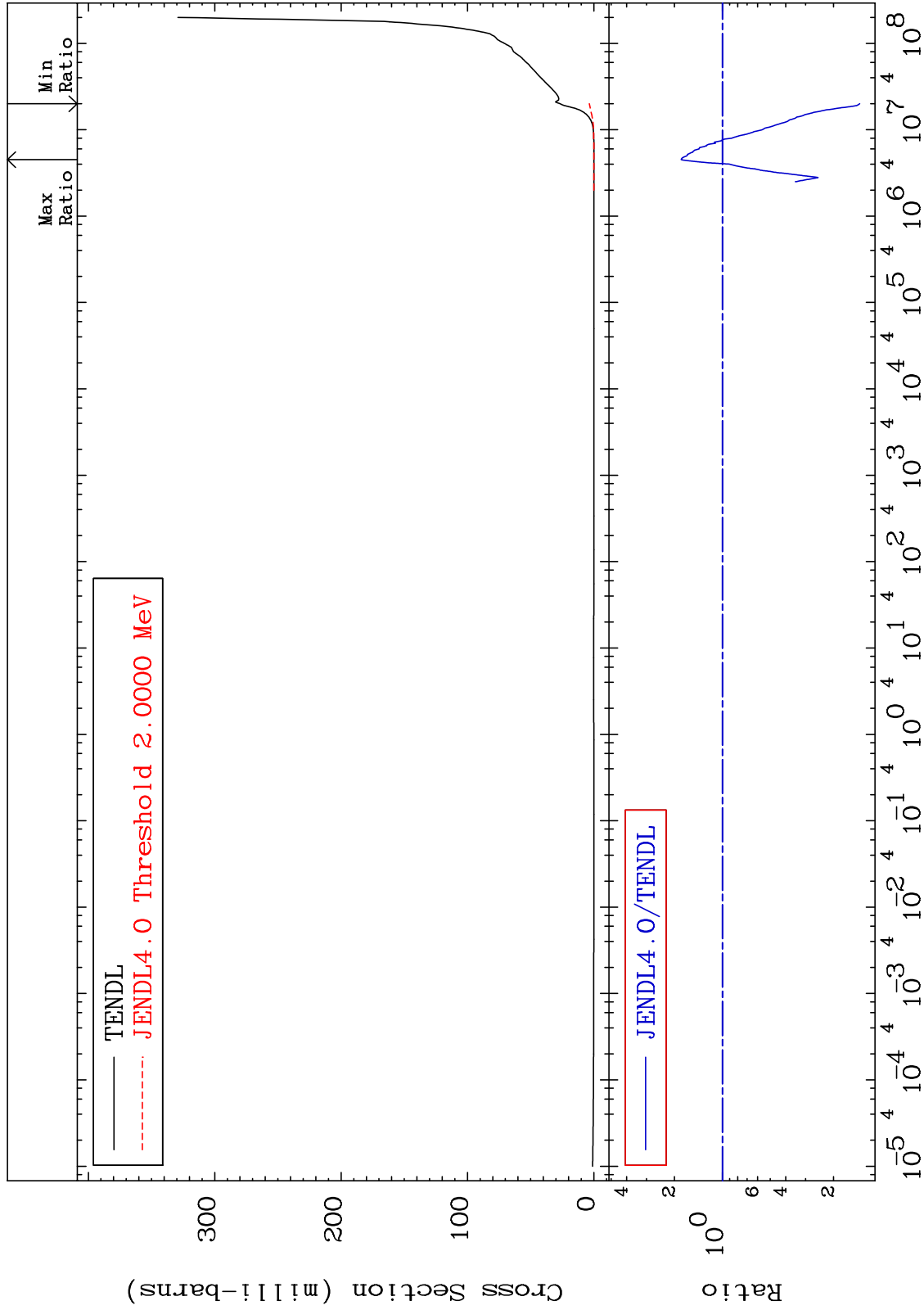
72-Hf-177
-99.94 To 1383. %



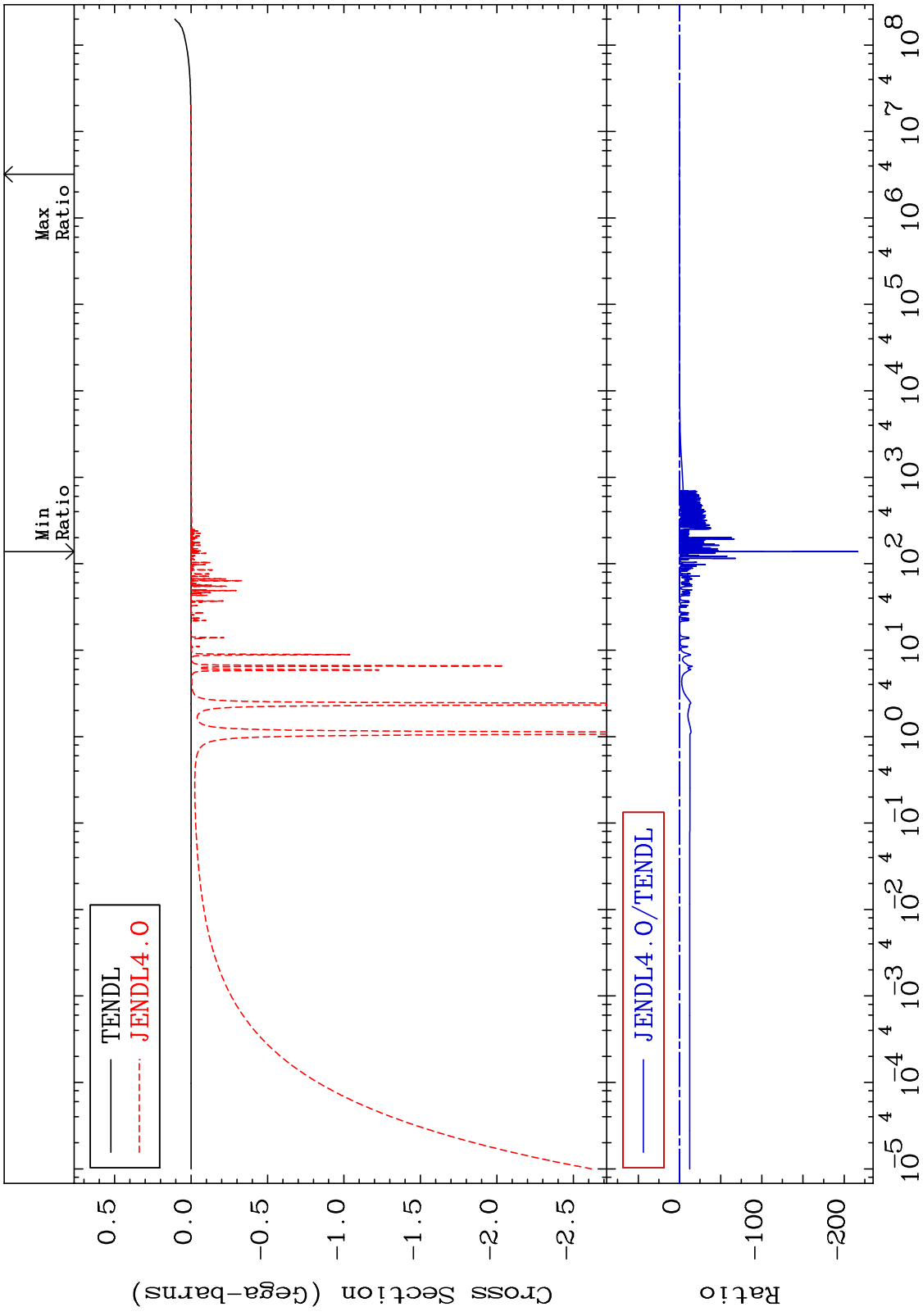
MAT 7234

He-4 Production
Cross Section

72-Hf-177
-86.31 To 81.29 %



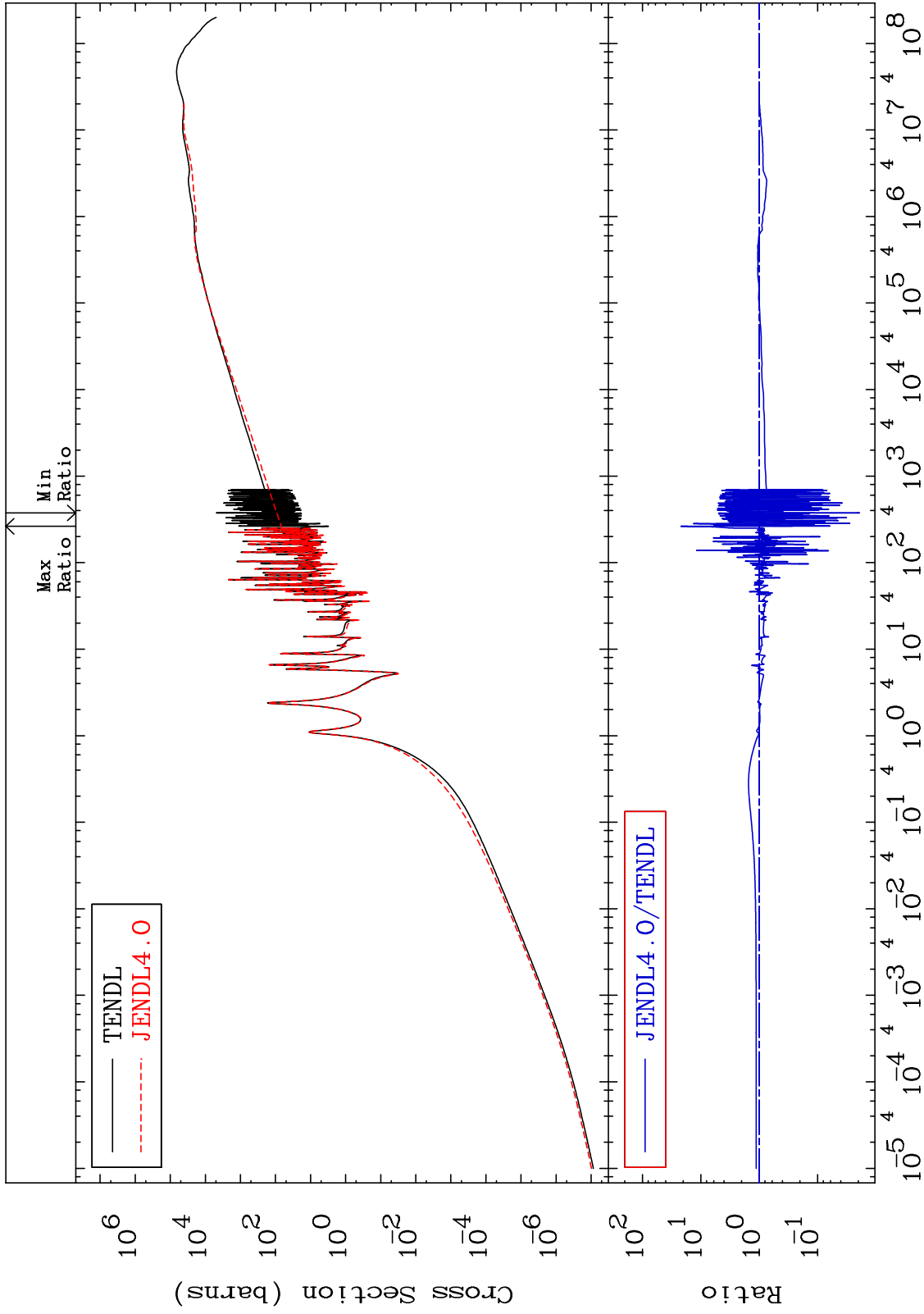
MAT 7234 Kerma total (eV-barns) 72-Hf-177
 Cross Section -9999. To 9999. %



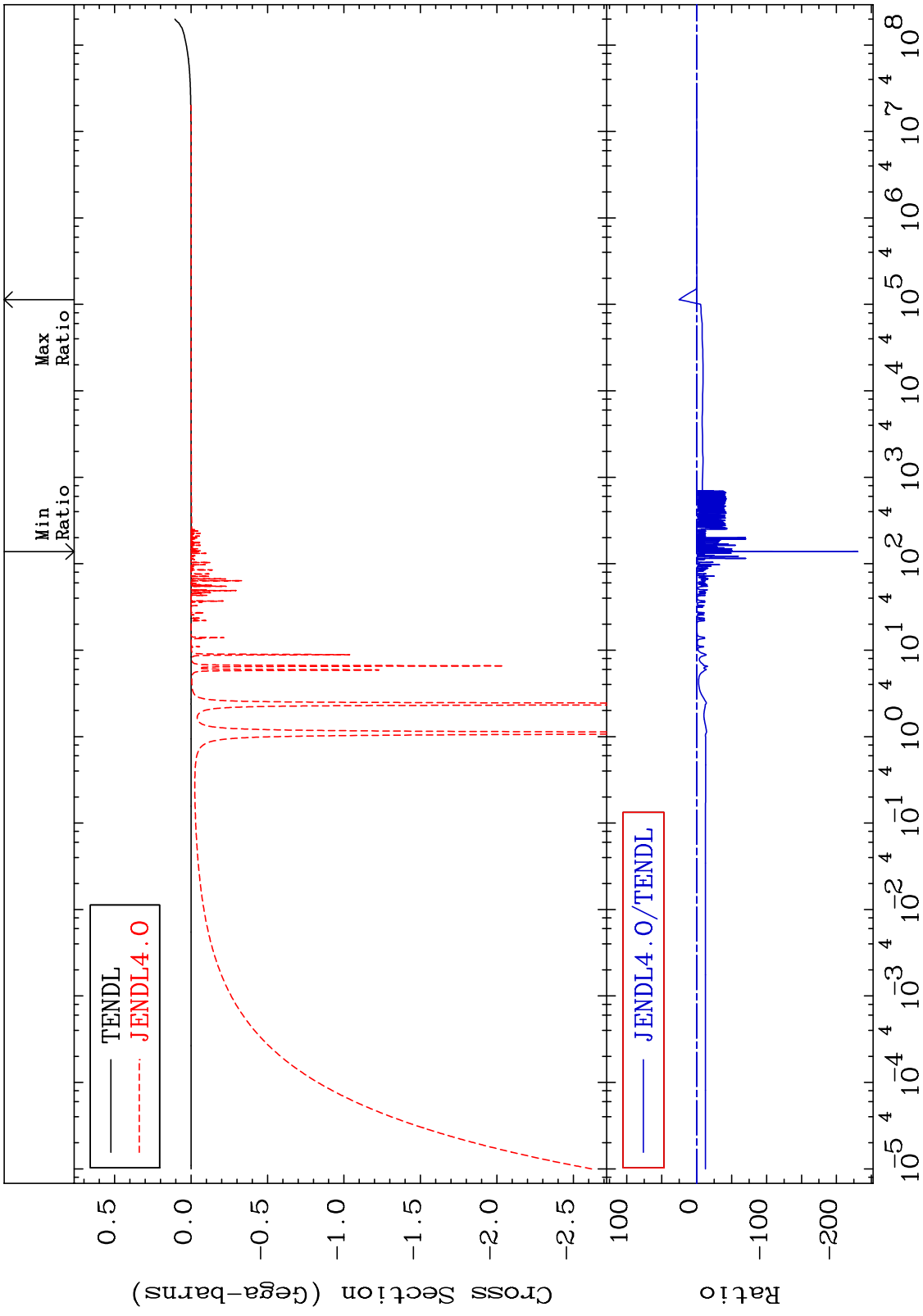
MAT 7234

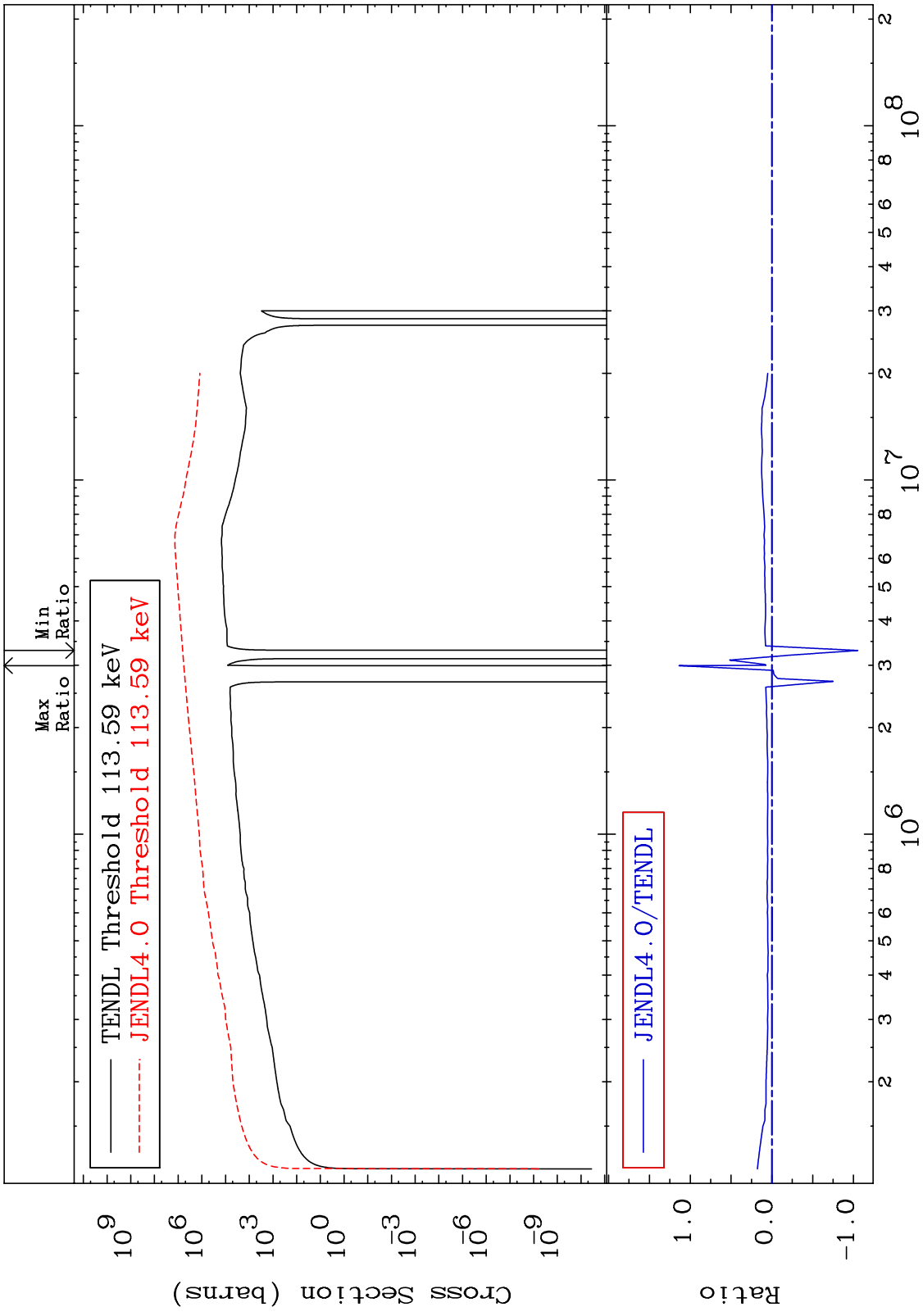
Kerma elastic
Cross Section

72-Hf-177
-98.10 To 2099. %



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

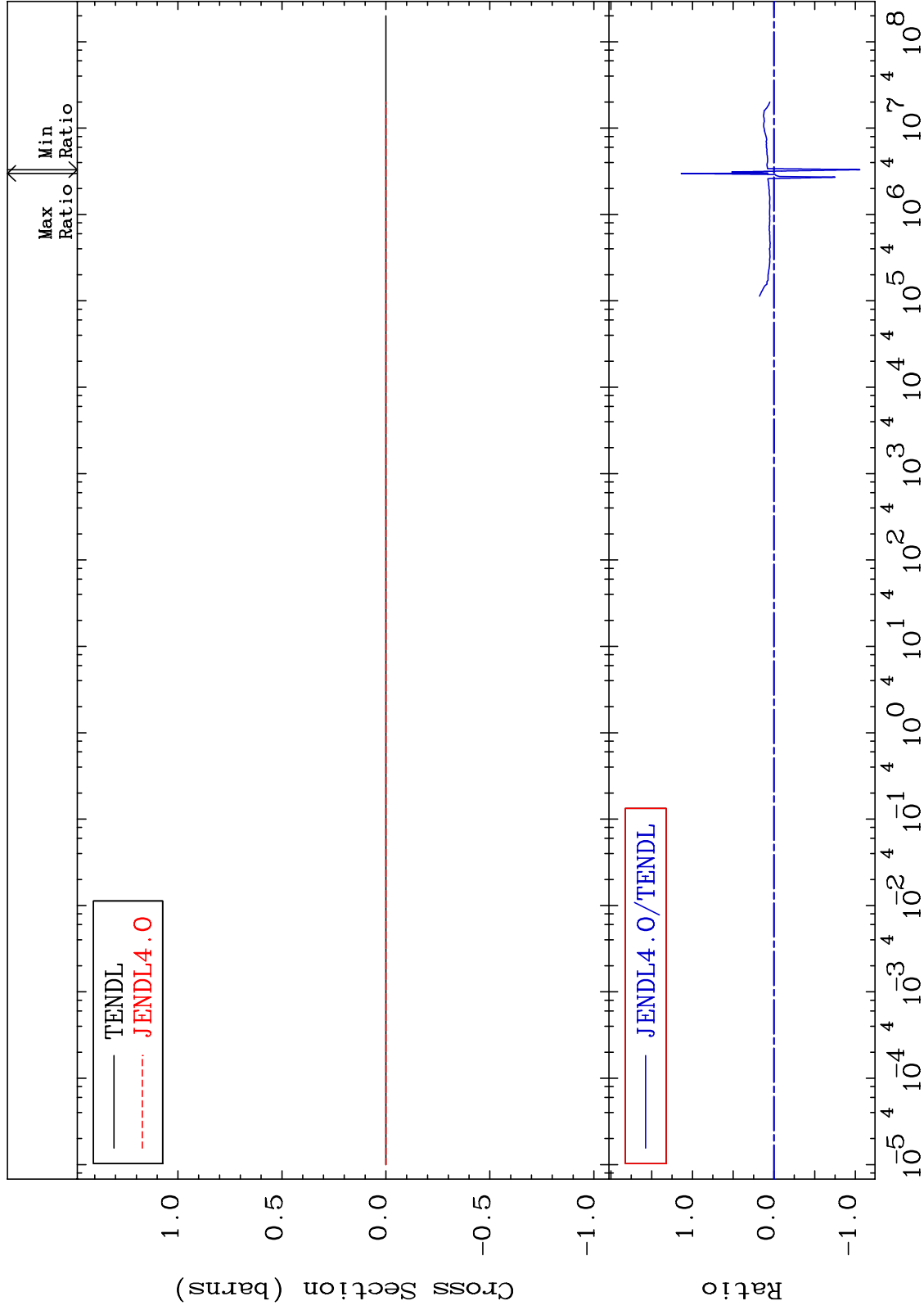




MAT 7234

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

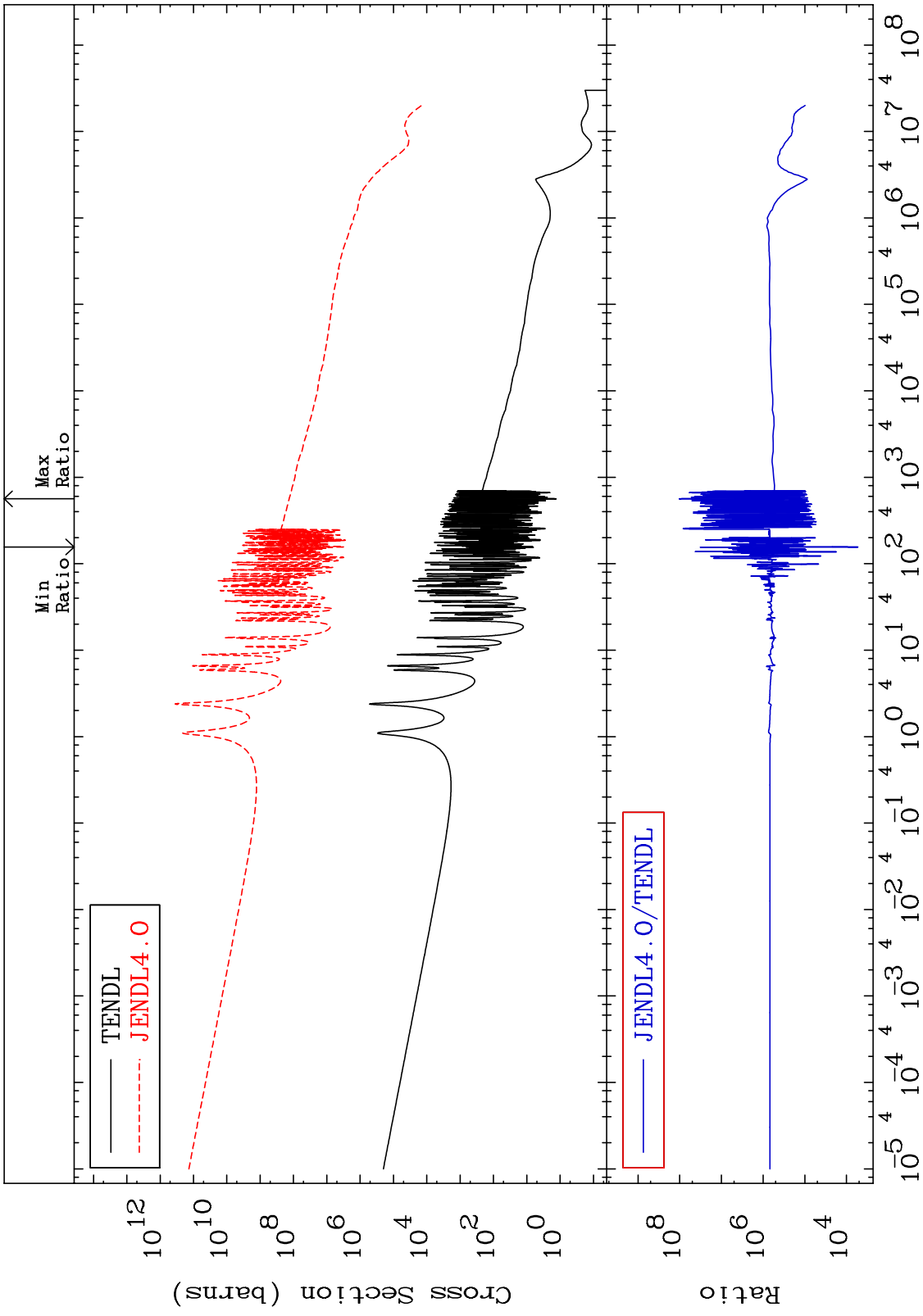
72-Hf-177
-9999. To 9999. %



40

Incident Energy (eV)

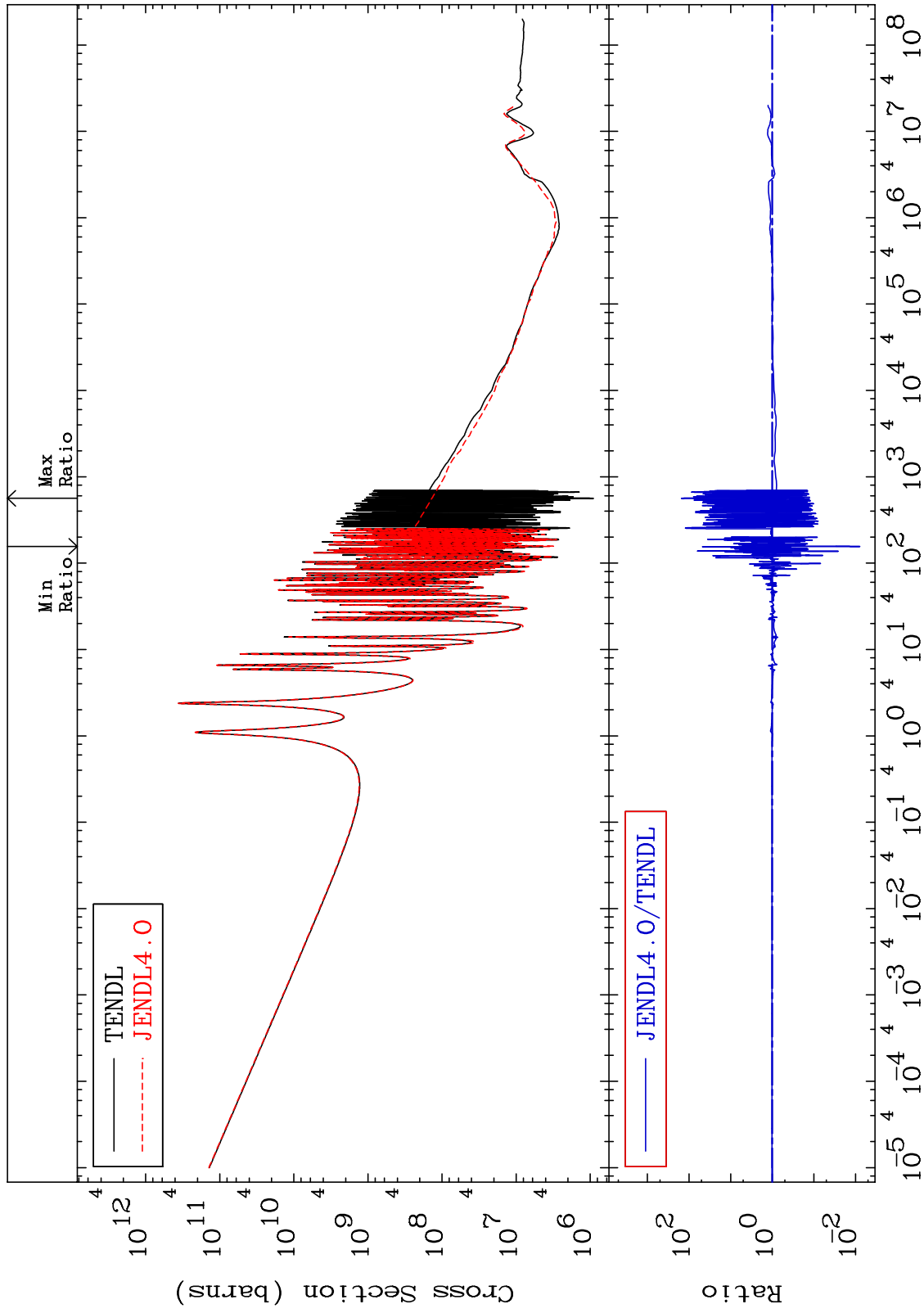
72-Hf-177



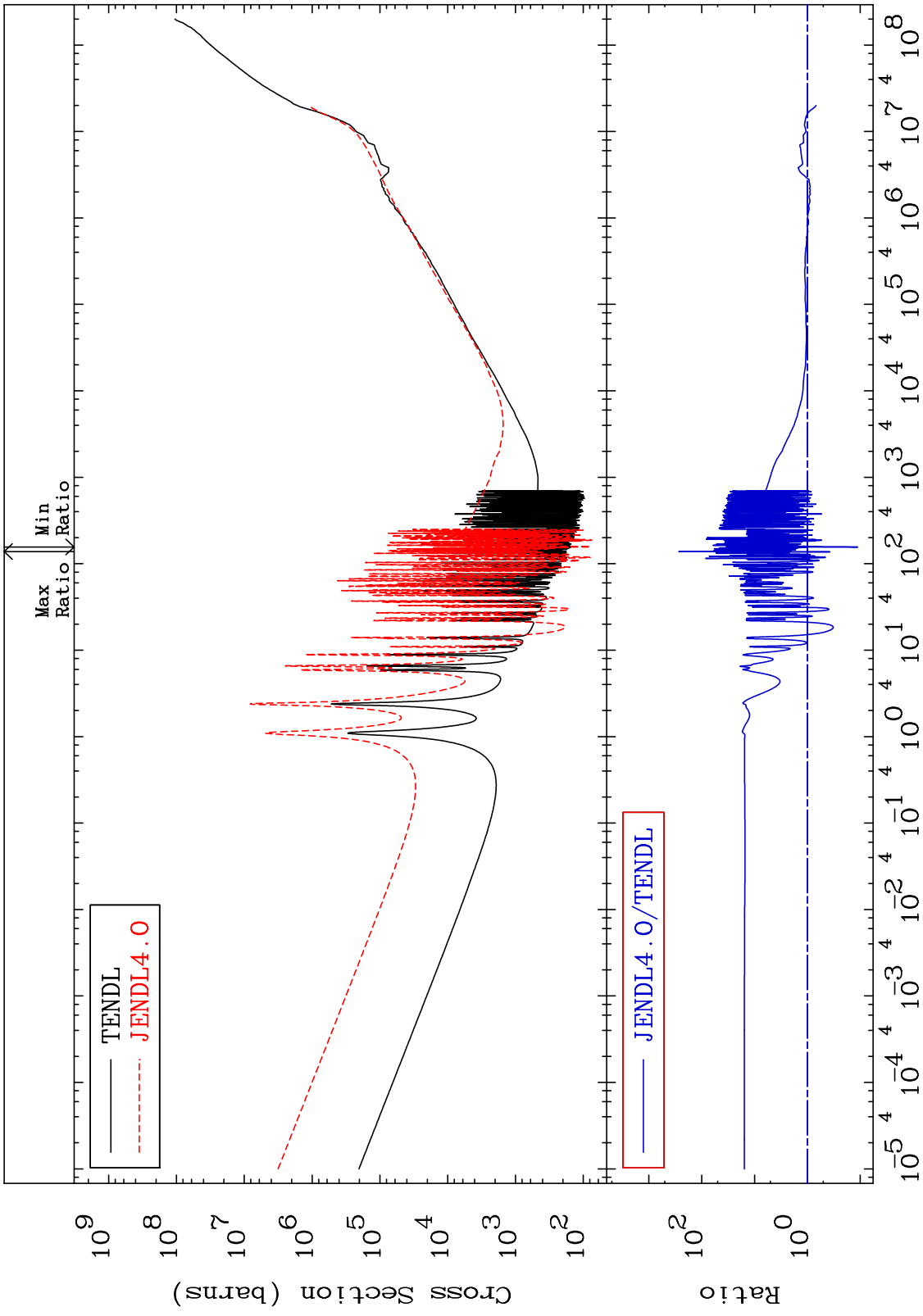
MAT 7234

Total photon (eV-barns)
Cross Section

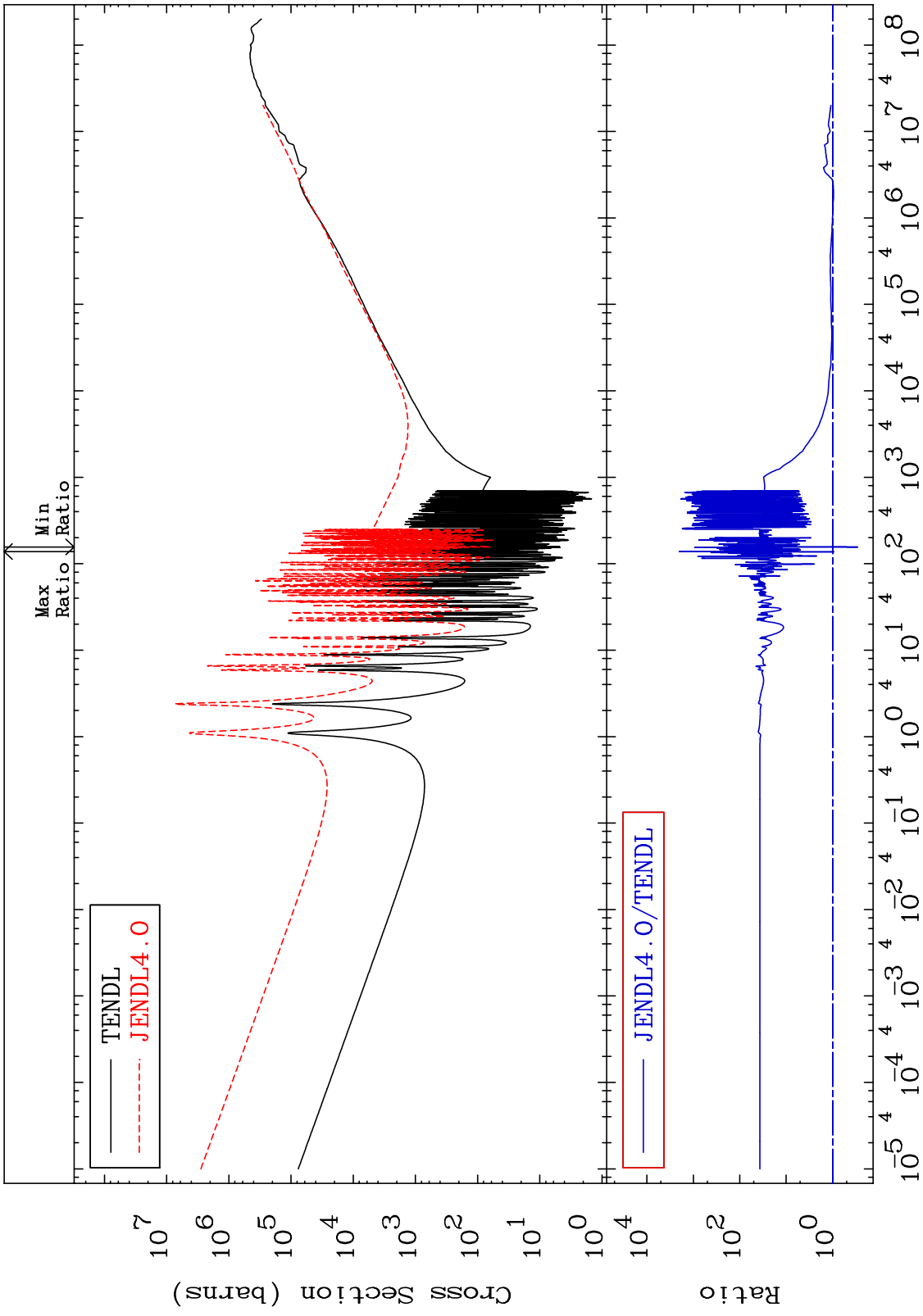
72-Hf-177
-99.21 To 9999. %



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



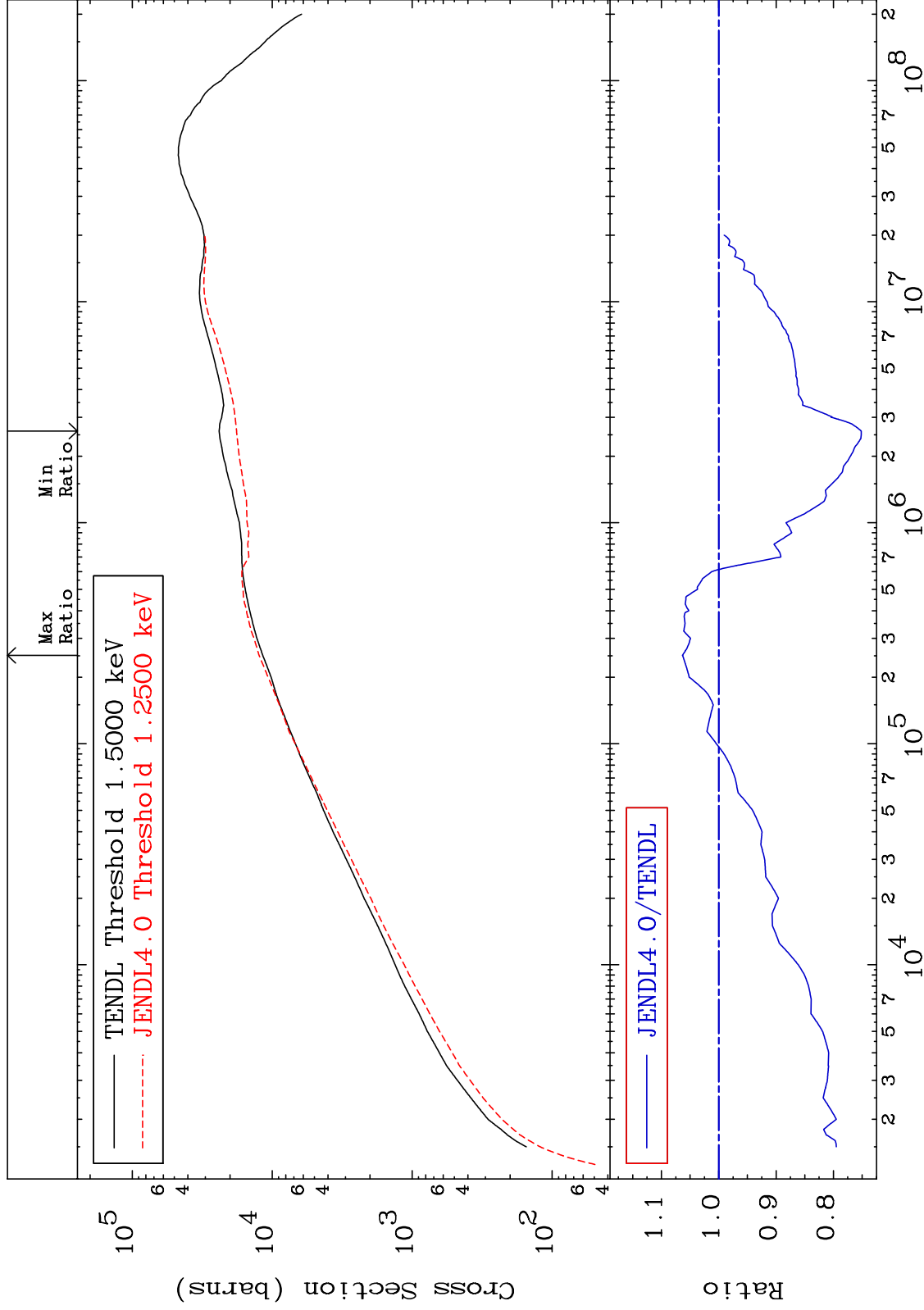
MAT 7234 Dpa total (eV-barns) 72-Hf-177
 -71.39 To 9999. %



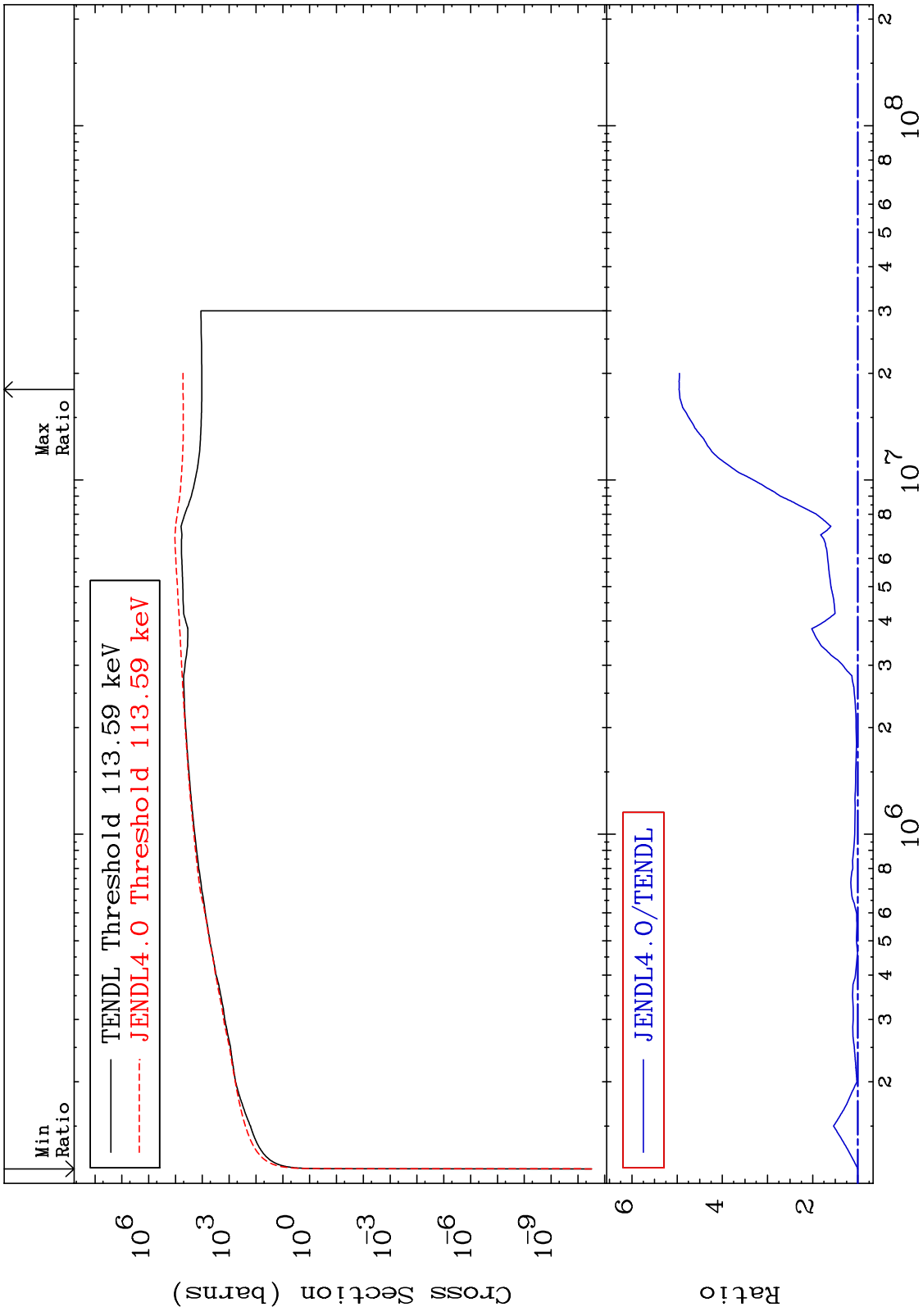
MAT 7234

Dpa elastic (mt2)
Cross Section

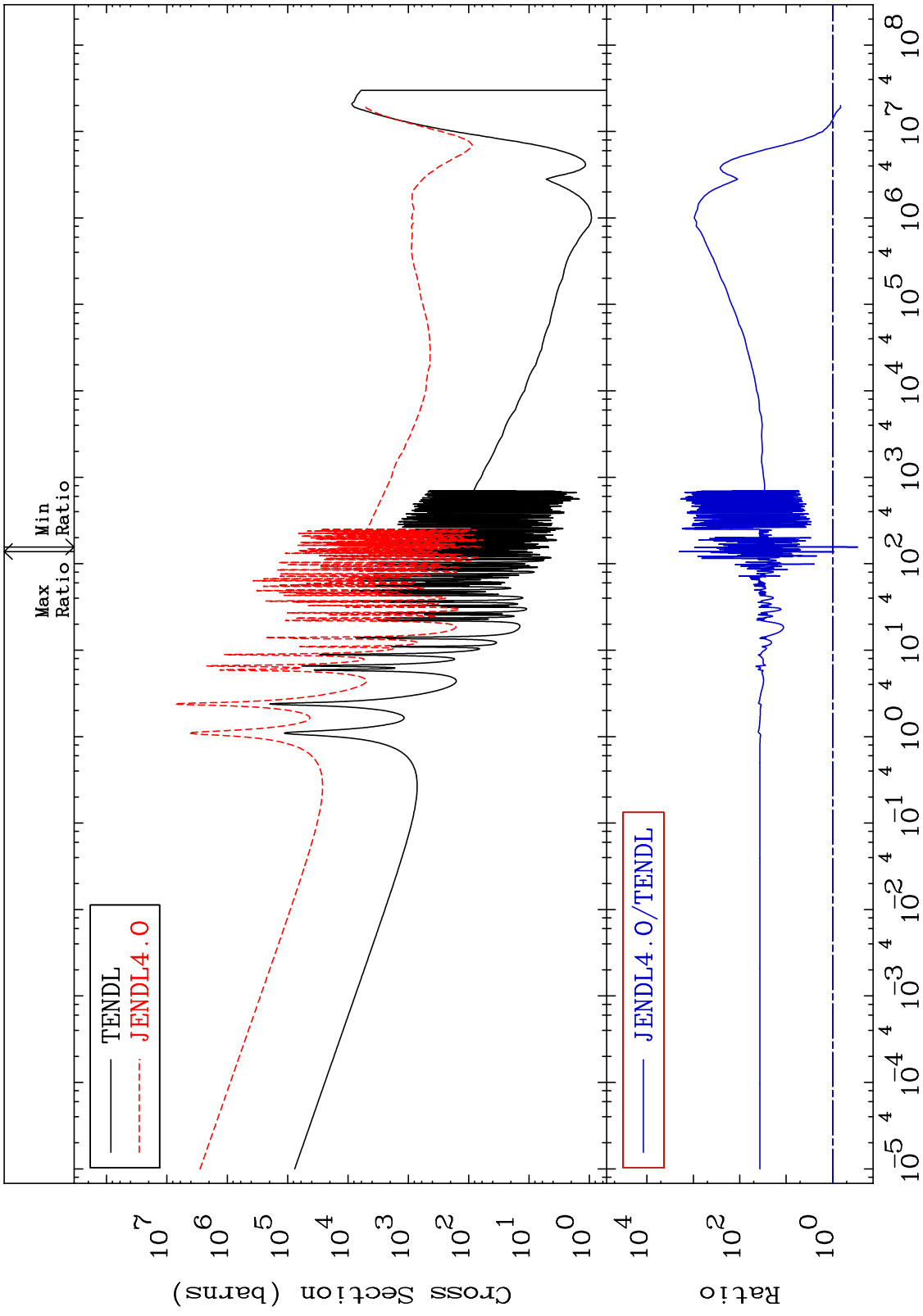
72-Hf-177
-24.86 To 6.329 %



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. %



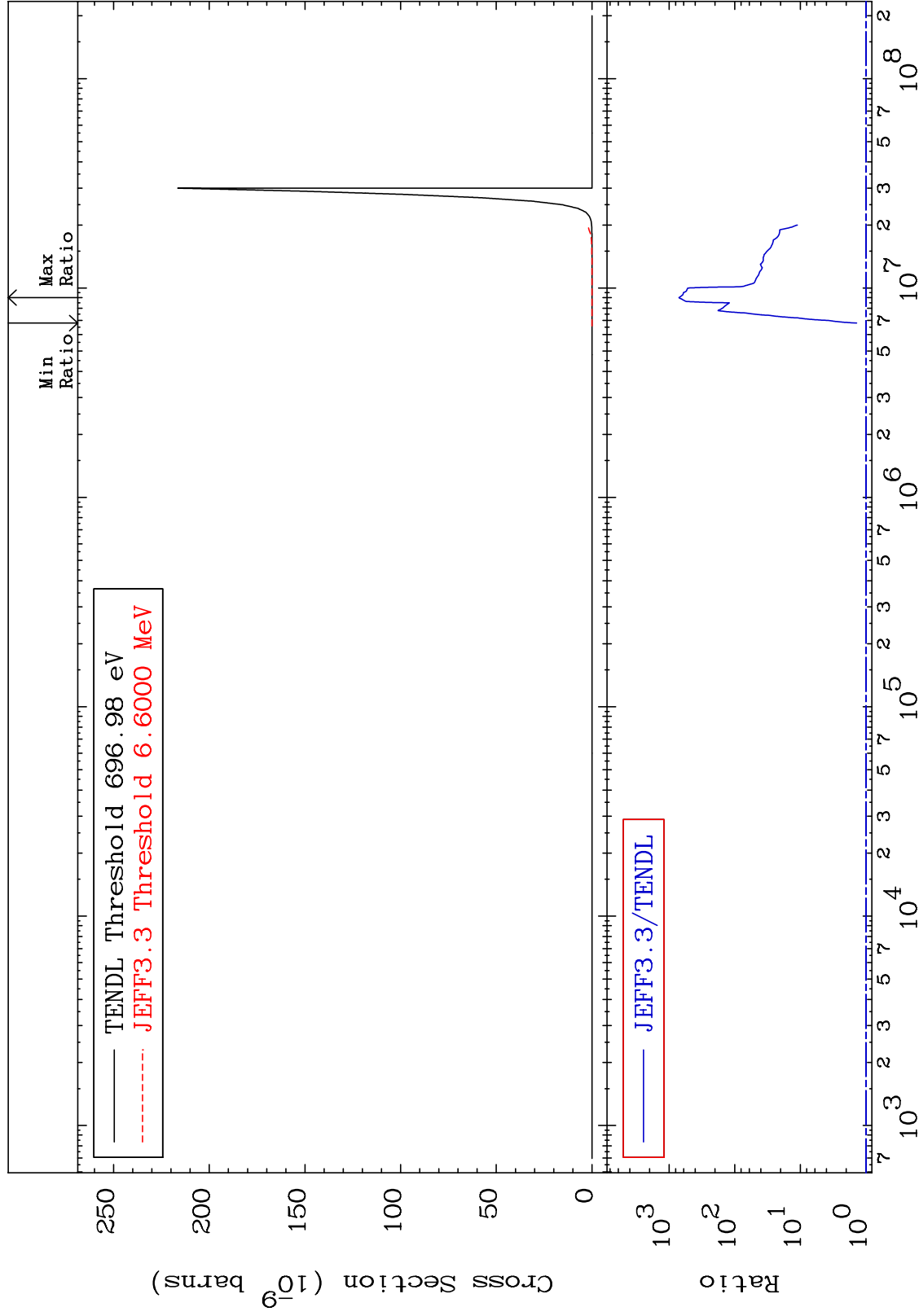
MAT 7234

(n,p) α

Cross Section

72-Hf-177

38.16 To 9999. %



48

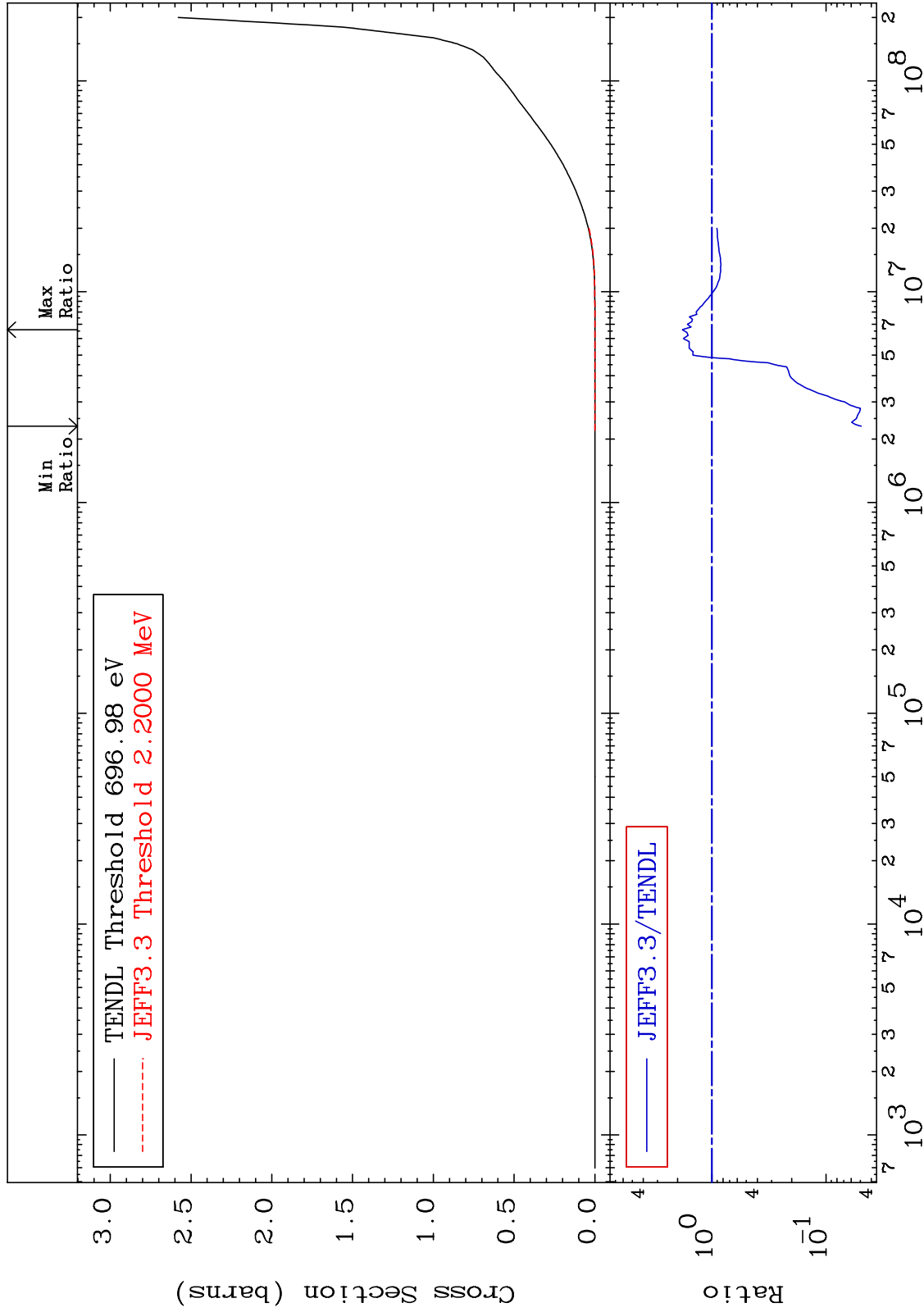
Incident Energy (eV)

72-Hf-177

MAT 7234

Hydrogen Production
Cross Section

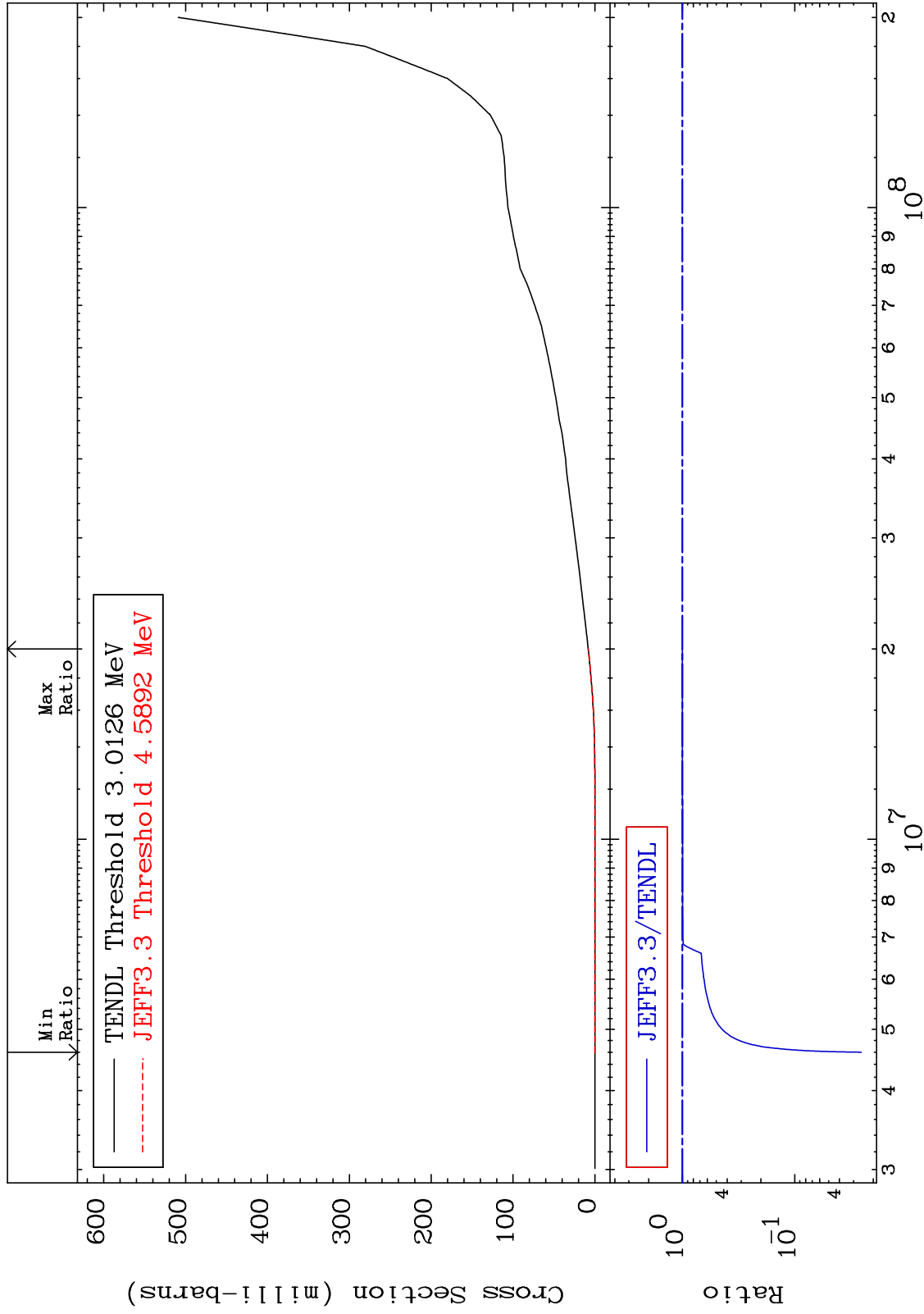
72-Hf-177
-95.10 To 81.38 %



MAT 7234

Deuterium Production
Cross Section

72-Hf-177
-97.44 To -0.029%



50

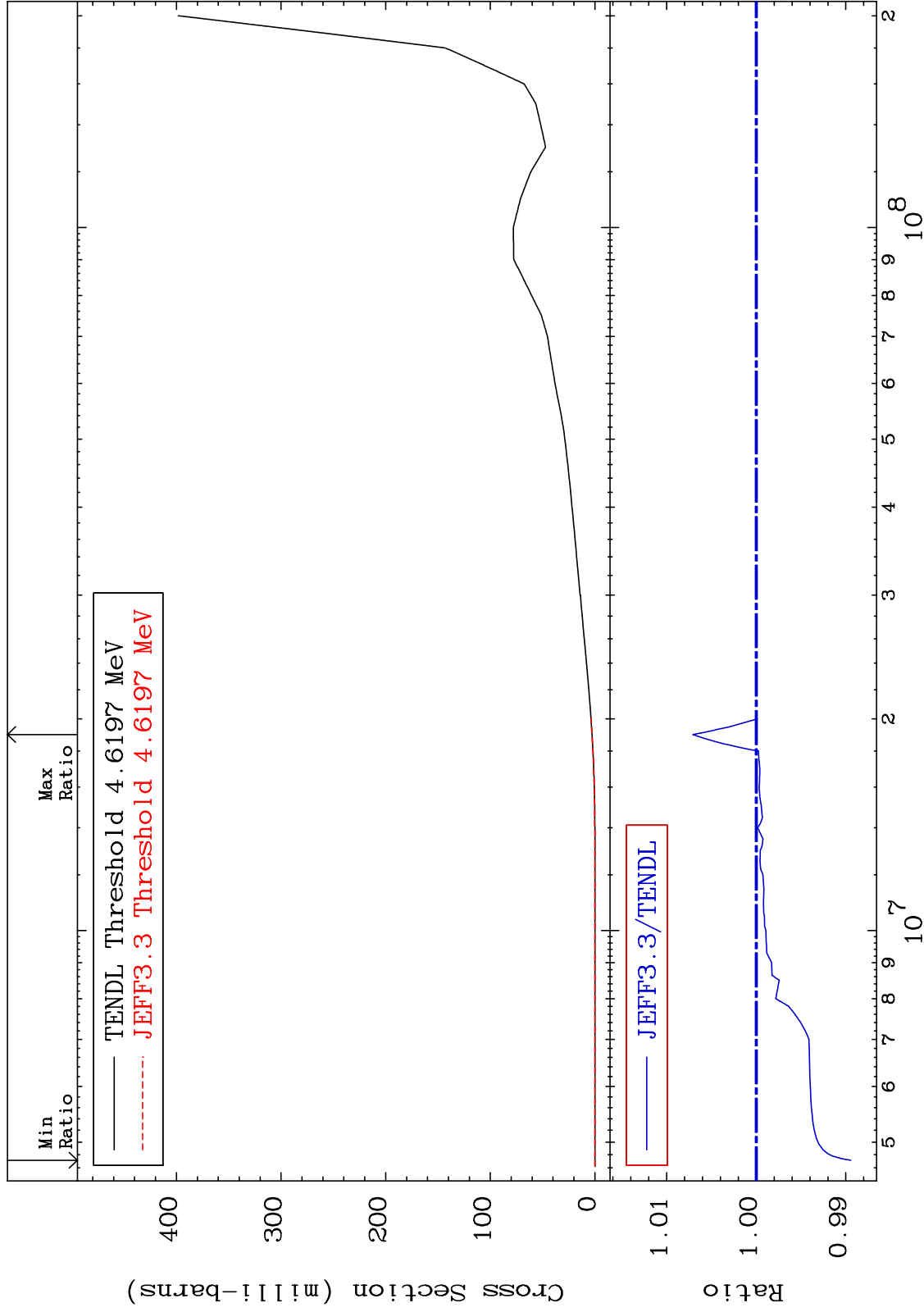
Incident Energy (eV)

72-Hf-177

MAT 7234

Tritium Production
Cross Section

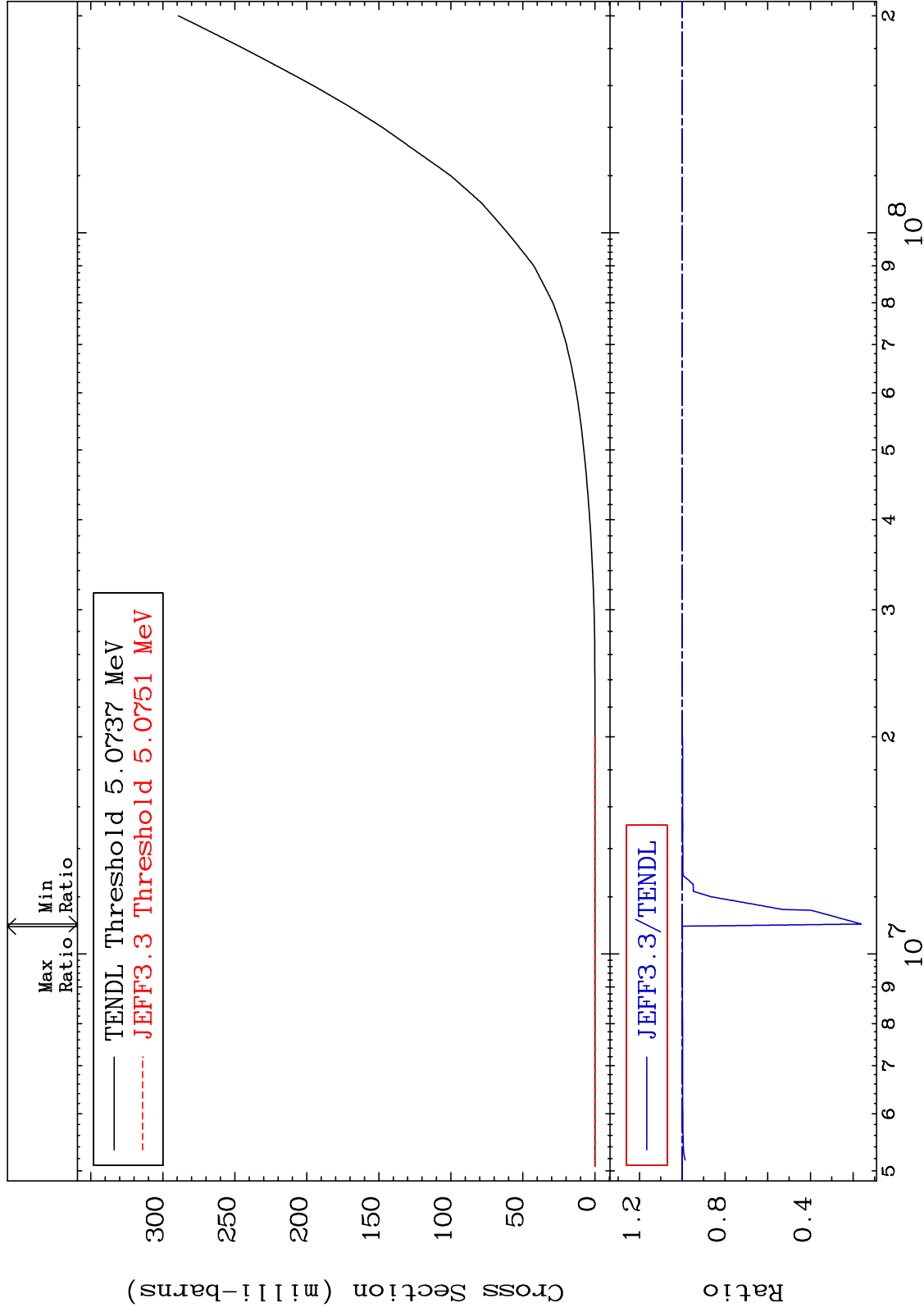
72-Hf-177
-1.055 To 0.707 %



MAT 7234

He-3 Production
Cross Section

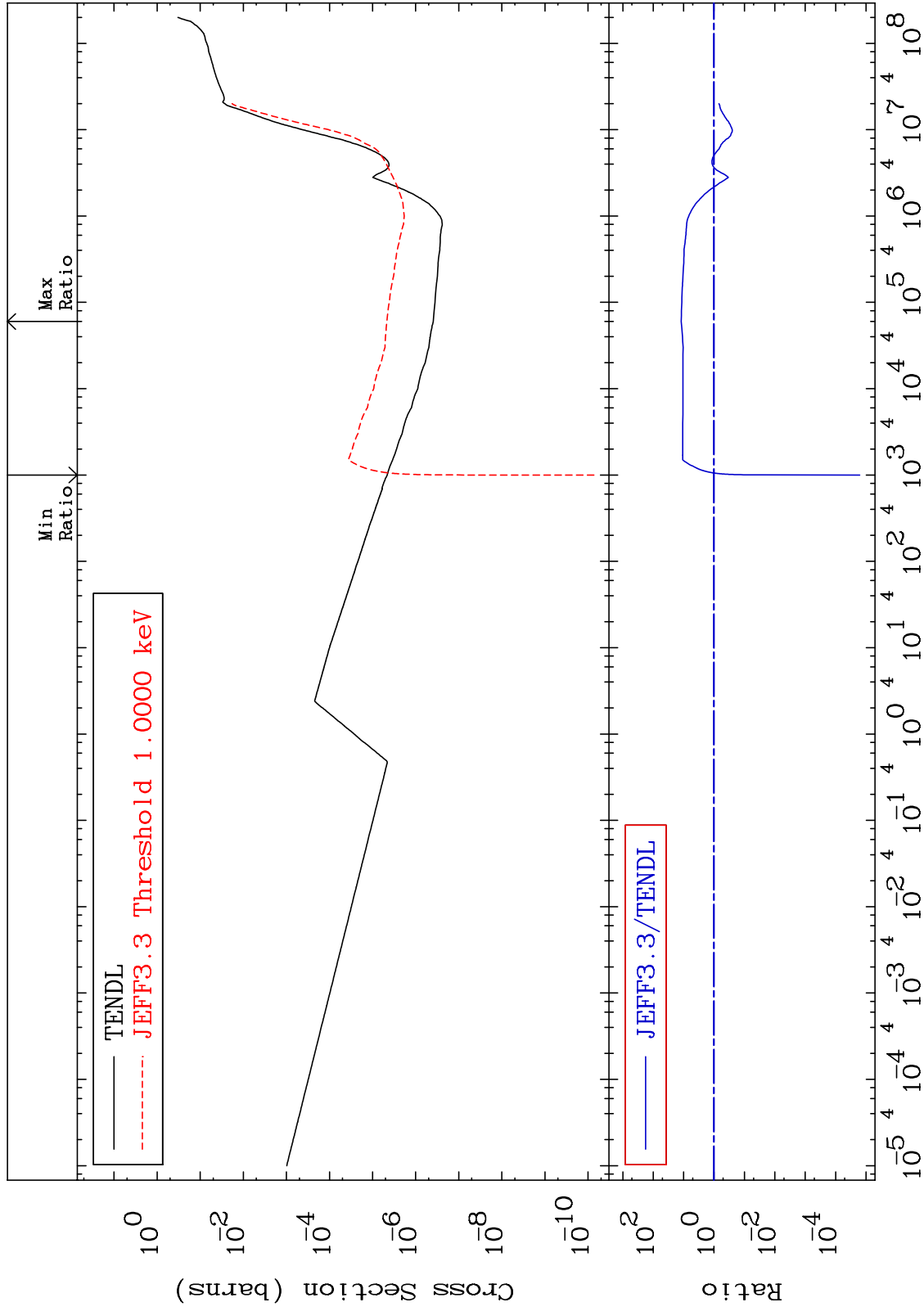
72-Hf-177
-83.78 To -0.114%



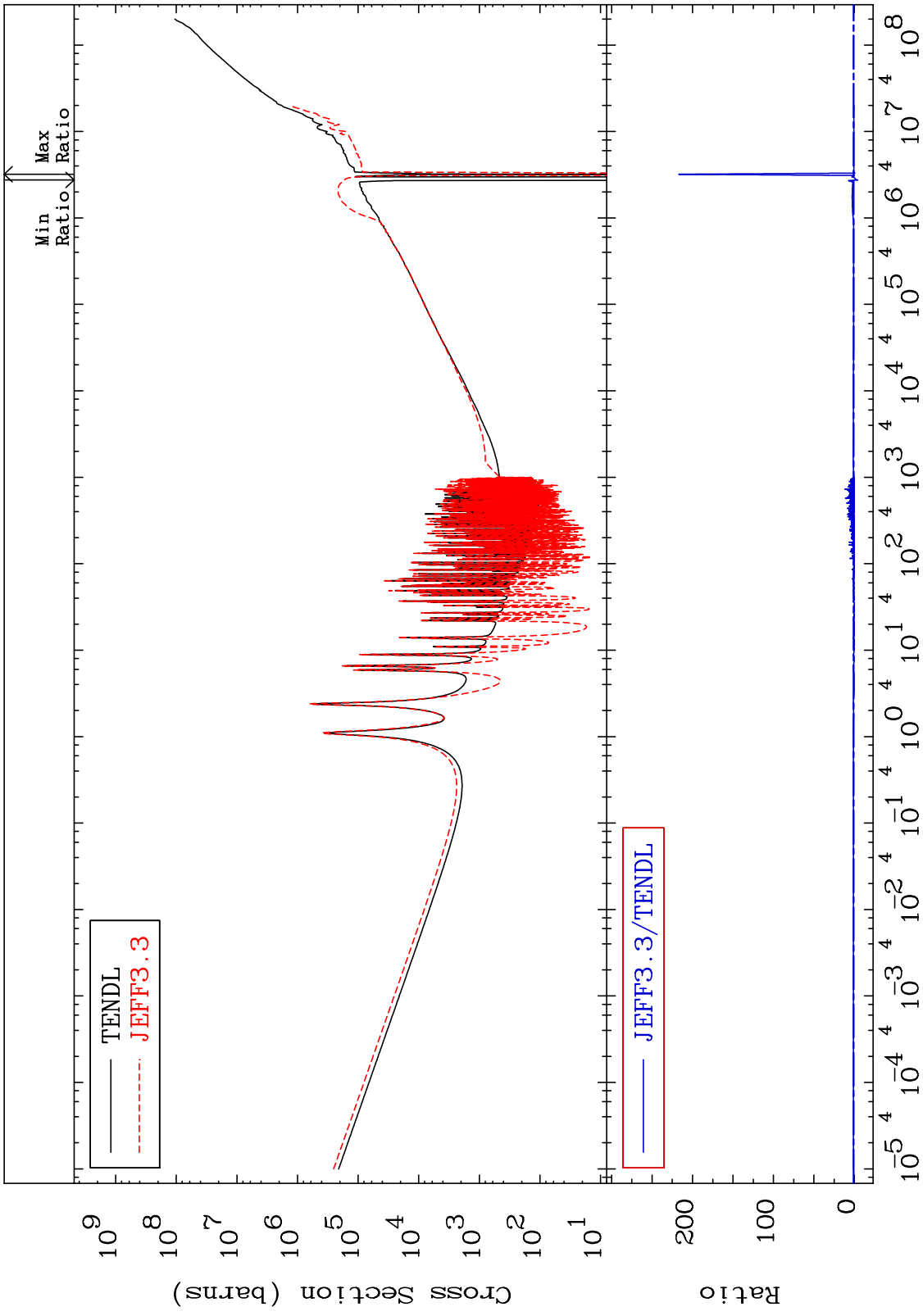
MAT 7234

He-4 Production
Cross Section

72-Hf-177
-100.0 To 1095. %



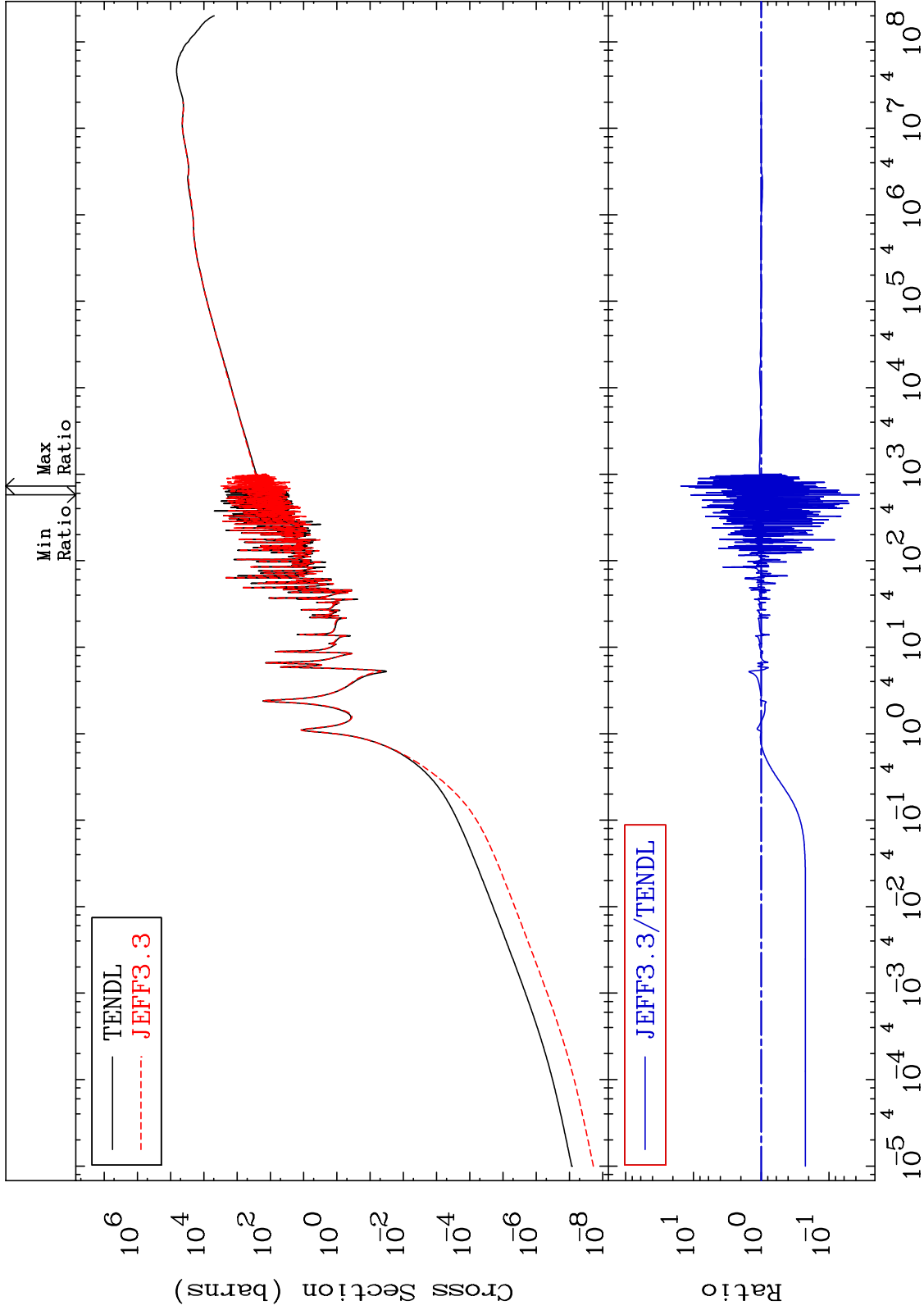
MAT 7234 Kerma total (eV-barns) 72-Hf-177
 Cross Section -529.0 To 9999. %



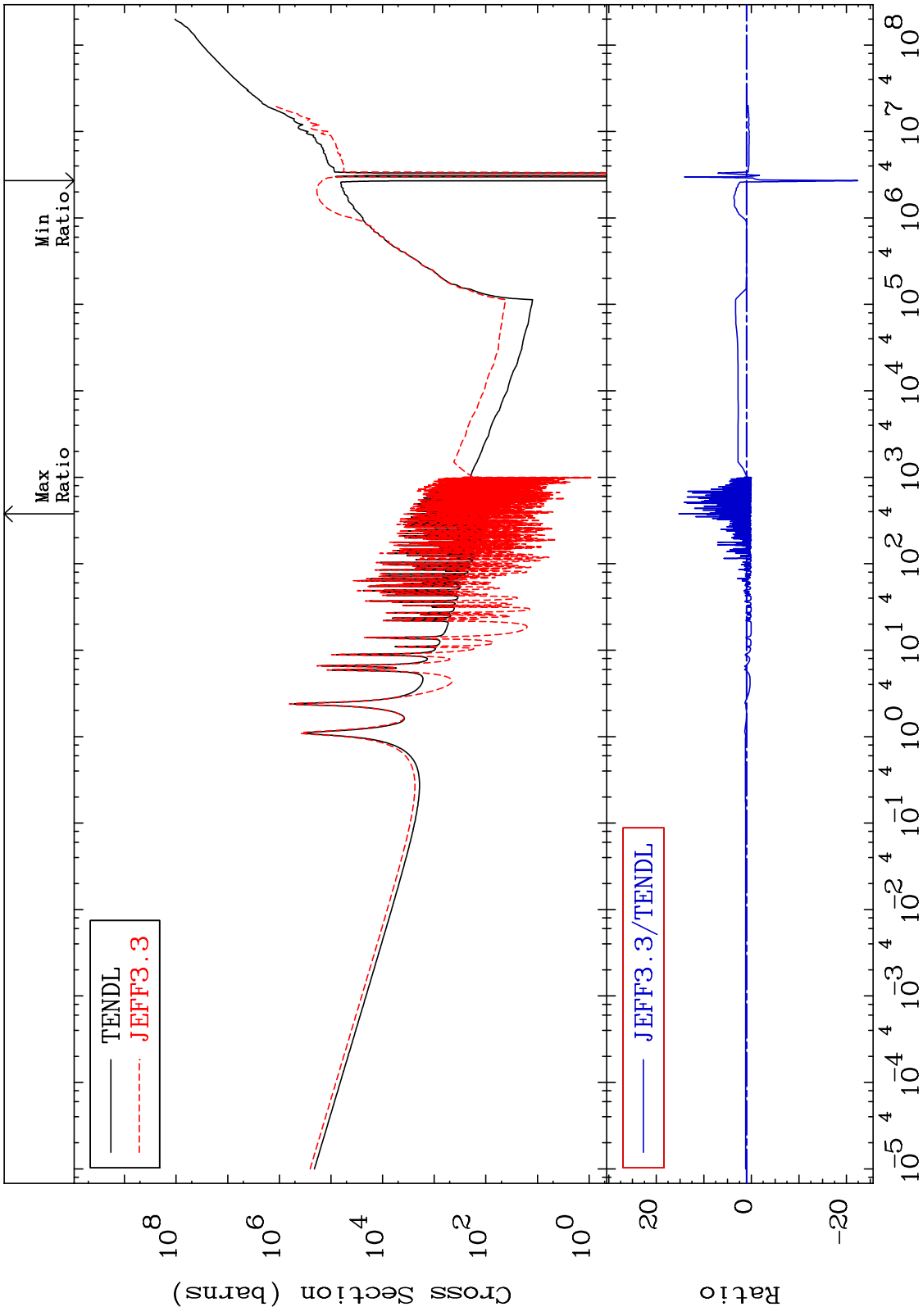
MAT 7234

Kerma elastic
Cross Section

72-Hf-177
-96.47 To 1433. %



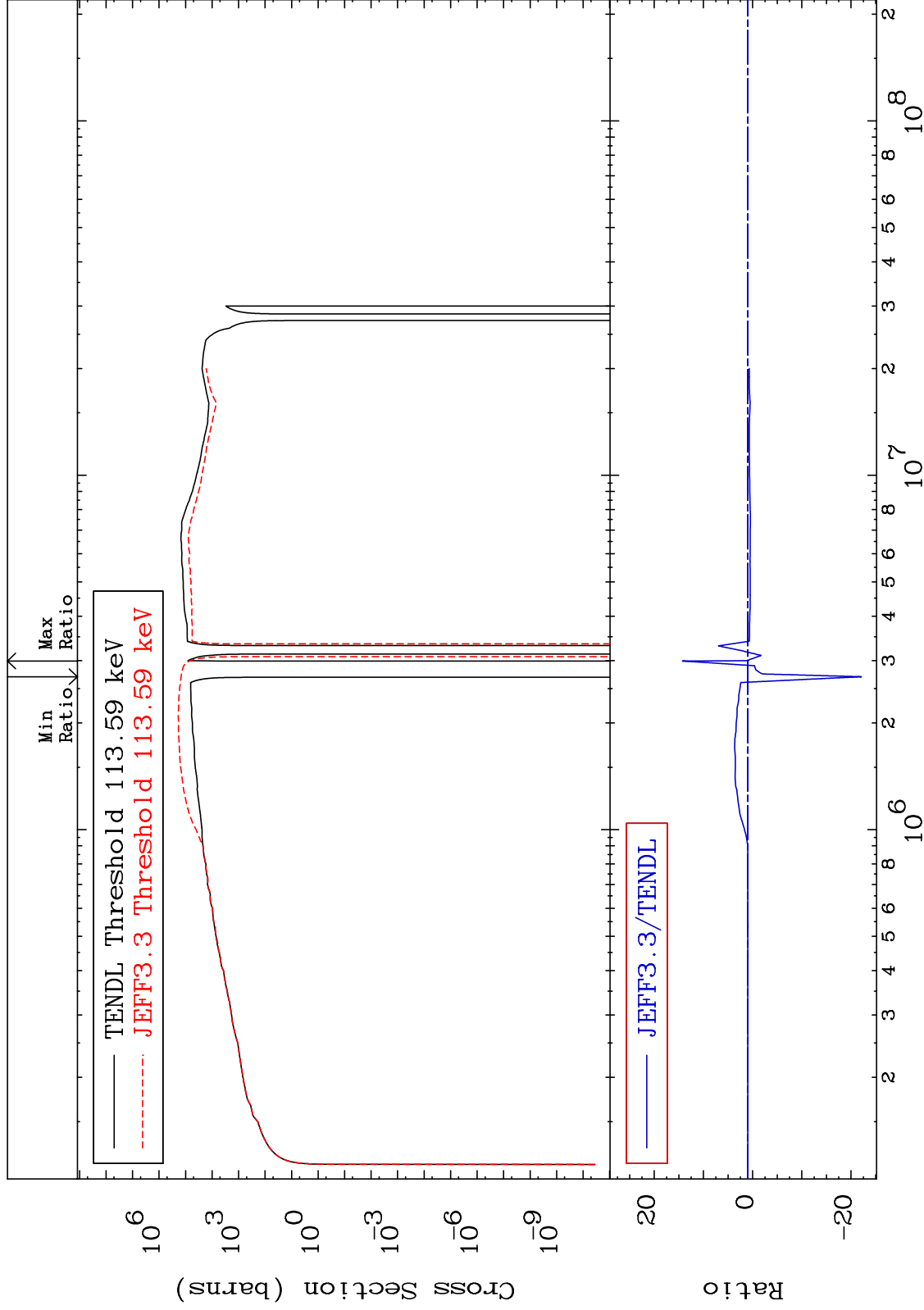
MAT 7234 Kerma non-elastic (all but mt2) 72-Hf-177
 Cross Section -2340. To 1421. %



MAT 7234

Kerma inelastic (mt51-91)
Cross Section

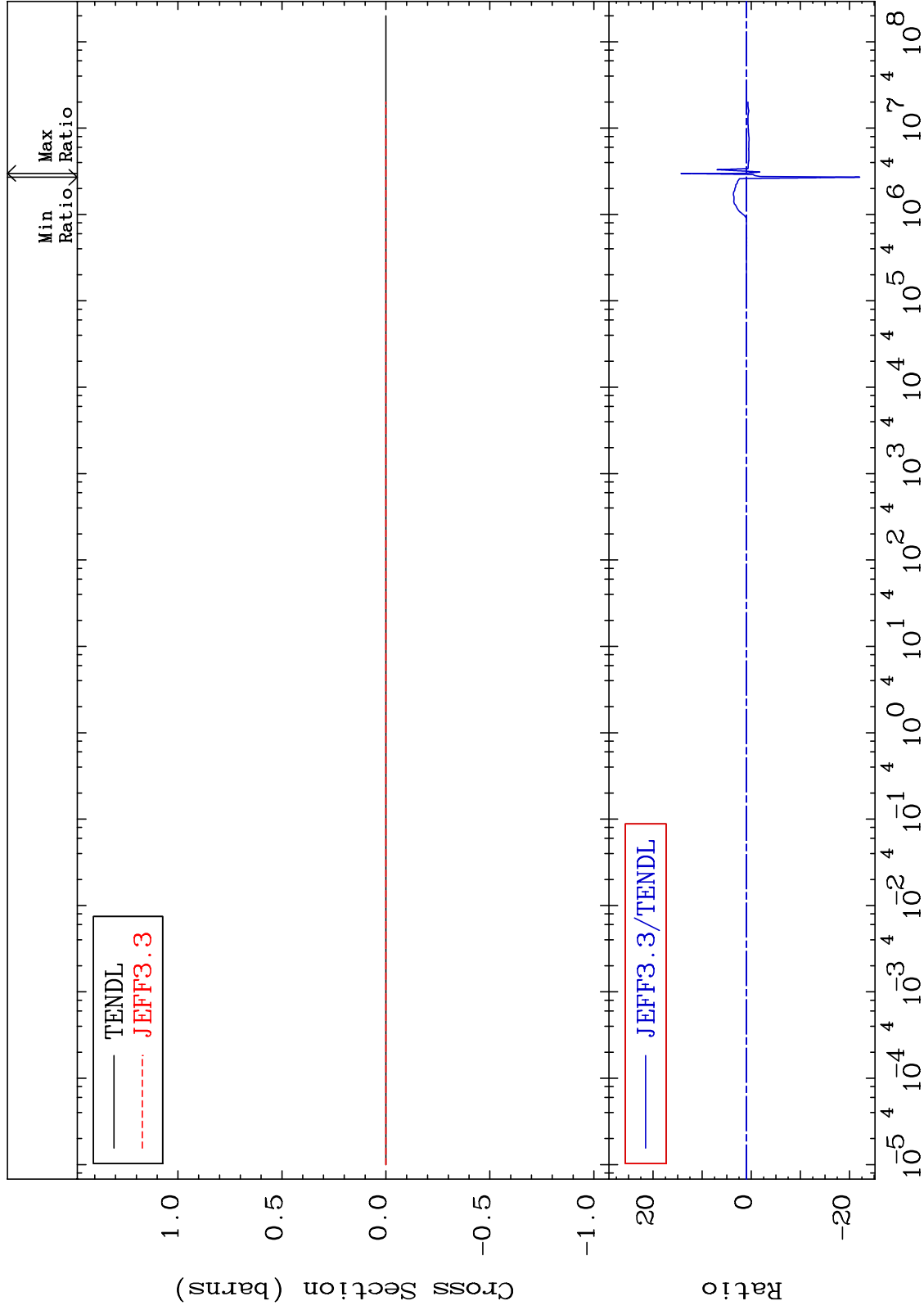
72-Hf-177
-2308. To 1327. %



MAT 7234

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

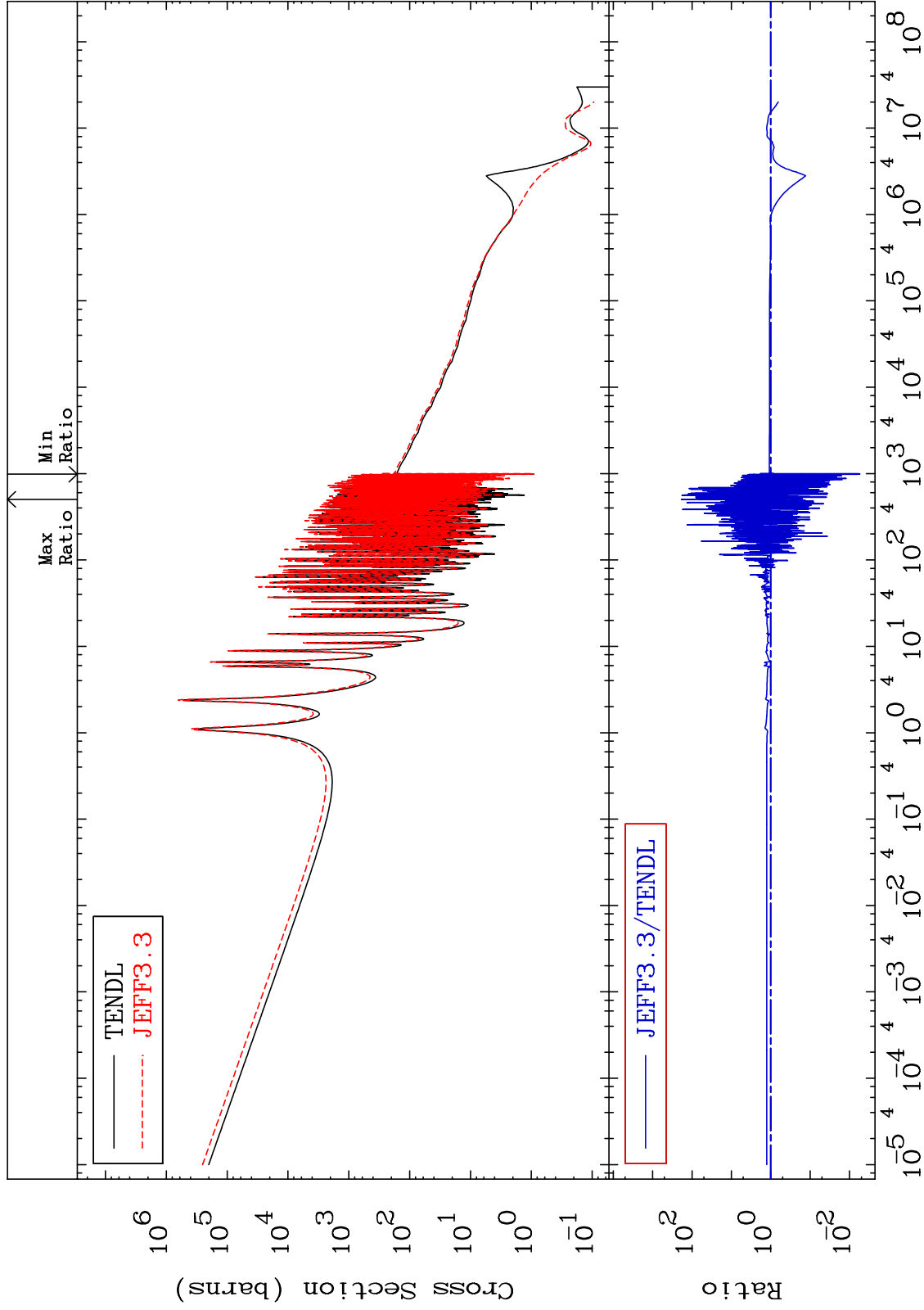
72-Hf-177
-2308. To 1327. %



MAT 7234

Kerma capture (mt102)
Cross Section

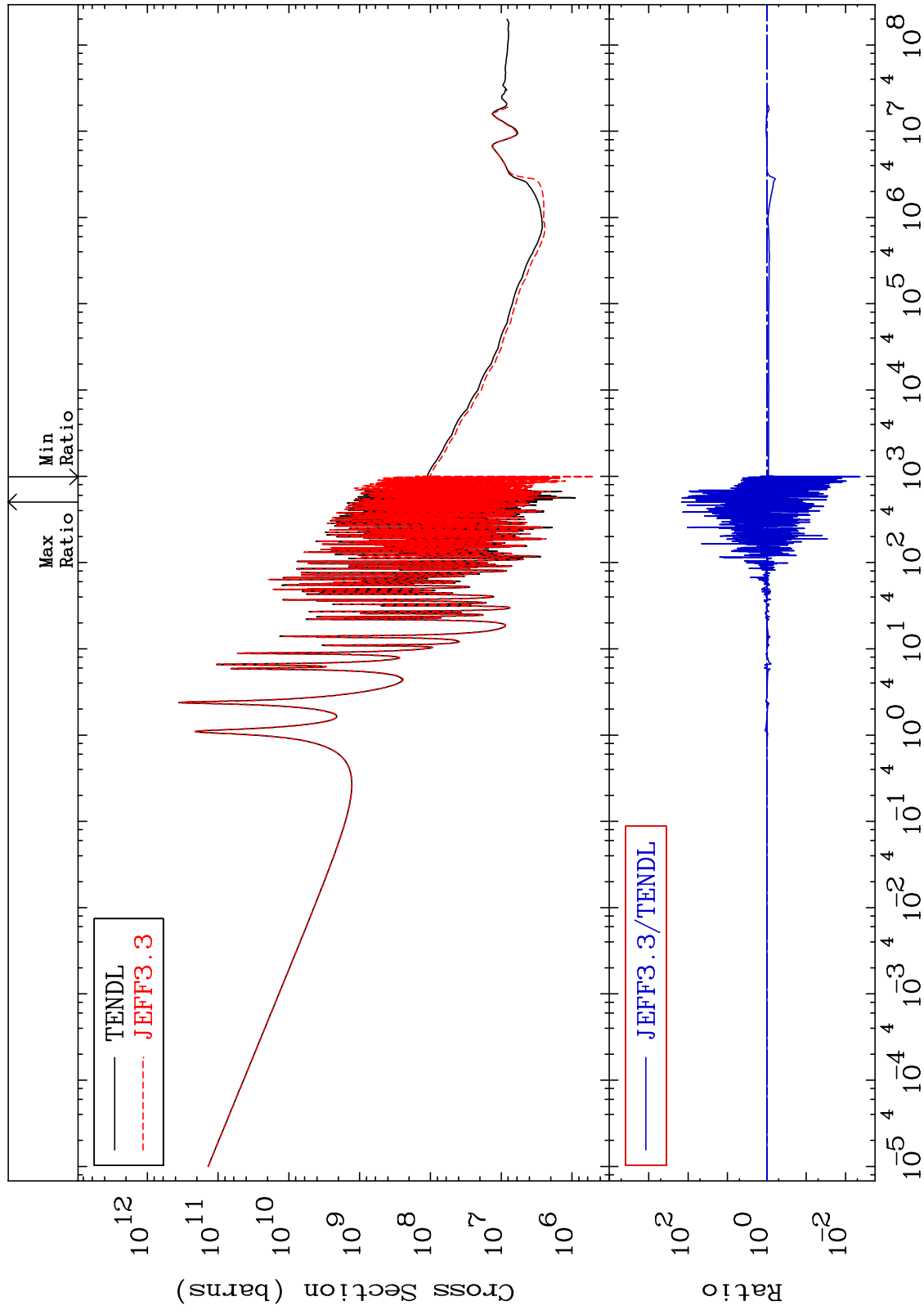
72-Hf-177
-99.45 To 9999. %



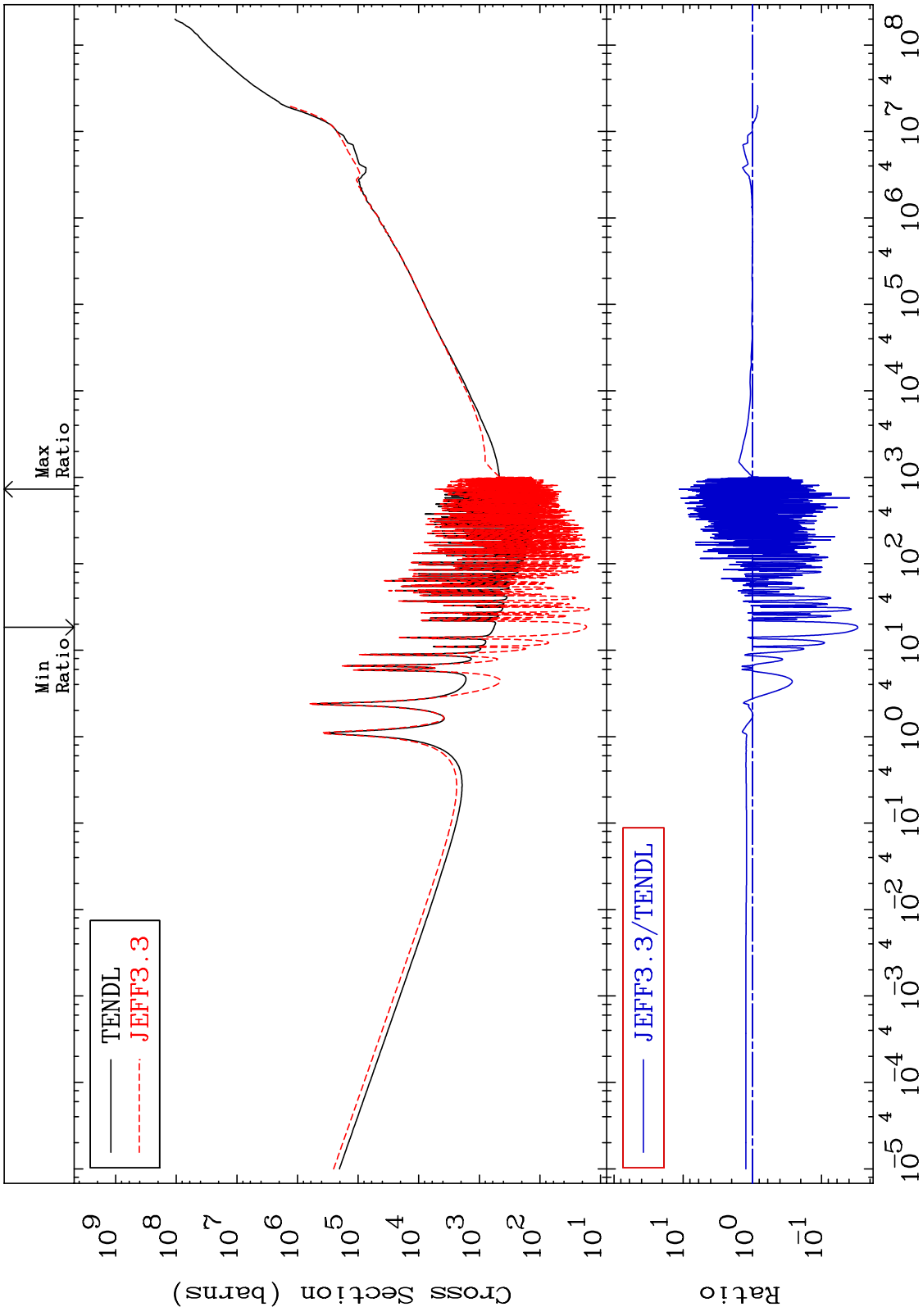
MAT 7234

Total photon (eV-barns)
Cross Section

72-Hf-177
-99.57 To 9999. %



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



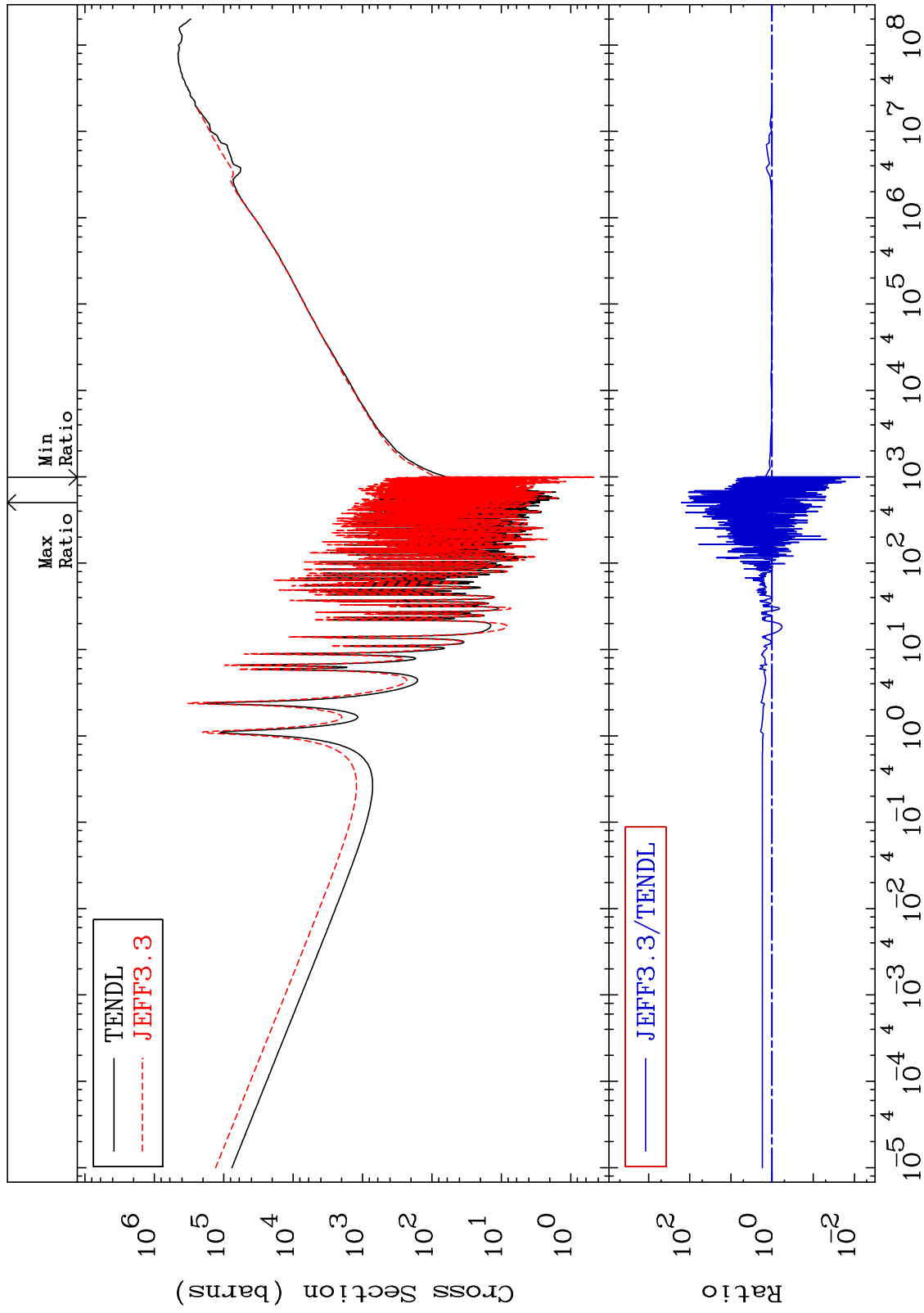
MAT 7234

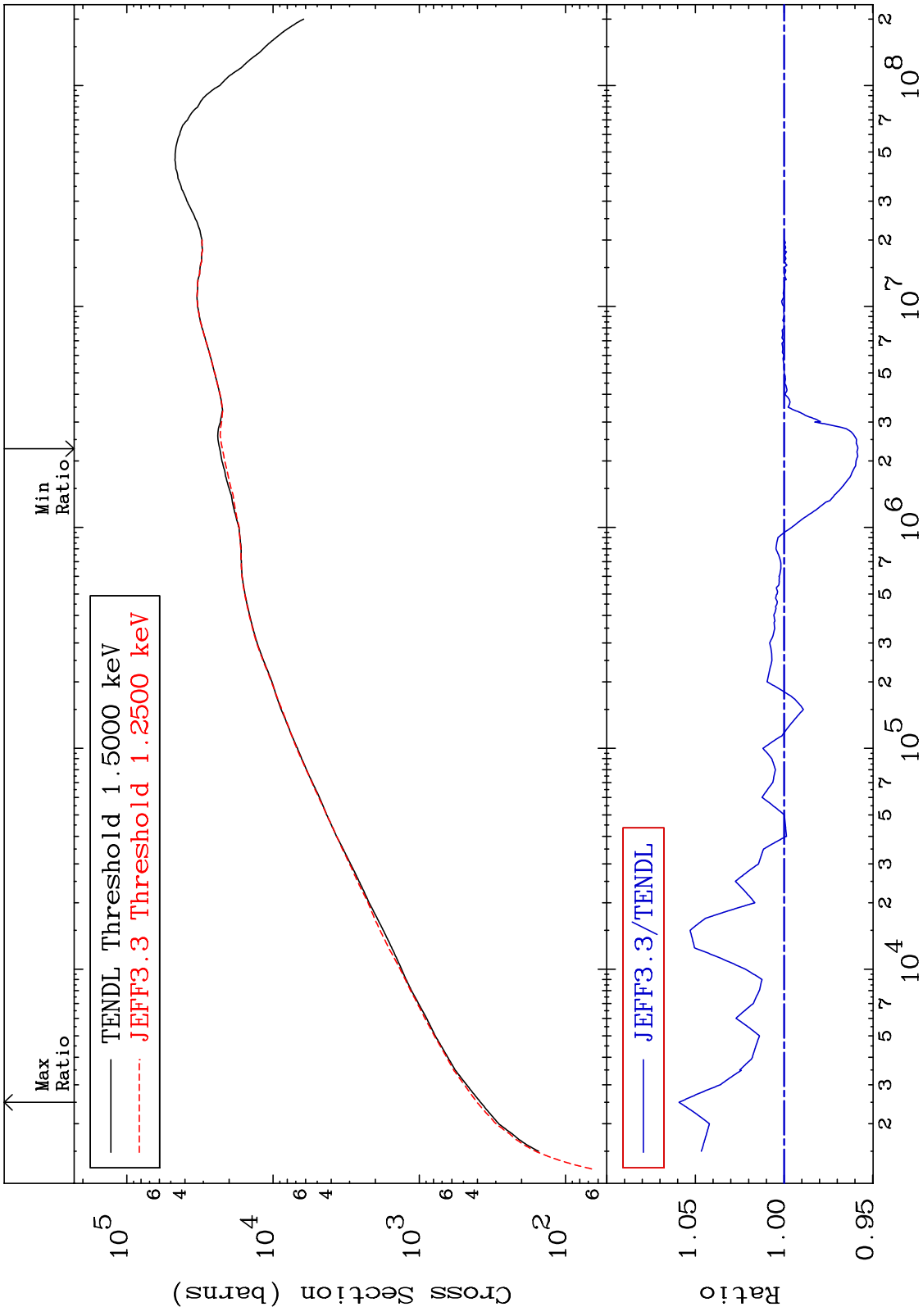
Dpa total (eV-barns)

72-Hf-177

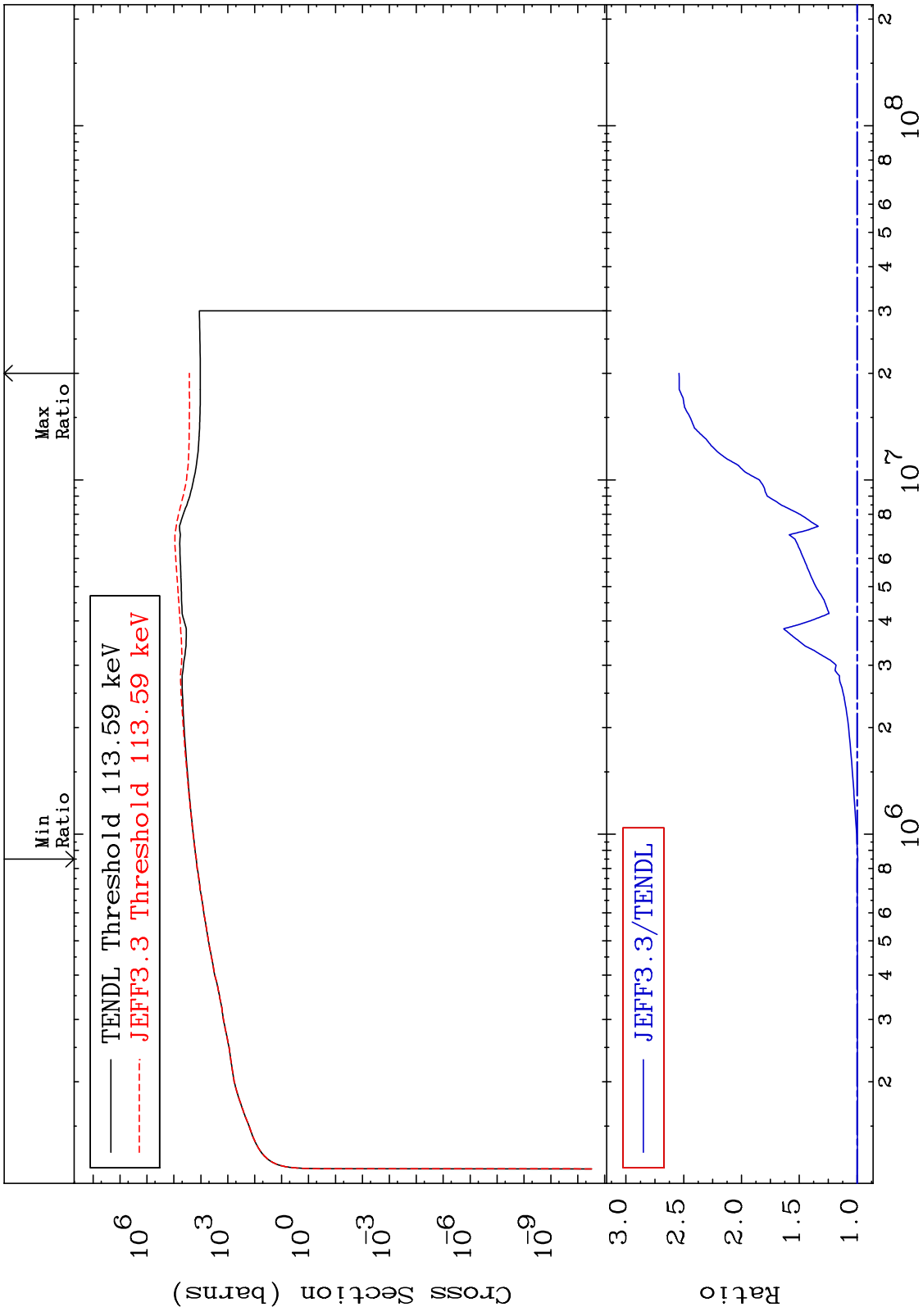
-99.26 To 9999. %

Cross Section





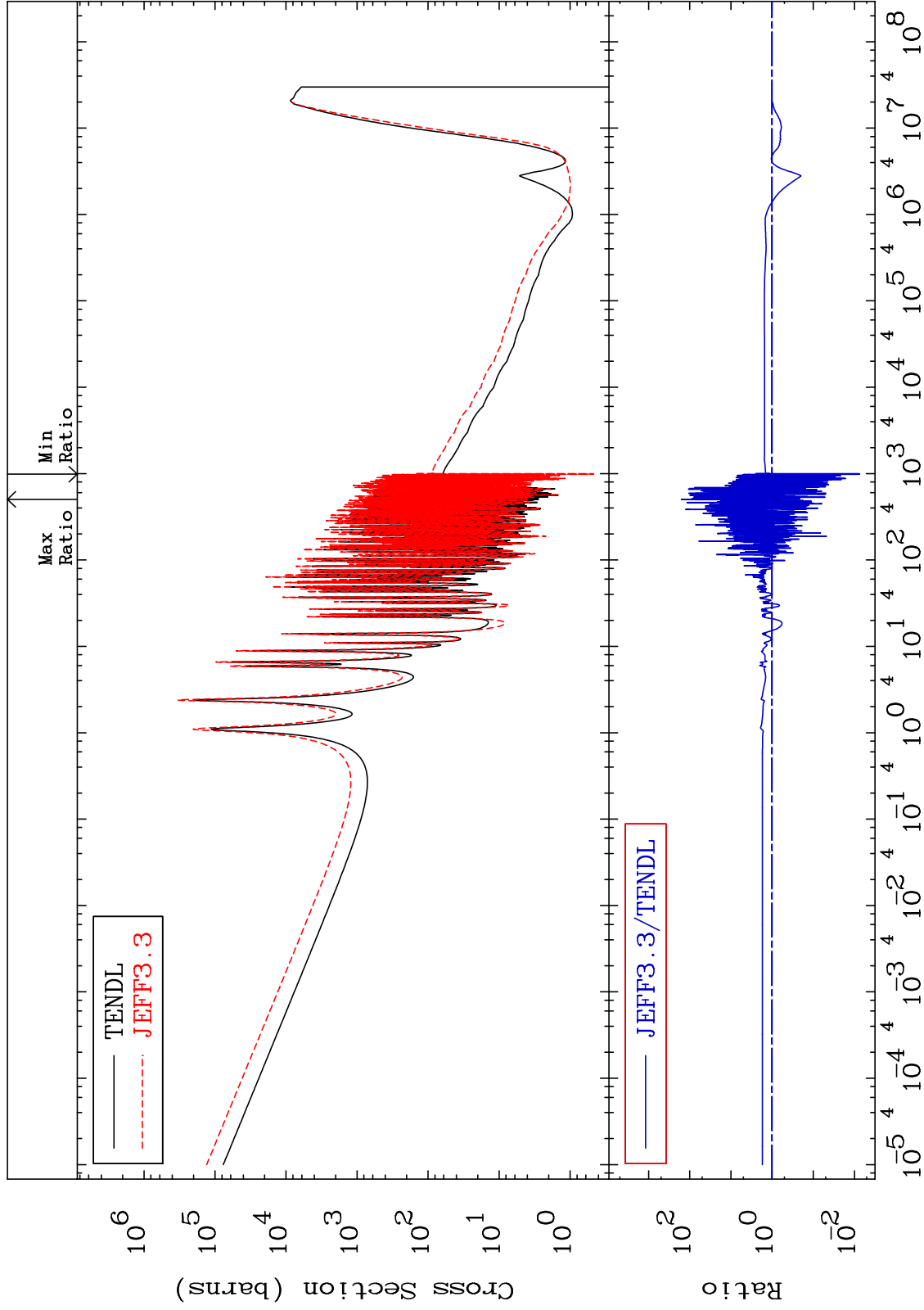
MAT 7234 Dpa inelastic (mt51-91) 72-Hf-177
 Cross Section -0.666 To 154.1 %



MAT 7234

Dpa disappearance (mt102 -120)
Cross Section

72-Hf-177
-99.26 To 9999. %

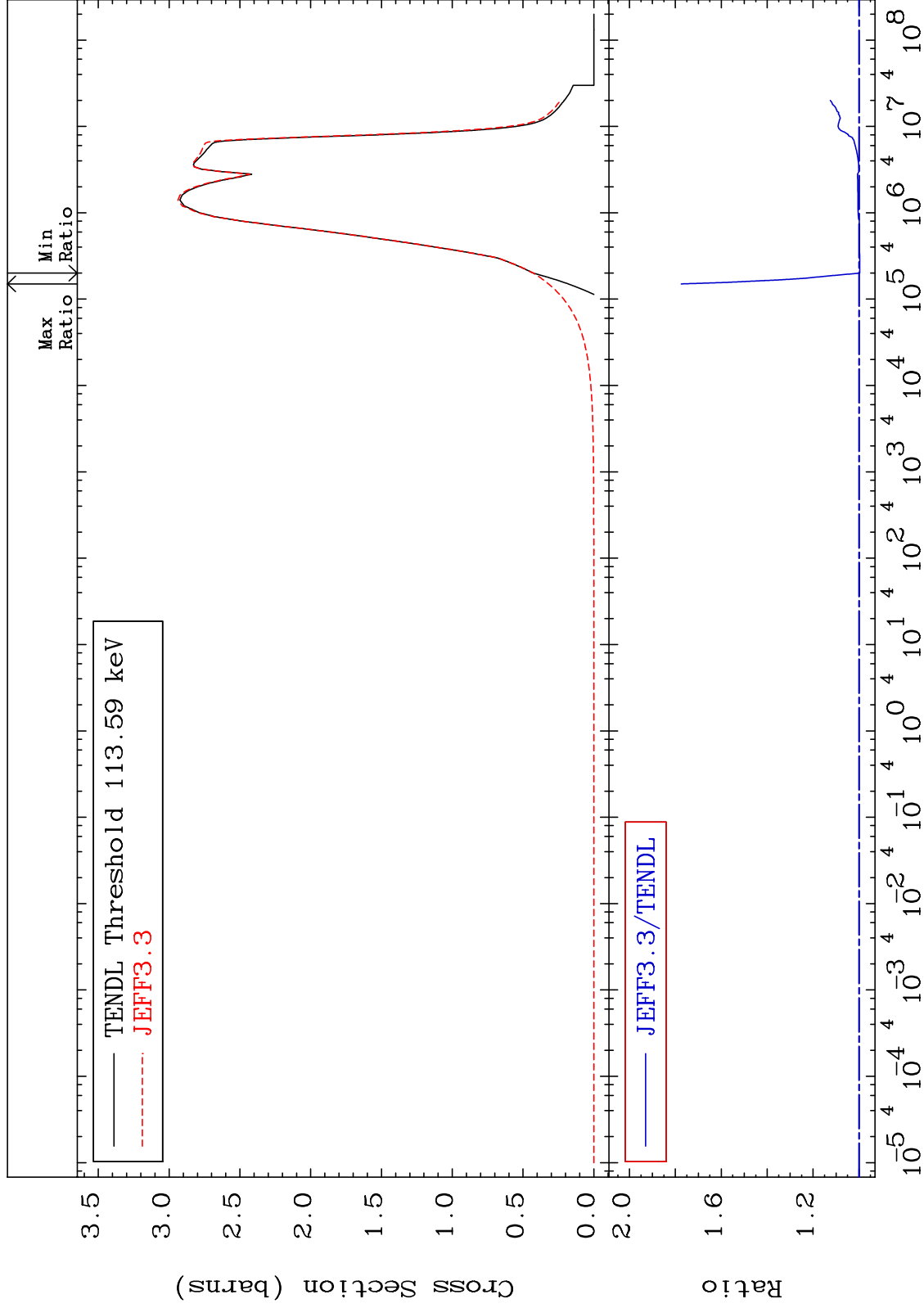


MAT 7234

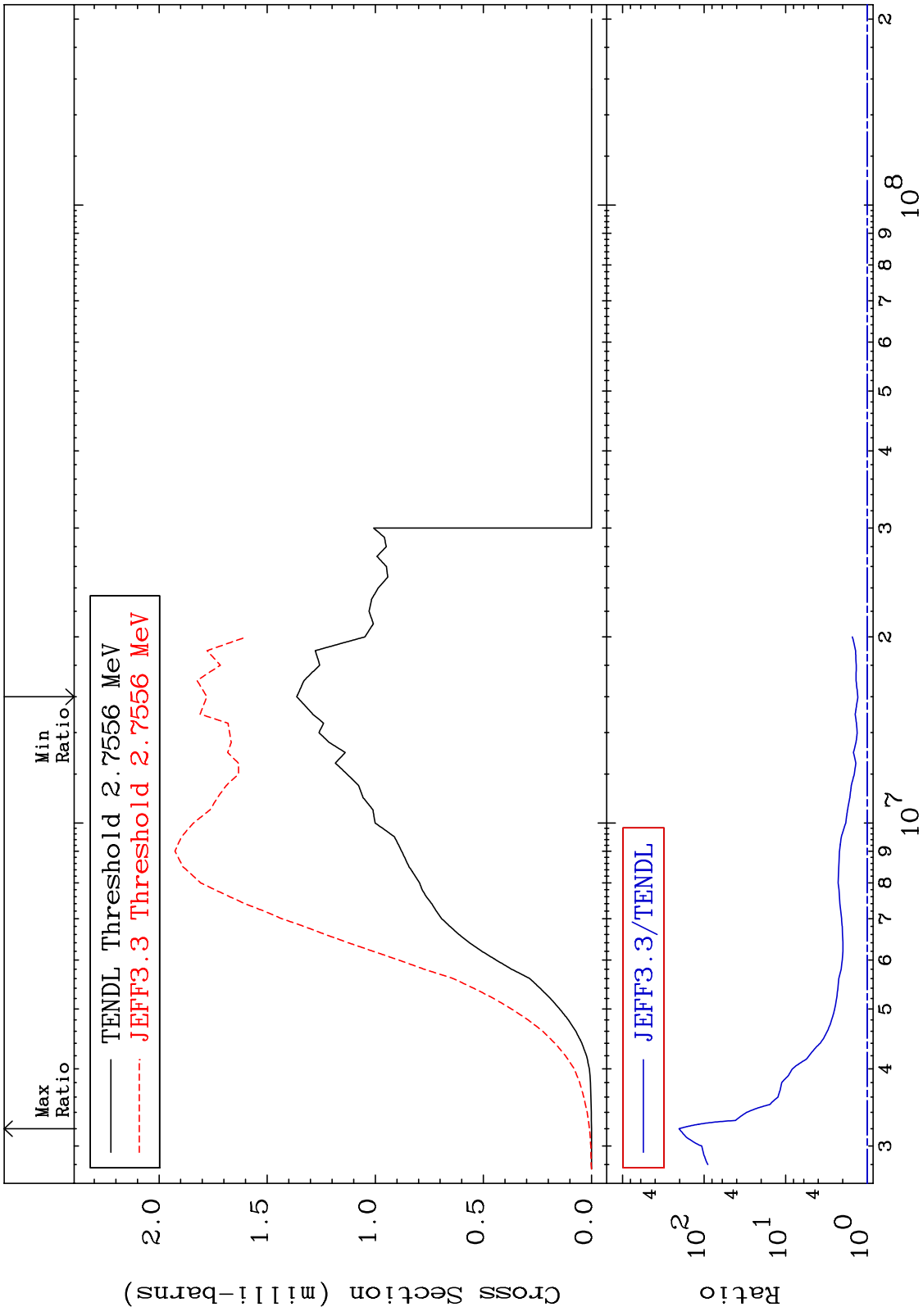
Inelastic: 72-Hf-177g

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. %

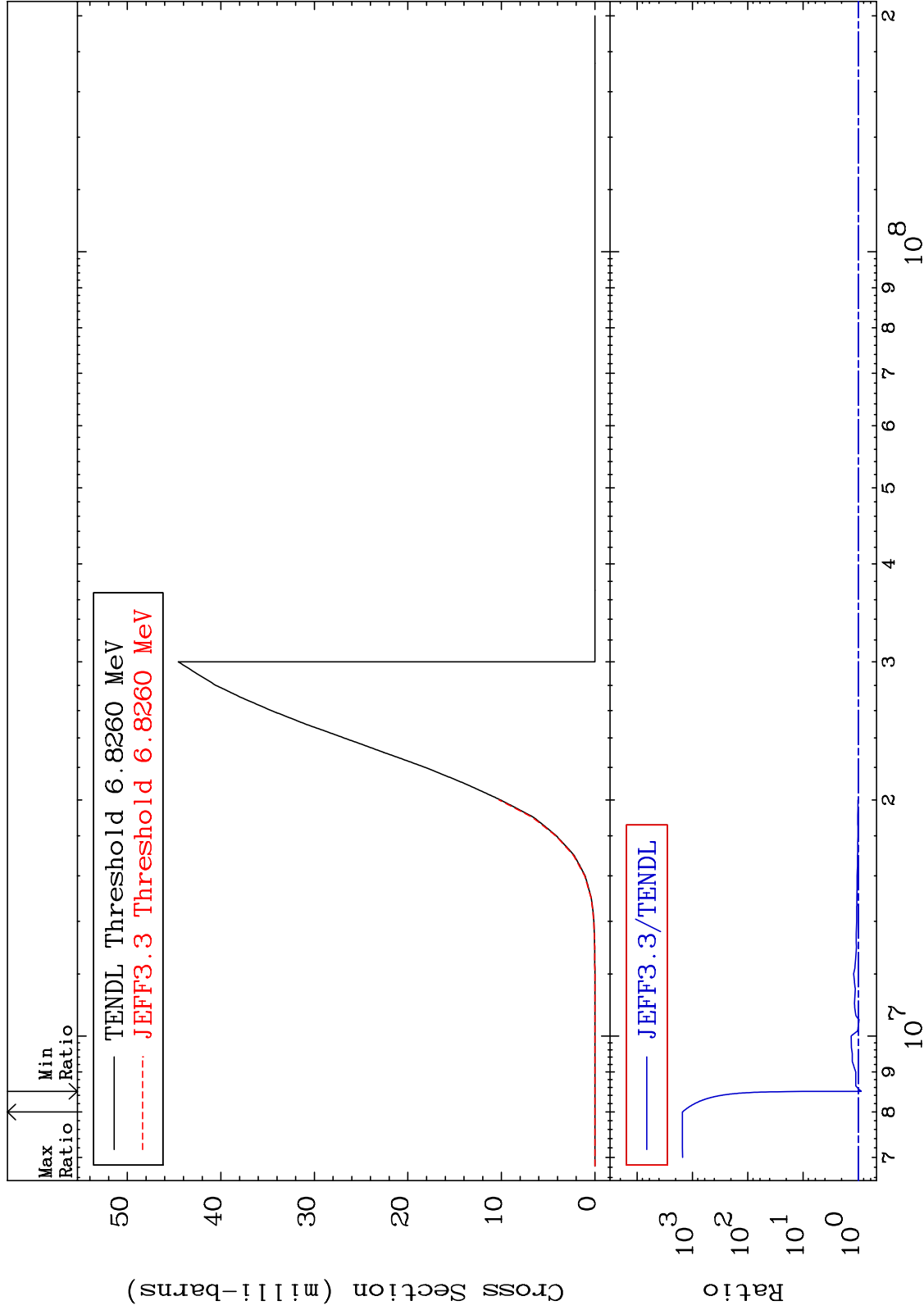


MAT 7234

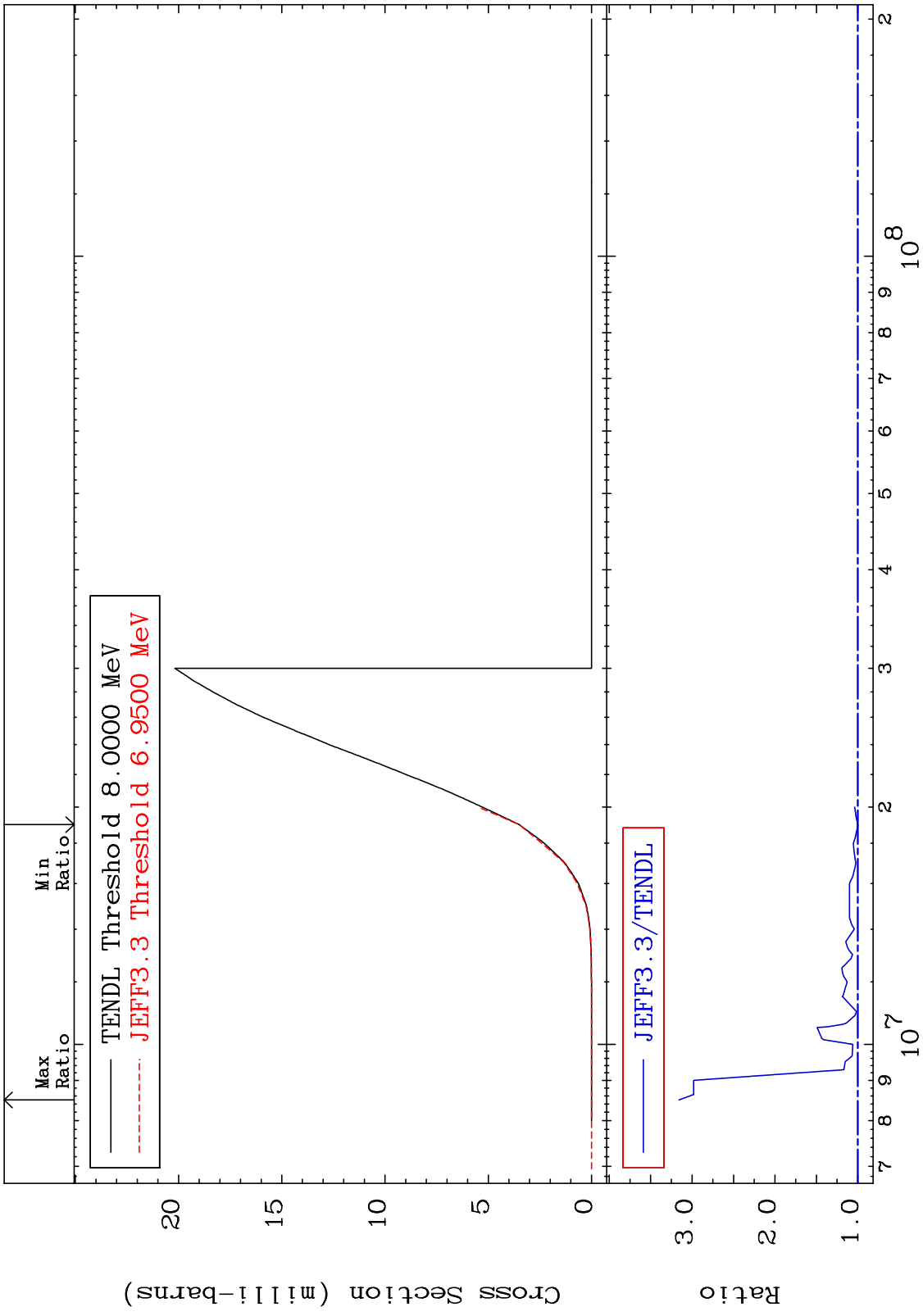
(n,n') p:71-Lu-176g

72-Hf-177

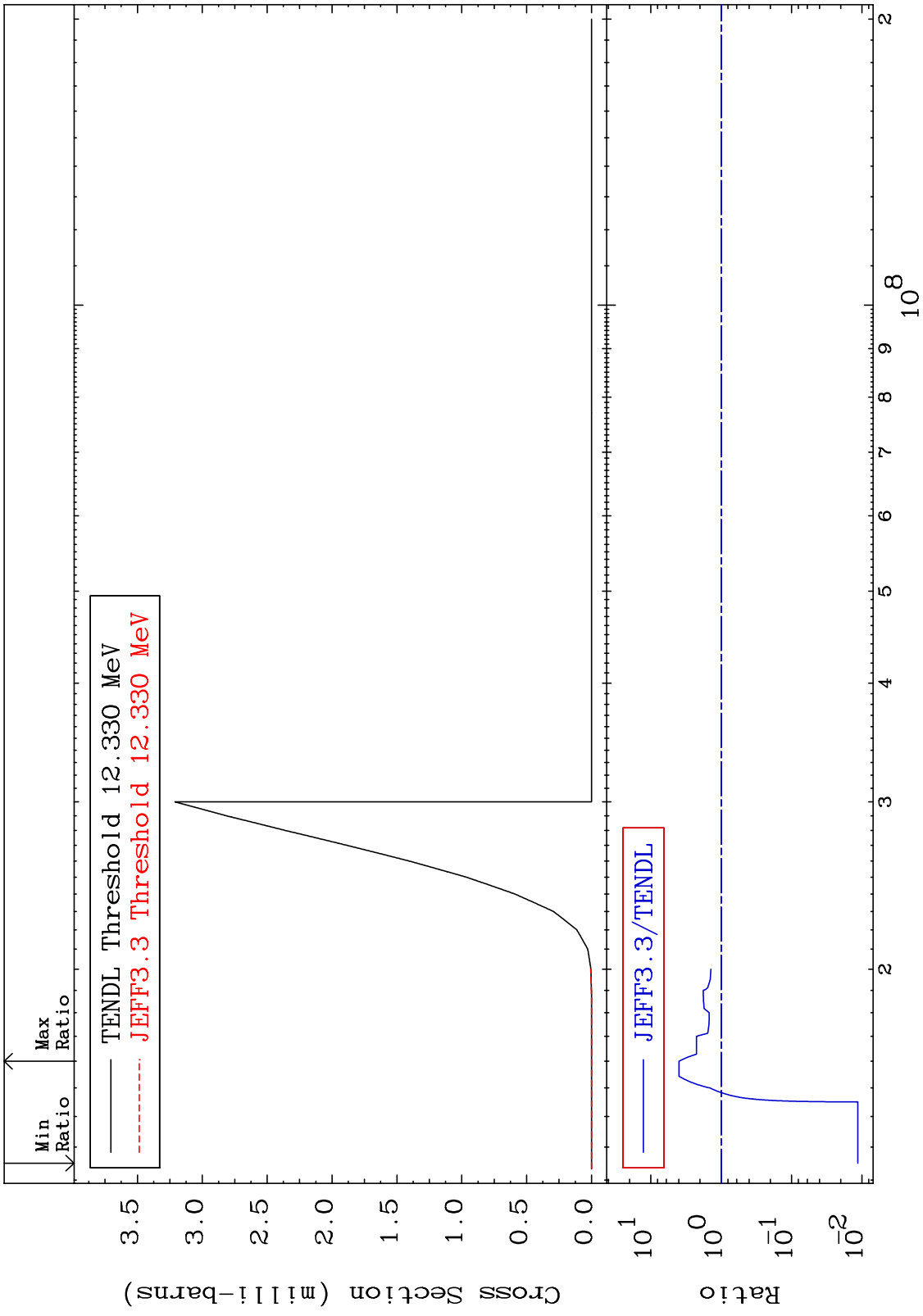
Radionuclide Production Cross Section -11.60 To 9999. %



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 %

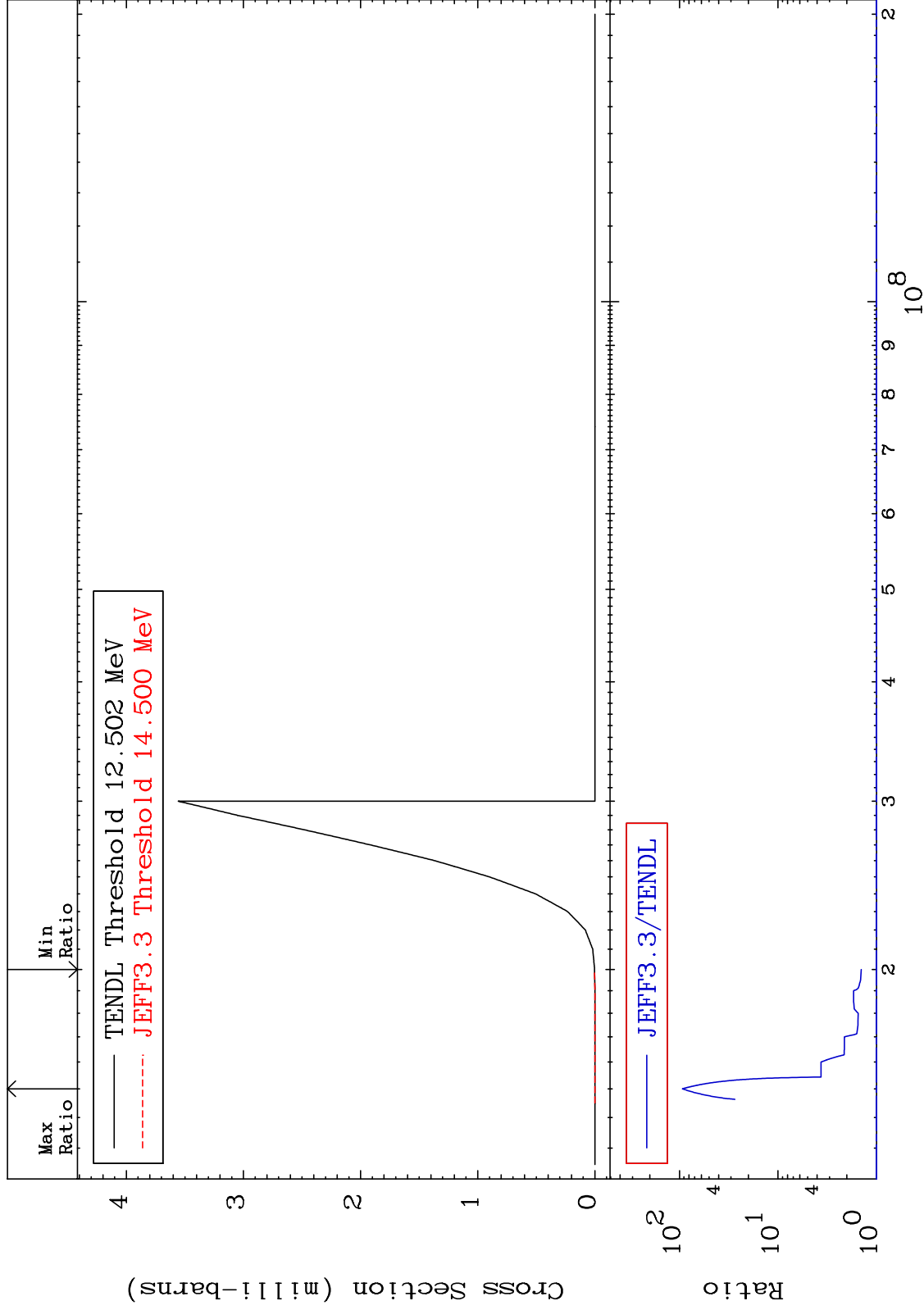


MAT 7234

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

72-Hf-177

Radionuclide Production Cross Section 42.61 To 9224. %

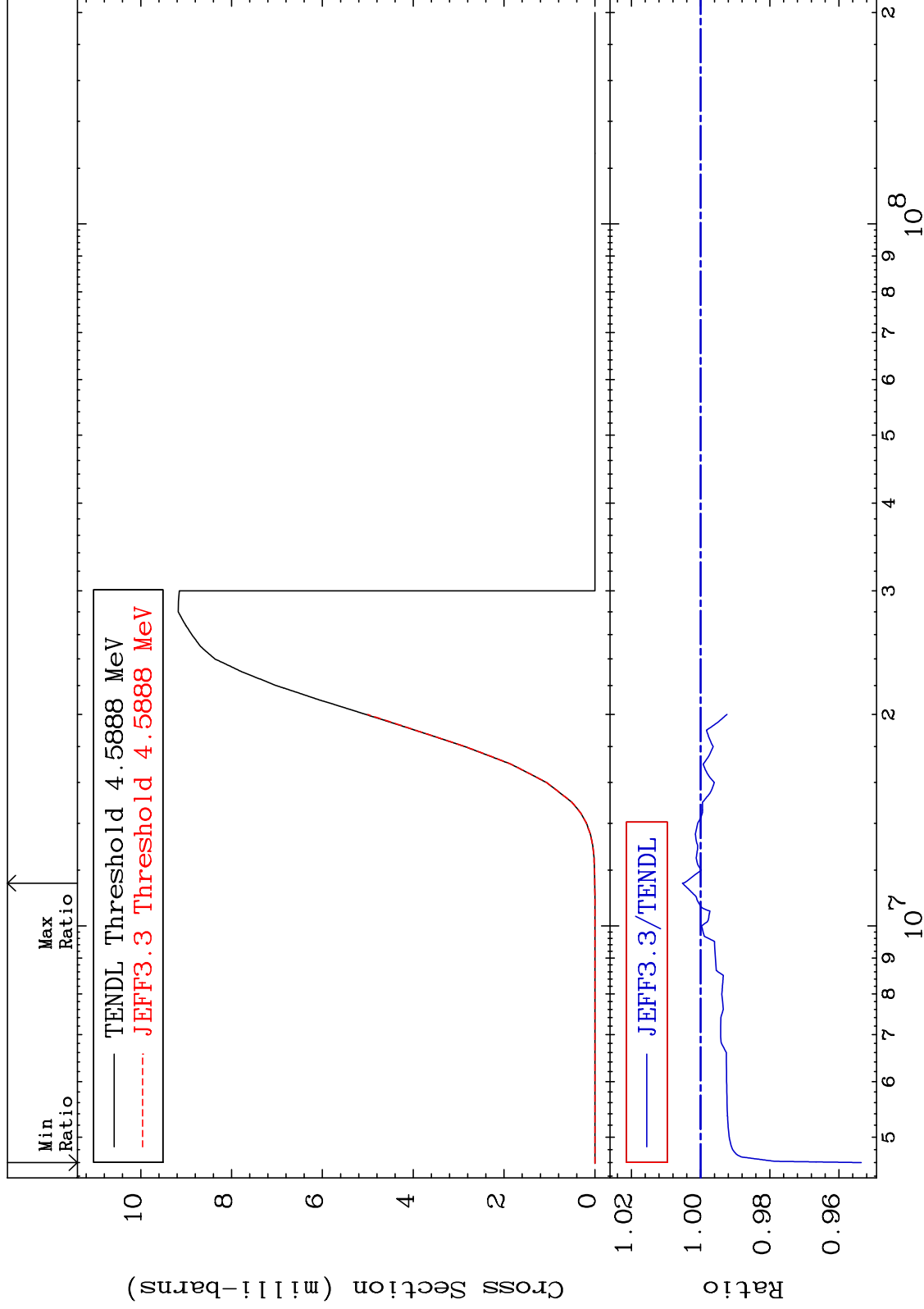


MAT 7234

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

72-Hf-177

Radionuclide Production Cross Section -4.645 To 0.524 %



72

Incident Energy (eV)

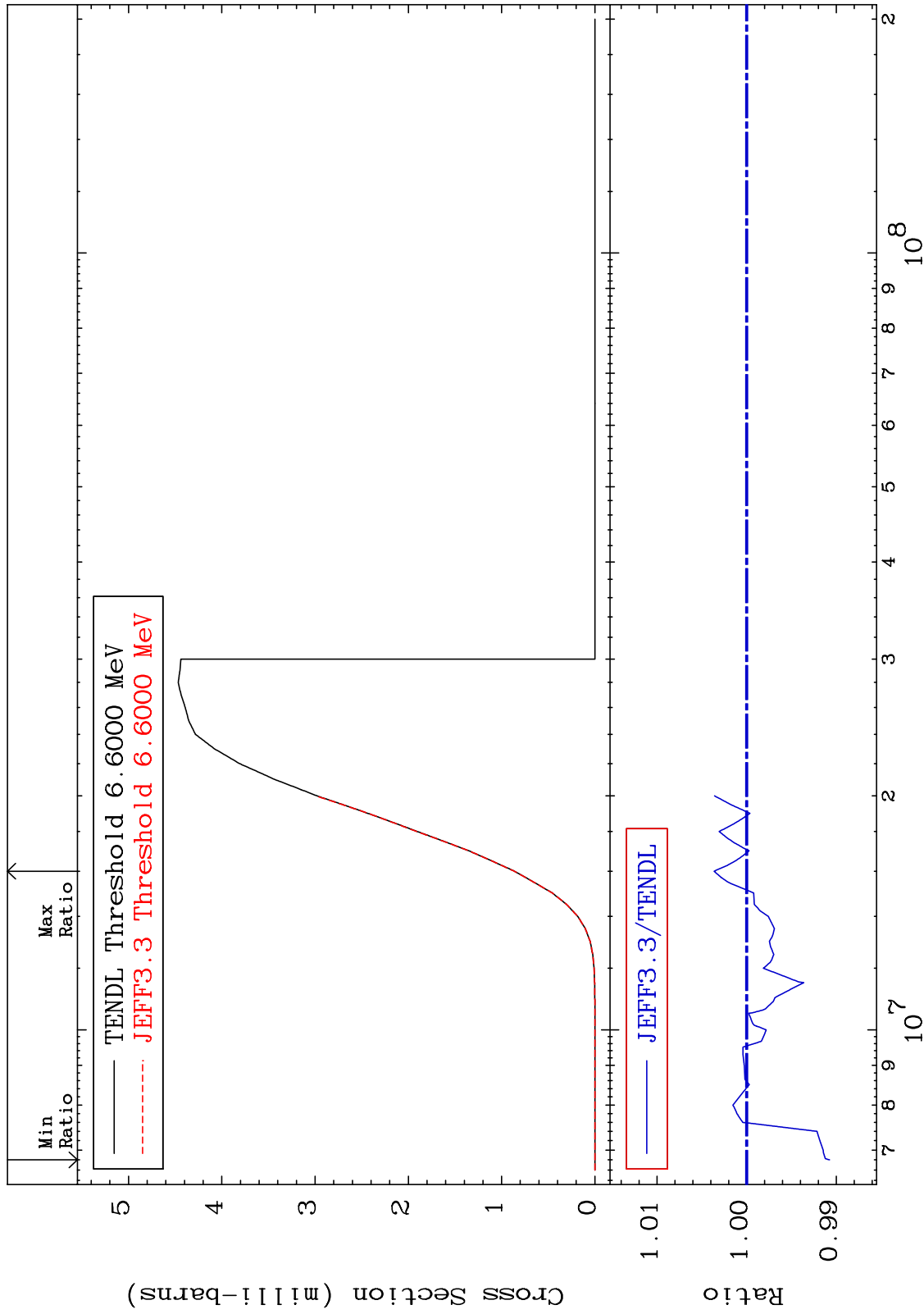
72-Hf-177

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