

Program Complot
(Version 2018-1)

by

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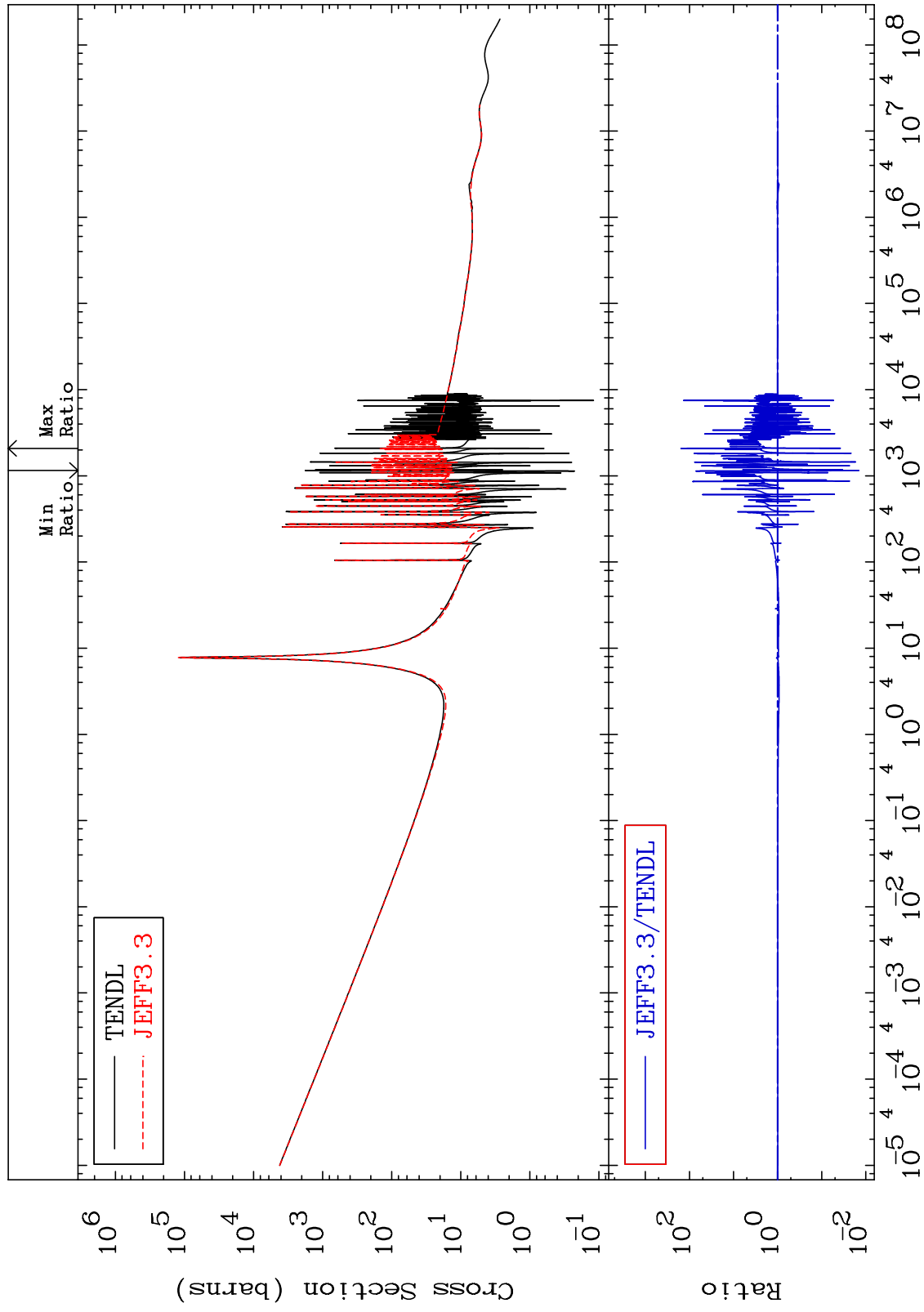
E.Mail: redcullen1@comcast.net
Web: redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 7237

Total
Cross Section

72-Hf-178
-98.58 To 9999. %



1

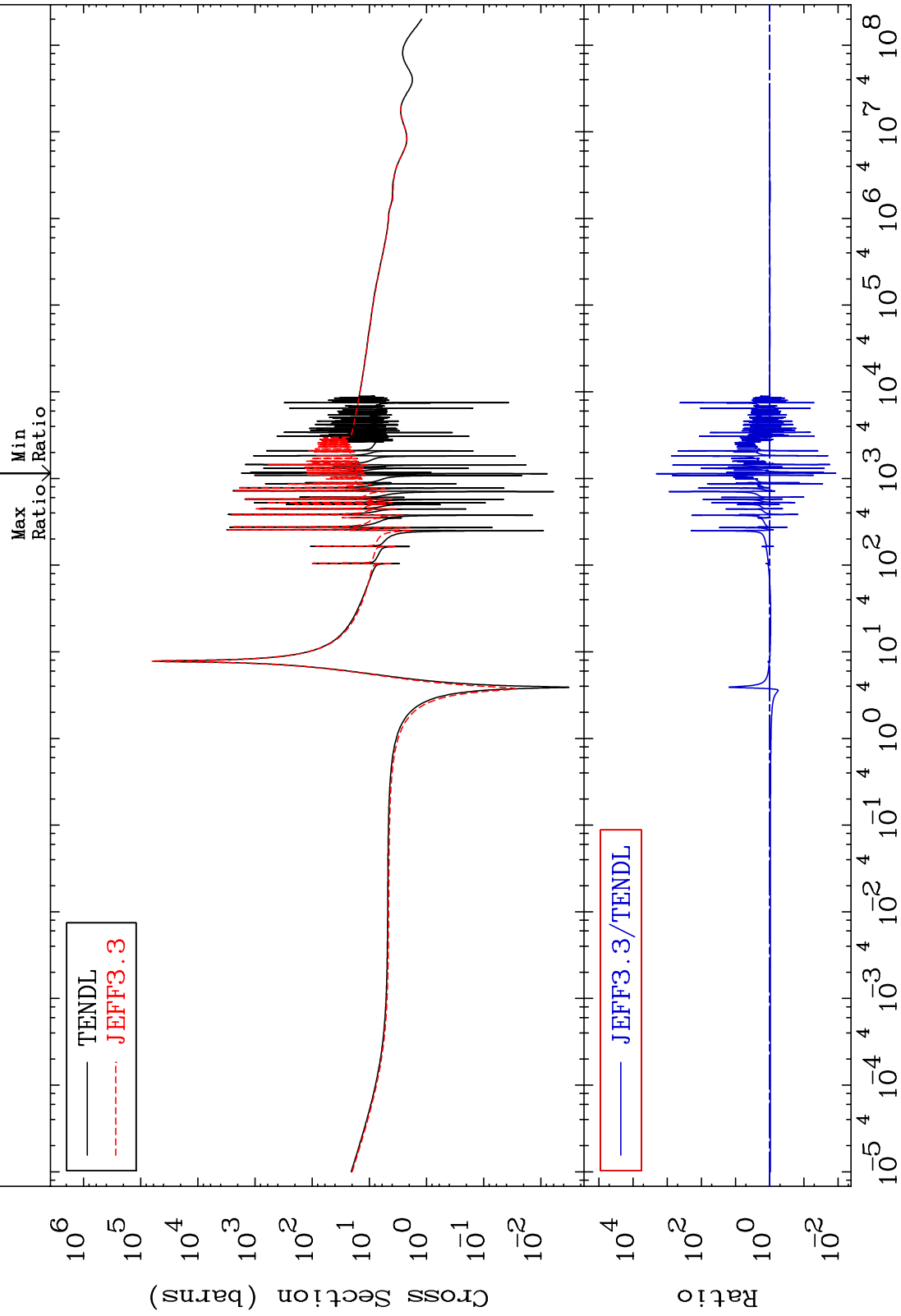
Incident Energy (eV)

72-Hf-178

MAT 7237

Elastic
Cross Section

72-Hf-178
-98.82 To 9999. %



2

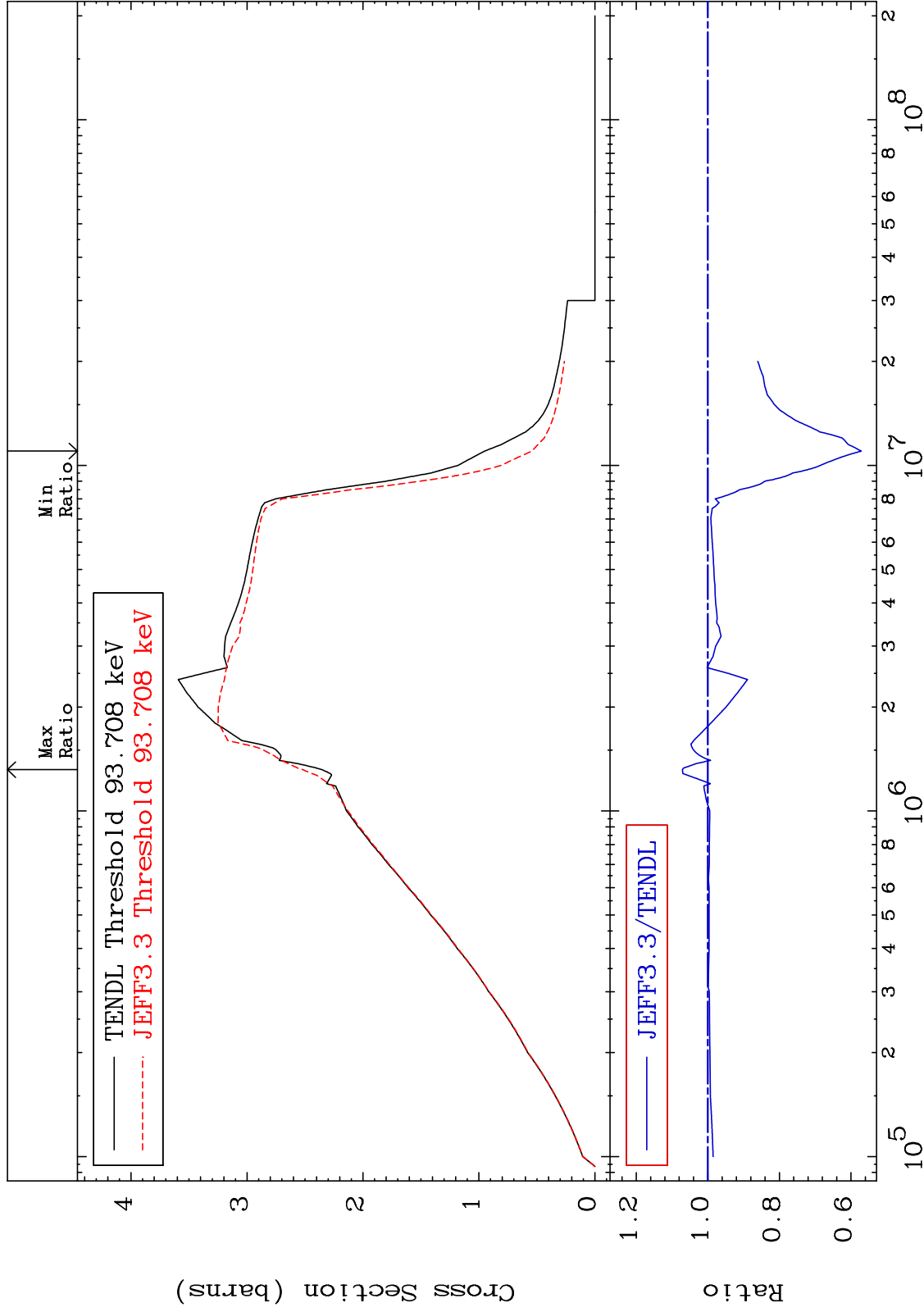
Incident Energy (eV)

72-Hf-178

MAT 7237

Inelastic
Cross Section

72-Hf-178
-42.86 To 7.095 %

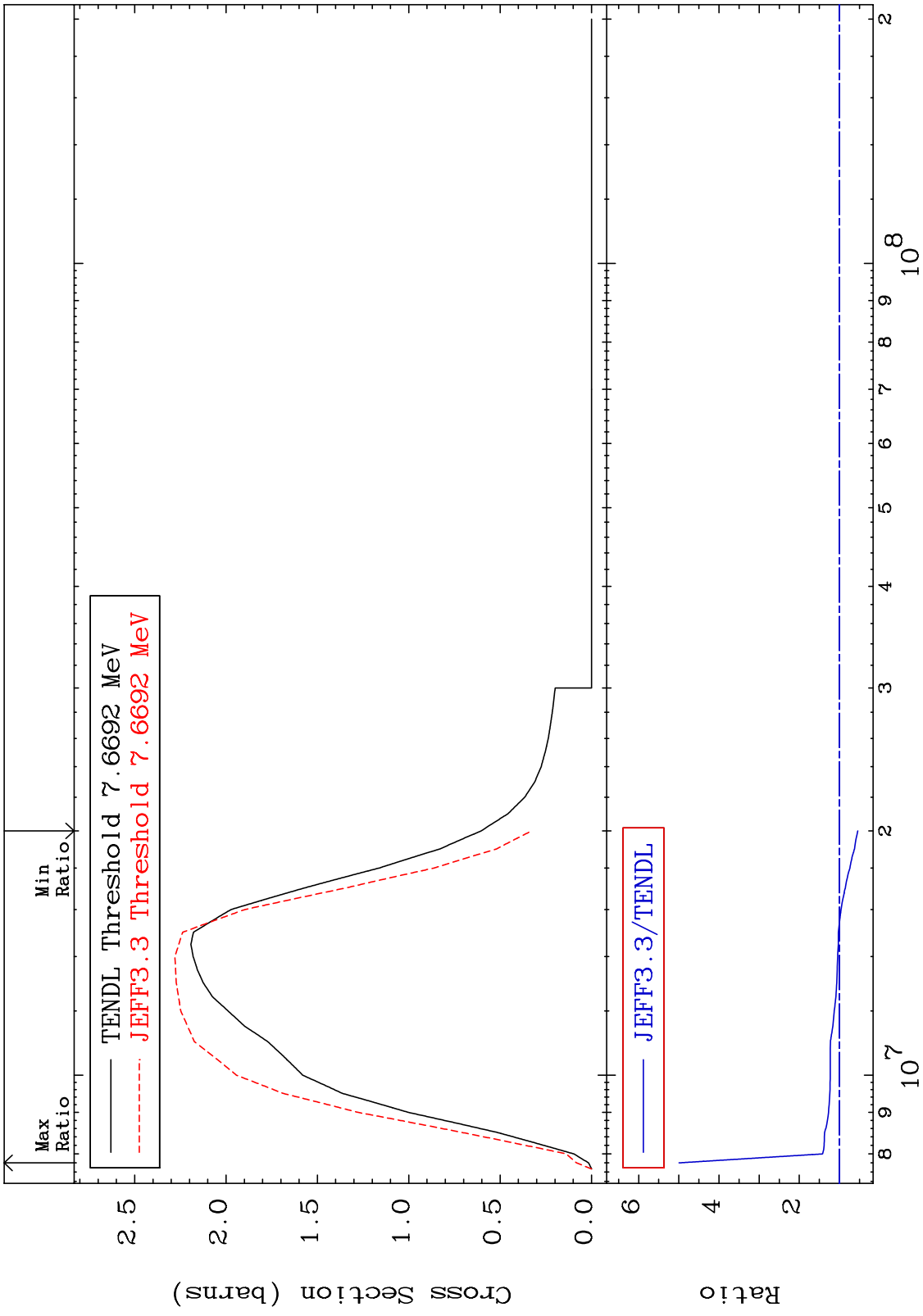


72-Hf-178

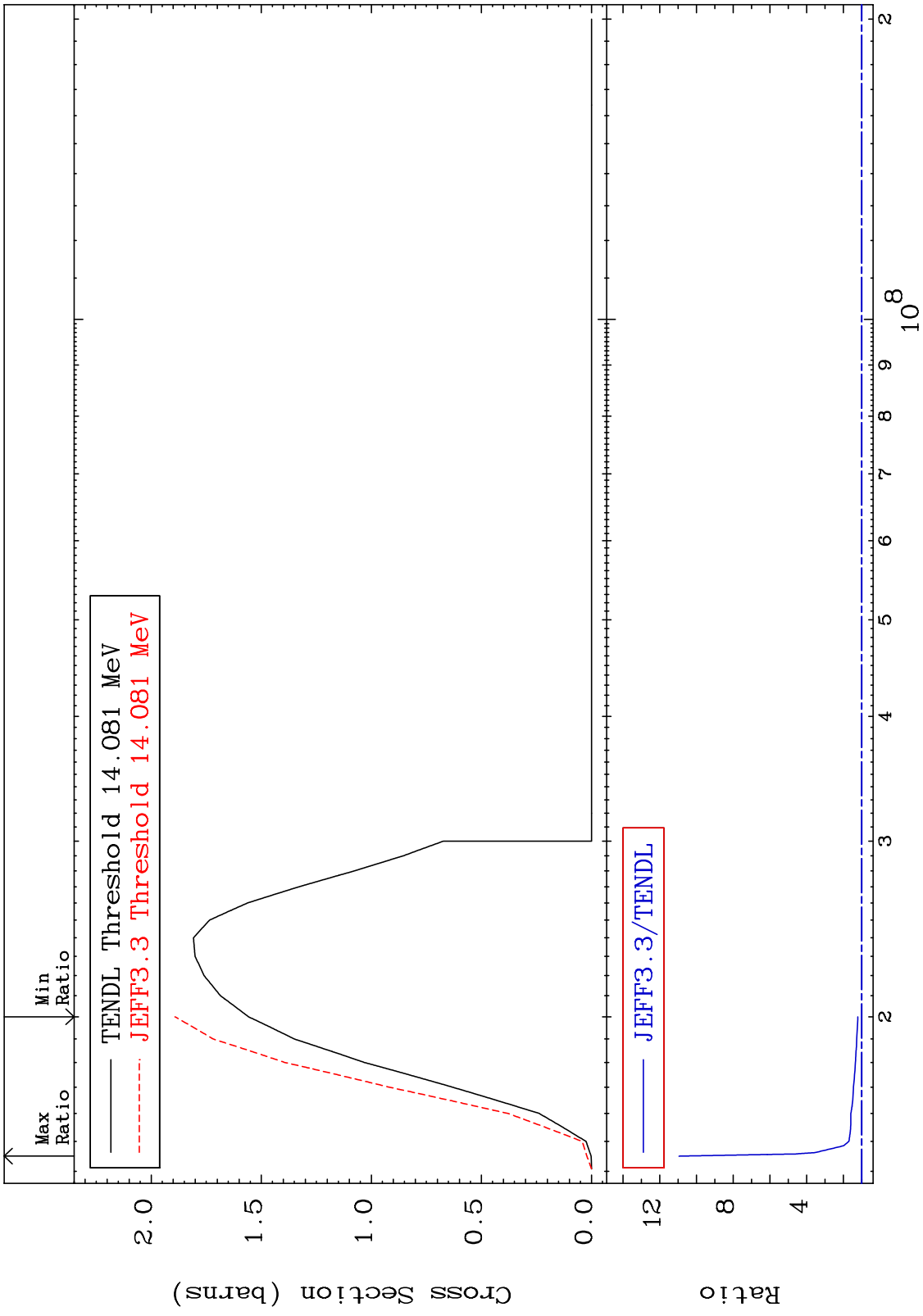
Incident Energy (eV)

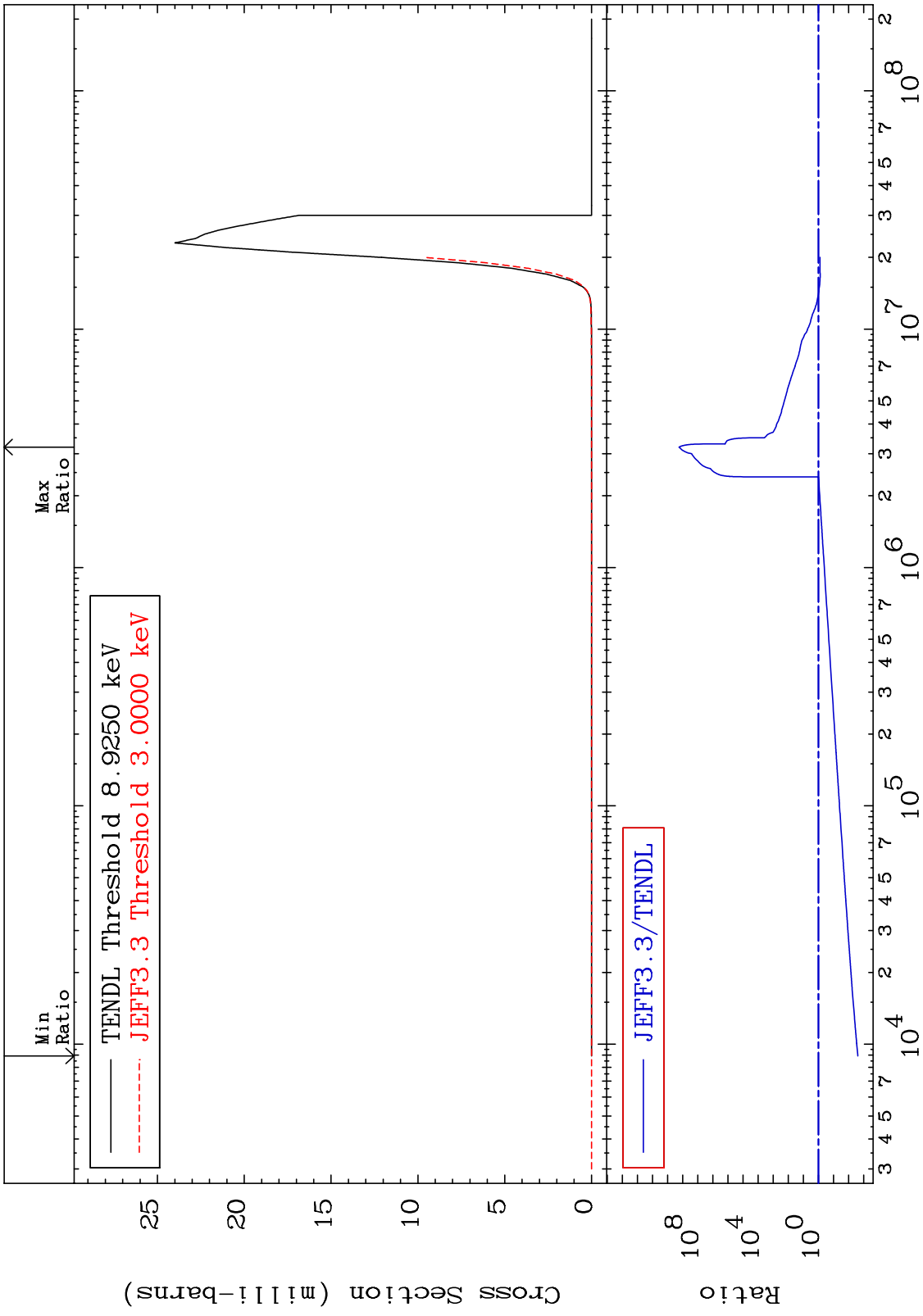
3

MAT 7237 72-Hf-178
-45.72 To 399.5 %
 (n,2n)
 Cross Section



MAT 7237 (n,3n) Cross Section 72-Hf-178 21.43 To 994.5 %





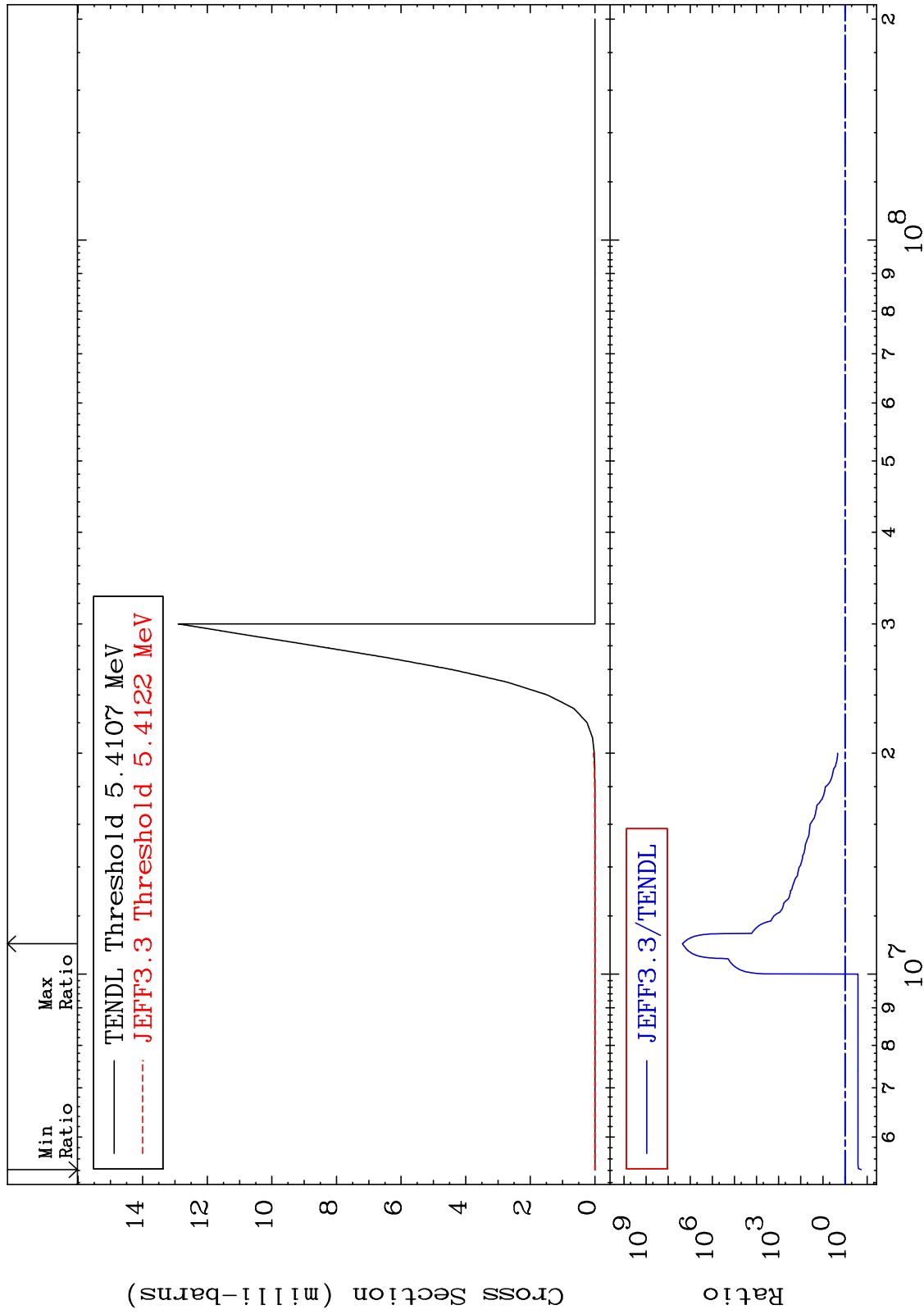
MAT 7237

(n,2n) α

72-Hf-178

Cross Section

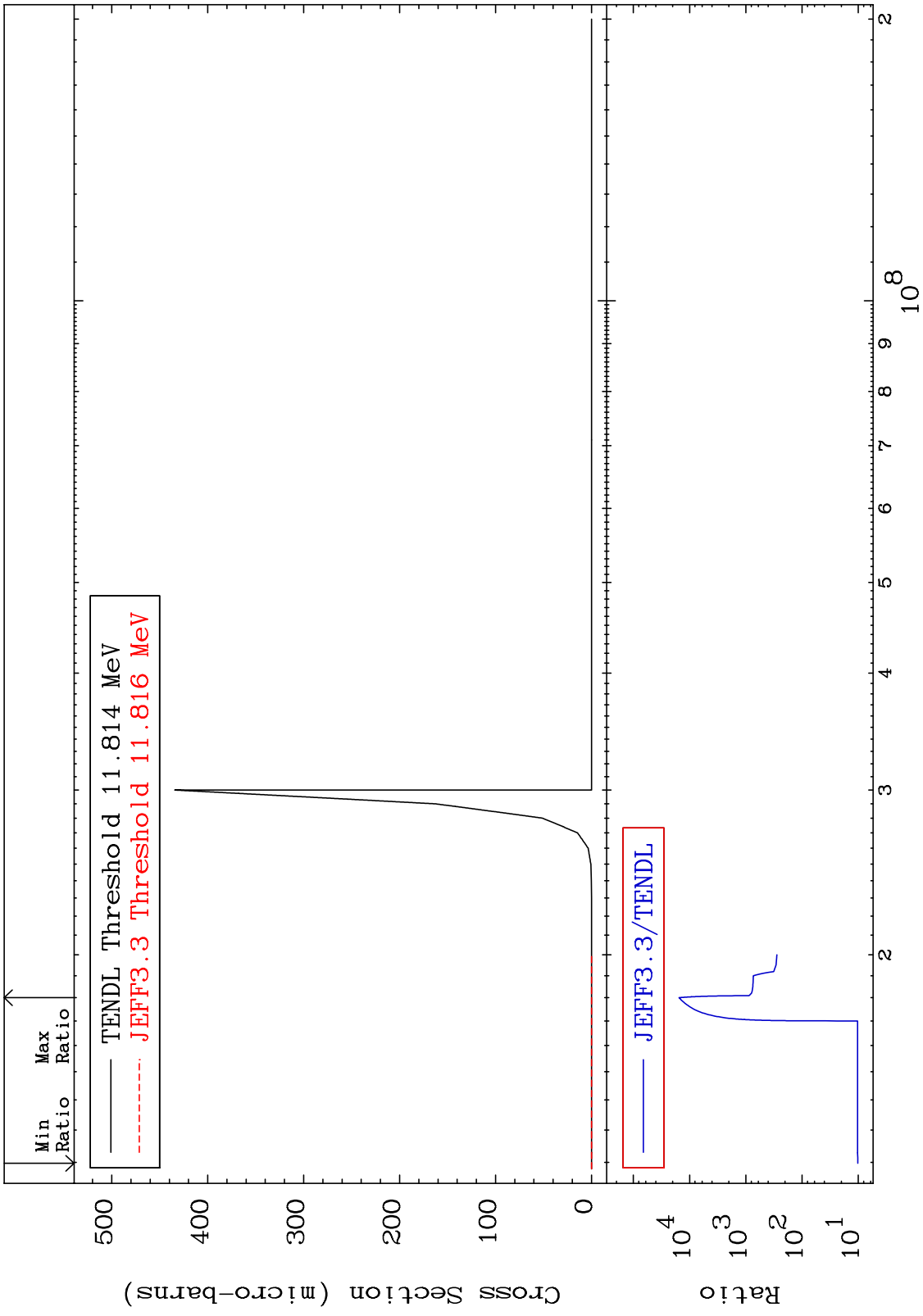
-81.75 To 9999. %



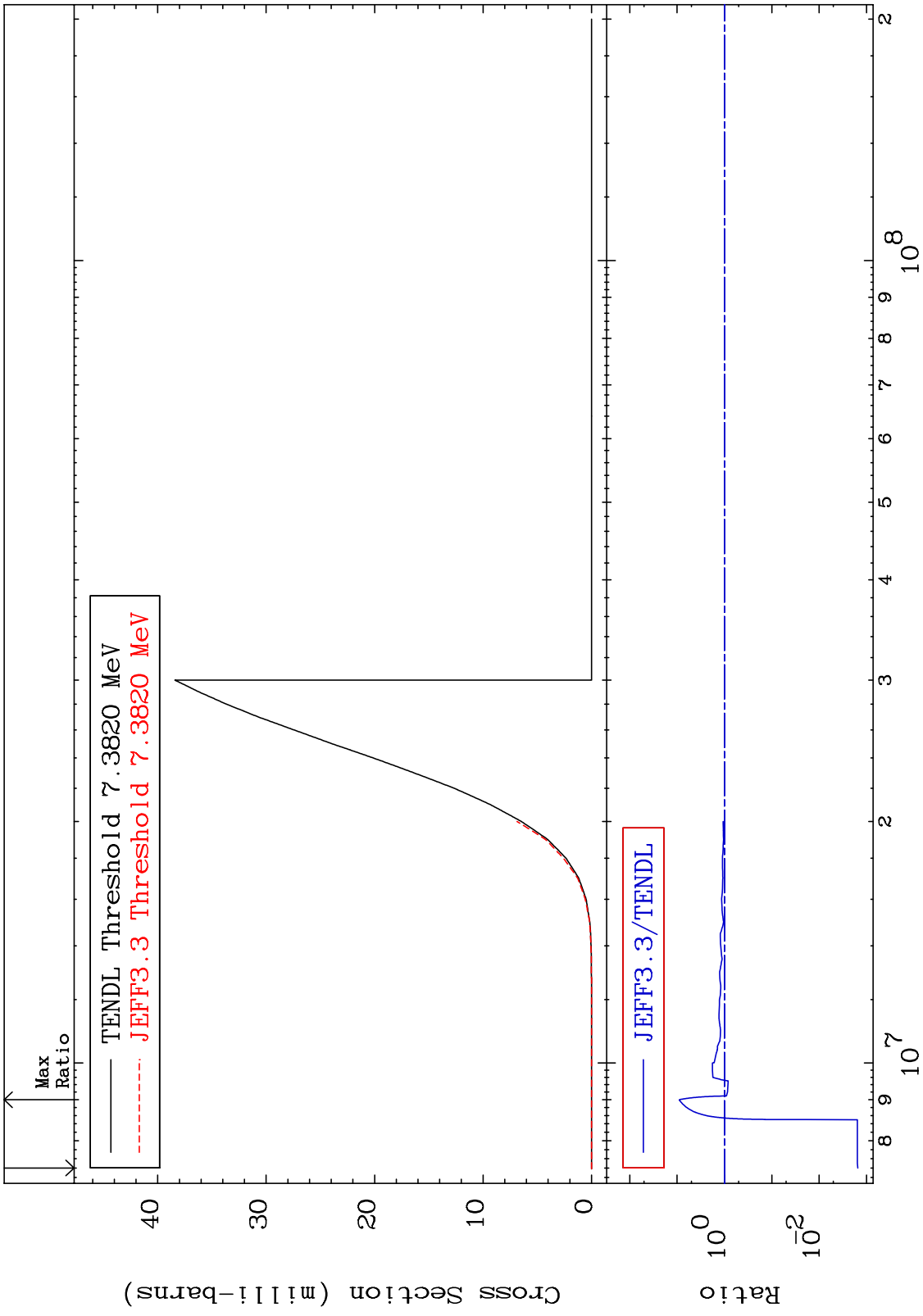
7

Incident Energy (eV)

72-Hf-178

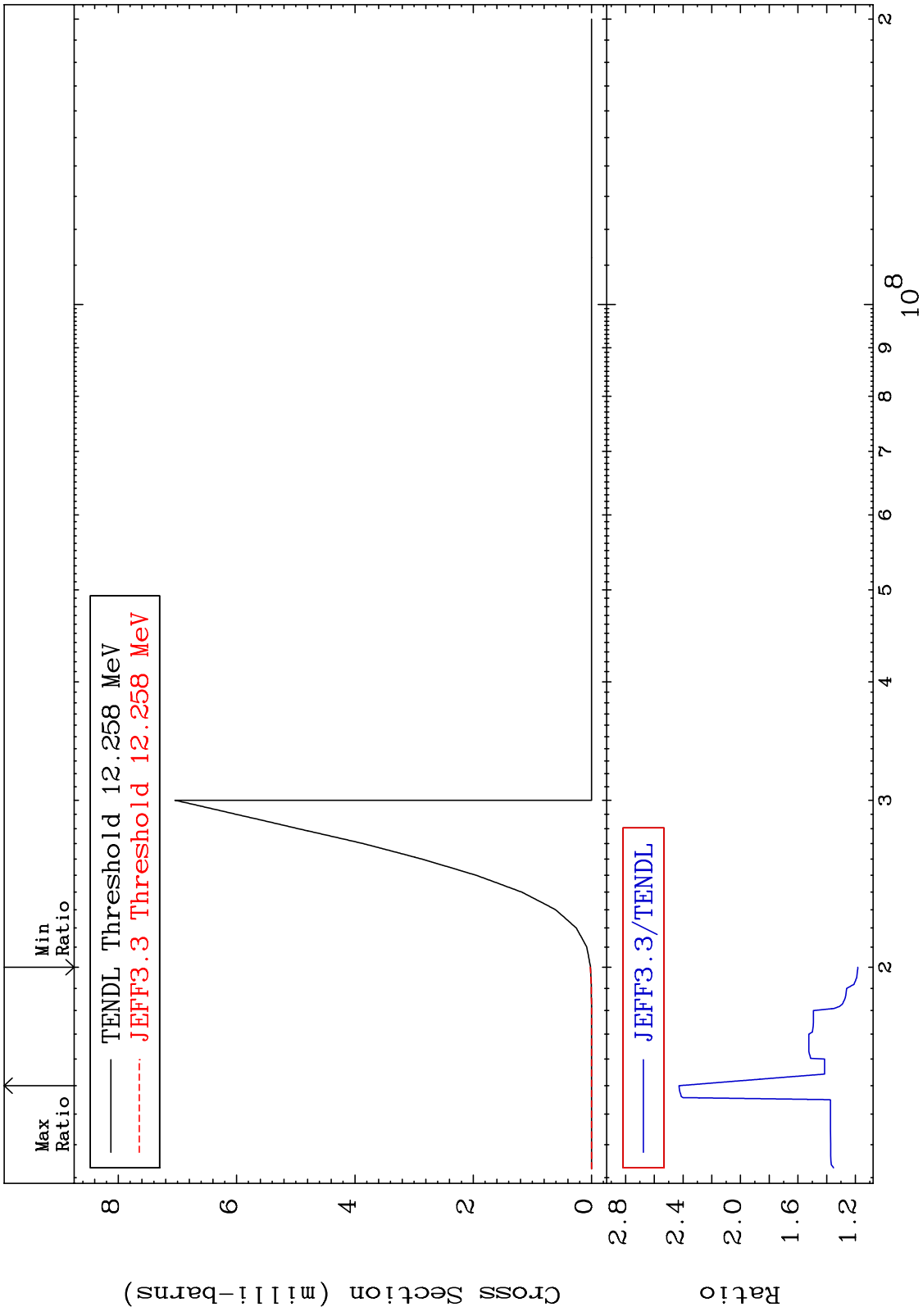


MAT 7237 (n,n') p 72-Hf-178
 Cross Section -99.85 To 809.9 %

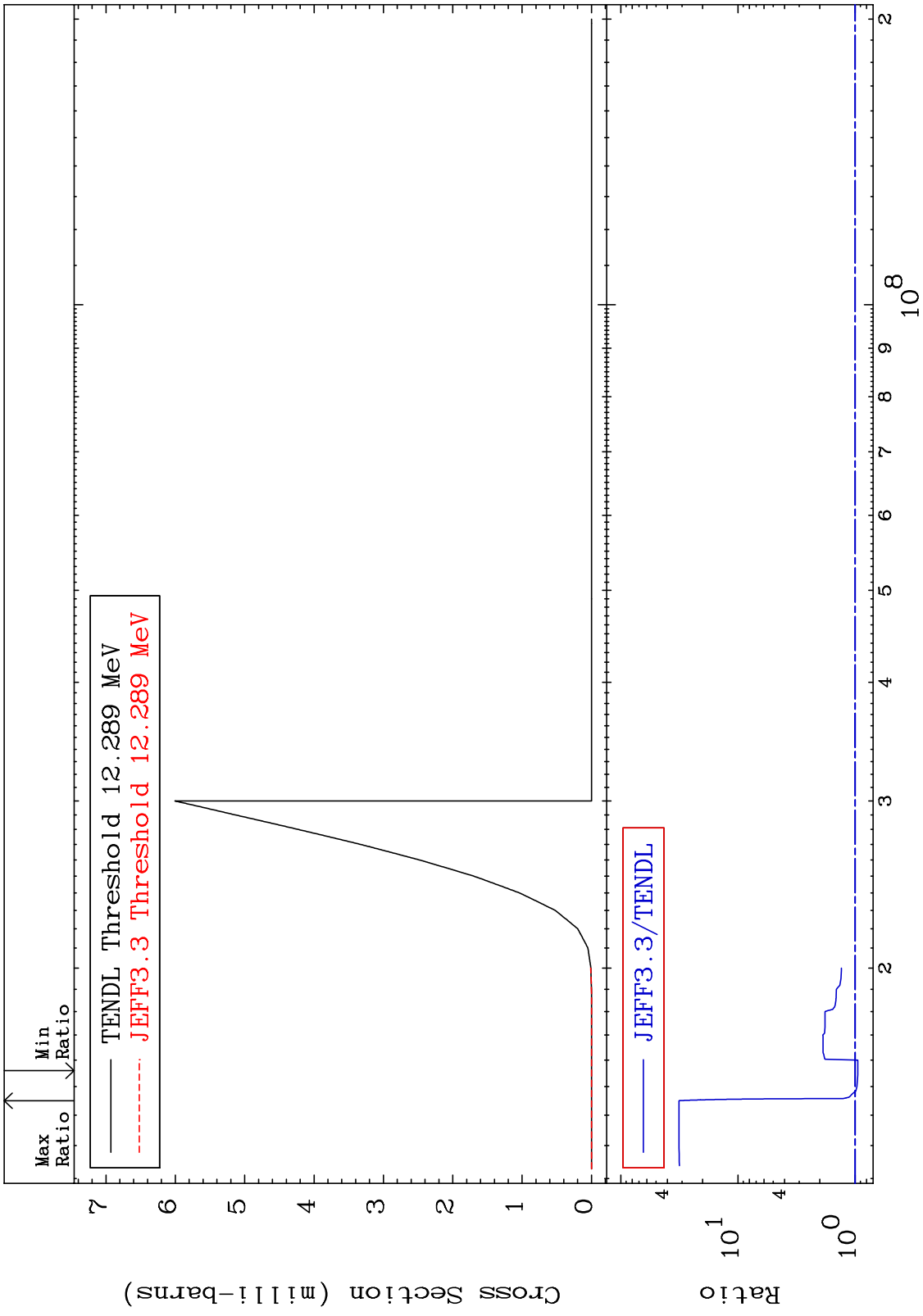


9 72-Hf-178

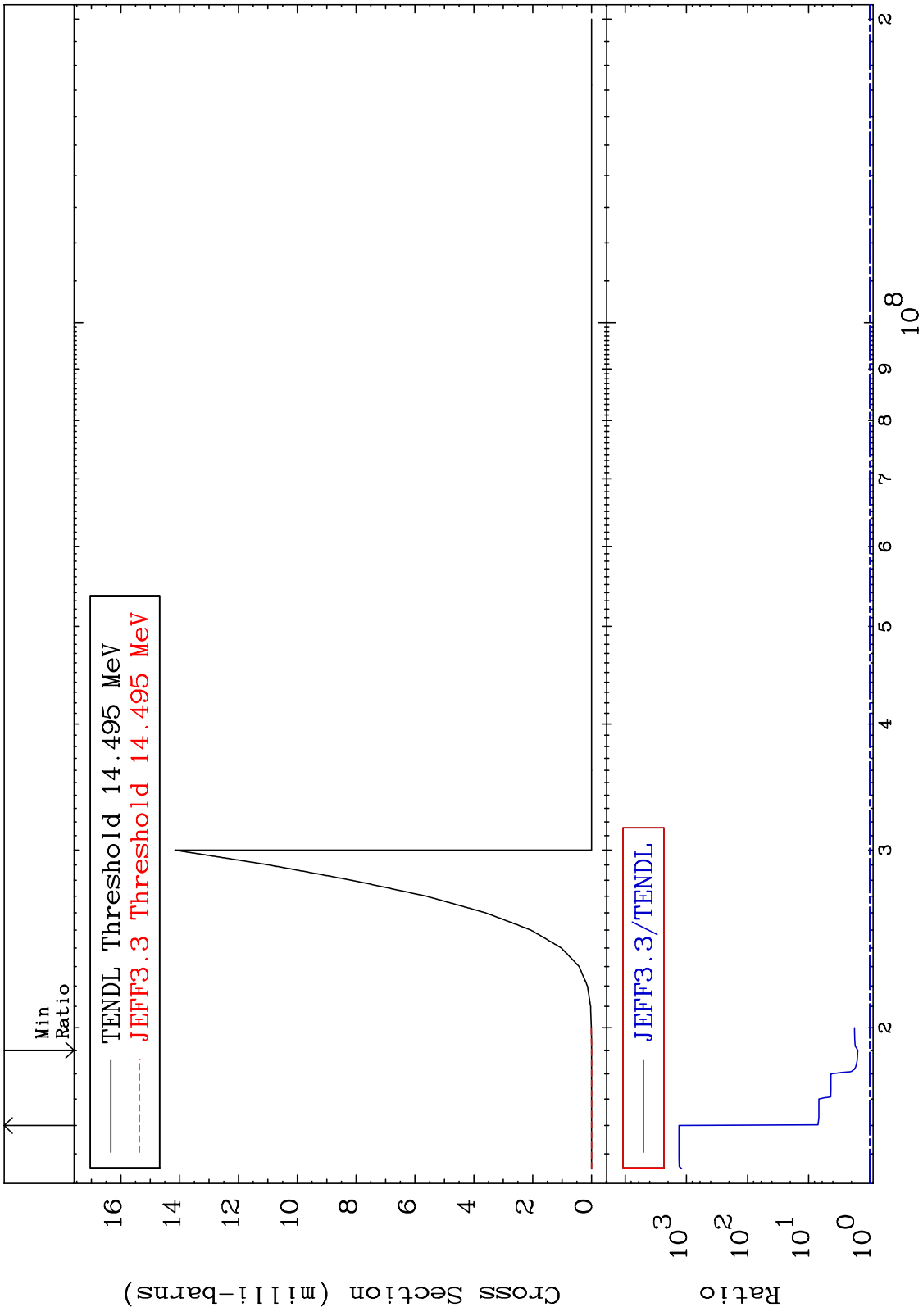
MAT 7237 (n, n') d 72-Hf-178
 Cross Section 18.32 To 142.8 %



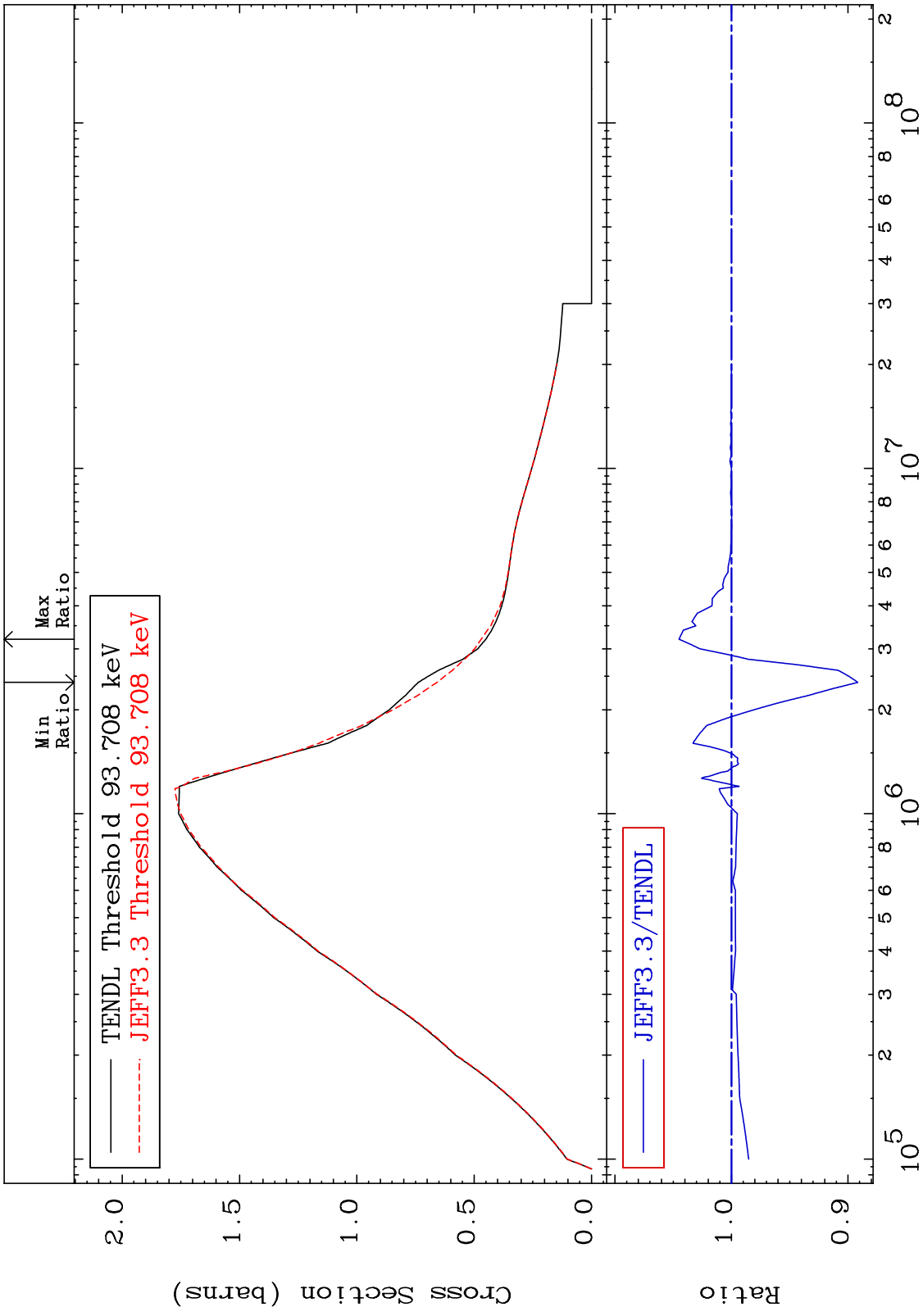
MAT 7237 (n, n') t 72-Hf-178
 Cross Section -5.276 To 3083. %



MAT 7237 (n,2n) p 72-Hf-178
 Cross Section 56.80 To 9999. %

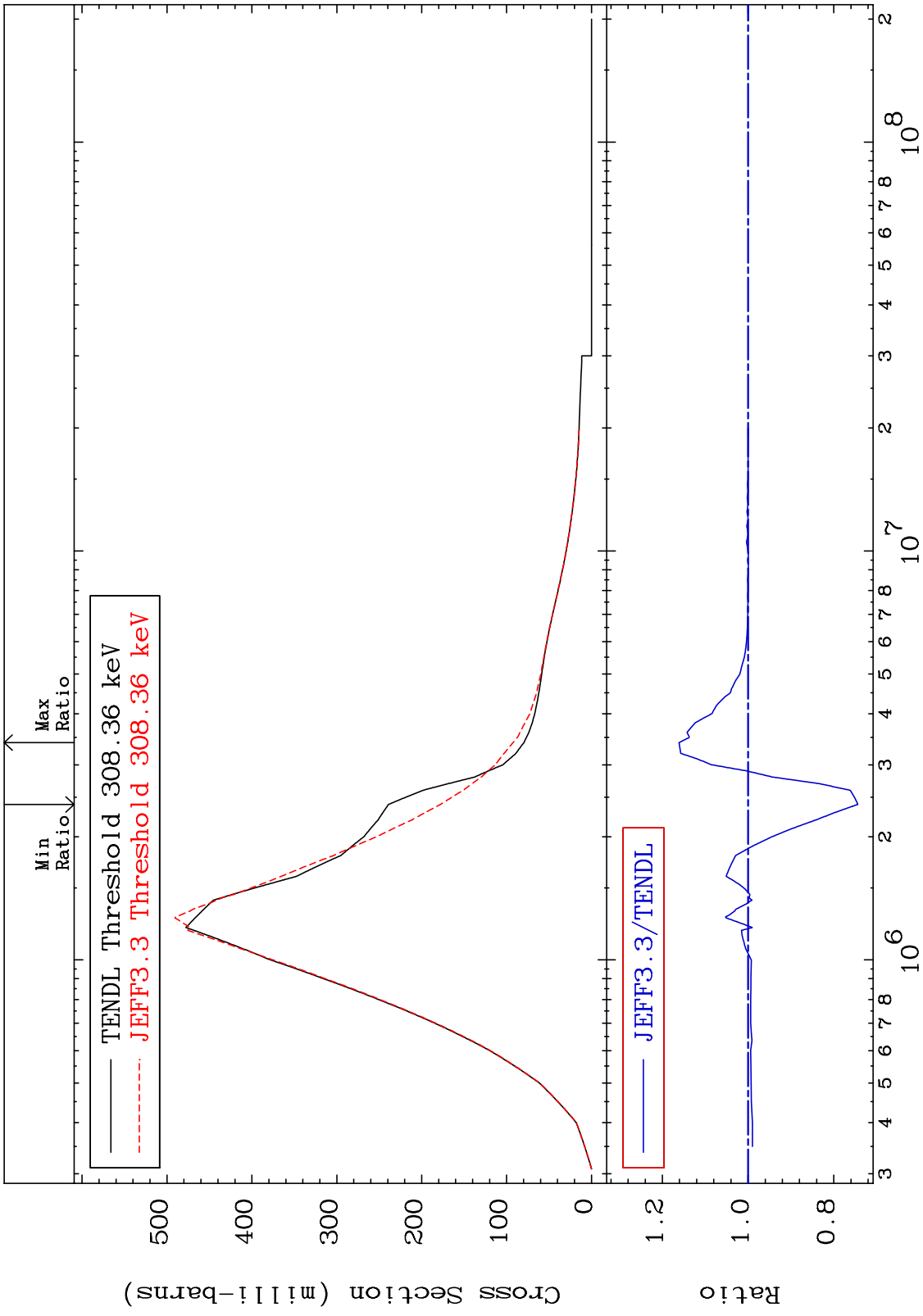


MAT 7237 MT= 51 (n,n') Level 72-Hf-178
 Cross Section -10.84 To 4.502 %

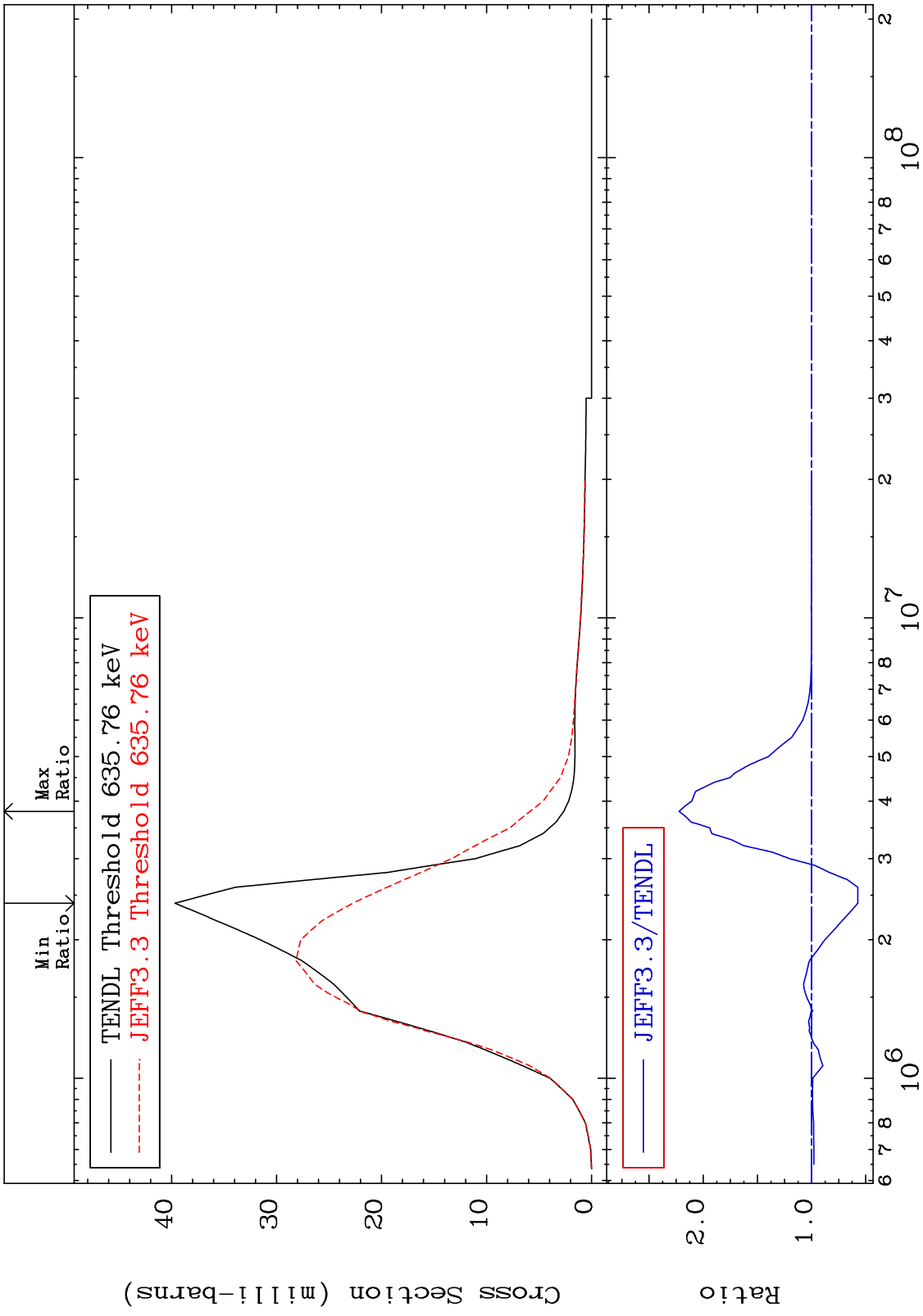


13 72-Hf-178

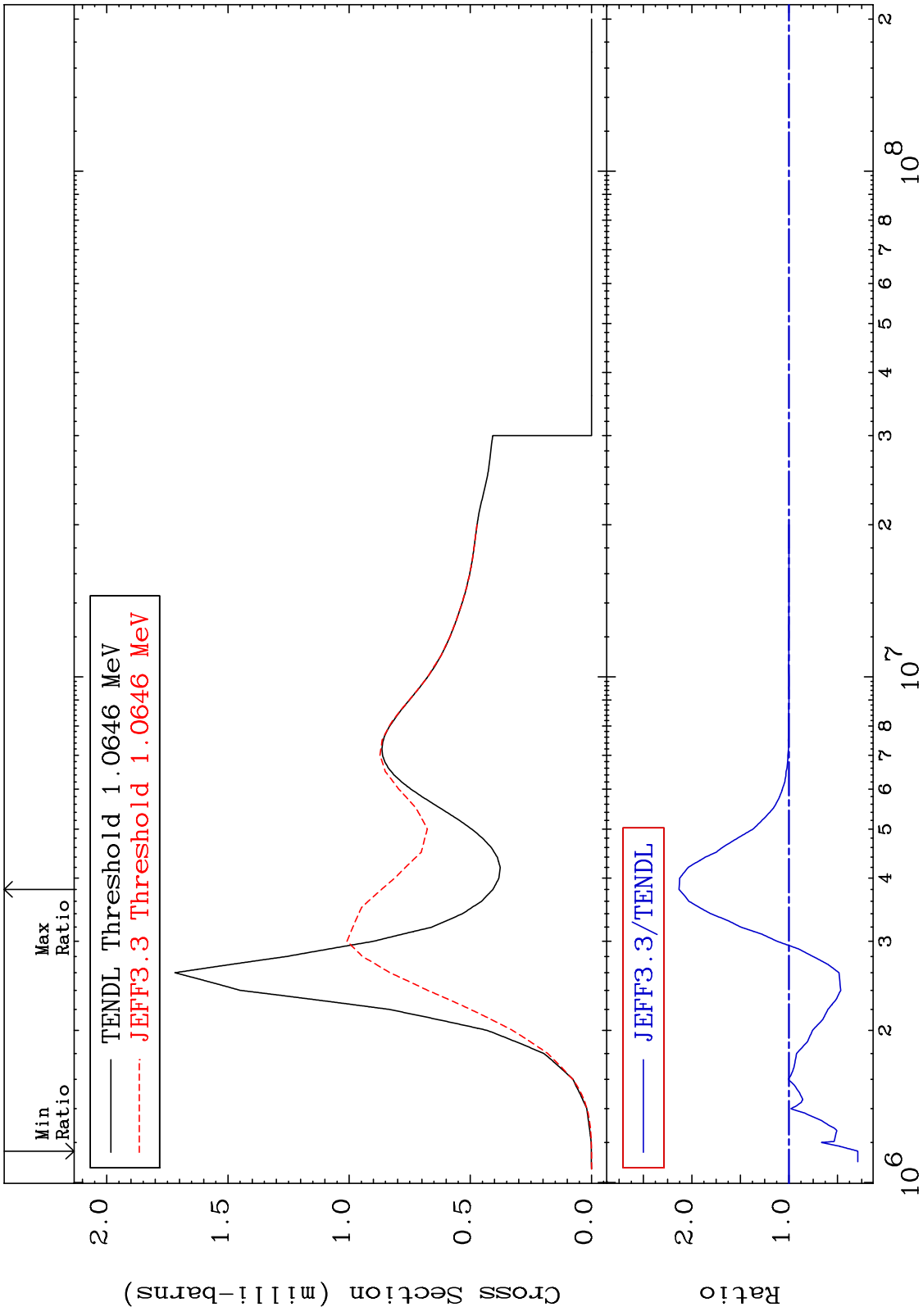
MAT 7237 MT= 52 (n,n') Level Cross Section 72-Hf-178
 -25.61 To 16.11 %



MAT 7237 MT= 53 (n,n') Level Cross Section 72-Hf-178
-42.69 To 122.3 %

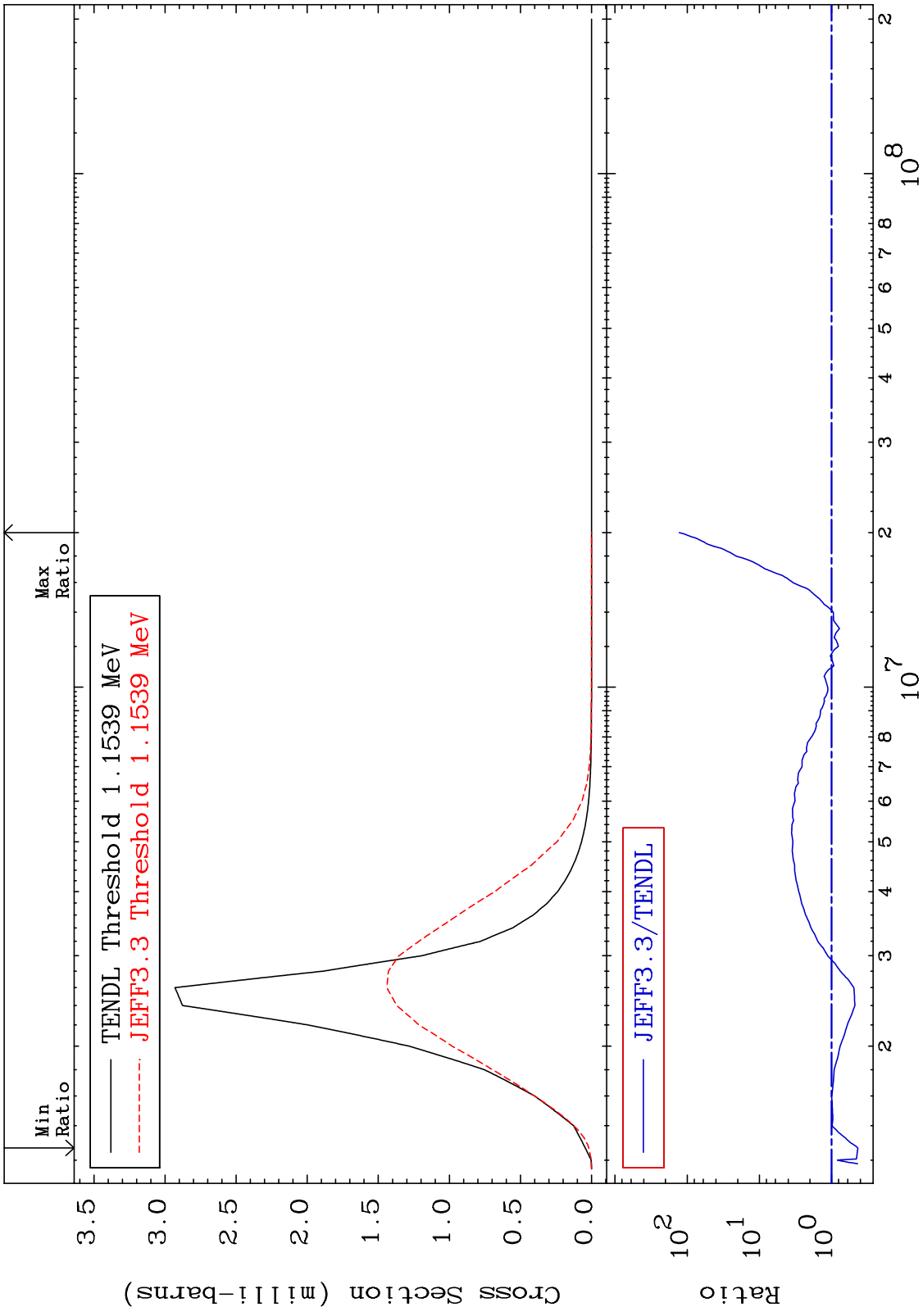


MAT 7237 MT= 54 (n,n') Level Cross Section 72-Hf-178
 -71.02 To 113.2 %



16 Incident Energy (eV) 72-Hf-178

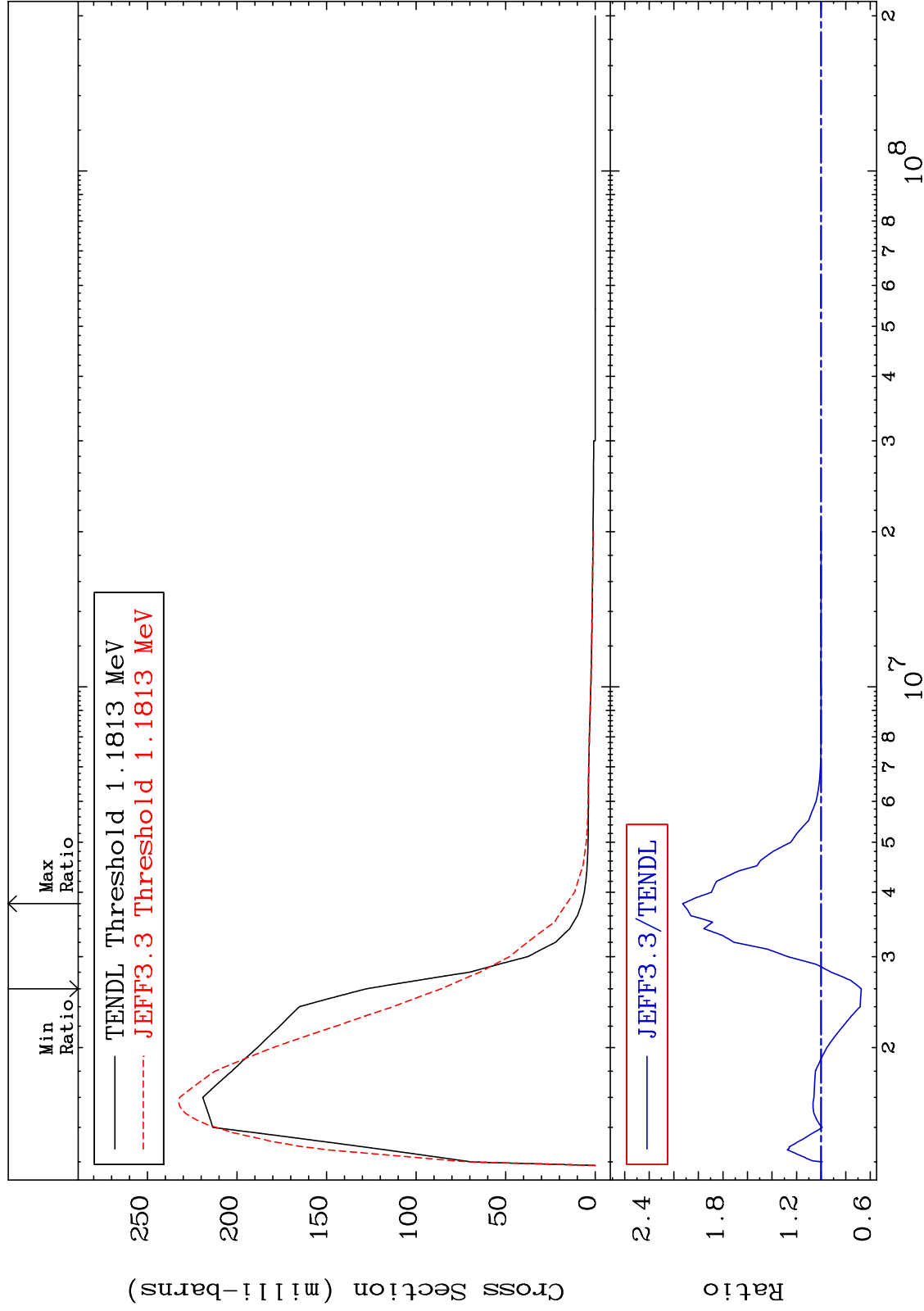
MAT 7237 MT= 55 (n,n') Level Cross Section 72-Hf-178
 -56.60 To 9999. %



MAT 7237

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

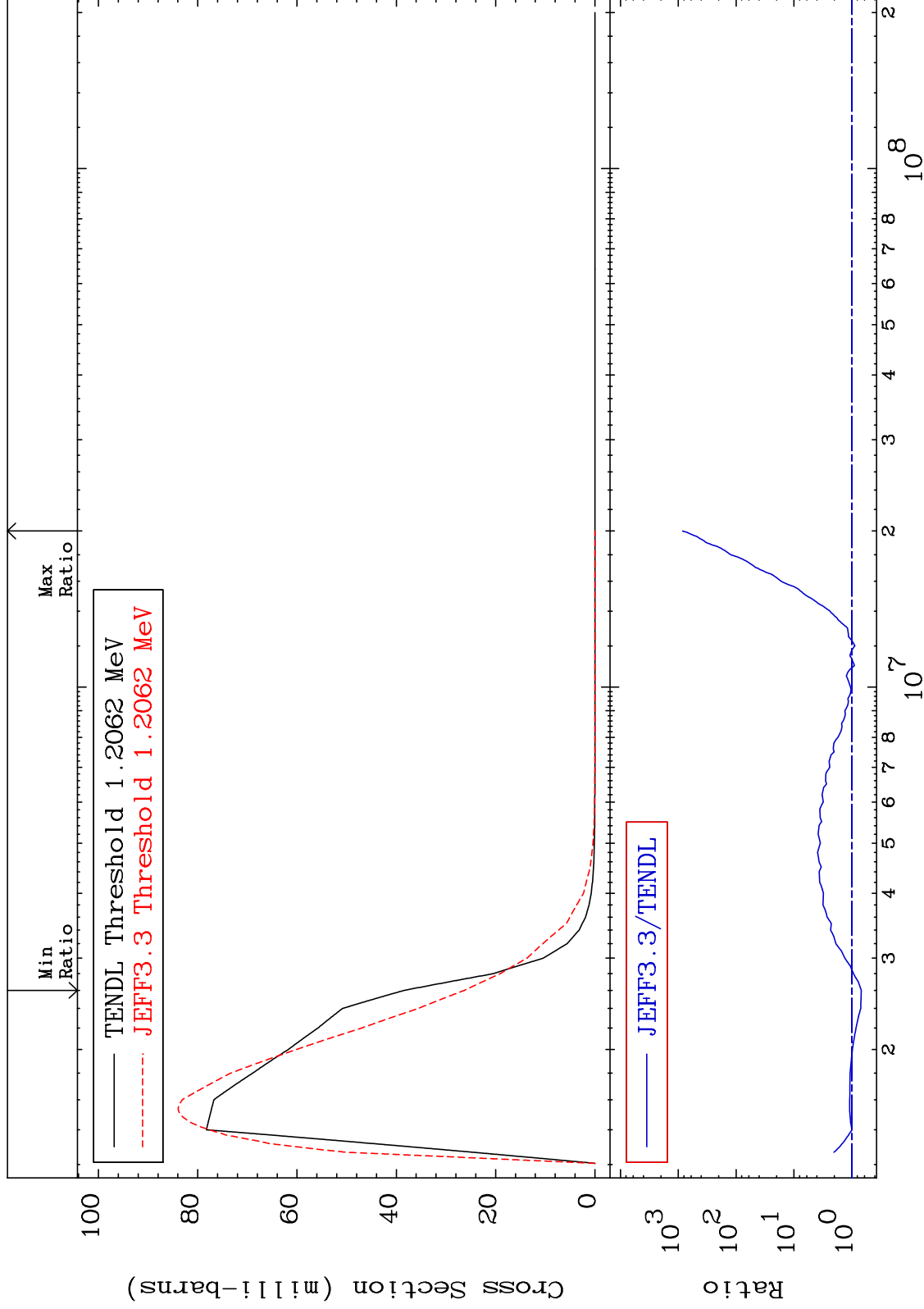
72-Hf-178
-32.71 To 112.8 %



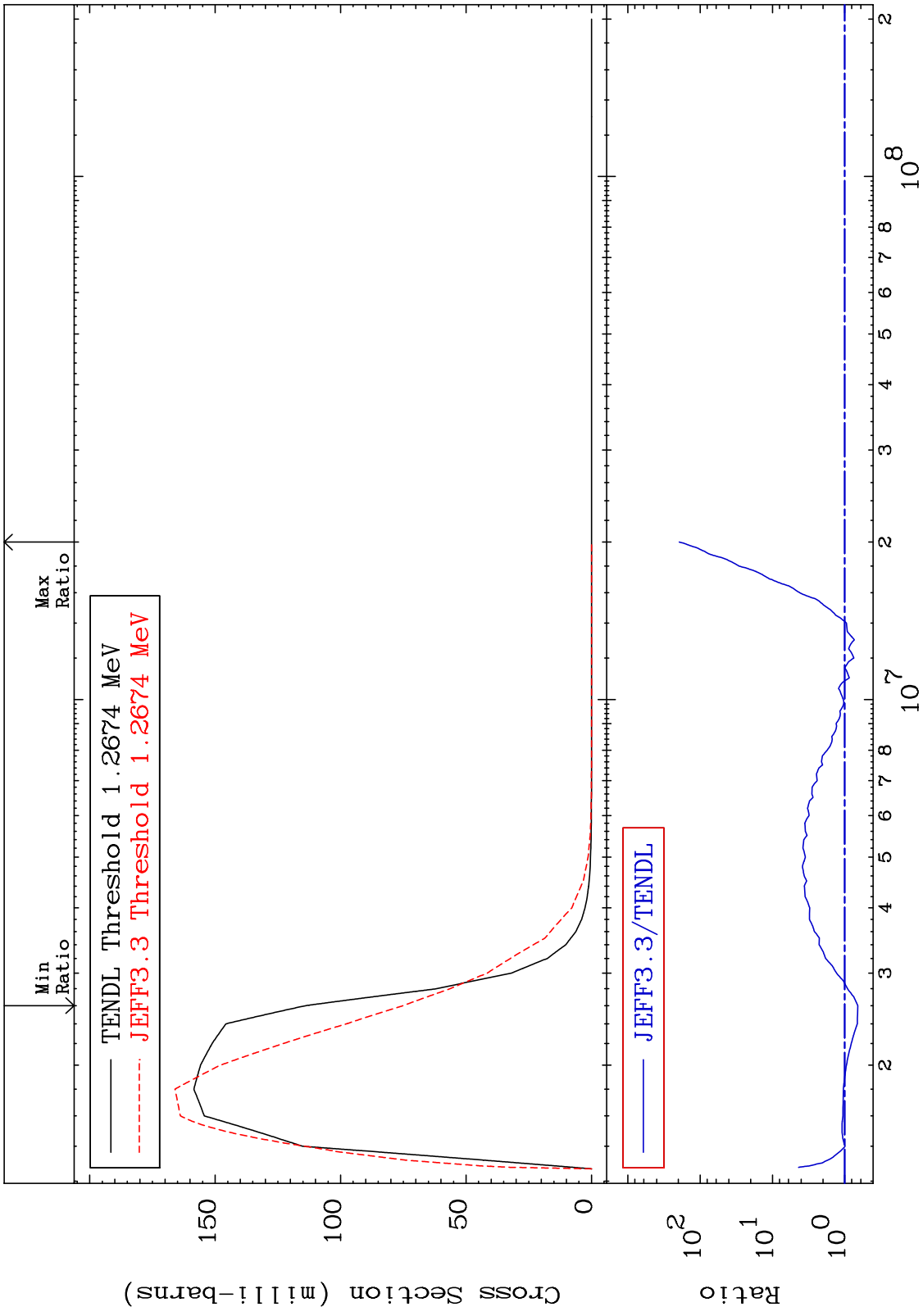
MAT 7237

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

72-Hf-178
-31.59 To 9999. %



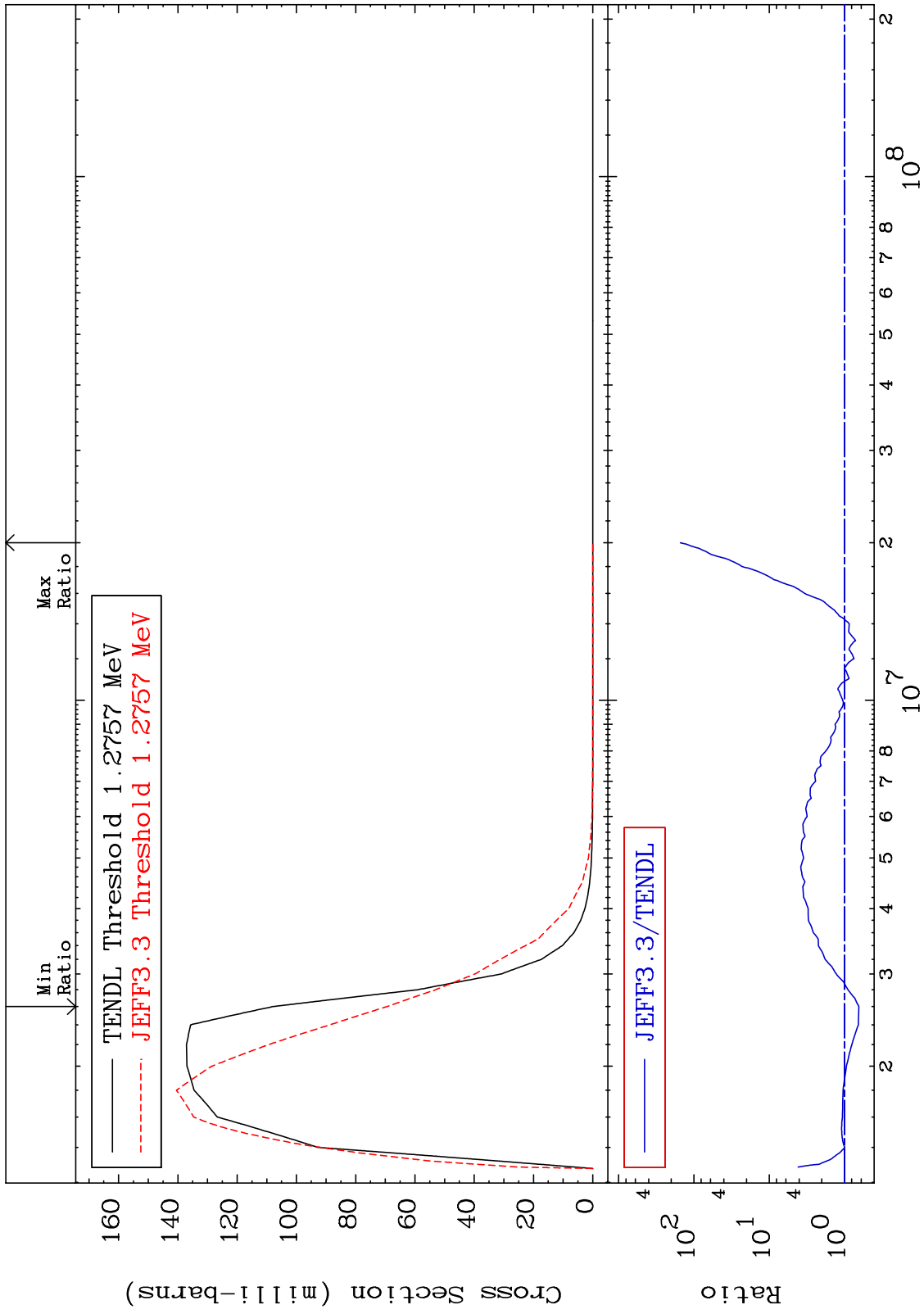
MAT 7237 MT= 58 (n,n') Level Cross Section 72-Hf-178
 -34.10 To 9999. %



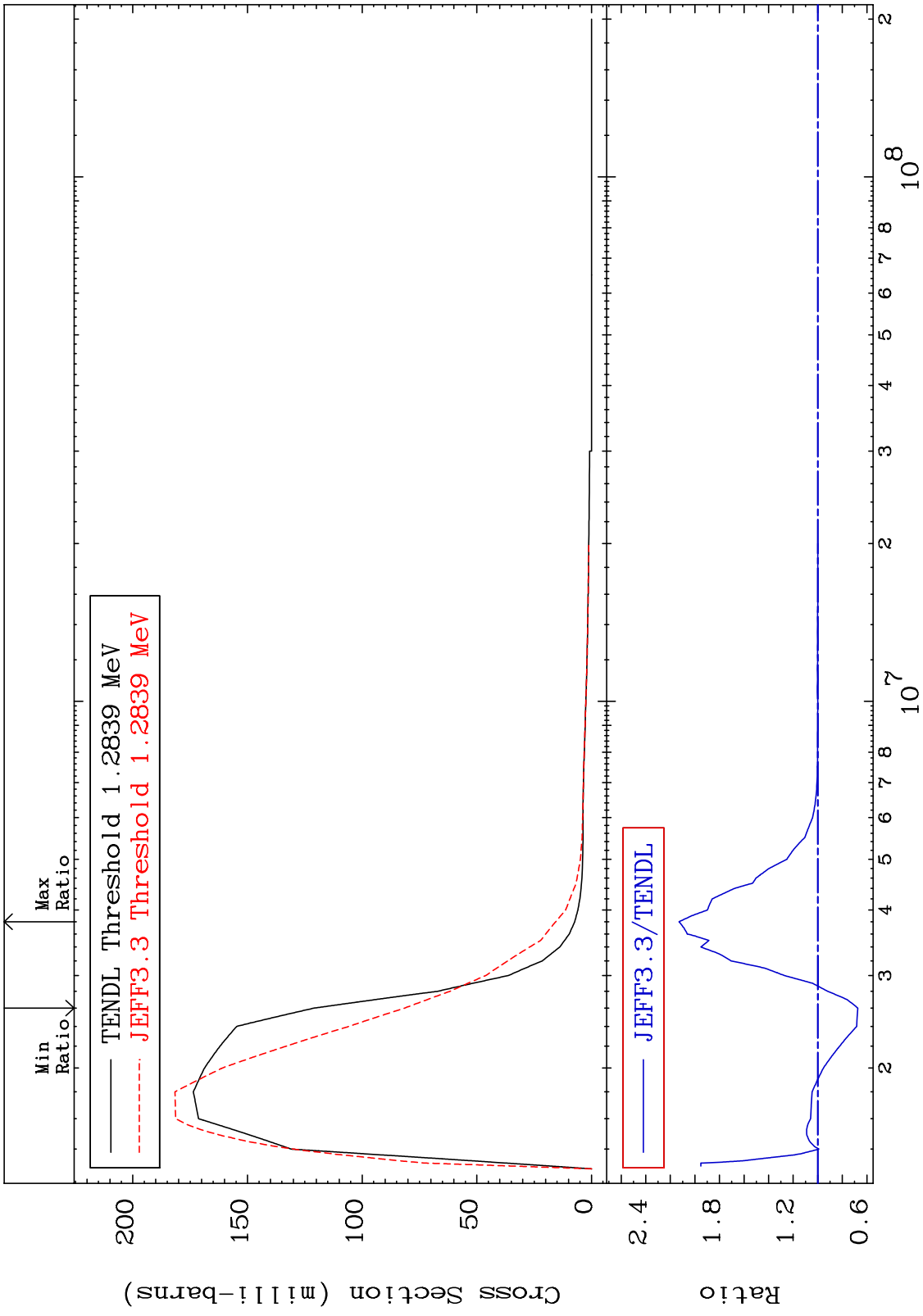
MAT 7237

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

72-Hf-178
-35.73 To 9999. %



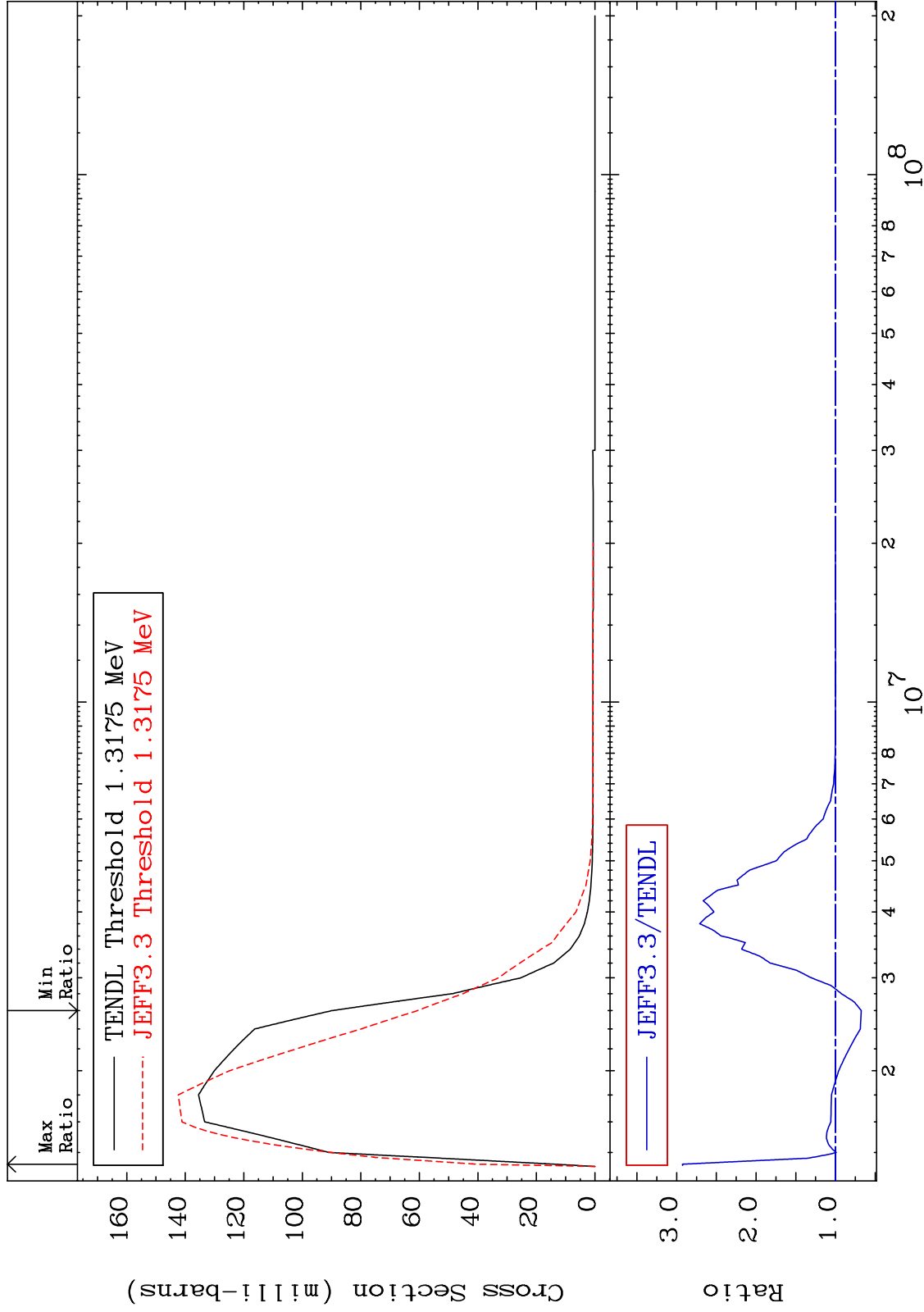
MAT 7237 MT= 60 (n,n') Level Cross Section 72-Hf-178
 -32.65 To 112.9 %



MAT 7237

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

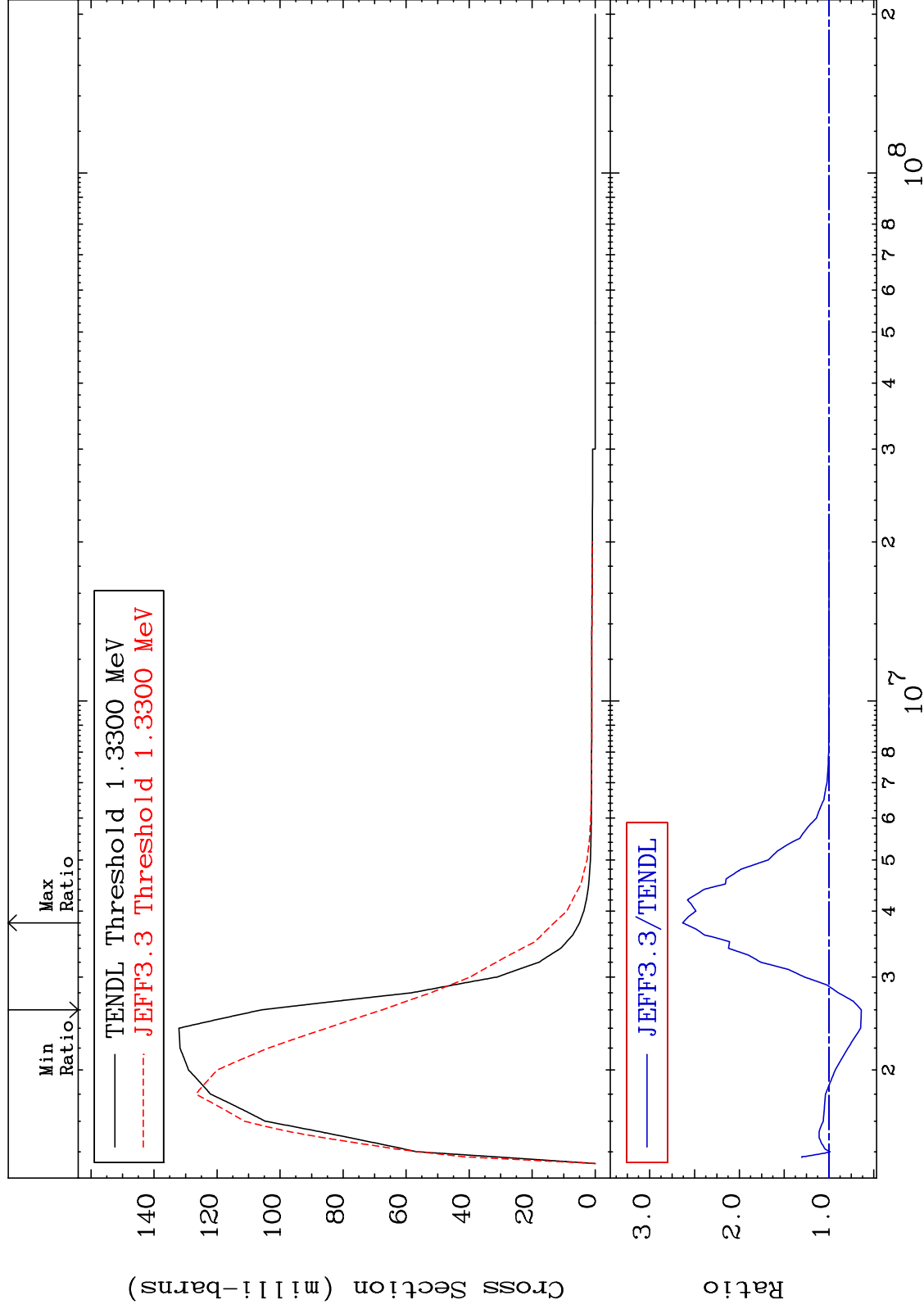
72-Hf-178
-32.47 To 192.7 %



MAT 7237

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

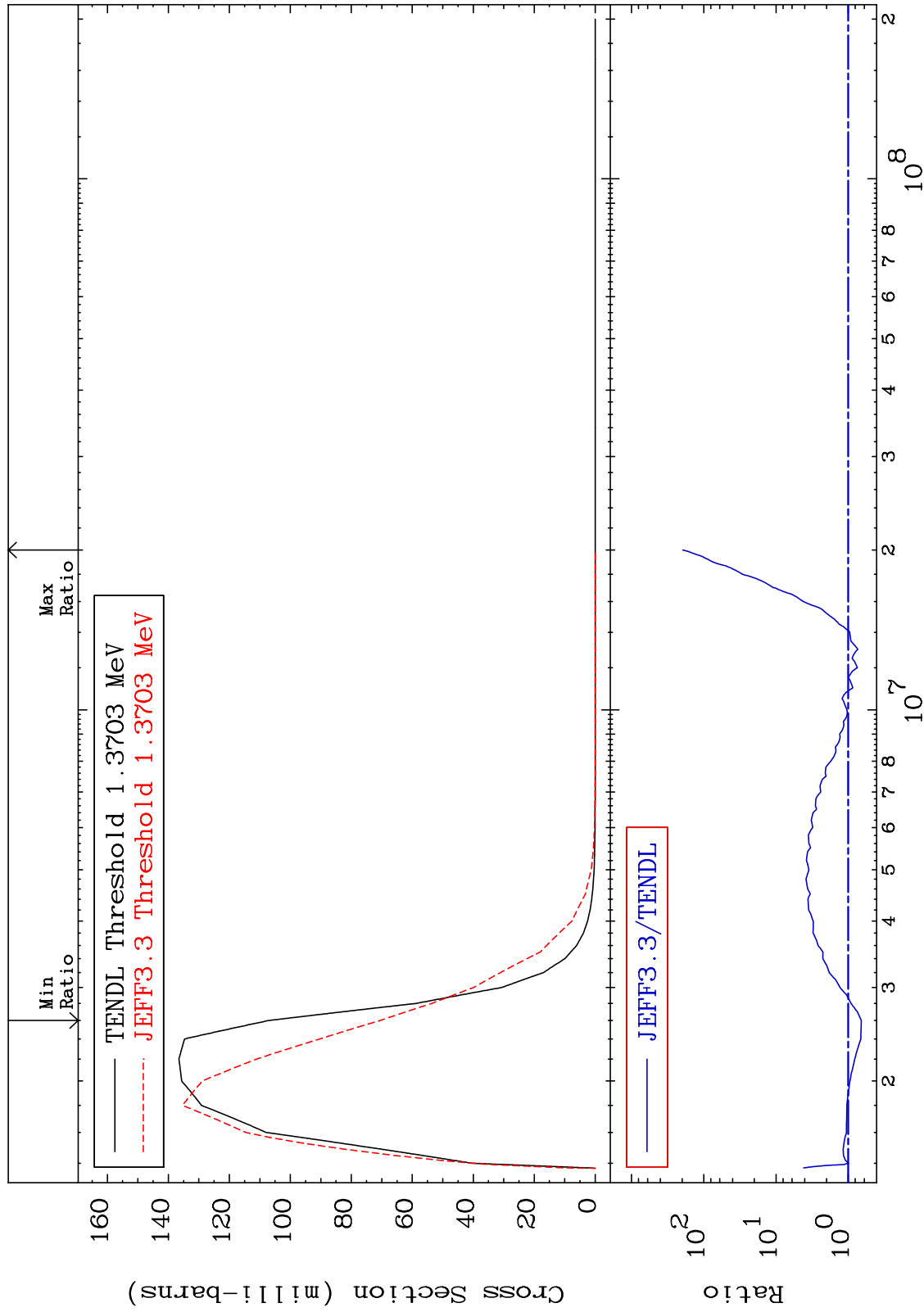
72-Hf-178
-36.20 To 163.2 %



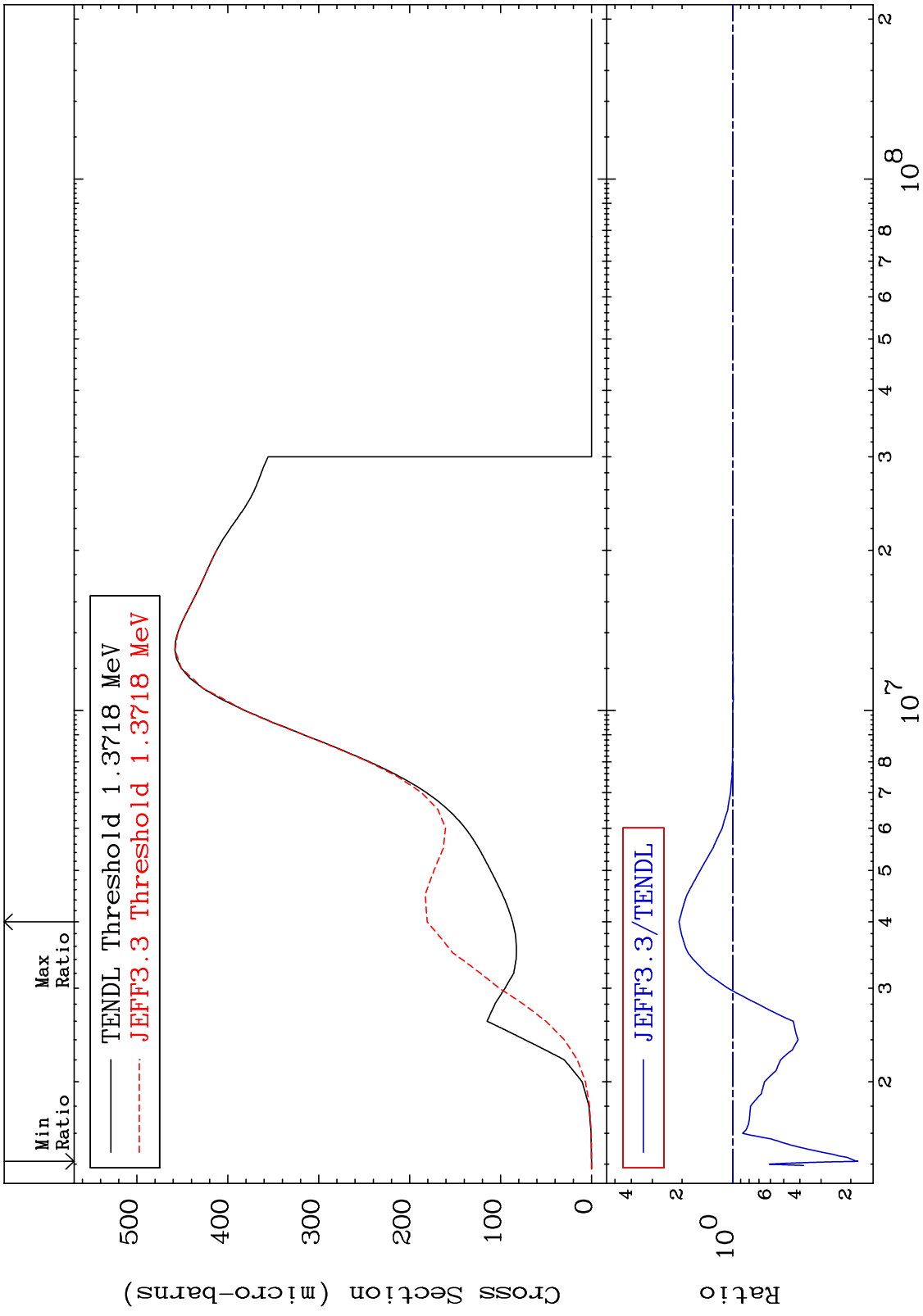
MAT 7237

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

72-Hf-178
-34.07 To 9999. %



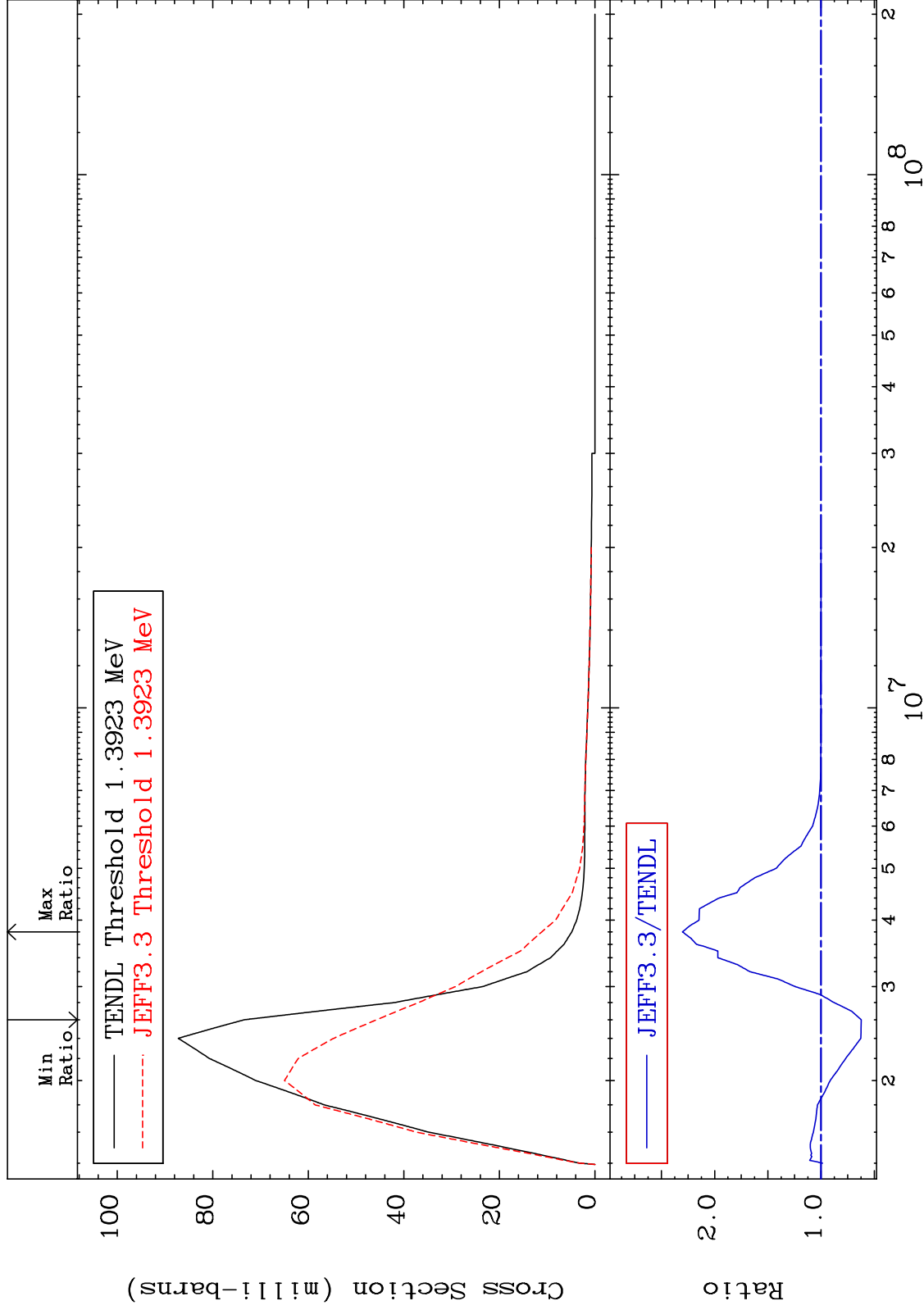
MAT 7237 MT= 64 (n,n') Level Cross Section 72-Hf-178 -81.84 To 108.3 %



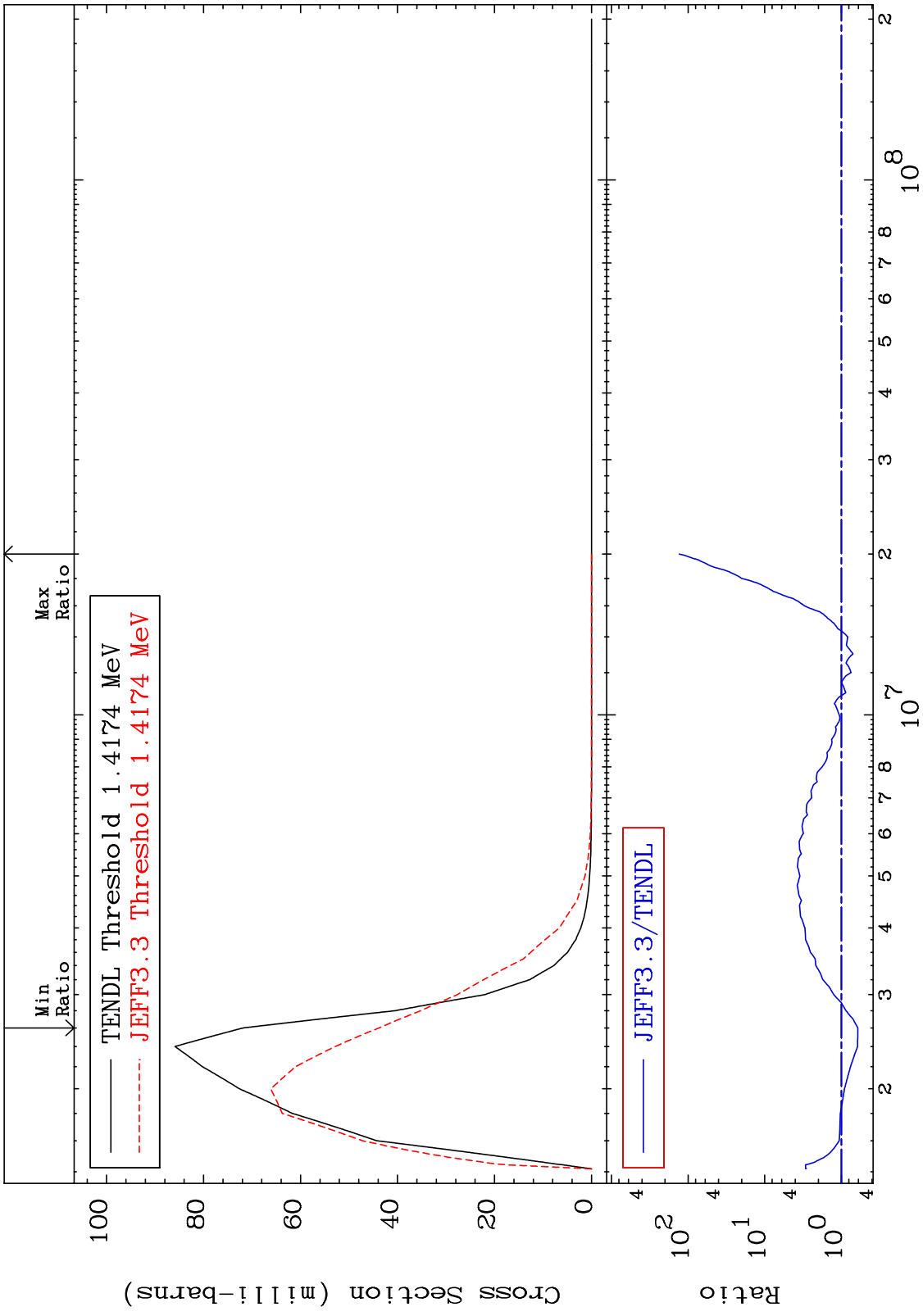
MAT 7237

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

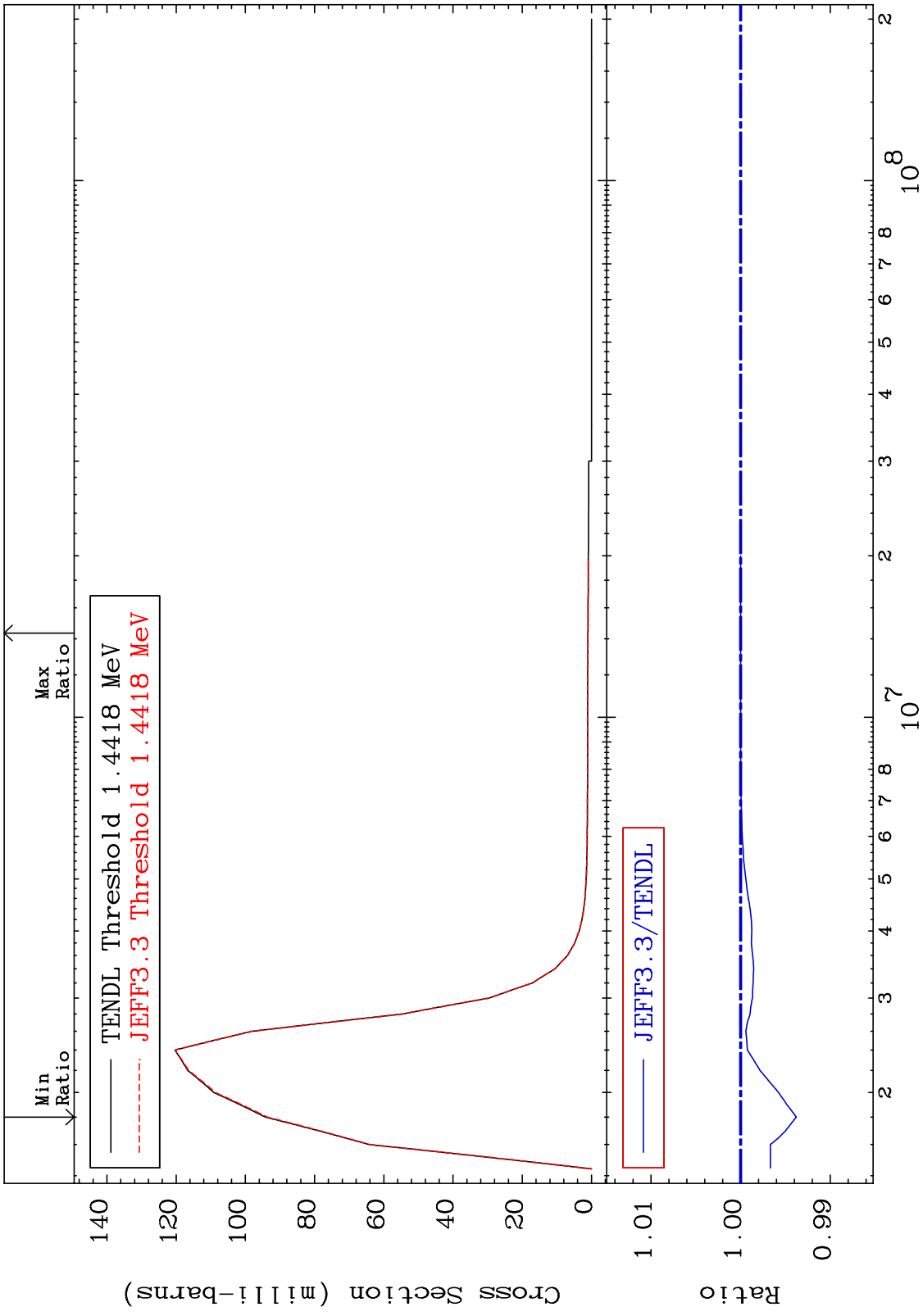
72-Hf-178
-37.74 To 130.2 %



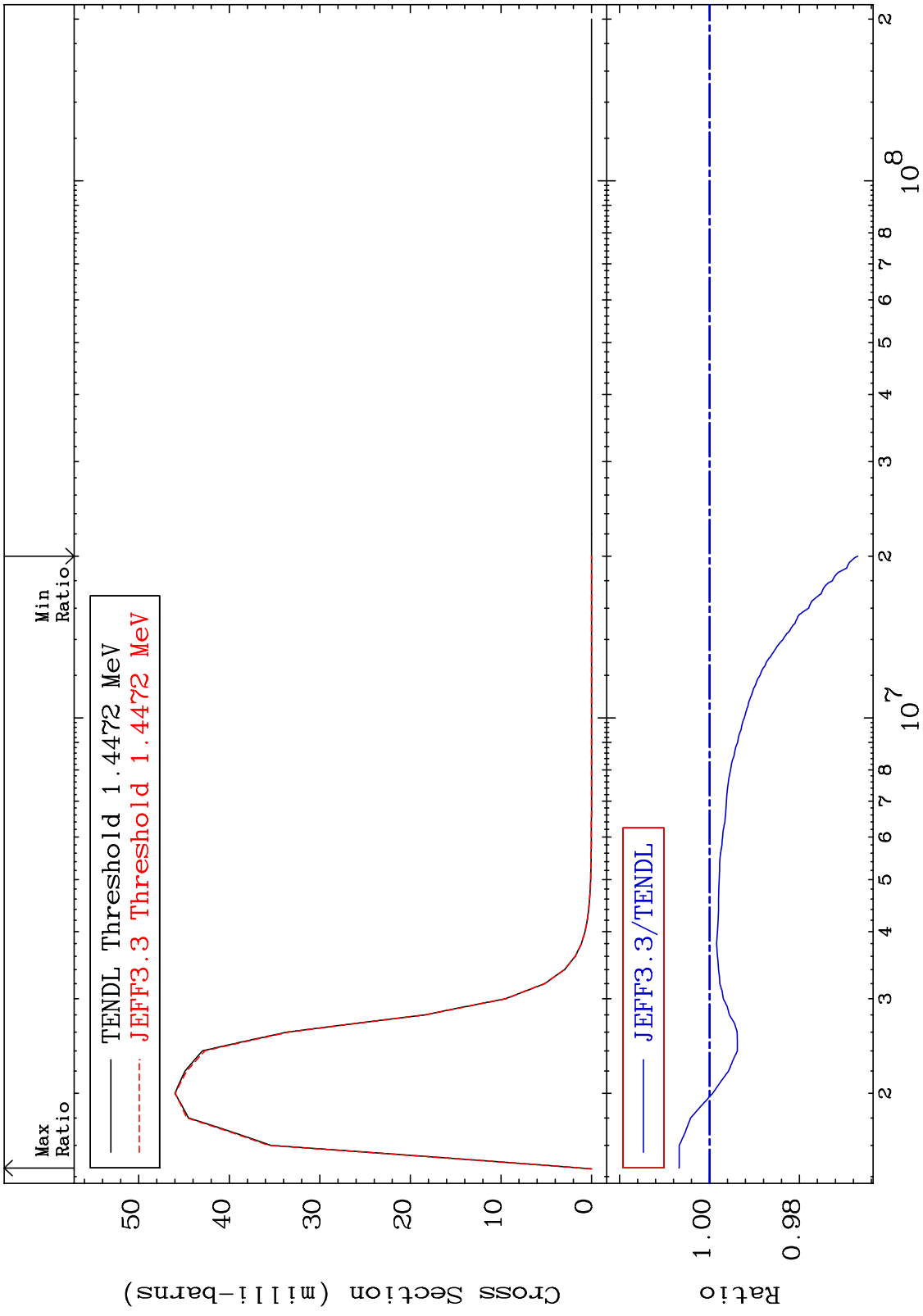
MAT 7237 MT= 66 (n,n') Level Cross Section 72-Hf-178
 -38.93 To 9999. %



MAT 7237 MT= 67 (n,n') Level Cross Section 72-Hf-178 -0.621 To 0.000 %



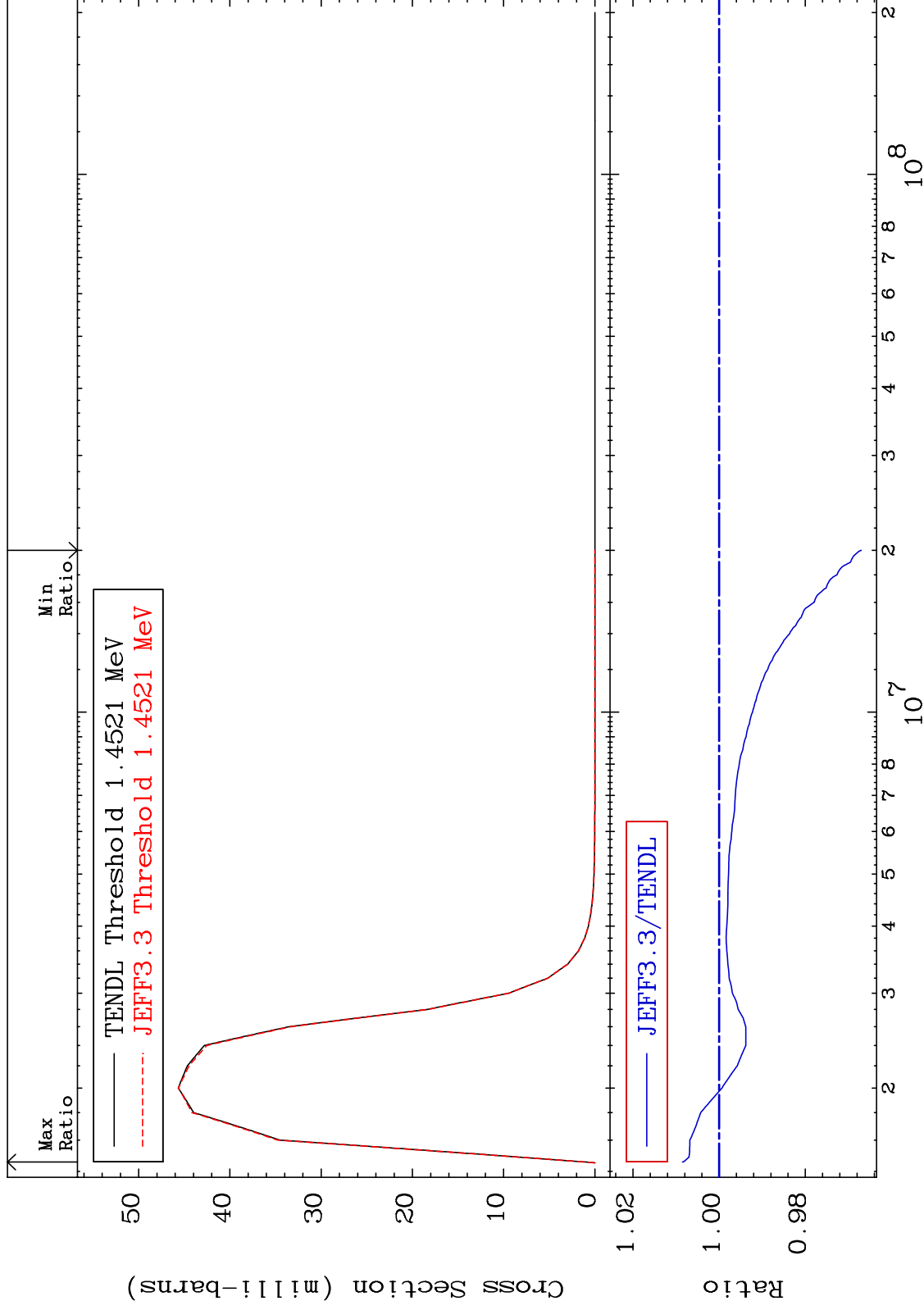
MAT 7237 MT= 68 (n,n') Level Cross Section 72-Hf-178 -3.299 To 0.677 %



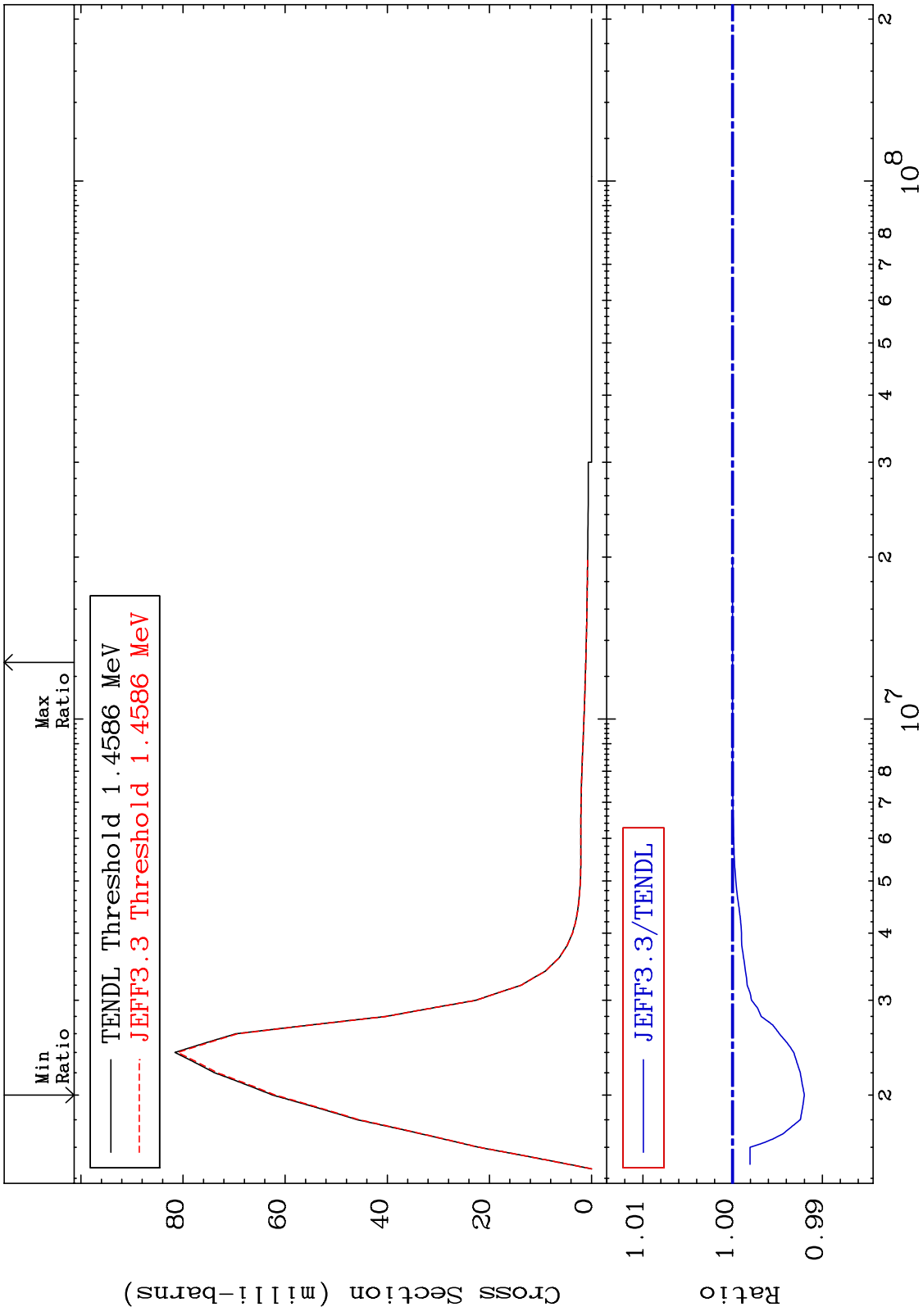
MAT 7237

MT= 69 (n,n') Level
Cross Section

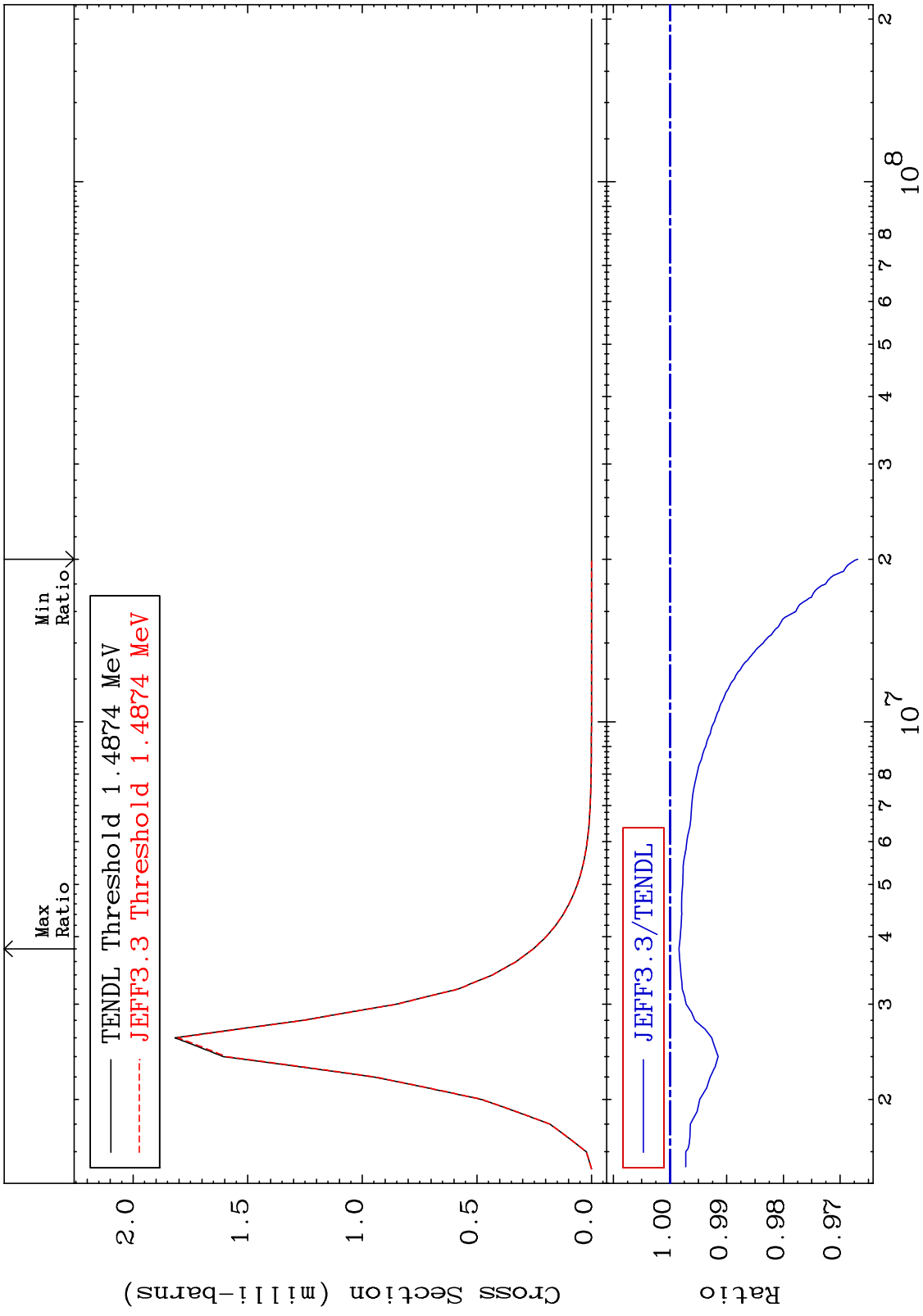
72-Hf-178
-3.299 To 0.853 %



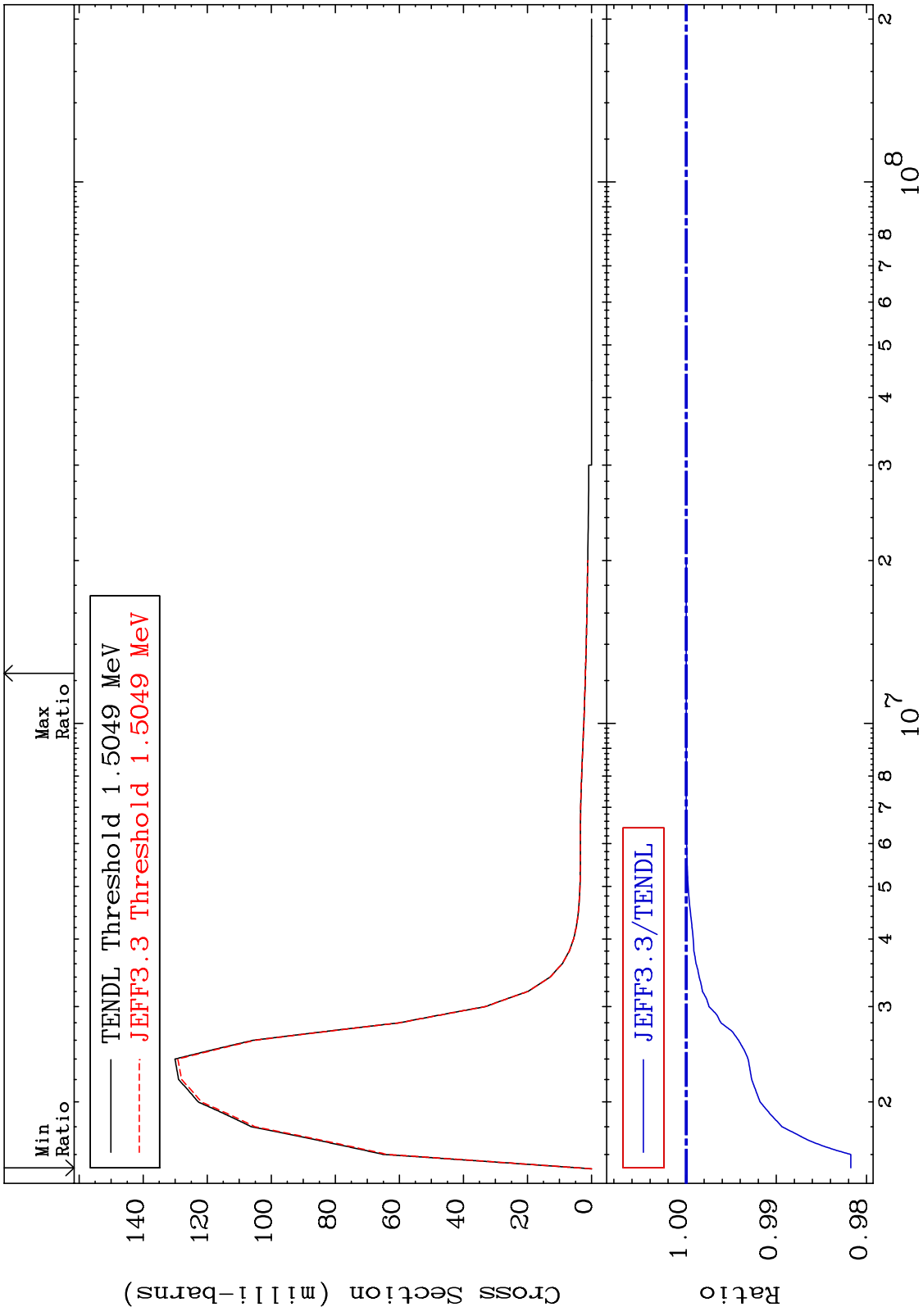
MAT 7237 MT= 70 (n,n') Level Cross Section 72-Hf-178
 -0.800 To 0.000 %



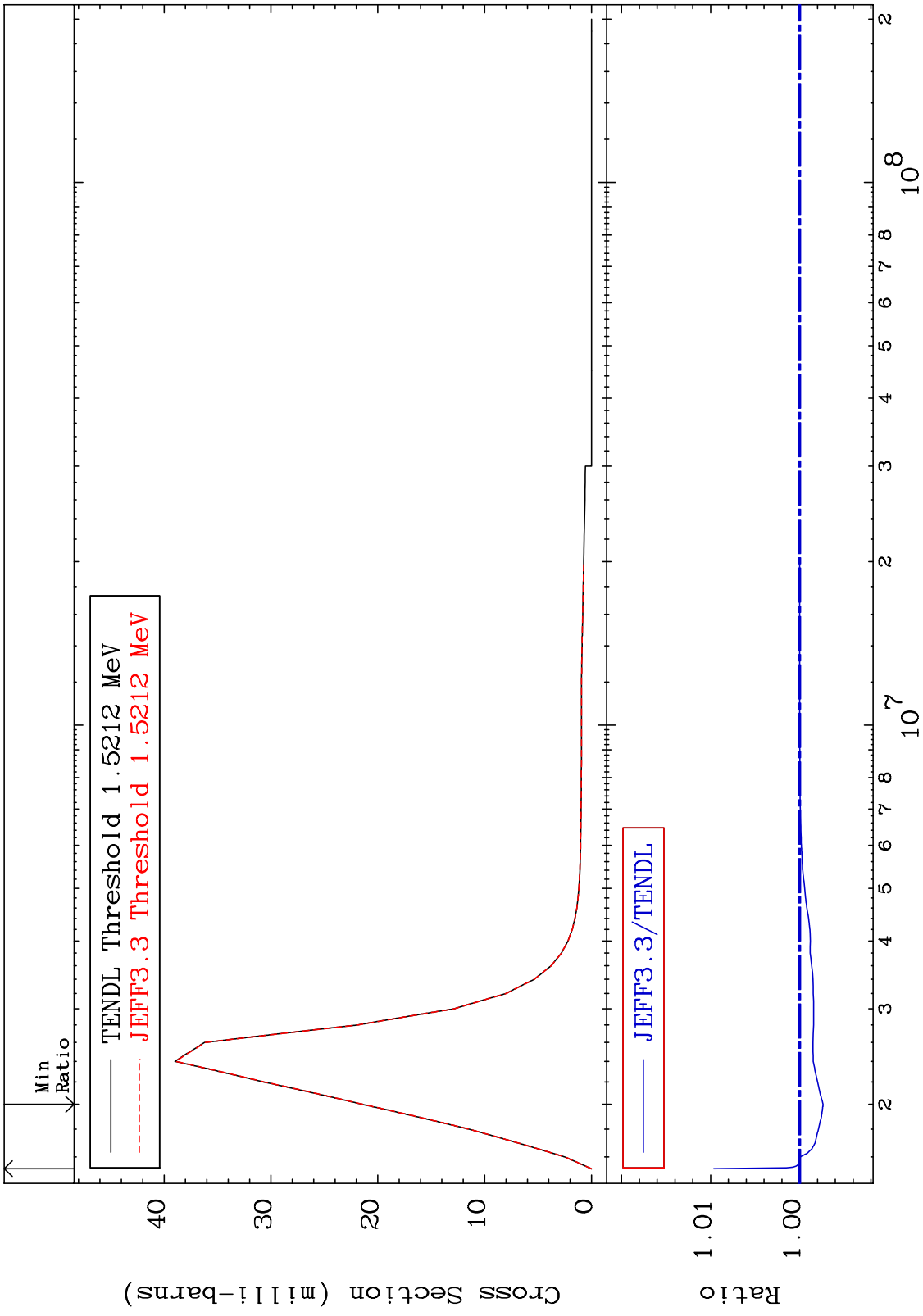
MAT 7237 MT= 71 (n,n') Level Cross Section 72-Hf-178
 -3.313 To -0.159%



MAT 7237 MT= 72 (n,n') Level Cross Section 72-Hf-178
 -1.825 To 0.000 %



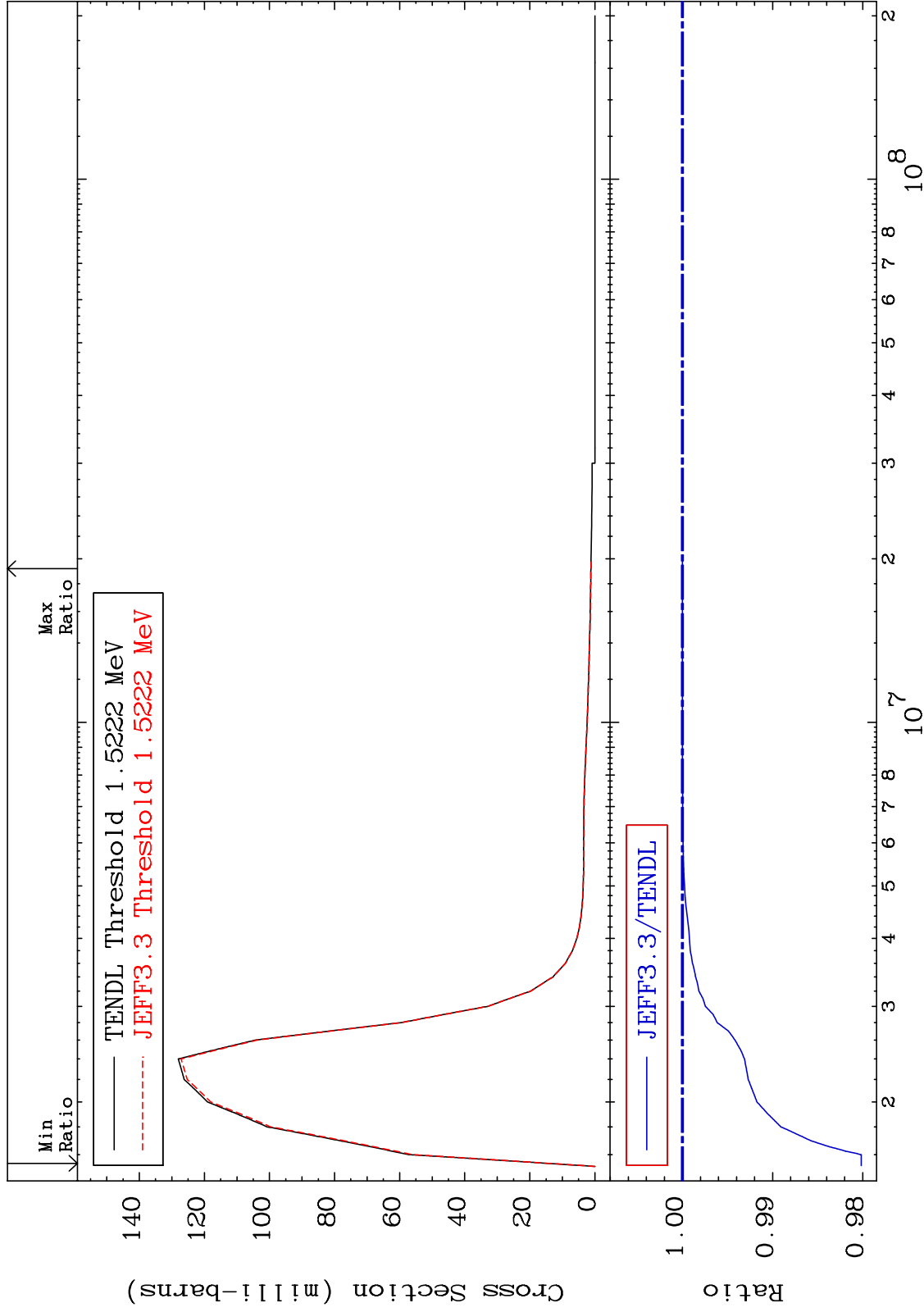
MAT 7237 MT= 73 (n,n') Level Cross Section 72-Hf-178
 -0.263 To 0.965 %



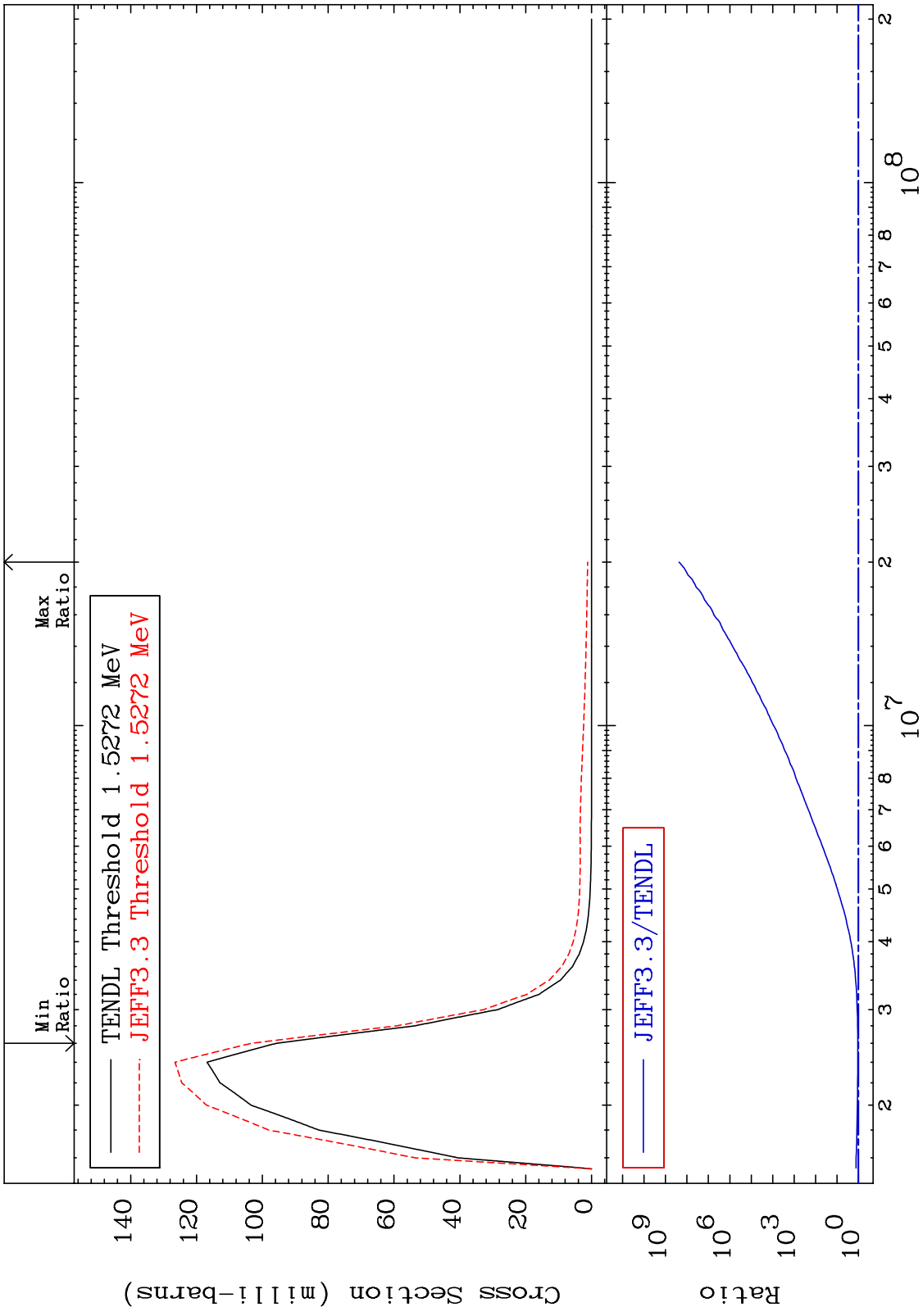
MAT 7237

MT= 74 (n,n') Level
Cross Section

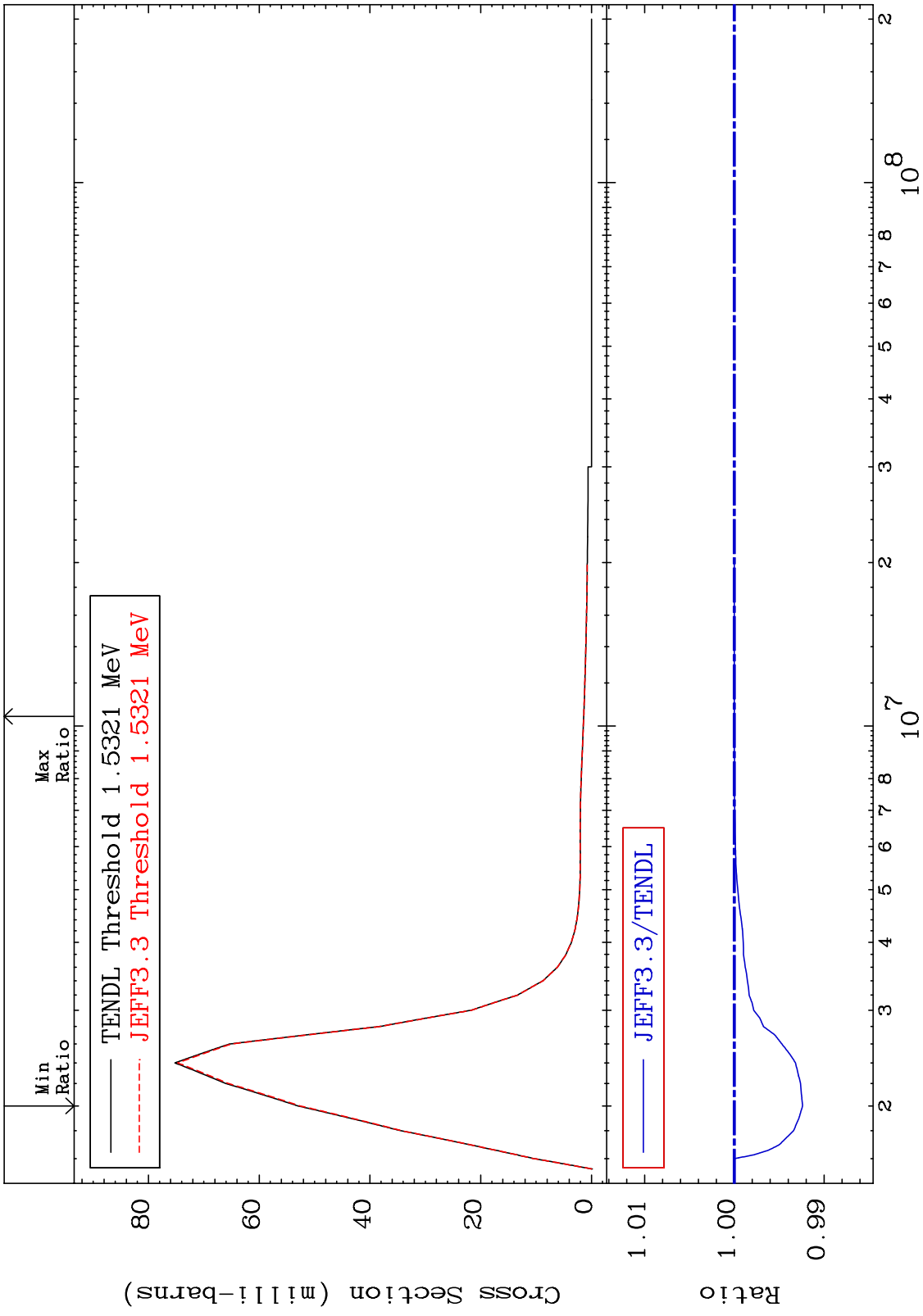
72-Hf-178
-1.984 To 0.000 %



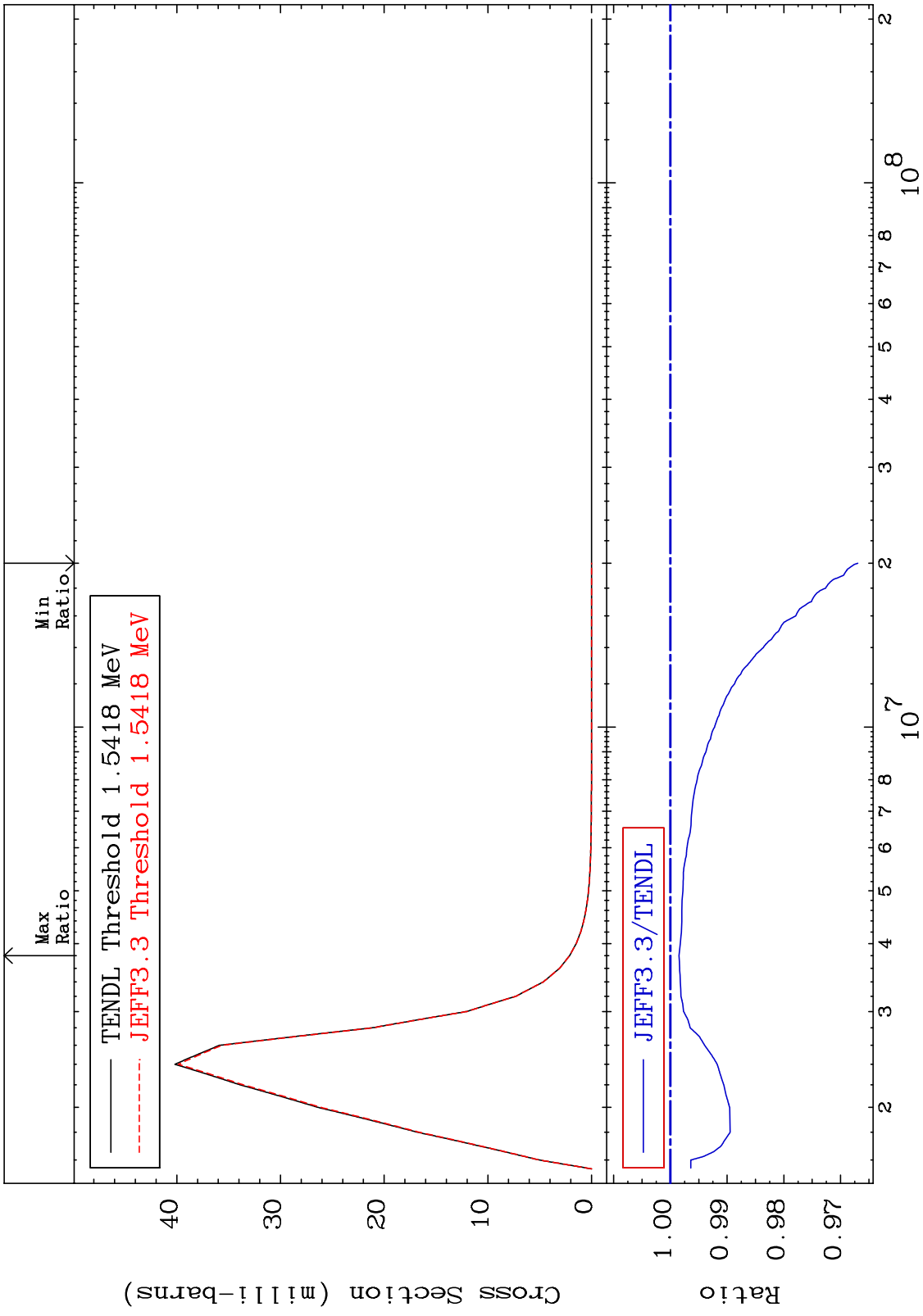
MAT 7237 MT= 75 (n,n') Level Cross Section 72-Hf-178 7.902 To 9999. %



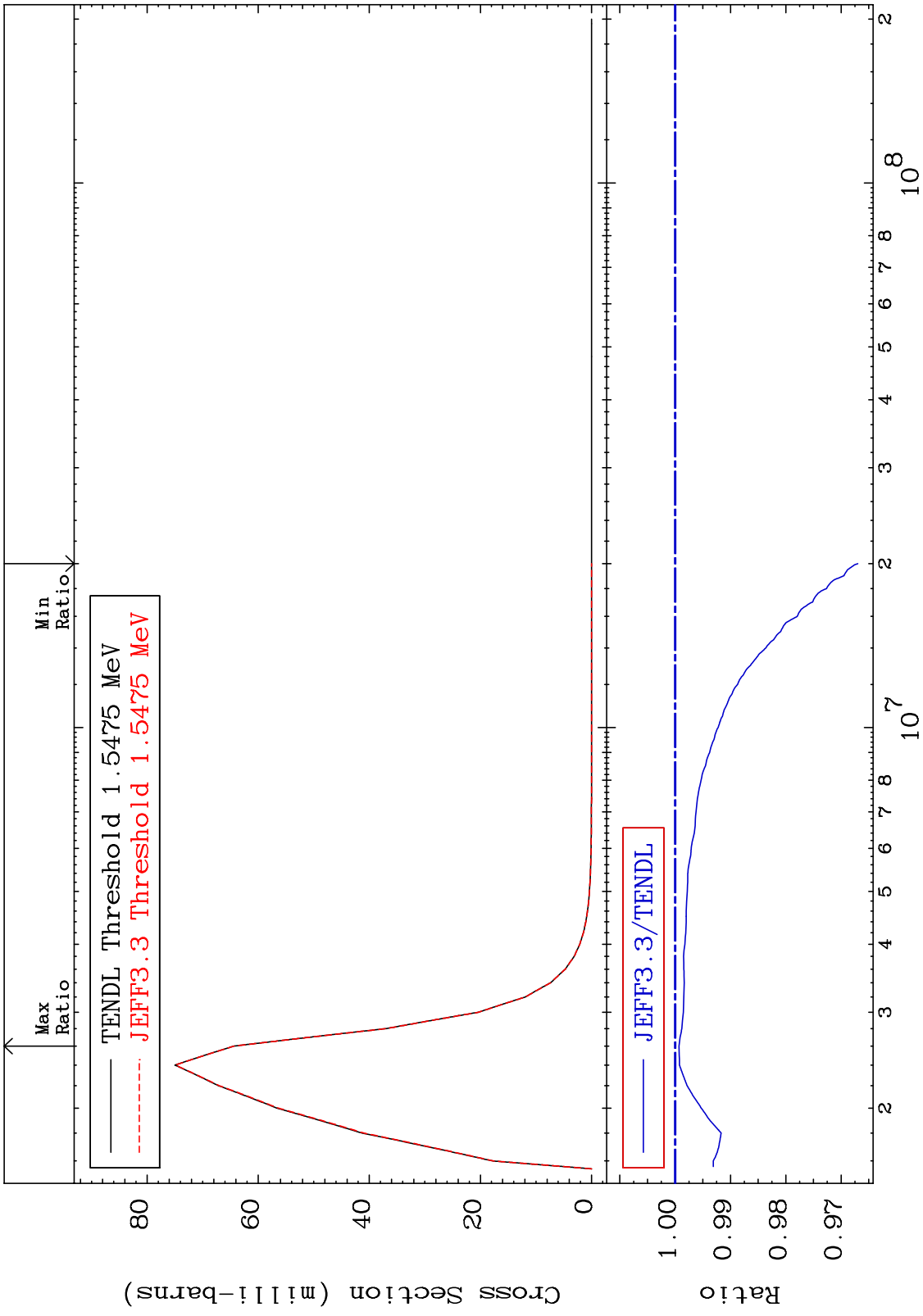
MAT 7237 MT= 76 (n,n') Level Cross Section 72-Hf-178
 -0.760 To 0.000 %



MAT 7237 MT= 77 (n,n') Level Cross Section 72-Hf-178 -3.305 To -0.152%

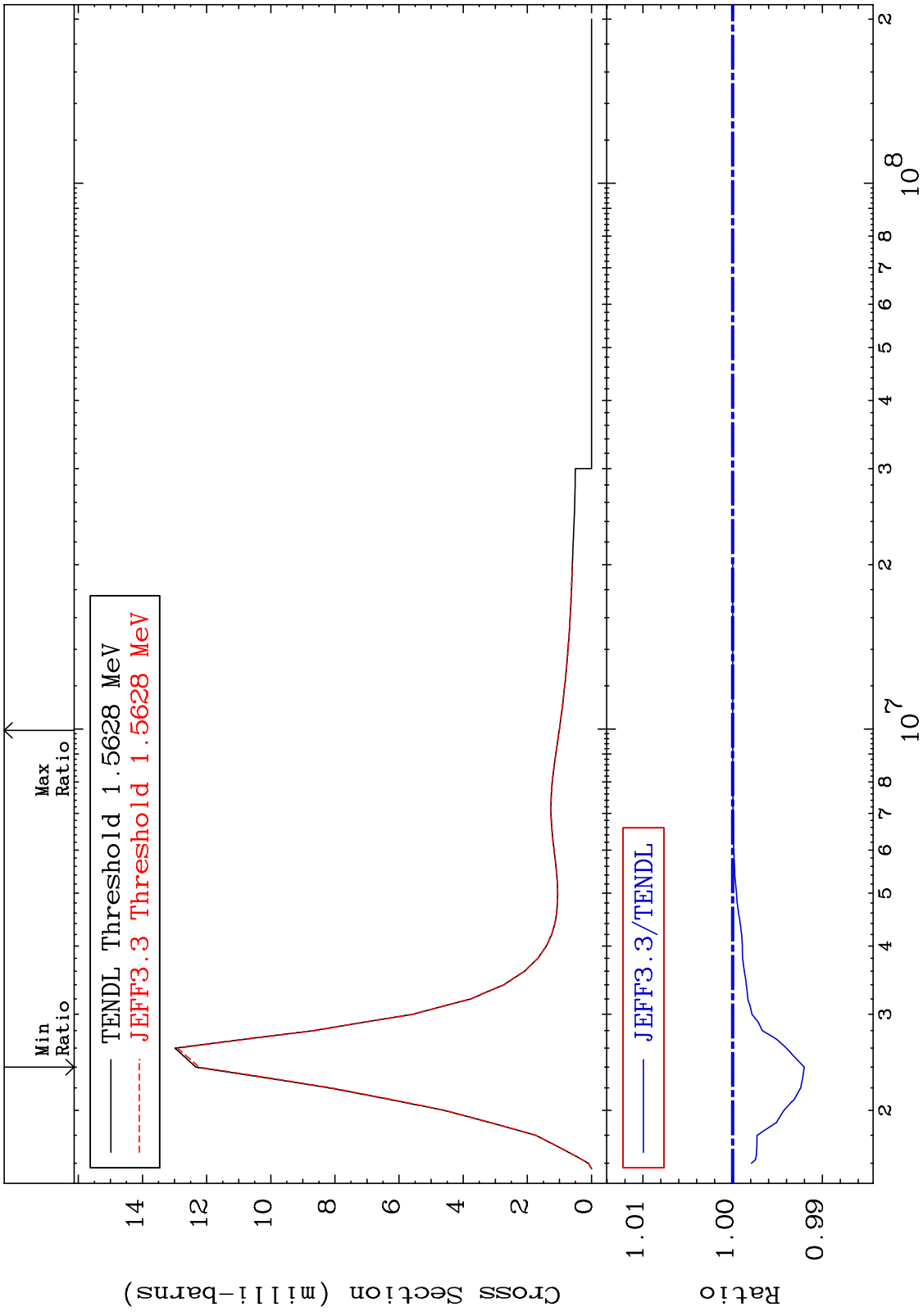


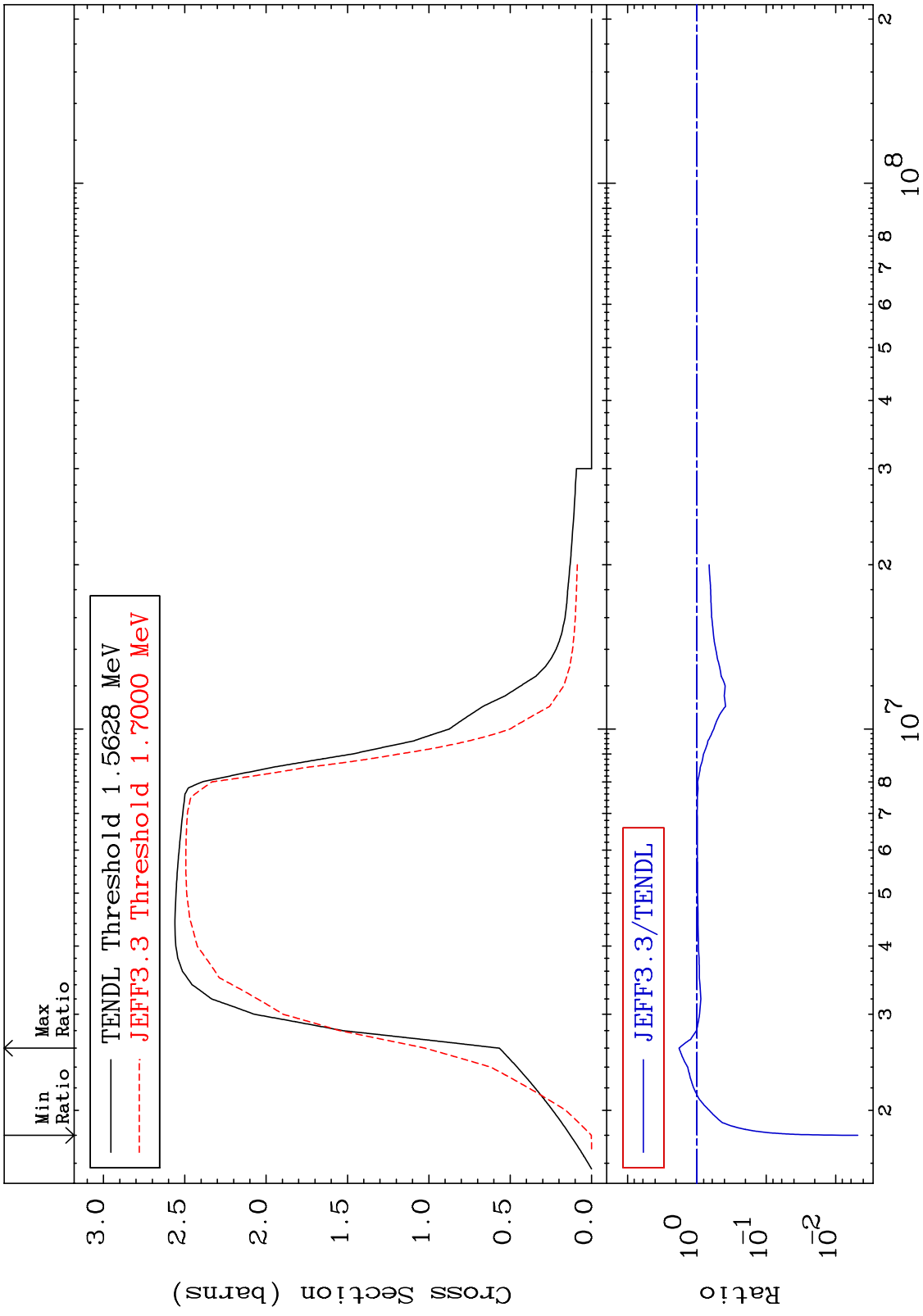
MAT 7237 MT= 78 (n,n') Level Cross Section 72-Hf-178
 -3.303 To -0.070%



40 Incident Energy (eV) 72-Hf-178

MAT 7237 MT= 79 (n,n') Level Cross Section 72-Hf-178
 -0.798 To 0.000 %





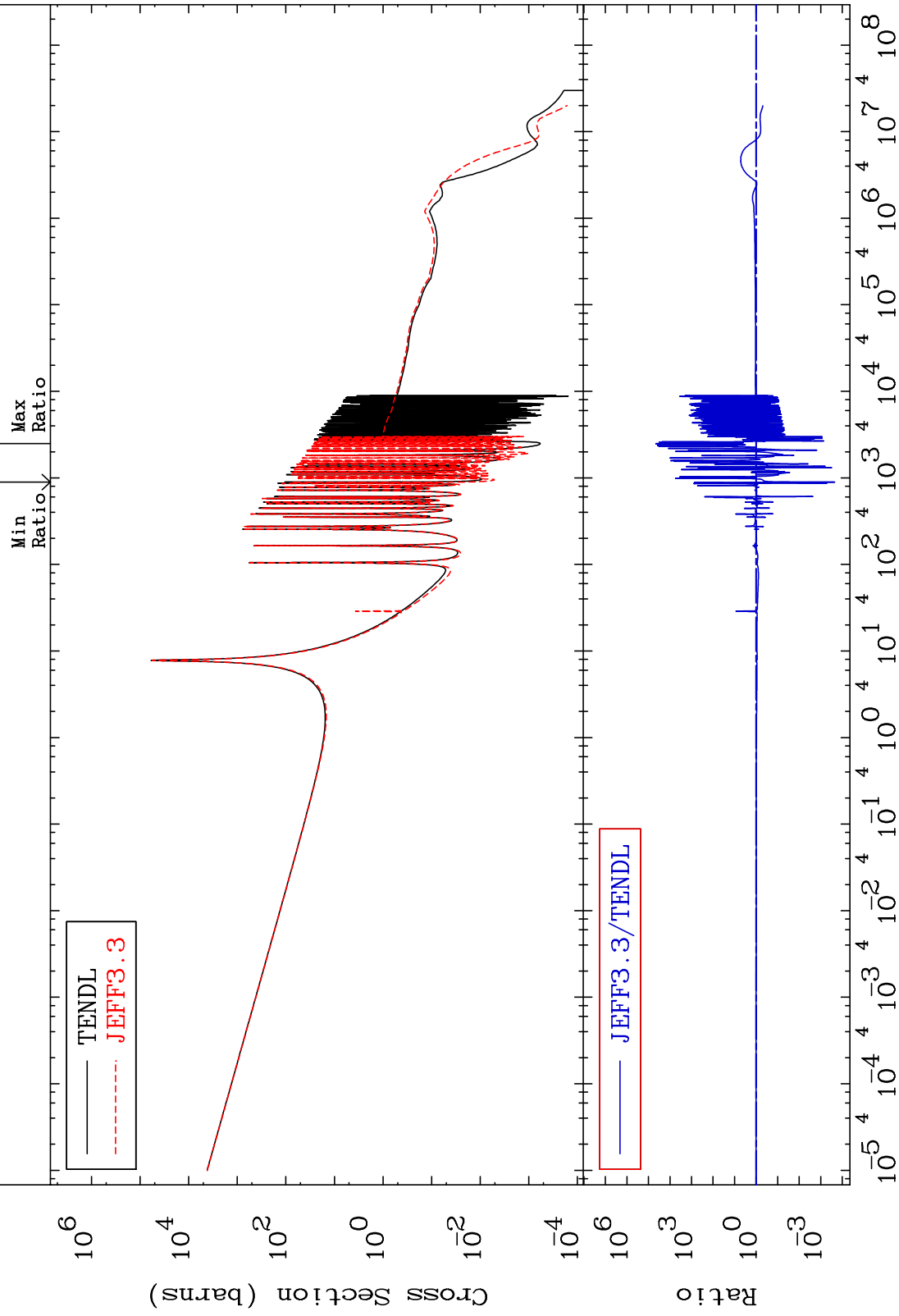
MAT 7237

(n, γ)

72-Hf-178

-99.98 To 9999. %

Cross Section



43

Incident Energy (eV)

72-Hf-178

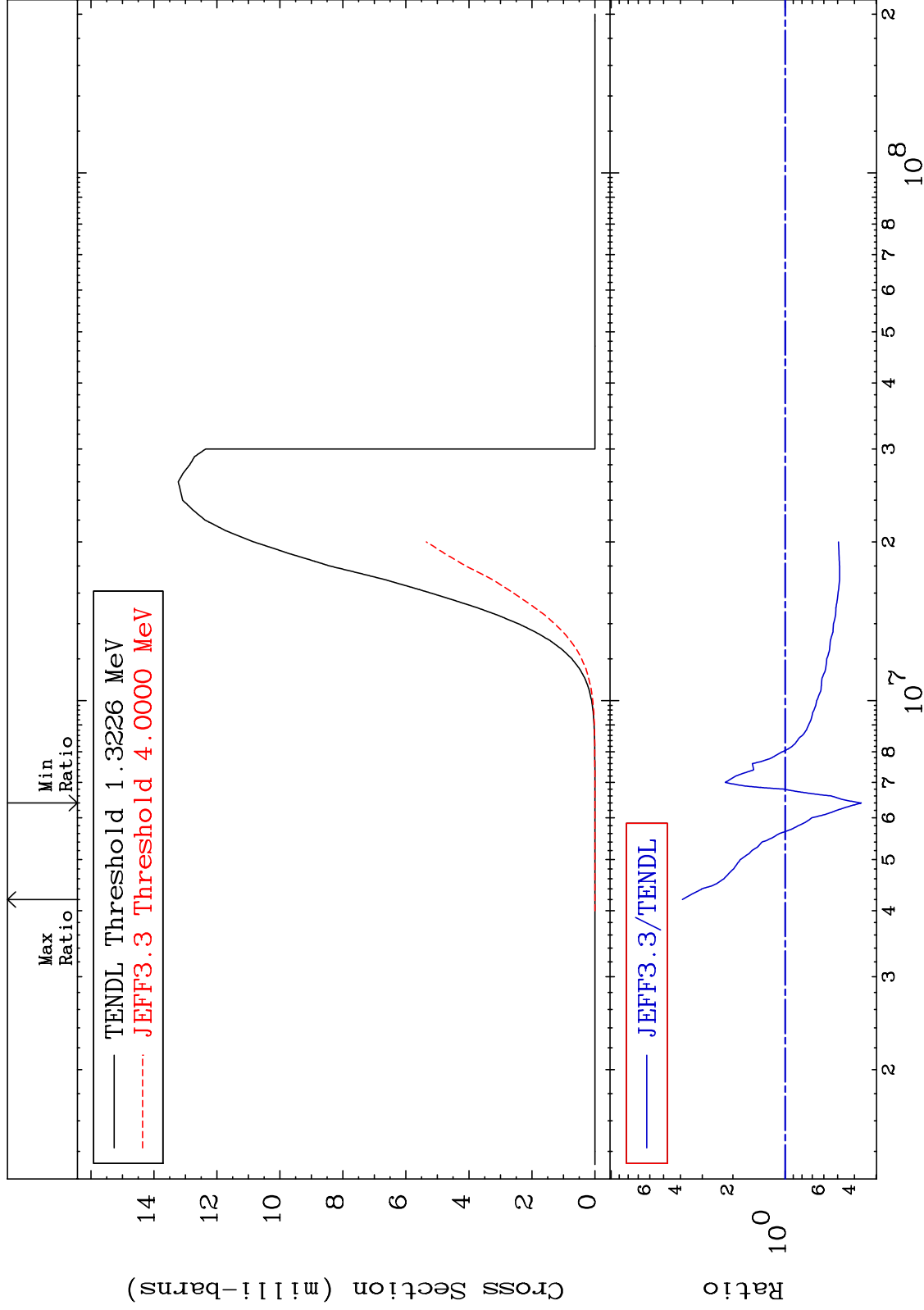
MAT 7237

(n,p)

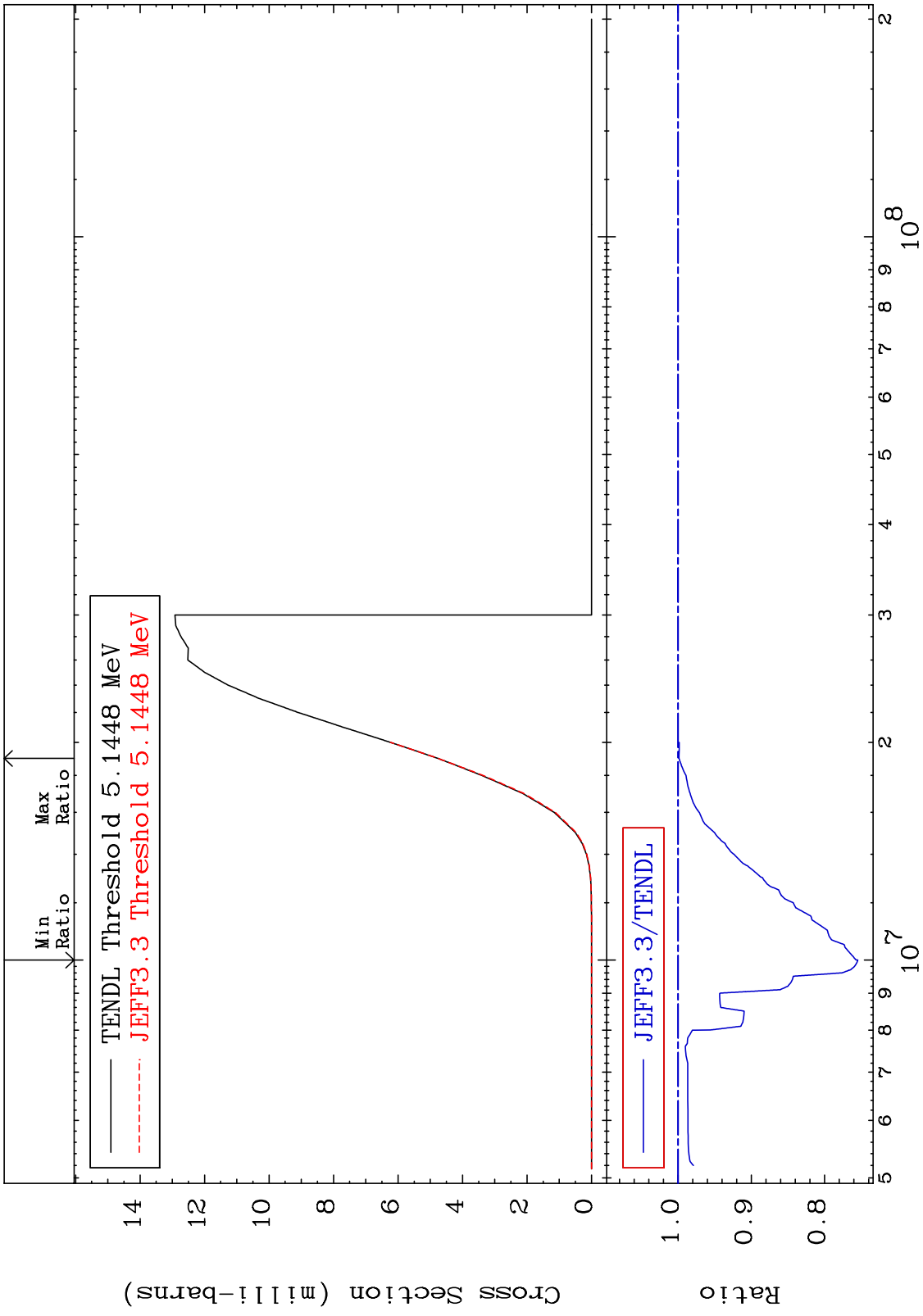
72-Hf-178

Cross Section

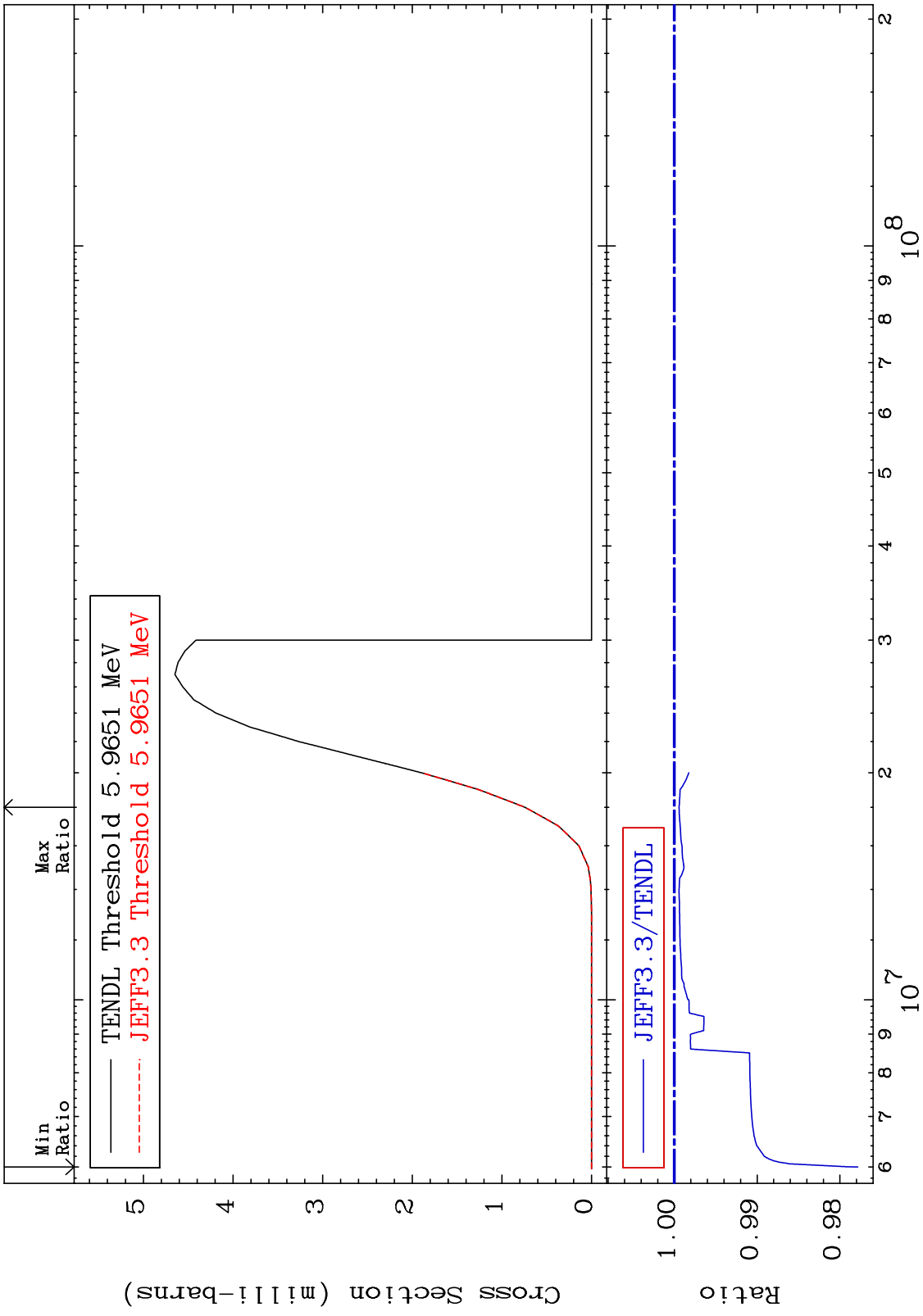
-63.45 To 289.5 %



MAT 7237 (n,d) Cross Section 72-Hf-178
 -24.53 To -0.125%



MAT 7237 (n,t) 72-Hf-178
 Cross Section -2.216 To -0.057%



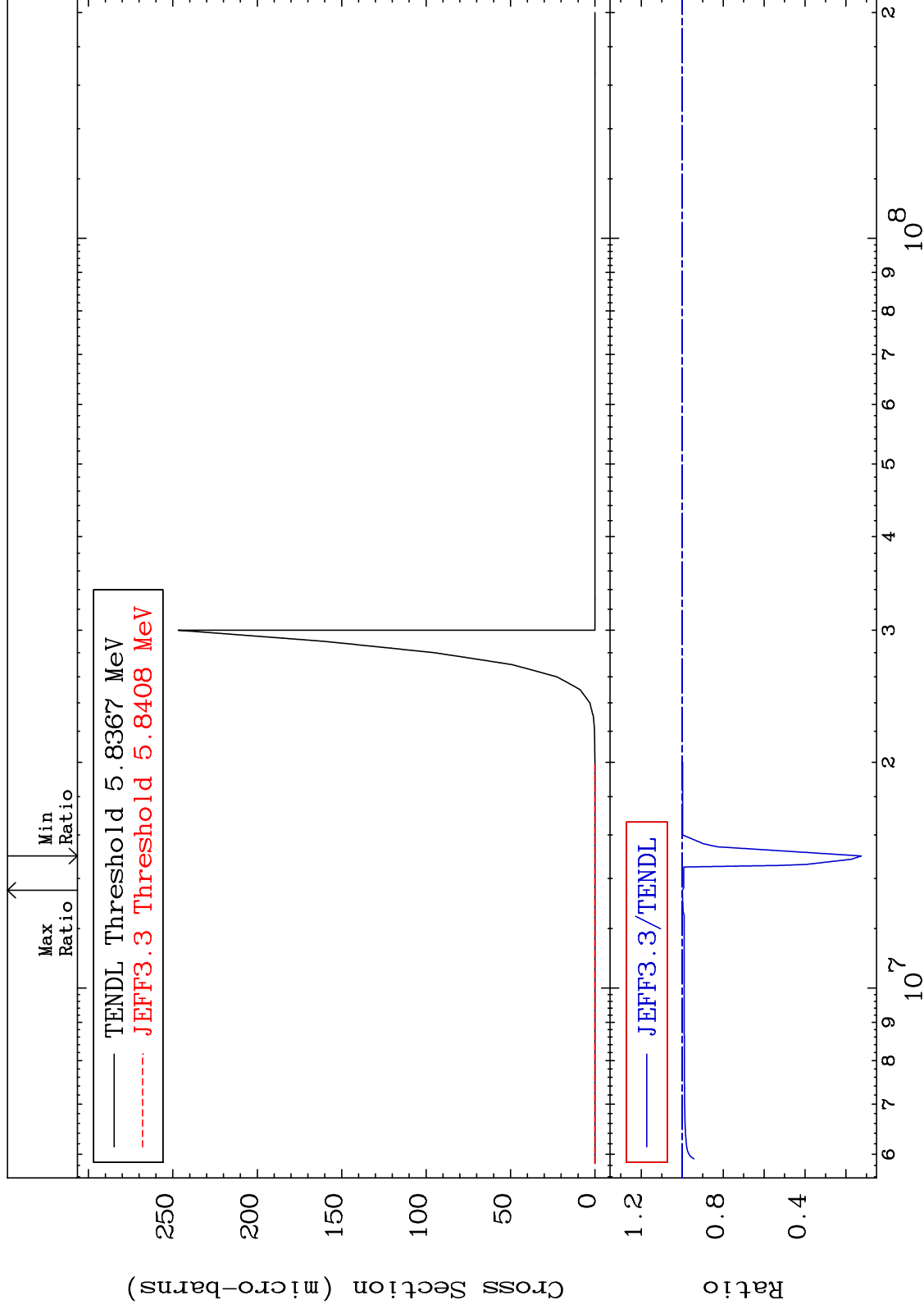
MAT 7237

(n, He-3)

72-Hf-178

Cross Section

-87.48 To -0.107%



47

Incident Energy (eV)

72-Hf-178

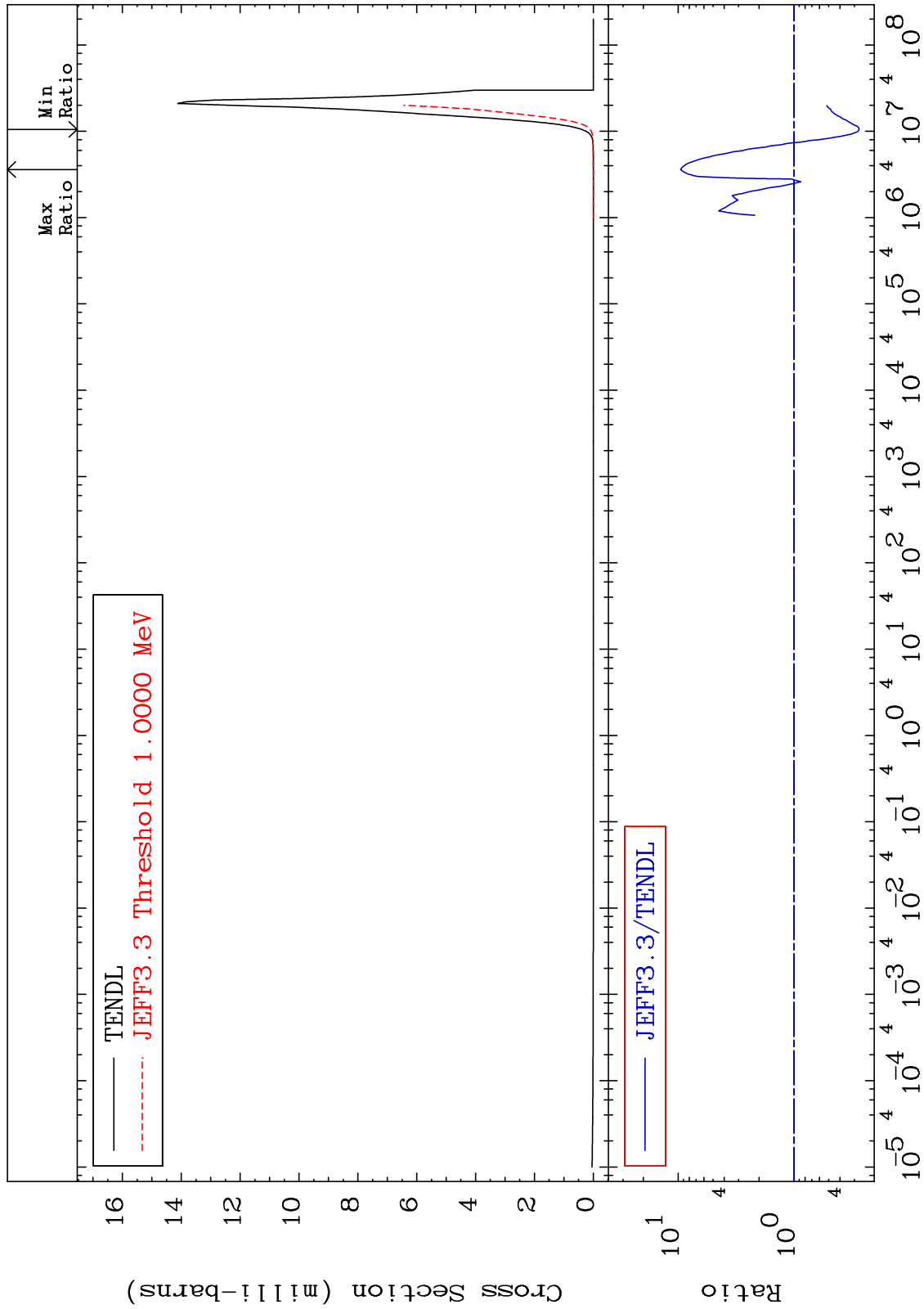
MAT 7237

(n, α)

72-Hf-178

Cross Section

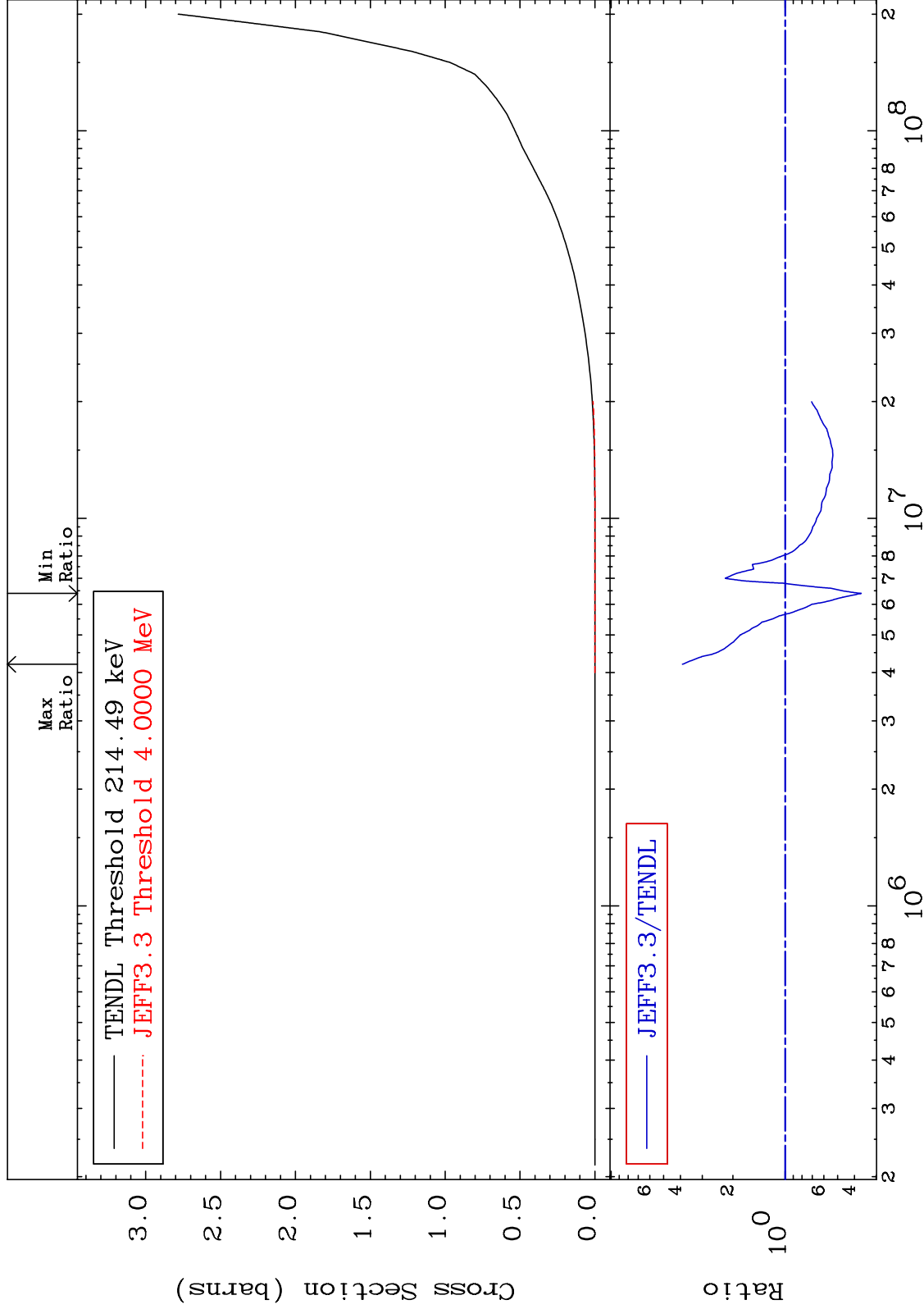
-72.62 To 851.9 %



MAT 7237

Hydrogen Production
Cross Section

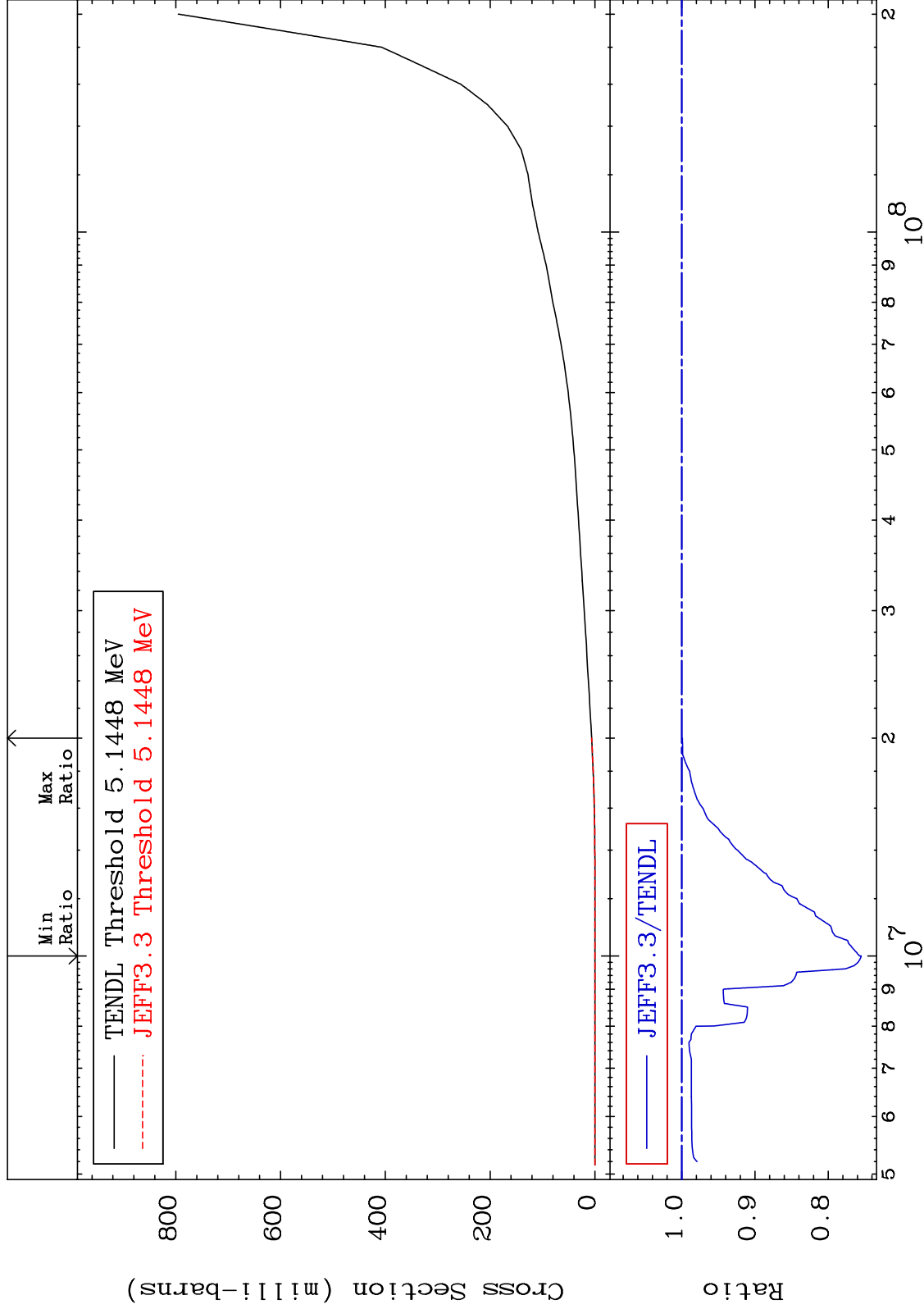
72-Hf-178
-63.45 To 289.5 %



MAT 7237

Deuterium Production
Cross Section

72-Hf-178
-24.53 To -0.095%



50

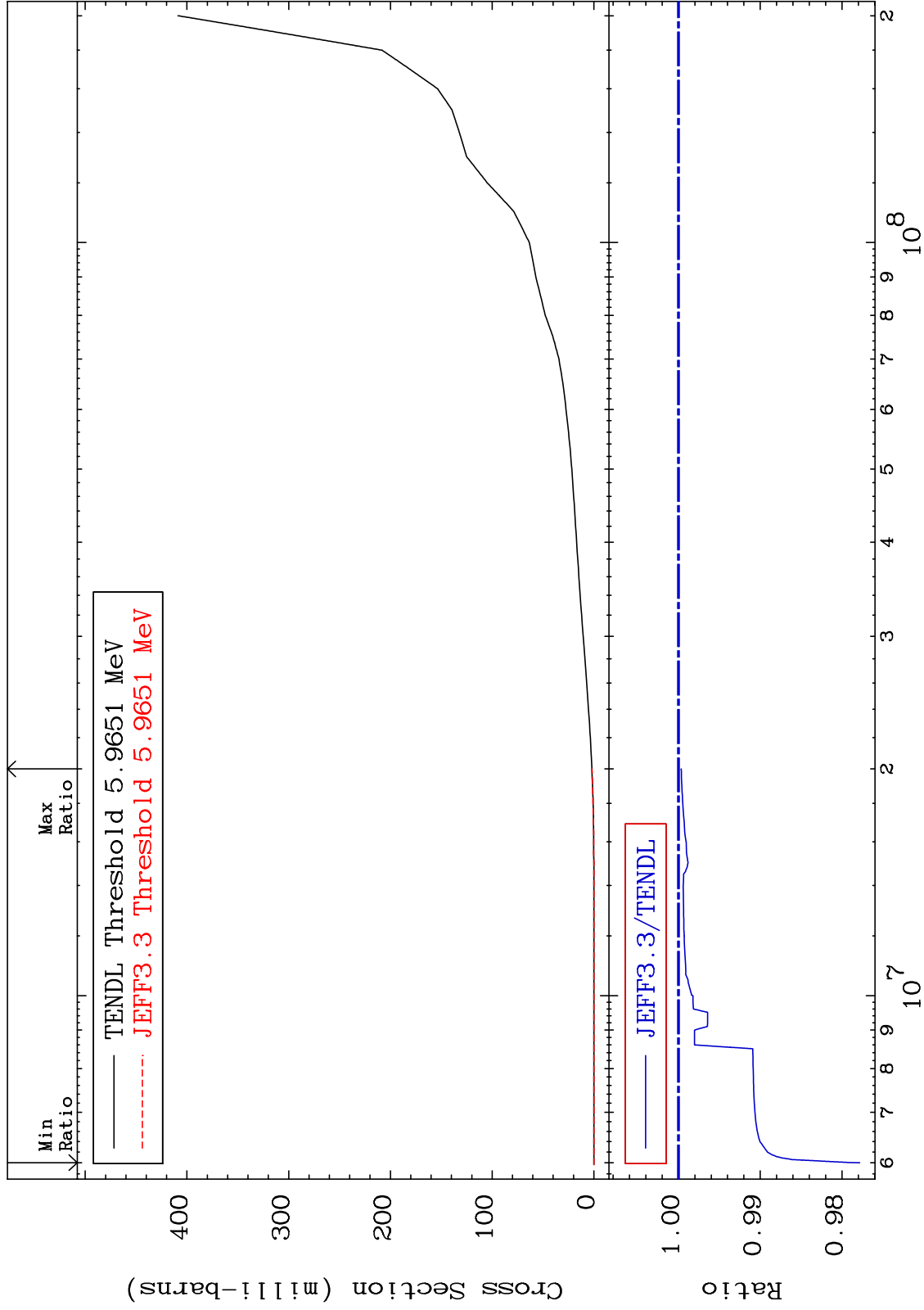
Incident Energy (eV)

72-Hf-178

MAT 7237

Tritium Production
Cross Section

$^{72}\text{Hf-178}$
-2.216 To -0.034%



51

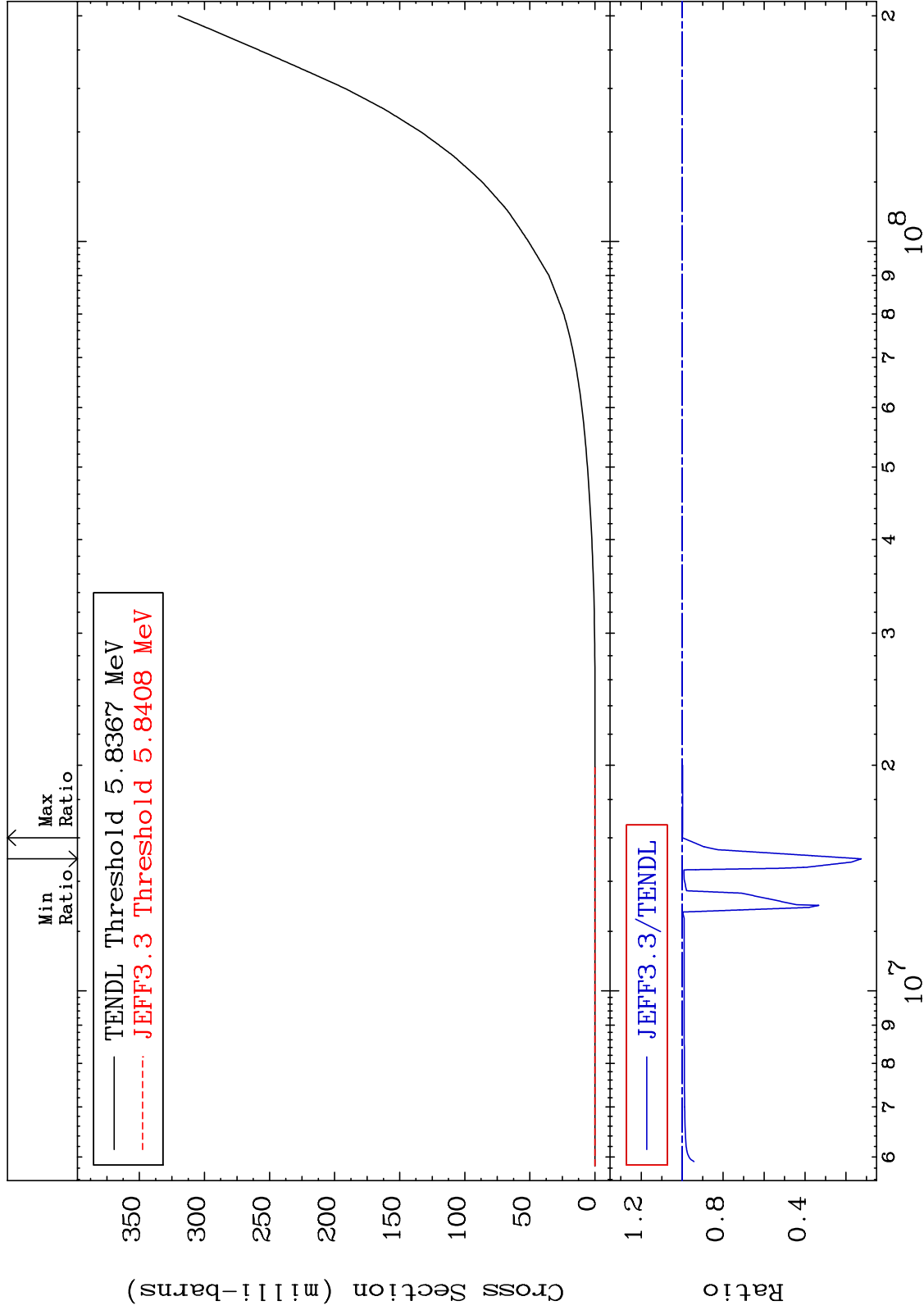
Incident Energy (eV)

$^{72}\text{Hf-178}$

MAT 7237

He-3 Production
Cross Section

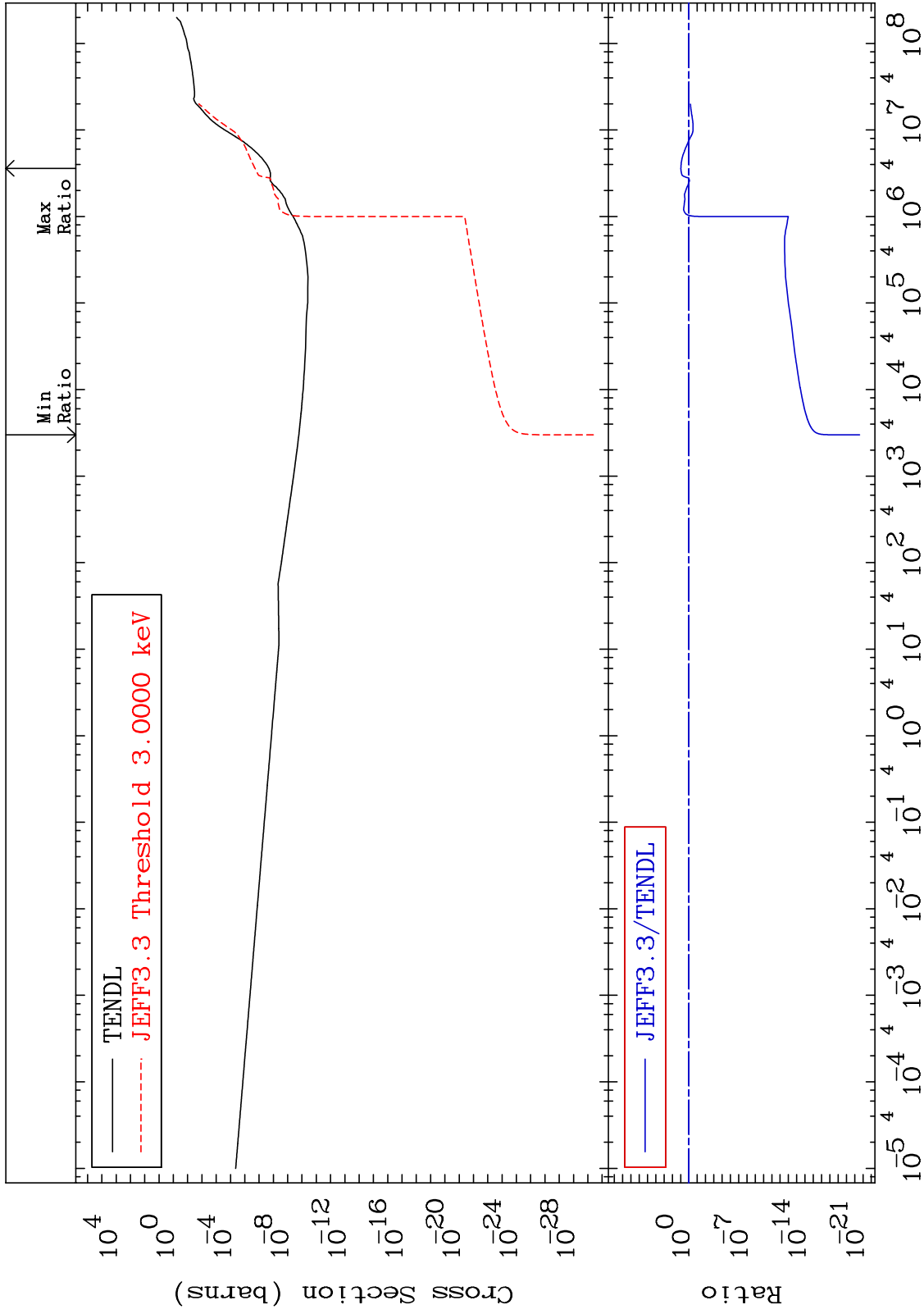
72-Hf-178
-87.48 To -0.120%



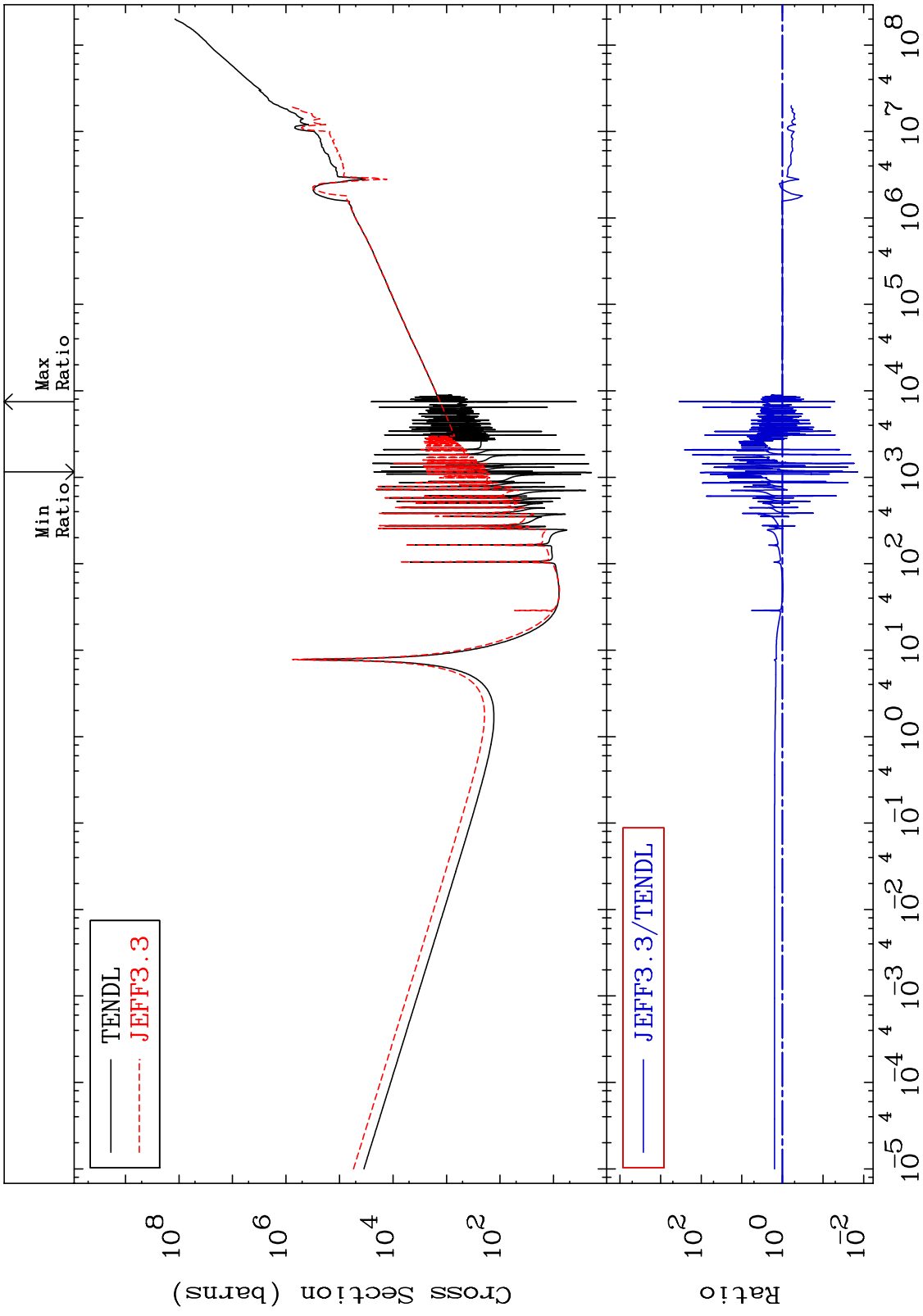
MAT 7237

He-4 Production
Cross Section

72-Hf-178
-100.0 To 852.0 %



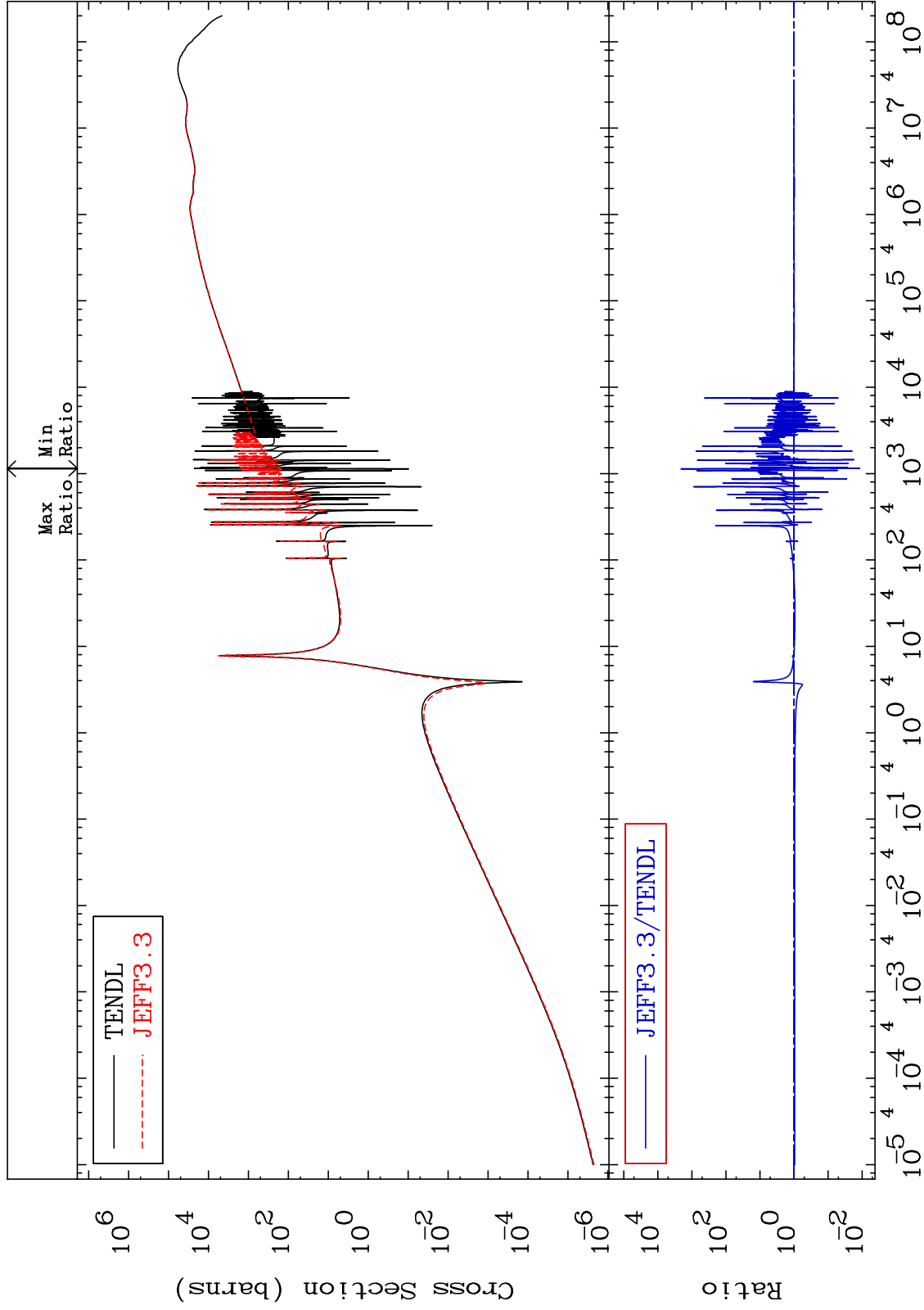
MAT 7237 Kerma total (eV-barns) 72-Hf-178
 Cross Section -98.61 To 9999. %



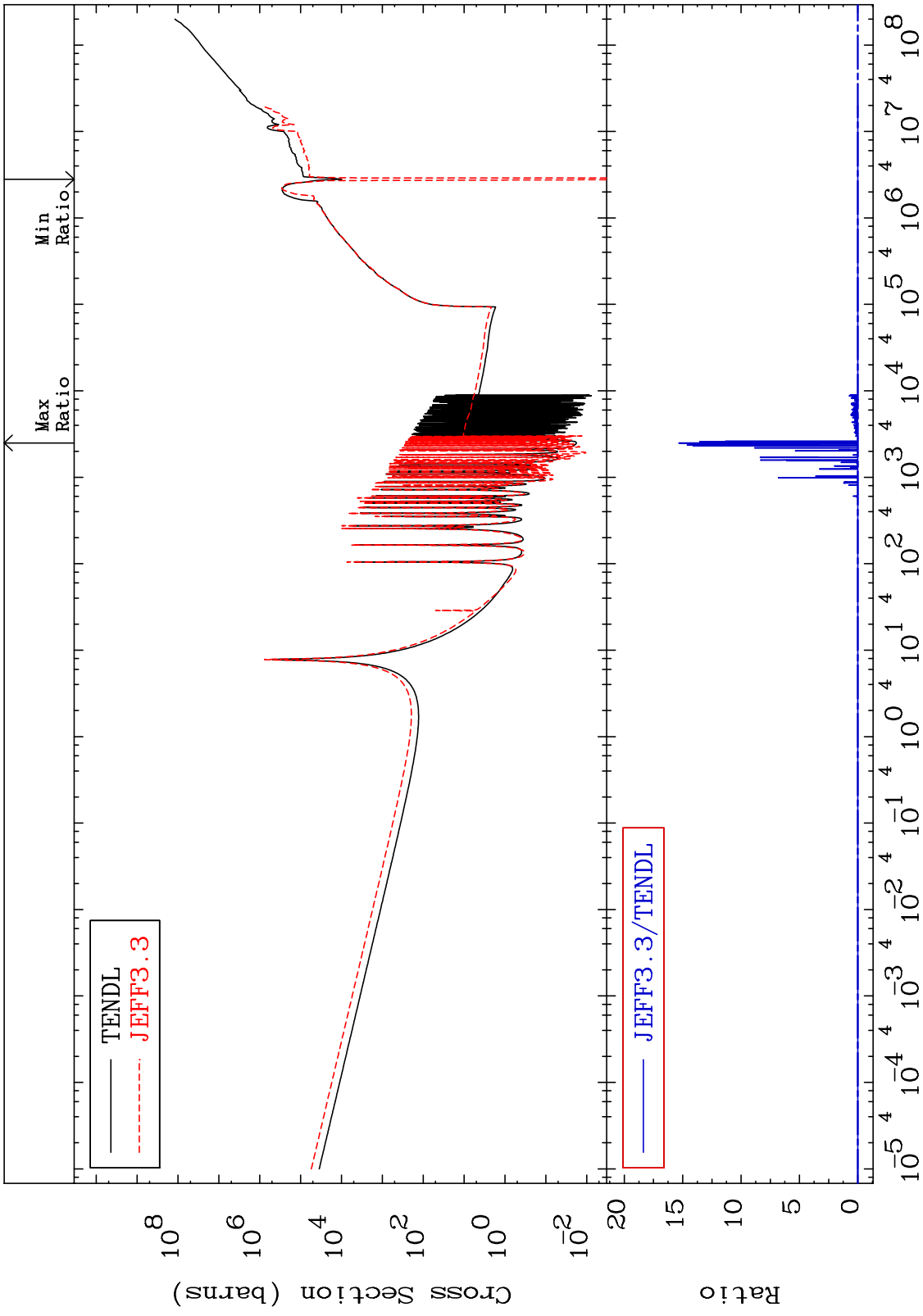
MAT 7237

Kerma elastic
Cross Section

72-Hf-178
-98.82 To 9999. %

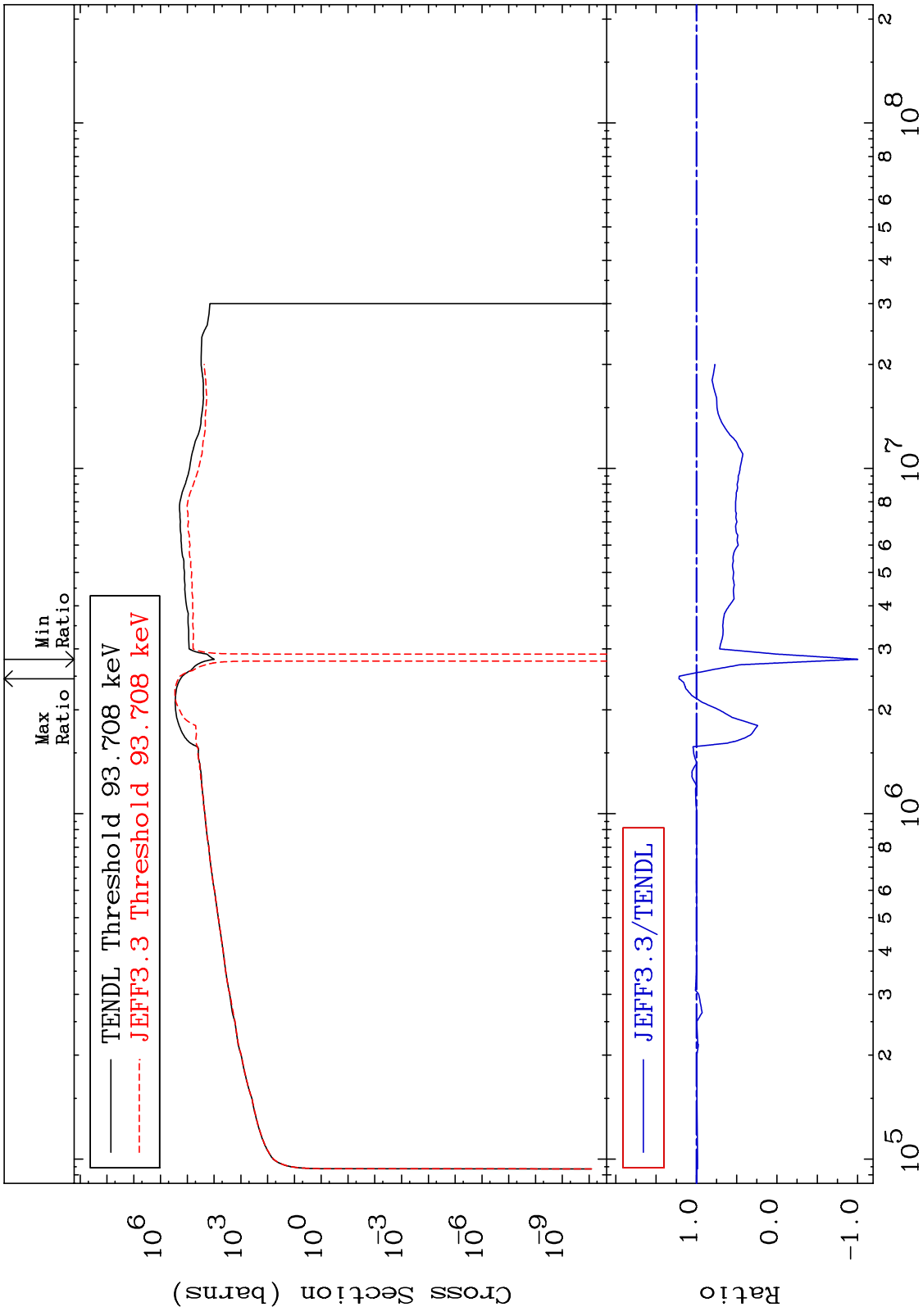


MAT 7237 Kerma non-elastic (all but mt2) 72-Hf-178
 Cross Section -200.3 To 9999. %



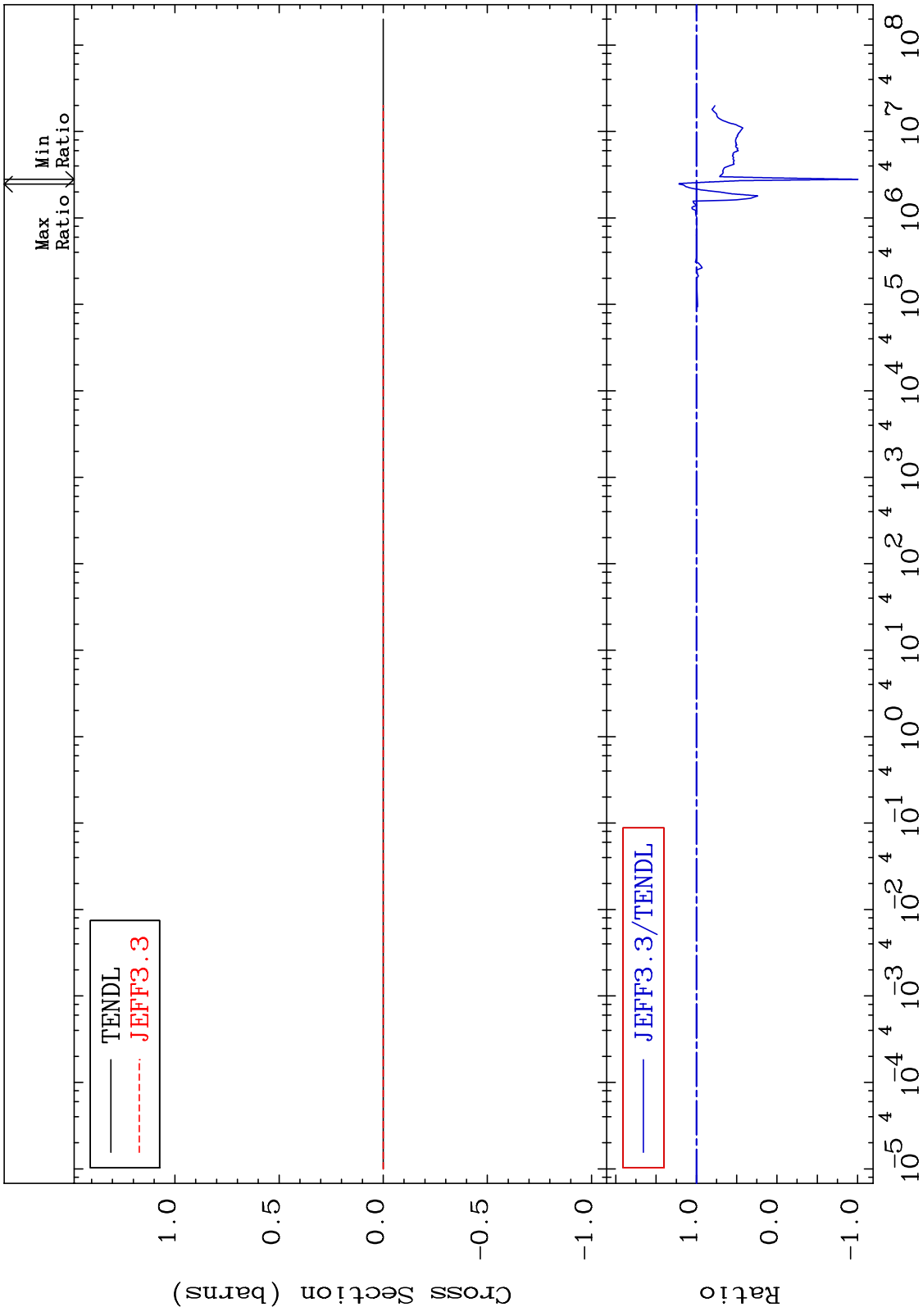
56 Incident Energy (eV) 72-Hf-178

MAT 7237 Kerma inelastic (mt51-91) 72-Hf-178
Cross Section -200.4 To 21.55 %



57 72-Hf-178

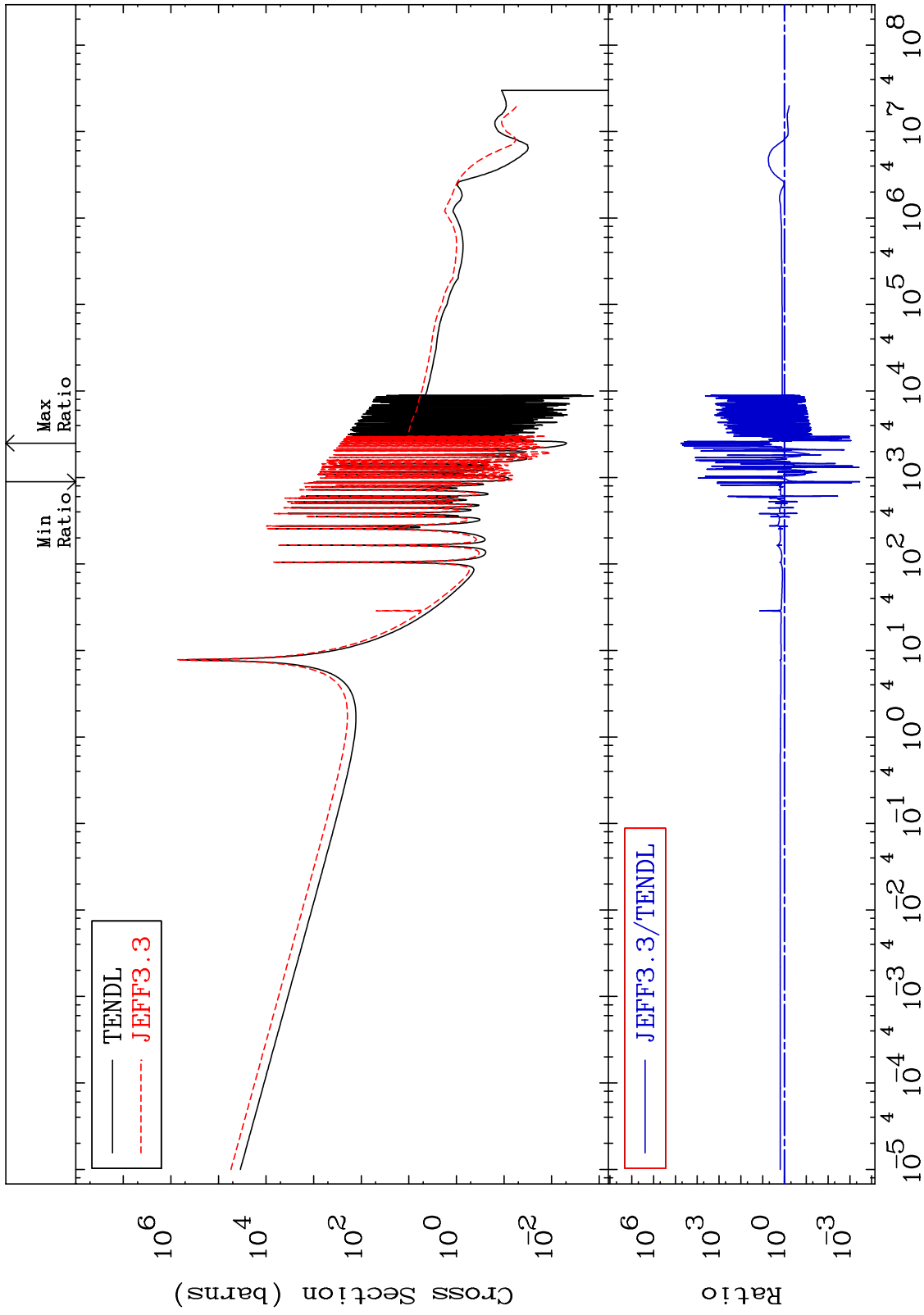
MAT 7237 Kerma fission (mt18 or mt19-20-21-38) 72-Hf-178
 Cross Section -200.4 To 21.55 %



MAT 7237

Kerma capture (mt102)
Cross Section

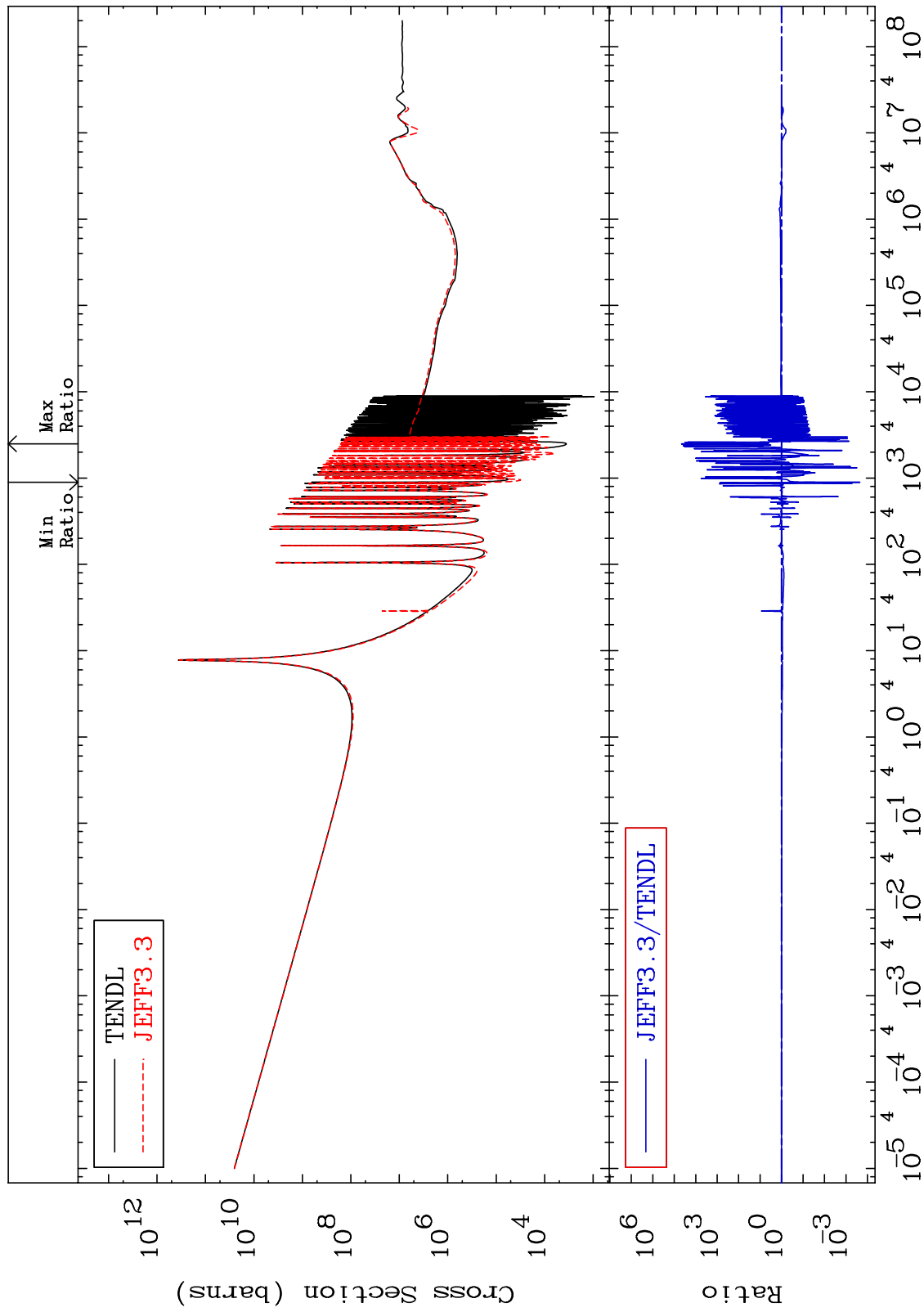
72-Hf-178
-99.96 To 9999. %



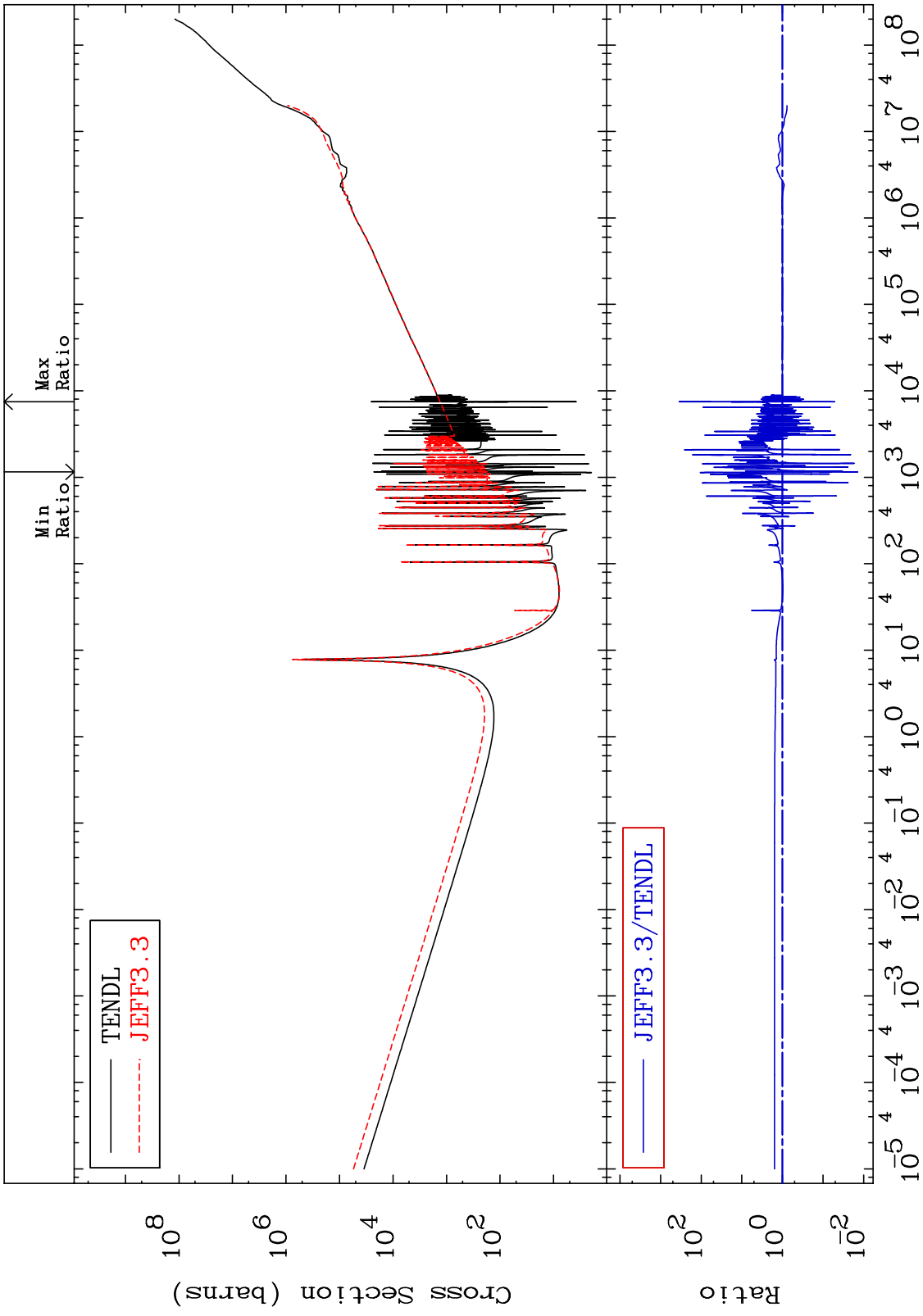
MAT 7237

Total photon (eV-barns)
Cross Section

72-Hf-178
-99.98 To 9999. %



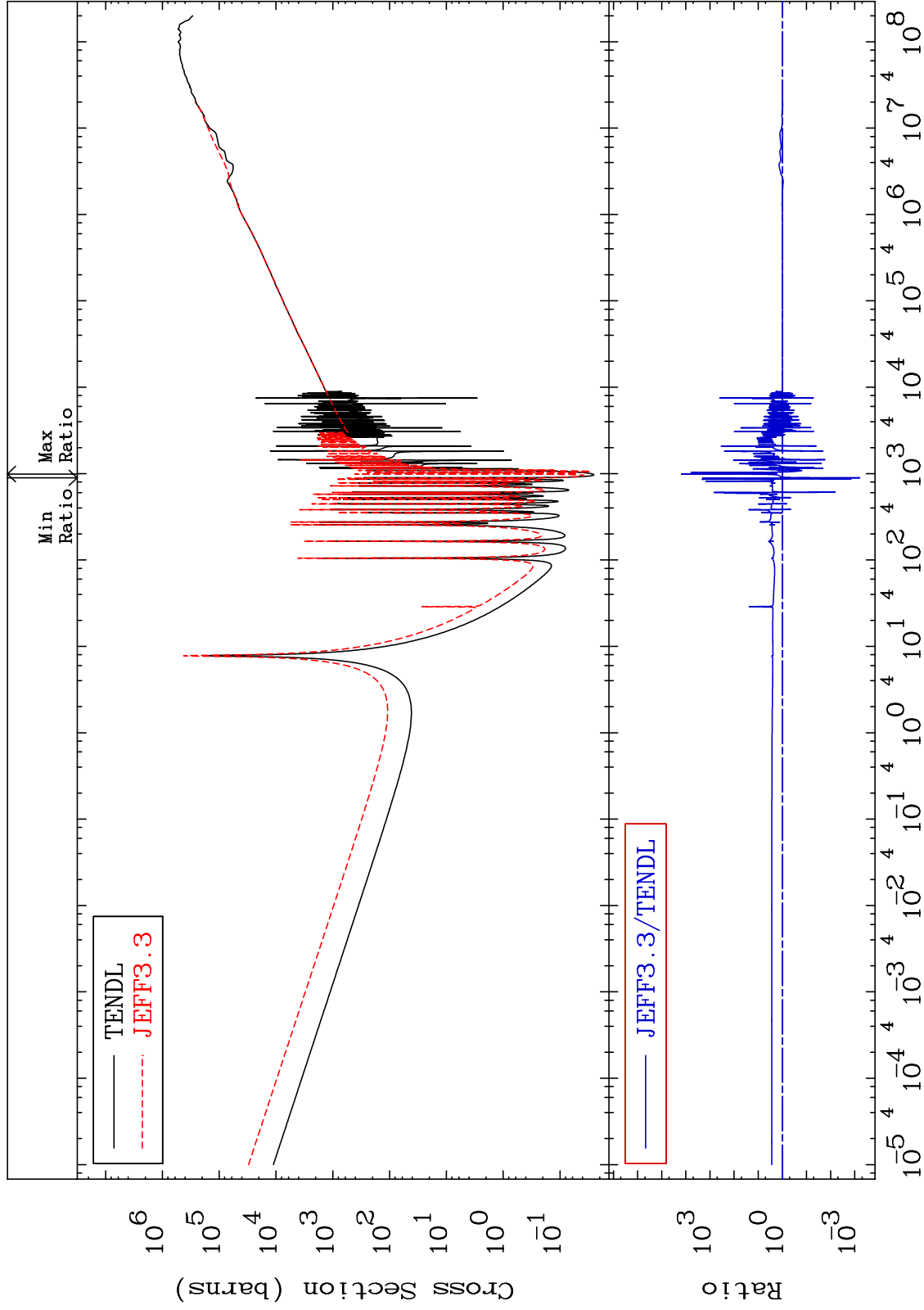
MAT 7237 Total kinematic kerma (high limit) 72-Hf-178
 Cross Section -98.61 To 9999. %



MAT 7237

Dpa total (eV-barns)
Cross Section

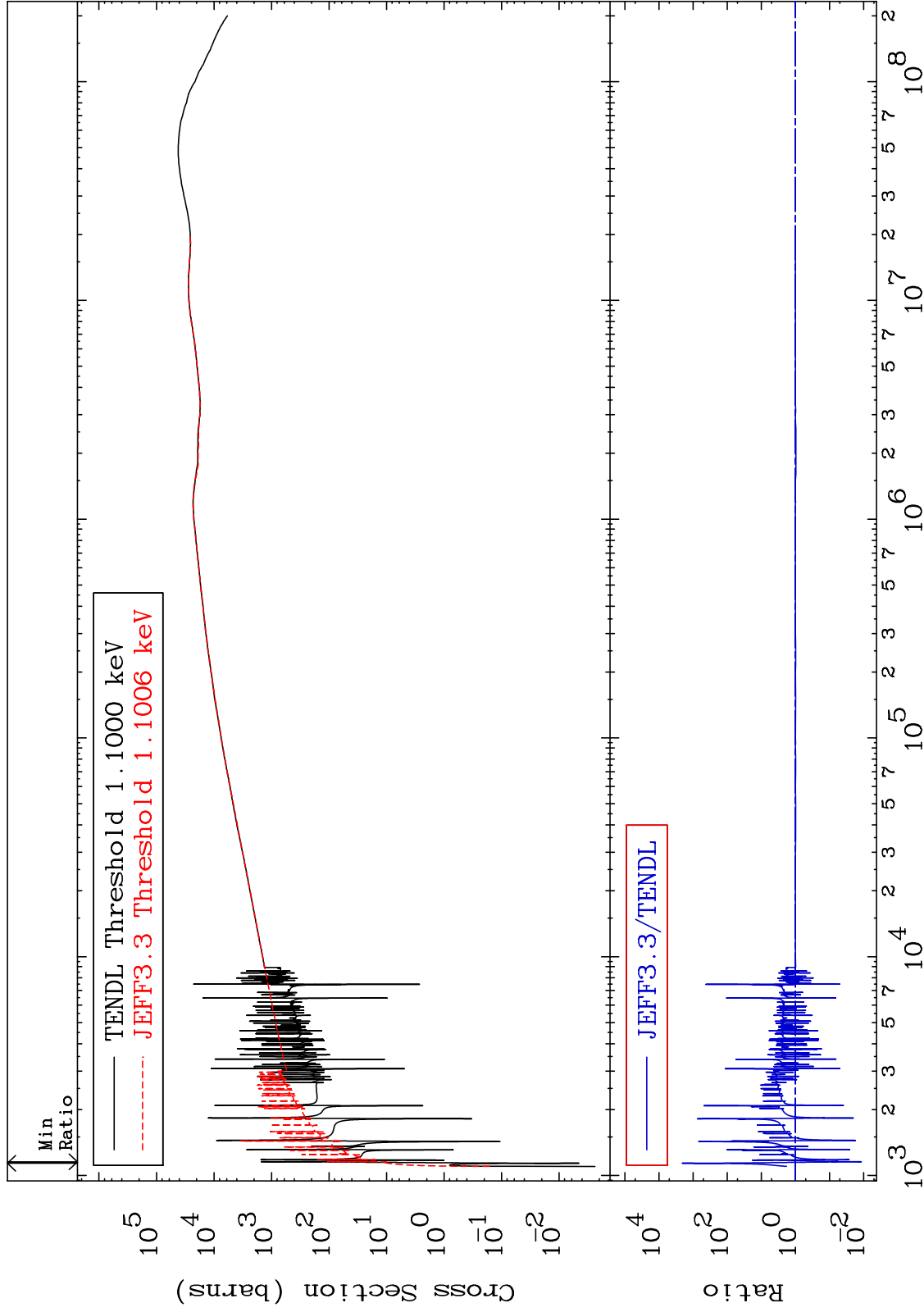
72-Hf-178
-99.94 To 9999. %



MAT 7237

Dpa elastic (mt2)
Cross Section

72-Hf-178
-98.82 To 9999. %



63

Incident Energy (eV)

72-Hf-178

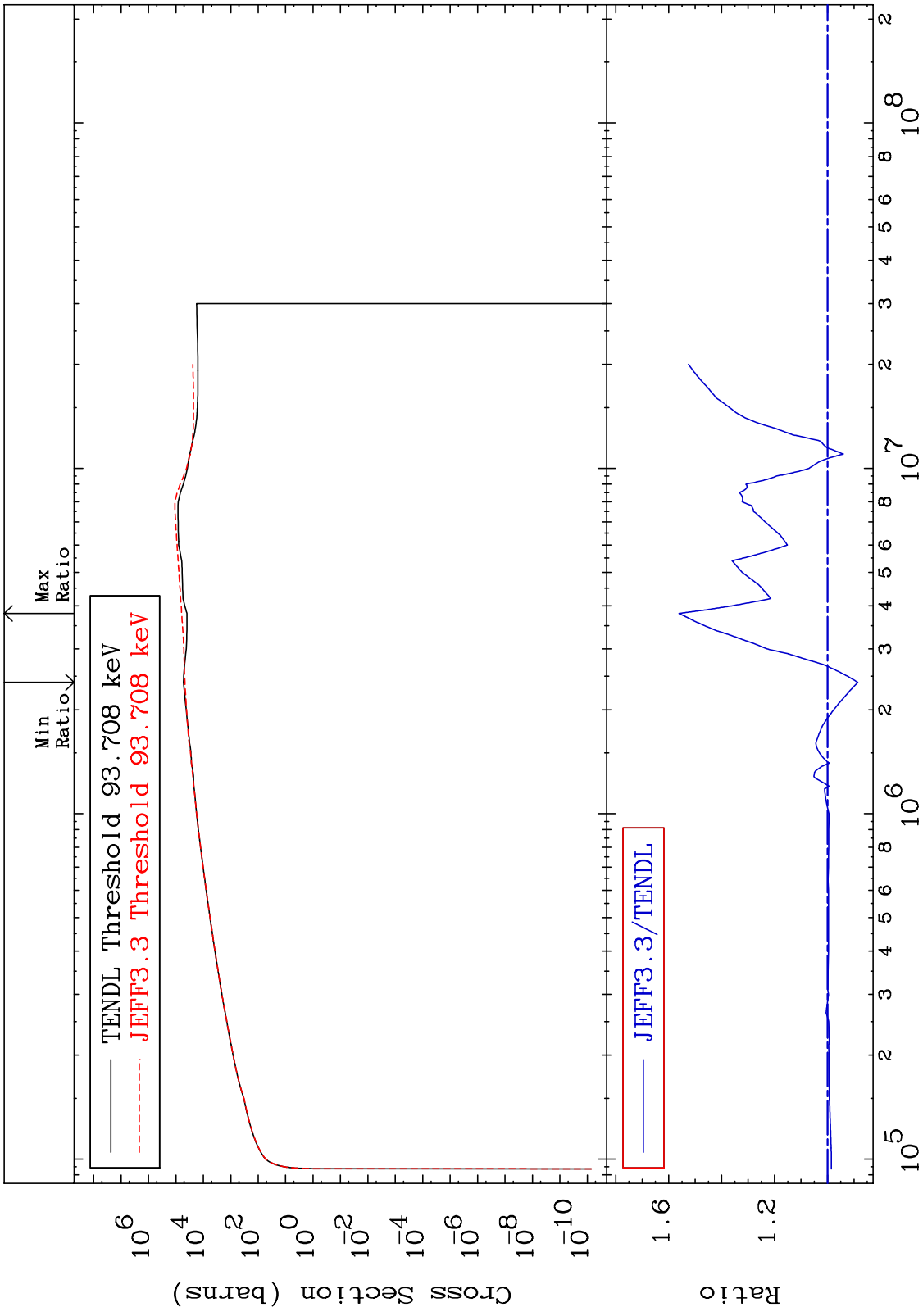
MAT 7237

Dpa inelastic (mt51-91)

72-Hf-178

-11.45 To 56.09 %

Cross Section



64

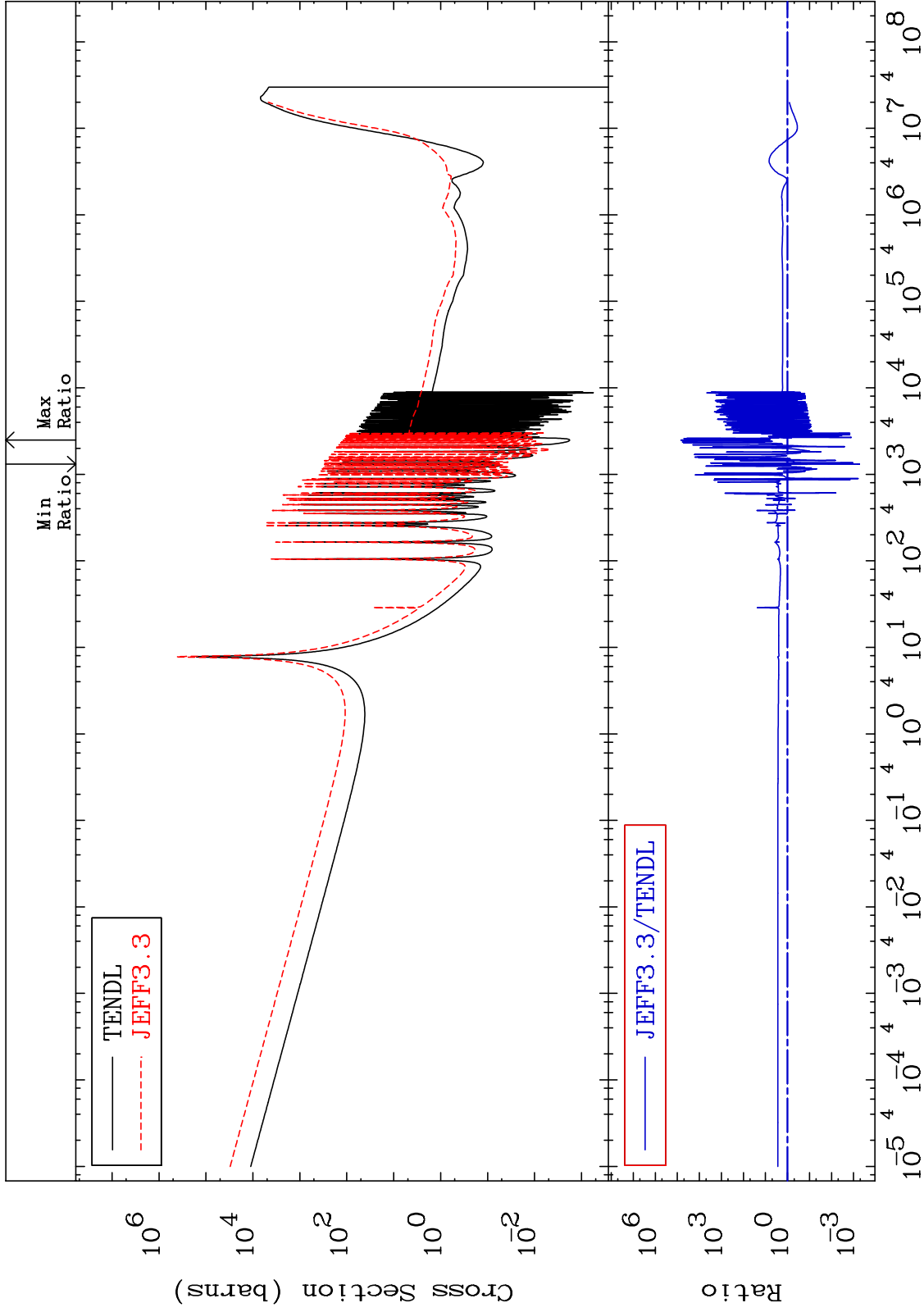
Incident Energy (eV)

72-Hf-178

MAT 7237

Dpa disappearance (mt102 -120)
Cross Section

72-Hf-178
-99.95 To 9999. %

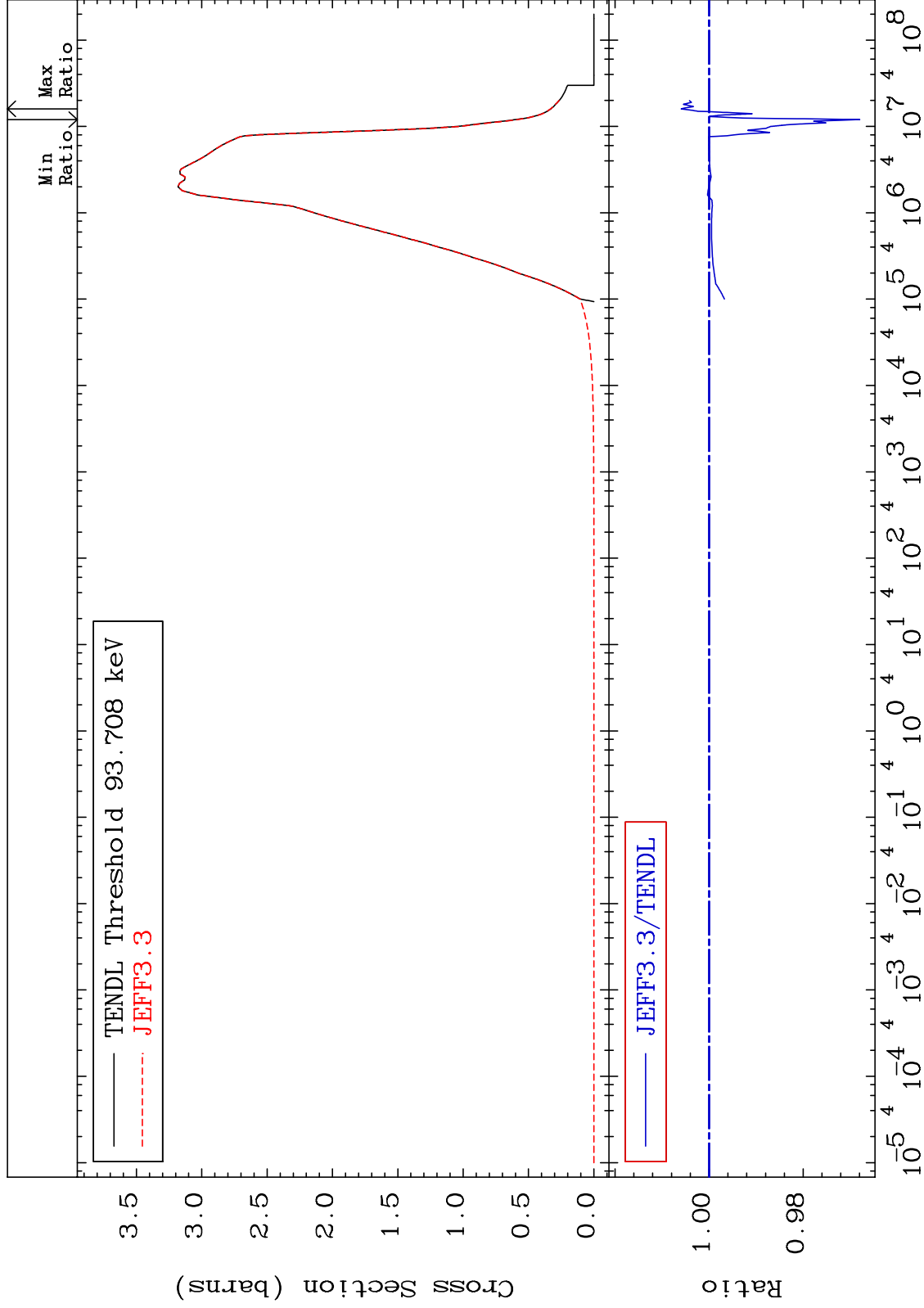


MAT 7237

Inelastic: 72-Hf-178g

72-Hf-178

Radionuclide Production Cross Section -3.204 To 0.593 %

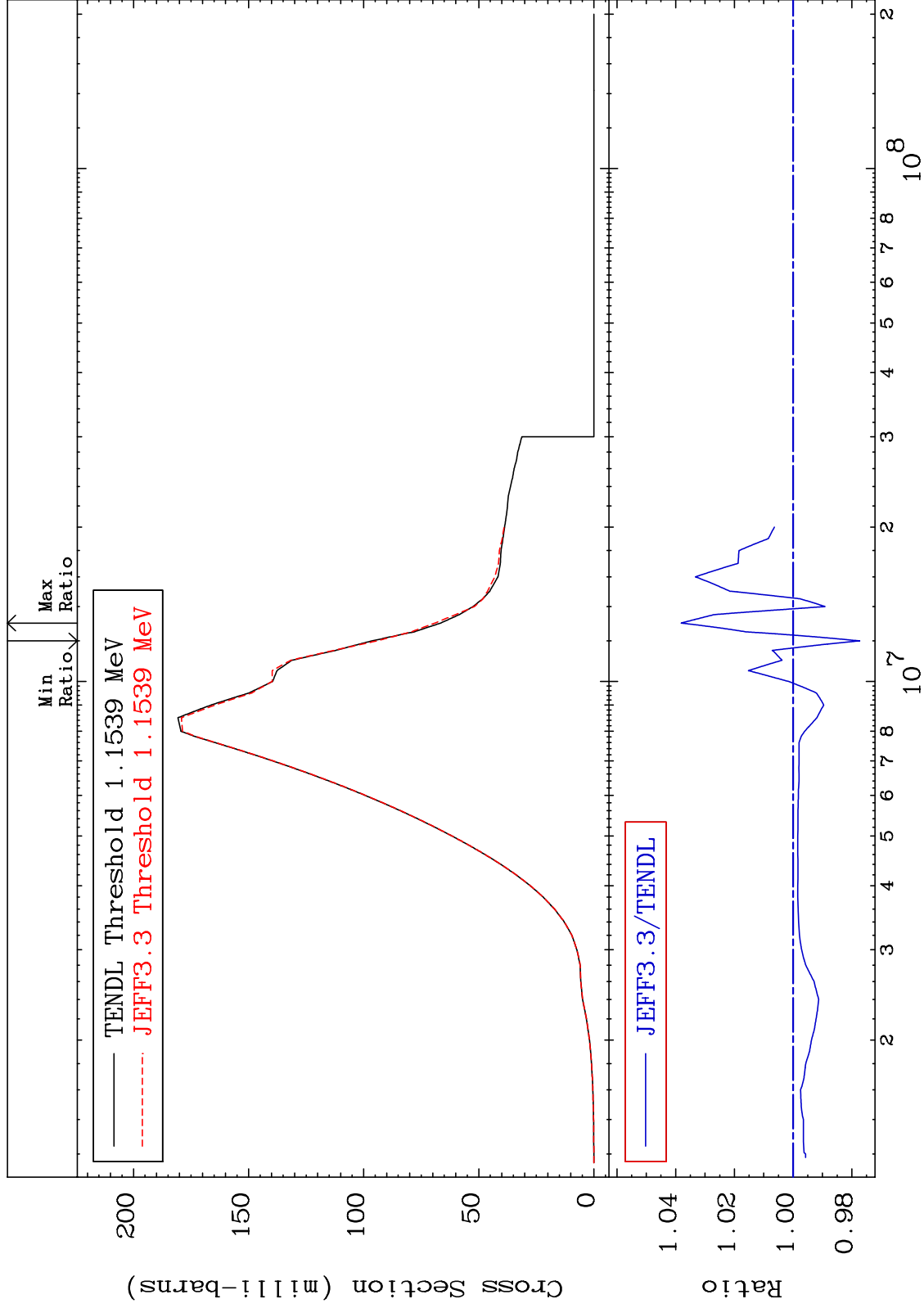


MAT 7237

Inelastic: 72-Hf-178m5

72-Hf-178

Radionuclide Production Cross Section -2.269 To 3.810 %

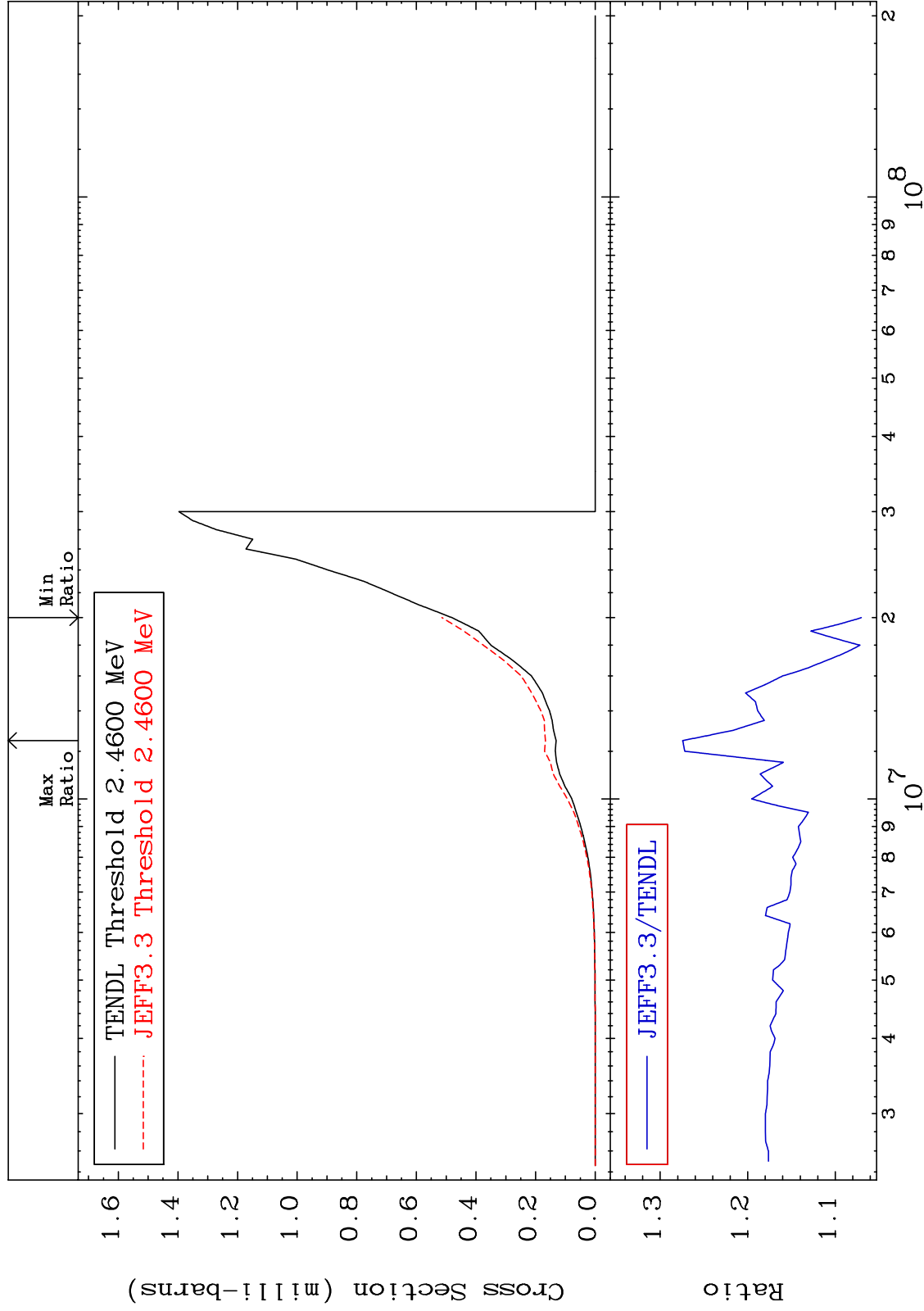


MAT 7237

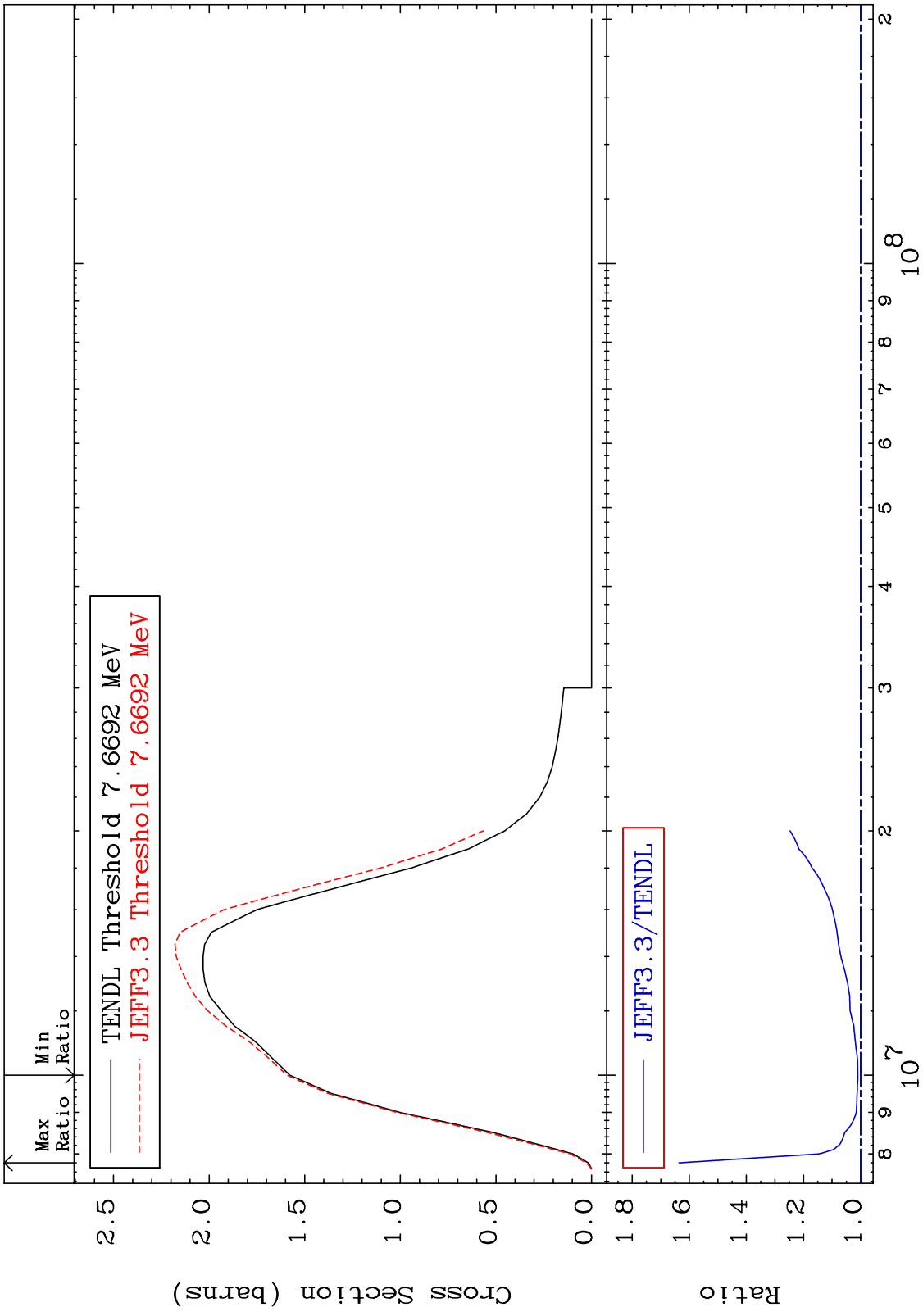
Inelastic: 72-Hf-178m30

72-Hf-178

Radionuclide Production Cross Section 7.019 To 27.43 %



MAT 7237 (n,2n):72-Hf-177g 72-Hf-178
 Radionuclide Production Cross Section 0.969 To 63.59 %

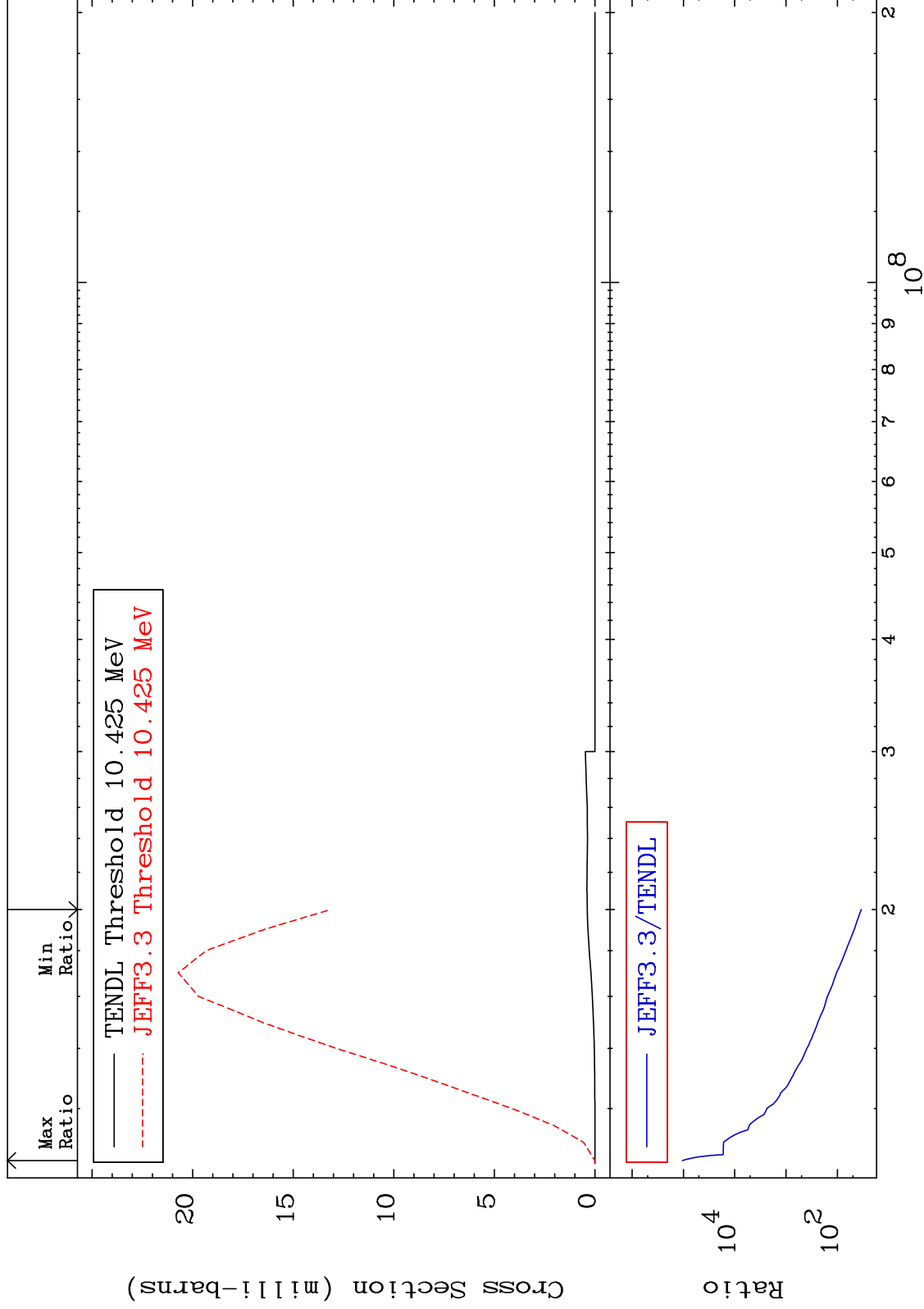


MAT 7237

(n,2n):72-Hf-177m10

72-Hf-178

Radionuclide Production Cross Section 3329. To 9999. %



70

Incident Energy (eV)

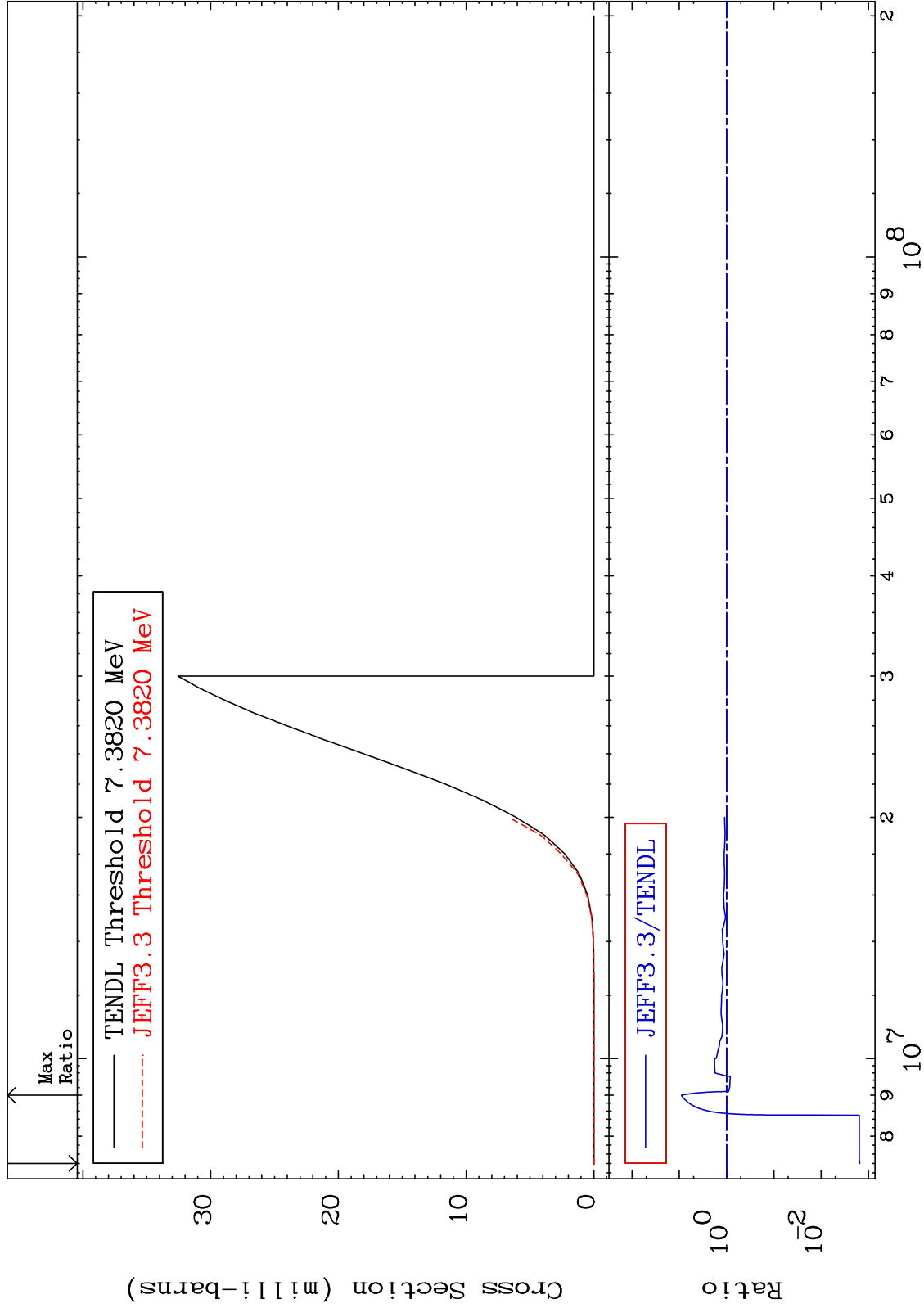
72-Hf-178

MAT 7237

(n, n') p: 71-Lu-177g

72-Hf-178

Radionuclide Production Cross Section -99.85 To 809.9 %

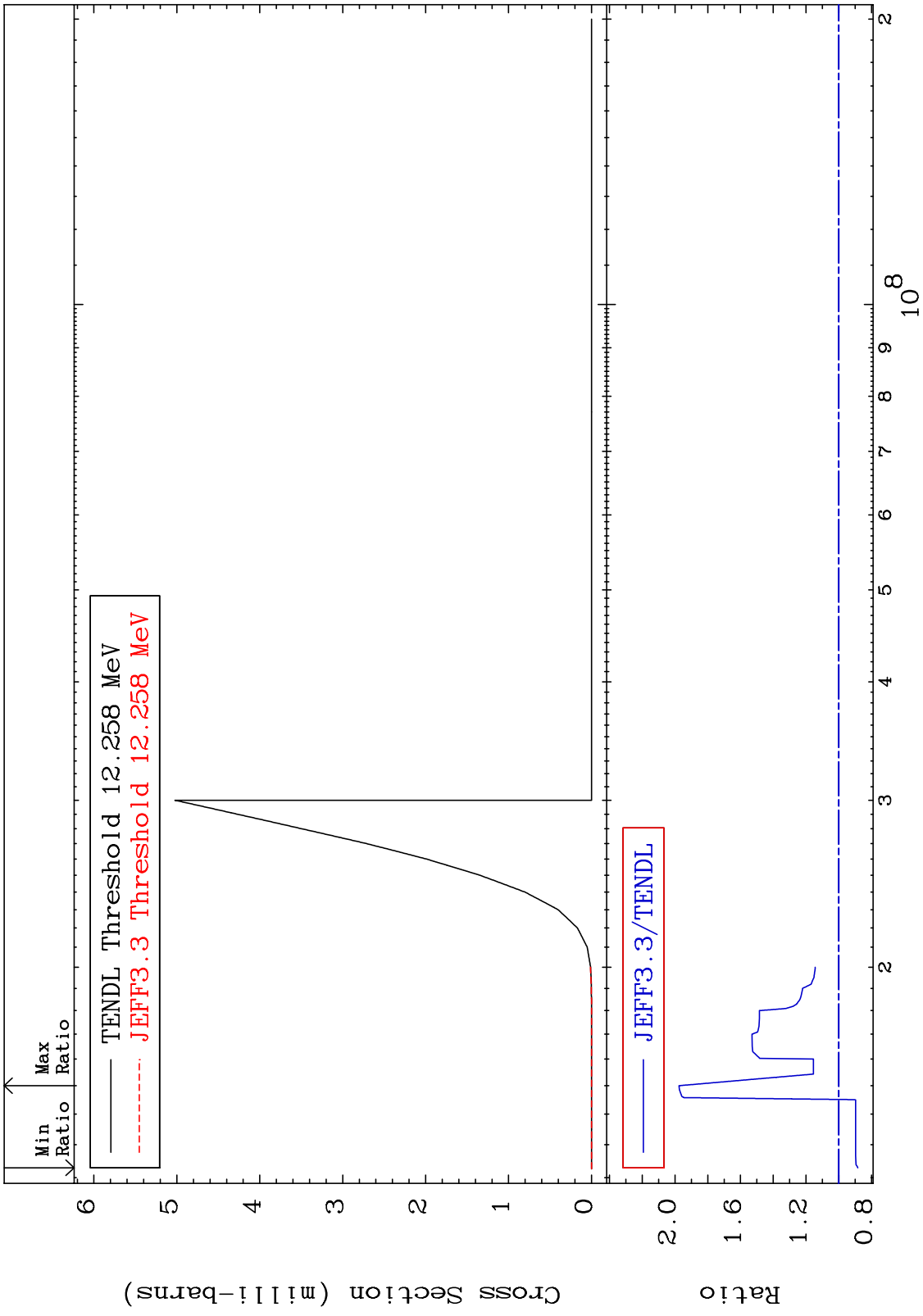


71

Incident Energy (eV)

72-Hf-178

MAT 7237 (n, n') d:71-Lu-176g 72-Hf-178
 Radionuclide Production Cross Section -11.63 To 97.53 %



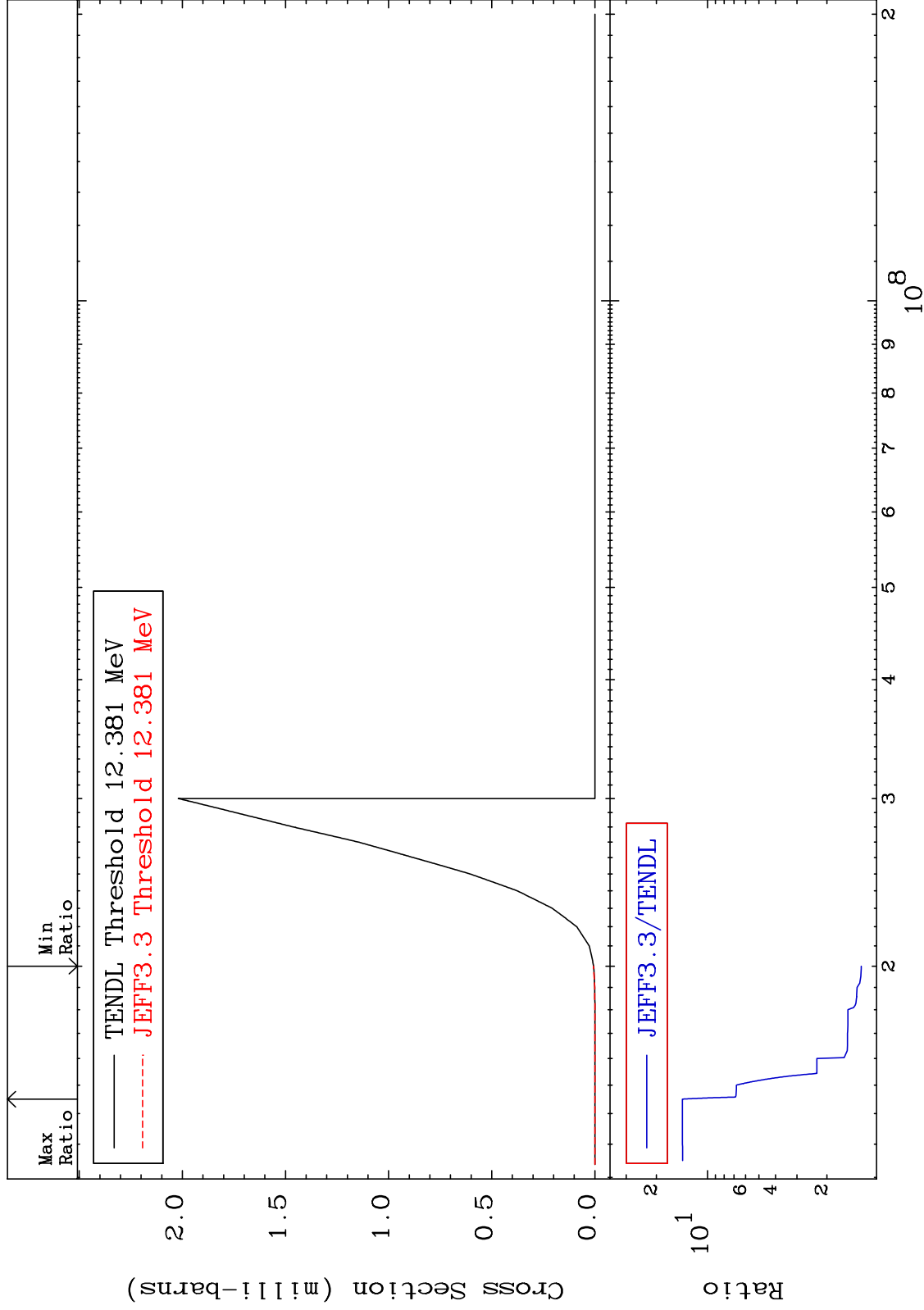
72 72-Hf-178

MAT 7237

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

72-Hf-178

Radionuclide Production Cross Section 25.75 To 1305. %

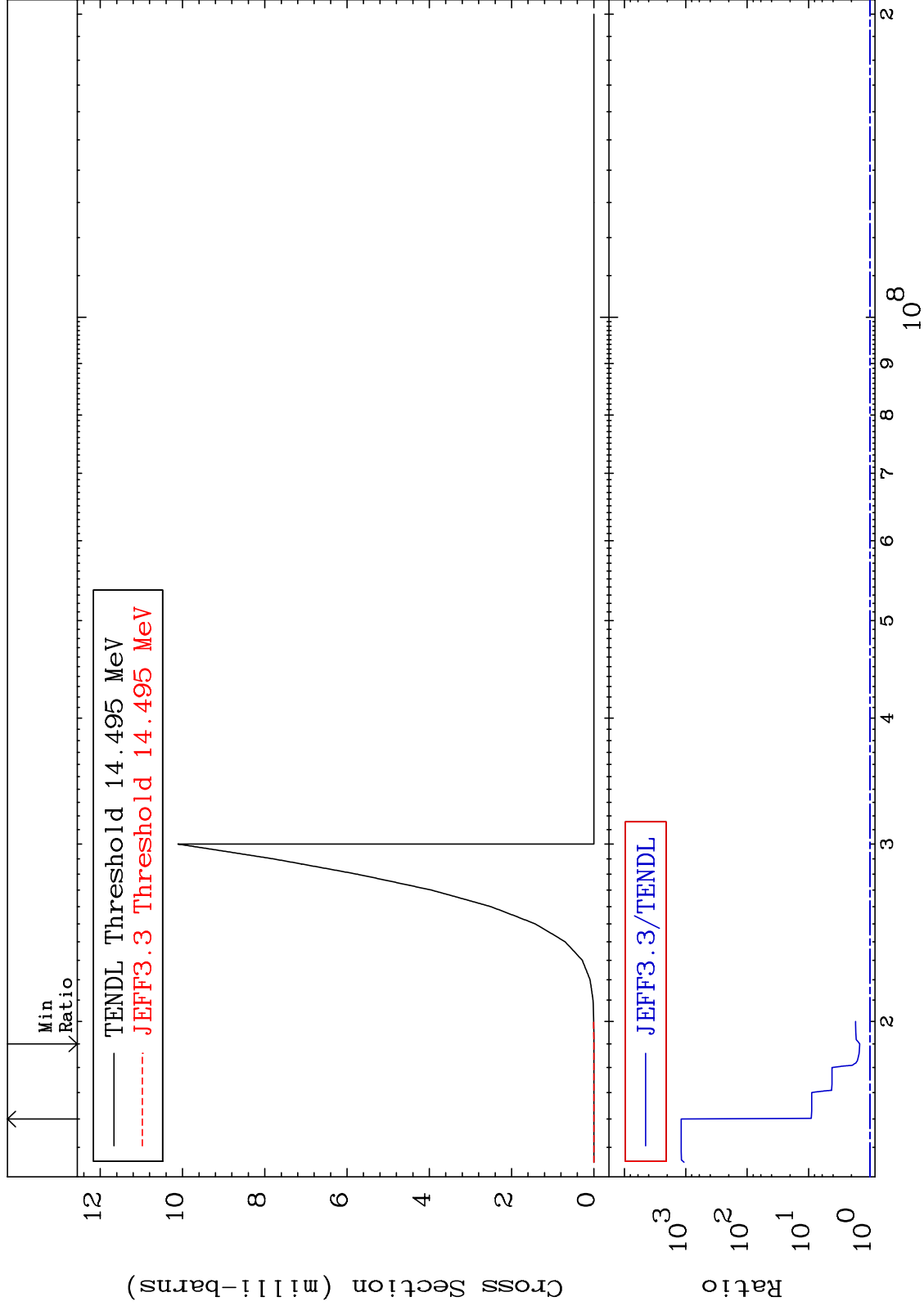


MAT 7237

(n,2n) p:71-Lu-176g

72-Hf-178

Radionuclide Production Cross Section 46.68 To 9999. %

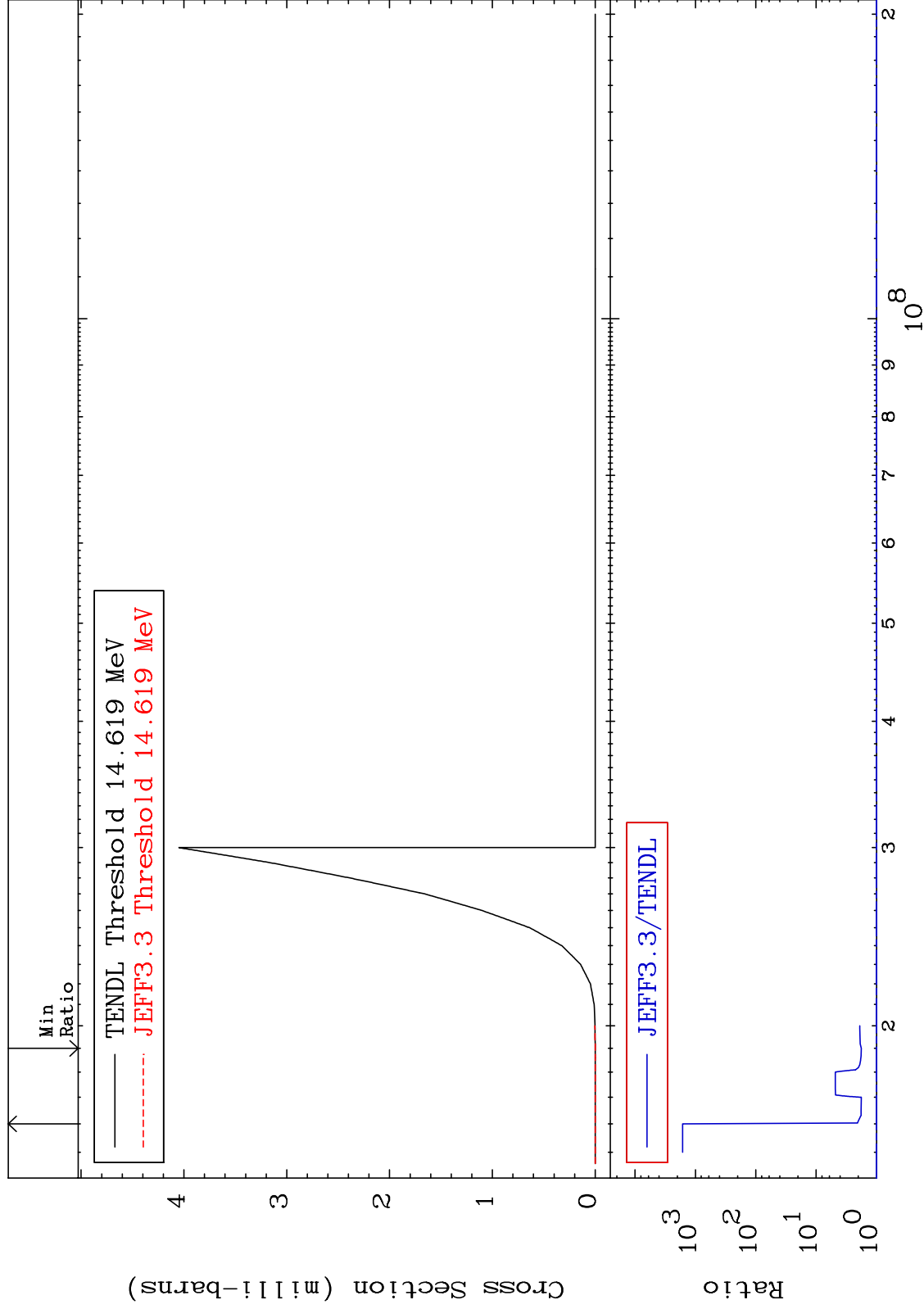


MAT 7237

(n,2n) p:71-Lu-176m1

72-Hf-178

Radionuclide Production Cross Section 77.84 To 9999. %

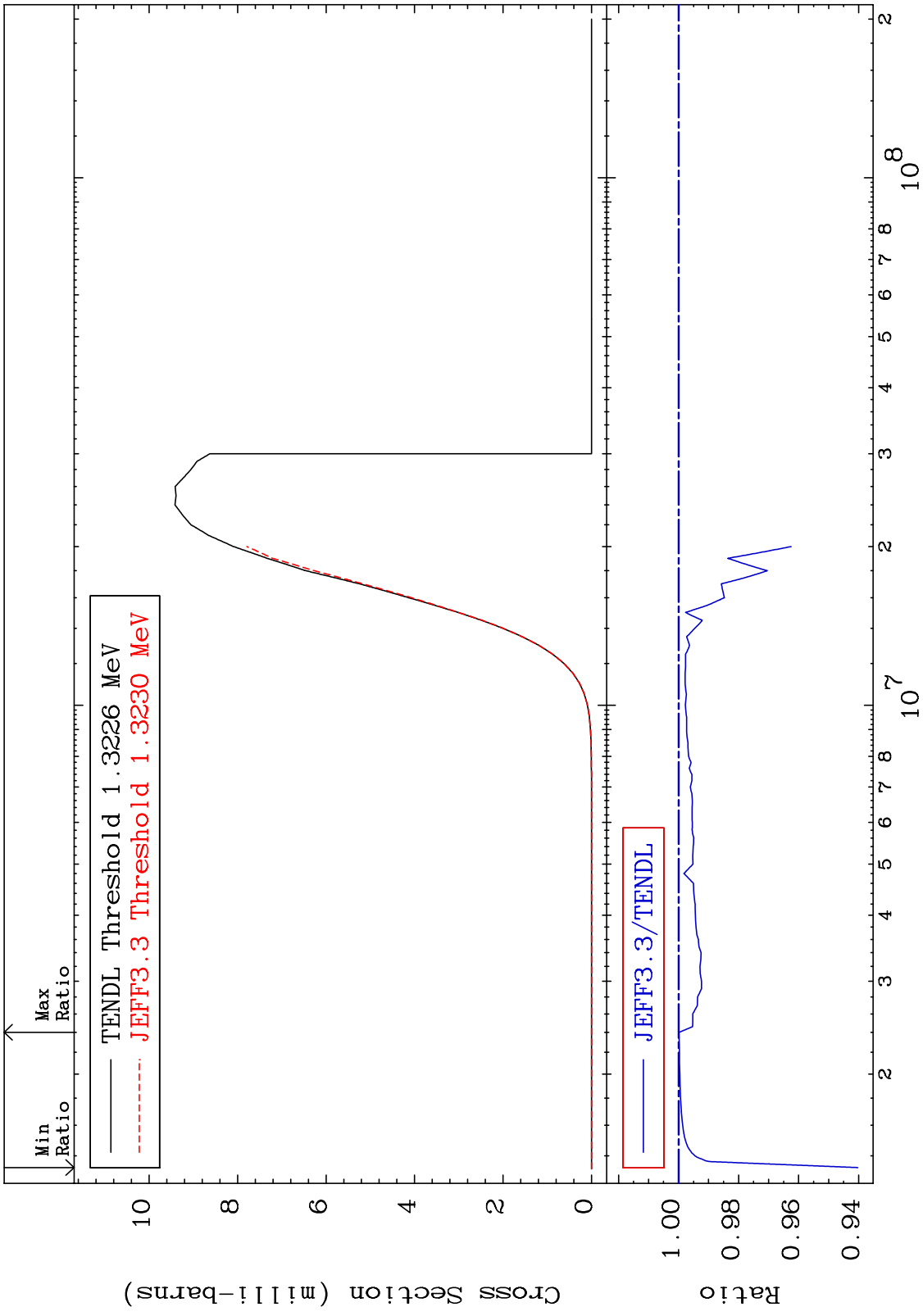


75

Incident Energy (eV)

72-Hf-178

MAT 7237 (n,p):71-Lu-178g 72-Hf-178
 Radionuclide Production Cross Section -5.973 To -0.016%



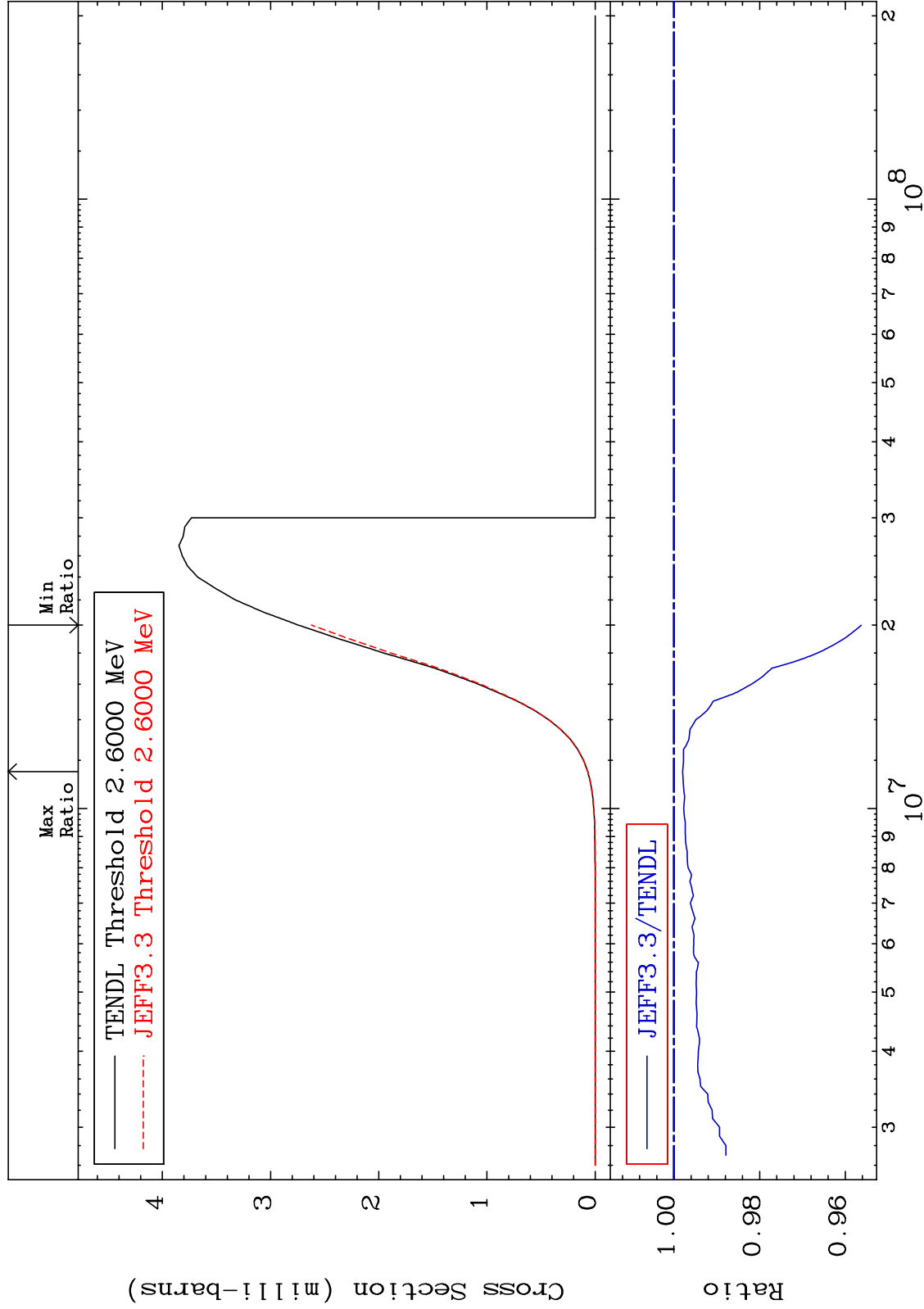
MAT 7237

(n,p):71-Lu-178m3

72-Hf-178

Radionuclide Production Cross Section

-4.374 To -0.204%



77

Incident Energy (eV)

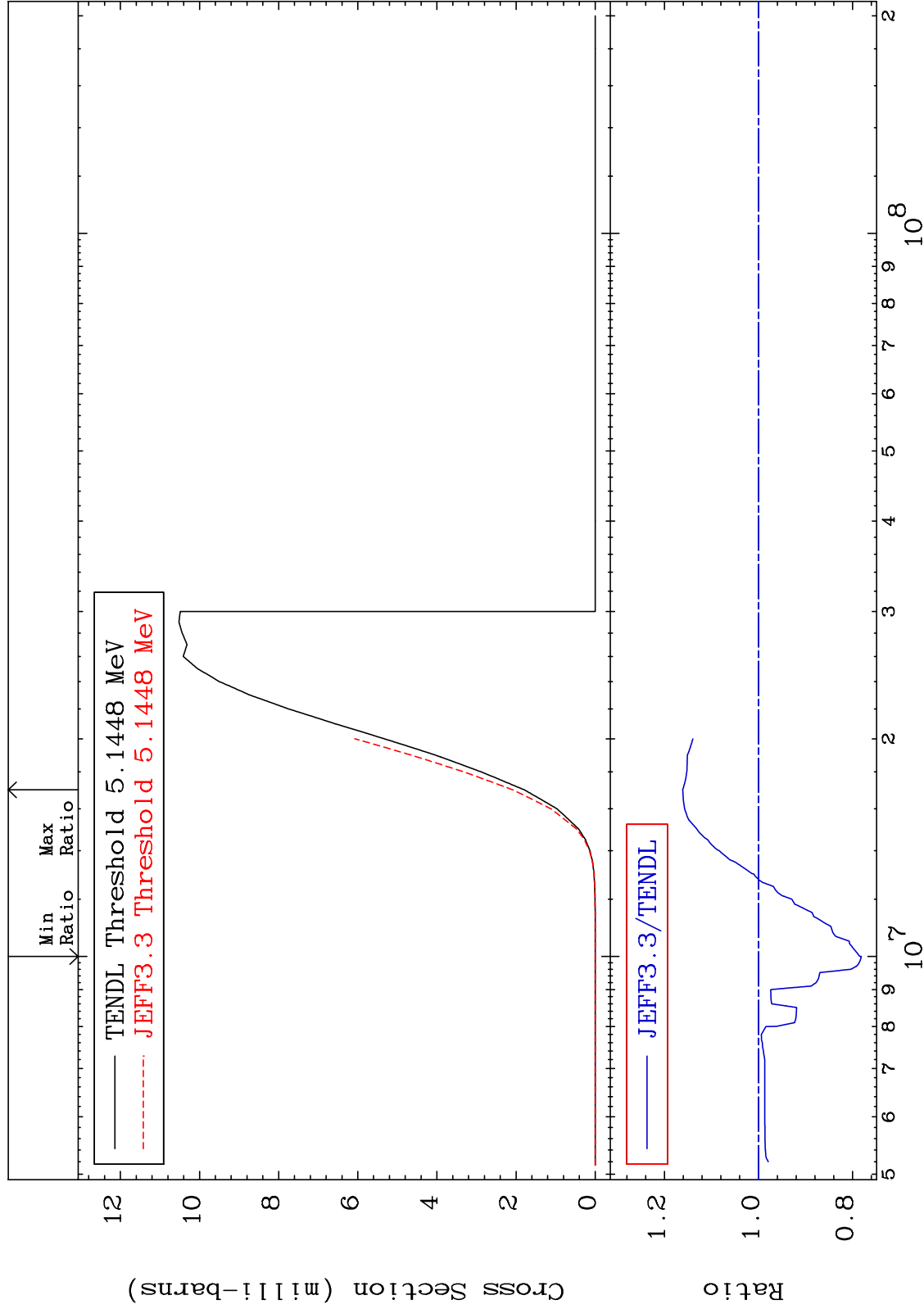
72-Hf-178

MAT 7237

(n,d):71-Lu-177g

72-Hf-178

Radionuclide Production Cross Section -21.87 To 16.13 %



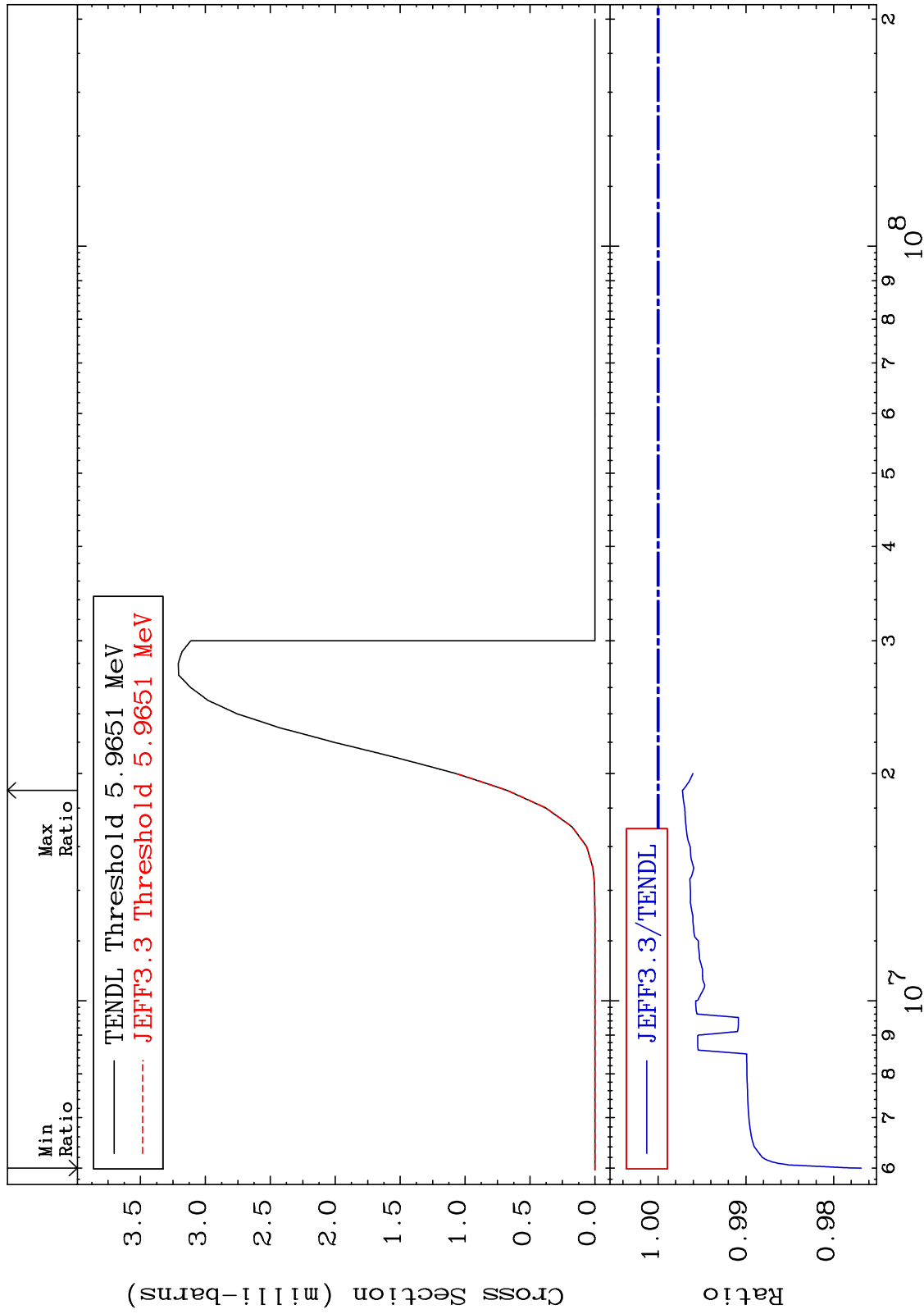
78

Incident Energy (eV)

72-Hf-178

MAT 7237

(n,t):71-Lu-176g 72-Hf-178
Radionuclide Production Cross Section -2.314 To -0.277%



79

Incident Energy (eV)

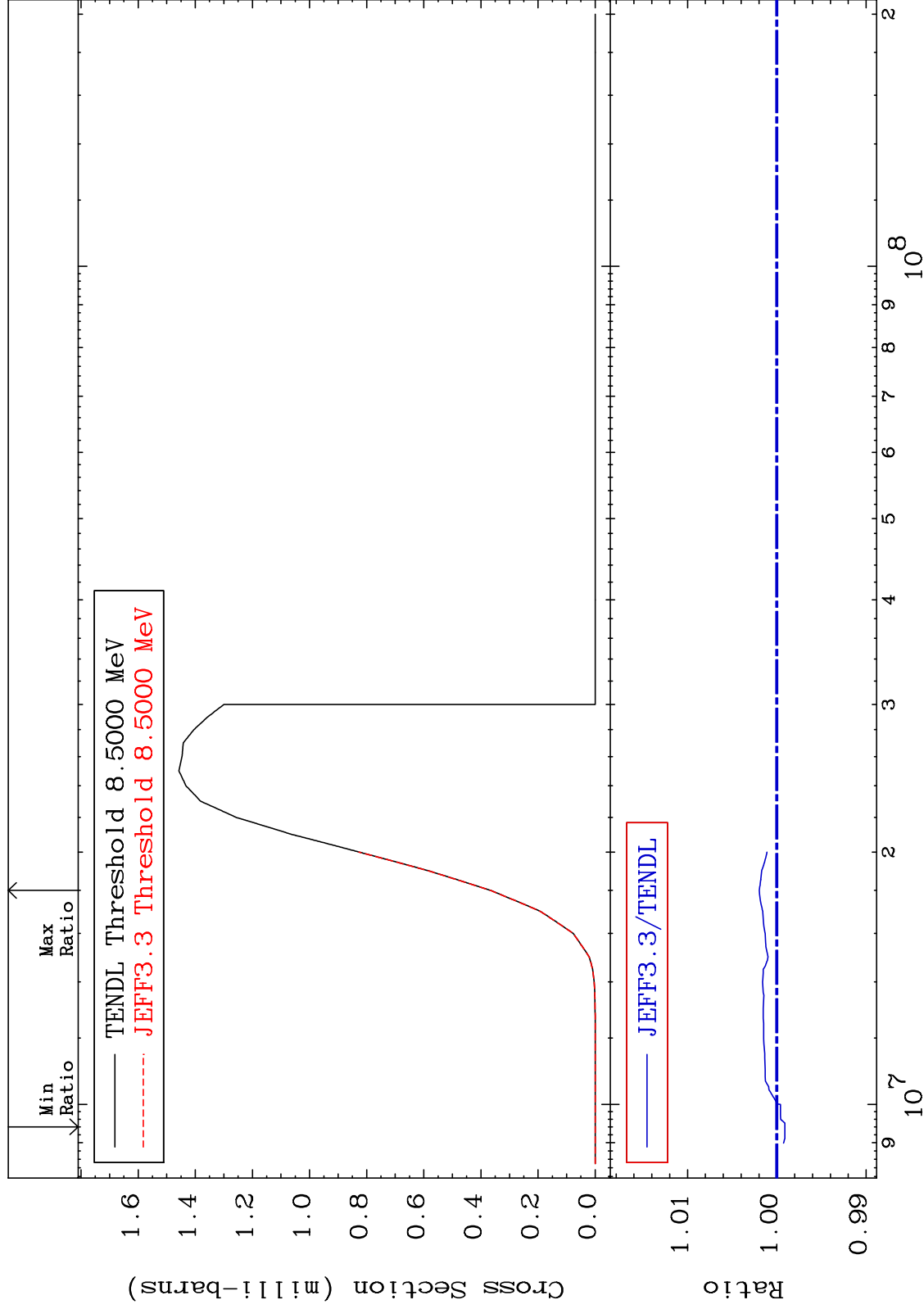
72-Hf-178

MAT 7237

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

72-Hf-178

Radionuclide Production Cross Section -0.090 To 0.198 %

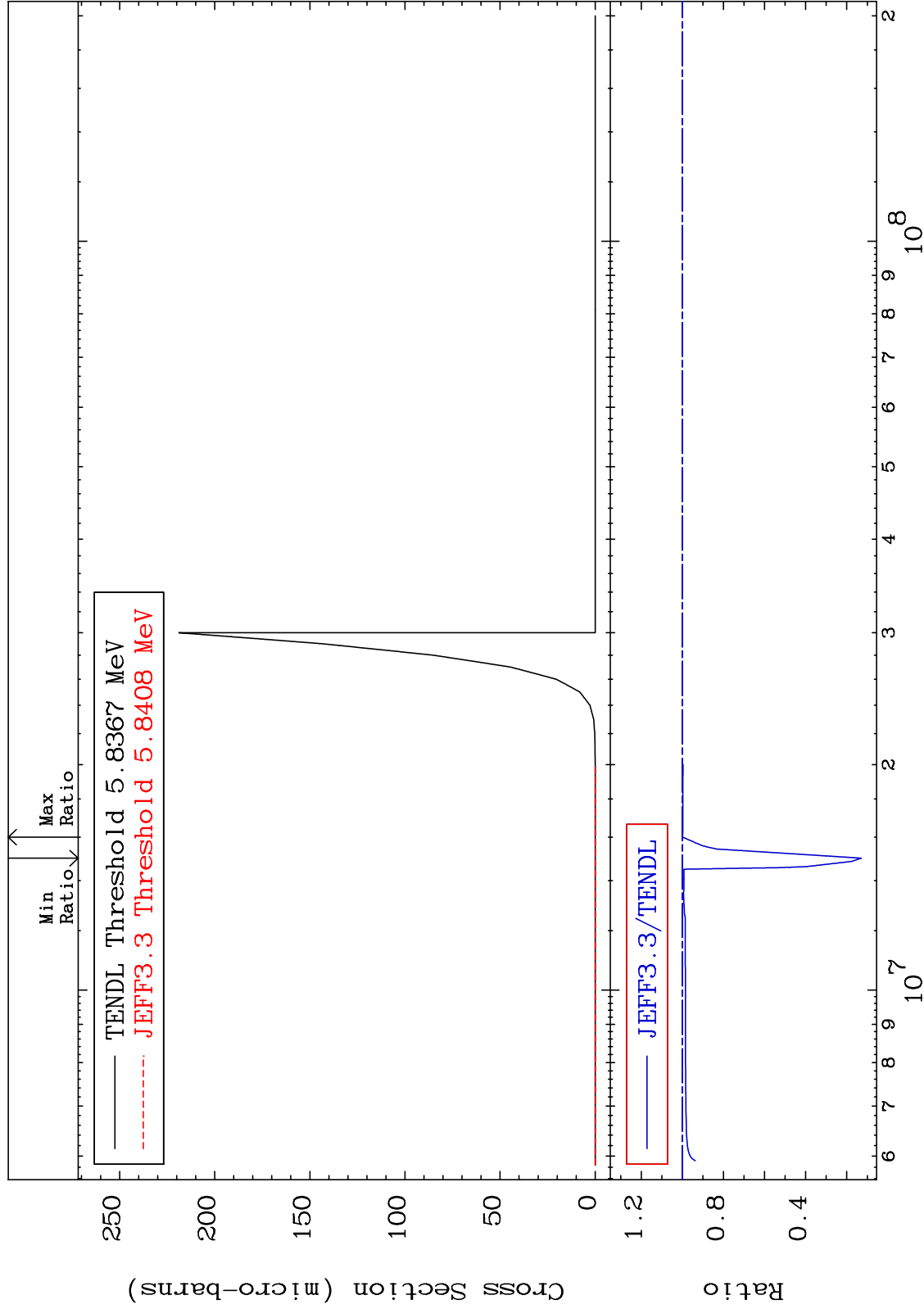


MAT 7237

(n, He-3) : 70-Yb-176g

72-Hf-178

Radionuclide Production Cross Section -87.09 To -0.128%

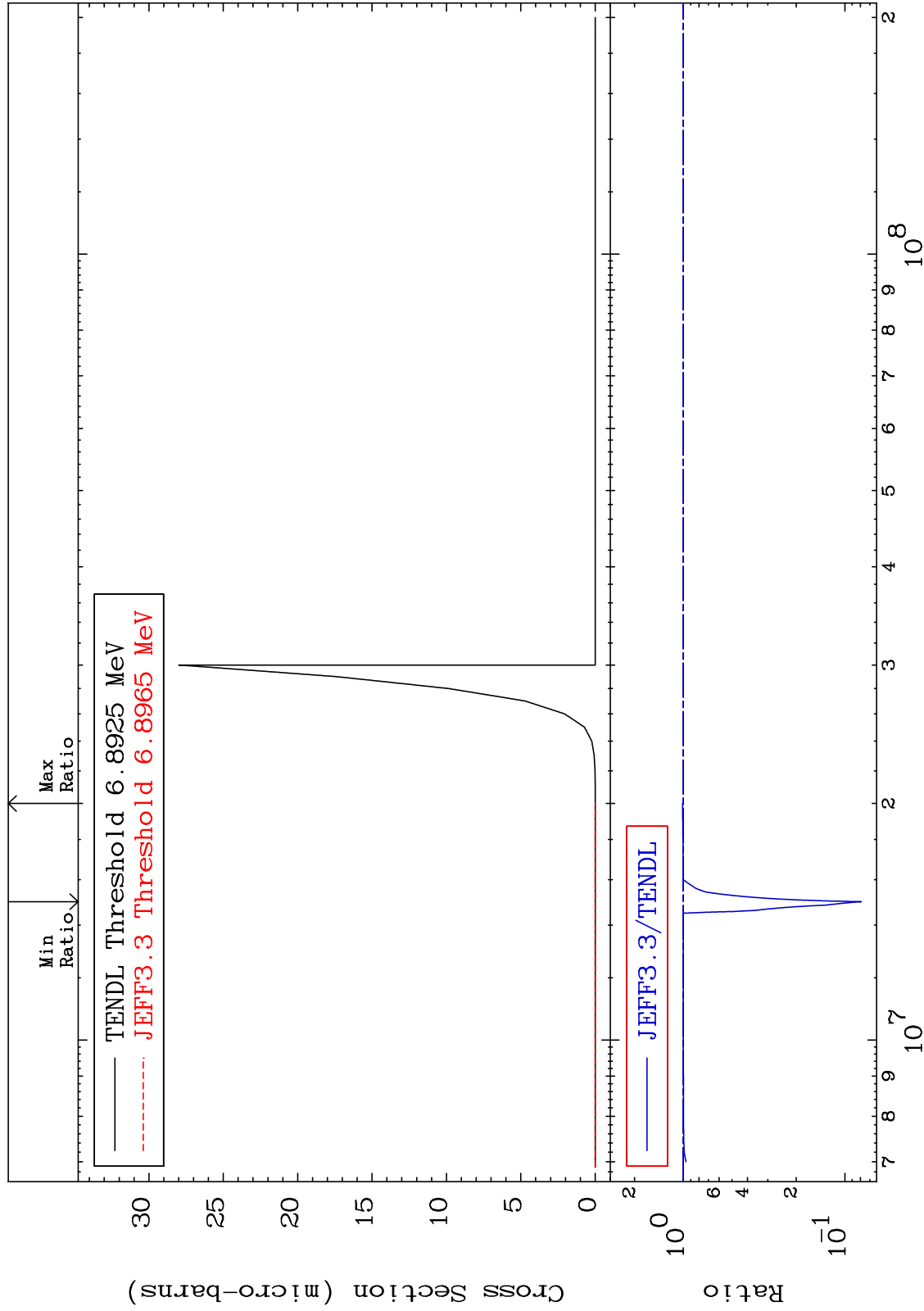


MAT 7237

(n,He-3):70-Yb-176m5

72-Hf-178

Radionuclide Production Cross Section -92.10 To 0.857 %



82

Incident Energy (eV)

72-Hf-178