

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

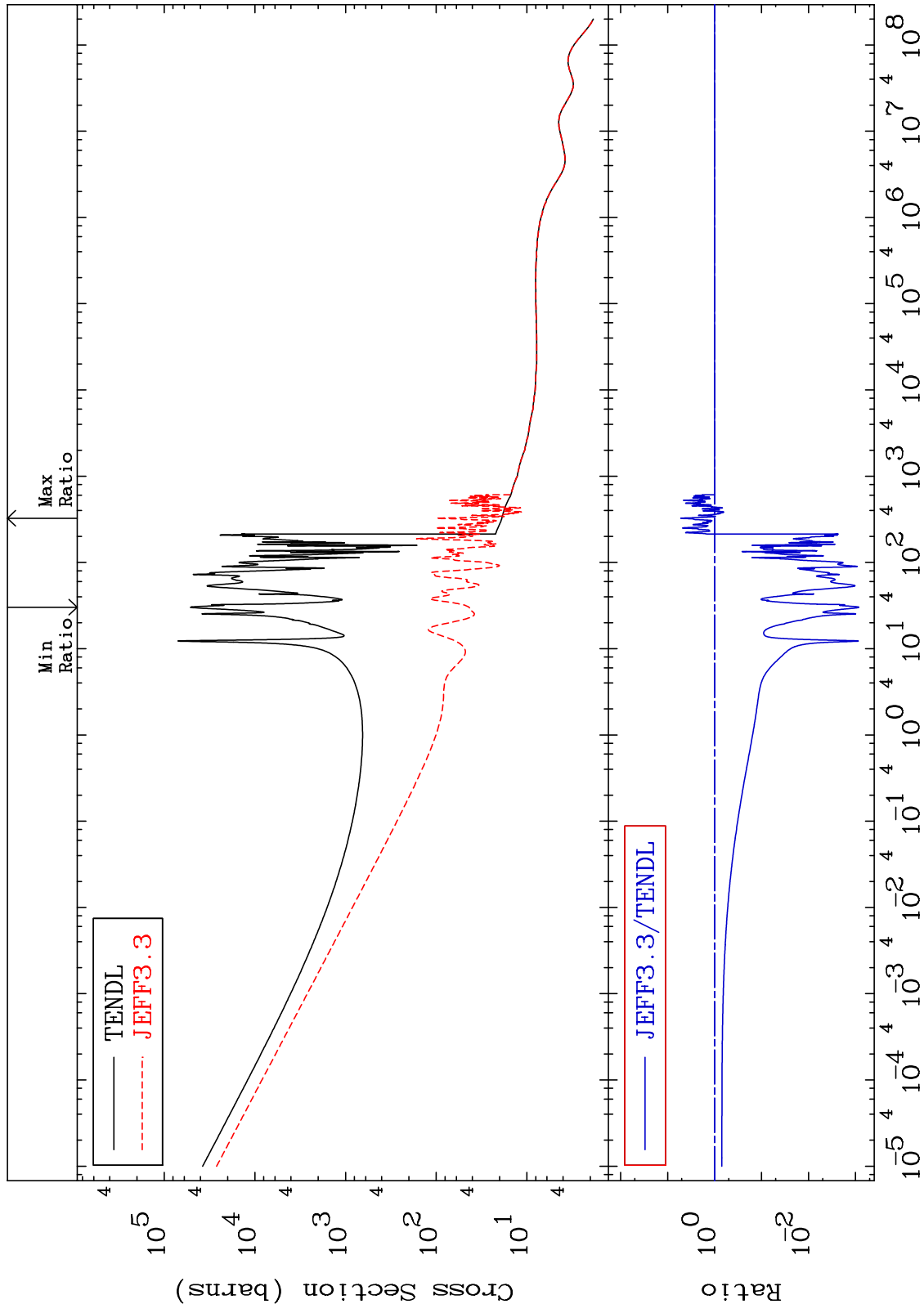
Press Mouse Button to Start

MAT 4834

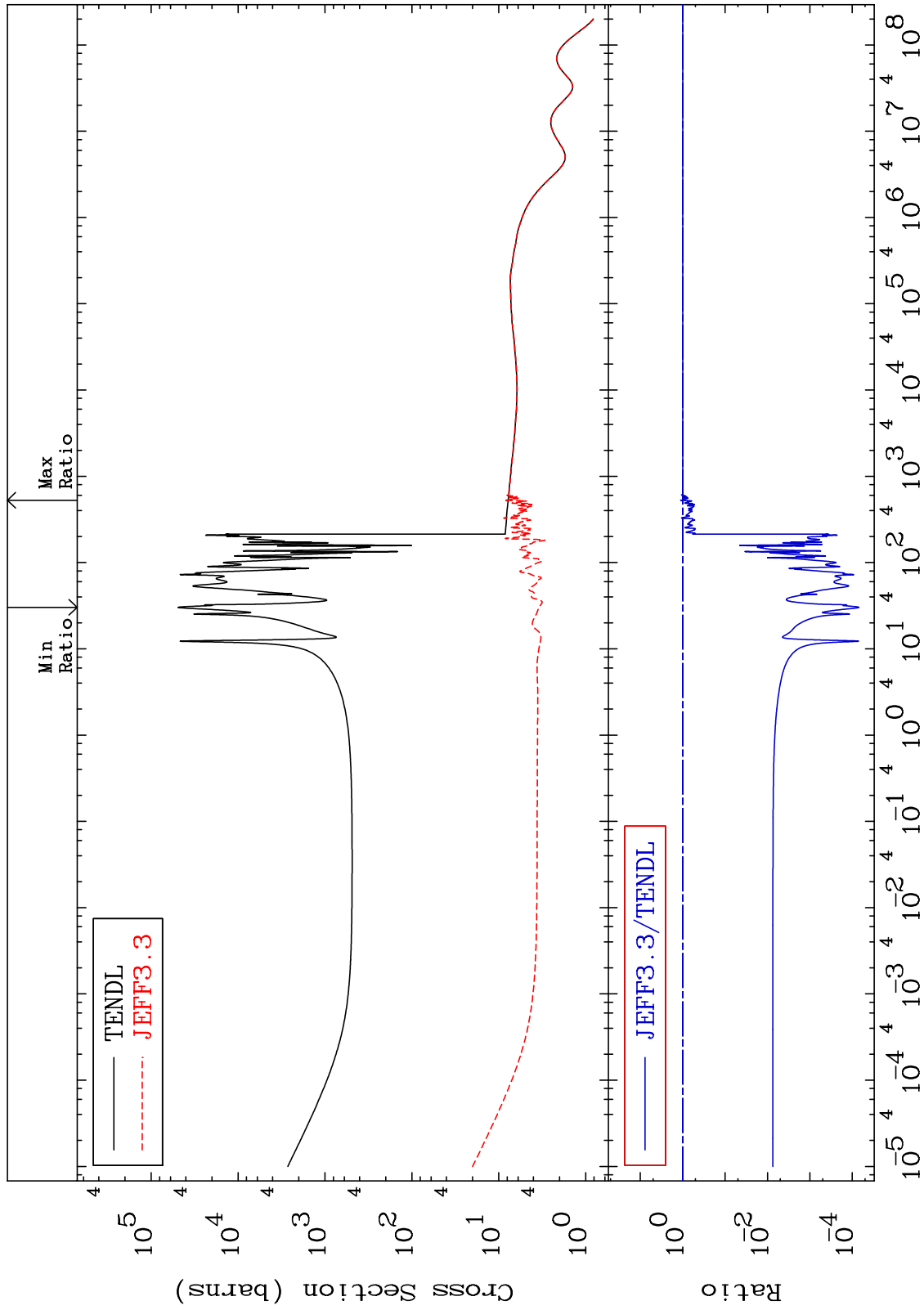
Total
Cross Section

48-Cd-109

-99.92 To 427.8 %



MAT 4834 Elastic Cross Section 48-Cd-109 -99.99 To 11.60 %

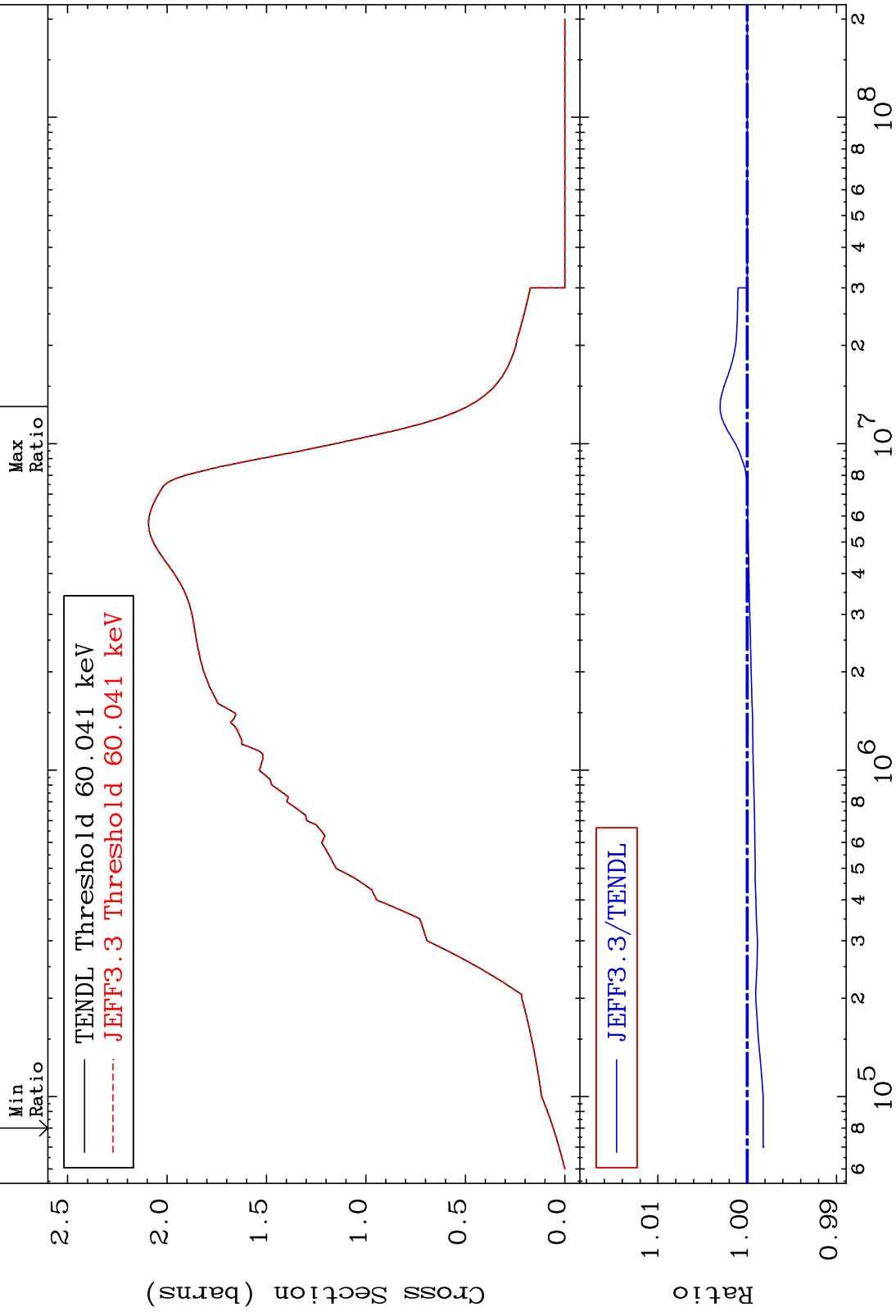


2 Incident Energy (eV) 48-Cd-109

MAT 4834

Inelastic
Cross Section

48-Cd-109
-0.179 To 0.304 %

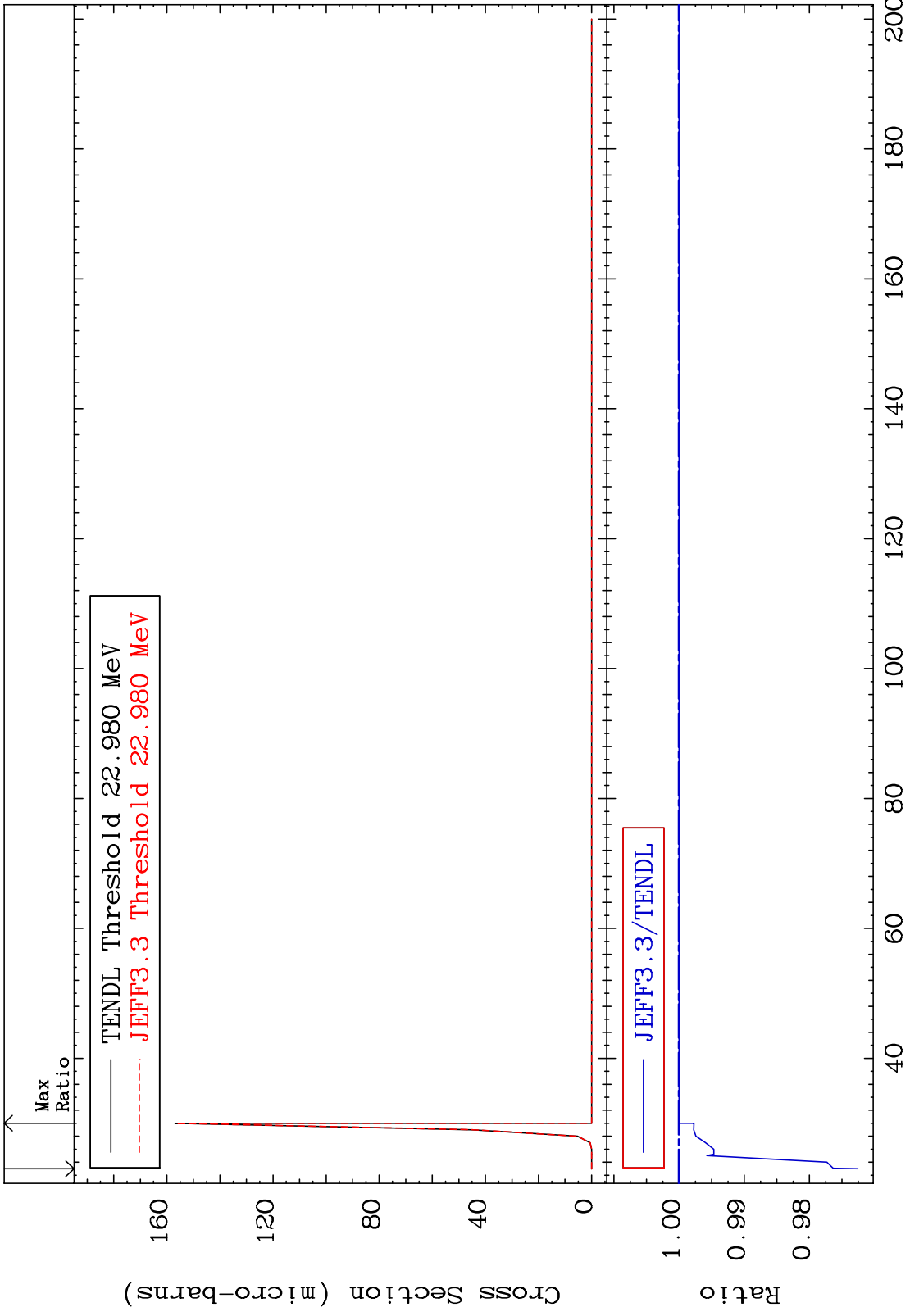


3

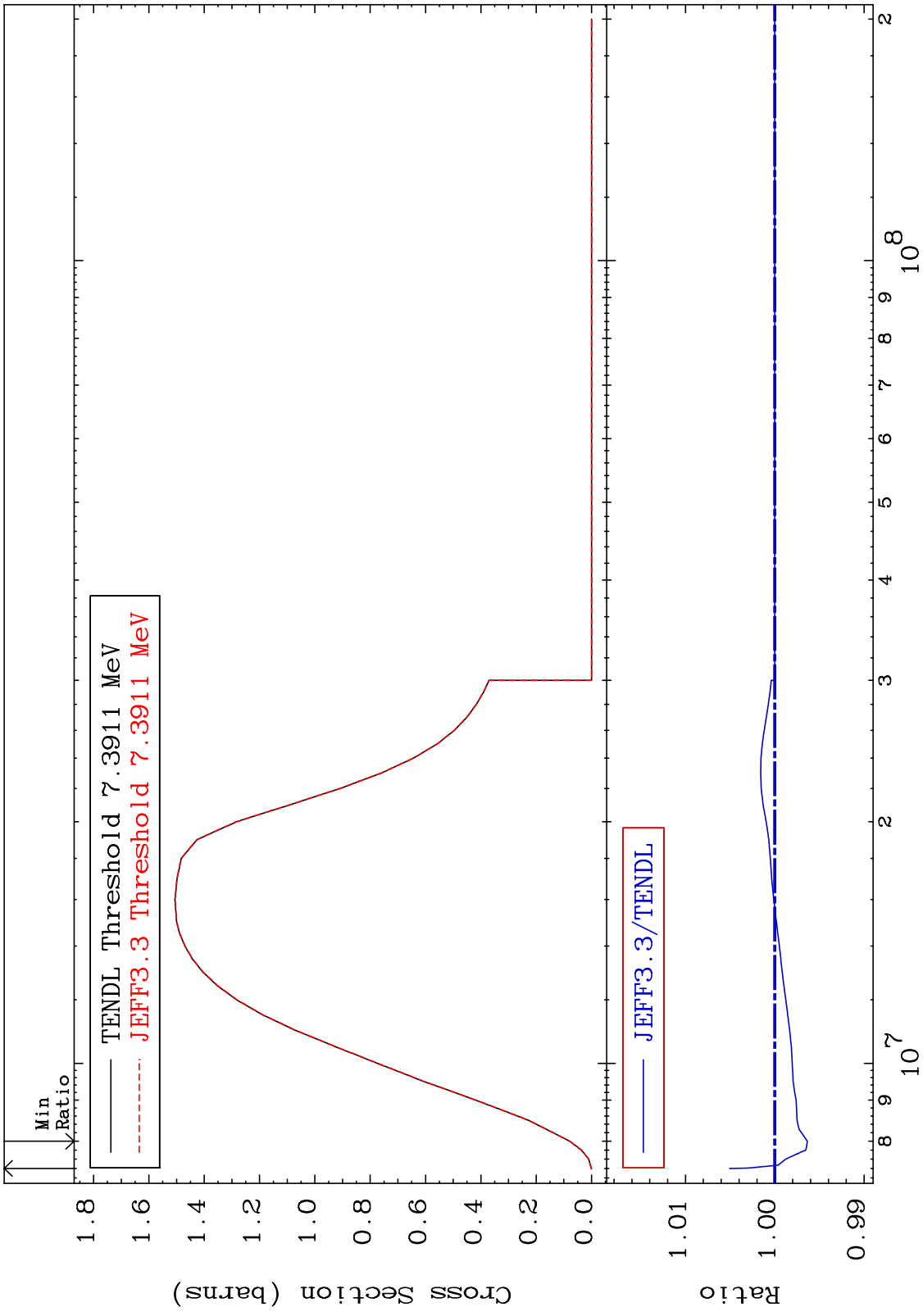
Incident Energy (eV)

48-Cd-109

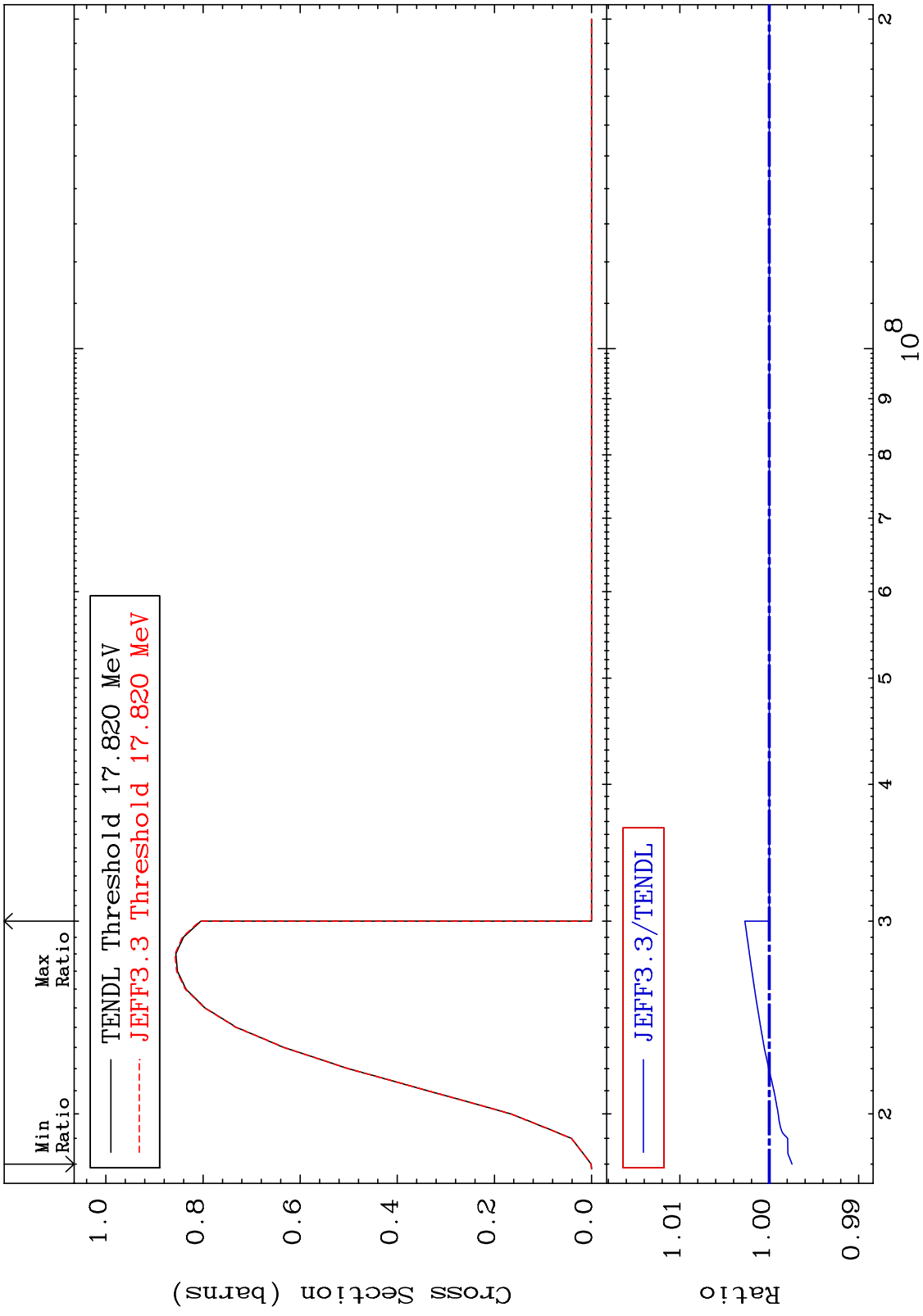
MAT 4834 (n,2n) d 48-Cd-109
Cross Section -2.744 To 0.000 %



MAT 4834 (n,2n) Cross Section 48-Cd-109 -0.365 To 0.507 %



MAT 4834 (n,3n) Cross Section 48-Cd-109 -0.254 To 0.274 %



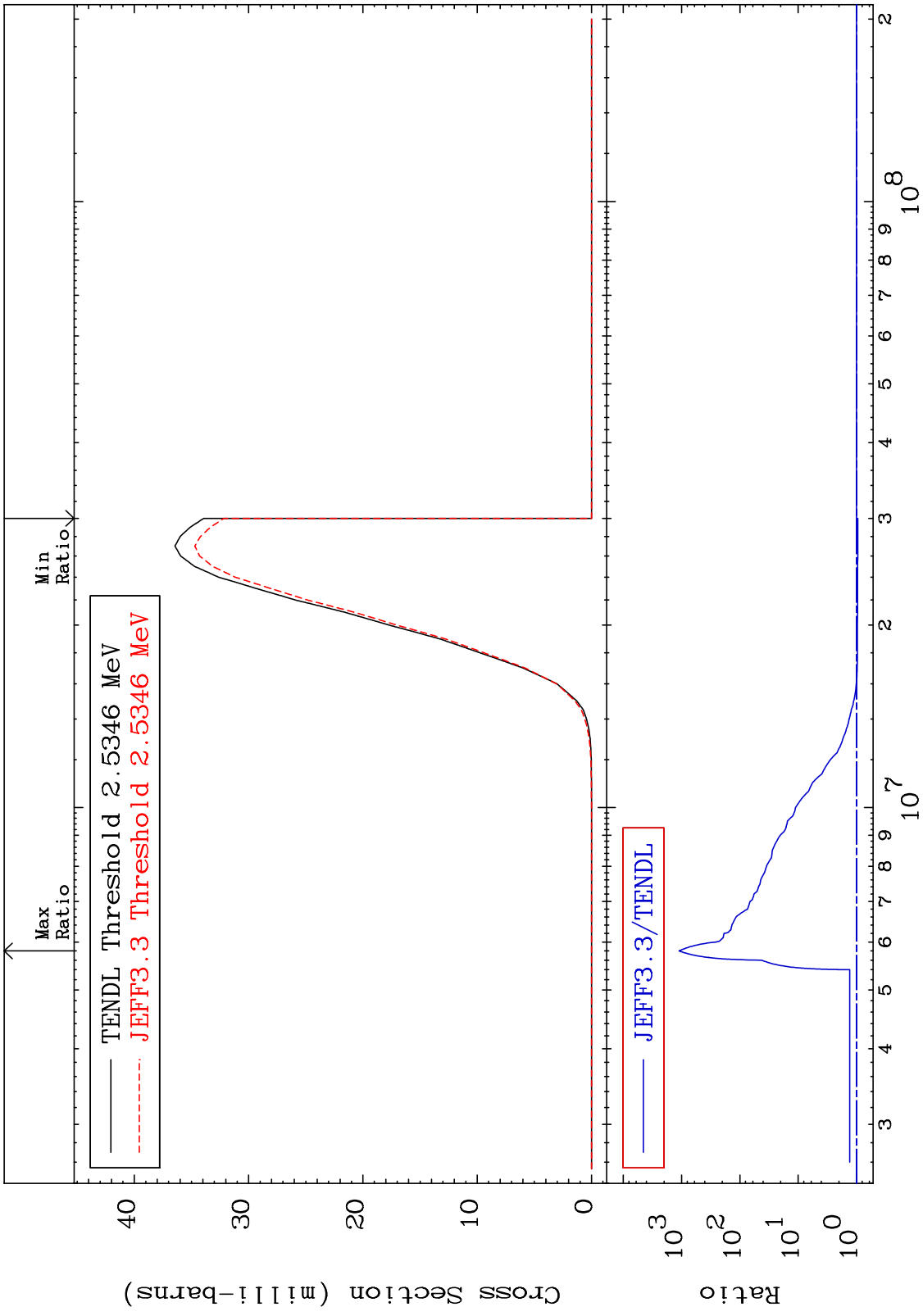
MAT 4834

(n, n') α

48-Cd-109

-5.183 To 9999. %

Cross Section

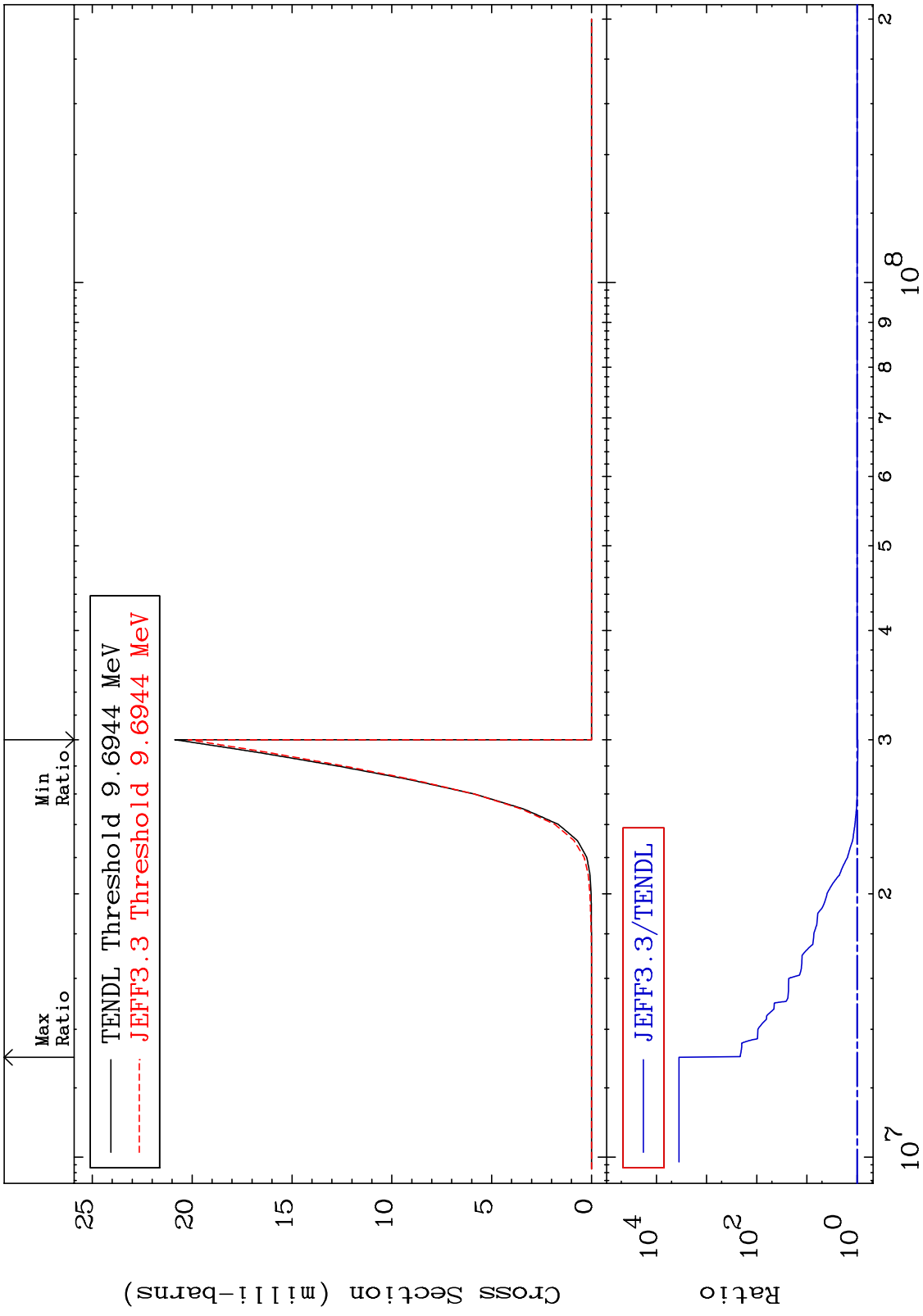


48-Cd-109

Incident Energy (eV)

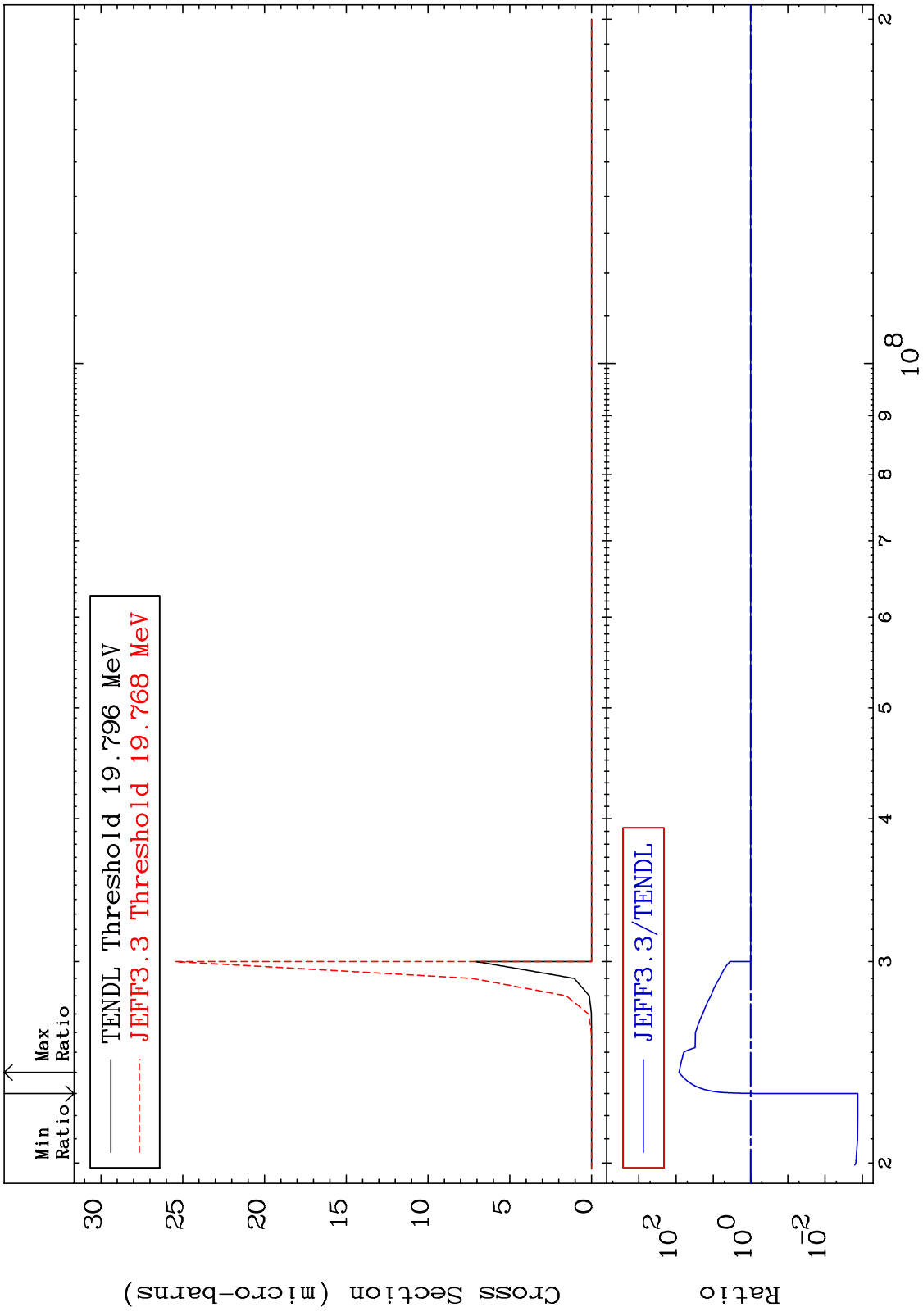
7

MAT 4834 (n,2n) α 48-Cd-109
Cross Section -3.239 To 9999. %



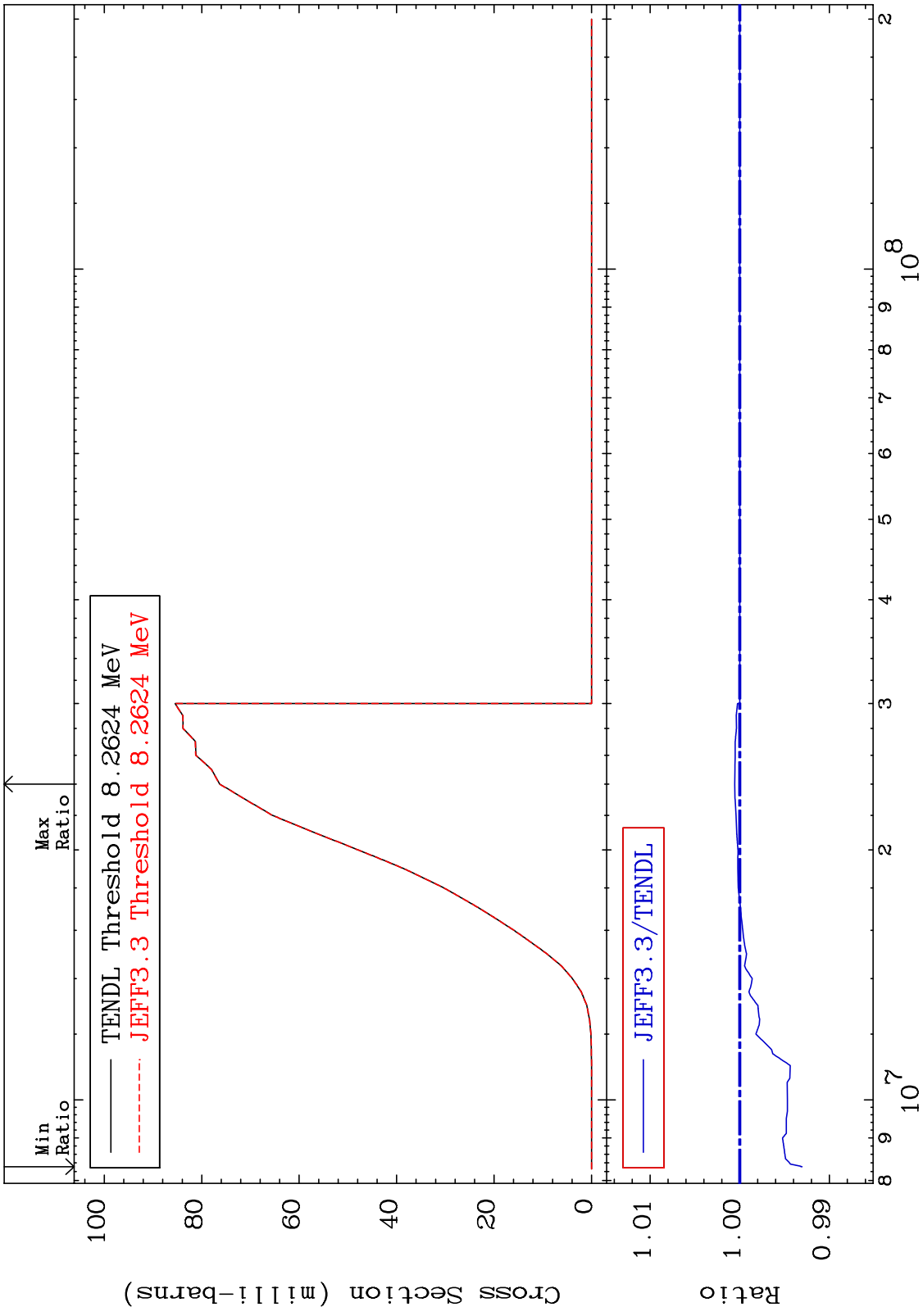
8 10⁷ 2 10⁸ Incident Energy (eV) 48-Cd-109

MAT 4834 (n,3n) α 48-Cd-109
 Cross Section -99.87 To 8217. %

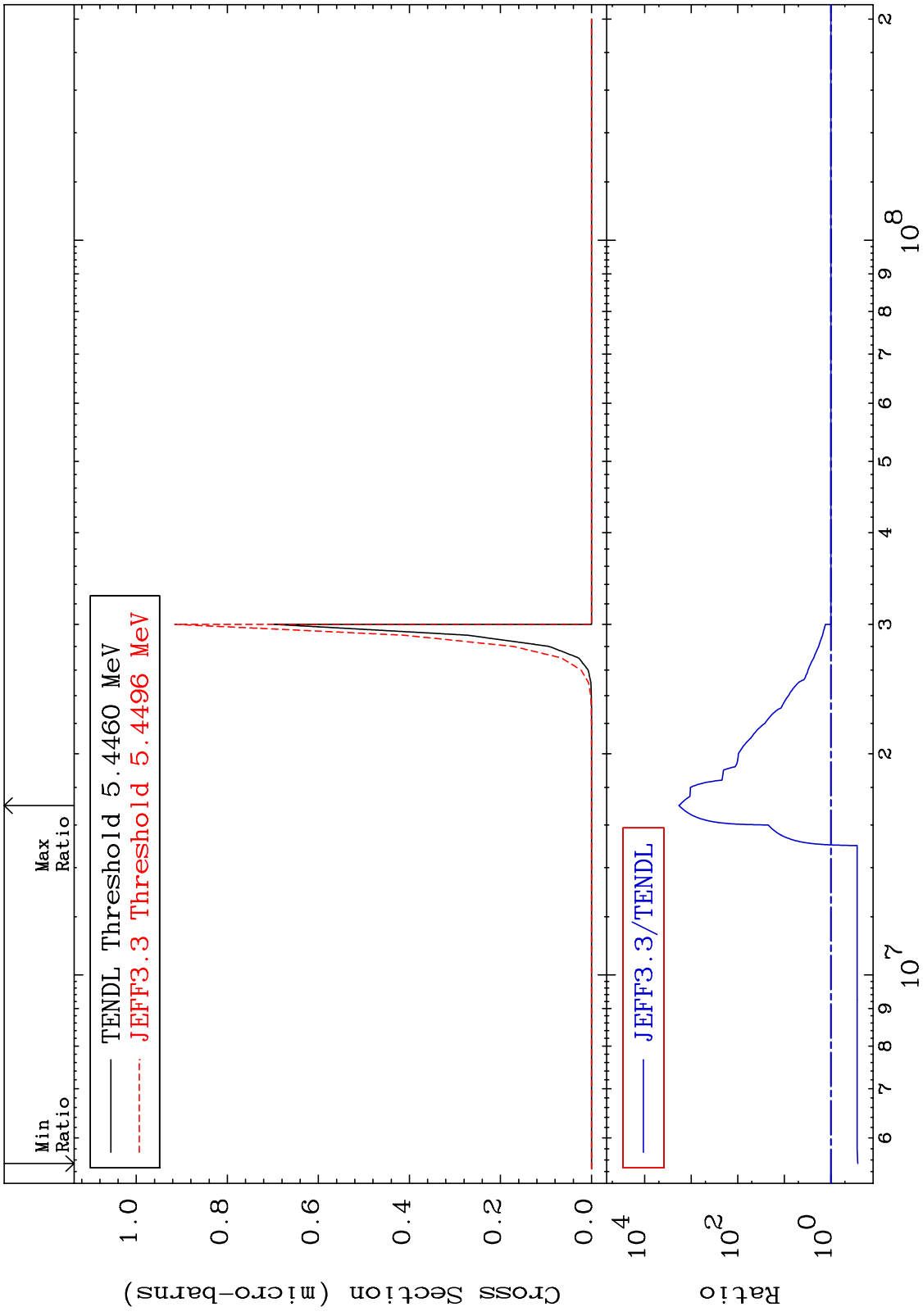


9 48-Cd-109

MAT 4834 (n,n') p 48-Cd-109
Cross Section -0.695 To 0.056 %



48-Cd-109



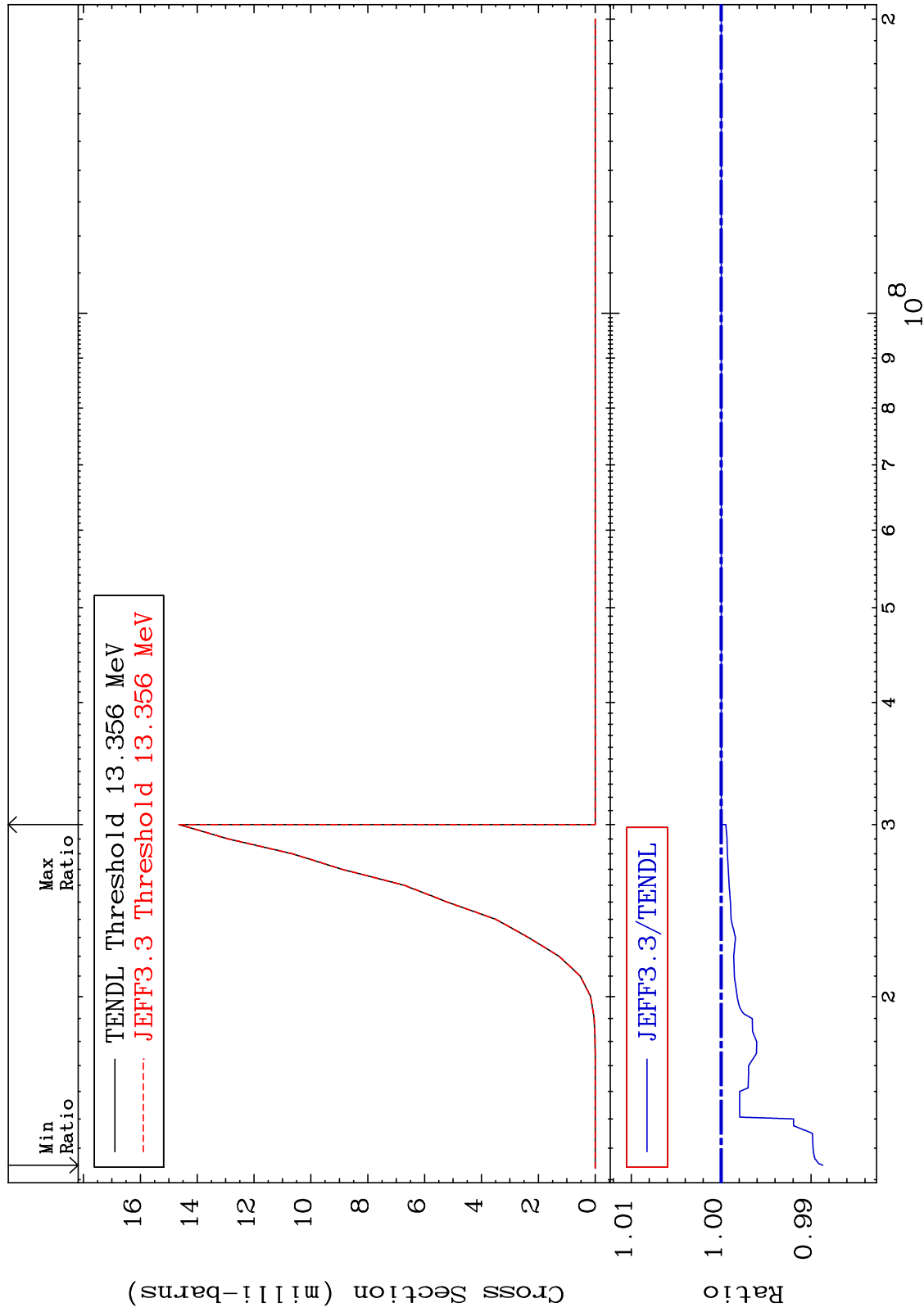
MAT 4834

(n, n') d

48-Cd-109

Cross Section

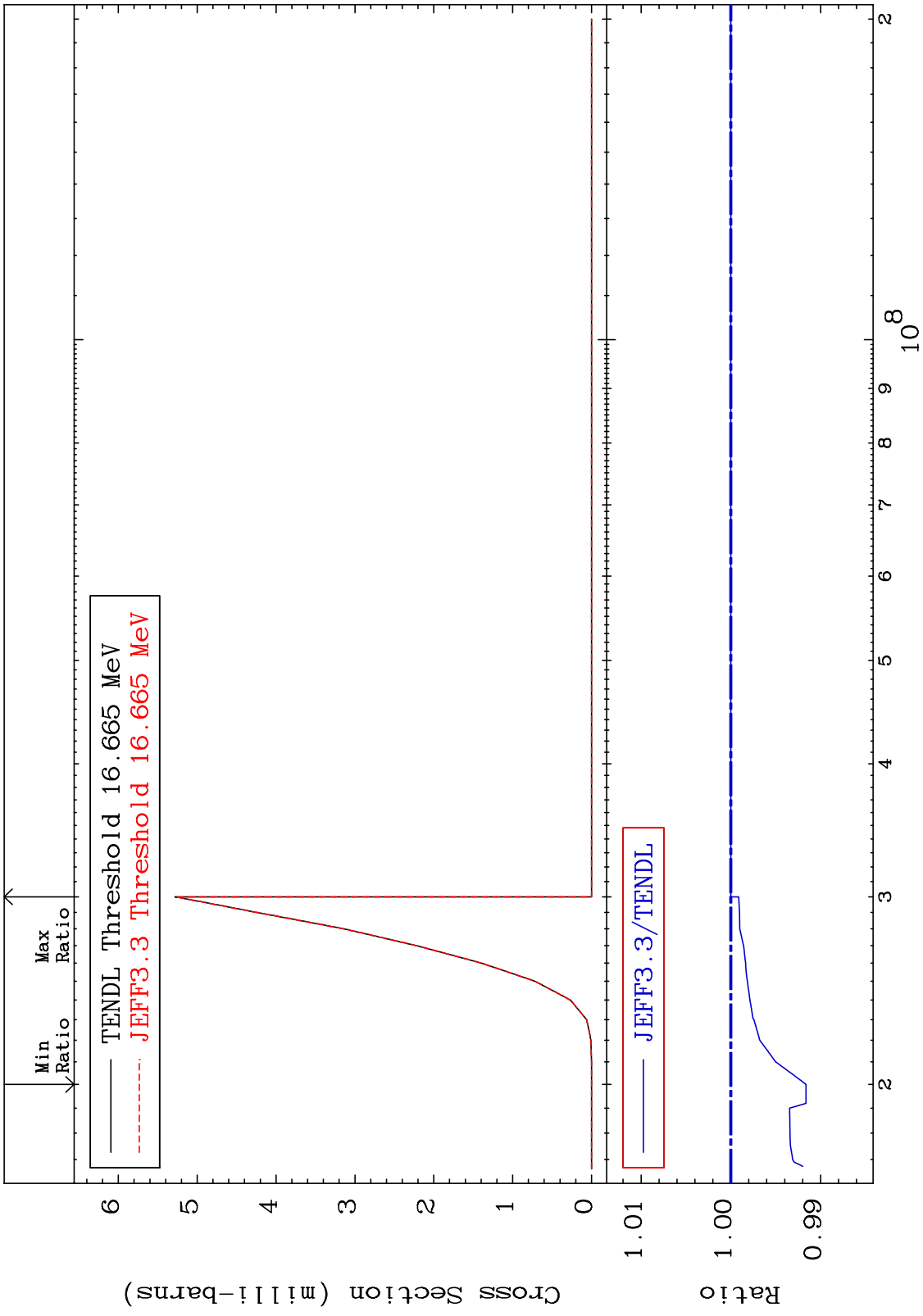
-1.132 To 0.000 %



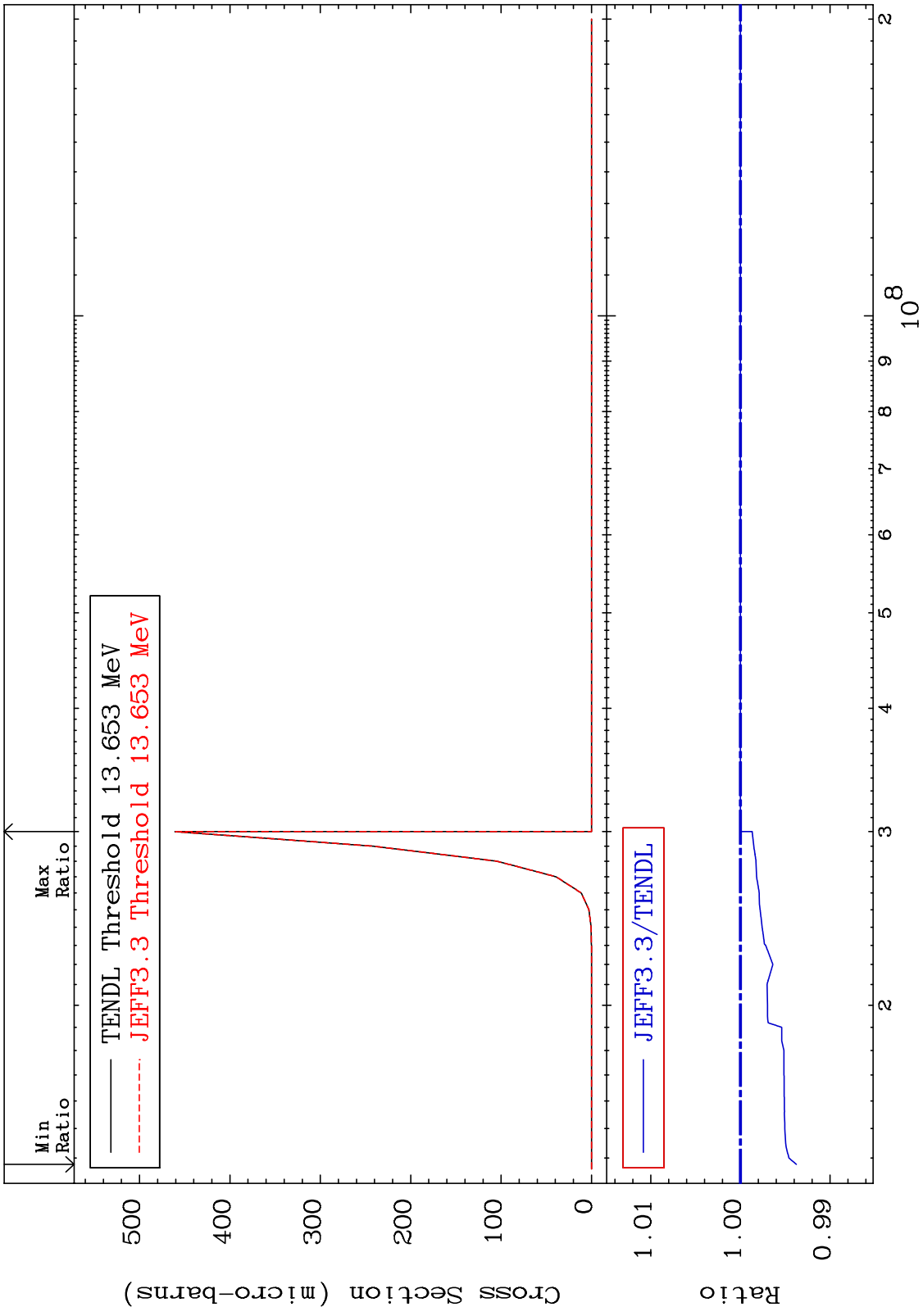
12

Incident Energy (eV)

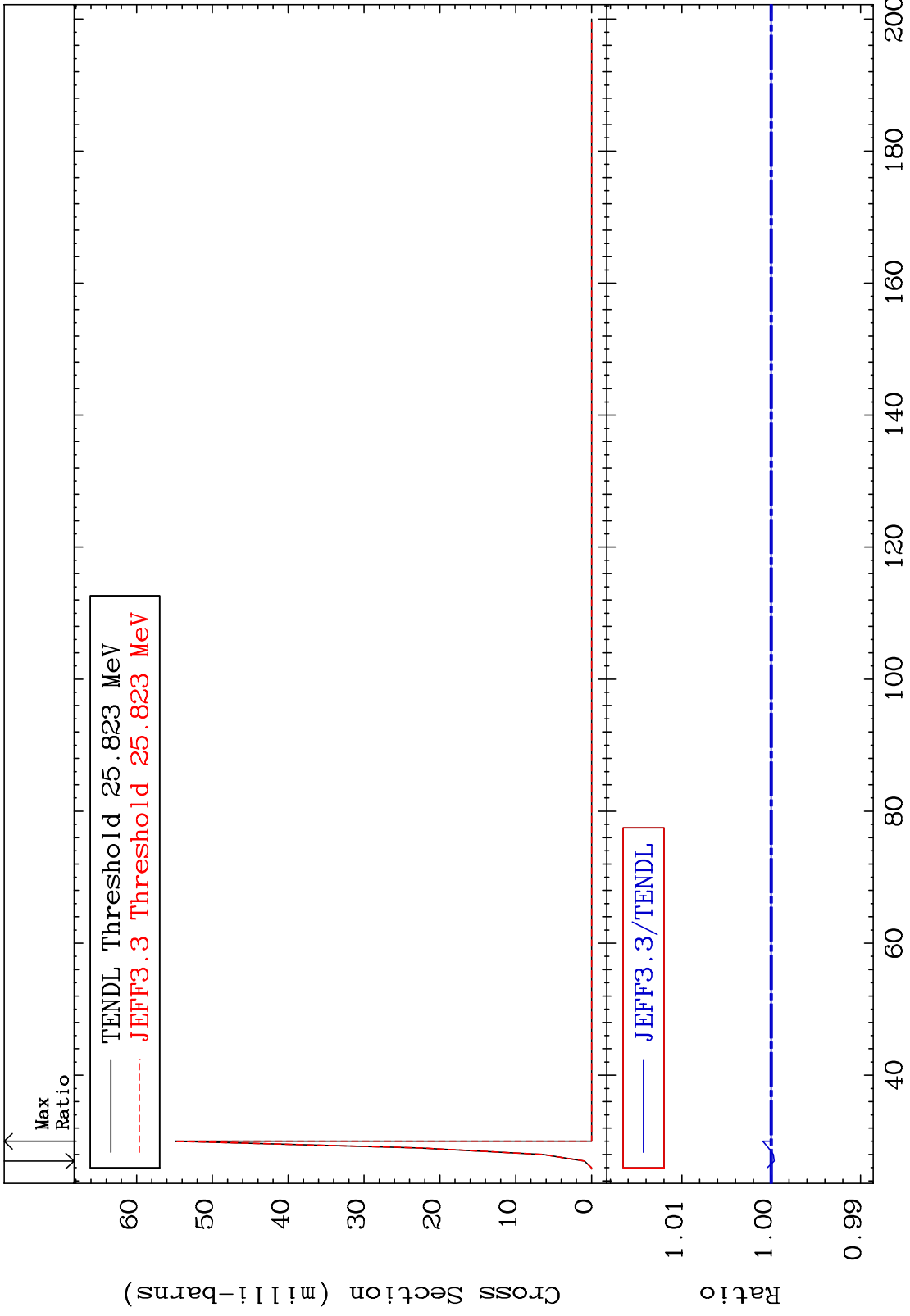
48-Cd-109



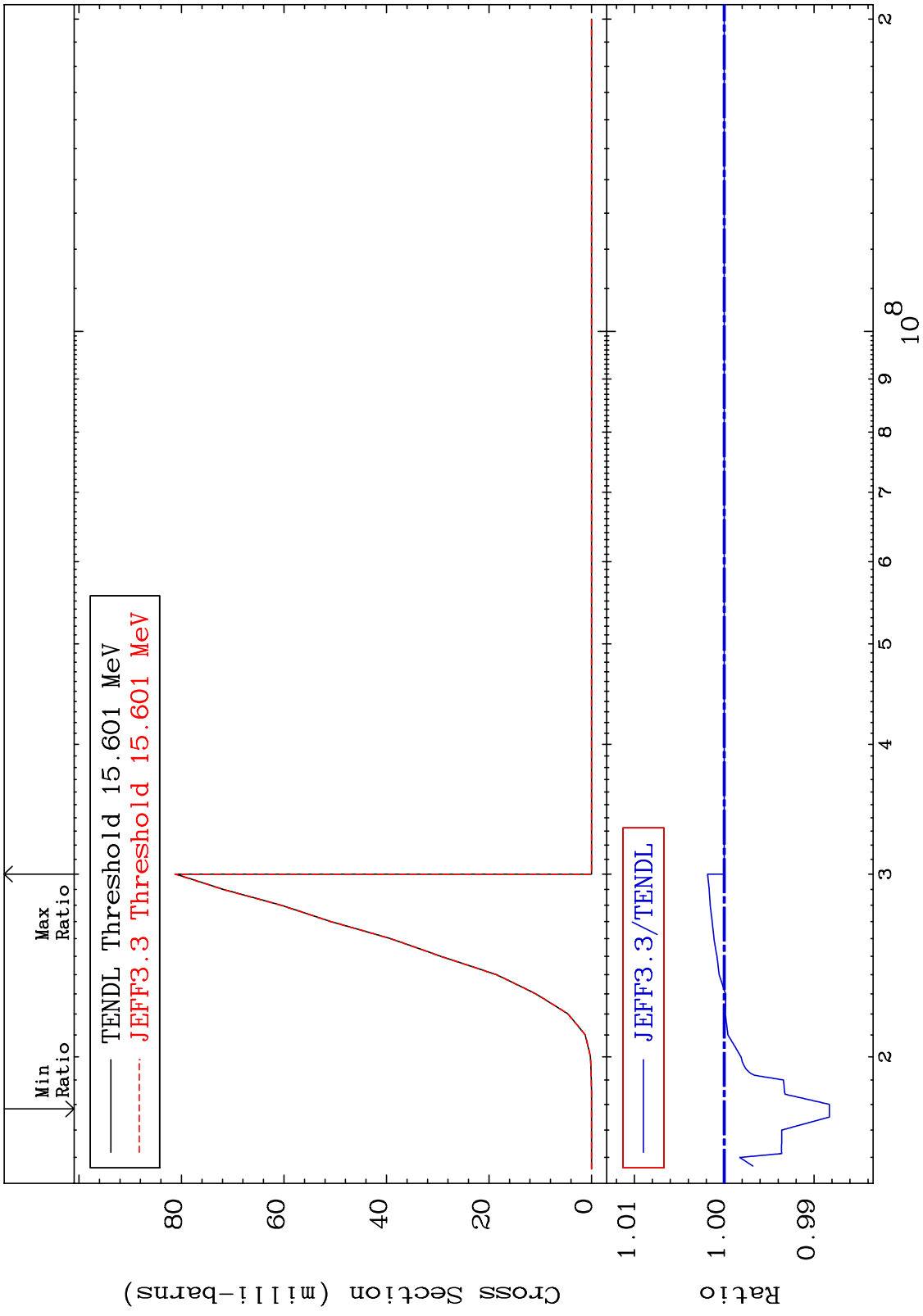
MAT 4834 (n, n') He-3 48-Cd-109
 Cross Section -0.625 To 0.000 %



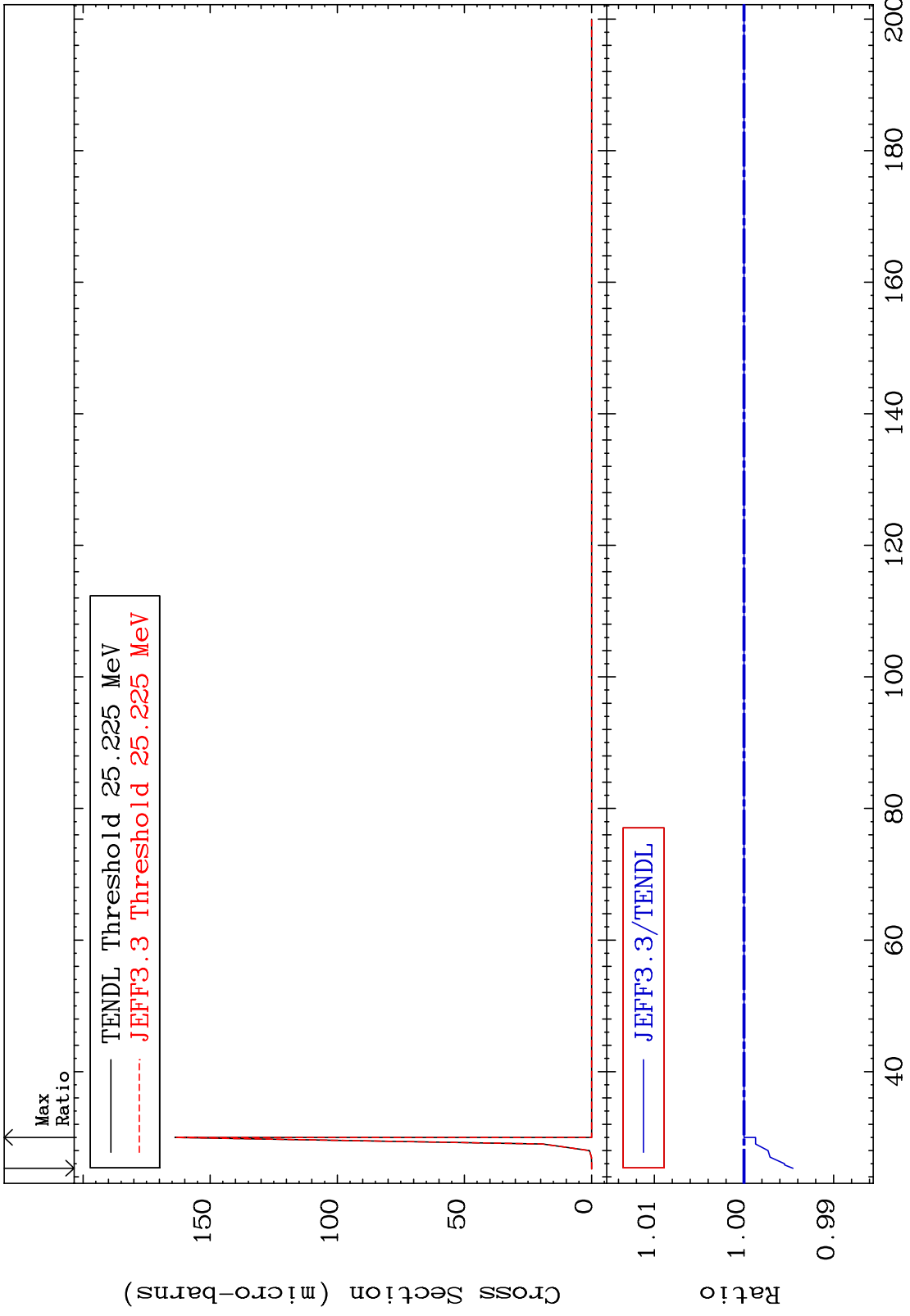
MAT 4834 (n,4n) Cross Section 48-Cd-109 -0.033 To 0.093 %



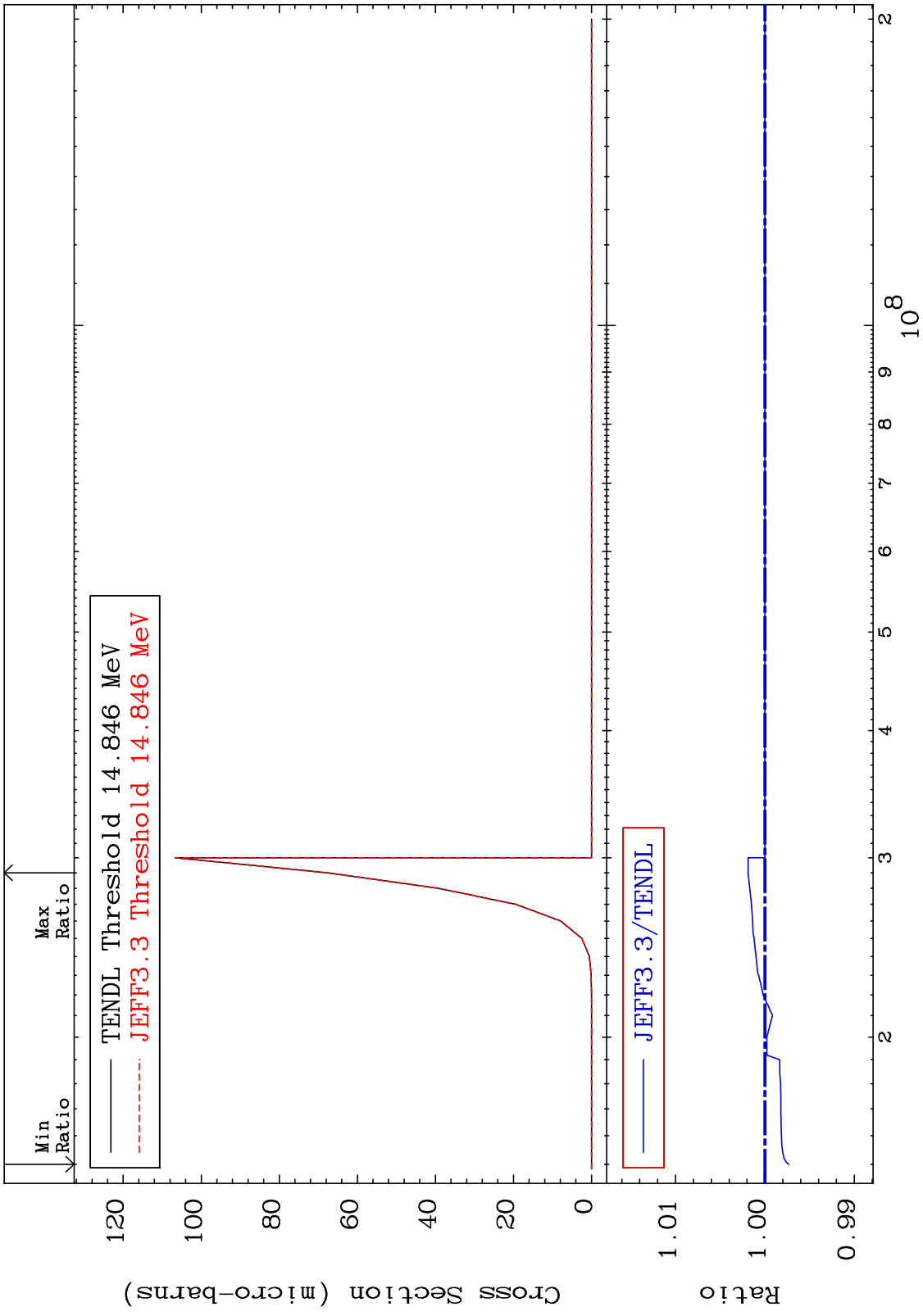
MAT 4834 (n,2n) p 48-Cd-109
 Cross Section -1.170 To 0.186 %



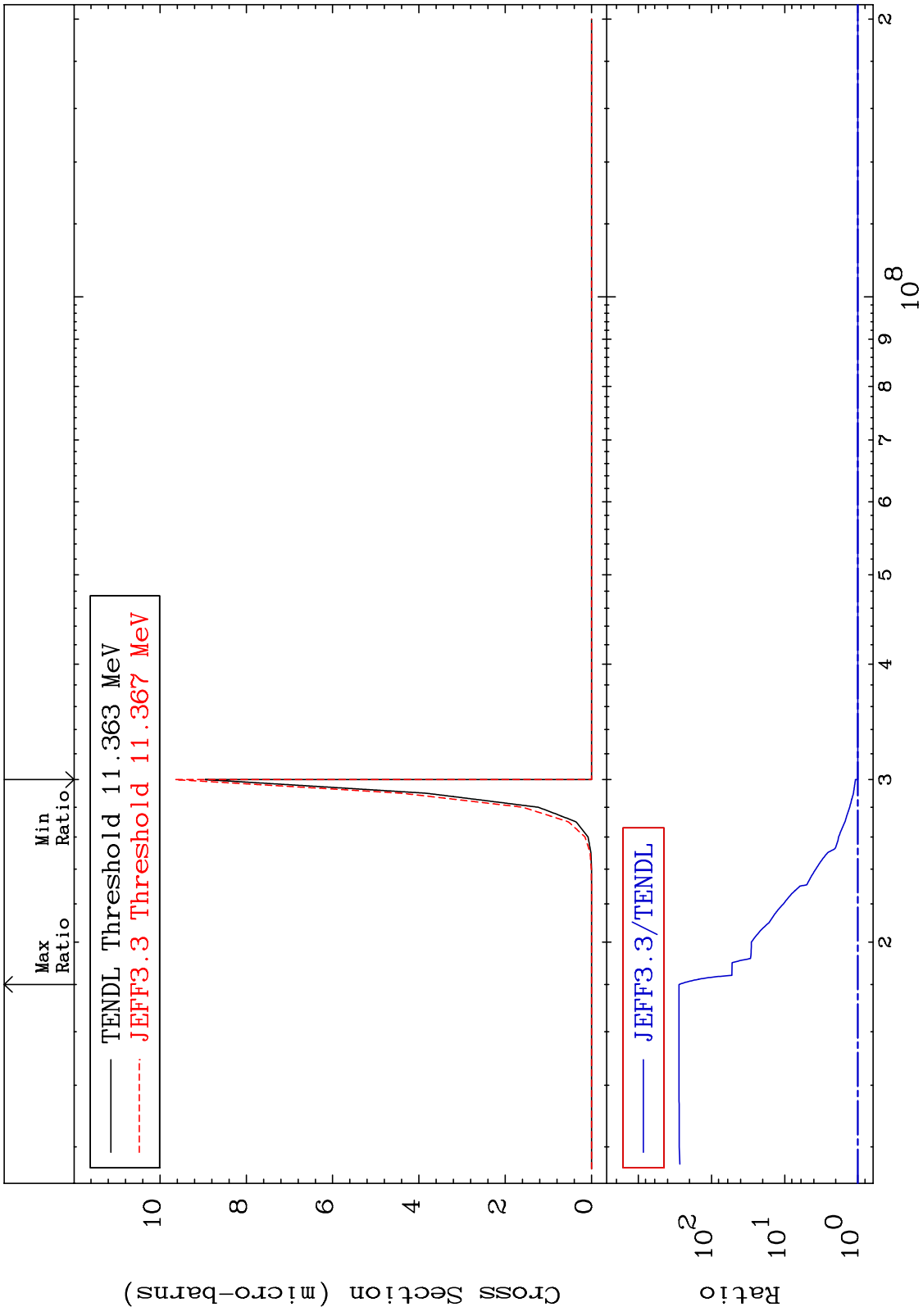
MAT 4834 (n,3n) p 48-Cd-109
Cross Section -0.546 To 0.000 %



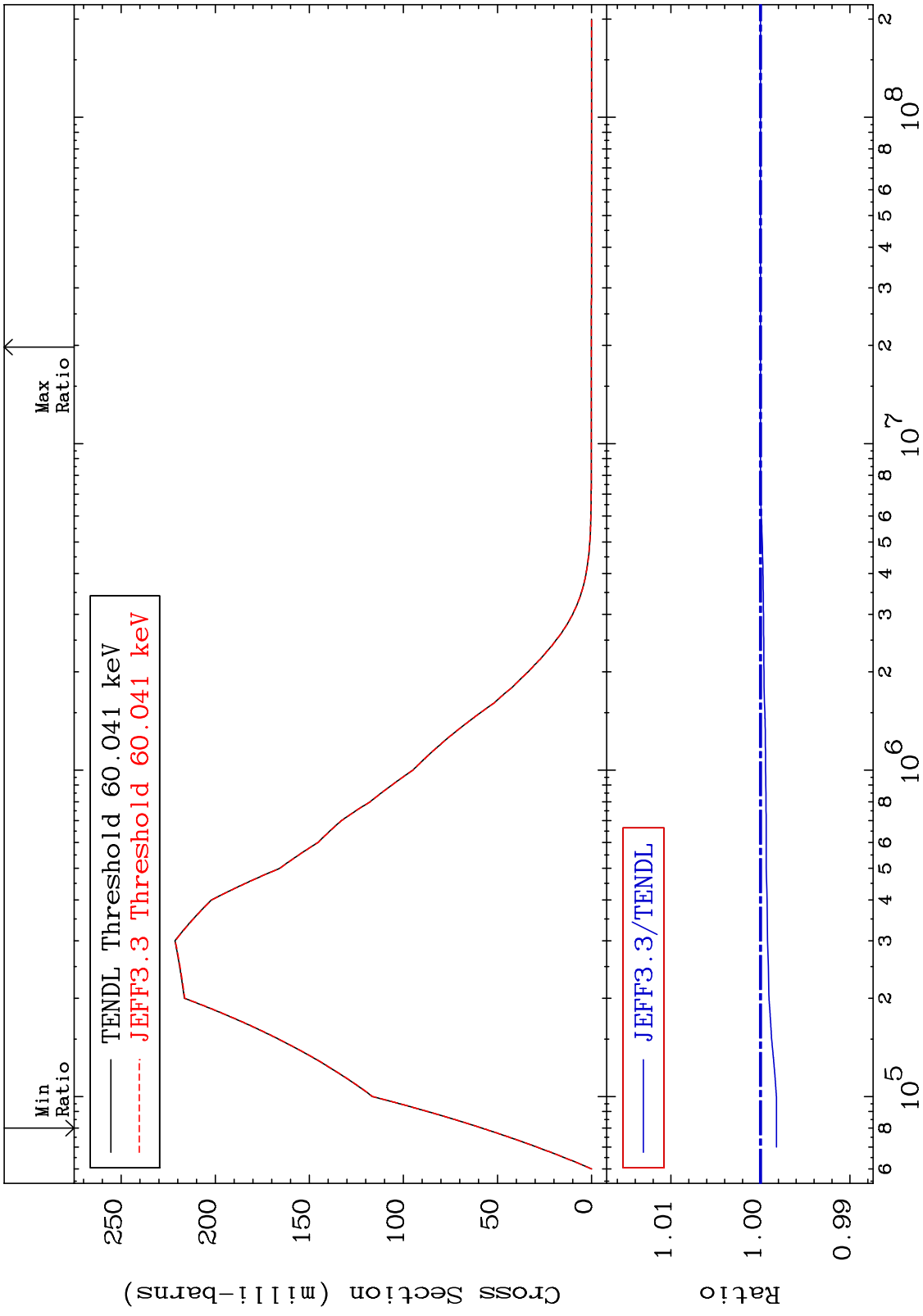
MAT 4834 (n,2n) p 48-Cd-109
 Cross Section -0.268 To 0.190 %



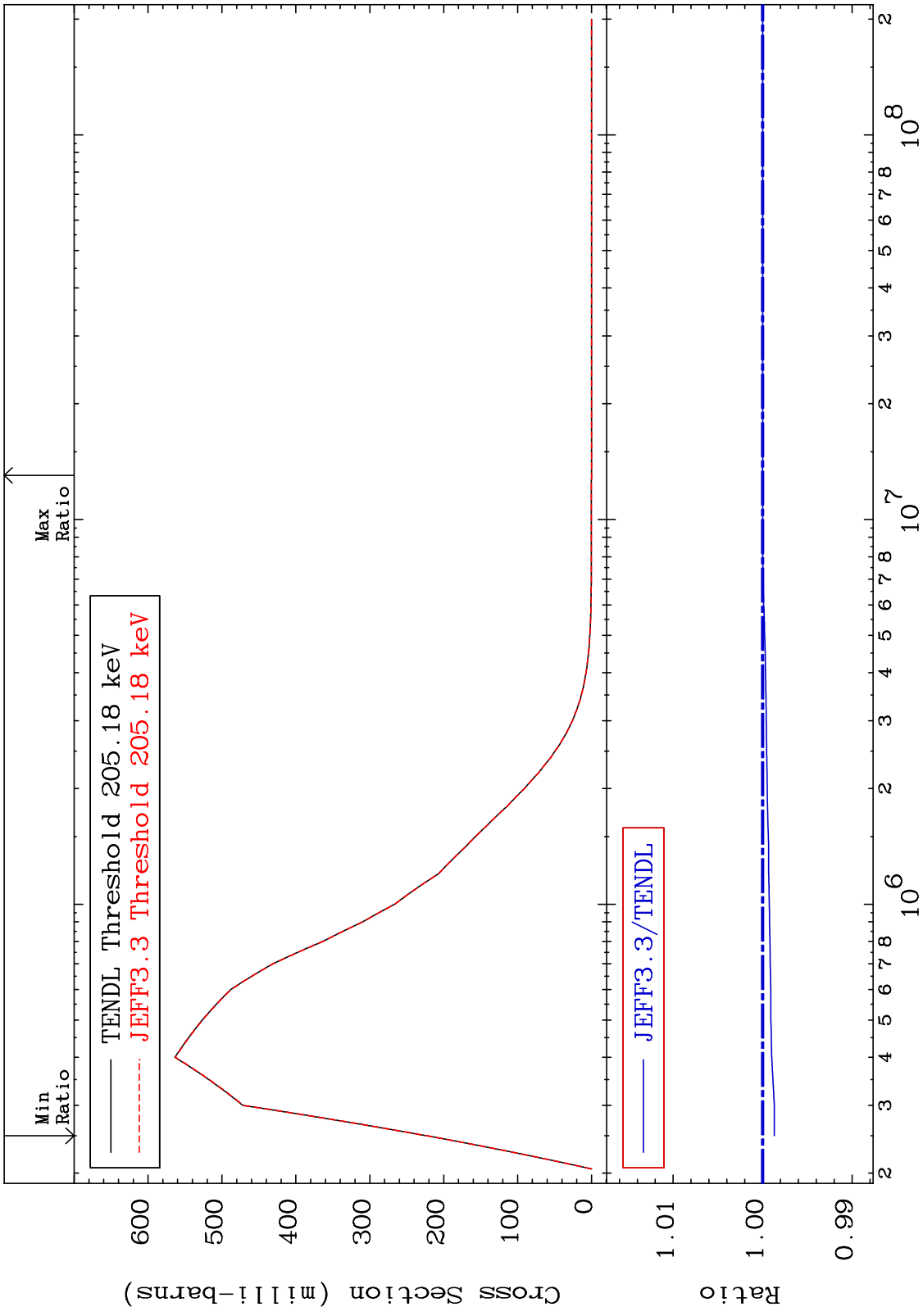
MAT 4834 (n,n') p α 48-Cd-109
 Cross Section 0.000 To 9999. %



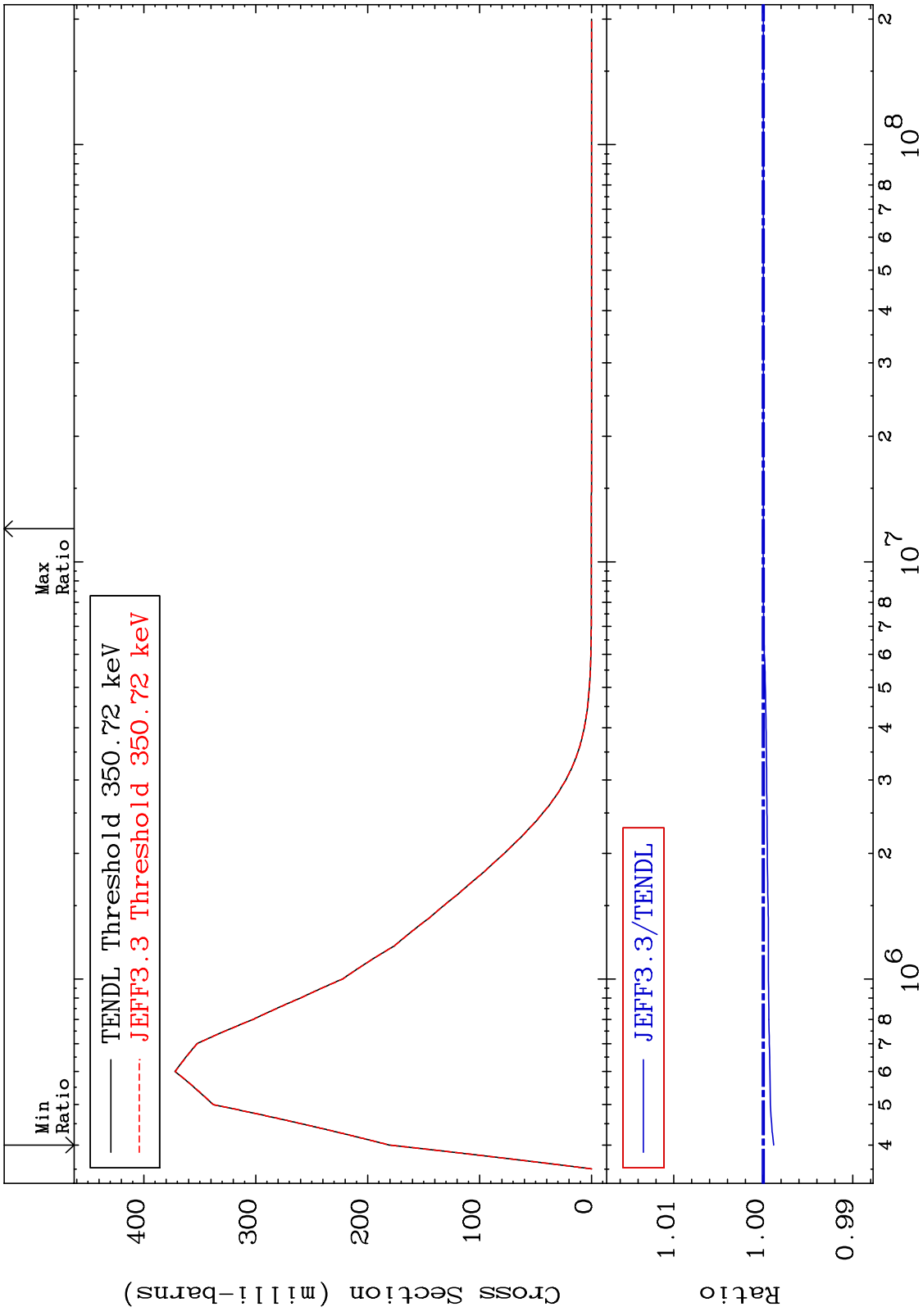
MAT 4834 MT= 51 (n,n') Level Cross Section 48-Cd-109 -0.179 To 0.000 %



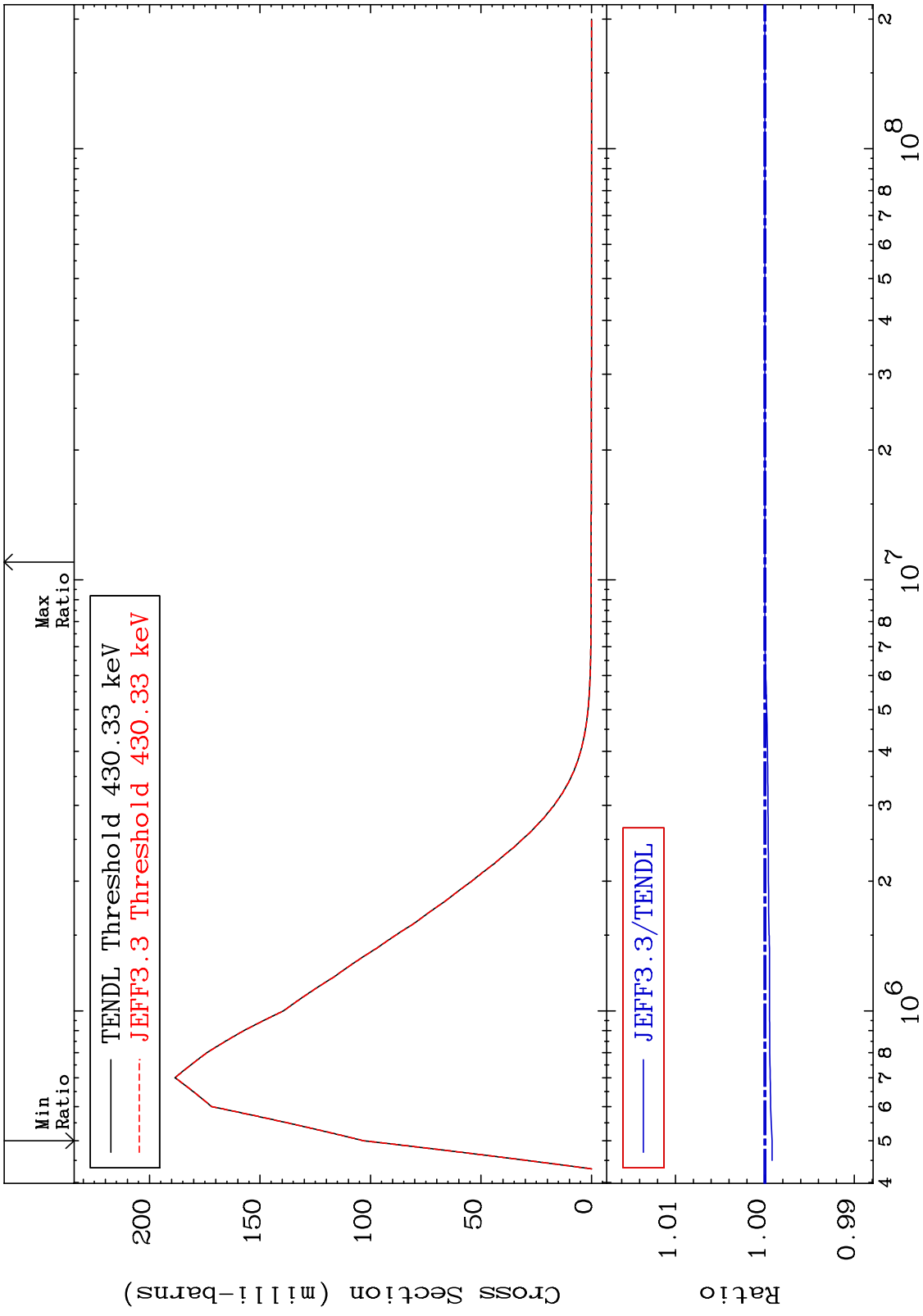
MAT 4834 MT= 52 (n,n') Level Cross Section -0.131 To 0.000 % 48-Cd-109



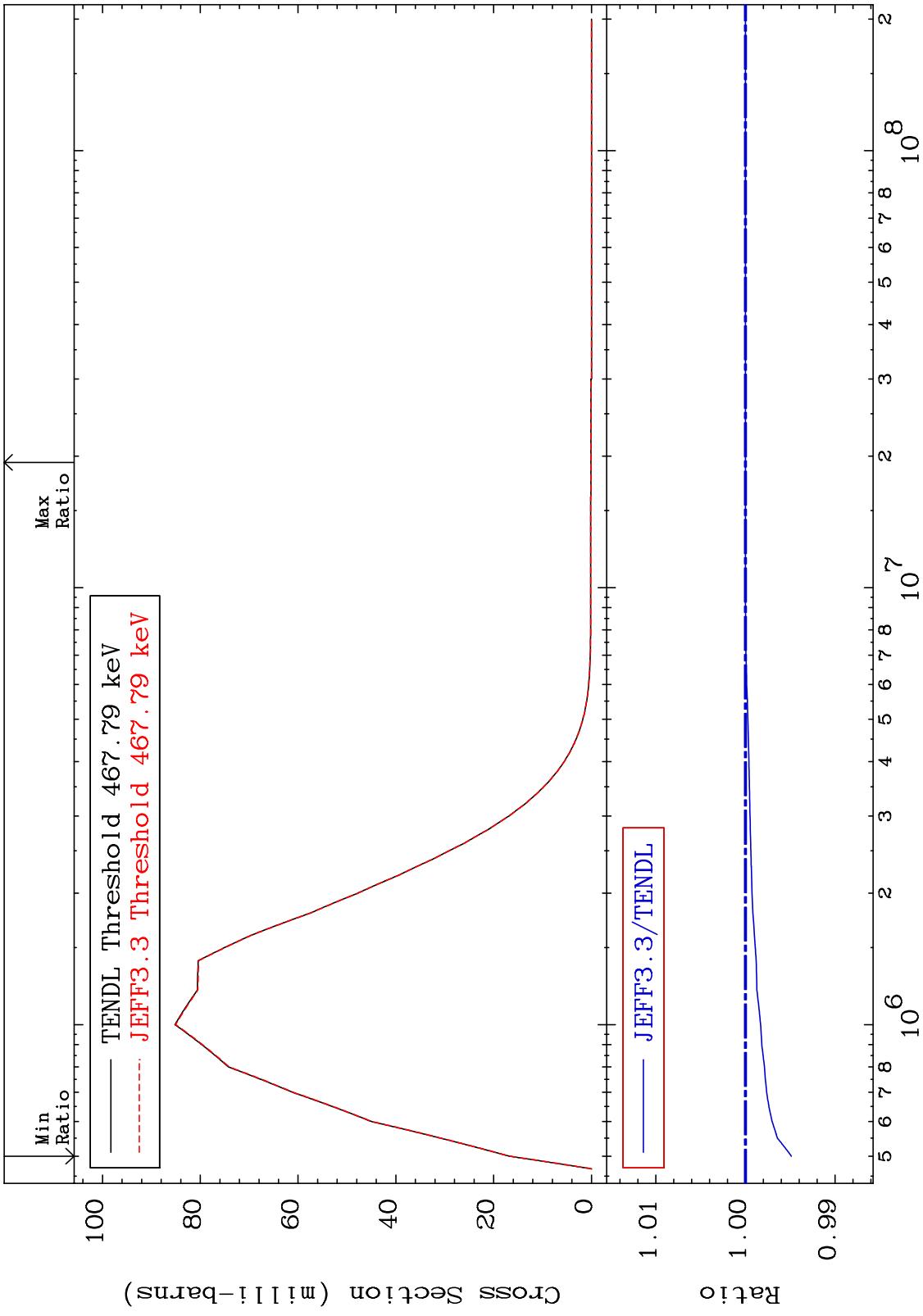
MAT 4834 MT= 53 (n, n') Level Cross Section 48-Cd-109
 -0.116 To 0.000 %



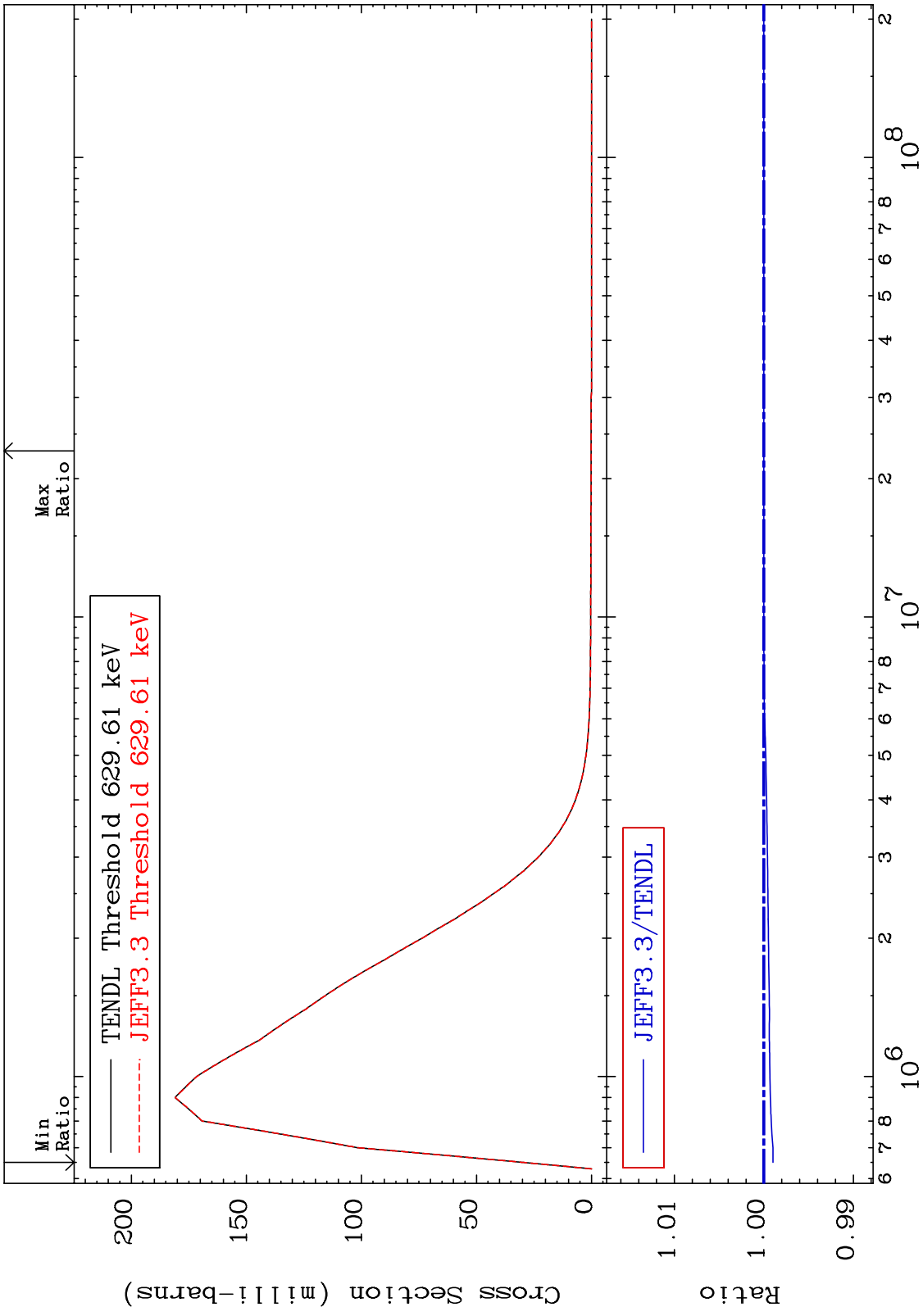
MAT 4834 MT= 54 (n,n') Level Cross Section 48-Cd-109
 -0.080 To 0.000 %



MAT 4834 MT= 55 (n,n') Level Cross Section 48-Cd-109 -0.513 To 0.000 %

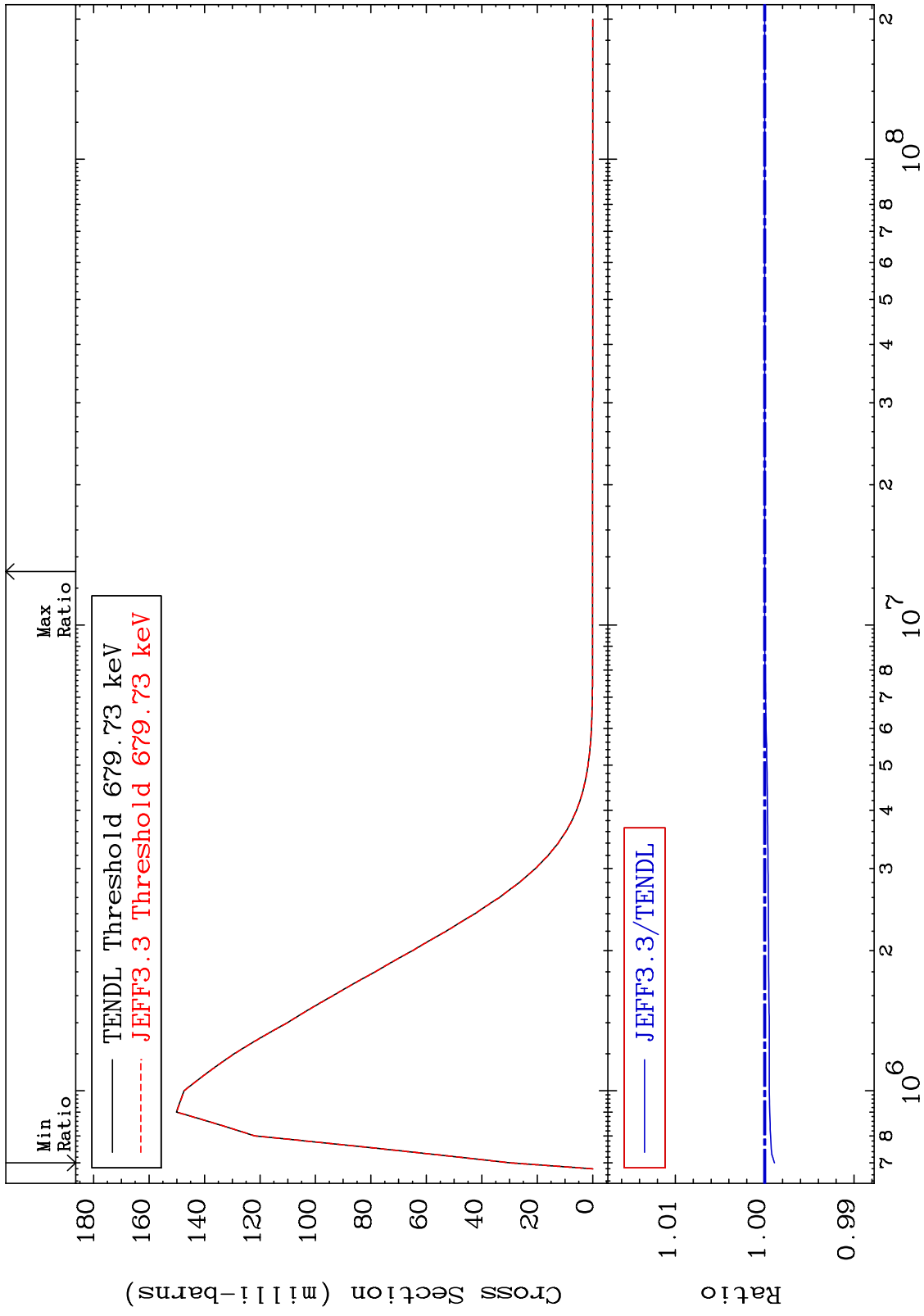


MAT 4834 MT= 56 (n,n') Level Cross Section 48-Cd-109 -0.102 To 0.000 %



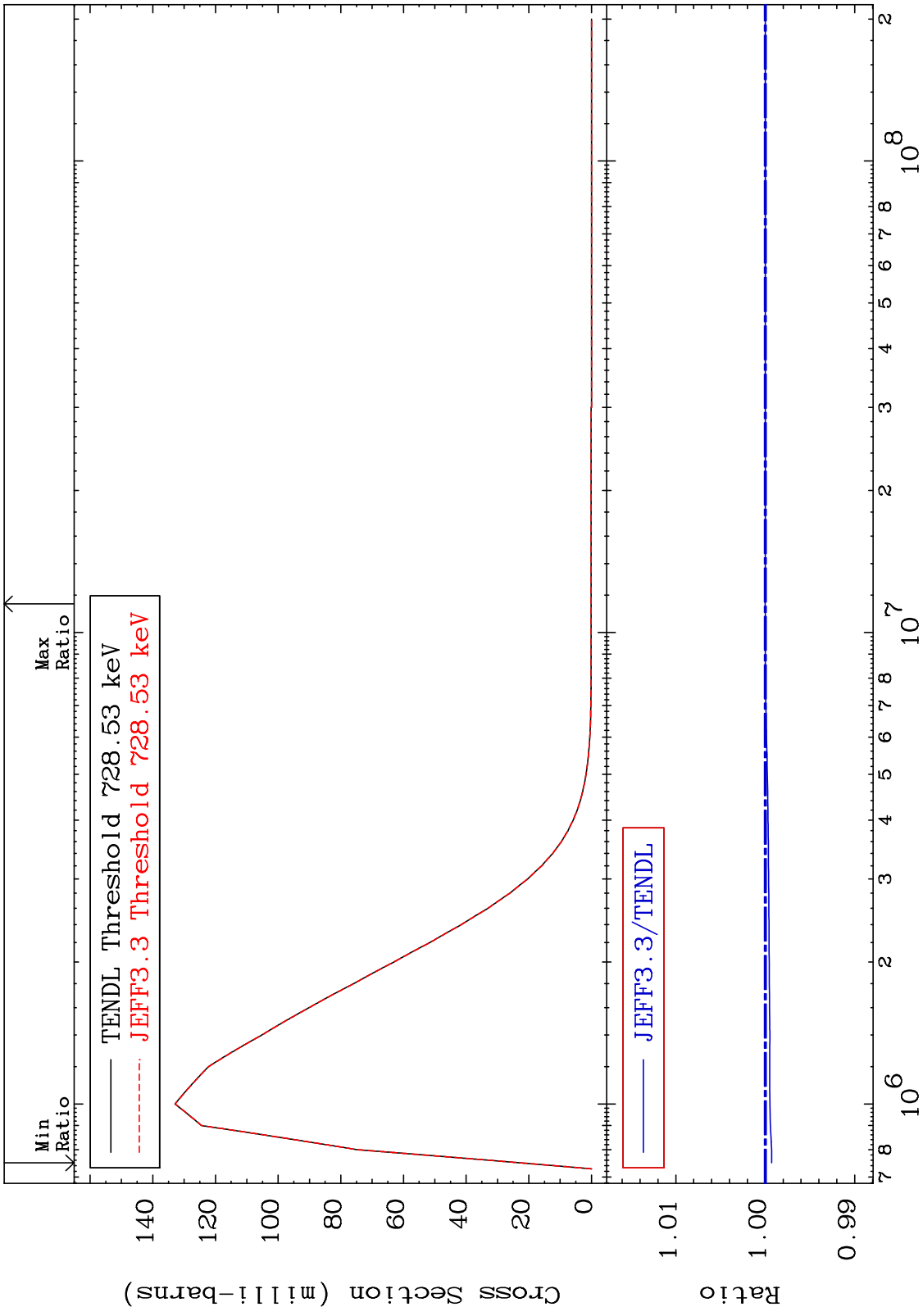
MAT 4834 MT= 57 (n,n') Level 48-Cd-109

-0.109 To 0.000 %
Cross Section

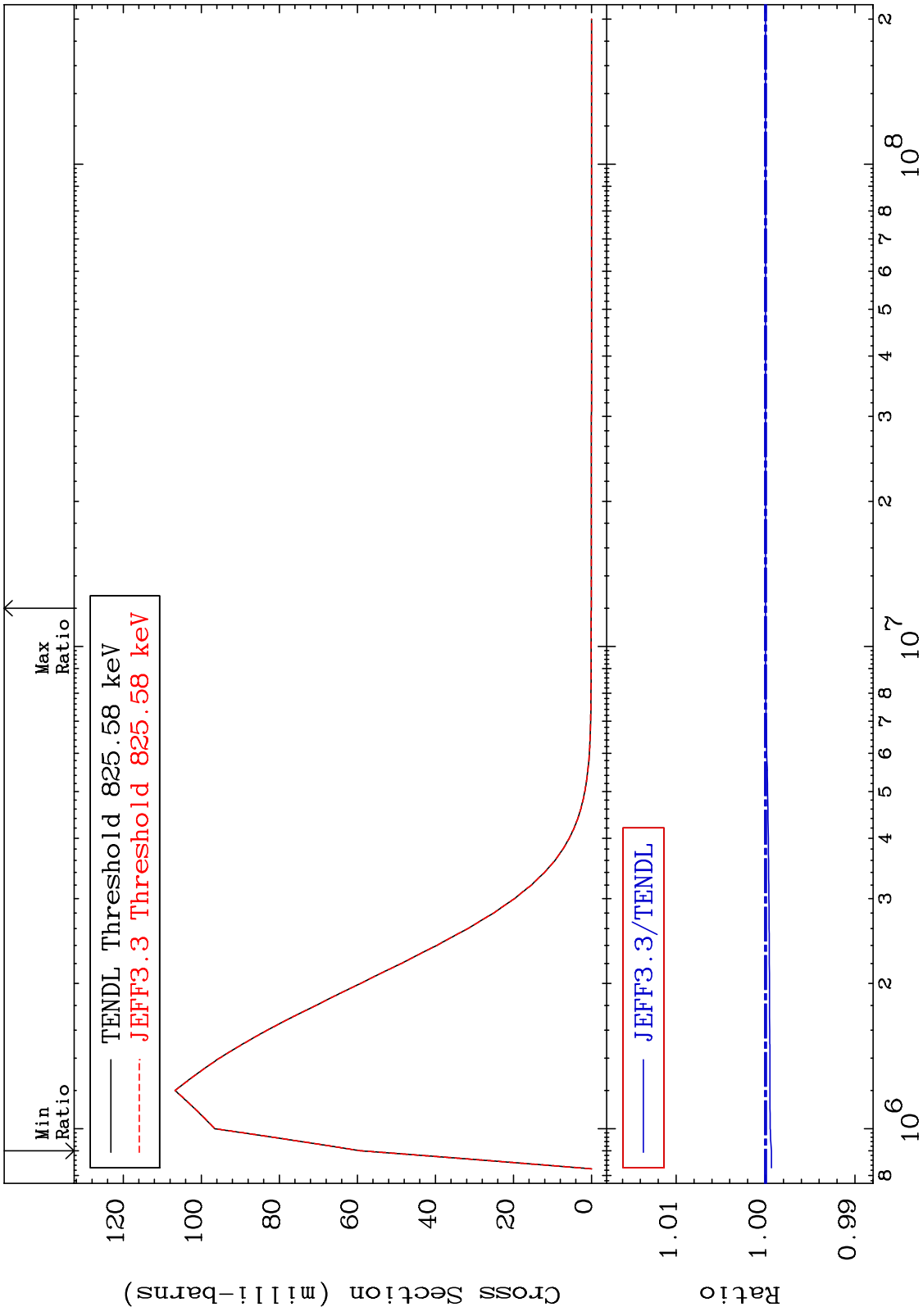


26 Incident Energy (eV) 48-Cd-109

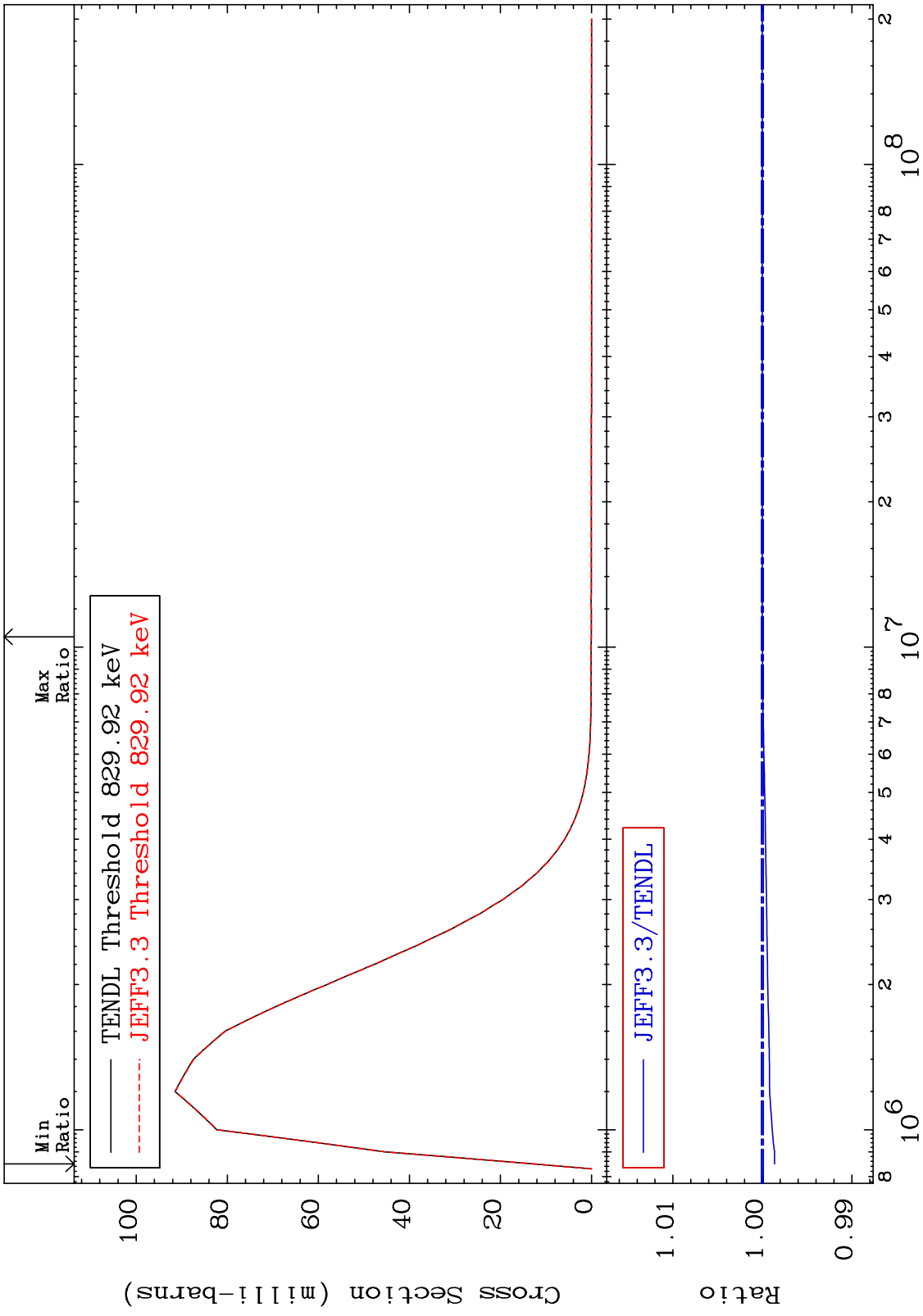
MAT 4834 MT= 58 (n,n') Level 48-Cd-109
 Cross Section -0.072 To 0.000 %



MAT 4834 MT= 59 (n,n') Level Cross Section 48-Cd-109 -0.065 To 0.000 %

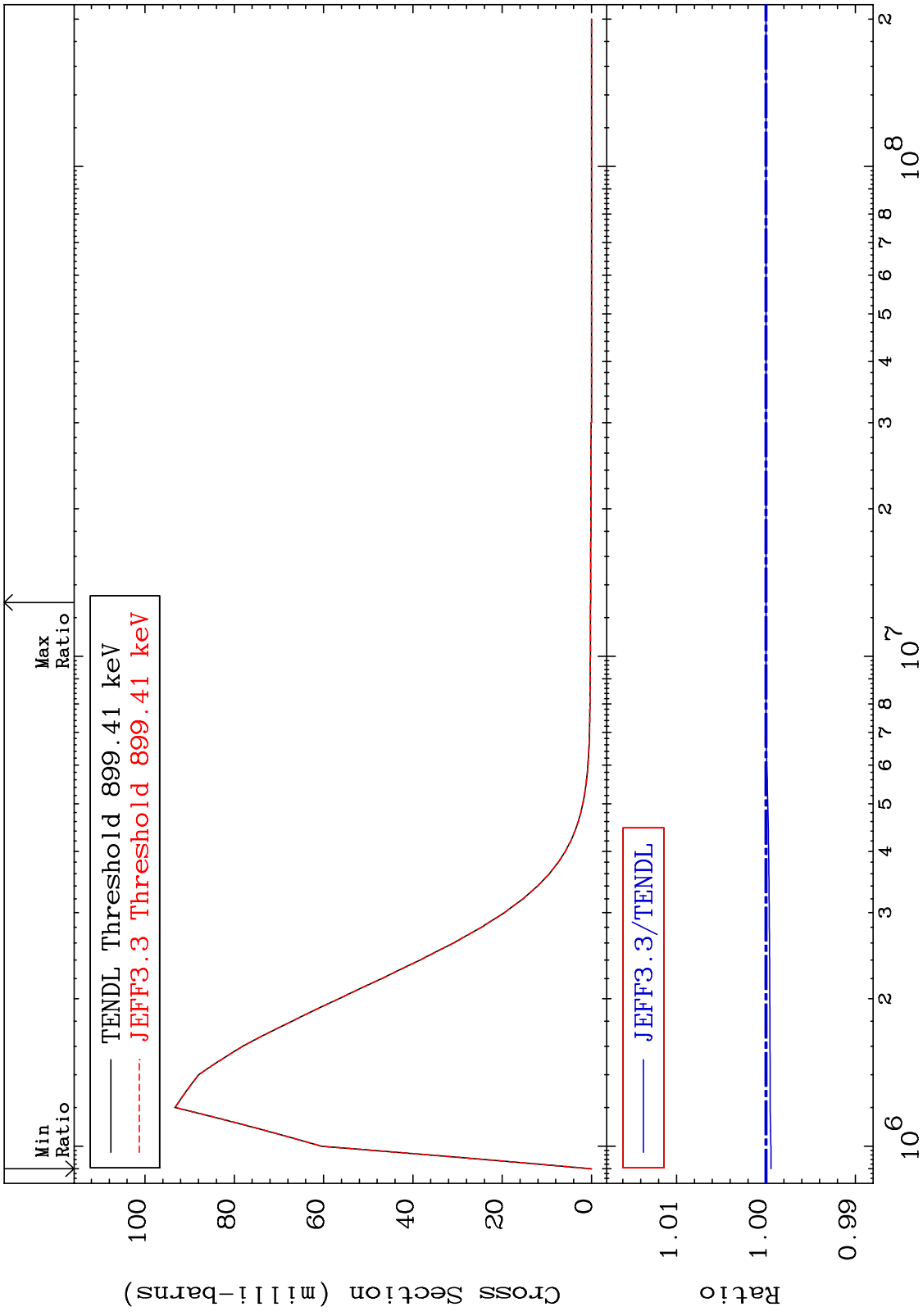


MAT 4834 MT= 60 (n,n') Level Cross Section 48-Cd-109 -0.136 To 0.000 %



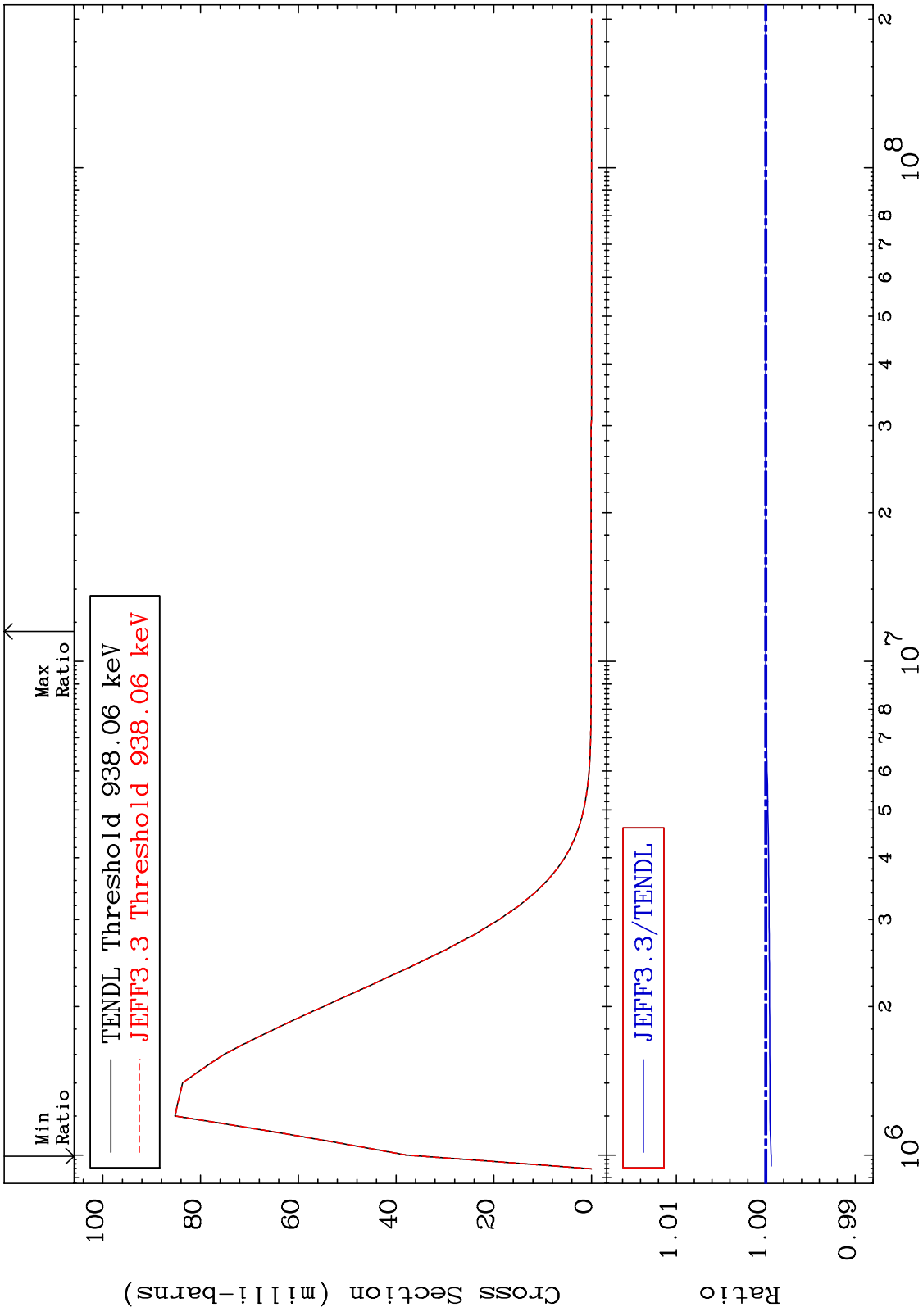
29 Incident Energy (eV) 48-Cd-109

MAT 4834 MT= 61 (n,n') Level 48-Cd-109
 Cross Section -0.055 To 0.000 %



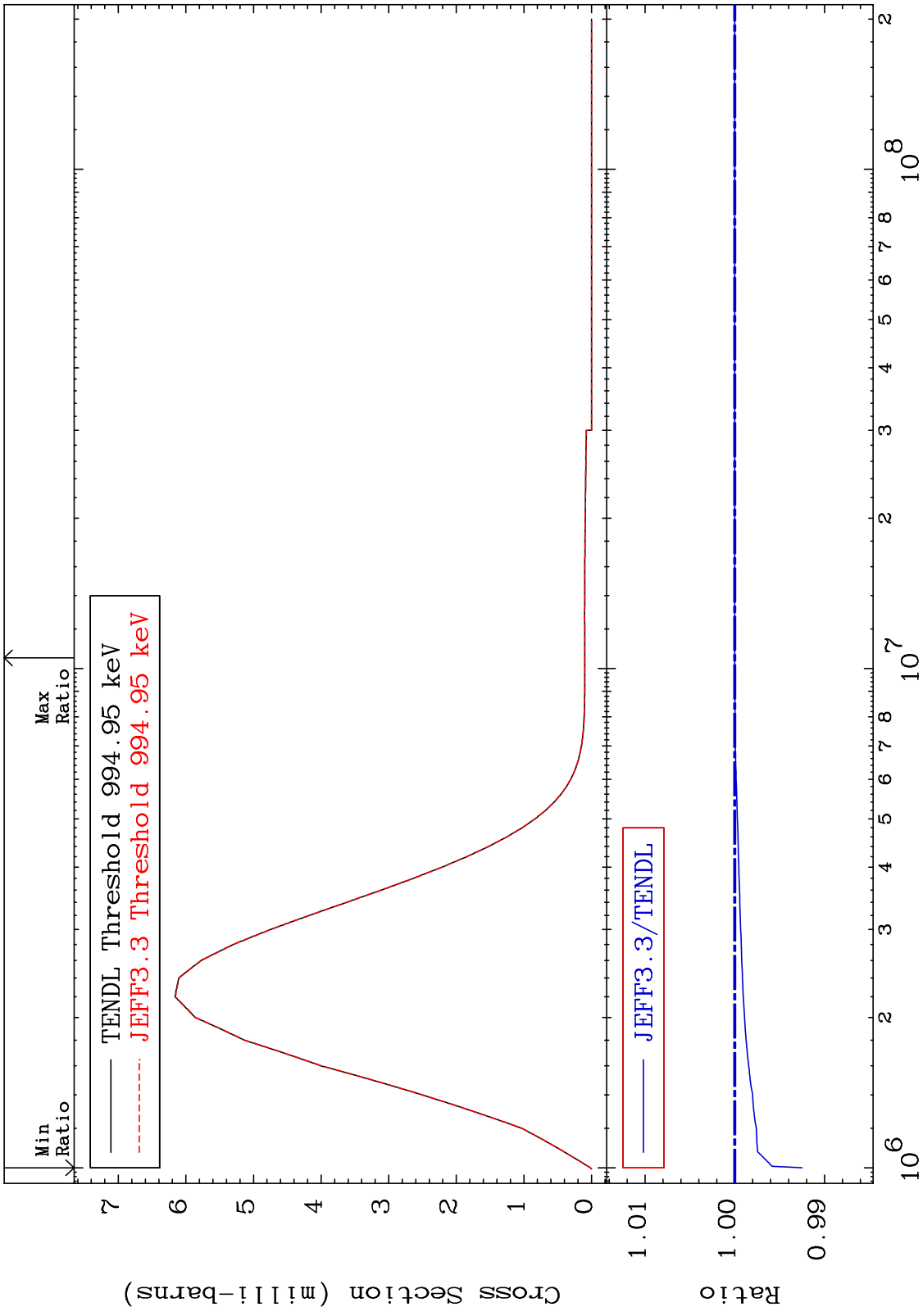
30 Incident Energy (eV) 48-Cd-109

MAT 4834 MT= 62 (n,n') Level Cross Section 48-Cd-109
 -0.060 To 0.000 %



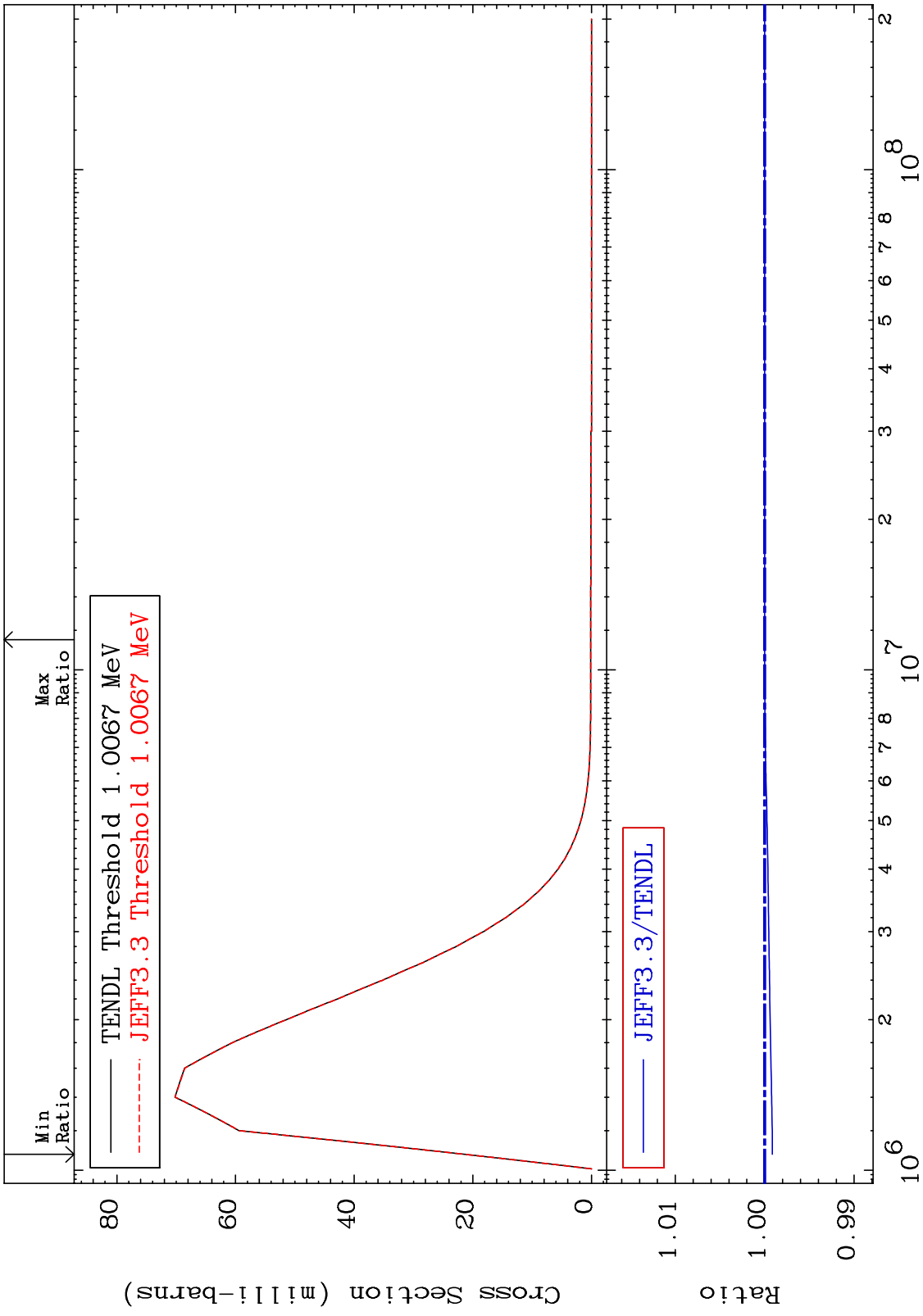
31 Incident Energy (eV) 48-Cd-109

MAT 4834 MT= 63 (n,n') Level Cross Section 48-Cd-109 -0.750 To 0.000 %

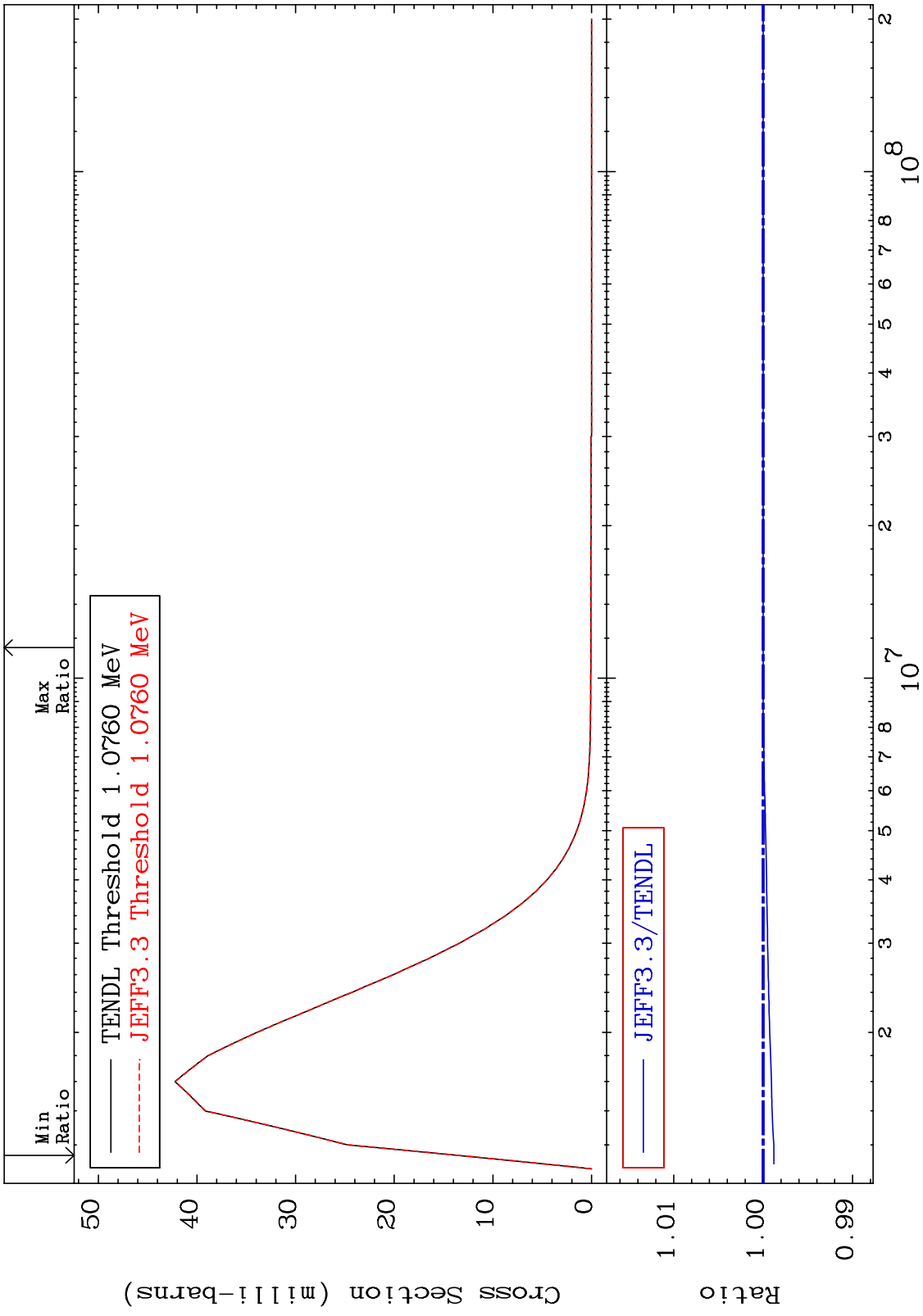


32 Incident Energy (eV) 48-Cd-109

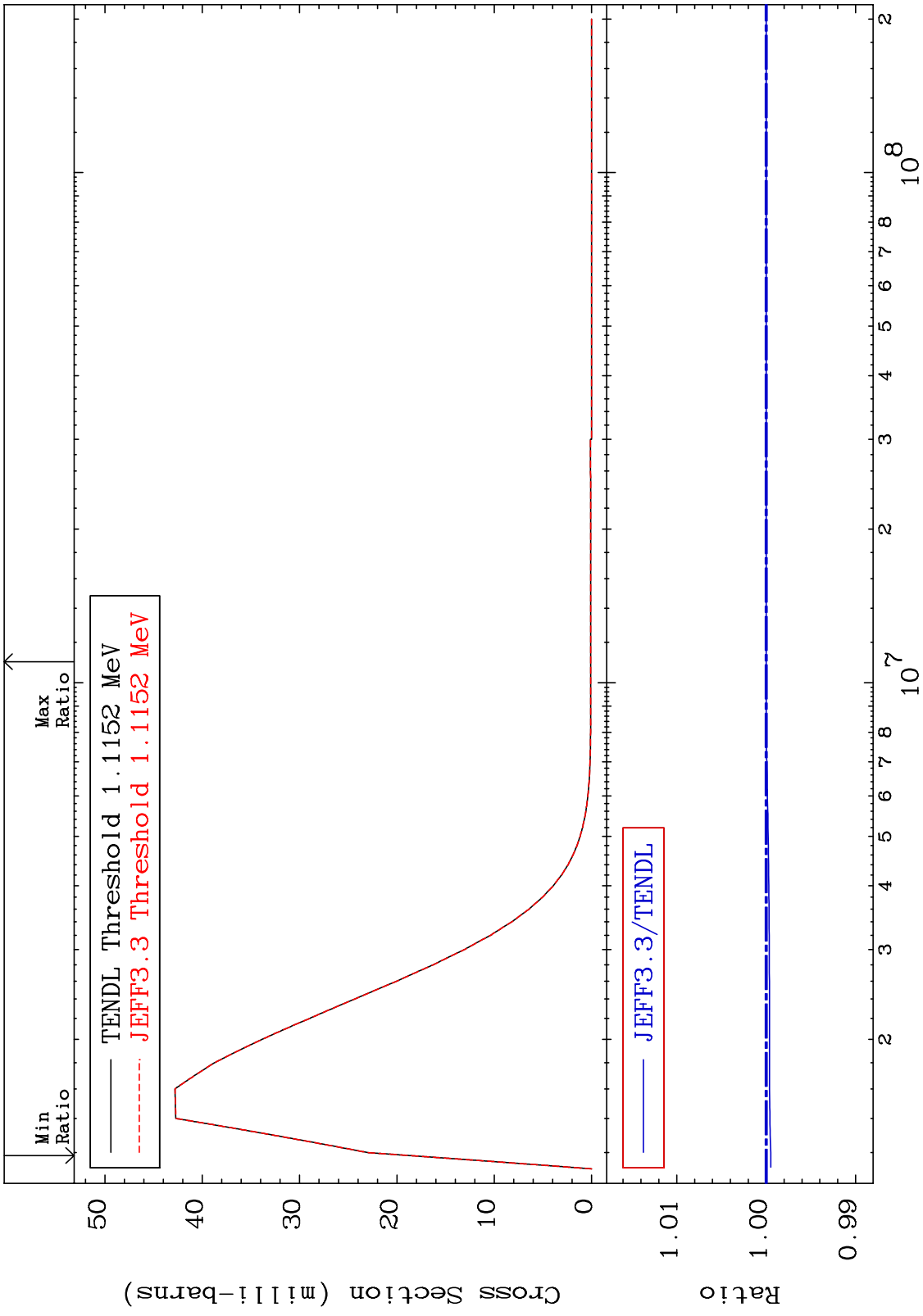
MAT 4834 MT= 64 (n,n') Level Cross Section 48-Cd-109 -0.084 To 0.000 %



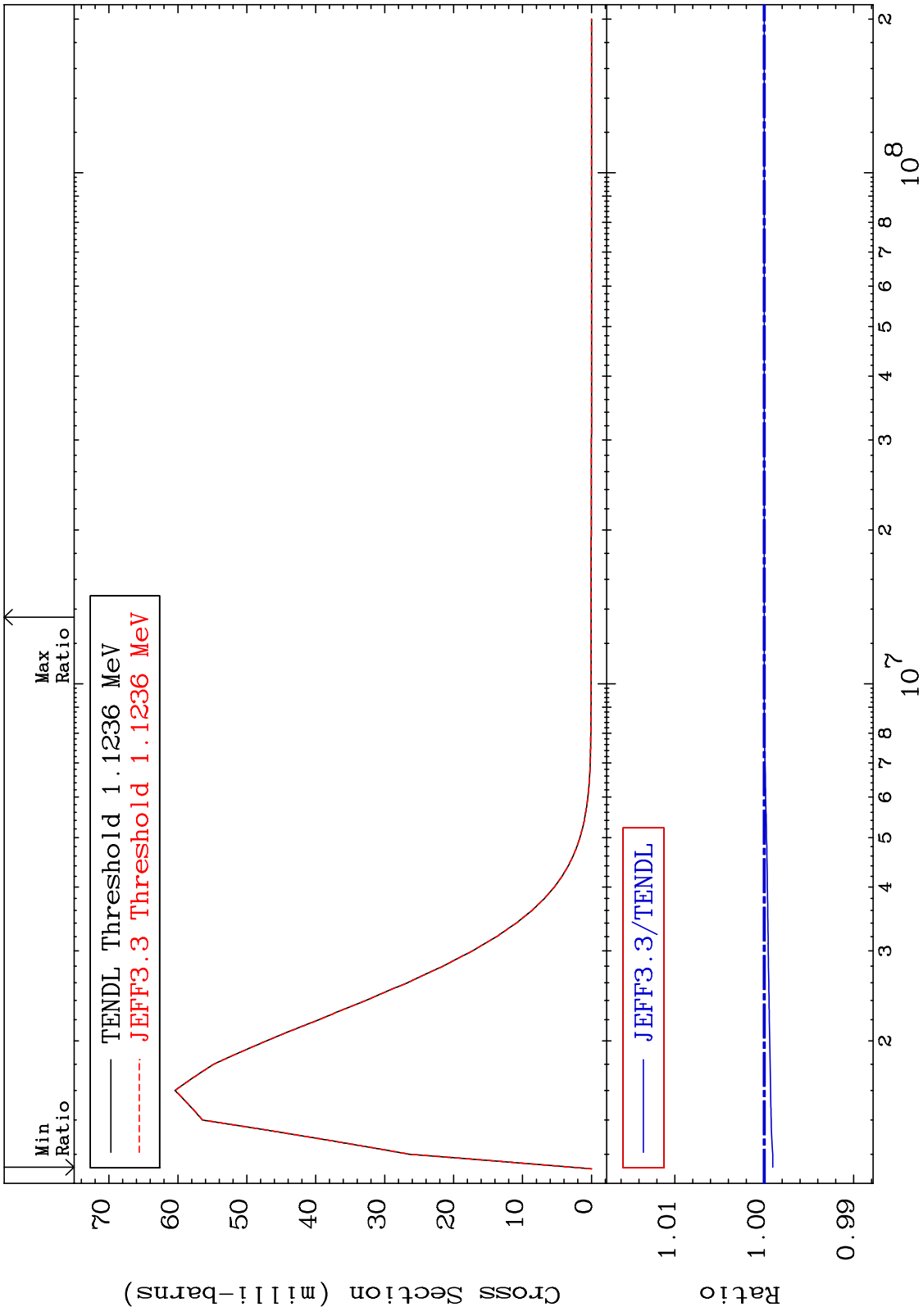
MAT 4834 MT= 65 (n,n') Level Cross Section 48-Cd-109 -0.119 To 0.000 %



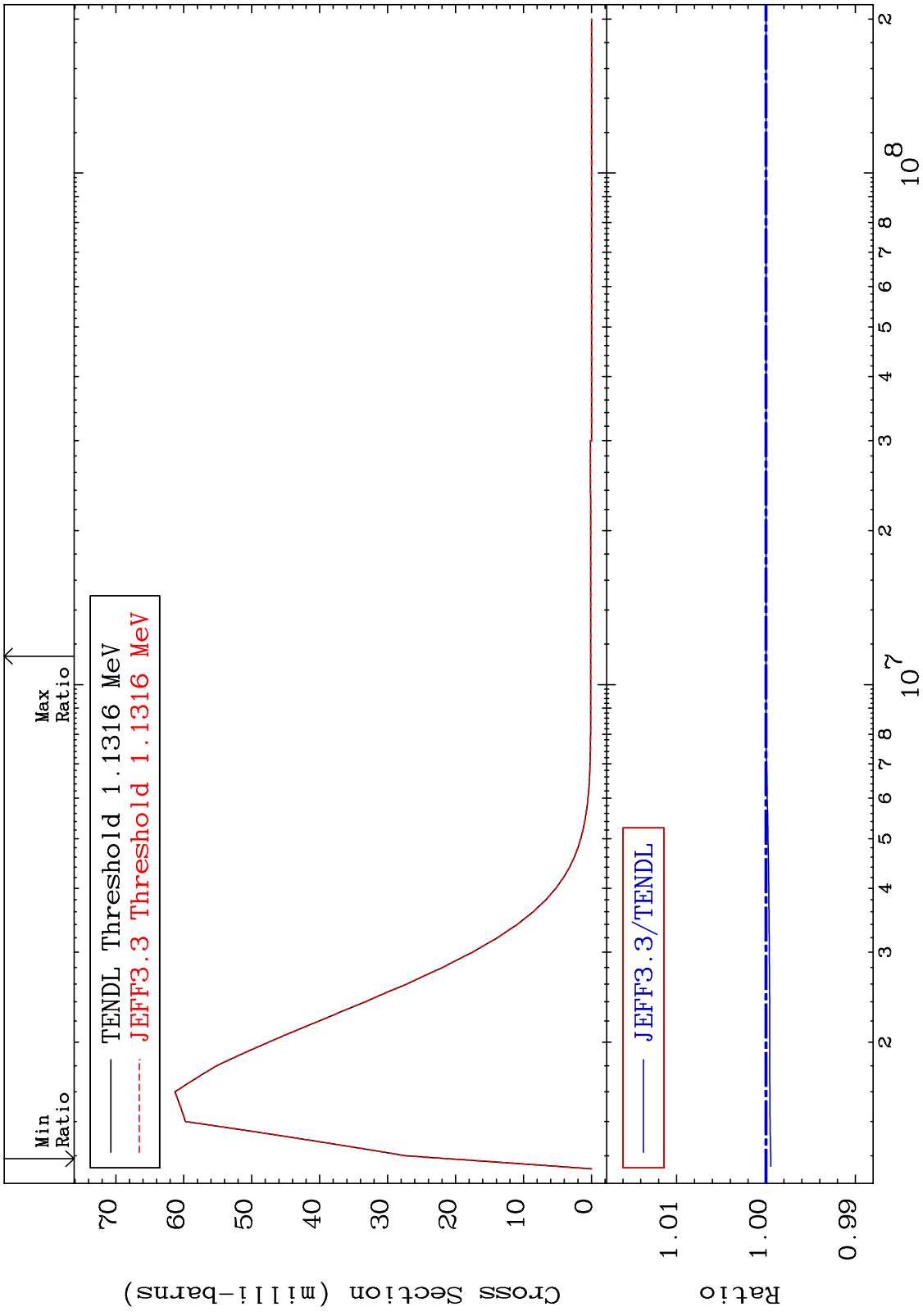
MAT 4834 MT= 66 (n,n') Level Cross Section 48-Cd-109 -0.051 To 0.000 %



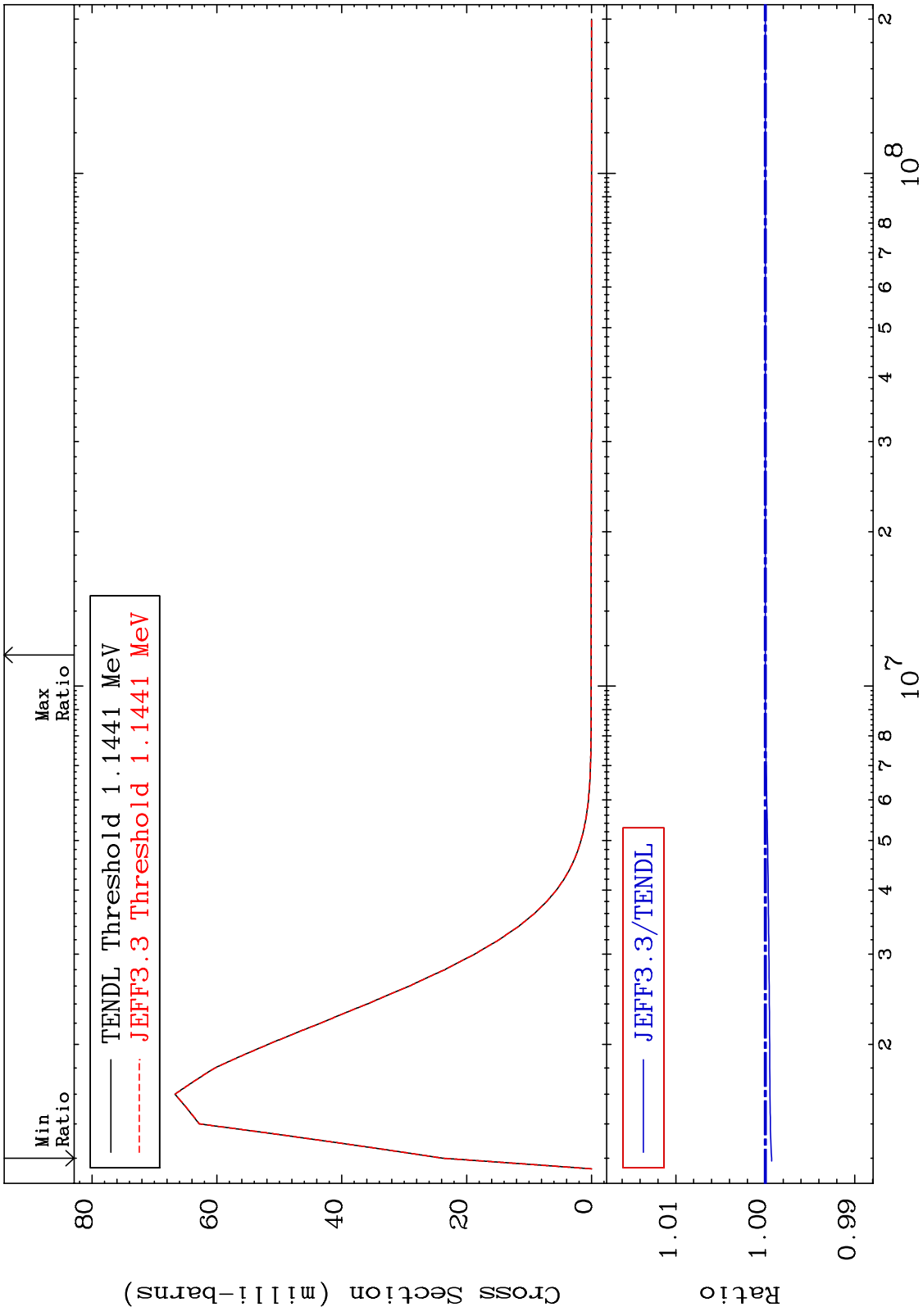
MAT 4834 MT= 67 (n,n') Level Cross Section 48-Cd-109 -0.095 To 0.000 %



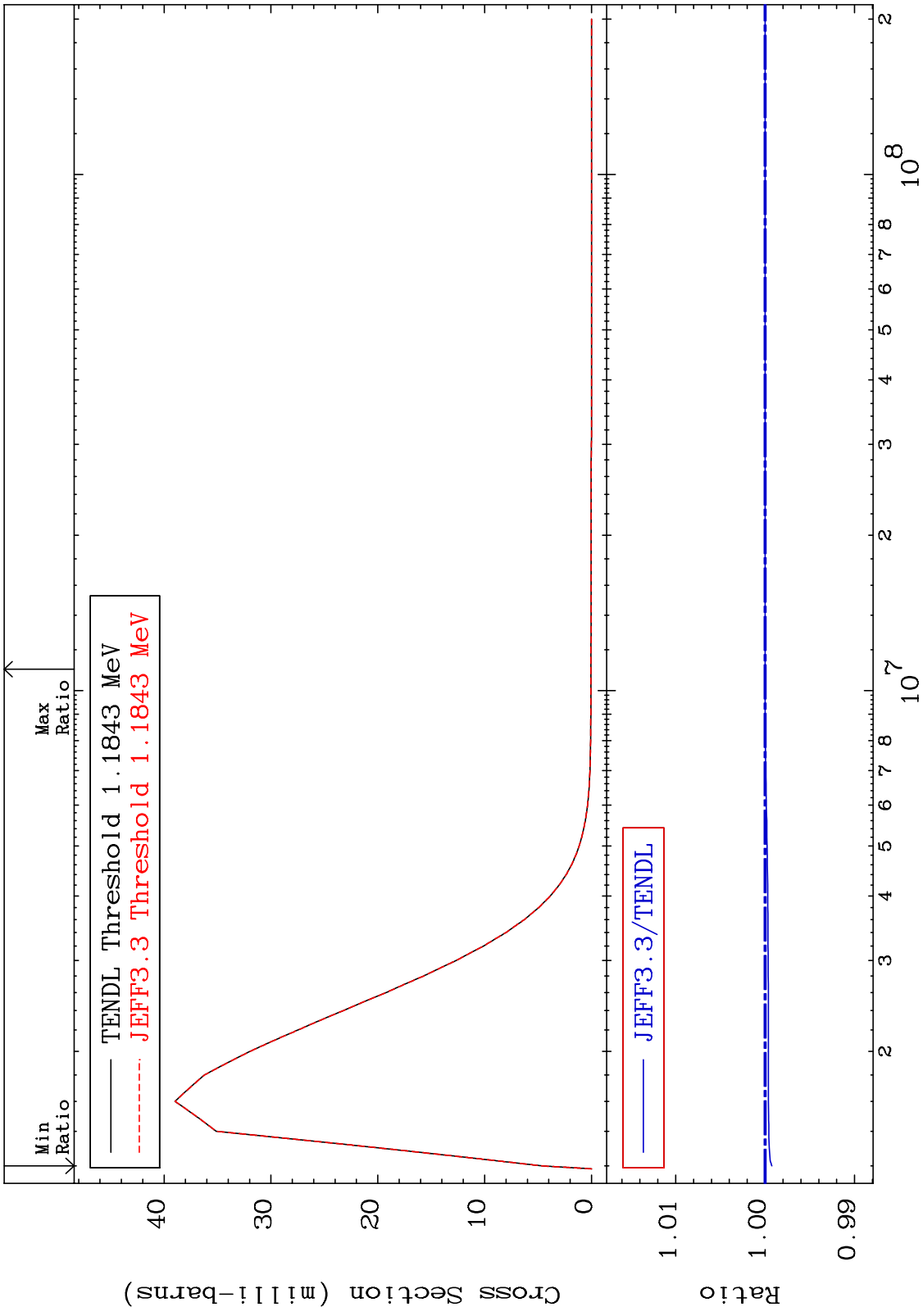
MAT 4834 MT= 68 (n,n') Level Cross Section 48-Cd-109 -0.054 To 0.000 %



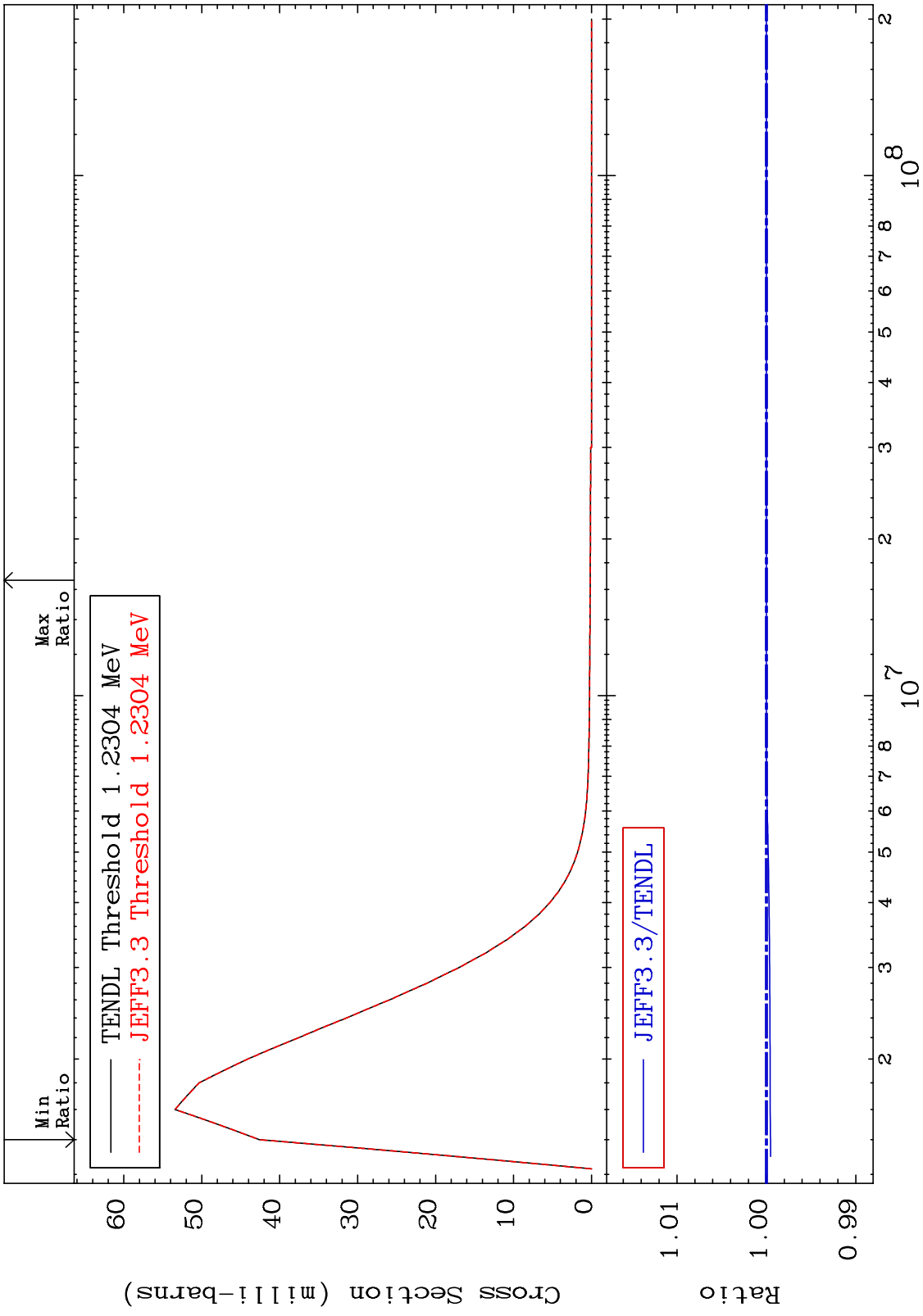
MAT 4834 MT= 69 (n,n') Level Cross Section 48-Cd-109
 -0.071 To 0.000 %



MAT 4834 MT= 70 (n,n') Level Cross Section 48-Cd-109 -0.075 To 0.000 %

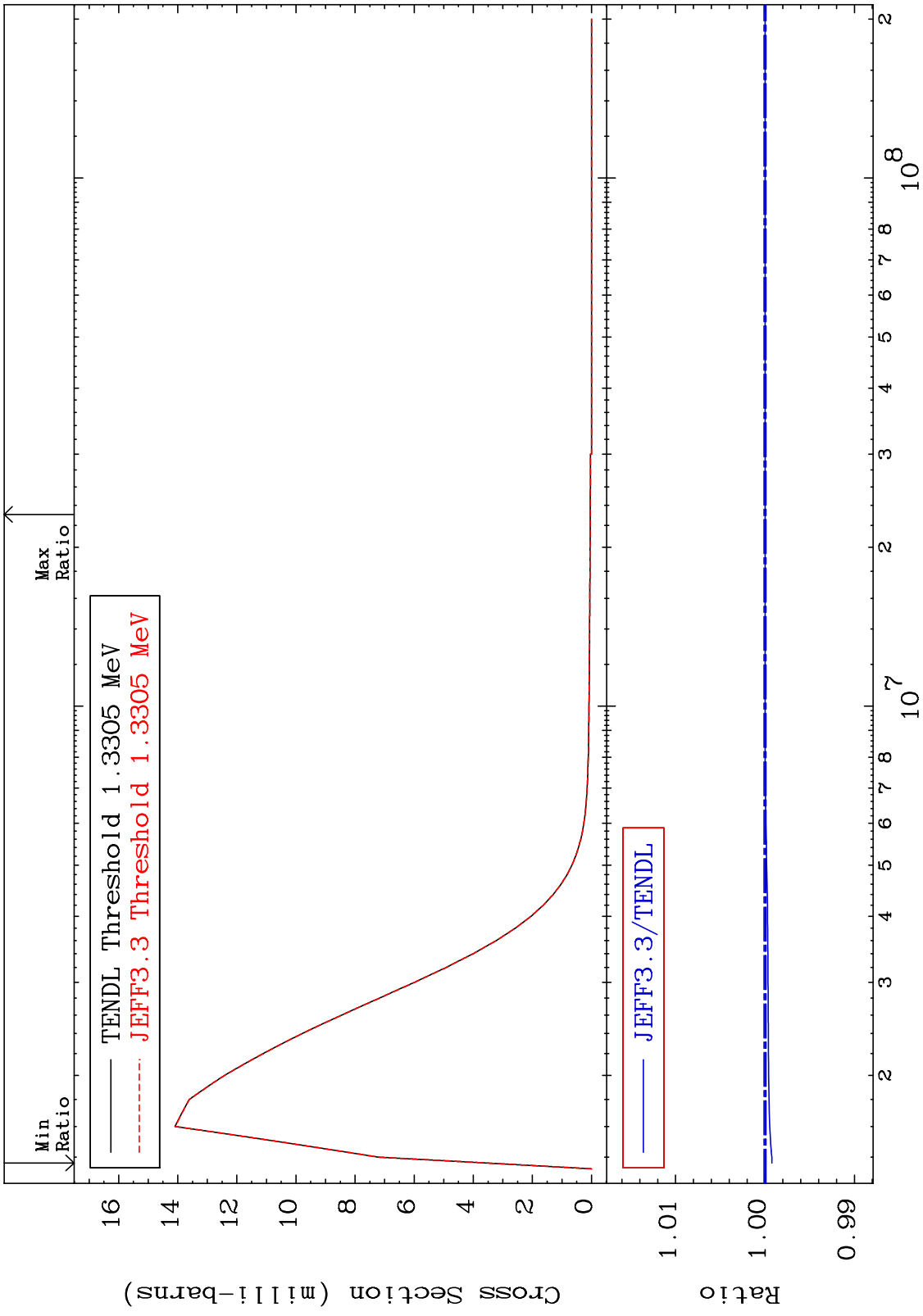


MAT 4834 MT= 71 (n,n') Level Cross Section 48-Cd-109 -0.046 To 0.000 %

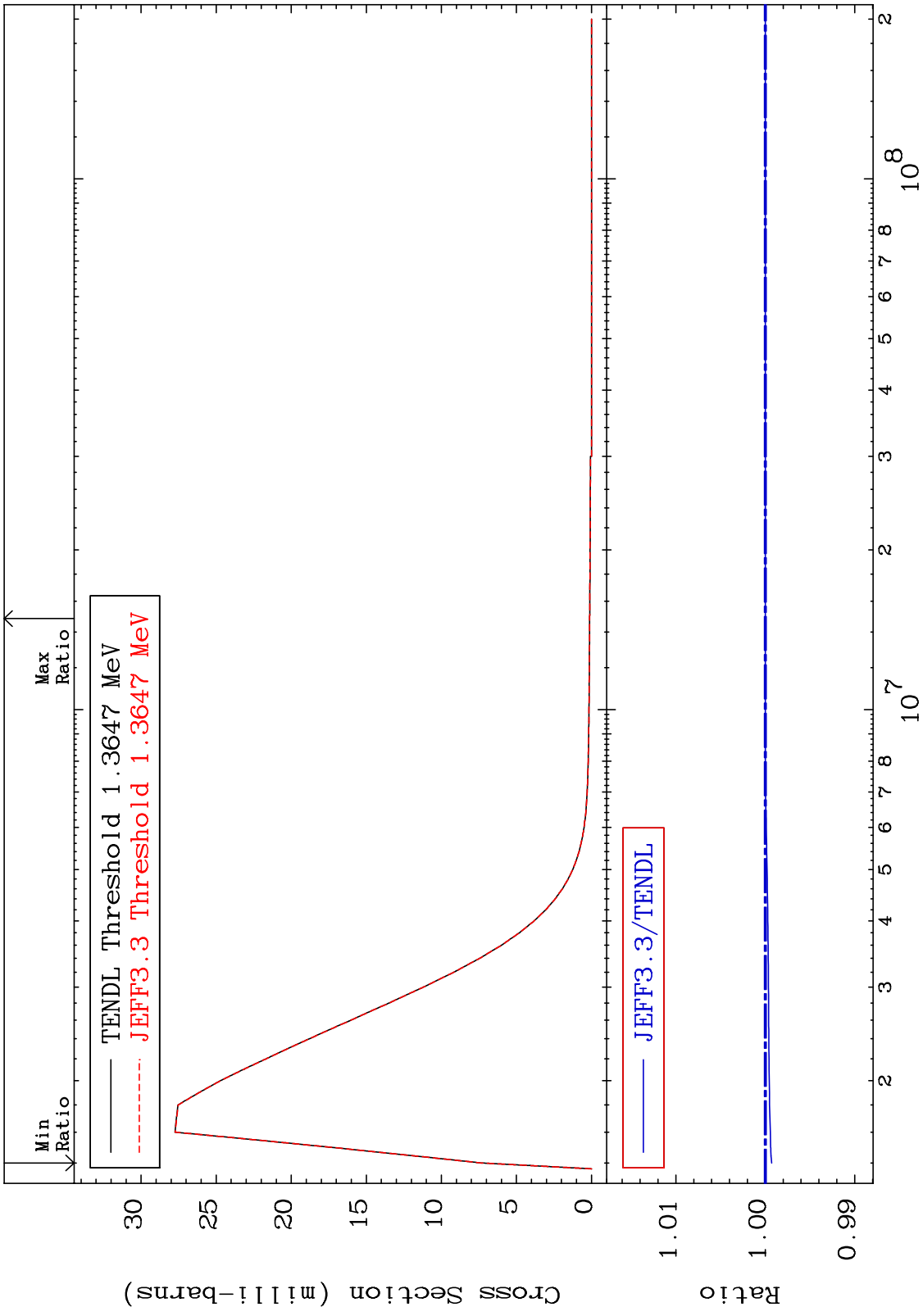


Incident Energy (eV) 48-Cd-109

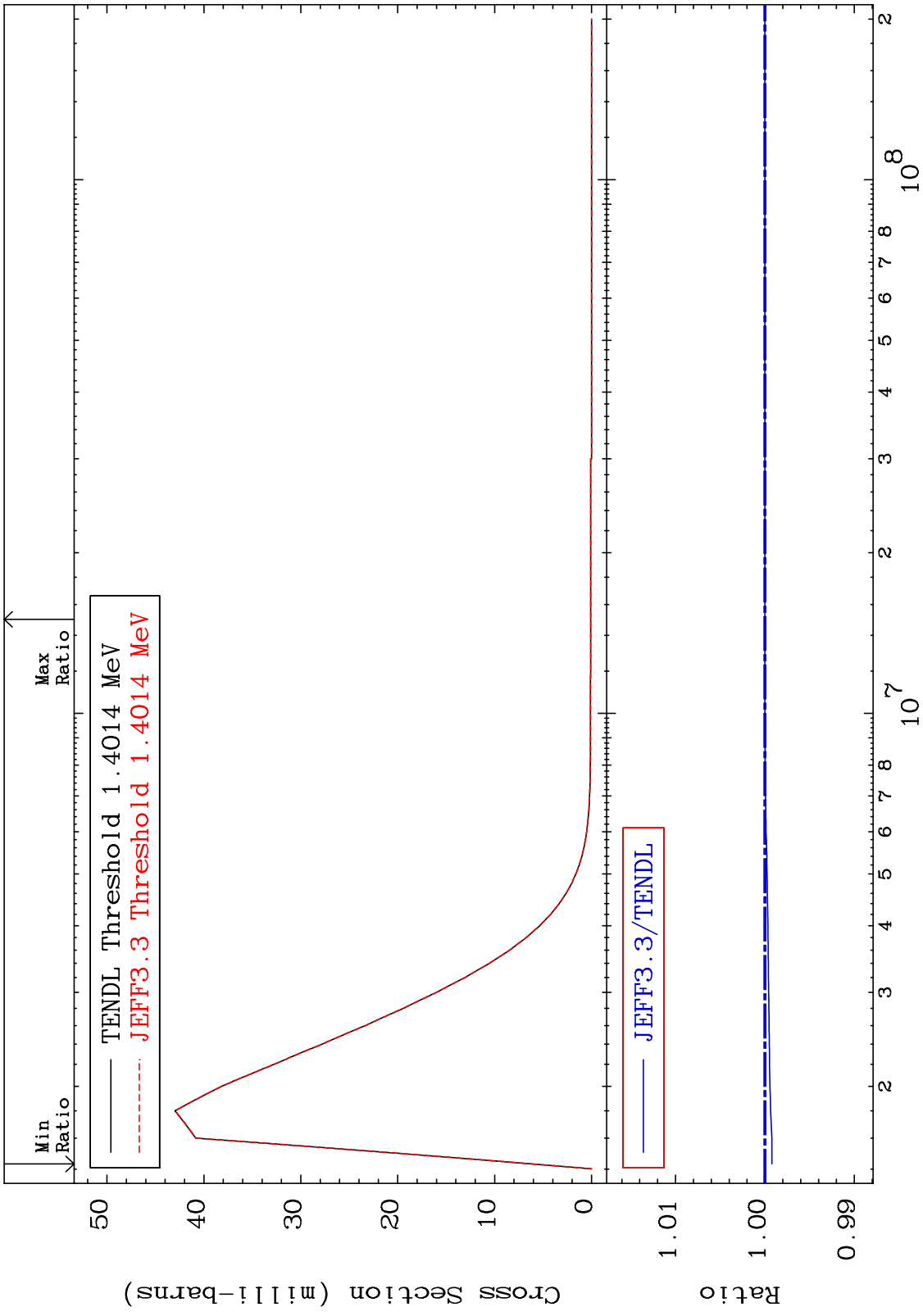
MAT 4834 MT= 72 (n,n') Level Cross Section 48-Cd-109 -0.077 To 0.000 %



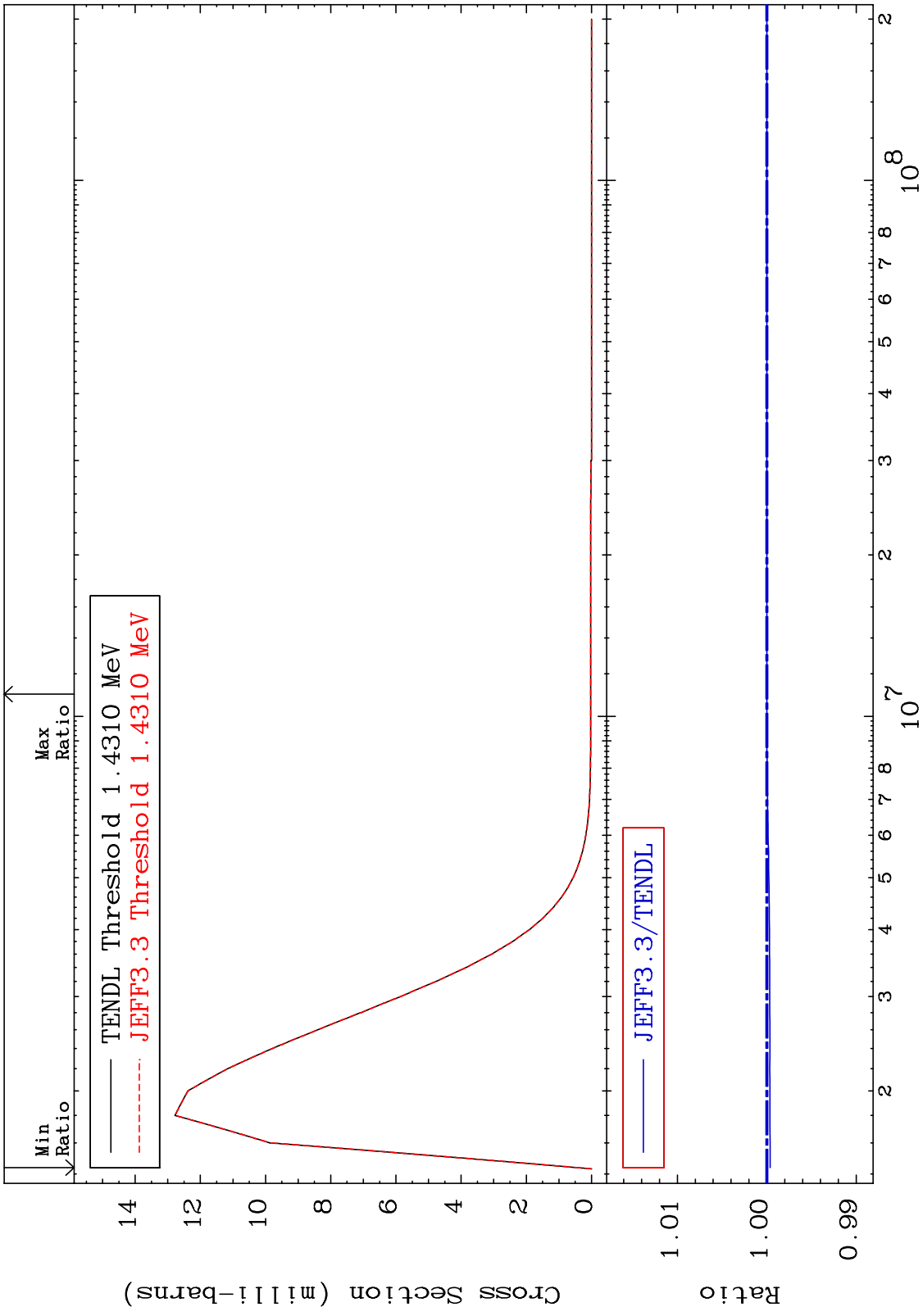
MAT 4834 MT= 73 (n,n') Level Cross Section 48-Cd-109 -0.071 To 0.000 %



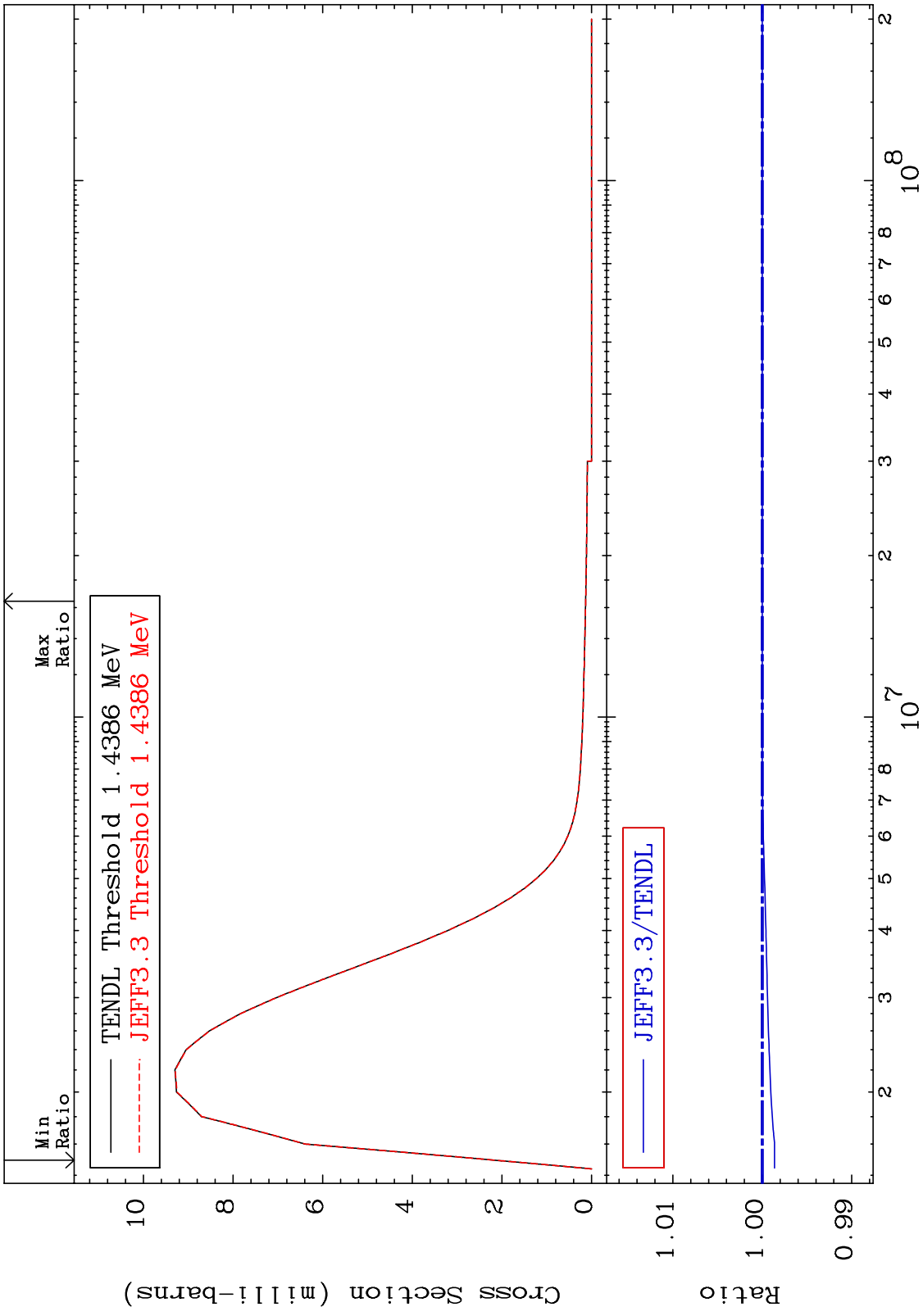
MAT 4834 MT= 74 (n,n') Level Cross Section 48-Cd-109 -0.079 To 0.000 %



MAT 4834 MT= 75 (n,n') Level Cross Section 48-Cd-109 -0.036 To 0.000 %

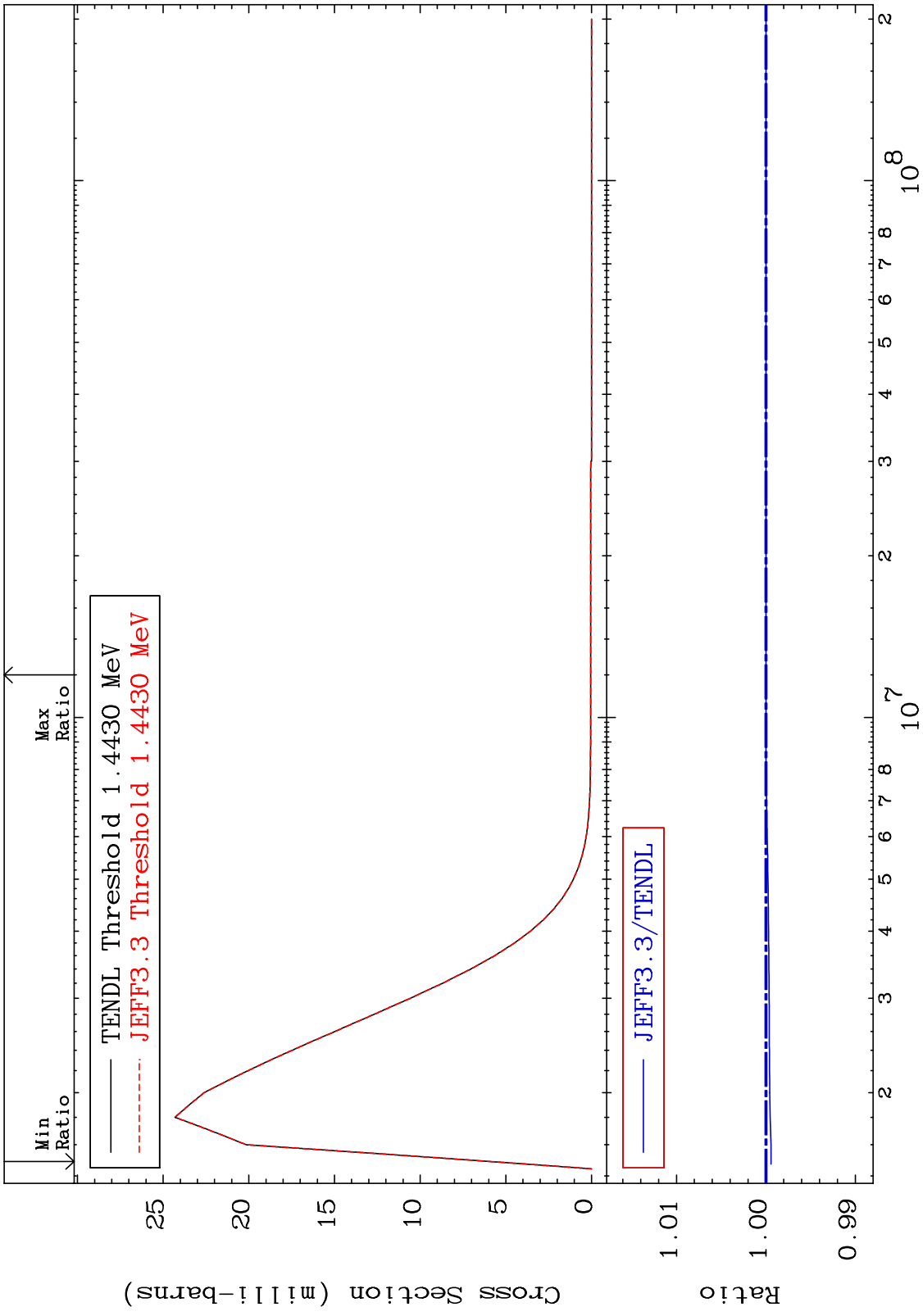


MAT 4834 MT= 76 (n,n') Level Cross Section 48-Cd-109 -0.138 To 0.000 %

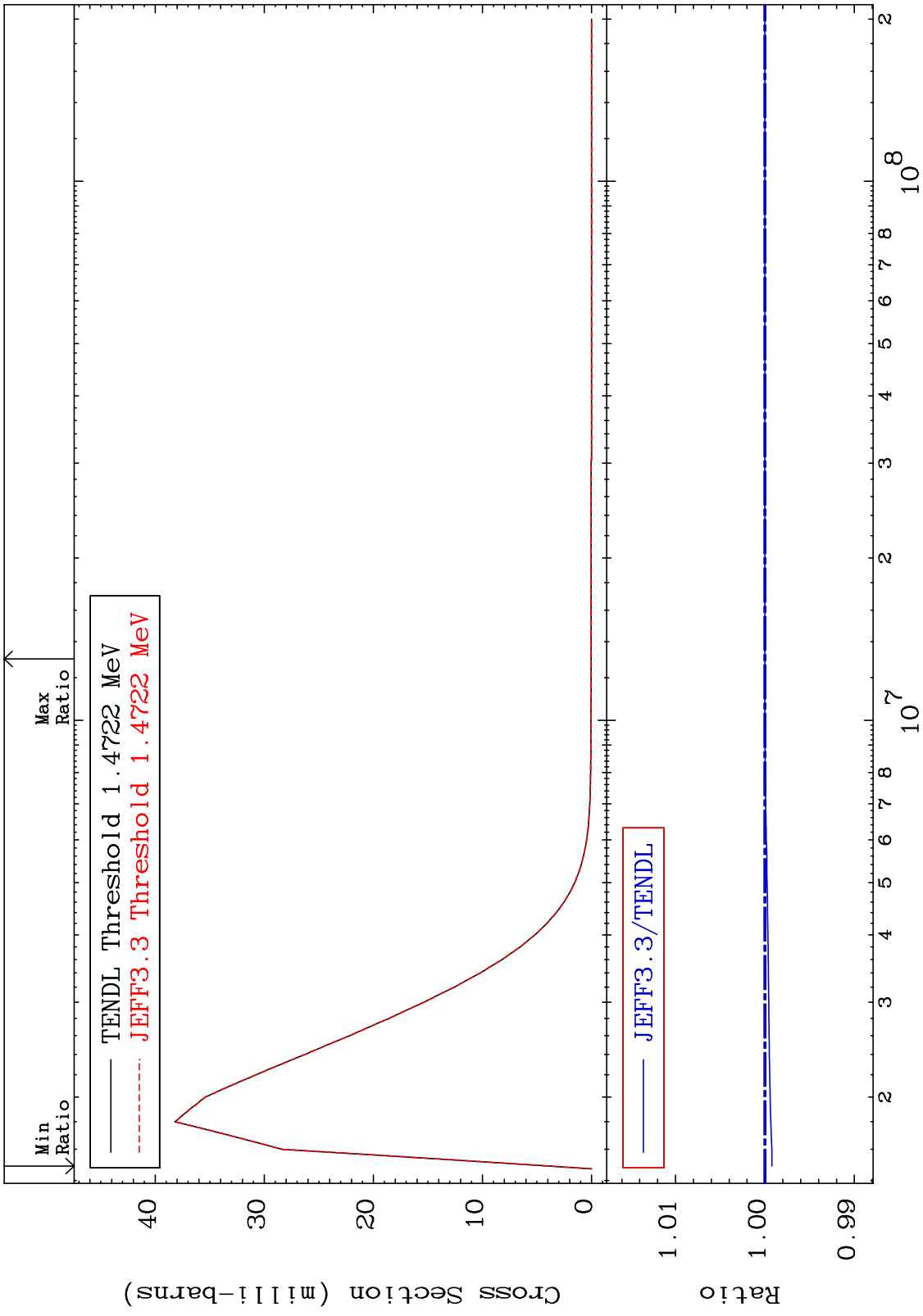


45 48-Cd-109

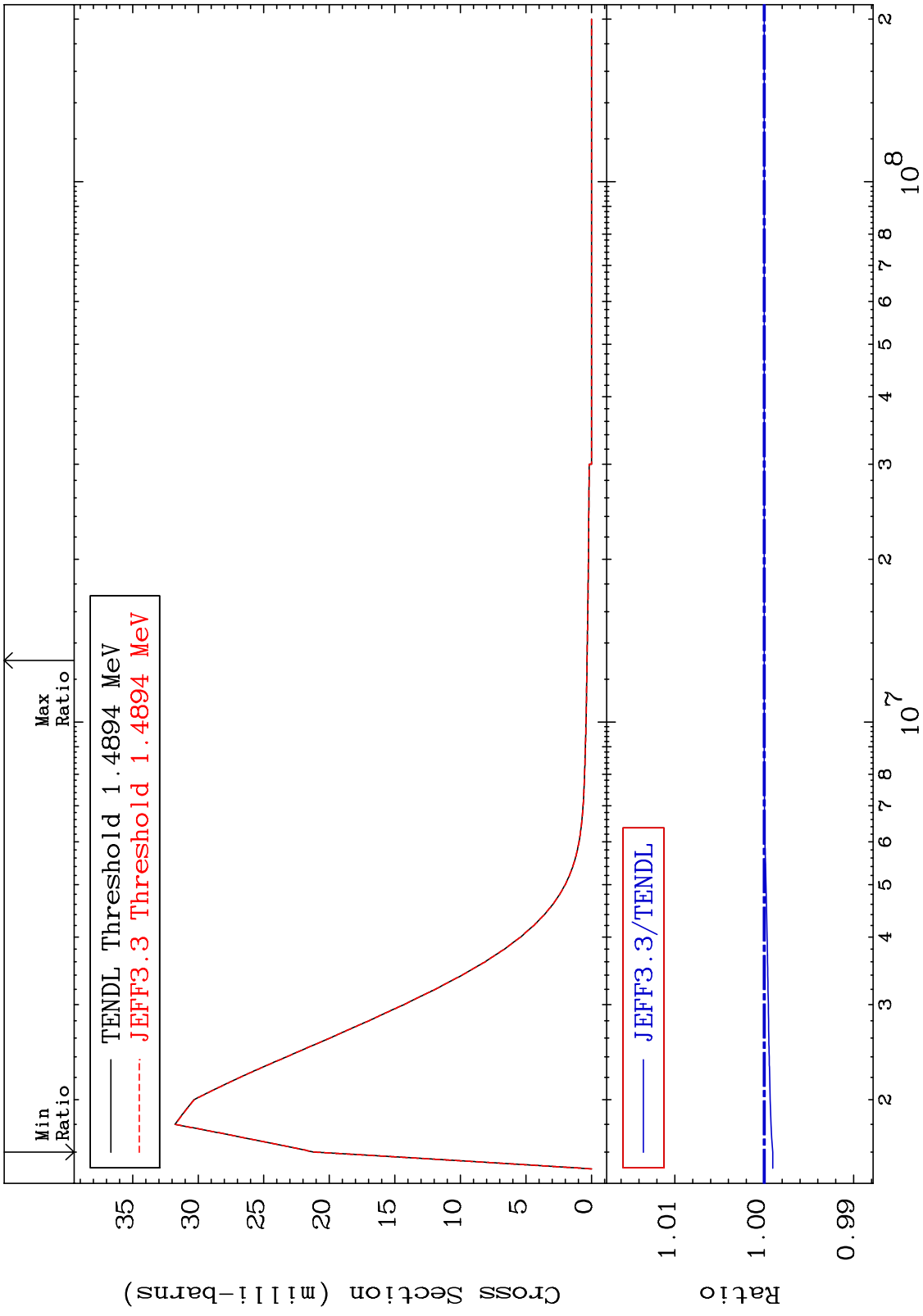
MAT 4834 MT= 77 (n,n') Level Cross Section 48-Cd-109 -0.057 To 0.000 %



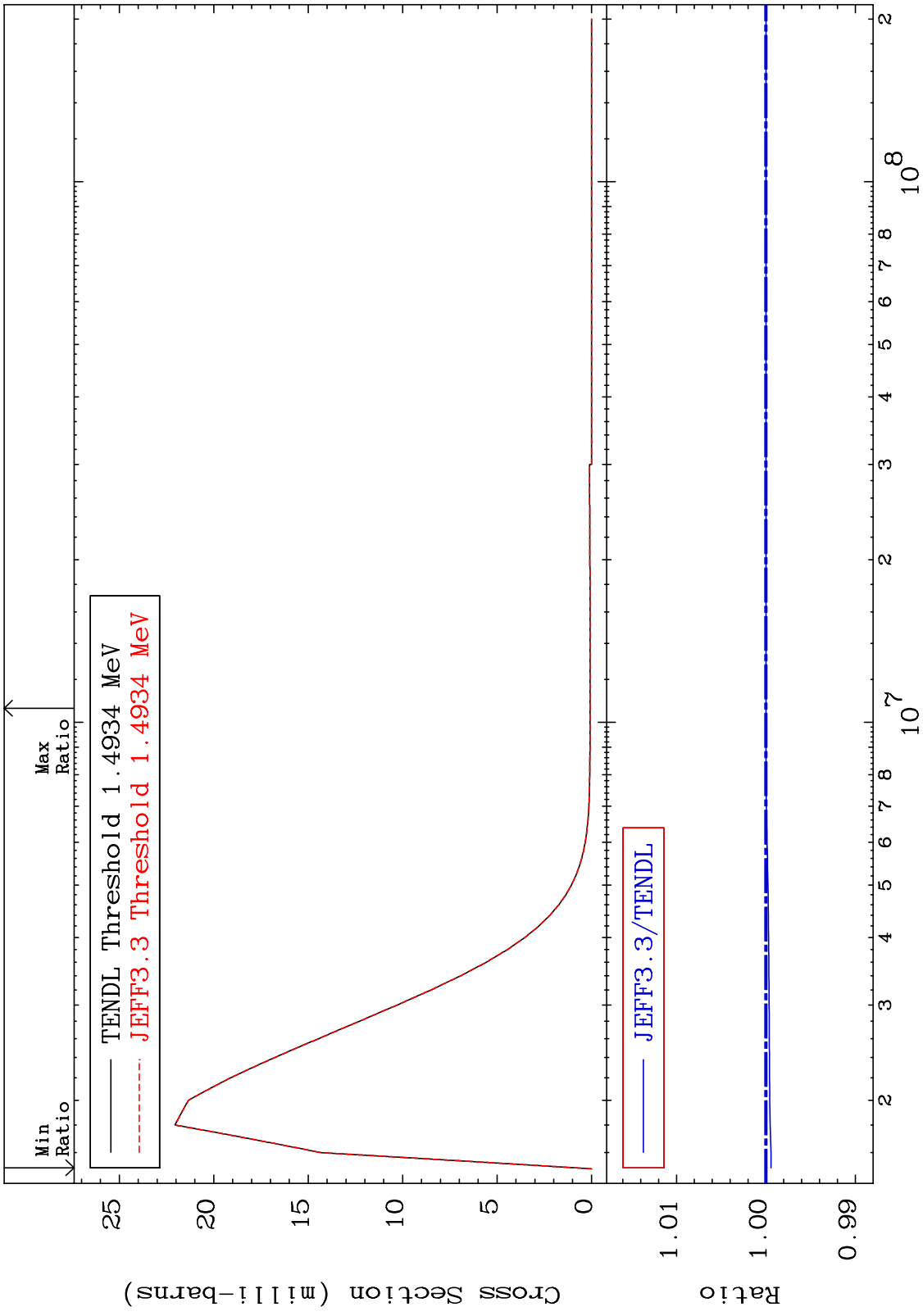
MAT 4834 MT= 78 (n,n') Level Cross Section 48-Cd-109 -0.079 To 0.000 %



MAT 4834 MT= 79 (n,n') Level Cross Section 48-Cd-109 -0.094 To 0.000 %



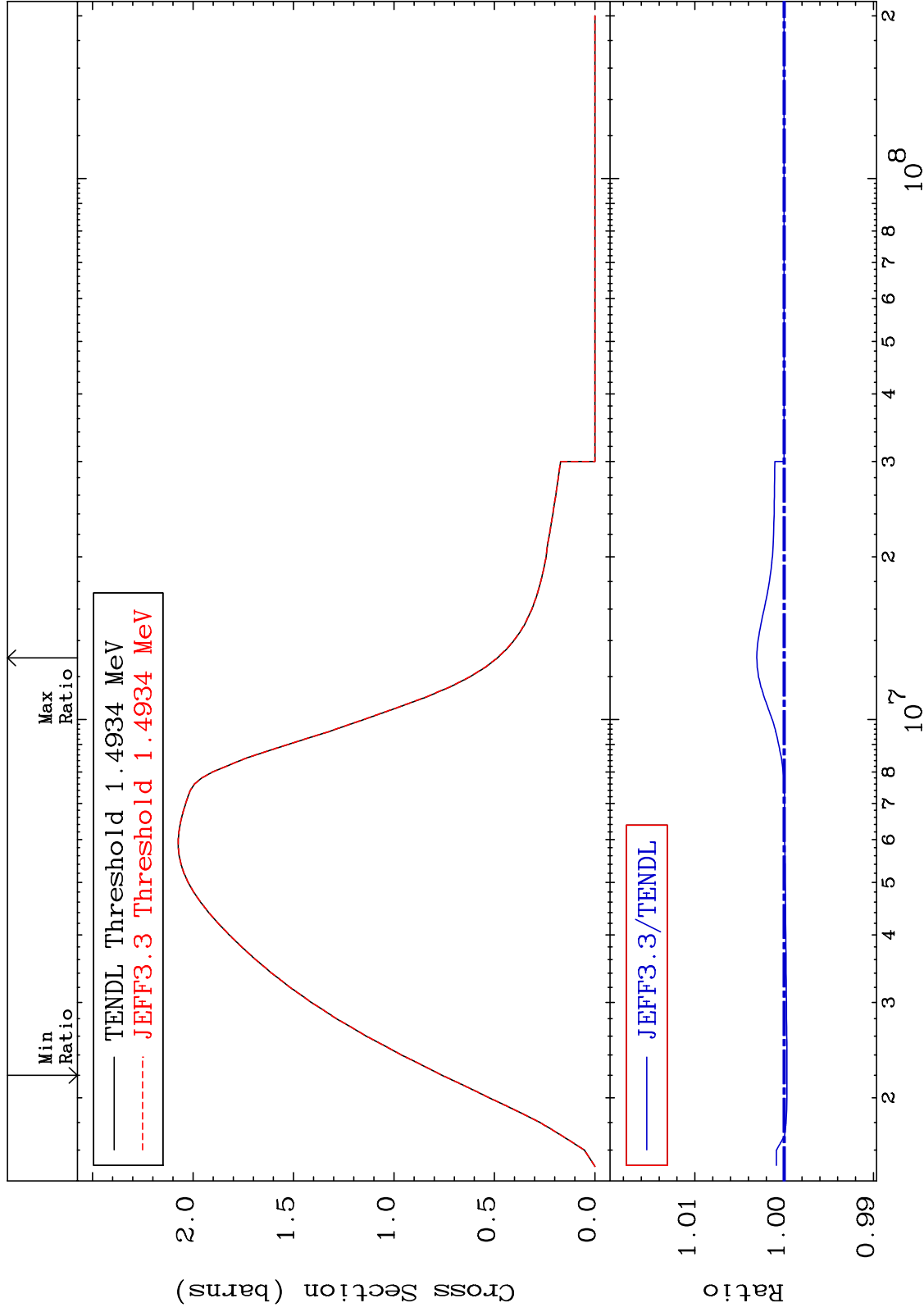
MAT 4834 MT= 80 (n,n') Level Cross Section 48-Cd-109 -0.057 To 0.000 %



MAT 4834

(n,n') Continuum
Cross Section

48-Cd-109
-0.031 To 0.306 %



MAT 4834

48-Cd-109

-99.76 To 760.8 %

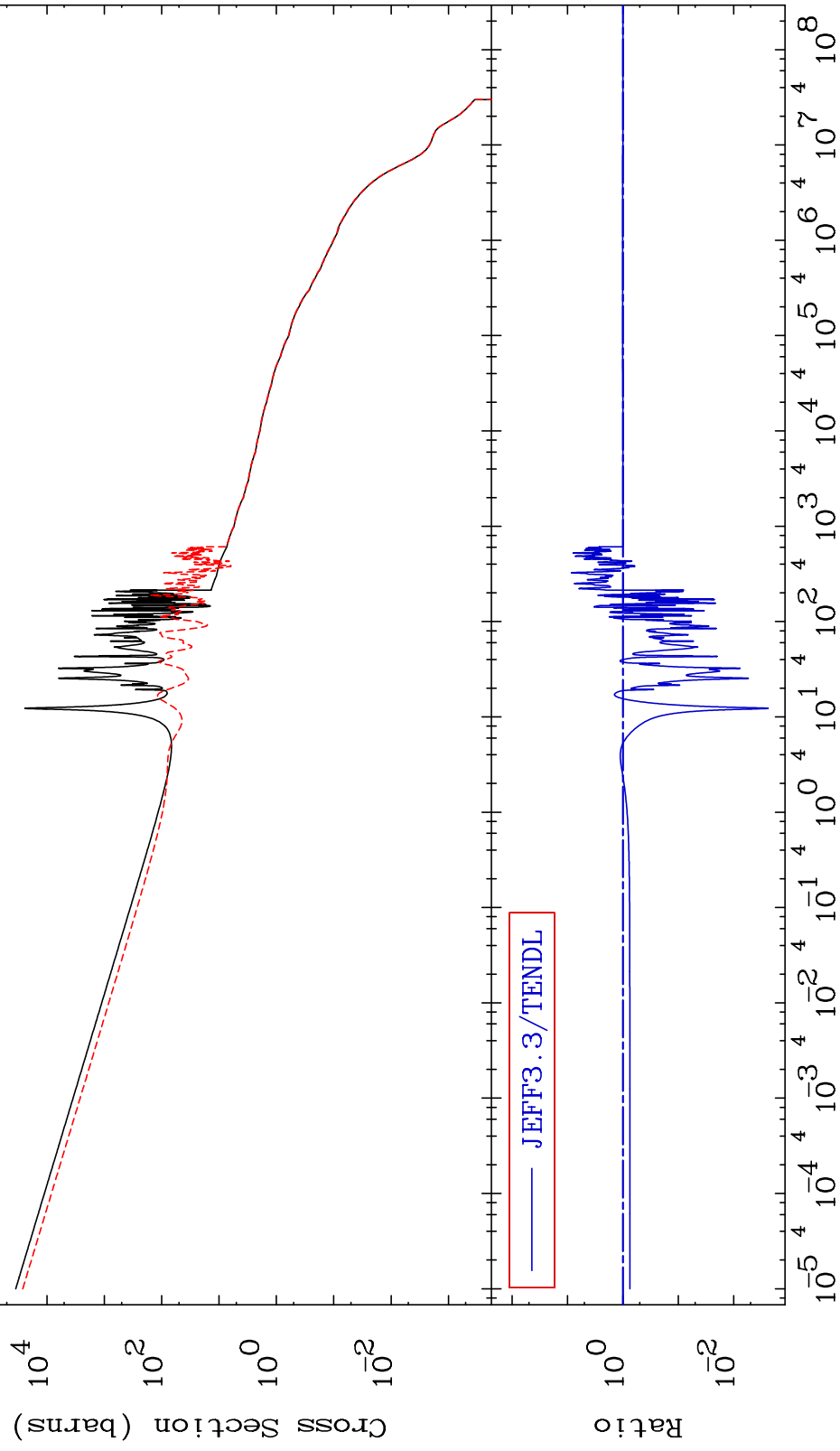
(n, γ)

Cross Section

Min Ratio

Max Ratio

TENDL
JEFF3.3



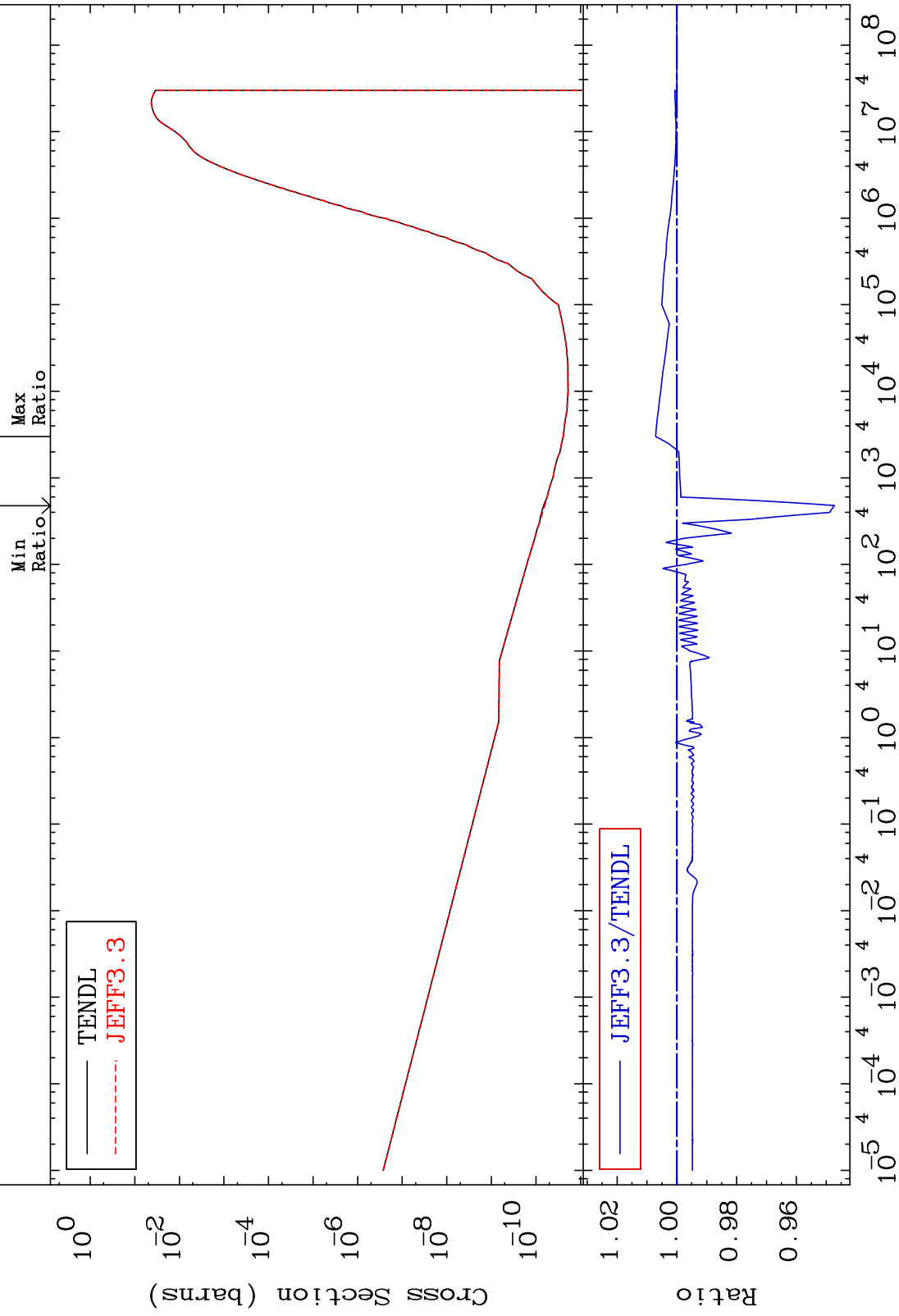
MAT 4834

(n,p)

48-Cd-109

-5.280 To 0.707 %

Cross Section



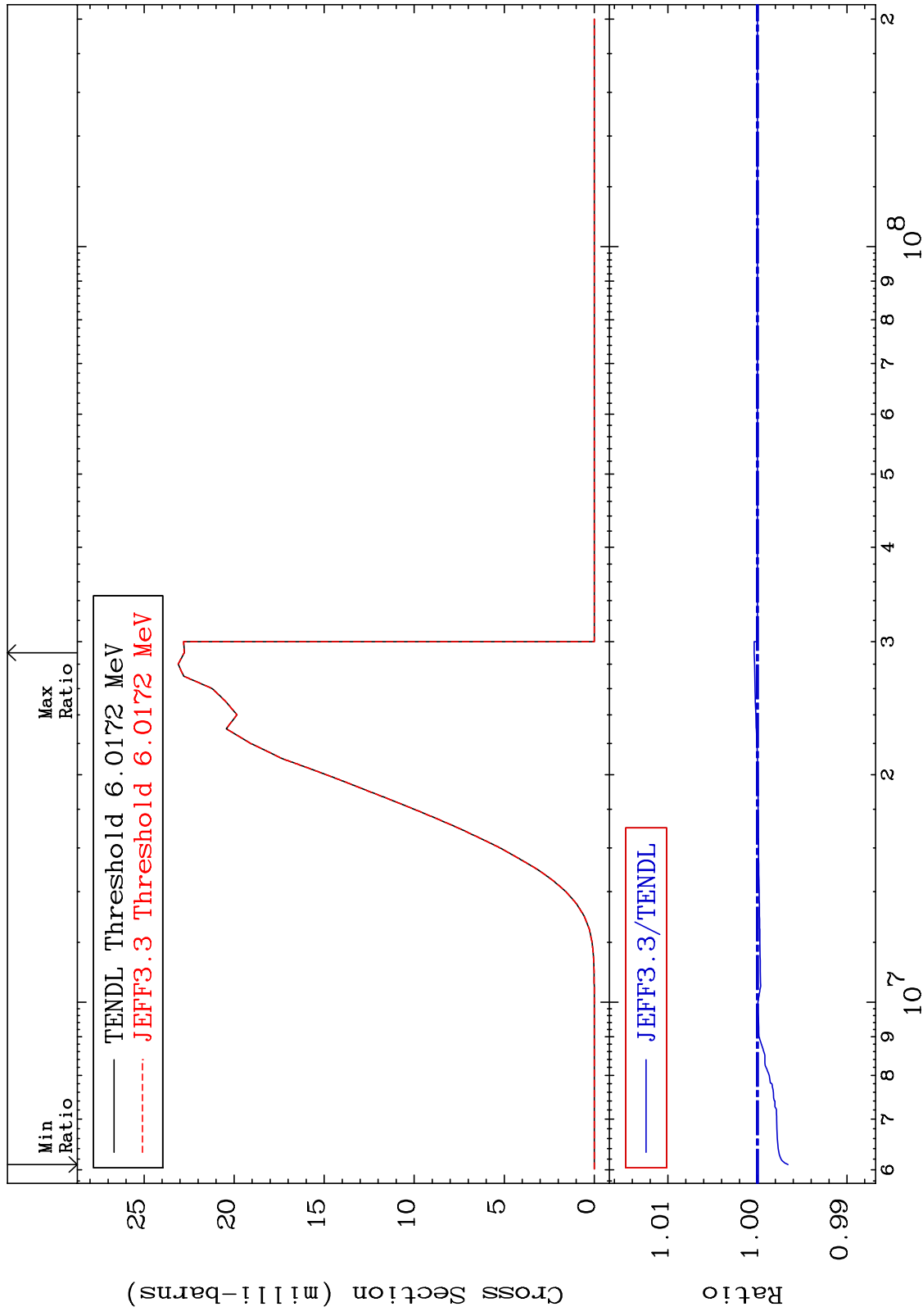
MAT 4834

(n,d)

48-Cd-109

-0.342 To 0.038 %

Cross Section



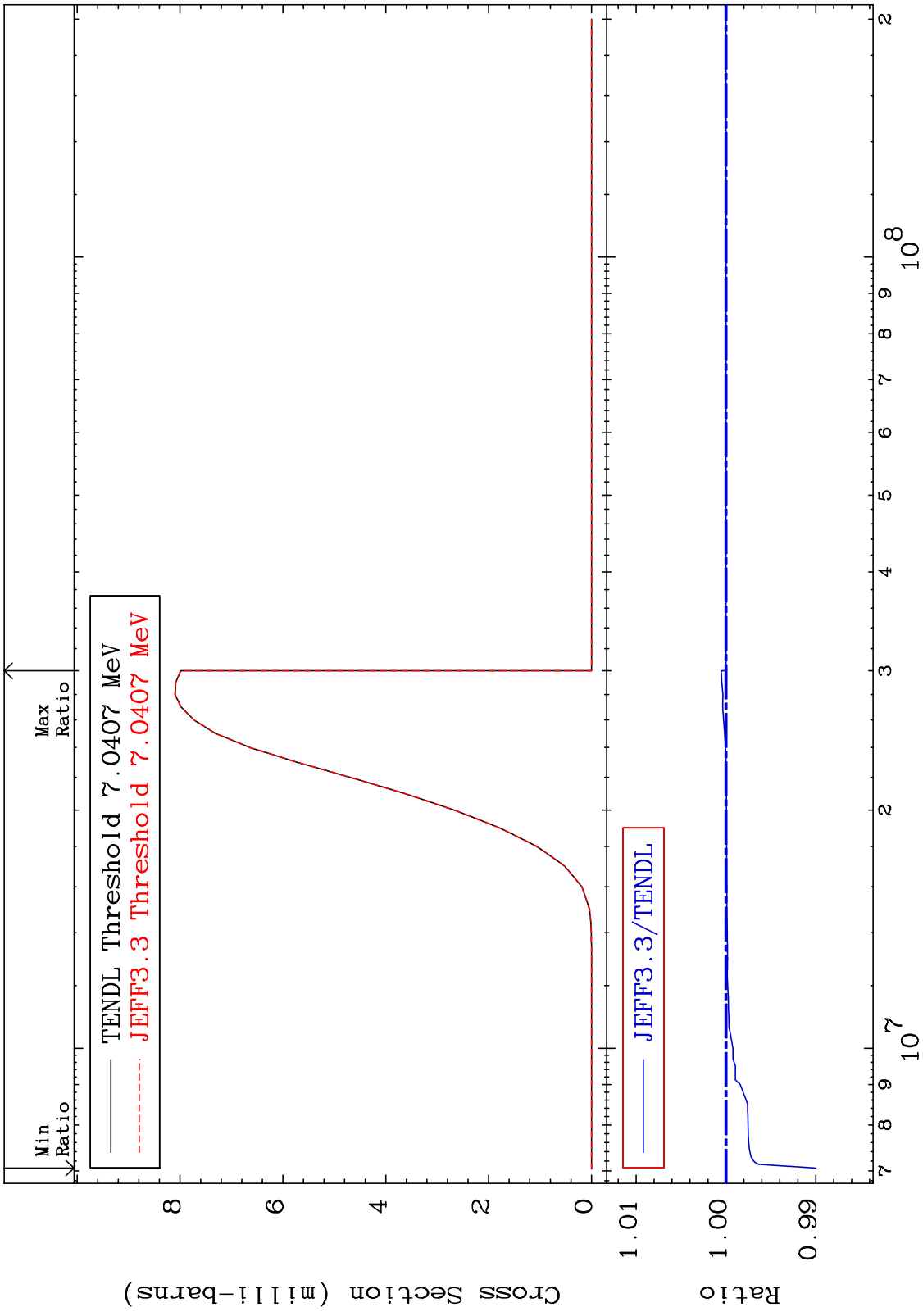
MAT 4834

(n, t)

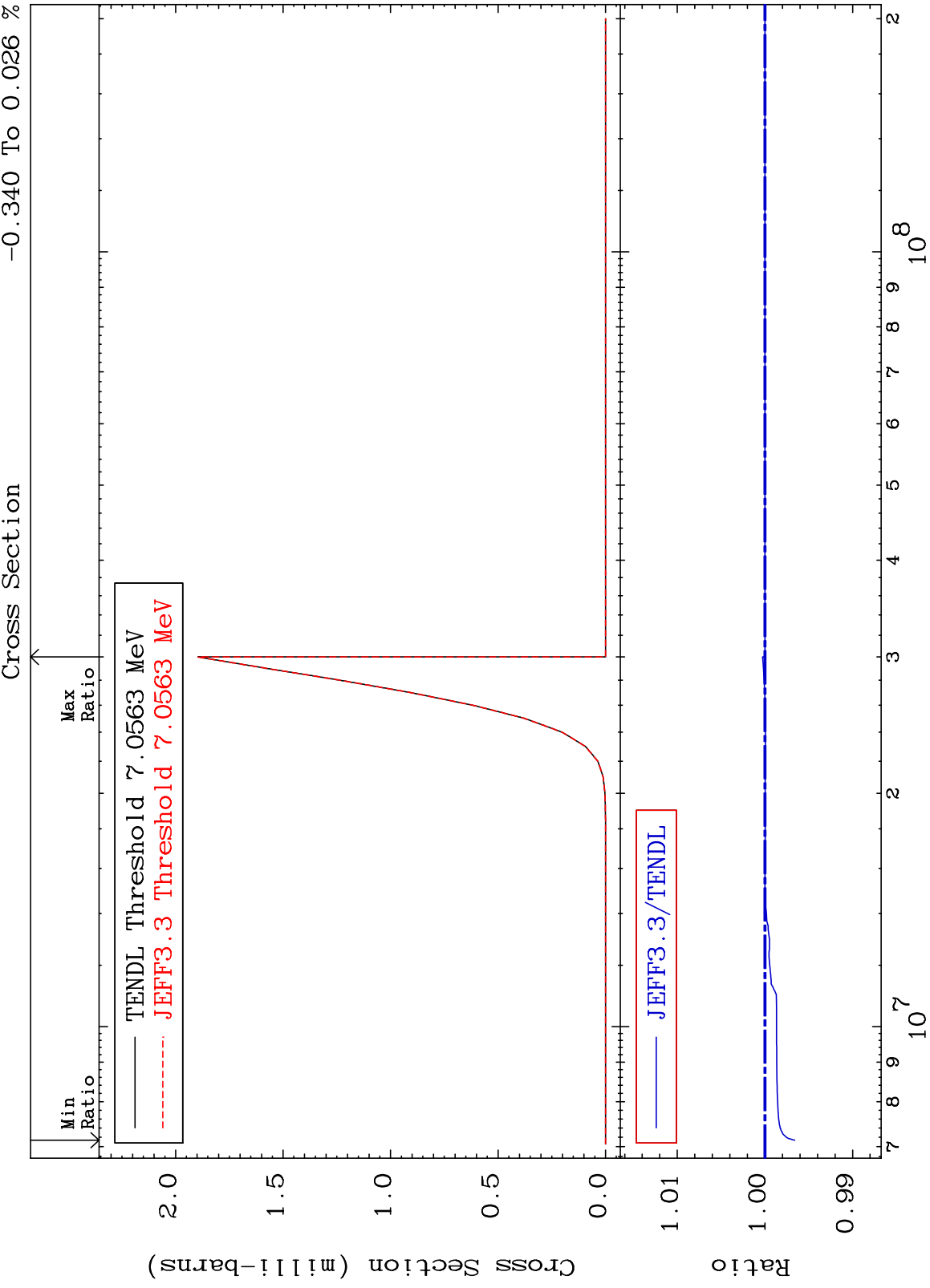
48-Cd-109

Cross Section

-0.999 To 0.053 %



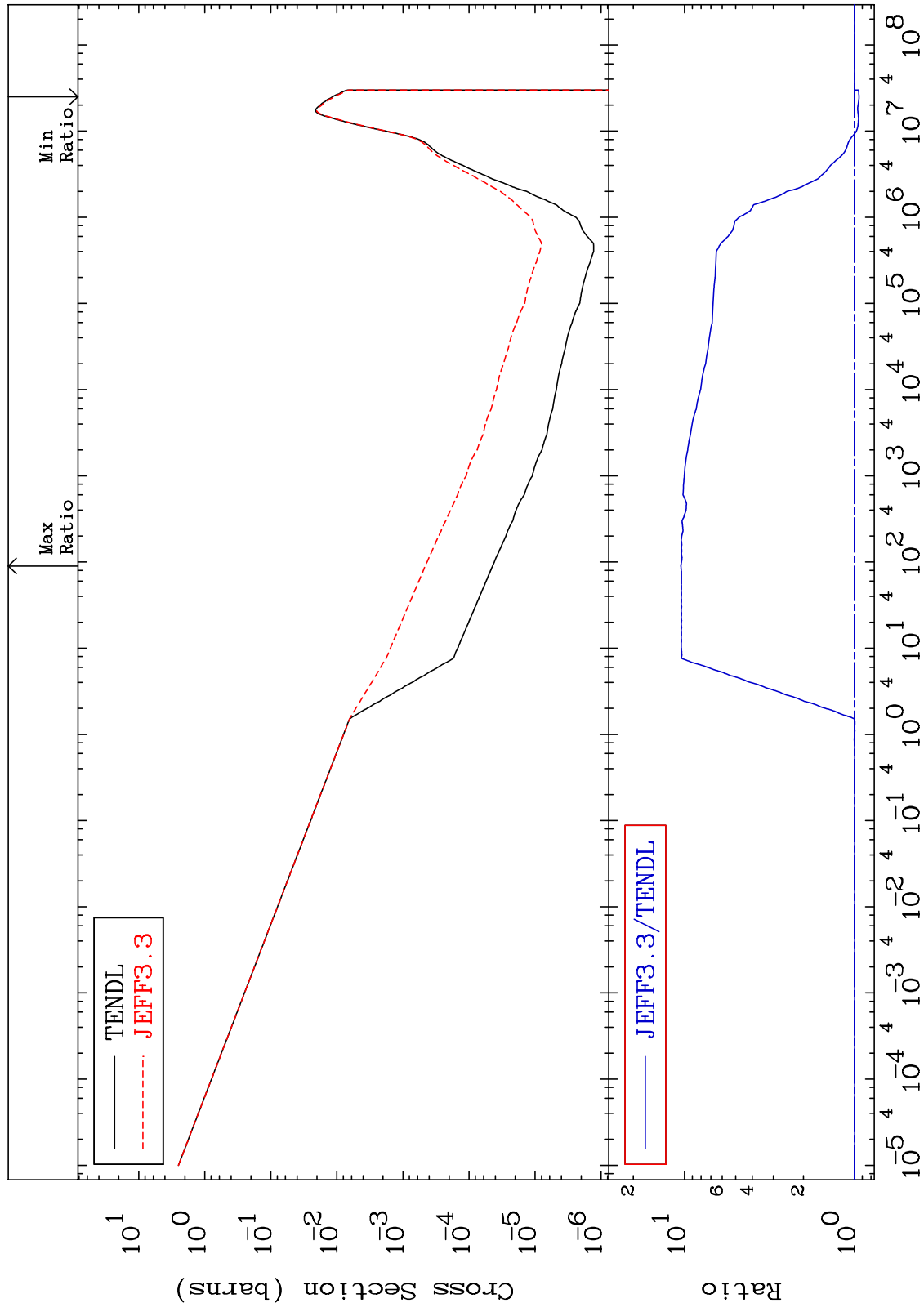
MAT 4834 (n,He-3) 48-Cd-109 -0.340 To 0.026 %



55 48-Cd-109

MAT 4834 48-Cd-109 -5.932 To 950.5 %

(n, α)
Cross Section



Incident Energy (eV) 48-Cd-109

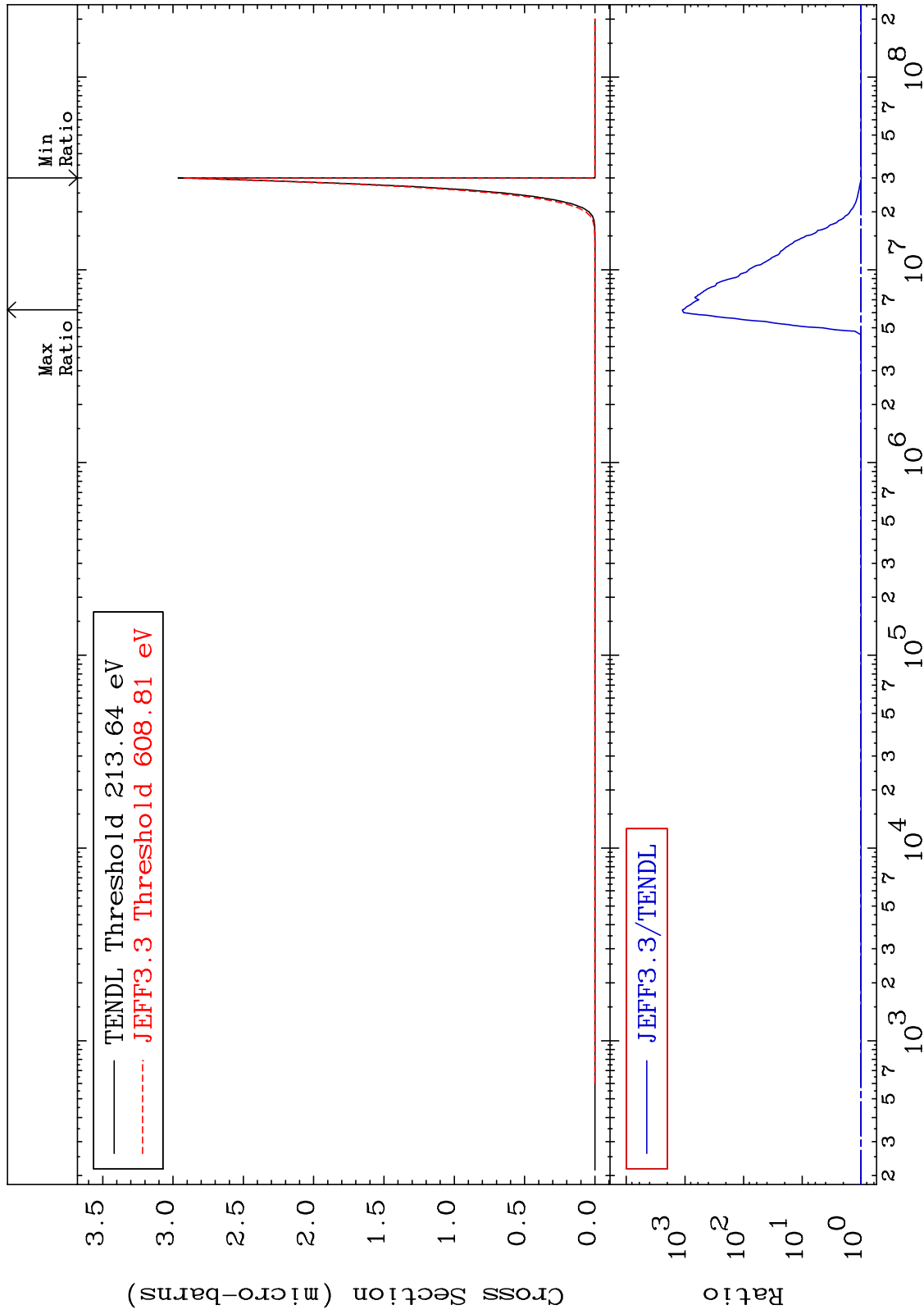
MAT 4834

(n,2α)

48-Cd-109

Cross Section

-1.162 To 9999. %



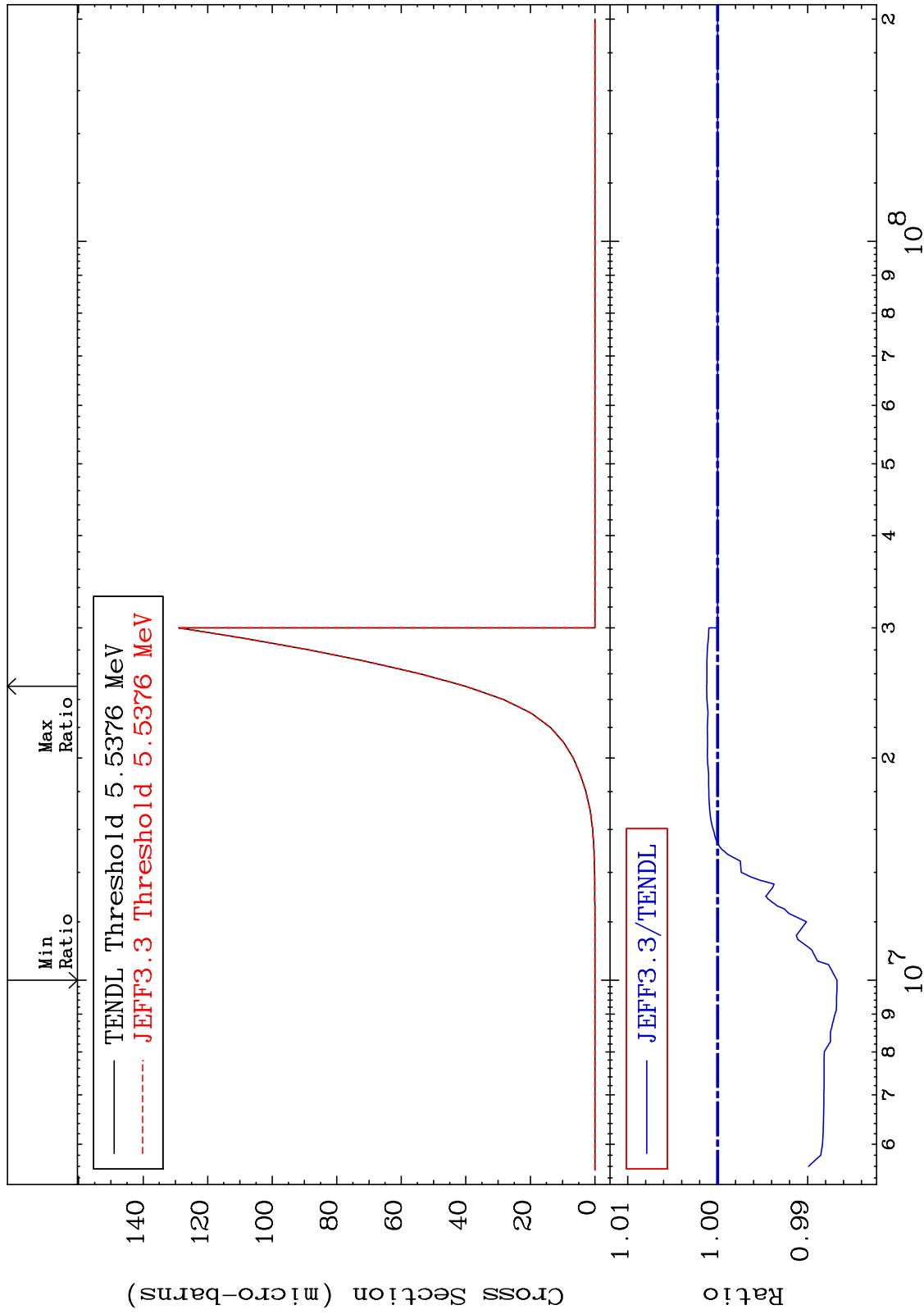
MAT 4834

(n,2p)

48-Cd-109

-1.327 To 0.121 %

Cross Section



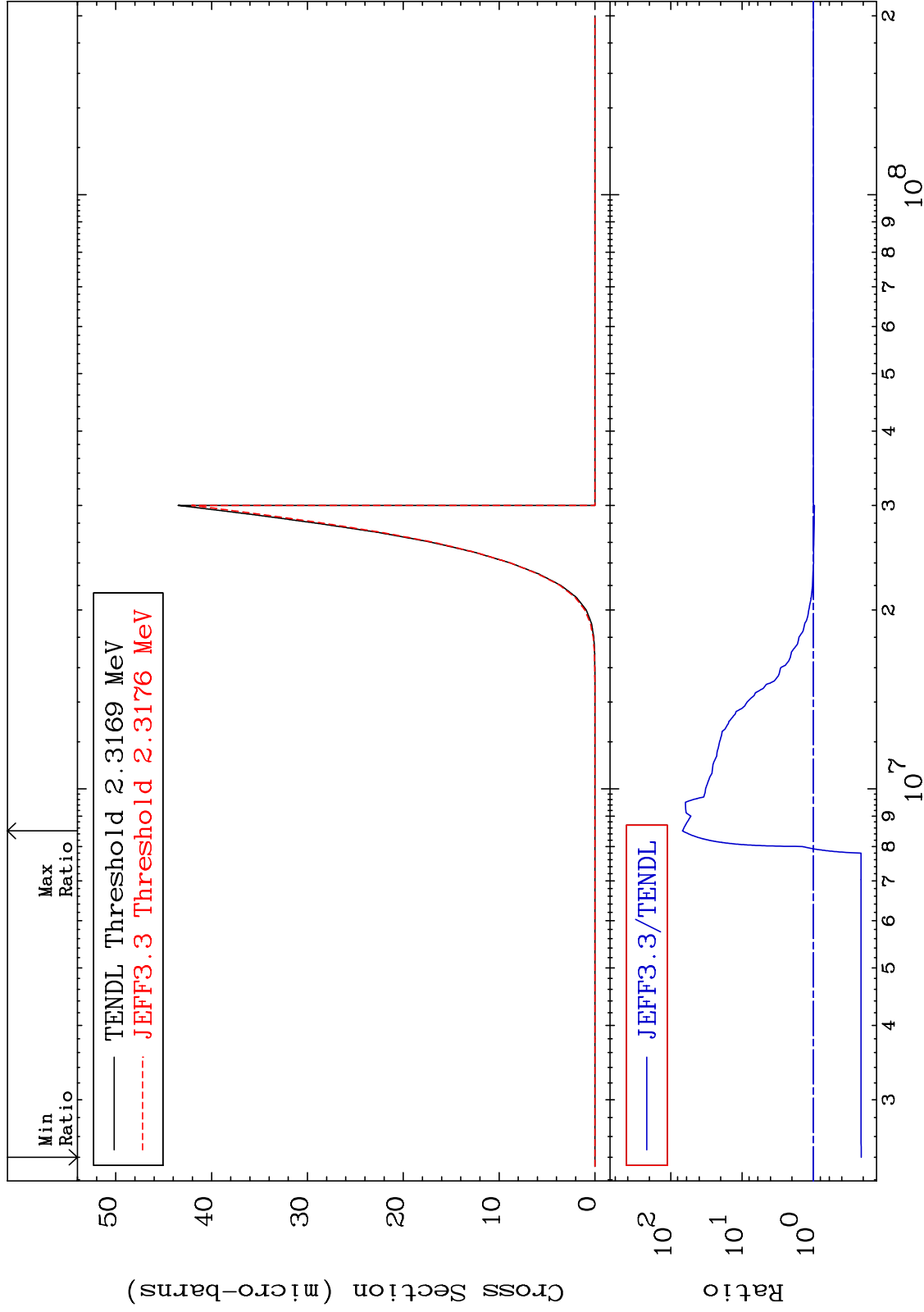
MAT 4834

(n,p) α

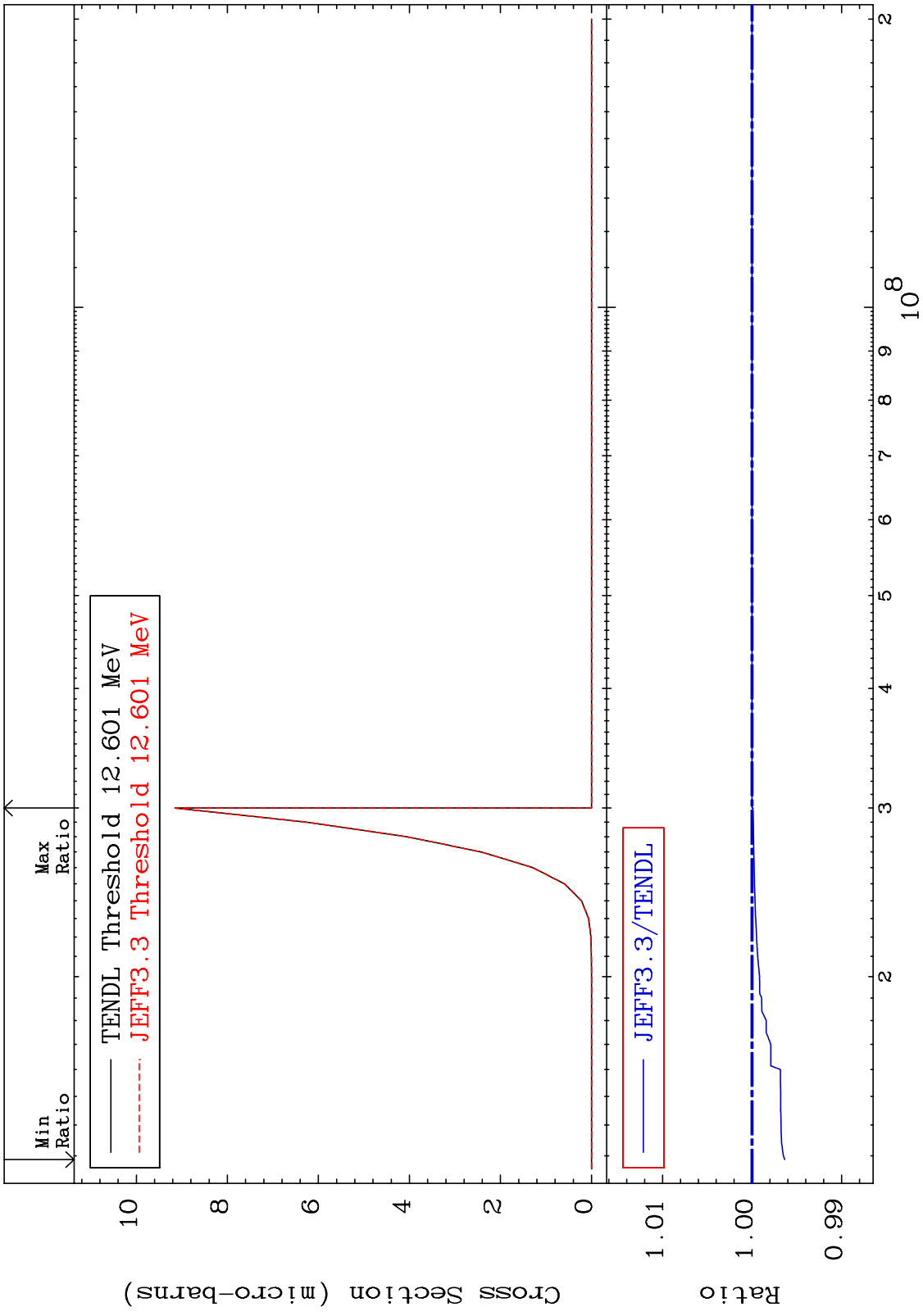
48-Cd-109

-78.68 To 6754. %

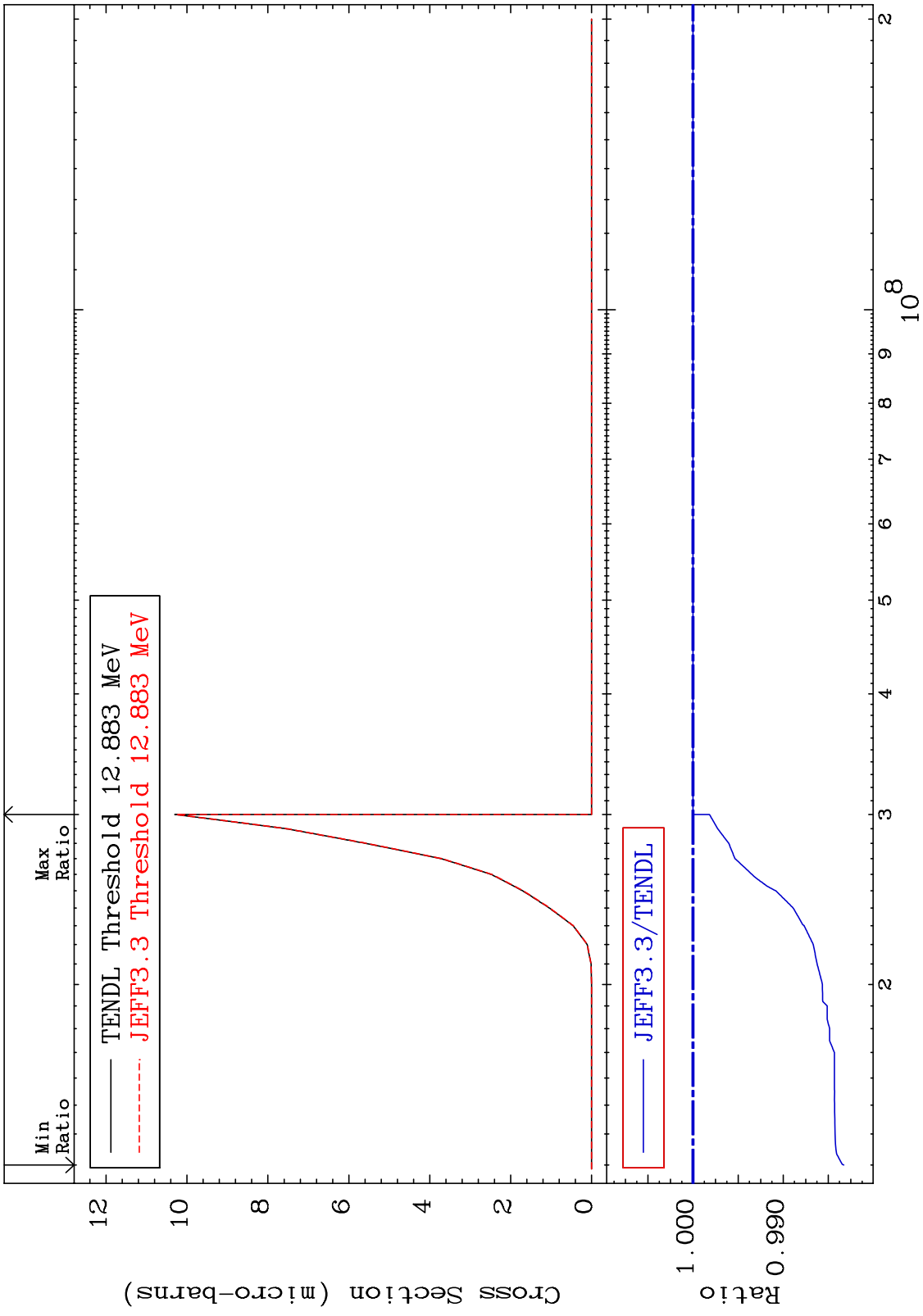
Cross Section



MAT 4834 (n,p) d 48-Cd-109
 Cross Section -0.366 To 0.000 %



MAT 4834 (n,p) t 48-Cd-109
 Cross Section -1.673 To 0.000 %



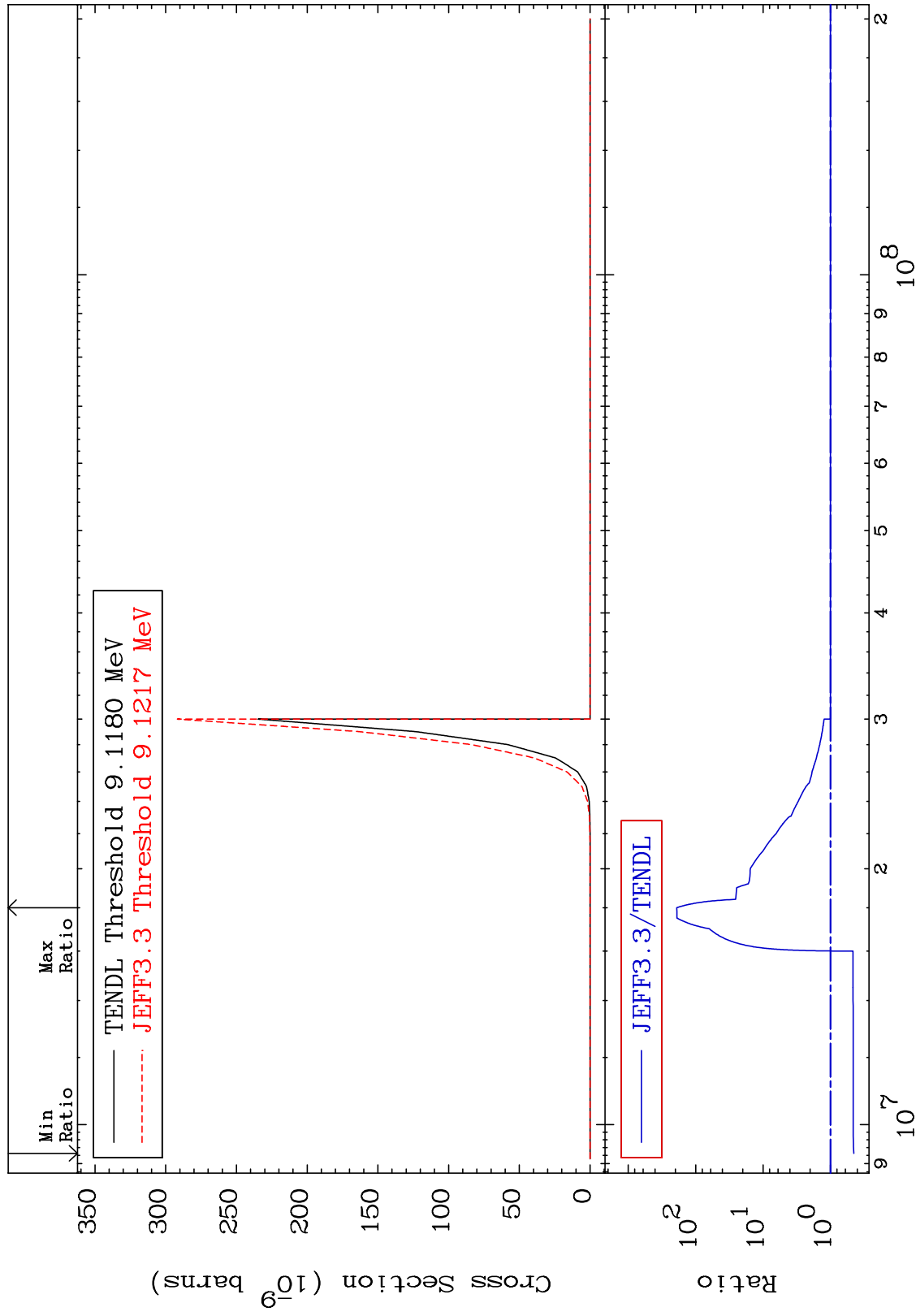
MAT 4834

(n,d) α

48-Cd-109

Cross Section

-55.05 To 9999. %

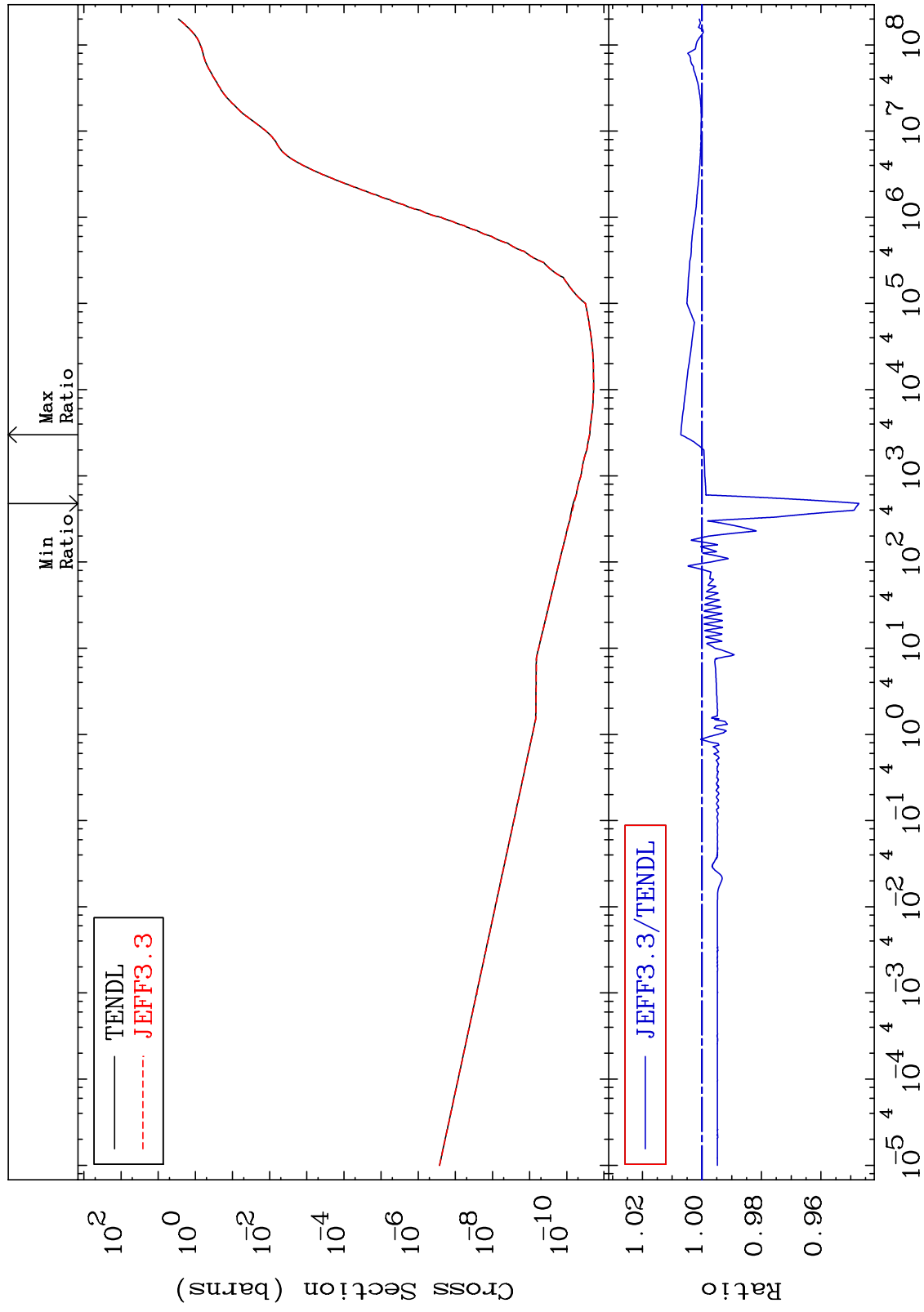


62

Incident Energy (eV)

48-Cd-109

MAT 4834 48-Cd-109 -5.280 To 0.707 % Hydrogen Production Cross Section

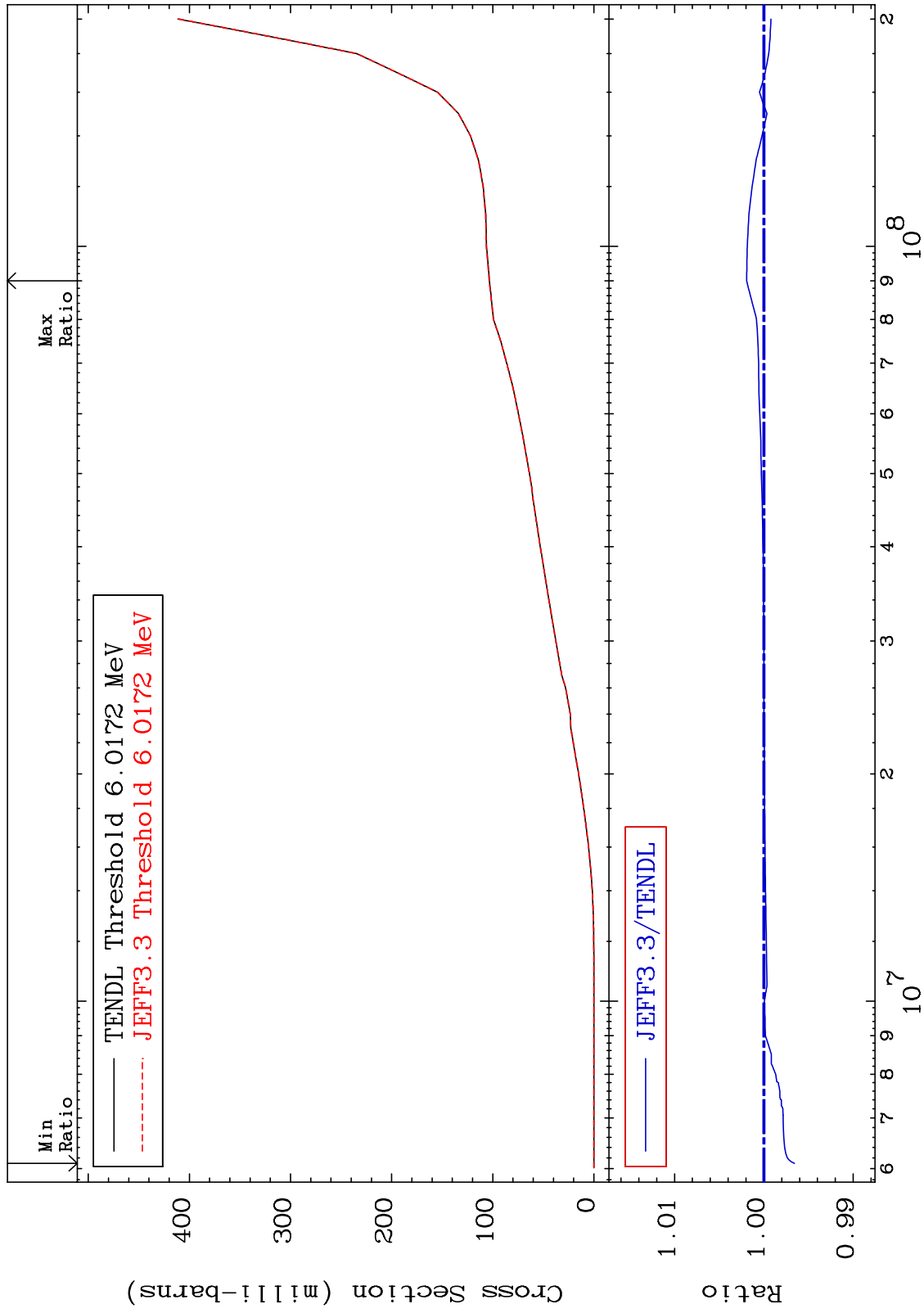


63 48-Cd-109

MAT 4834

Deuterium Production
Cross Section

48-Cd-109
-0.342 To 0.193 %



64

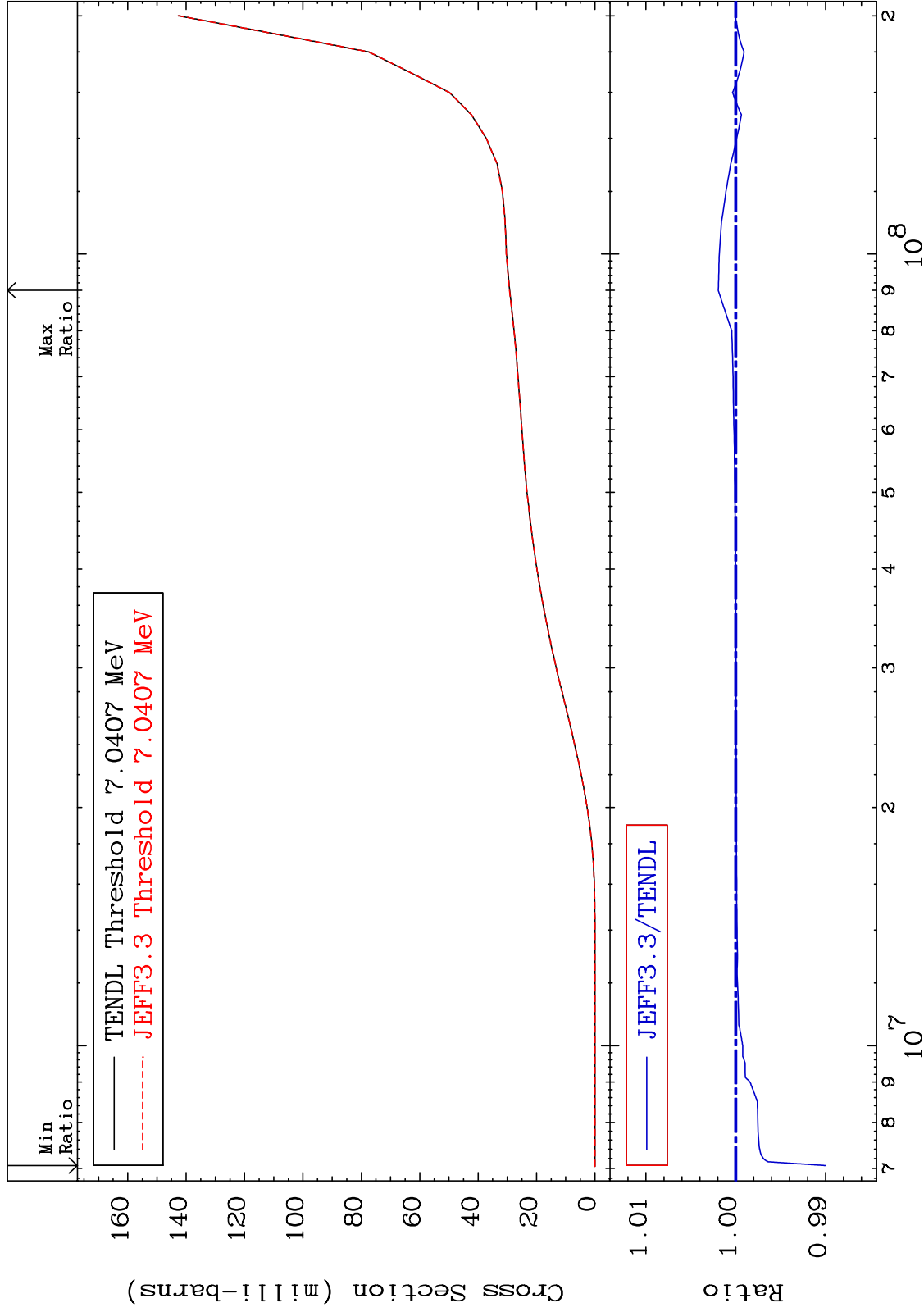
Incident Energy (eV)

48-Cd-109

MAT 4834

Tritium Production
Cross Section

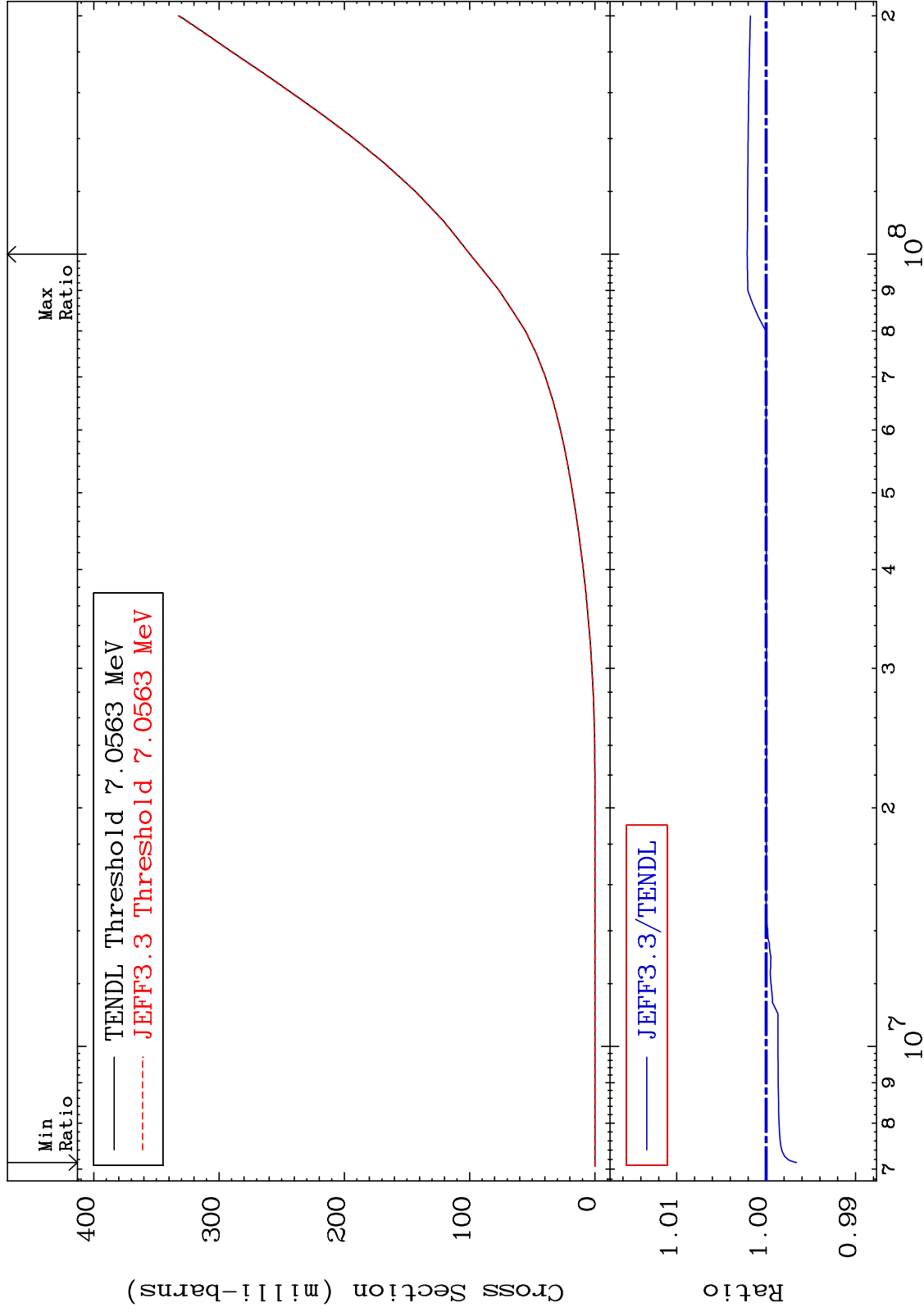
48-Cd-109
-0.999 To 0.195 %



MAT 4834

He-3 Production
Cross Section

48-Cd-109
-0.340 To 0.212 %



66

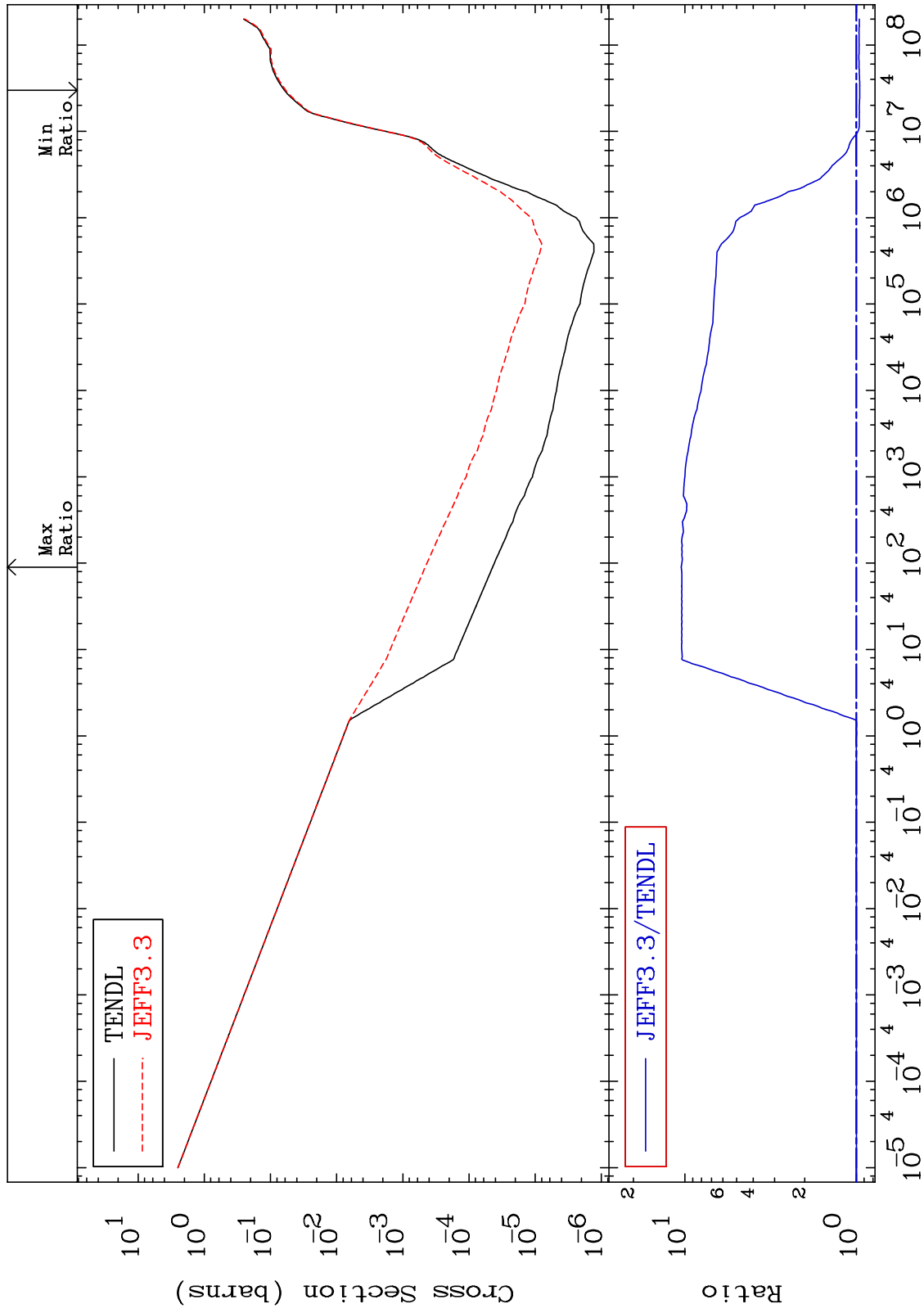
Incident Energy (eV)

48-Cd-109

MAT 4834

He-4 Production
Cross Section

48-Cd-109
-4.494 To 950.5 %

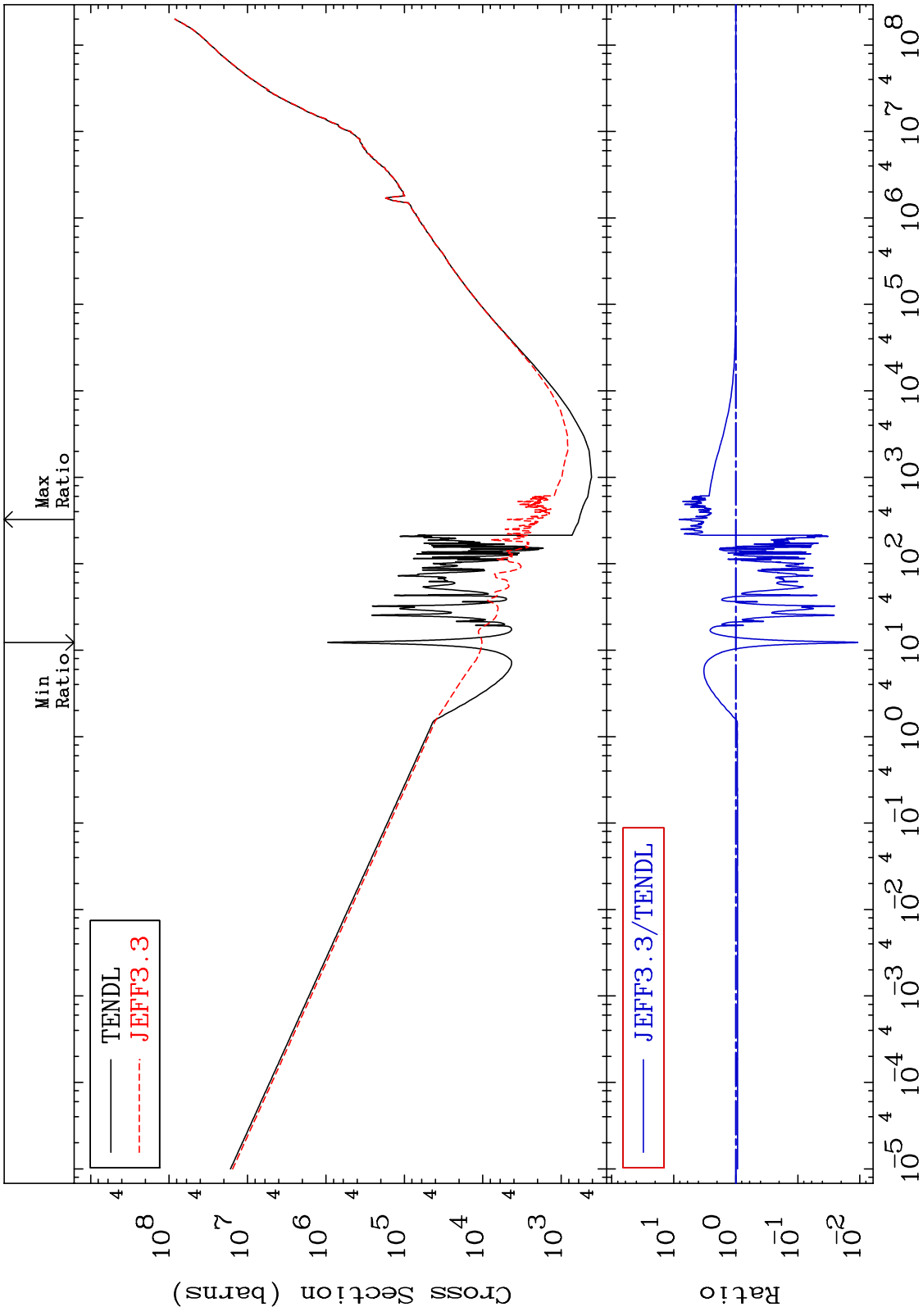


67

Incident Energy (eV)

48-Cd-109

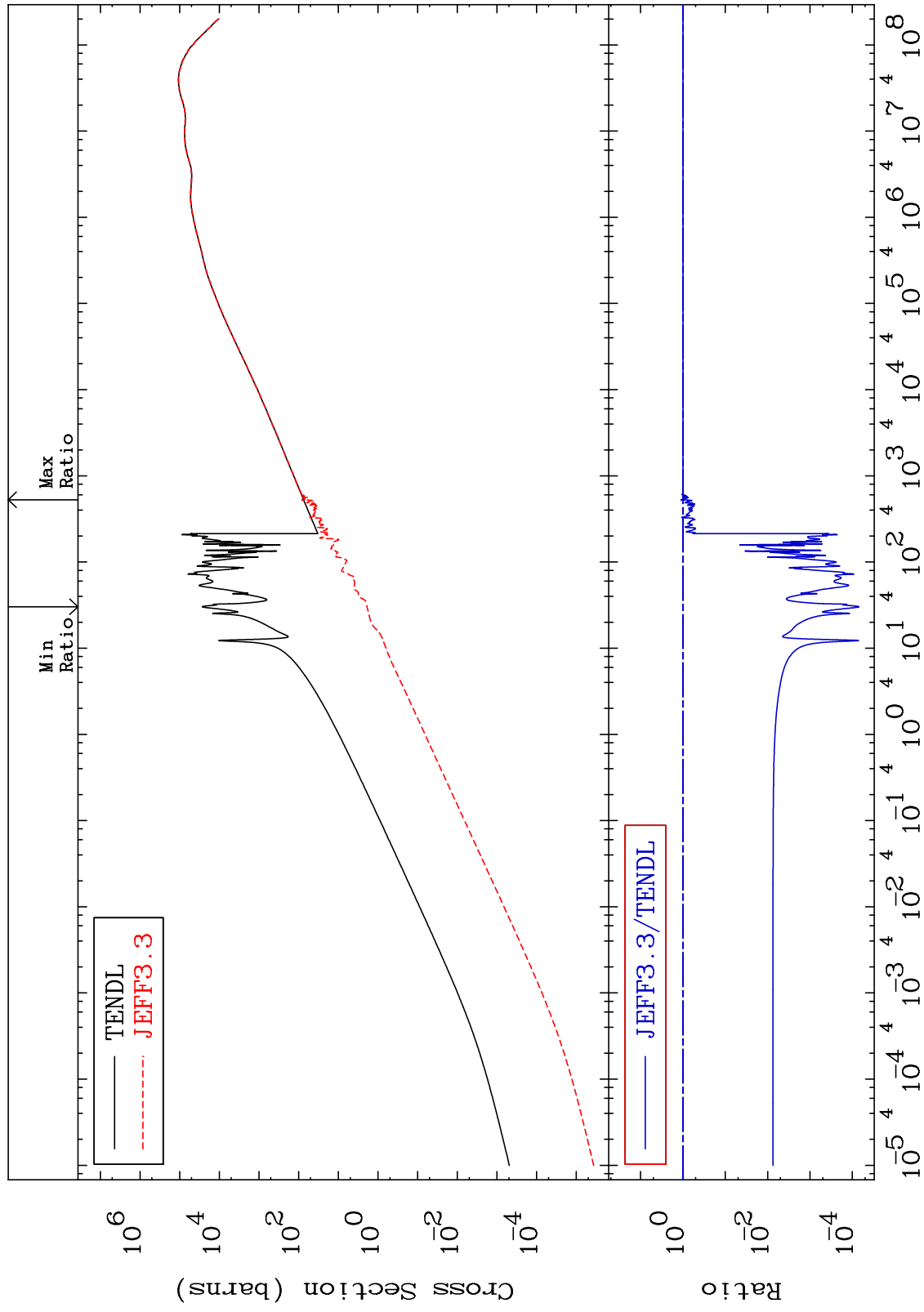
MAT 4834 Kerma total (eV-barns) 48-Cd-109
 Cross Section -98.92 To 721.4 %



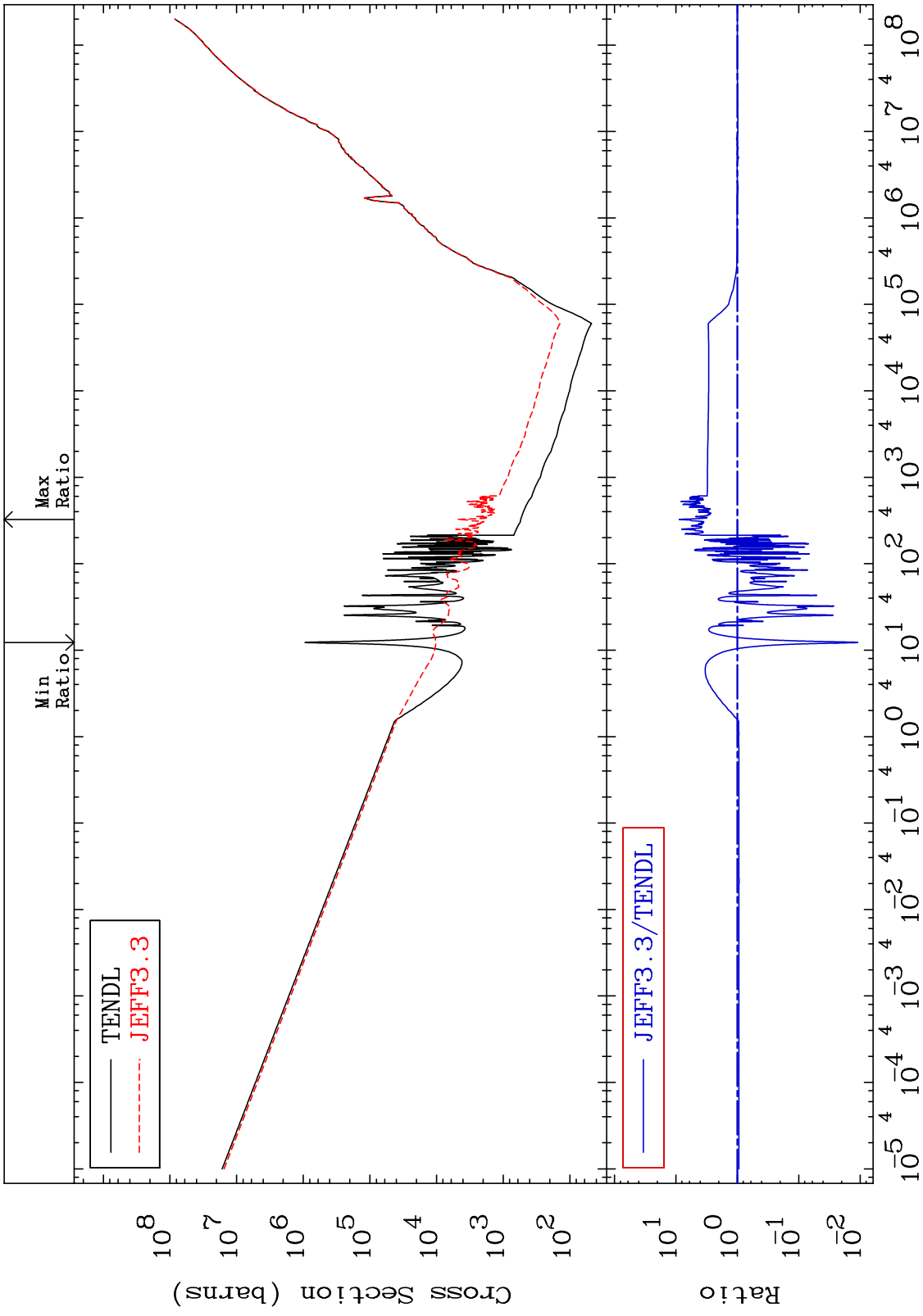
MAT 4834

Kerma elastic
Cross Section

48-Cd-109
-99.99 To 11.63 %

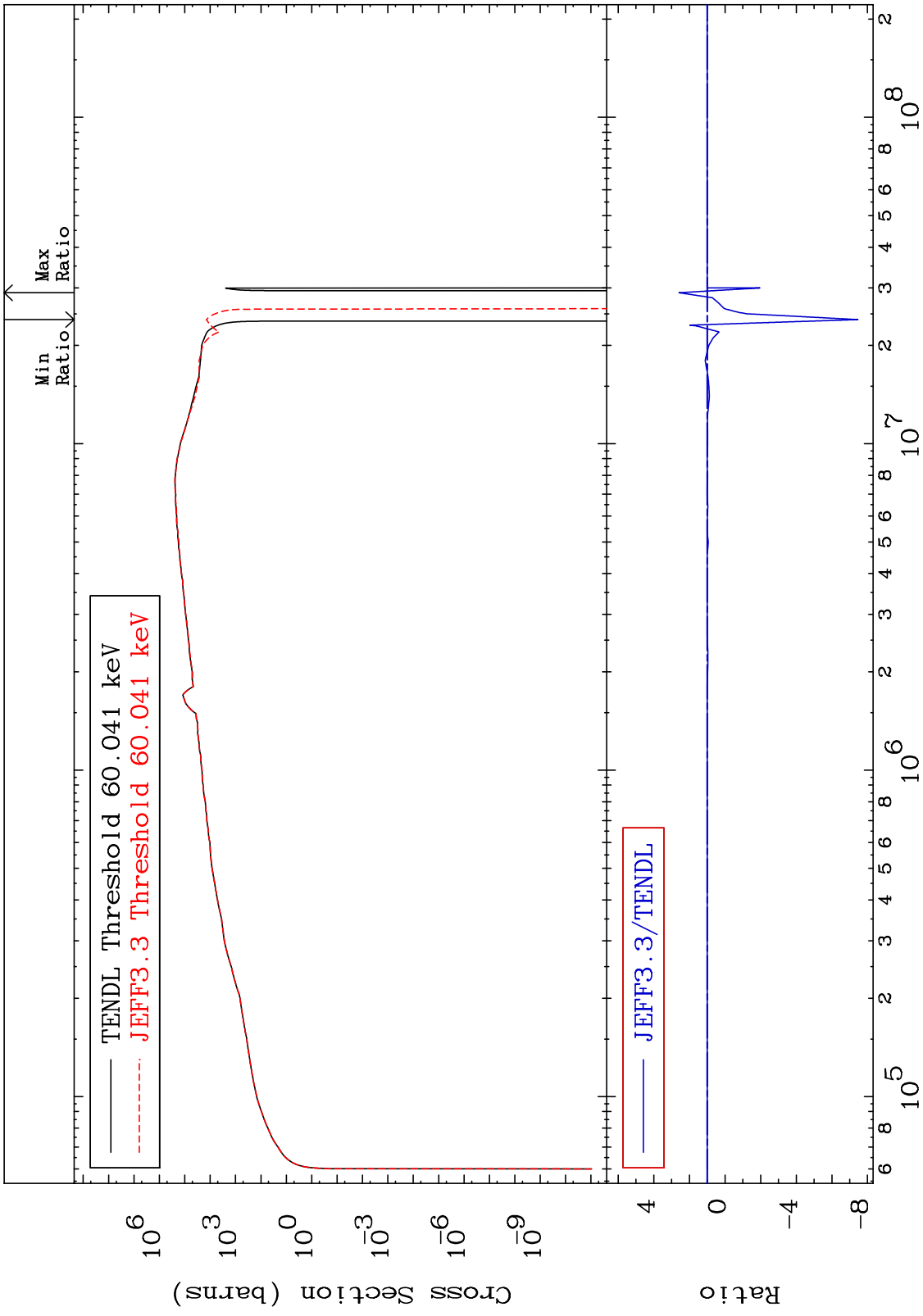


MAT 4834 Kerma non-elastic (all but mt2) 48-Cd-109
 -98.91 To 786.4 %
 Cross Section



70 Incident Energy (eV) 48-Cd-109

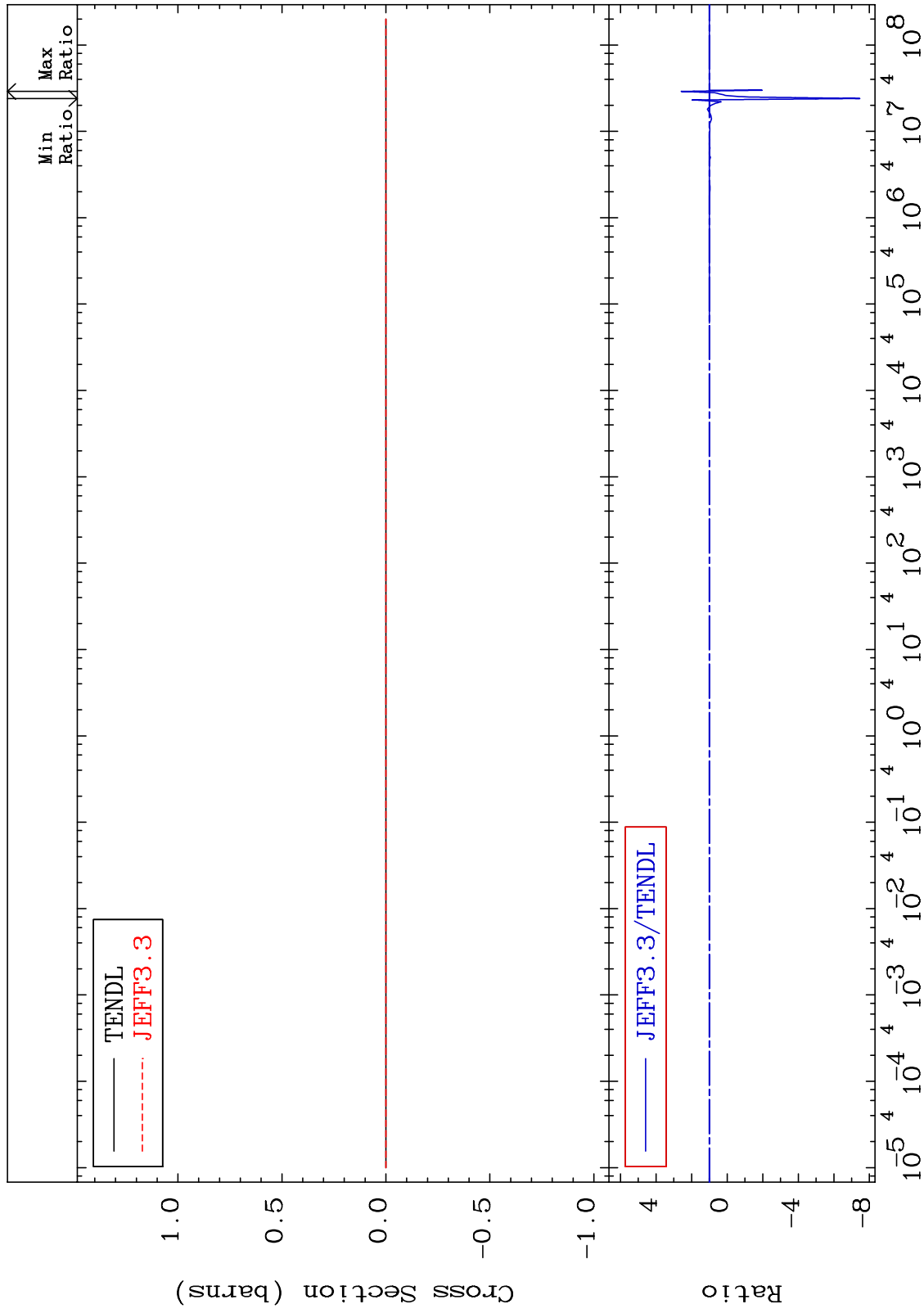
MAT 4834 Kerma inelastic (mt51-91) 48-Cd-109
 Cross Section -845.7 To 158.2 %



MAT 4834

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

48-Cd-109
-845.7 To 158.2 %



72

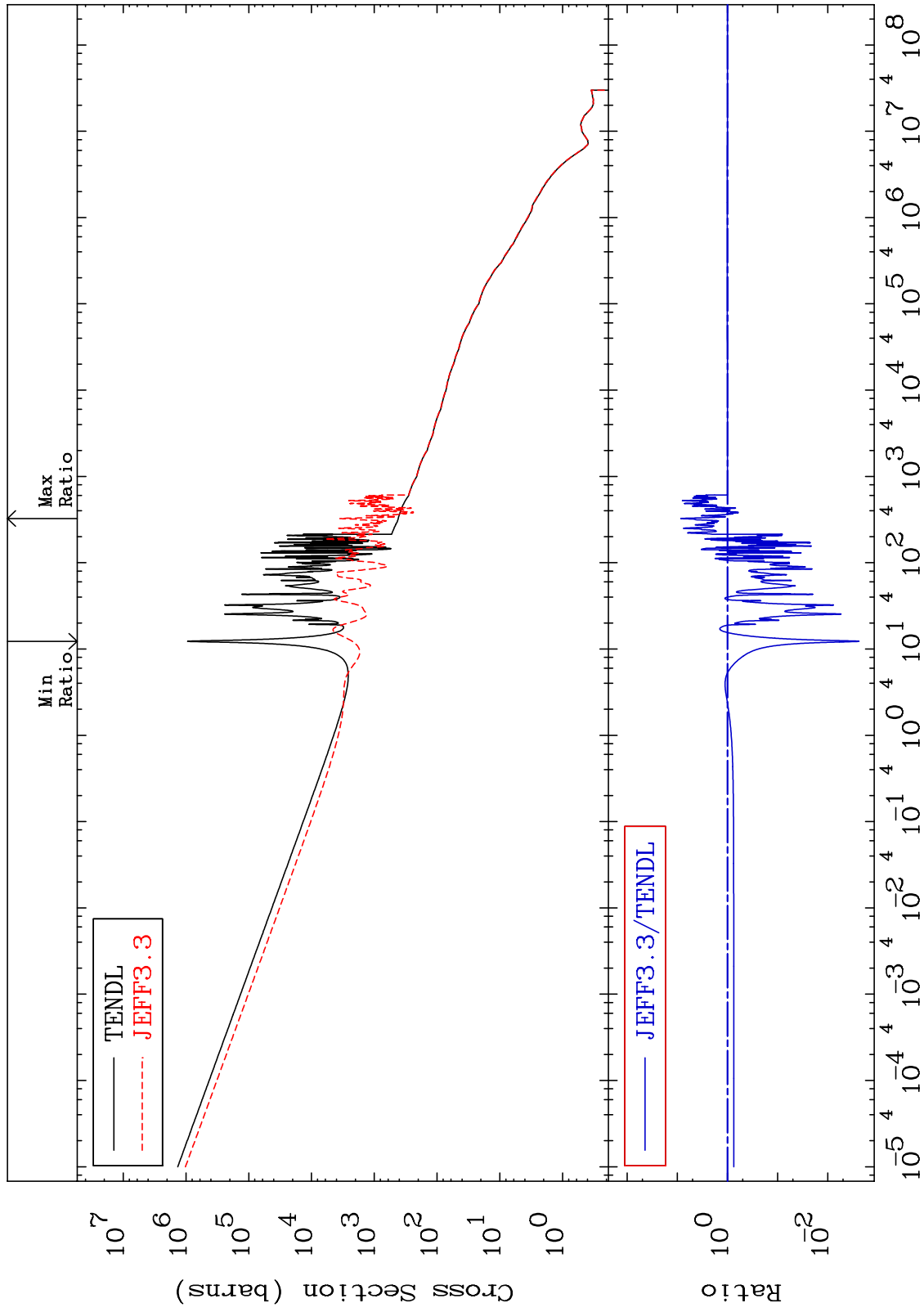
Incident Energy (eV)

48-Cd-109

MAT 4834

Kerma capture (mt102)
Cross Section

48-Cd-109
-99.76 To 760.9 %

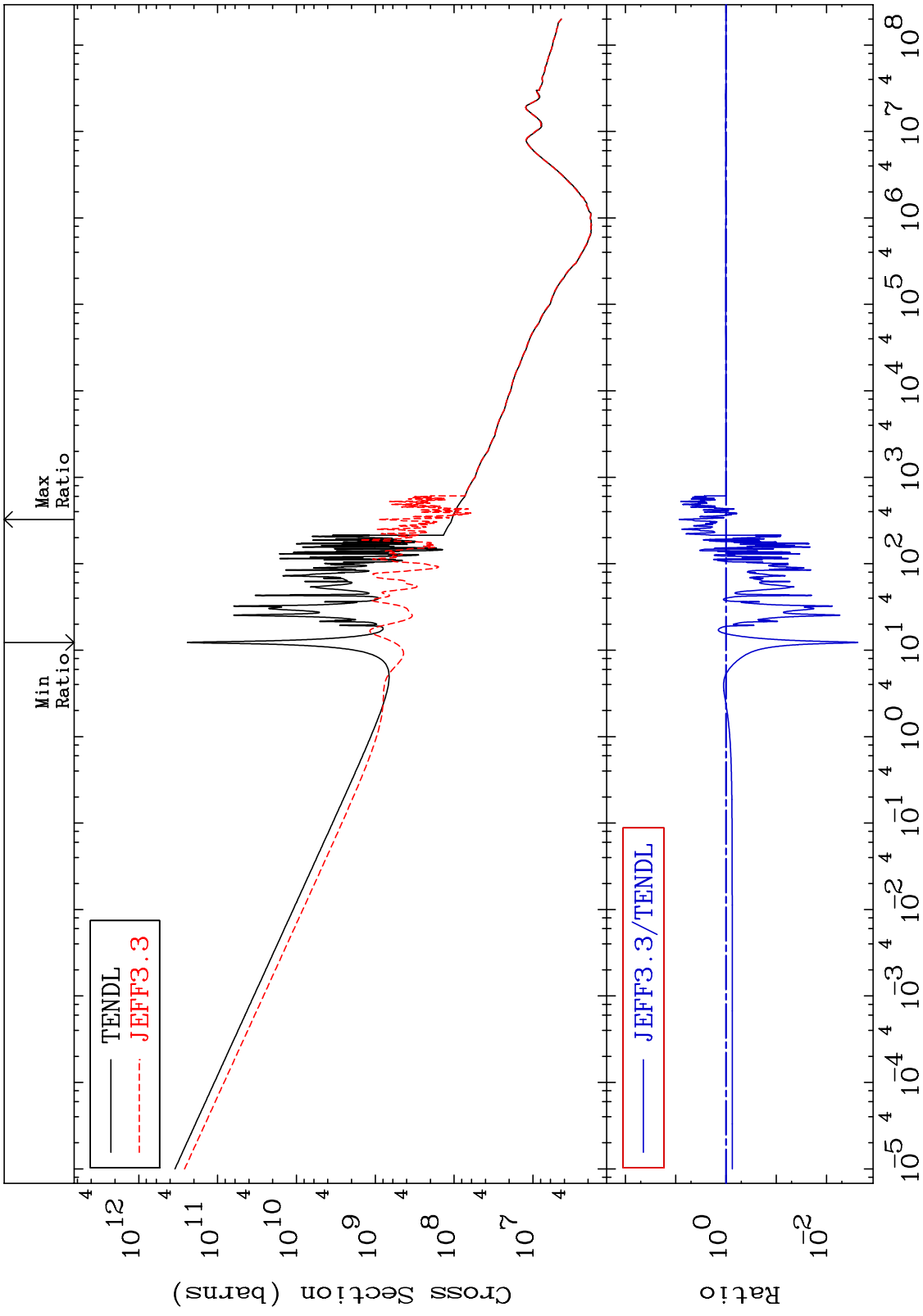


73

Incident Energy (eV)

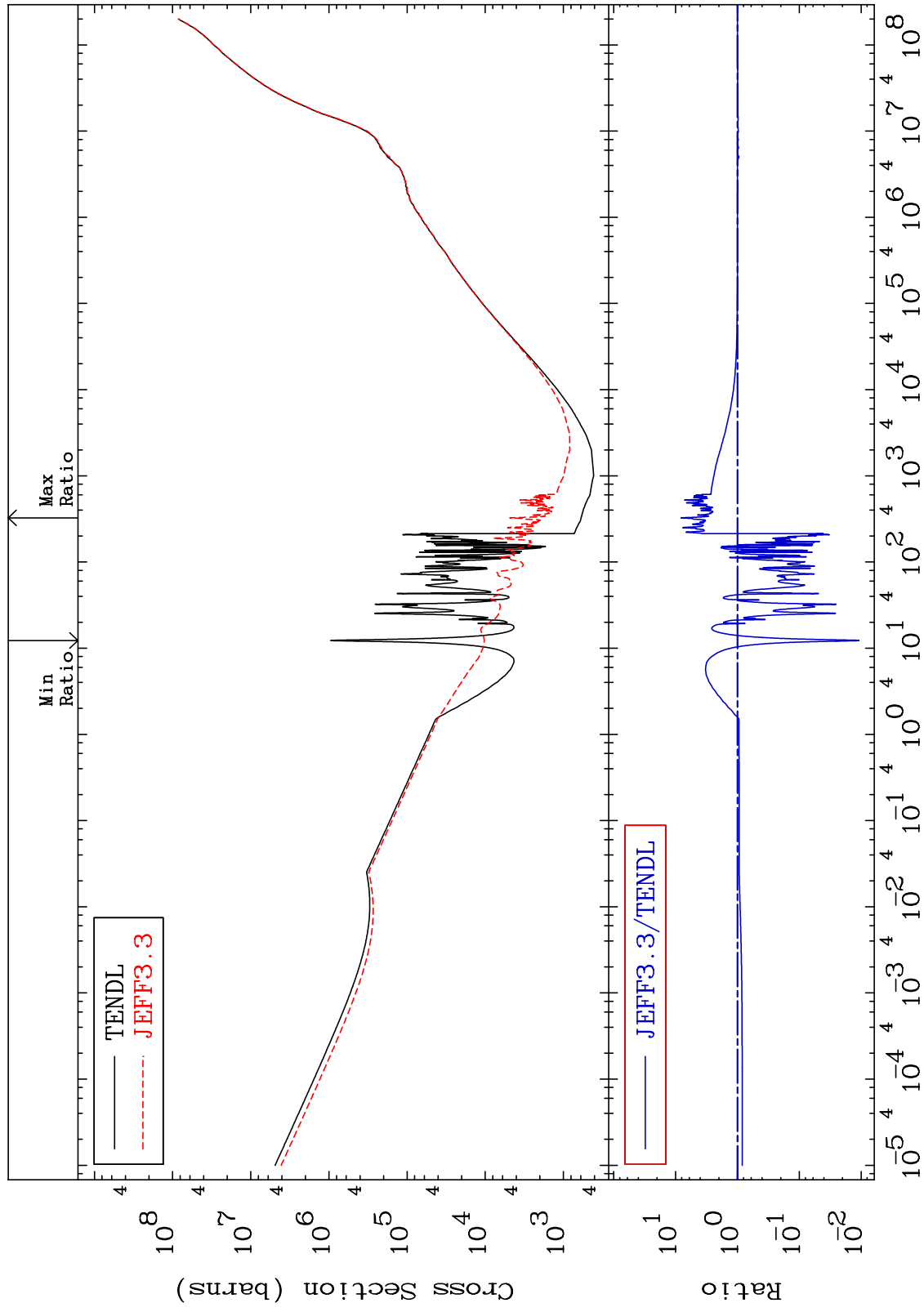
48-Cd-109

MAT 4834 48-Cd-109
-99.76 To 760.8 %
 Total photon (eV-barns)
 Cross Section



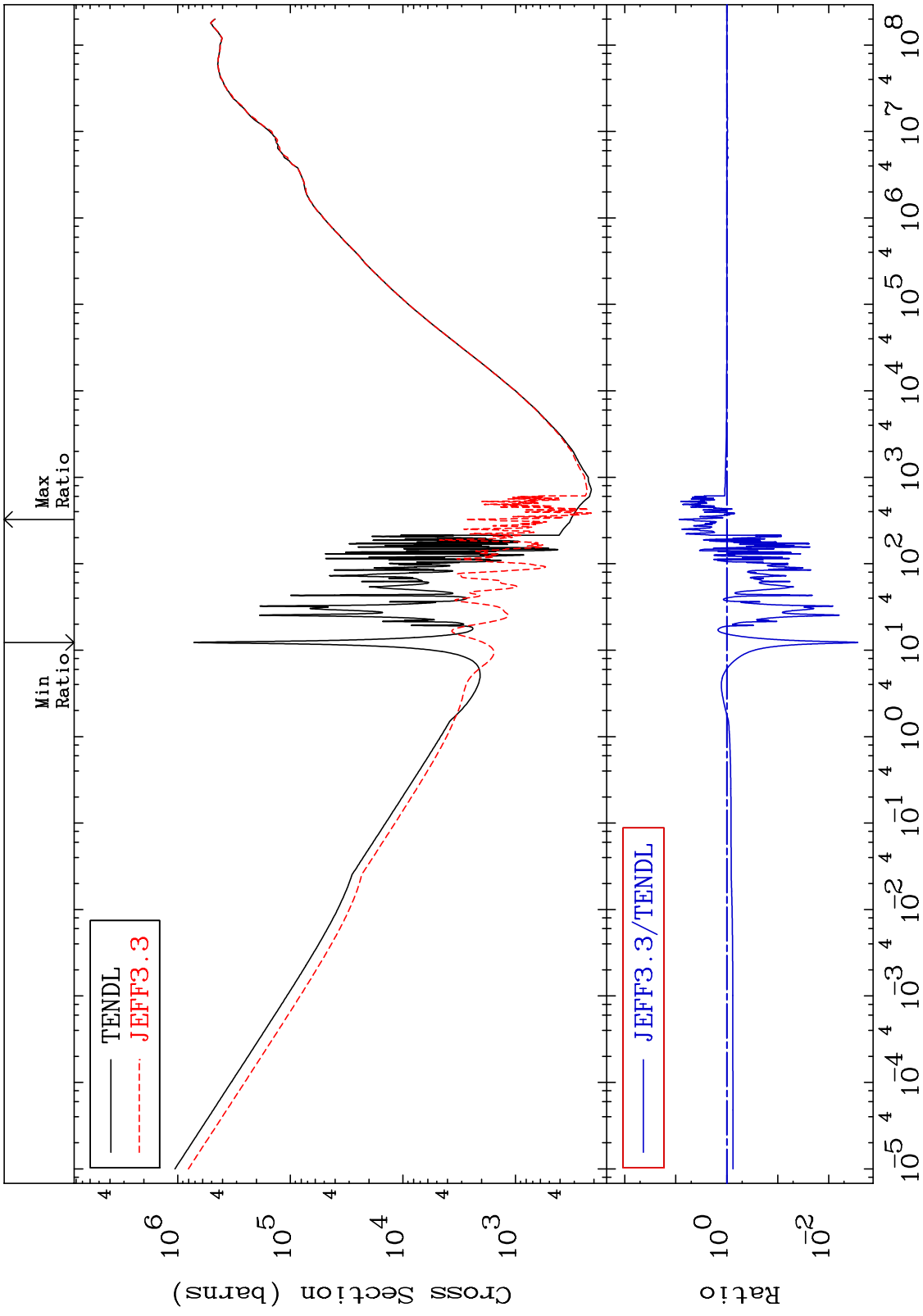
74 Incident Energy (eV) 48-Cd-109

MAT 4834 Total kinematic kerma (high limit) 48-Cd-109
Cross Section -98.92 To 721.5 %



75 Incident Energy (eV) 48-Cd-109

MAT 4834 48-Cd-109 -99.73 To 762.4 %
 Dpa total (eV-barns)
 Cross Section

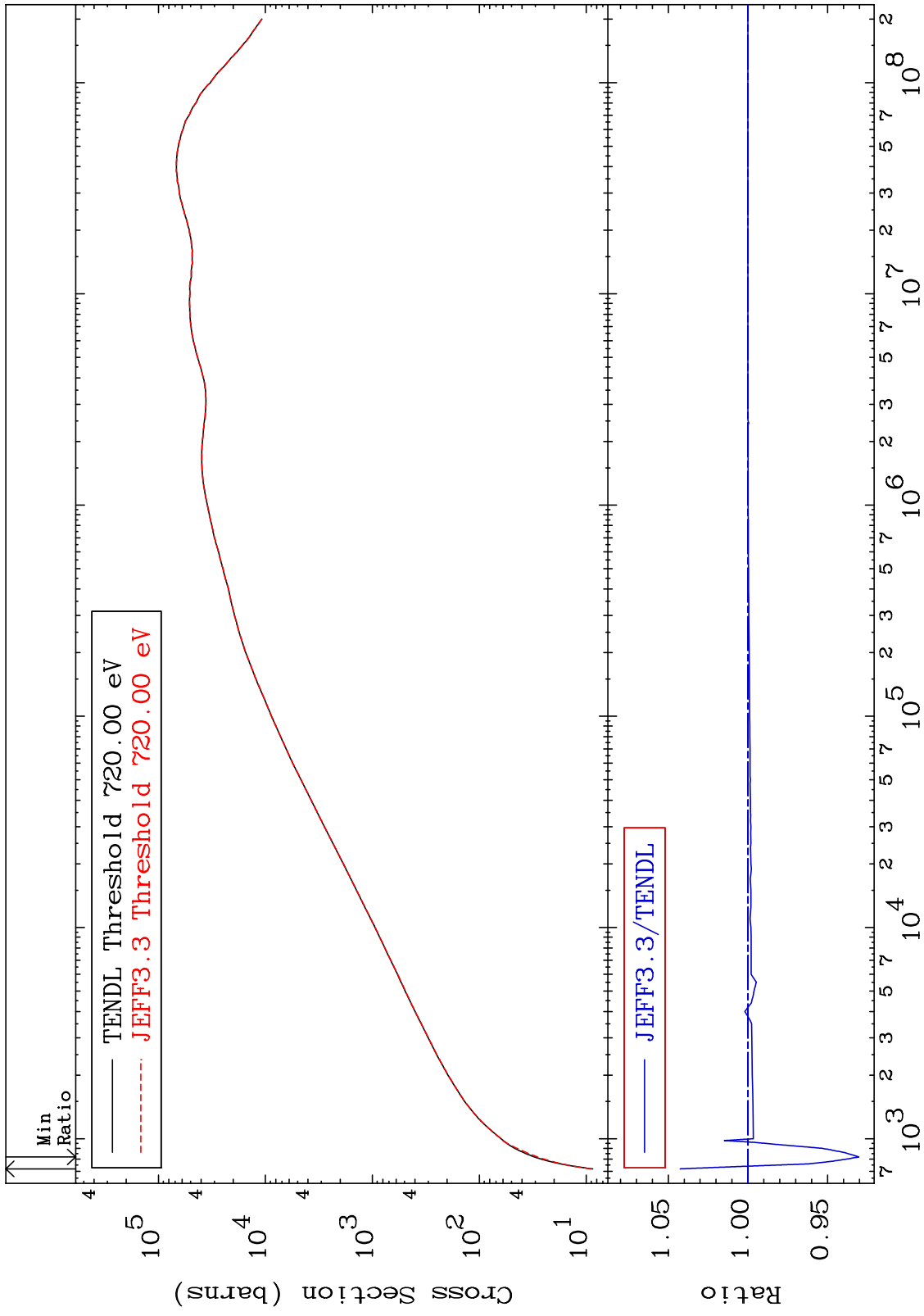


76 48-Cd-109

MAT 4834

Dpa elastic (mt2)
Cross Section

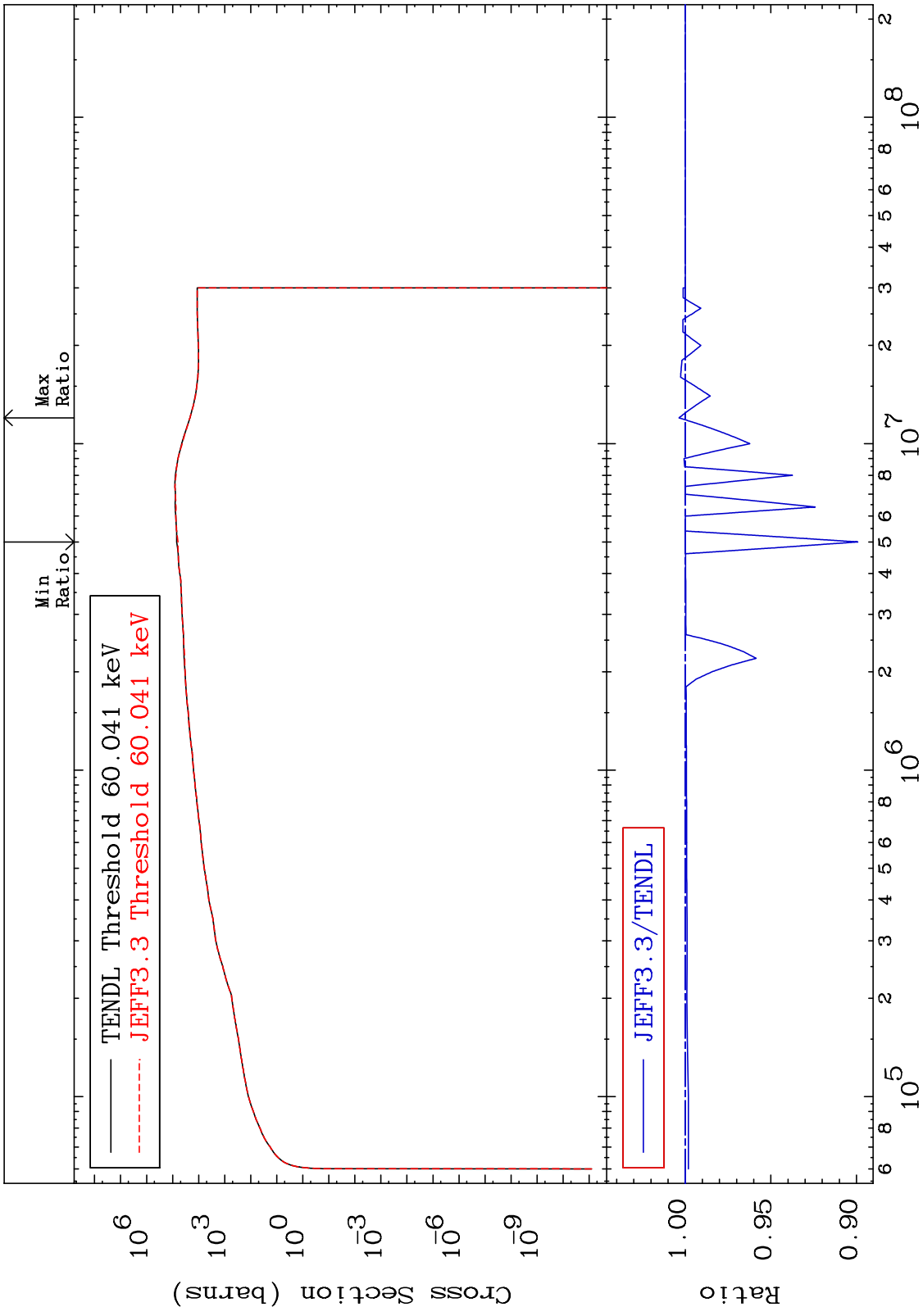
48-Cd-109
-6.962 To 4.250 %



77

48-Cd-109

MAT 4834 Dpa inelastic (mt51-91) 48-Cd-109
 Cross Section -10.08 To 0.360 %



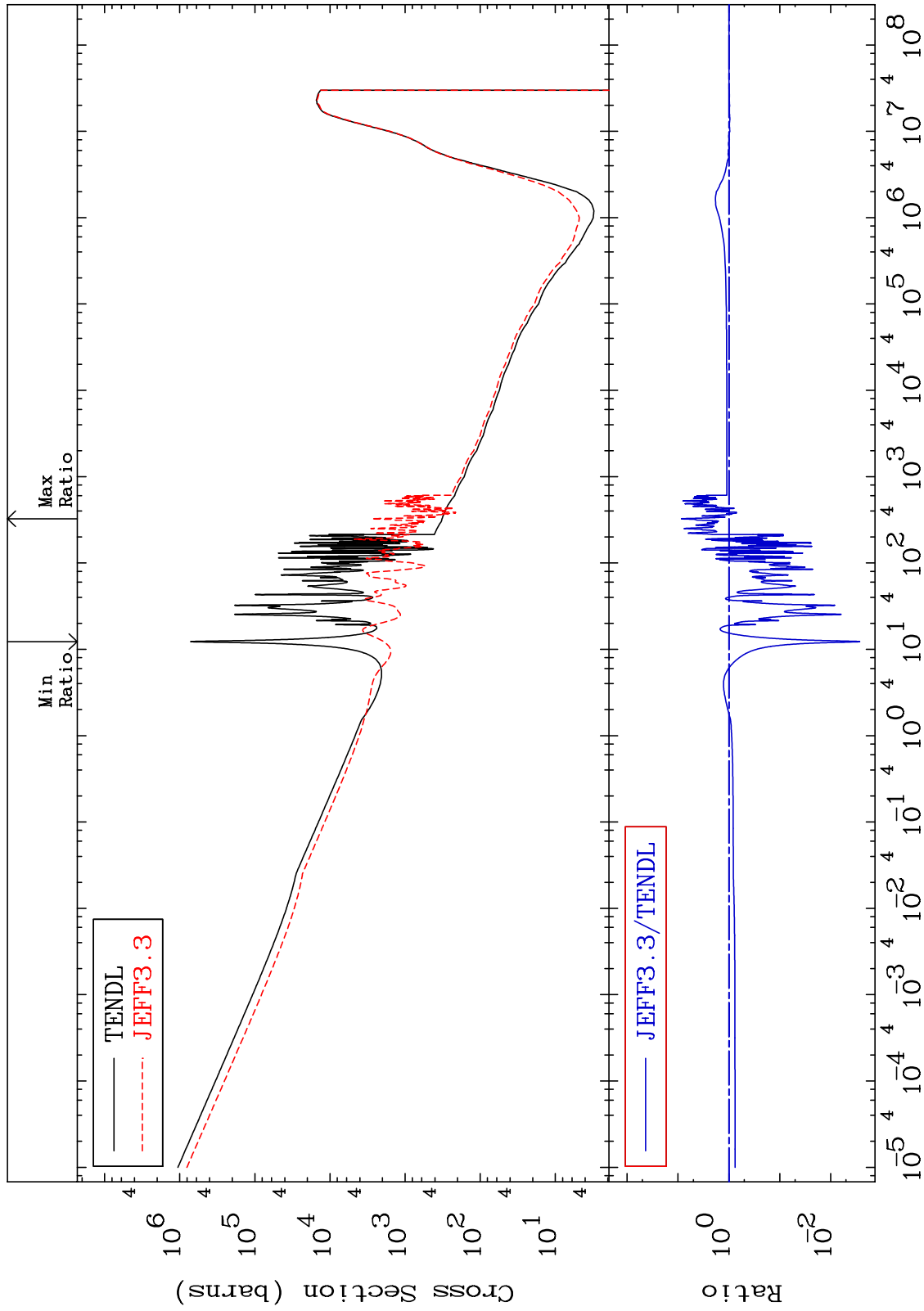
78 Incident Energy (eV) 48-Cd-109

MAT 4834

Dpa disappearance (mt102 -120)

48-Cd-109

-99.73 To 762.4 %



79

Incident Energy (eV)

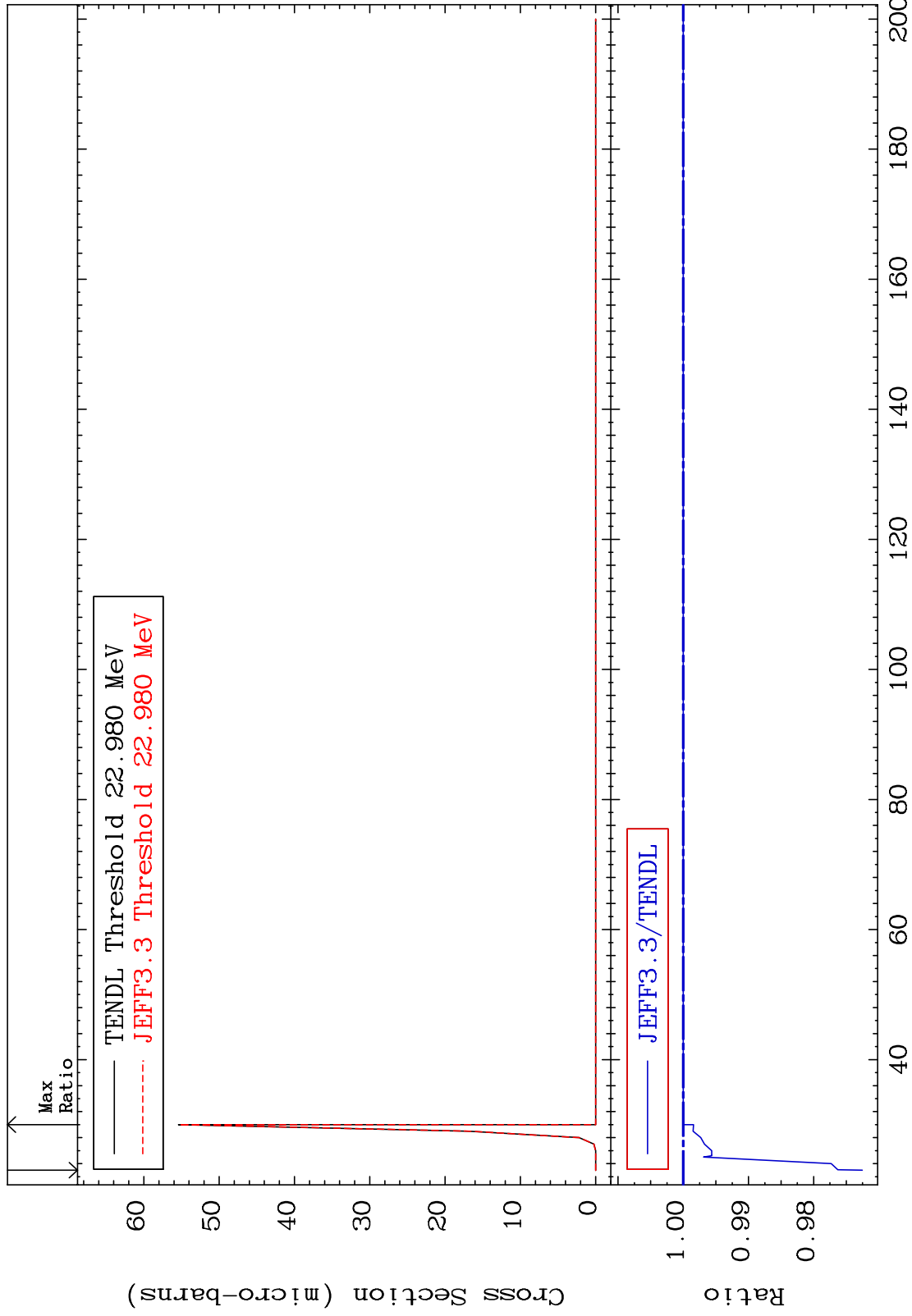
48-Cd-109

MAT 4834

(n,2n) d:47-Ag-106g

48-Cd-109

Radionuclide Production Cross Section -2.746 To 0.000 %



80

Incident Energy (MeV)

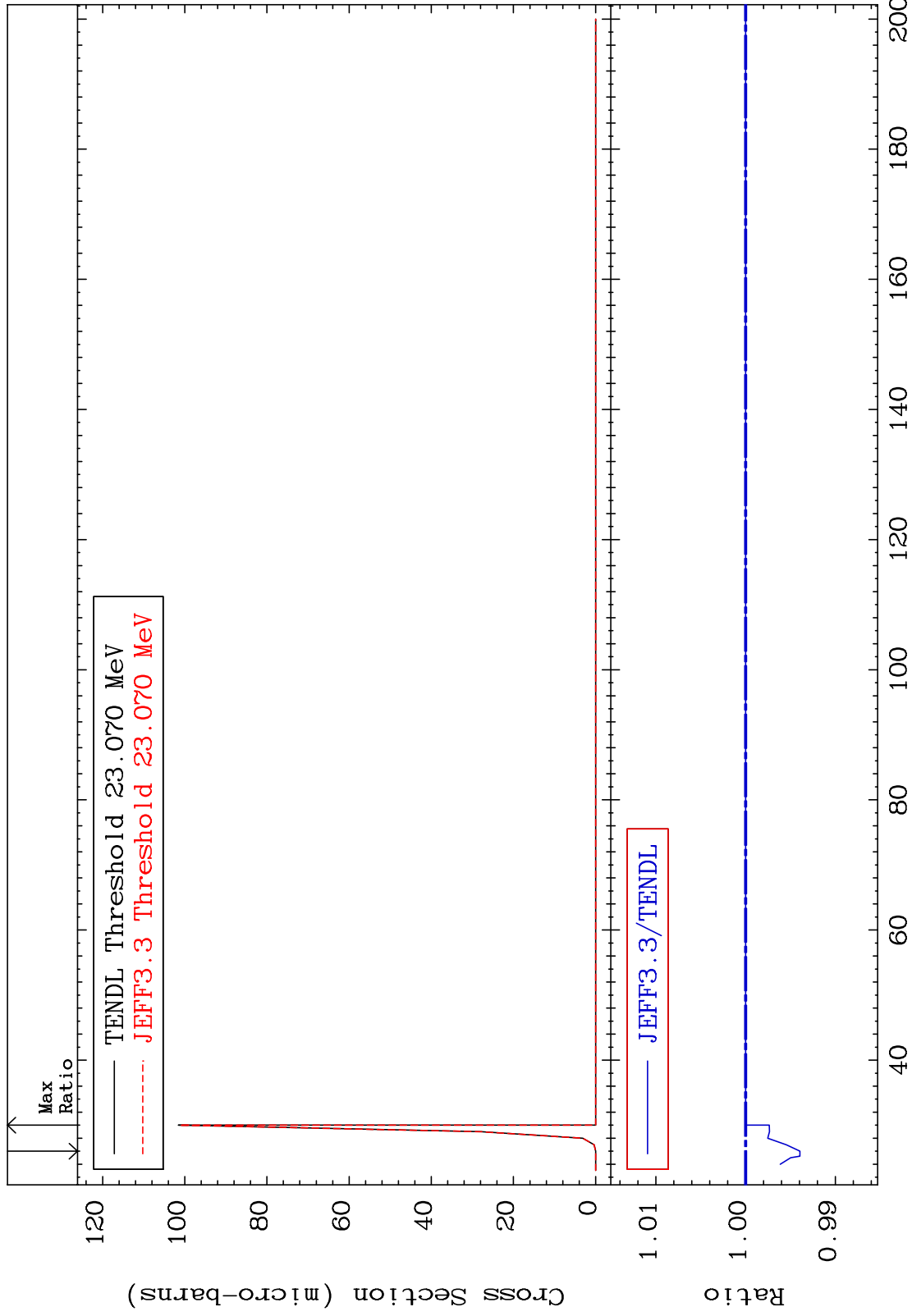
48-Cd-109

MAT 4834

(n,2n) d:47-Ag-106m1

48-Cd-109

Radionuclide Production Cross Section -0.606 To 0.000 %



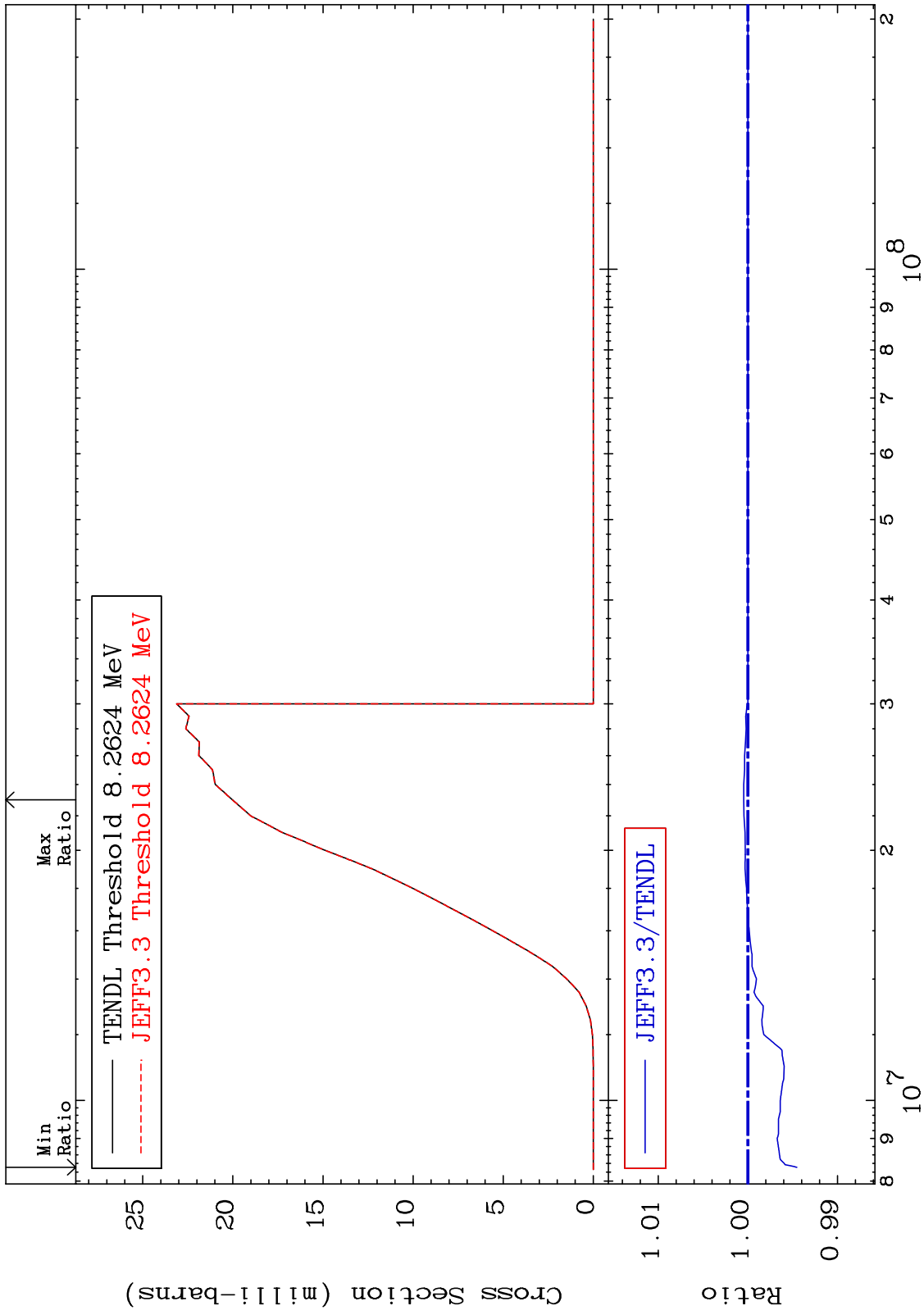
81

Incident Energy (MeV)

48-Cd-109

MAT 4834

(n, n') p:47-Ag-108g 48-Cd-109
Radionuclide Production Cross Section -0.546 To 0.046 %



82

Incident Energy (eV)

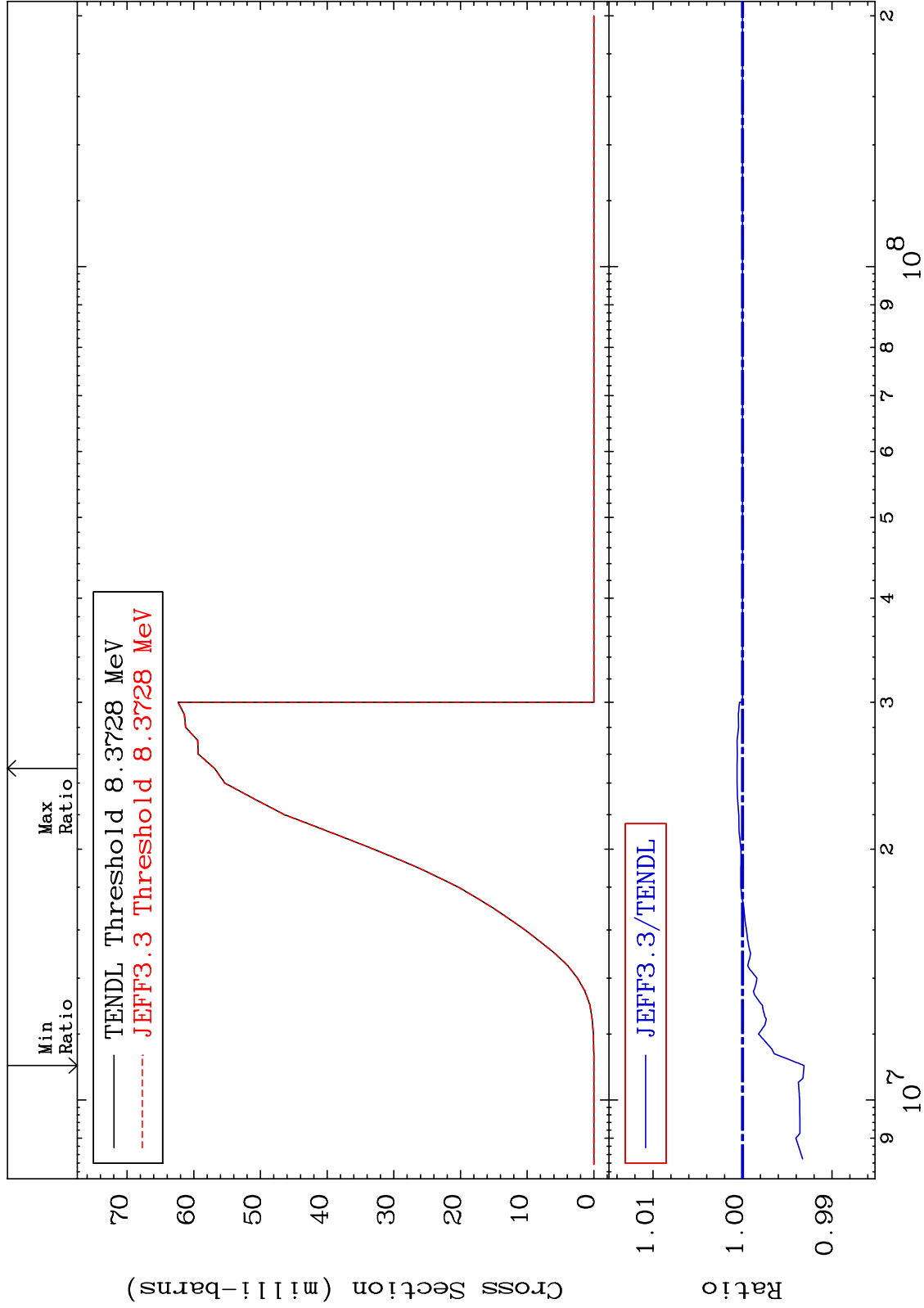
48-Cd-109

MAT 4834

(n, n') p:47-Ag-108m2

48-Cd-109

Radionuclide Production Cross Section -0.687 To 0.061 %

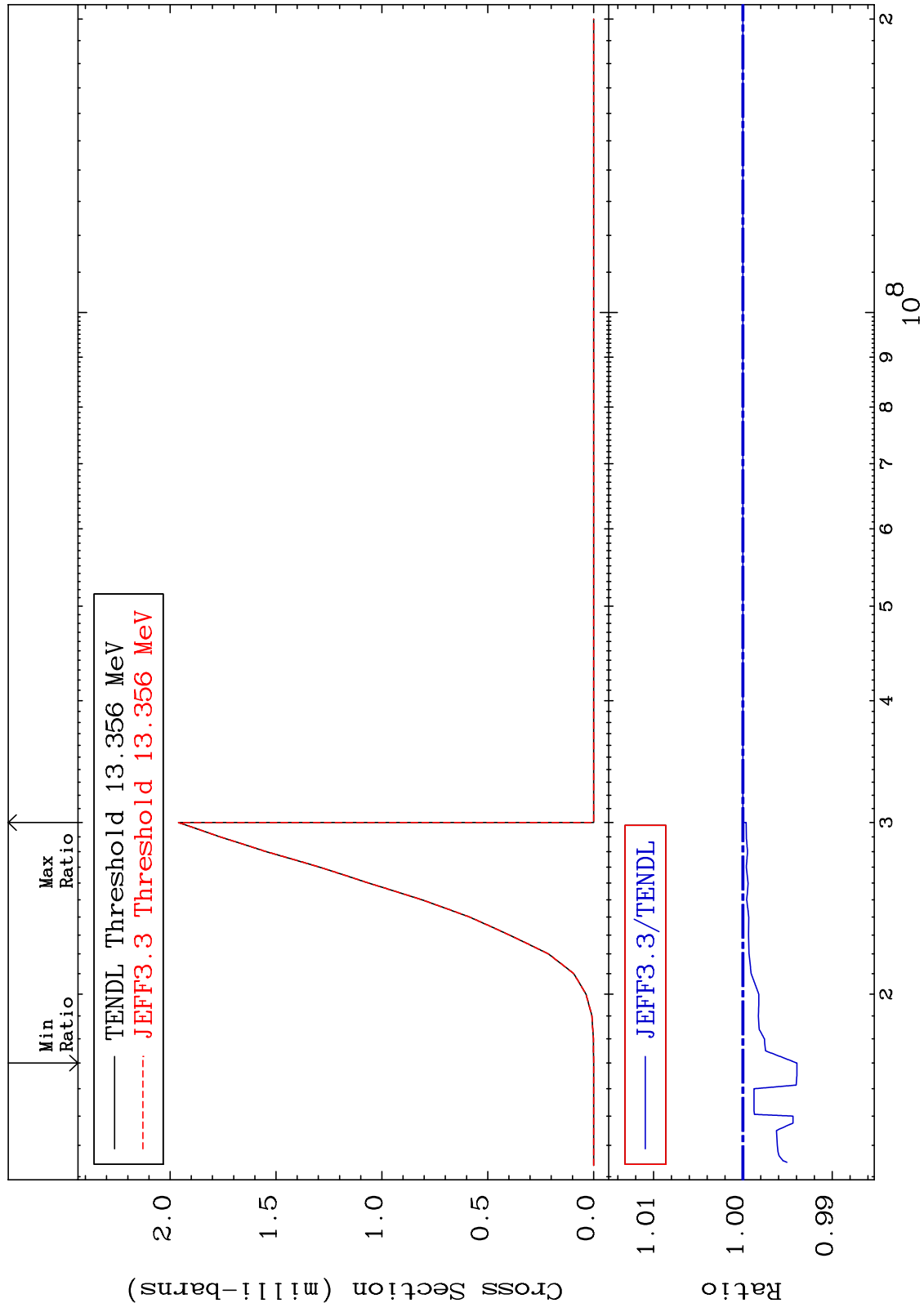


83

Incident Energy (eV)

48-Cd-109

MAT 4834 (n, n') d:47-Ag-107g 48-Cd-109
 Radionuclide Production Cross Section -0.605 To 0.000 %

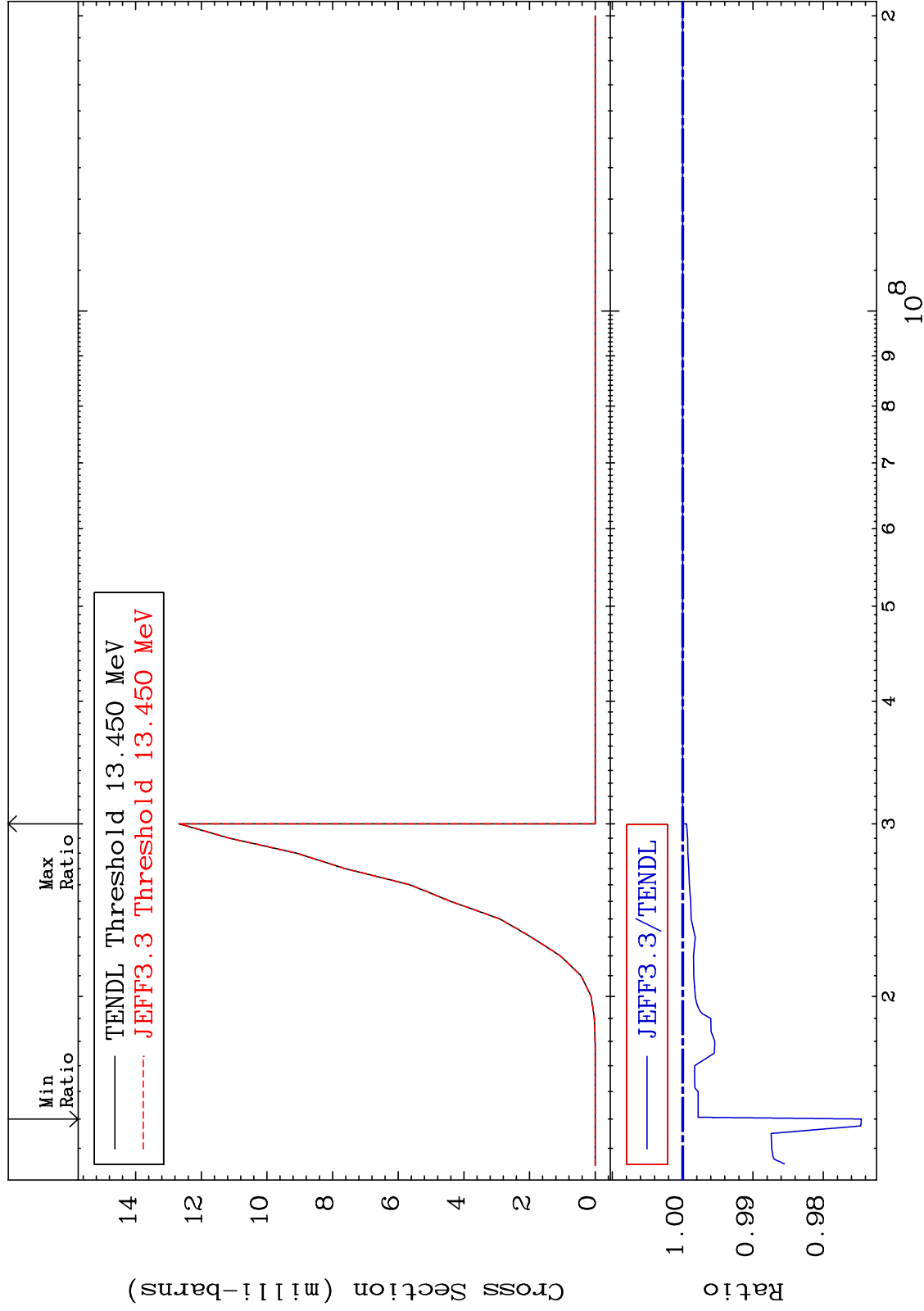


MAT 4834

(n, n') d: 47-Ag-107m1

48-Cd-109

Radionuclide Production Cross Section -2.541 To 0.000 %



85

Incident Energy (eV)

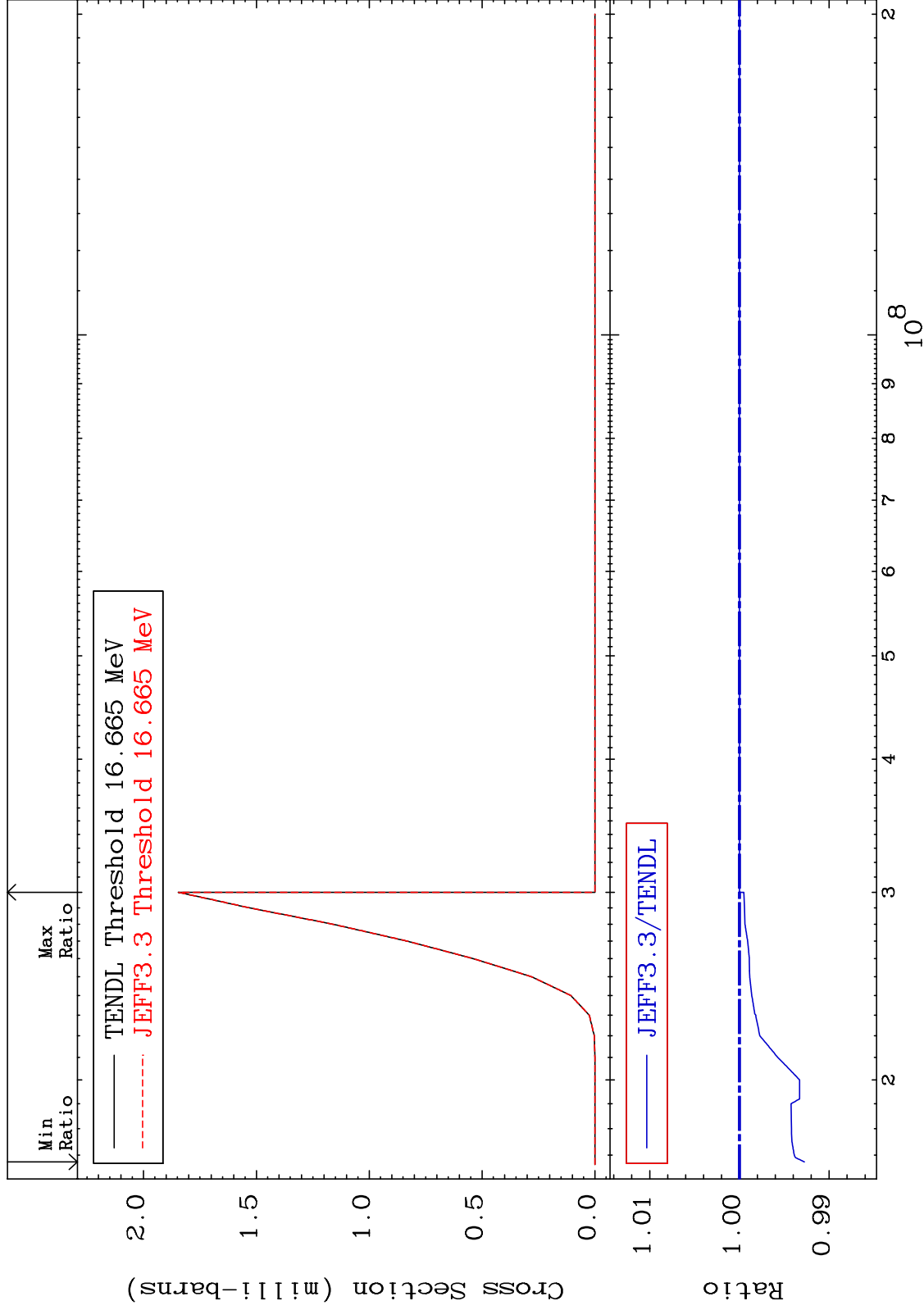
48-Cd-109

MAT 4834

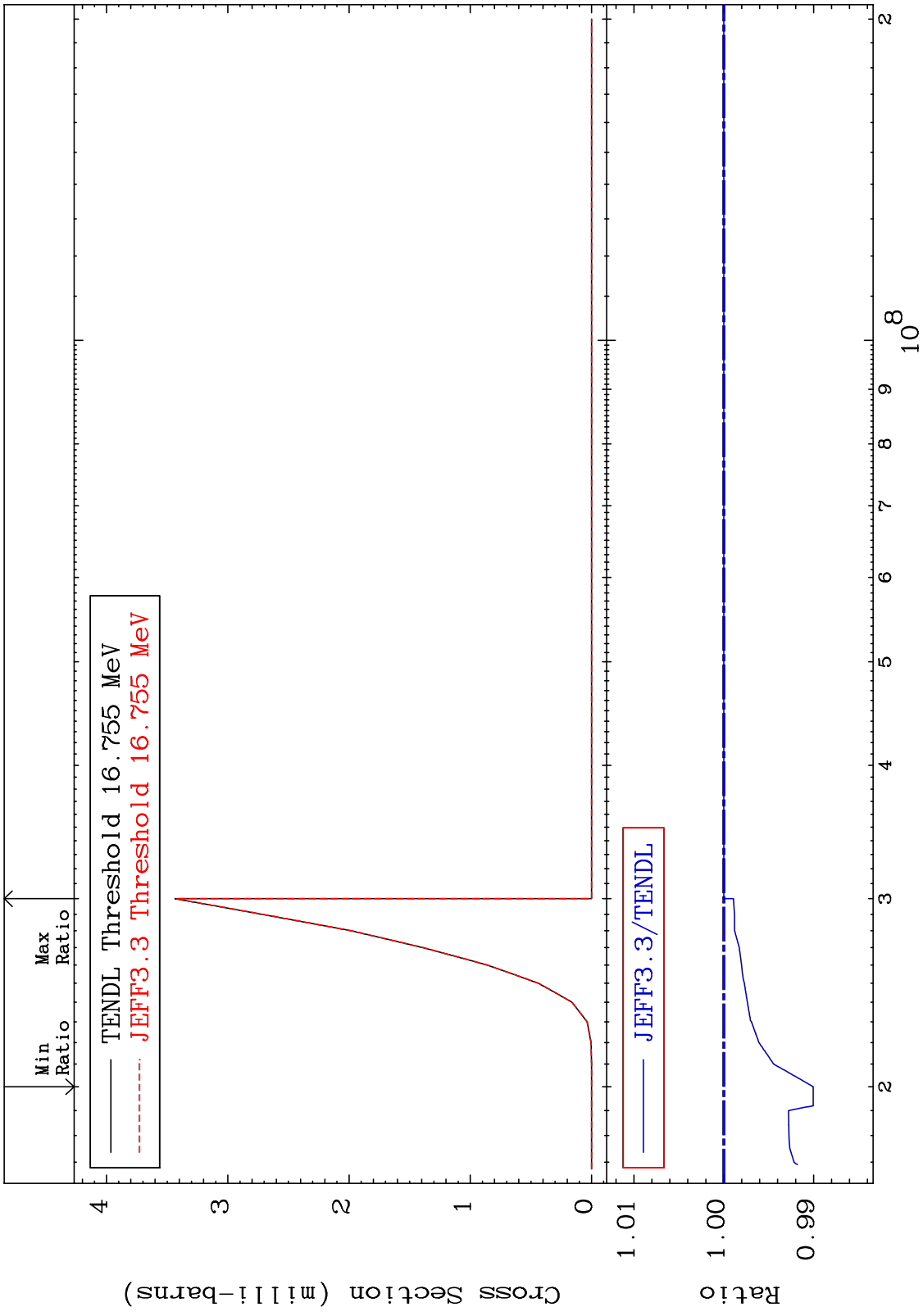
(n, n') t:47-Ag-106g

48-Cd-109

Radionuclide Production Cross Section -0.723 To 0.000 %



MAT 4834 (n,n') t:47-Ag-106m1 48-Cd-109
 Radionuclide Production Cross Section -0.995 To 0.000 %

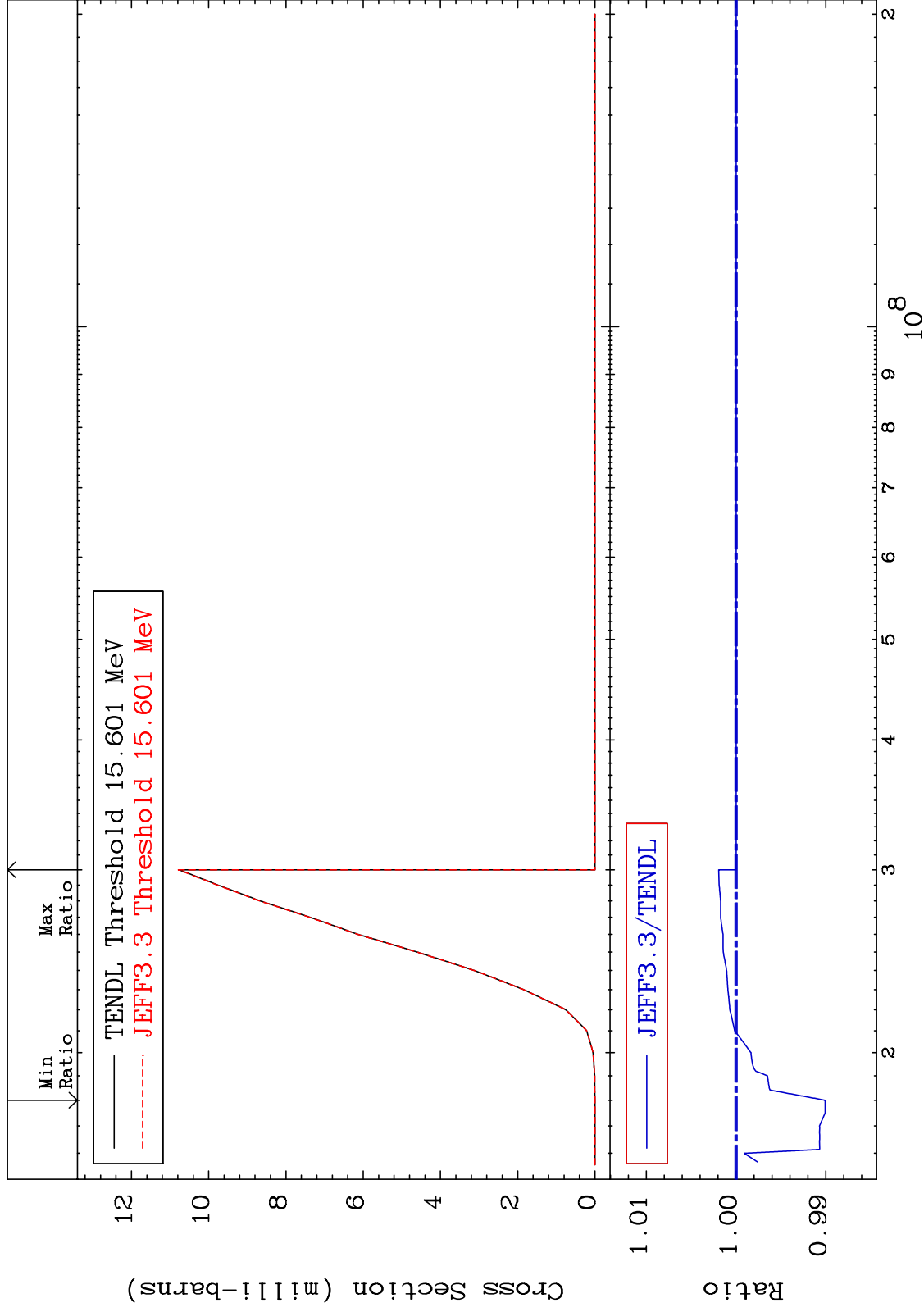


MAT 4834

(n,2n) p:47-Ag-107g

48-Cd-109

Radionuclide Production Cross Section -0.991 To 0.194 %

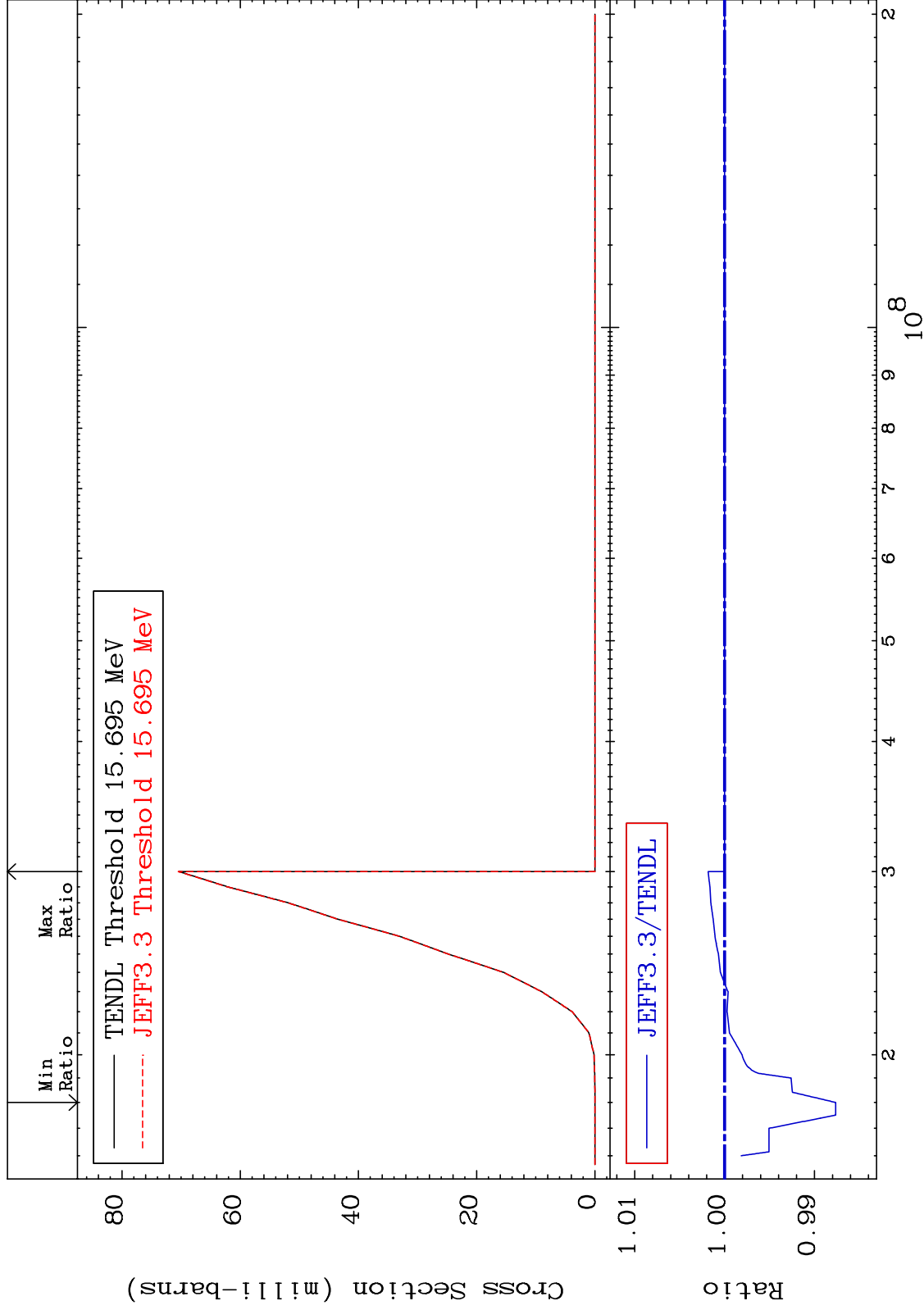


MAT 4834

(n,2n) p:47-Ag-107m1

48-Cd-109

Radionuclide Production Cross Section -1.235 To 0.184 %

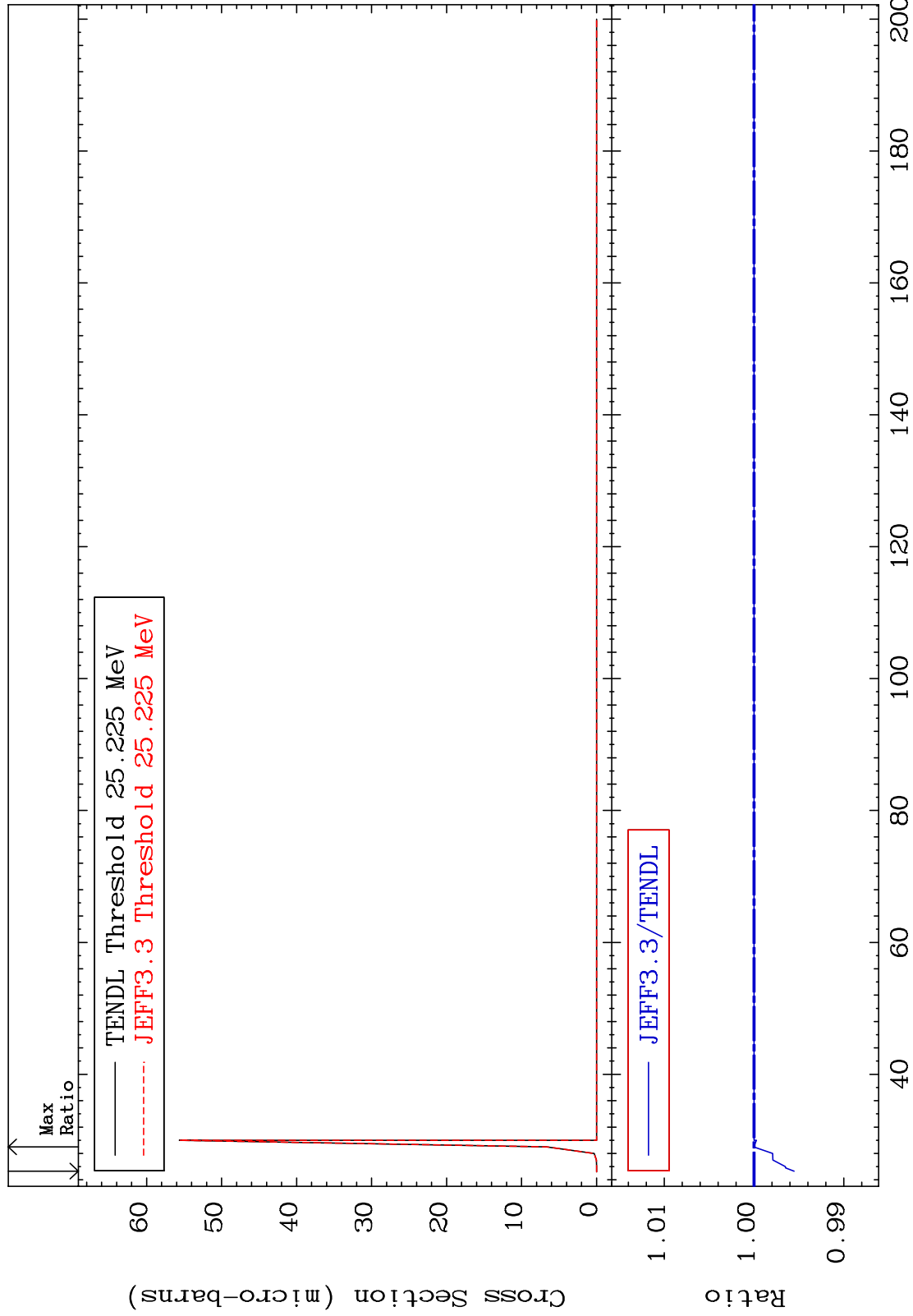


MAT 4834

(n,3n) p:47-Ag-106g

48-Cd-109

Radionuclide Production Cross Section -0.446 To 0.006 %



90

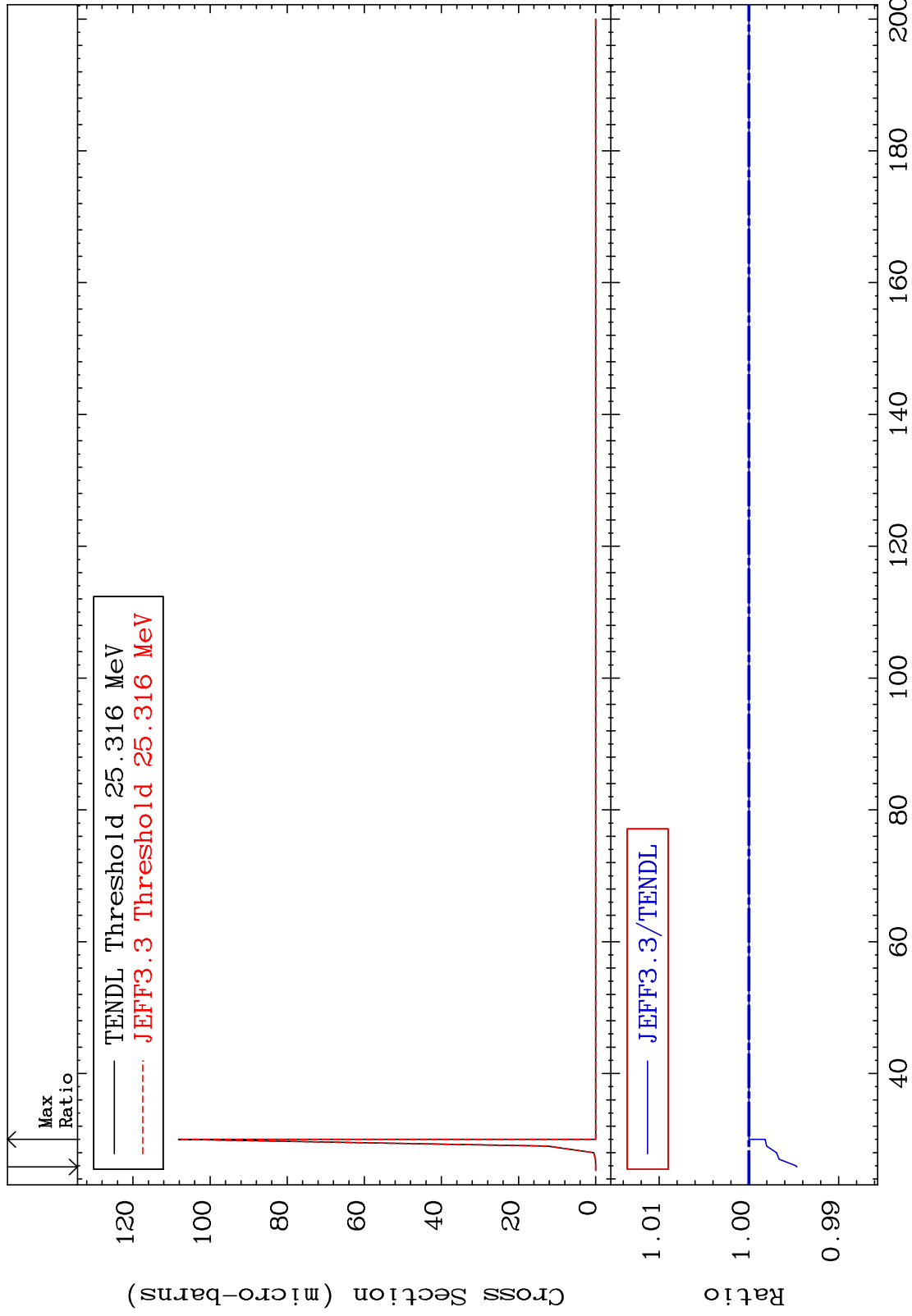
48-Cd-109

MAT 4834

(n,3n) p:47-Ag-106m1

48-Cd-109

Radionuclide Production Cross Section -0.534 To 0.000 %



91

Incident Energy (MeV)

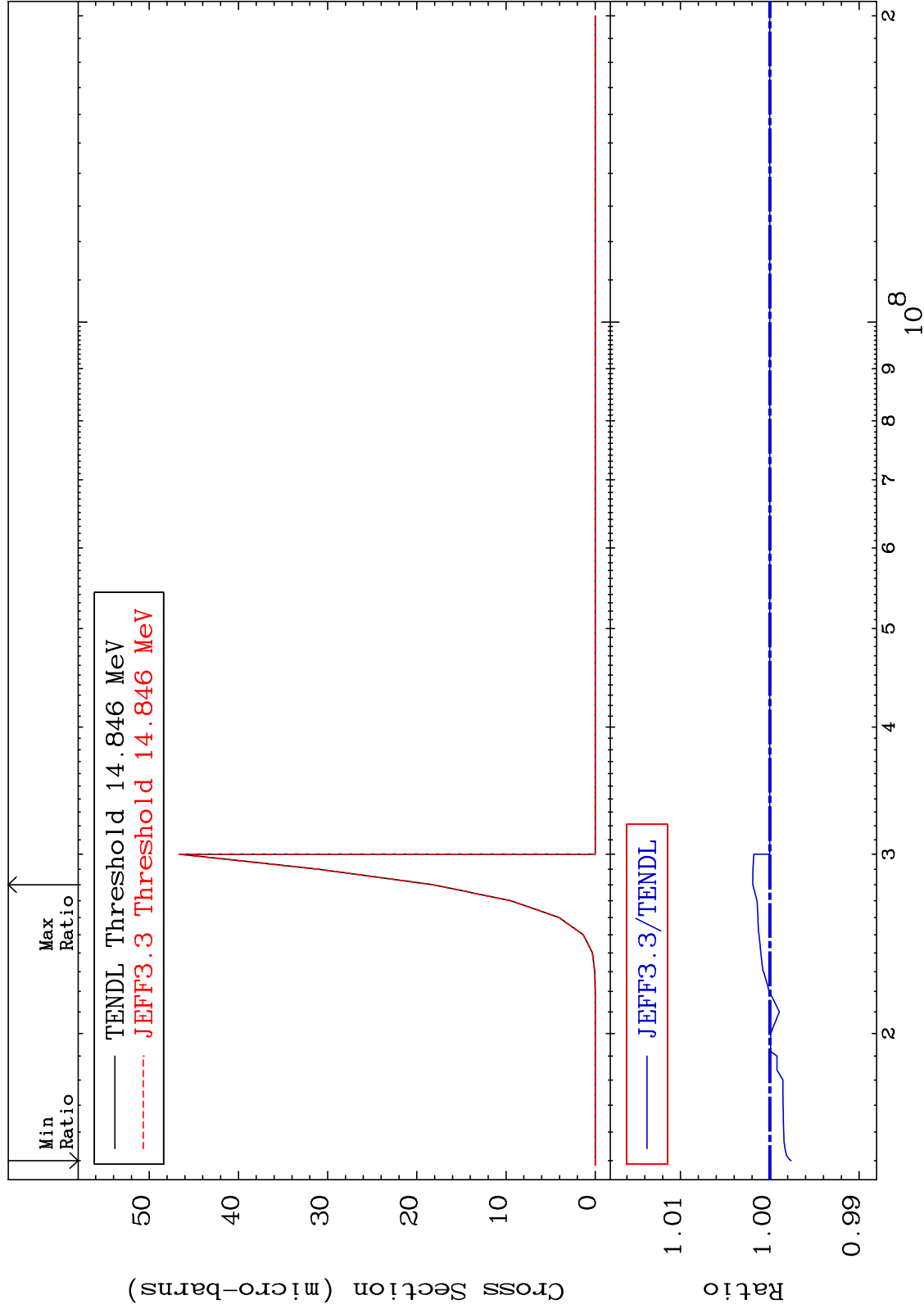
48-Cd-109

MAT 4834

(n,2n) p:46-Pd-107g

48-Cd-109

Radionuclide Production Cross Section -0.239 To 0.191 %



92

Incident Energy (eV)

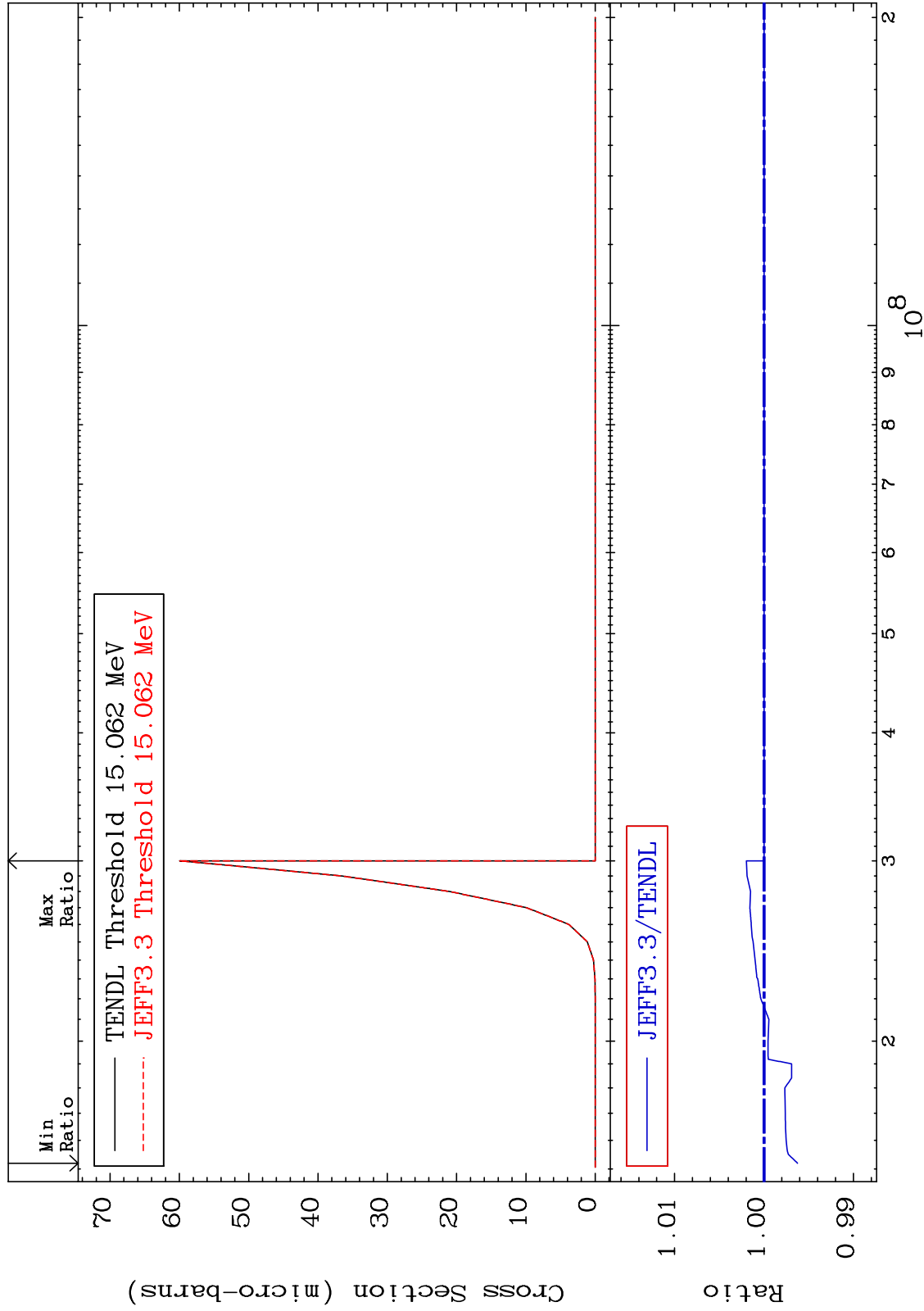
48-Cd-109

MAT 4834

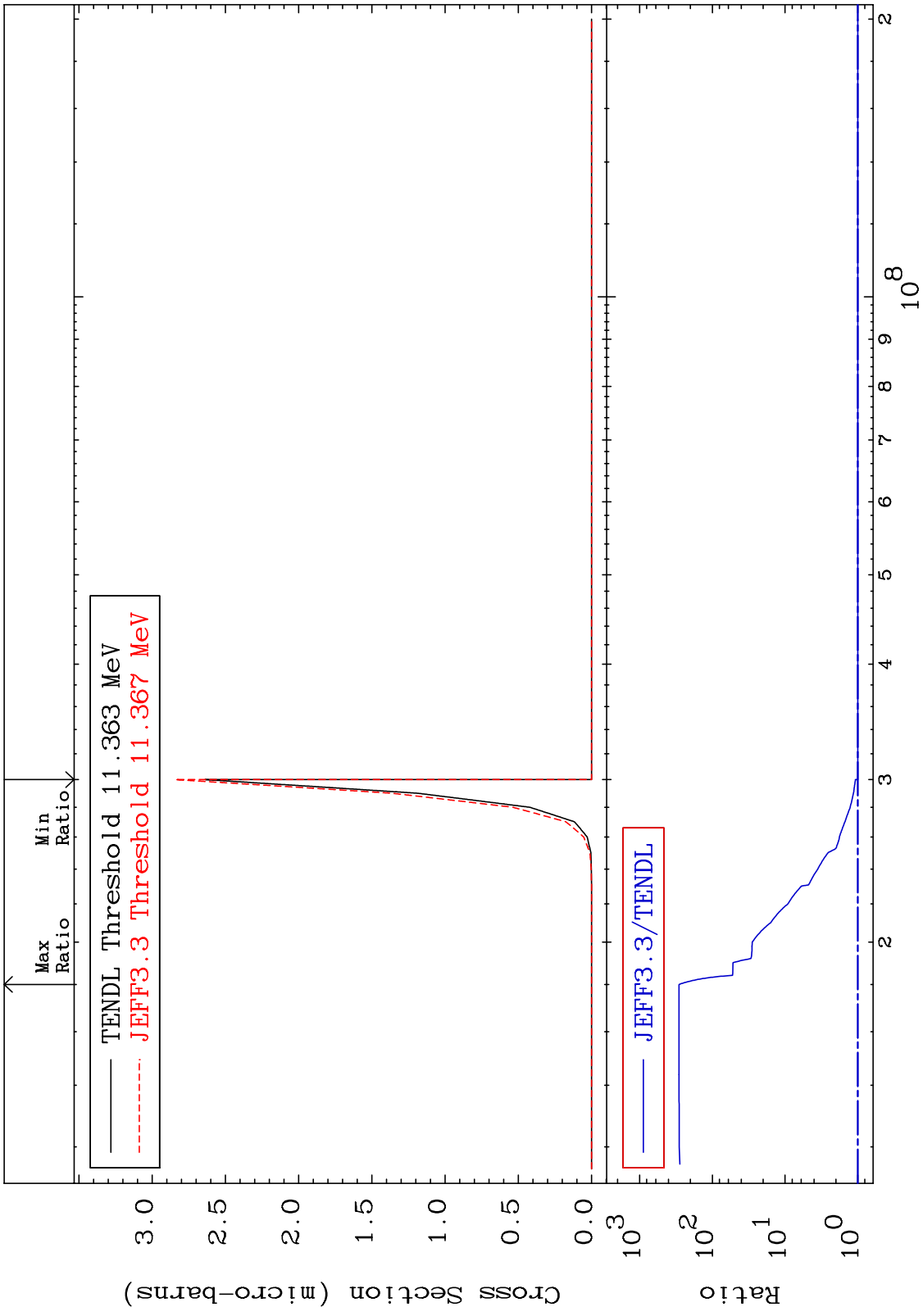
(n,2n) p:46-Pd-107m2

48-Cd-109

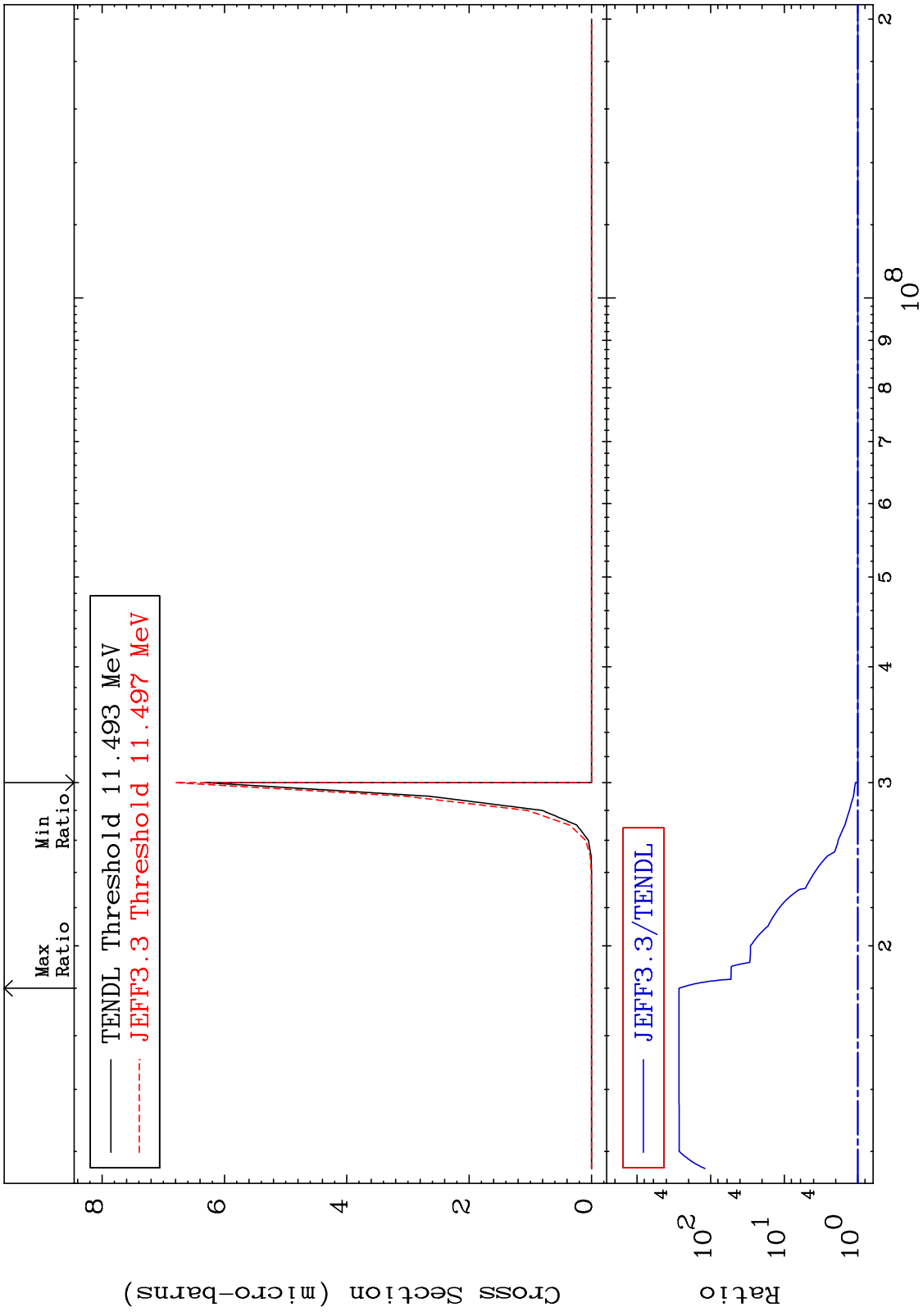
Radionuclide Production Cross Section -0.376 To 0.197 %



MAT 4834 (n,n') p α:45-Rh-104g 48-Cd-109
 Radionuclide Production Cross Section 0.000 To 9999. %



MAT 4834 (n,n') p α:45-Rh-104m3 48-Cd-109
 Radionuclide Production Cross Section 0.000 To 9999. %

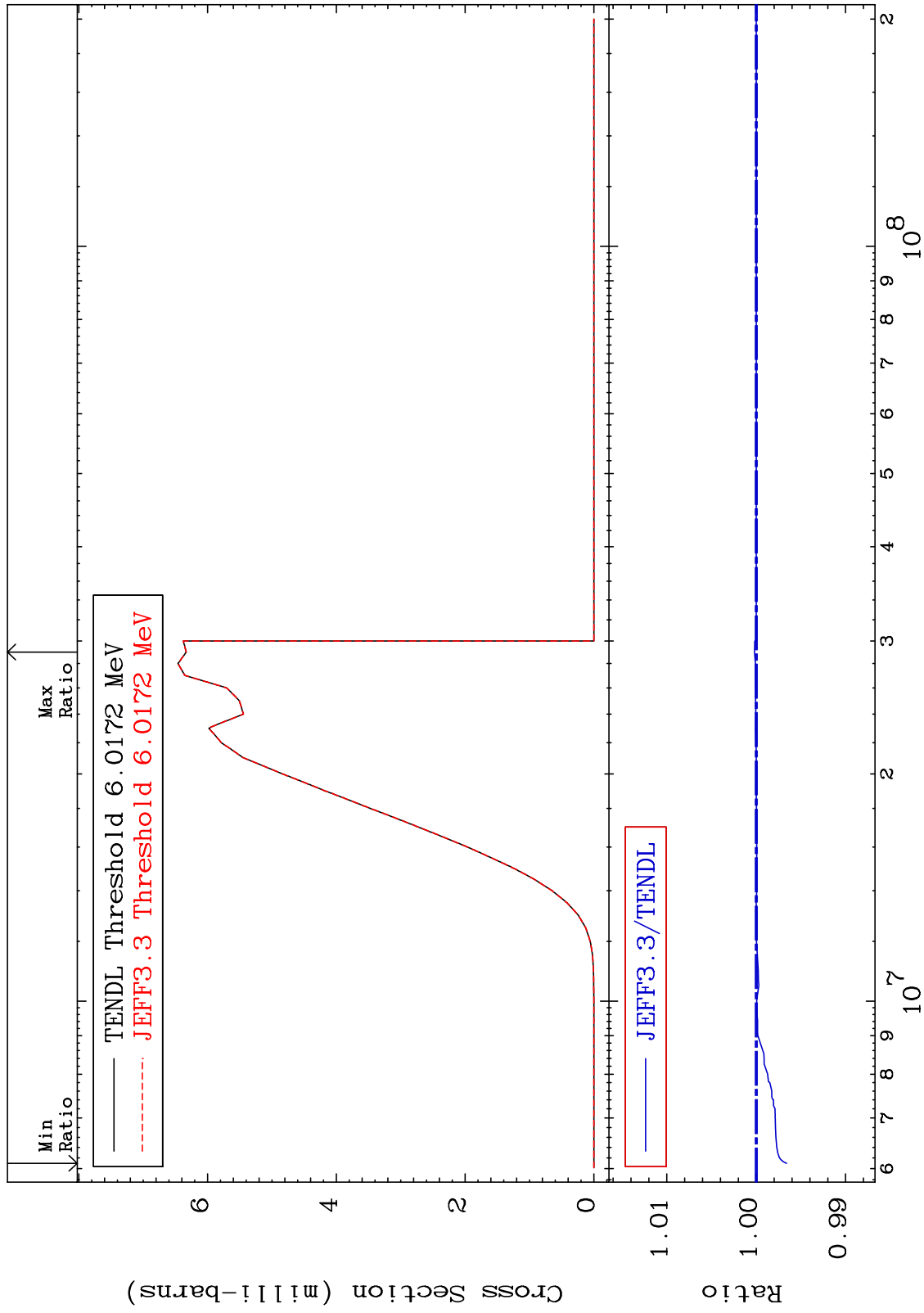


MAT 4834

(n,d) : 47-Ag-108g

48-Cd-109

Radionuclide Production Cross Section -0.339 To 0.020 %



96

Incident Energy (eV)

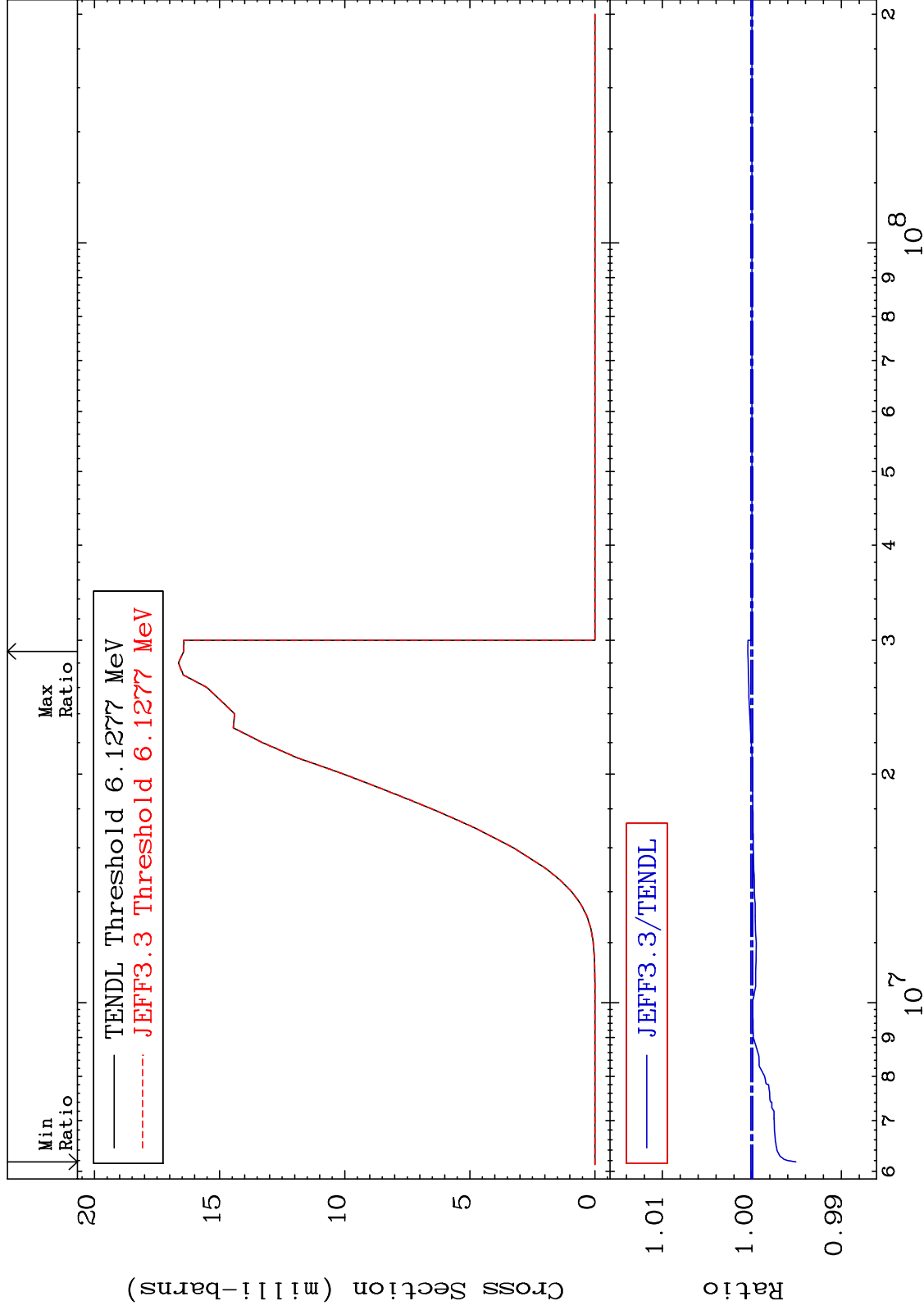
48-Cd-109

MAT 4834

(n,d):47-Ag-108m2

48-Cd-109

Radionuclide Production Cross Section -0.492 To 0.045 %

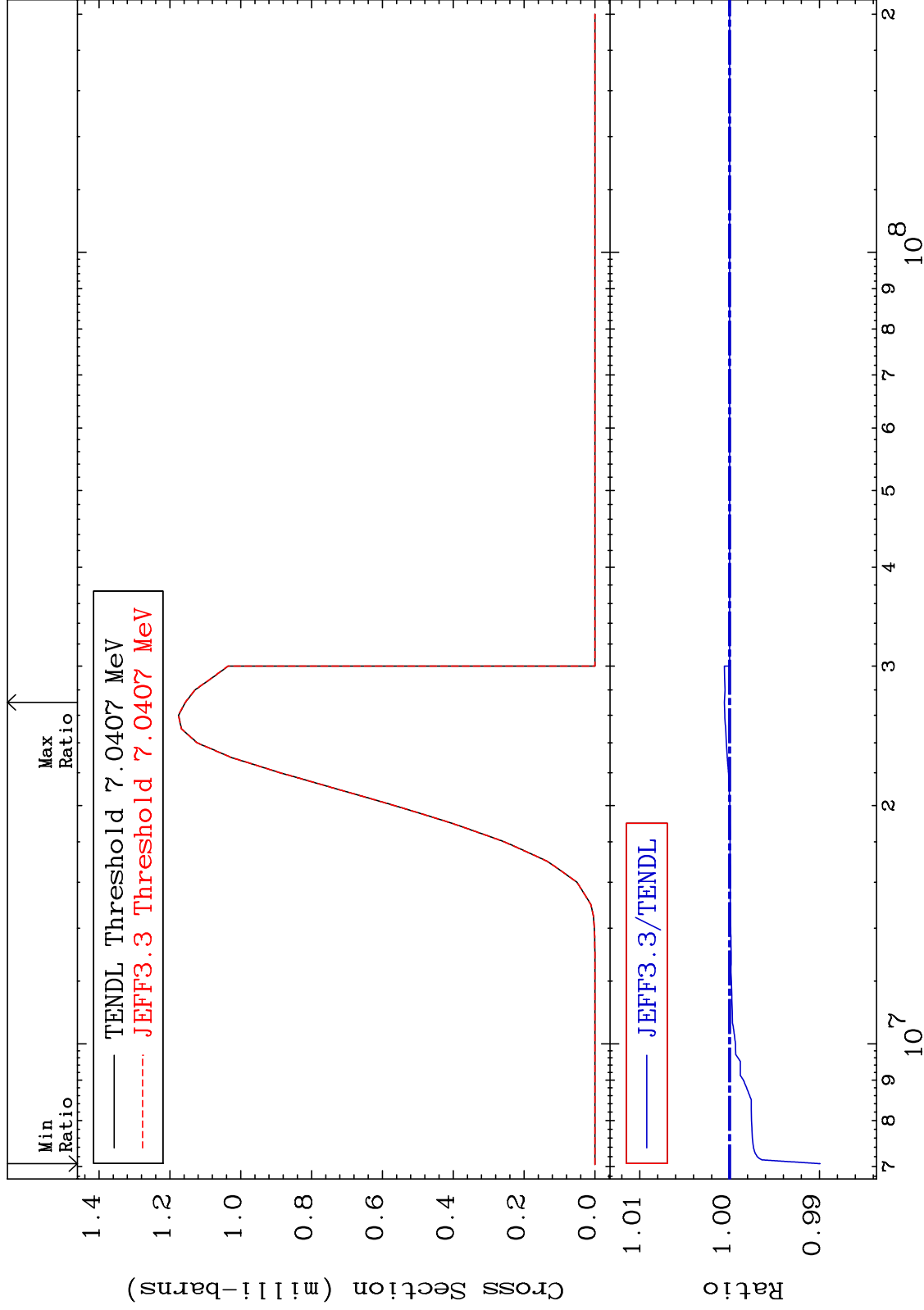


MAT 4834

(n, t) : 47-Ag-107g

48-Cd-109

Radionuclide Production Cross Section -0.999 To 0.057 %

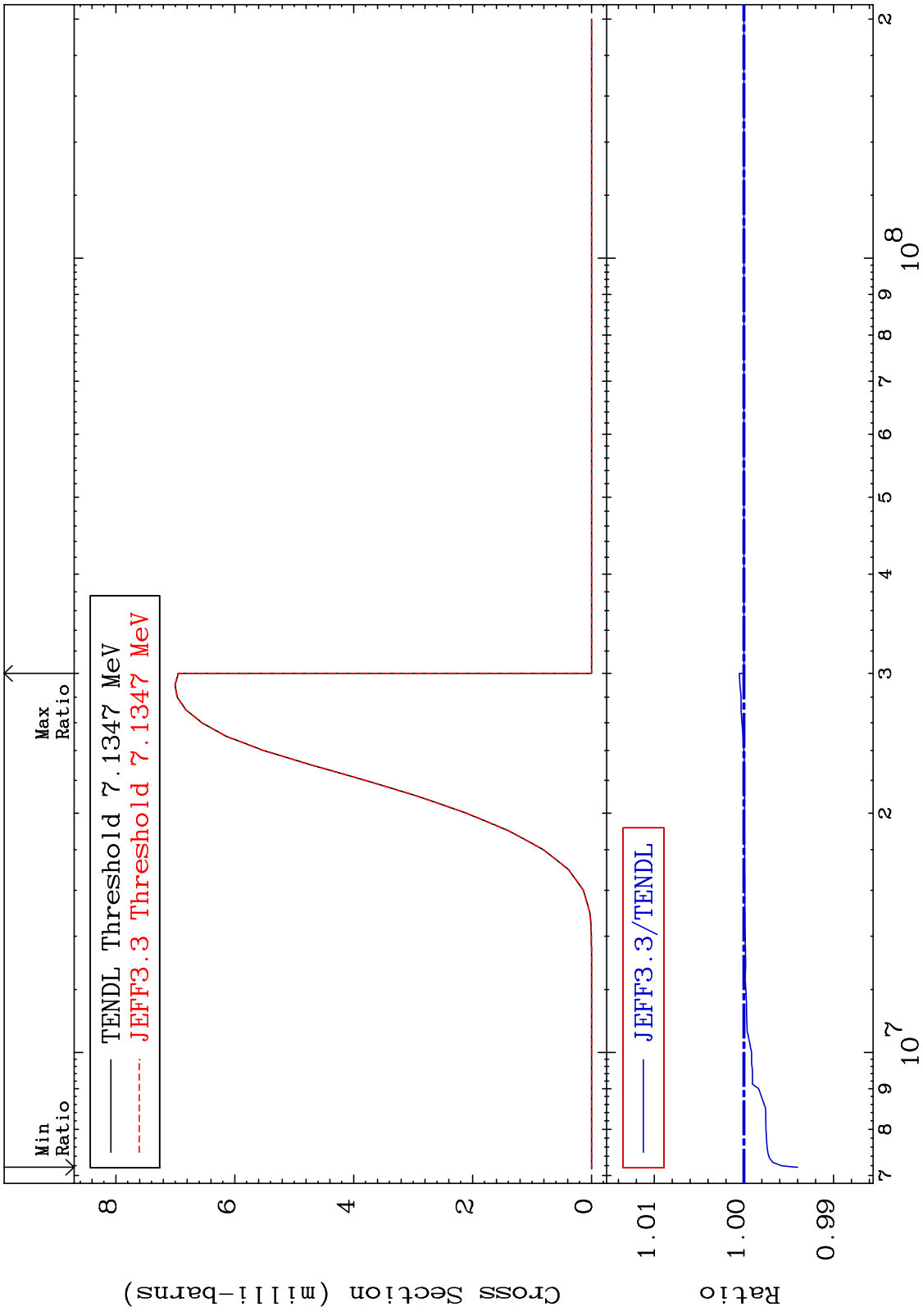


98

Incident Energy (eV)

48-Cd-109

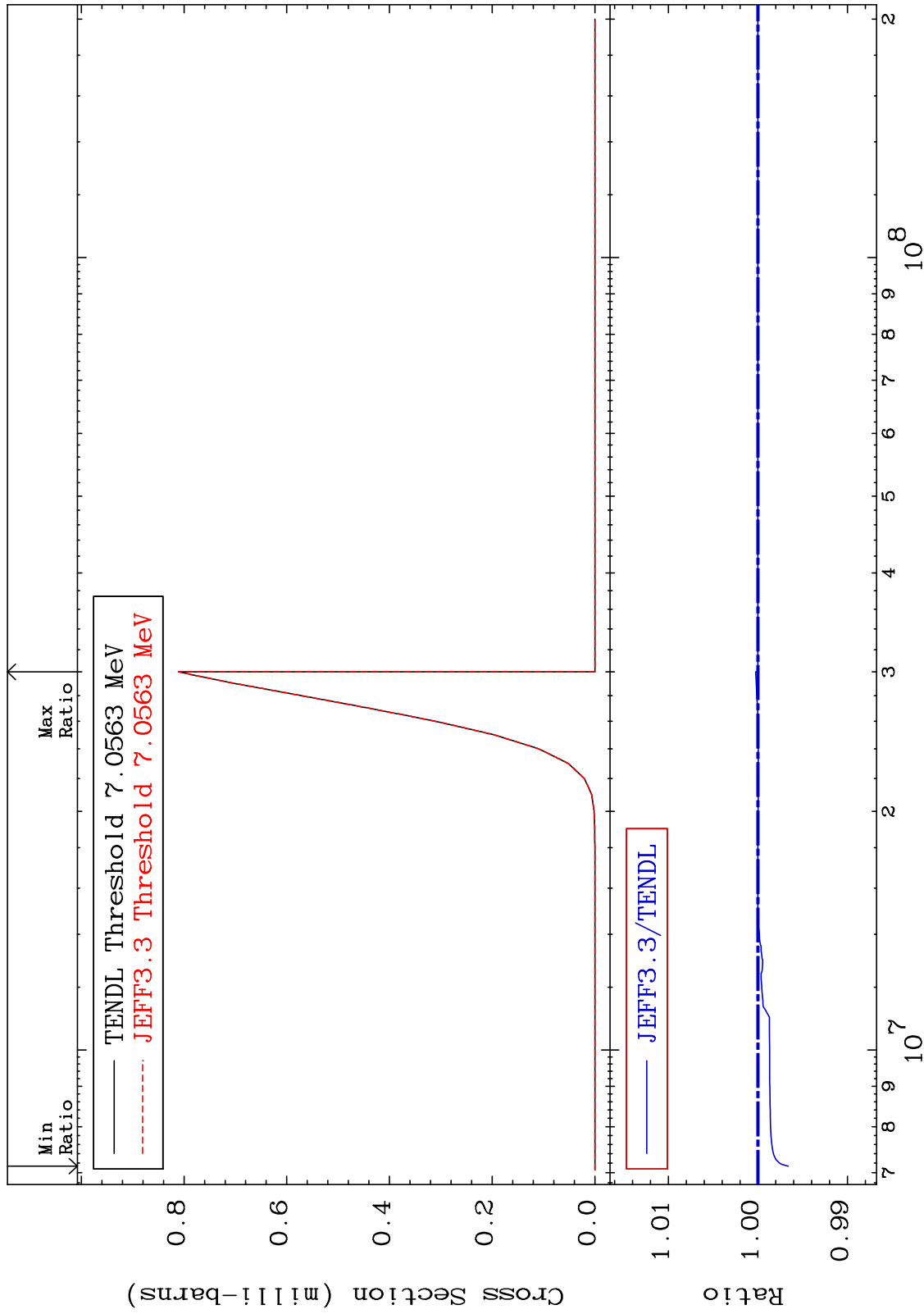
MAT 4834 (n, t): 47-Ag-107m1 48-Cd-109
 Radionuclide Production Cross Section -0.600 To 0.053 %



MAT 4834

48-Cd-109

(n, He-3) : 46-Pd-107g
Radionuclide Production Cross Section -0.338 To 0.026 %



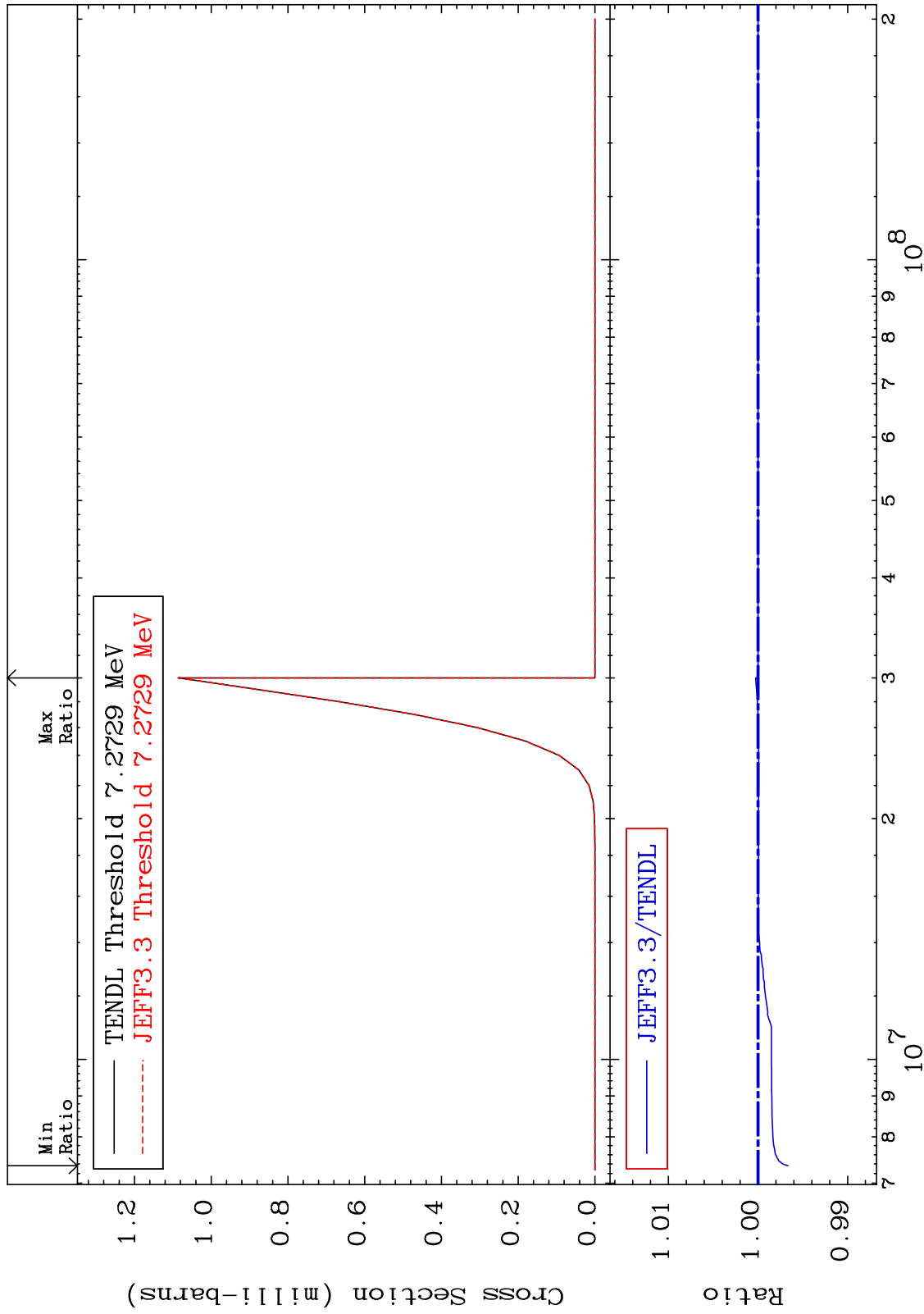
100

MAT 4834

(n,He-3) : 46-Pd-107m2

48-Cd-109

Radionuclide Production Cross Section -0.335 To 0.026 %



101

Incident Energy (eV)

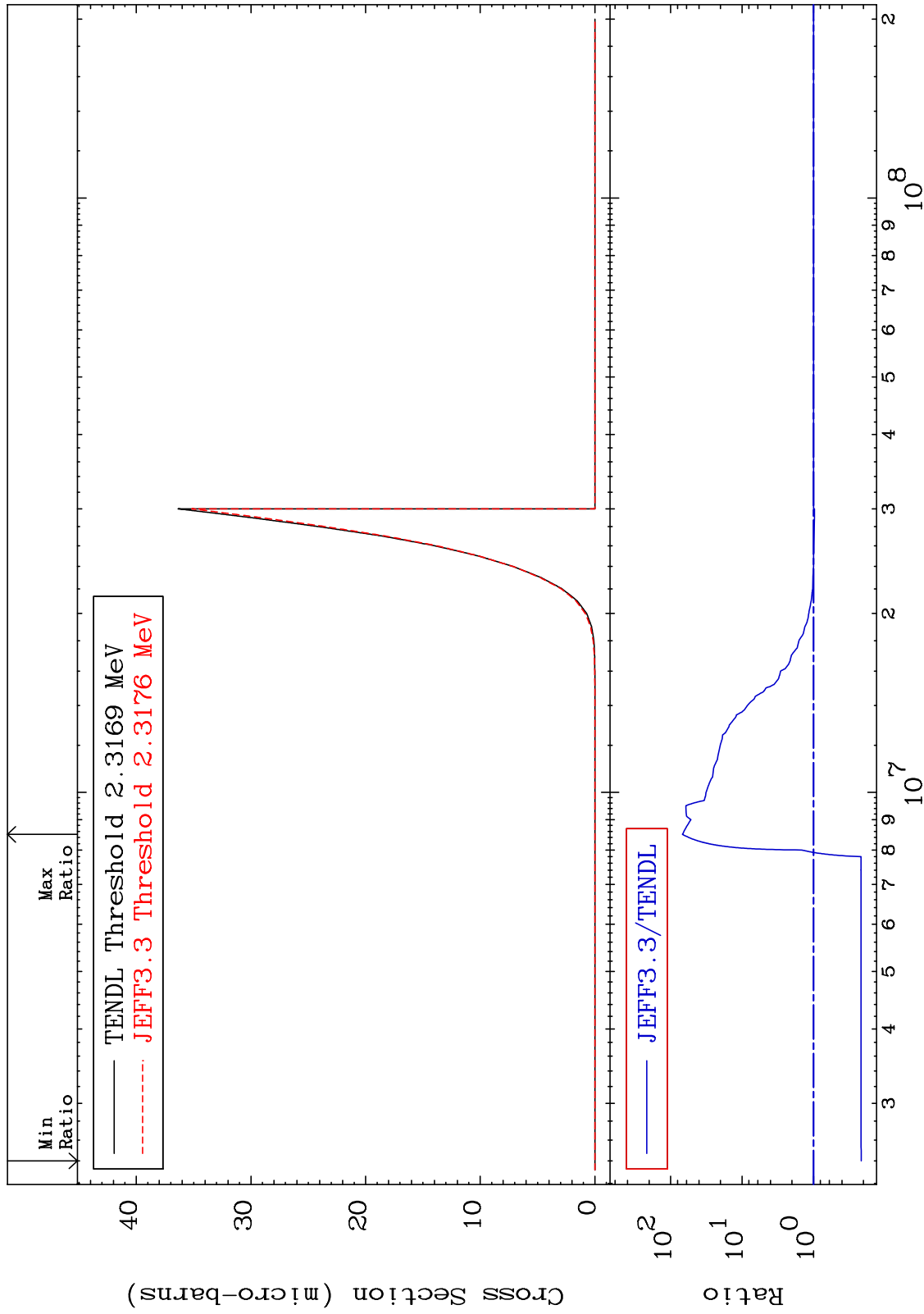
48-Cd-109

MAT 4834

(n, p) α : 45-Rh-105g

48-Cd-109

Radionuclide Production Cross Section -78.59 To 6727. %



102

Incident Energy (eV)

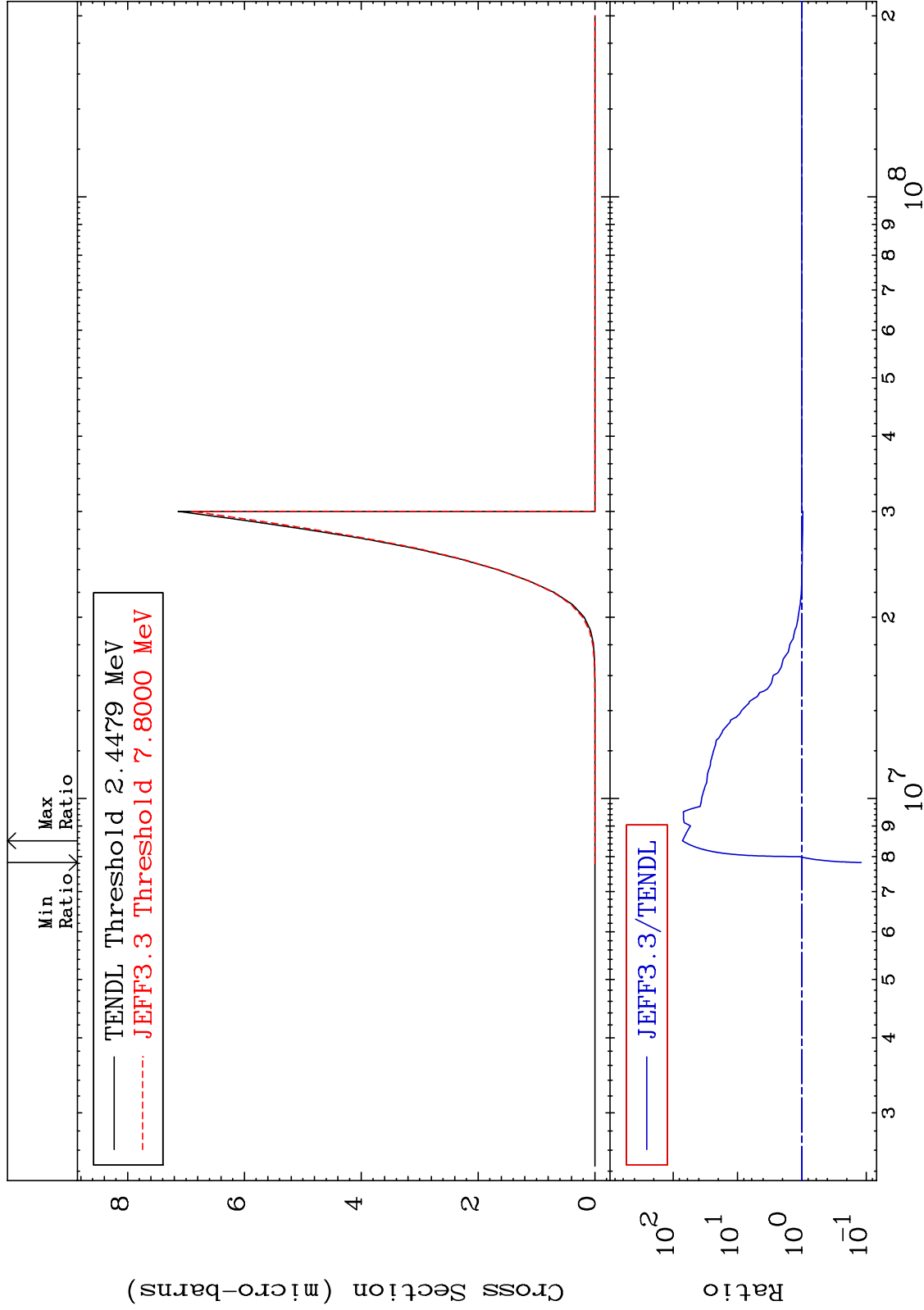
48-Cd-109

MAT 4834

(n, p) α :45-Rh-105m1

48-Cd-109

Radionuclide Production Cross Section -88.09 To 7075. %

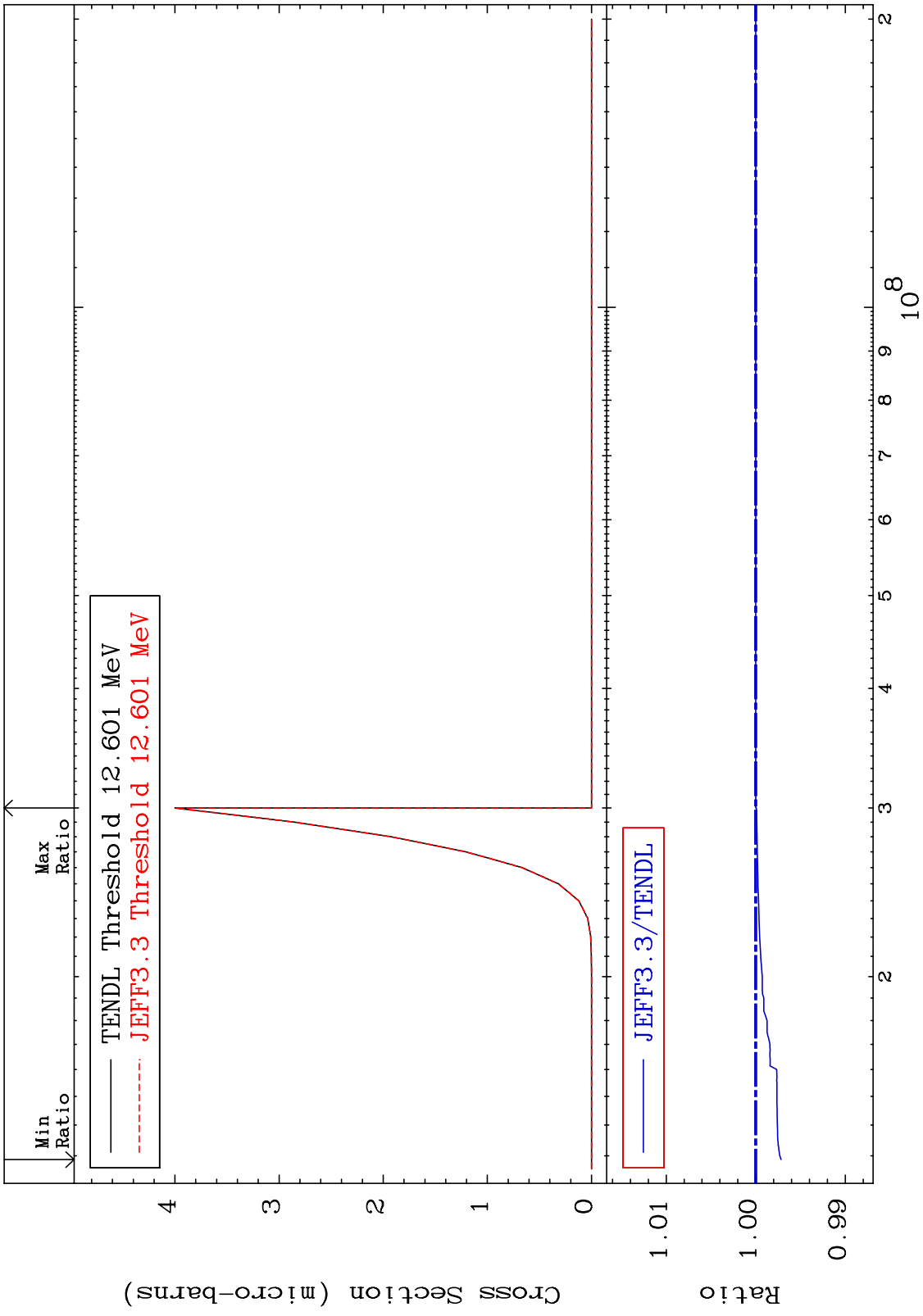


103

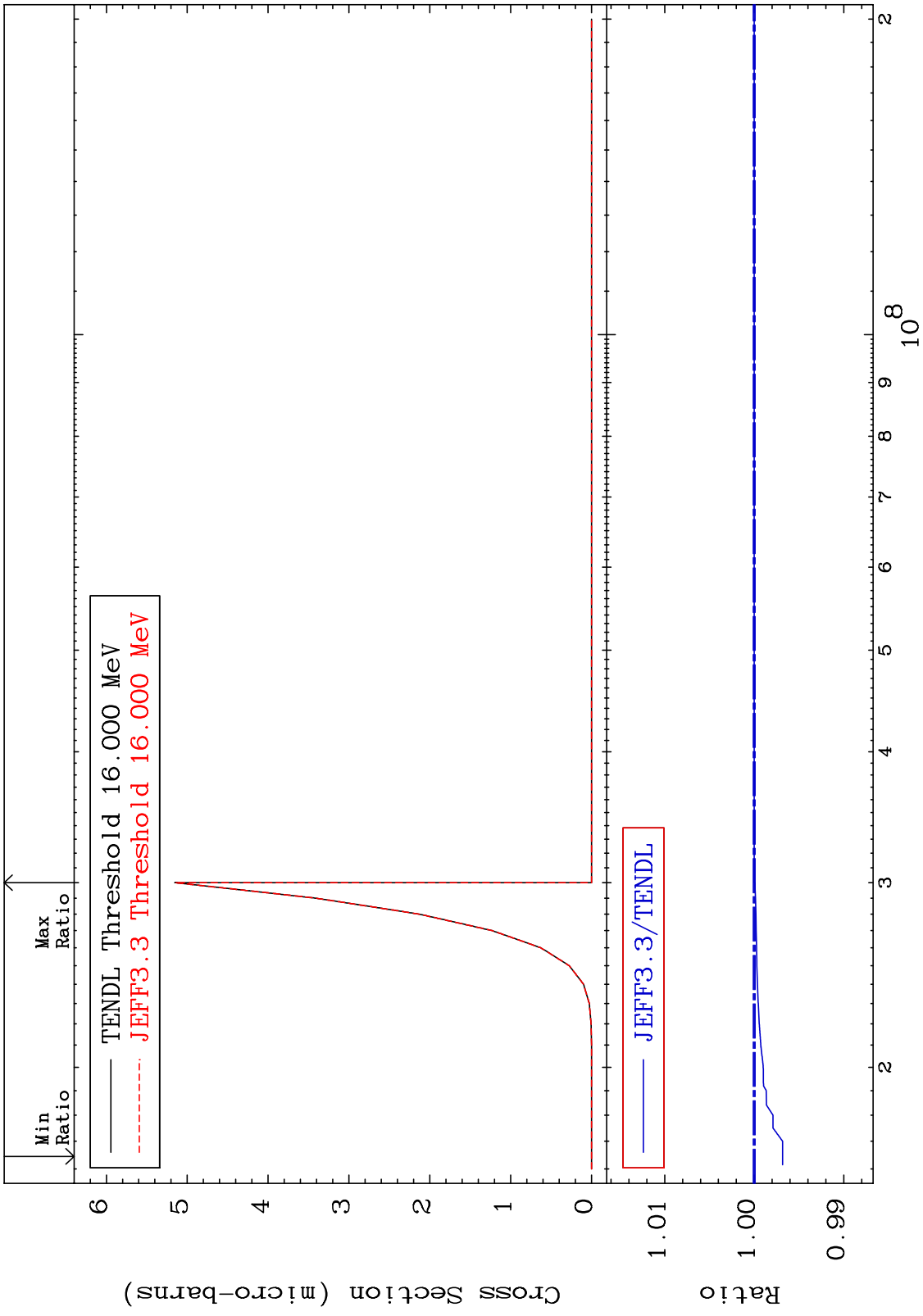
Incident Energy (eV)

48-Cd-109

MAT 4834 (n,p) d: 46-Pd-107g 48-Cd-109
 Radionuclide Production Cross Section -0.284 To 0.000 %



MAT 4834 (n,p) d:46-Pd-107m2 48-Cd-109
 Radionuclide Production Cross Section -0.317 To 0.000 %

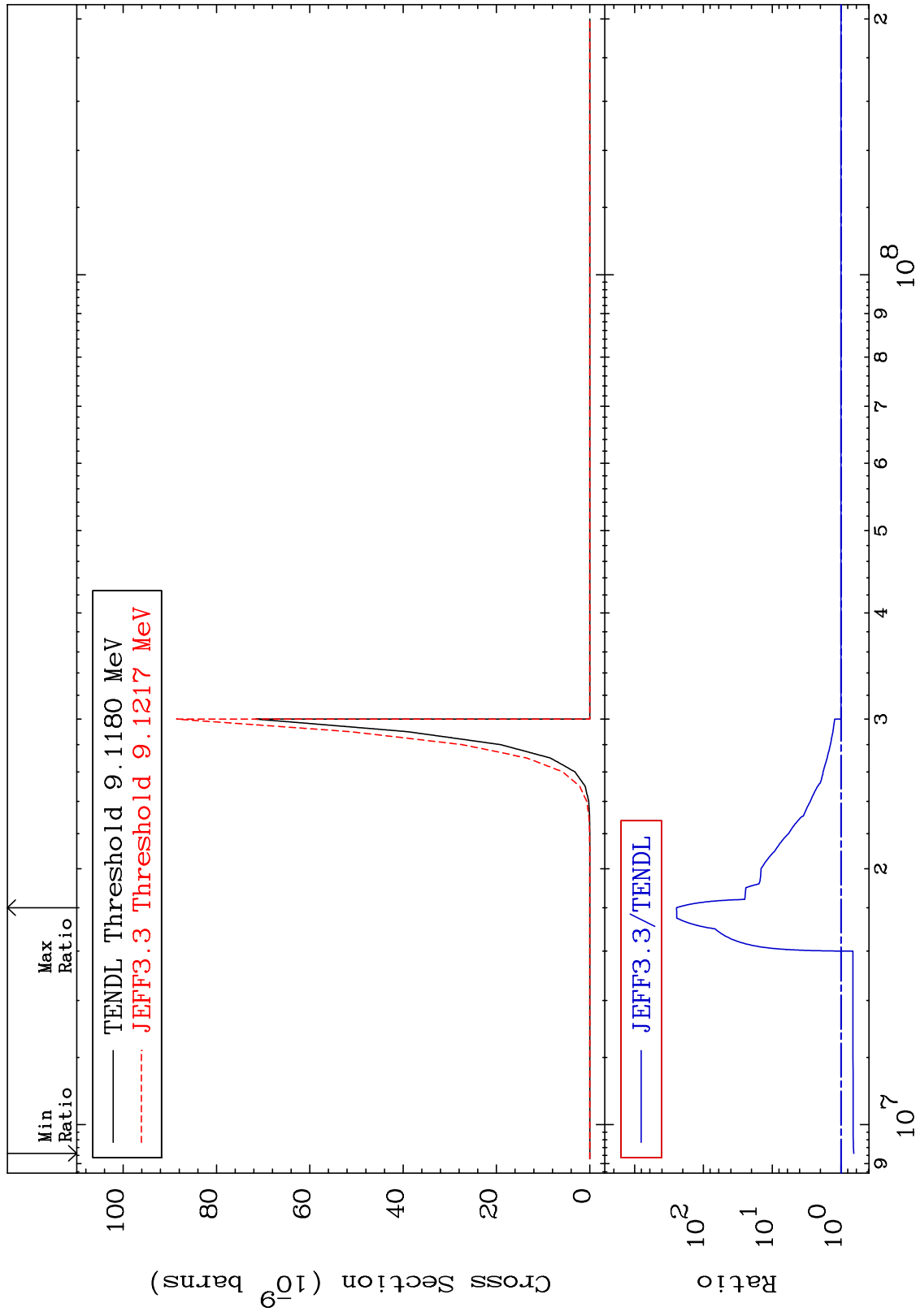


MAT 4834

(n, d) α : 45-Rh-104g

48-Cd-109

Radionuclide Production Cross Section -34.74 To 9999. %



106

Incident Energy (eV)

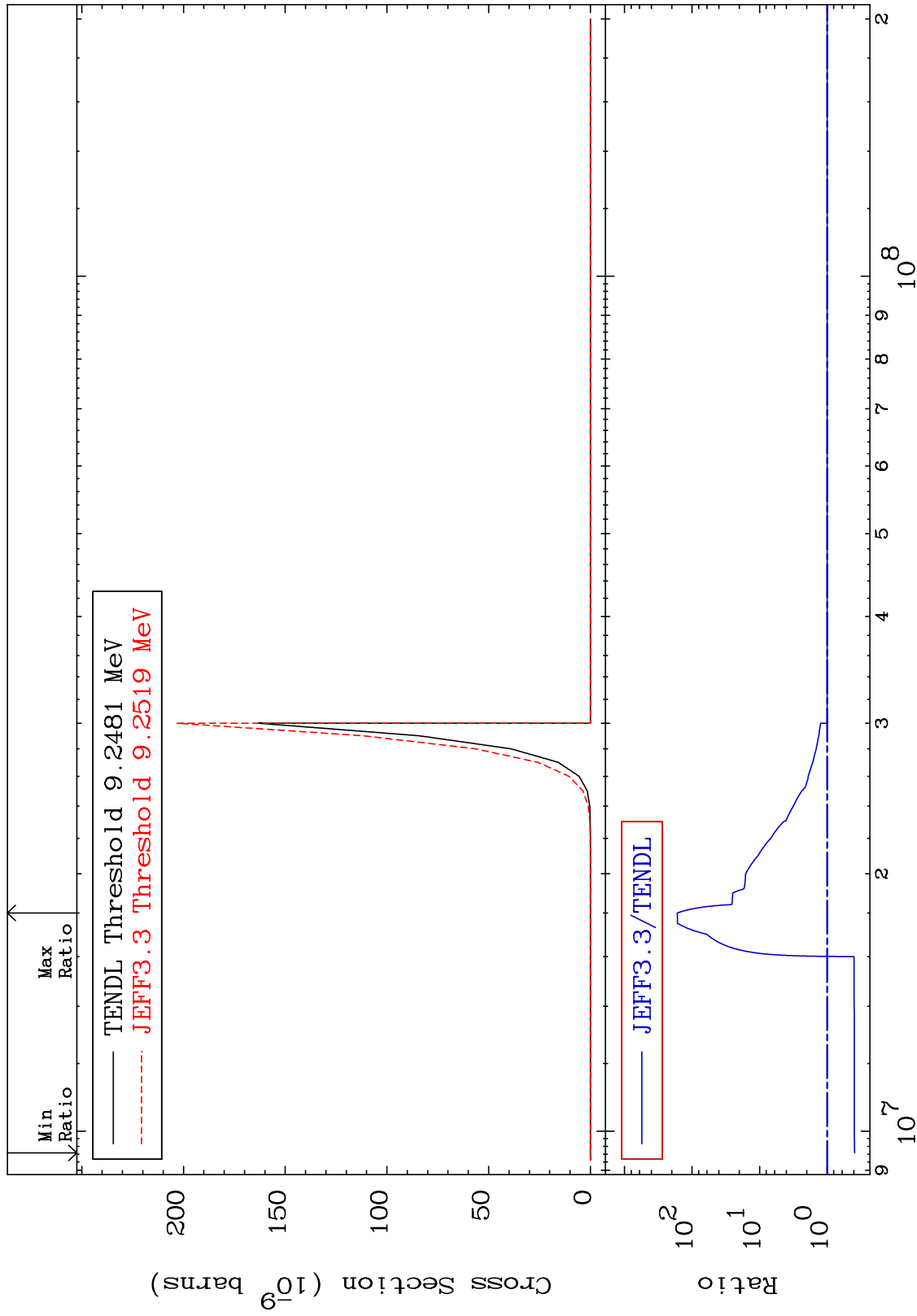
48-Cd-109

MAT 4834

(n, d) α :45-Rh-104m3

48-Cd-109

Radionuclide Production Cross Section -61.13 To 9999. %



107

Incident Energy (eV)

48-Cd-109