

Program Complot  
(Version 2021-1)

by

Dermott E. Cullen  
(Present Contact Information)

Dermott E. Cullen  
1466 Hudson Way  
Livermore, CA 94550

U.S.A.

Tele: 925-443-1911

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

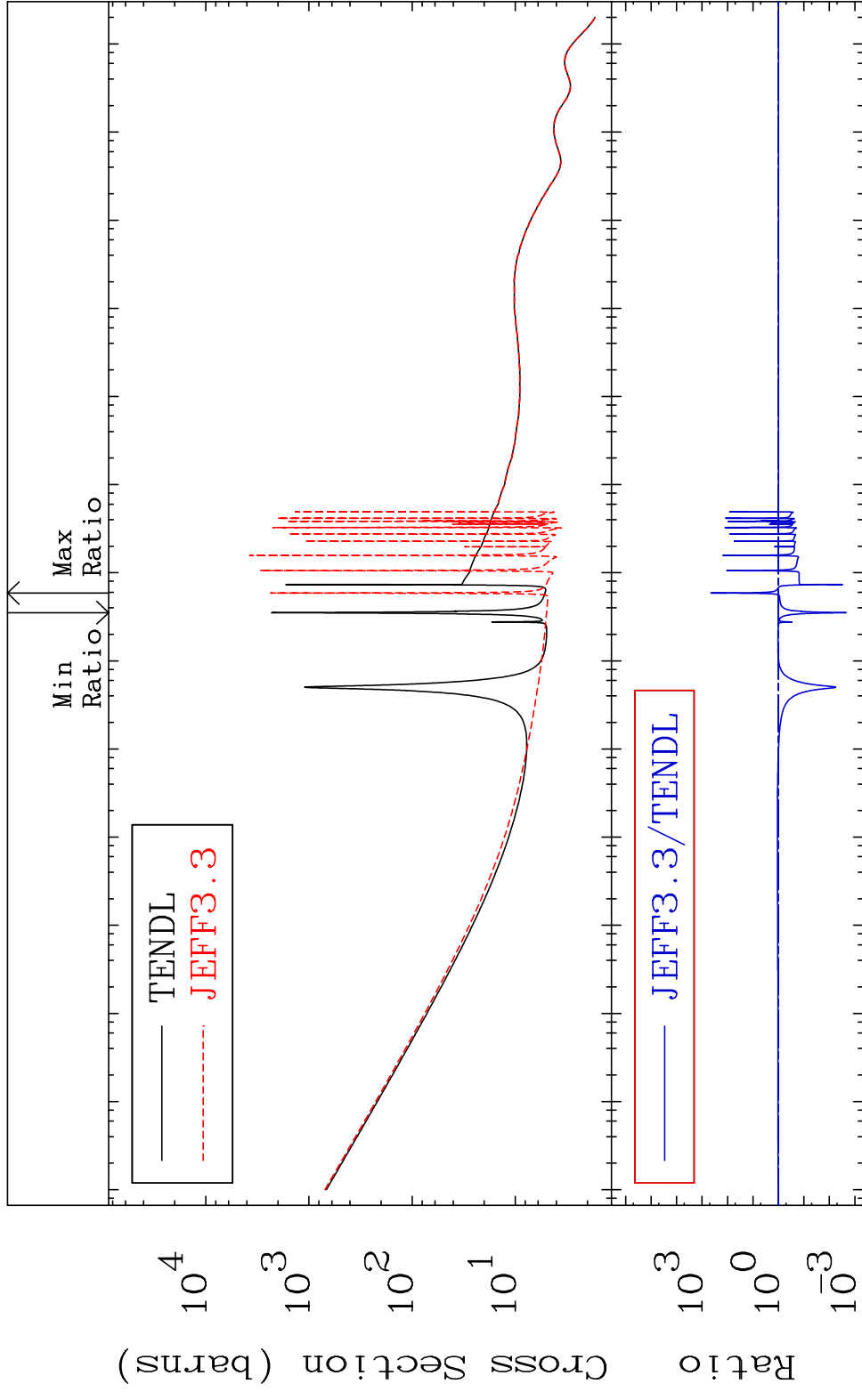
Press Mouse Button to Start

MAT 4428

44-Ru-97

Total

Cross Section -99.78 To 9999. %



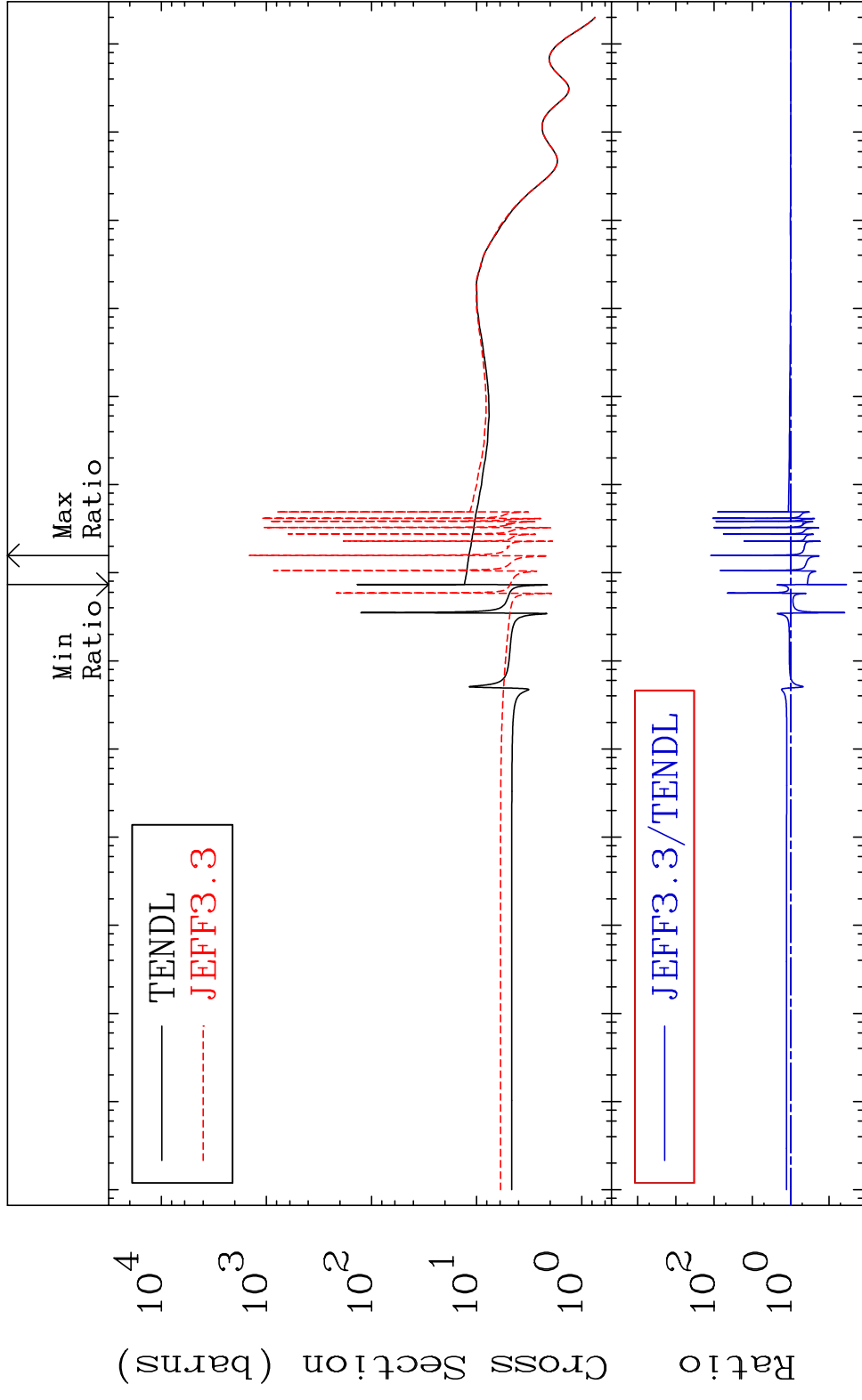
1

Incident Energy (eV)

44-Ru-97

MAT 4428

Elastic Cross Section 44-Ru-97  
-96.49 To 9999. %

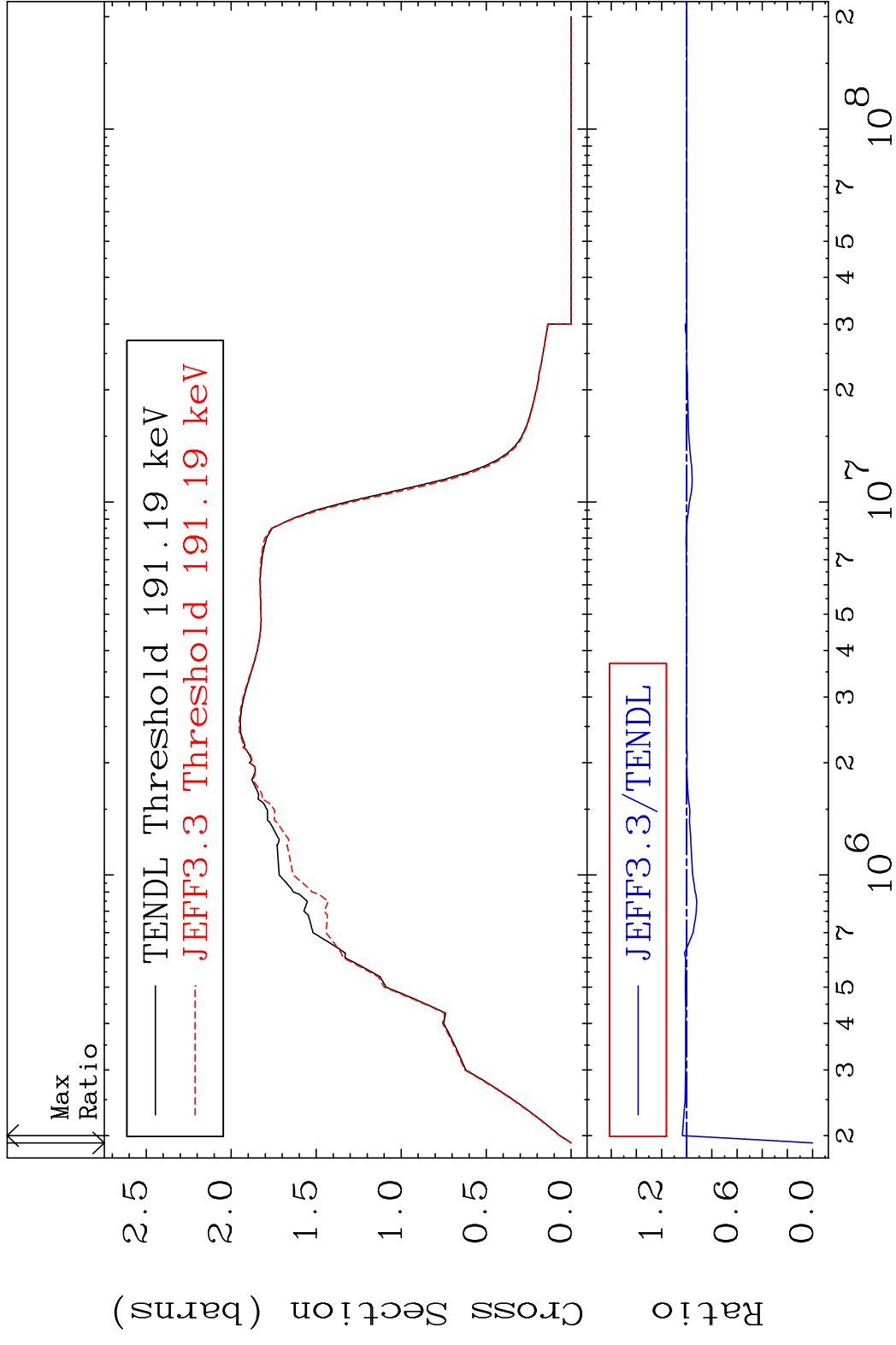


2

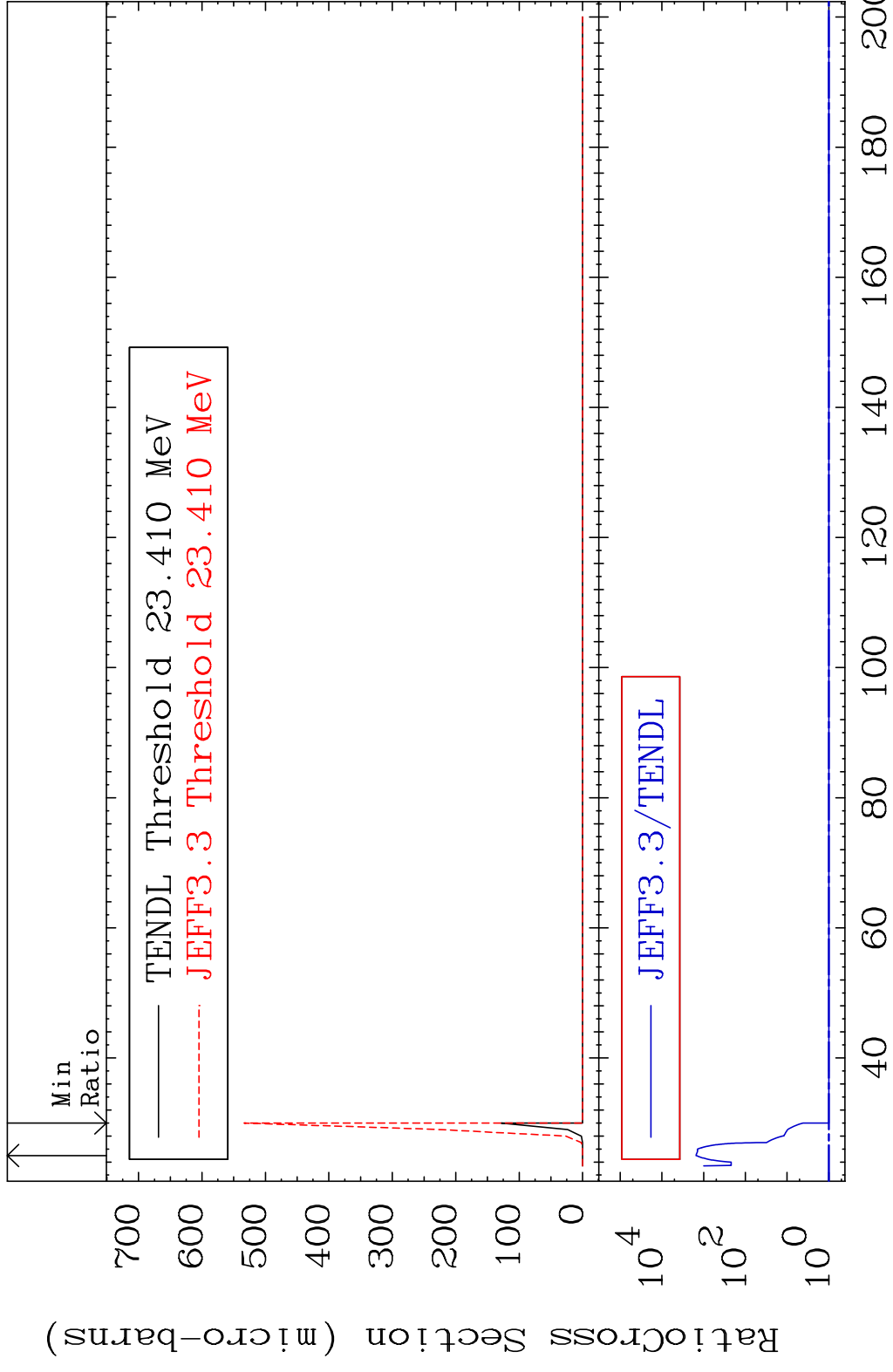
Incident Energy (eV)

44-Ru-97

MAT 4428 Inelastic 44-Ru-97  
 Cross Section -100.0 To 3.468 %



MAT 4428 (n,2n) d 44-Ru-97  
 Cross Section 0.000 To 9999. %

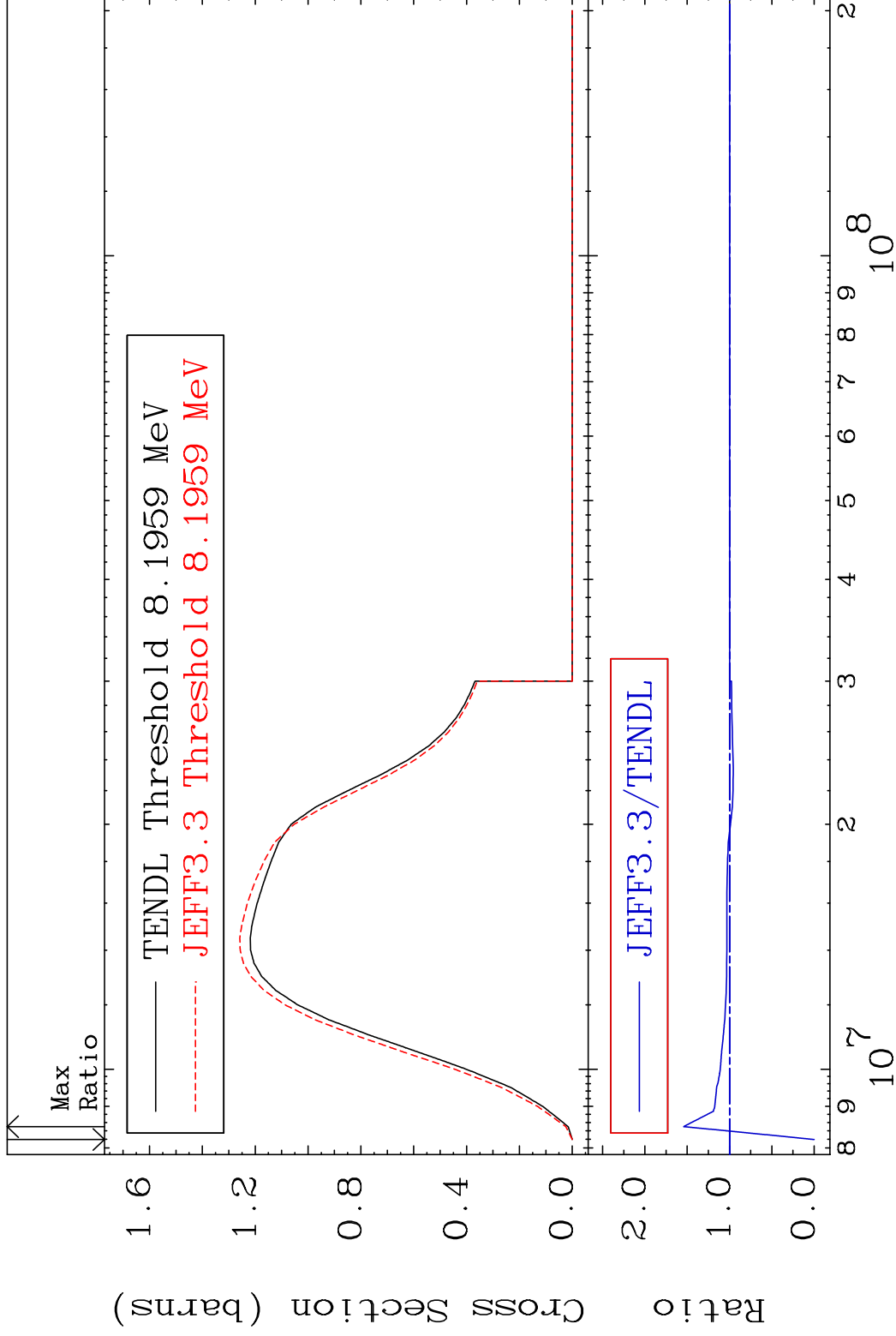


MAT 4428

(n,2n)

44-Ru-97

Cross Section -100.0 To 54.22 %

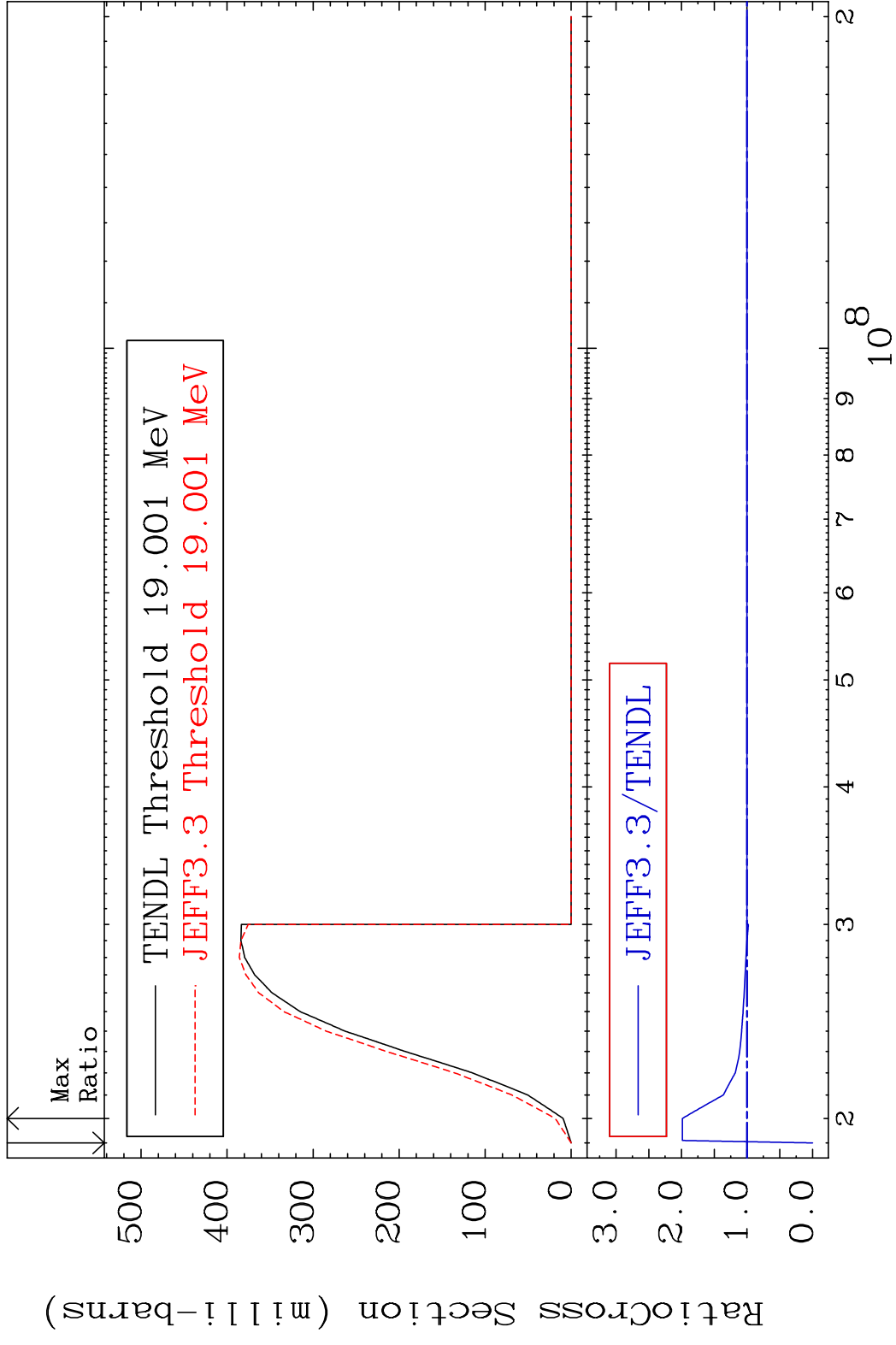


5

Incident Energy (eV)

44-Ru-97

MAT 4428 (n,3n) 44-Ru-97  
 Cross Section -100.0 To 98.72 %

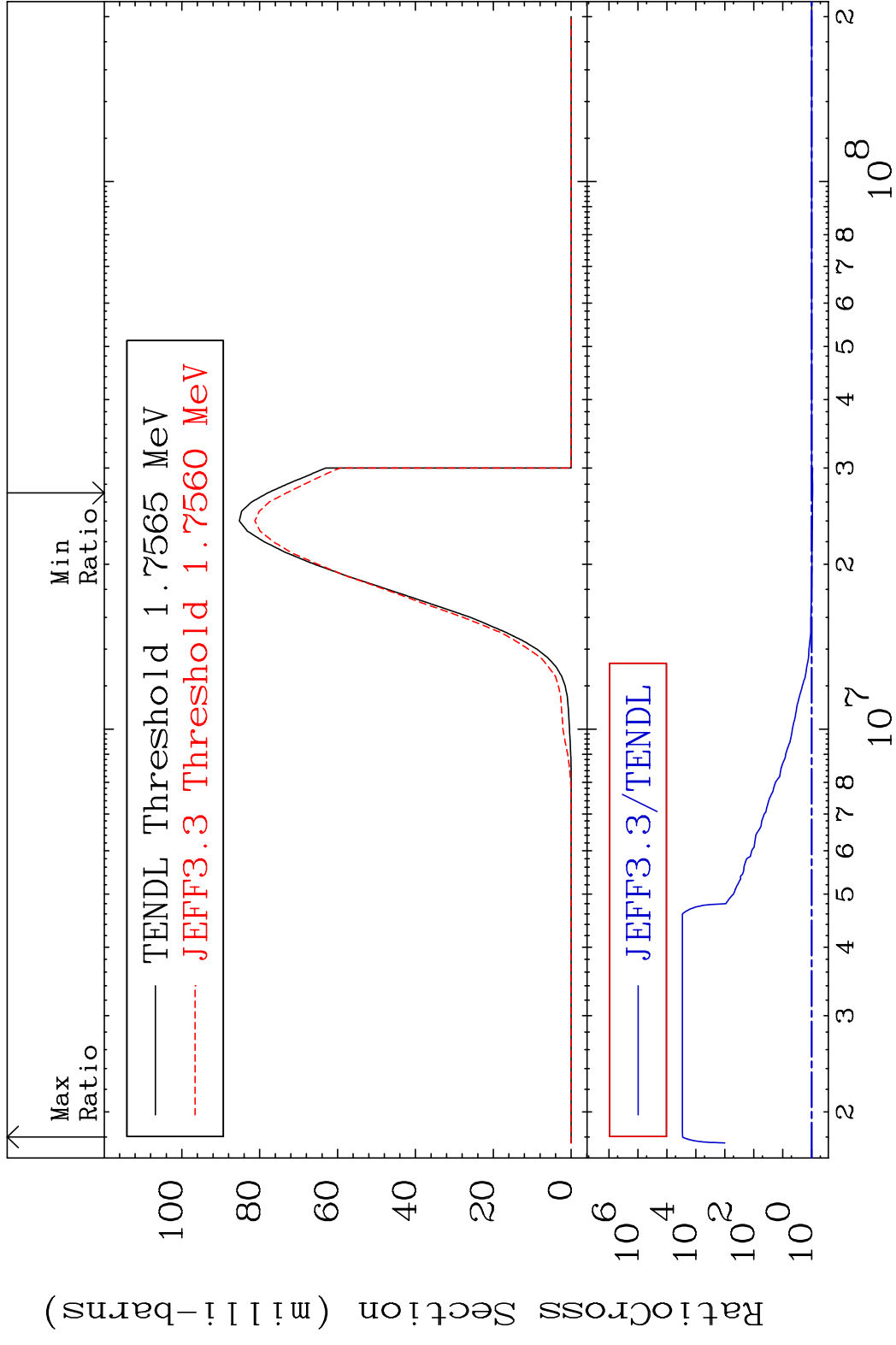


MAT 4428

(n, n')  $\alpha$

44-Ru-97

Cross Section -6.226 To 9999. %



7

Incident Energy (eV)

44-Ru-97

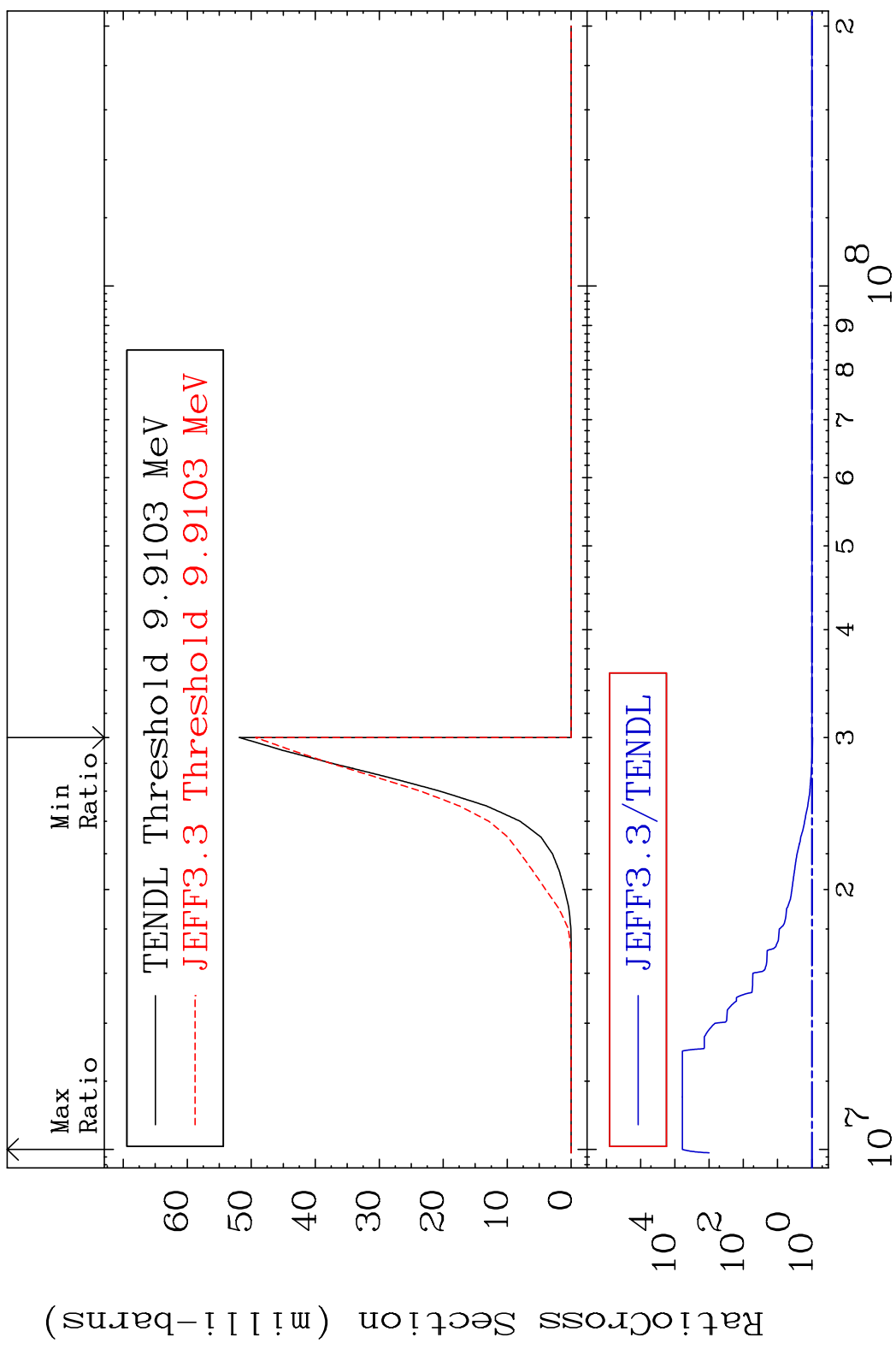


MAT 4428

(n,2n)  $\alpha$

44-Ru-97

Cross Section -4.844 To 9999. %

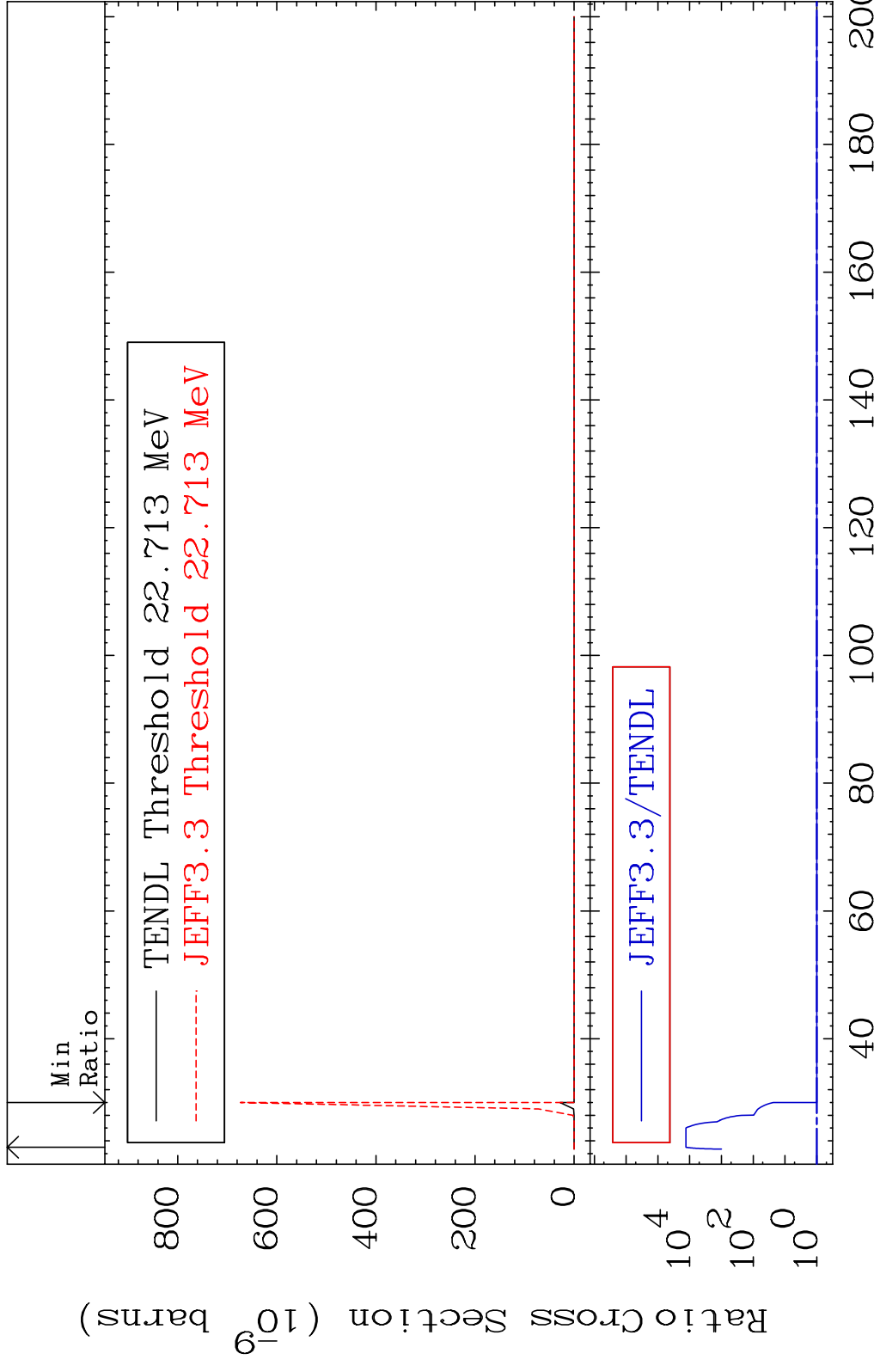


8

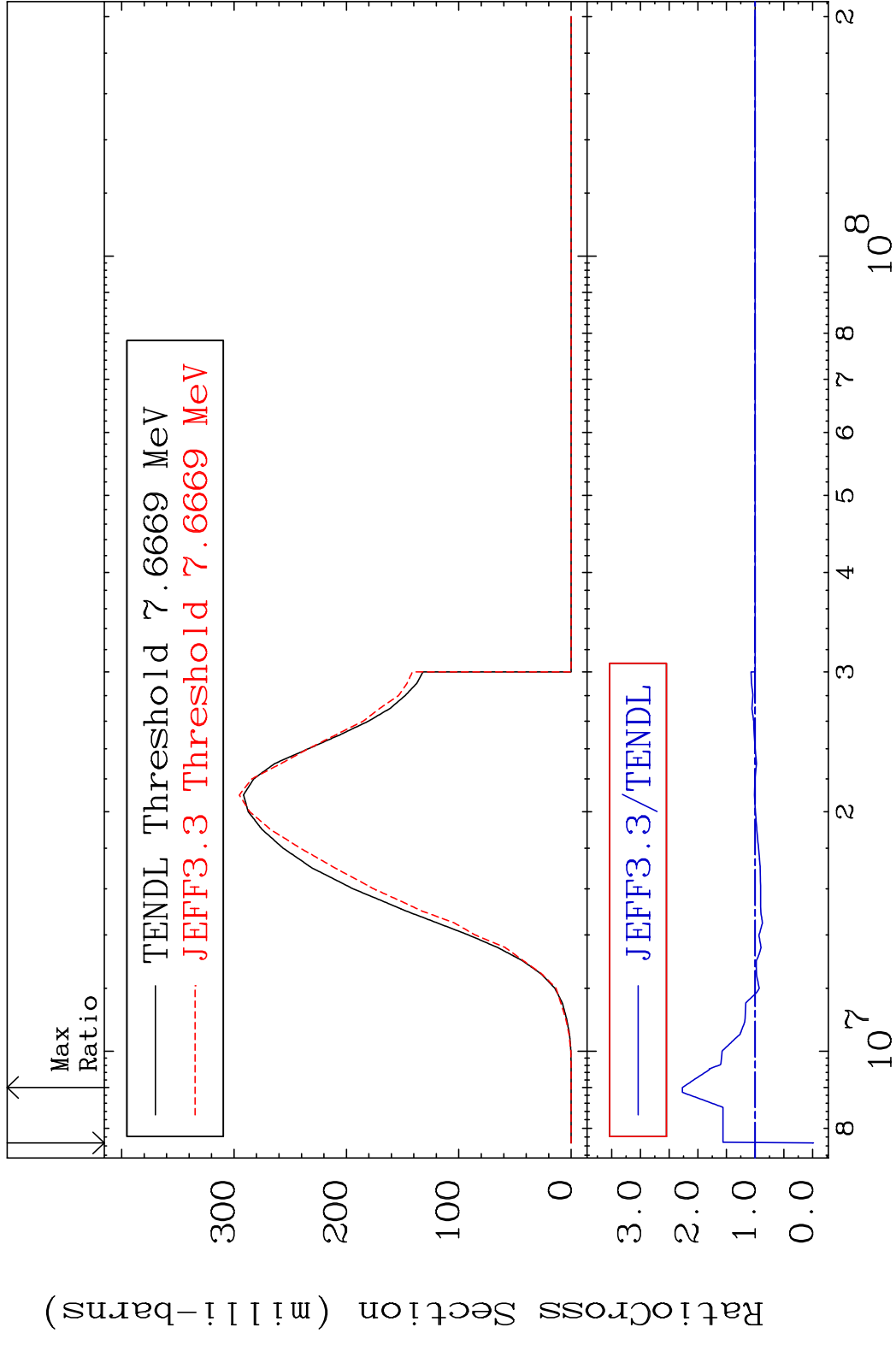
Incident Energy (eV)

44-Ru-97

MAT 4428 (n,3n)  $\alpha$  44-Ru-97  
 Cross Section 0.000 To 9999. %

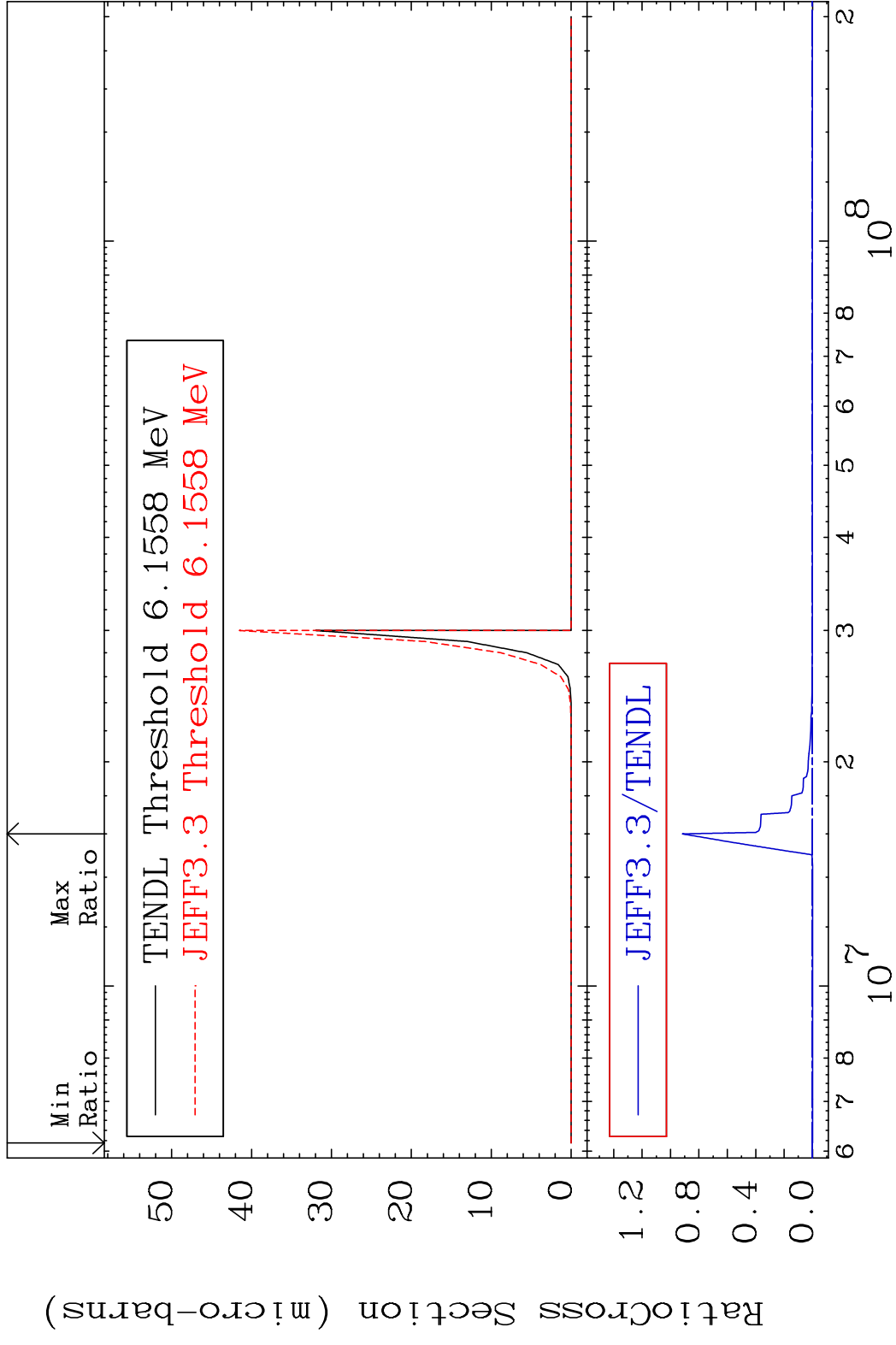


MAT 4428 (n, n') p 44-Ru-97  
 Cross Section -100.0 To 127.0 %

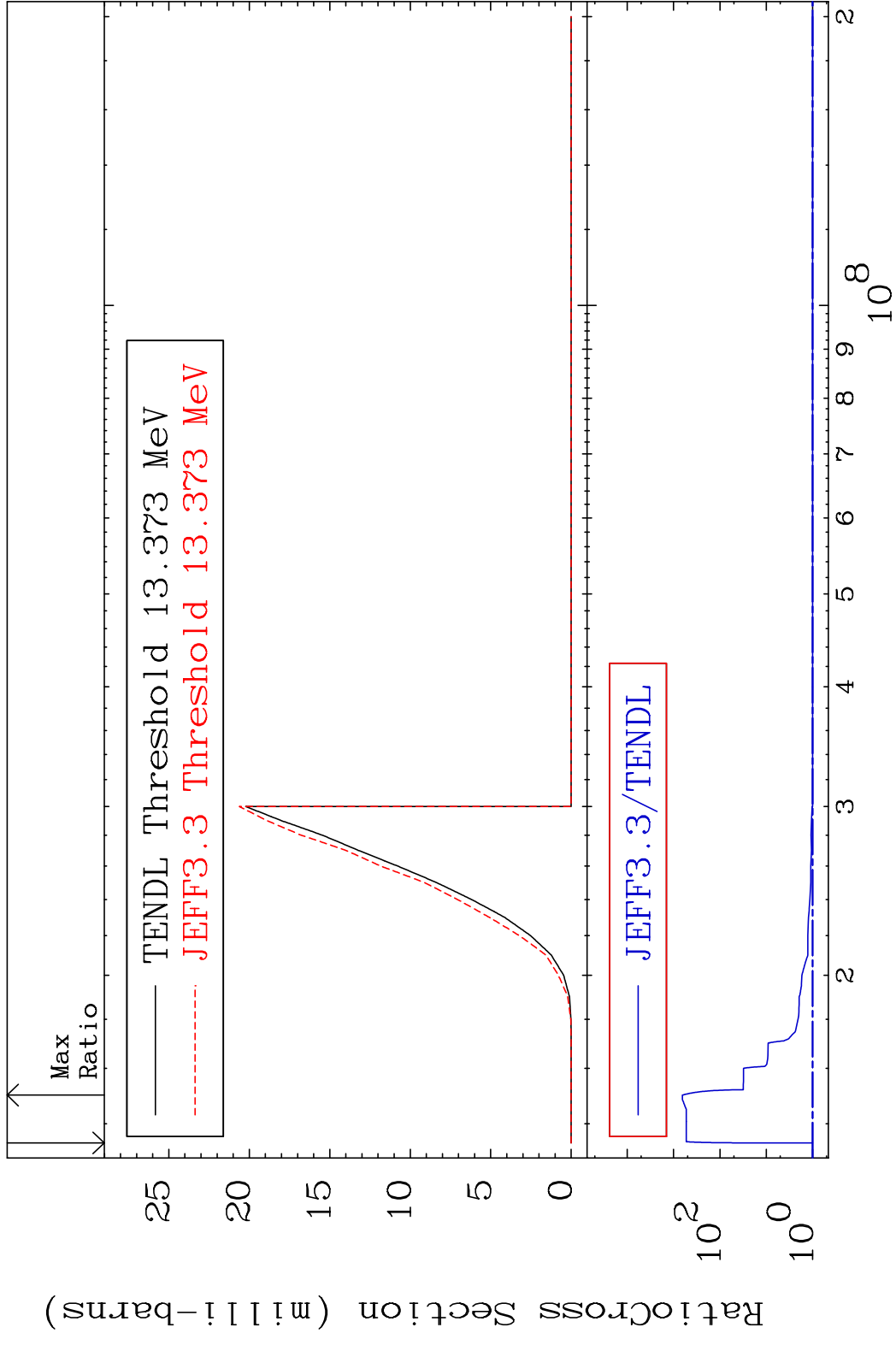


10 8 7 6 5 4 3 2 10 8 44-Ru-97

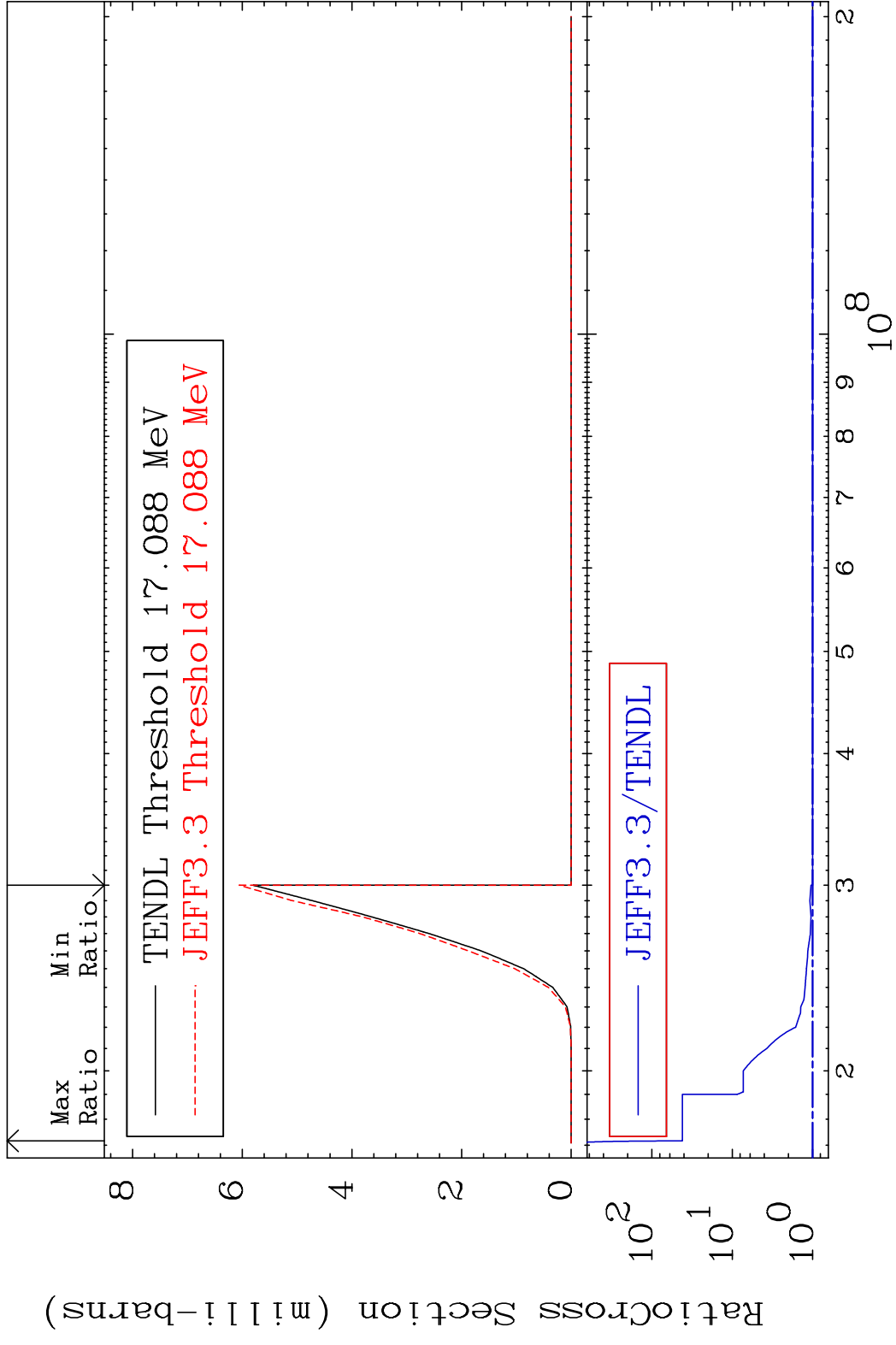
MAT 4428 (n, n') 2α 44-Ru-97  
 Cross Section -100.0 To 9999. %



MAT 4428 (n, n') d 44-Ru-97  
 Cross Section 0.000 To 9999. %

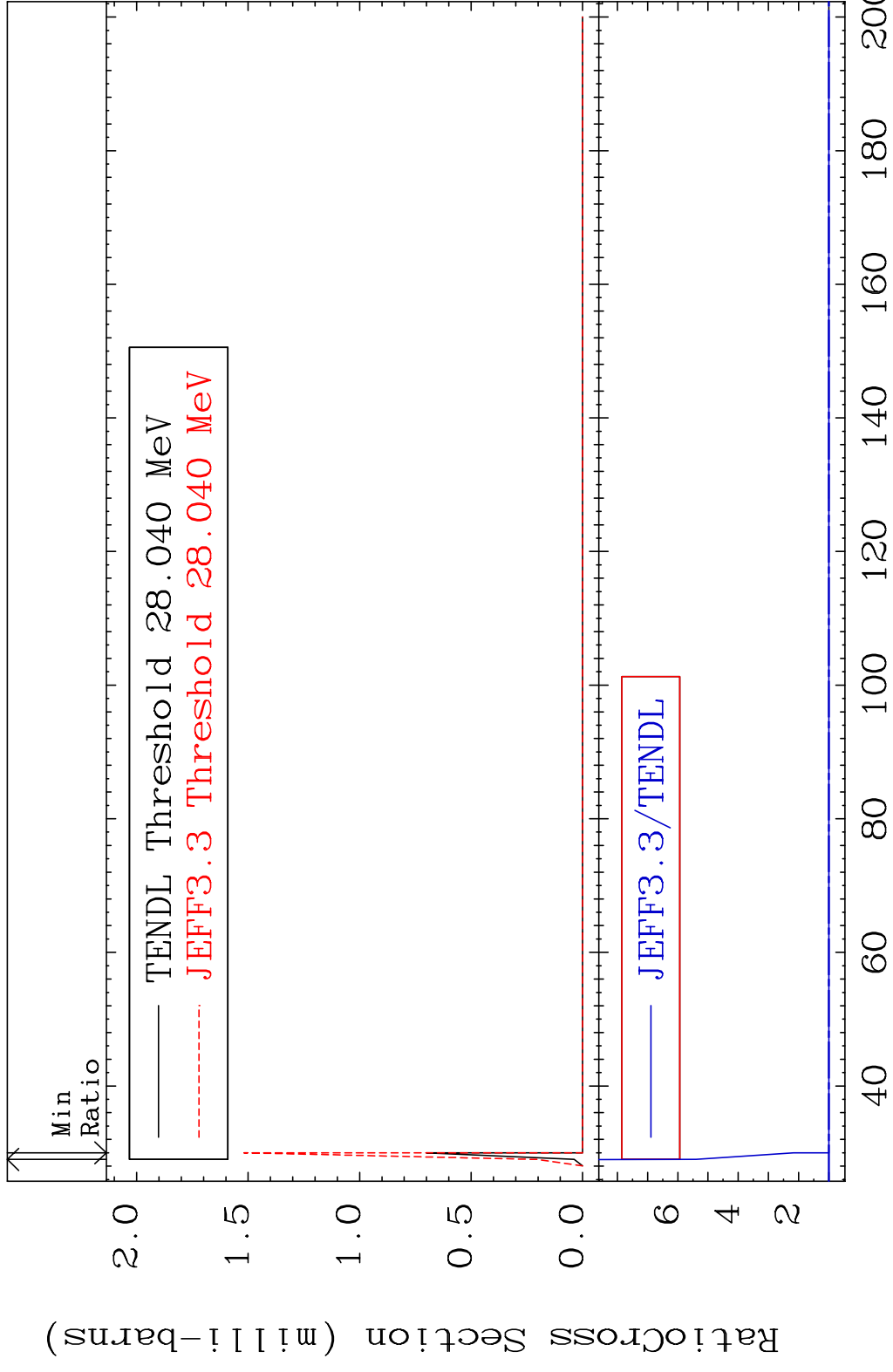


MAT 4428 (n, n') t 44-Ru-97  
 Cross Section 0.000 To 4079. %



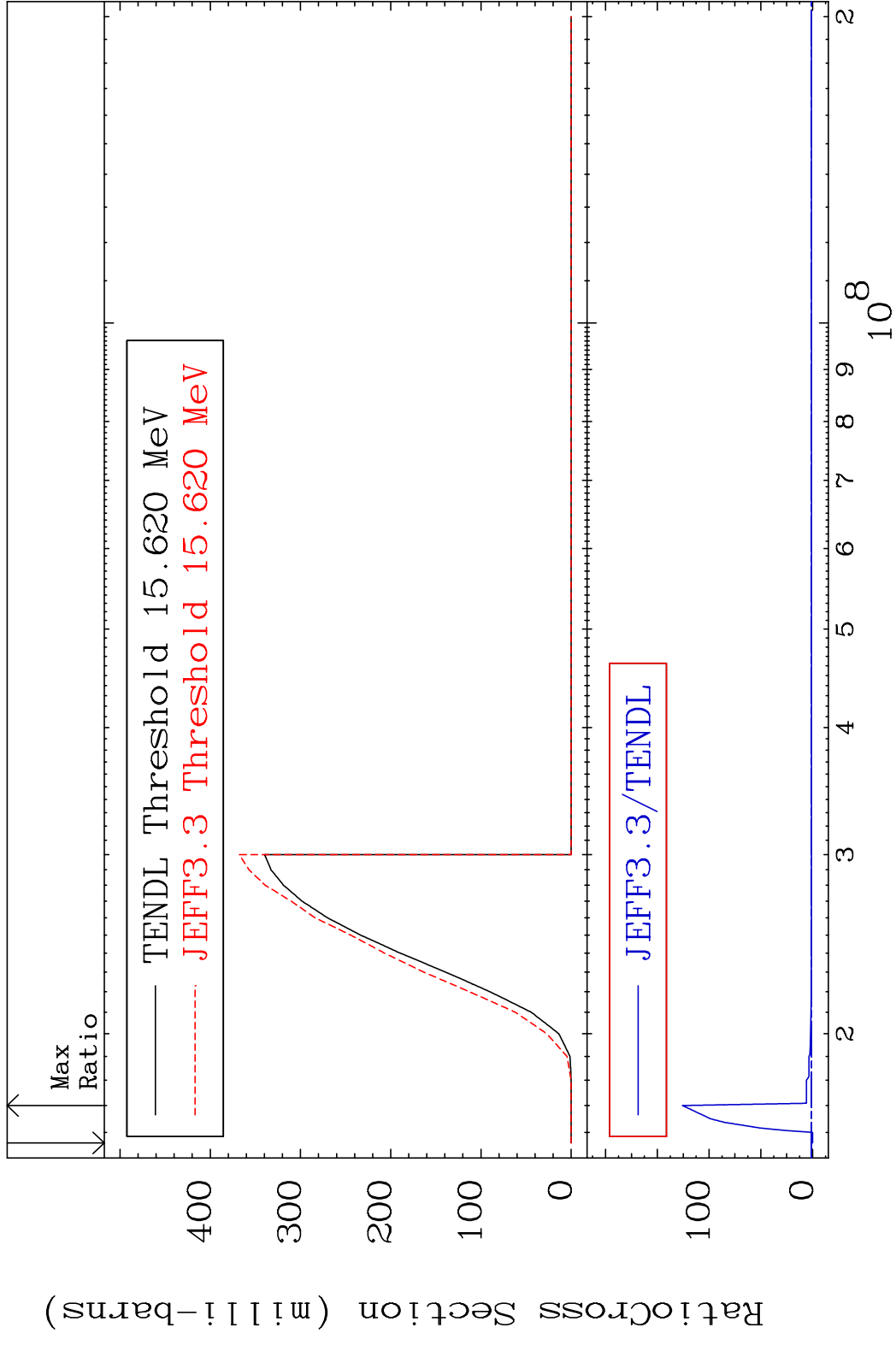


MAT 4428 (n,4n) 44-Ru-97  
 Cross Section 0.000 To 439.7 %

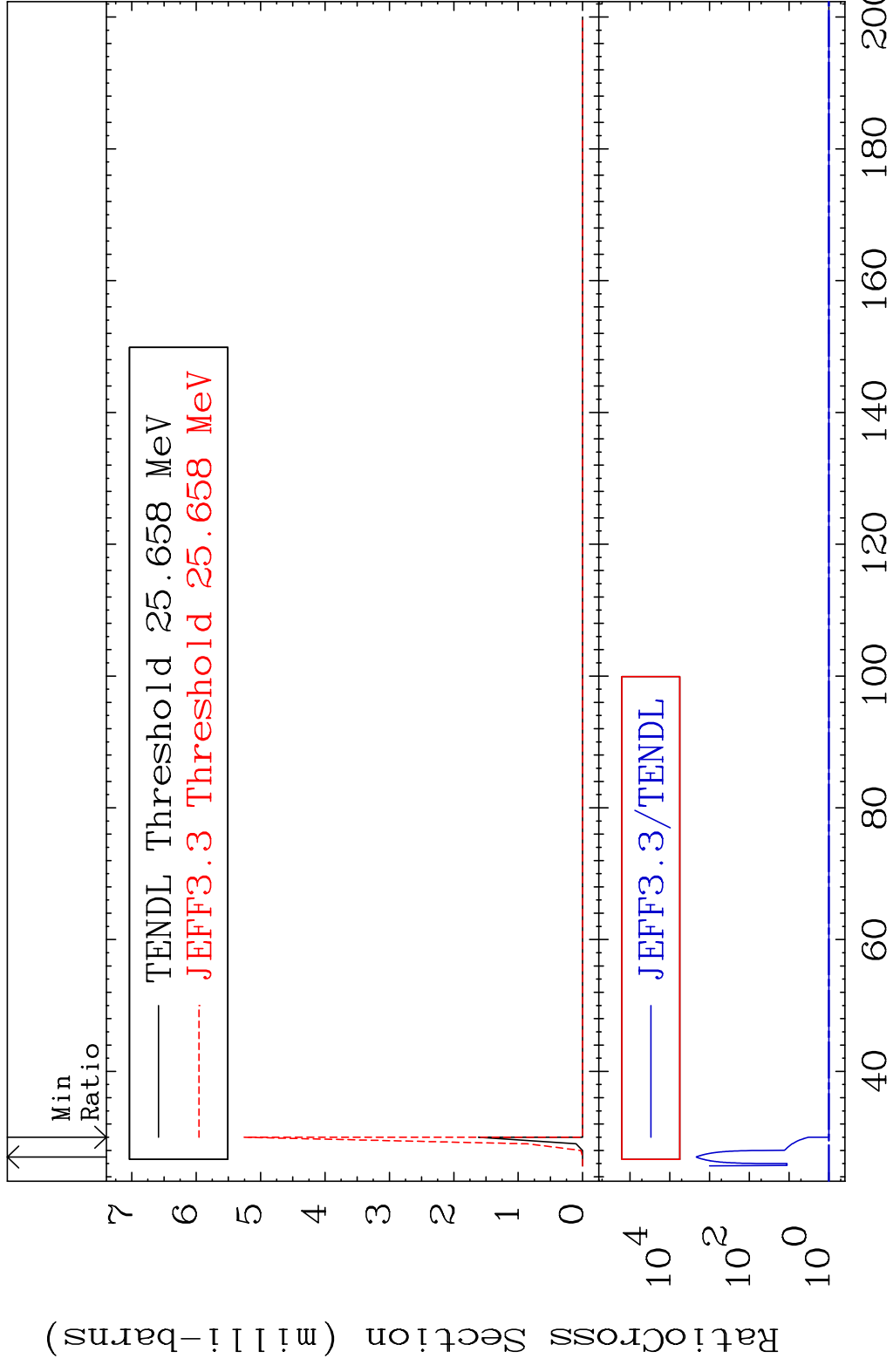




MAT 4428 (n,2n) p 44-Ru-97  
 Cross Section -100.0 To 9999. %



MAT 4428 (n,3n) p 44-Ru-97  
 Cross Section 0.000 To 9999. %

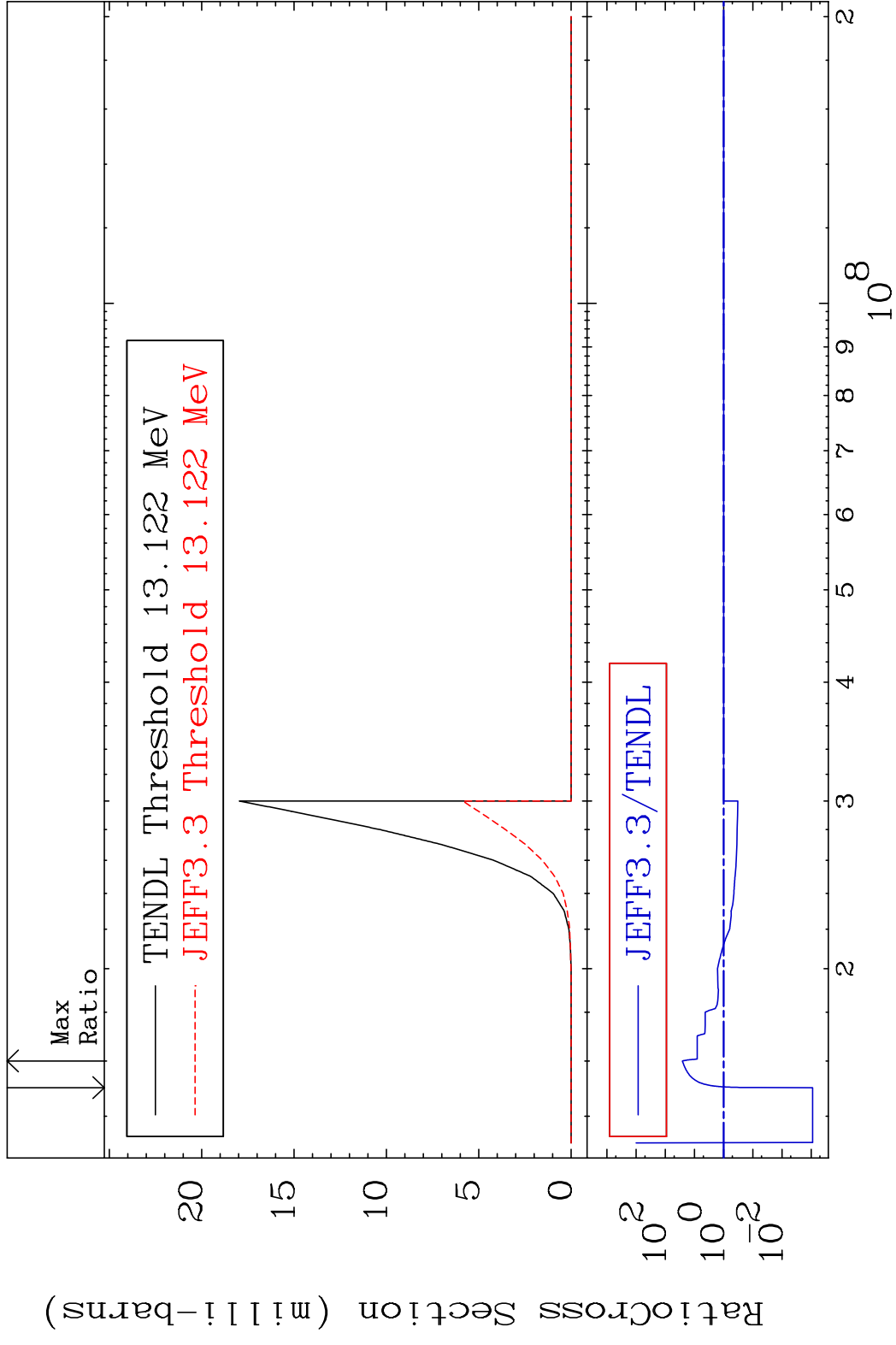


MAT 4428

(n,2n) p

44-Ru-97

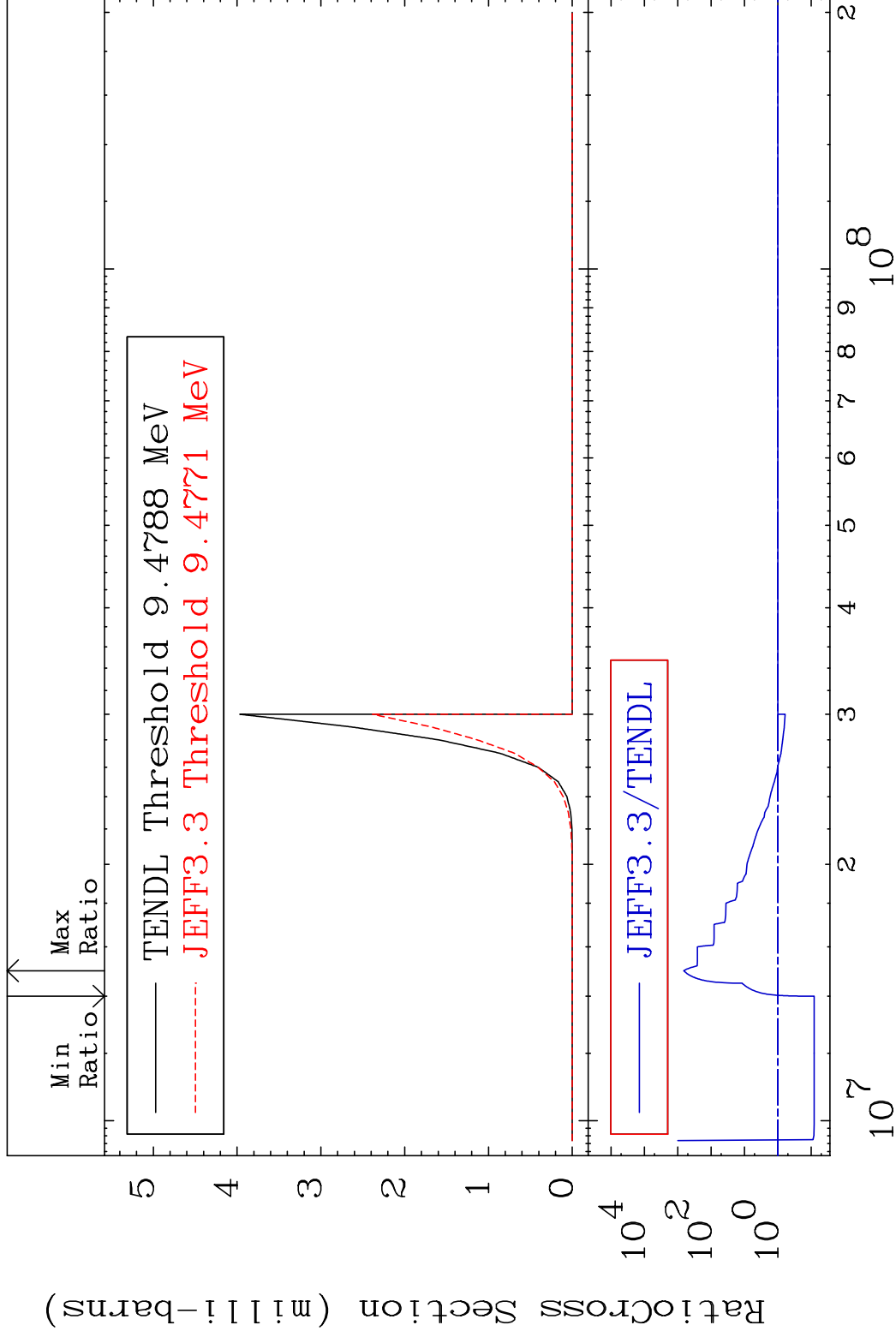
Cross Section -99.91 To 2507. %



MAT 4428

(n,n') p  $\alpha$  44-Ru-97

Cross Section -91.88 To 9999. %

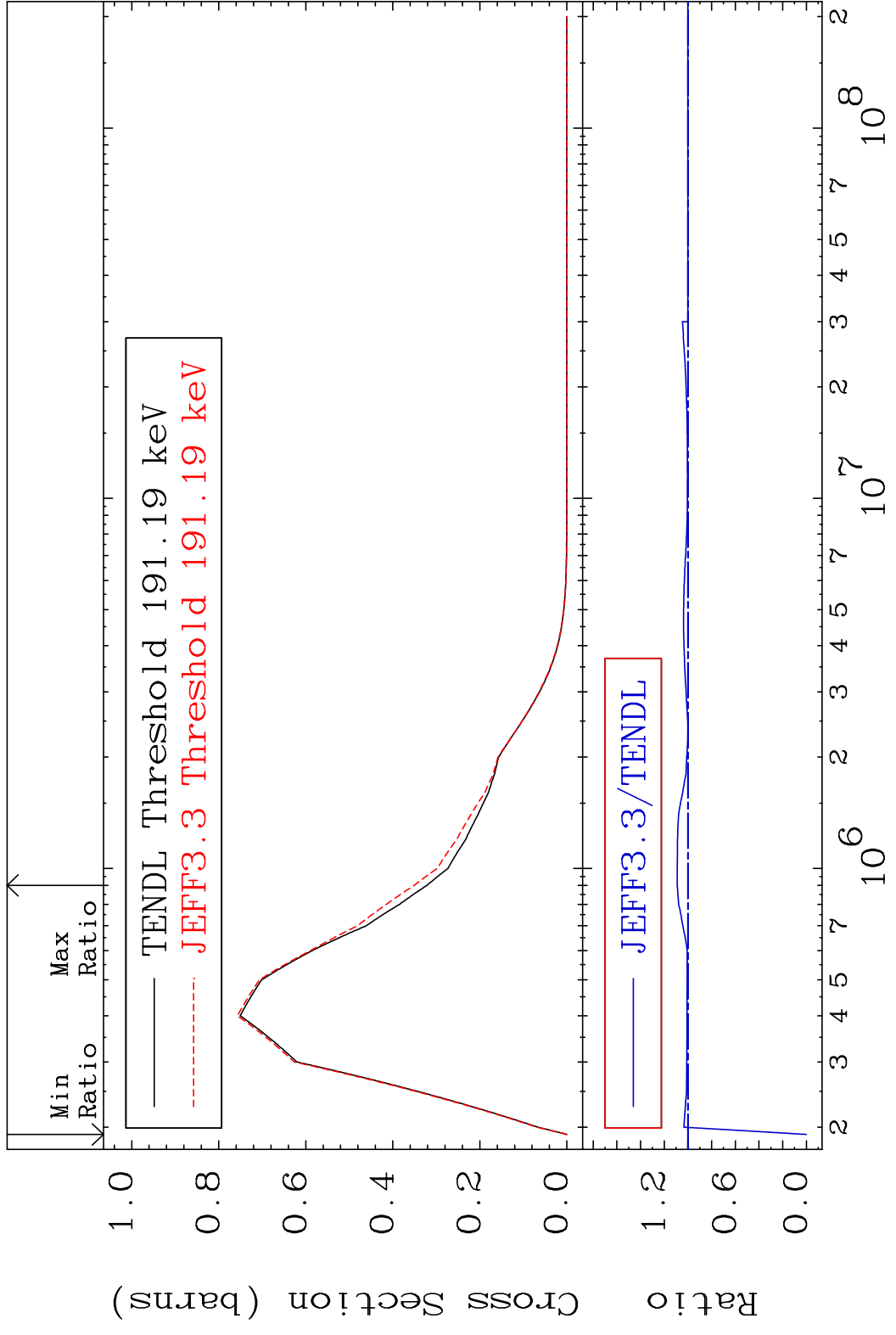


19

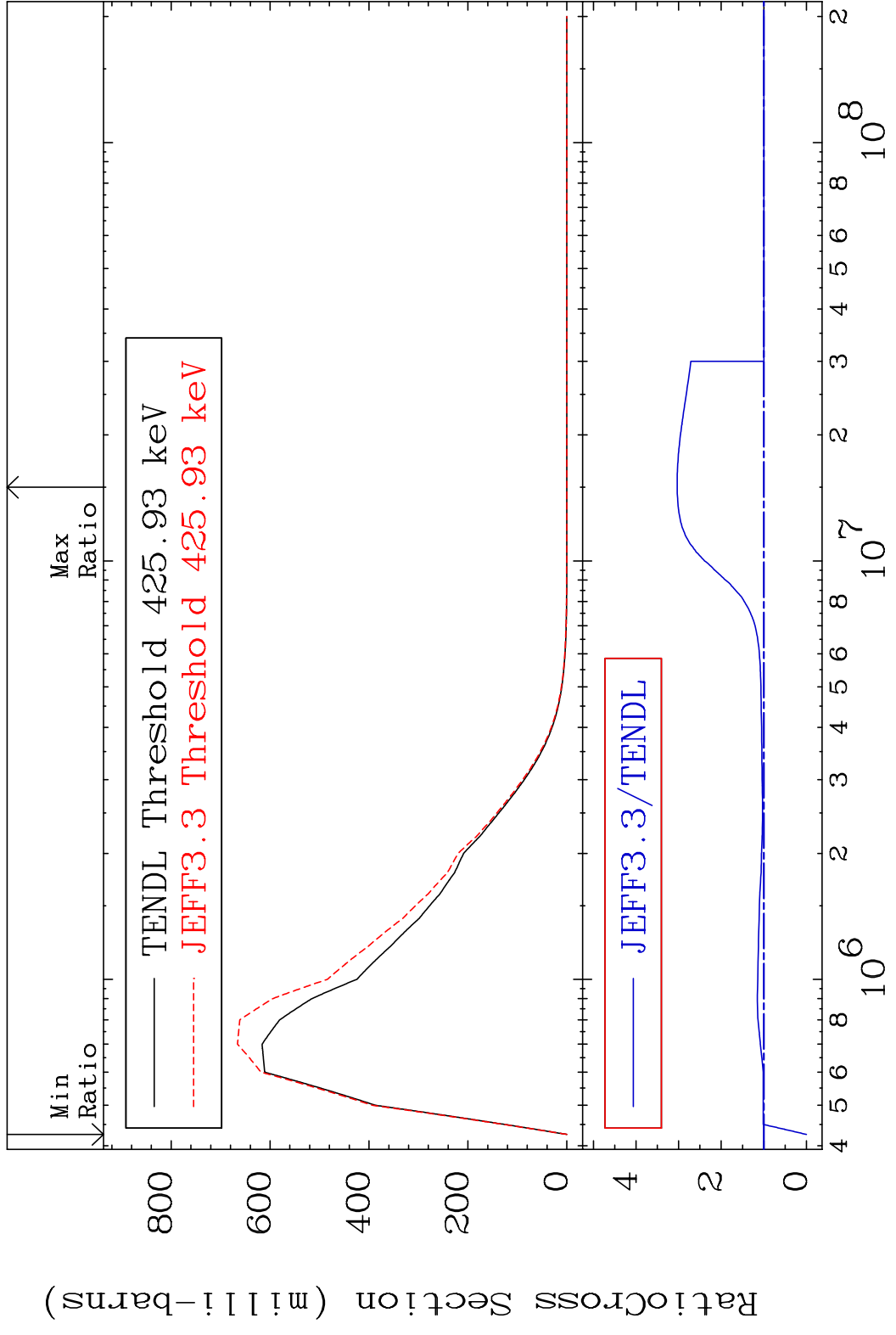
Incident Energy (eV)

44-Ru-97

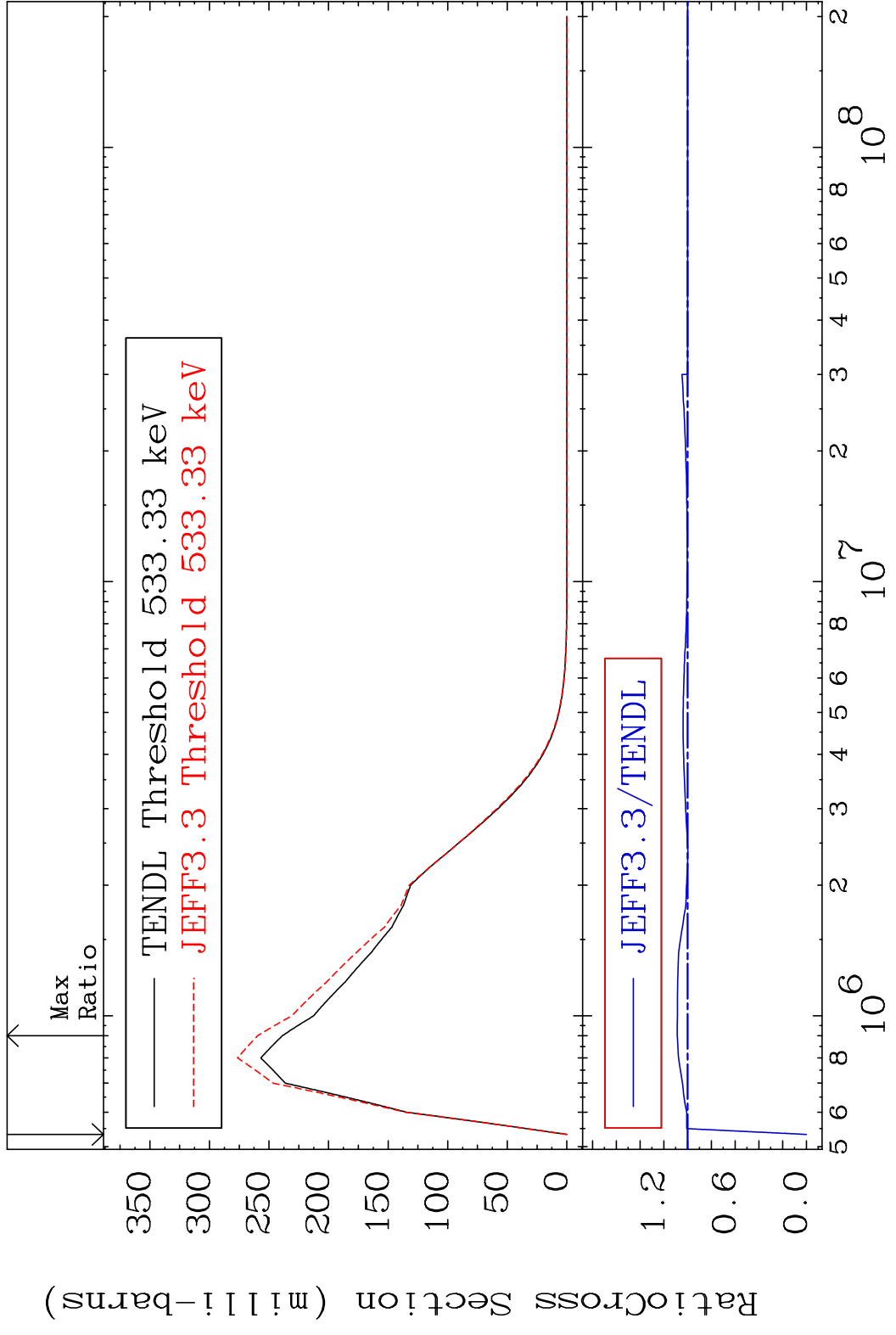
MAT 4428 MT= 51 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 9.098 %



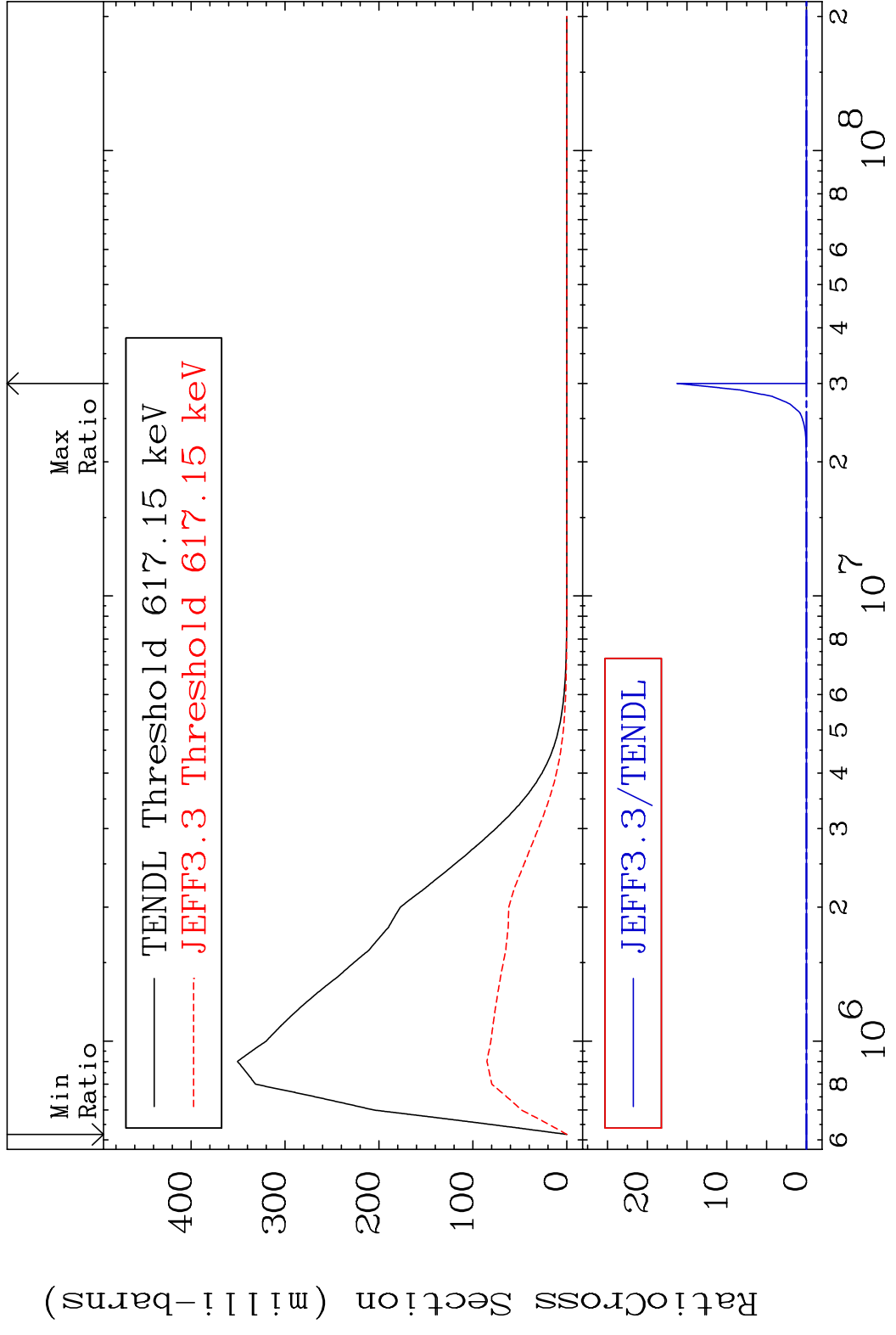
MAT 4428 MT= 52 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 203.4 %



MAT 4428 MT= 53 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 8.718 %

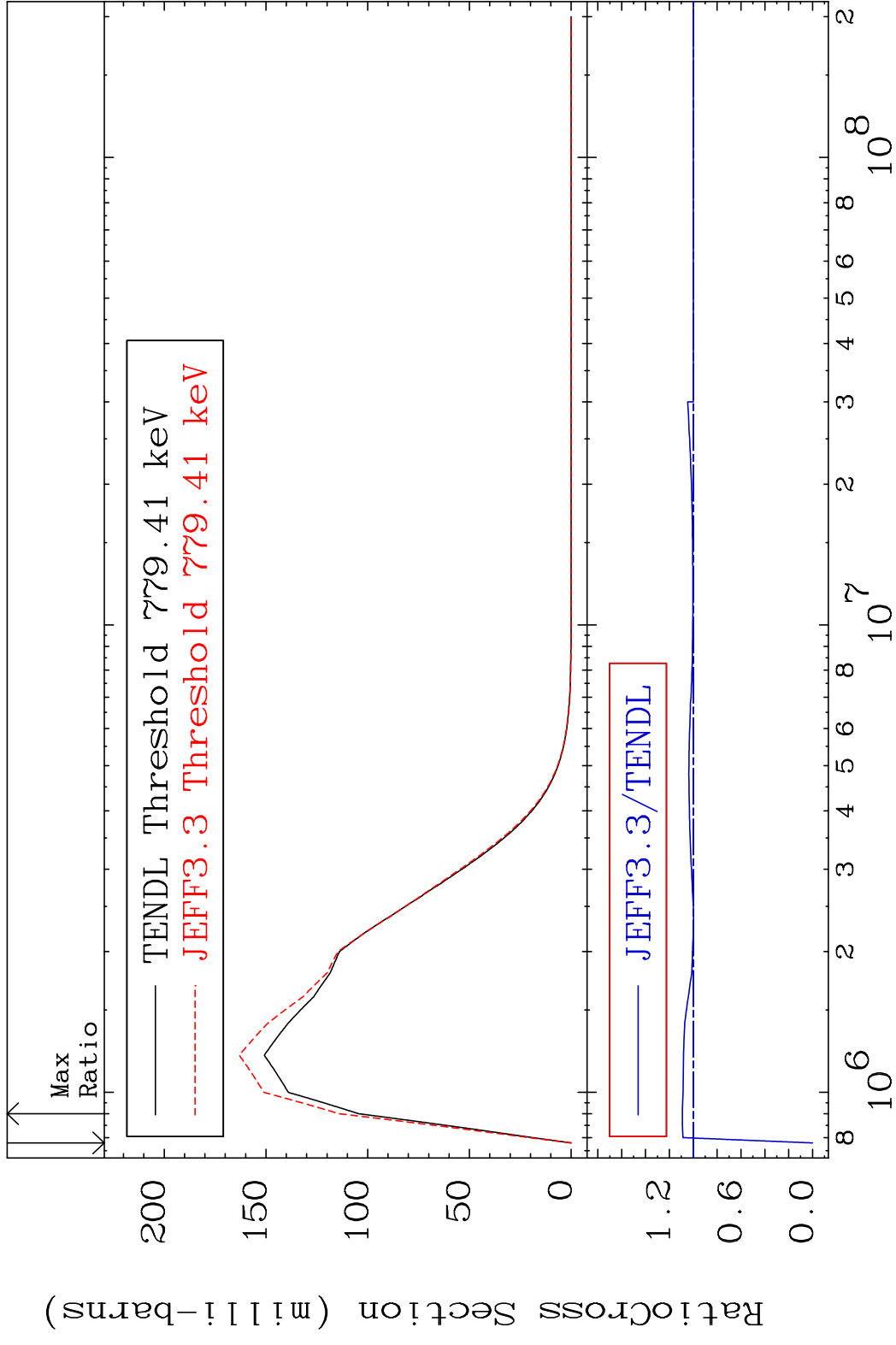


MAT 4428 MT= 54 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 9999. %



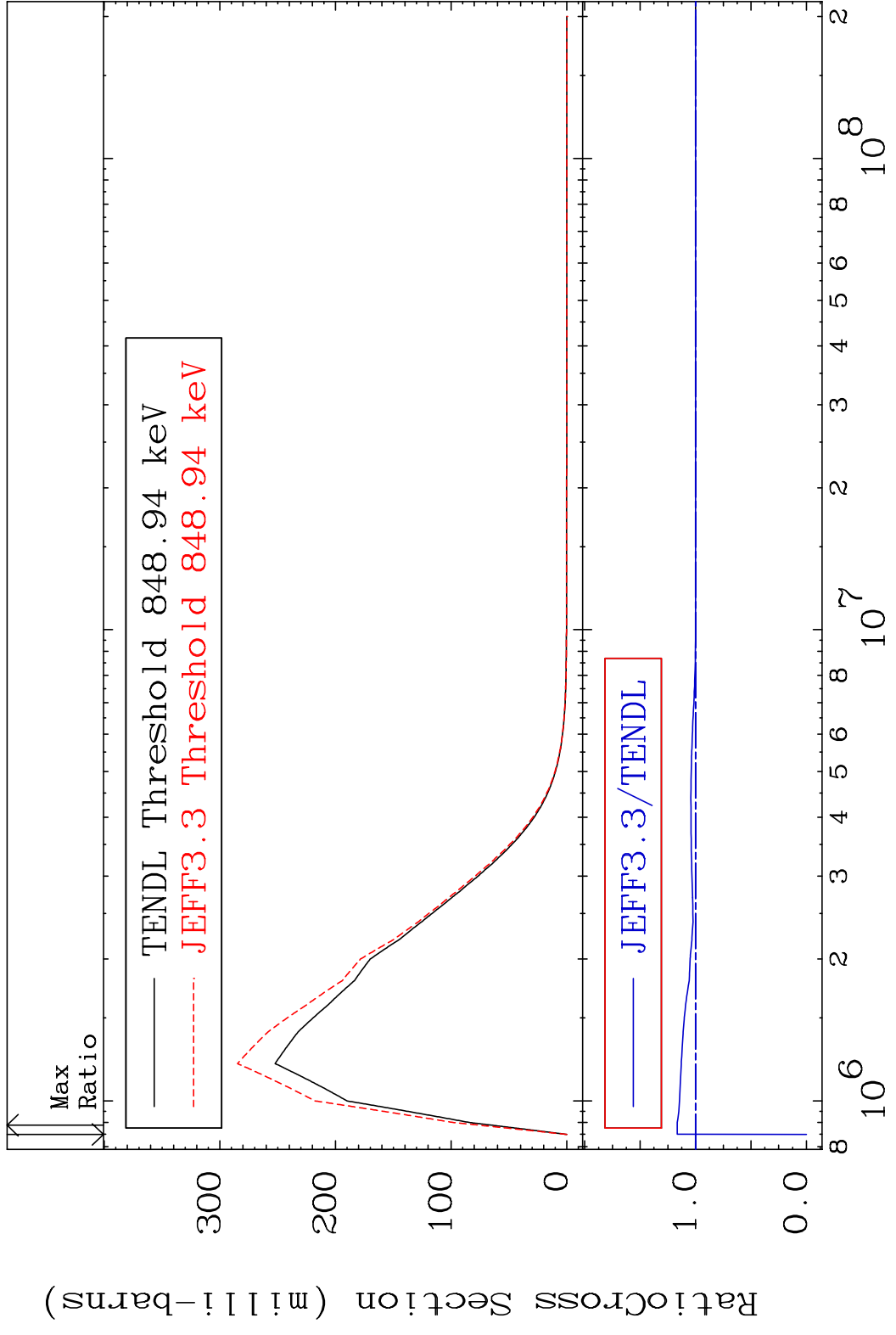


MAT 4428 MT= 55 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 9.149 %



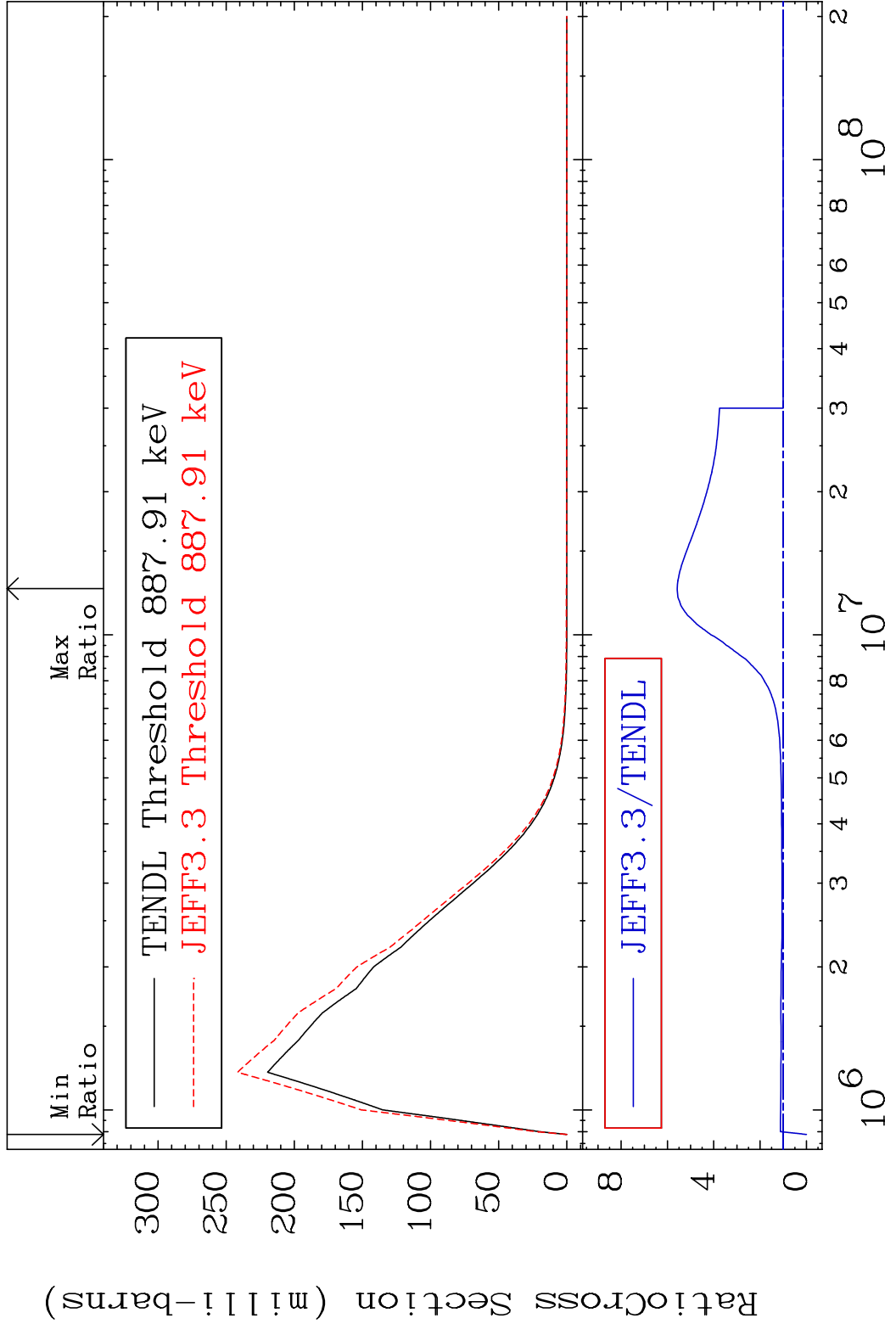
24 44-Ru-97

MAT 4428 MT= 56 (n,n') Level 44-Ru-97  
 Cross Section -100.0 To 16.59 %

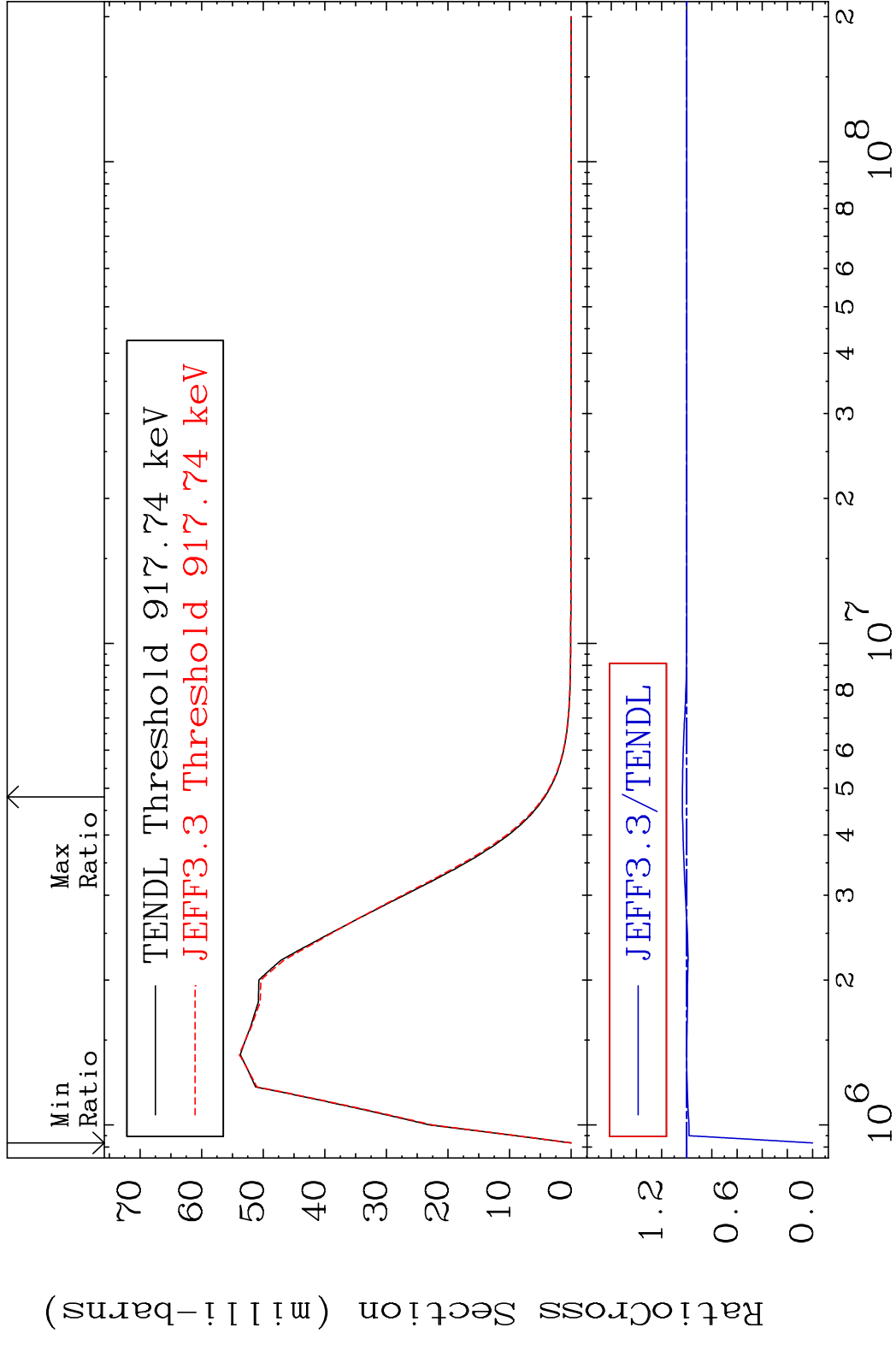


25 44-Ru-97

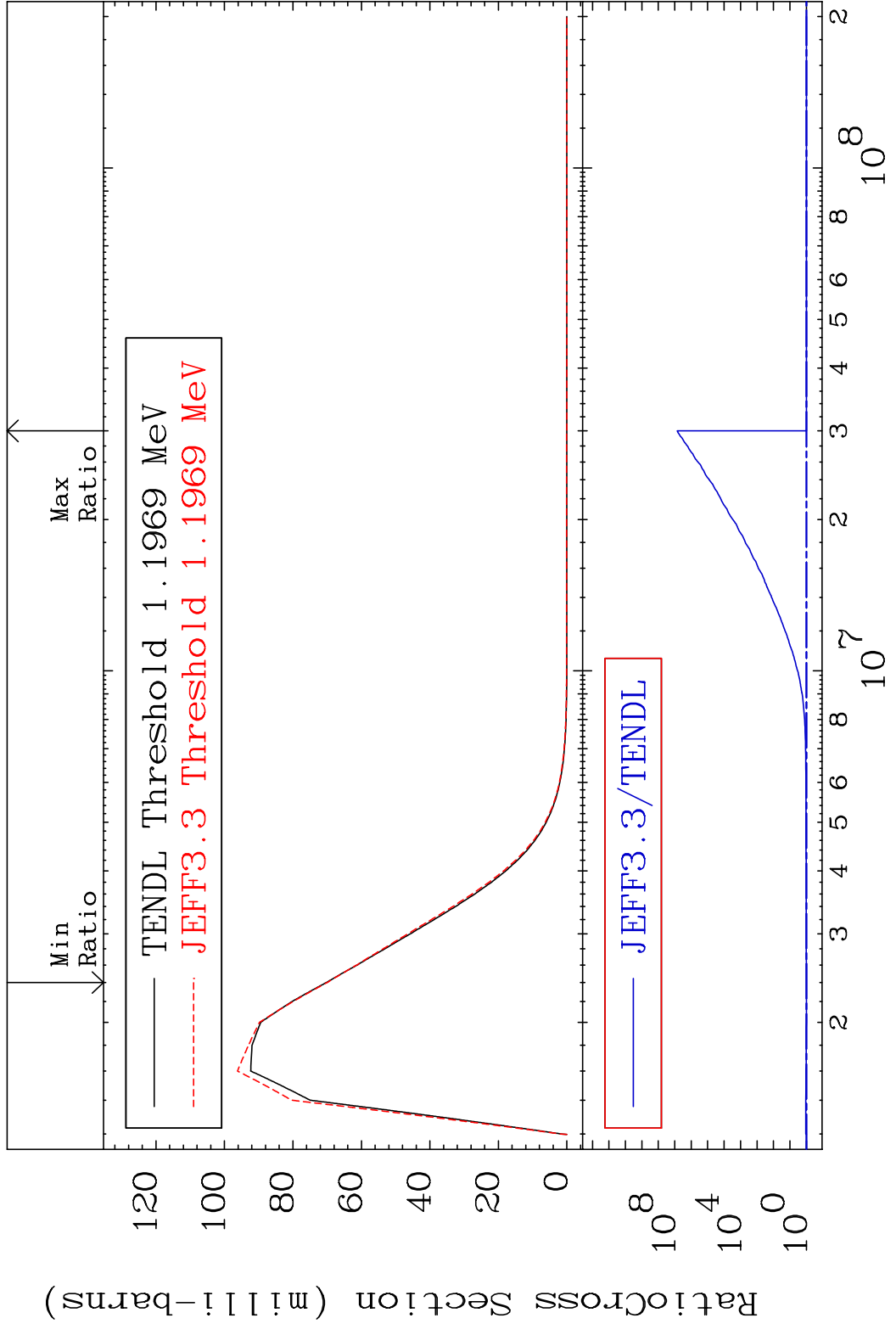
MAT 4428 MT= 57 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 458.0 %



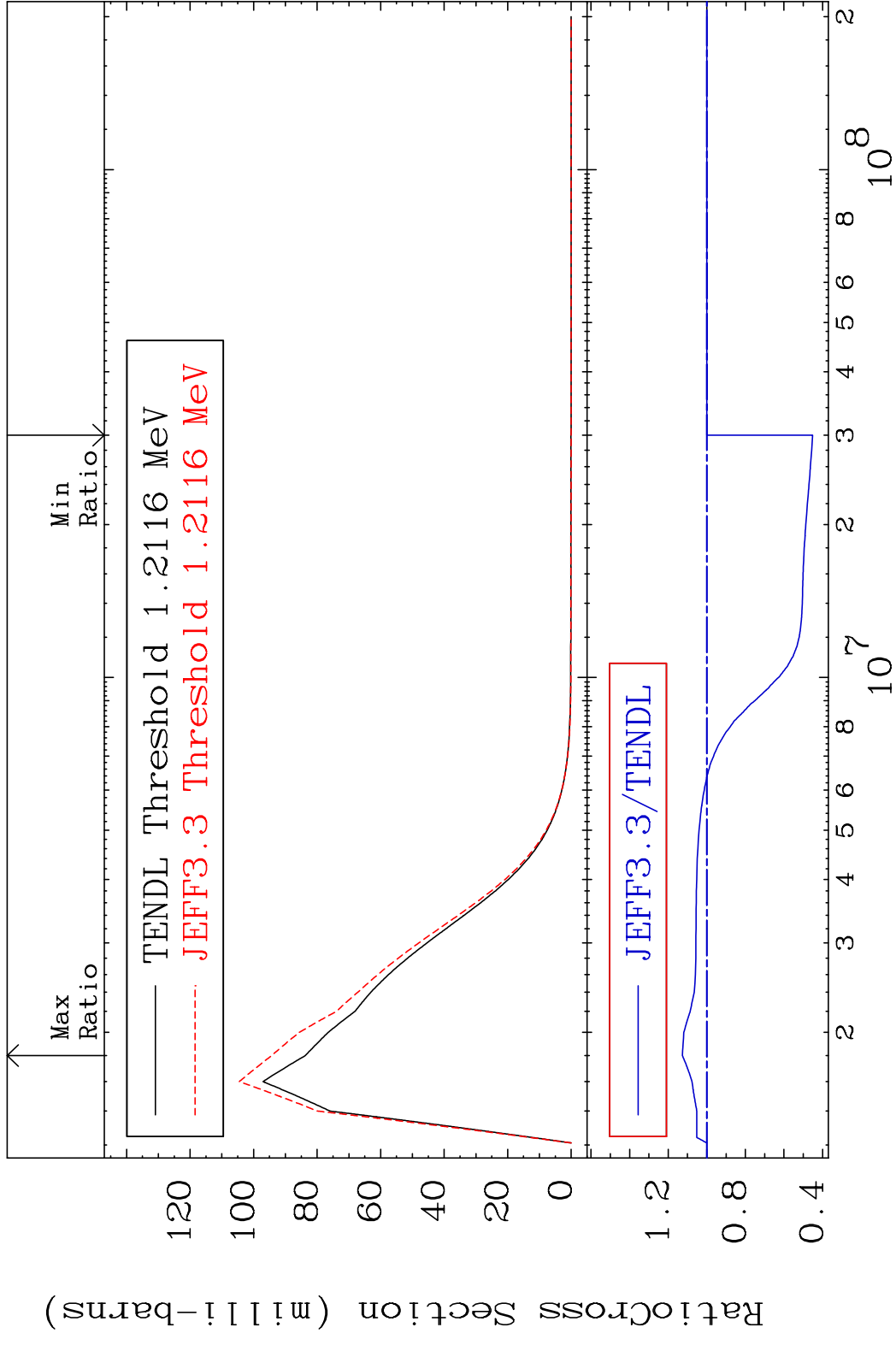
MAT 4428 MT= 58 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 3.455 %



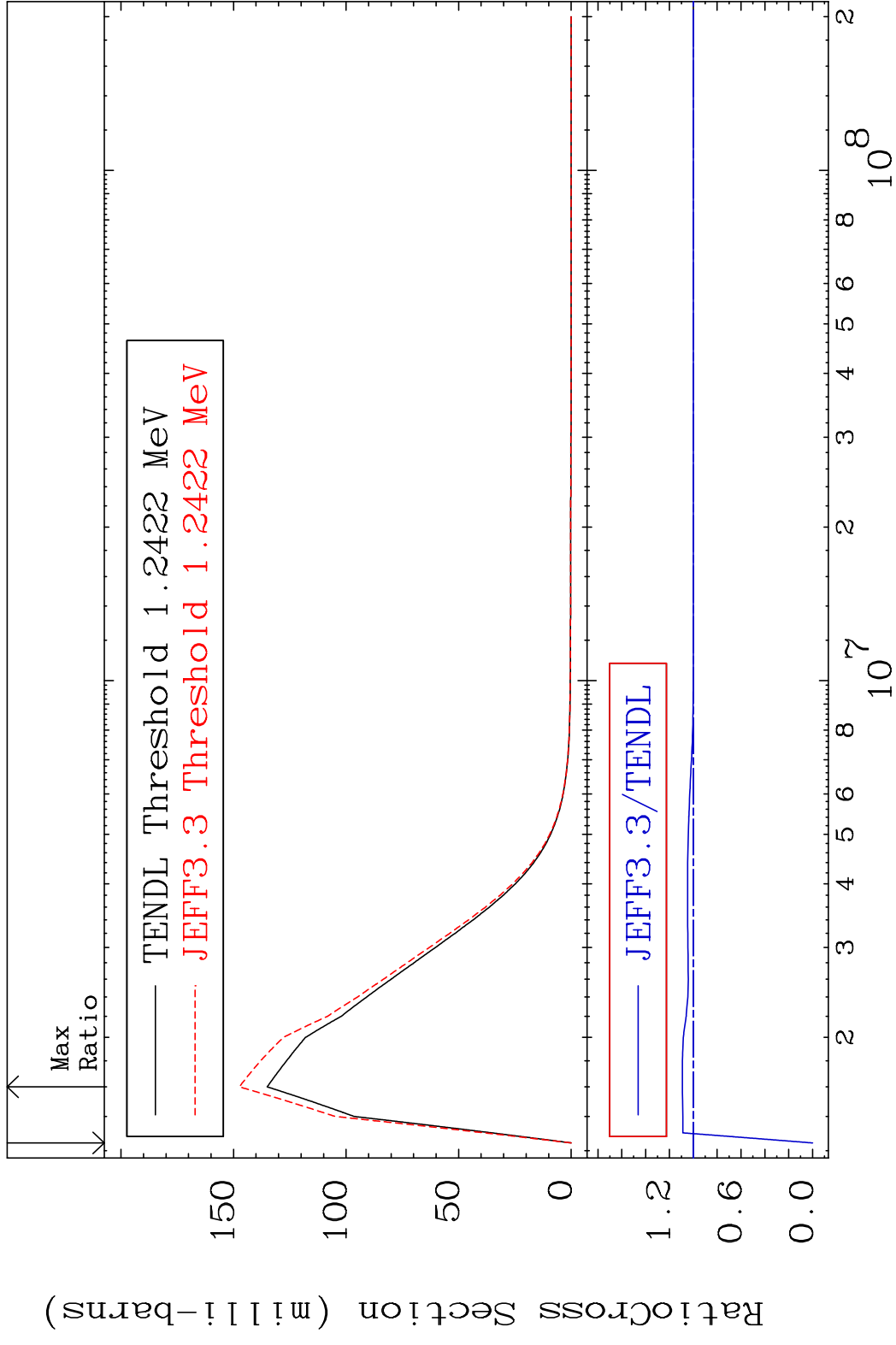
MAT 4428 MT= 59 (n, n') Level 44-Ru-97  
 Cross Section -0.375 To 9999. %



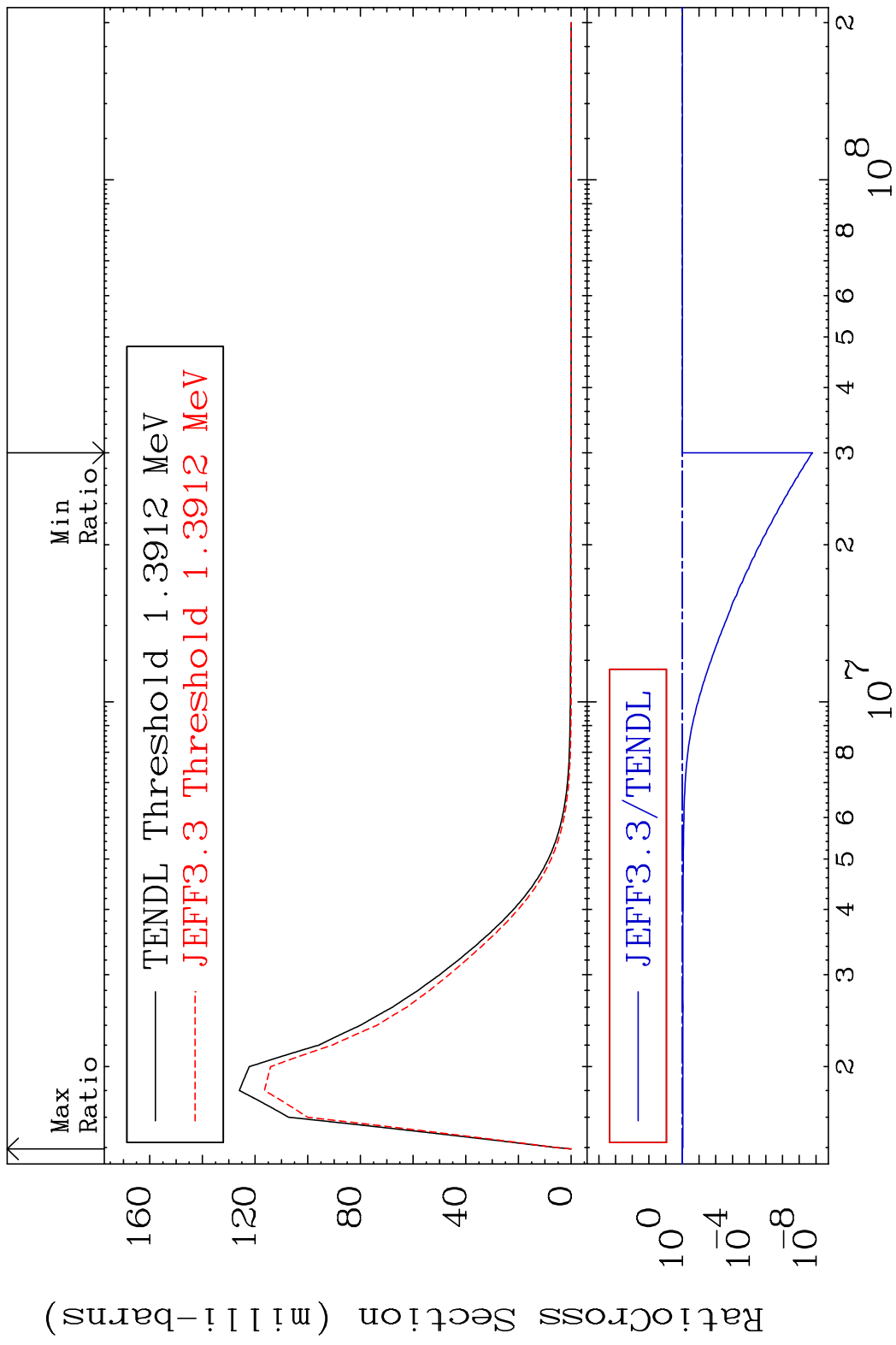
MAT 4428 MT= 60 (n, n') Level 44-Ru-97  
 Cross Section -54.81 To 12.66 %



MAT 4428 MT= 61 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 9.188 %

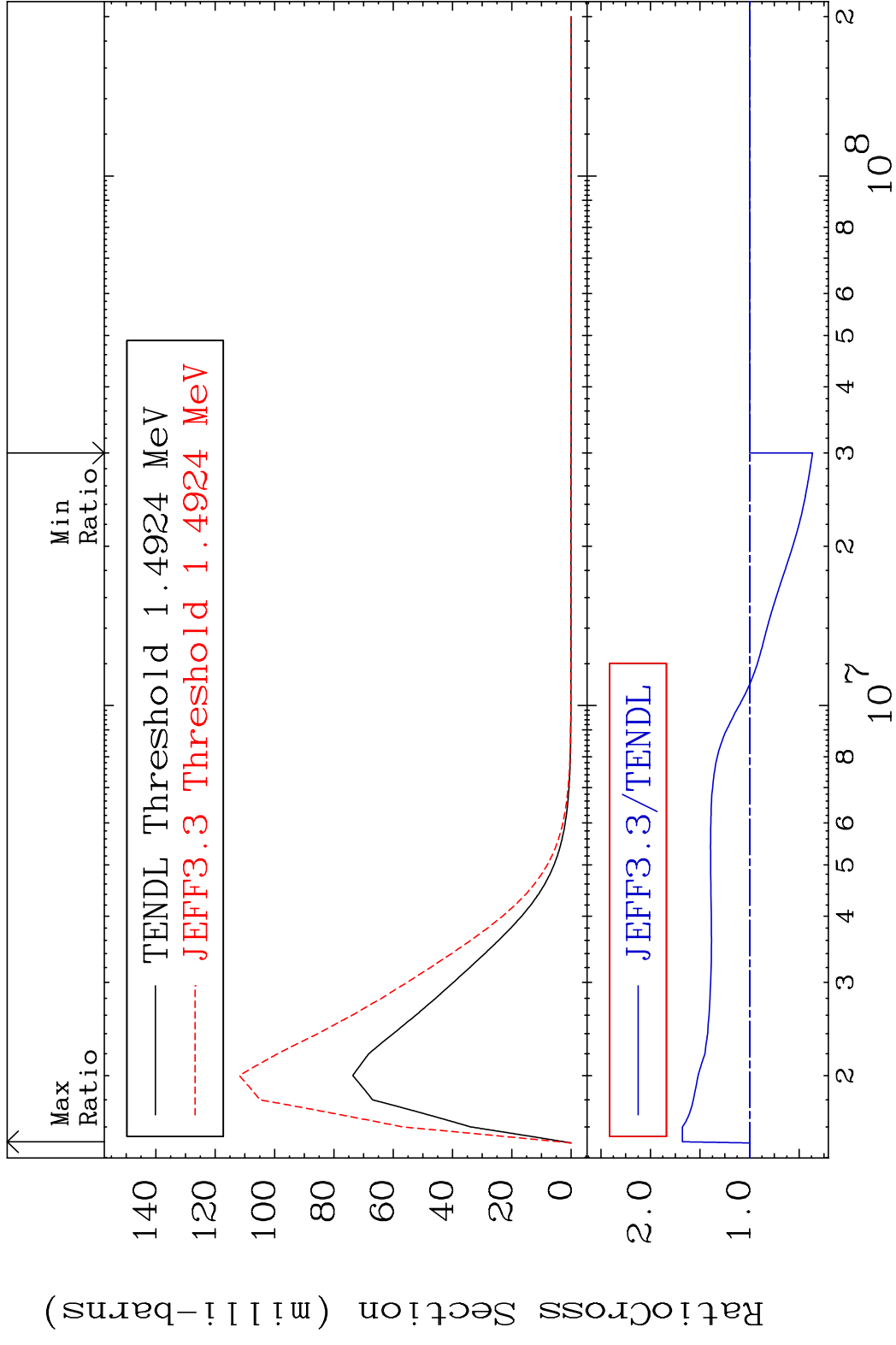


MAT 4428 MT= 62 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 0.000 %

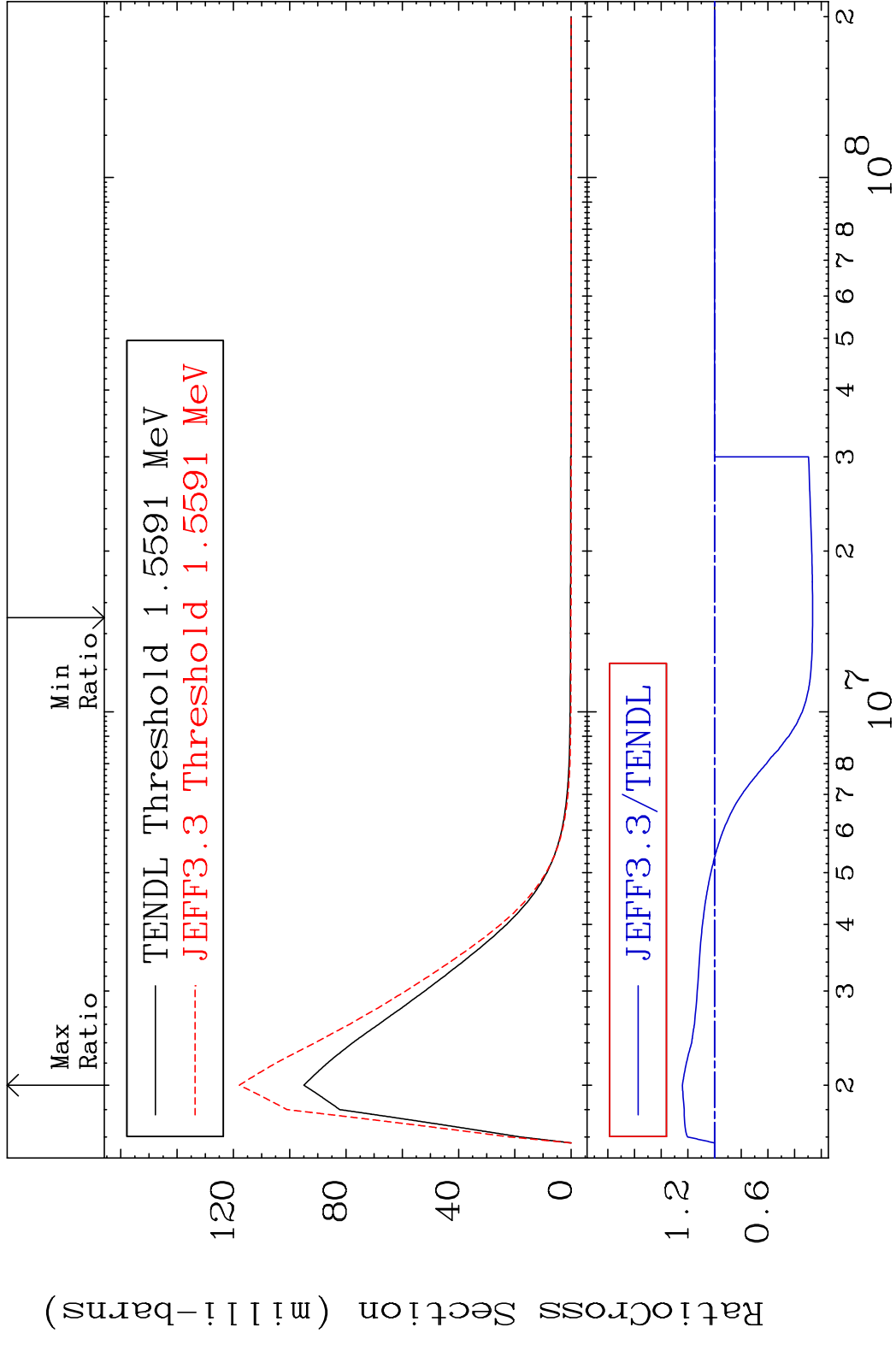




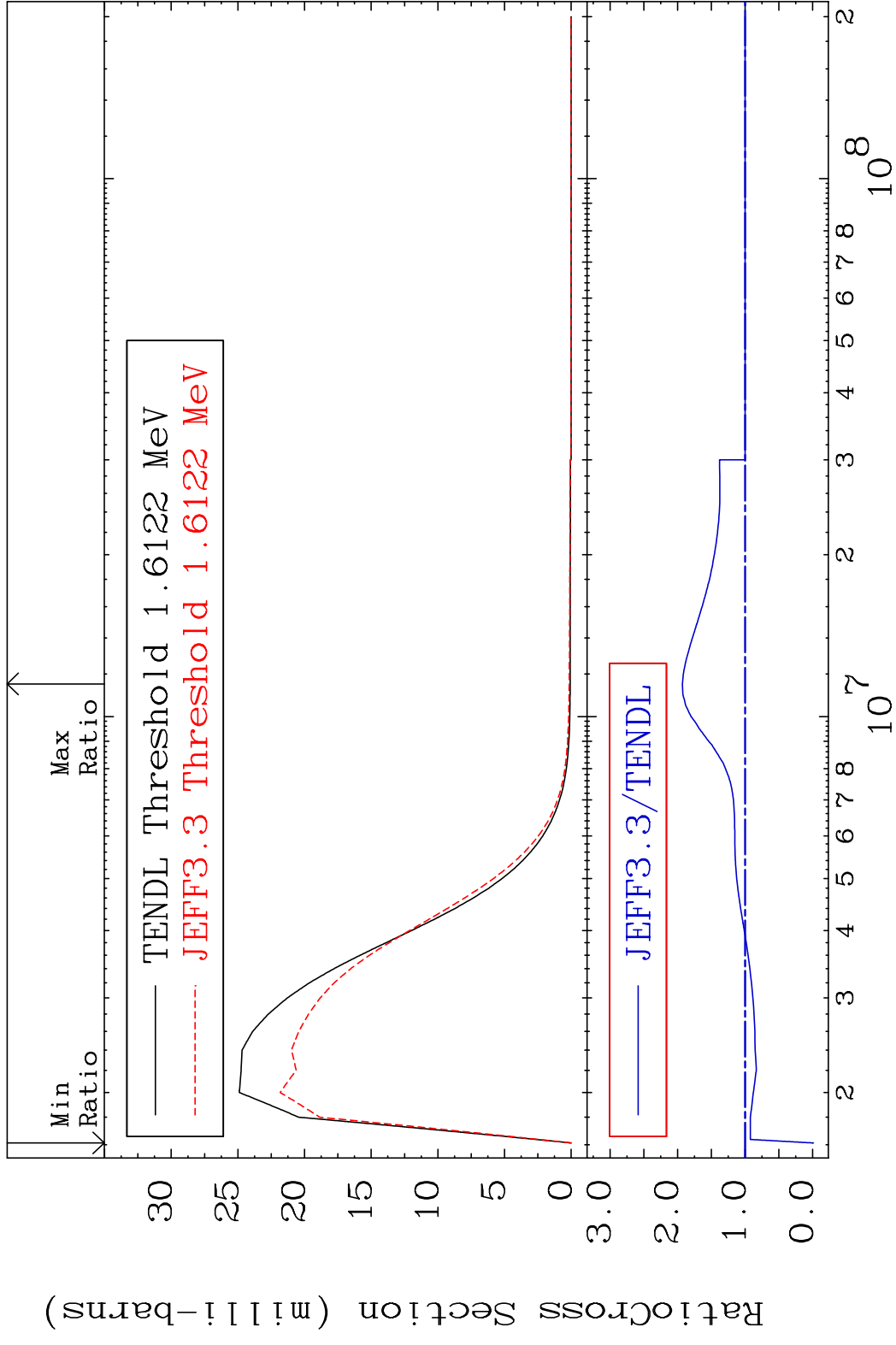
MAT 4428 MT= 63 (n, n') Level 44-Ru-97  
 Cross Section -63.51 To 67.81 %



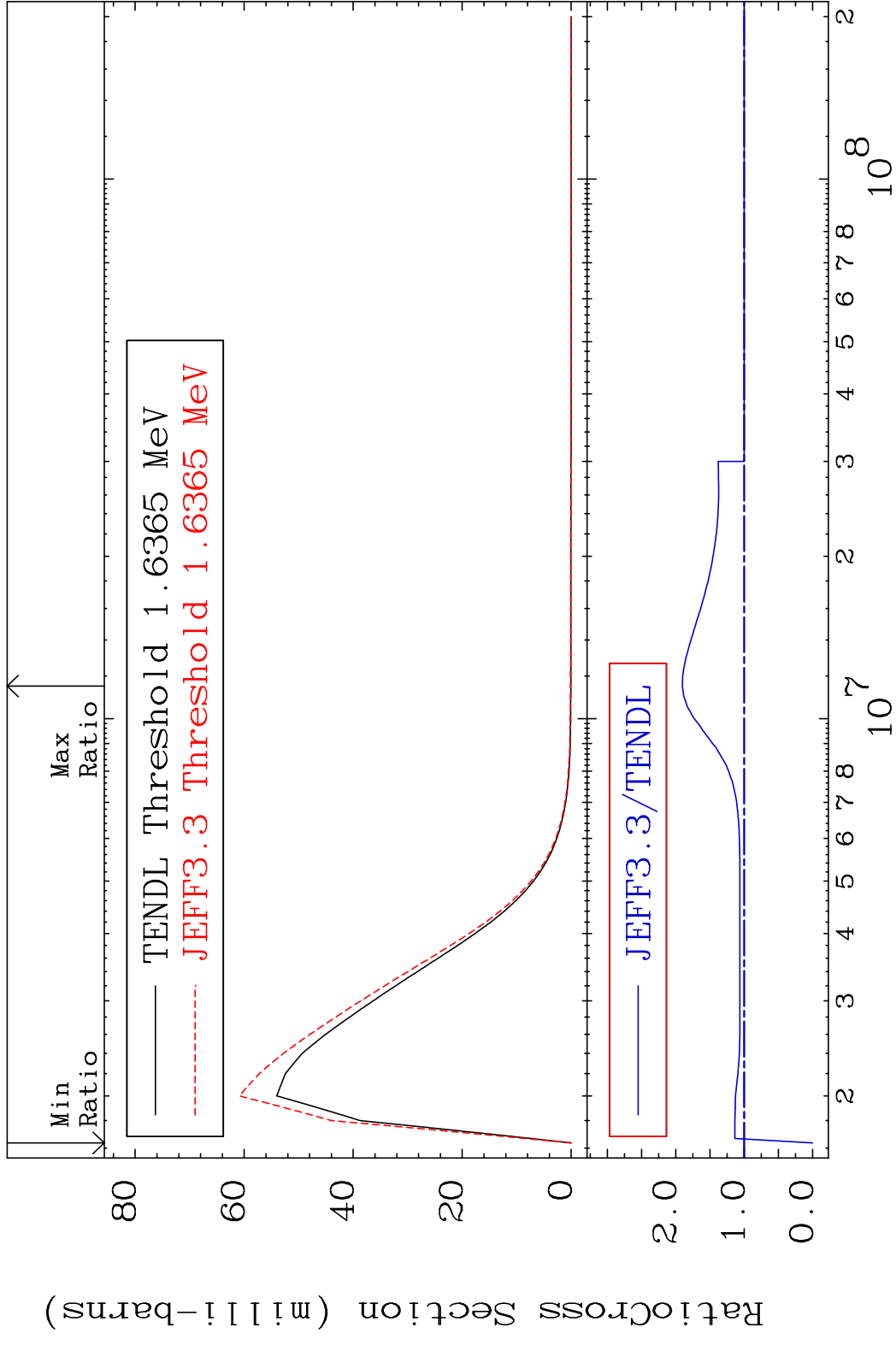
MAT 4428 MT= 64 (n, n') Level 44-Ru-97  
 Cross Section -73.43 To 24.14 %



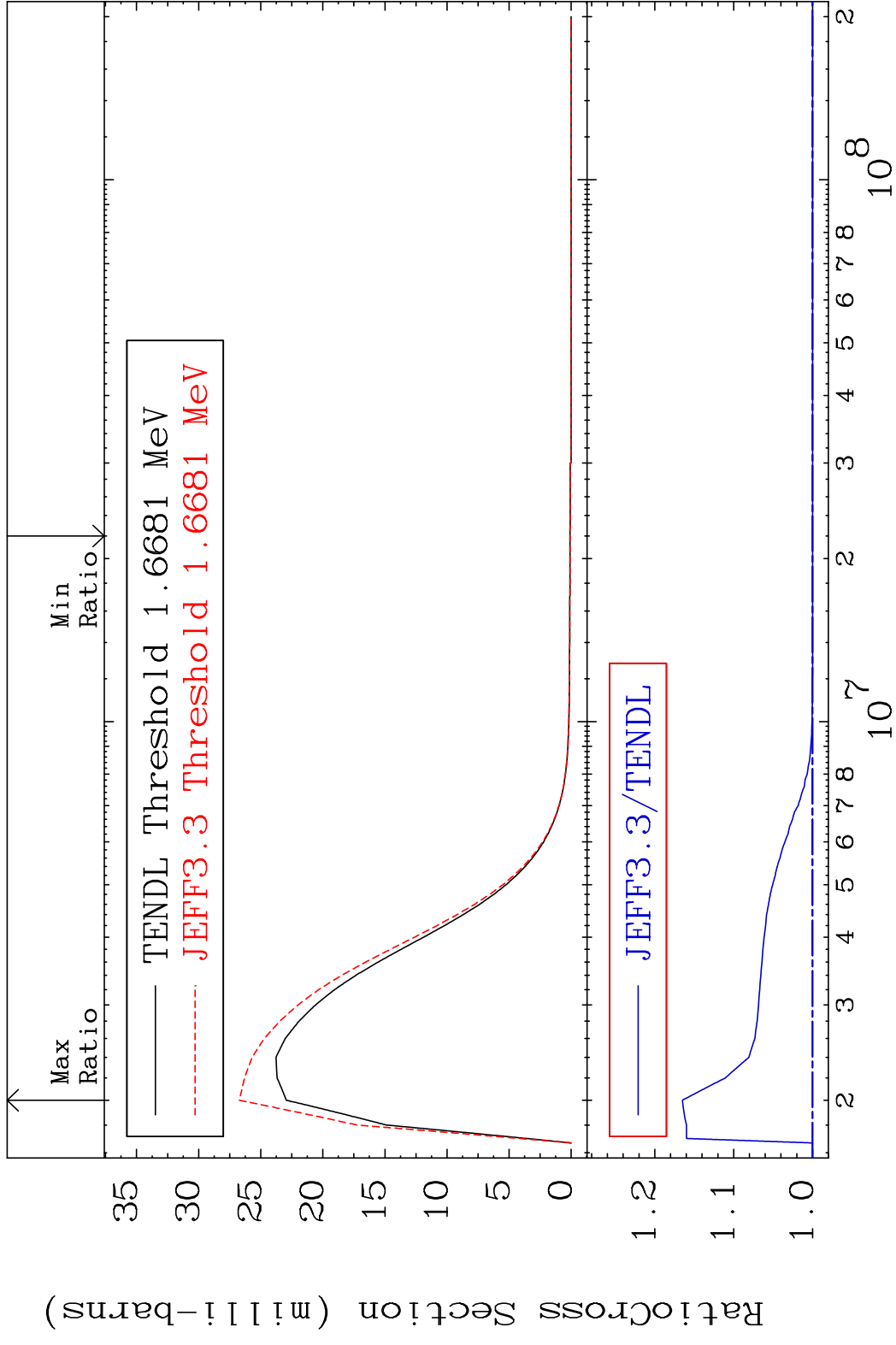
MAT 4428 MT= 65 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 92.91 %



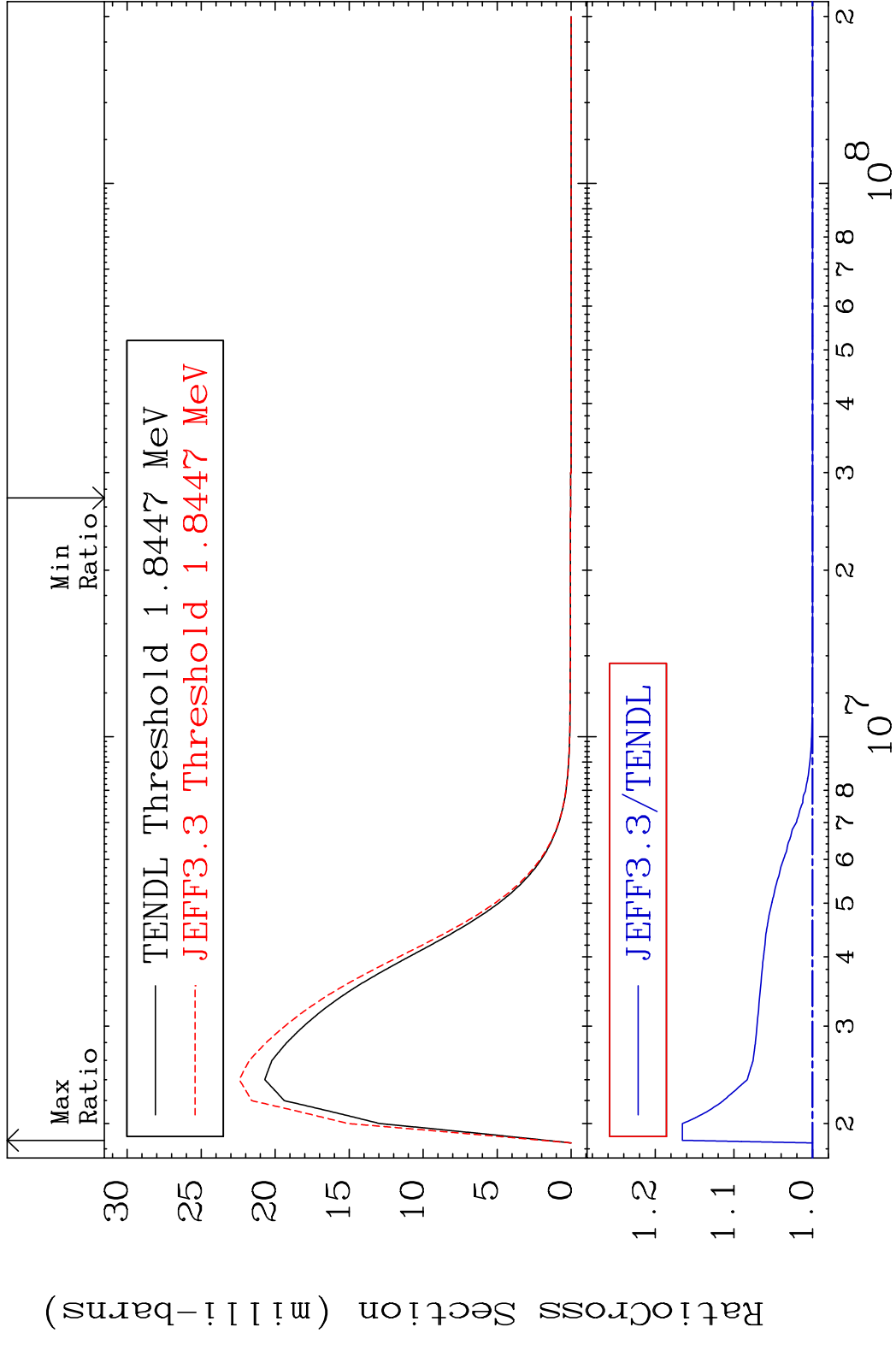
MAT 4428 MT= 66 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 90.43 %



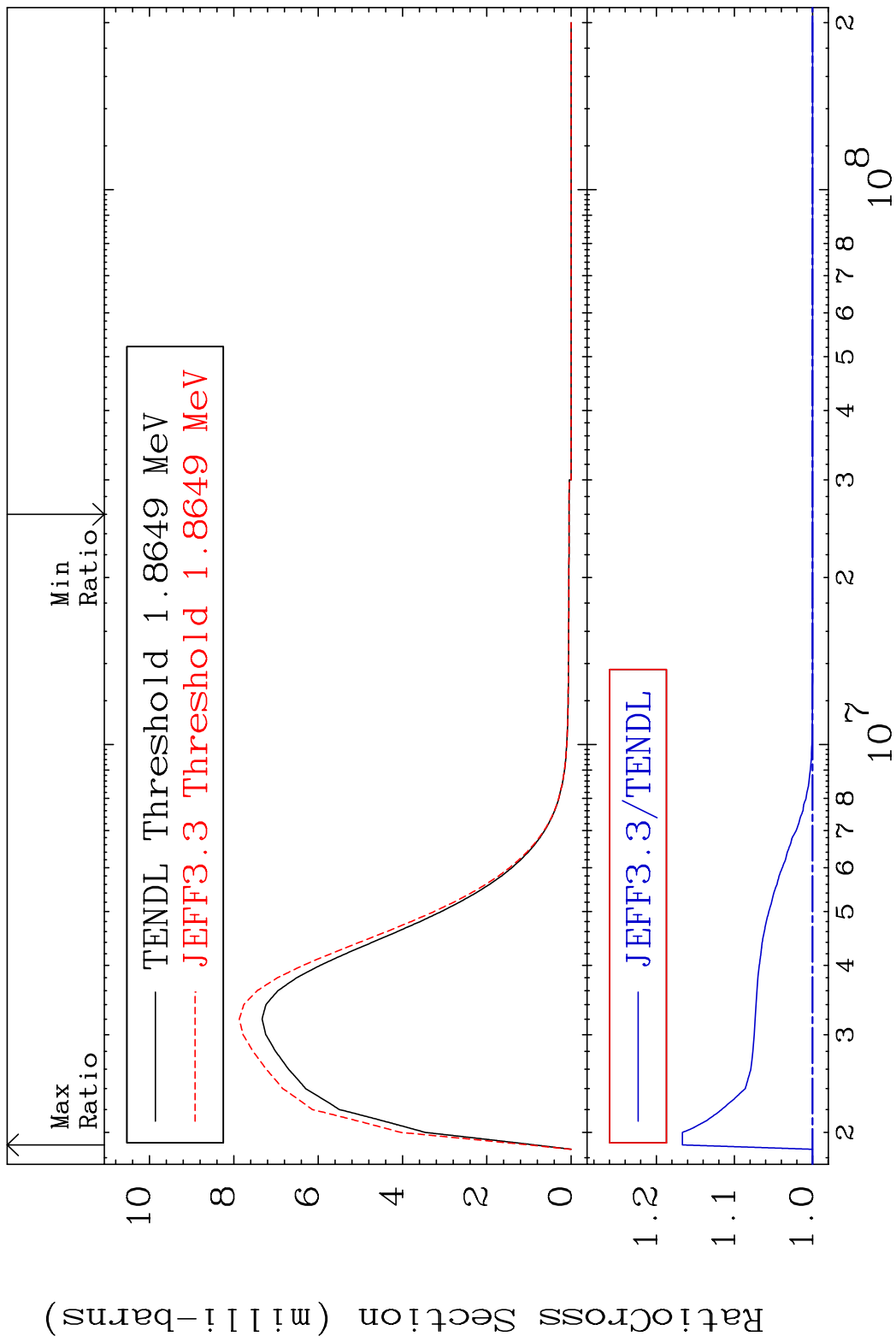
MAT 4428 MT= 67 (n, n') Level 44-Ru-97  
 Cross Section 0.000 To 16.50 %



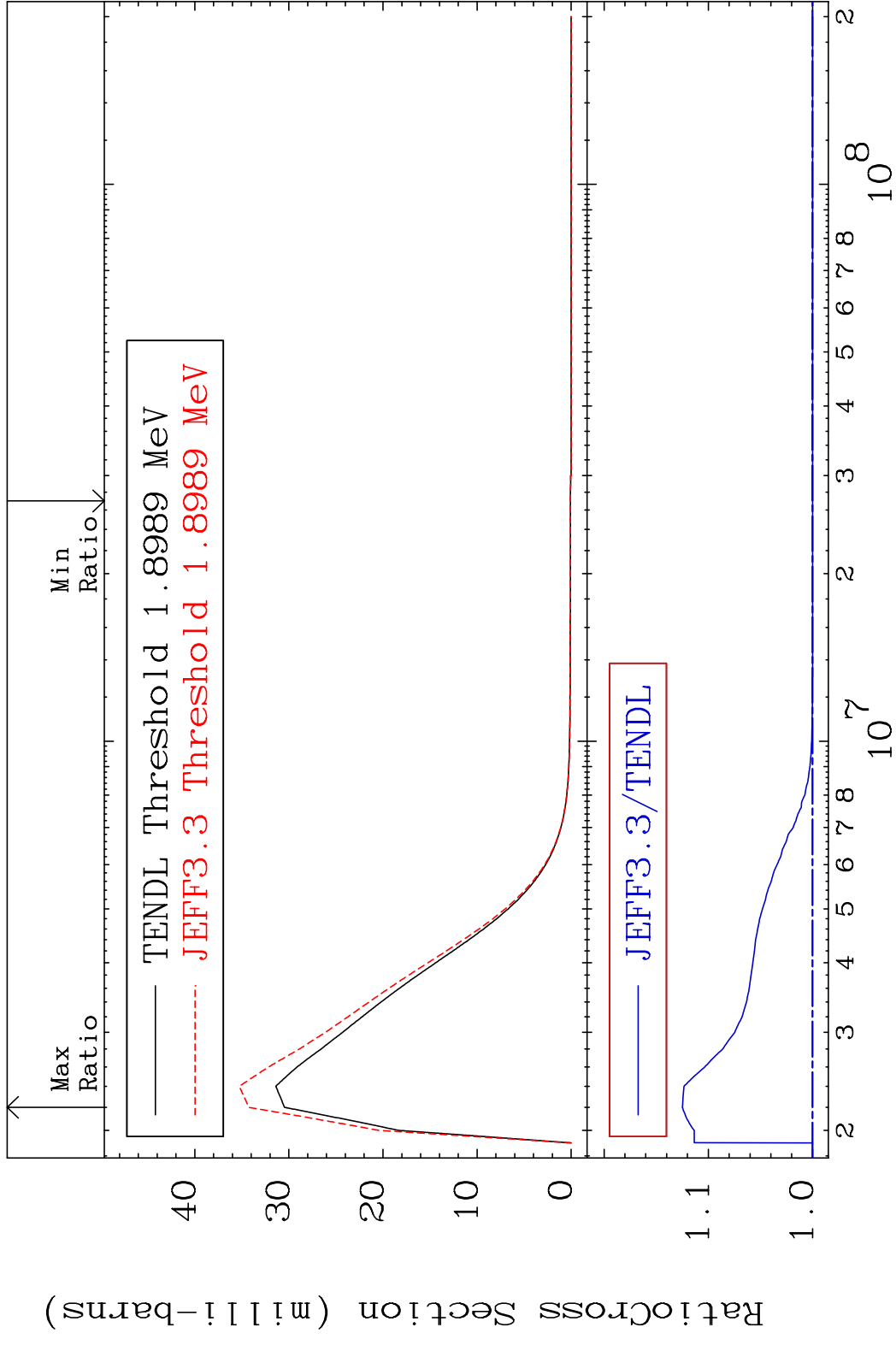
MAT 4428 MT= 68 (n, n') Level 44-Ru-97  
 Cross Section 0.000 To 16.56 %



MAT 4428 MT= 69 (n, n') Level 44-Ru-97  
 Cross Section 0.000 To 16.66 %

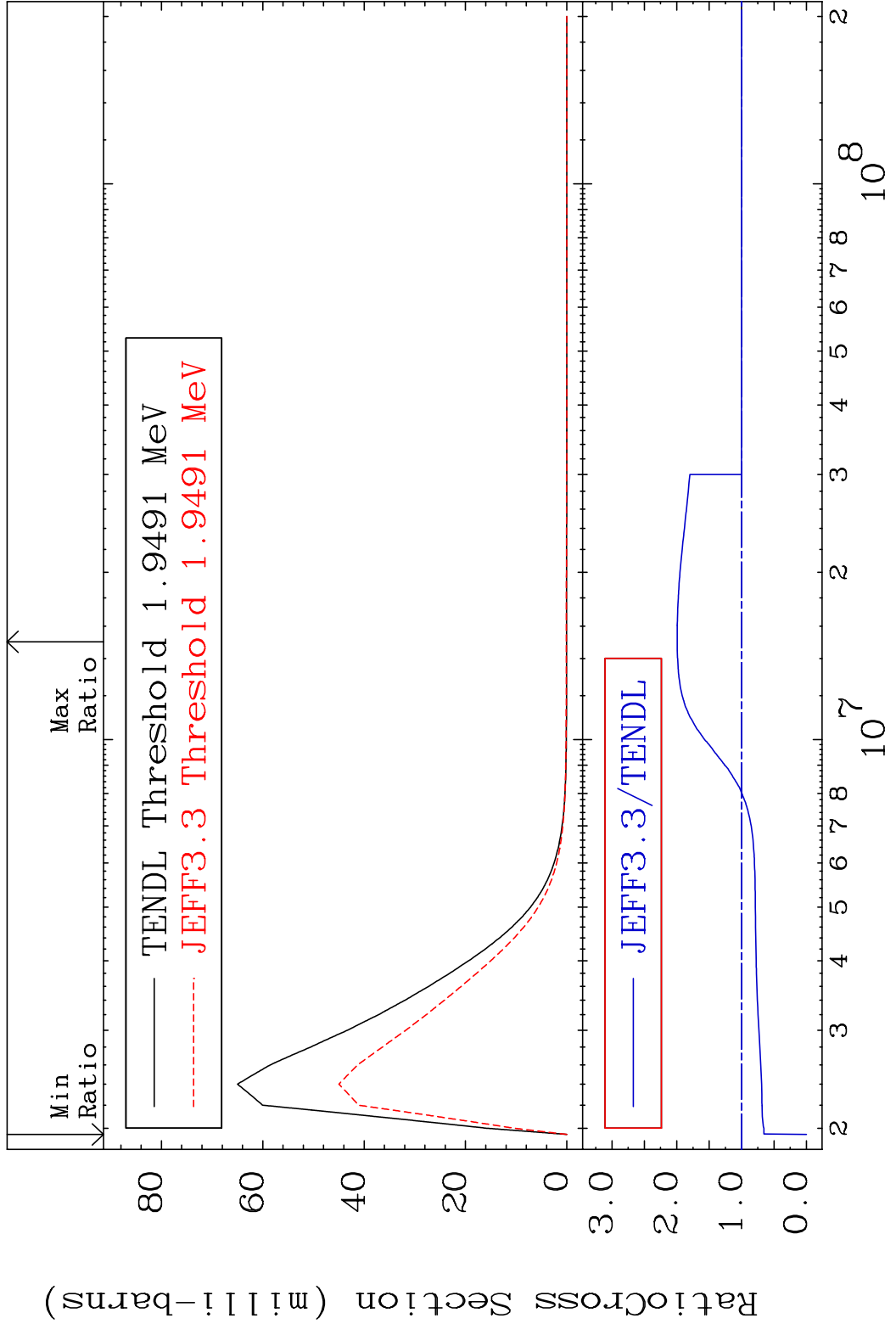


MAT 4428 MT= 70 (n, n') Level 44-Ru-97  
 Cross Section 0.000 To 12.49 %



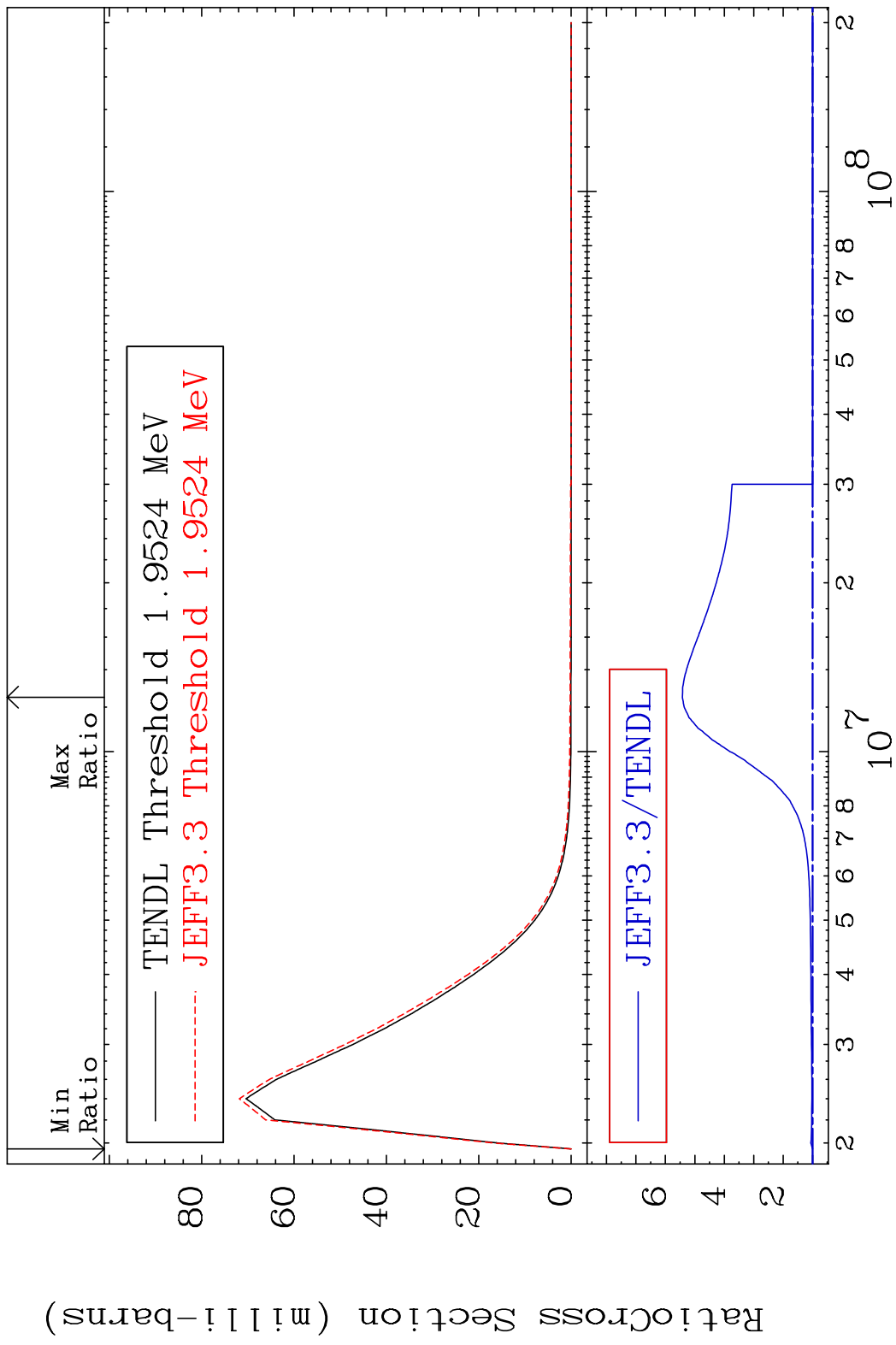


MAT 4428 MT= 71 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 99.38 %

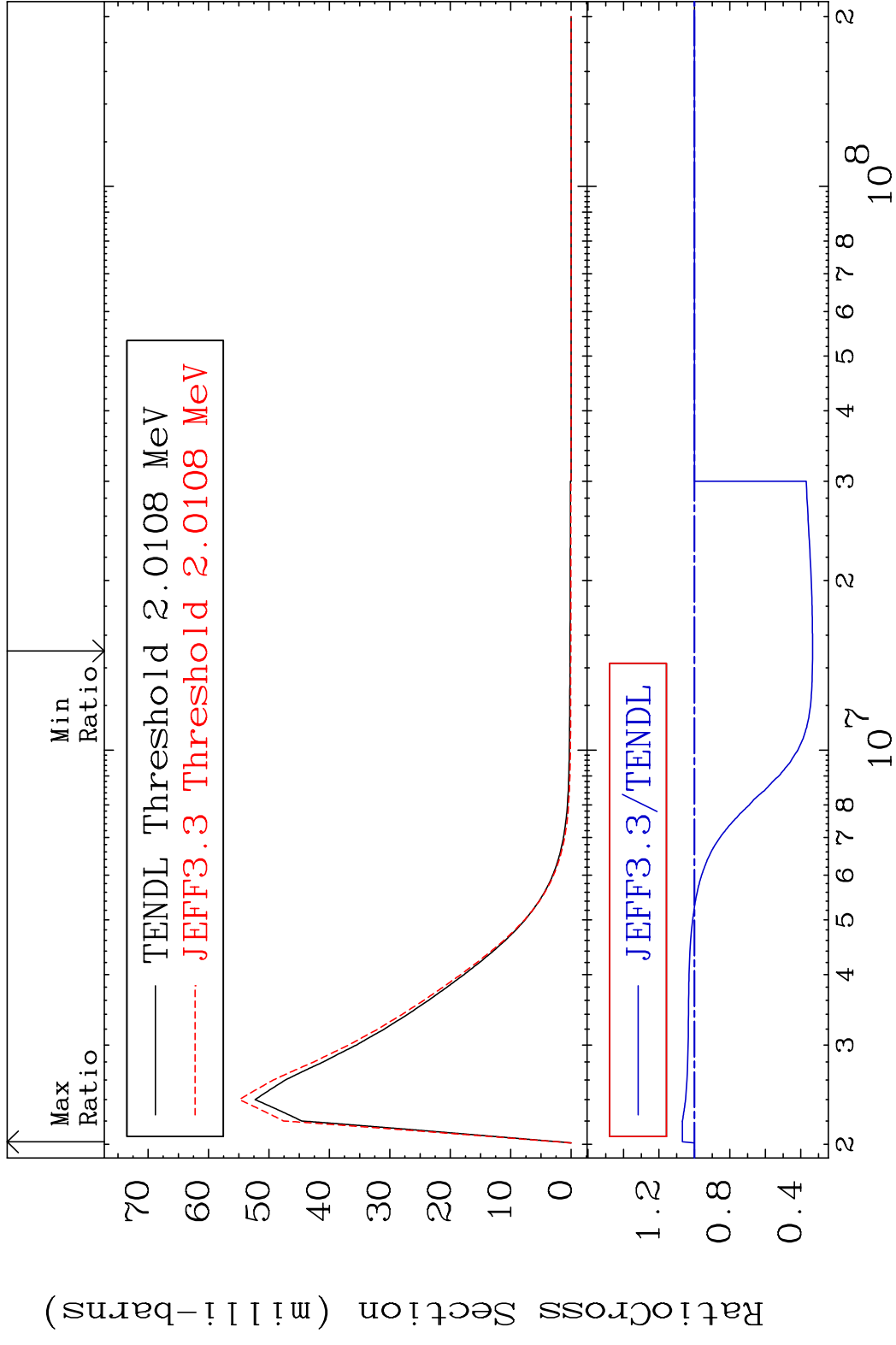


40 Incident Energy (eV) 44-Ru-97

MAT 4428 MT= 72 (n, n') Level 44-Ru-97  
 Cross Section 0.000 To 442.4 %

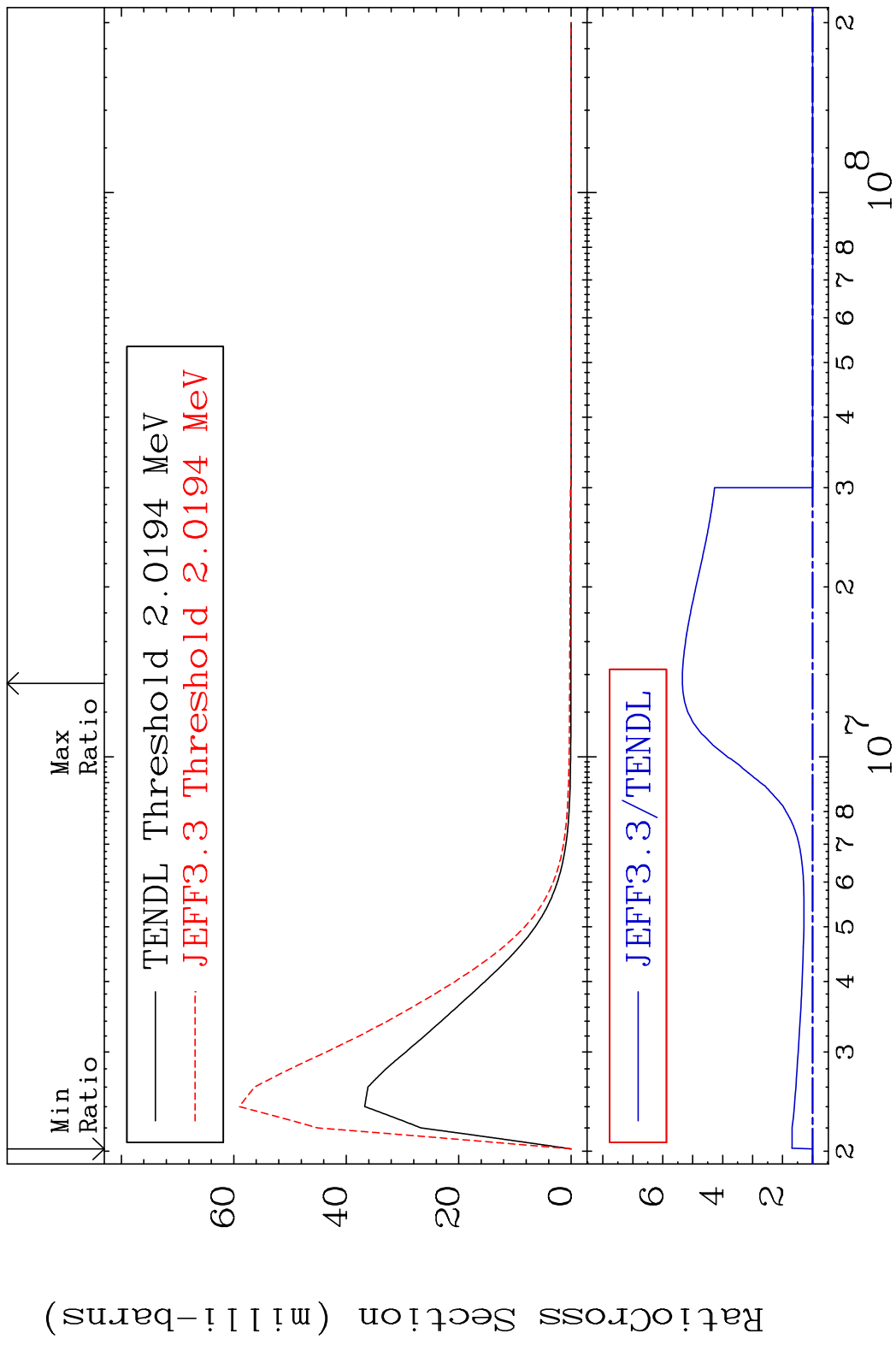


MAT 4428 MT= 73 (n, n') Level 44-Ru-97  
 Cross Section -66.60 To 6.814 %



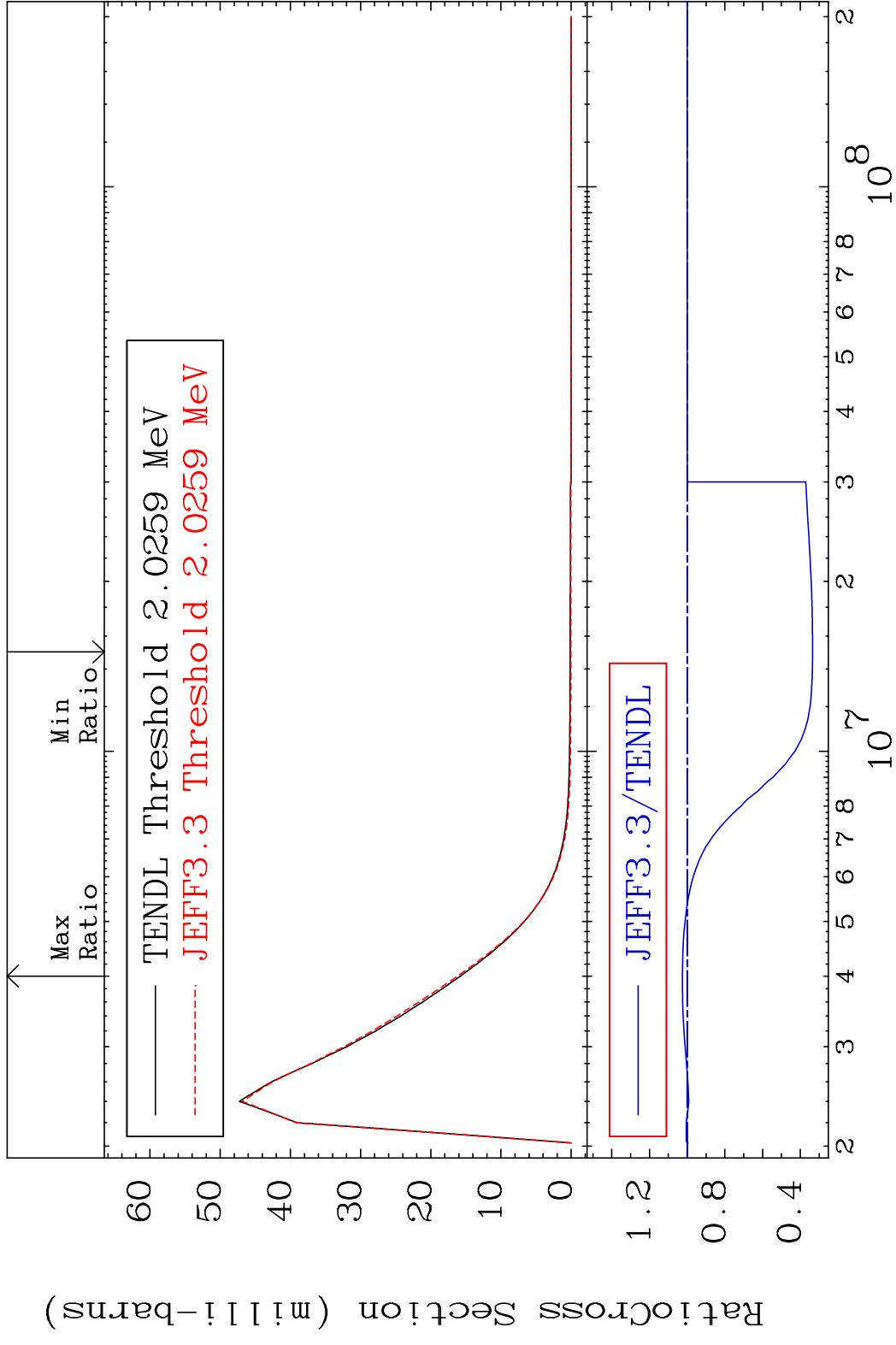
42 Incident Energy (eV) 44-Ru-97

MAT 4428 MT= 74 (n, n') Level 44-Ru-97  
 Cross Section 0.000 To 434.6 %



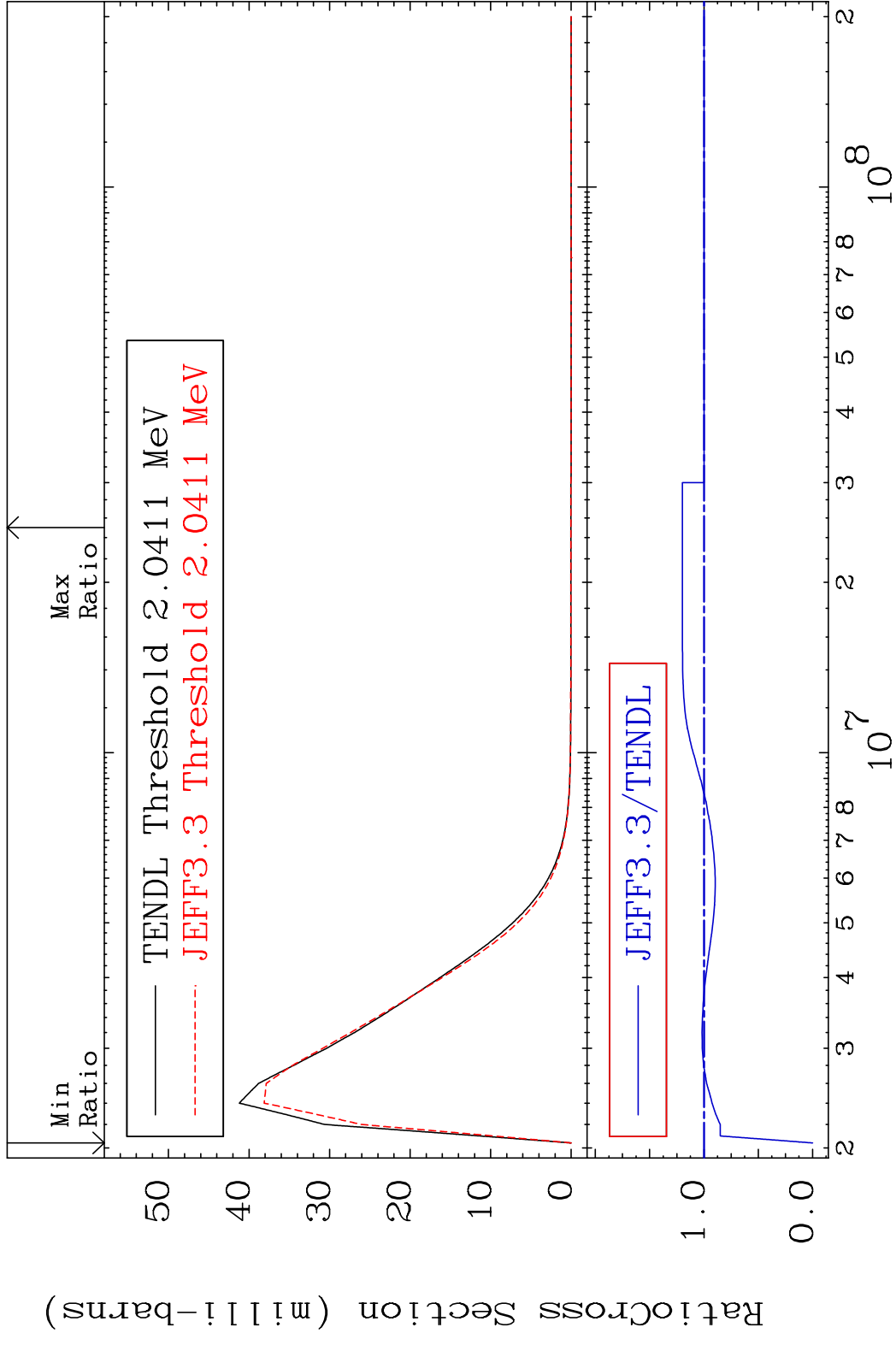
43 44-Ru-97

MAT 4428 MT= 75 (n, n') Level 44-Ru-97  
 Cross Section -66.52 To 2.552 %



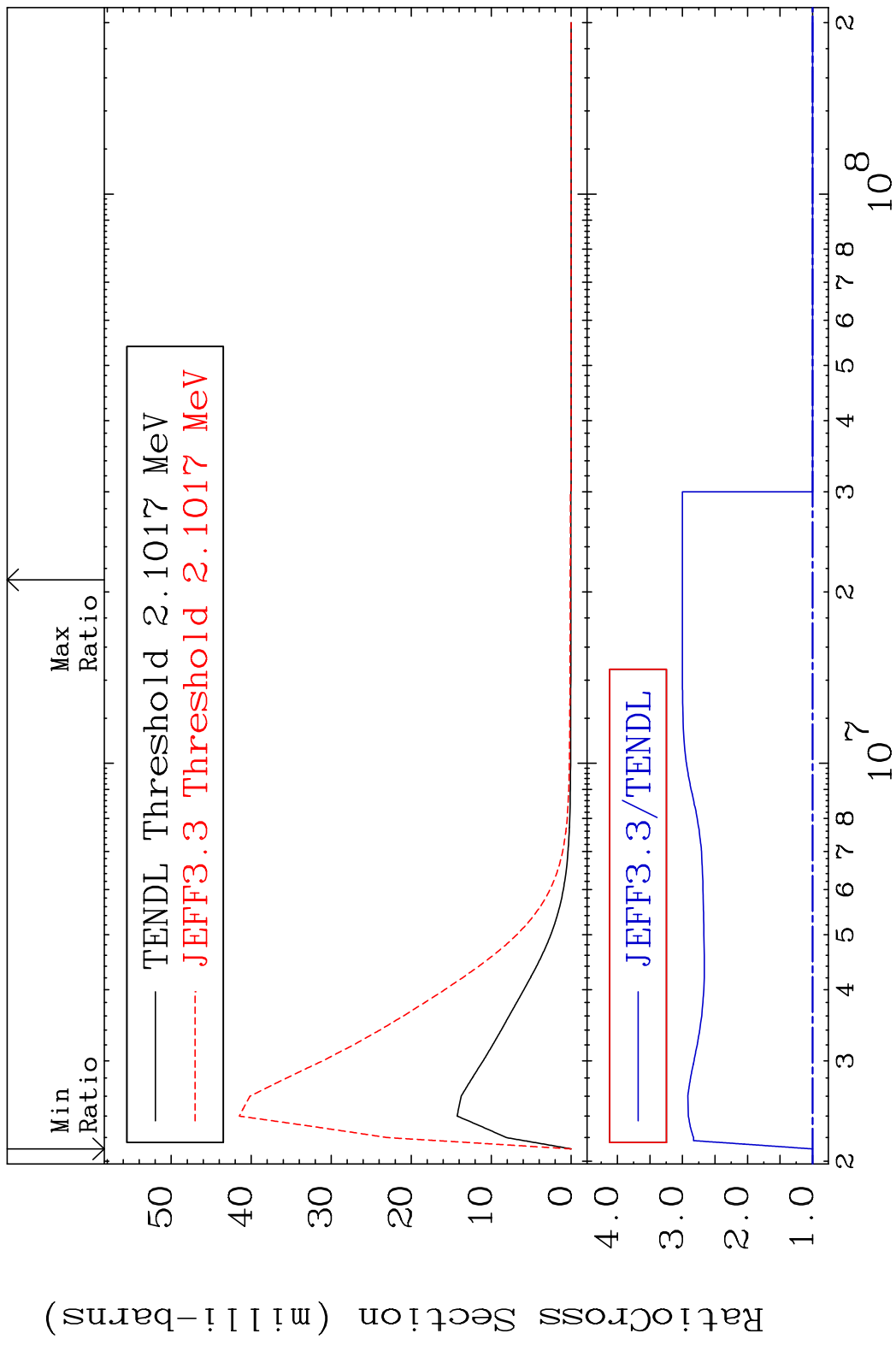
44 44-Ru-97

MAT 4428 MT= 76 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 19.90 %

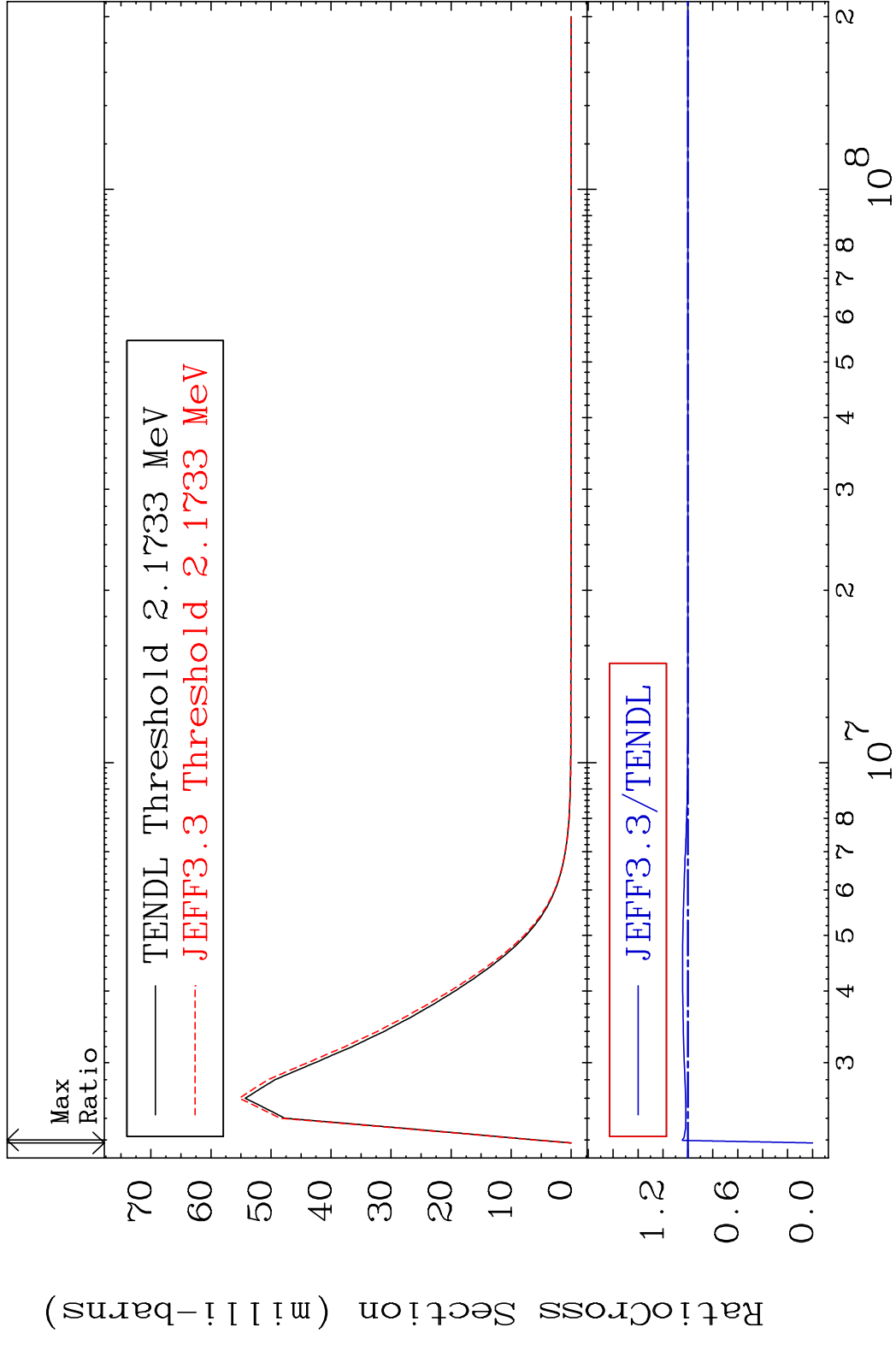


44-Ru-97

MAT 4428 MT= 77 (n, n') Level 44-Ru-97  
 Cross Section 0.000 To 200.2 %

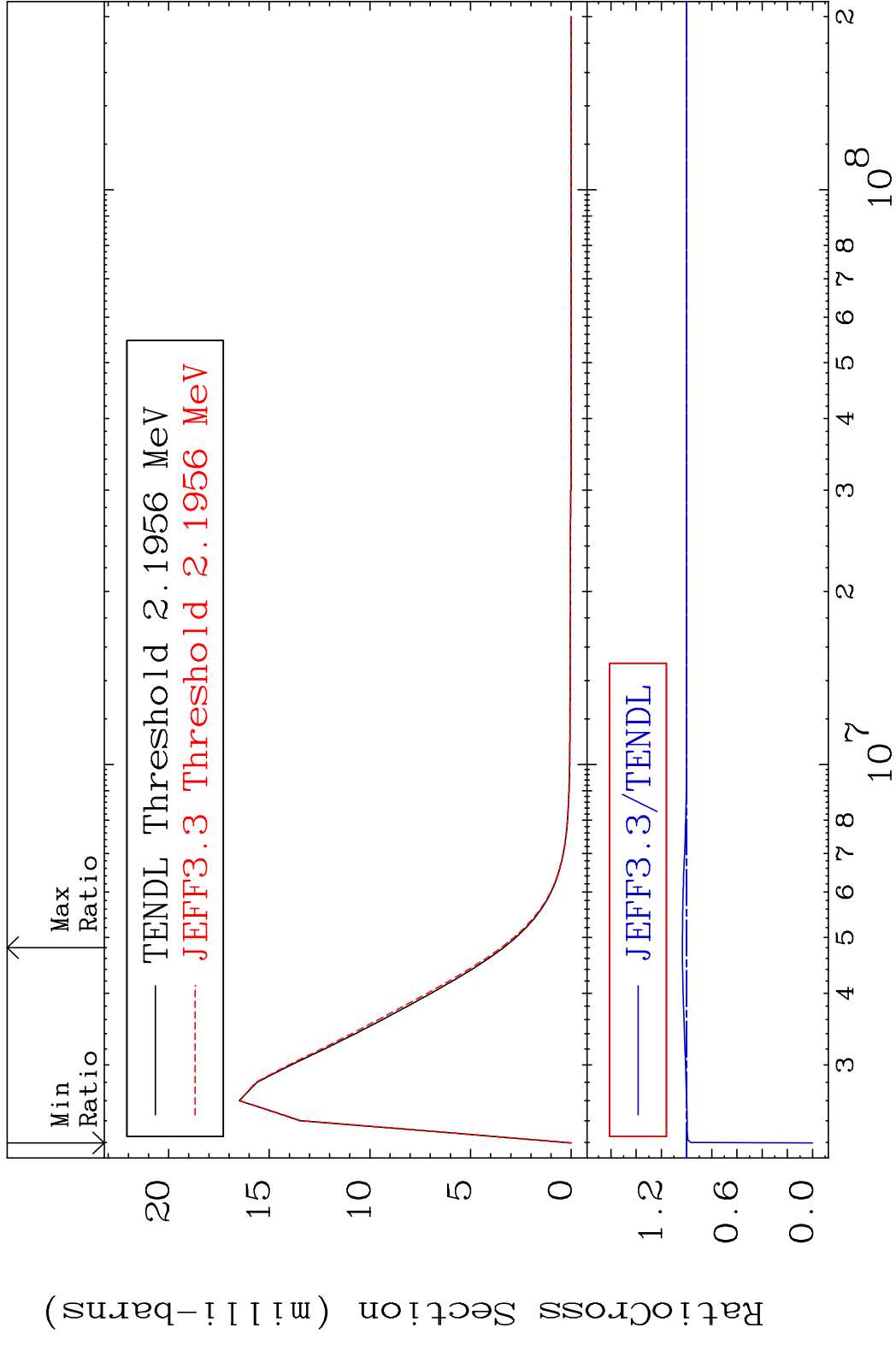


MAT 4428 MT= 78 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 4.451 %





MAT 4428 MT= 79 (n, n') Level 44-Ru-97  
 Cross Section -100.0 To 3.345 %

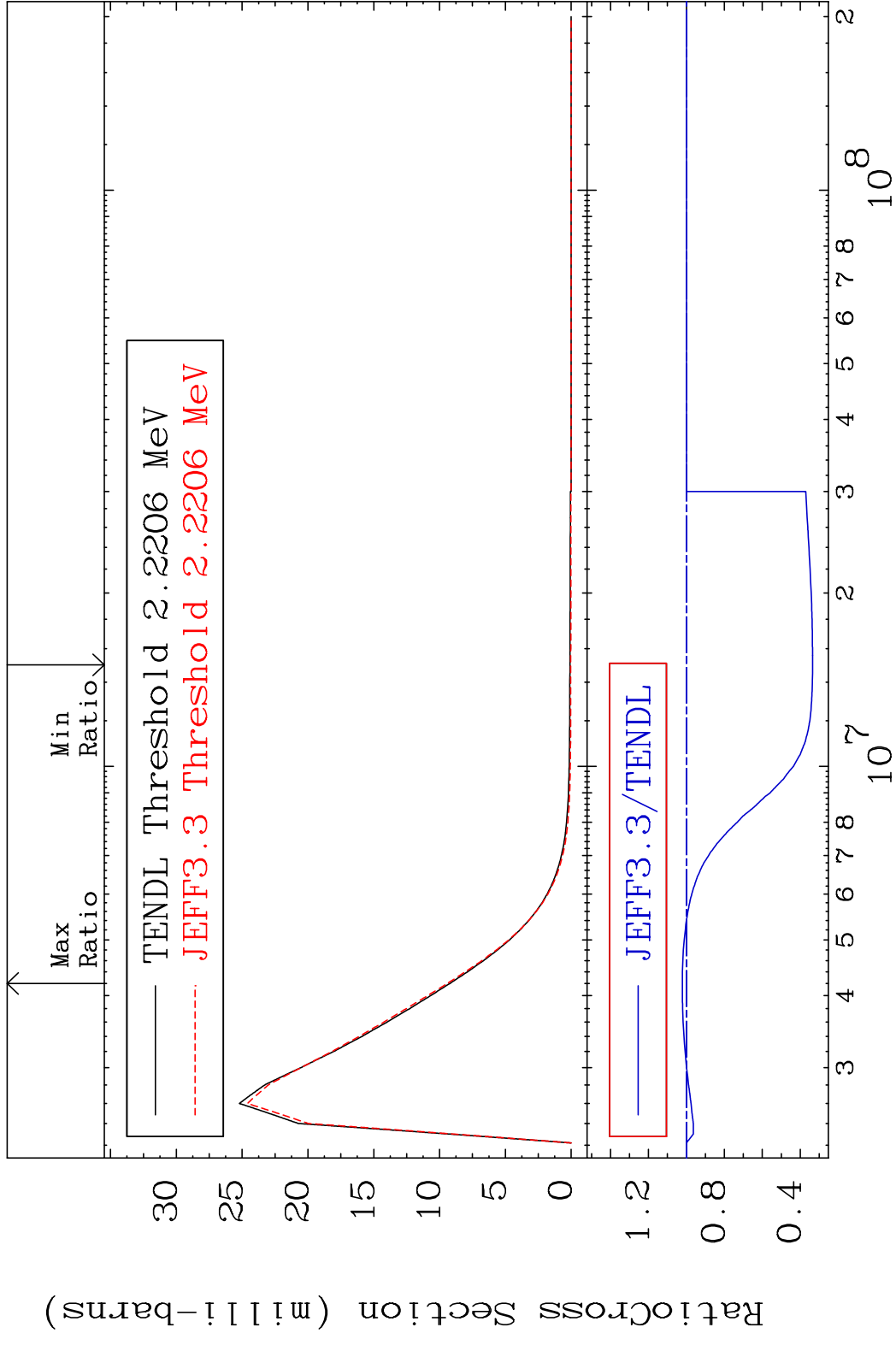


MAT 4428

MT= 80 (n, n') Level

44-Ru-97

Cross Section -66.49 To 2.132 %



49

Incident Energy (eV)

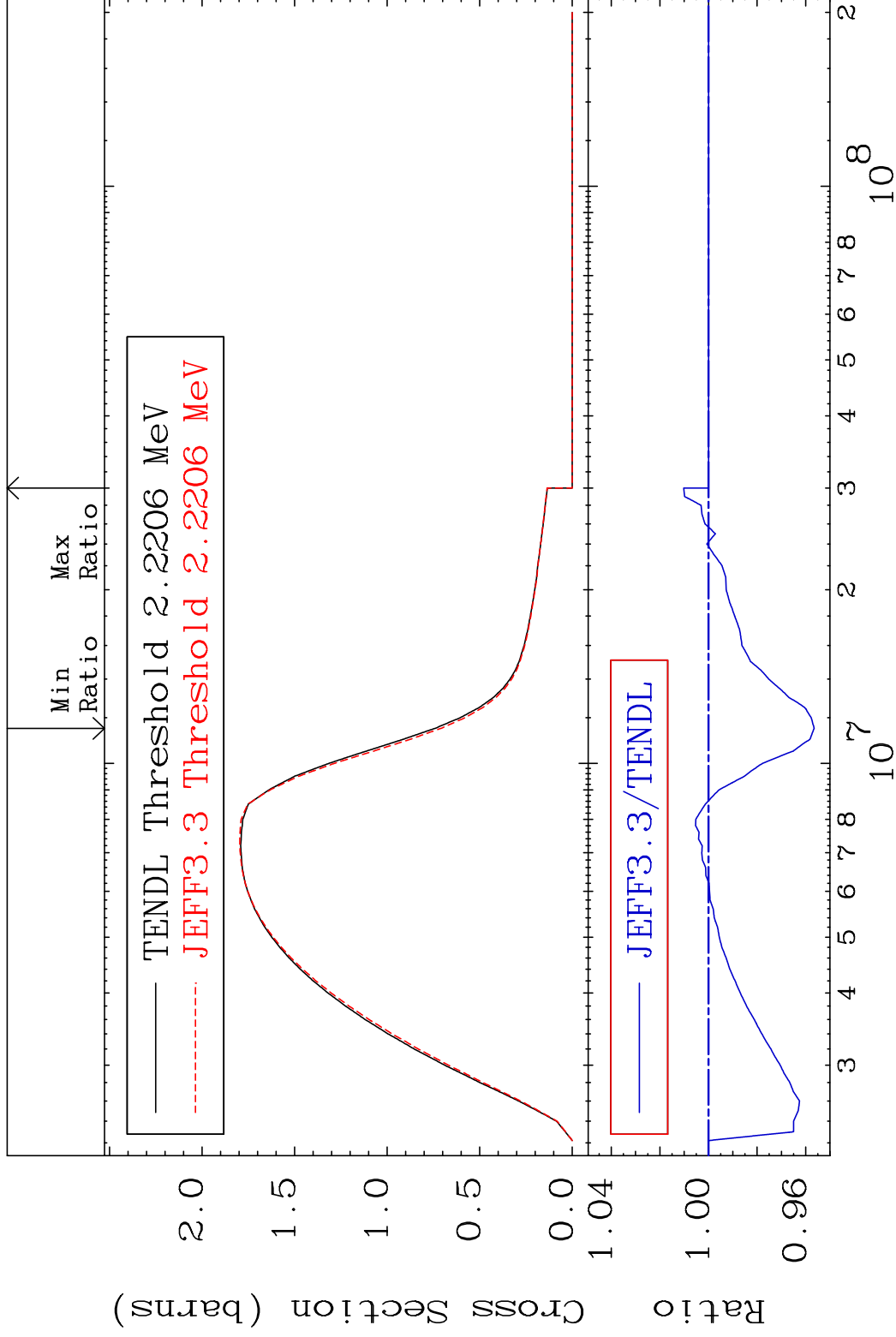
44-Ru-97

MAT 4428

(n, n') Continuum

44-Ru-97

Cross Section -4.347 To 1.022 %



50

Incident Energy (eV)

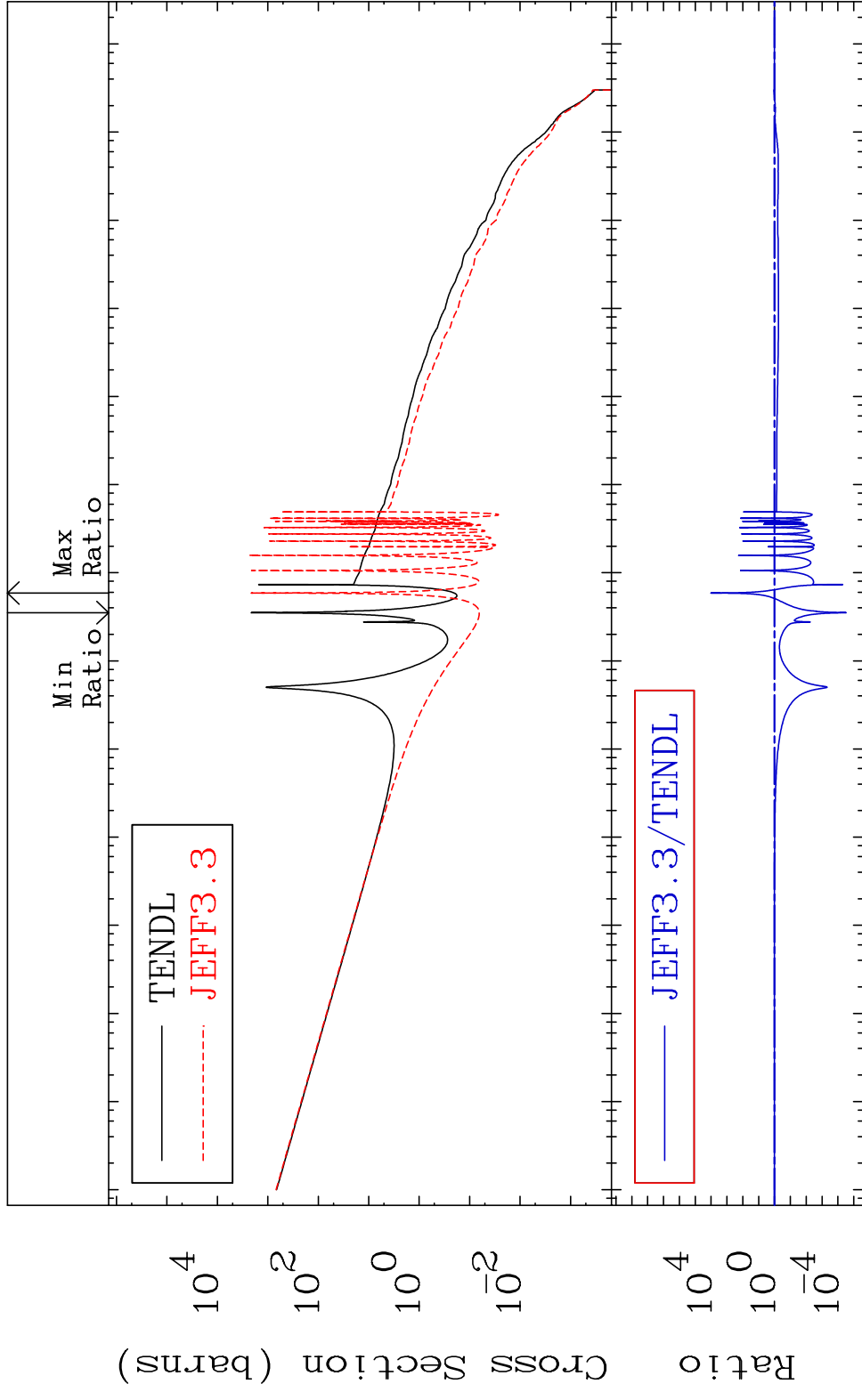
44-Ru-97

MAT 4428

44-Ru-97

(n,  $\gamma$ )

Cross Section -100.0 To 9999. %

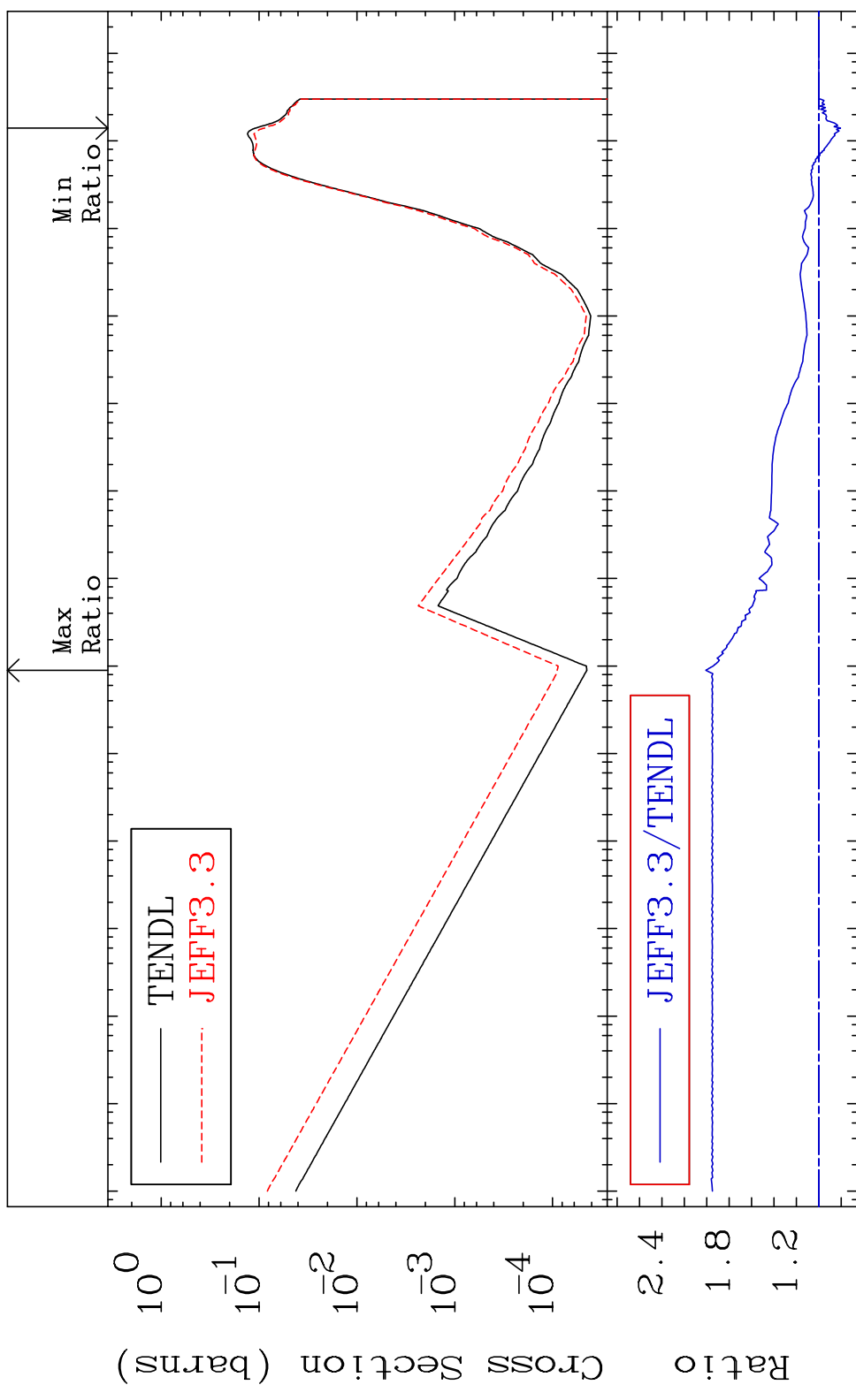


MAT 4428

(n, p)

44-Ru-97

Cross Section -19.41 To 100.9 %

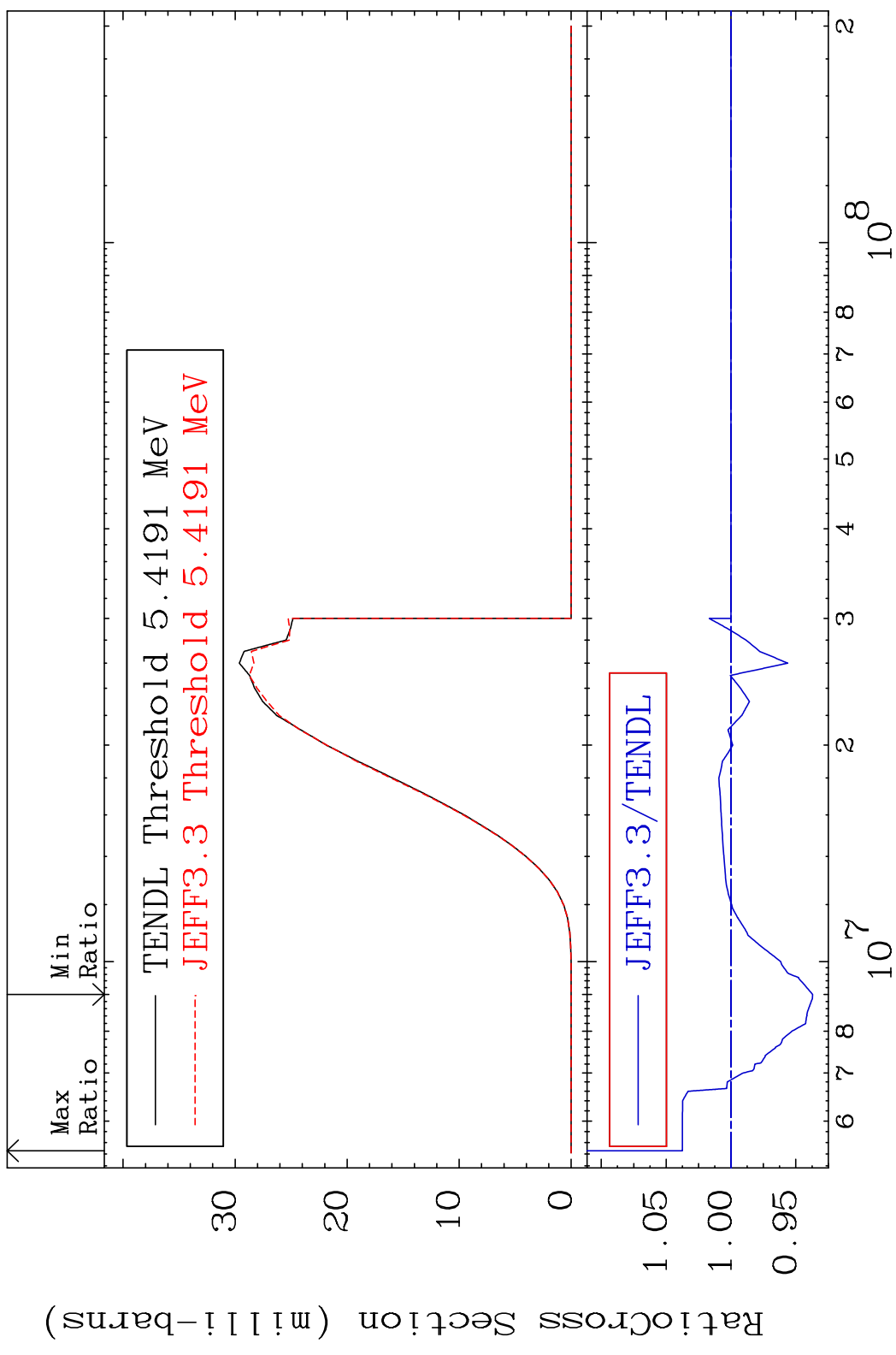


MAT 4428

(n, d)

44-Ru-97

Cross Section -6.288 To 3.750 %

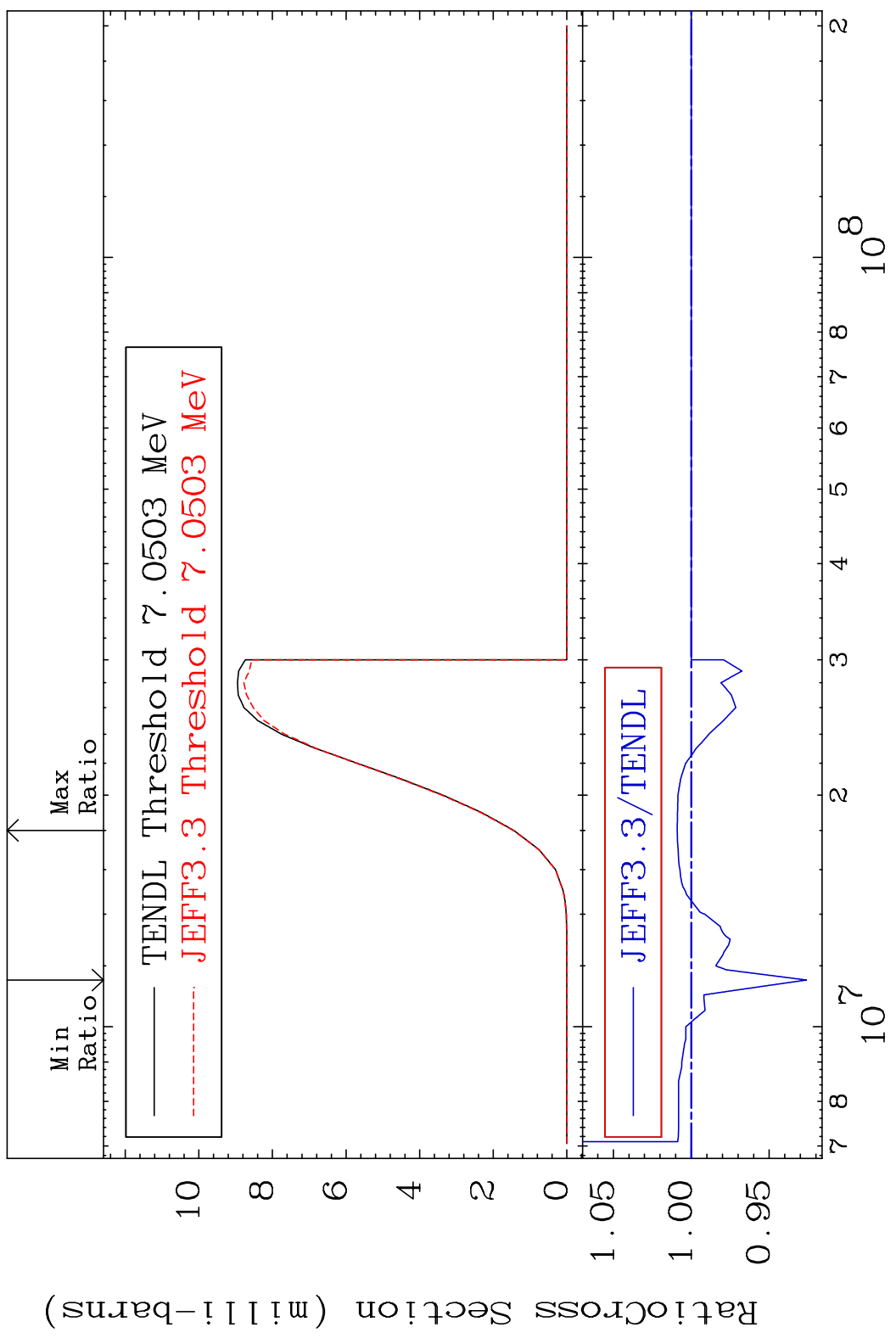


MAT 4428

(n, t)

44-Ru-97

Cross Section -7.385 To 0.904 %

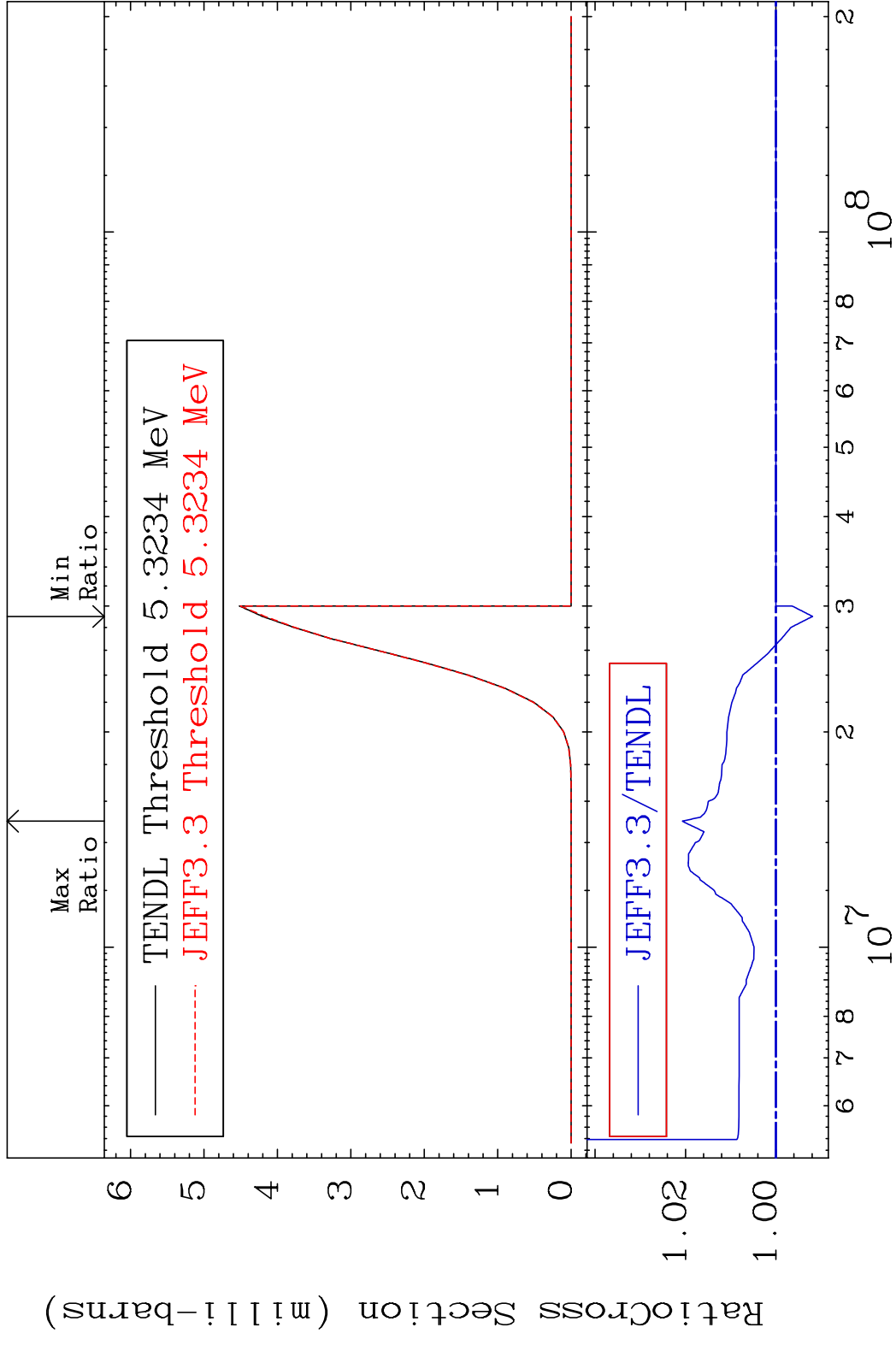


MAT 4428

(n, He-3)

44-Ru-97

Cross Section -0.811 To 2.070 %



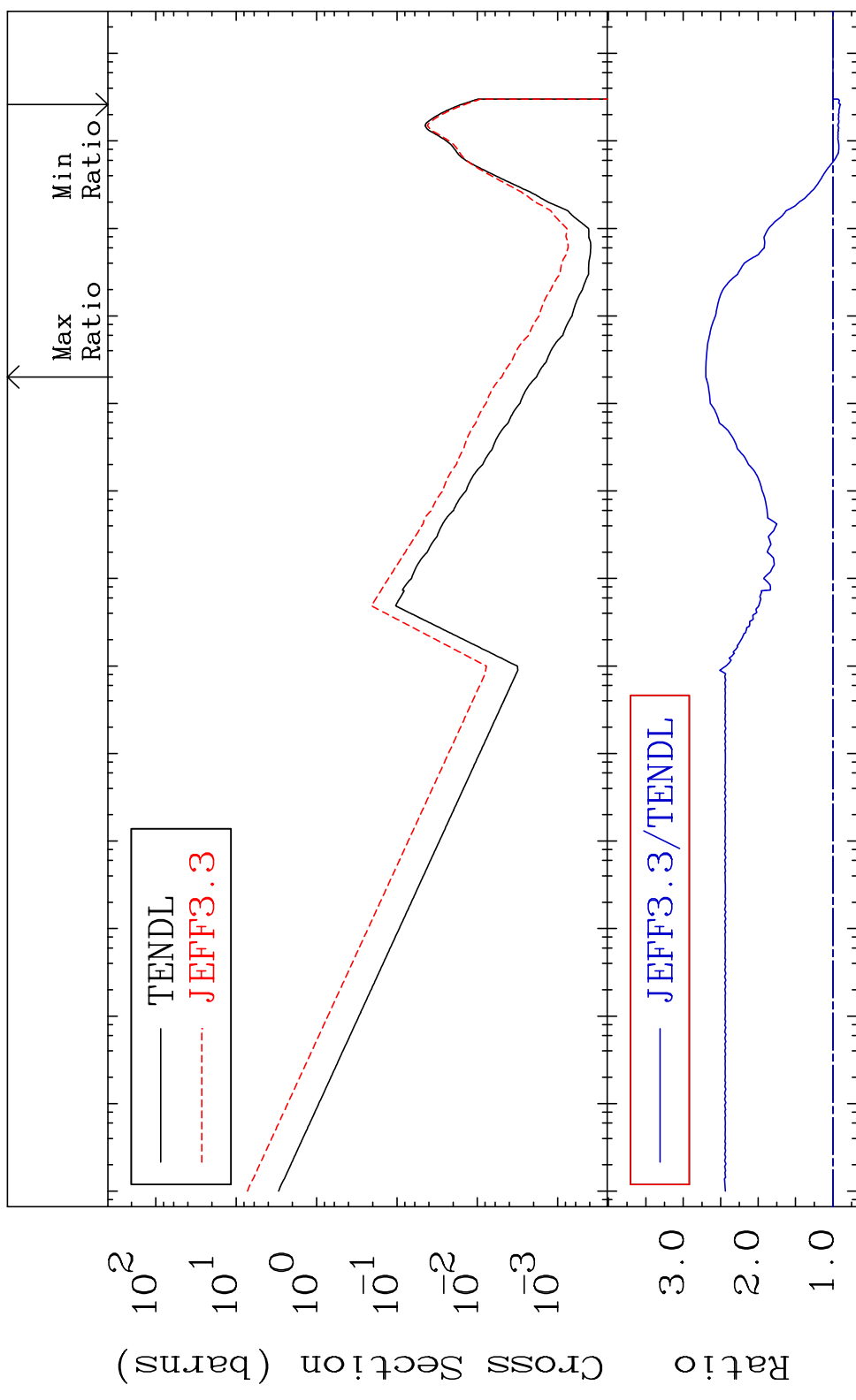


MAT 4428

(n,  $\alpha$ )

44-Ru-97

Cross Section -10.00 To 169.9 %



56

Incident Energy (eV)

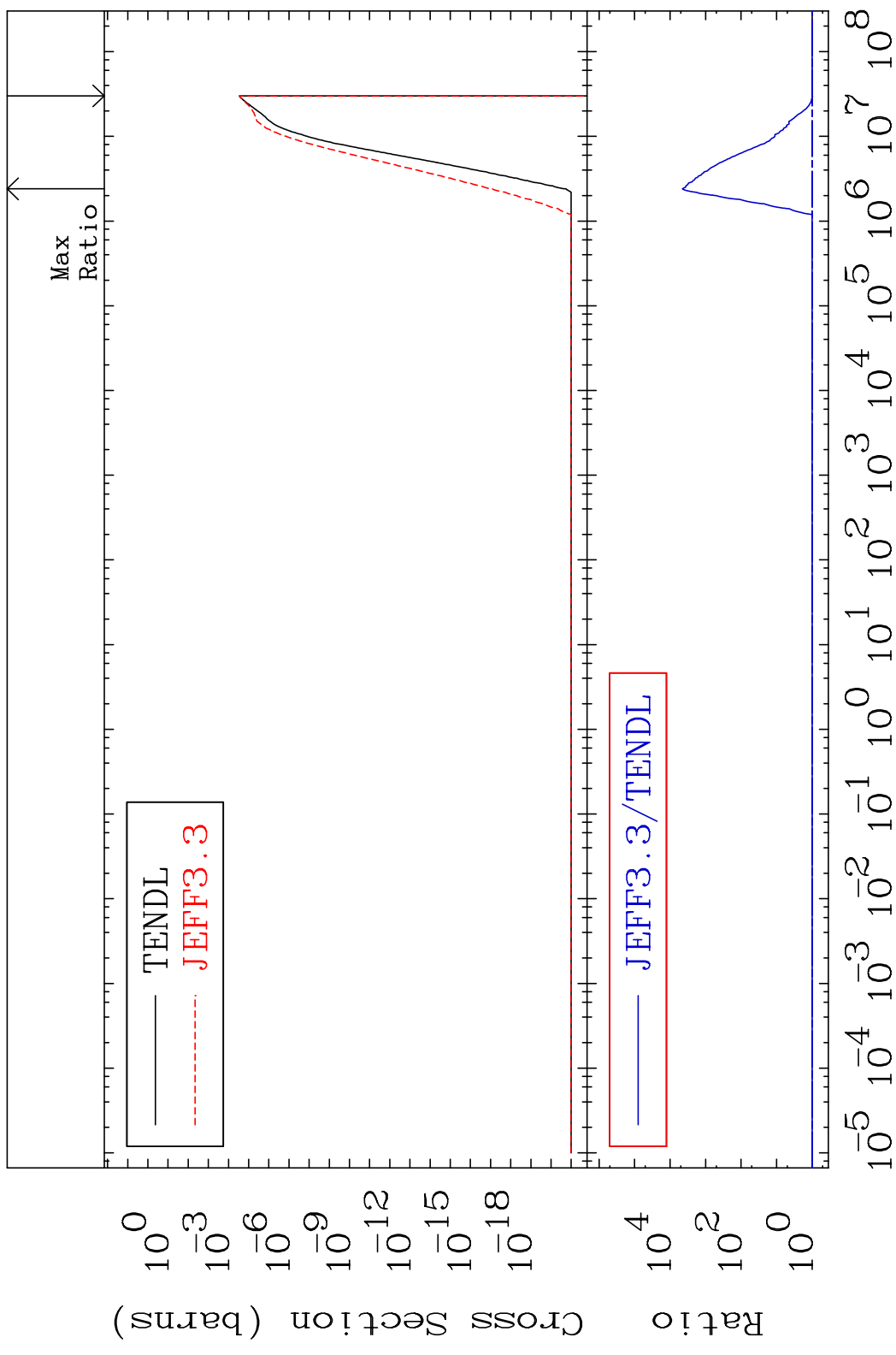
44-Ru-97

MAT 4428

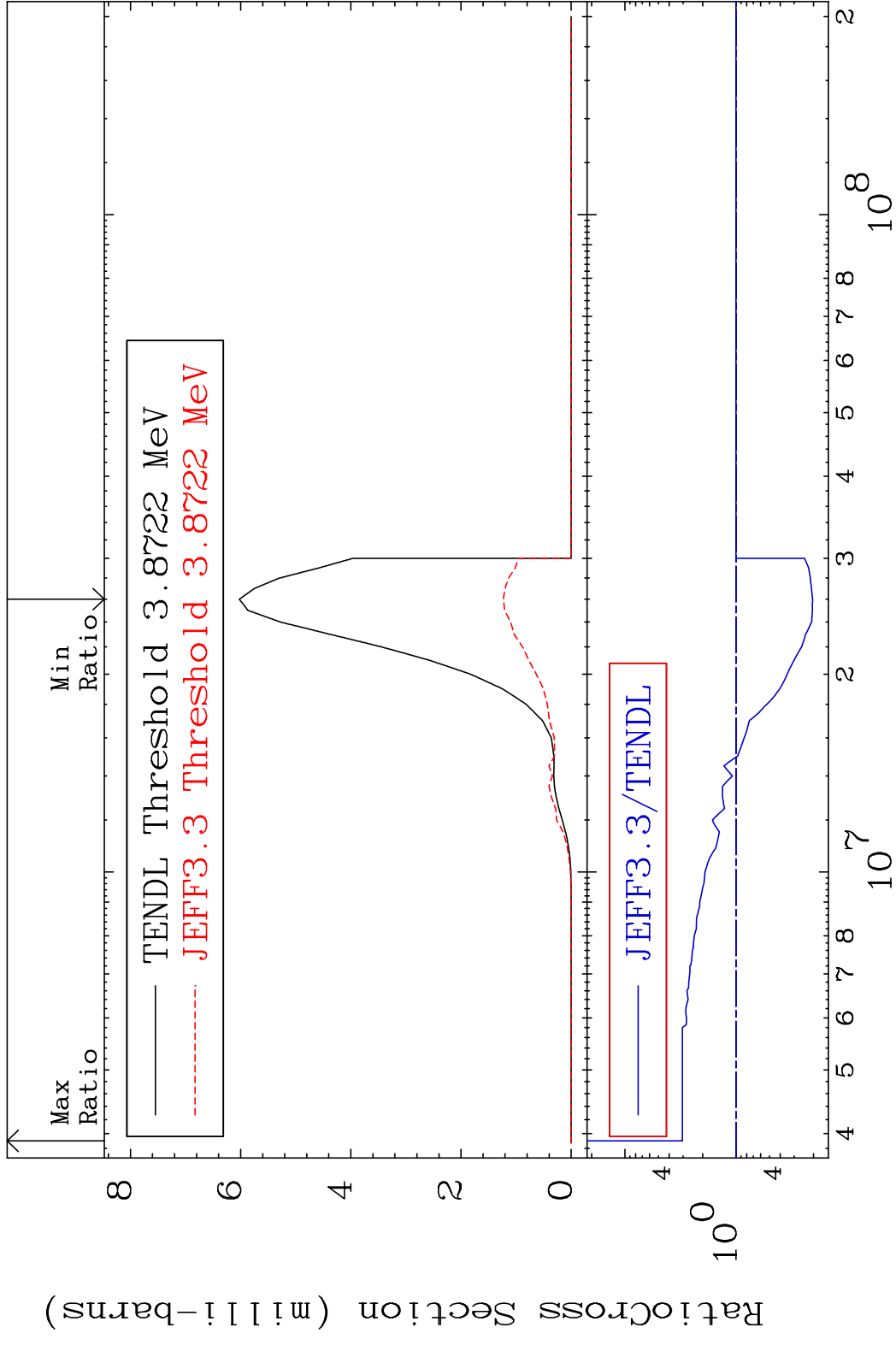
(n, 2α)

44-Ru-97

Cross Section -3.203 To 9999. %



MAT 4428 (n,2p) 44-Ru-97  
 Cross Section -79.55 To 204.2 %

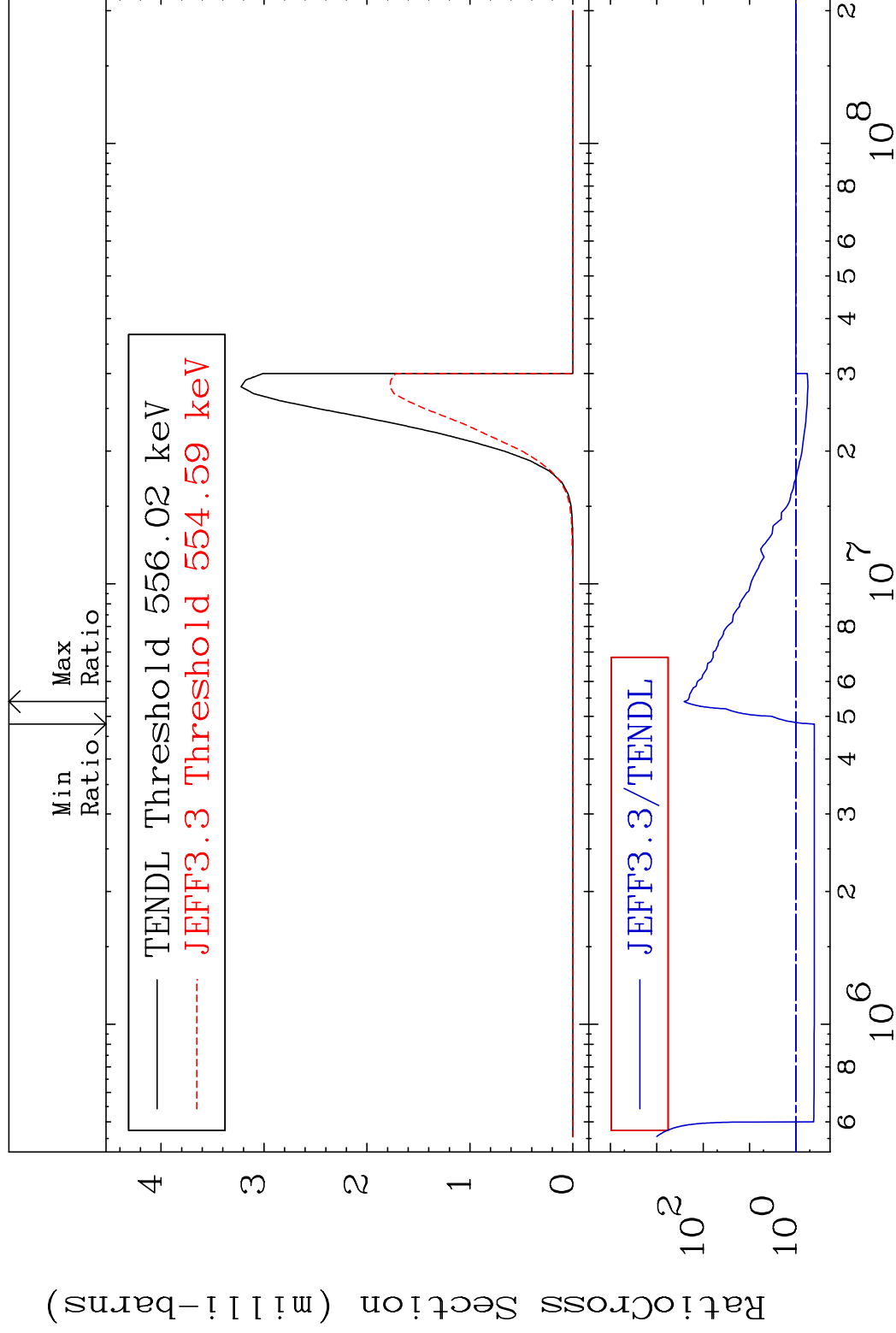


MAT 4428

(n,p)  $\alpha$

44-Ru-97

Cross Section -59.87 To 9999. %



59

Incident Energy (eV)

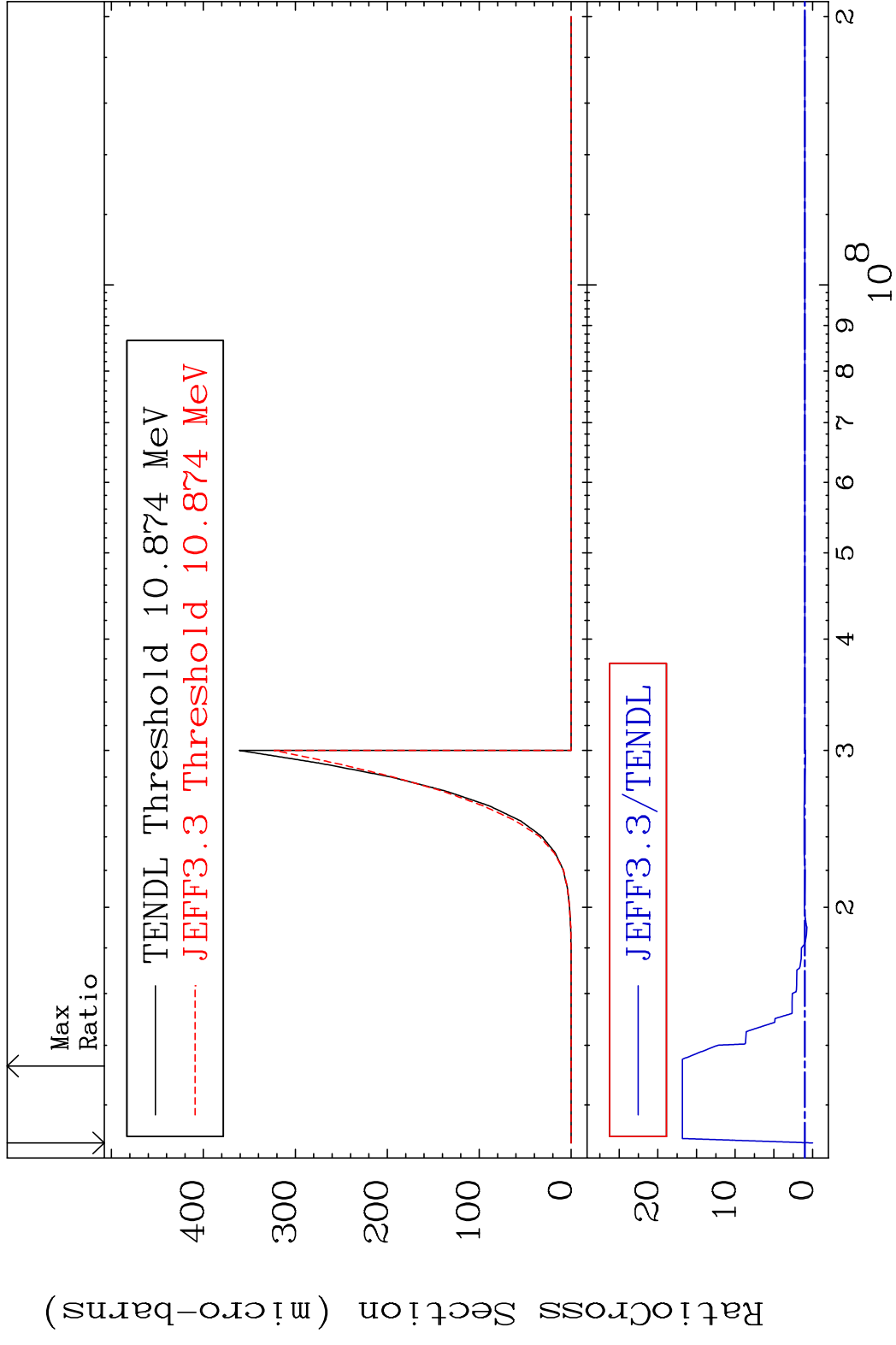
44-Ru-97

MAT 4428

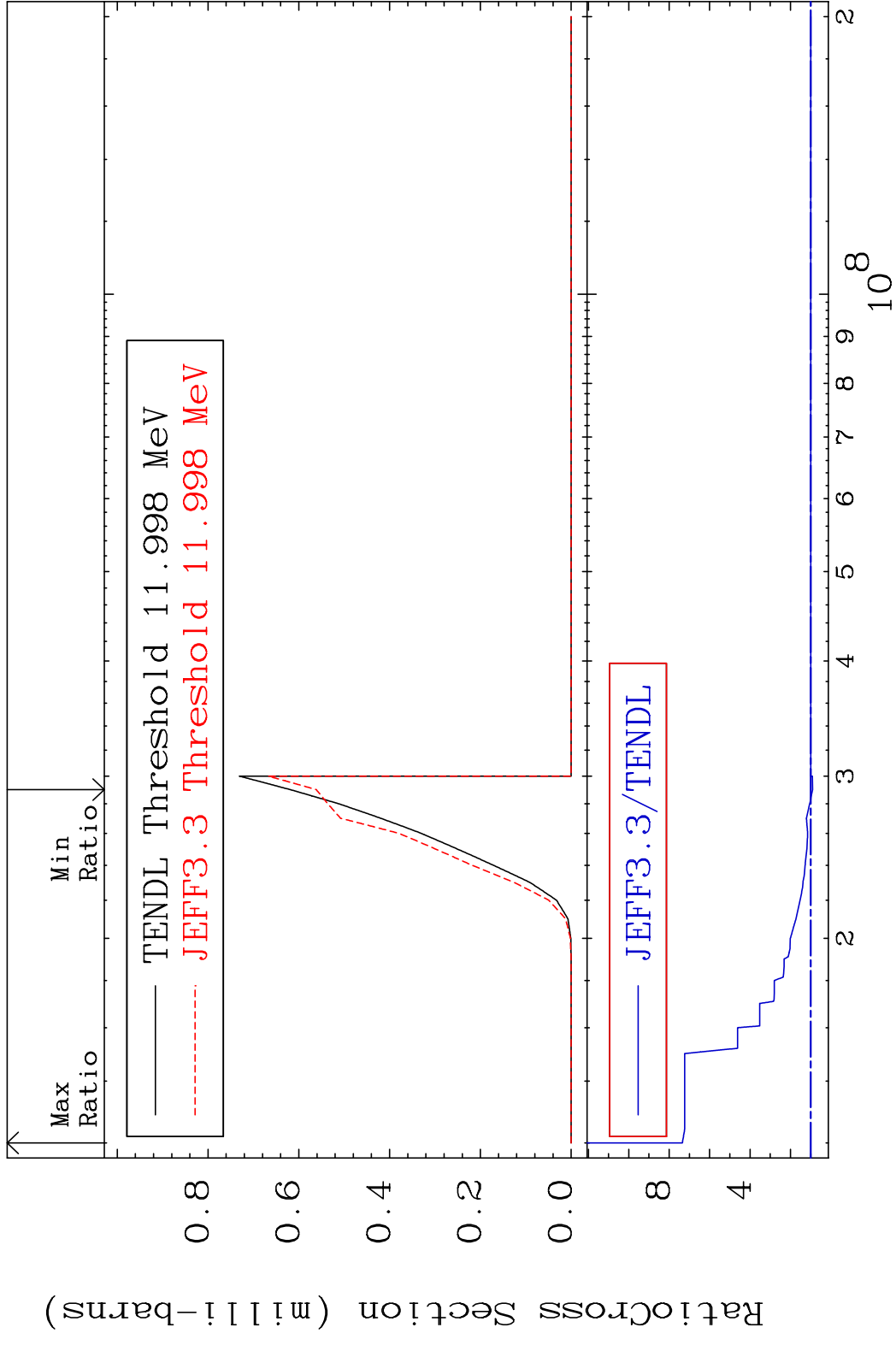
(n,p) d

44-Ru-97

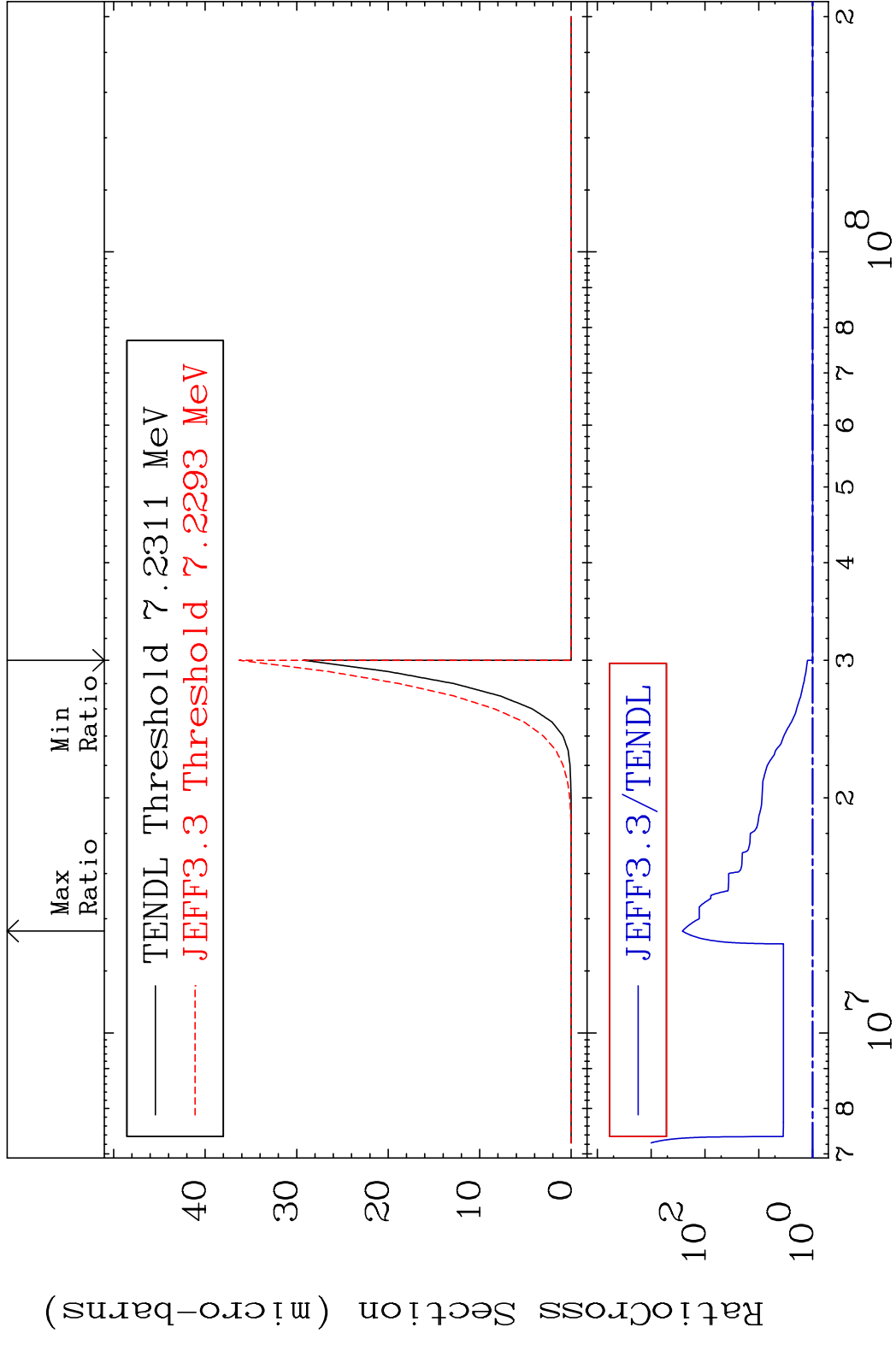
Cross Section -100.0 To 1583. %



MAT 4428 (n,p) t 44-Ru-97  
 Cross Section -9.270 To 634.9 %



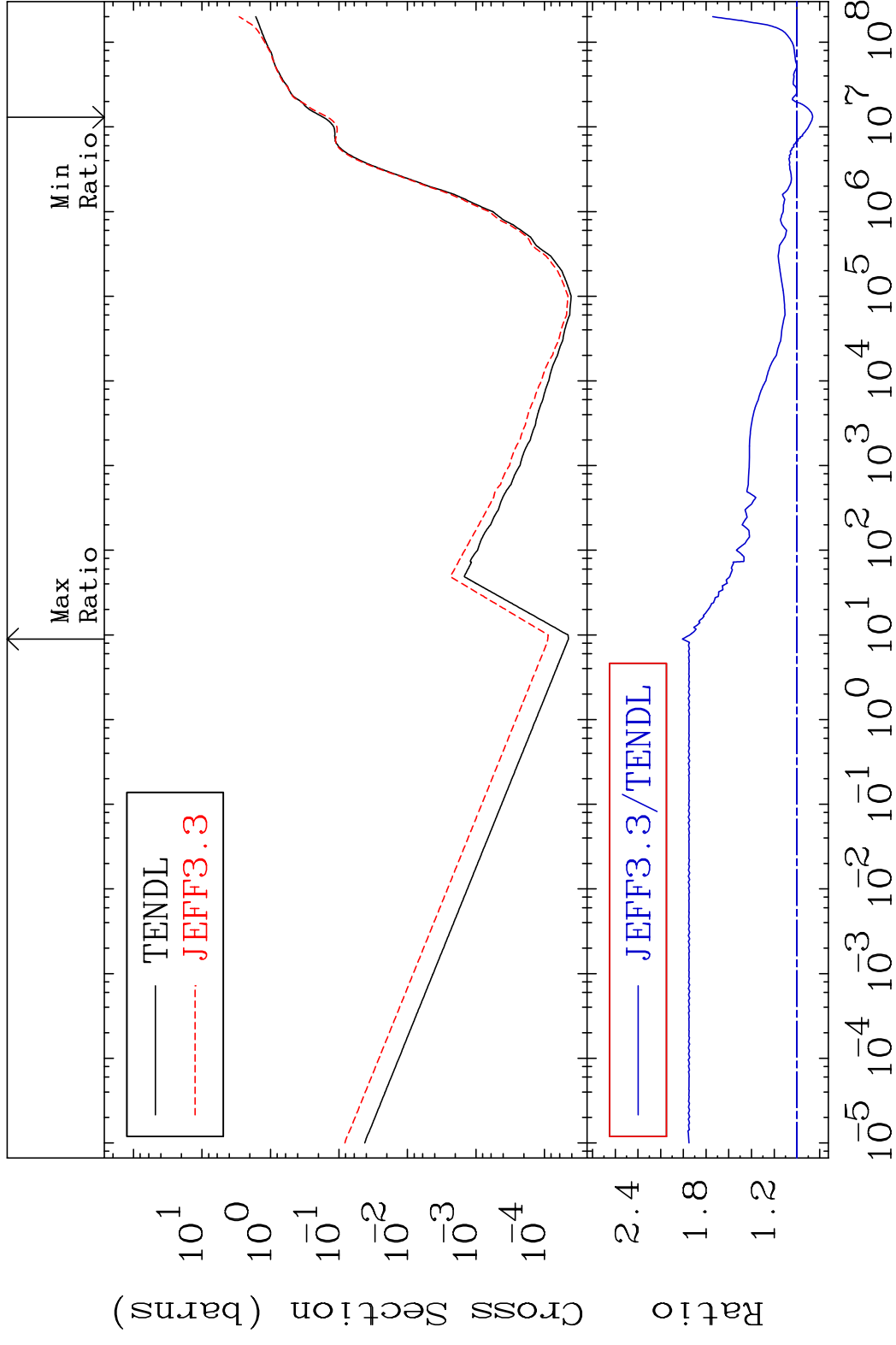
MAT 4428 (n,d)  $\alpha$  44-Ru-97  
 Cross Section 0.000 To 9999. %



MAT 4428

Hydrogen Production  
Cross Section

44-Ru-97  
-13.79 To 100.9 %



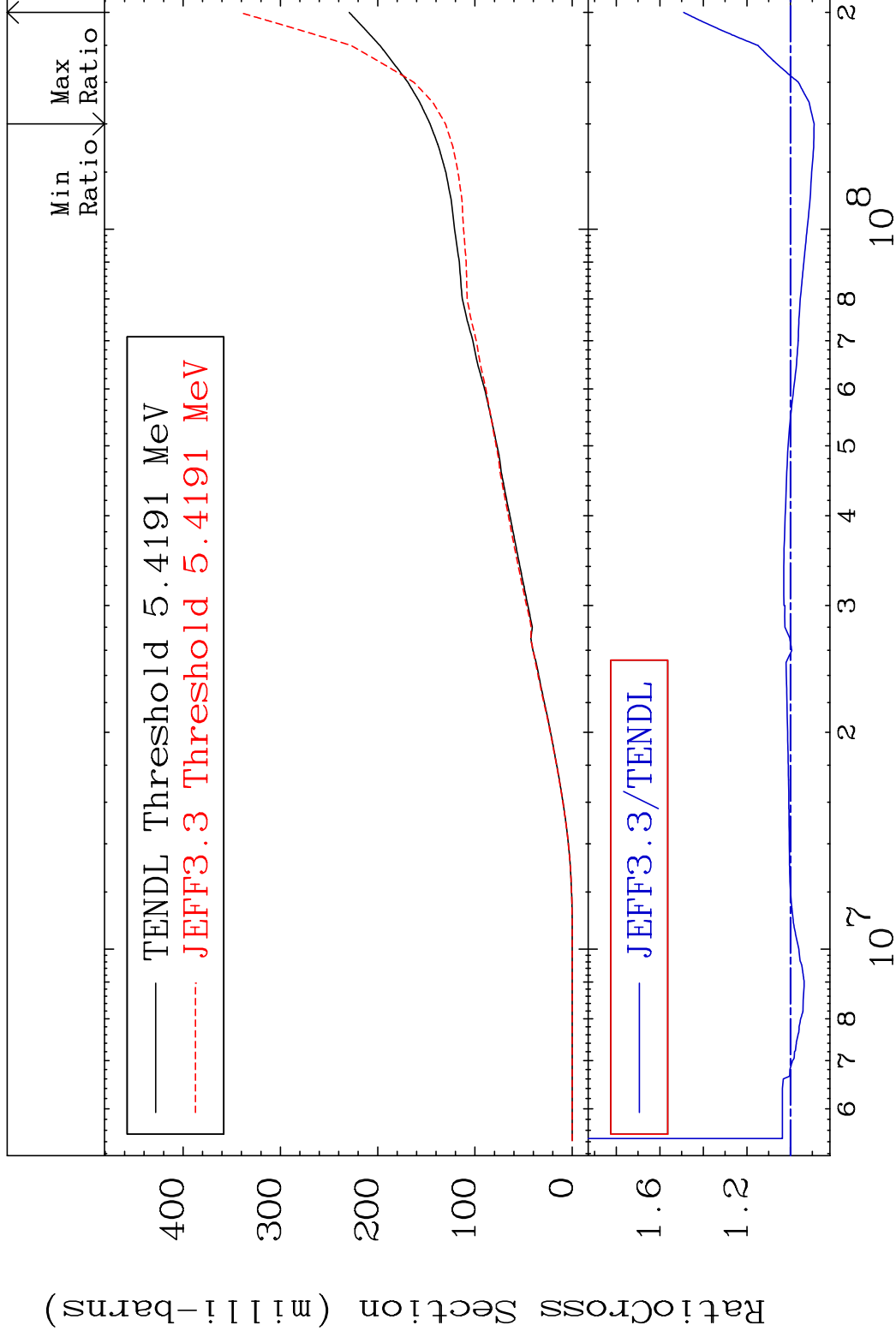


MAT 4428

Deuterium Production

44-Ru-97

Cross Section -10.84 To 49.05 %



64

Incident Energy (eV)

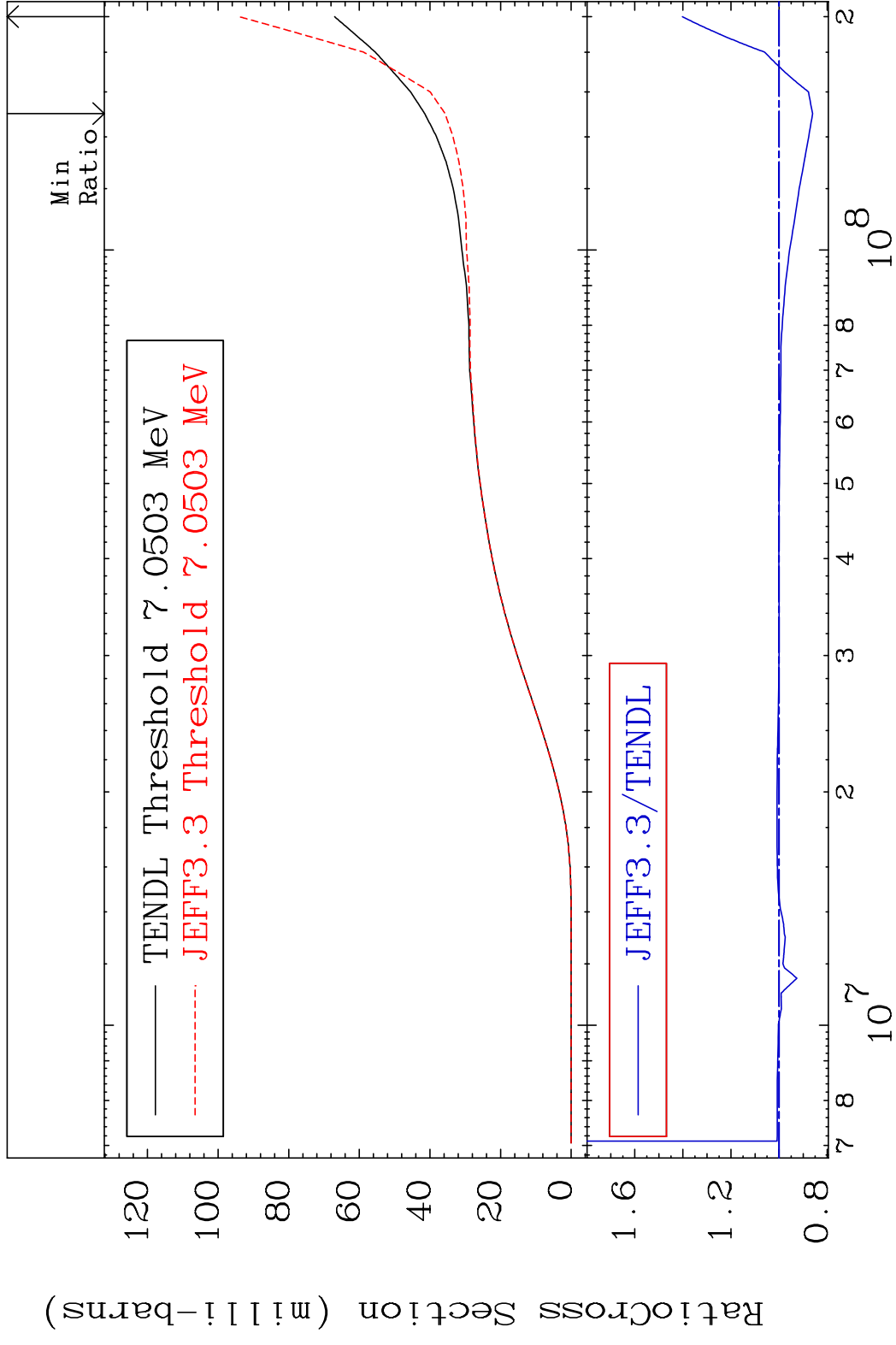
44-Ru-97

MAT 4428

Tritium Production

44-Ru-97

Cross Section -13.89 To 40.23 %



65

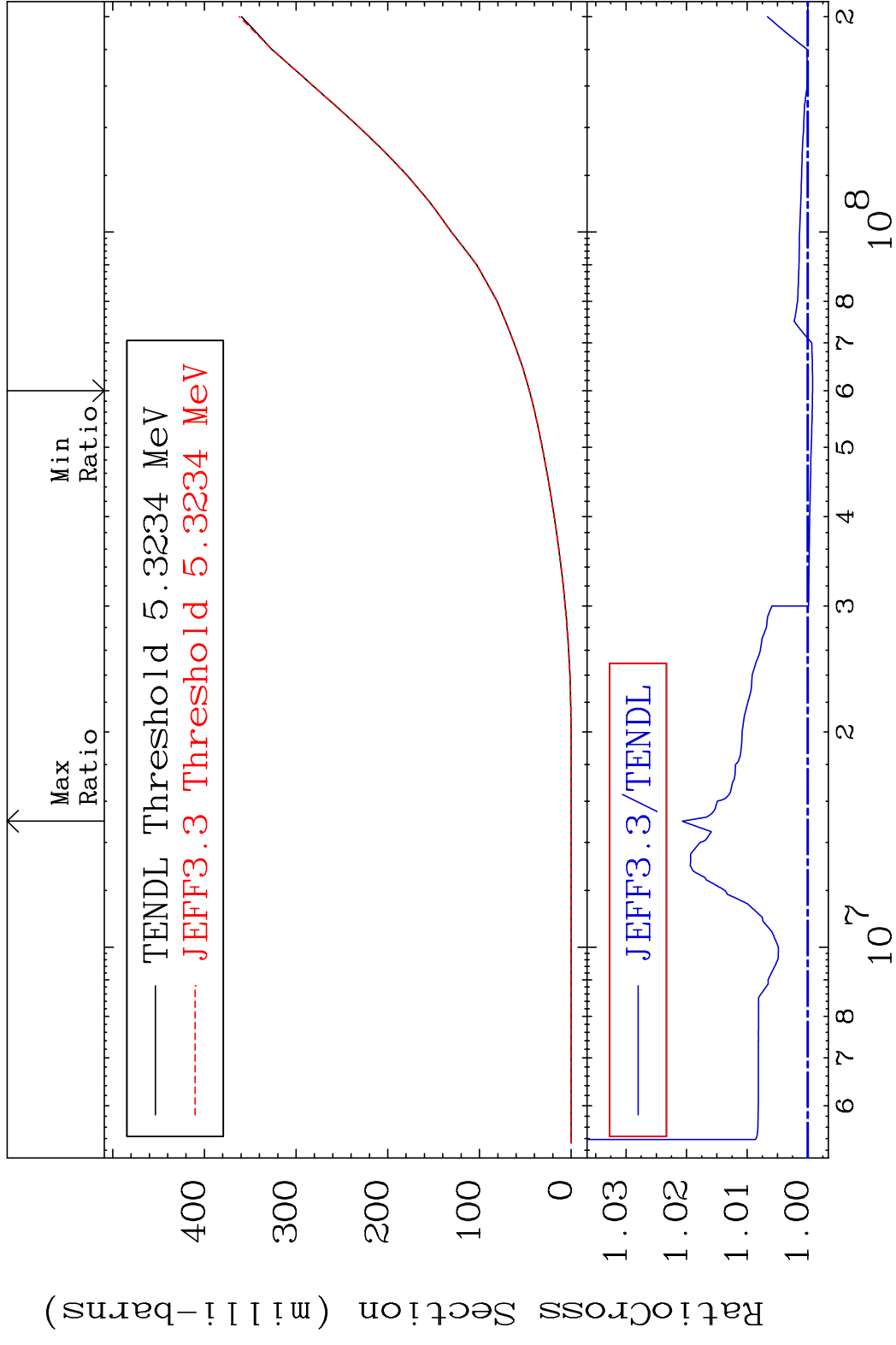
44-Ru-97

MAT 4428

He-3 Production

44-Ru-97

Cross Section -0.079 To 2.070 %

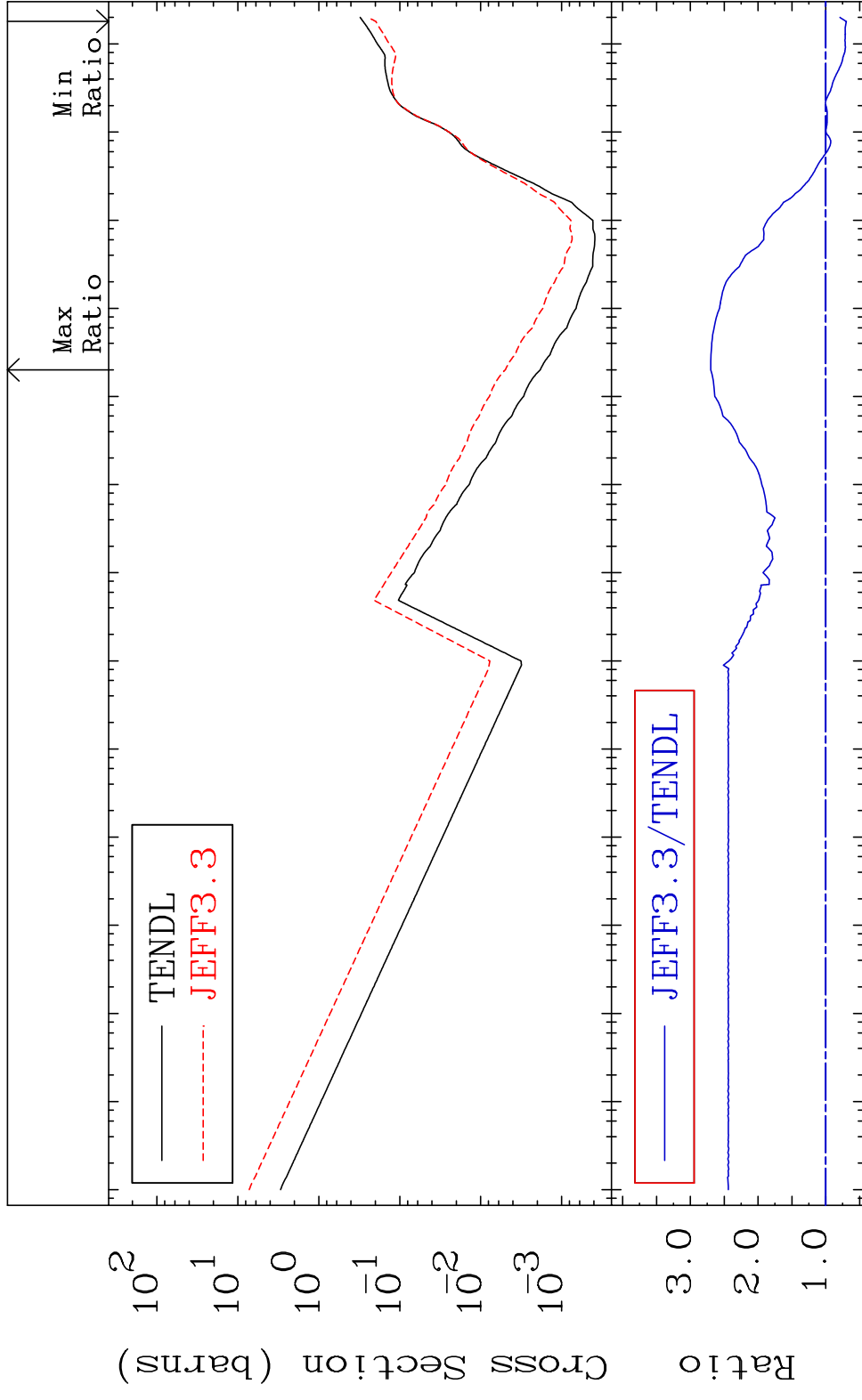


MAT 4428

He-4 Production

44-Ru-97

Cross Section -30.42 To 169.9 %

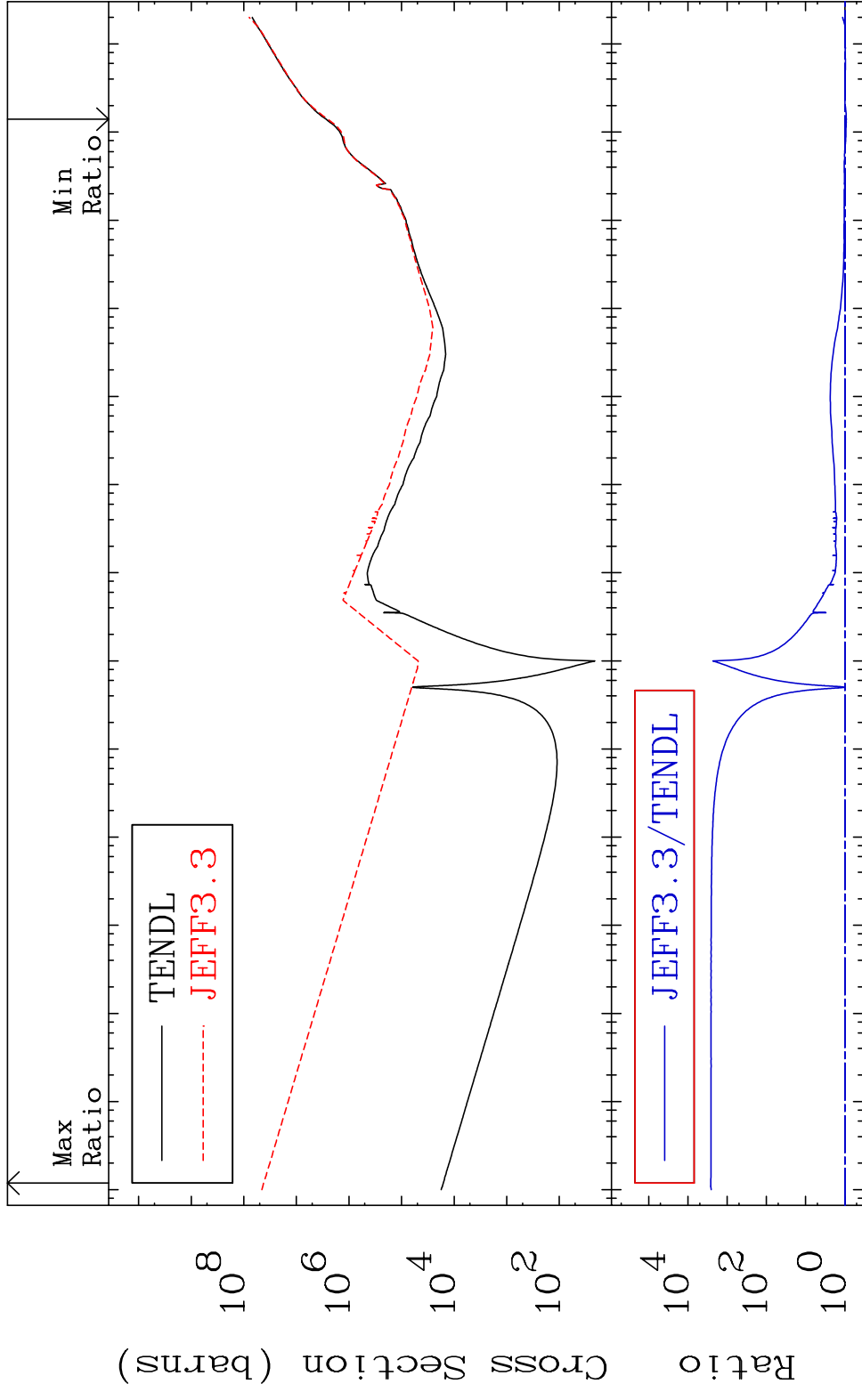


67

Incident Energy (eV)

44-Ru-97

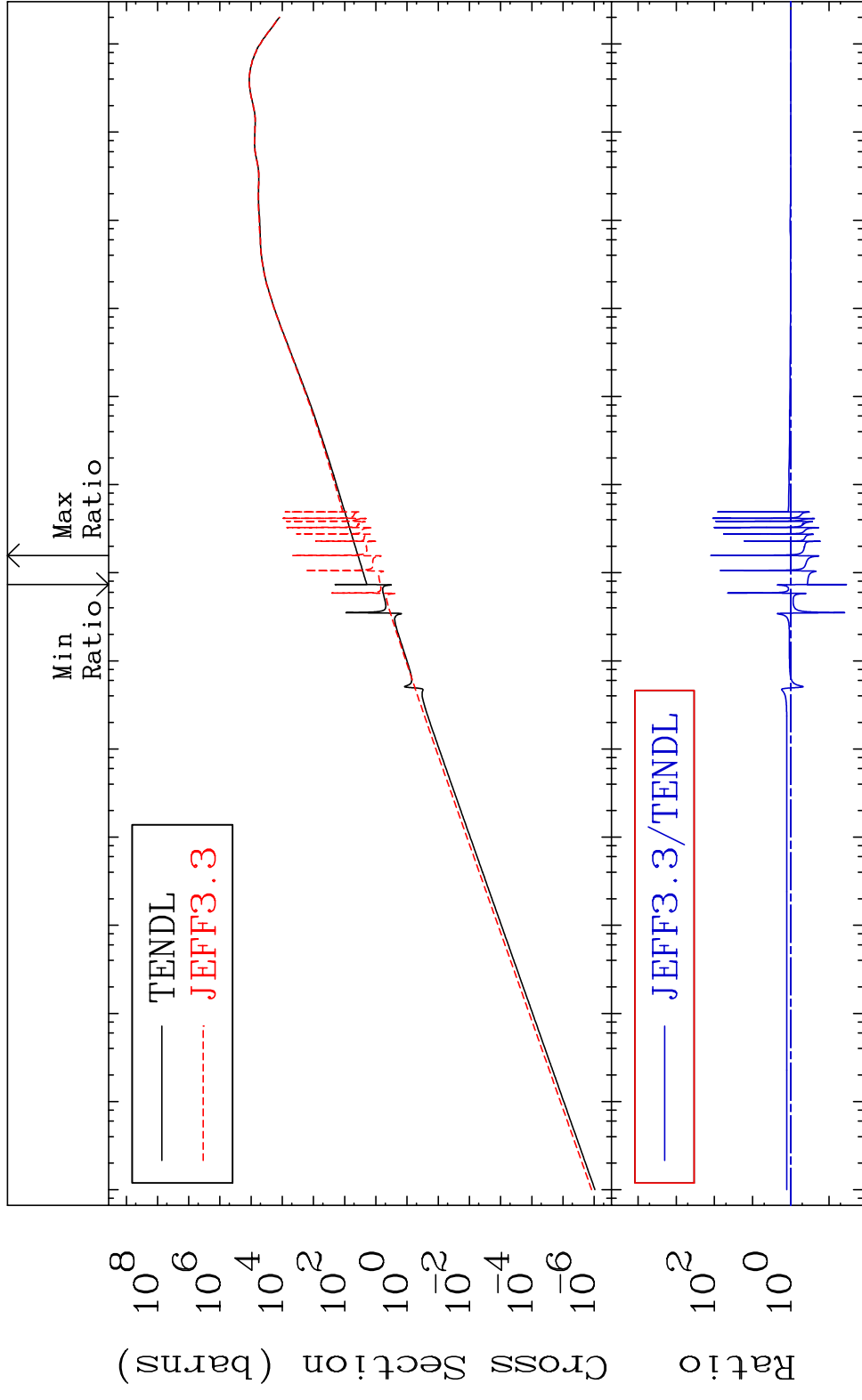
MAT 4428 Kerma total (eV-barns) 44-Ru-97  
 Cross Section -8.275 To 9999. %



MAT 4428

Kerma elastic  
Cross Section

44-Ru-97  
-96.49 To 9999. %

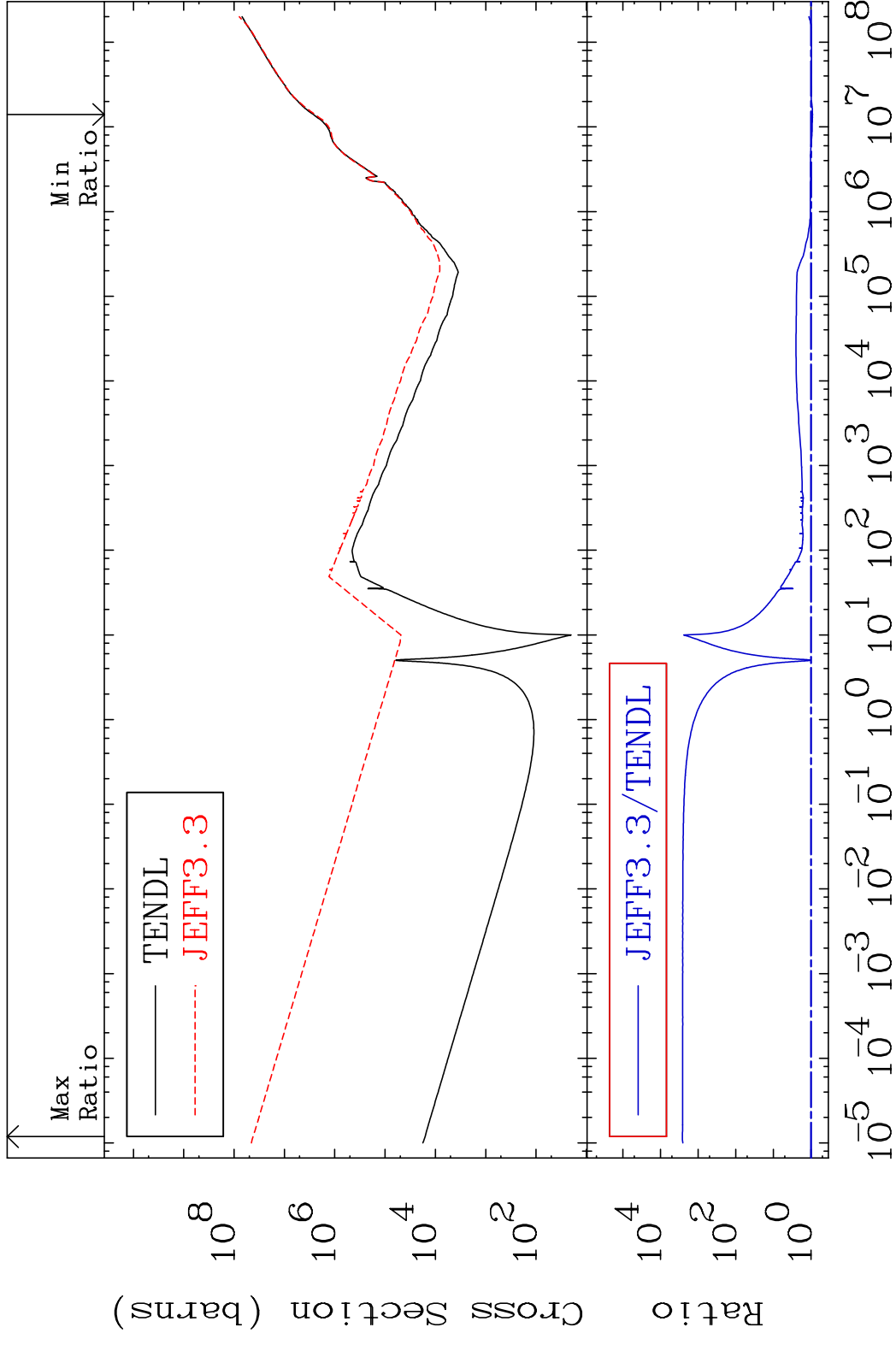


69

Incident Energy (eV)

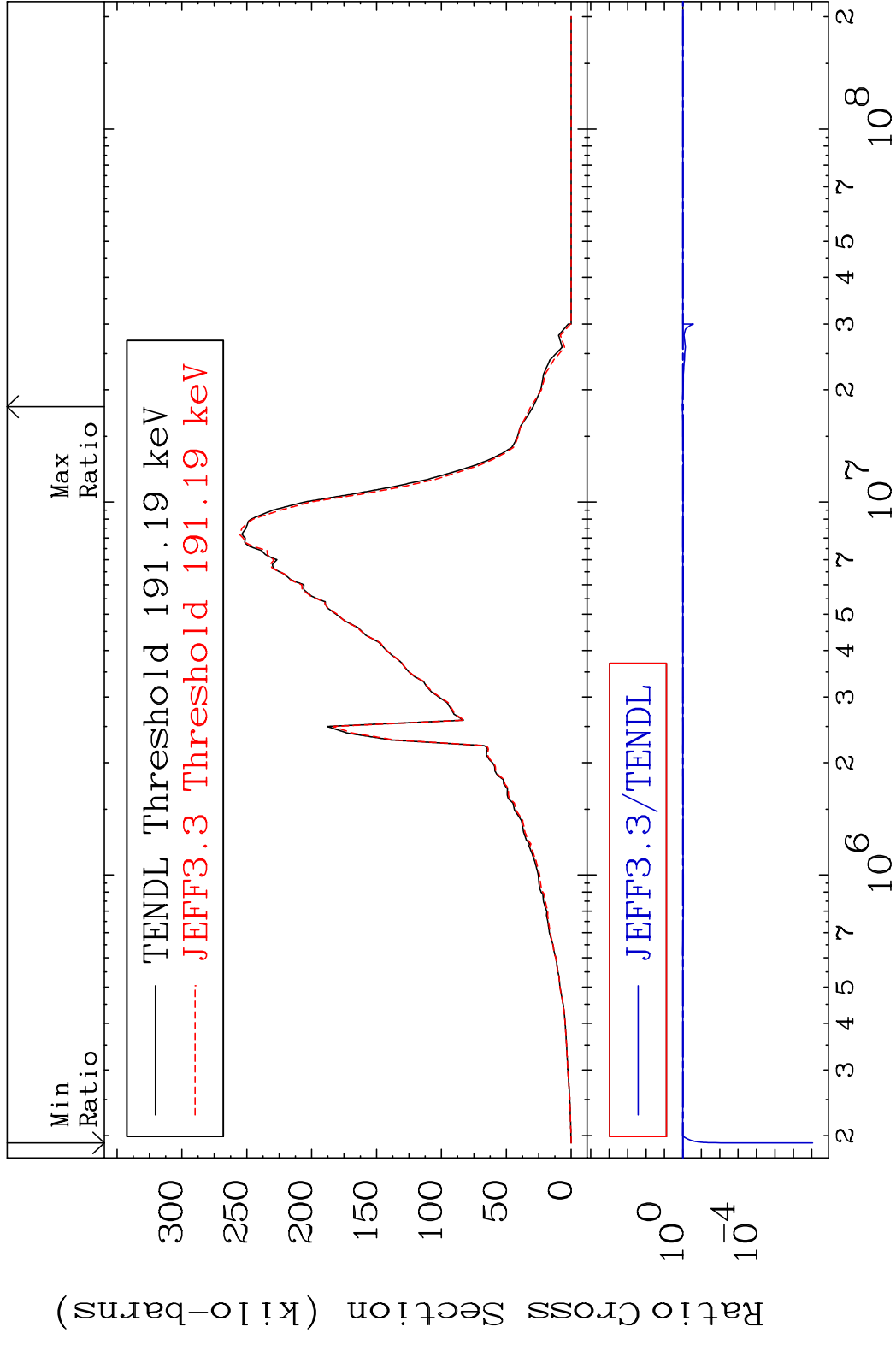
44-Ru-97

MAT 4428 Kerma non-elastic (all but mt2) 44-Ru-97  
 Cross Section -8.505 To 9999. %



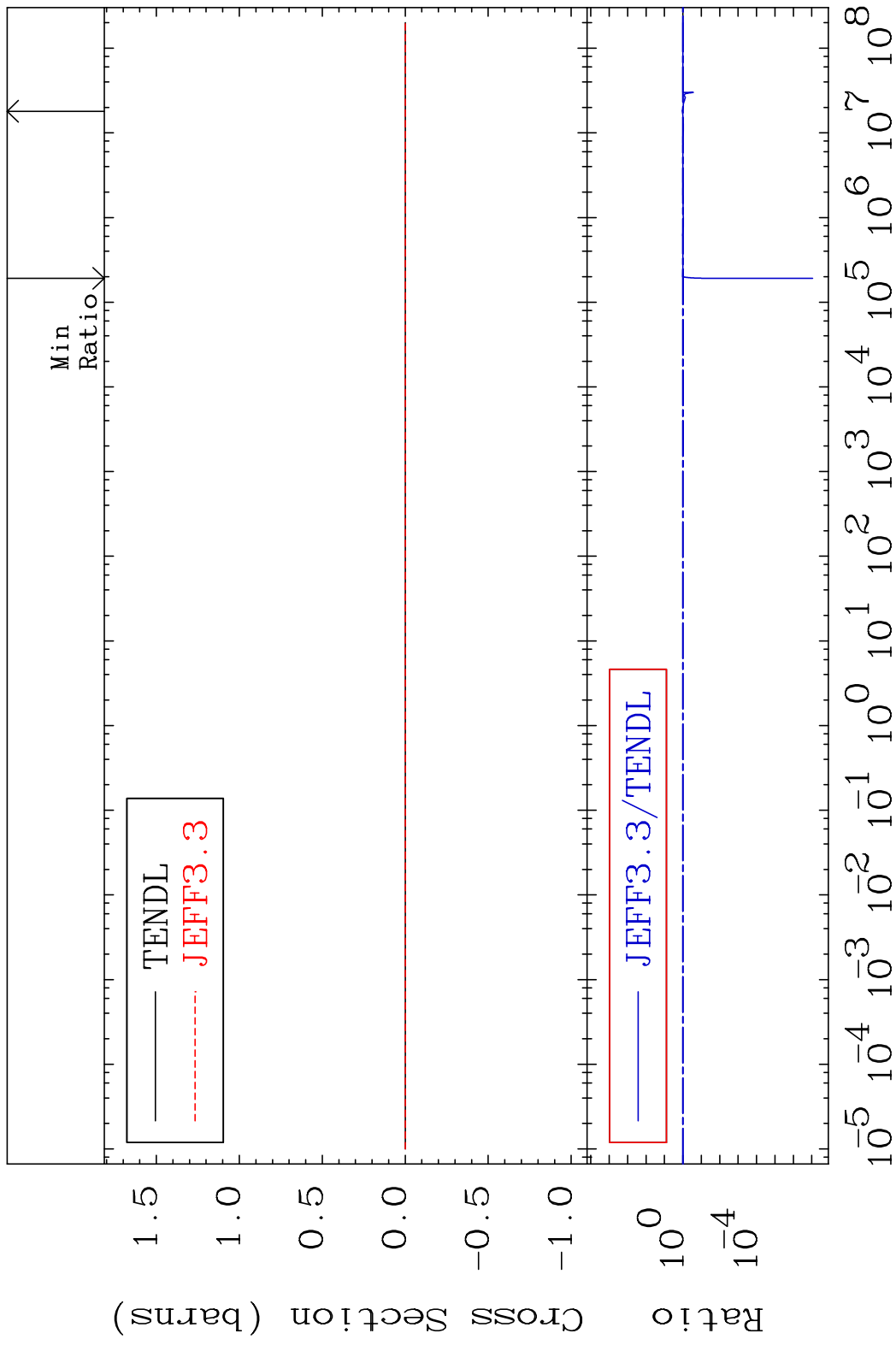
70 Incident Energy (eV) 44-Ru-97

MAT 4428 Kerma inelastic (mt51-91) 44-Ru-97  
 Cross Section -100.0 To 6.485 %

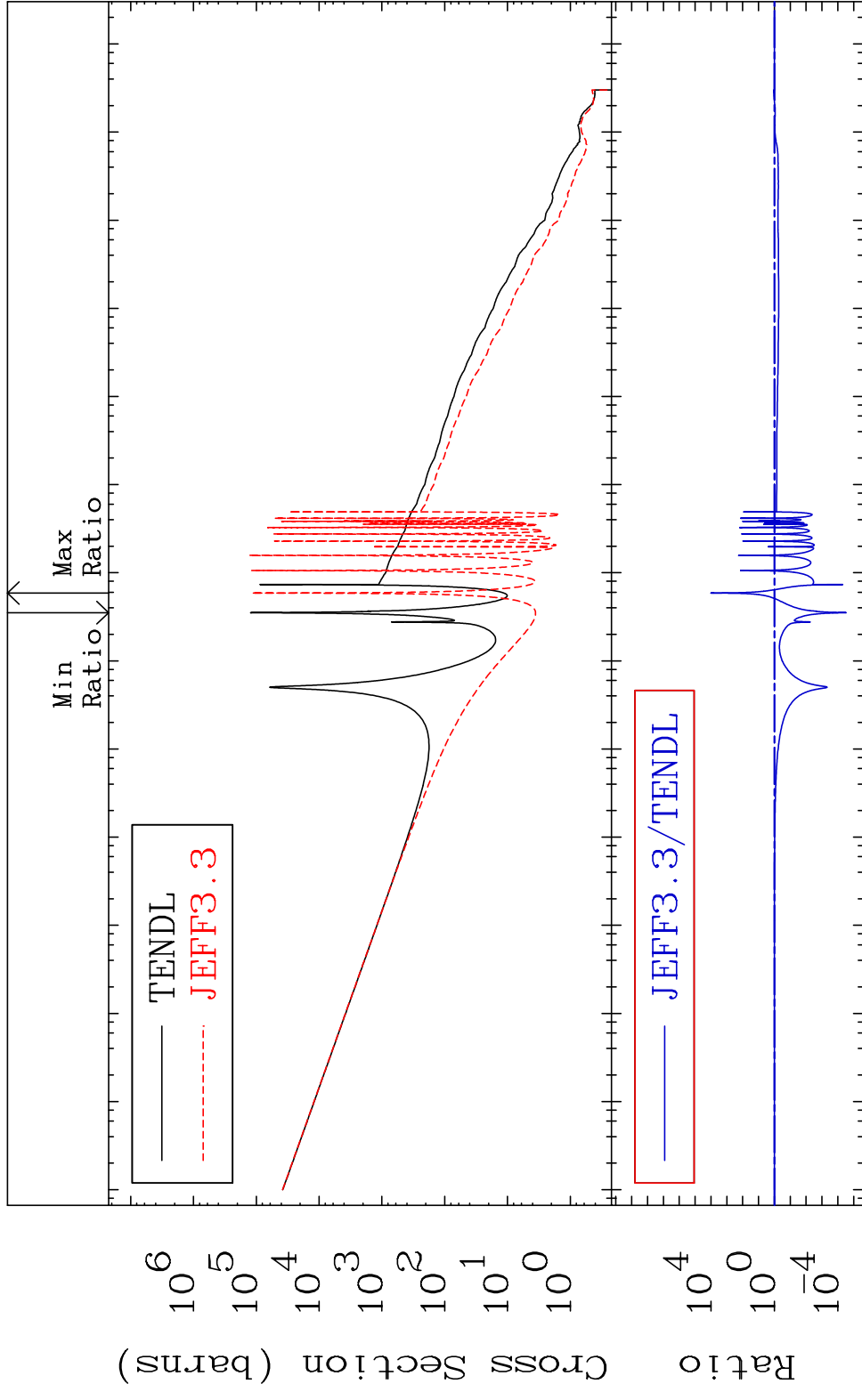




MAT 4428 Kerma fission (mt18 or mt19-20-21-38) 44-Ru-97  
 Cross Section -100.0 To 6.485 %

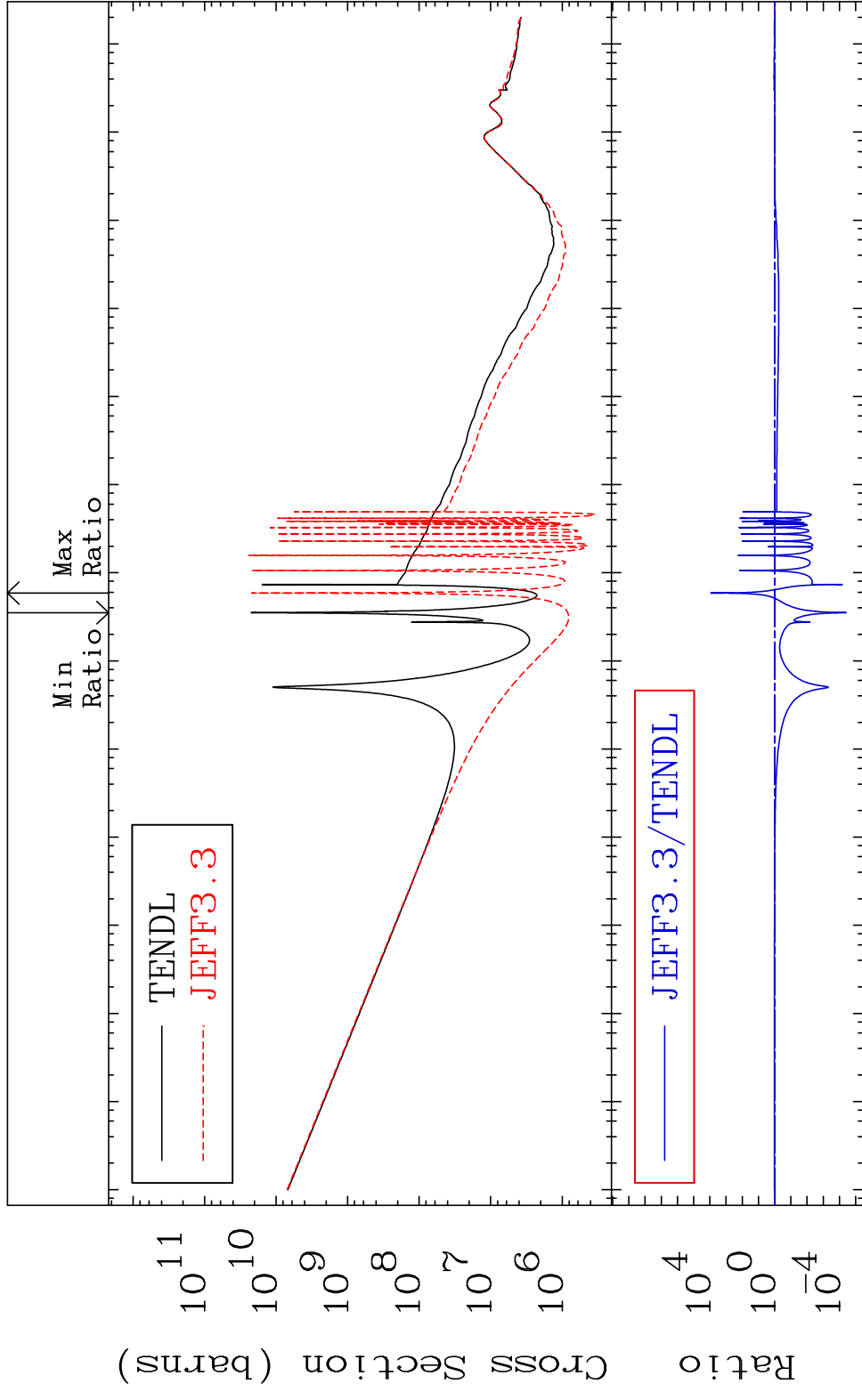


MAT 4428 Kerma capture (mt102) 44-Ru-97  
 Cross Section -100.0 To 9999. %



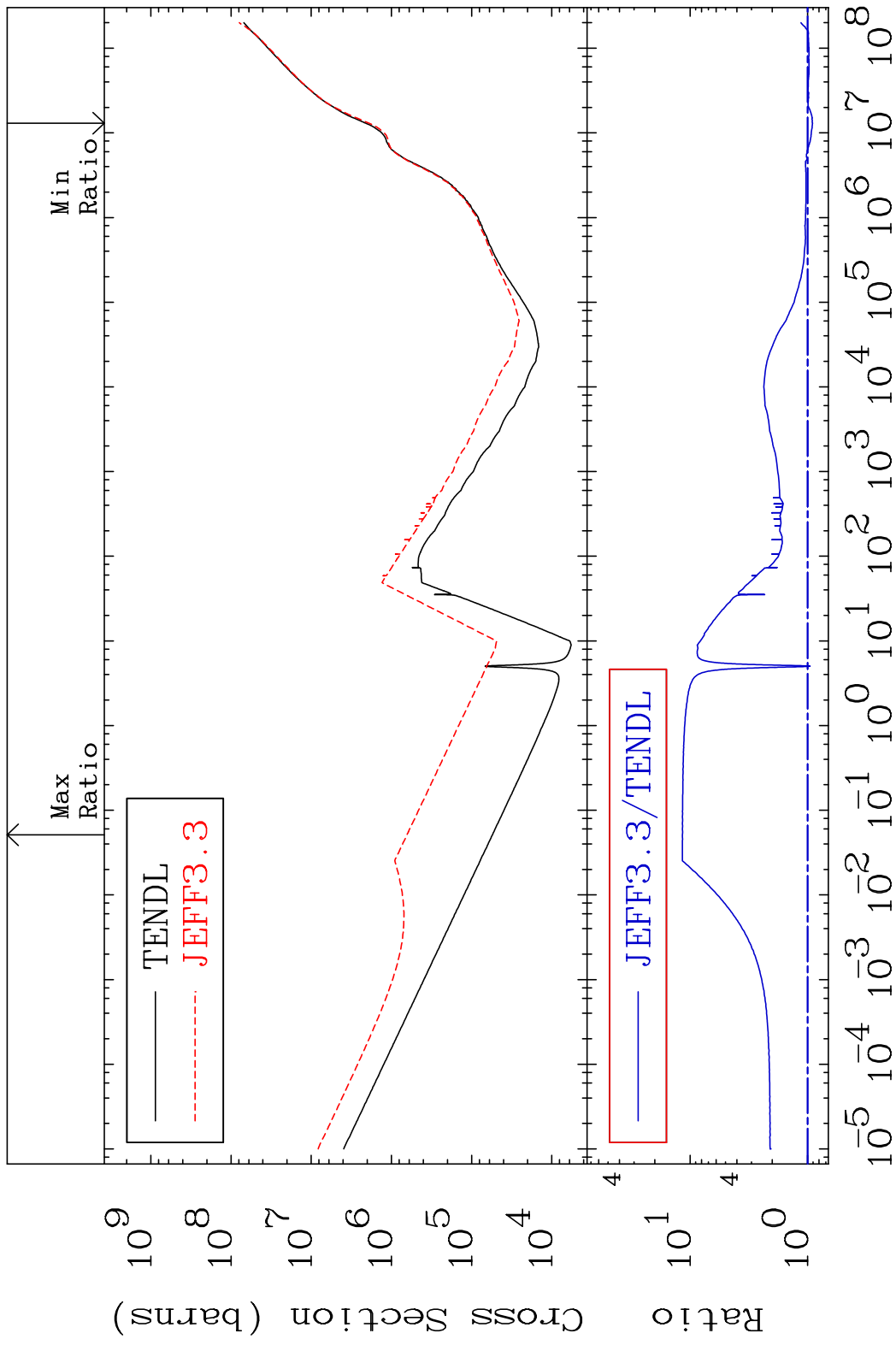
73 Incident Energy (eV) 44-Ru-97

MAT 4428 Total photon (eV-barns) 44-Ru-97  
 Cross Section -100.0 To 9999. %

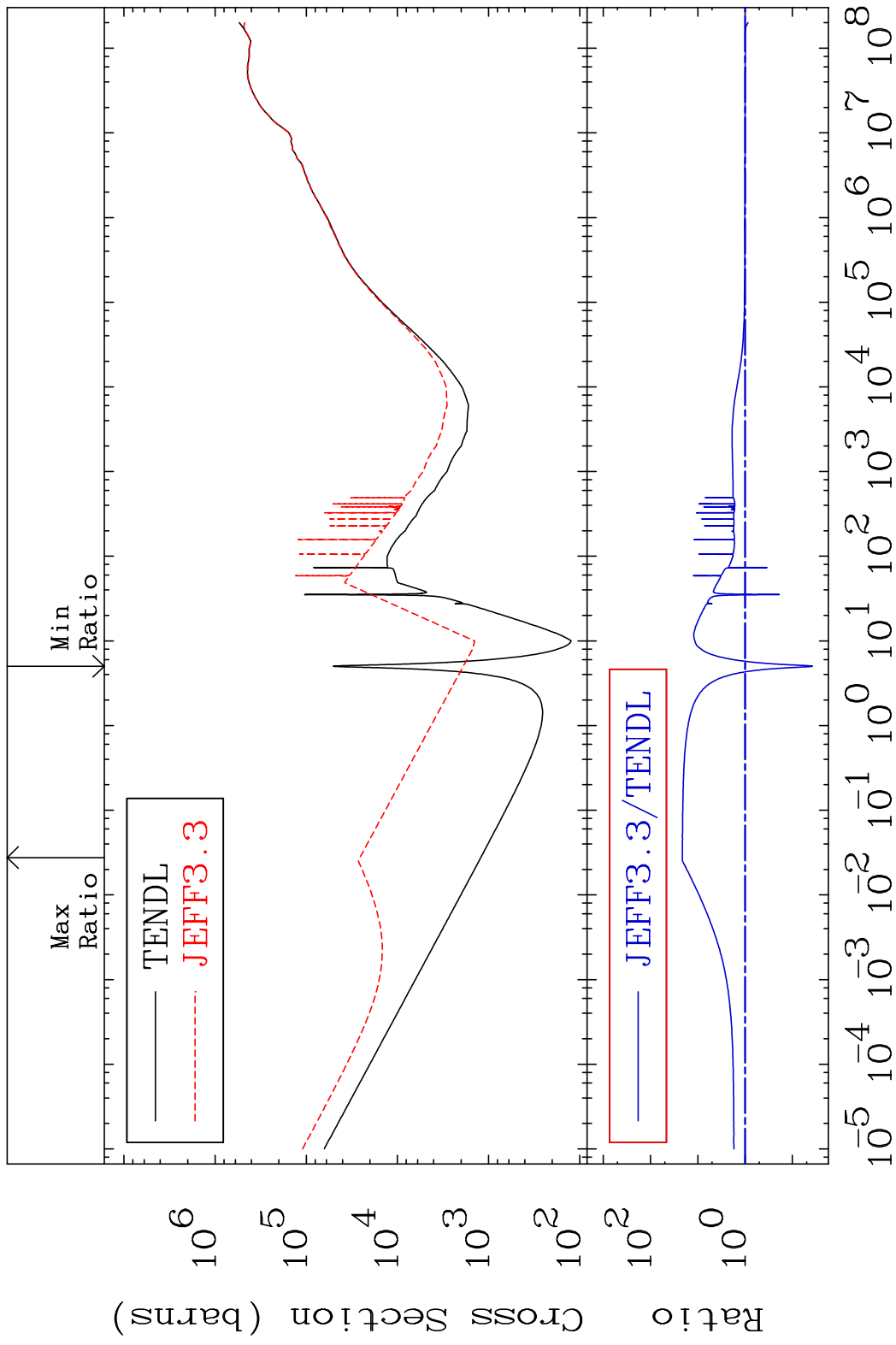


74 Incident Energy (eV) 44-Ru-97

MAT 4428 Total kinematic kerma (high limit) 44-Ru-97  
 Cross Section -9.225 To 1065. %



MAT 4428      Dpa total (eV-barns)      44-Ru-97  
 Cross Section      -96.26 To 2021. %

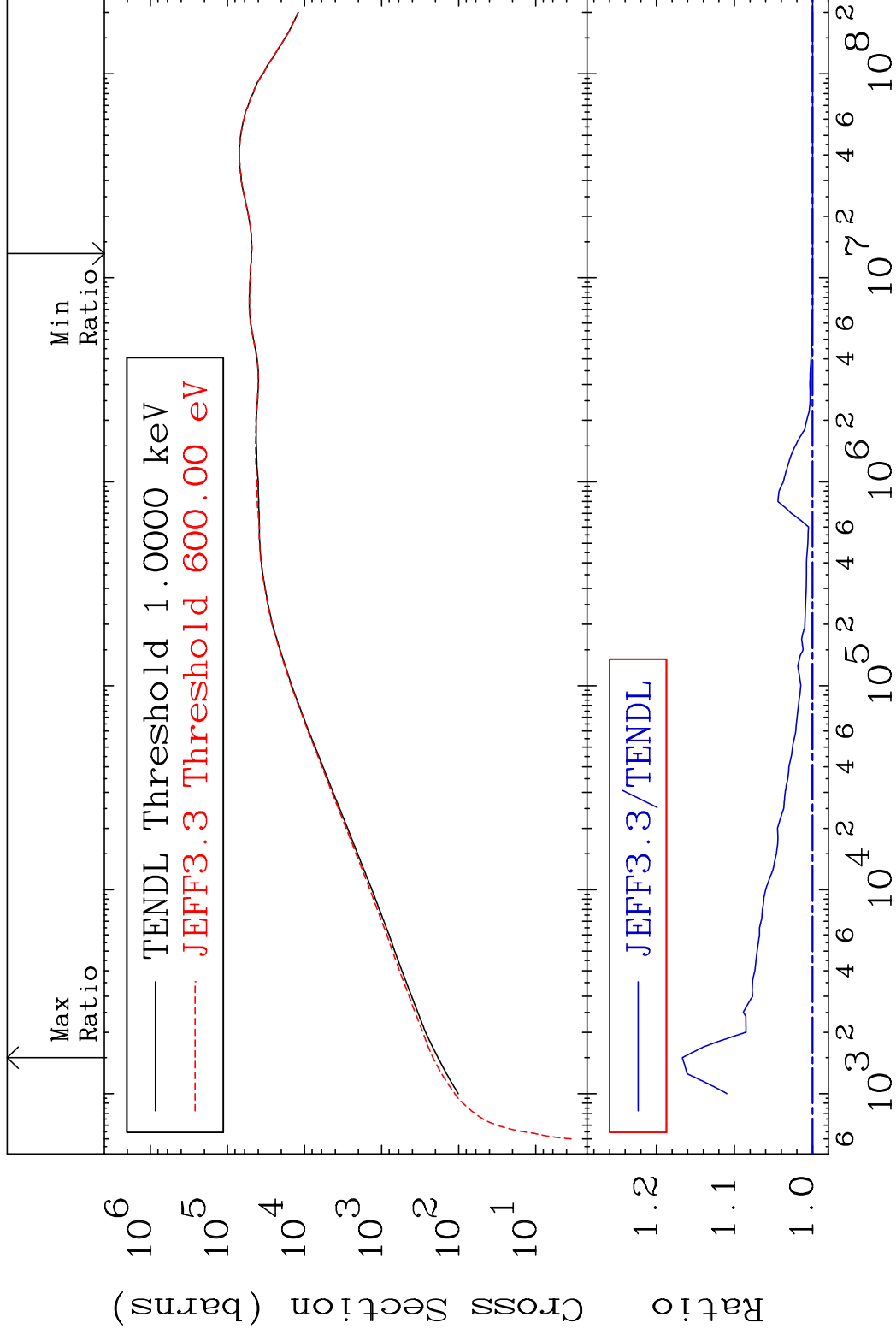


MAT 4428

Dpa elastic (mt2)

44-Ru-97

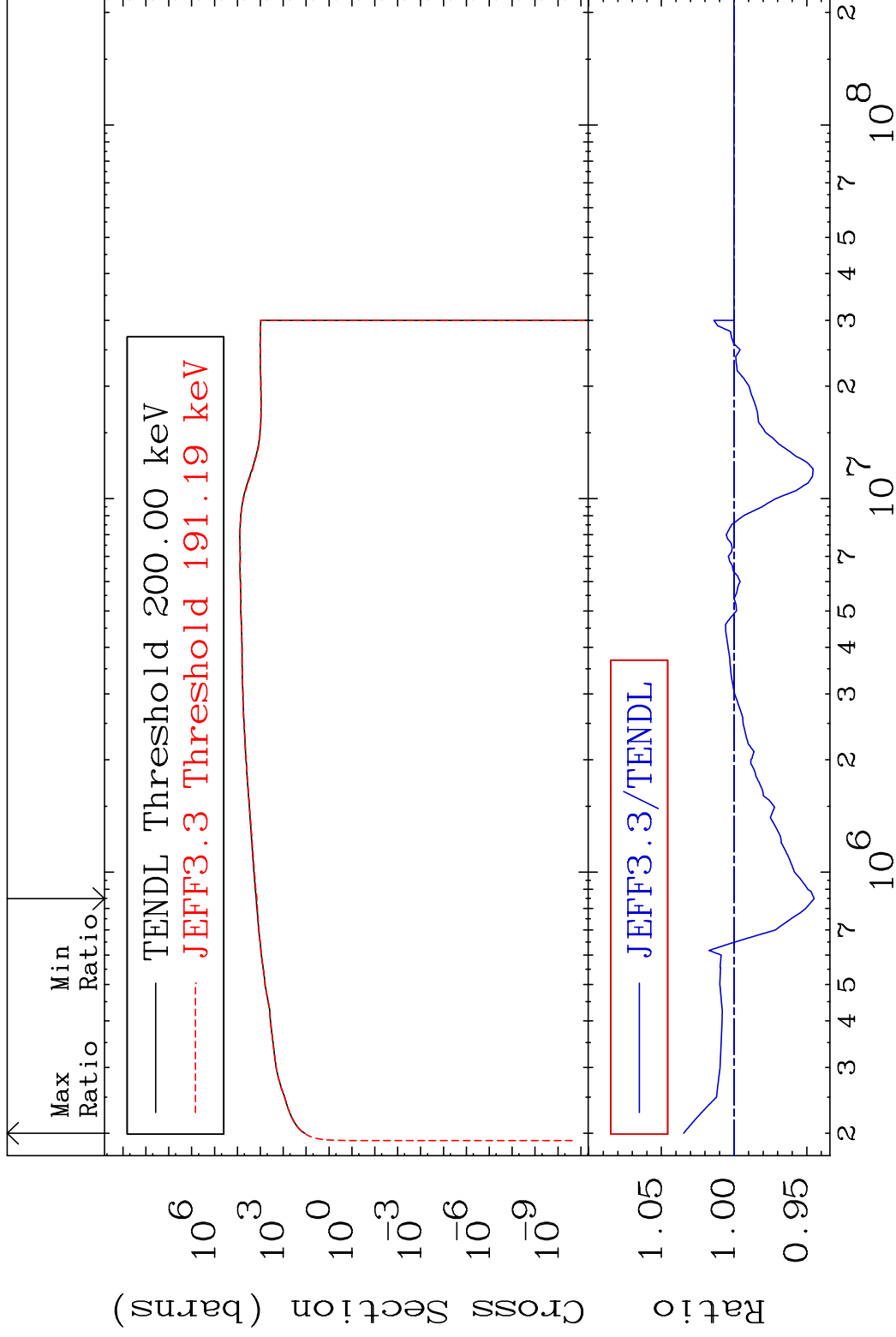
Cross Section -0.001 To 16.68 %



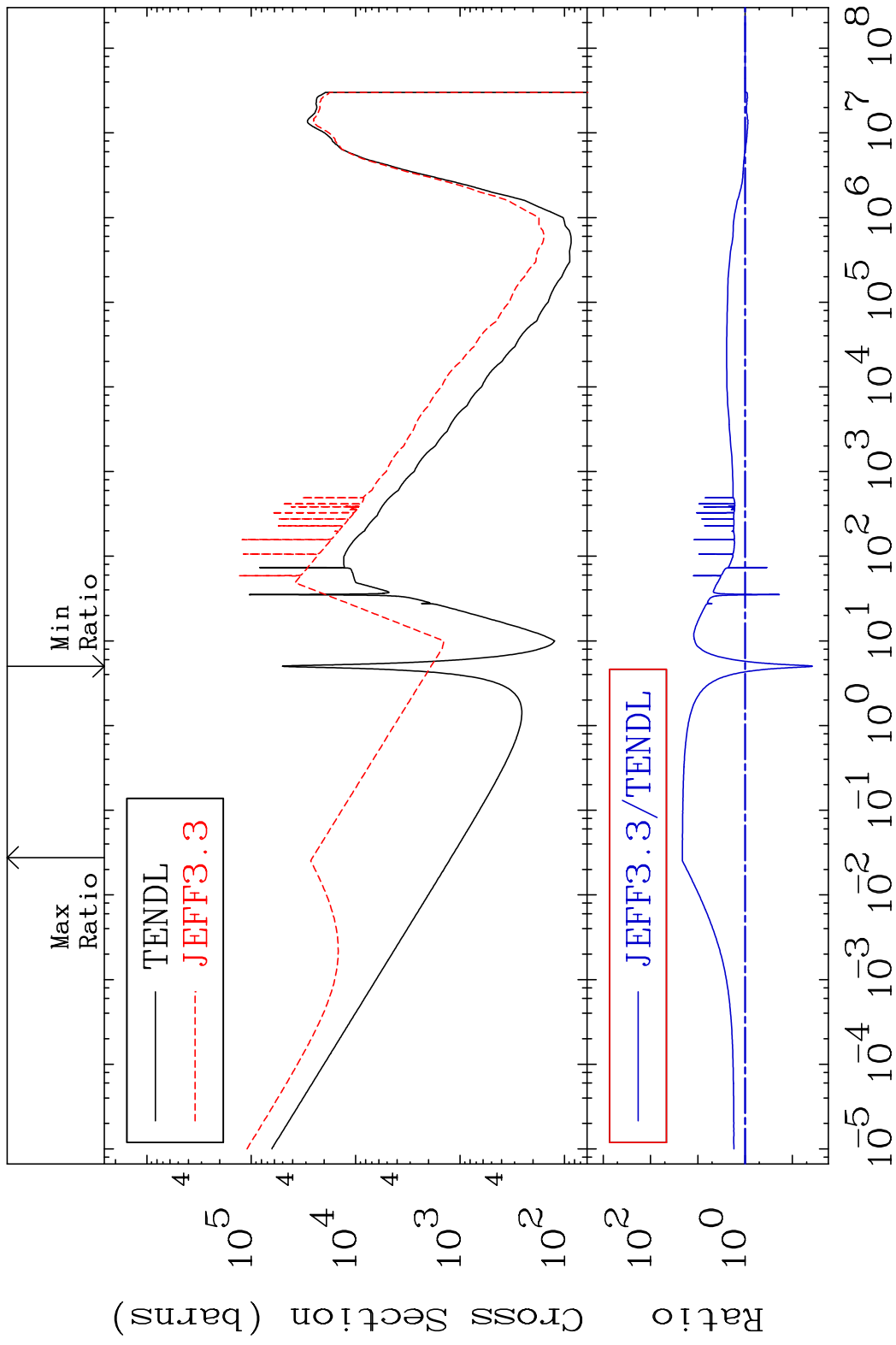
77

Incident Energy (eV)

44-Ru-97

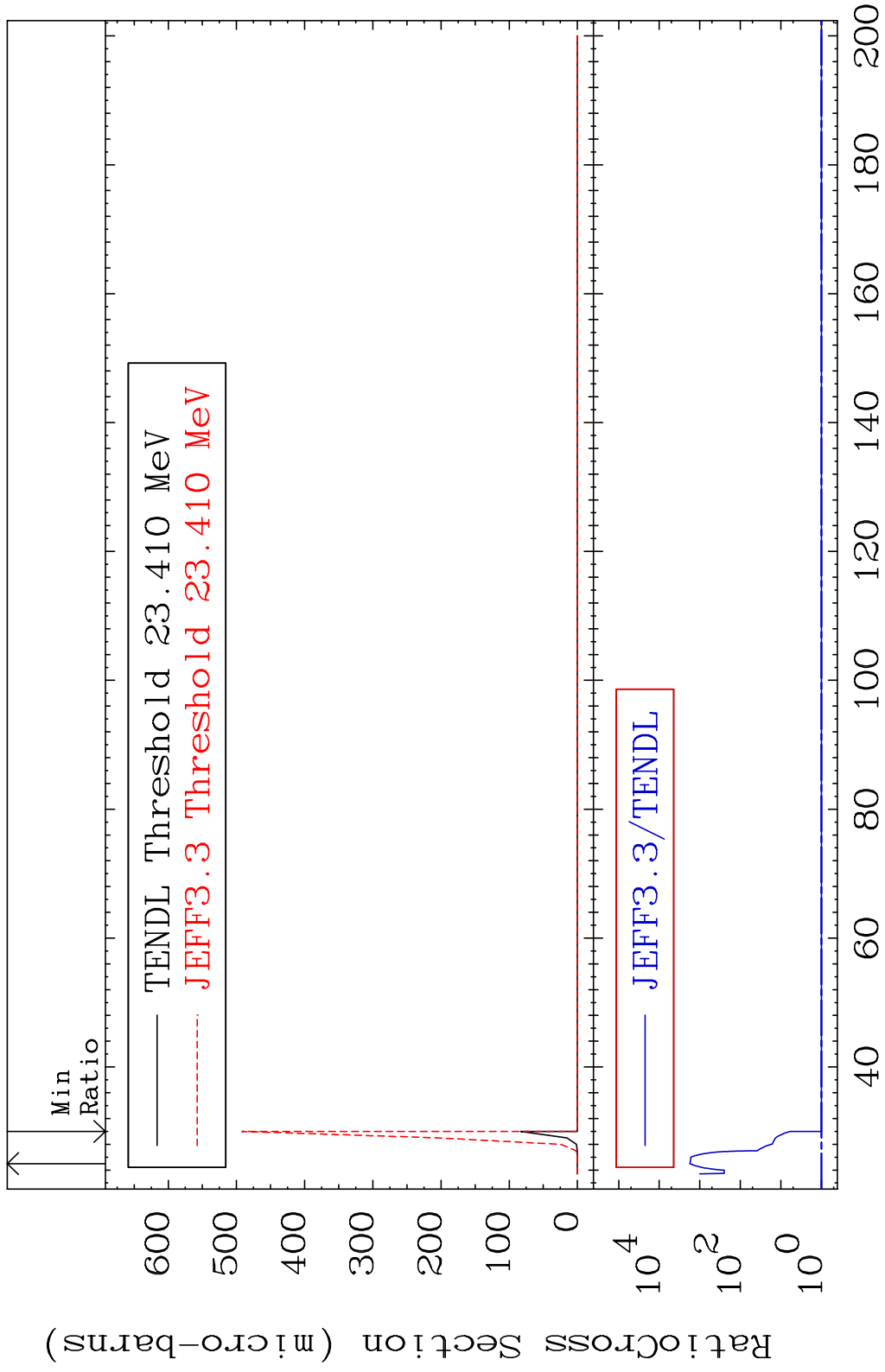


MAT 4428 Dpa disappearance (mt102 -120) 44-Ru-97  
 Cross Section -96.26 To 2021. %

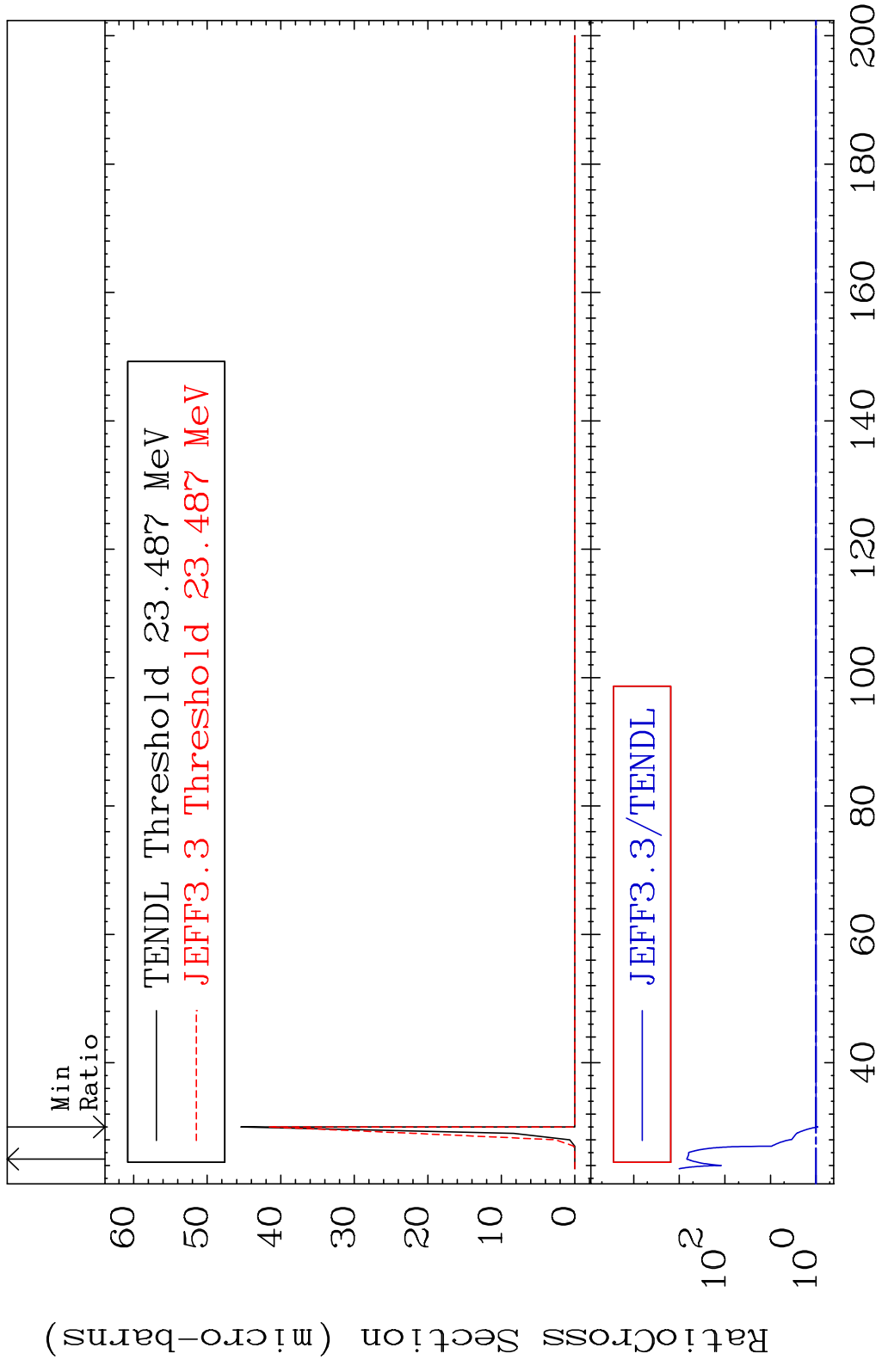


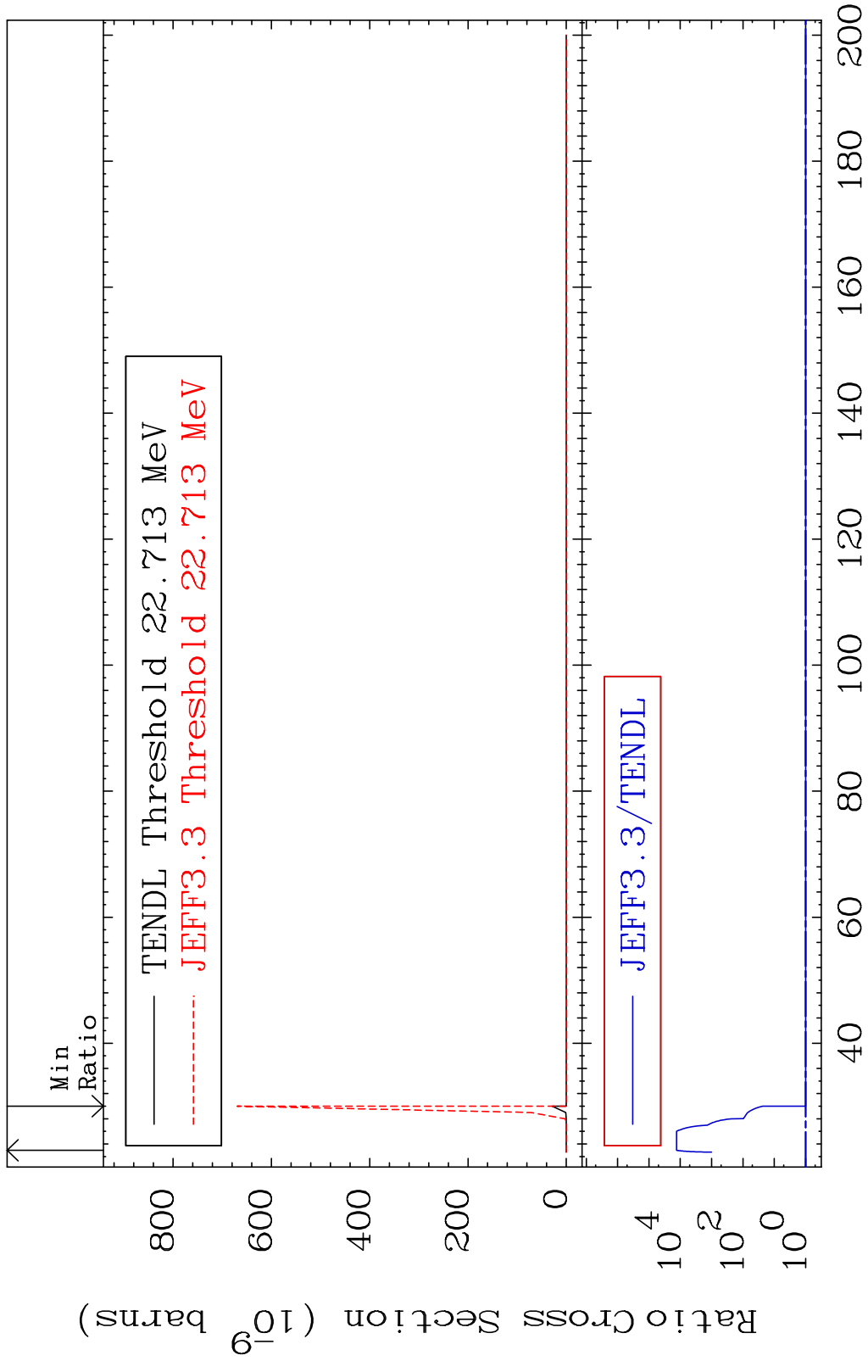


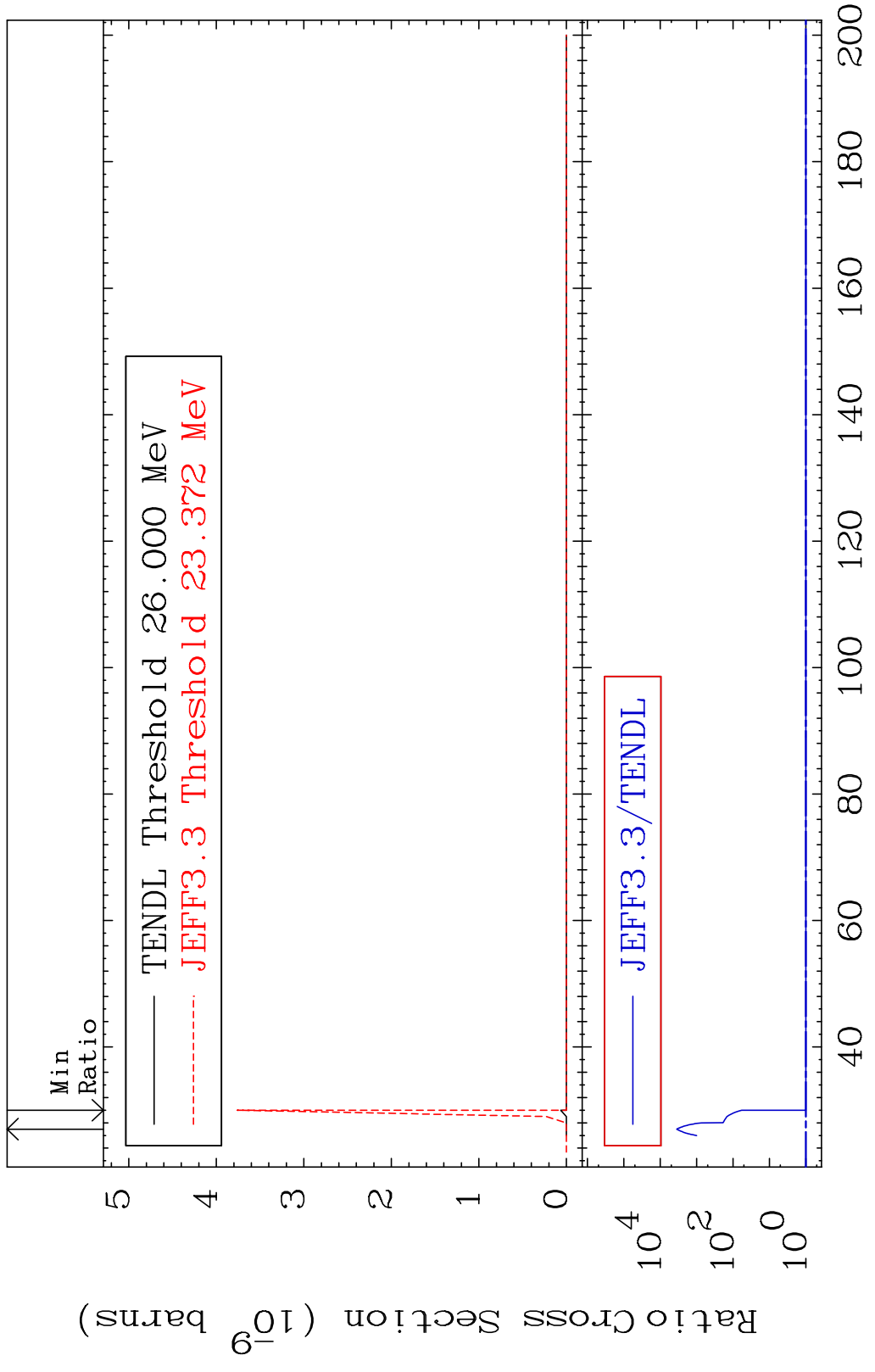
MAT 4428 (n,2n) d:43-Tc-94g 44-Ru-97  
 Radionuclide Production Cross Section 9999. %



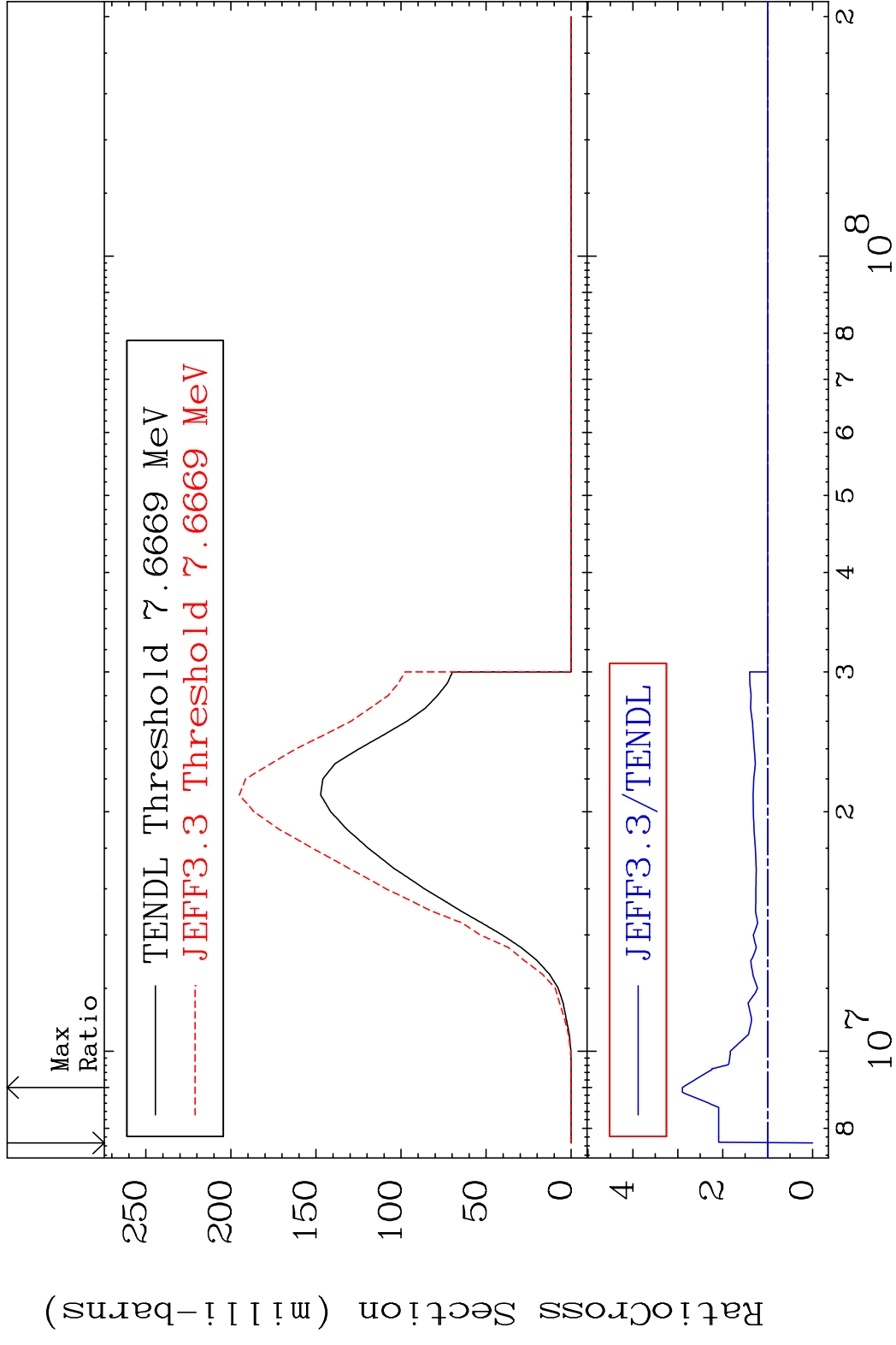
80 Incident Energy (MeV) 44-Ru-97



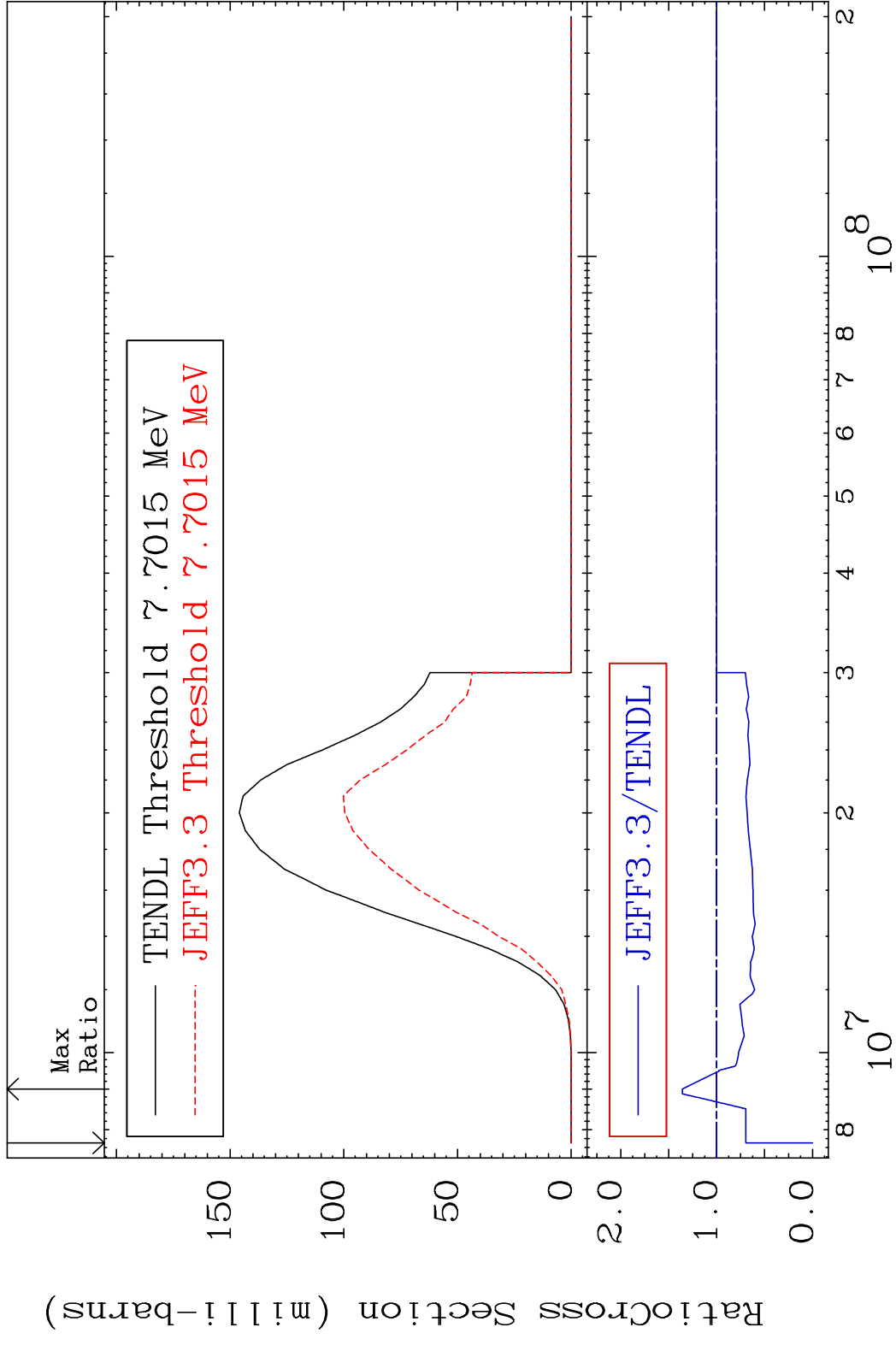


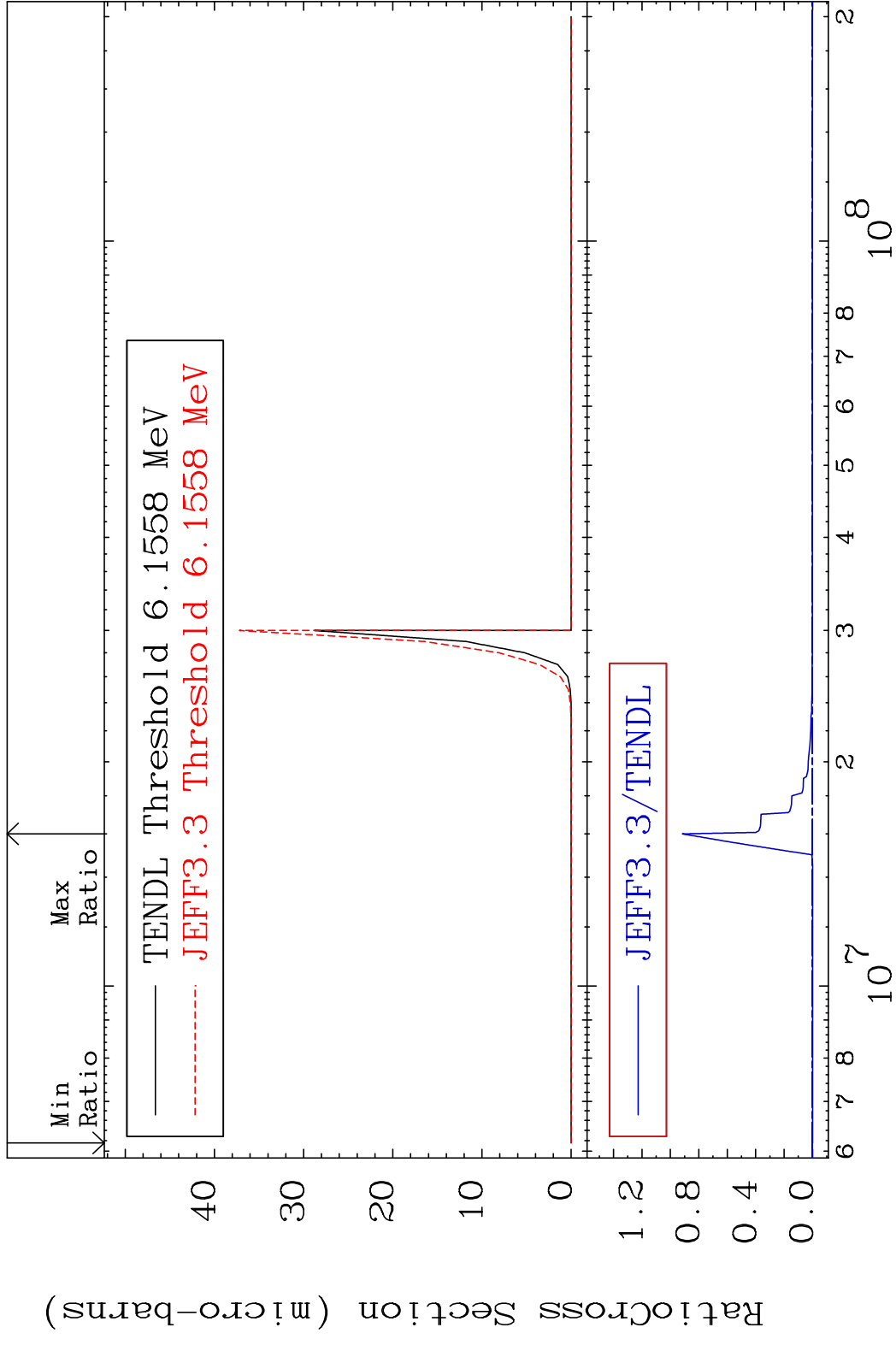


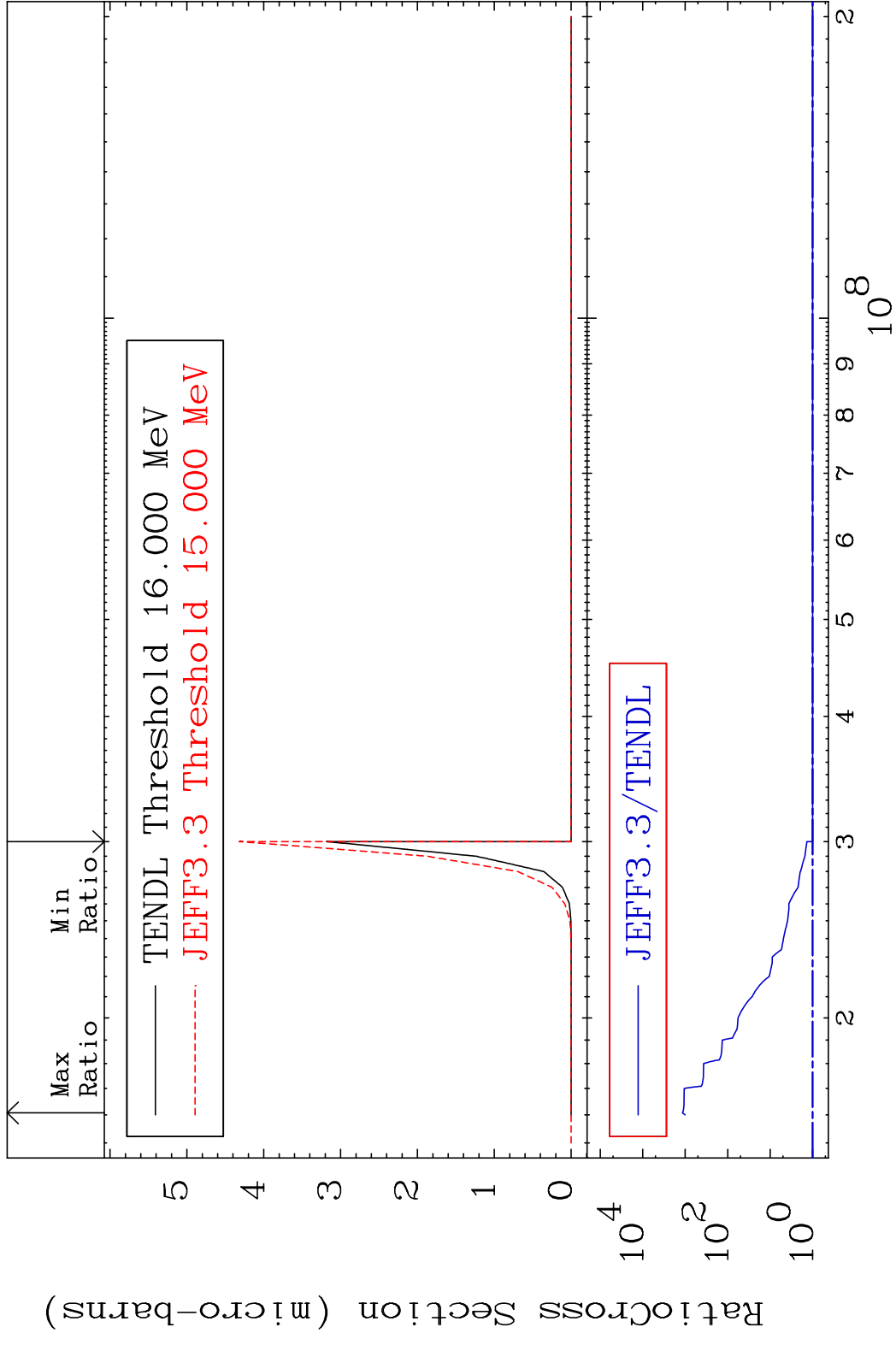
MAT 4428 (n, n') p:43-Tc-96g 44-Ru-97  
 Radionuclide Production Cross Section 189.8 %



MAT 4428 (n, n') p:43-Tc-96m1 44-Ru-97  
 Radionuclide Production Cross Section 180.01 d10 35.75 %

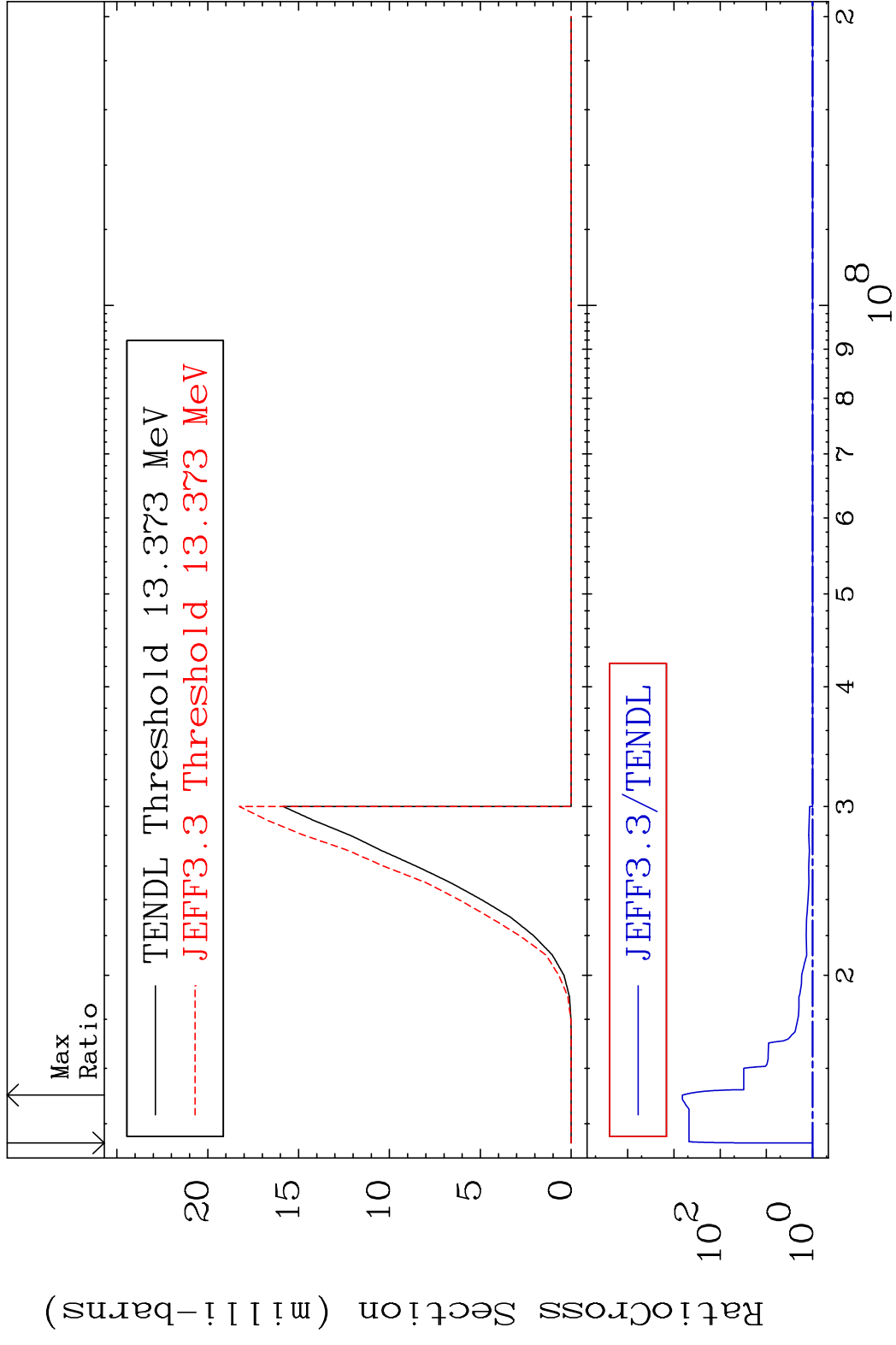


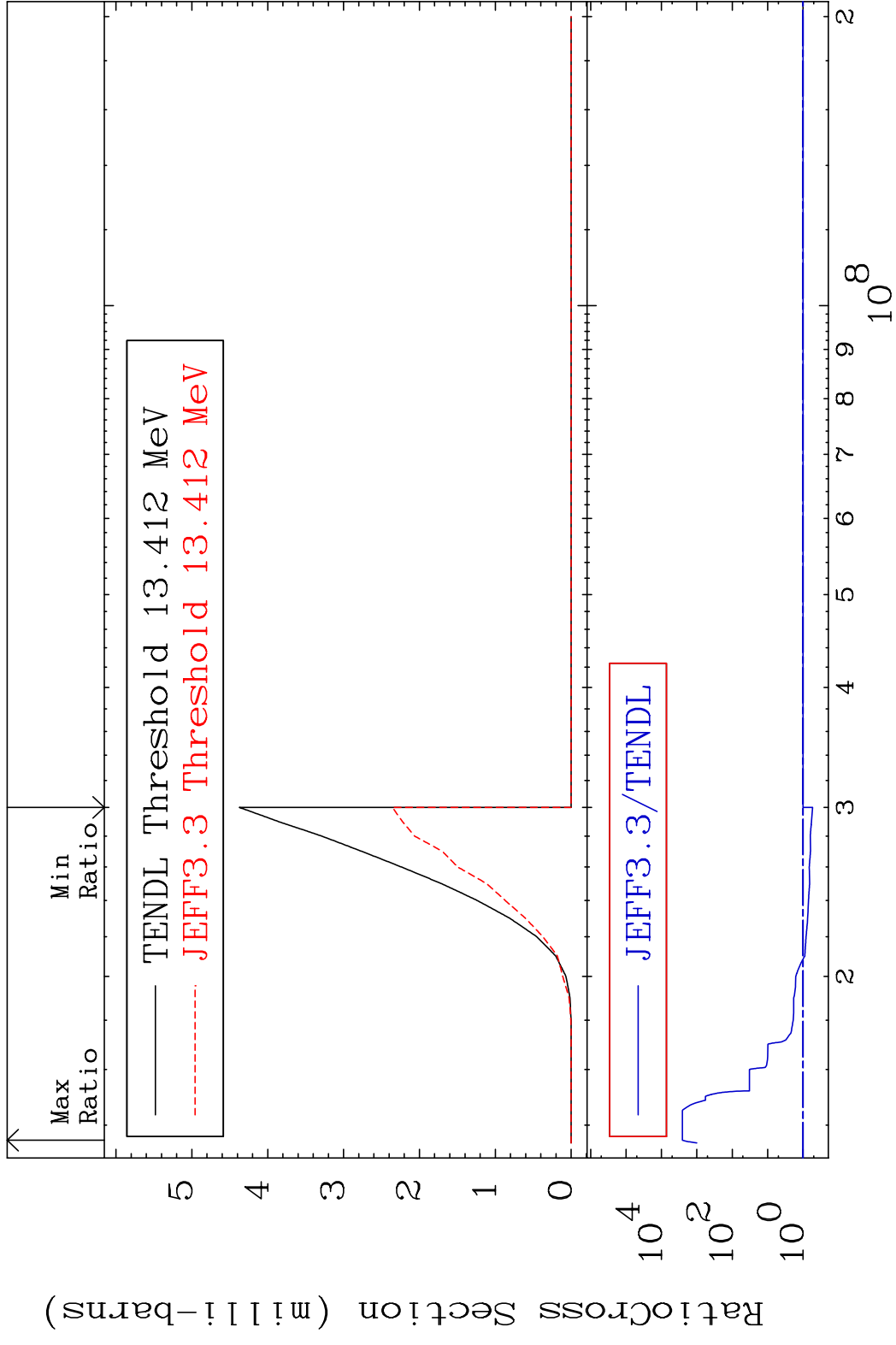




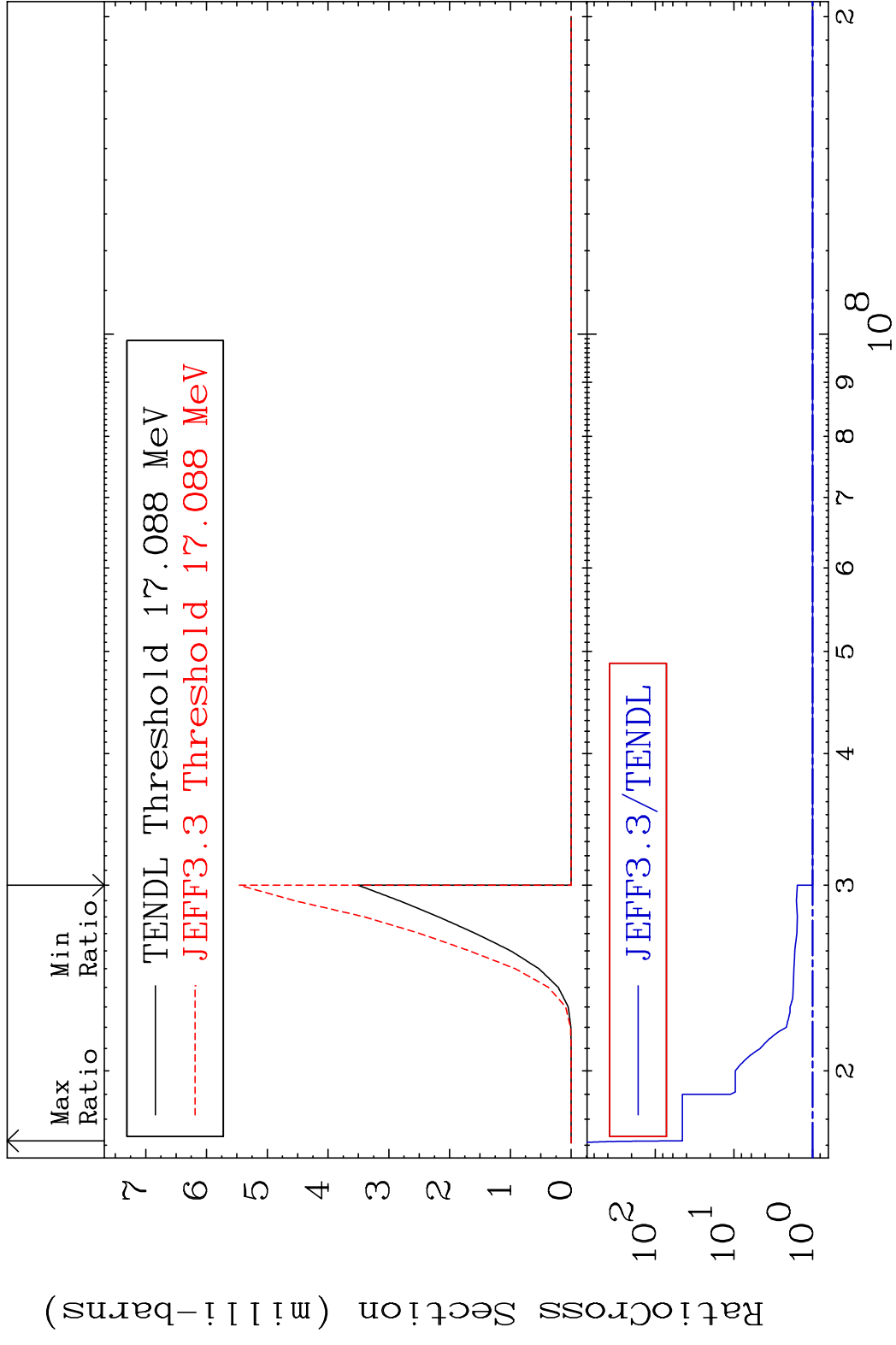


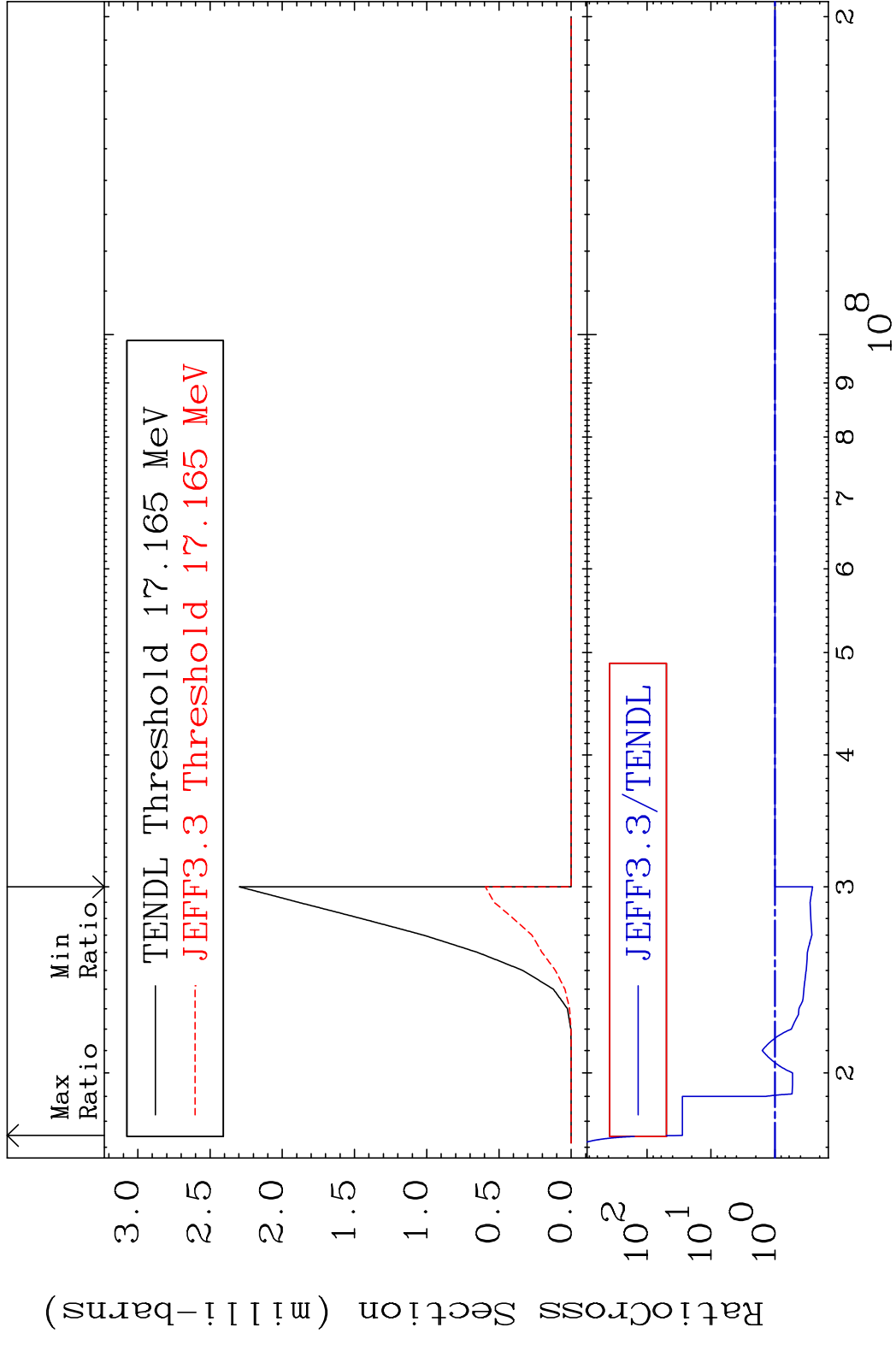
MAT 4428 (n, n') d:43-Tc-95g 44-Ru-97  
 Radionuclide Production Cross Section 9999. %



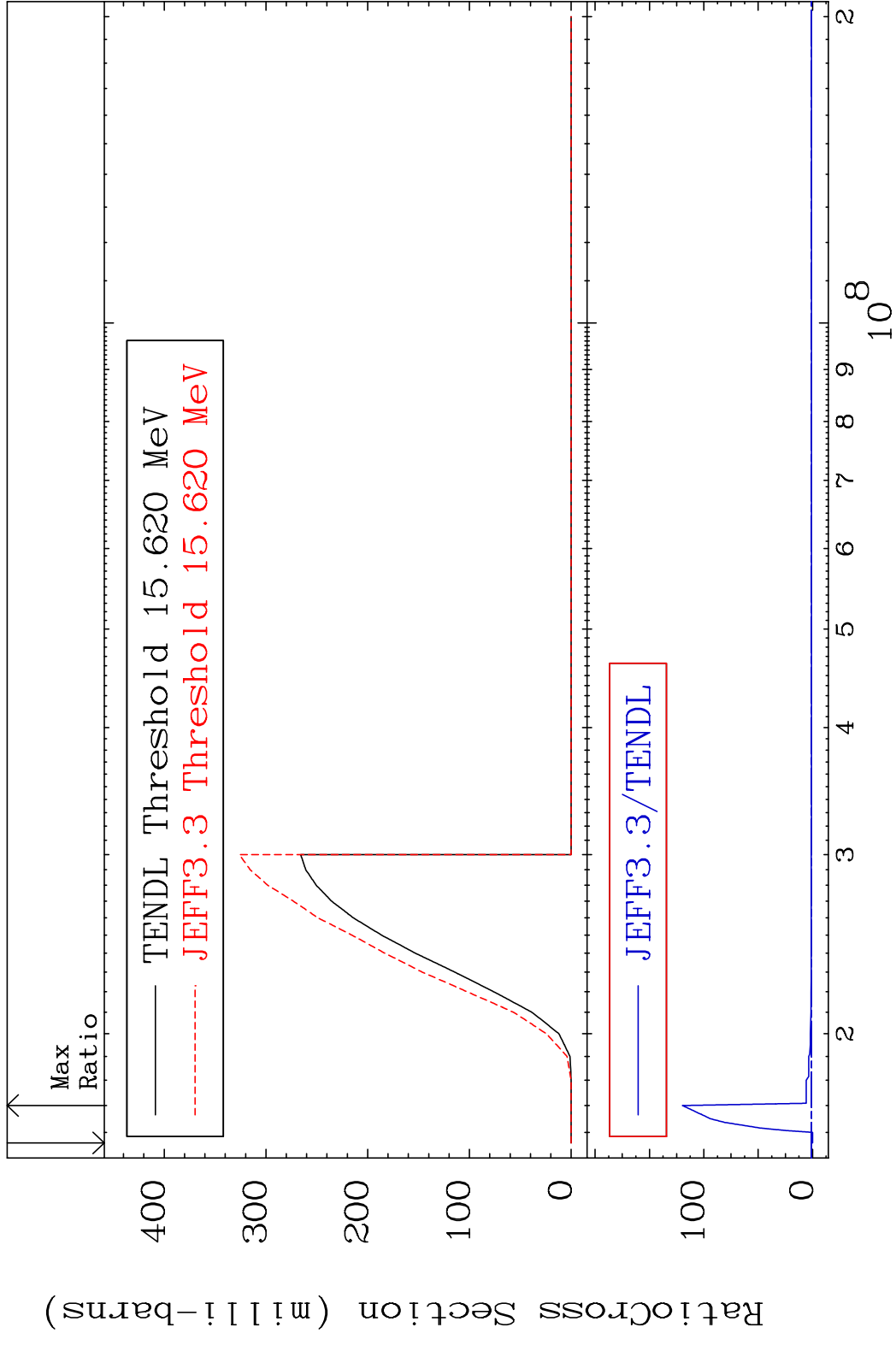


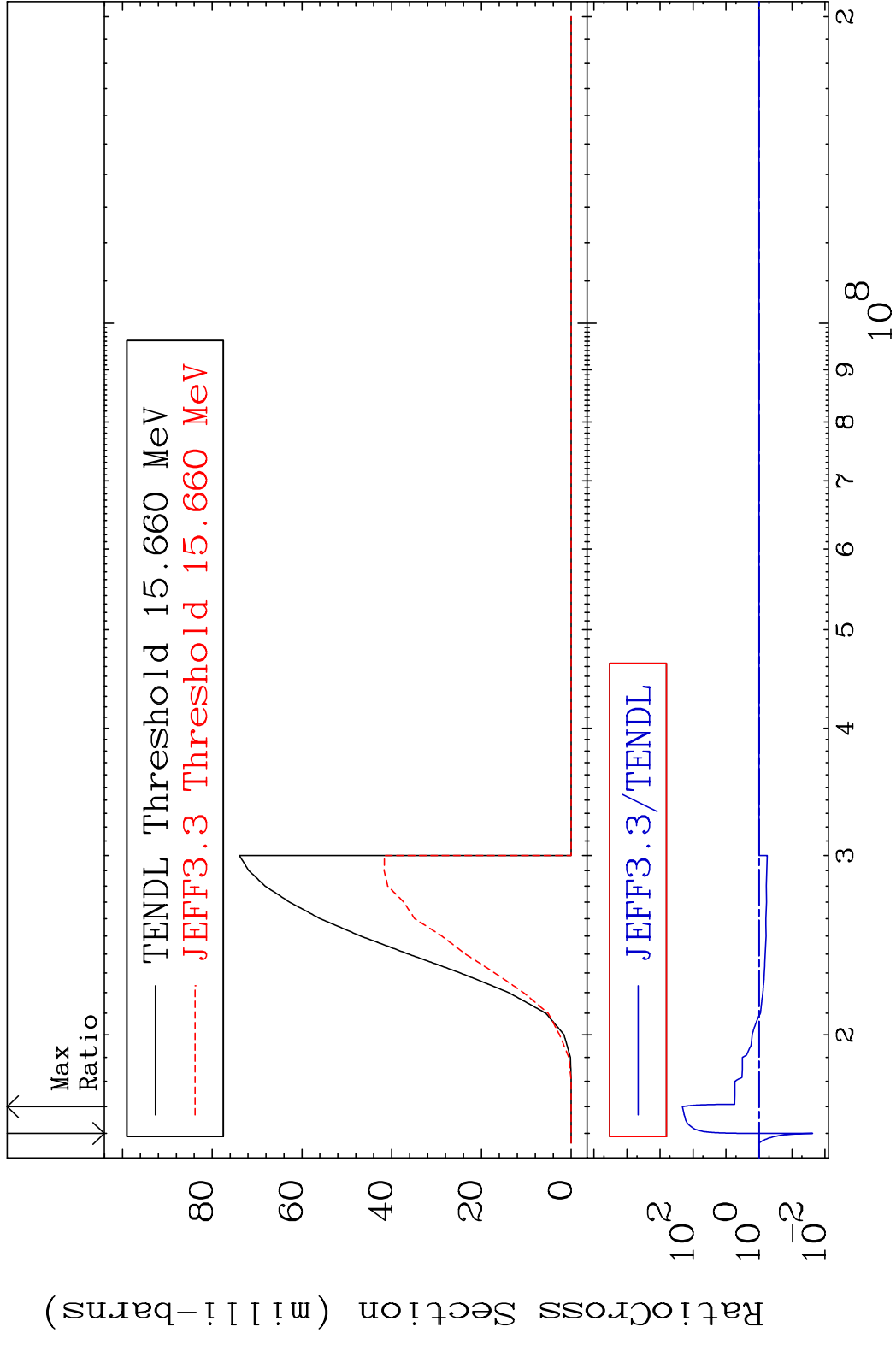
MAT 4428 (n, n') t:43-Tc-94g 44-Ru-97  
 Radionuclide Production Cross Section 4424. %

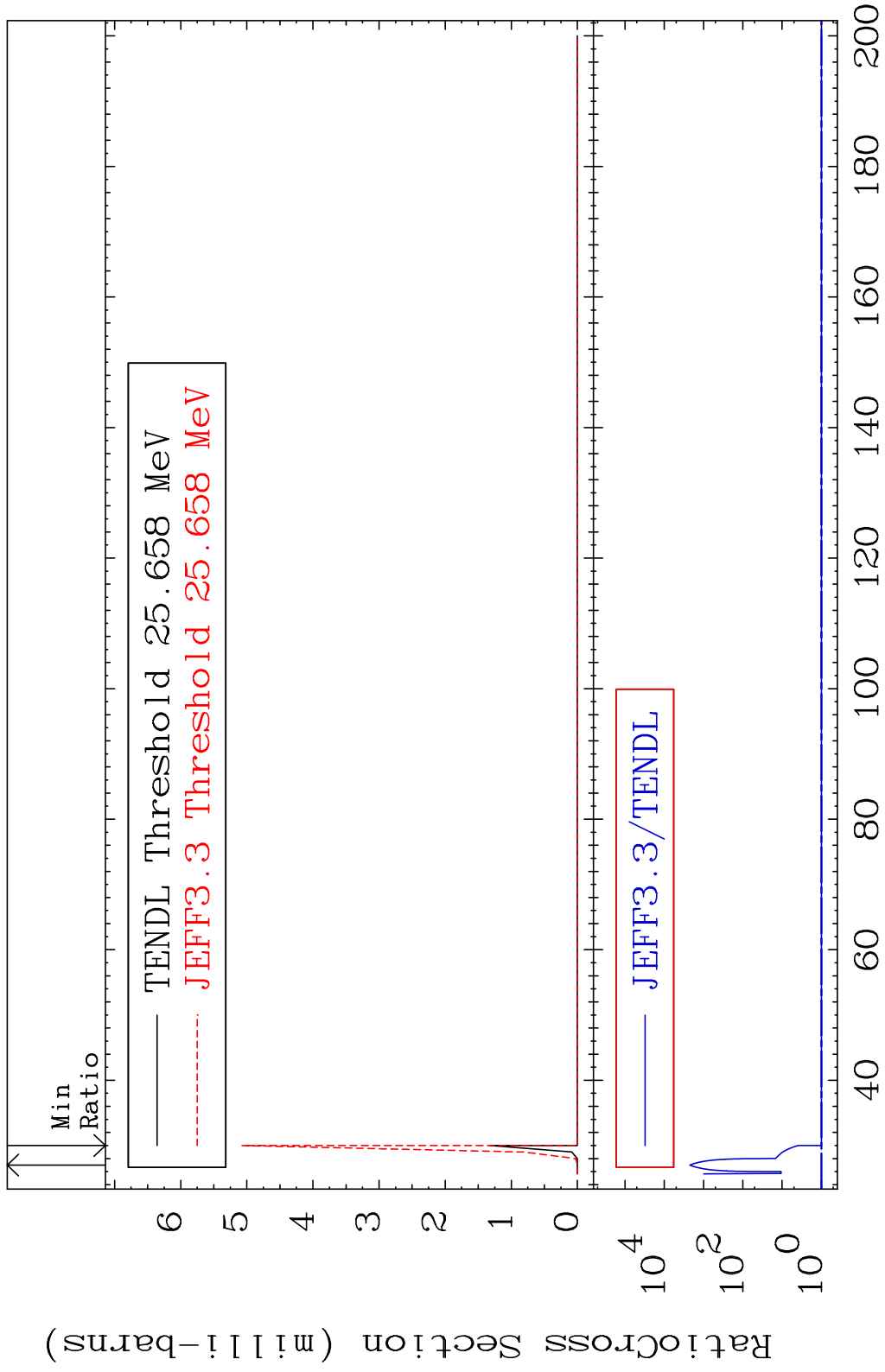


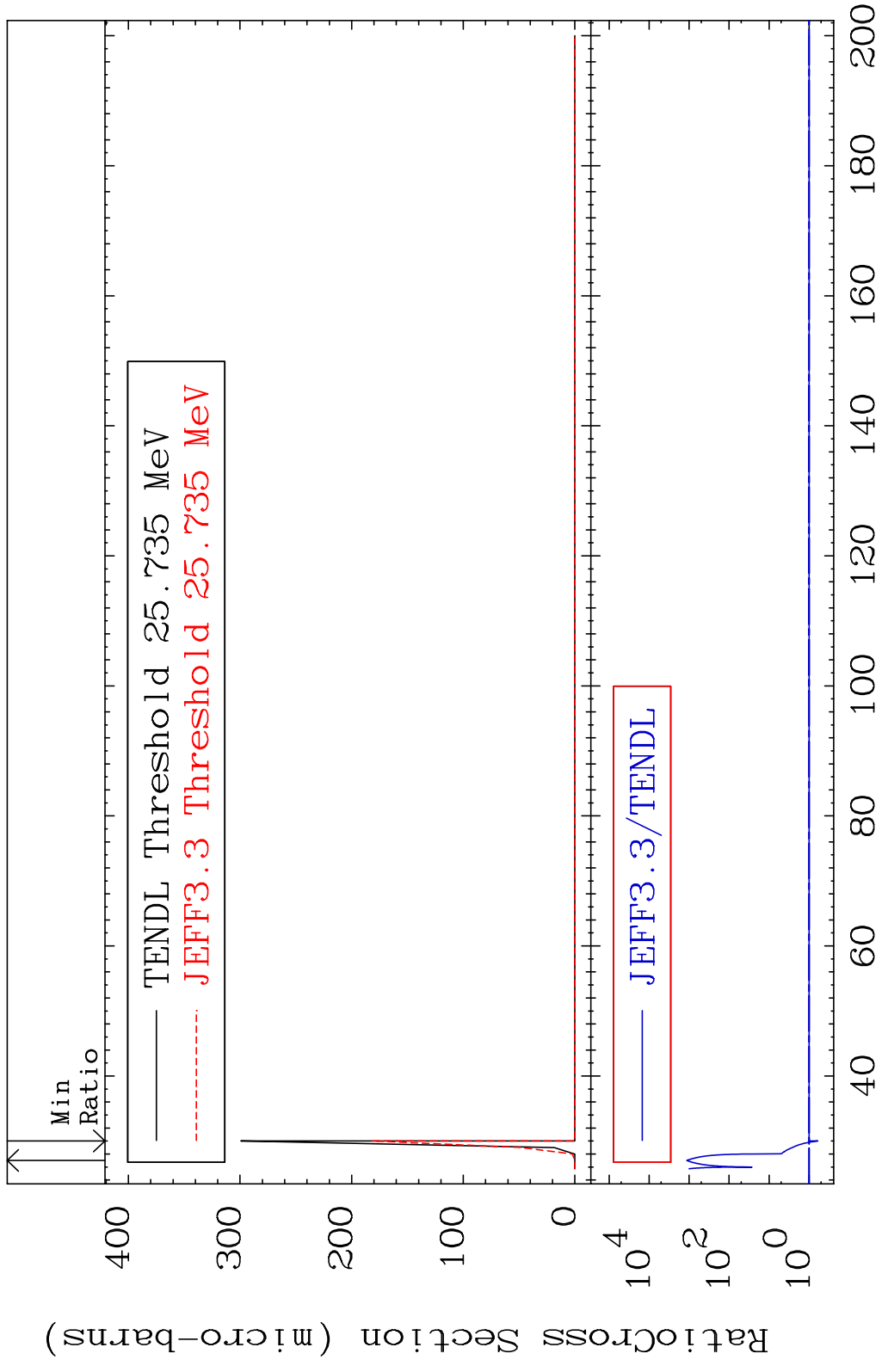


MAT 4428 (n,2n) p:43-Tc-95g 44-Ru-97  
 Radionuclide Production Cross Section Ratio

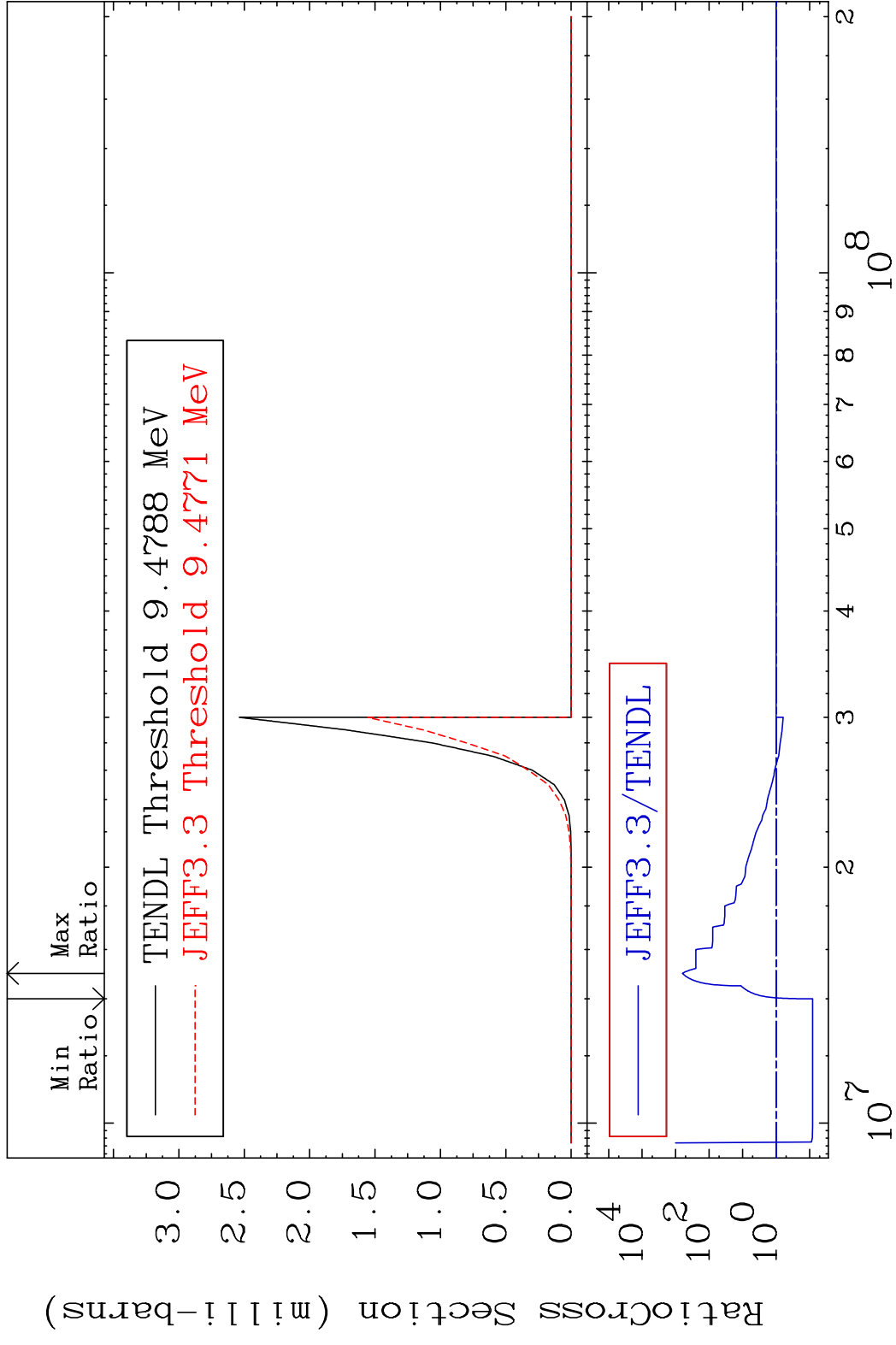




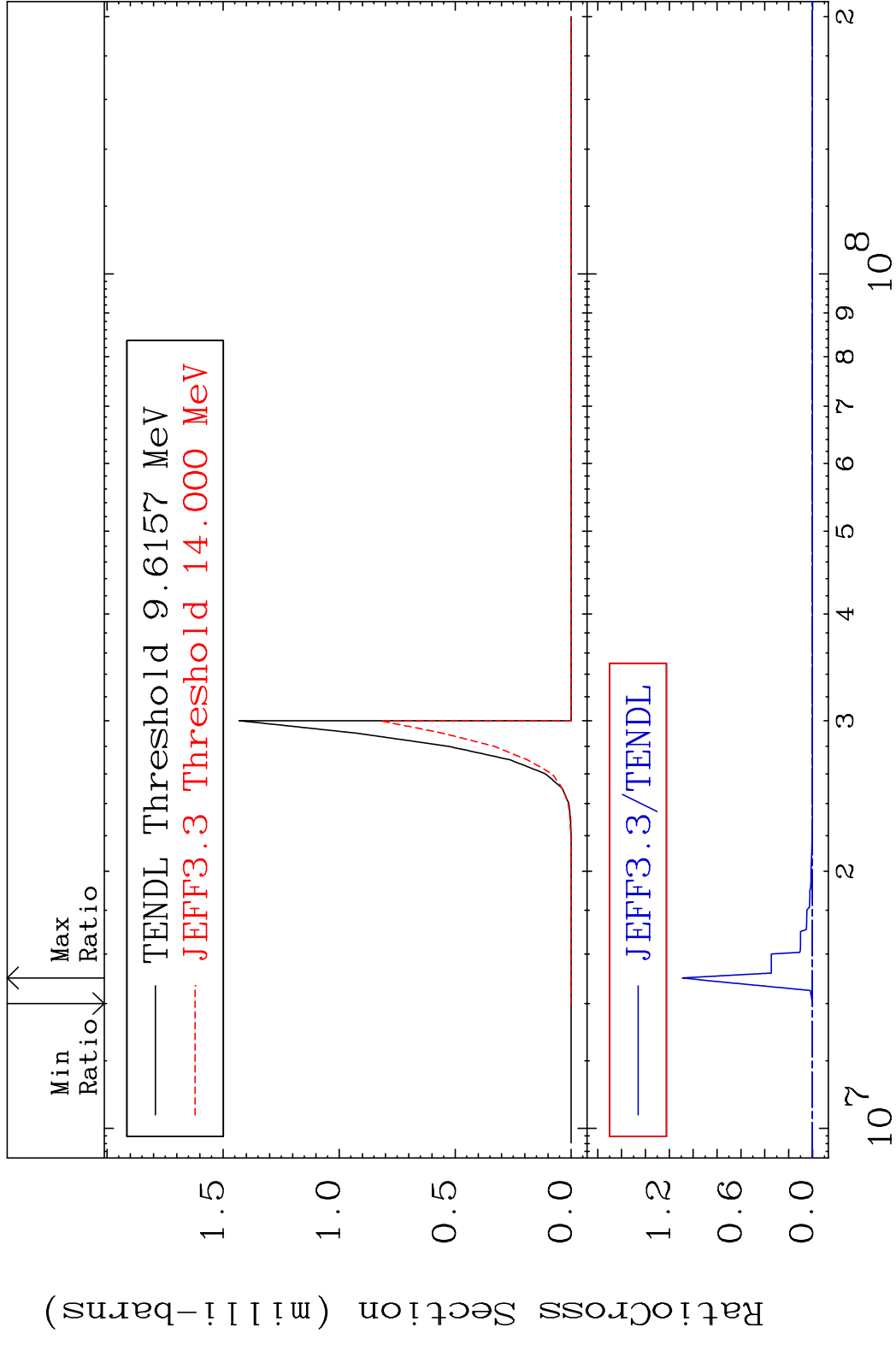




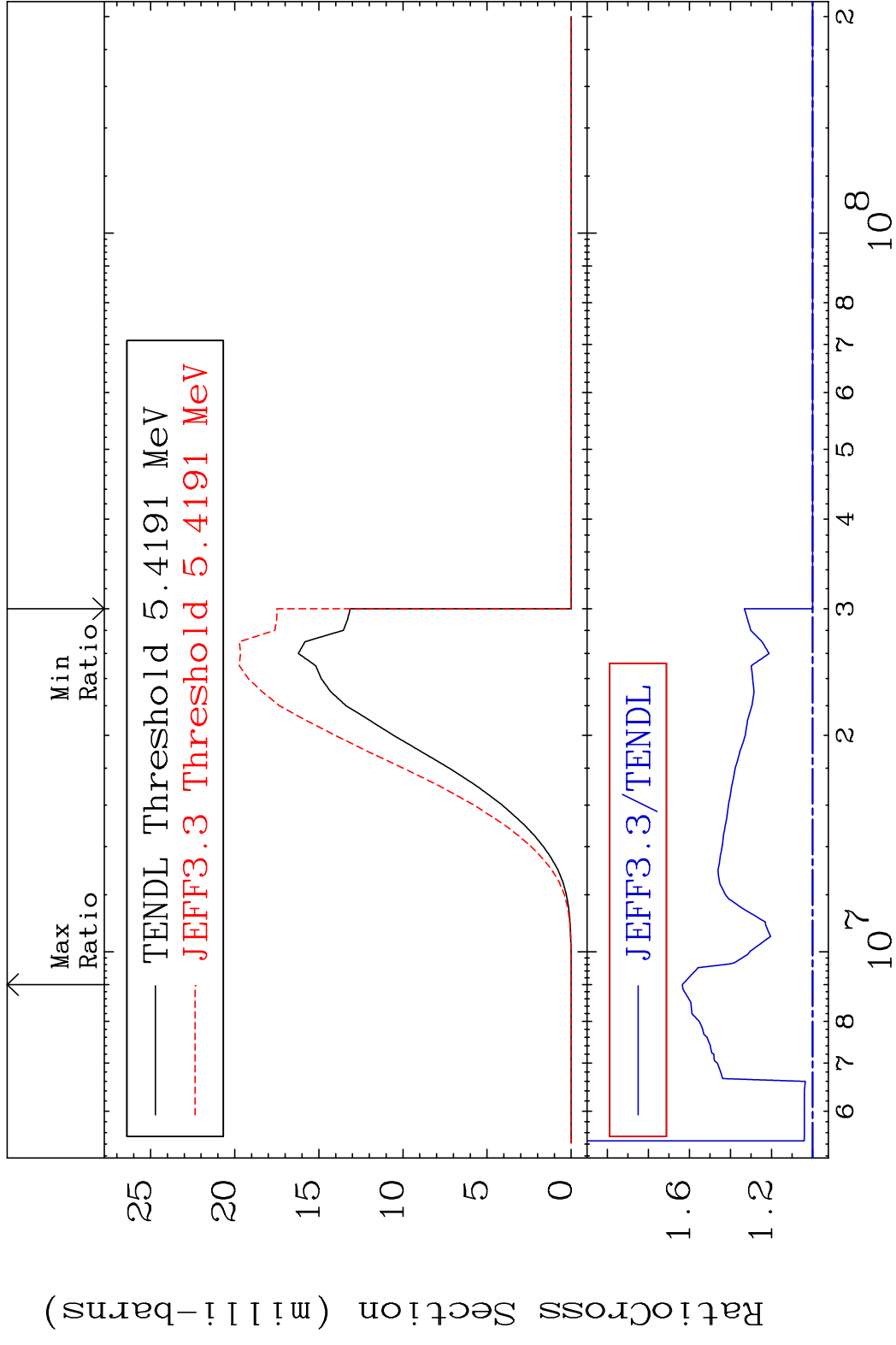




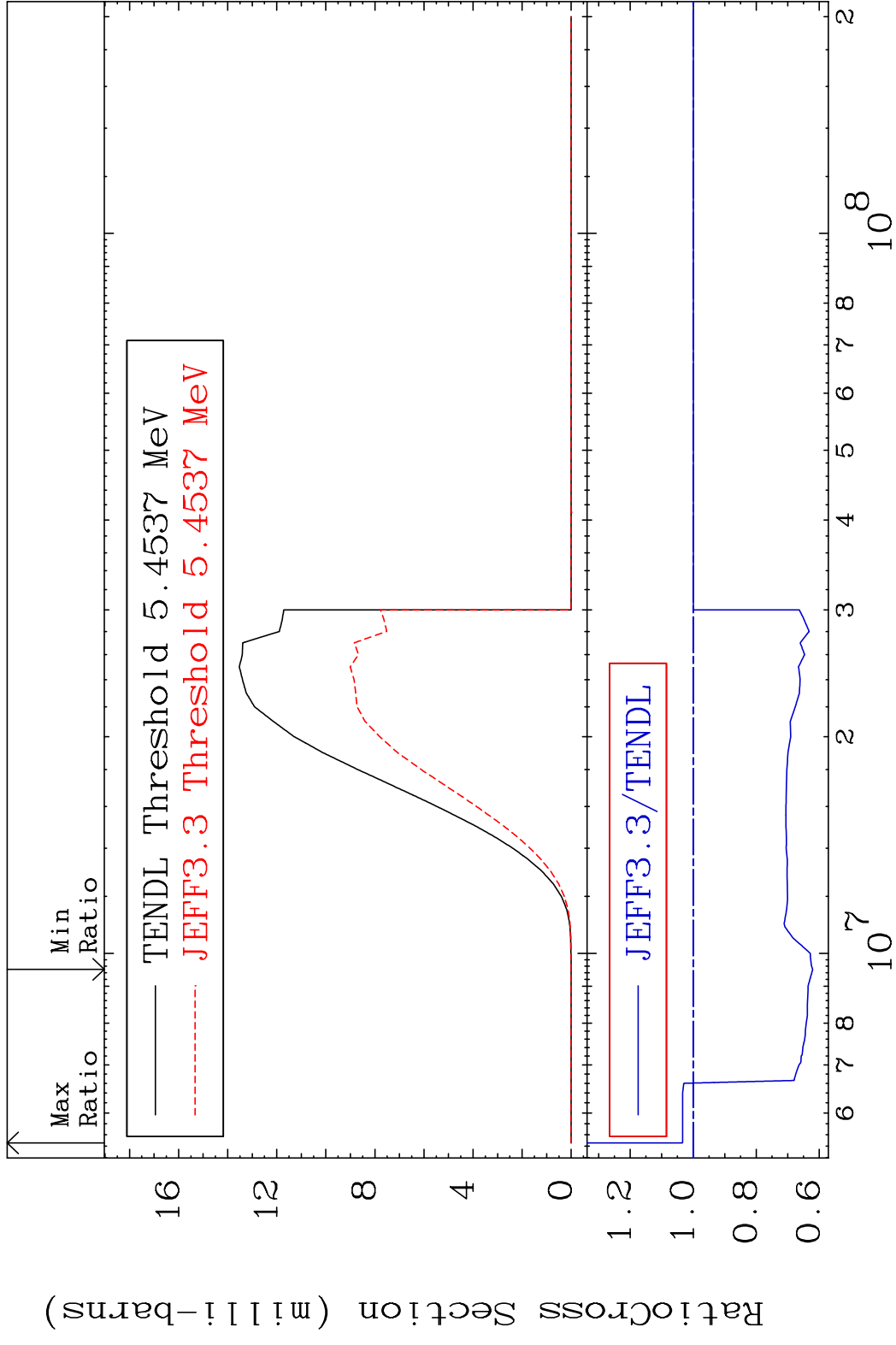
MAT 4428 (n, n') p  $\alpha$ : 41-Nb-92m1 44-Ru-97  
 Radionuclide Production Cross Section 100.00 dth 9999. %



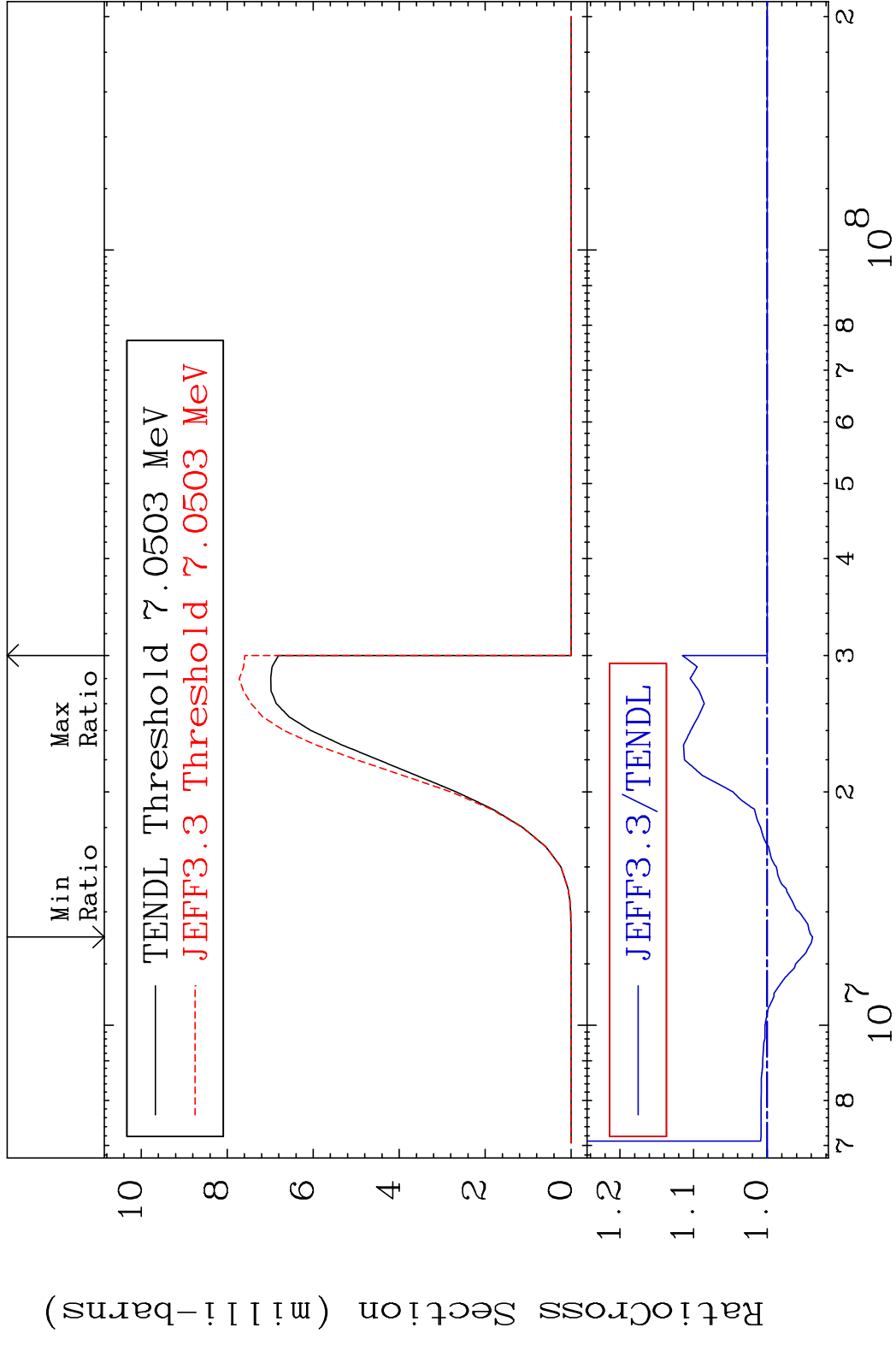
97 Incident Energy (eV) 44-Ru-97



MAT 4428 (n,d):43-Tc-96m1 44-Ru-97  
 Radionuclide Production Cross Section 3.454 %

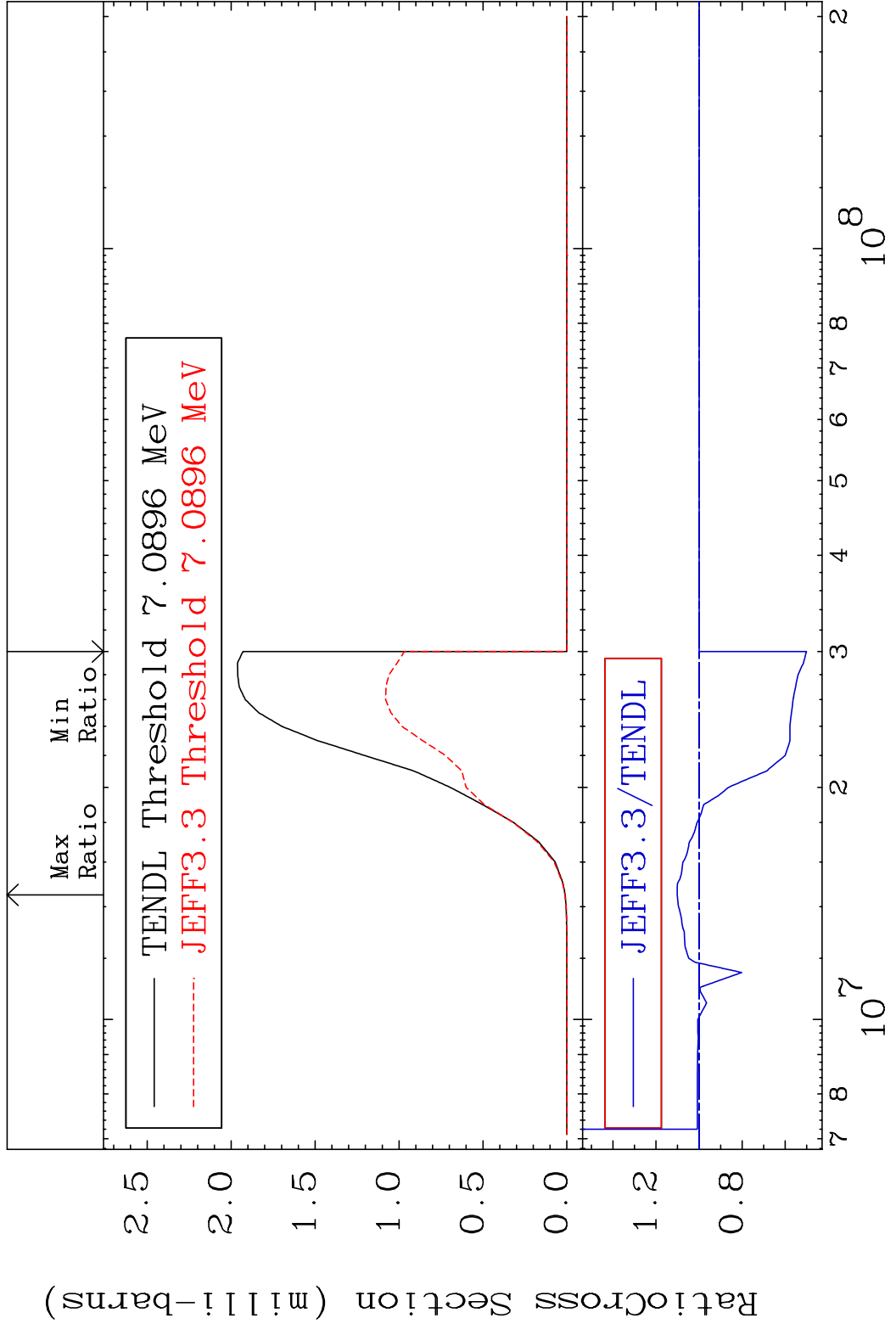


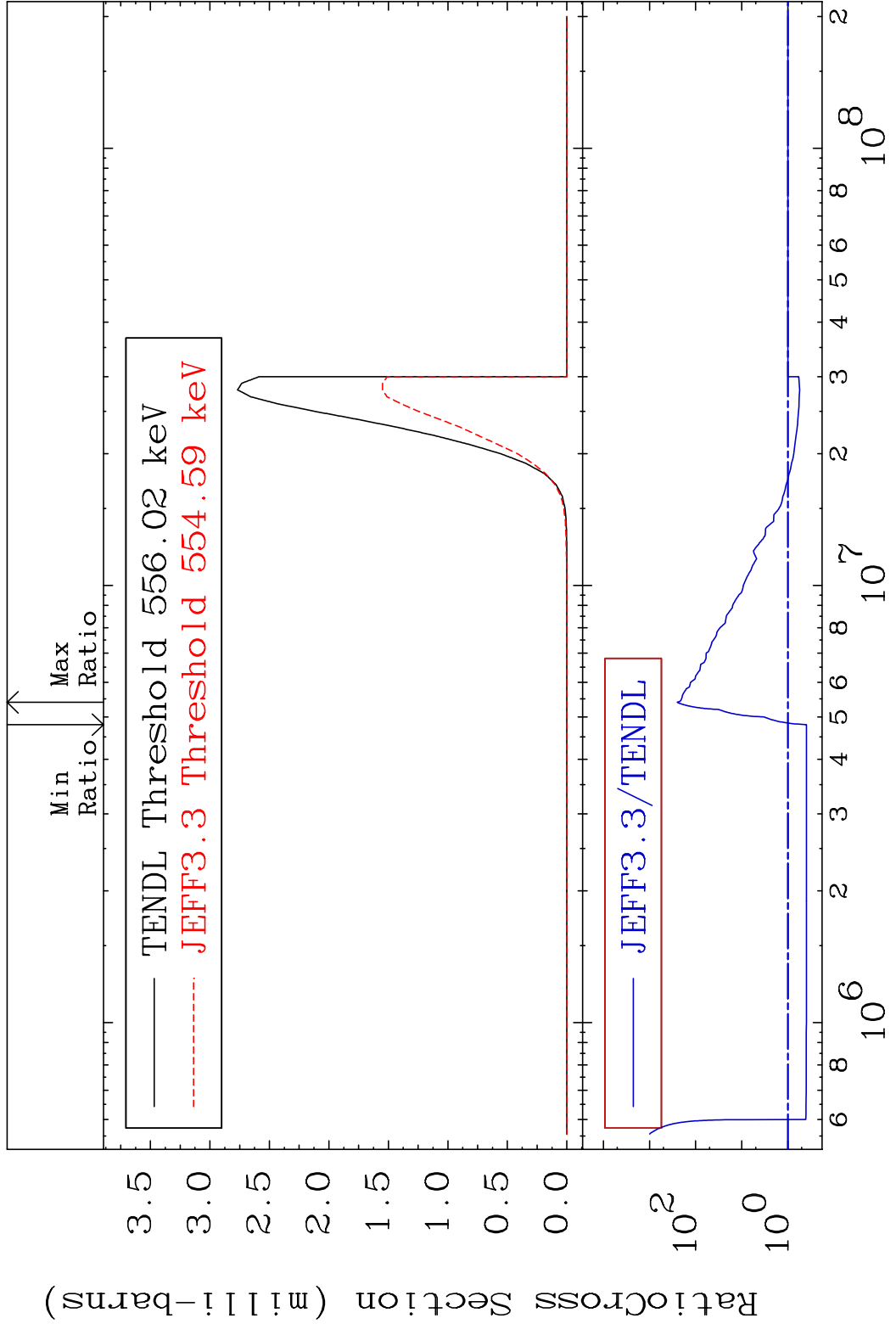
MAT 4428 (n, t): 43-Tc-95g 44-Ru-97  
 Radionuclide Production Cross Section 11.52 %



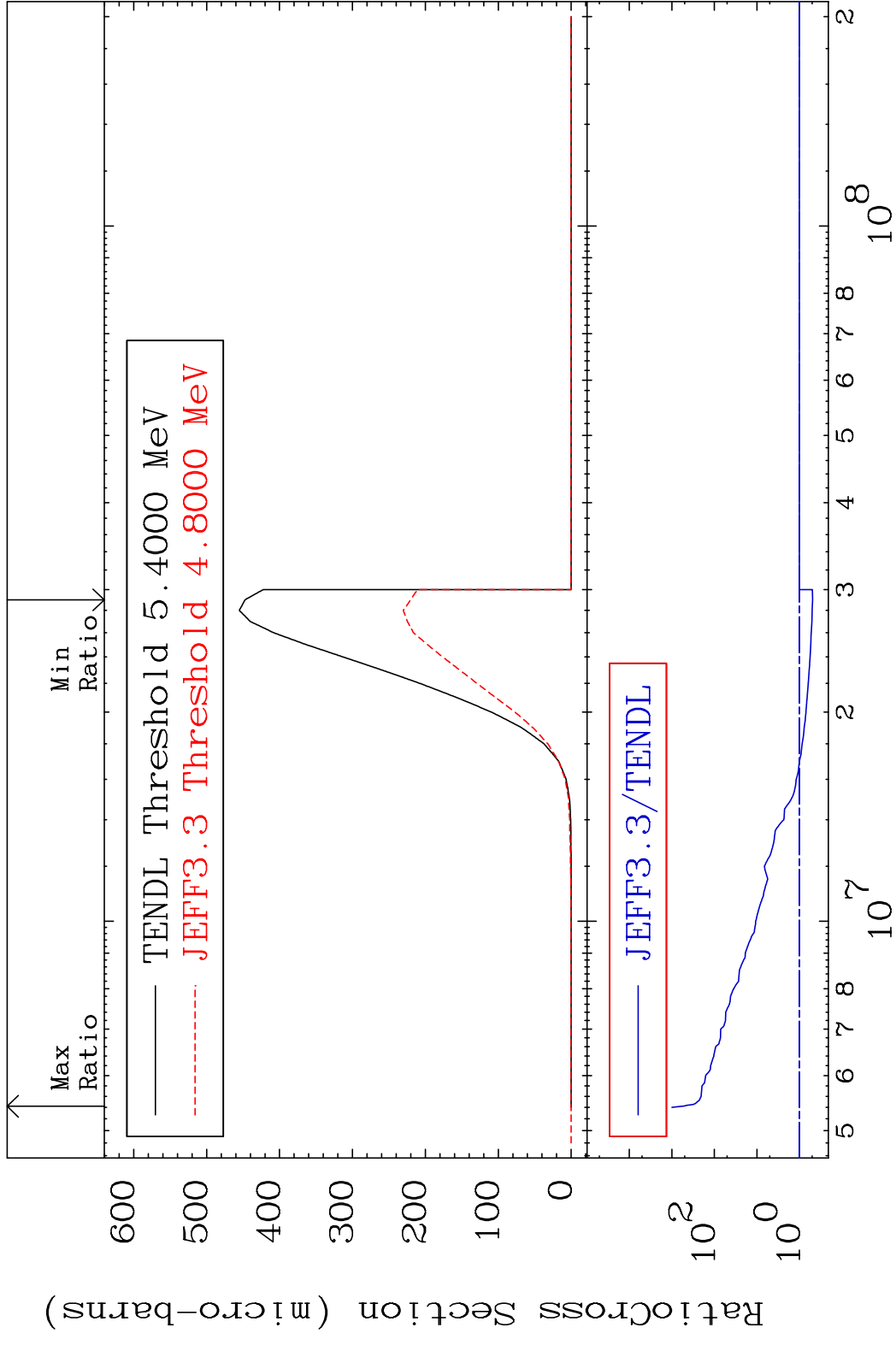
100 Incident Energy (eV) 44-Ru-97

MAT 4428 (n, t): 43-Tc-95m1 44-Ru-97  
 Radionuclide Production Cross Section 10.17 %

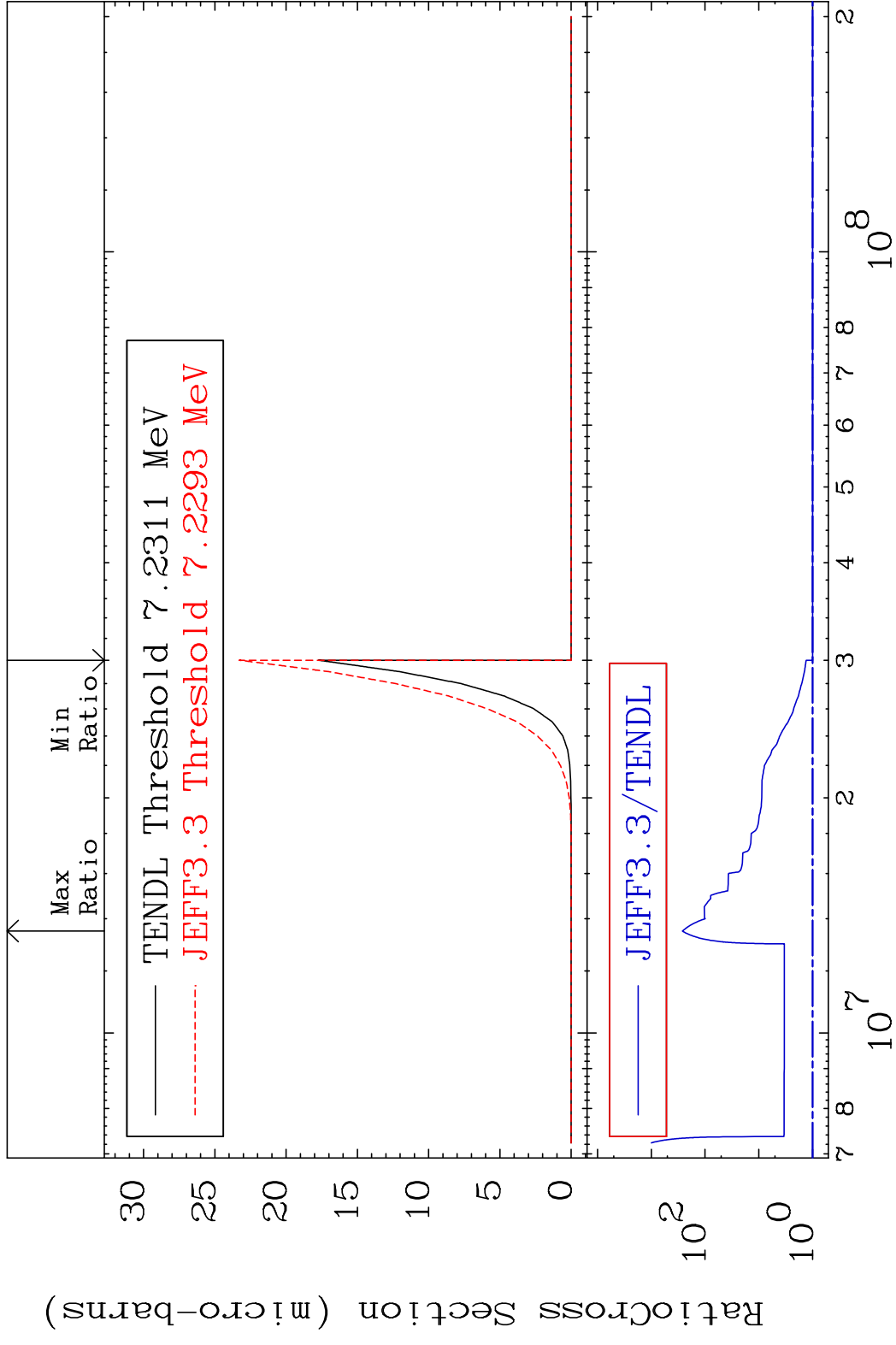




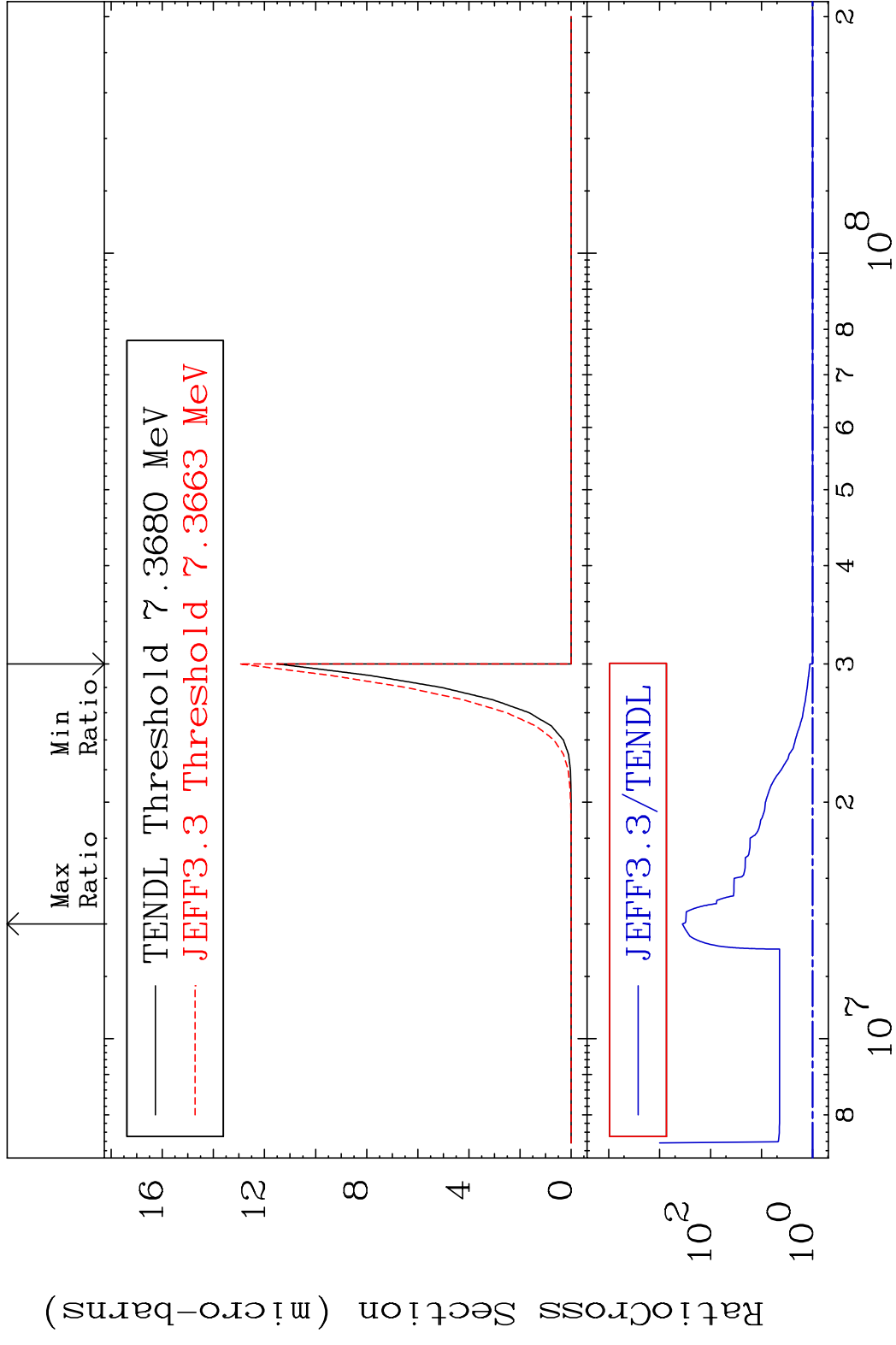
MAT 4428 (n, p)  $\alpha$ :41-Nb-93m1 44-Ru-97  
 Radionuclide Production Cross Section (%) 9999. %







MAT 4428 (n, d)  $\alpha$ :41-Nb-92m1 44-Ru-97  
 Radionuclide Production Cross Section 9999. %



105 Incident Energy (eV) 44-Ru-97