

Program Complot  
(Version 2021-1)

by

Dermott E. Cullen  
(Present Contact Information)

Dermott E. Cullen  
1466 Hudson Way  
Livermore, CA 94550

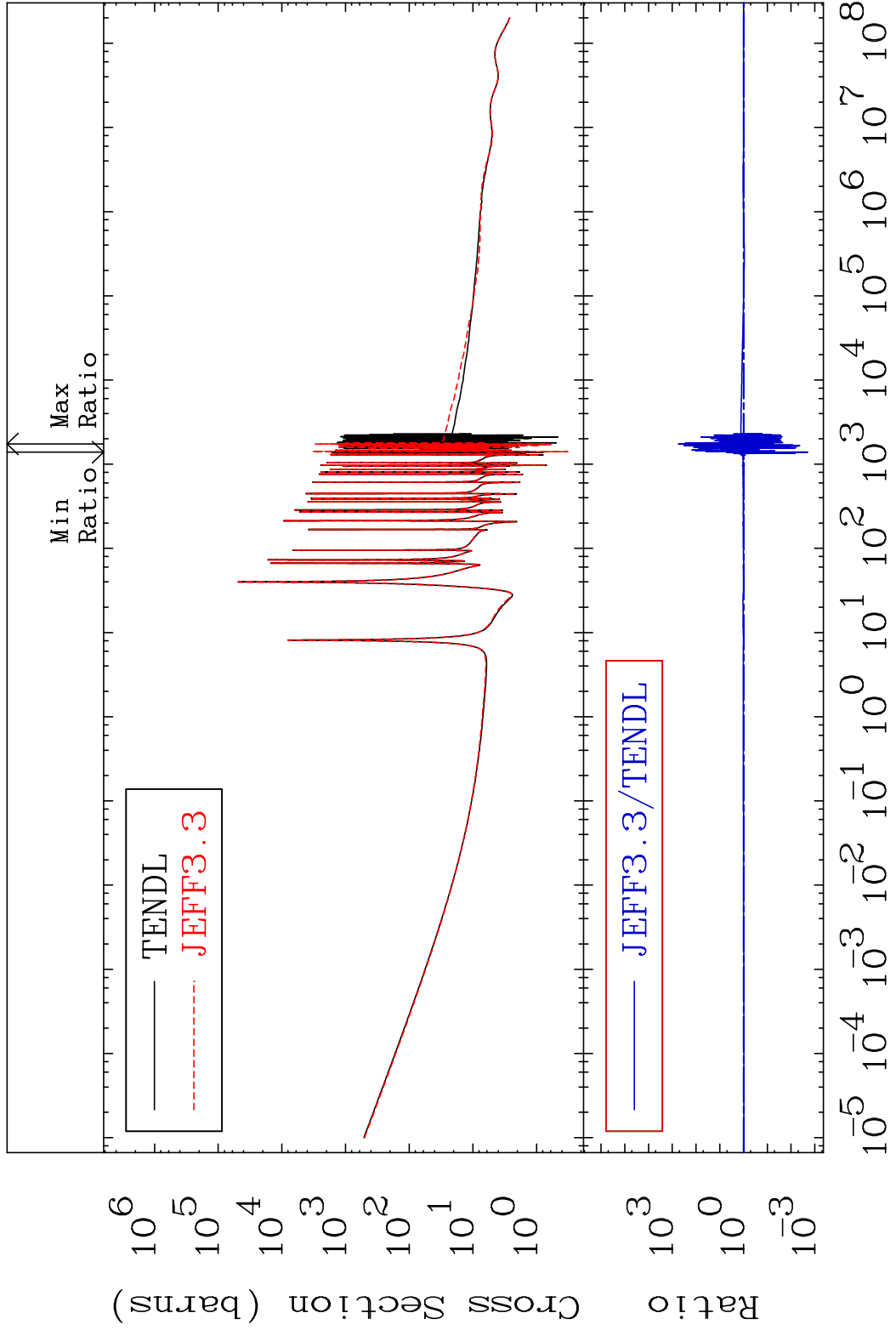
U.S.A.

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

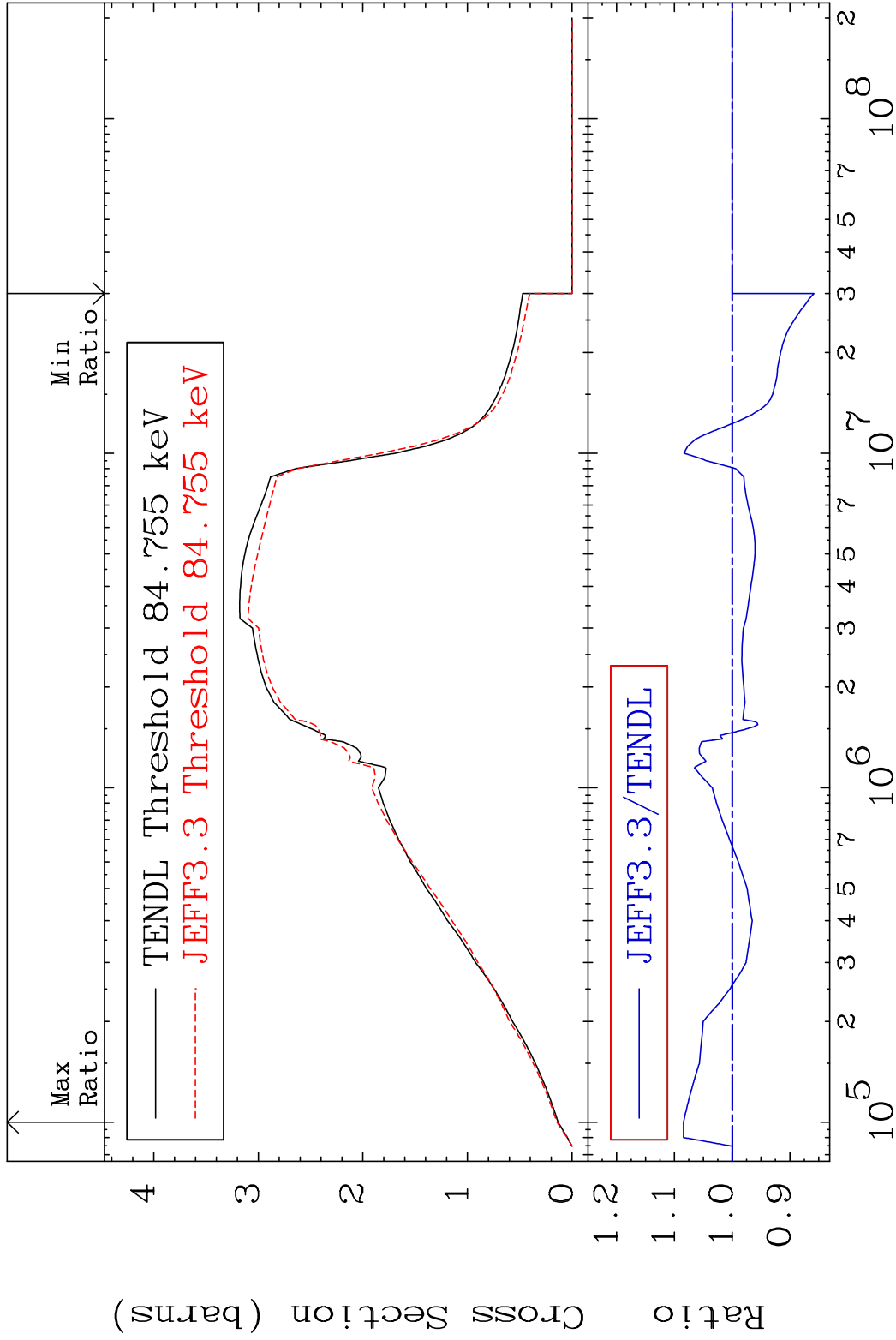
MAT 7031 Total 70-Yb-170  
 Cross Section -99.80 To 9999. %



1 Incident Energy (eV) 70-Yb-170

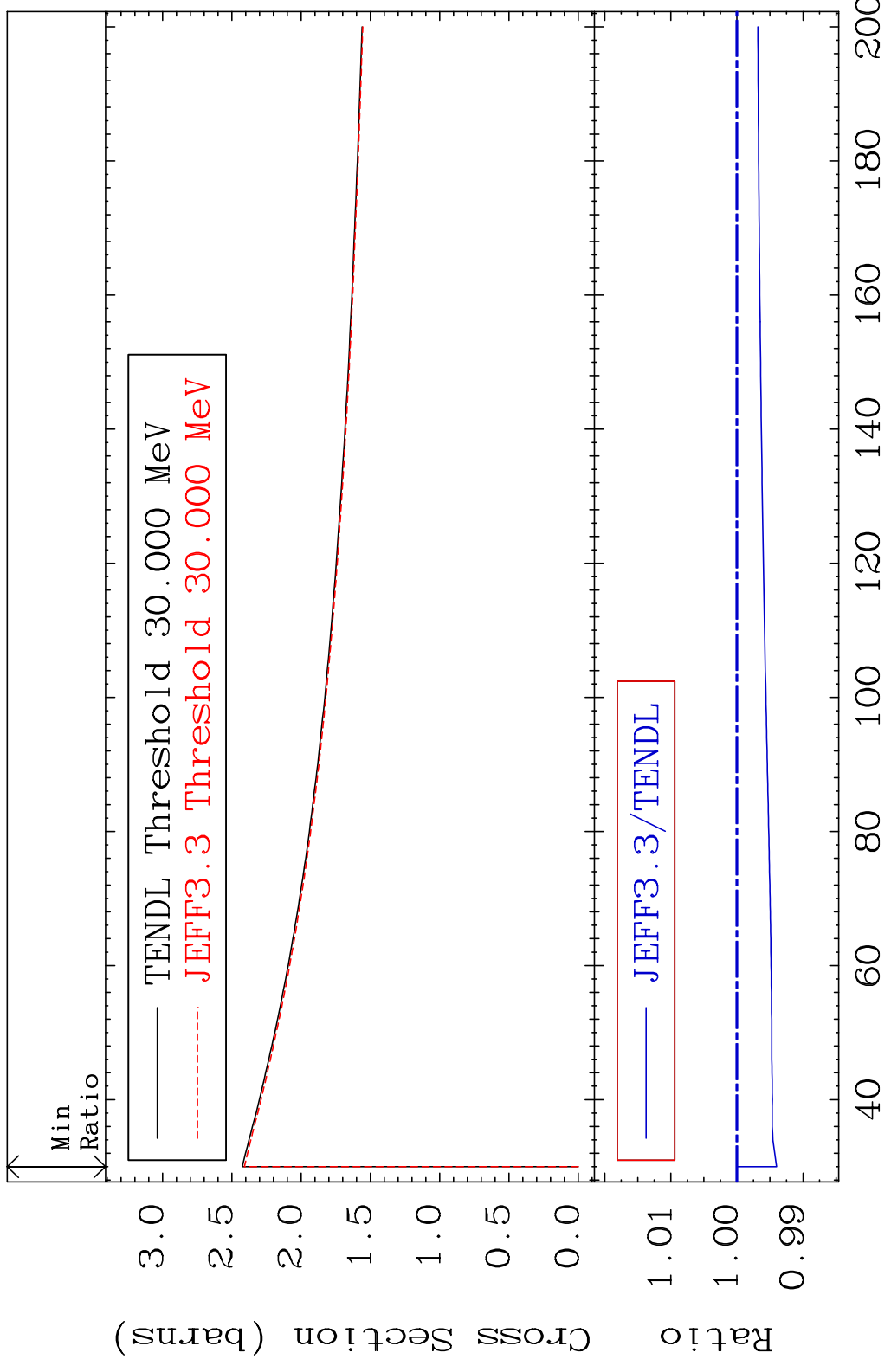


MAT 7031 Inelastic Cross Section -14.16 To 8.432 % 70-Yb-170



3 Incident Energy (eV) 70-Yb-170

MAT 7031 (n, remainder) 70-Yb-170  
 Cross Section -0.601 To 0.000 %

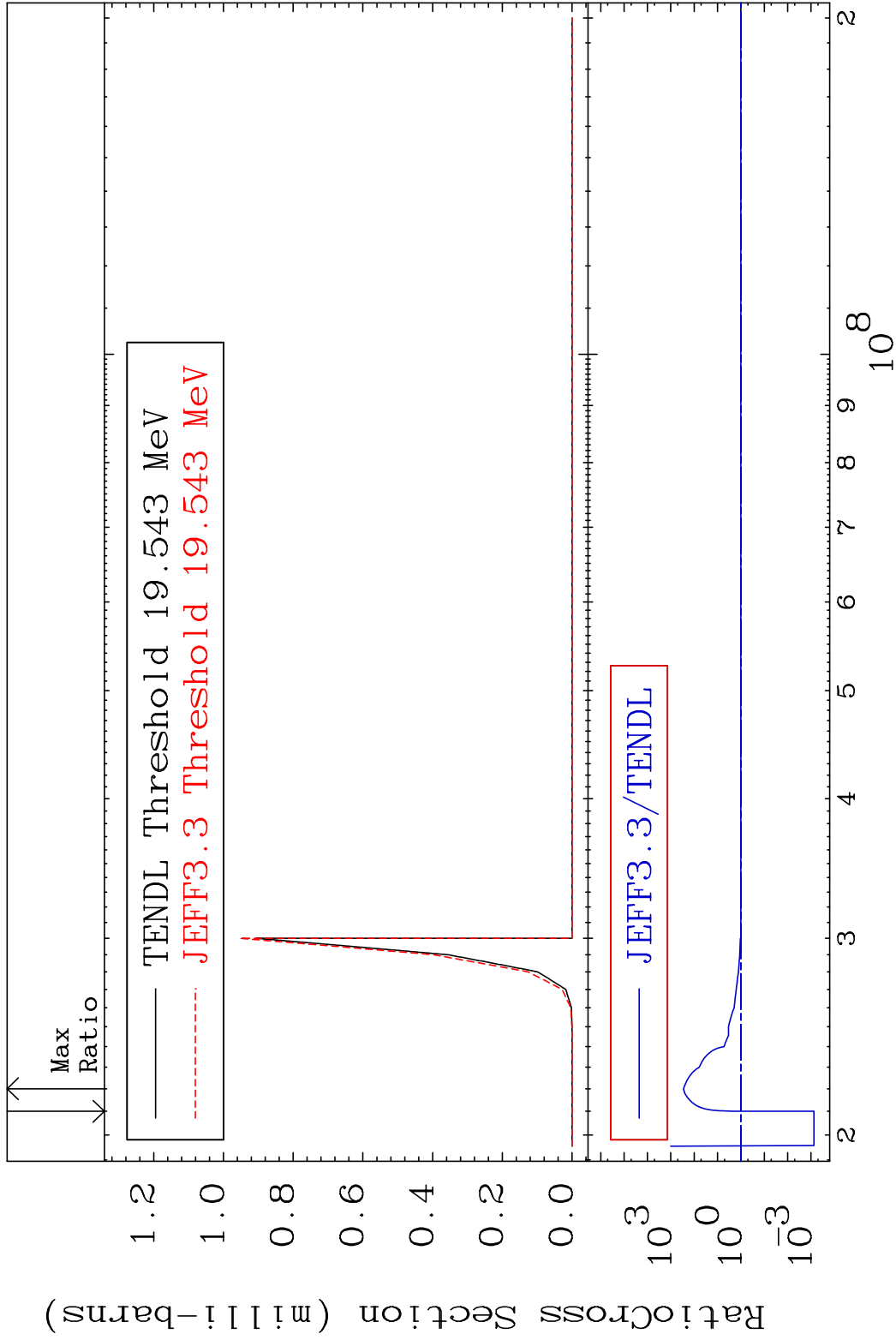


MAT 7031

(n,2n) d

70-Yb-170

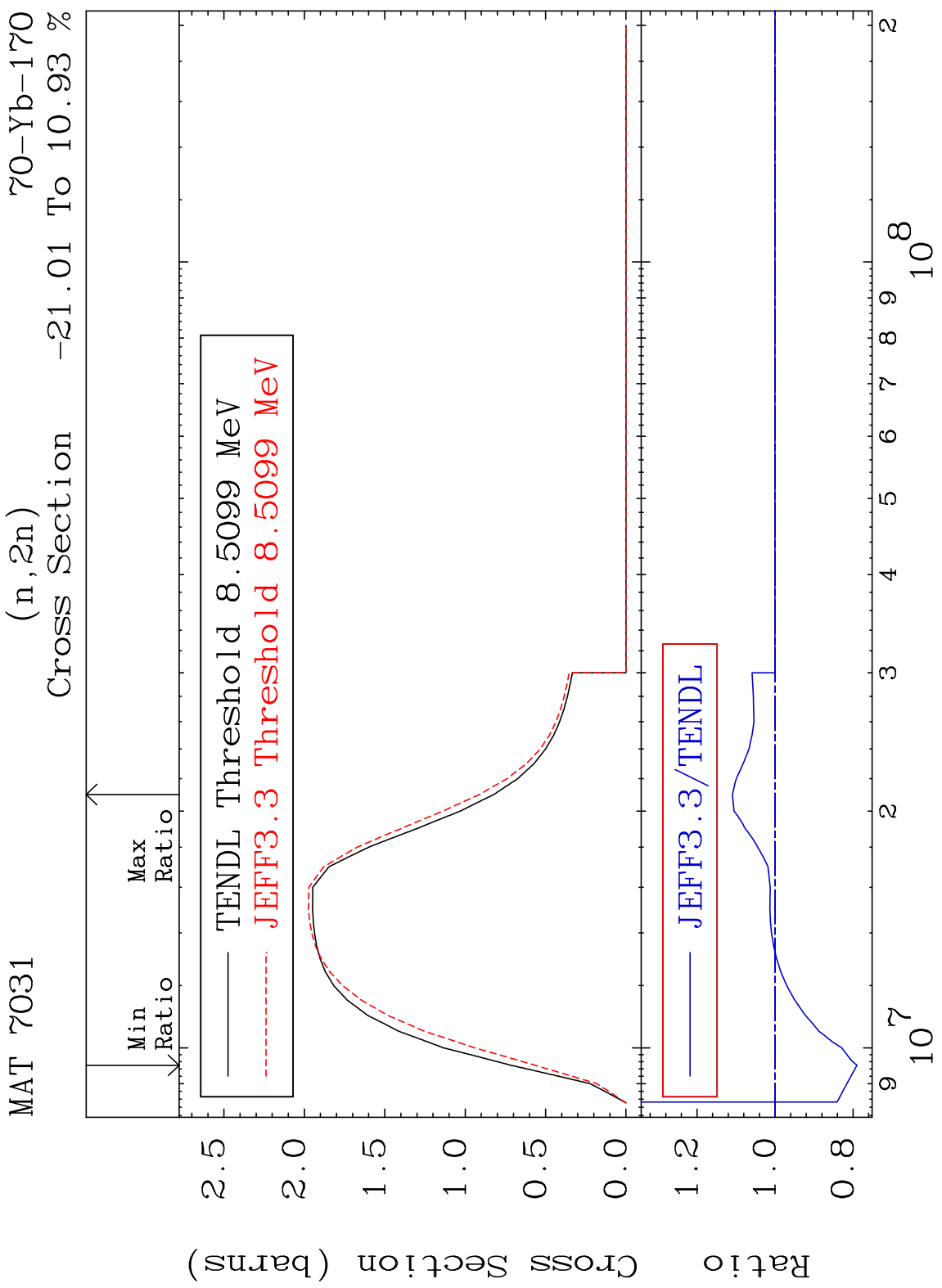
Cross Section -99.92 To 9999. %



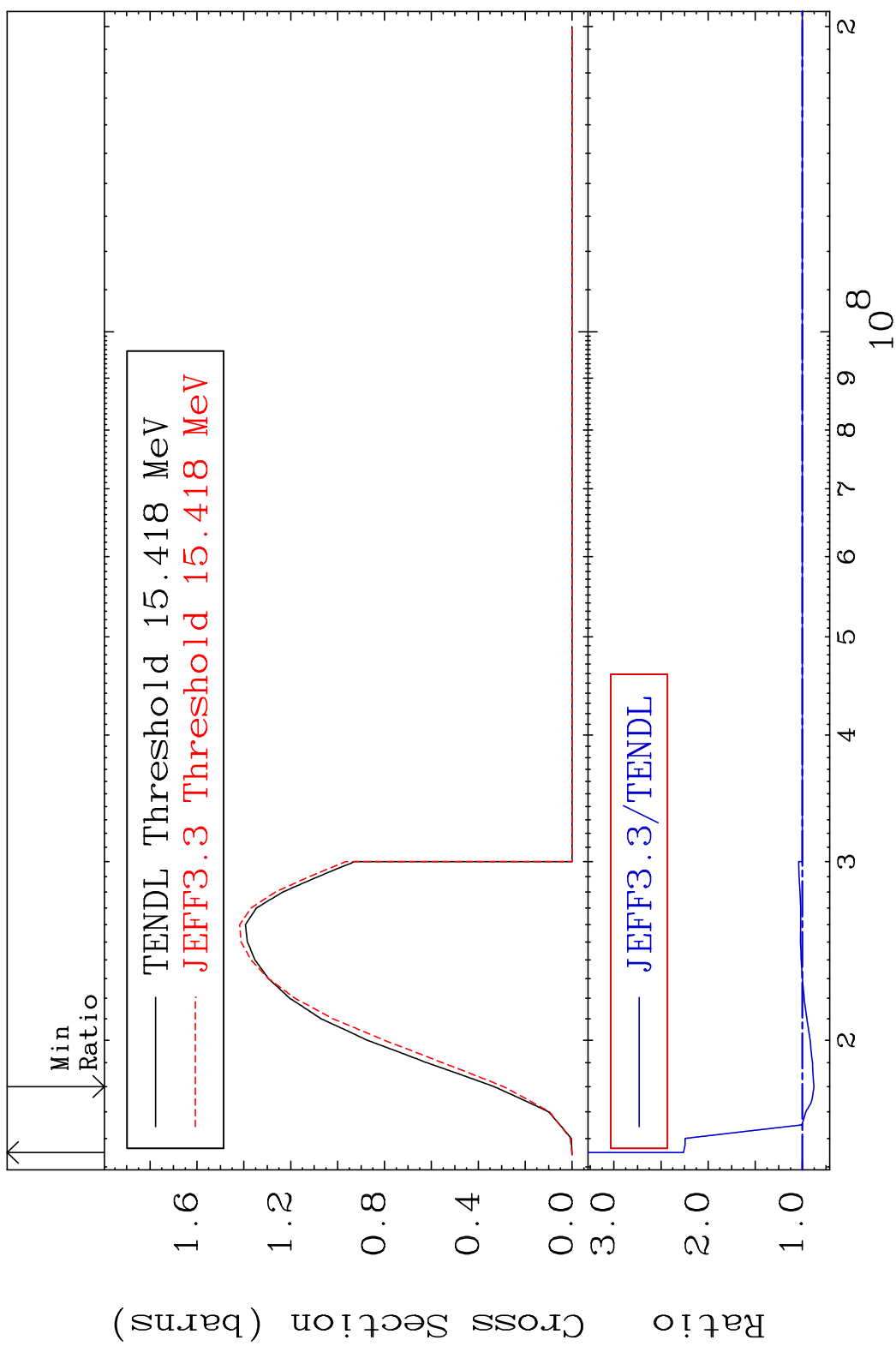
5

Incident Energy (eV)

70-Yb-170



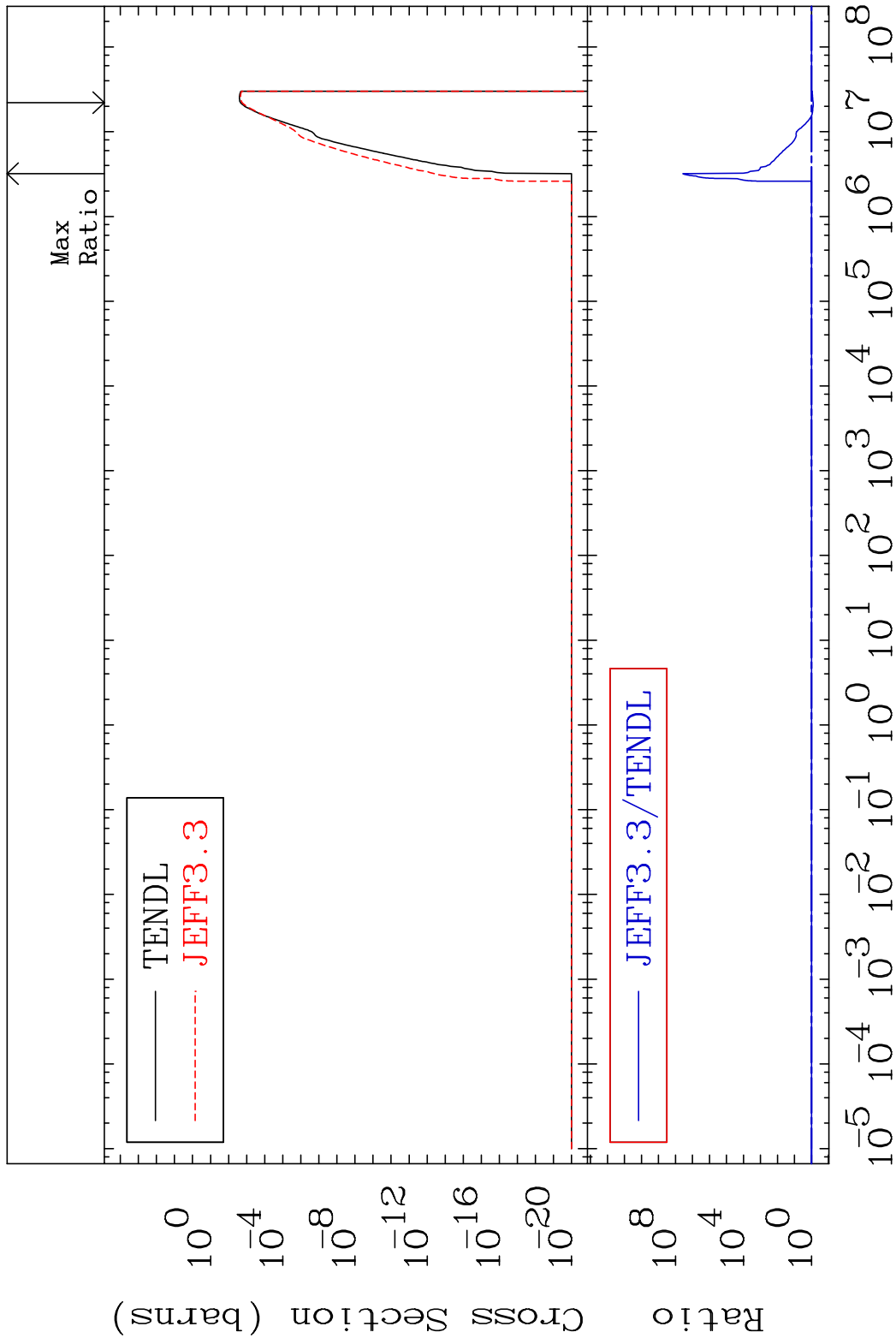
MAT 7031 (n,3n) 70-Yb-170  
 Cross Section -12.21 To 126.2 %

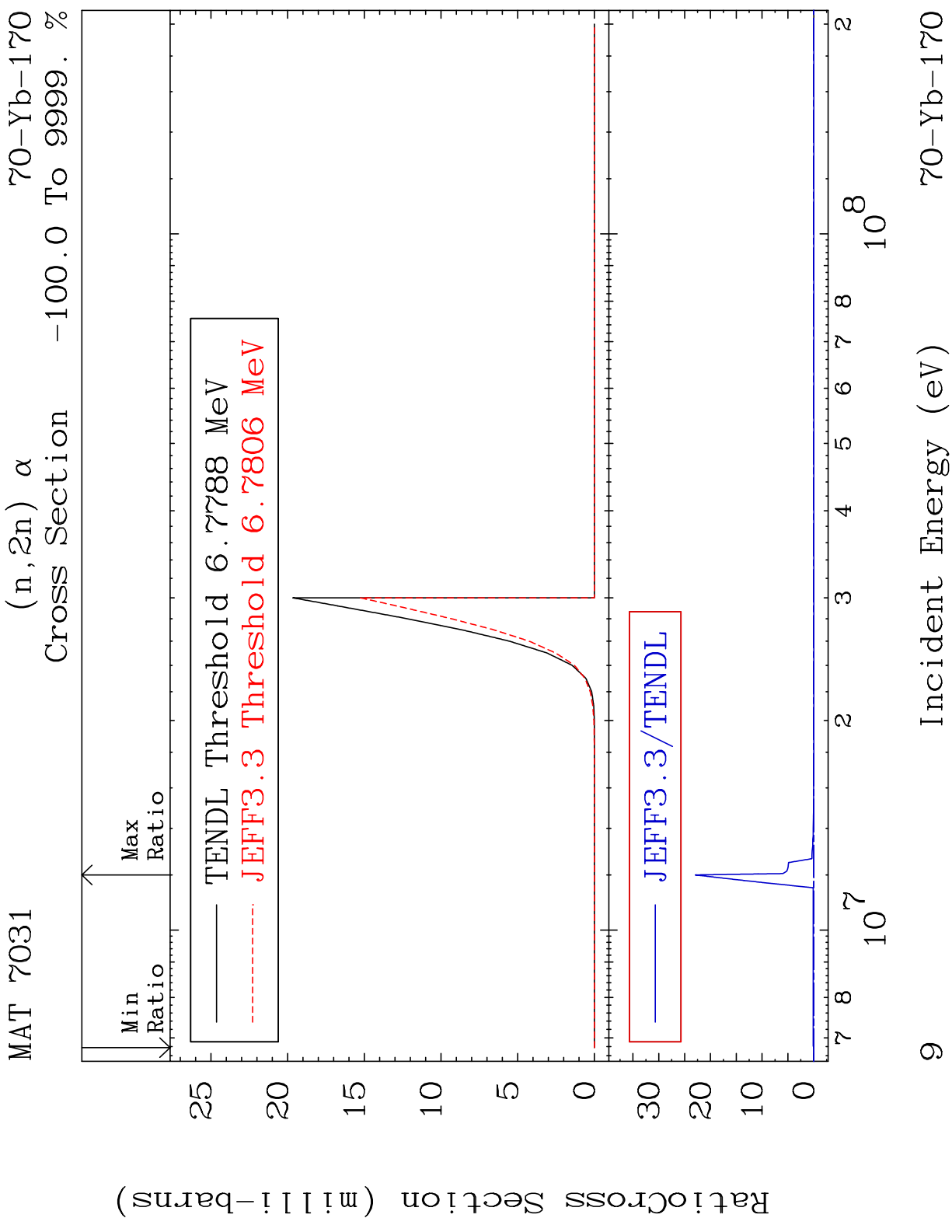


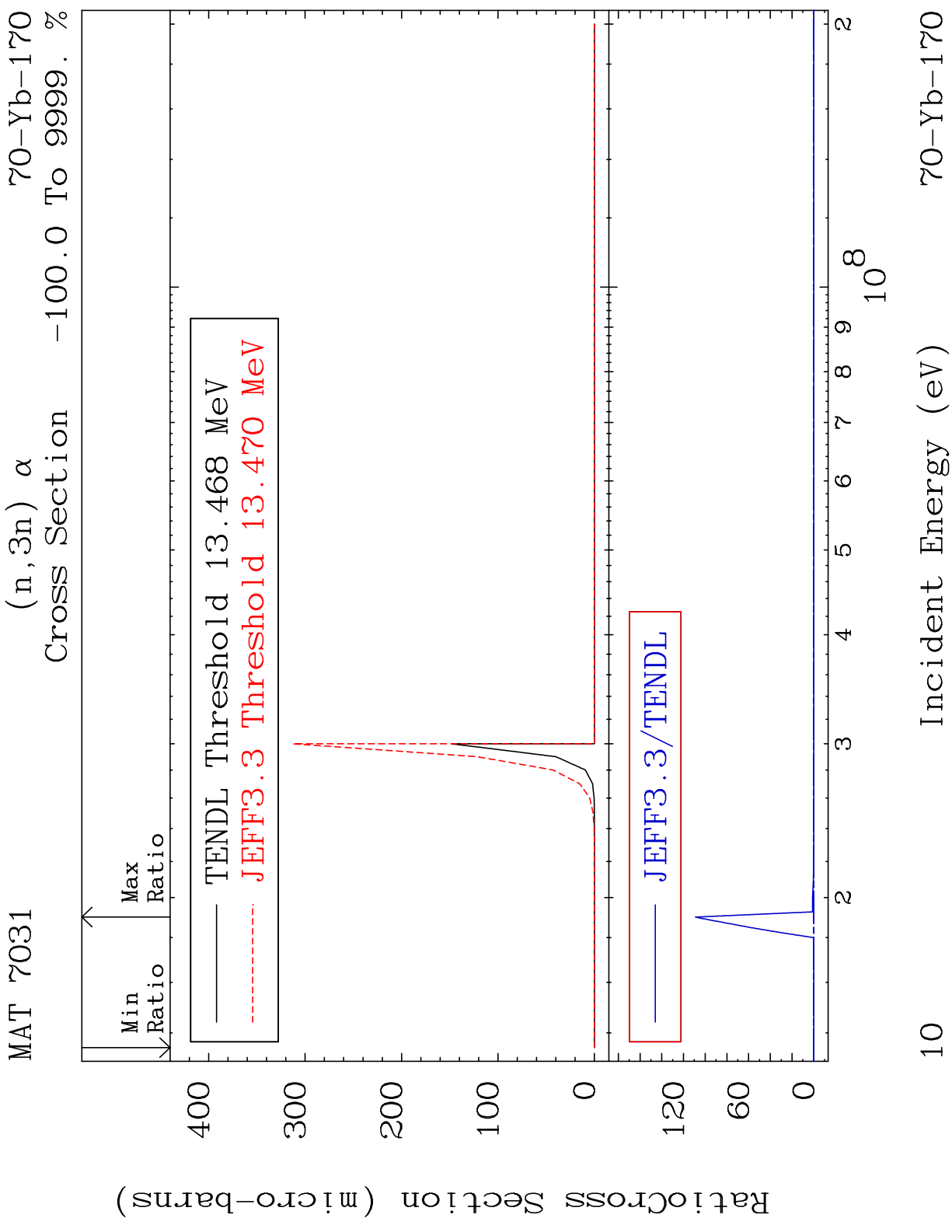
7 Incident Energy (eV) 70-Yb-170

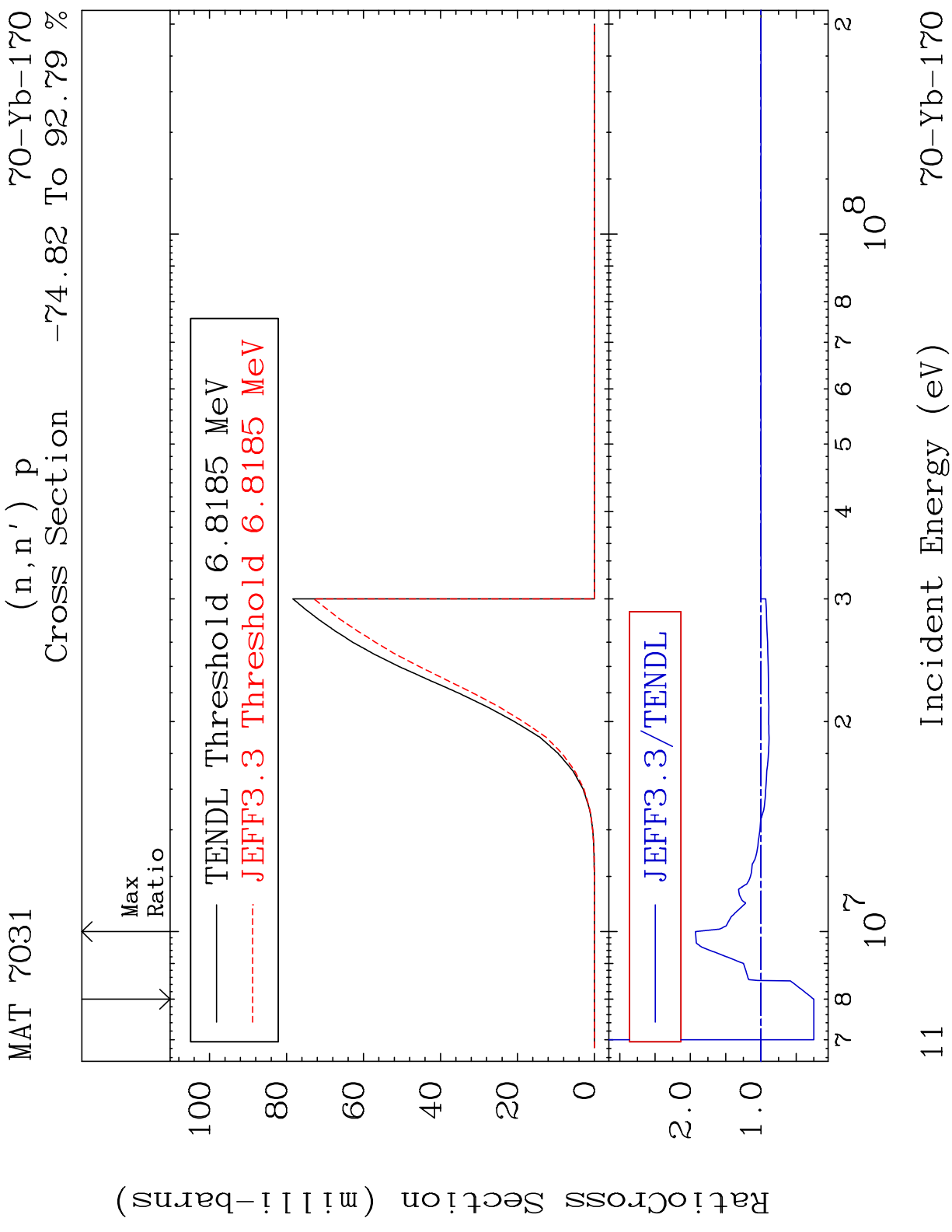
MAT 7031

(n, n')  $\alpha$  70-Yb-170  
Cross Section -19.85 To 9999. %







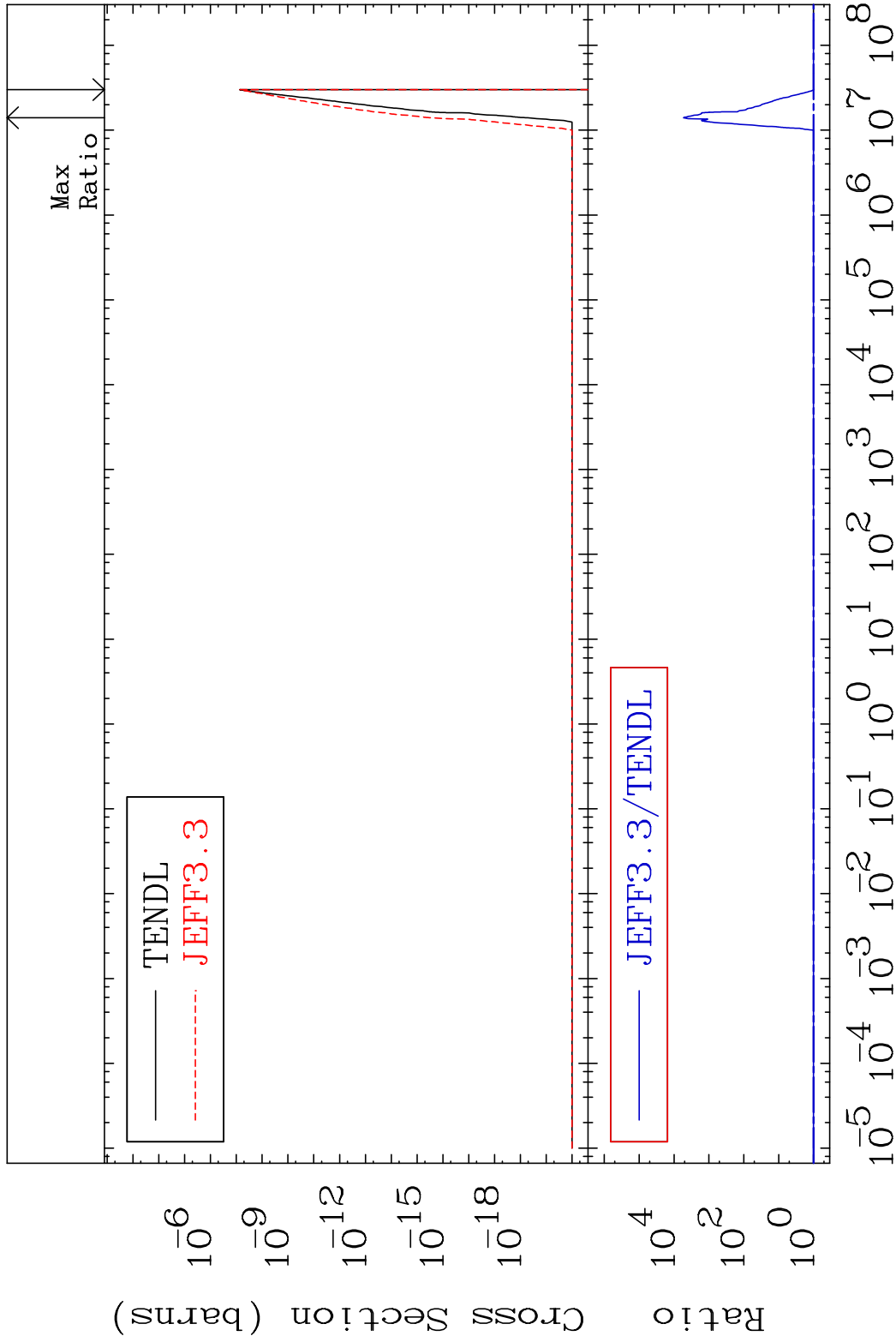


MAT 7031

(n, n') 2α

70-Yb-170

Cross Section -1.988 To 9999. %

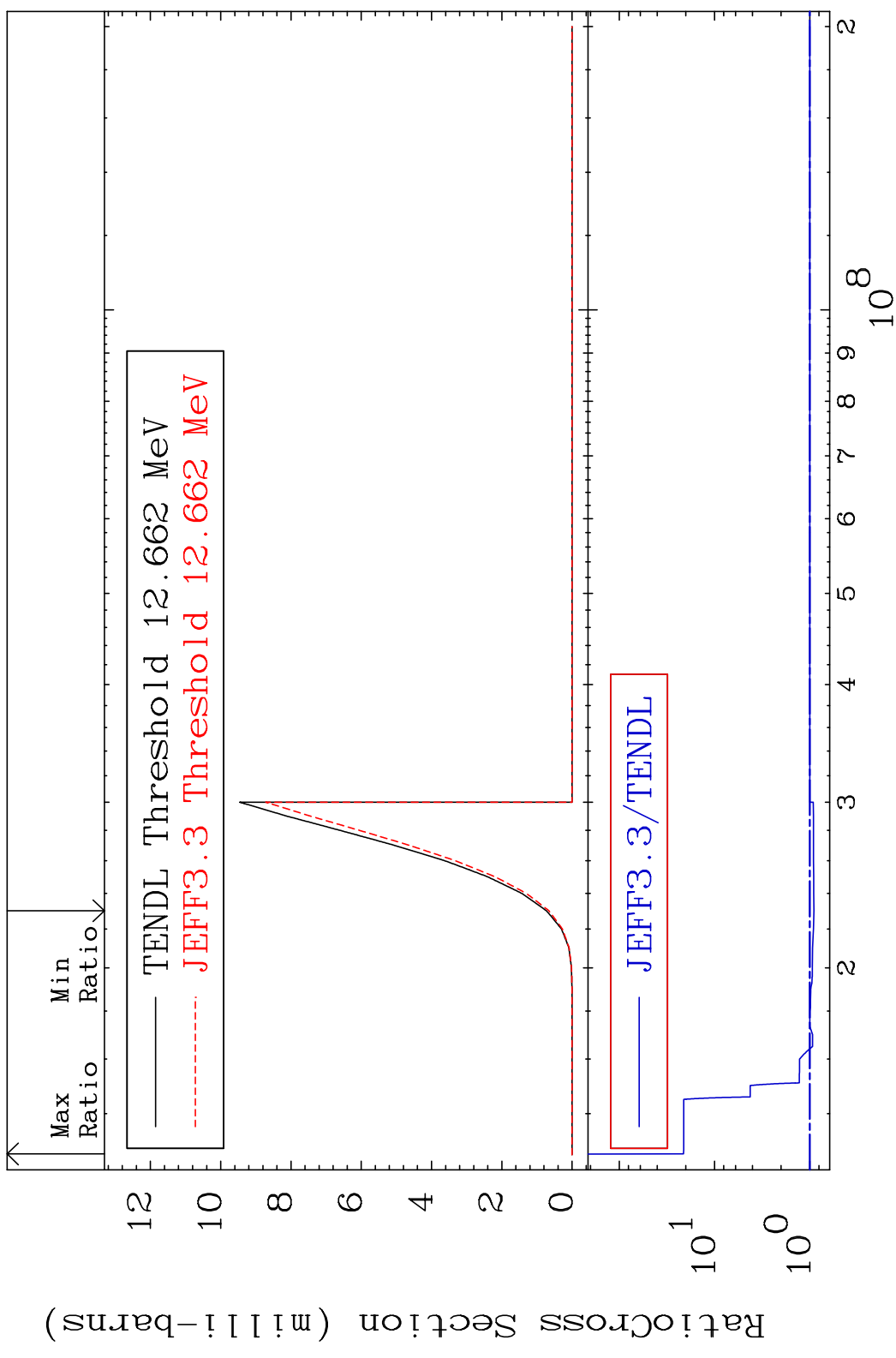


12

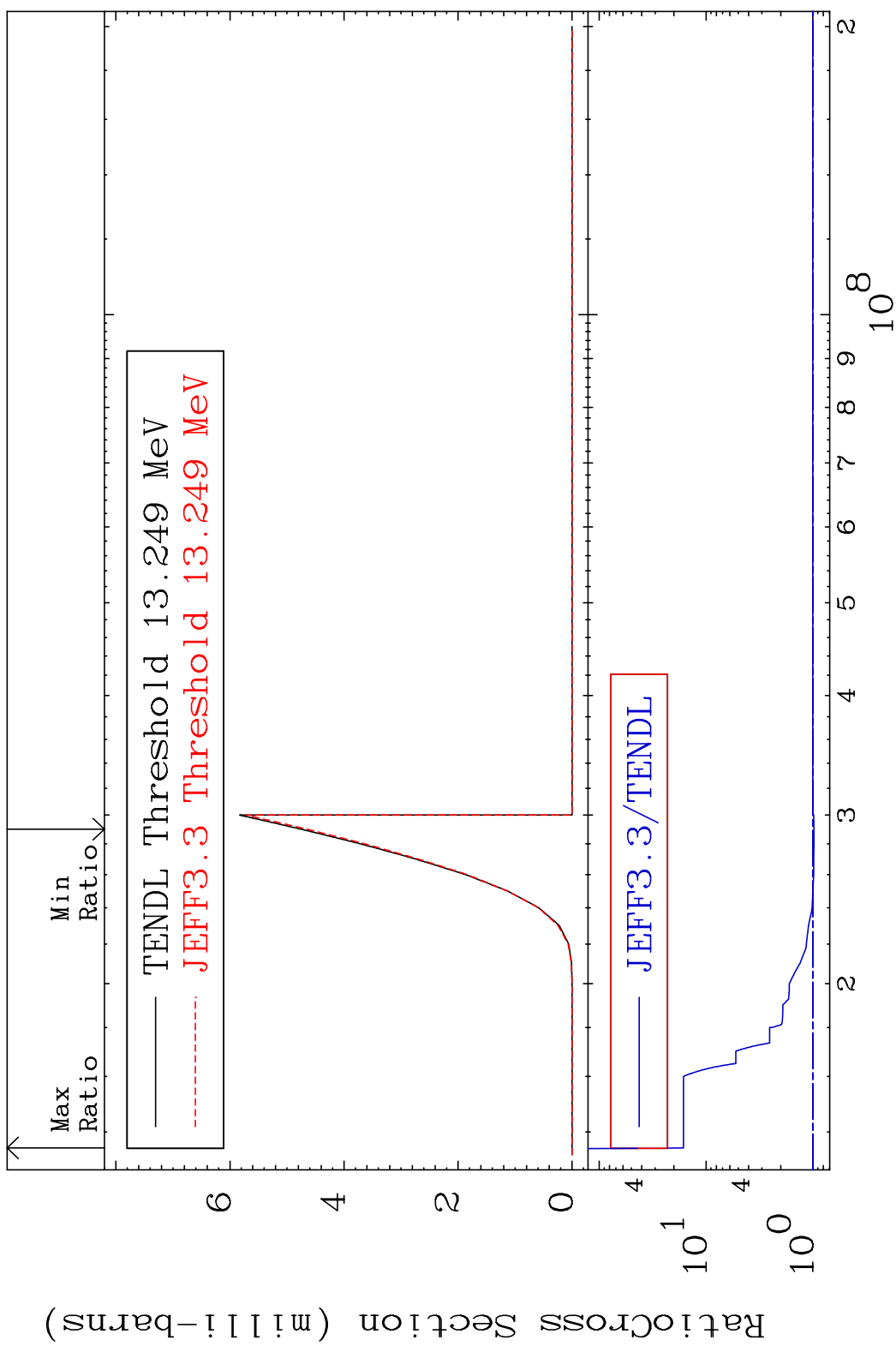
Incident Energy (eV)

70-Yb-170

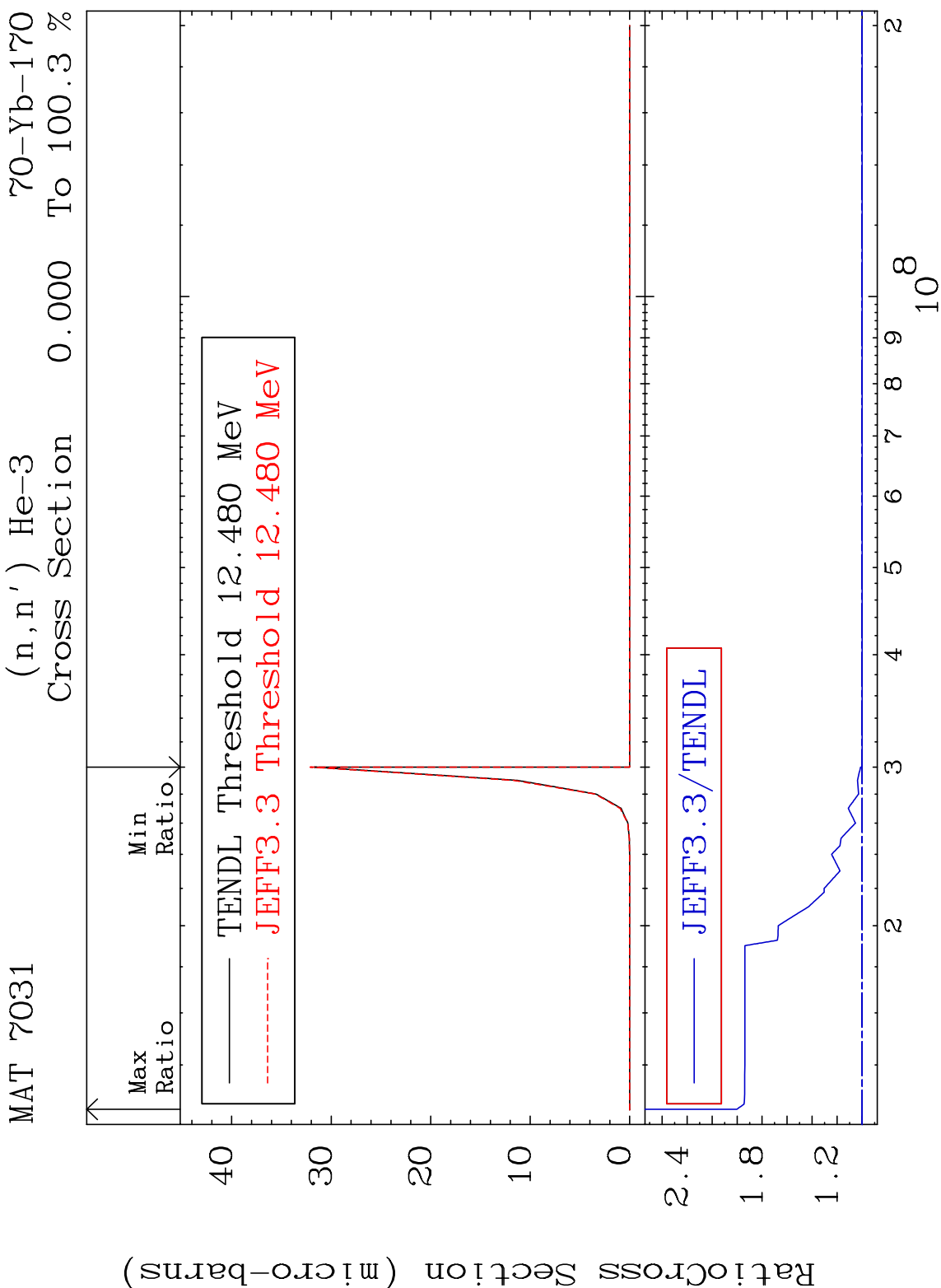
MAT 7031 (n, n') d 70-Yb-170  
 Cross Section -9.415 To 2019. %



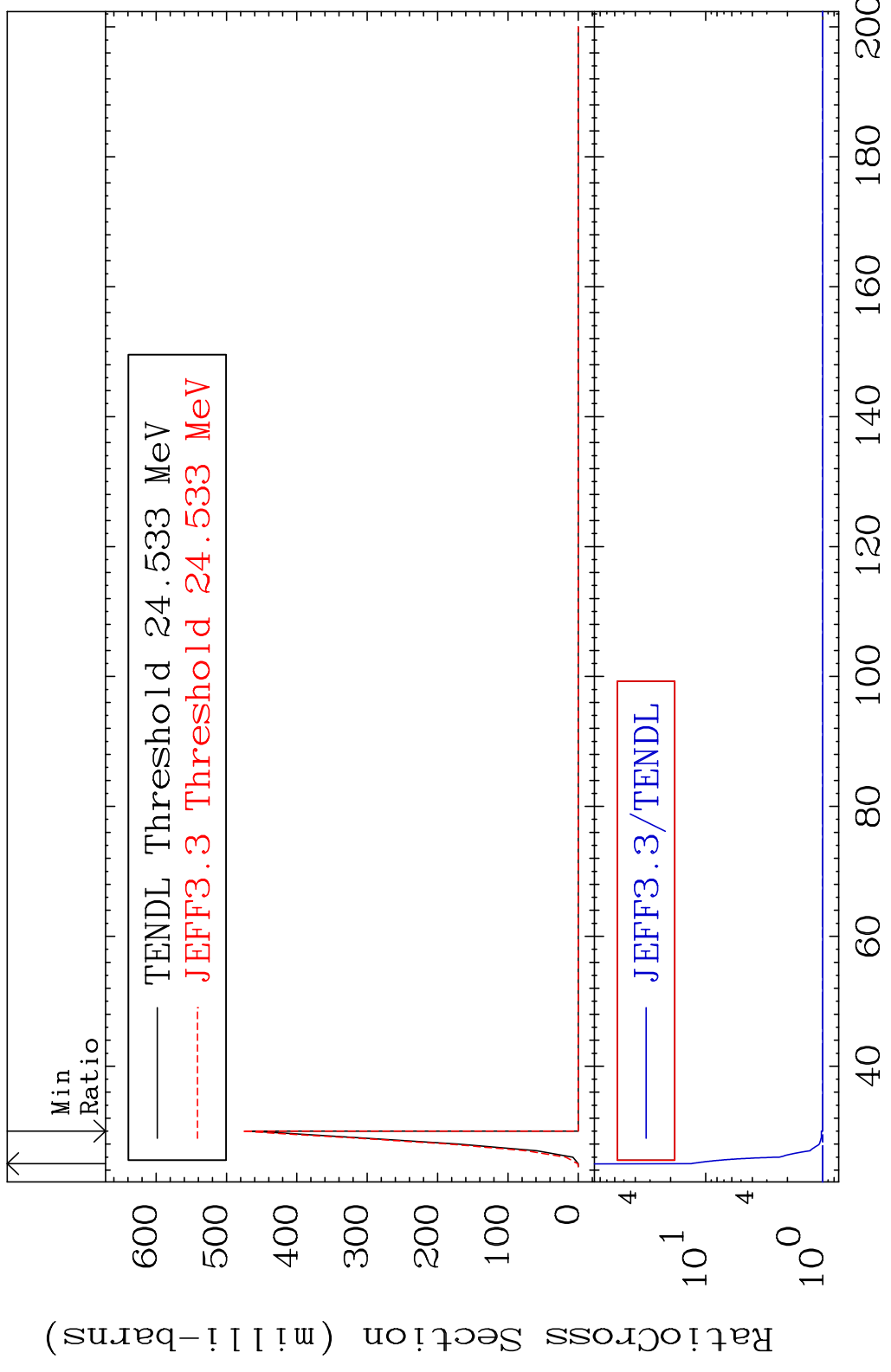
MAT 7031 (n, n') t 70-Yb-170  
 Cross Section -2.131 To 1527. %



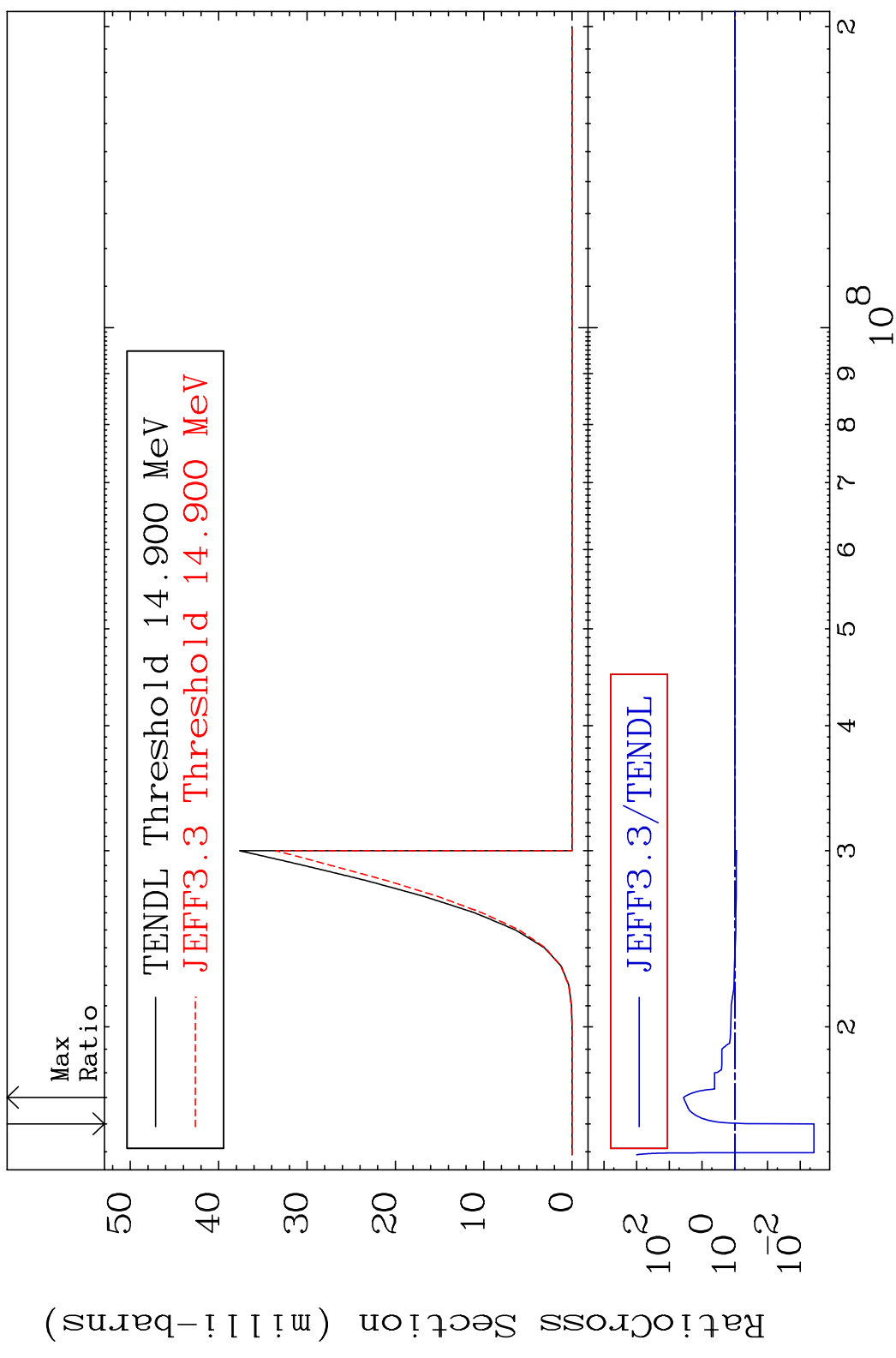
14 70-Yb-170



MAT 7031 (n,4n) 70-Yb-170  
 Cross Section 0.000 To 1241. %



MAT 7031 (n,2n) p 70-Yb-170  
 Cross Section -99.62 To 3607. %



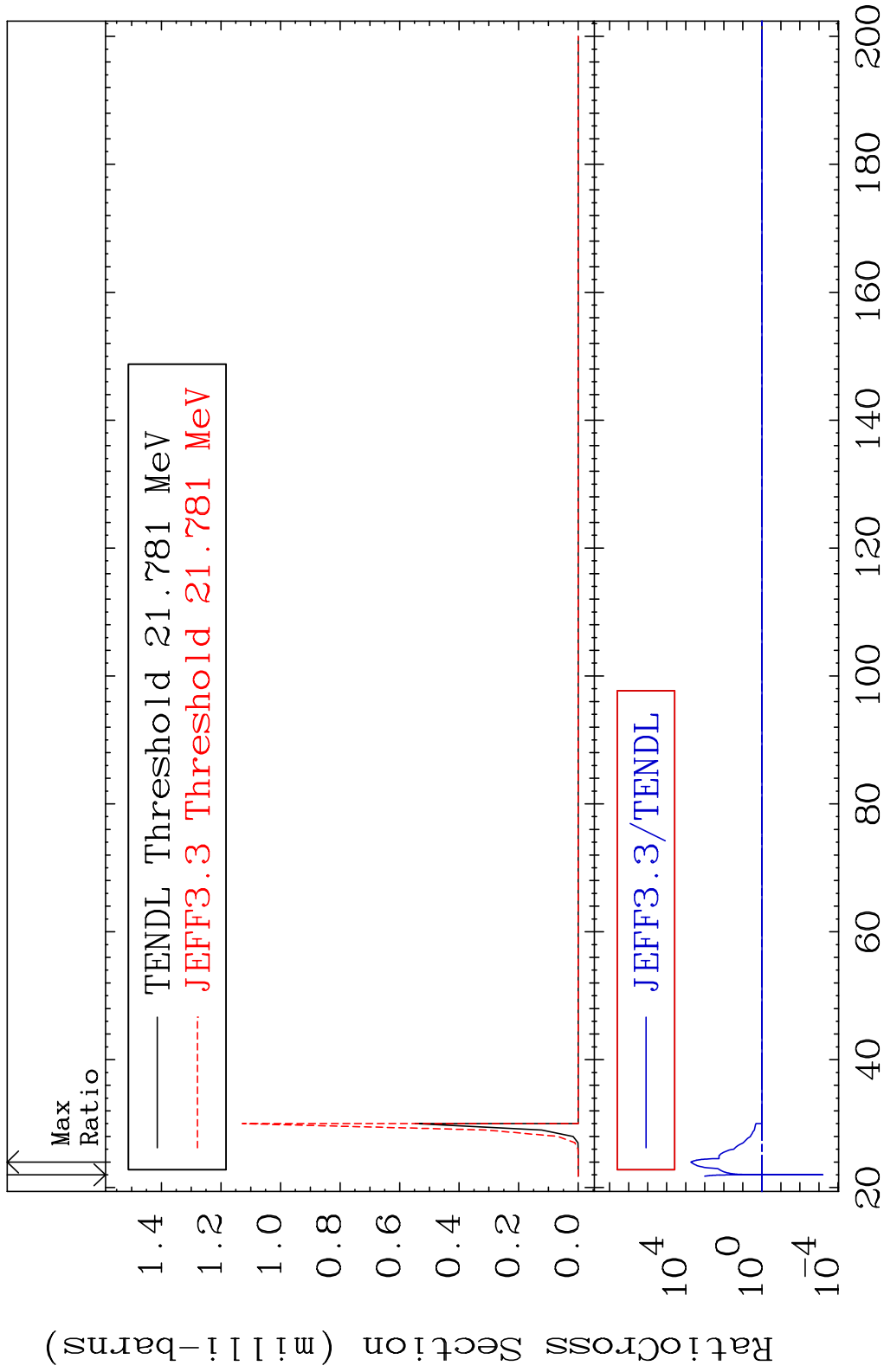
17 70-Yb-170

MAT 7031

(n,3n) p

70-Yb-170

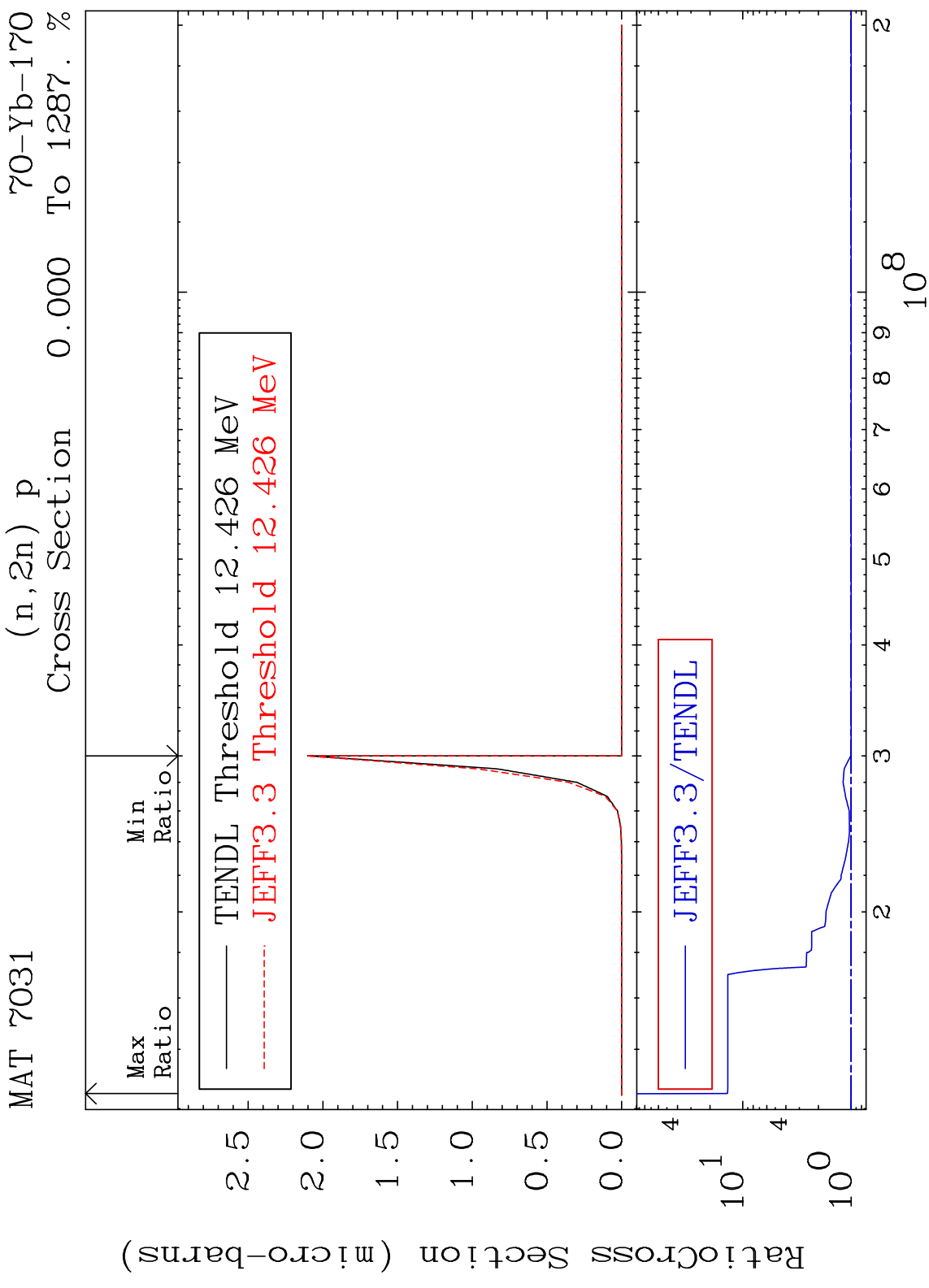
Cross Section -99.94 To 9999. %

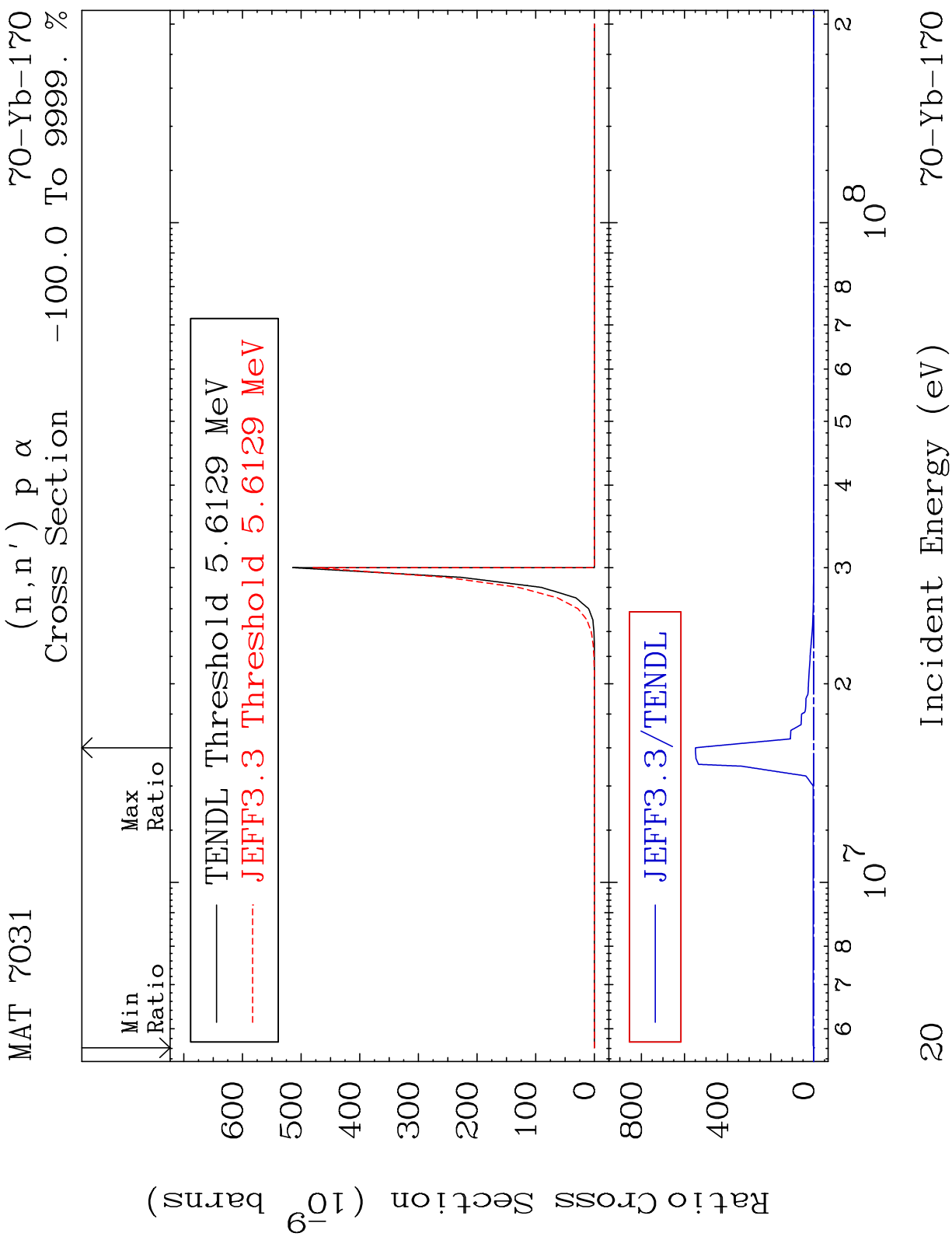


18

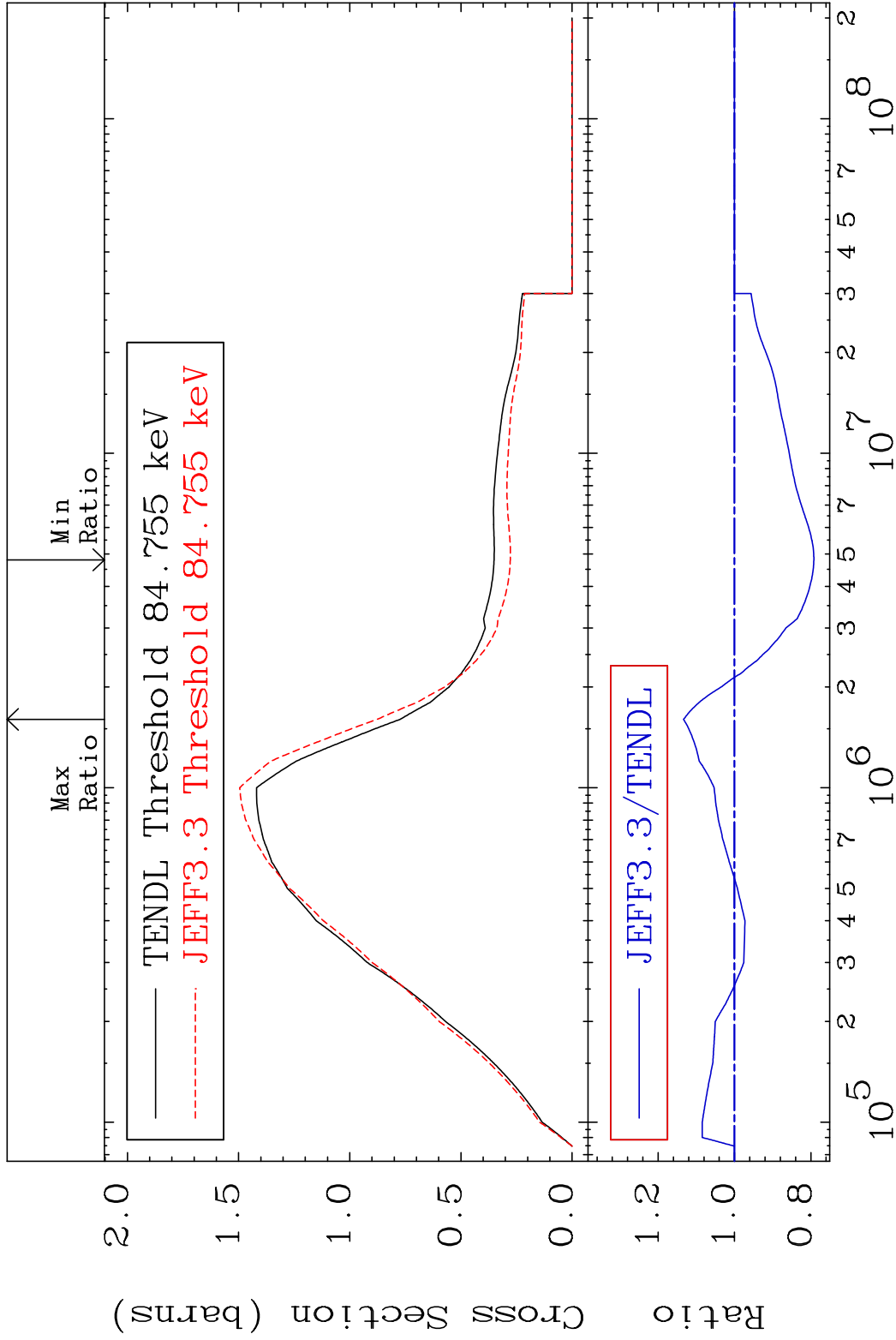
Incident Energy (MeV)

70-Yb-170



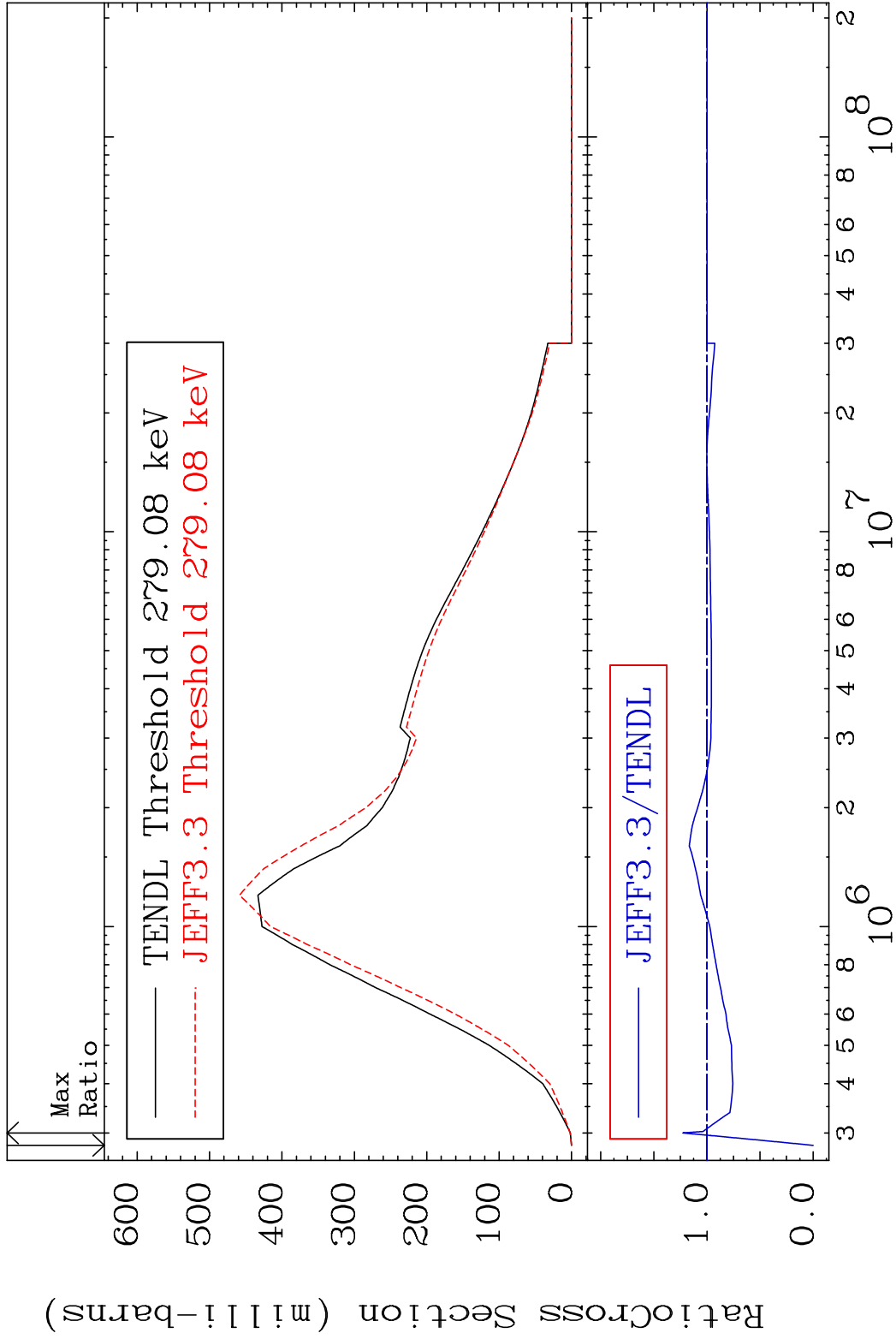


MAT 7031 MT= 51 (n, n') Level 70-Yb-170  
 Cross Section -20.79 To 13.36 %



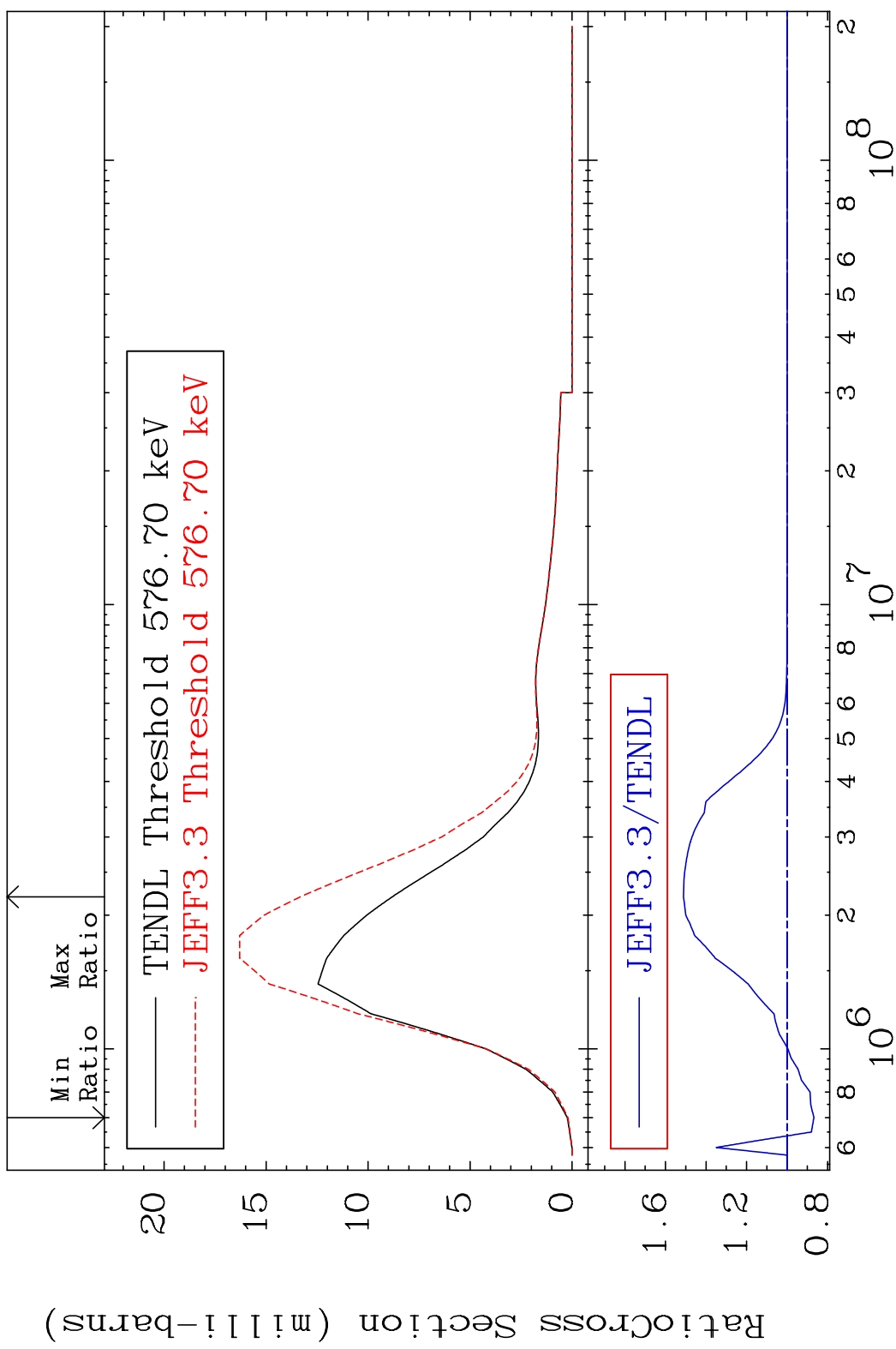
21 Incident Energy (eV) 70-Yb-170

MAT 7031 MT= 52 (n, n') Level 70-Yb-170  
 Cross Section -100.0 To 22.72 %

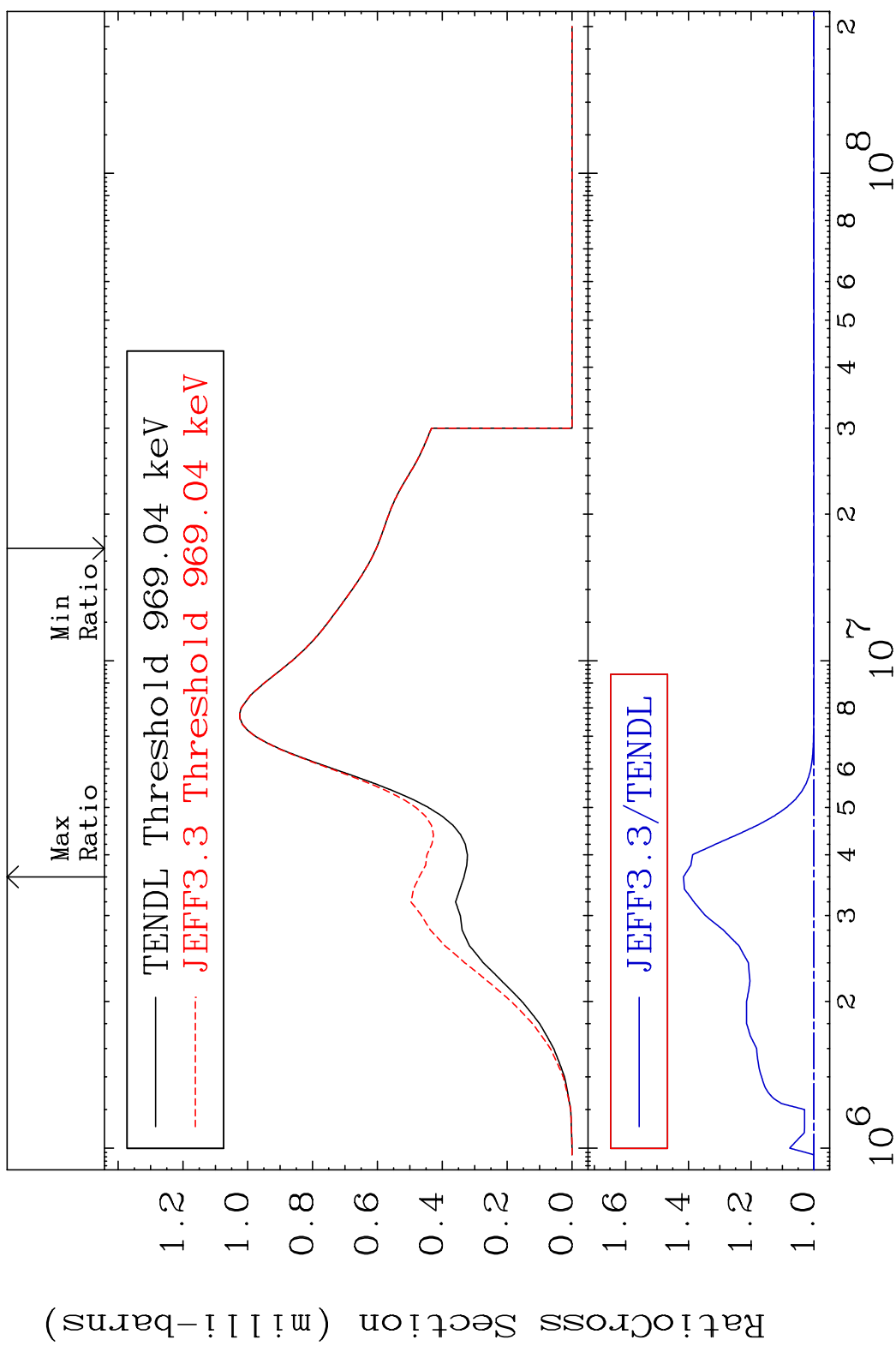


22 70-Yb-170

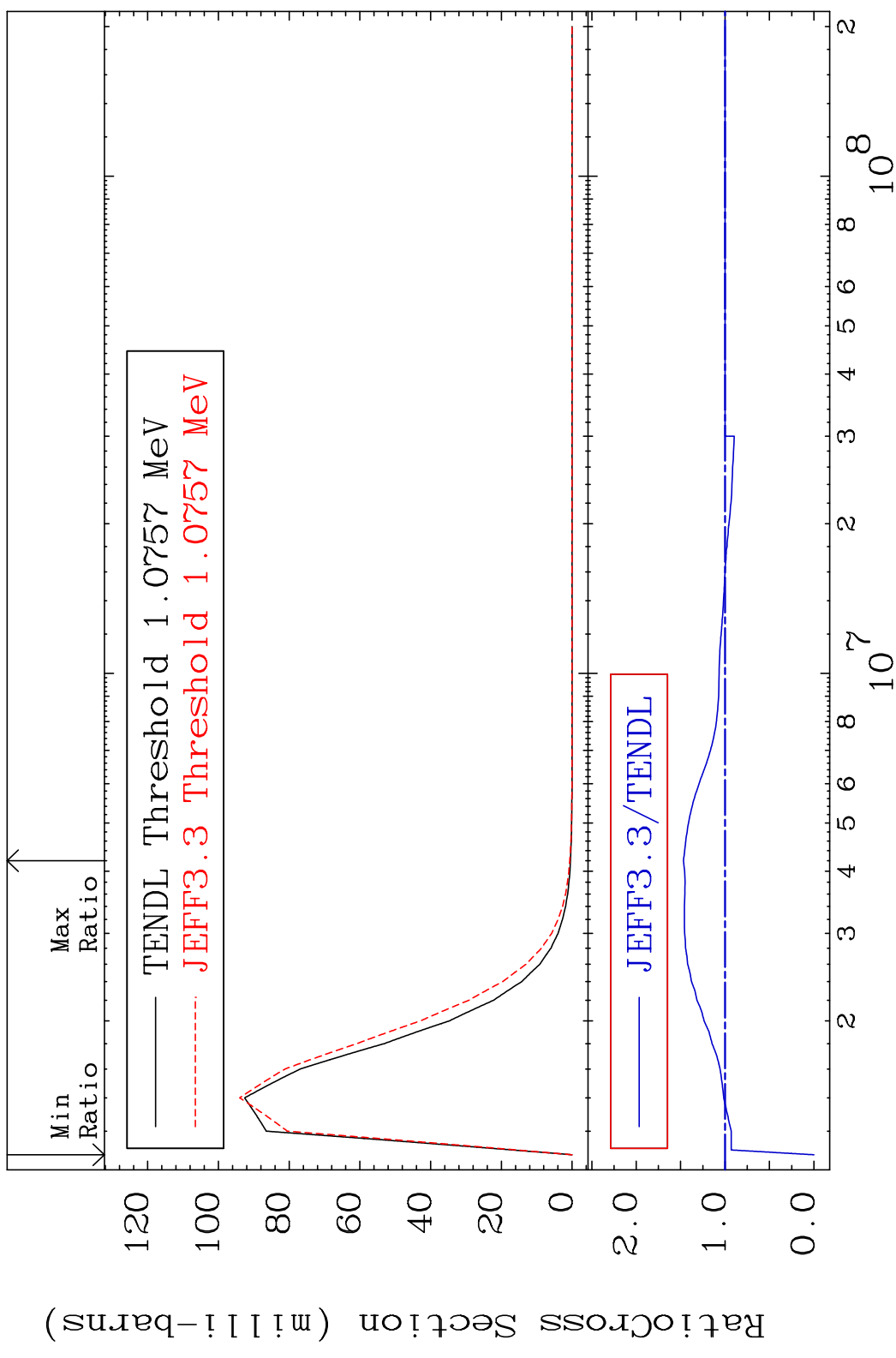
MAT 7031 MT= 53 (n, n') Level 70-Yb-170  
 Cross Section -13.21 To 51.13 %



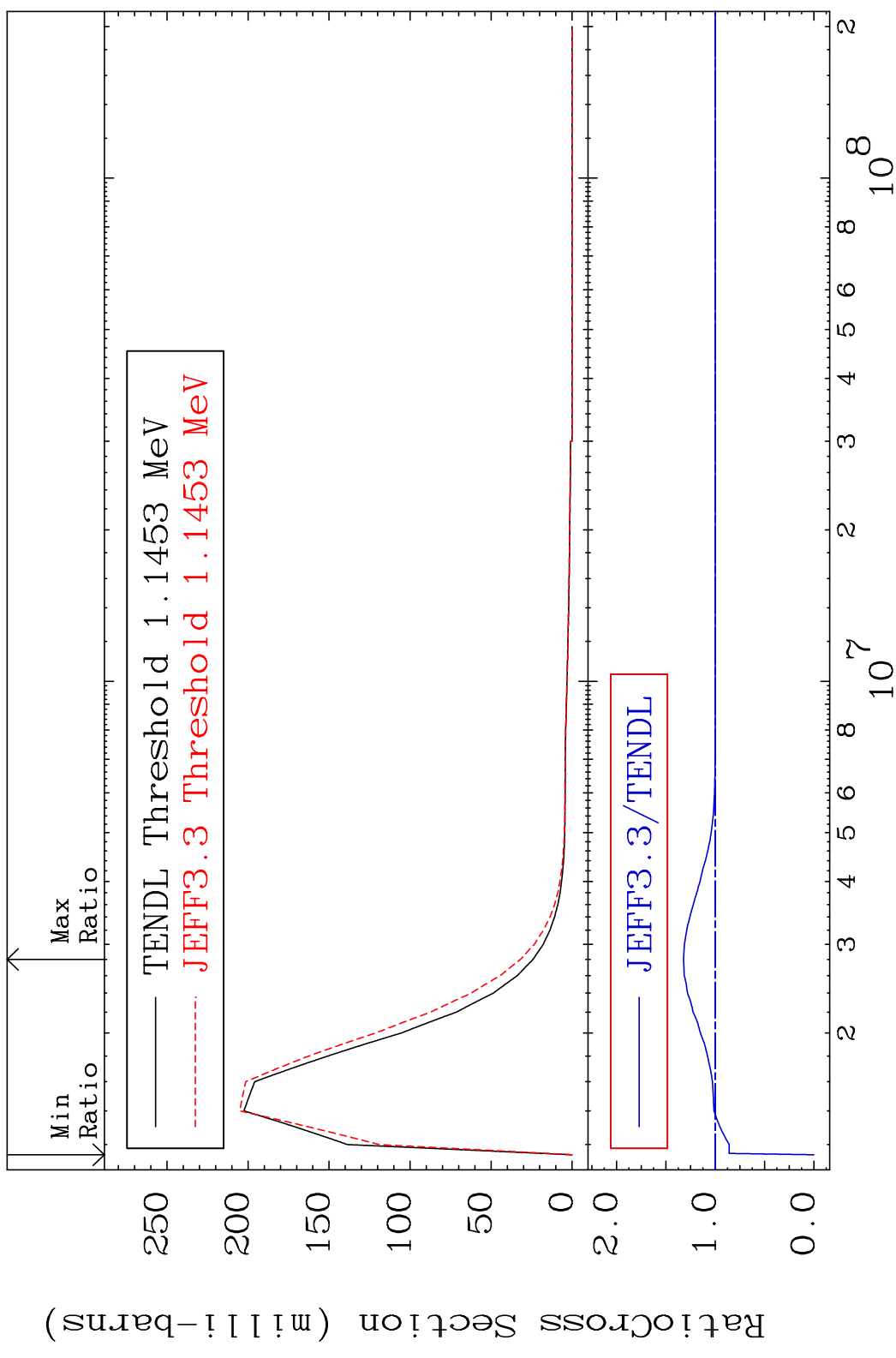
MAT 7031 MT= 54 (n, n') Level 70-Yb-170  
 Cross Section 0.000 To 41.58 %



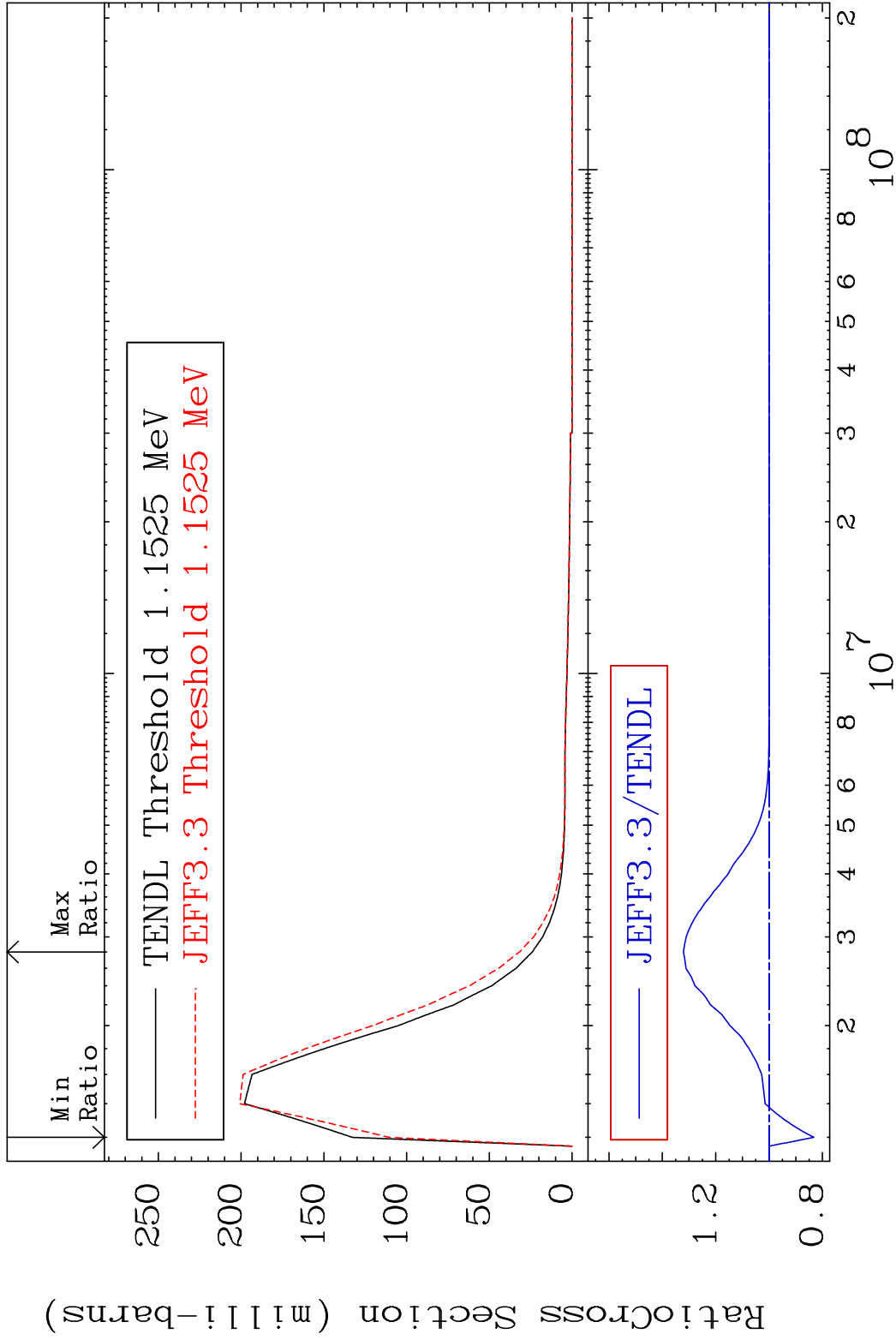
MAT 7031 MT= 55 (n, n') Level 70-Yb-170  
 Cross Section -100.0 To 46.82 %



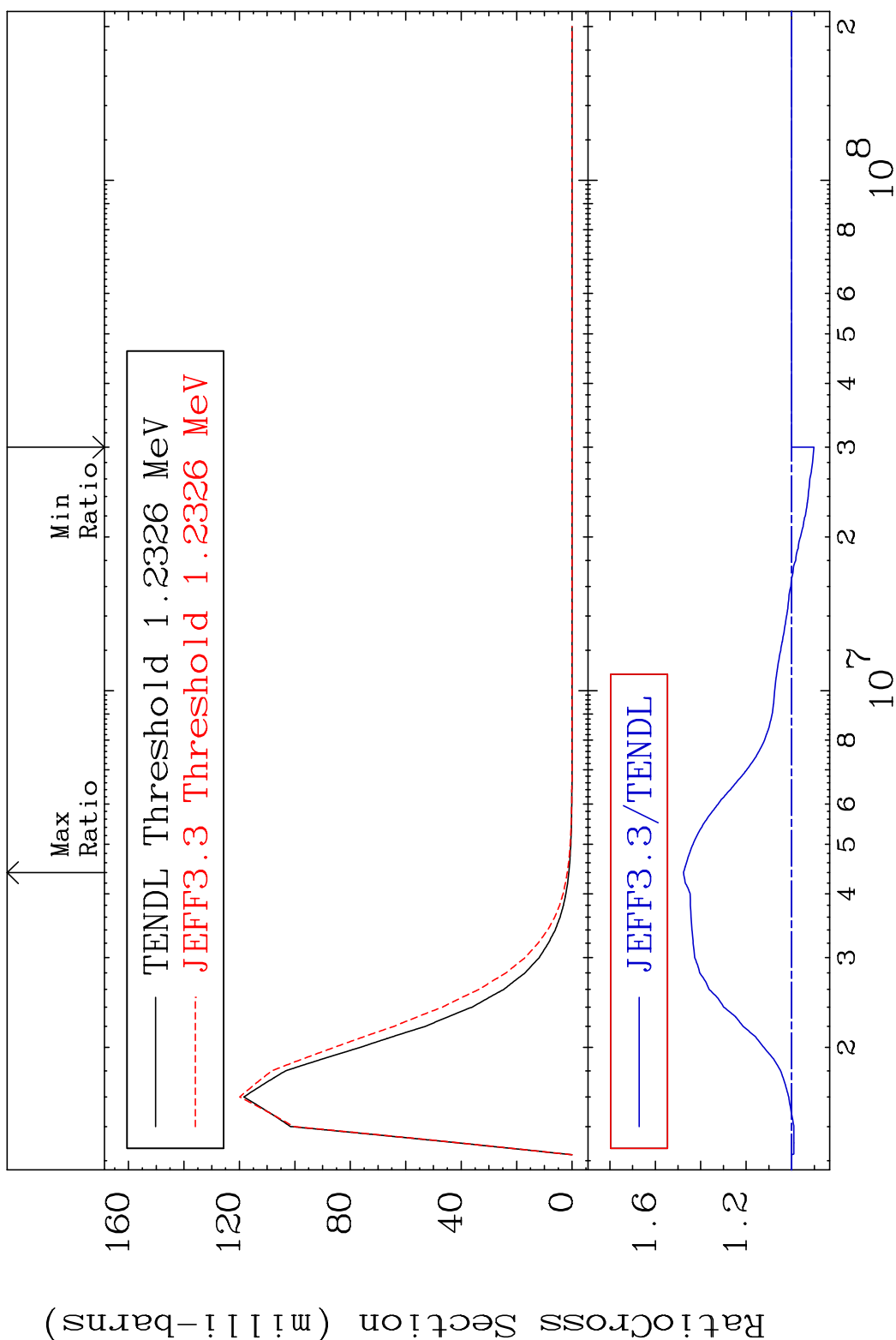
MAT 7031 MT= 56 (n, n') Level 70-Yb-170  
 Cross Section -100.0 To 32.22 %



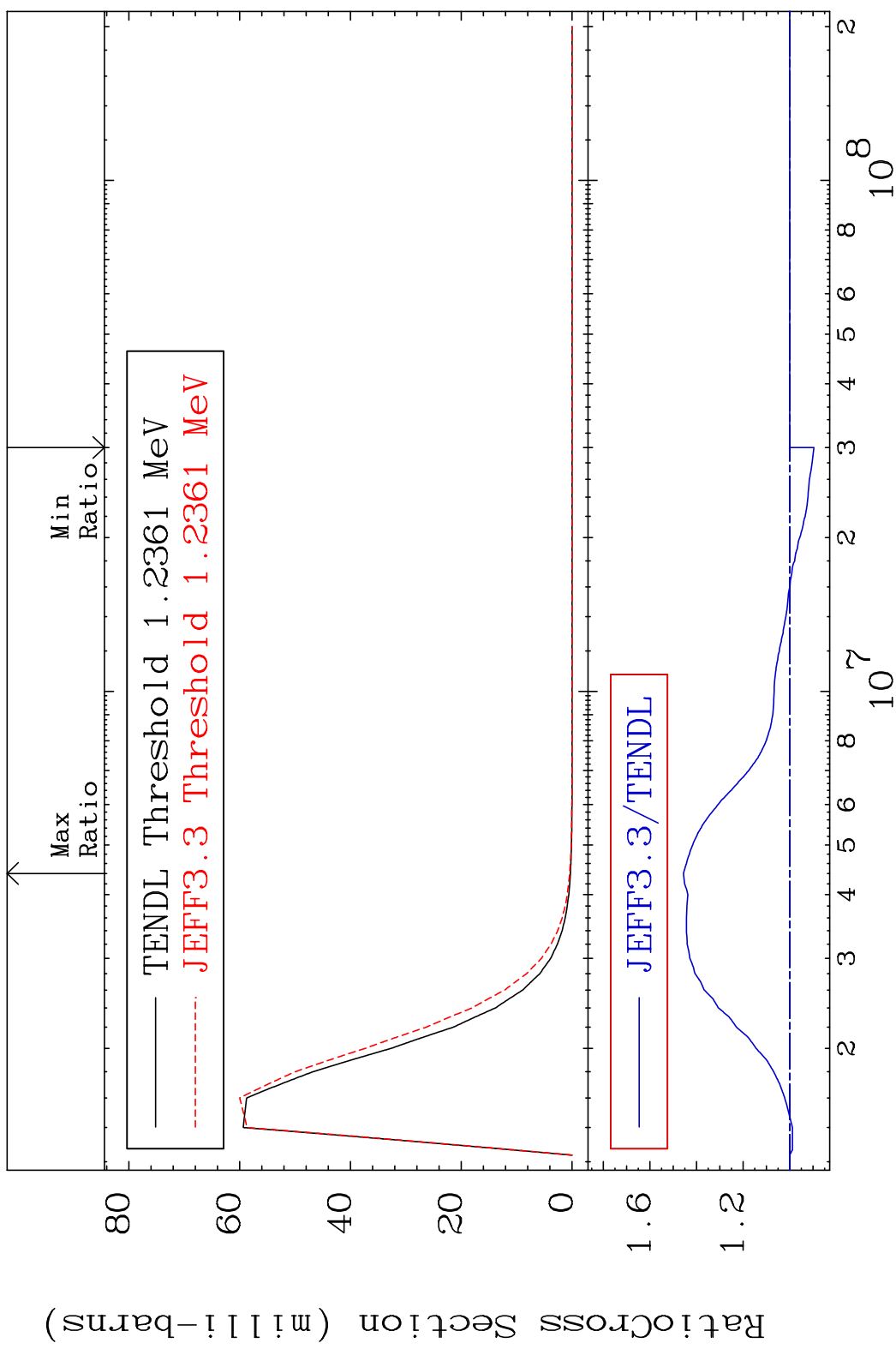
MAT 7031 MT= 57 (n, n') Level 70-Yb-170  
 Cross Section -16.78 To 32.09 %



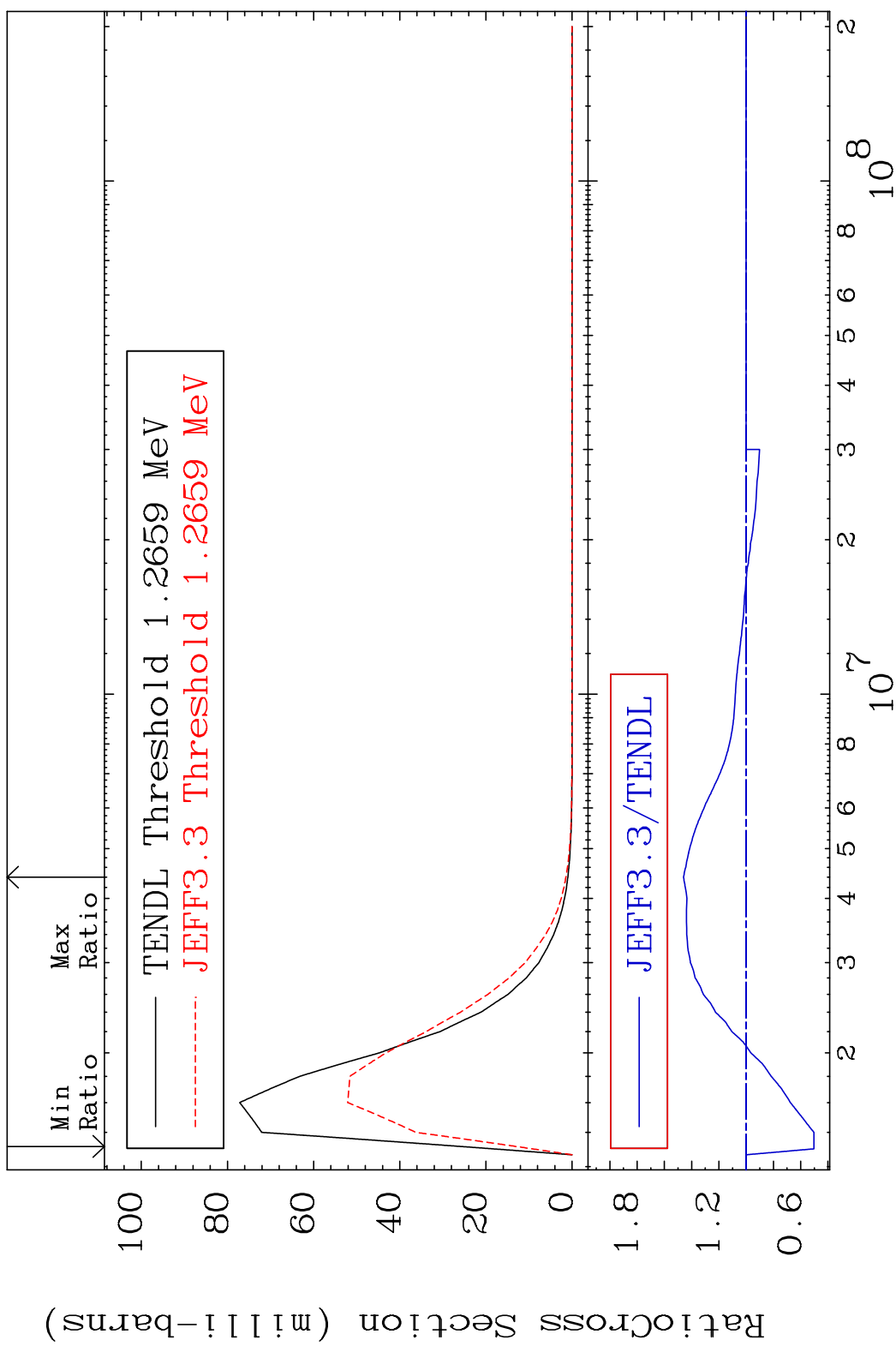
MAT 7031 MT= 58 (n, n') Level 70-Yb-170  
 Cross Section -9.820 To 47.60 %



MAT 7031 MT= 59 (n, n') Level 70-Yb-170  
 Cross Section -10.38 To 45.62 %

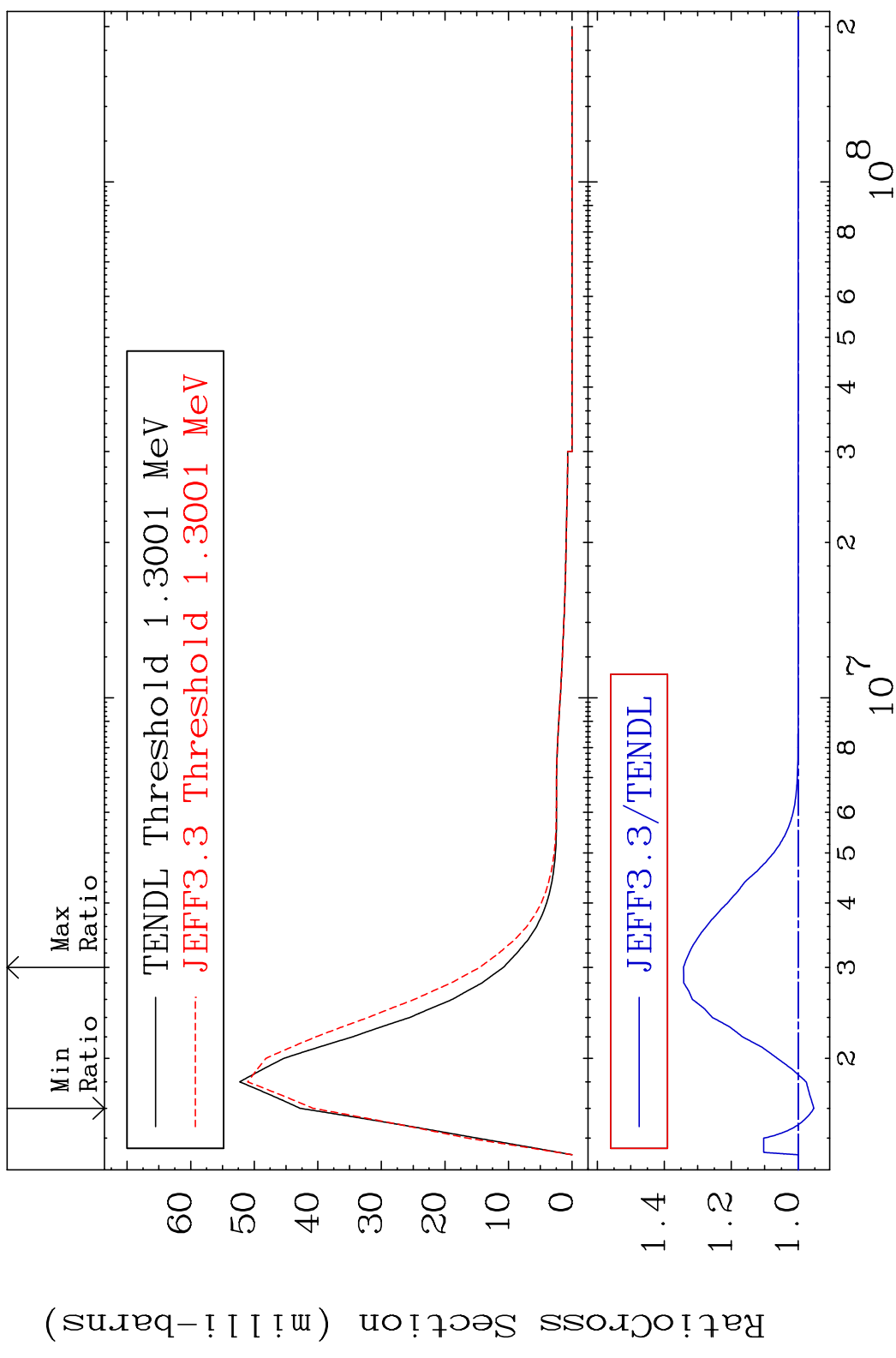


MAT 7031 MT= 60 (n, n') Level 70-Yb-170  
 Cross Section -49.66 To 46.00 %

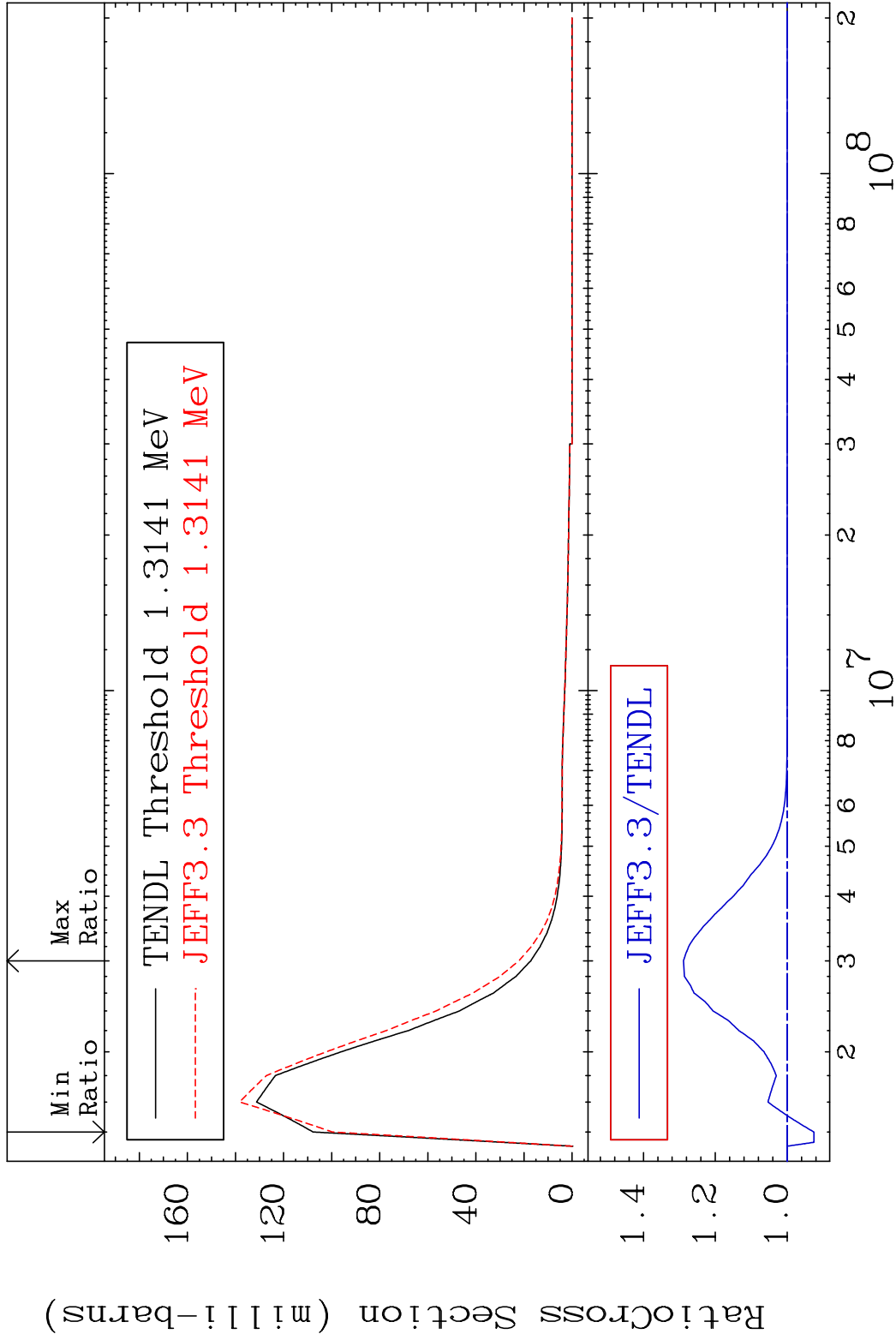


30

MAT 7031 MT= 61 (n, n') Level 70-Yb-170  
 Cross Section -4.707 To 34.25 %

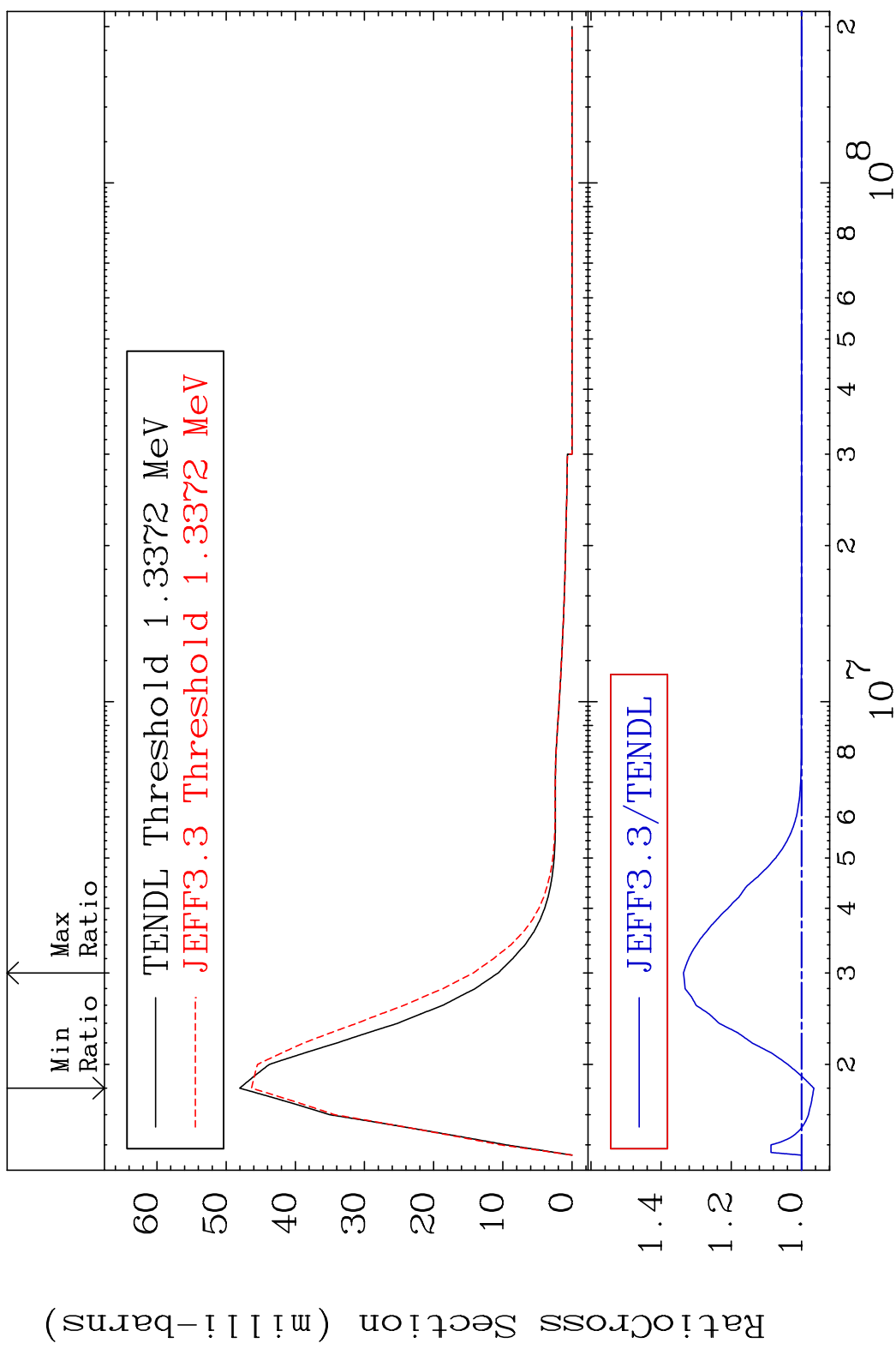


MAT 7031 MT= 62 (n, n') Level 70-Yb-170  
 Cross Section -7.436 To 28.86 %

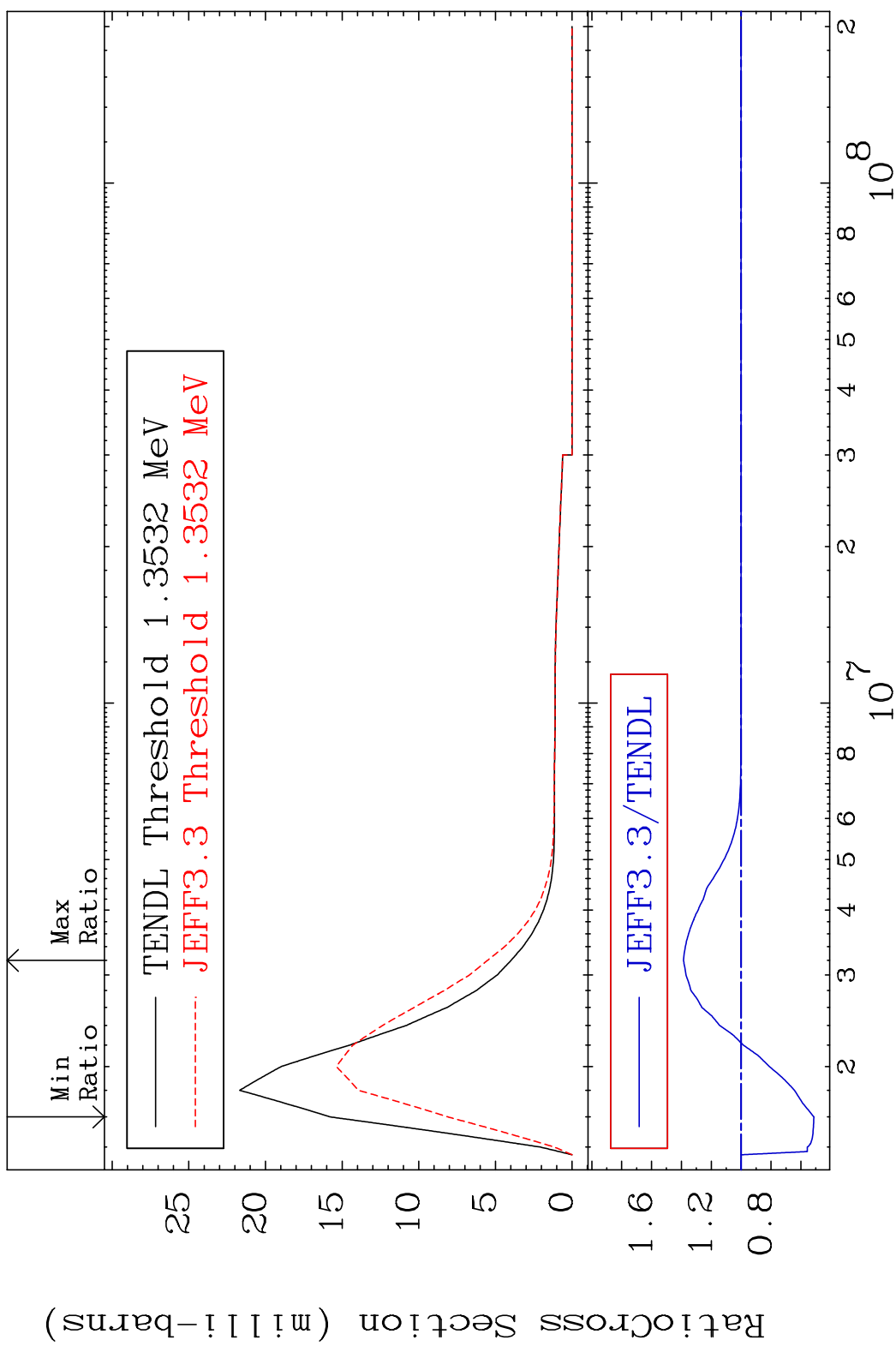


32 70-Yb-170

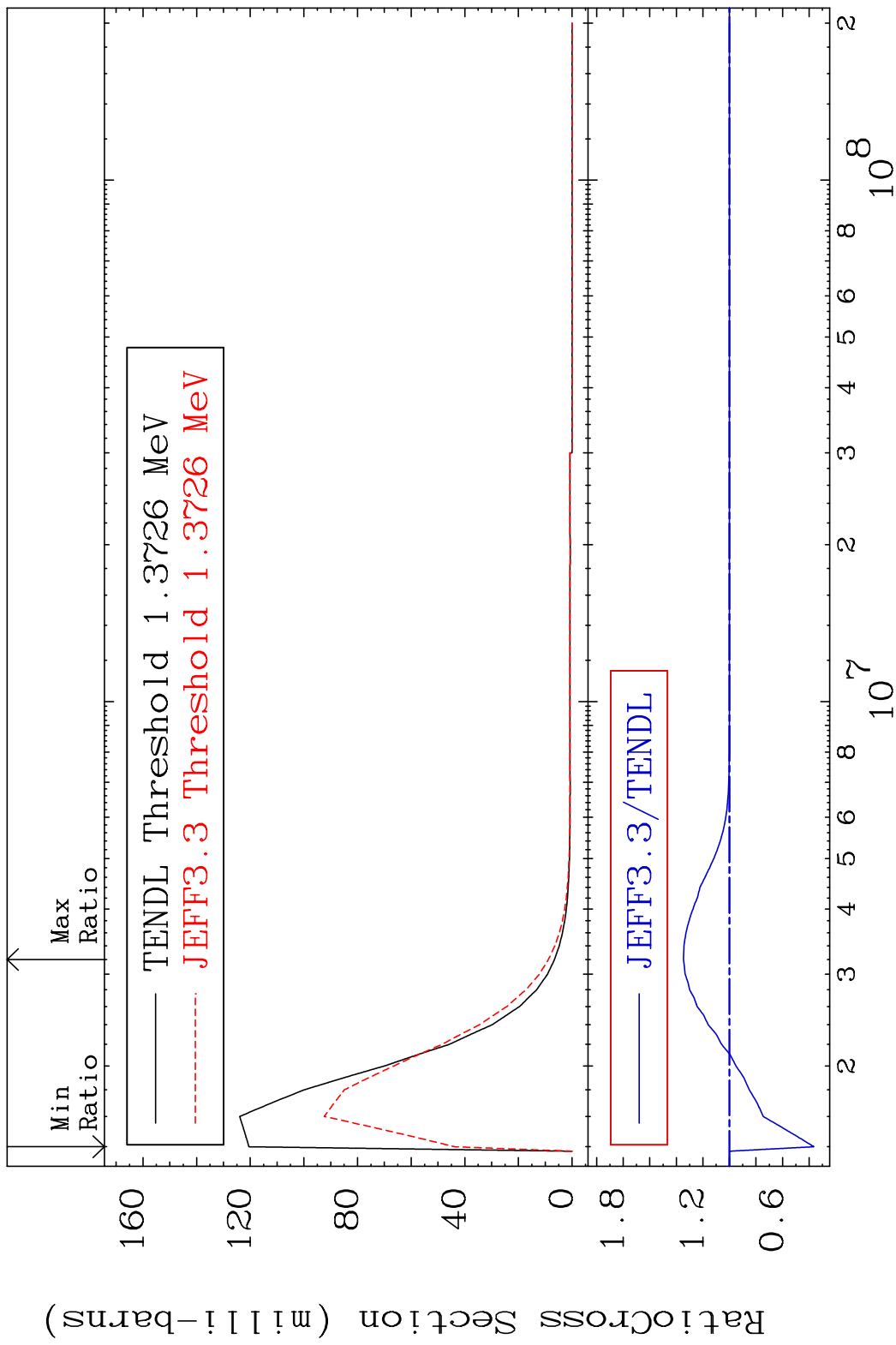
MAT 7031 MT= 63 (n, n') Level 70-Yb-170  
 Cross Section -3.535 To 33.65 %



MAT 7031 MT= 64 (n, n') Level 70-Yb-170  
 Cross Section -48.67 To 38.63 %

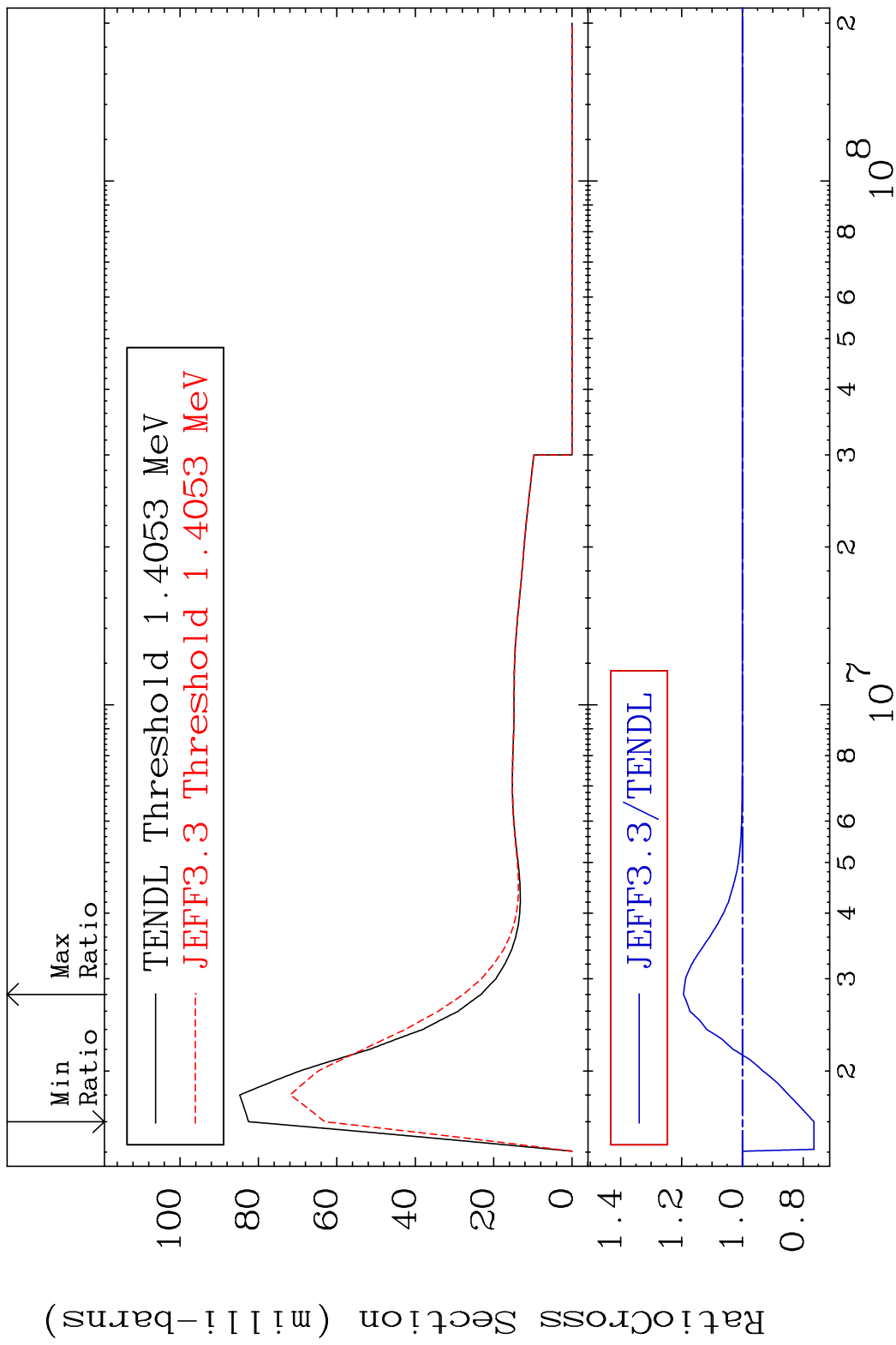


MAT 7031 MT= 65 (n, n') Level 70-Yb-170  
 Cross Section -63.60 To 34.64 %



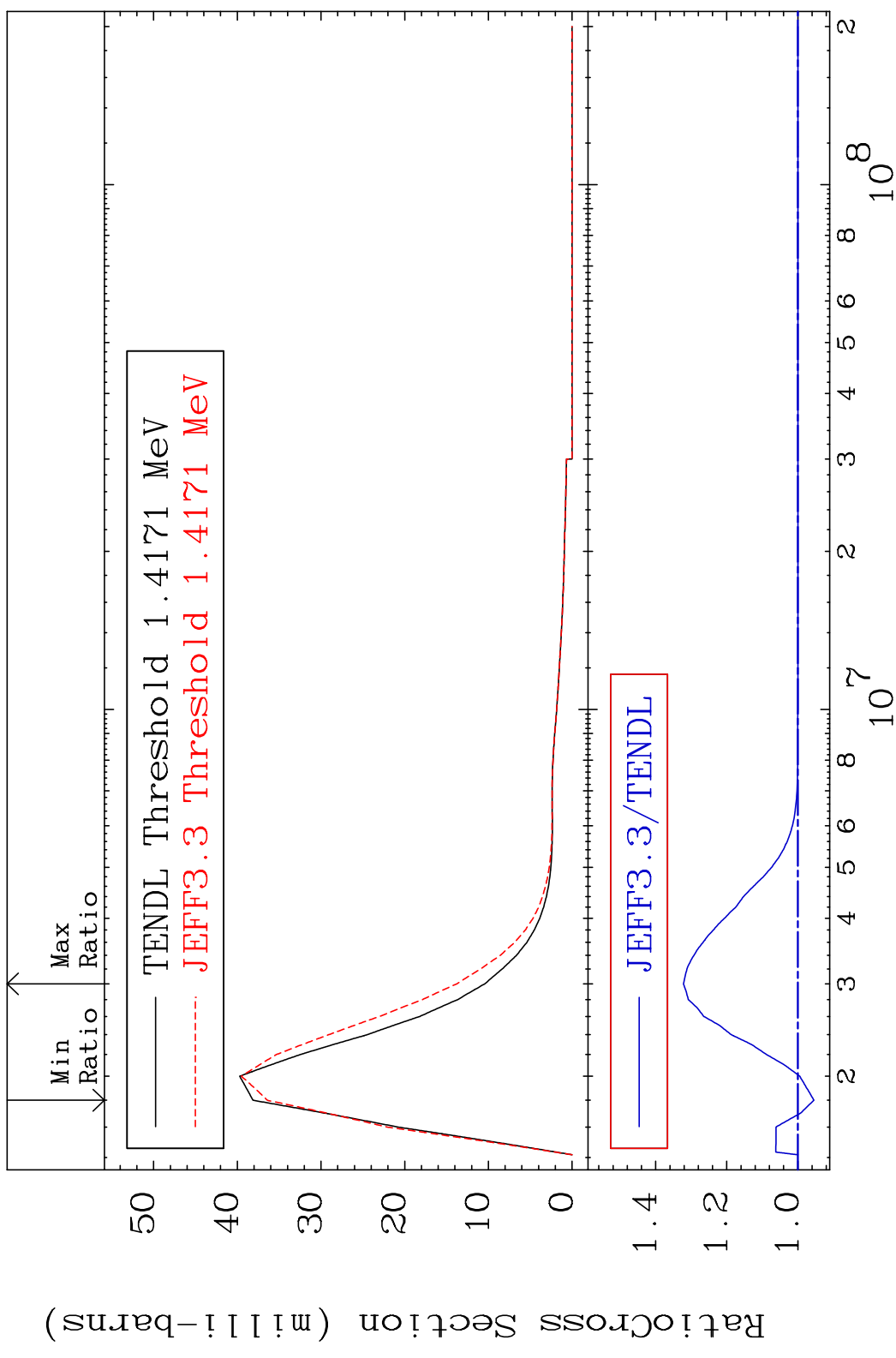
35 70-Yb-170

MAT 7031 MT= 66 (n, n') Level 70-Yb-170  
 Cross Section -23.50 To 19.38 %



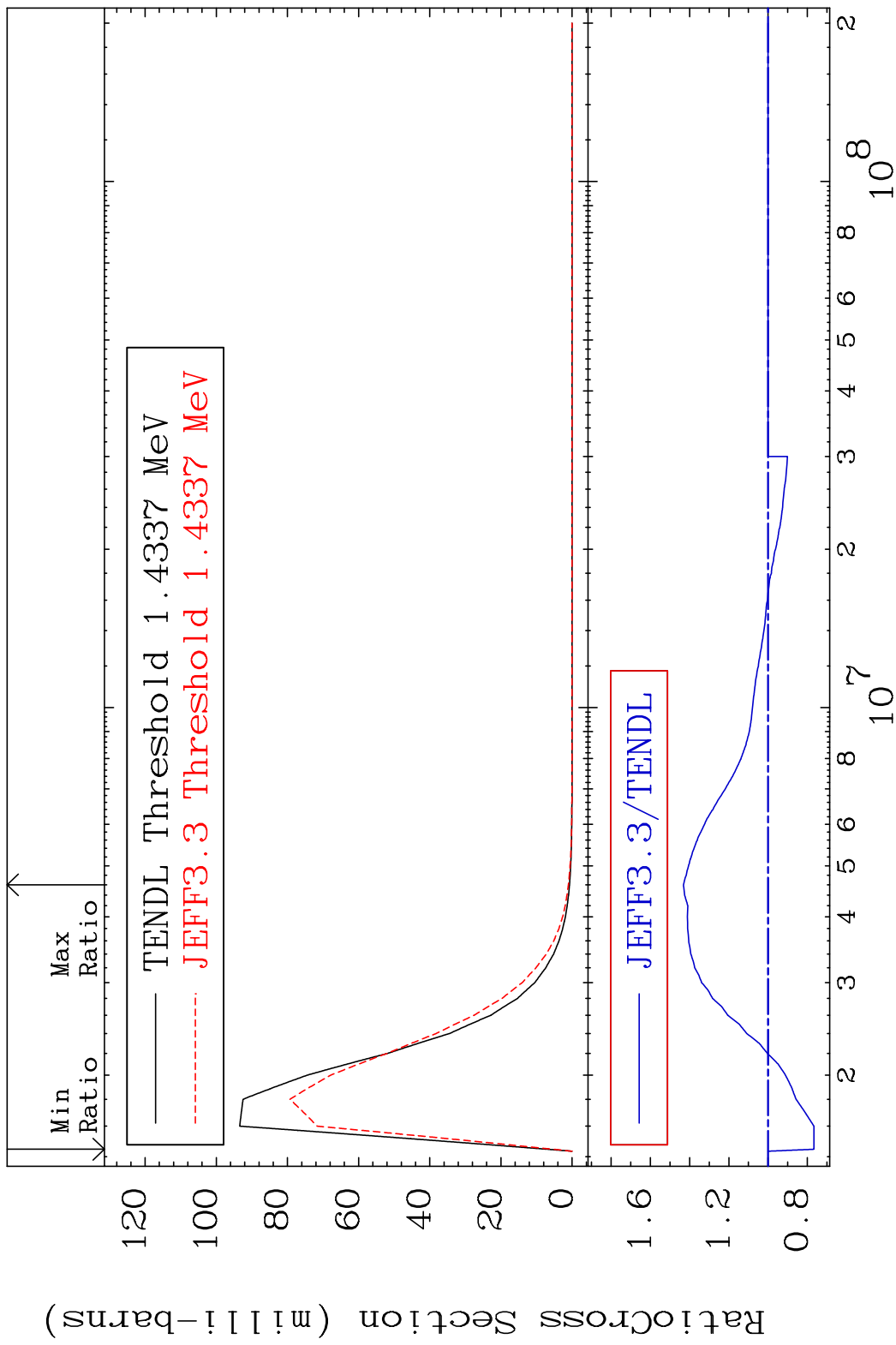
36

MAT 7031 MT= 67 (n, n') Level 70-Yb-170  
 Cross Section -4.514 To 32.19 %

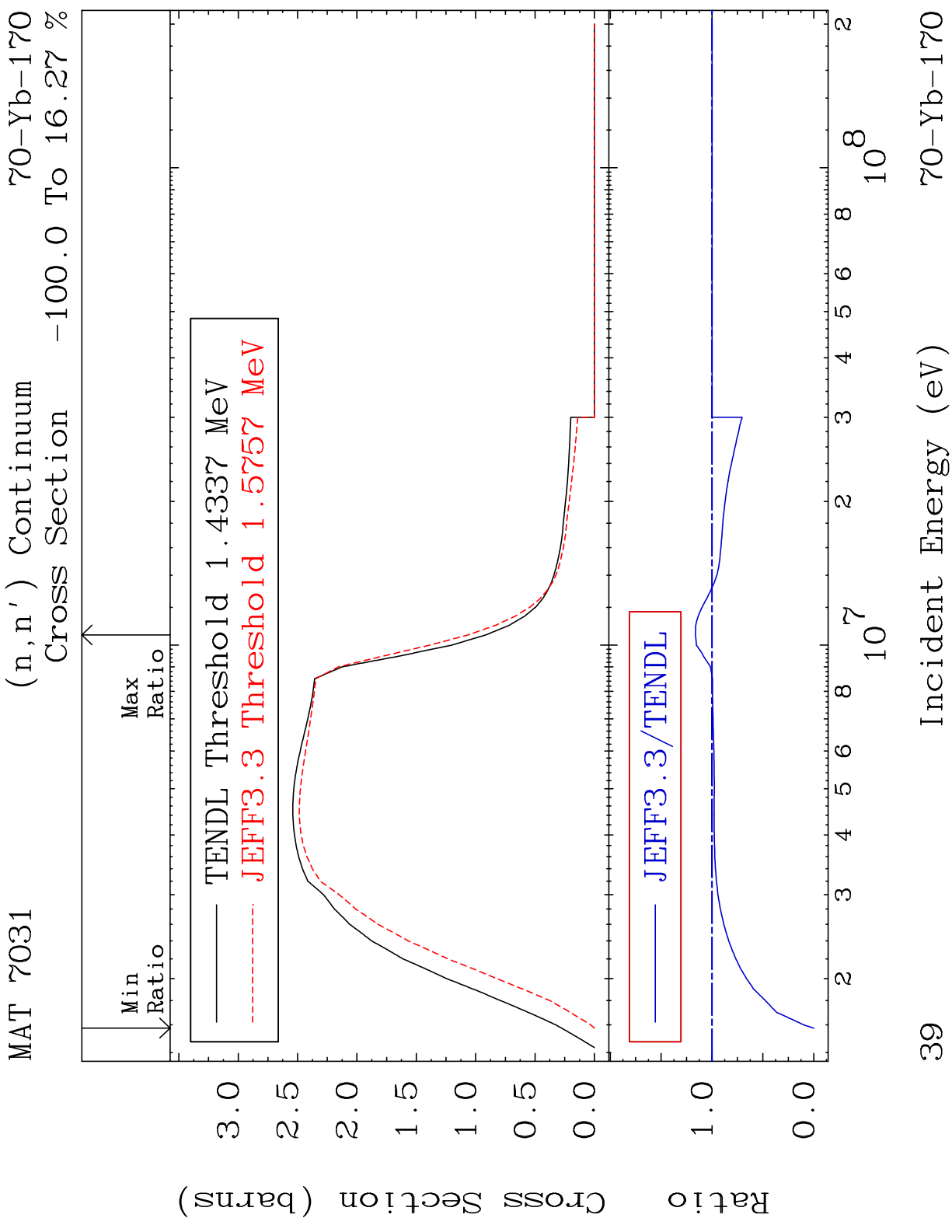


37 Incident Energy (eV) 70-Yb-170

MAT 7031 MT= 68 (n, n') Level 70-Yb-170  
 Cross Section -23.32 To 43.13 %



38 70-Yb-170

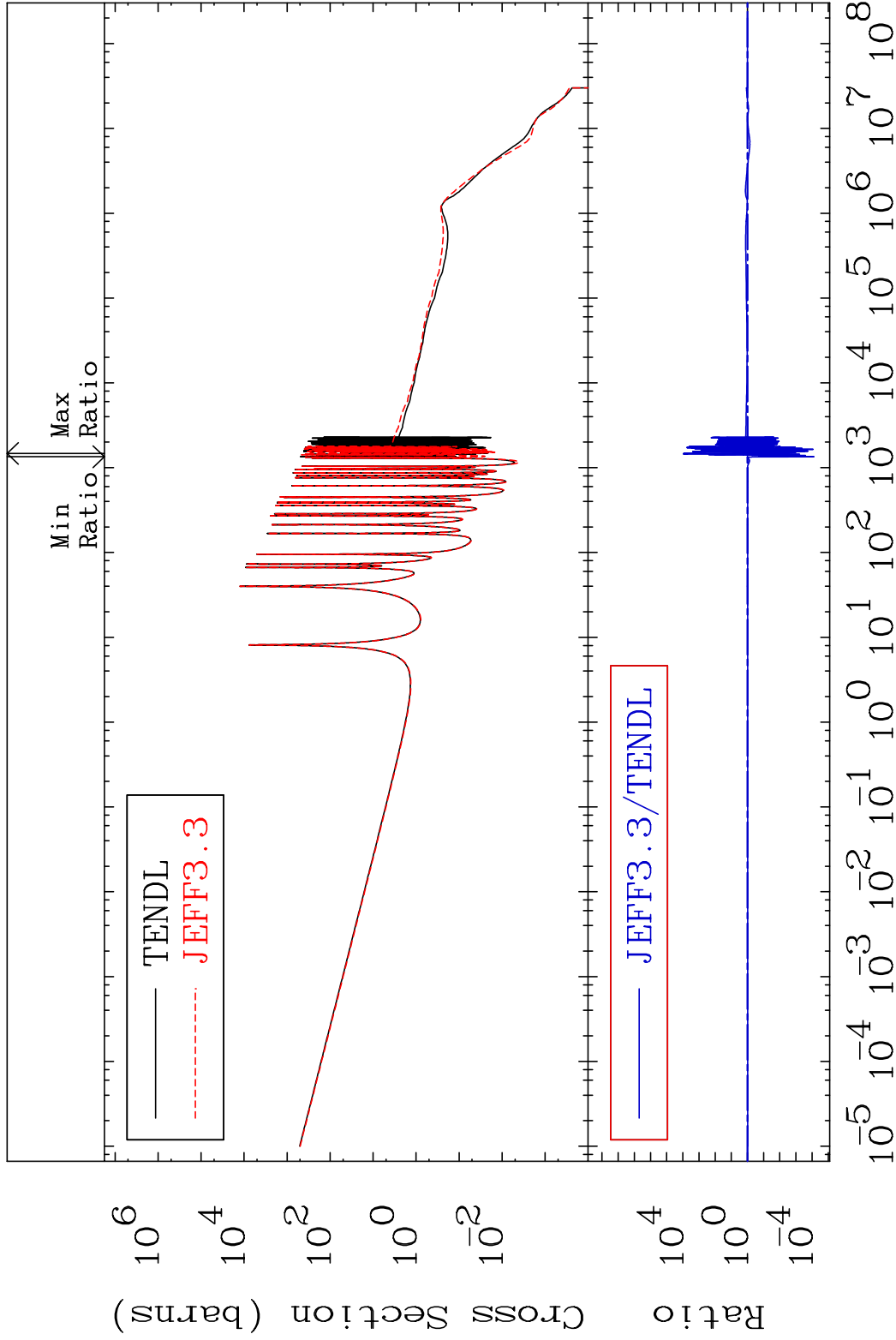


MAT 7031

(n,  $\gamma$ )

70-Yb-170

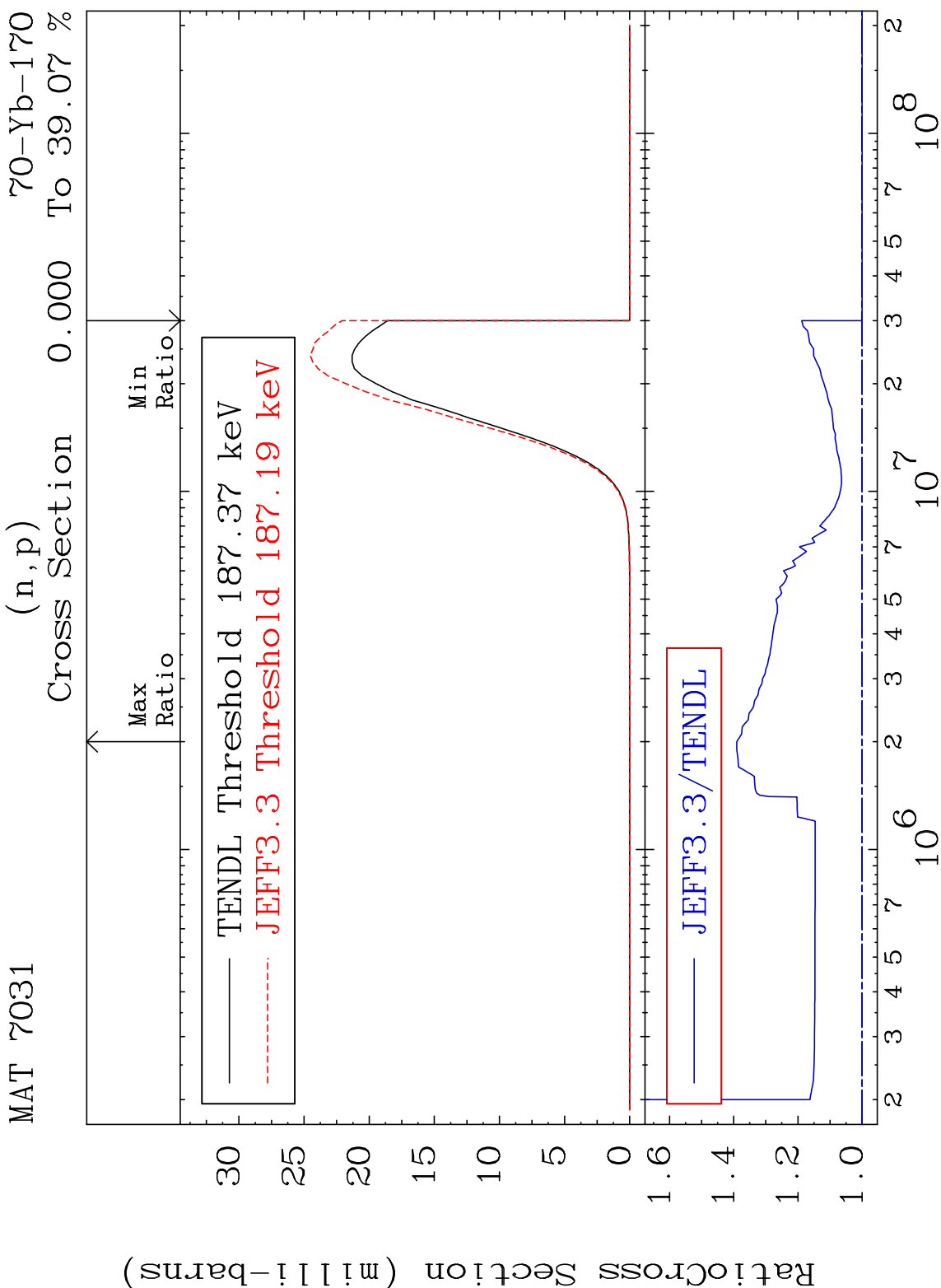
Cross Section -99.99 To 9999. %

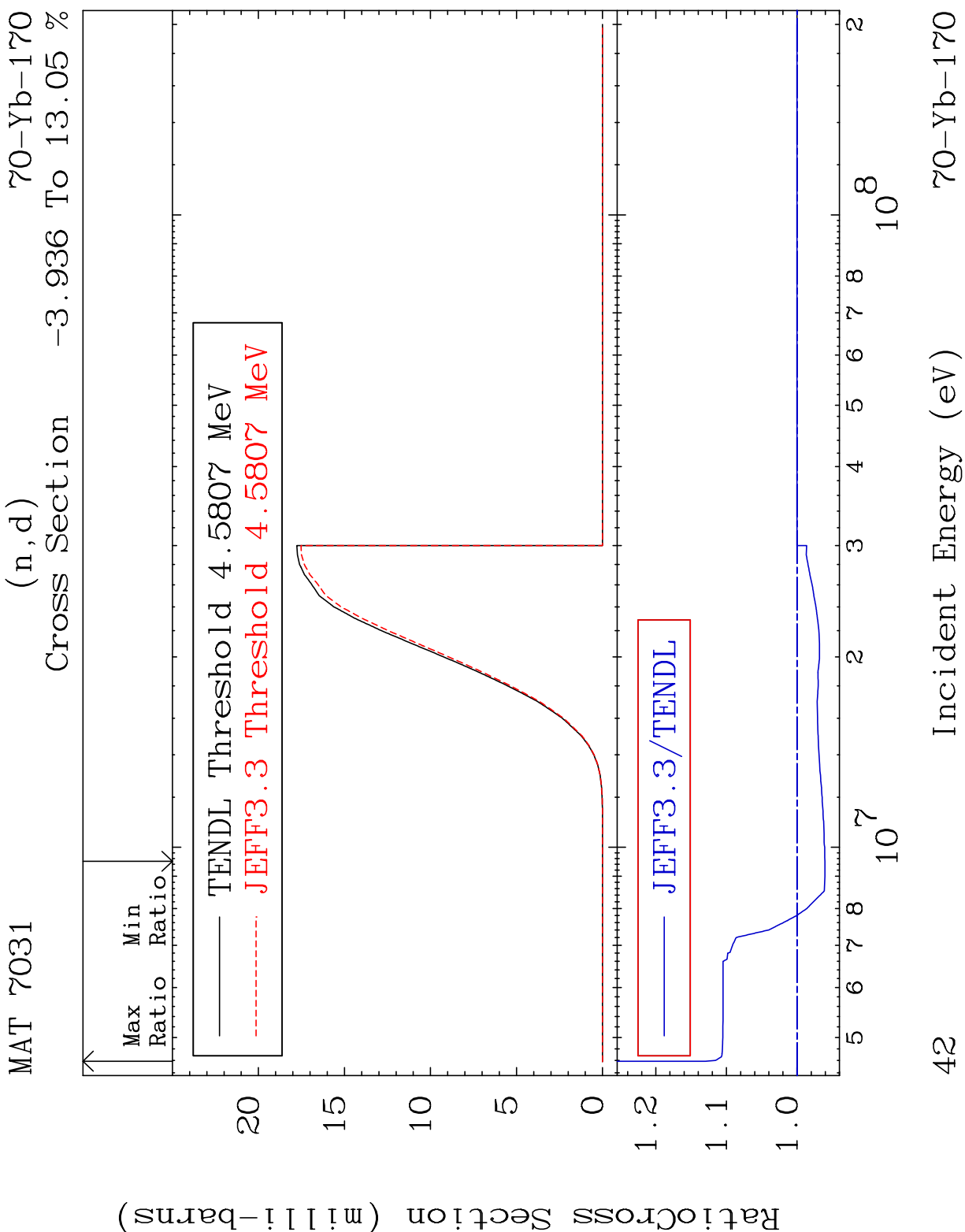


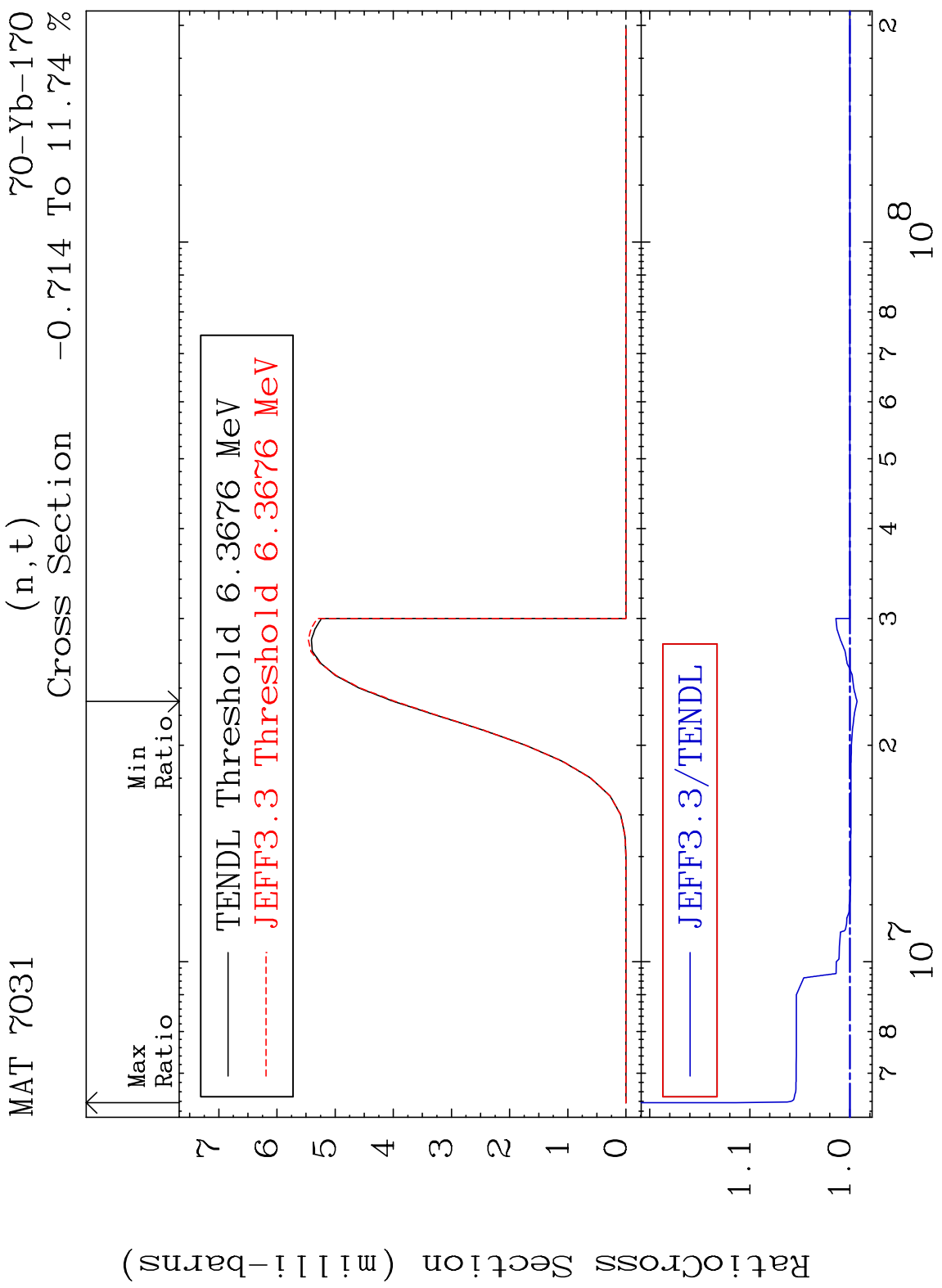
40

Incident Energy (eV)

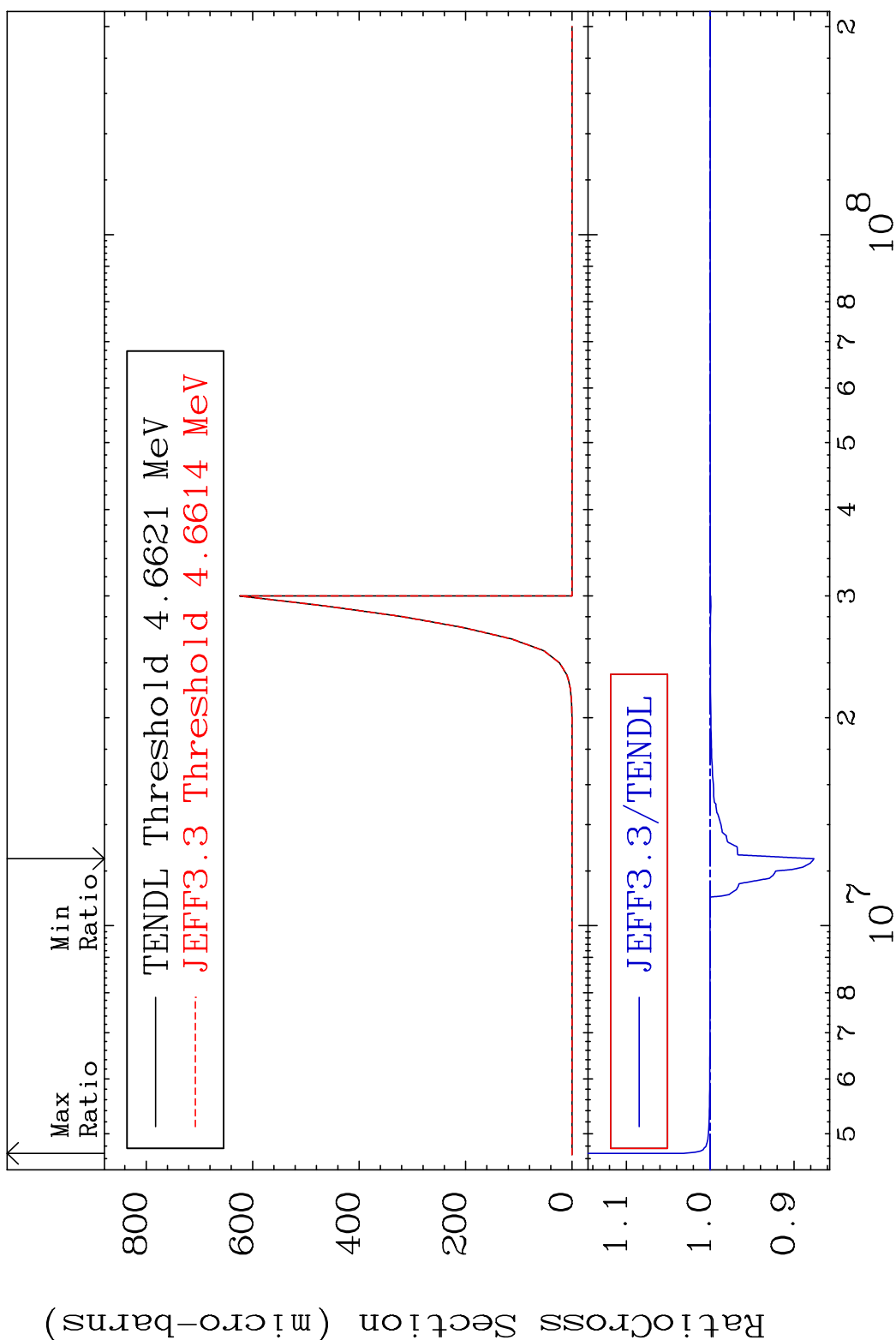
70-Yb-170







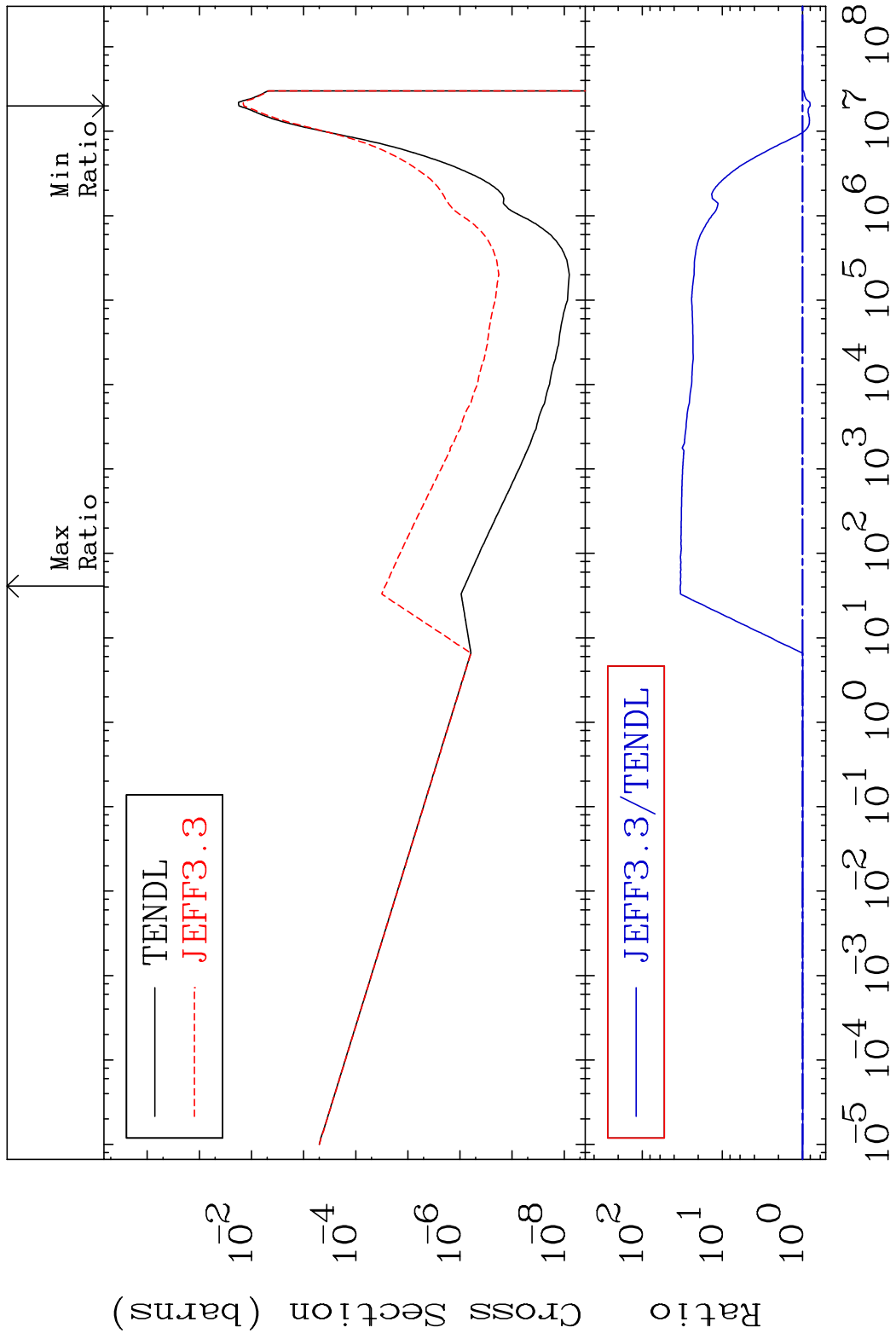
MAT 7031 (n, He-3) 70-Yb-170  
 Cross Section -12.37 To 3.187 %



44 Incident Energy (eV) 70-Yb-170

MAT 7031

(n,  $\alpha$ )  
Cross Section -19.38 To 3258. %  
70-Yb-170



45

Incident Energy (eV)

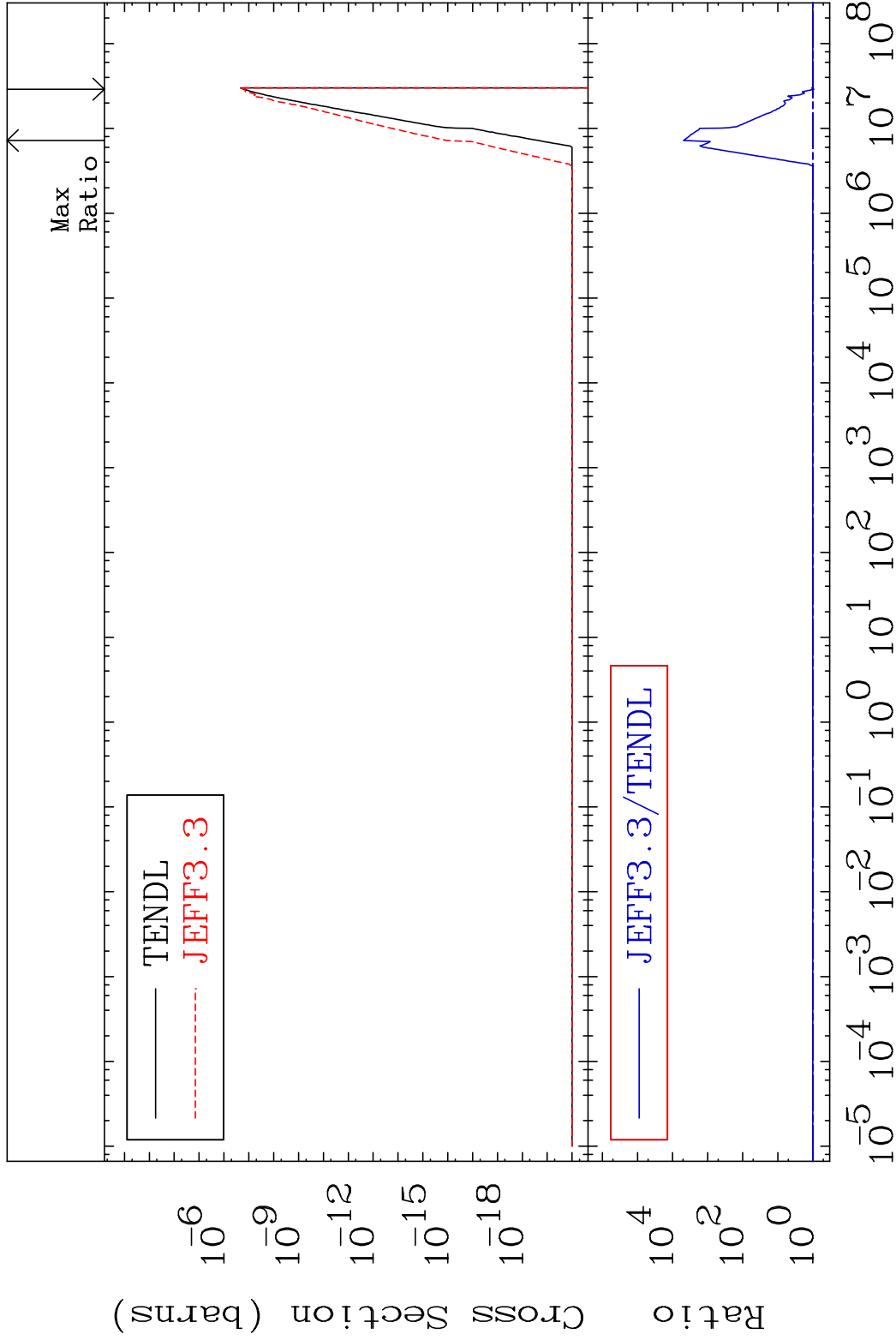
70-Yb-170

MAT 7031

(n,2α)

70-Yb-170

Cross Section -6.713 To 9999. %



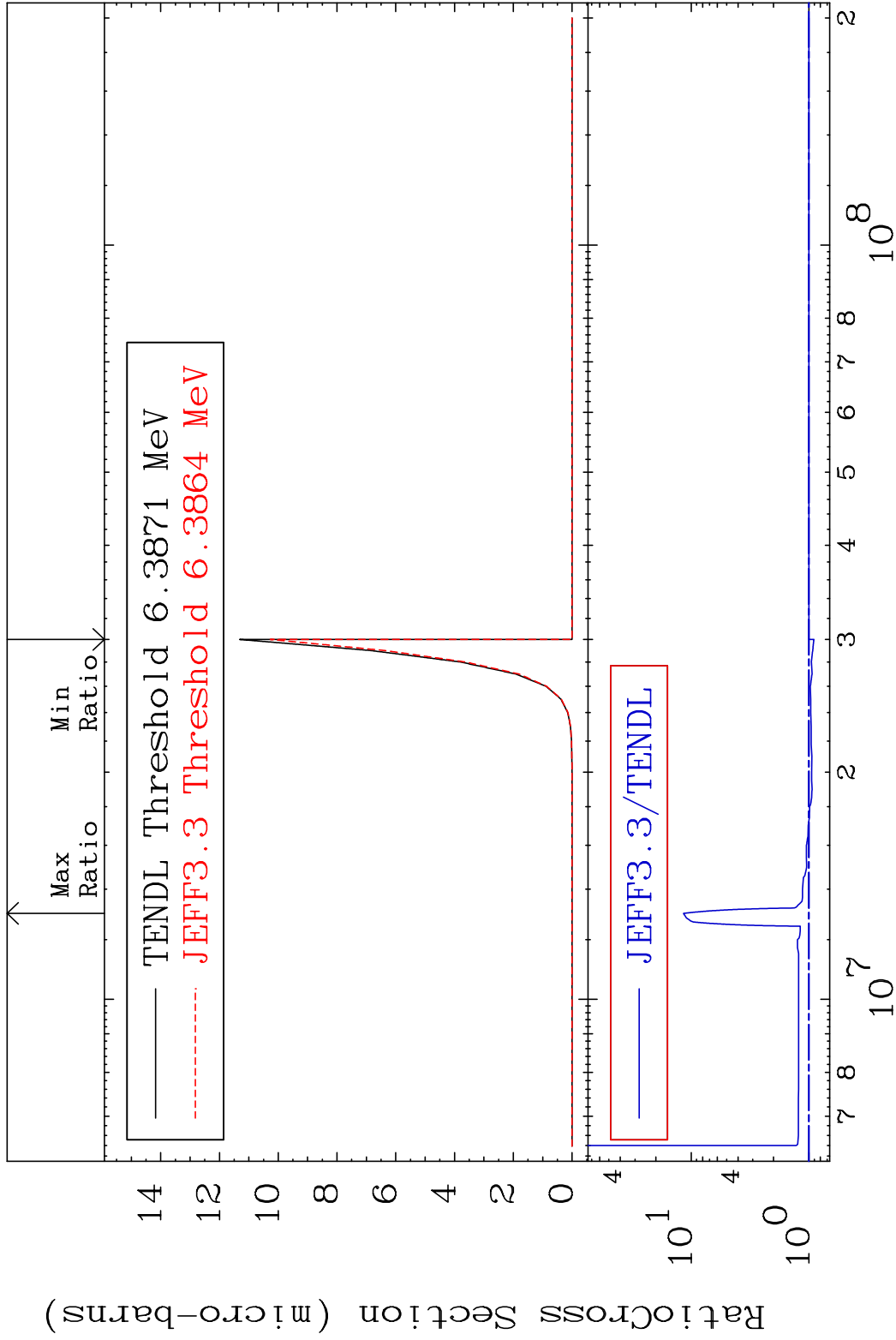
46

Incident Energy (eV)

70-Yb-170

MAT 7031

(n,2p) 70-Yb-170  
Cross Section -9.178 To 1064. %



47

Incident Energy (eV)

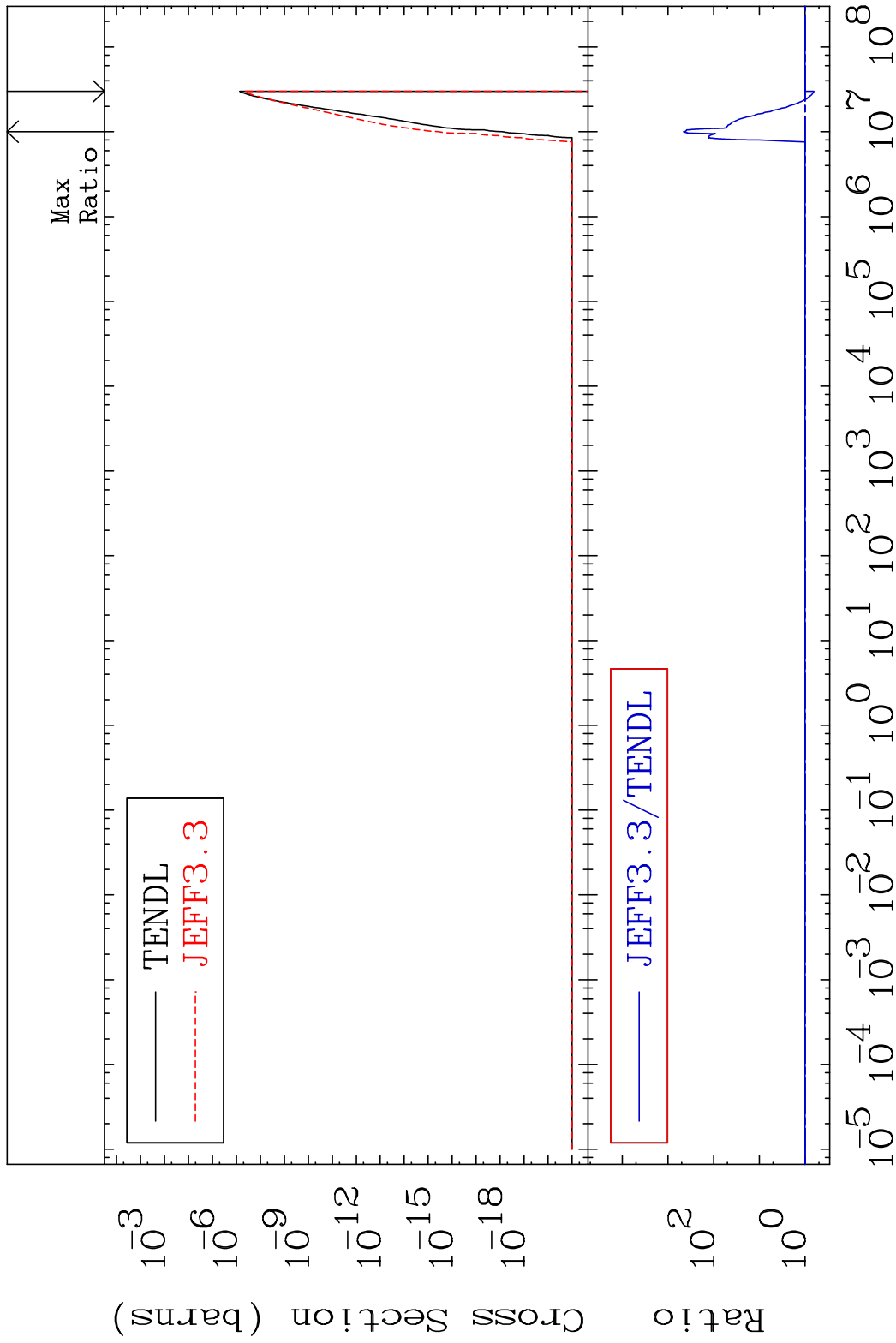
70-Yb-170

MAT 7031

(n,p)  $\alpha$

70-Yb-170

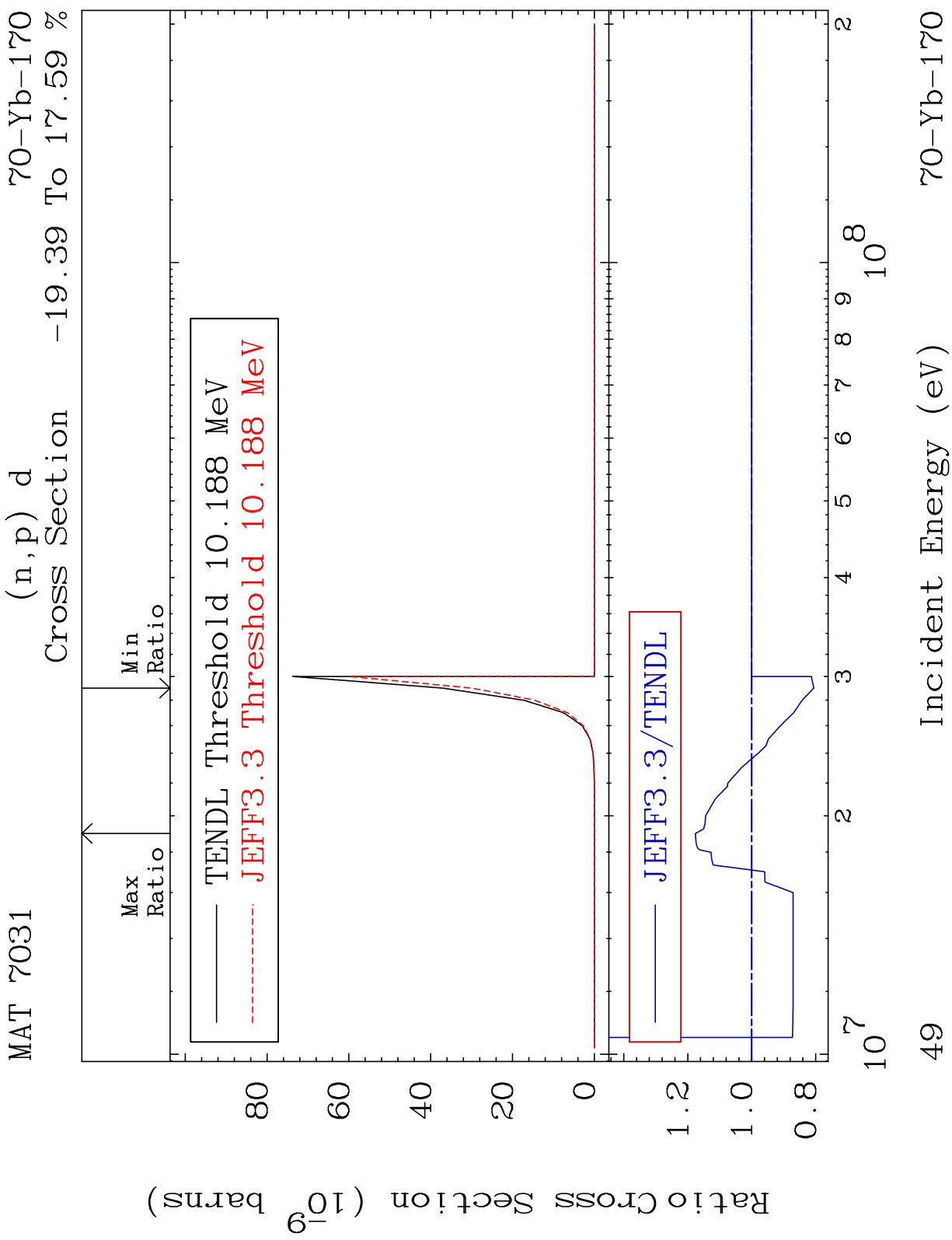
Cross Section -35.65 To 9999. %

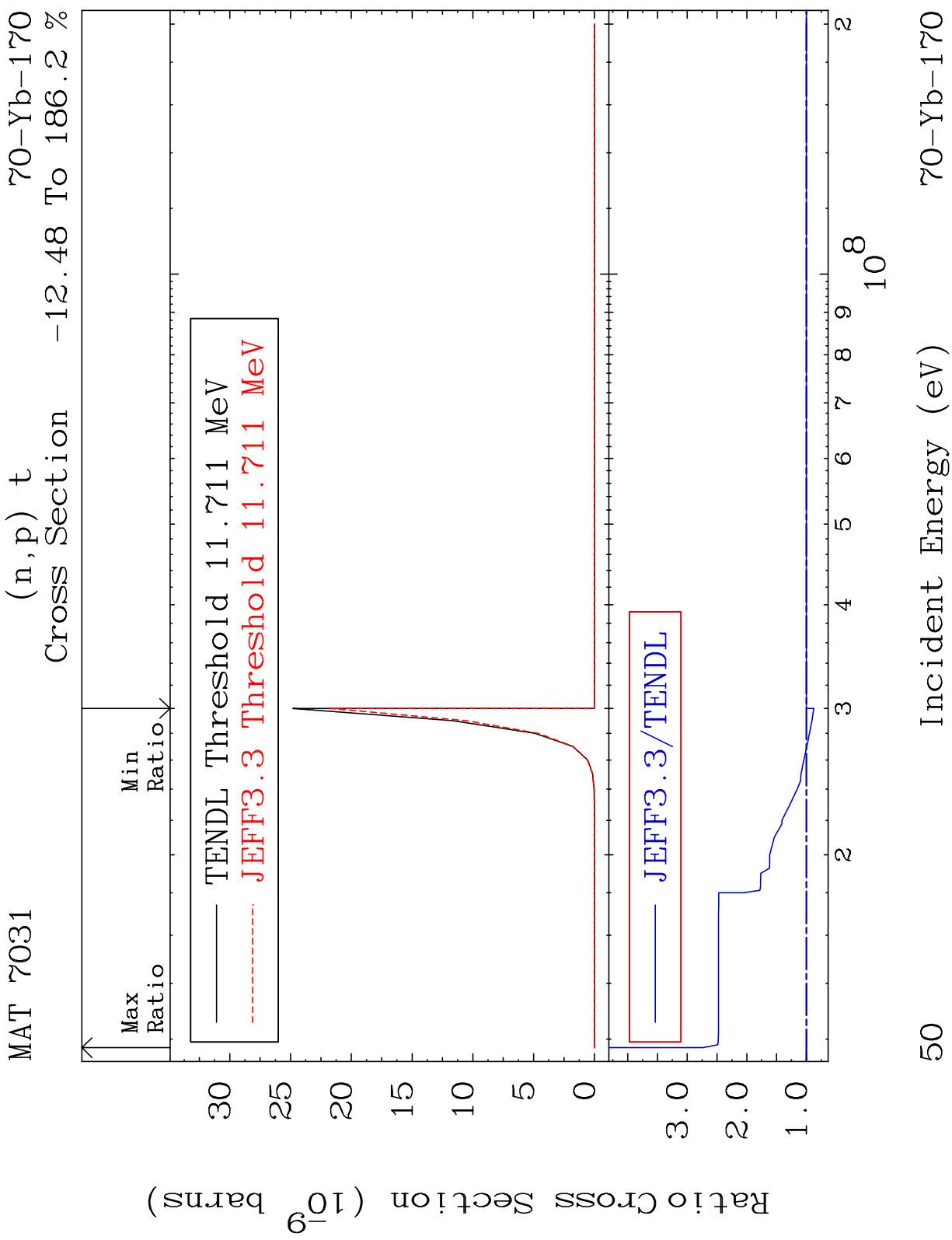


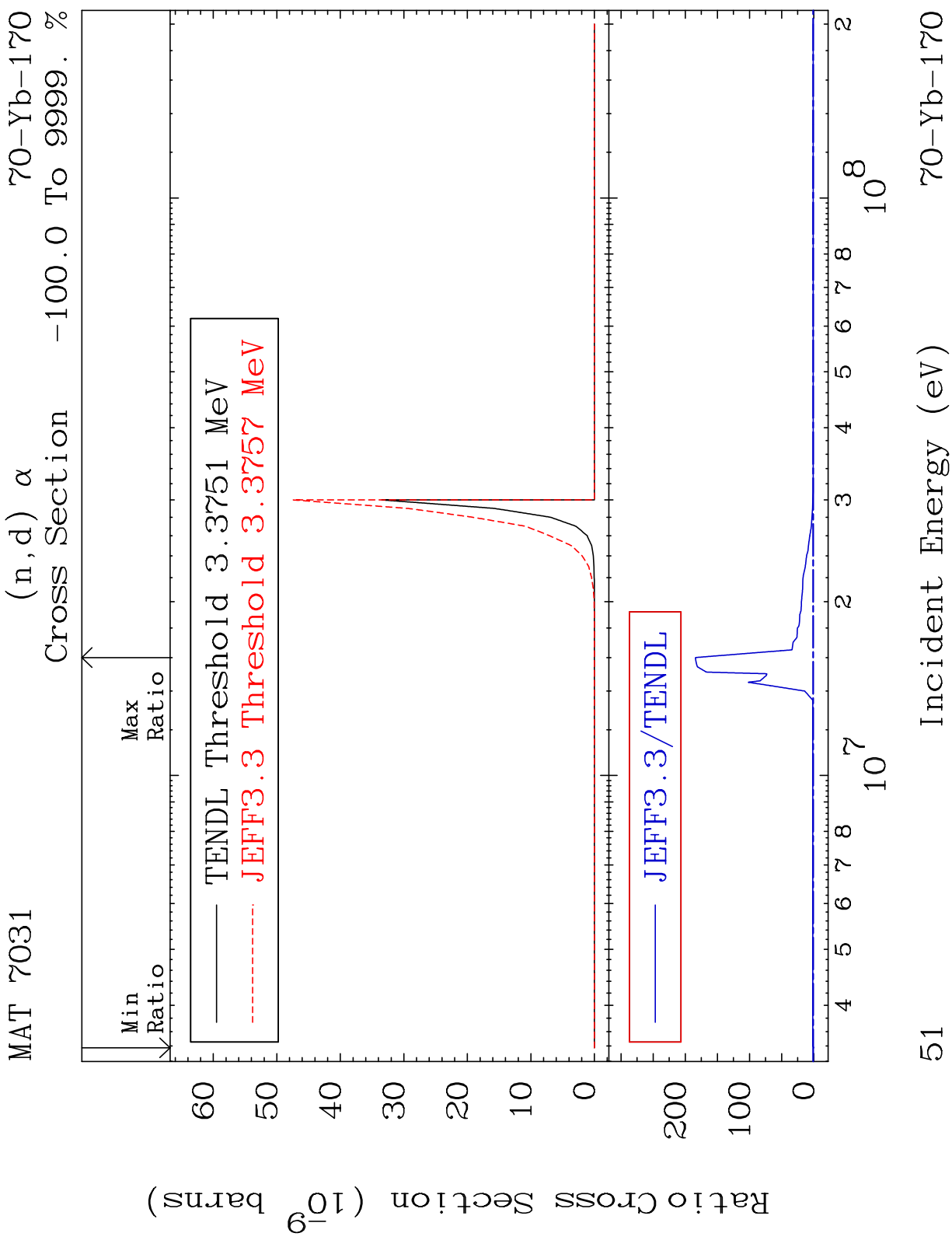
48

Incident Energy (eV)

70-Yb-170



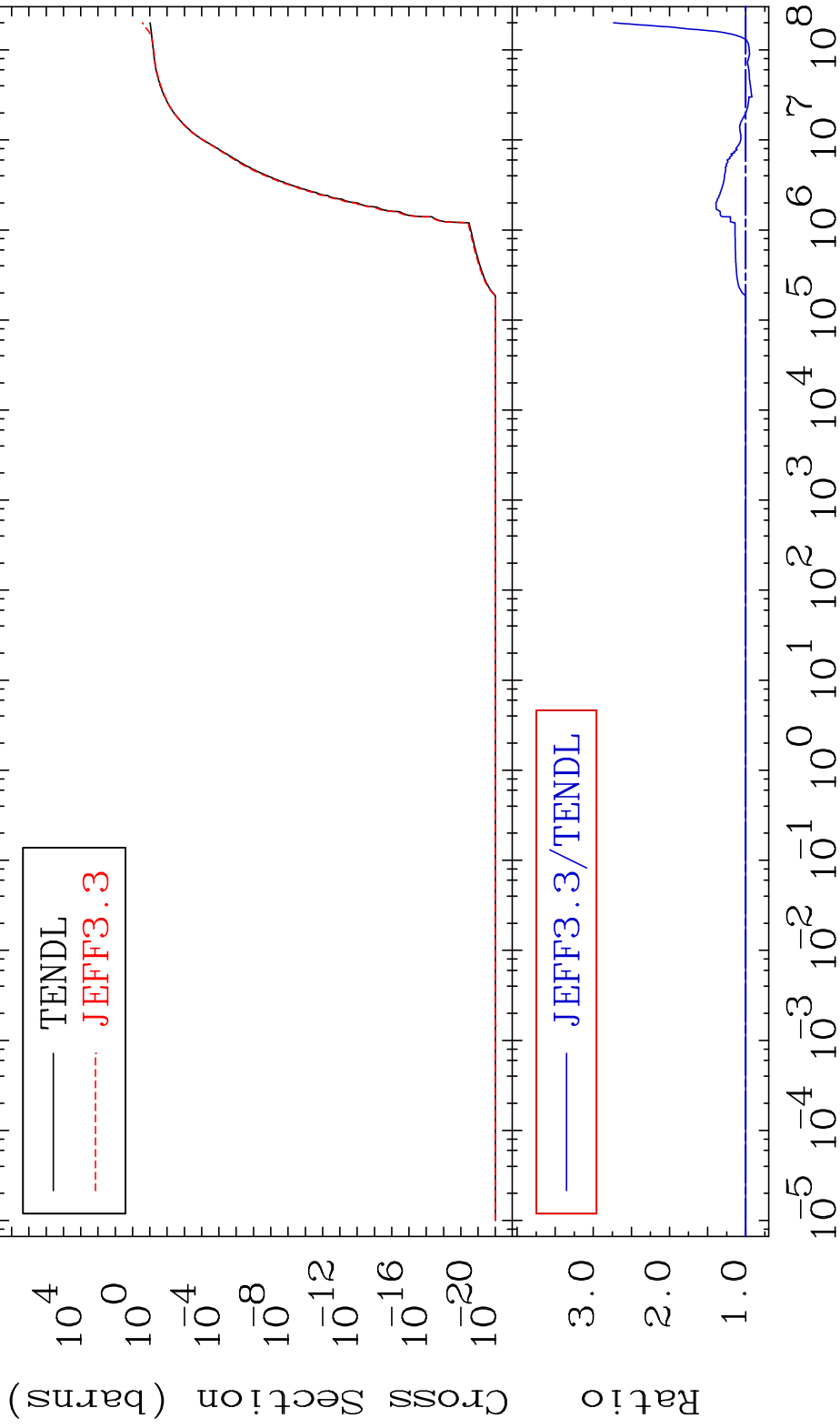




MAT 7031

Hydrogen Production  
Cross Section -8.091 To 173.5 %

70-Yb-170

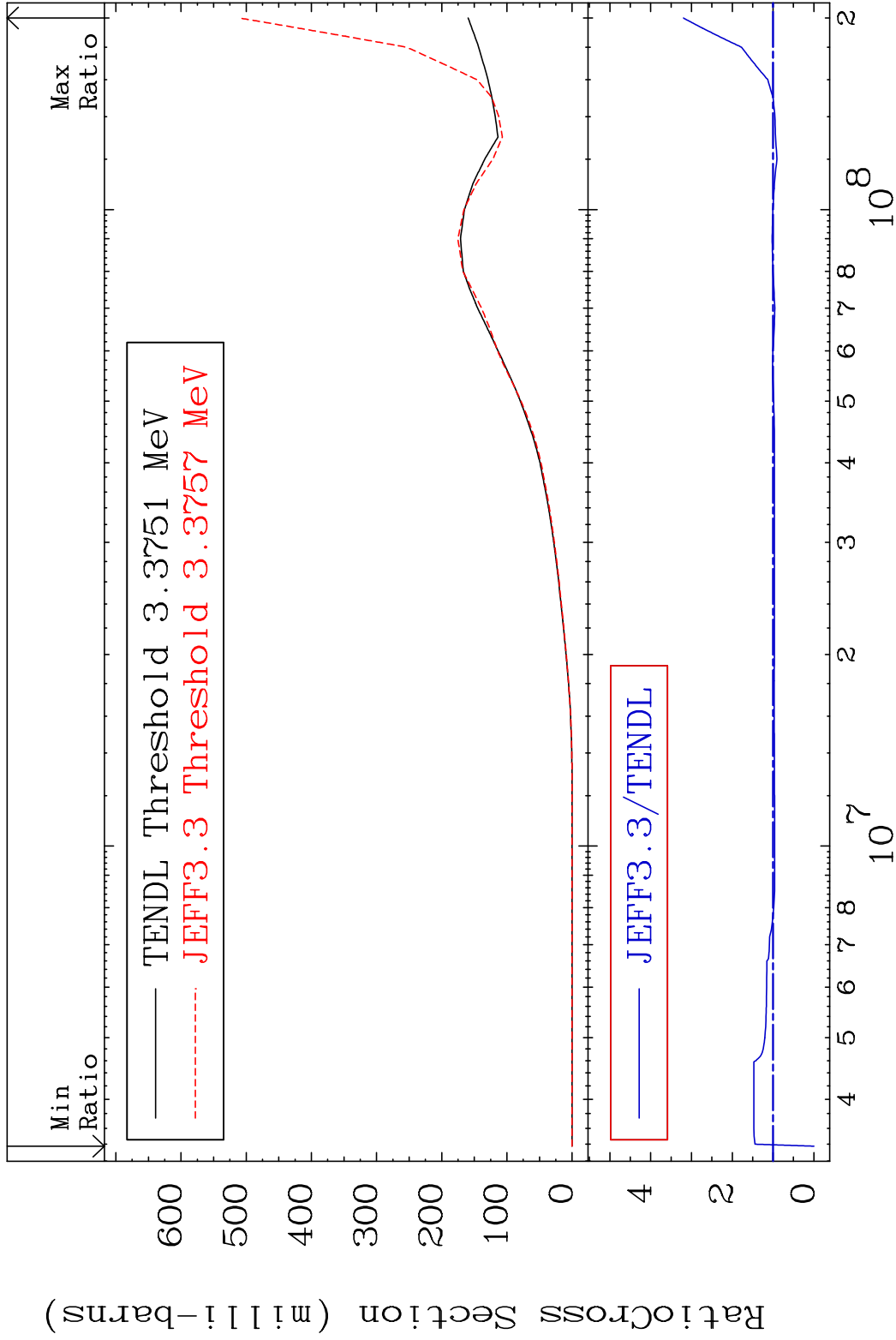


52

Incident Energy (eV)

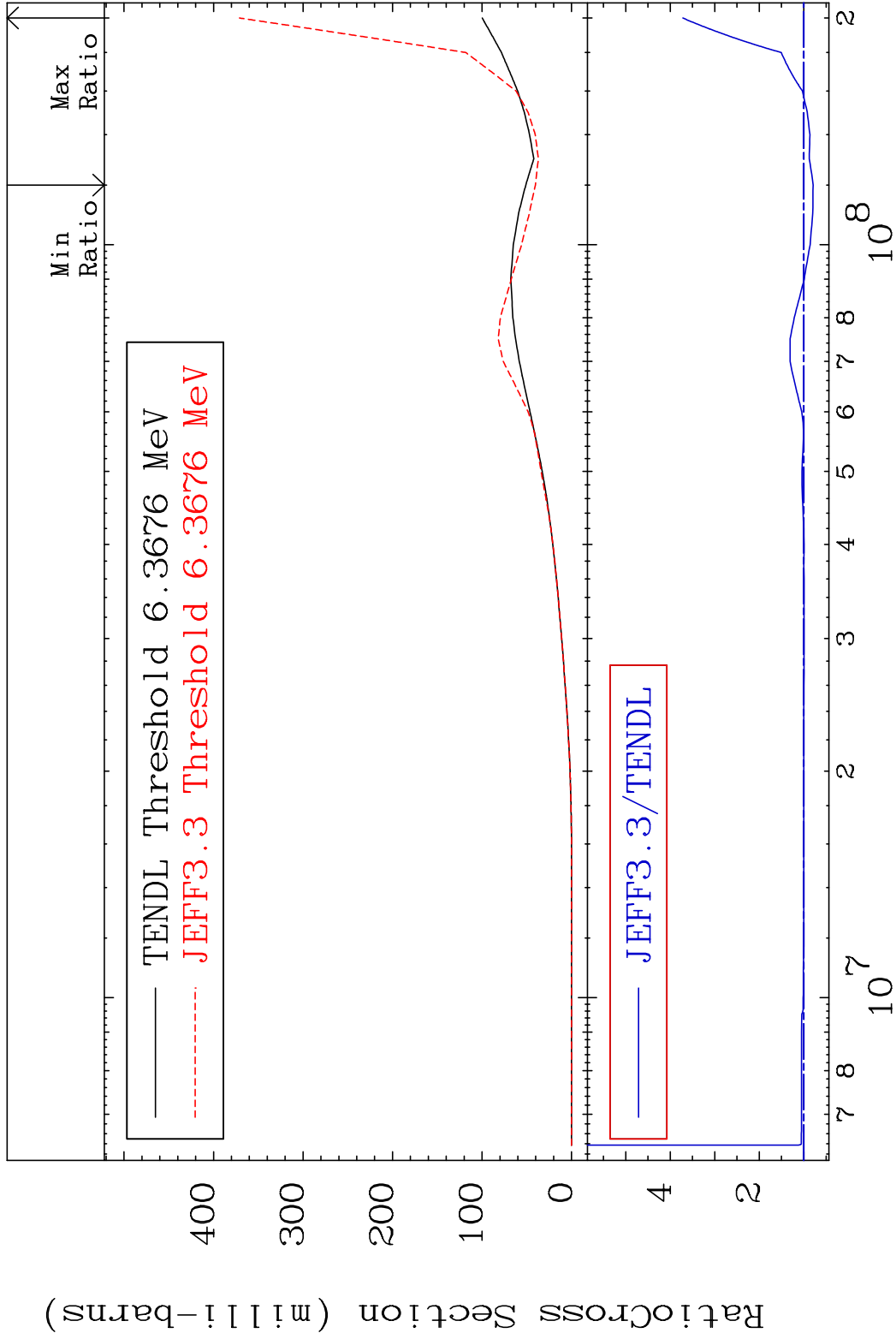
70-Yb-170

MAT 7031 Deuterium Production 70-Yb-170  
 Cross Section -100.0 To 219.7 %



53 70-Yb-170

MAT 7031 Tritium Production 70-Yb-170  
 Cross Section -20.88 To 271.8 %

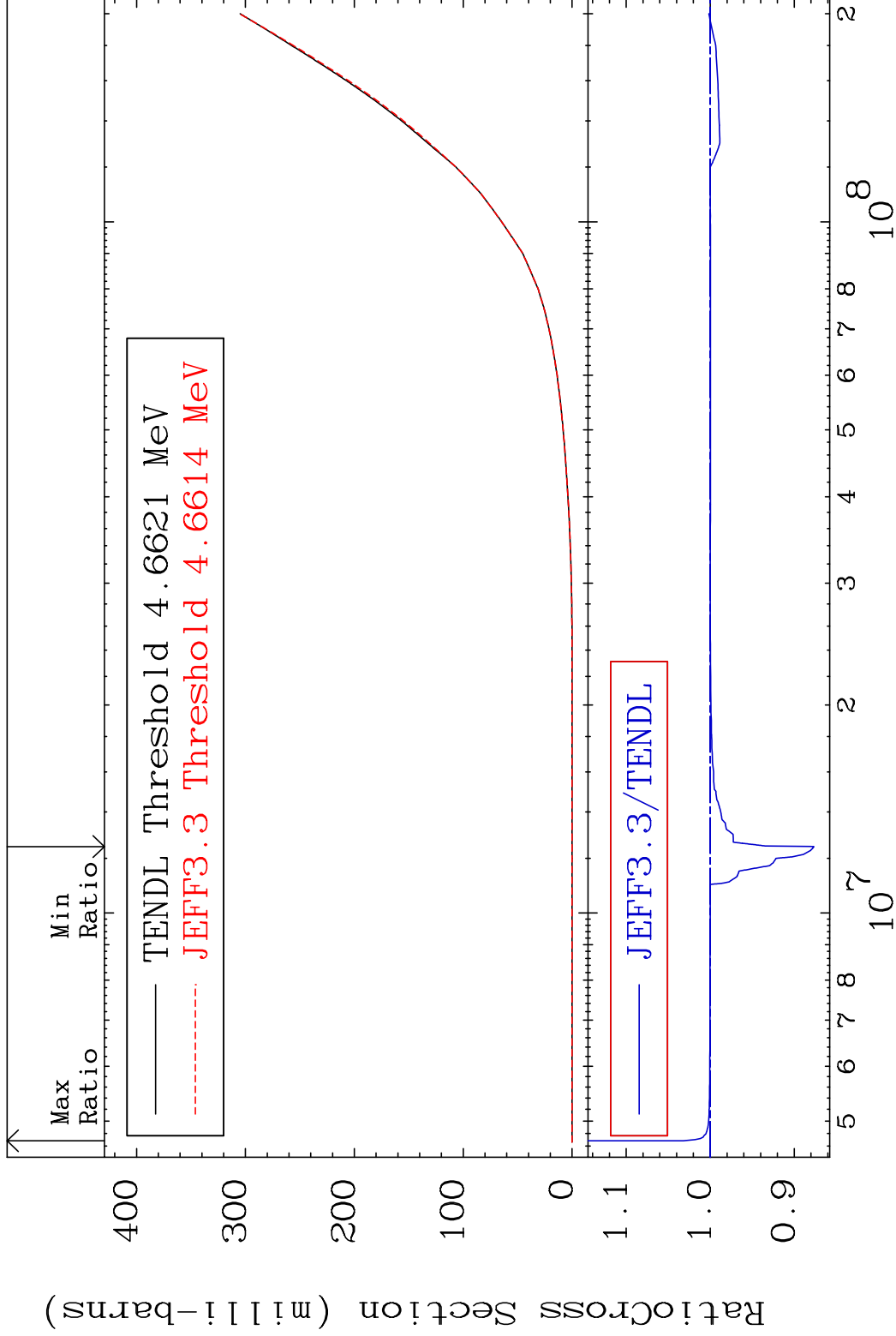


MAT 7031

He-3 Production

70-Yb-170

Cross Section -12.34 To 3.187 %



55

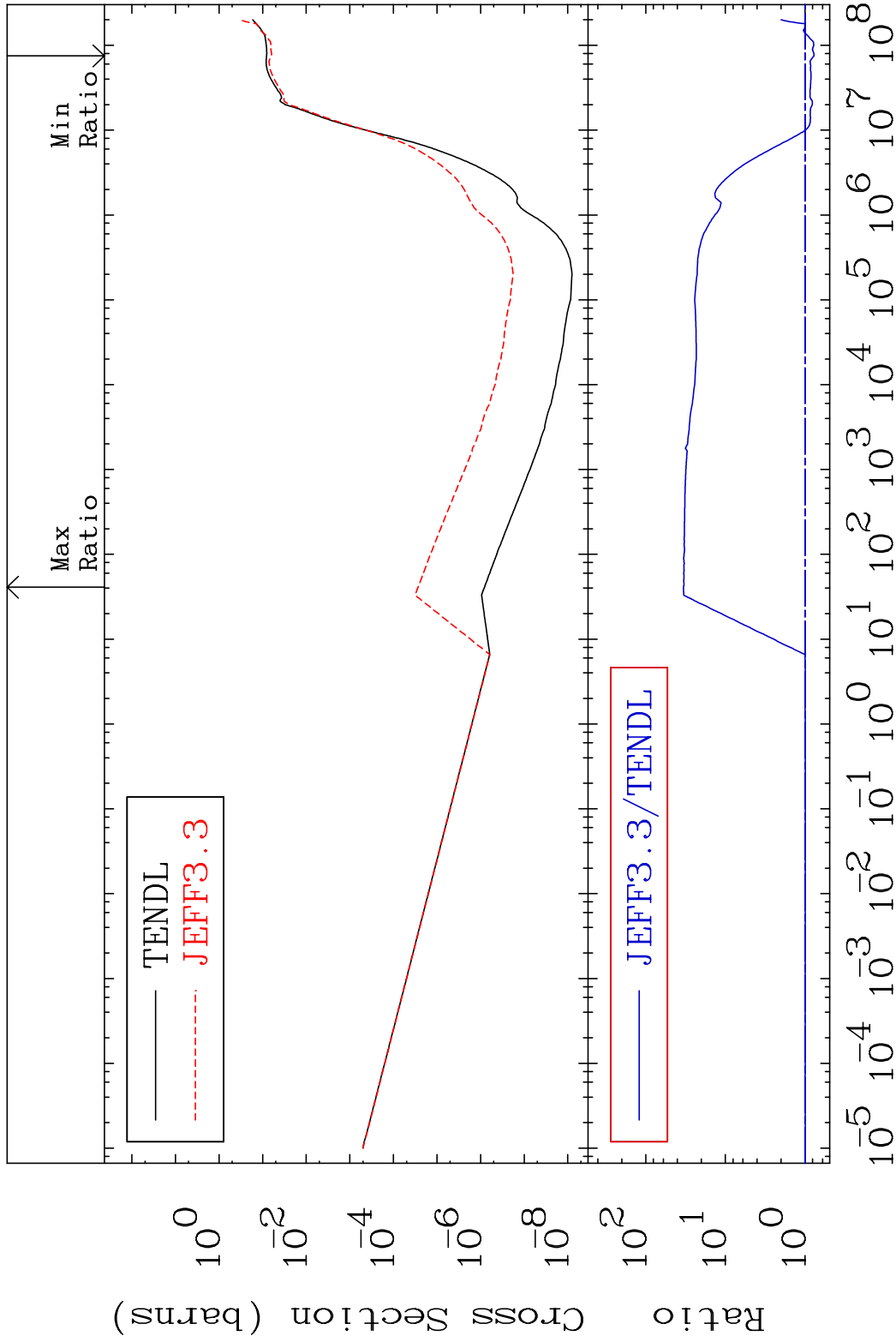
70-Yb-170

MAT 7031

He-4 Production

70-Yb-170

Cross Section -22.76 To 3258. %

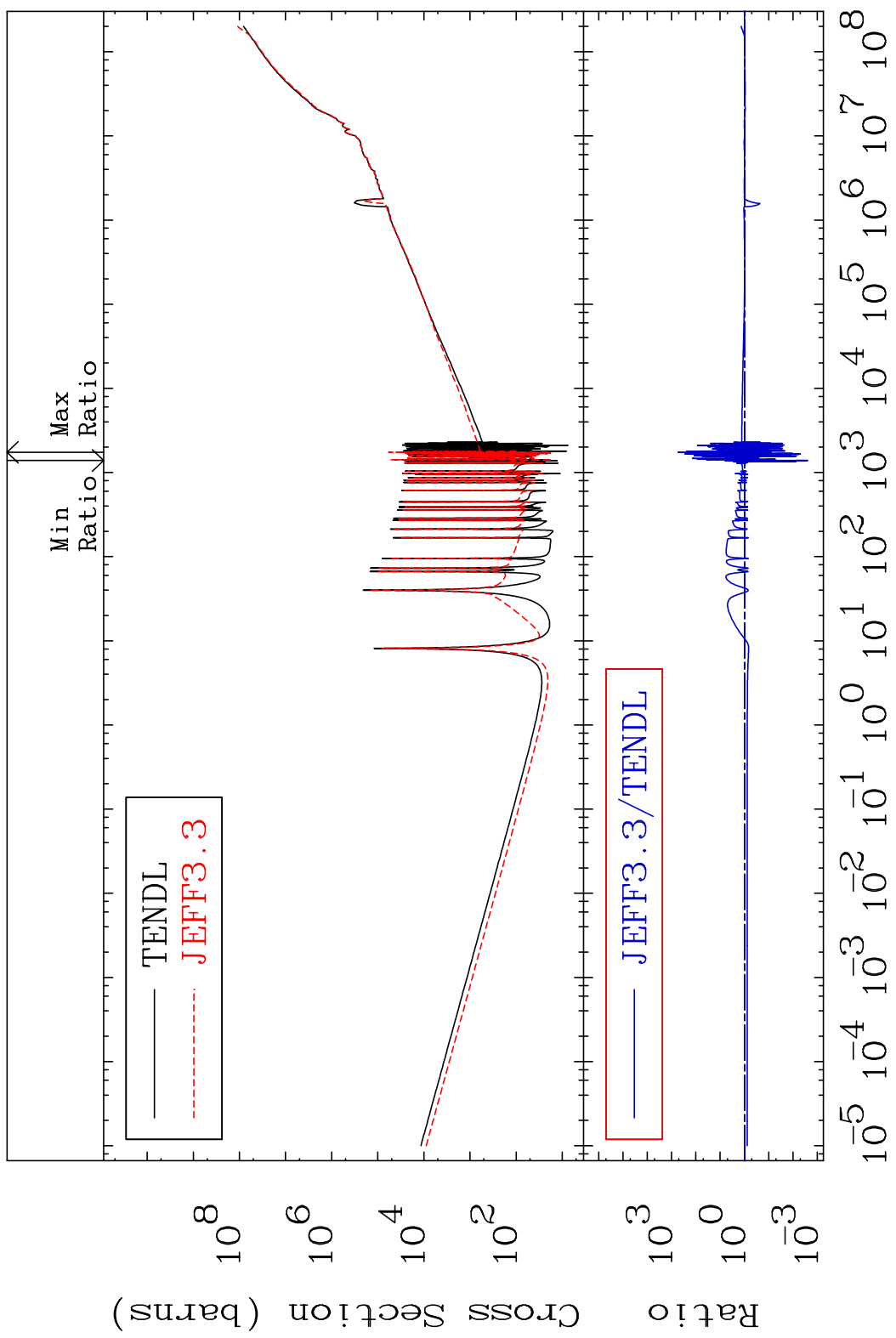


56

Incident Energy (eV)

70-Yb-170

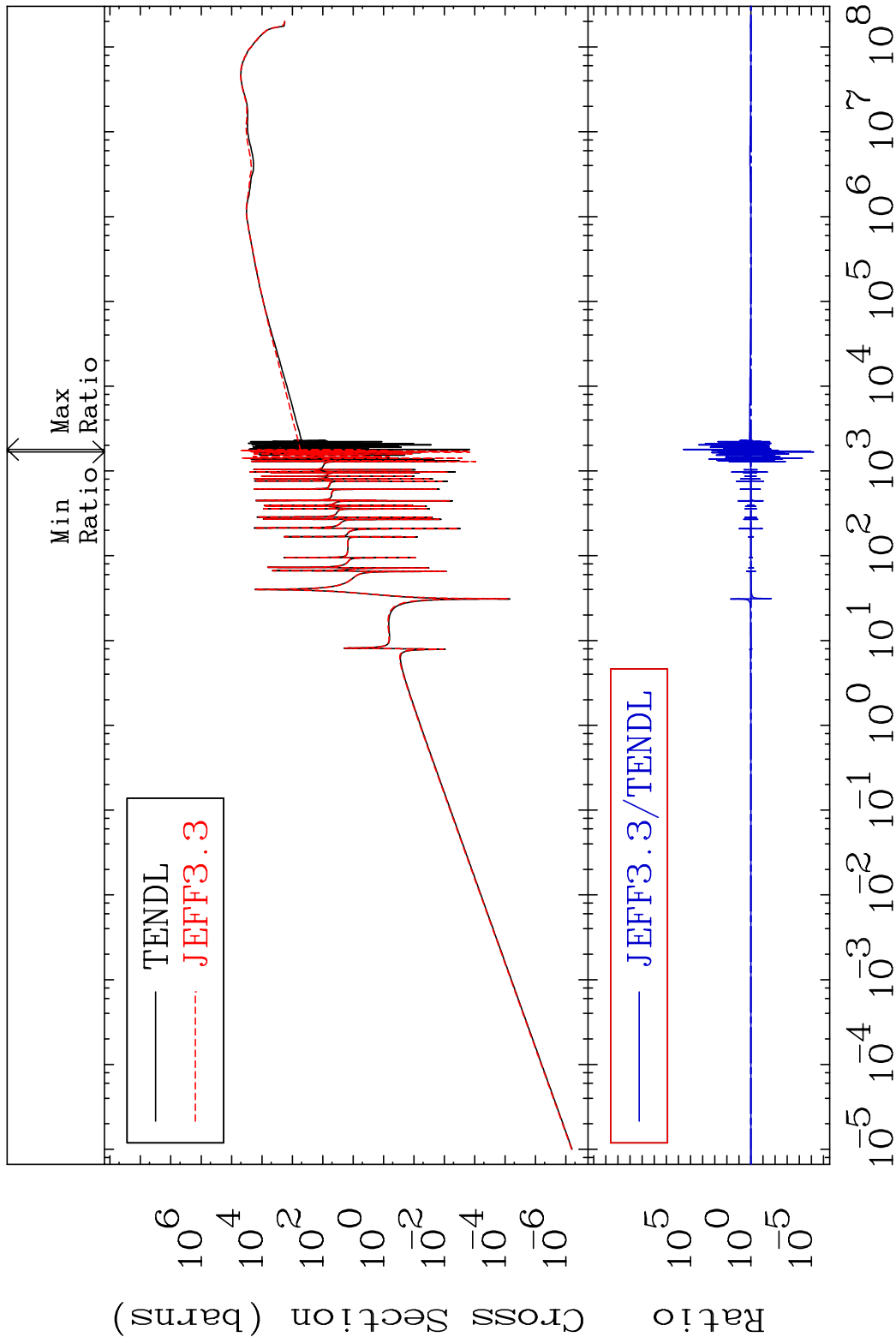
MAT 7031 Kerma total (eV-barns) 70-Yb-170  
 Cross Section -99.75 To 9999. %



57 Incident Energy (eV) 70-Yb-170

MAT 7031

Kerma elastic  
Cross Section -100.0 To 9999. %  
70-Yb-170

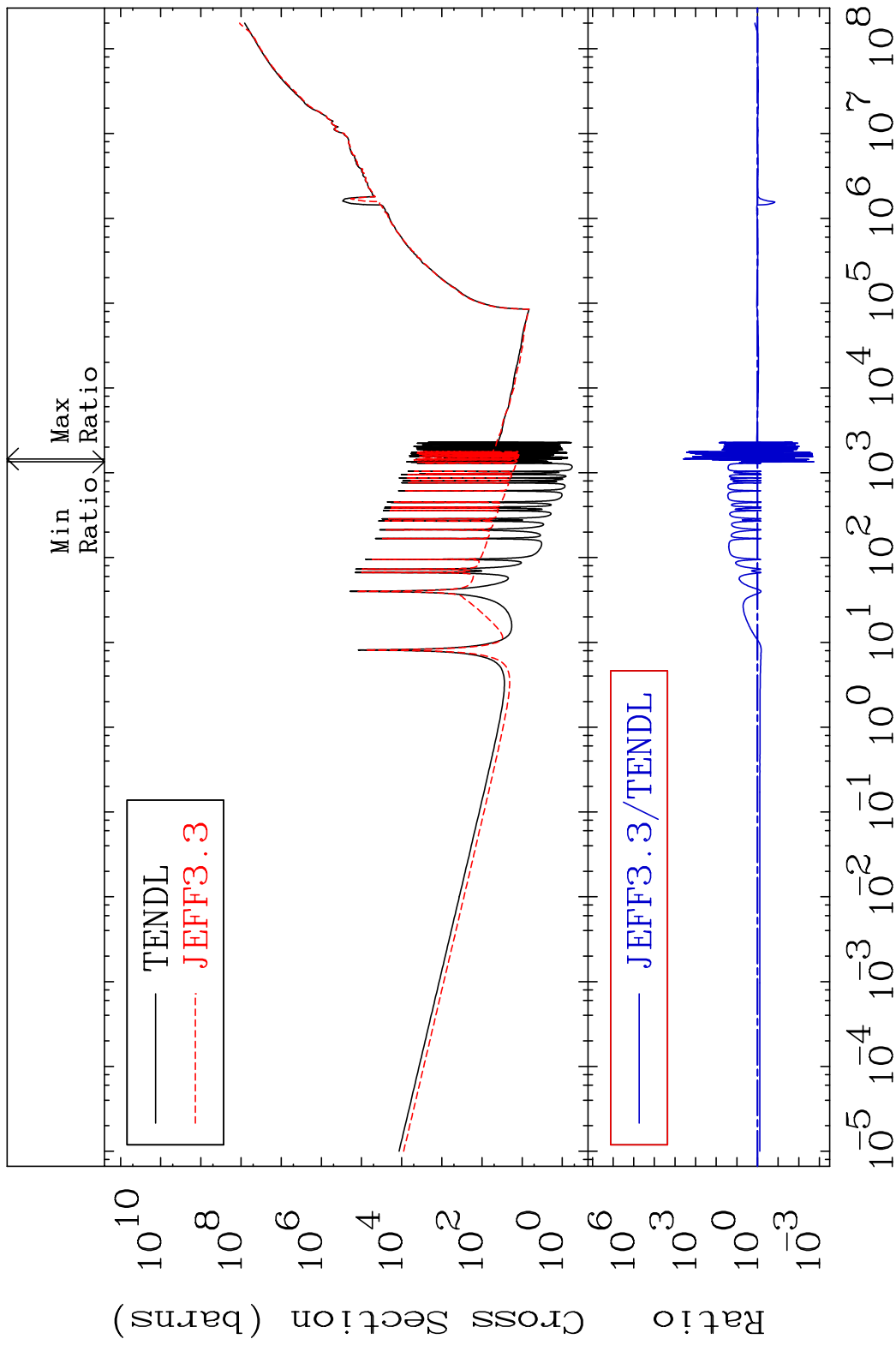


58

Incident Energy (eV)

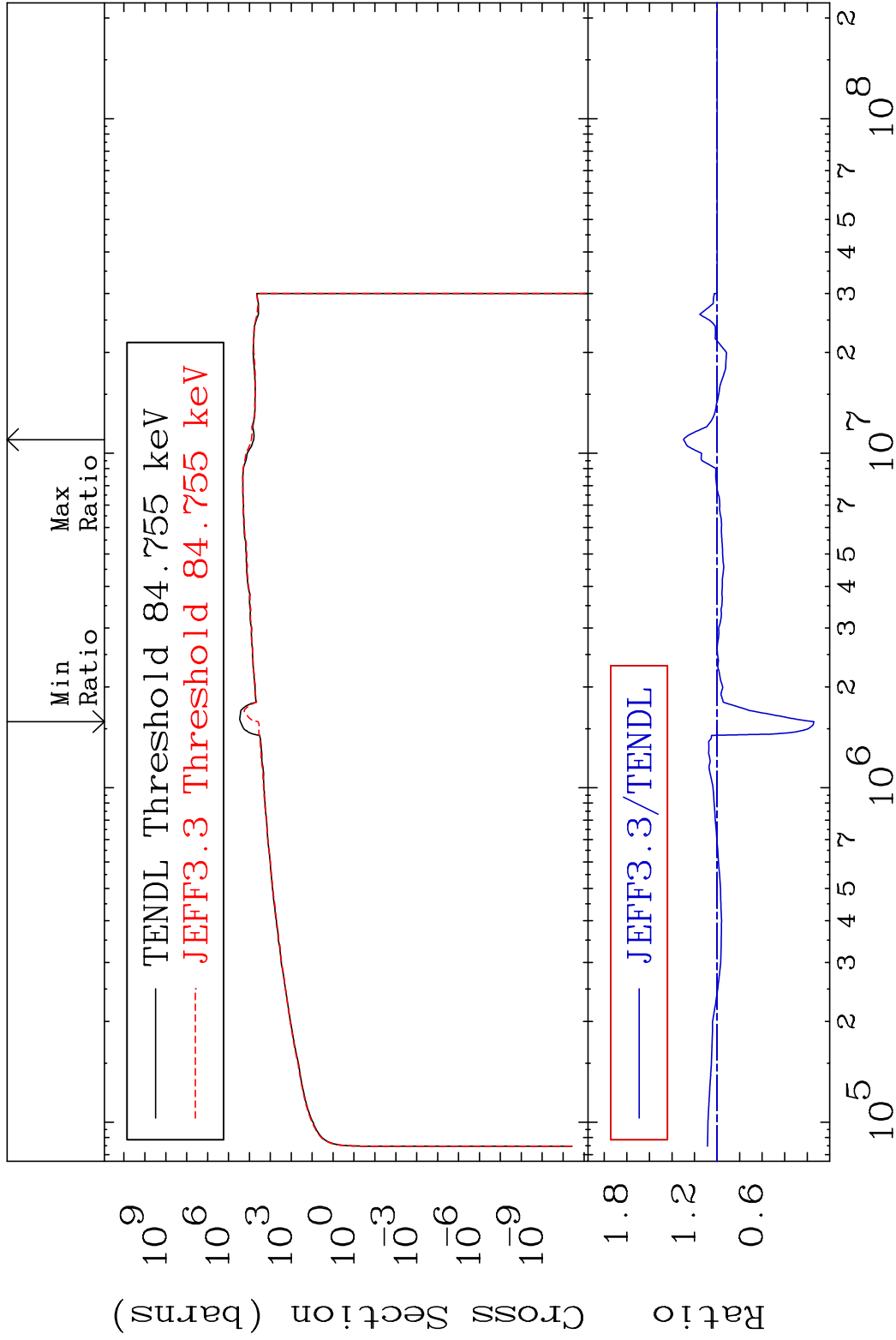
70-Yb-170

MAT 7031 Kerma non-elastic (all but mt2) 70-Yb-170  
 Cross Section -99.82 To 9999. %



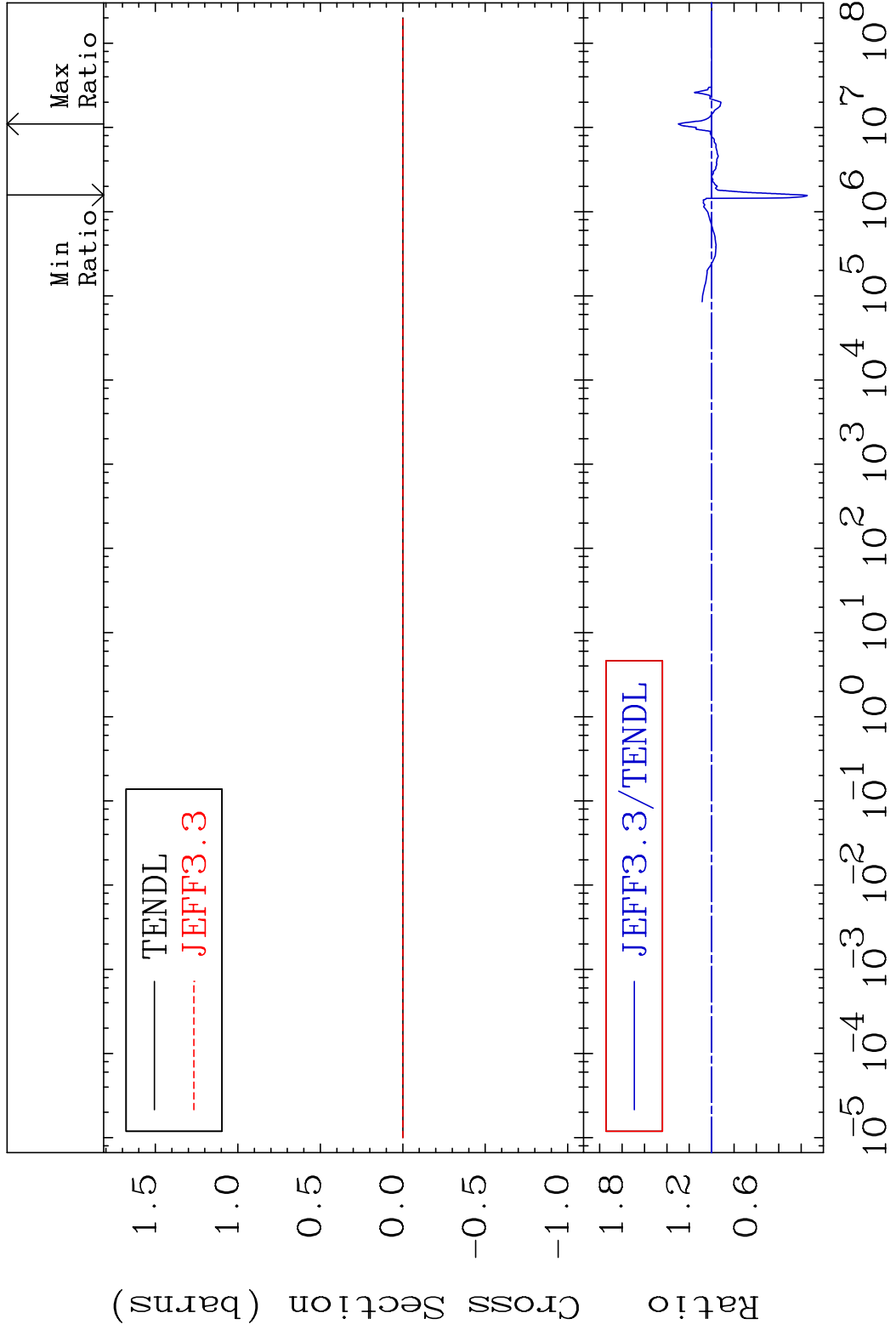
59 Incident Energy (eV) 70-Yb-170

MAT 7031 Kerma inelastic (mt51-91) 70-Yb-170  
 Cross Section -85.84 To 29.81 %

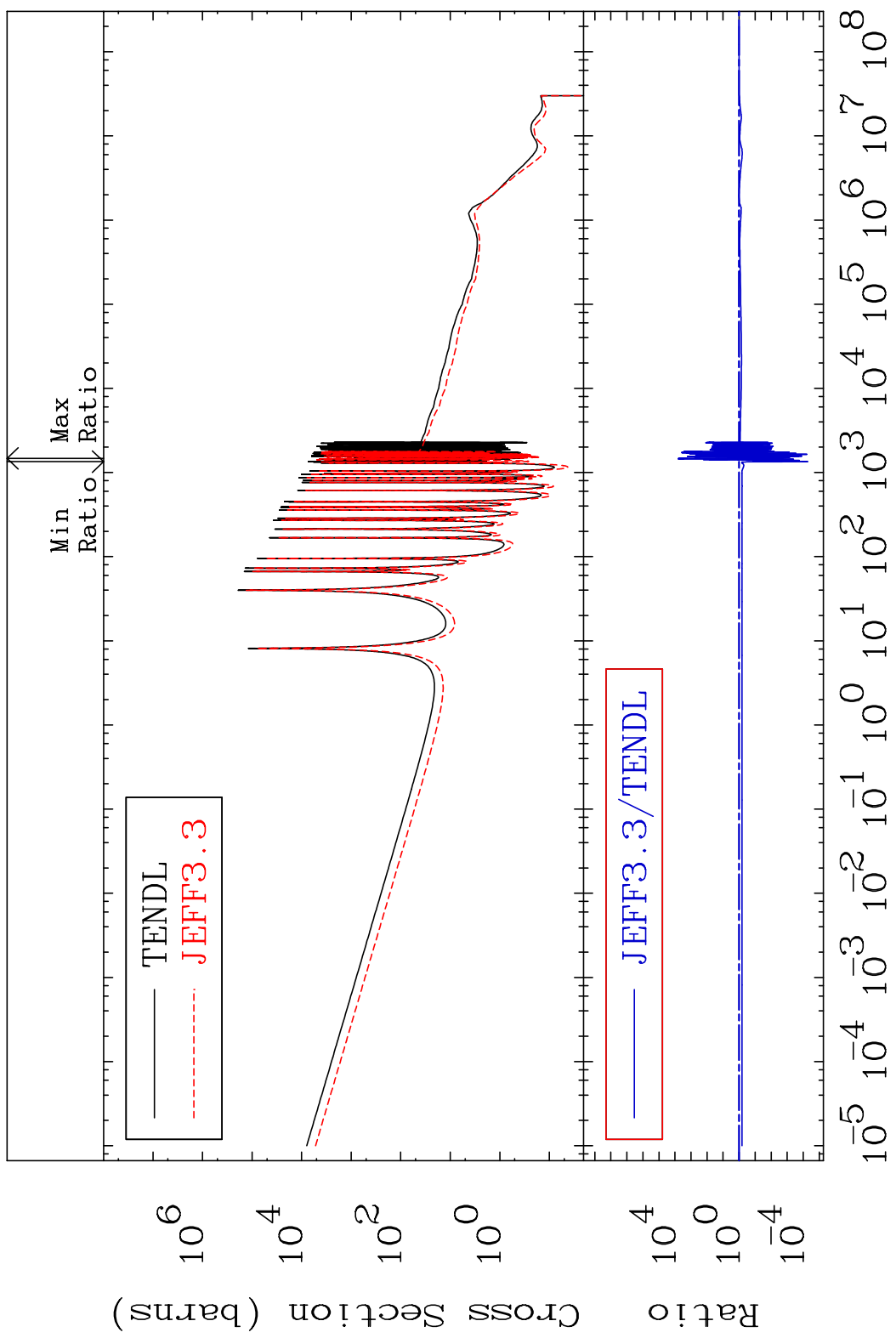


60 Incident Energy (eV) 70-Yb-170

MAT 7031 Kerma fission (mt18 or mt19-20-21-38)70-Yb-170  
 Cross Section -85.84 To 29.81 %

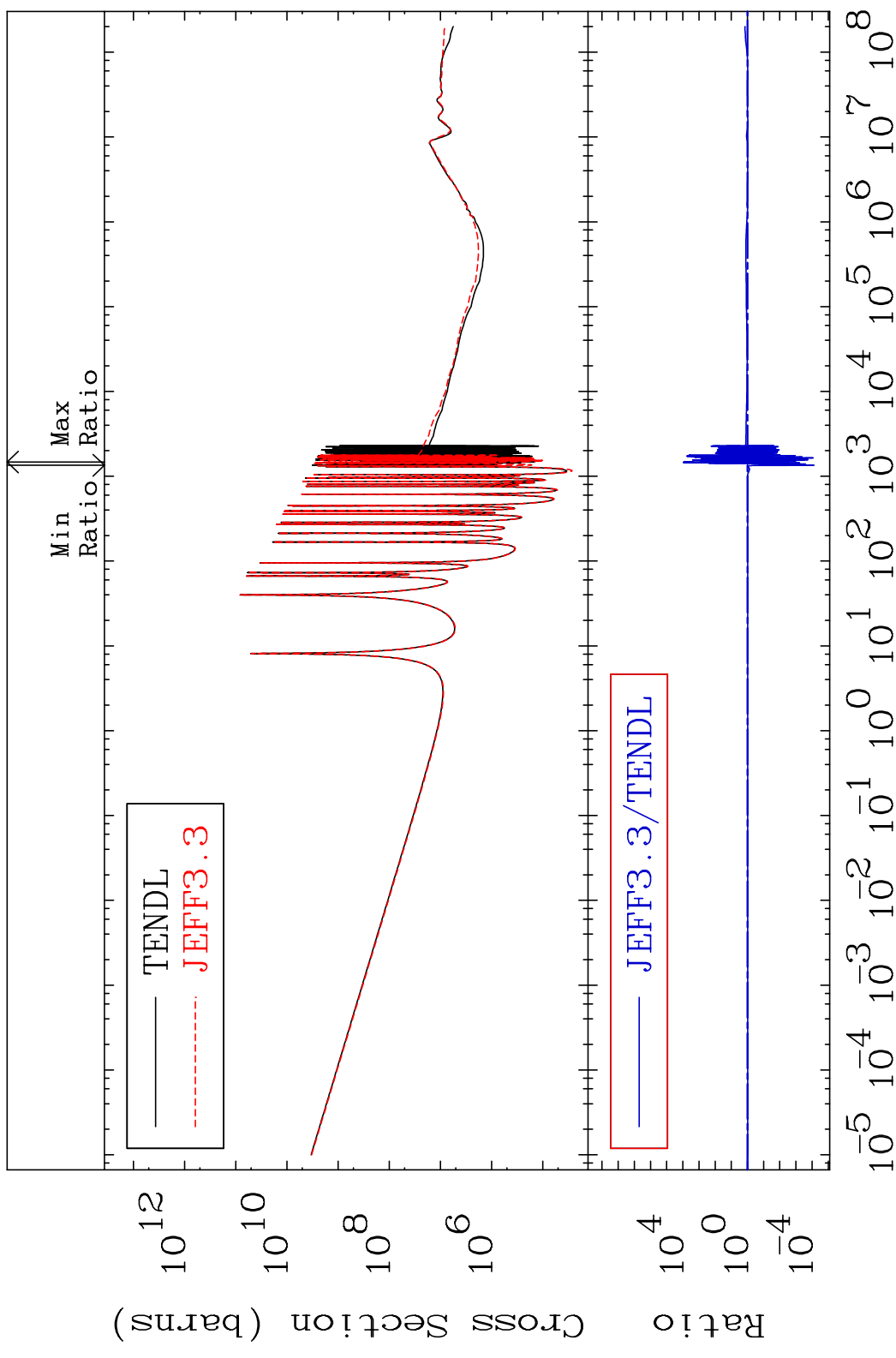


MAT 7031 Kerma capture (mt102) 70-Yb-170  
 Cross Section -99.99 To 9999. %



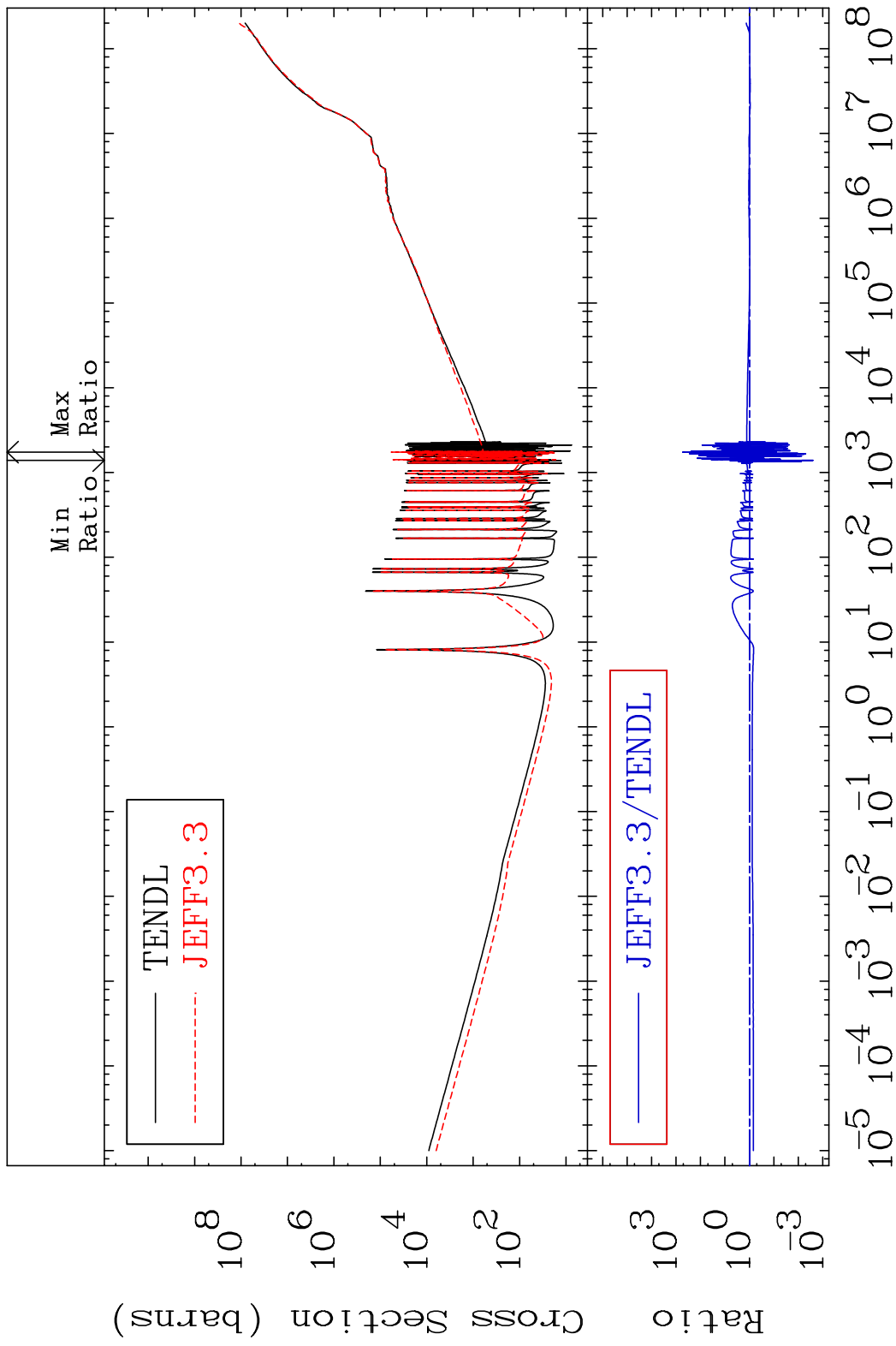
62 Incident Energy (eV) 70-Yb-170

MAT 7031 Total photon (eV-barns) 70-Yb-170  
 Cross Section -99.99 To 9999. %



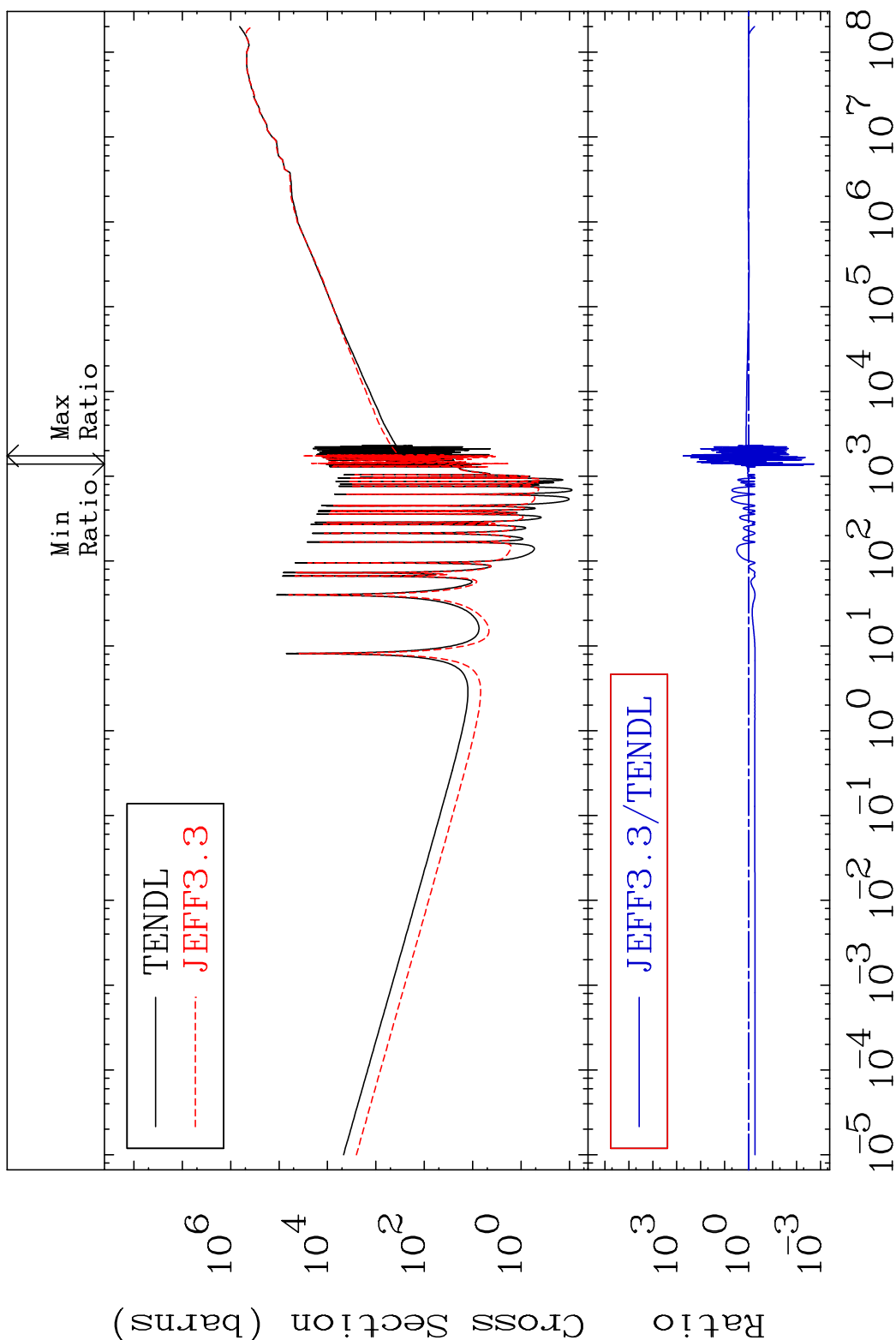
63 Incident Energy (eV) 70-Yb-170

MAT 7031 Total kinematic kerma (high limit) 70-Yb-170  
 Cross Section -99.75 To 9999. %



64 Incident Energy (eV) 70-Yb-170

MAT 7031      Dpa total (eV-barns)      70-Yb-170  
 Cross Section      -99.81 To 9999. %



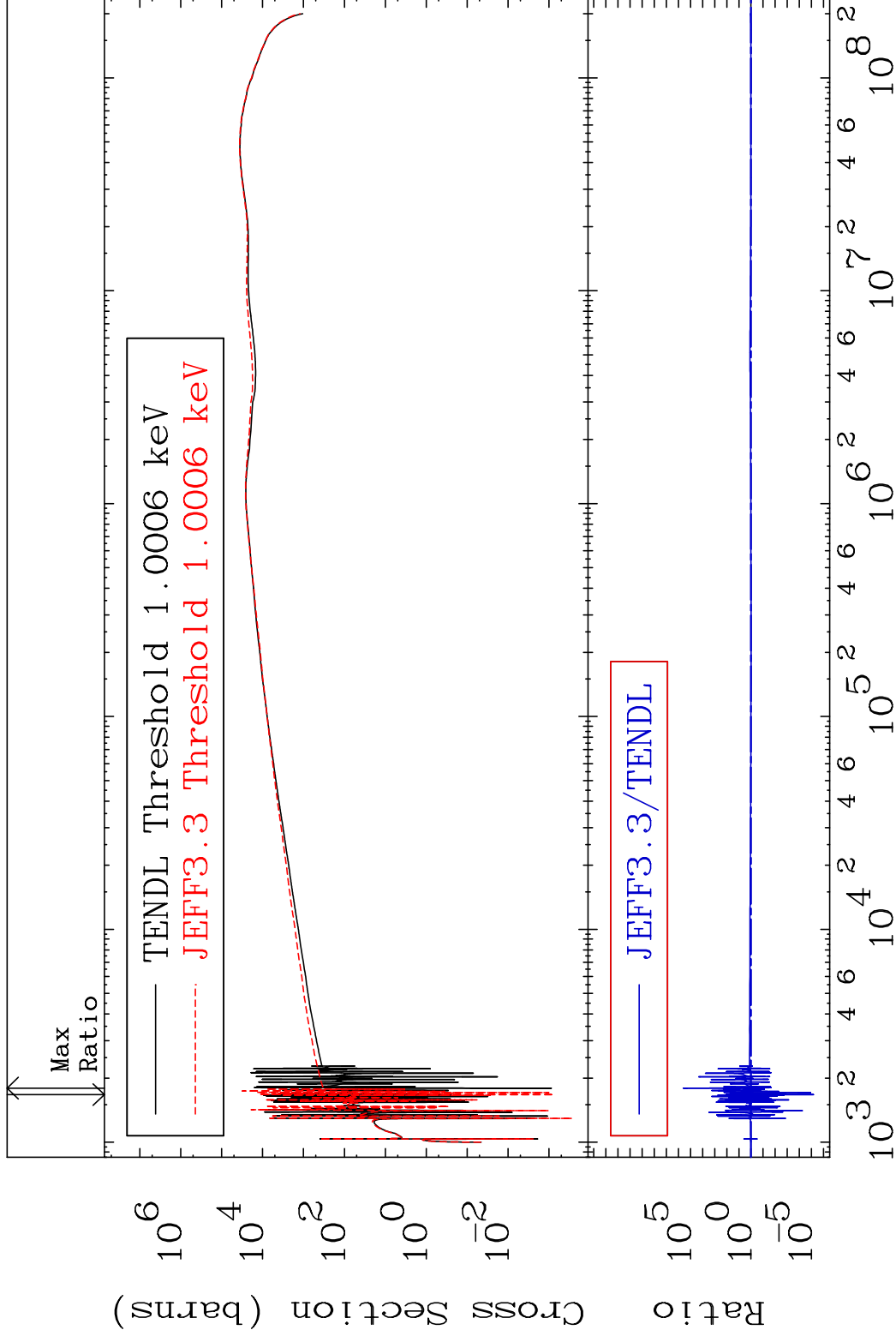
65      Incident Energy (eV)      70-Yb-170

MAT 7031

Dpa elastic (mt2)

70-Yb-170

Cross Section -100.0 To 9999. %

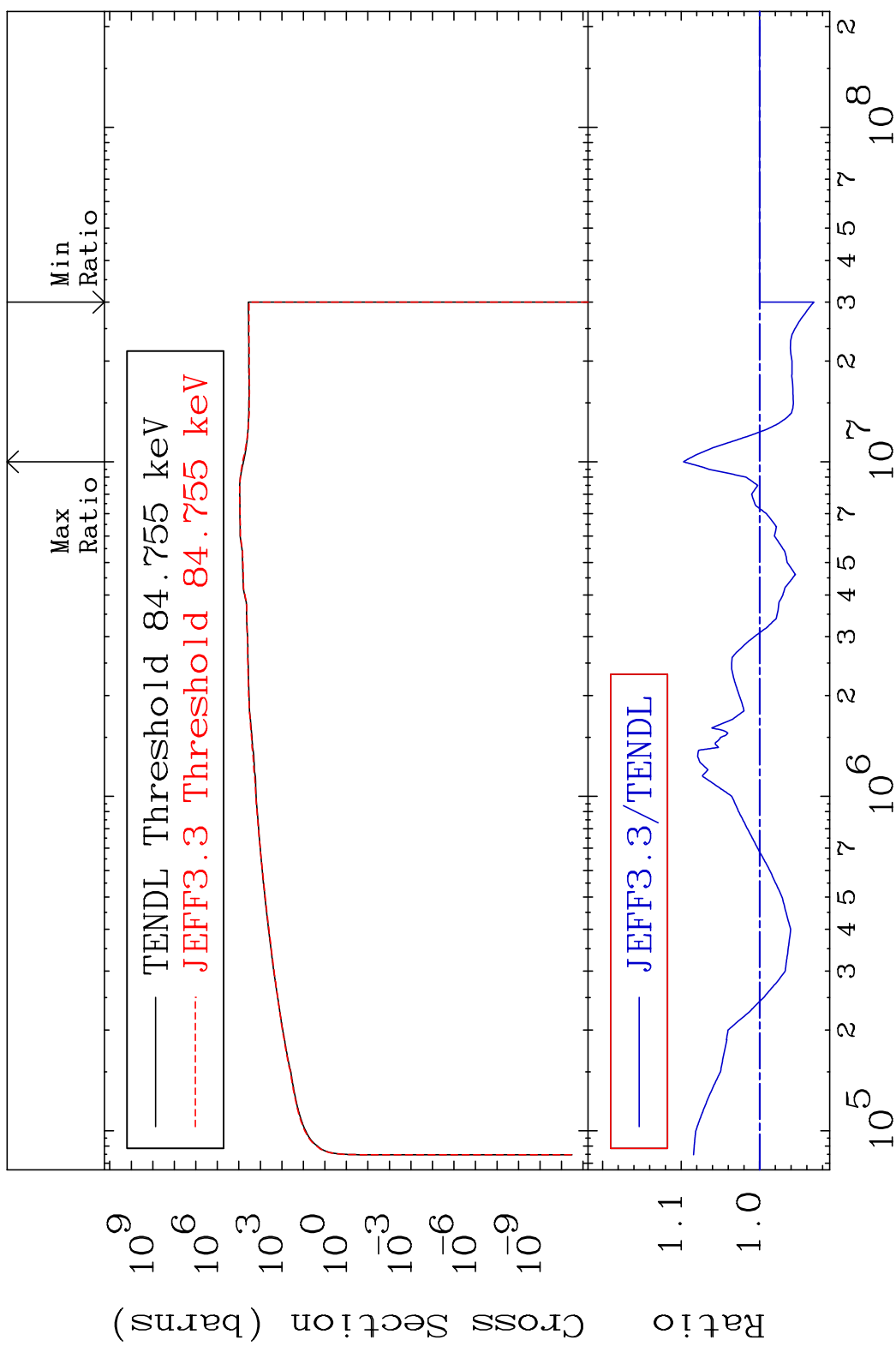


66

Incident Energy (eV)

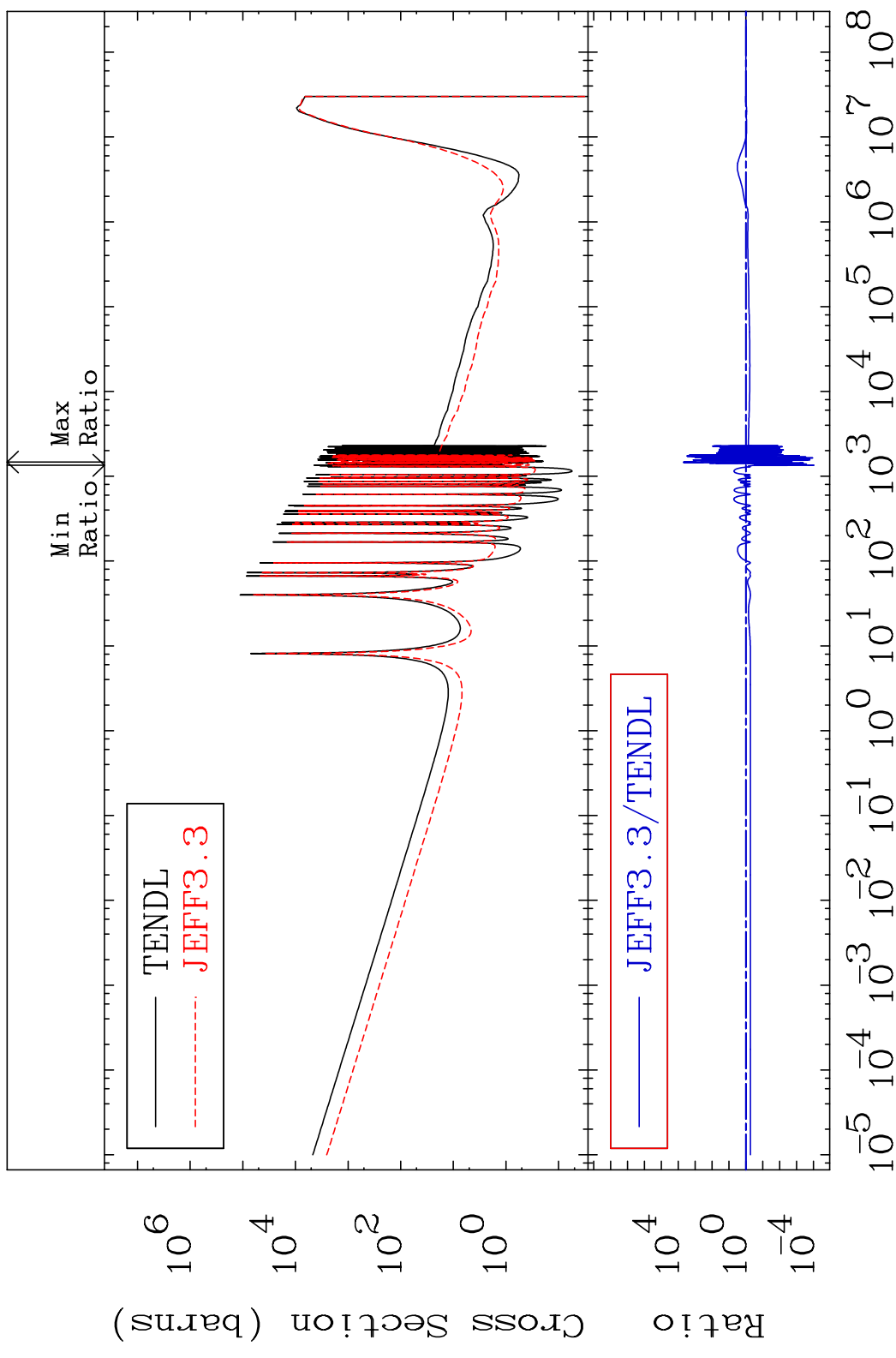
70-Yb-170

MAT 7031 Dpa inelastic (mt51-91) 70-Yb-170  
 Cross Section -6.899 To 9.701 %



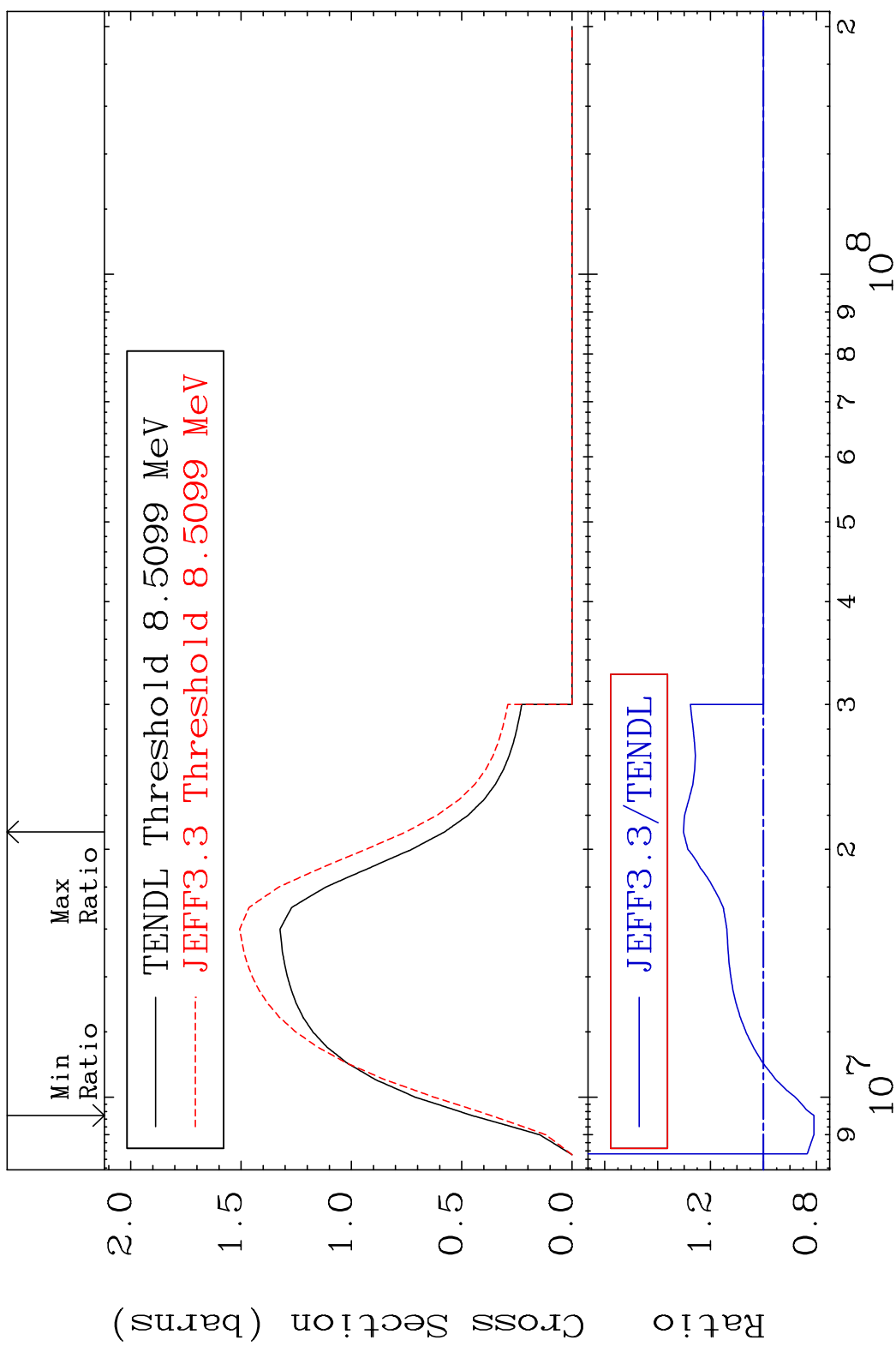
67 Incident Energy (eV) 70-Yb-170

MAT 7031 Dpa disappearance (mt102 -120) 70-Yb-170  
 Cross Section -99.99 To 9999. %

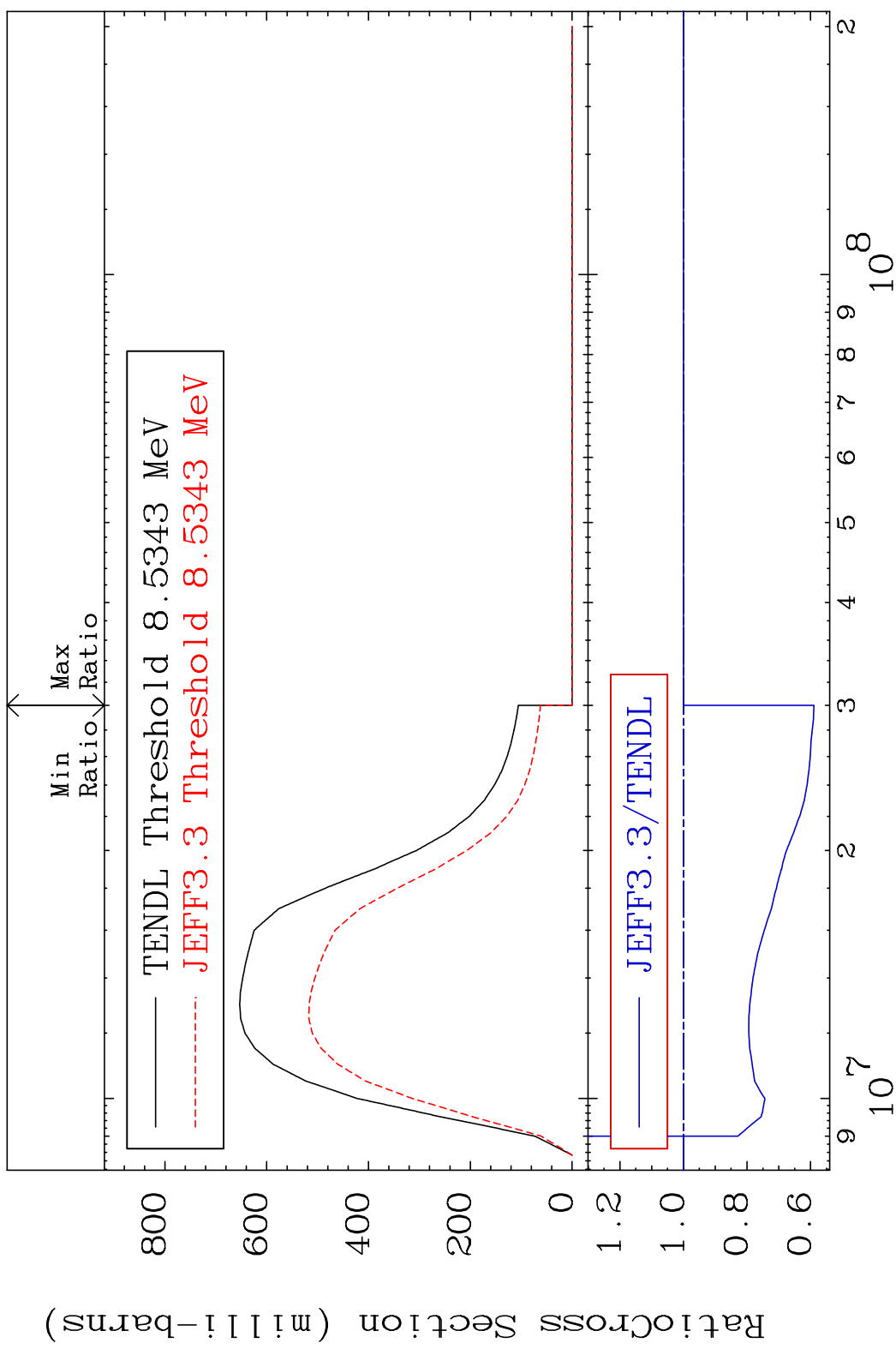


68 Incident Energy (eV) 70-Yb-170

MAT 7031 (n,2n) : 70-Yb-169g 70-Yb-170  
 Radionuclide Production Cross Section 30.23 %

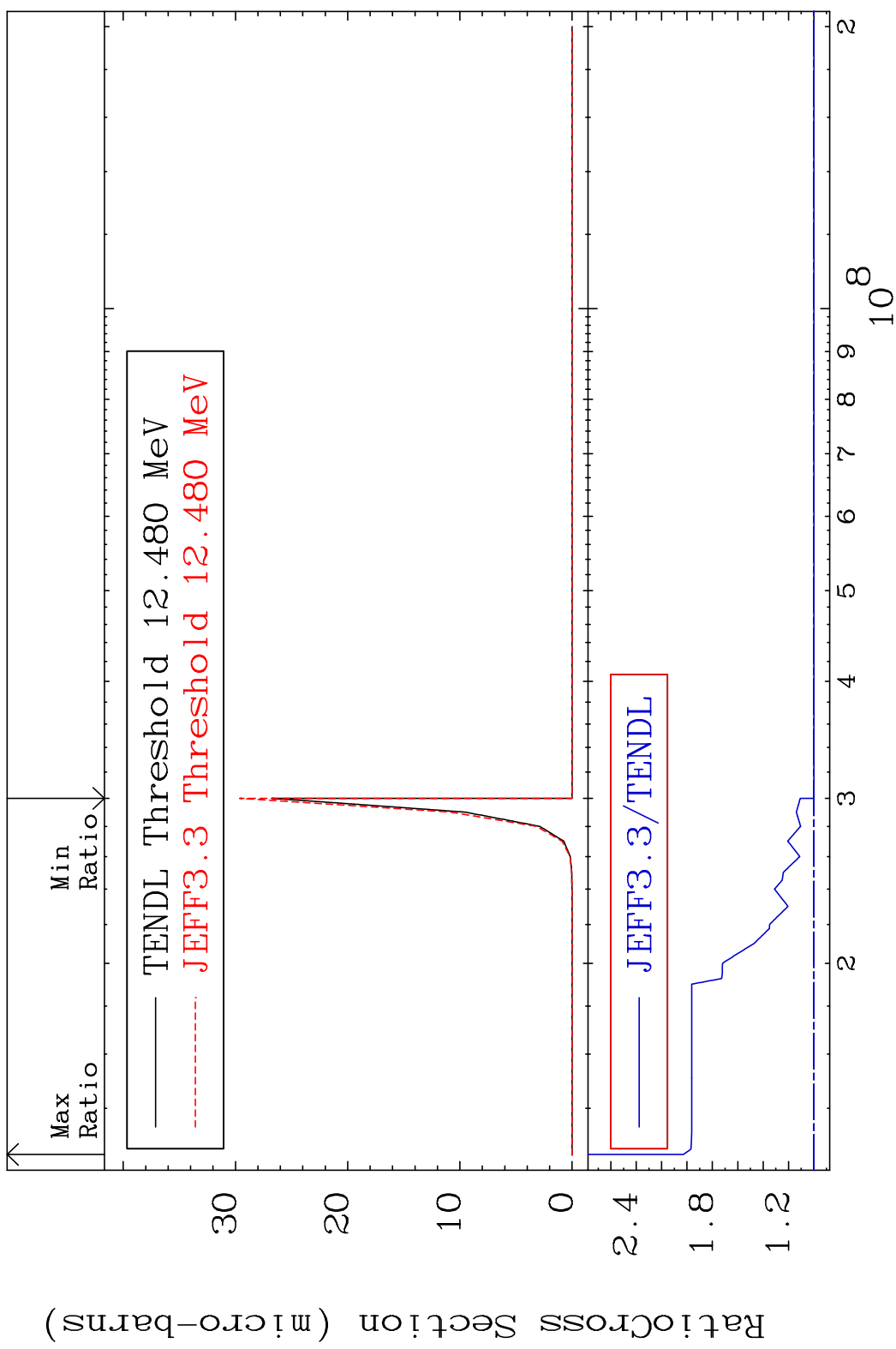


MAT 7031 (n, 2n): 70-Yb-169m1 70-Yb-170  
 Radionuclide Production Cross Section 4Sec05i dfo 0.000 %

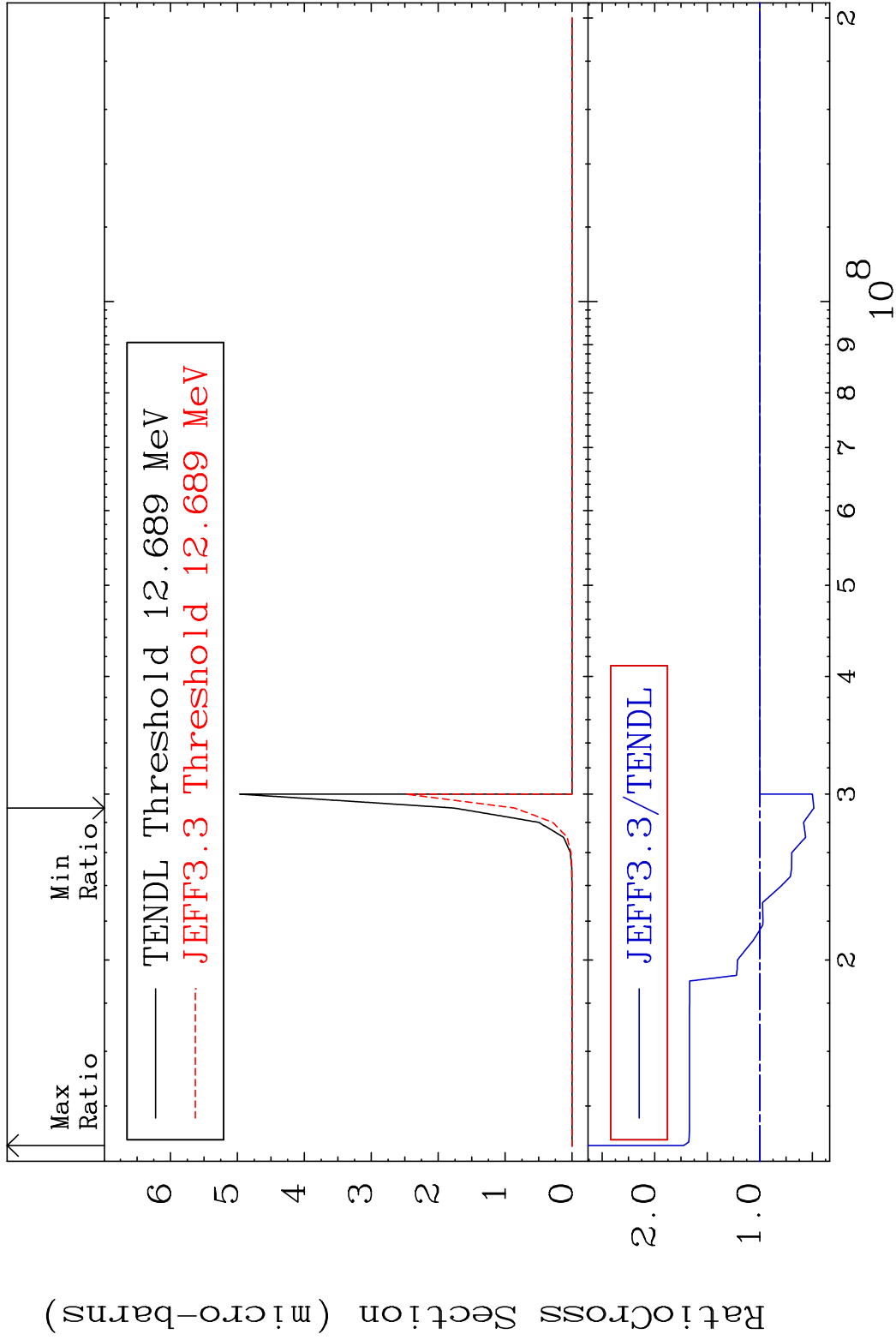


70 70-Yb-170

MAT 7031 (n, n') He-3:68-Er-167g 70-Yb-170  
 Radionuclide Production Cross Section 102.8 %

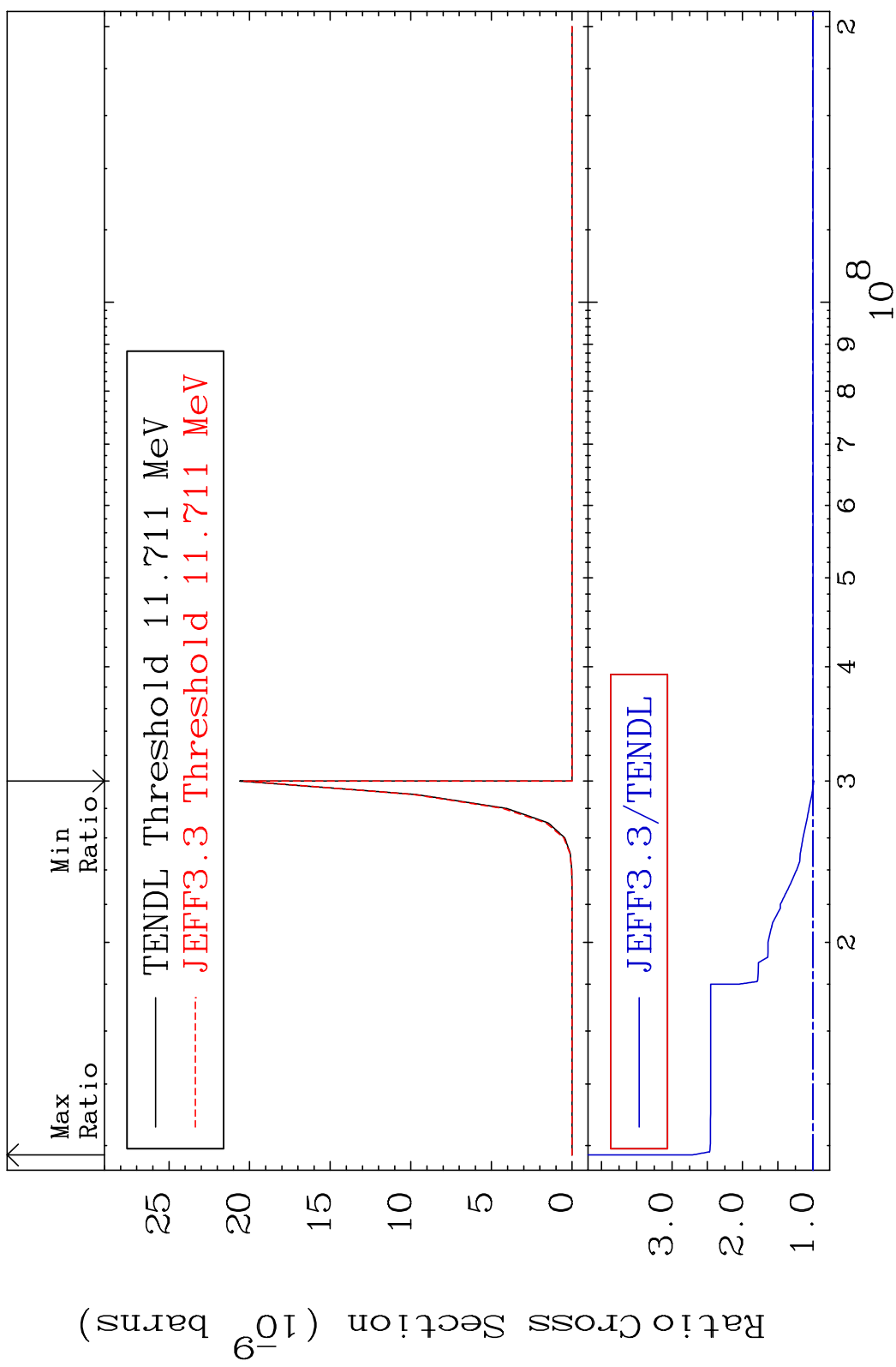


MAT 7031 (n, n') He-3:68-Er-167m3 70-Yb-170  
 Radionuclide Production Cross Section 51e441 d10 72.68 %



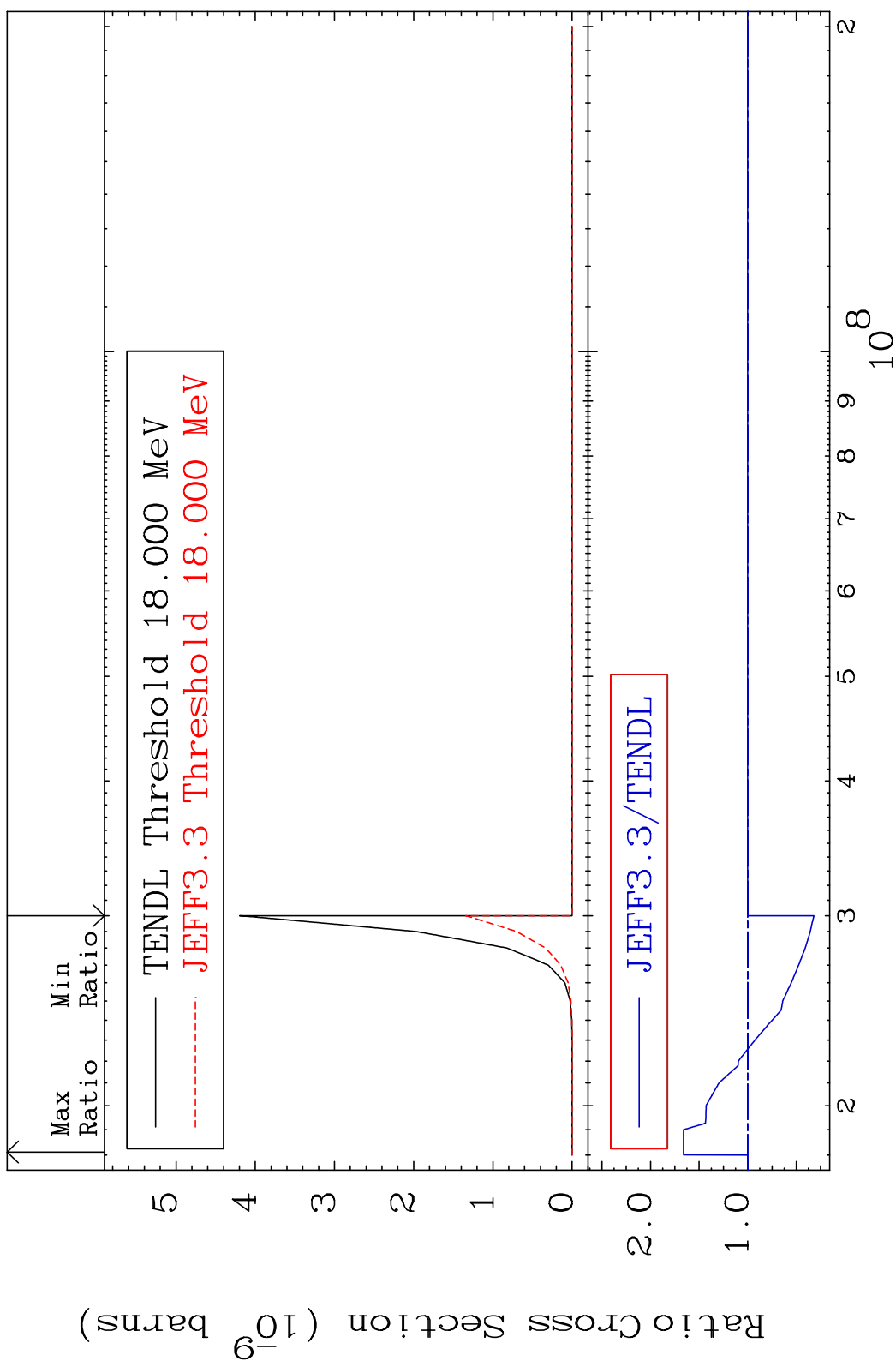
72 70-Yb-170

MAT 7031 (n, p) t:68-Er-167g 70-Yb-170  
 Radionuclide Production Cross Section 183.7 %



73 Incident Energy (eV) 70-Yb-170

MAT 7031 (n, p) t:68-Er-167m3 70-Yb-170  
 Radionuclide Production Cross Section 68Er-167m3 70Yb-170 66.10 %



74 70-Yb-170