

Program Complot
(Version 2021-1)

by

Dermott E. Cullen
(Present Contact Information)

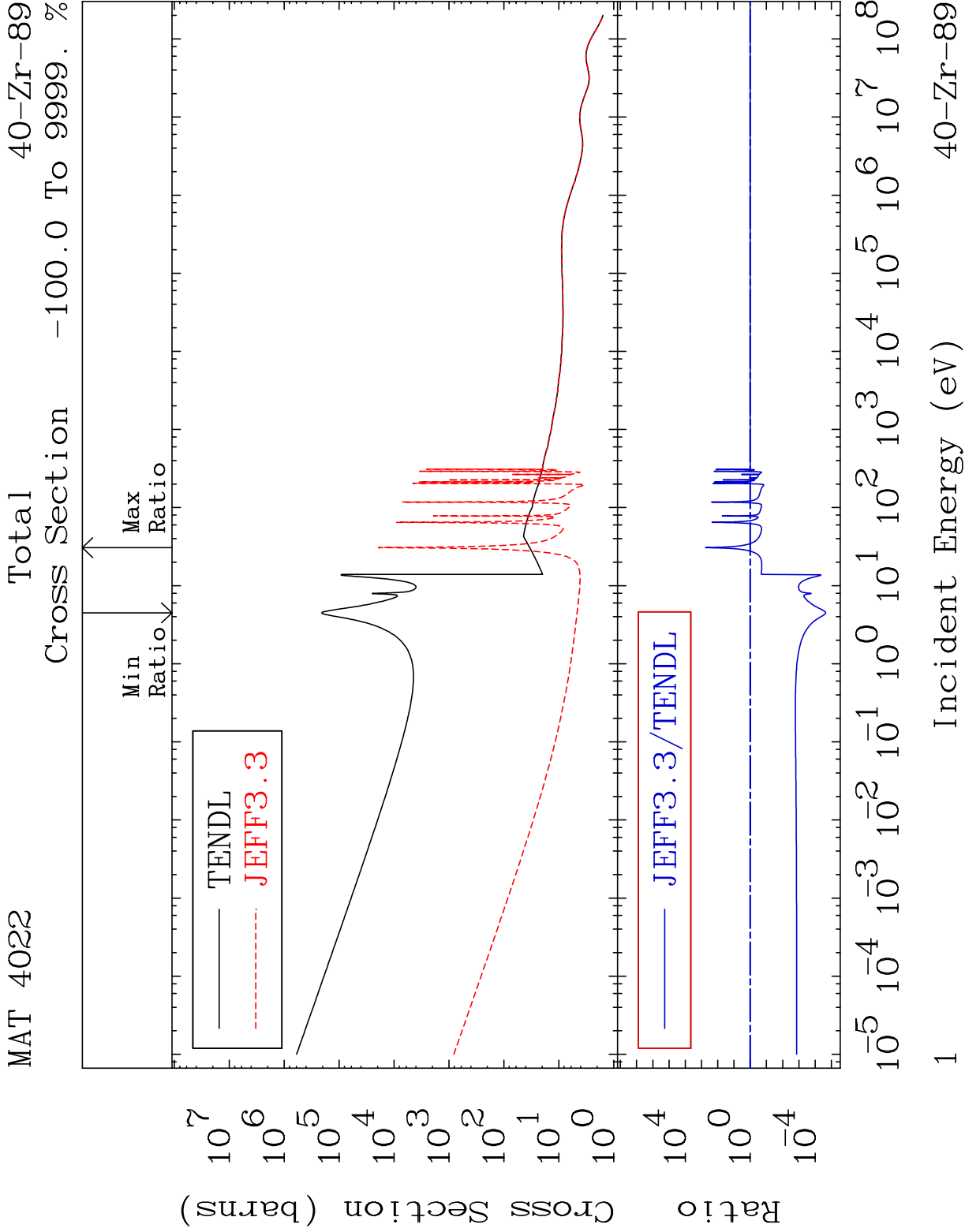
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U.S.A.

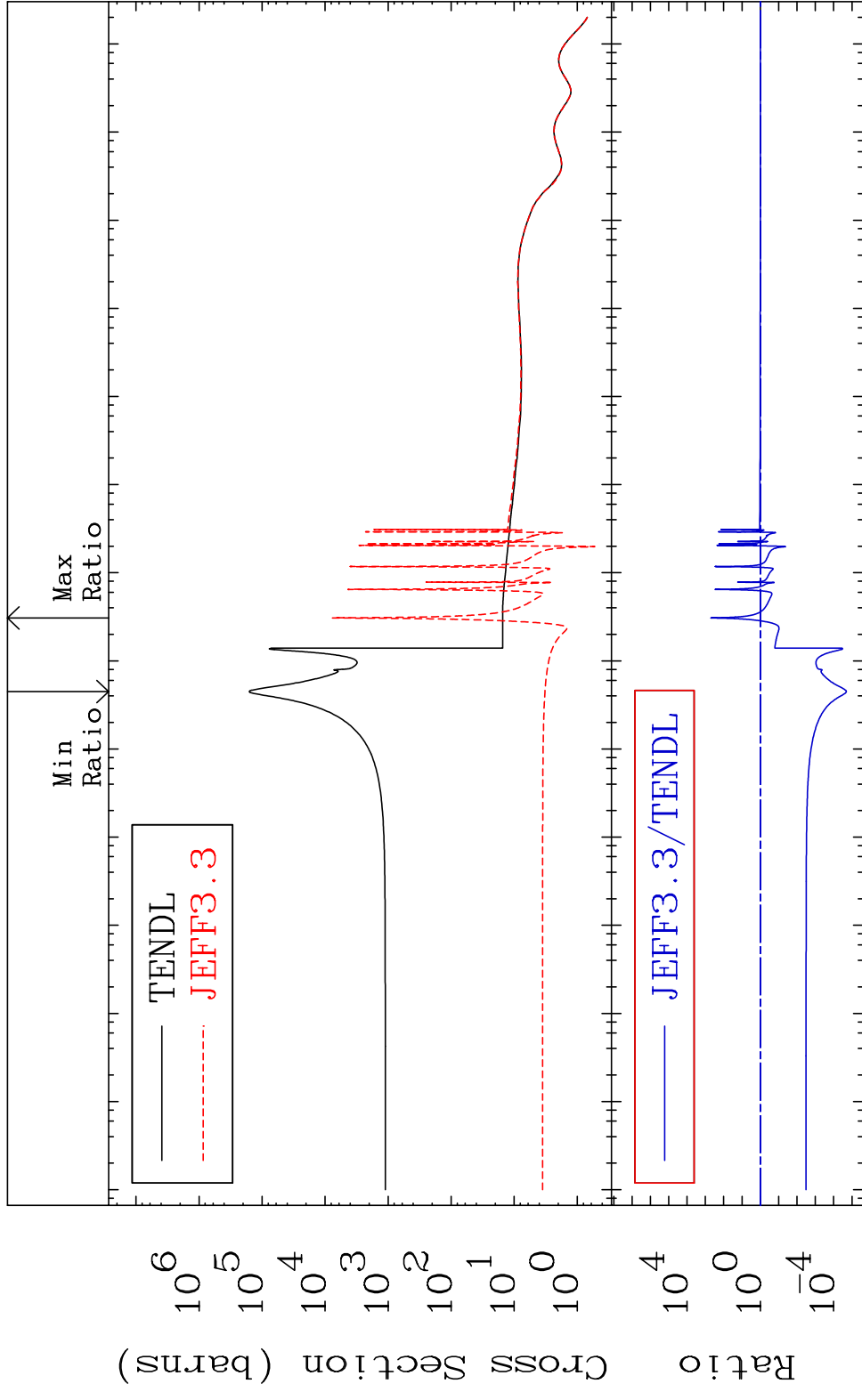
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Web: redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start



MAT 4022 Elastic Cross Section -100.0 To 9999. % 40-Zr-89



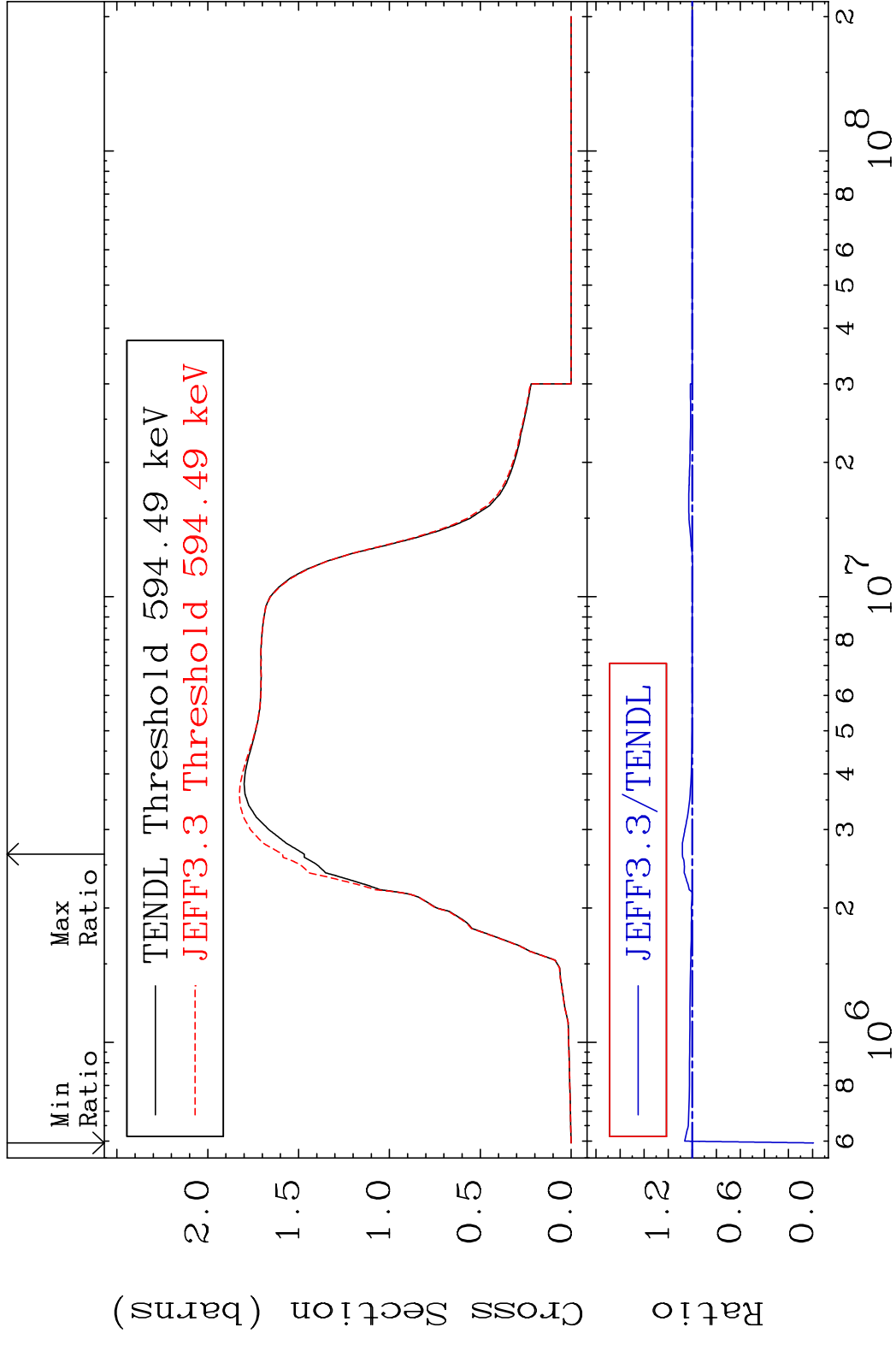
2 Incident Energy (eV) 40-Zr-89

MAT 4022

Inelastic

40-Zr-89

Cross Section -100.0 To 8.231 %

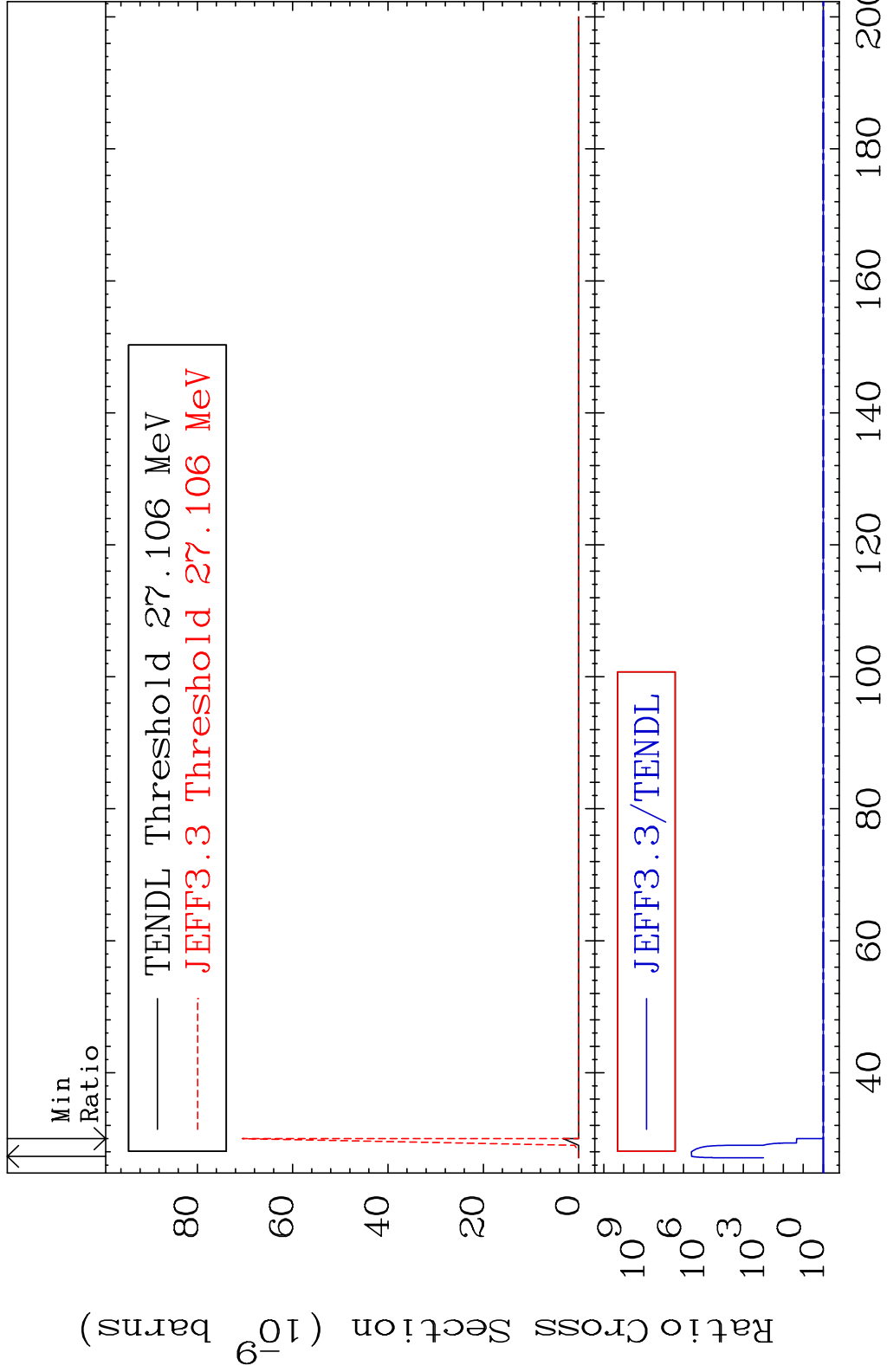


3

Incident Energy (eV)

40-Zr-89

MAT 4022 (n,2n) d 40-Zr-89
 Cross Section 0.000 To 9999. %

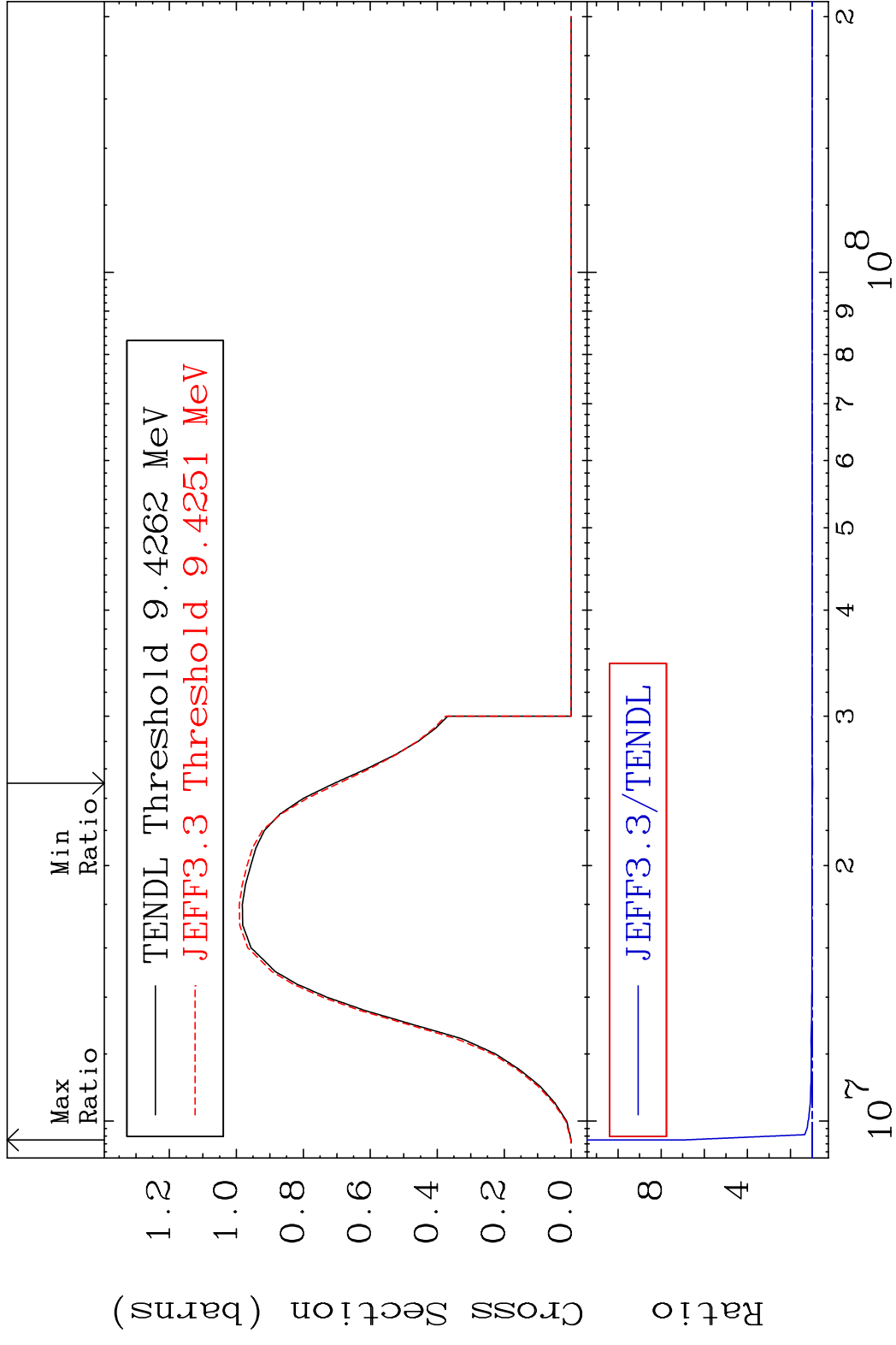


MAT 4022

(n,2n)

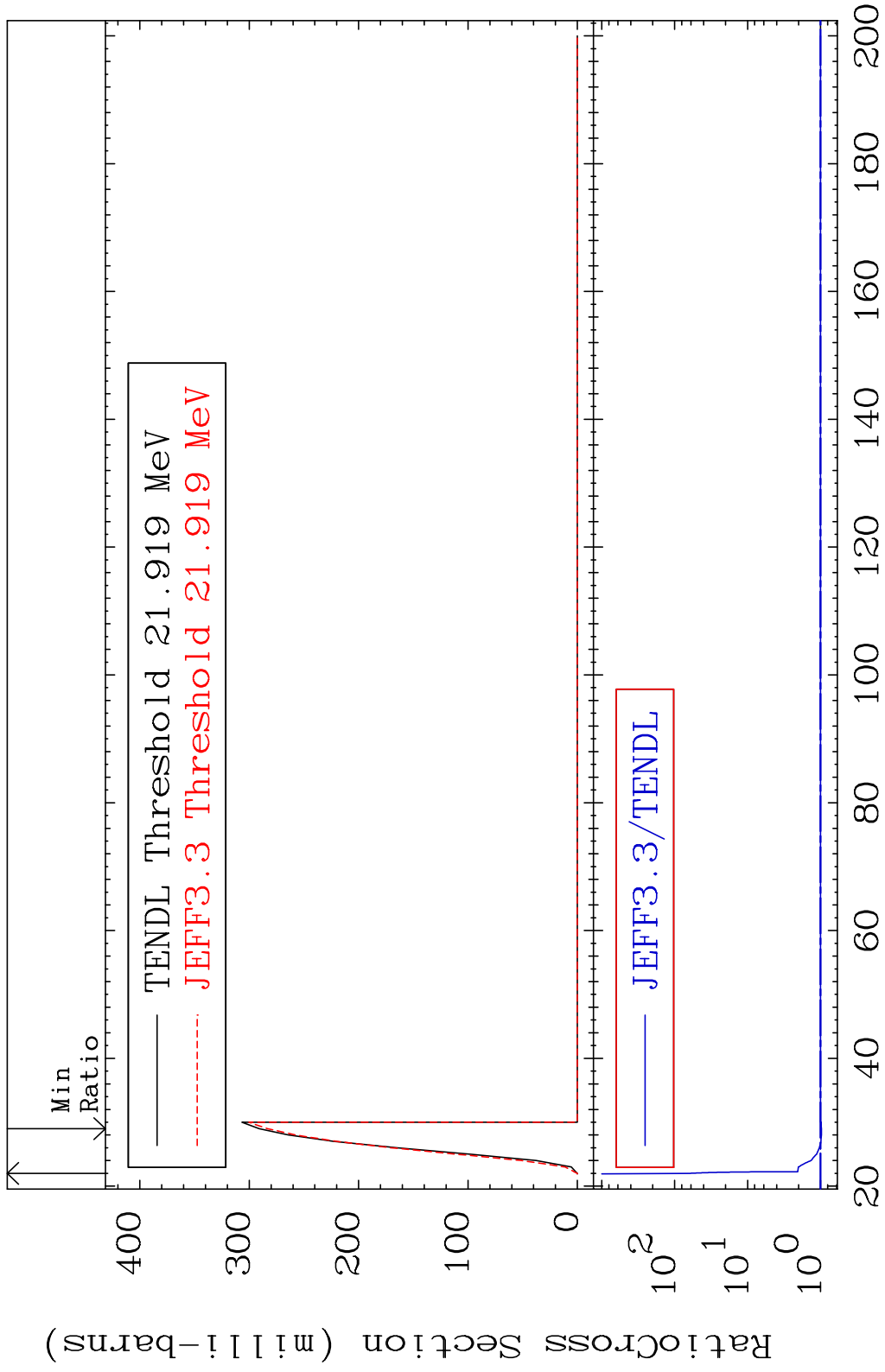
40-Zr-89

Cross Section -1.864 To 601.7 %

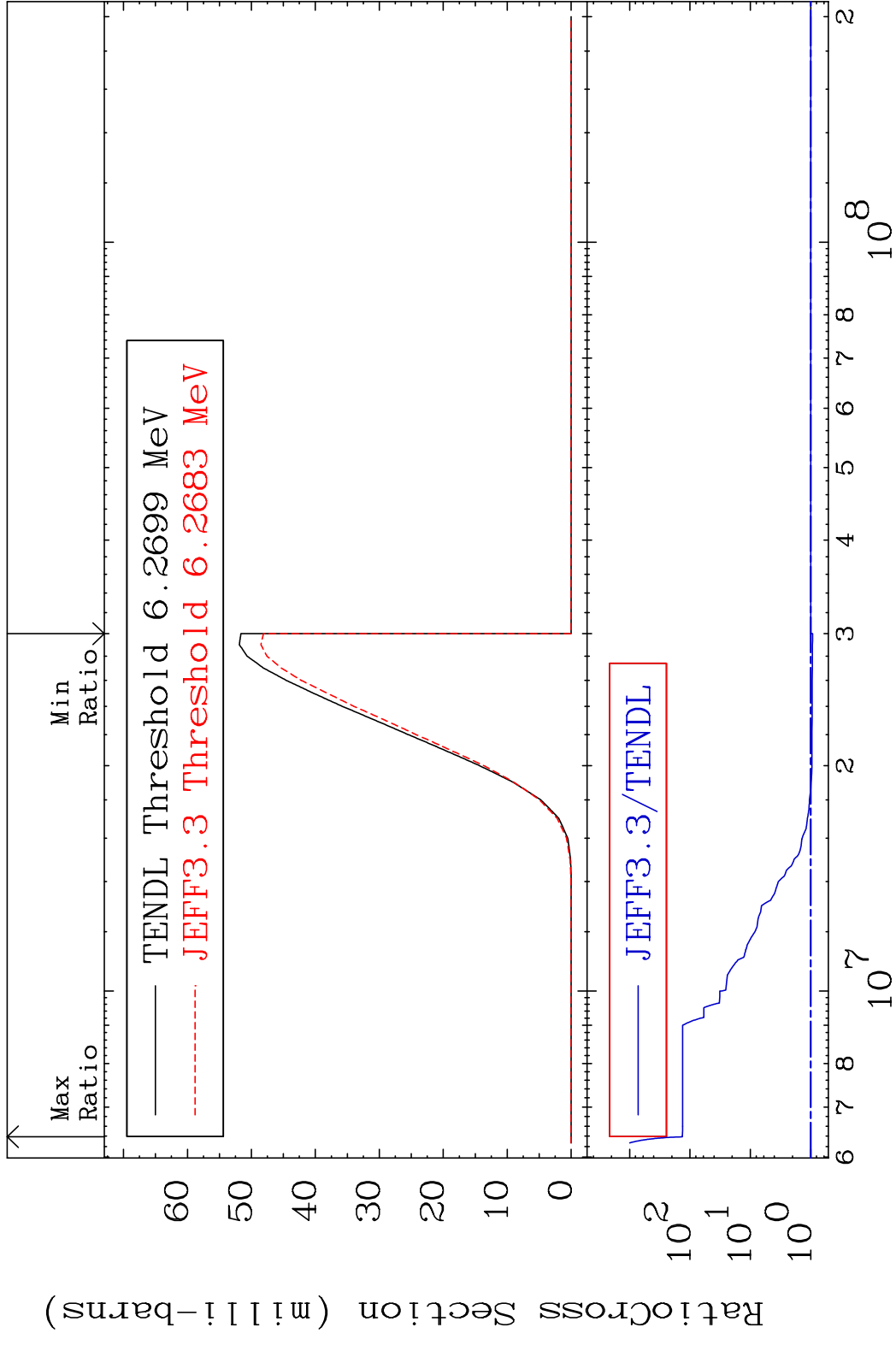


5 Incident Energy (eV) 40-Zr-89

MAT 4022 (n,3n) 40-Zr-89
 Cross Section -2.609 To 6107. %

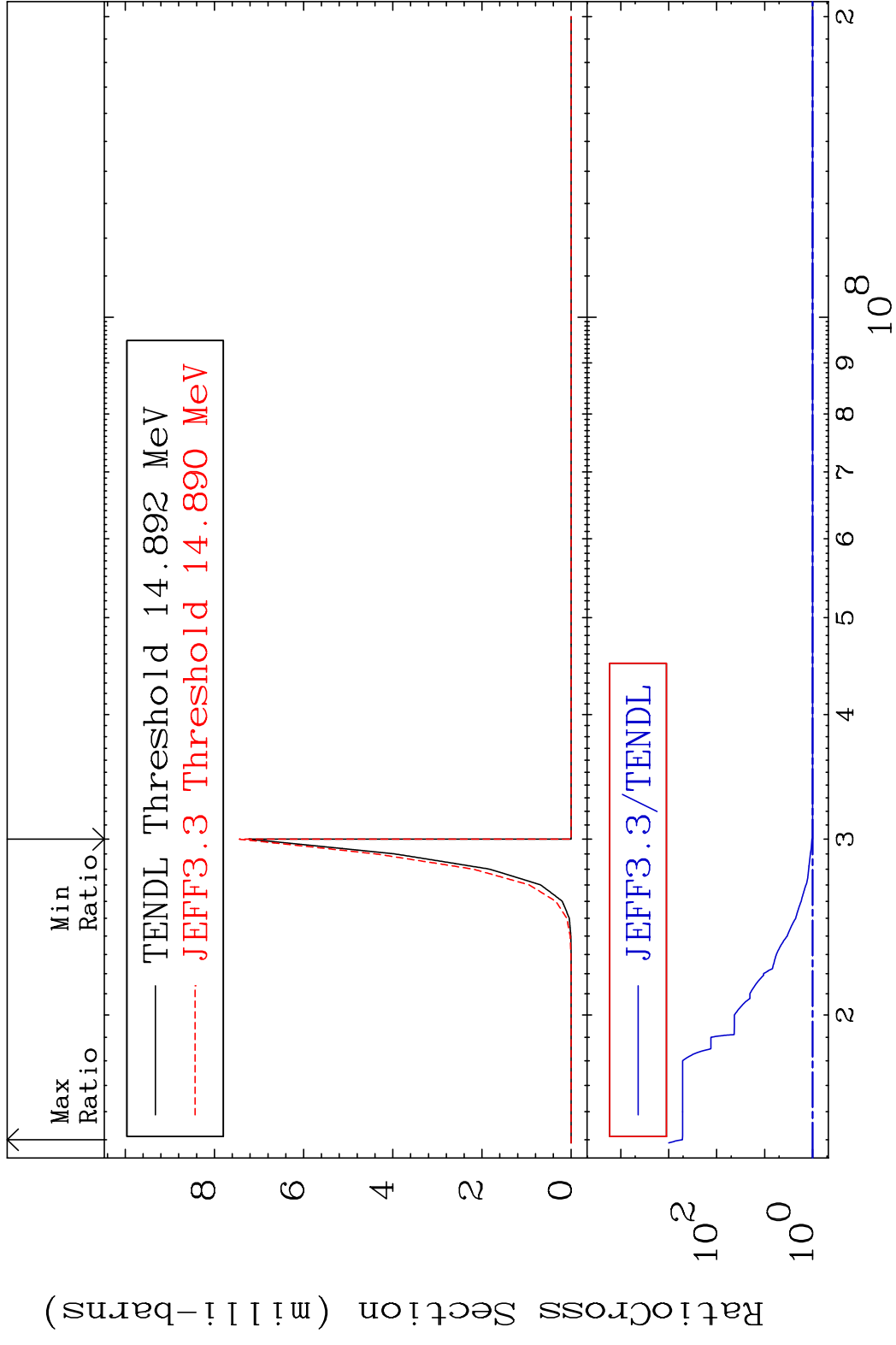


MAT 4022 (n, n') α 40-Zr-89
 Cross Section -6.842 To 9999. %



7 Incident Energy (eV) 40-Zr-89

MAT 4022 (n,2n) α 40-Zr-89
 Cross Section 0.000 To 9999. %

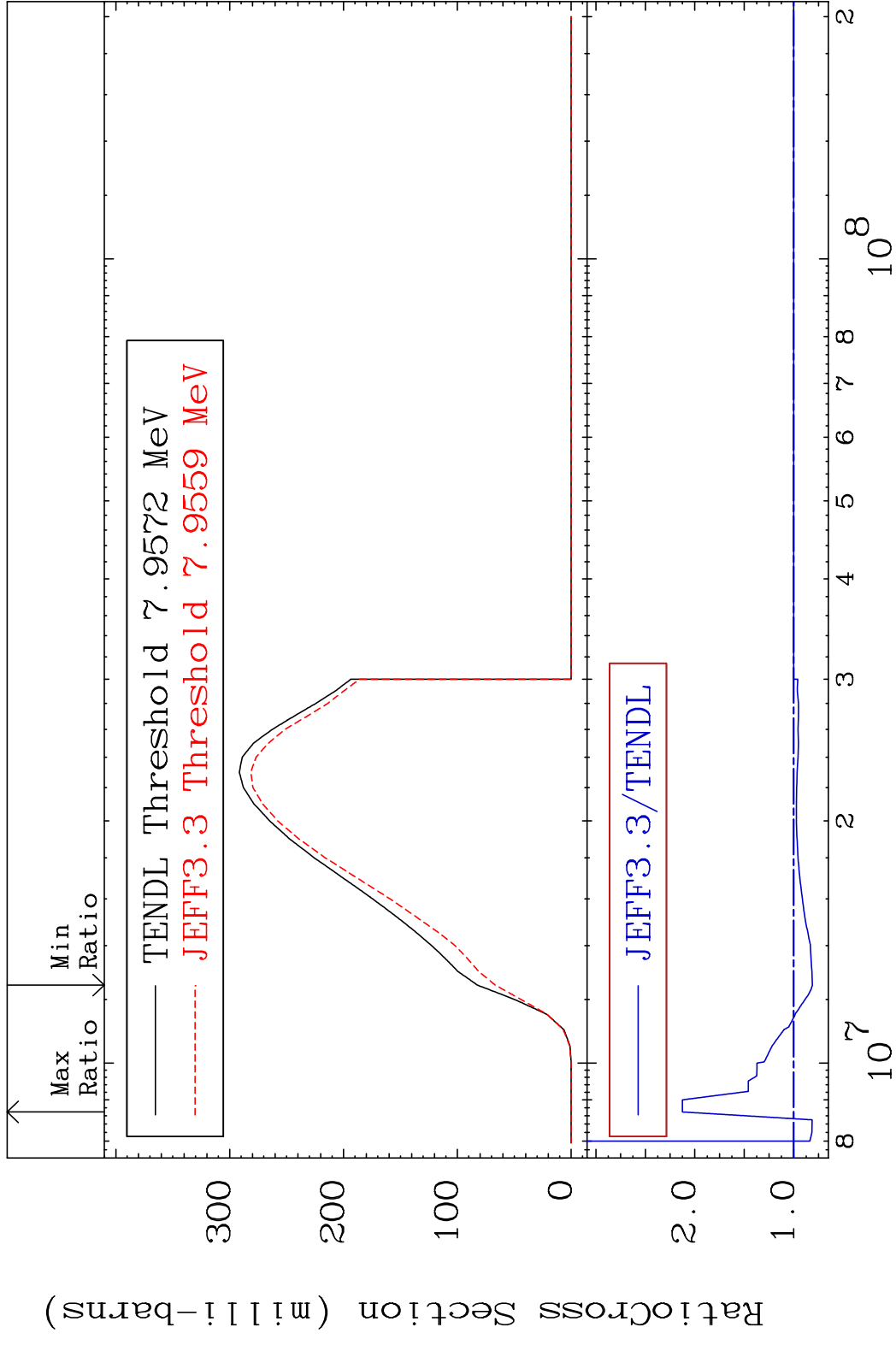


MAT 4022

(n, n') p

40-Zr-89

Cross Section -19.00 To 112.6 %



9

MAT 4022

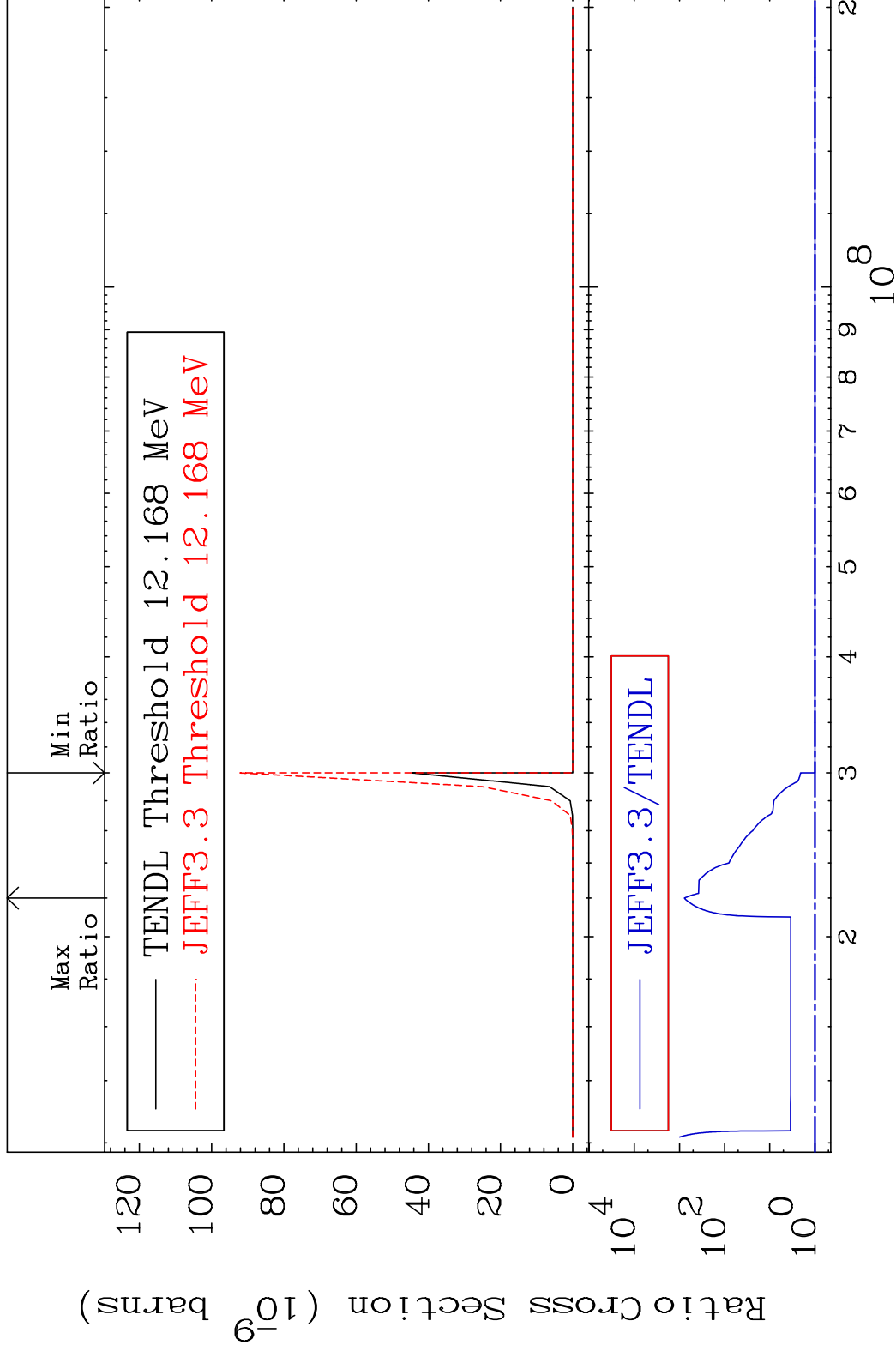
(n, n') 2α

40-Zr-89

Cross Section

0.000

To 9999. %



10

Incident Energy (eV)

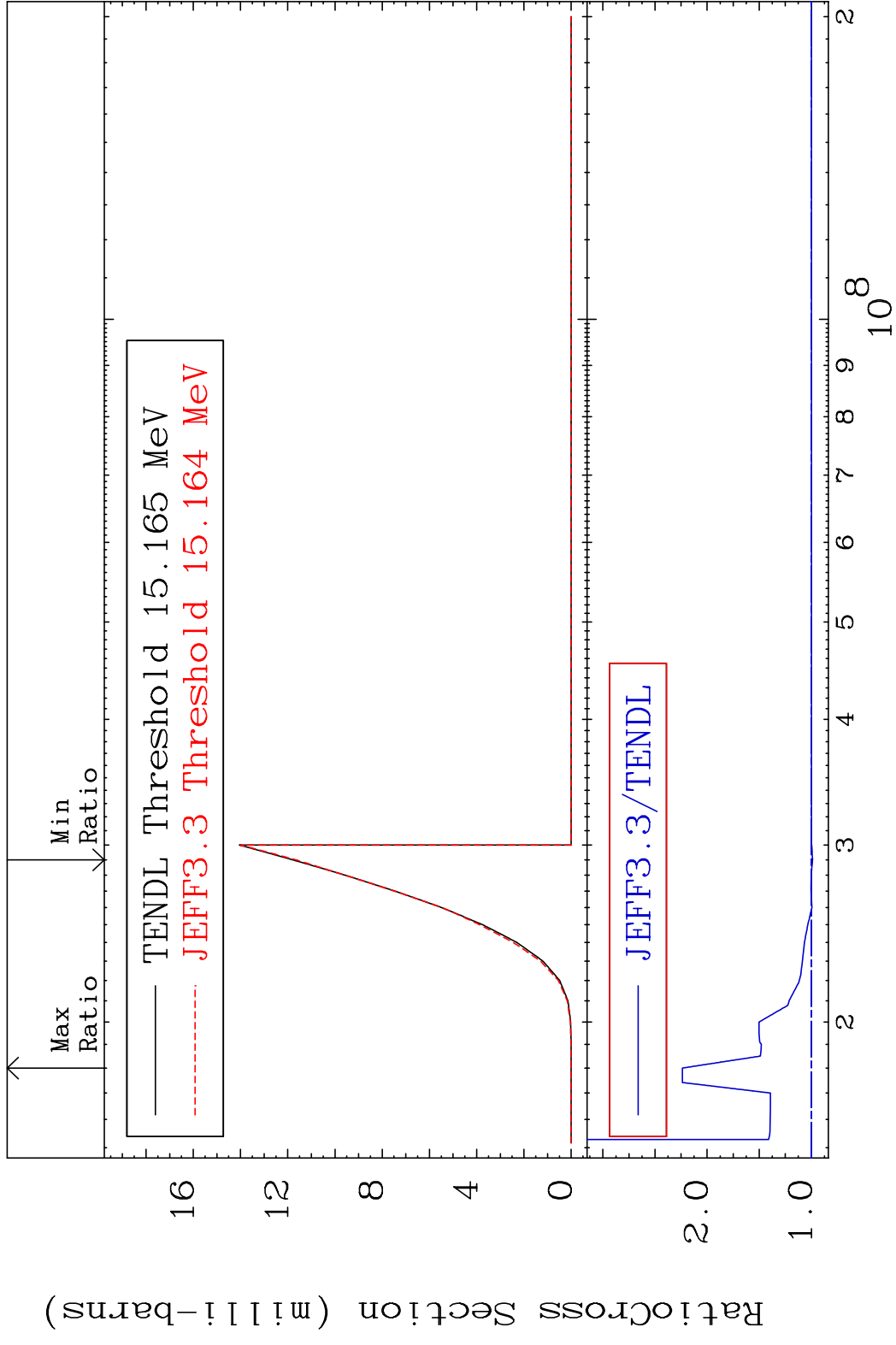
40-Zr-89

MAT 4022

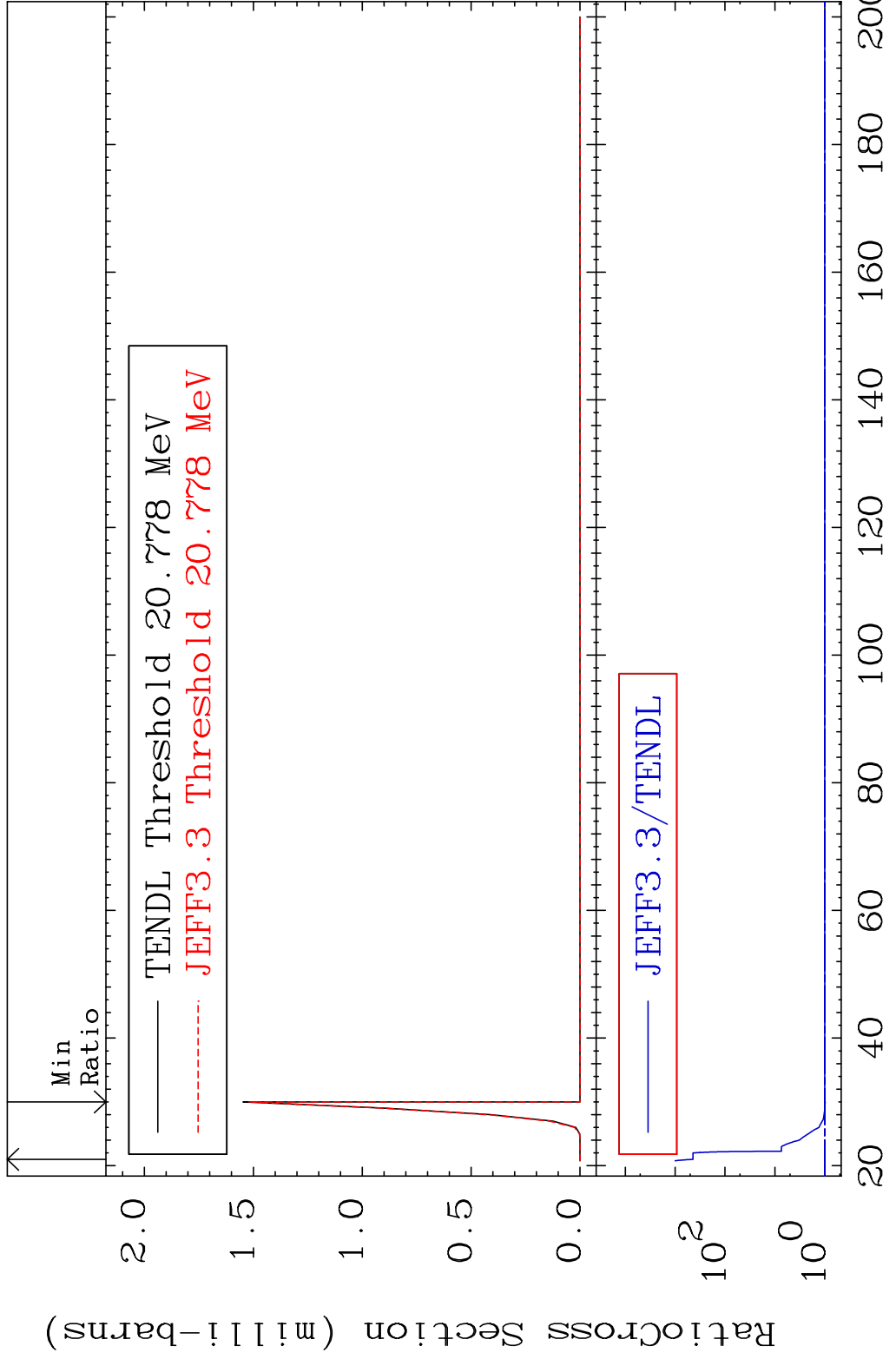
(n, n') d

40-Zr-89

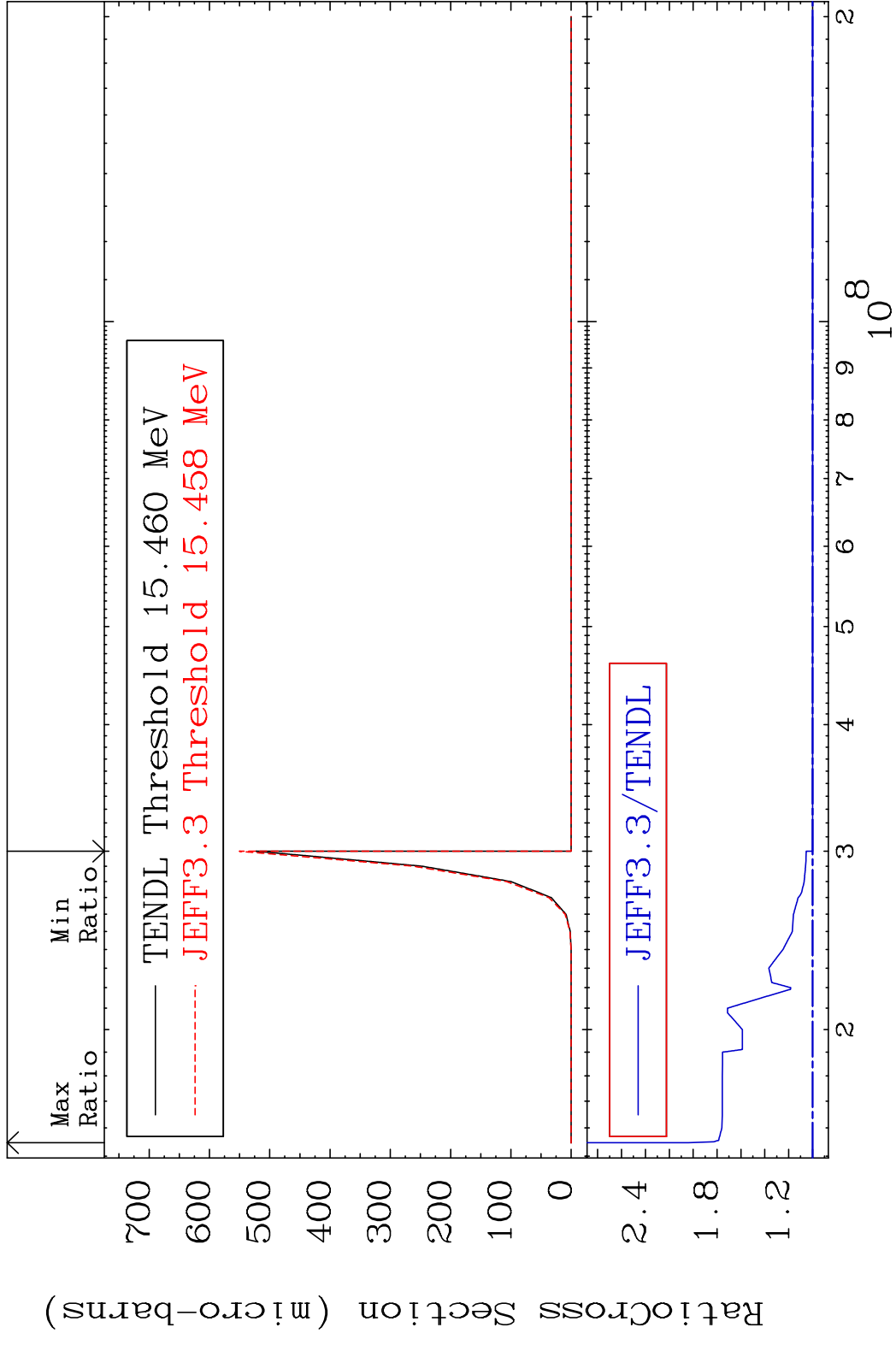
Cross Section -1.155 To 123.8 %



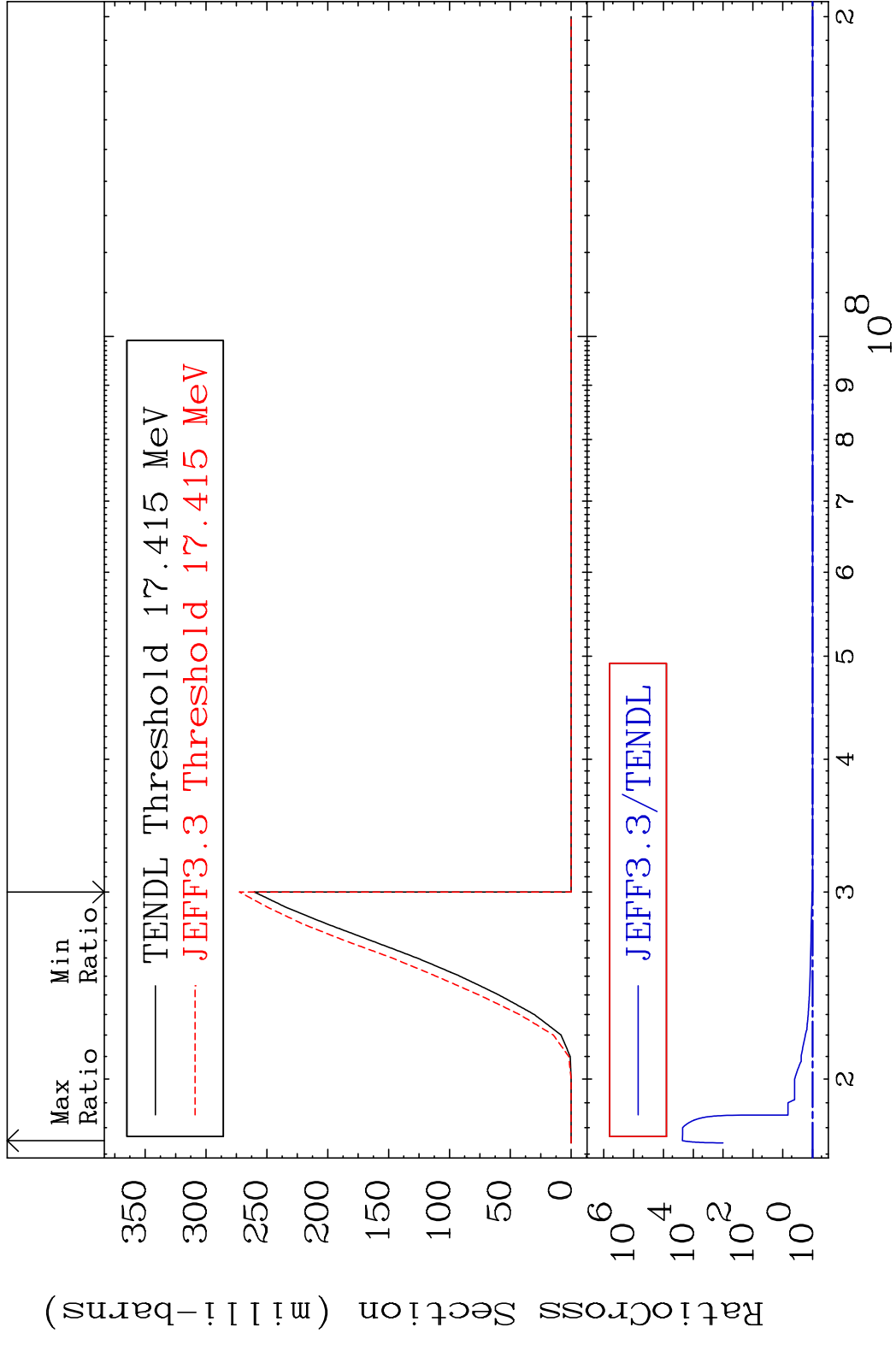
MAT 4022 (n, n') t 40-Zr-89
 Cross Section -1.713 To 9999. %



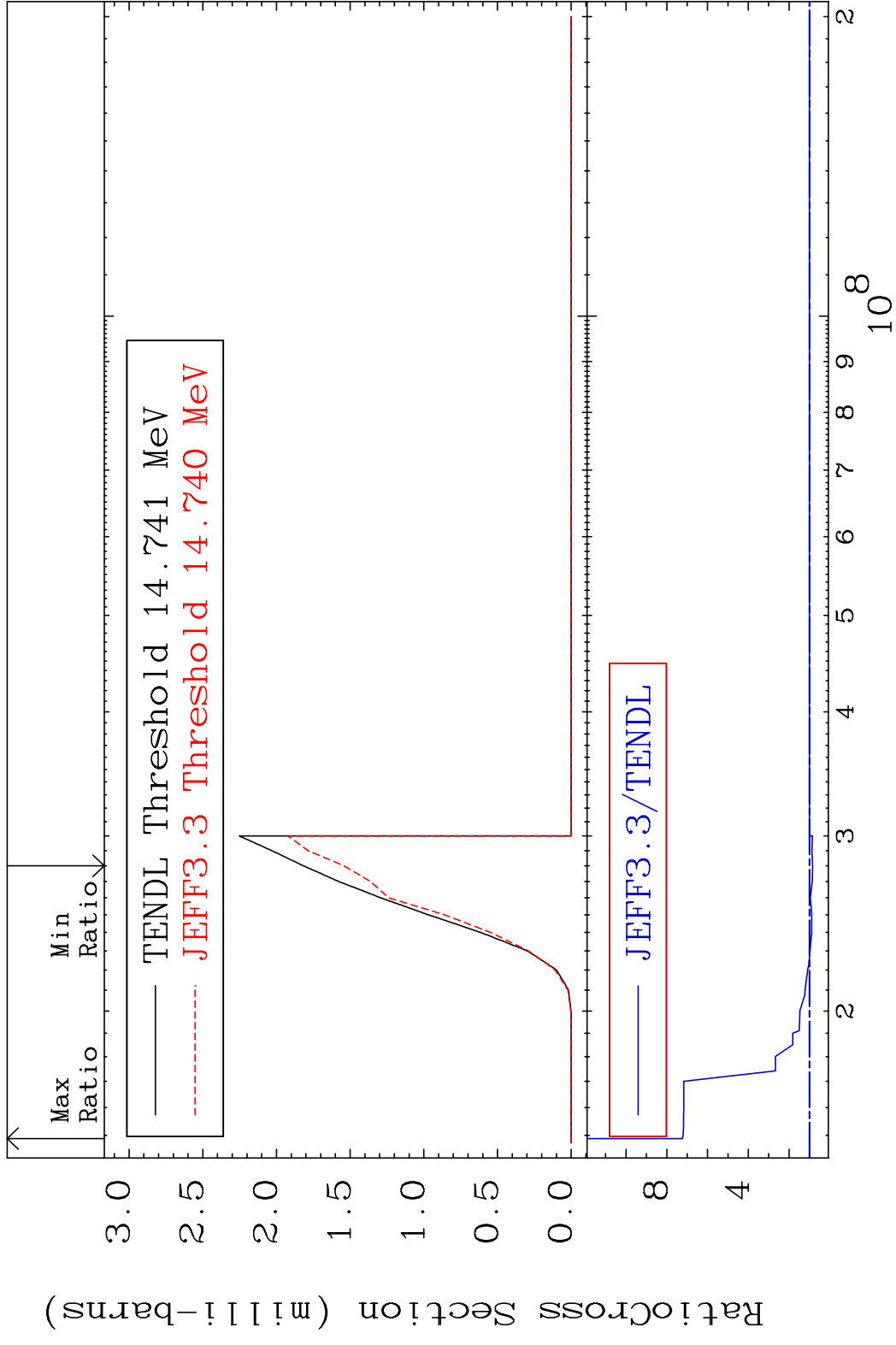
MAT 4022 (n,n') He-3 40-Zr-89
 Cross Section 0.000 To 109.1 %



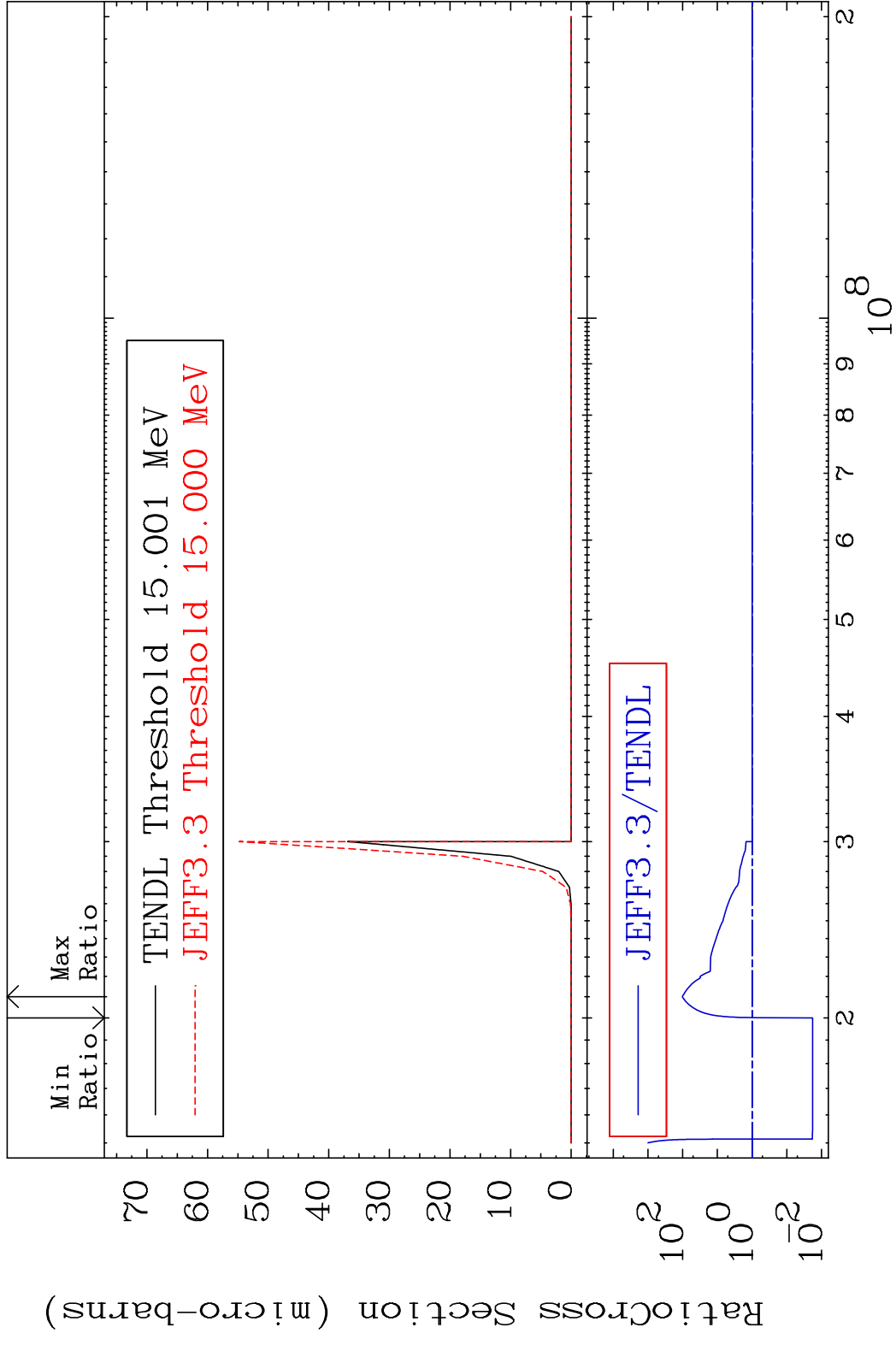
MAT 4022 (n,2n) p 40-Zr-89
 Cross Section 0.000 To 9999. %



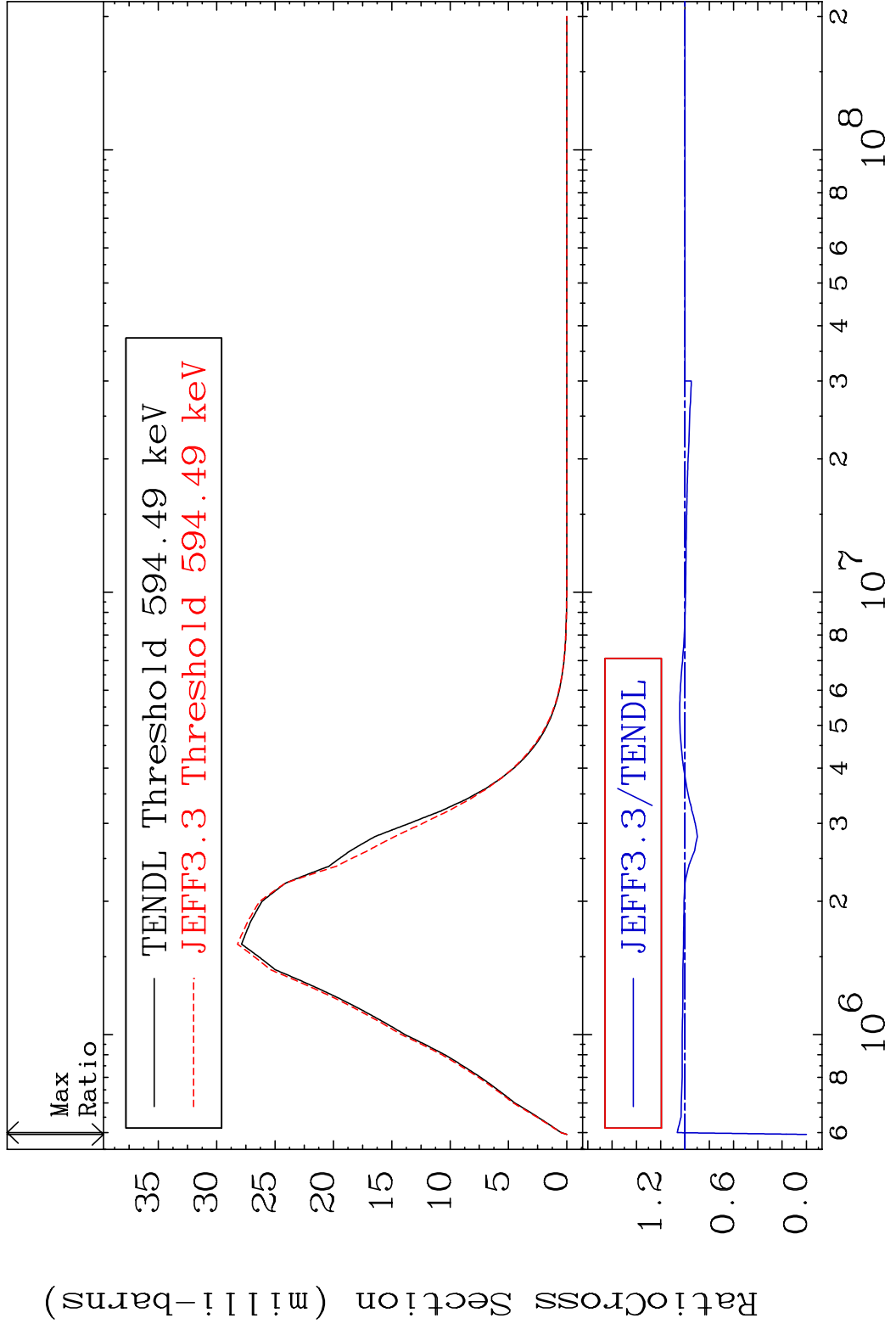
MAT 4022 (n,2n) p 40-Zr-89
 Cross Section -15.14 To 623.6 %



MAT 4022 (n, n') p α 40-Zr-89
 Cross Section -98.19 To 9999. %



MAT 4022 MT= 51 (n,n') Level 40-Zr-89
 Cross Section -100.0 To 6.400 %

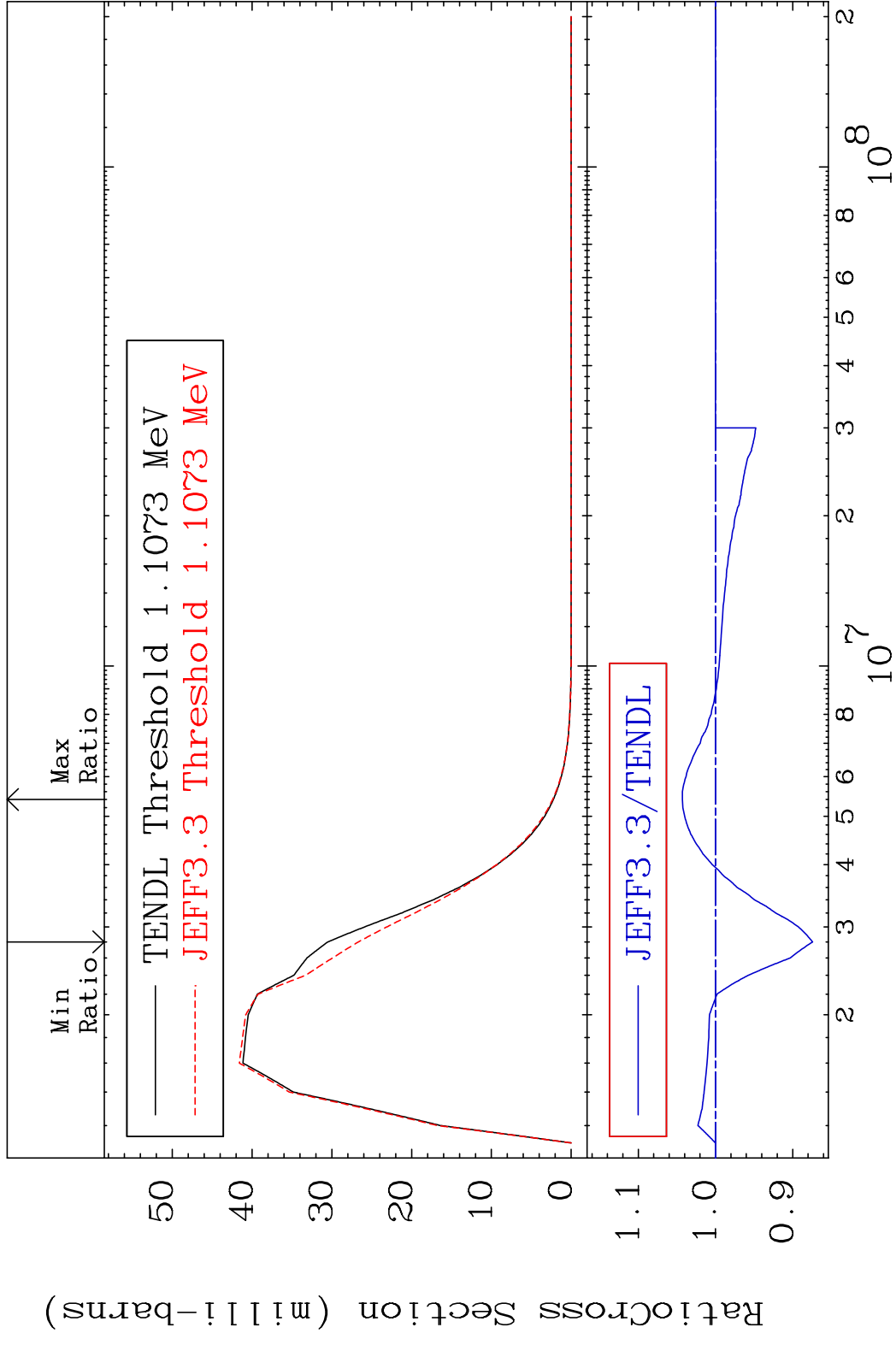


MAT 4022

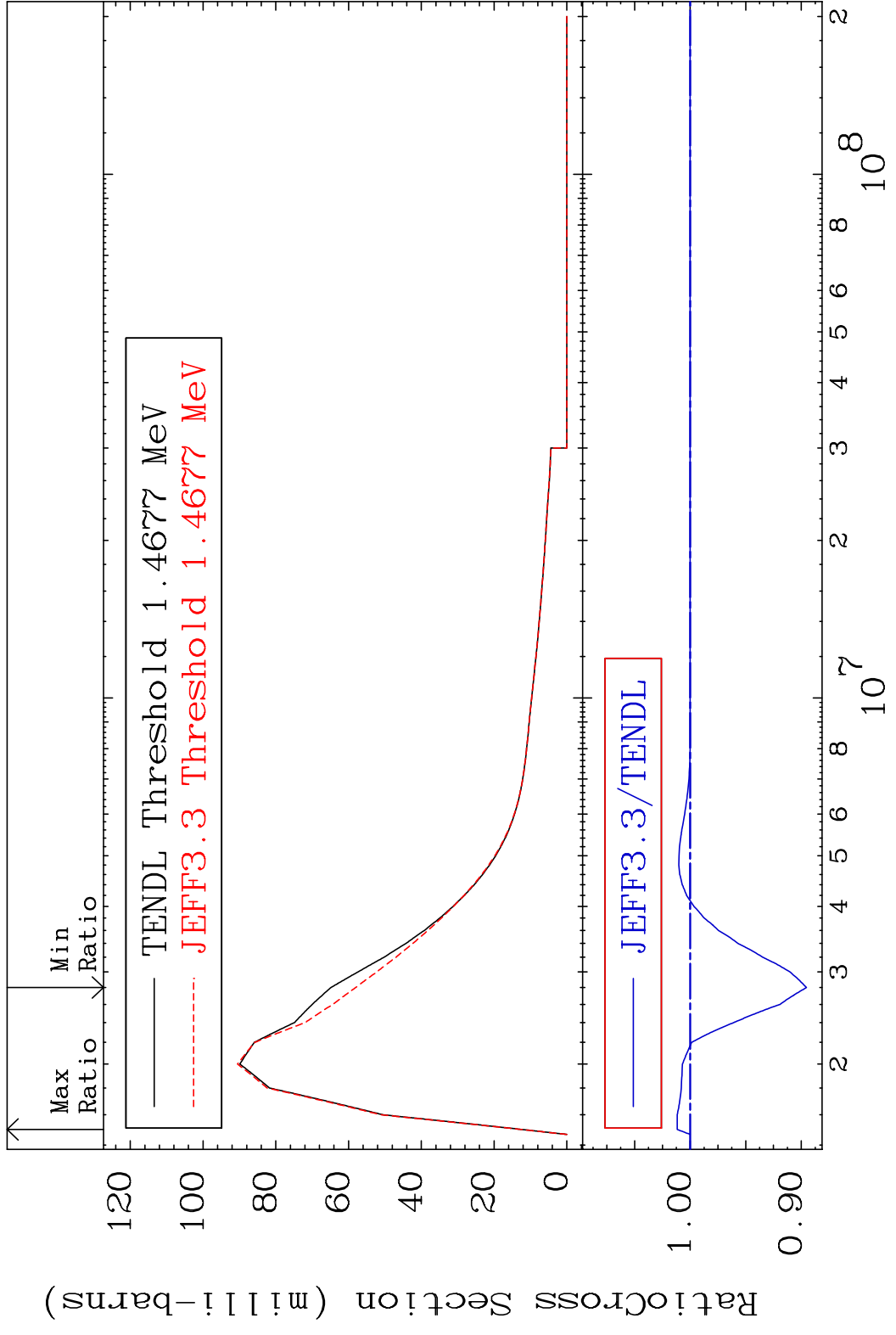
MT= 52 (n, n') Level

40-Zr-89

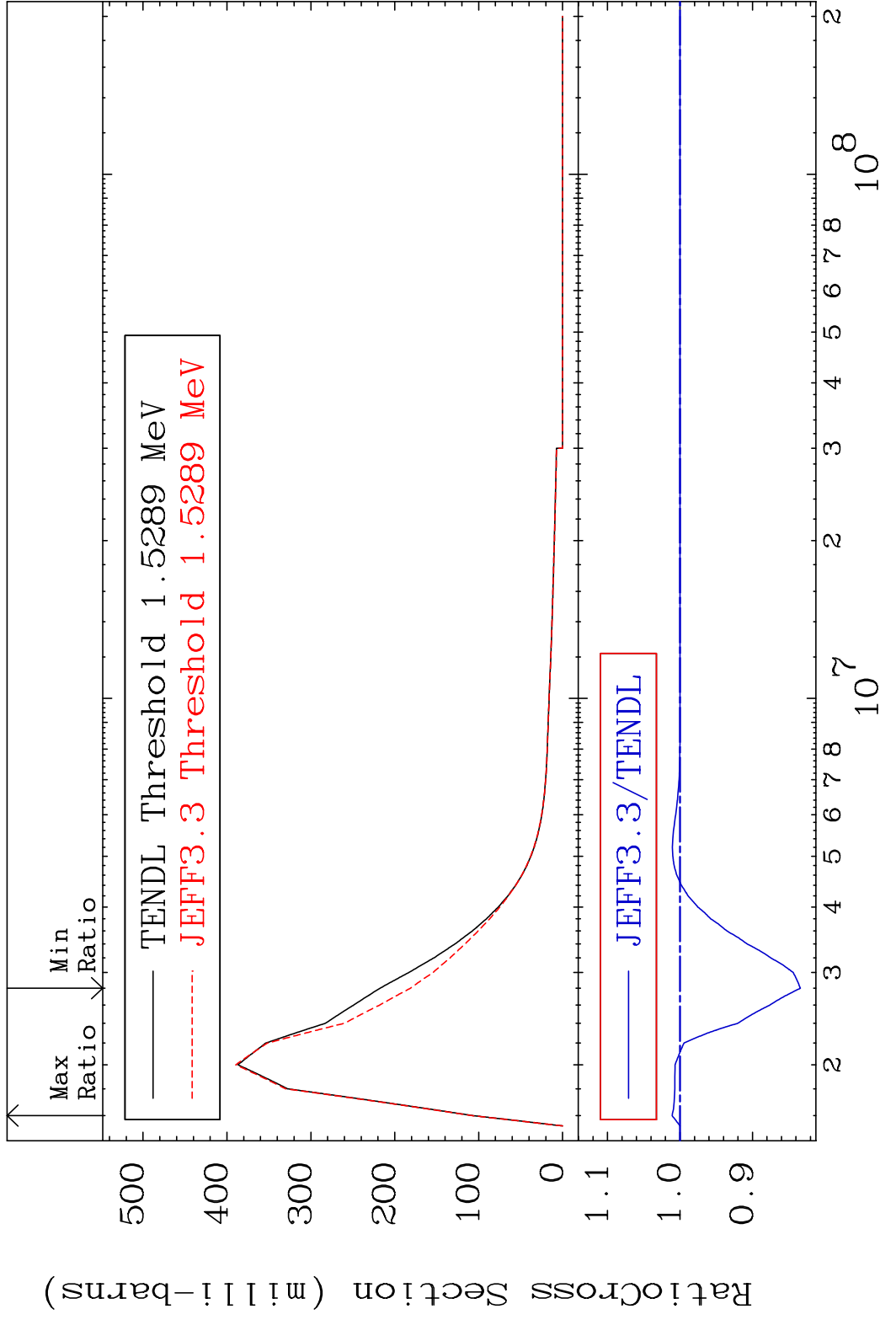
Cross Section -12.58 To 4.292 %



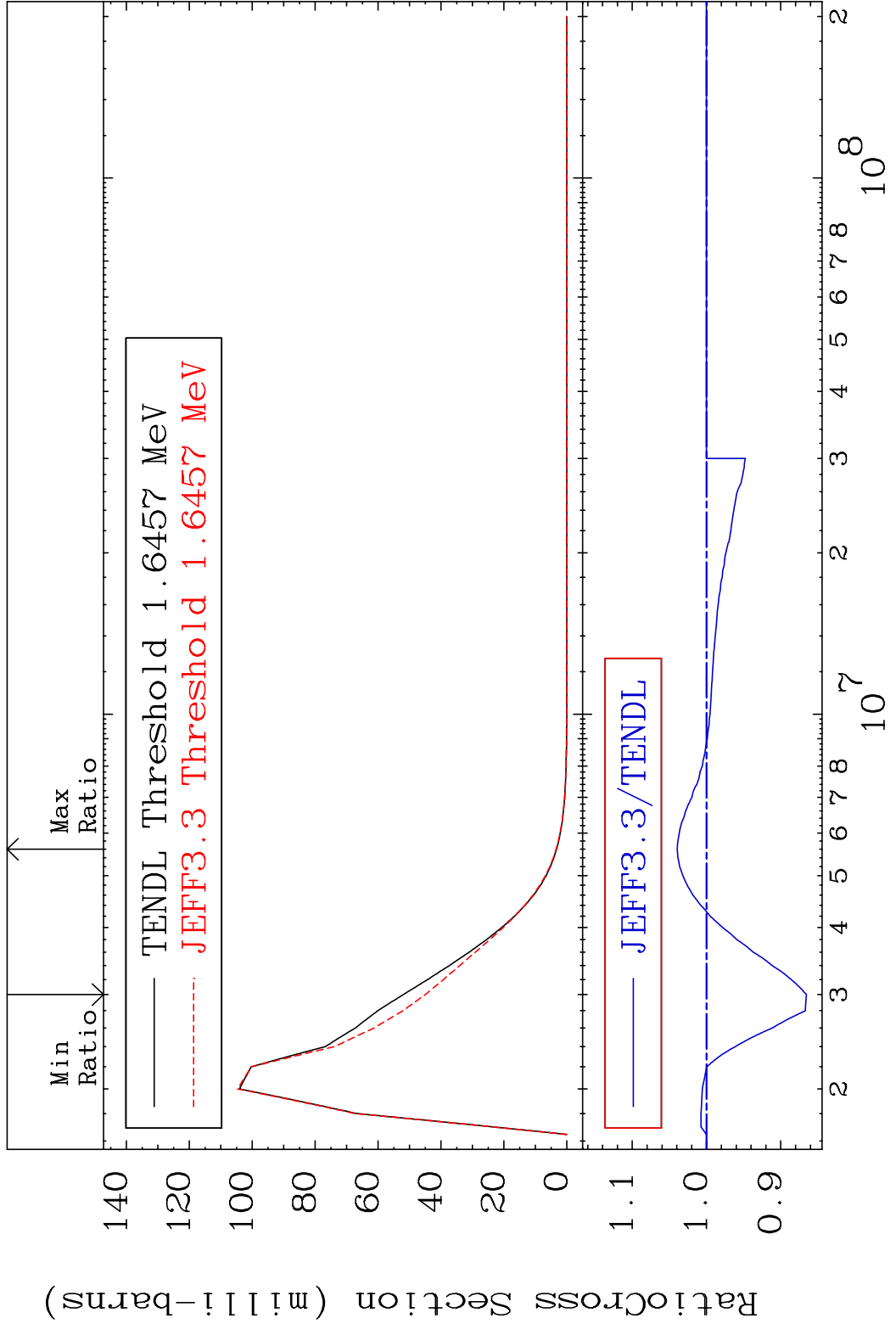
MAT 4022 MT= 53 (n, n') Level 40-Zr-89
 Cross Section -10.46 To 1.170 %



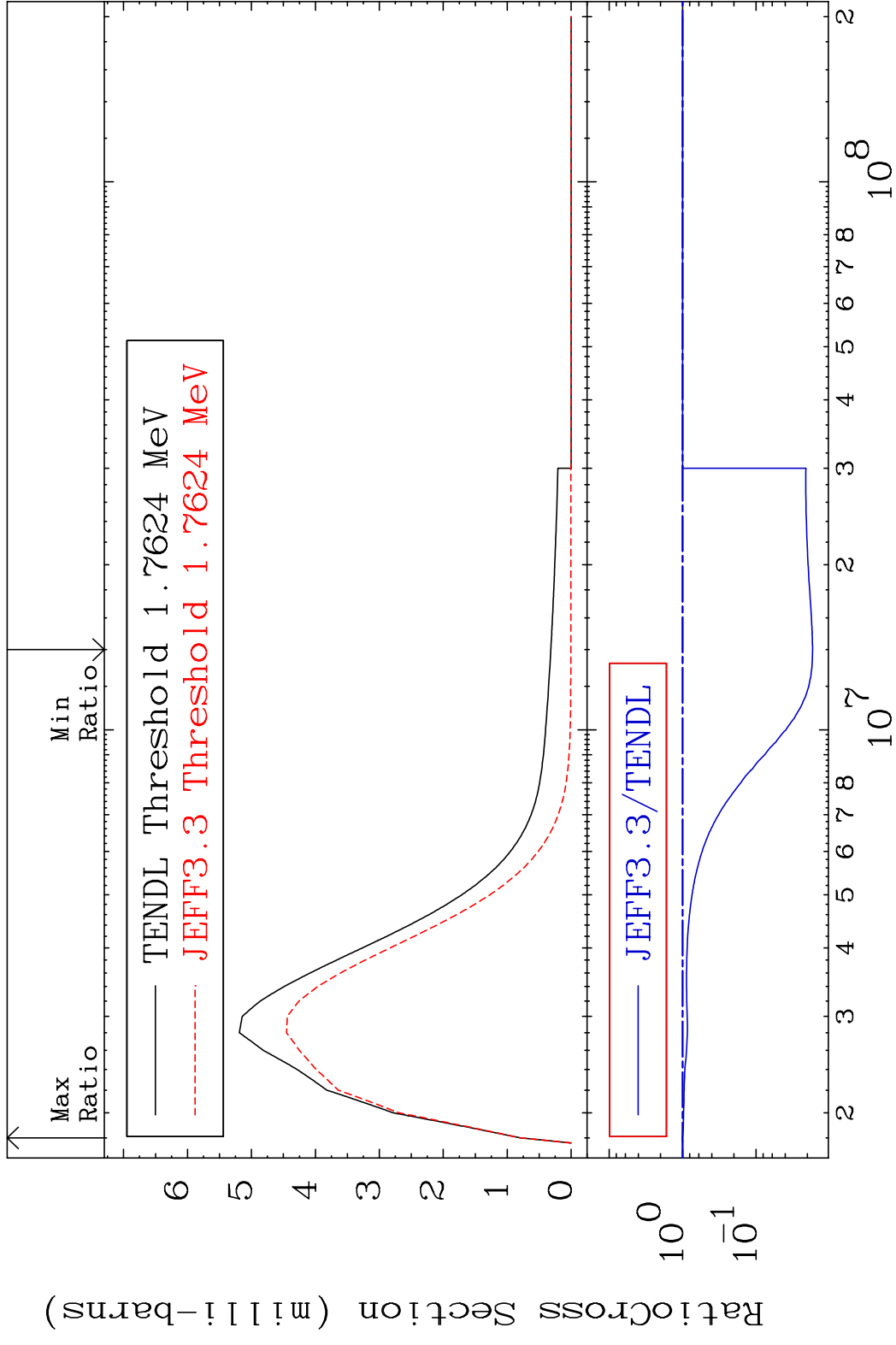
MAT 4022 MT= 54 (n, n') Level 40-Zr-89
 Cross Section -16.60 To 1.089 %



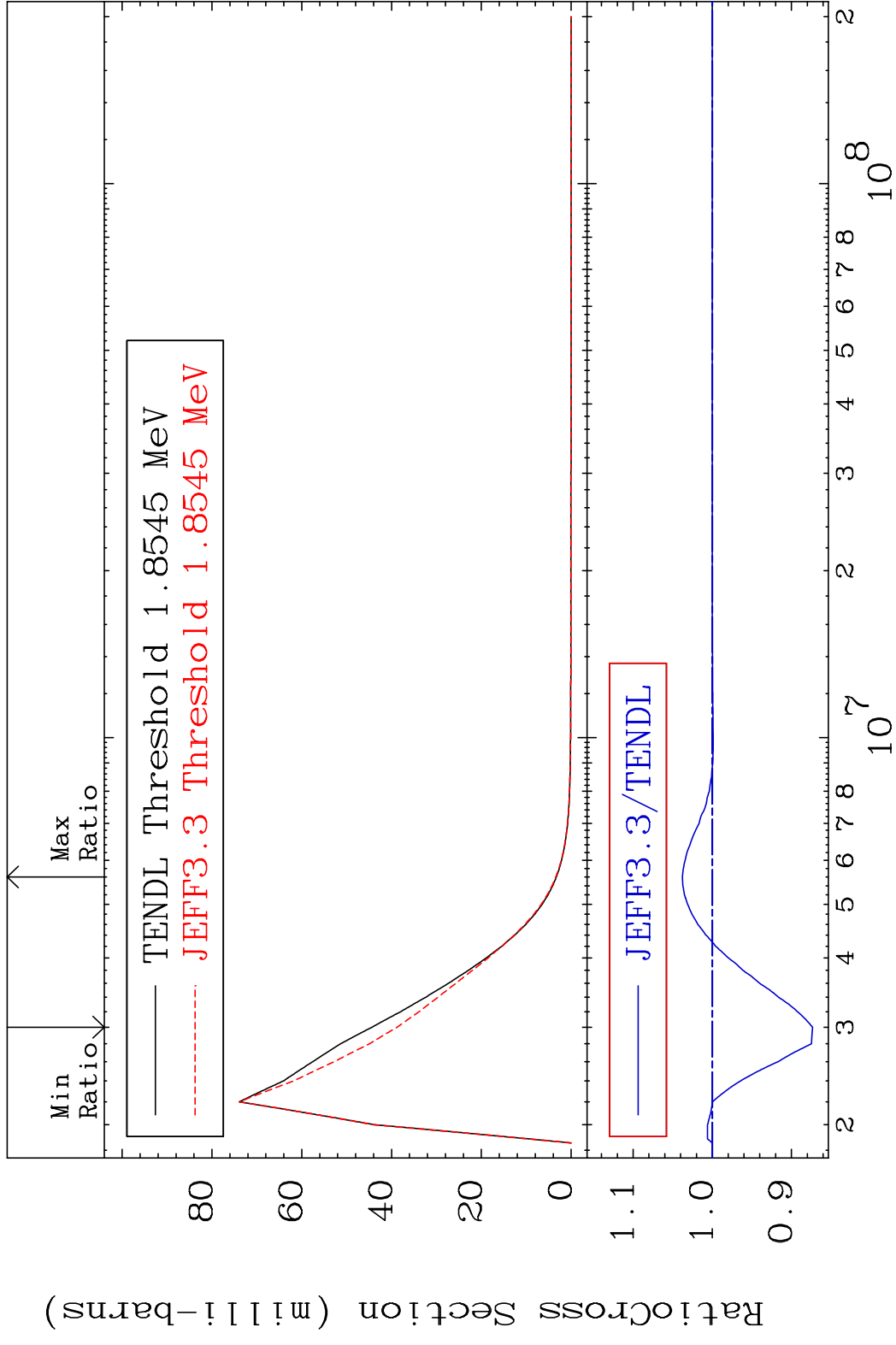
MAT 4022 MT= 55 (n,n') Level 40-Zr-89
 Cross Section -13.46 To 3.949 %



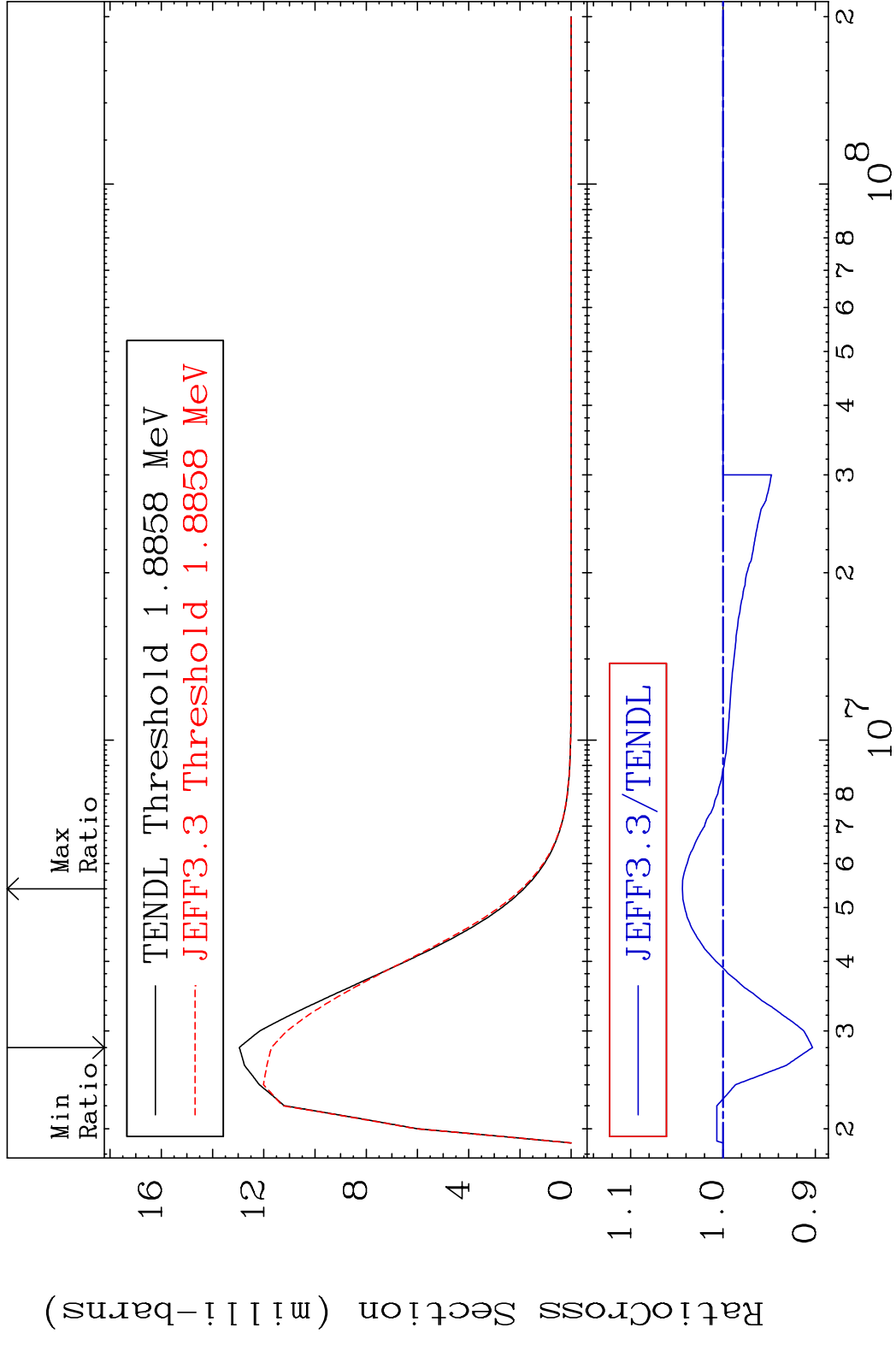
MAT 4022 MT= 56 (n, n') Level 40-Zr-89
 Cross Section -98.31 To 0.722 %



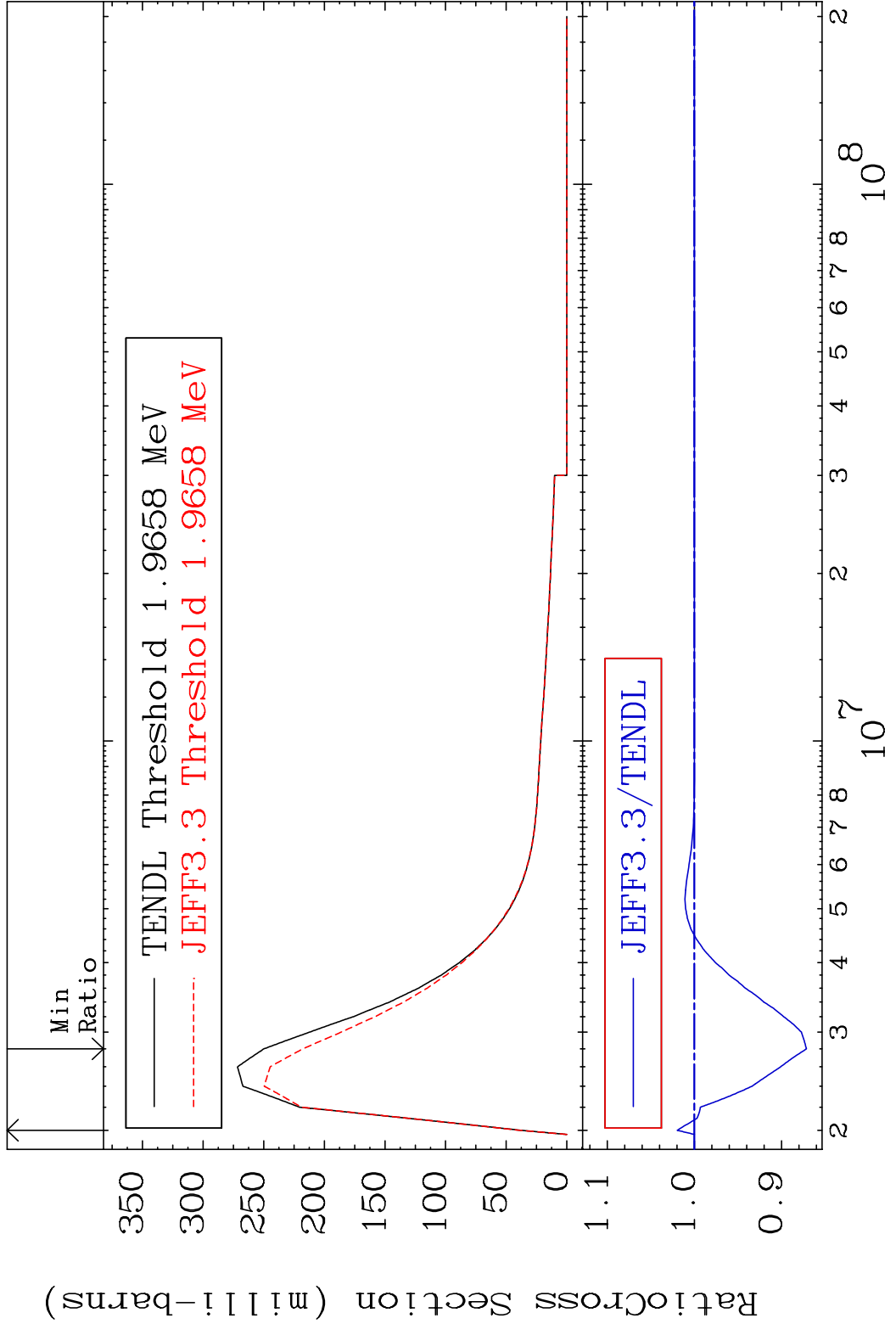
MAT 4022 MT= 57 (n, n') Level 40-Zr-89
 Cross Section -12.66 To 3.783 %



MAT 4022 MT= 58 (n, n') Level 40-Zr-89
 Cross Section -9.6886 To 4.395 %

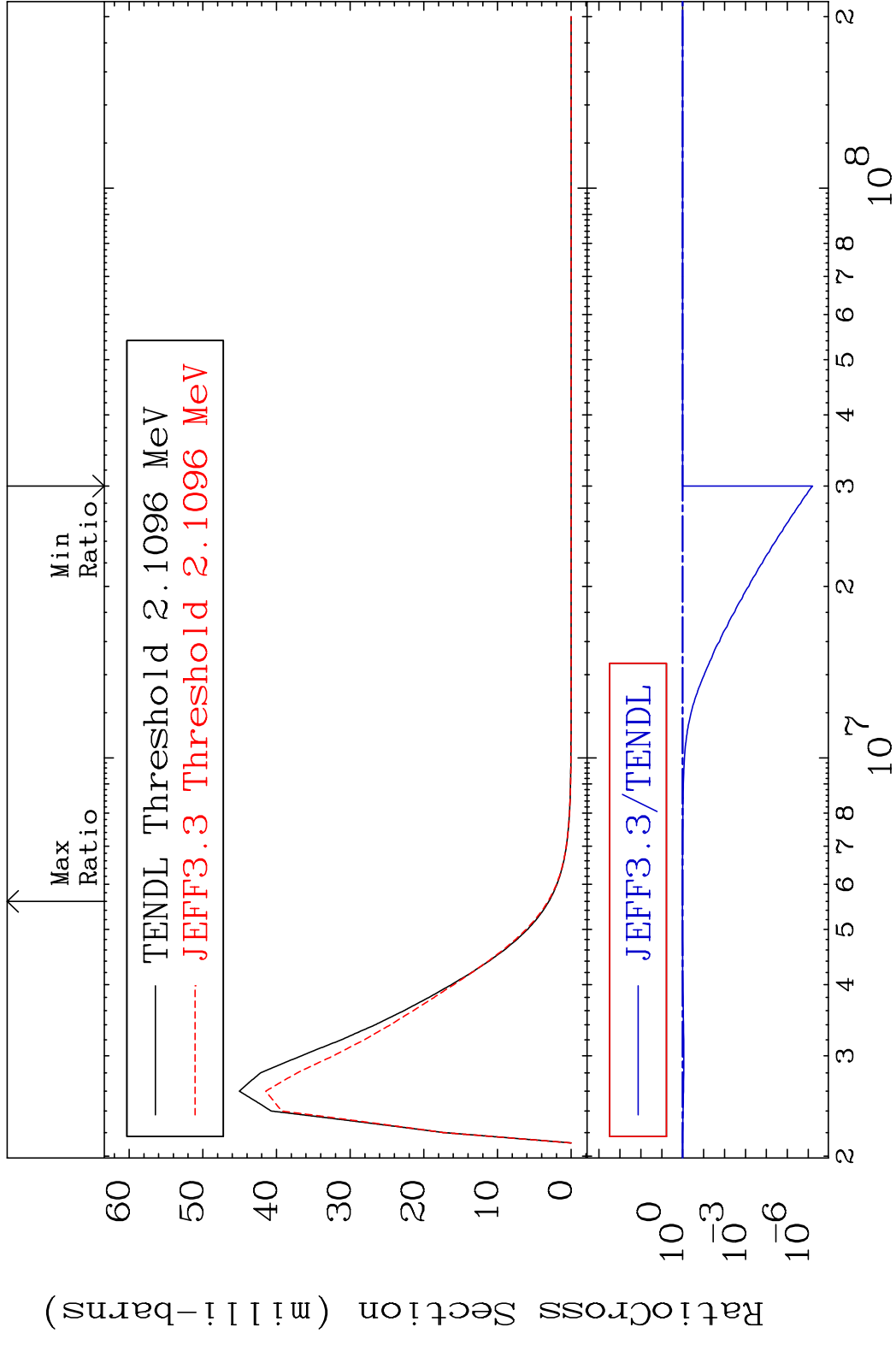


MAT 4022 MT= 59 (n, n') Level 40-Zr-89
 Cross Section -12.85 To 1.972 %

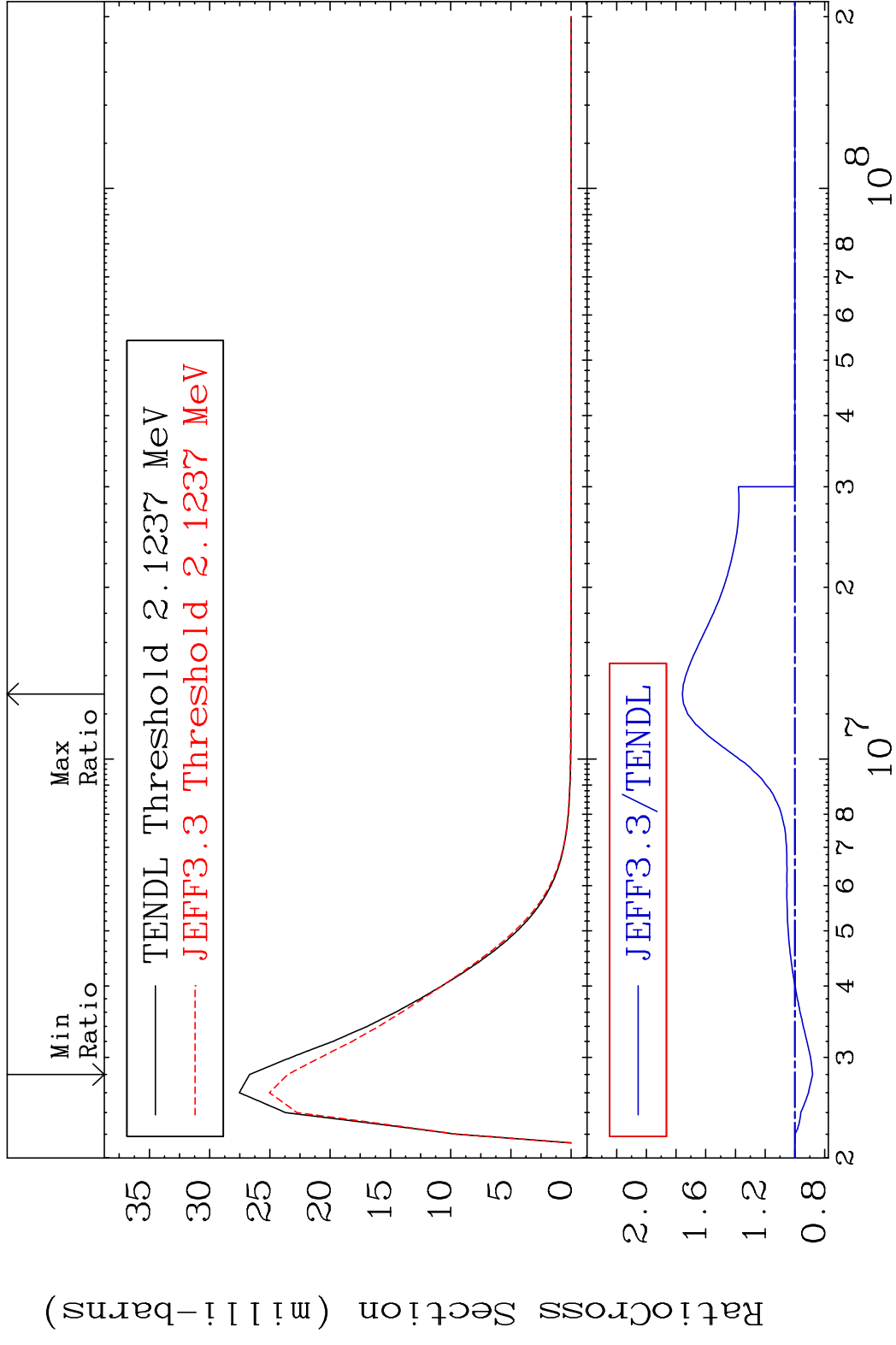


25 Incident Energy (eV) 40-Zr-89

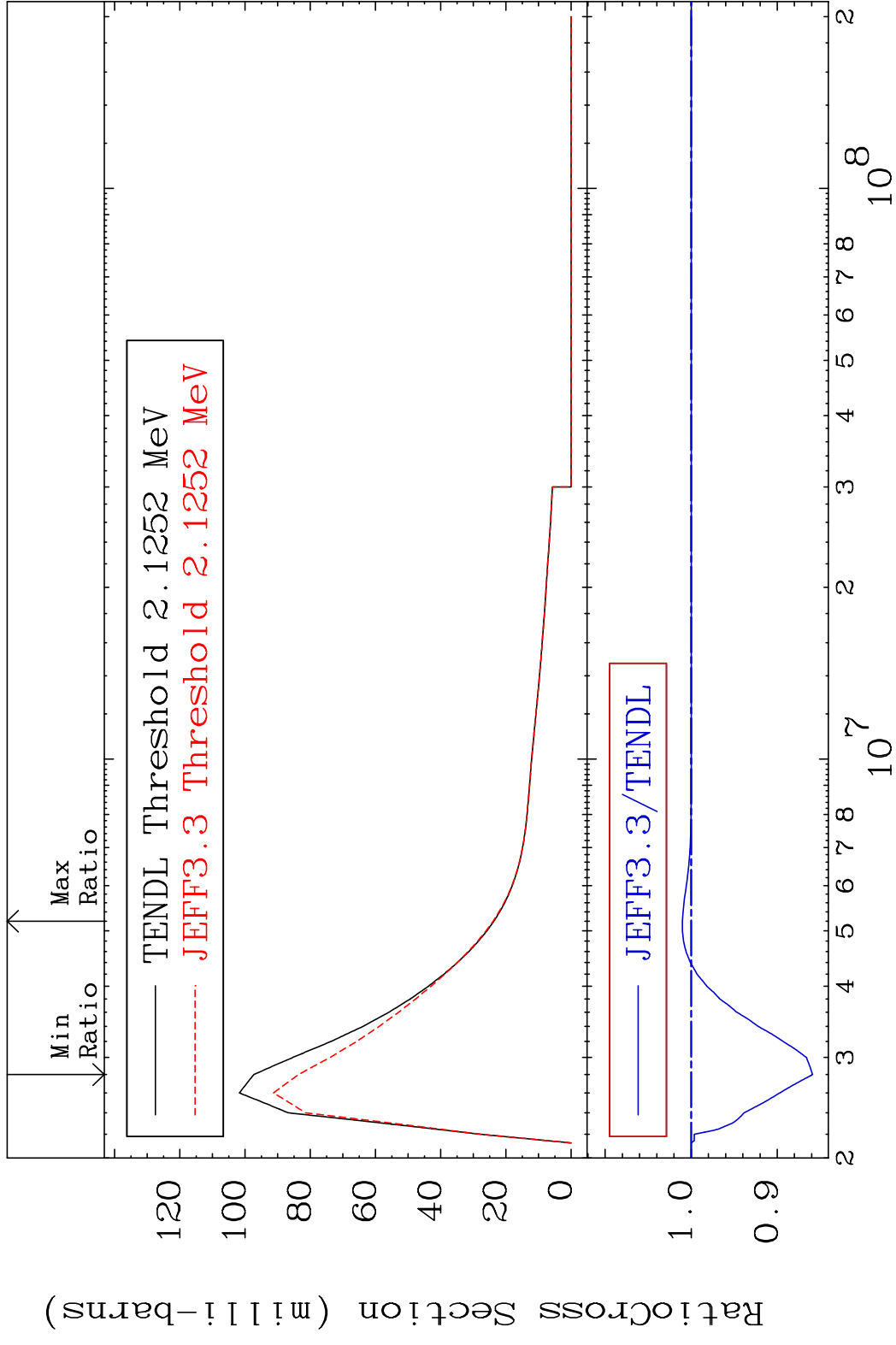
MAT 4022 MT= 60 (n, n') Level 40-Zr-89
 Cross Section -100.0 To 3.843 %



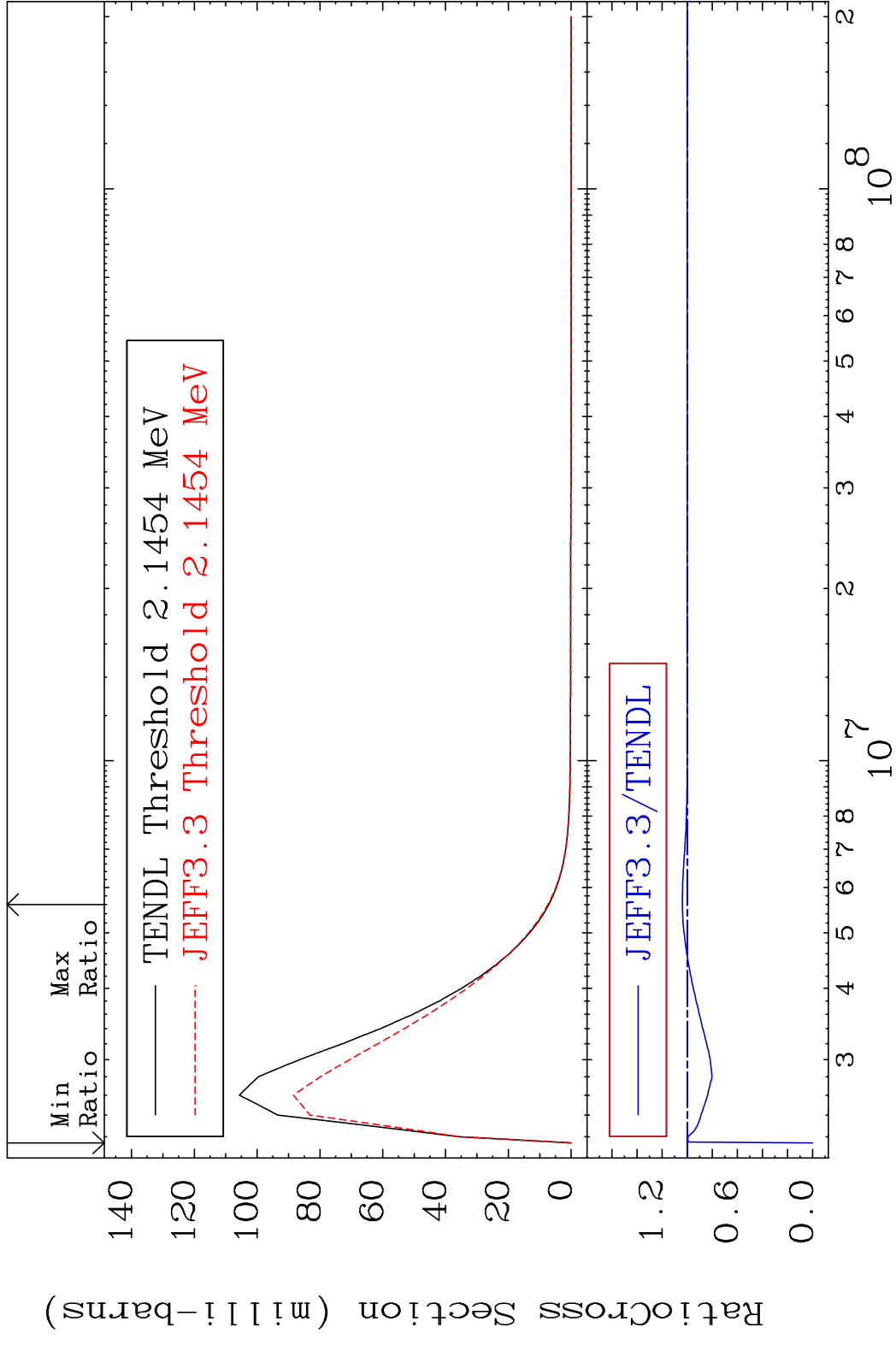
MAT 4022 MT= 61 (n, n') Level 40-Zr-89
 Cross Section -11.89 To 75.76 %



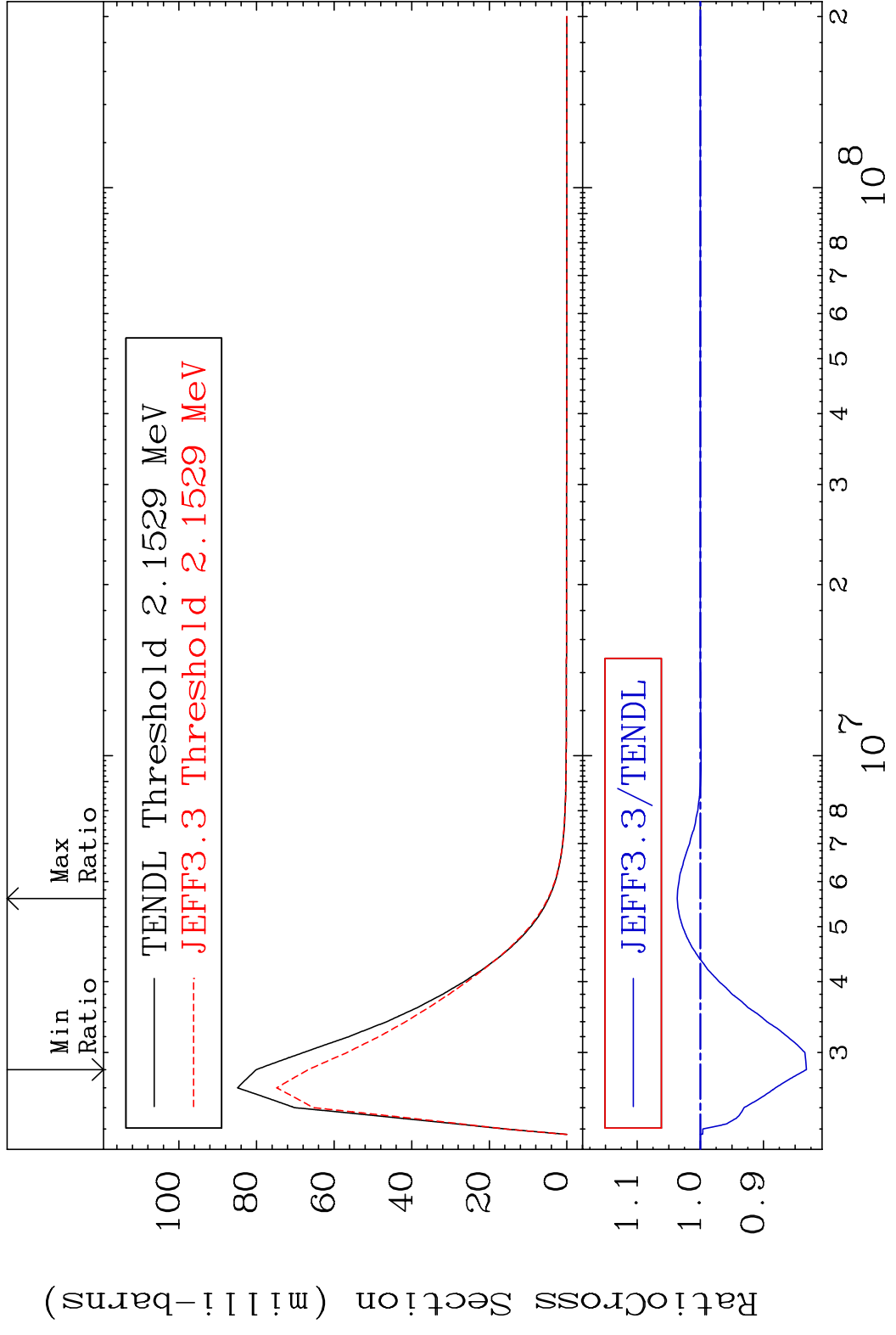
MAT 4022 MT= 62 (n, n') Level 40-Zr-89
 Cross Section -14.10 To 1.031 %



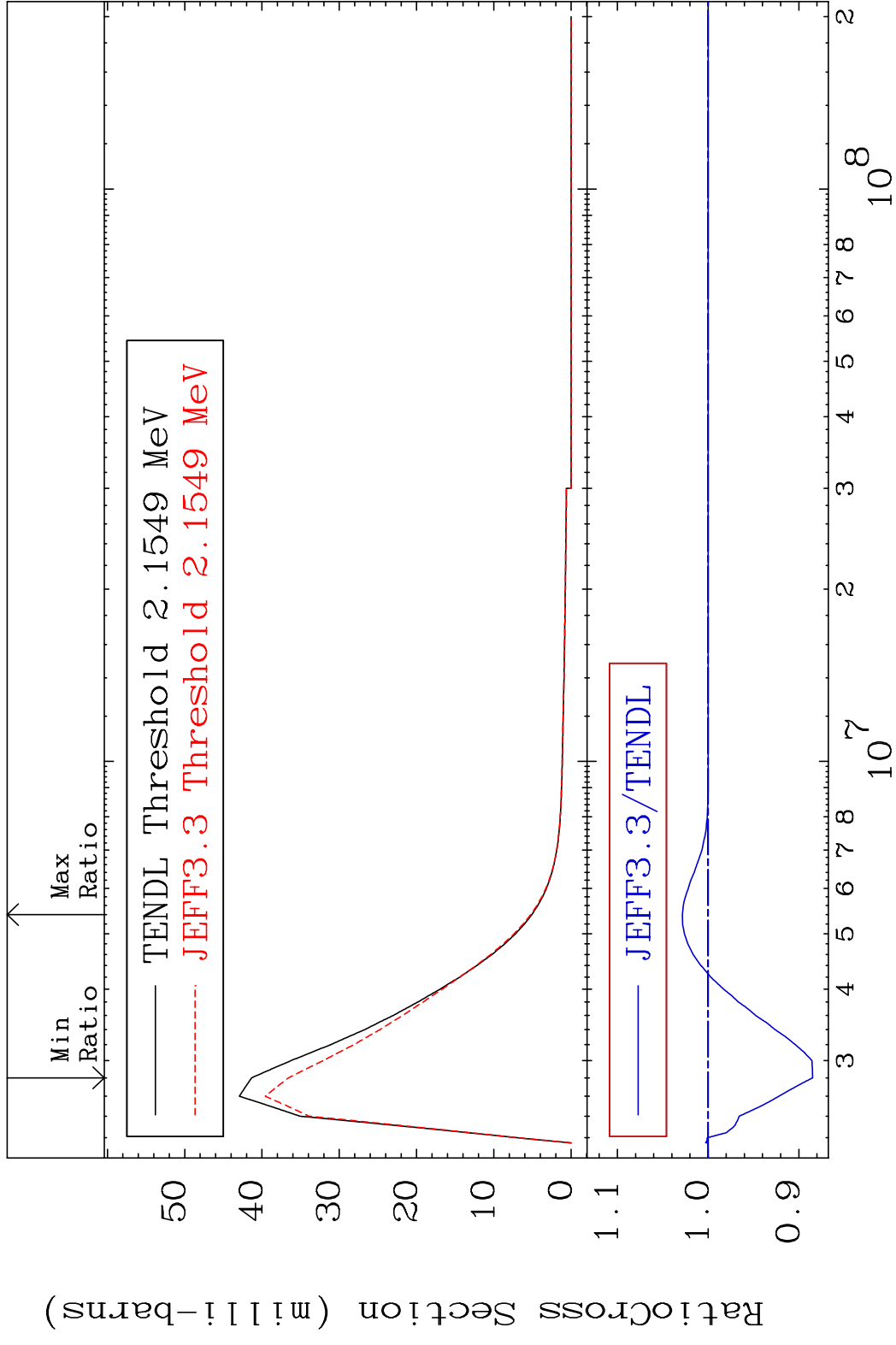
MAT 4022 MT= 63 (n, n') Level 40-Zr-89
 Cross Section -100.0 To 3.828 %



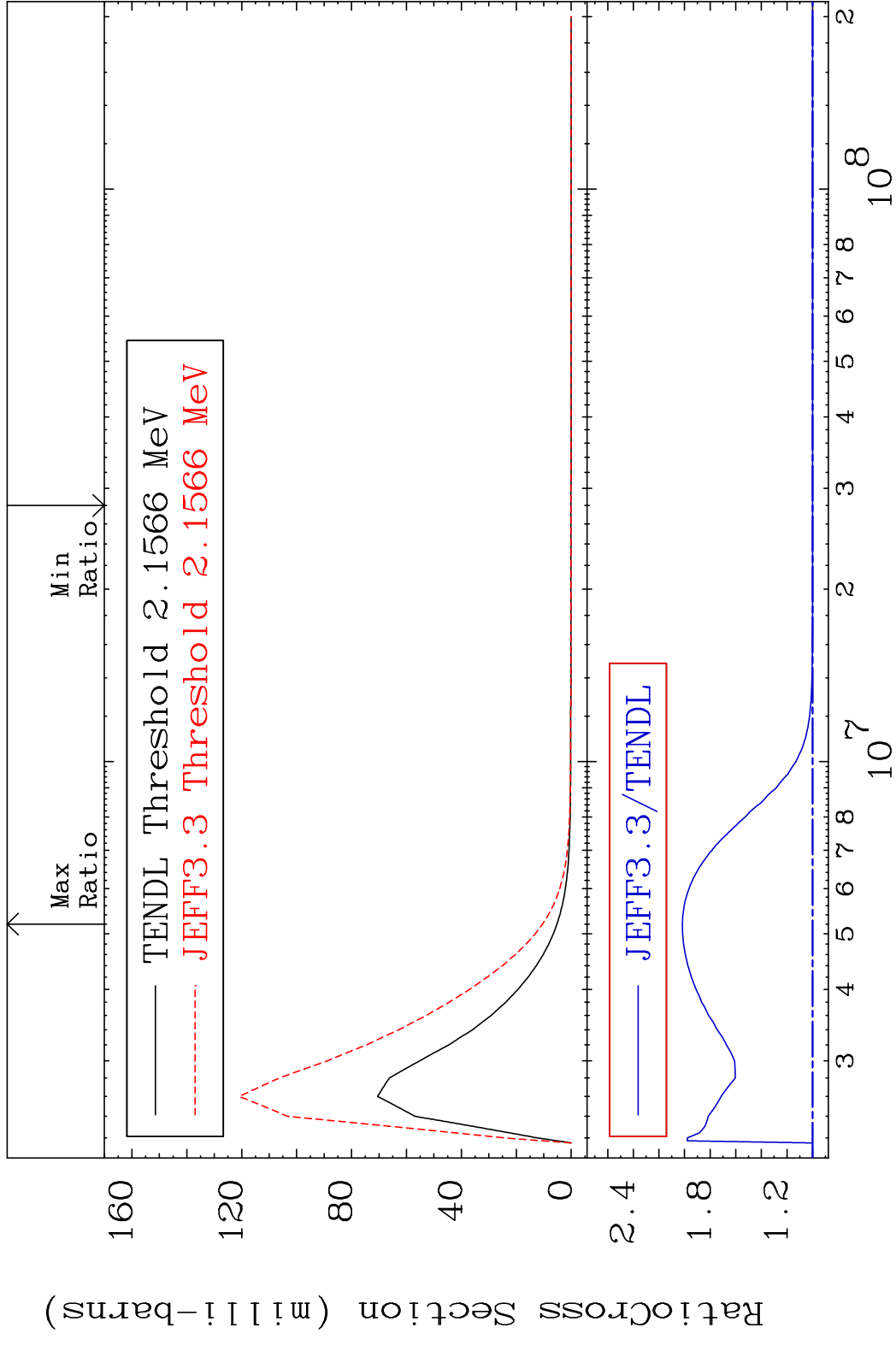
MAT 4022 MT= 64 (n, n') Level 40-Zr-89
 Cross Section -16.78 To 3.667 %



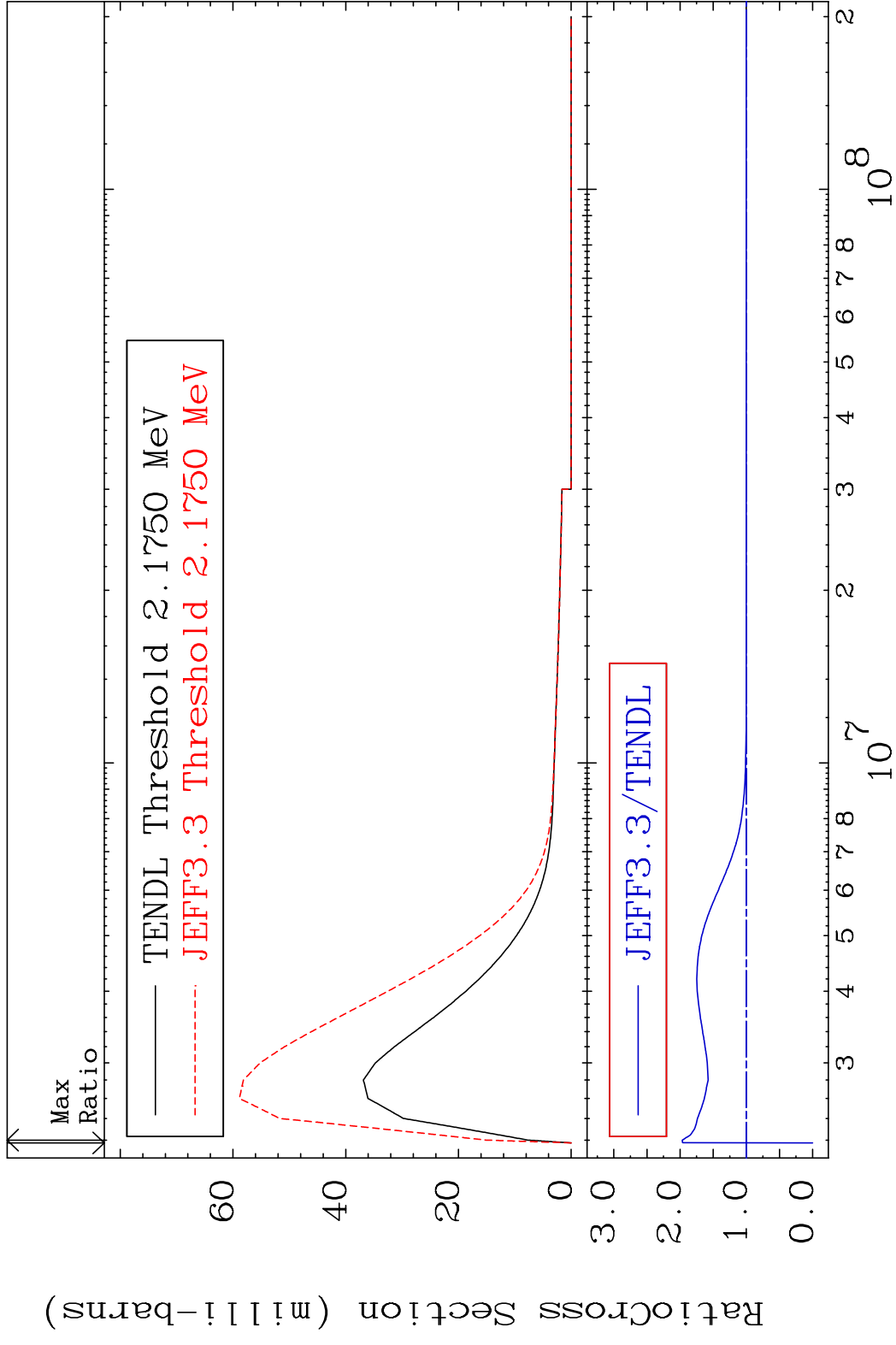
MAT 4022 MT= 65 (n, n') Level 40-Zr-89
 Cross Section -11.51 To 2.839 %



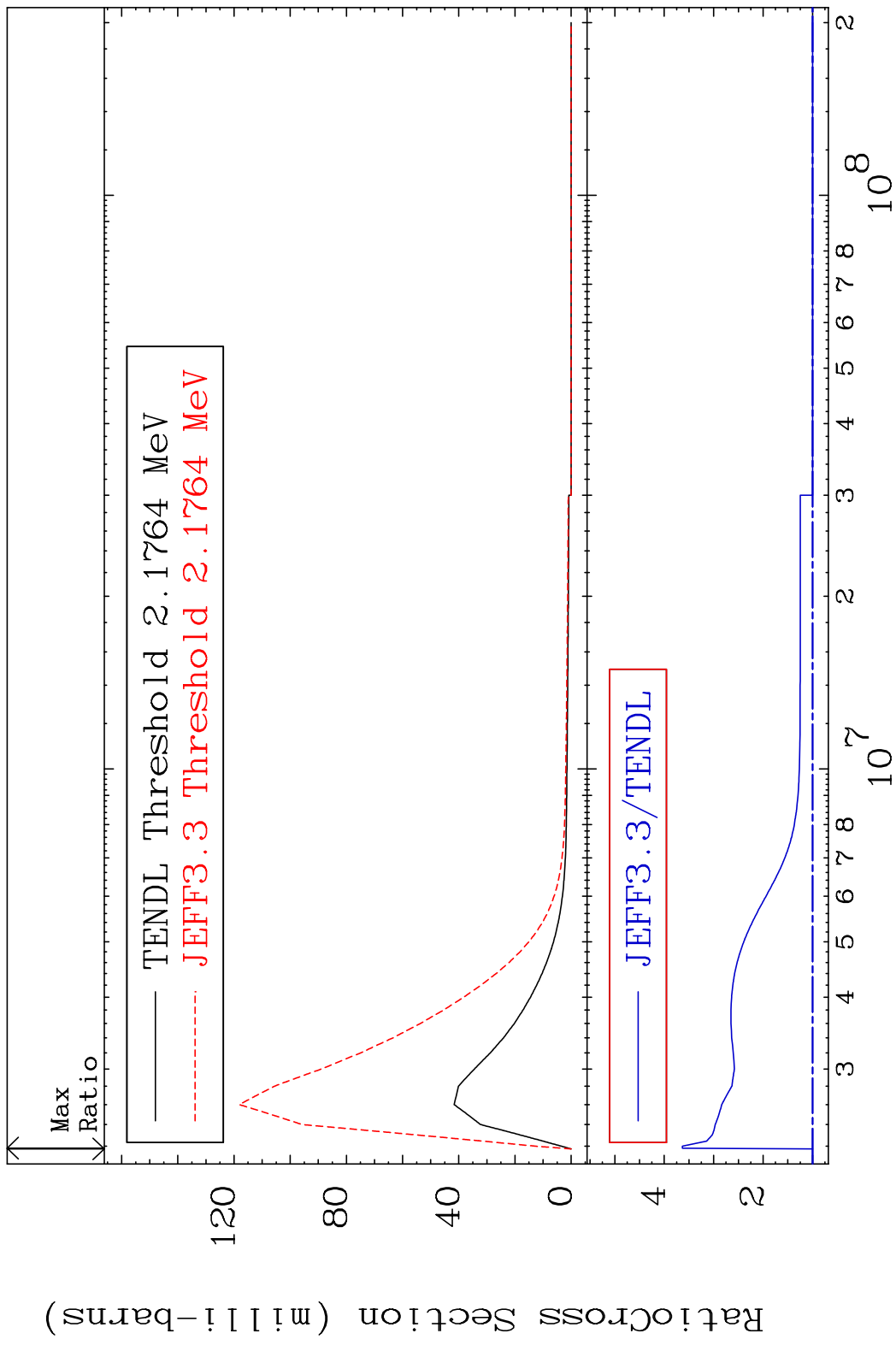
MAT 4022 MT= 66 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 101.7 %



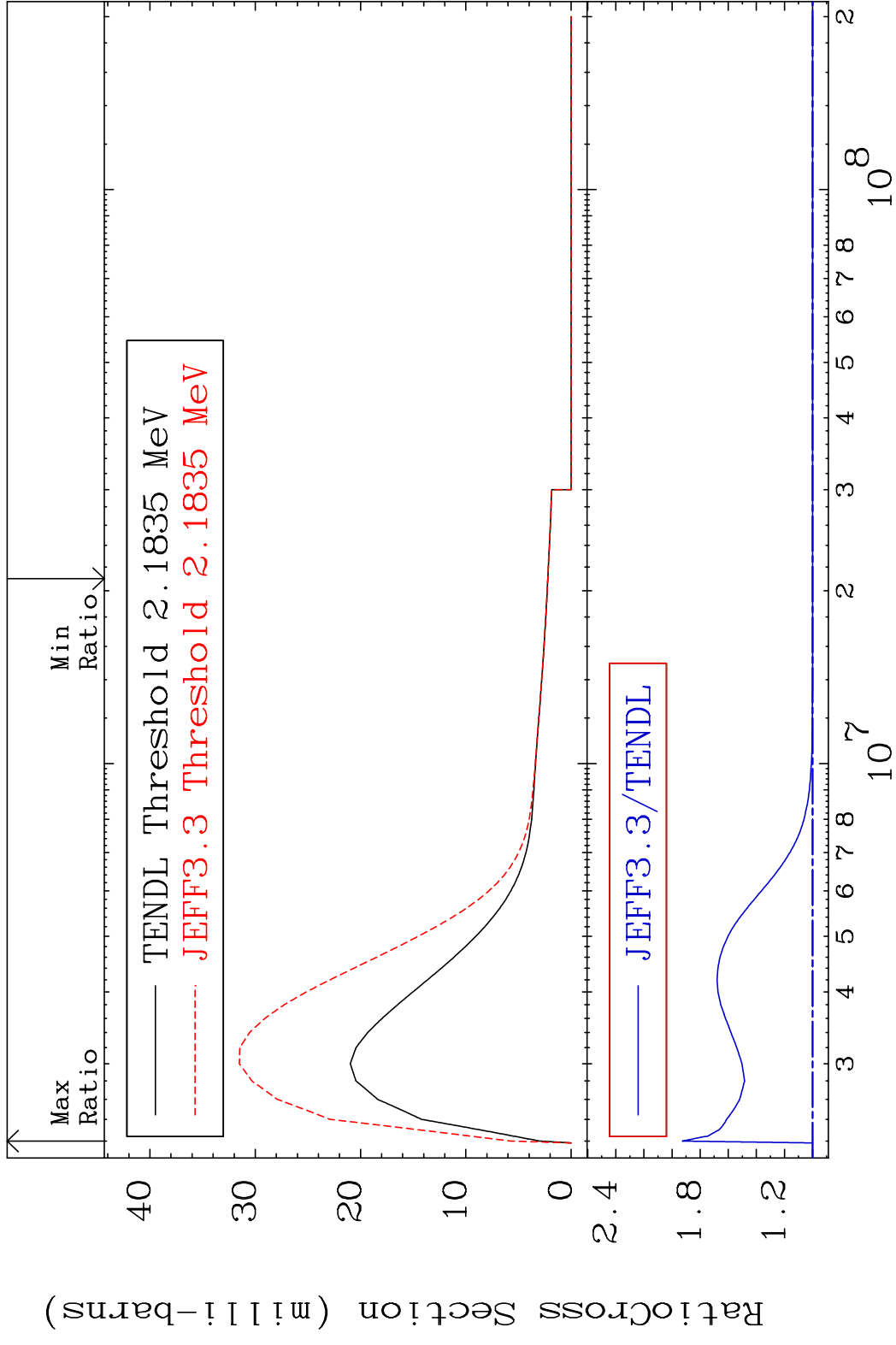
MAT 4022 MT= 67 (n, n') Level 40-Zr-89
 Cross Section -100.0 To 96.53 %



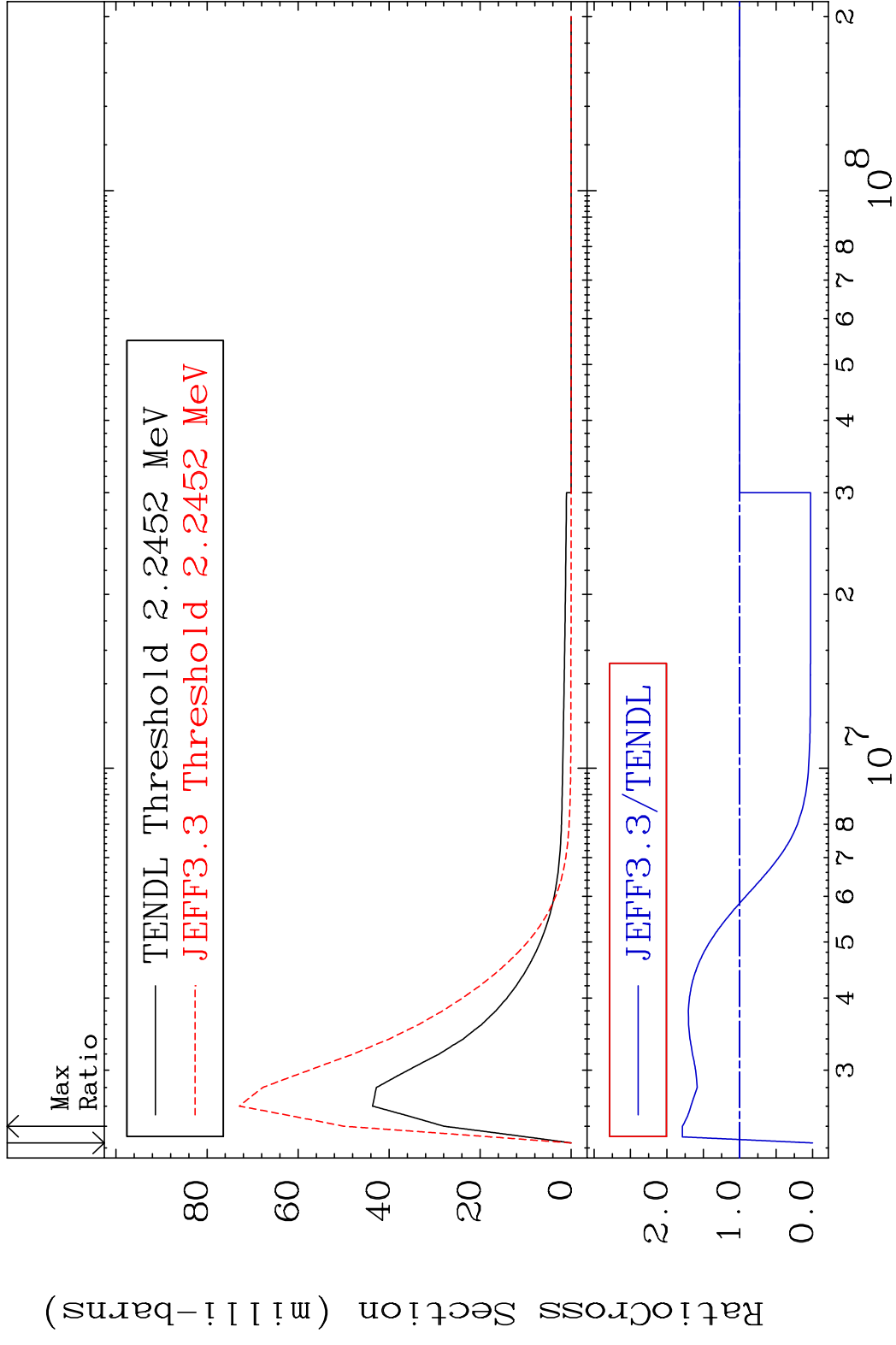
MAT 4022 MT= 68 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 263.3 %



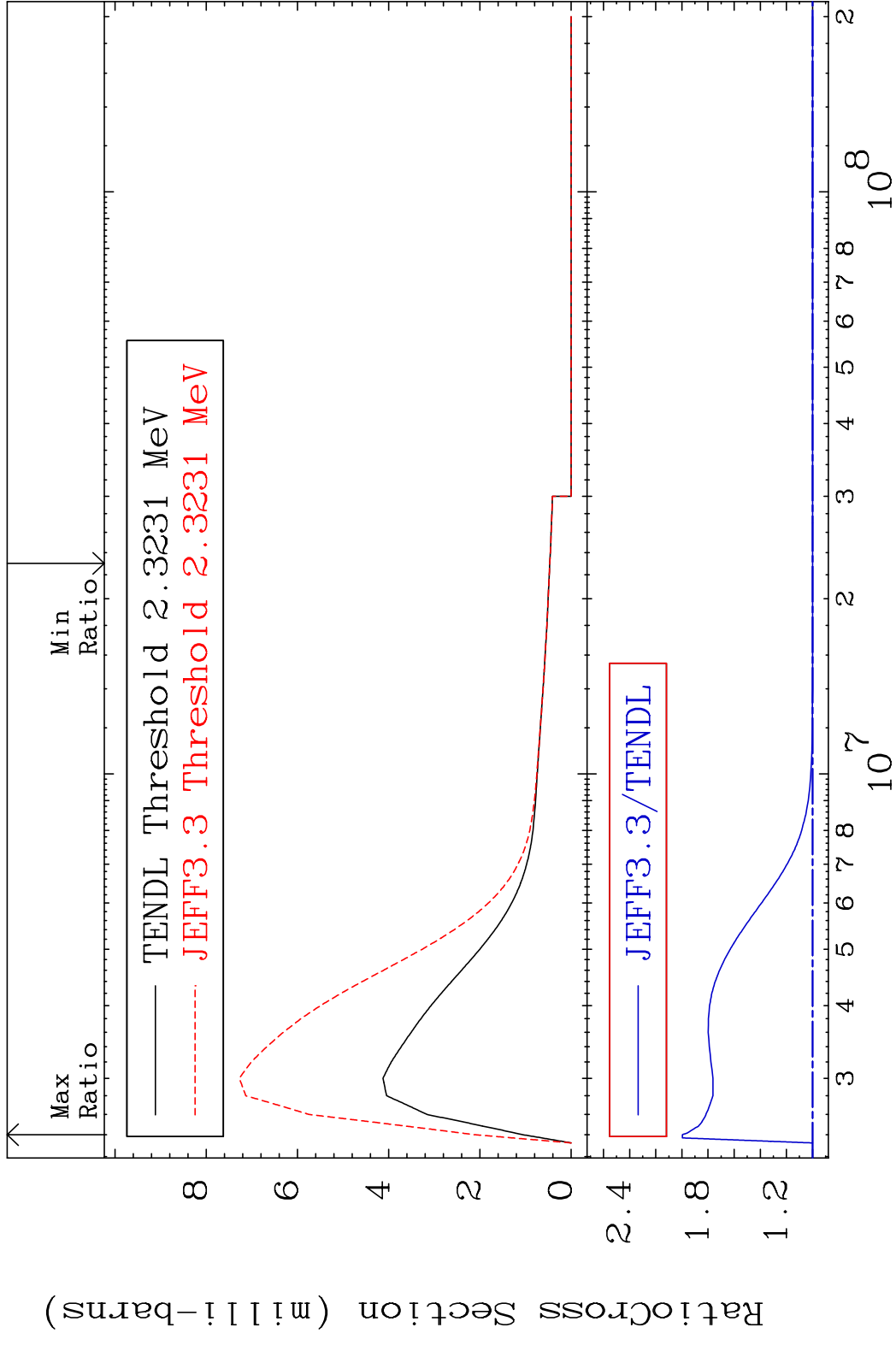
MAT 4022 MT= 69 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 92.65 %



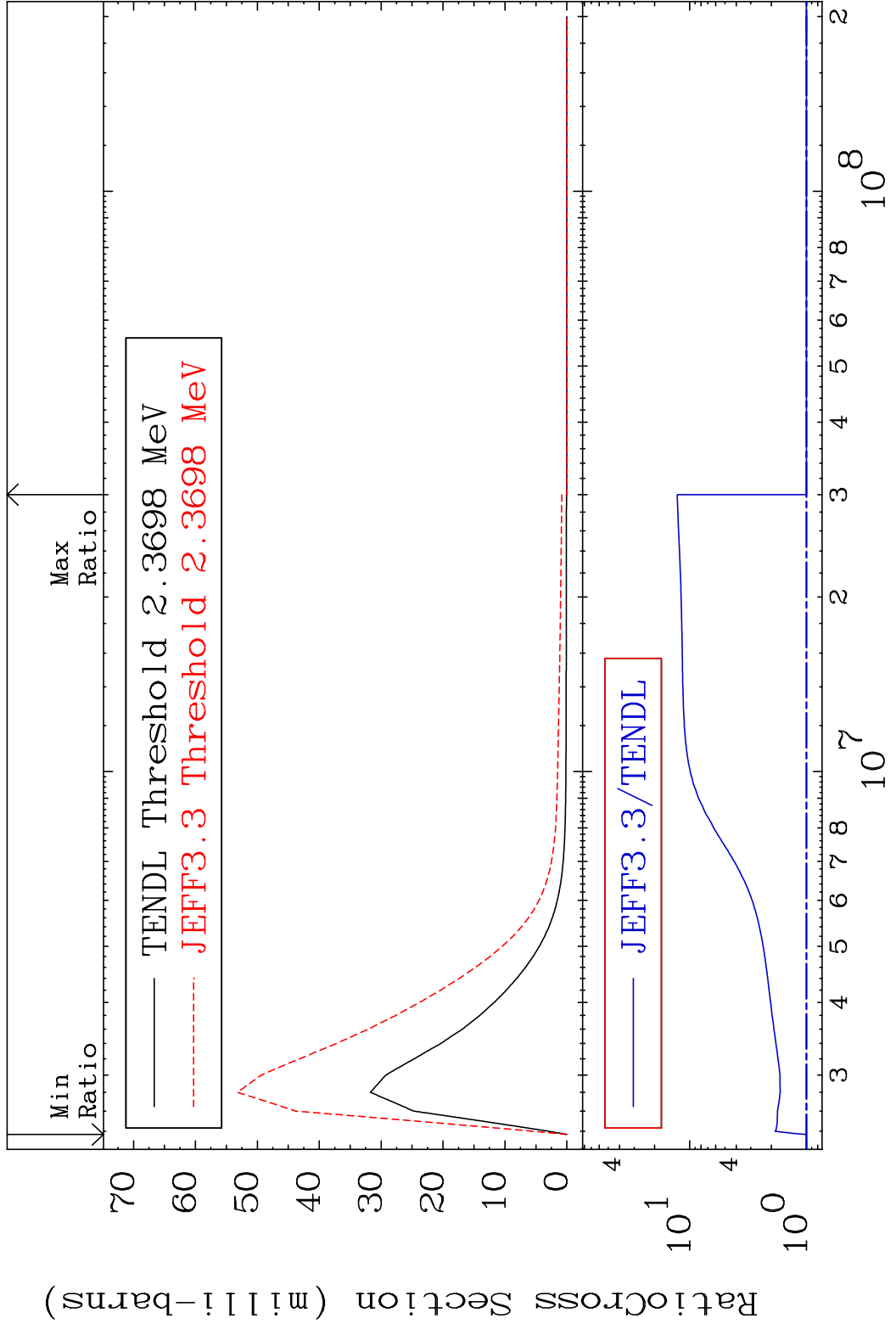
MAT 4022 MT= 70 (n, n') Level 40-Zr-89
 Cross Section -100.0 To 78.80 %



MAT 4022 MT= 71 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 99.66 %

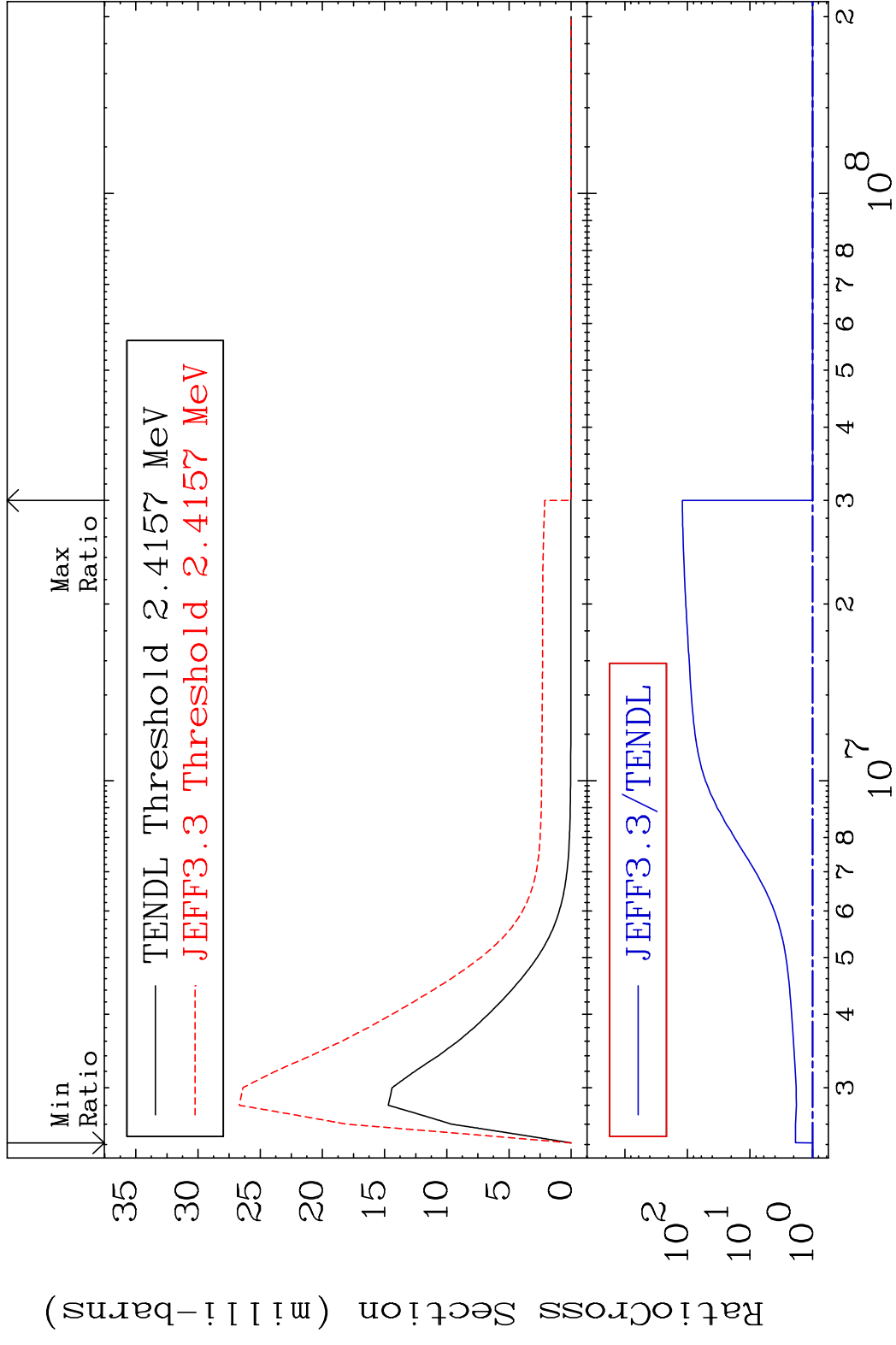


MAT 4022 MT= 72 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 1182. %

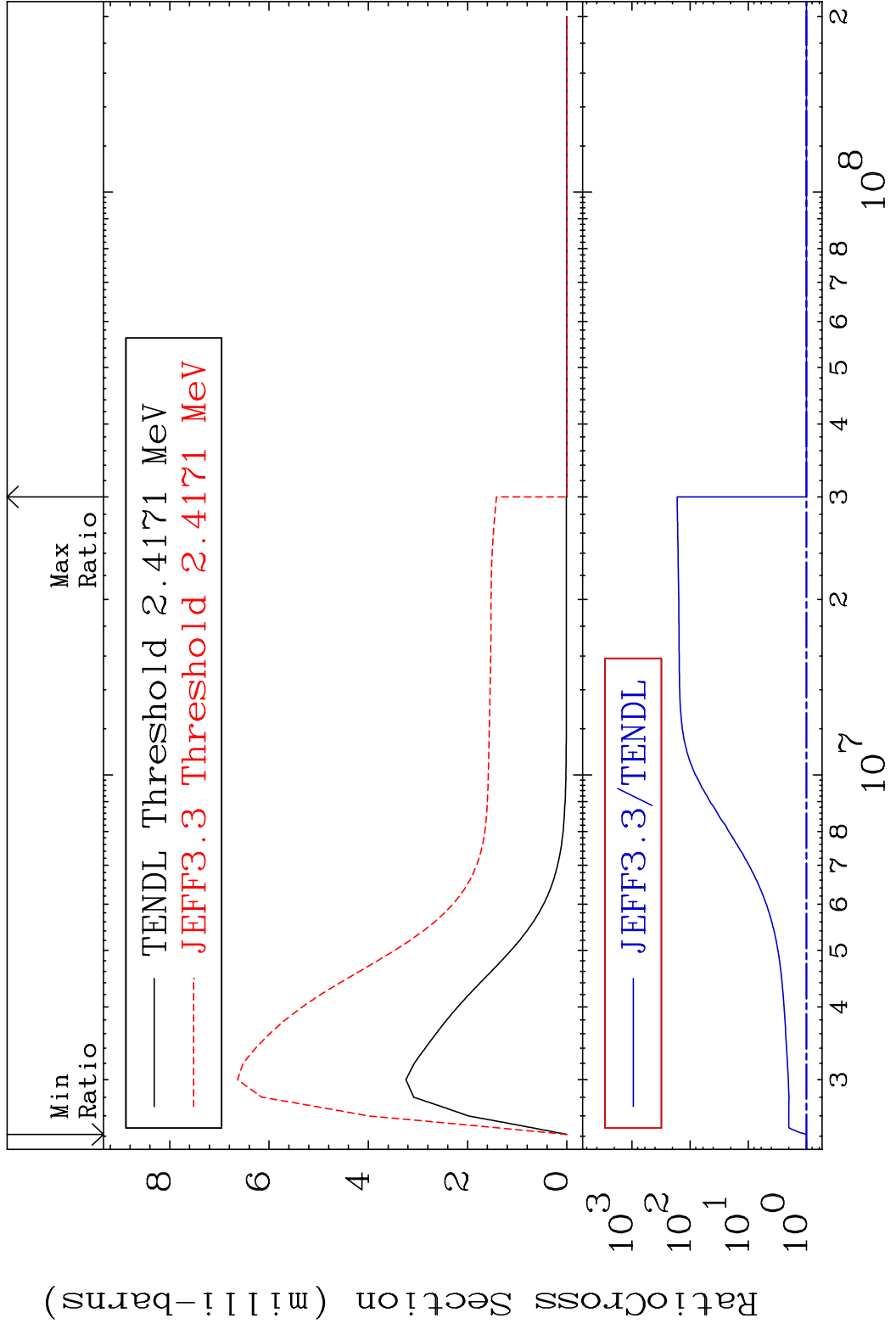


38 Incident Energy (eV) 40-Zr-89

MAT 4022 MT= 73 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 9999. %

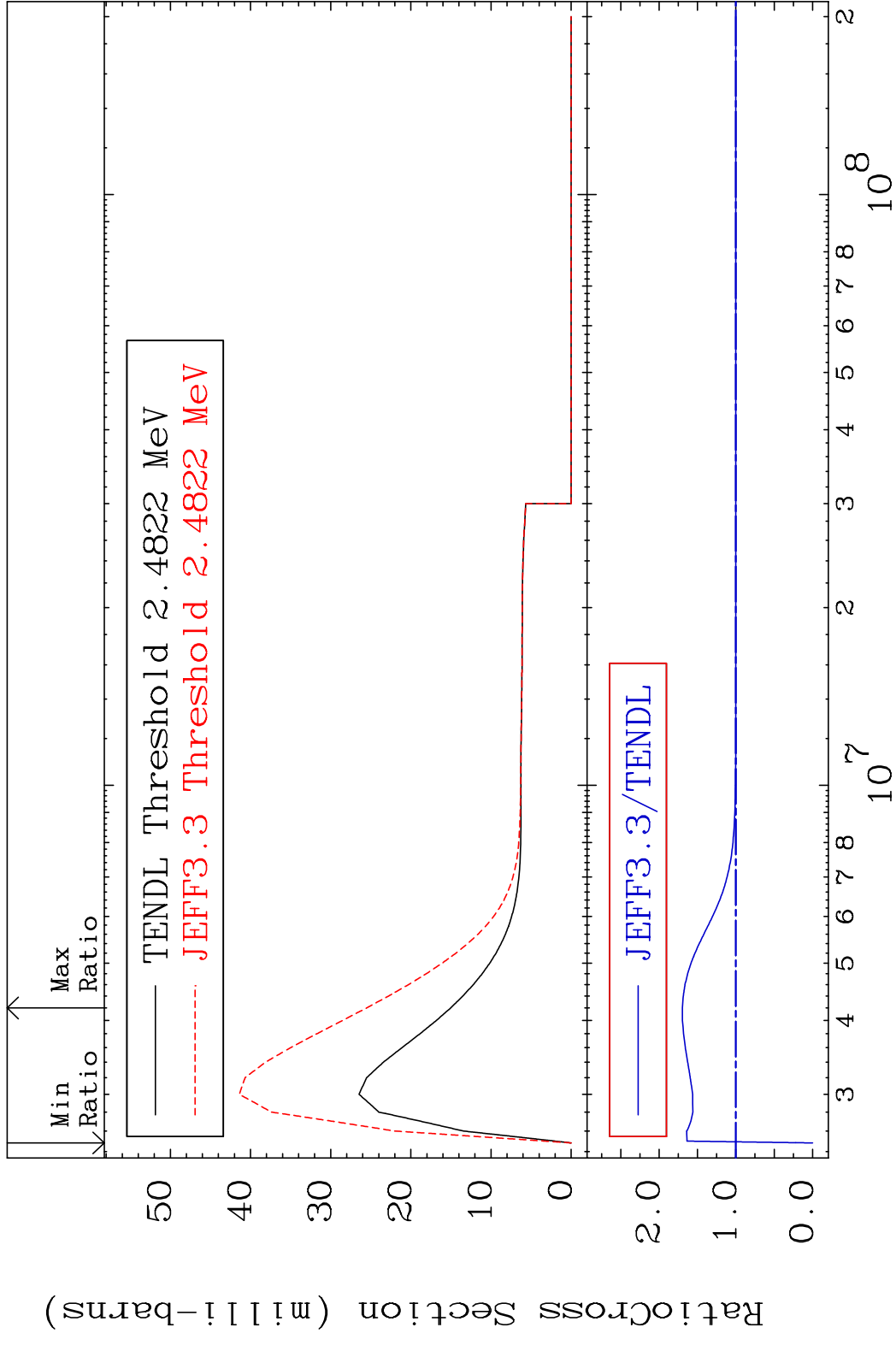


MAT 4022 MT= 74 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 9999. %

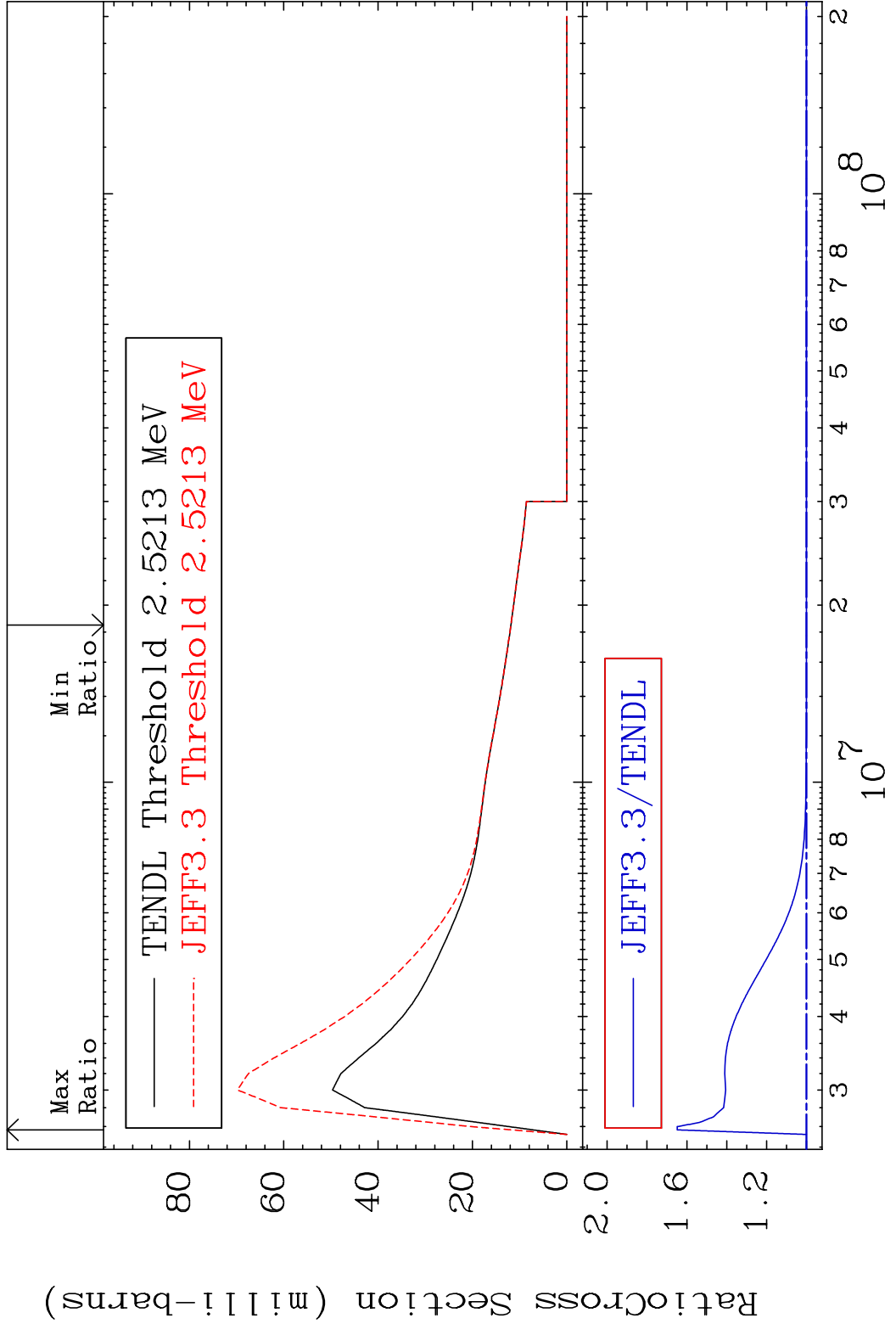


40 40-Zr-89

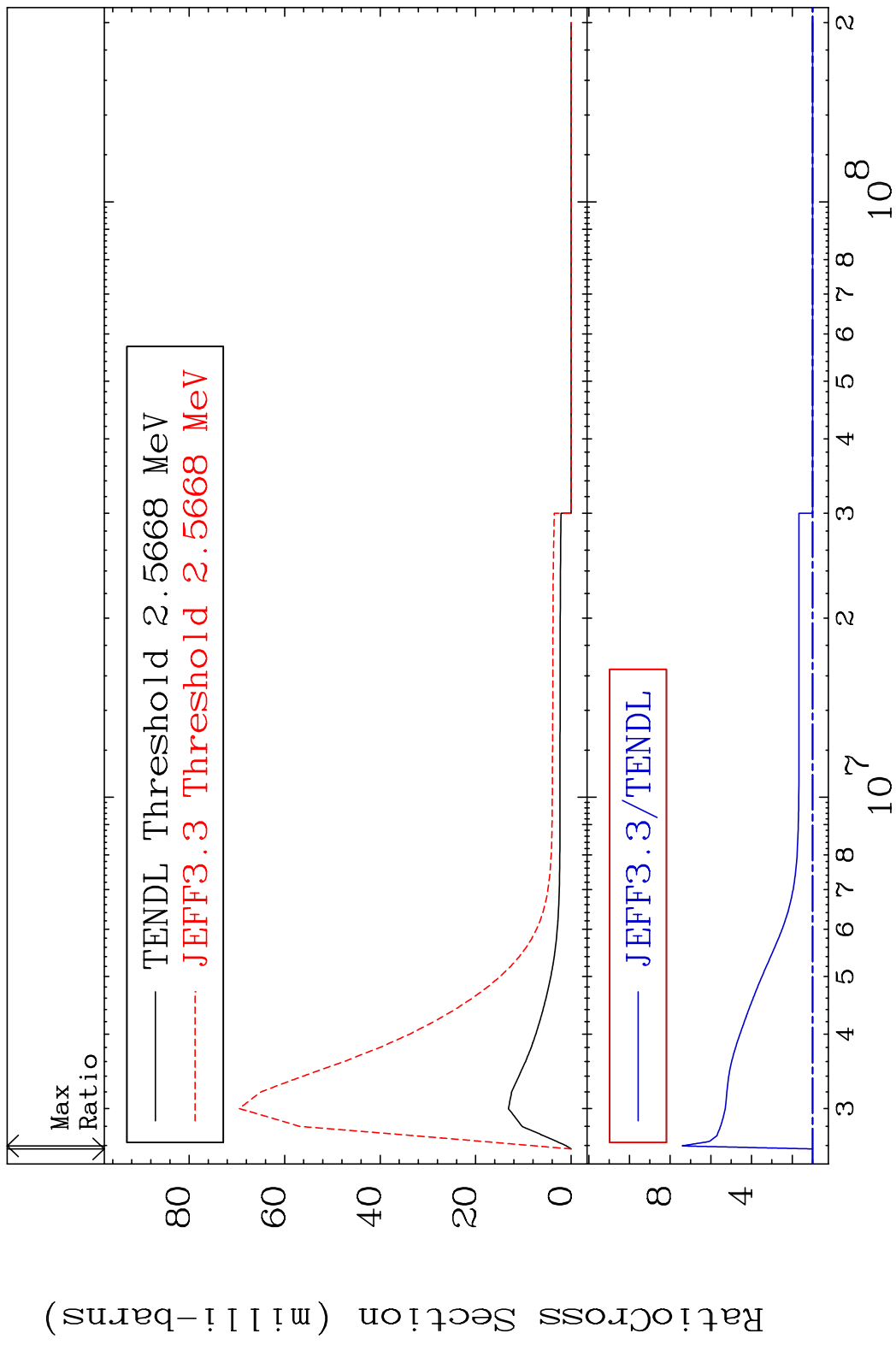
MAT 4022 MT= 75 (n,n') Level 40-Zr-89
 Cross Section -100.0 To 69.70 %



MAT 4022 MT= 76 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 64.85 %

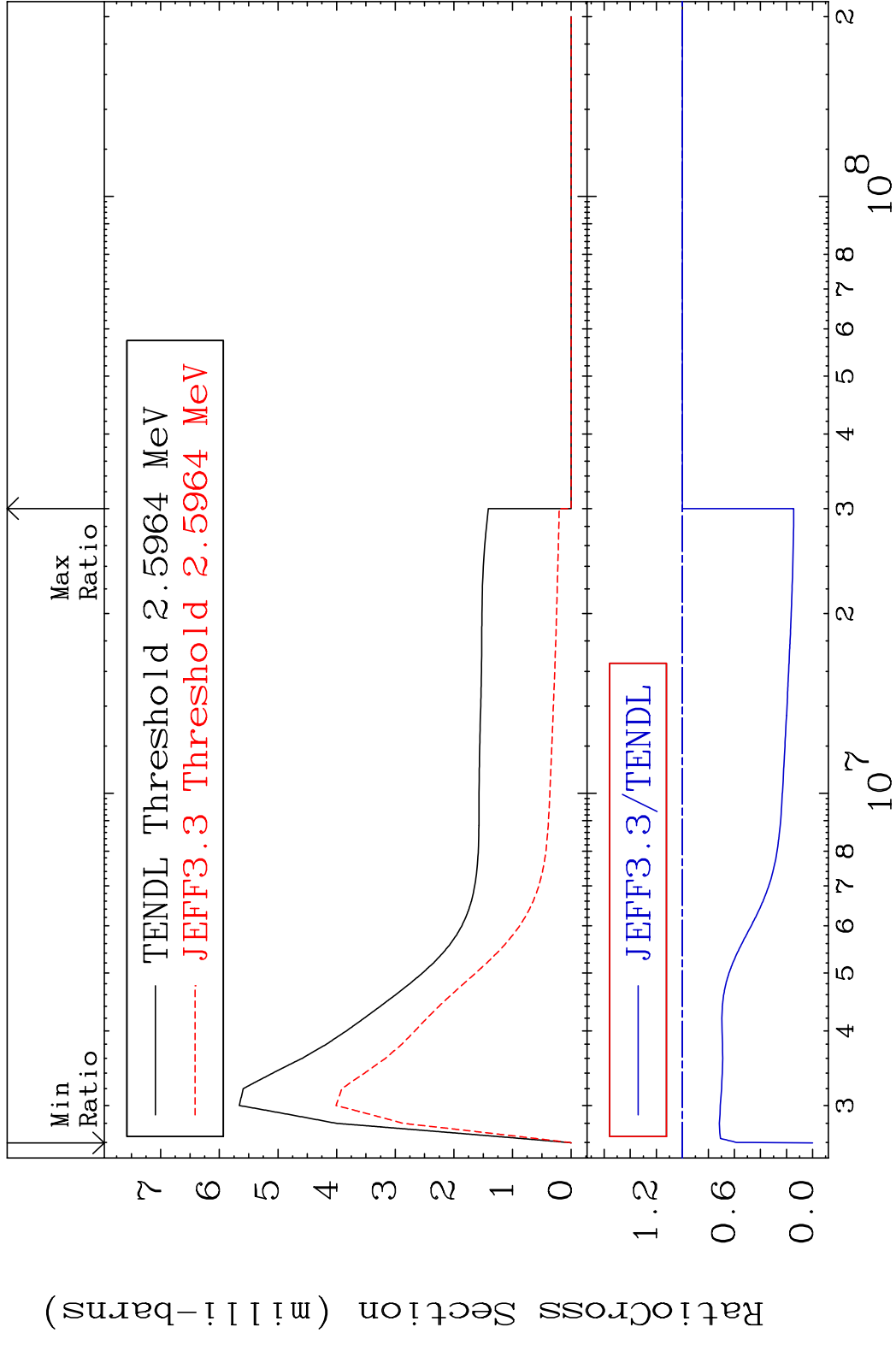


MAT 4022 MT= 77 (n, n') Level 40-Zr-89
 Cross Section 0.000 To 640.2 %

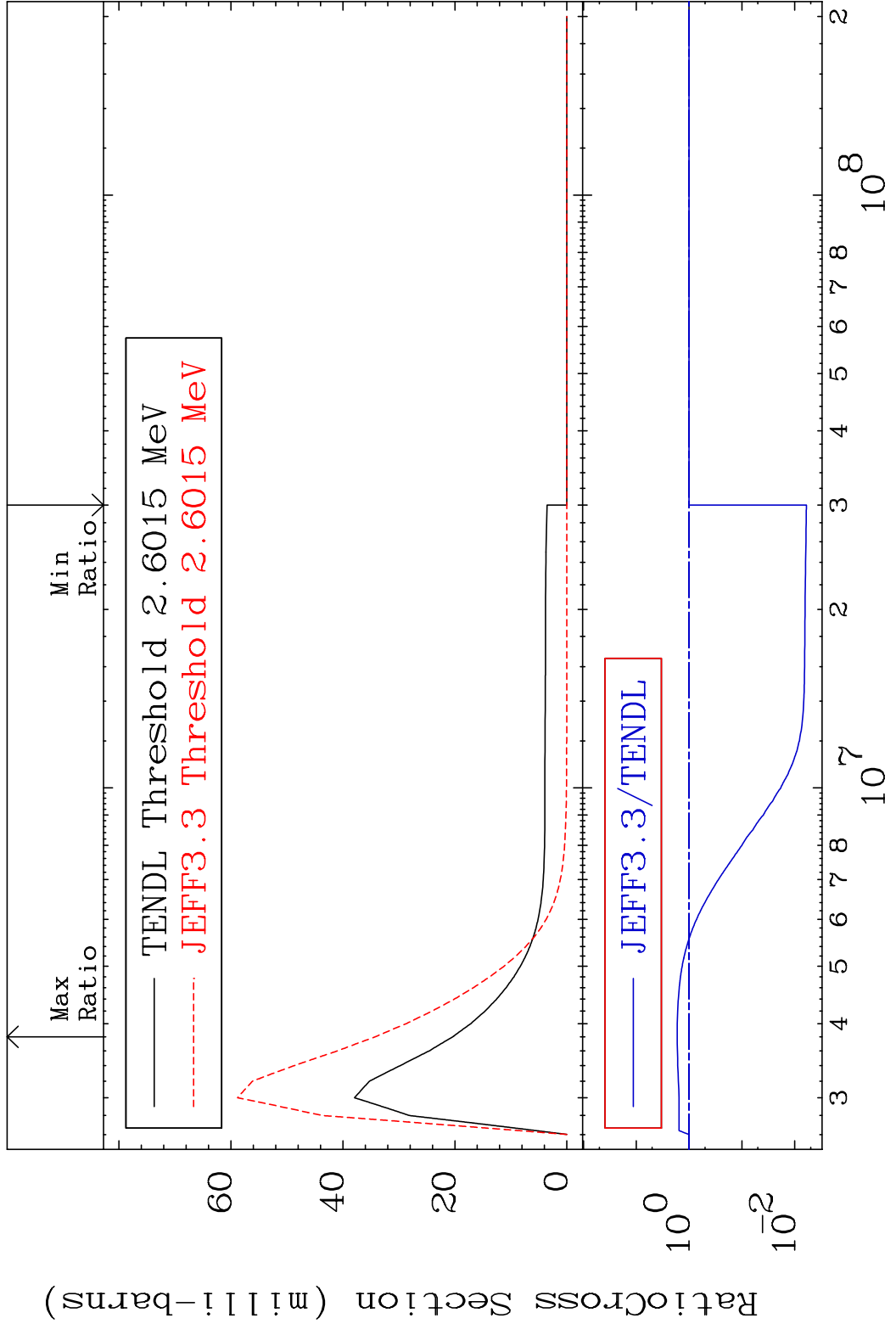


43 40-Zr-89

MAT 4022 MT= 78 (n, n') Level 40-Zr-89
 Cross Section -100.0 To 0.000 %

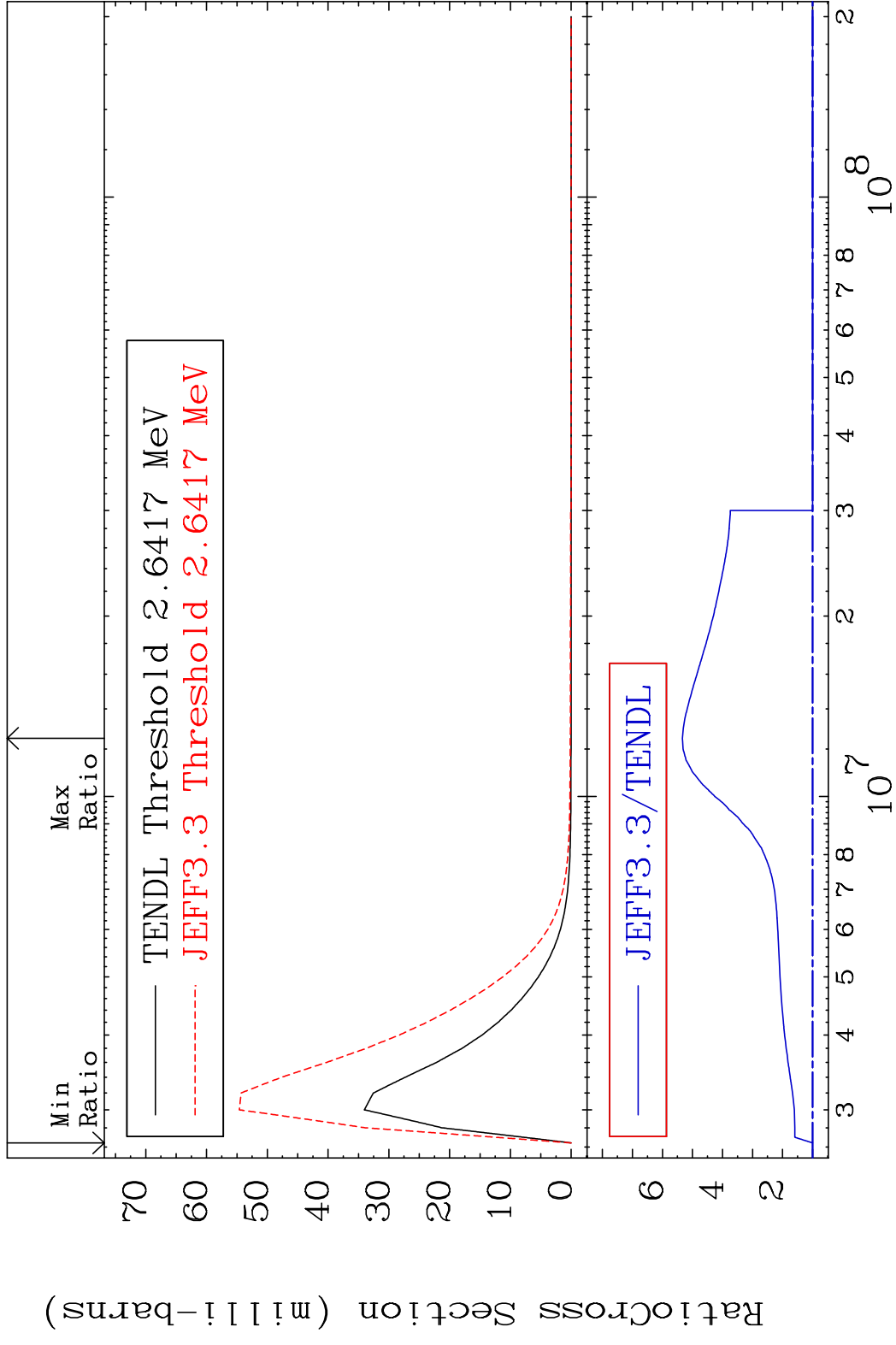


MAT 4022 MT= 79 (n, n') Level 40-Zr-89
 Cross Section -99.40 To 67.92 %

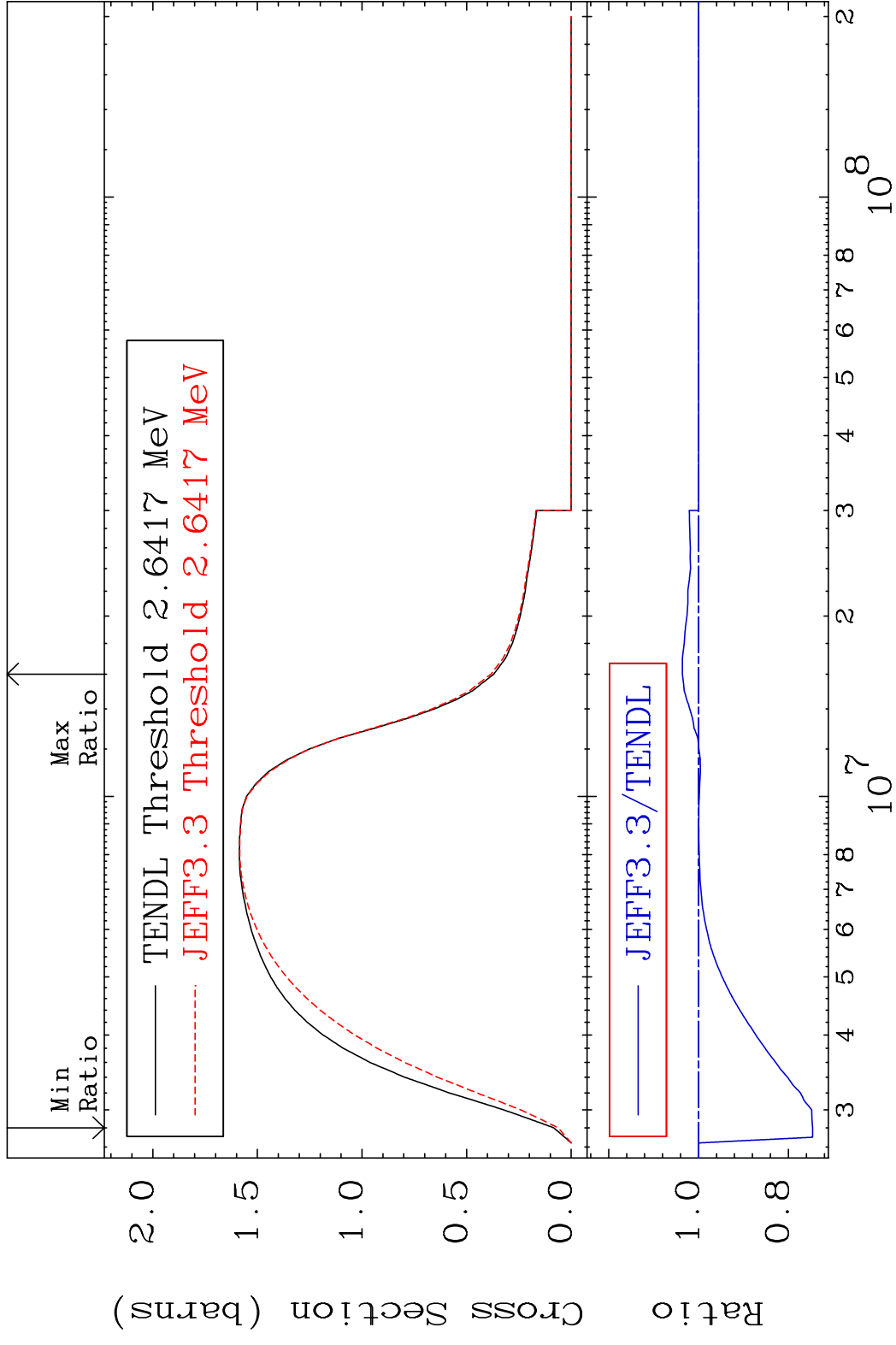


45 40-Zr-89

MAT 4022 MT= 80 (n,n') Level 40-Zr-89
 Cross Section 0.000 To 433.7 %

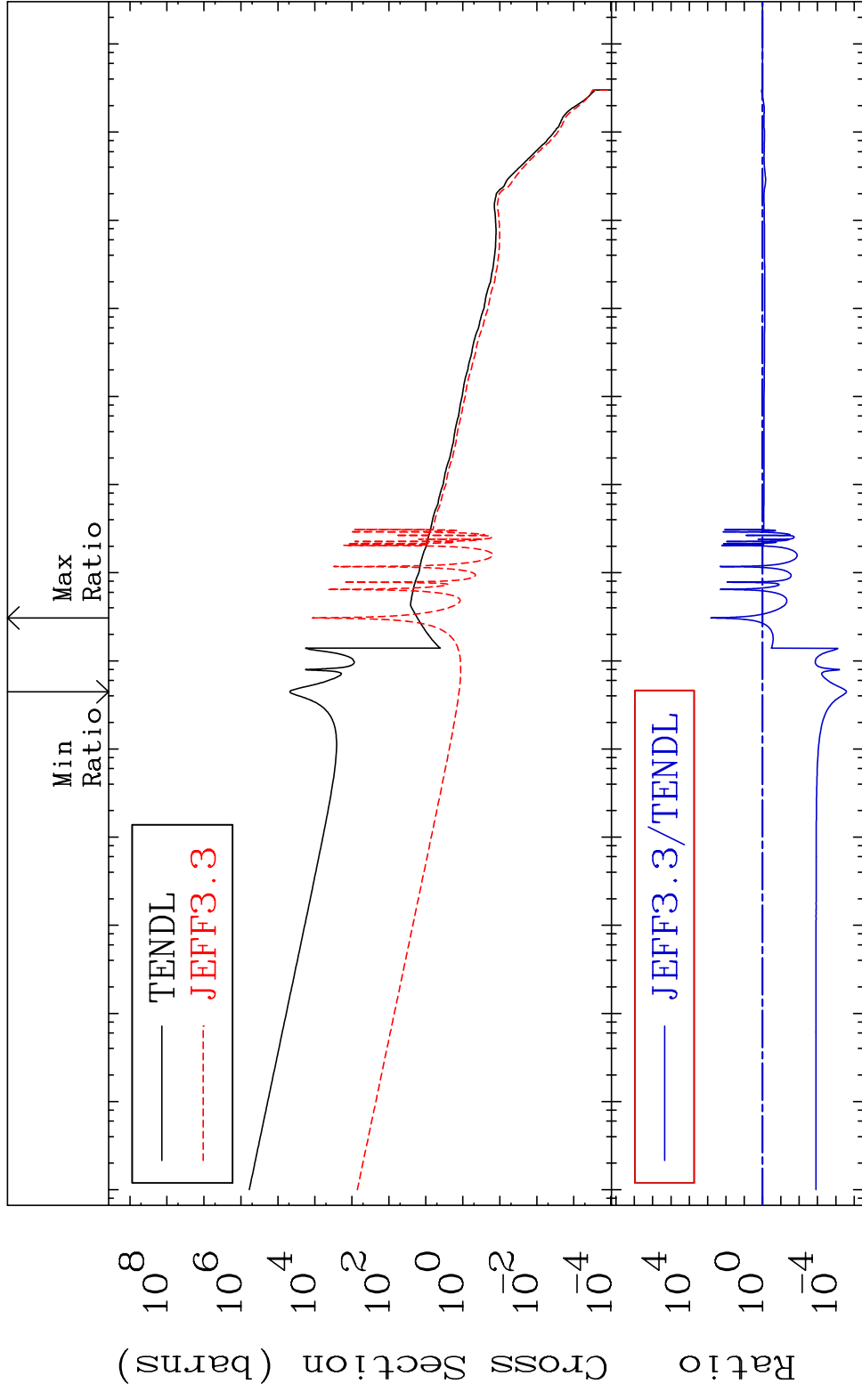


MAT 4022 (n,n') Continuum 40-Zr-89
 Cross Section -25.37 To 3.602 %

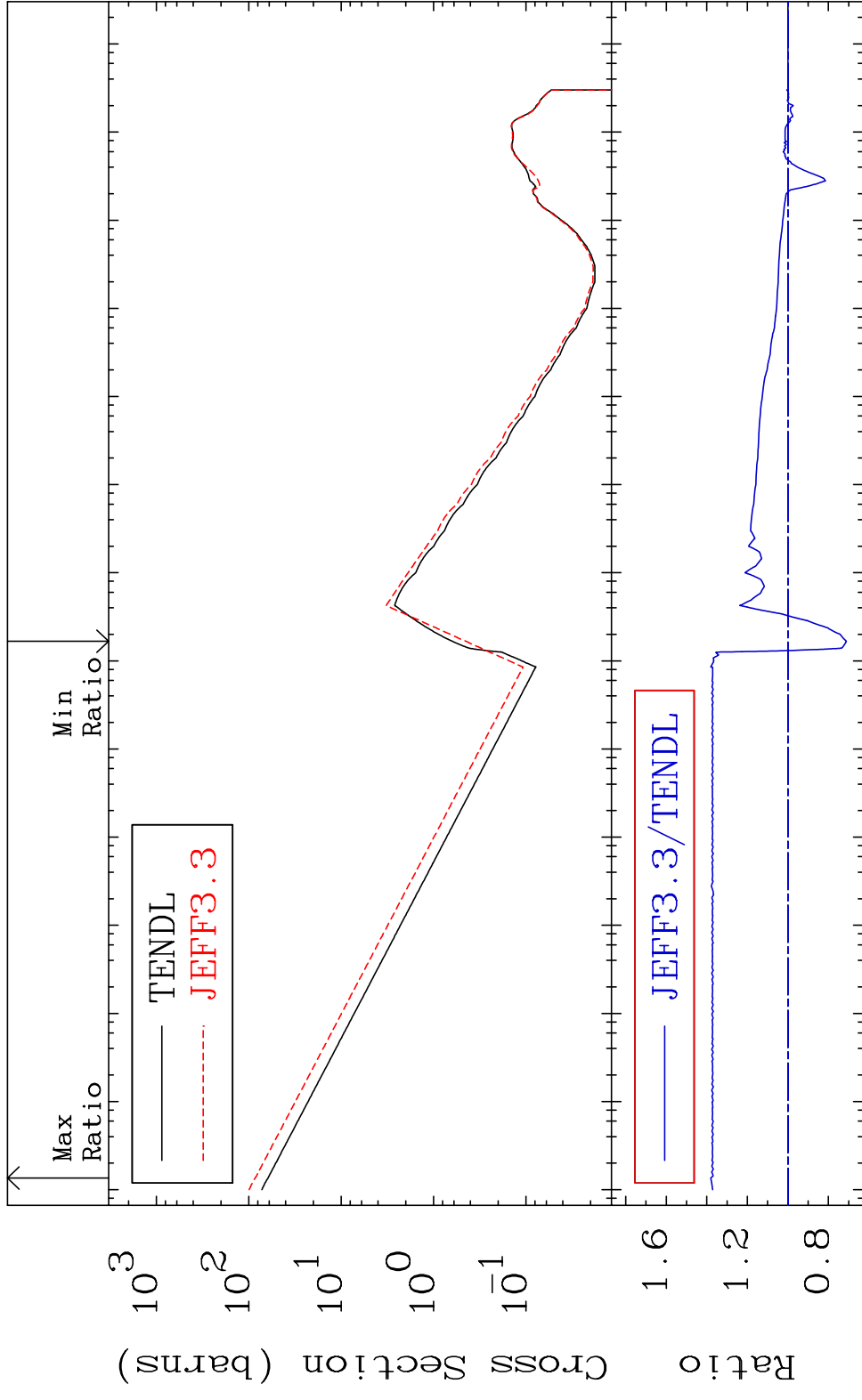


MAT 4022

(n, γ)
Cross Section -100.0 To 9999. %
40-Zr-89

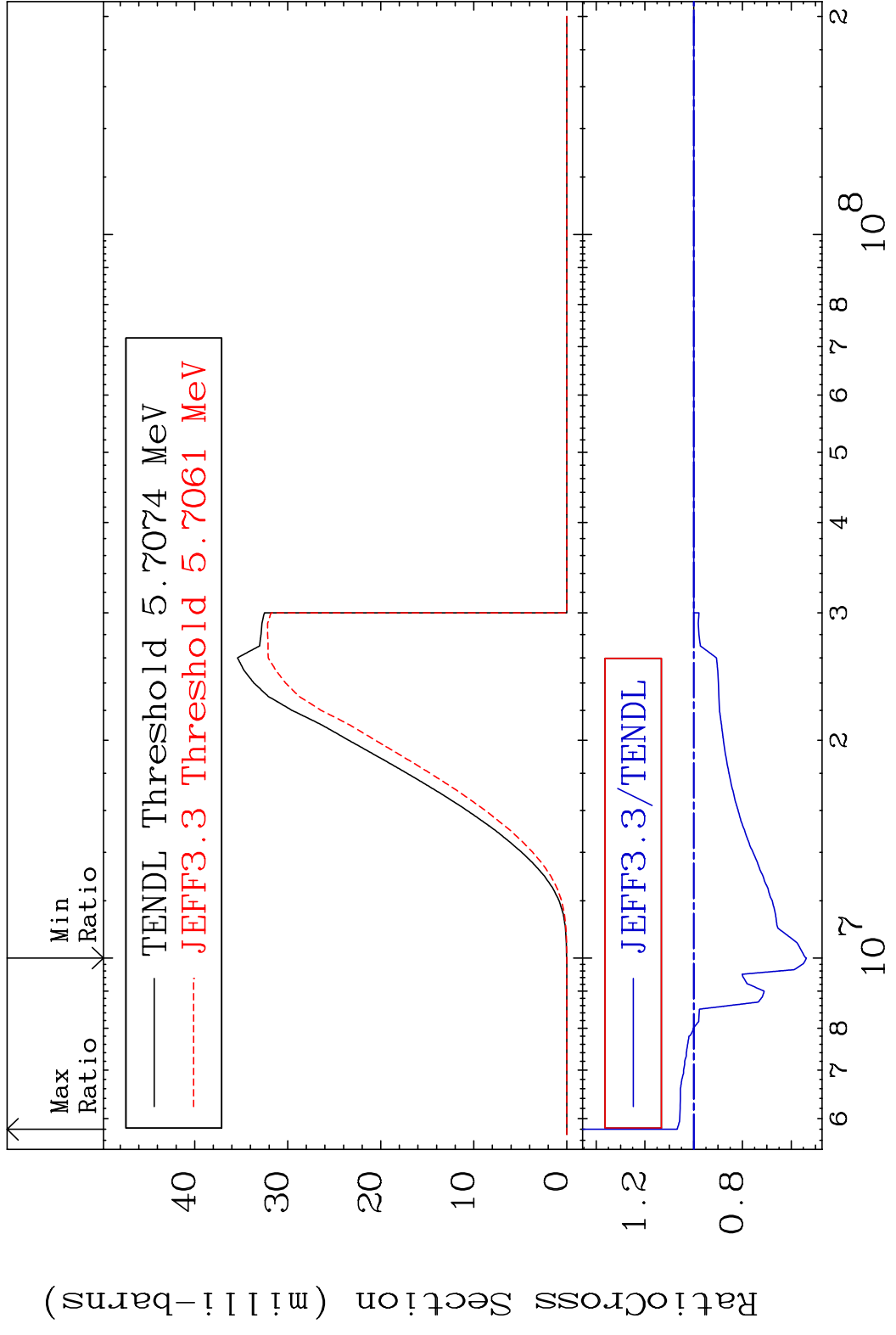


MAT 4022 (n,p) 40-Zr-89
 Cross Section -28.82 To 38.06 %



49 Incident Energy (eV) 40-Zr-89

MAT 4022 (n,d) 40-Zr-89
 Cross Section -46.24 To 6.764 %

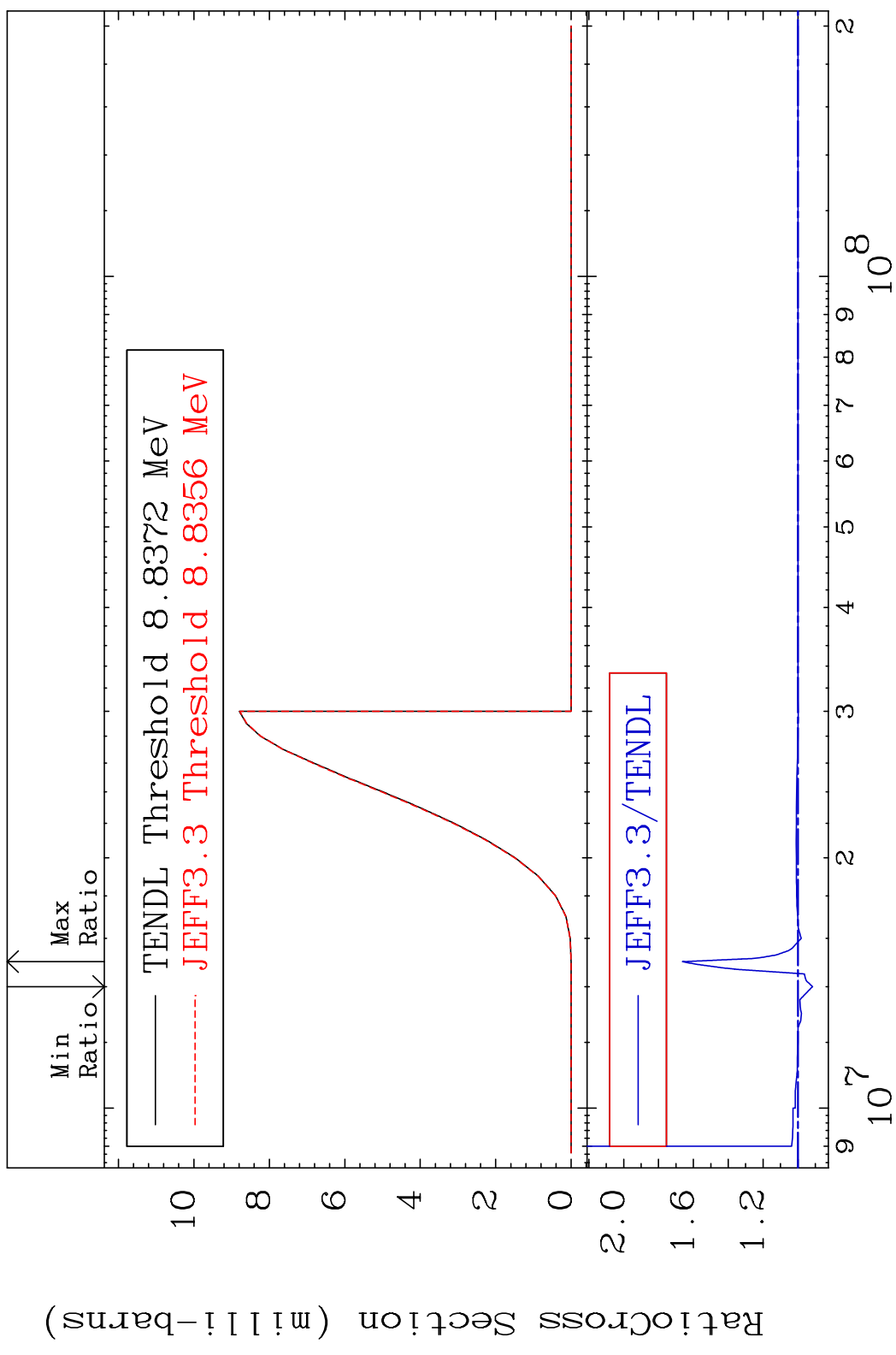


MAT 4022

(n, t)

40-Zr-89

Cross Section -8.395 To 66.32 %

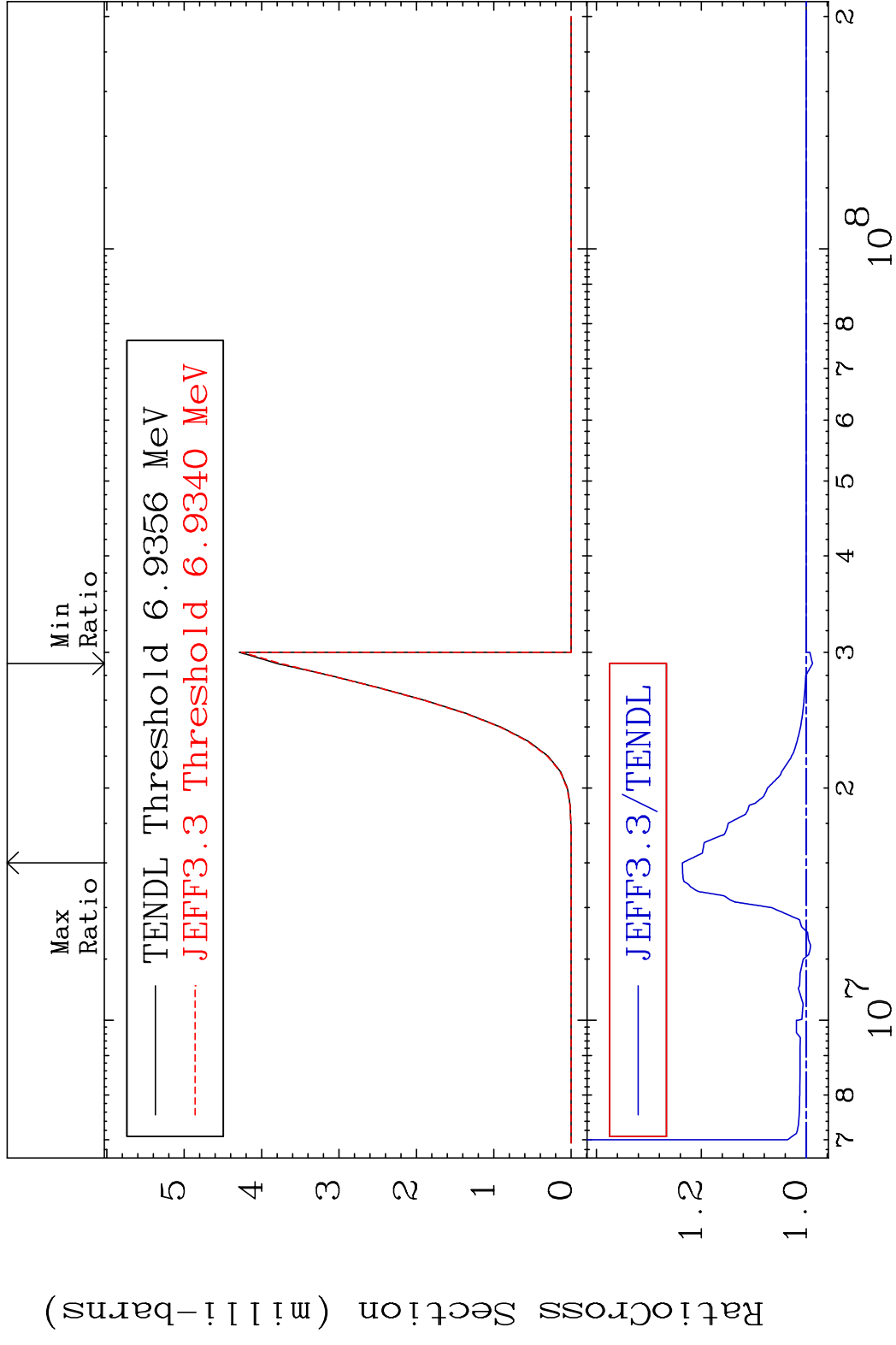


MAT 4022

(n, He-3)

40-Zr-89

Cross Section -1.190 To 23.63 %



52

Incident Energy (eV)

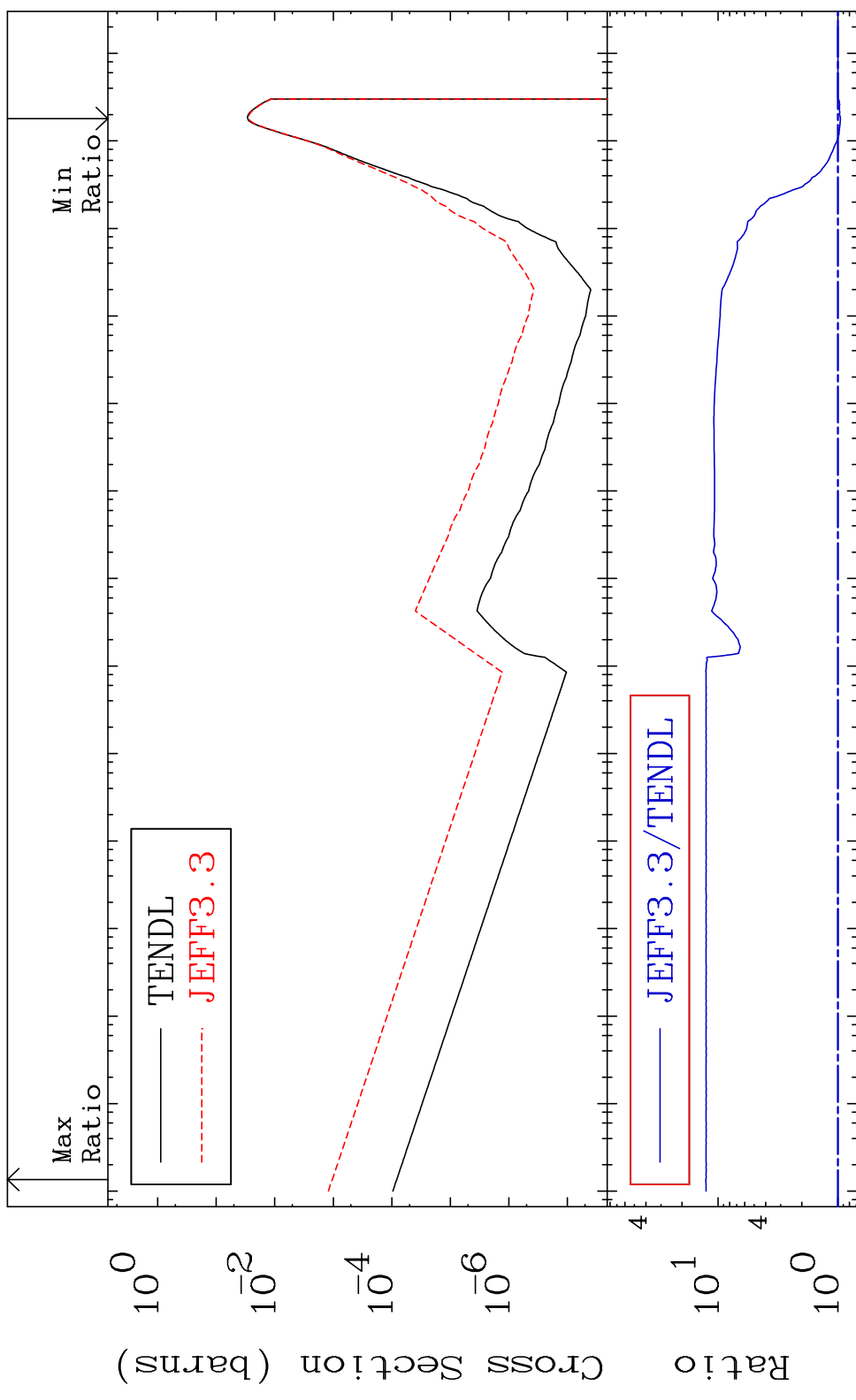
40-Zr-89

MAT 4022

(n, α)

40-Zr-89

Cross Section -4.9665 To 1167. %



53

Incident Energy (eV)

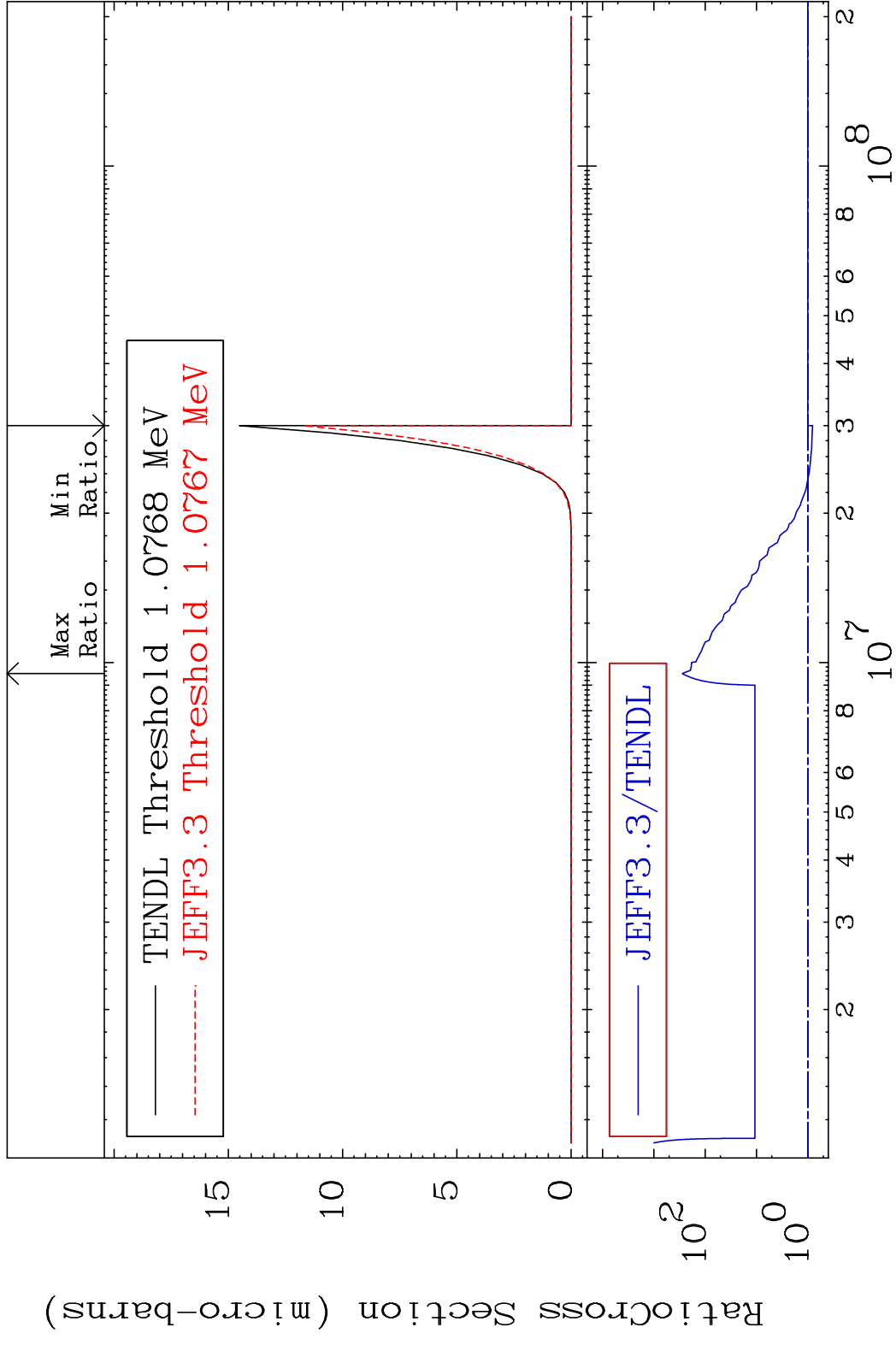
40-Zr-89

MAT 4022

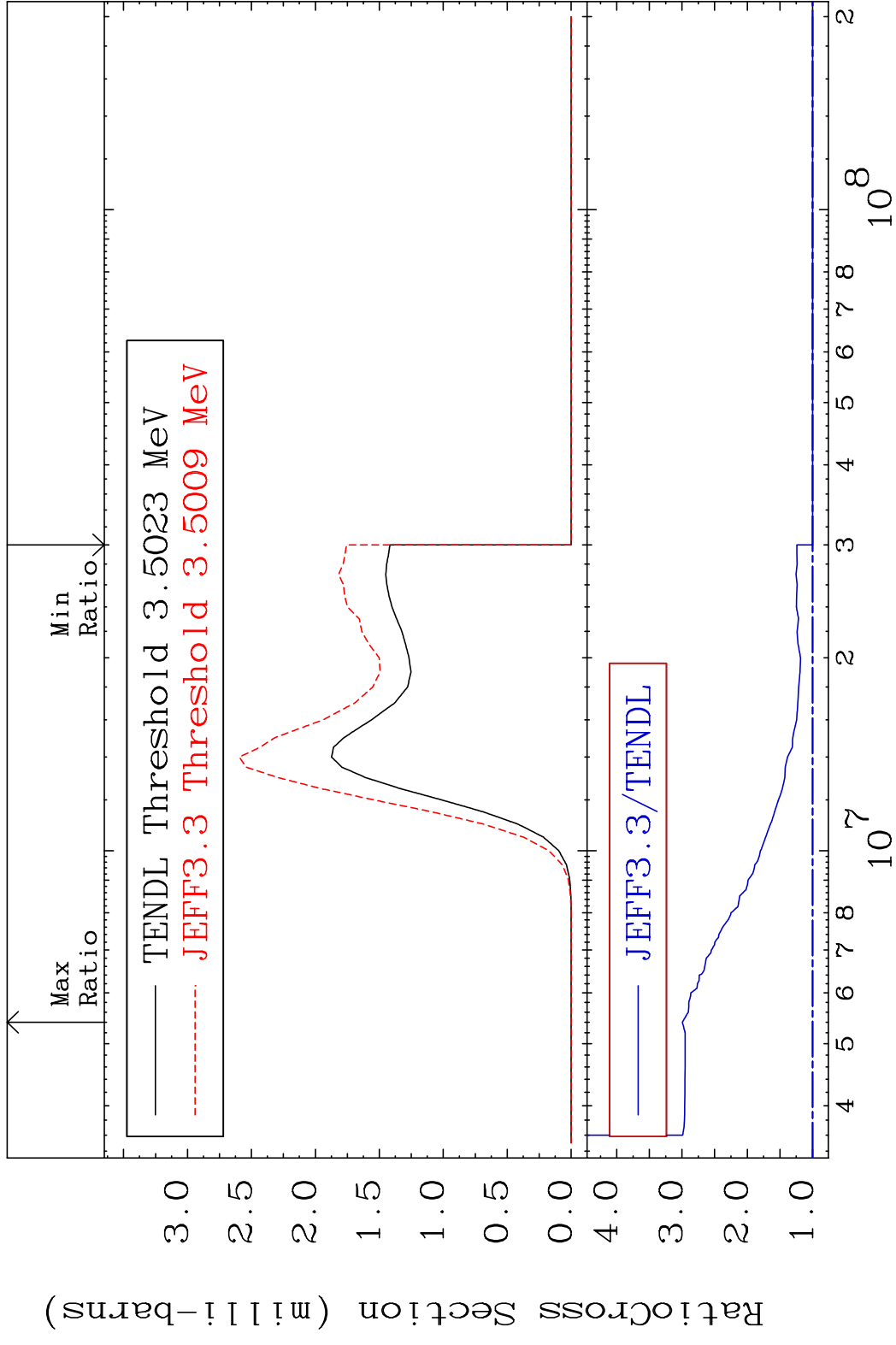
40-Zr-89

(n,2α)

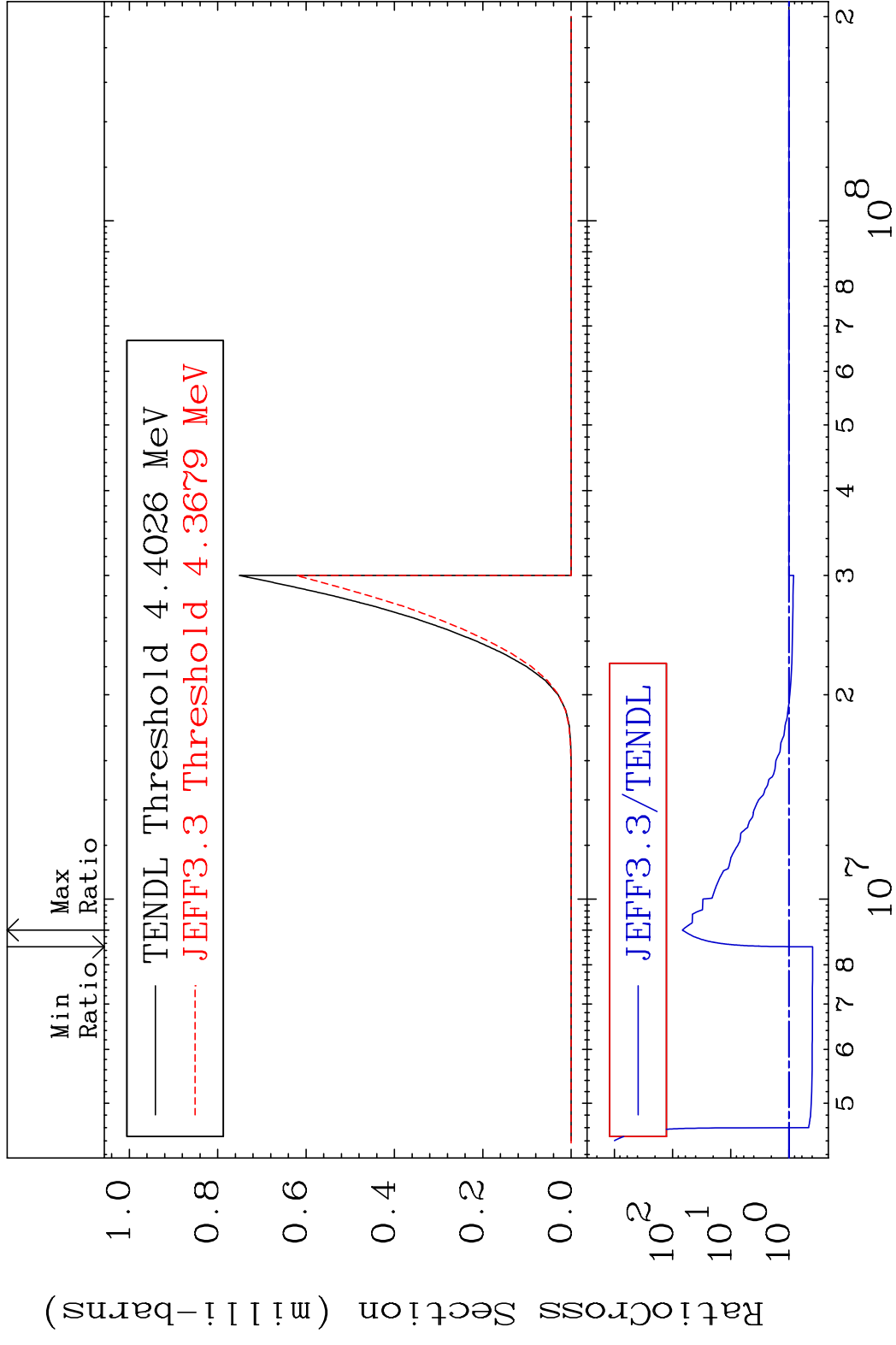
Cross Section -19.34 To 9999. %



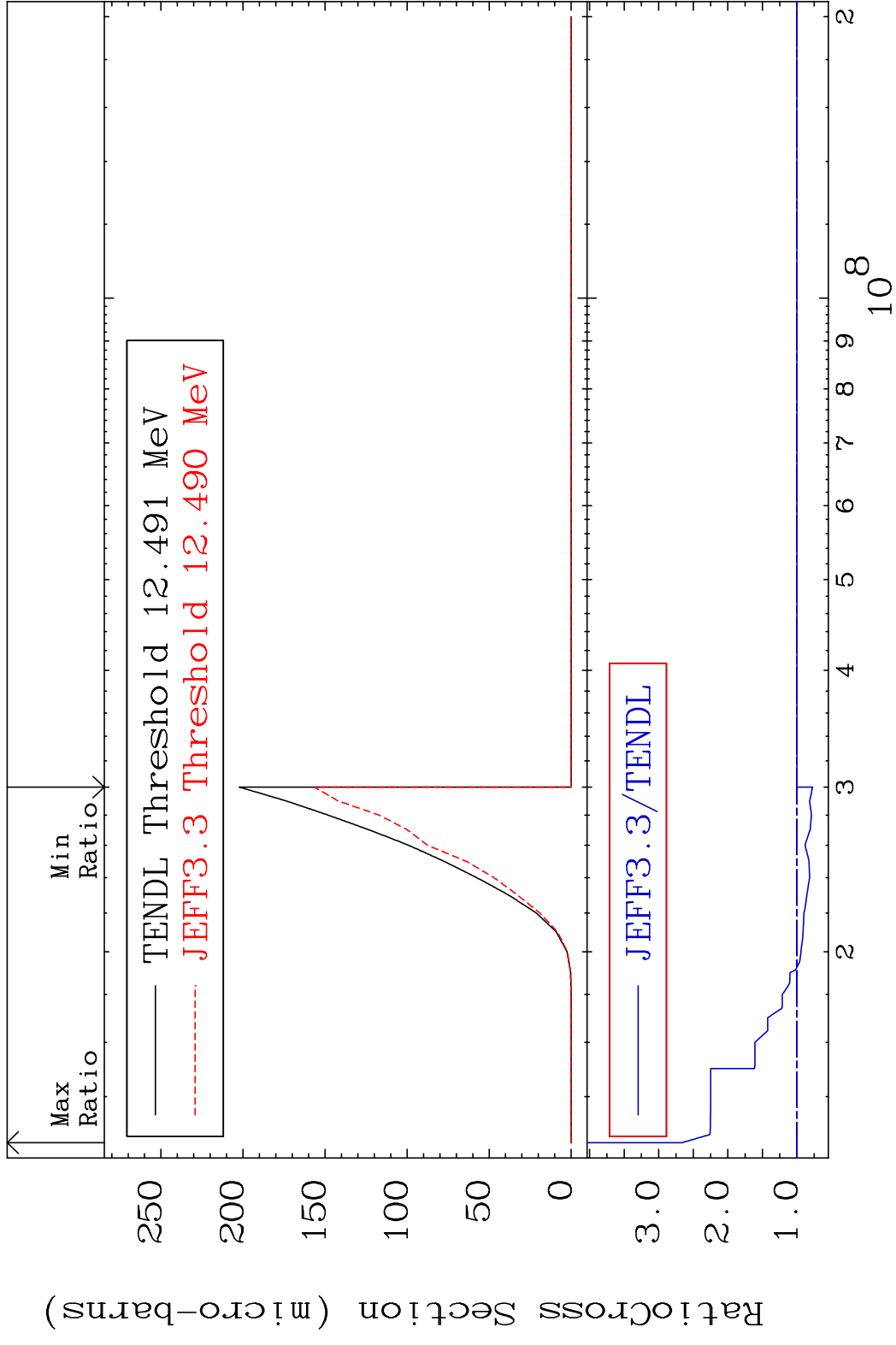
MAT 4022 (n,2p) 40-Zr-89
 Cross Section 0.000 To 199.5 %



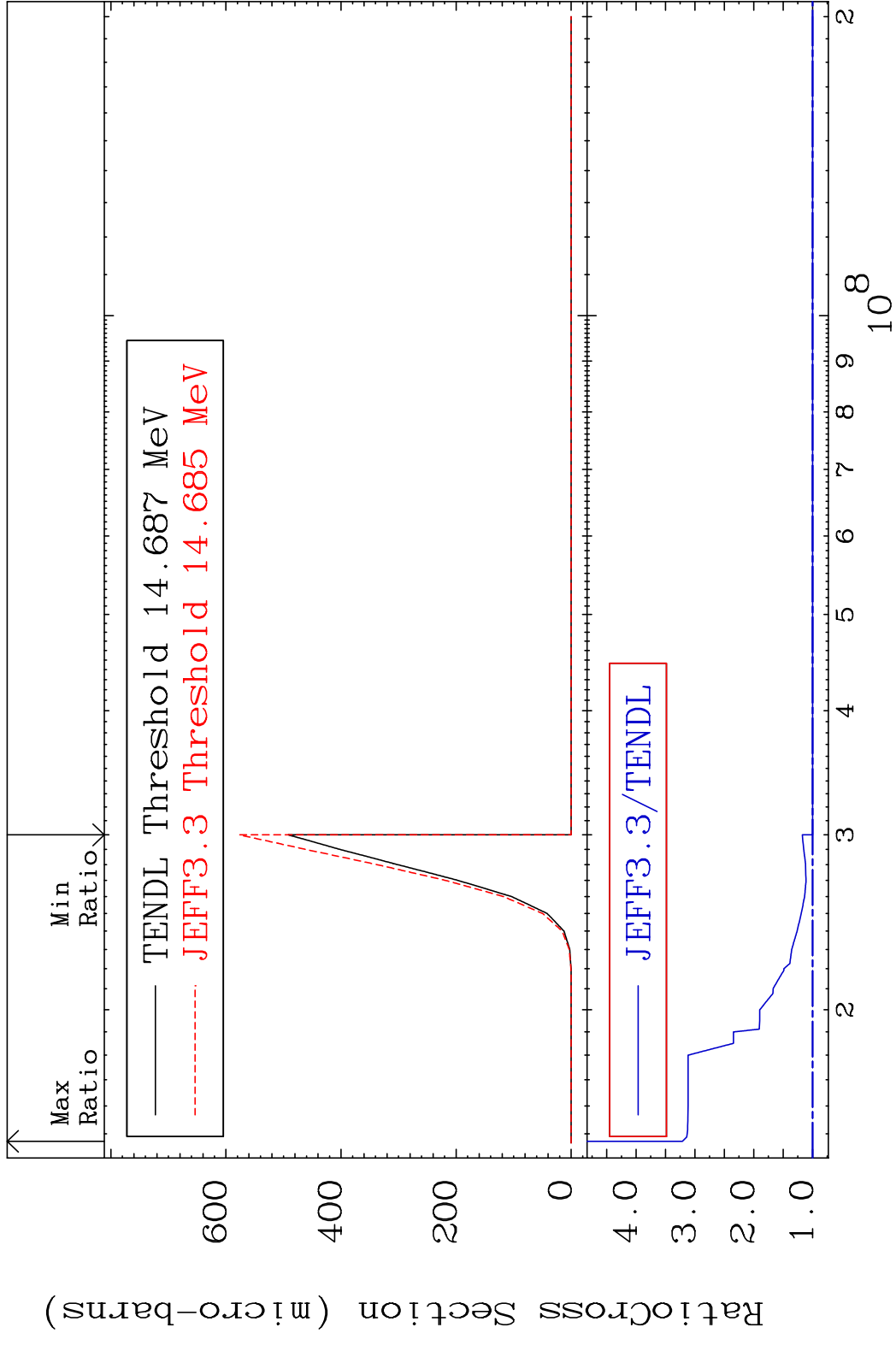
MAT 4022 (n,p) α 40-Zr-89
 Cross Section -60.79 To 6680. %



MAT 4022 (n,p) d 40-Zr-89
 Cross Section -22.56 To 165.8 %



MAT 4022 (n,p) t 40-Zr-89
 Cross Section 0.000 To 221.4 %

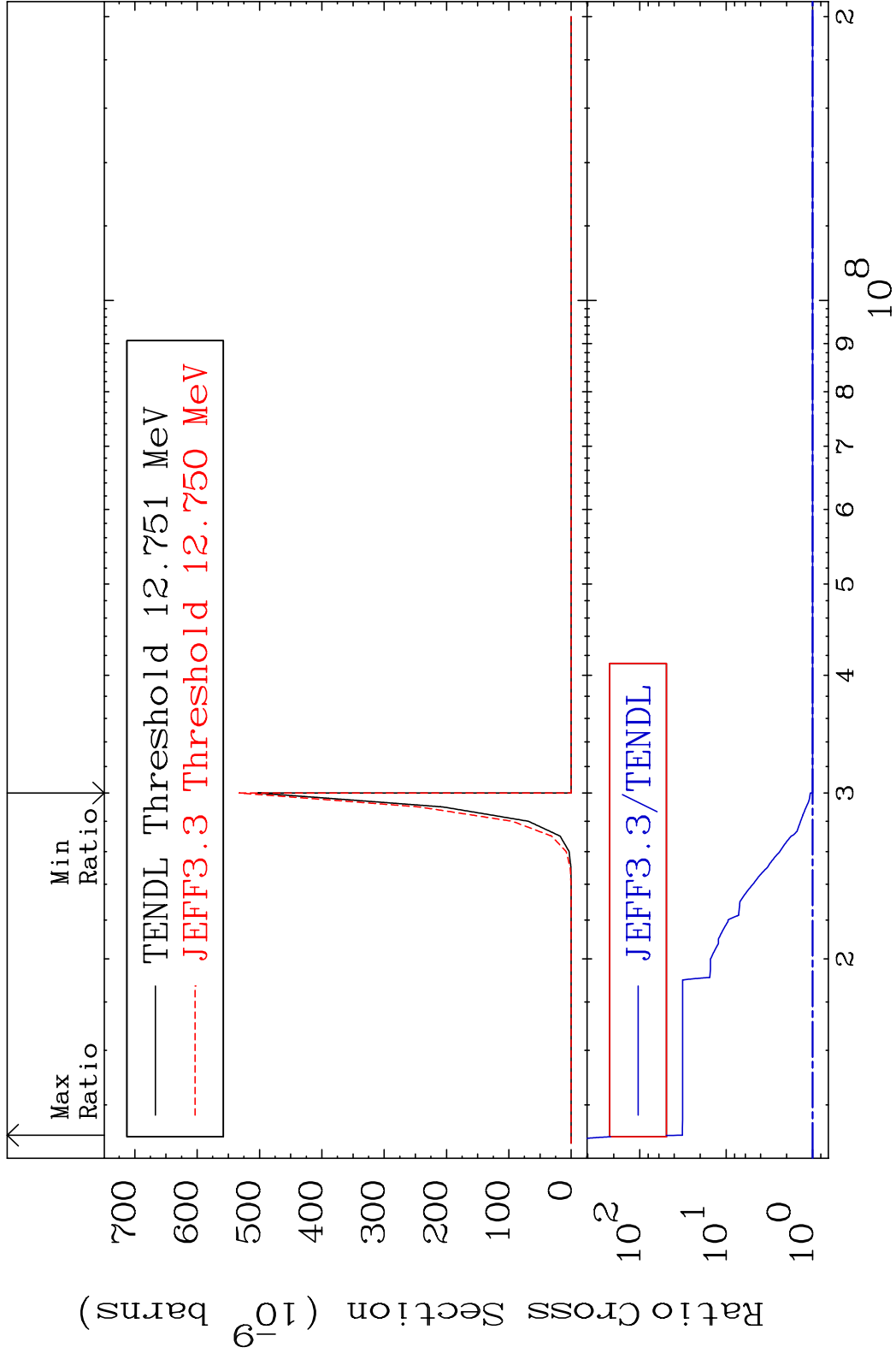


MAT 4022

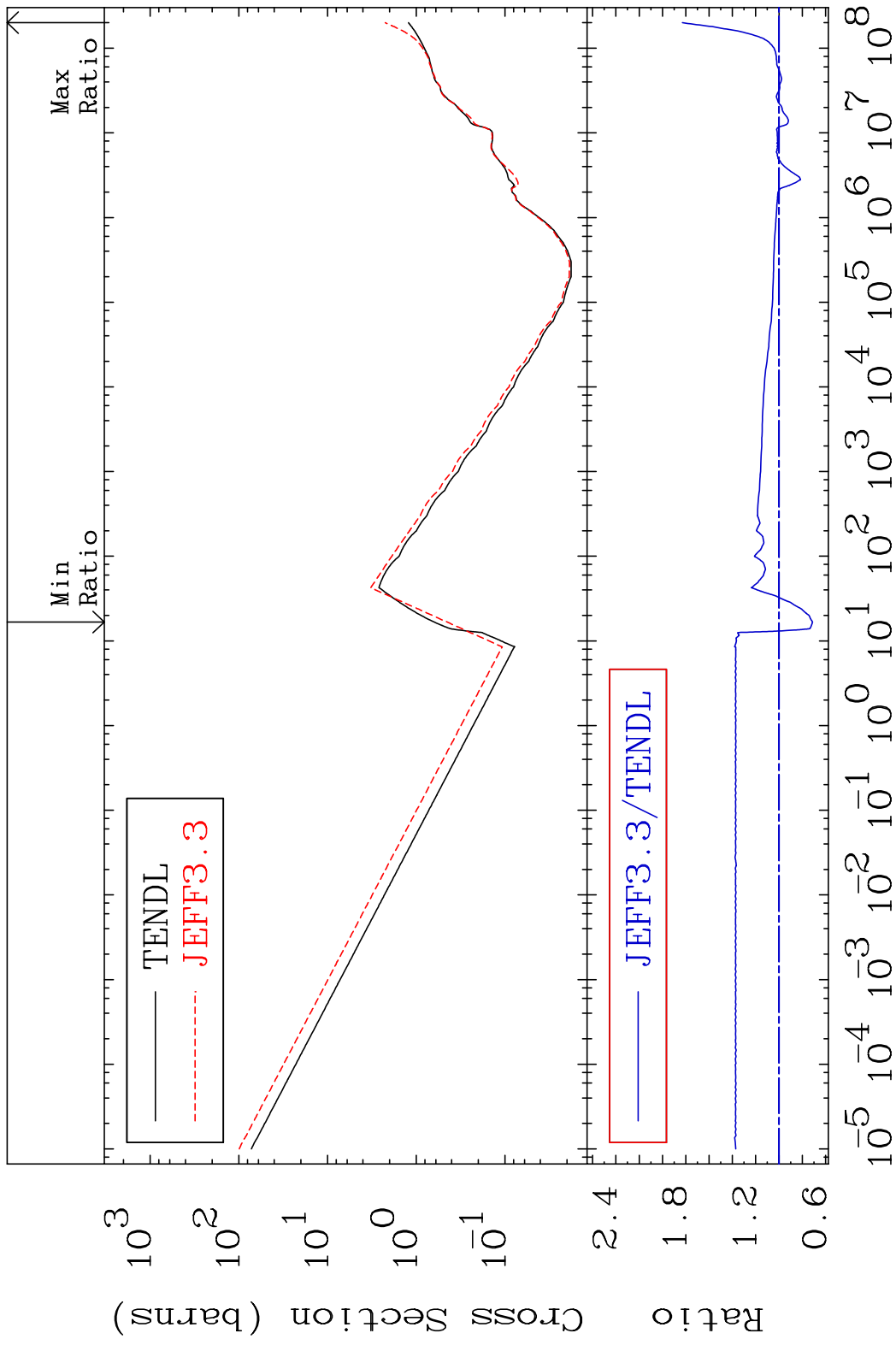
(n,d) α

40-Zr-89

Cross Section 0.000 To 3116. %



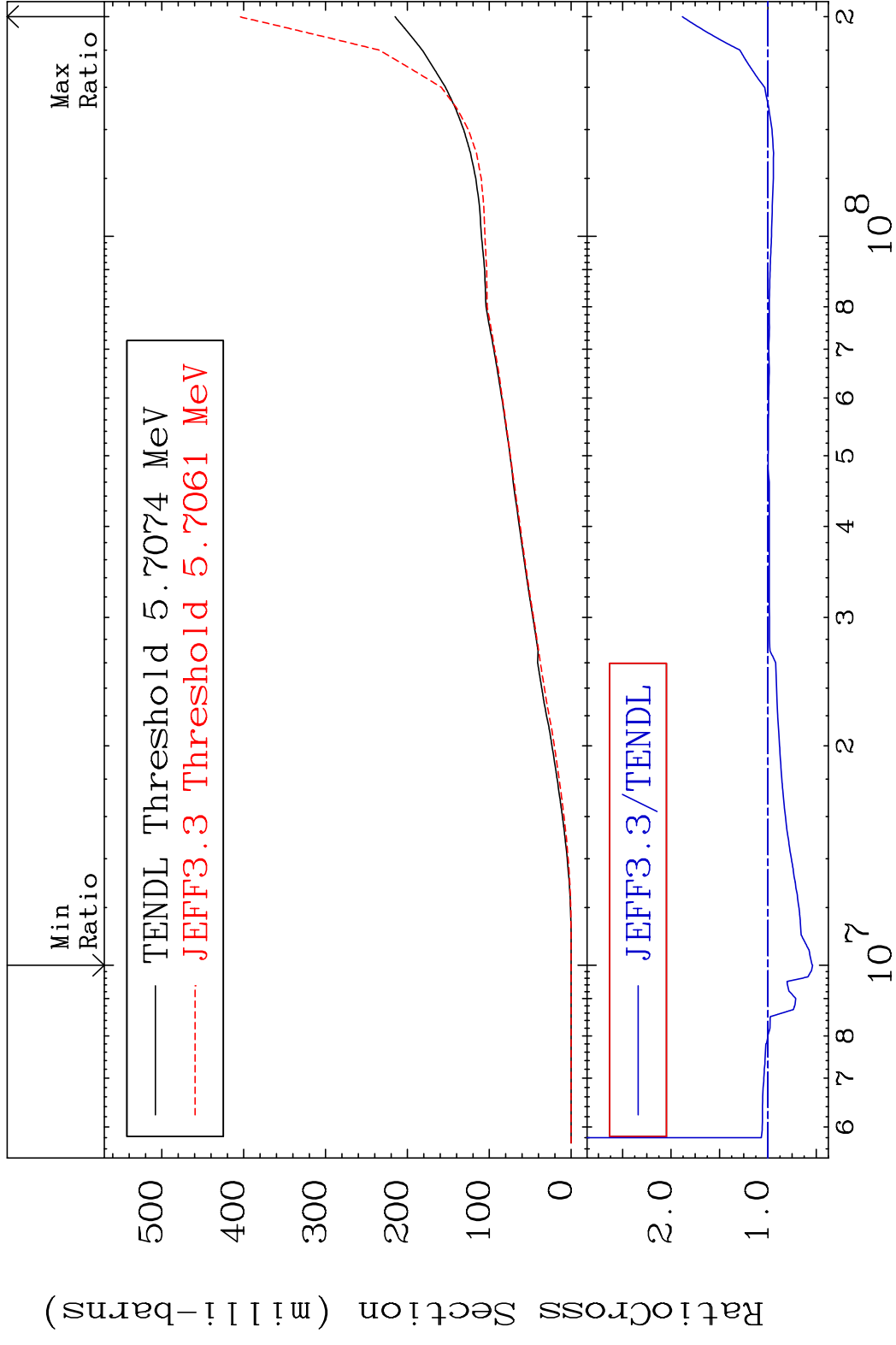
MAT 4022 Hydrogen Production 40-Zr-89
Cross Section -28.82 To 82.94 %



60 Incident Energy (eV) 40-Zr-89

MAT 4022

Deuterium Production 40-Zr-89
Cross Section -46.24 To 88.34 %



61

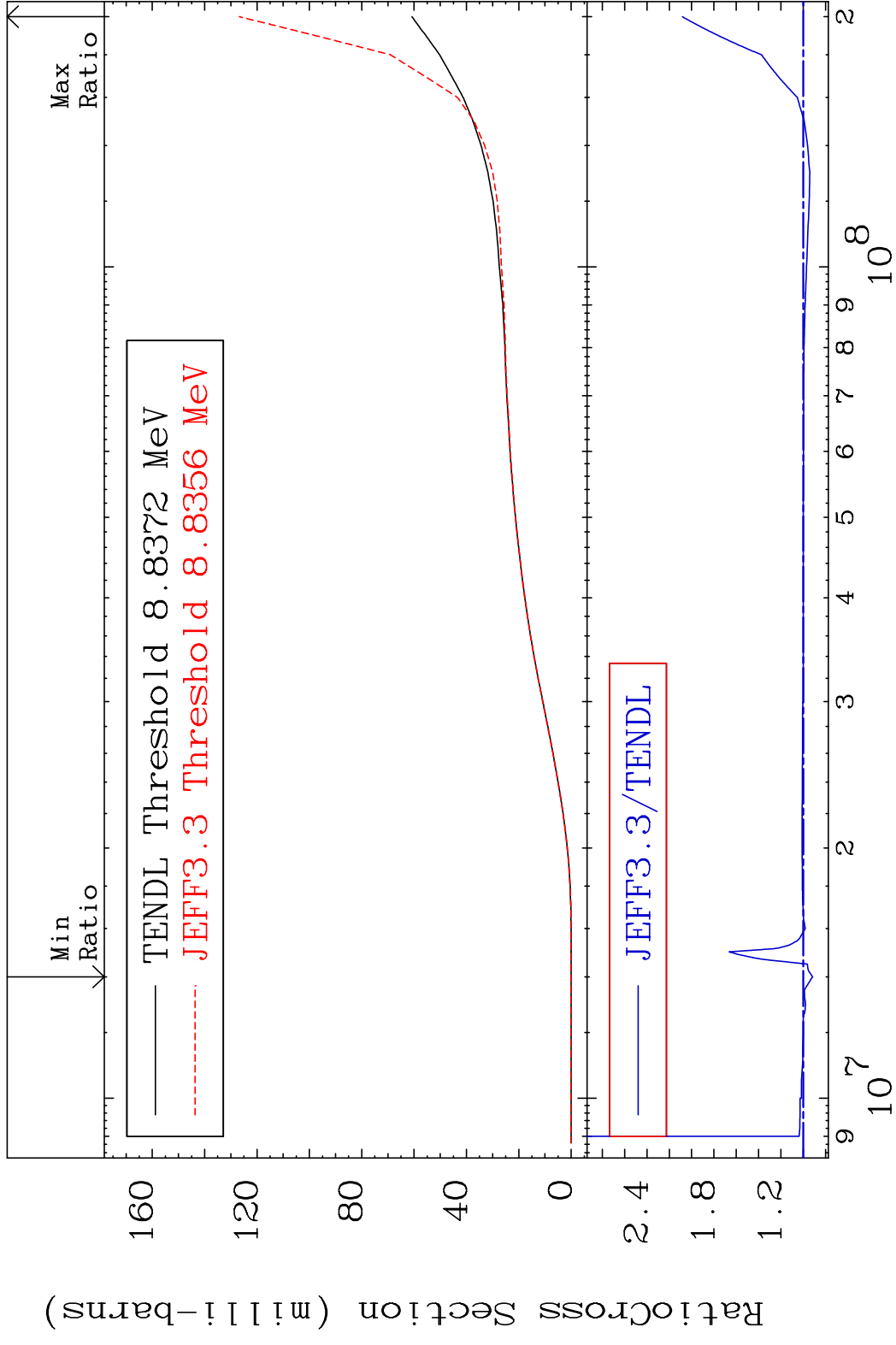
Incident Energy (eV) 40-Zr-89

MAT 4022

Tritium Production

40-Zr-89

Cross Section -8.395 To 108.3 %



62

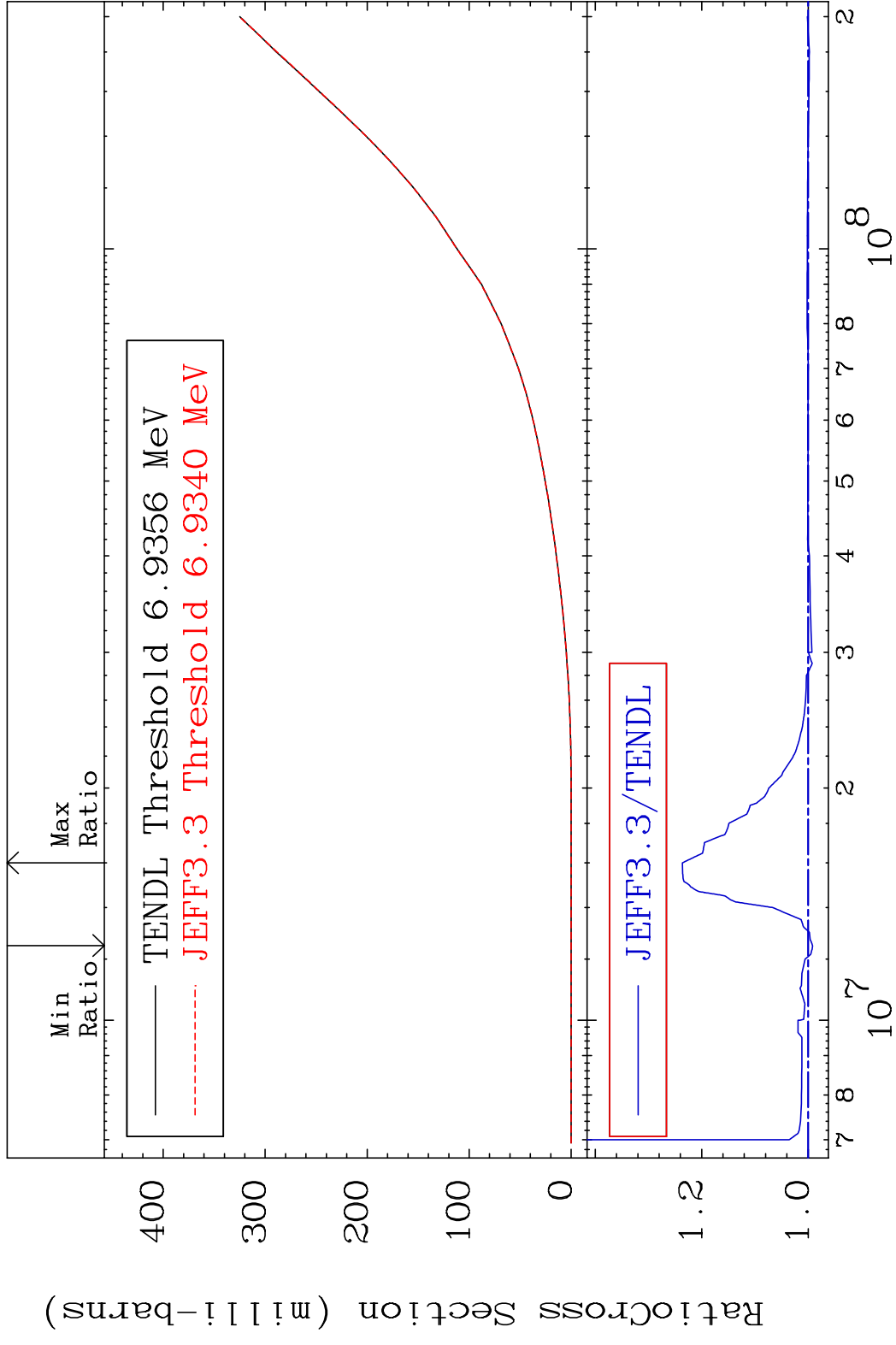
40-Zr-89

MAT 4022

He-3 Production

40-Zr-89

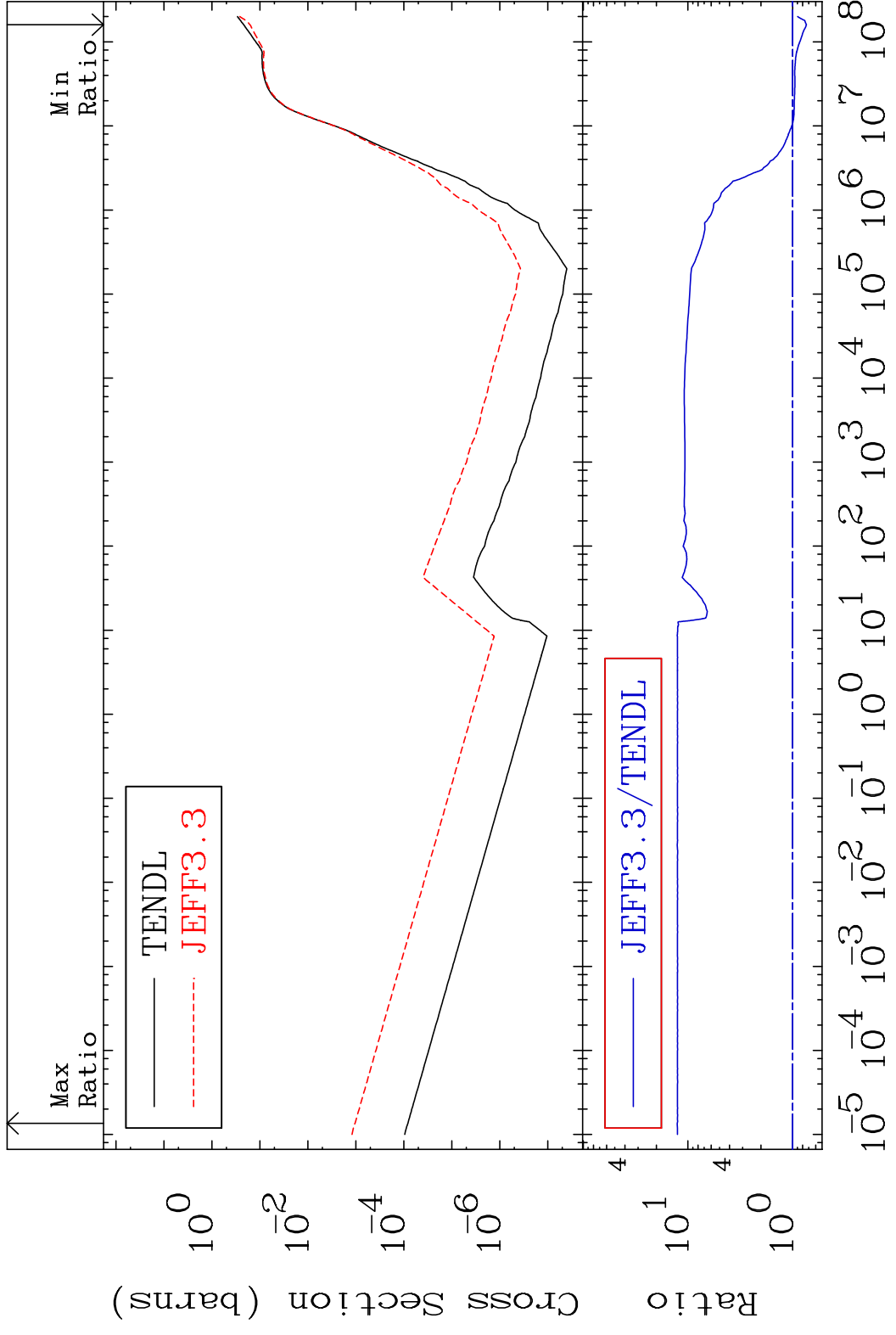
Cross Section -0.821 To 23.63 %



63

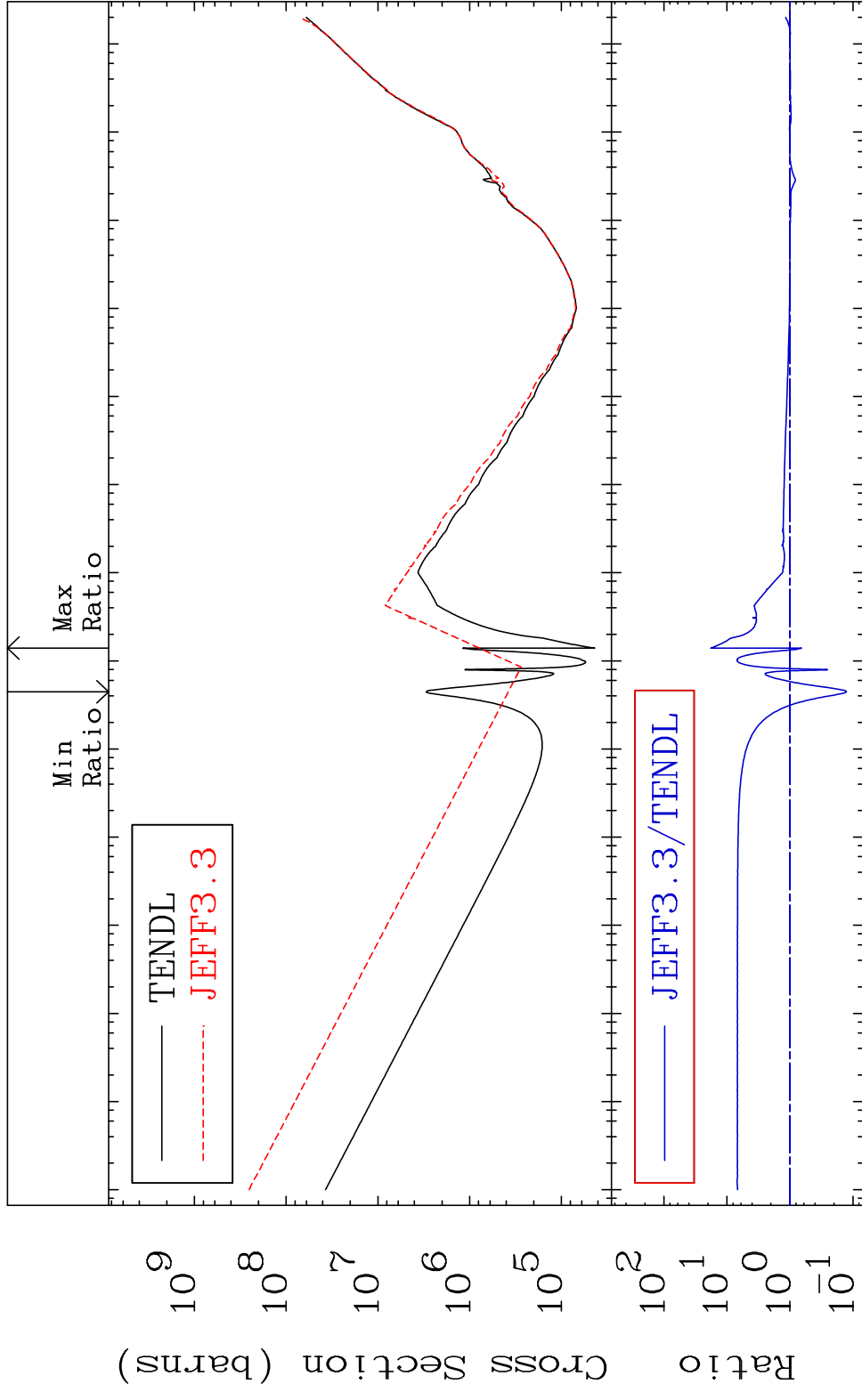
40-Zr-89

MAT 4022 He-4 Production 40-Zr-89
 Cross Section -26.30 To 1167. %



64 Incident Energy (eV) 40-Zr-89

MAT 4022 Kerma total (eV-barns) 40-Zr-89
 Cross Section -87.26 To 1706. %

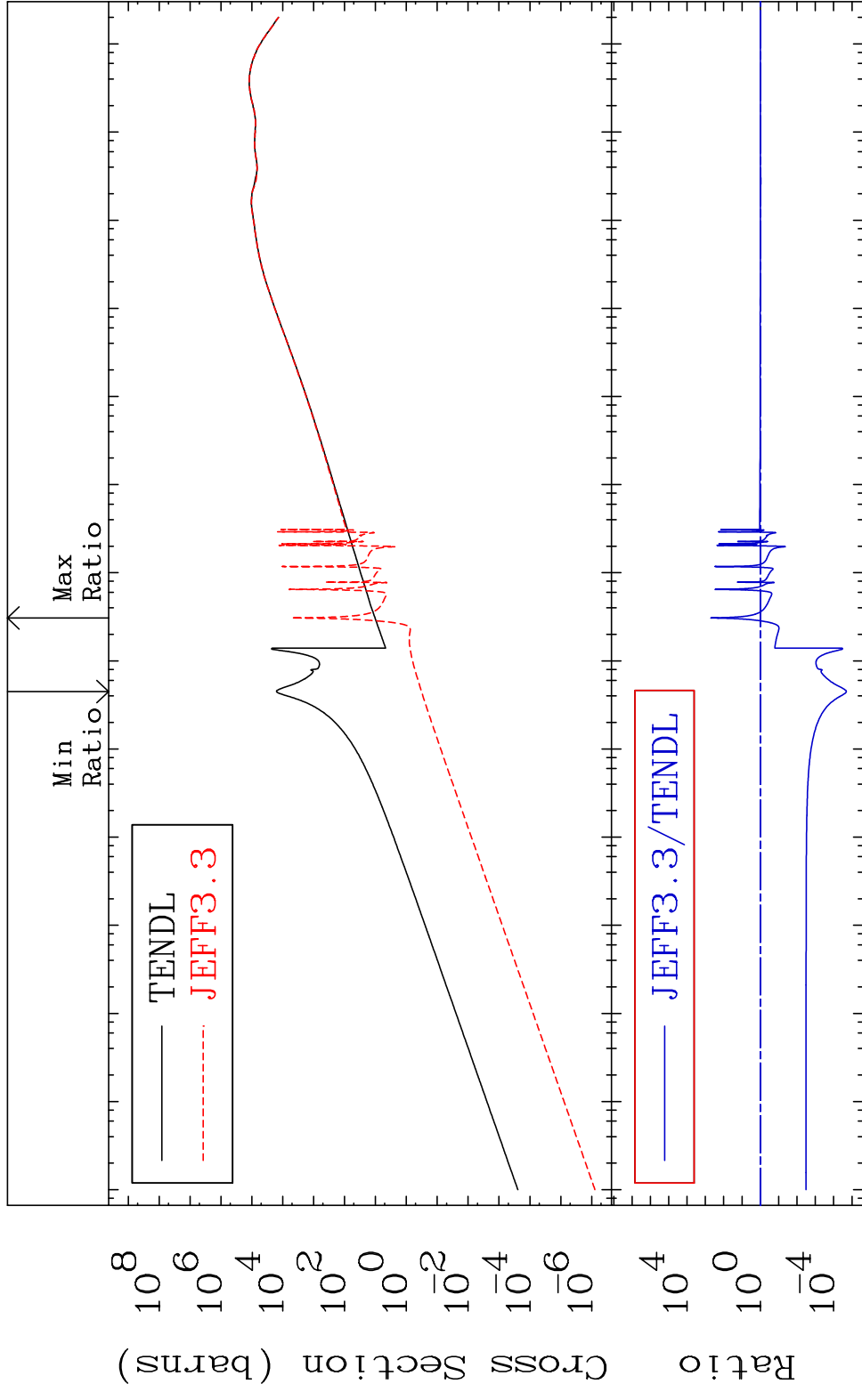


65 Incident Energy (eV) 40-Zr-89

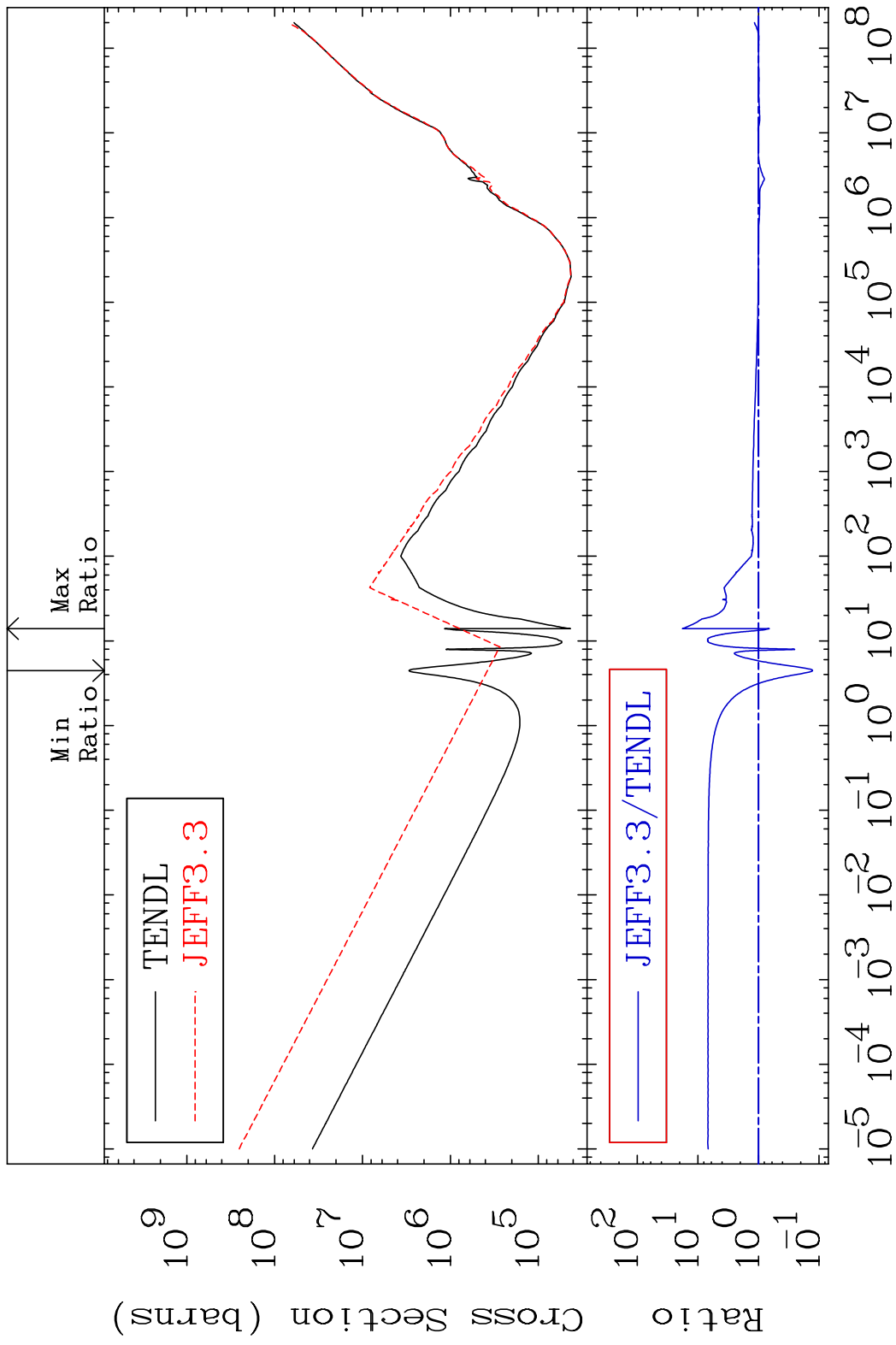
MAT 4022

Kerma elastic Cross Section -100.0 To 9999. %

40-Zr-89

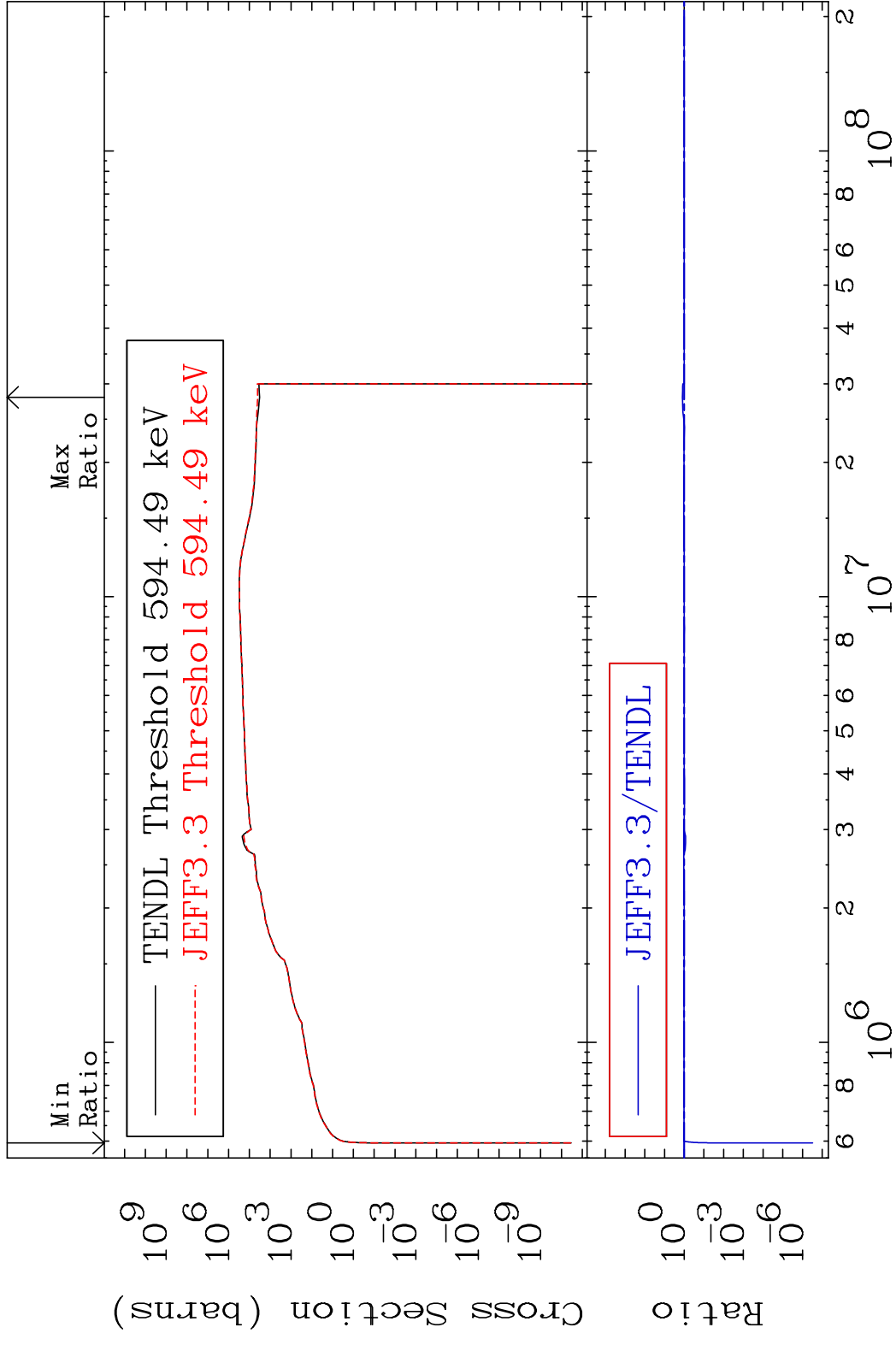


MAT 4022 Kerma non-elastic (all but mt2) 40-Zr-89
 Cross Section -87.20 To 1706. %

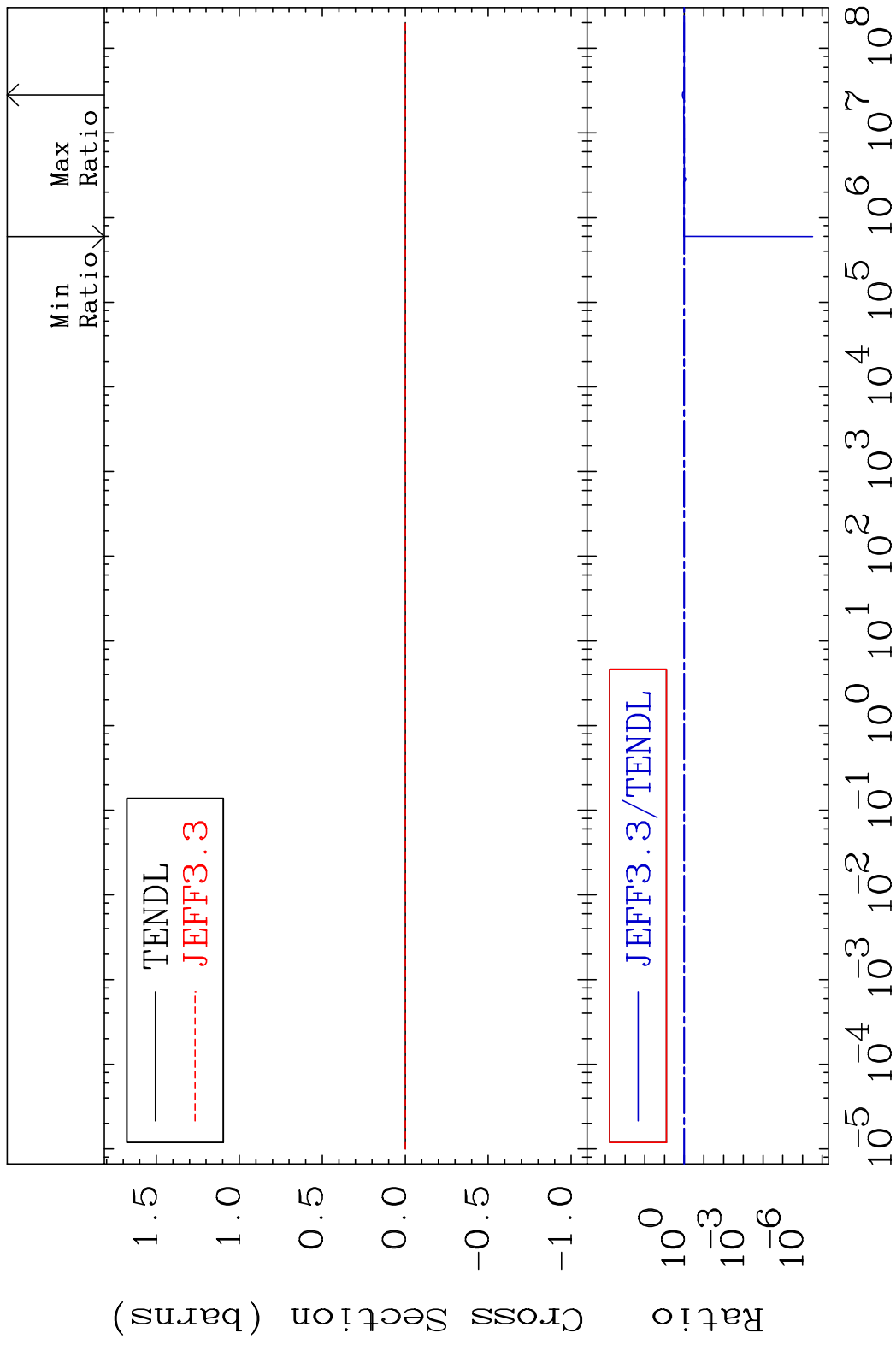


67 Incident Energy (eV) 40-Zr-89

MAT 4022 Kerma inelastic (mt51-91) 40-Zr-89
 Cross Section -100.0 To 24.31 %



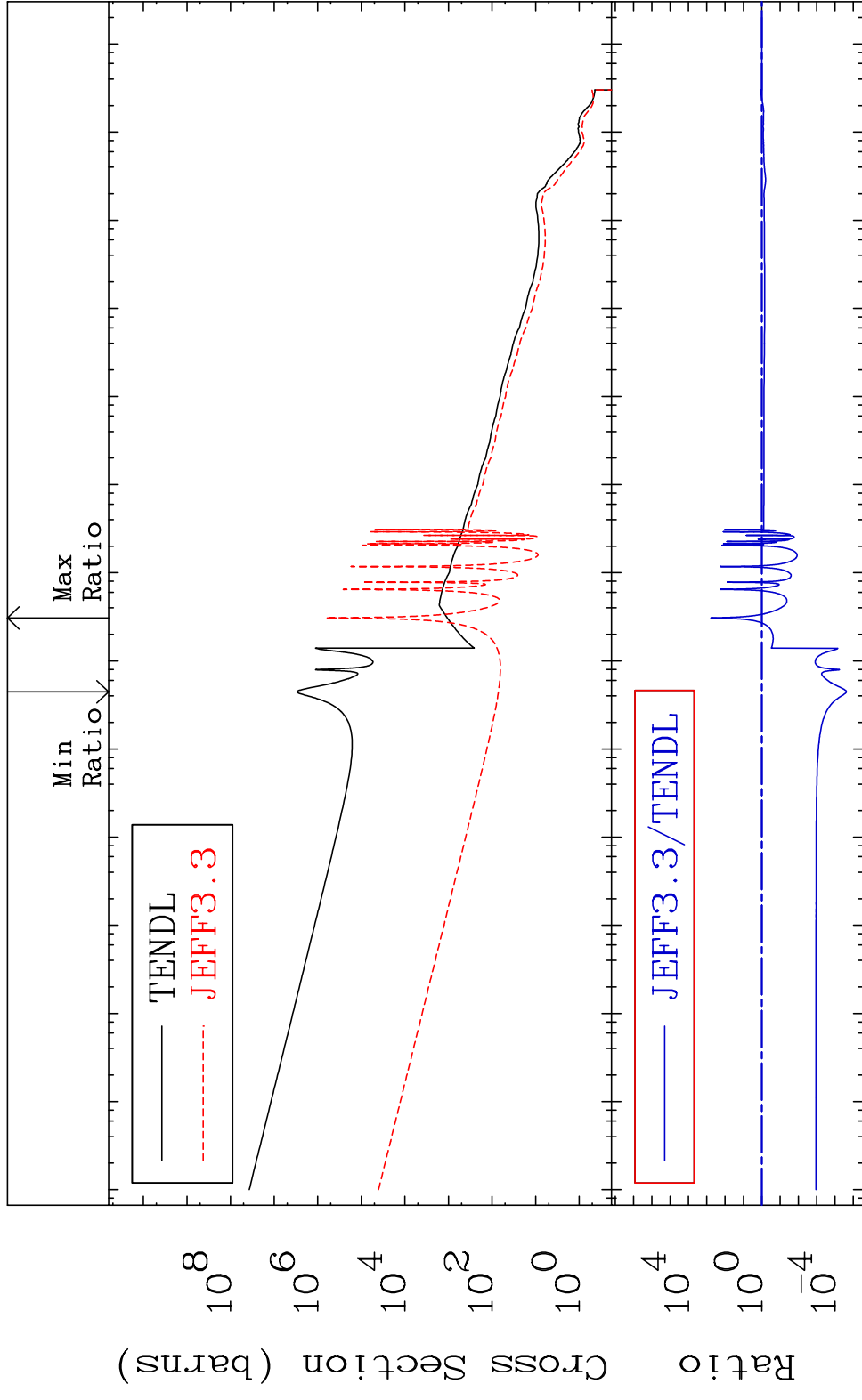
MAT 4022 Kerma fission (mt18 or mt19-20-21-38) 40-Zr-89
 Cross Section -100.0 To 24.31 %



MAT 4022

Kerma capture (mt102) 40-Zr-89

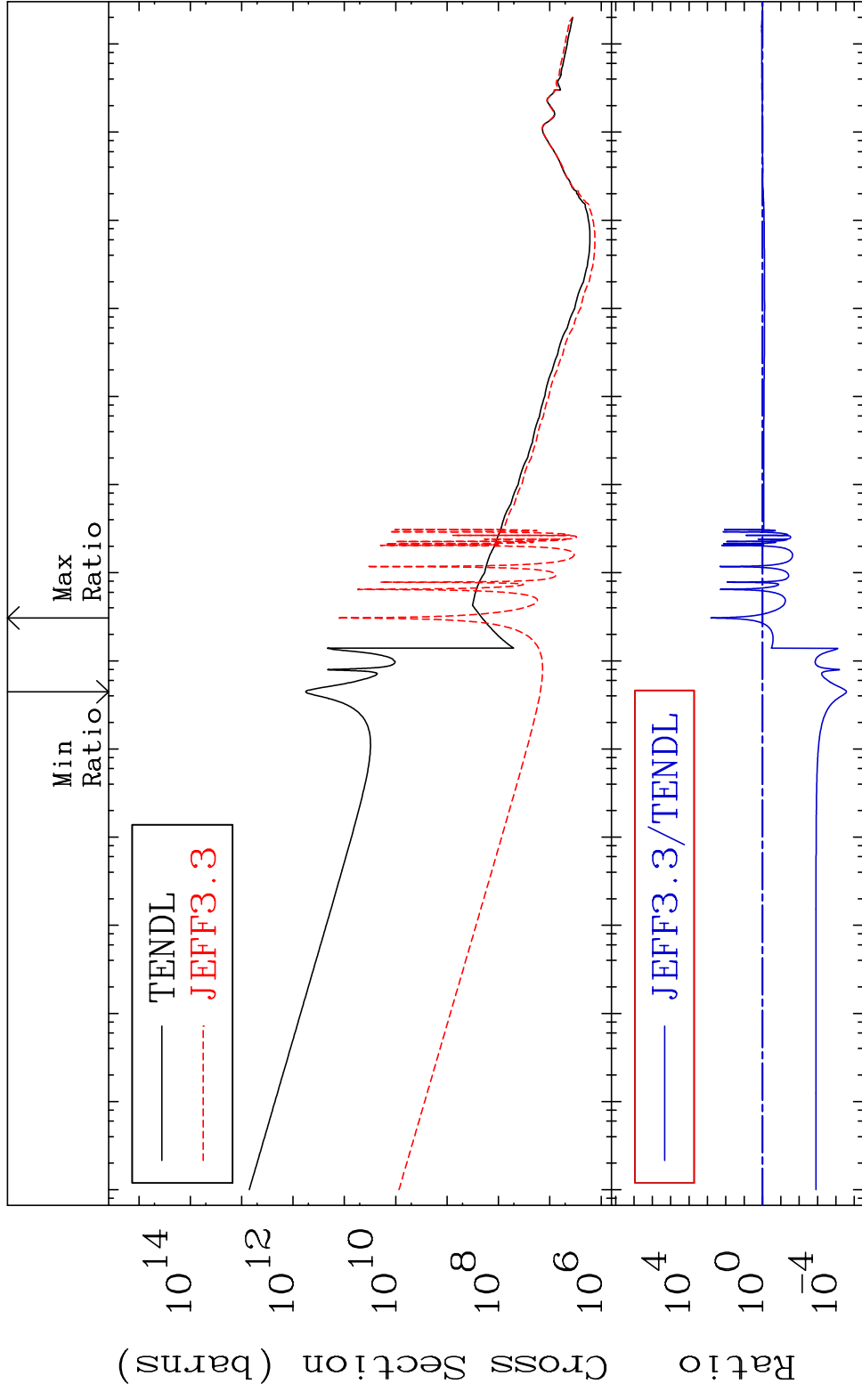
Cross Section -100.0 To 9999. %



70

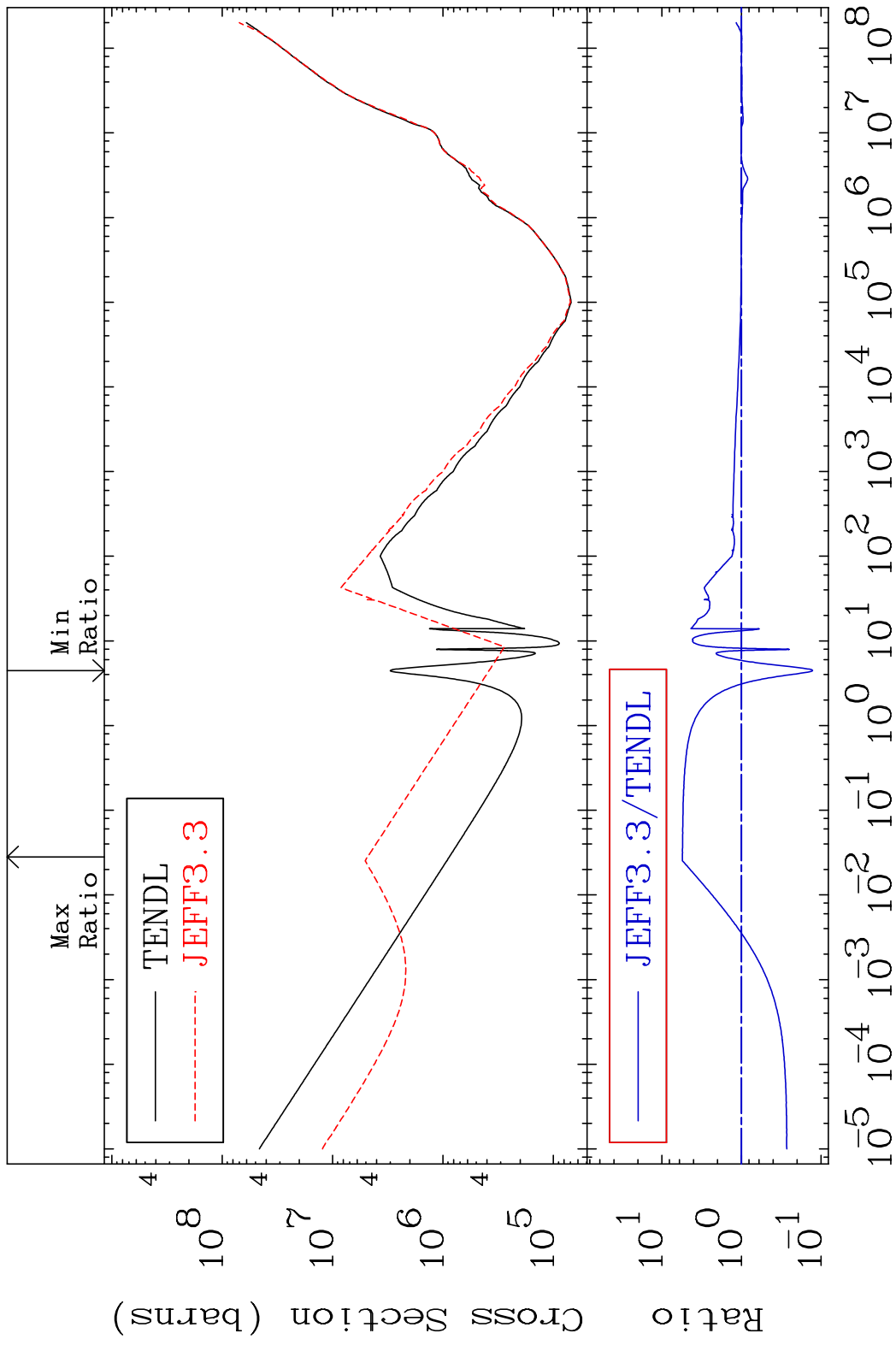
Incident Energy (eV) 40-Zr-89

MAT 4022 Total photon (eV-barns) 40-Zr-89
 Cross Section -100.0 To 9999. %

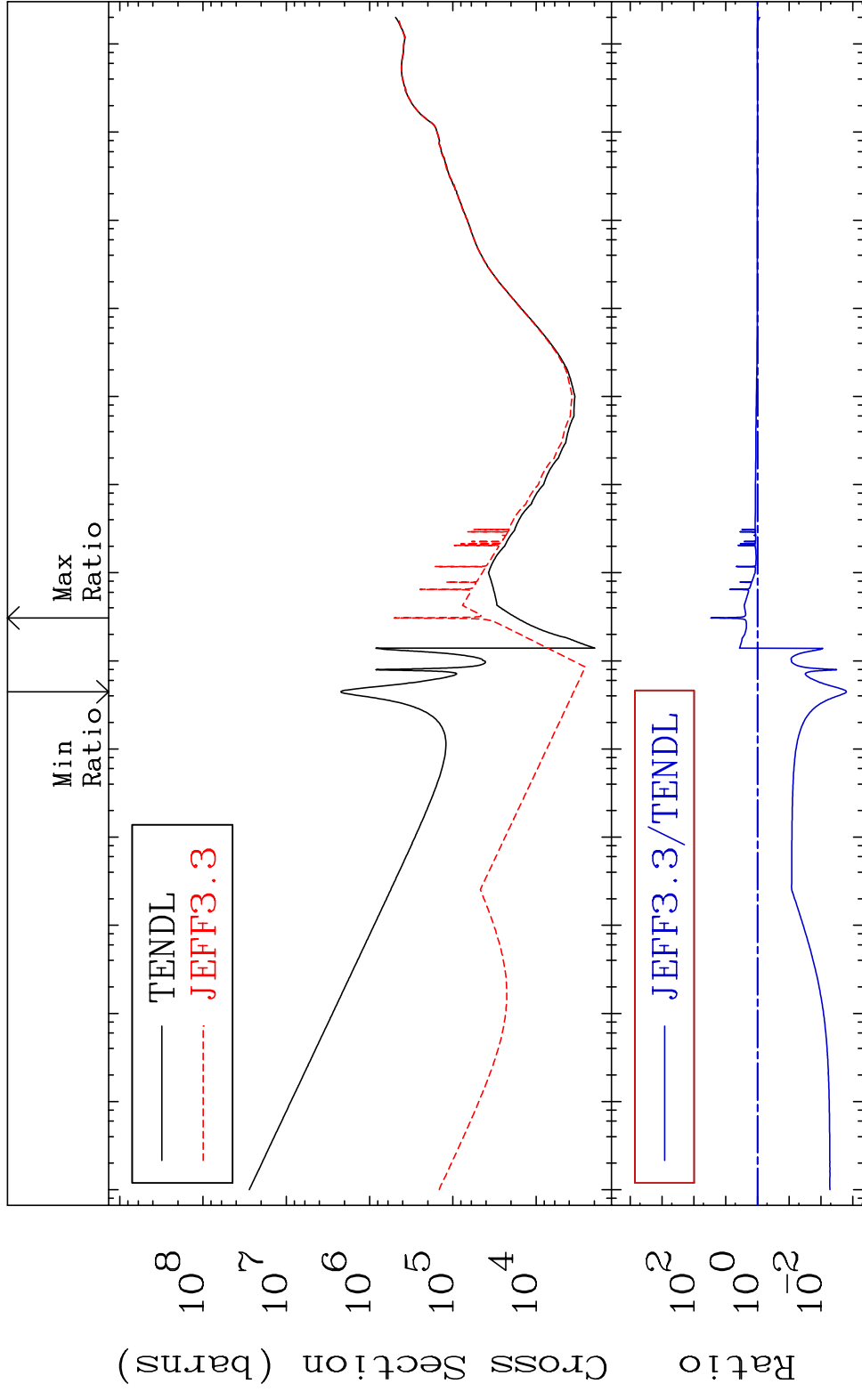


71 Incident Energy (eV) 40-Zr-89

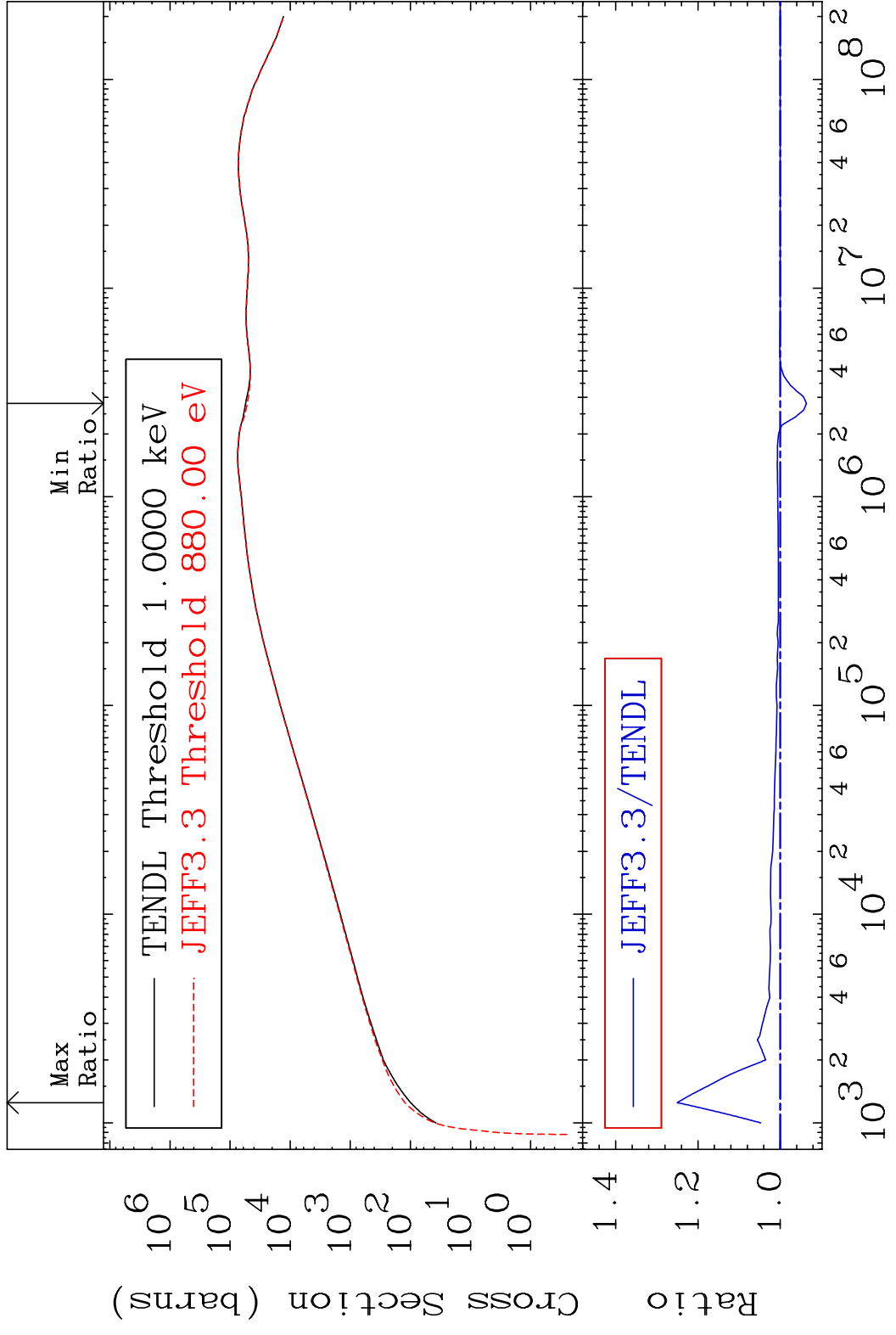
MAT 4022 Total kinematic kerma (high limit) 40-Zr-89
 Cross Section -87.24 To 451.6 %



MAT 4022 Dpa total (eV-barns) 40-Zr-89
 Cross Section -99.84 To 2857. %

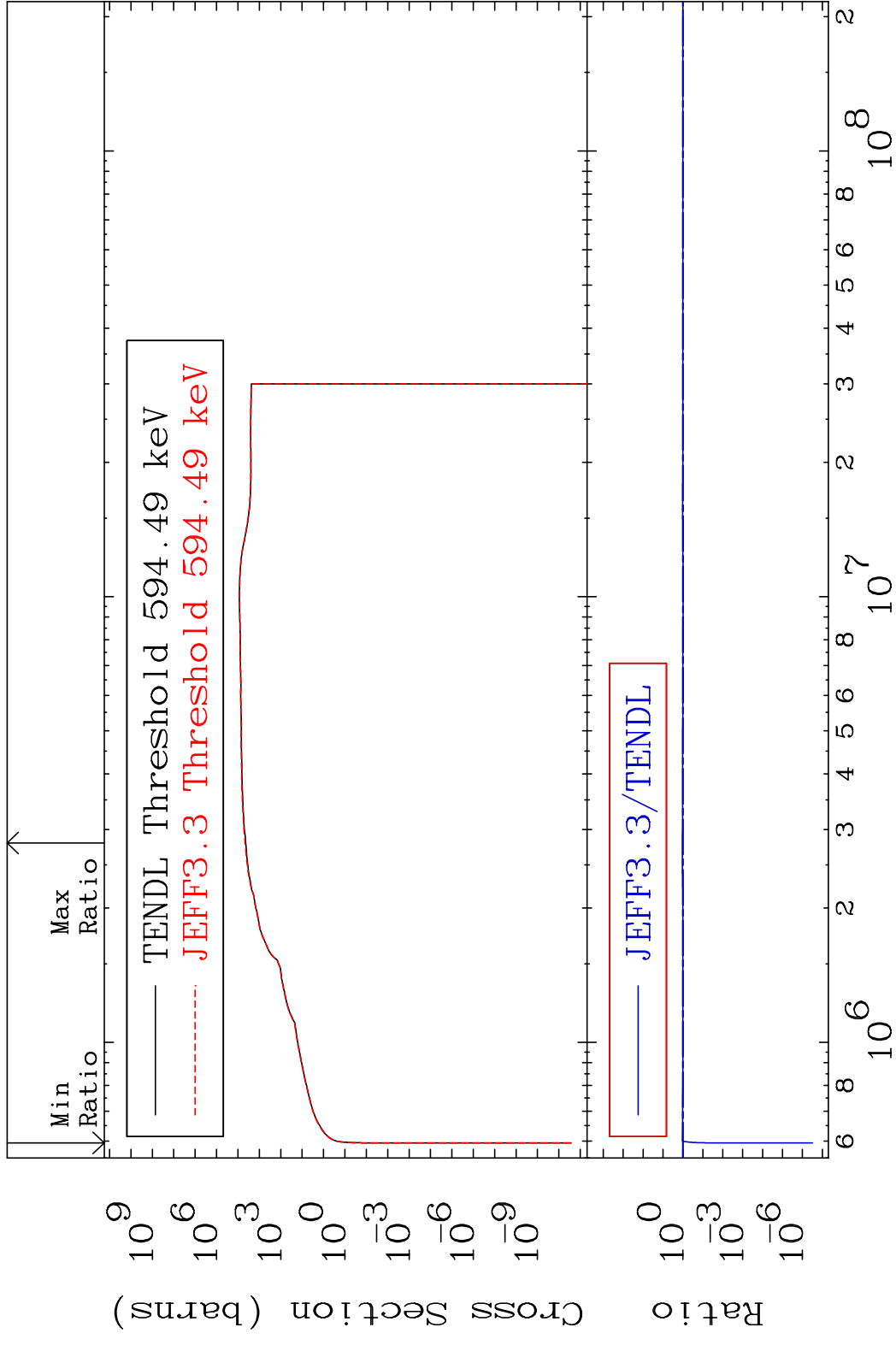


MAT 4022 Dpa elastic (mt2) 40-Zr-89
 Cross Section -6.371 To 25.05 %

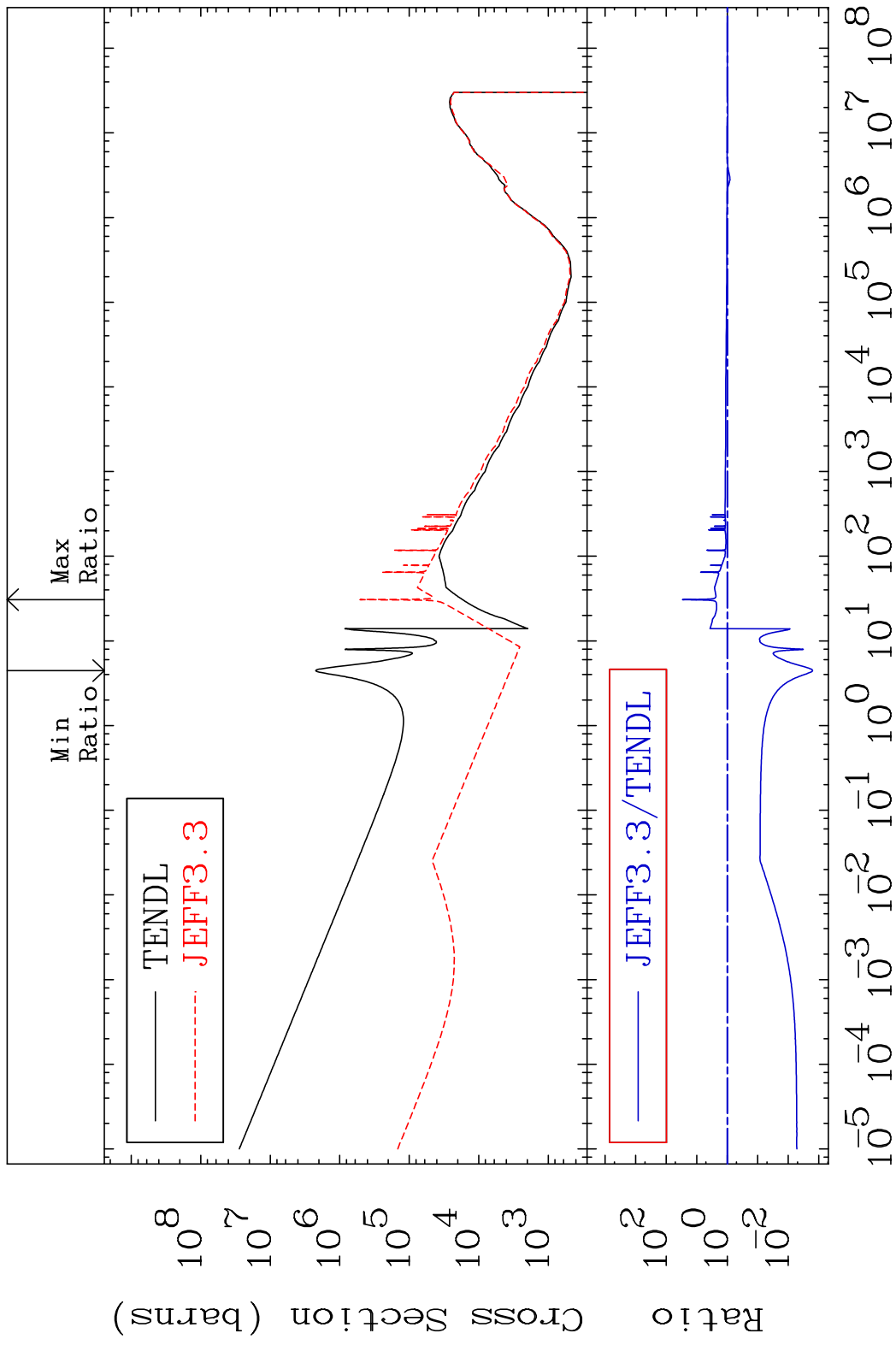


74 Incident Energy (eV) 40-Zr-89

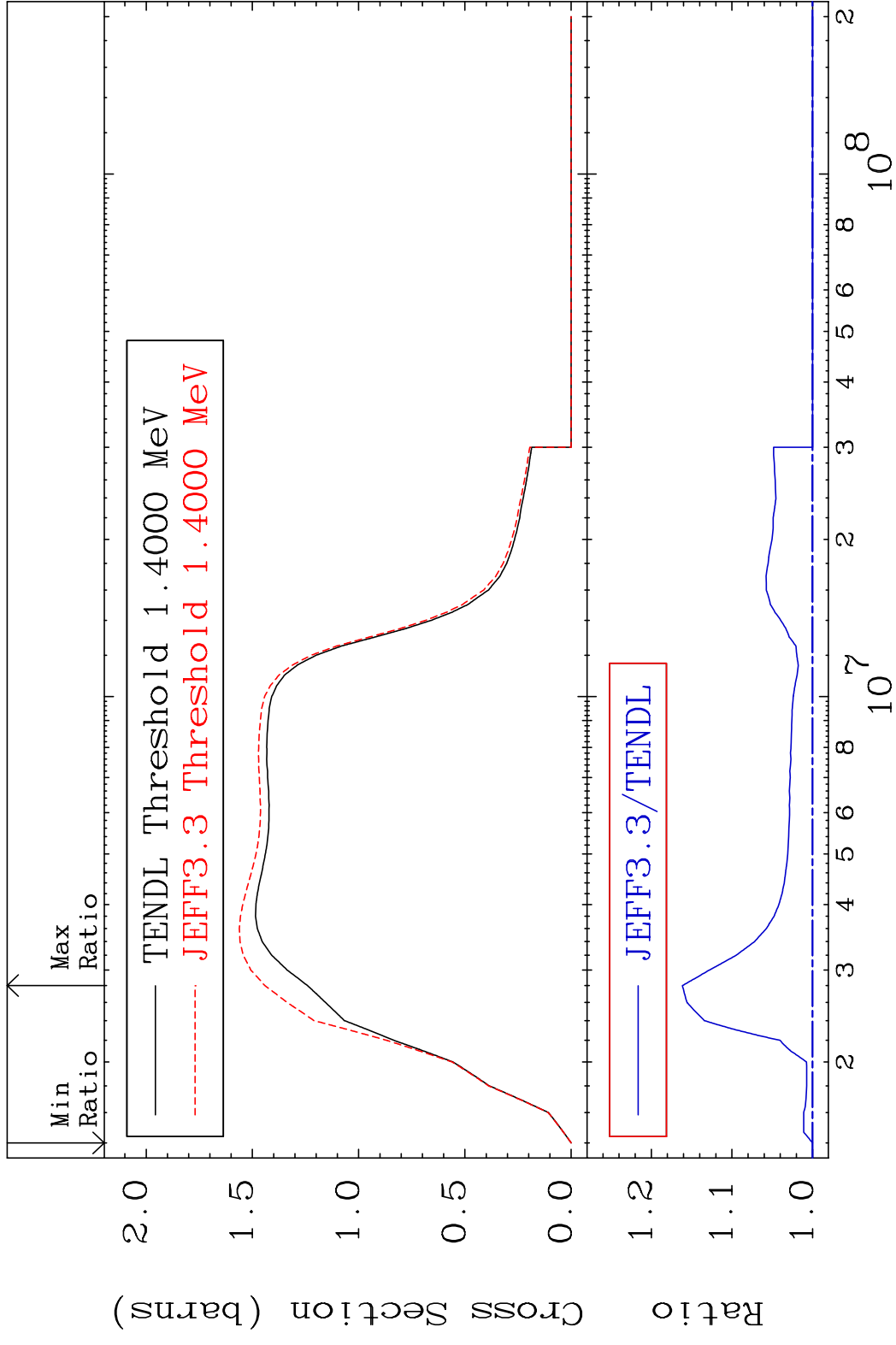
MAT 4022 Dpa inelastic (mt51-91) 40-Zr-89
 Cross Section -100.0 To 6.997 %



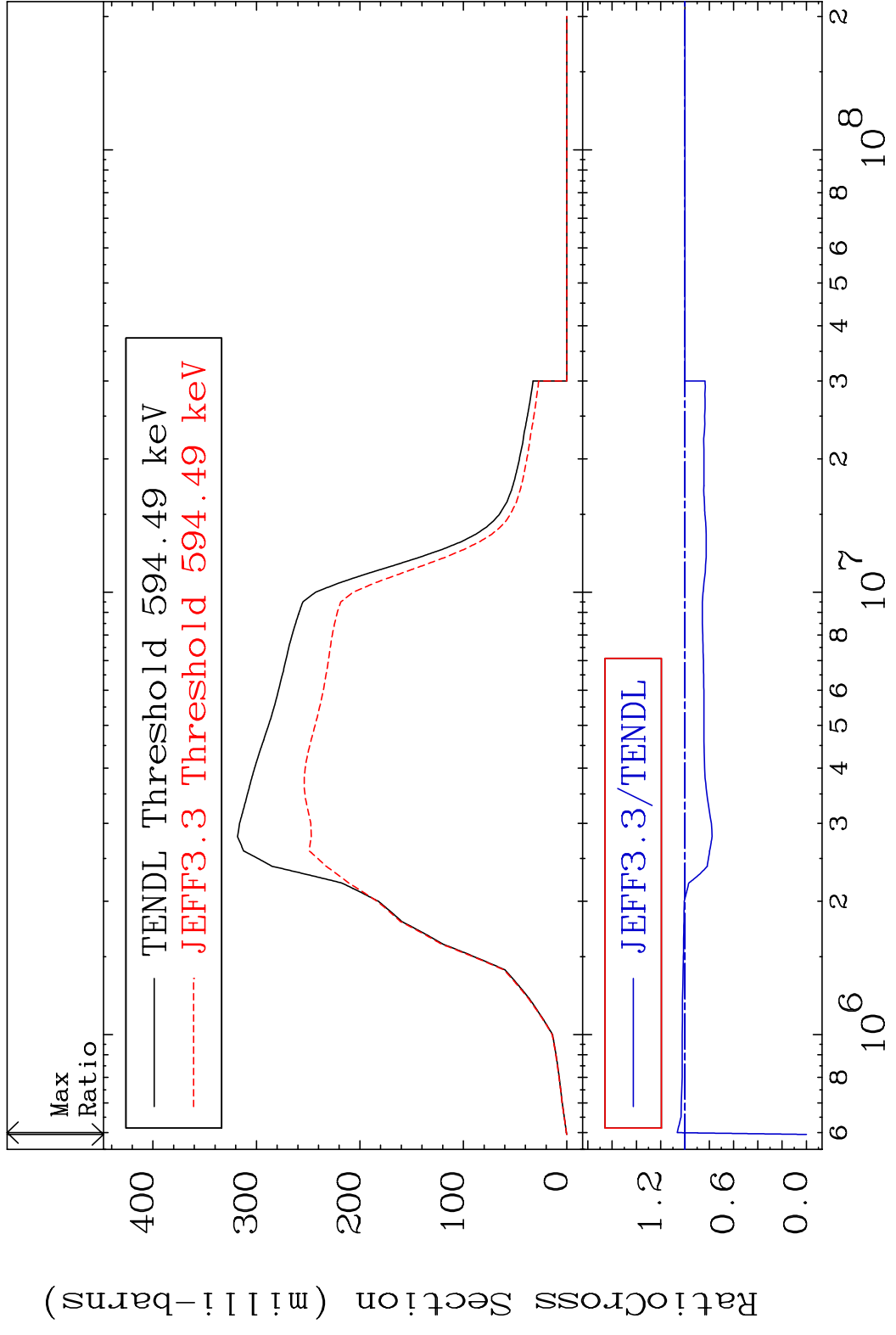
MAT 4022 Dpa disappearance (mt102 -120) 40-Zr-89
 Cross Section -99.84 To 2857. %

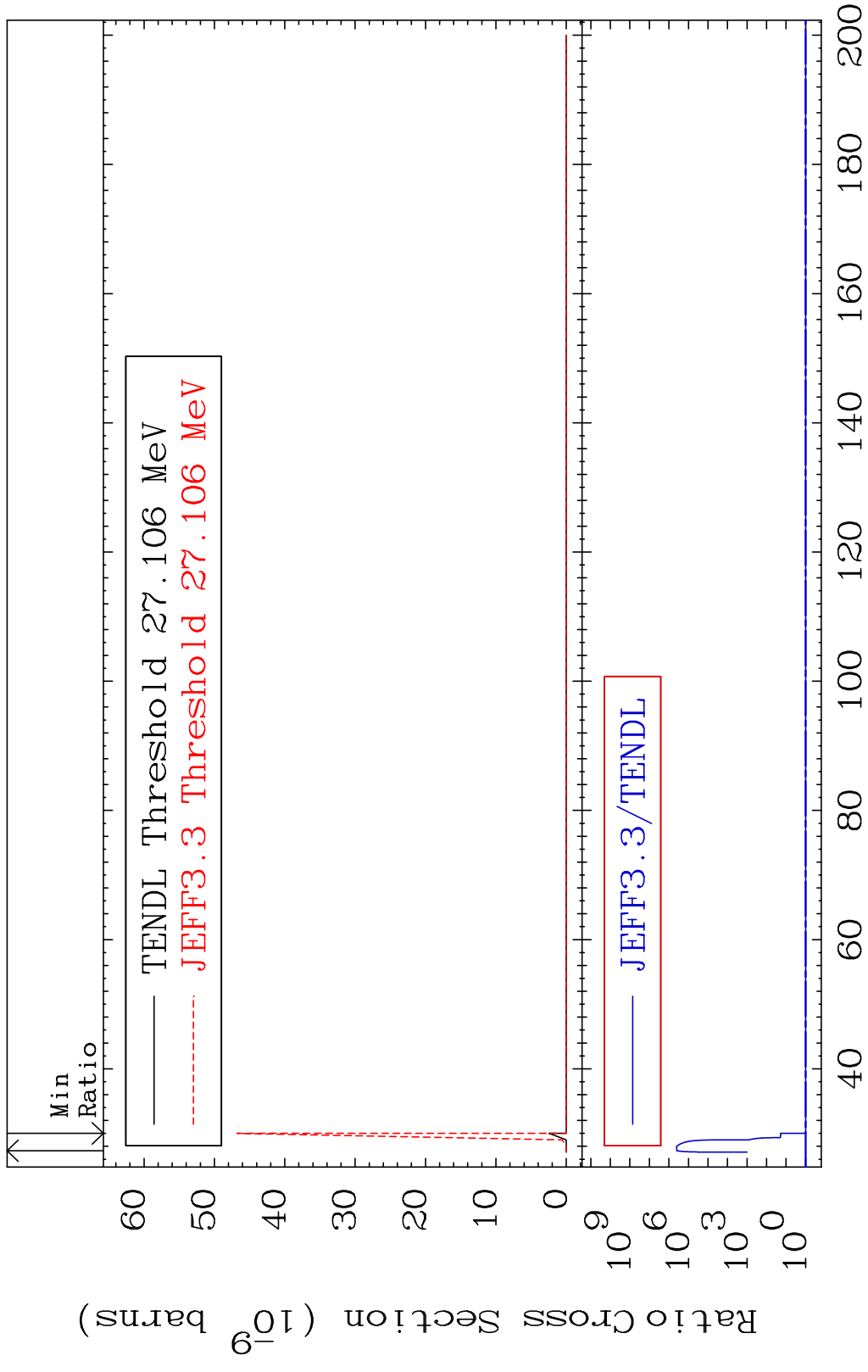


76 Incident Energy (eV) 40-Zr-89

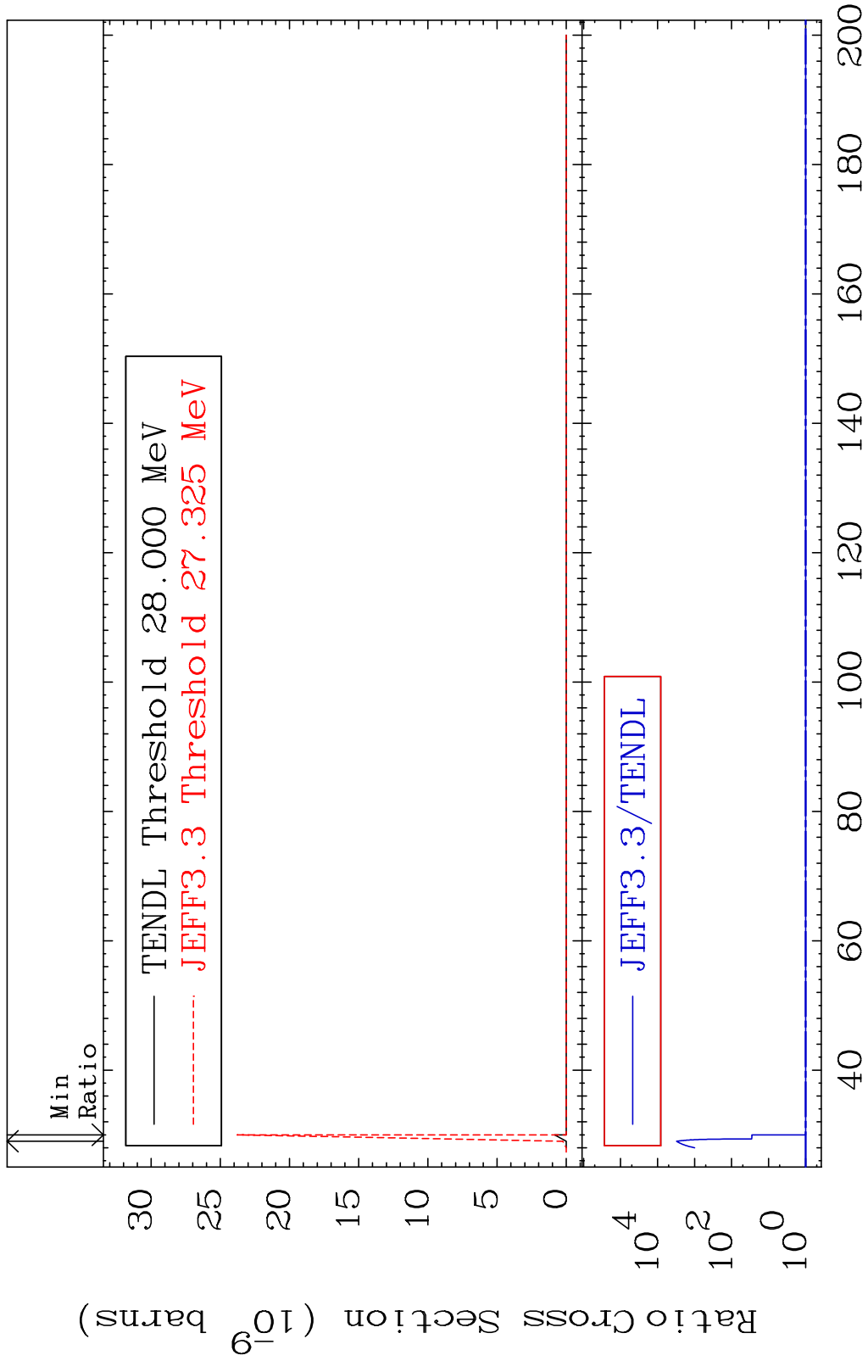


MAT 4022 Inelastic:40-Zr-89m1 40-Zr-89
 Radionuclide Production Cross Section Ratio 6.400 %

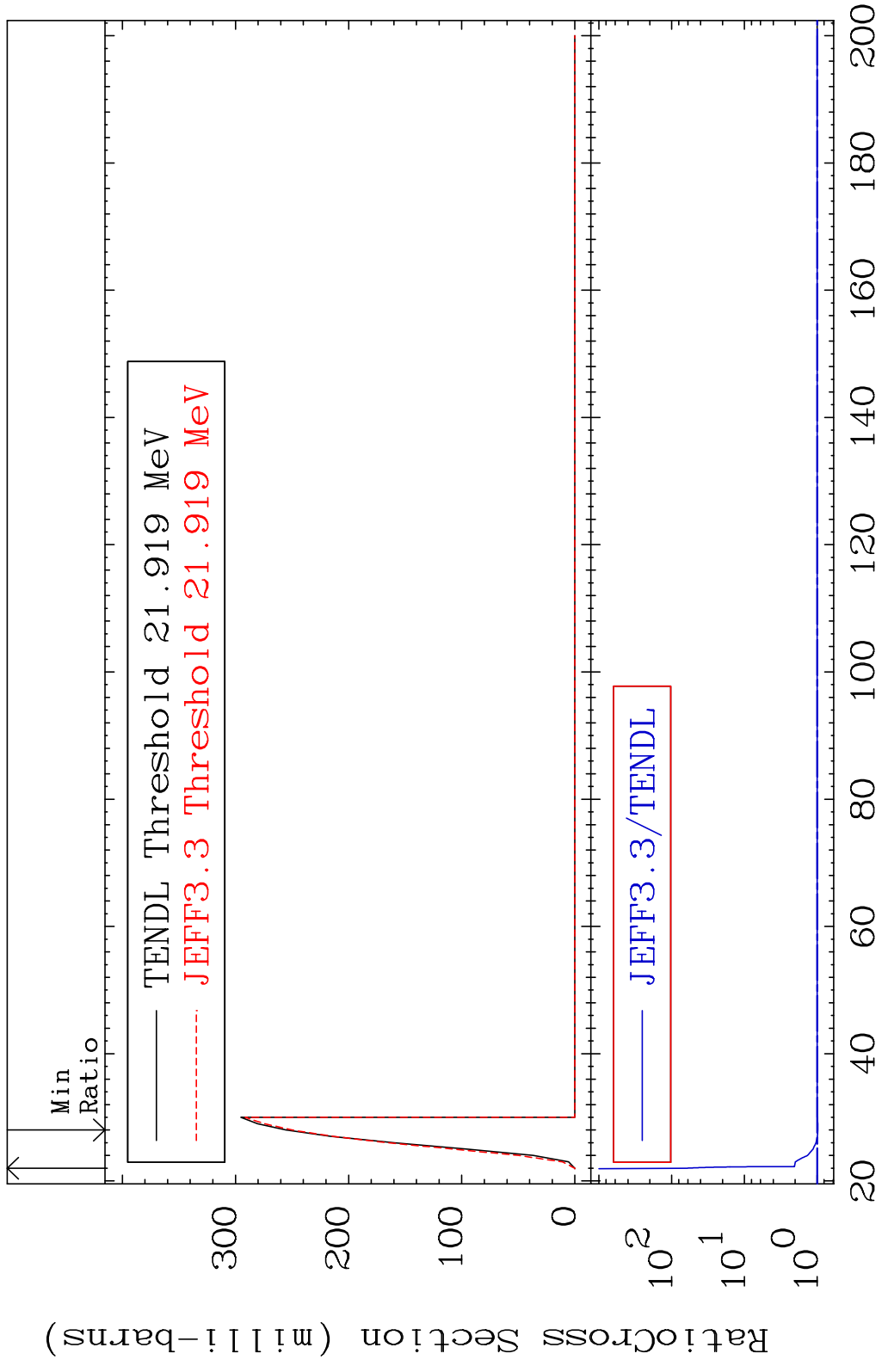




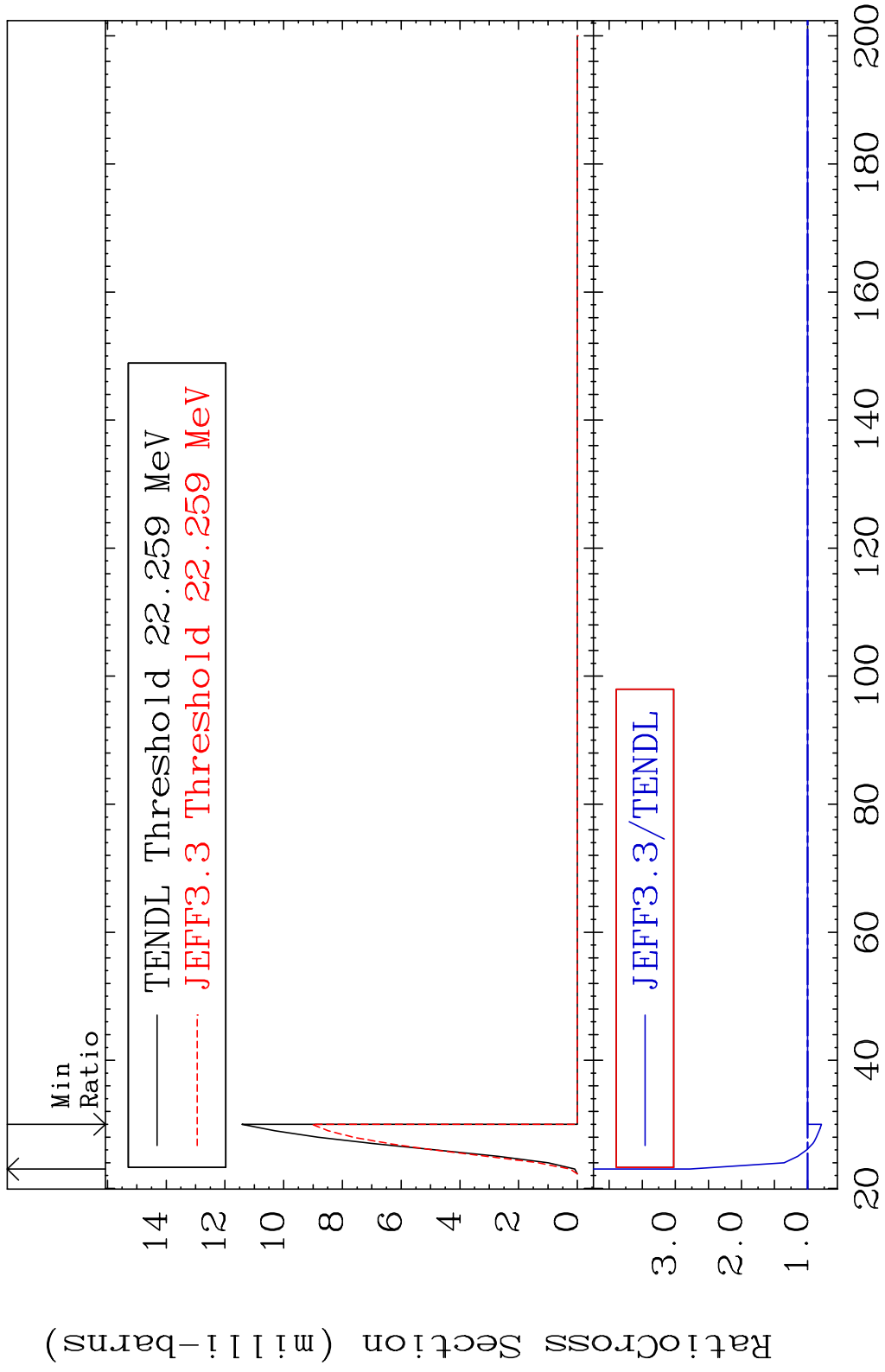
MAT 4022 (n,2n) d:39-Y -86m2 40-Zr-89
 Radionuclide Production Cross Section 9999. %



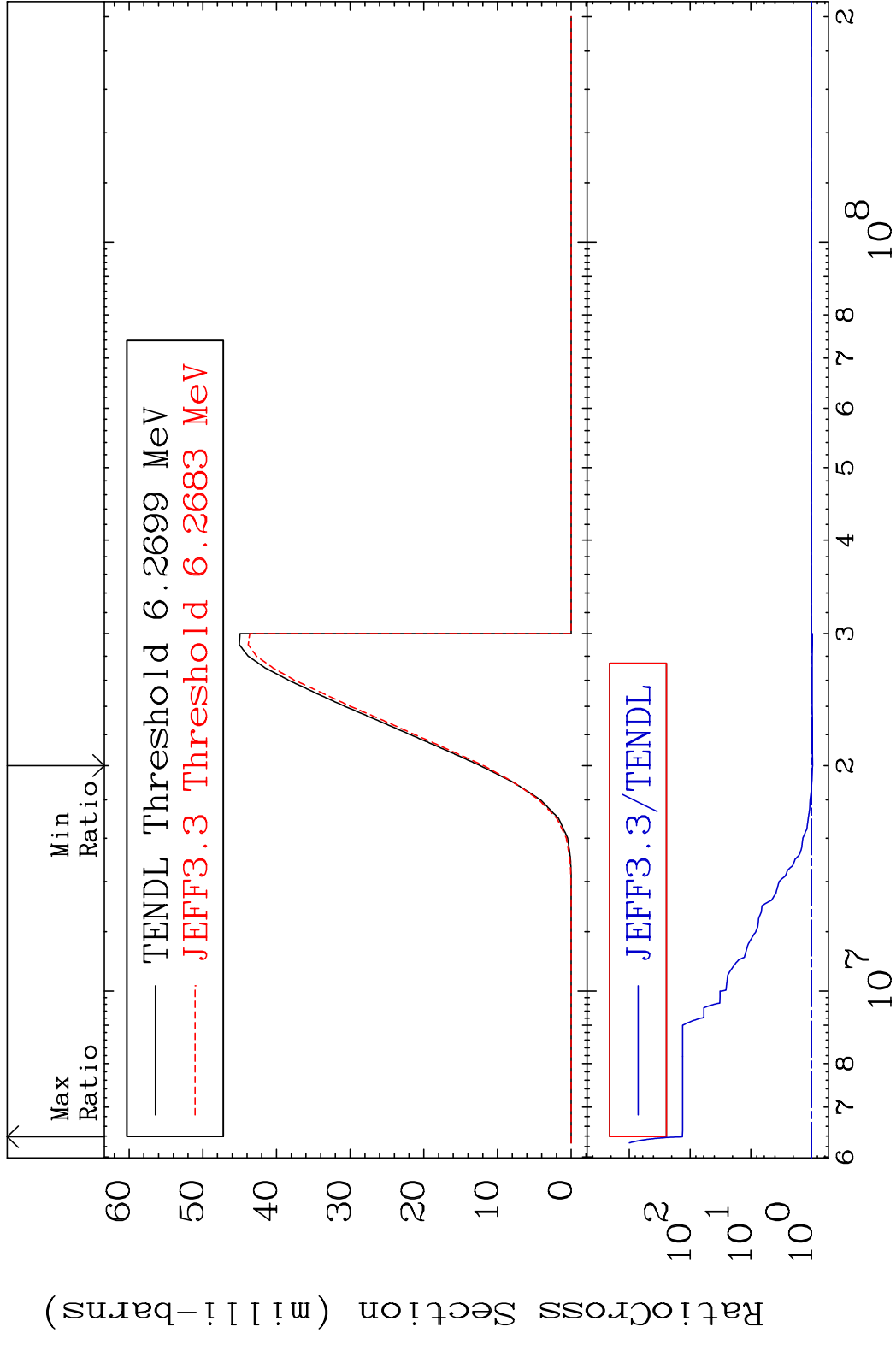
80 Incident Energy (MeV) 40-Zr-89



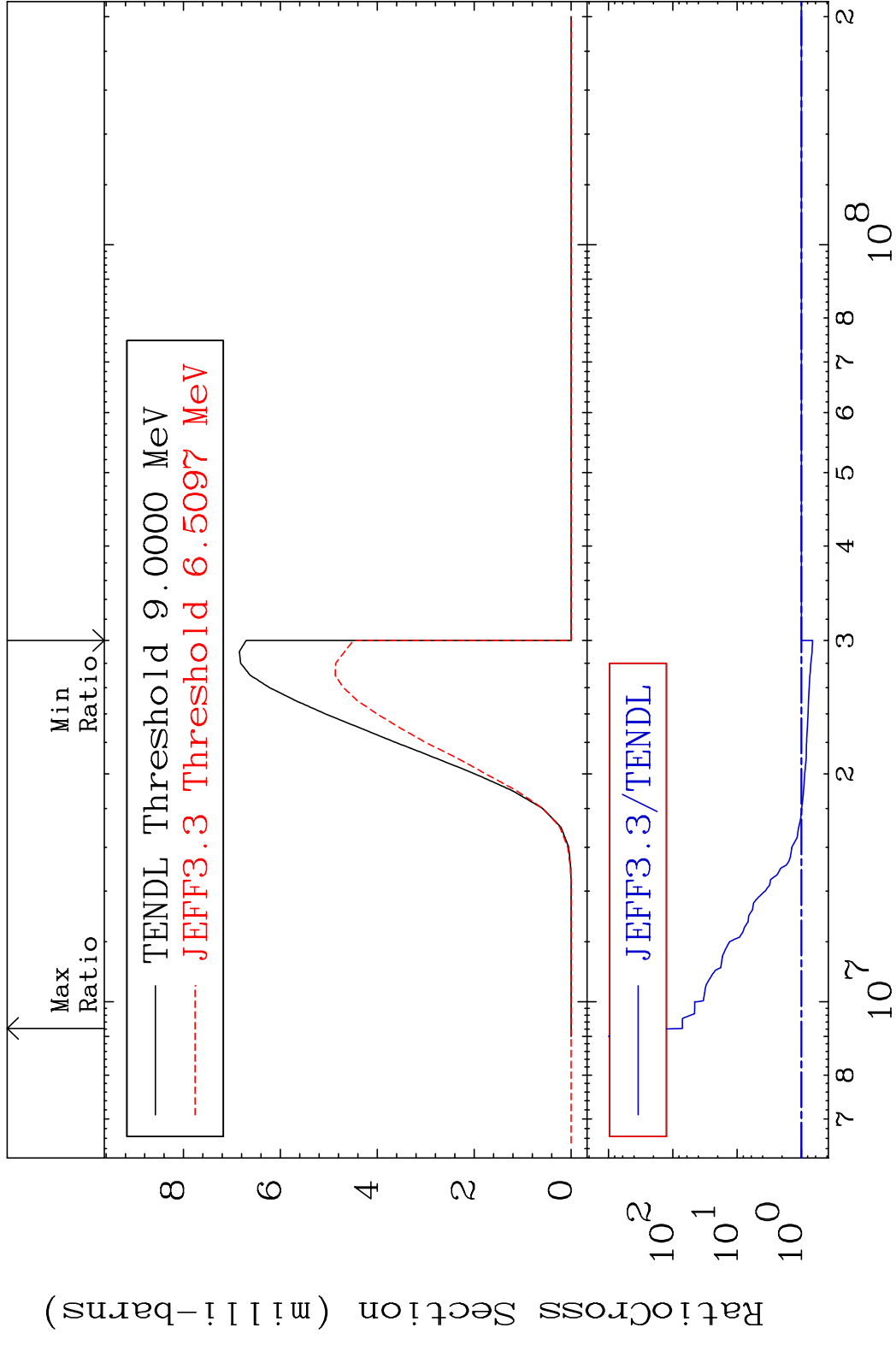
MAT 4022 (n,3n):40-Zr-87m2 40-Zr-89
 Radionuclide Production Cross Section 178.1 %



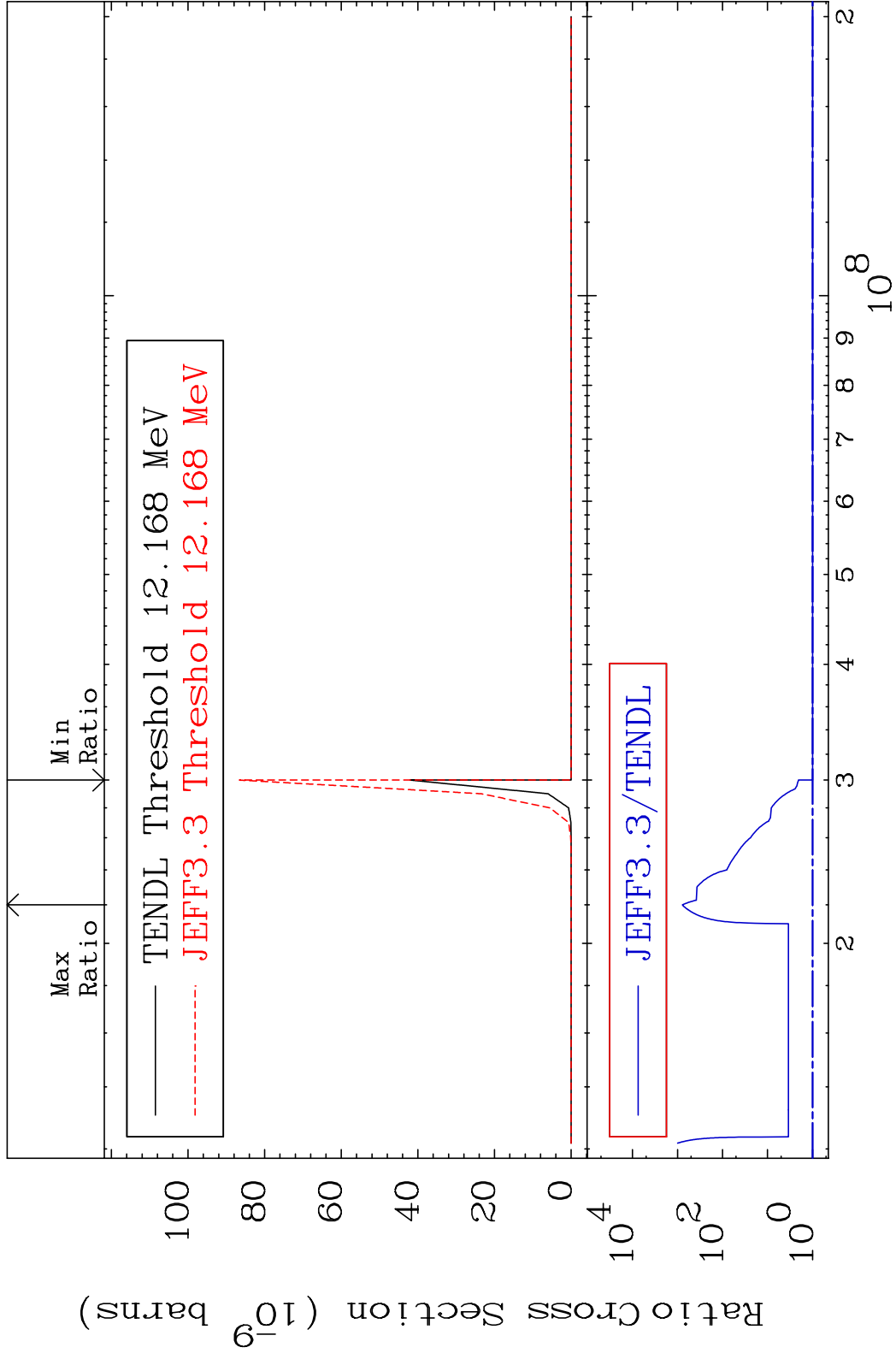
MAT 4022 (n, n') α :38-Sr-85g 40-Zr-89
 Radionuclide Production Cross Section 9999. %

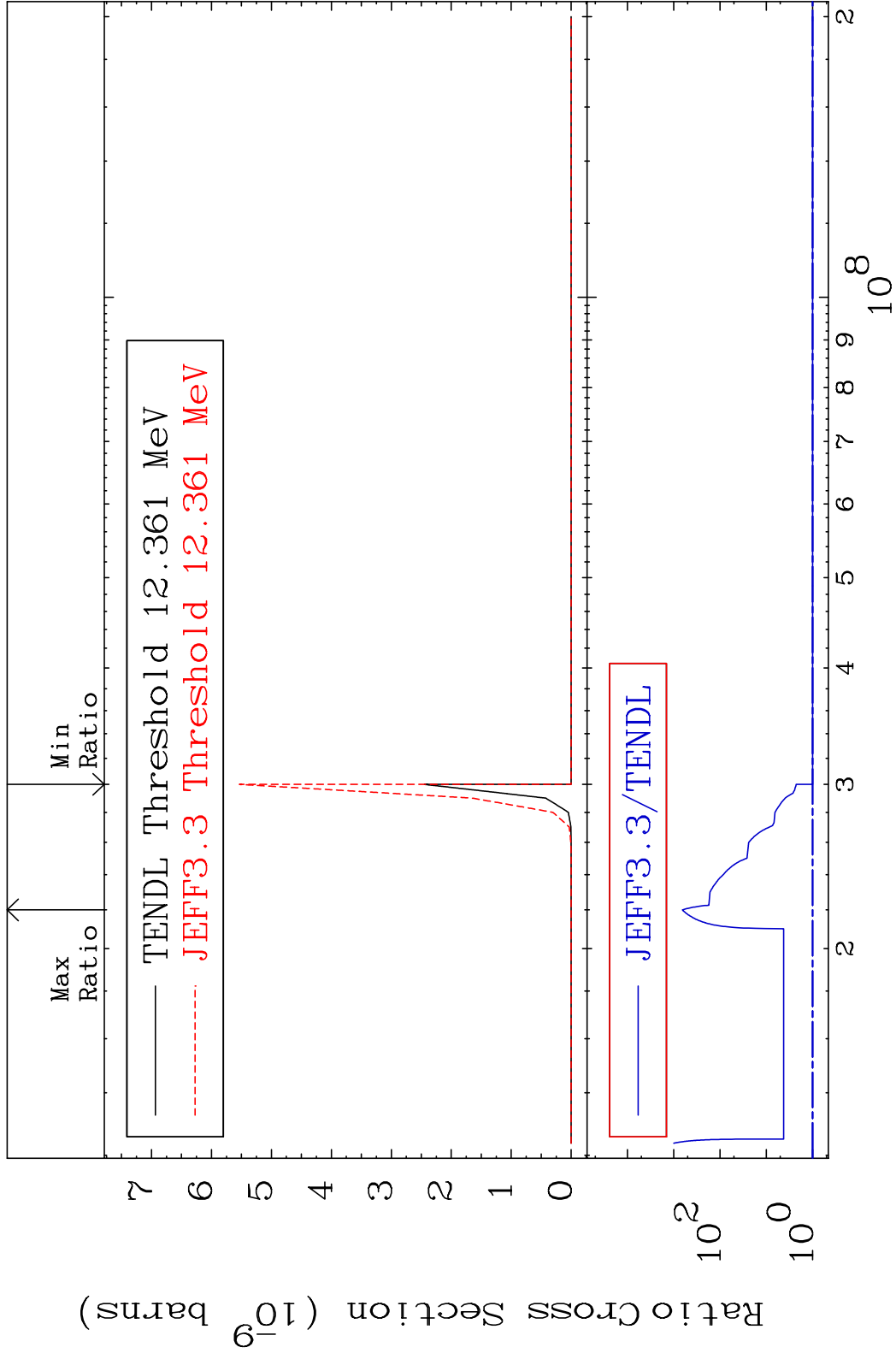


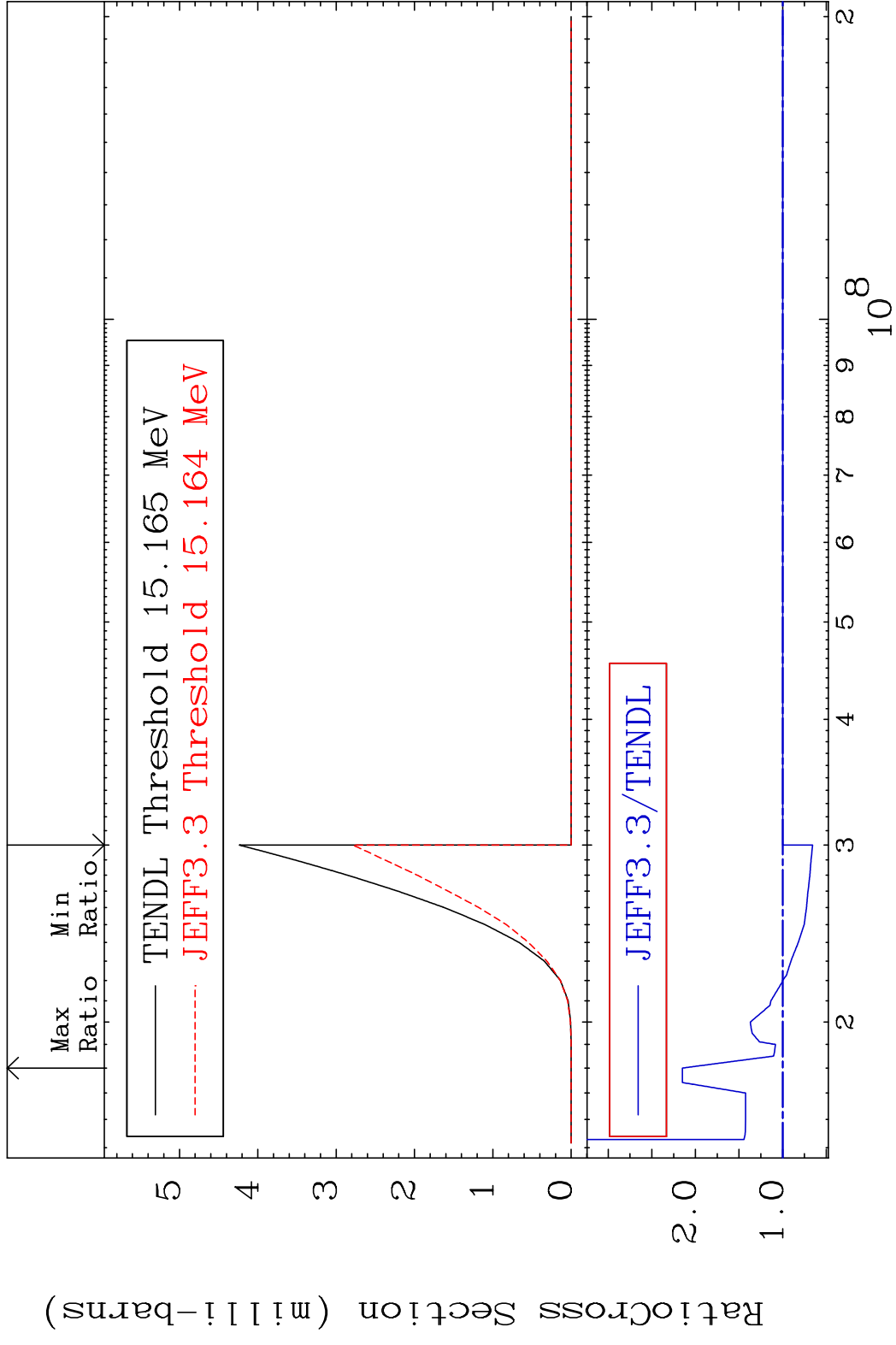
MAT 4022 (n, n') α :38-Sr-85m2 40-Zr-89
 Radionuclide Production Cross Section 6990. %

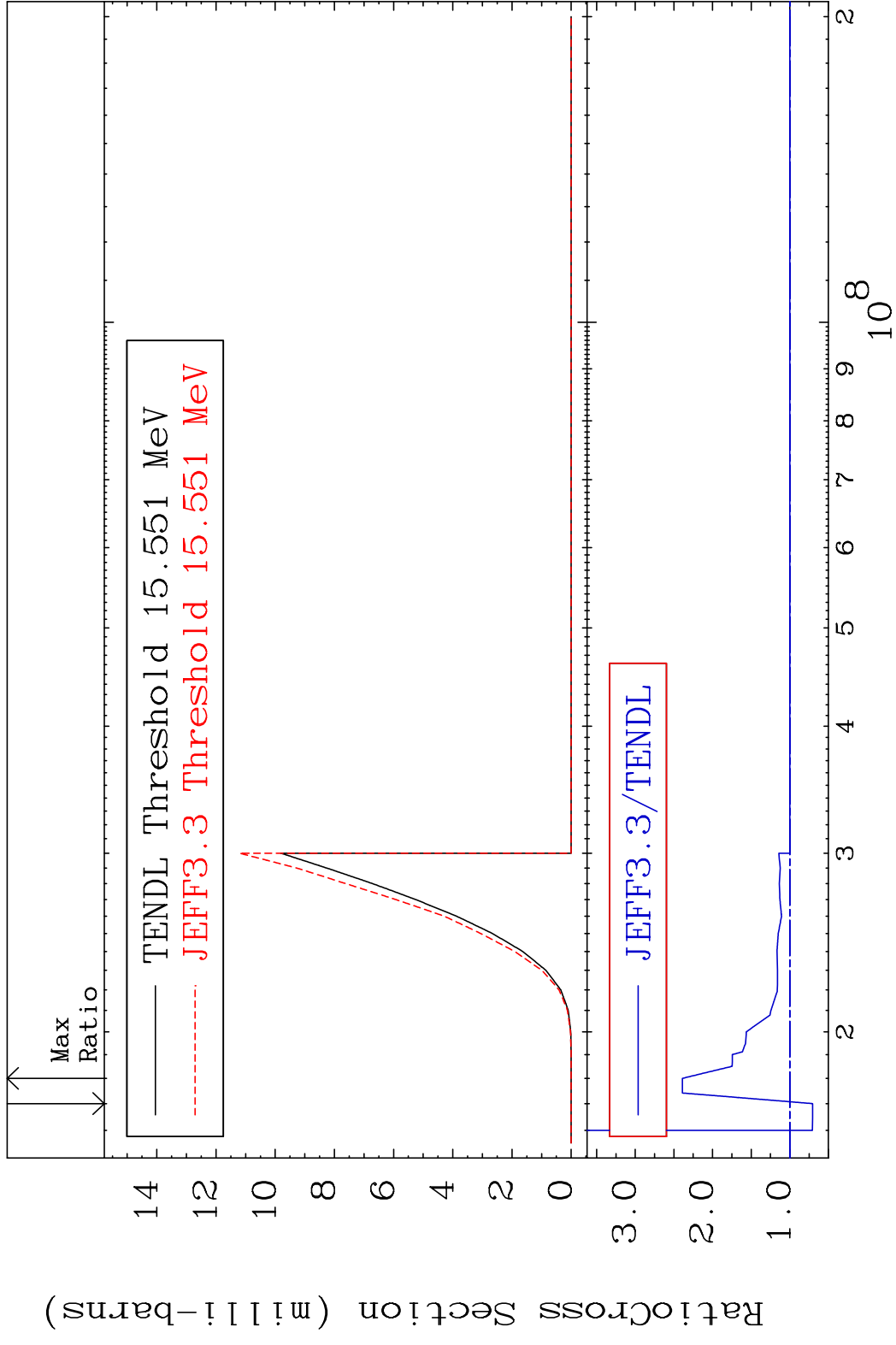


84 Incident Energy (eV) 40-Zr-89

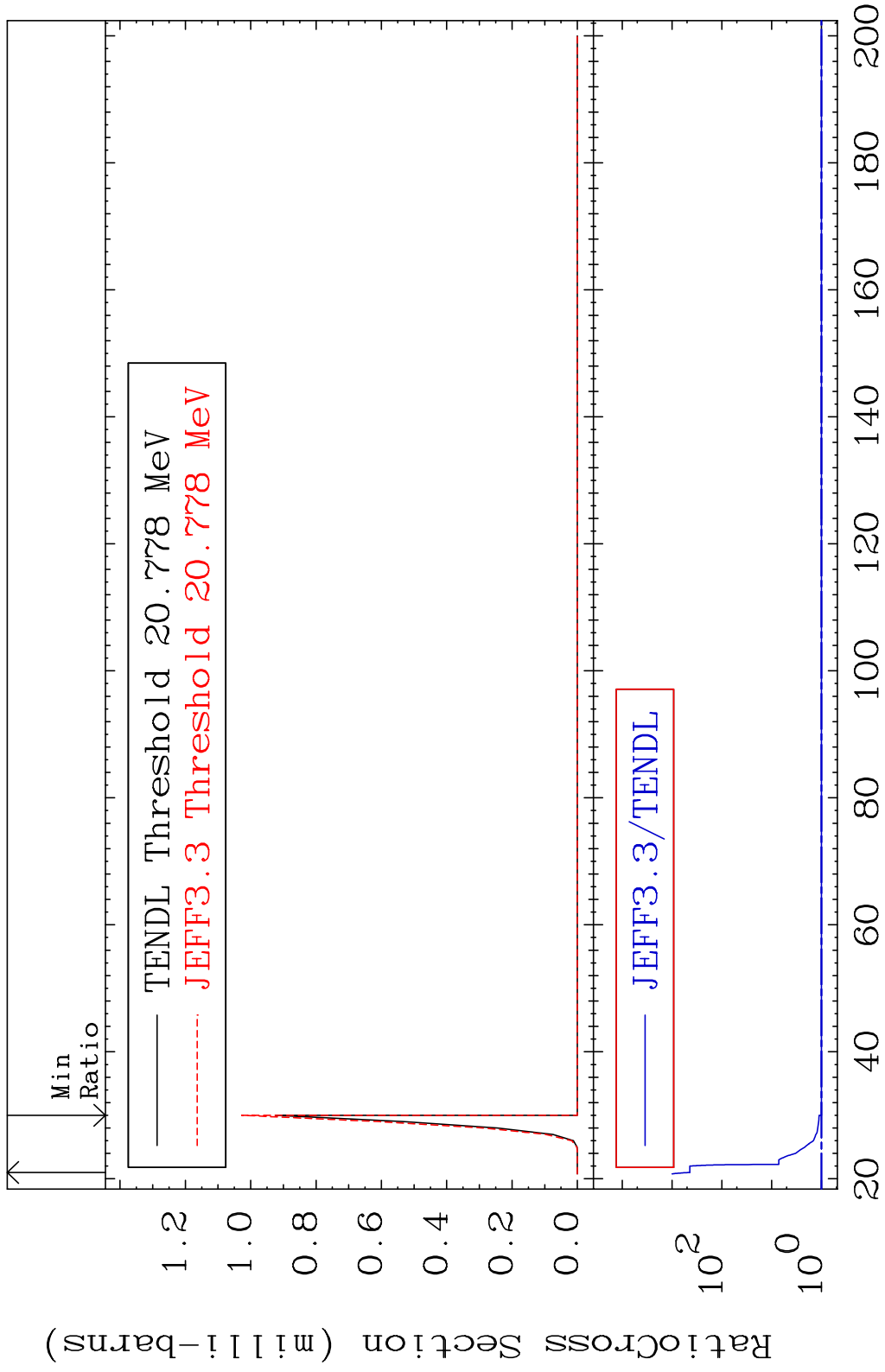




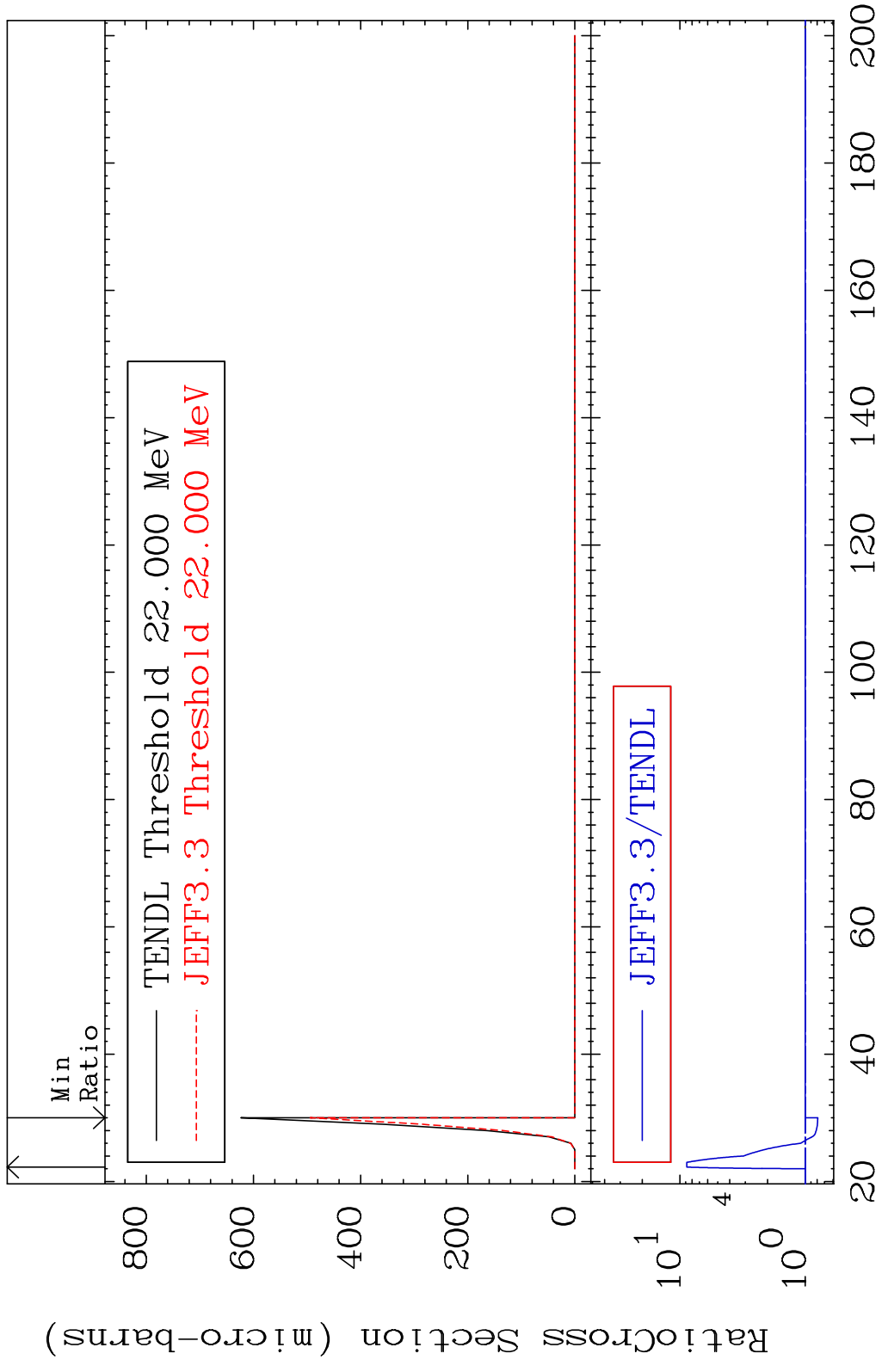




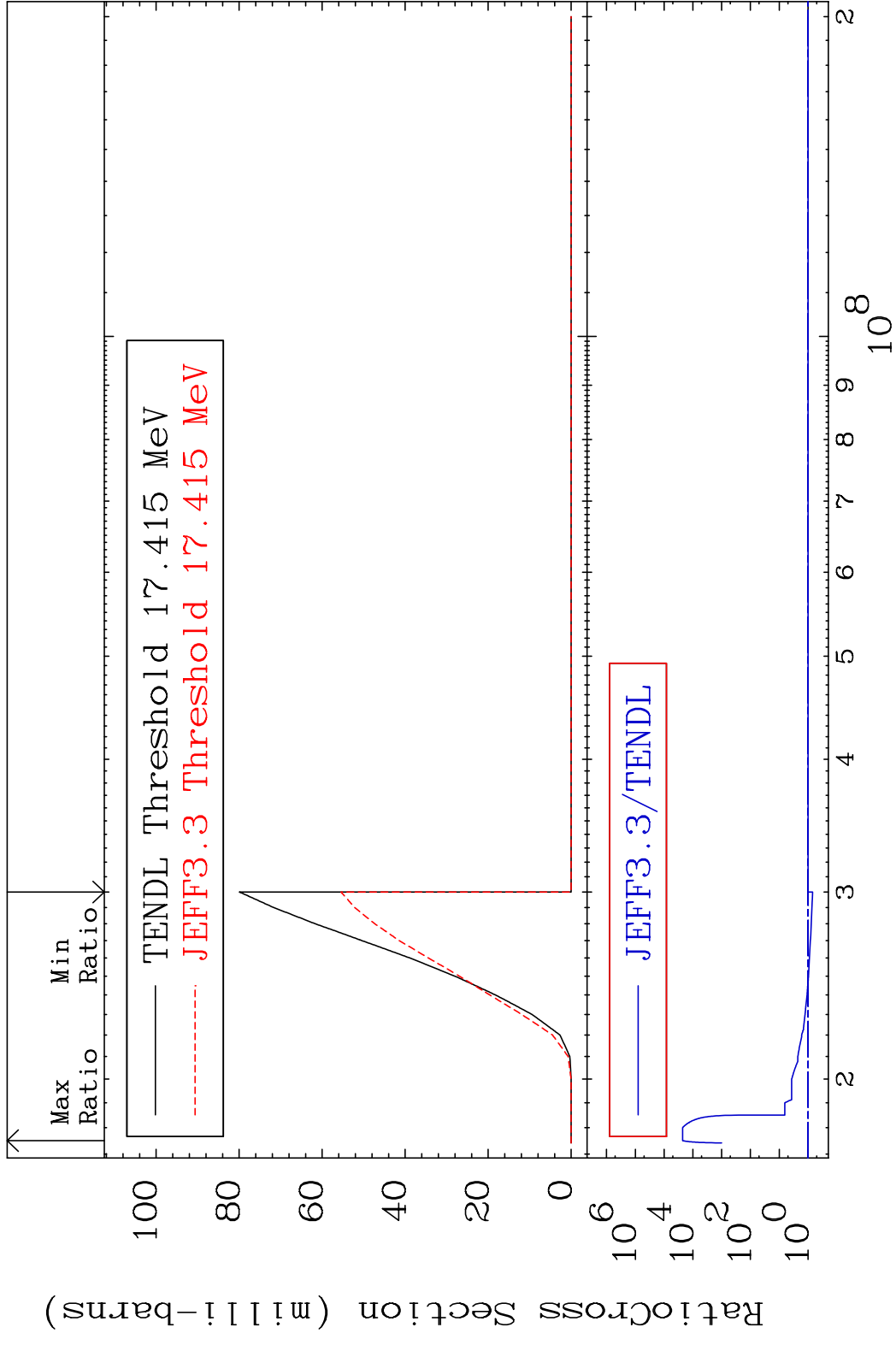
MAT 4022 (n, n') t:39-Y -86g 40-Zr-89
 Radionuclide Production Cross Section 9999. %

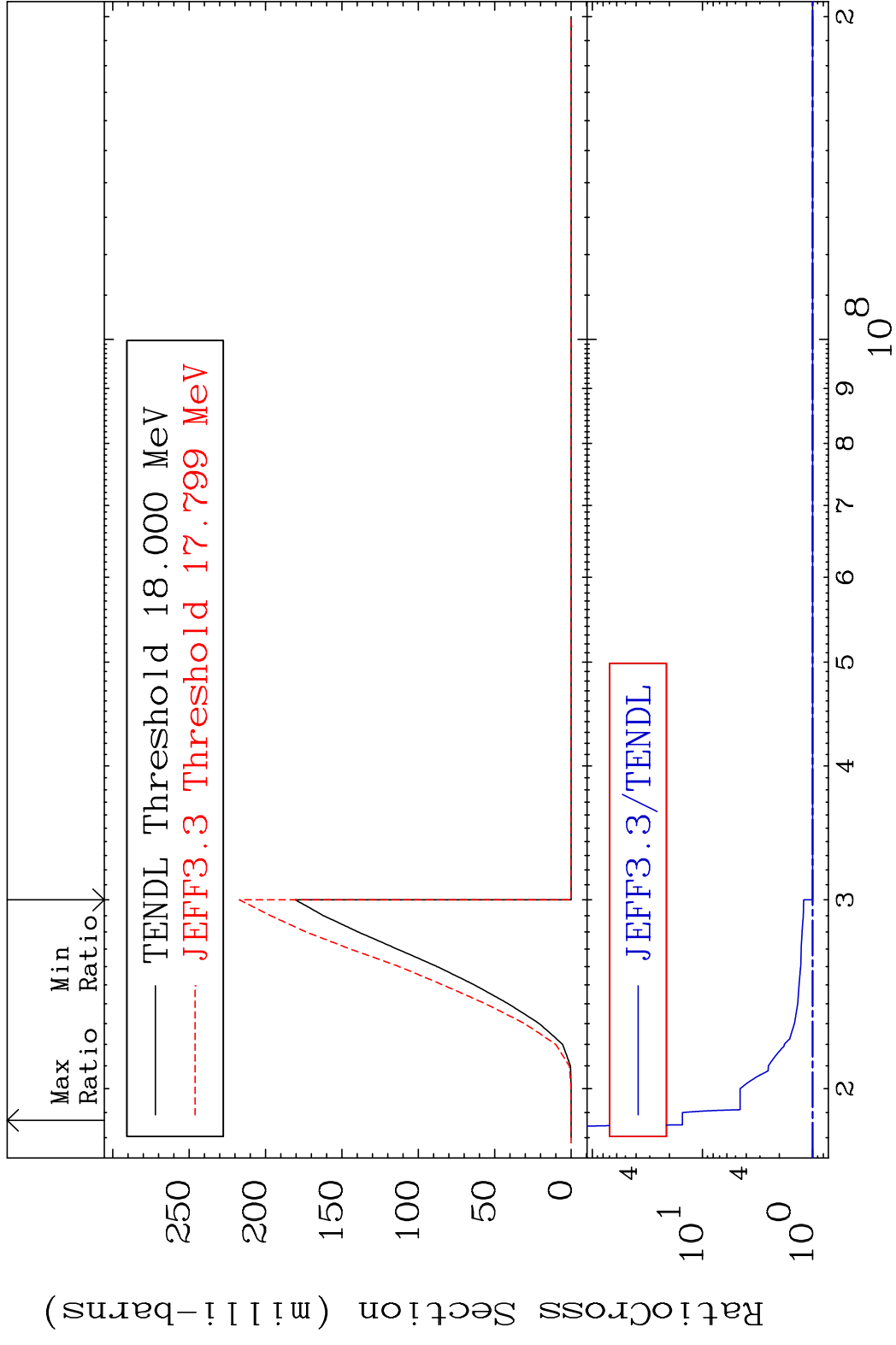


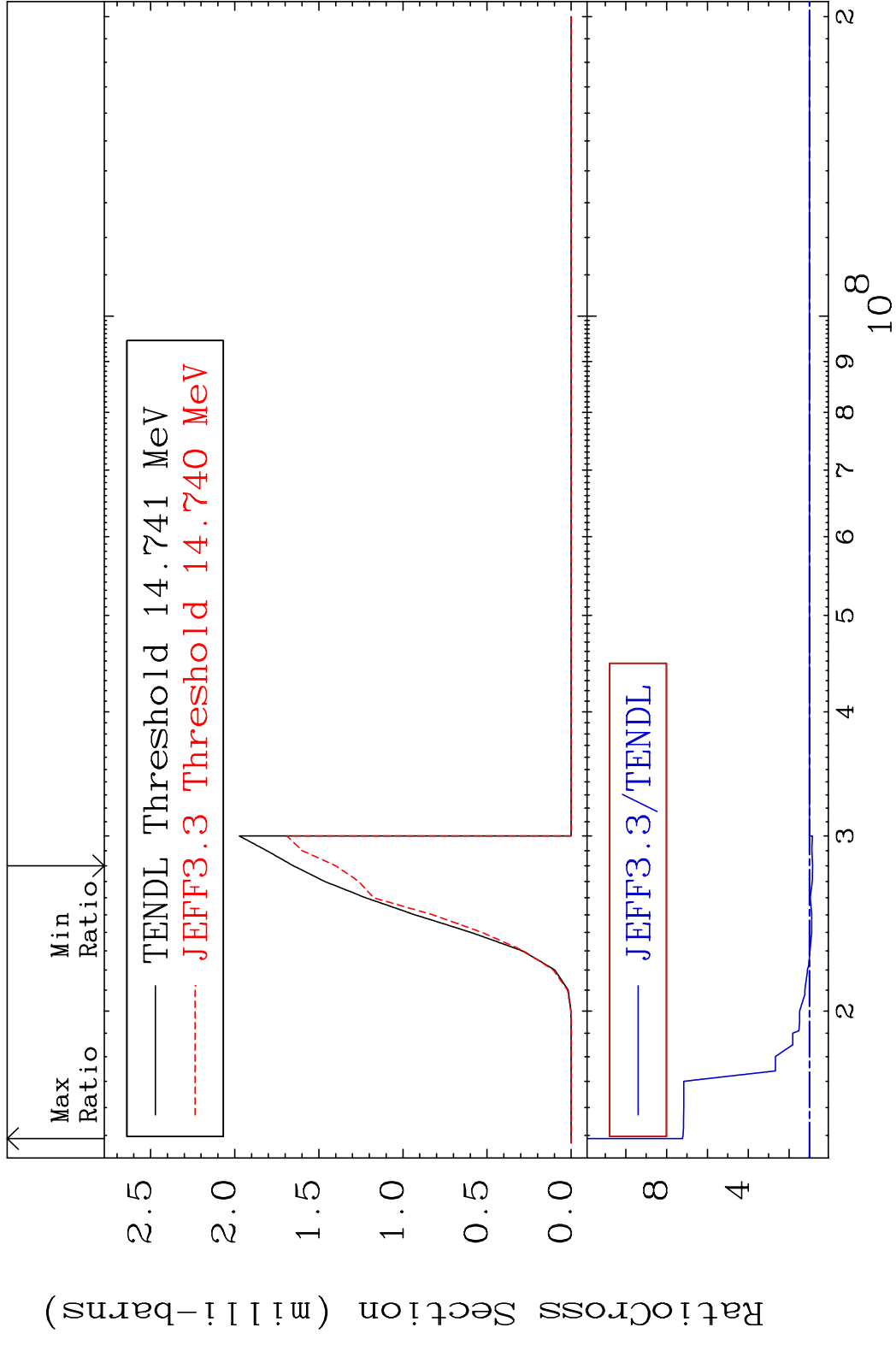
MAT 4022 (n, n') t:39-Y -86m2 40-Zr-89
 Radionuclide Production Cross Section 783.2 %

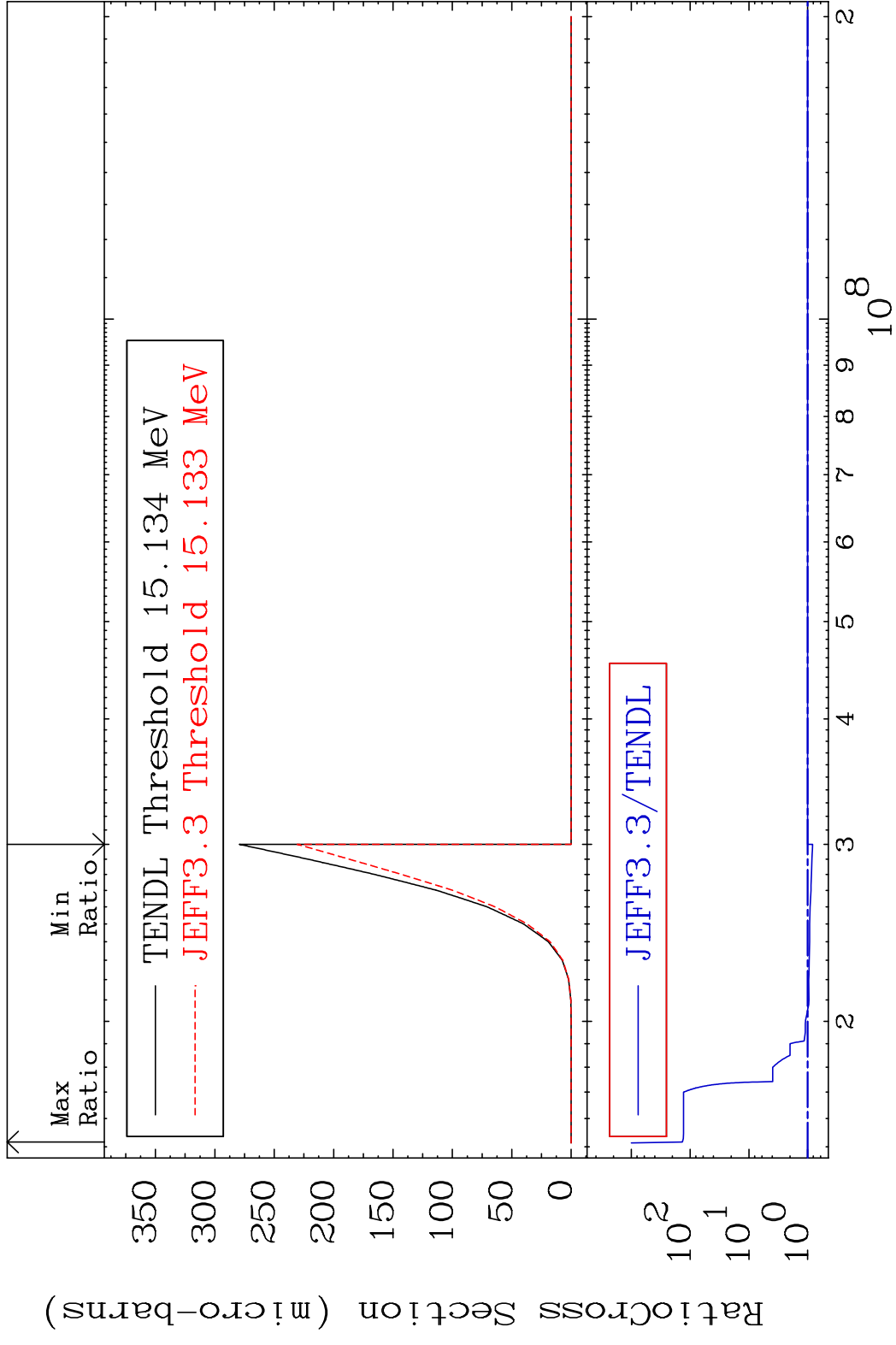


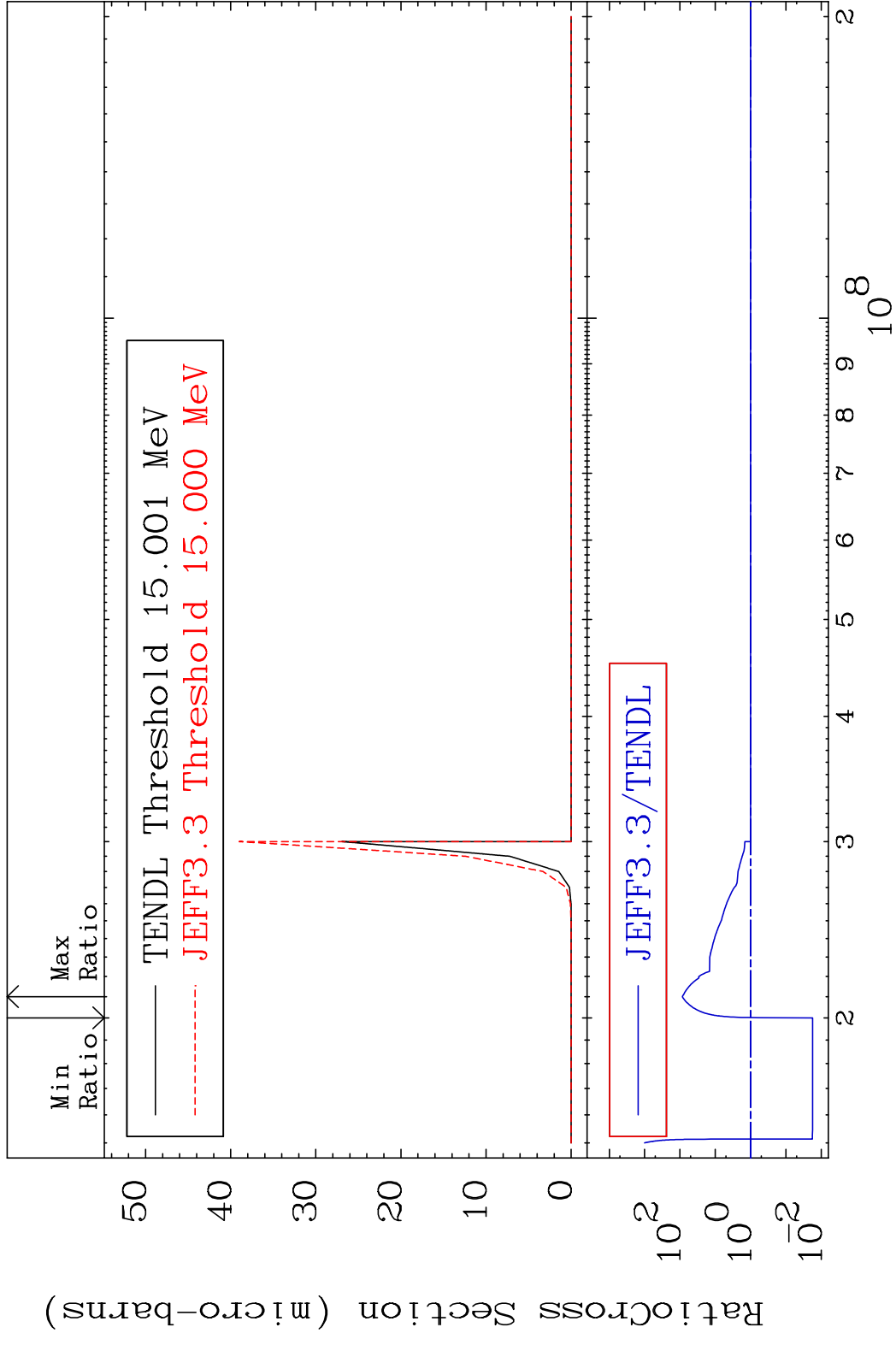
90 Incident Energy (MeV) 40-Zr-89

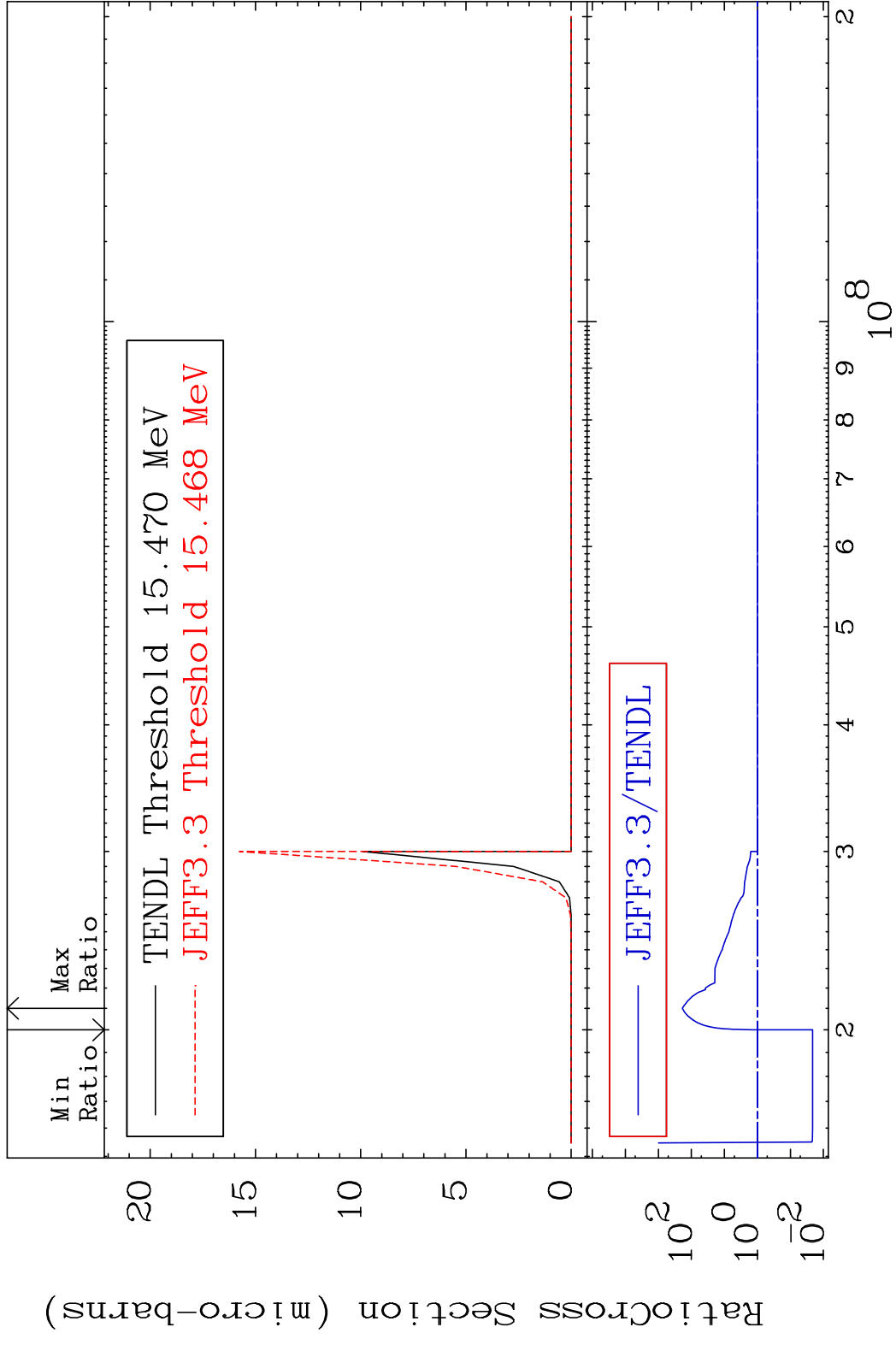


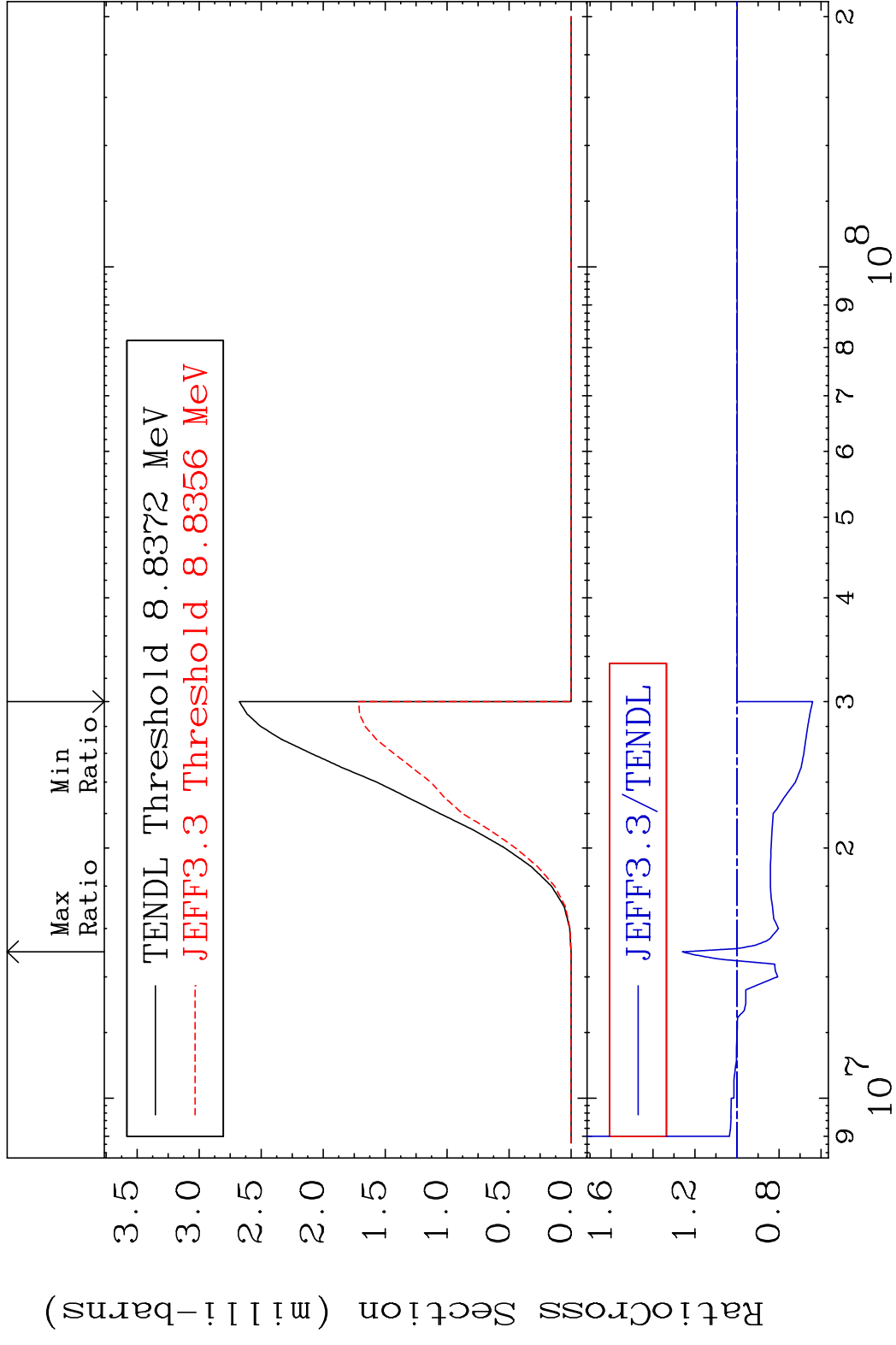




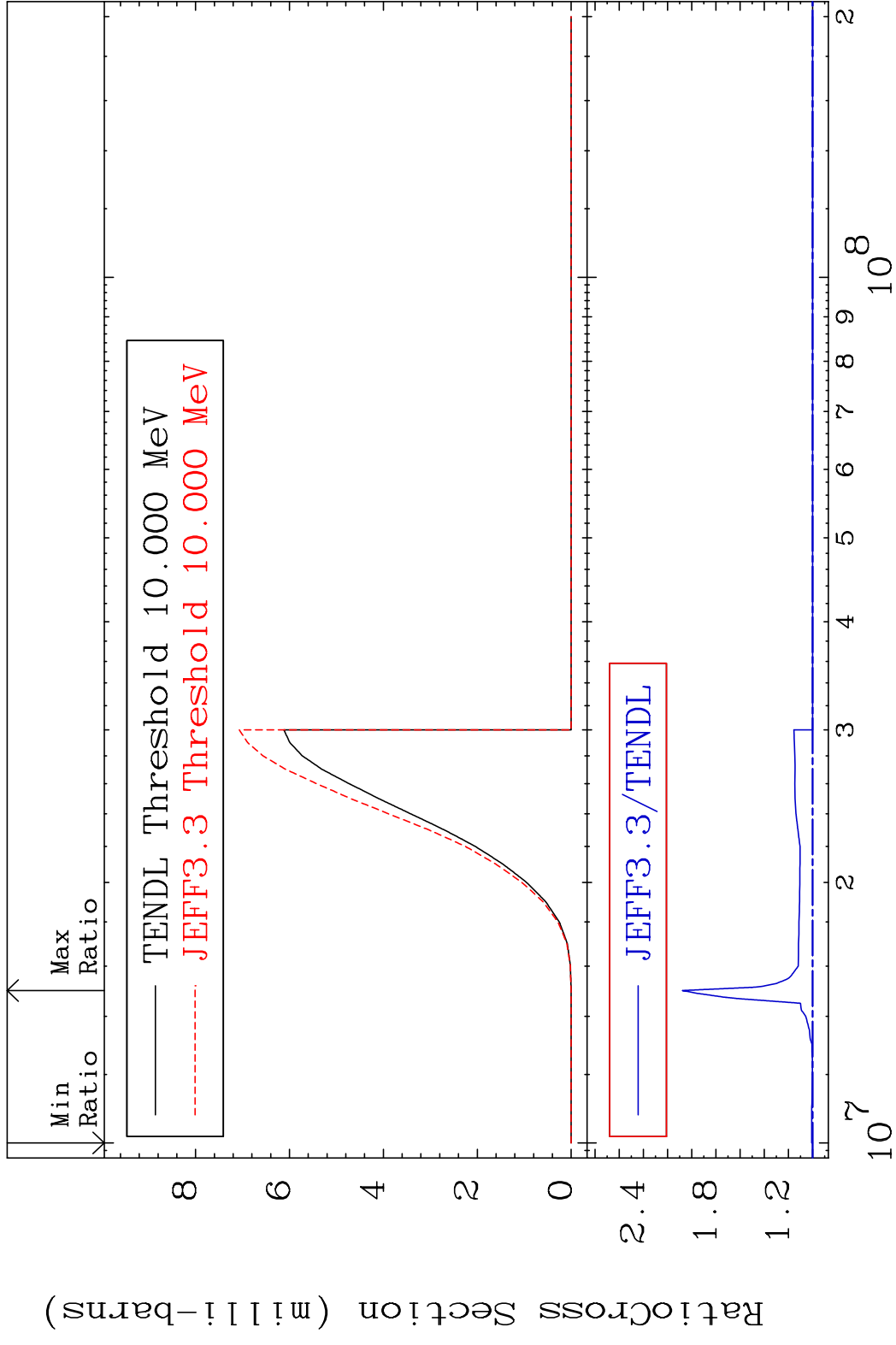




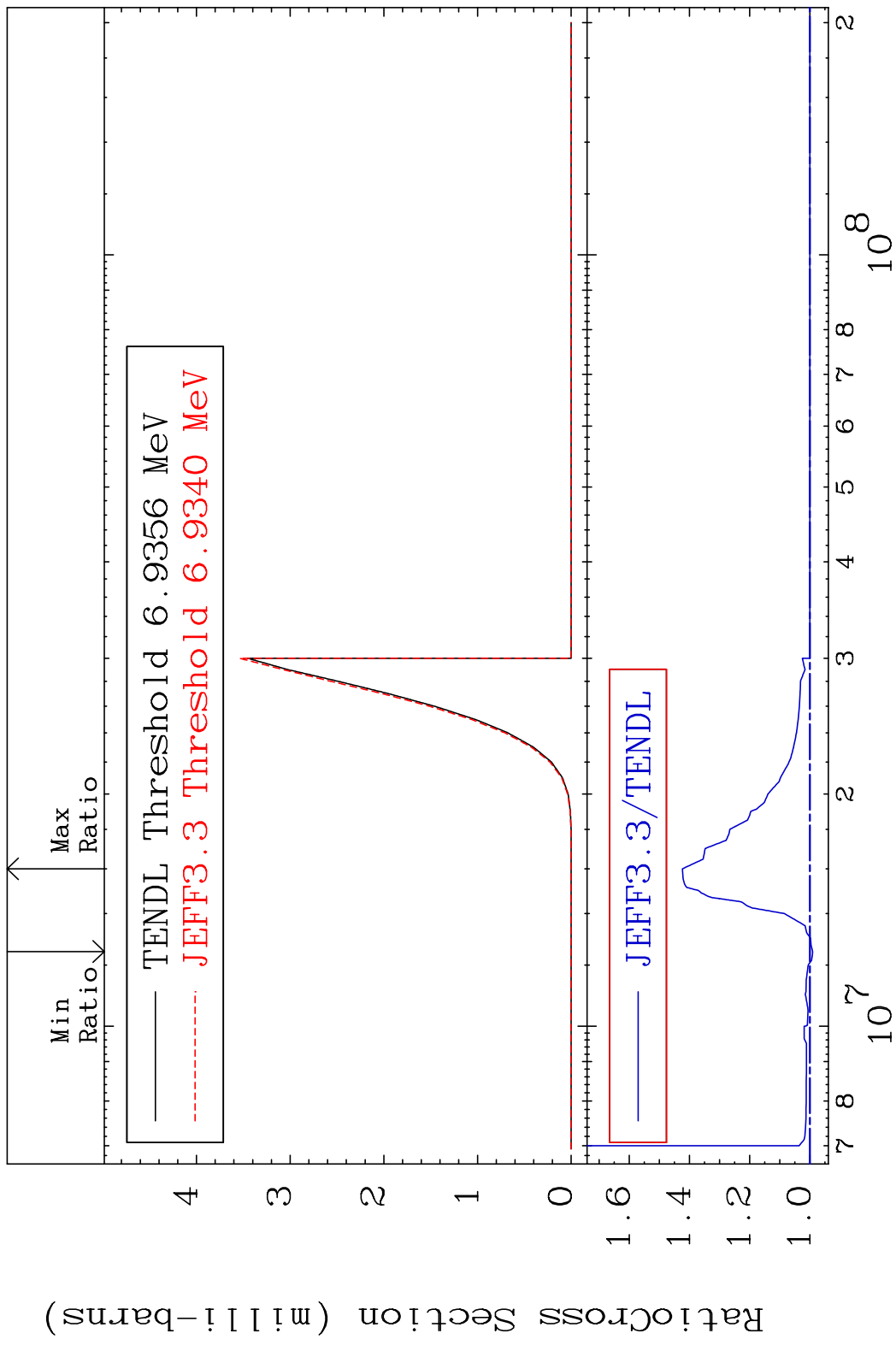




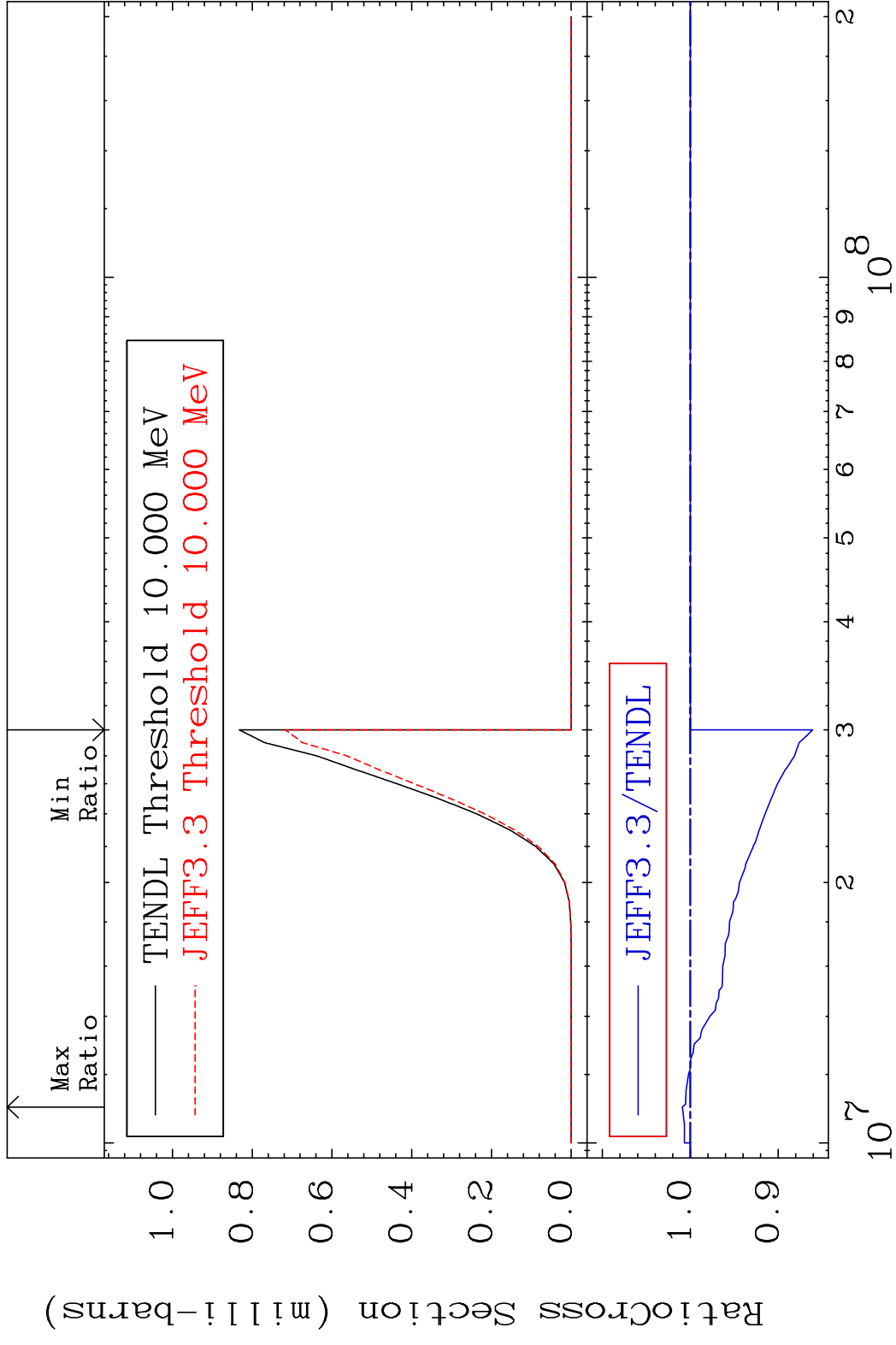
MAT 4022 (n,t):39-Y-87m1 40-Zr-89
 Radionuclide Production Cross Section 107.8 %



98 Incident Energy (eV) 40-Zr-89



MAT 4022 (n, He-3) : 38-Sr-87m1 40-Zr-89
 Radionuclide Production Cross Section 136.911 mb 0.907 %



100 Incident Energy (eV) 40-Zr-89

