

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  
Web:redcullen1.net/HOMEPAGE.NEW

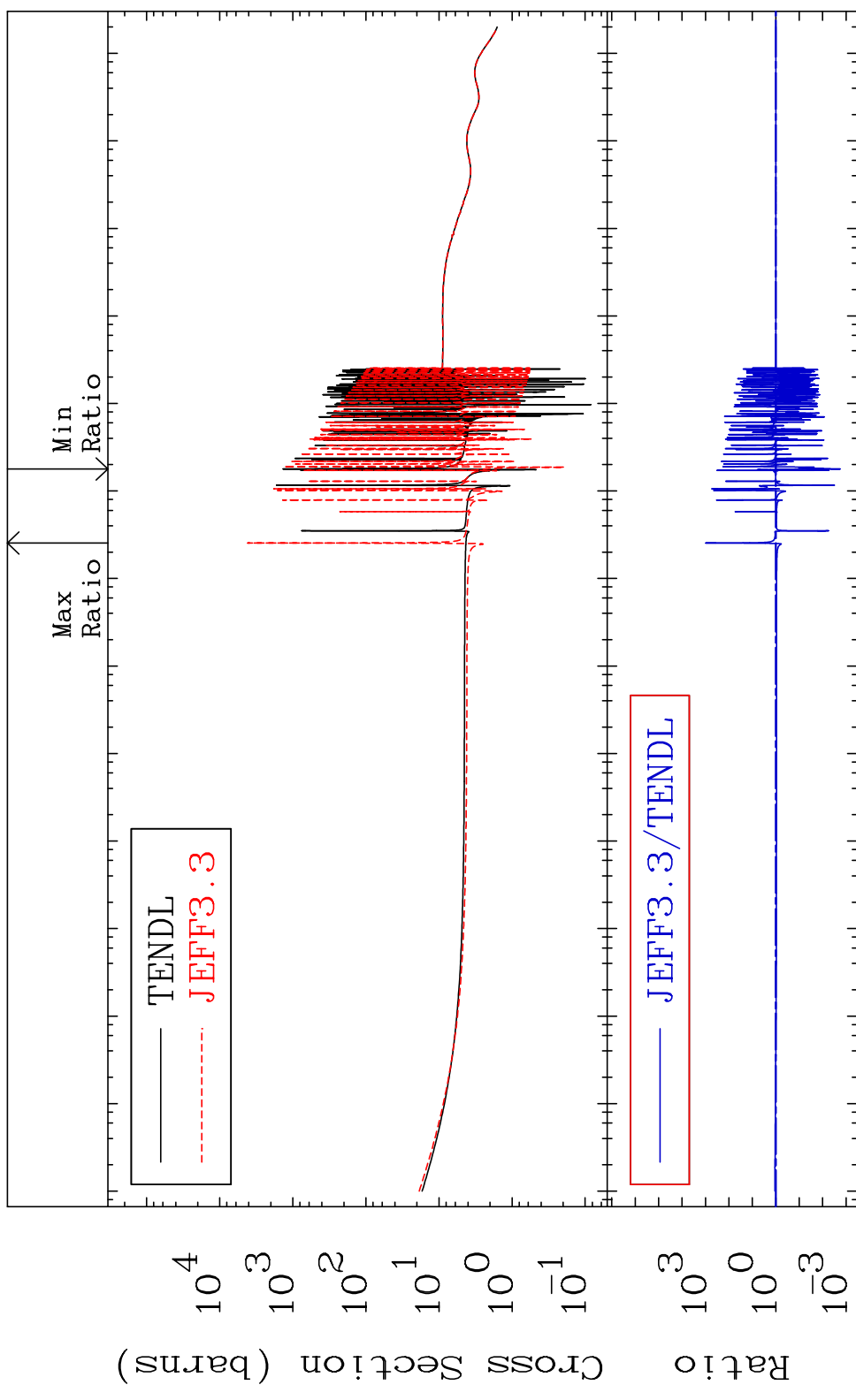
Press Mouse Button to Start

MAT 4425

Total

44-Ru-96

Cross Section -99.83 To 9999. %



1

Incident Energy (eV)

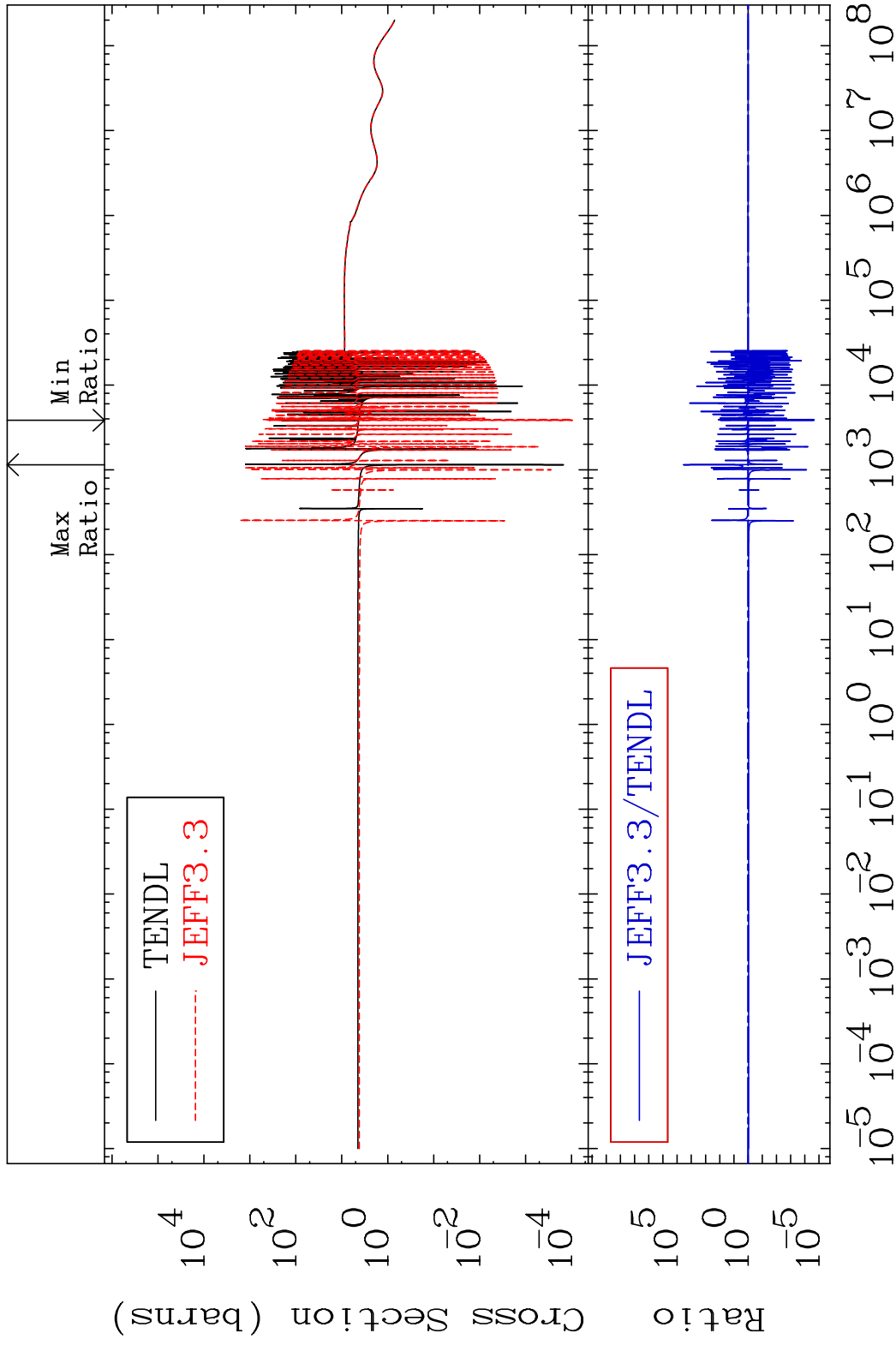
44-Ru-96

MAT 4425

Elastic

44-Ru-96

Cross Section -100.0 To 9999. %

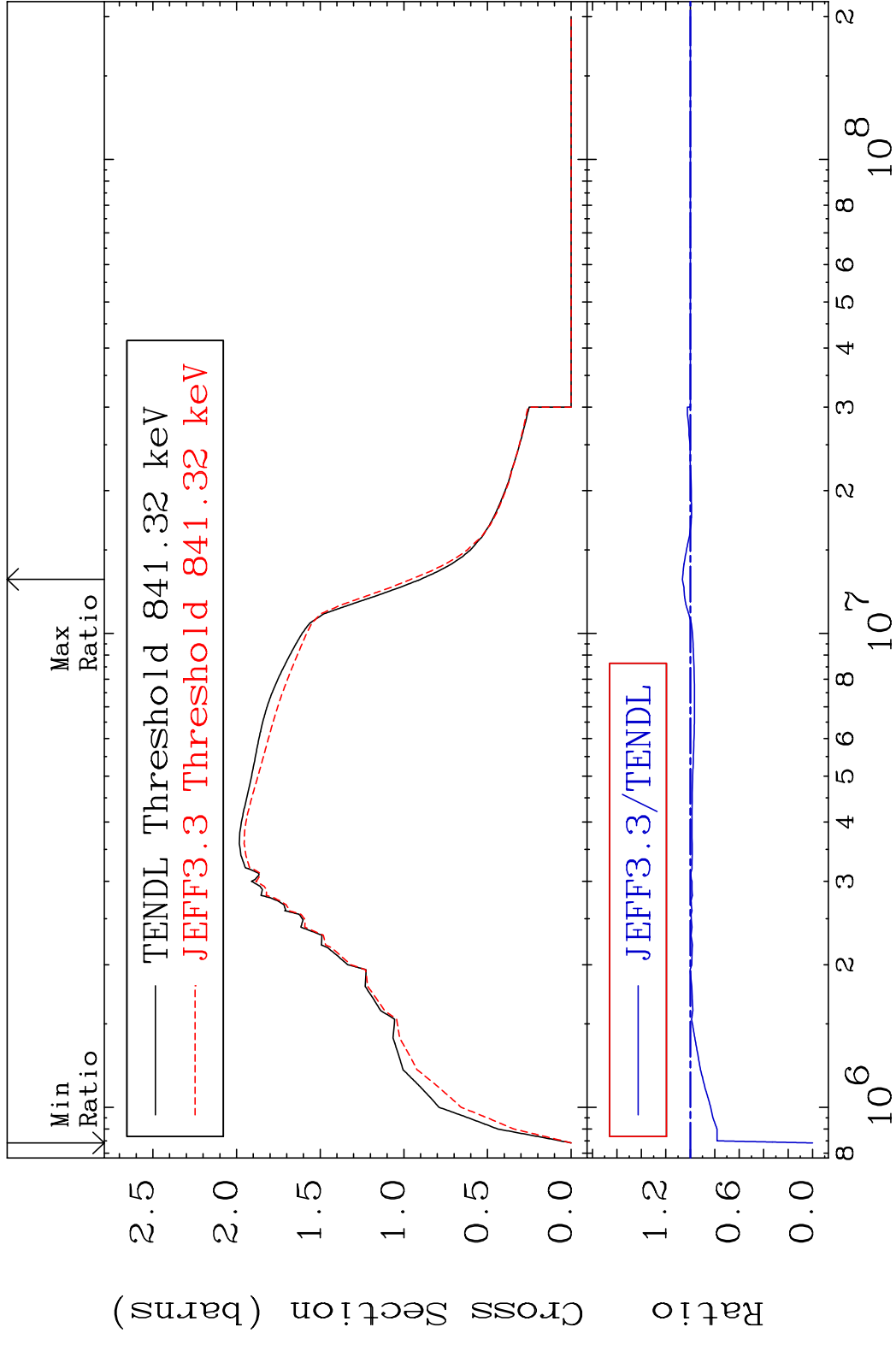


2

Incident Energy (eV)

44-Ru-96

MAT 4425 Inelastic 44-Ru-96  
 Cross Section -100.0 To 6.494 %



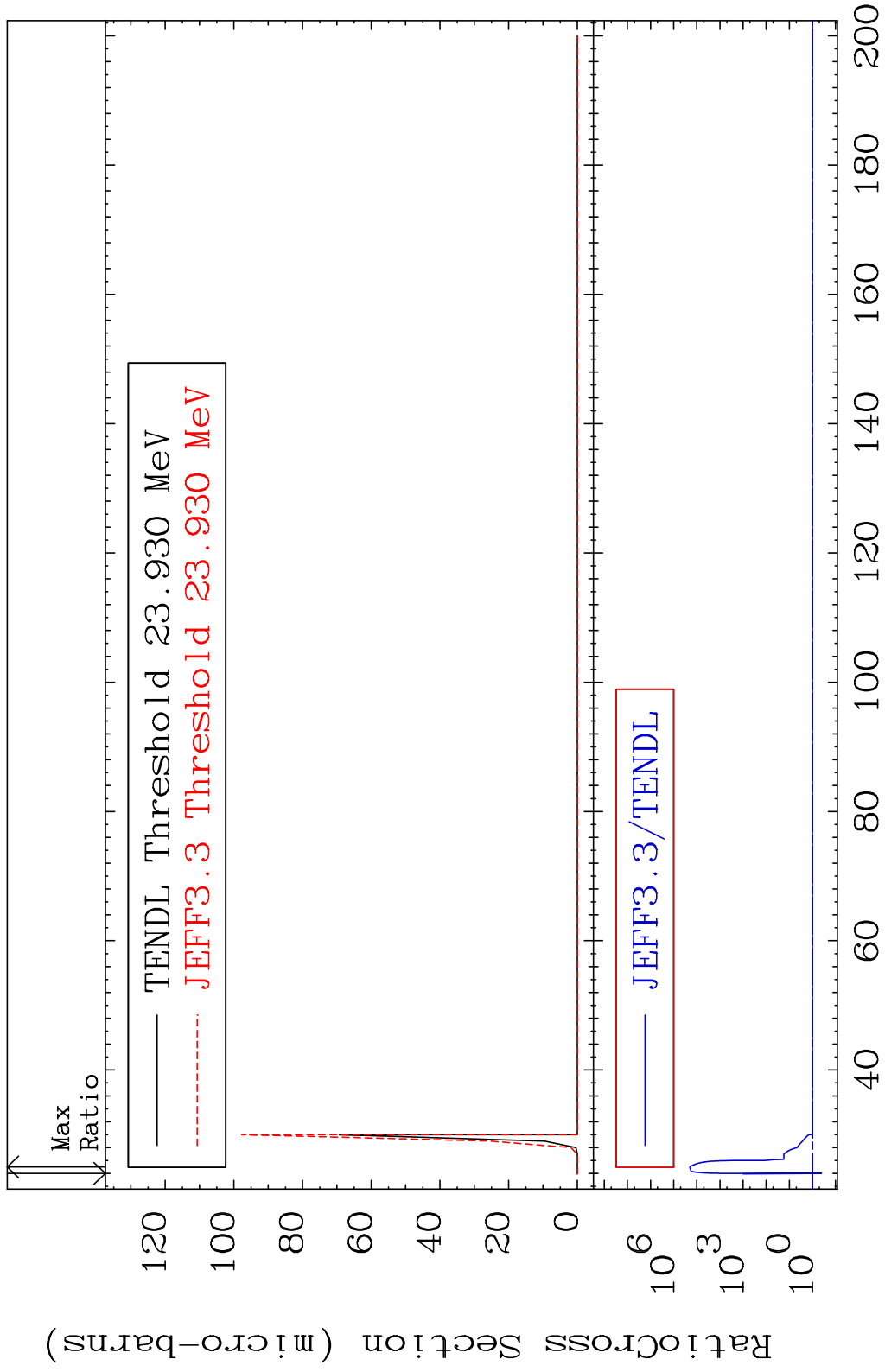
3 8 10<sup>6</sup> 2 3 4 5 6 8 10<sup>7</sup> 2 3 4 5 6 8 10<sup>8</sup> 2 44-Ru-96

MAT 4425

(n,2n) d

44-Ru-96

Cross Section -59.01 To 9999. %

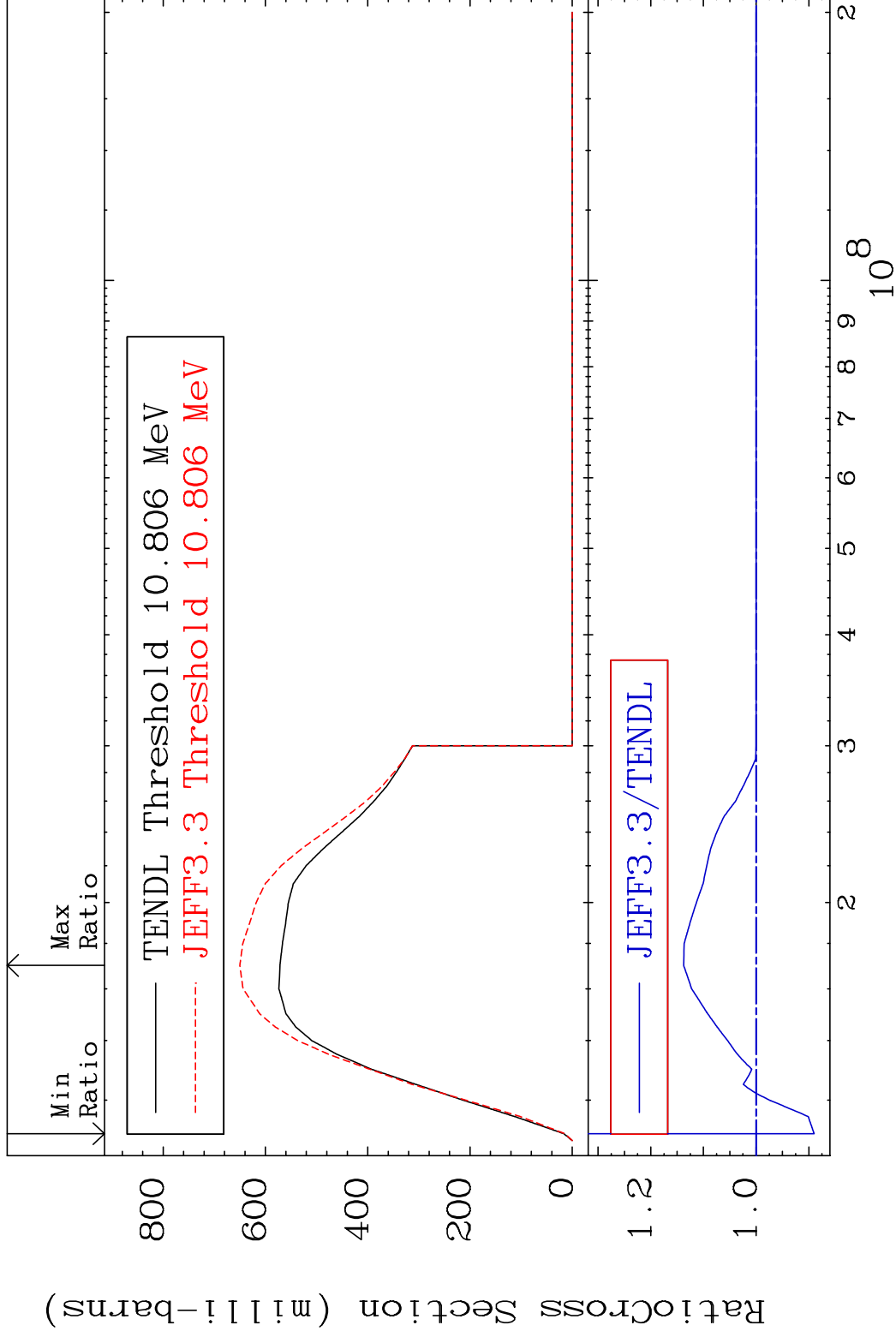


MAT 4425

(n,2n)

44-Ru-96

Cross Section -11.00 To 13.76 %



5

Incident Energy (eV)

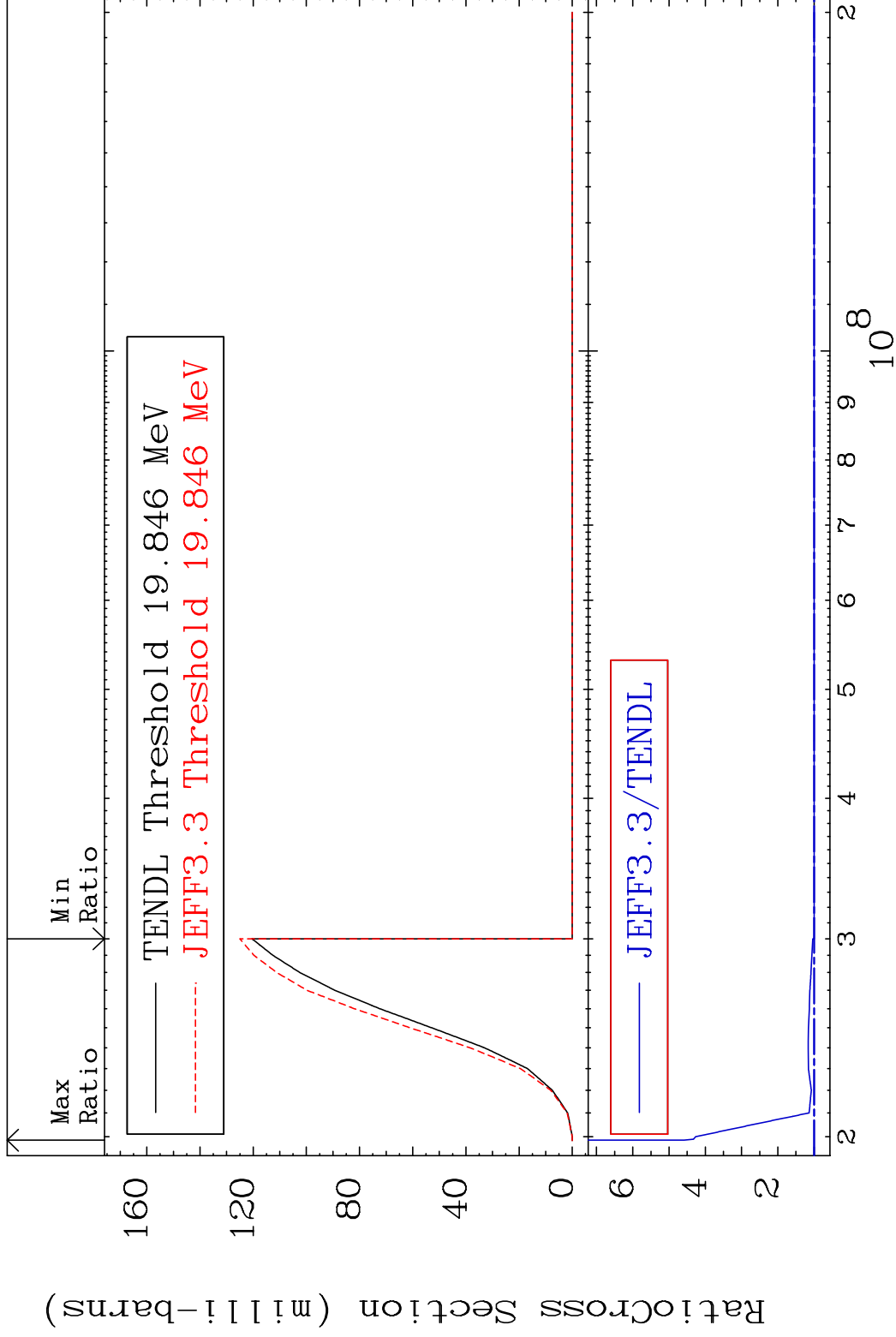
44-Ru-96

MAT 4425

(n,3n)

44-Ru-96

Cross Section 0.000 To 359.7 %



6

44-Ru-96

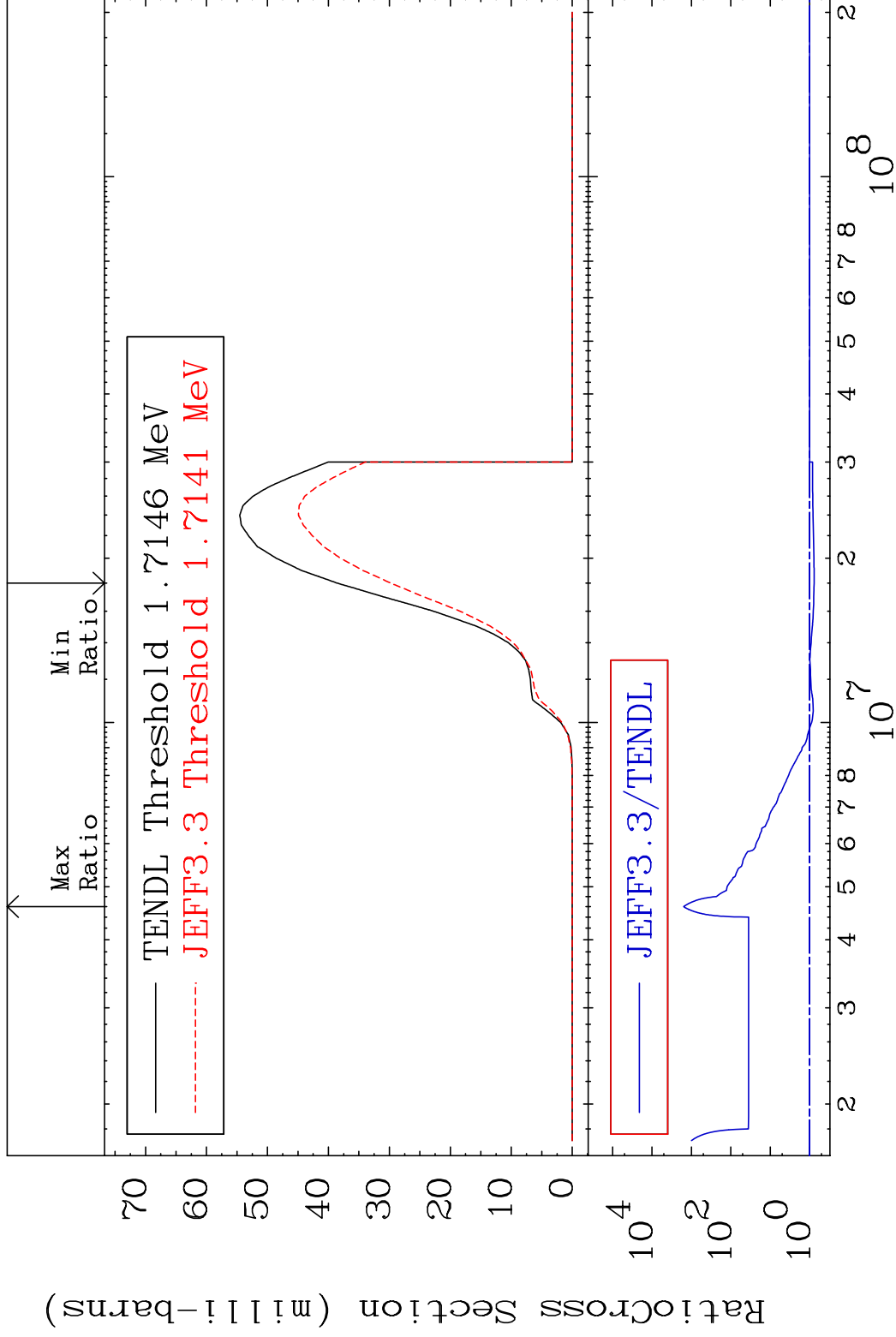
44-Ru-96

MAT 4425

(n, n')  $\alpha$

44-Ru-96

Cross Section -22.77 To 9999. %



7

Incident Energy (eV)

44-Ru-96

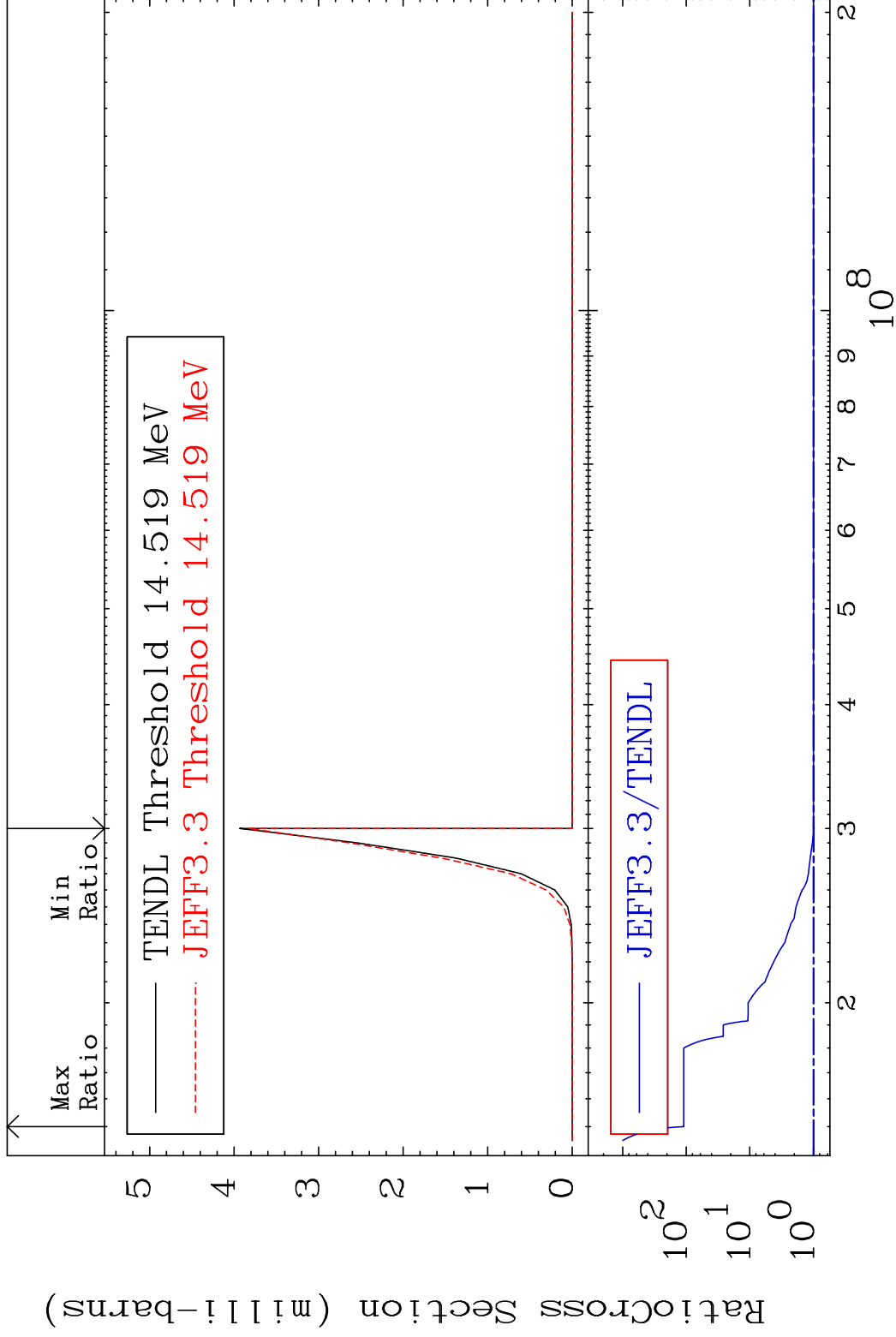


MAT 4425

(n,2n)  $\alpha$

44-Ru-96

Cross Section -2.467 To 9999. %



8

Incident Energy (eV)

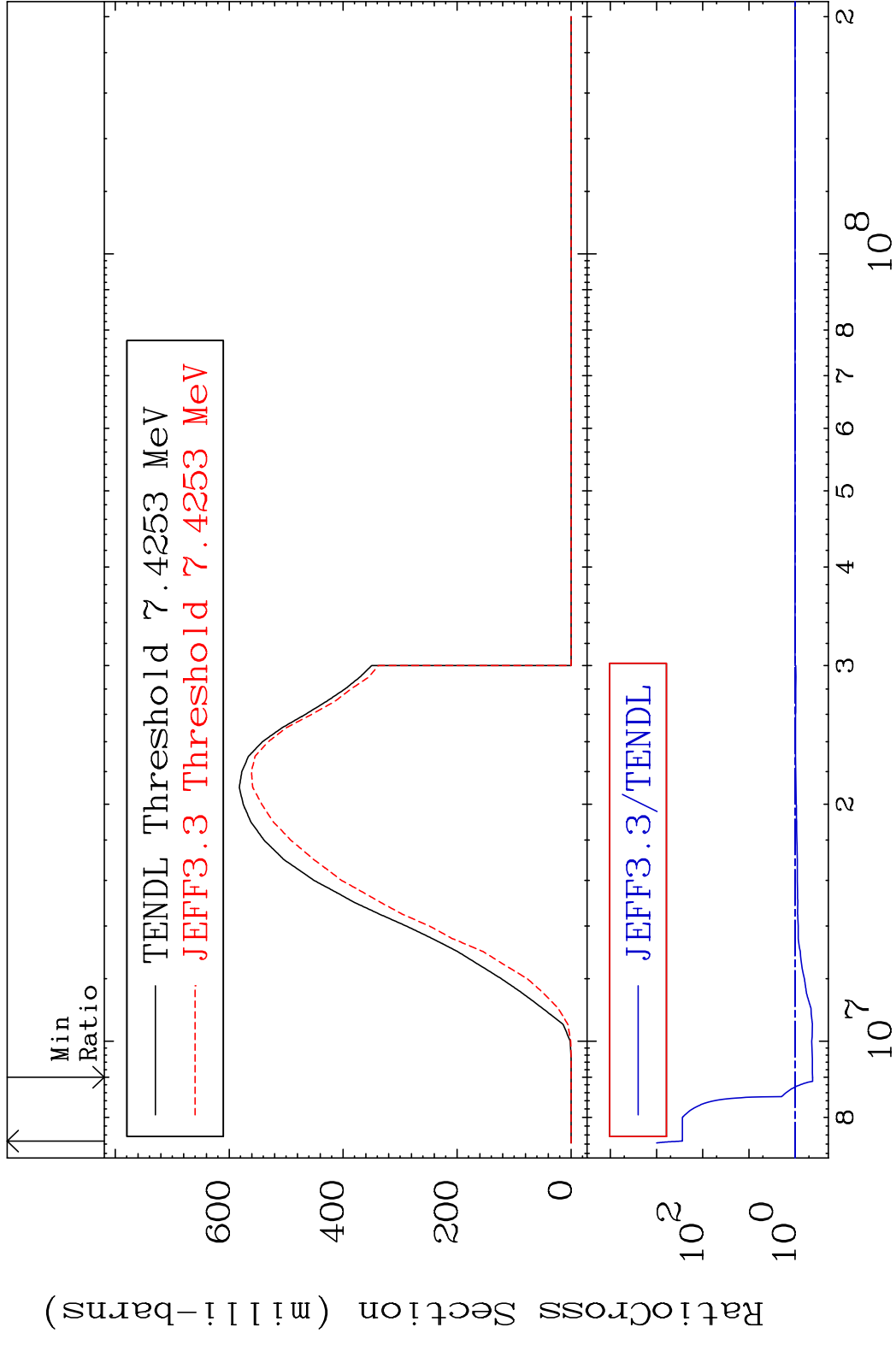
44-Ru-96

MAT 4425

(n, n') p

44-Ru-96

Cross Section -58.08 To 9999. %

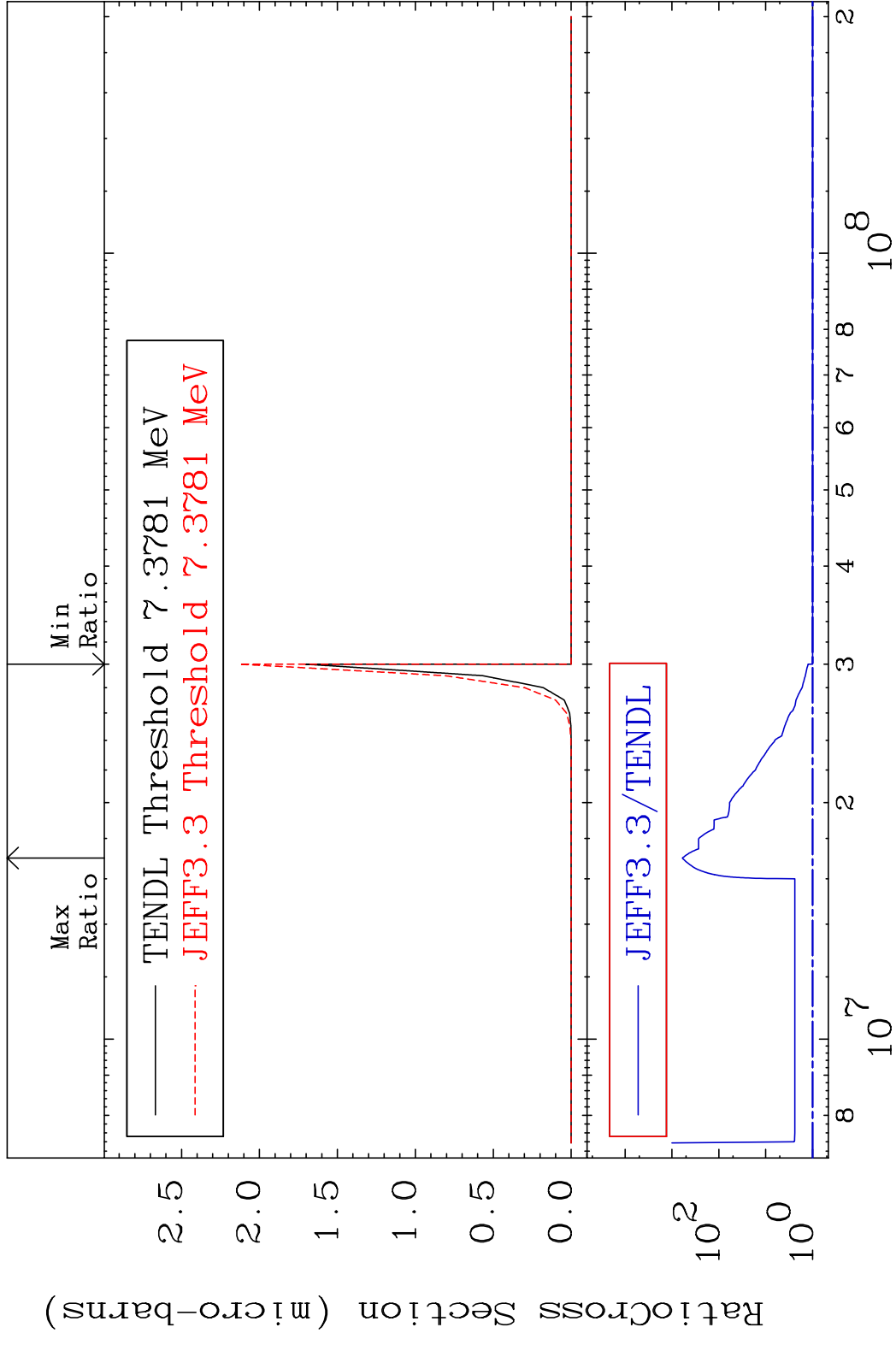


9

Incident Energy (eV)

44-Ru-96

MAT 4425 (n, n') 2α 44-Ru-96  
 Cross Section 0.000 To 9999. %



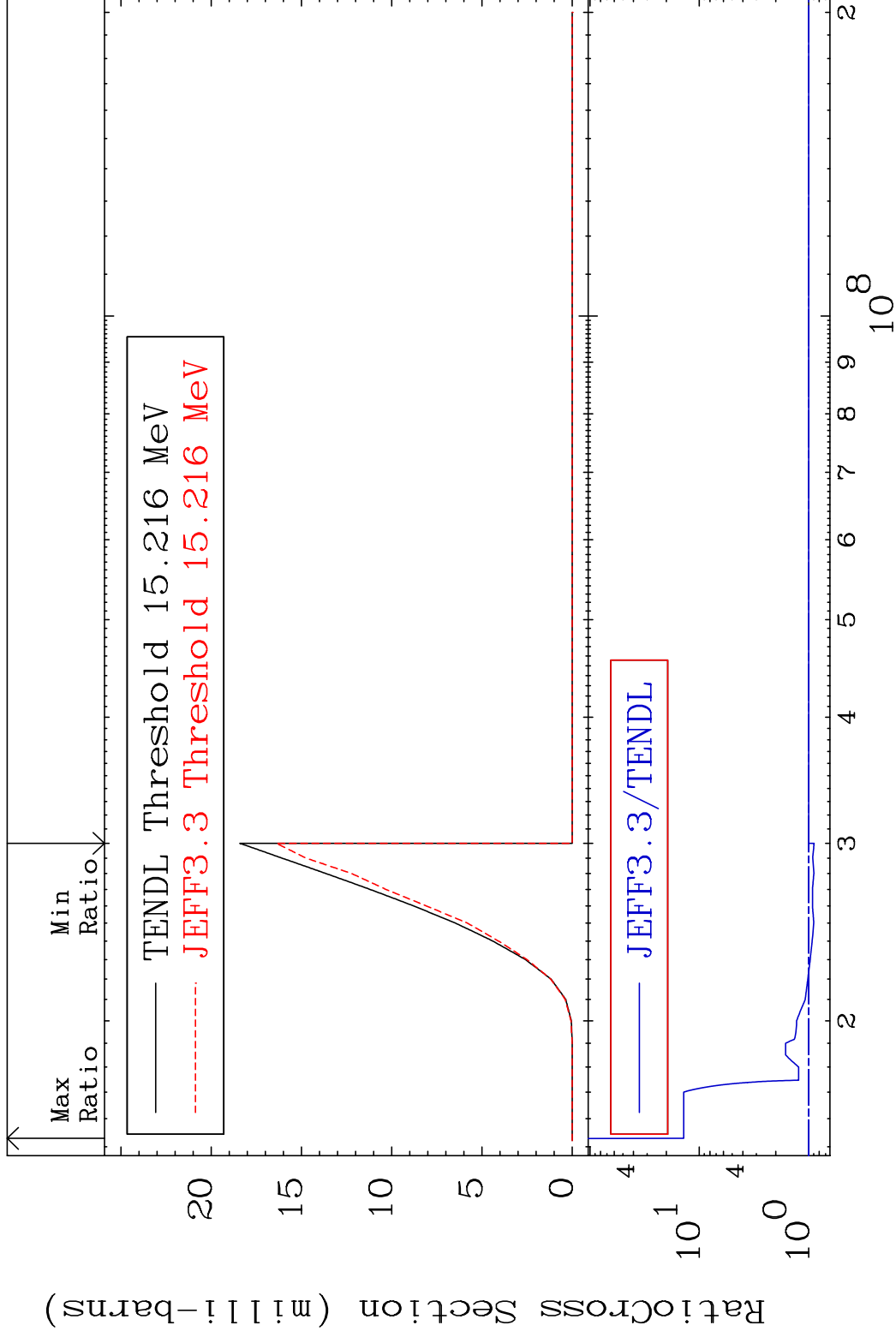
10 8 10<sup>7</sup> 10<sup>8</sup> 2

MAT 4425

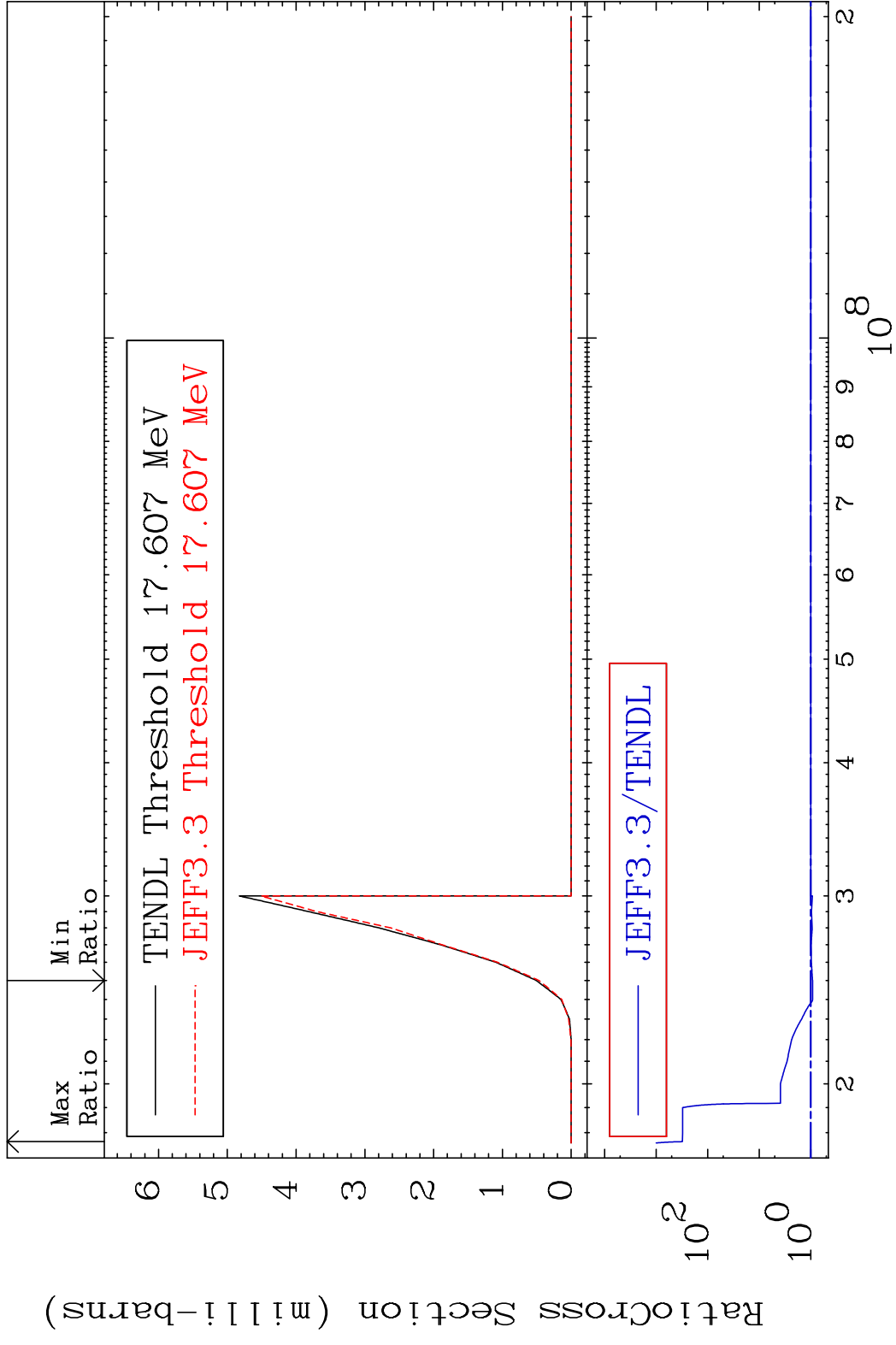
(n, n') d

44-Ru-96

Cross Section -10.96 To 1291. %



MAT 4425 (n, n') t 44-Ru-96  
 Cross Section -7.552 To 9999. %

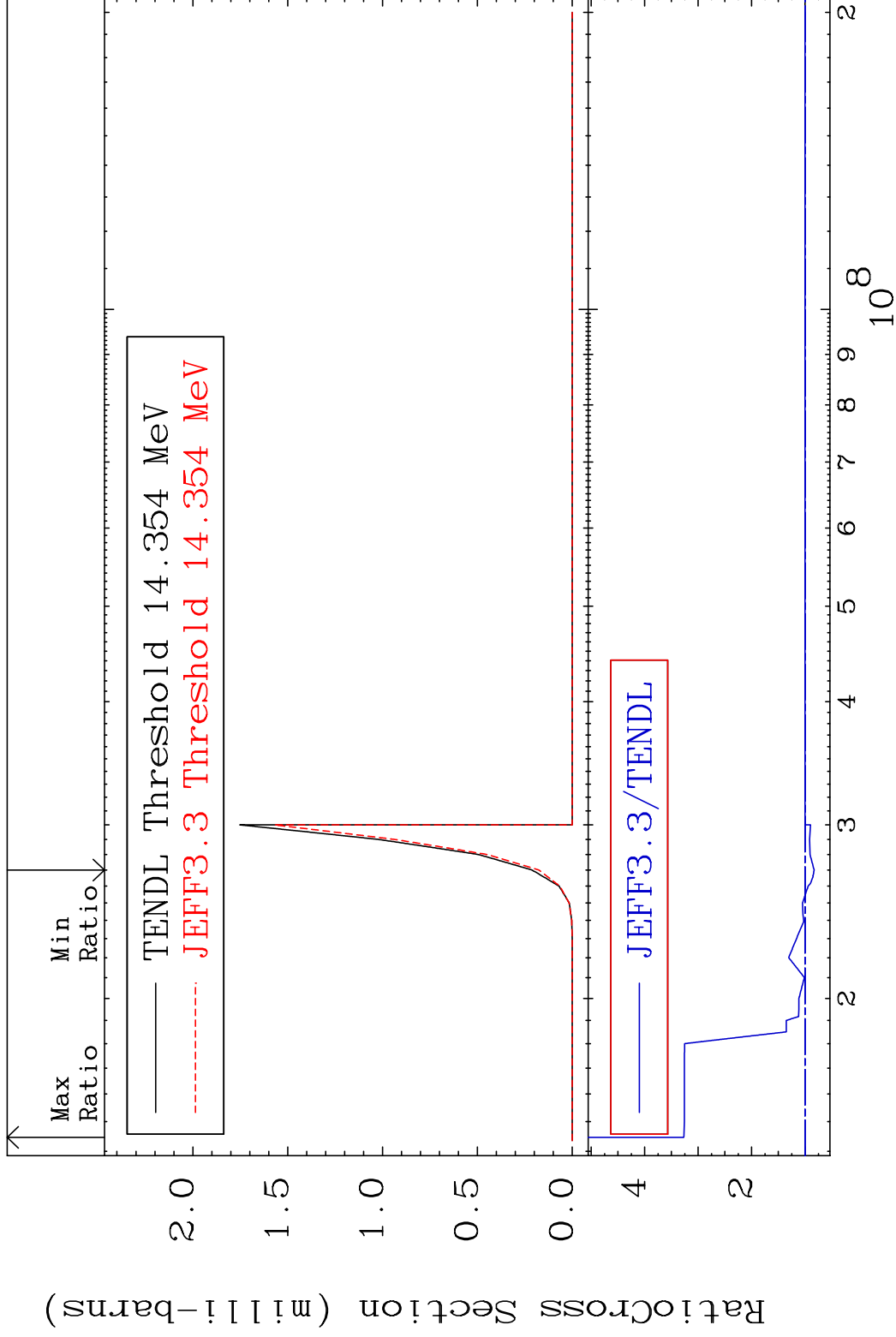


MAT 4425

(n,n') He-3

44-Ru-96

Cross Section -16.93 To 227.1 %

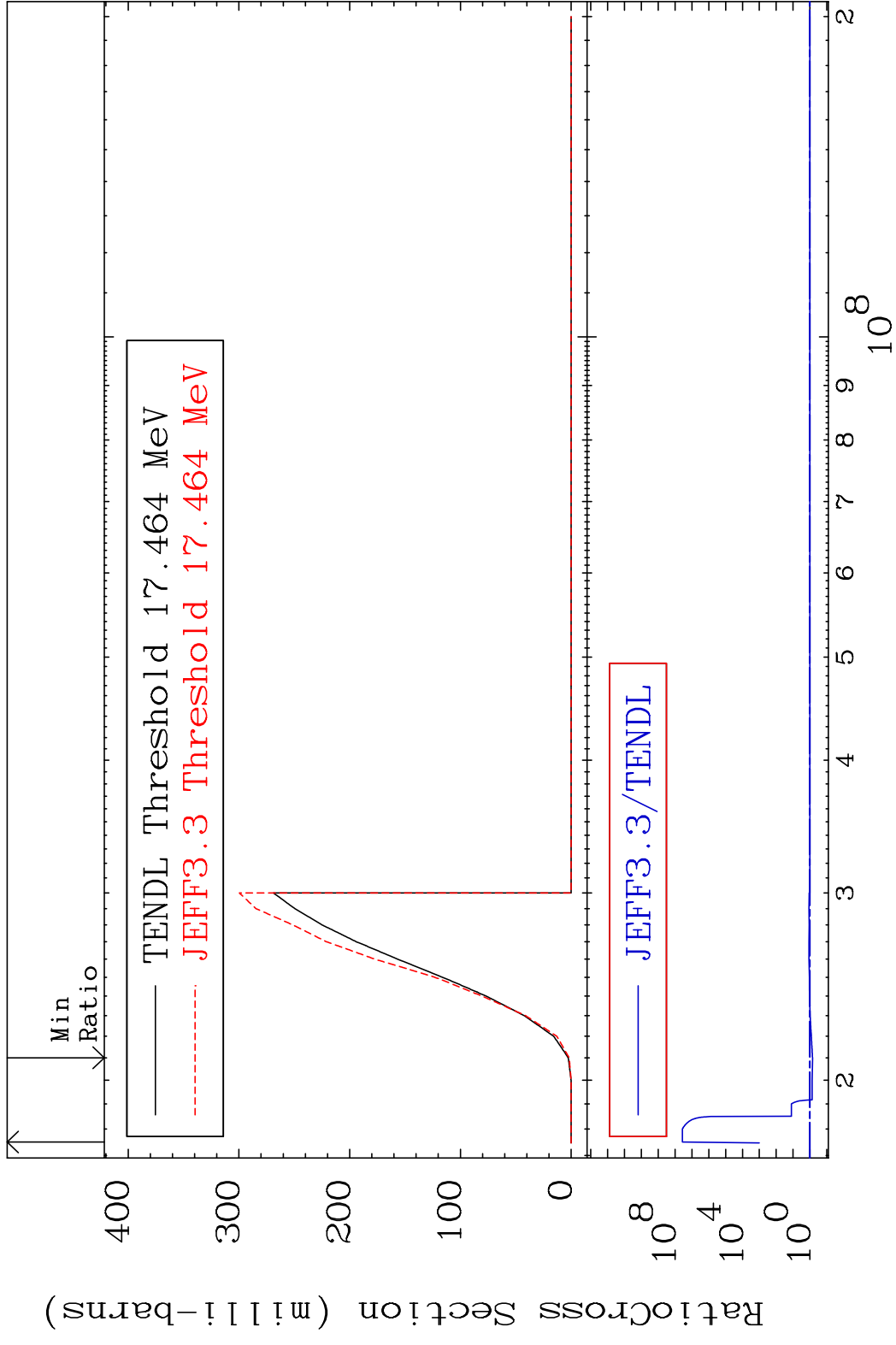


13

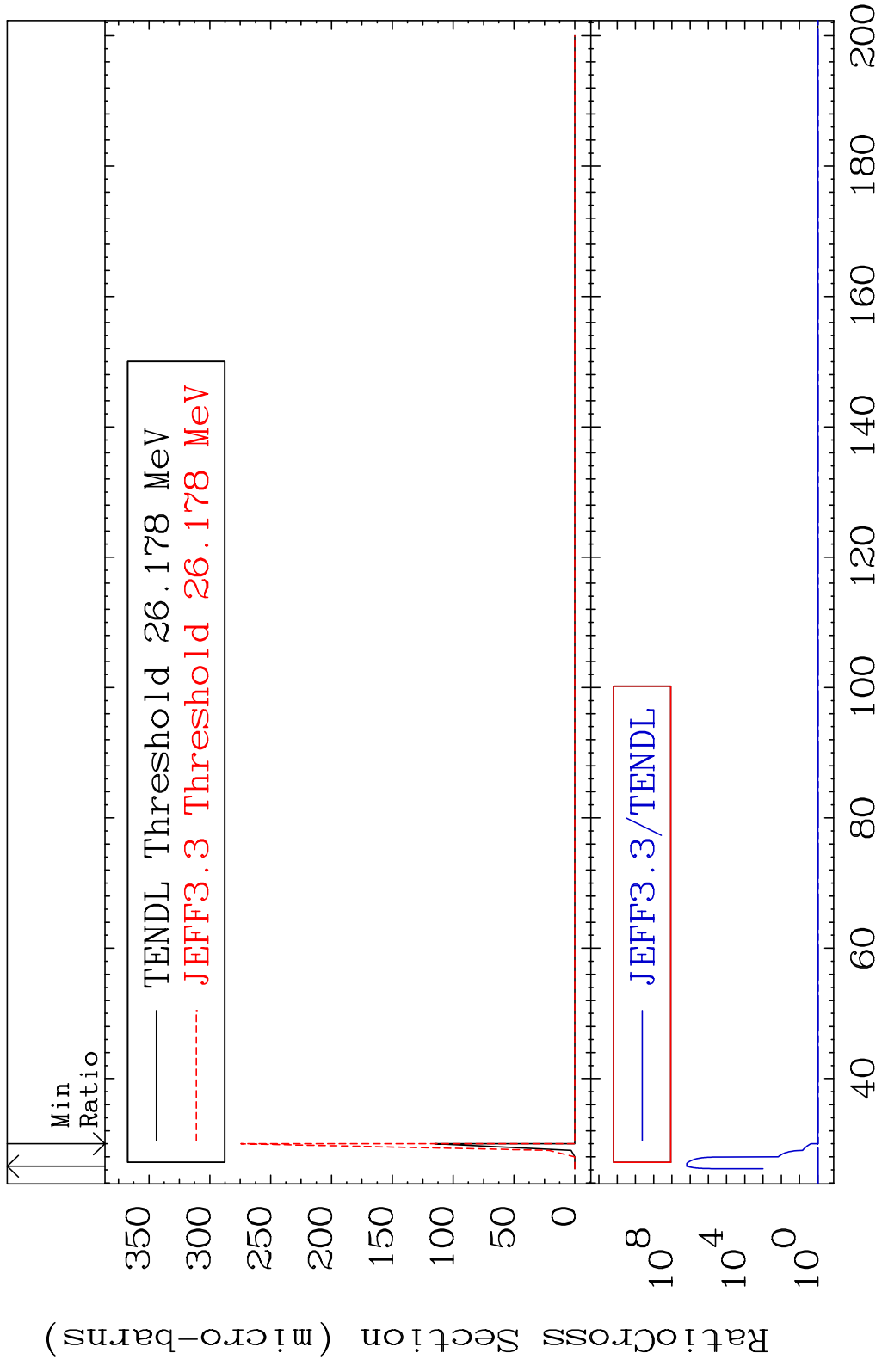
Incident Energy (eV)

44-Ru-96

MAT 4425 (n,2n) p 44-Ru-96  
 Cross Section -30.42 To 9999. %

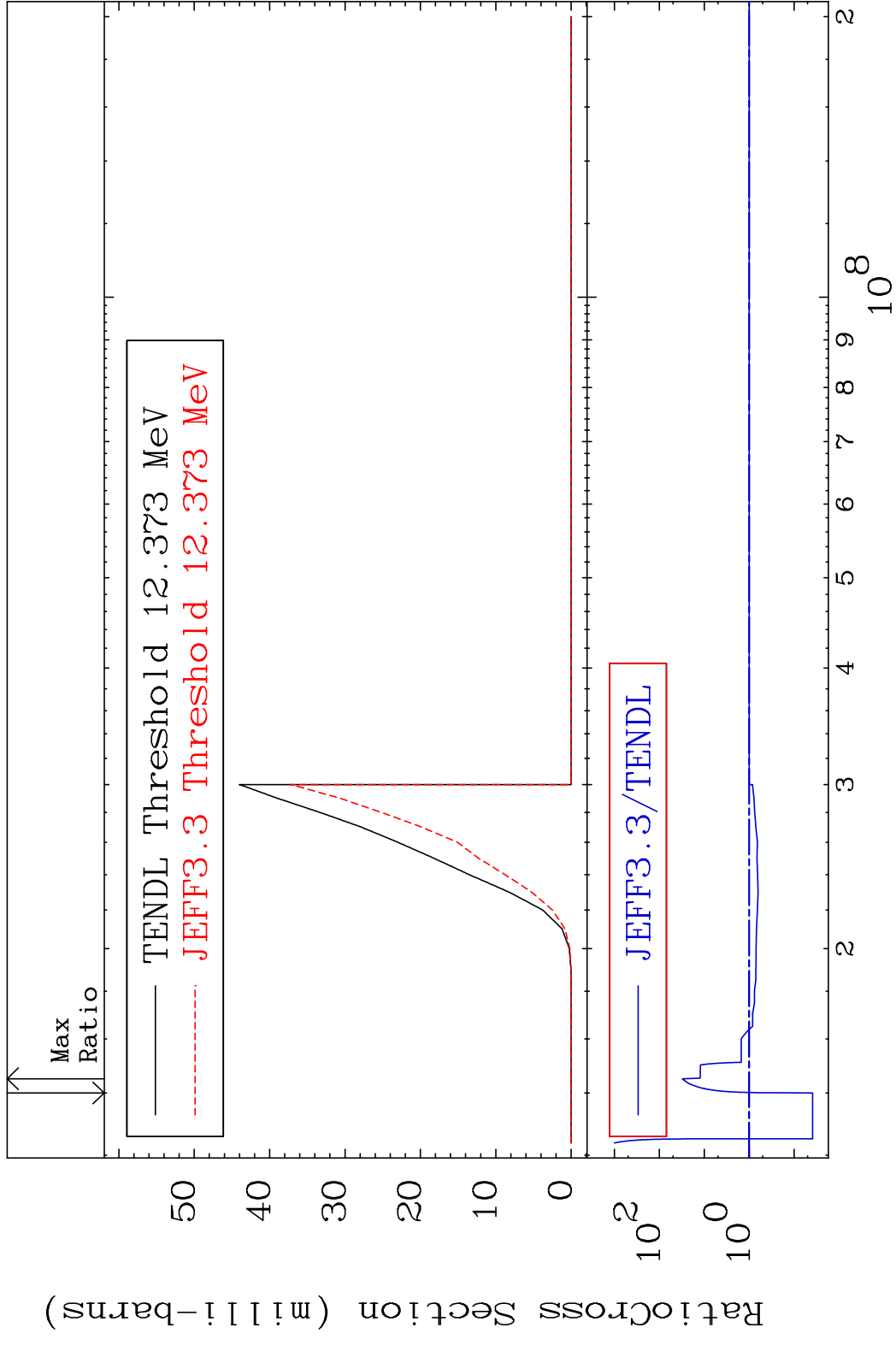


MAT 4425 (n,3n) p 44-Ru-96  
 Cross Section 0.000 To 9999. %





MAT 4425 (n,2n) p 44-Ru-96  
 Cross Section -96.11 To 2987. %

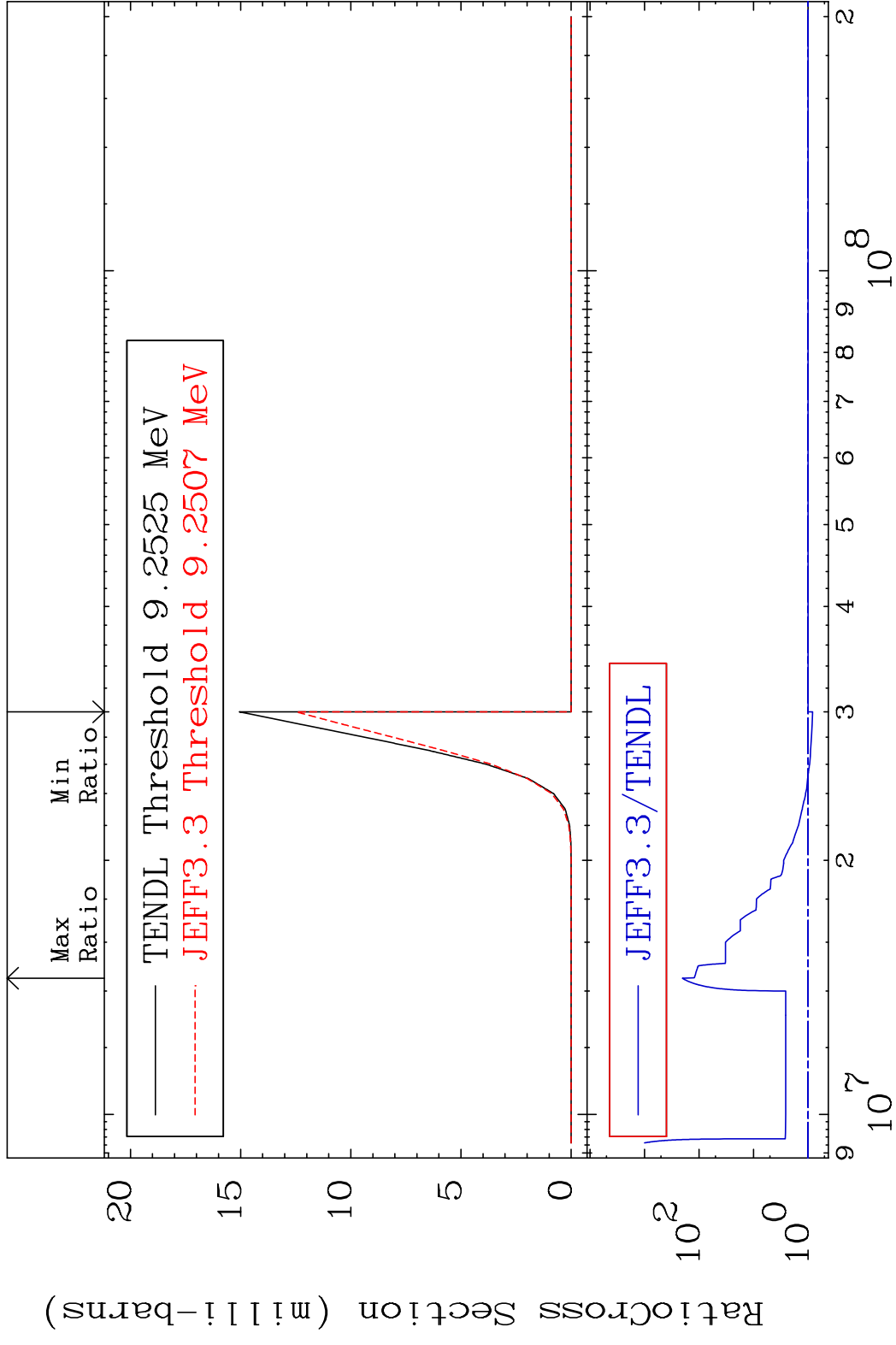


MAT 4425

44-Ru-96

(n,n') p  $\alpha$

Cross Section -17.10 To 9999. %



17

Incident Energy (eV)

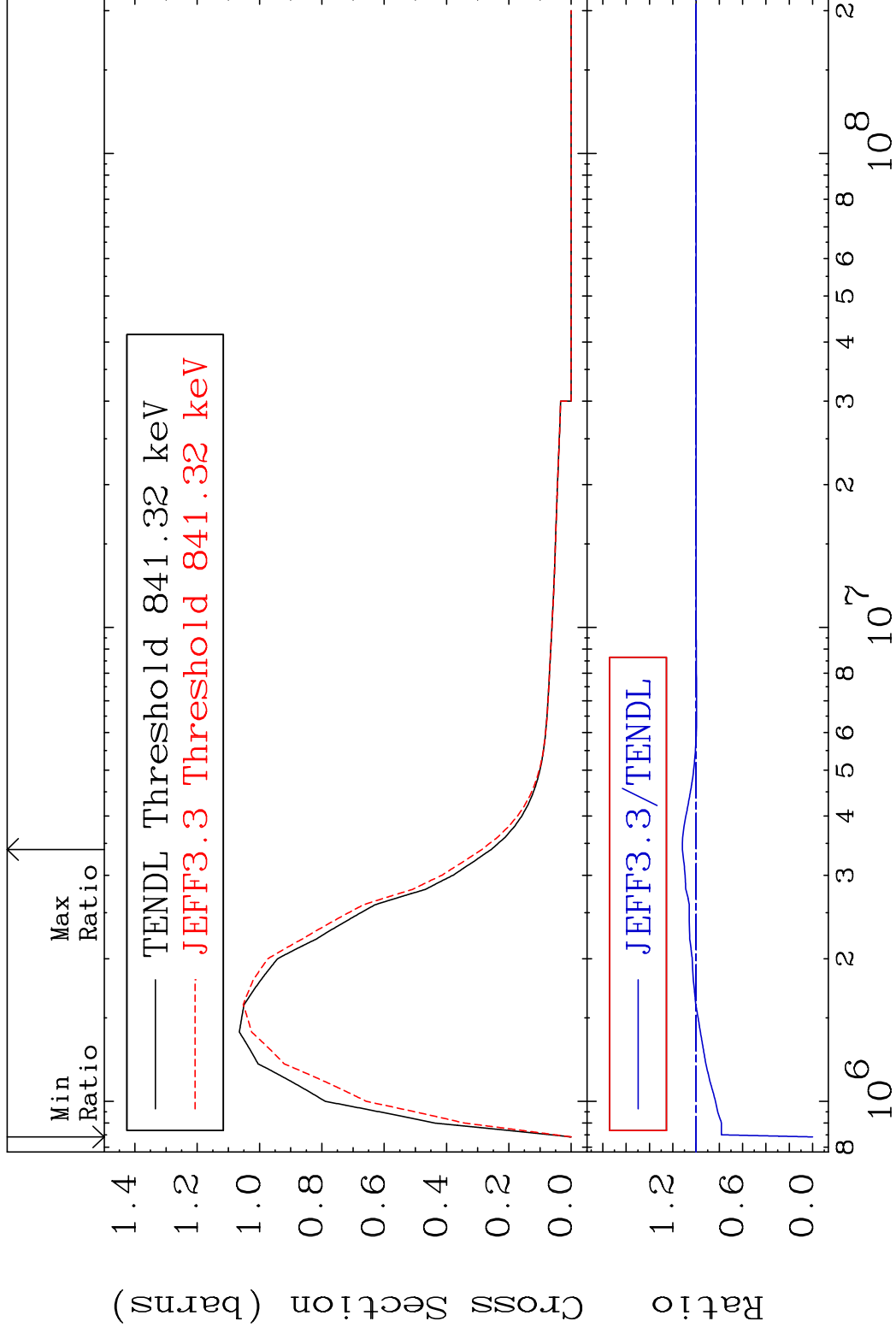
44-Ru-96

MAT 4425

MT= 51 (n, n') Level

44-Ru-96

Cross Section -100.0 To 11.77 %

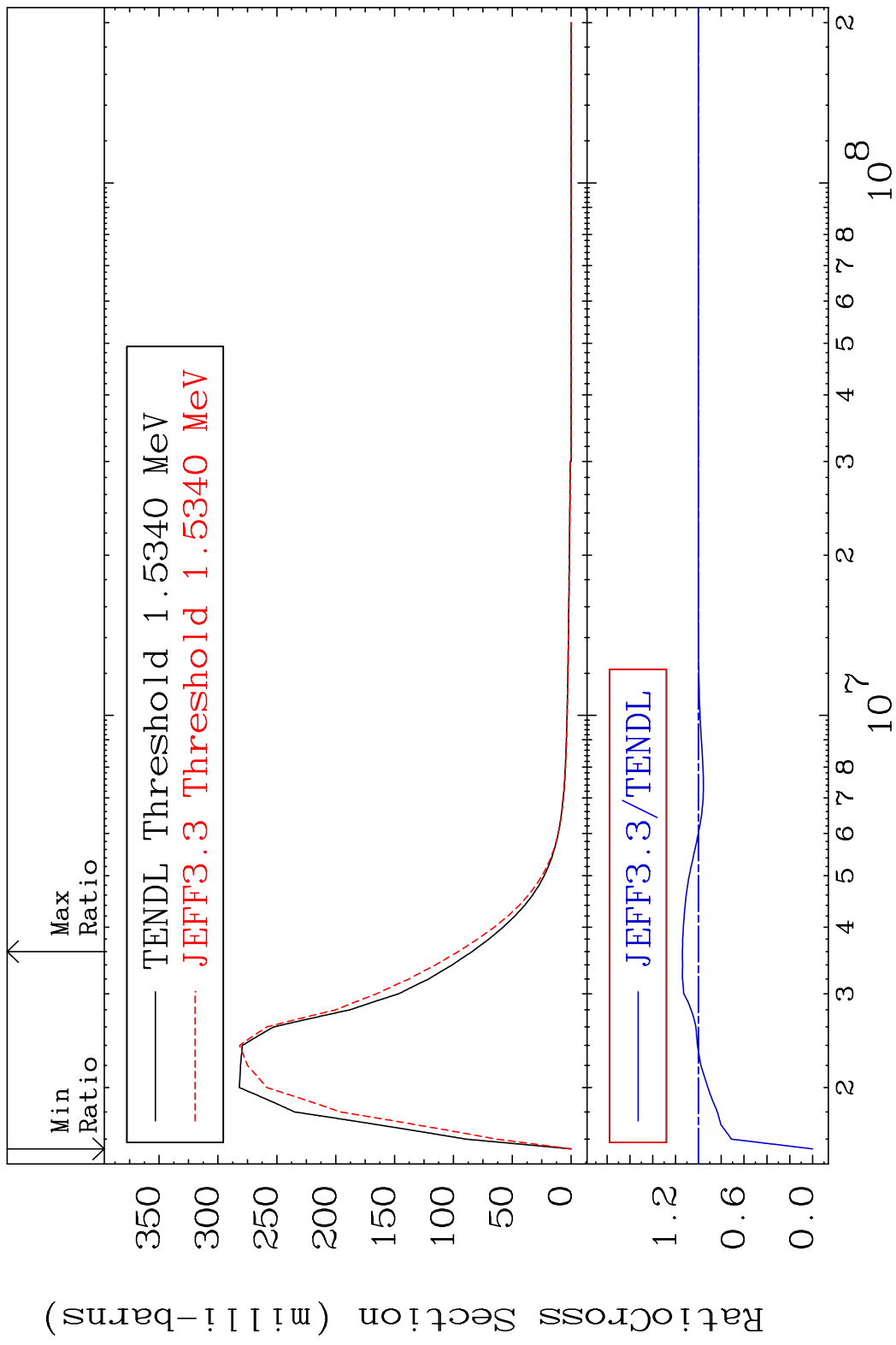


18

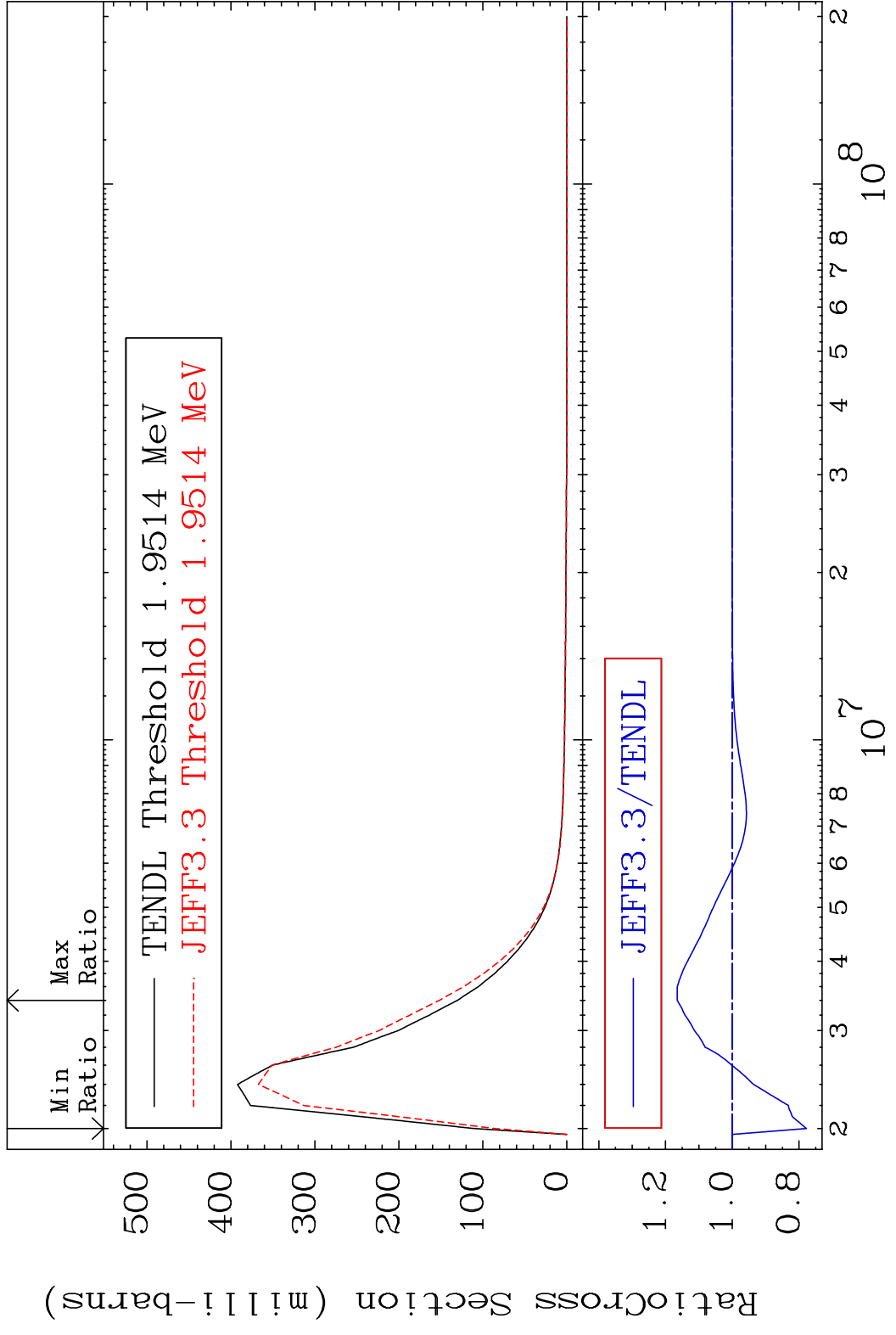
Incident Energy (eV)

44-Ru-96

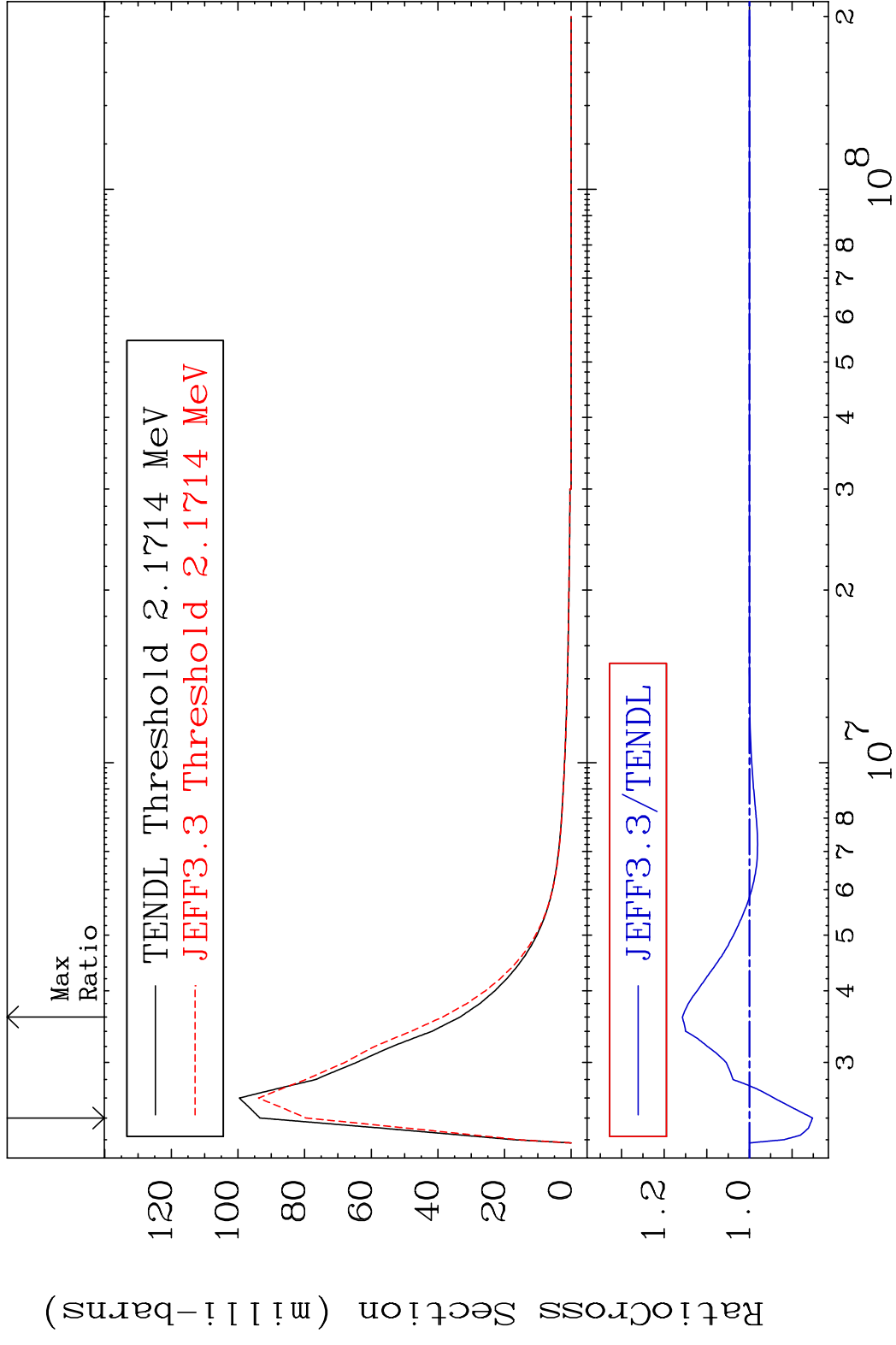
MAT 4425 MT= 52 (n, n') Level 44-Ru-96  
 Cross Section -100.0 To 14.04 %



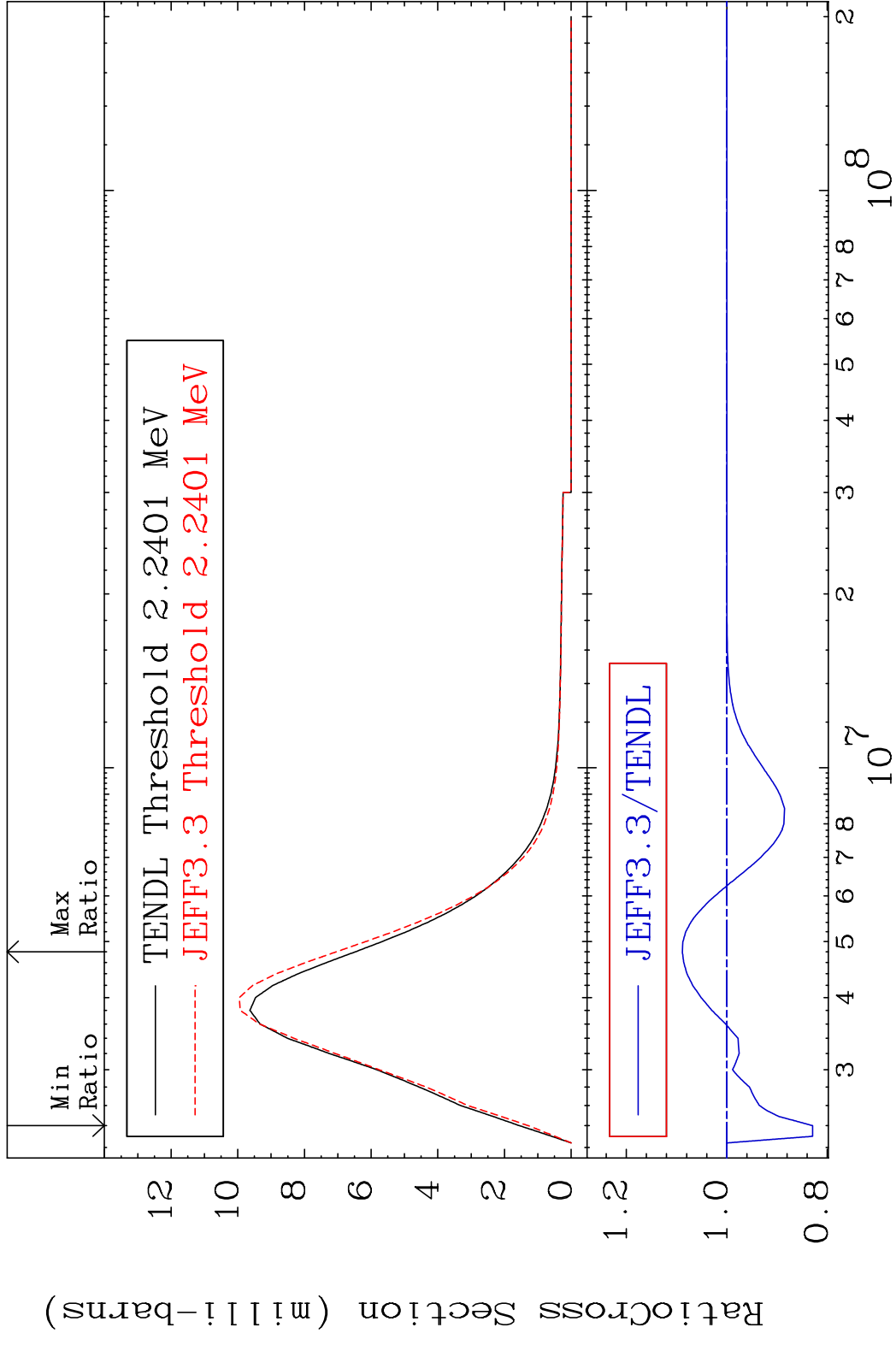
MAT 4425 MT= 53 (n, n') Level 44-Ru-96  
 Cross Section -22.20 To 16.51 %



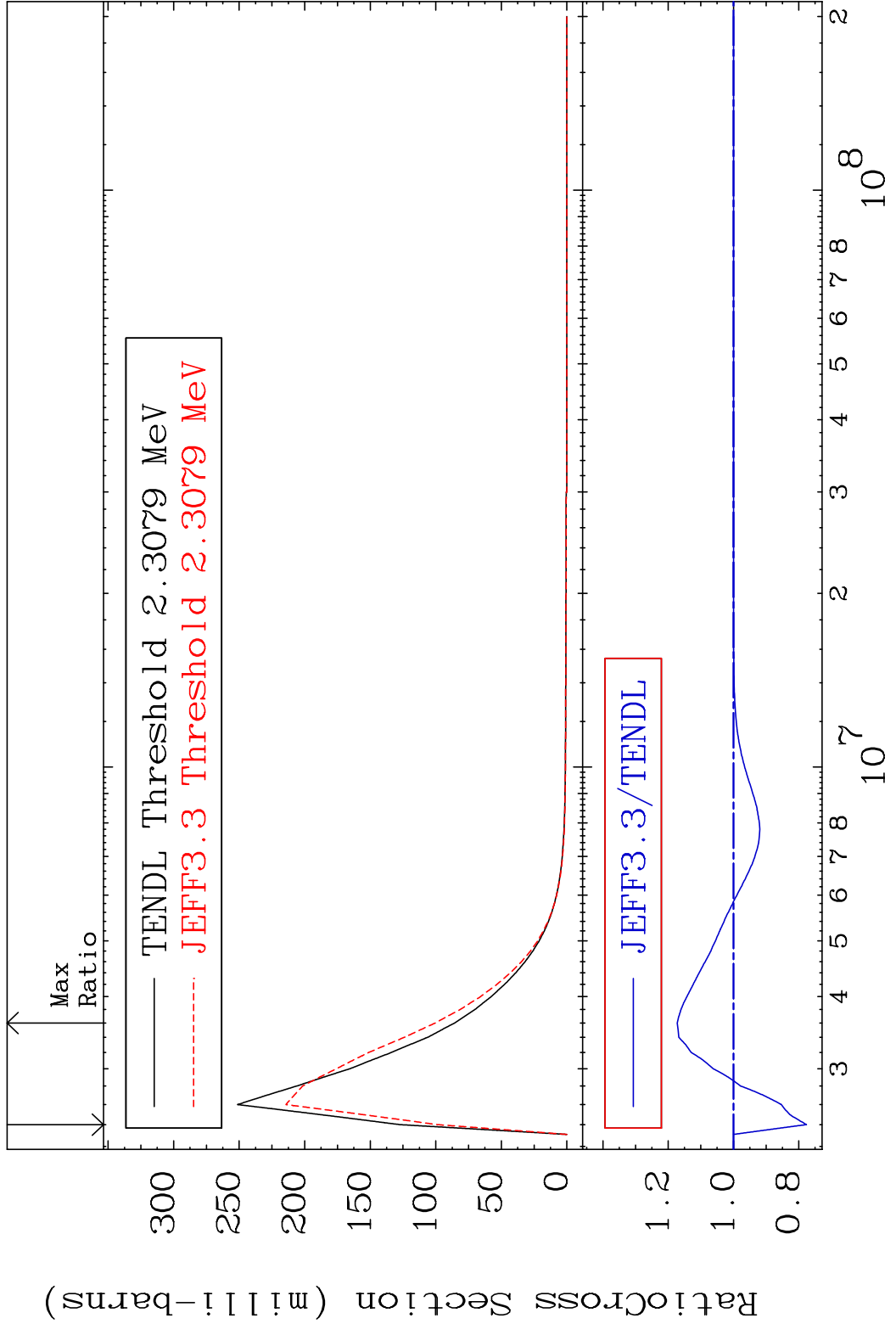
MAT 4425 MT= 54 (n, n') Level 44-Ru-96  
 Cross Section -14.81 To 15.74 %



MAT 4425 MT= 55 (n, n') Level 44-Ru-96  
 Cross Section -17.08 To 8.850 %

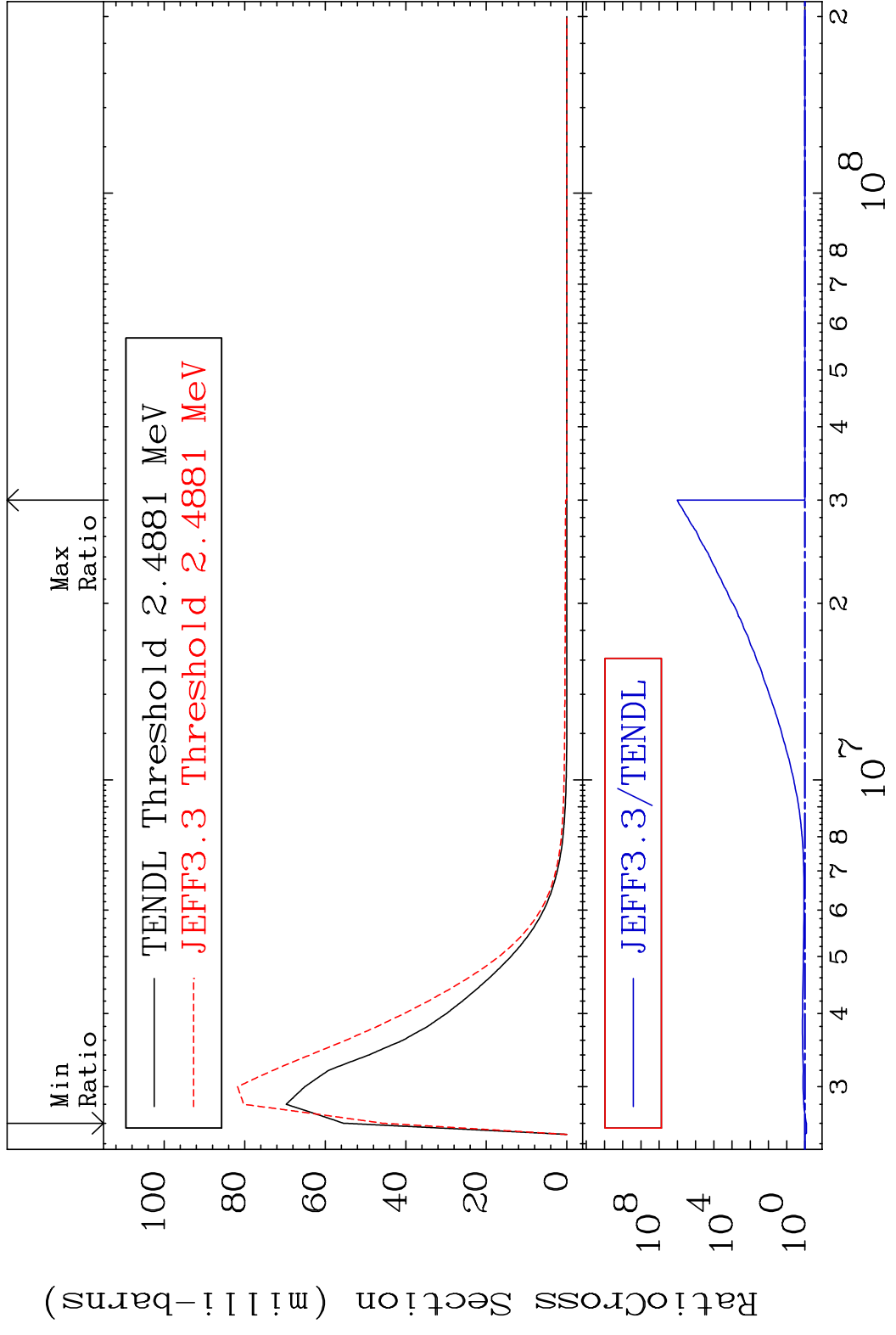


MAT 4425 MT= 56 (n,n') Level 44-Ru-96  
 Cross Section -22.33 To 17.25 %

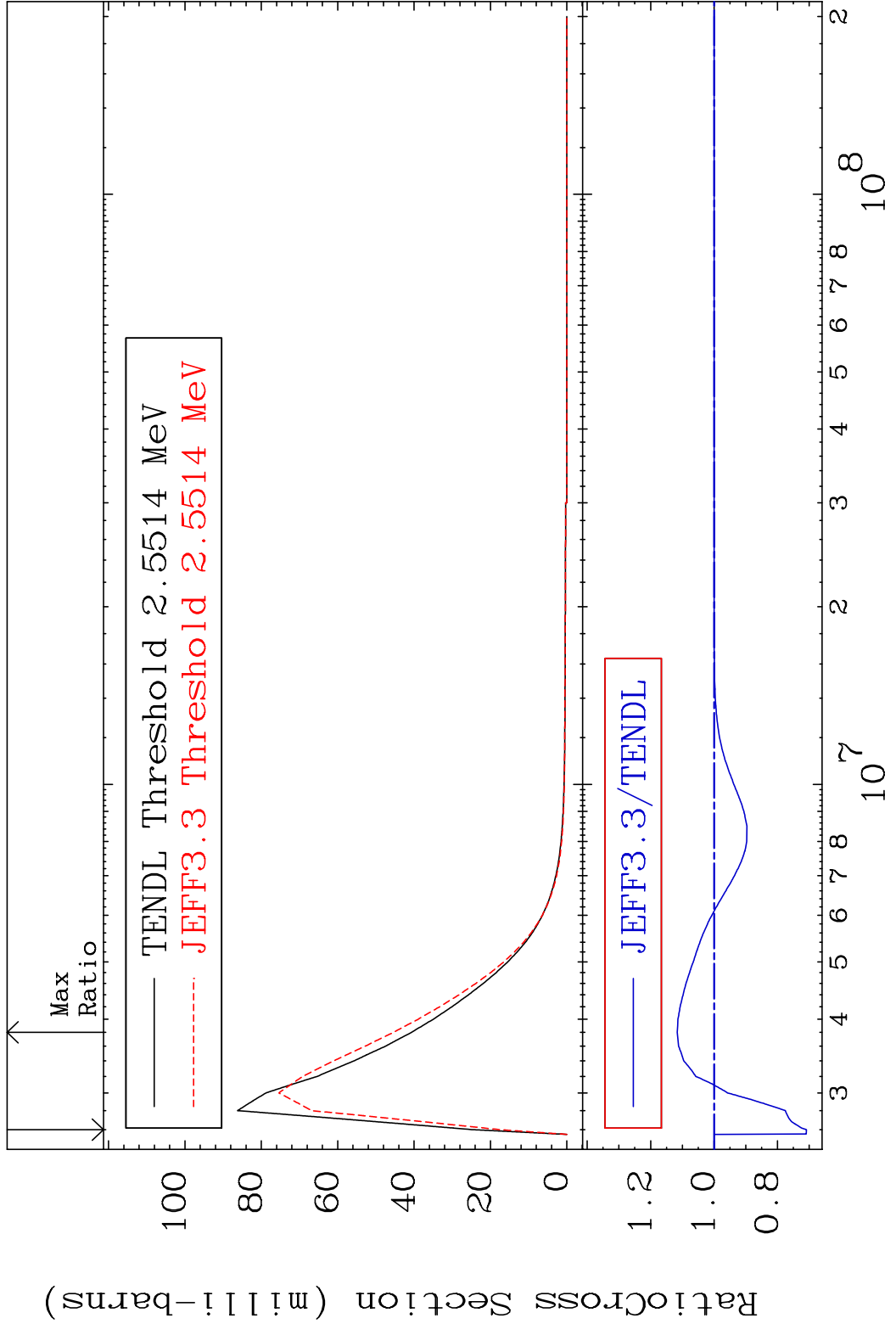




MAT 4425 MT= 57 (n, n') Level 44-Ru-96  
 Cross Section -17.49 To 9999. %



MAT 4425 MT= 58 (n, n') Level 44-Ru-96  
 Cross Section -29.11 To 11.63 %

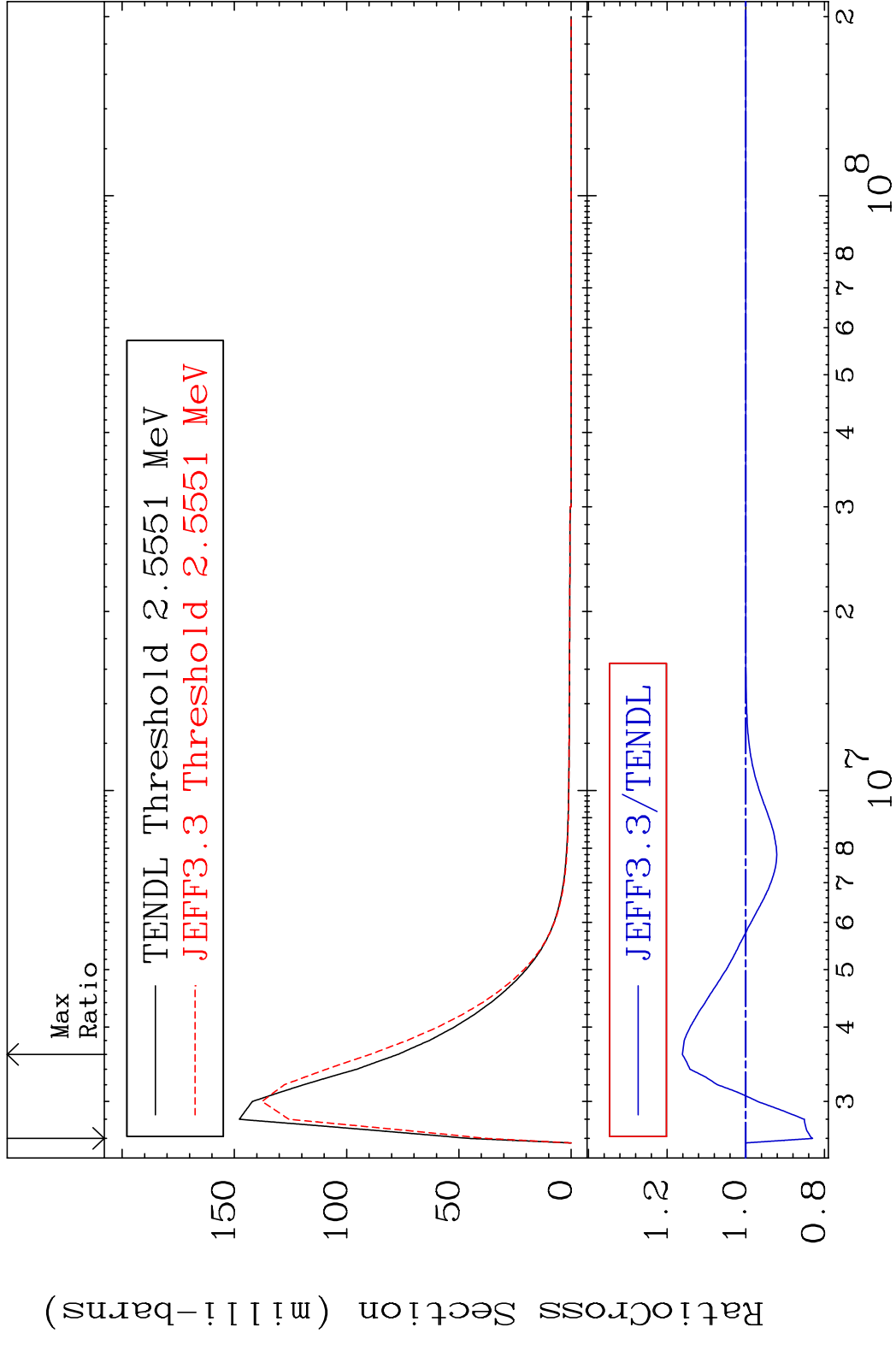


MAT 4425

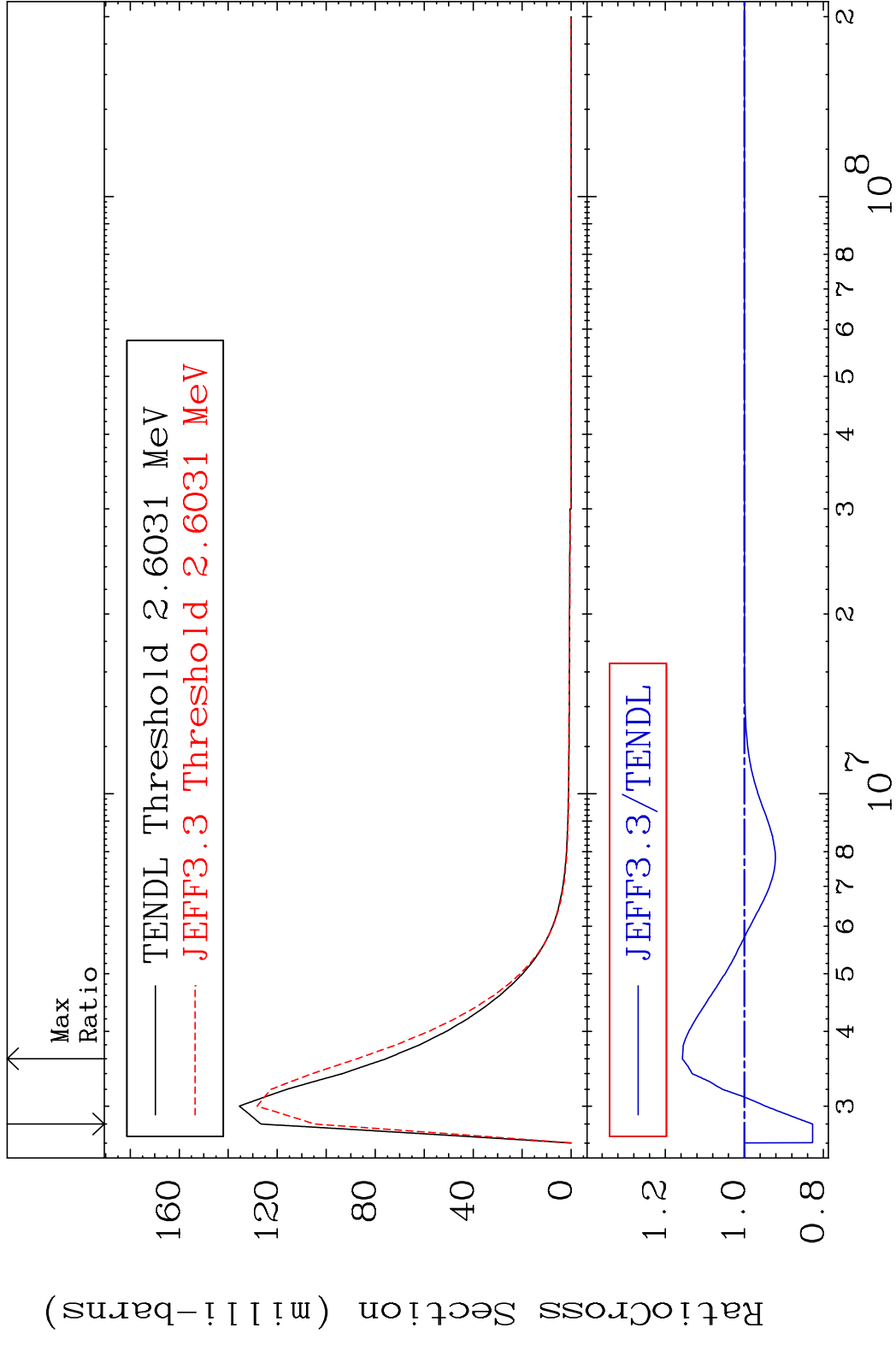
MT= 59 (n, n') Level

44-Ru-96

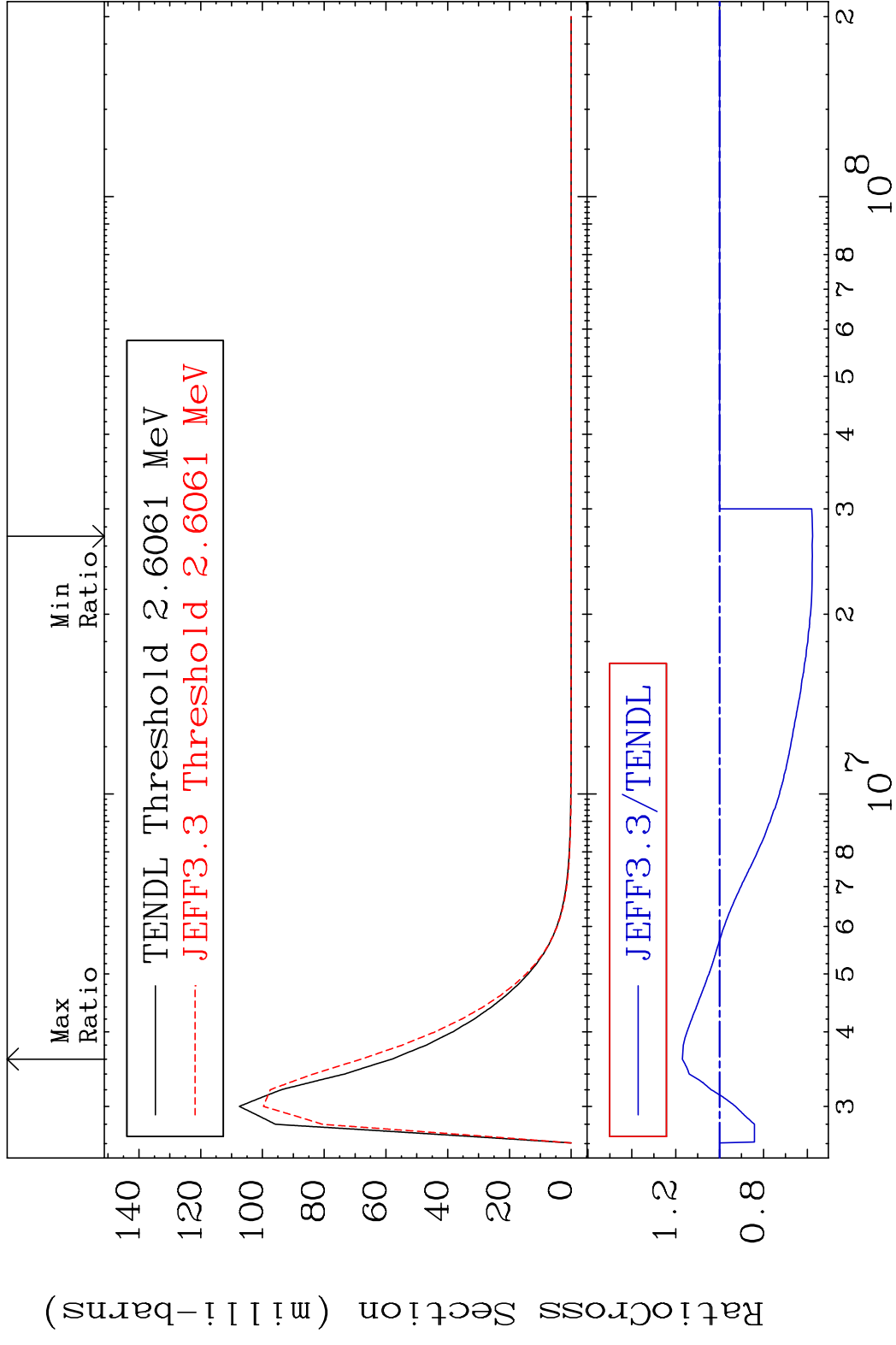
Cross Section -17.00 To 16.10 %



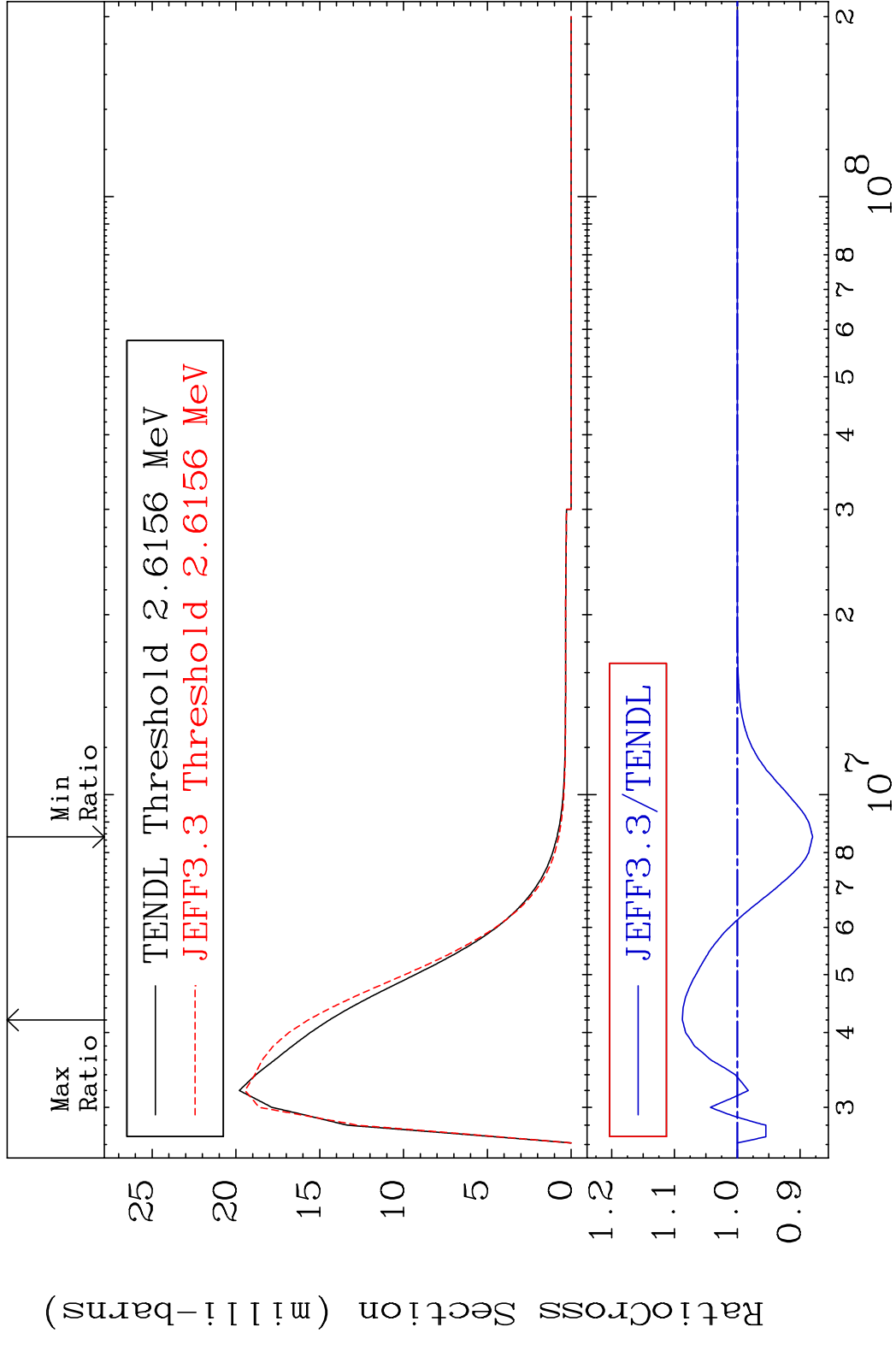
MAT 4425 MT= 60 (n, n') Level 44-Ru-96  
 Cross Section -17.27 To 15.69 %



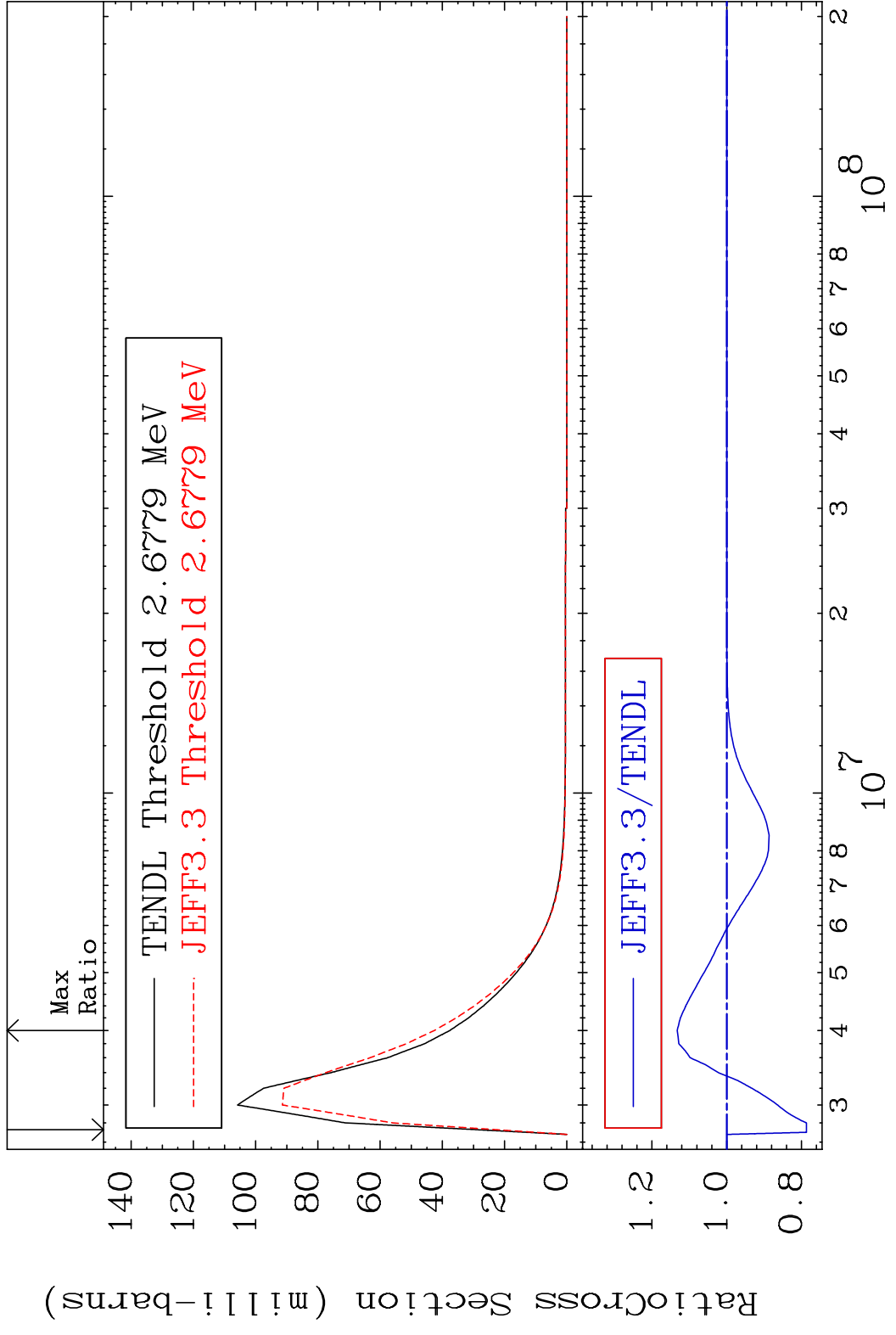
MAT 4425 MT= 61 (n, n') Level 44-Ru-96  
 Cross Section -42.38 To 16.97 %



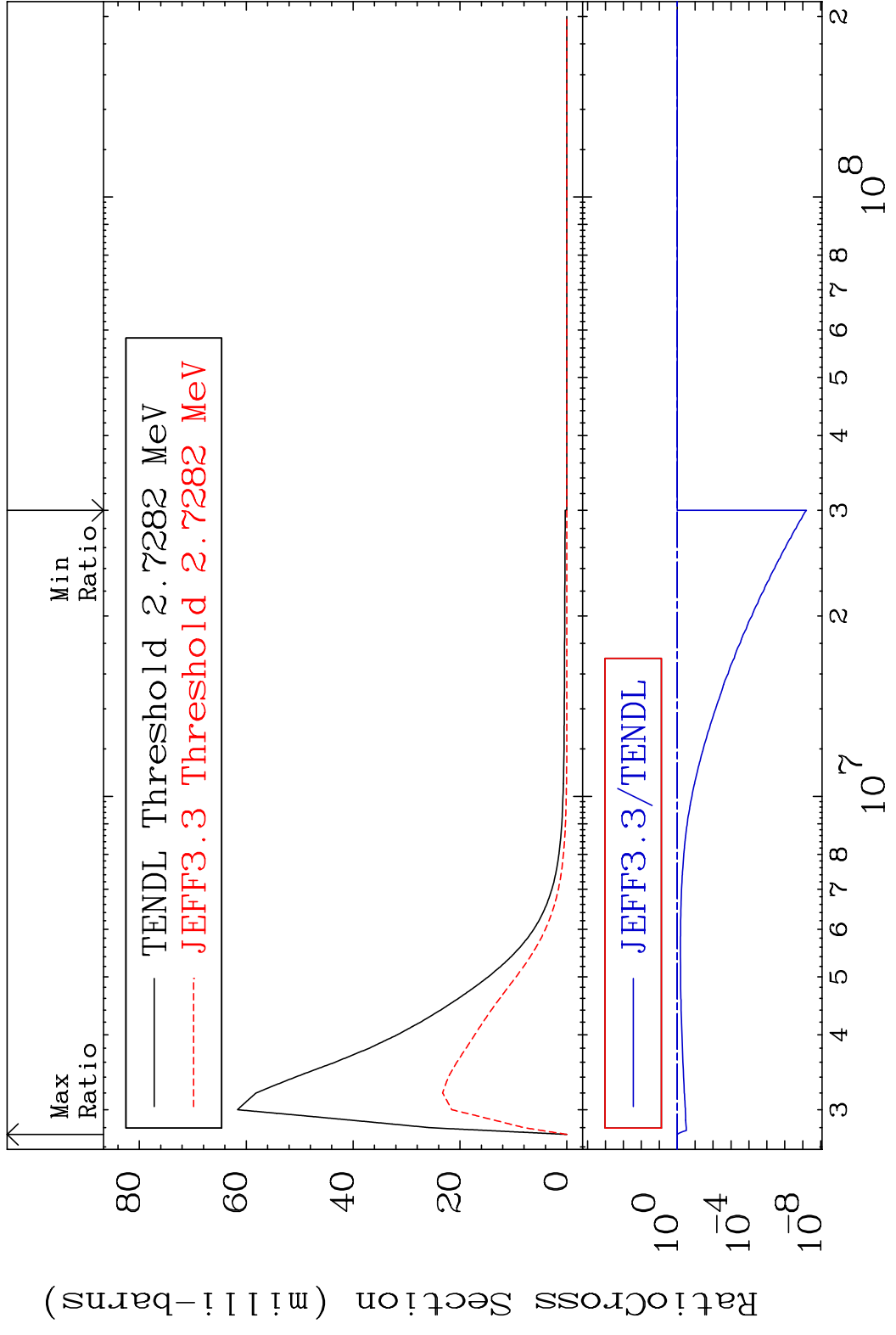
MAT 4425 MT= 62 (n, n') Level 44-Ru-96  
 Cross Section -11.98 To 8.752 %



MAT 4425 MT= 63 (n, n') Level 44-Ru-96  
 Cross Section -21.31 To 13.25 %

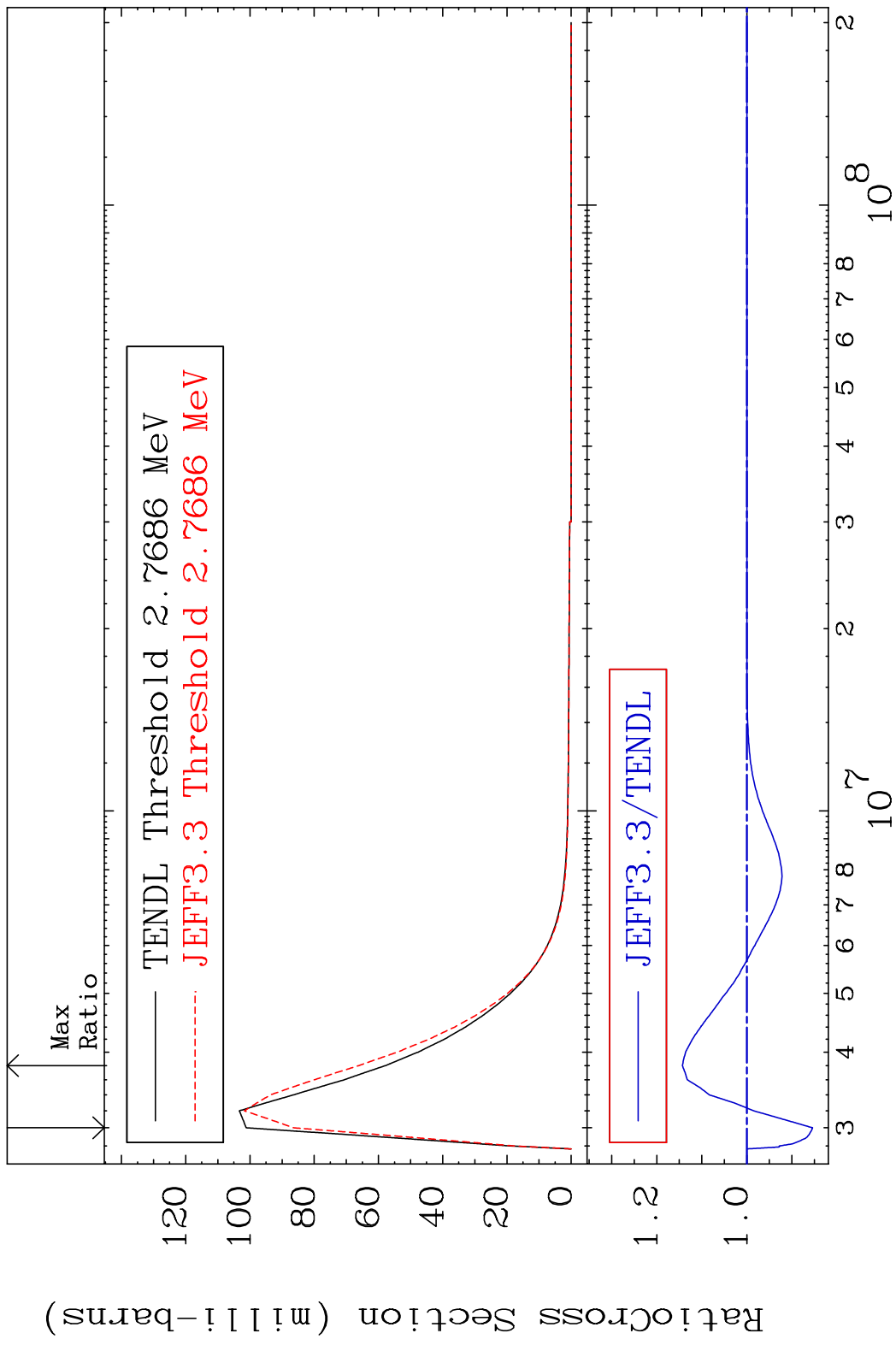


MAT 4425 MT= 64 (n, n') Level 44-Ru-96  
 Cross Section -100.0 To 0.000 %

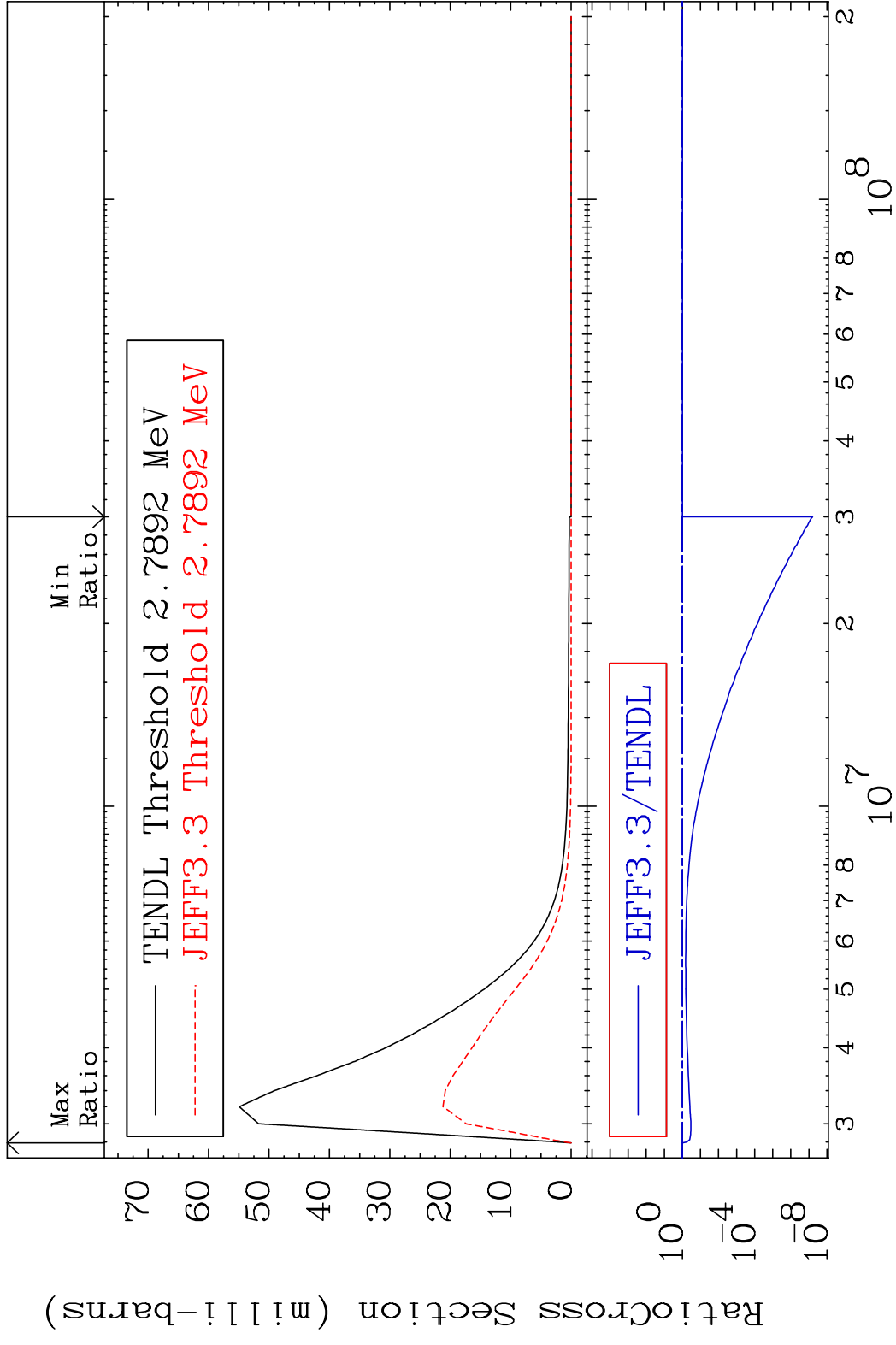




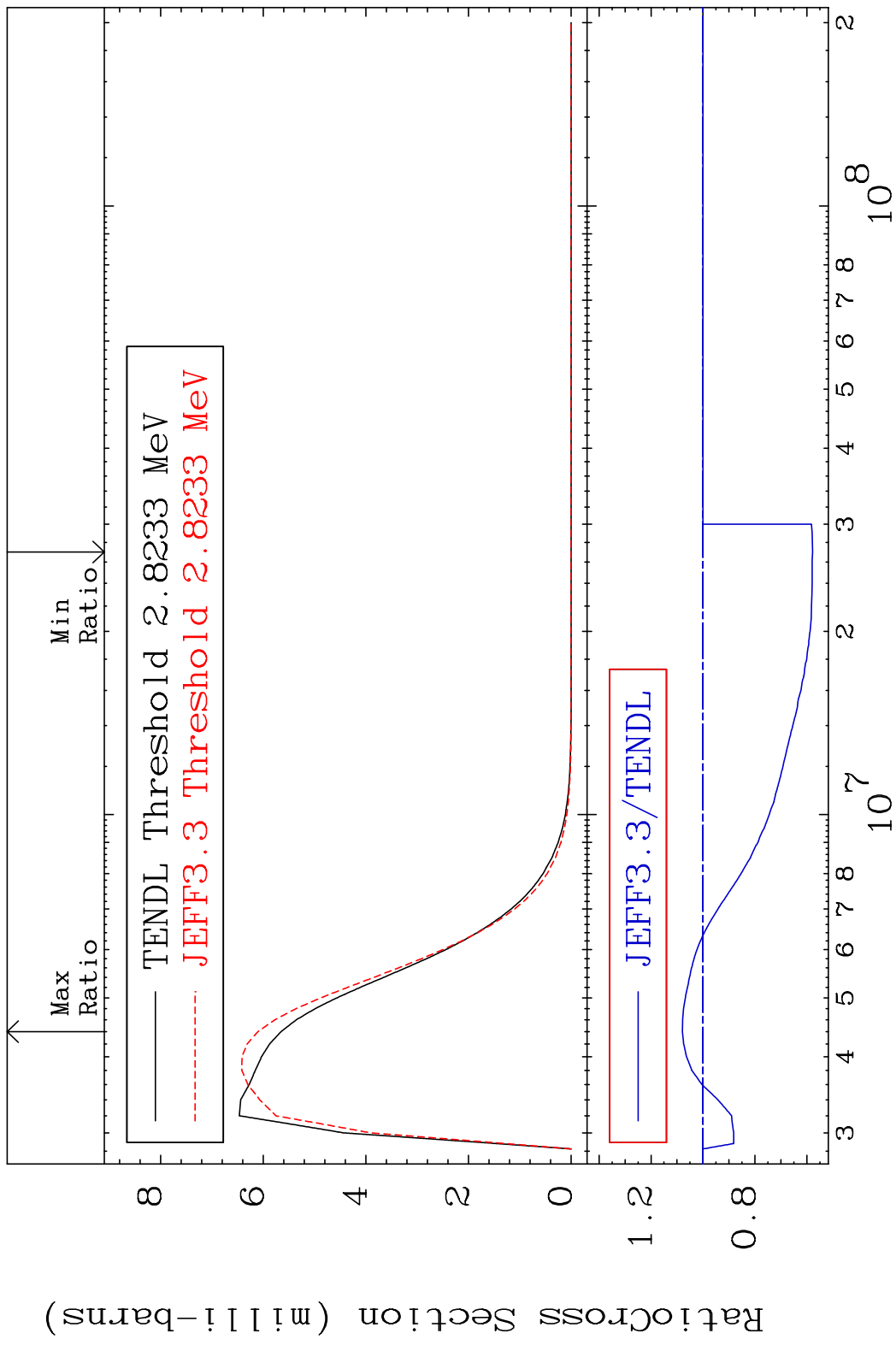
MAT 4425 MT= 65 (n, n') Level 44-Ru-96  
 Cross Section -14.58 To 14.32 %



MAT 4425 MT= 66 (n, n') Level 44-Ru-96  
 Cross Section -100.0 To 0.000 %

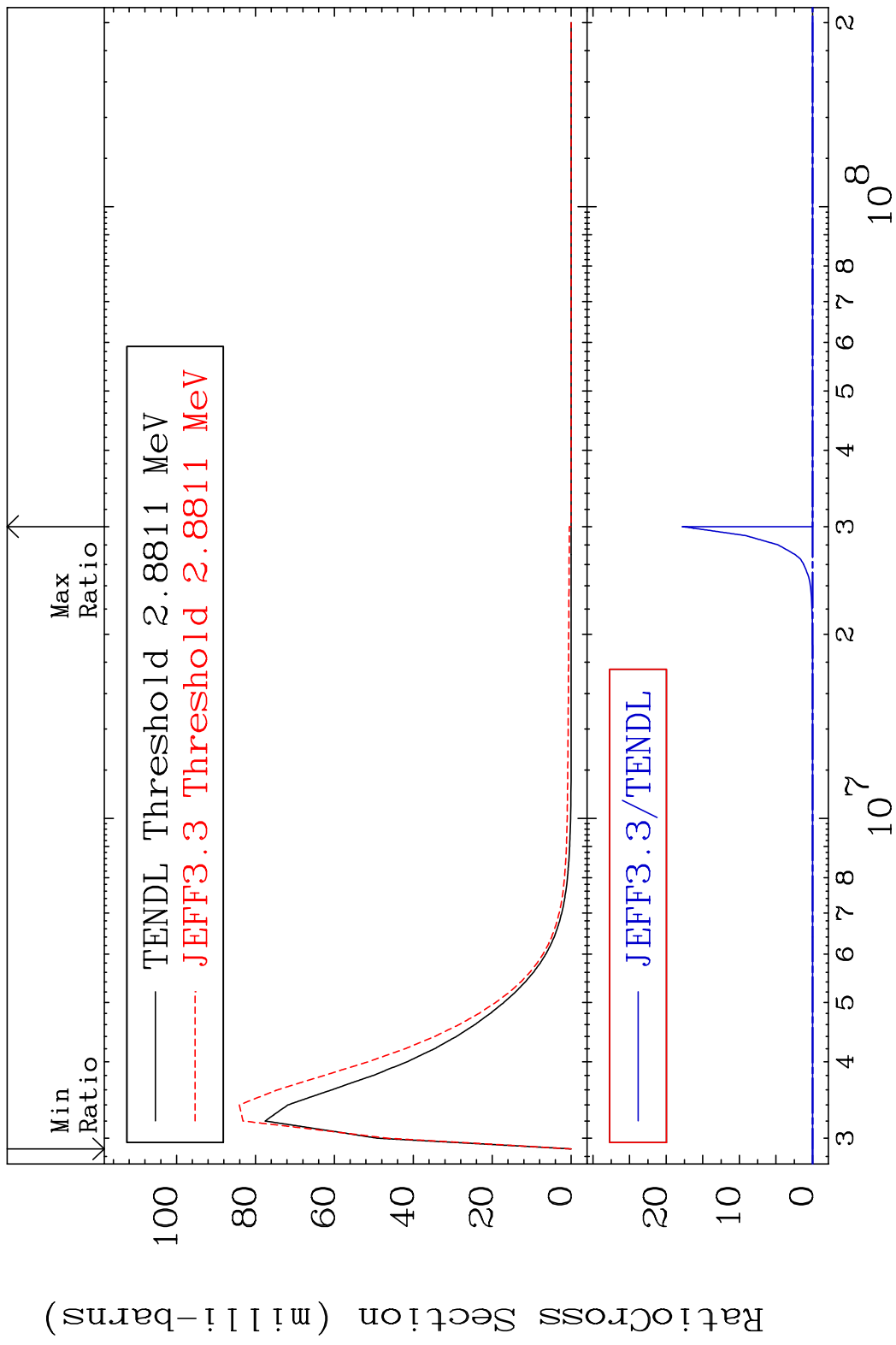


MAT 4425 MT= 67 (n, n') Level 44-Ru-96  
 Cross Section -42.21 To 7.940 %

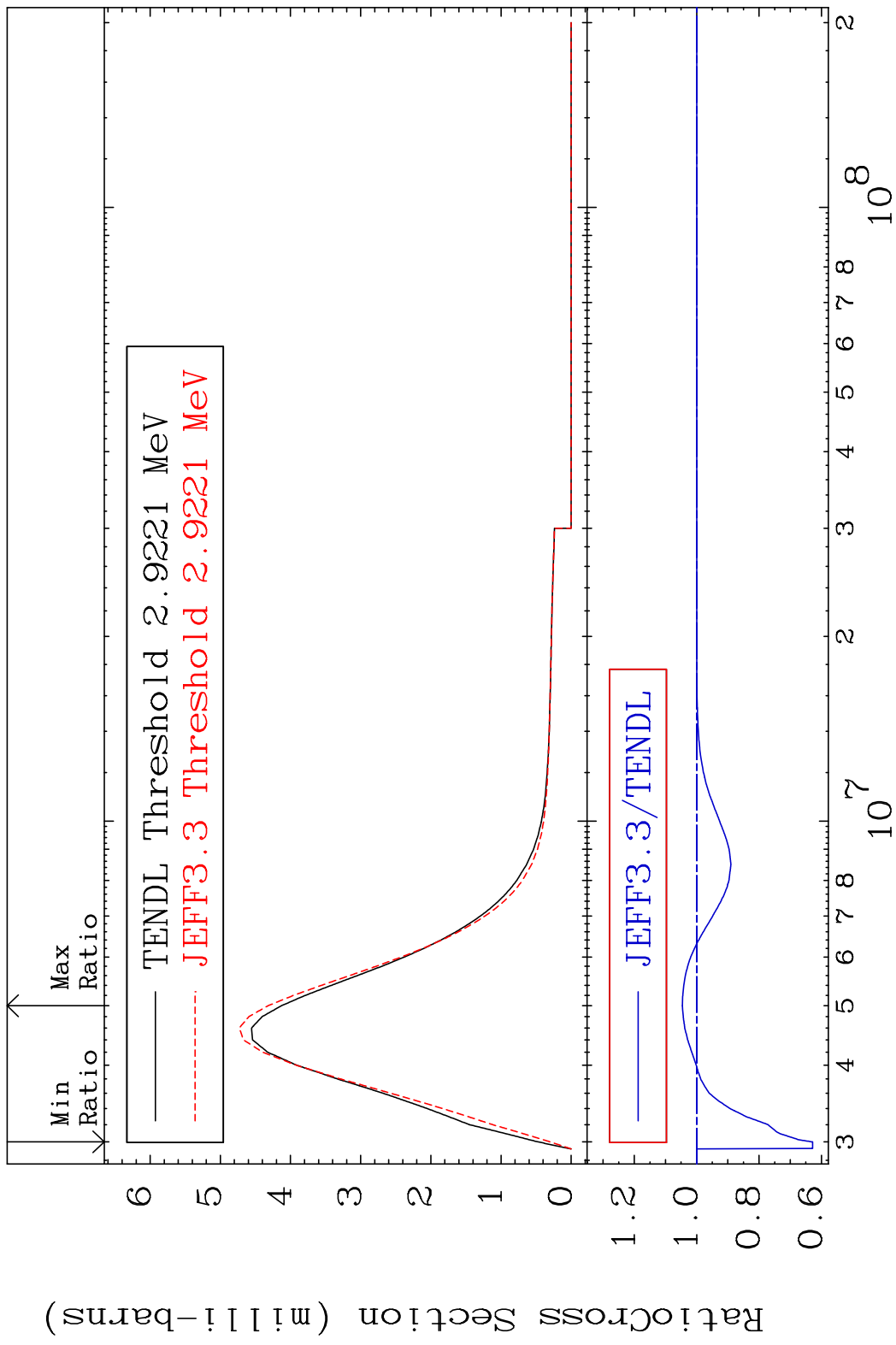


34 Incident Energy (eV) 44-Ru-96

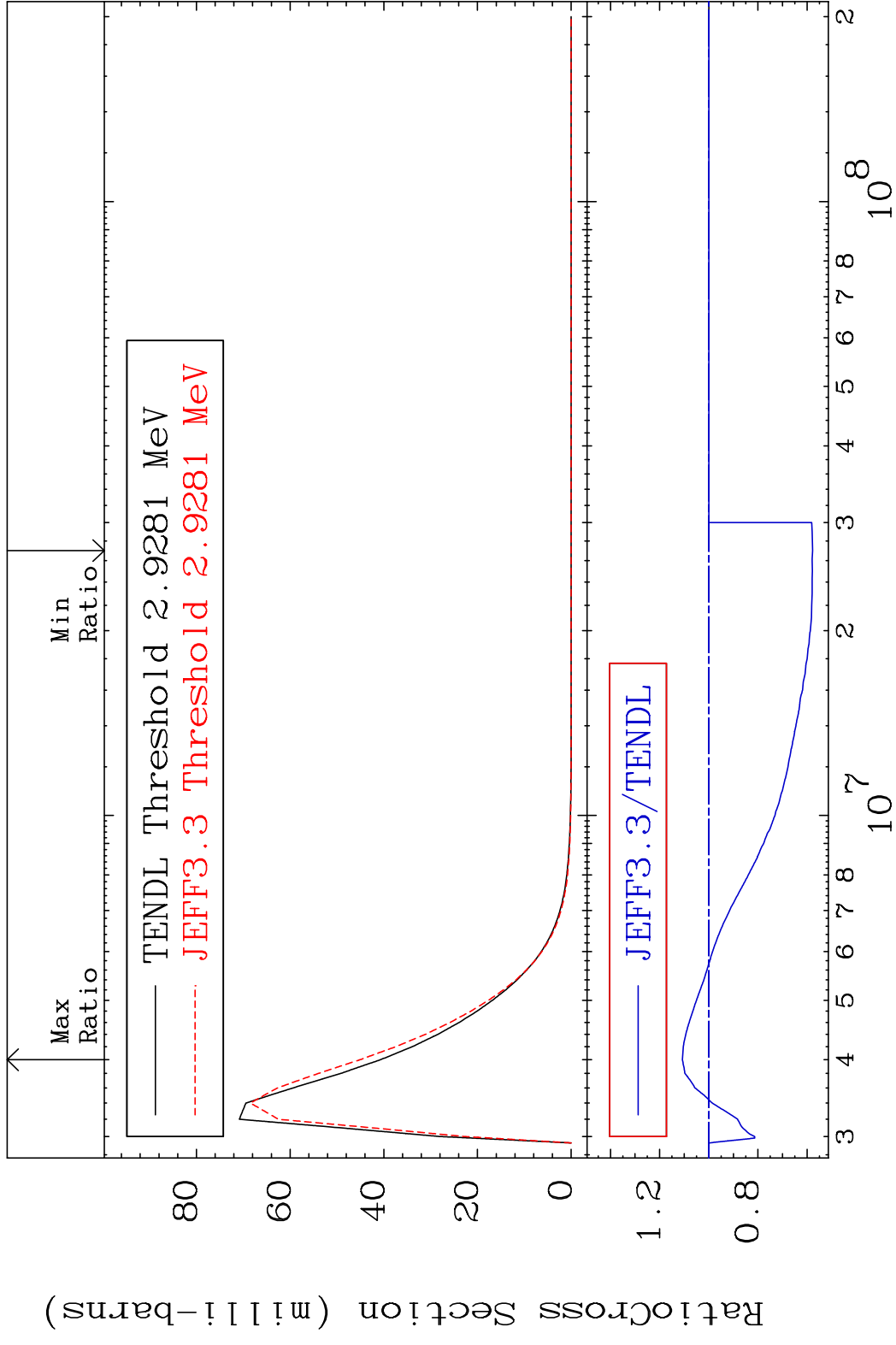
MAT 4425 MT= 68 (n, n') Level 44-Ru-96  
 Cross Section -100.0 To 9999. %



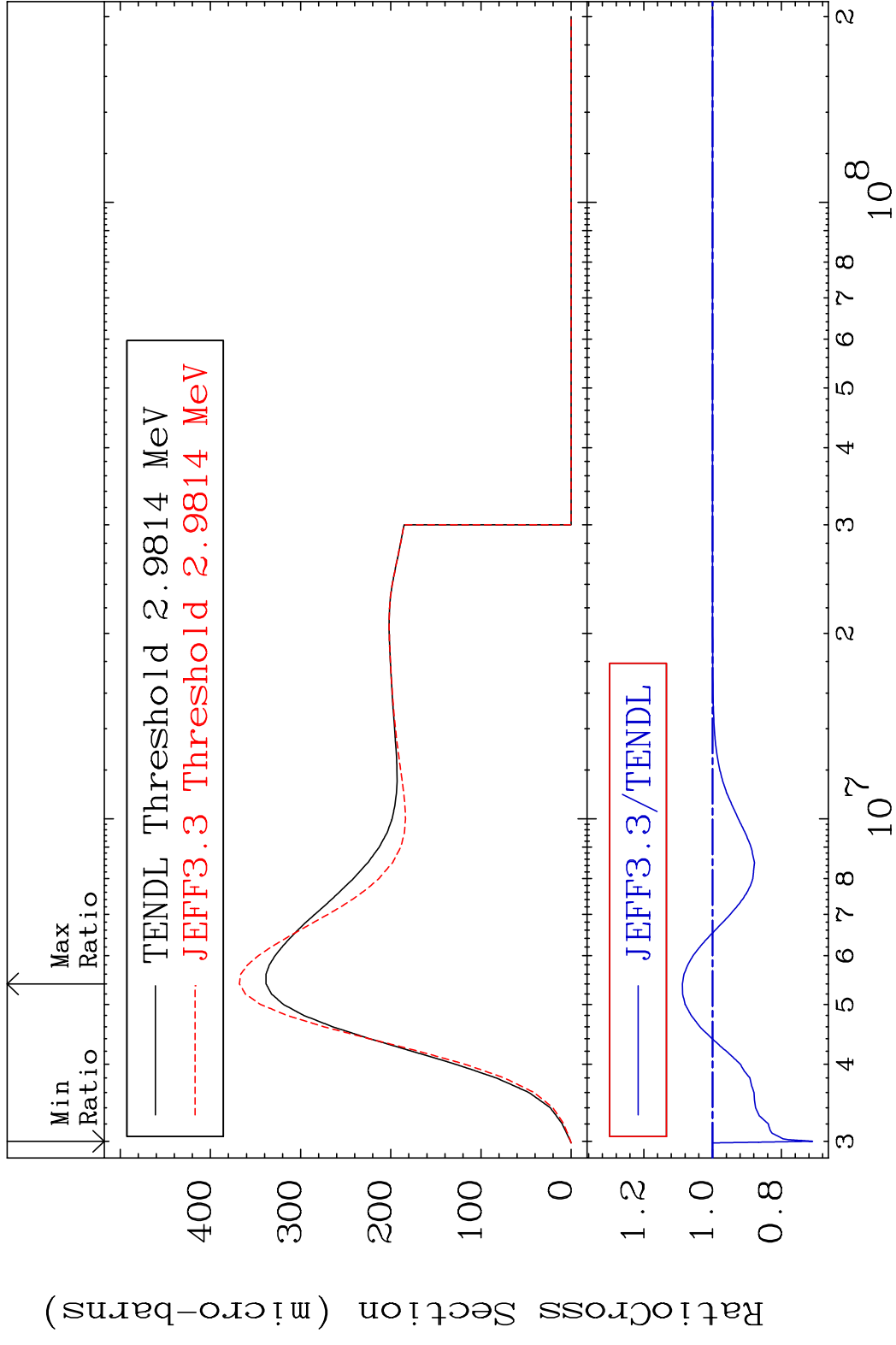
MAT 4425 MT= 69 (n, n') Level 44-Ru-96  
 Cross Section -37.16 To 4.596 %



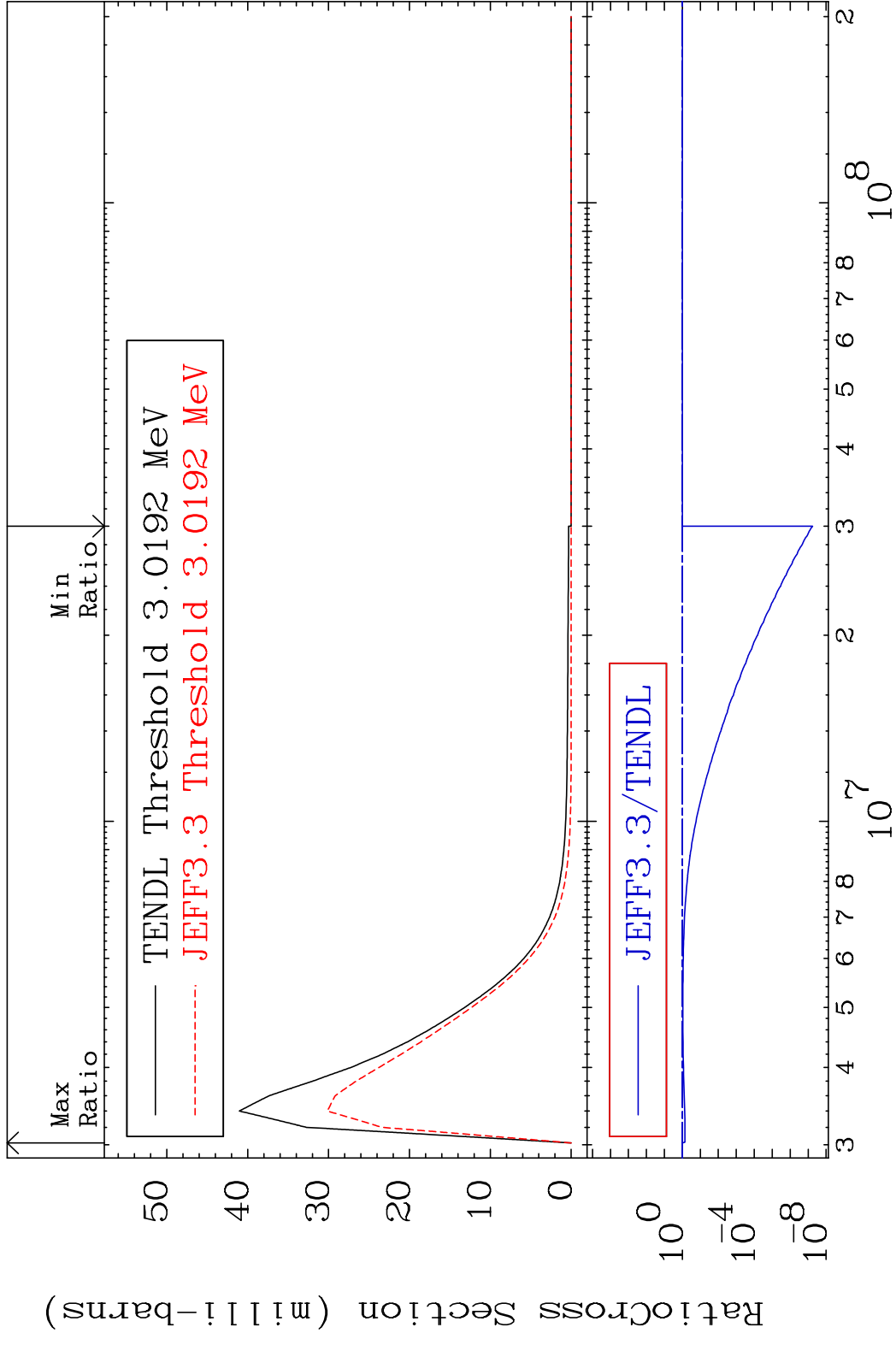
MAT 4425 MT= 70 (n, n') Level 44-Ru-96  
 Cross Section -42.20 To 10.76 %



MAT 4425 MT= 71 (n, n') Level 44-Ru-96  
 Cross Section -29.05 To 8.781 %



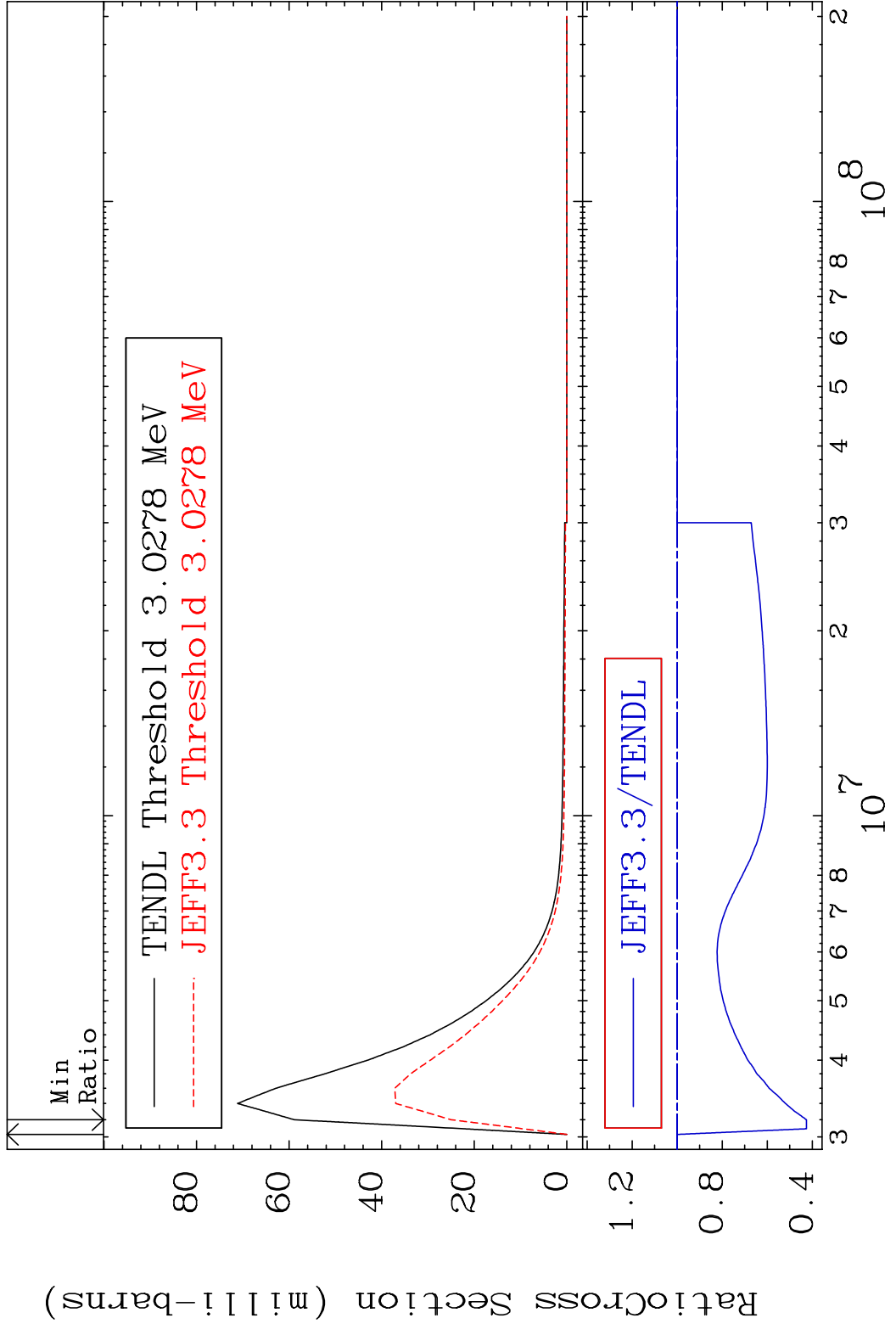
MAT 4425 MT= 72 (n, n') Level 44-Ru-96  
 Cross Section -100.0 To 0.000 %



39 Incident Energy (eV) 44-Ru-96

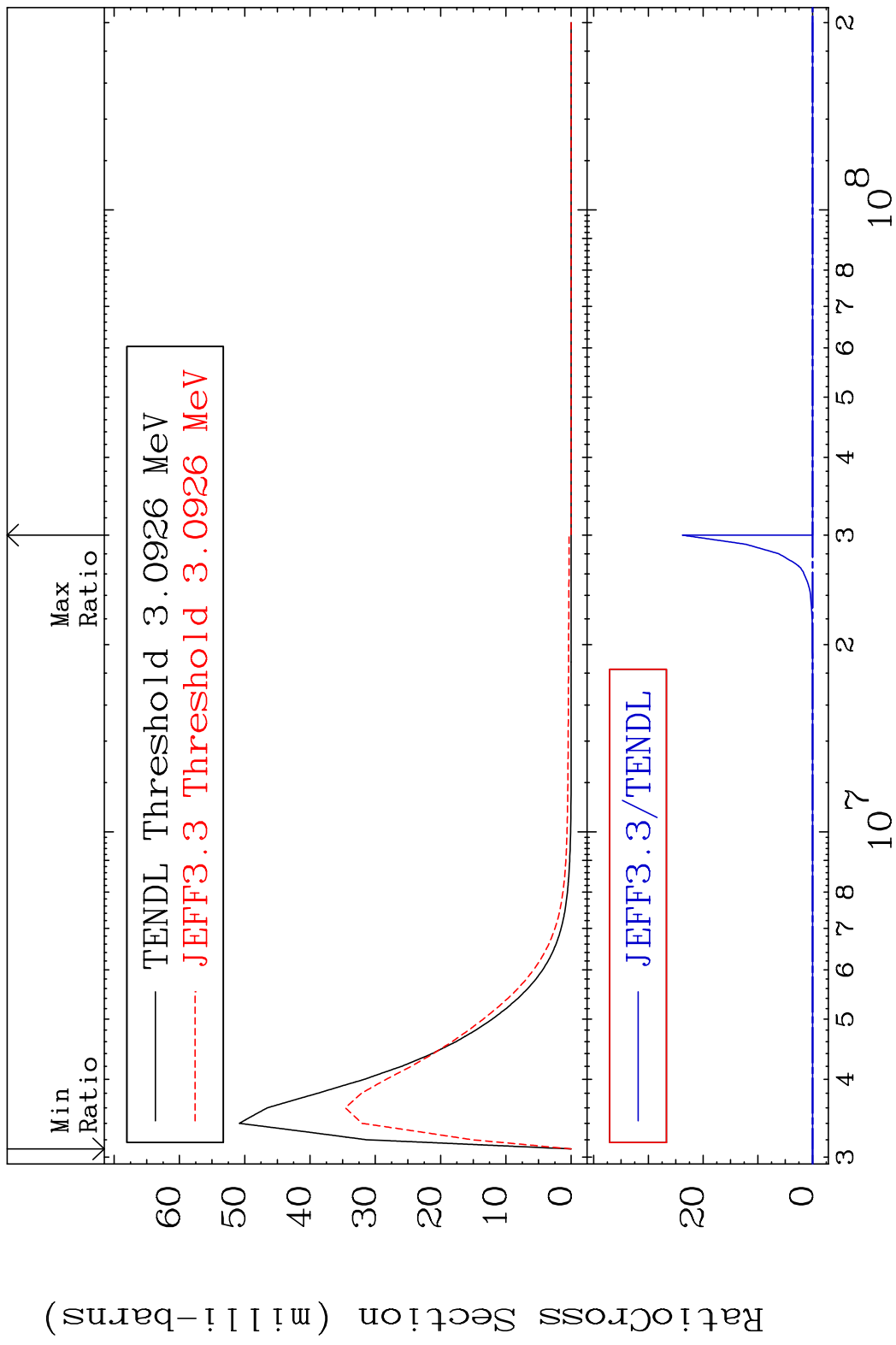


MAT 4425 MT= 73 (n, n') Level 44-Ru-96  
 Cross Section -57.41 To 0.000 %

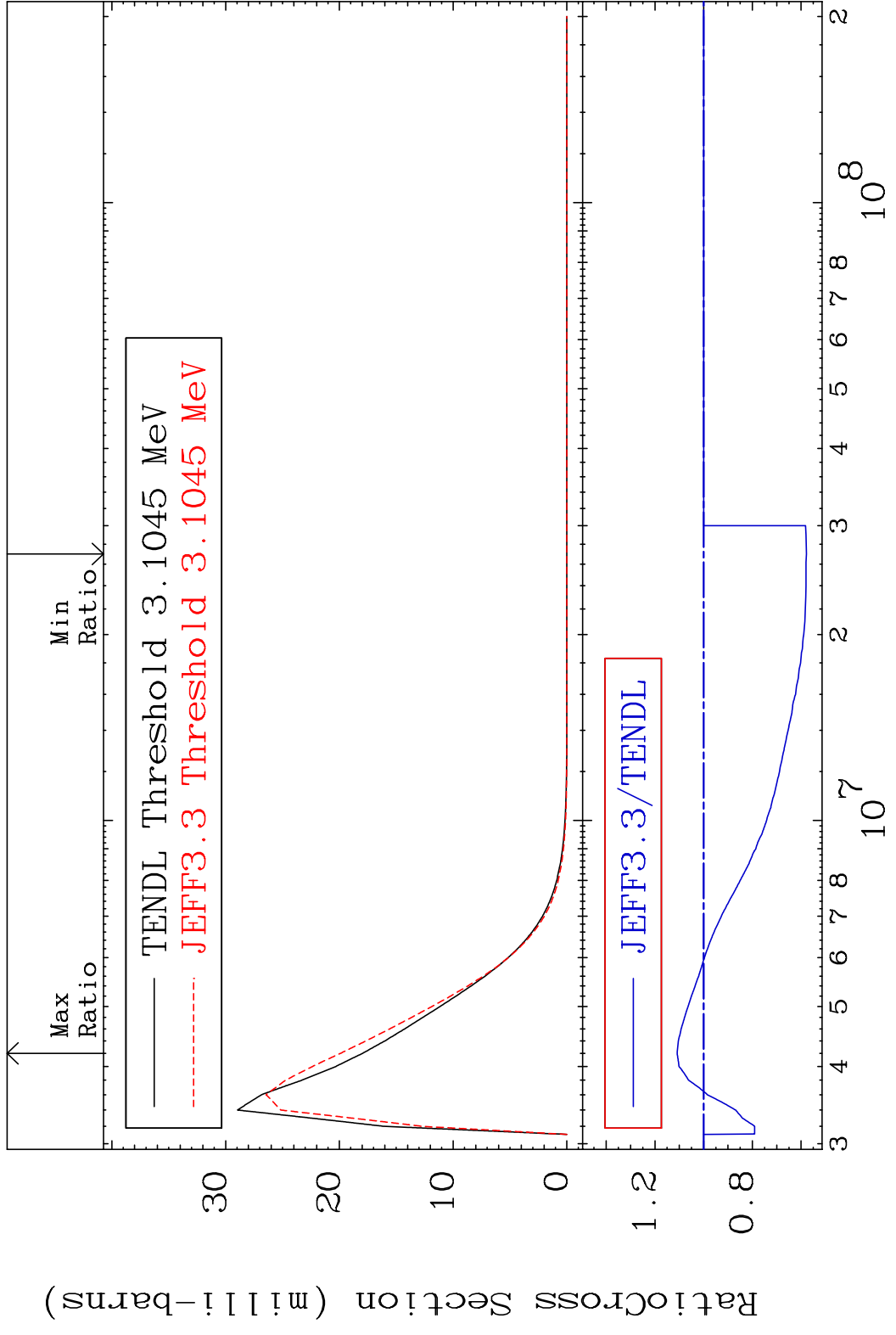


40 Incident Energy (eV) 44-Ru-96

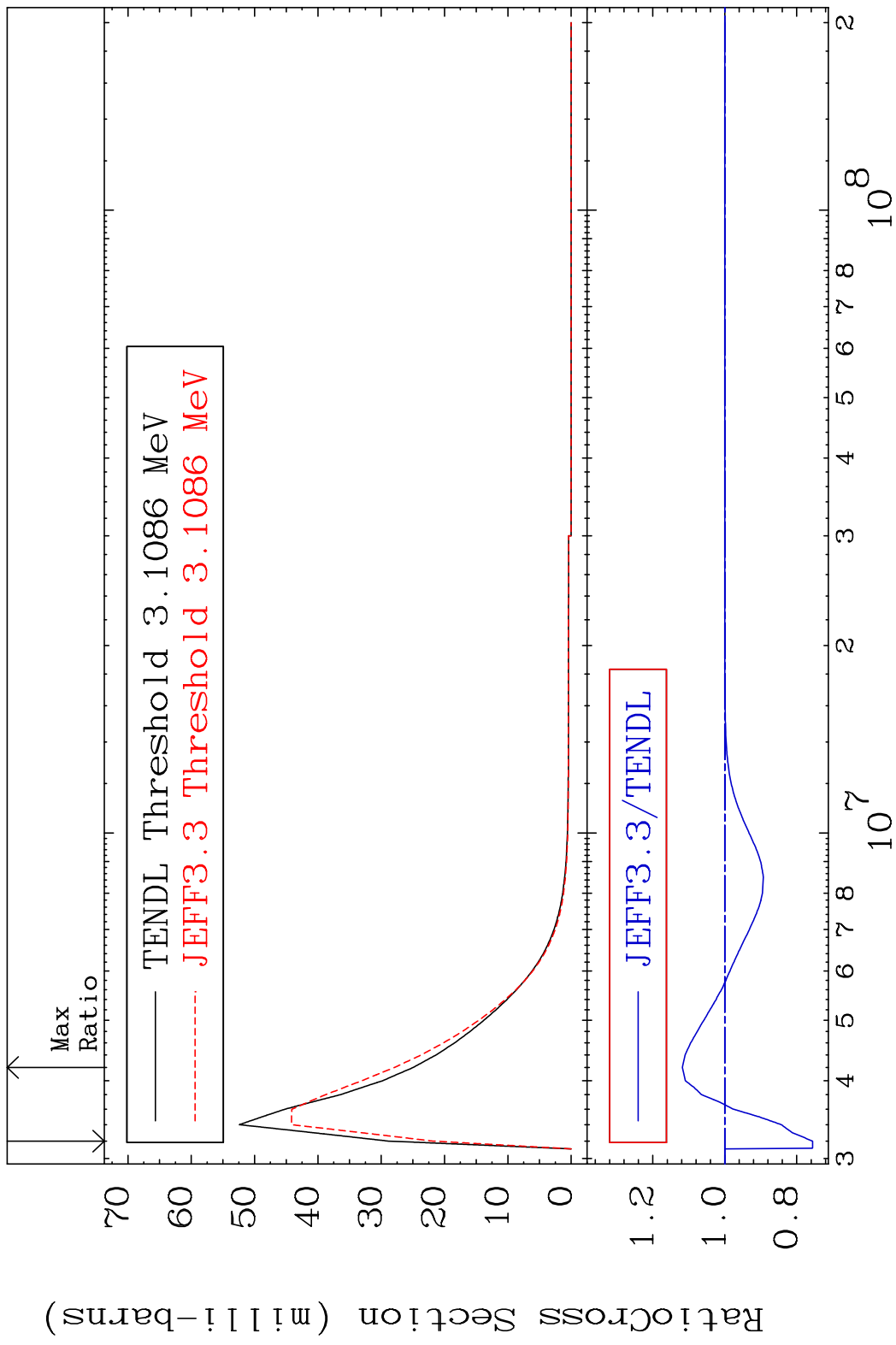
MAT 4425 MT= 74 (n, n') Level 44-Ru-96  
 Cross Section -100.0 To 9999. %



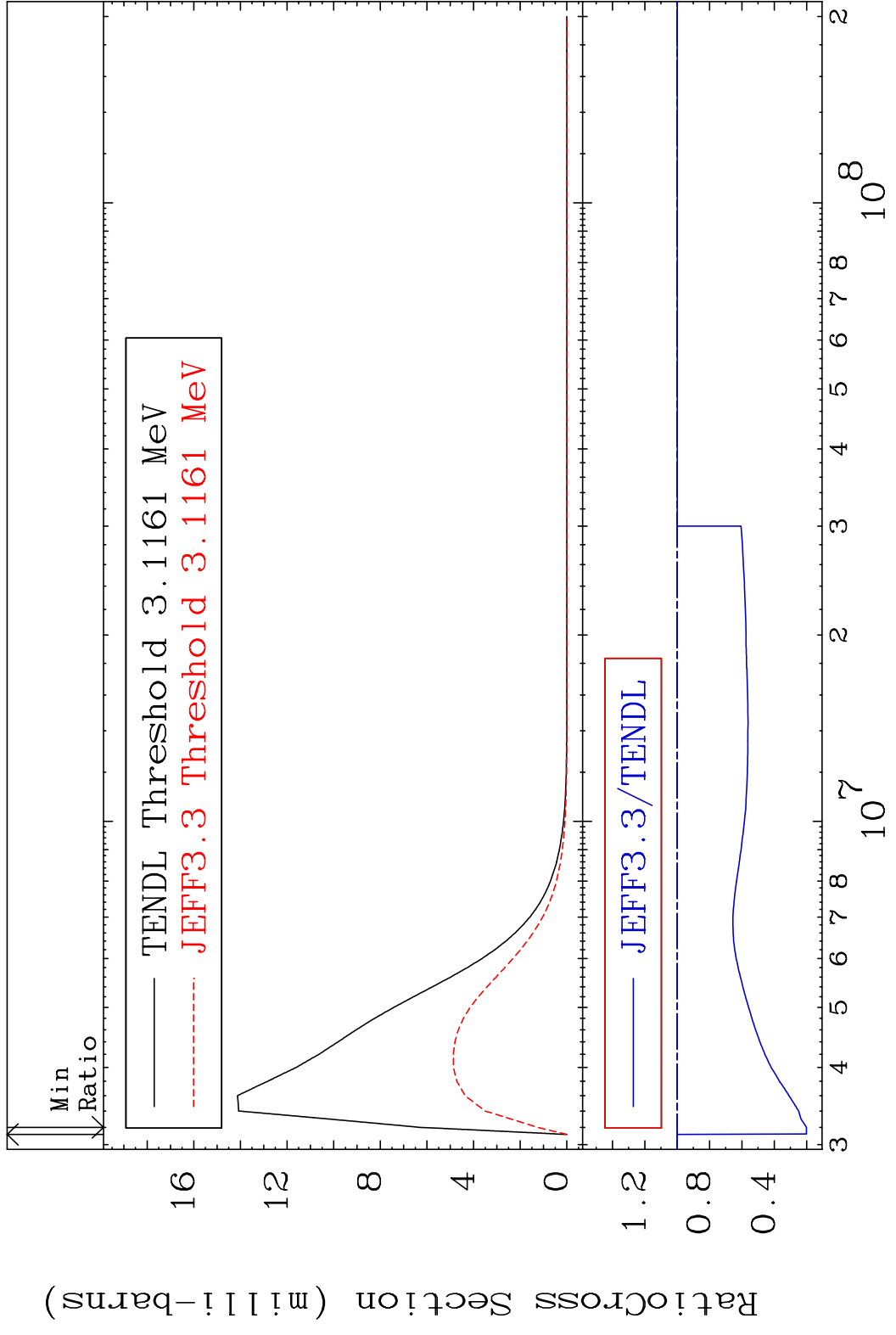
MAT 4425 MT= 75 (n,n') Level 44-Ru-96  
 Cross Section -42.17 To 10.87 %



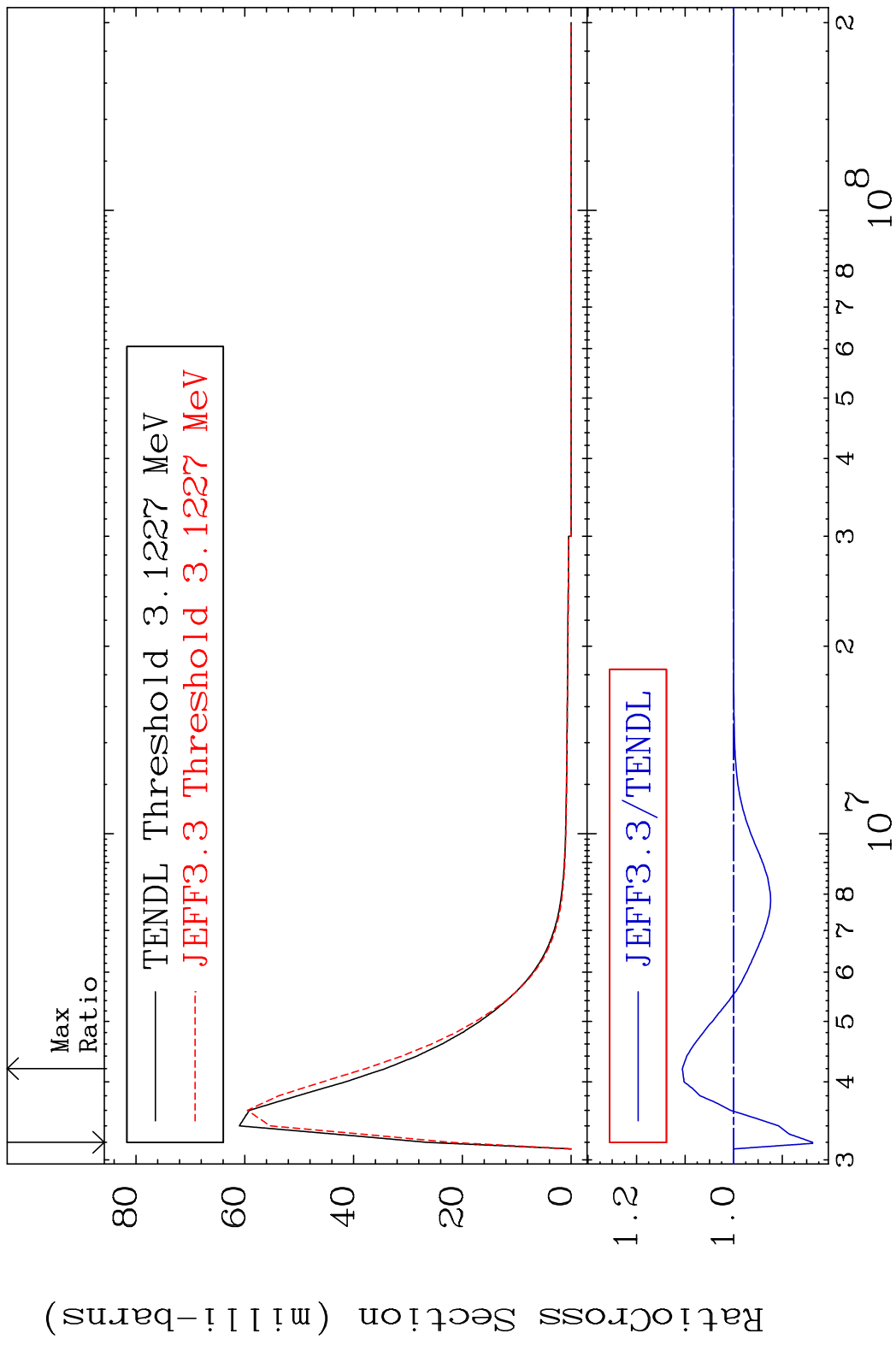
MAT 4425 MT= 76 (n, n') Level 44-Ru-96  
 Cross Section -24.39 To 11.79 %



MAT 4425 MT= 77 (n, n') Level 44-Ru-96  
 Cross Section -79.87 To 0.000 %

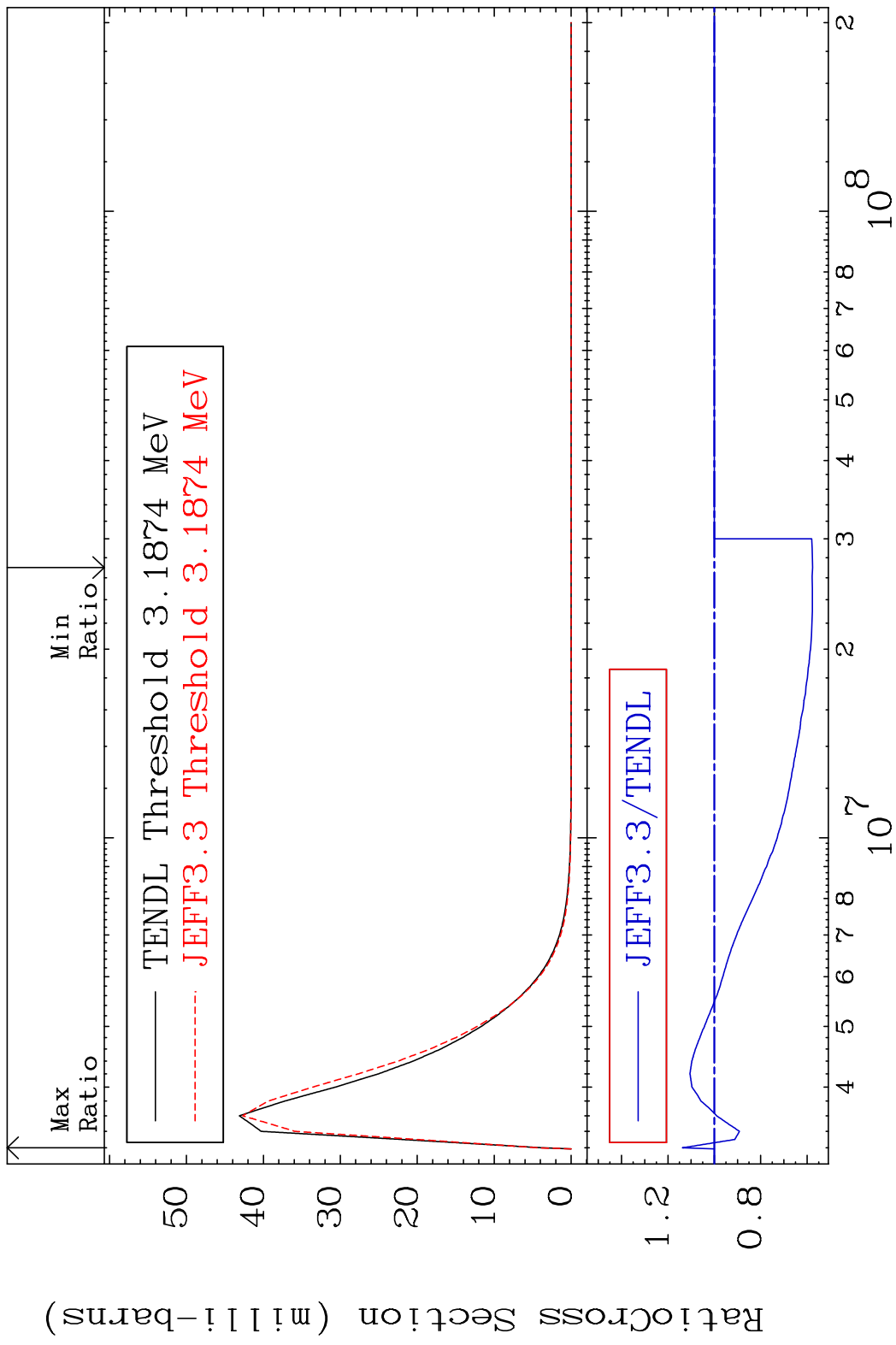


MAT 4425 MT= 78 (n, n') Level 44-Ru-96  
 Cross Section -16.23 To 10.57 %

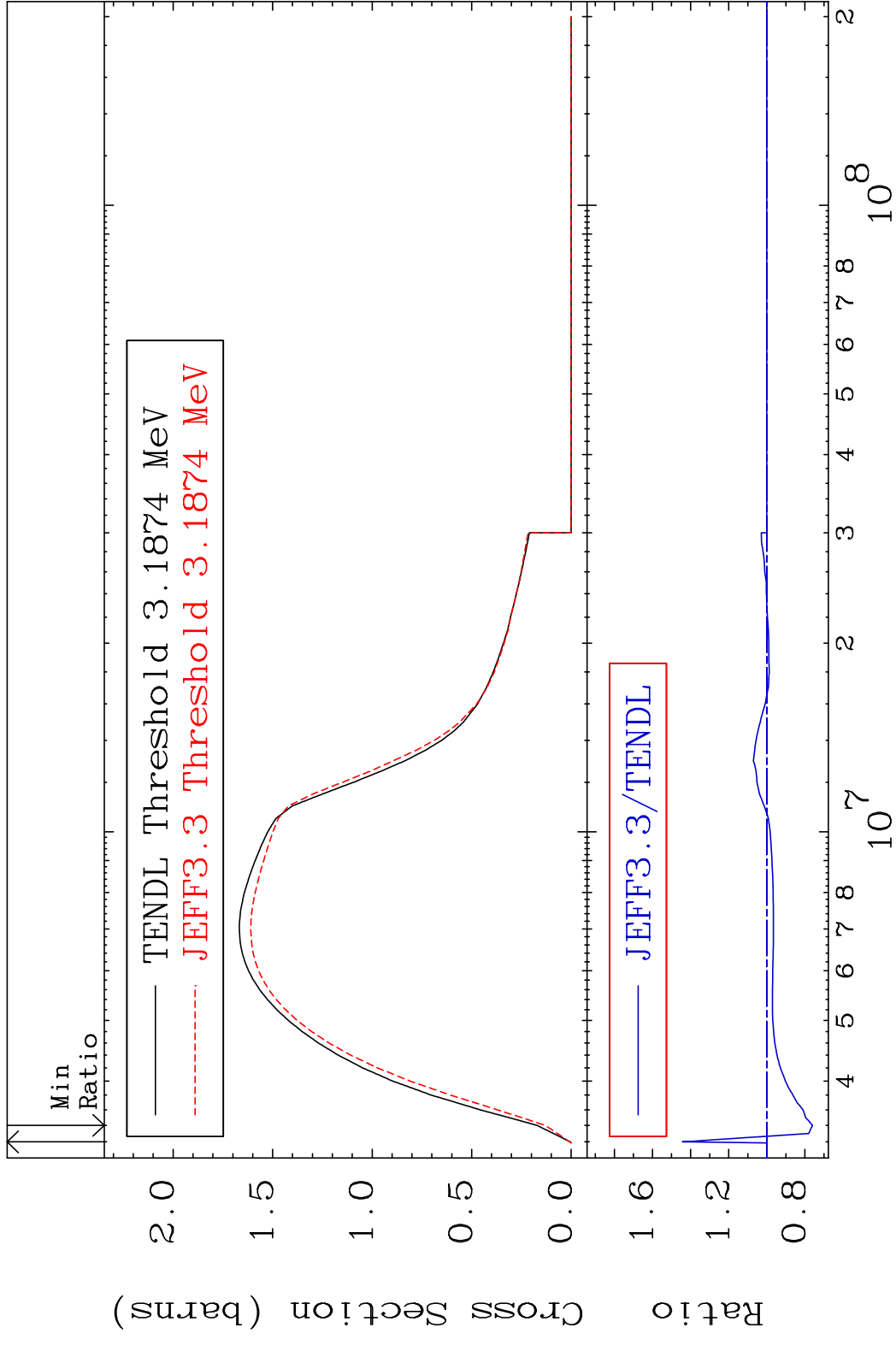


45 Incident Energy (eV) 44-Ru-96

MAT 4425 MT= 79 (n, n') Level 44-Ru-96  
 Cross Section -42.37 To 13.77 %



MAT 4425 (n,n') Continuum 44-Ru-96  
 Cross Section -23.98 To 44.31 %



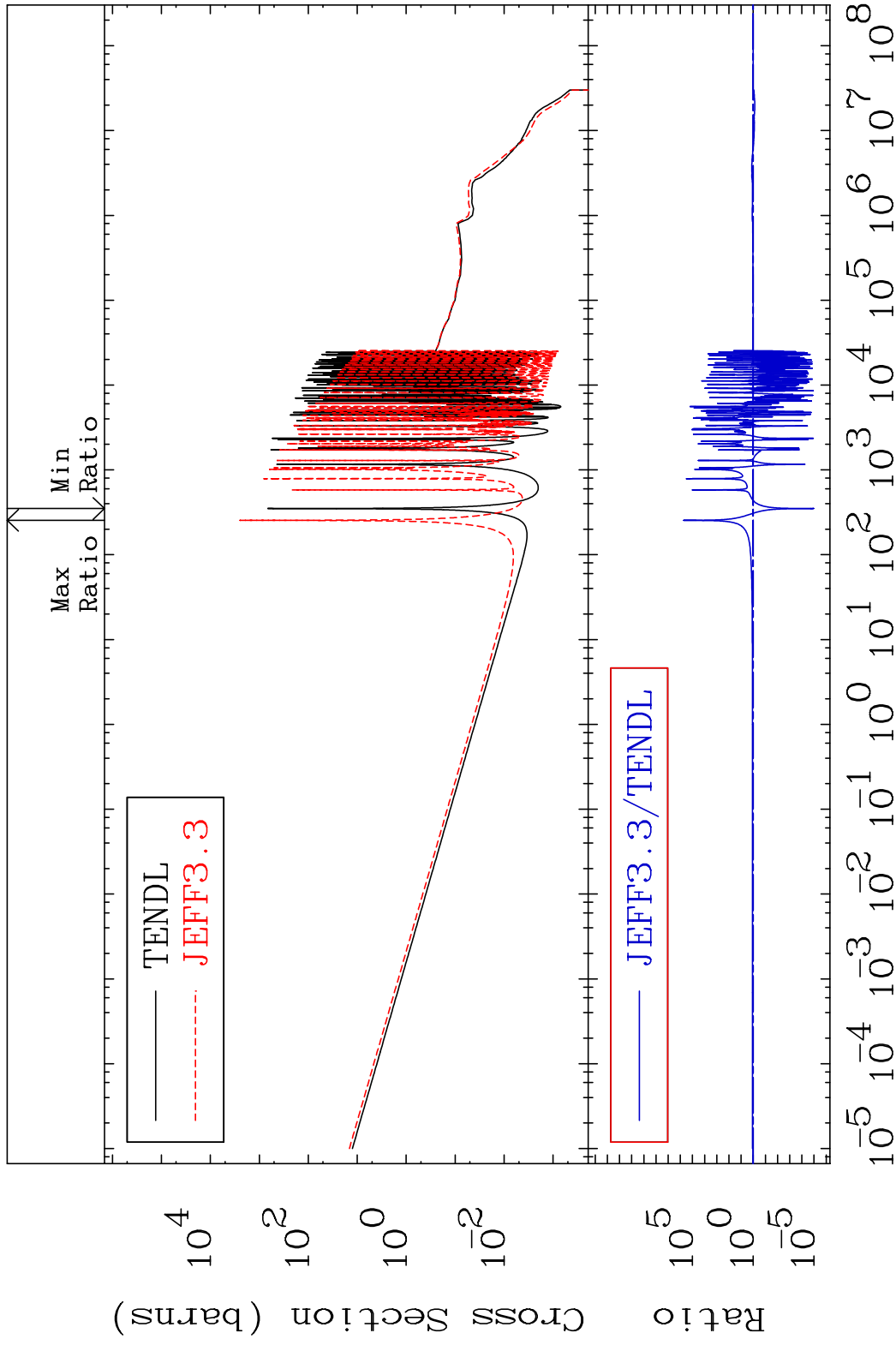


MAT 4425

(n,  $\gamma$ )

44-Ru-96

Cross Section -100.0 To 9999. %



48

Incident Energy (eV)

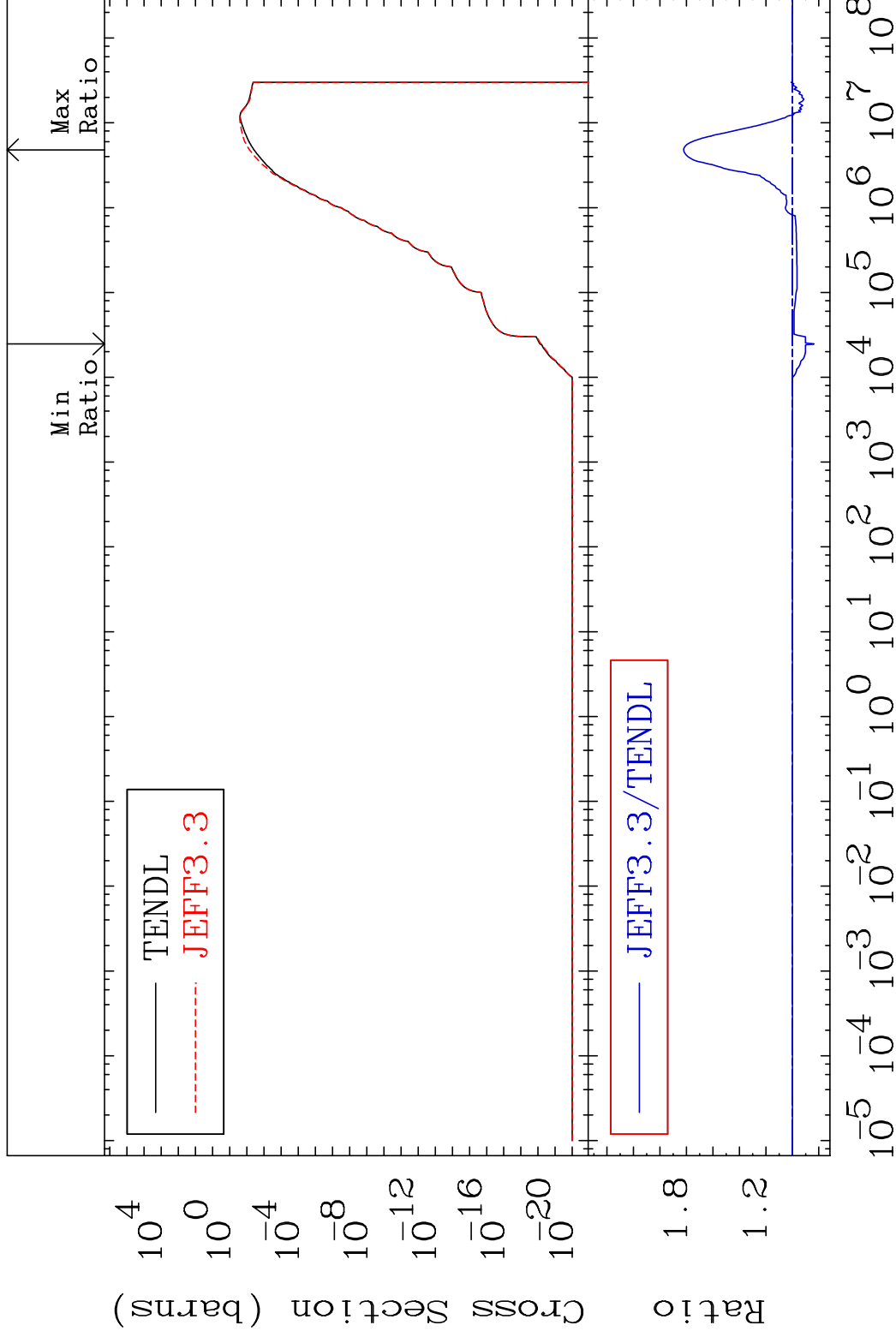
44-Ru-96

MAT 4425

(n, p)

44-Ru-96

Cross Section -16.43 To 82.11 %



49

Incident Energy (eV)

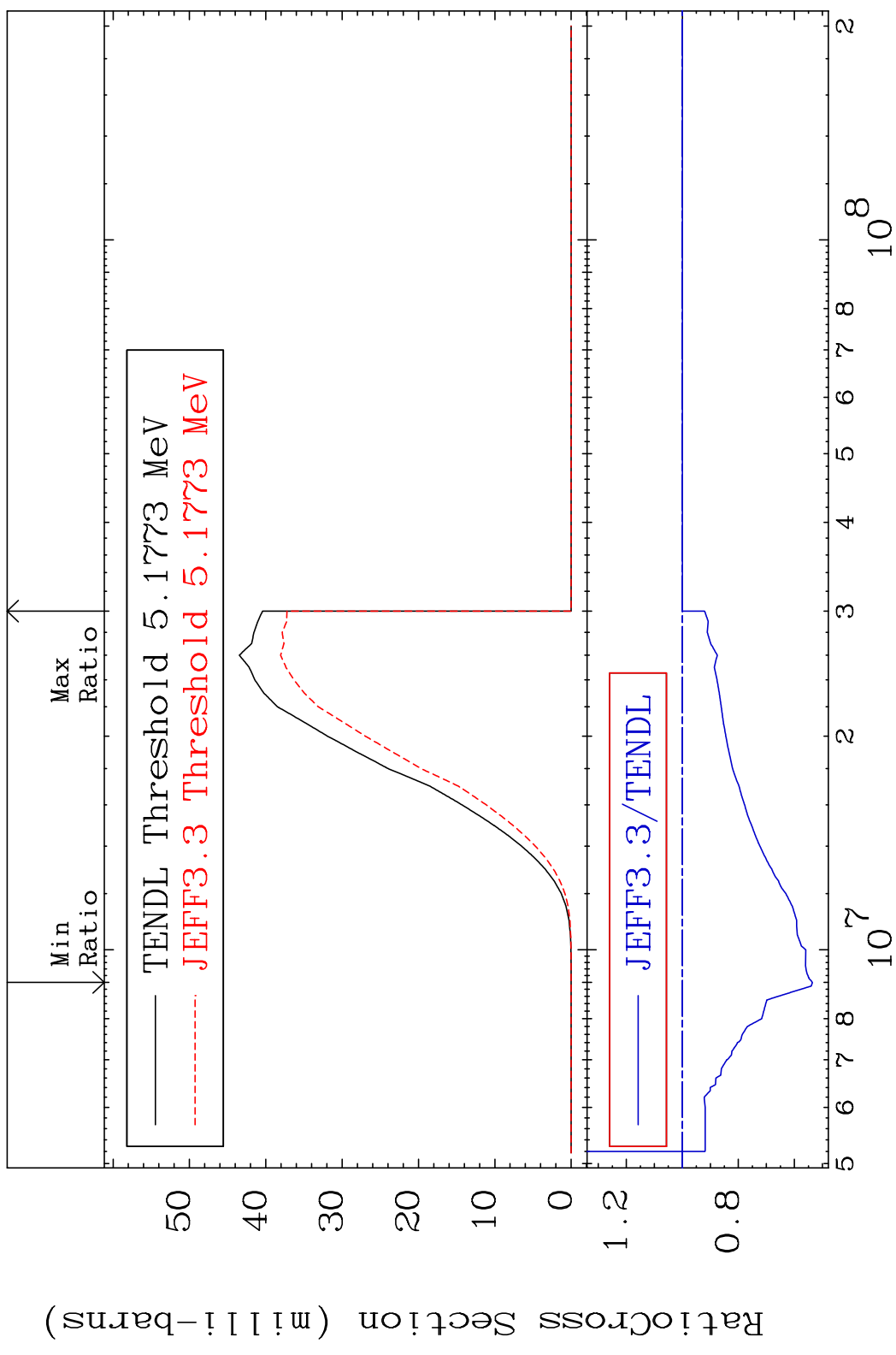
44-Ru-96

MAT 4425

(n, d)

44-Ru-96

Cross Section -46.48 To 0.000 %



50

Incident Energy (eV)

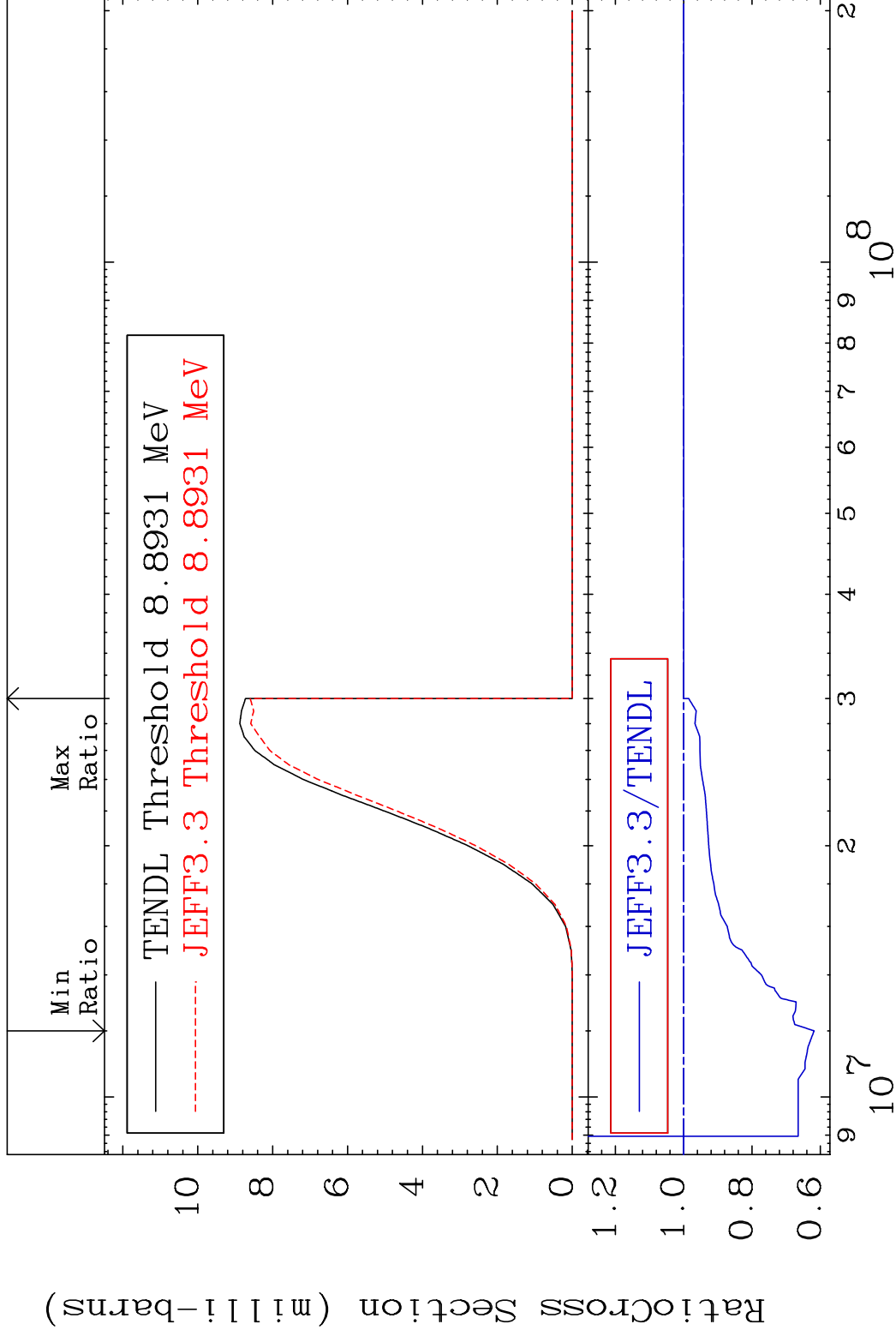
44-Ru-96

MAT 4425

(n, t)

44-Ru-96

Cross Section -38.16 To 0.000 %



51

Incident Energy (eV)

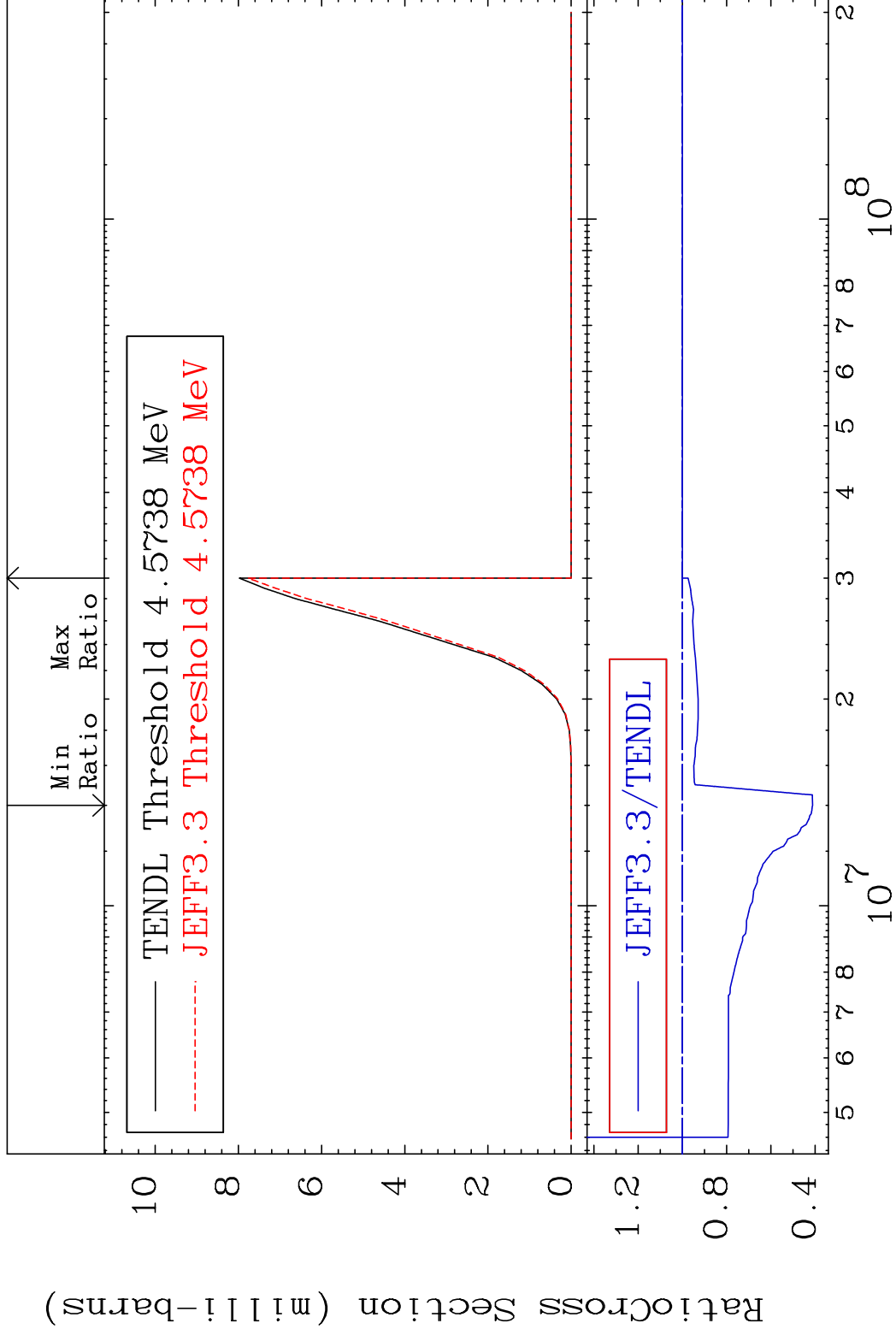
44-Ru-96

MAT 4425

(n, He-3)

44-Ru-96

Cross Section -58.87 To 0.000 %



52

Incident Energy (eV)

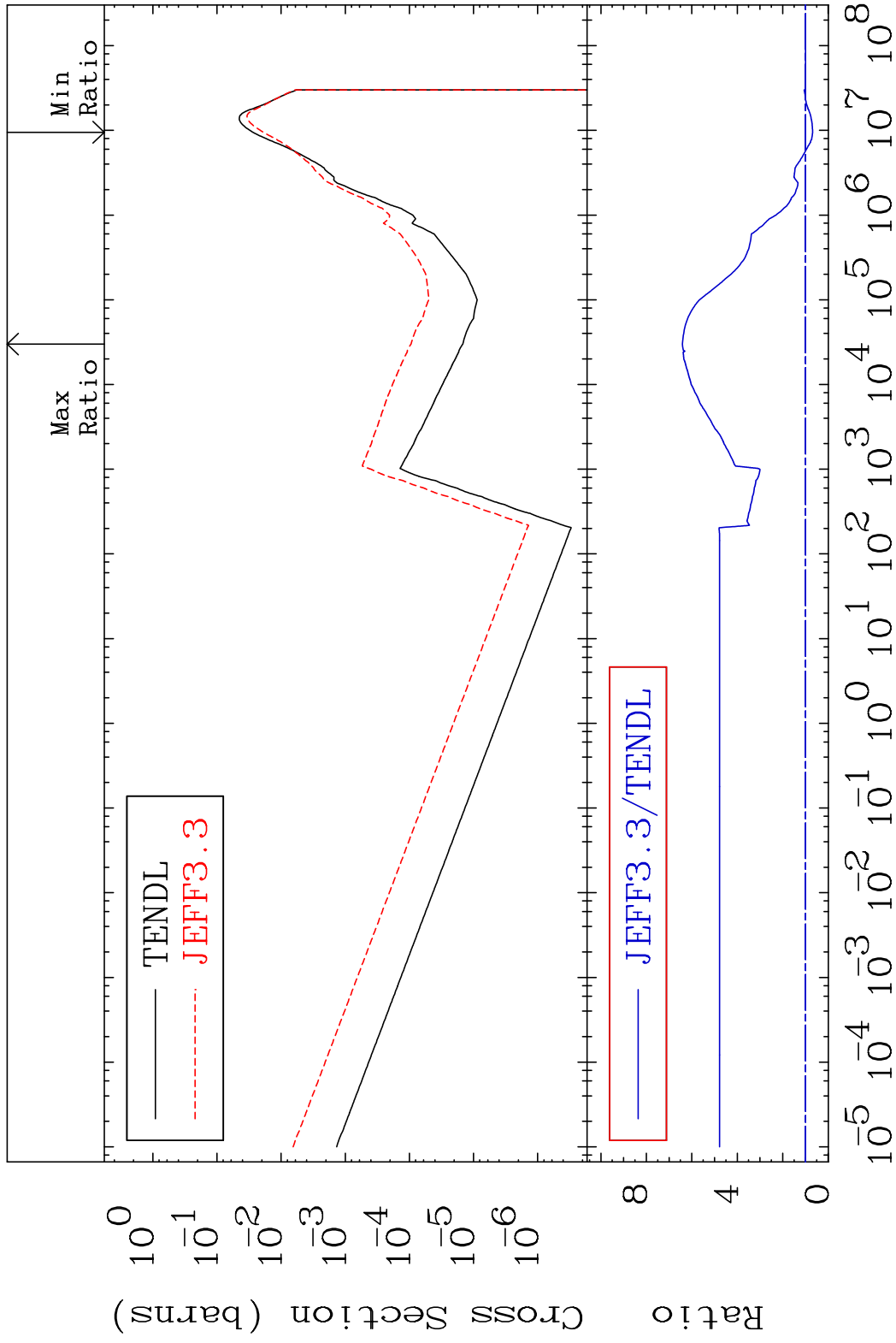
44-Ru-96

MAT 4425

(n,  $\alpha$ )

44-Ru-96

Cross Section -31.31 To 541.5 %



53

Incident Energy (eV)

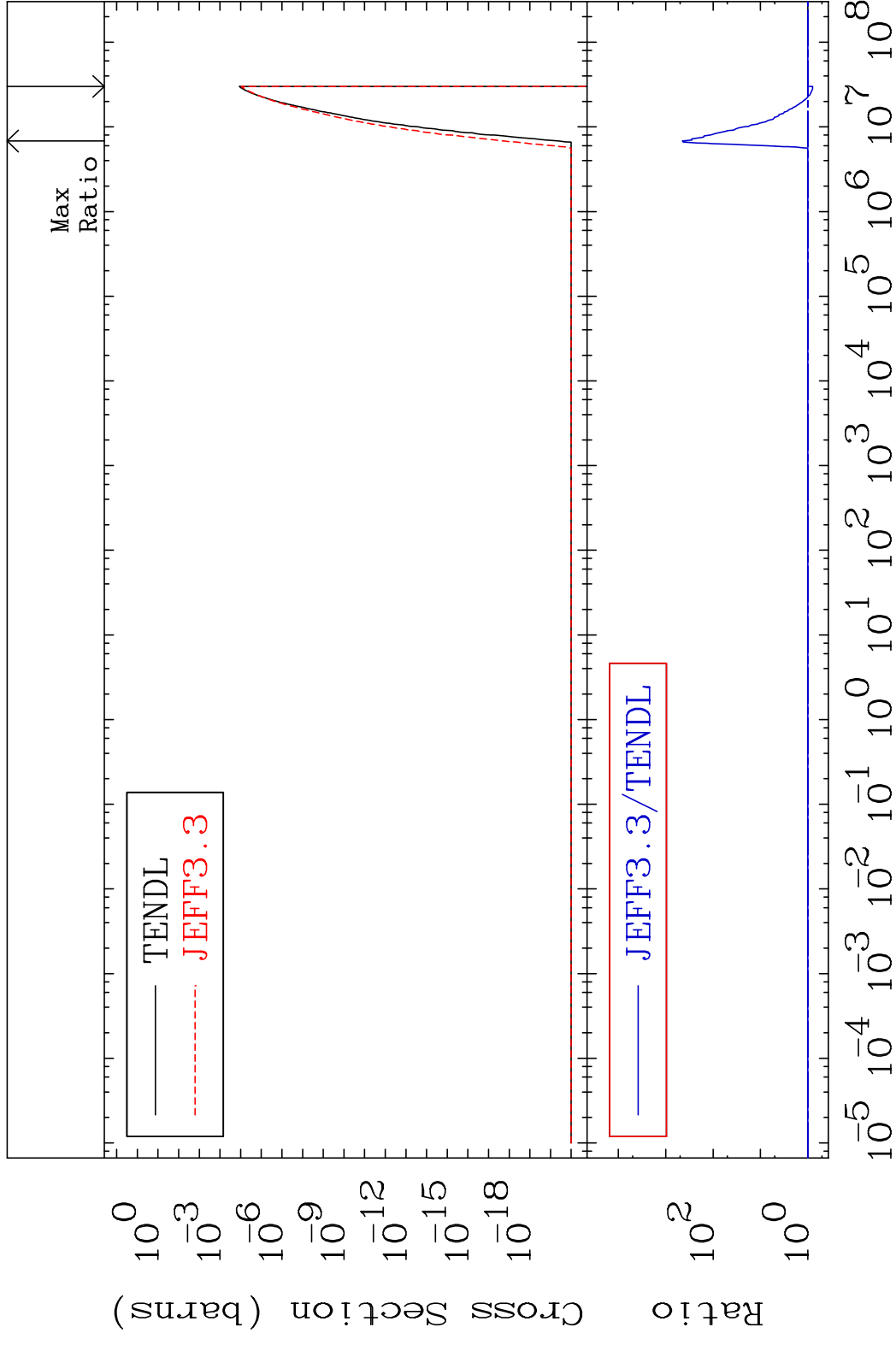
44-Ru-96

MAT 4425

(n, 2α)

44-Ru-96

Cross Section -20.61 To 9999. %

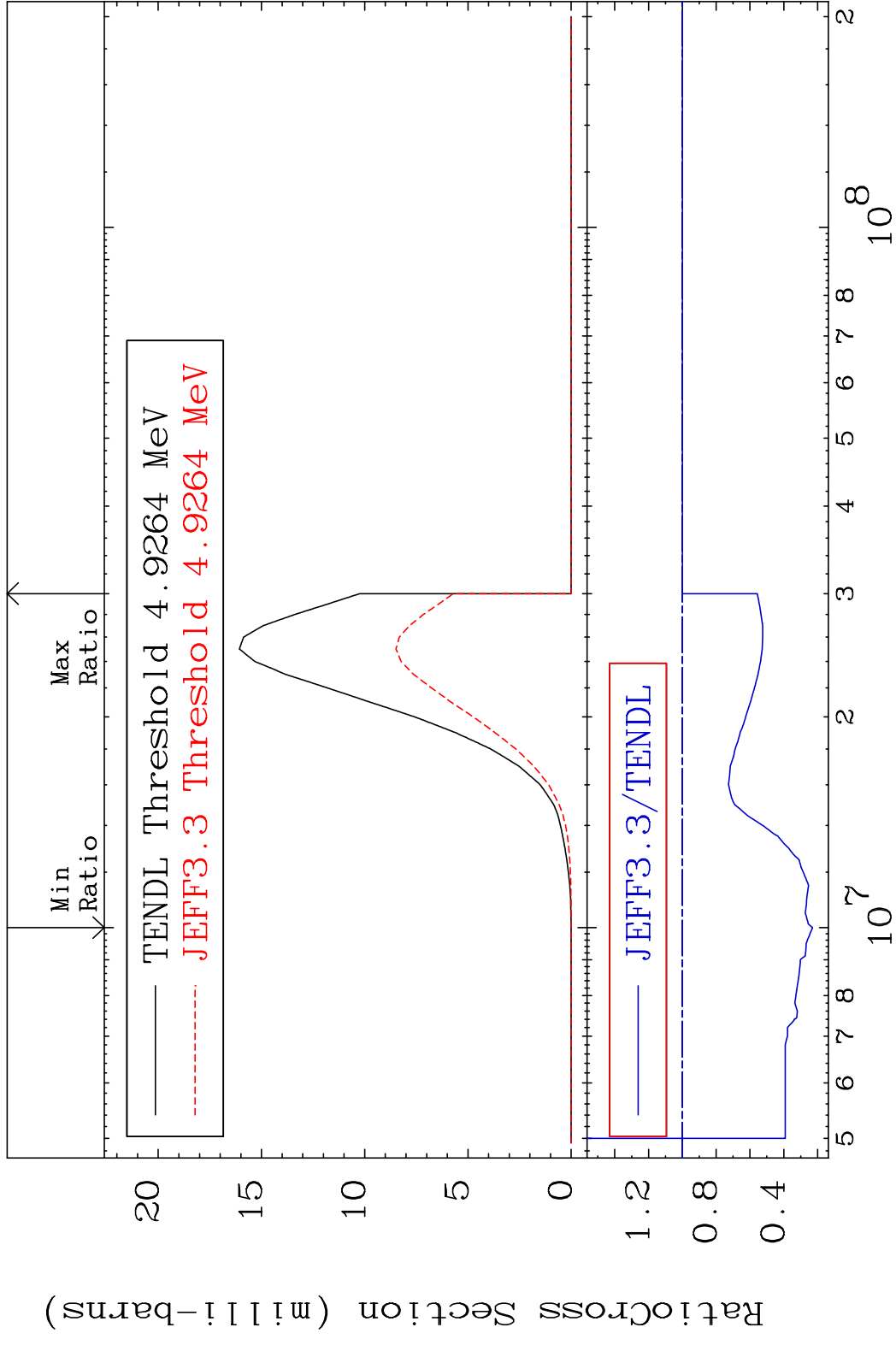


MAT 4425

(n,2p)

44-Ru-96

Cross Section -77.04 To 0.000 %



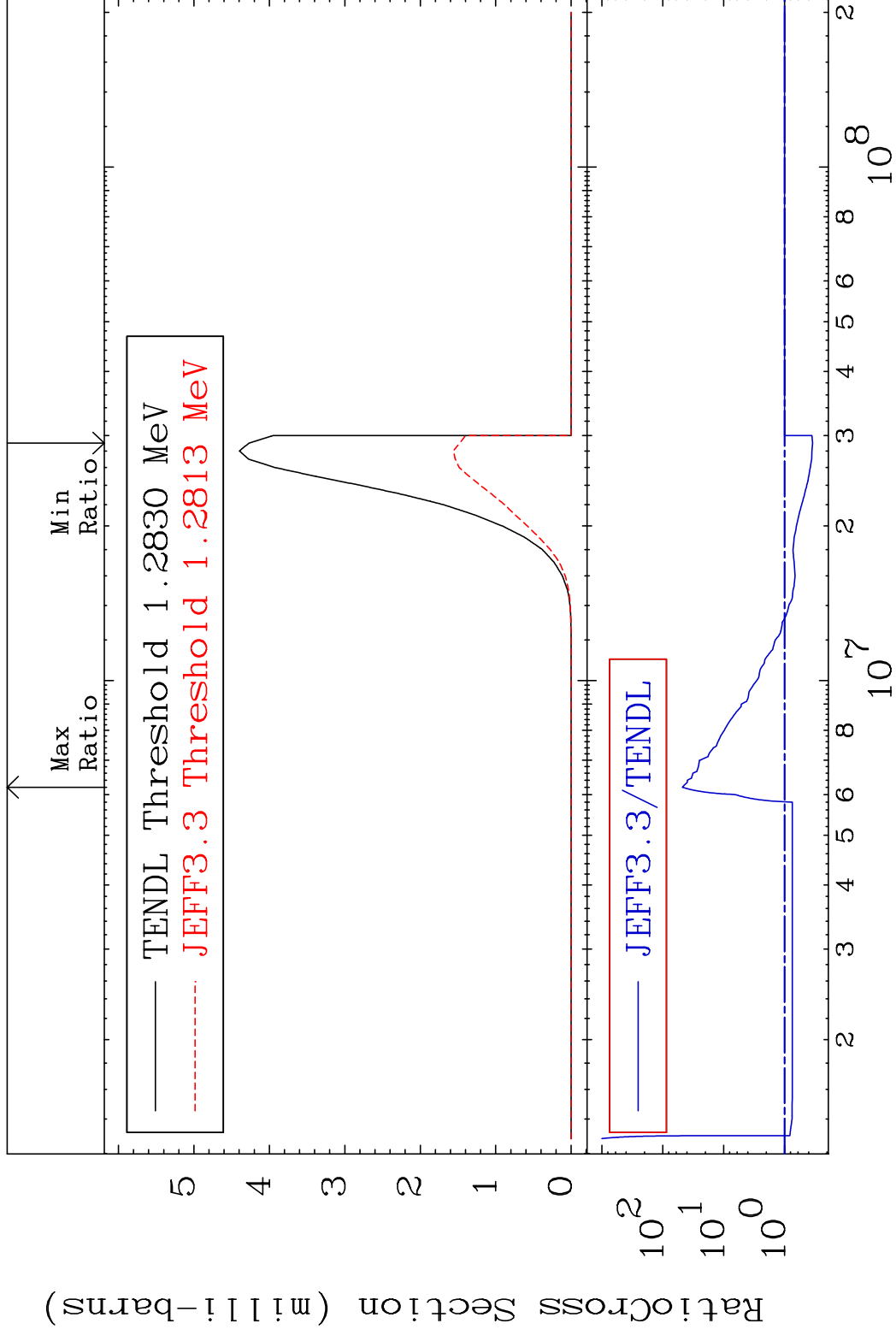


MAT 4425

(n,p)  $\alpha$

44-Ru-96

Cross Section -65.39 To 4674. %



56

Incident Energy (eV)

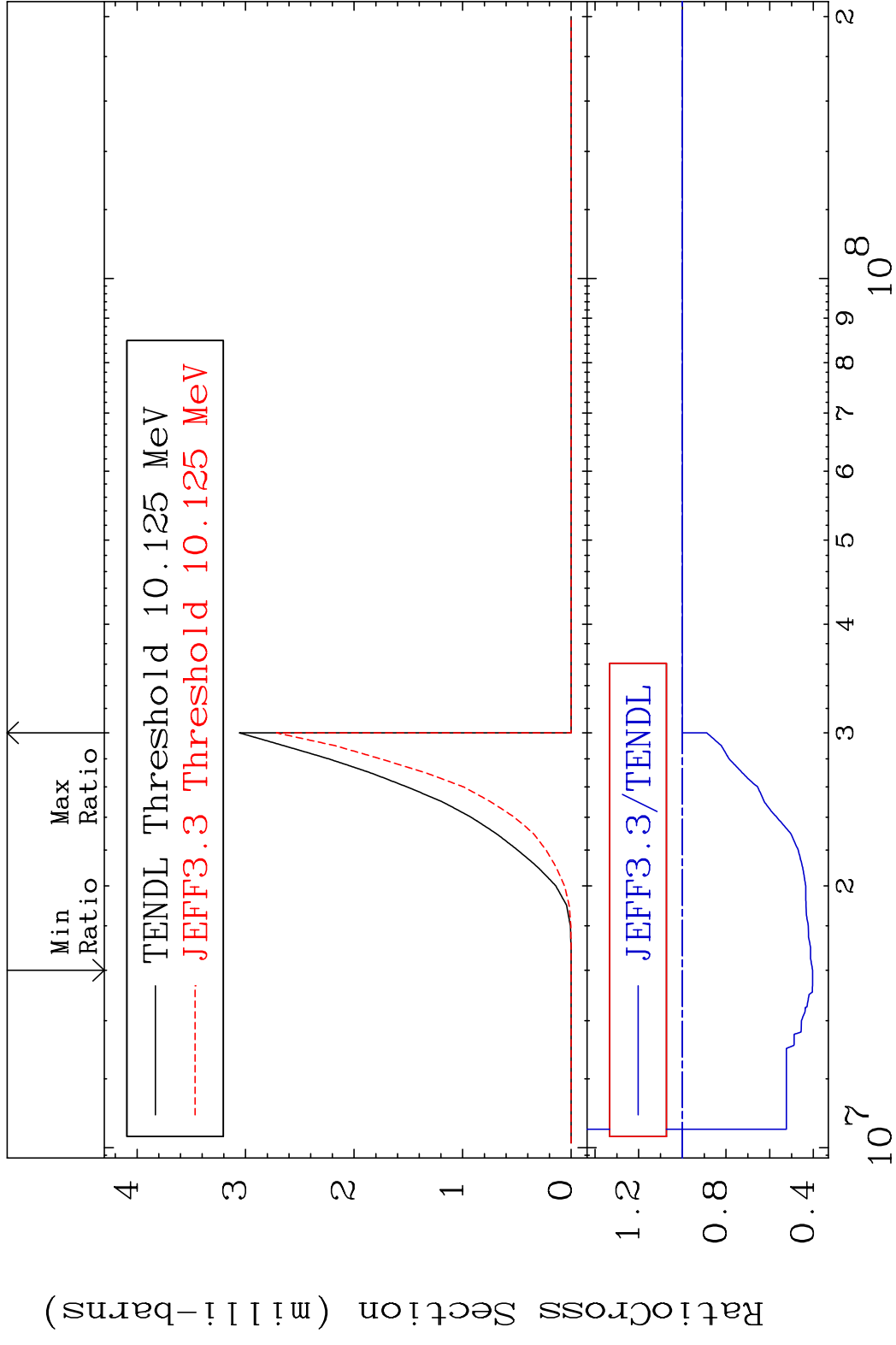
44-Ru-96

MAT 4425

(n,p) d

44-Ru-96

Cross Section -59.62 To 0.000 %

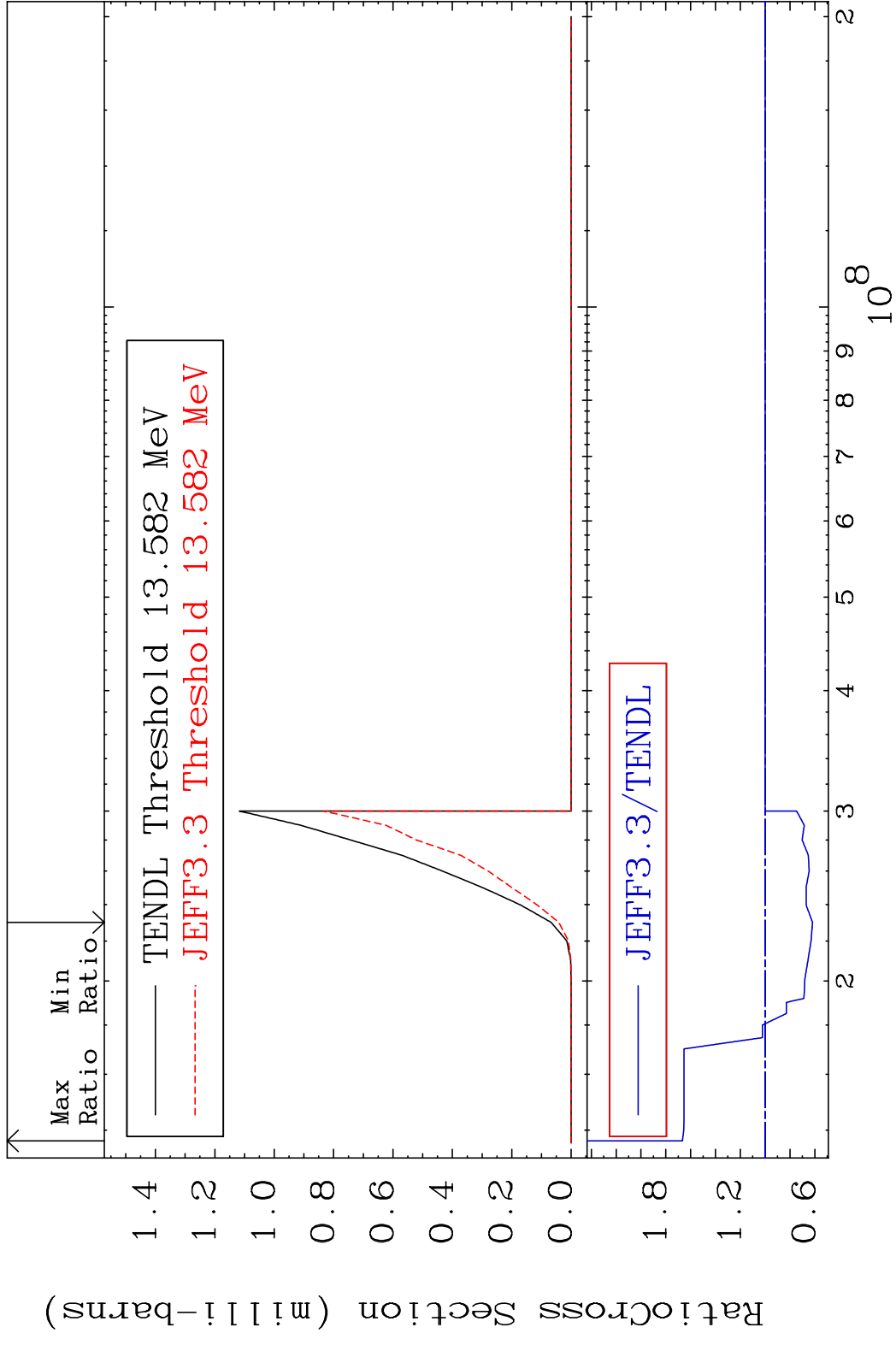


57

Incident Energy (eV)

44-Ru-96

MAT 4425 (n,p) t 44-Ru-96  
 Cross Section -38.21 To 66.67 %

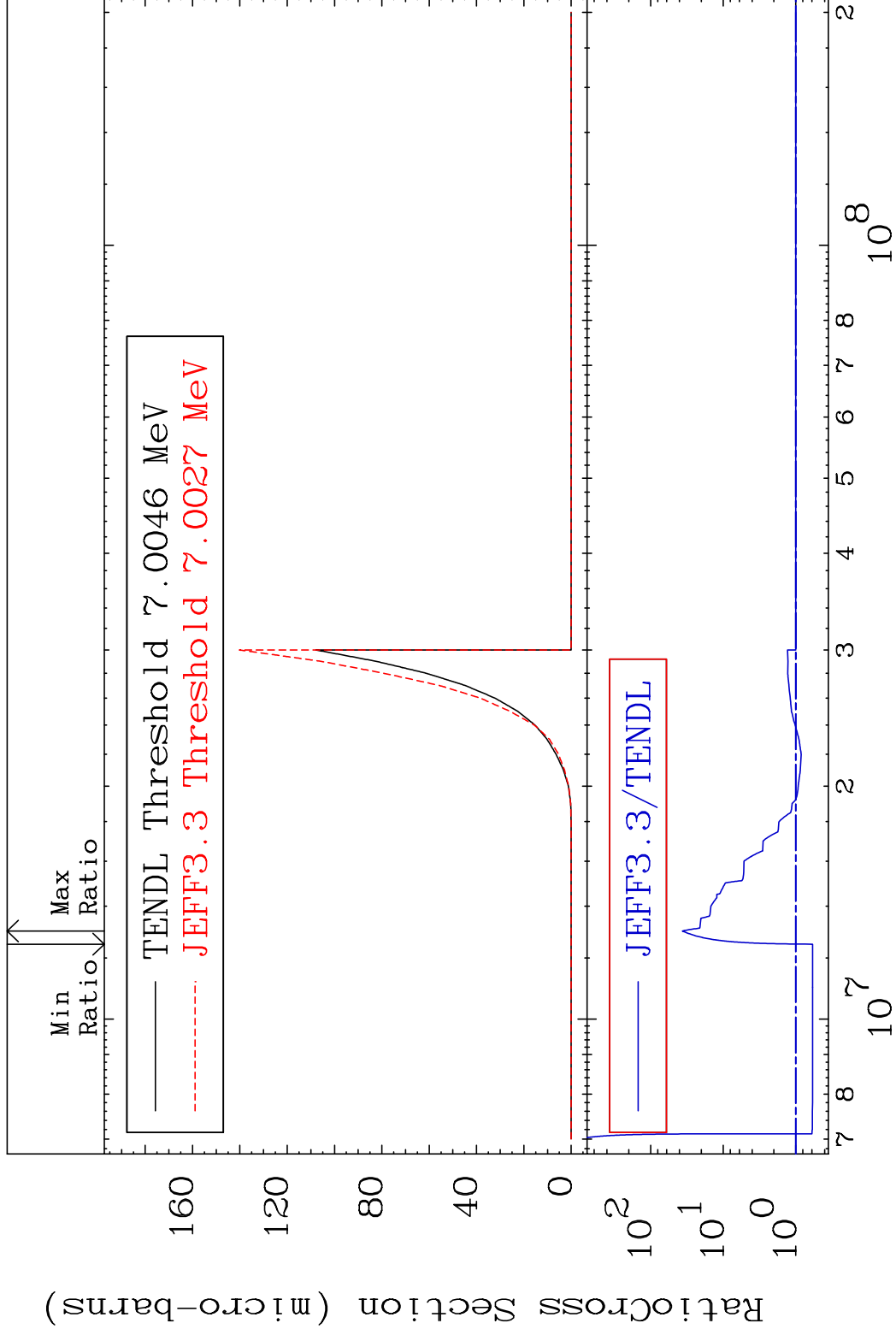


MAT 4425

(n,d)  $\alpha$

44-Ru-96

Cross Section -41.26 To 3556. %



59

Incident Energy (eV)

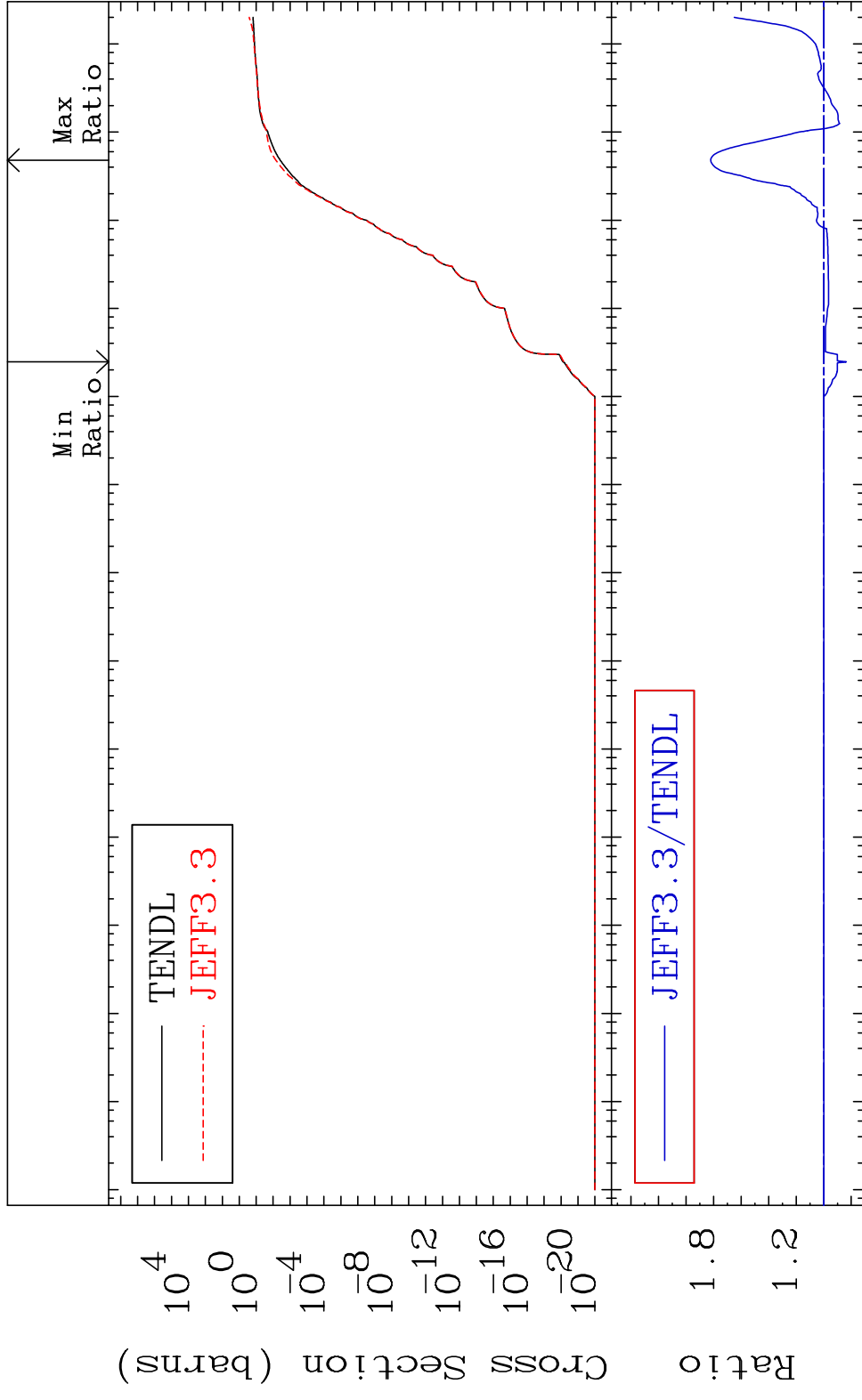
44-Ru-96

MAT 4425

Hydrogen Production

44-Ru-96

Cross Section -16.43 To 82.11 %



60

Incident Energy (eV)

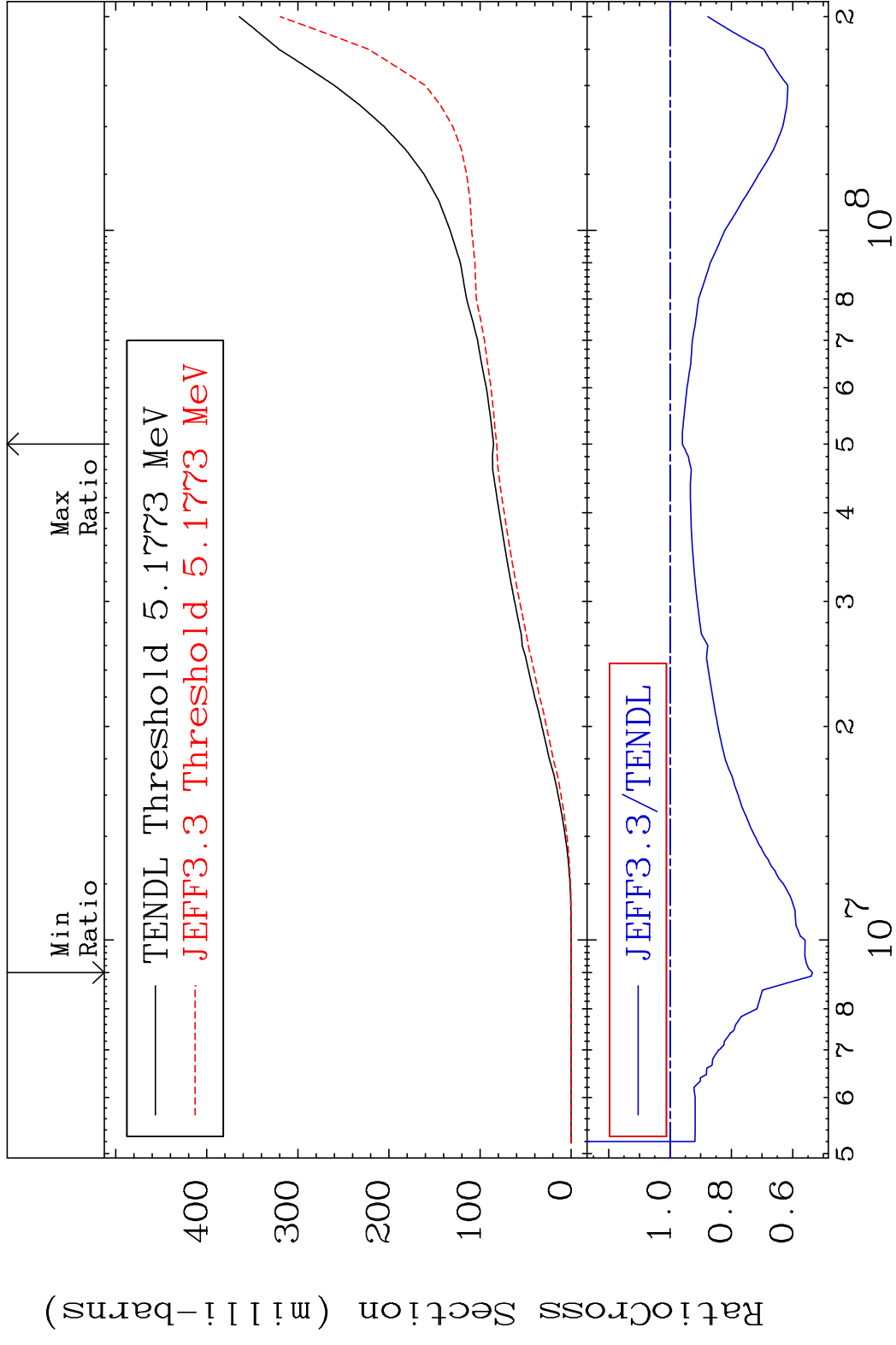
44-Ru-96

MAT 4425

Deuterium Production

44-Ru-96

Cross Section -46.48 To -4.008%



61

Incident Energy (eV)

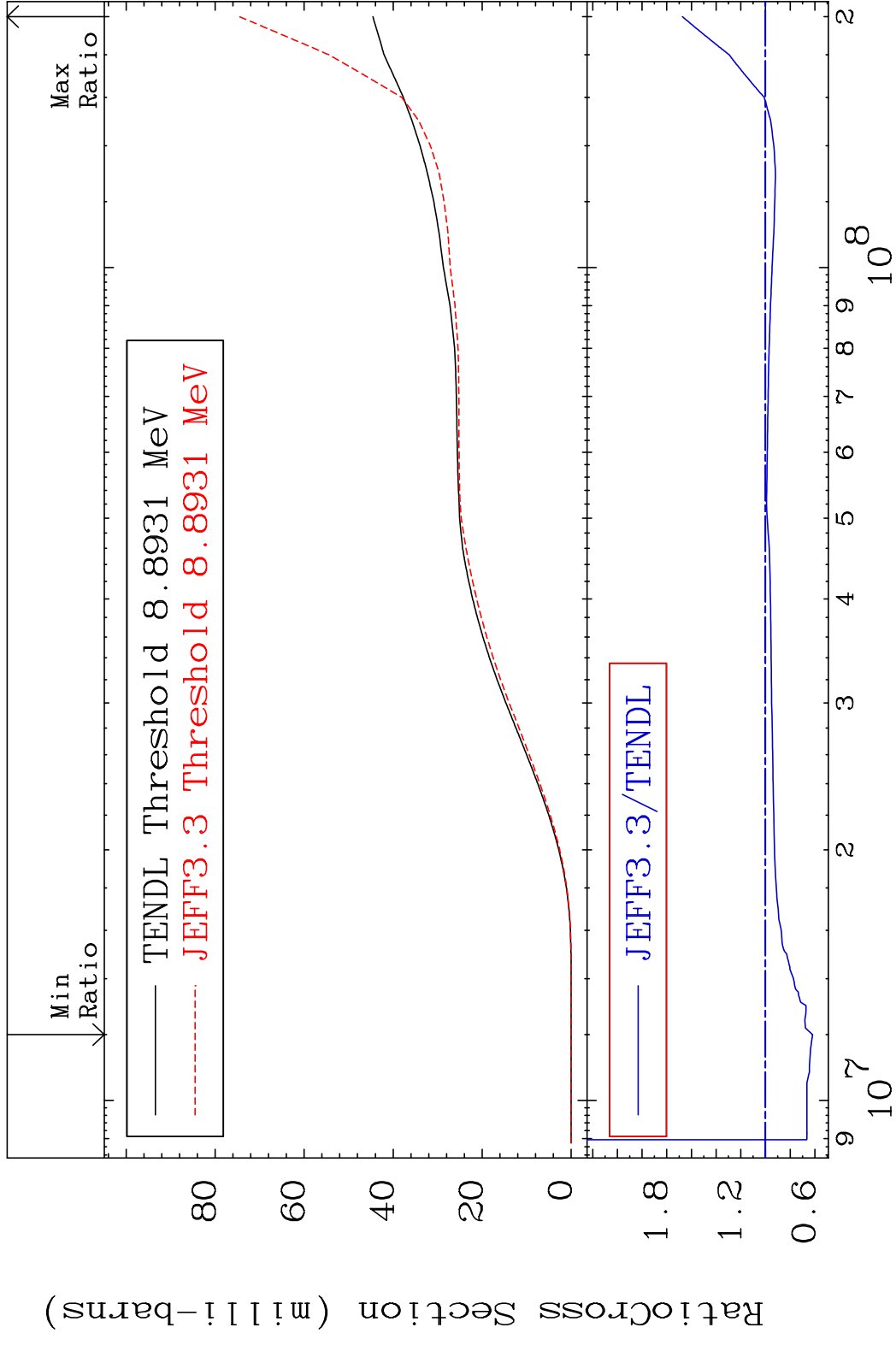
44-Ru-96

MAT 4425

Tritium Production

44-Ru-96

Cross Section -38.16 To 67.36 %



62

Incident Energy (eV)

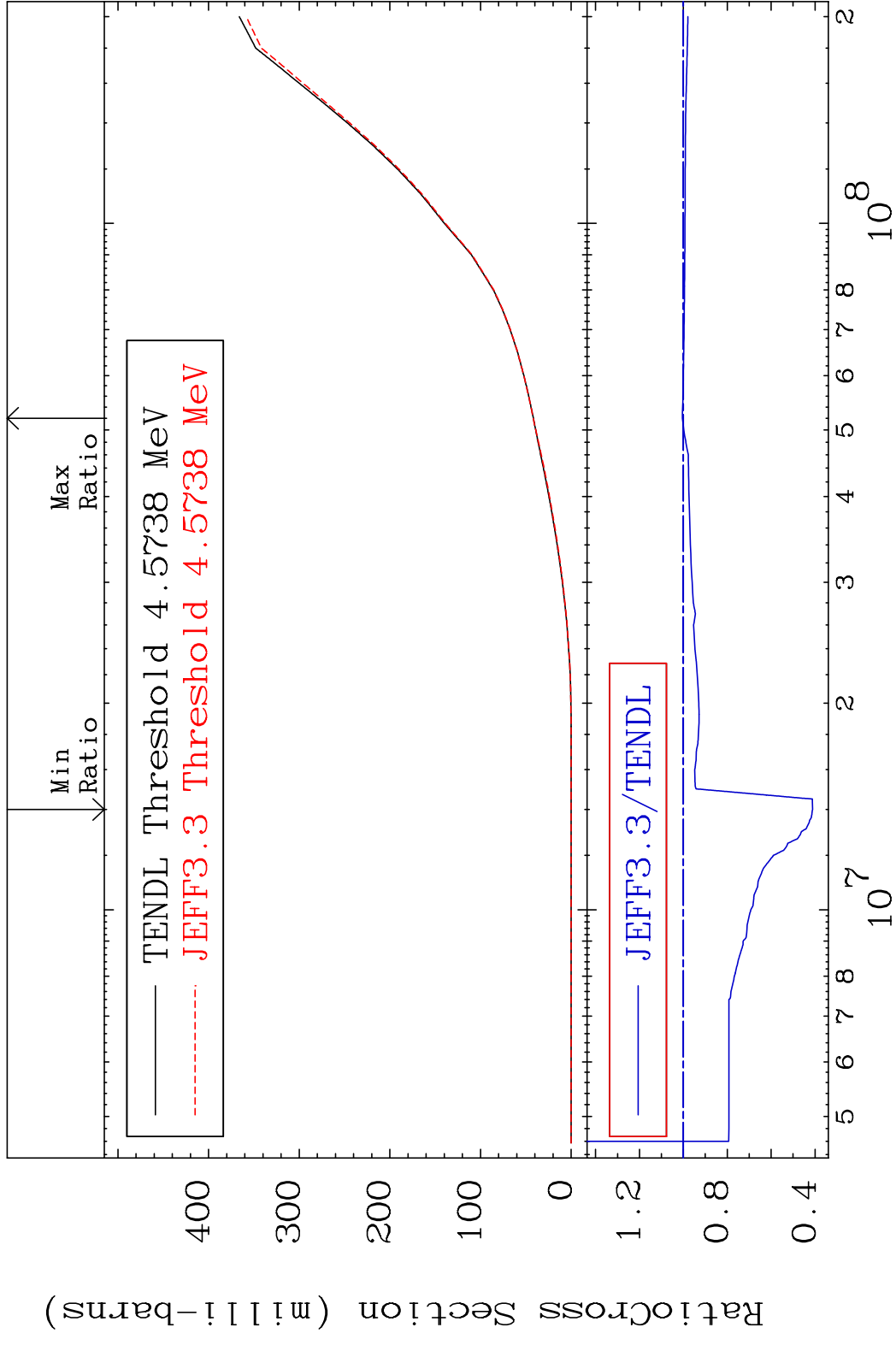
44-Ru-96

MAT 4425

He-3 Production

44-Ru-96

Cross Section -58.87 To 0.455 %



63

Incident Energy (eV)

44-Ru-96

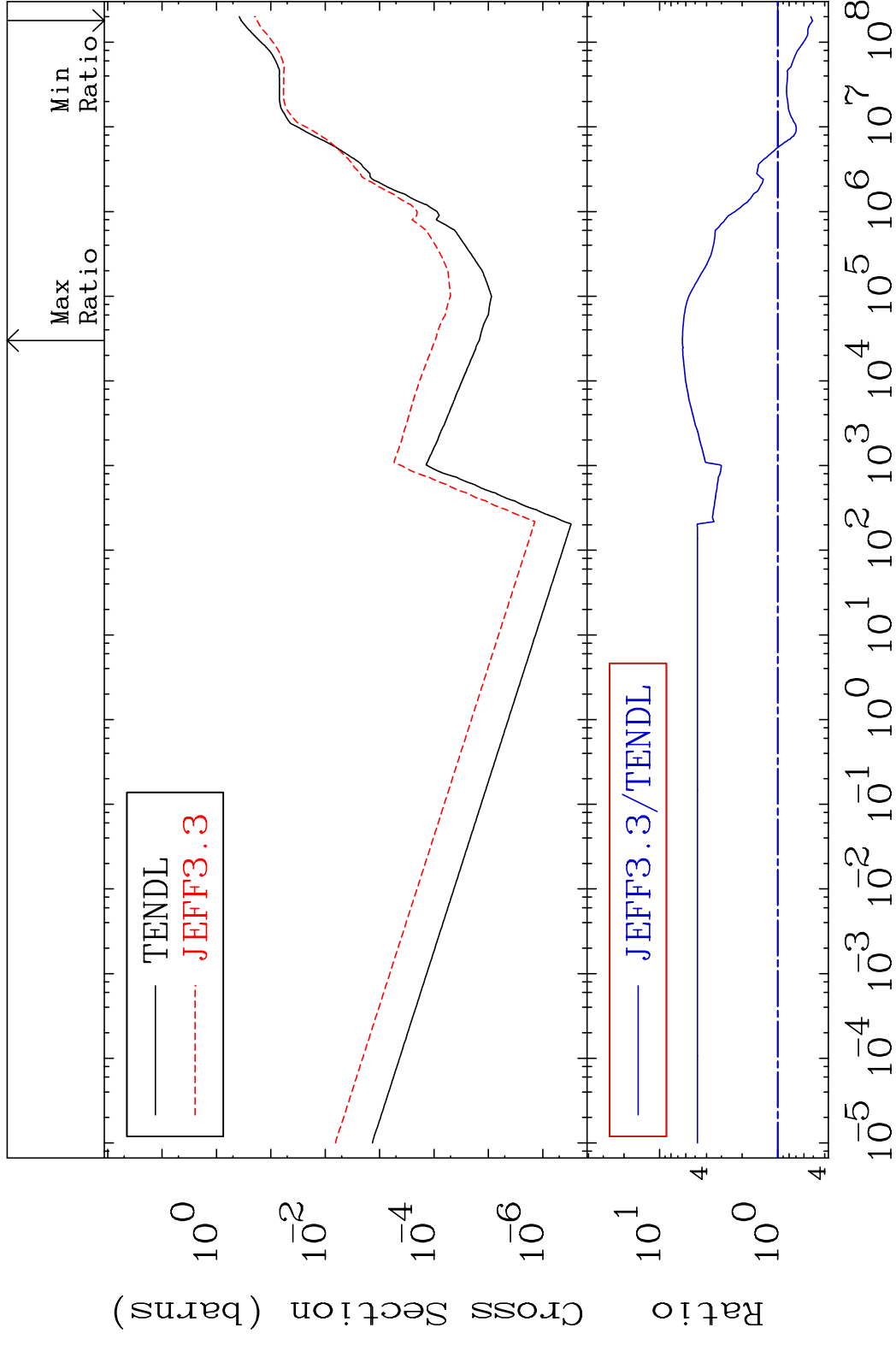


MAT 4425

He-4 Production

44-Ru-96

Cross Section -49.25 To 541.5 %

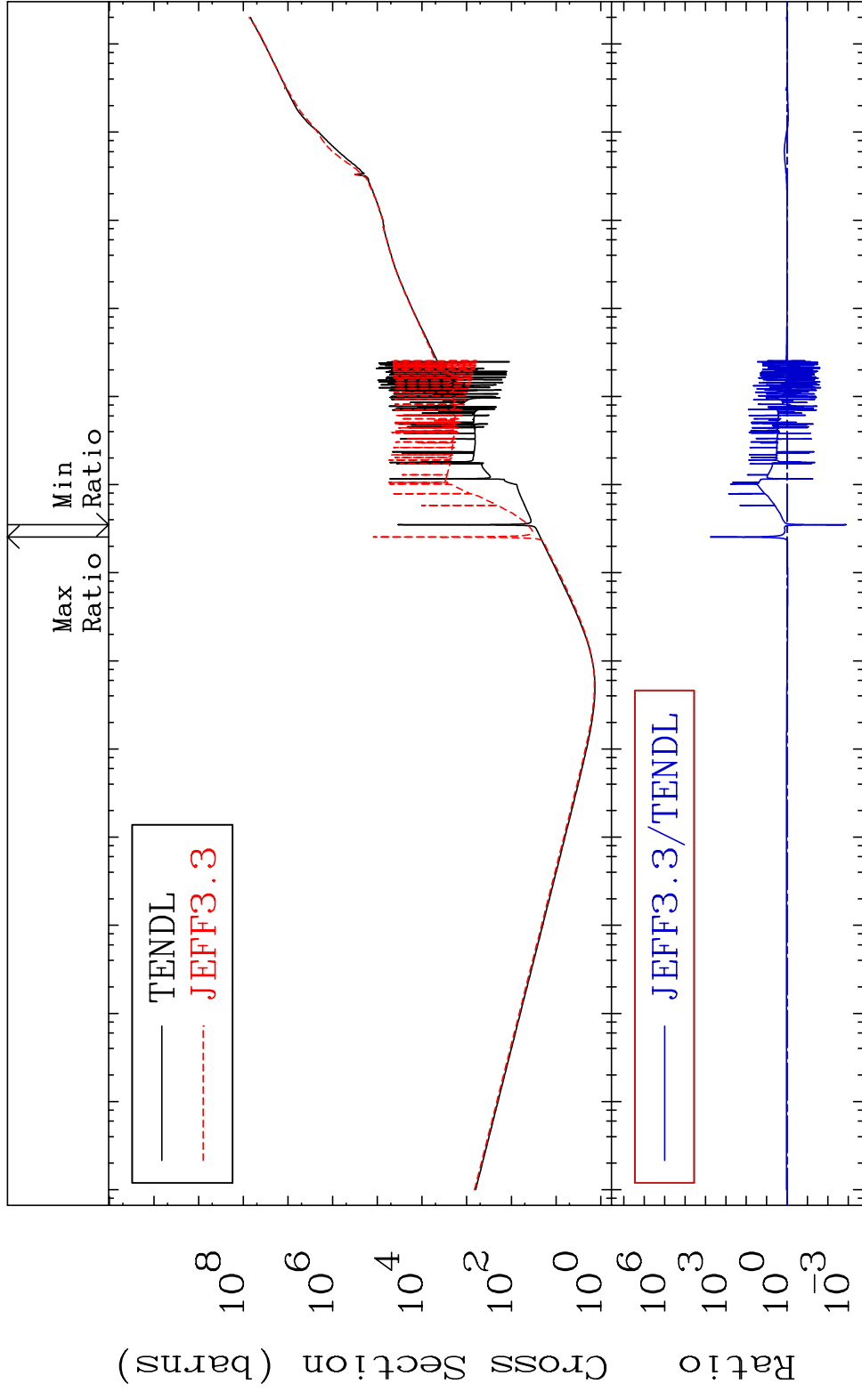


64

Incident Energy (eV)

44-Ru-96

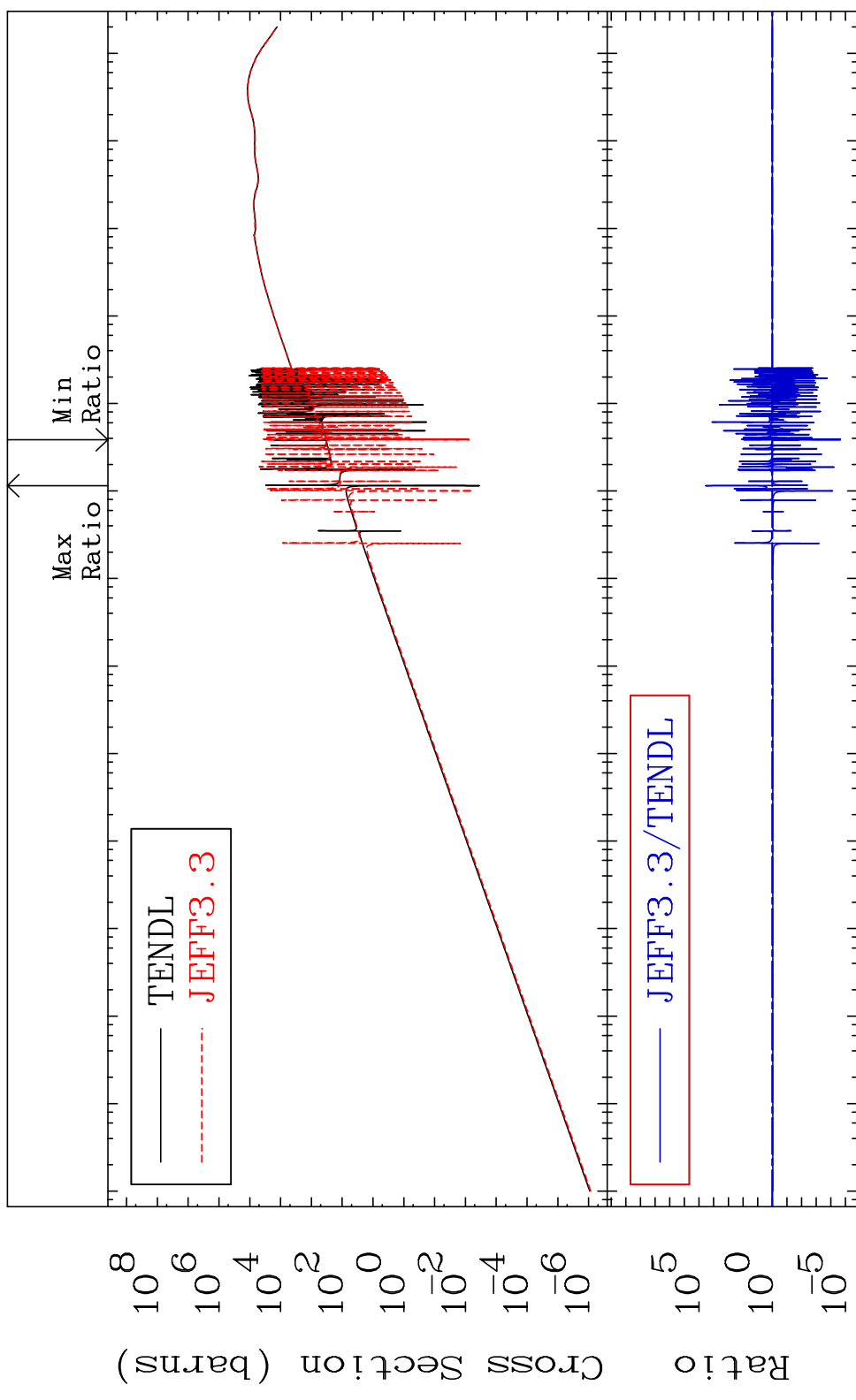
MAT 4425 Kerma total (eV-barns) 44-Ru-96  
 Cross Section -99.87 To 9999. %



65 Incident Energy (eV) 44-Ru-96

MAT 4425

Kerma elastic Cross Section -100.0 To 9999. %  
44-Ru-96

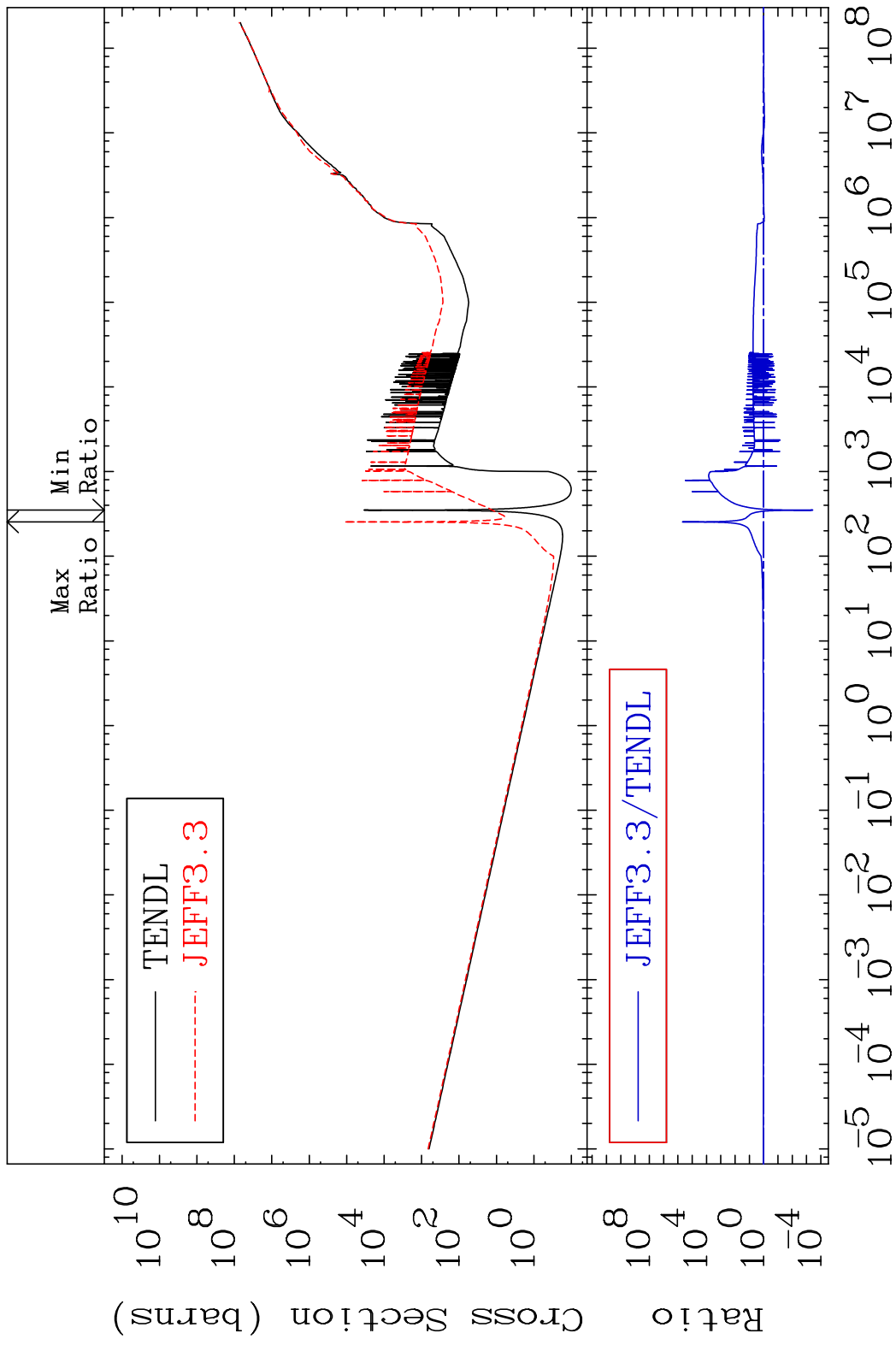


66

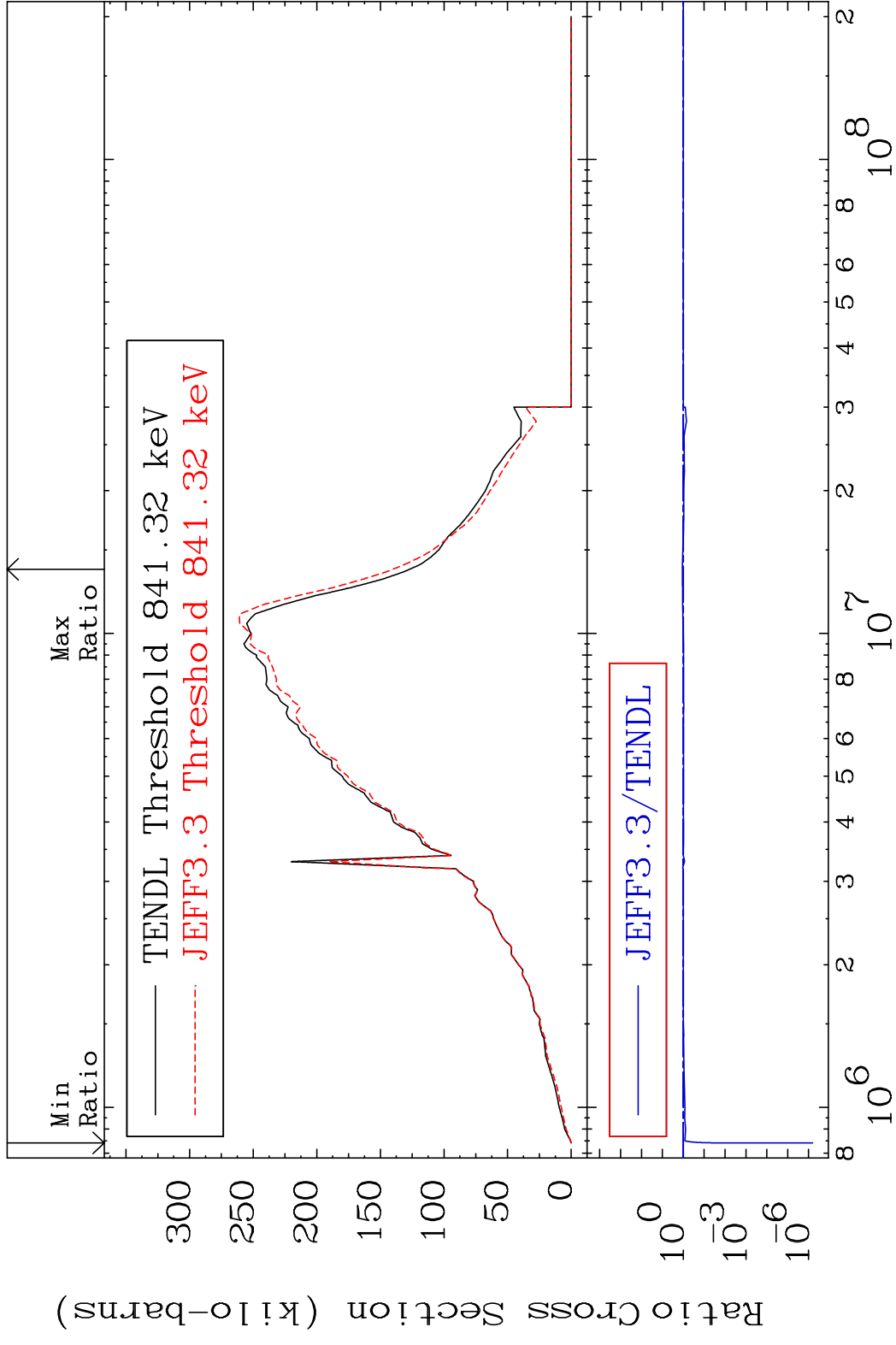
Incident Energy (eV)

44-Ru-96

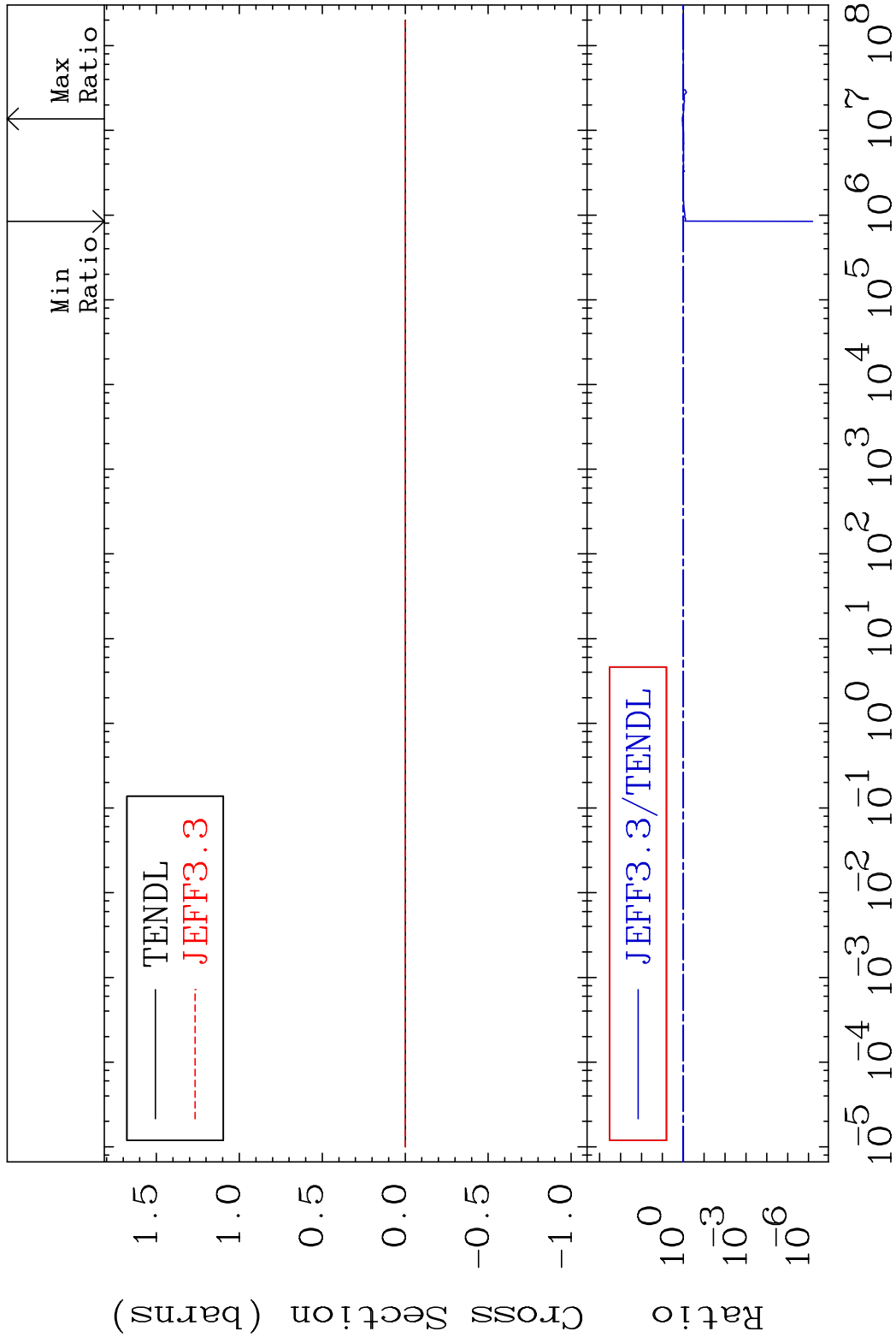
MAT 4425 Kerma non-elastic (all but mt2) 44-Ru-96  
 Cross Section -99.96 To 9999. %



MAT 4425 Kerma inelastic (mt51-91) 44-Ru-96  
 Cross Section -100.0 To 10.39 %



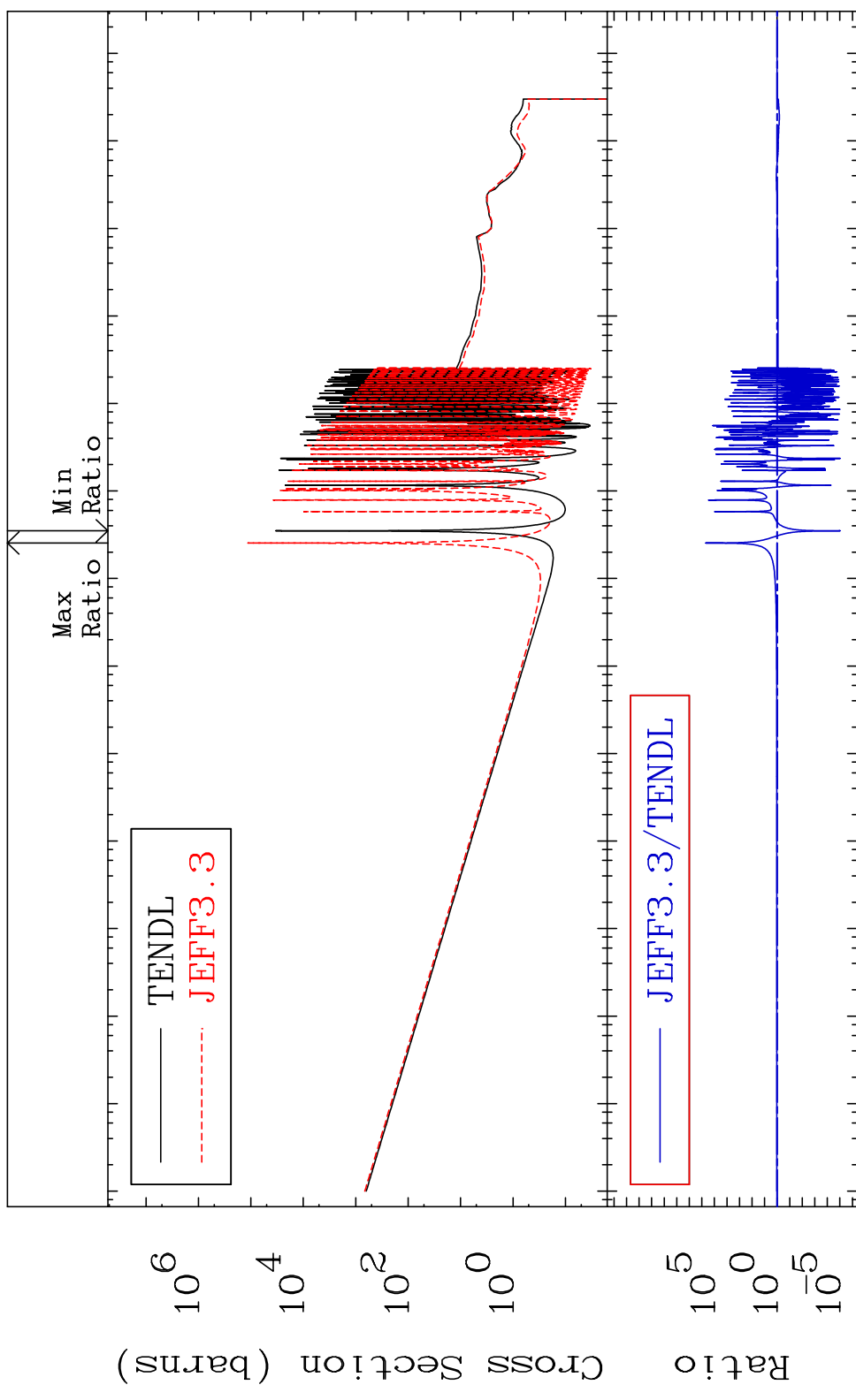
MAT 4425 Kerma fission (mt18 or mt19-20-21-38) 44-Ru-96  
 Cross Section -100.0 To 10.39 %



MAT 4425

Kerma capture (mt102) 44-Ru-96

Cross Section -100.0 To 9999. %



Cross Section (barns)  
Ratio

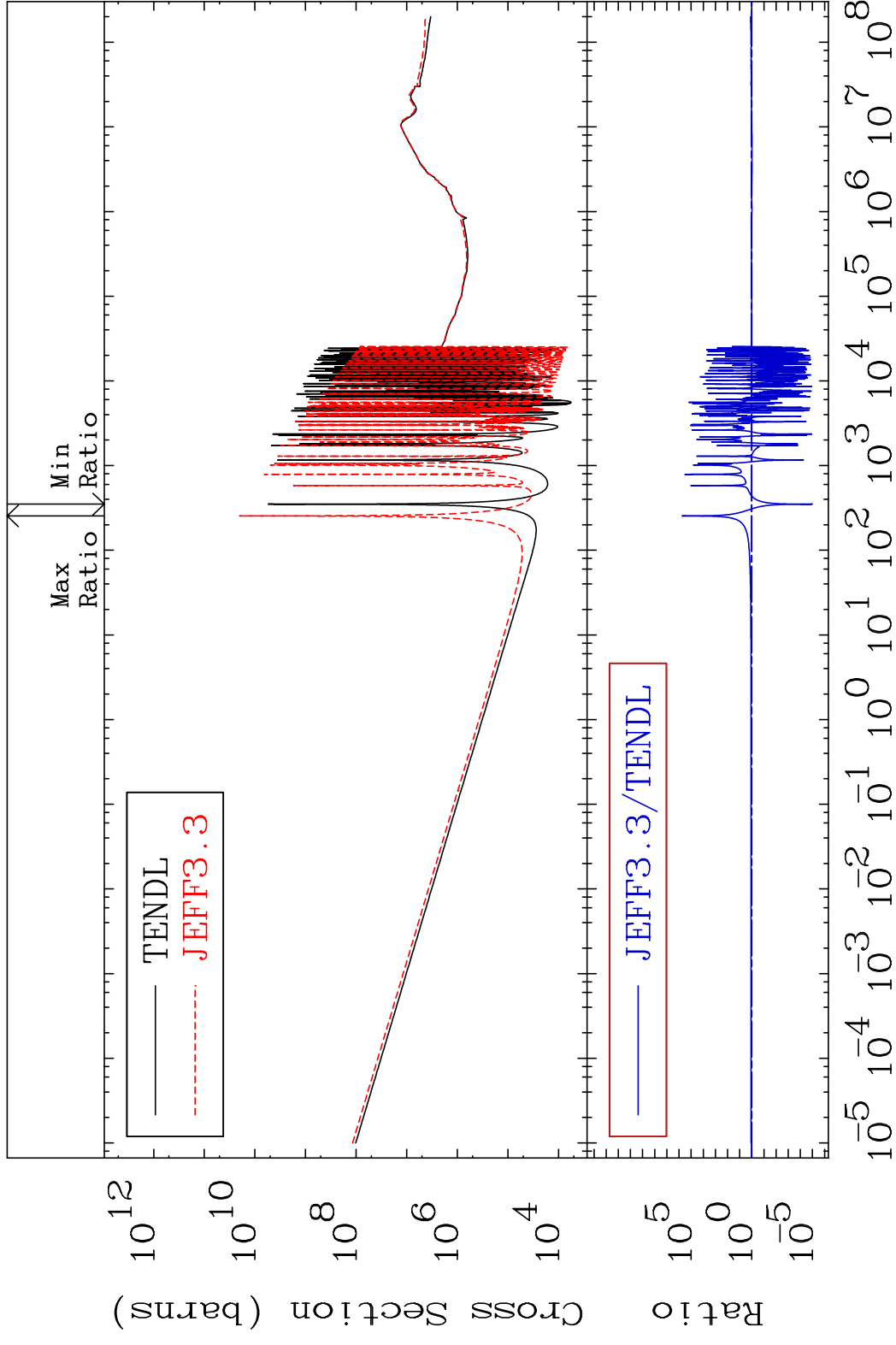
10<sup>-5</sup> 10<sup>-4</sup> 10<sup>-3</sup> 10<sup>-2</sup> 10<sup>-1</sup> 10<sup>0</sup> 10<sup>1</sup> 10<sup>2</sup> 10<sup>3</sup> 10<sup>4</sup> 10<sup>5</sup> 10<sup>6</sup> 10<sup>7</sup> 10<sup>8</sup>

70

Incident Energy (eV)

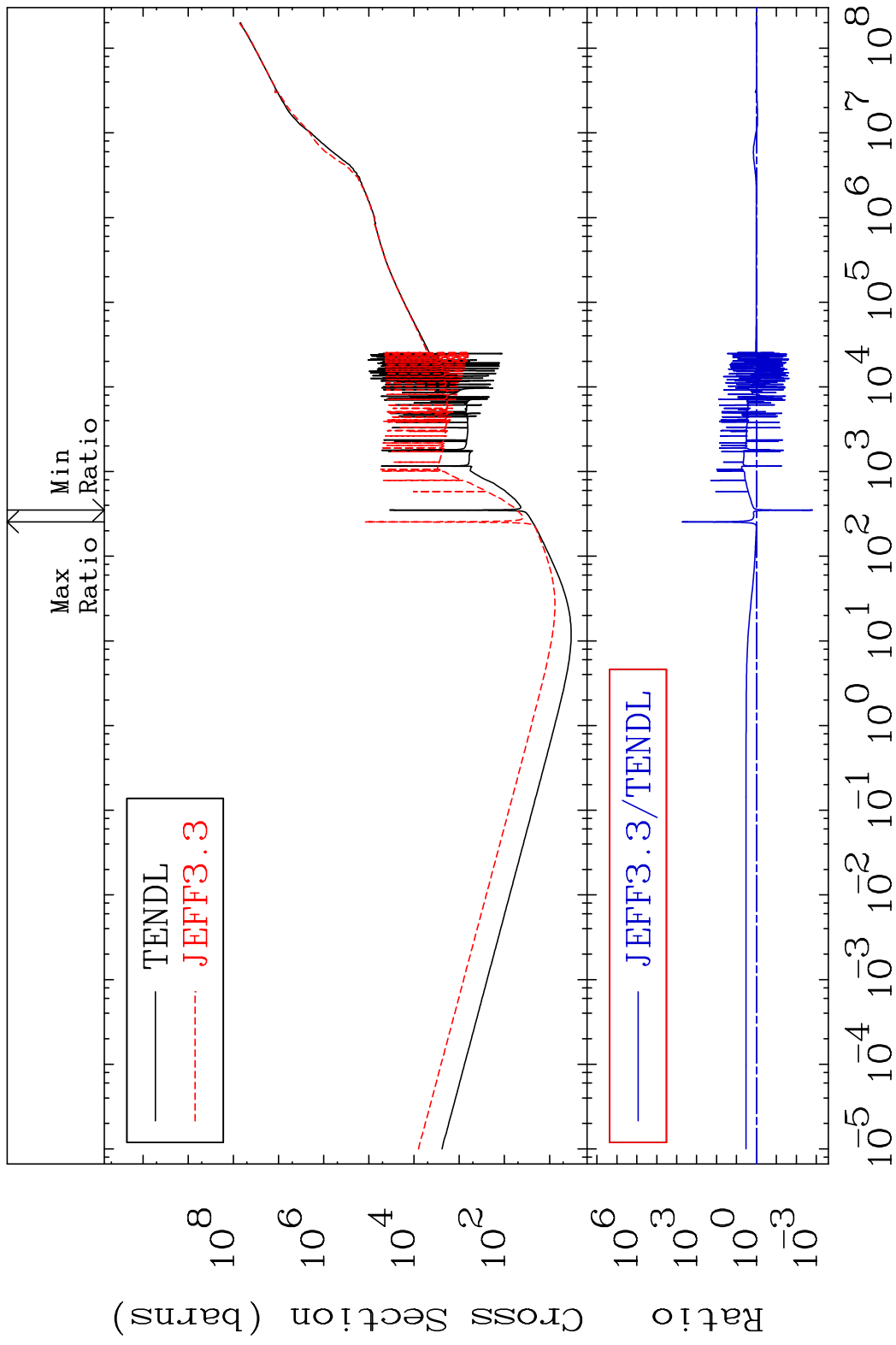
44-Ru-96

MAT 4425 Total photon (eV-barns) 44-Ru-96  
 Cross Section -100.0 To 9999. %

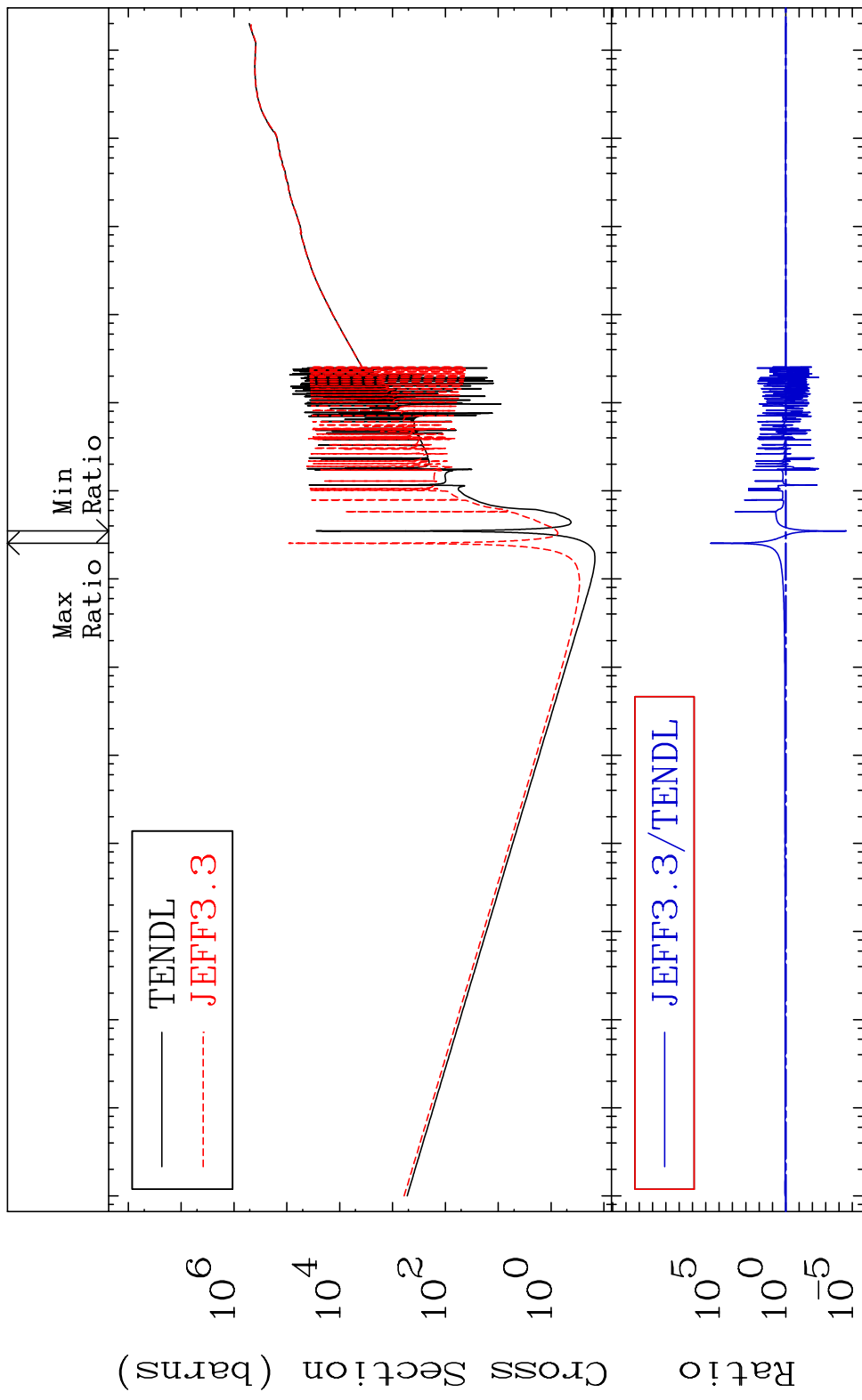




MAT 4425 Total kinematic kerma (high limit) 44-Ru-96  
 Cross Section -99.85 To 9999. %



MAT 4425 Dpa total (eV-barns) 44-Ru-96  
 Cross Section -100.0 To 9999. %



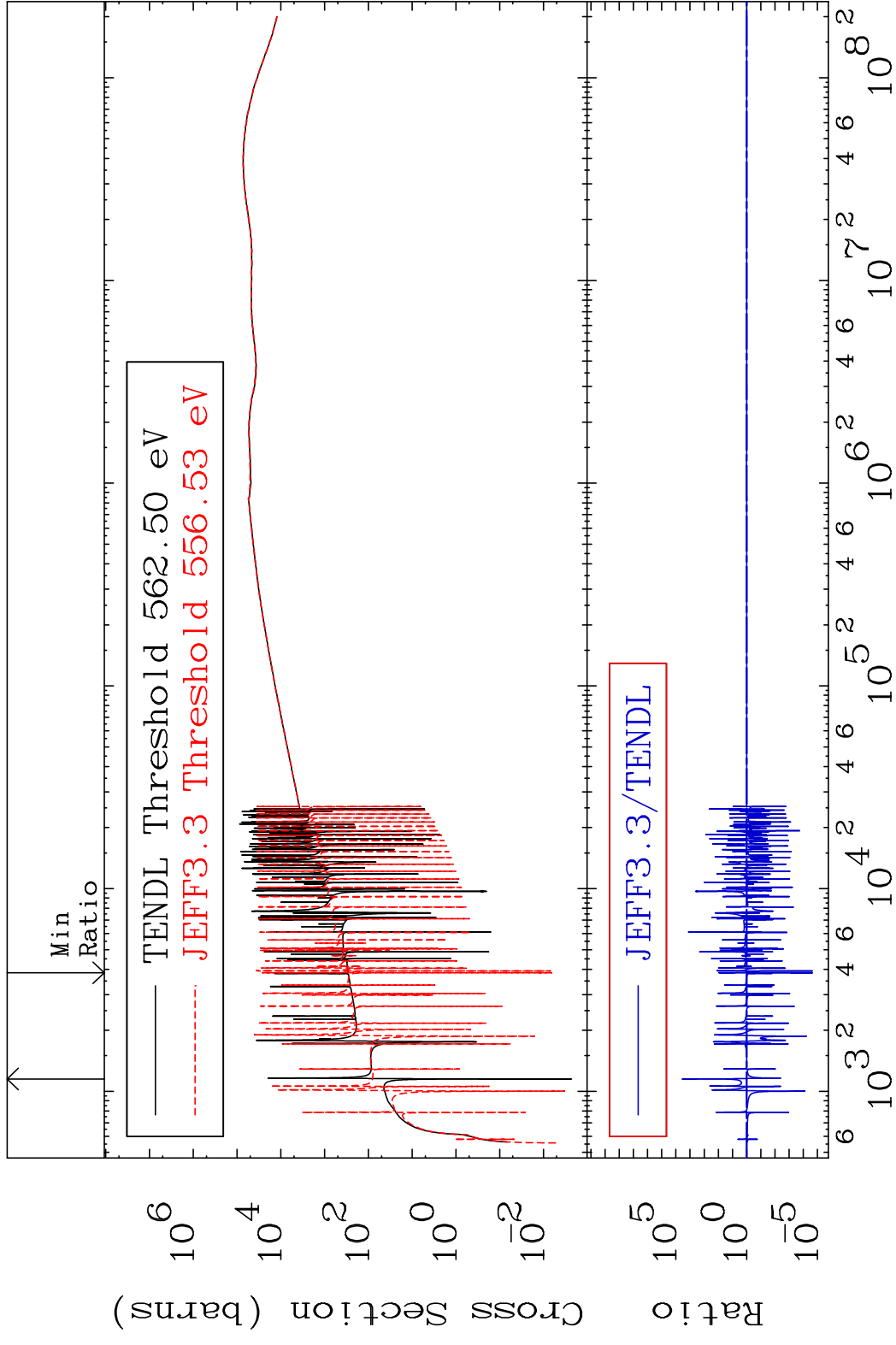
73 Incident Energy (eV) 44-Ru-96

MAT 4425

Dpa elastic (mt2)

44-Ru-96

Cross Section -100.0 To 9999. %

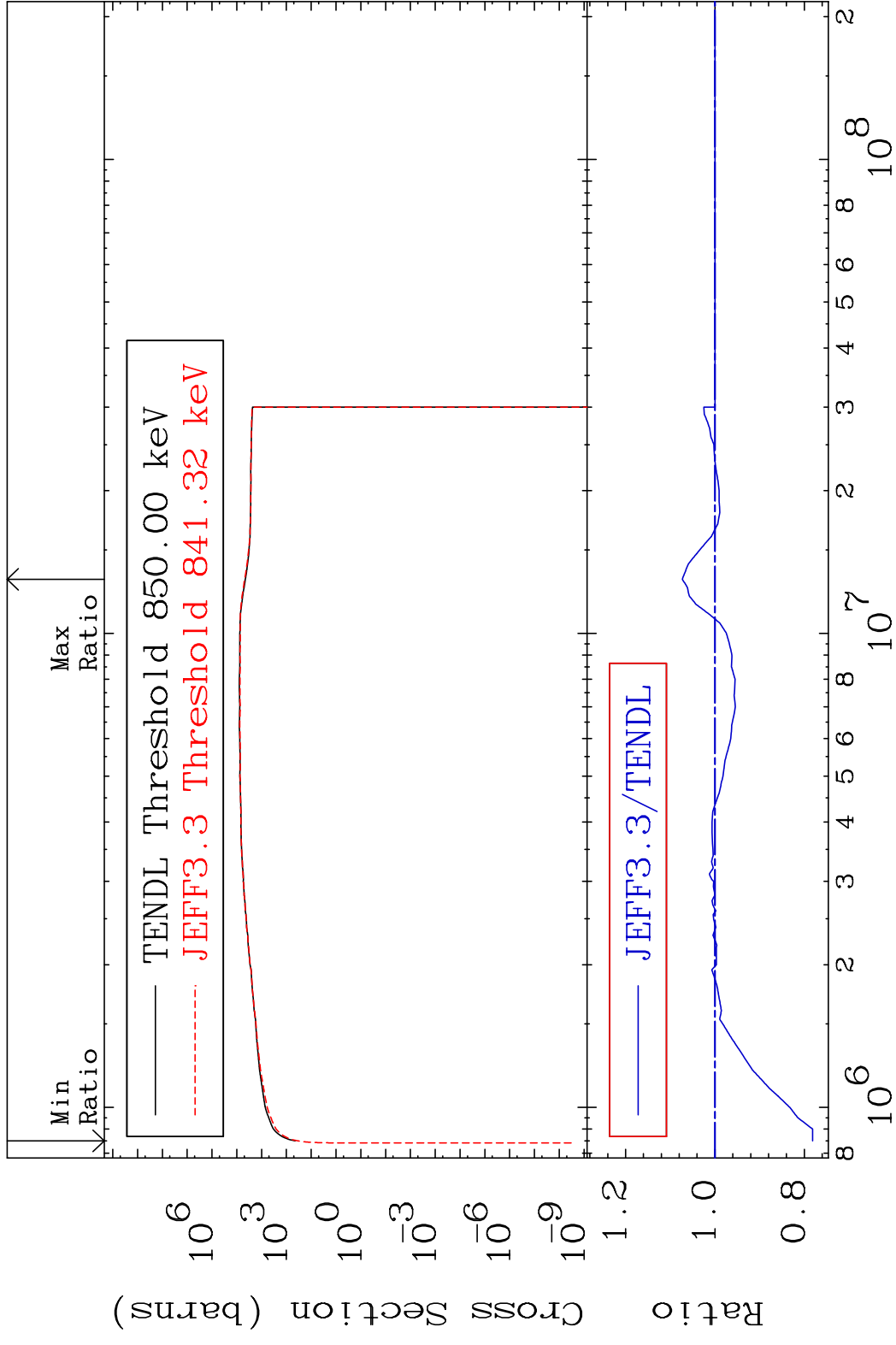


74

Incident Energy (eV)

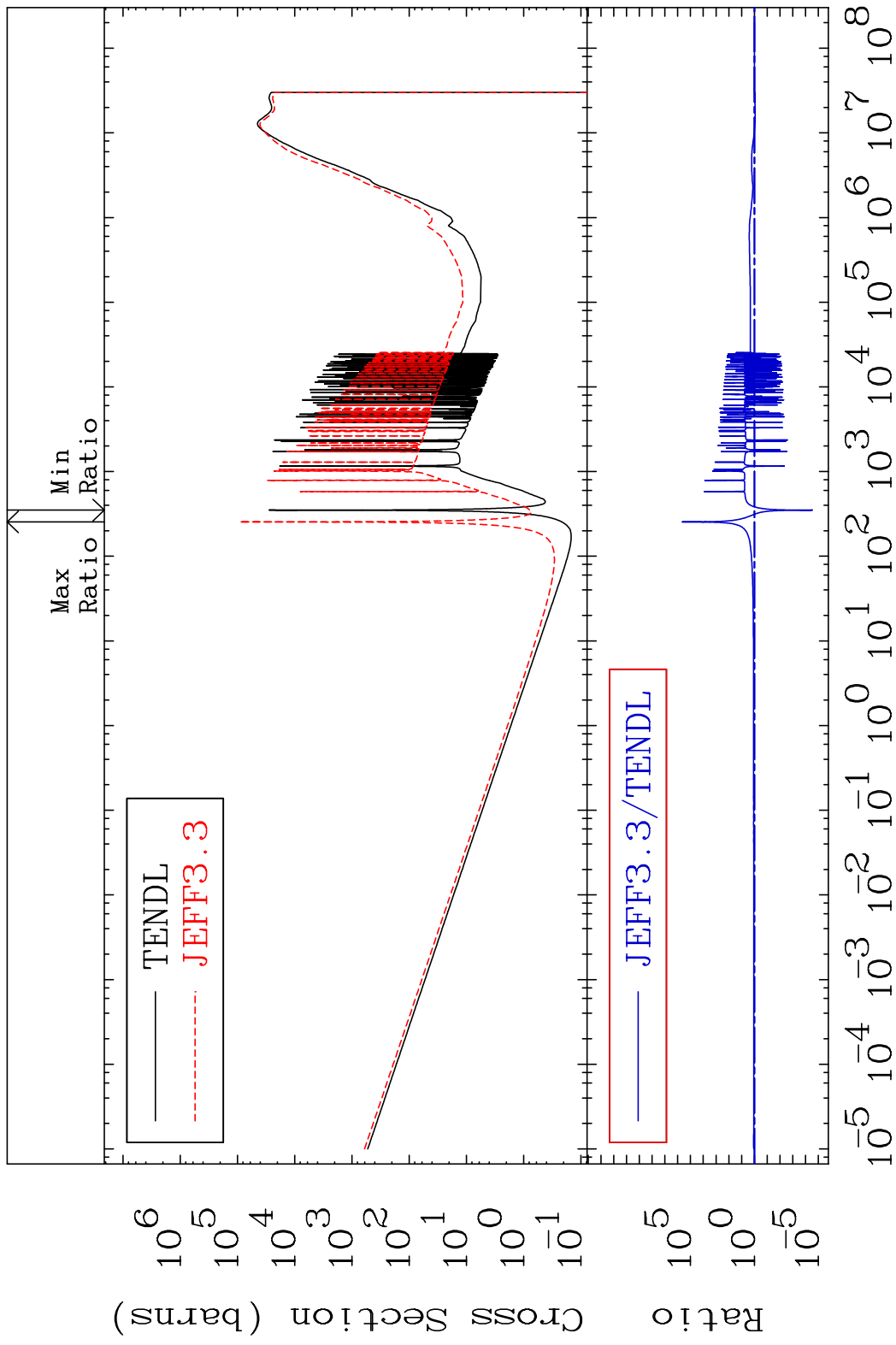
44-Ru-96

MAT 4425 Dpa inelastic (mt51-91) 44-Ru-96  
 Cross Section -21.84 To 7.295 %



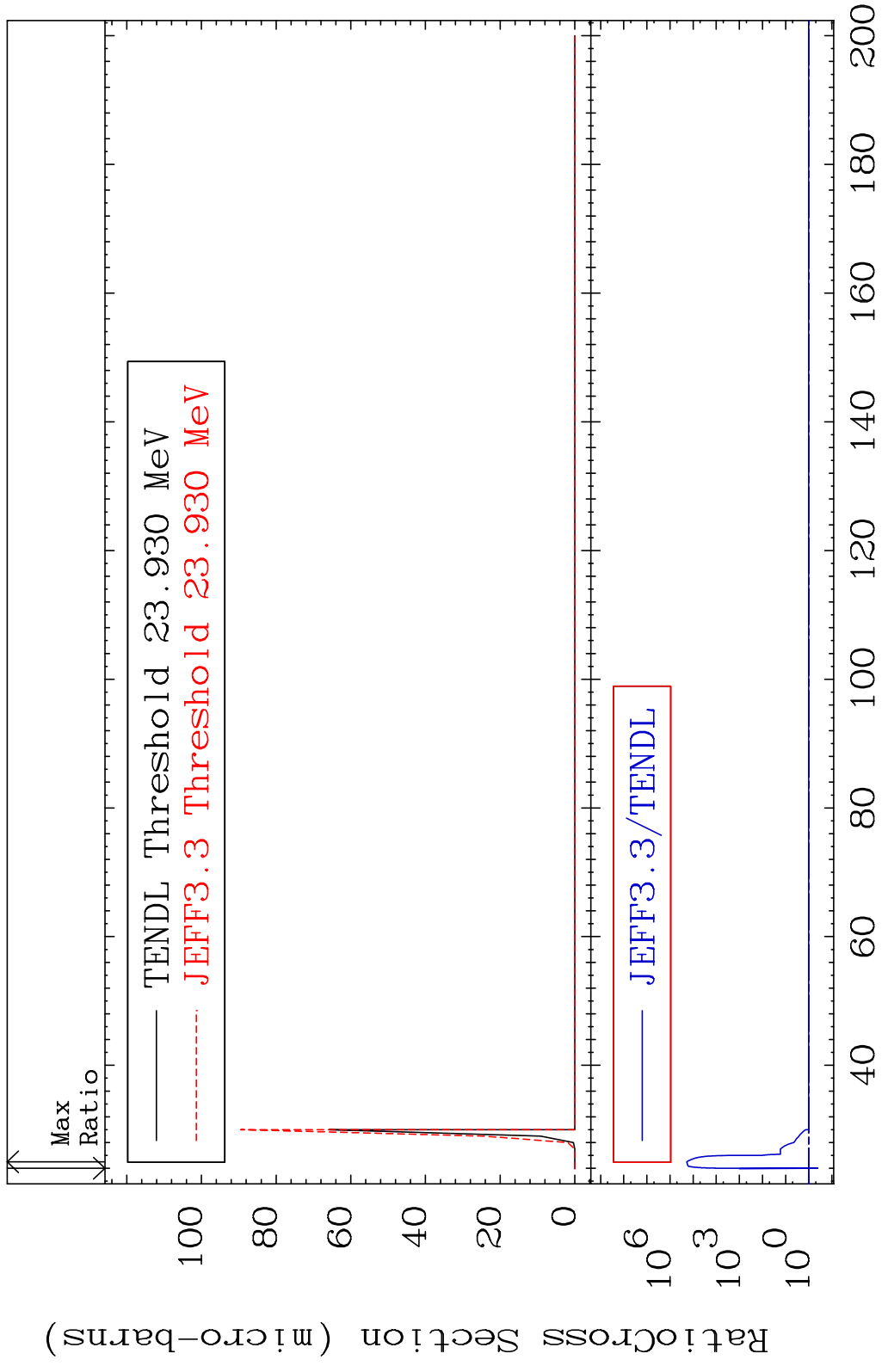
75 Incident Energy (eV) 44-Ru-96

MAT 4425 Dpa disappearance (mt102 -120) 44-Ru-96  
 Cross Section -100.0 To 9999. %

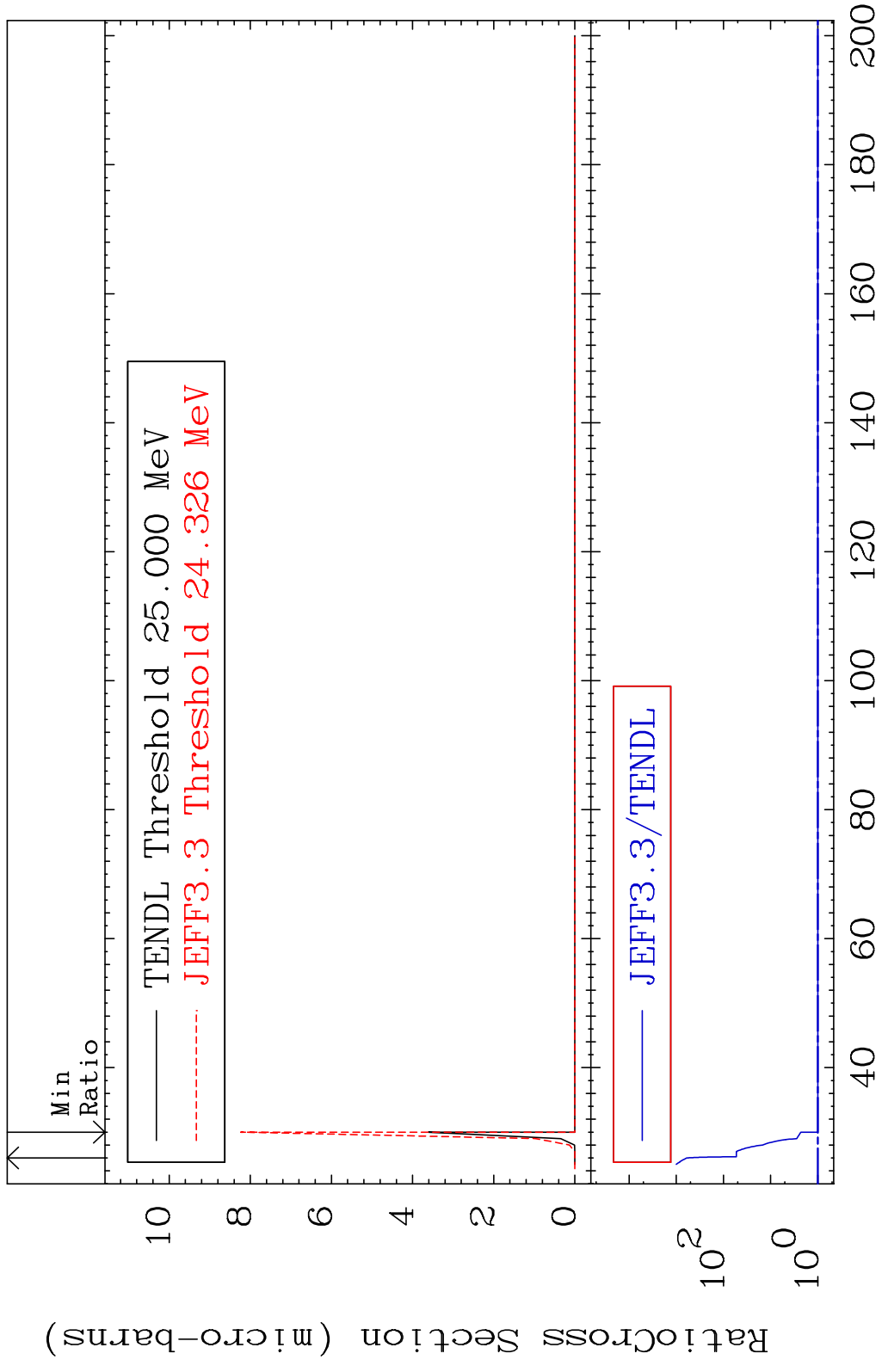


76 Incident Energy (eV) 44-Ru-96

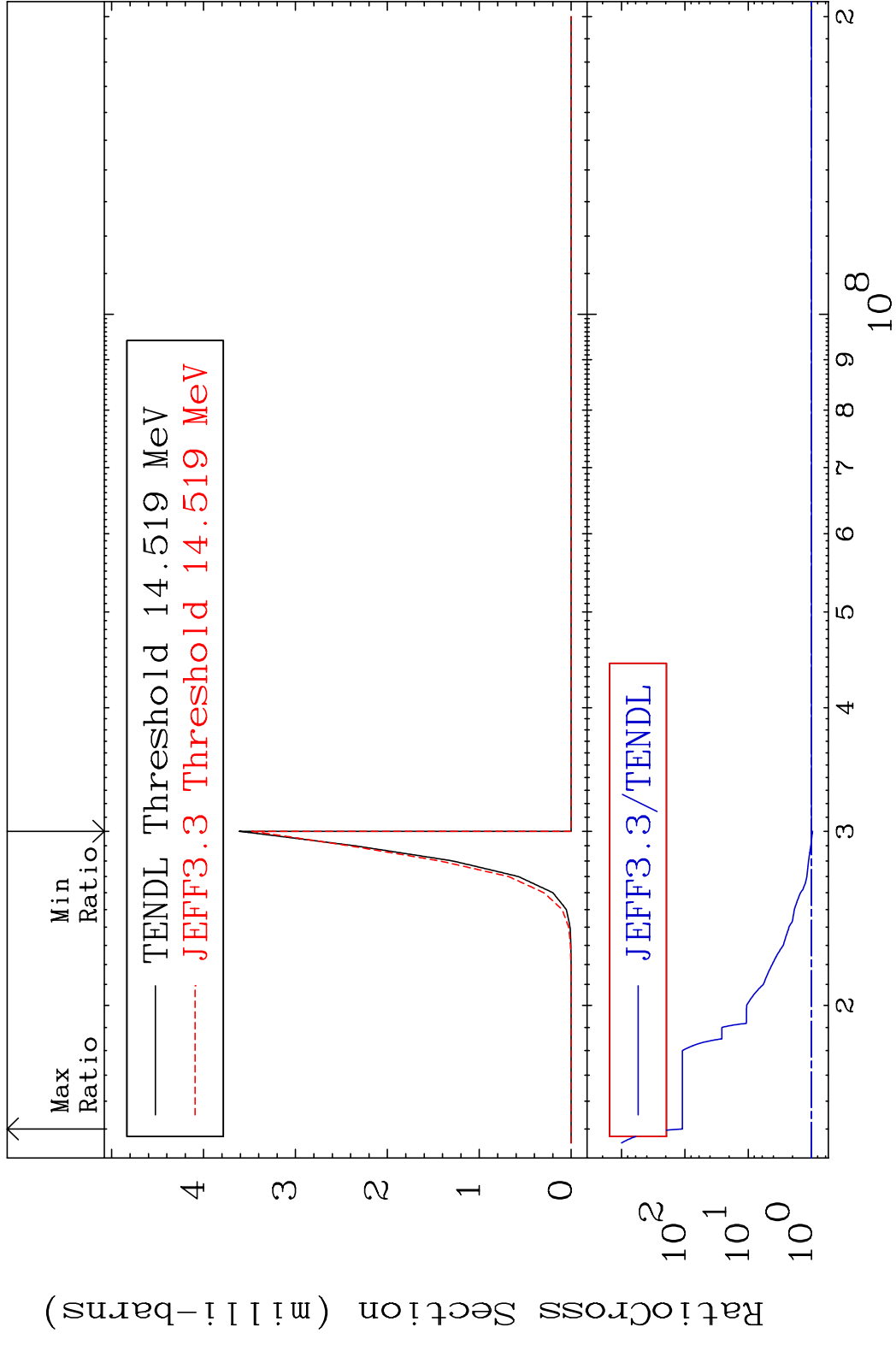
MAT 4425 (n,2n) d:43-Tc-93g 44-Ru-96  
 Radionuclide Production Cross Section to 9999. %



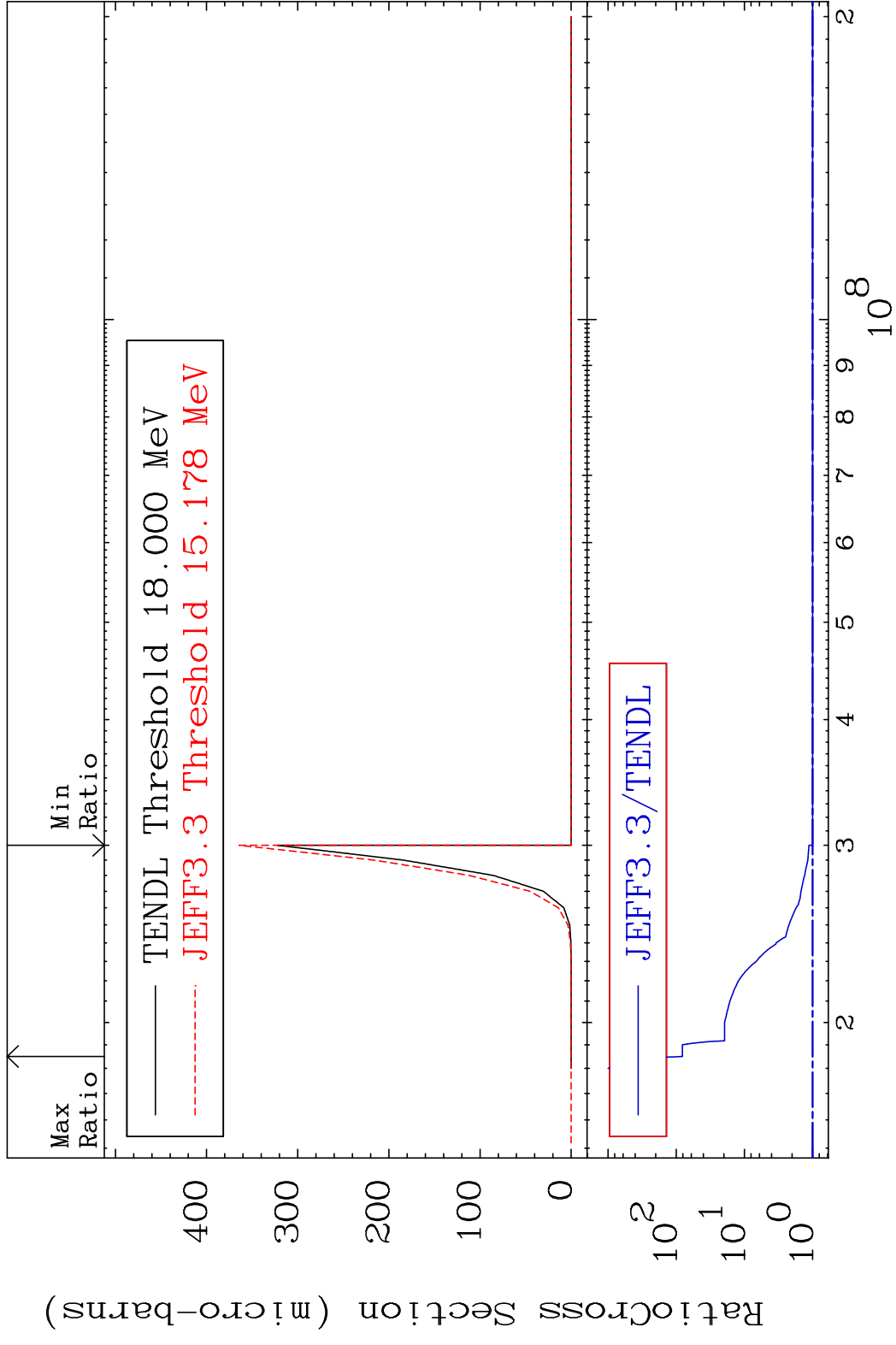
MAT 4425 (n,2n) d:43-Tc-93m1 44-Ru-96  
 Radionuclide Production Cross Section 9999. %



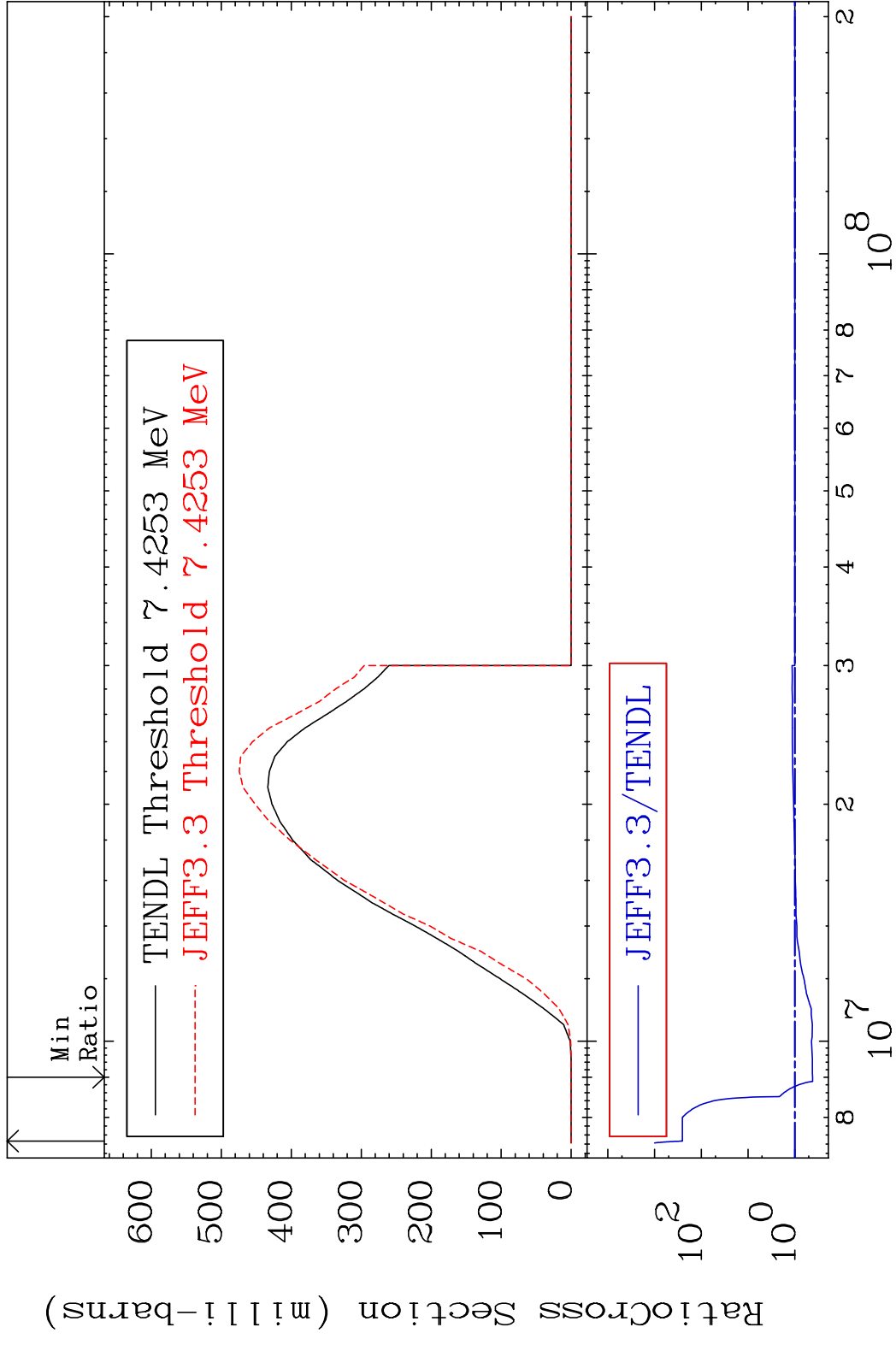
MAT 4425 (n,2n)  $\alpha$ :42-Mo-91g 44-Ru-96  
 Radionuclide Production Cross Section 9999. %

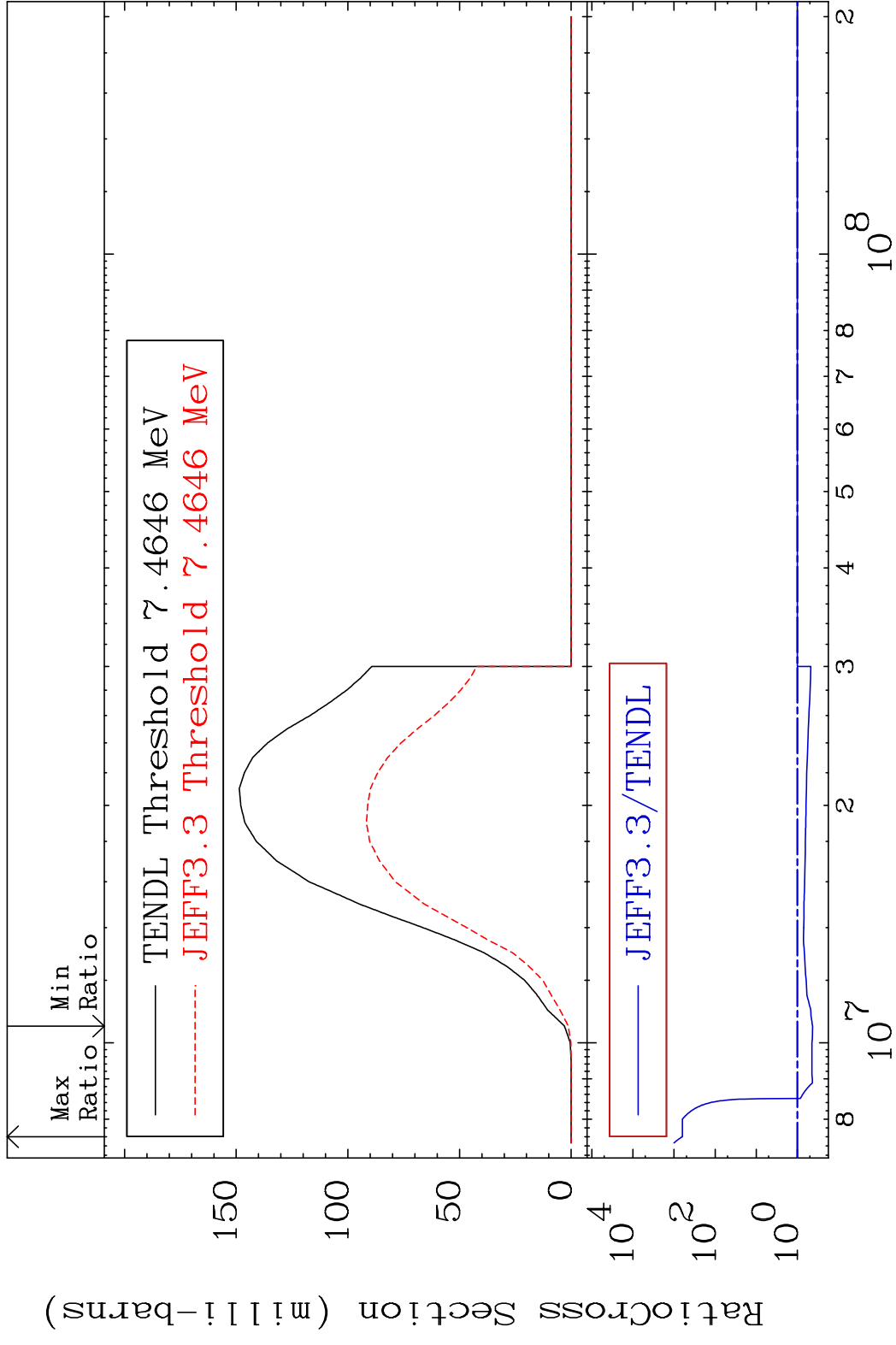


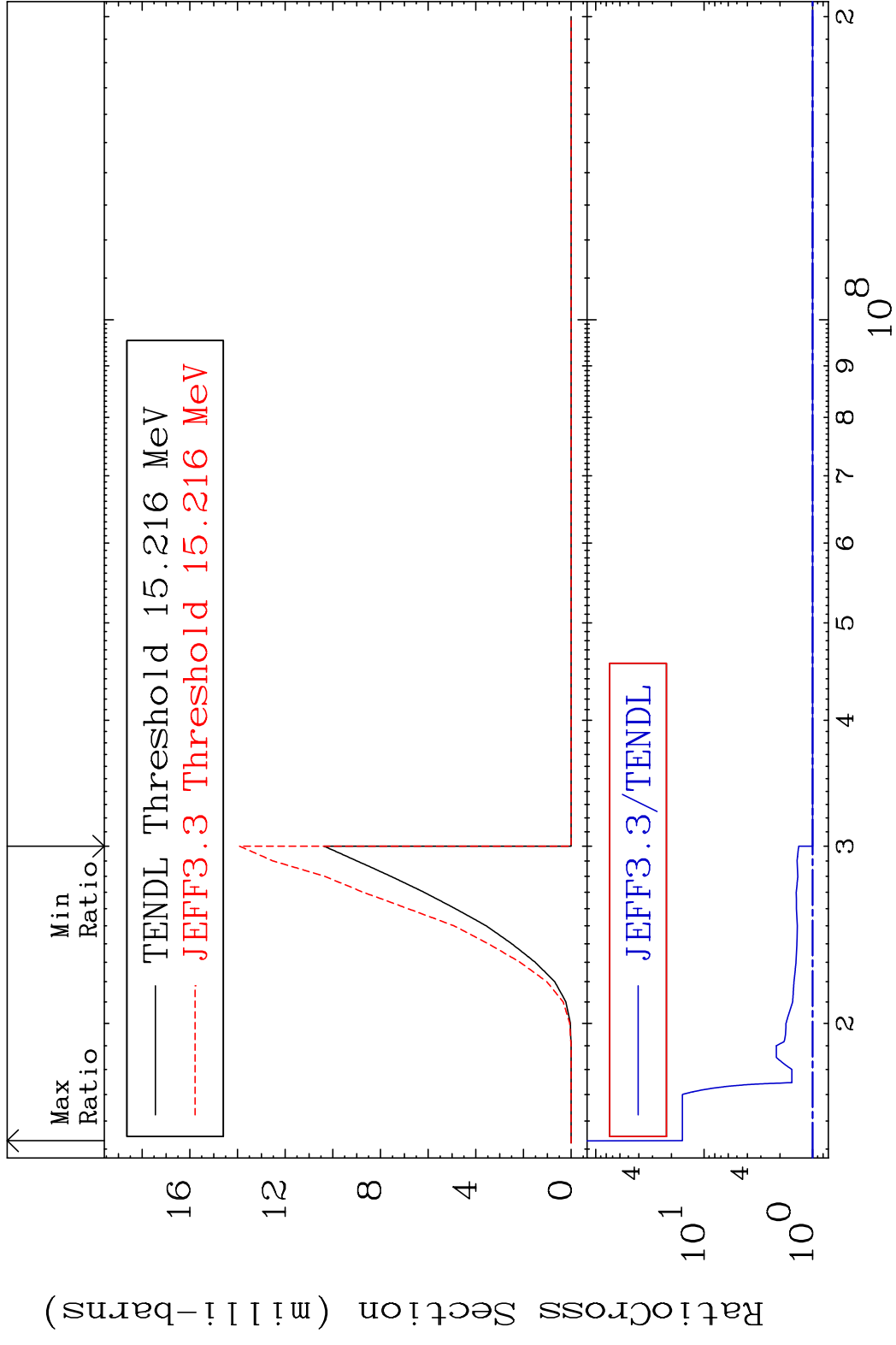


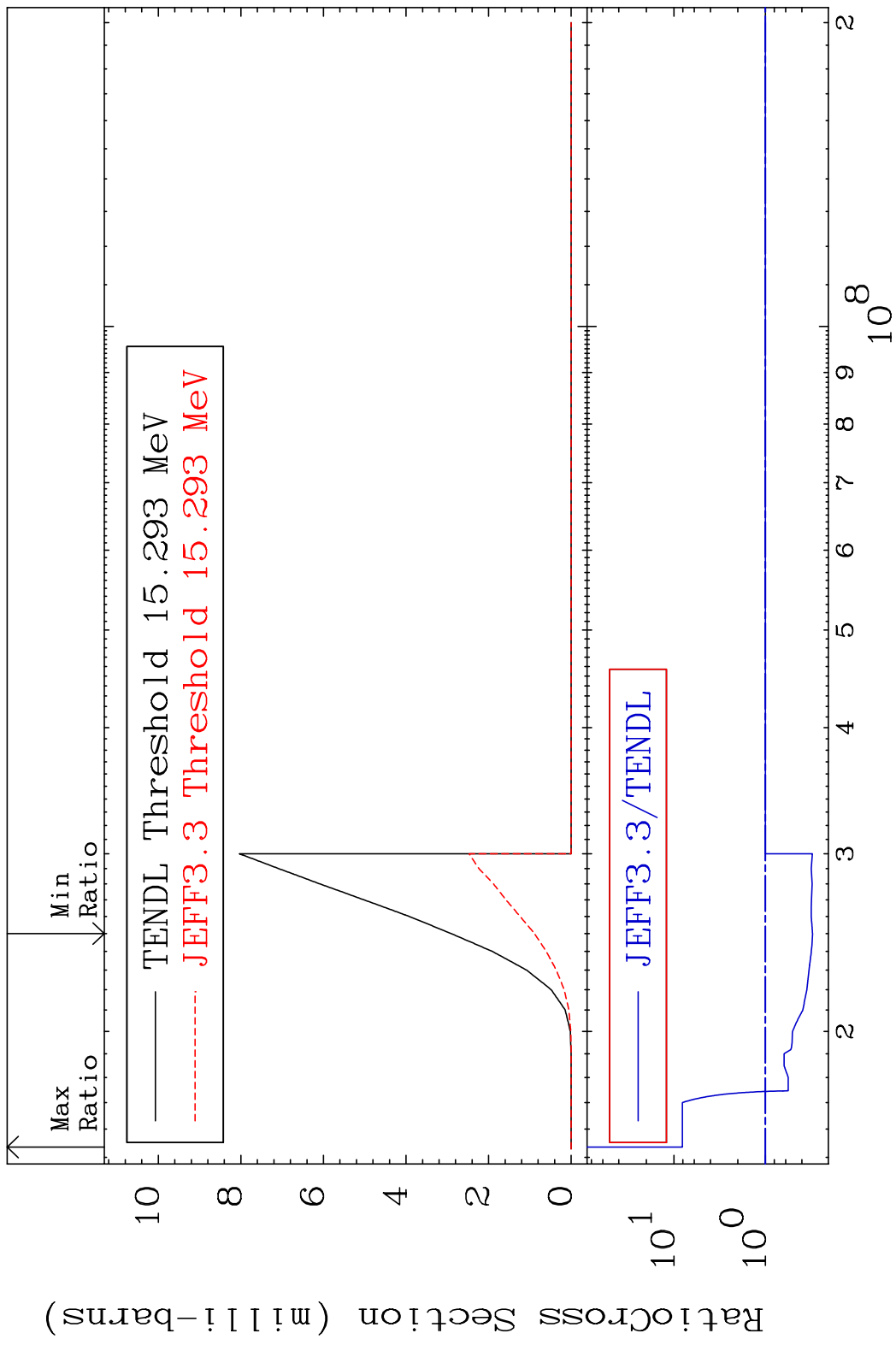


MAT 4425 (n, n') p:43-Tc-95g 44-Ru-96  
 Radionuclide Production Cross Section 5864310 9999. %

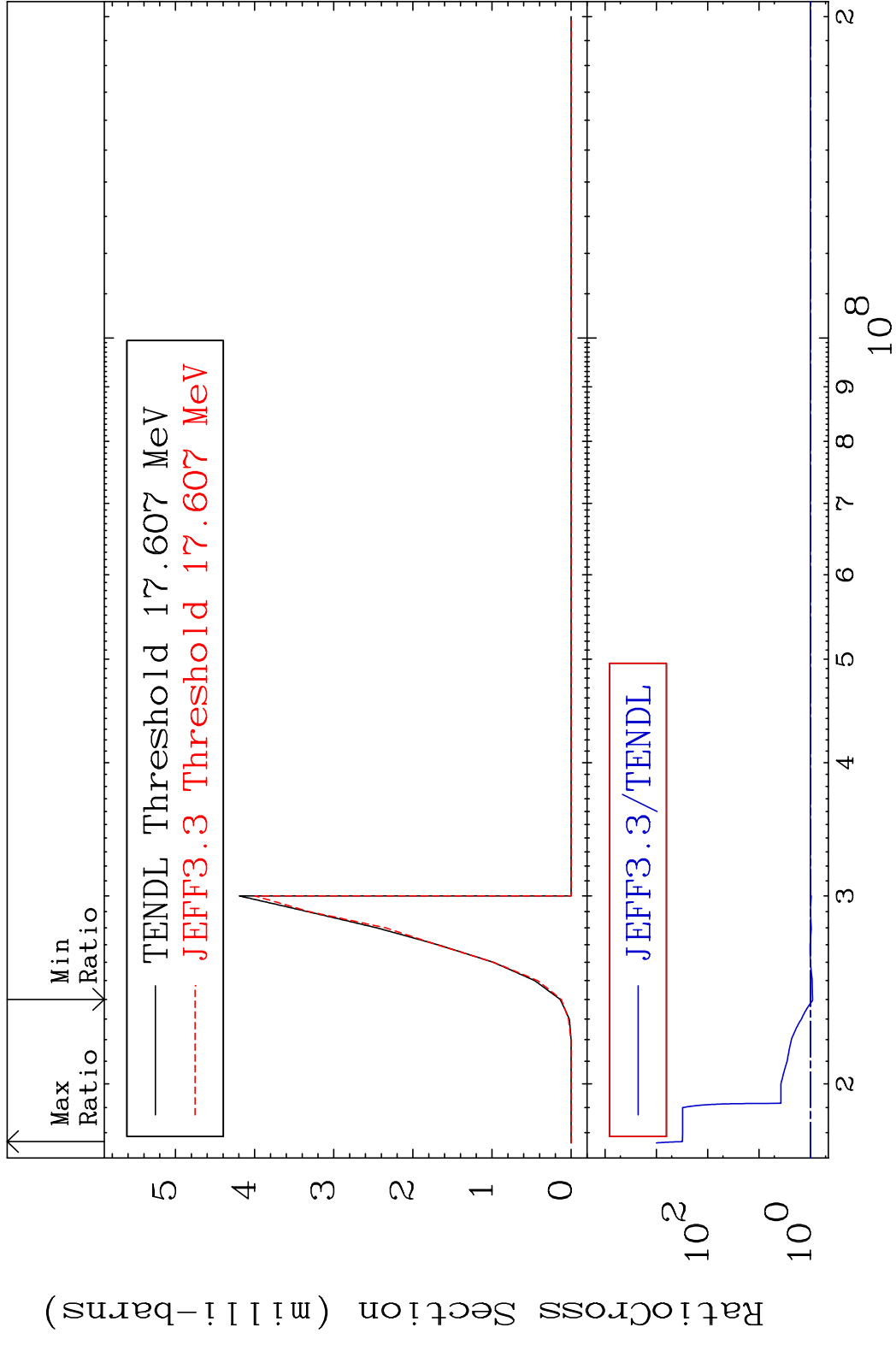


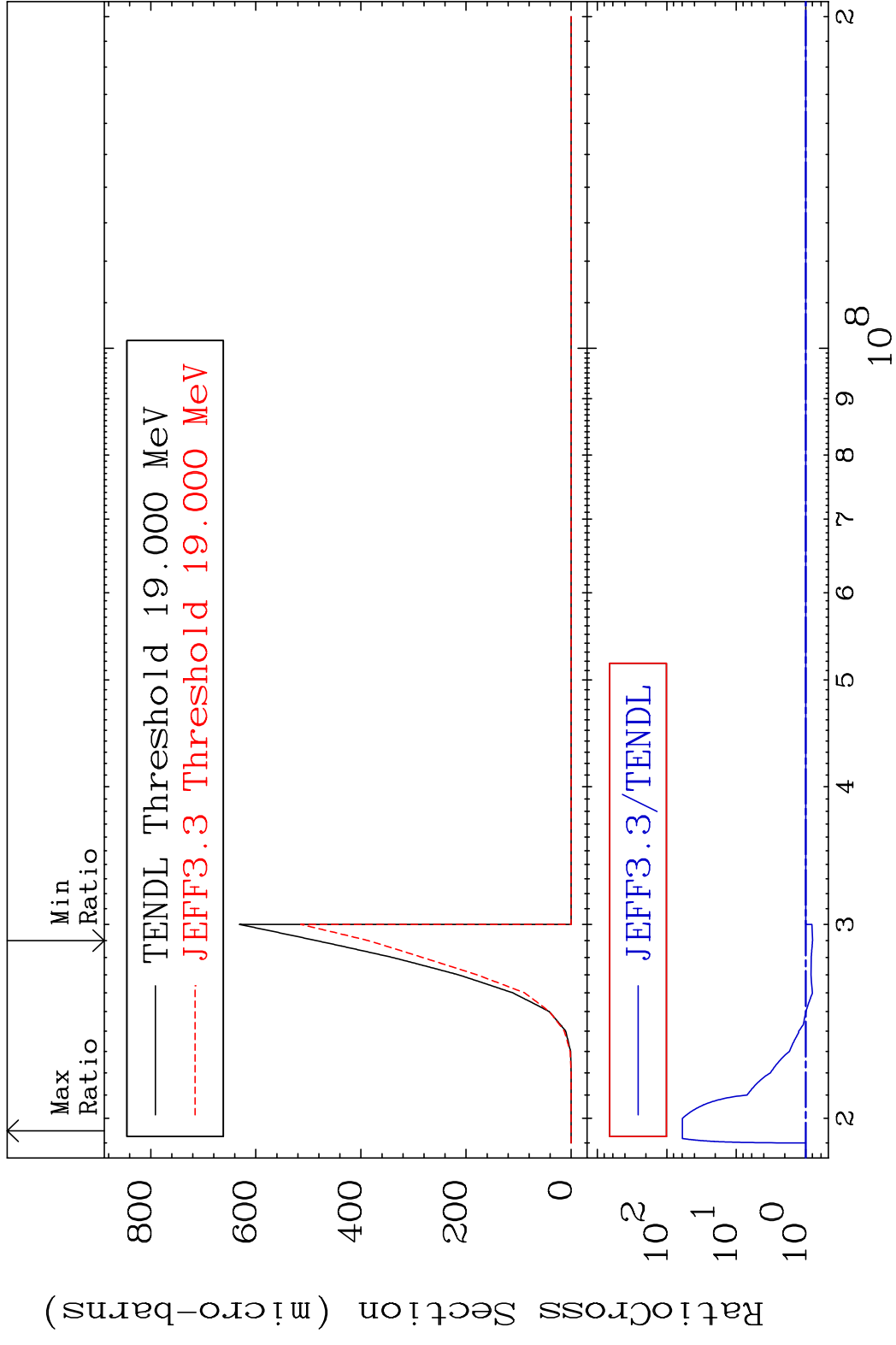


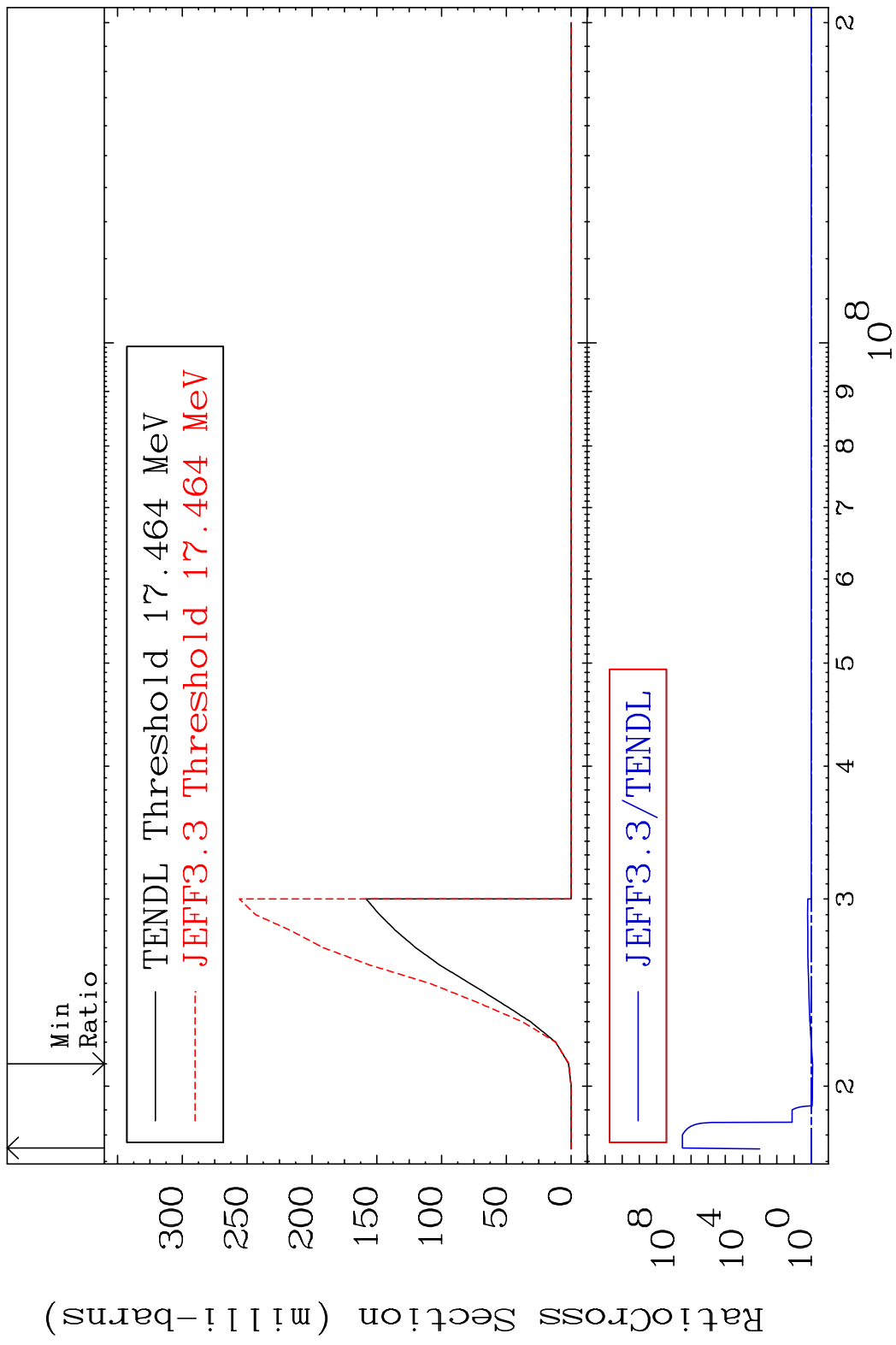




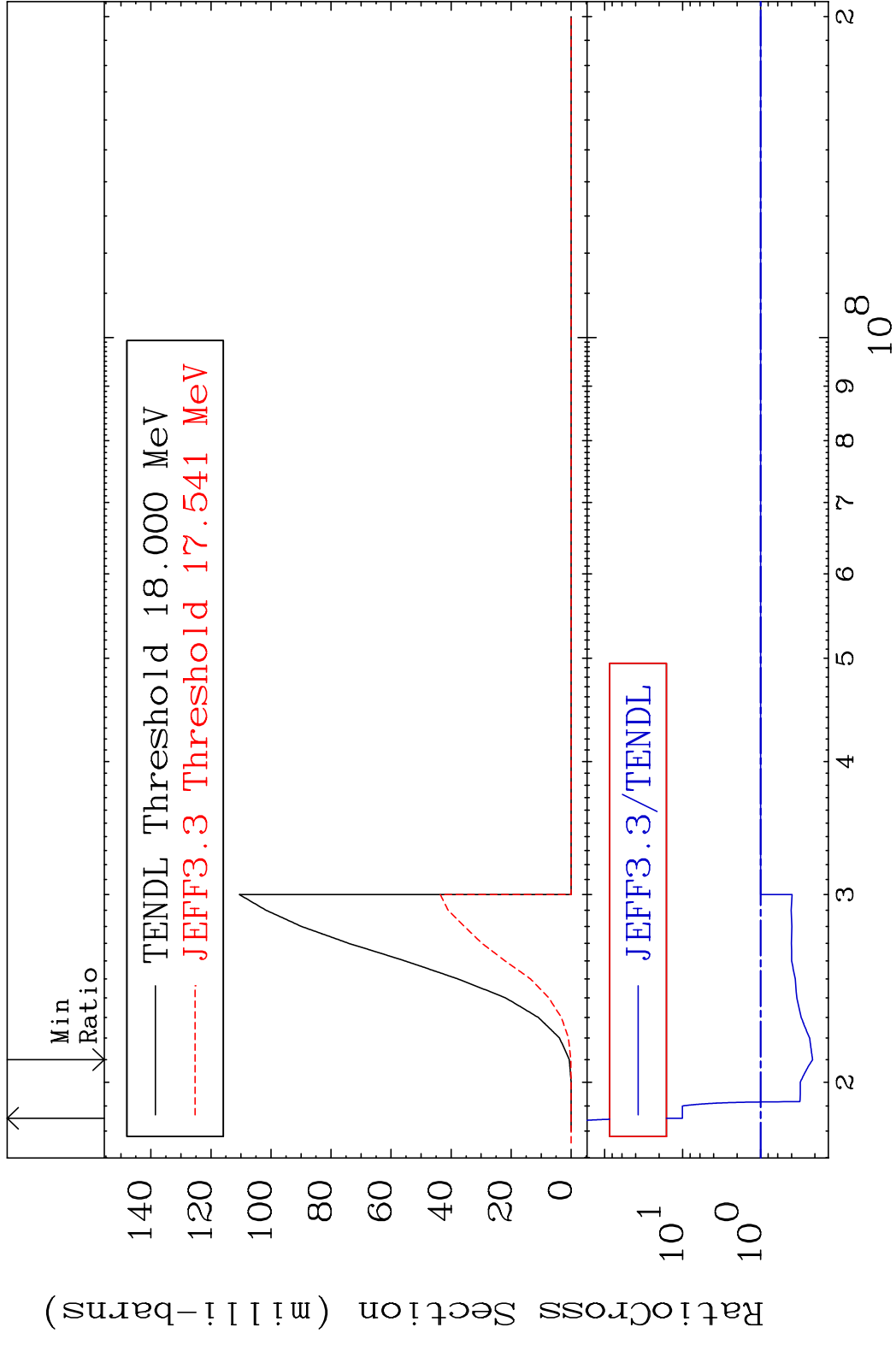
MAT 4425 (n, n') t:43-Tc-93g 44-Ru-96  
 Radionuclide Production Cross Section 950610 9999. %

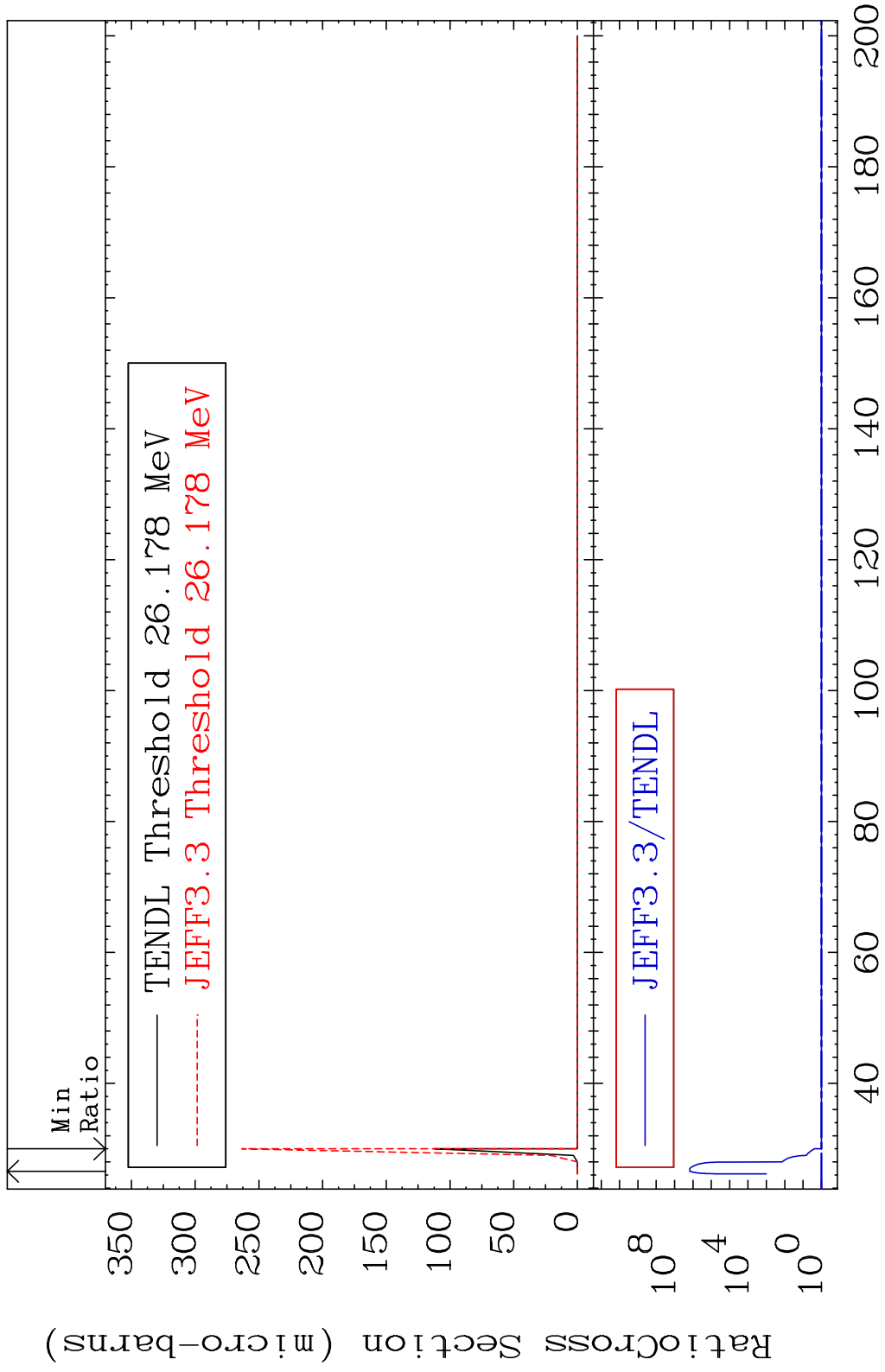




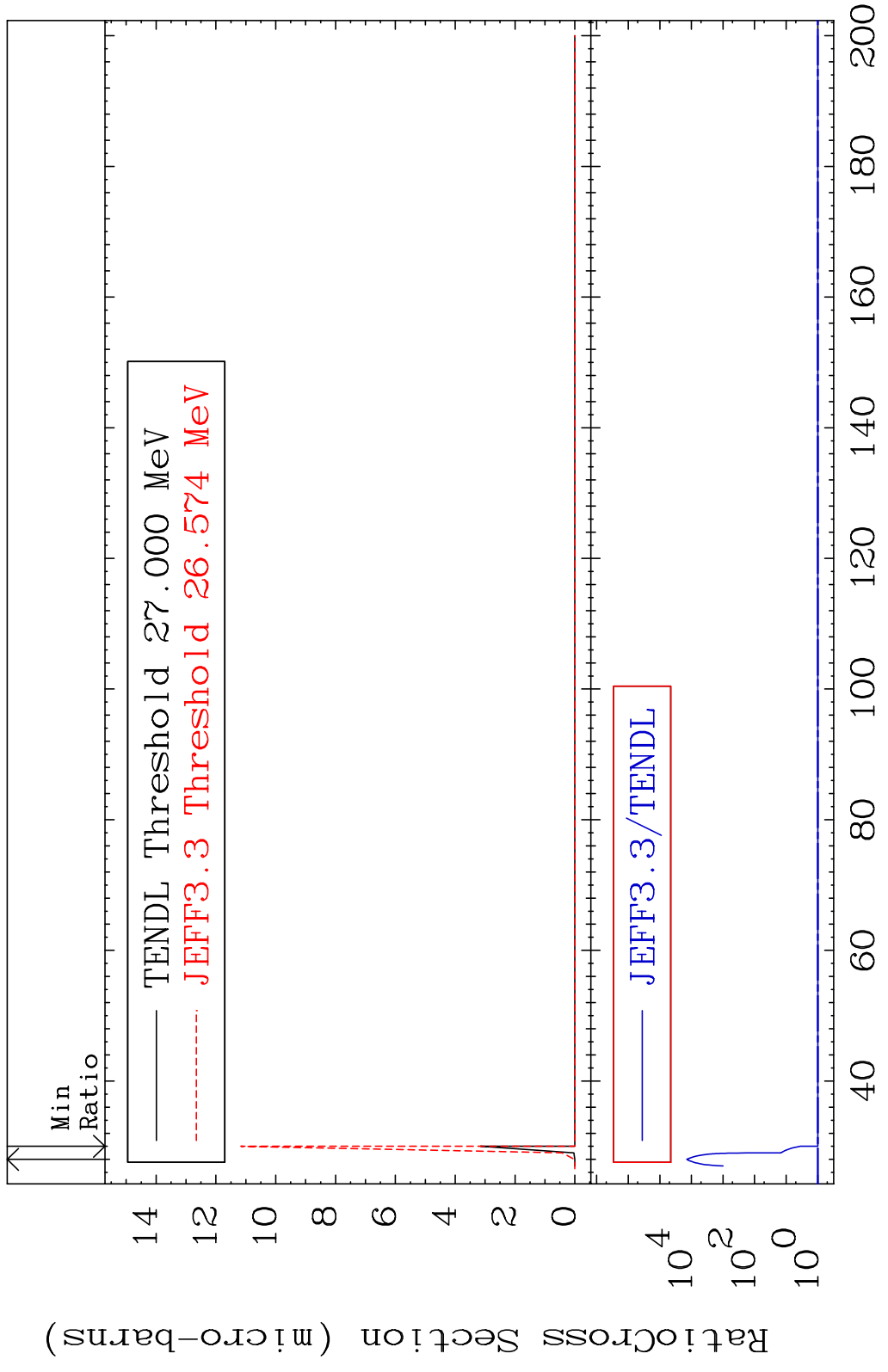




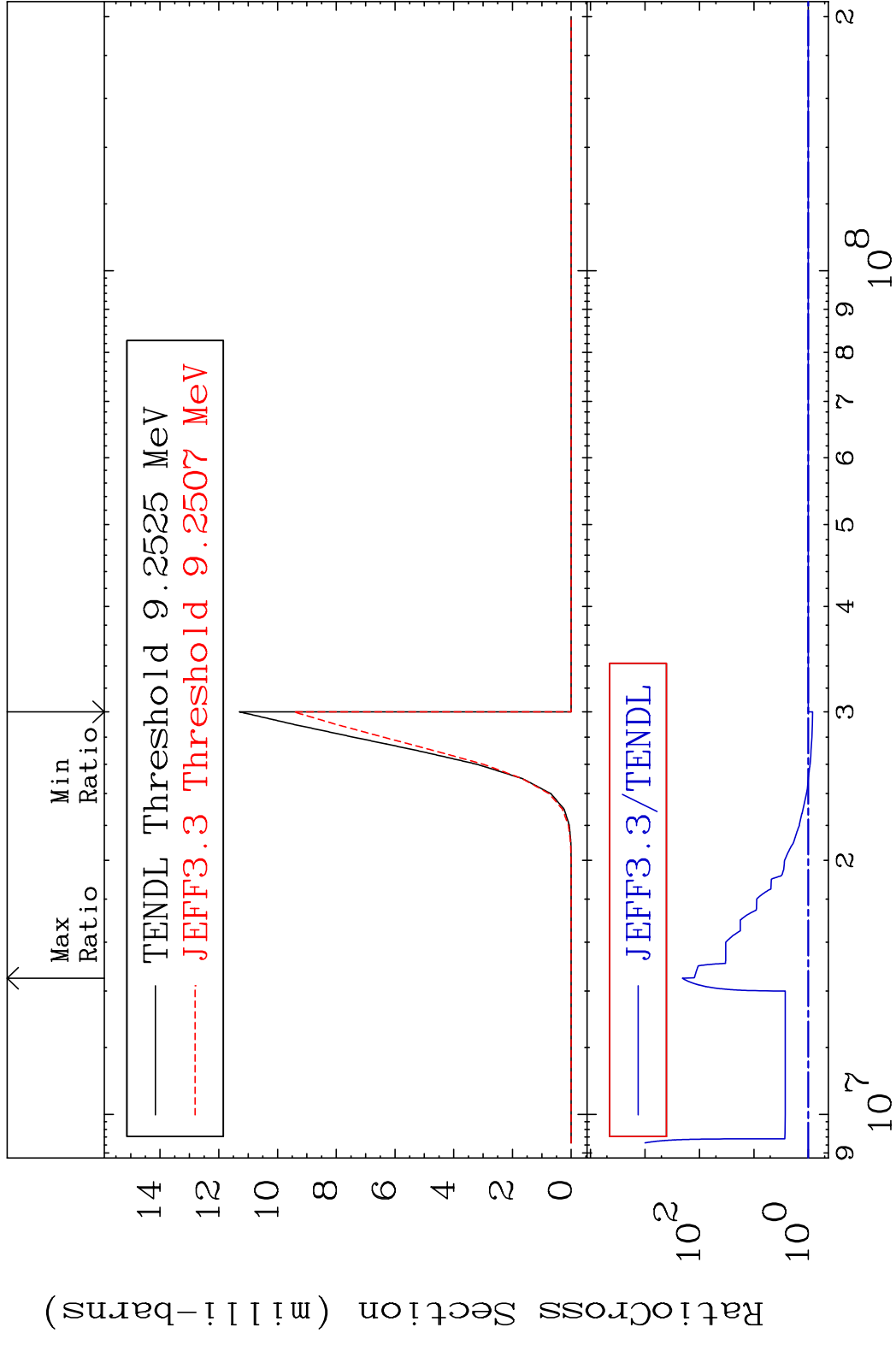




MAT 4425 (n,3n) p:43-Tc-93m1 44-Ru-96  
 Radionuclide Production Cross Section 9999. %

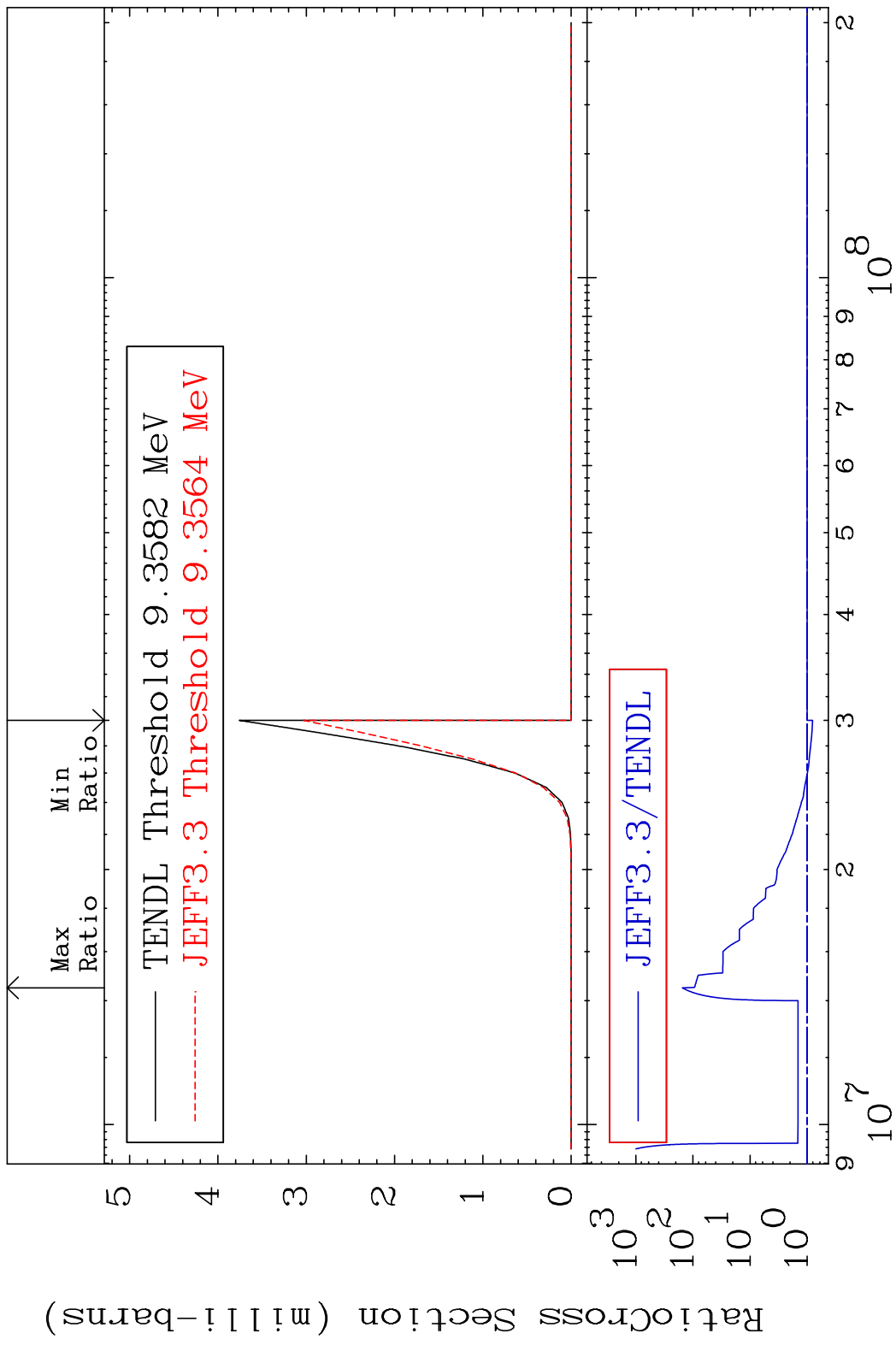


MAT 4425 (n, n') p  $\alpha$ :41-Nb-91g 44-Ru-96  
 Radionuclide Production Cross Section 186-Md-91 9999. %

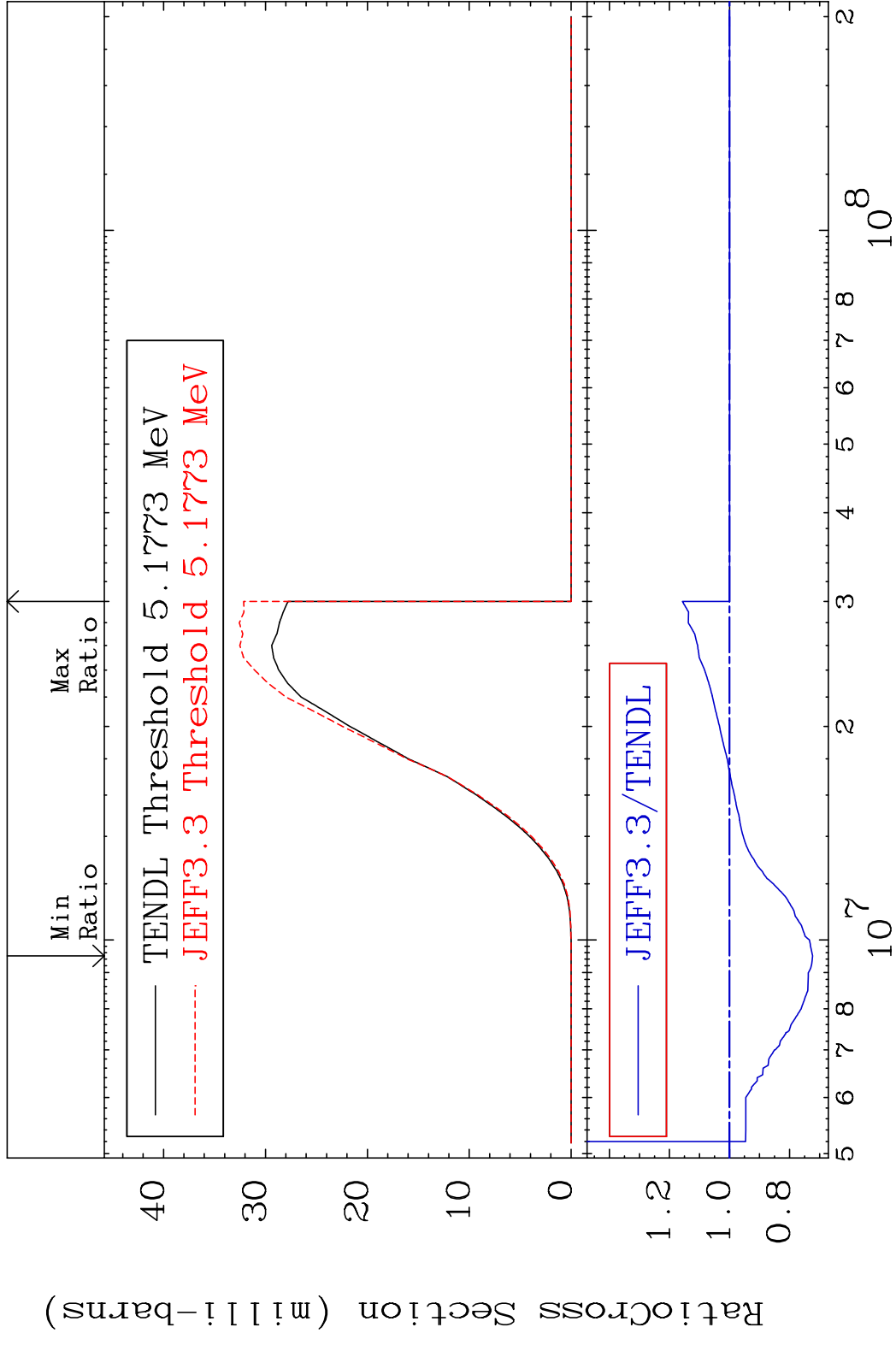


91 Incident Energy (eV) 44-Ru-96

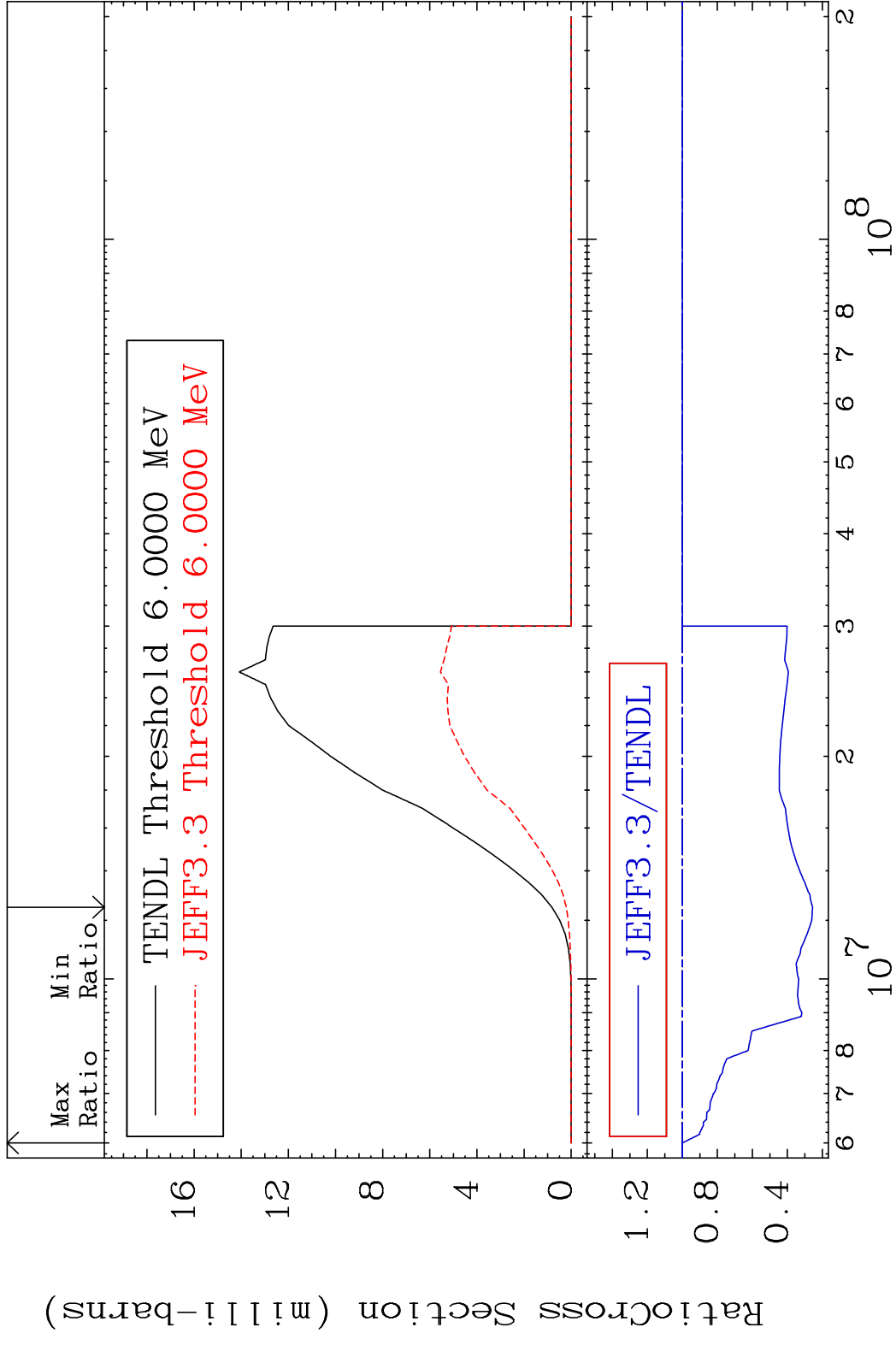
MAT 4425 (n, n') p  $\alpha$ : 41-Nb-91m1 44-Ru-96  
 Radionuclide Production Cross Section to 9999. %



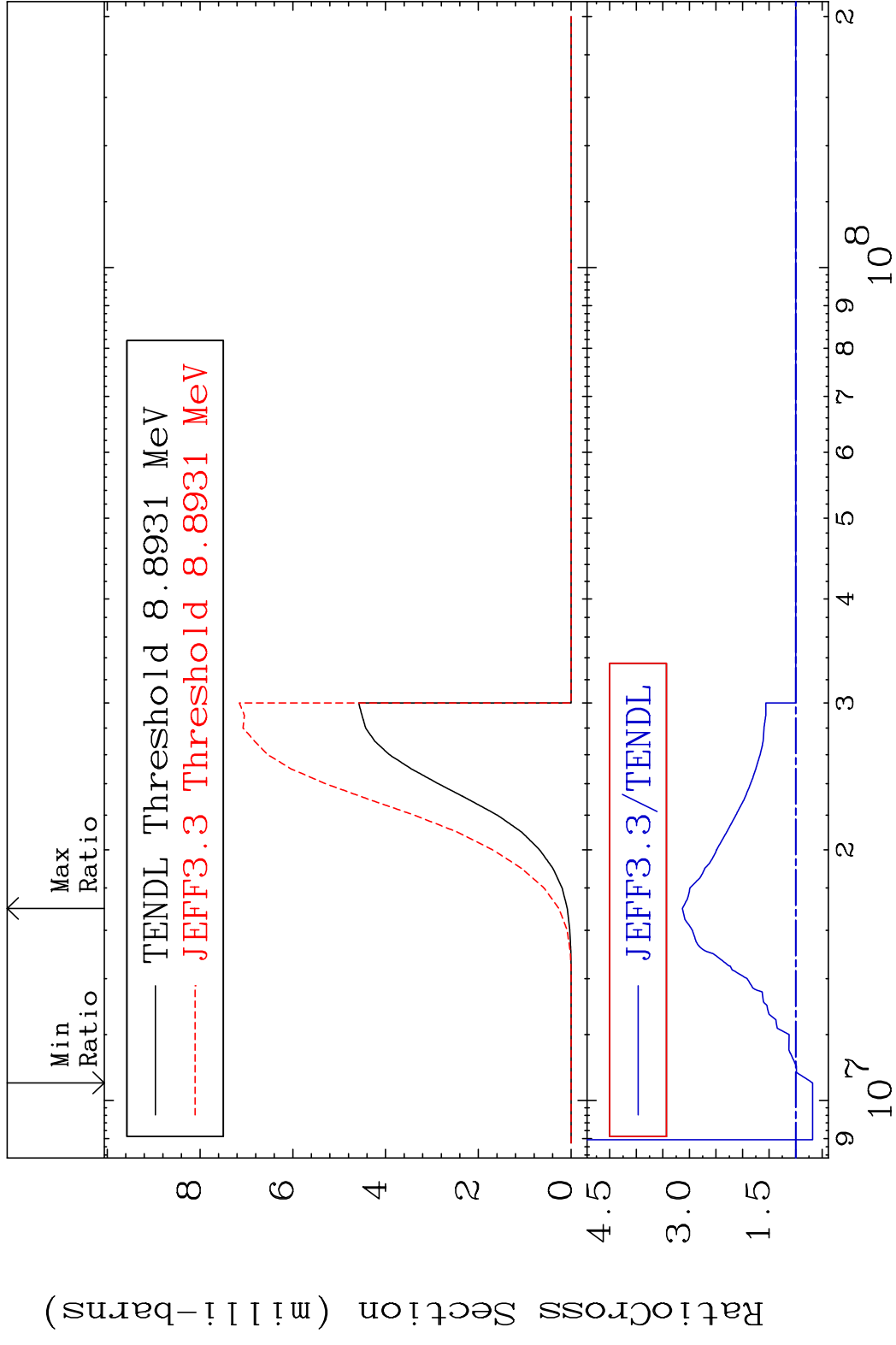
92 44-Ru-96



MAT 4425 (n, d) : 43-Tc-95m1 44-Ru-96  
 Radionuclide Production Cross Section 0.000 %



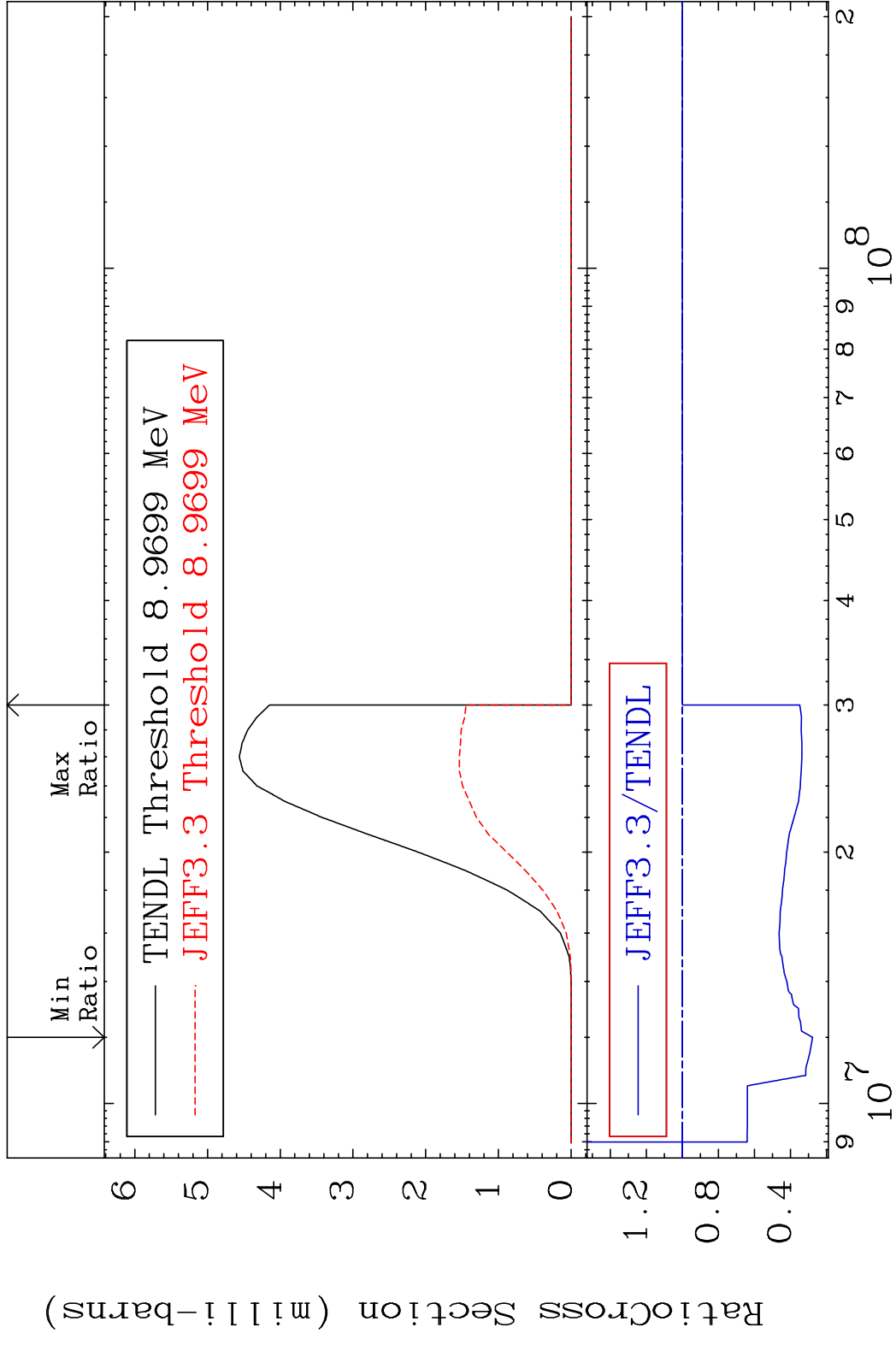
MAT 4425 (n, t): 43-Tc-94g 44-Ru-96  
 Radionuclide Production Cross Section 213.3 %



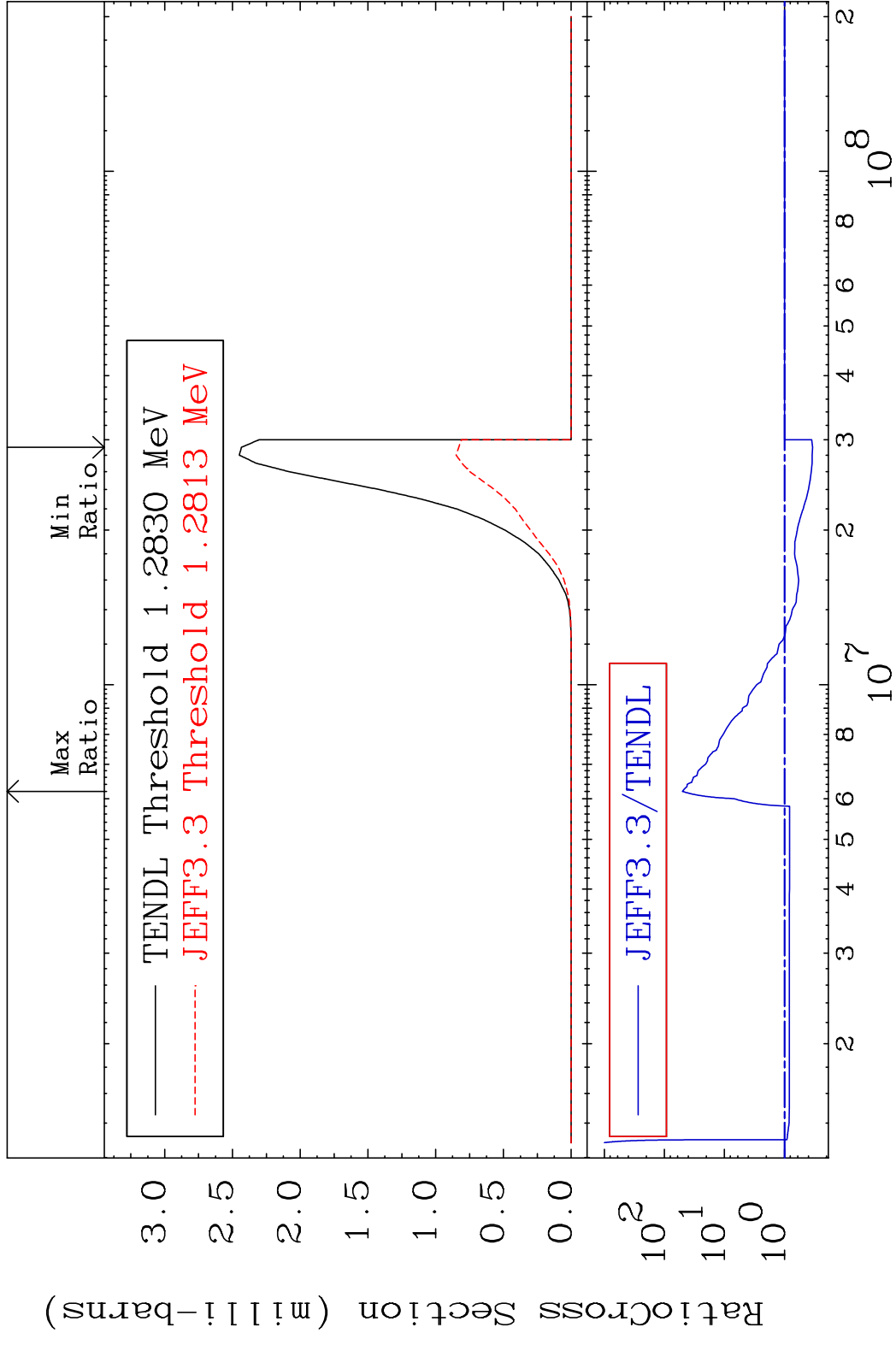
95 Incident Energy (eV) 44-Ru-96



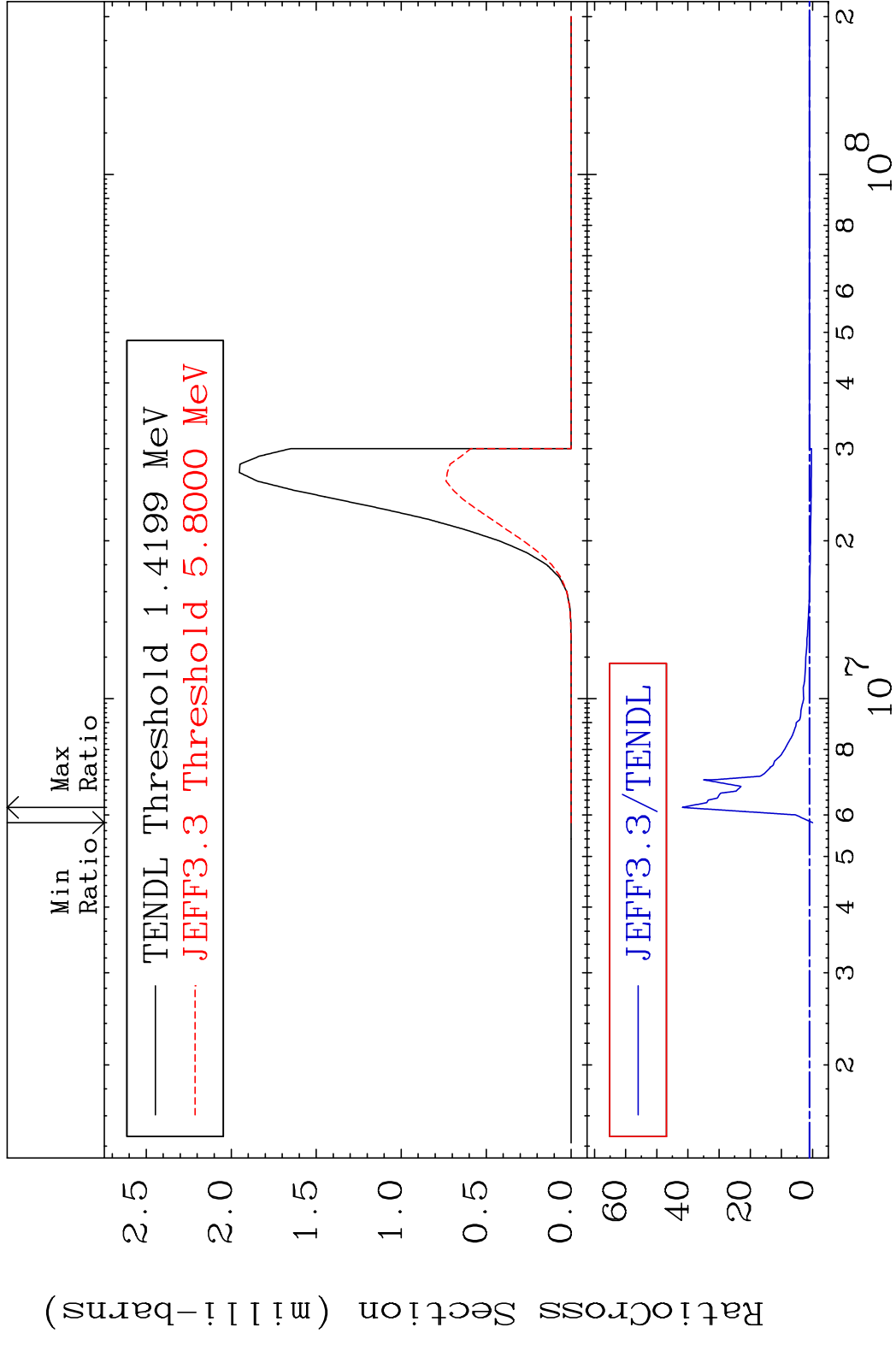
MAT 4425 (n, t): 43-Tc-94m1 44-Ru-96  
 Radionuclide Production Cross Section 0.000 %

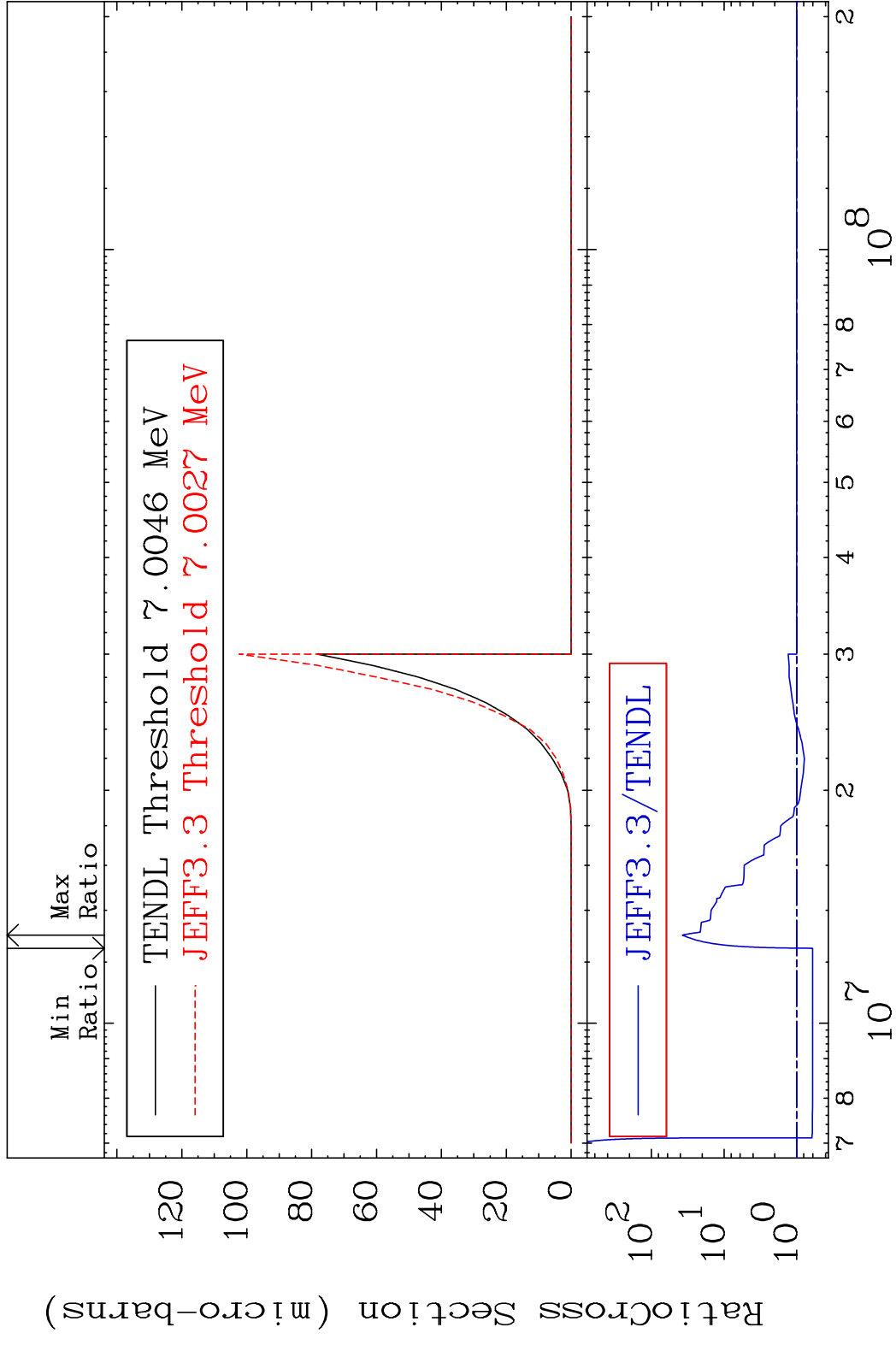


96 Incident Energy (eV) 44-Ru-96

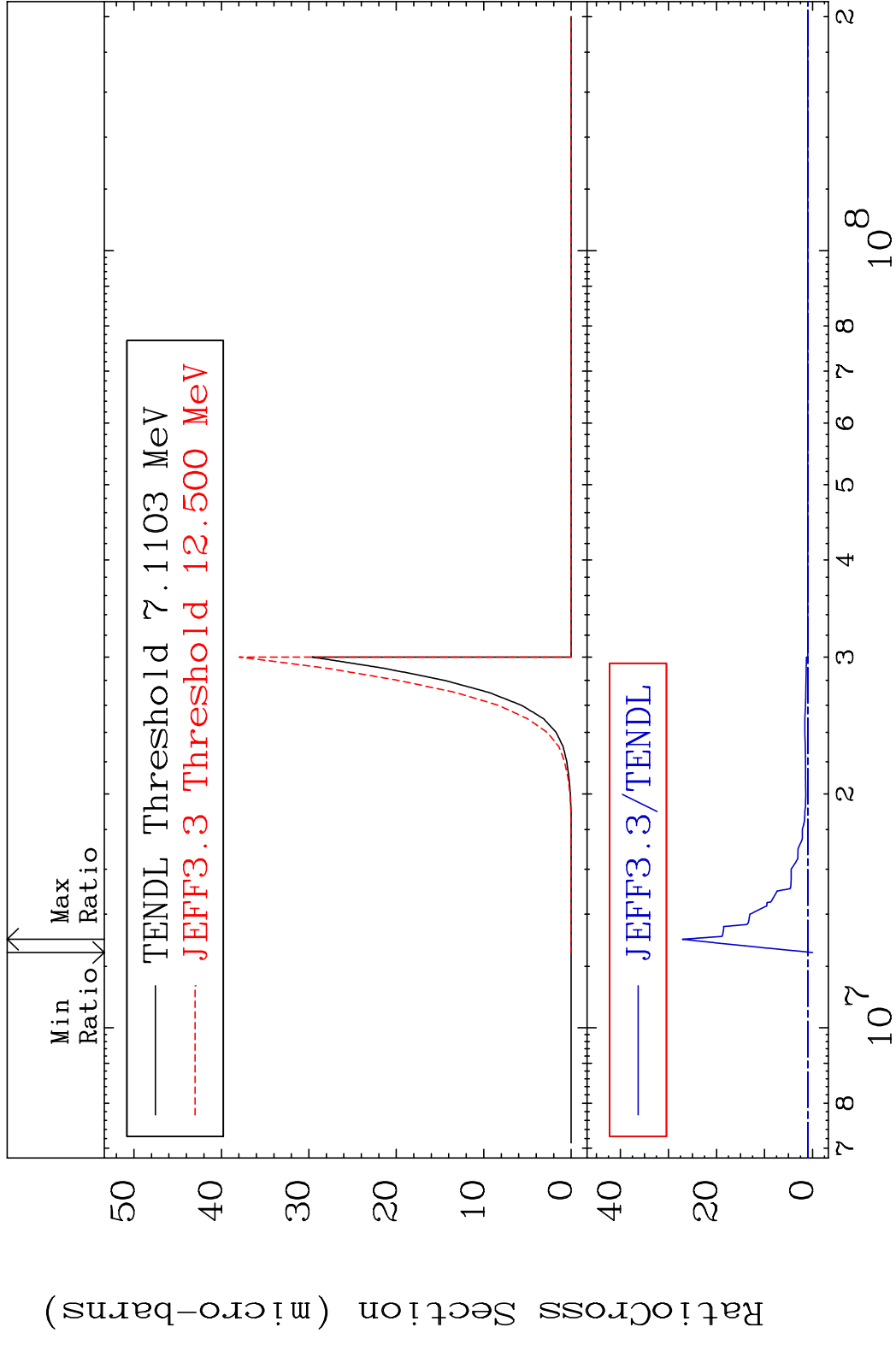


MAT 4425 (n, p)  $\alpha$ :41-Nb-92m1 44-Ru-96  
 Radionuclide Production Cross Section 4080. %





MAT 4425 (n, d)  $\alpha$ :41-Nb-91m1 44-Ru-96  
 Radionuclide Production Cross Section 180.01 dth 2611. %



100 Incident Energy (eV) 44-Ru-96