

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

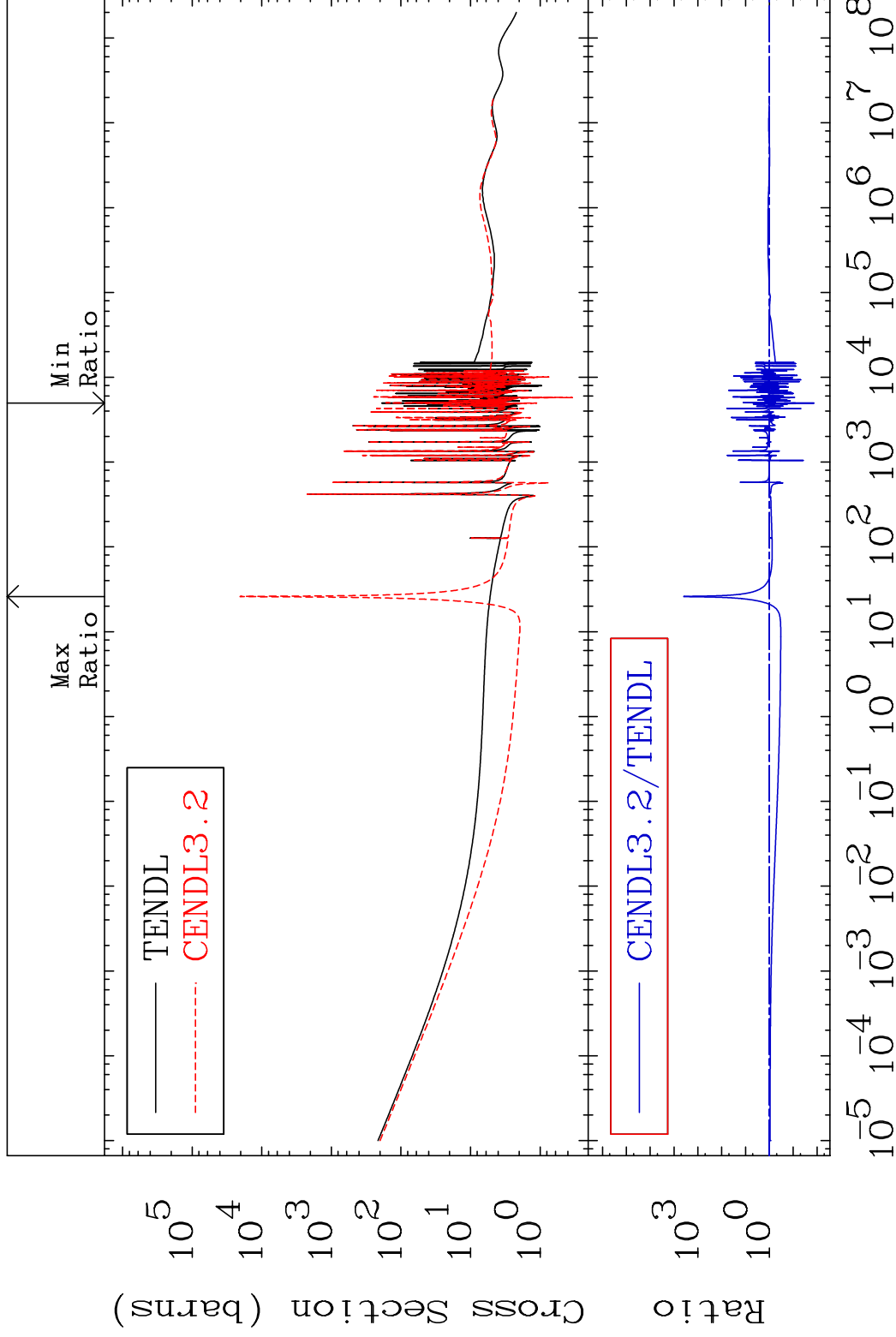
MAT 5646

Total

56-Ba-137

Cross Section

-98.67 To 9999. %



1

Incident Energy (eV)

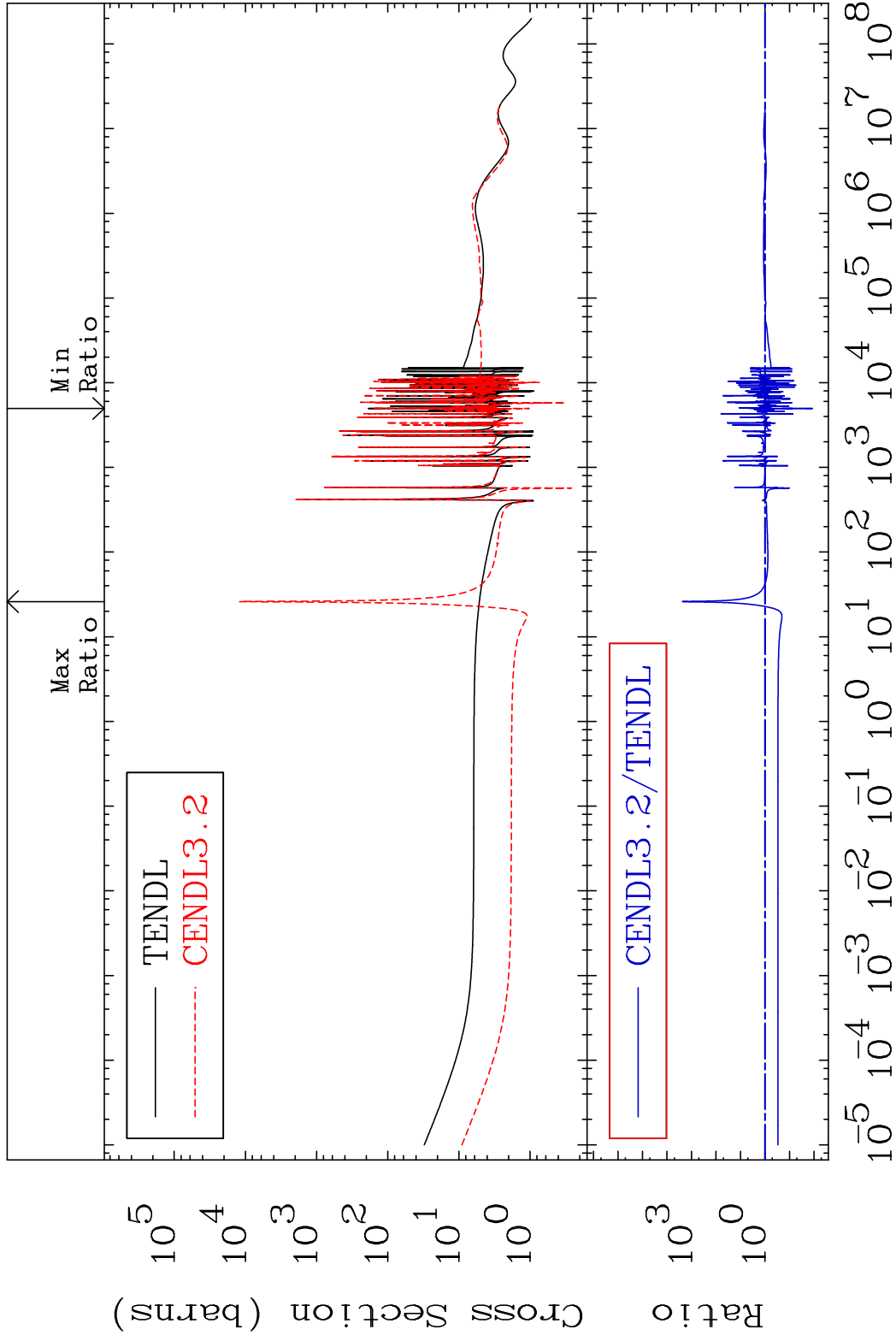
56-Ba-137

MAT 5646

Elastic

56-Ba-137

Cross Section -98.86 To 9999. %

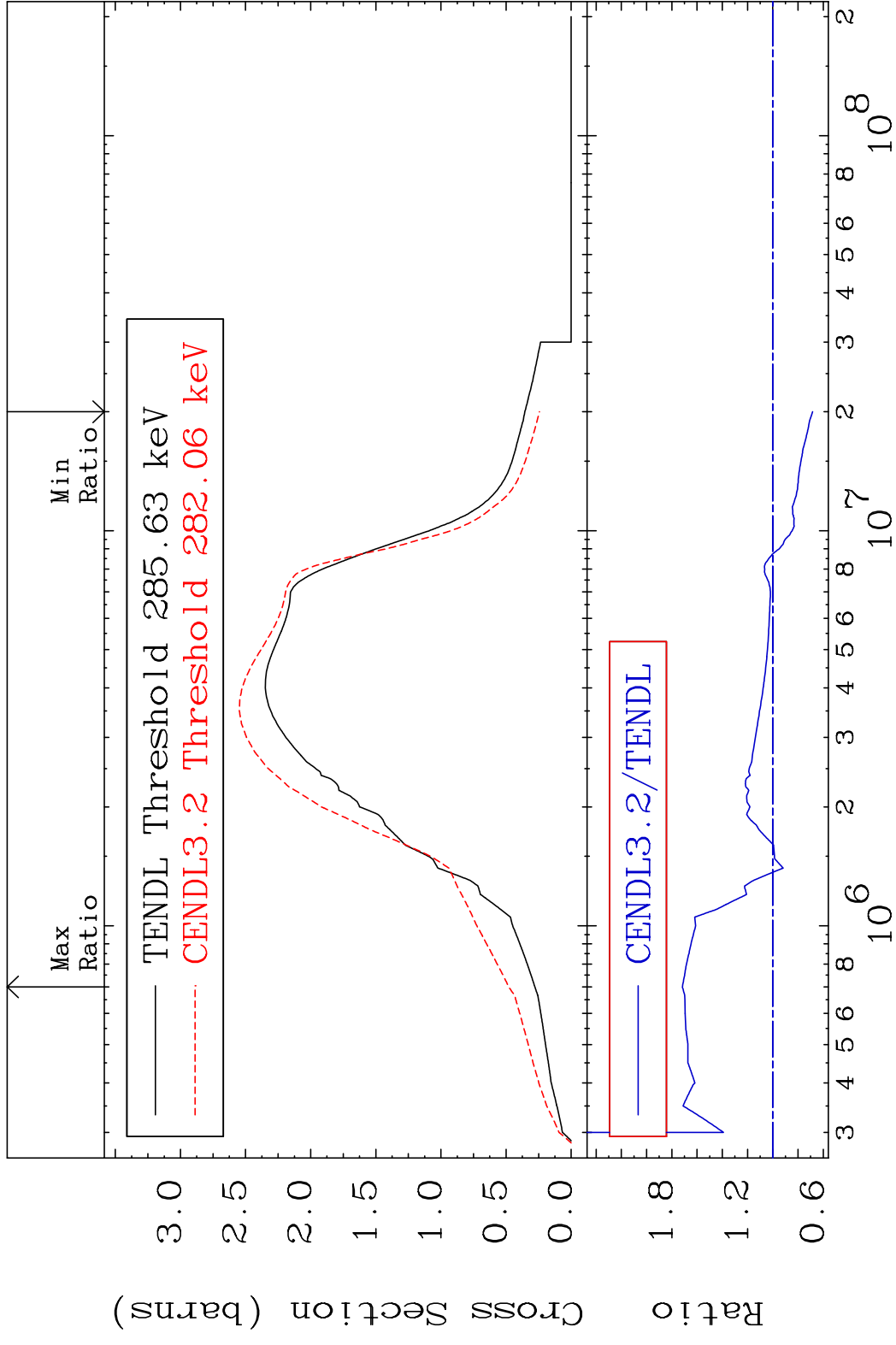


2

Incident Energy (eV)

56-Ba-137

MAT 5646 Inelastic 56-Ba-137  
 Cross Section -31.54 To 71.66 %

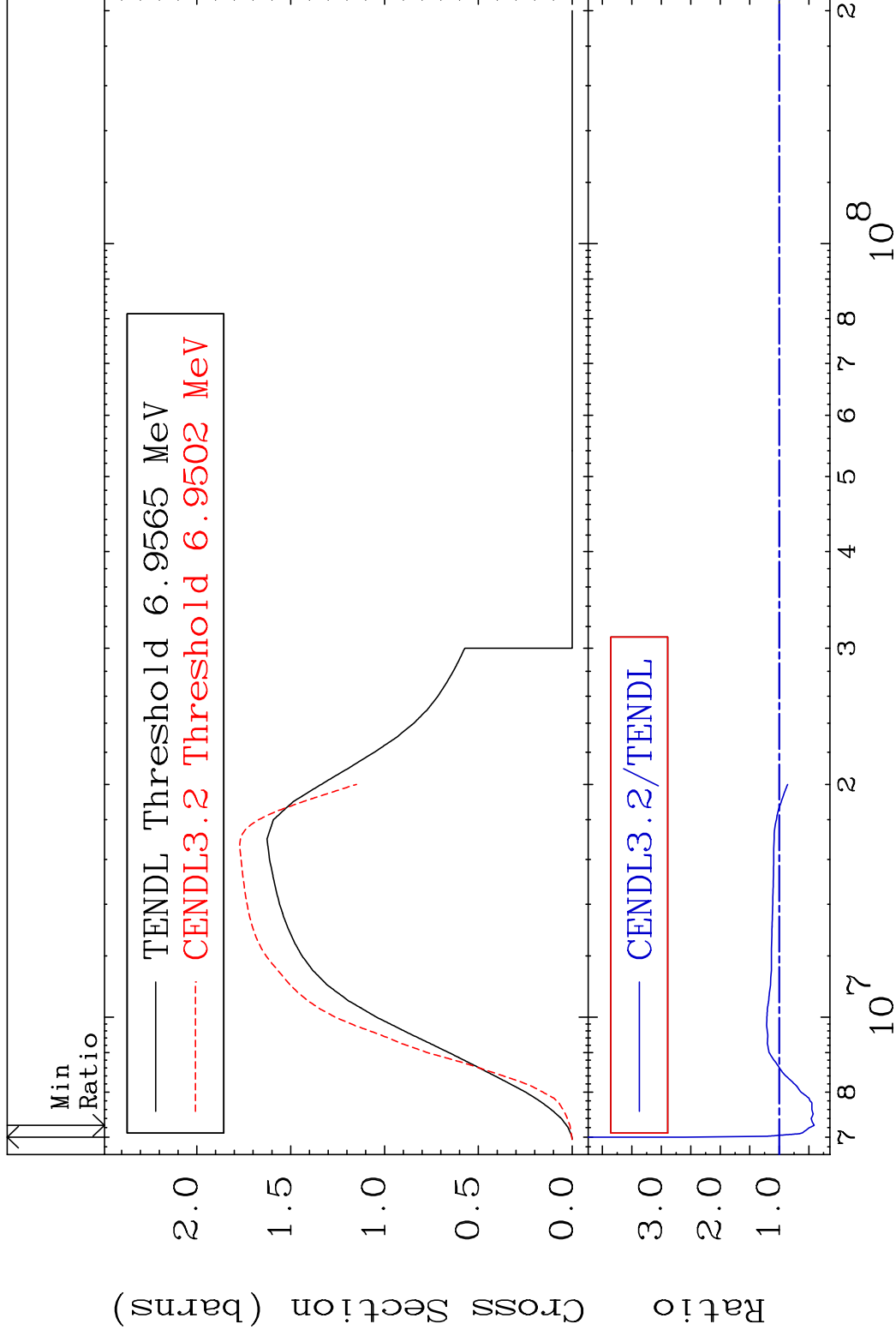


MAT 5646

(n,2n)

56-Ba-137

Cross Section -59.01 To 162.2 %



4

Incident Energy (eV)

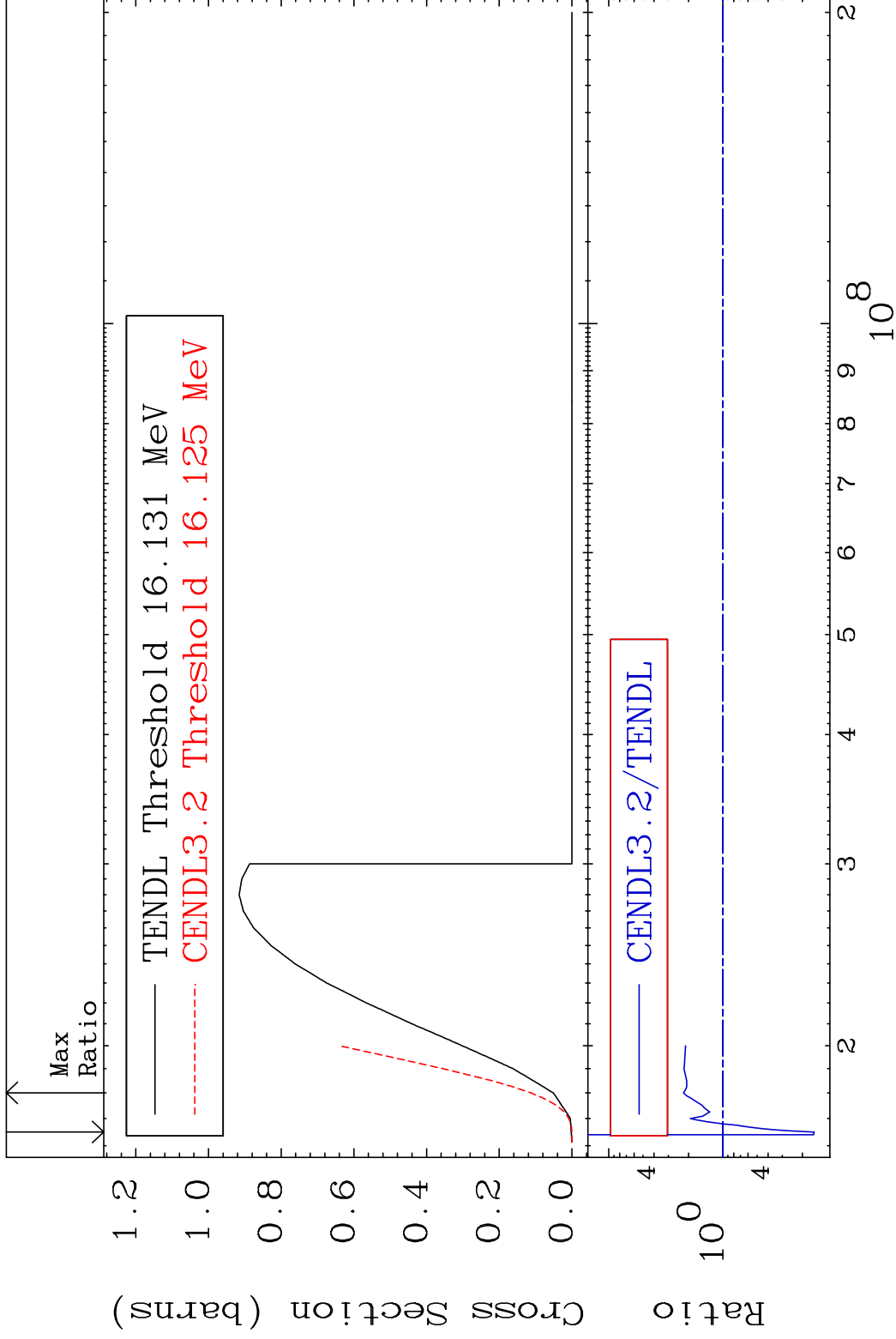
56-Ba-137

MAT 5646

(n,3n)

56-Ba-137

Cross Section -84.18 To 121.1 %



5

Incident Energy (eV)

56-Ba-137

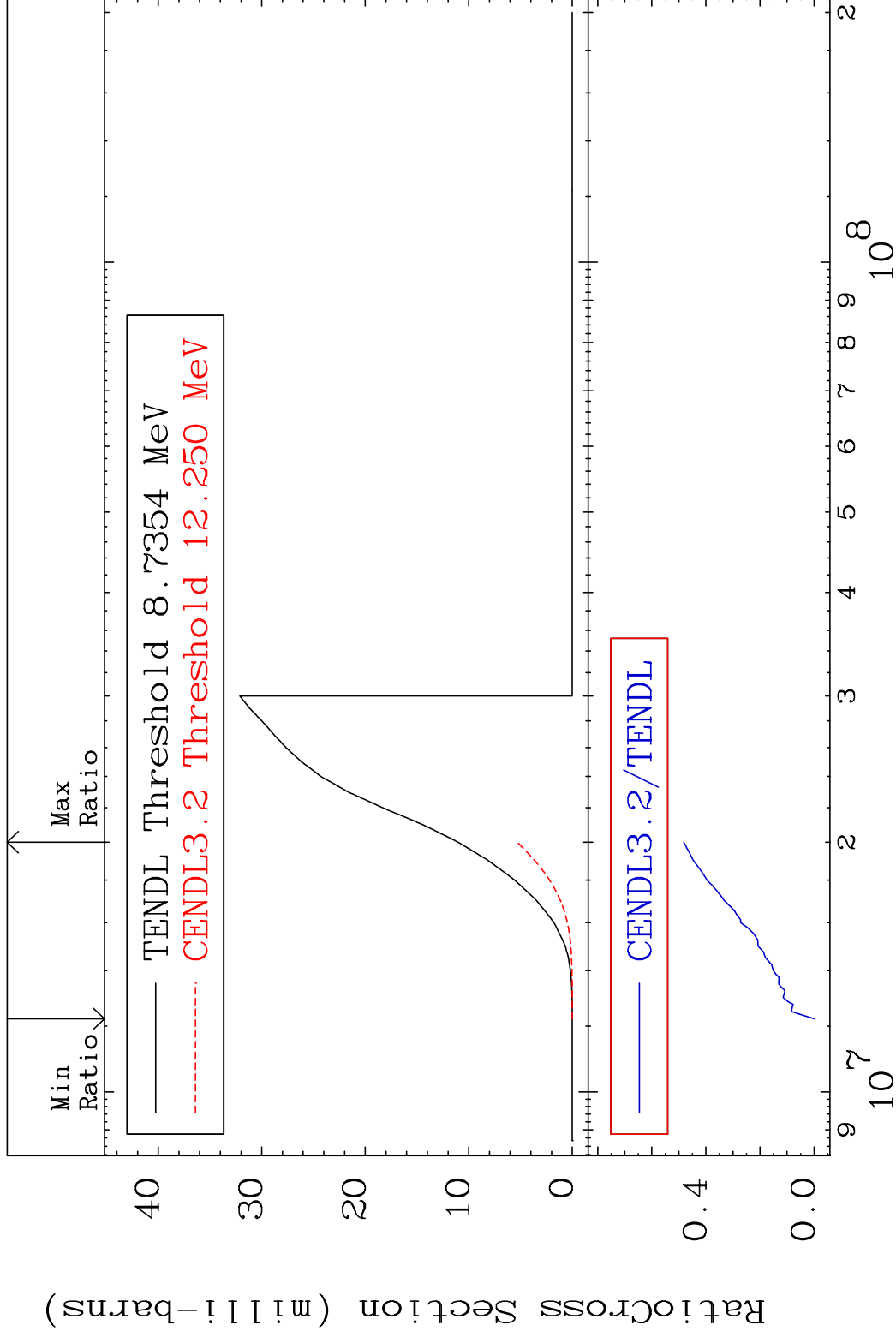


MAT 5646

(n, n') p

56-Ba-137

Cross Section -100.0 To -51.77%

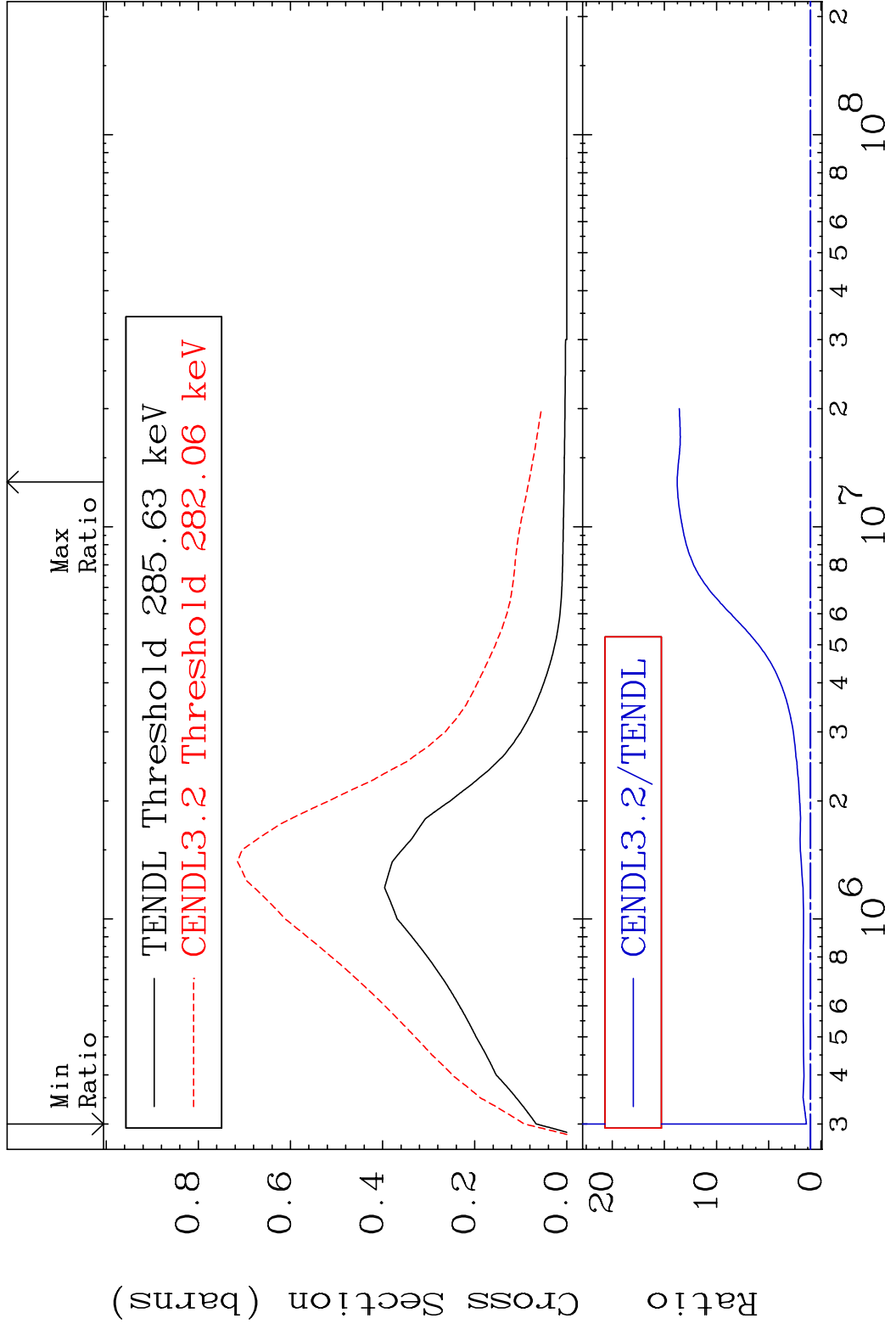


7

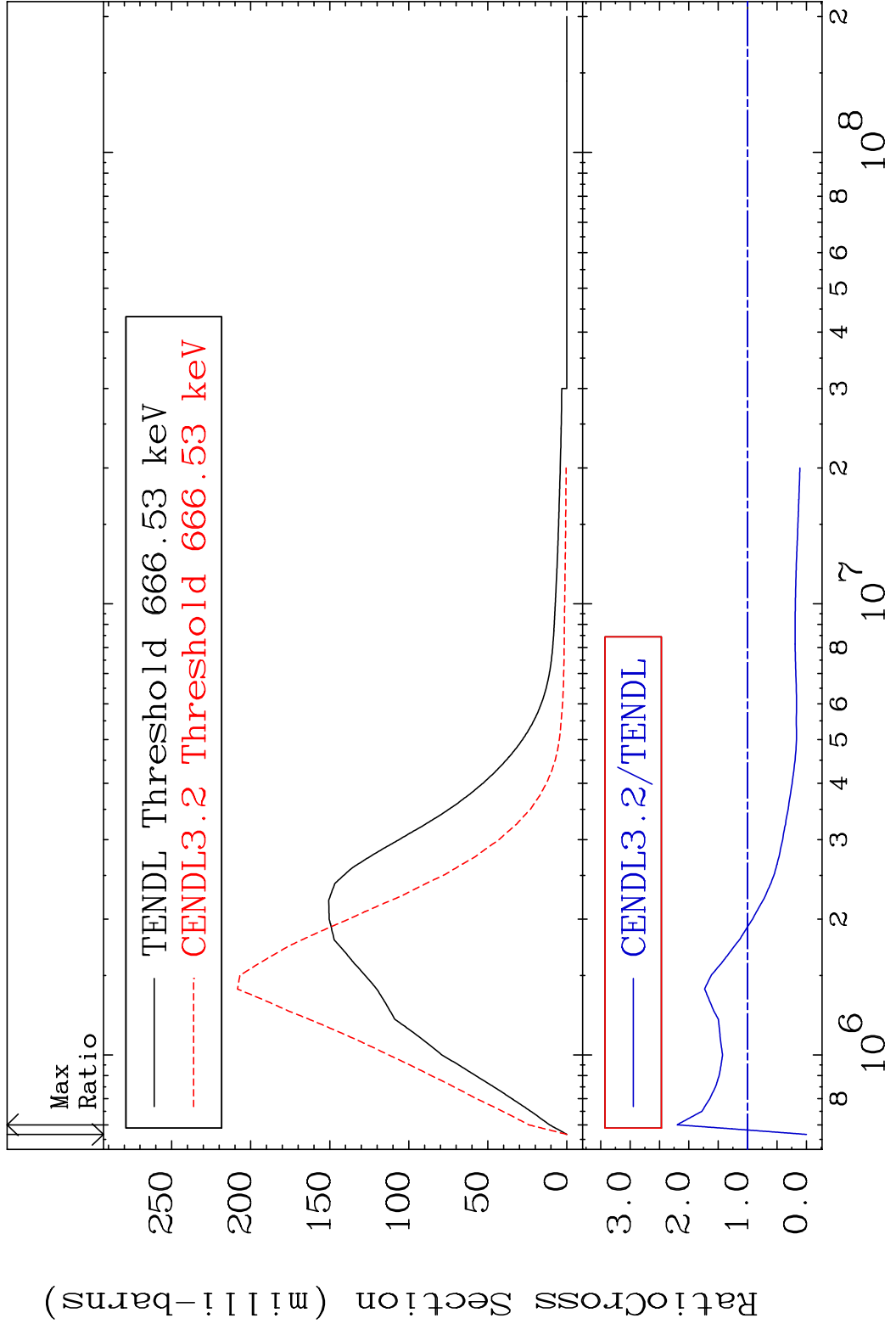
Incident Energy (eV)

56-Ba-137

MAT 5646 MT= 51 (n, n') Level 56-Ba-137  
 Cross Section 39.13 To 1277. %



MAT 5646 MT= 52 (n,n') Level 56-Ba-137  
 Cross Section -100.0 To 119.8 %

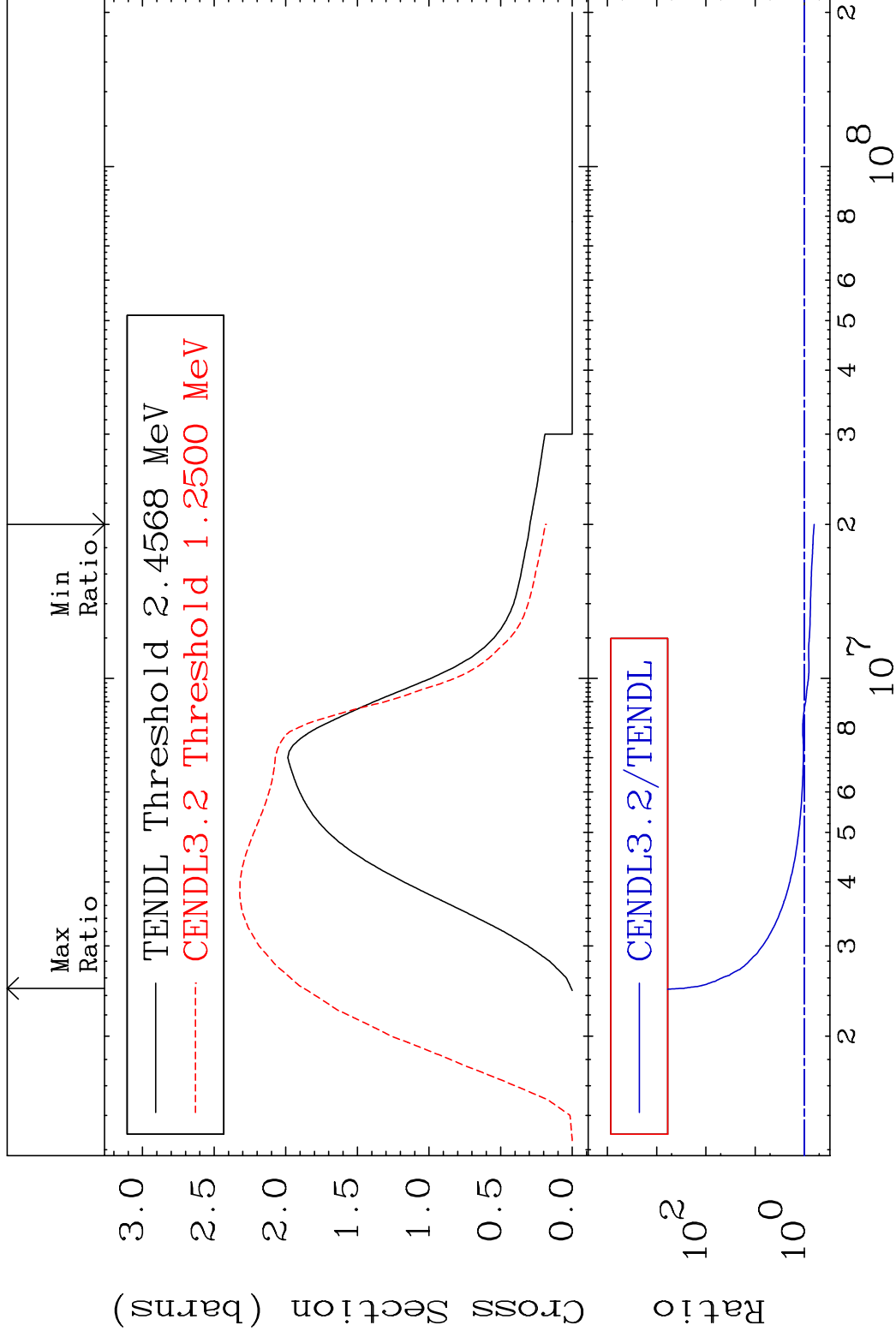


MAT 5646

(n, n') Continuum

56-Ba-137

Cross Section -36.56 To 9999. %



10

Incident Energy (eV)

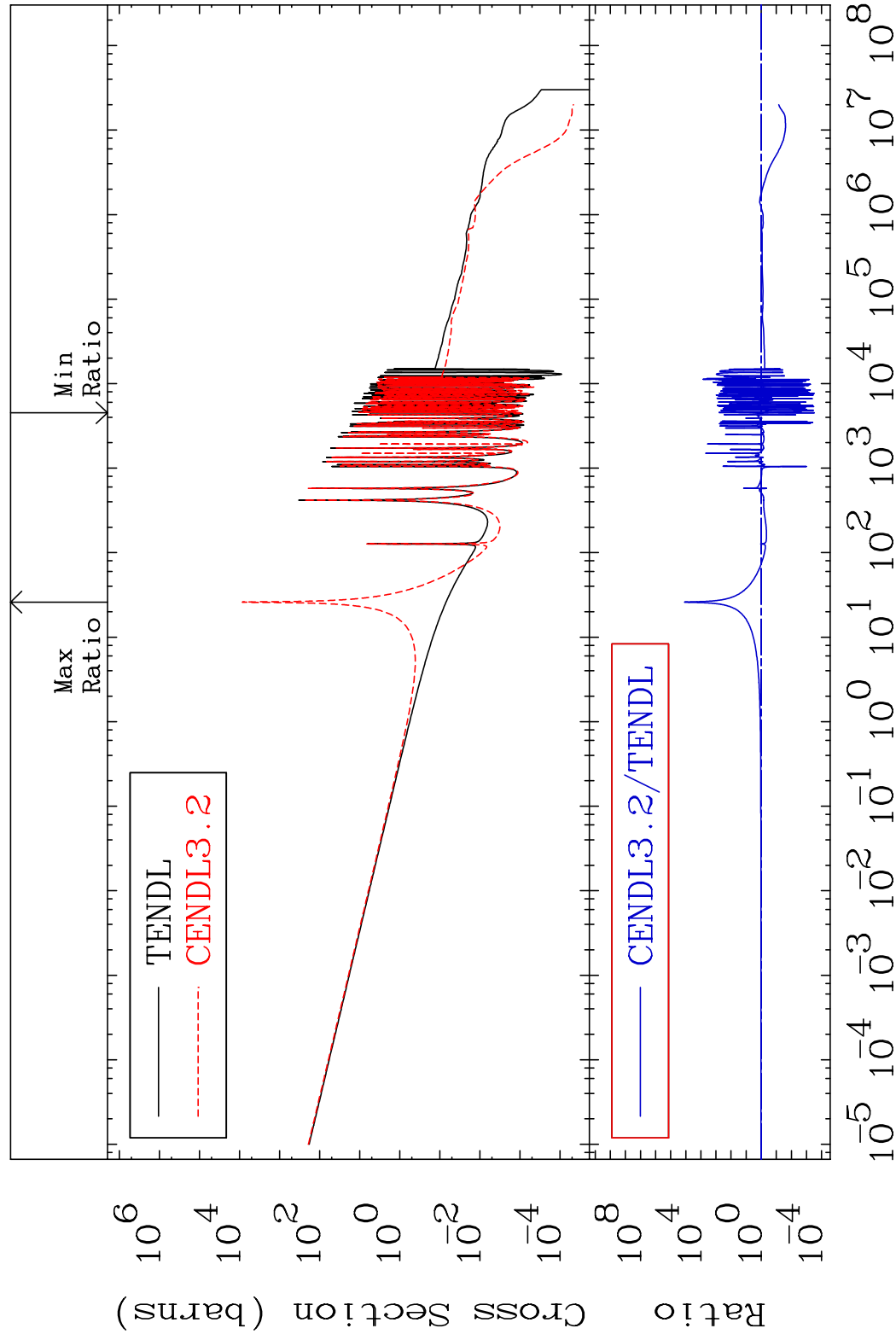
56-Ba-137

MAT 5646

(n,  $\gamma$ )

56-Ba-137

Cross Section -99.97 To 9999. %



11

Incident Energy (eV)

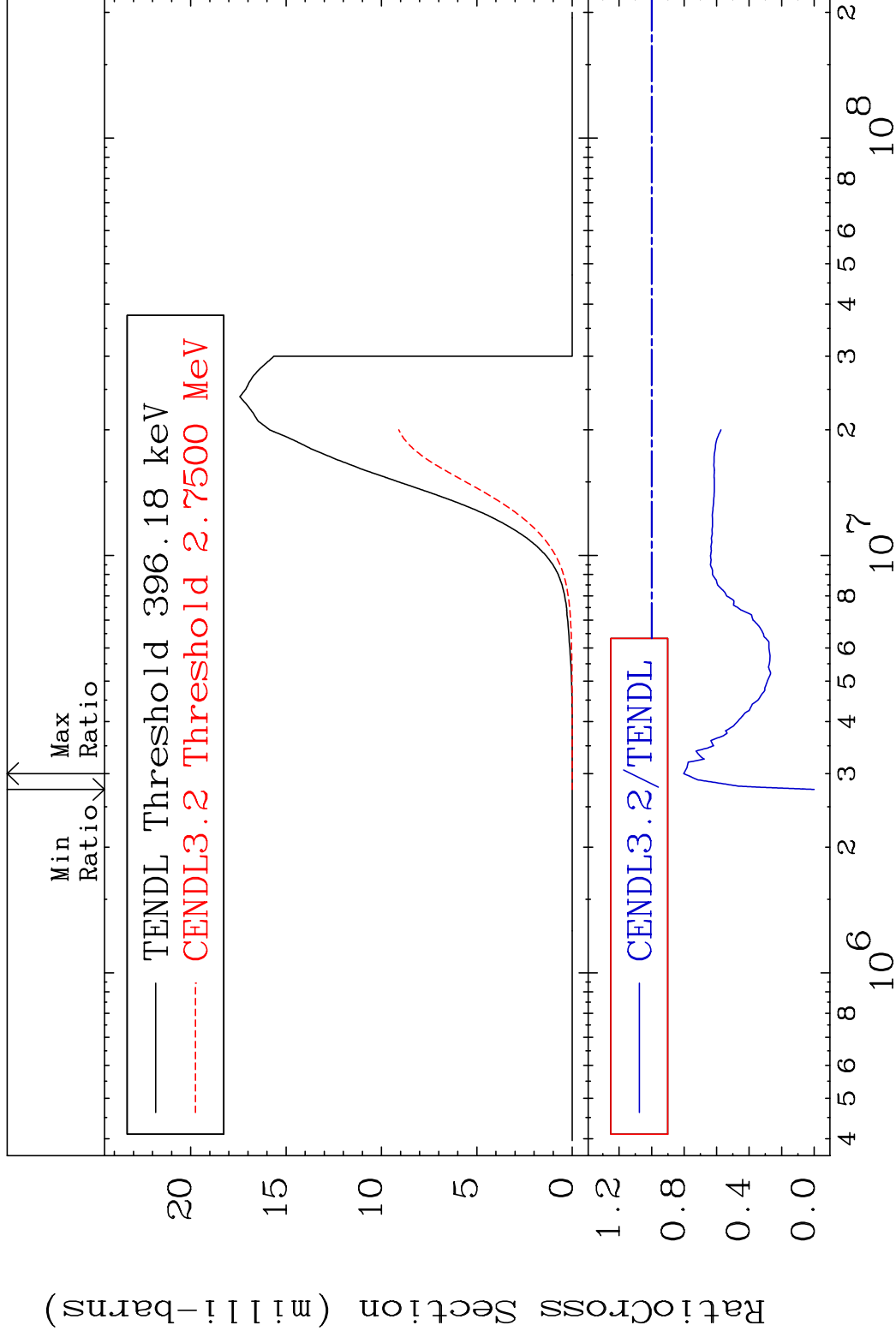
56-Ba-137

MAT 5646

(n, p)

56-Ba-137

Cross Section -100.0 To -19.73%

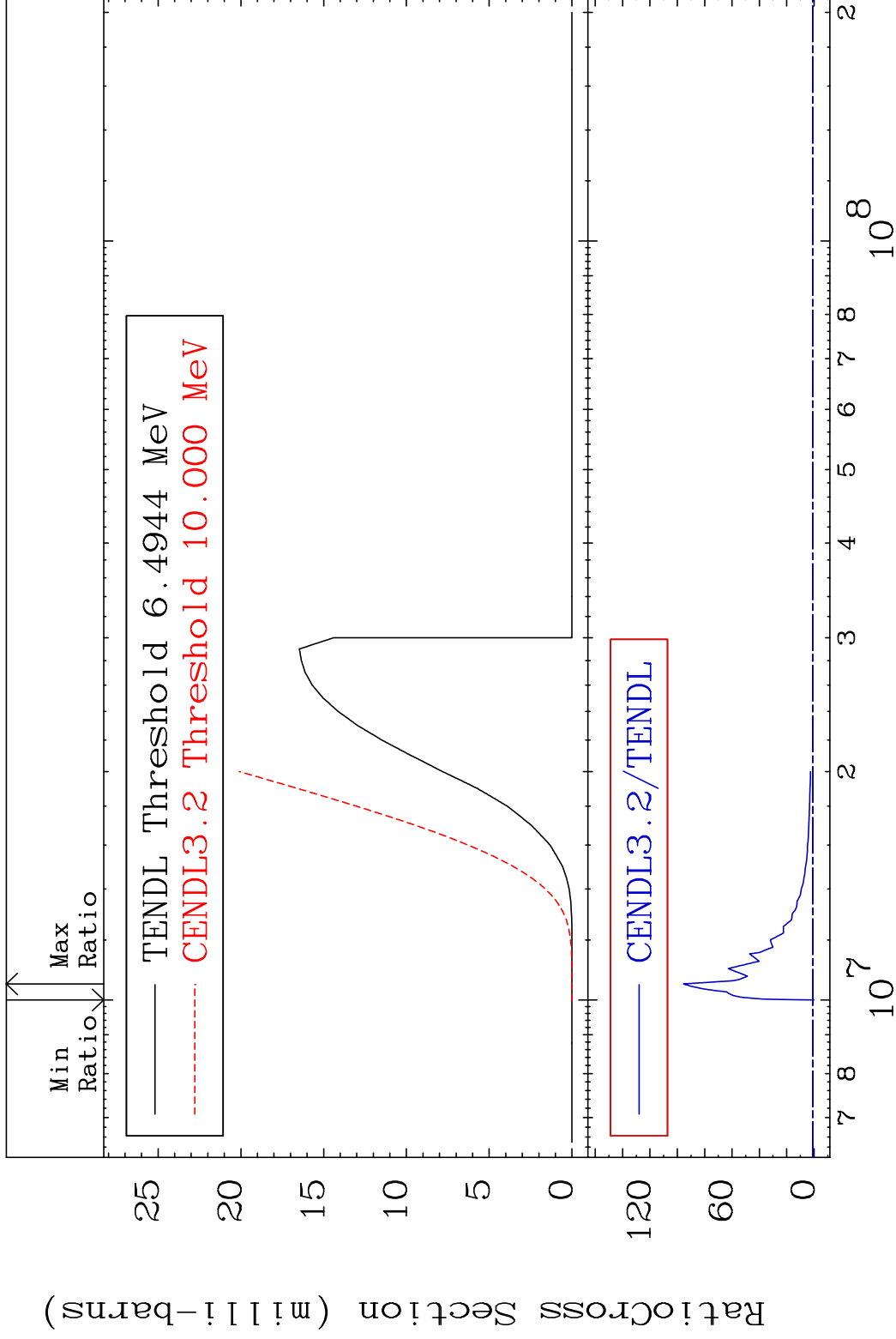


MAT 5646

(n,d)

56-Ba-137

Cross Section -100.0 To 9450. %



13

Incident Energy (eV)

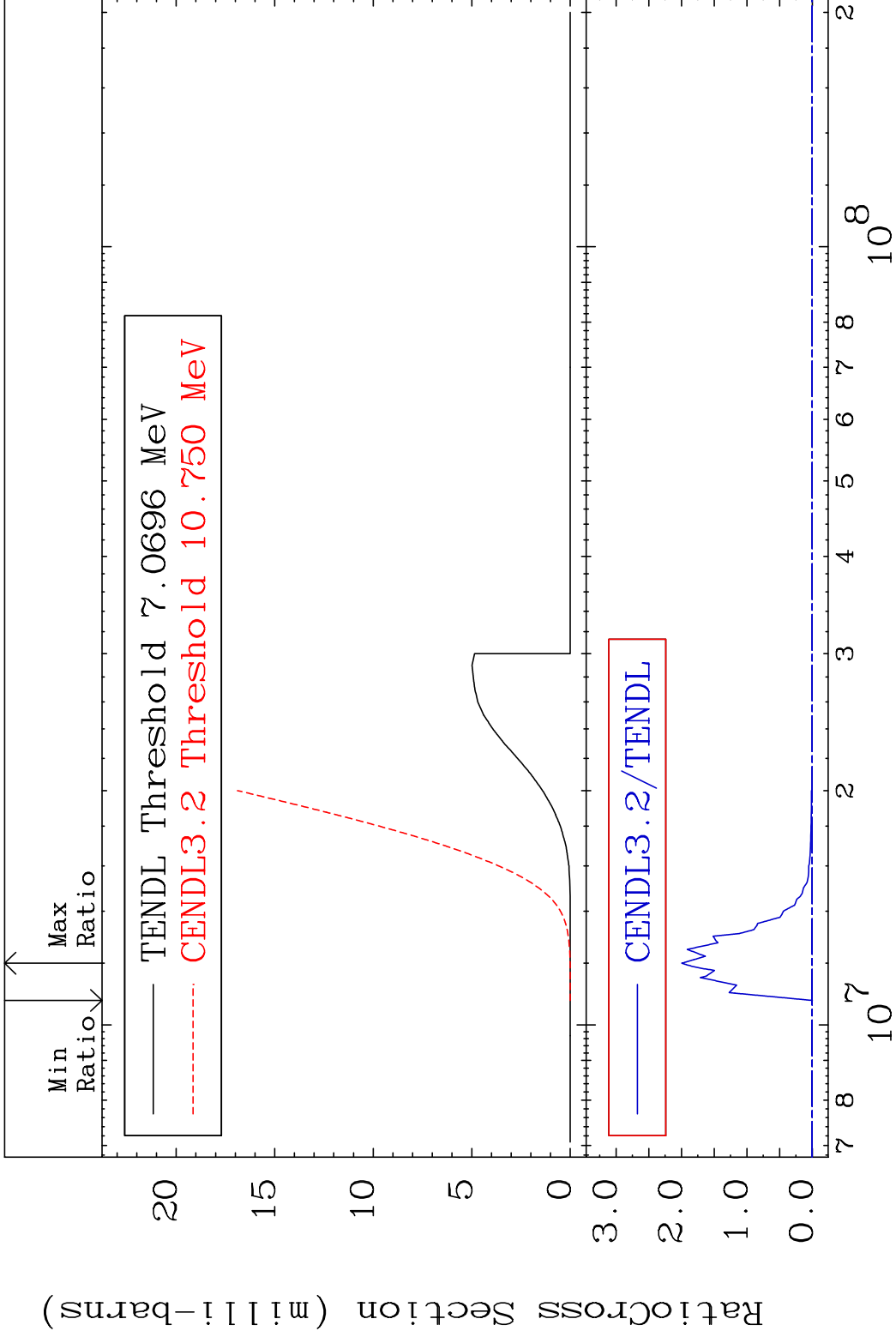
56-Ba-137

MAT 5646

(n, t)

56-Ba-137

Cross Section -100.0 To 9999. %



14

Incident Energy (eV)

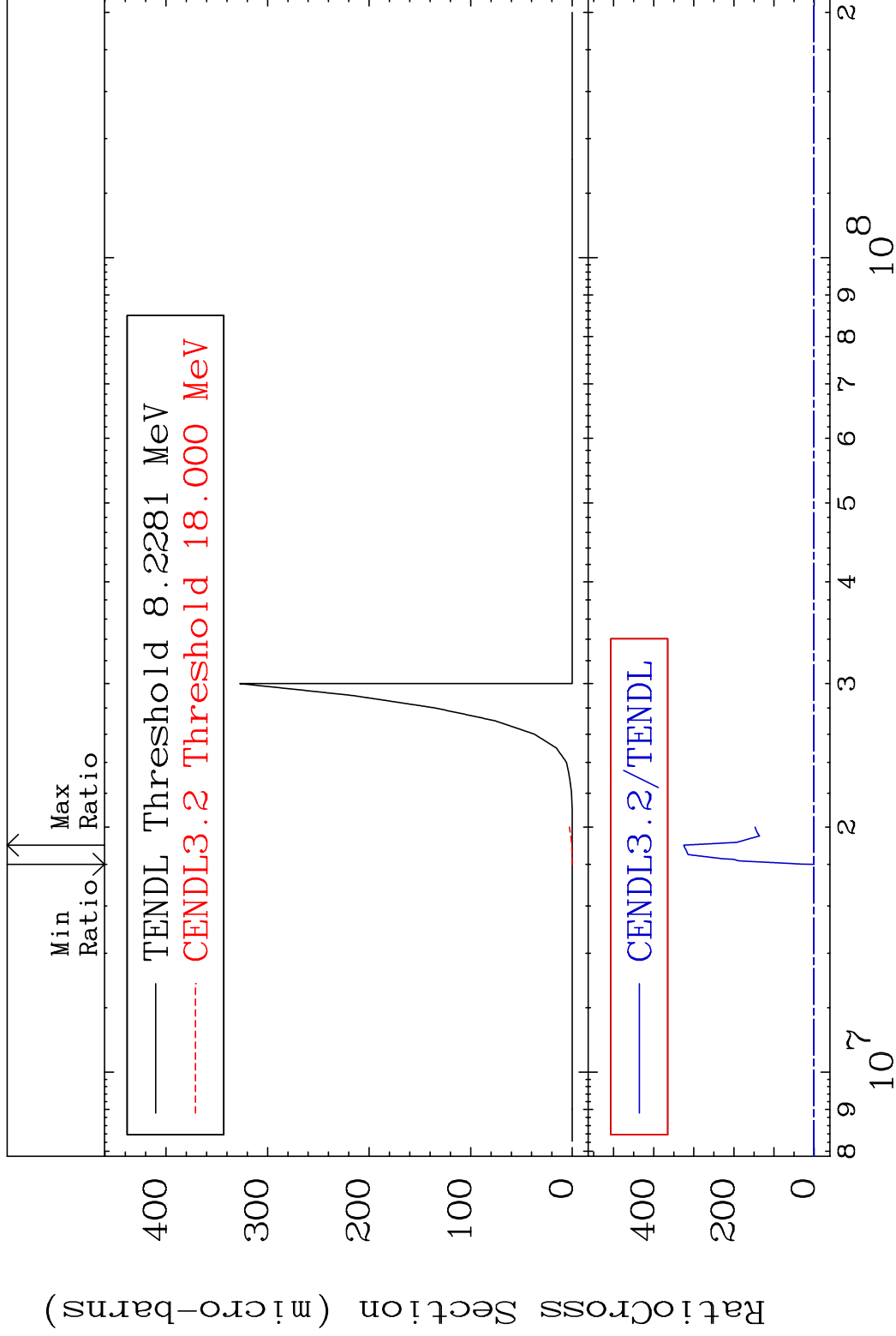
56-Ba-137

MAT 5646

(n, He-3)

56-Ba-137

Cross Section -100.0 To 9999. %



15

Incident Energy (eV)

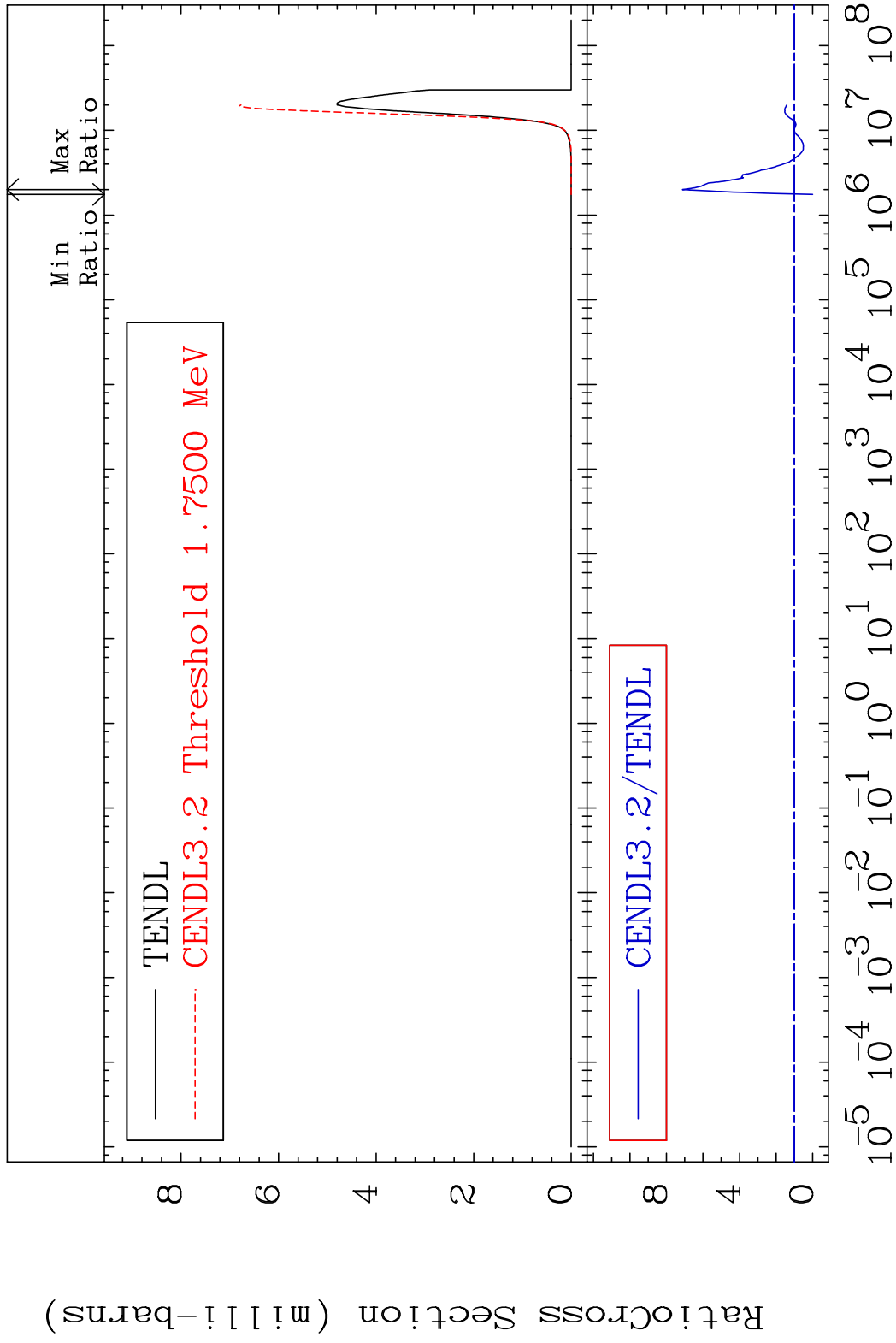
56-Ba-137

MAT 5646

(n,  $\alpha$ )

56-Ba-137

Cross Section -100.0 To 613.1 %



16

Incident Energy (eV)

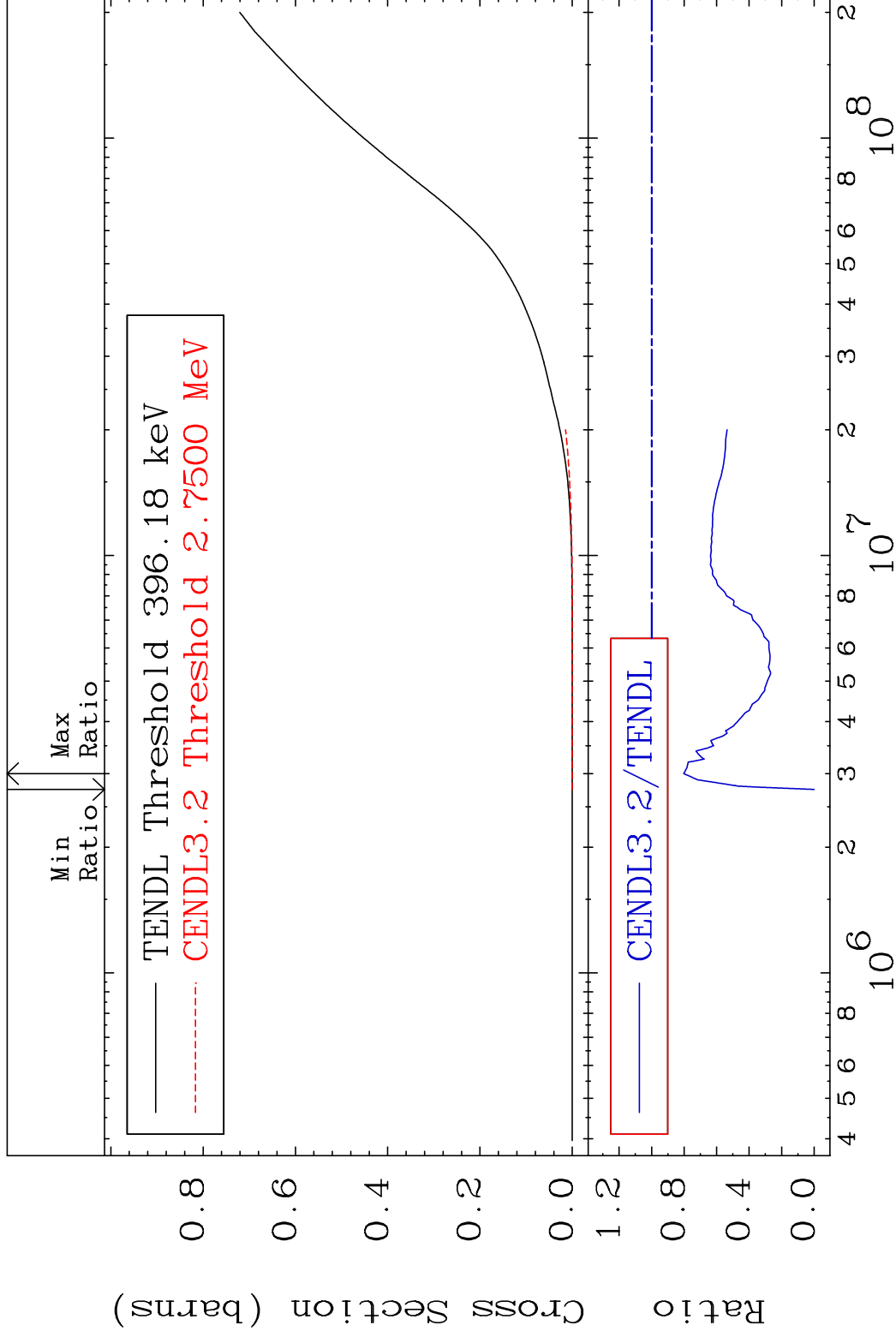
56-Ba-137

MAT 5646

Hydrogen Production

56-Ba-137

Cross Section -100.0 To -19.73%

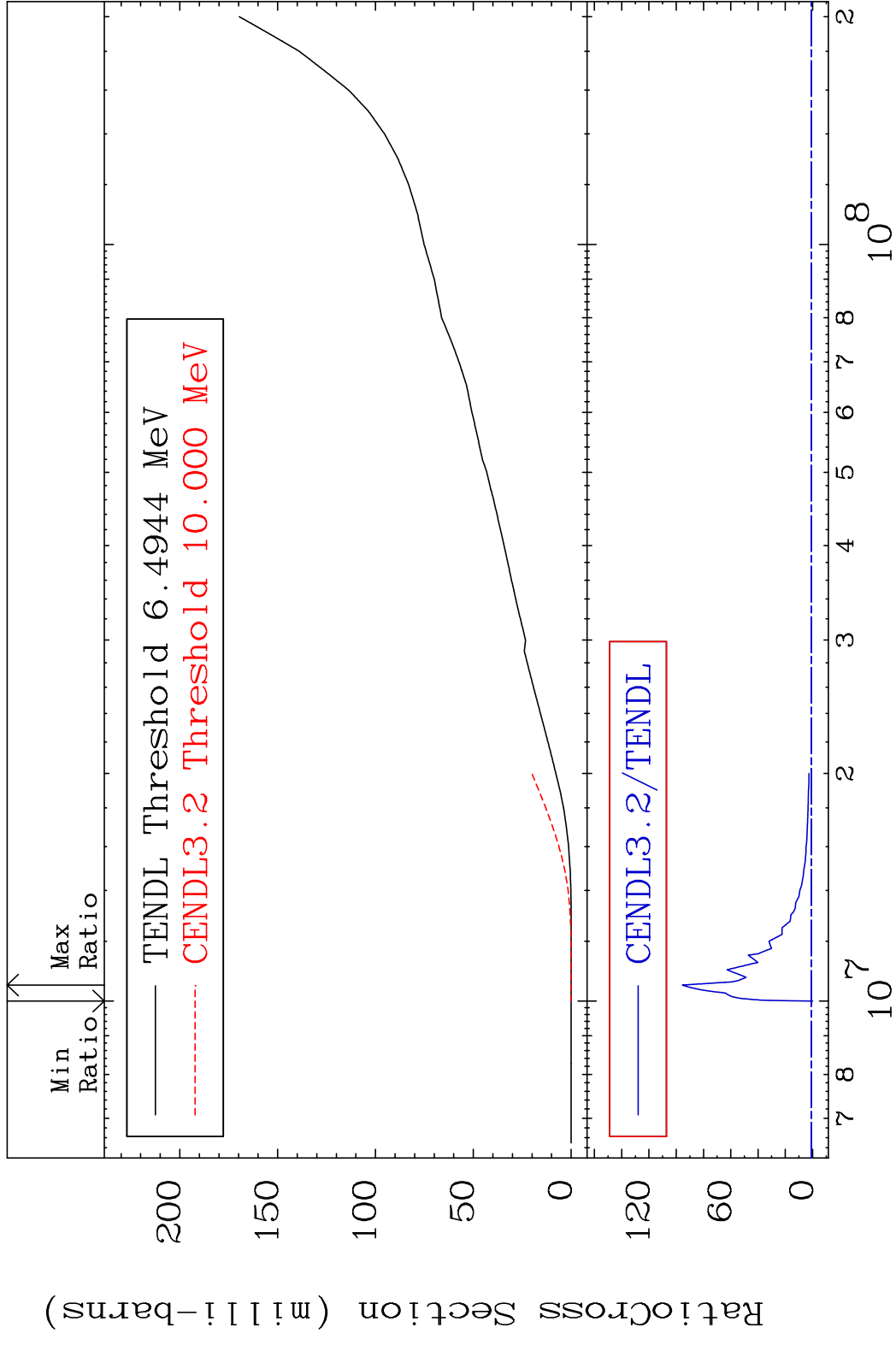


MAT 5646

Deuterium Production

56-Ba-137

Cross Section -100.0 To 9450. %



18

Incident Energy (eV)

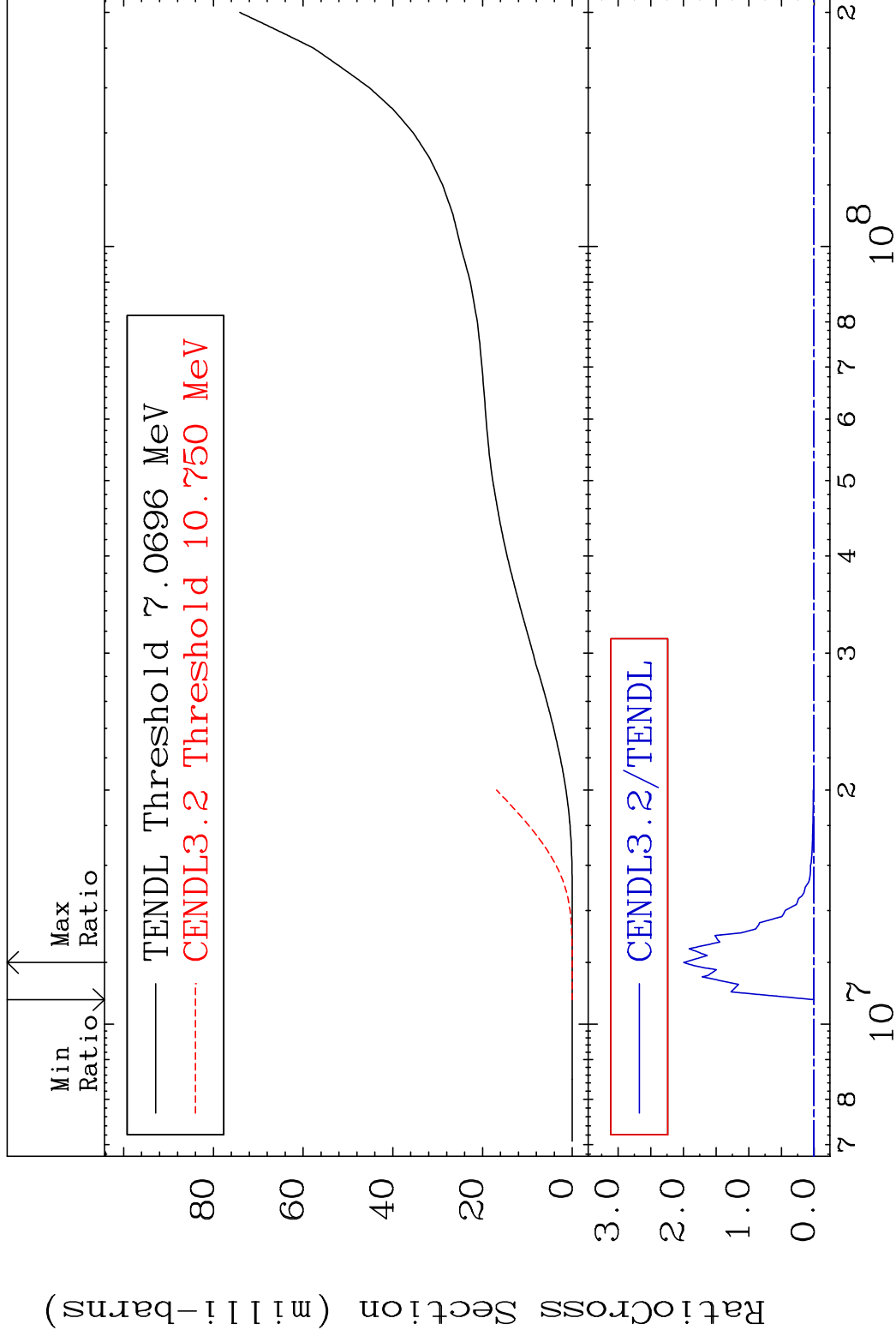
56-Ba-137

MAT 5646

Tritium Production

56-Ba-137

Cross Section -100.0 To 9999. %



19

Incident Energy (eV)

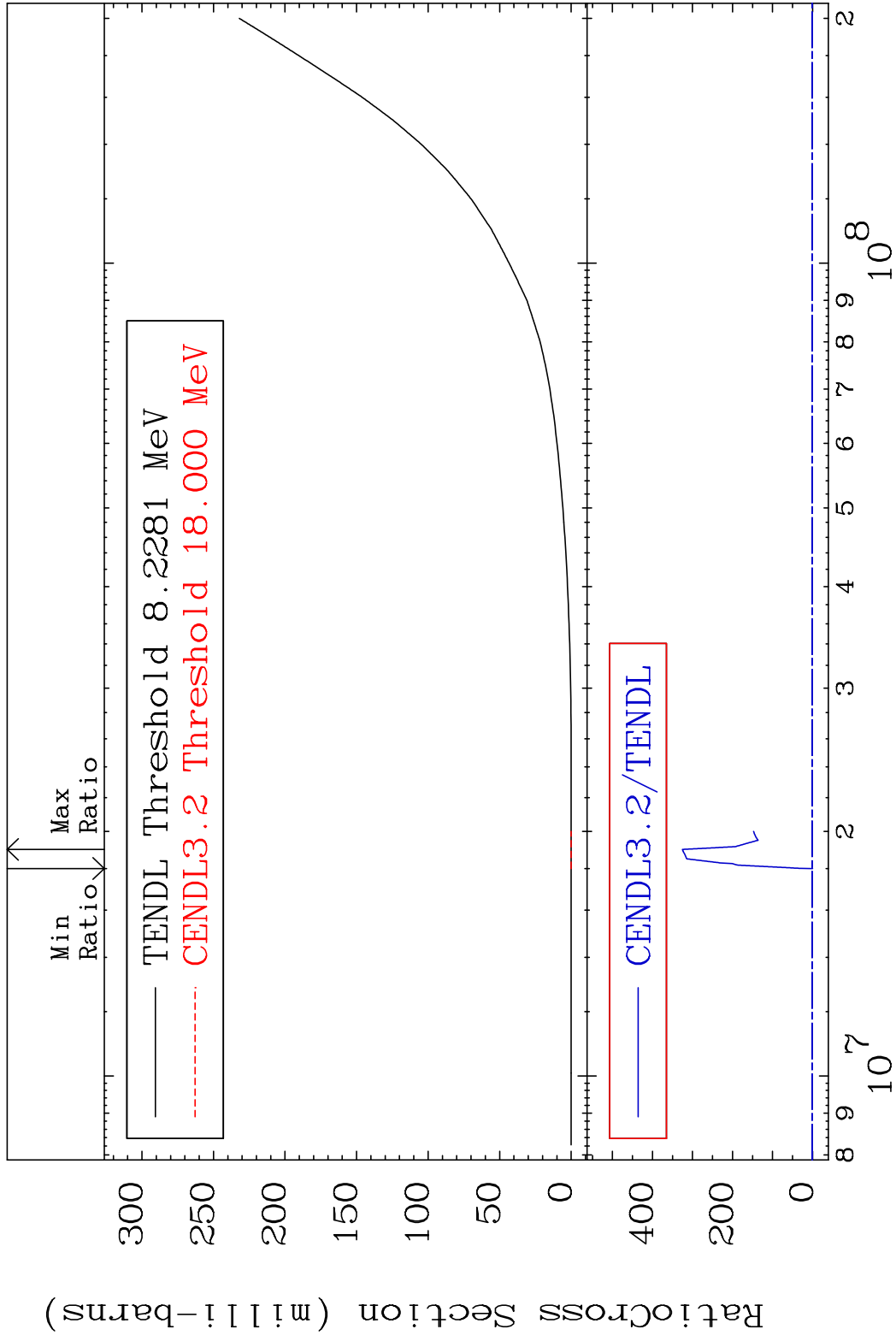
56-Ba-137

MAT 5646

He-3 Production

56-Ba-137

Cross Section -100.0 To 9999. %



20

Incident Energy (eV)

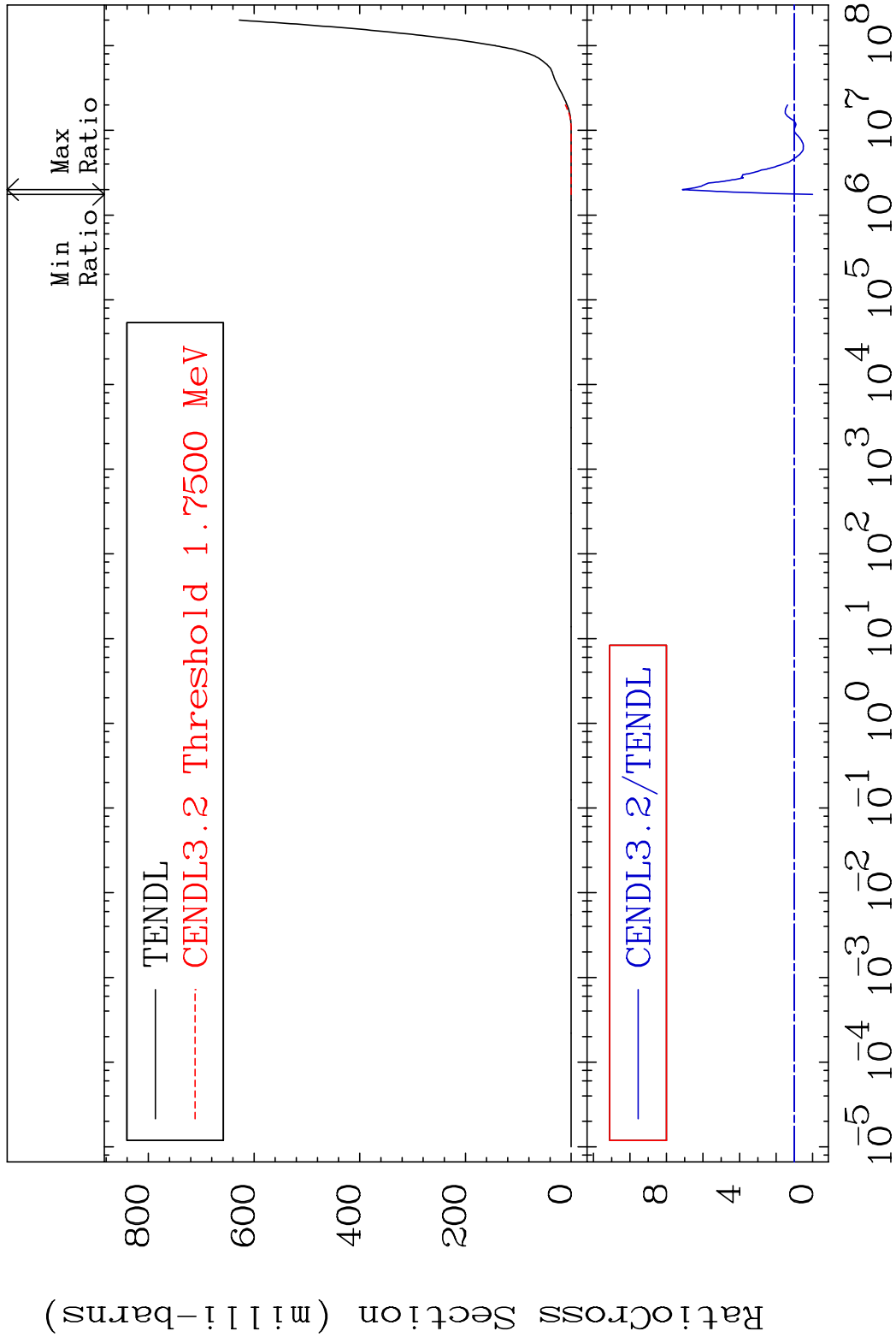
56-Ba-137

MAT 5646

He-4 Production

56-Ba-137

Cross Section -100.0 To 613.1 %

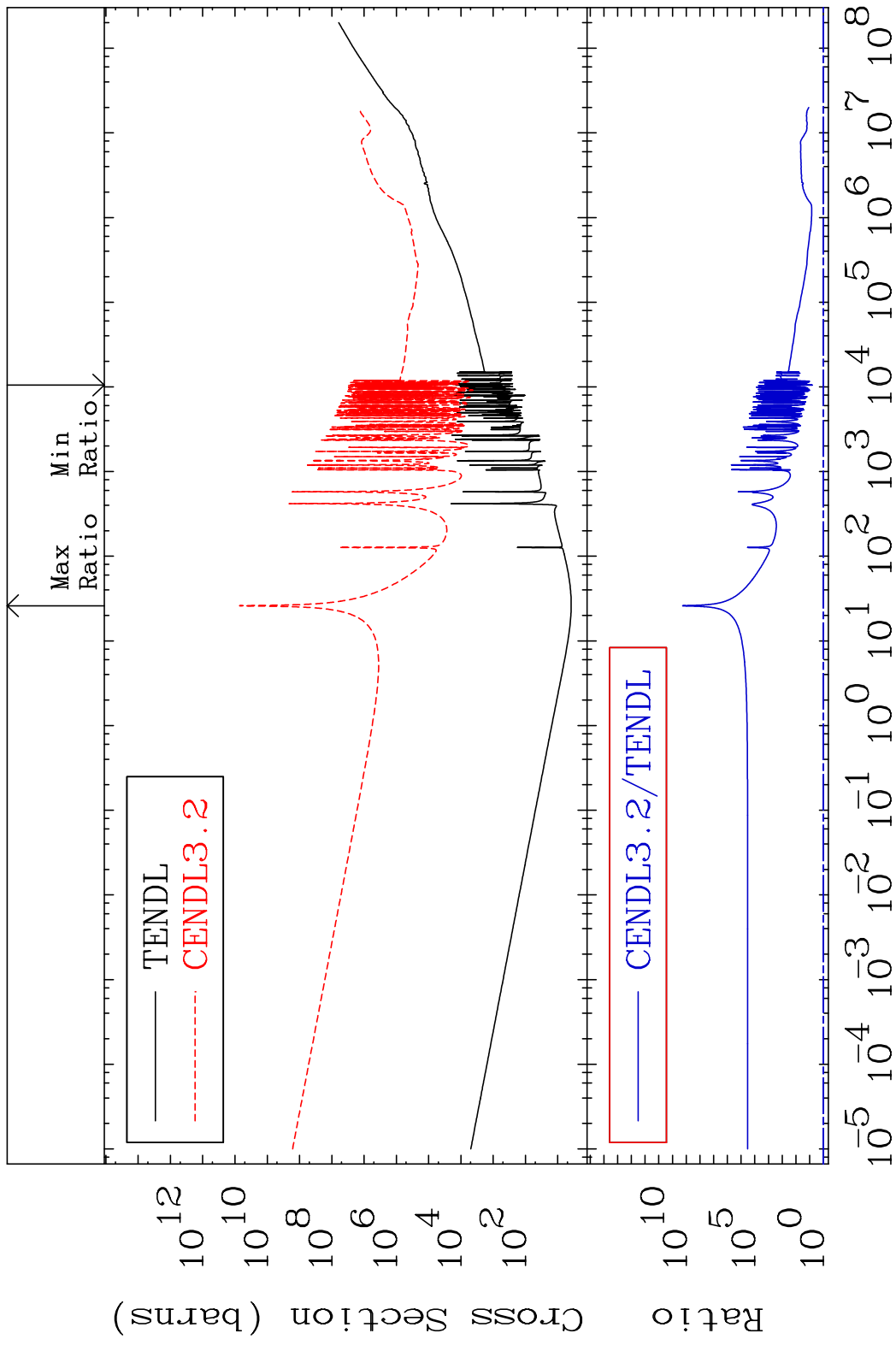


21

Incident Energy (eV)

56-Ba-137

MAT 5646 Kerma total (eV-barns) 56-Ba-137  
 Cross Section 512.9 To 9999. %



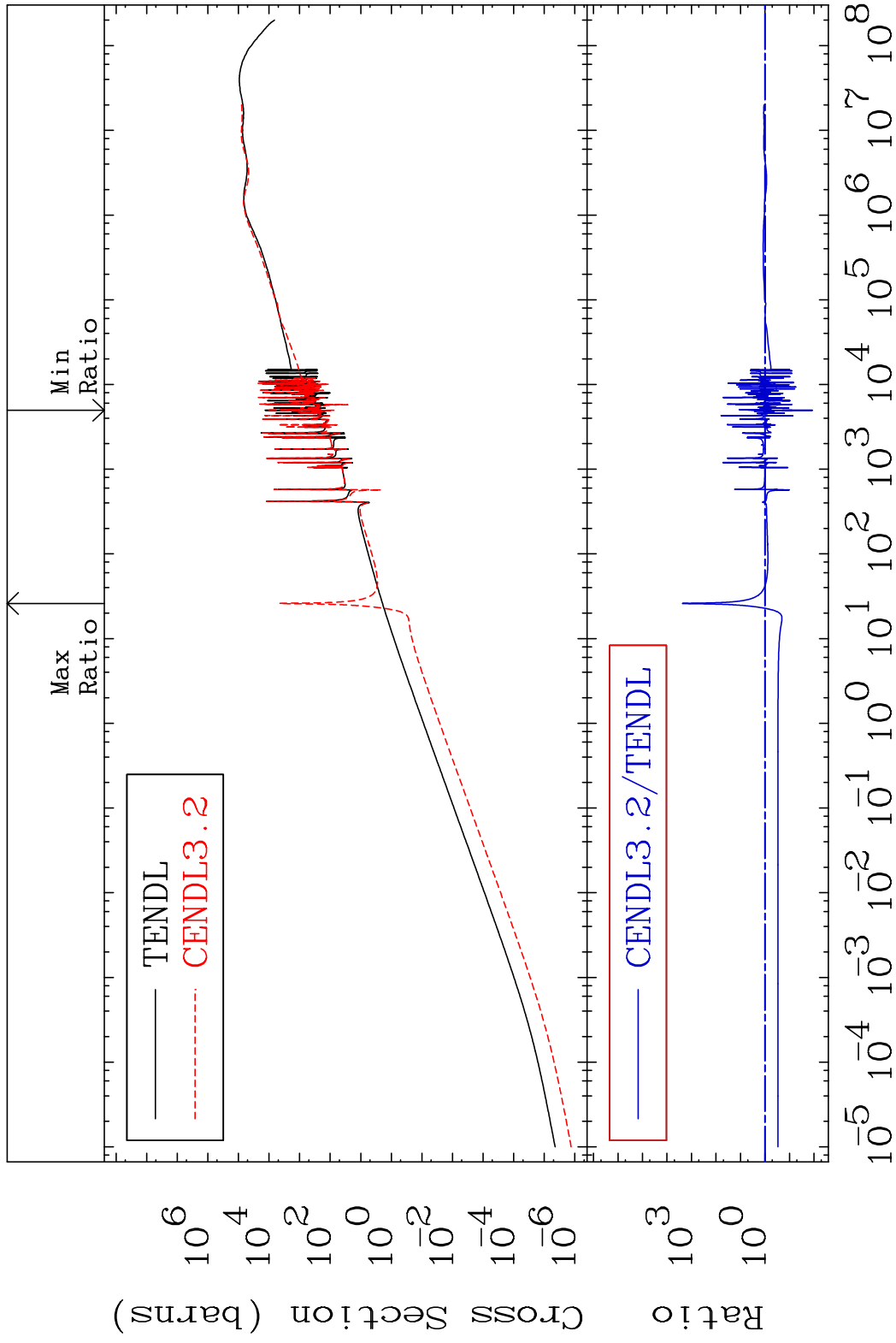
22 Incident Energy (eV) 56-Ba-137

MAT 5646

Kerma elastic

56-Ba-137

Cross Section -98.86 To 9999. %

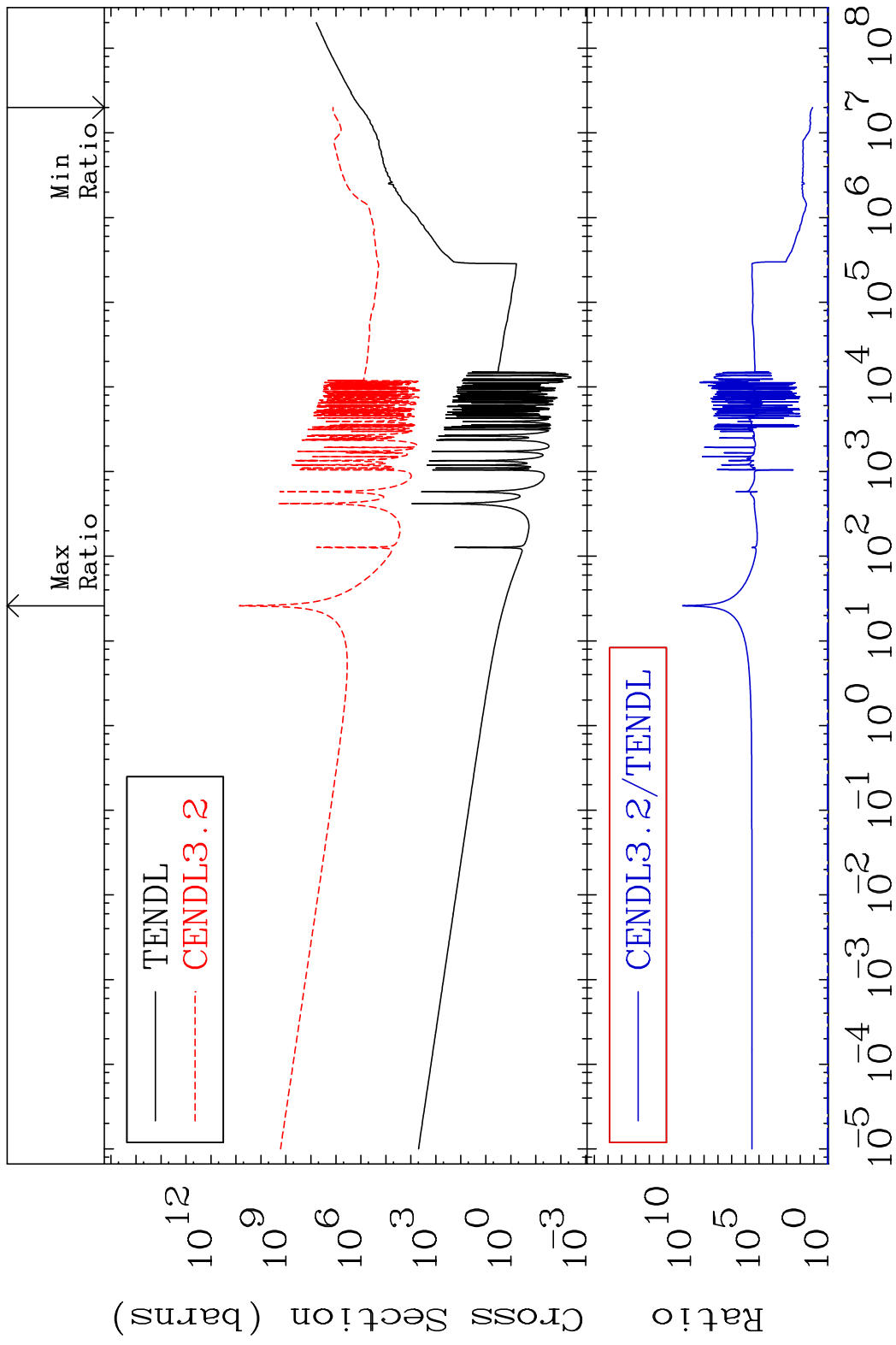


23

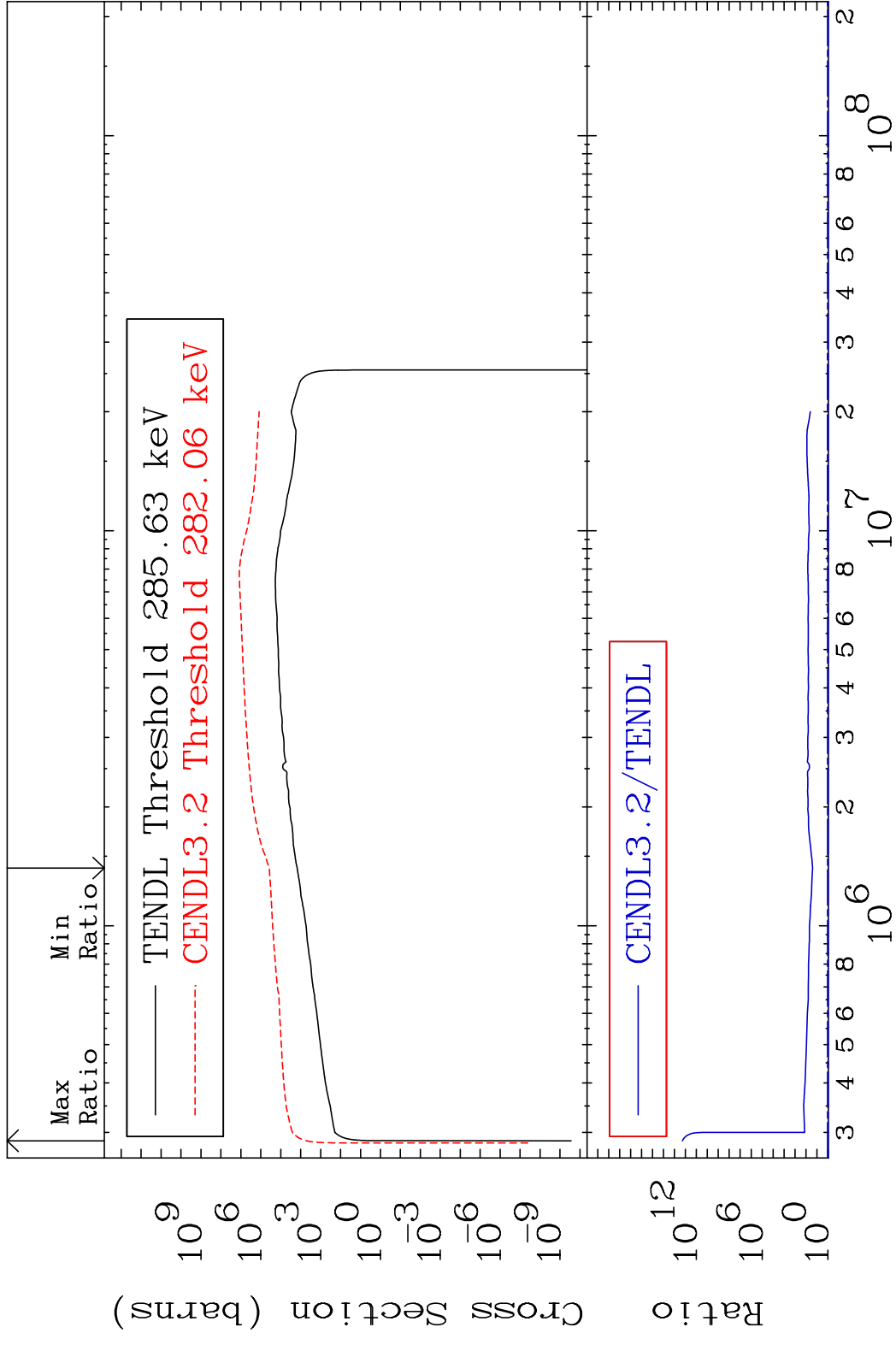
Incident Energy (eV)

56-Ba-137

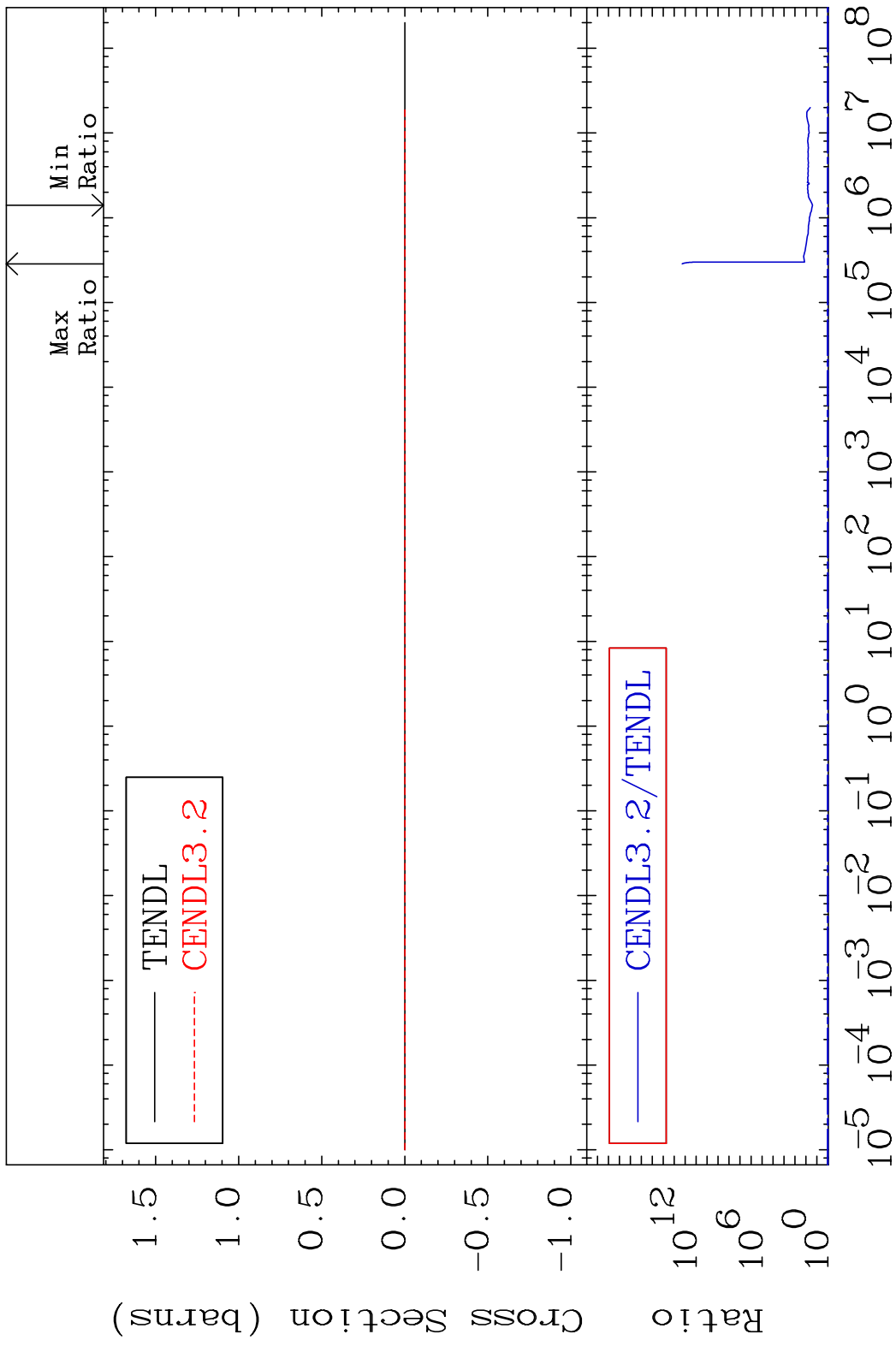
MAT 5646 Kerma non-elastic (all but mt2) 56-Ba-137  
 Cross Section 1153. To 9999. %



MAT 5646 Kerma inelastic (mt51-91) 56-Ba-137  
 Cross Section 2404. To 9999. %

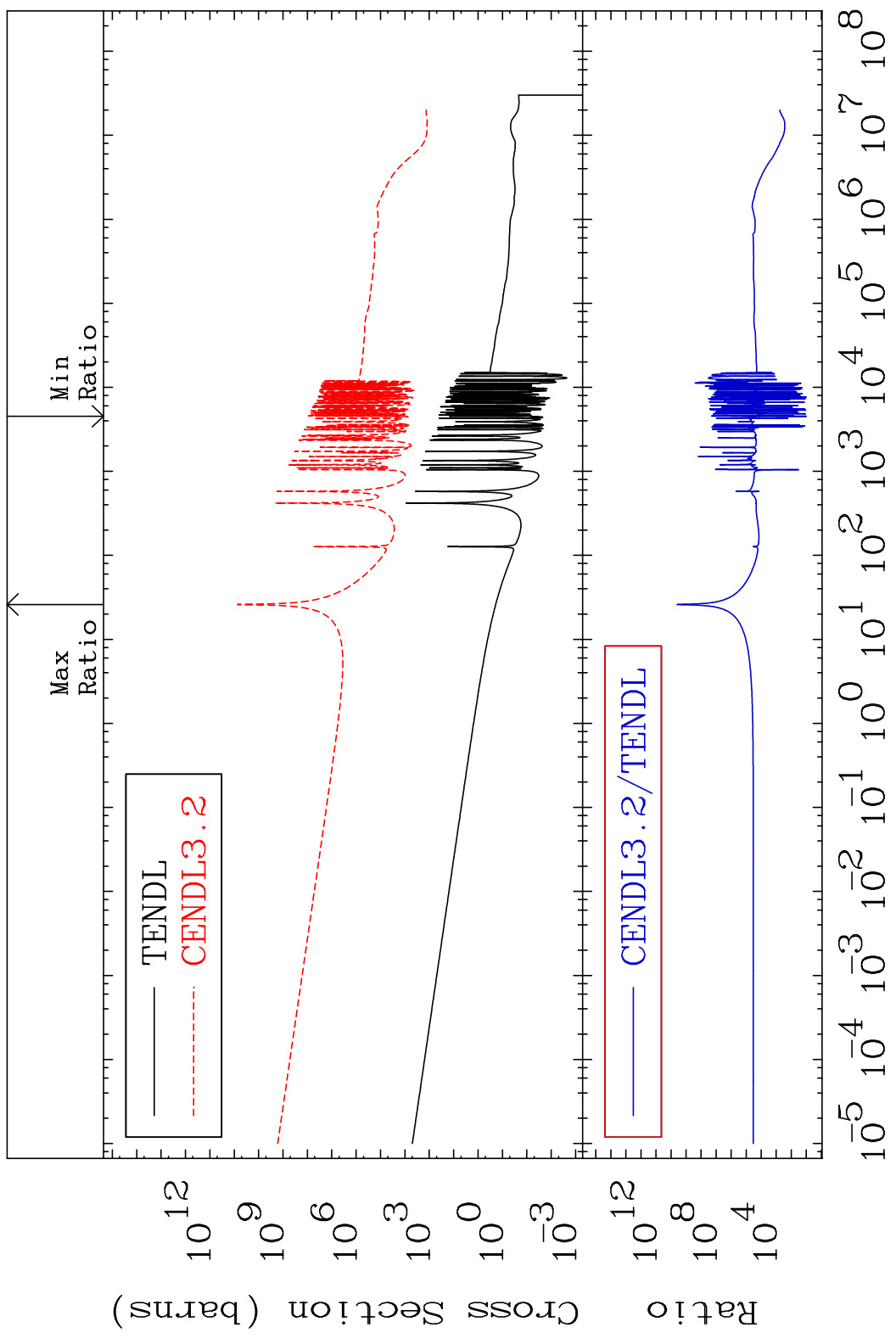


MAT 5646 Kerma fission (mt18 or mt19-20-21-38) 56-Ba-137  
 Cross Section 2404. To 9999. %

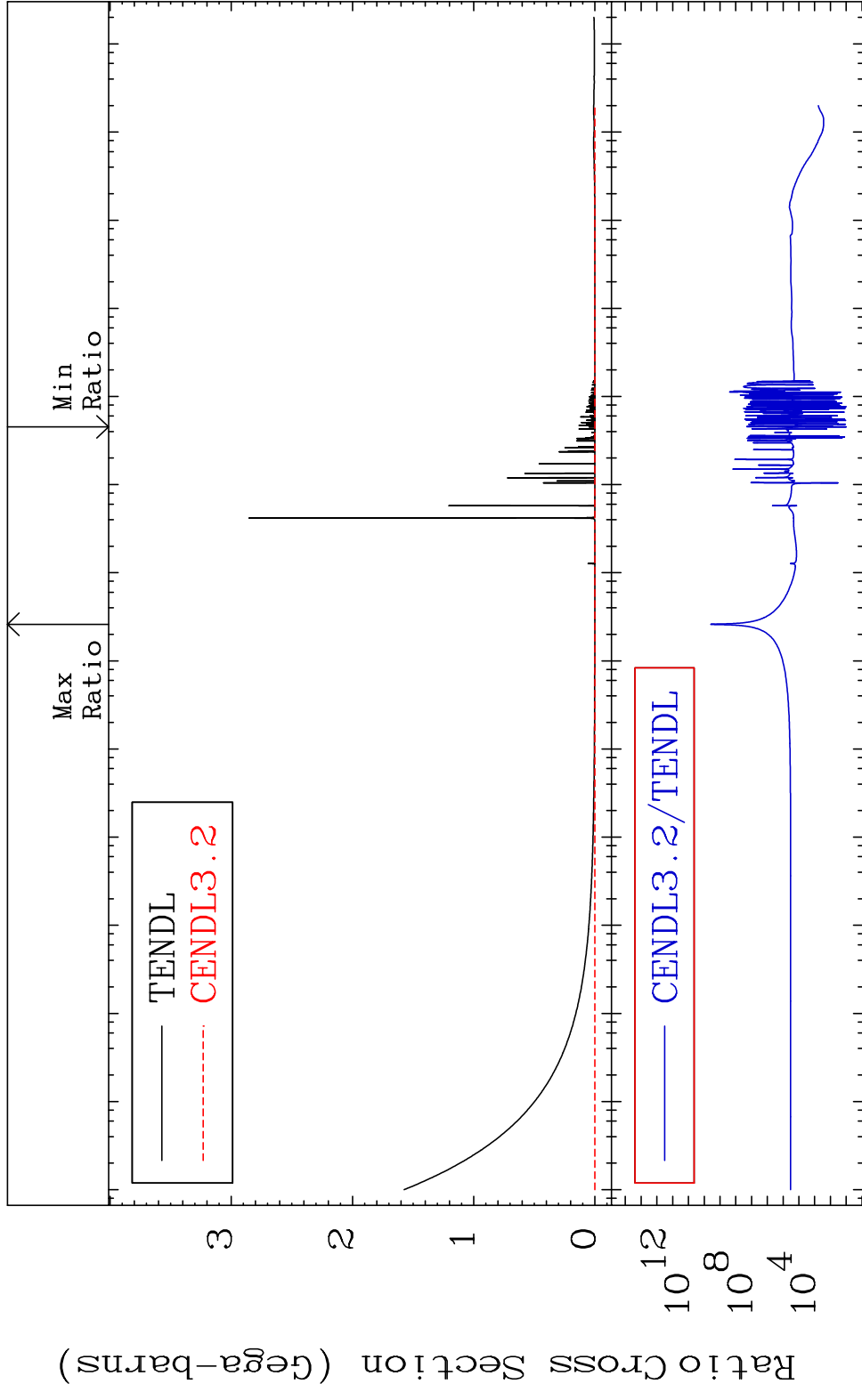


MAT 5646

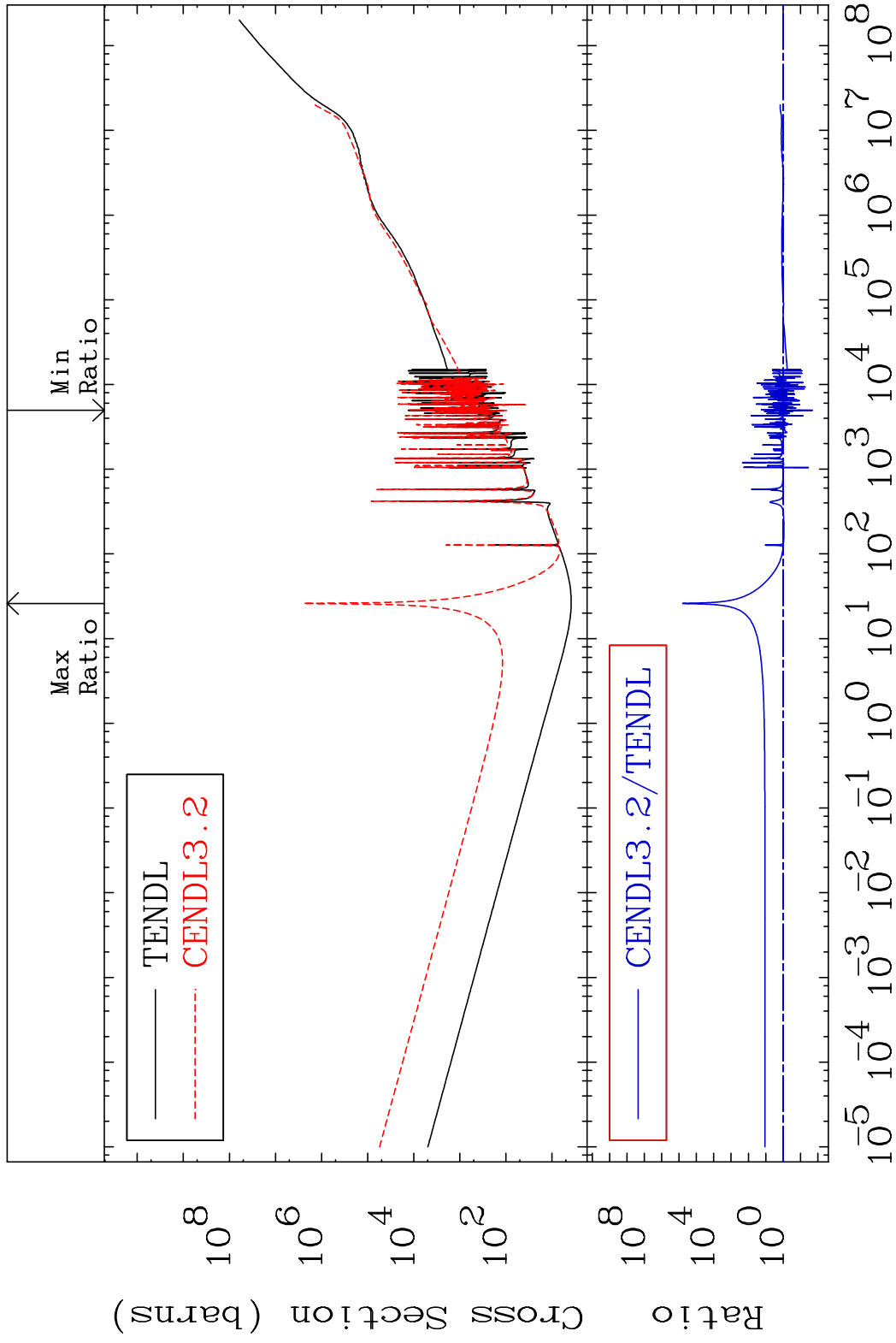
Kerma capture (mt102) 56-Ba-137  
Cross Section 9739. To 9999. %



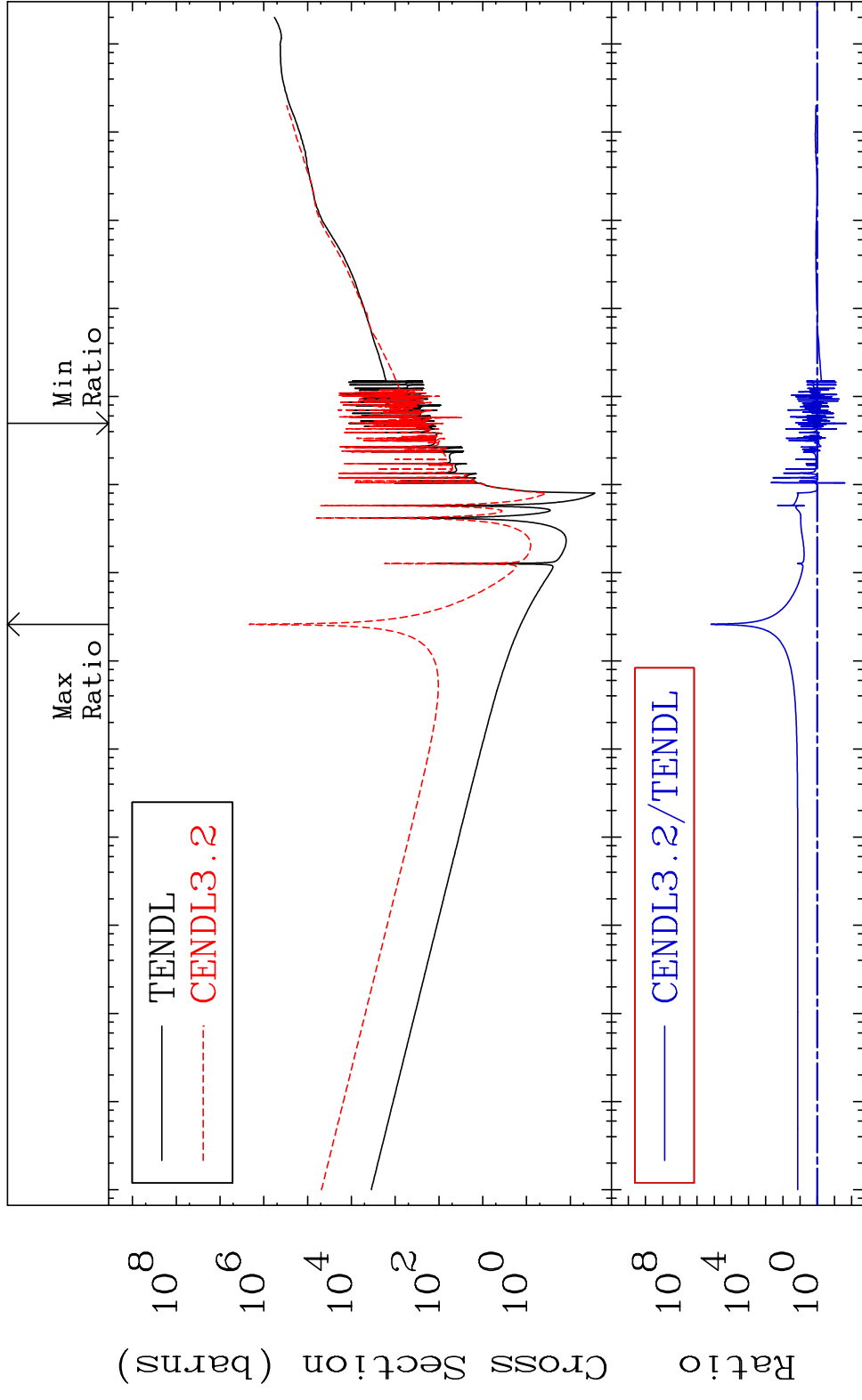
MAT 5646 Total photon (eV-barns) 56-Ba-137  
 Cross Section 9739. To 9999. %



MAT 5646 Total kinematic kerma (high limit) 56-Ba-137  
 Cross Section -97.99 To 9999. %



MAT 5646      Dpa total (eV-barns)      56-Ba-137  
 Cross Section      -97.98 To 9999. %

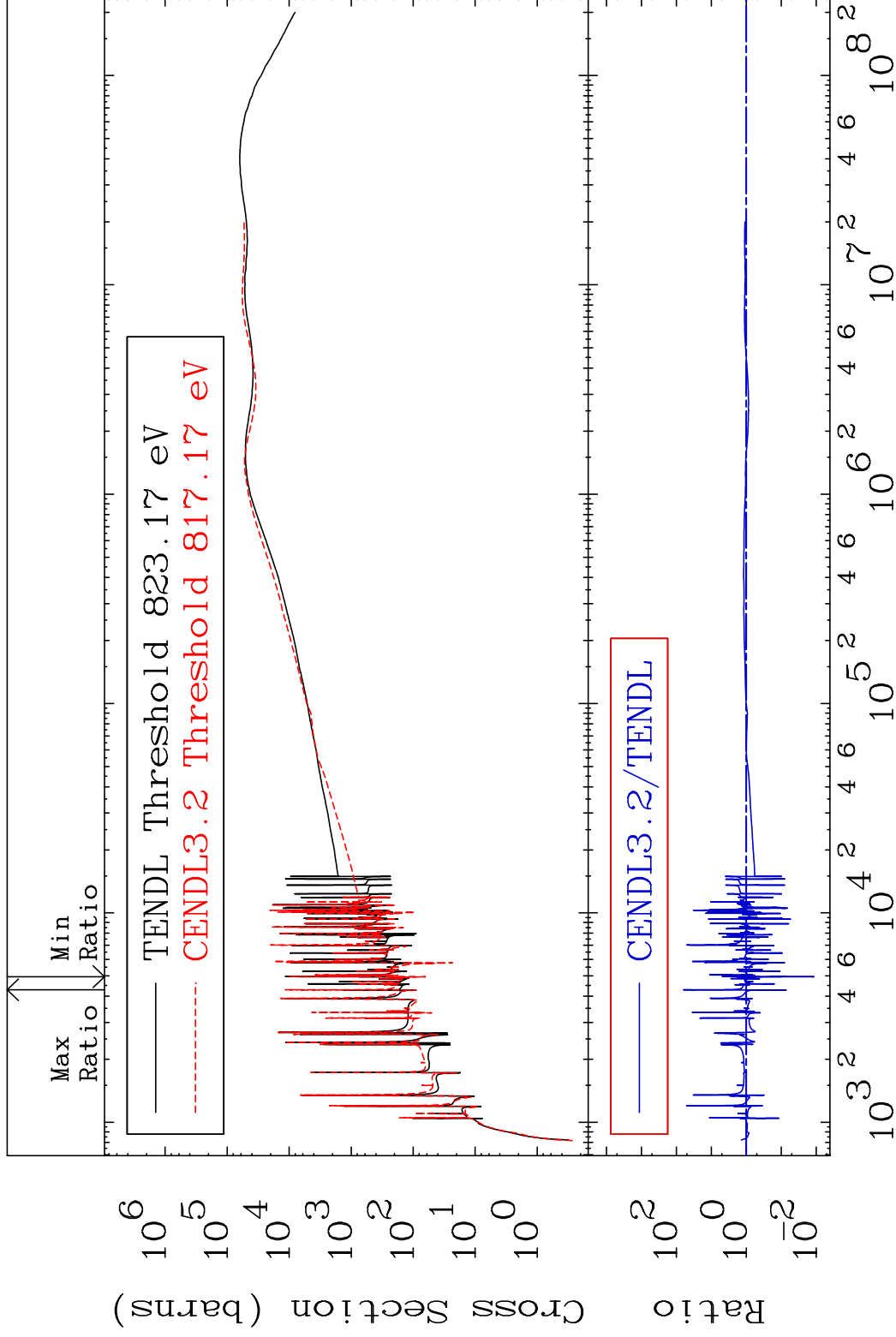


MAT 5646

Dpa elastic (mt2)

56-Ba-137

Cross Section -98.86 To 6093. %

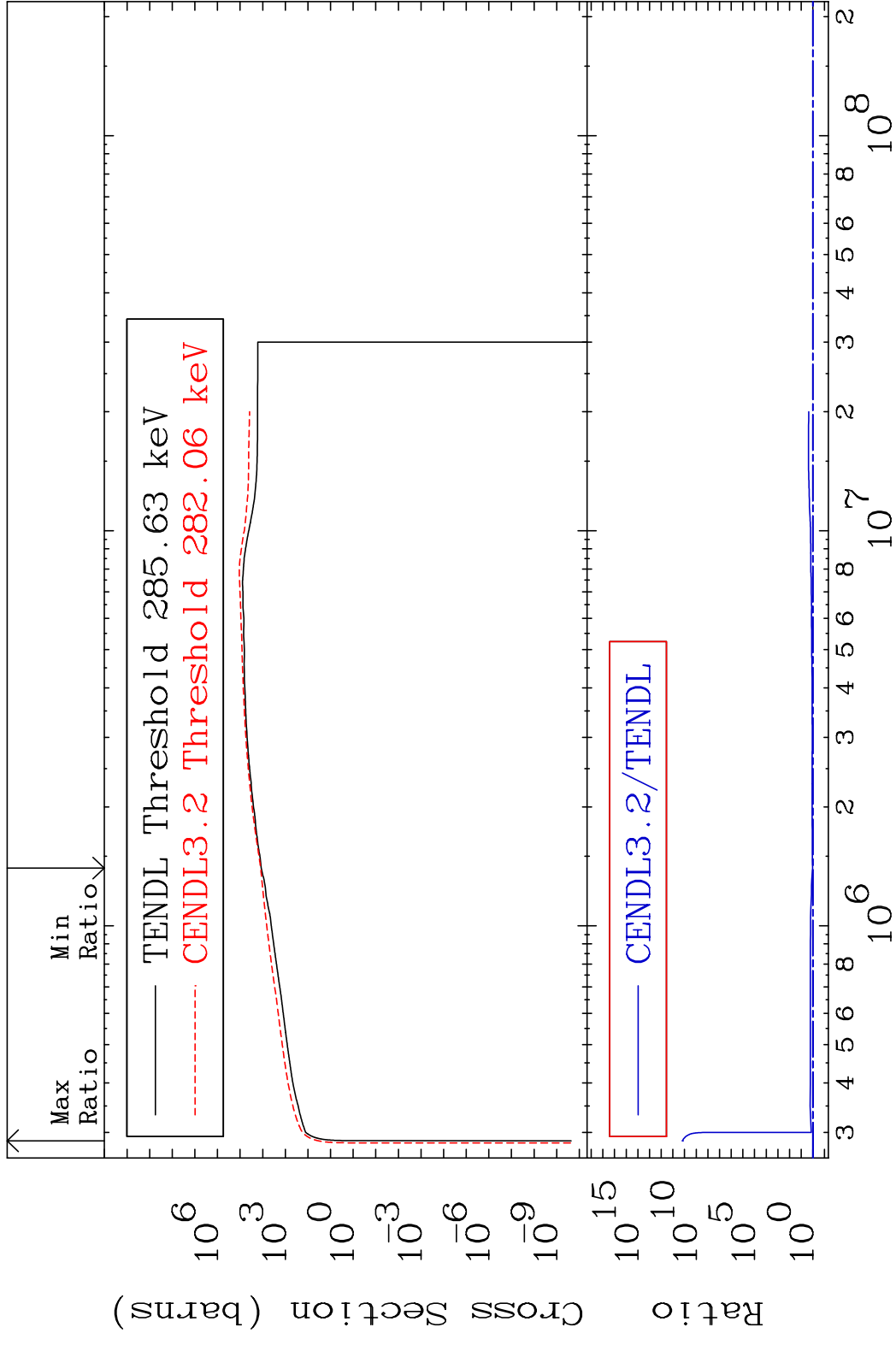


31

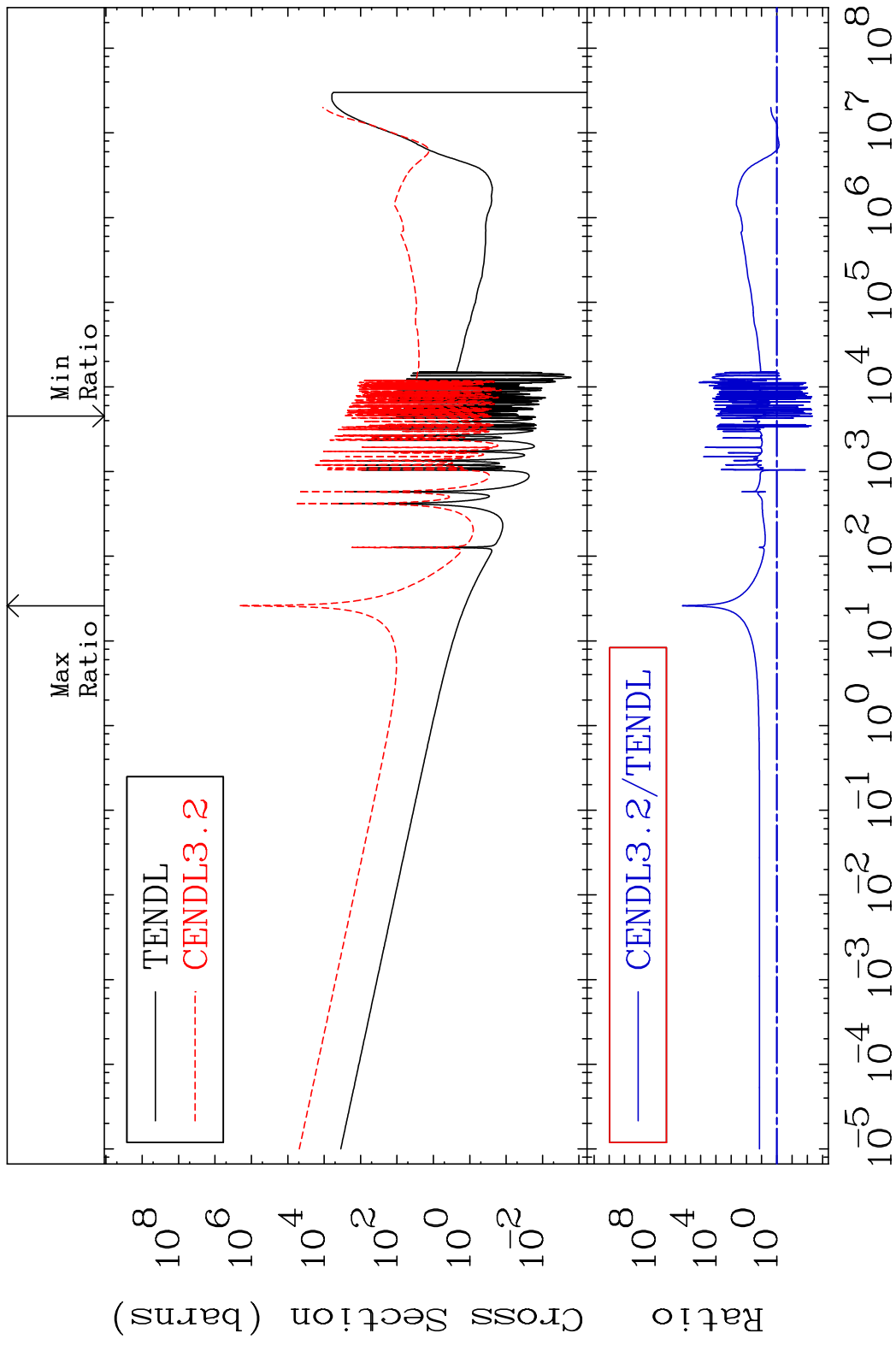
Incident Energy (eV)

56-Ba-137

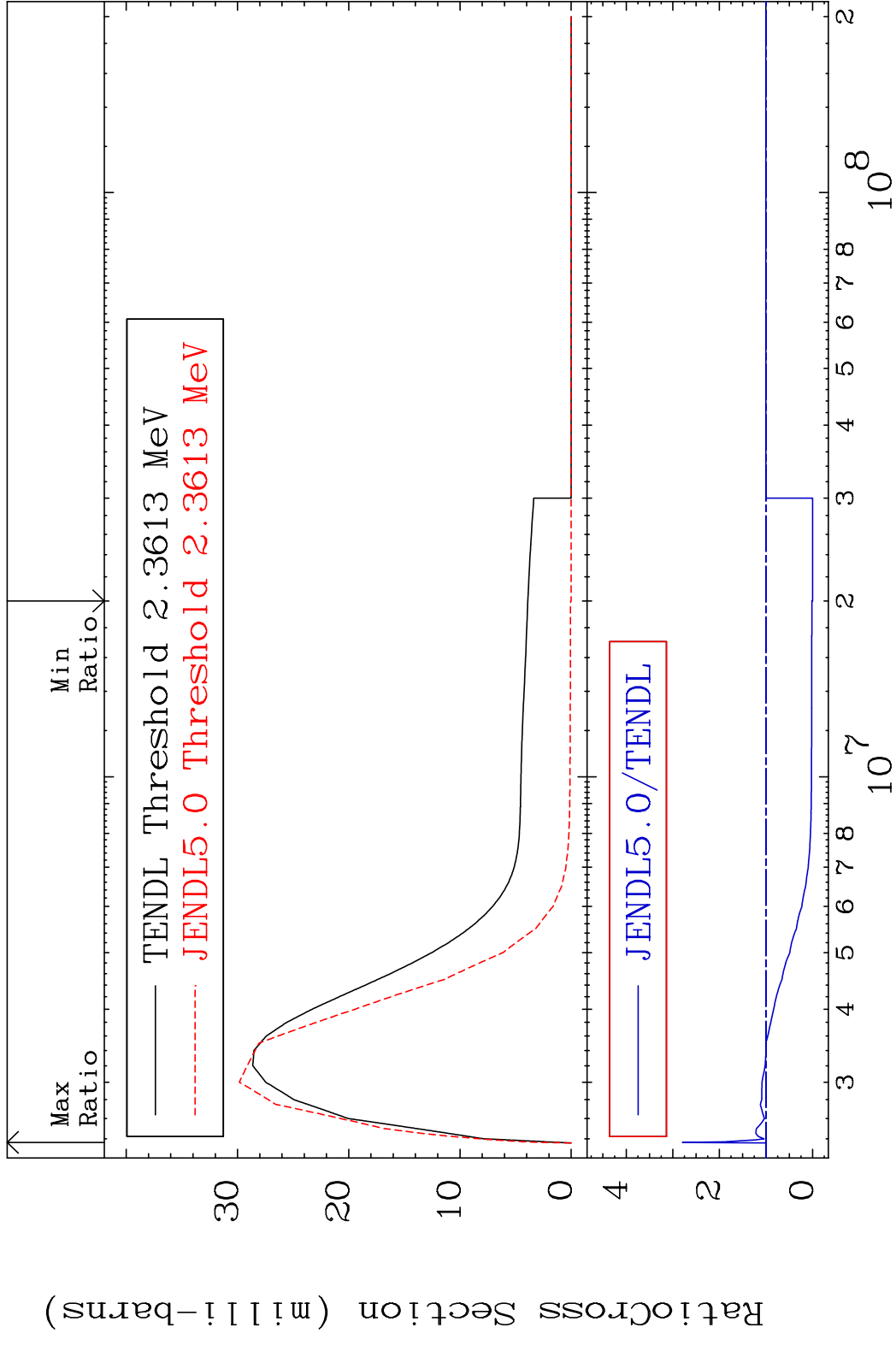
MAT 5646 Dpa inelastic (mt51-91) 56-Ba-137  
 Cross Section 6.296 To 9999. %



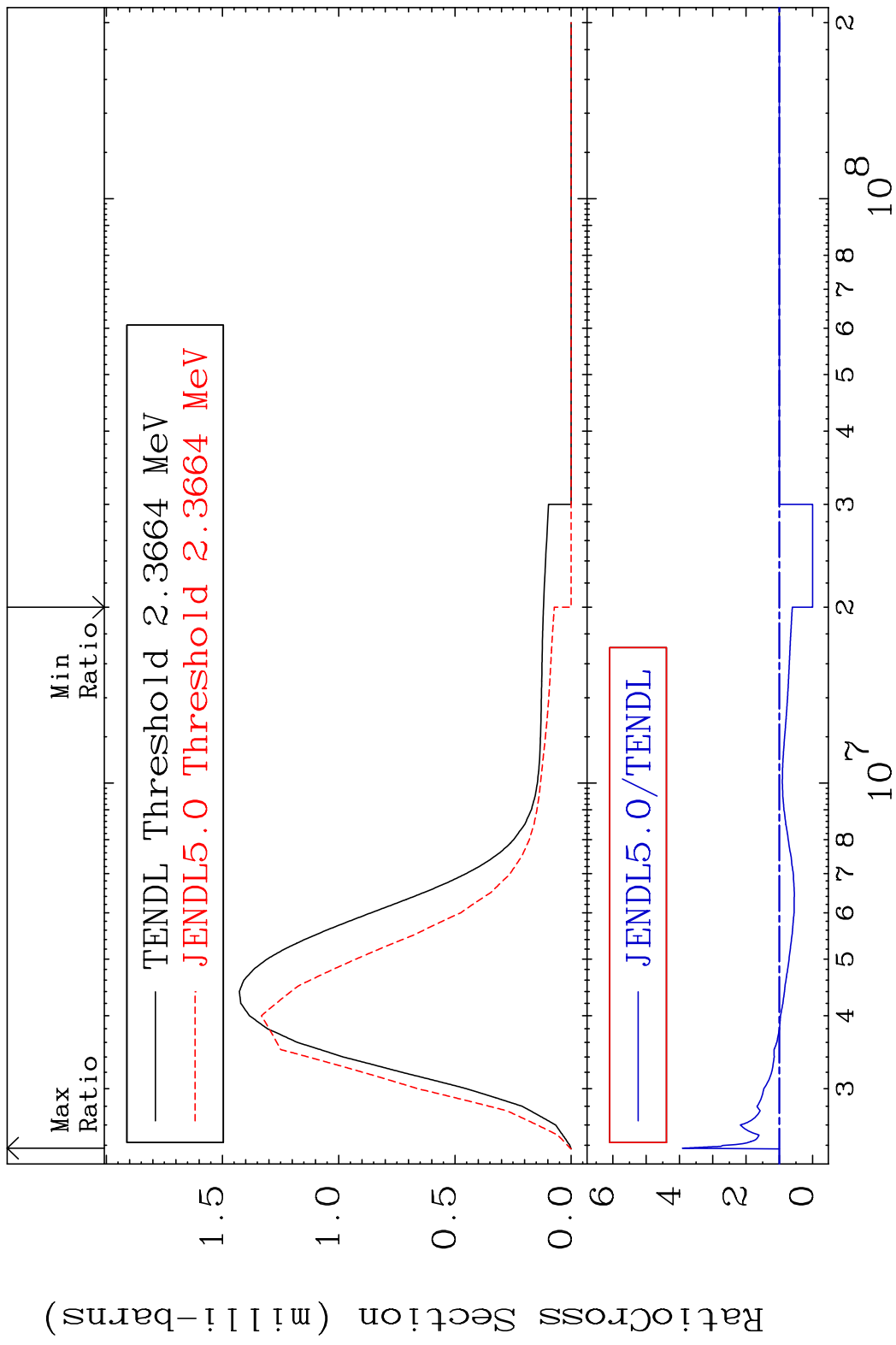
MAT 5646 Dpa disappearance (mt102 -120) 56-Ba-137  
 Cross Section -99.55 To 9999. %



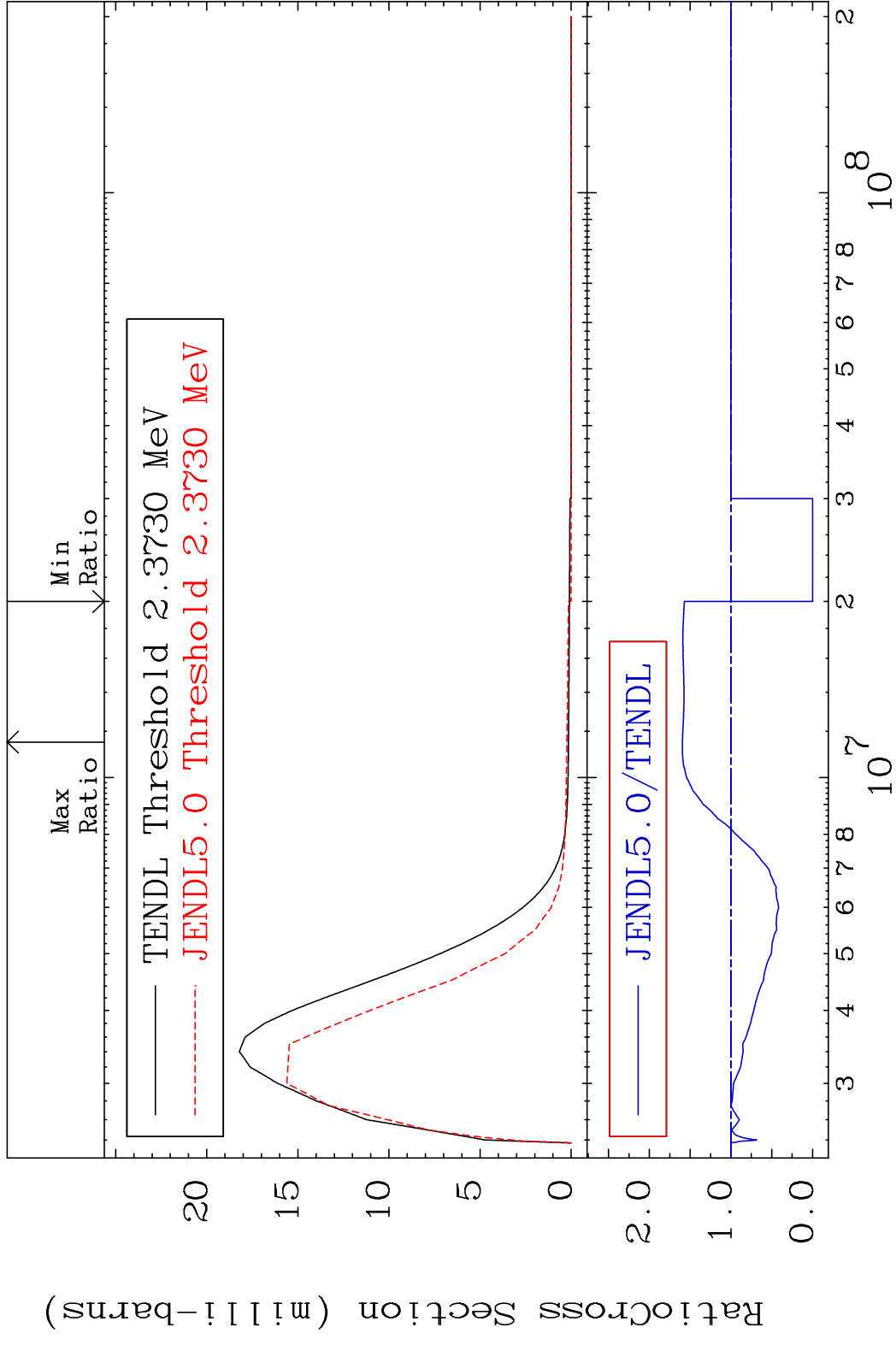
MAT 5646 MT= 74 (n,n') Level 56-Ba-137  
 Cross Section -100.0 To 179.5 %



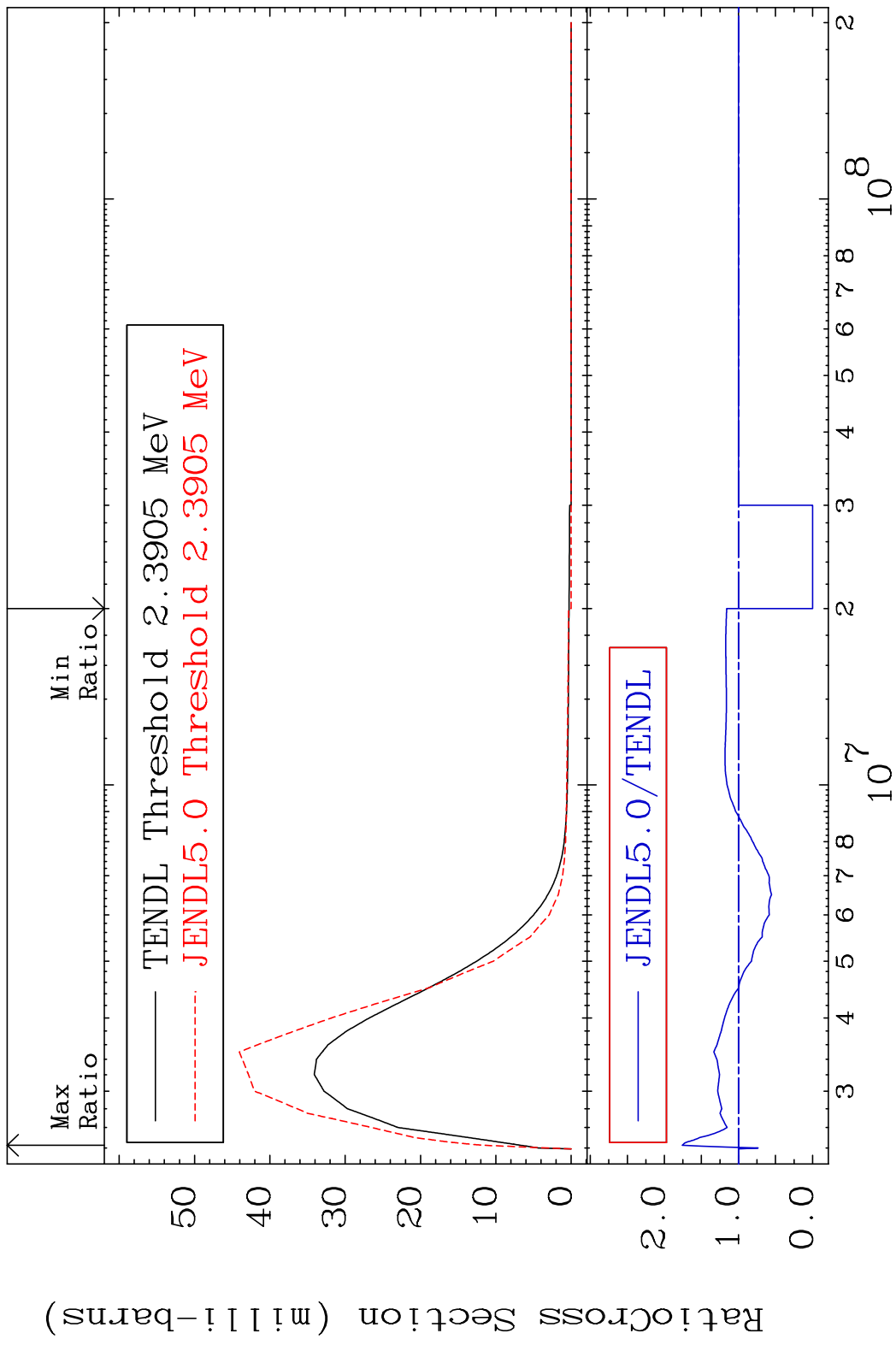
MAT 5646 MT= 75 (n,n') Level 56-Ba-137  
 Cross Section -100.0 To 291.3 %



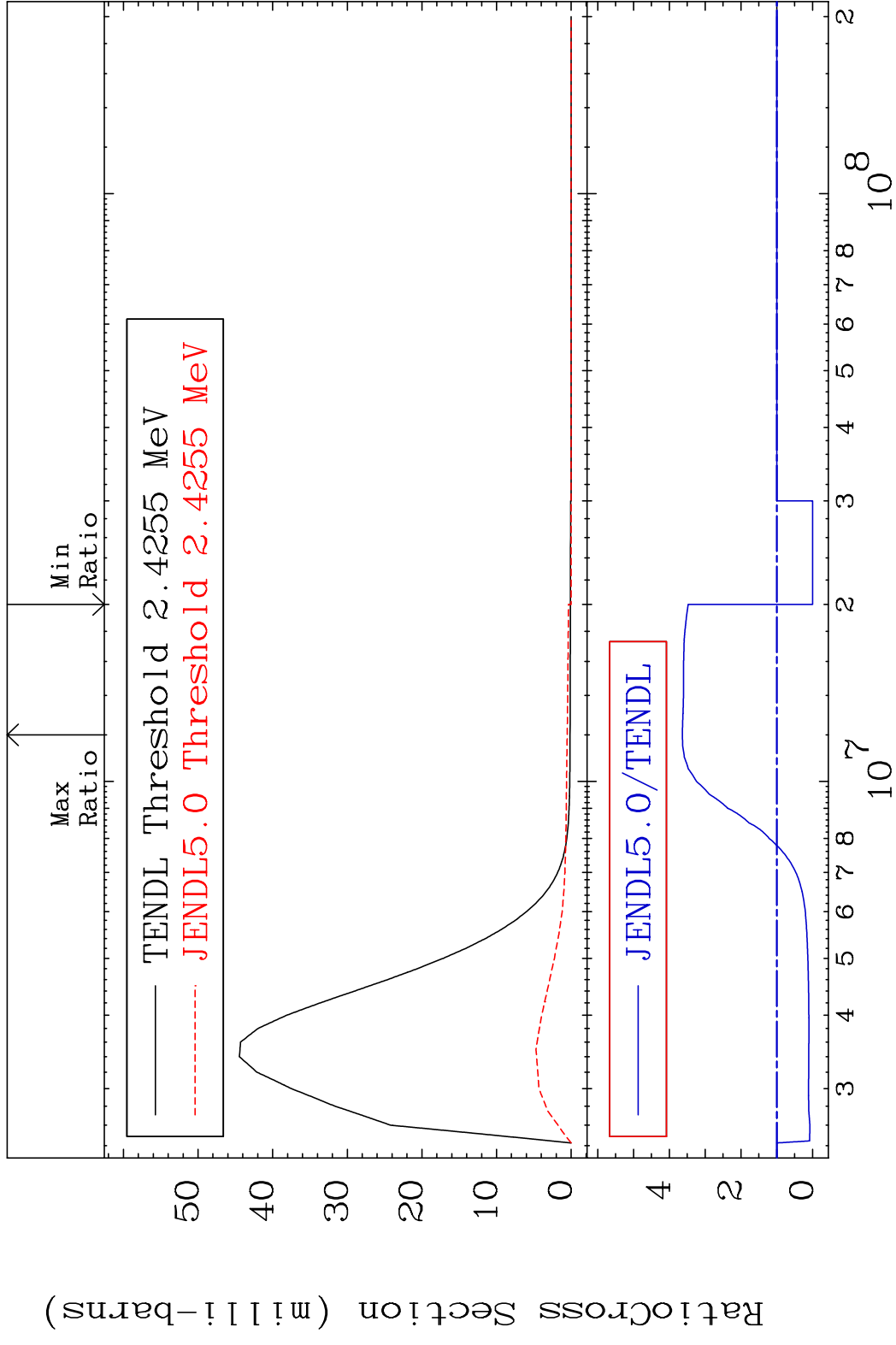
MAT 5646 MT= 76 (n, n') Level 56-Ba-137  
 Cross Section -100.0 To 59.57 %



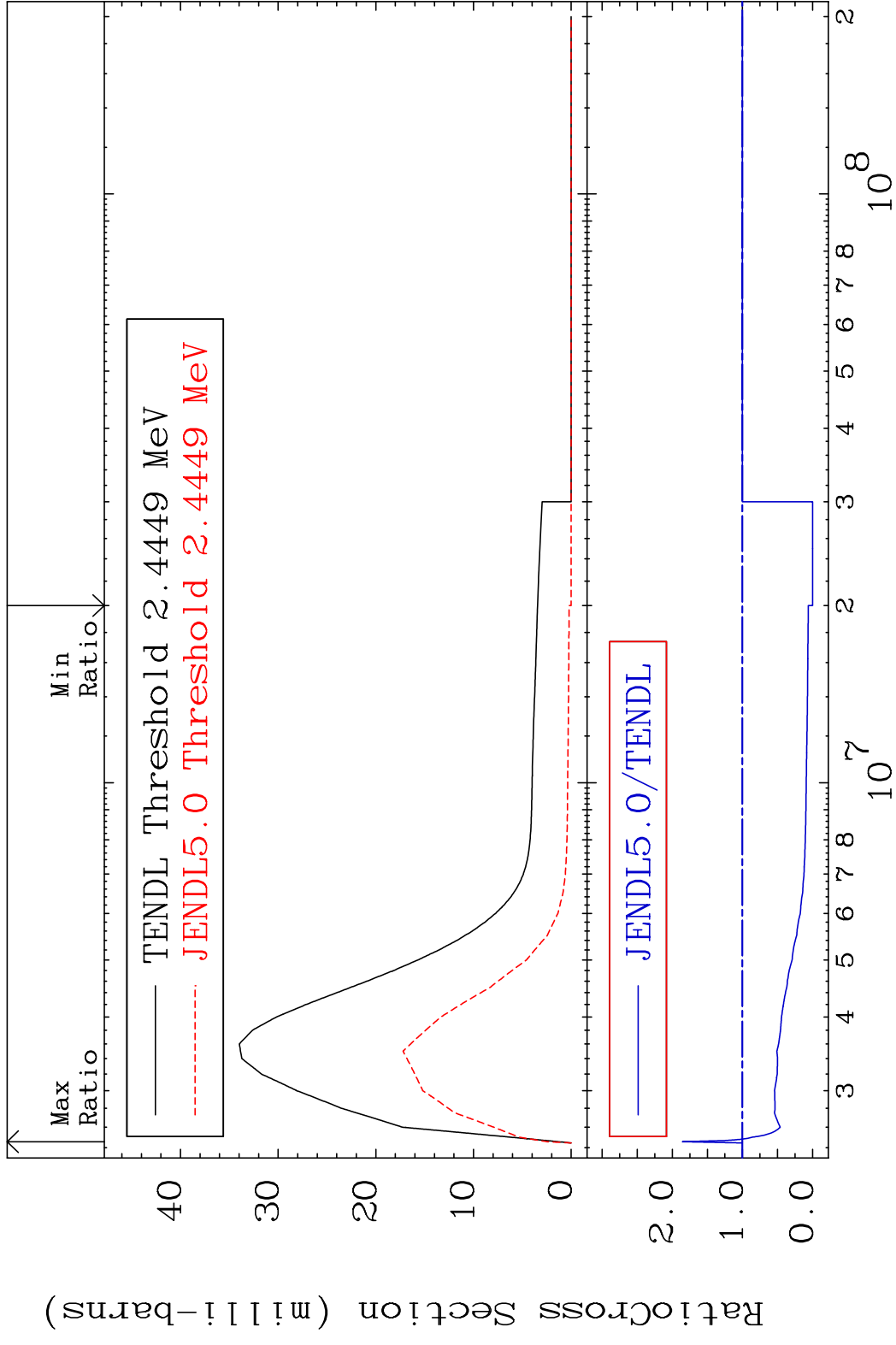
MAT 5646 MT= 77 (n, n') Level 56-Ba-137  
 Cross Section -100.0 To 75.73 %



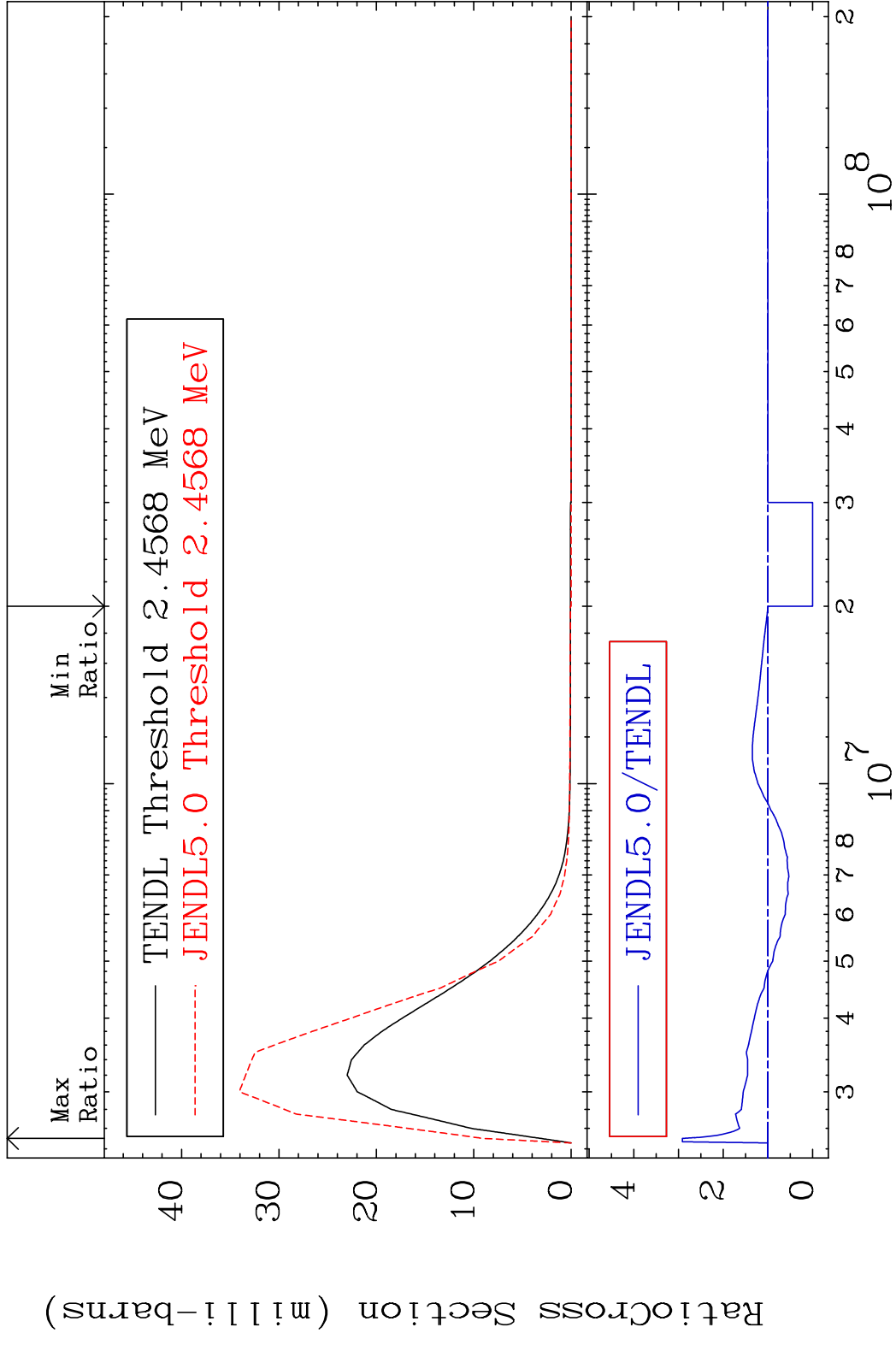
MAT 5646 MT= 78 (n, n') Level 56-Ba-137  
 Cross Section -100.0 To 263.6 %



MAT 5646 MT= 79 (n, n') Level 56-Ba-137  
 Cross Section -100.0 To 85.67 %

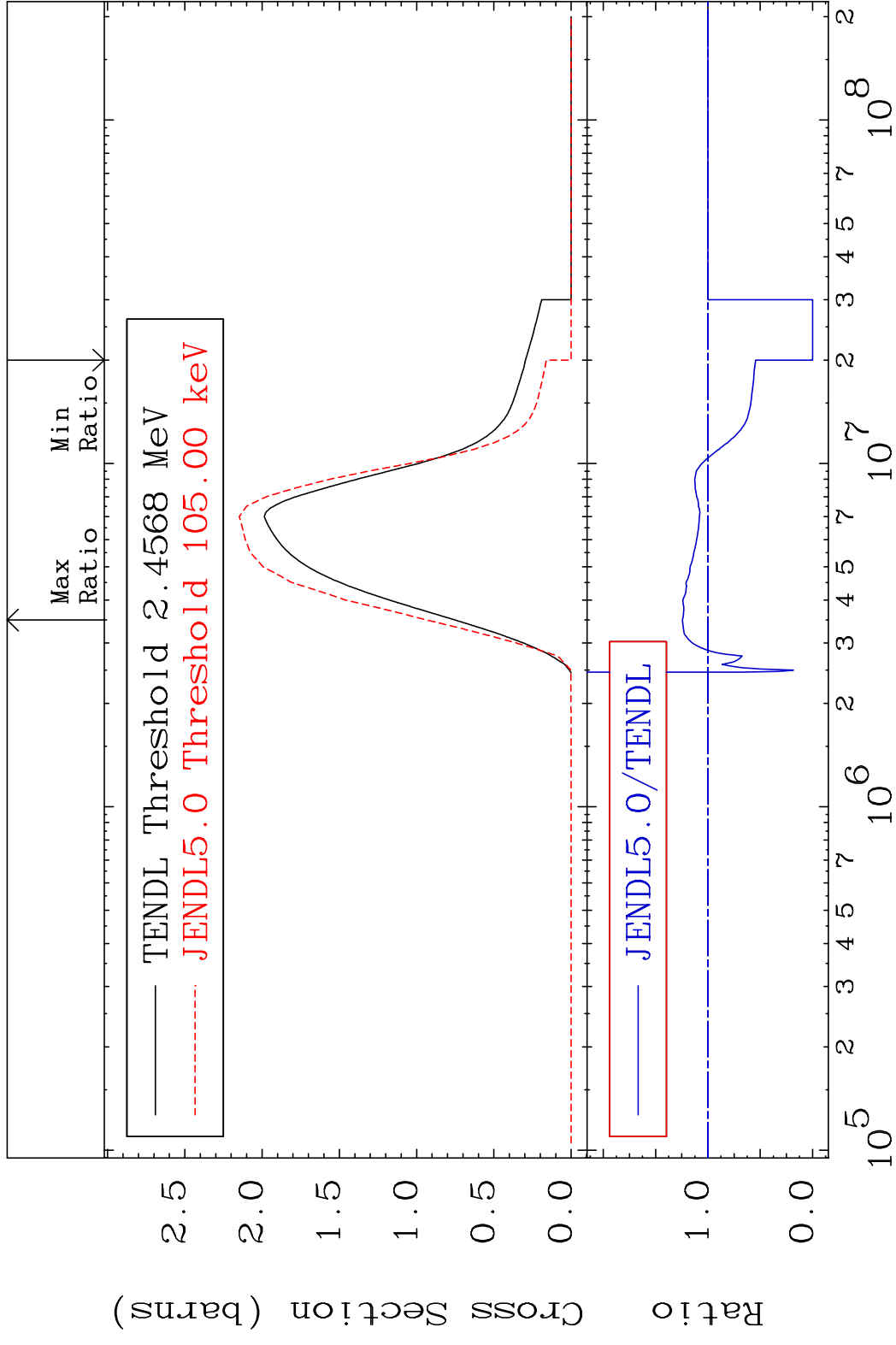


MAT 5646 MT= 80 (n, n') Level 56-Ba-137  
 Cross Section -100.0 To 191.4 %



40 3 4 5 6 7 8 10<sup>7</sup> 2 3 4 5 6 7 8 10<sup>8</sup> 2 56-Ba-137

MAT 5646 (n,n') Continuum 56-Ba-137  
 Cross Section -100.0 To 24.44 %



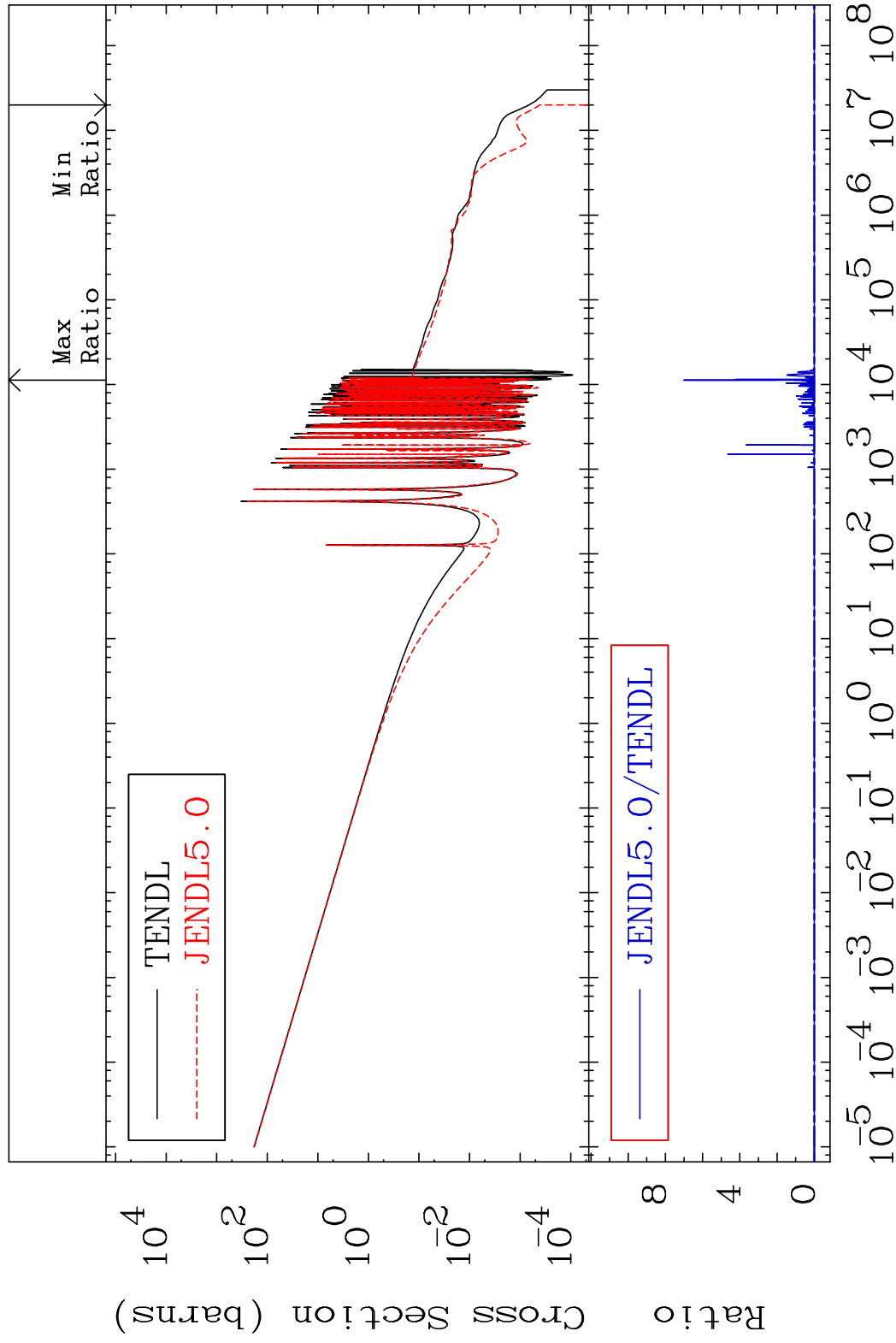
41 Incident Energy (eV) 56-Ba-137

MAT 5646

(n,  $\gamma$ )

56-Ba-137

Cross Section -100.0 To 9999. %



42

Incident Energy (eV)

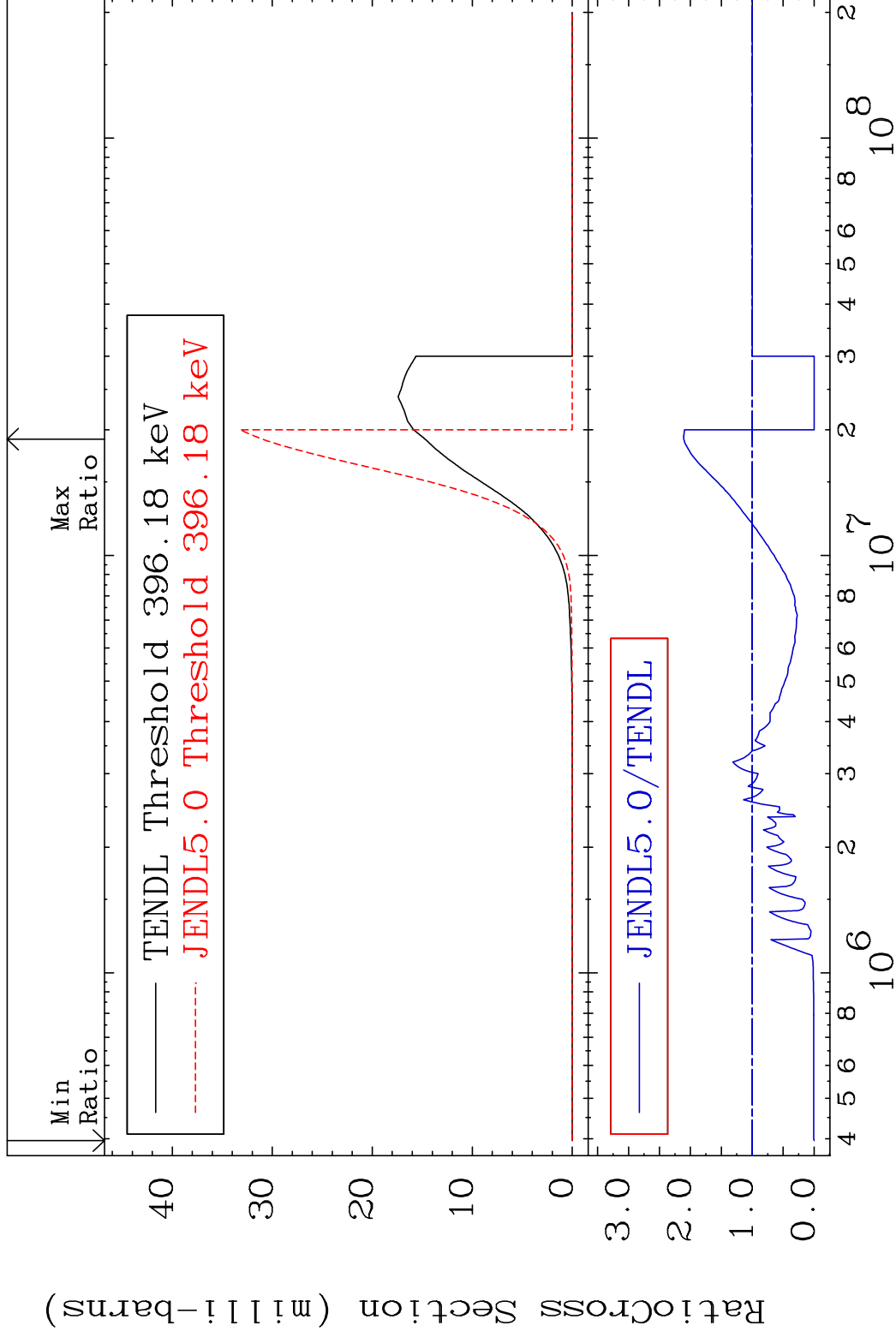
56-Ba-137

MAT 5646

(n, p)

56-Ba-137

Cross Section -100.0 To 110.9 %



43

Incident Energy (eV)

56-Ba-137

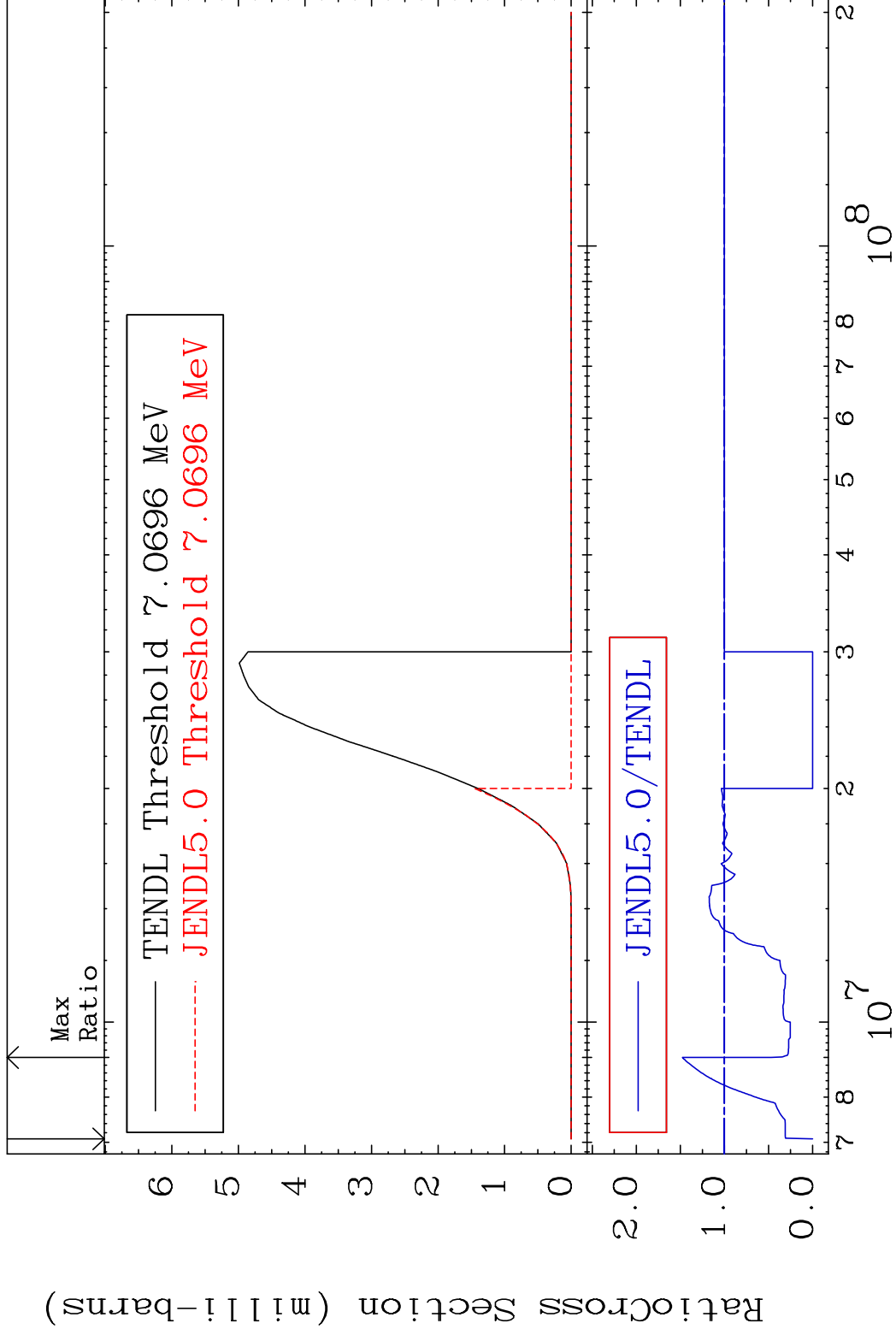


MAT 5646

(n, t)

56-Ba-137

Cross Section -100.0 To 47.73 %



45

Incident Energy (eV)

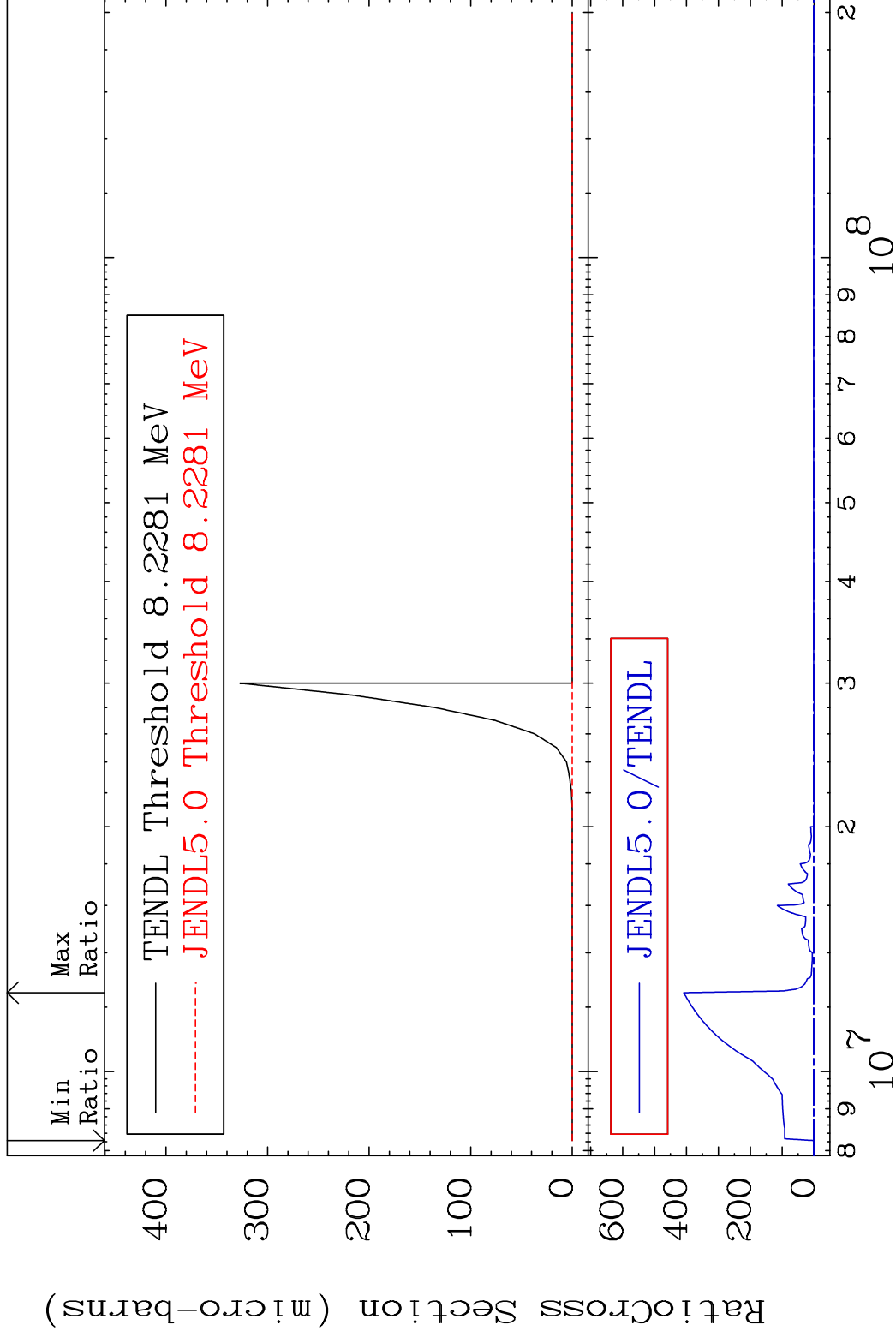
56-Ba-137

MAT 5646

(n, He-3)

56-Ba-137

Cross Section -100.0 To 9999. %



46

Incident Energy (eV)

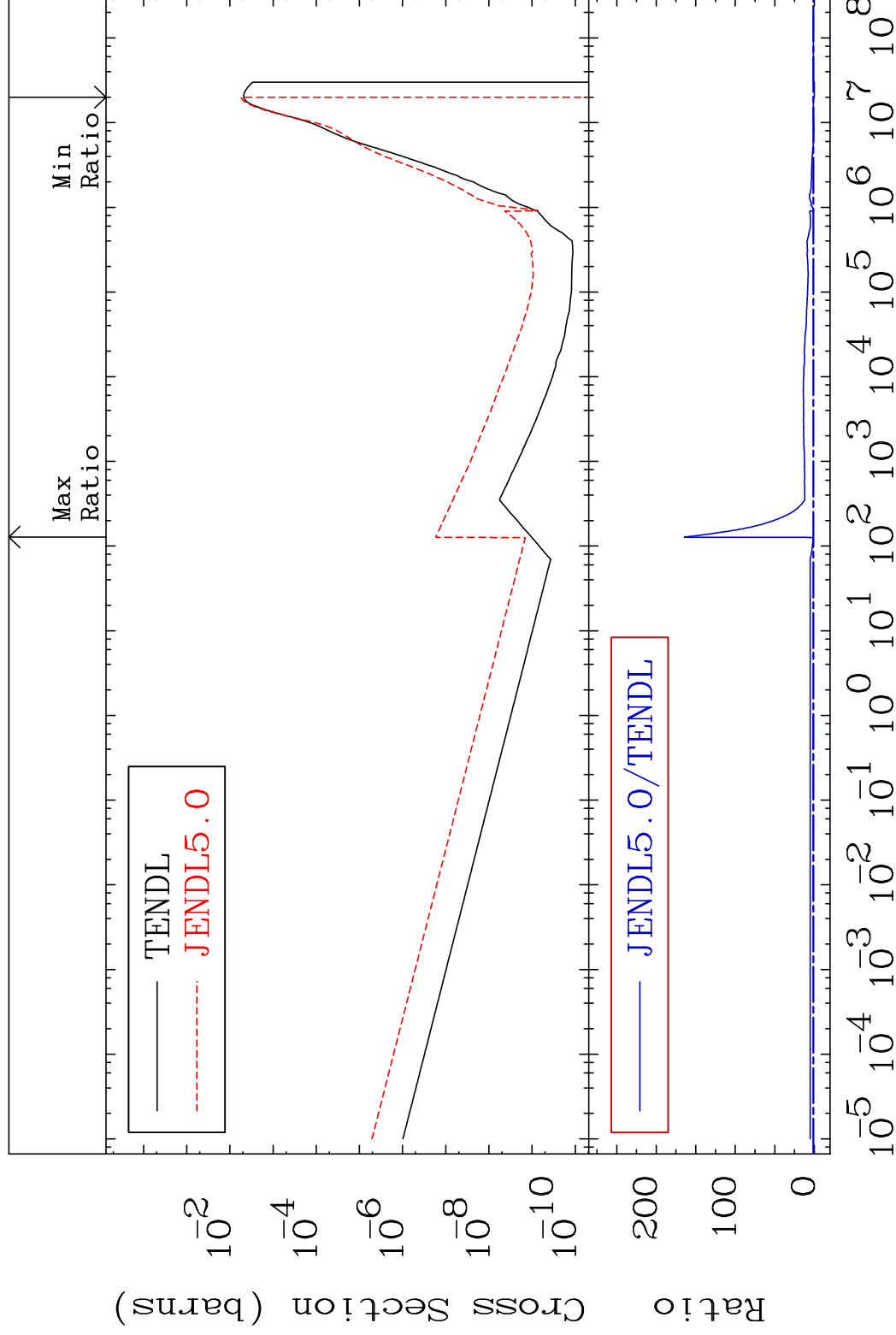
56-Ba-137

MAT 5646

(n,  $\alpha$ )

56-Ba-137

Cross Section -100.0 To 9999. %

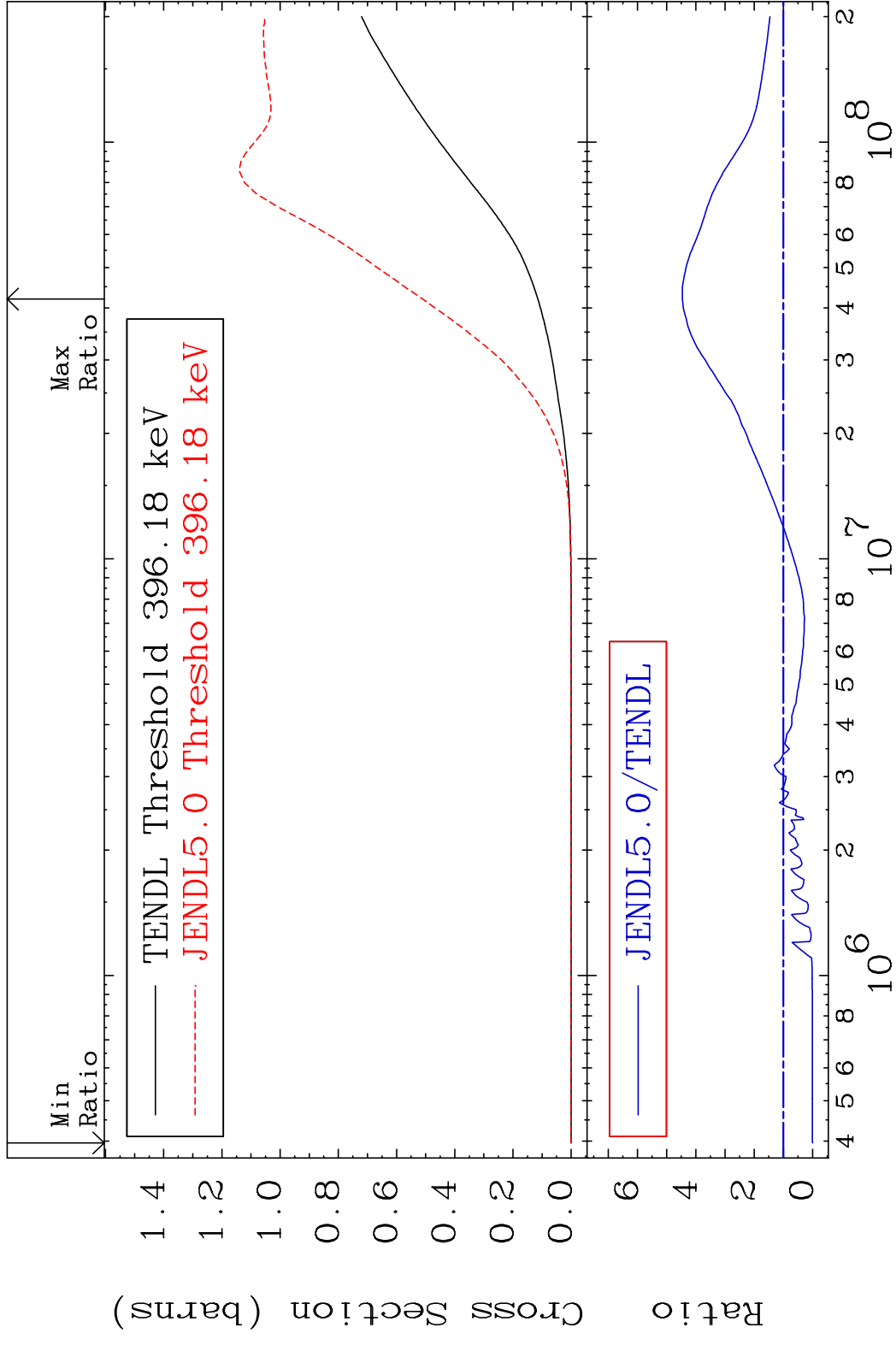


47

Incident Energy (eV)

56-Ba-137

MAT 5646 Hydrogen Production 56-Ba-137  
 Cross Section -100.0 To 346.2 %

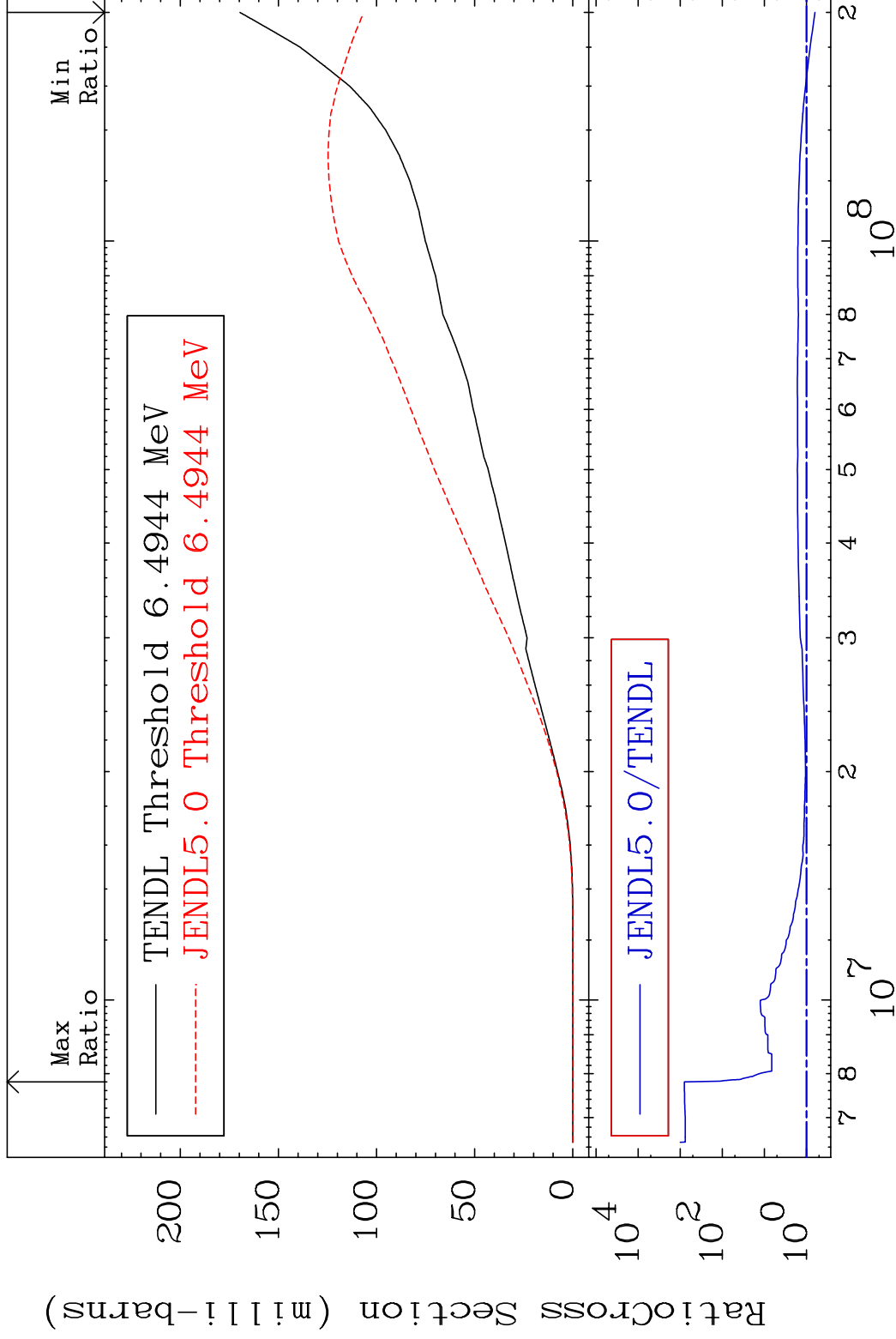


MAT 5646

Deuterium Production

56-Ba-137

Cross Section -37.12 To 9999. %

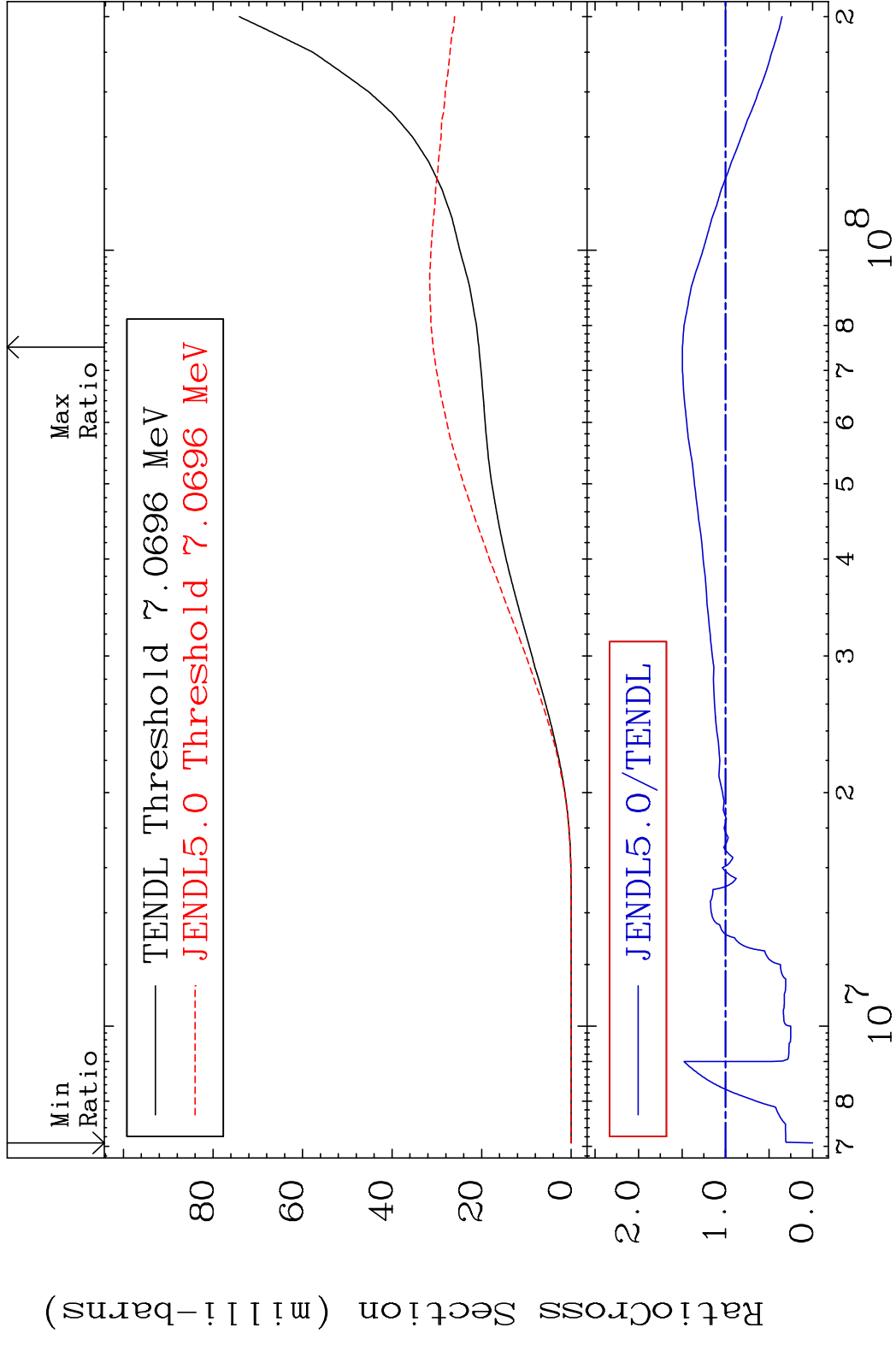


49

Incident Energy (eV)

56-Ba-137

MAT 5646 Tritium Production 56-Ba-137  
 Cross Section -100.0 To 49.66 %



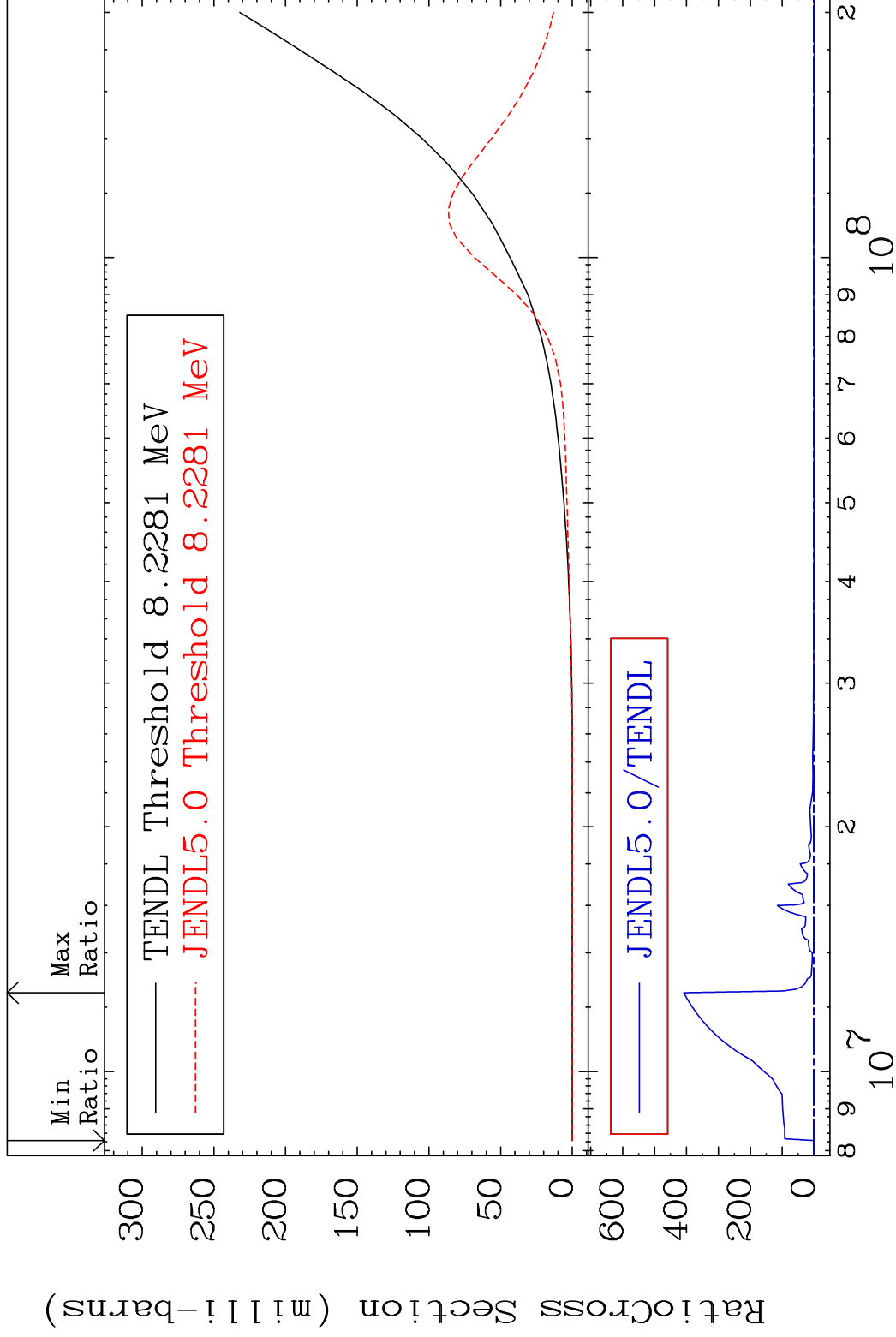
50 56-Ba-137

MAT 5646

He-3 Production

56-Ba-137

Cross Section -100.0 To 9999. %



51

Incident Energy (eV)

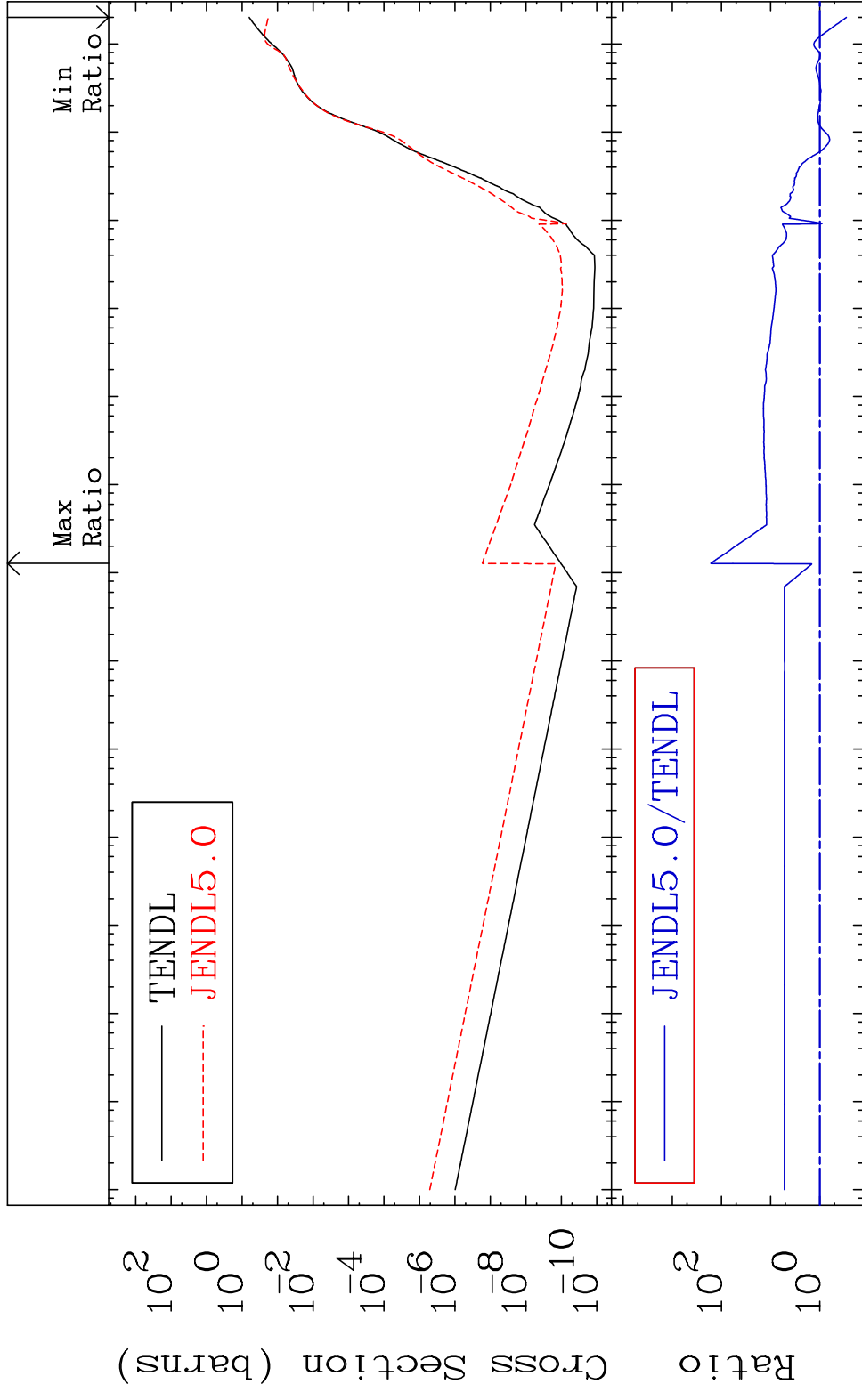
56-Ba-137

MAT 5646

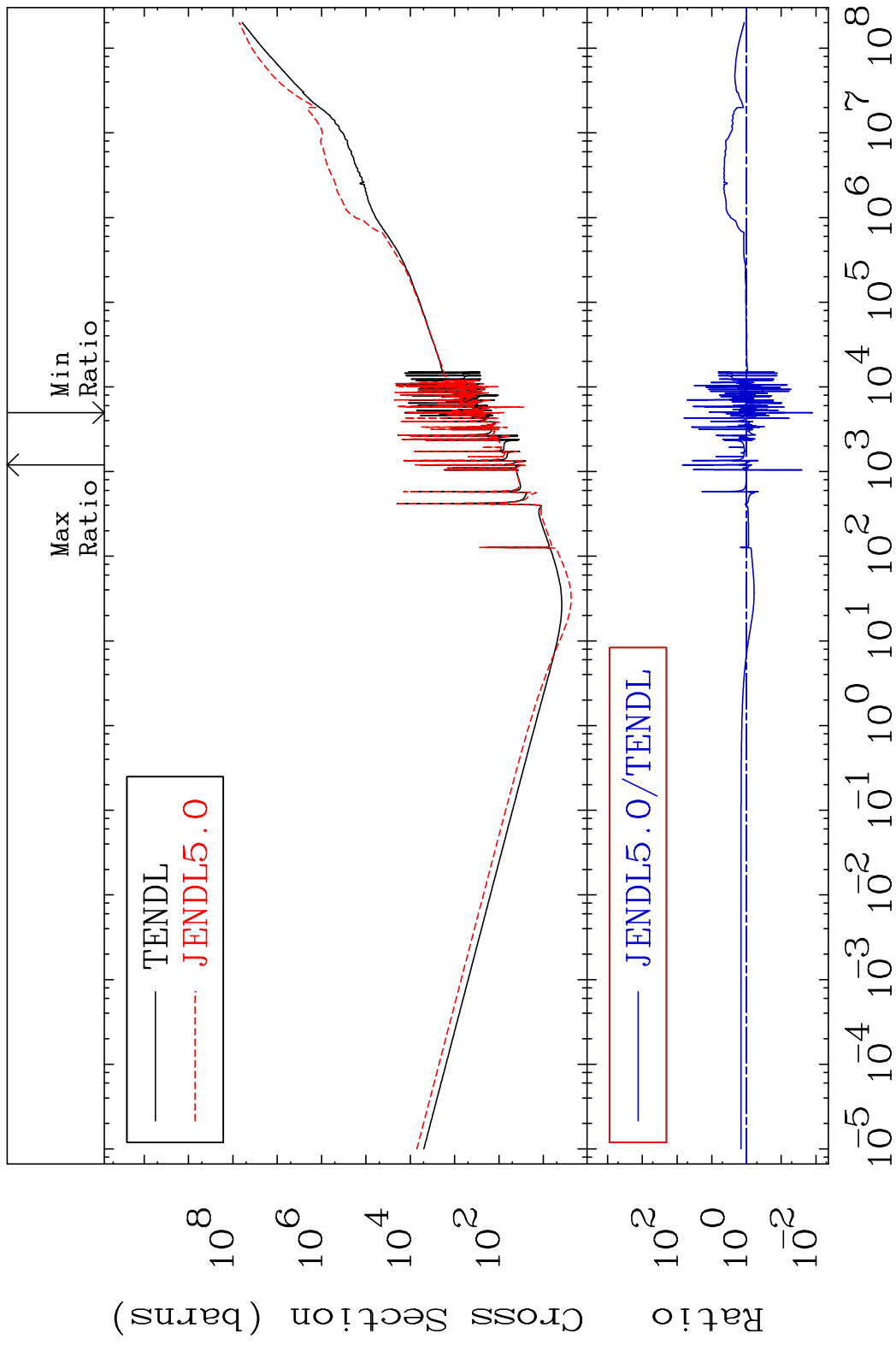
He-4 Production

56-Ba-137

Cross Section -71.28 To 9999. %



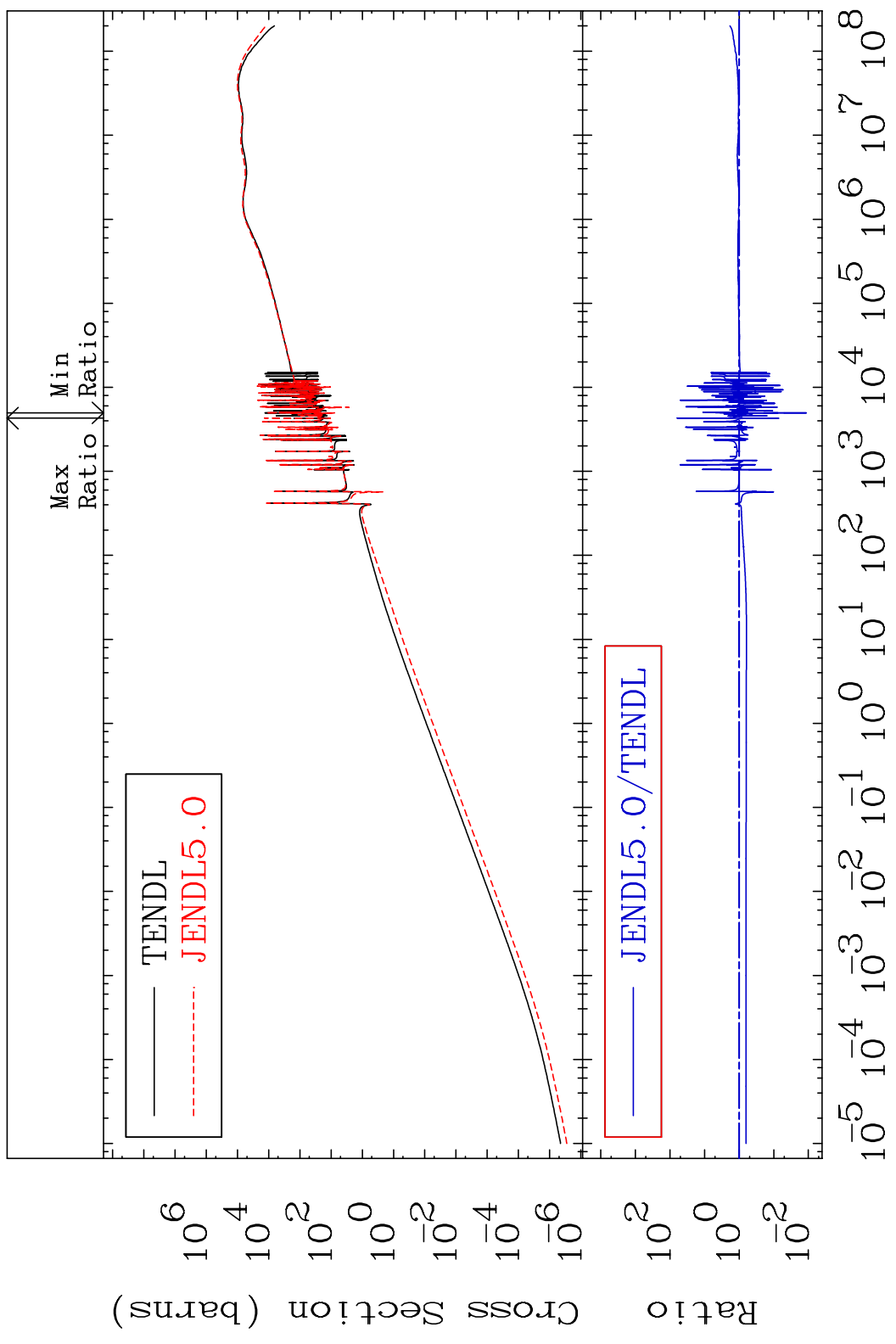
MAT 5646 Kerma total (eV-barns) 56-Ba-137  
 Cross Section -98.75 To 6937. %



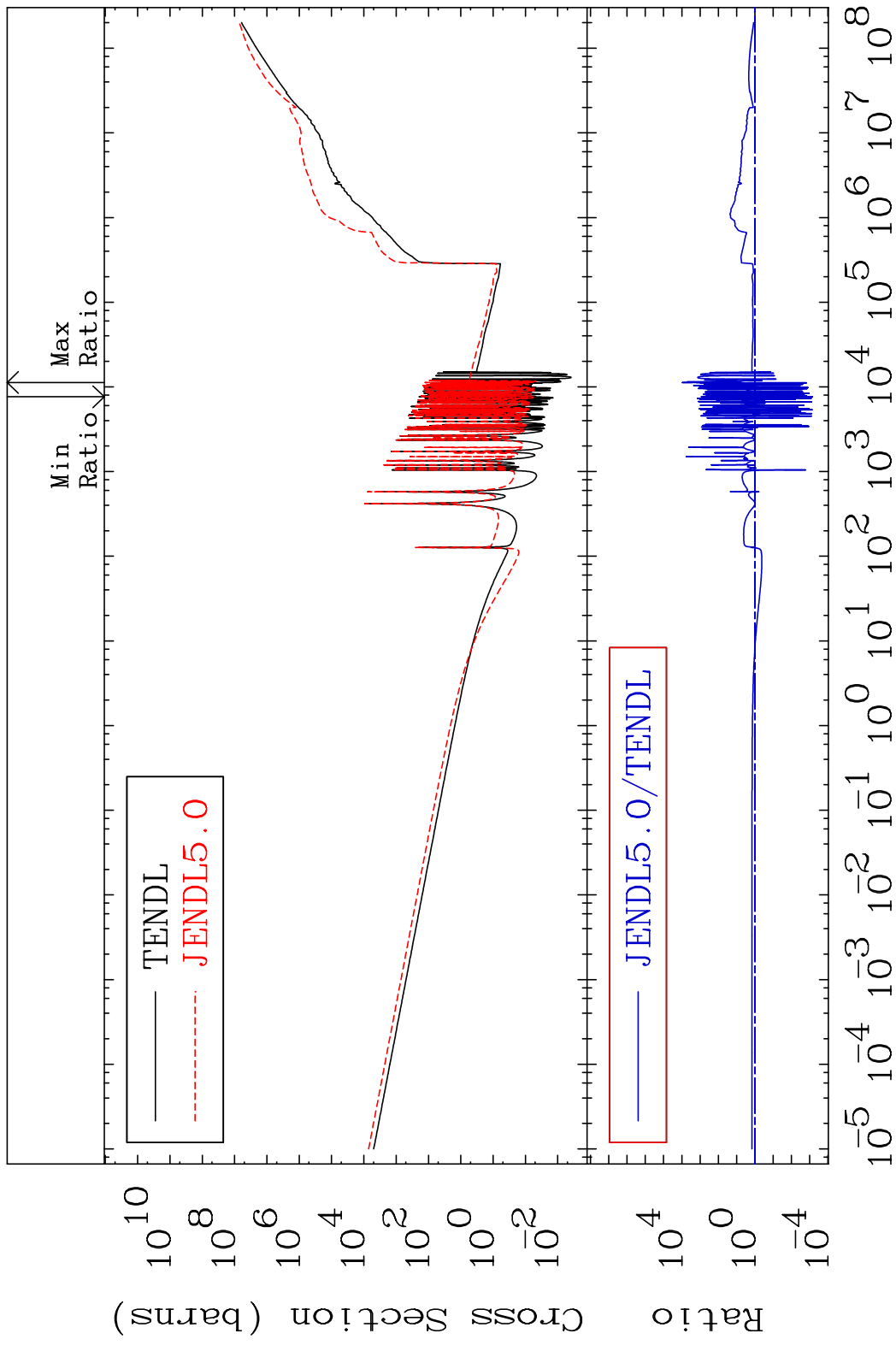
53 Incident Energy (eV) 56-Ba-137

MAT 5646

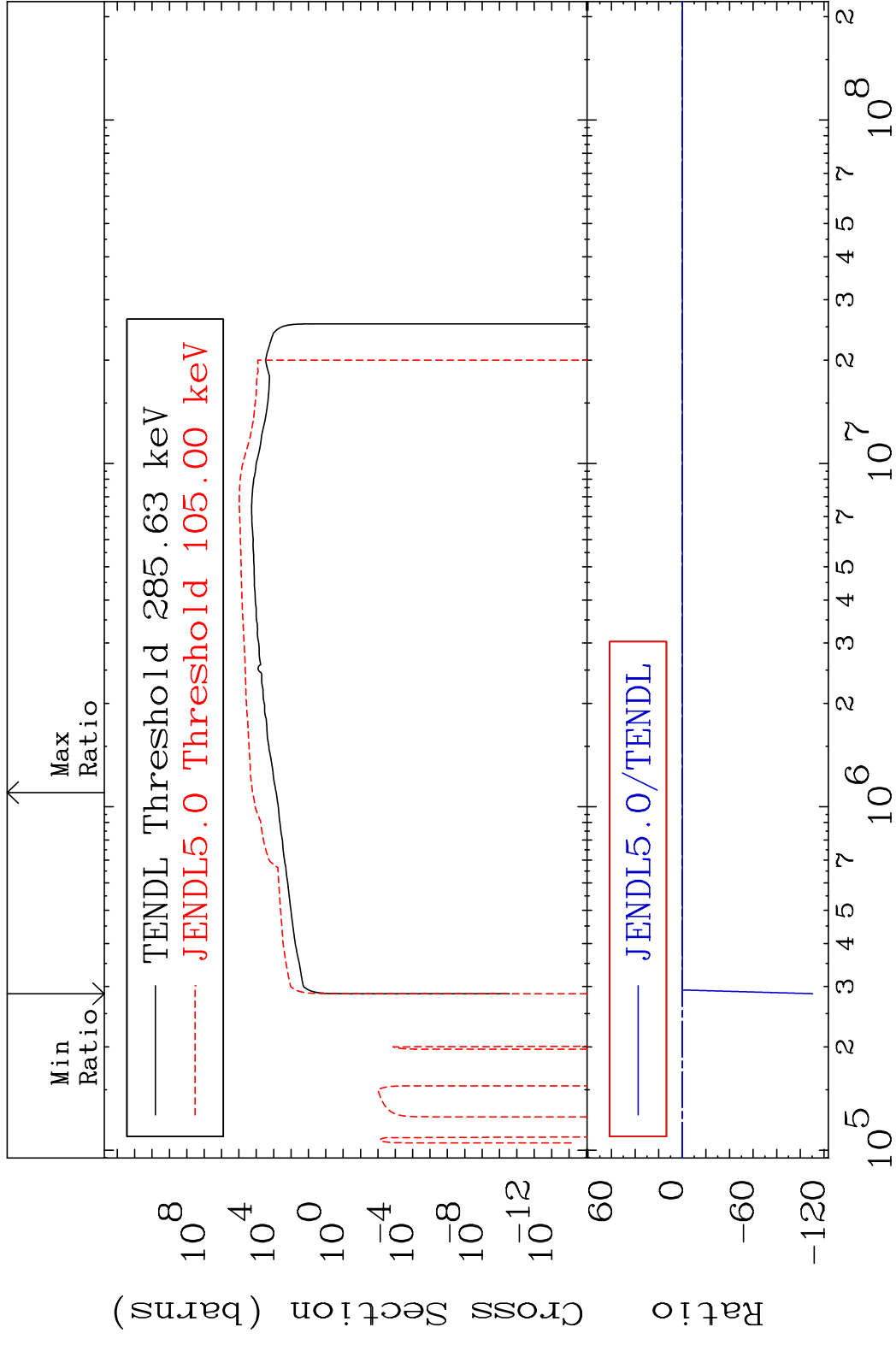
Kerma elastic Cross Section -98.86 To 6074. %  
56-Ba-137



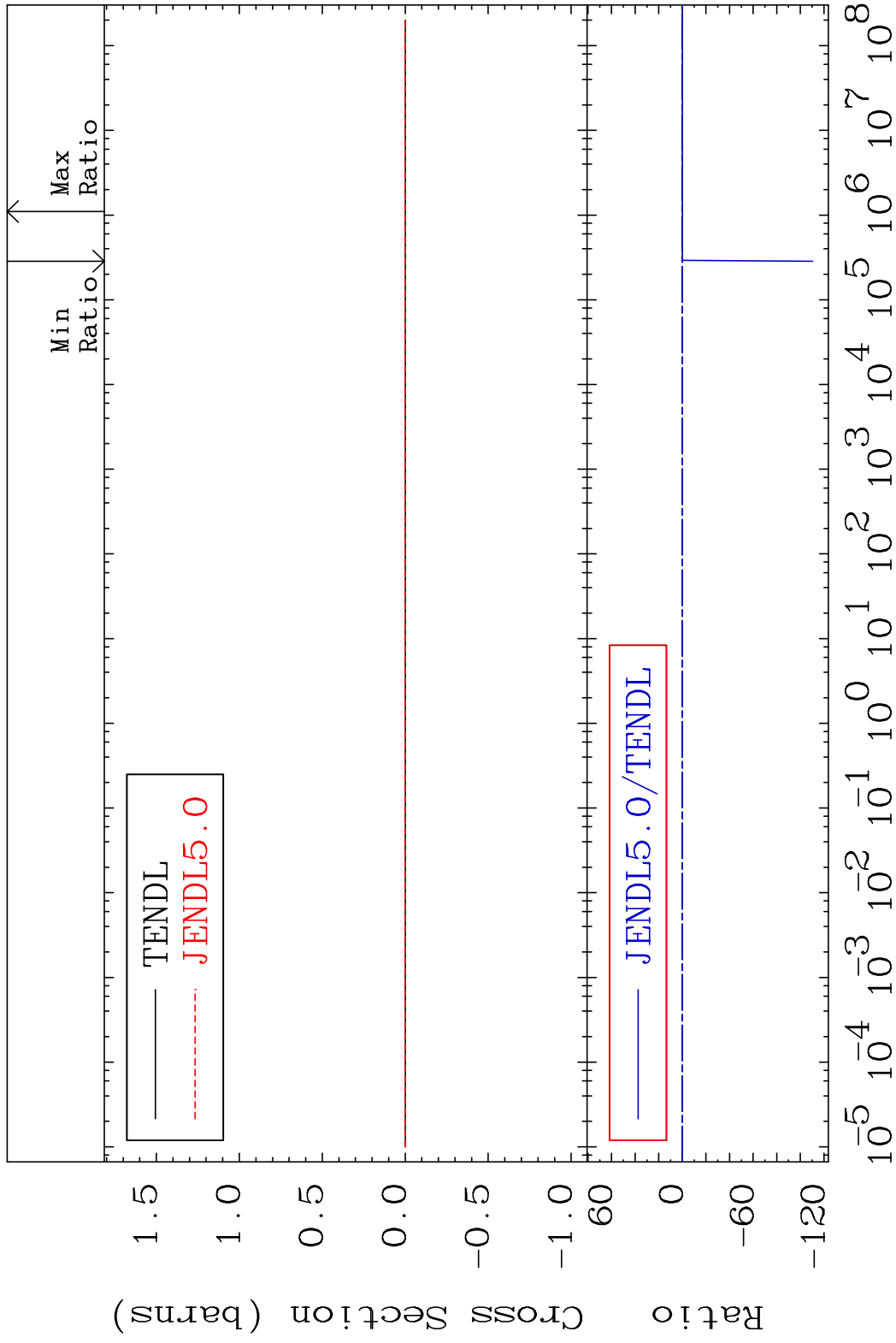
MAT 5646 Kerma non-elastic (all but mt2) 56-Ba-137  
 Cross Section -99.93 To 9999. %



MAT 5646 Kerma inelastic (mt51-91) 56-Ba-137  
 Cross Section -9999. To 2218. %

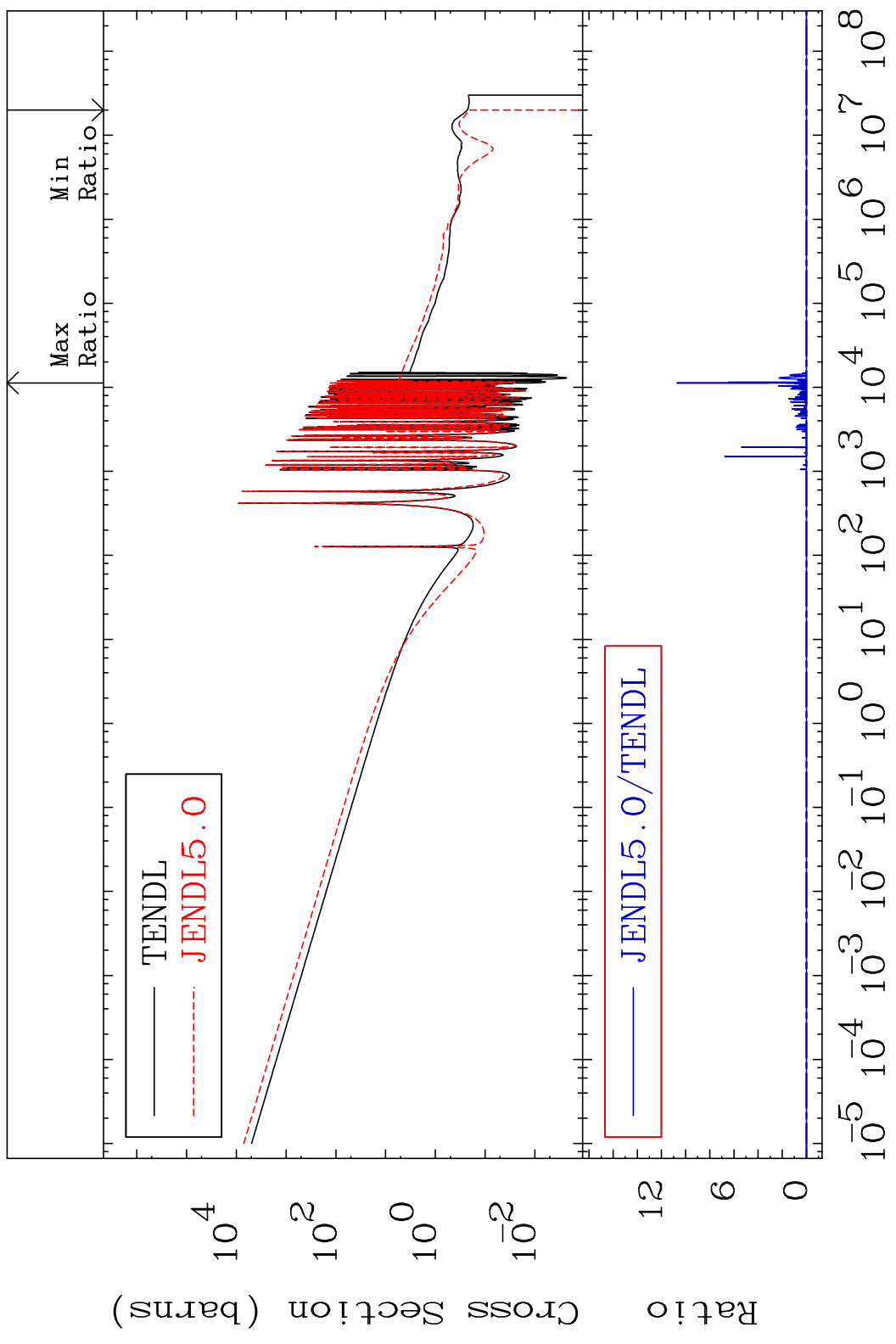


MAT 5646 Kerma fission (mt18 or mt19-20-21-38) 56-Ba-137  
 Cross Section -9999. To 2218. %

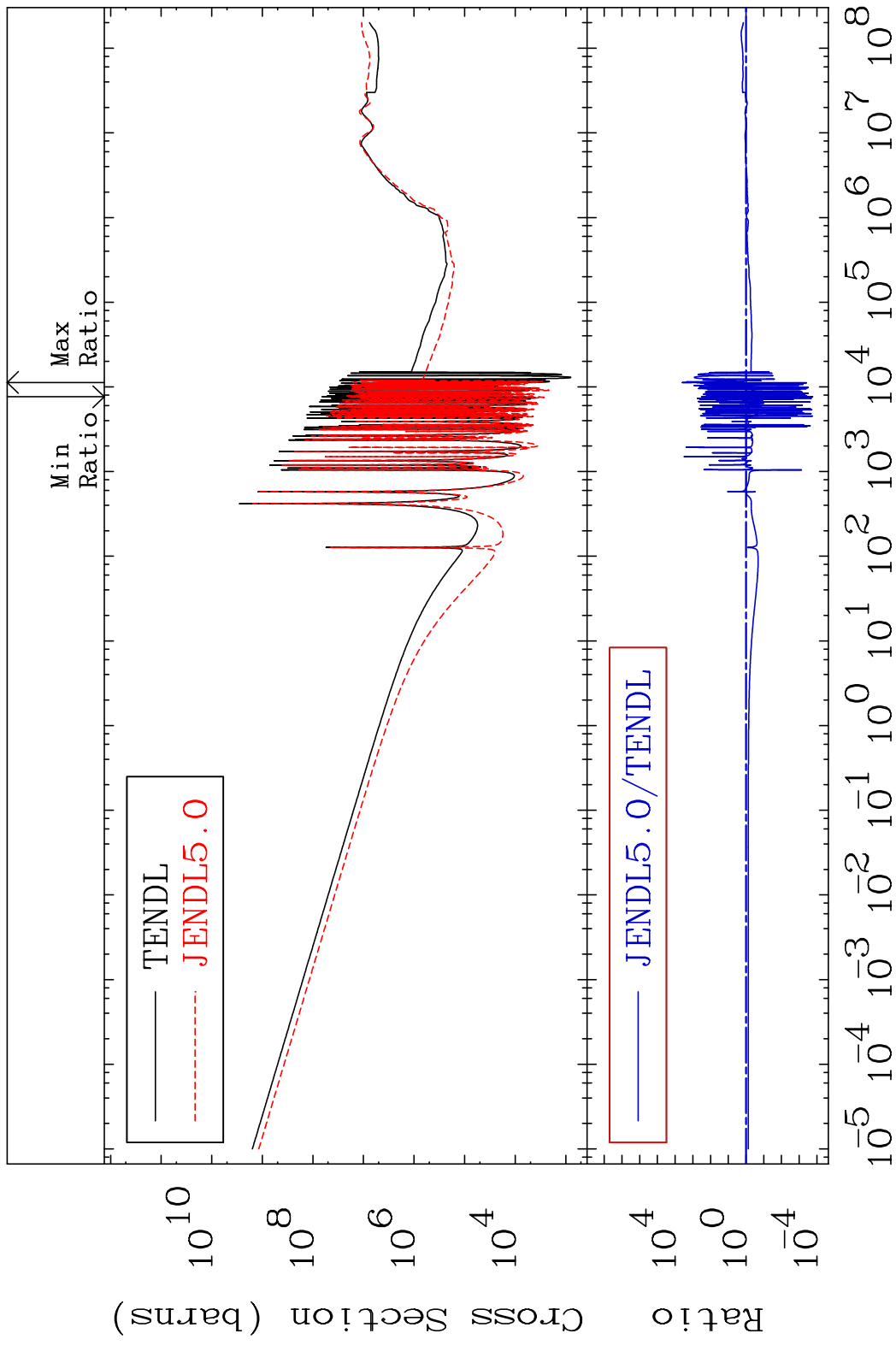


MAT 5646

Kerma capture (mt102) 56-Ba-137  
Cross Section -100.0 To 9999. %

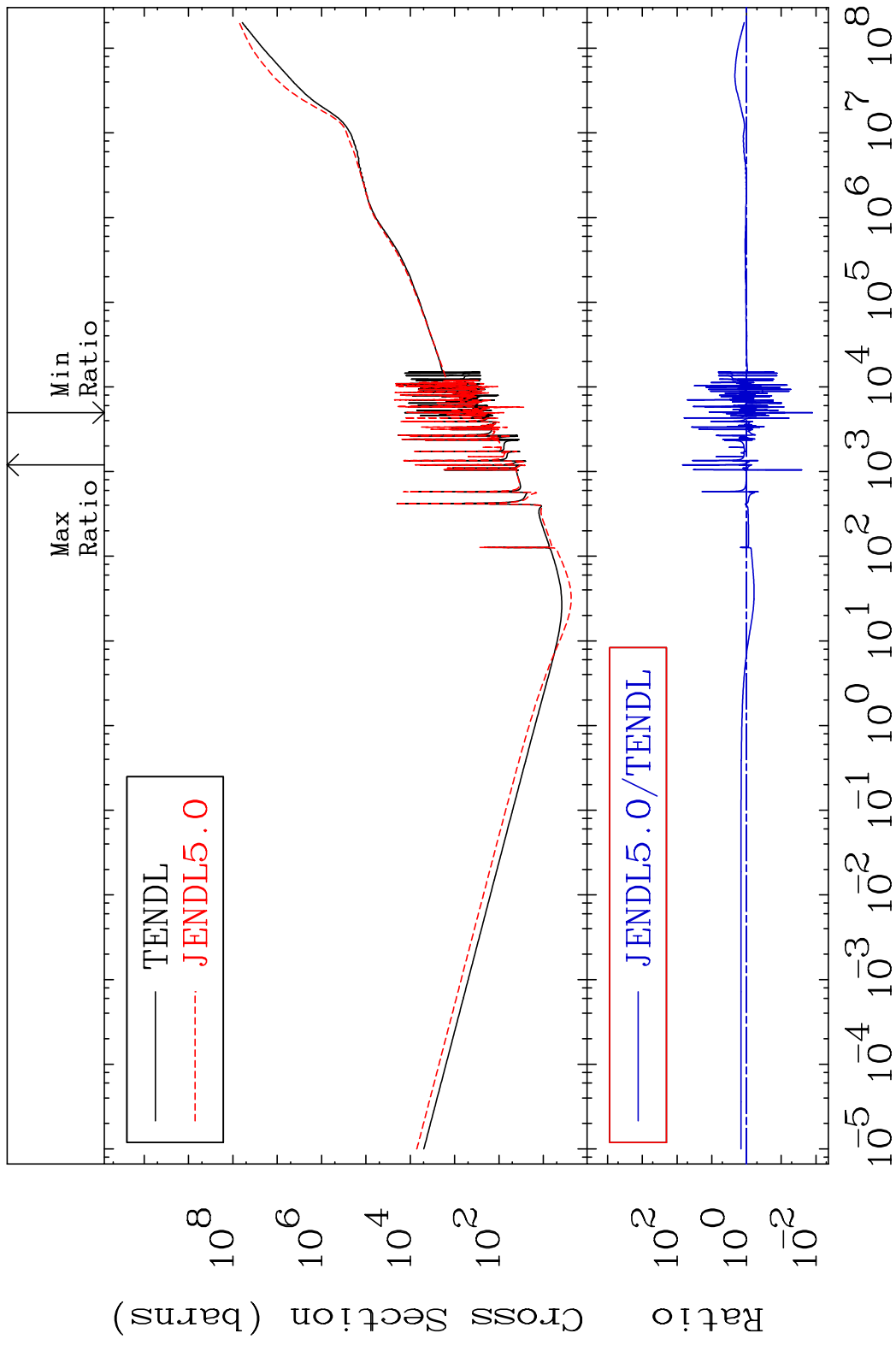


MAT 5646 Total photon (eV-barns) 56-Ba-137  
 Cross Section -99.98 To 9999. %

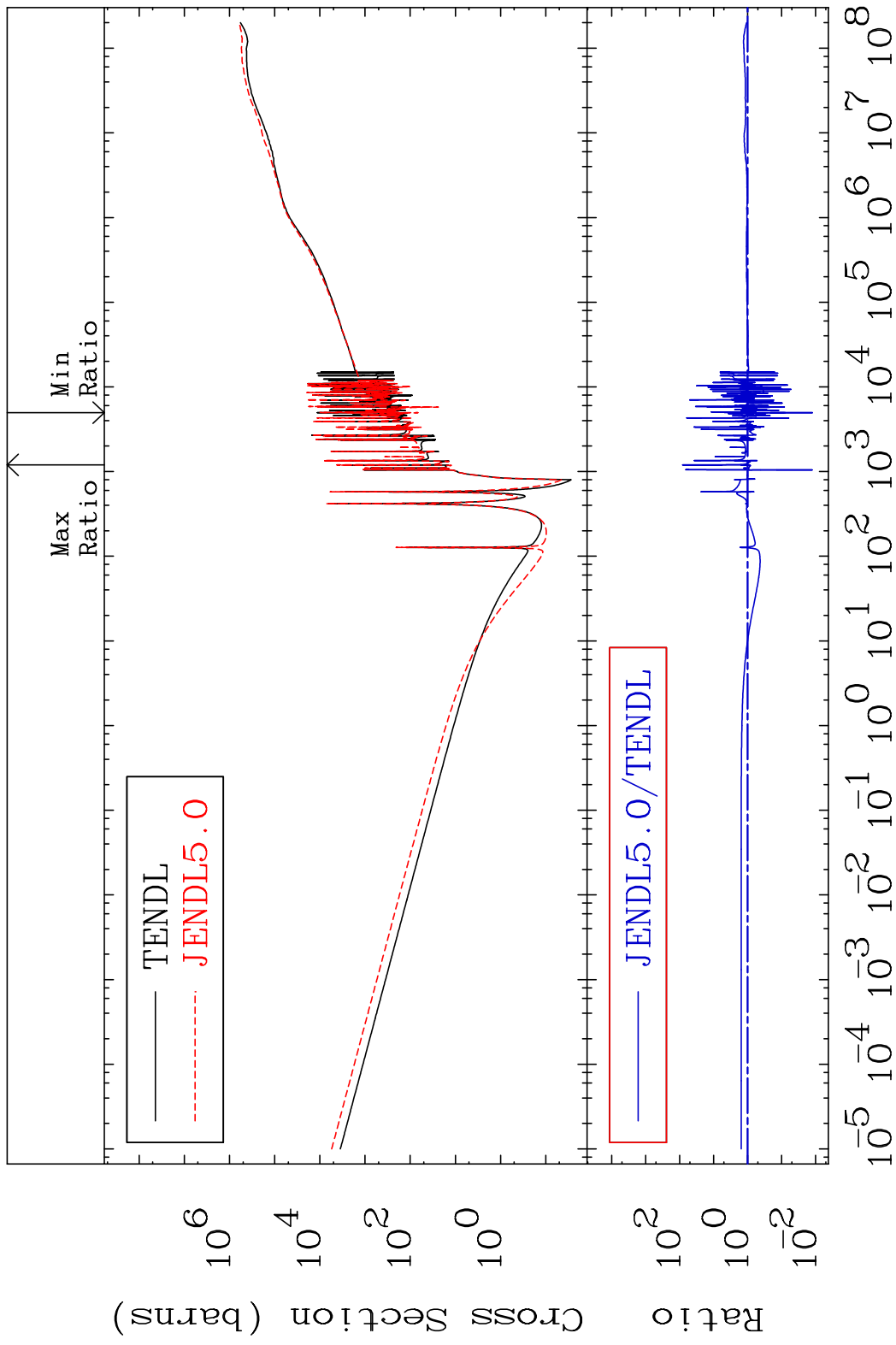


59 Incident Energy (eV) 56-Ba-137

MAT 5646 Total kinematic kerma (high limit) 56-Ba-137  
Cross Section -98.75 To 6937. %



MAT 5646      Dpa total (eV-barns)      56-Ba-137  
 Cross Section      -98.76 To 8220. %



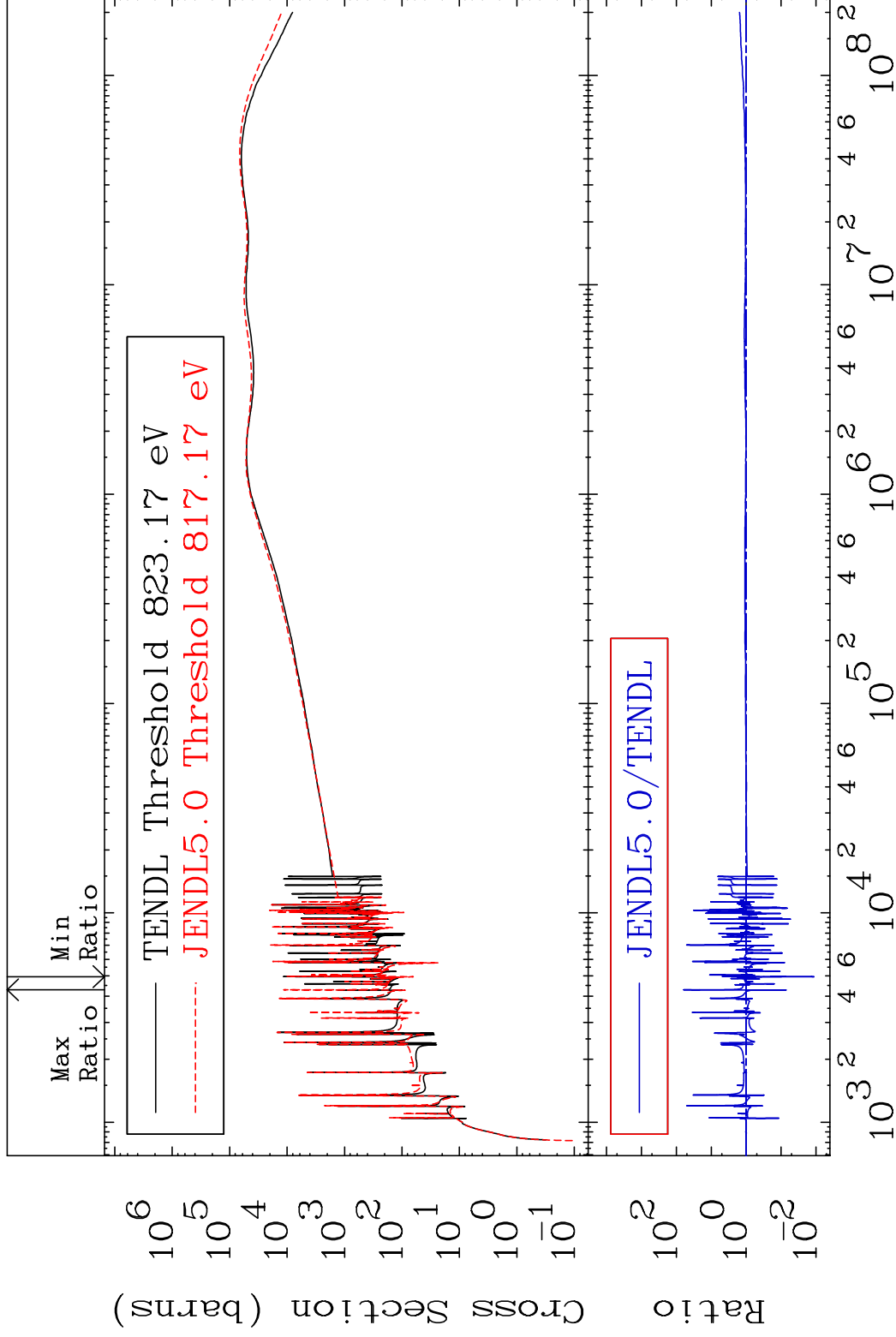
MAT 5646

Dpa elastic (mt2)

56-Ba-137

Cross Section

-98.86 To 6058. %

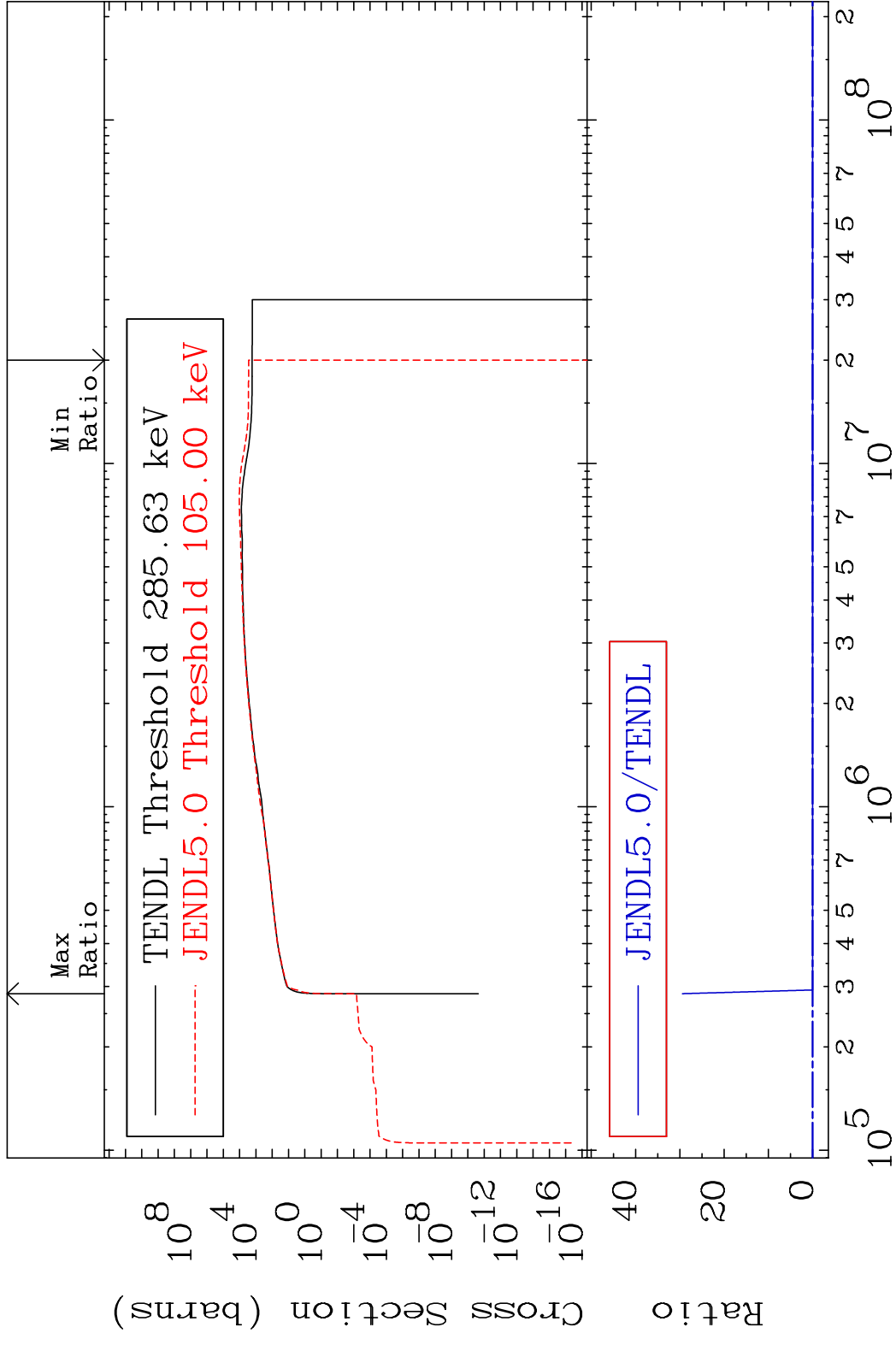


62

Incident Energy (eV)

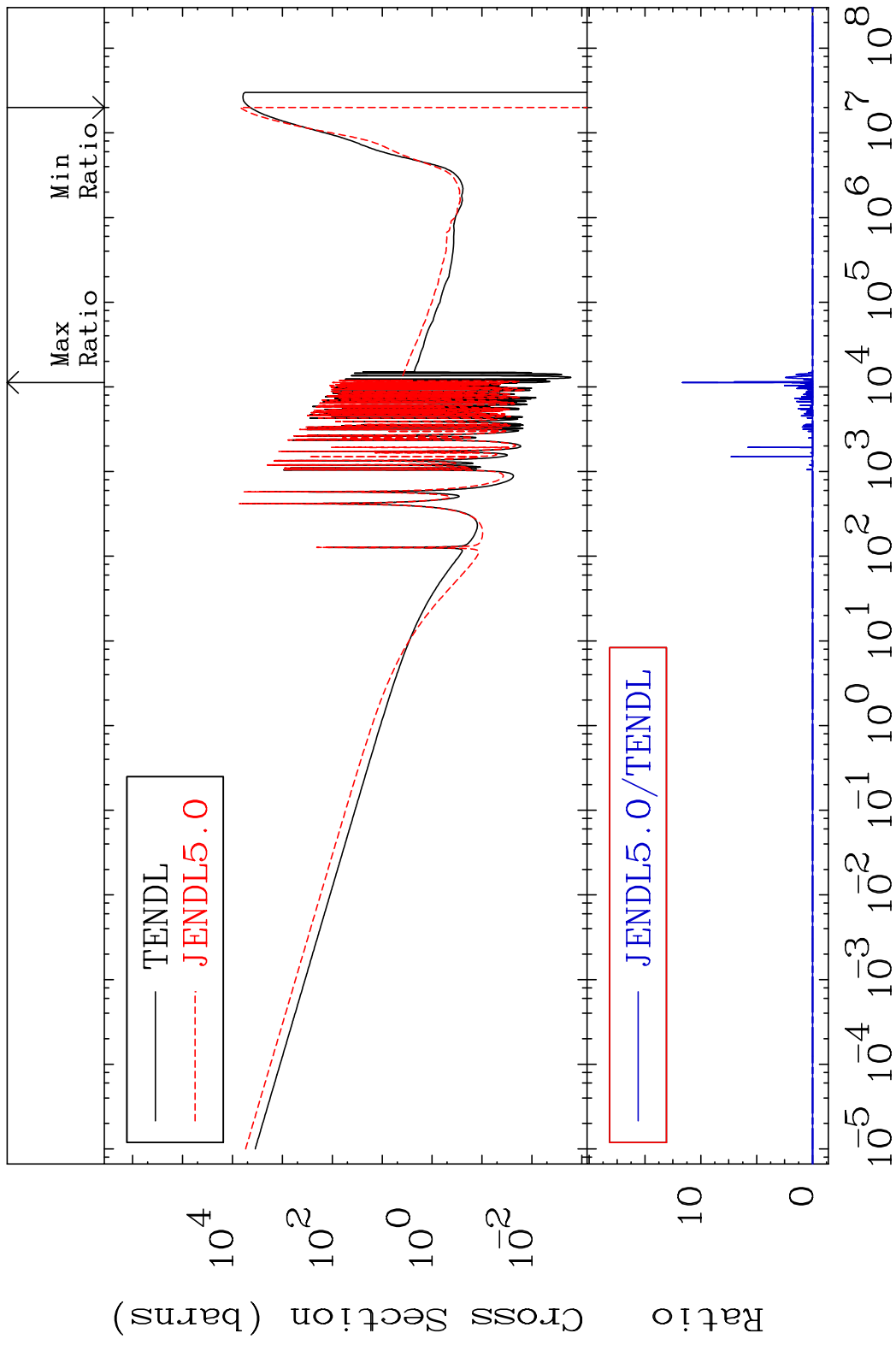
56-Ba-137

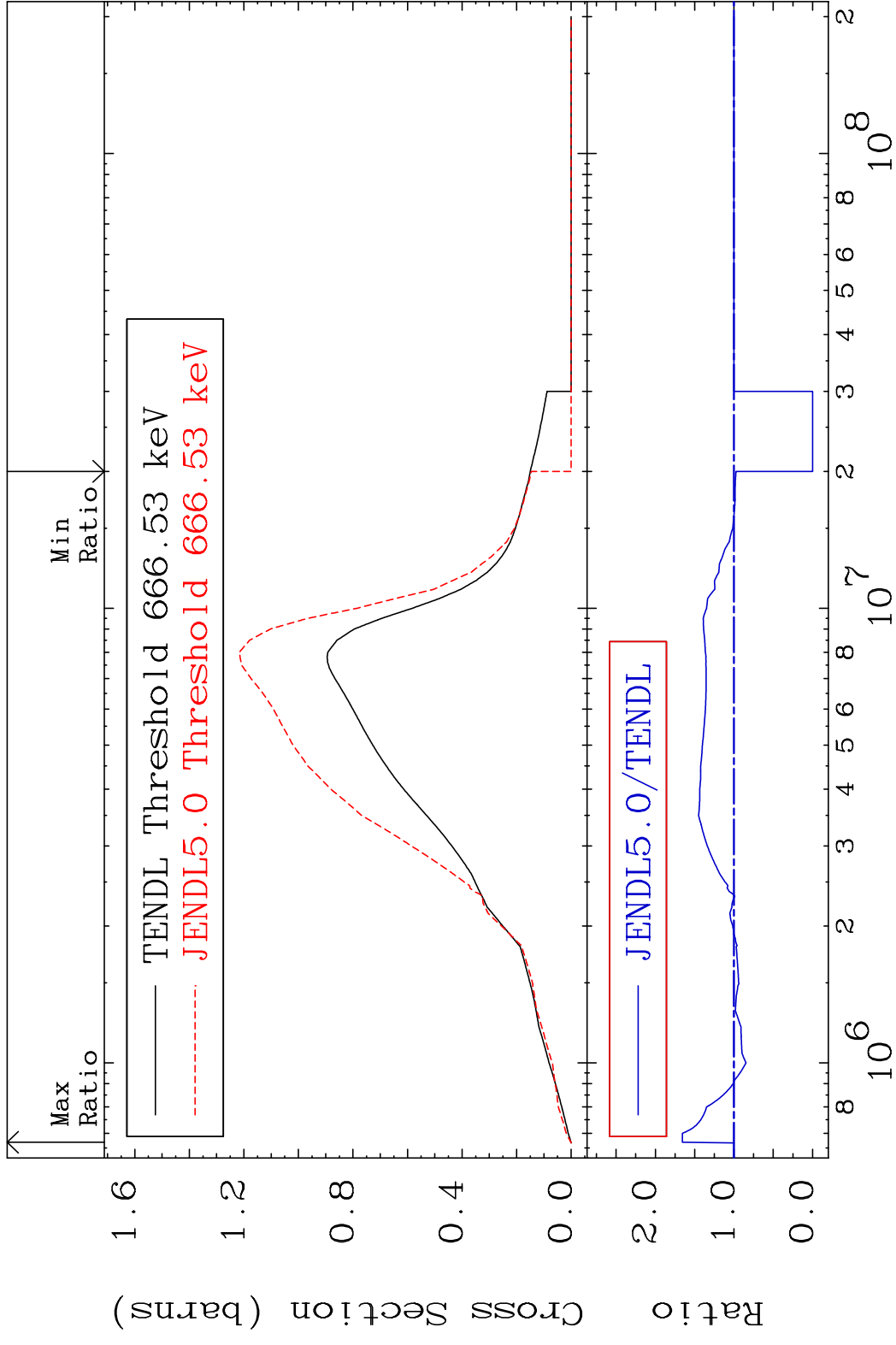
MAT 5646 Dpa inelastic (mt51-91) 56-Ba-137  
 Cross Section -100.0 To 9999. %



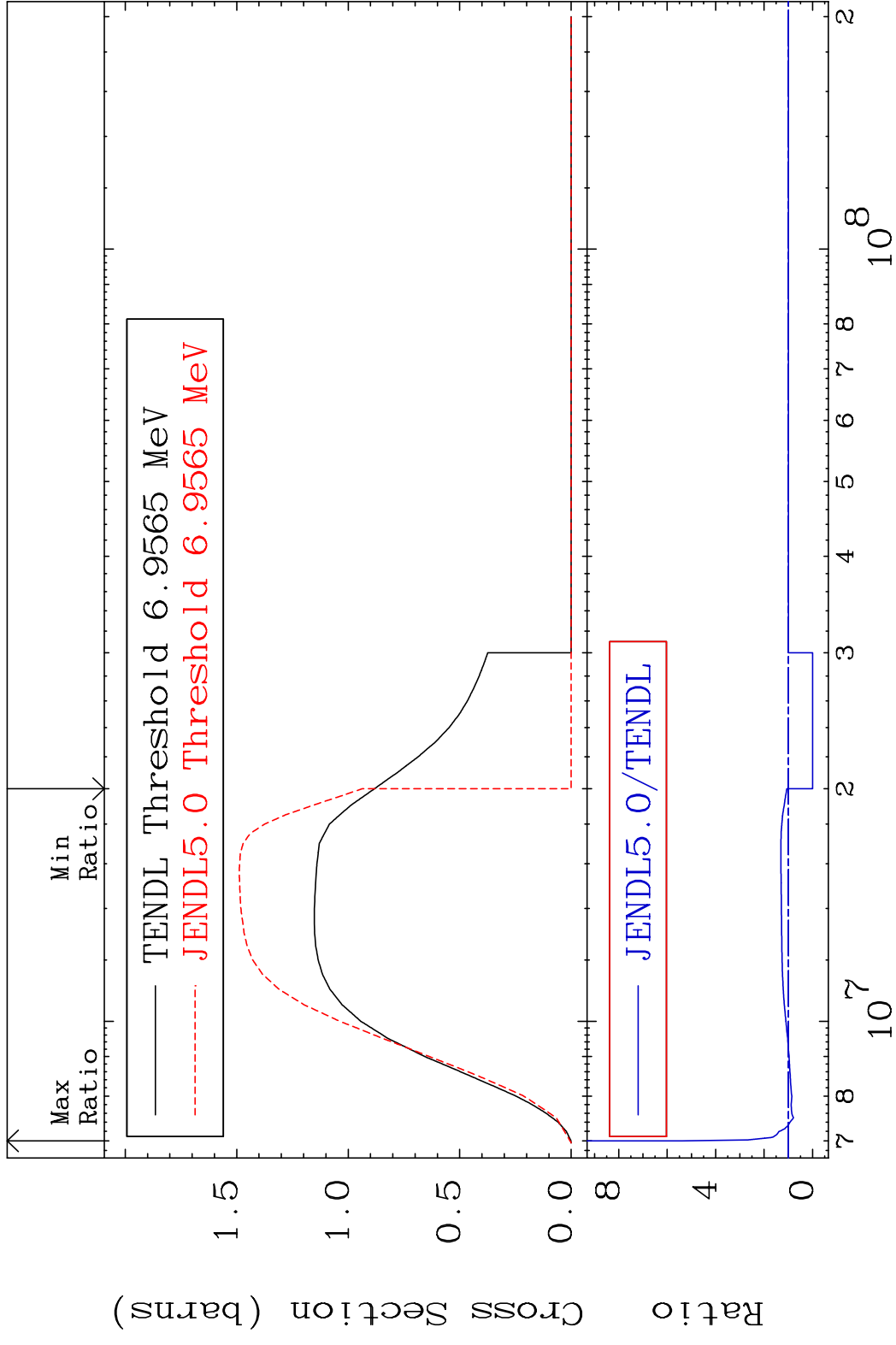
63 Incident Energy (eV) 56-Ba-137

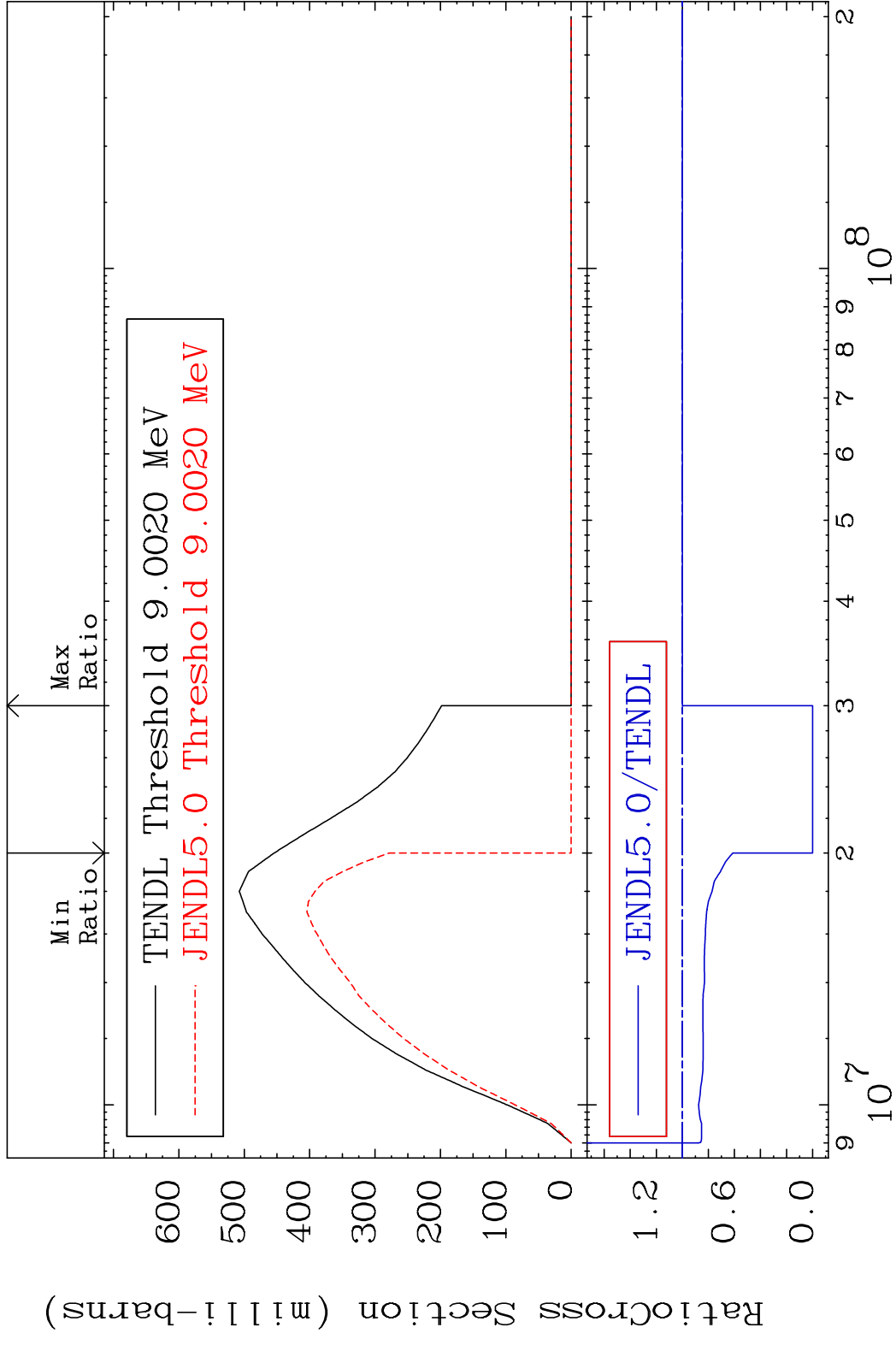
MAT 5646 Dpa disappearance (mt102 -120) 56-Ba-137  
 Cross Section -100.0 To 9999. %



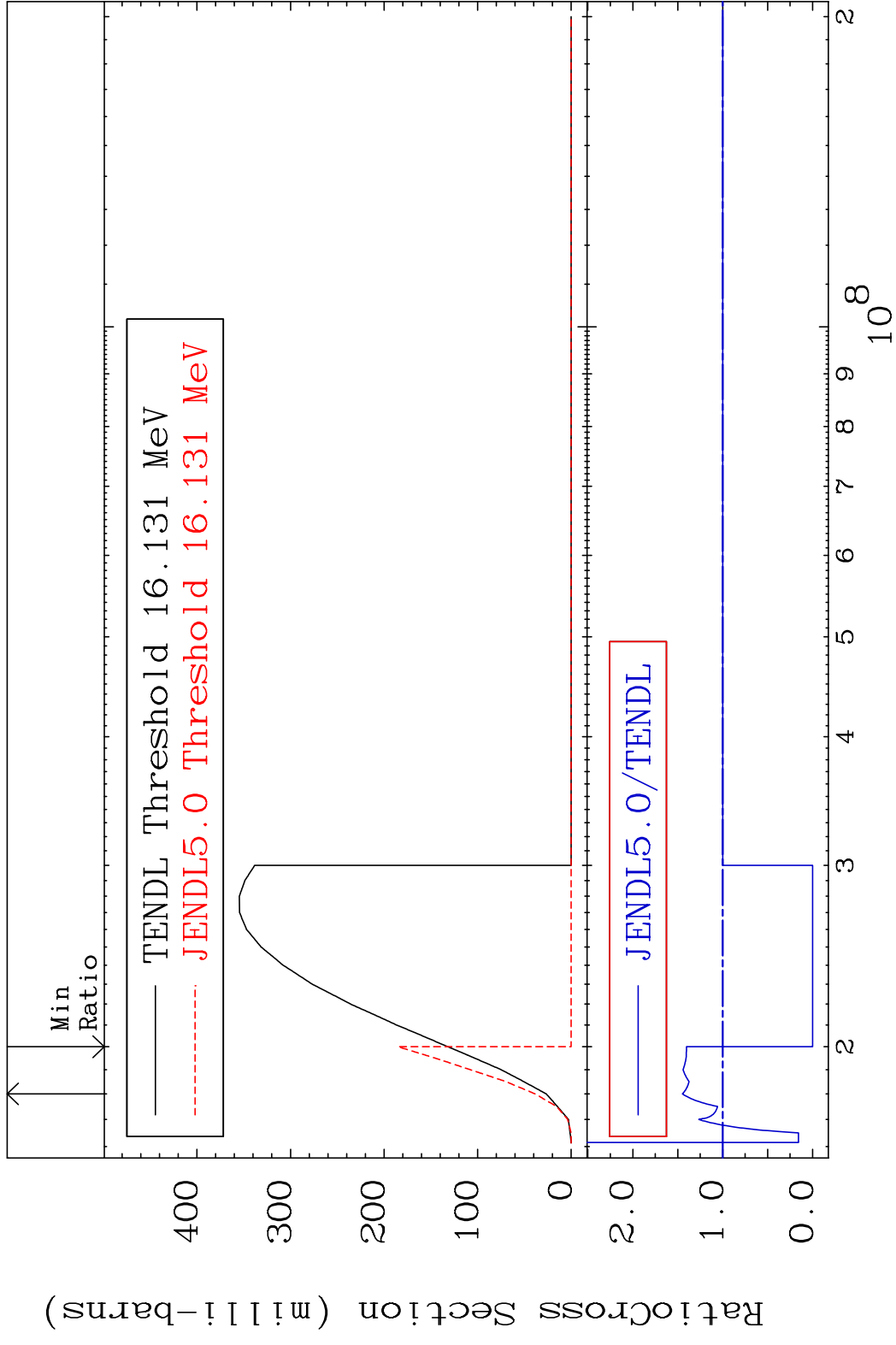


MAT 5646 (n,2n):56-Ba-136g 56-Ba-137  
 Radionuclide Production Cross Section 1800 dth 437.5 %

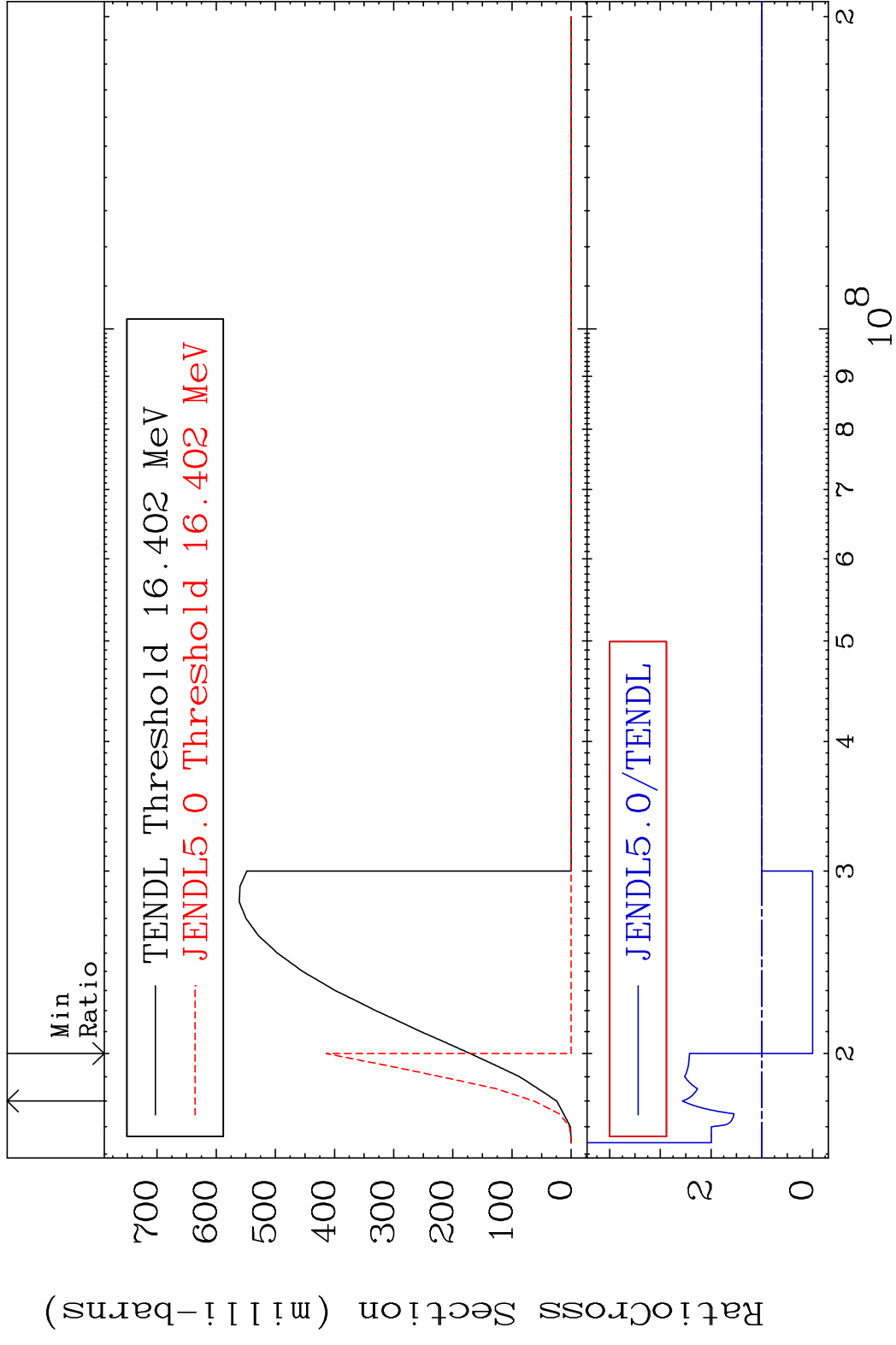




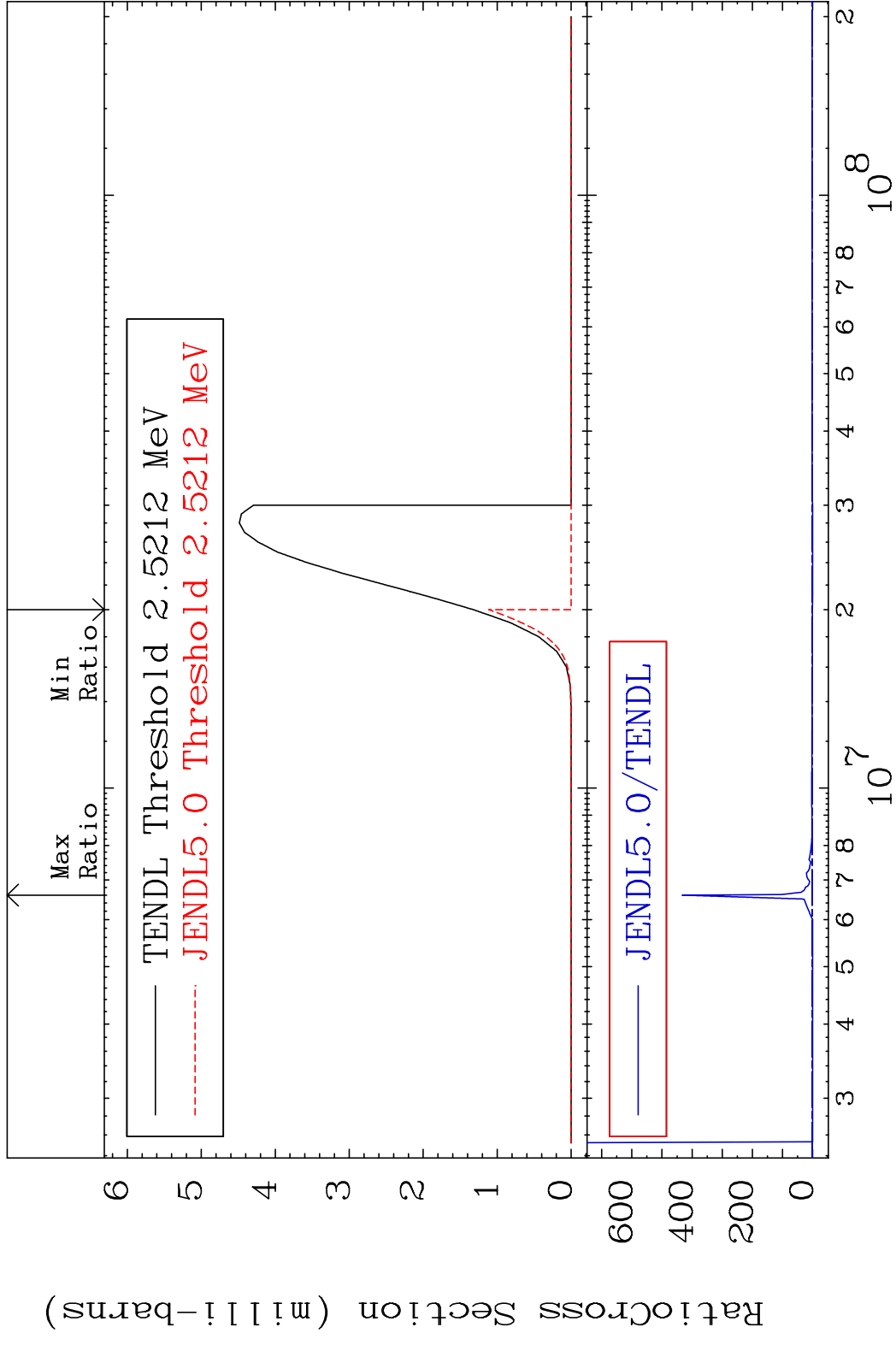
MAT 5646 (n,3n):56-Ba-135g 56-Ba-137  
 Radionuclide Production Cross Section Ratio 44.86 %



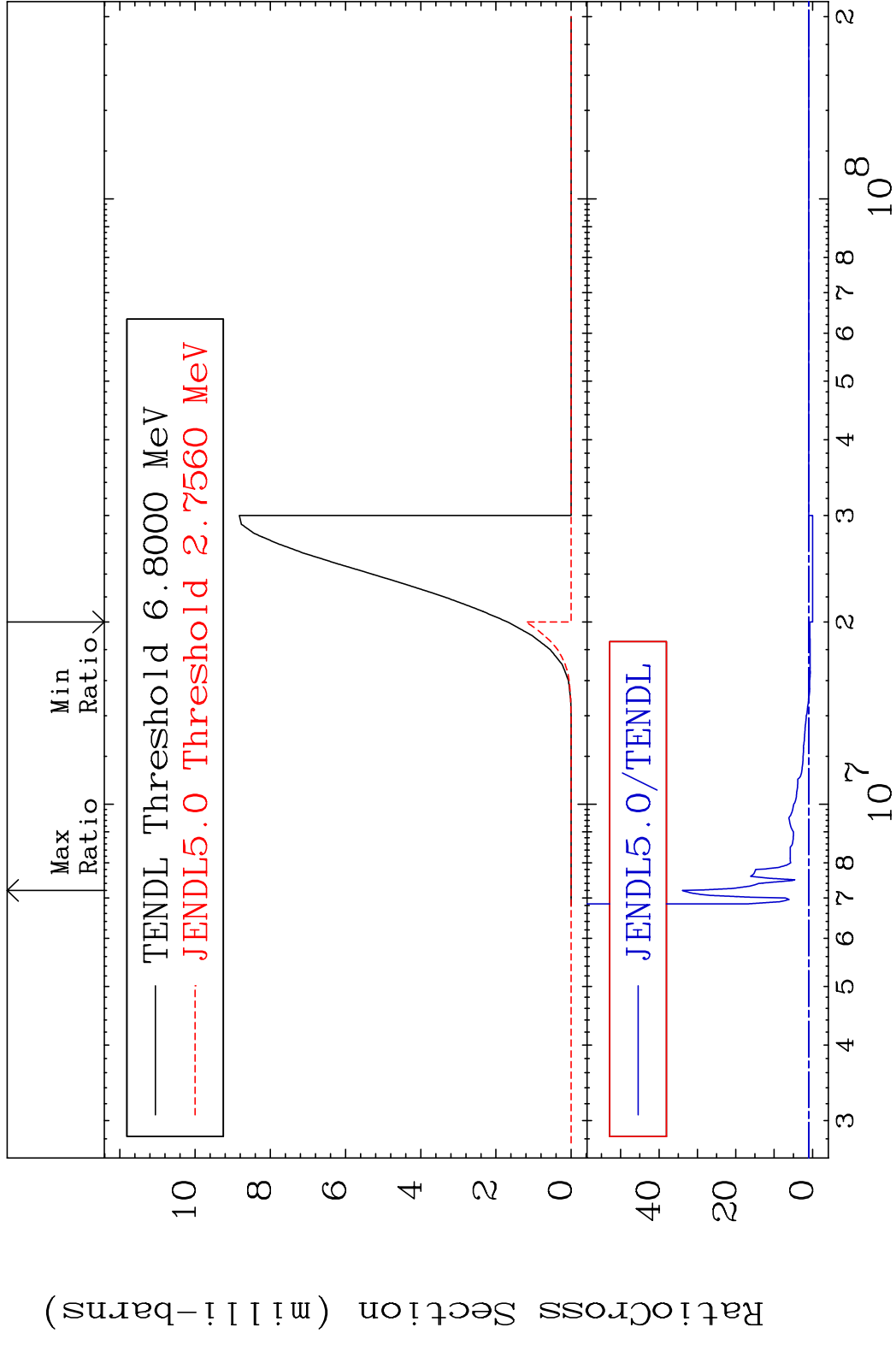
MAT 5646 (n, 3n):56-Ba-135m2 56-Ba-137  
 Radionuclide Production Cross Section 156.6 %

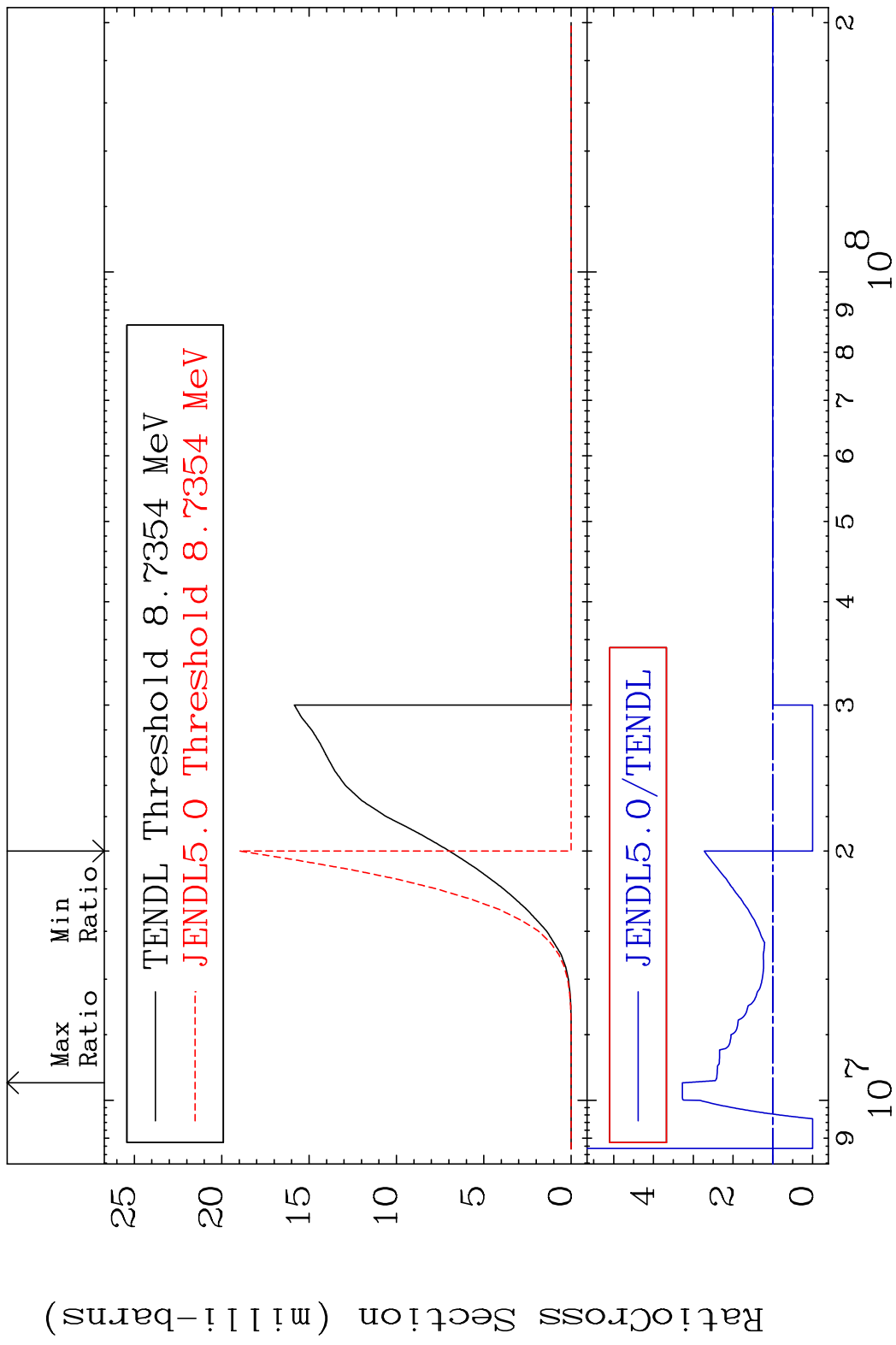


MAT 5646 (n, n')  $\alpha$ :54-Xe-133g 56-Ba-137  
 Radionuclide Production Cross Section Ratio 9999. %

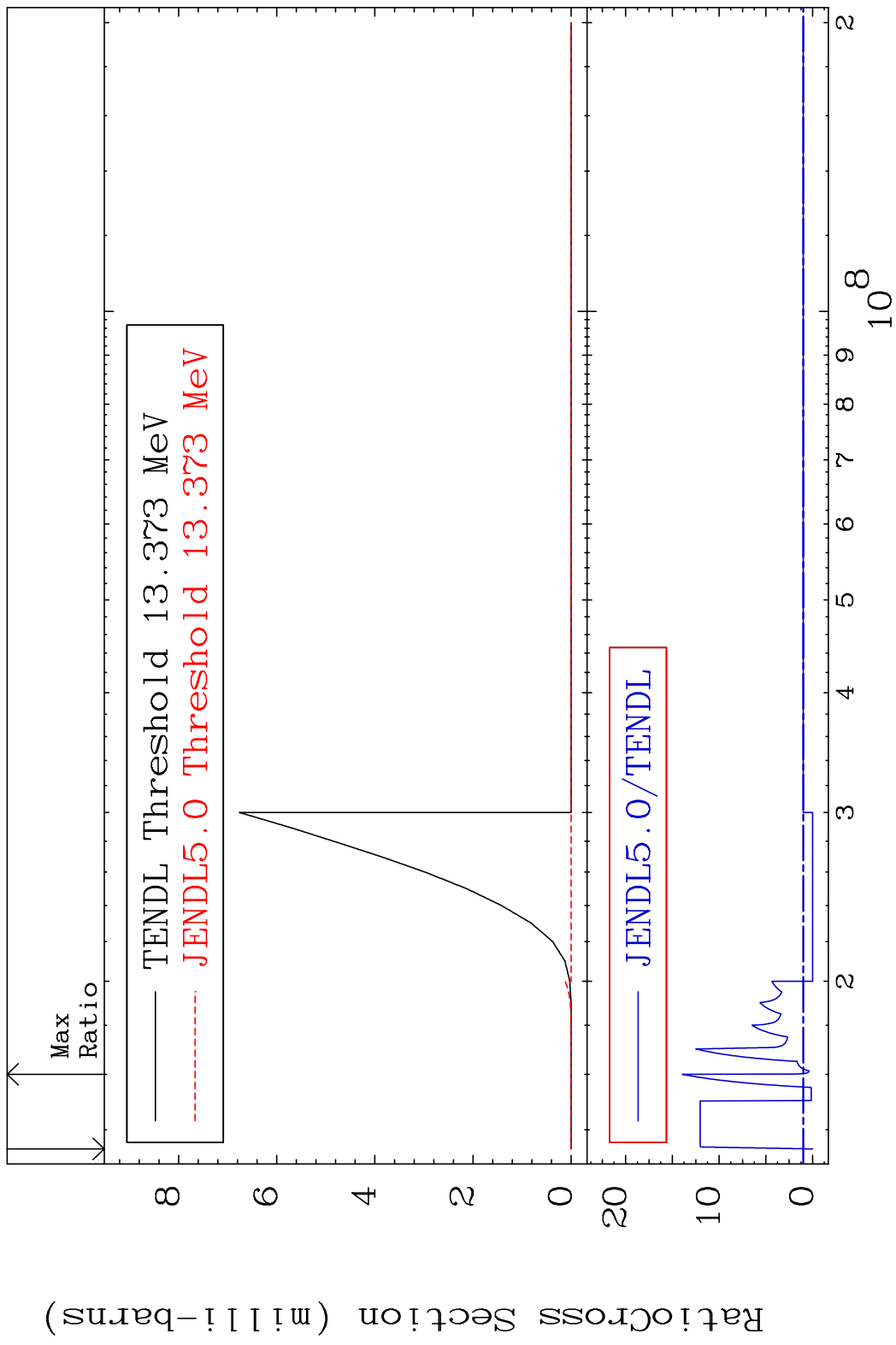


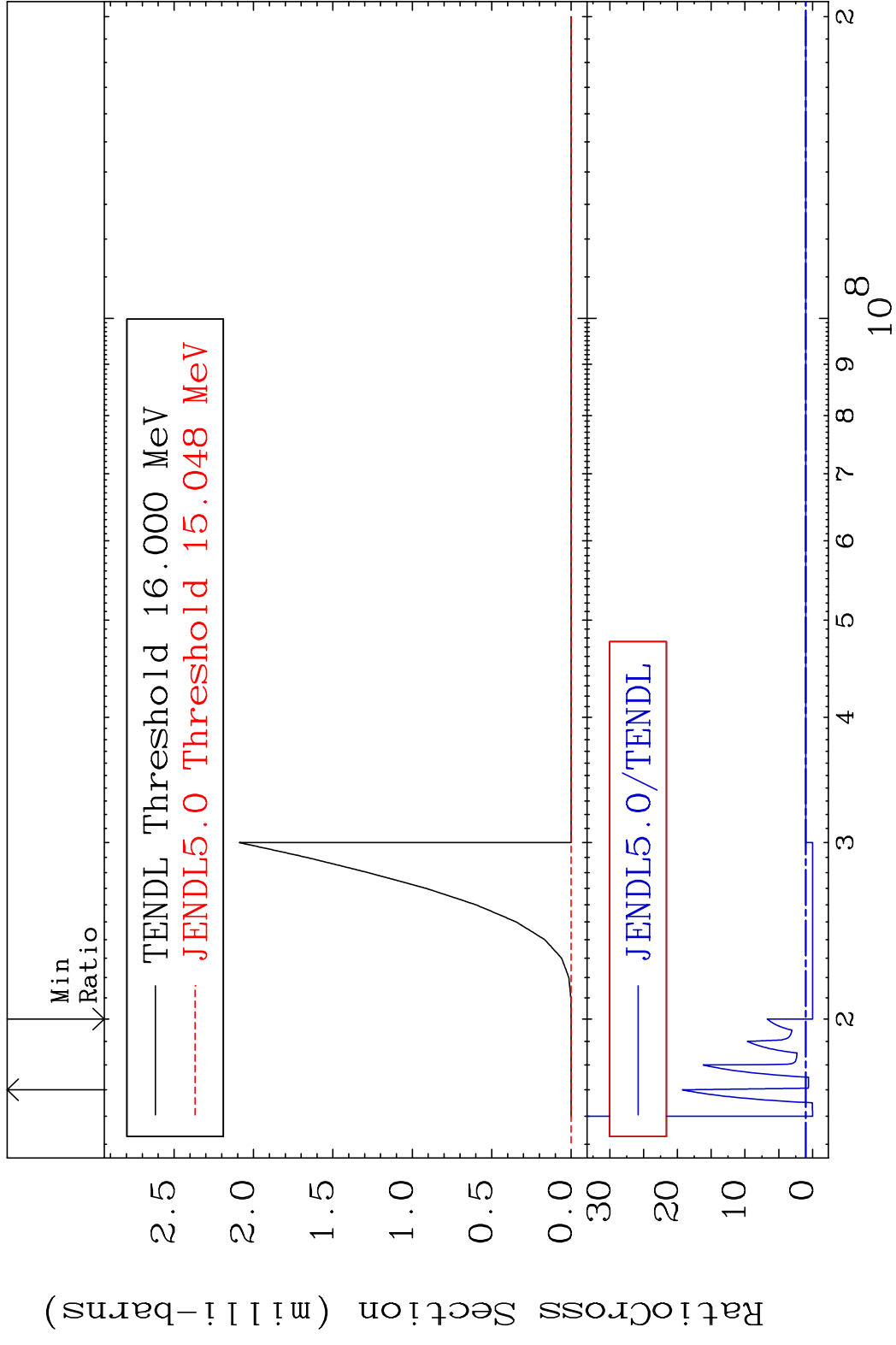
70 Incident Energy (eV) 56-Ba-137

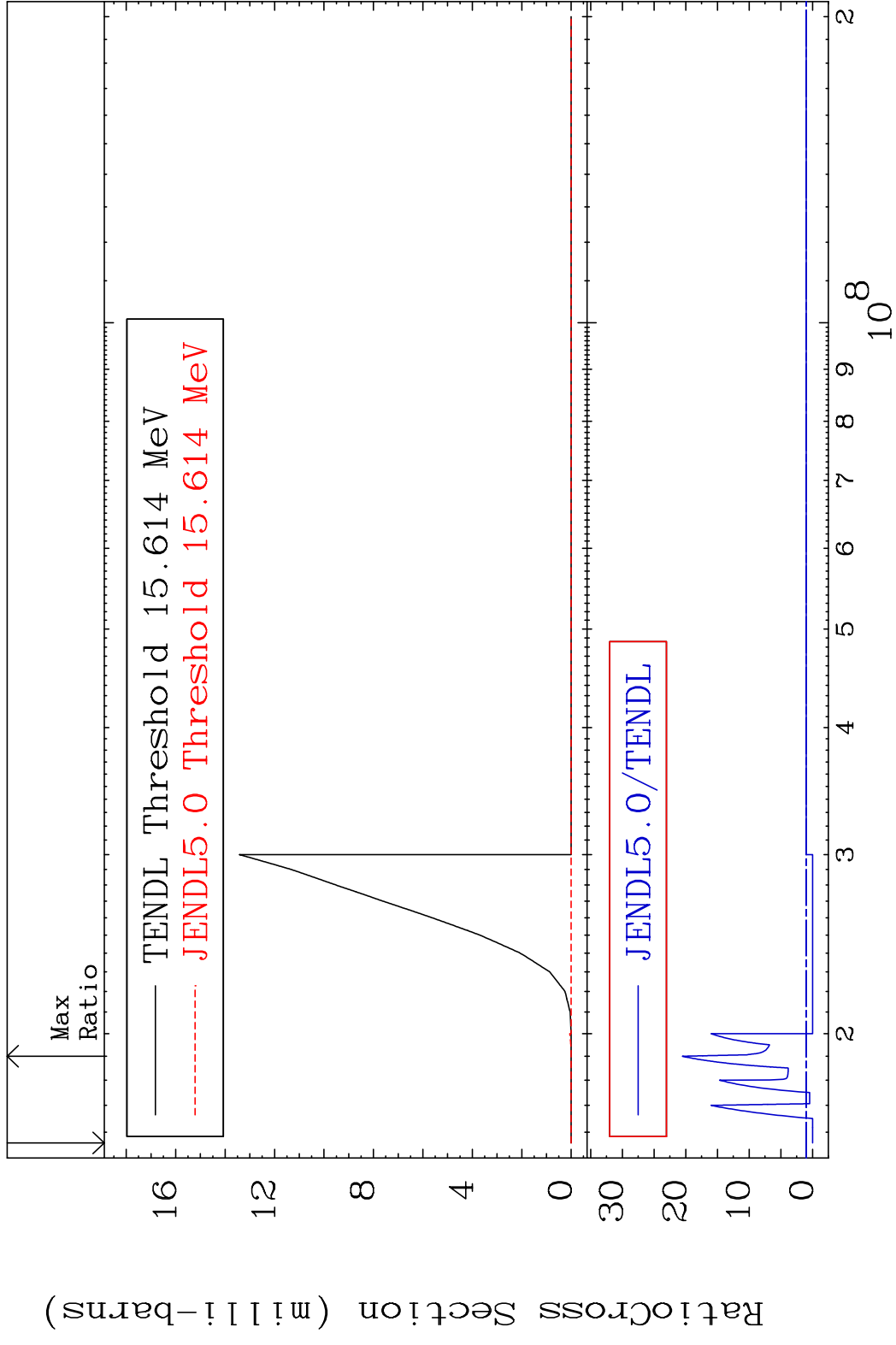


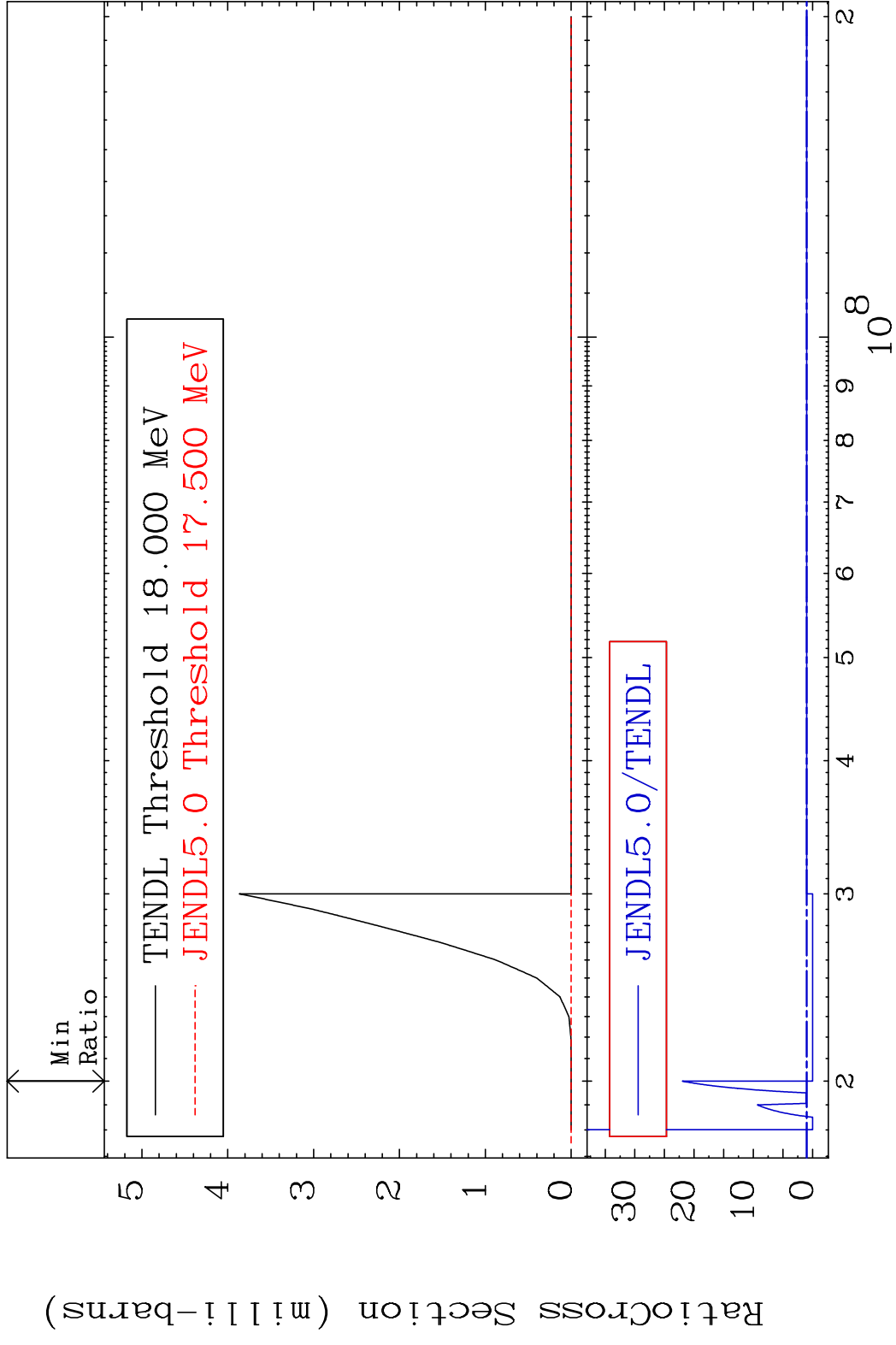


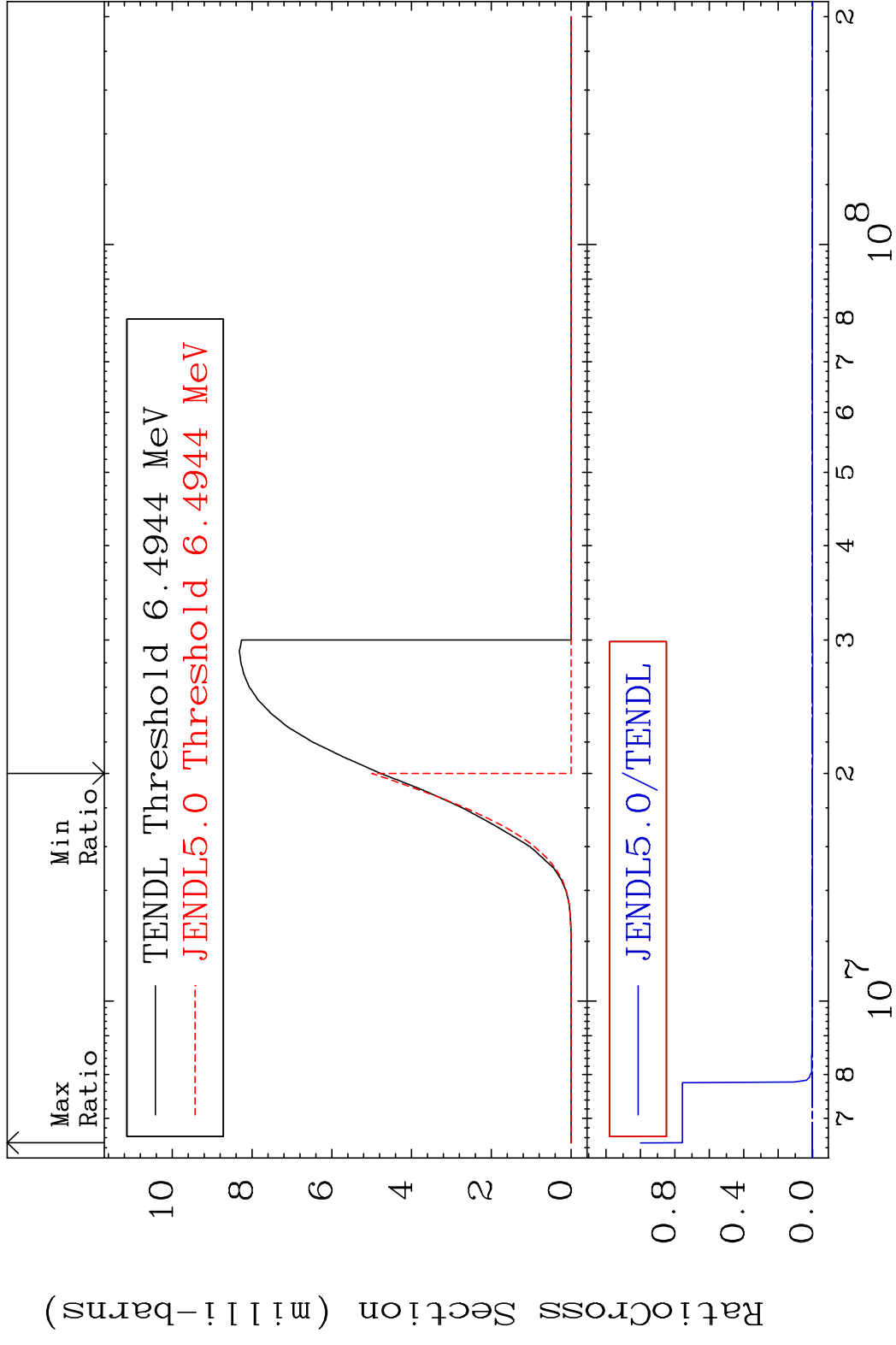
MAT 5646 (n, n') d:55-Cs-135g 56-Ba-137  
 Radionuclide Production Cross Section 180.0 dth 1294. %



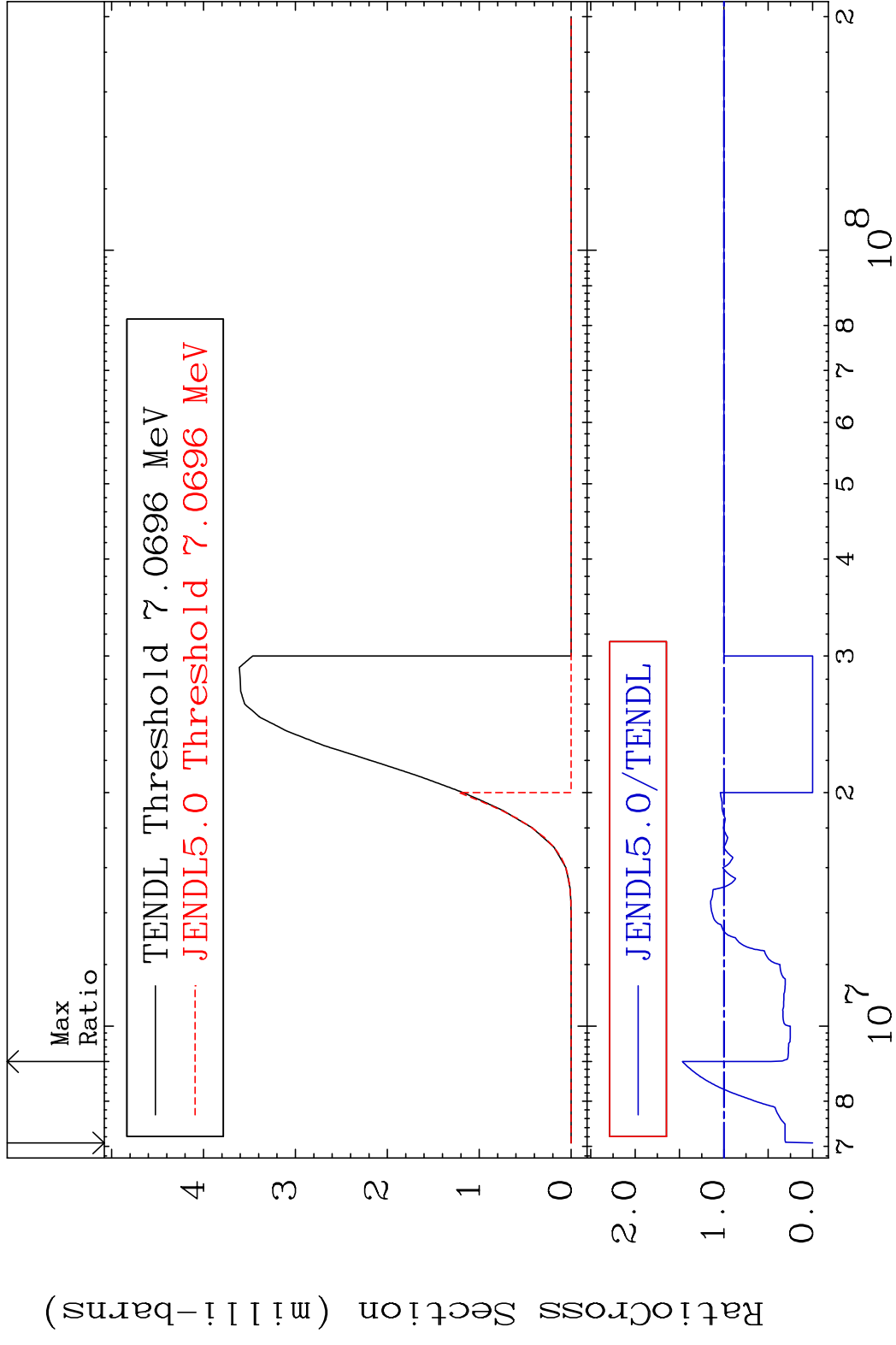




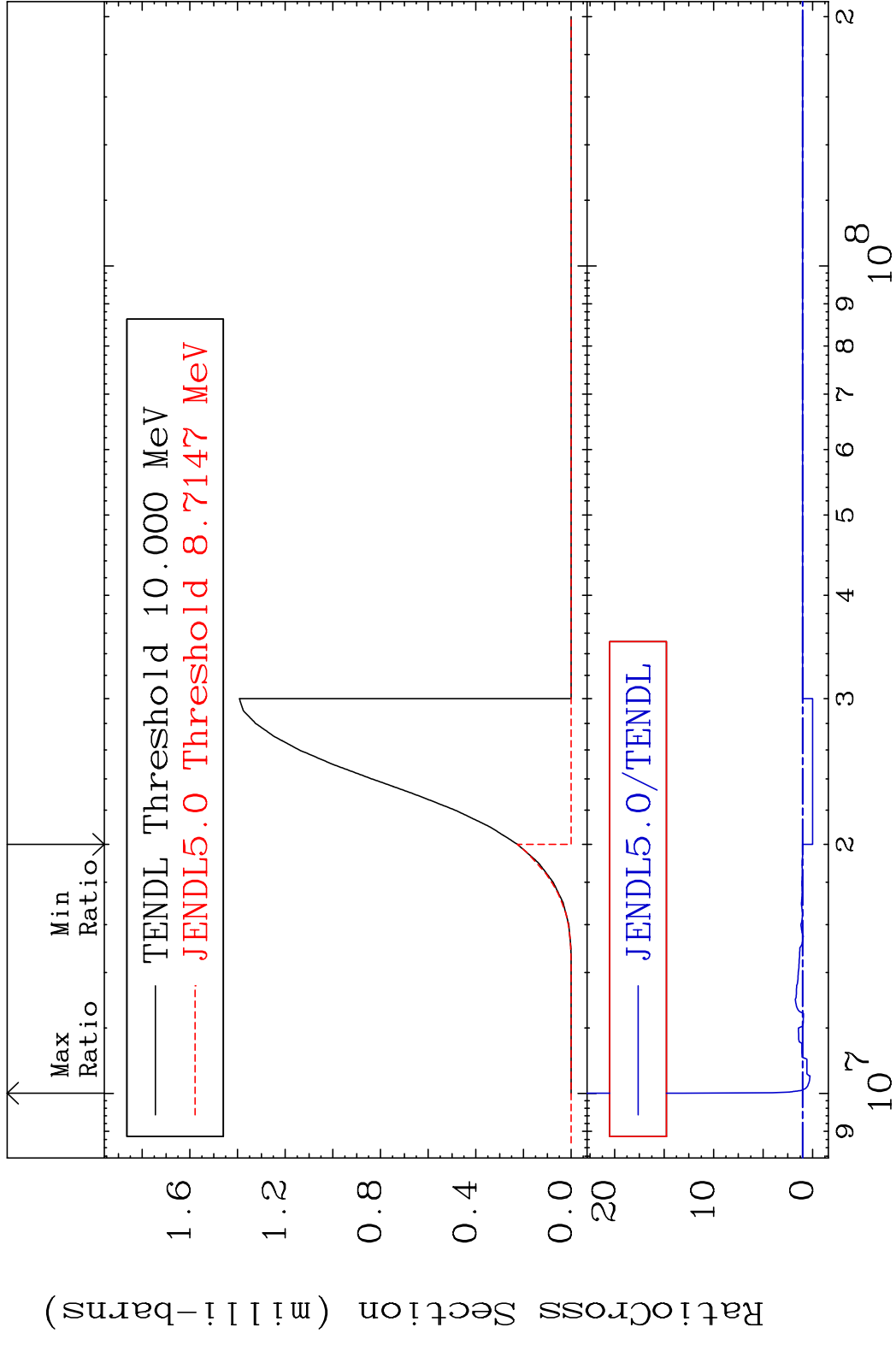




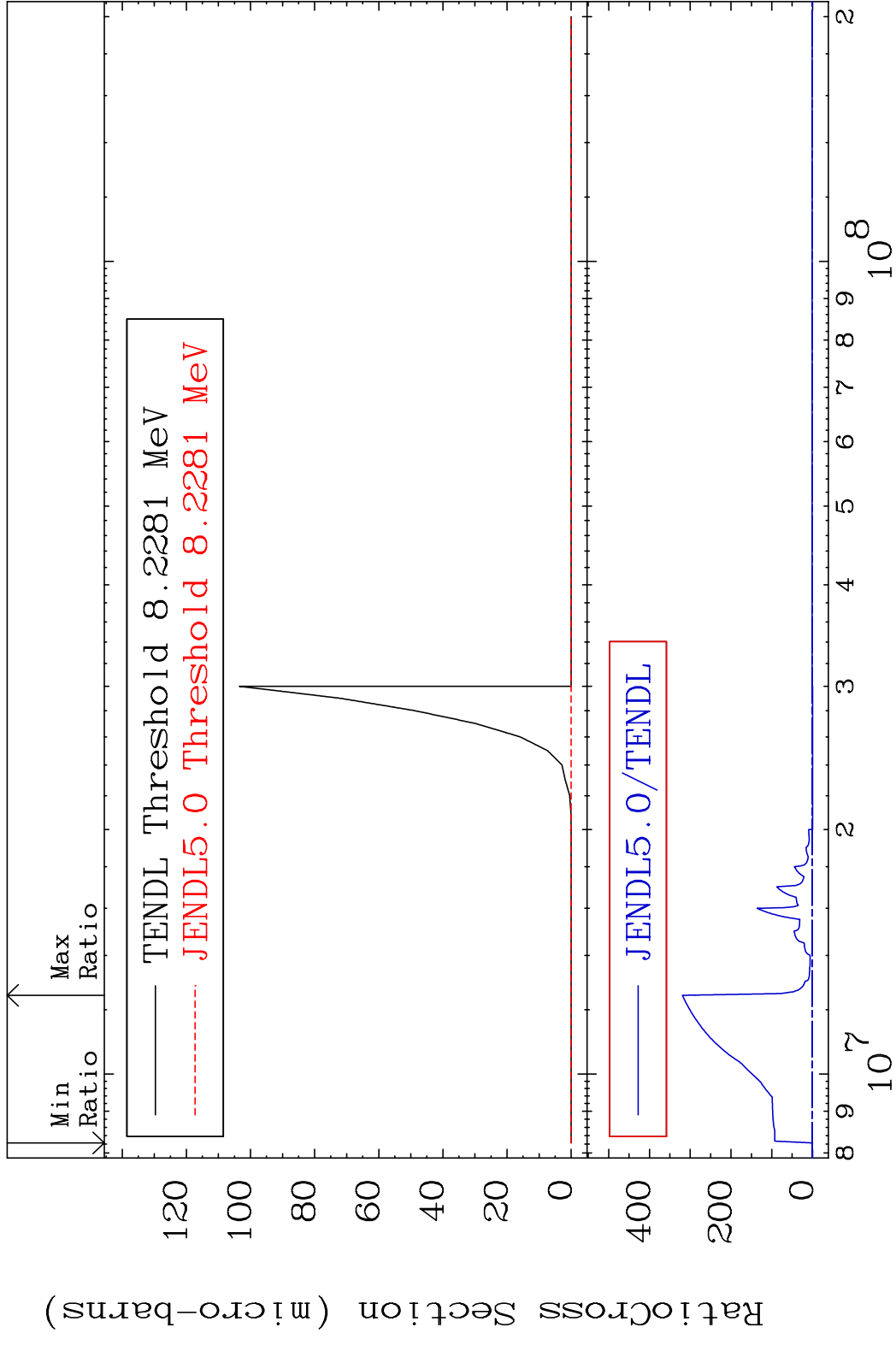
MAT 5646 (n,t):55-Cs-135g 56-Ba-137  
 Radionuclide Production Cross Section Ratio 46.79 %

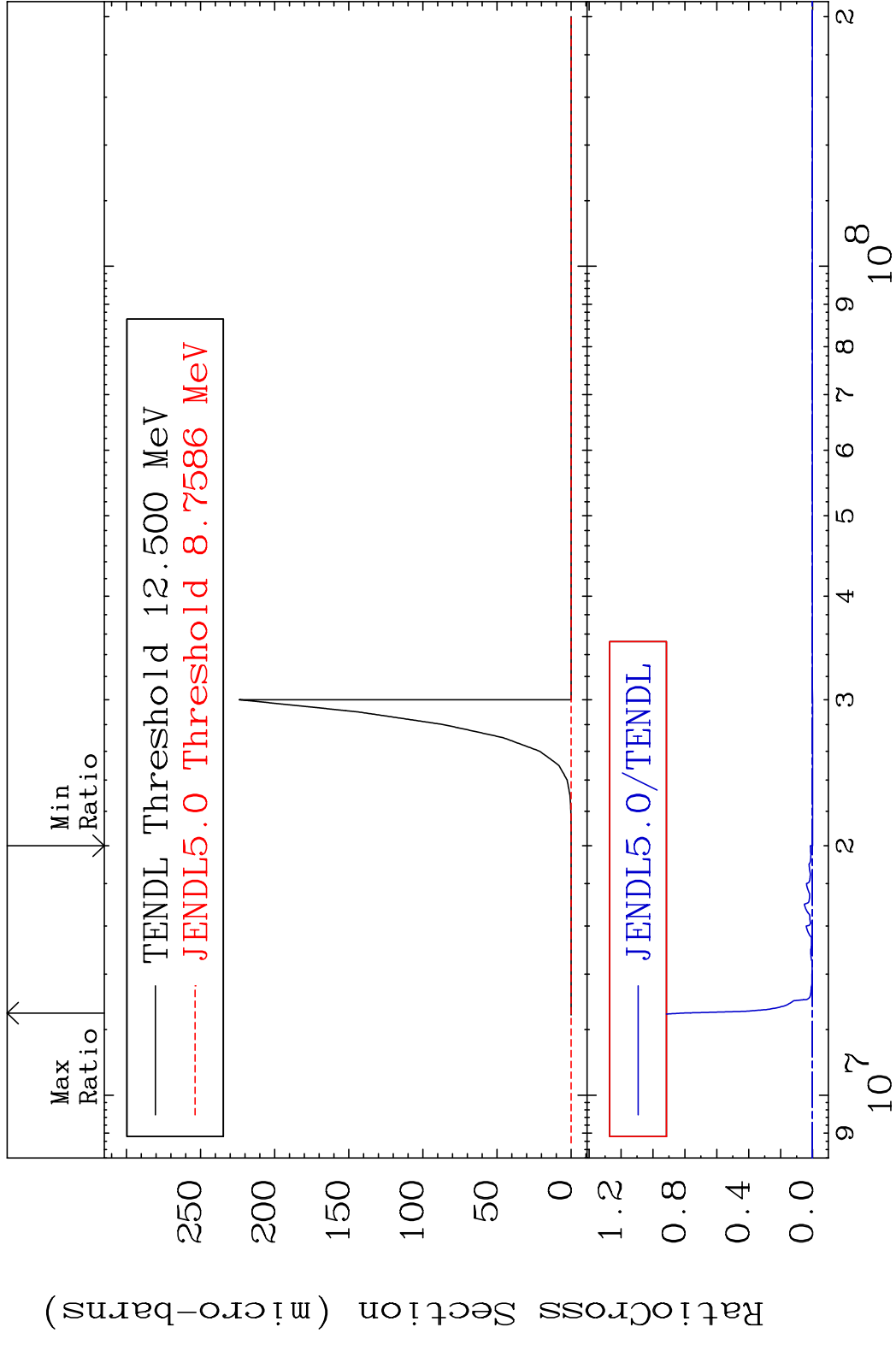


MAT 5646 (n, t):55-Cs-135m10 56-Ba-137  
 Radionuclide Production Cross Section 180.01 dth 1216. %

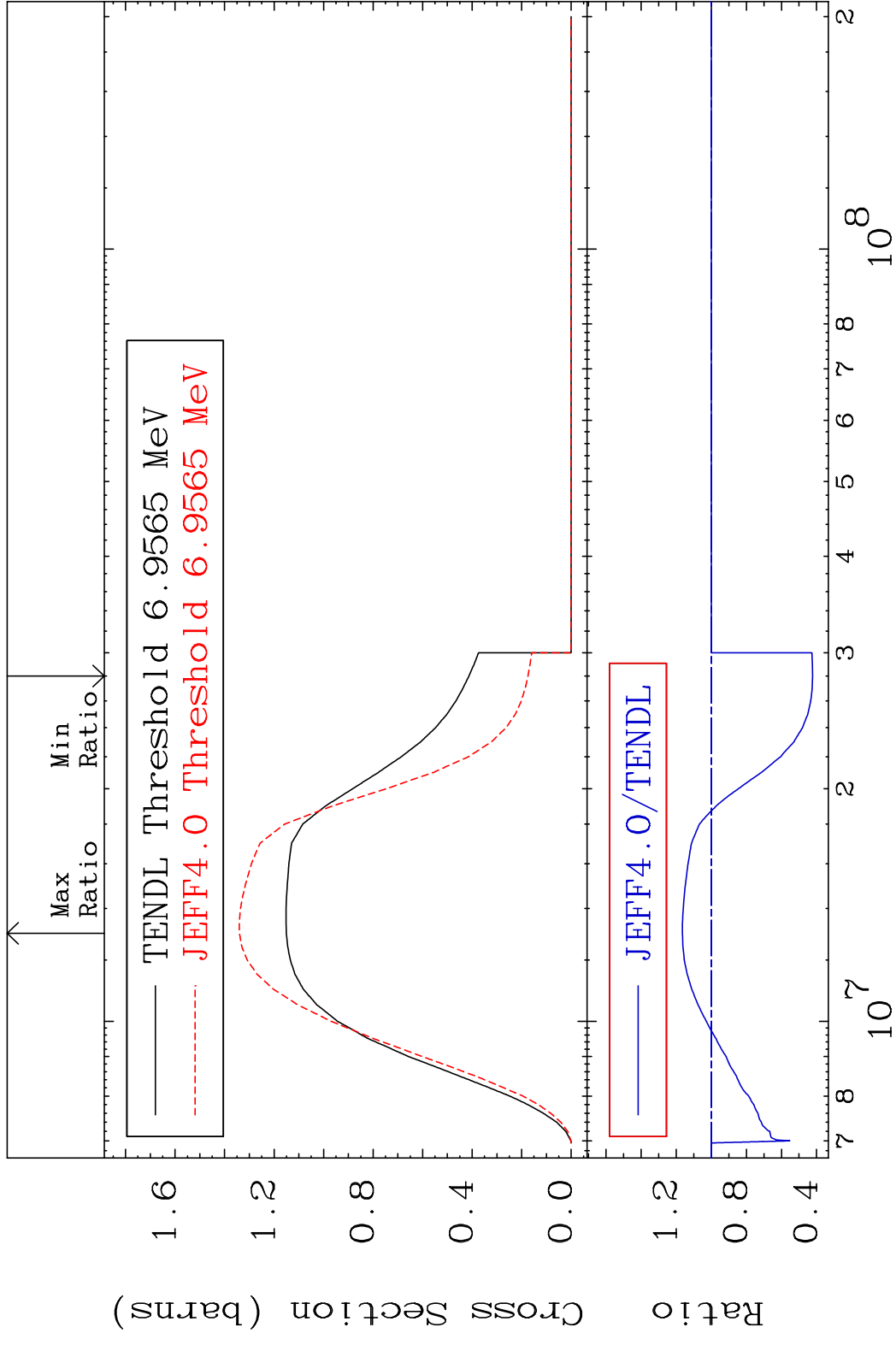


79 Incident Energy (eV) 56-Ba-137

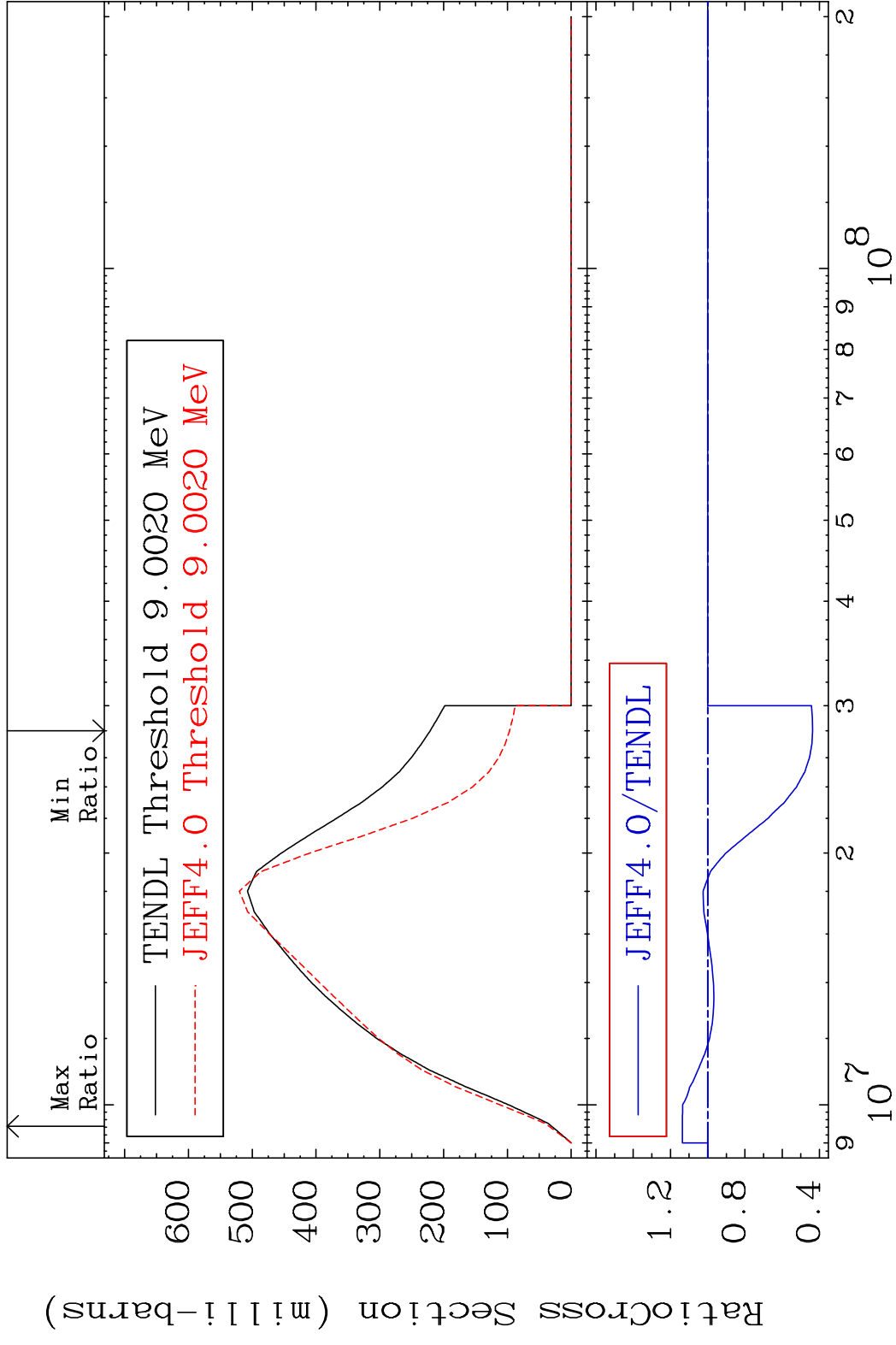




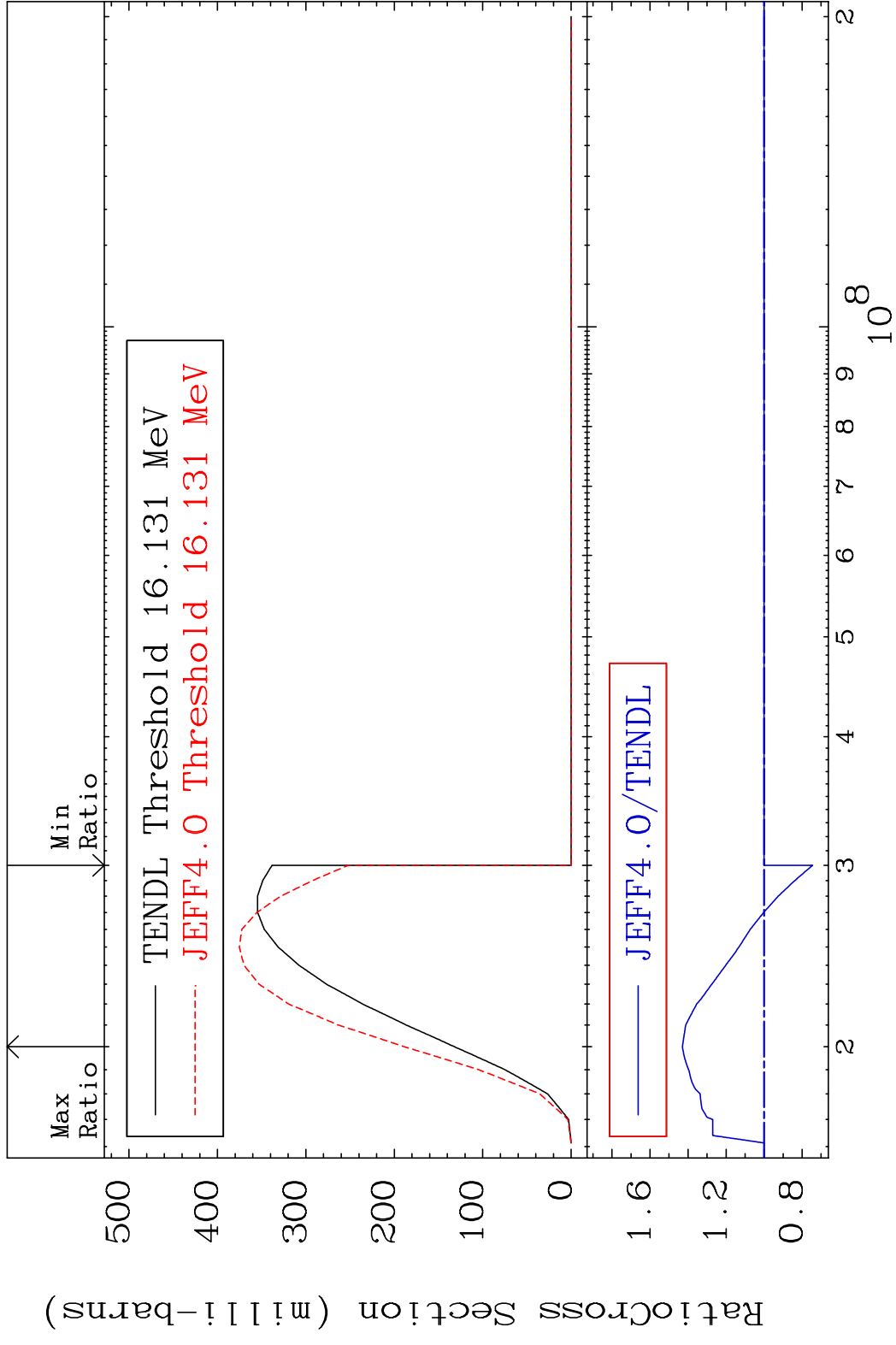
MAT 5646 (n,2n):56-Ba-136g 56-Ba-137  
 Radionuclide Production Cross Section to 16.47 %



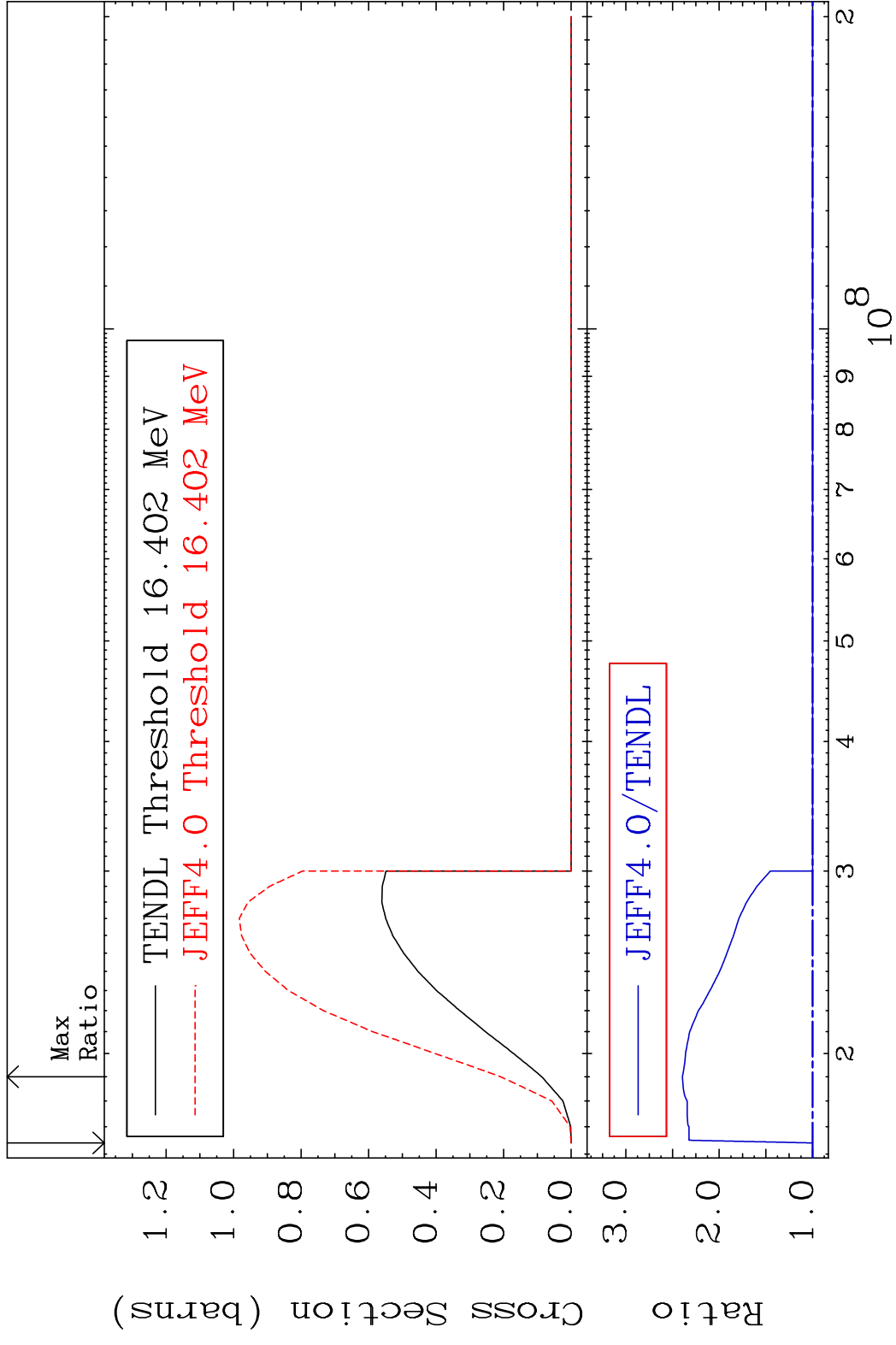
MAT 5646 (n, 2n):56-Ba-136m5 56-Ba-137  
 Radionuclide Production Cross Section 56.32 mb 13.61 %

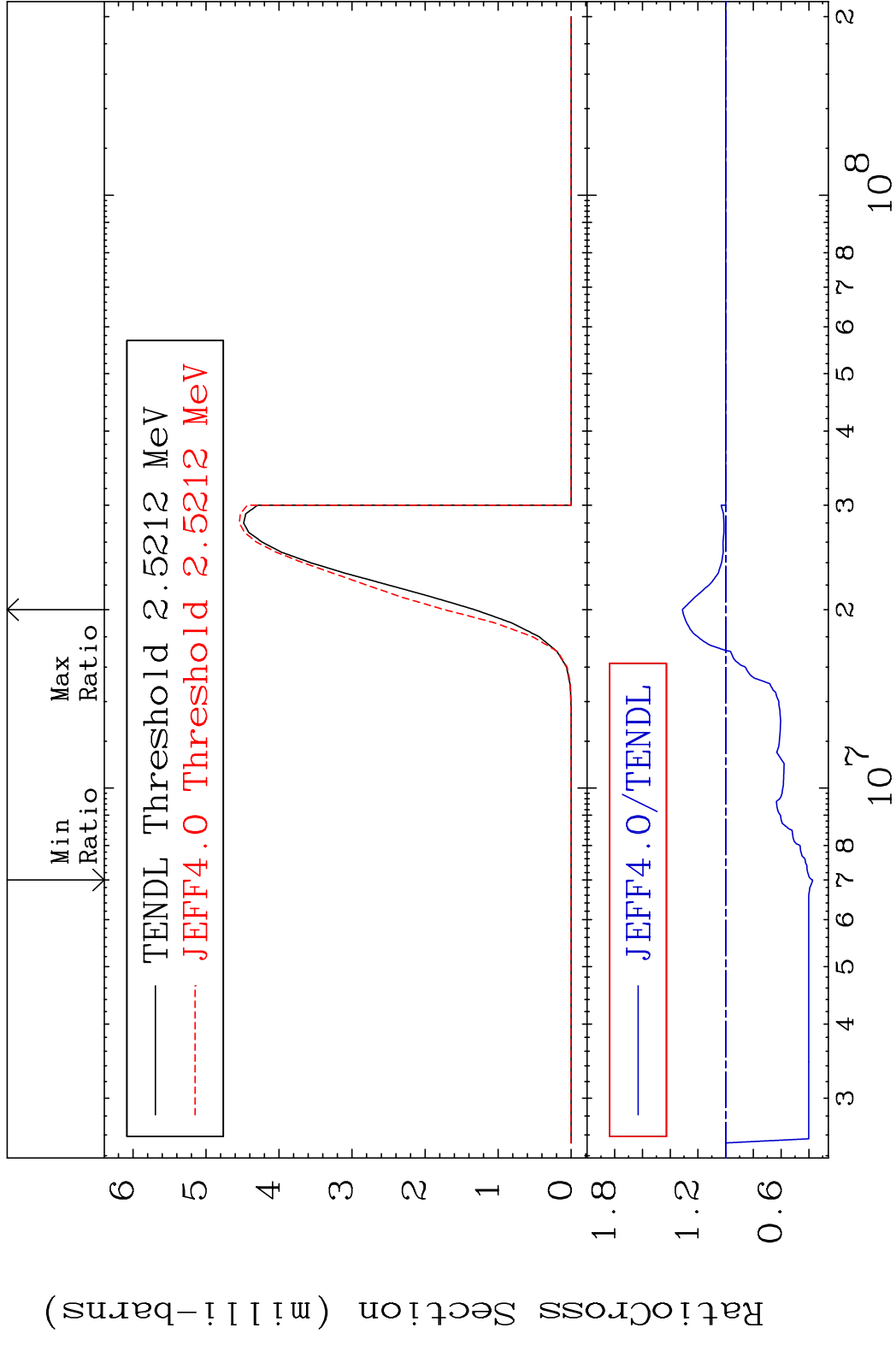


MAT 5646 (n,3n):56-Ba-135g 56-Ba-137  
 Radionuclide Production Cross Section 42.99 %

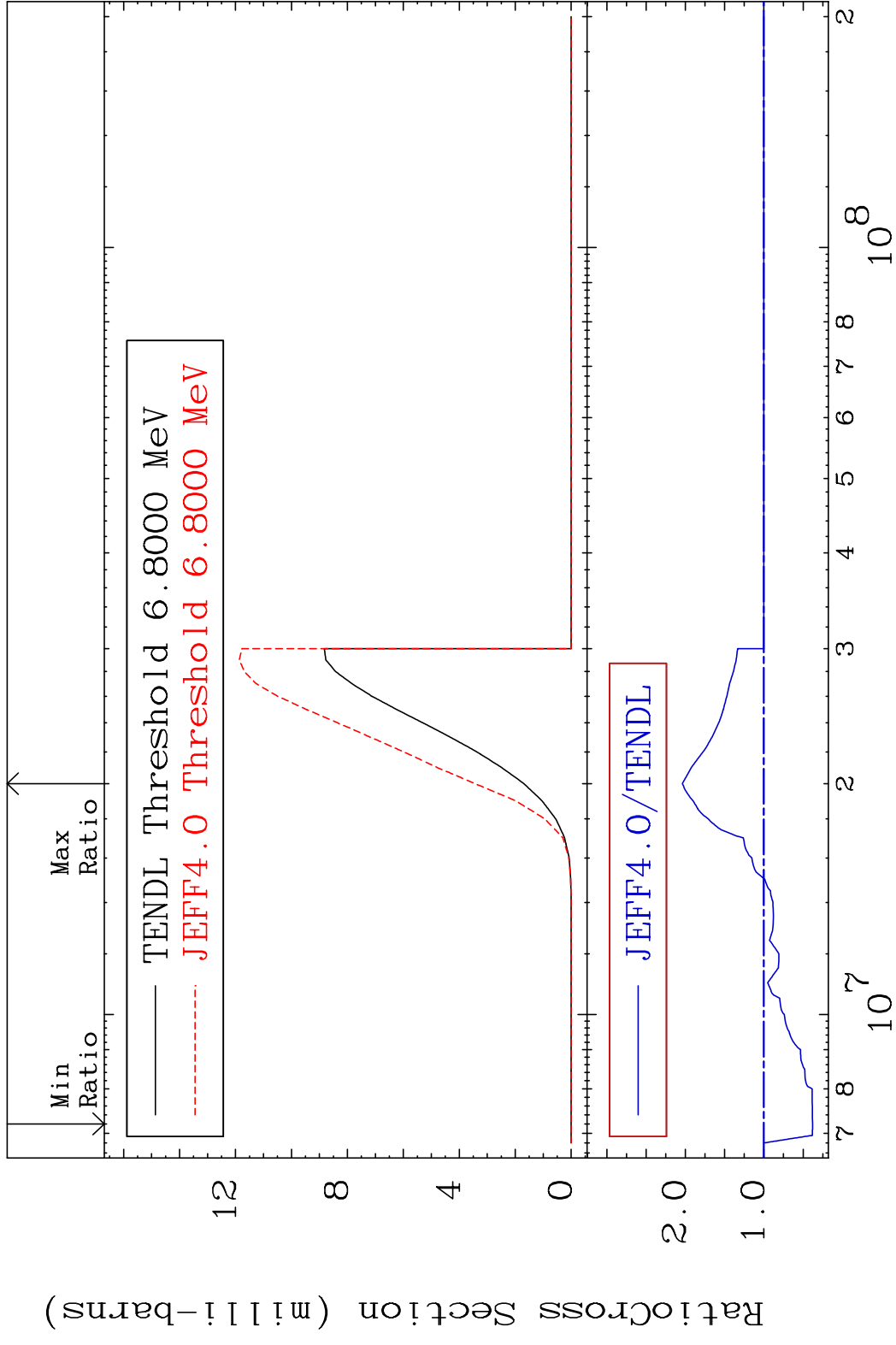


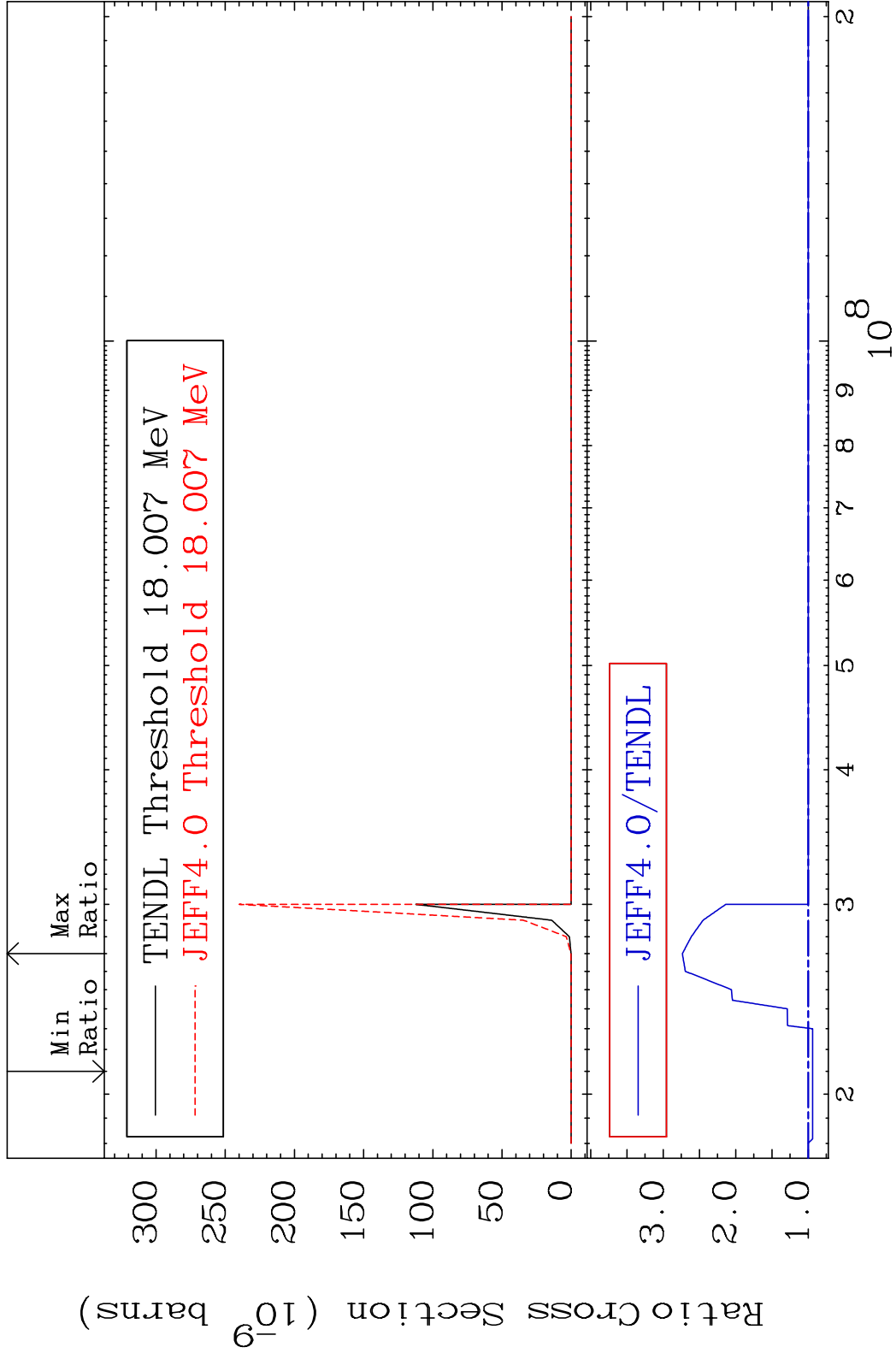
MAT 5646 (n, 3n):56-Ba-135m2 56-Ba-137  
 Radionuclide Production Cross Section 139.5 %



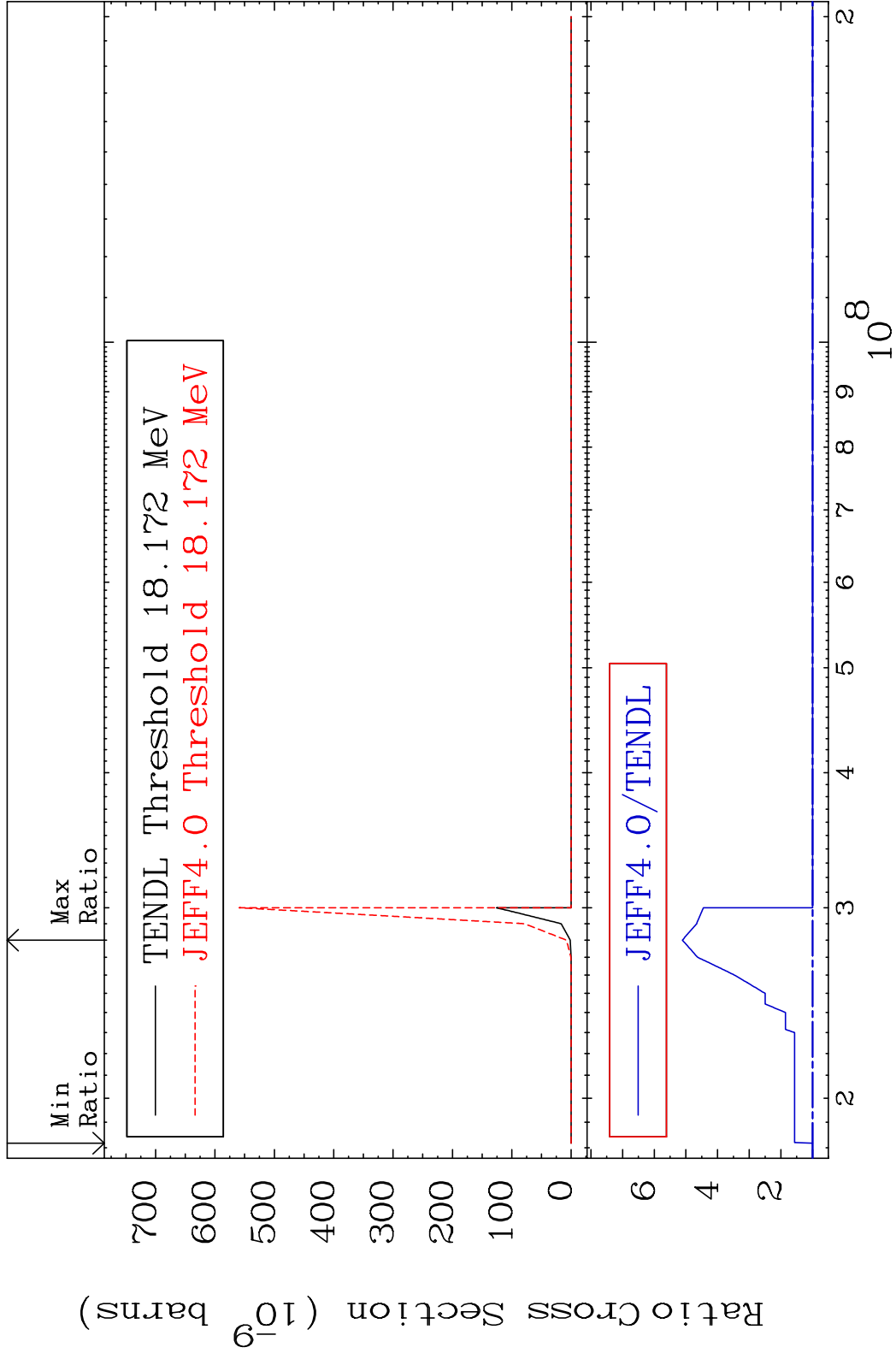


MAT 5646 (n, n')  $\alpha$ :54-Xe-133m1 56-Ba-137  
 Radionuclide Production Cross Section 103.8 %

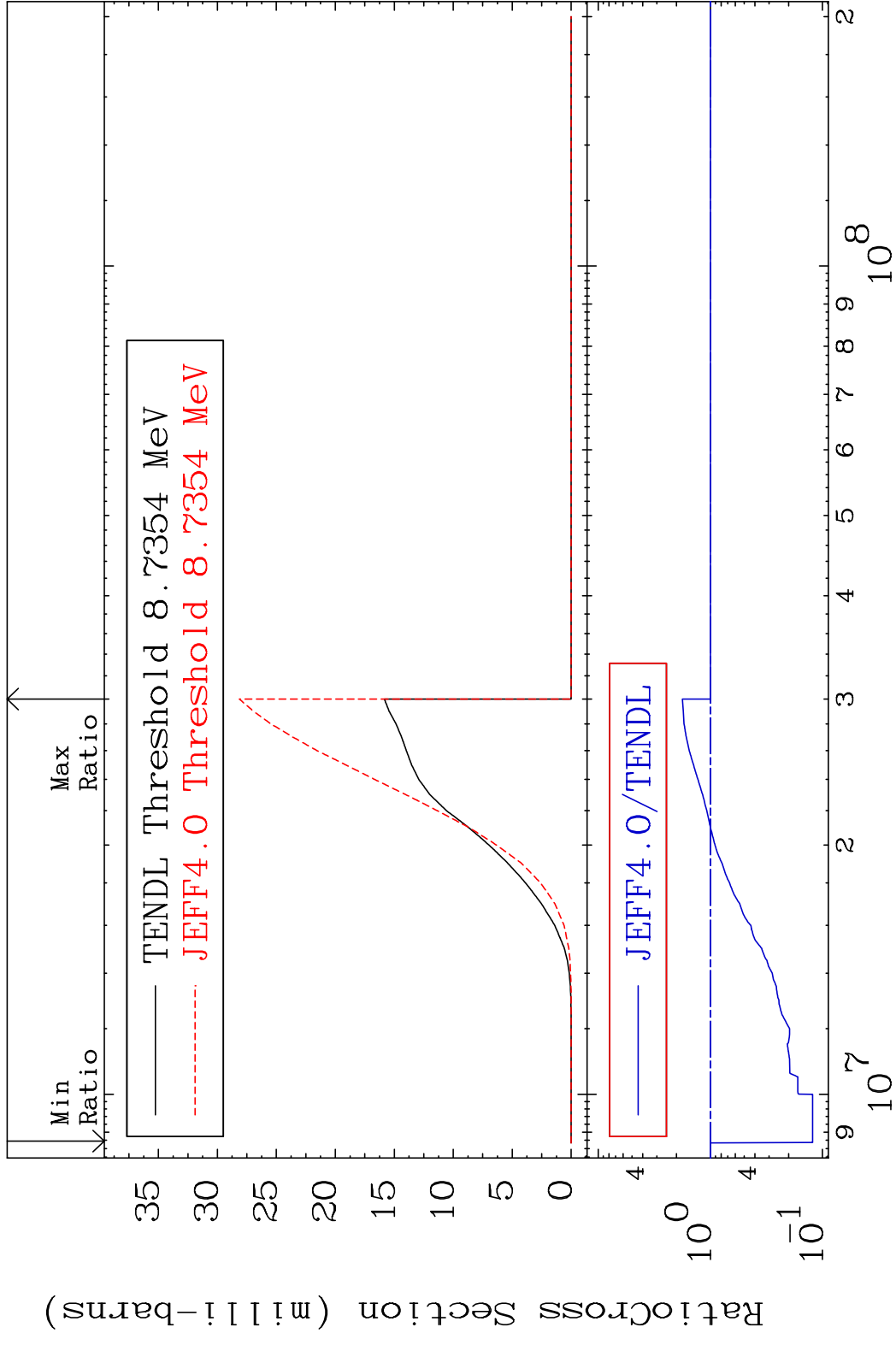




MAT 5646 (n,3n)  $\alpha$ :54-Xe-131m2 56-Ba-137  
 Radionuclide Production Cross Section 411.3 %

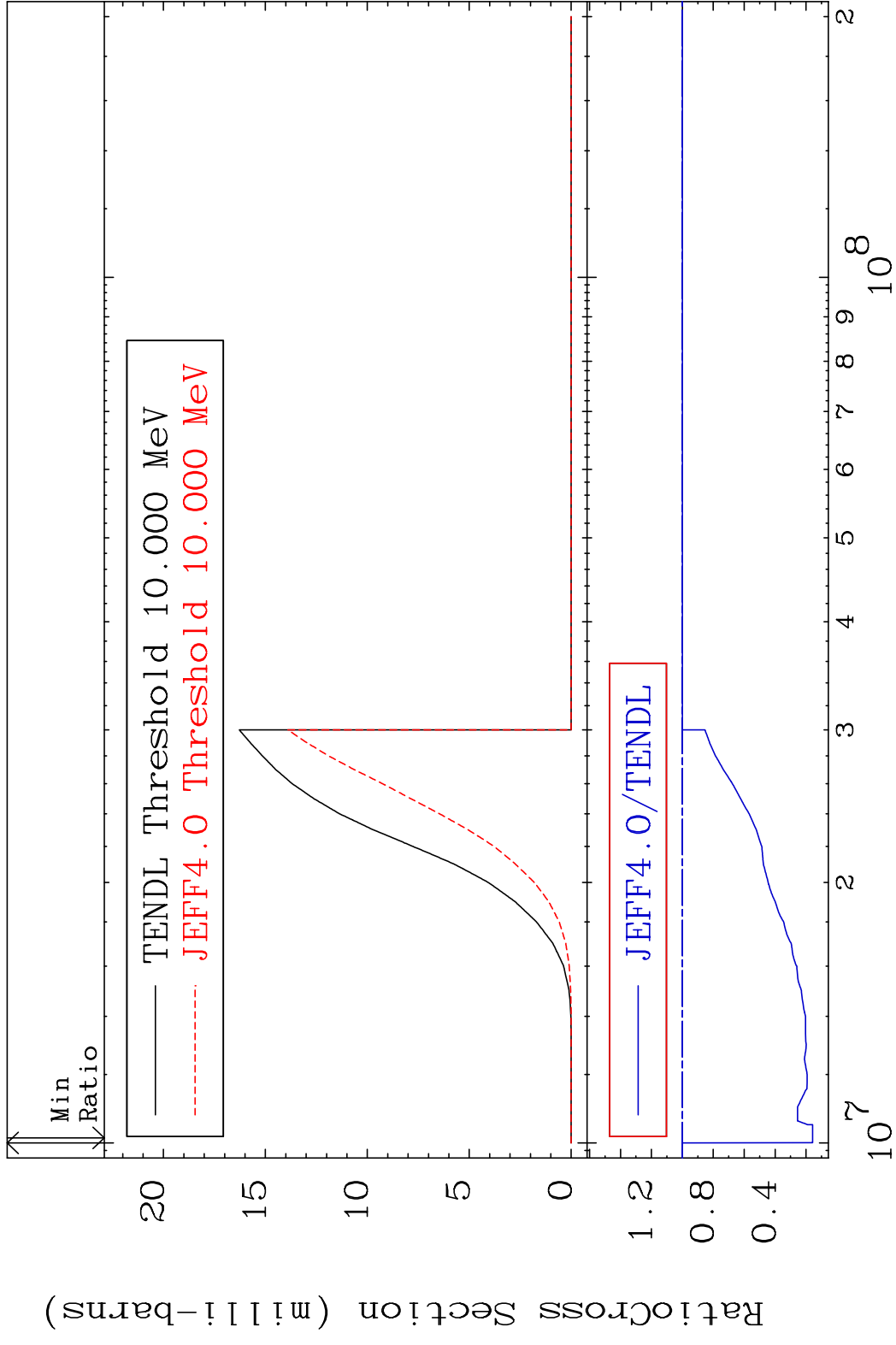


MAT 5646 (n, n') p:55-Cs-136g 56-Ba-137  
 Radionuclide Production Cross Section 85.7410 77.61 %

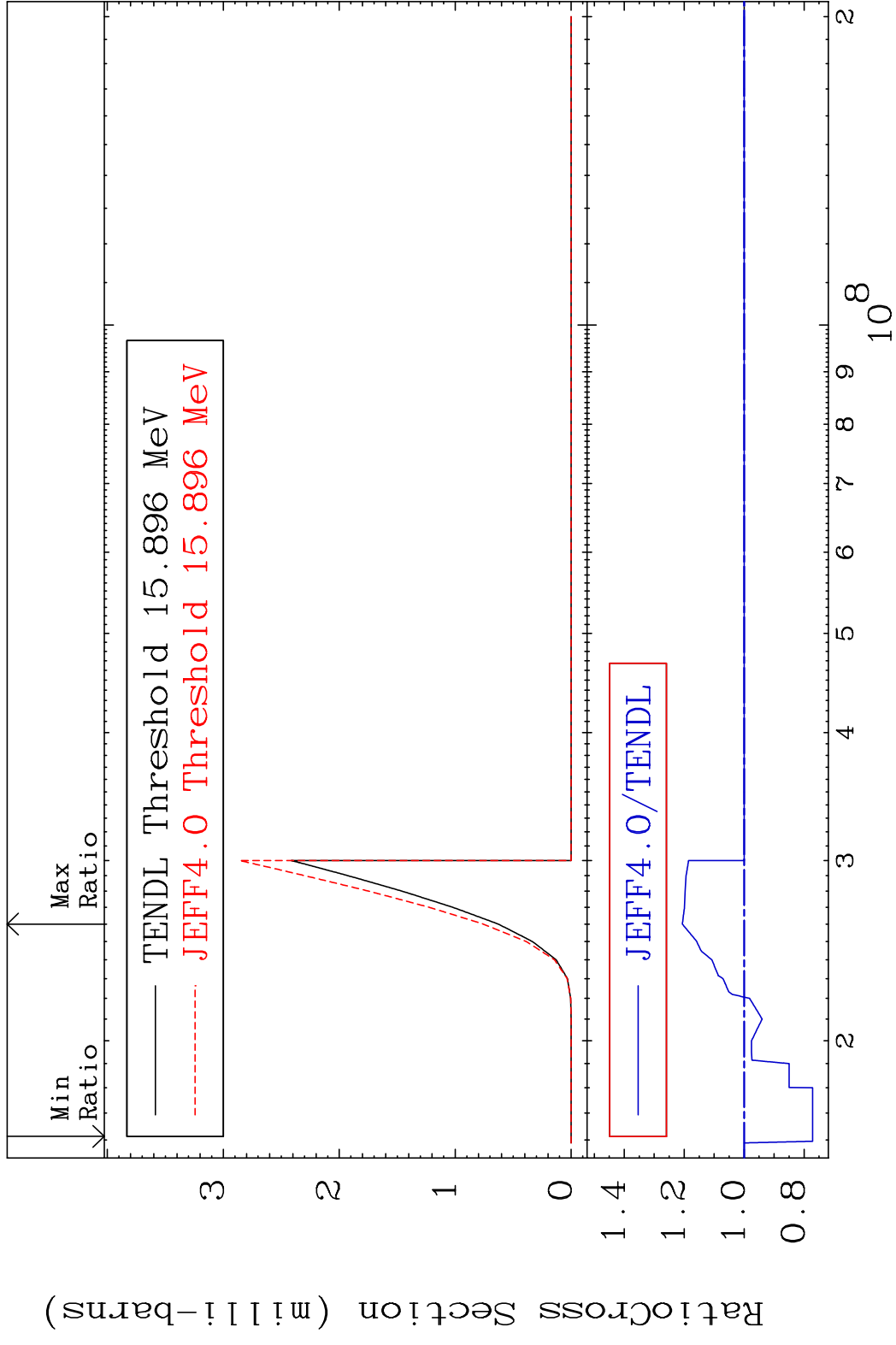


90 Incident Energy (eV) 56-Ba-137

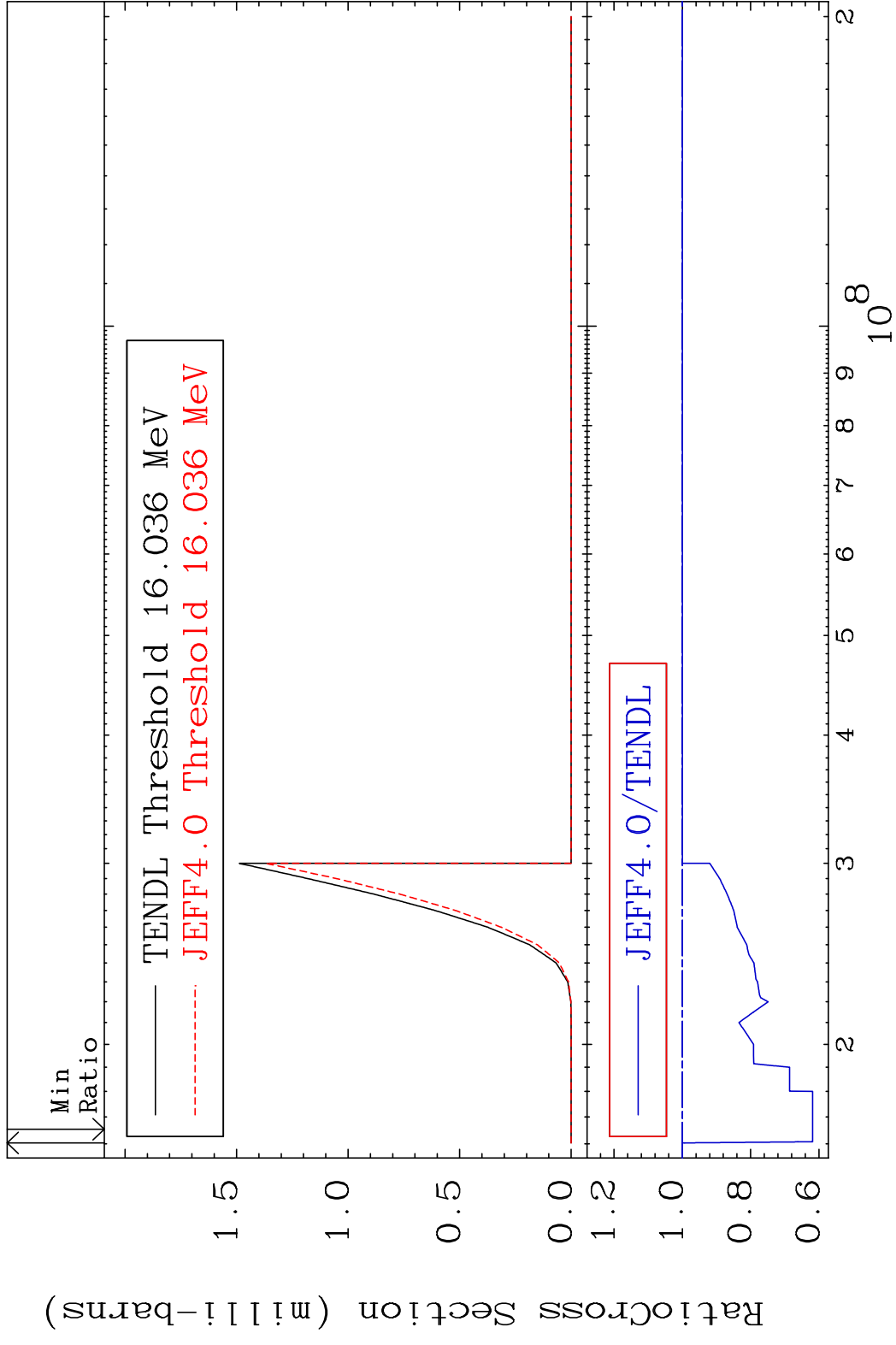
MAT 5646 (n, n') p:55-Cs-136m2 56-Ba-137  
 Radionuclide Production Cross Section 0.000 %

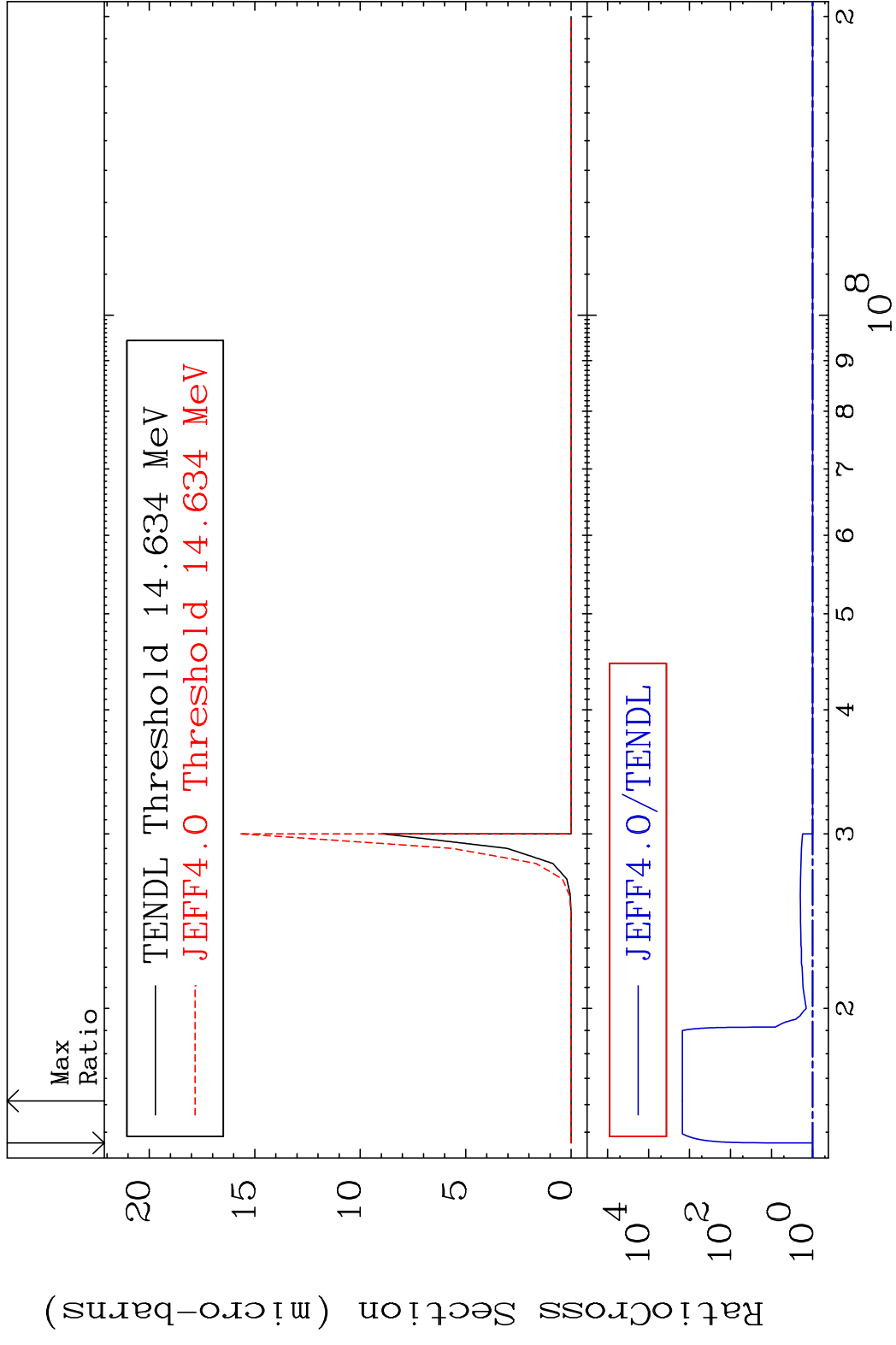


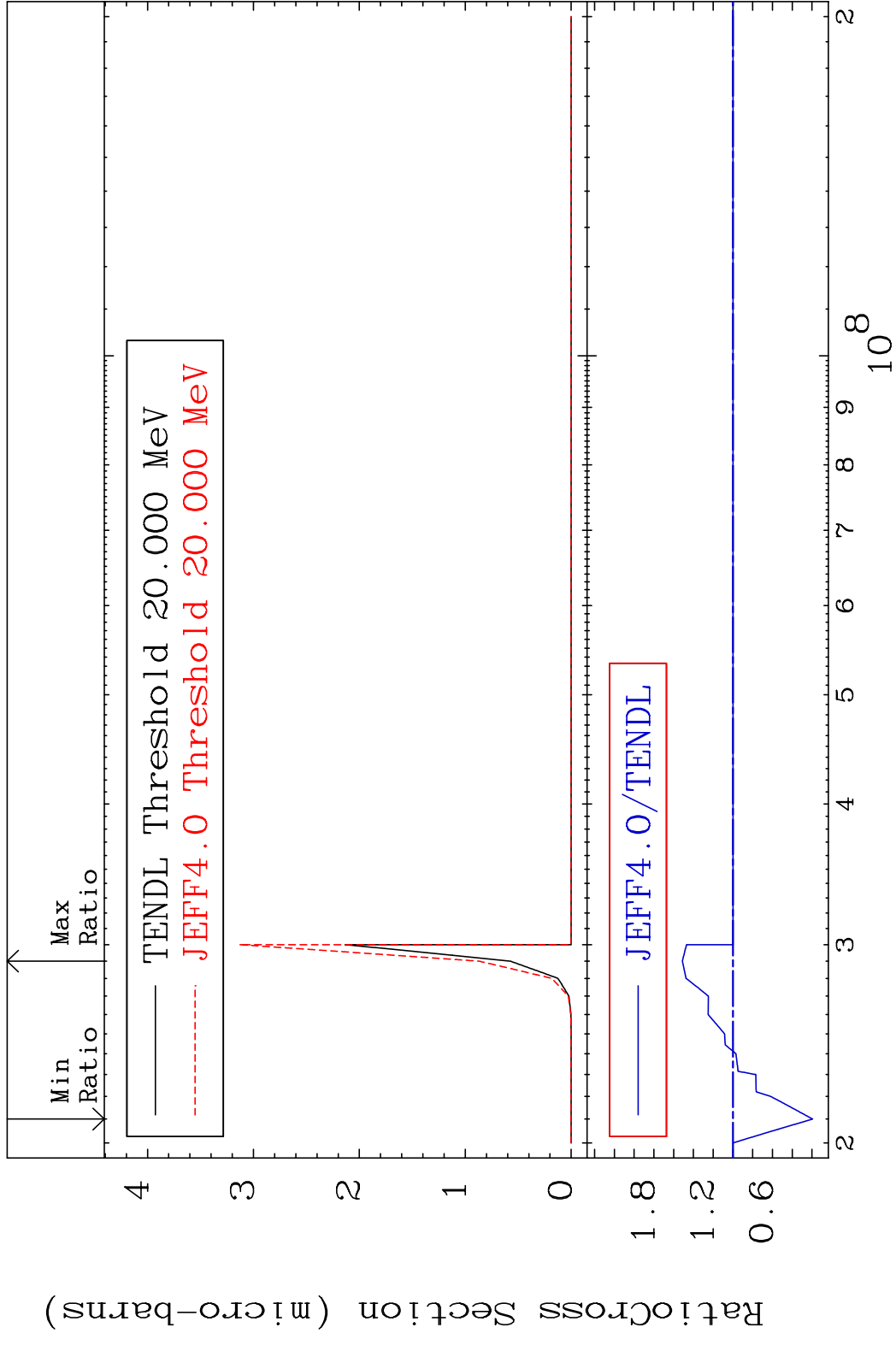
91 Incident Energy (eV) 56-Ba-137

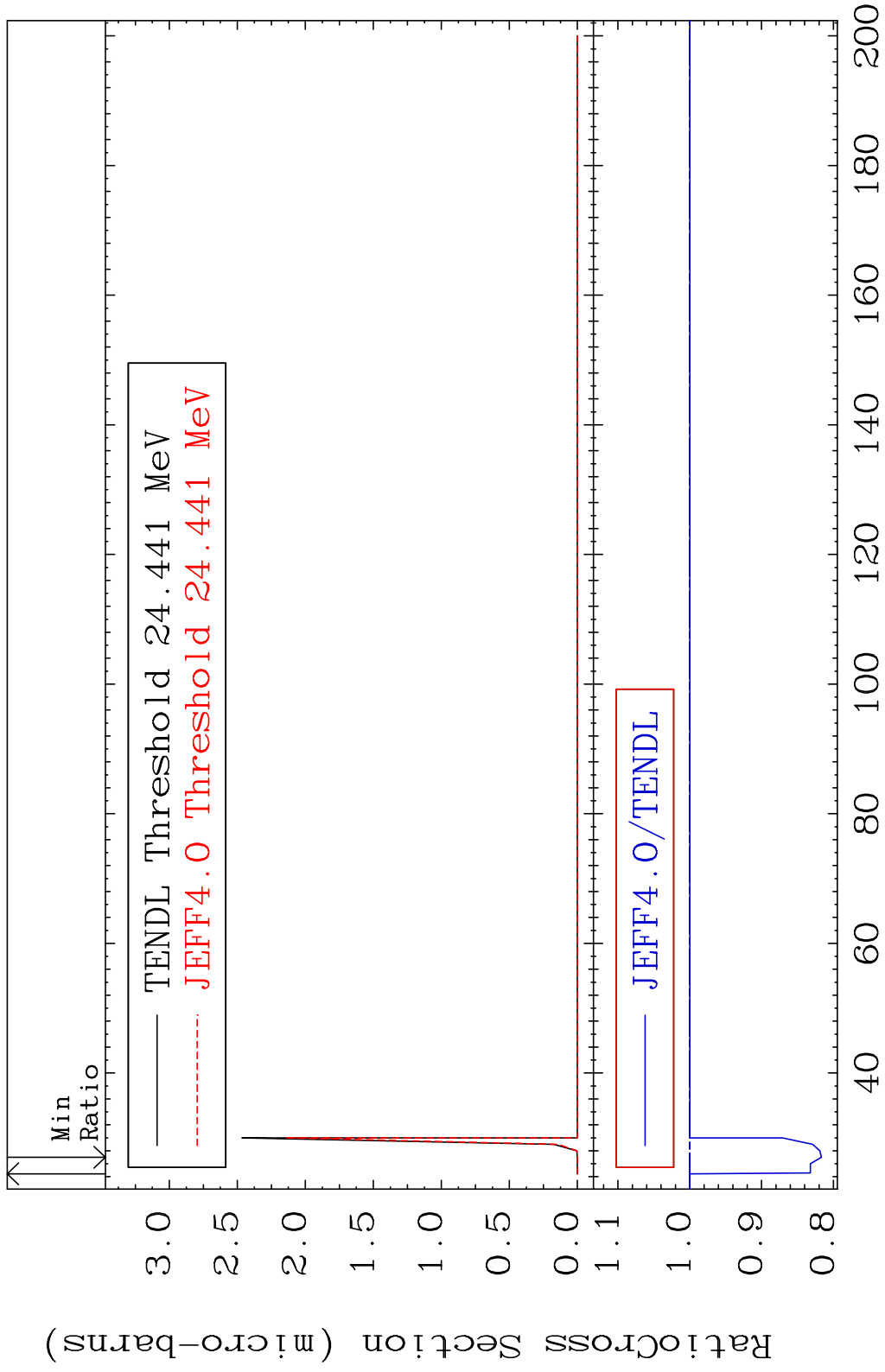


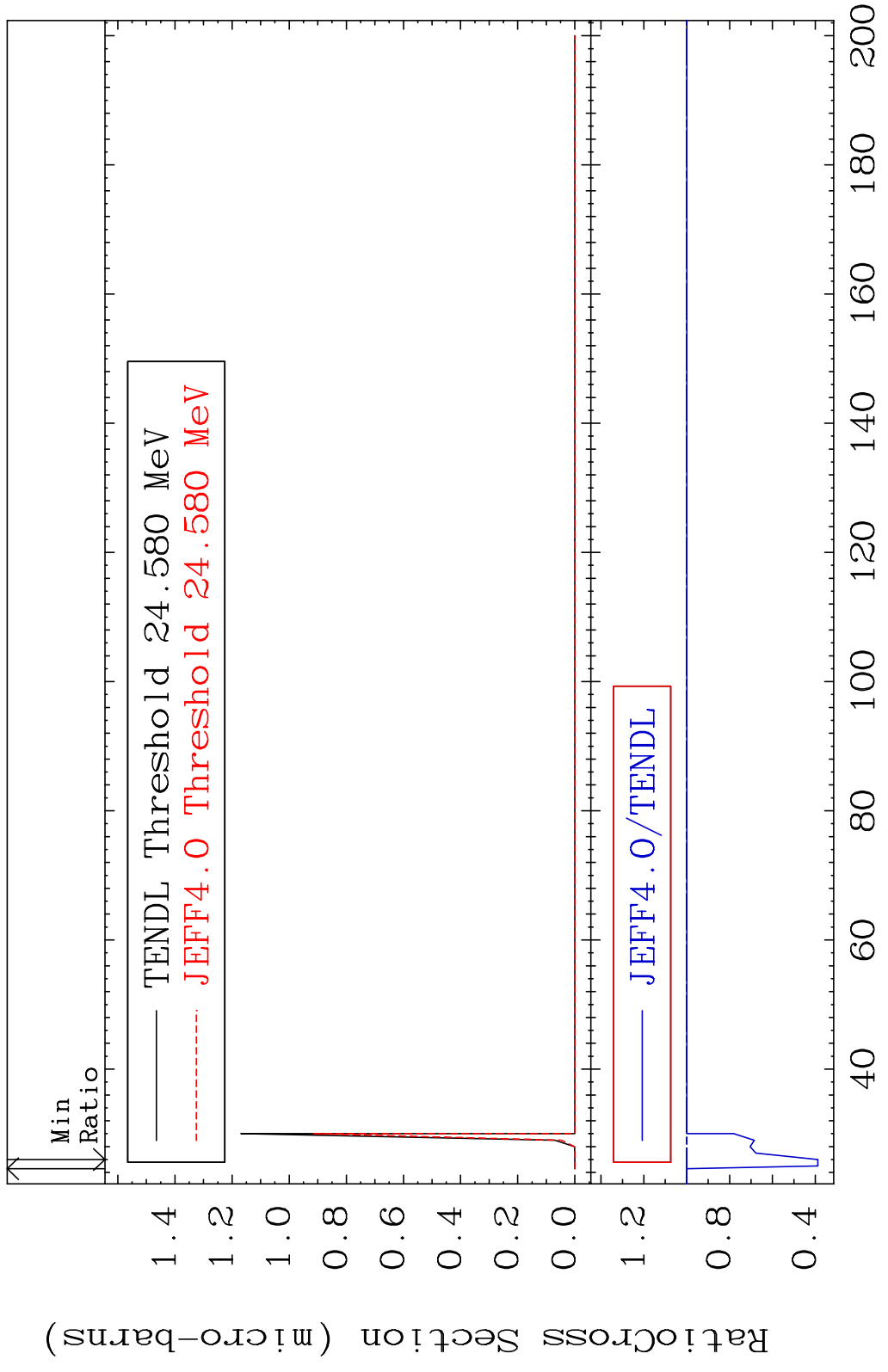
MAT 5646 (n, n') t:55-Cs-134m3 56-Ba-137  
 Radionuclide Production Cross Section 0.000 %

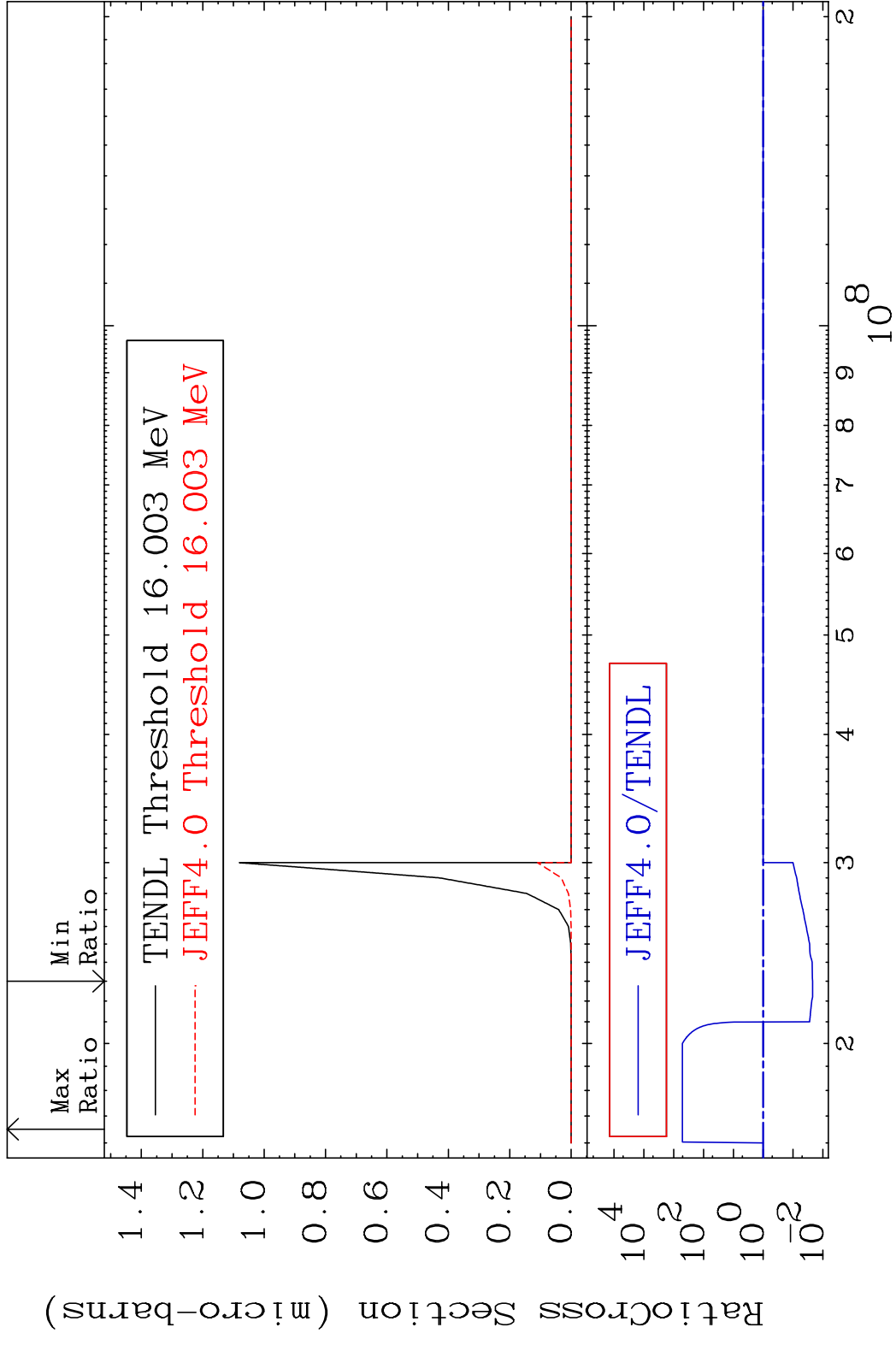


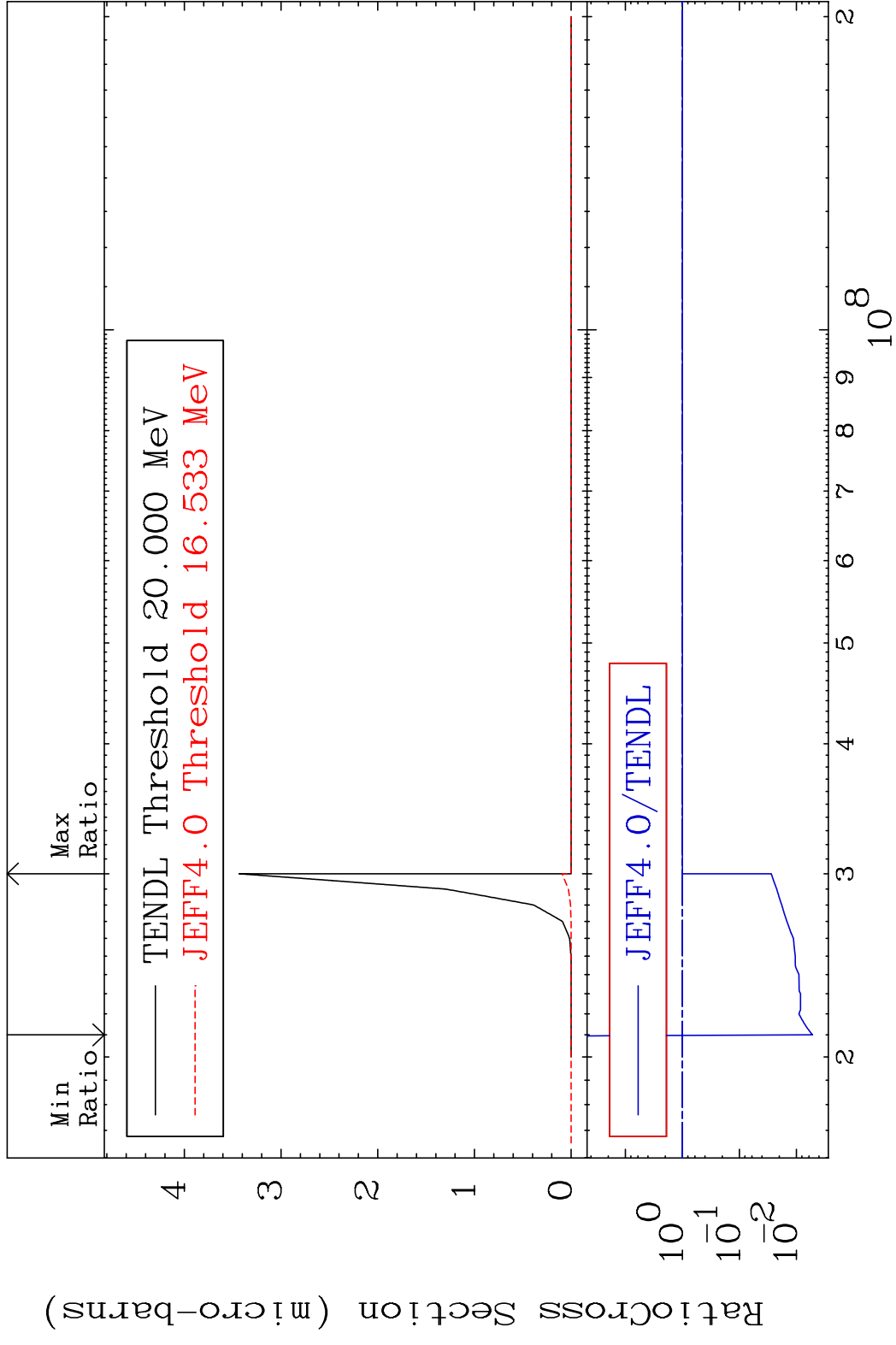




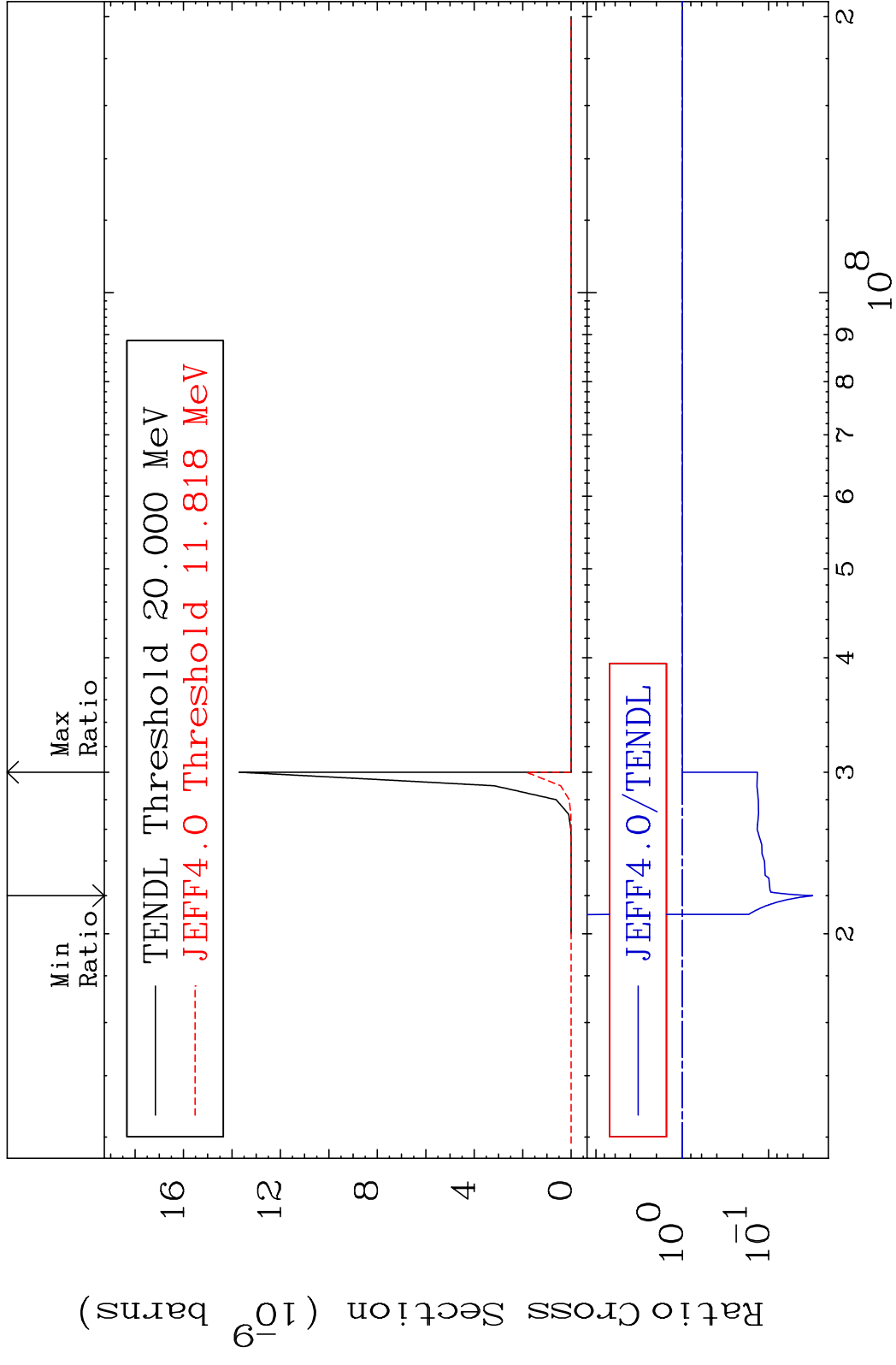


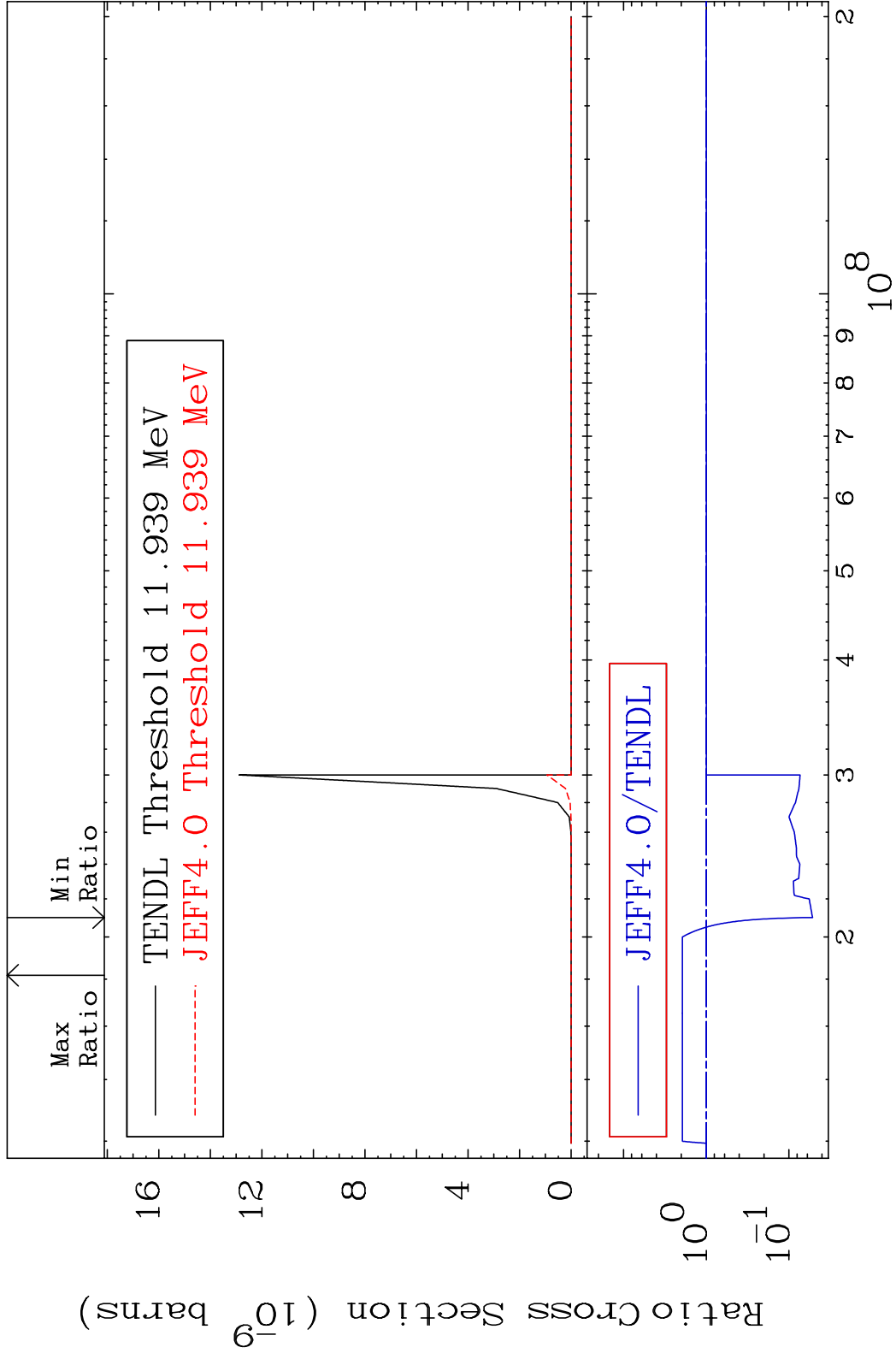


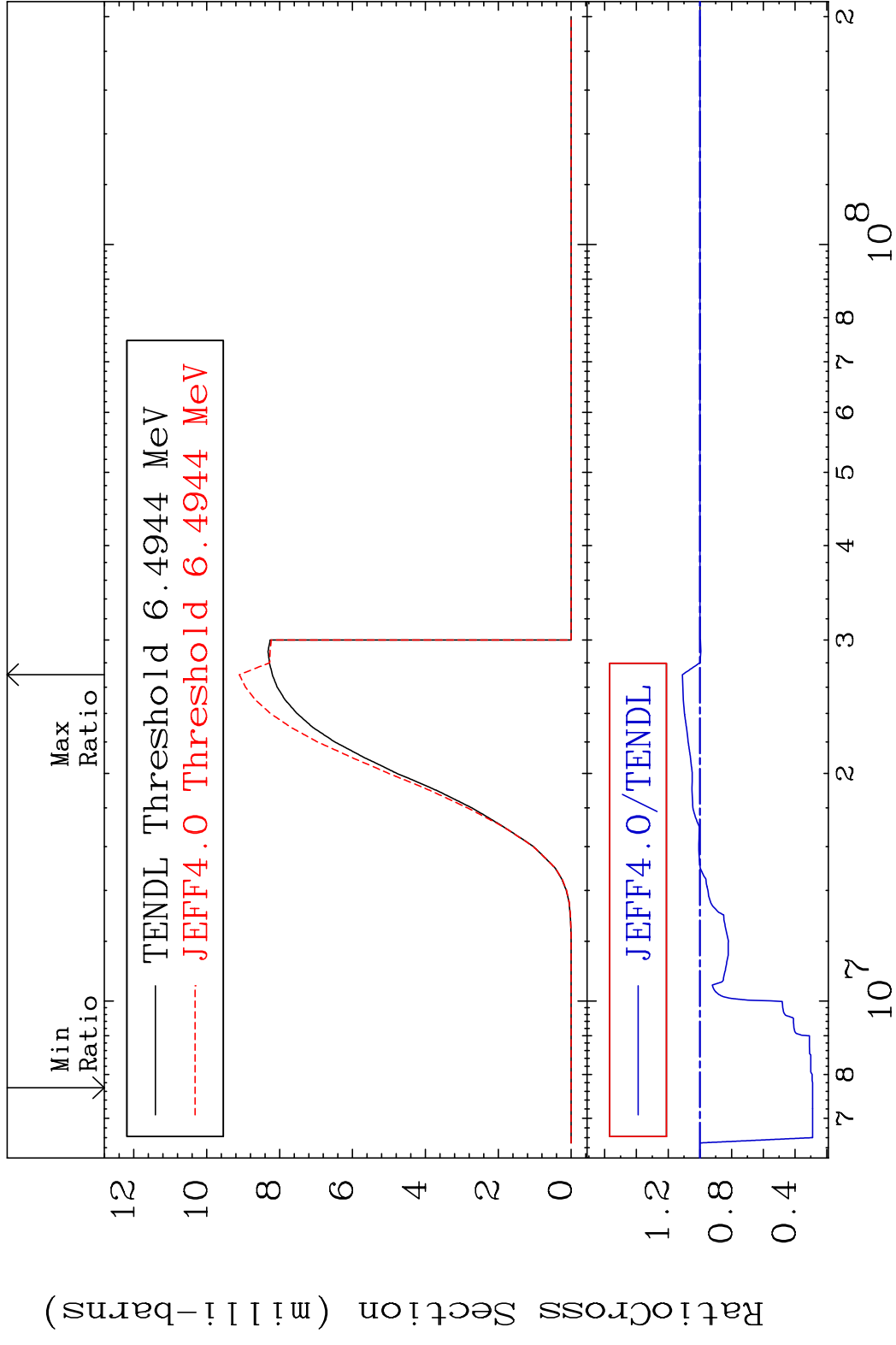


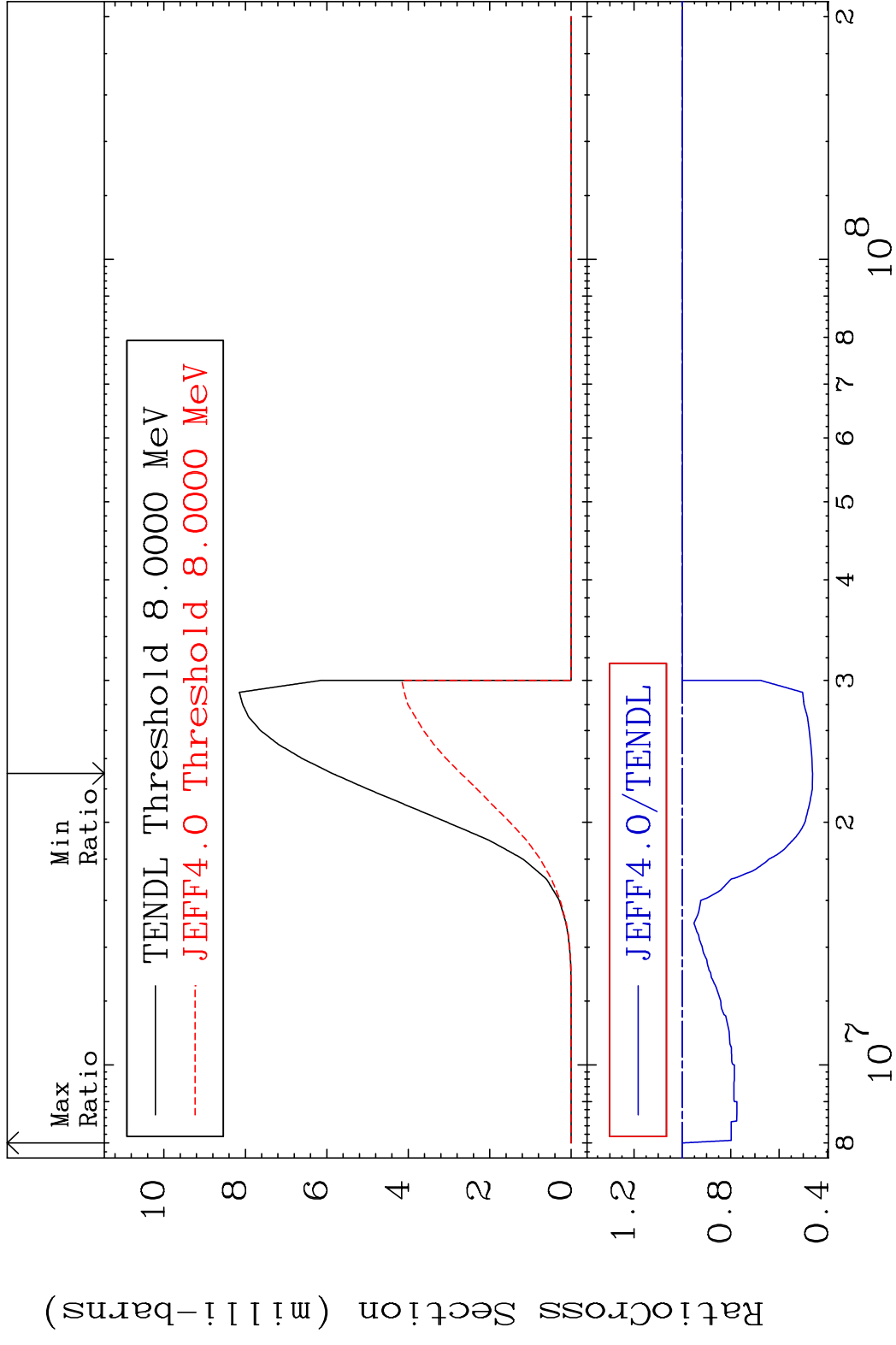


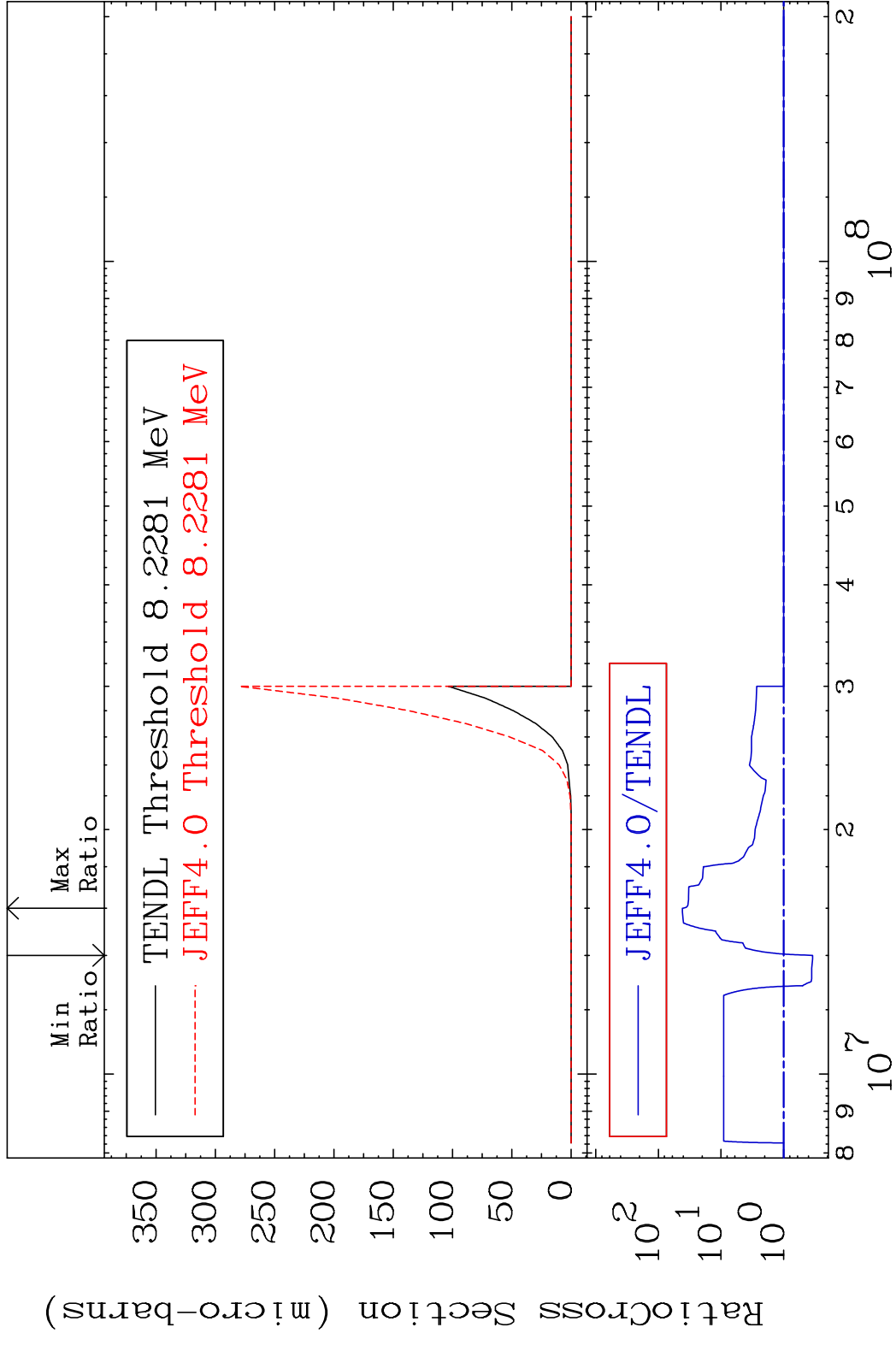
MAT 5646 (n, n') p α:53-I -132g 56-Ba-137  
 Radionuclide Production Cross Section 98.891 dth 0.000 %



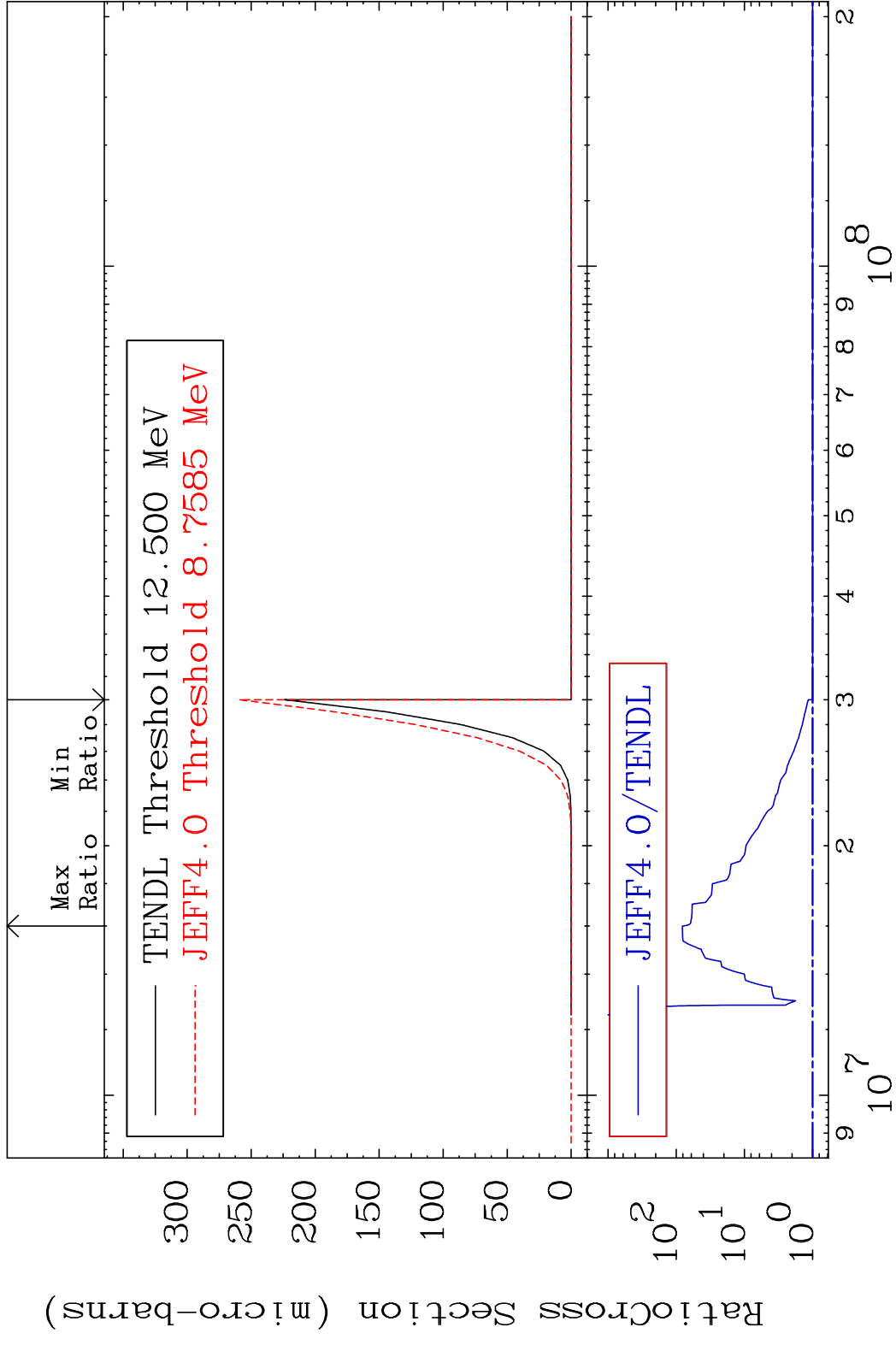






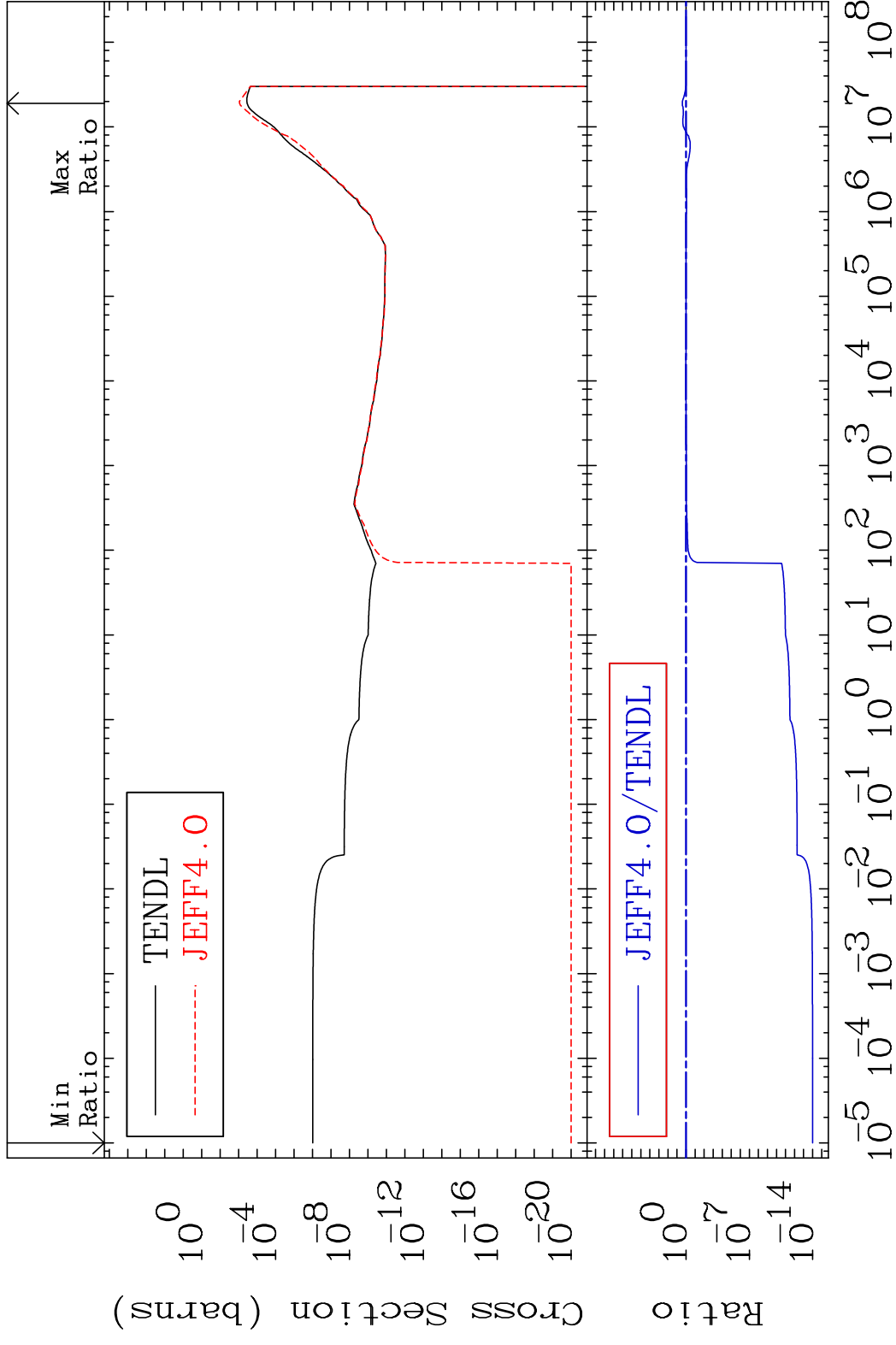


MAT 5646 (n, He-3) :54-Xe-135m2 56-Ba-137  
 Radionuclide Production Cross Section 8010. %



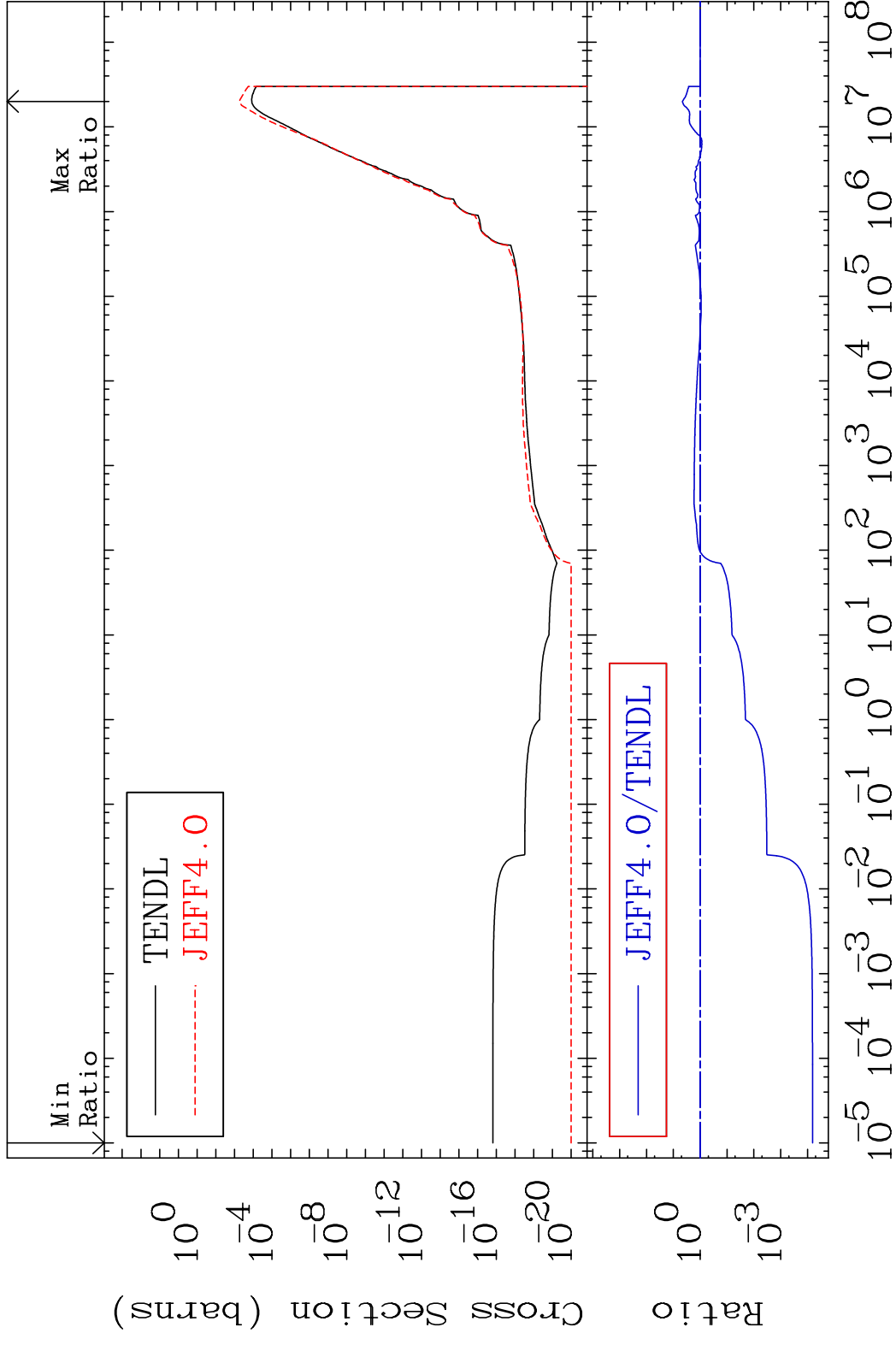
105 56-Ba-137

MAT 5646 (n,α):54-Xe-134g 56-Ba-137  
 Radionuclide Production Cross Section 155.6 %



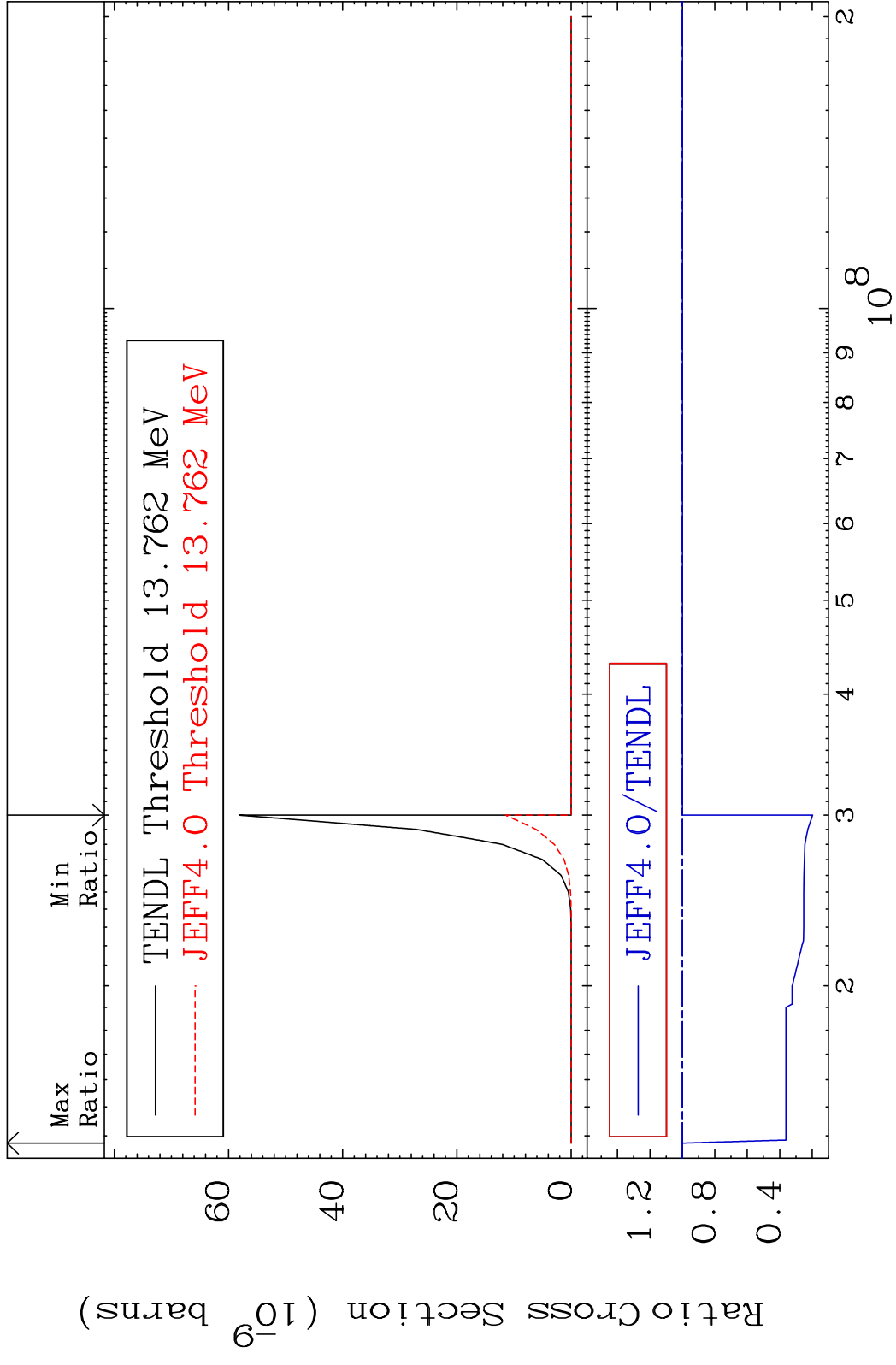
106 Incident Energy (eV) 56-Ba-137

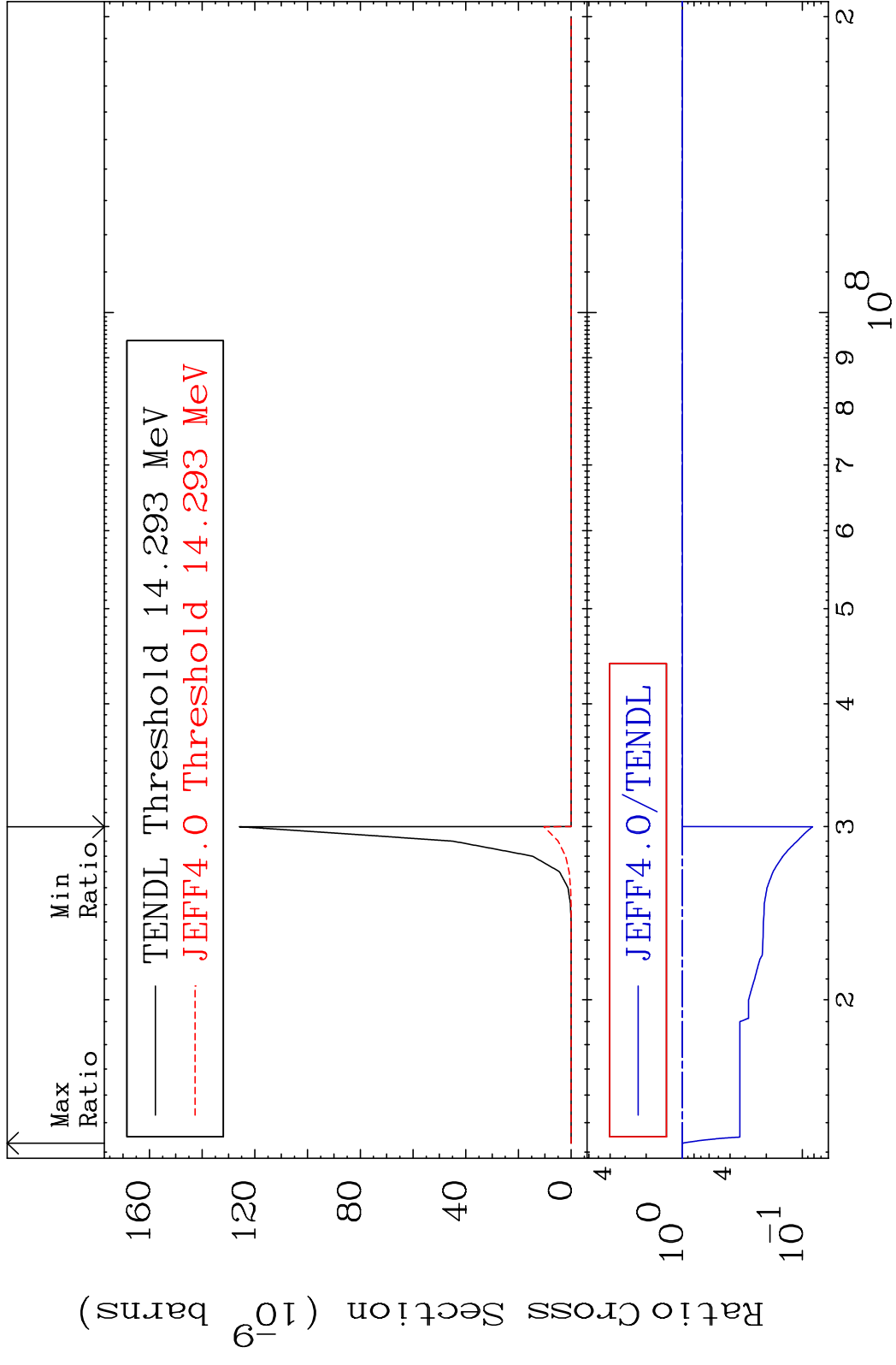
MAT 5646 (n,  $\alpha$ ):54-Xe-134m7 56-Ba-137  
 Radionuclide Production Cross Section 362.5 %



107 Incident Energy (eV) 56-Ba-137

MAT 5646 (n, p) d:54-Xe-135g 56-Ba-137  
 Radionuclide Production Cross Section 88e28idto 0.000 %





MAT 5646 (n,p) t:54-Xe-134g 56-Ba-137  
 Radionuclide Production Cross Section 66e481d10 0.000 %

