

Program Complot  
(Version 2021-1)

by

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(Present Contact Information)

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U.S.A.

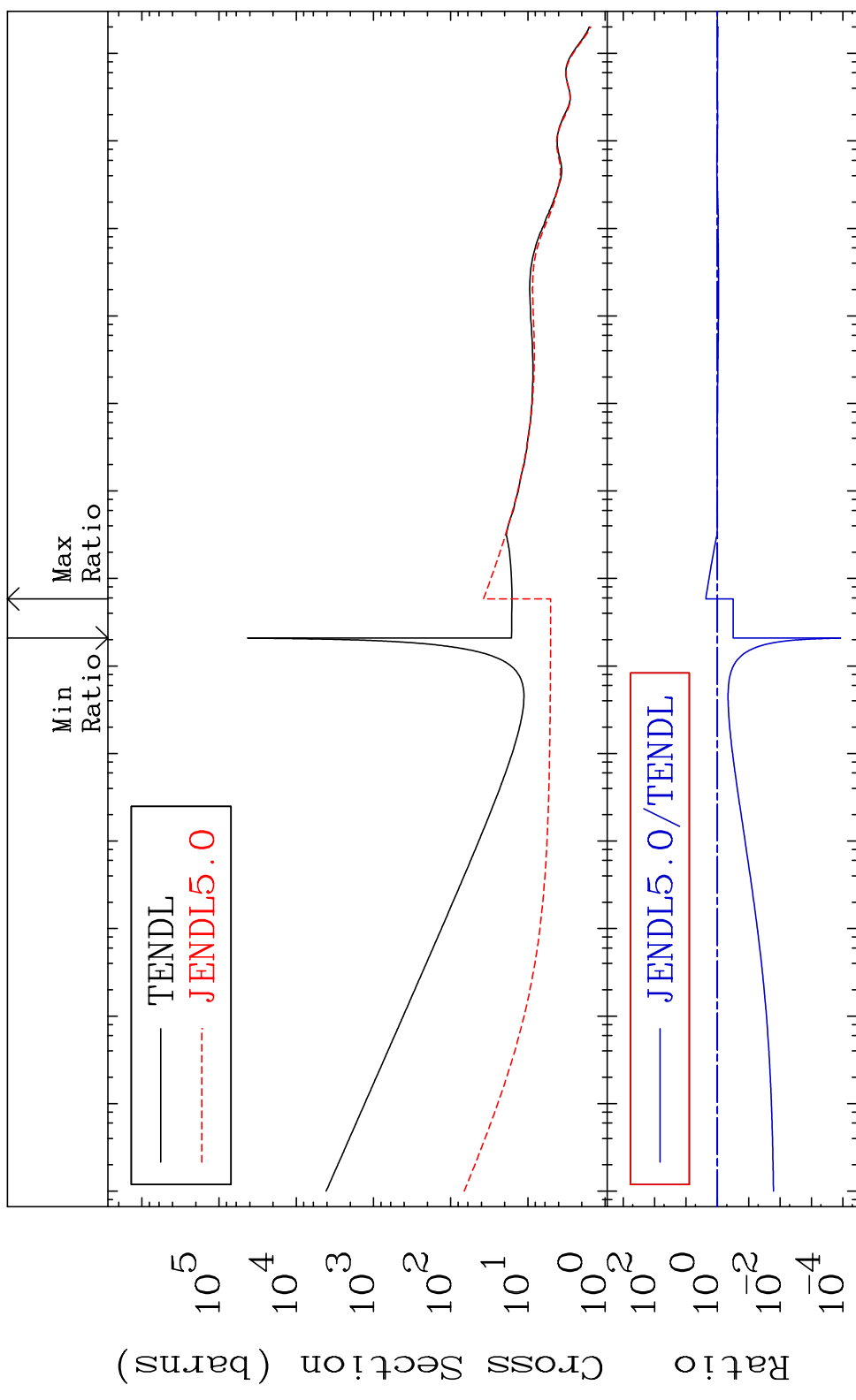
Tele: 925-443-1911

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

Press Mouse Button to Start

MAT 4120

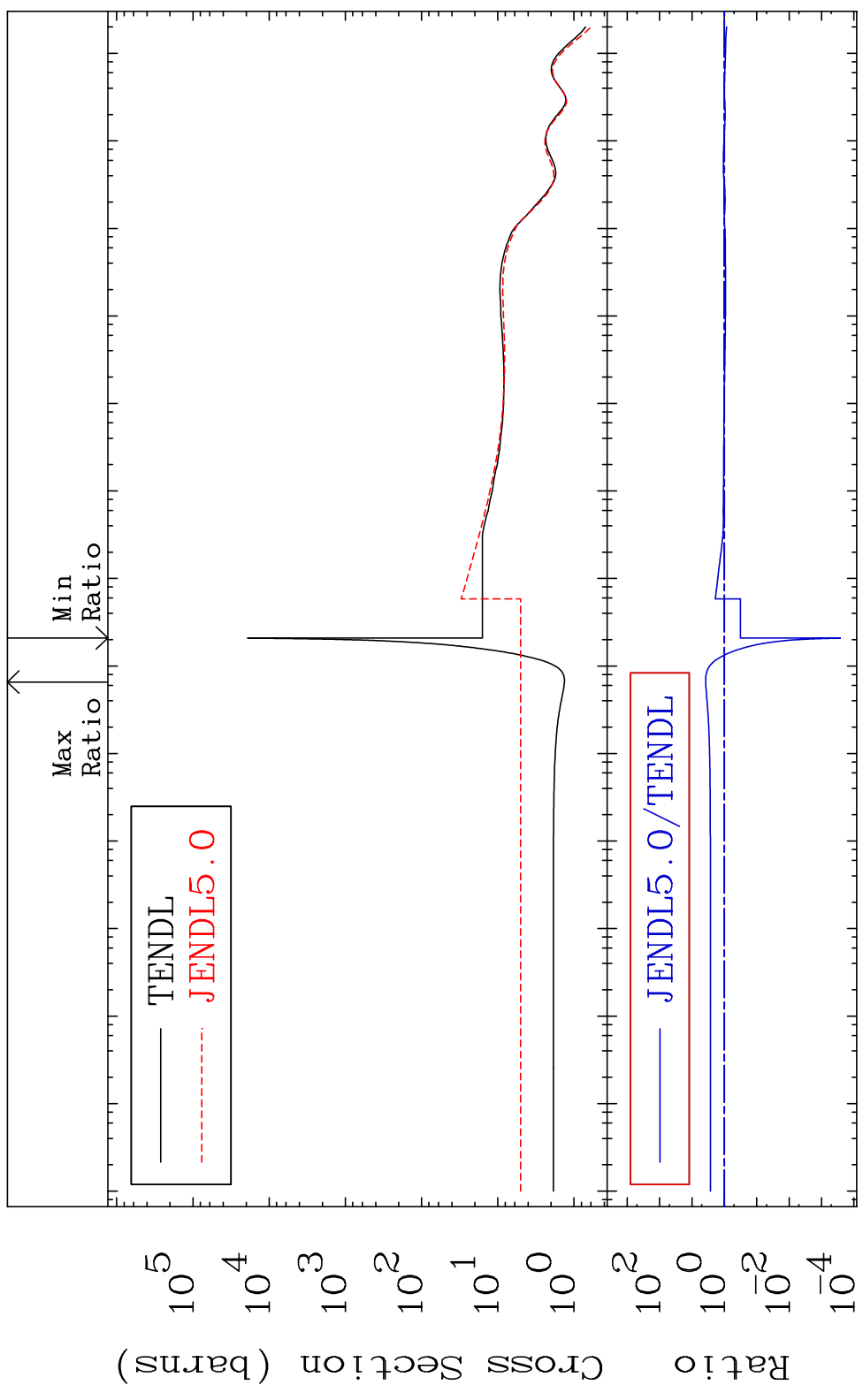
Total Cross Section  
41-Nb-91m  
-99.99 To 134.3 %



Ratio  
Cross Section (barns)  
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>-2</sup>  
10<sup>-4</sup>  
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>  
1 Incident Energy (eV) 41-Nb-91m

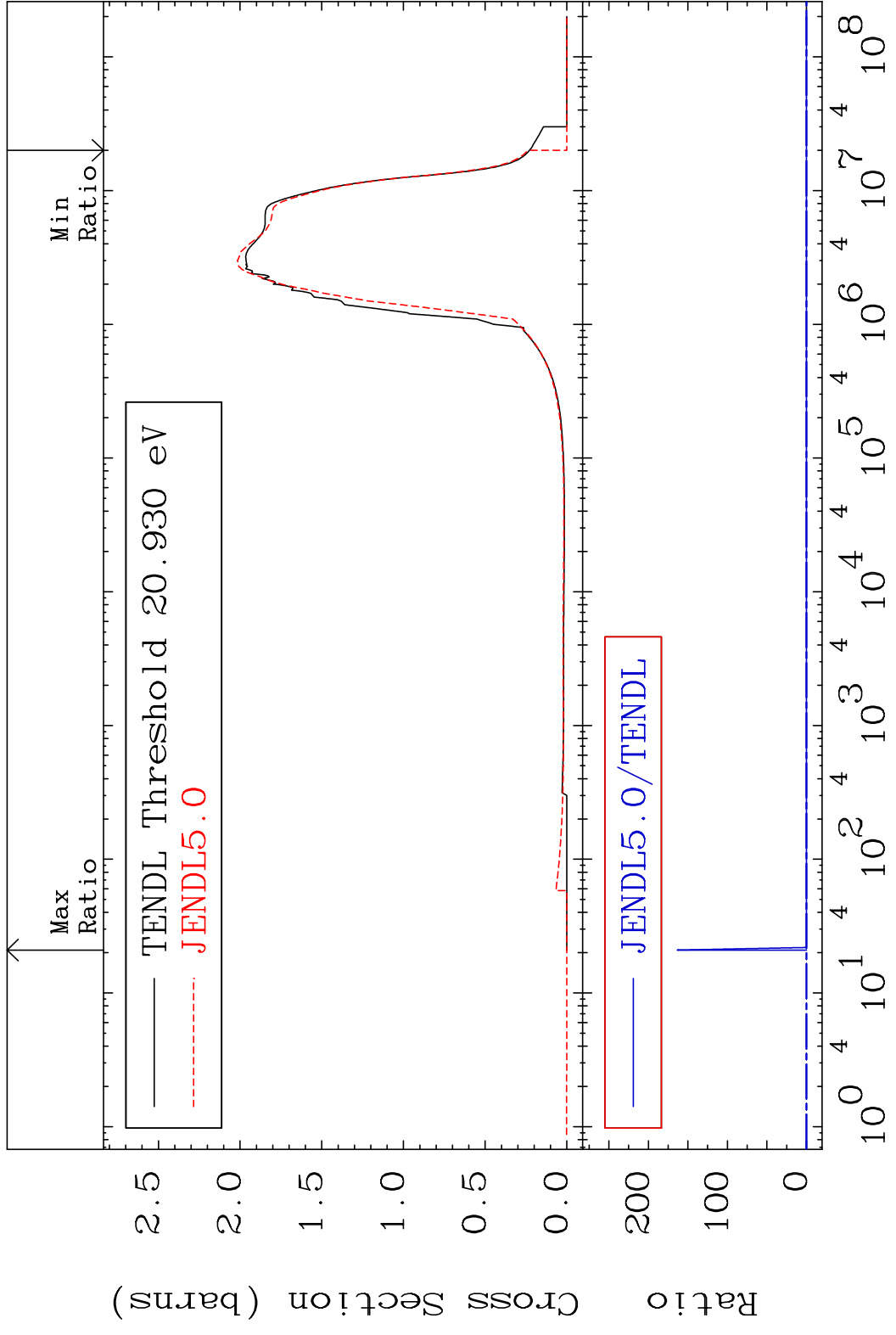
MAT 4120

Elastic Cross Section -99.97 To 276.9 %  
41-Nb-91m



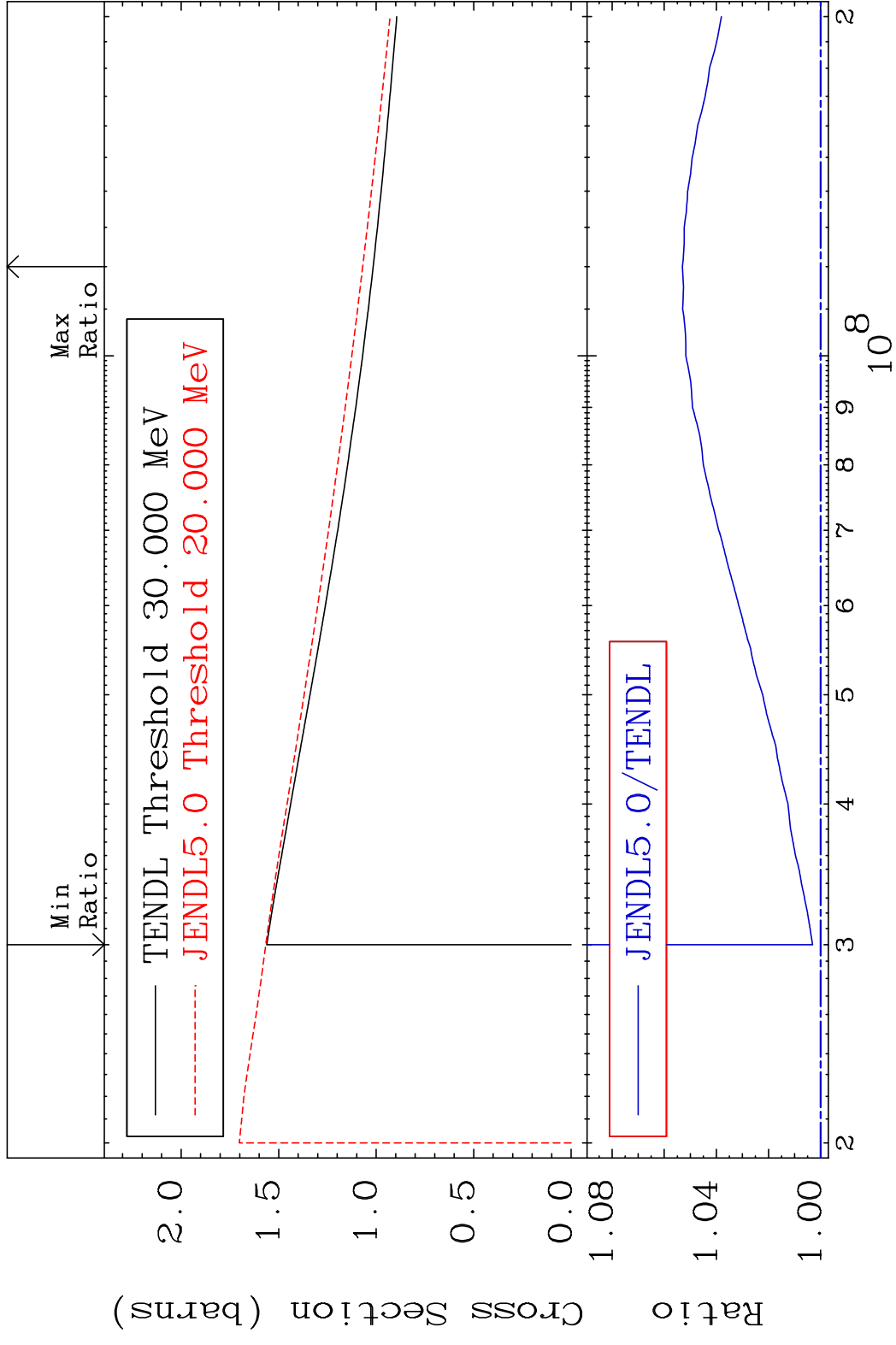
2 Incident Energy (eV) 41-Nb-91m

MAT 4120 Inelastic Cross Section -100.0 To 9999. % 41-Nb-91m



3 Incident Energy (eV) 41-Nb-91m

MAT 4120 (n, remainder) 41-Nb-91m  
 Cross Section 0.309 To 5.305 %



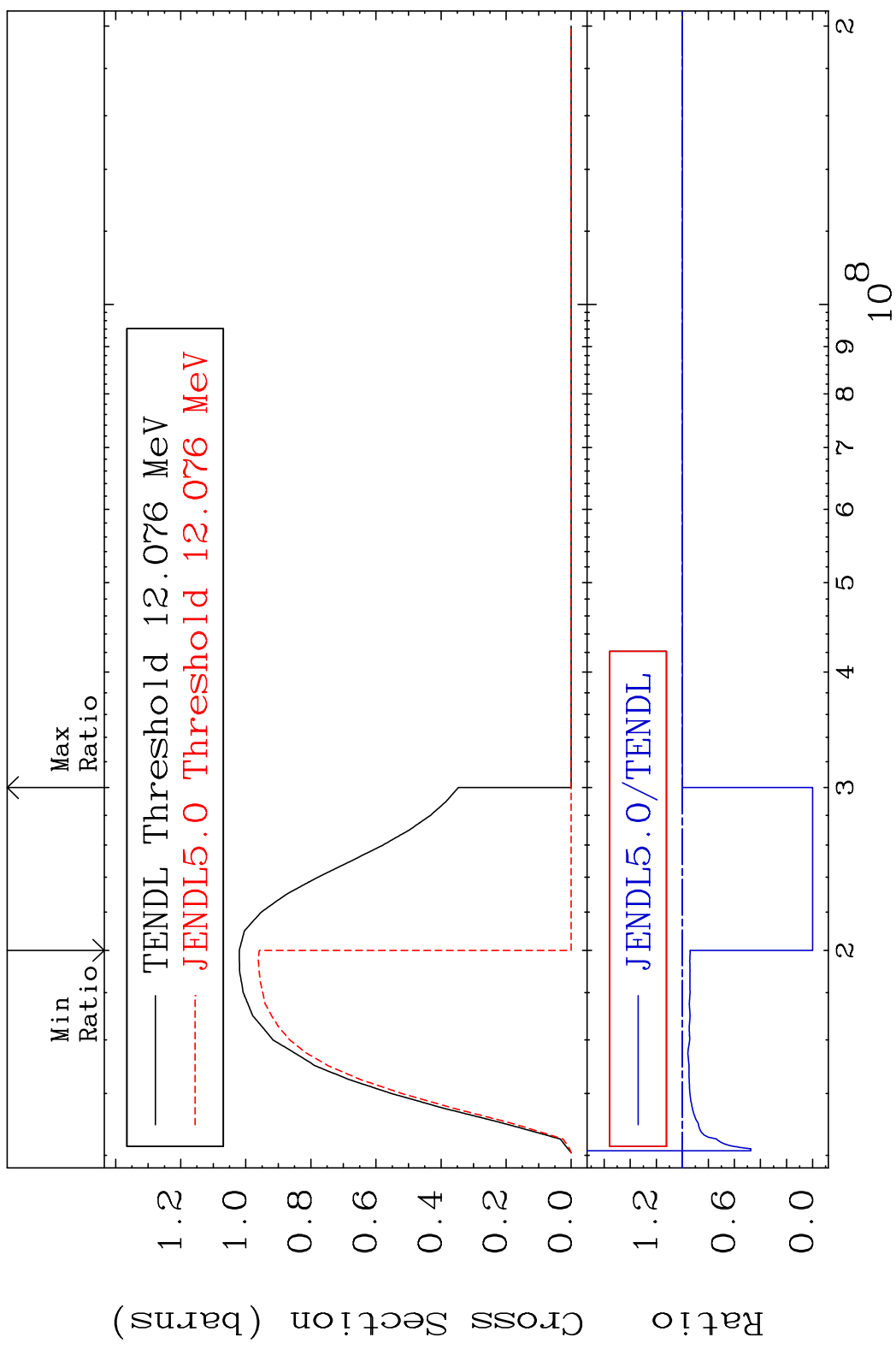
4 Incident Energy (eV) 41-Nb-91m

MAT 4120

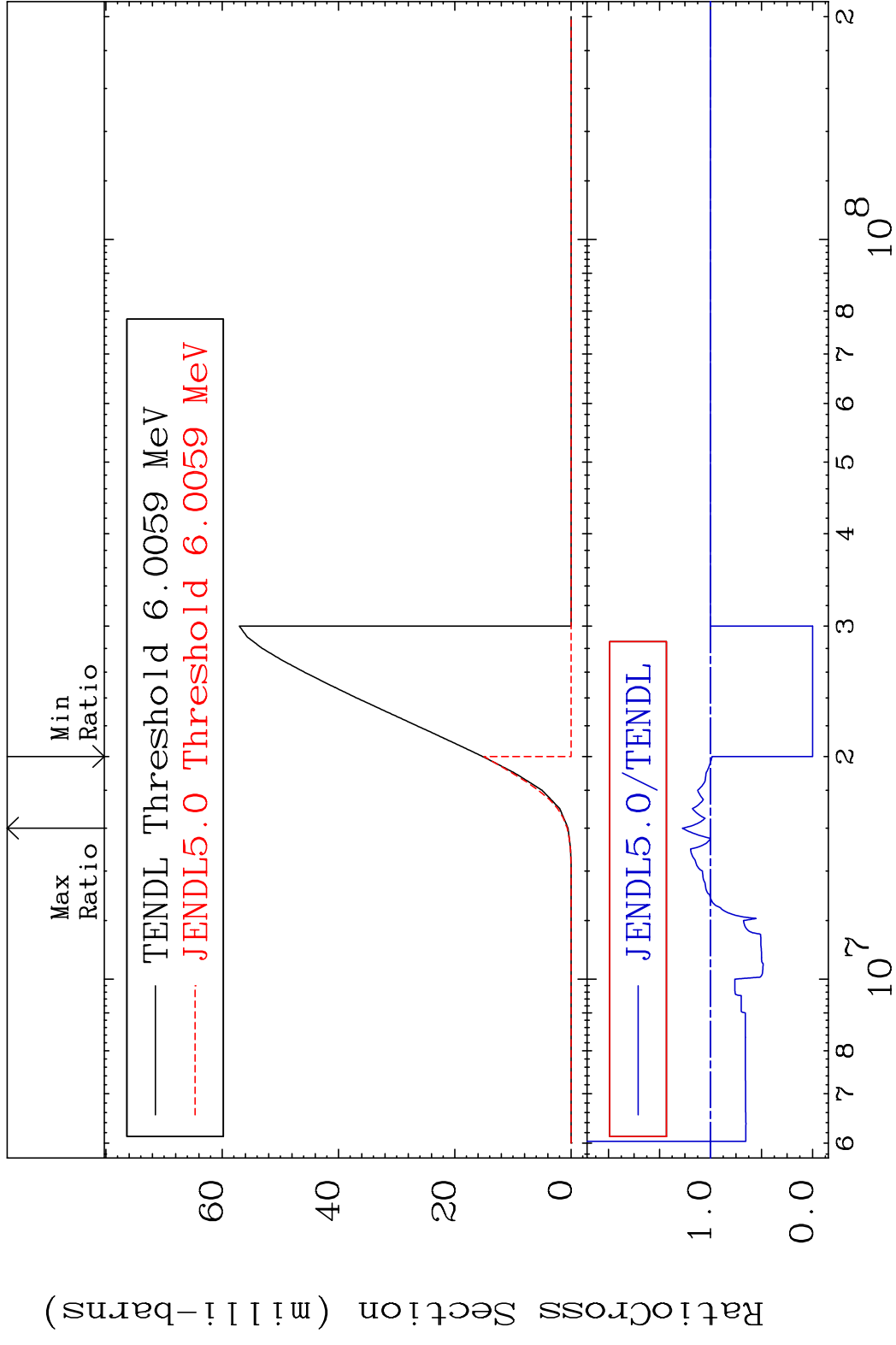
(n,2n)

41-Nb-91m

Cross Section -100.0 To 0.000 %

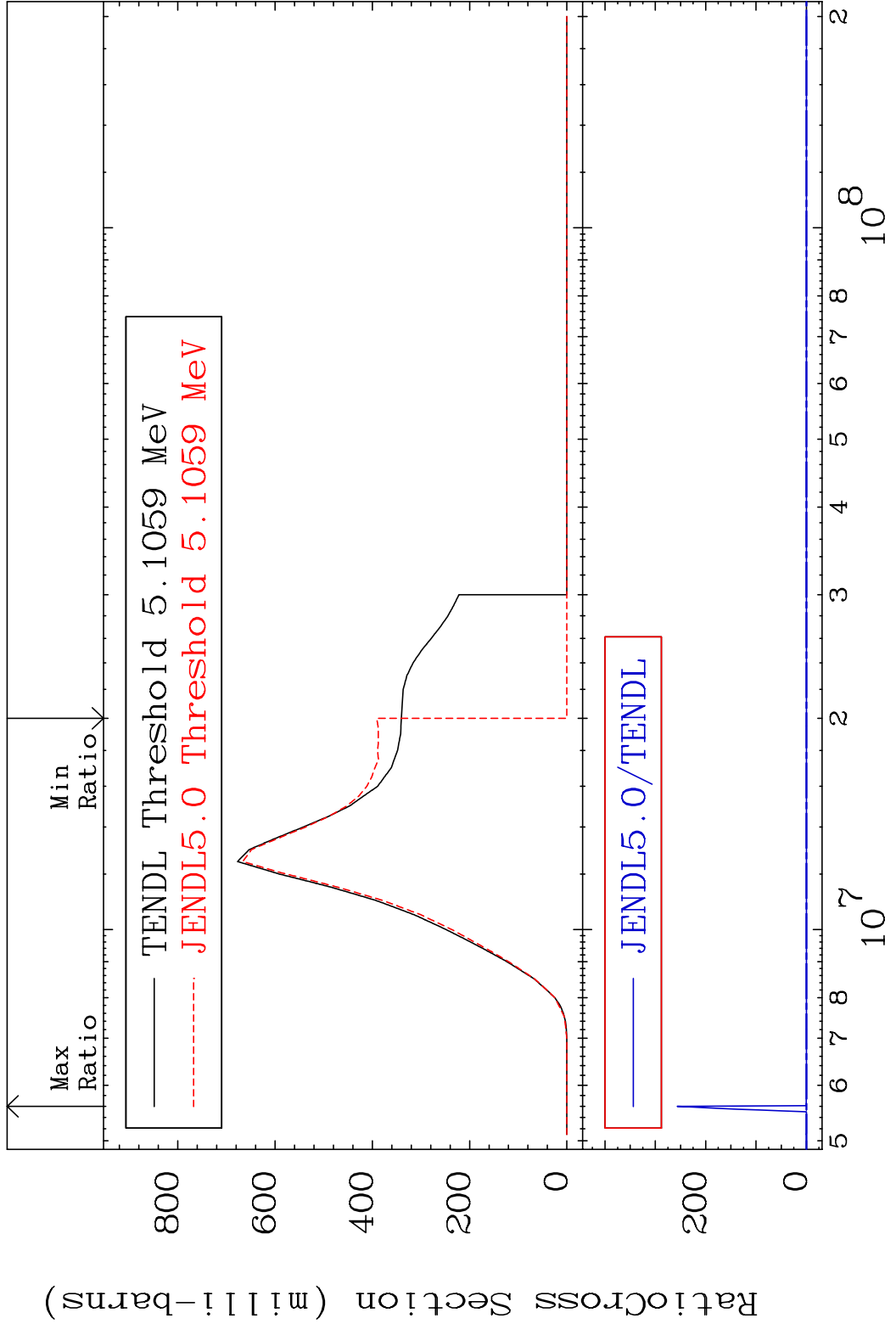


MAT 4120 (n, n')  $\alpha$  41-Nb-91m  
 Cross Section -100.0 To 27.58 %



6 6 Incident Energy (eV) 41-Nb-91m

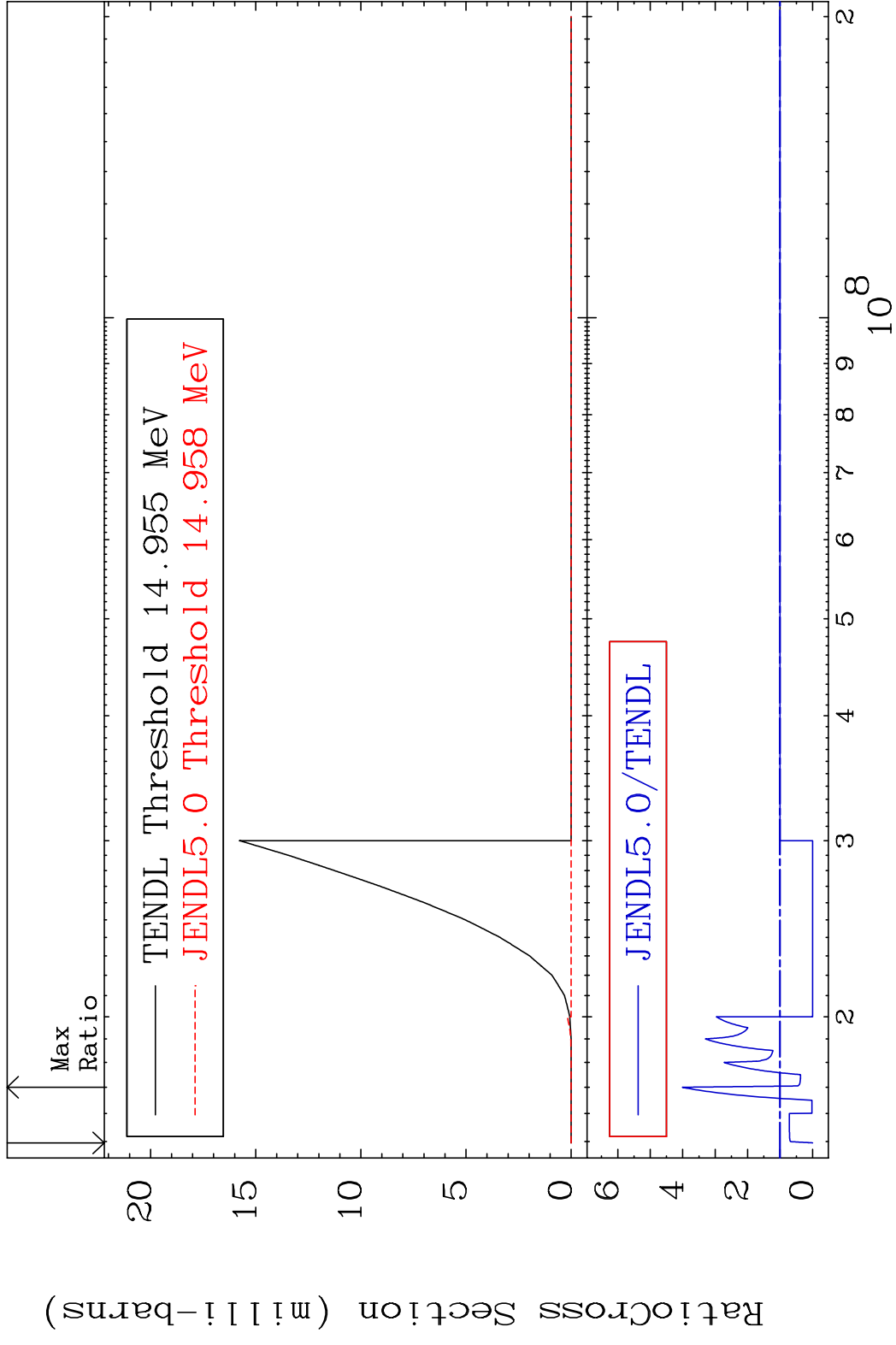
MAT 4120 (n, n') p 41-Nb-91m  
 Cross Section -100.0 To 9999. %



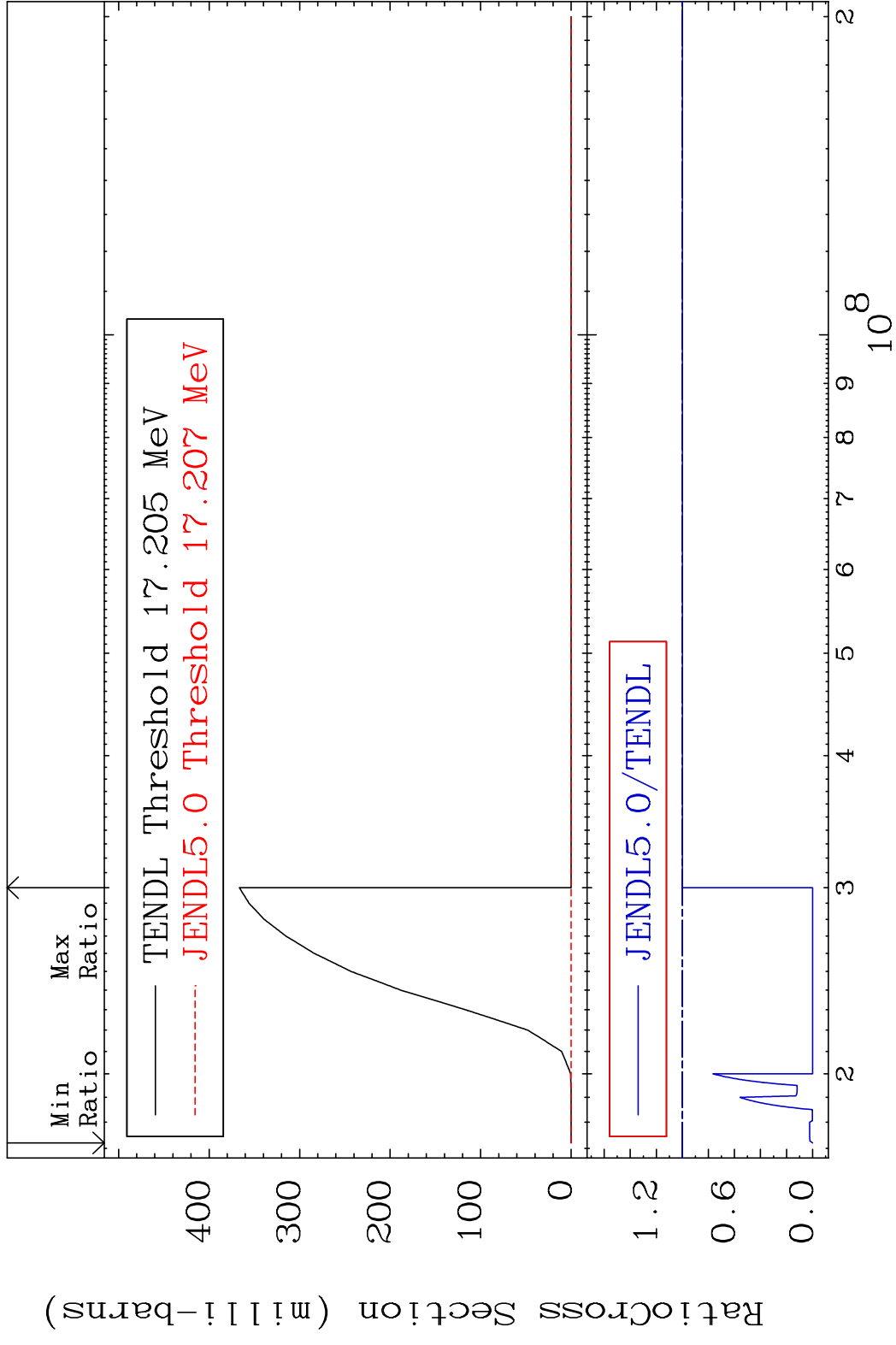
7 Incident Energy (eV) 41-Nb-91m



MAT 4120 (n, n') d 41-Nb-91m  
 Cross Section -100.0 To 301.0 %

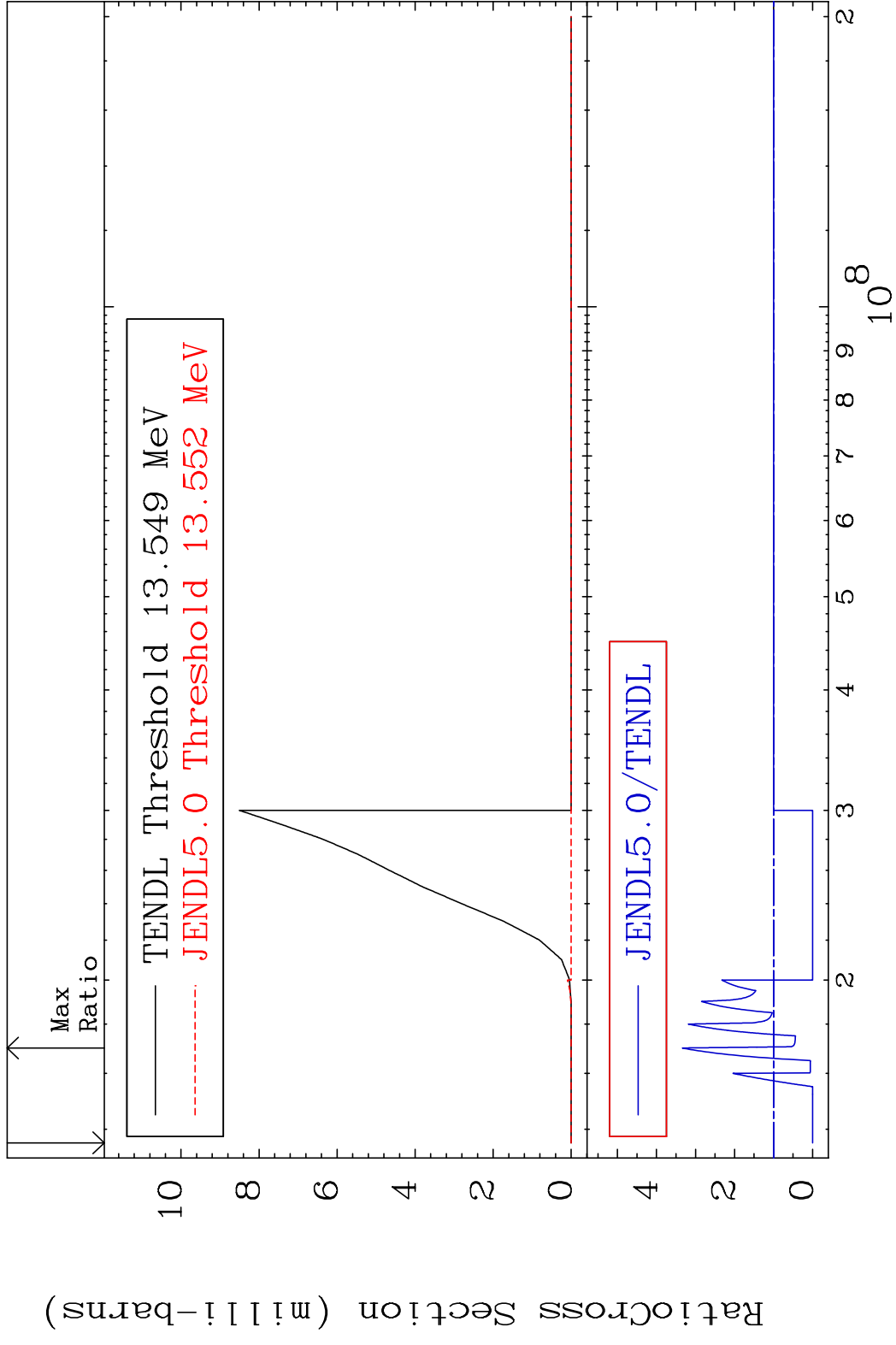


MAT 4120 (n,2n) p 41-Nb-91m  
 Cross Section -100.0 To 0.000 %



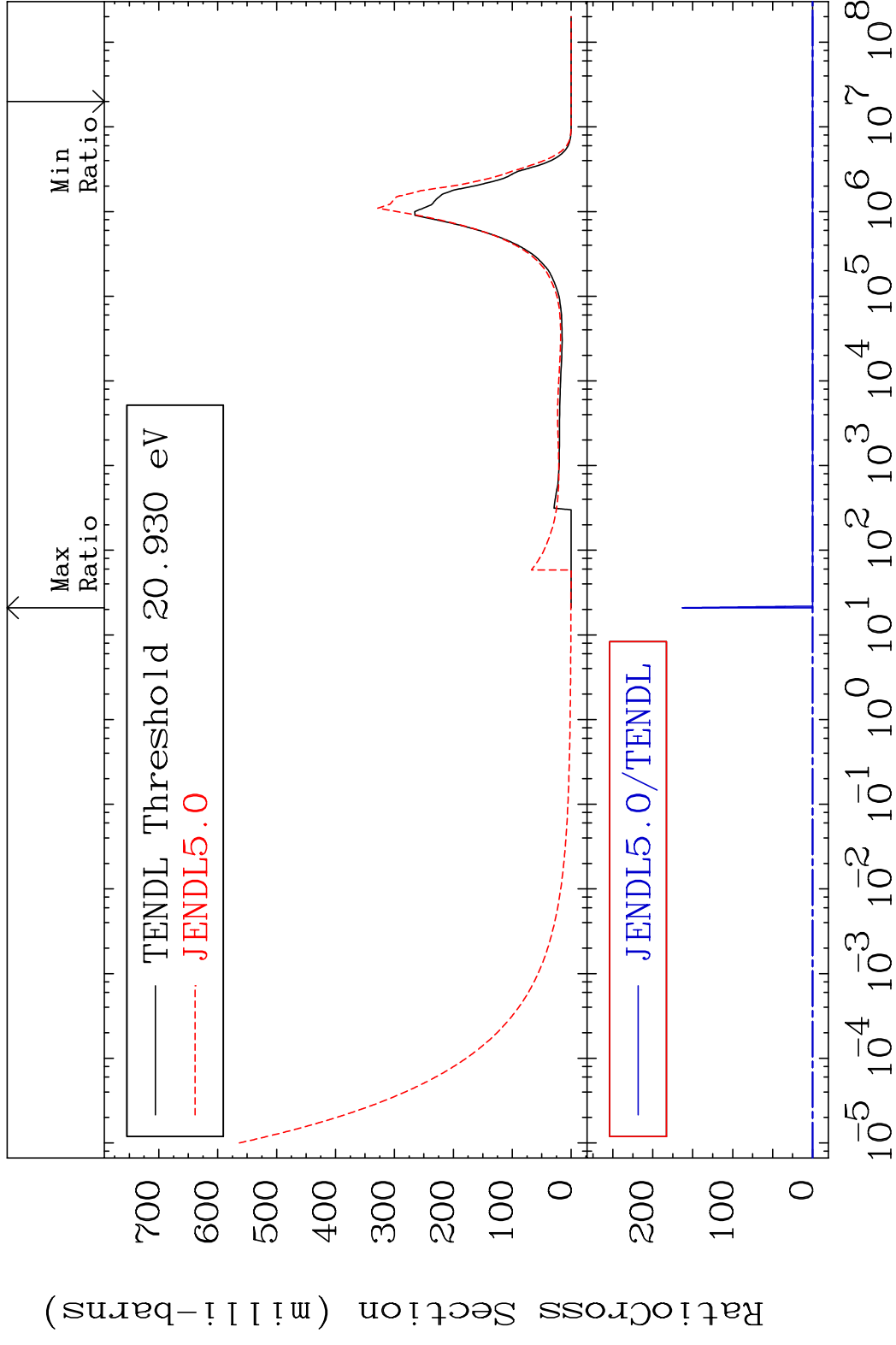
9 Incident Energy (eV) 41-Nb-91m

MAT 4120 (n,2n) p 41-Nb-91m  
 Cross Section -100.0 To 233.7 %

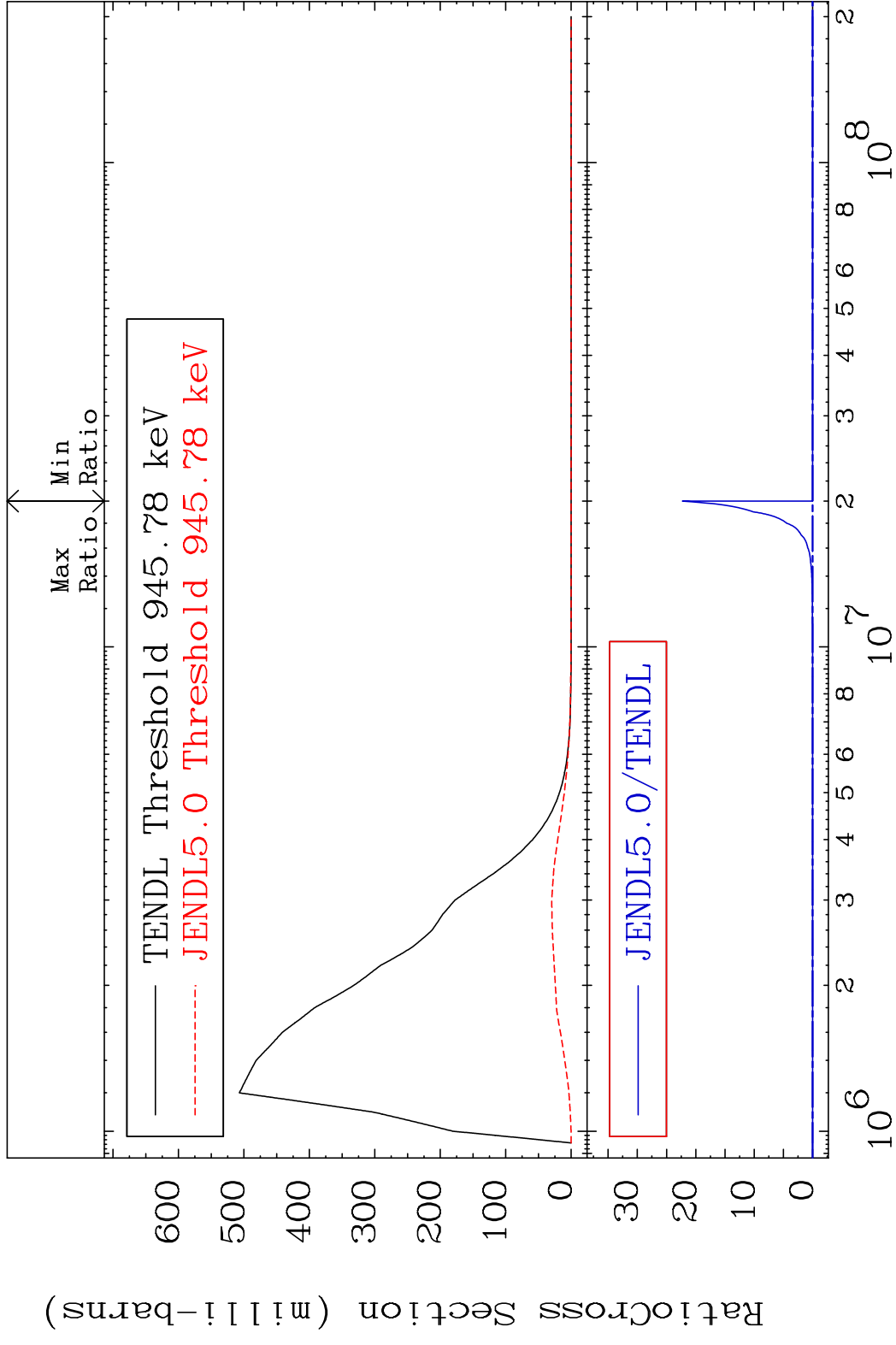


10 Incident Energy (eV) 41-Nb-91m

MAT 4120 MT= 51 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

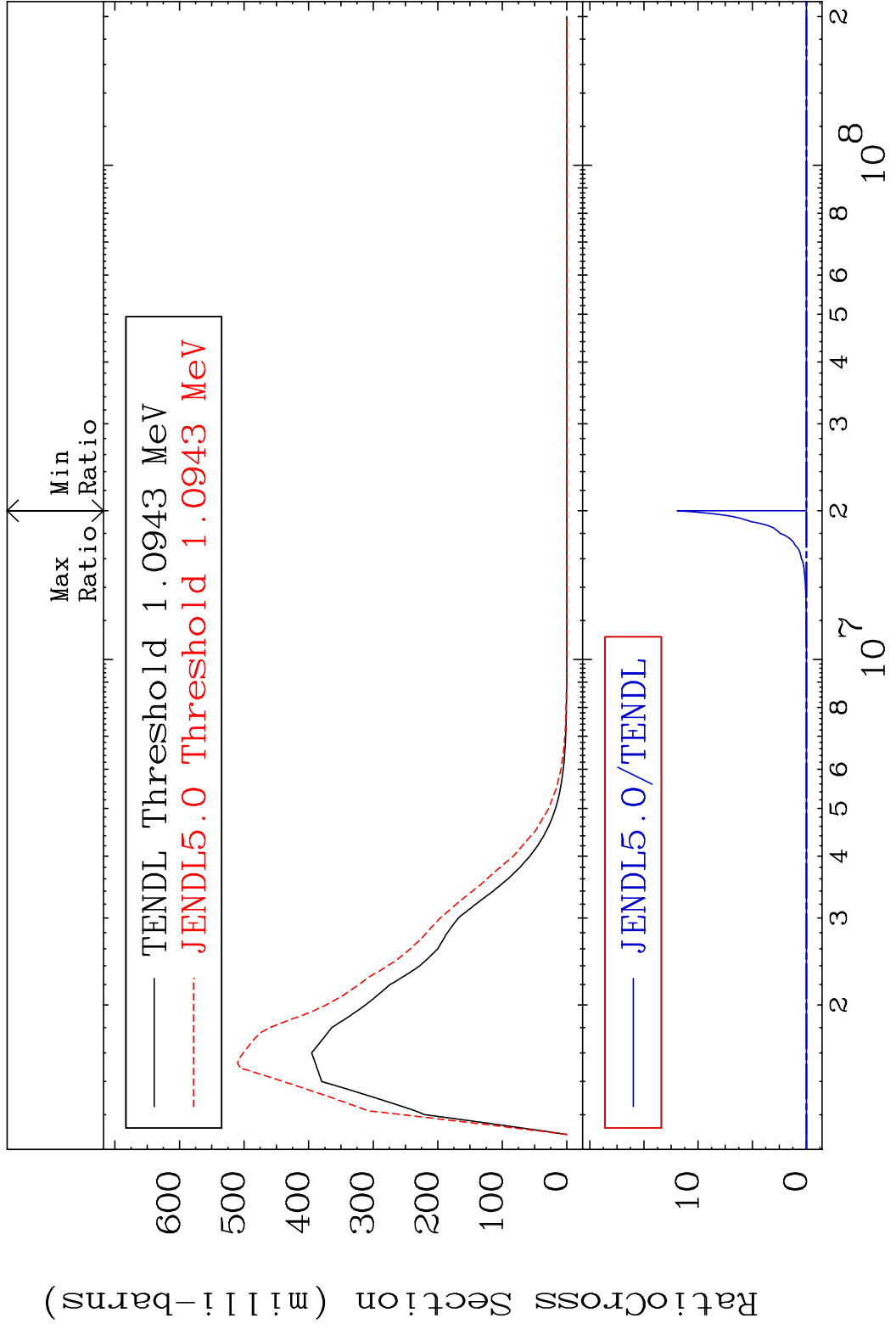


MAT 4120 MT= 52 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

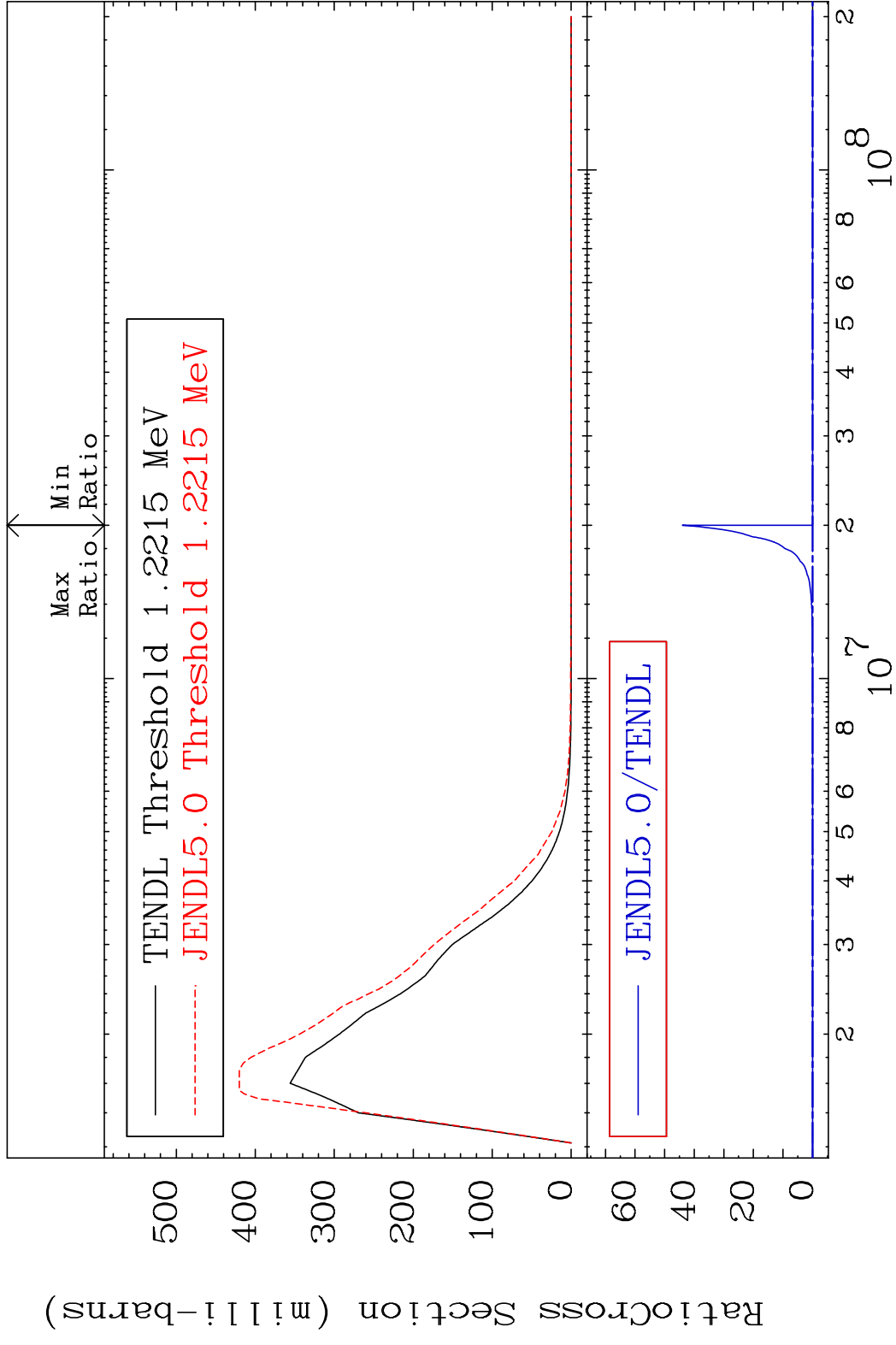


12 Incident Energy (eV) 41-Nb-91m

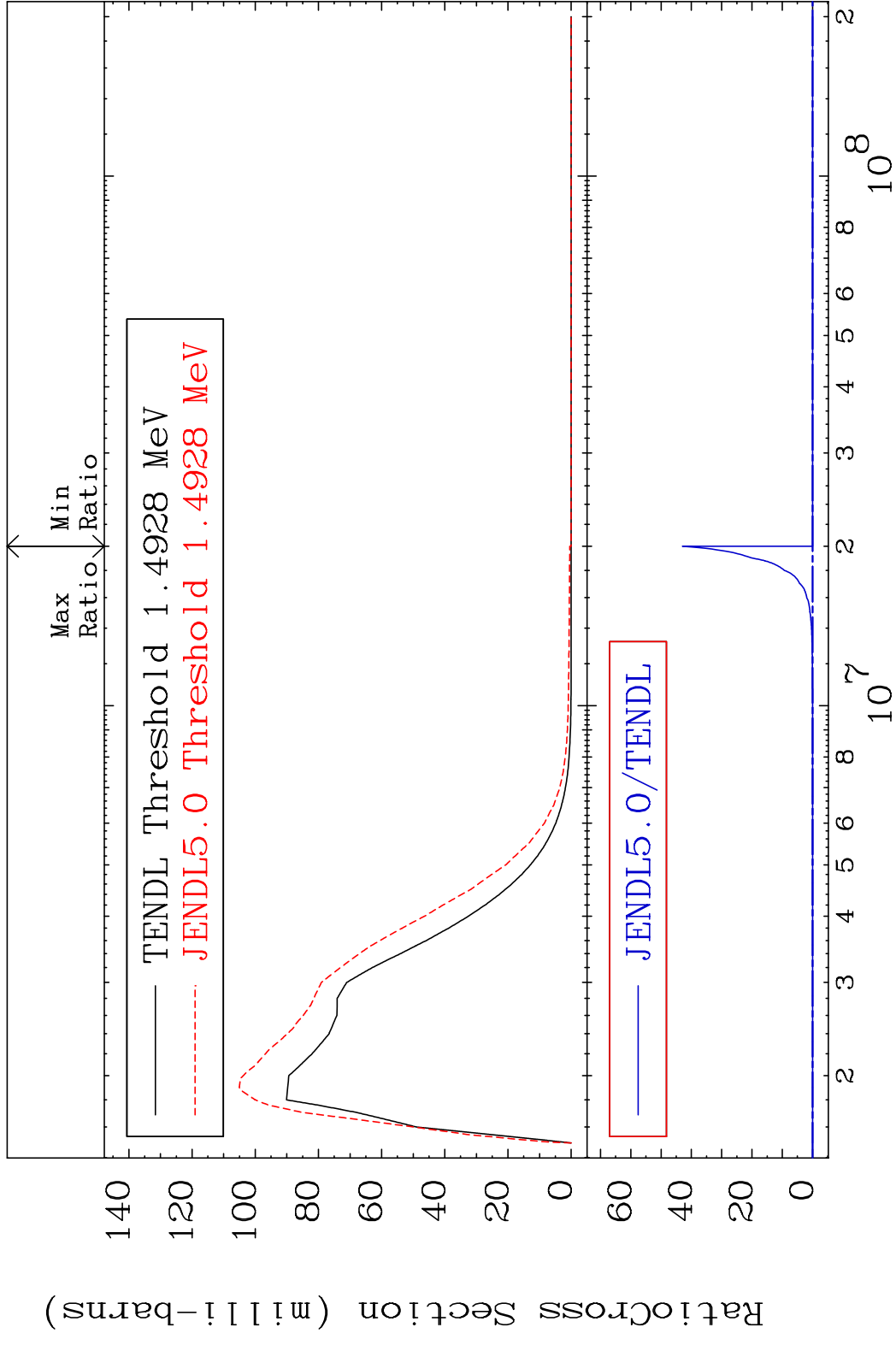
MAT 4120 MT= 53 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 MT= 54 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

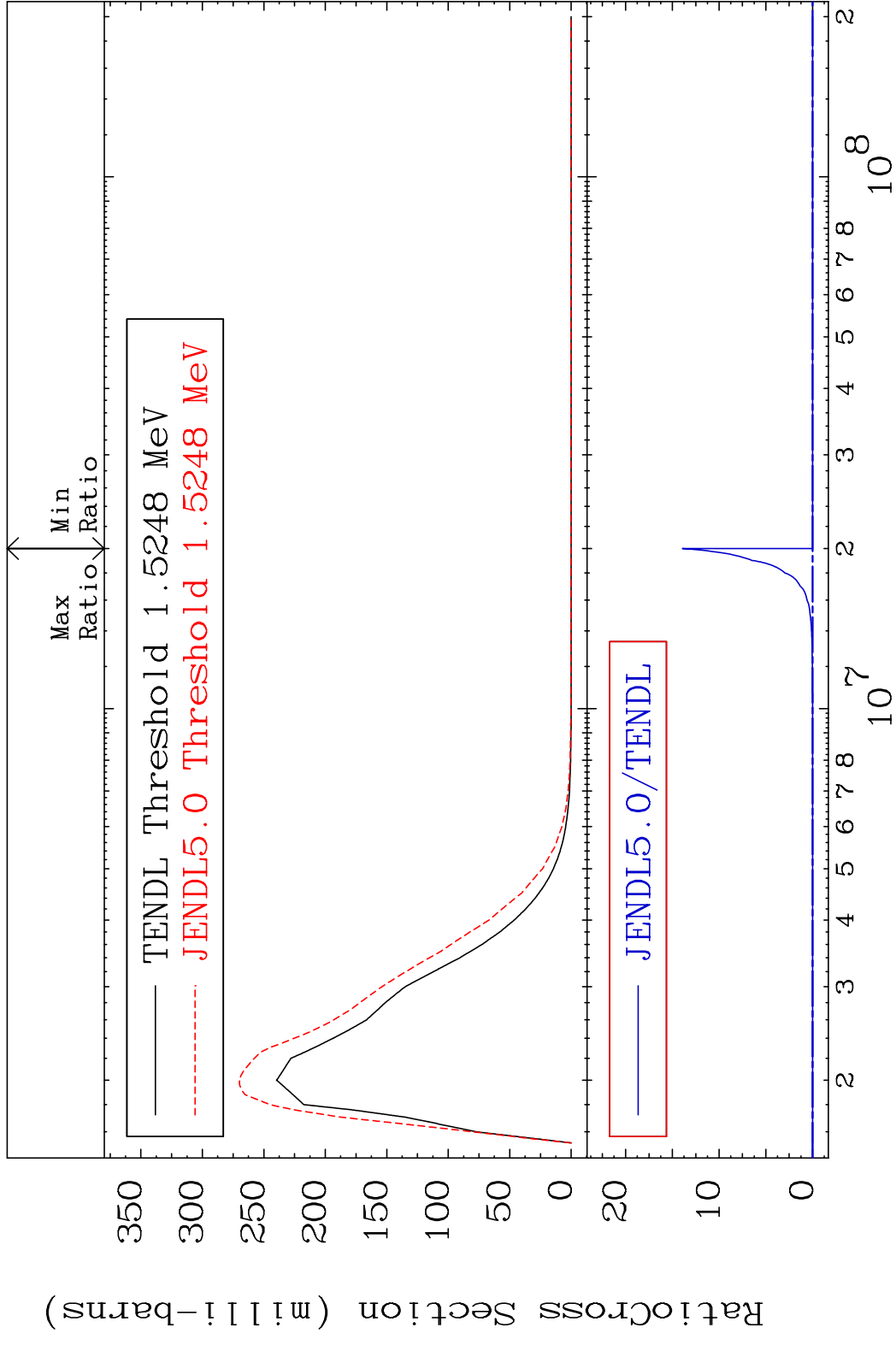


MAT 4120 MT= 55 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

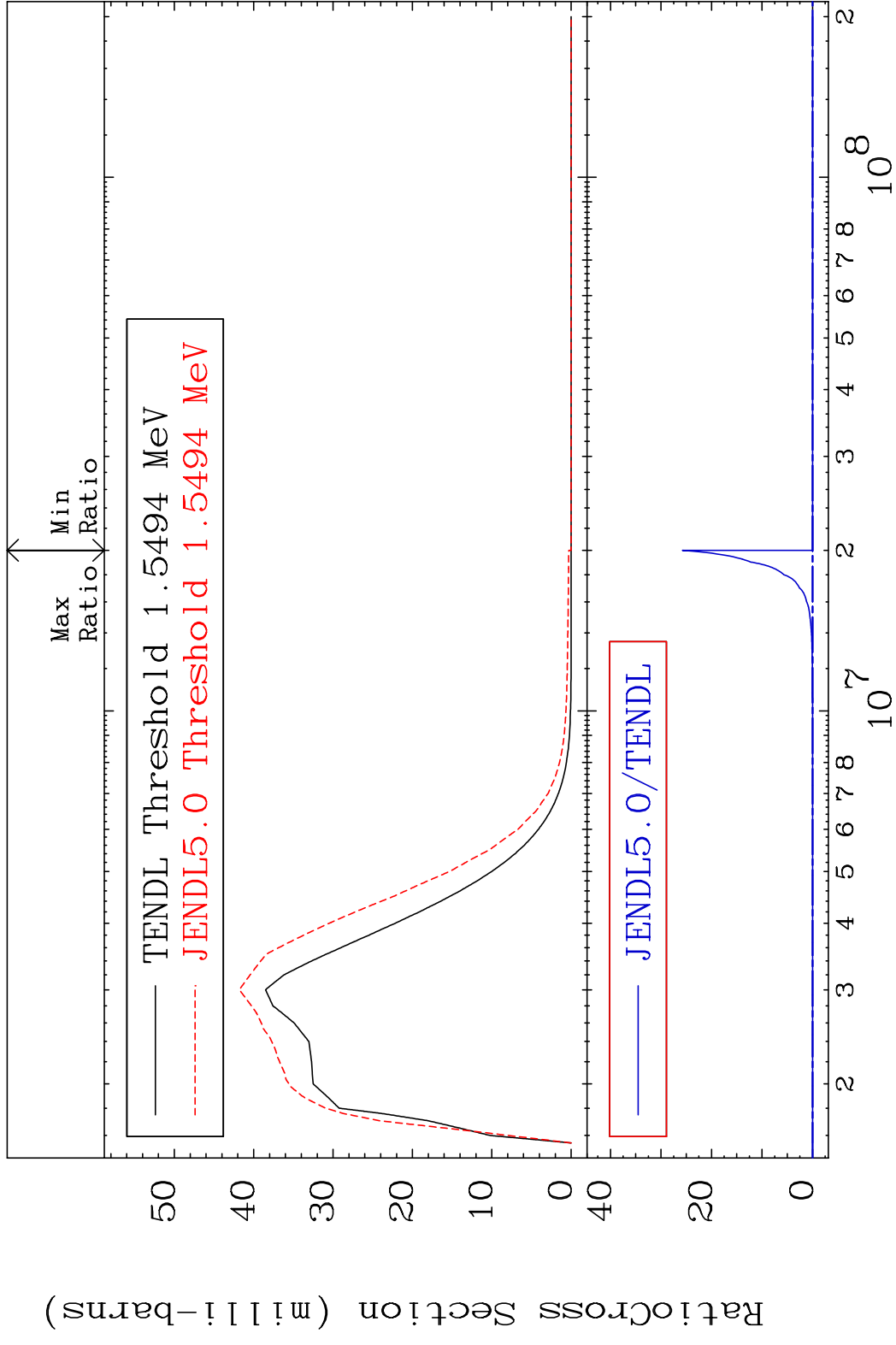




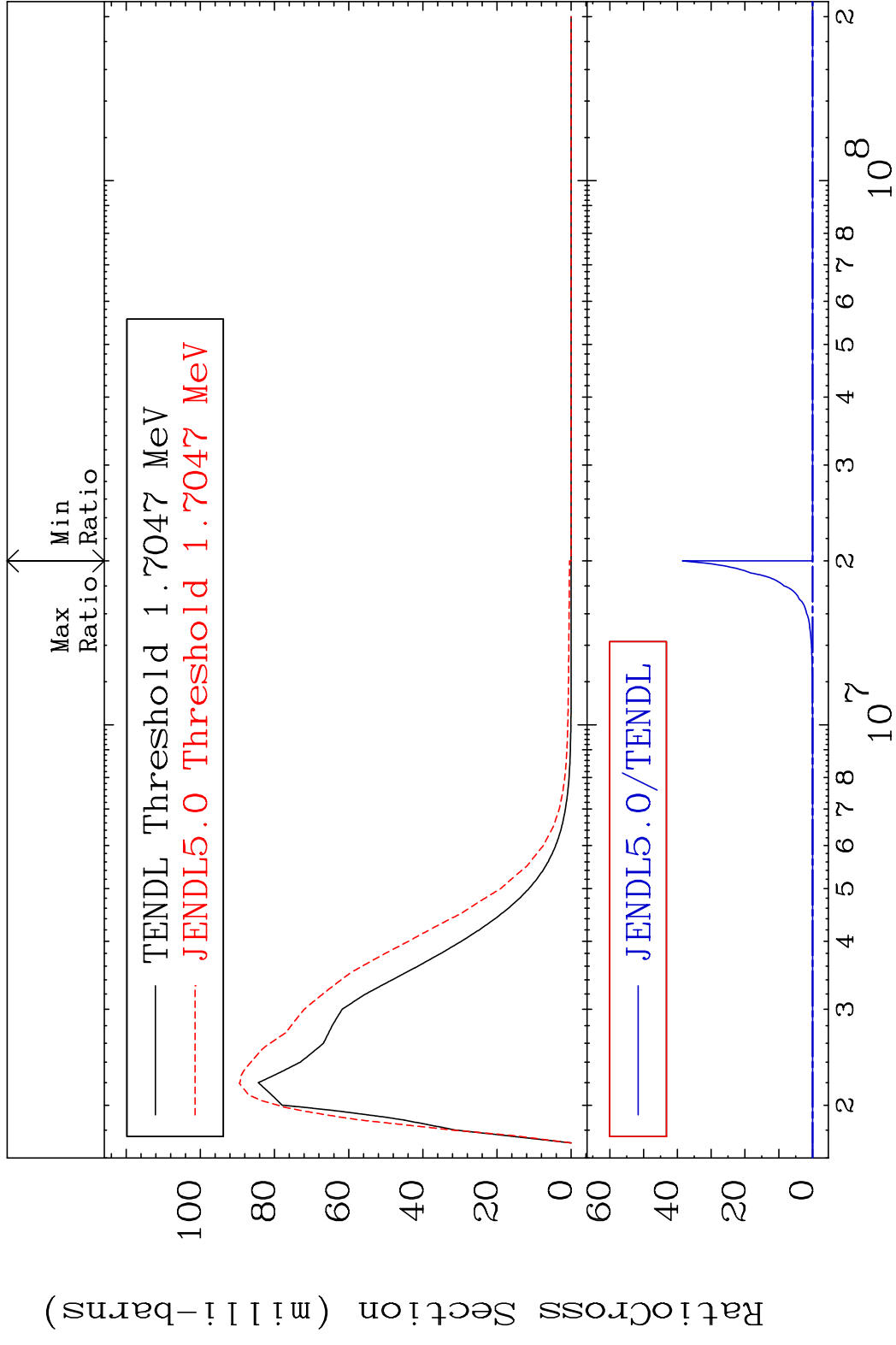
MAT 4120 MT= 56 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 MT= 57 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

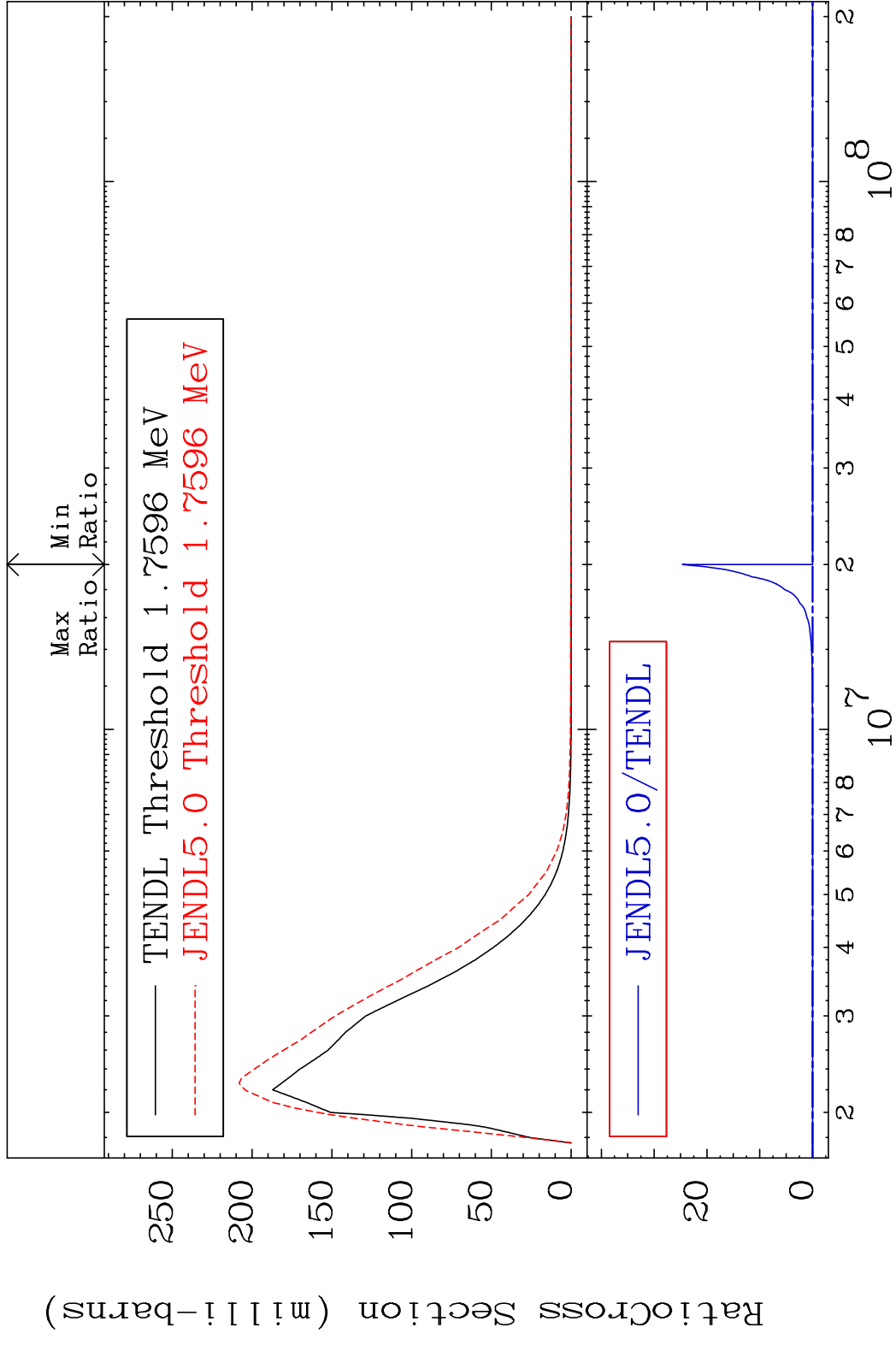


MAT 4120 MT= 58 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



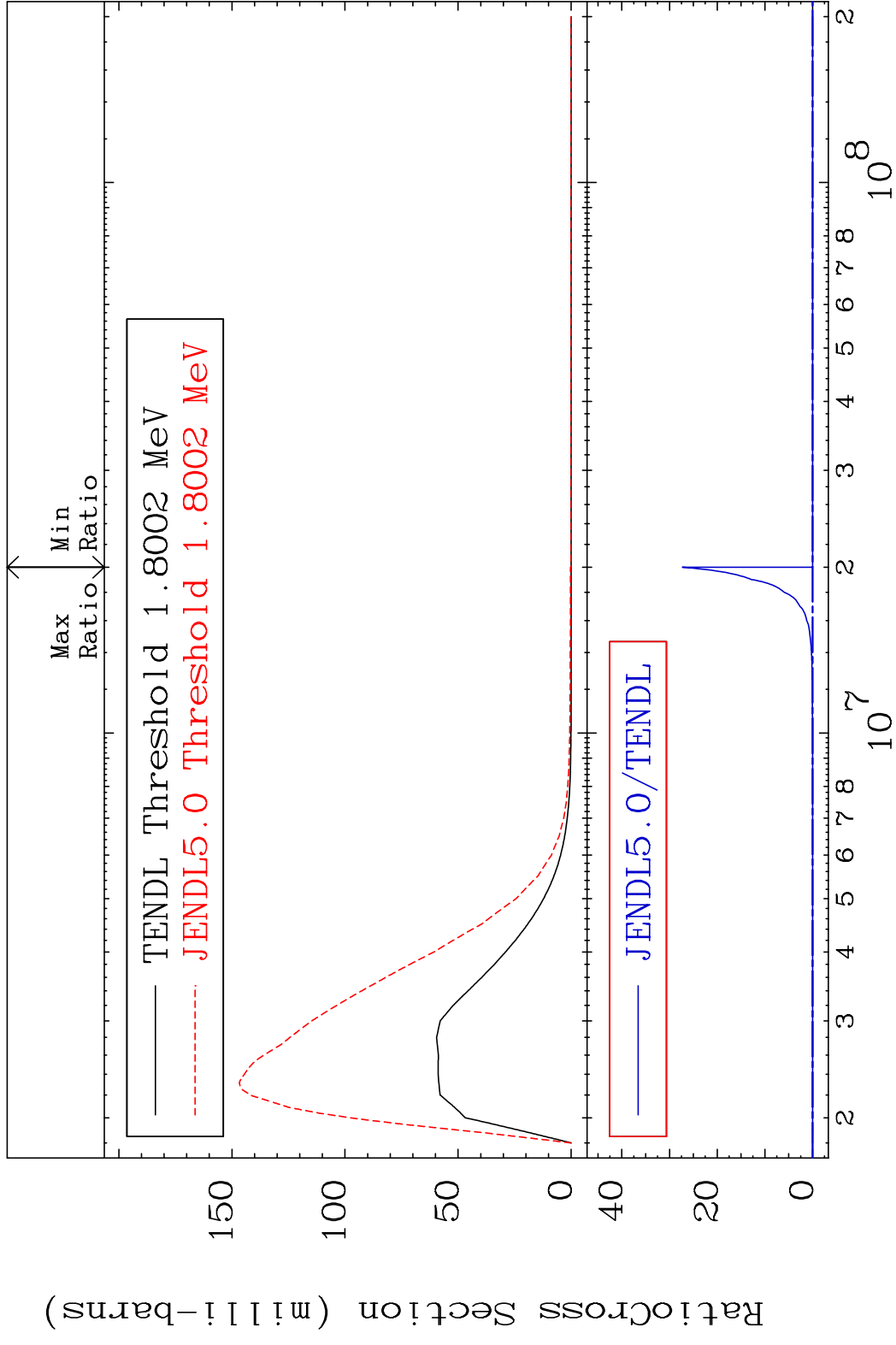
18 Incident Energy (eV) 41-Nb-91m

MAT 4120 MT= 59 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



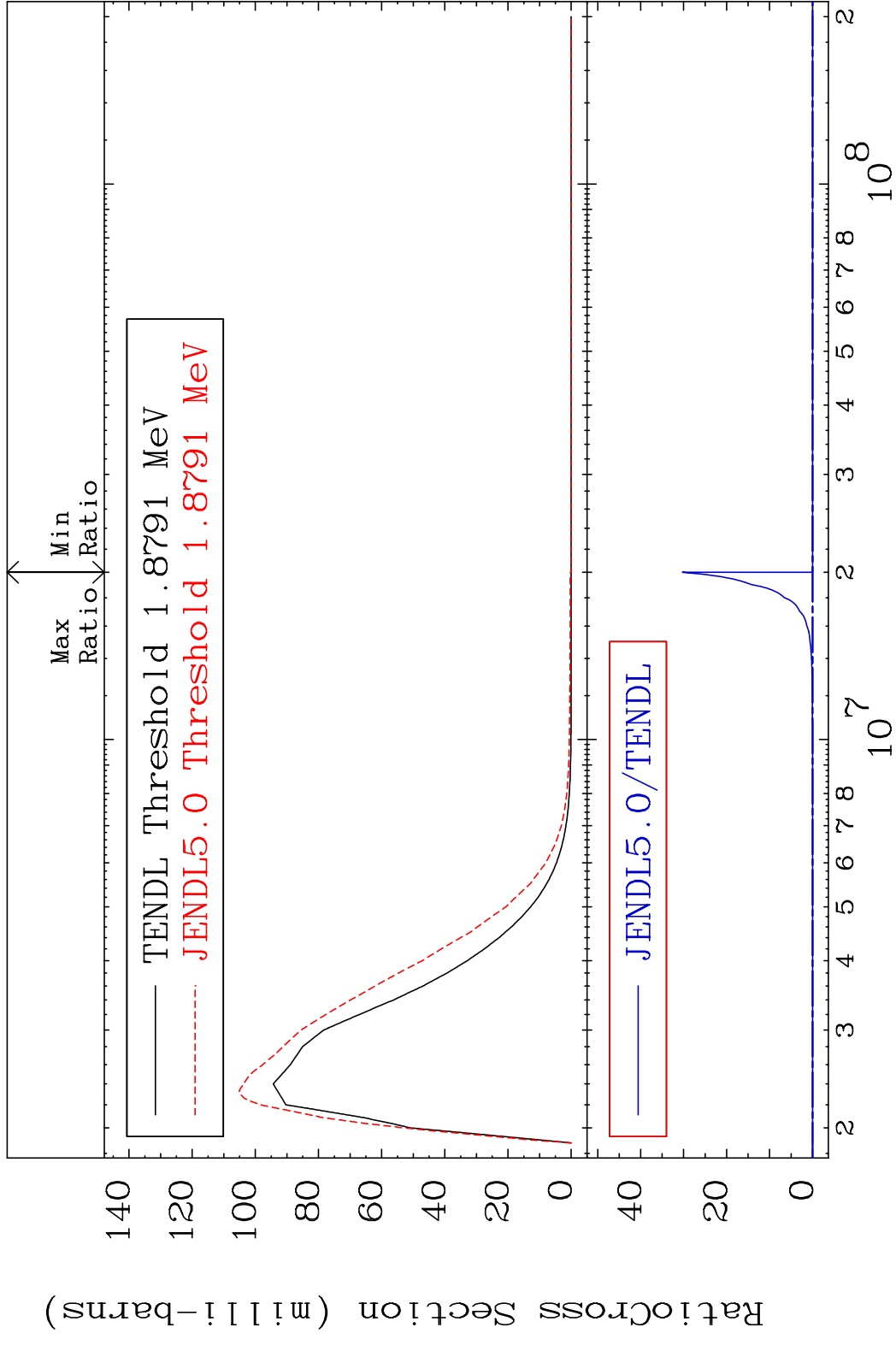
19 Incident Energy (eV) 41-Nb-91m

MAT 4120 MT= 60 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

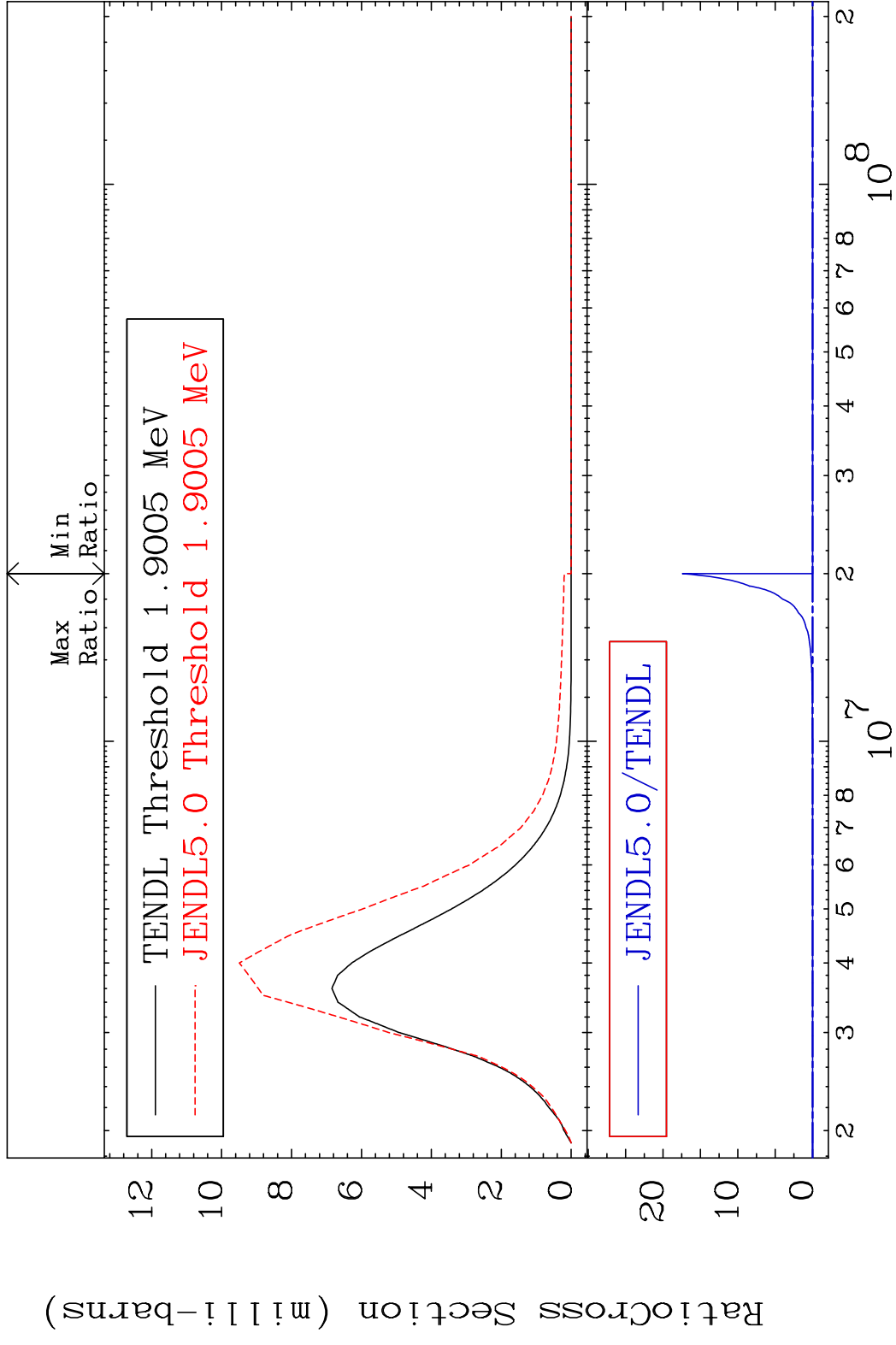


20 Incident Energy (eV) 41-Nb-91m

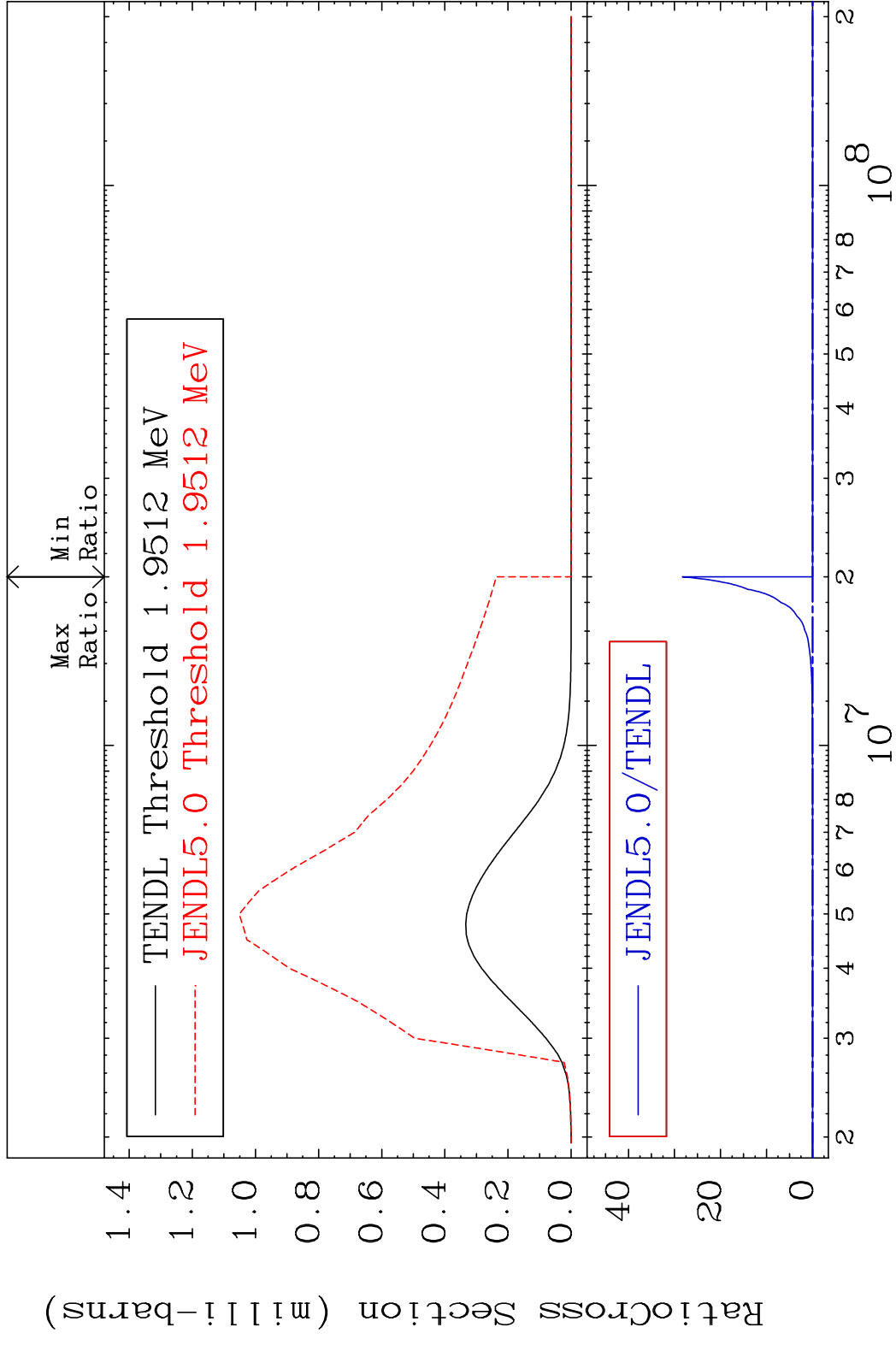
MAT 4120 MT= 61 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 MT= 62 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

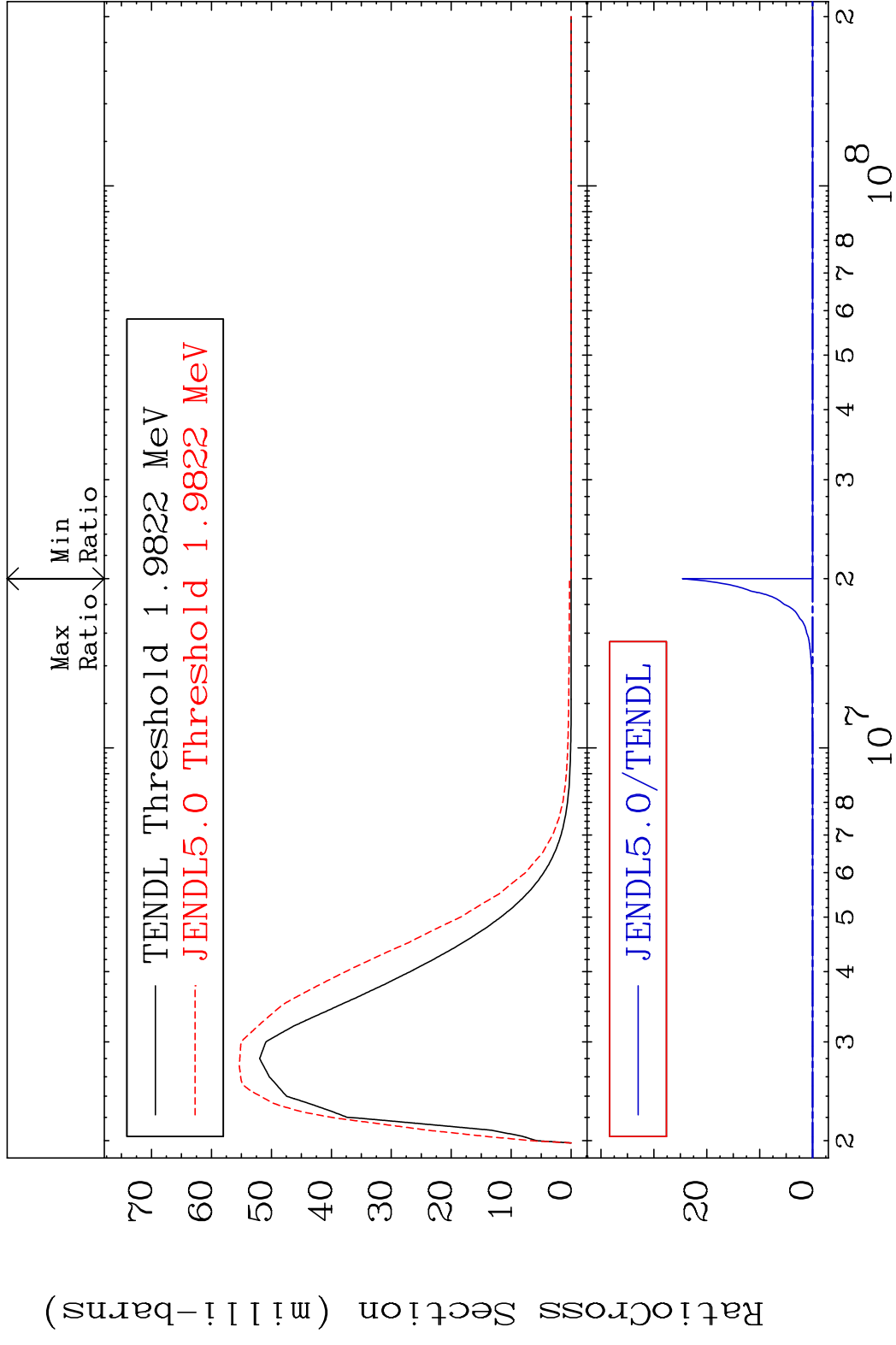


MAT 4120 MT= 63 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

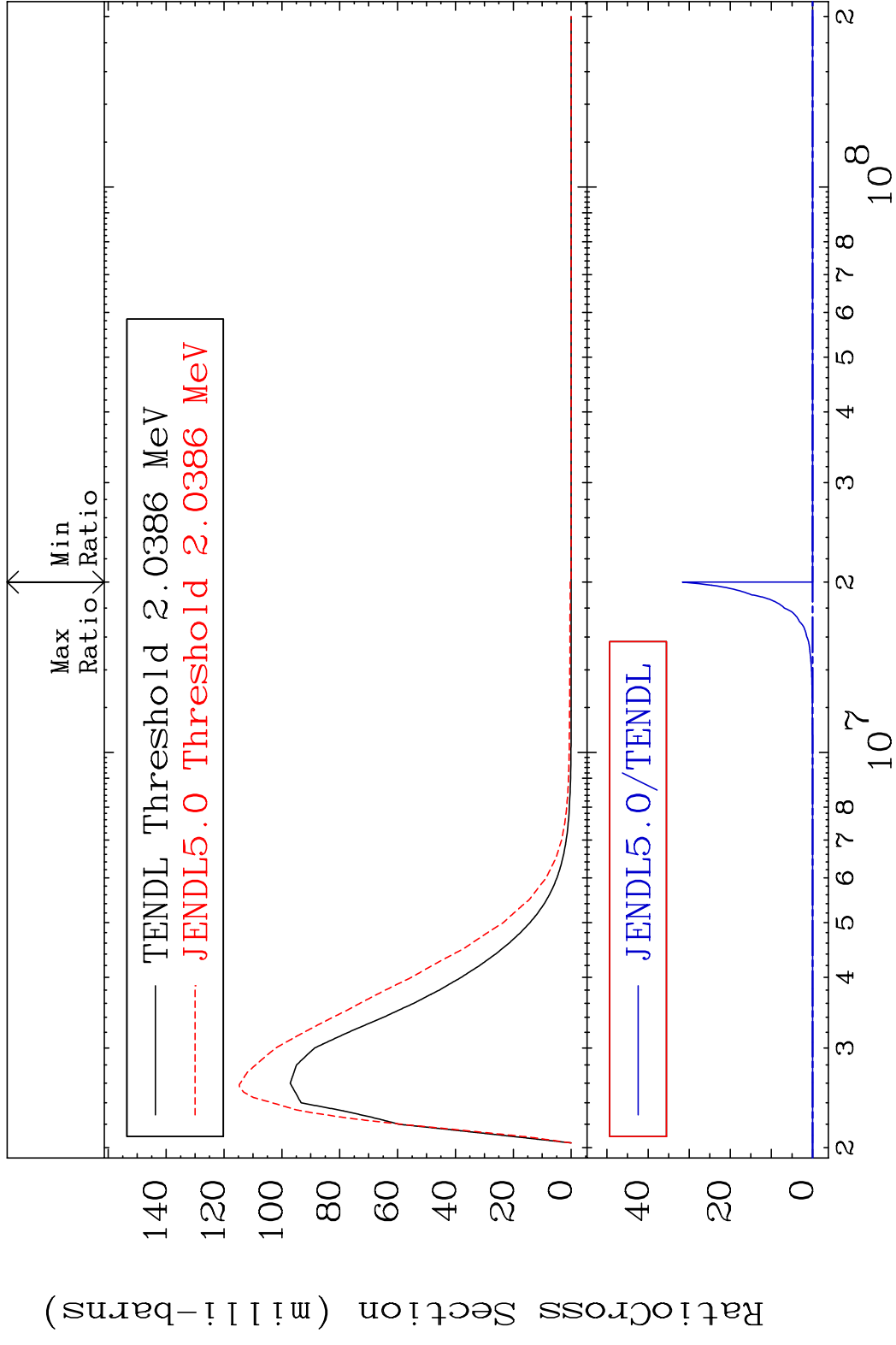




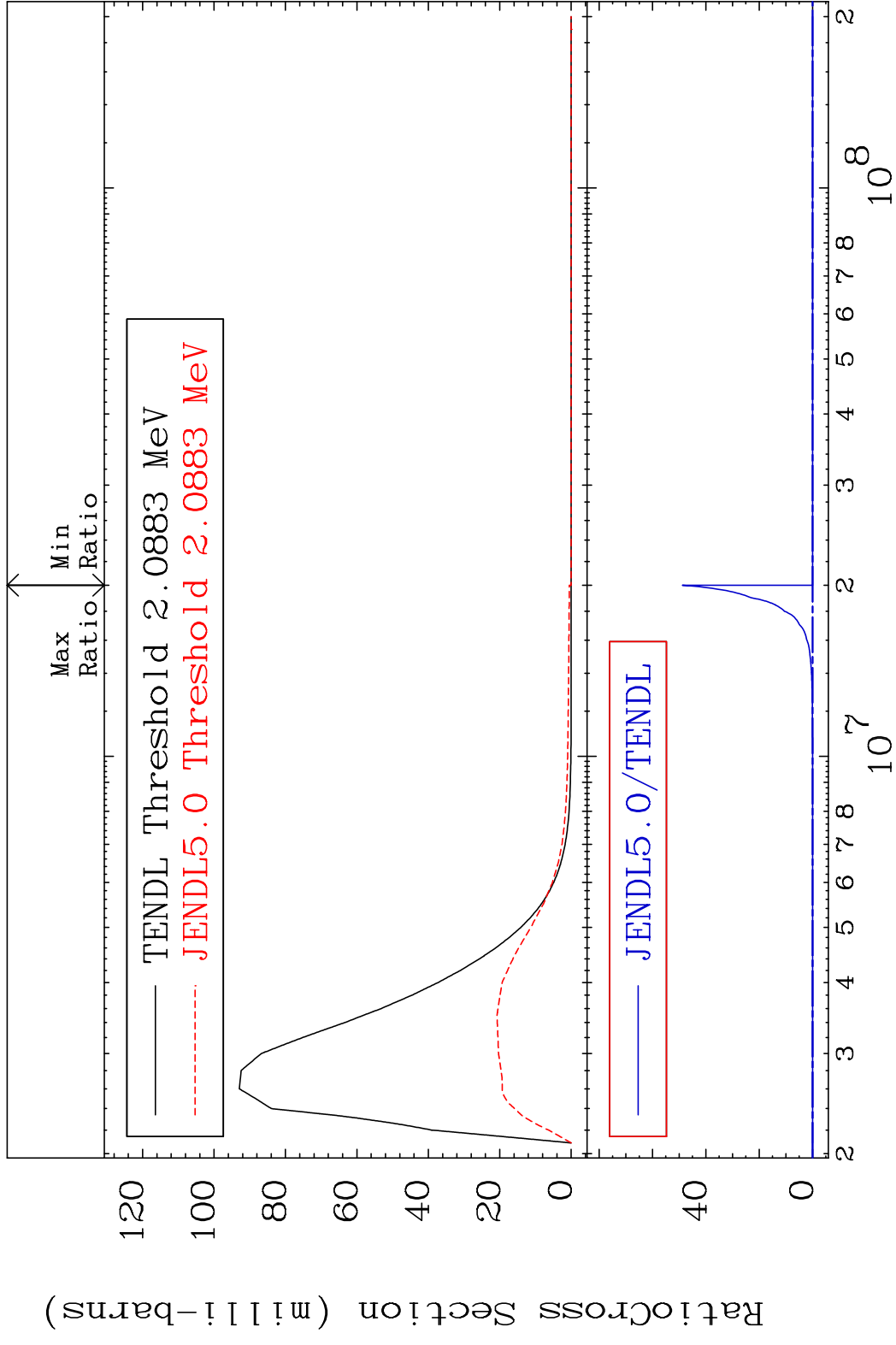
MAT 4120 MT= 64 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 MT= 65 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

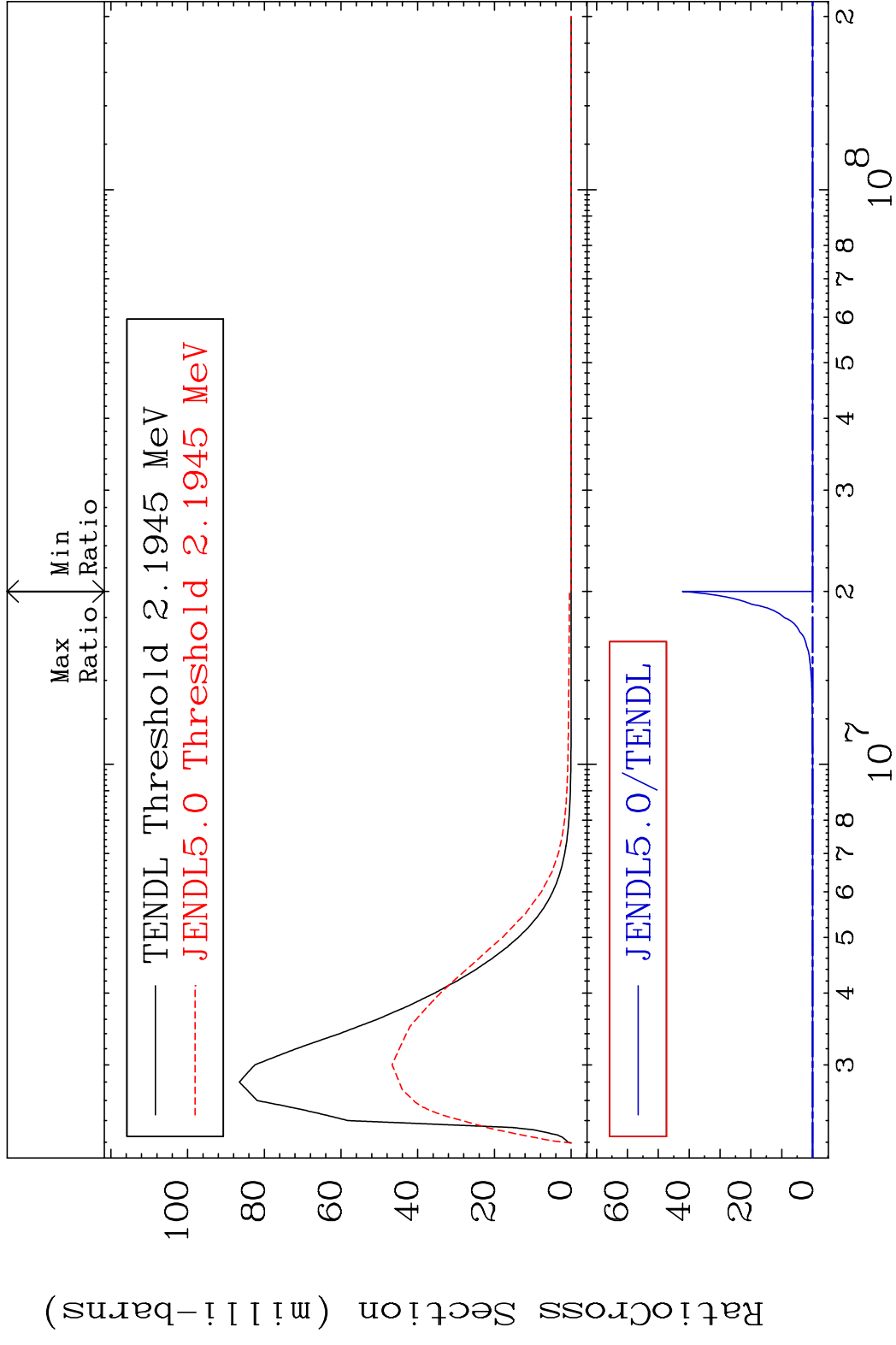


MAT 4120 MT= 66 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

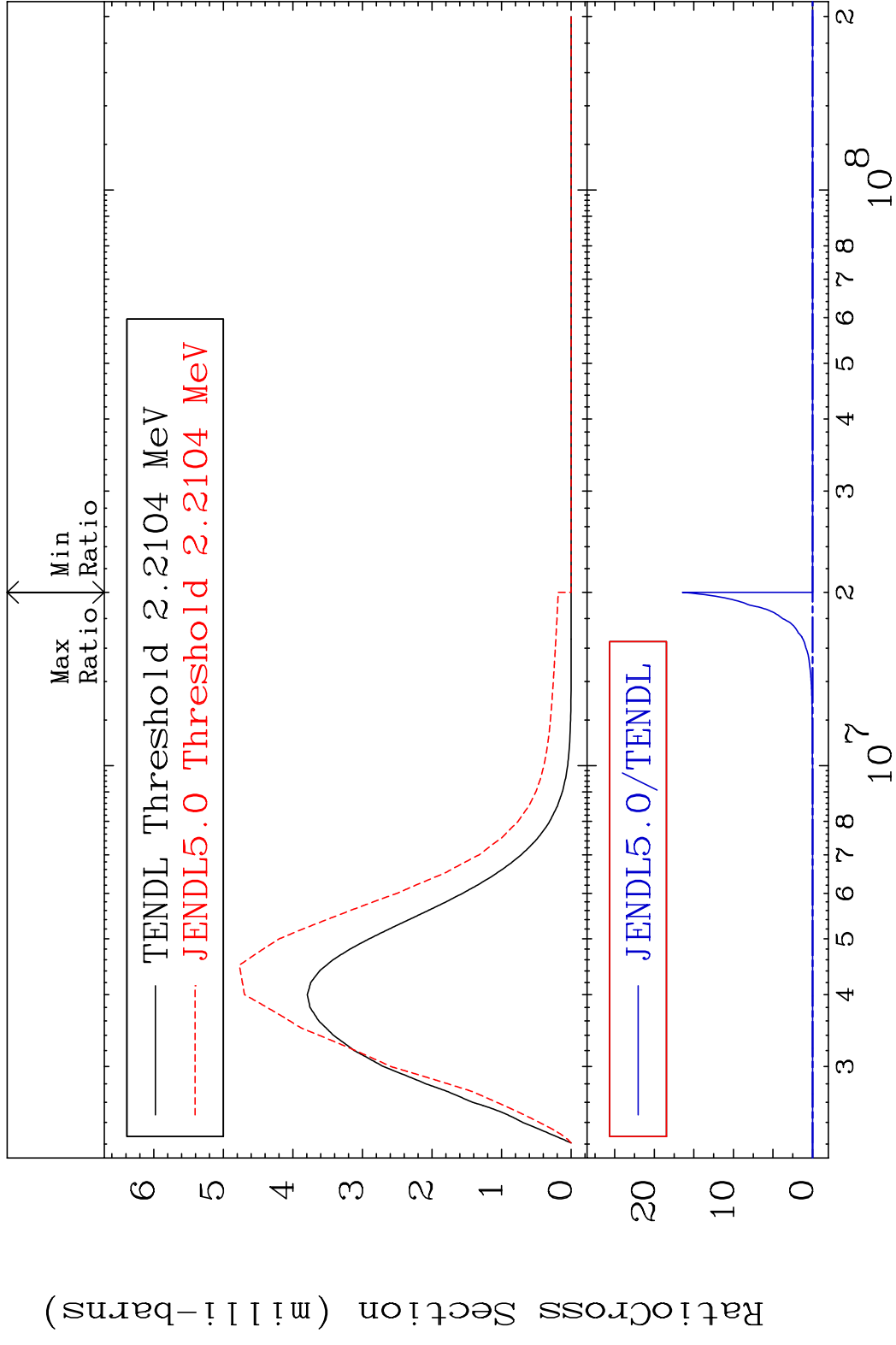


26 Incident Energy (eV) 41-Nb-91m

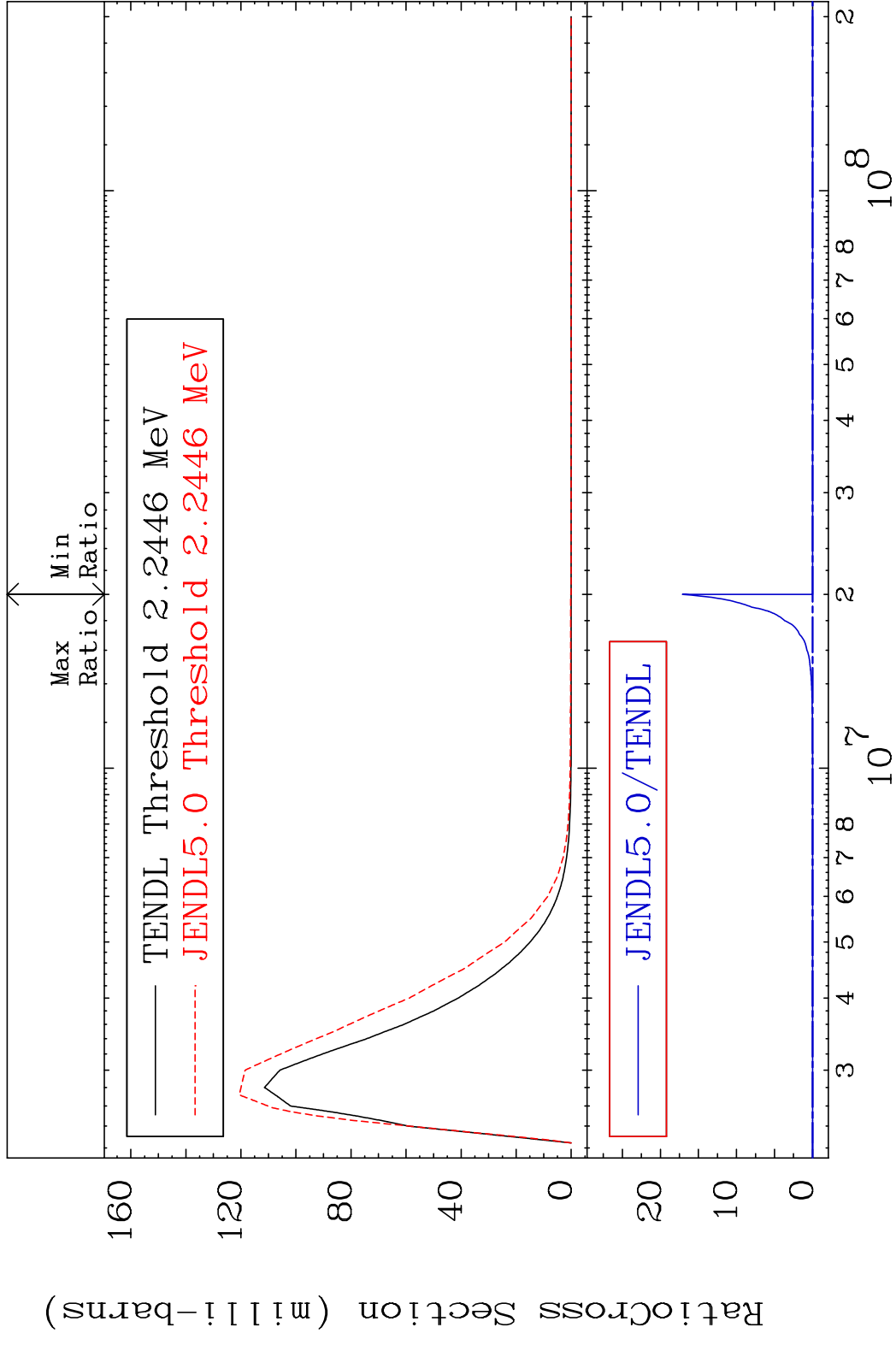
MAT 4120 MT= 67 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 MT= 68 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

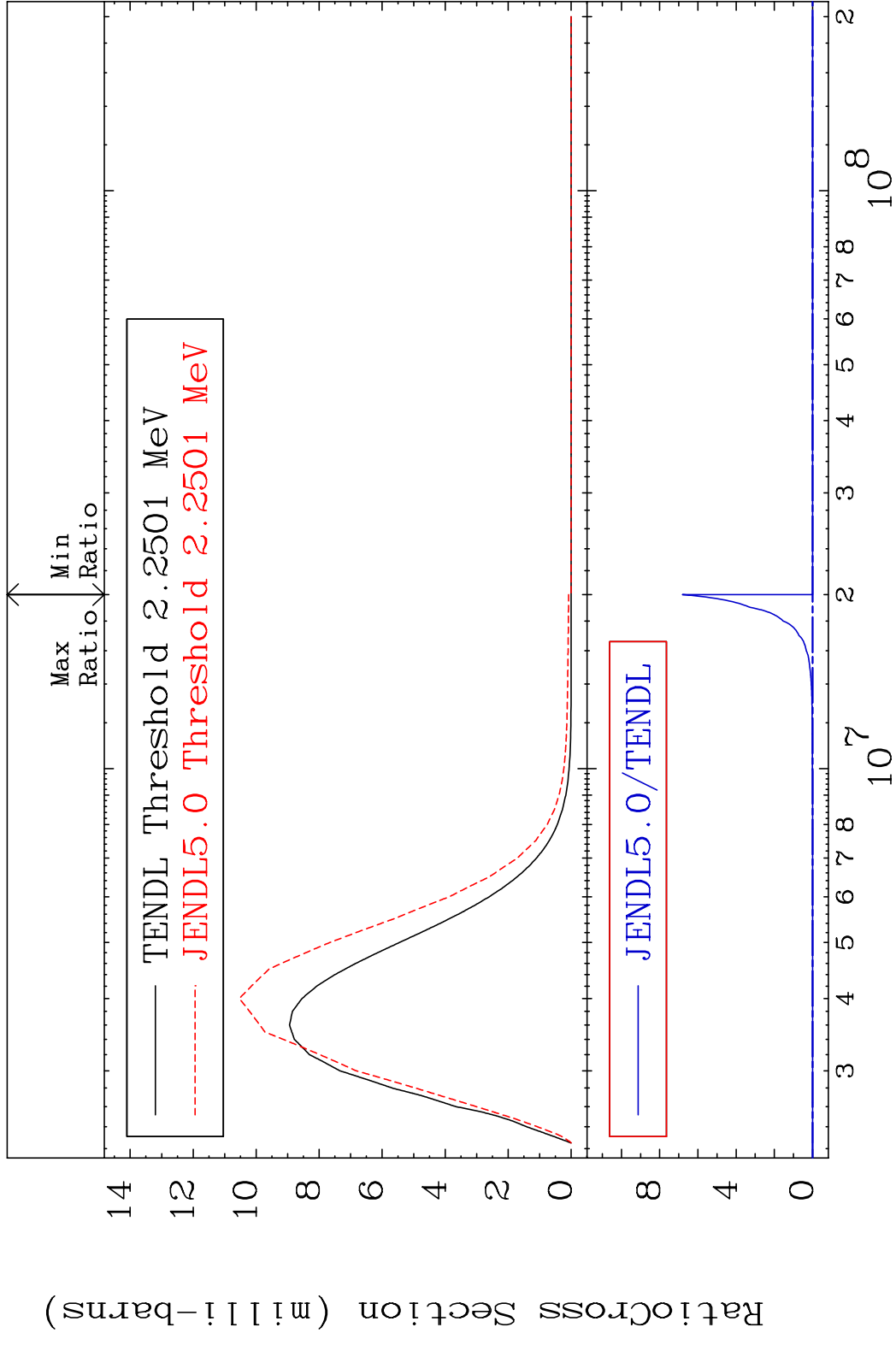


MAT 4120 MT= 69 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

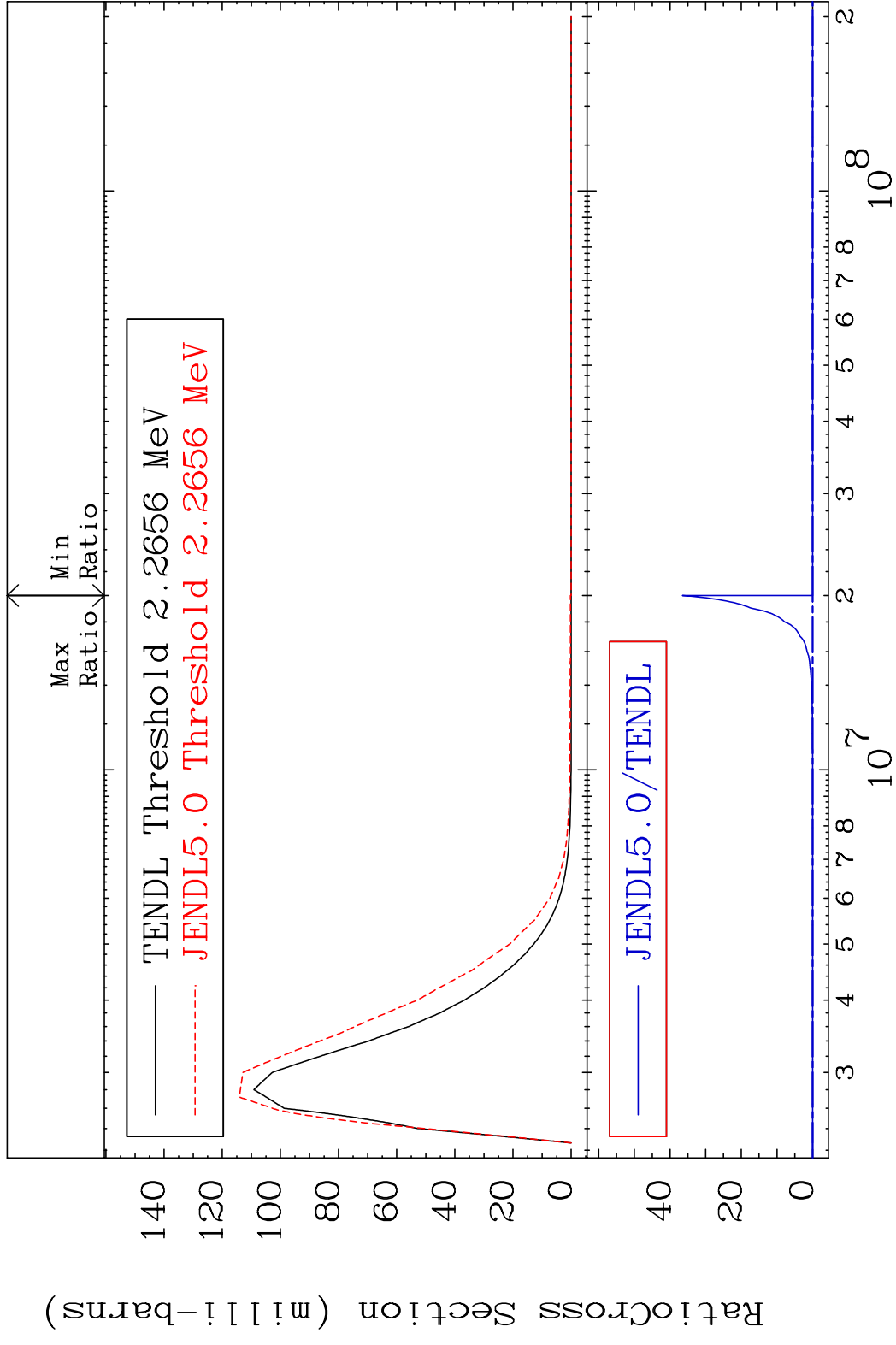


29 Incident Energy (eV) 41-Nb-91m

MAT 4120 MT= 70 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

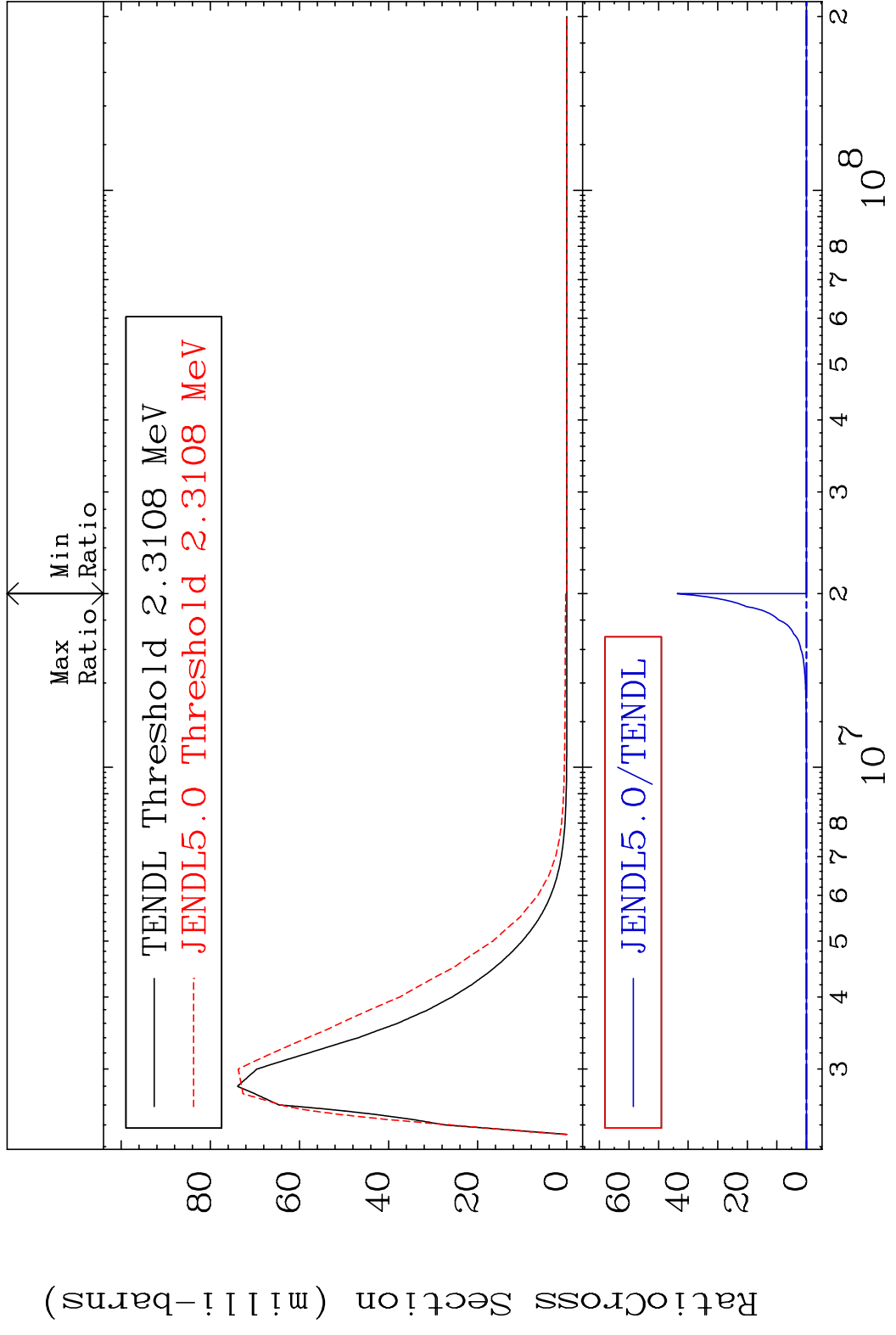


MAT 4120 MT= 71 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

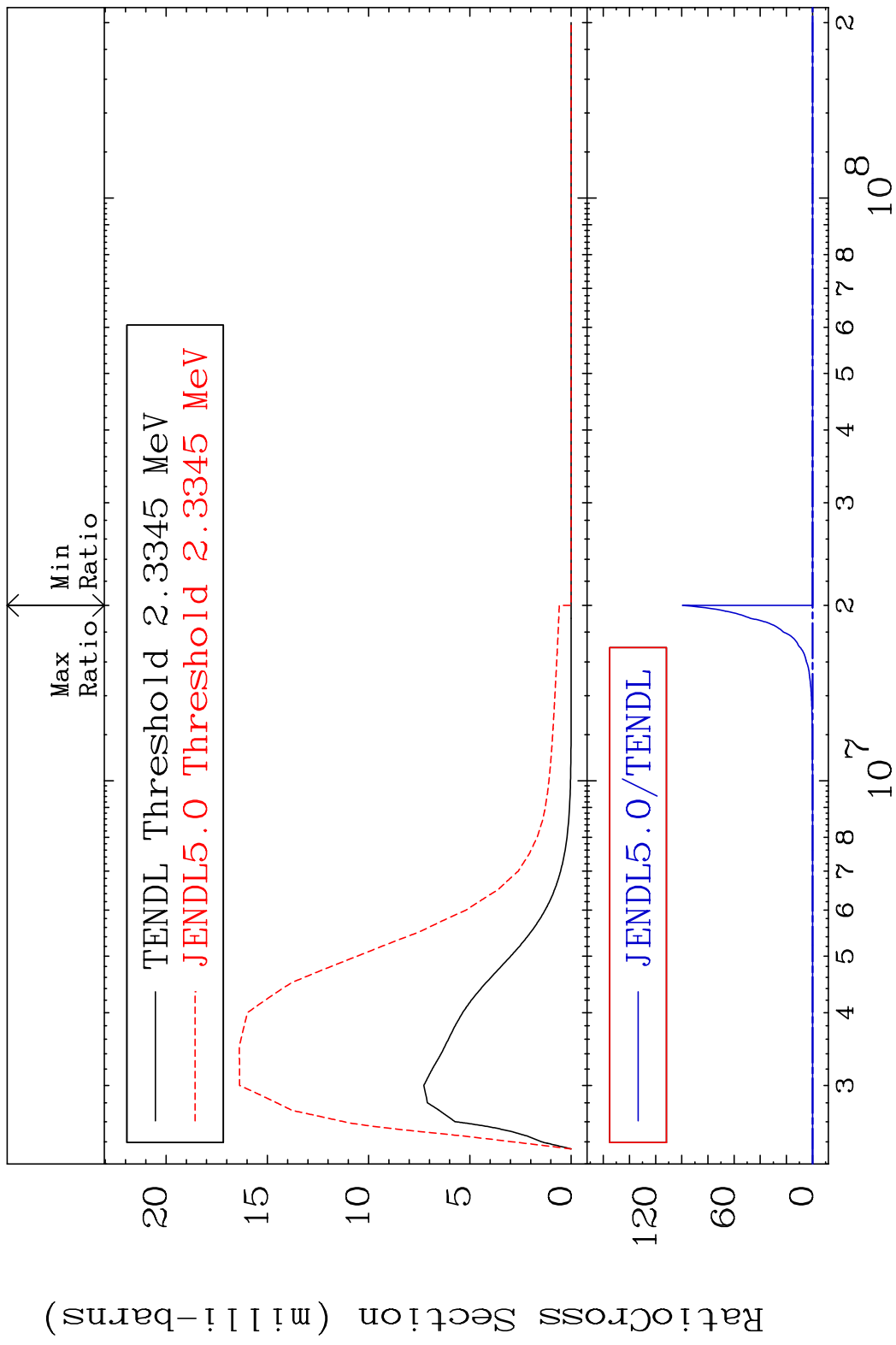




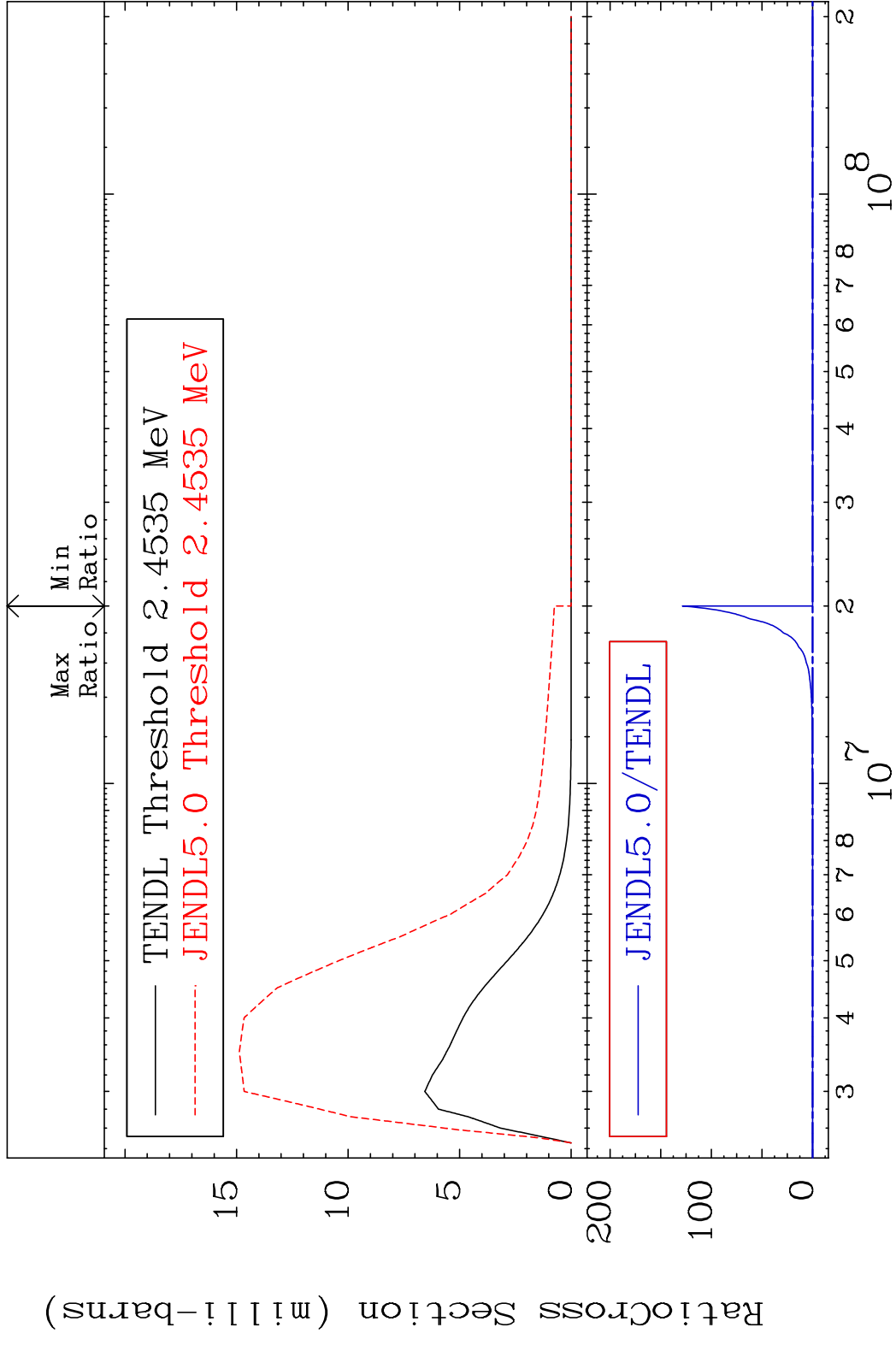
MAT 4120 MT= 72 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



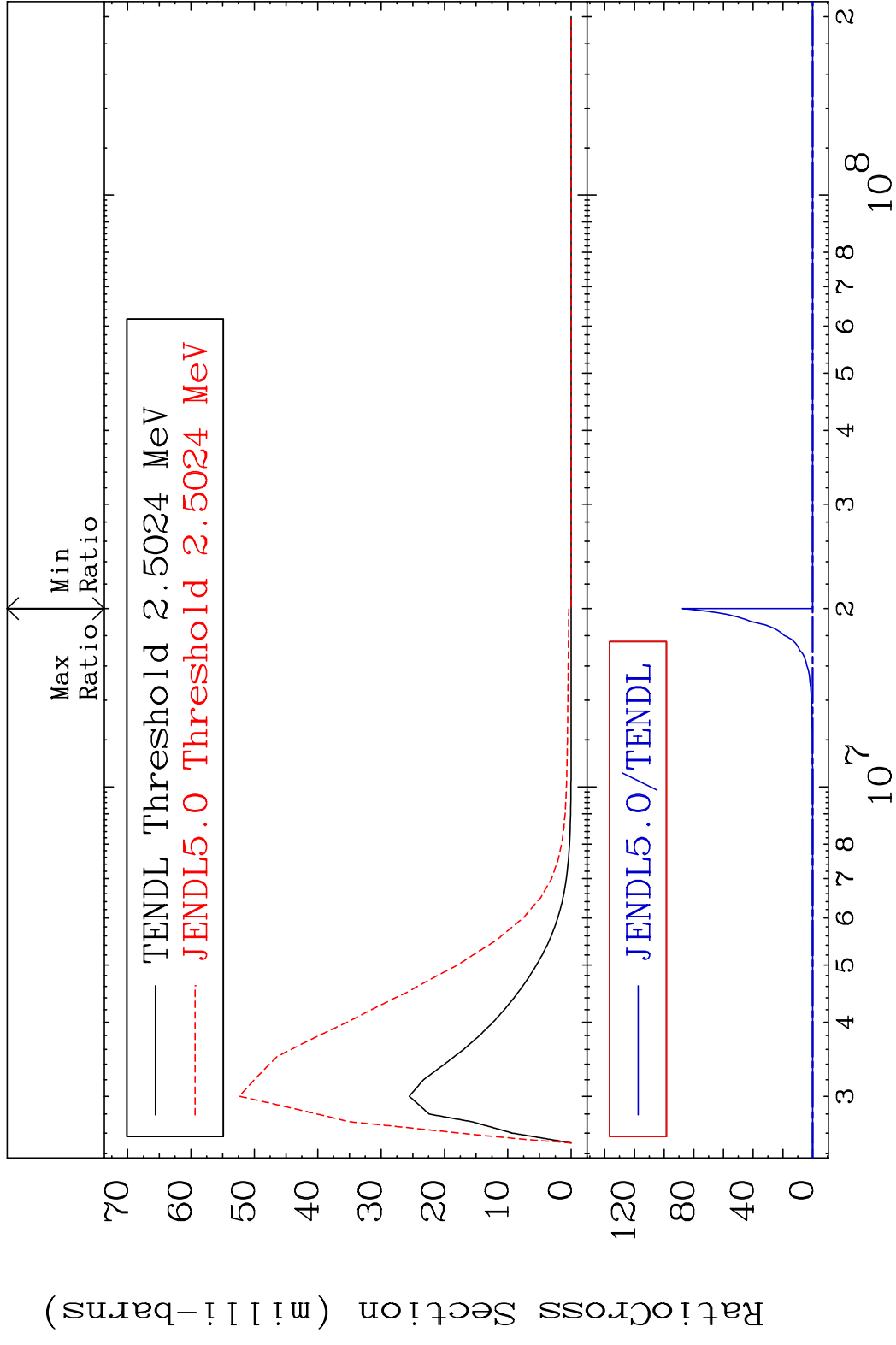
MAT 4120 MT= 73 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 MT= 74 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

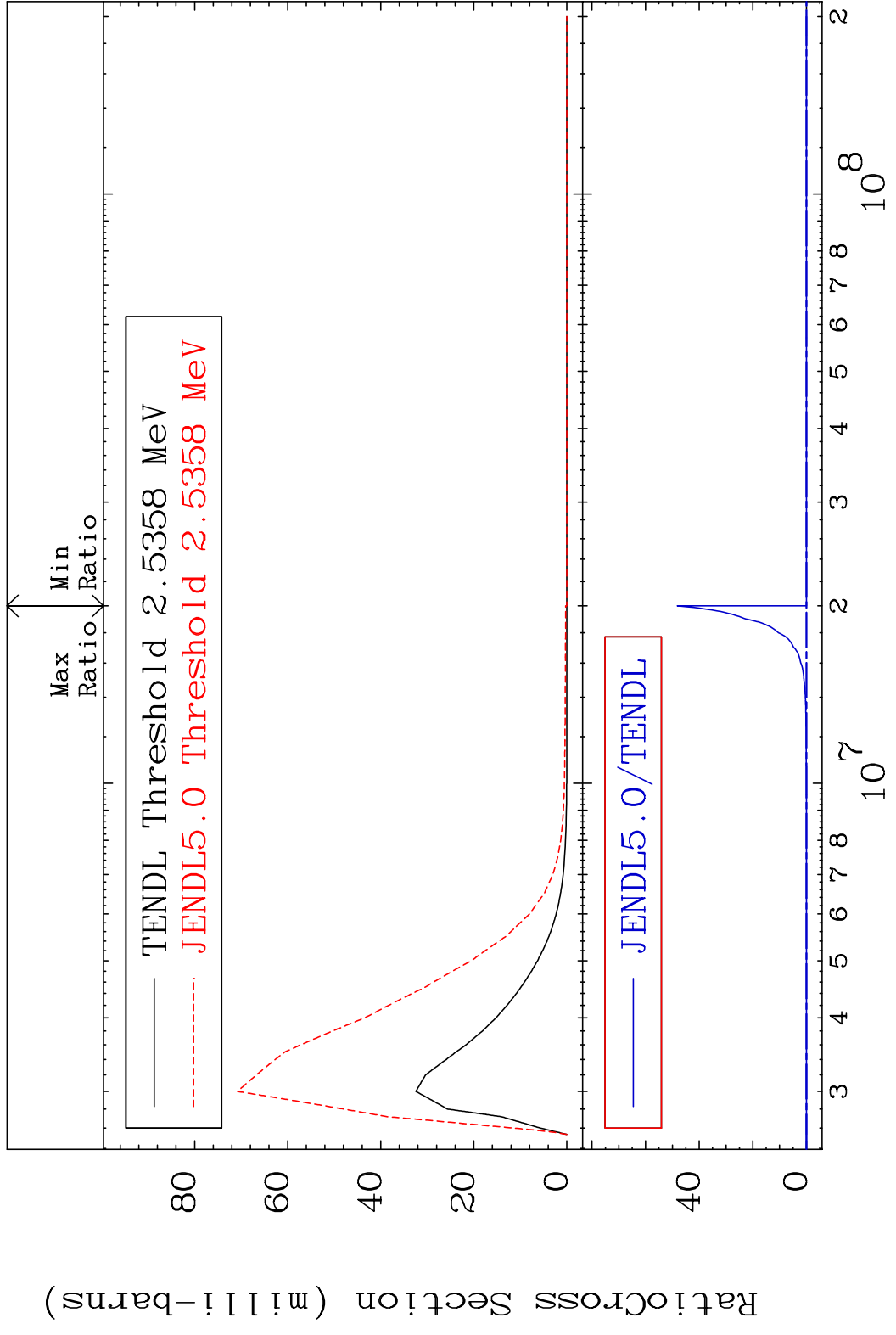


MAT 4120 MT= 75 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %

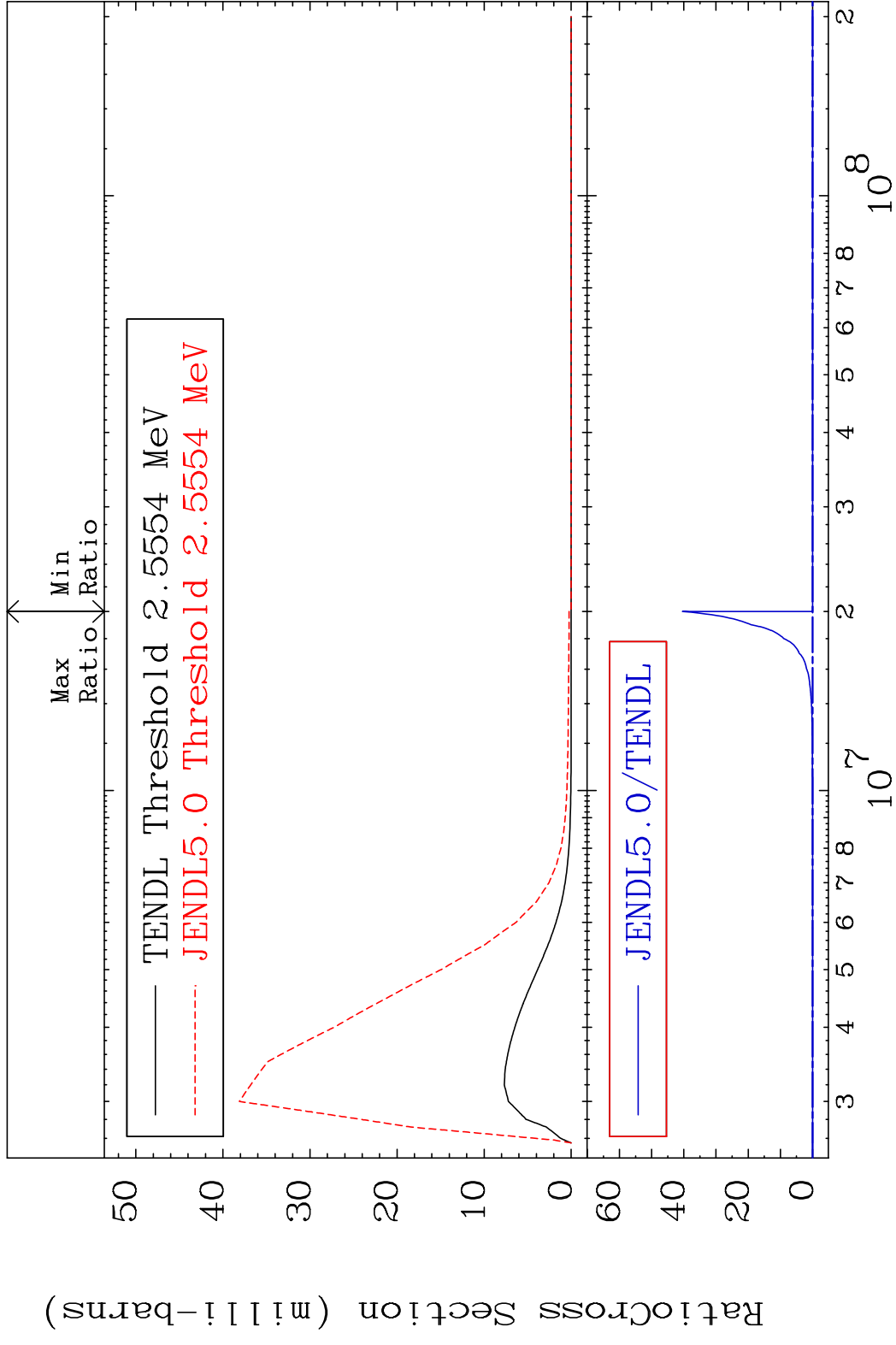


35 Incident Energy (eV) 41-Nb-91m

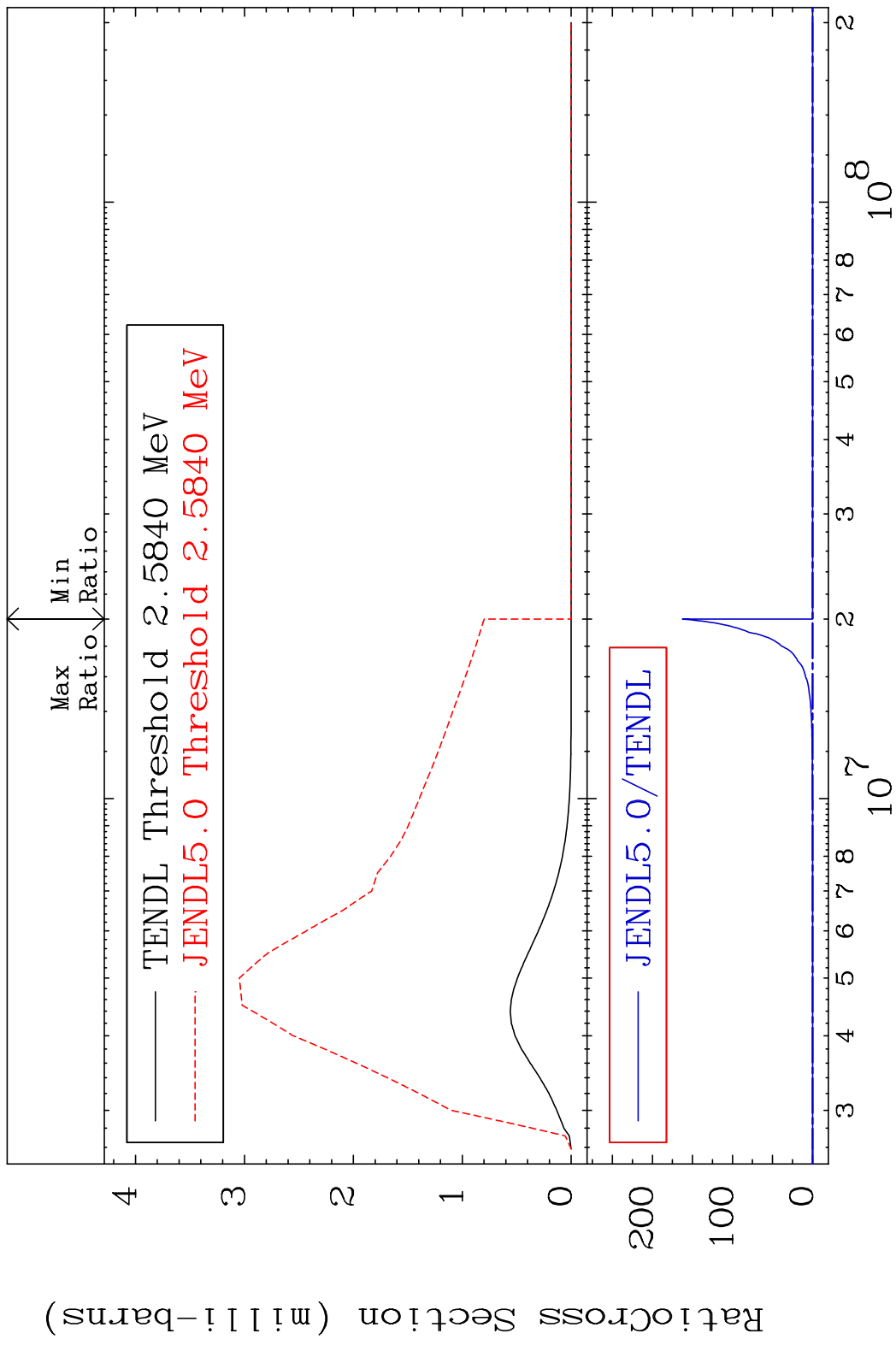
MAT 4120 MT= 76 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



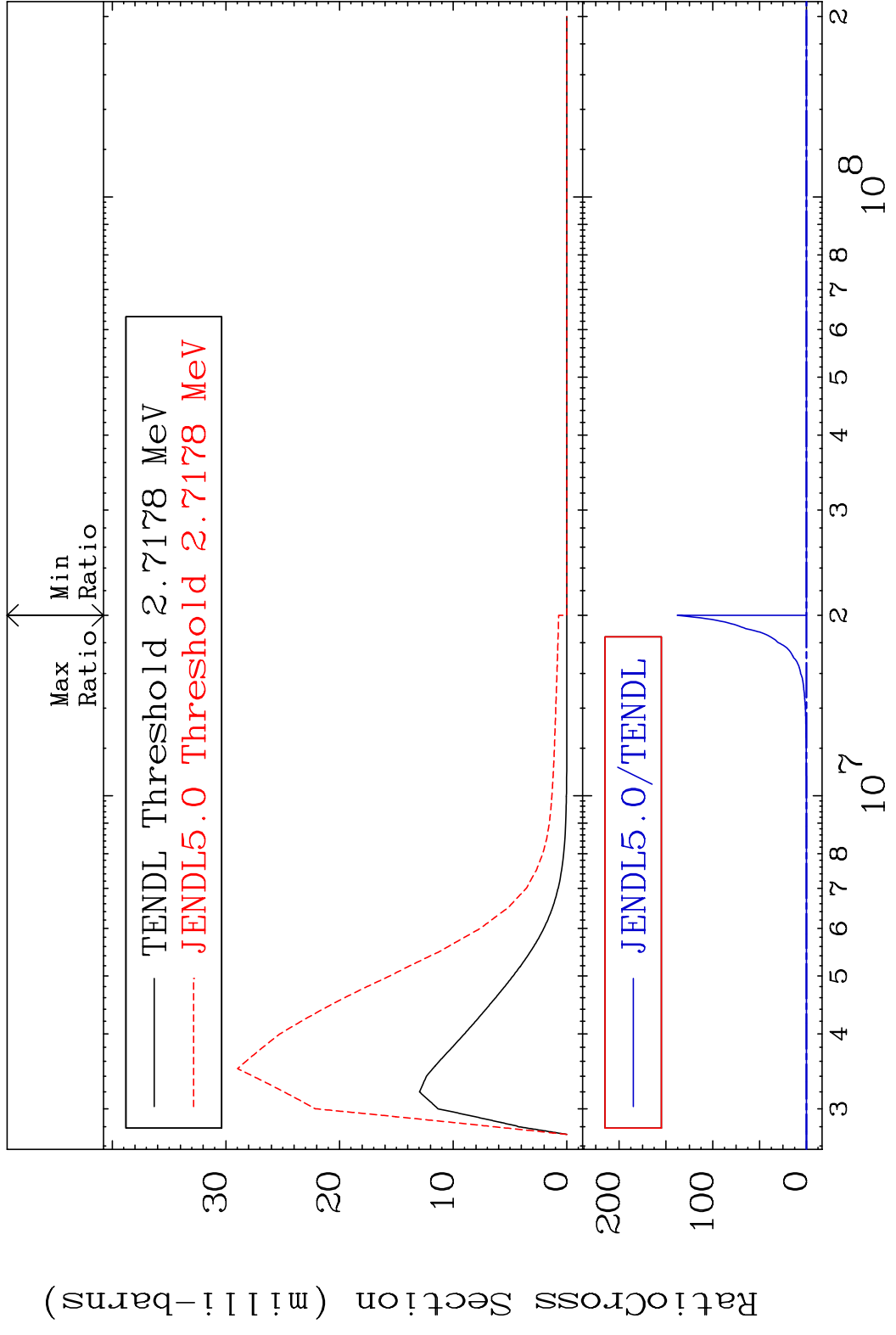
MAT 4120 MT= 77 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 MT= 78 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 MT= 79 (n, n') Level 41-Nb-91m  
 Cross Section -100.0 To 9999. %



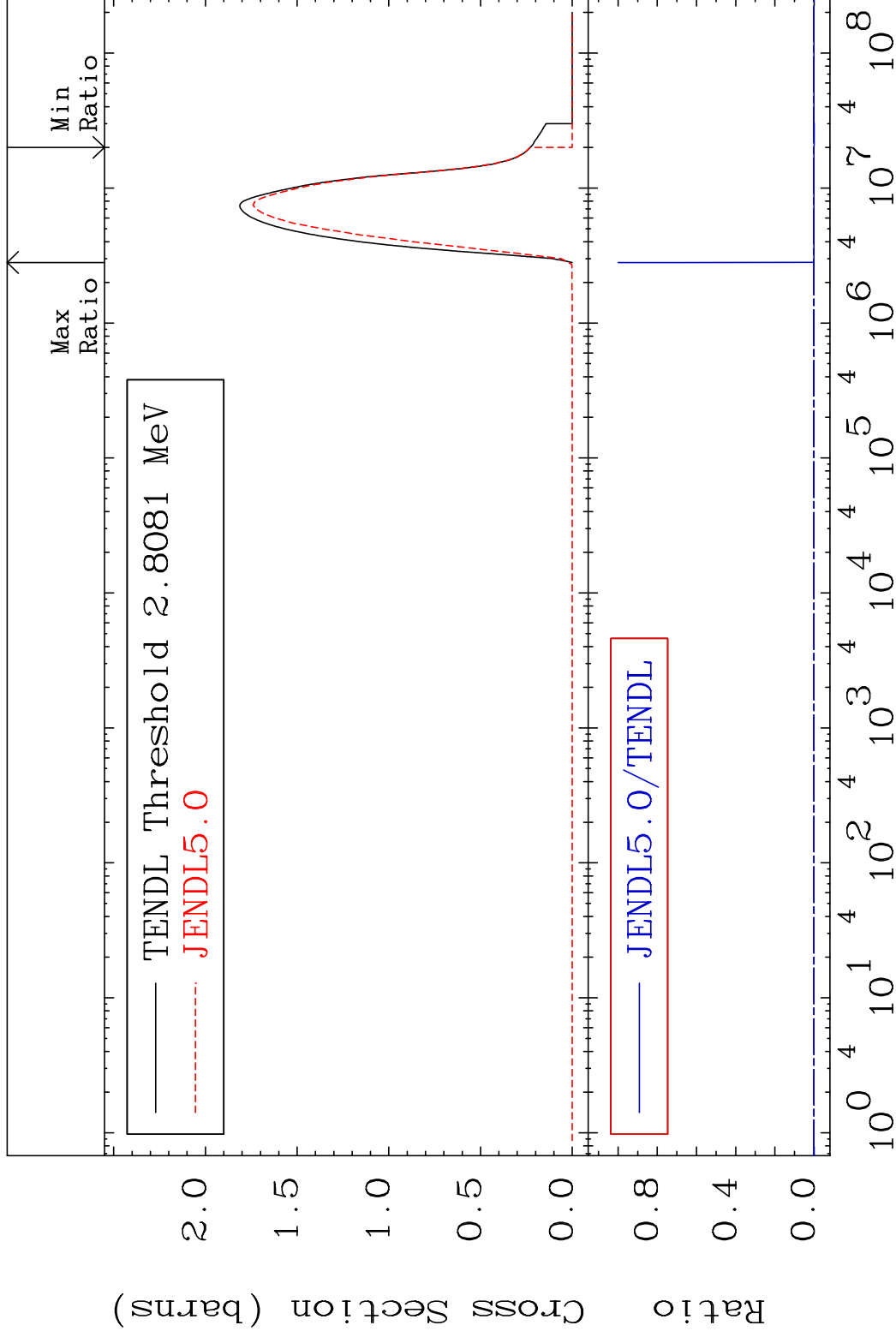


MAT 4120

(n,n') Continuum

41-Nb-91m

Cross Section -100.0 To 9999. %



40

Incident Energy (eV)

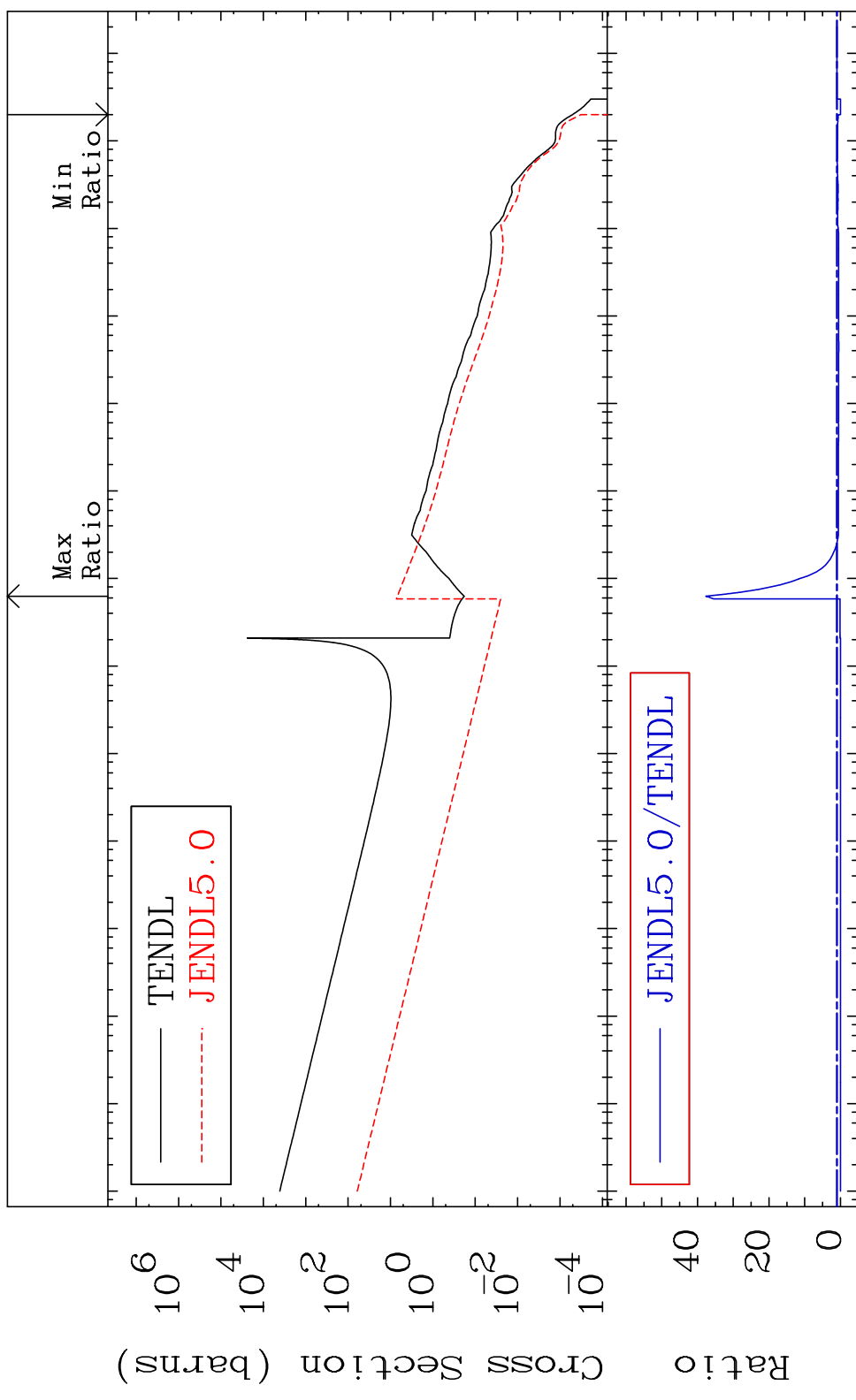
41-Nb-91m

MAT 4120

(n,  $\gamma$ )

41-Nb-91m

Cross Section -100.0 To 3669. %



41

Incident Energy (eV)

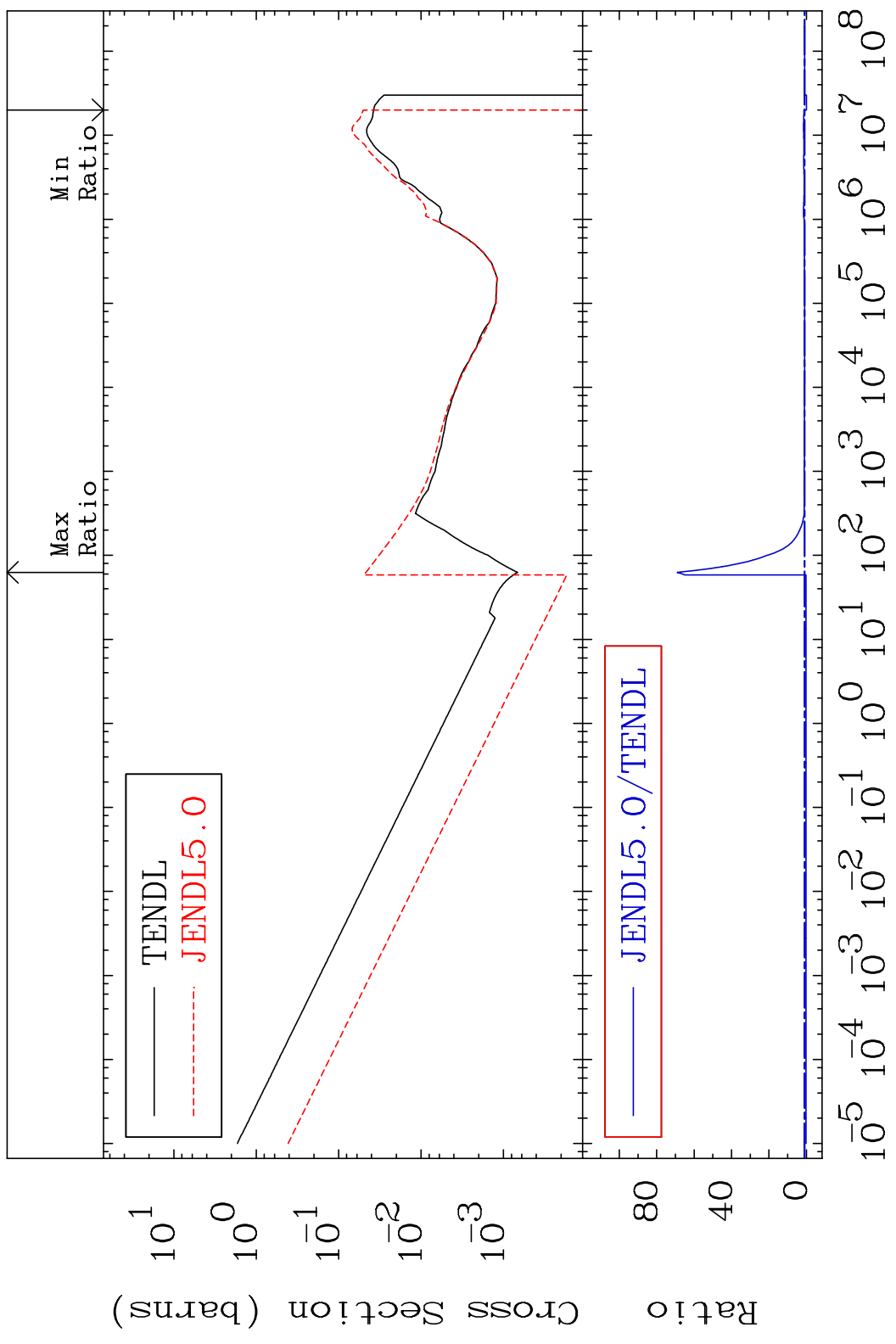
41-Nb-91m

MAT 4120

(n, p)

41-Nb-91m

Cross Section -100.0 To 6806. %

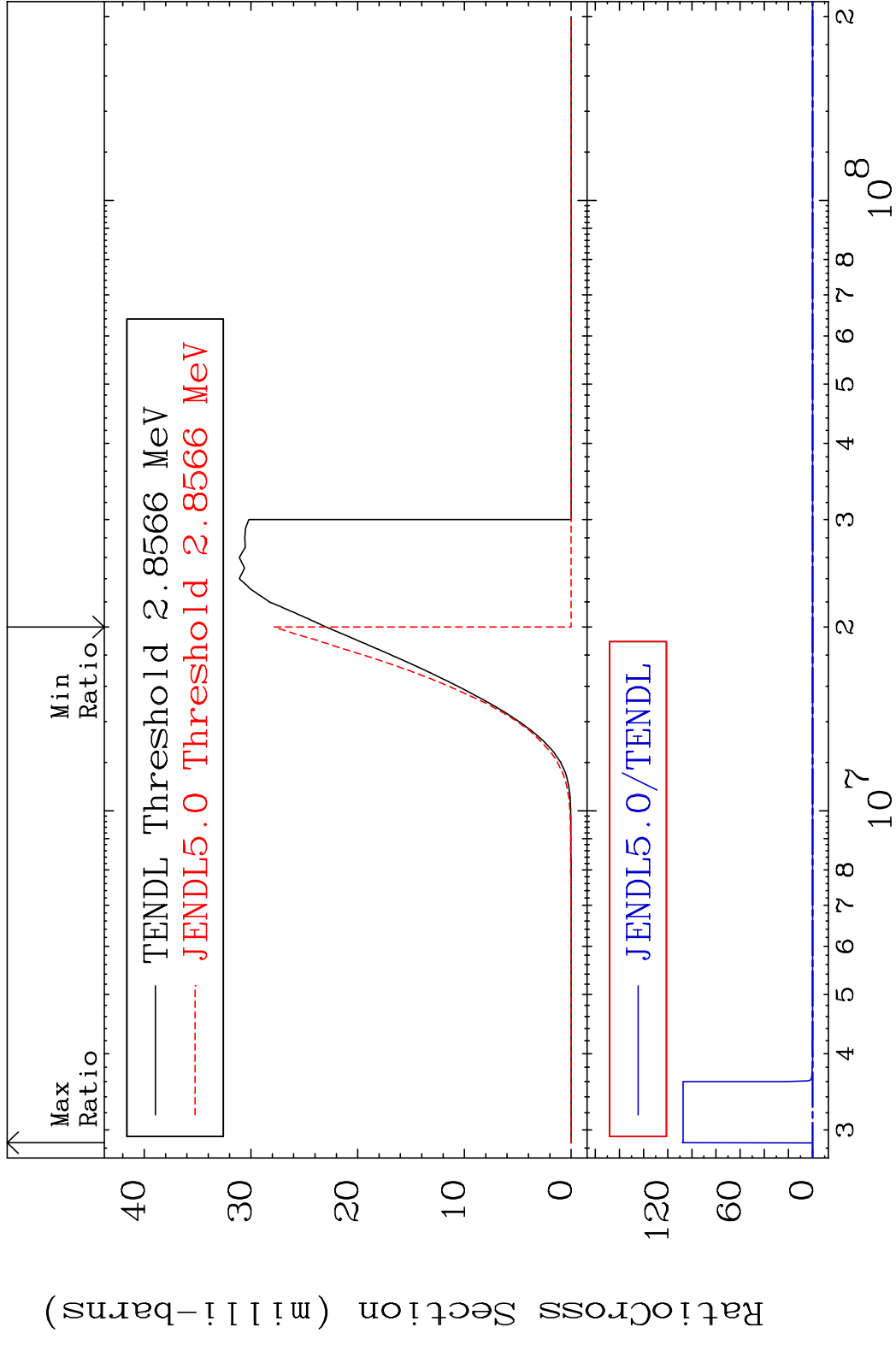


42

Incident Energy (eV)

41-Nb-91m

MAT 4120 (n,d) 41-Nb-91m  
 Cross Section -100.0 To 9999. %

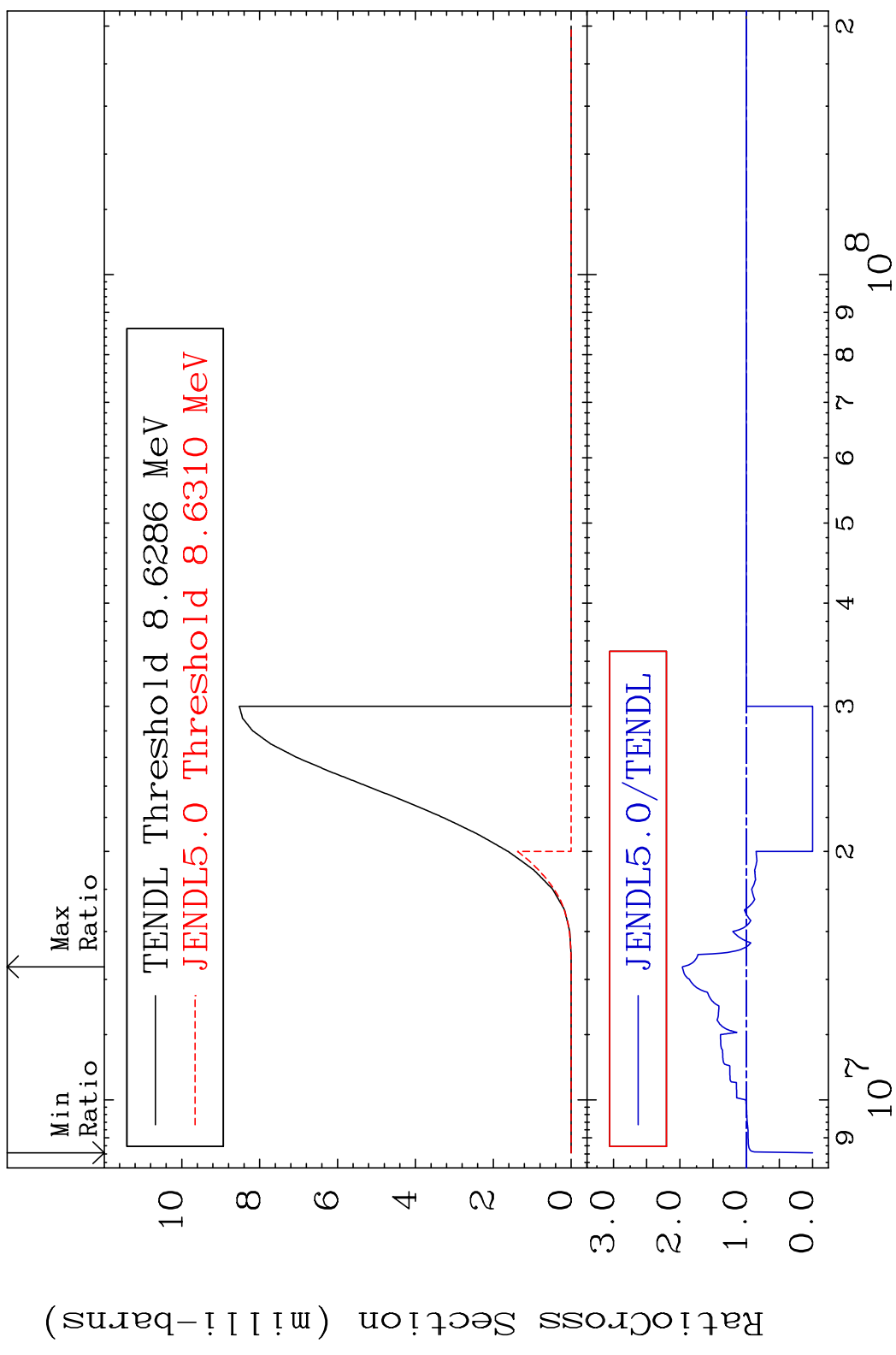


MAT 4120

(n, t)

41-Nb-91m

Cross Section -100.0 To 96.22 %

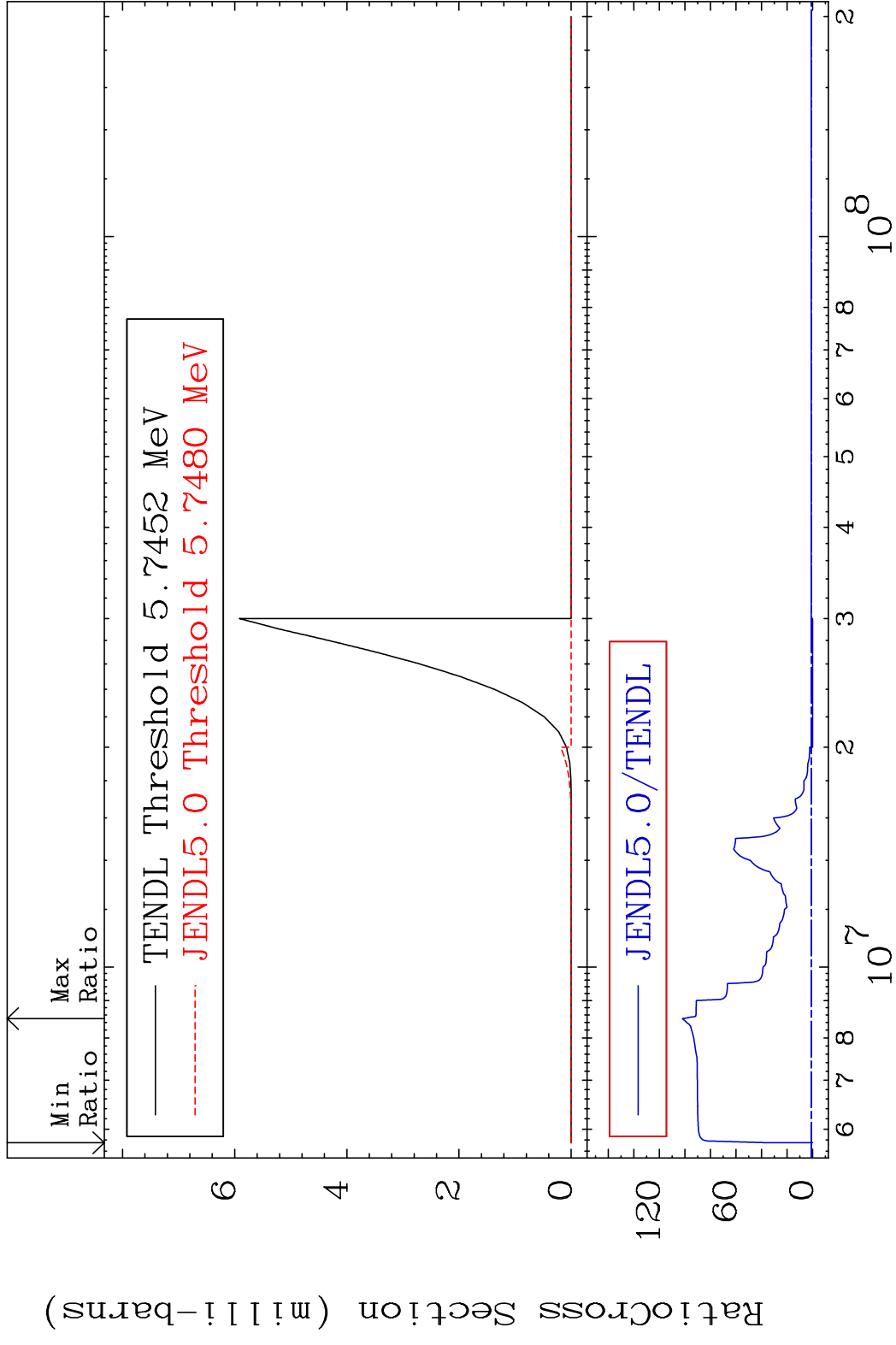


44

Incident Energy (eV)

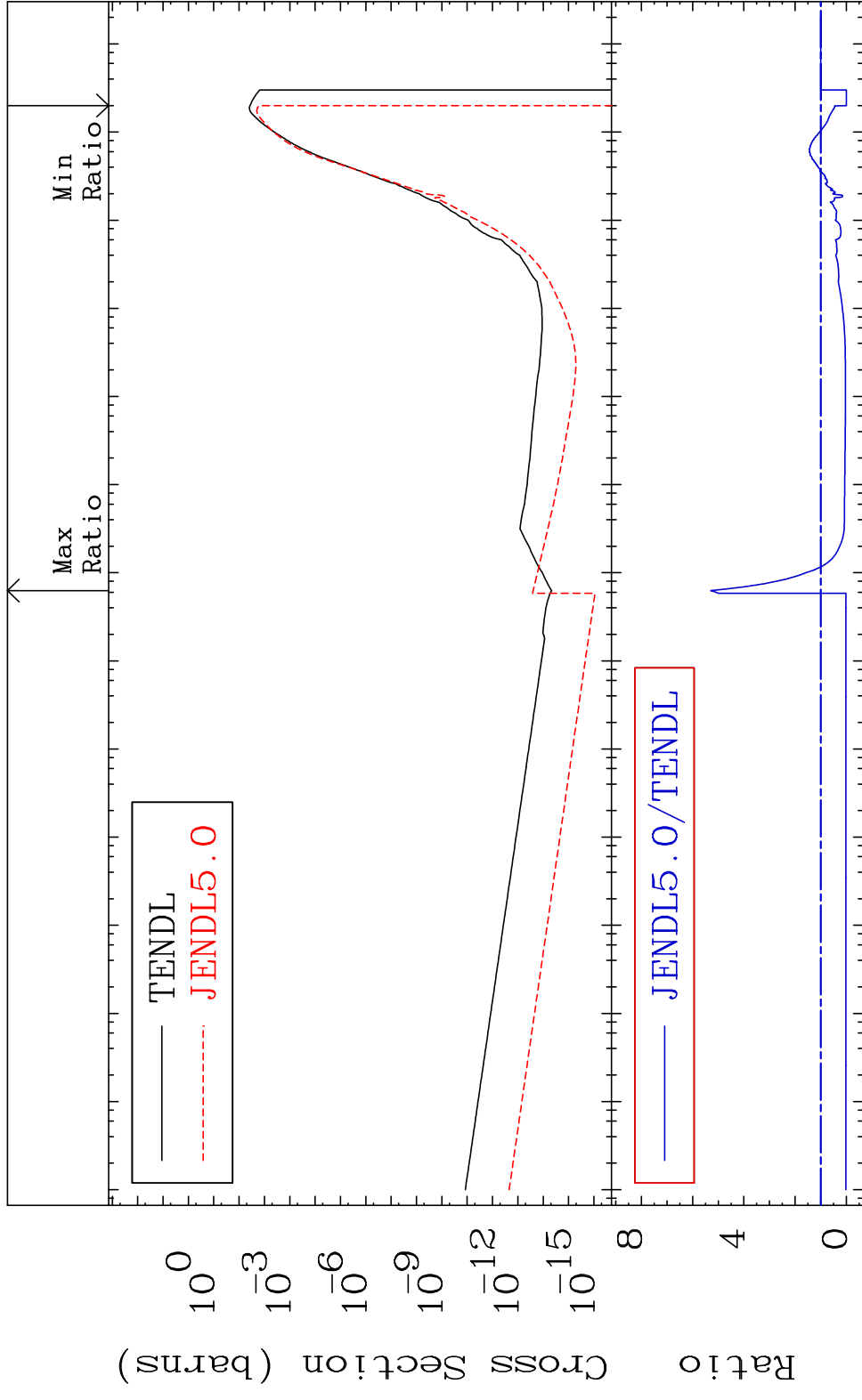
41-Nb-91m

MAT 4120 (n, He-3) 41-Nb-91m  
 Cross Section -100.0 To 9999. %



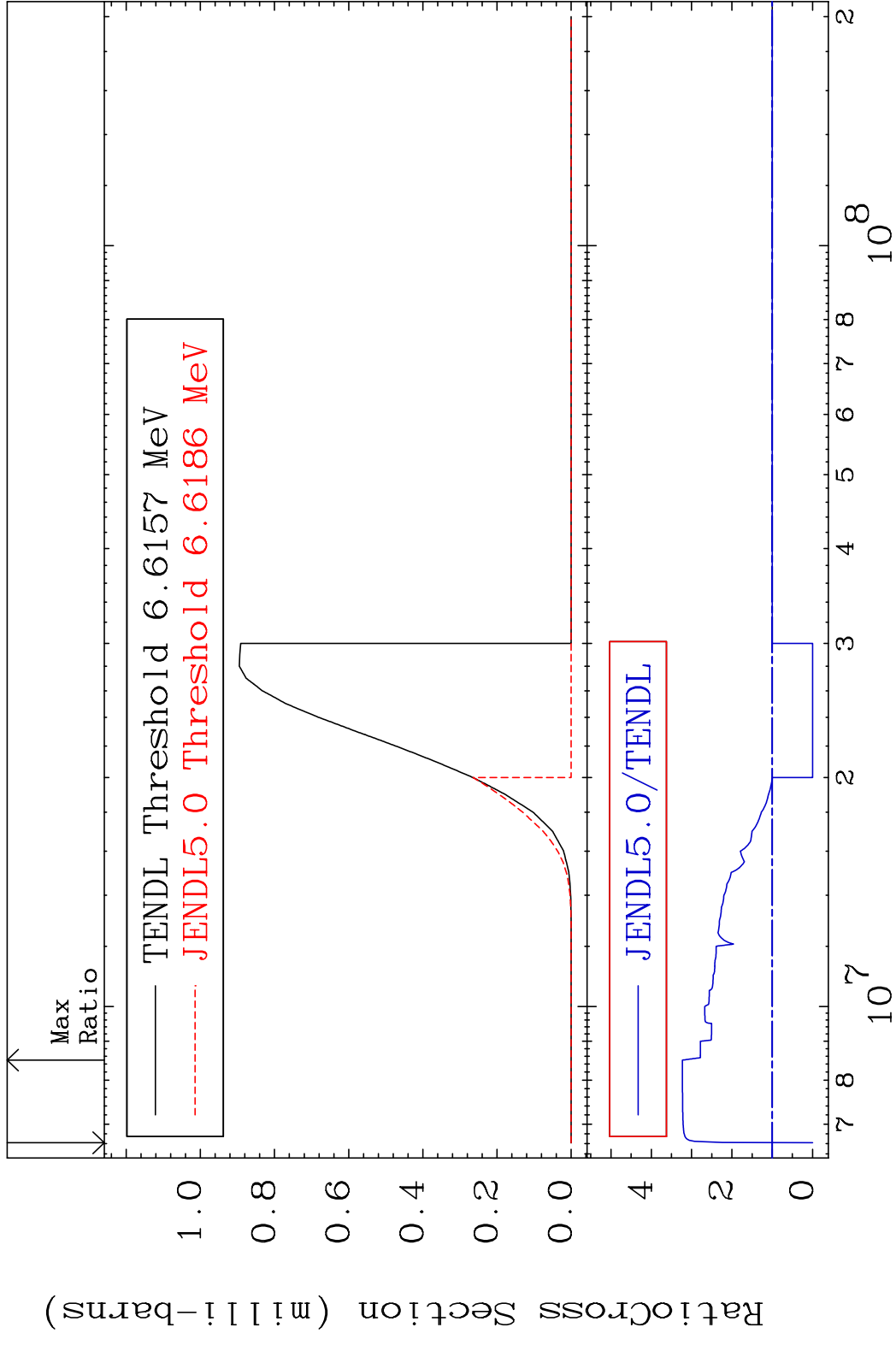
45 41-Nb-91m

MAT 4120 (n,  $\alpha$ ) 41-Nb-91m  
 Cross Section -100.0 To 429.4 %



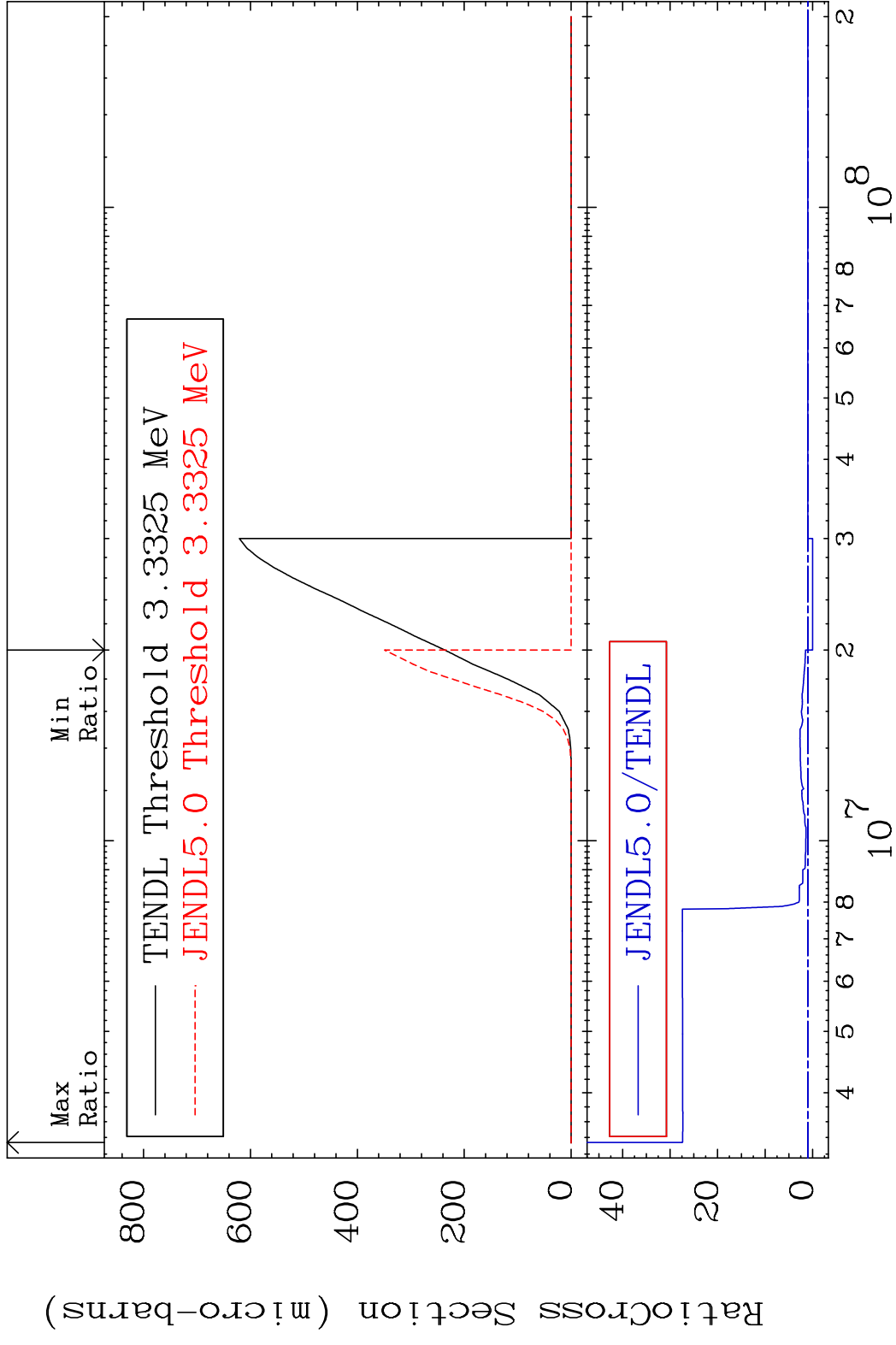
46 Incident Energy (eV) 41-Nb-91m

MAT 4120 (n,2p) 41-Nb-91m  
 Cross Section -100.0 To 222.9 %

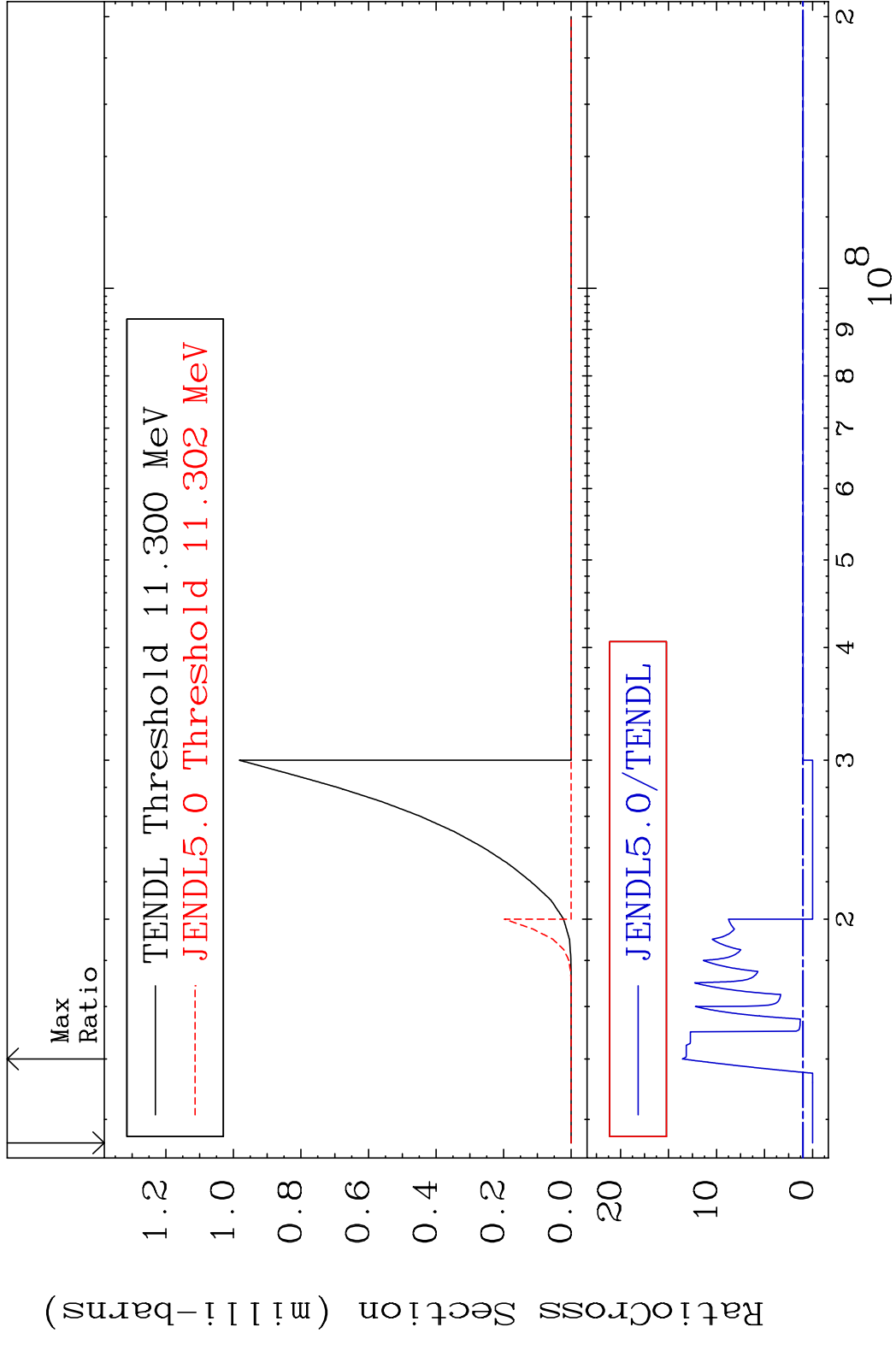




MAT 4120 (n,p)  $\alpha$  41-Nb-91m  
 Cross Section -100.0 To 2643. %

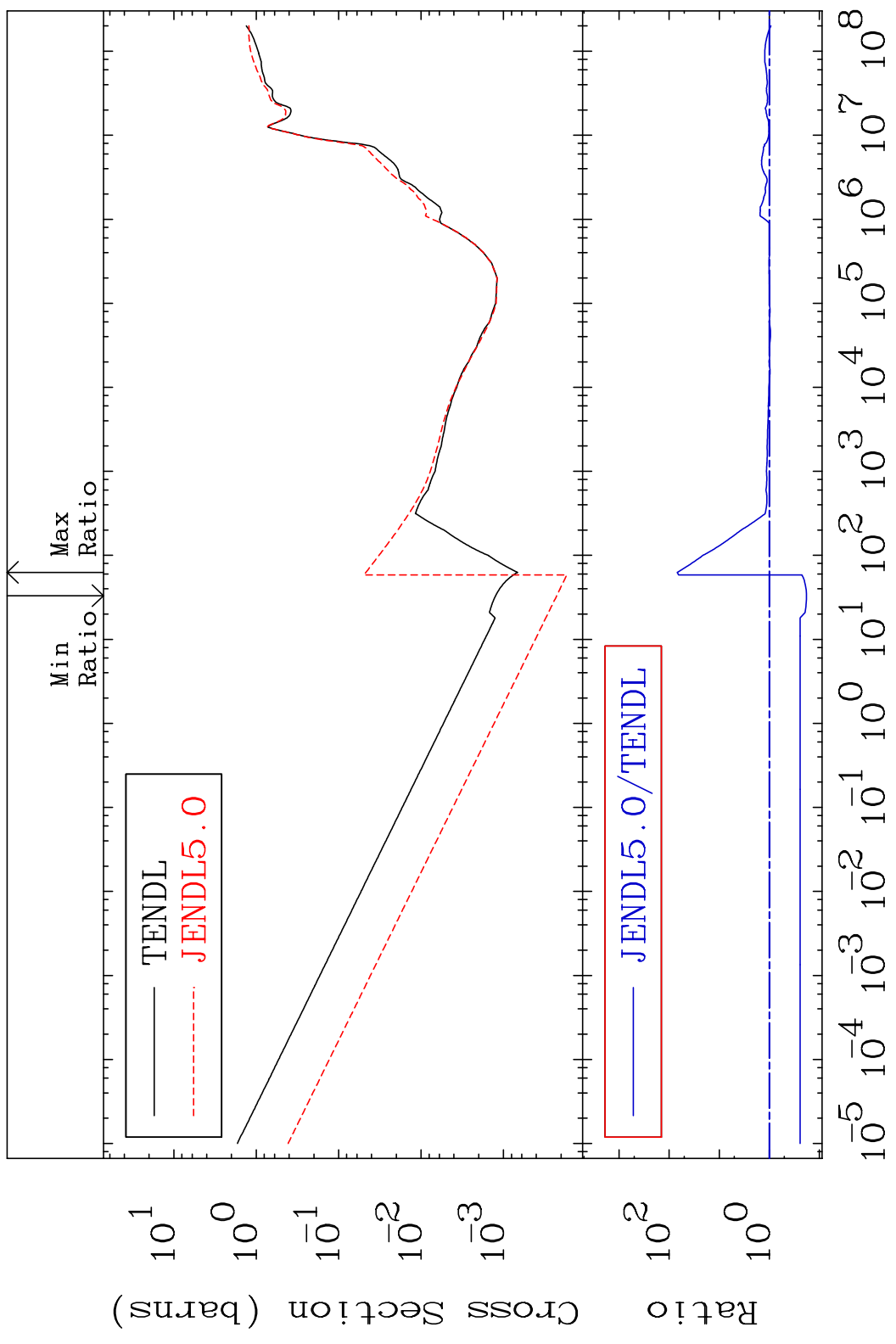


MAT 4120 (n,p) d 41-Nb-91m  
 Cross Section -100.0 To 1256. %



MAT 4120

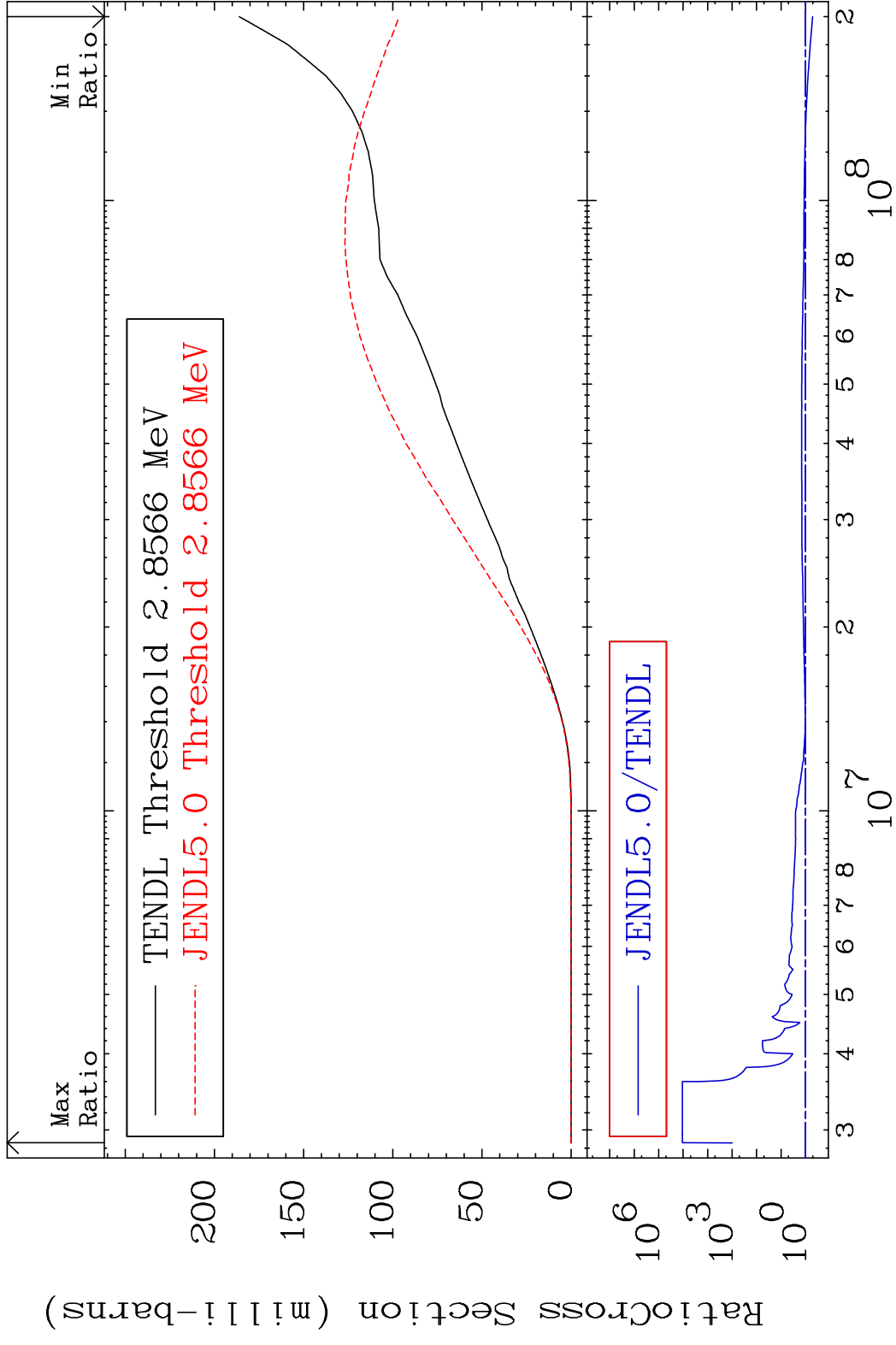
Hydrogen Production 41-Nb-91m  
Cross Section -81.86 To 6806. %



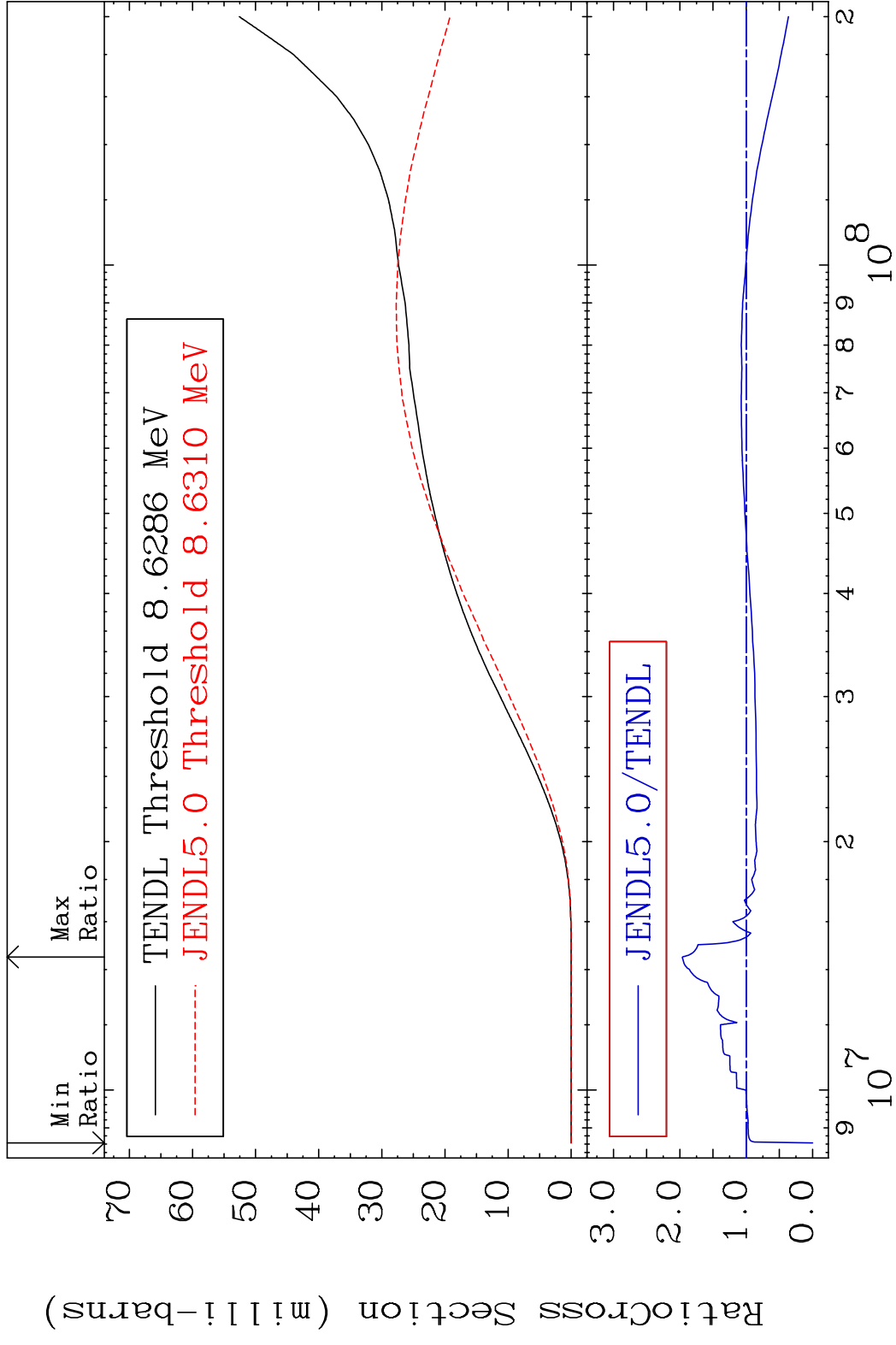
50

Incident Energy (eV) 41-Nb-91m

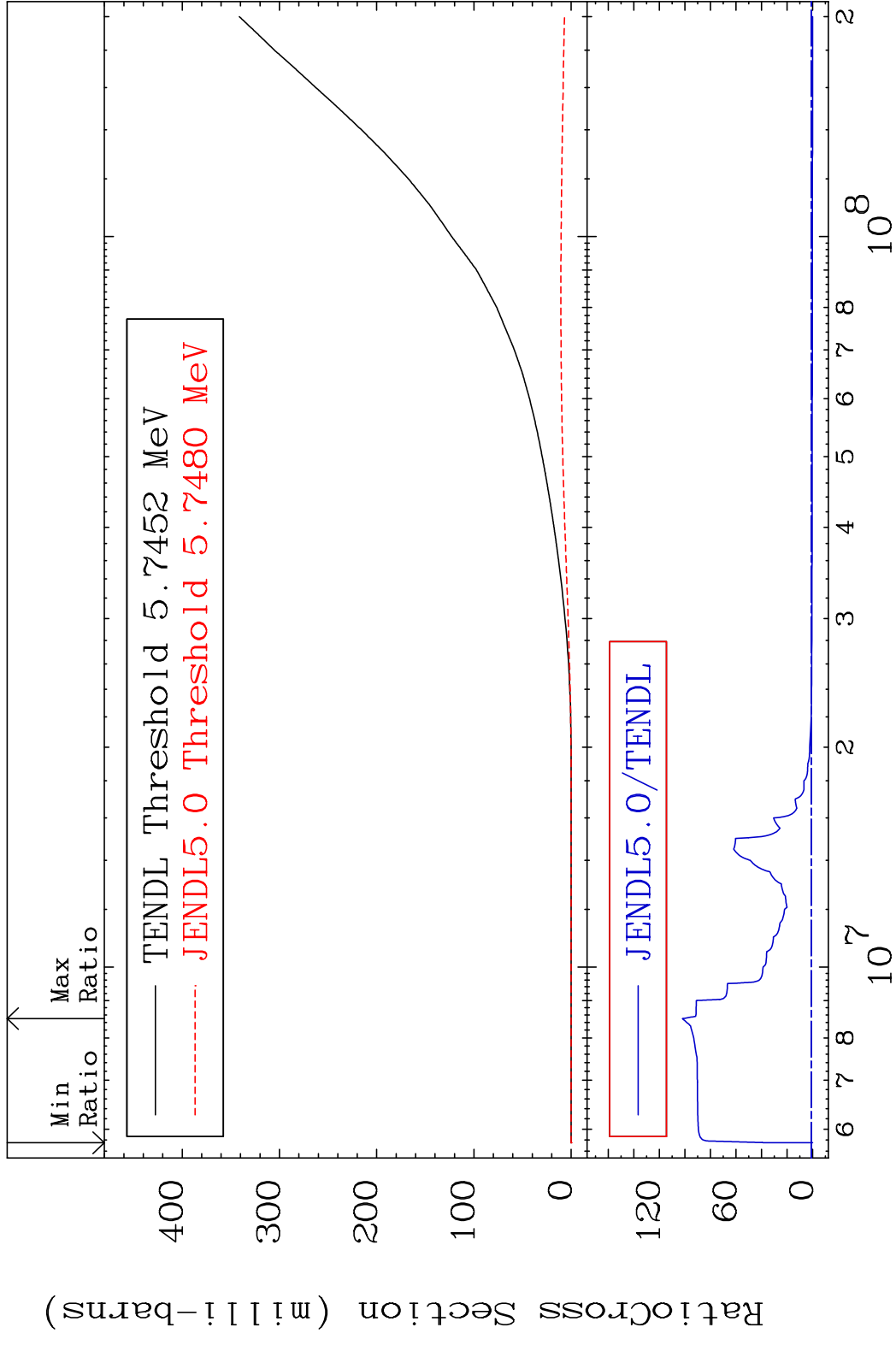
MAT 4120 Deuterium Production 41-Nb-91m  
 Cross Section -48.13 To 9999. %



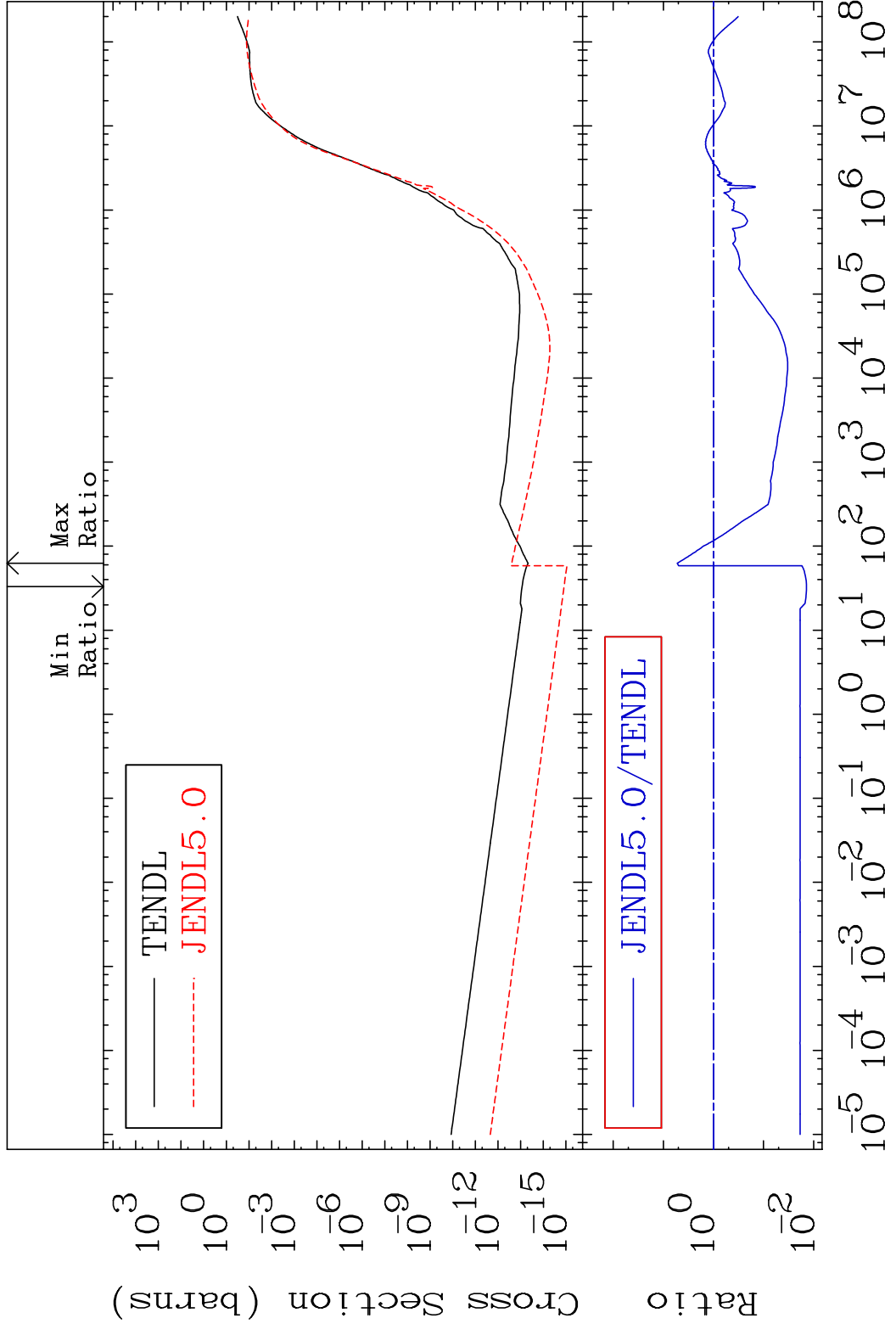
MAT 4120 Tritium Production 41-Nb-91m  
 Cross Section -100.0 To 96.22 %



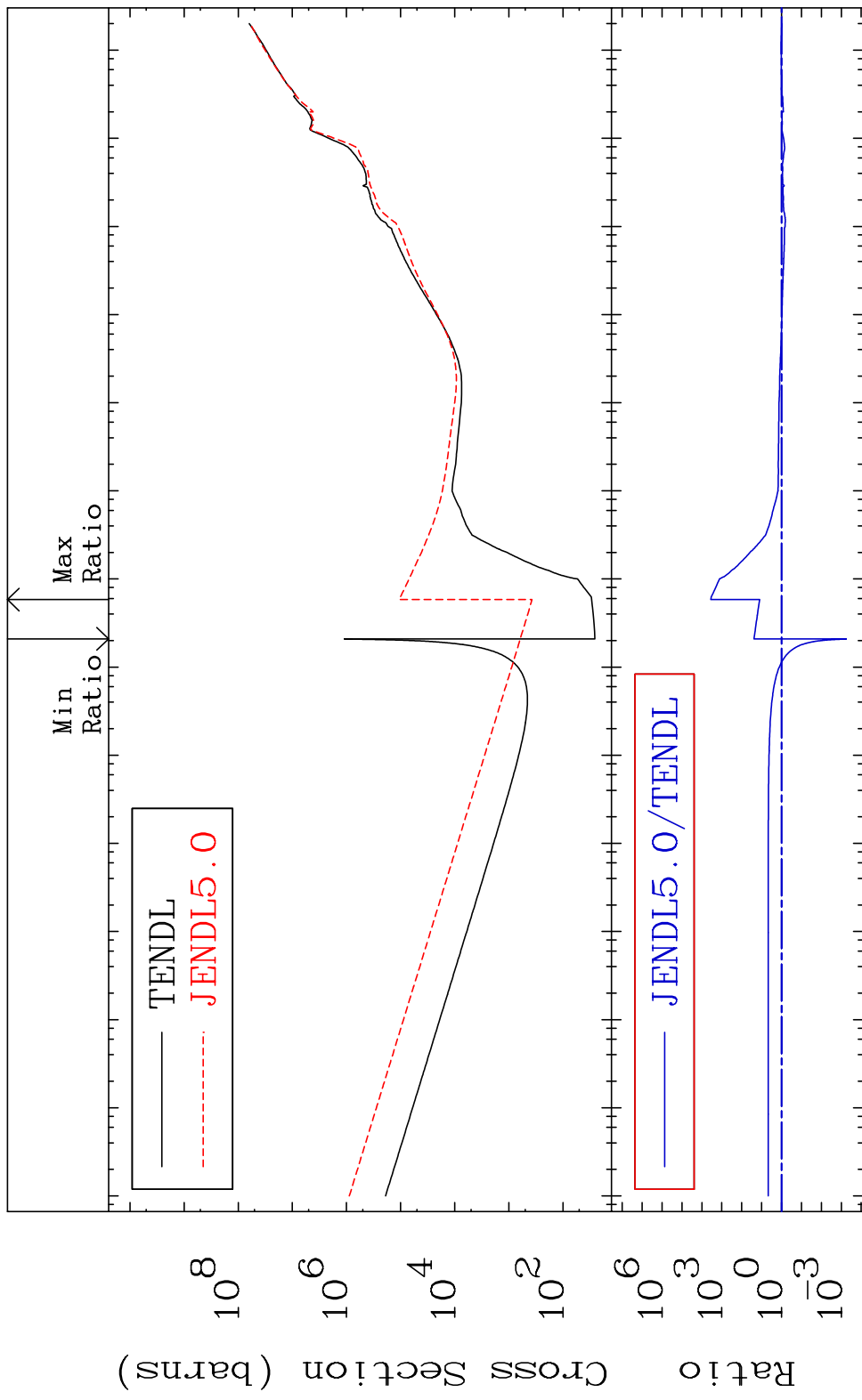
MAT 4120 He-3 Production 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120 He-4 Production 41-Nb-91m  
 Cross Section -98.60 To 429.4 %



MAT 4120 Kerma total (eV-barns) 41-Nb-91m  
 Cross Section -99.94 To 9999. %

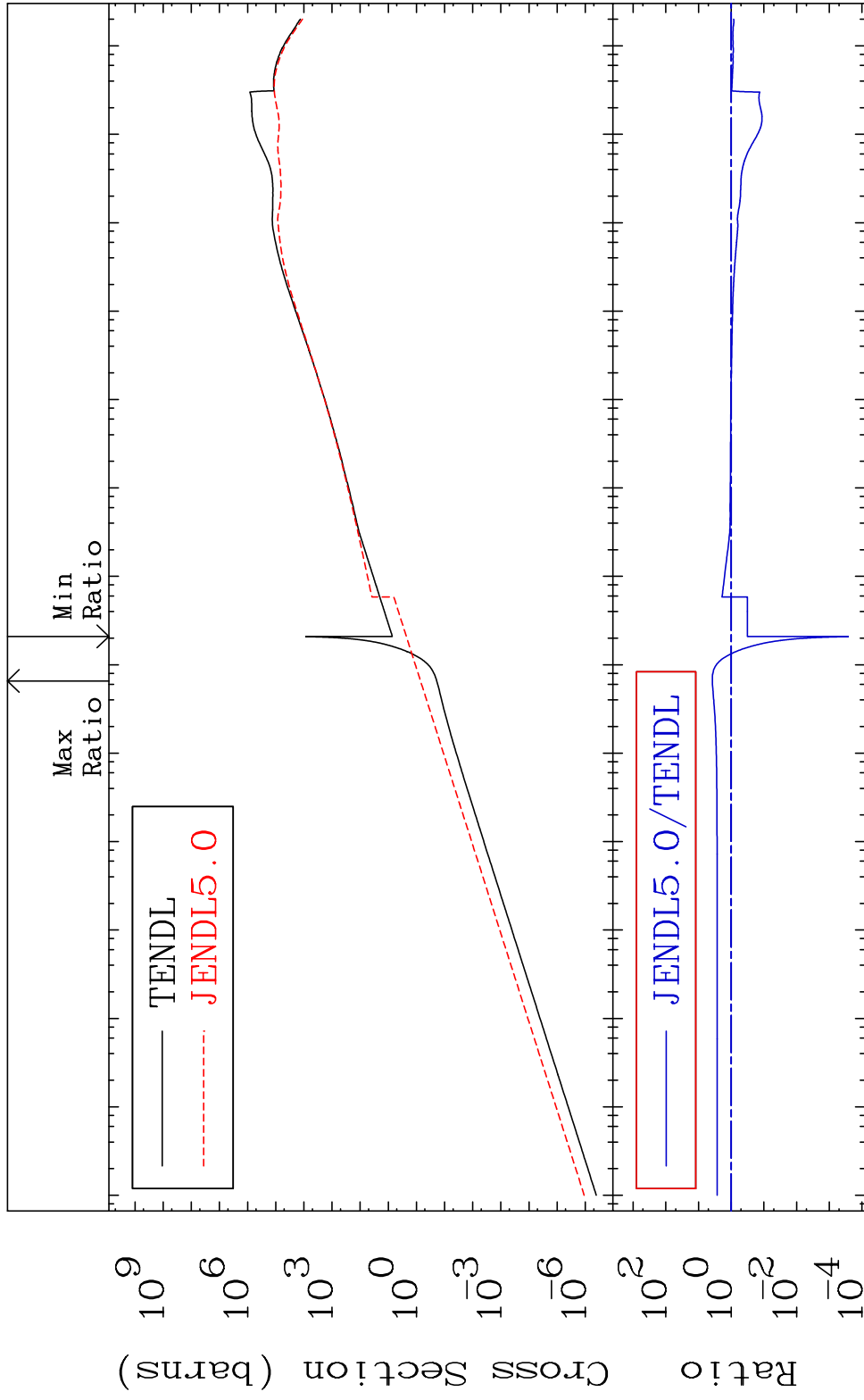




MAT 4120

Kerma elastic  
Cross Section -99.97 To 276.9 %

41-Nb-91m

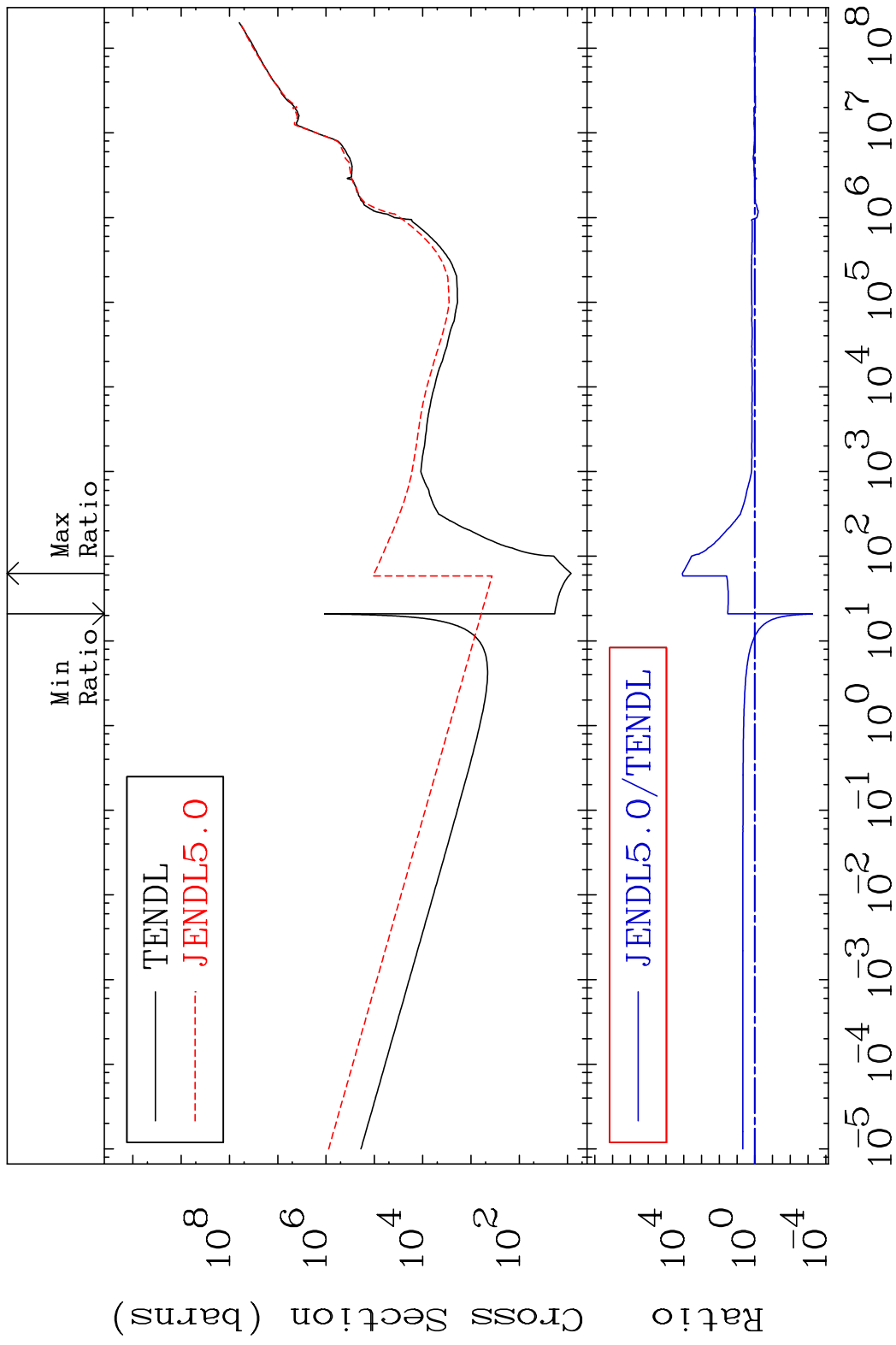


56

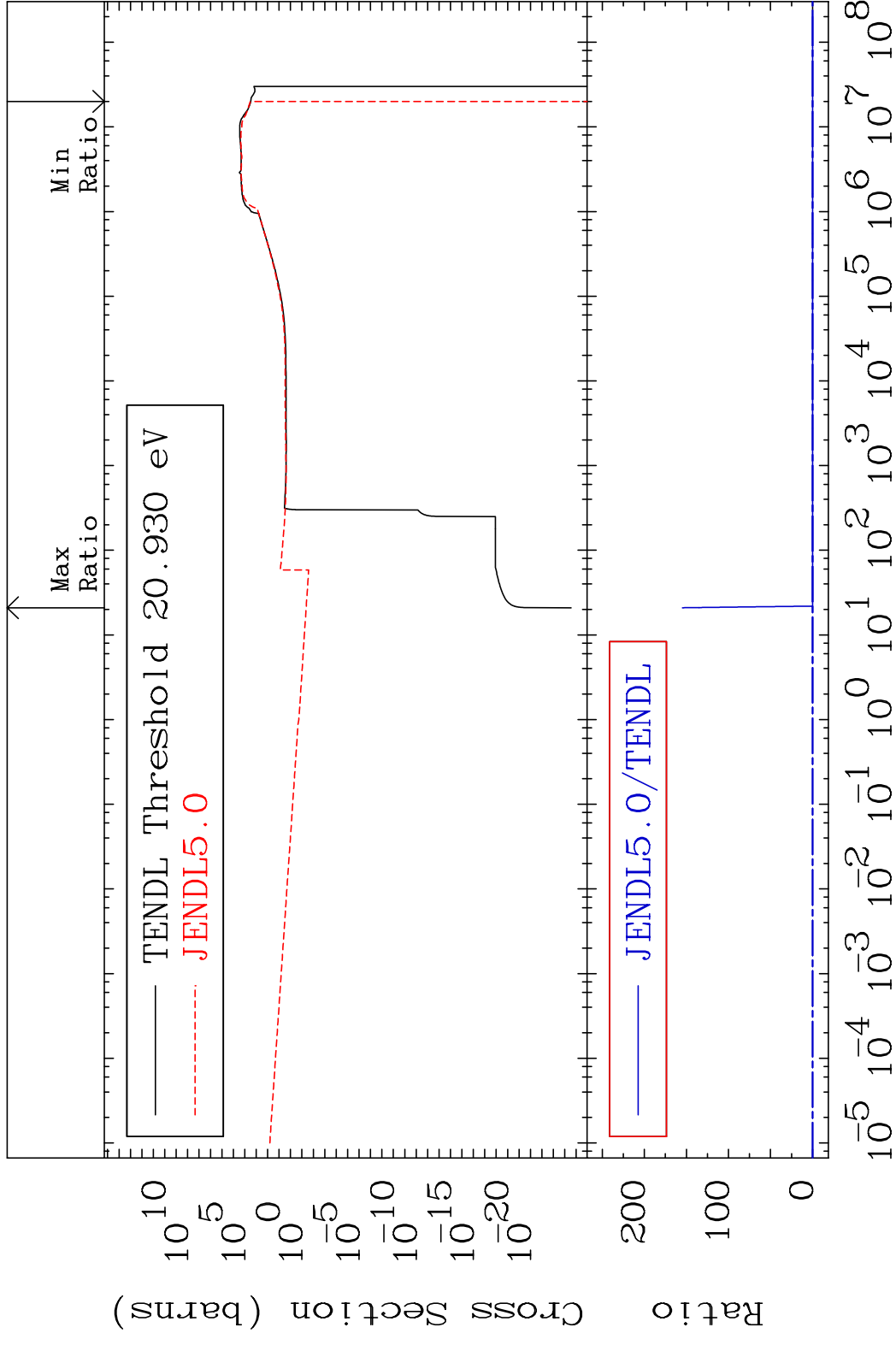
Incident Energy (eV)

41-Nb-91m

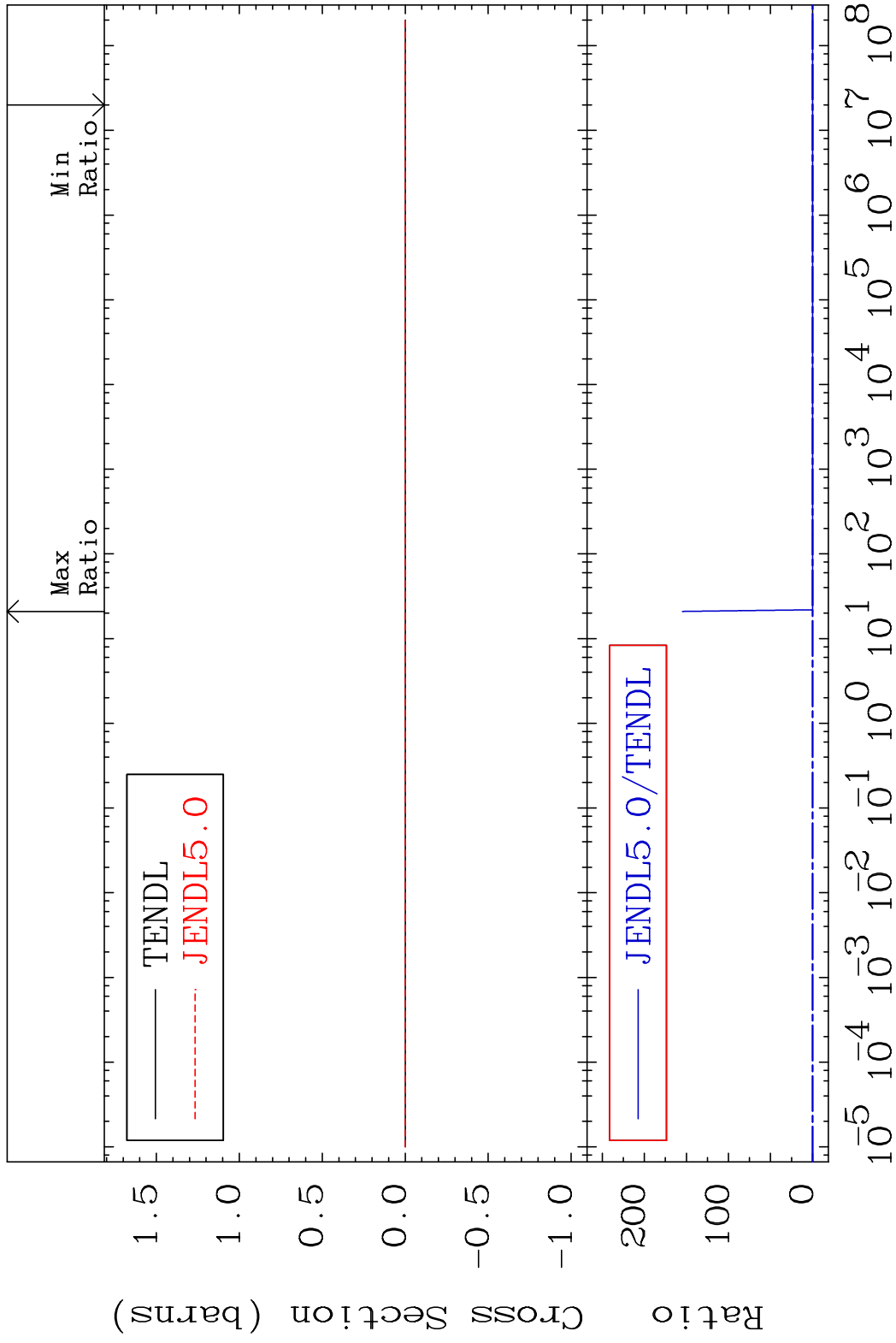
MAT 4120 Kerma non-elastic (all but mt2) 41-Nb-91m  
 Cross Section -99.94 To 9999. %



MAT 4120 Kerma inelastic (mt51-91) 41-Nb-91m  
 Cross Section -100.0 To 9999. %

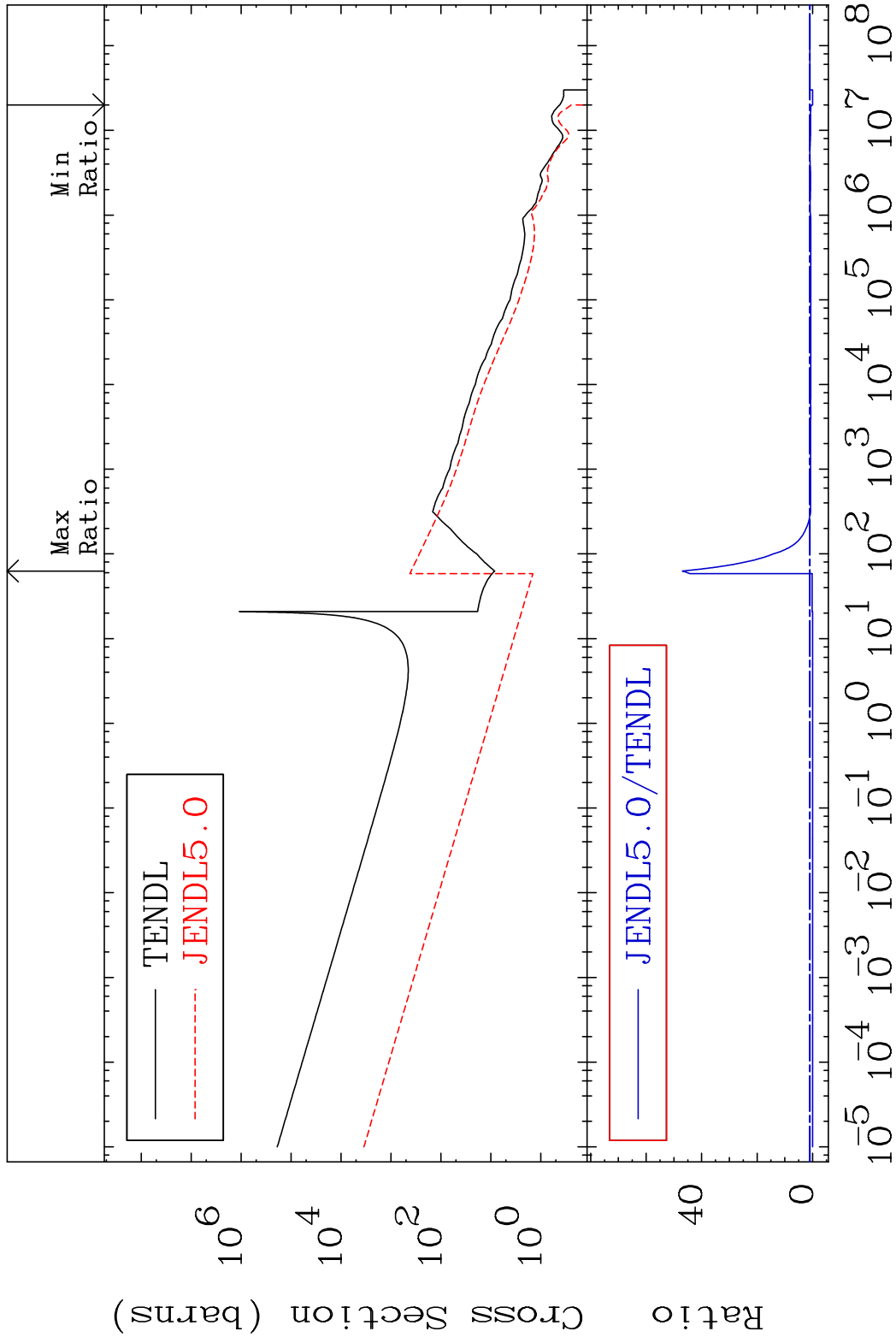


MAT 4120 Kerma fission (mt18 or mt19-20-21-38) 41-Nb-91m  
 Cross Section -100.0 To 9999. %



MAT 4120

Kerma capture (mt102) 41-Nb-91m  
Cross Section -100.0 To 4594. %

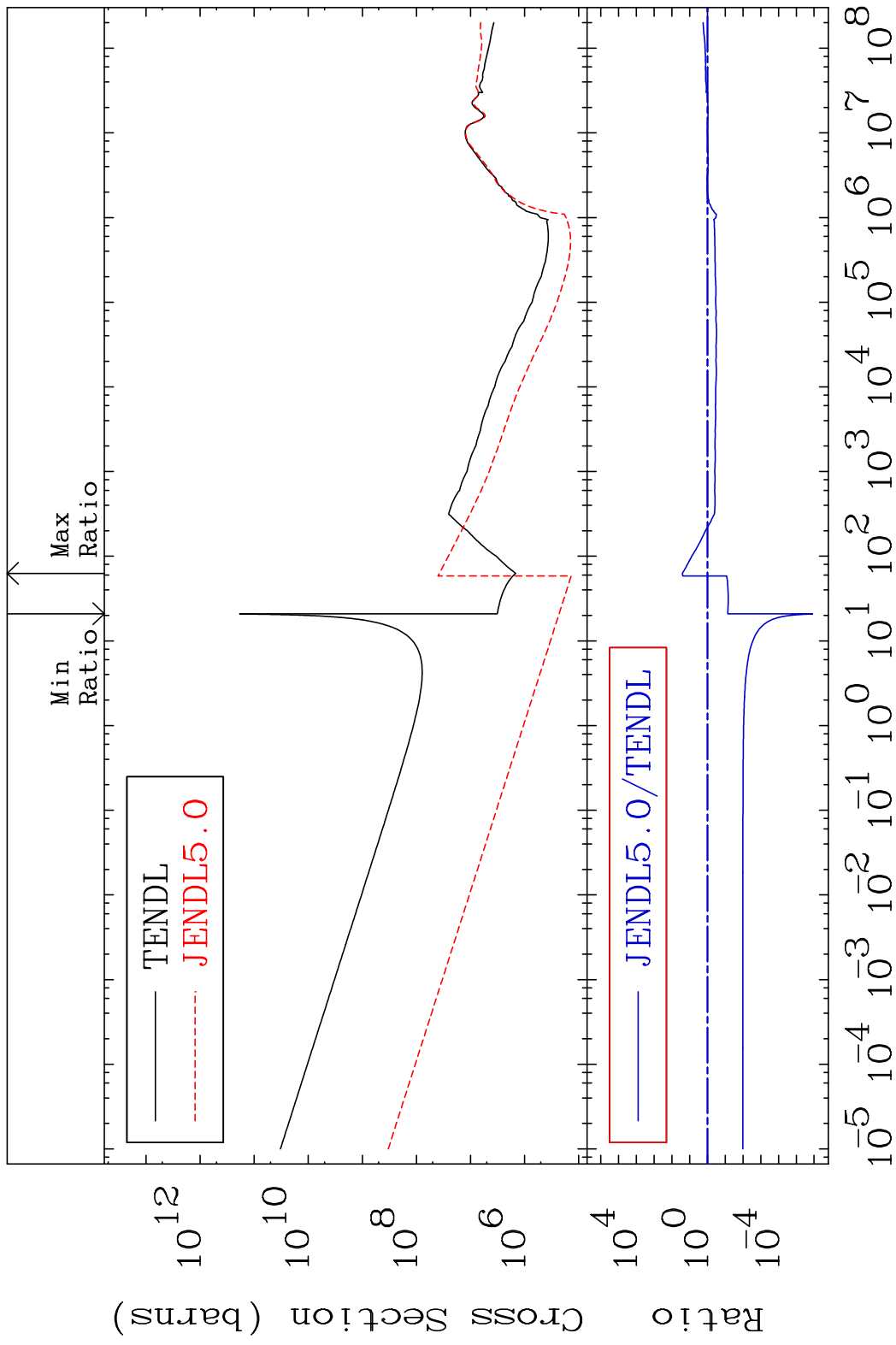


60

Incident Energy (eV)

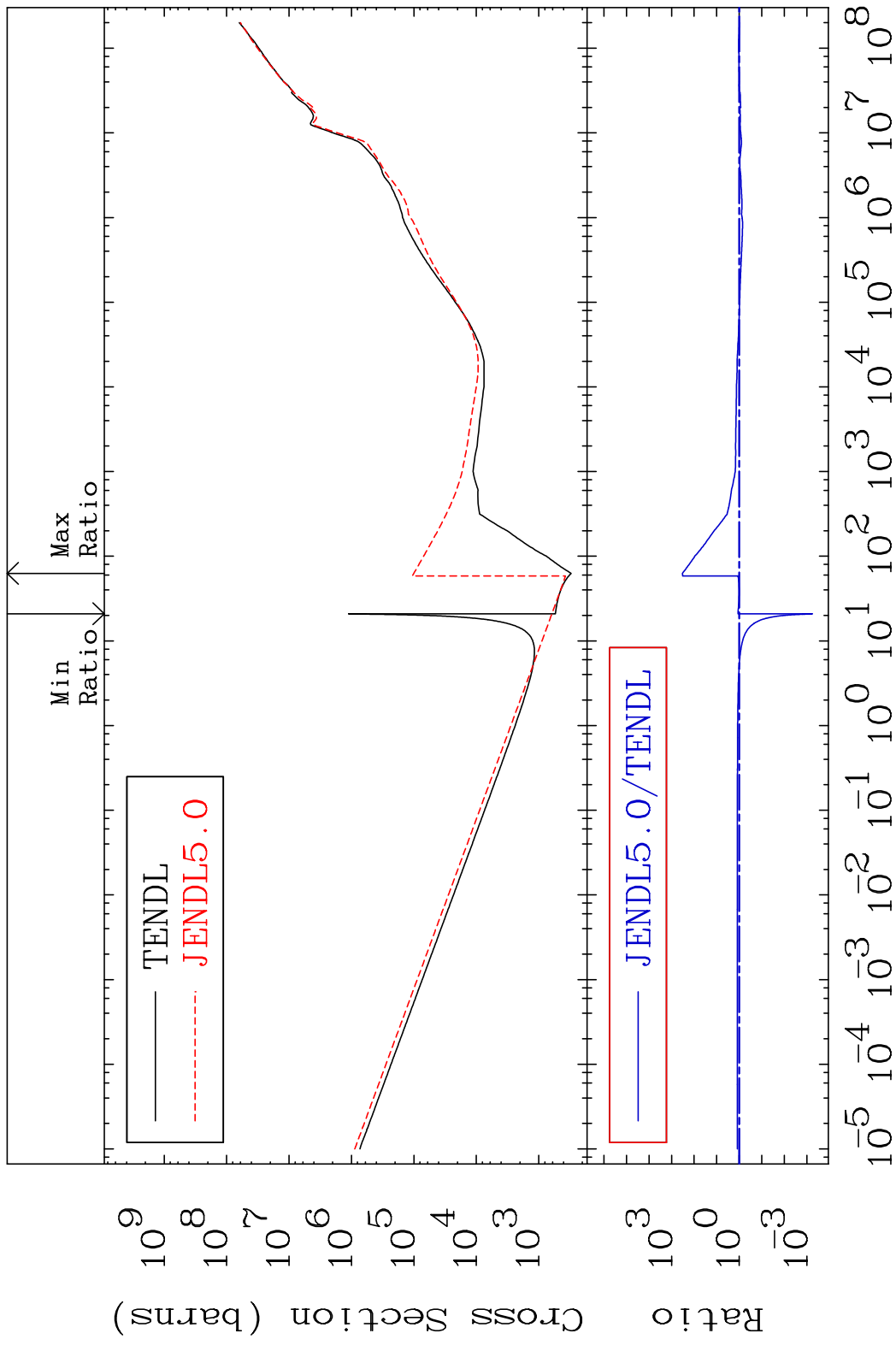
41-Nb-91m

MAT 4120 Total photon (eV-barns) 41-Nb-91m  
 Cross Section -100.0 To 2478. %

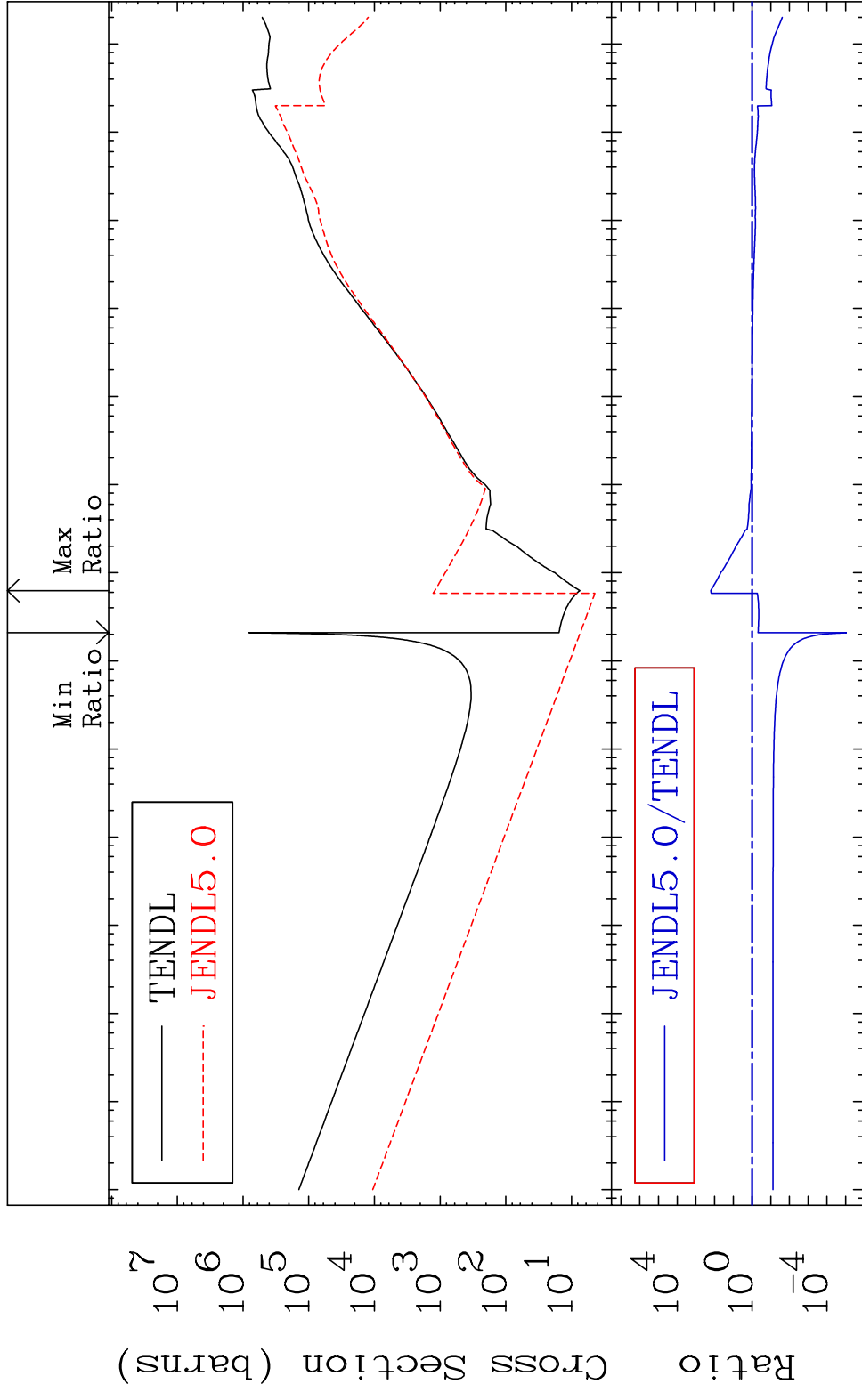


61 Incident Energy (eV) 41-Nb-91m

MAT 4120 Total kinematic kerma (high limit) 41-Nb-91m  
 Cross Section -99.94 To 9999. %

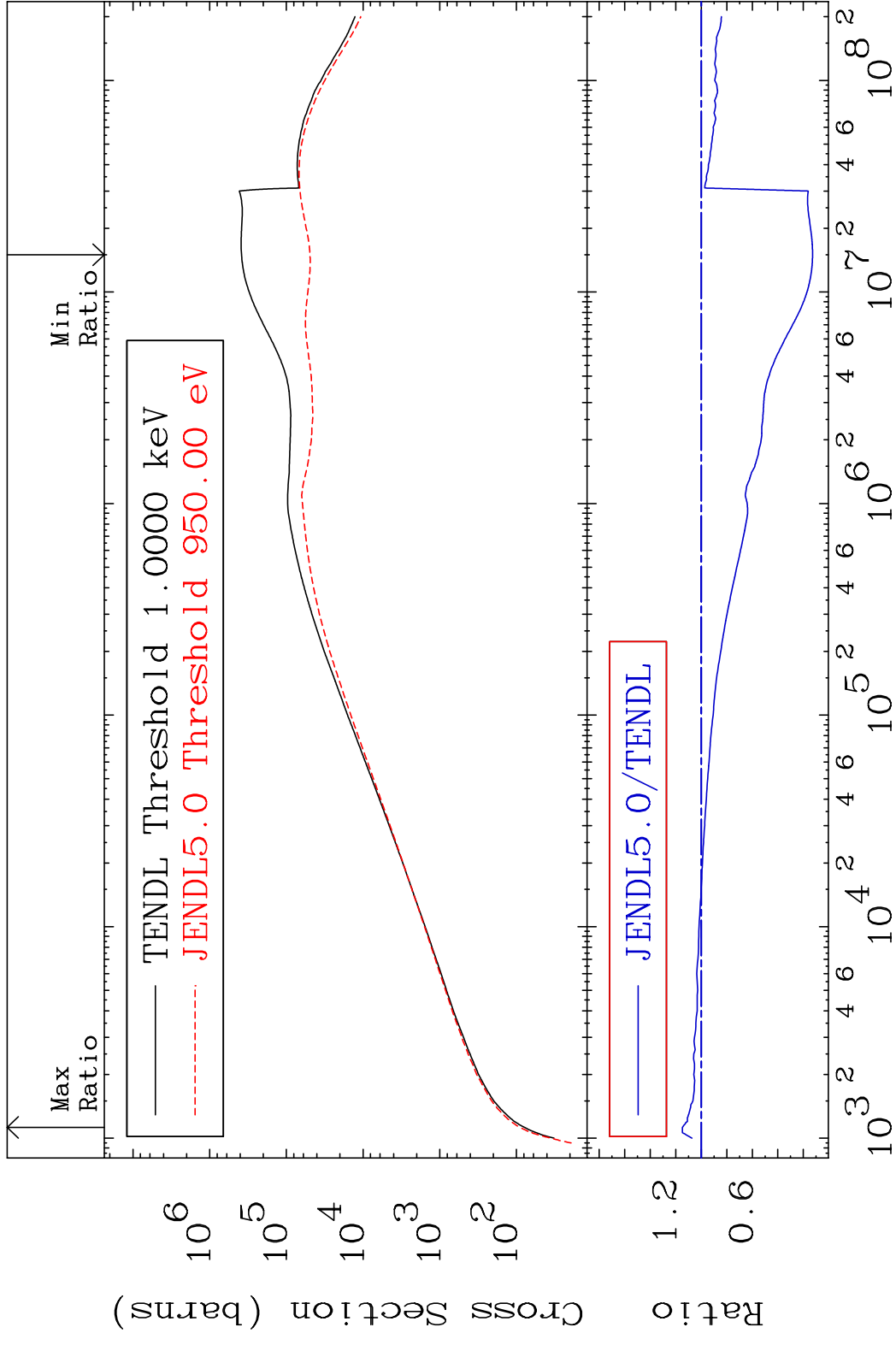


MAT 4120      Dpa total (eV-barns)      41-Nb-91m  
 Cross Section      -100.0 To 9999.      %



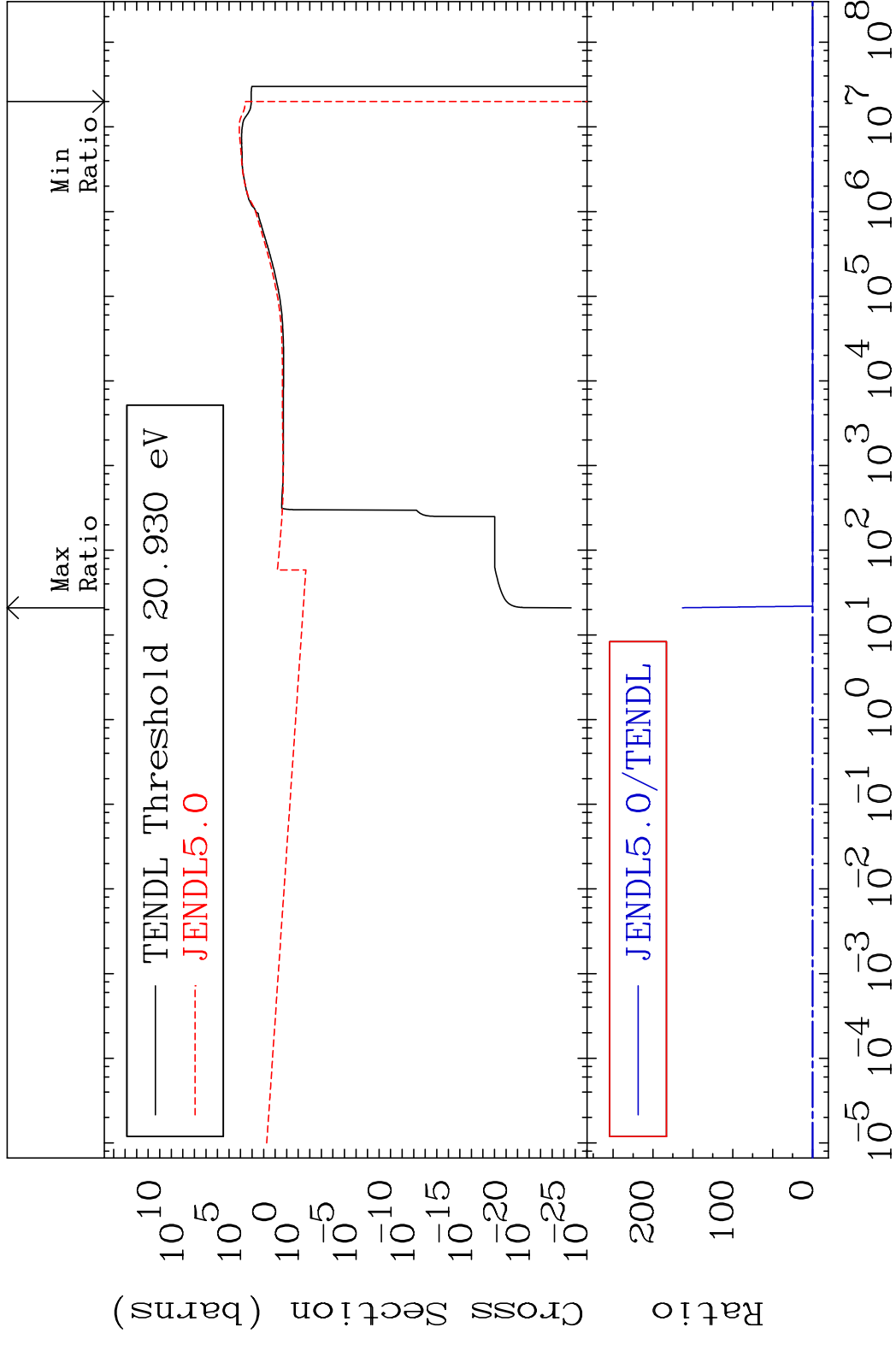


MAT 4120 Dpa elastic (mt2) 41-Nb-91m  
 Cross Section -87.22 To 14.82 %



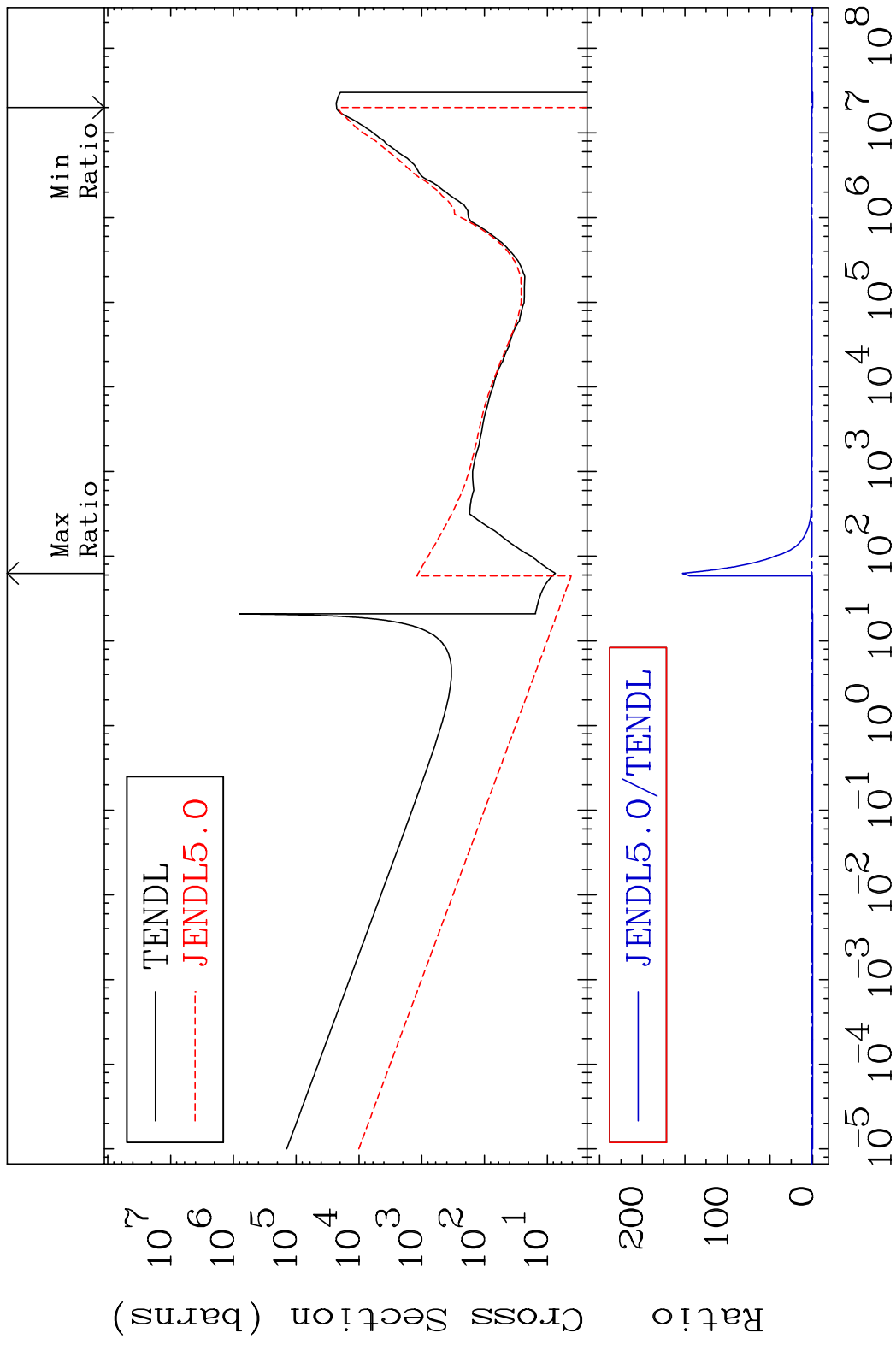
64 Incident Energy (eV) 41-Nb-91m

MAT 4120 Dpa inelastic (mt51-91) 41-Nb-91m  
 Cross Section -100.0 To 9999. %

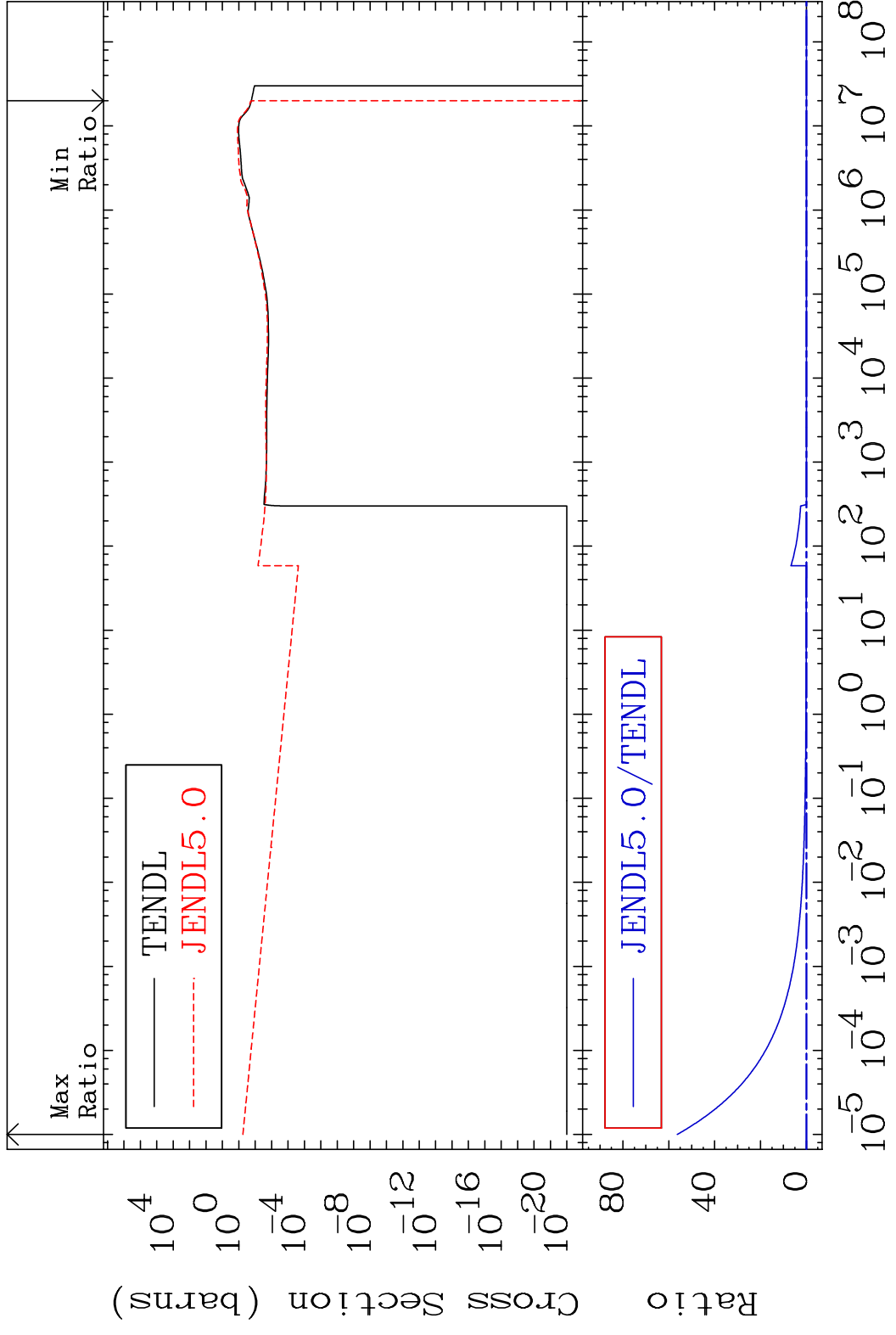


65 Incident Energy (eV) 41-Nb-91m

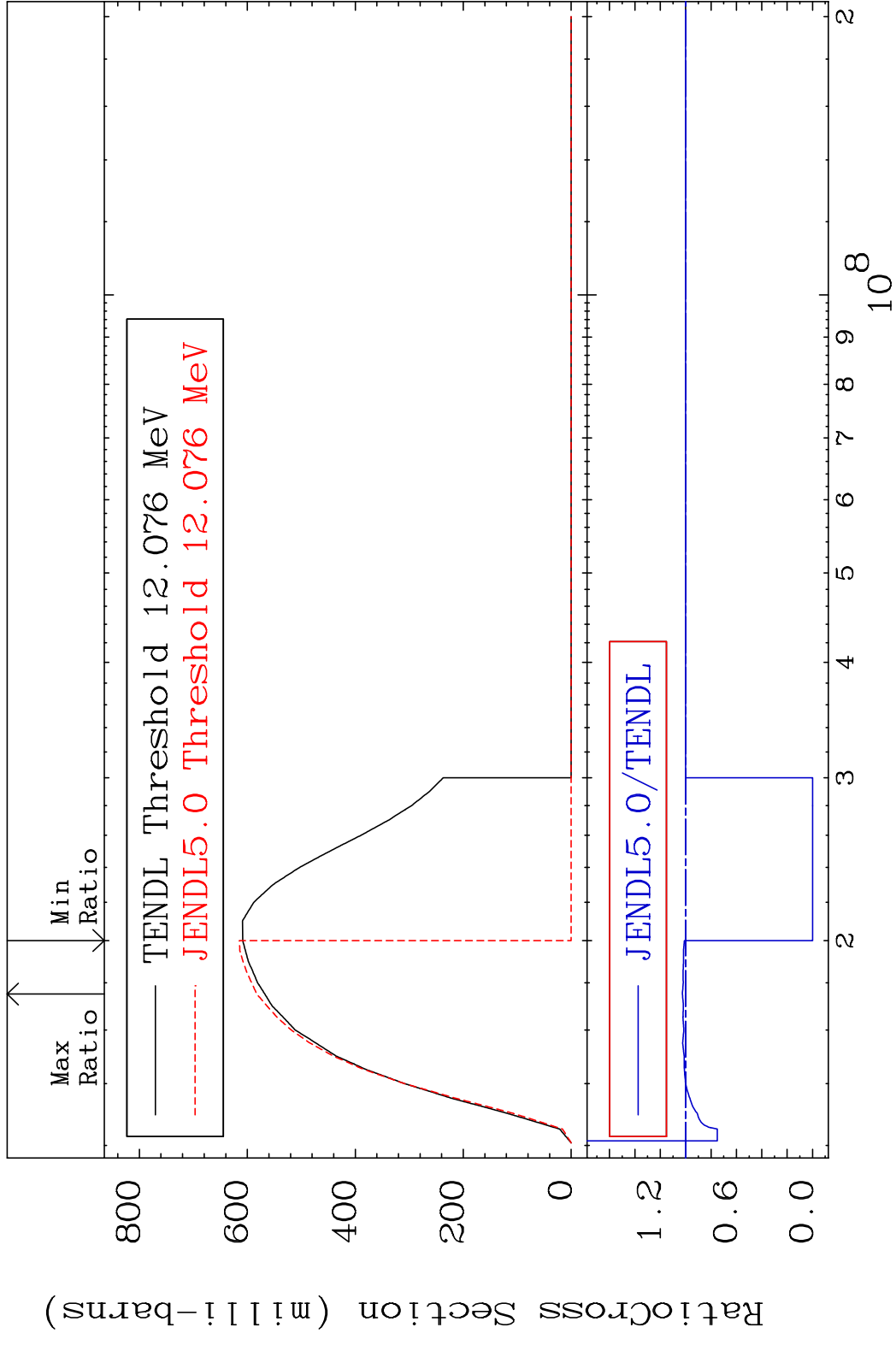
MAT 4120 Dpa disappearance (mt102 -120) 41-Nb-91m  
 Cross Section -100.0 To 9999. %



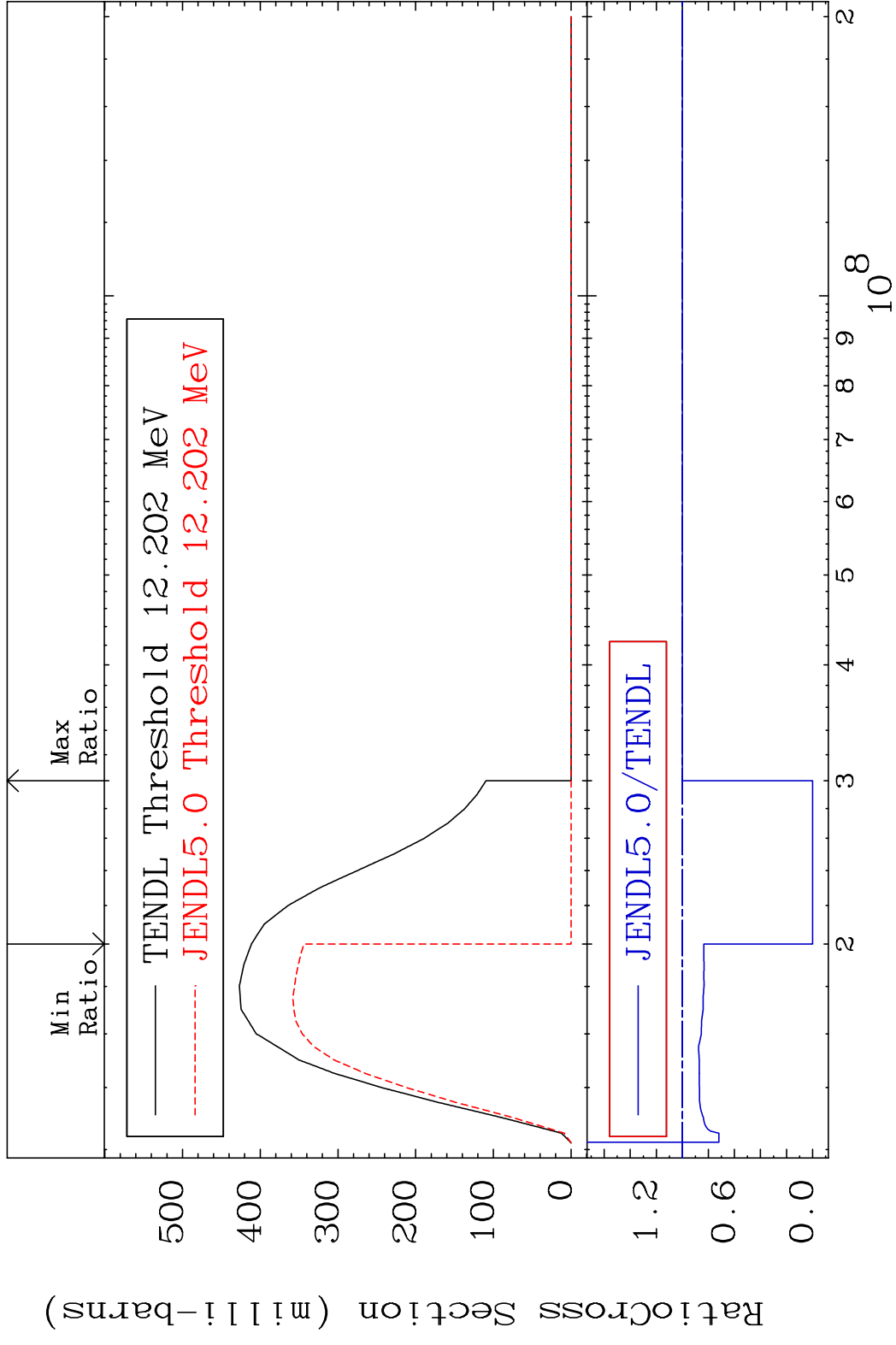
66 Incident Energy (eV) 41-Nb-91m



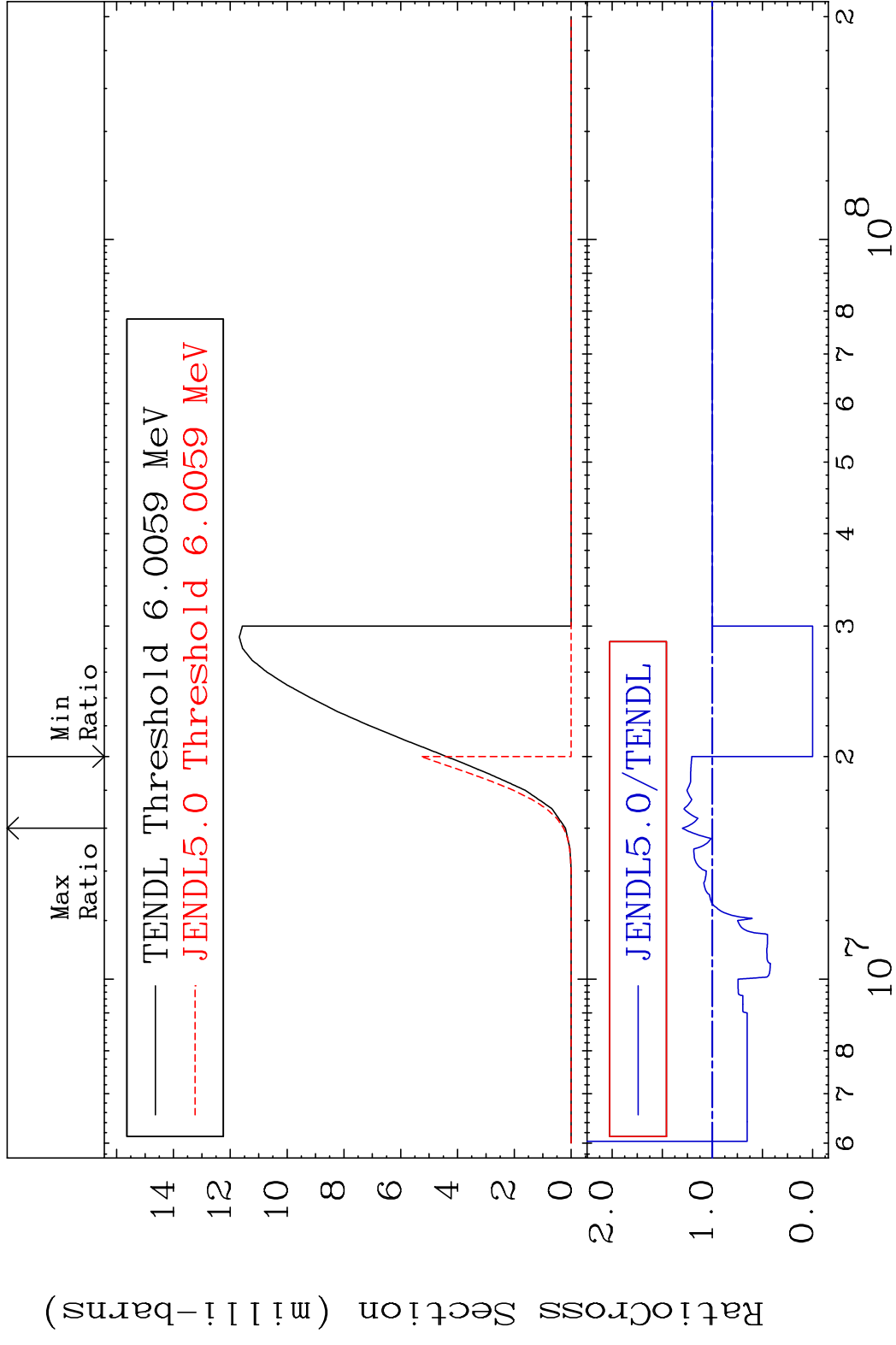
MAT 4120 (n,2n):41-Nb-90g 41-Nb-91m  
 Radionuclide Production Cross Section Ratio 2.591 %



MAT 4120 (n,2n):41-Nb-90m2 41-Nb-91m  
 Radionuclide Production Cross Section 180.01 dno 0.000 %

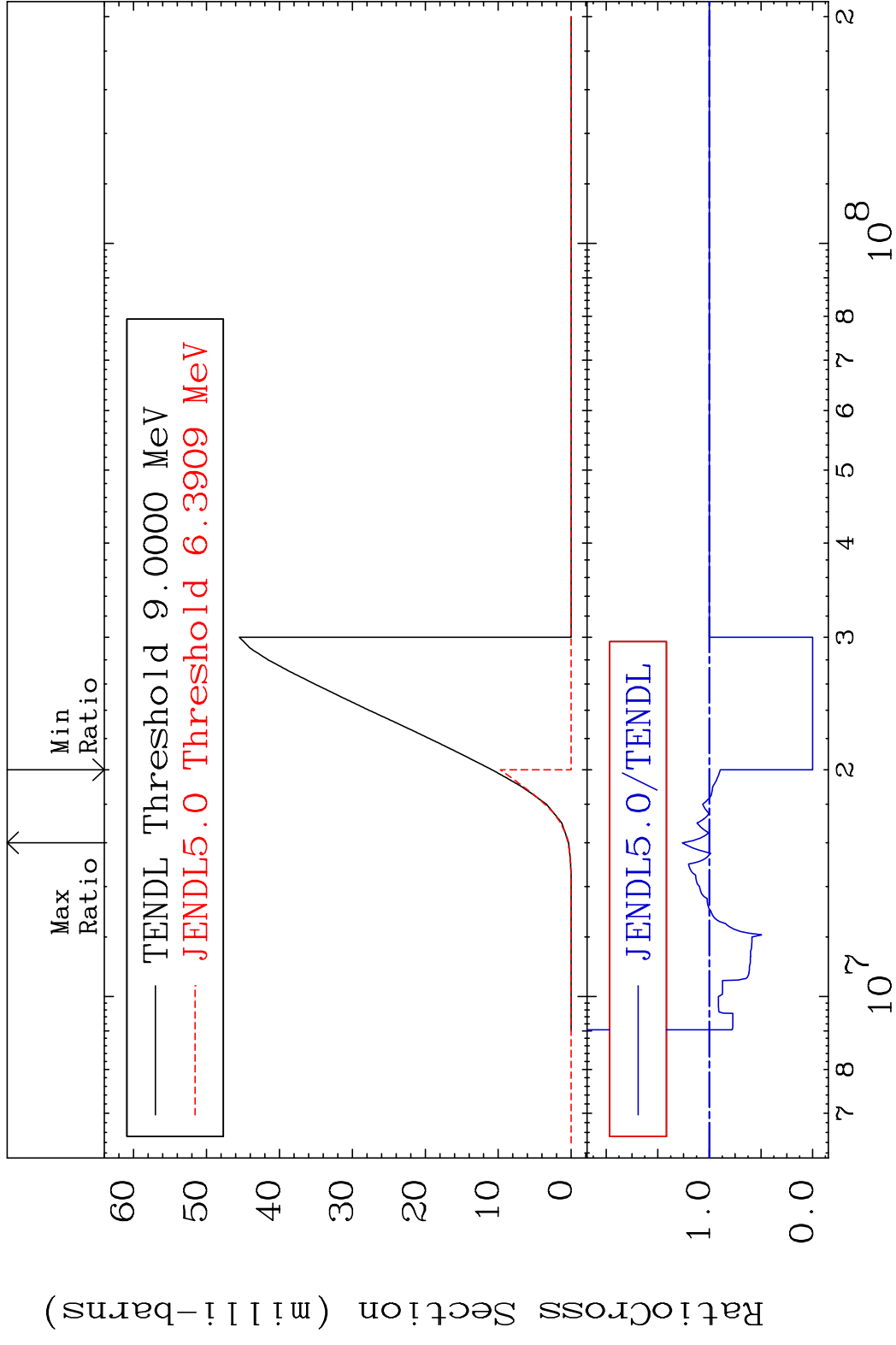


MAT 4120 (n, n')  $\alpha$ :39-Y -87g 41-Nb-91m  
 Radionuclide Production Cross Section 180.01 dth 29.96 %



70 Incident Energy (eV) 41-Nb-91m

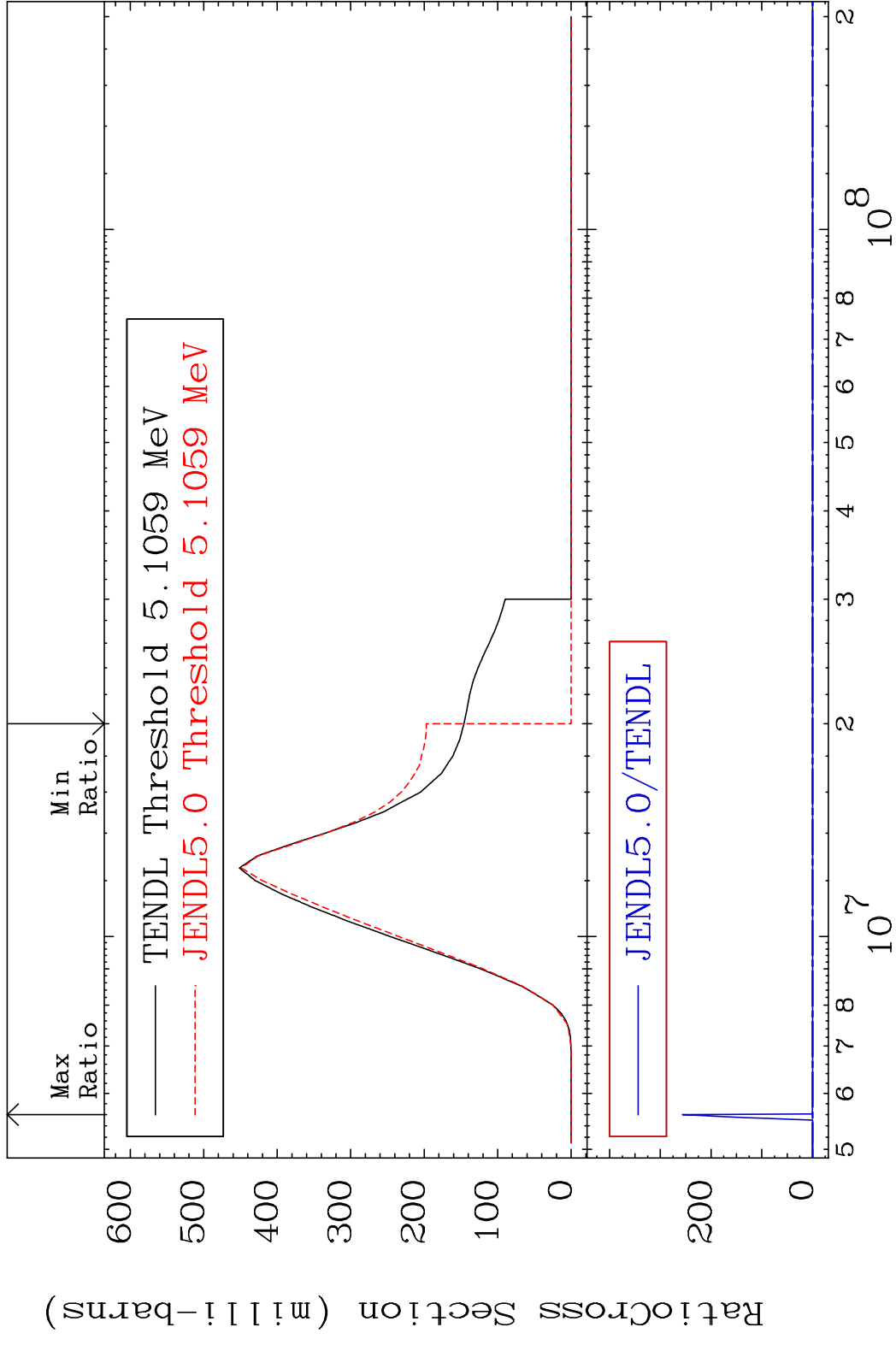
MAT 4120 (n, n')  $\alpha$ :39-Y -87m1 41-Nb-91m  
 Radionuclide Production Cross Section 180.01 dth 26.16 %



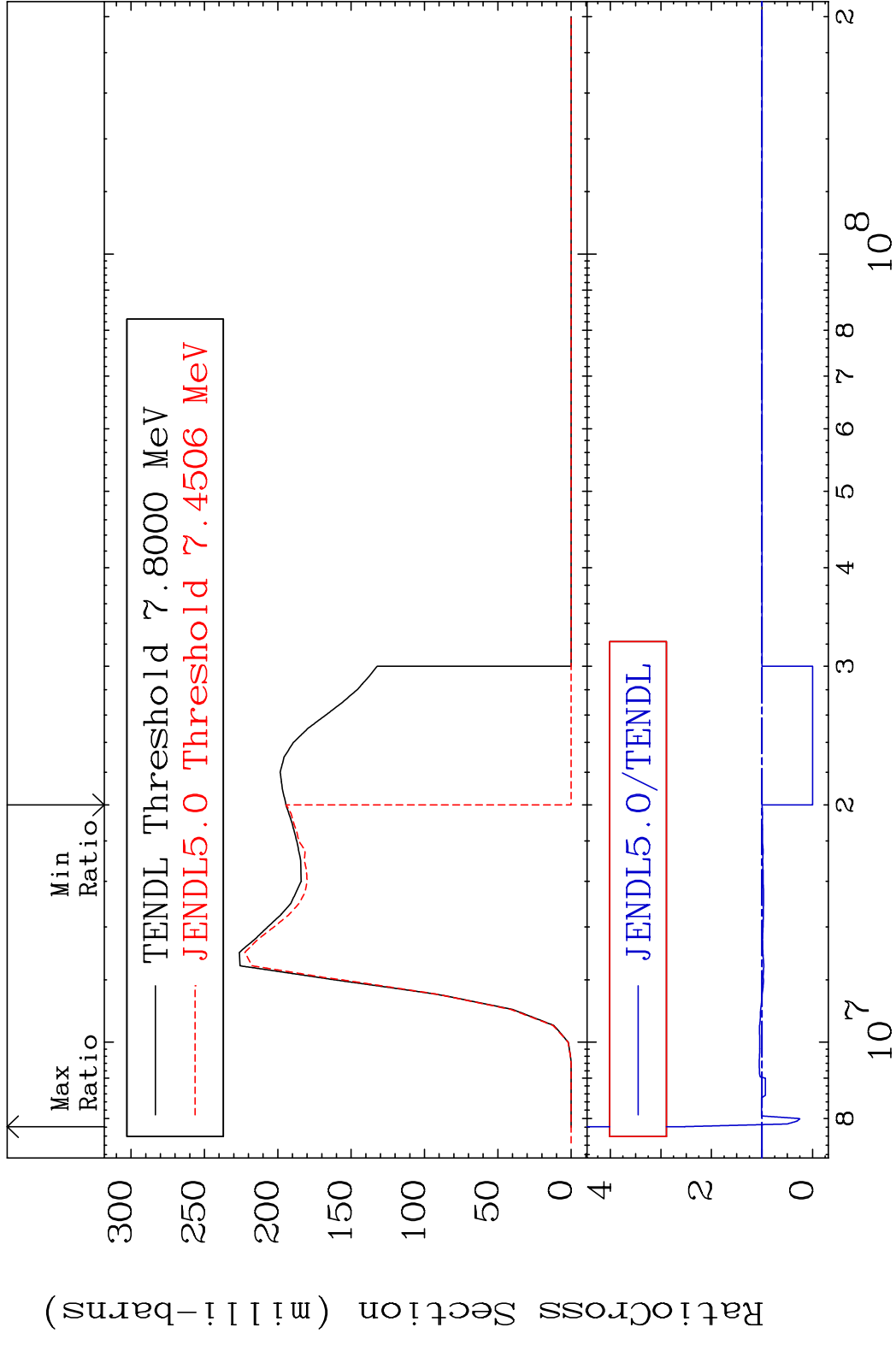
71 Incident Energy (eV) 41-Nb-91m



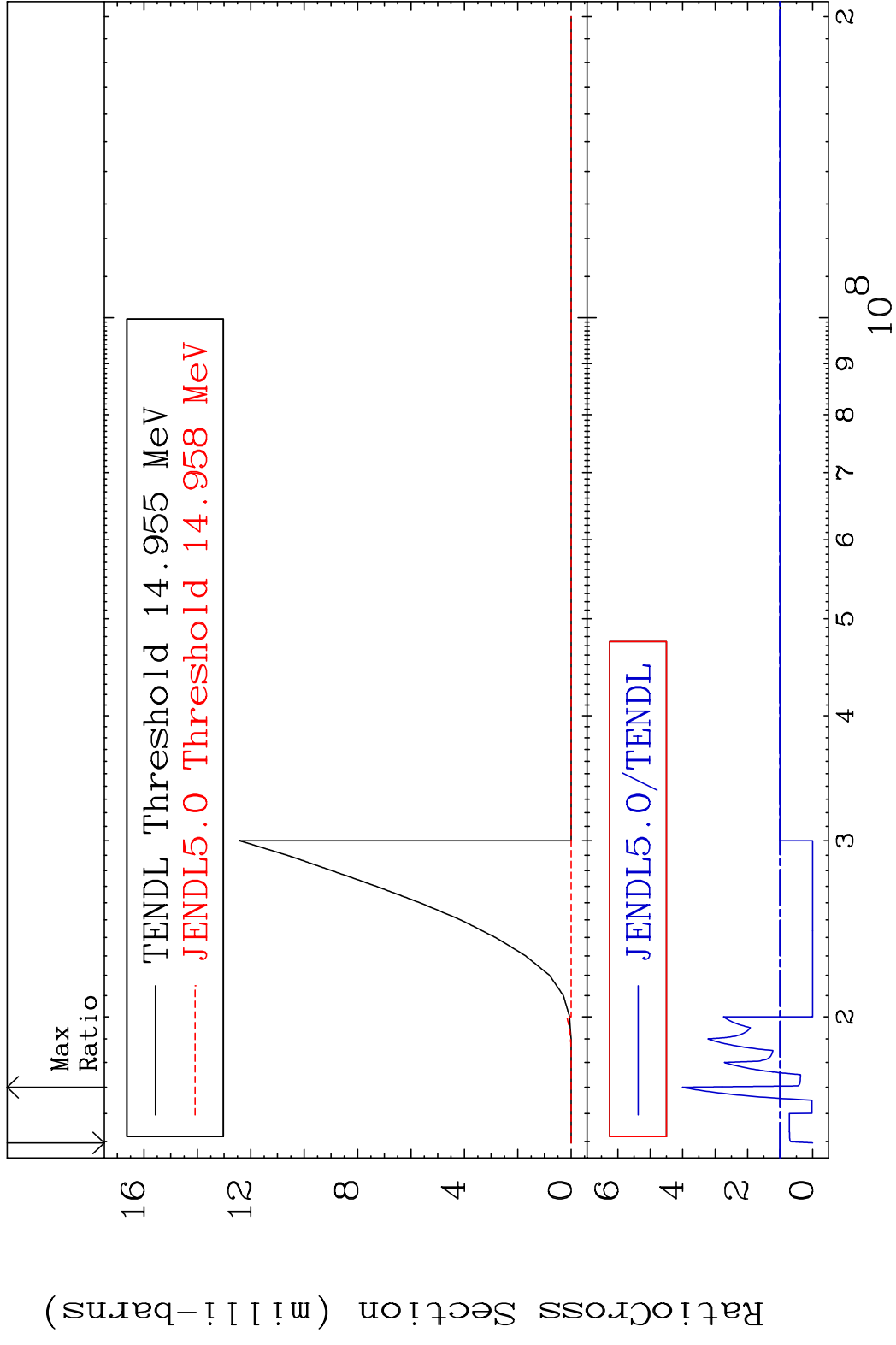
MAT 4120 (n, n') p:40-Zr-90g 41-Nb-91m  
 Radionuclide Production Cross Section 1800010 9999. %



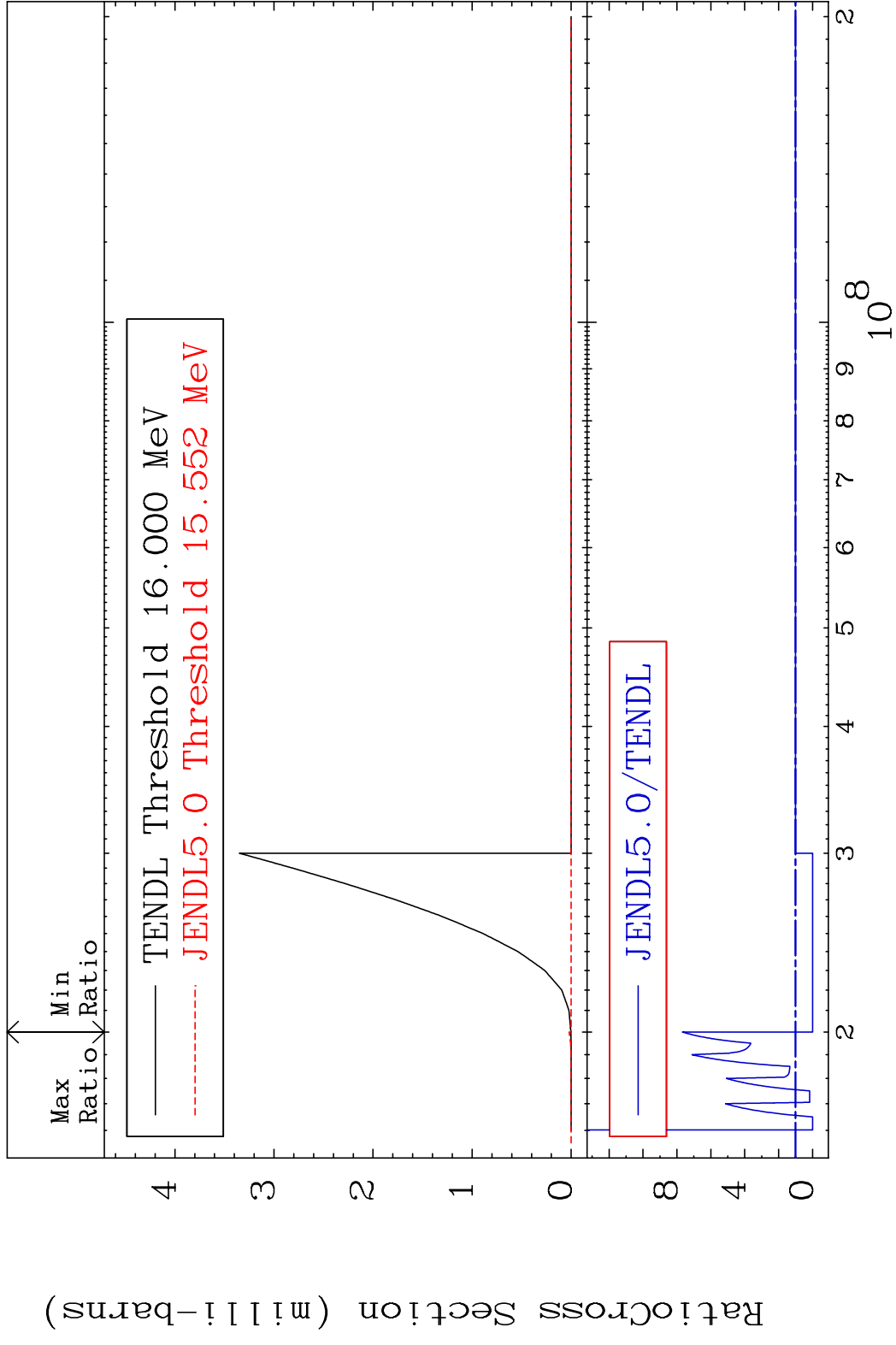
MAT 4120 (n, n') p:40-Zr-90m3 41-Nb-91m  
 Radionuclide Production Cross Section 157.5 %



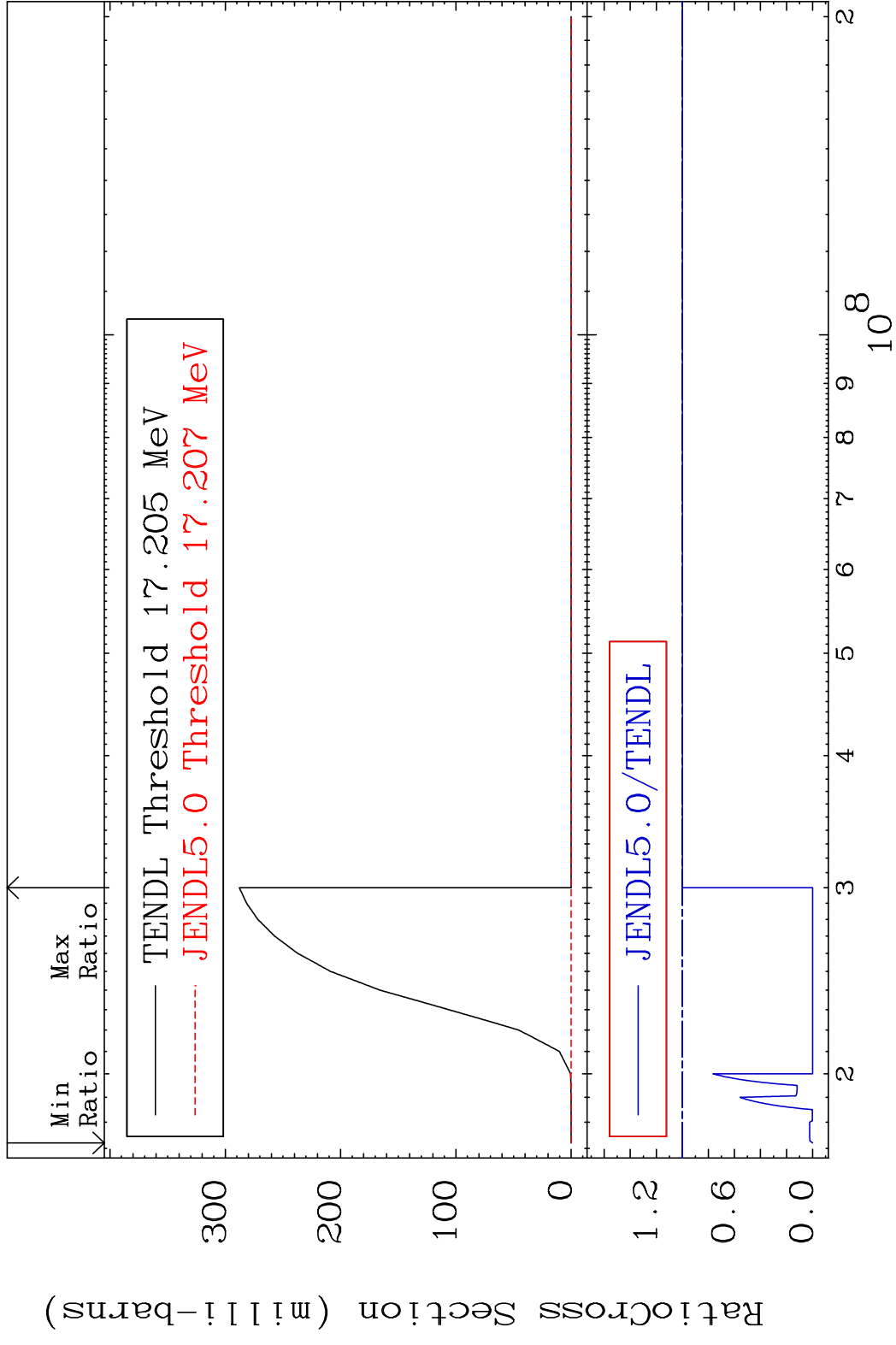
MAT 4120 (n, n') d:40-Zr-89g 41-Nb-91m  
 Radionuclide Production Cross Section 100.0 %  
 Incident Energy (eV) 301.0 %



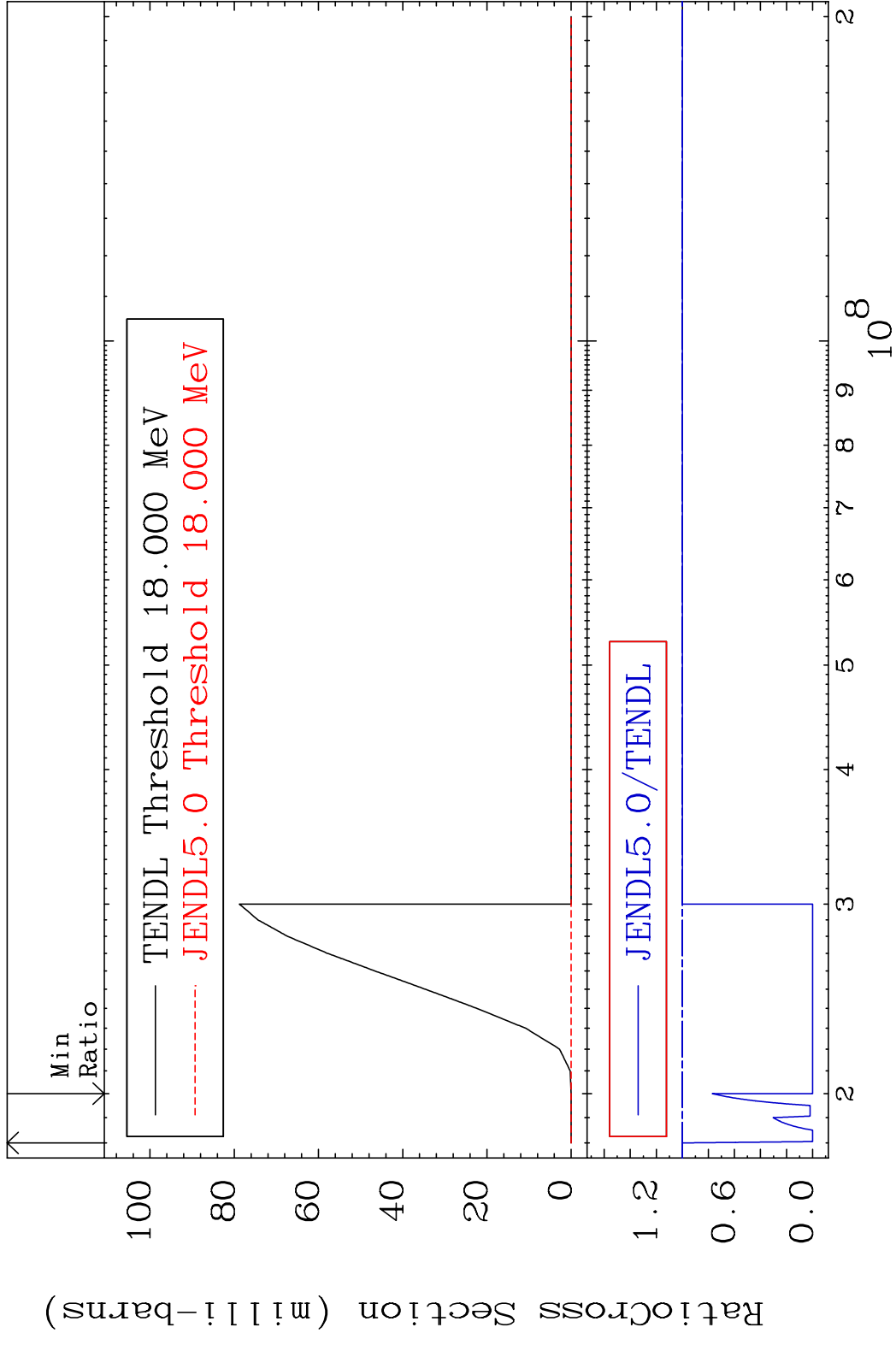
MAT 4120 (n, n') d:40-Zr-89m1 41-Nb-91m  
 Radionuclide Production Cross Section to 668.0 %



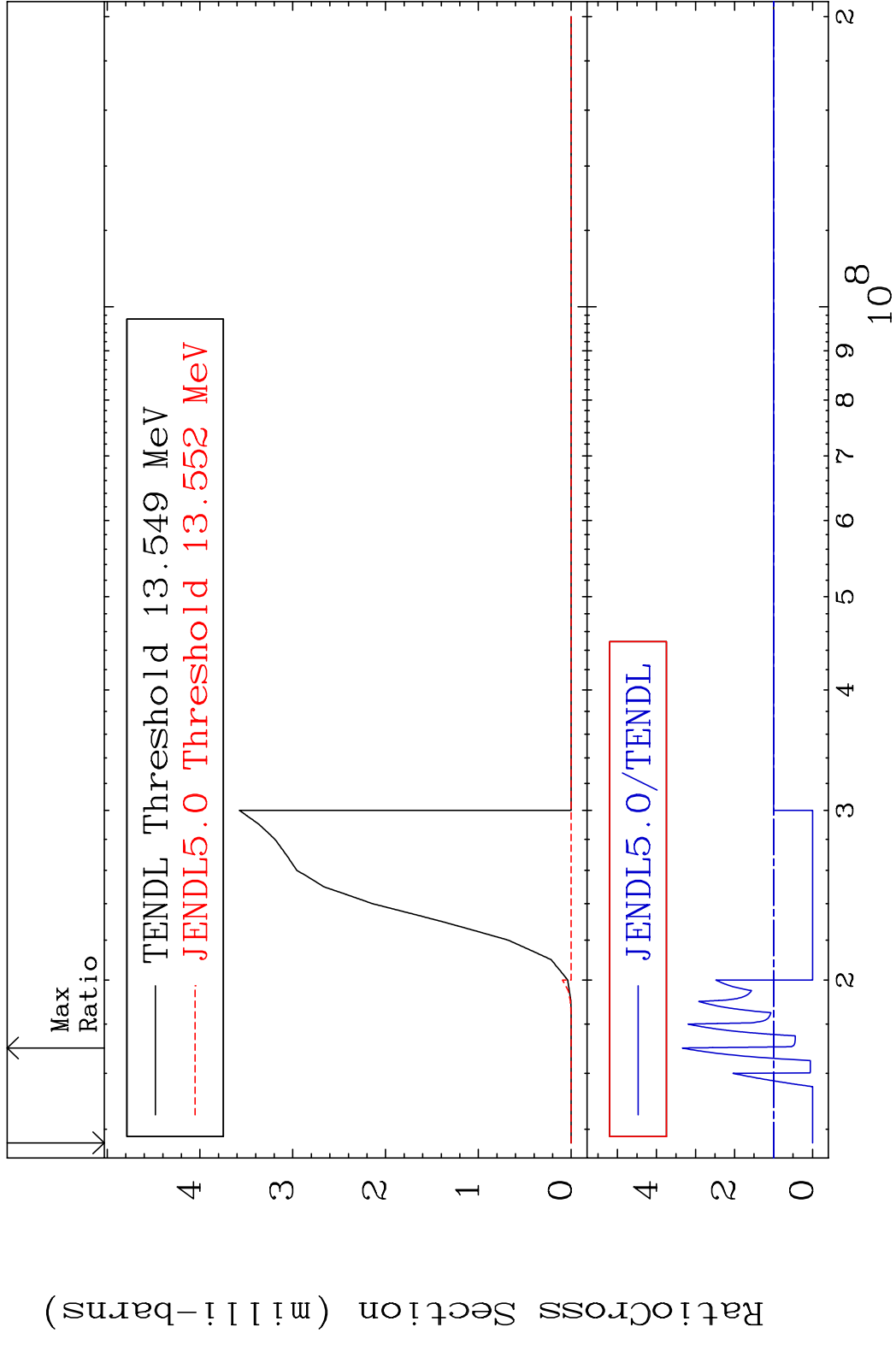
MAT 4120 (n,2n) p:40-Zr-89g 41-Nb-91m  
 Radionuclide Production Cross Section 180.0 mb 0.000 %

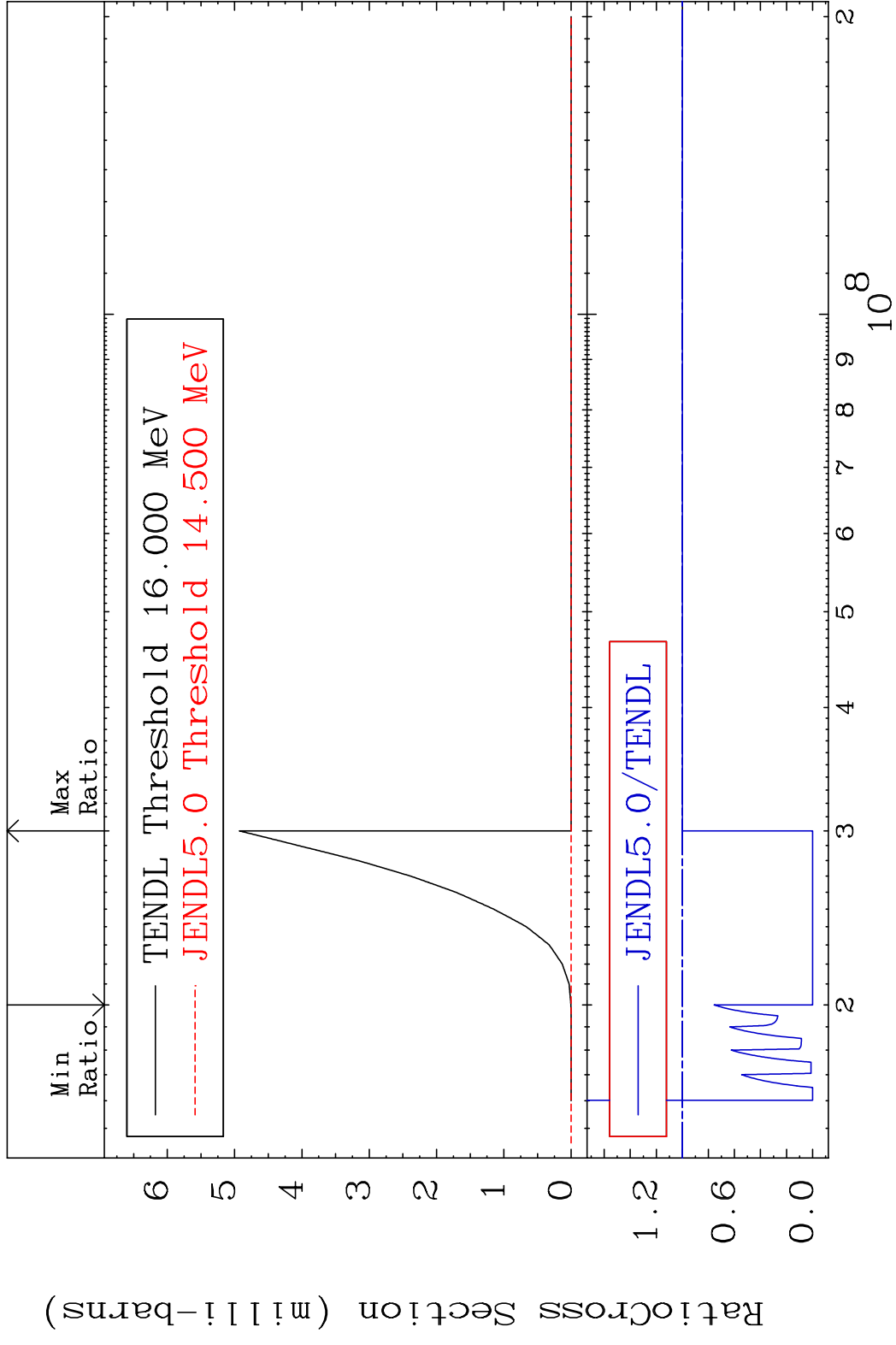


MAT 4120 (n,2n) p:40-Zr-89m1 41-Nb-91m  
 Radionuclide Production Cross Section 180.0 MeV 0.000 %



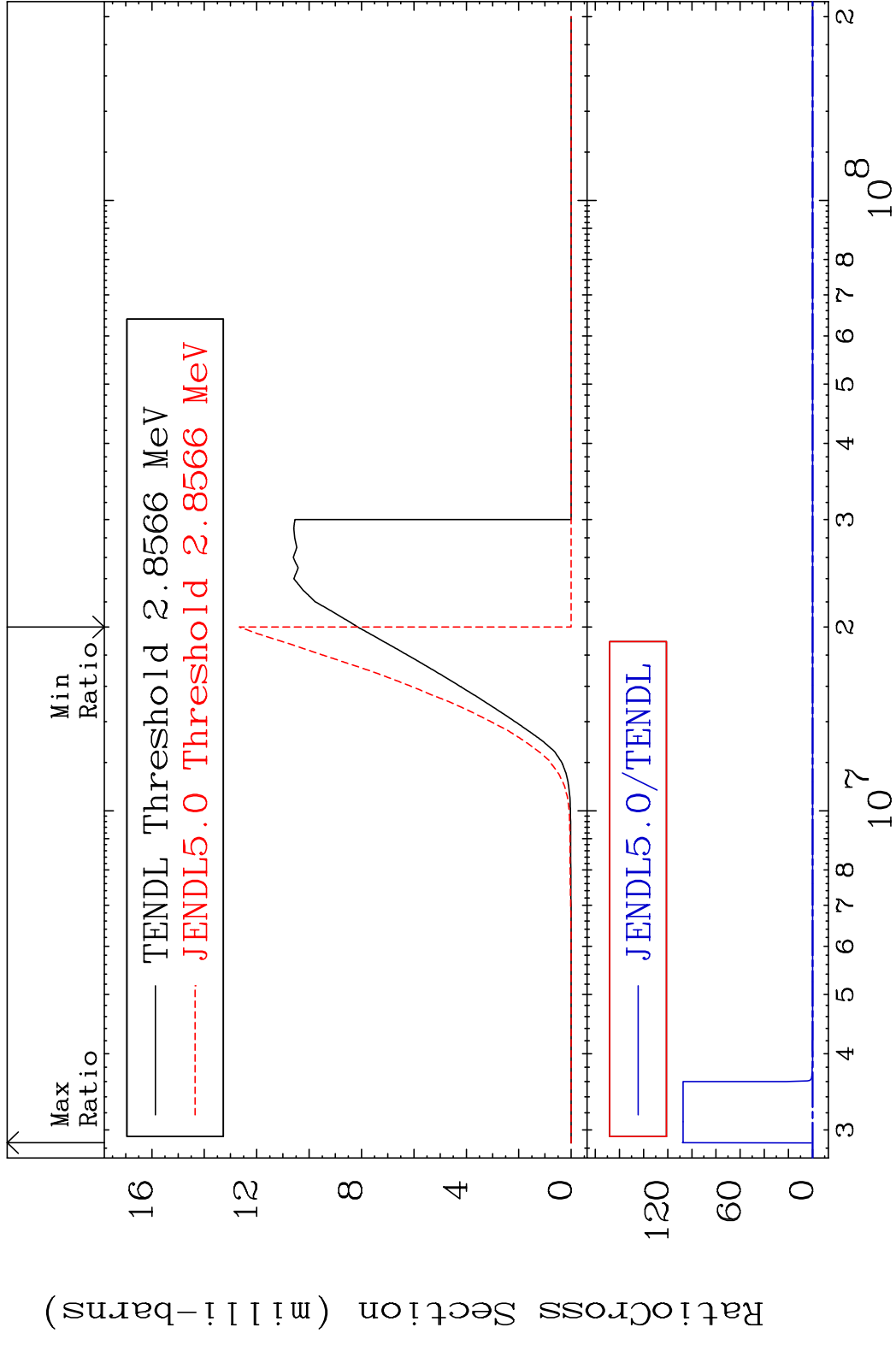
MAT 4120 (n,2n) p:39-Y -89g 41-Nb-91m  
 Radionuclide Production Cross Section 180.0 dth 233.7 %



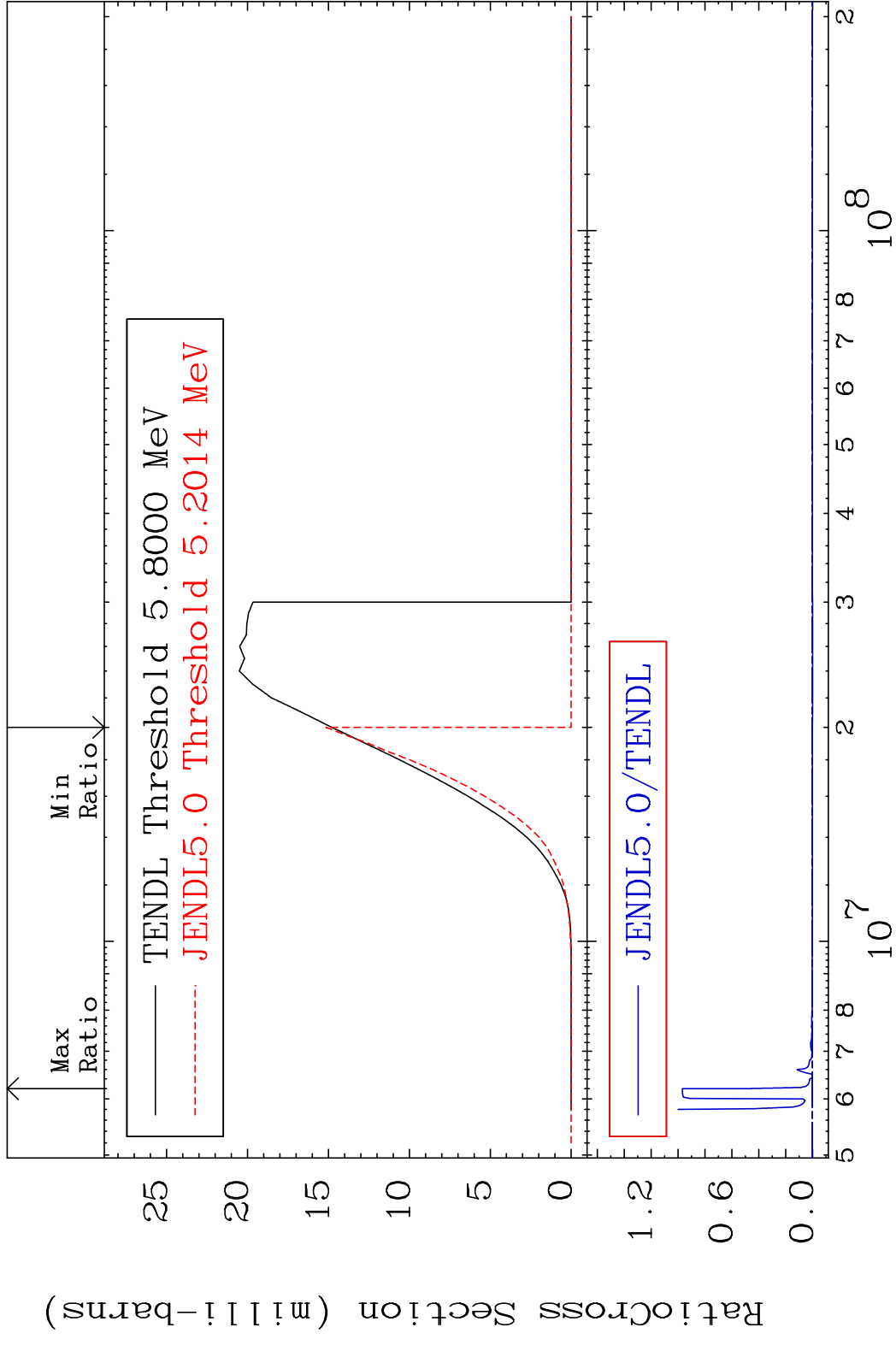




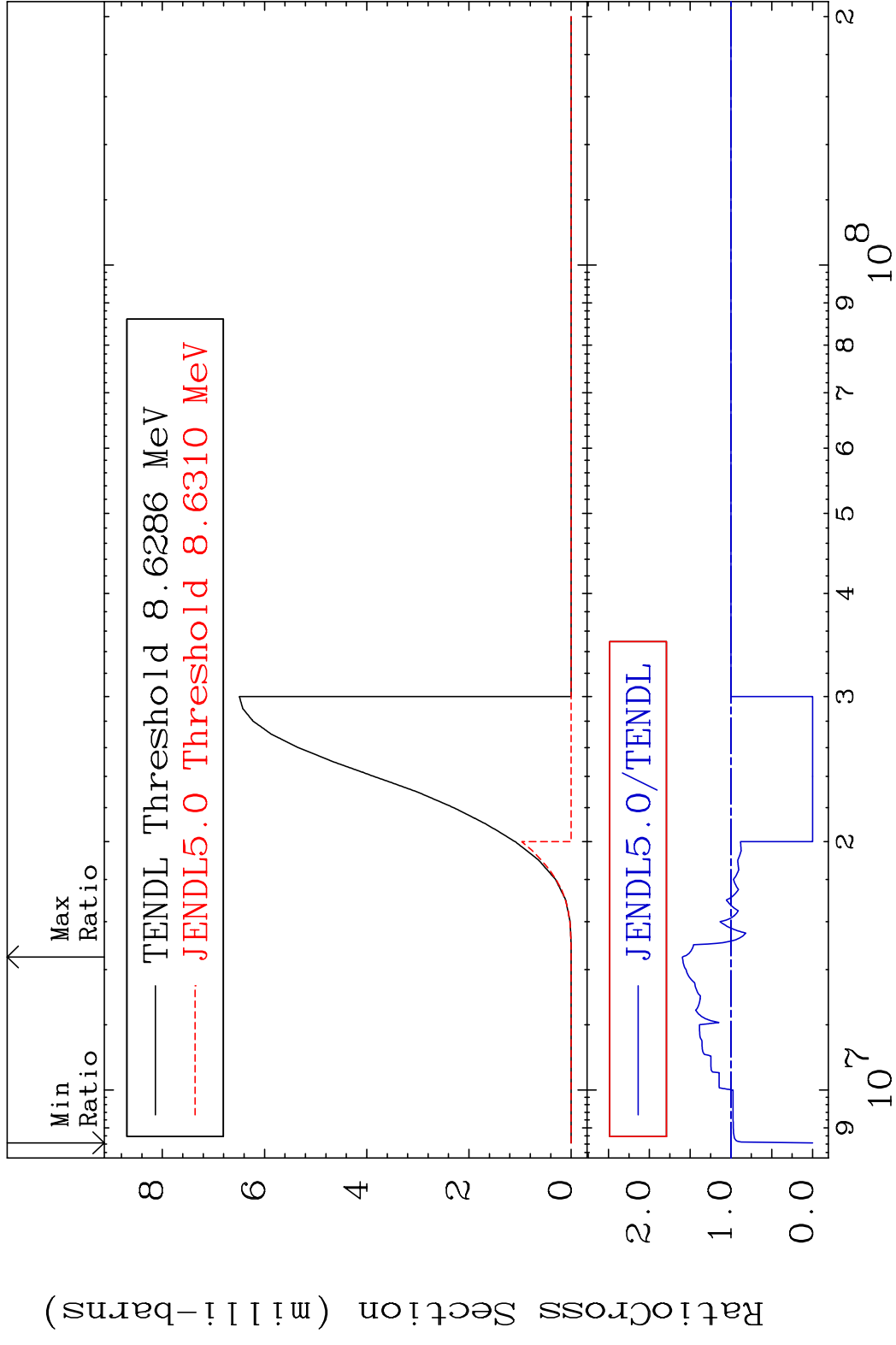
MAT 4120 (n, d) : 40-Zr-90g 41-Nb-91m  
 Radionuclide Production Cross Section (%)

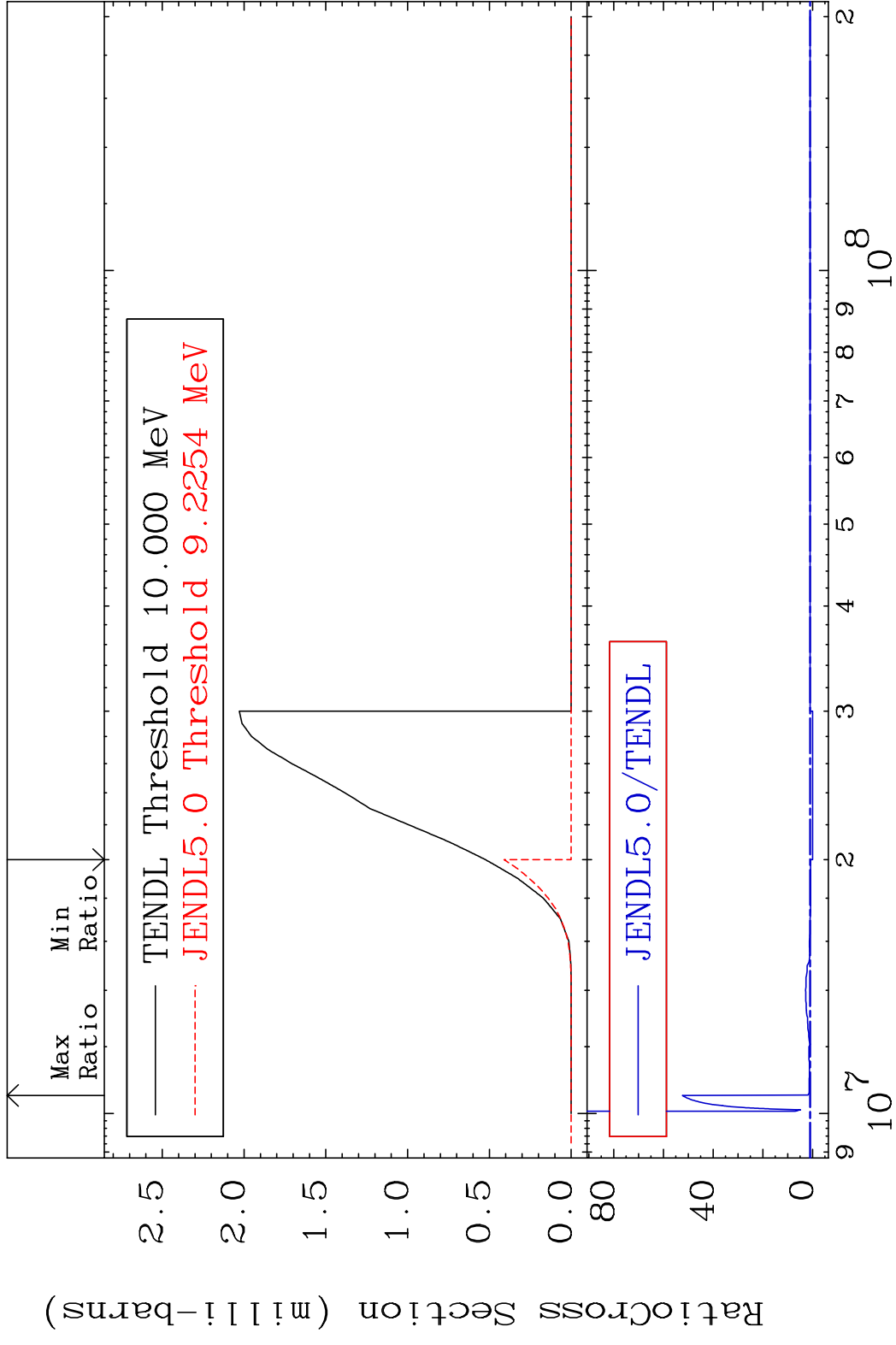


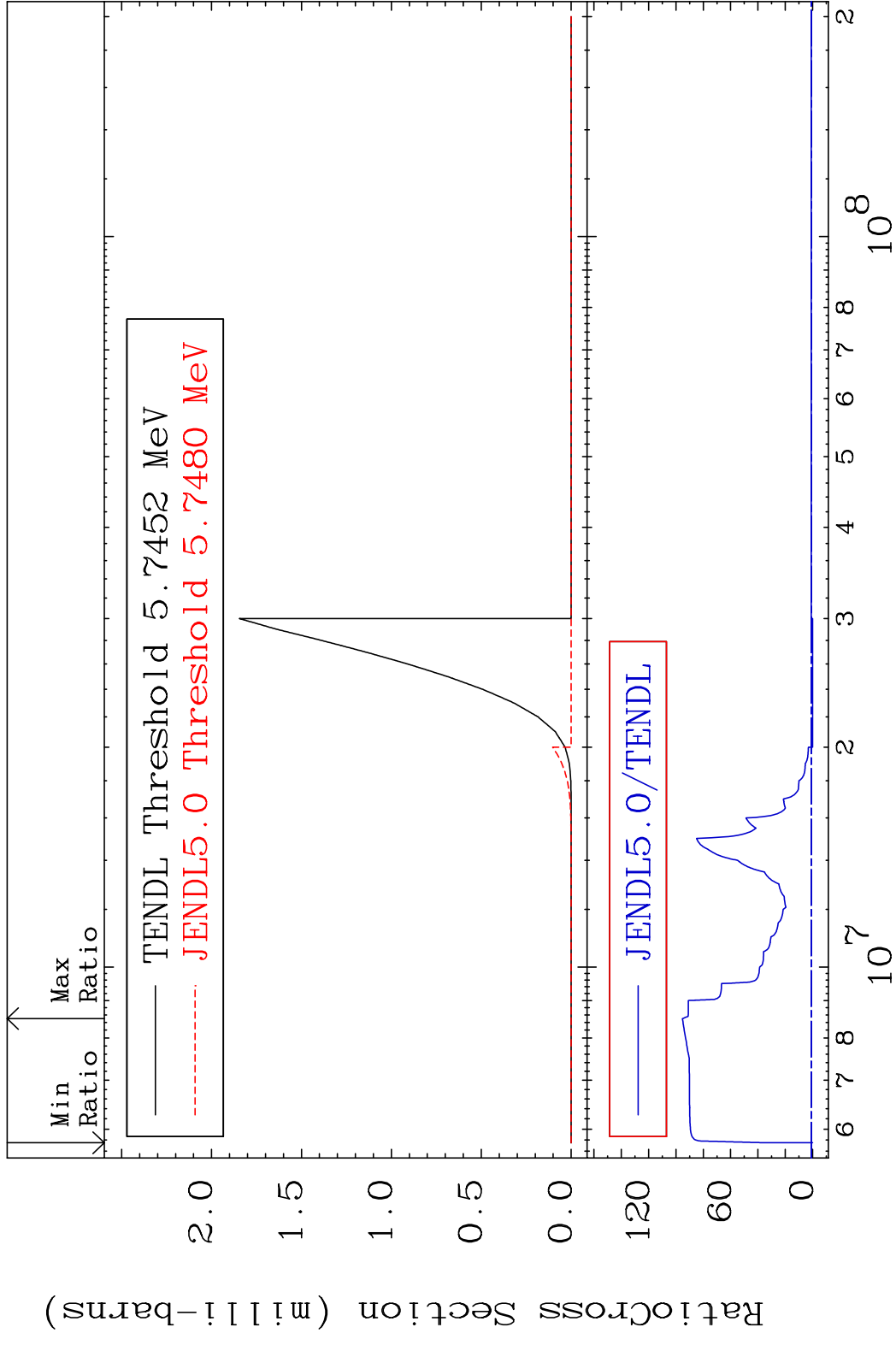
80 Incident Energy (eV) 41-Nb-91m

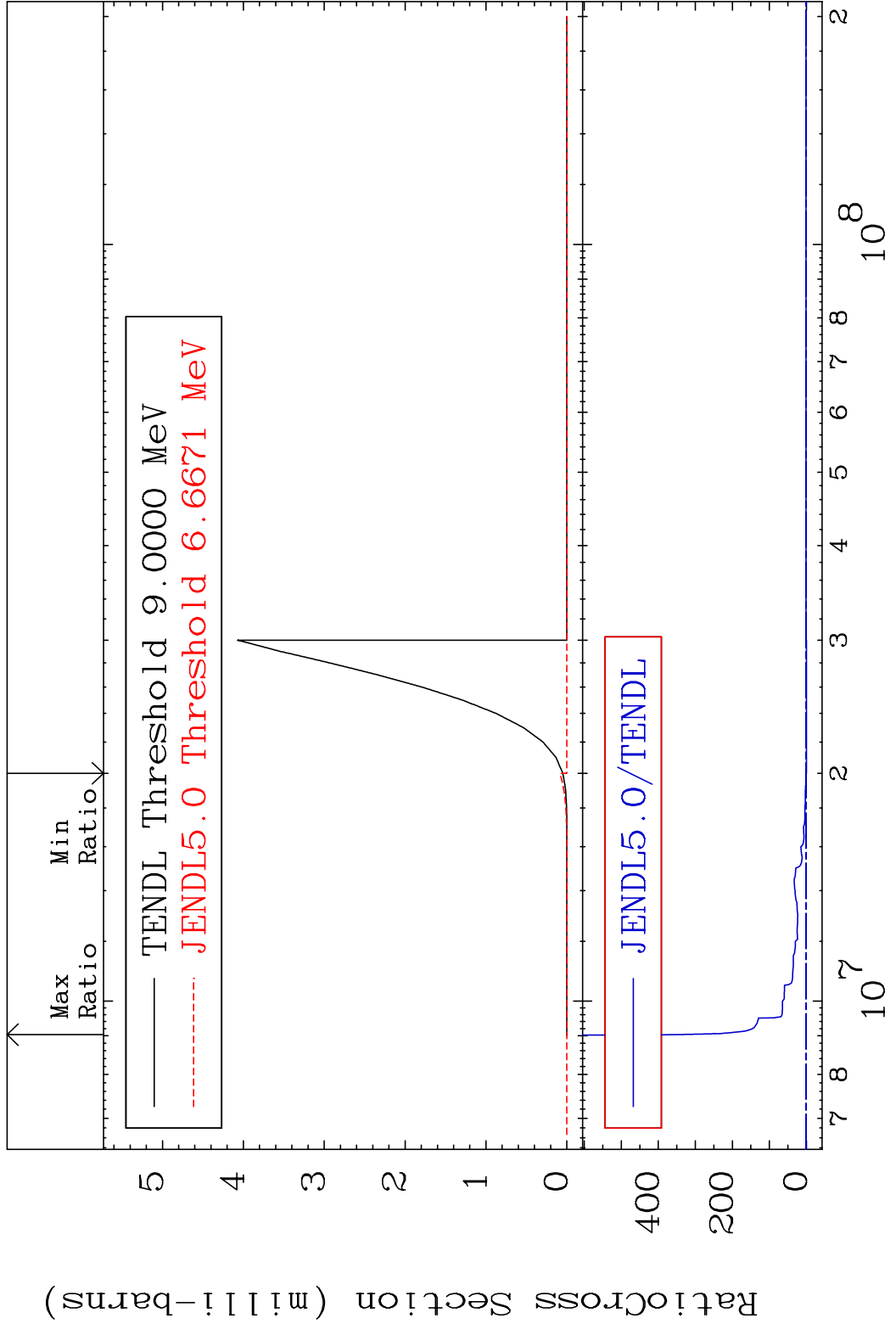


MAT 4120 (n, t) : 40-Zr-89g 41-Nb-91m  
 Radionuclide Production Cross Section 180.01 dth 59.56 %

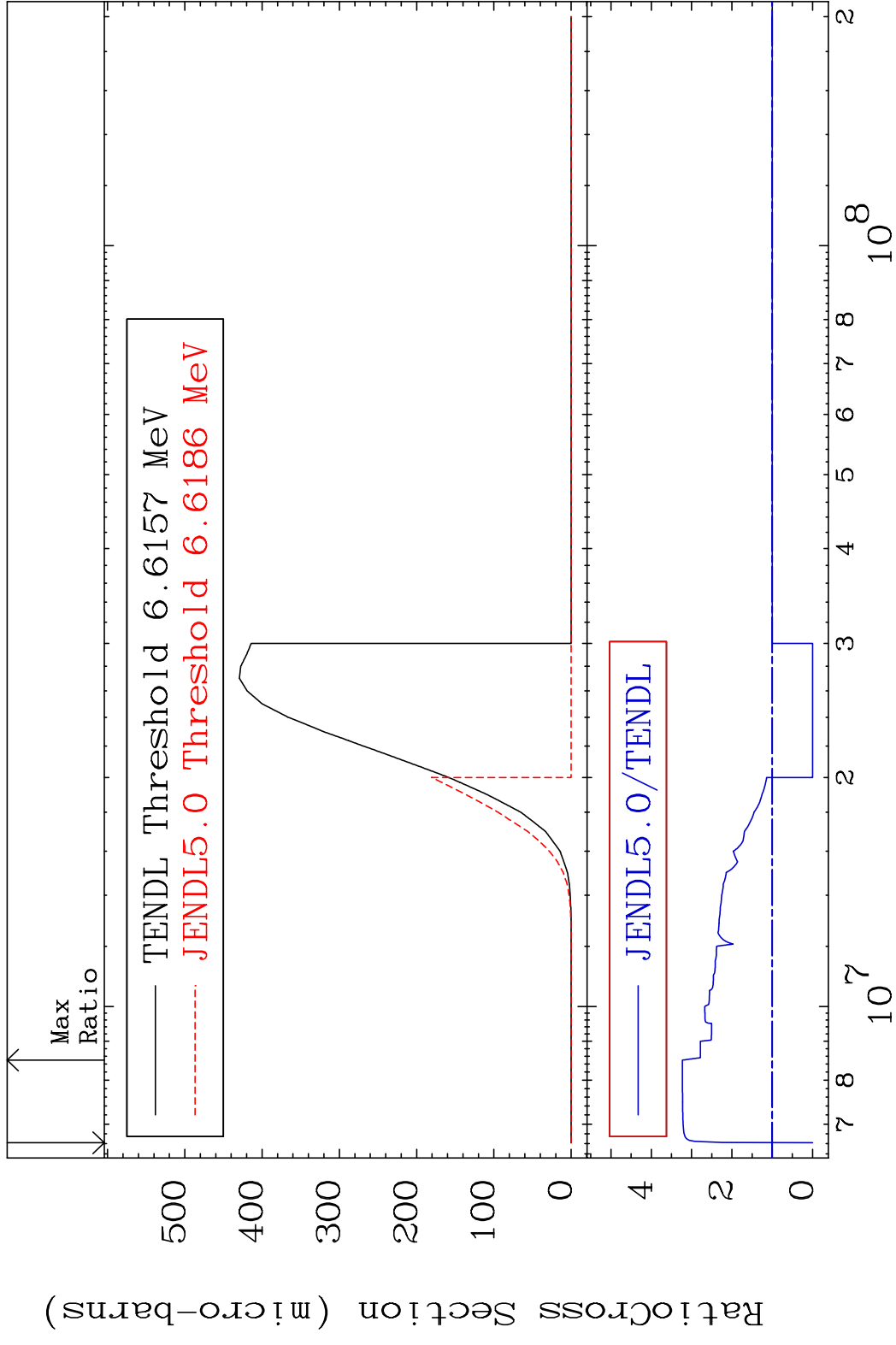




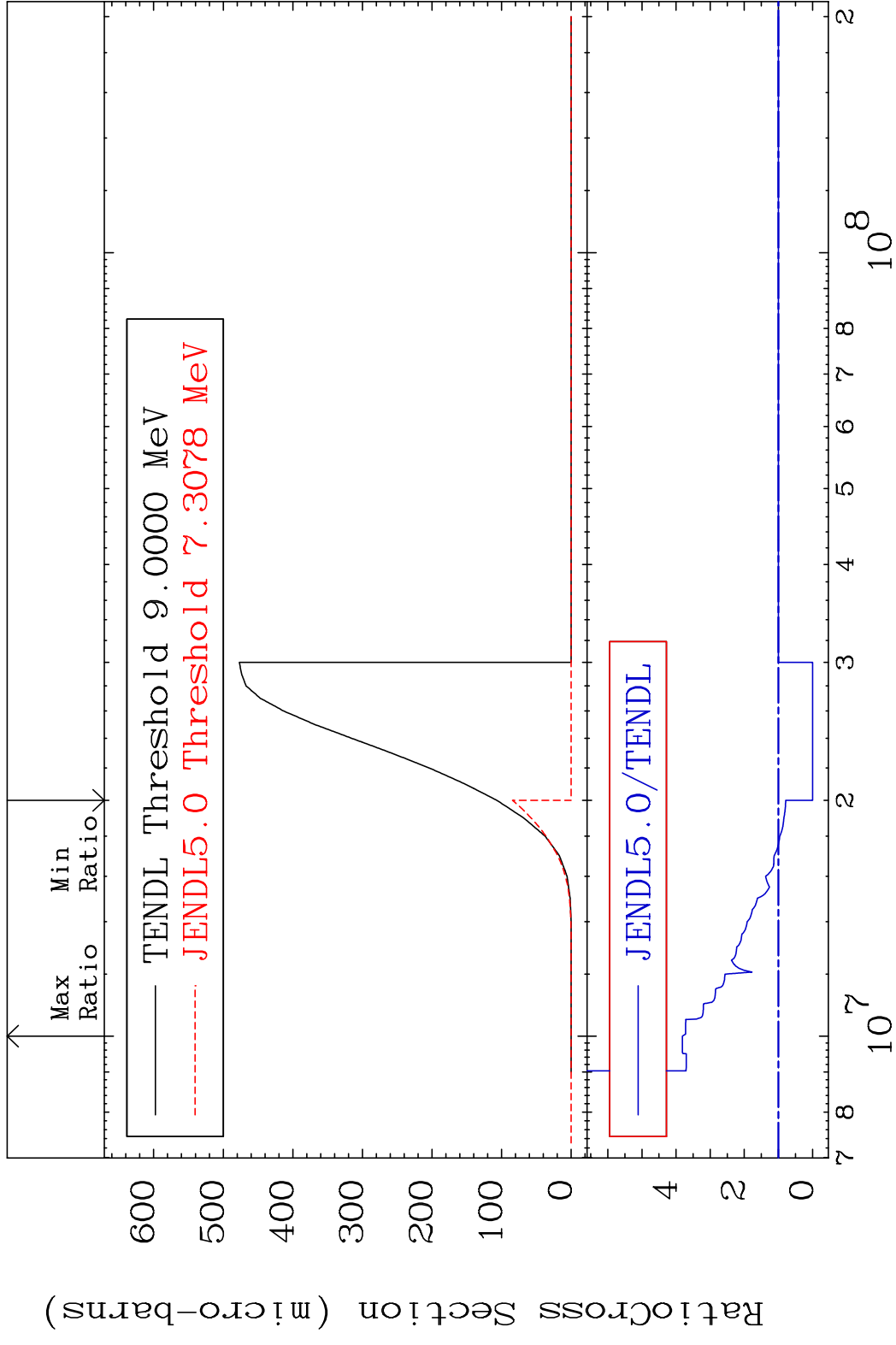




MAT 4120 (n,2p):39-Y -90g 41-Nb-91m  
 Radionuclide Production Cross Section 180.0 mb 222.9 %



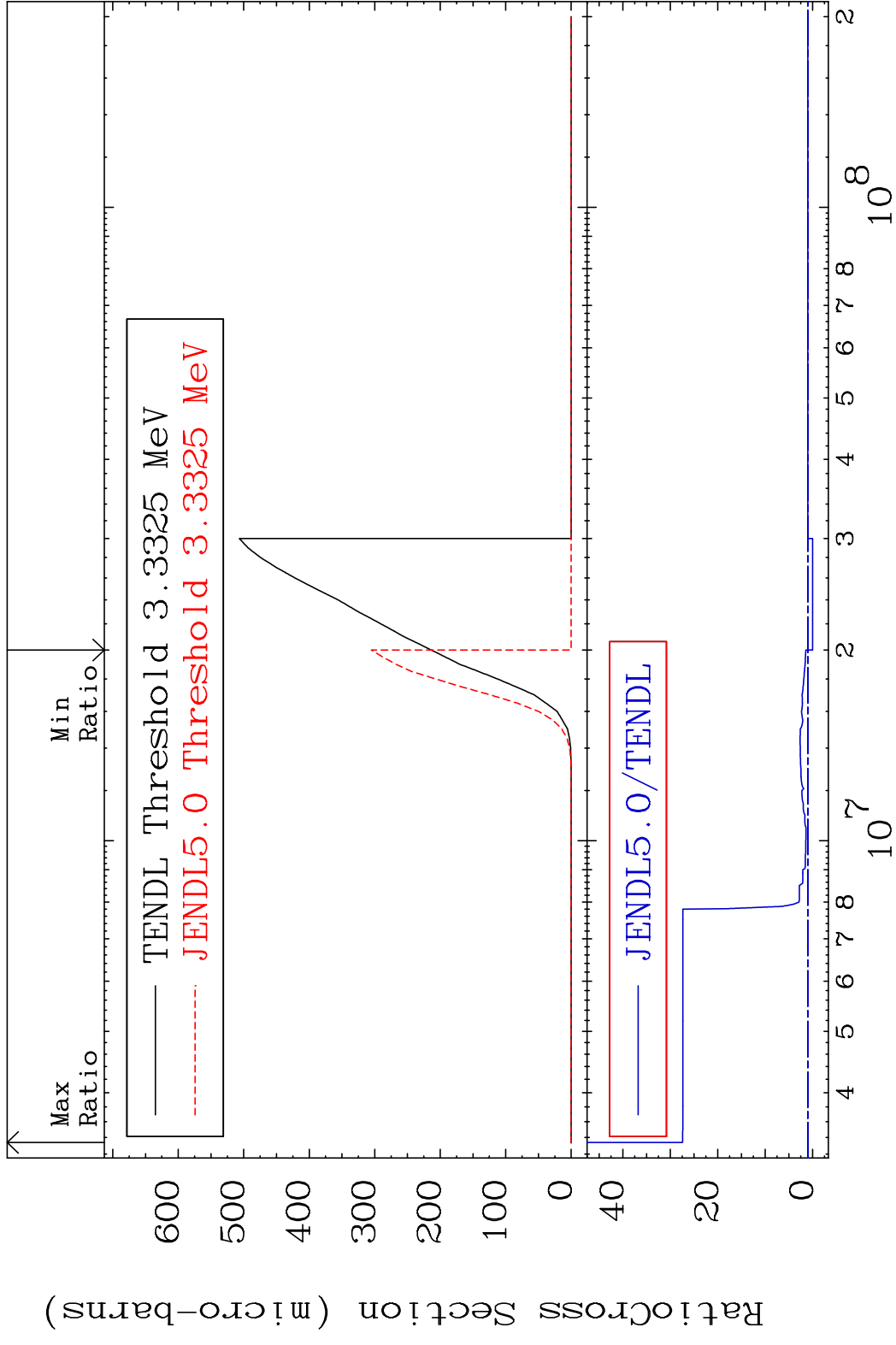
MAT 4120 (n,2p):39-Y -90m2 41-Nb-91m  
 Radionuclide Production Cross Section 180.0 dth 281.5 %



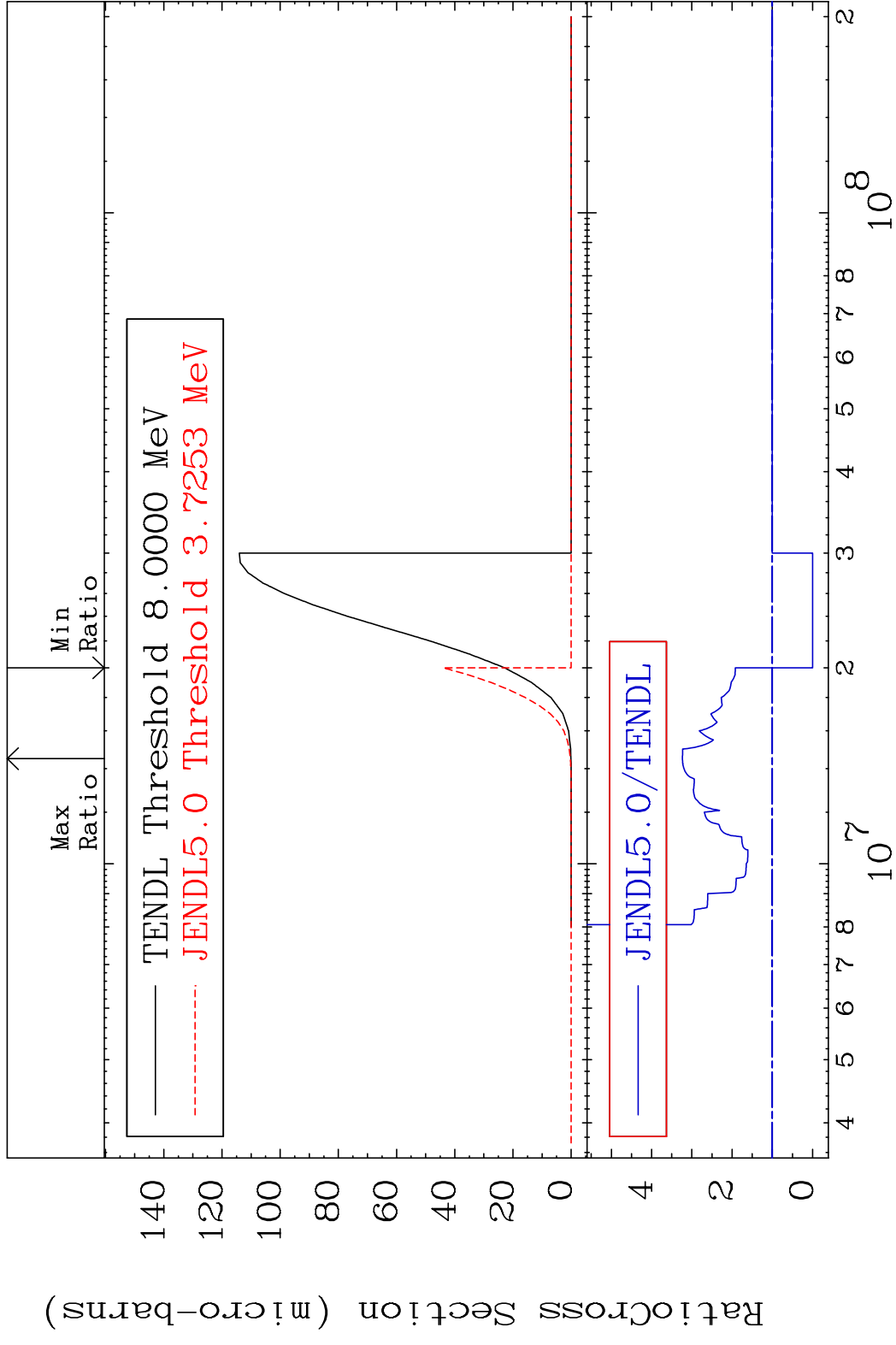
87 Incident Energy (eV) 41-Nb-91m



MAT 4120 (n,p)  $\alpha$ :38-Sr-87g 41-Nb-91m  
 Radionuclide Production Cross Section 180.01 dth 2646. %



MAT 4120 (n, p)  $\alpha$ :38-Sr-87m1 41-Nb-91m  
 Radionuclide Production Cross Section 180.01 dth 223.6 %



MAT 4120 (n, p) d:39-Y -89g 41-Nb-91m  
 Radionuclide Production Cross Section 180.01 dth 1256. %

