

Program Complot  
(Version 2018-1)

by

Dermott E. Cullen  
(Present Contact Information)

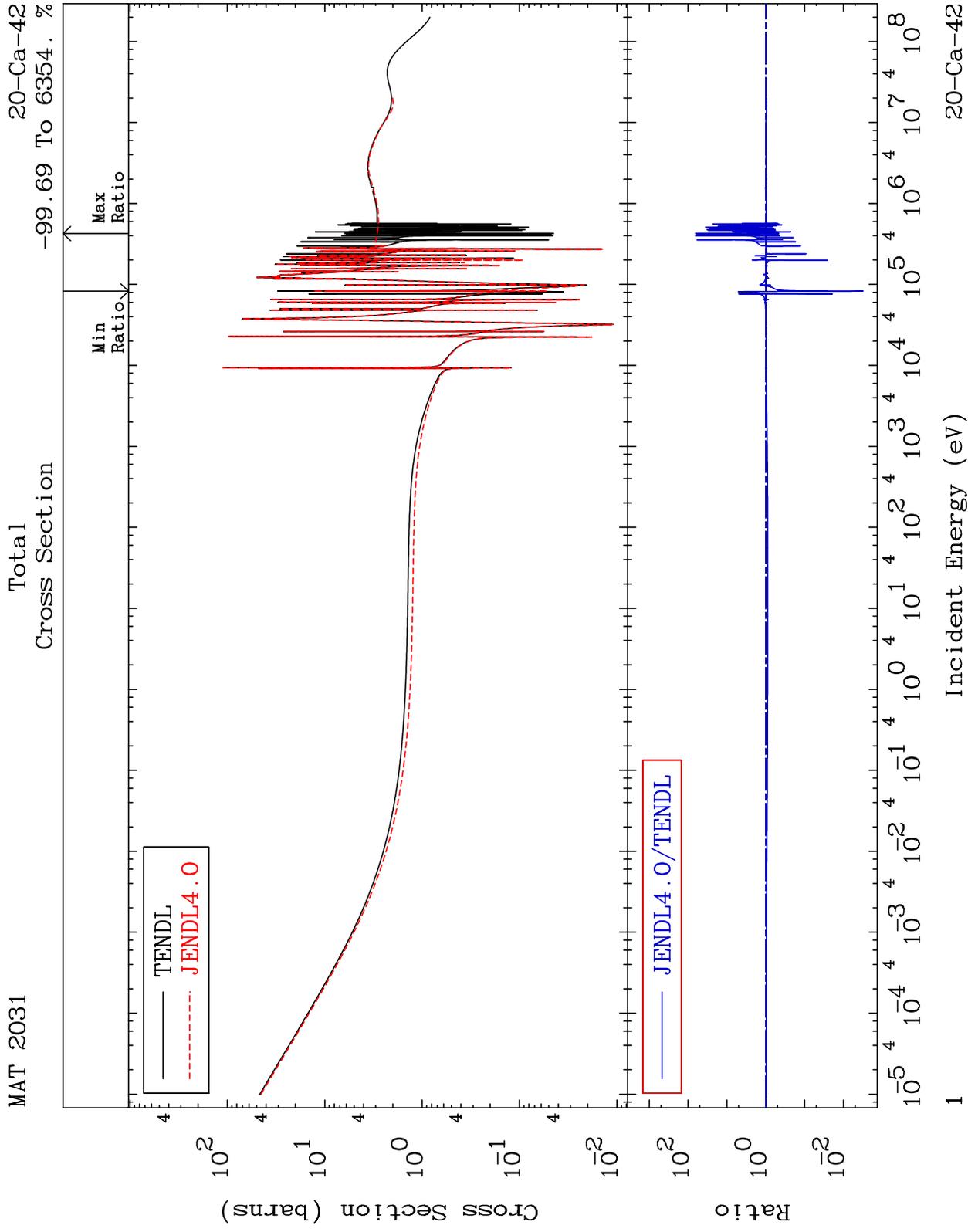
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E.Mail: [redcullen1@comcast.net](mailto:redcullen1@comcast.net)  
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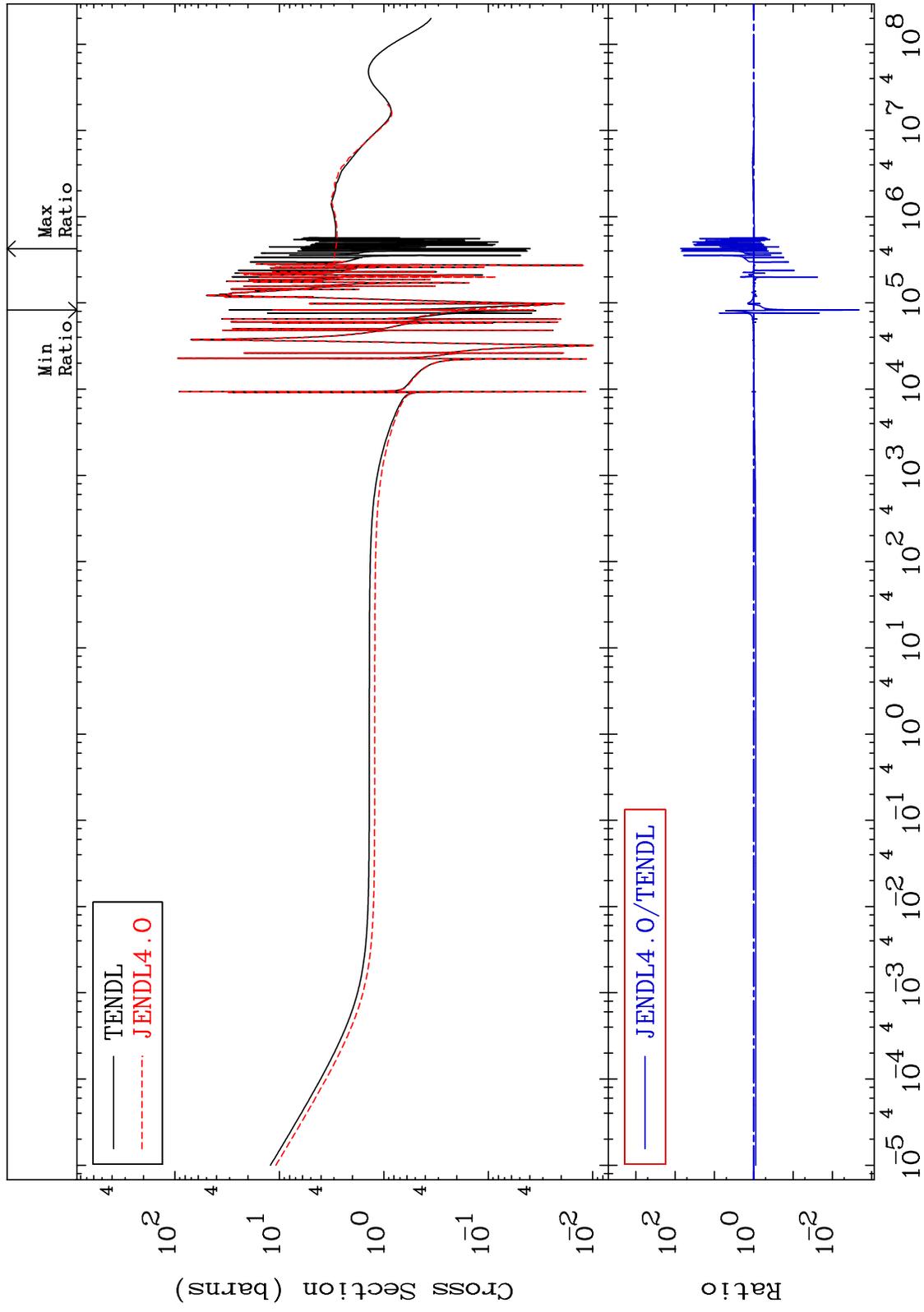
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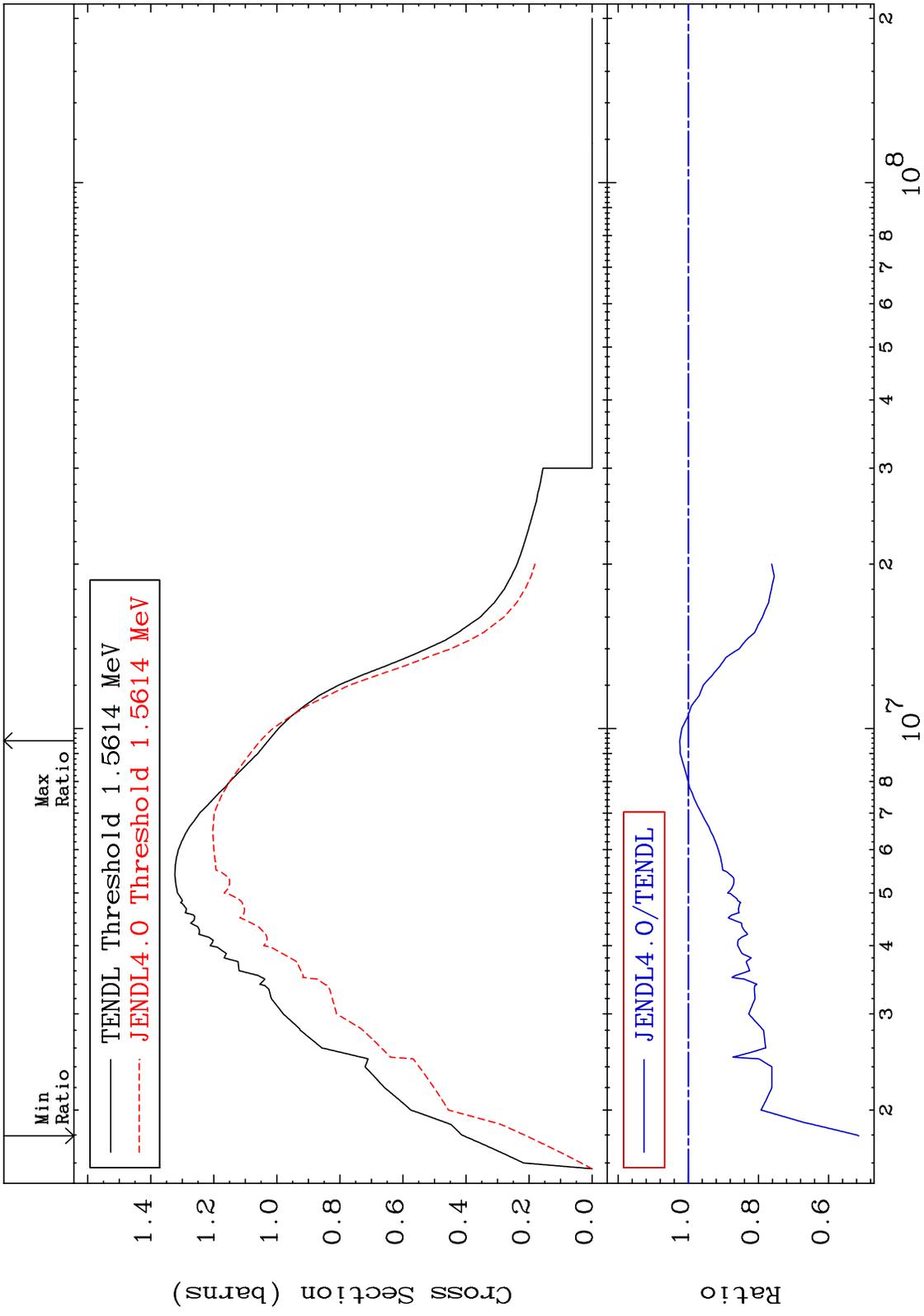
MAT 2031

Elastic  
Cross Section

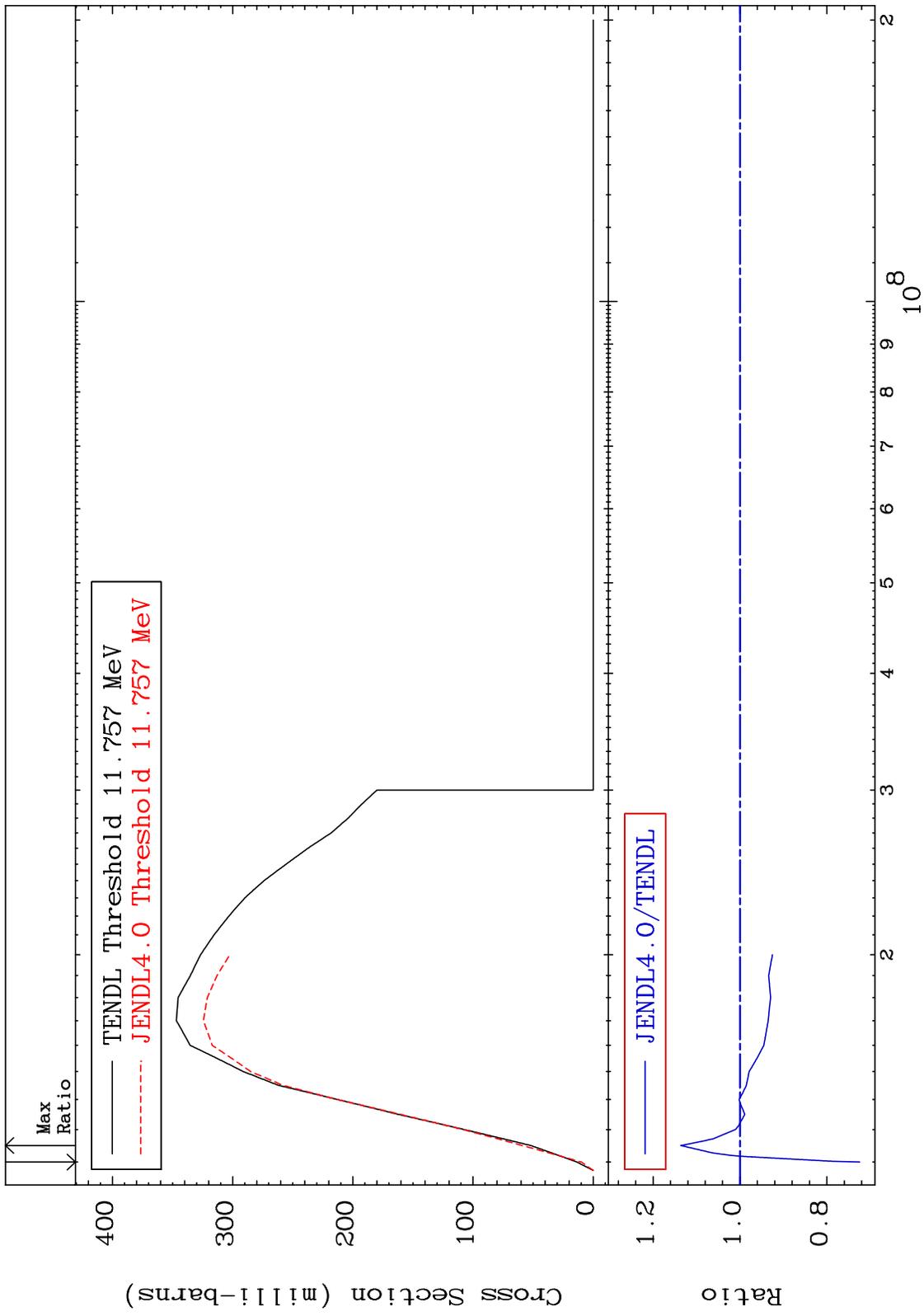
20-Ca-42  
-99.79 To 7149. %



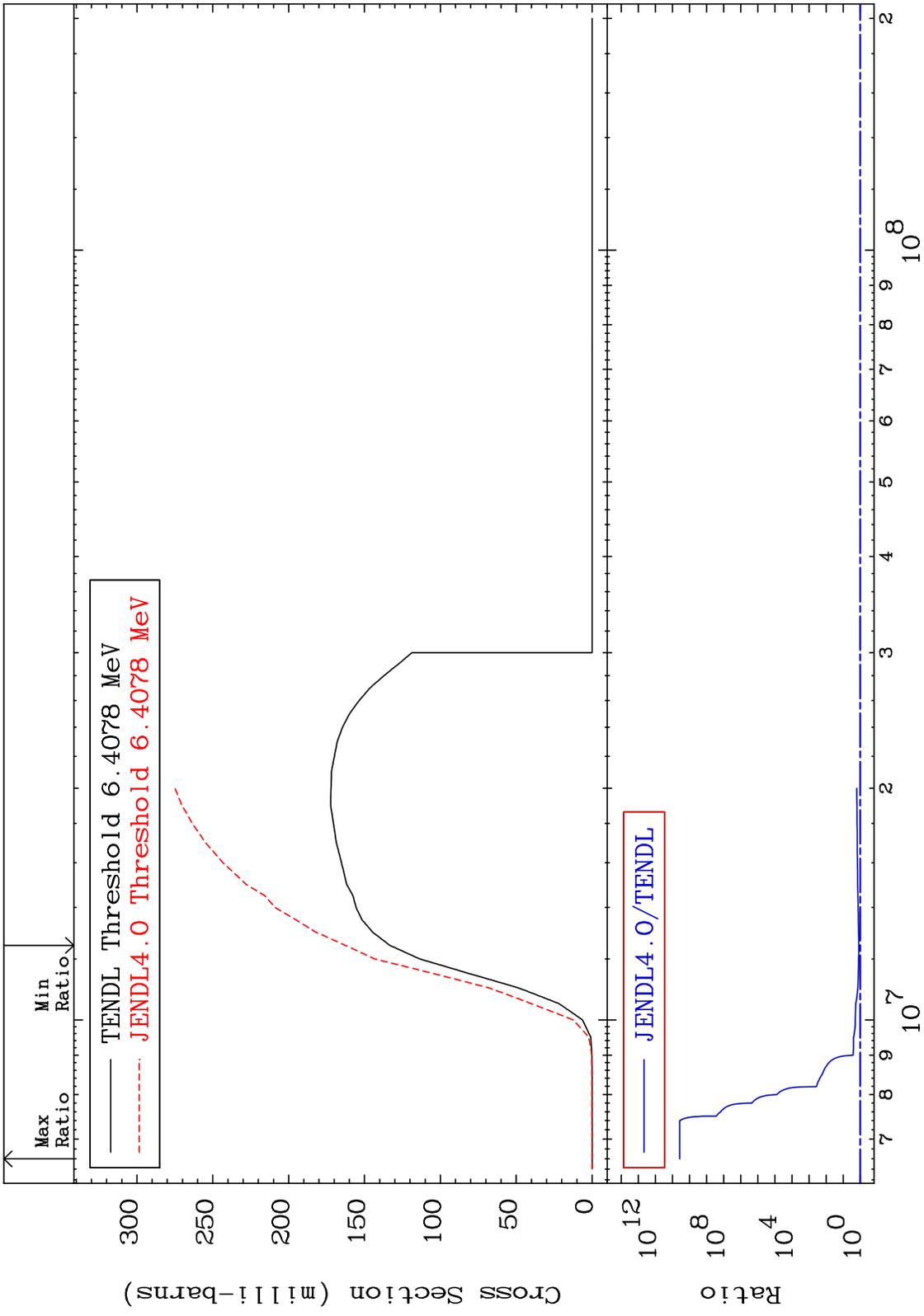
MAT 2031 Inelastic Cross Section 20-Ca-42  
 -48.65 To 2.439 %

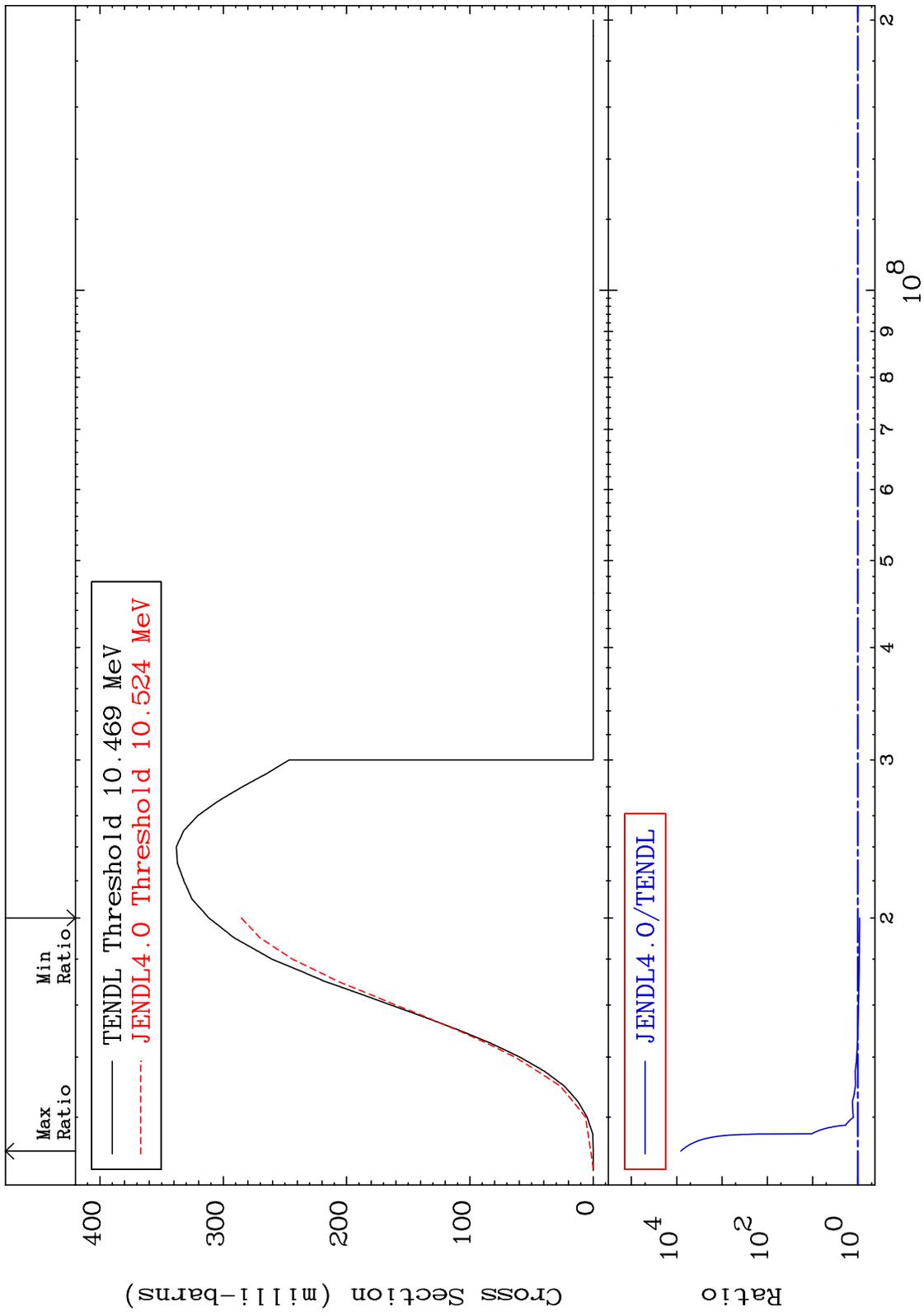


MAT 2031 (n,2n) Cross Section 20-Ca-42 -27.54 To 13.62 %

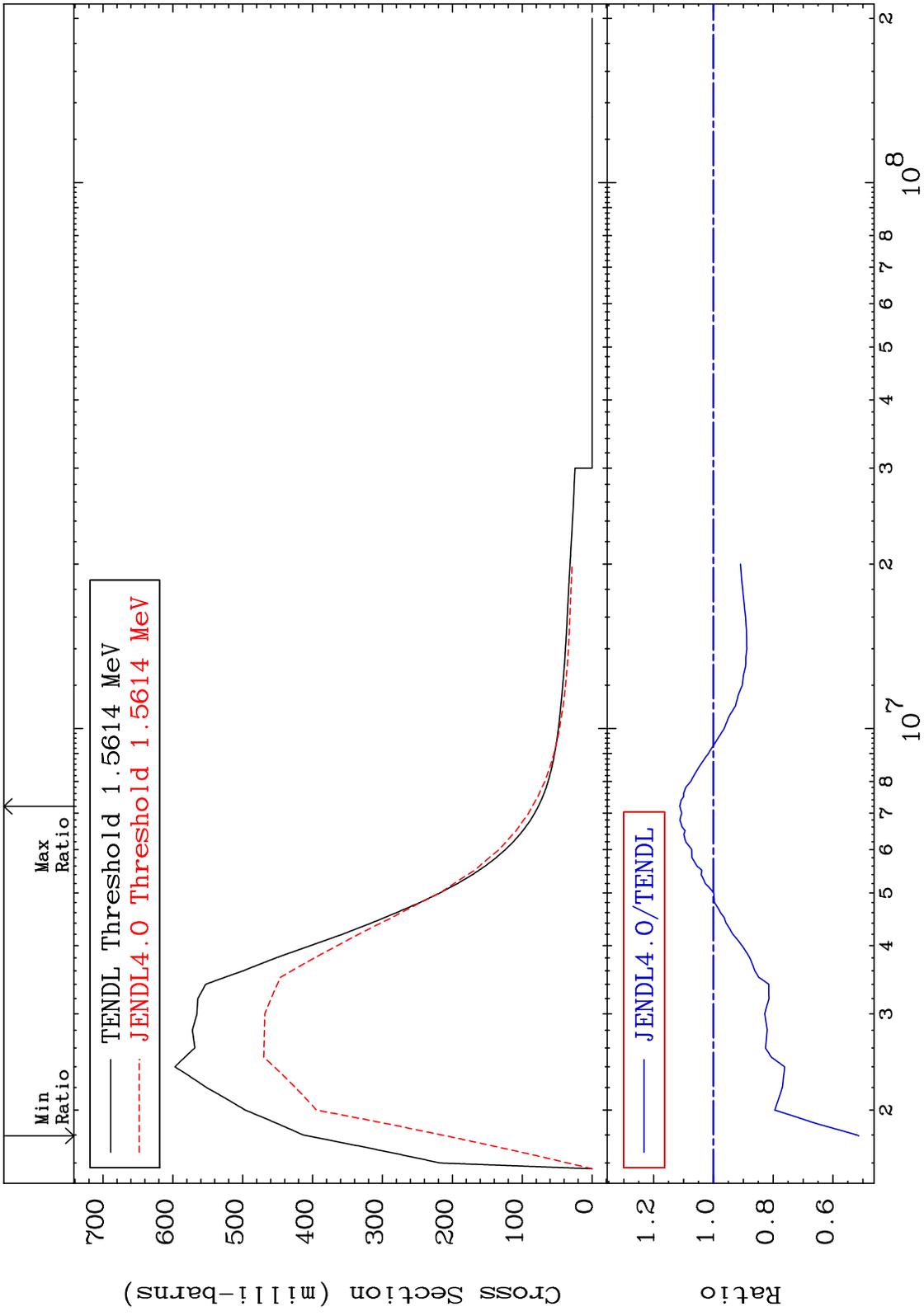


MAT 2031 (n,n')  $\alpha$  20-Ca-42  
 Cross Section 21.96 To 9999. %



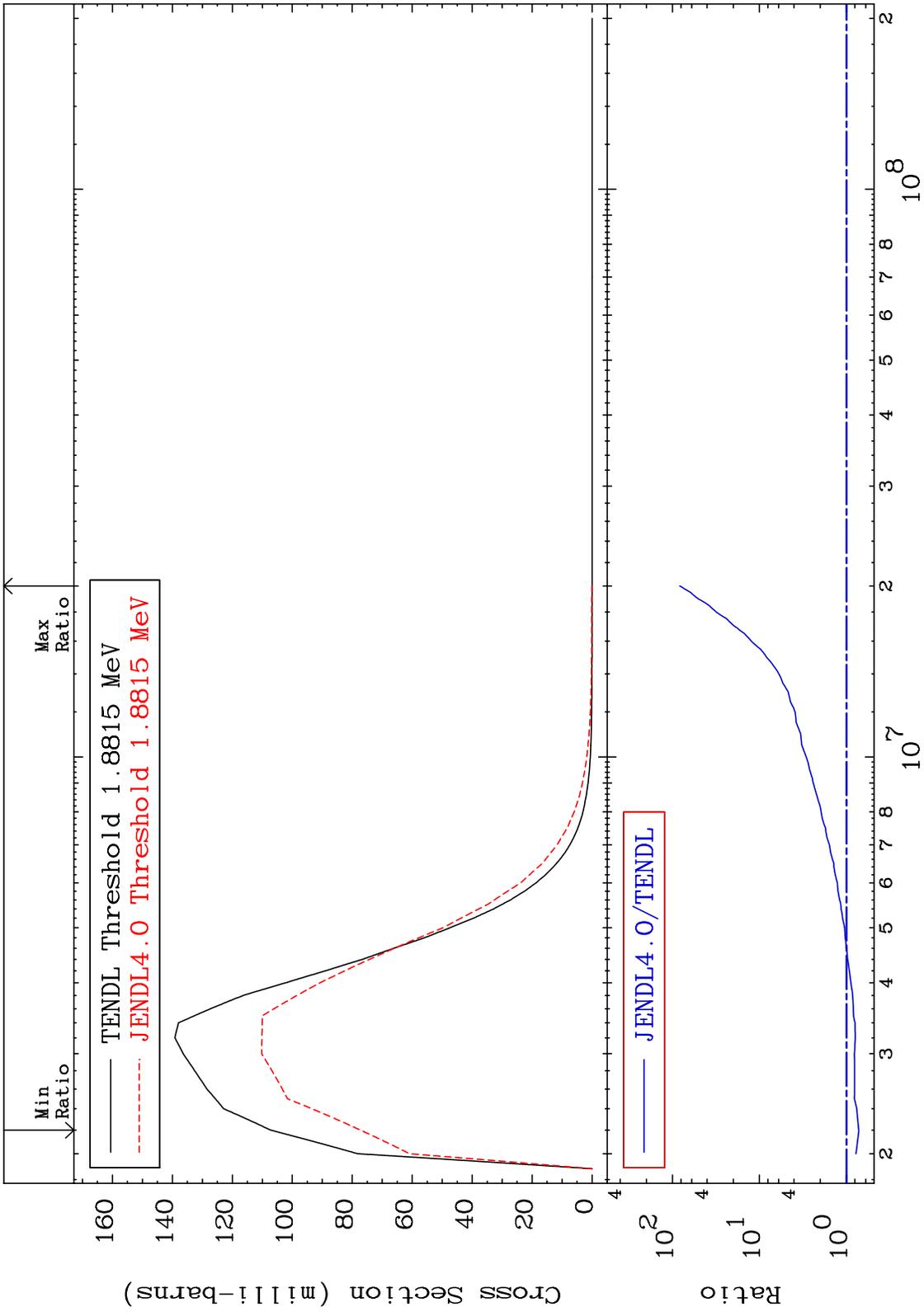


MAT 2031 MT= 51 (n,n') Level Cross Section -48.65 To 11.27 % 20-Ca-42

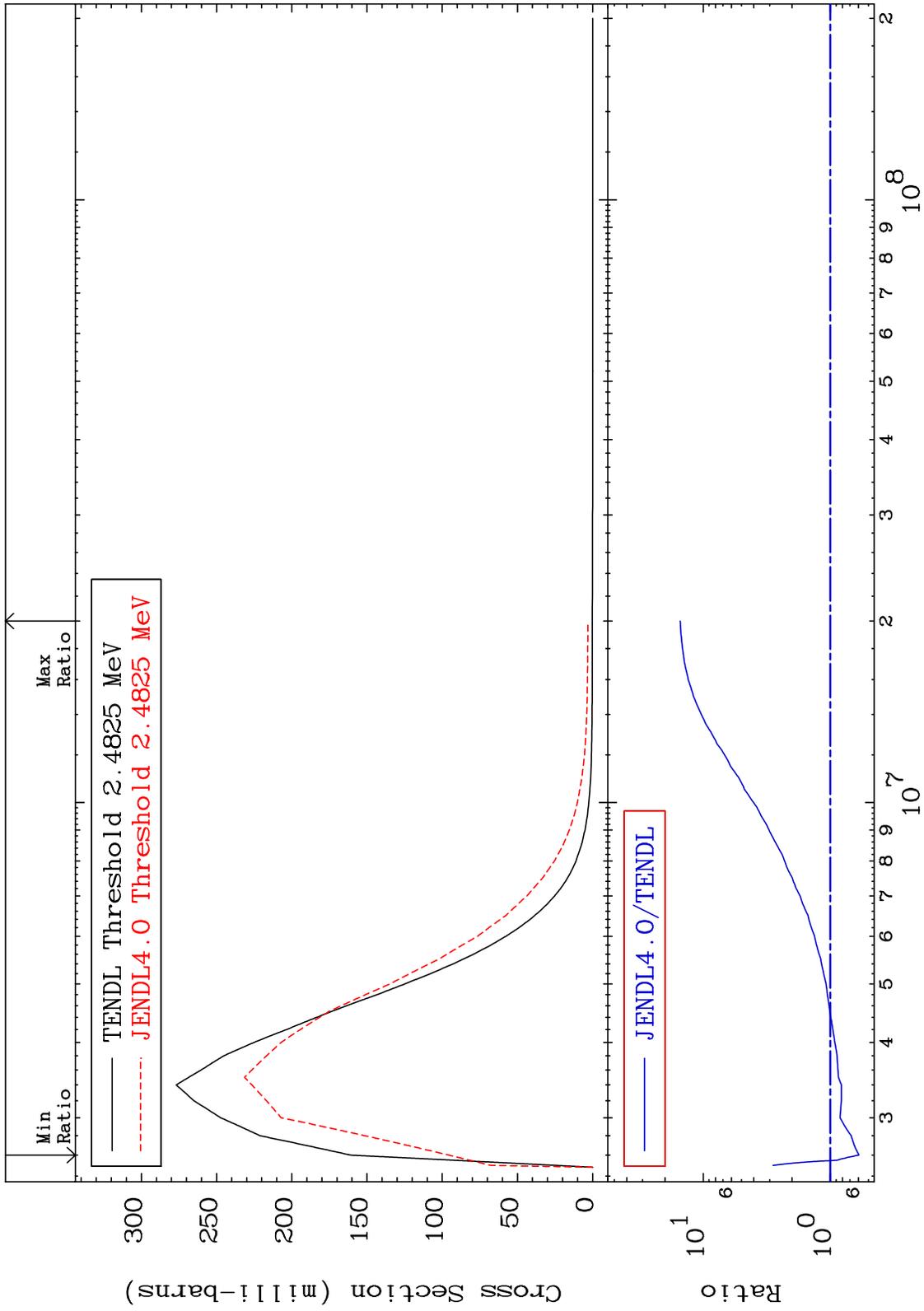


7 Incident Energy (eV) 20-Ca-42

MAT 2031 MT= 52 (n,n') Level Cross Section -27.98 To 8151. % 20-Ca-42



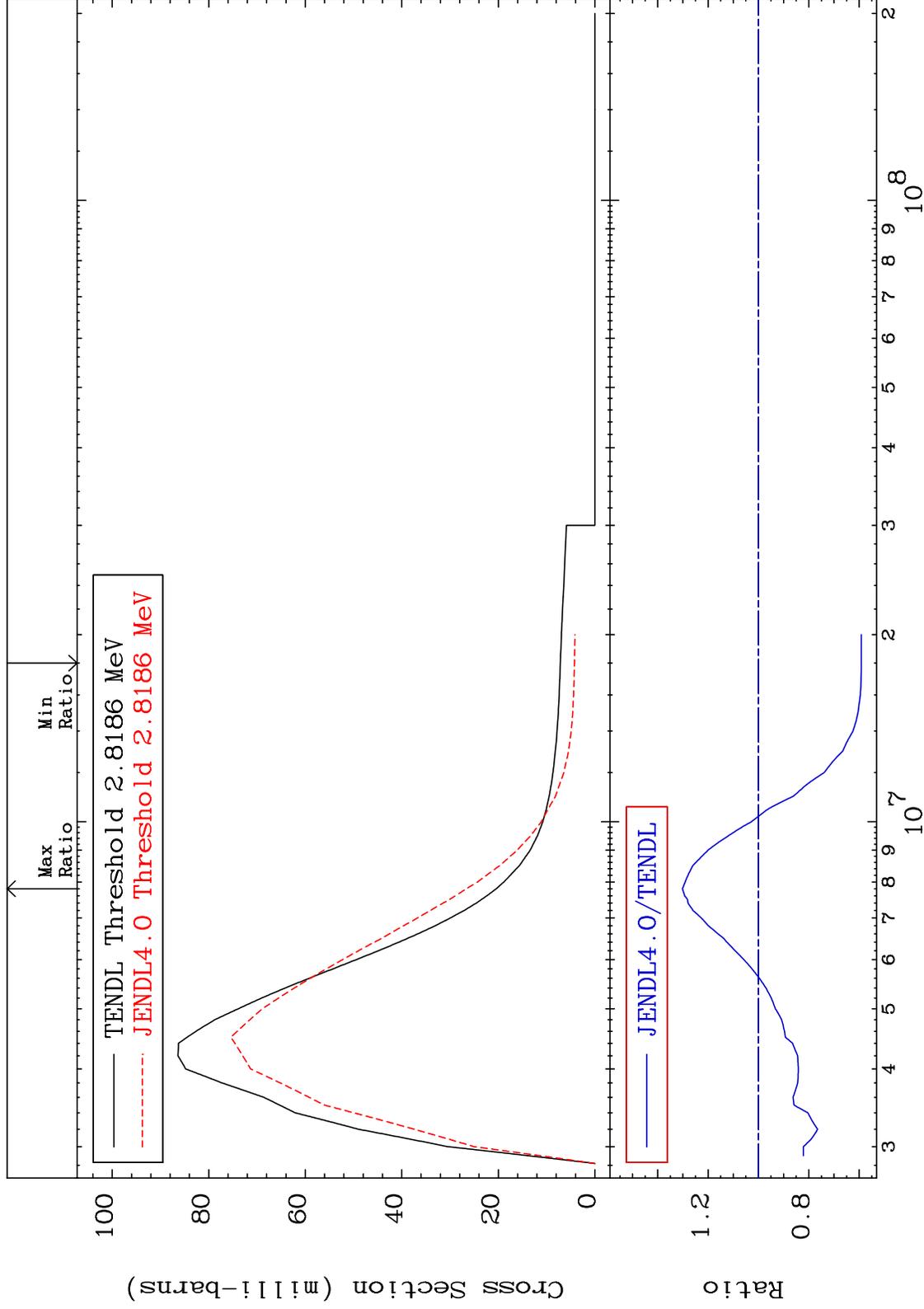
MAT 2031 MT= 53 (n,n') Level Cross Section -40.55 To 1417. % 20-Ca-42



MAT 2031

MT= 54 (n,n') Level  
Cross Section

20-Ca-42  
-40.87 To 30.18 %

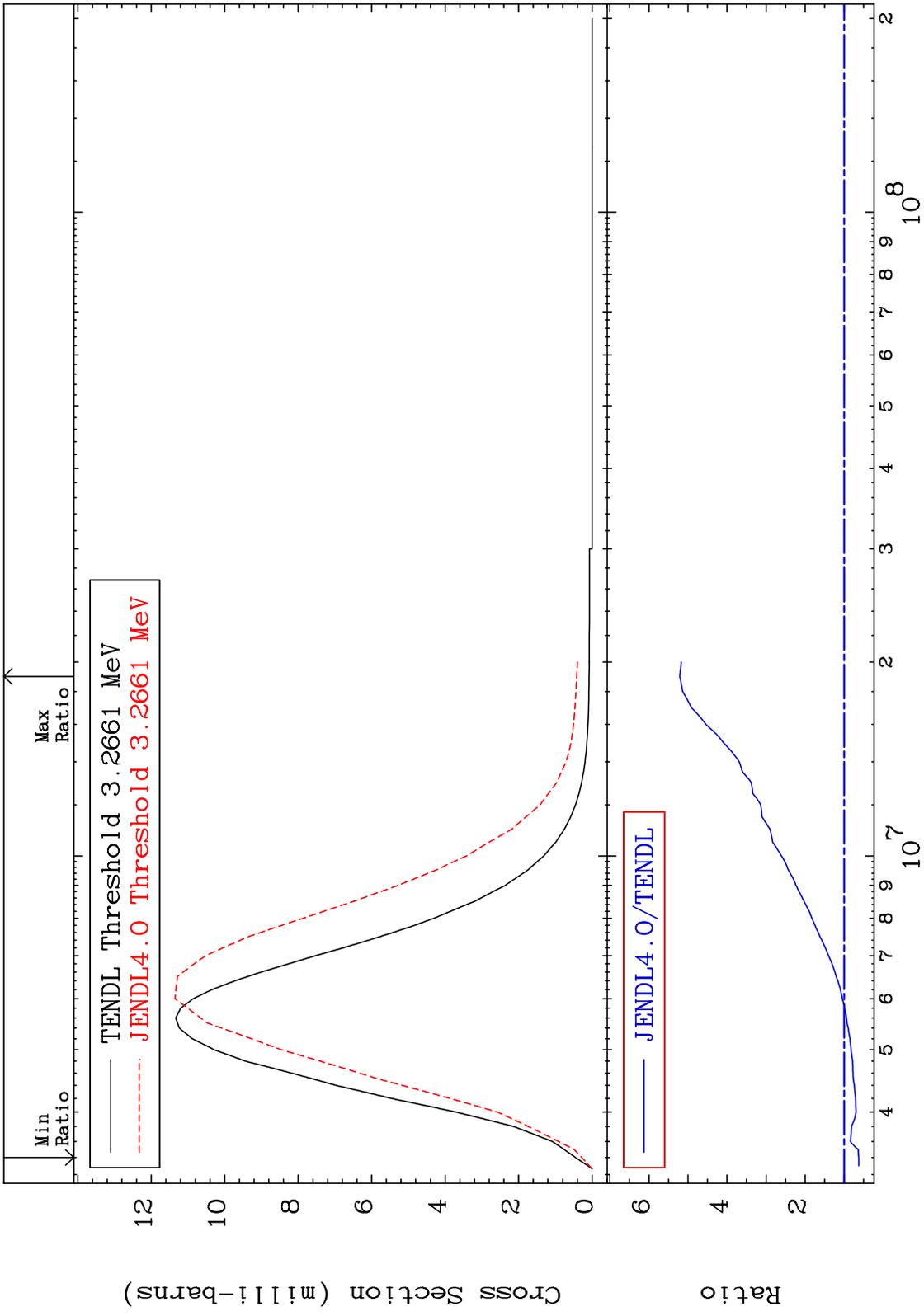


10

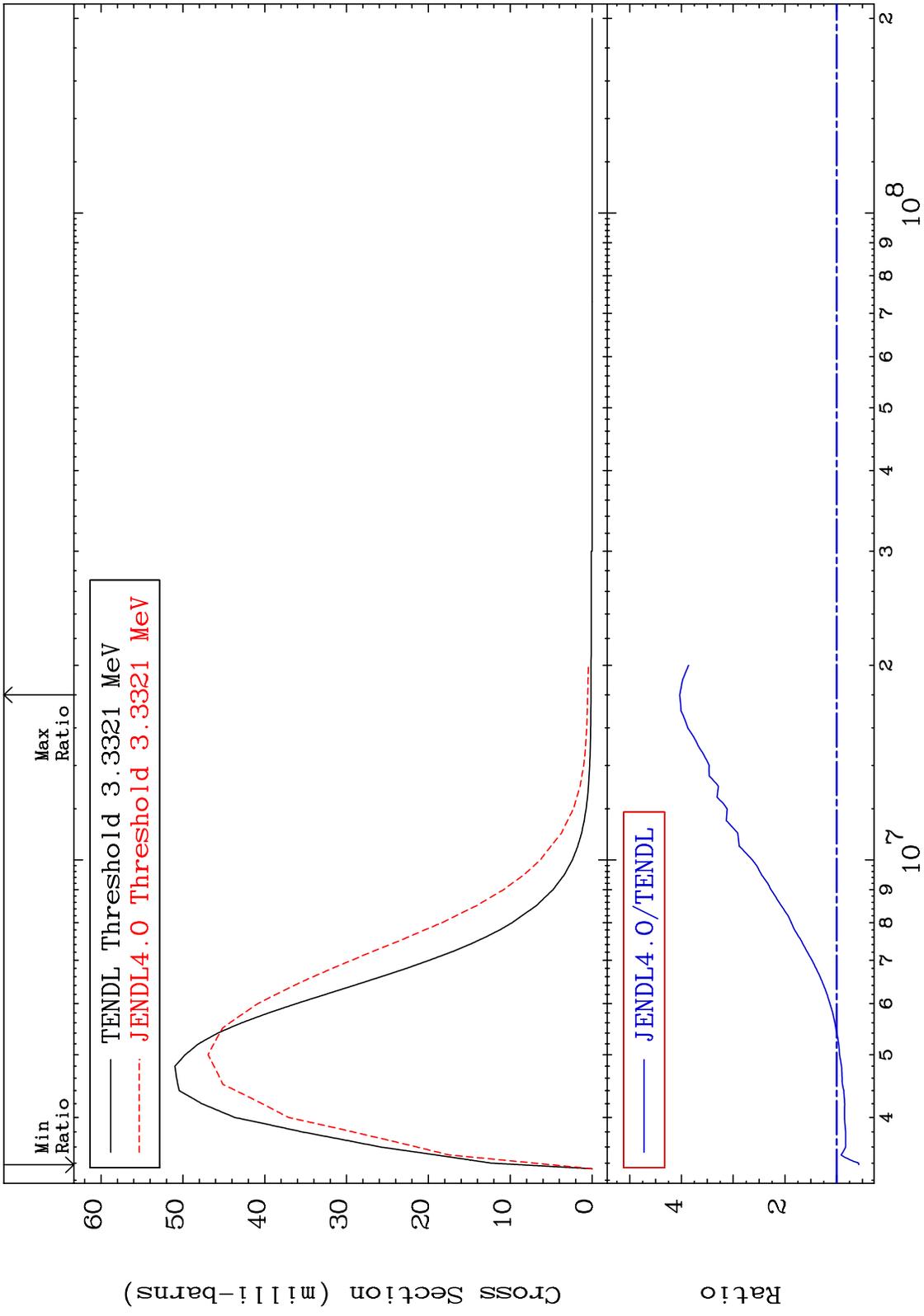
Incident Energy (eV)

20-Ca-42

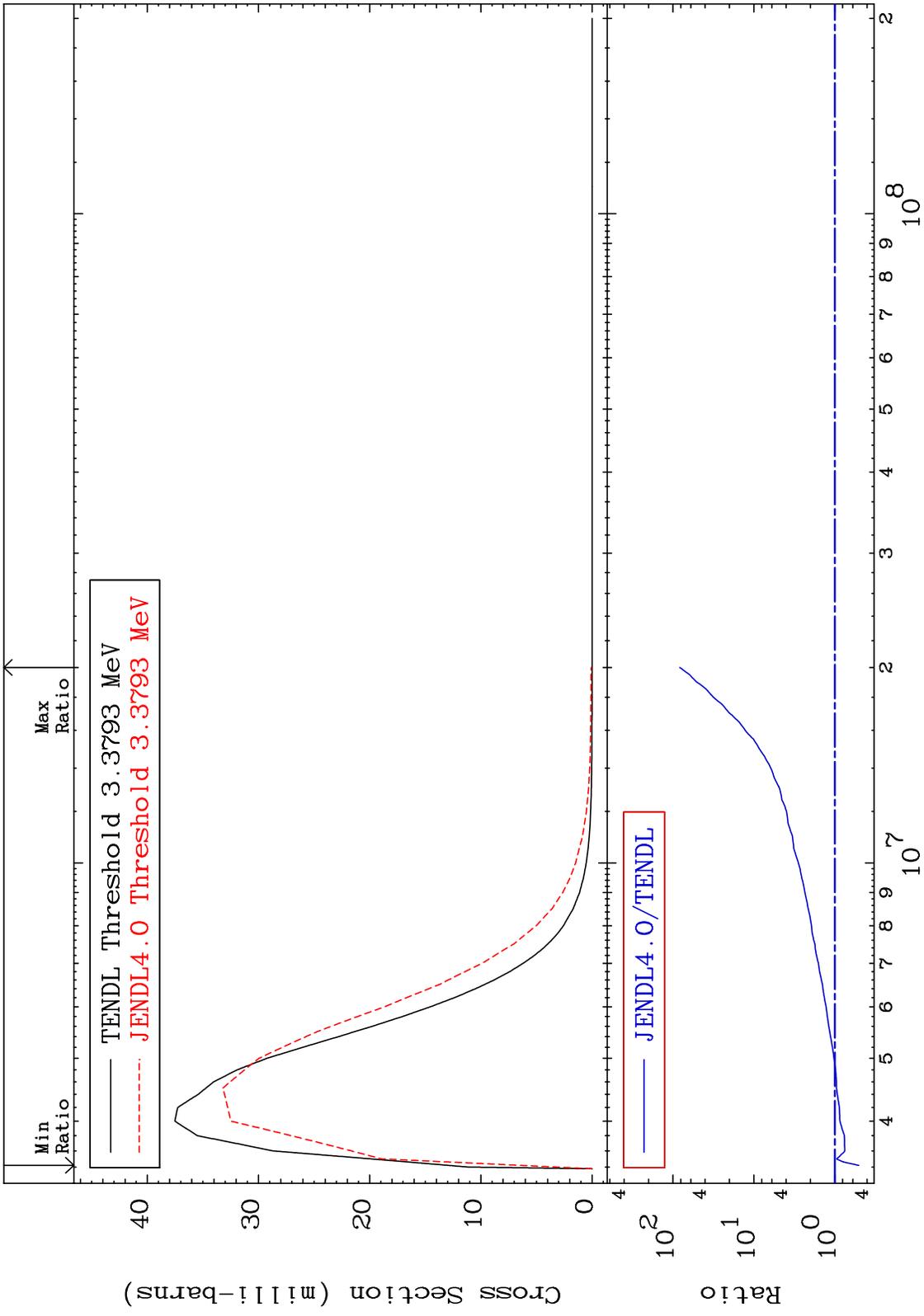
MAT 2031 MT= 55 (n,n') Level Cross Section -37.52 To 421.1 % 20-Ca-42



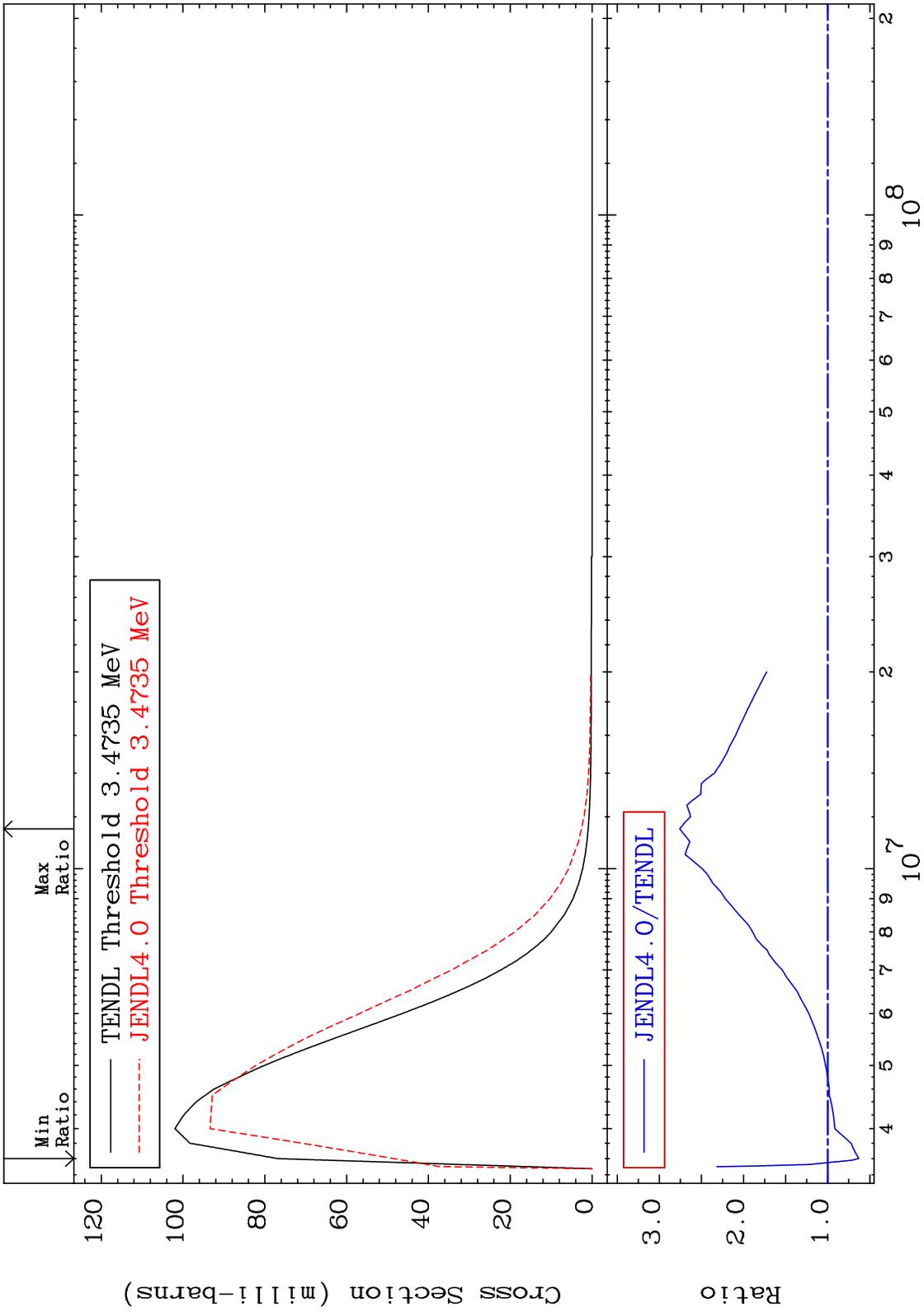
MAT 2031 MT= 56 (n,n') Level Cross Section -42.79 To 303.3 % 20-Ca-42



MAT 2031 MT= 57 (n,n') Level Cross Section -49.45 To 8127. % 20-Ca-42



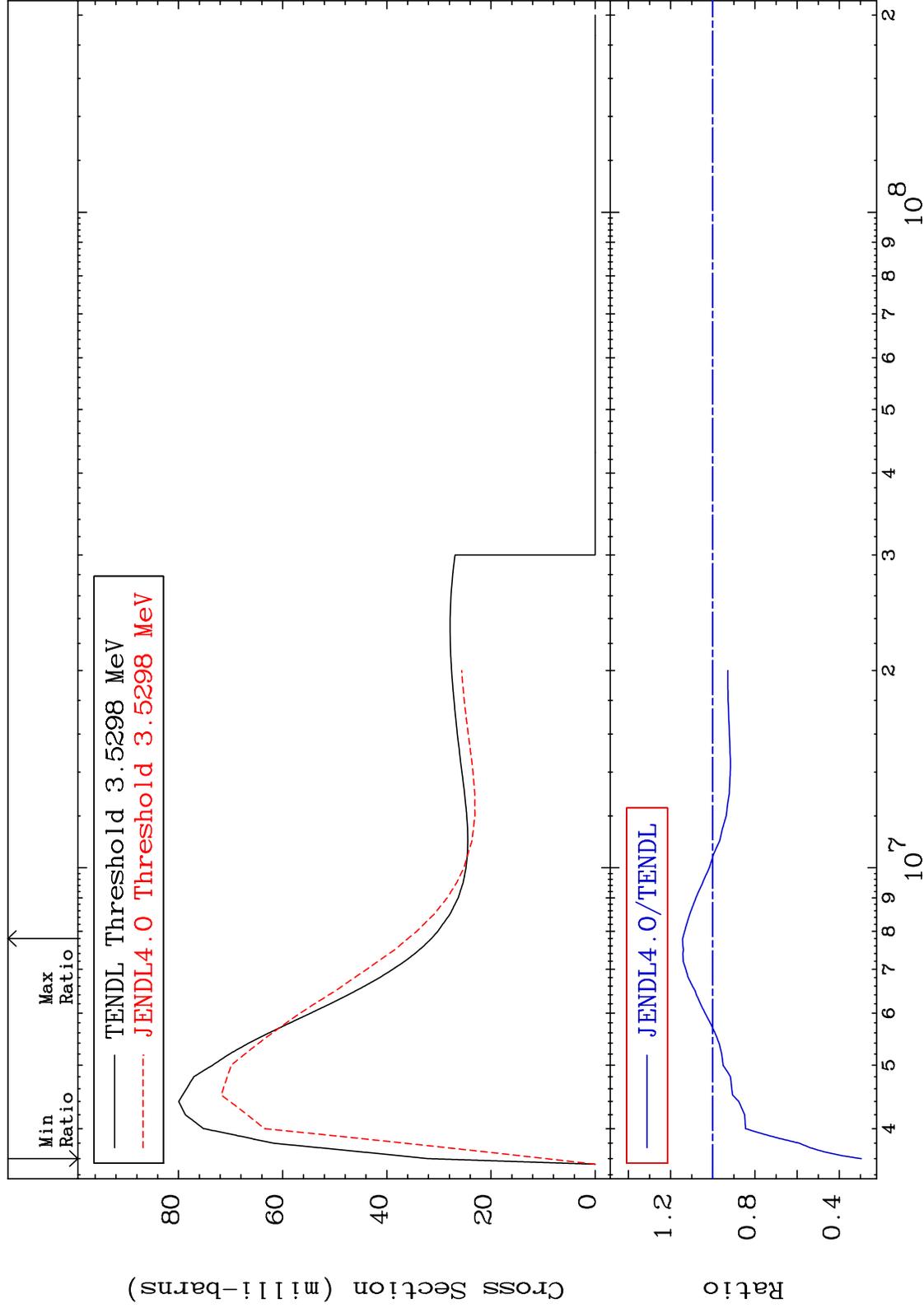
MAT 2031 MT= 58 (n,n') Level Cross Section -36.91 To 175.8 % 20-Ca-42



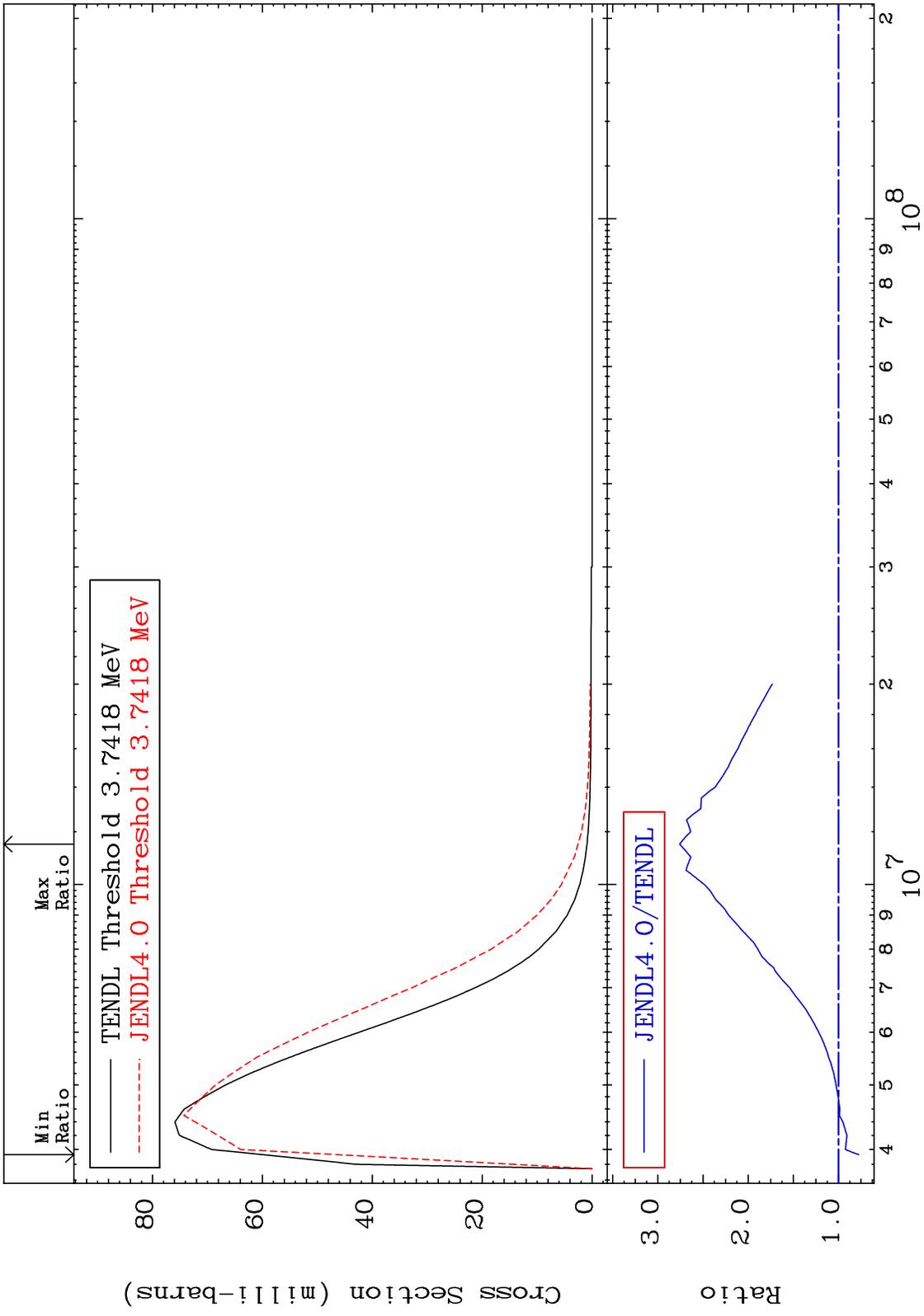
MAT 2031

MT= 59 (n,n') Level  
Cross Section

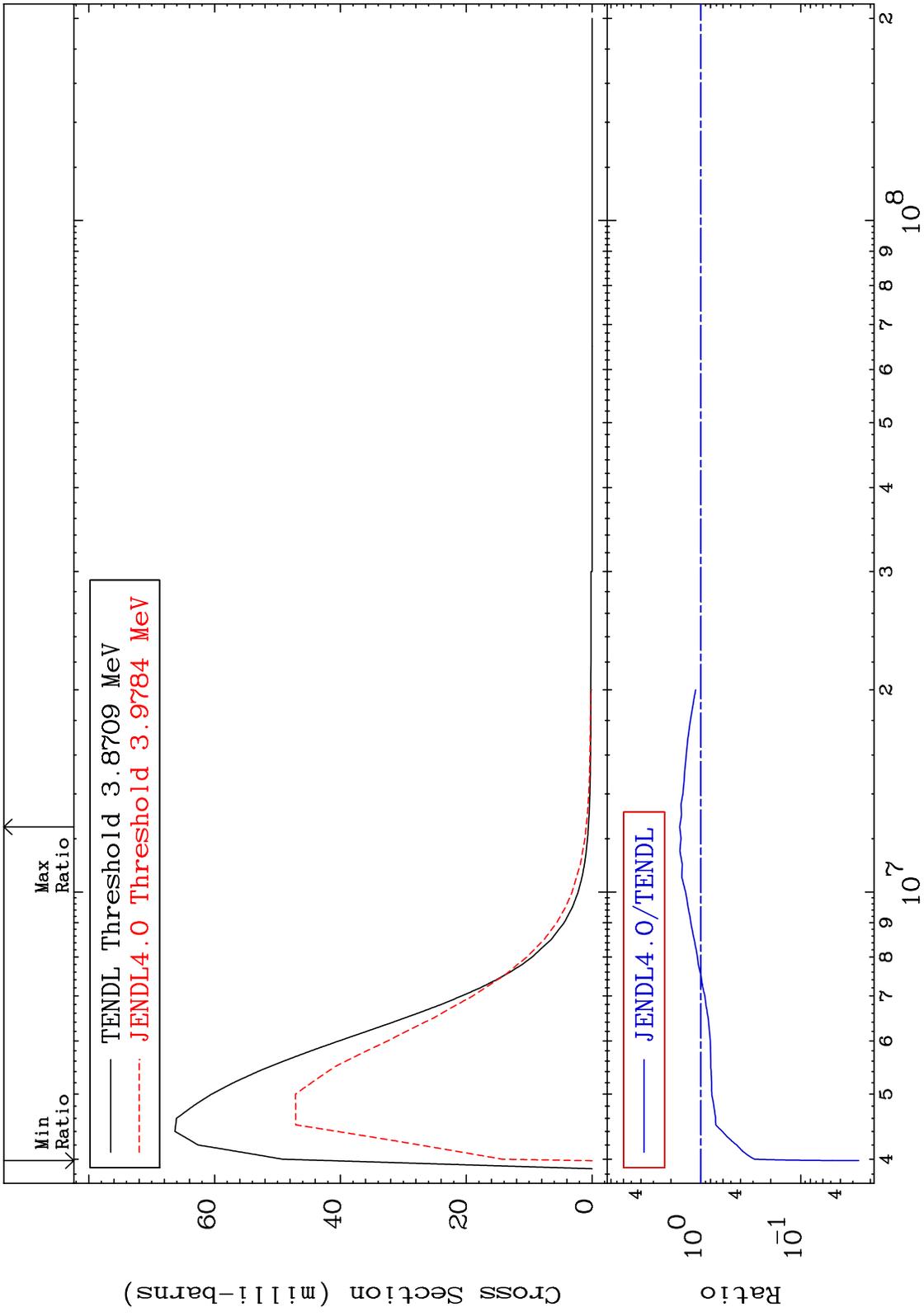
20-Ca-42  
-70.46 To 14.31 %



MAT 2031 MT= 60 (n,n') Level Cross Section -22.53 To 175.8 % 20-Ca-42



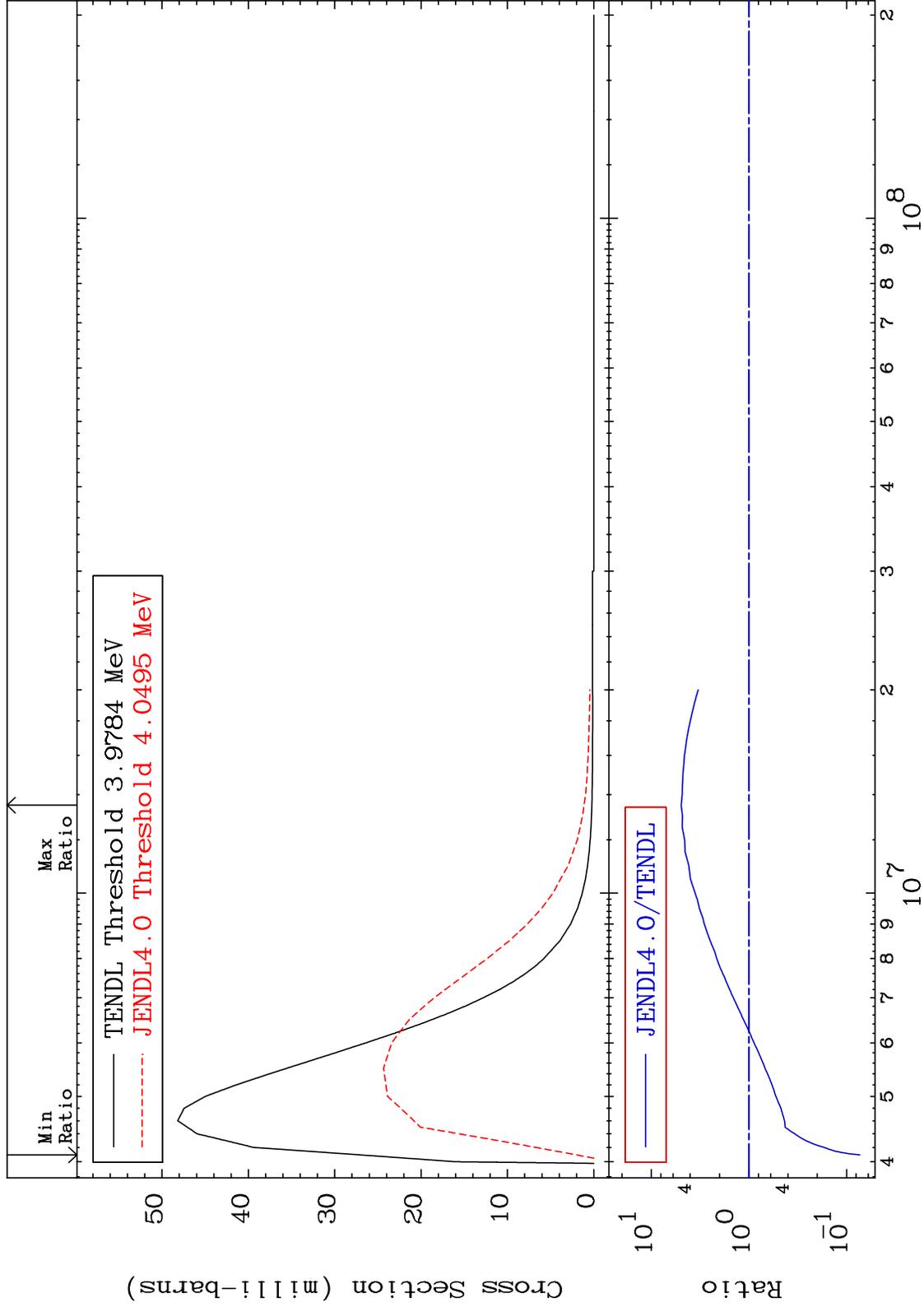
MAT 2031 MT= 61 (n,n') Level Cross Section -97.39 To 63.38 % 20-Ca-42



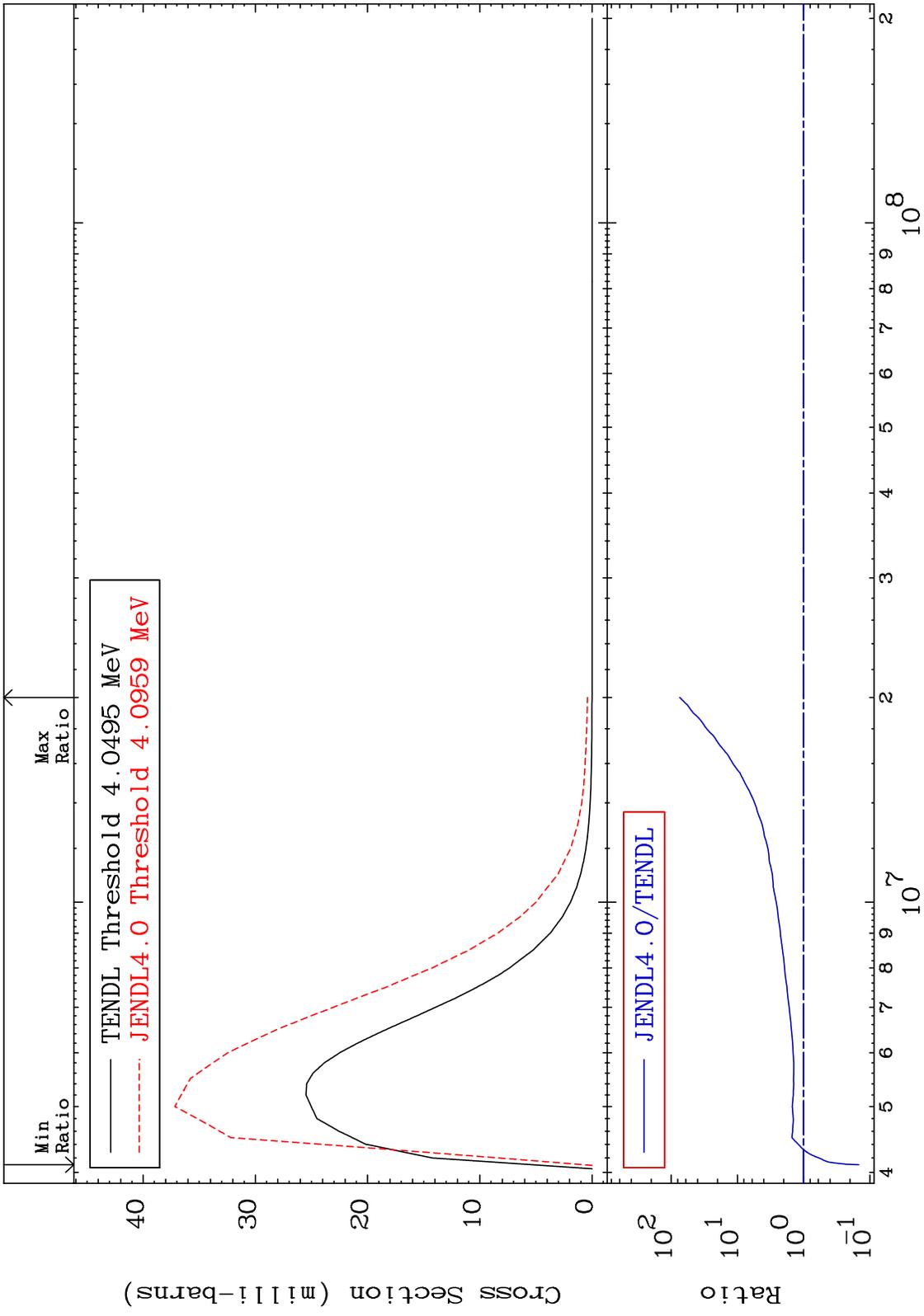
MAT 2031

MT= 62 (n,n') Level  
Cross Section

20-Ca-42  
-92.67 To 394.0 %



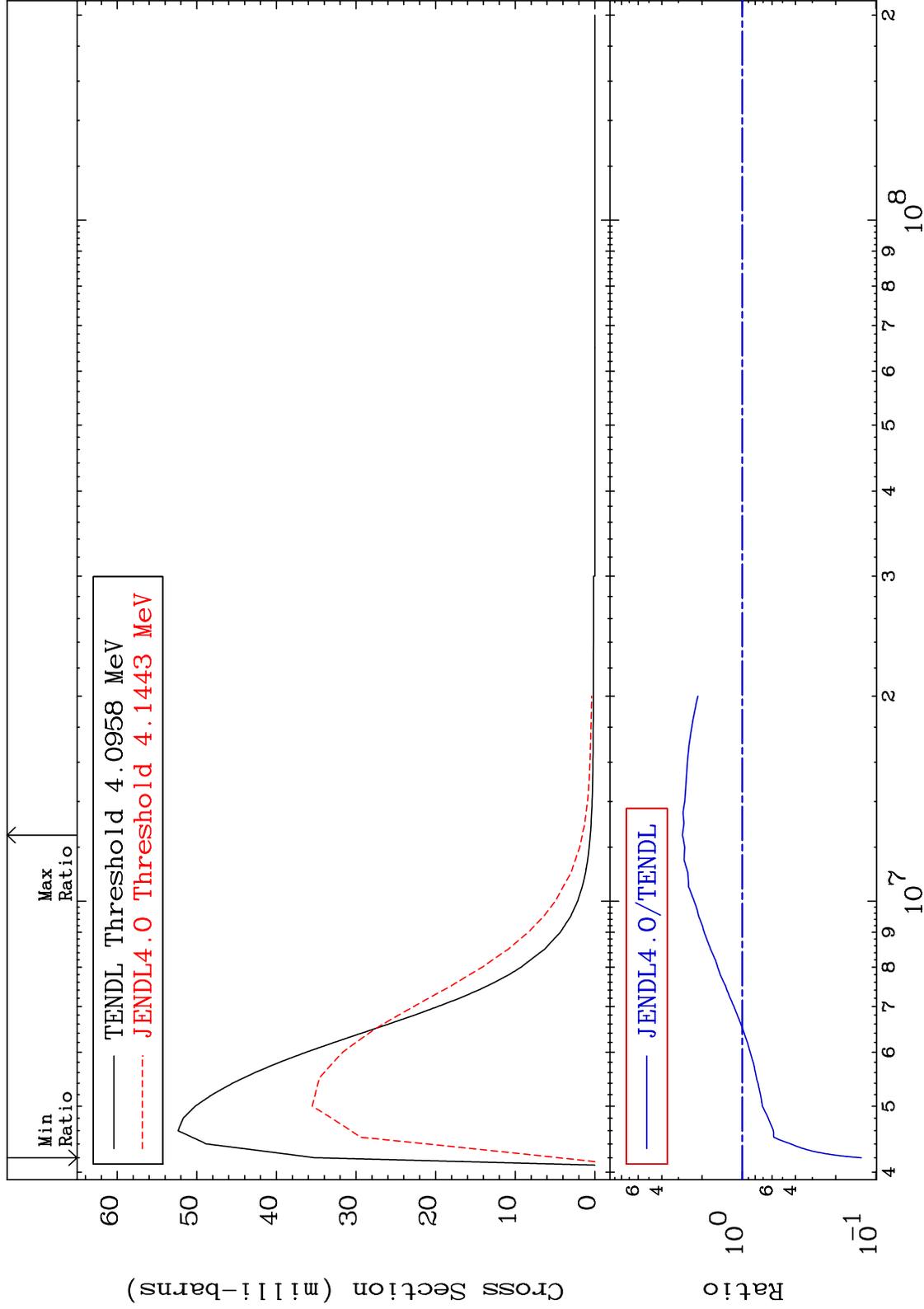
MAT 2031 MT= 63 (n,n') Level Cross Section -85.29 To 7335. % 20-Ca-42



MAT 2031

MT= 64 (n,n') Level  
Cross Section

20-Ca-42  
-87.12 To 180.3 %

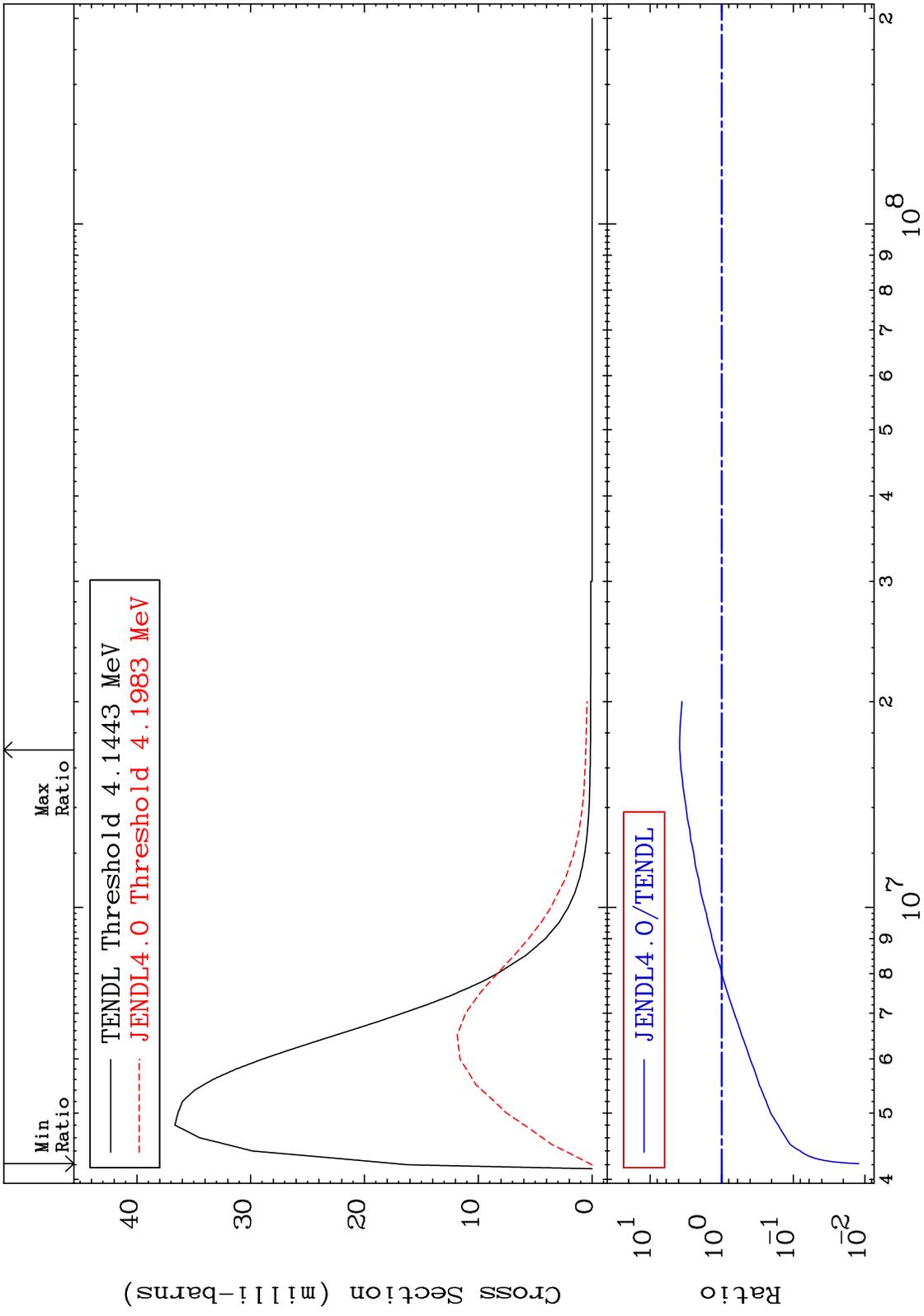


20

Incident Energy (eV)

20-Ca-42

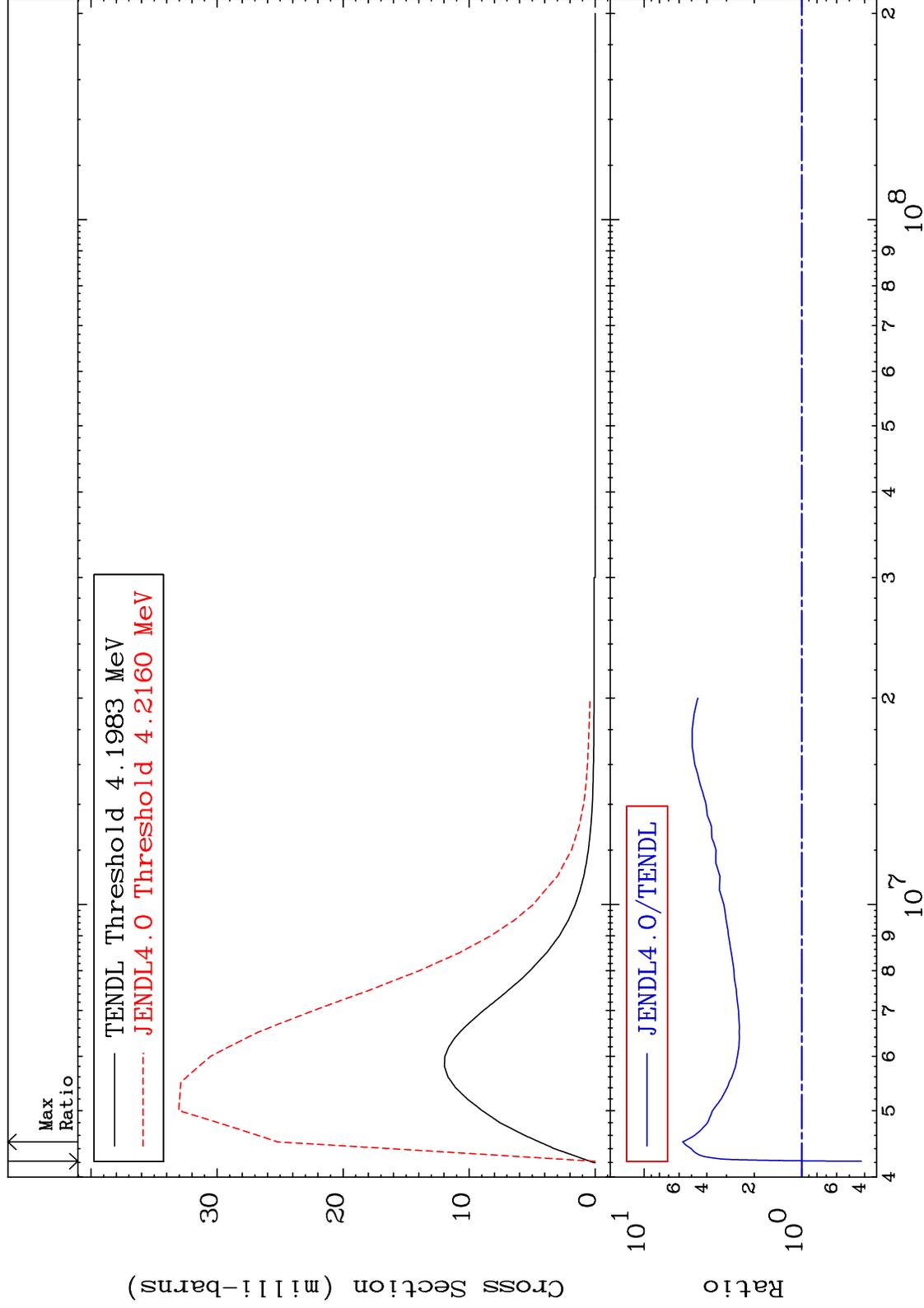
MAT 2031 MT= 65 (n,n') Level Cross Section -98.79 To 285.7 % 20-Ca-42



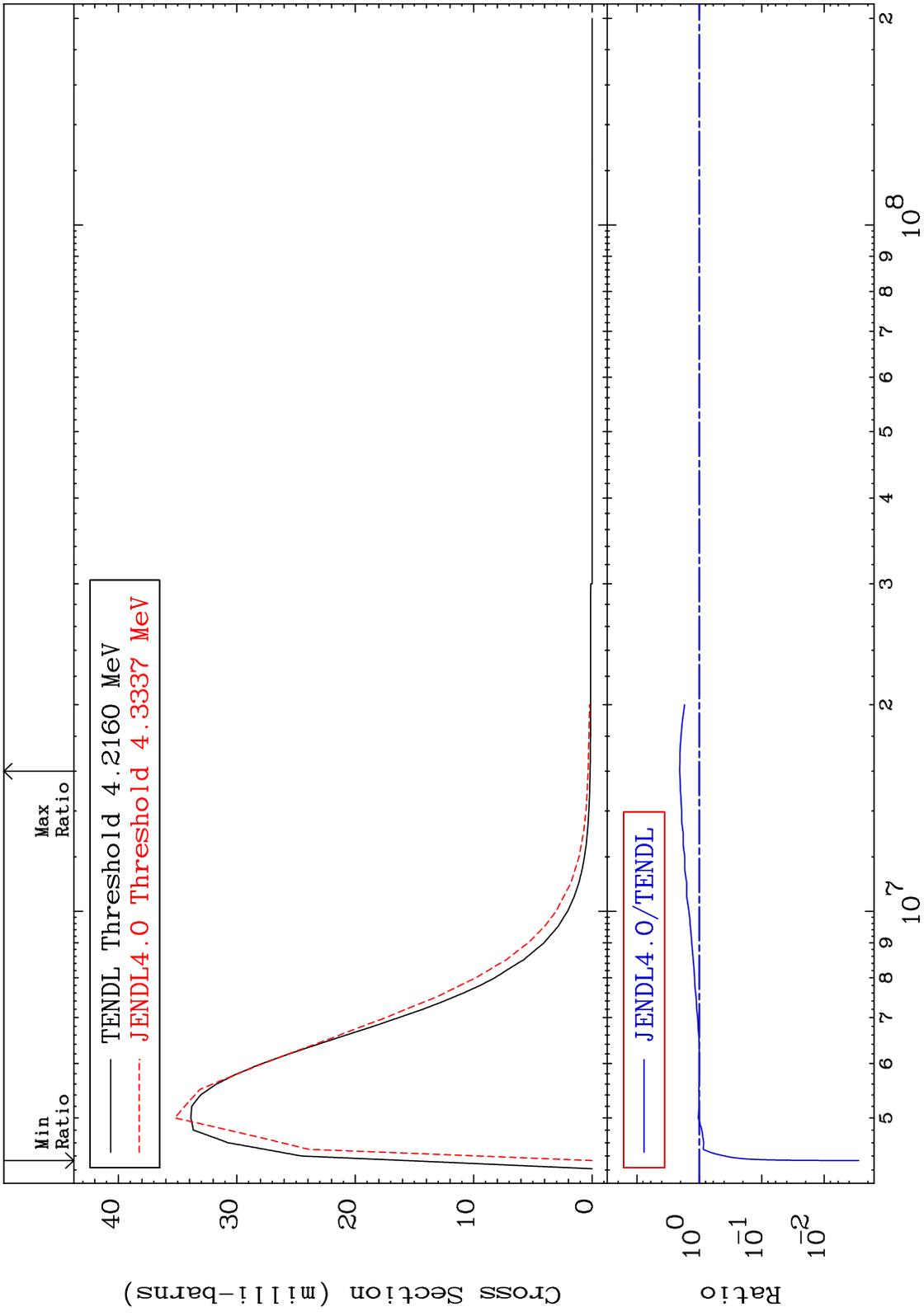
MAT 2031

MT= 66 (n,n') Level  
Cross Section

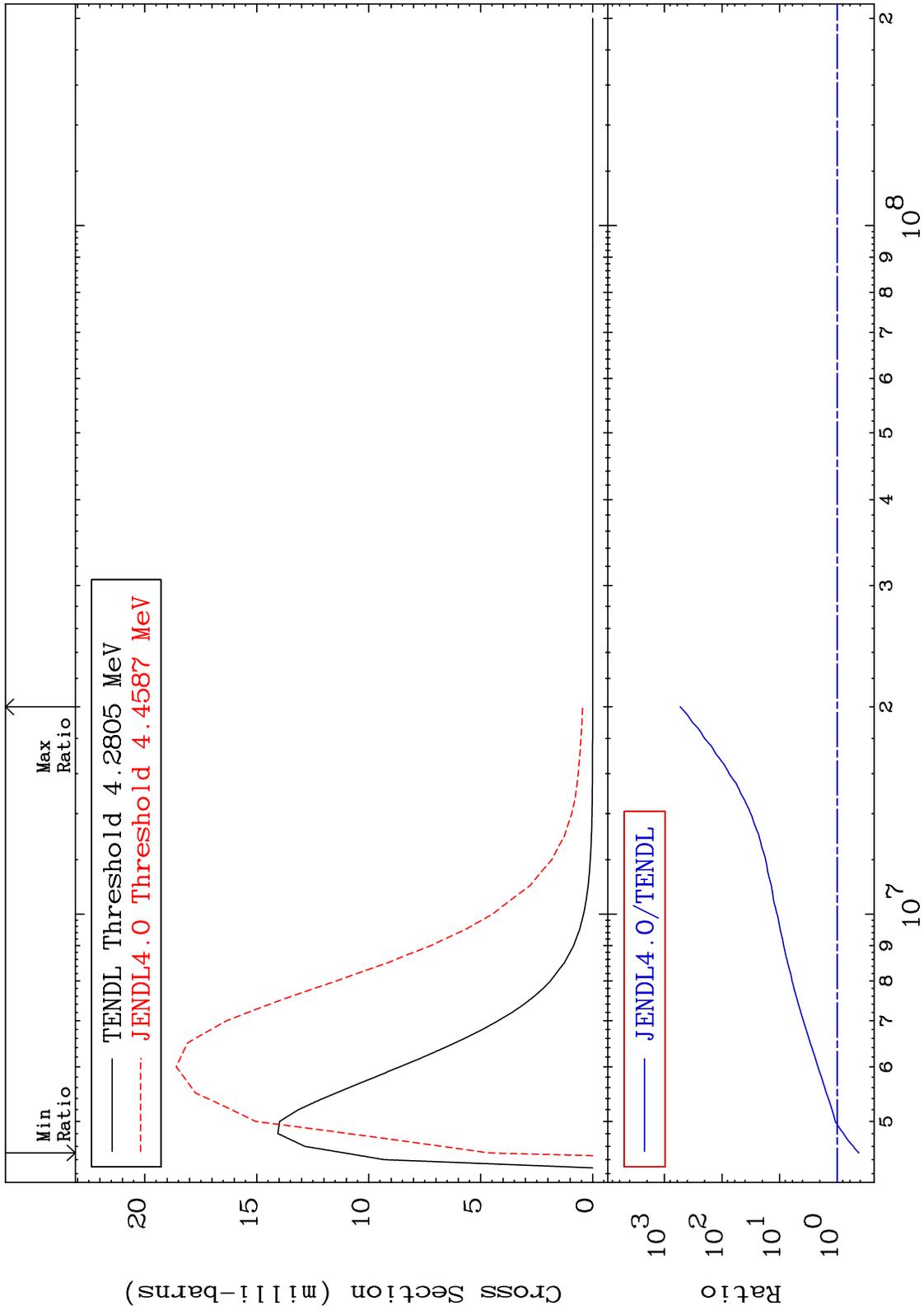
20-Ca-42  
-58.13 To 469.8 %



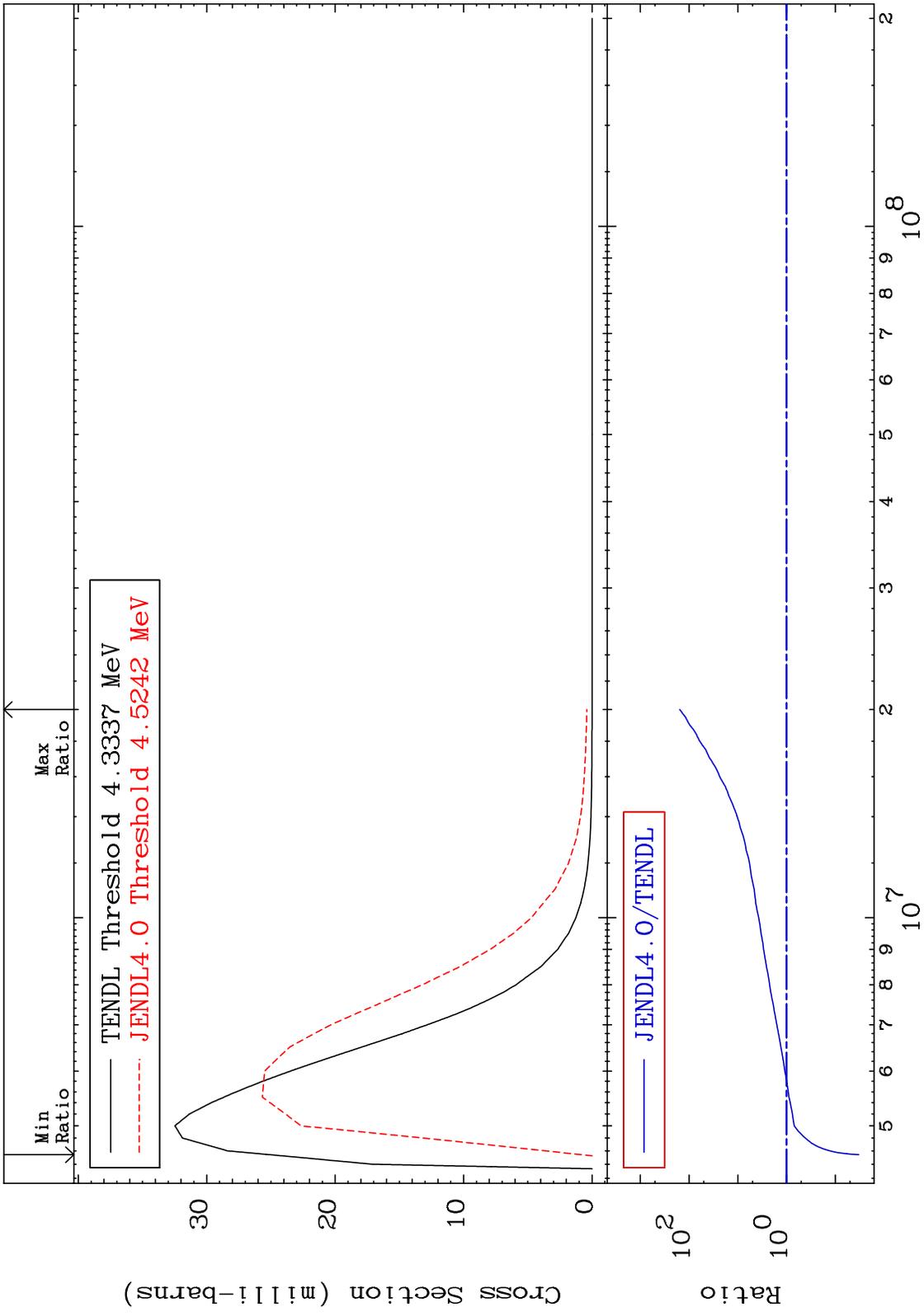
MAT 2031 MT= 67 (n,n') Level Cross Section 20-Ca-42  
 -99.72 To 106.3 %



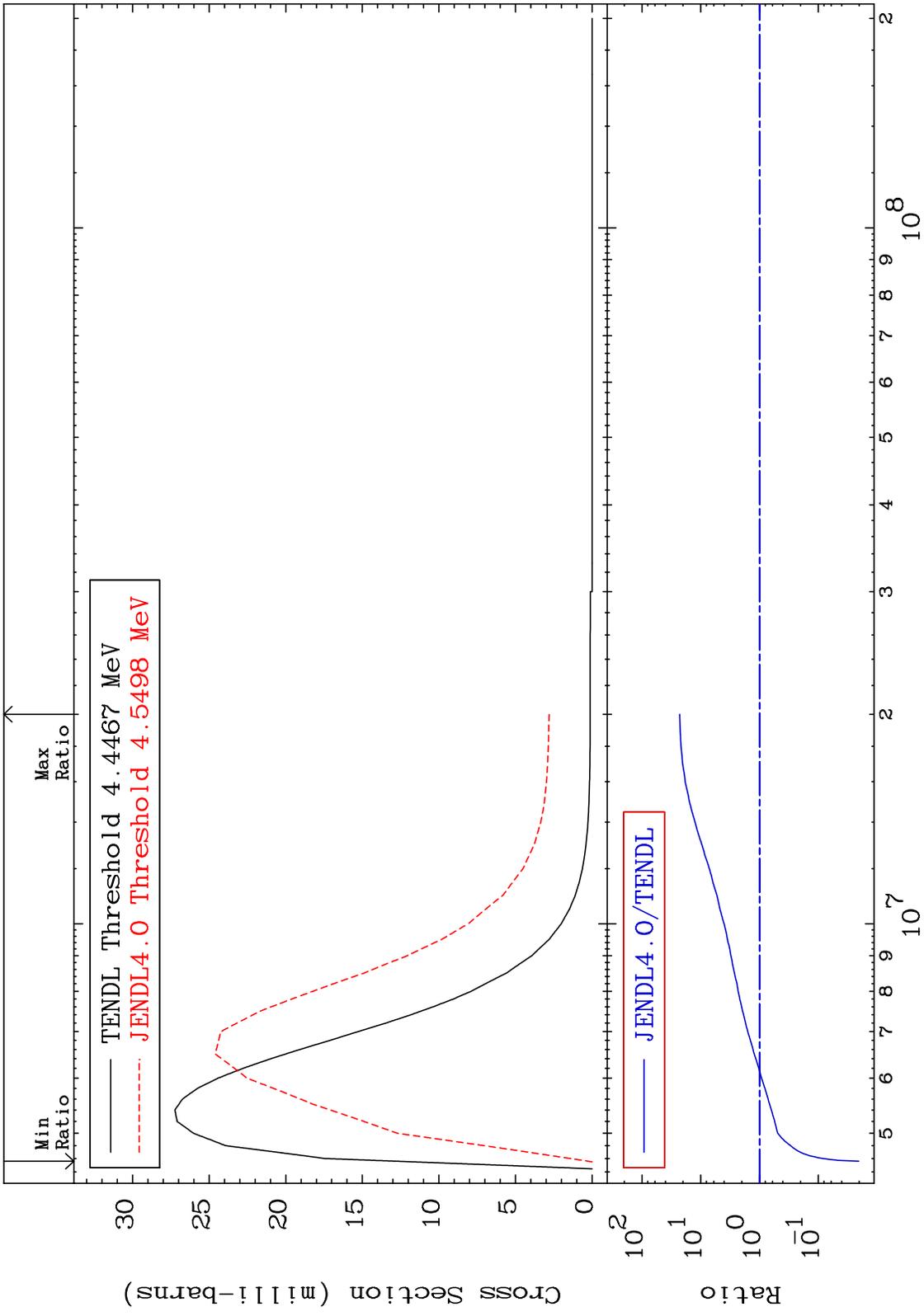
MAT 2031 MT= 68 (n,n') Level Cross Section -58.05 To 9999. % 20-Ca-42



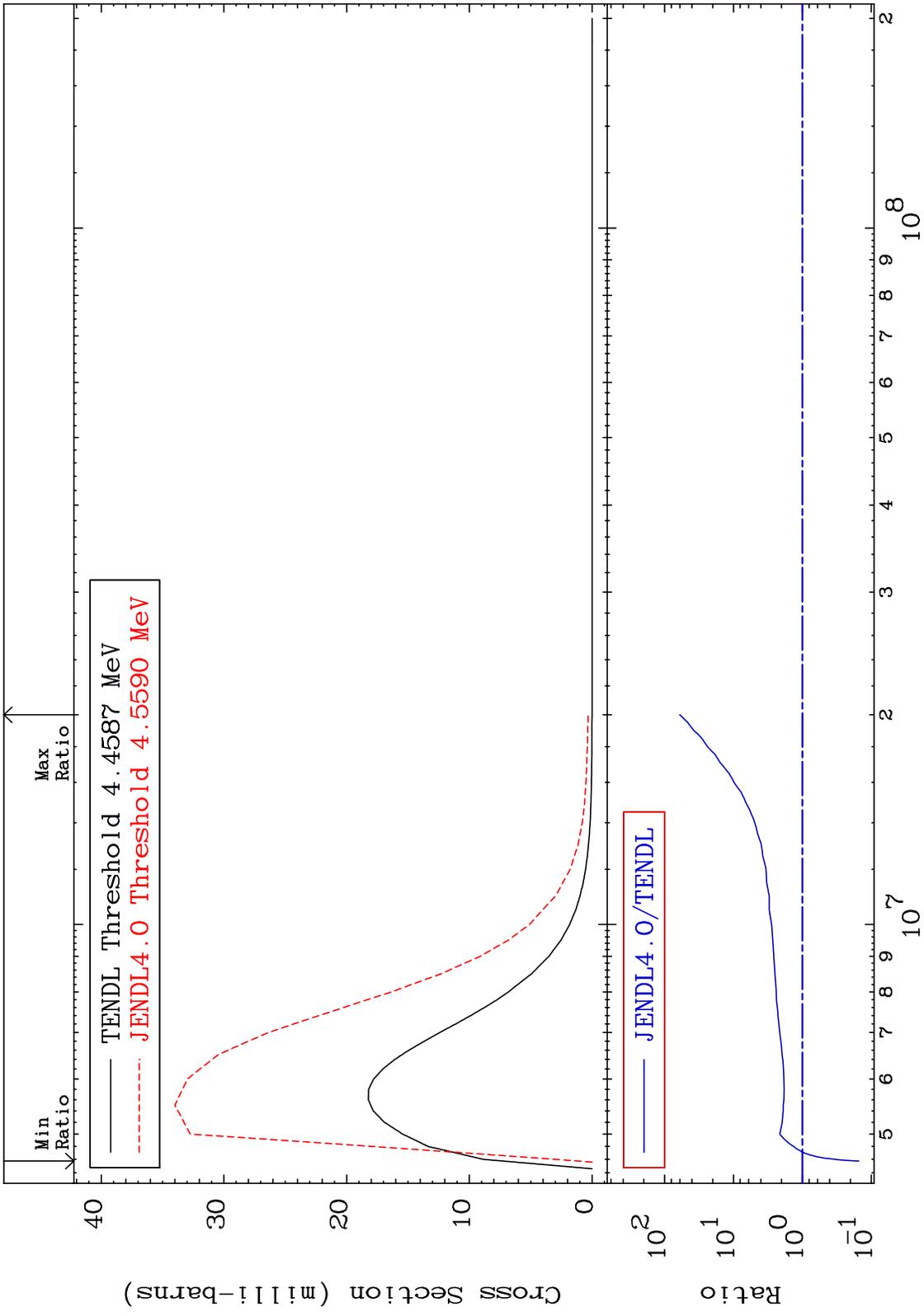
MAT 2031 MT= 69 (n,n') Level Cross Section -96.69 To 9999. % 20-Ca-42



MAT 2031 MT= 70 (n,n') Level Cross Section -97.96 To 2177. % 20-Ca-42



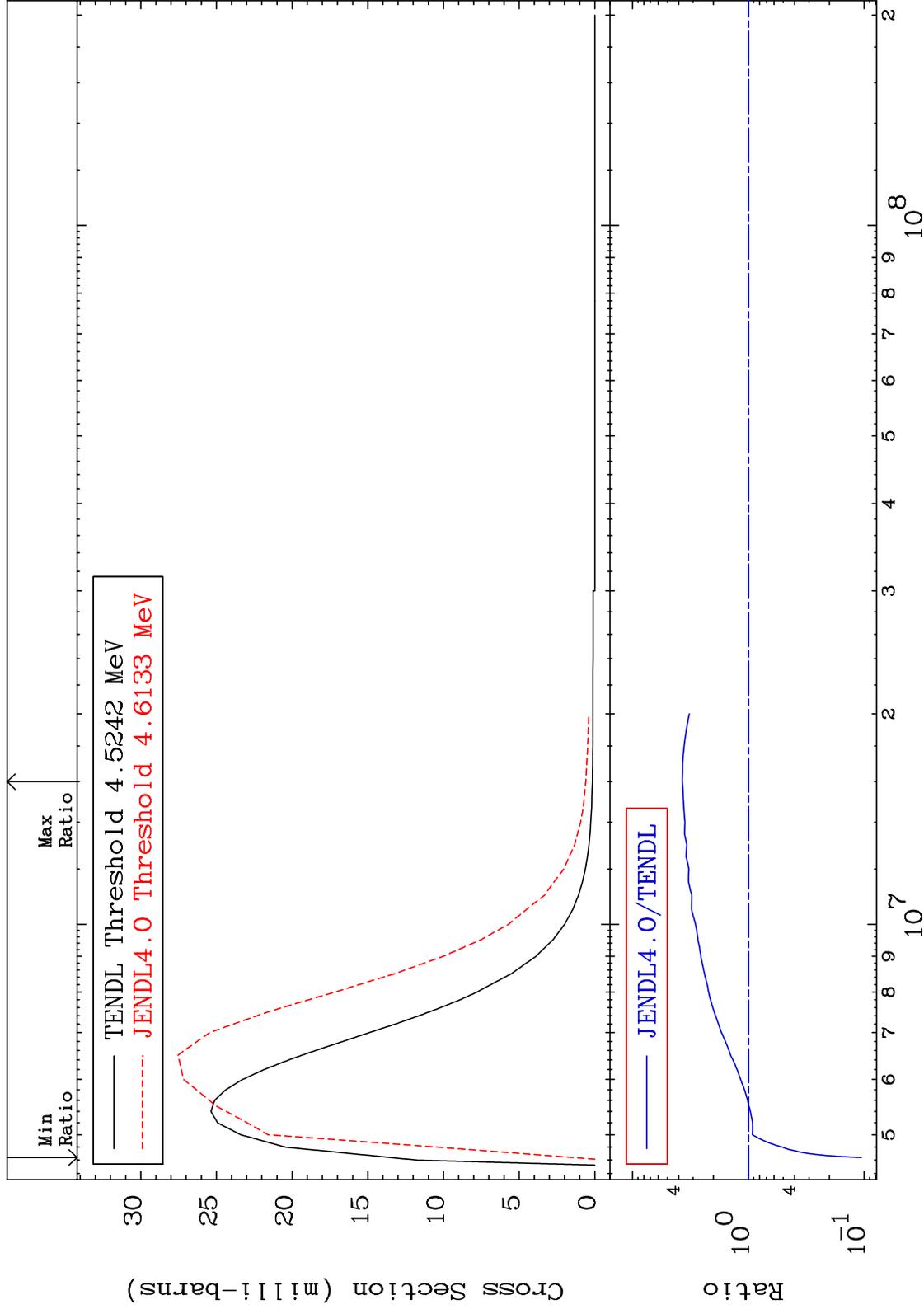
MAT 2031 MT= 71 (n,n') Level Cross Section -84.88 To 5923. % 20-Ca-42



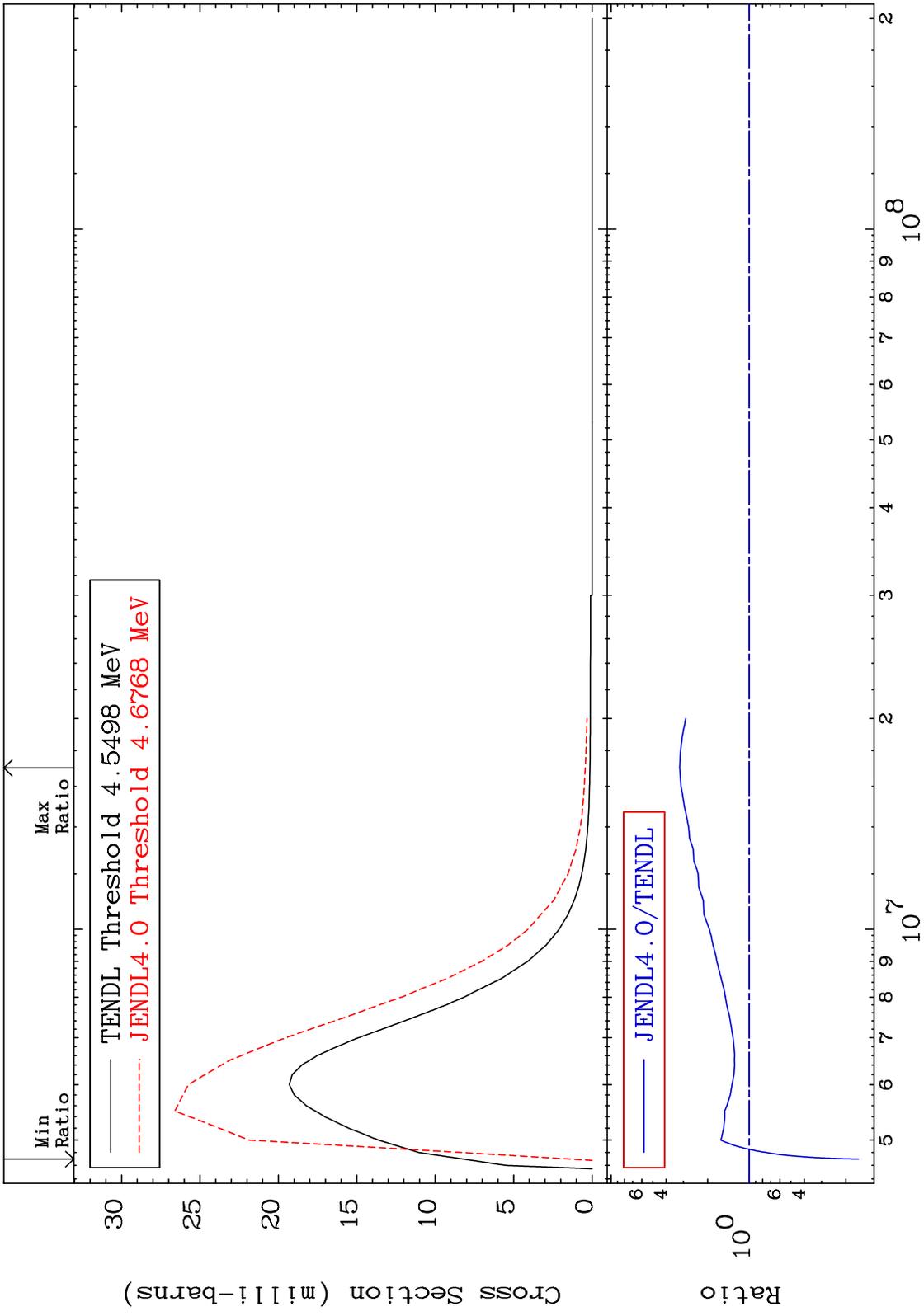
MAT 2031

MT= 72 (n,n') Level  
Cross Section

20-Ca-42  
-89.41 To 271.1 %



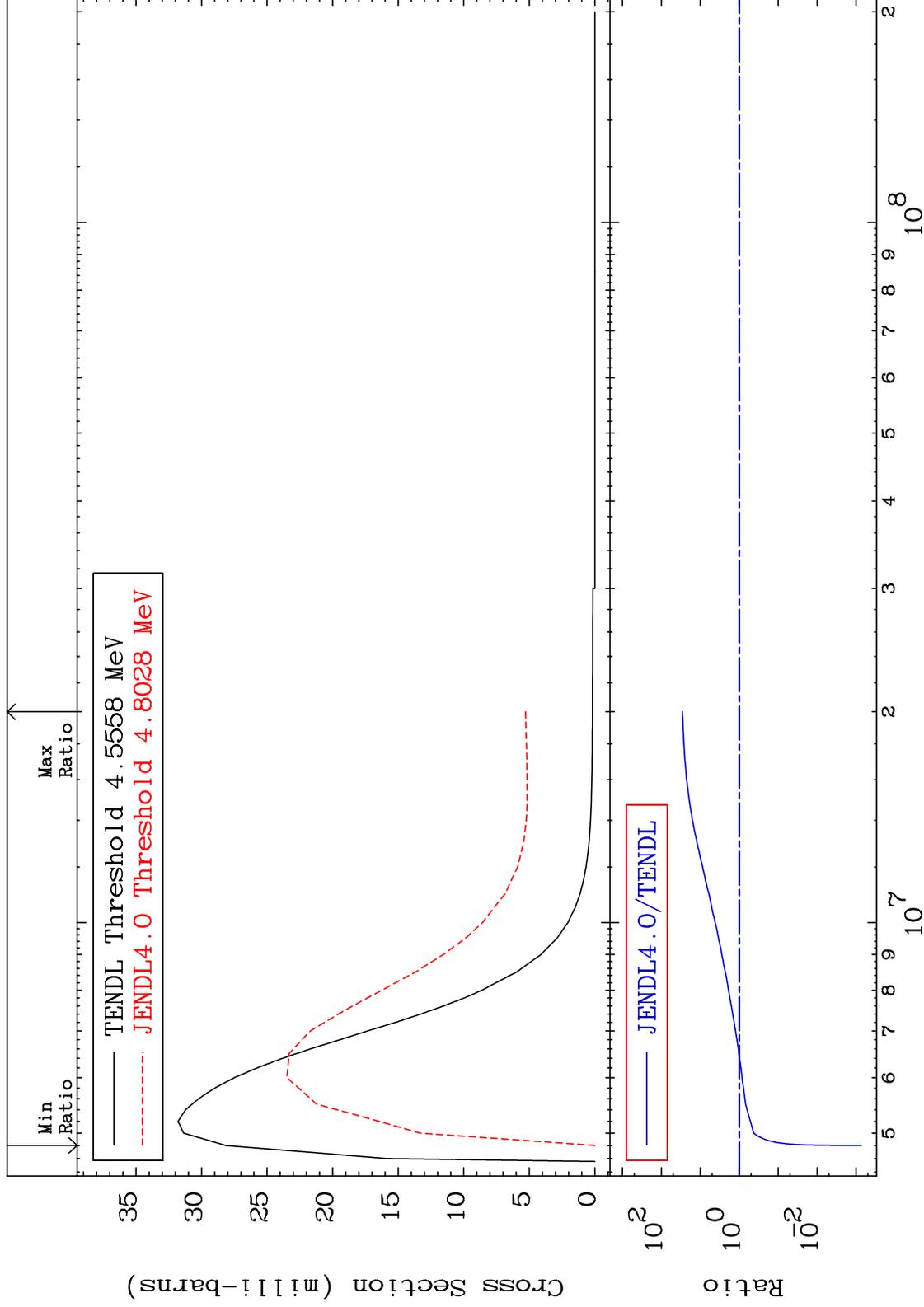
MAT 2031 MT= 73 (n,n') Level Cross Section -83.88 To 218.8 % 20-Ca-42



MAT 2031

MT= 74 (n,n') Level  
Cross Section

20-Ca-42  
-99.93 To 2789. %

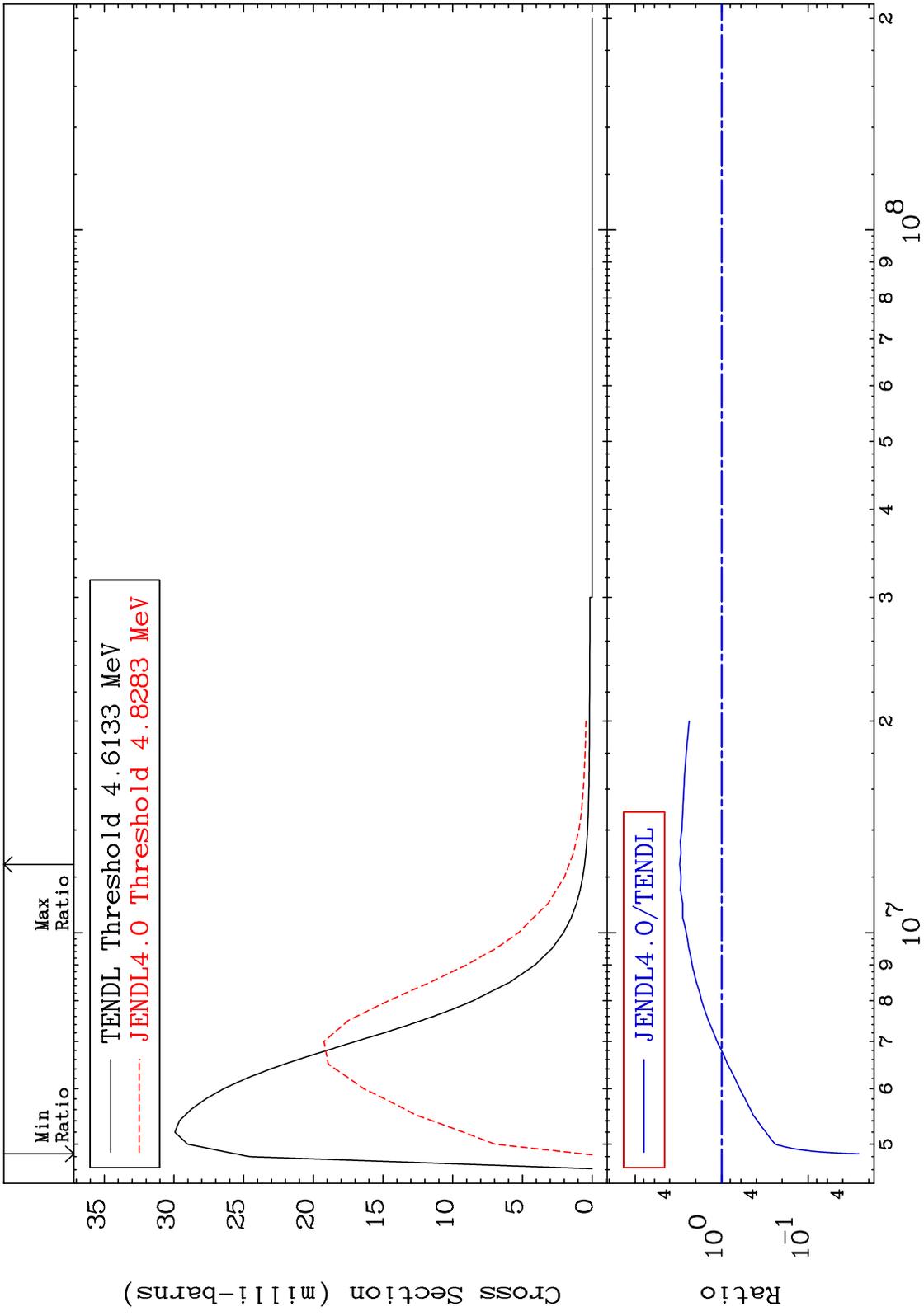


30

Incident Energy (eV)

20-Ca-42

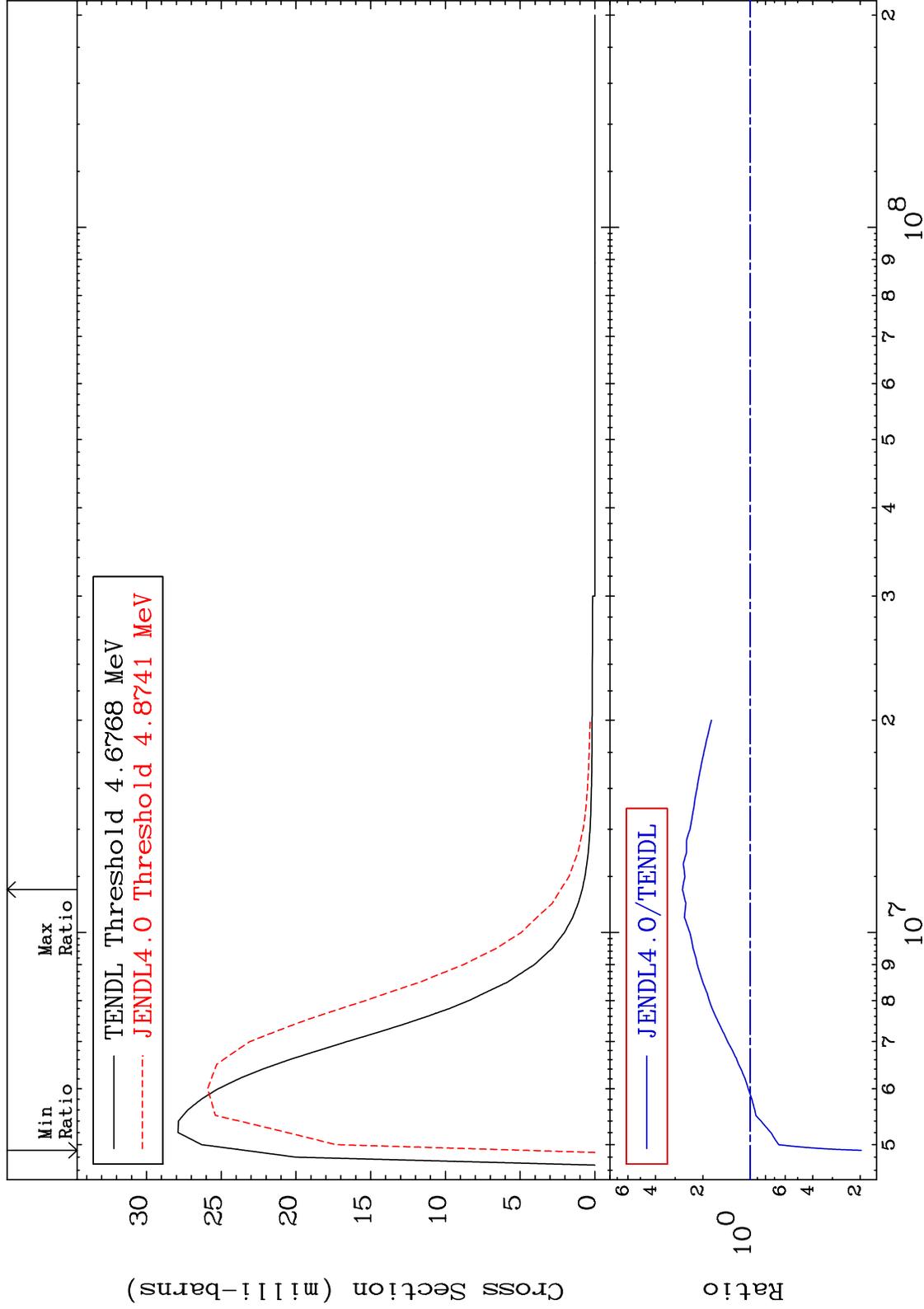
MAT 2031 MT= 75 (n,n') Level Cross Section -97.40 To 206.2 % 20-Ca-42



MAT 2031

MT= 76 (n,n') Level  
Cross Section

20-Ca-42  
-80.35 To 169.7 %



32

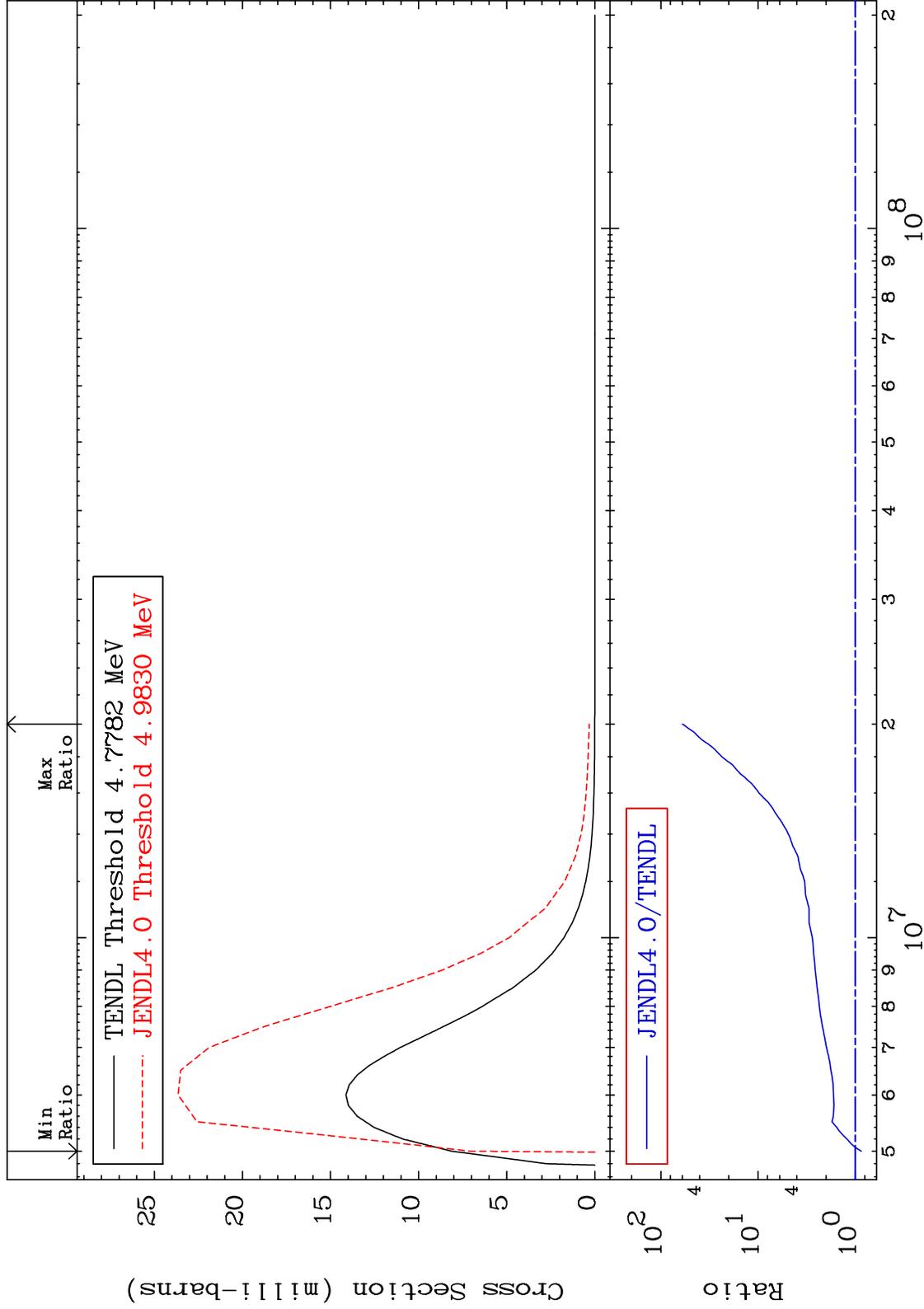
Incident Energy (eV)

20-Ca-42

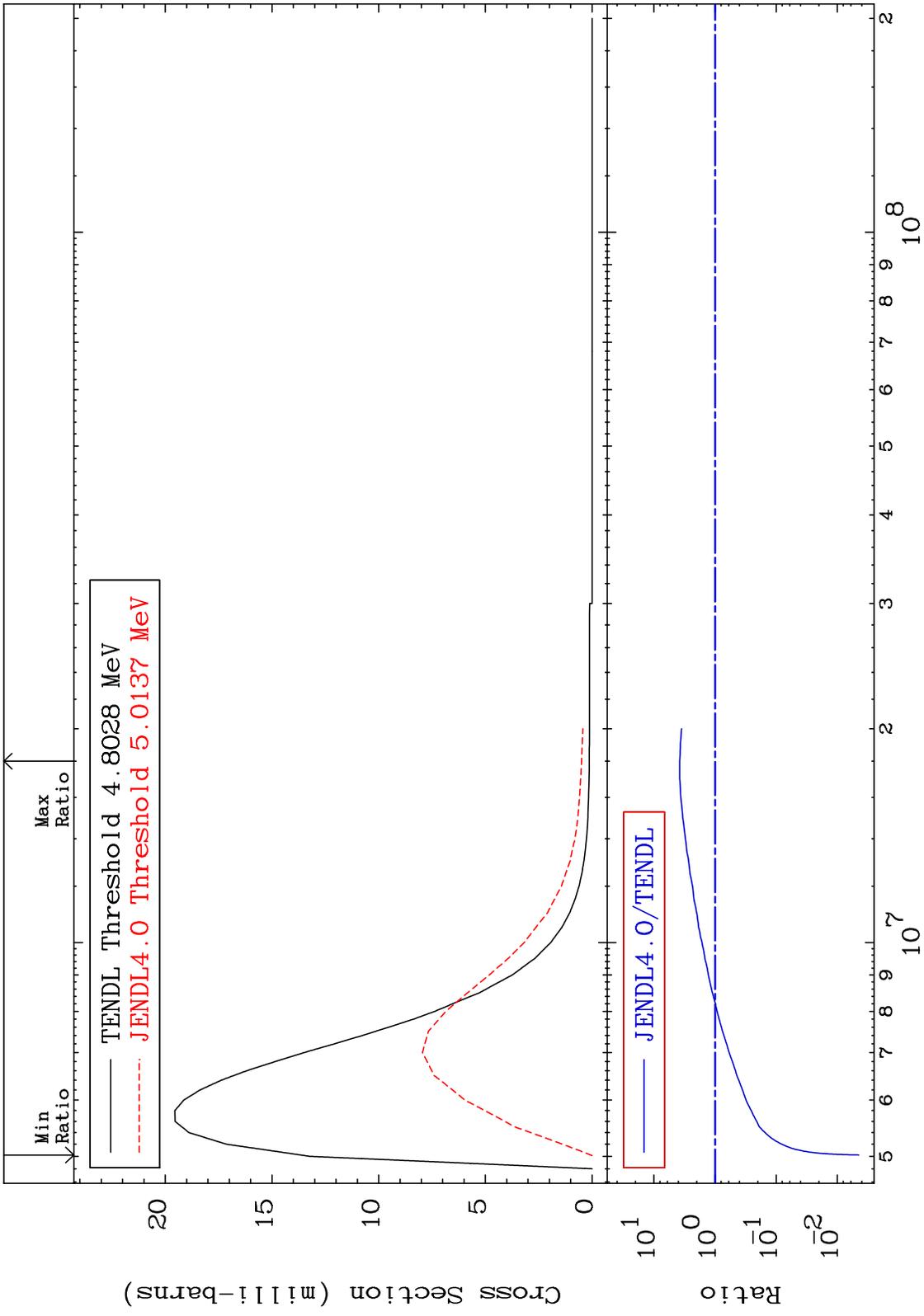
MAT 2031

MT= 77 (n,n') Level  
Cross Section

20-Ca-42  
-13.14 To 5896. %

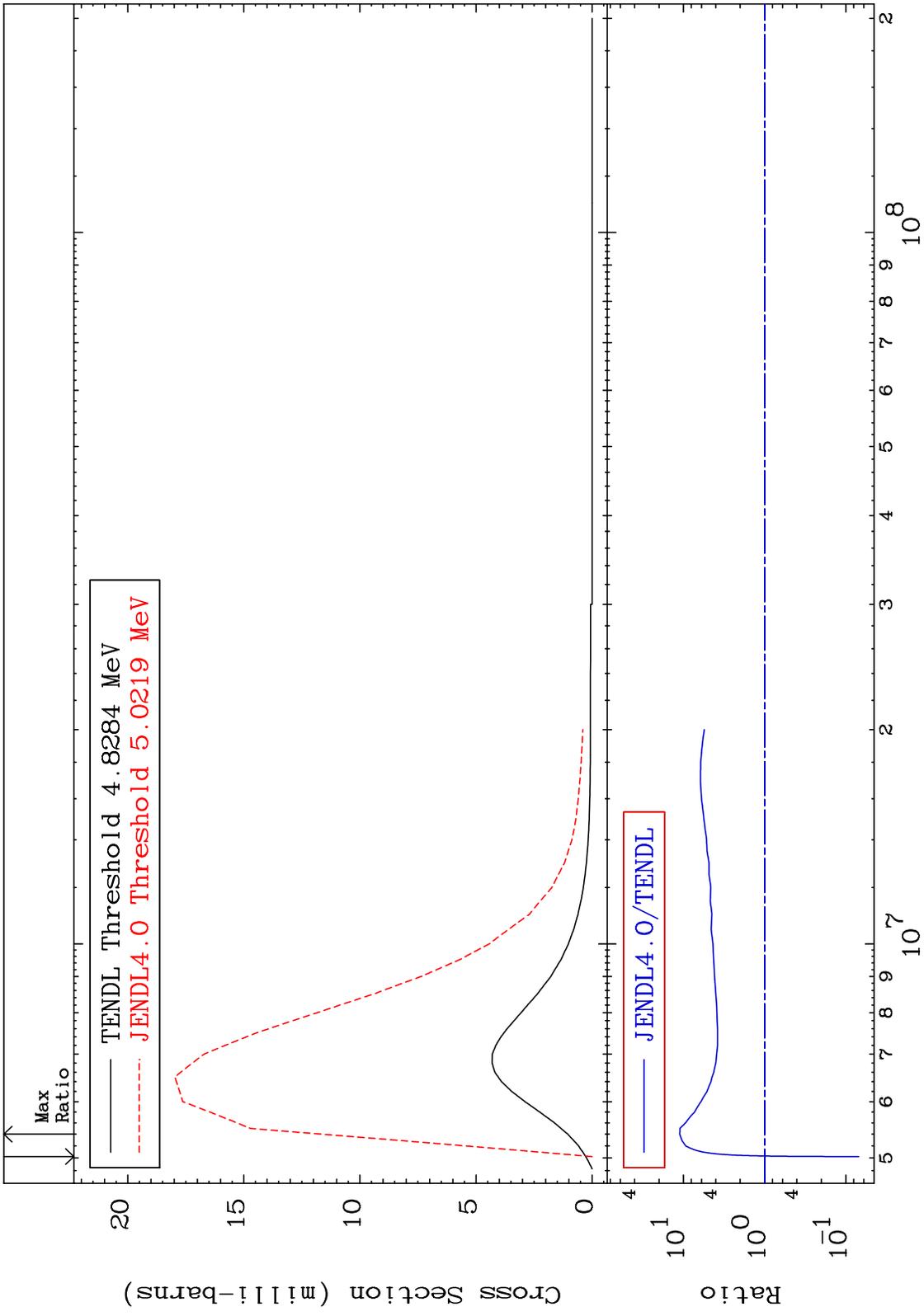


MAT 2031 MT= 78 (n,n') Level Cross Section -99.55 To 278.5 % 20-Ca-42

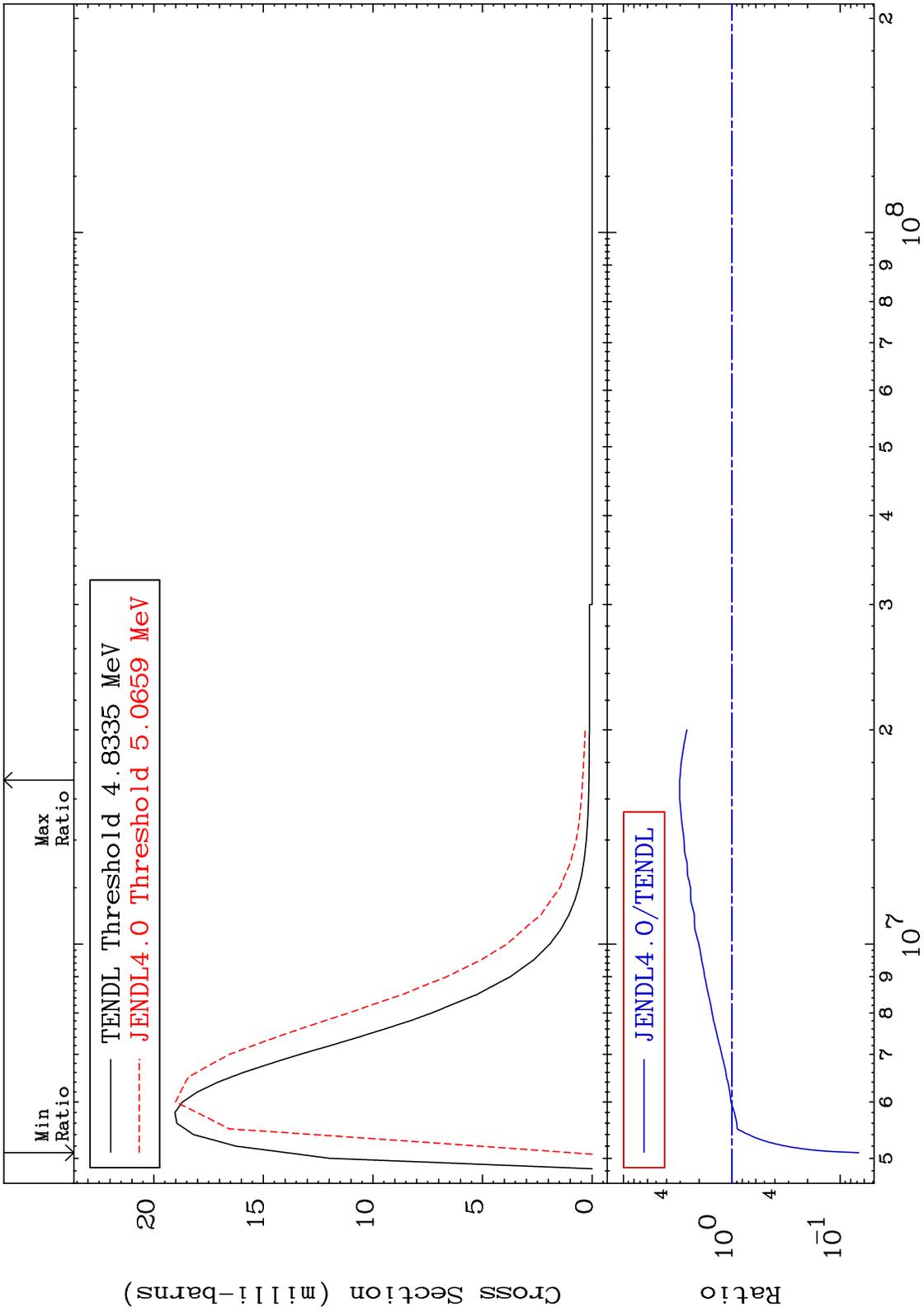


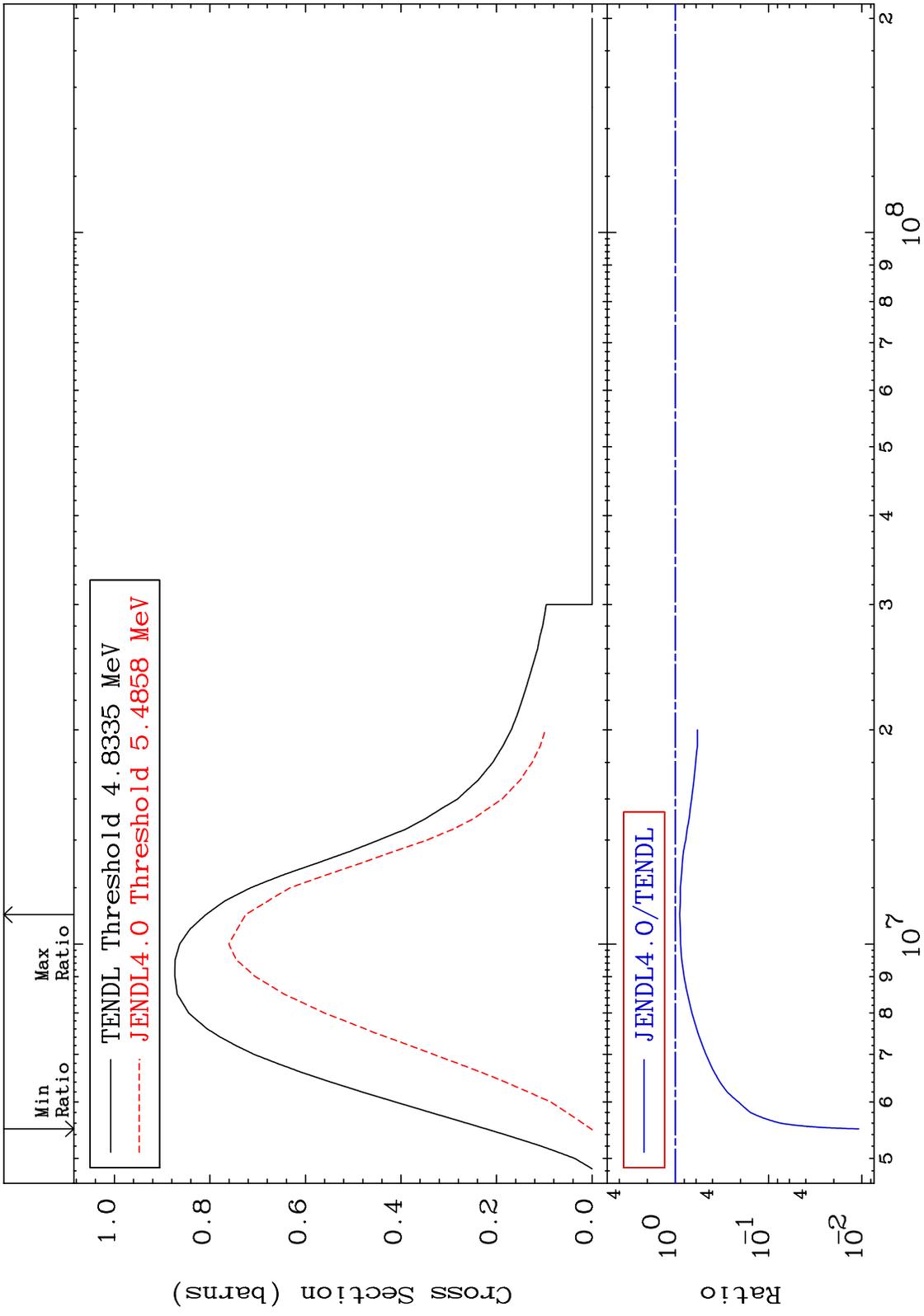
34 Incident Energy (eV) 20-Ca-42

MAT 2031 MT= 79 (n,n') Level Cross Section -93.10 To 1012. % 20-Ca-42



MAT 2031 MT= 80 (n,n') Level Cross Section -93.26 To 202.0 % 20-Ca-42





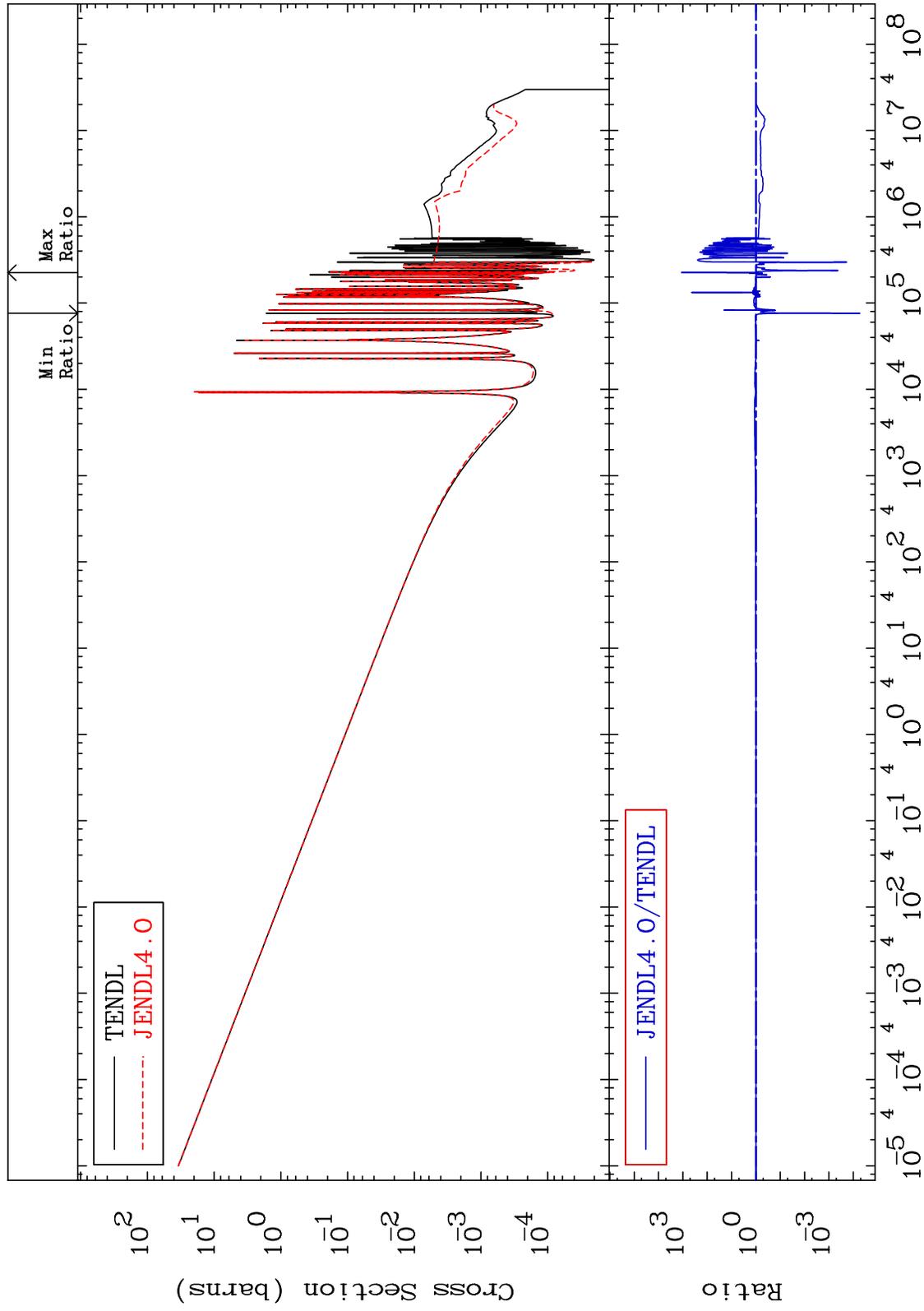
MAT 2031

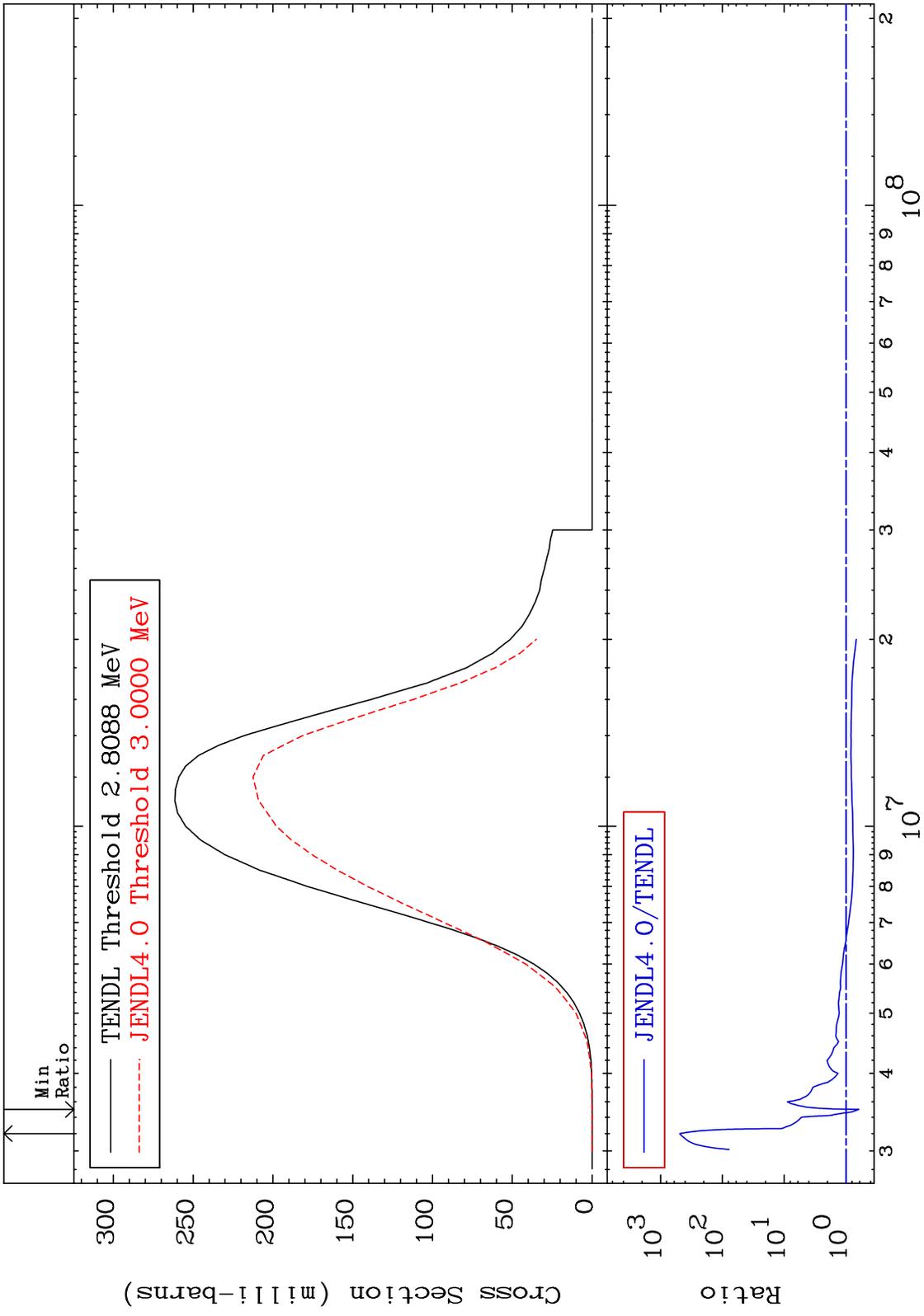
(n,  $\gamma$ )

20-Ca-42

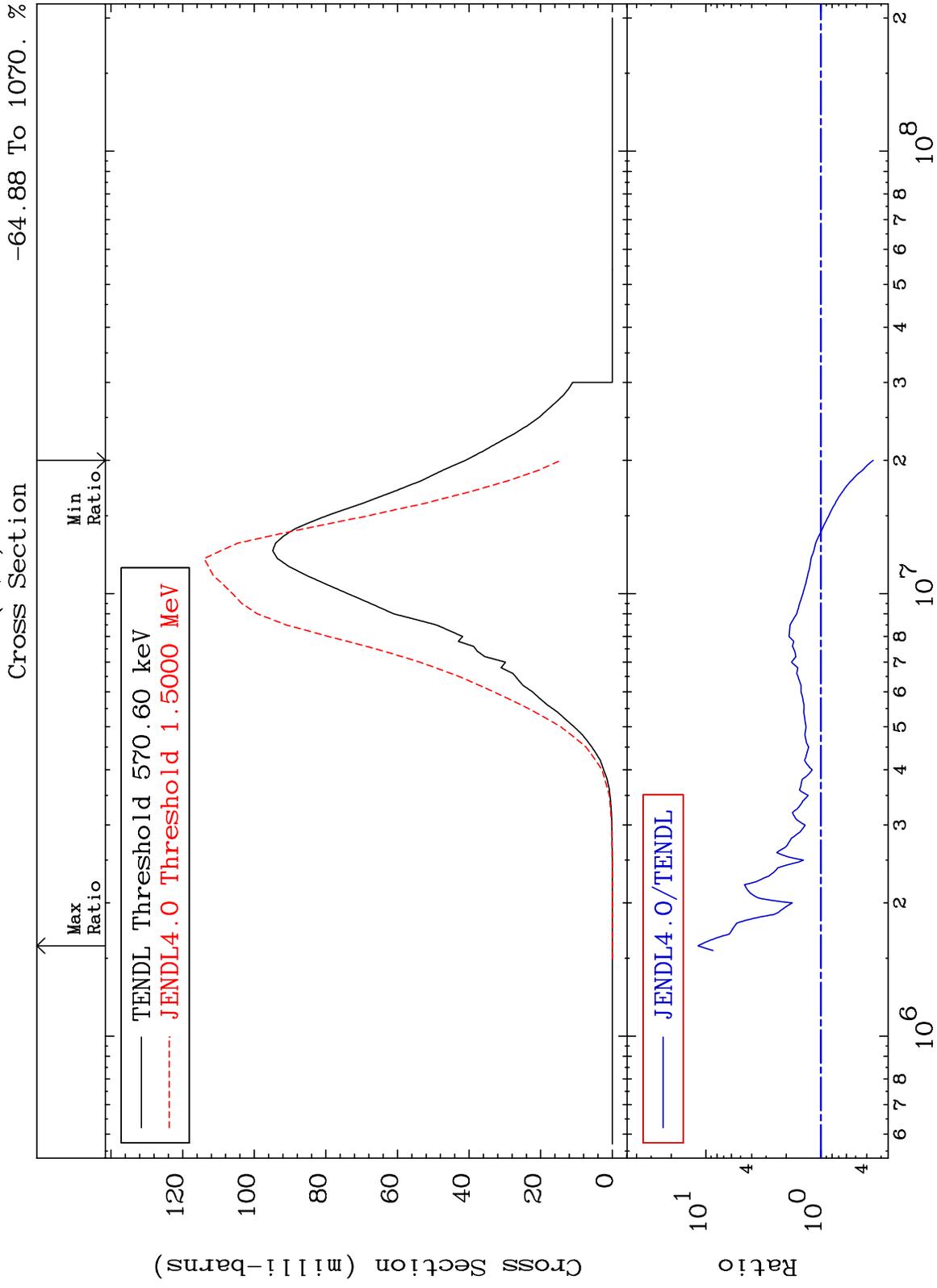
Cross Section

-99.99 To 9999. %

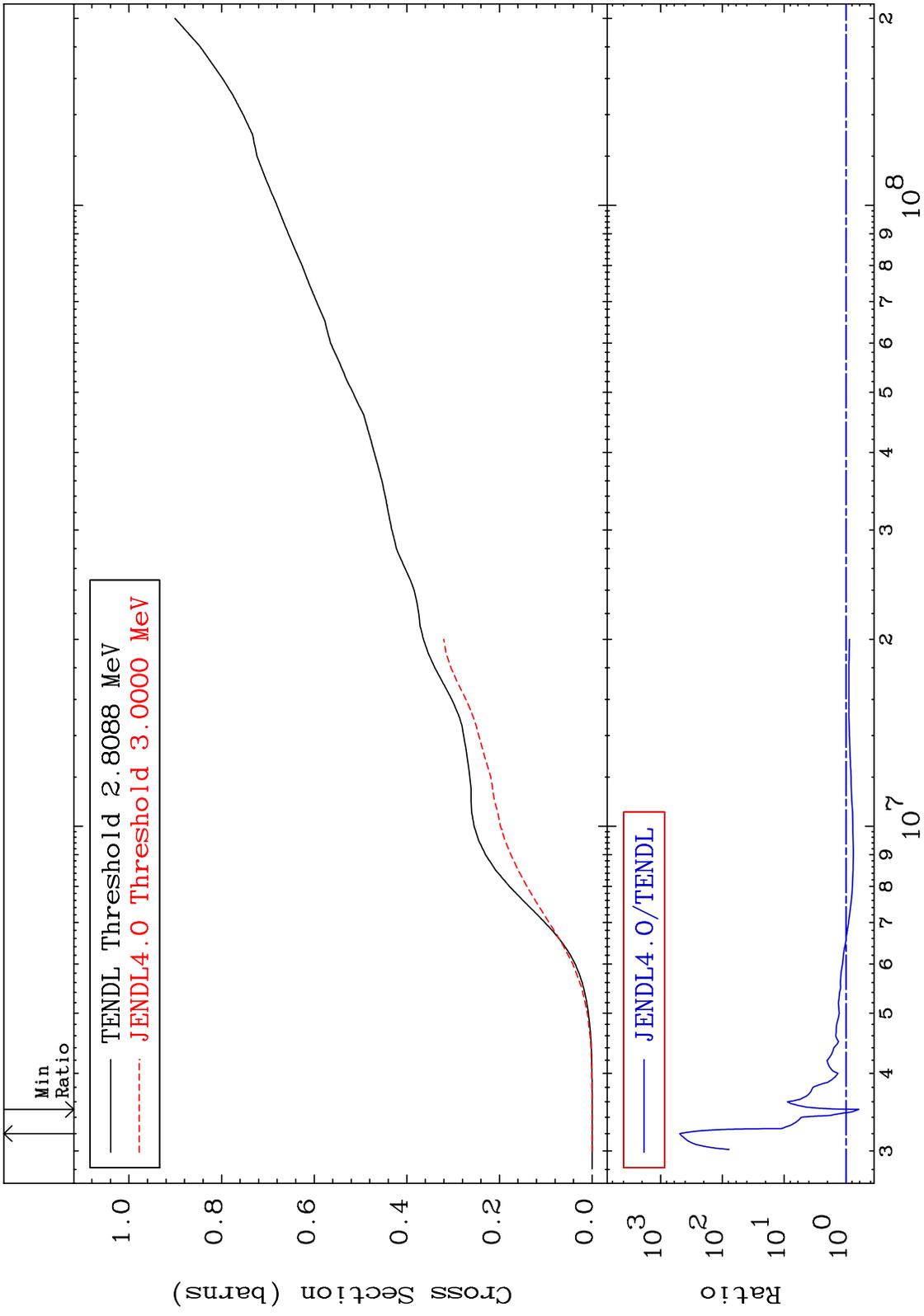




MAT 2031 (n,α) 20-Ca-42 -64.88 To 1070. %



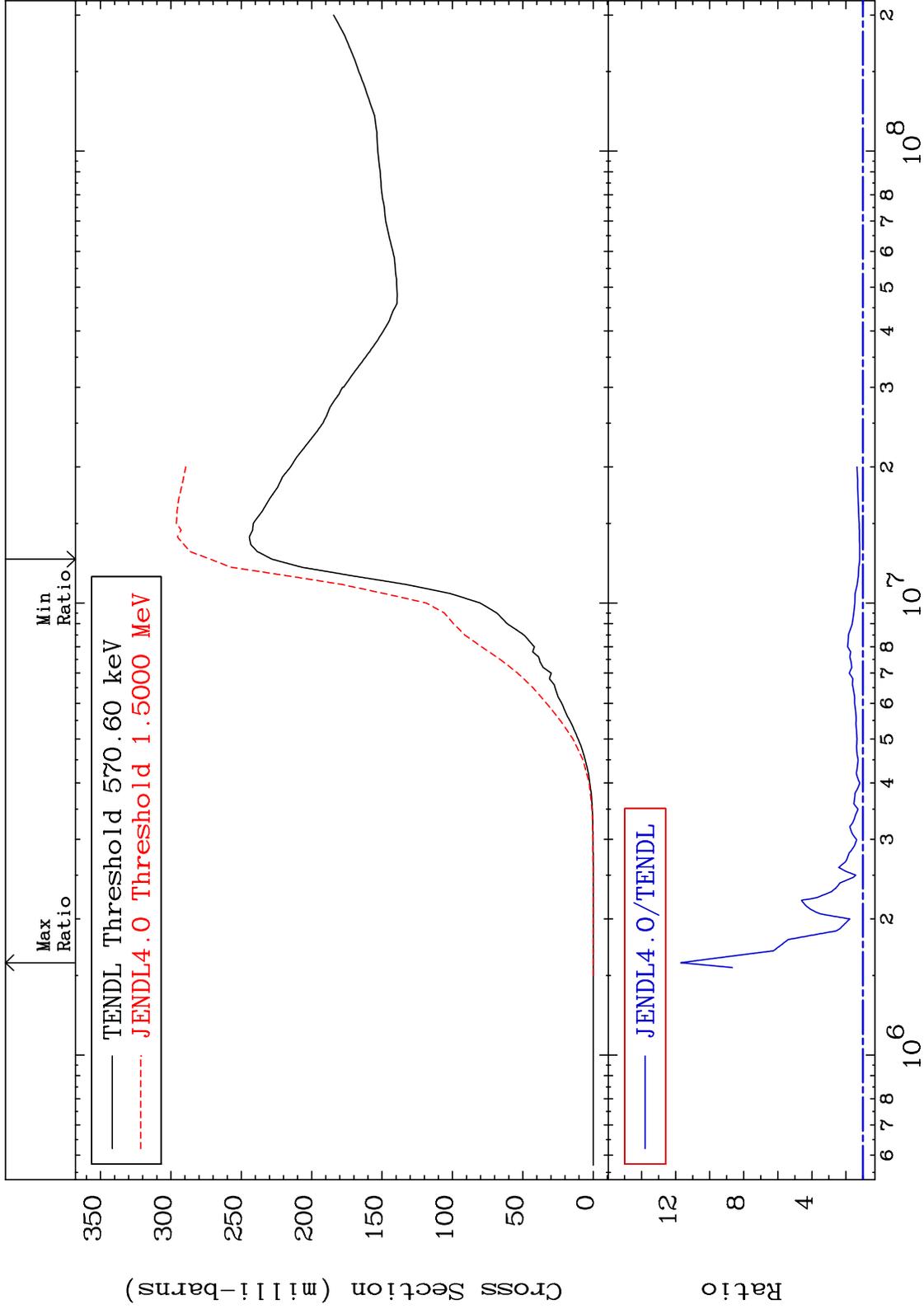
40 20-Ca-42



MAT 2031

He-4 Production  
Cross Section

20-Ca-42  
19.16 To 1070. %

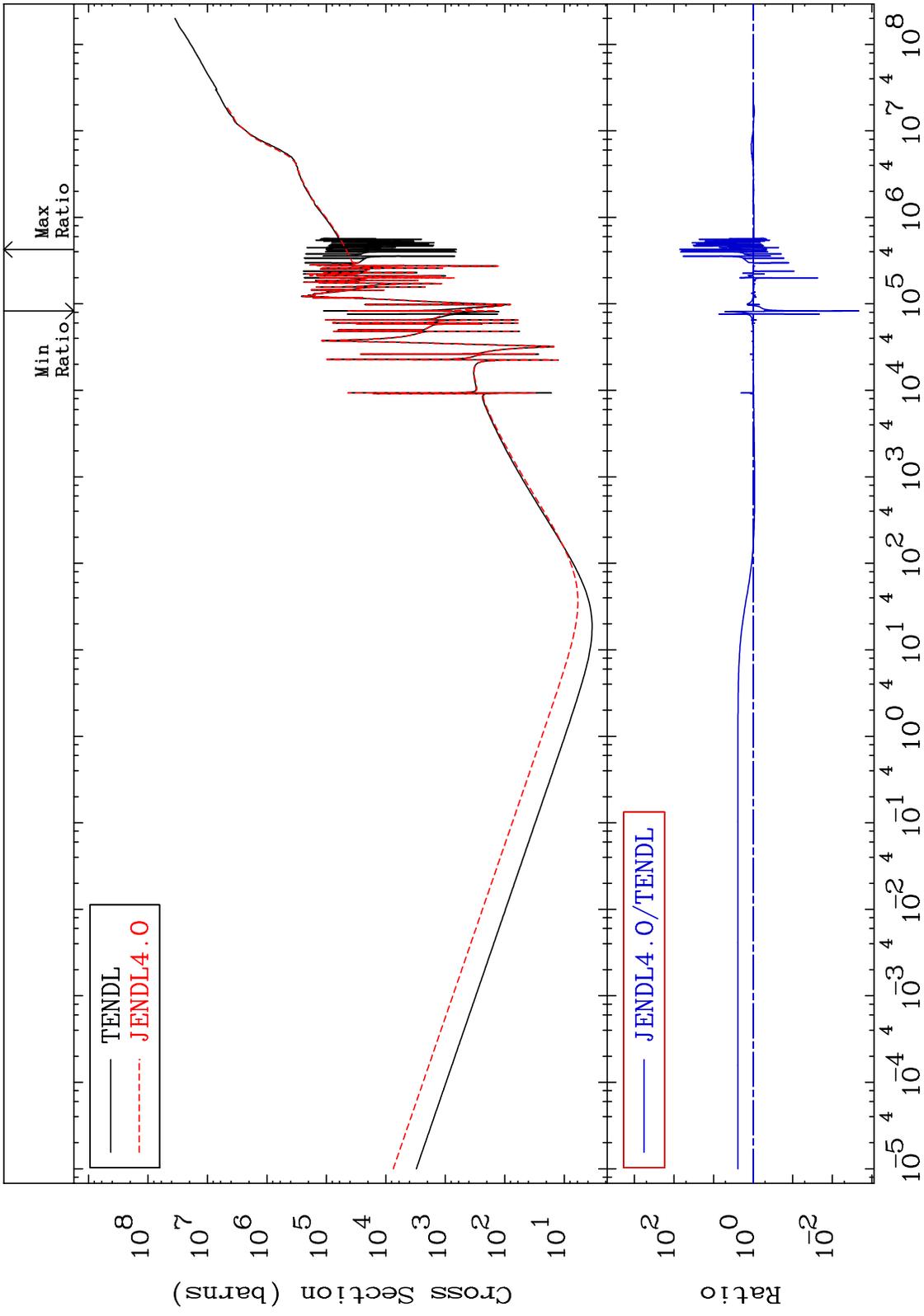


42

Incident Energy (eV)

20-Ca-42

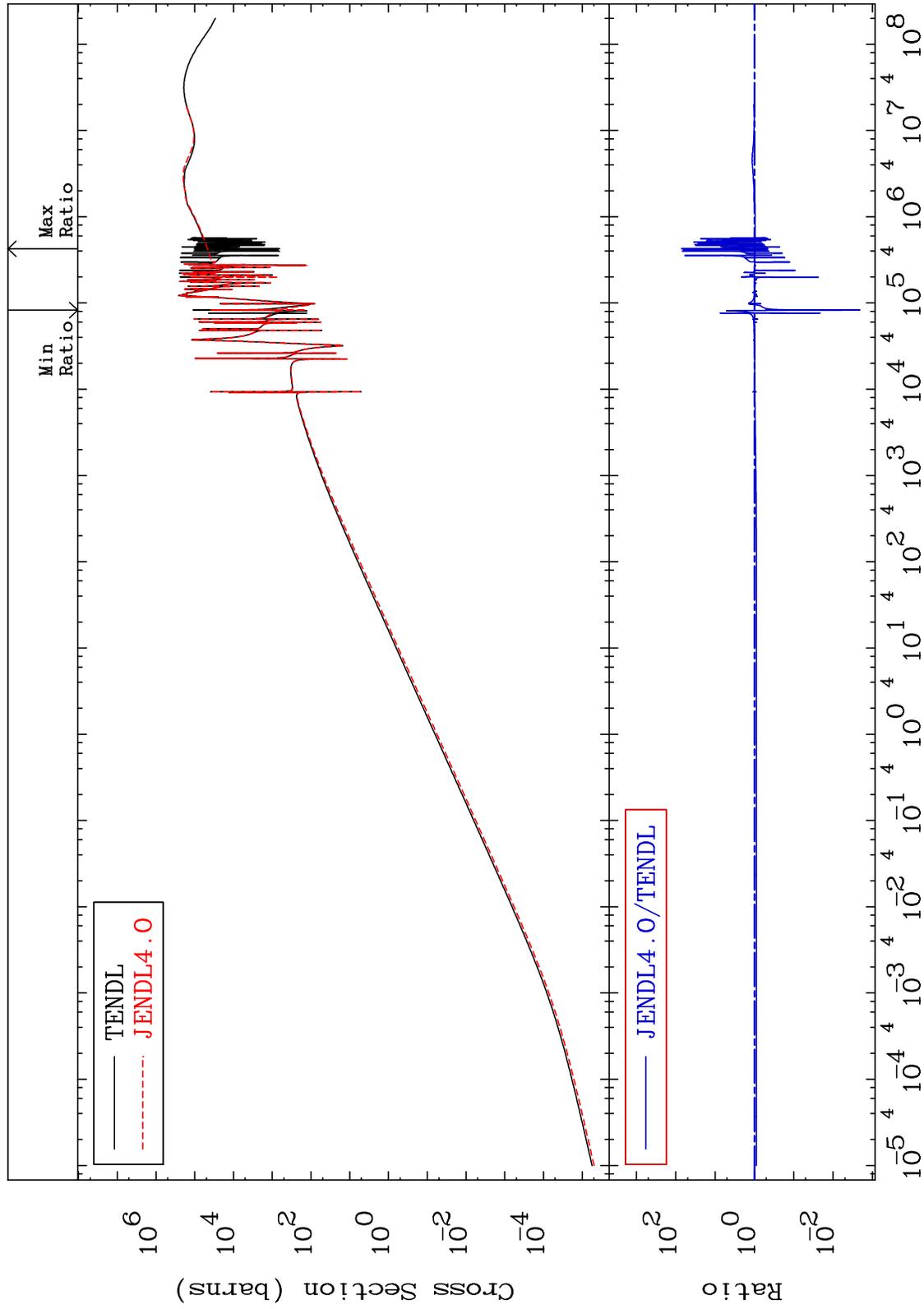
MAT 2031 Kerma total (eV-barns) Cross Section 20-Ca-42 -99.79 To 7068. %



MAT 2031

Kerma elastic  
Cross Section

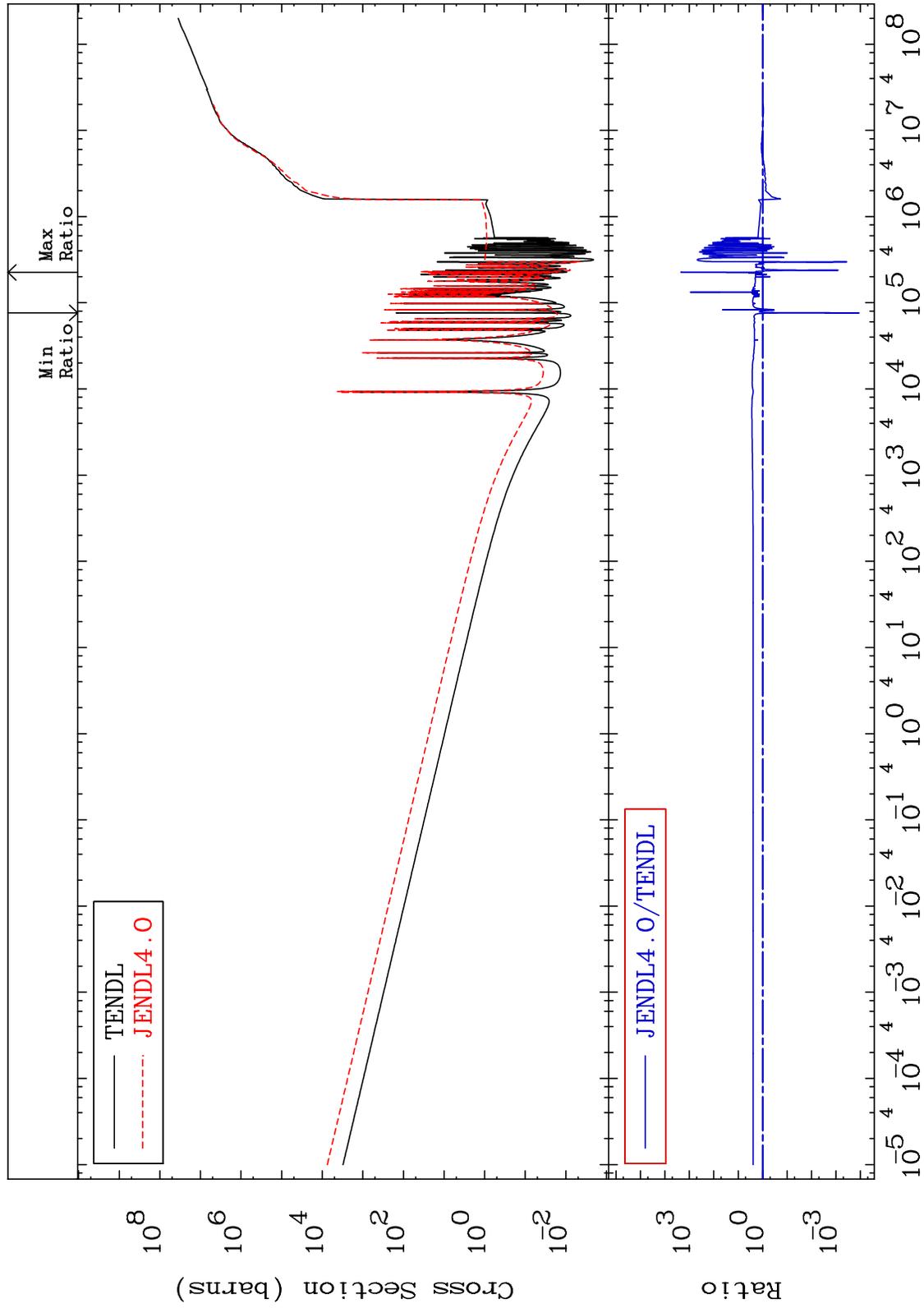
20-Ca-42  
-99.79 To 7073. %



MAT 2031

Kerma non-elastic (all but mt2)  
Cross Section

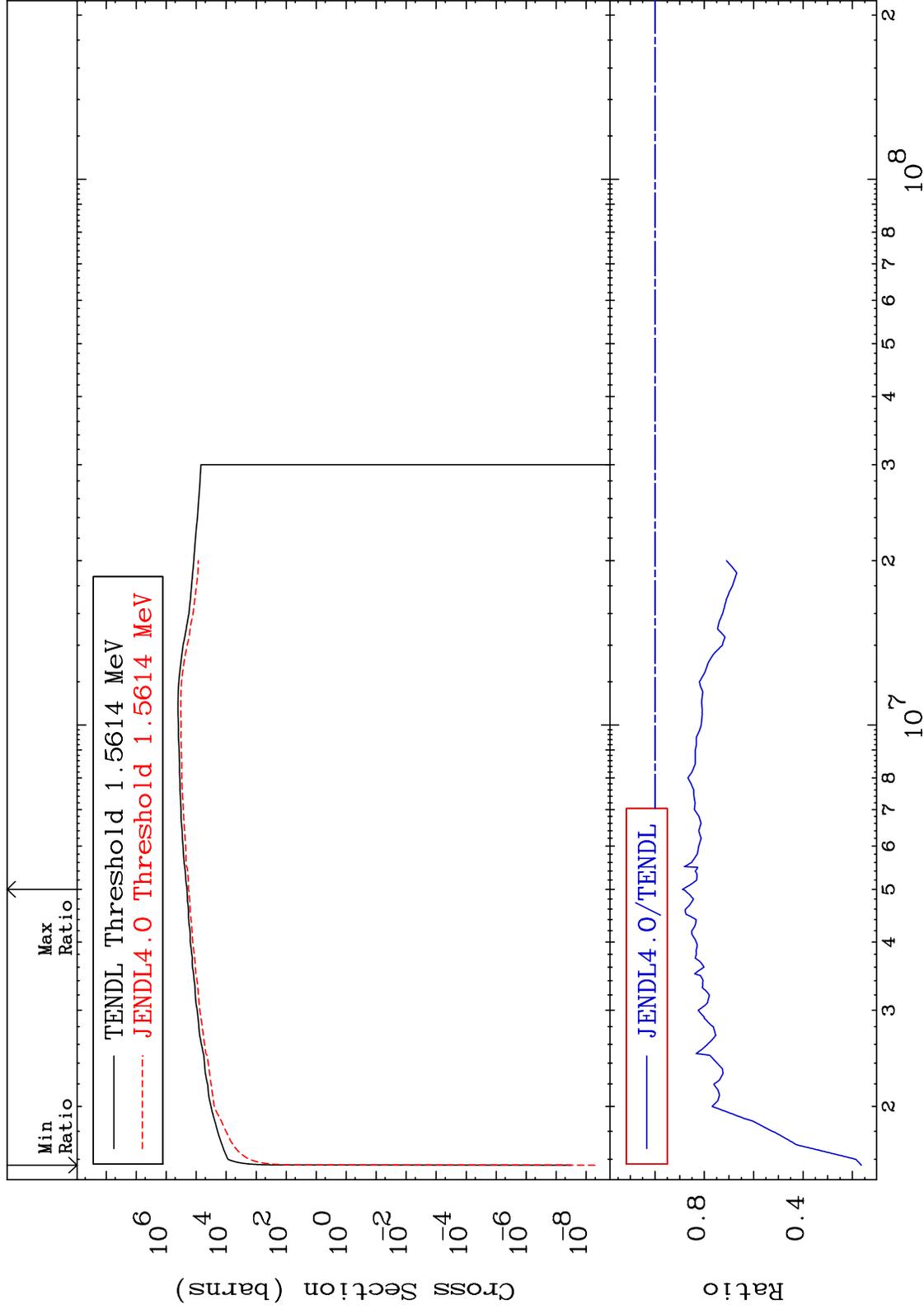
20-Ca-42  
-99.99 To 9999. %



MAT 2031

Kerma inelastic (mt51-91)  
Cross Section

20-Ca-42  
-83.64 To -11.13%



46

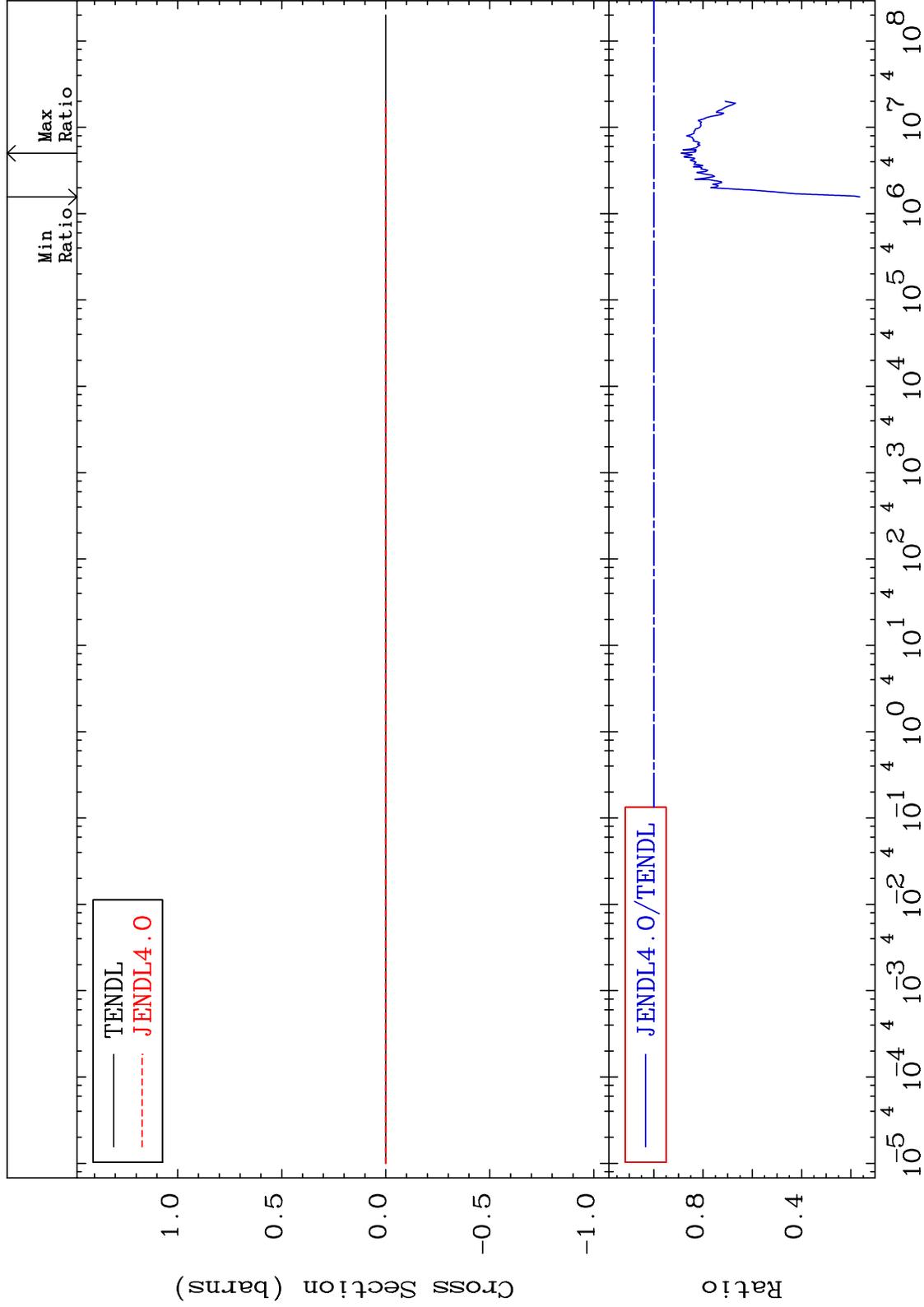
Incident Energy (eV)

20-Ca-42

MAT 2031

Kerma fission (mt18 or mt19-20-21-38)  
Cross Section

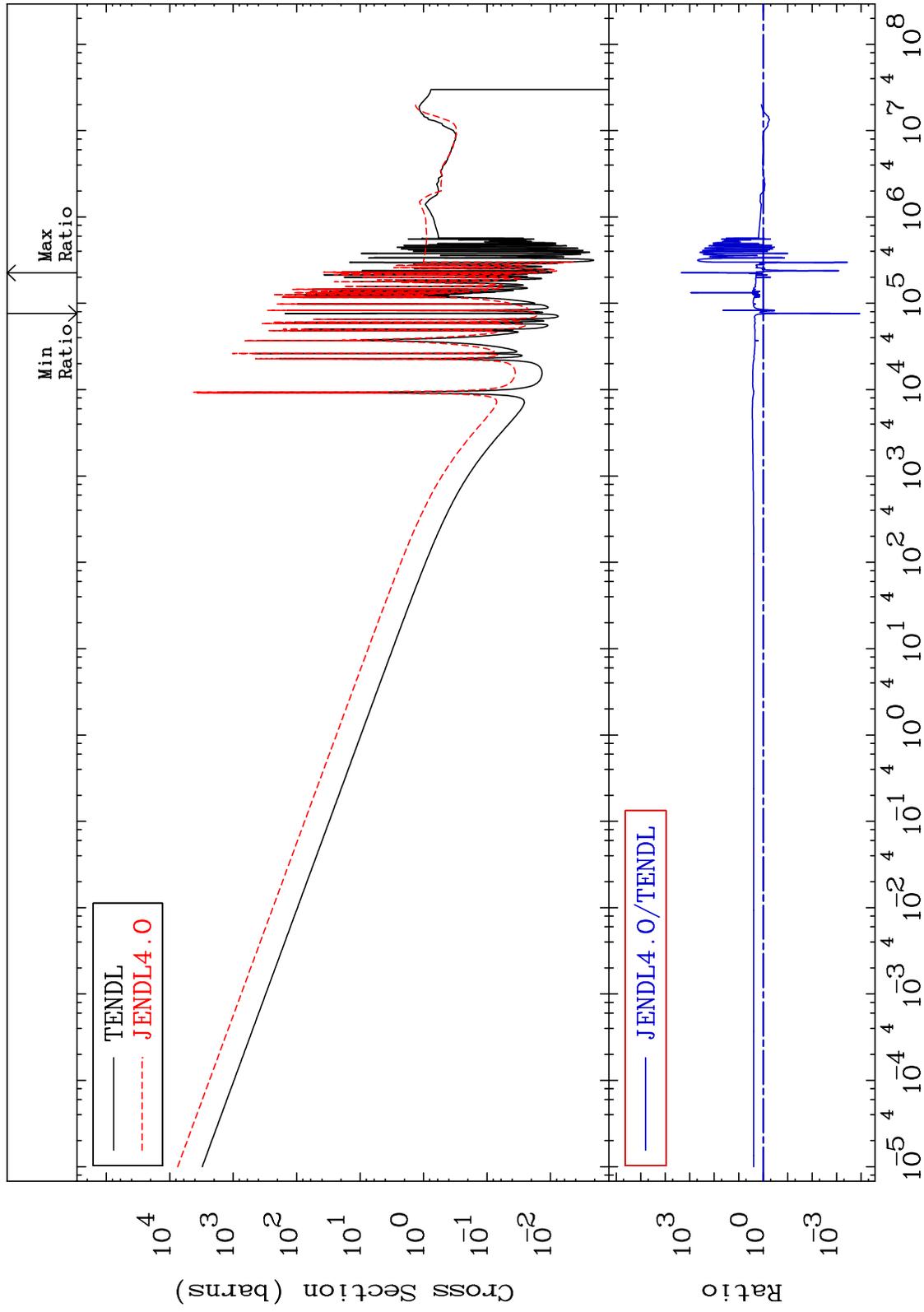
20-Ca-42  
-83.64 To -11.13%



MAT 2031

Kerma capture (mt102)  
Cross Section

20-Ca-42  
-99.99 To 9999. %



48

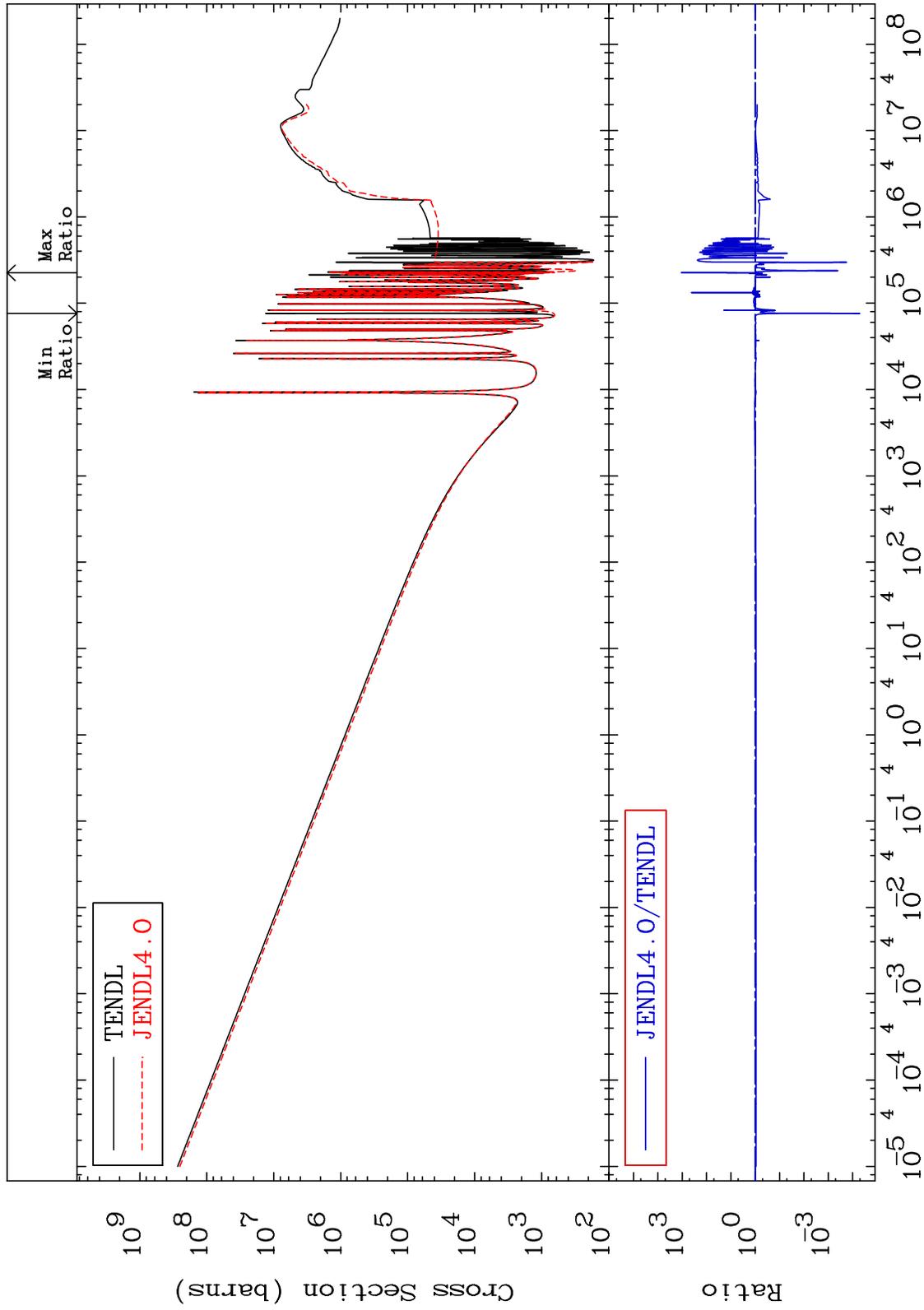
Incident Energy (eV)

20-Ca-42

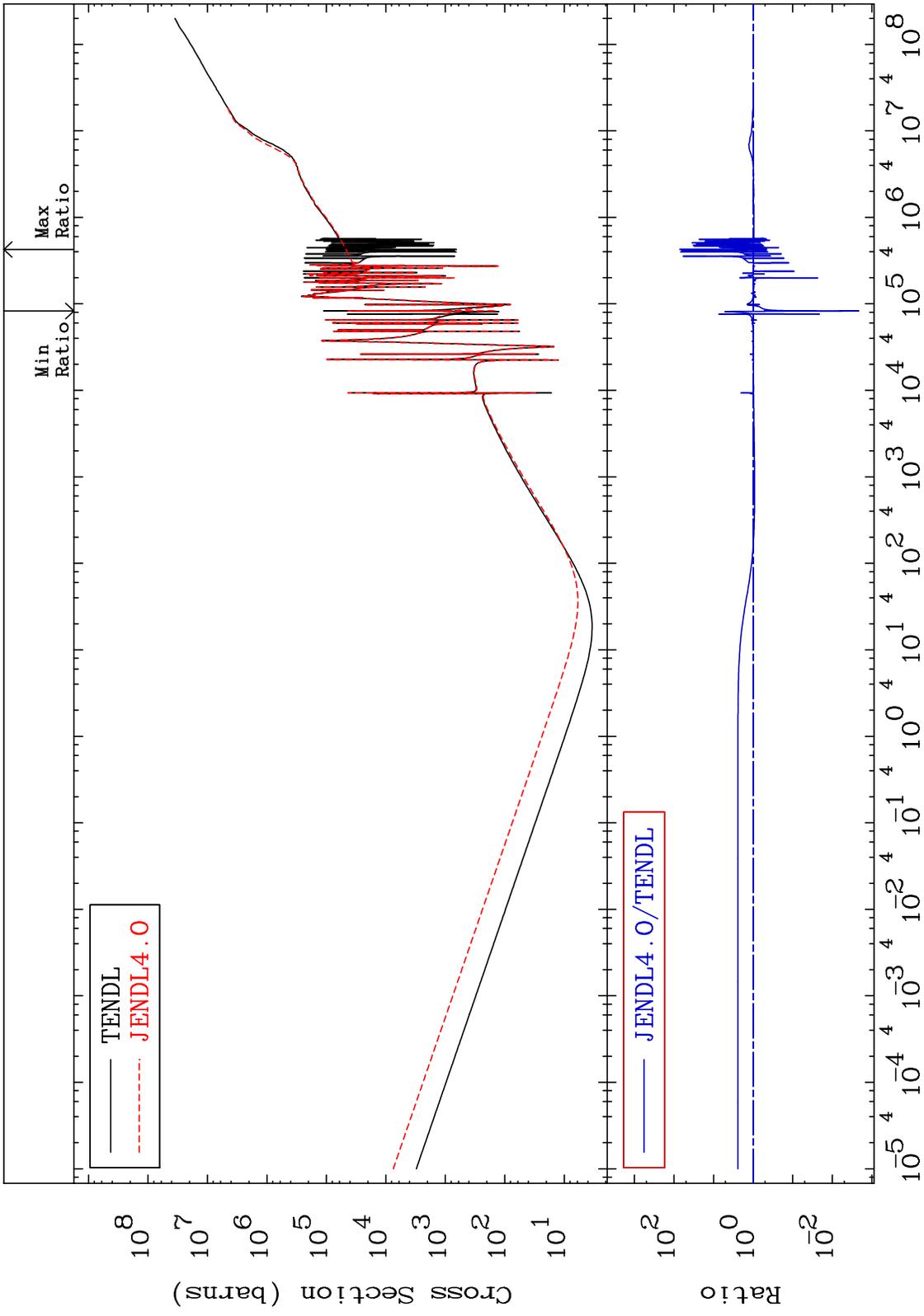
MAT 2031

Total photon (eV-barns)  
Cross Section

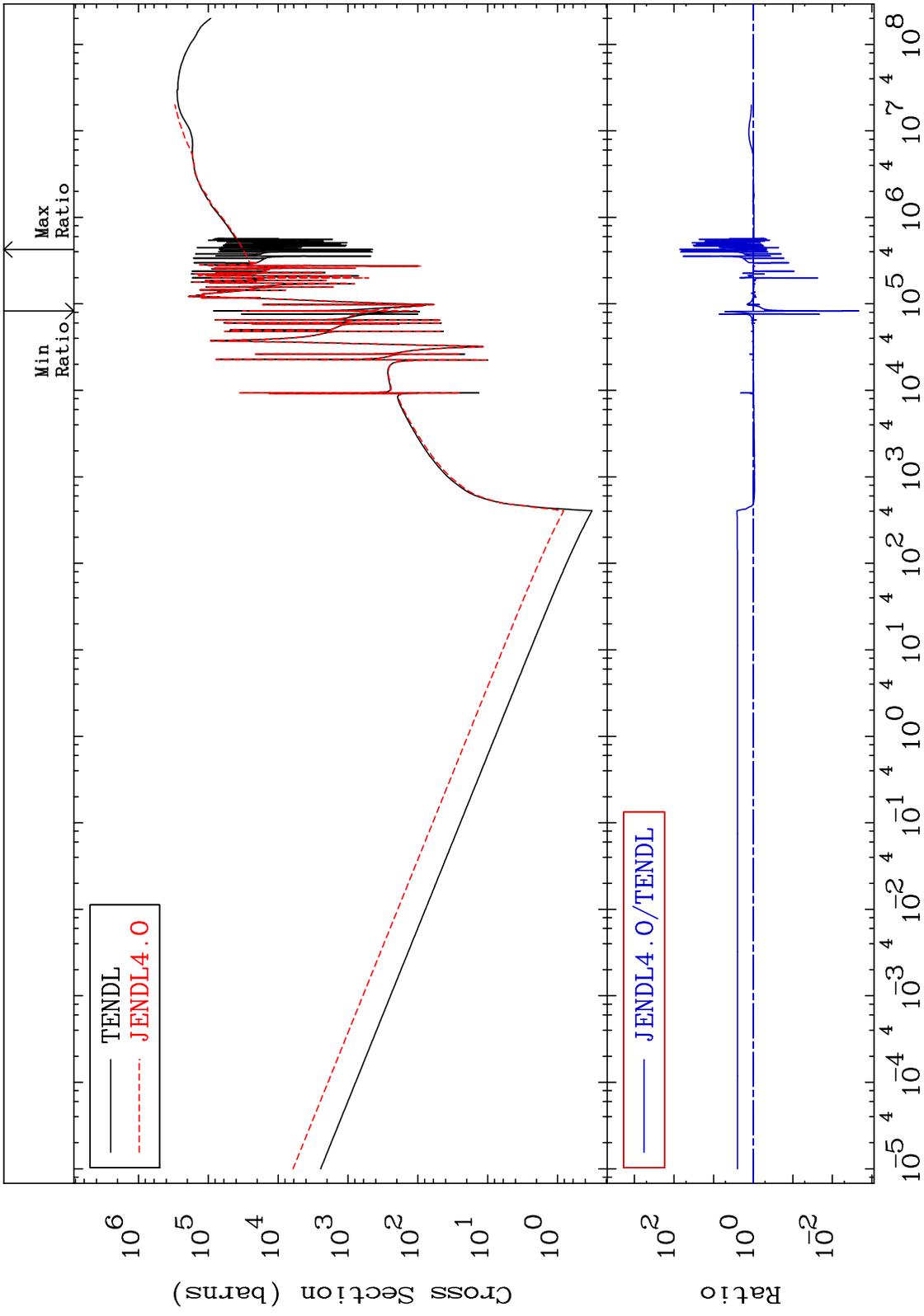
20-Ca-42  
-99.99 To 9999. %



MAT 2031 Total kinematic kerma (high limit) Cross Section 20-Ca-42 -99.79 To 7068. %



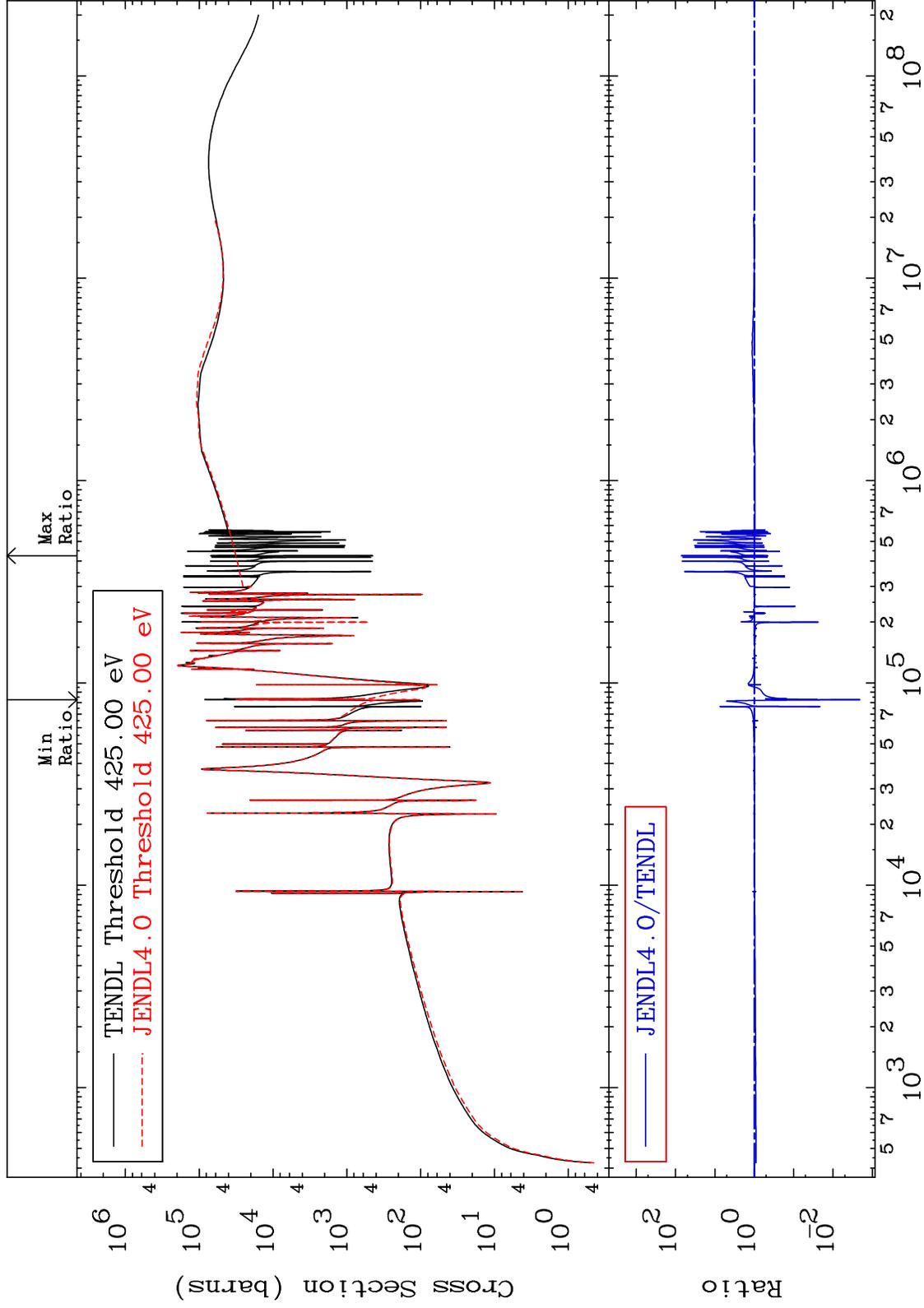
MAT 2031 Dpa total (eV-barns) 20-Ca-42  
 Cross Section -99.79 To 7068. %



MAT 2031

Dpa elastic (mt2)  
Cross Section

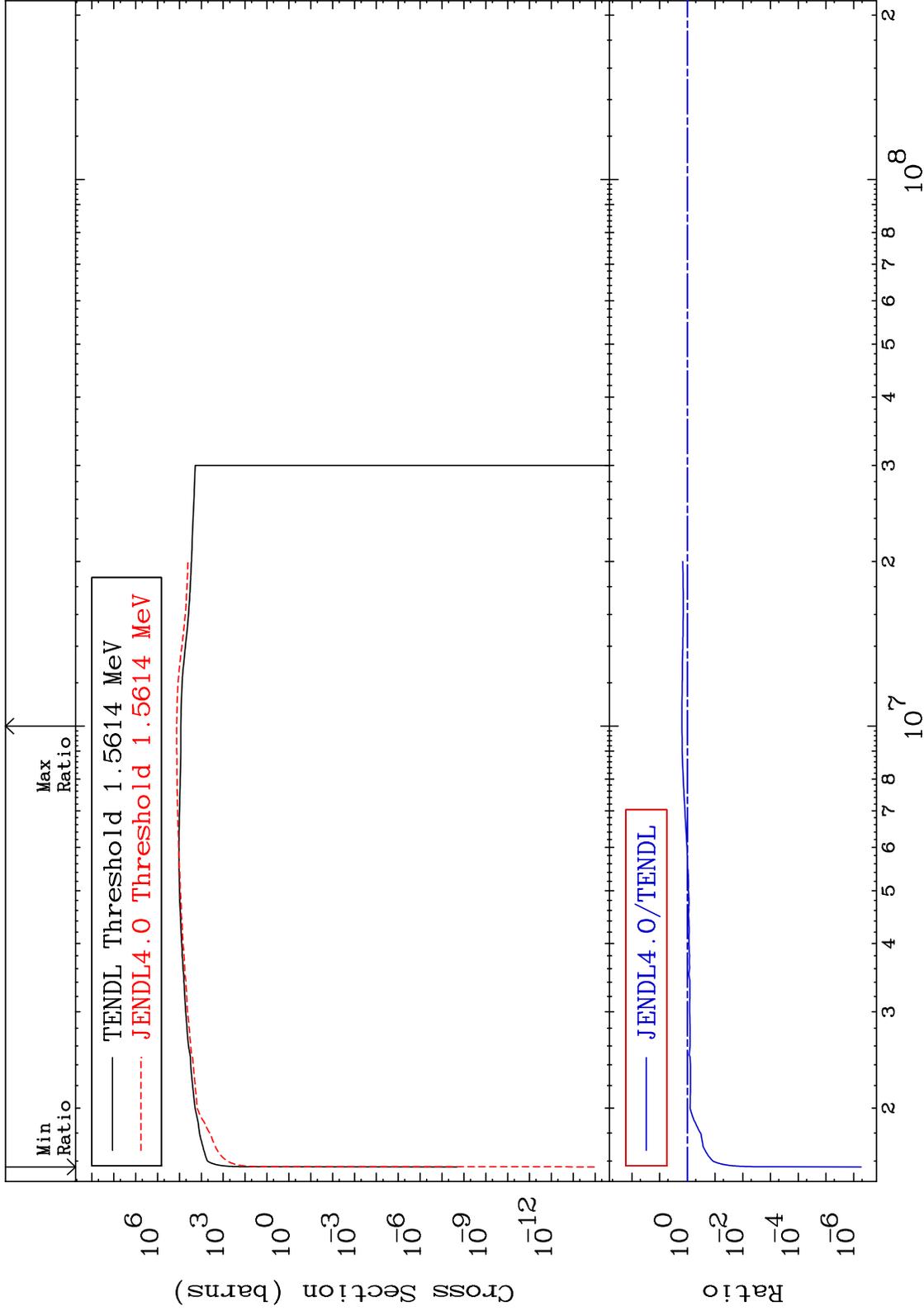
20-Ca-42  
-99.79 To 7075. %



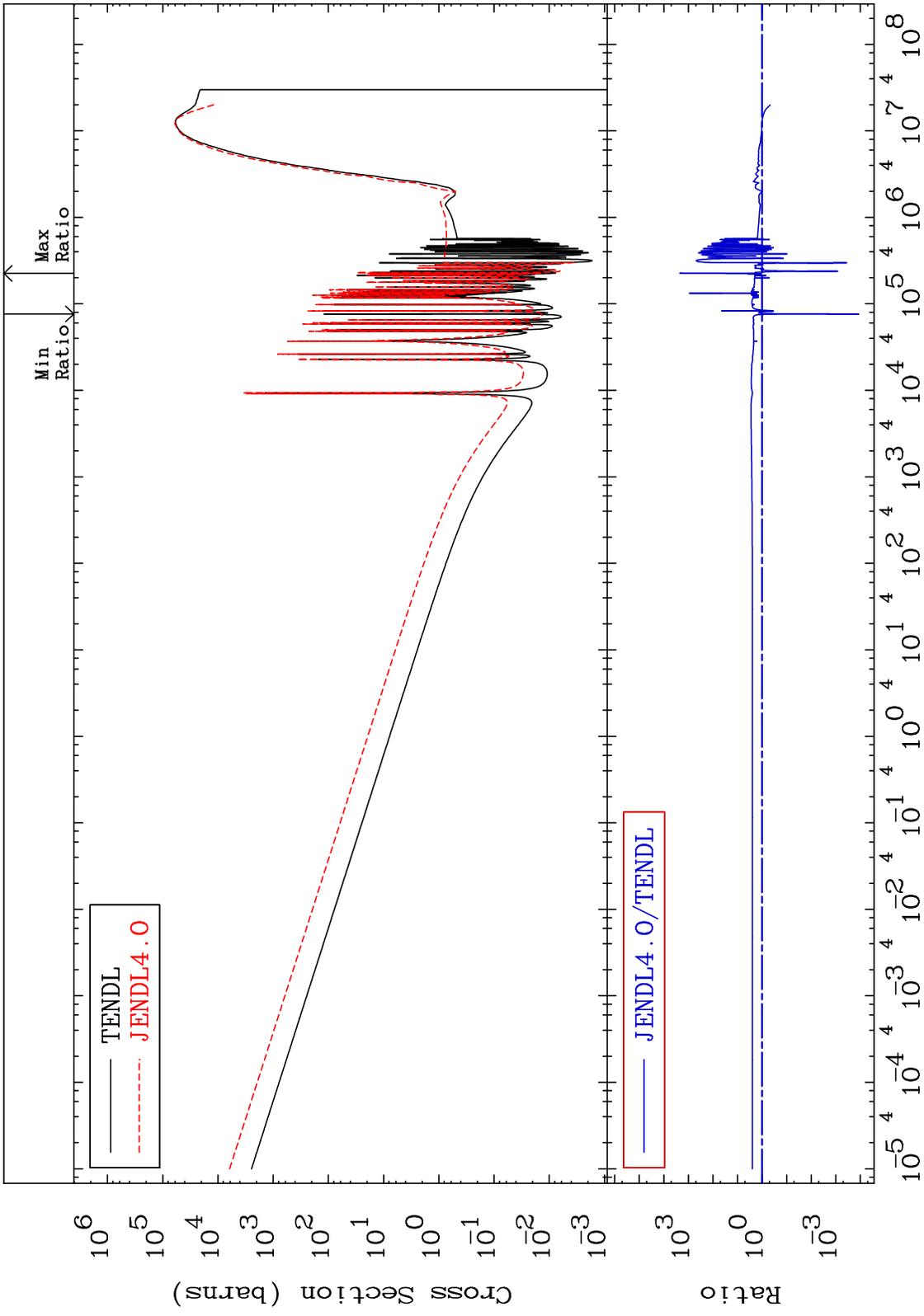
MAT 2031

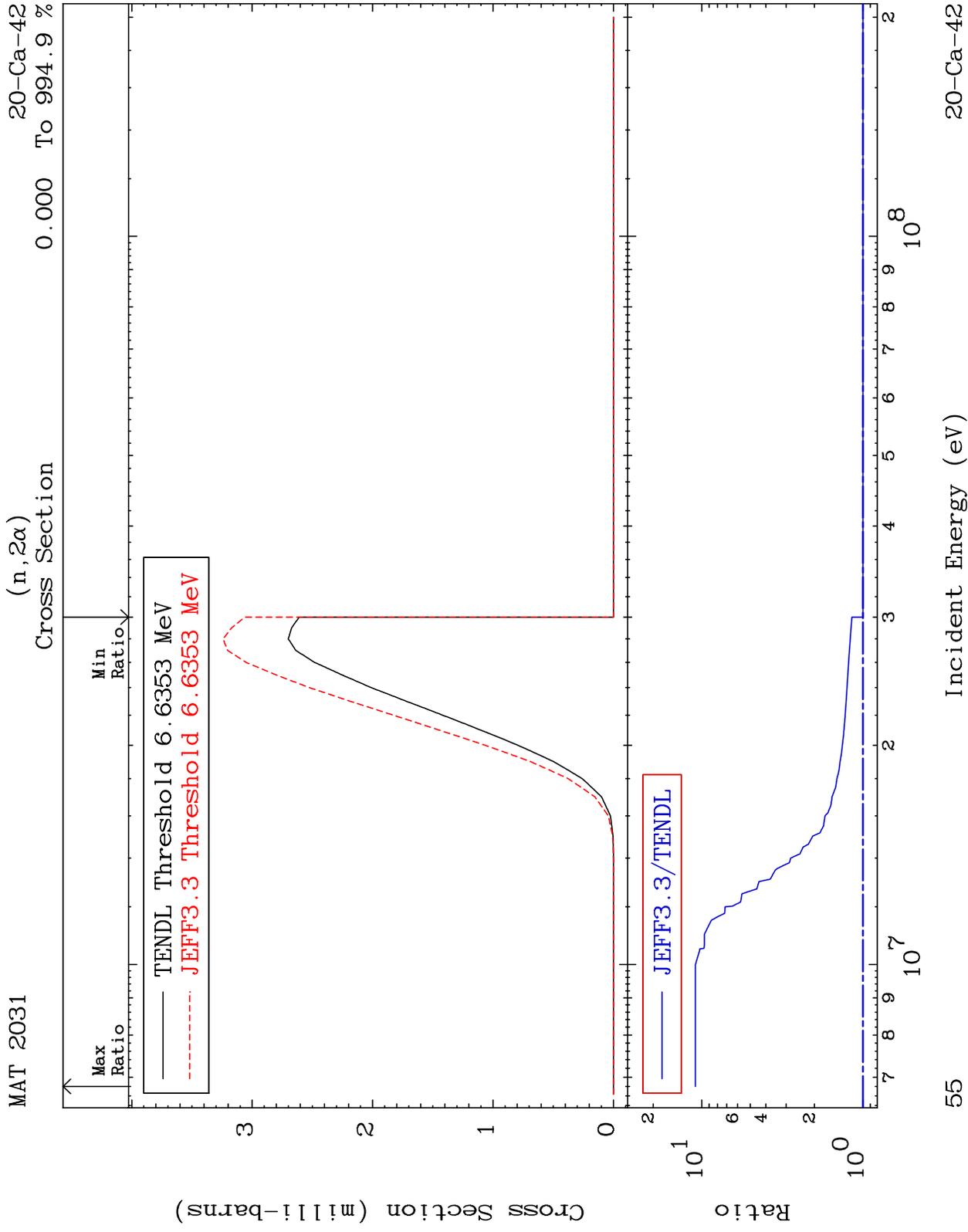
Dpa inelastic (mt51-91)  
Cross Section

20-Ca-42  
-100.0 To 55.67 %

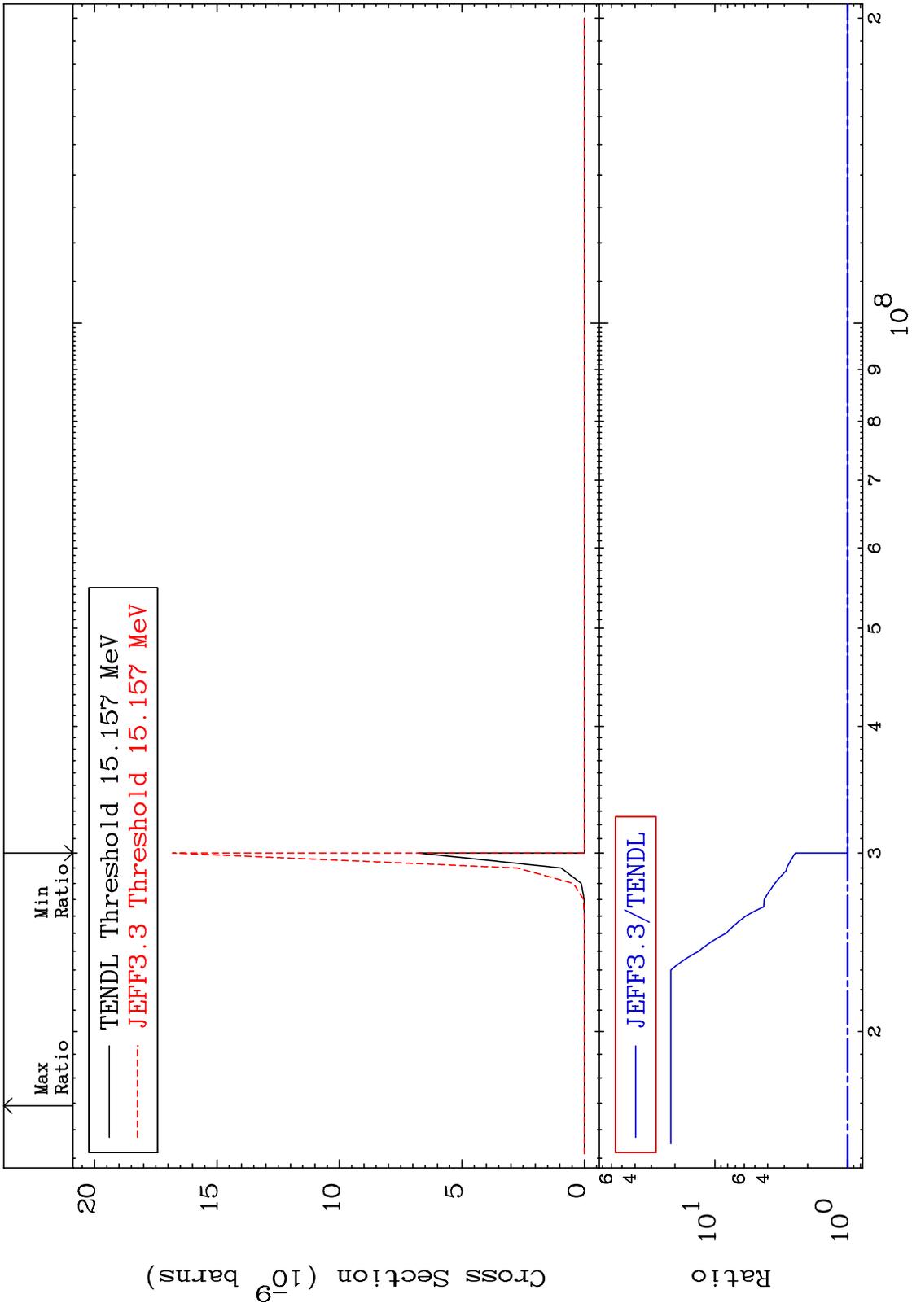


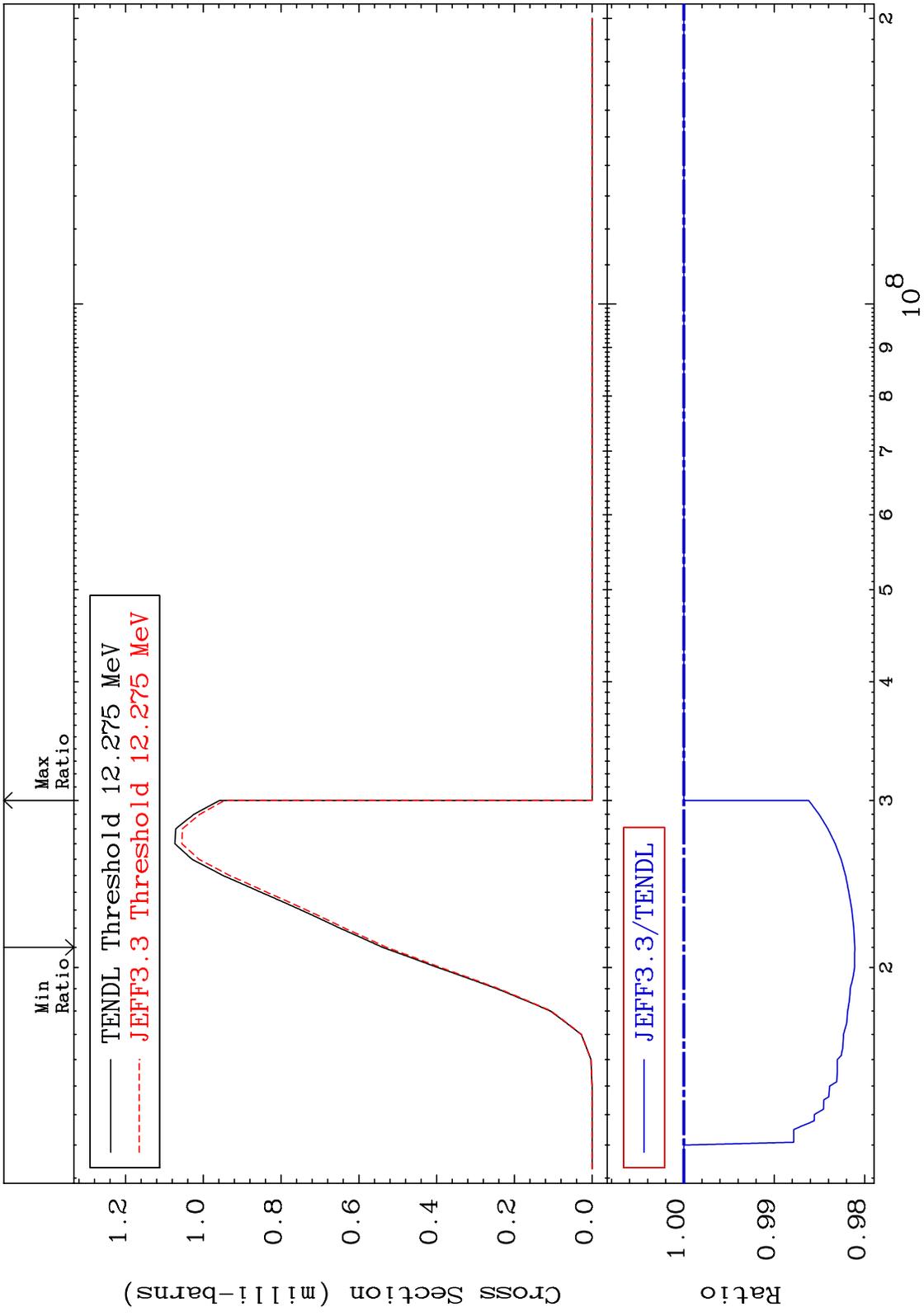
MAT 2031 Dpa disappearance (mt102 -120) 20-Ca-42  
 Cross Section -99.99 To 9999. %



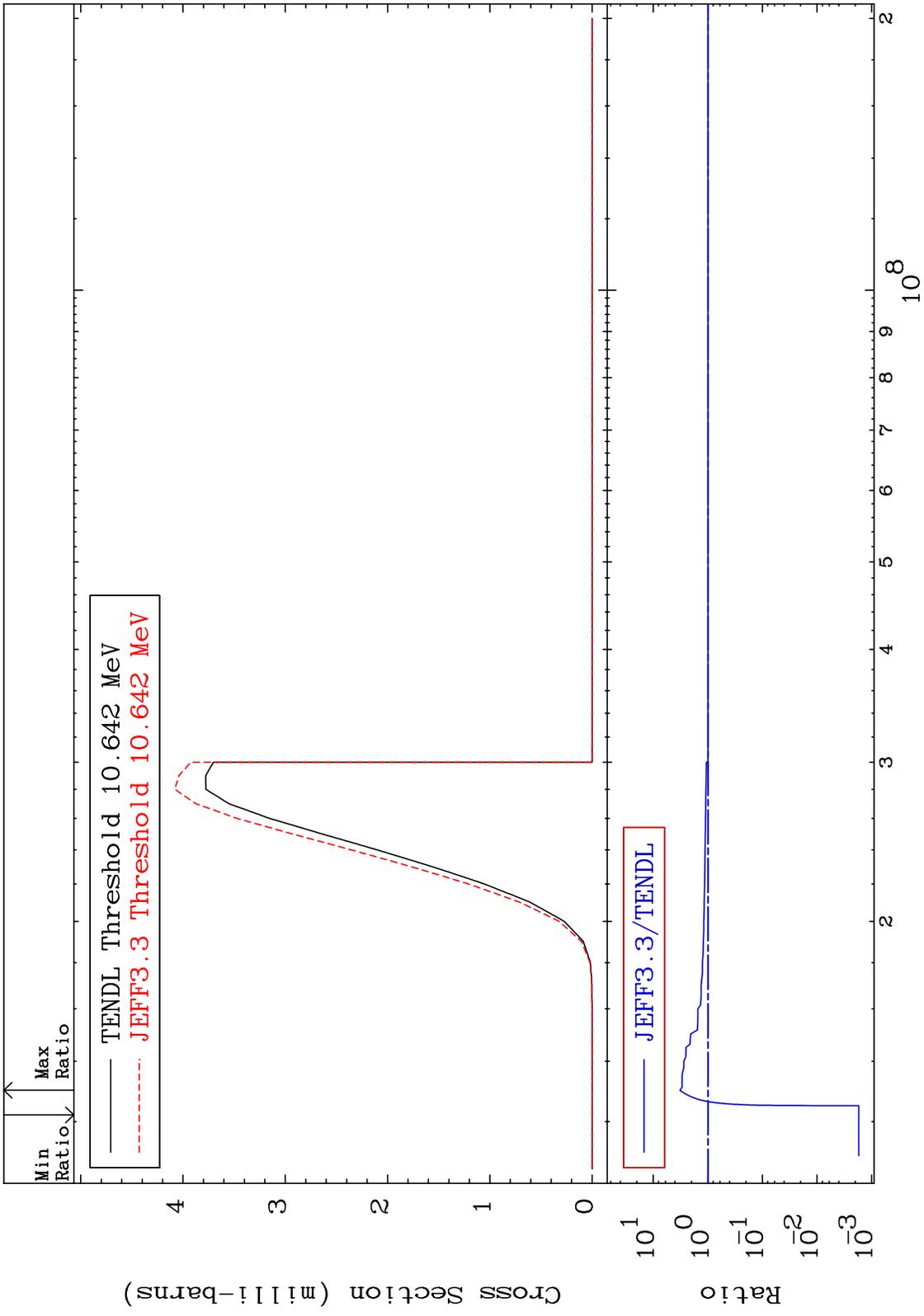


MAT 2031 (n, 3α) 20-Ca-42  
 Cross Section 0.000 To 2043. %

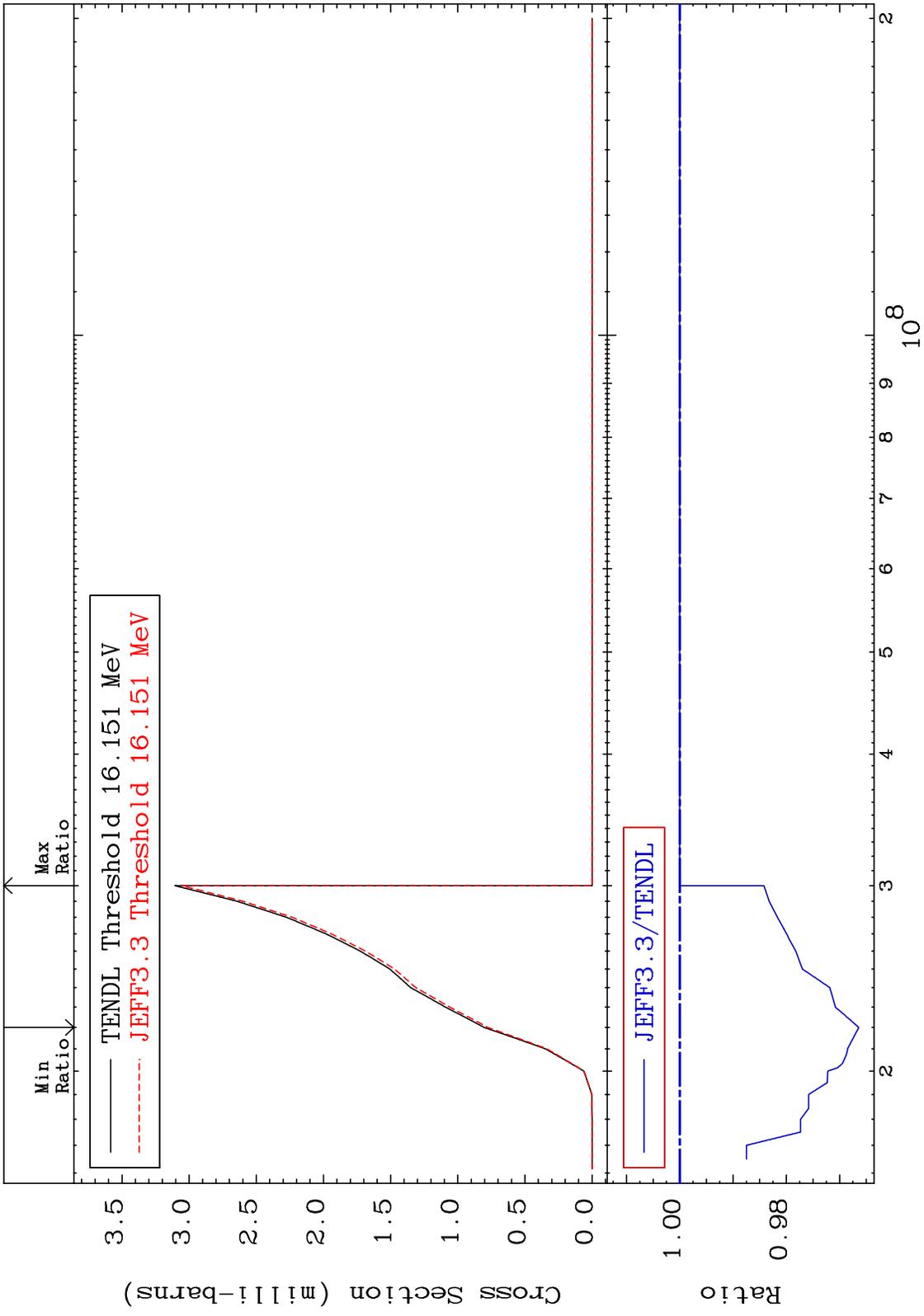




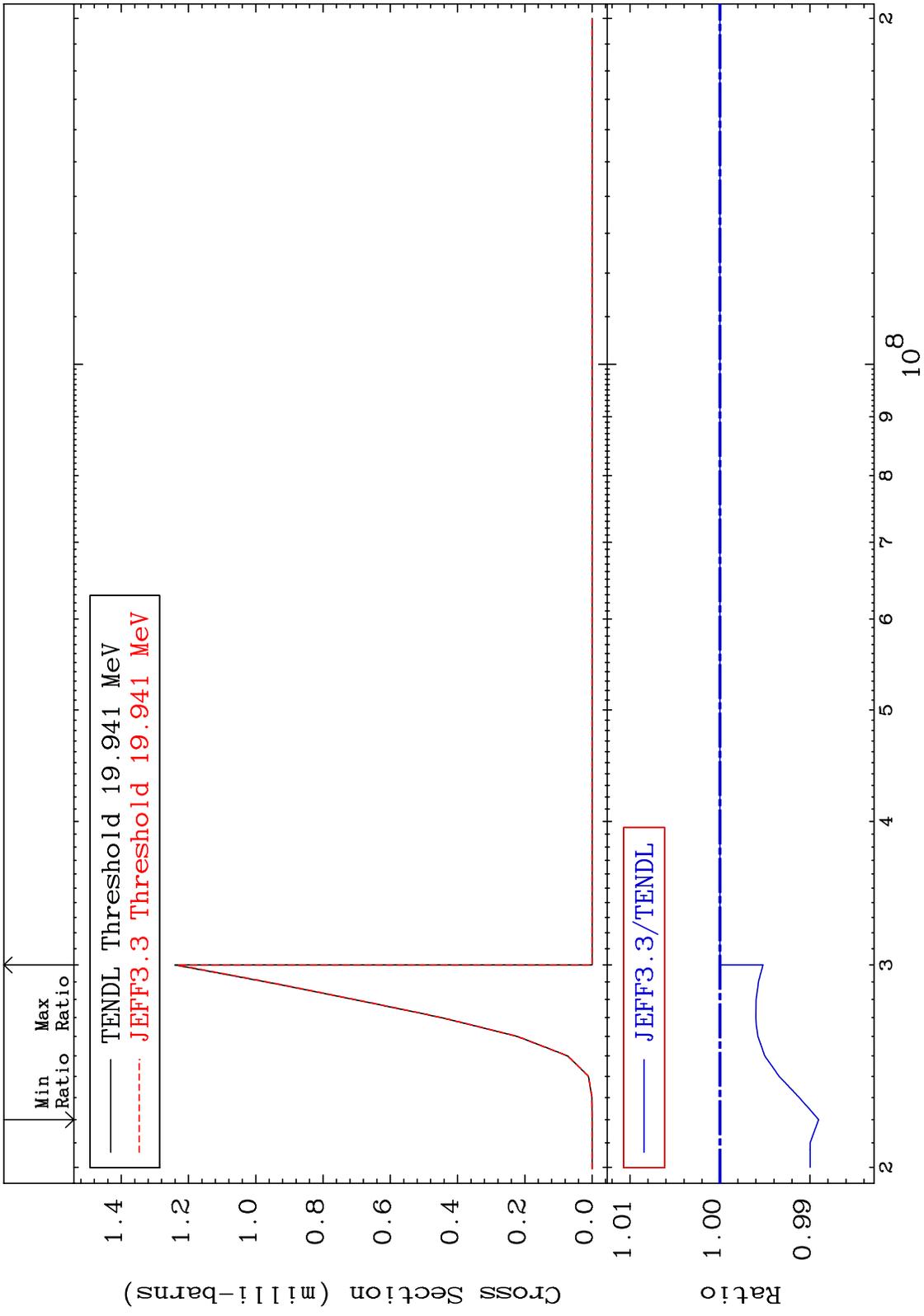
MAT 2031 (n,p)  $\alpha$  20-Ca-42  
 Cross Section -99.83 To 226.9 %



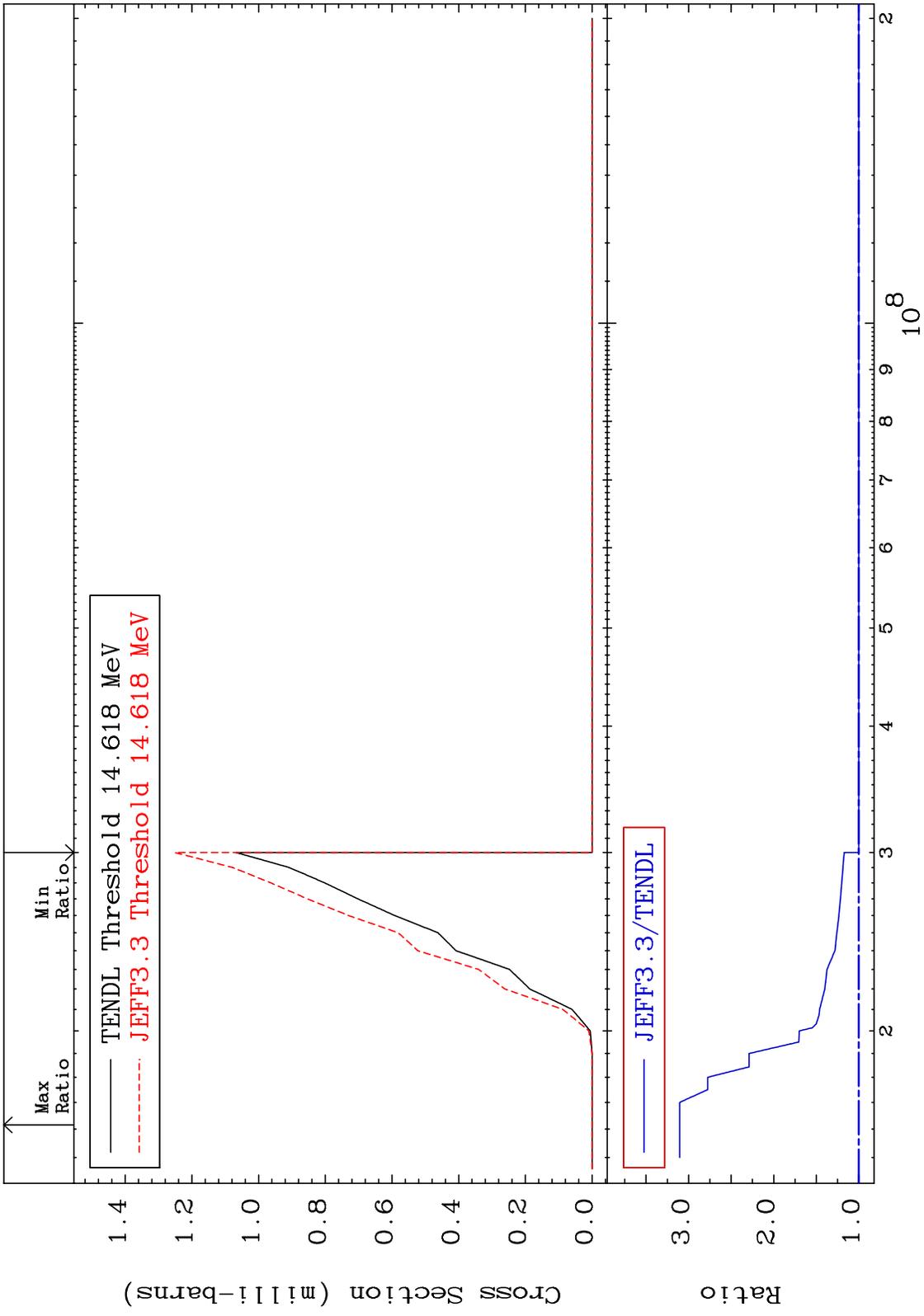
MAT 2031 (n,p) d 20-Ca-42  
 Cross Section -3.360 To 0.000 %



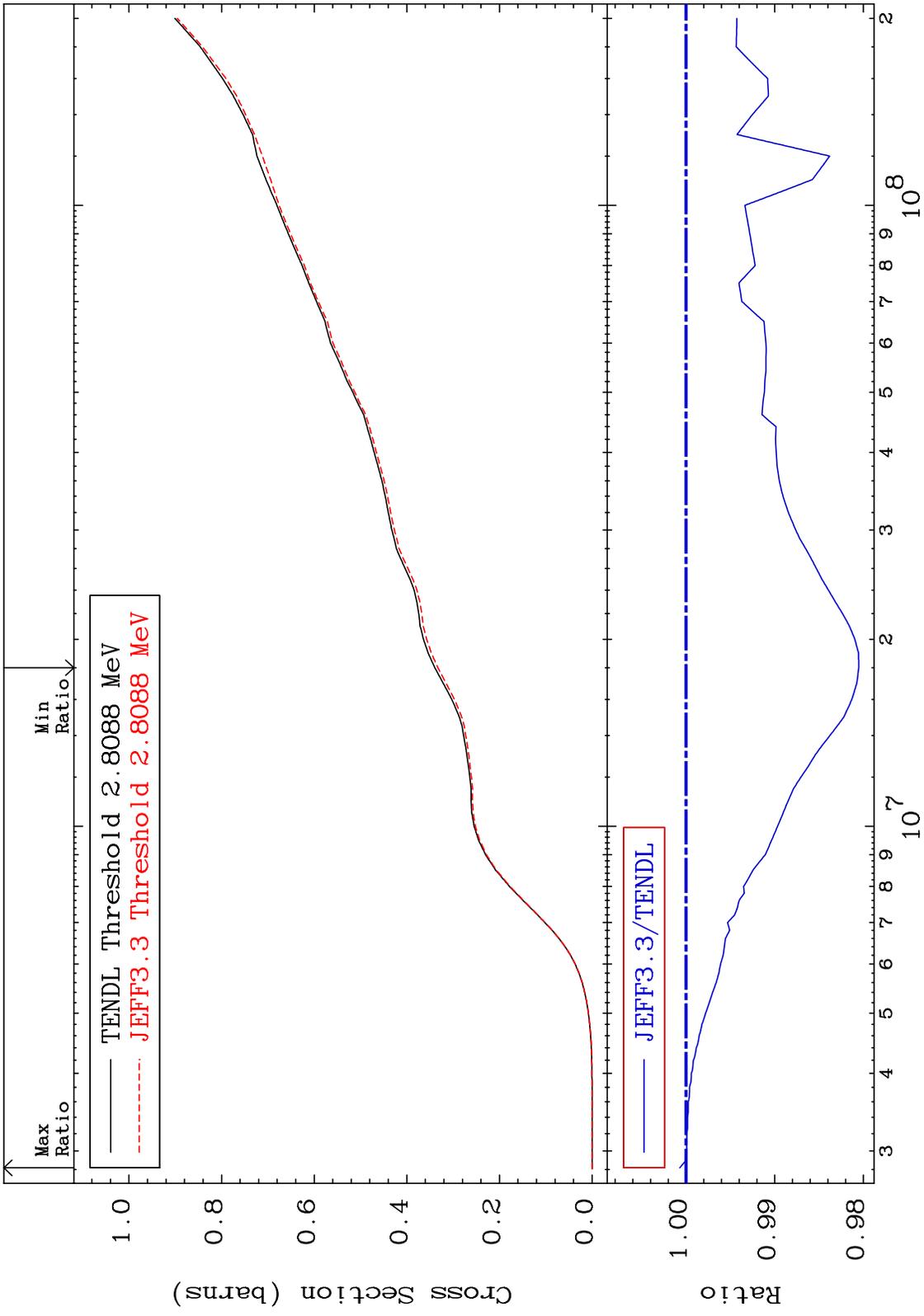
MAT 2031 (n,p) t 20-Ca-42  
 Cross Section -1.096 To 0.000 %



MAT 2031 (n,d)  $\alpha$  20-Ca-42  
 Cross Section 0.000 To 210.4 %



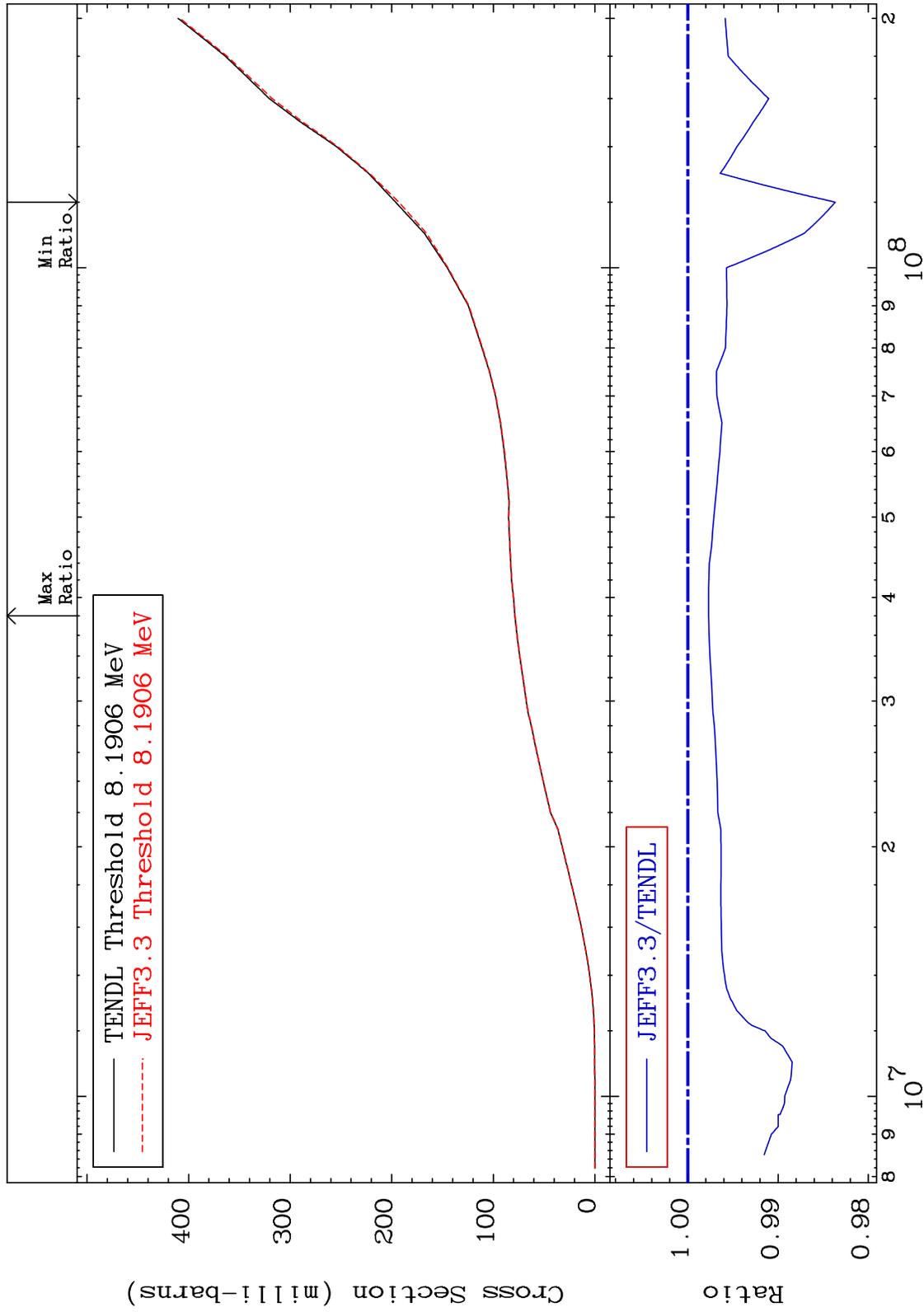
MAT 2031 Hydrogen Production Cross Section 20-Ca-42  
 -1.949 To 0.071 %



MAT 2031

Deuterium Production  
Cross Section

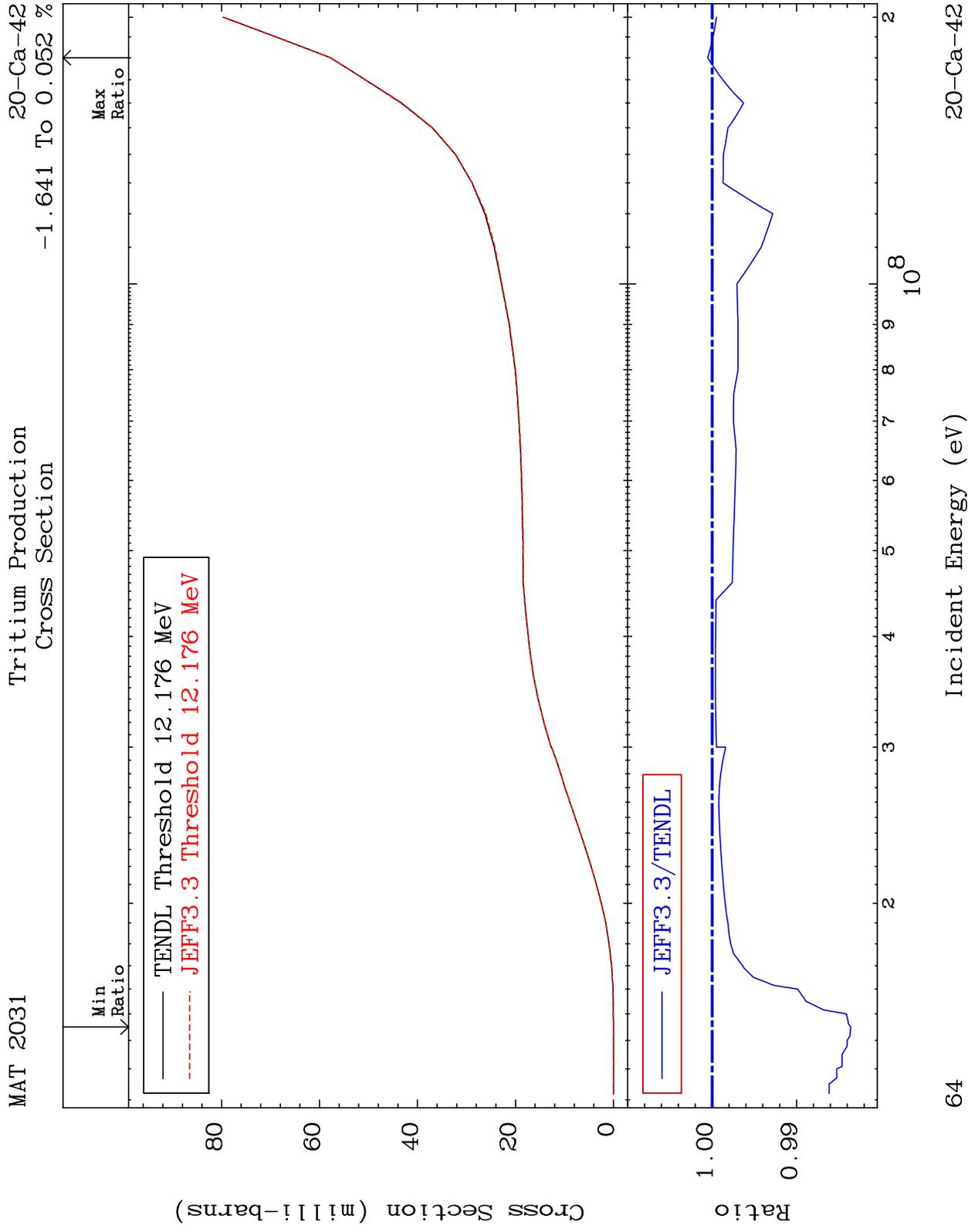
20-Ca-42  
-1.633 To -0.230%



63

Incident Energy (eV)

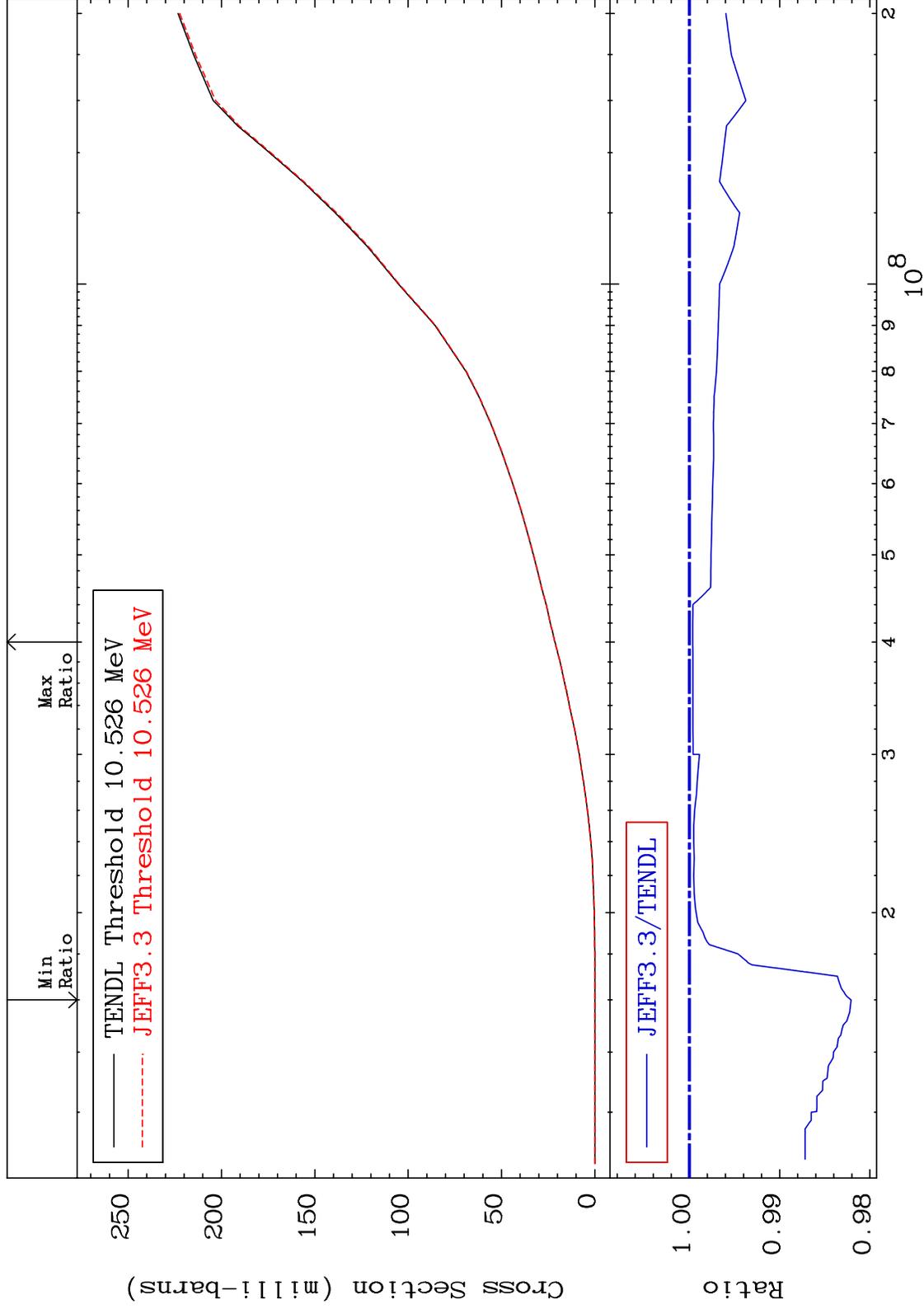
20-Ca-42



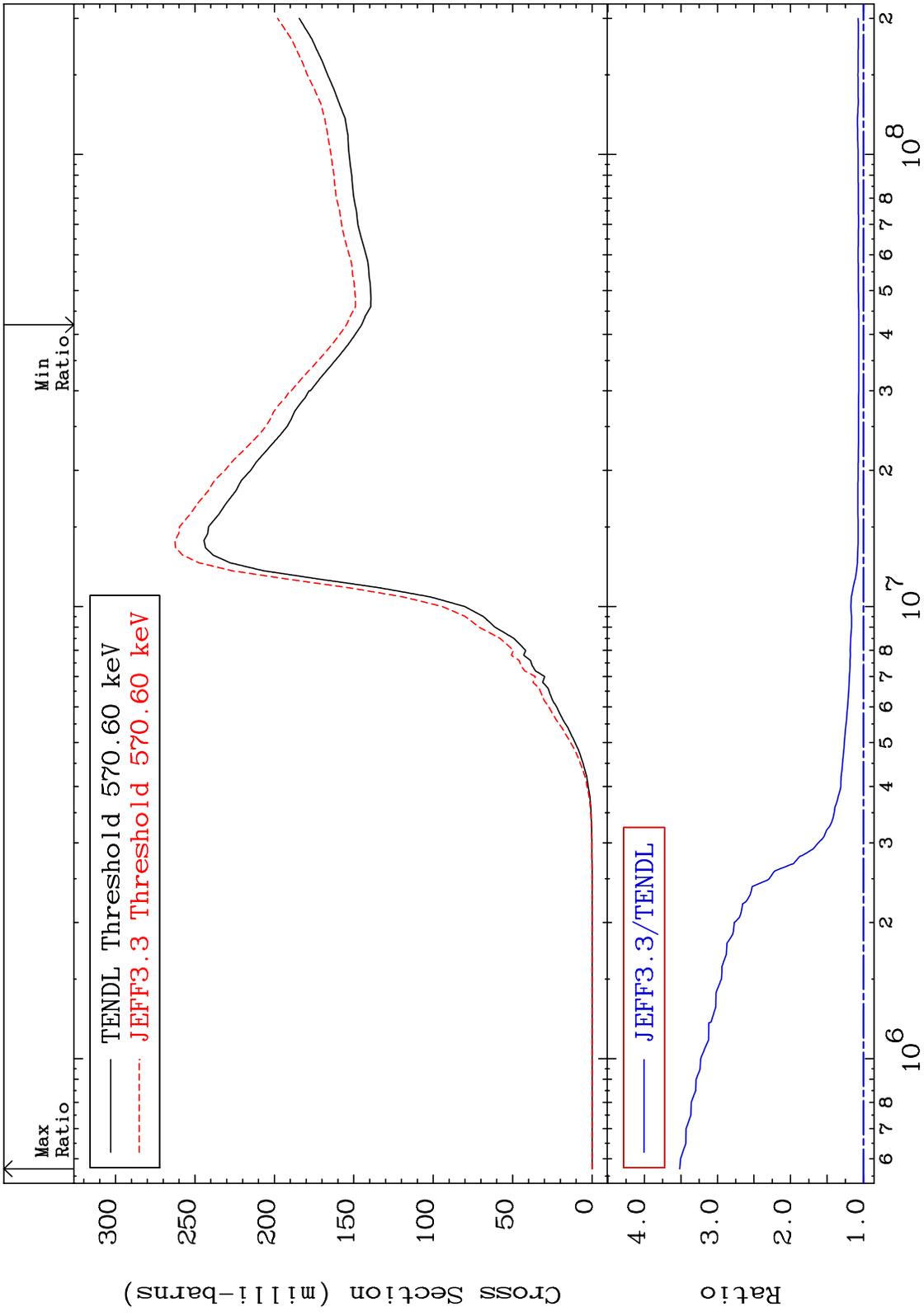
MAT 2031

He-3 Production  
Cross Section

20-Ca-42  
-1.791 To -0.037%



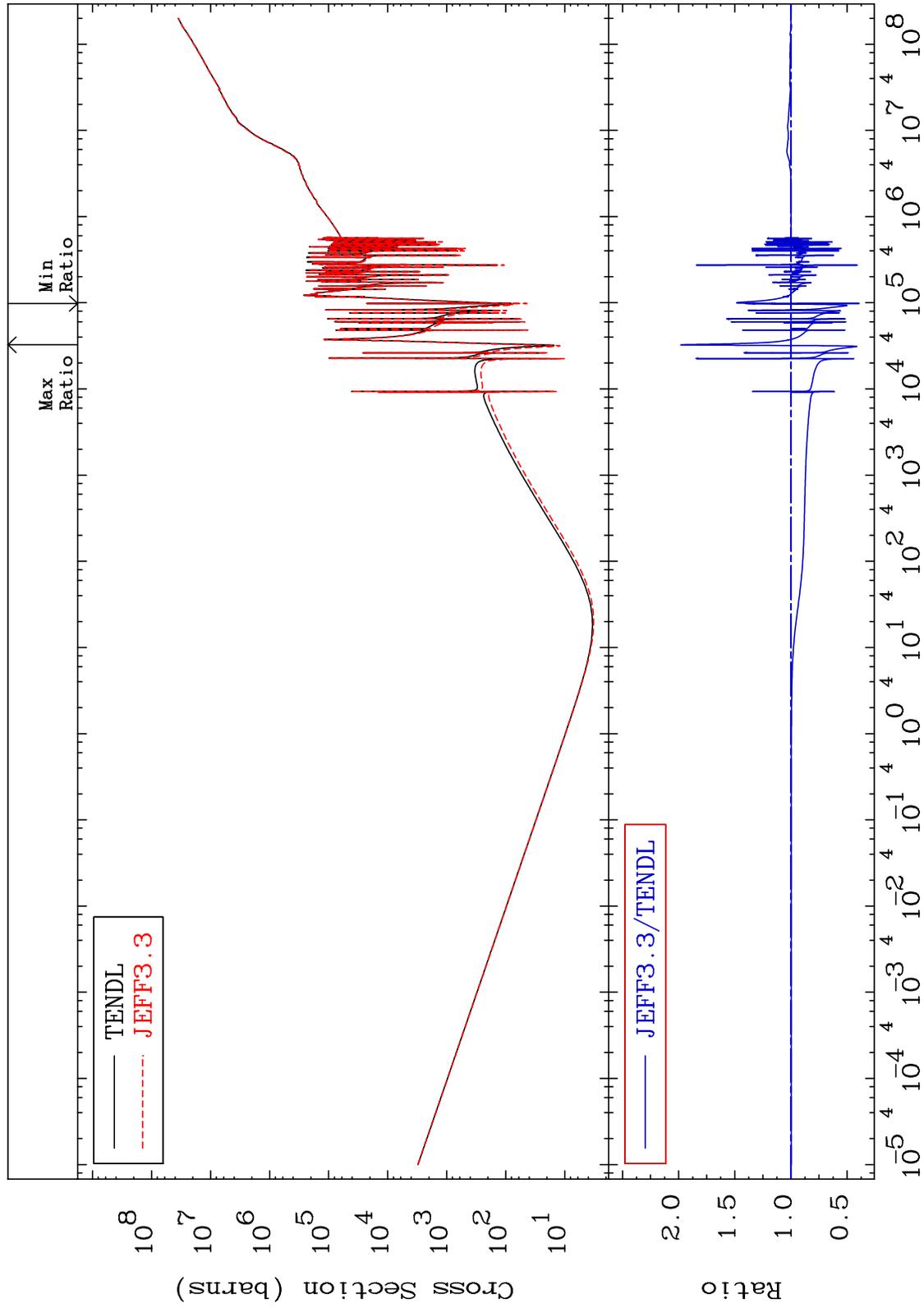
MAT 2031 He-4 Production Cross Section 20-Ca-42 To 251.6 %



MAT 2031

Kerma total (eV-barns)  
Cross Section

20-Ca-42  
-60.66 To 98.04 %



67

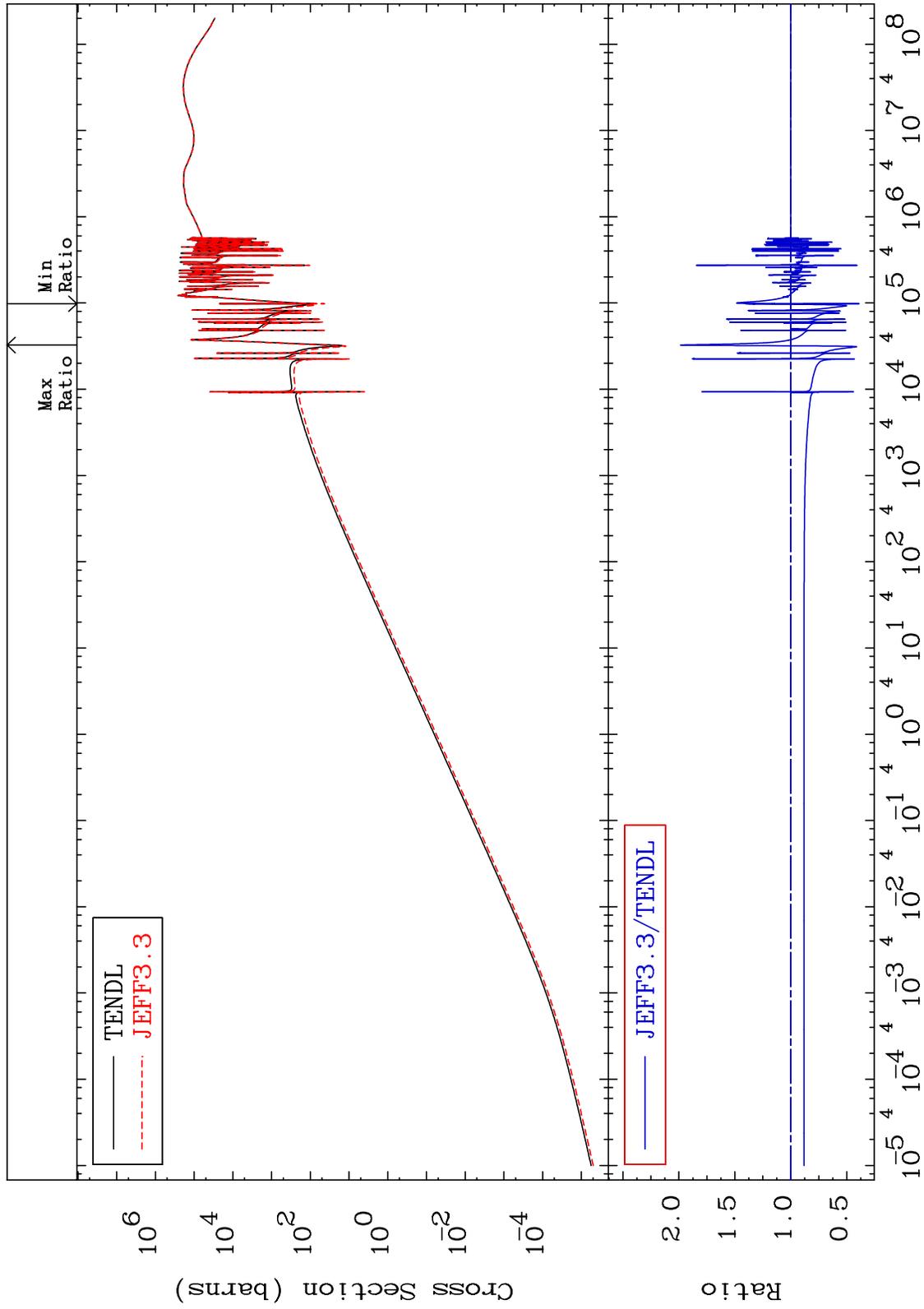
Incident Energy (eV)

20-Ca-42

MAT 2031

Kerma elastic  
Cross Section

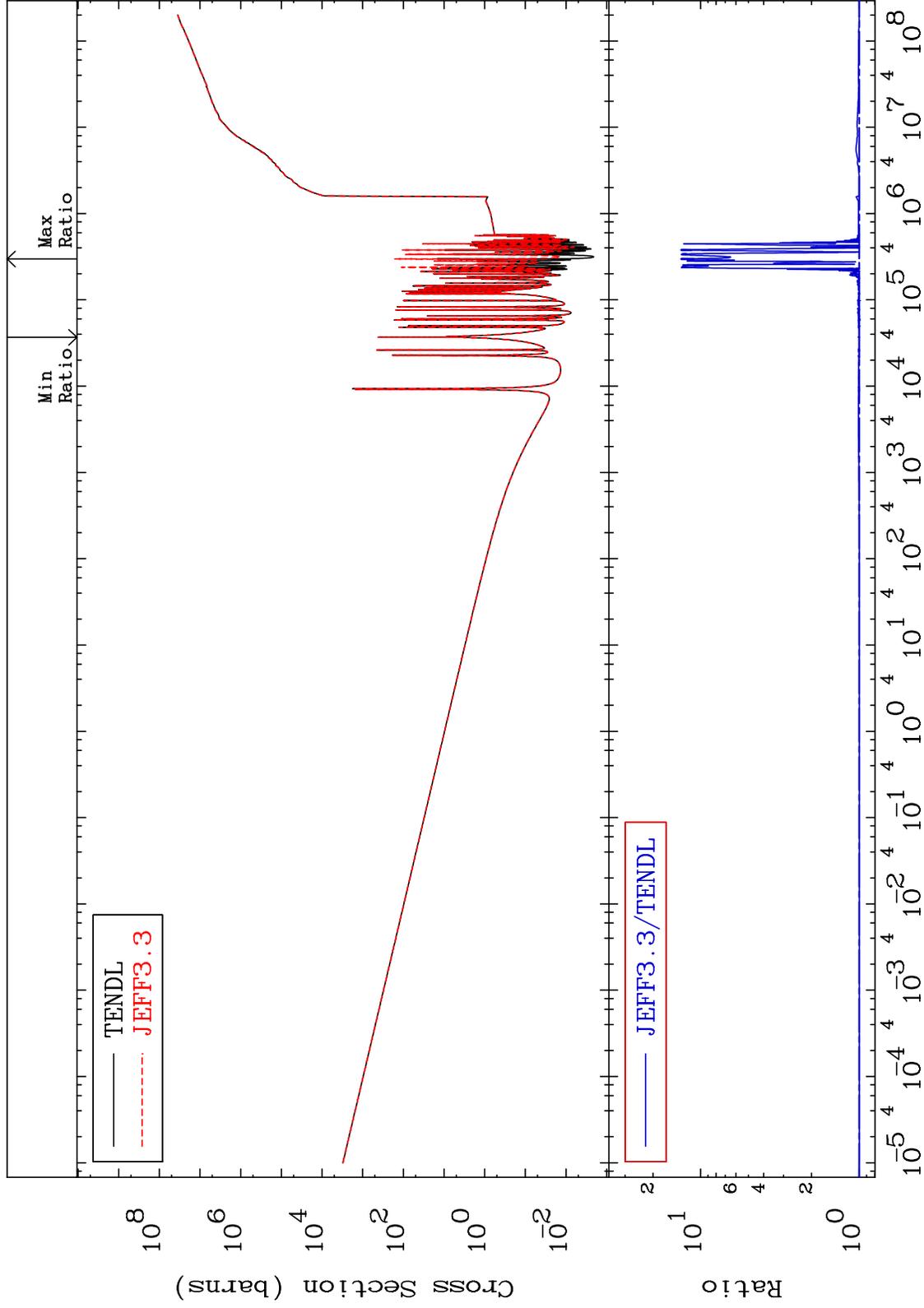
20-Ca-42  
-61.01 To 98.47 %



MAT 2031

Kerma non-elastic (all but mt2)  
Cross Section

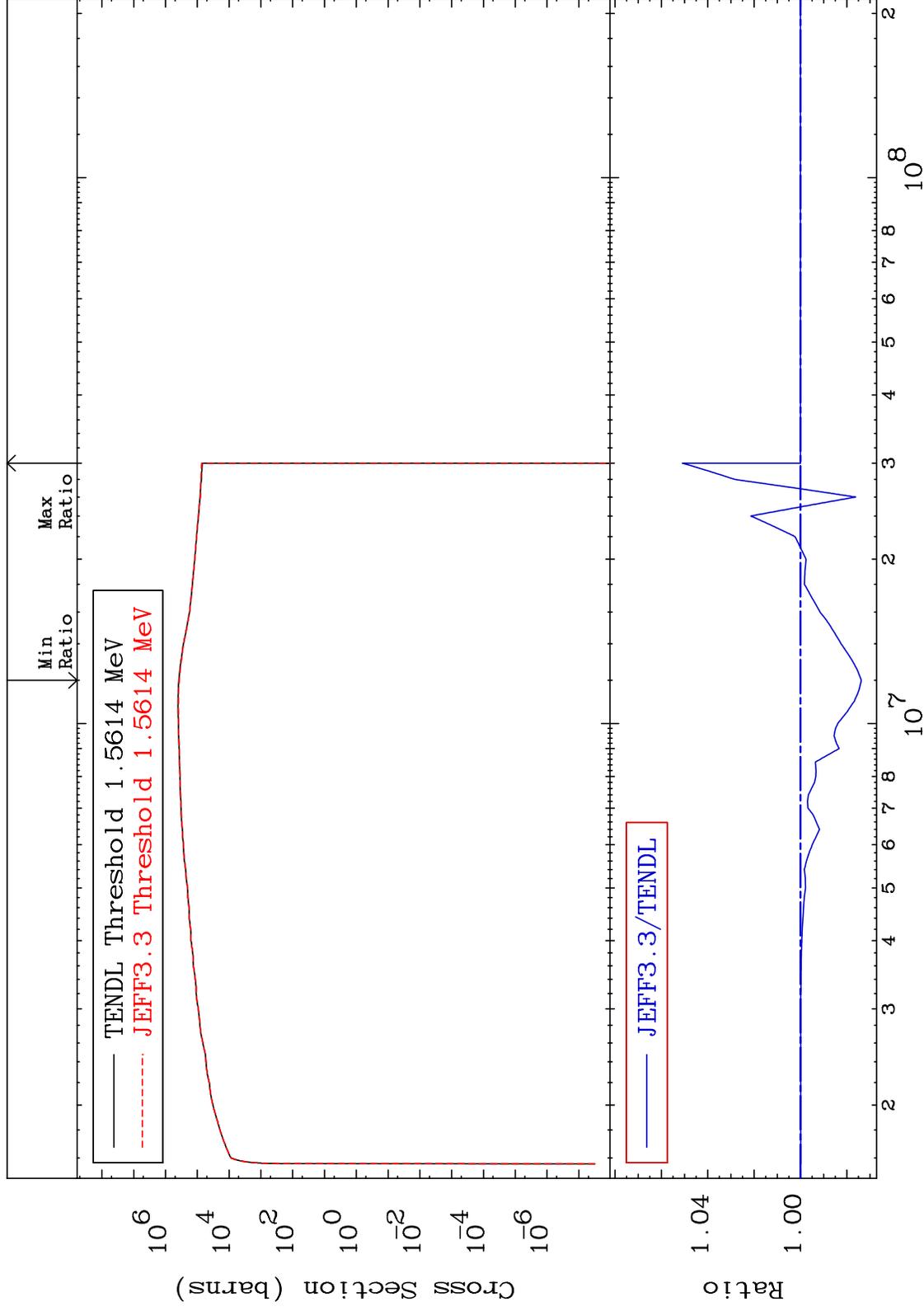
20-Ca-42  
-0.914 To 1227. %



MAT 2031

Kerma inelastic (mt51-91)  
Cross Section

20-Ca-42  
-2.621 To 5.093 %



70

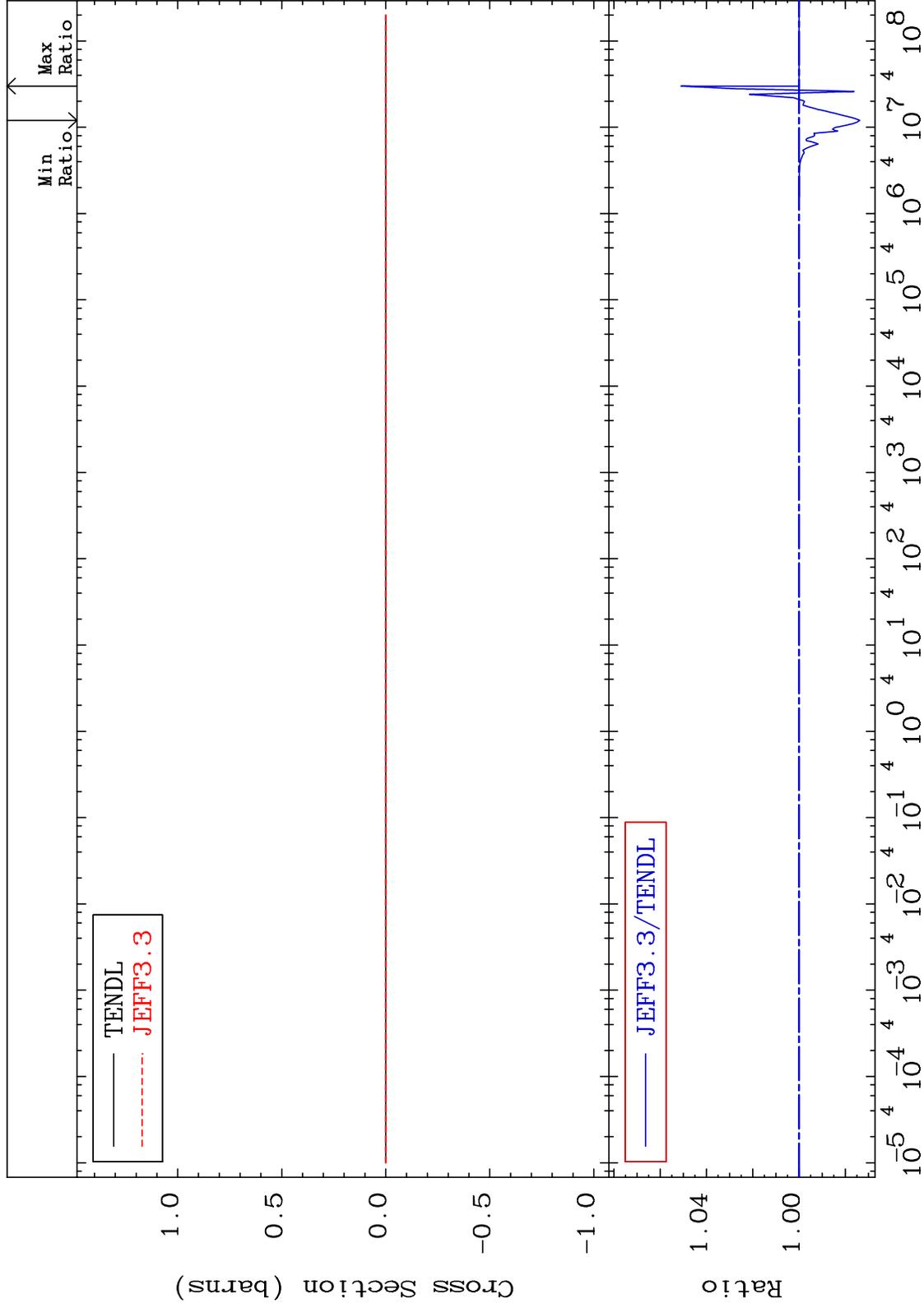
Incident Energy (eV)

20-Ca-42

MAT 2031

Kerma fission (mt18 or mt19-20-21-38)  
Cross Section

20-Ca-42  
-2.621 To 5.093 %



71

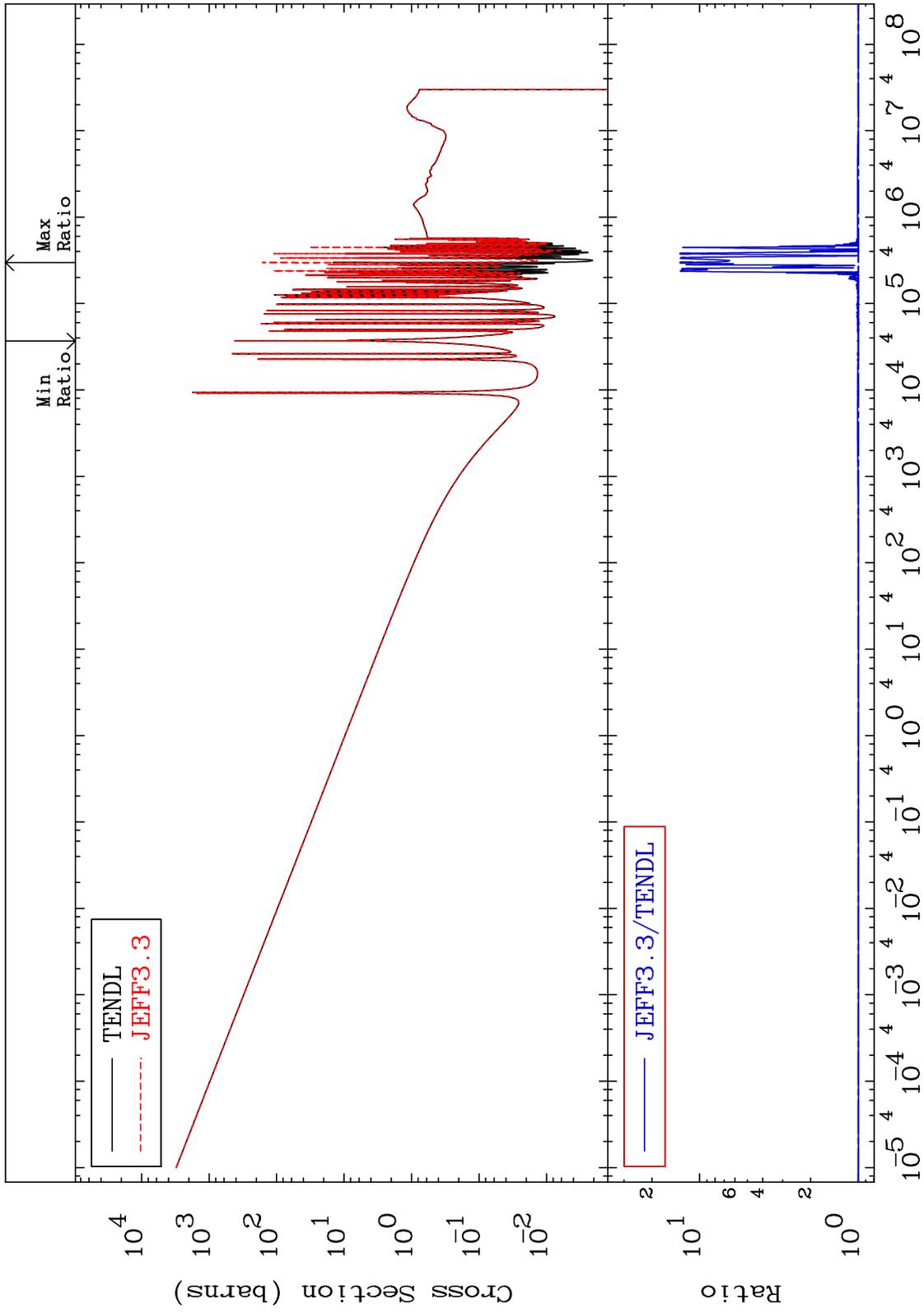
Incident Energy (eV)

20-Ca-42

MAT 2031

Kerma capture (mt102)  
Cross Section

20-Ca-42  
-0.914 To 1227. %



72

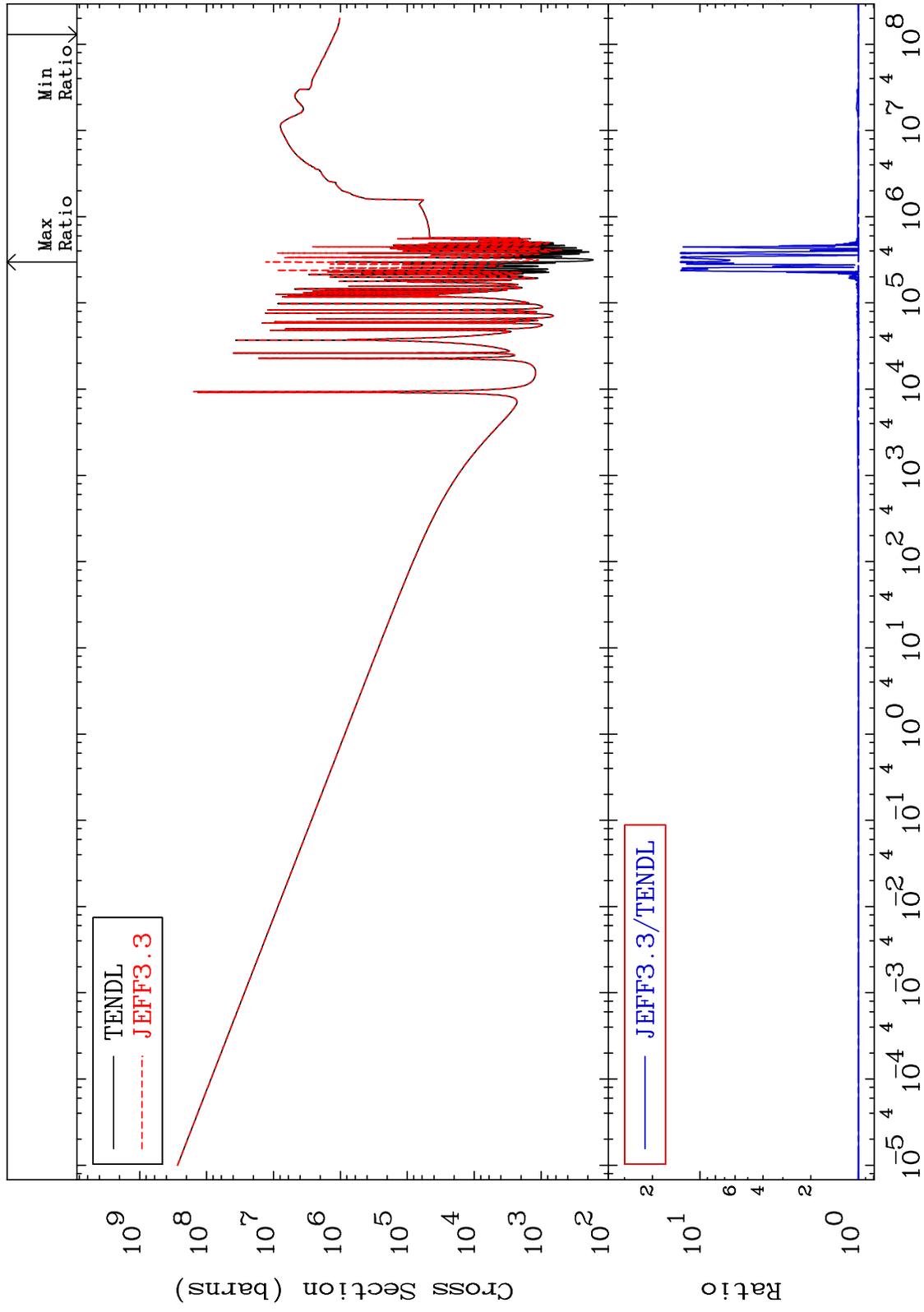
Incident Energy (eV)

20-Ca-42

MAT 2031

Total photon (eV-barns)  
Cross Section

20-Ca-42  
-1.020 To 1227. %



73

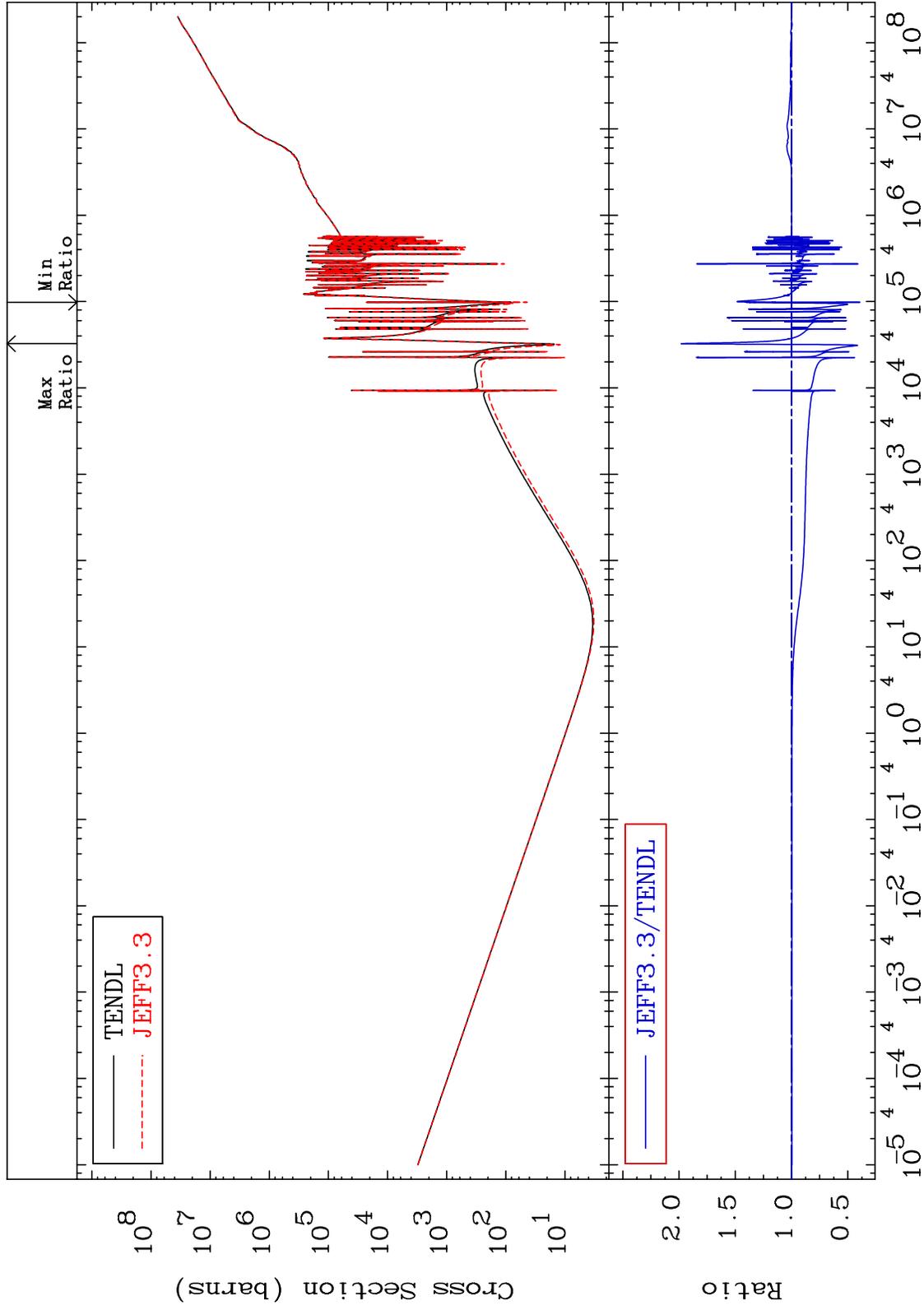
Incident Energy (eV)

20-Ca-42

MAT 2031

Total kinematic kerma (high limit)  
Cross Section

20-Ca-42  
-60.66 To 98.04 %



74

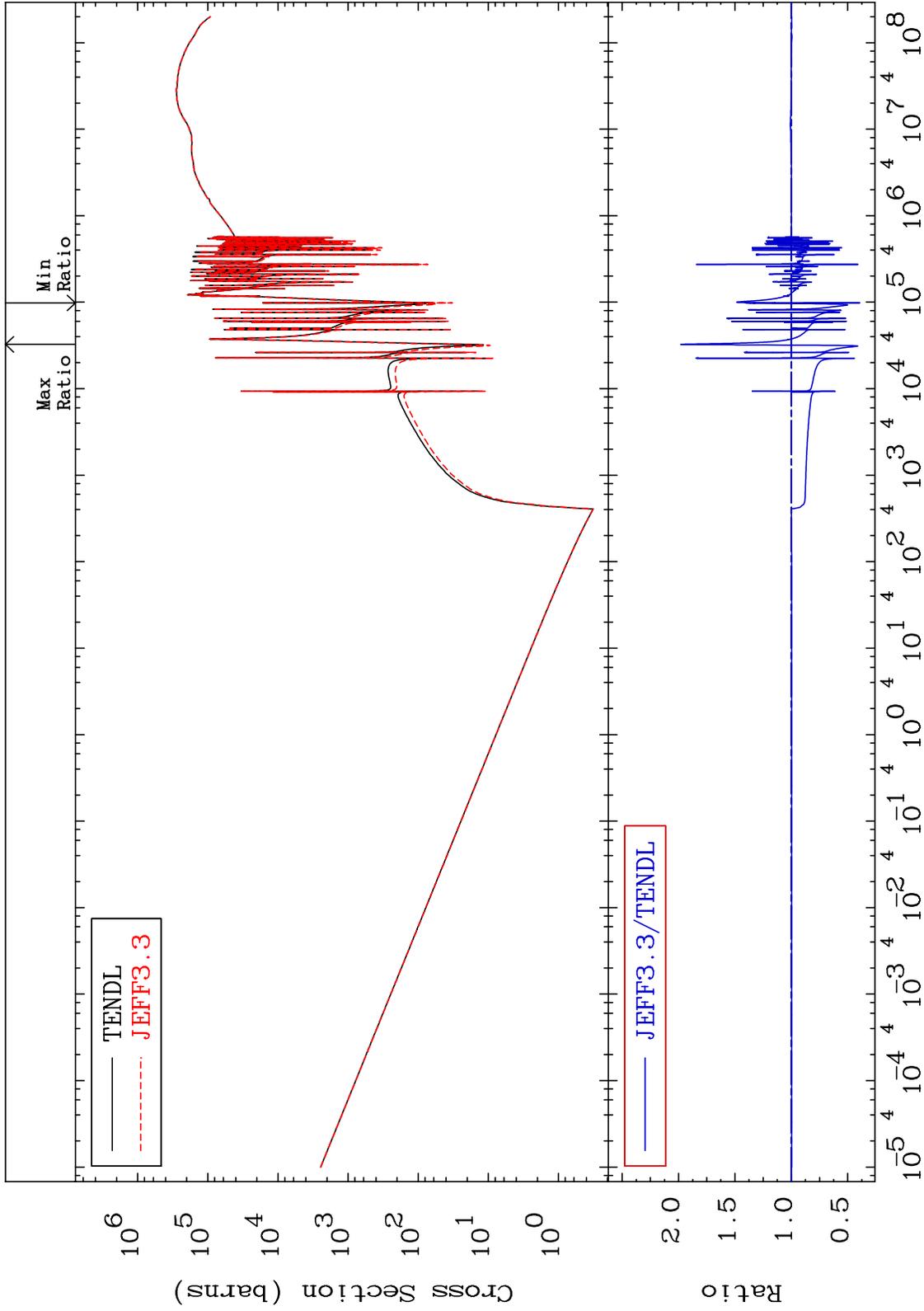
Incident Energy (eV)

20-Ca-42

MAT 2031

Dpa total (eV-barns)  
Cross Section

20-Ca-42  
-60.63 To 98.03 %



75

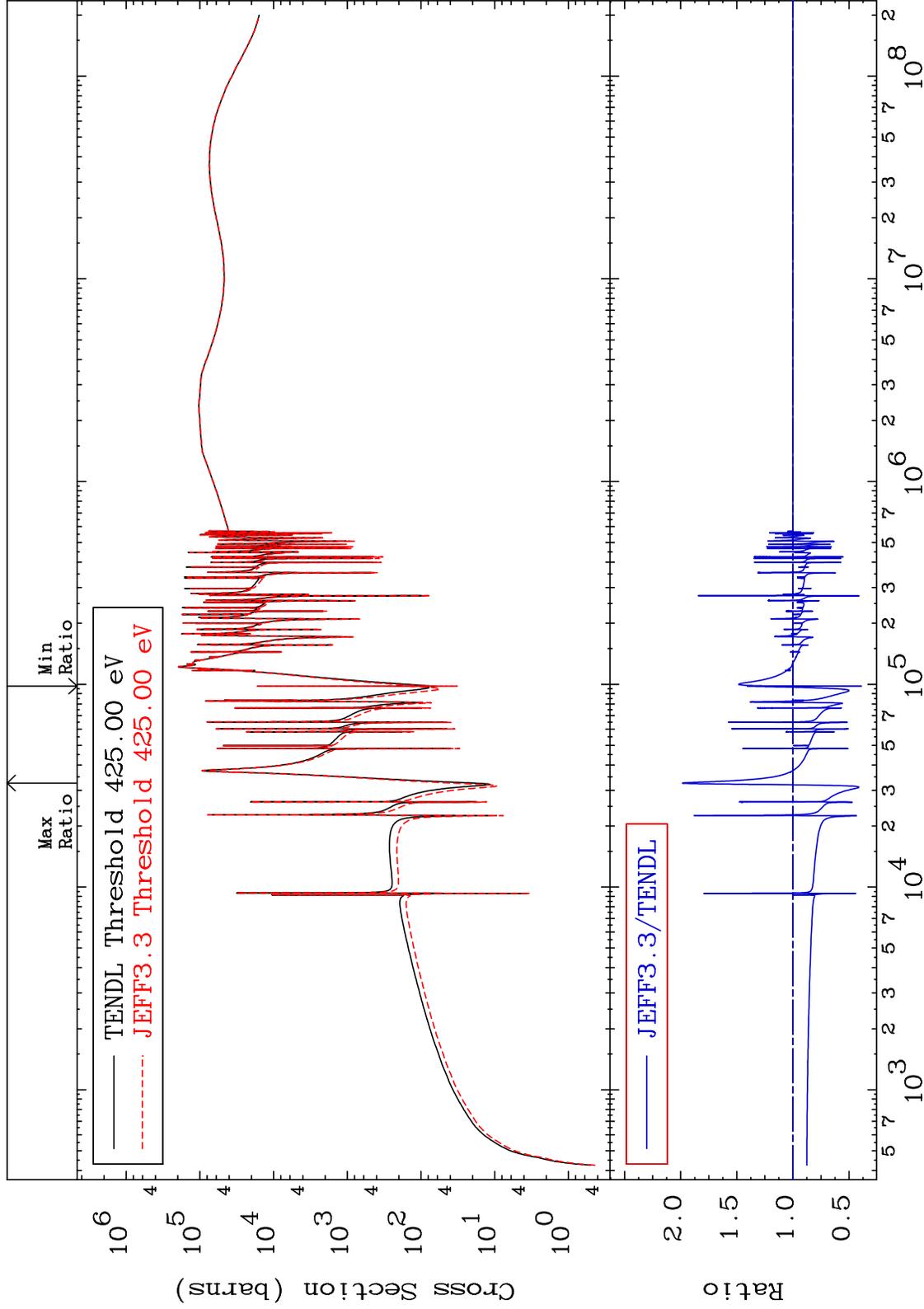
Incident Energy (eV)

20-Ca-42

MAT 2031

Dpa elastic (mt2)  
Cross Section

20-Ca-42  
-61.01 To 98.47 %

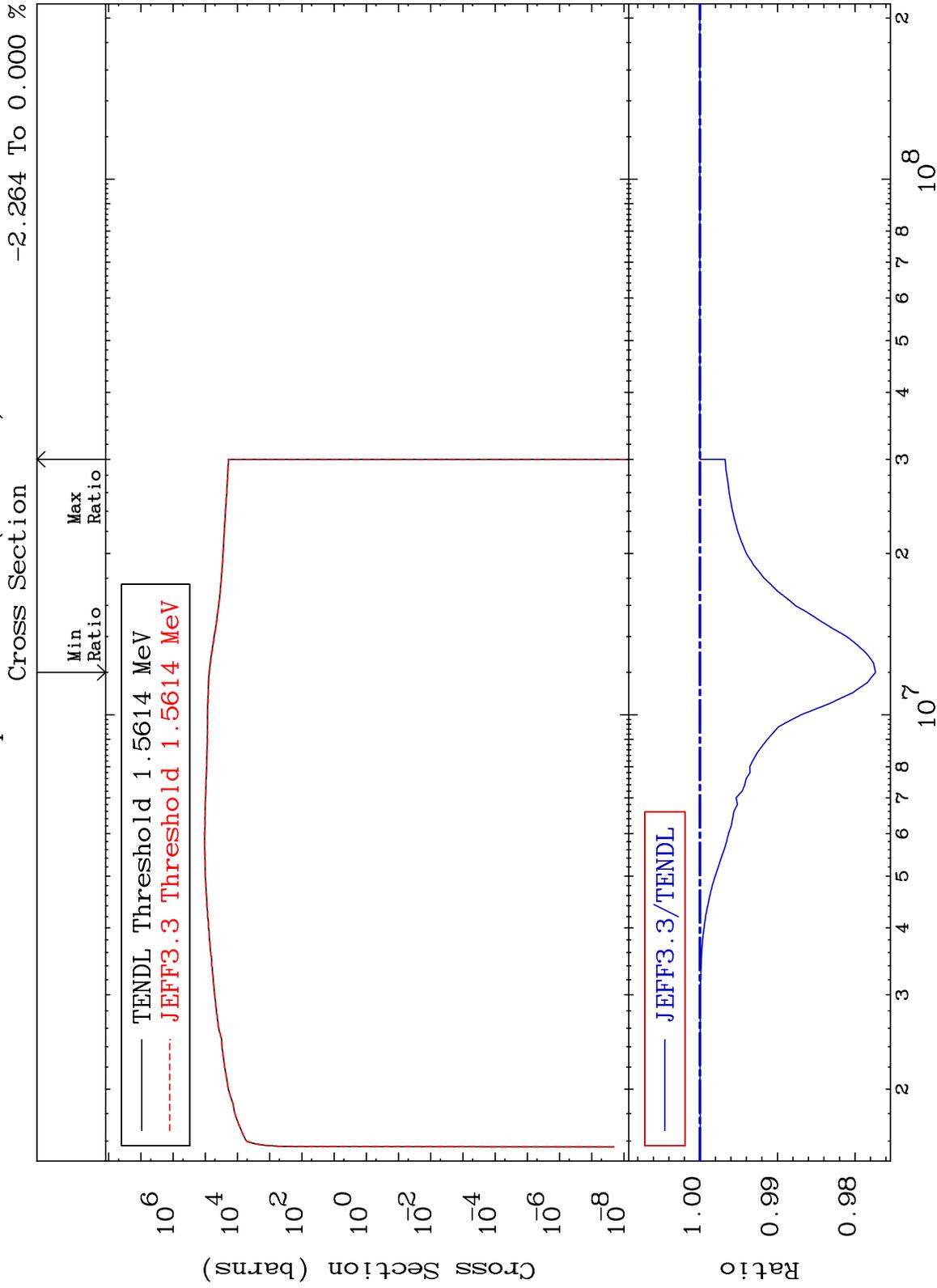


MAT 2031

Dpa inelastic (mt51-91)

20-Ca-42

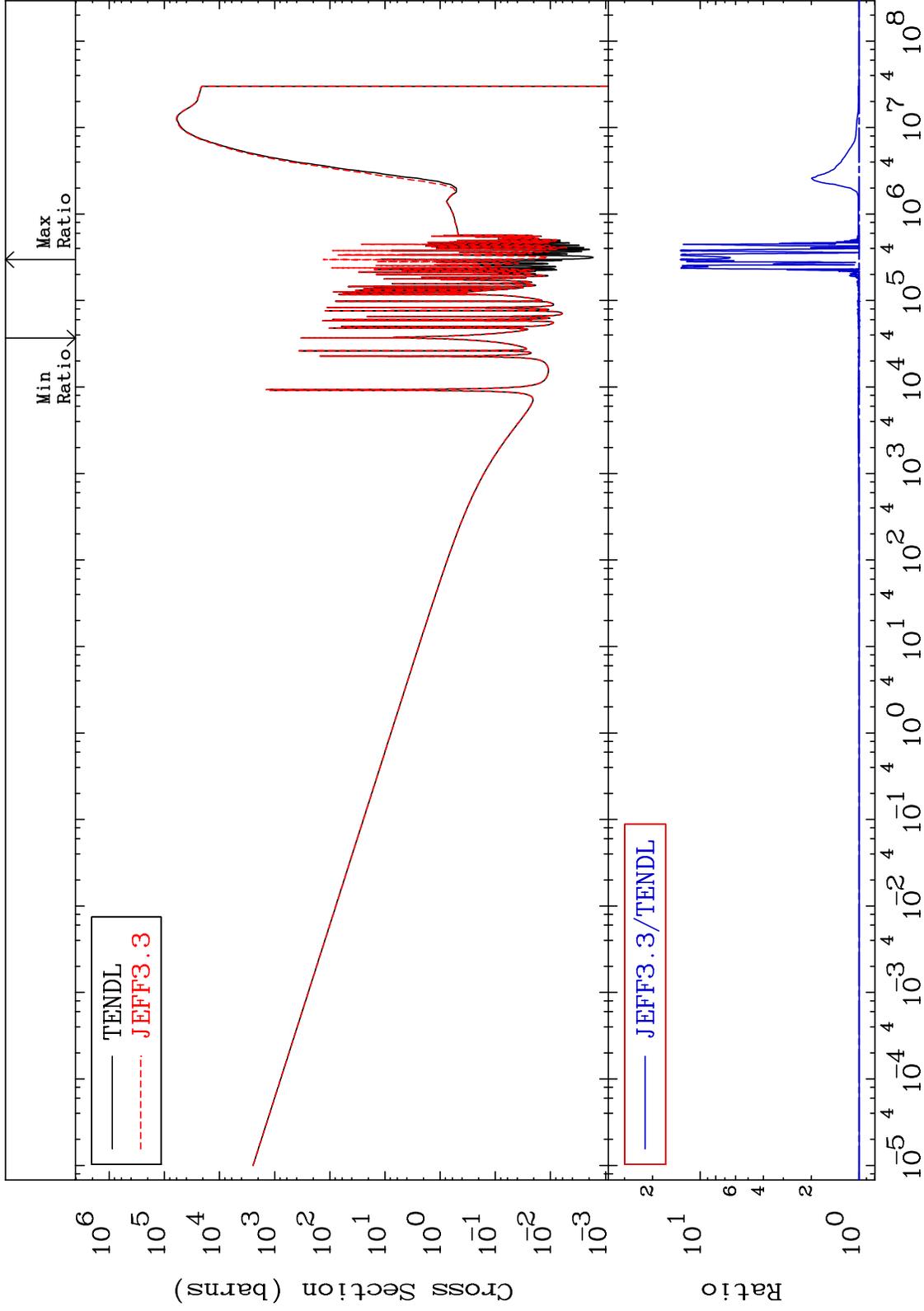
-2.264 To 0.000 %



MAT 2031

Dpa disappearance (mt102 -120)  
Cross Section

20-Ca-42  
-0.914 To 1227. %



78

Incident Energy (eV)

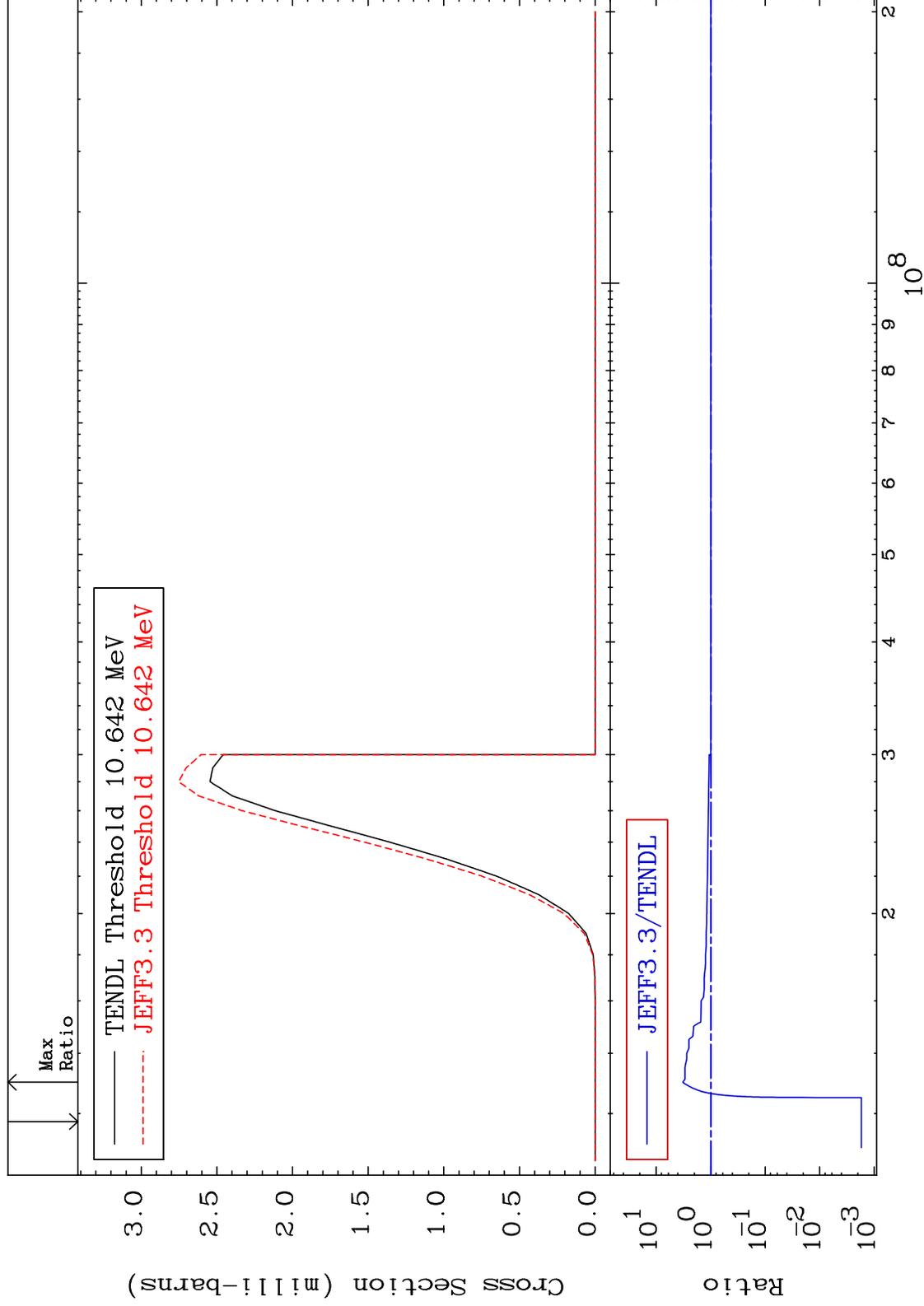
20-Ca-42

MAT 2031

(n,p)  $\alpha$ : 17-Cl-38g

20-Ca-42

Radionuclide Production Cross Section -99.83 To 226.9 %



MAT 2031 (n,p)  $\alpha$ : 17-Cl-38m1 20-Ca-42  
 Radionuclide Production Cross Section 0.000 To 217.8 %

