

Program Complot  
(Version 2021-1)

by

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(Present Contact Information)

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U.S.A.

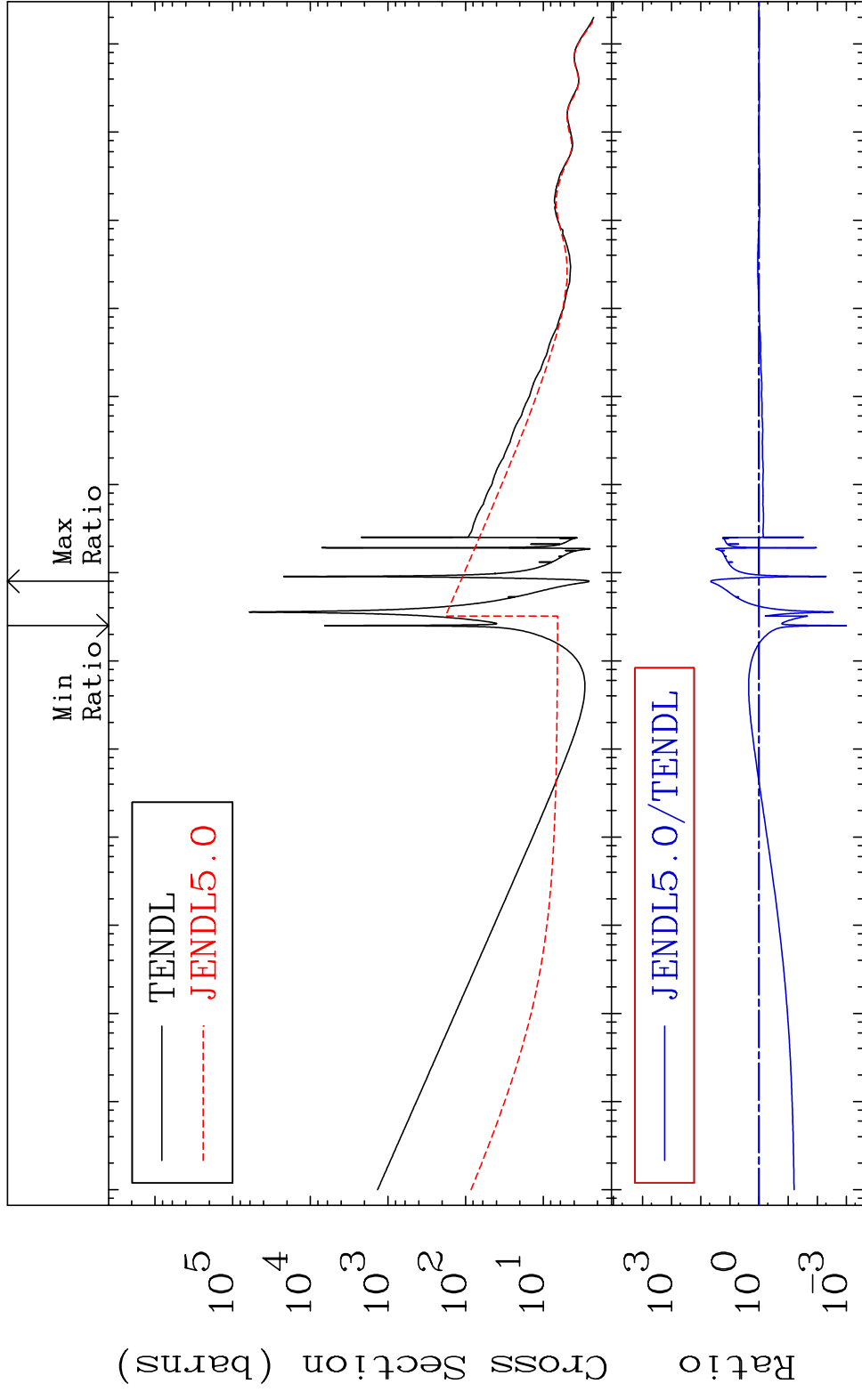
Tele: 925-443-1911

E.Mail:redcullen1@comcast.net  
Web:redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 6019

Total Cross Section -99.90 To 4451. %  
60-Nd-140



1

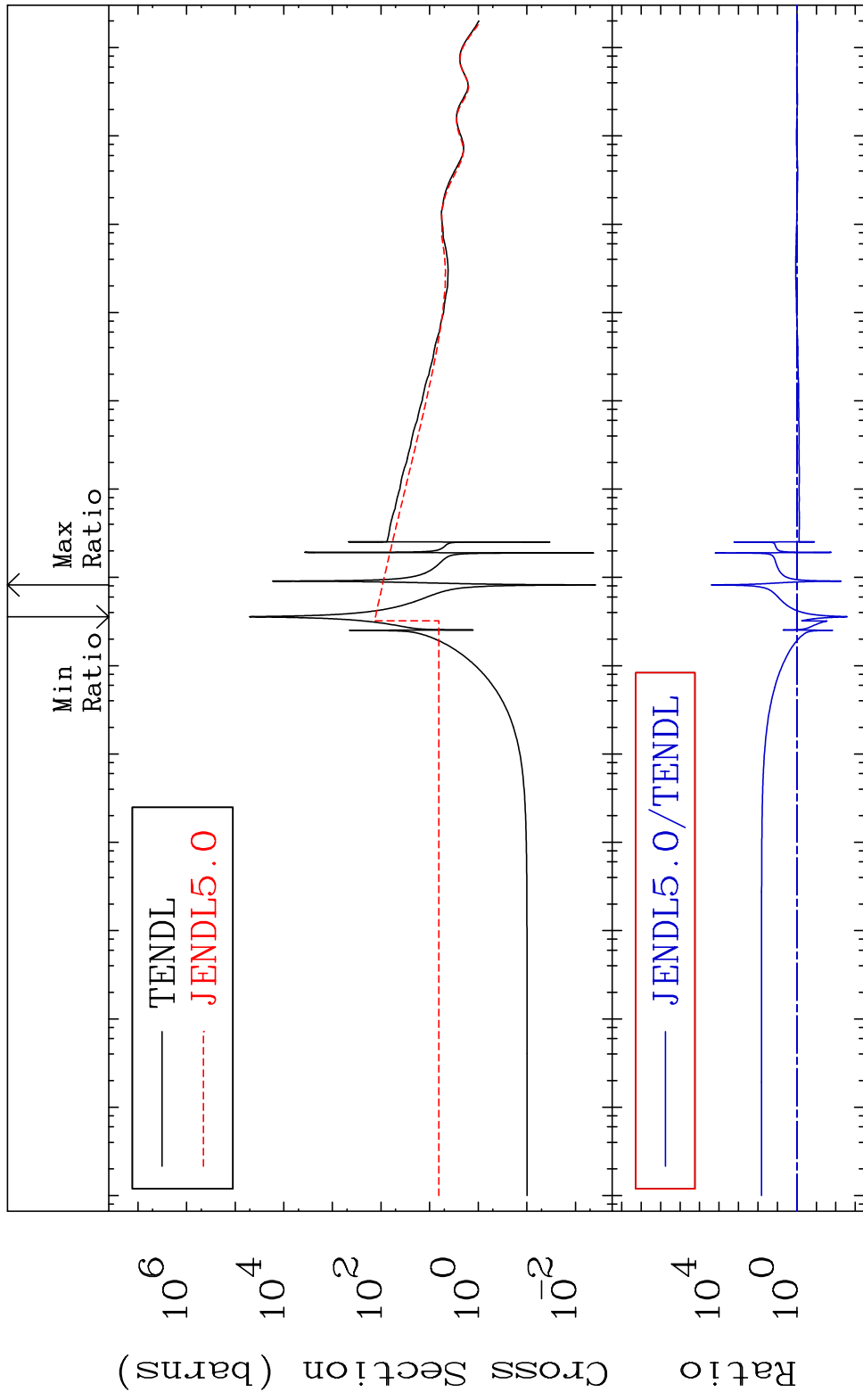
Incident Energy (eV) 60-Nd-140

MAT 6019

Elastic

60-Nd-140

Cross Section -99.74 To 9999. %

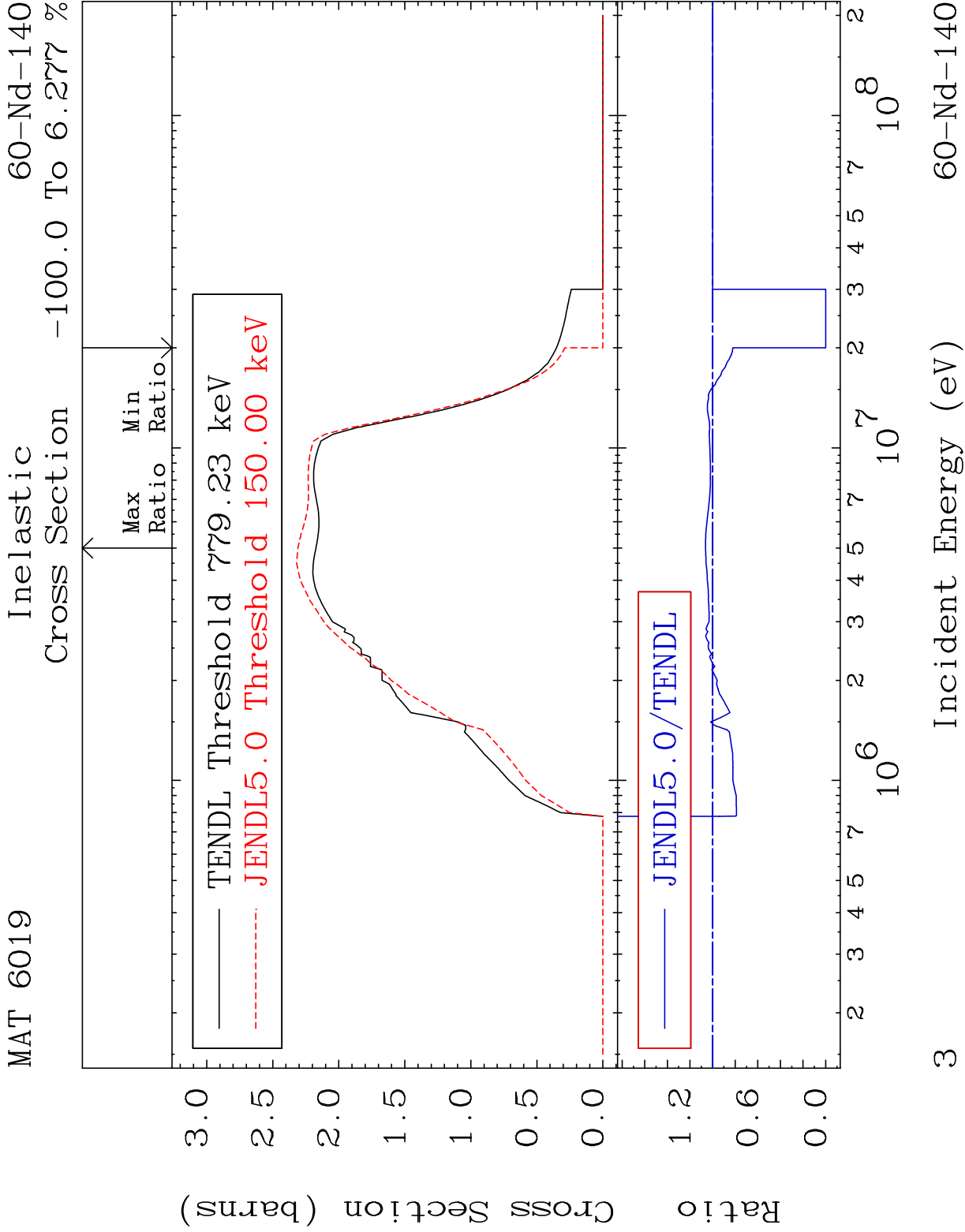


10<sup>-5</sup> 10<sup>-4</sup> 10<sup>-3</sup> 10<sup>-2</sup> 10<sup>-1</sup> 10<sup>0</sup> 10<sup>1</sup> 10<sup>2</sup> 10<sup>3</sup> 10<sup>4</sup> 10<sup>5</sup> 10<sup>6</sup> 10<sup>7</sup> 10<sup>8</sup>

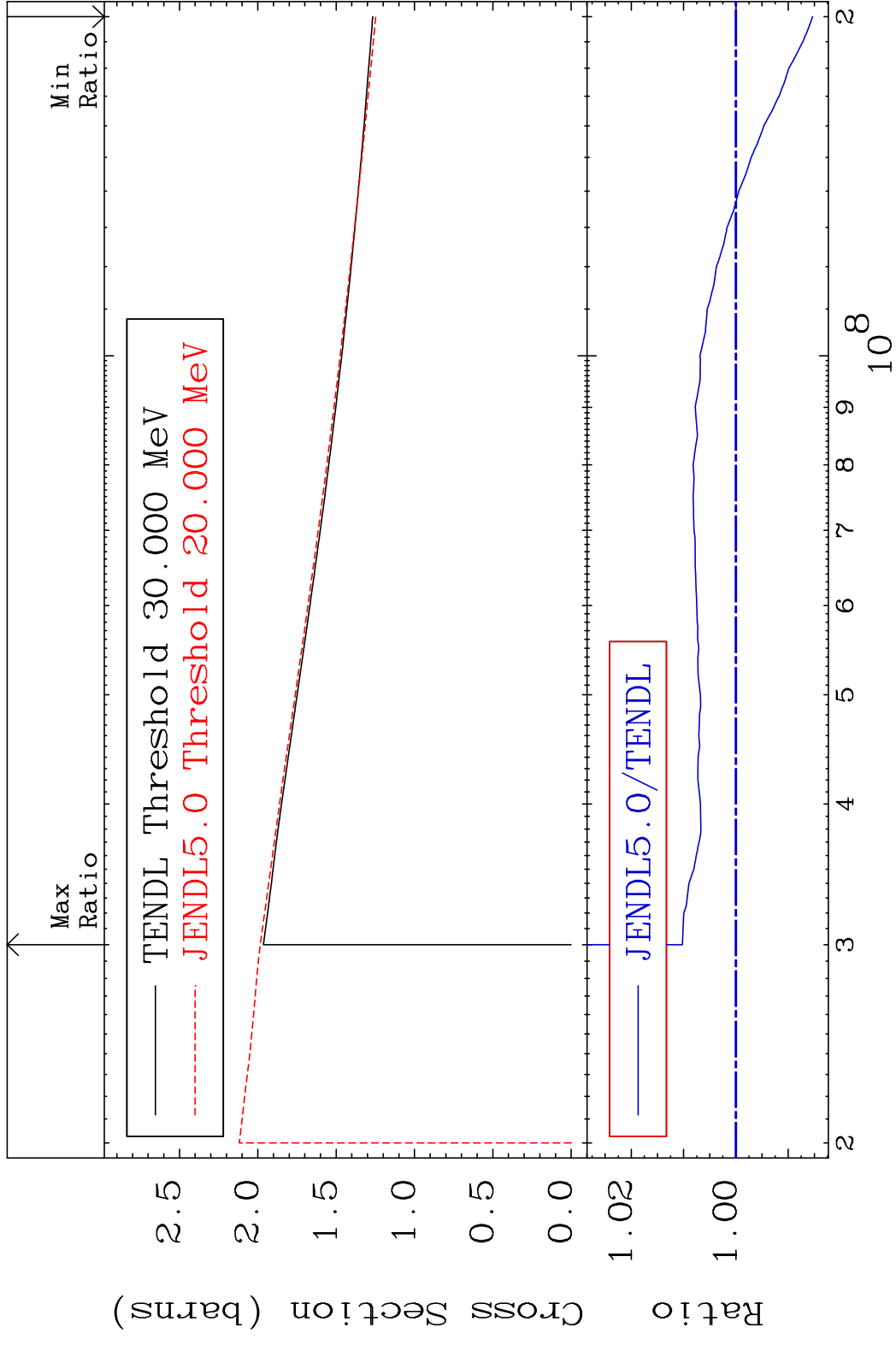
2

Incident Energy (eV)

60-Nd-140



MAT 6019 (n, remainder) 60-Nd-140  
 Cross Section -1.466 To 1.024 %



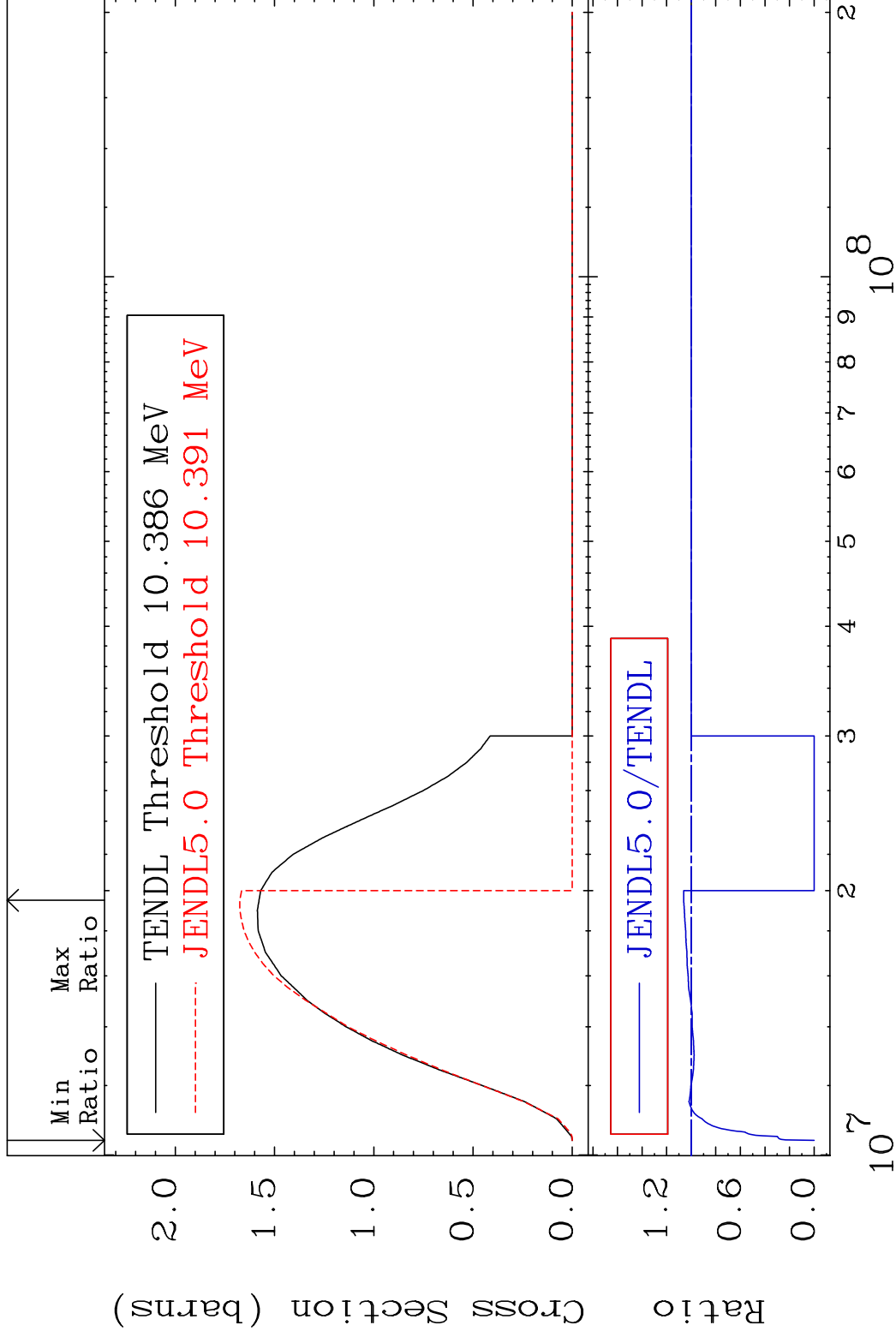
4 Incident Energy (eV) 60-Nd-140

MAT 6019

(n,2n)

60-Nd-140

Cross Section -100.0 To 6.147 %



5

Incident Energy (eV)

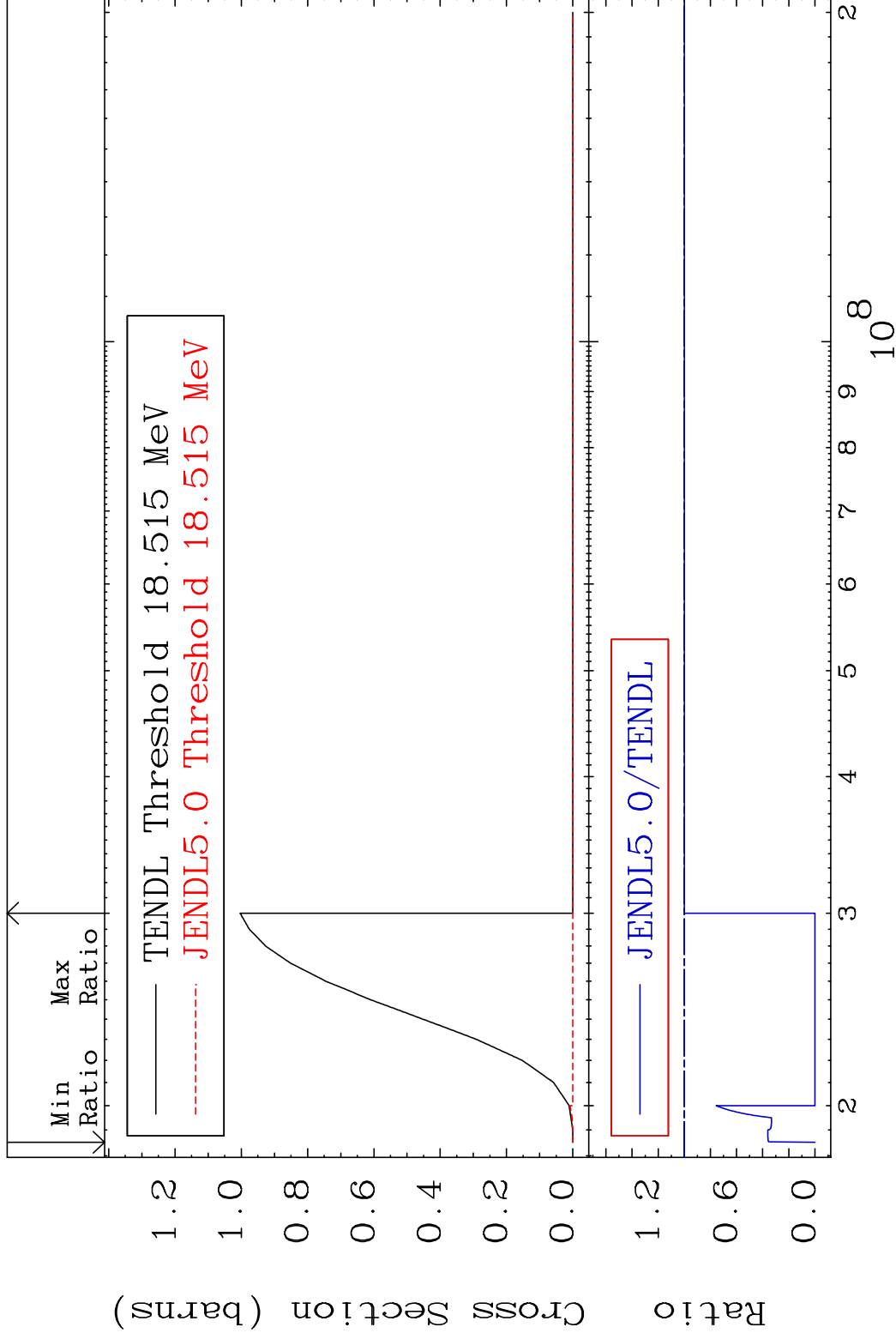
60-Nd-140

MAT 6019

(n,3n)

60-Nd-140

Cross Section -100.0 To 0.000 %

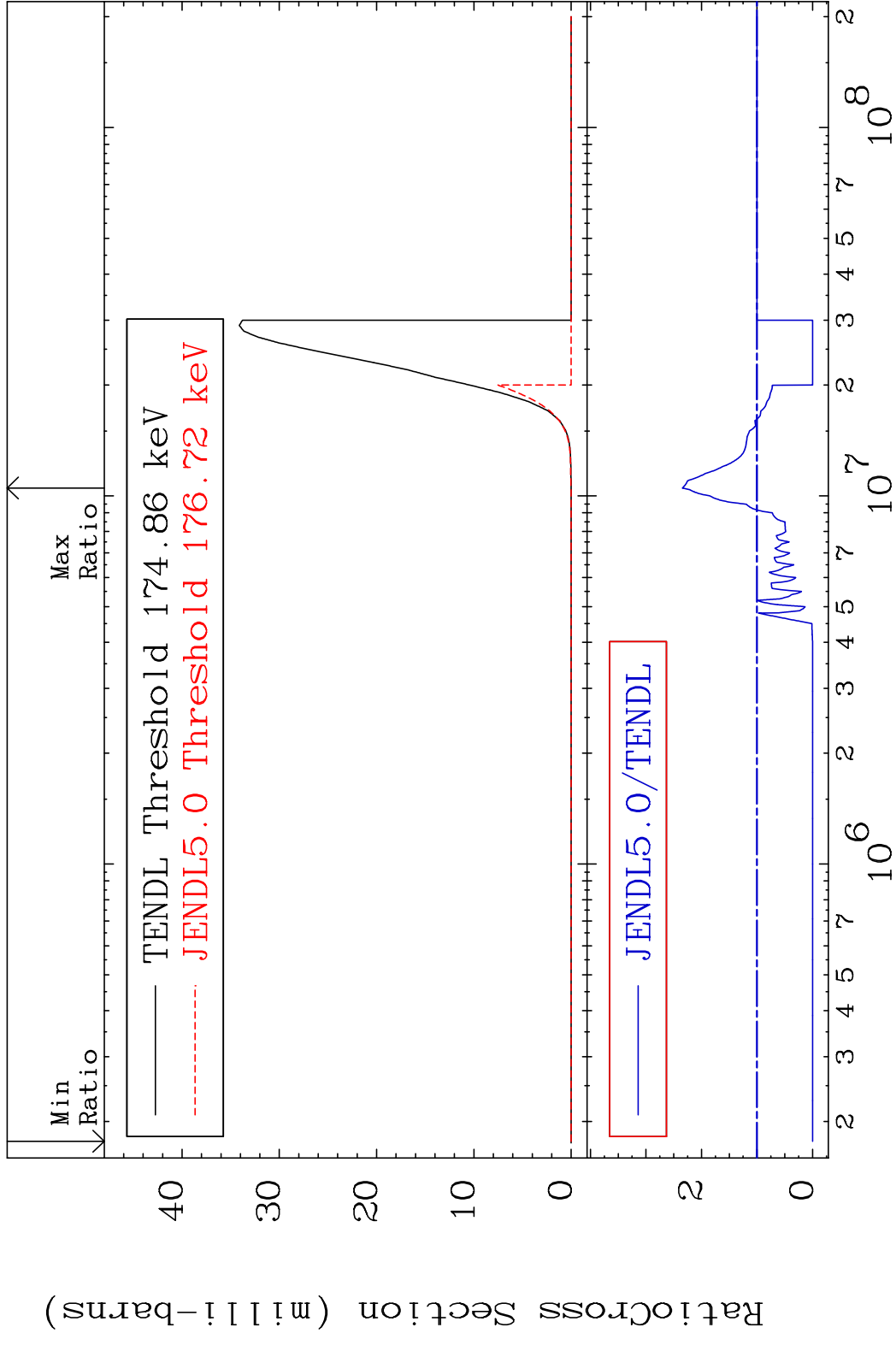


6

Incident Energy (eV)

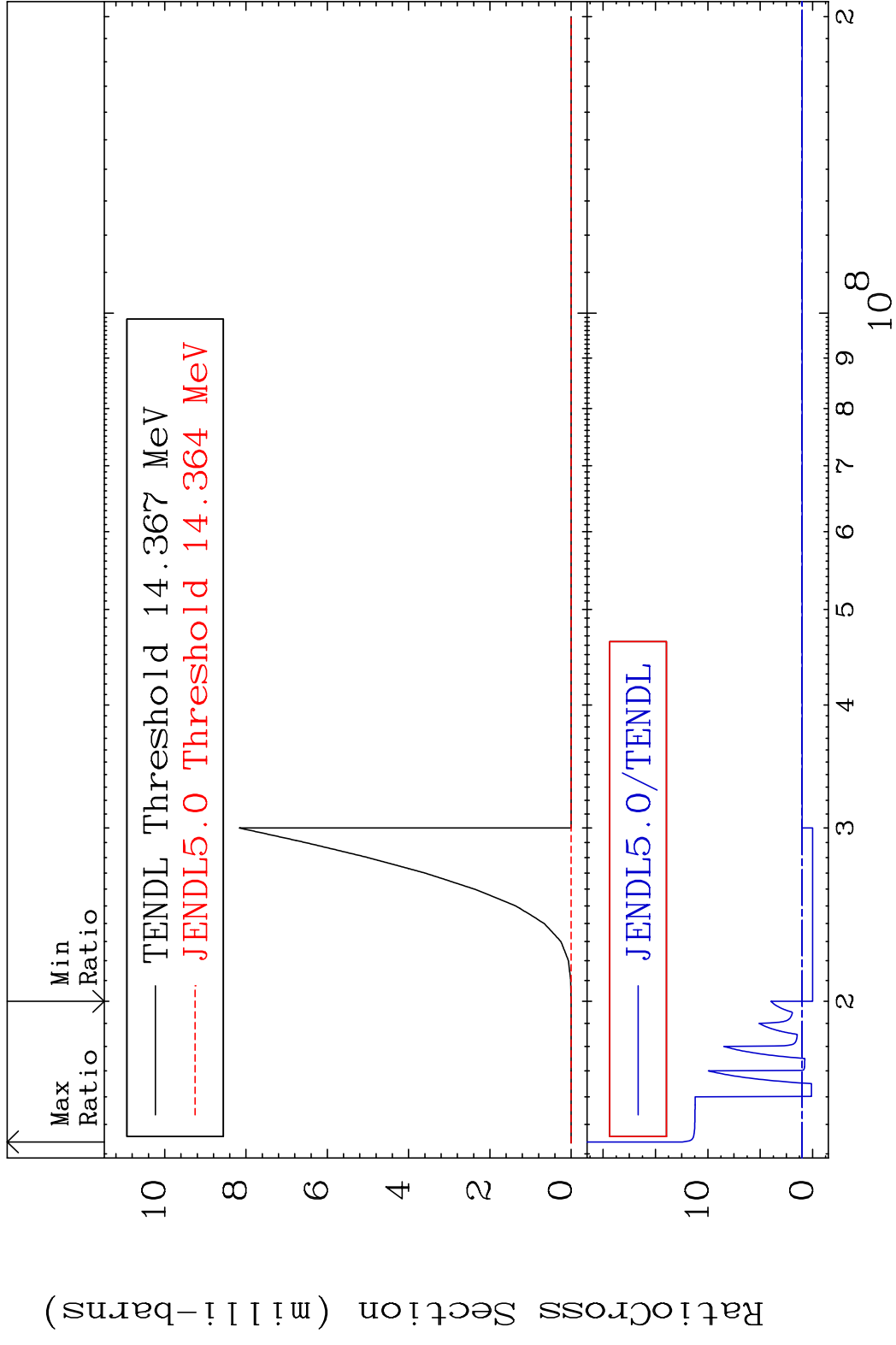
60-Nd-140

MAT 6019 (n, n')  $\alpha$  60-Nd-140  
 Cross Section -100.0 To 134.5 %

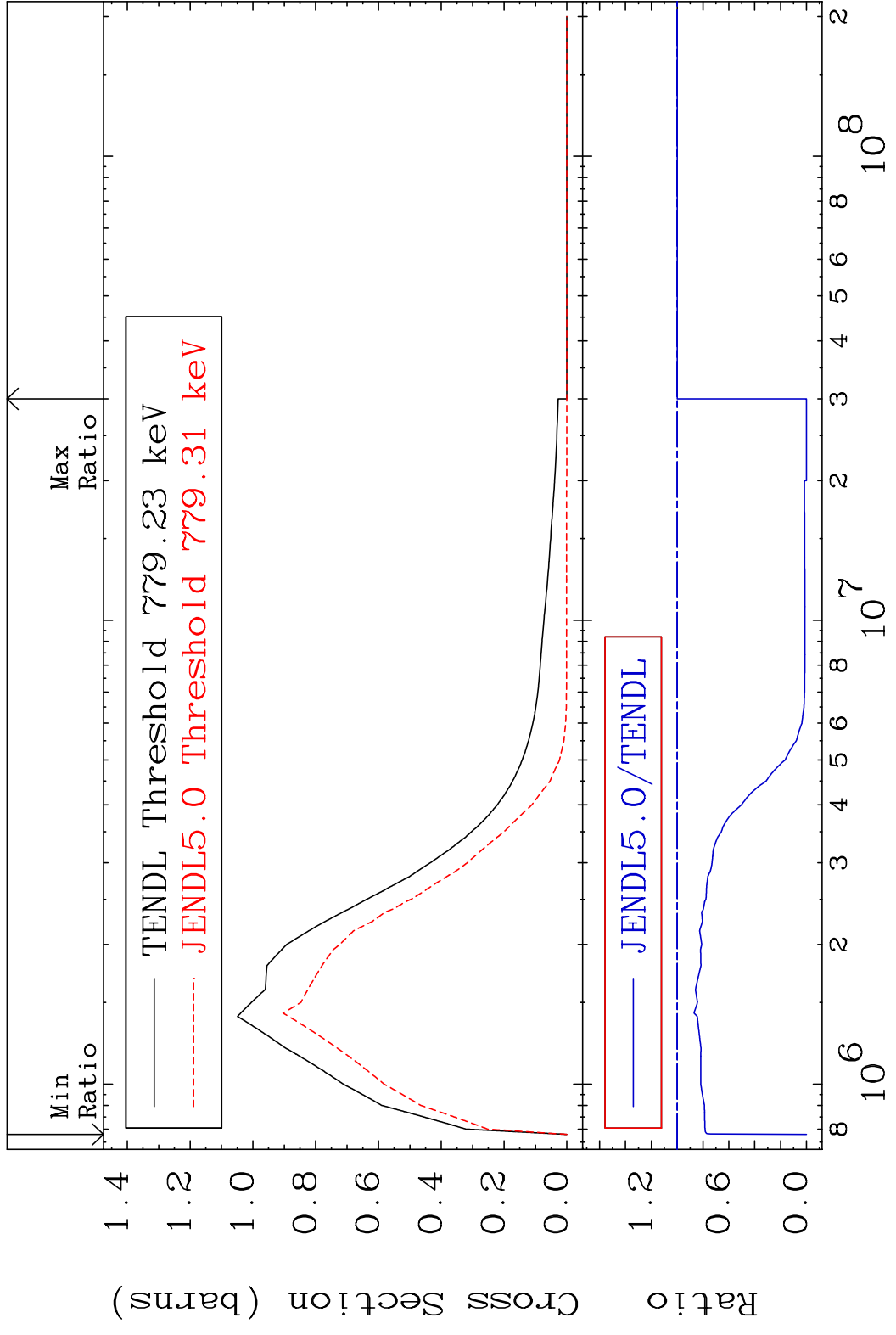




MAT 6019 (n, n') d 60-Nd-140  
 Cross Section -100.0 To 1143. %

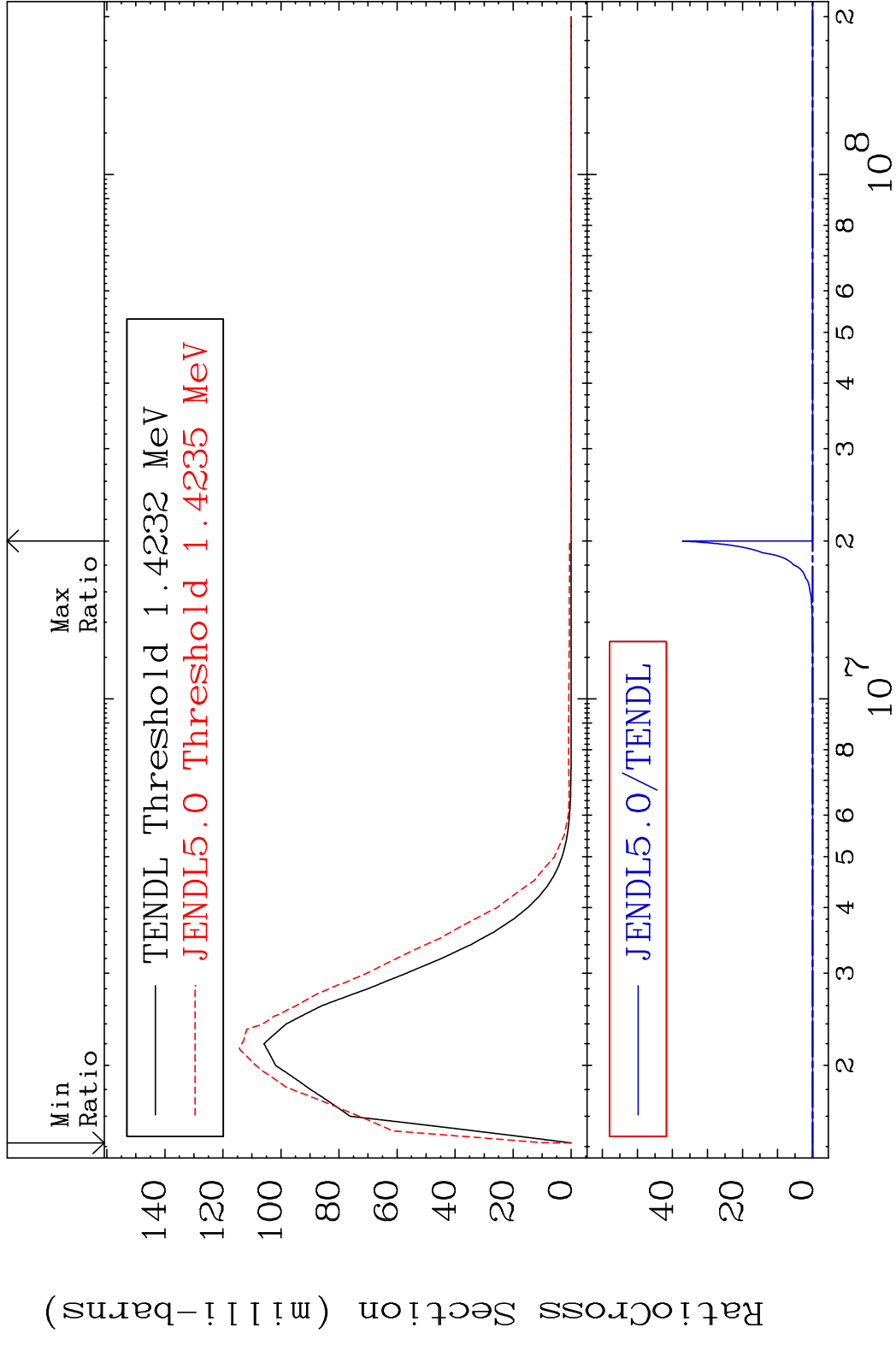


MAT 6019 MT= 51 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 0.000 %

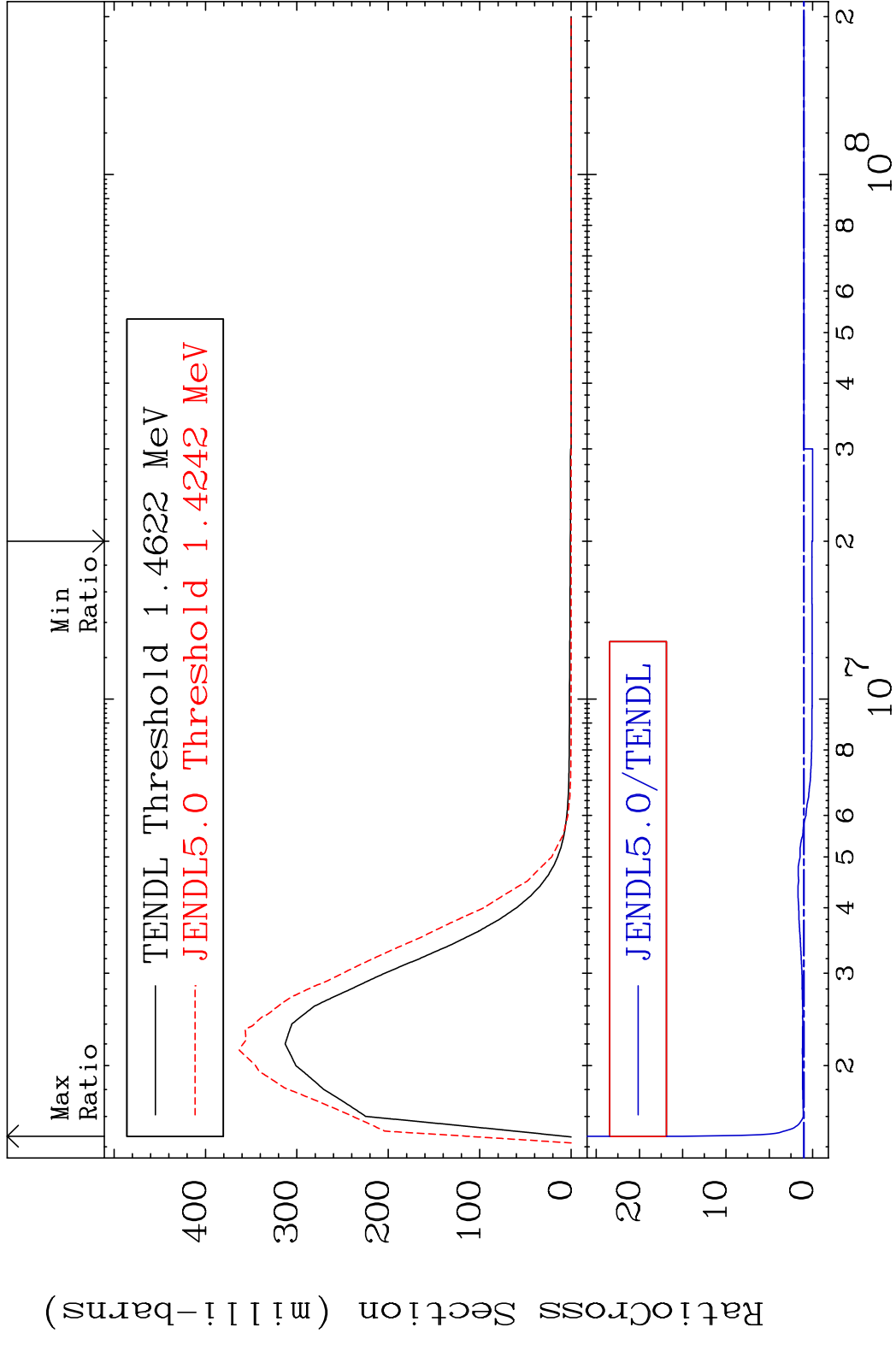


10 8 10<sup>6</sup> 10<sup>7</sup> 10<sup>8</sup> 2

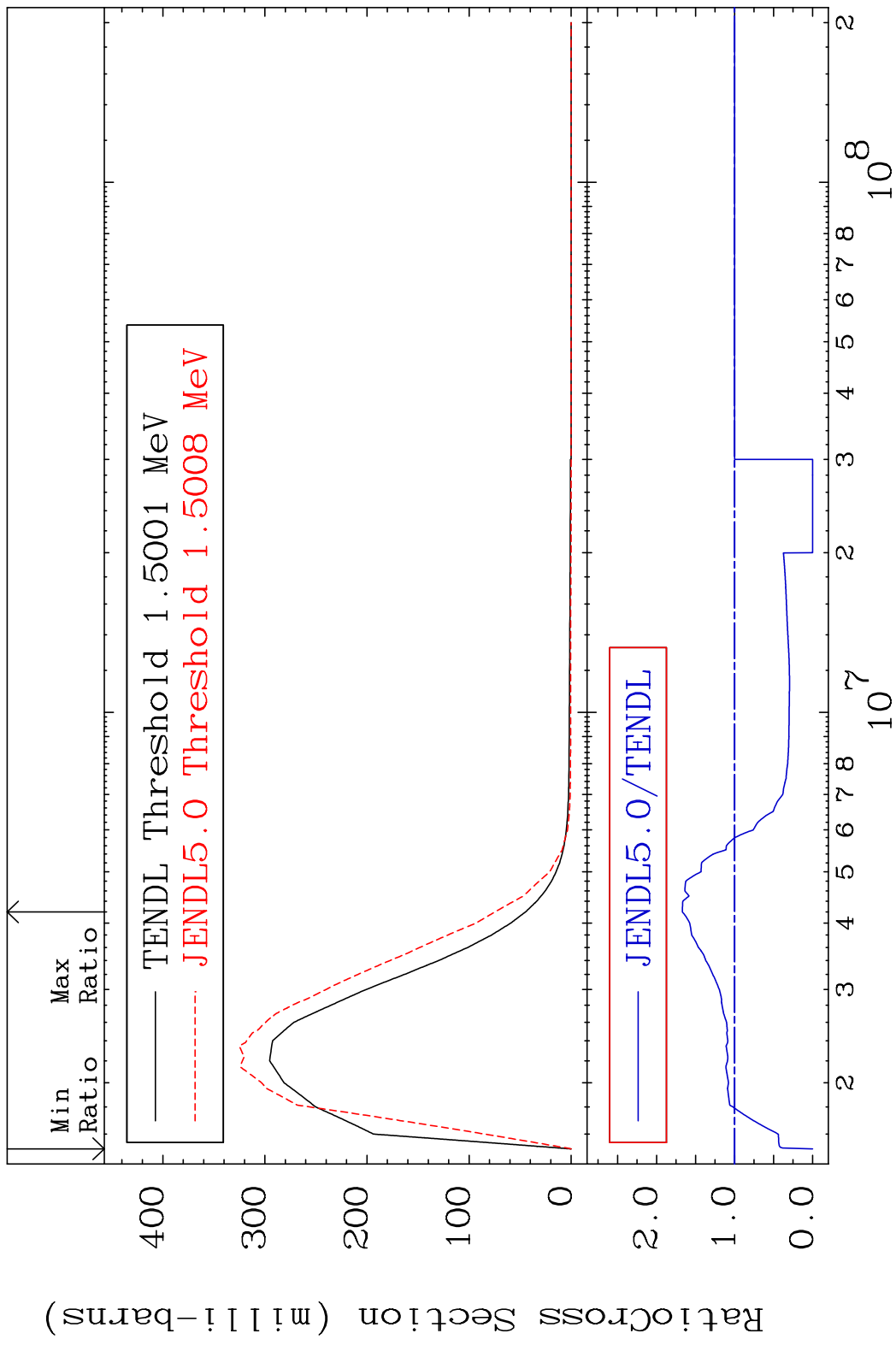
MAT 6019 MT= 52 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 9999. %



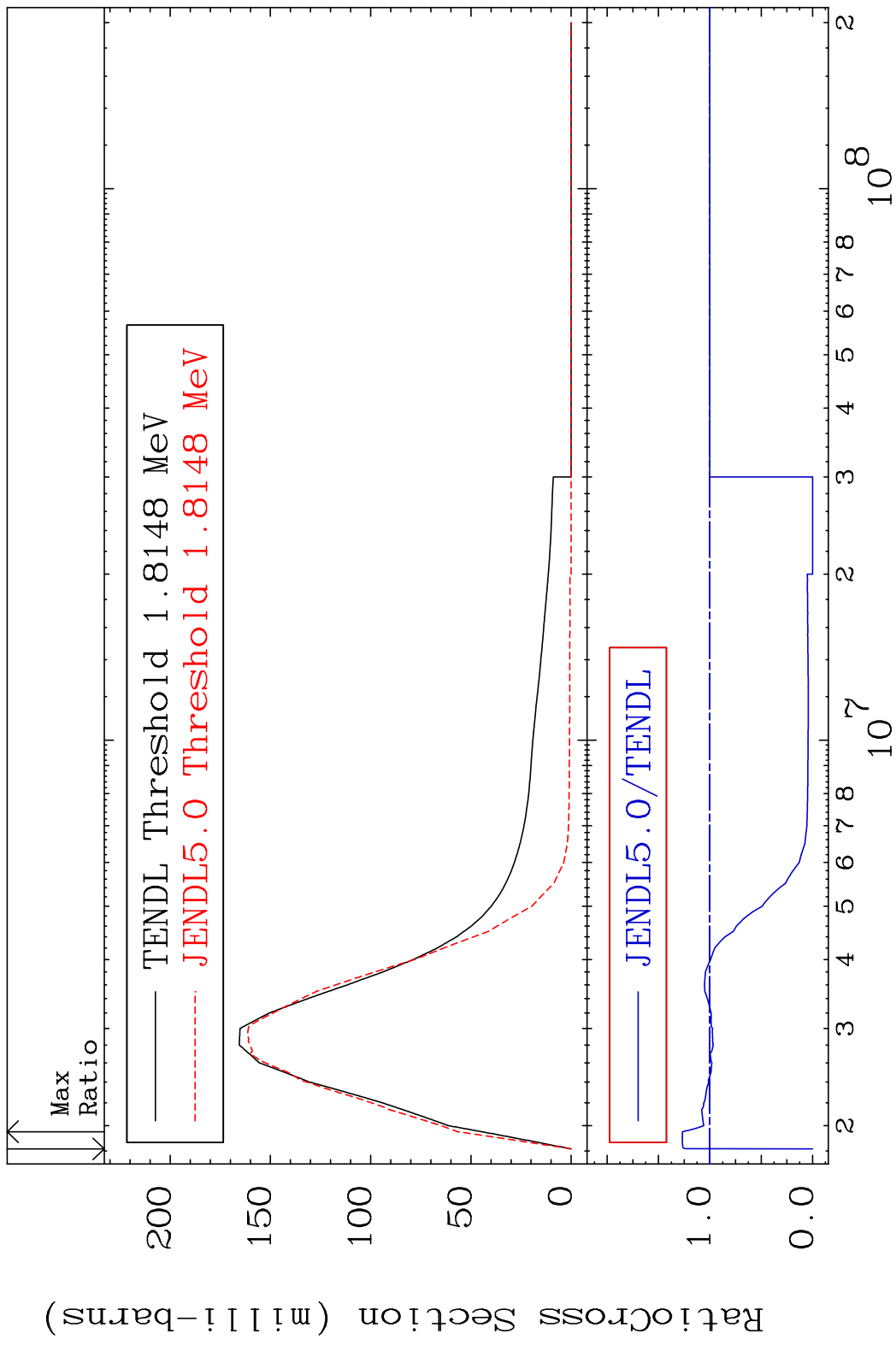
MAT 6019 MT= 53 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 1404. %



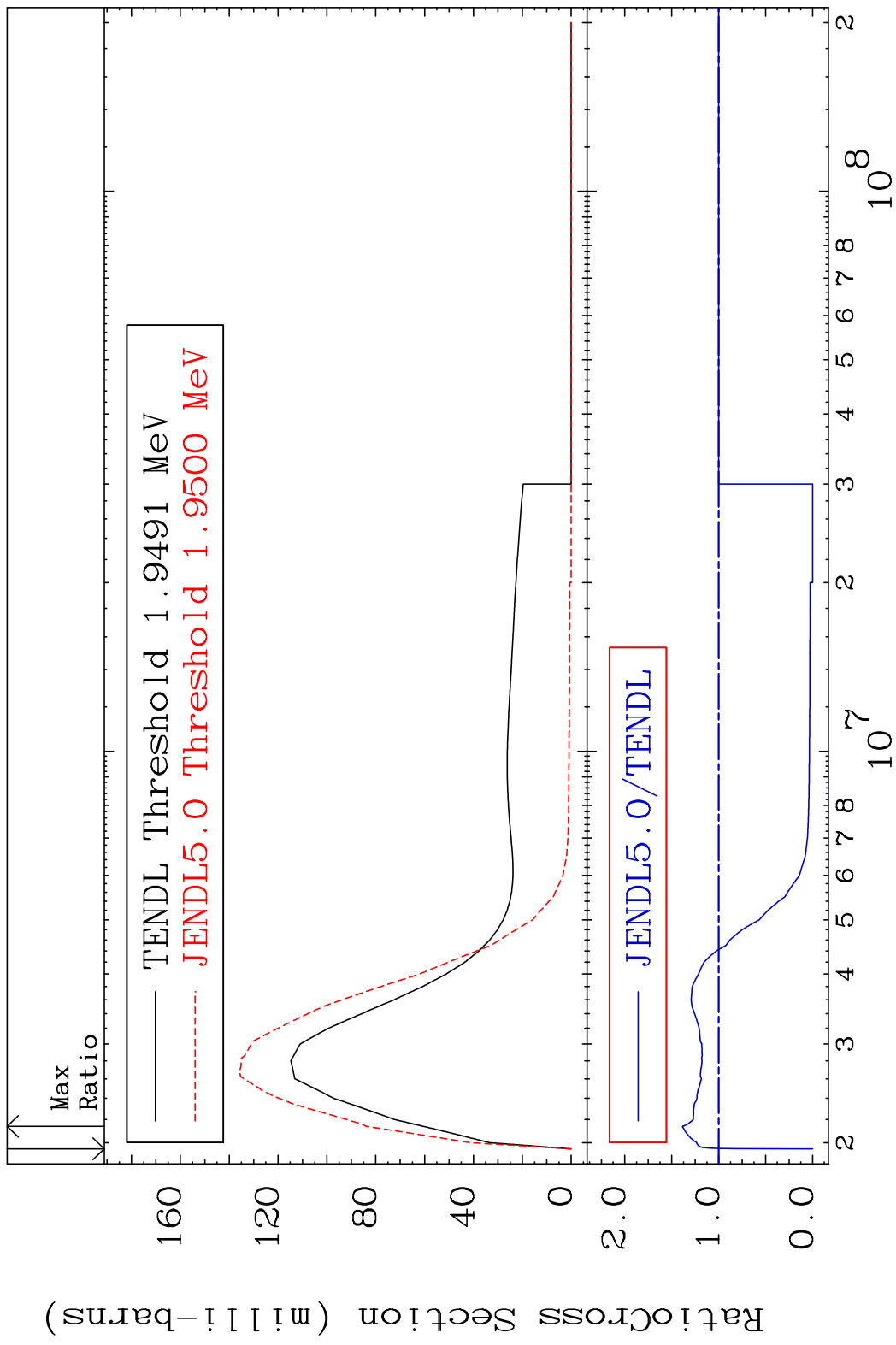
MAT 6019 MT= 54 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 66.97 %



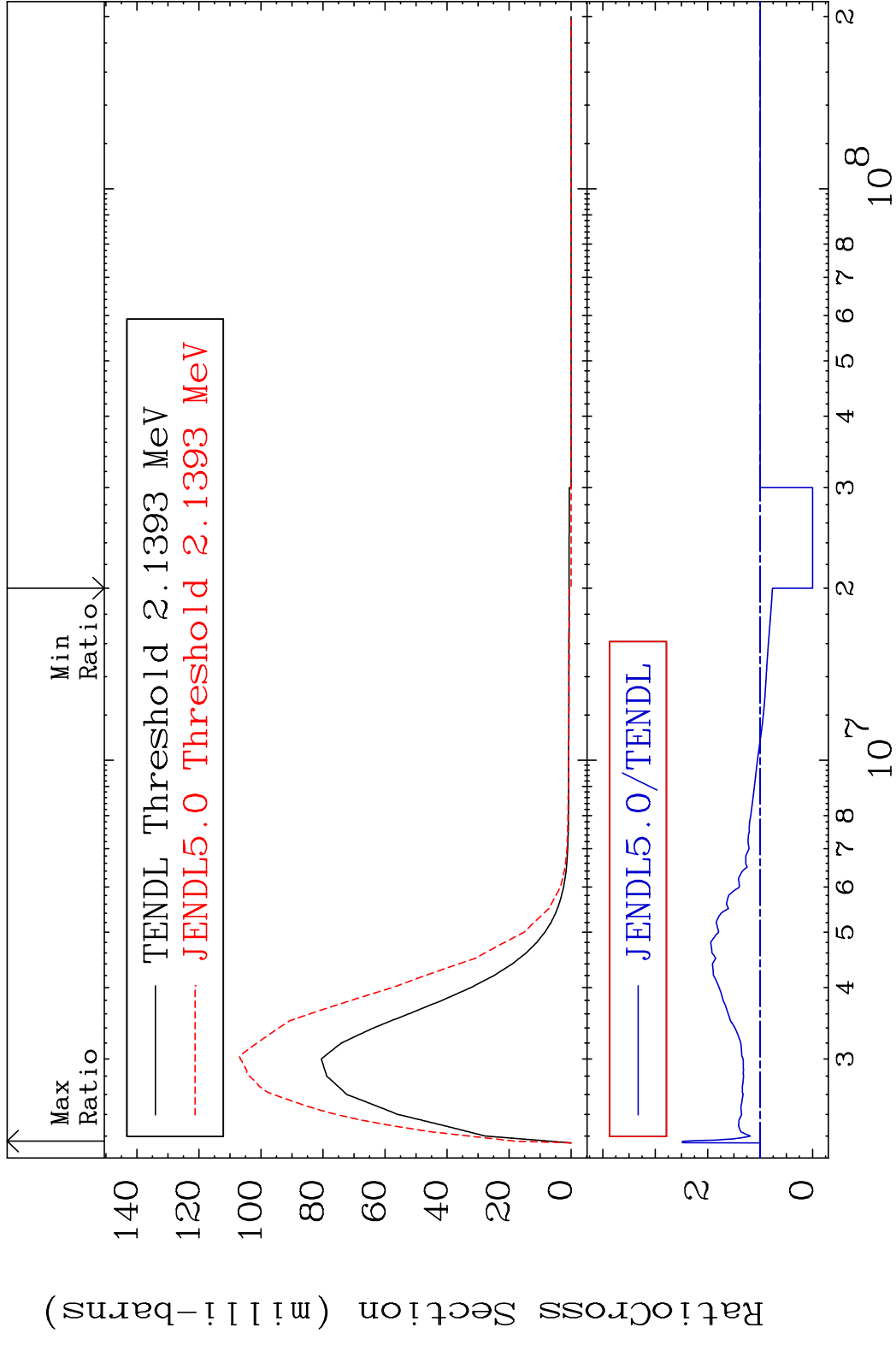
MAT 6019 MT= 55 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 26.78 %



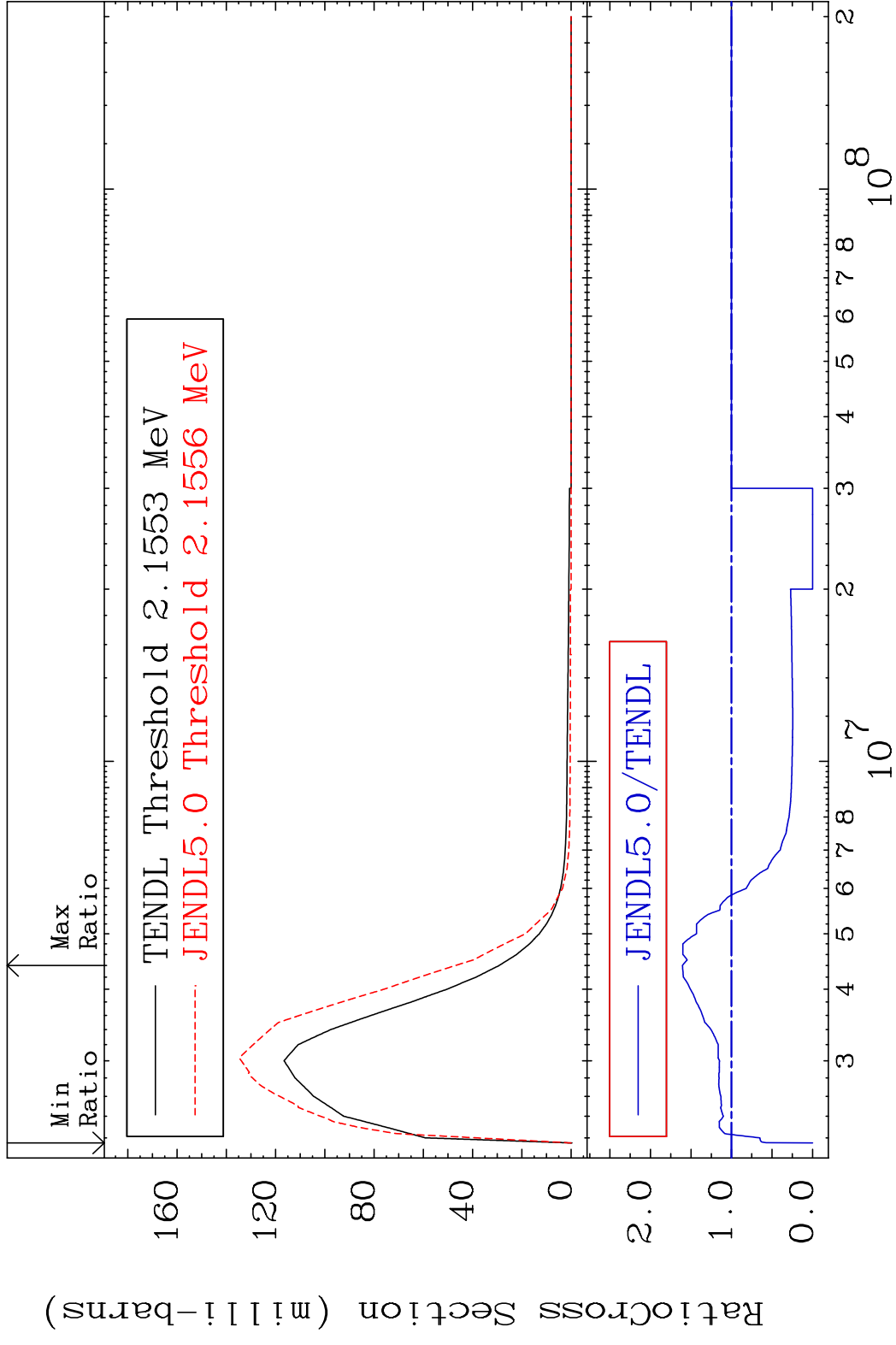
MAT 6019 MT= 56 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 38.70 %



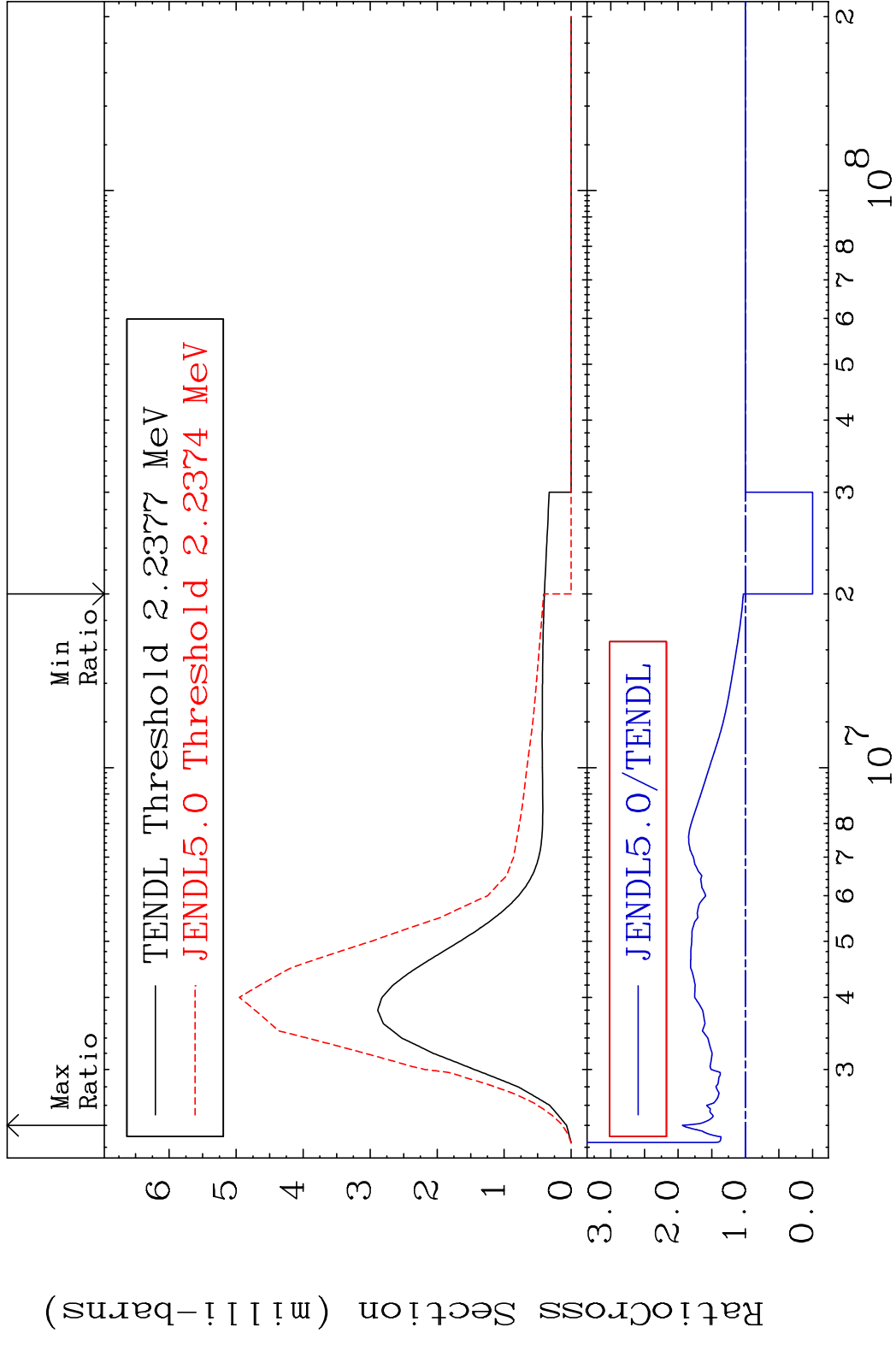
MAT 6019 MT= 57 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 148.2 %



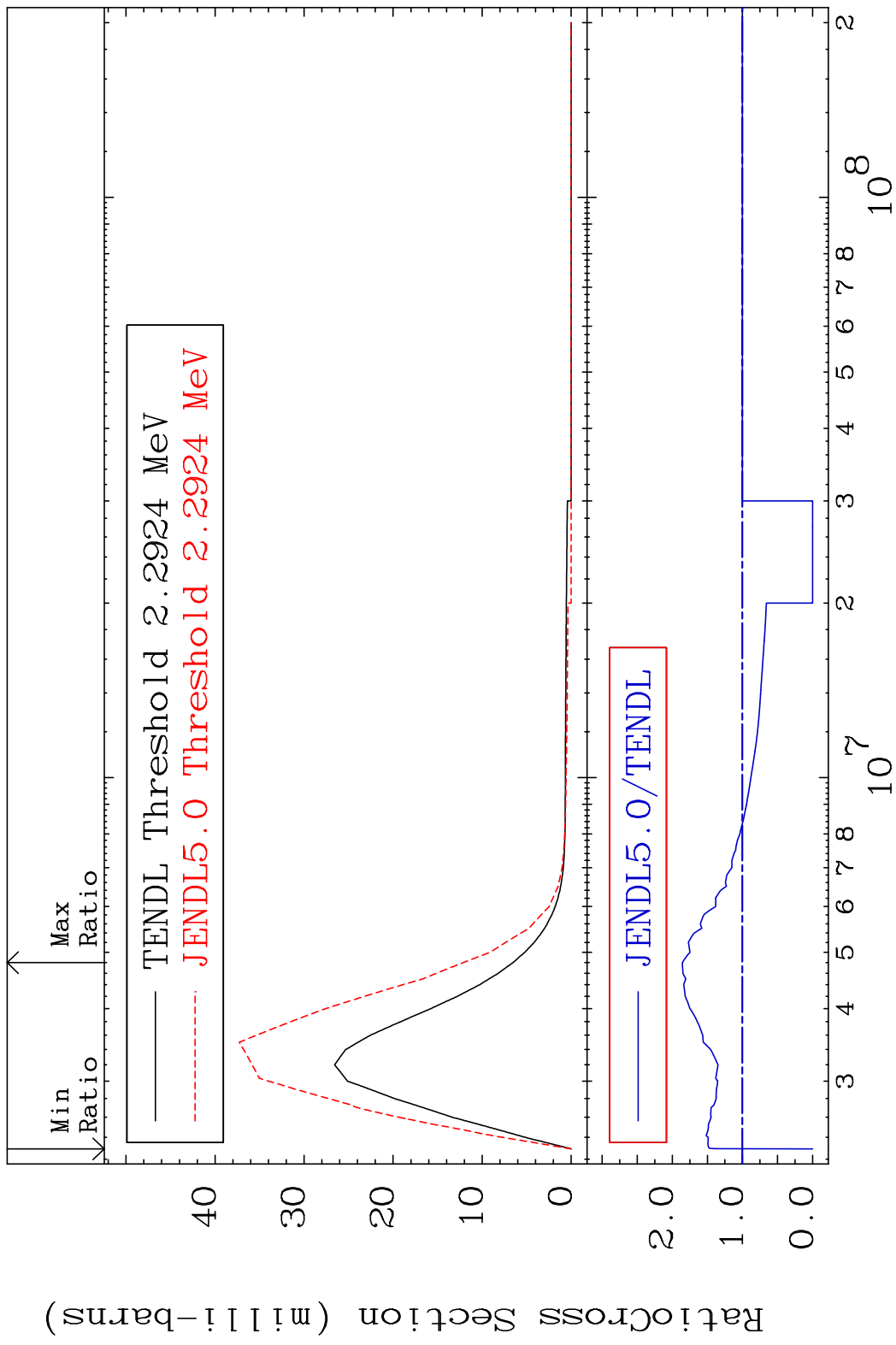
MAT 6019 MT= 58 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 60.67 %



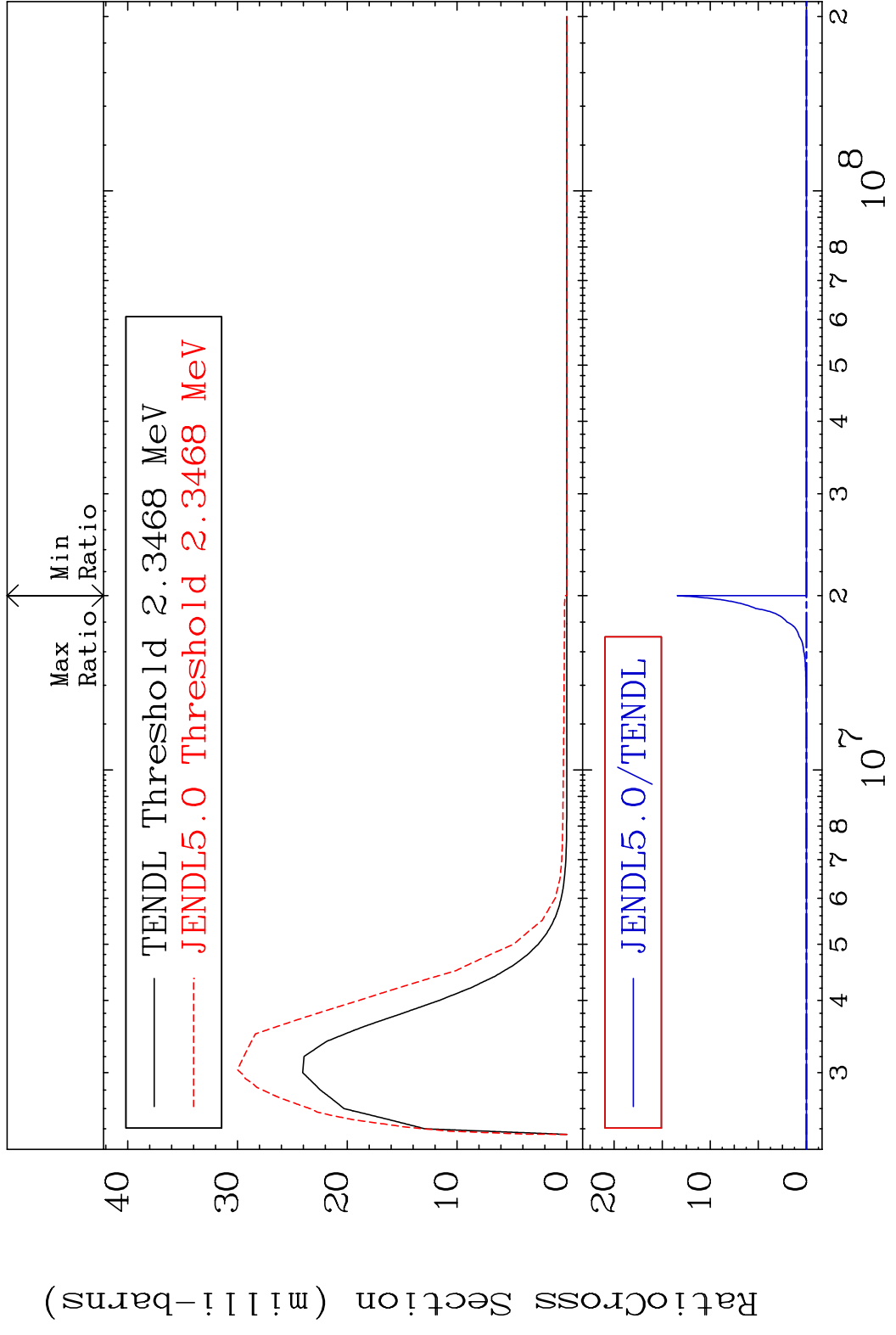
MAT 6019 MT= 59 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 93.68 %



MAT 6019 MT= 60 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 85.67 %

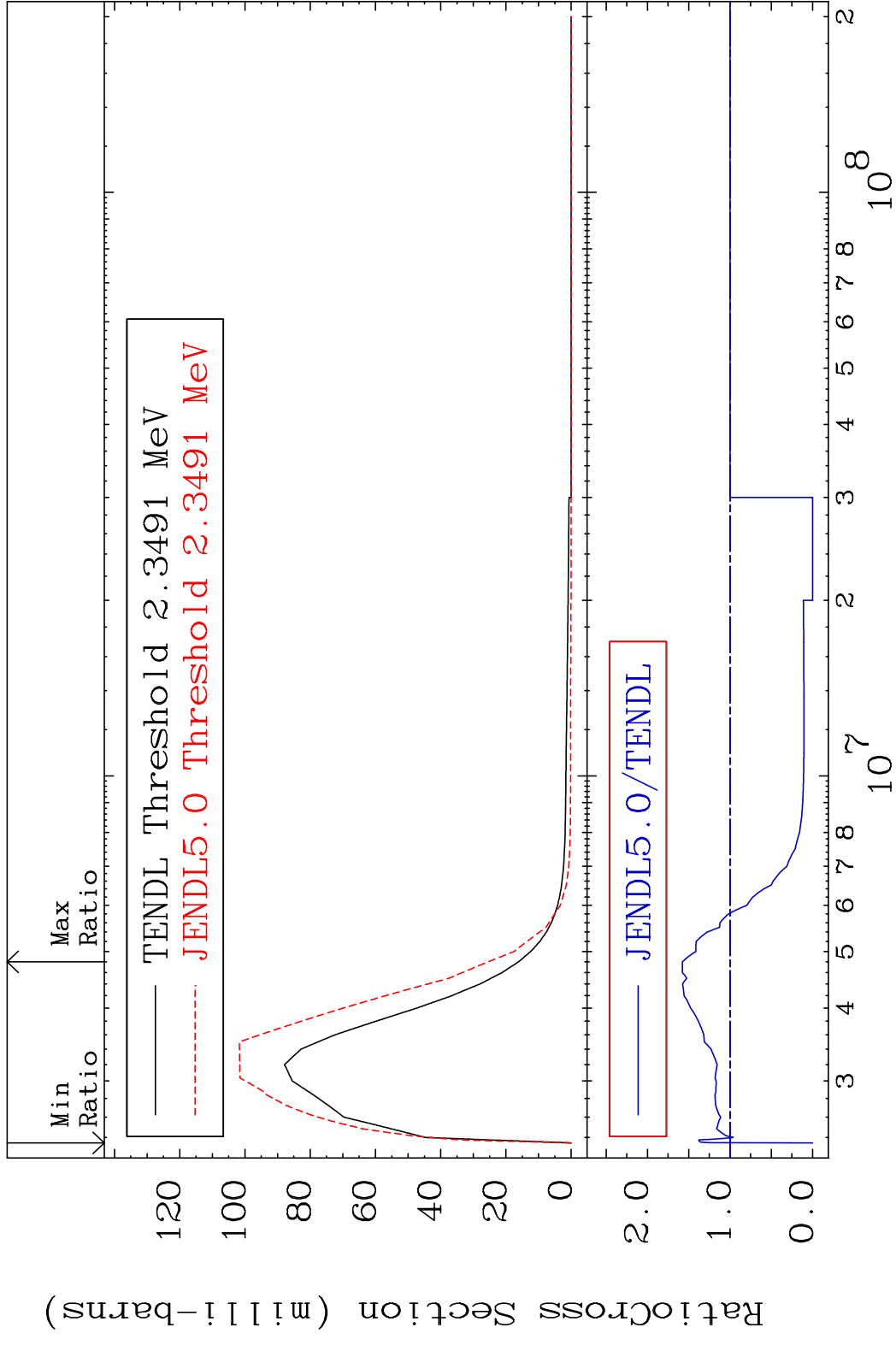


MAT 6019 MT= 61 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 9999. %

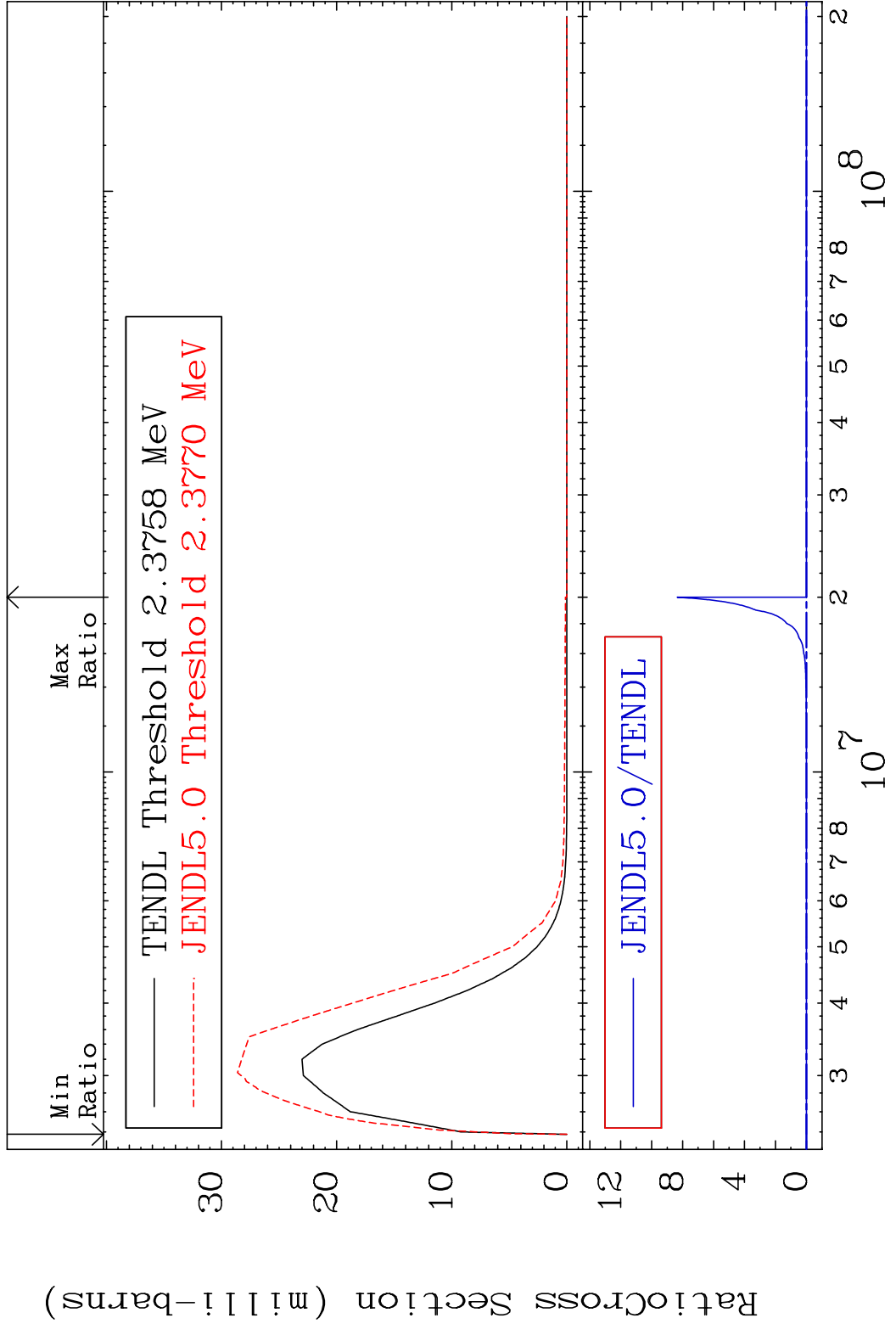


20 3 4 5 6 7 8 10<sup>7</sup> 2 3 4 5 6 7 8 10<sup>8</sup>

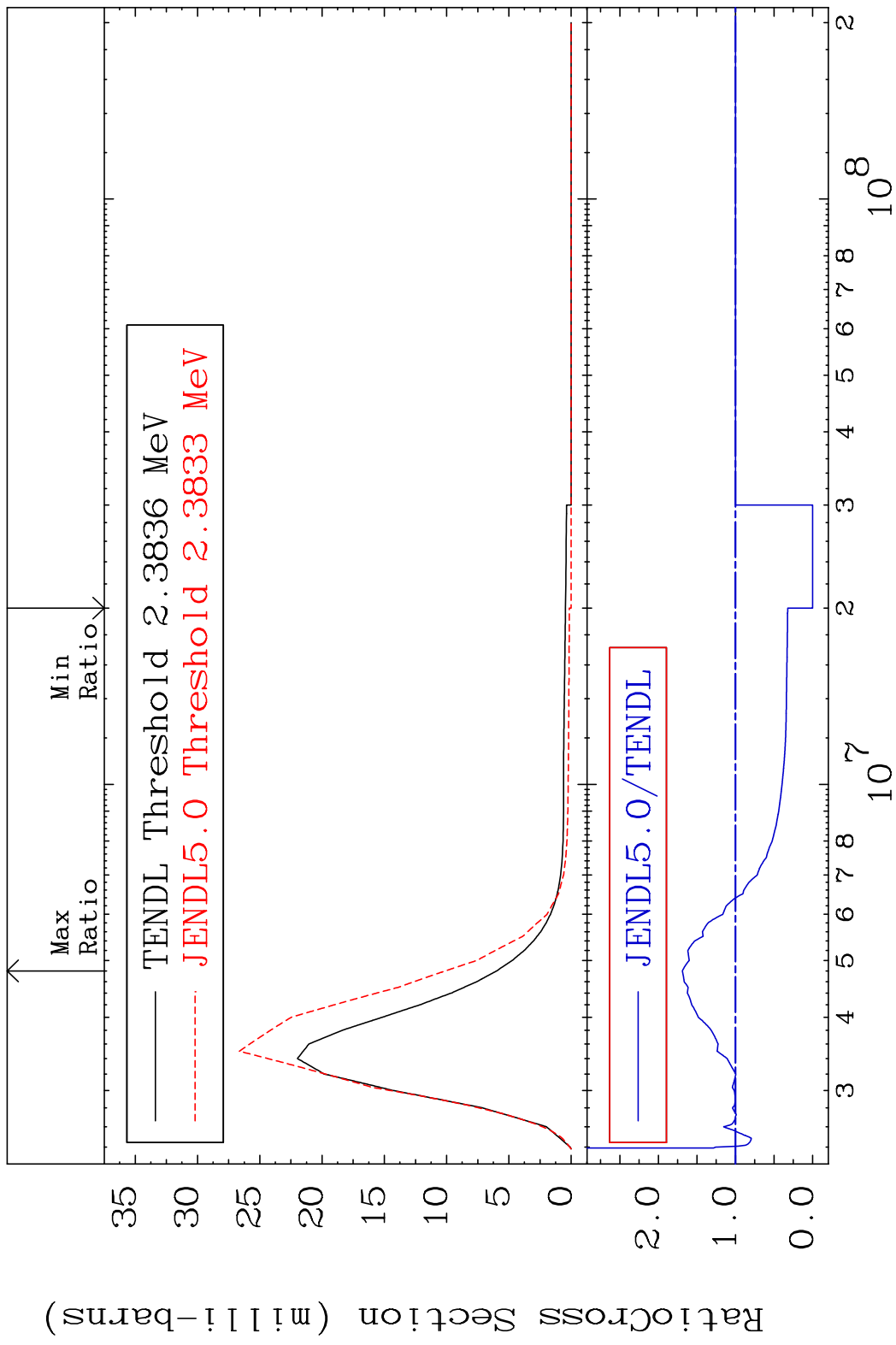
MAT 6019 MT= 62 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 57.70 %



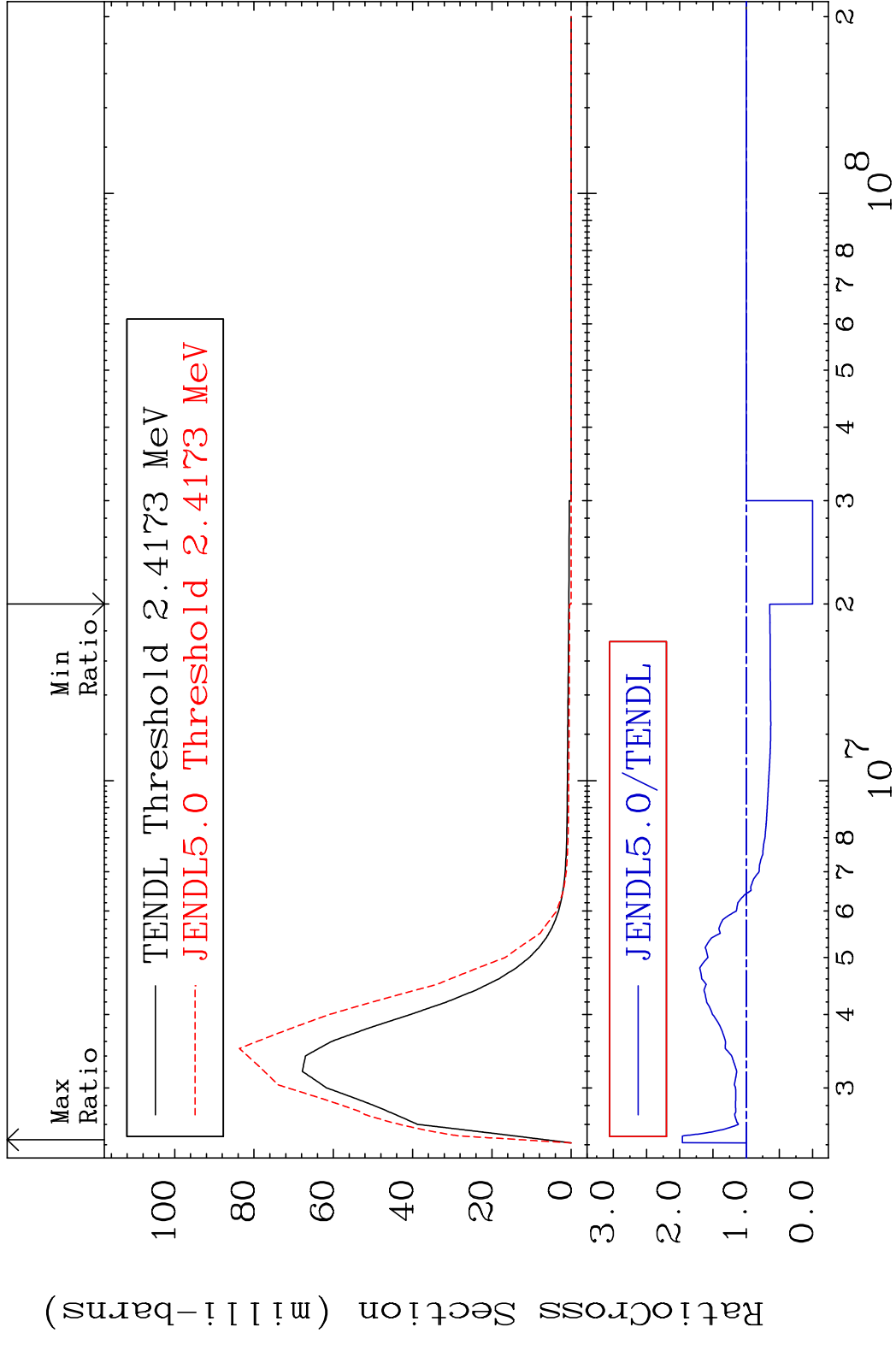
MAT 6019 MT= 63 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 9999. %



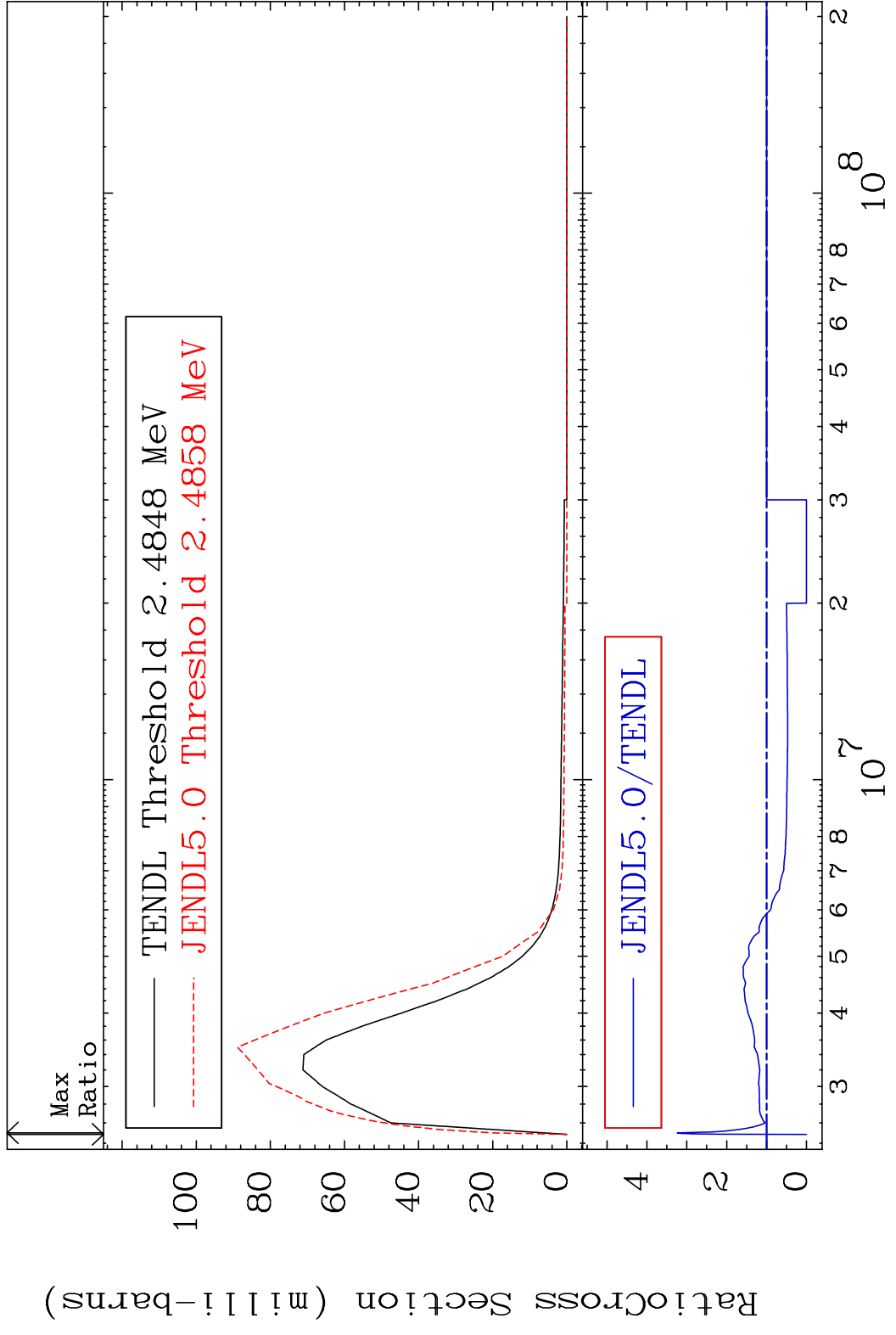
MAT 6019 MT= 64 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 68.90 %



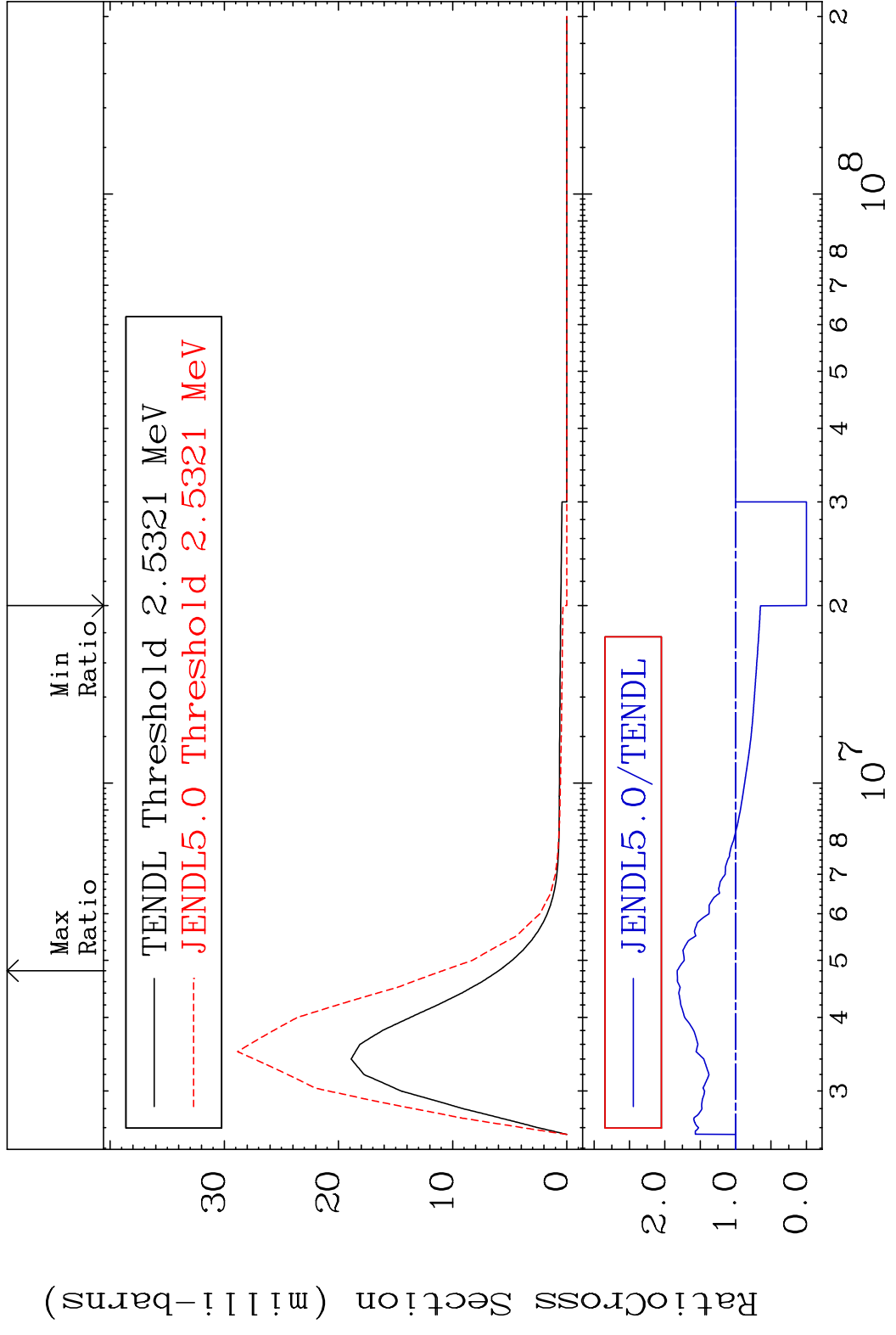
MAT 6019 MT= 65 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 96.06 %



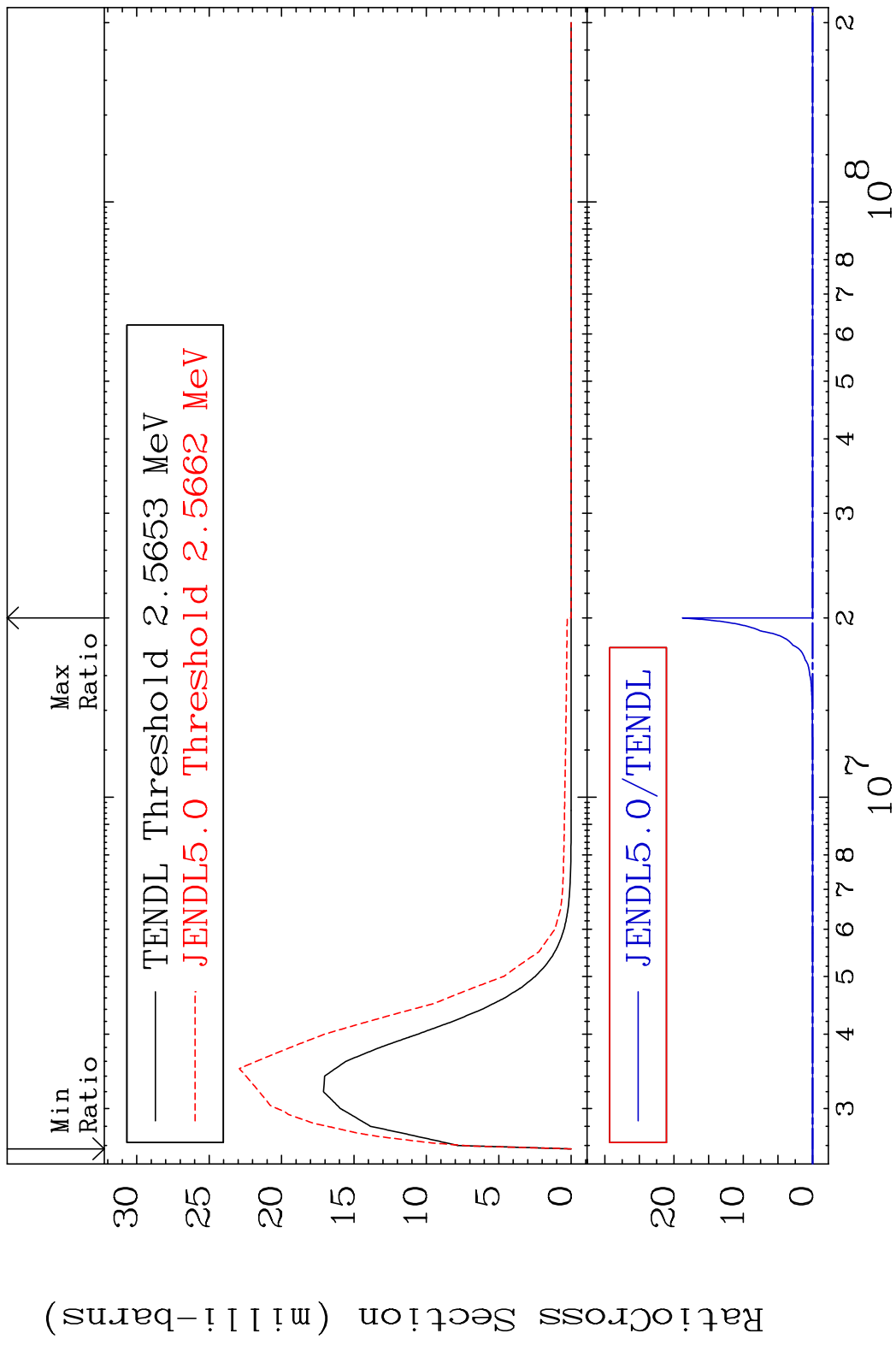
MAT 6019      MT= 66 (n, n') Level      60-Nd-140  
 Cross Section    -100.0 To 224.2 %



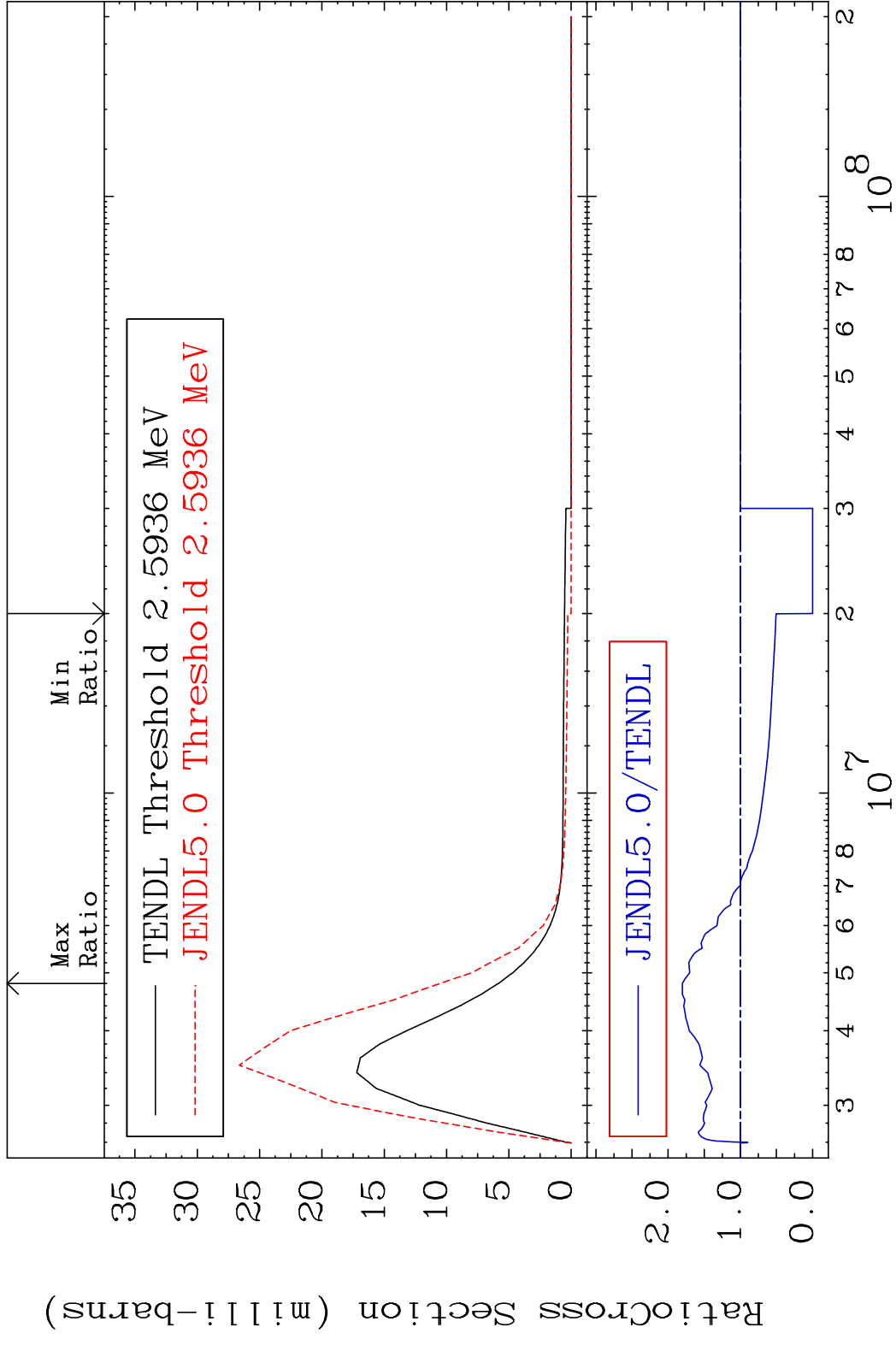
MAT 6019 MT= 67 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 82.56 %



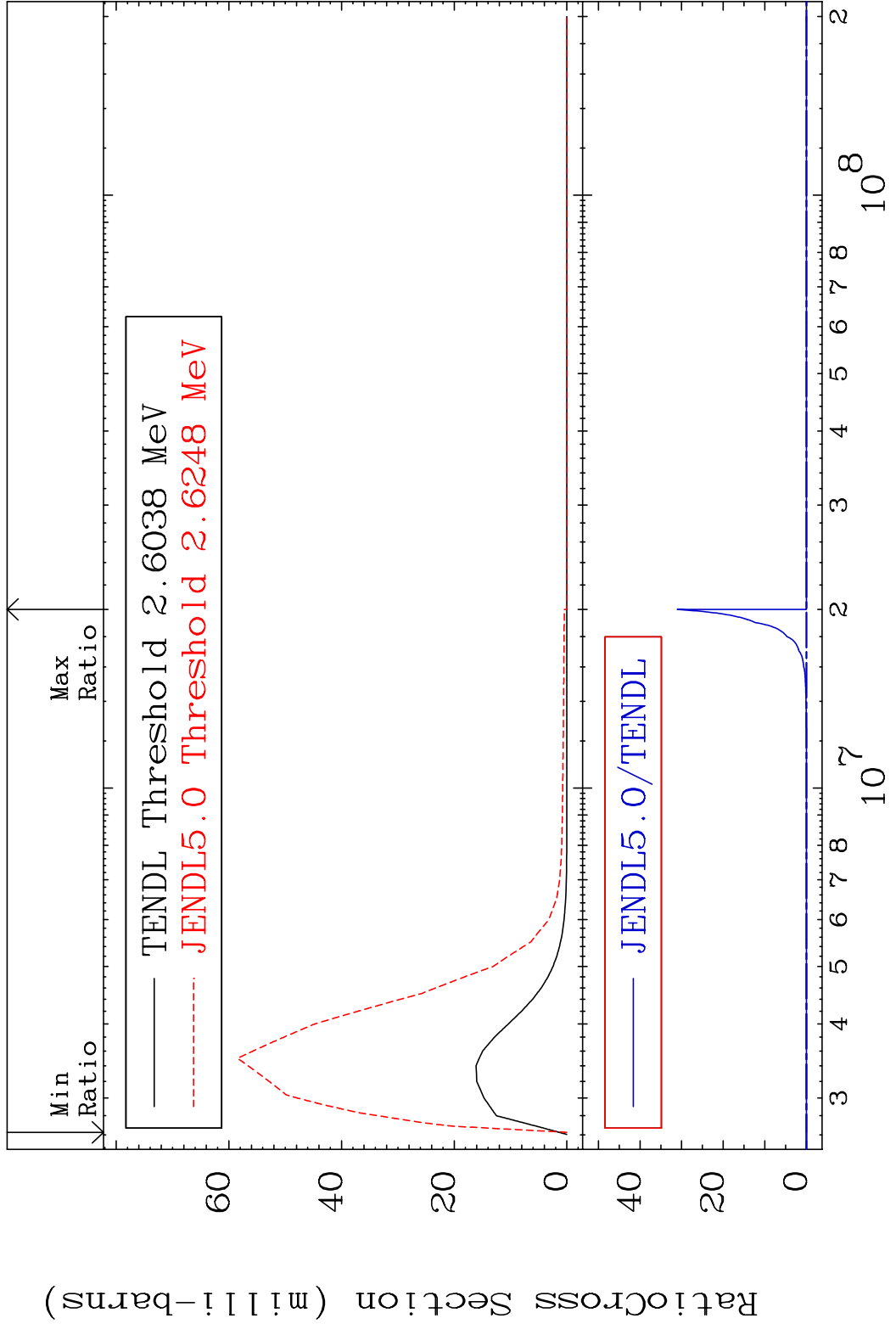
MAT 6019 MT= 68 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 9999. %



MAT 6019 MT= 69 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 80.29 %

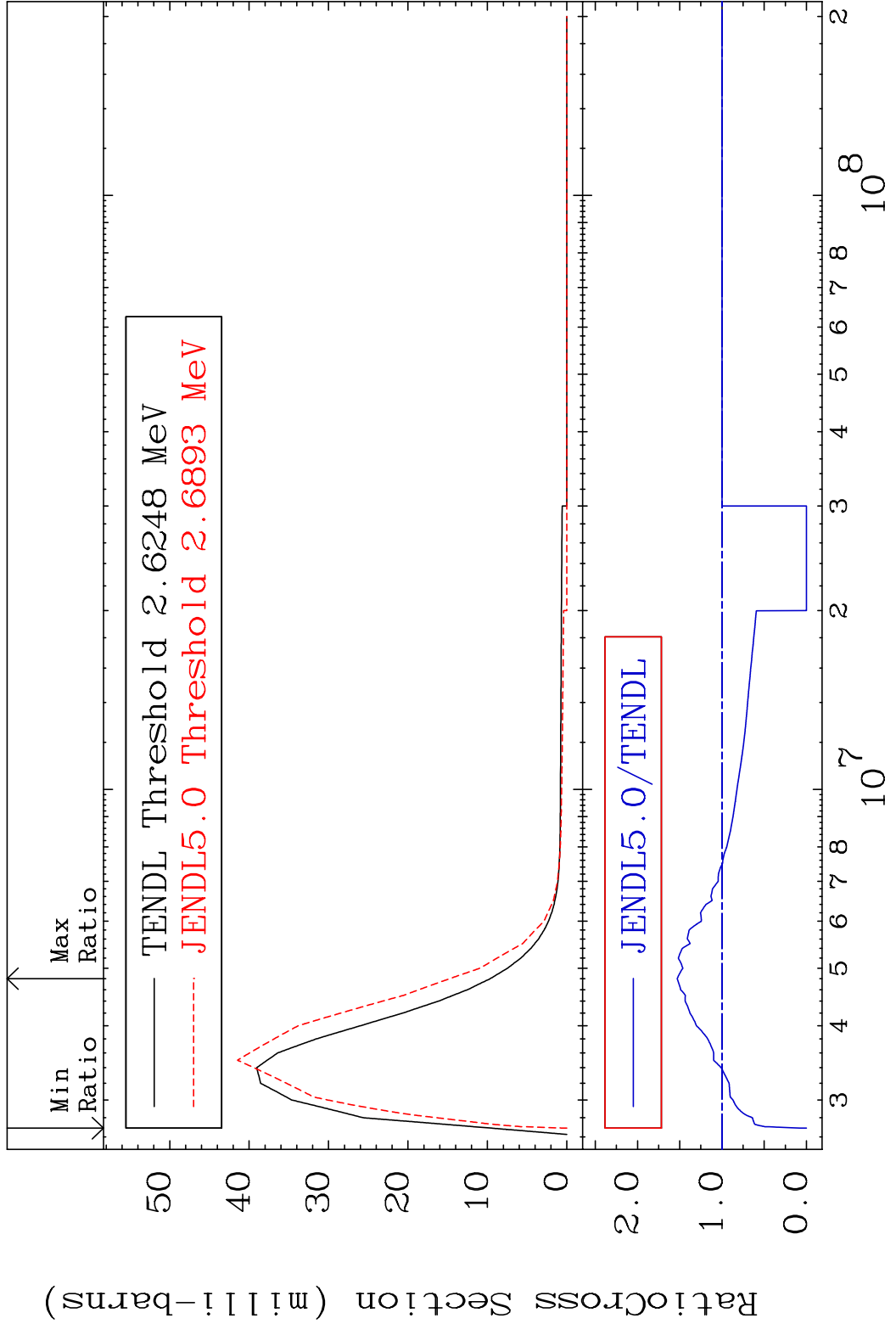


MAT 6019 MT= 70 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 9999. %

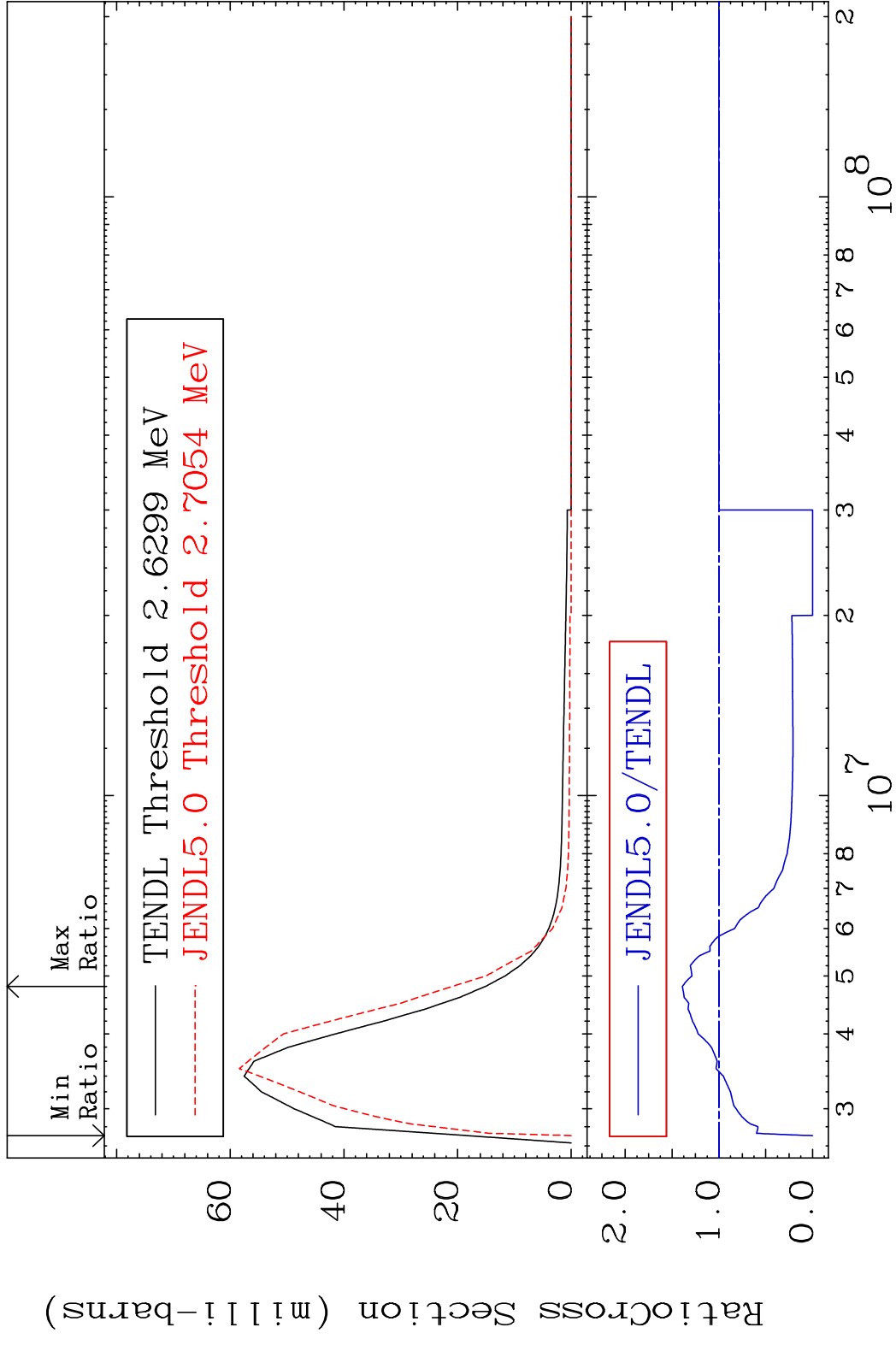


29 Incident Energy (eV) 60-Nd-140

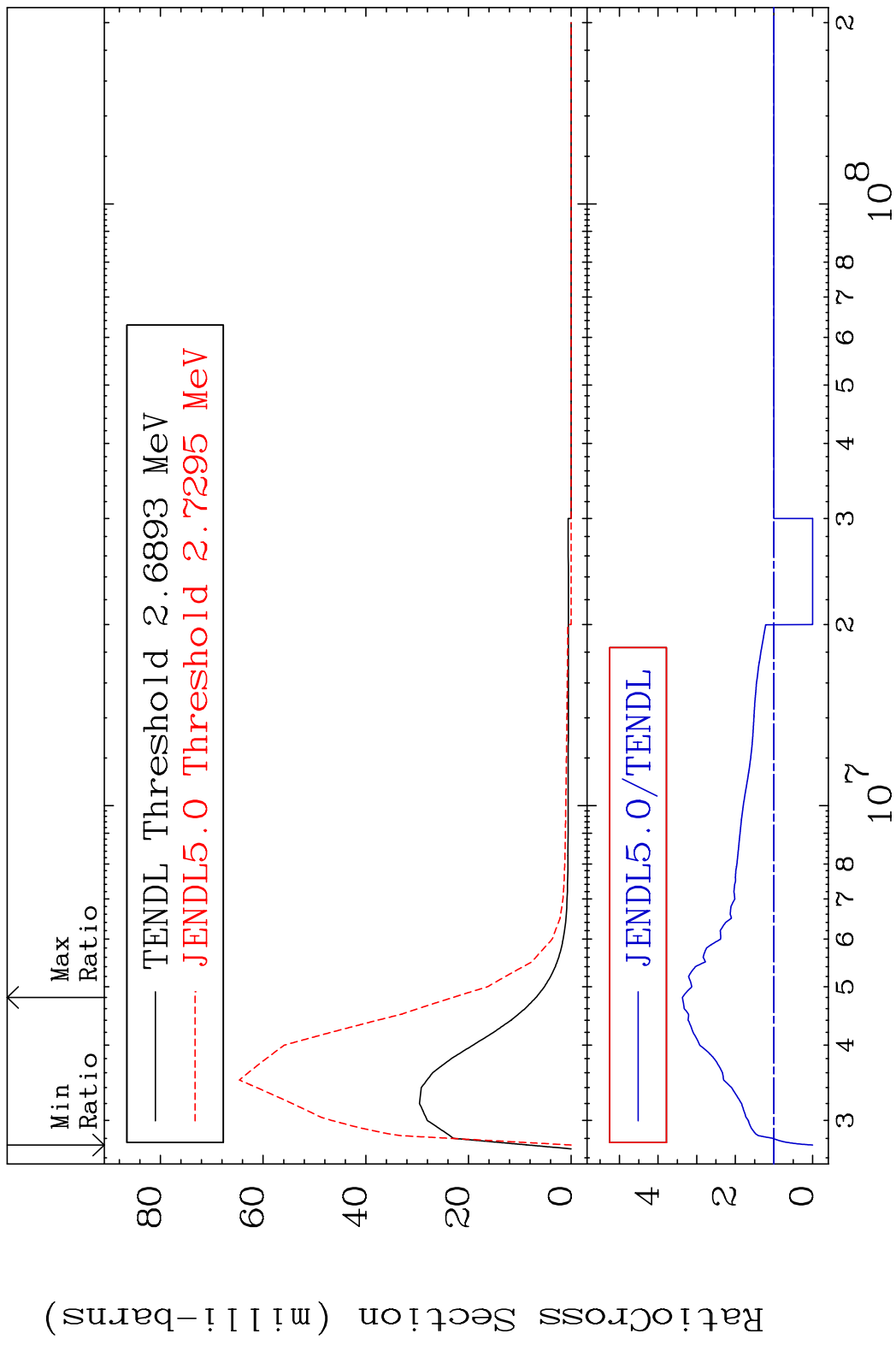
MAT 6019 MT= 71 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 53.04 %



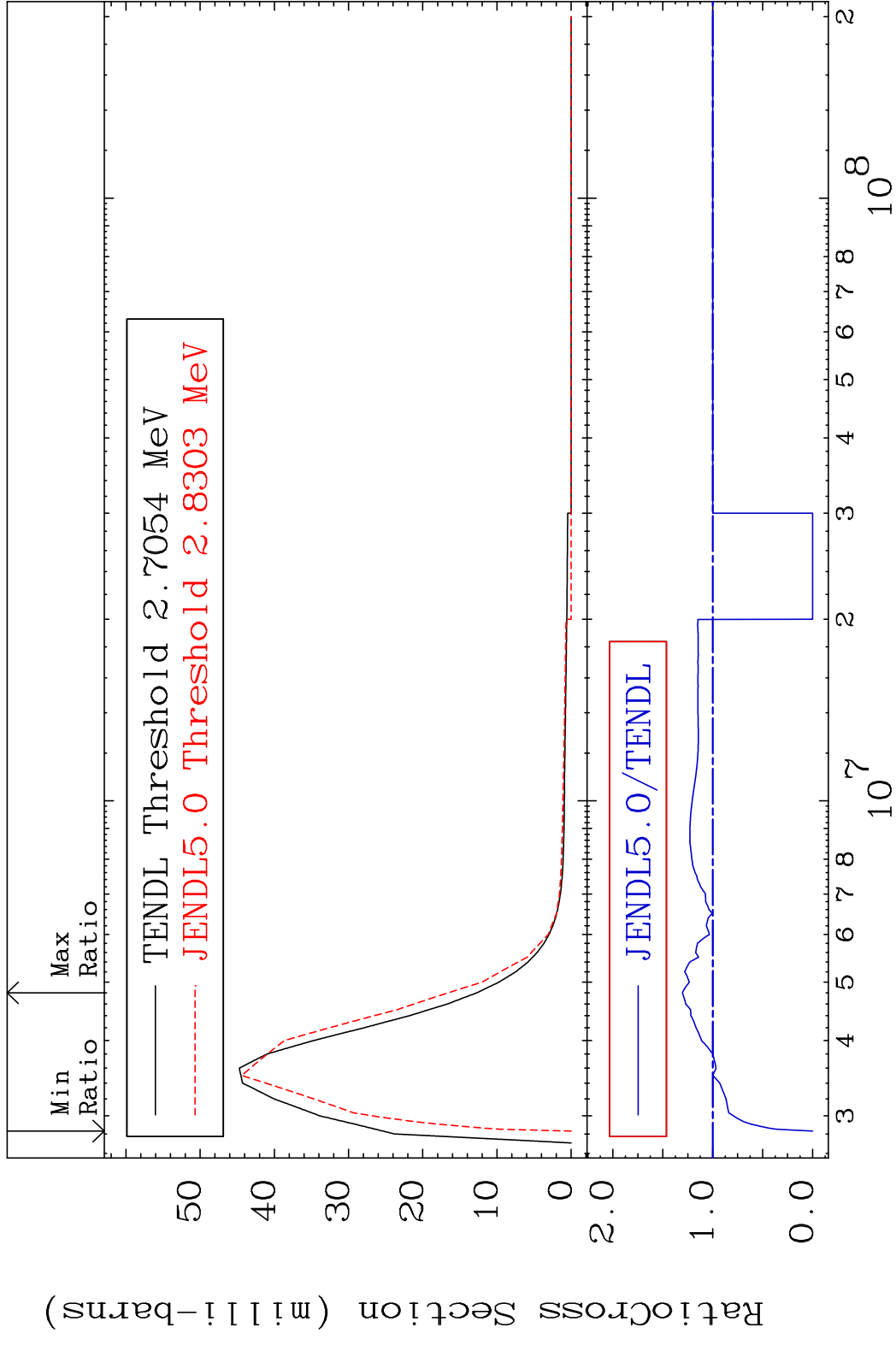
MAT 6019 MT= 72 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 39.02 %



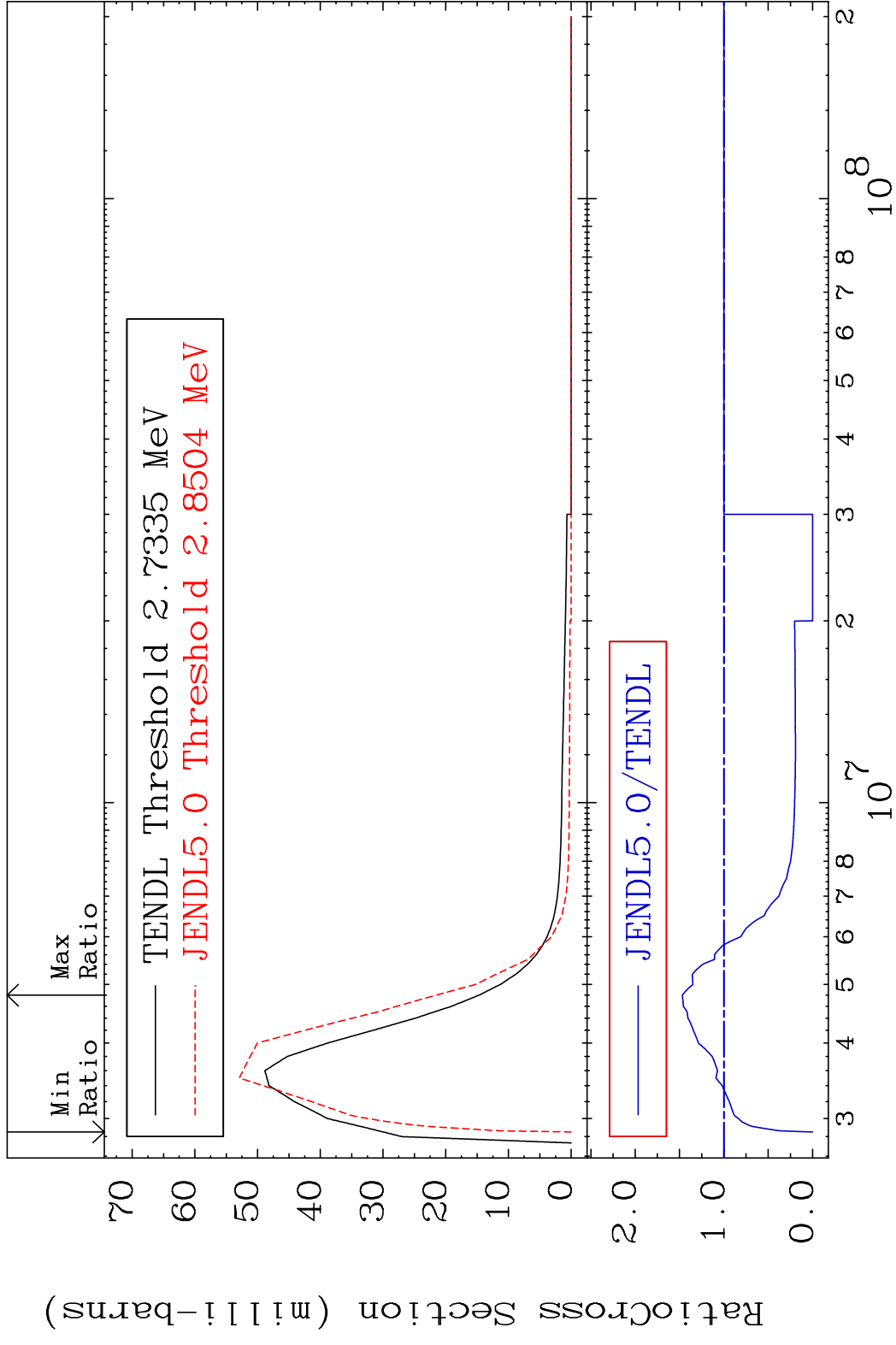
MAT 6019      MT= 73 (n, n') Level      60-Nd-140  
 Cross Section    -100.0 To 237.1 %



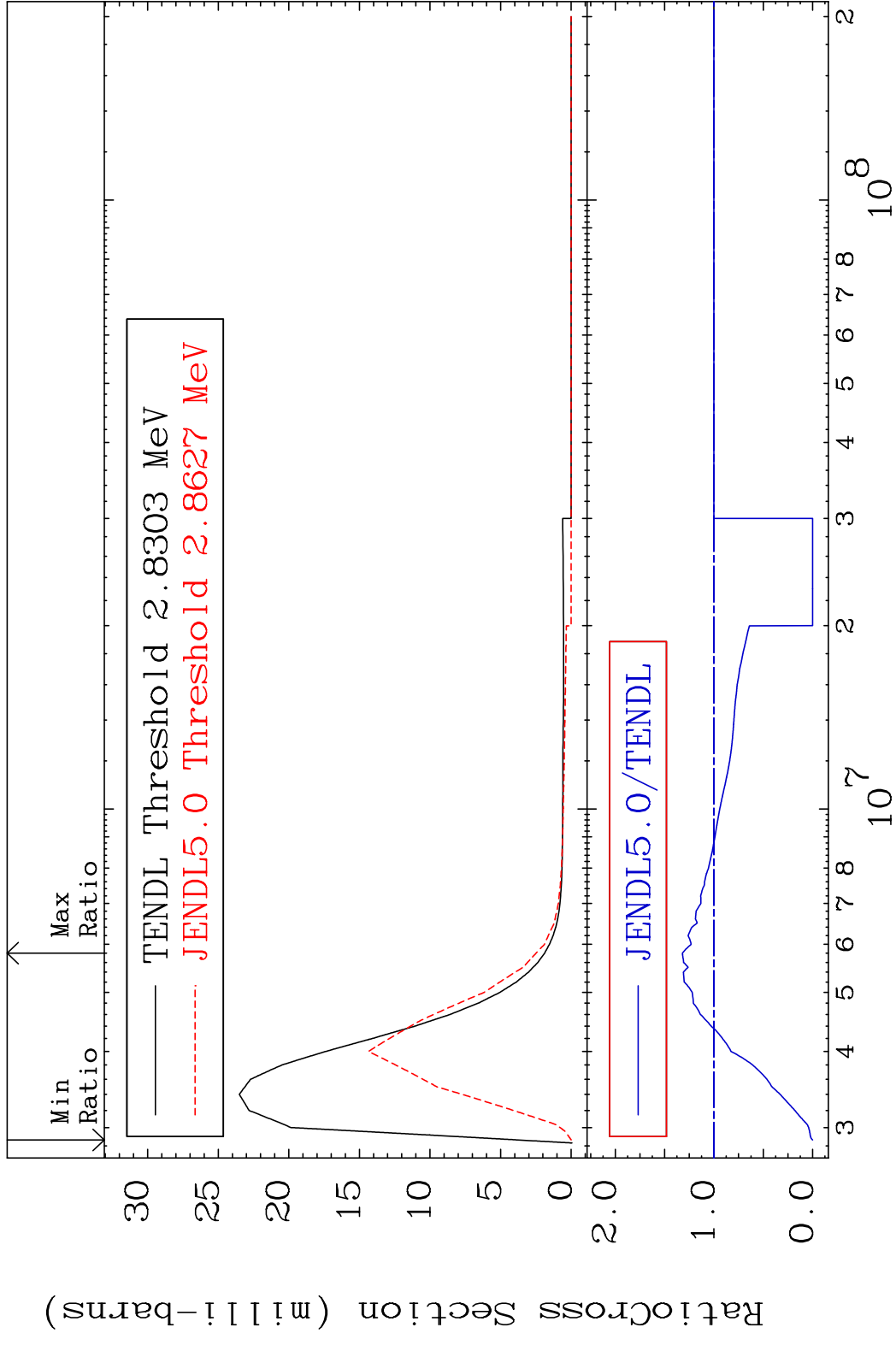
MAT 6019 MT= 74 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 30.40 %



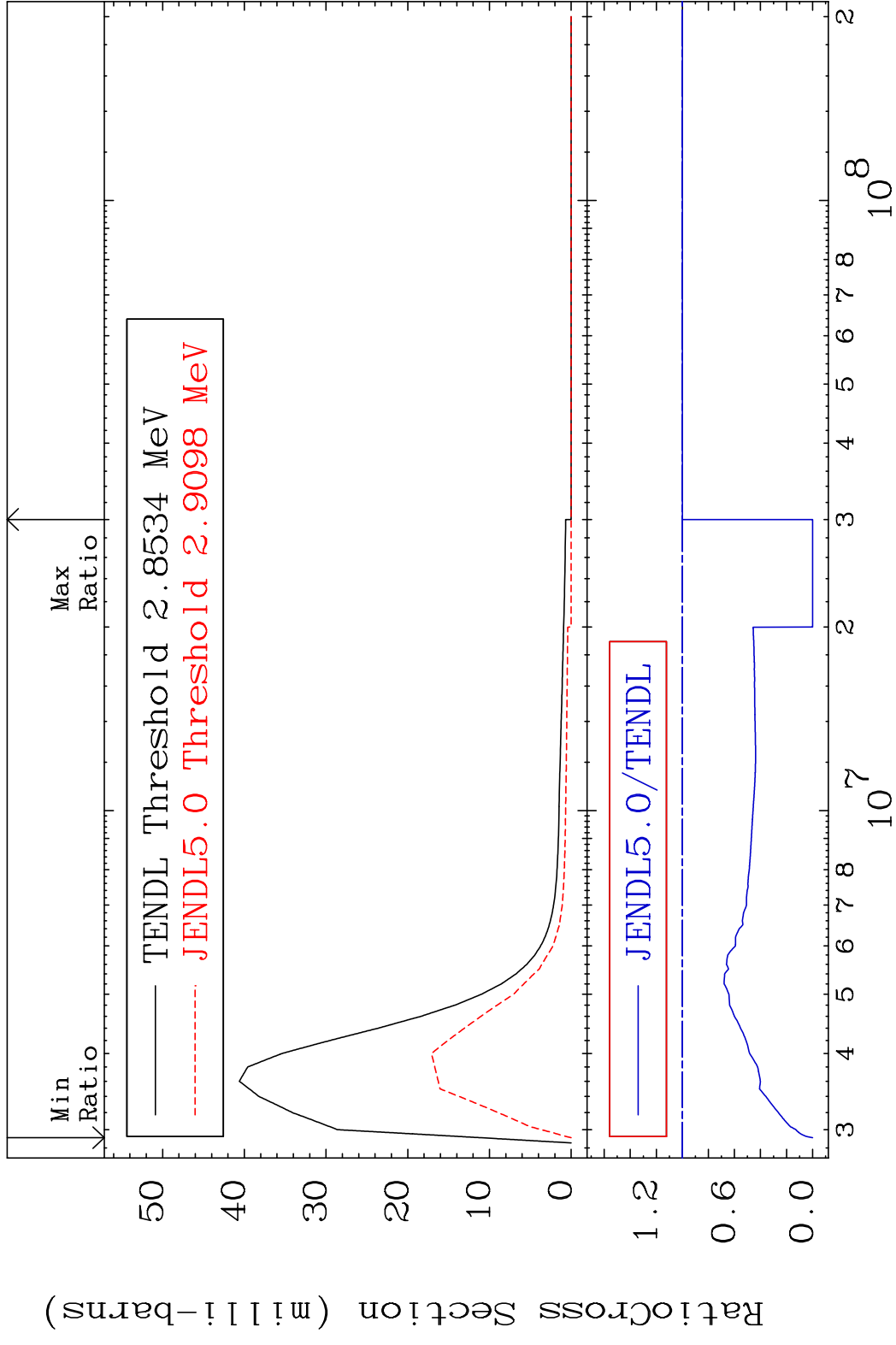
MAT 6019 MT= 75 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 46.81 %



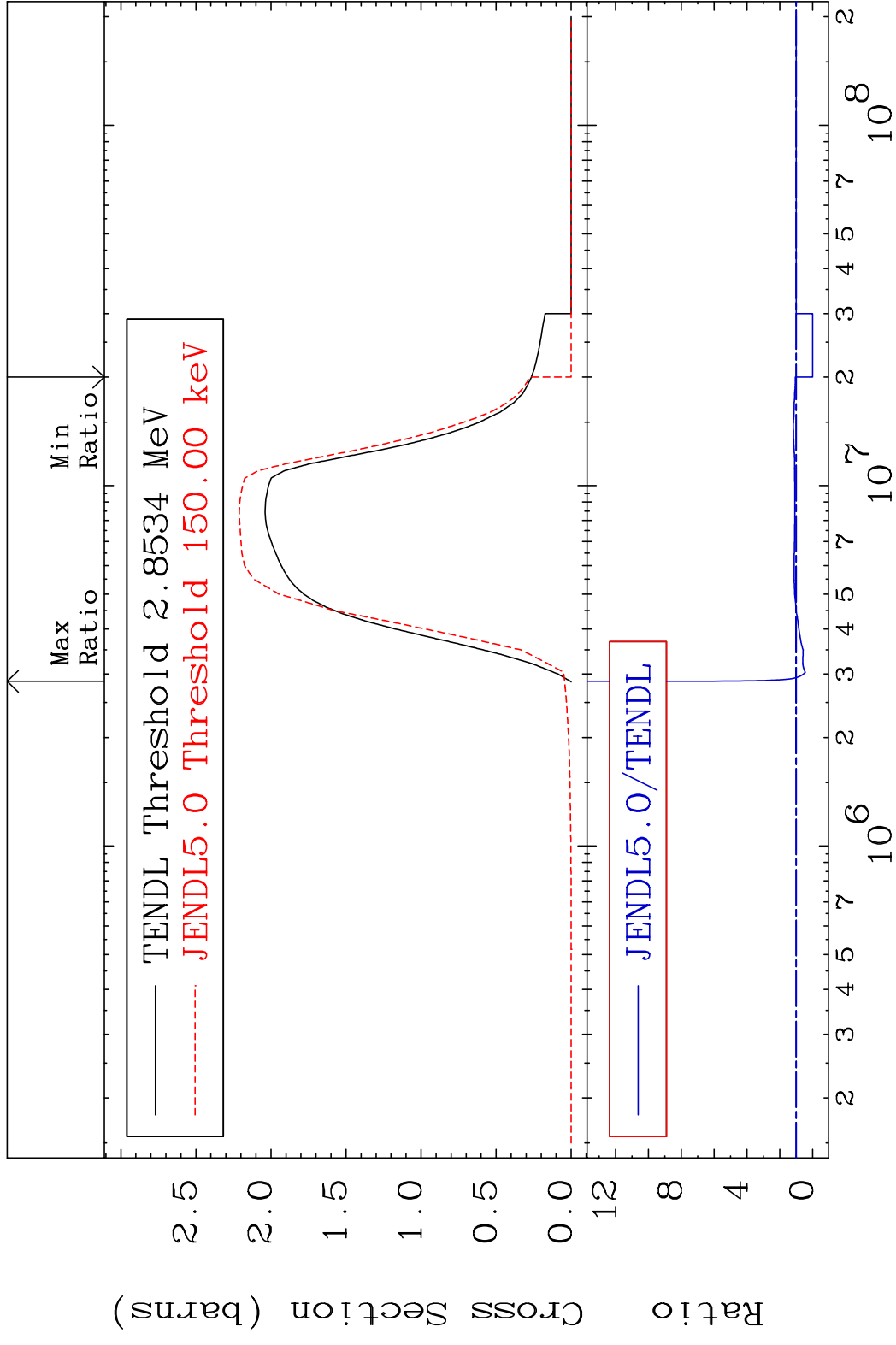
MAT 6019 MT= 76 (n,n') Level 60-Nd-140  
 Cross Section -100.0 To 32.03 %



MAT 6019 MT= 77 (n, n') Level 60-Nd-140  
 Cross Section -100.0 To 0.000 %

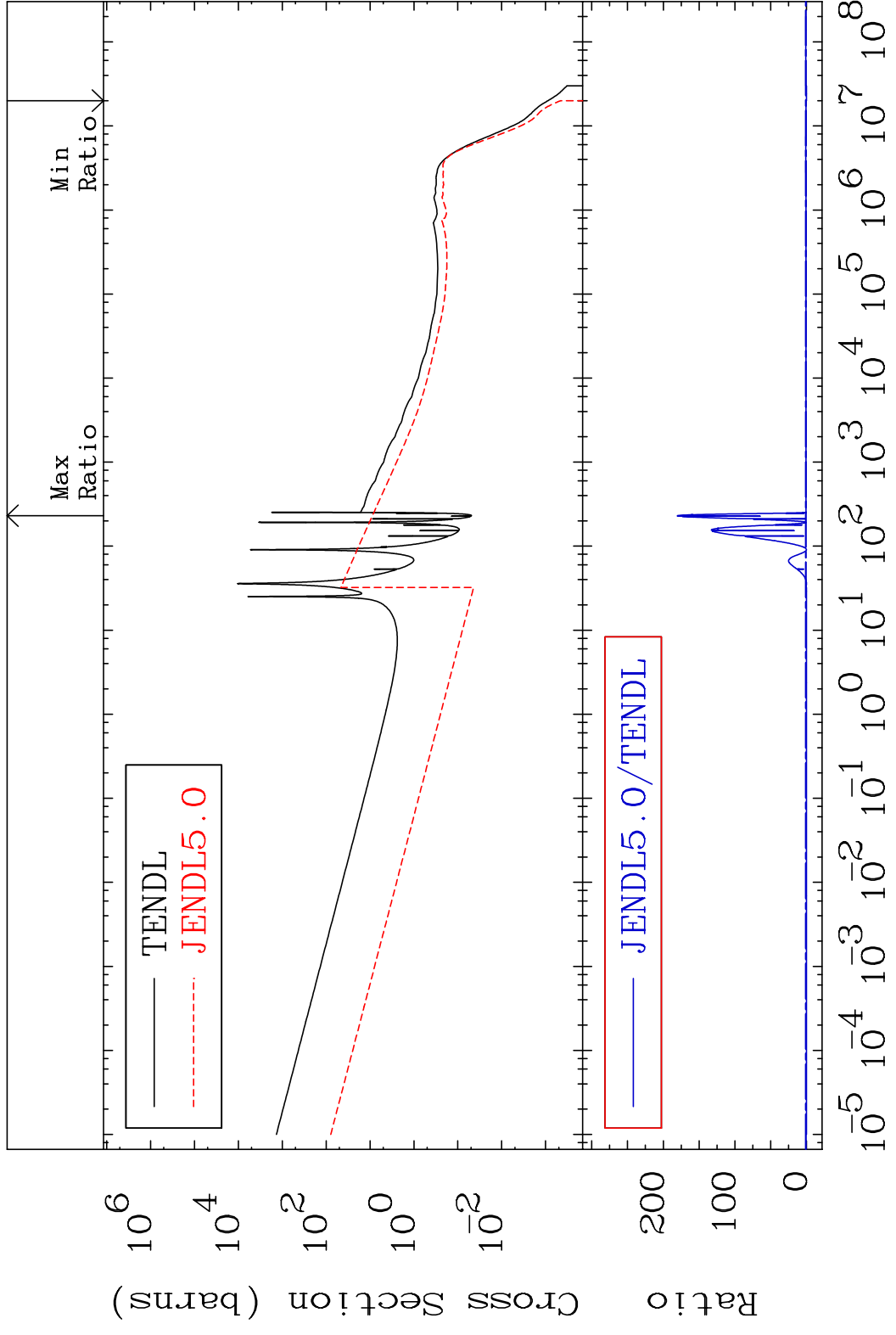


MAT 6019 (n, n') Continuum 60-Nd-140  
 Cross Section -100.0 To 692.8 %



MAT 6019

(n,  $\gamma$ )  
Cross Section -100.0 To 9999. %  
60-Nd-140

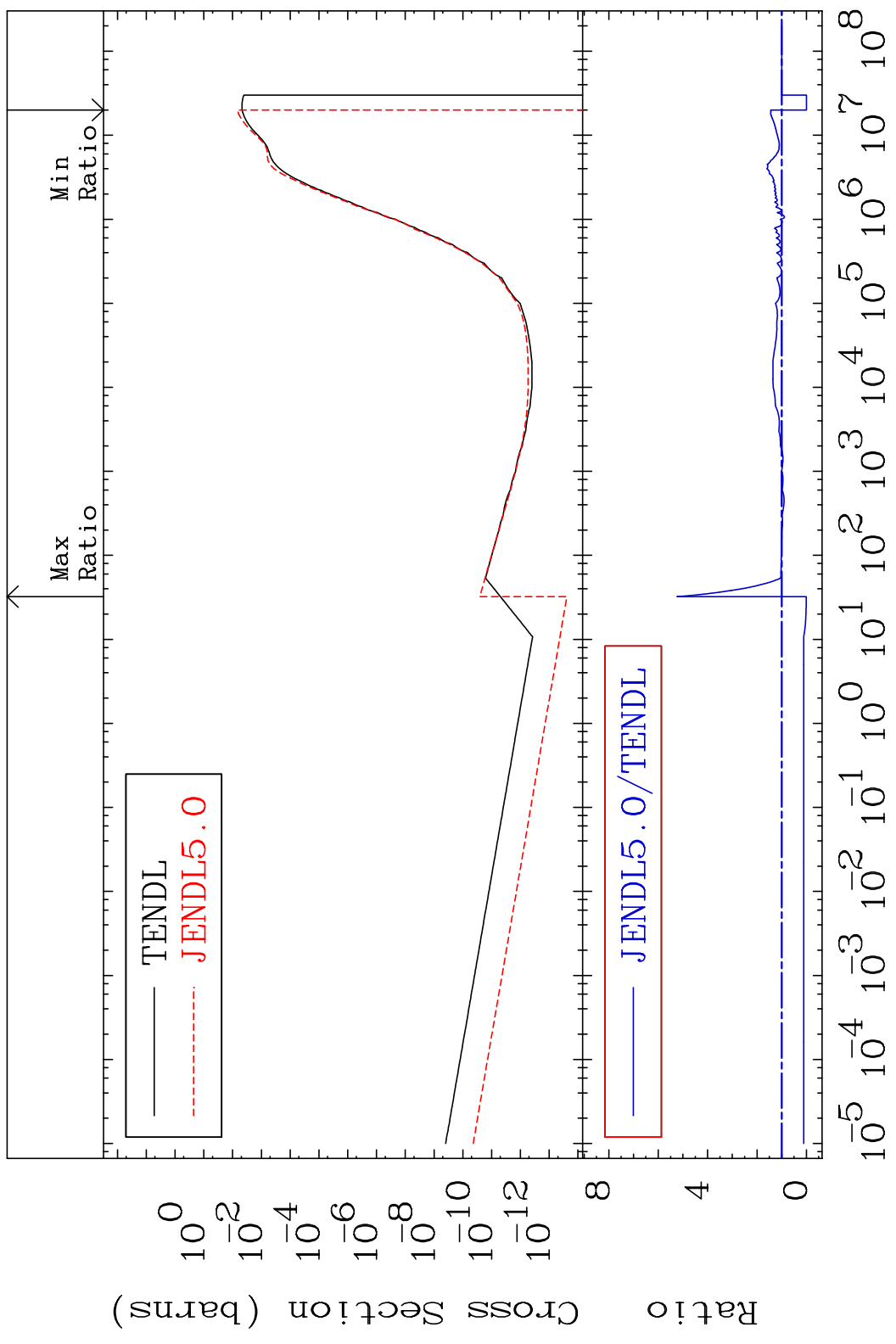


MAT 6019

(n, p)

60-Nd-140

Cross Section -100.0 To 423.2 %



39

Incident Energy (eV)

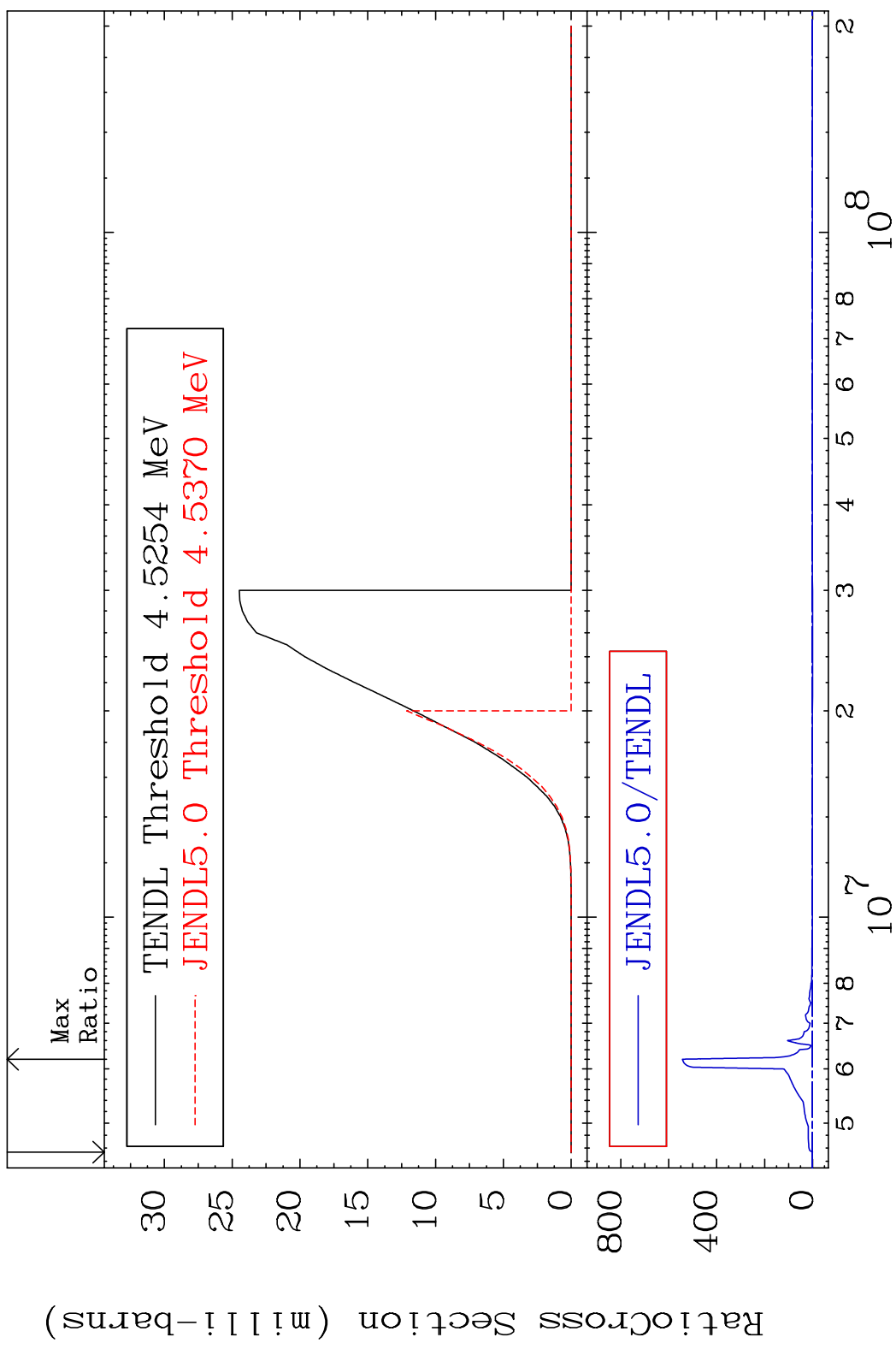
60-Nd-140

MAT 6019

(n,d)

60-Nd-140

Cross Section -100.0 To 9999. %

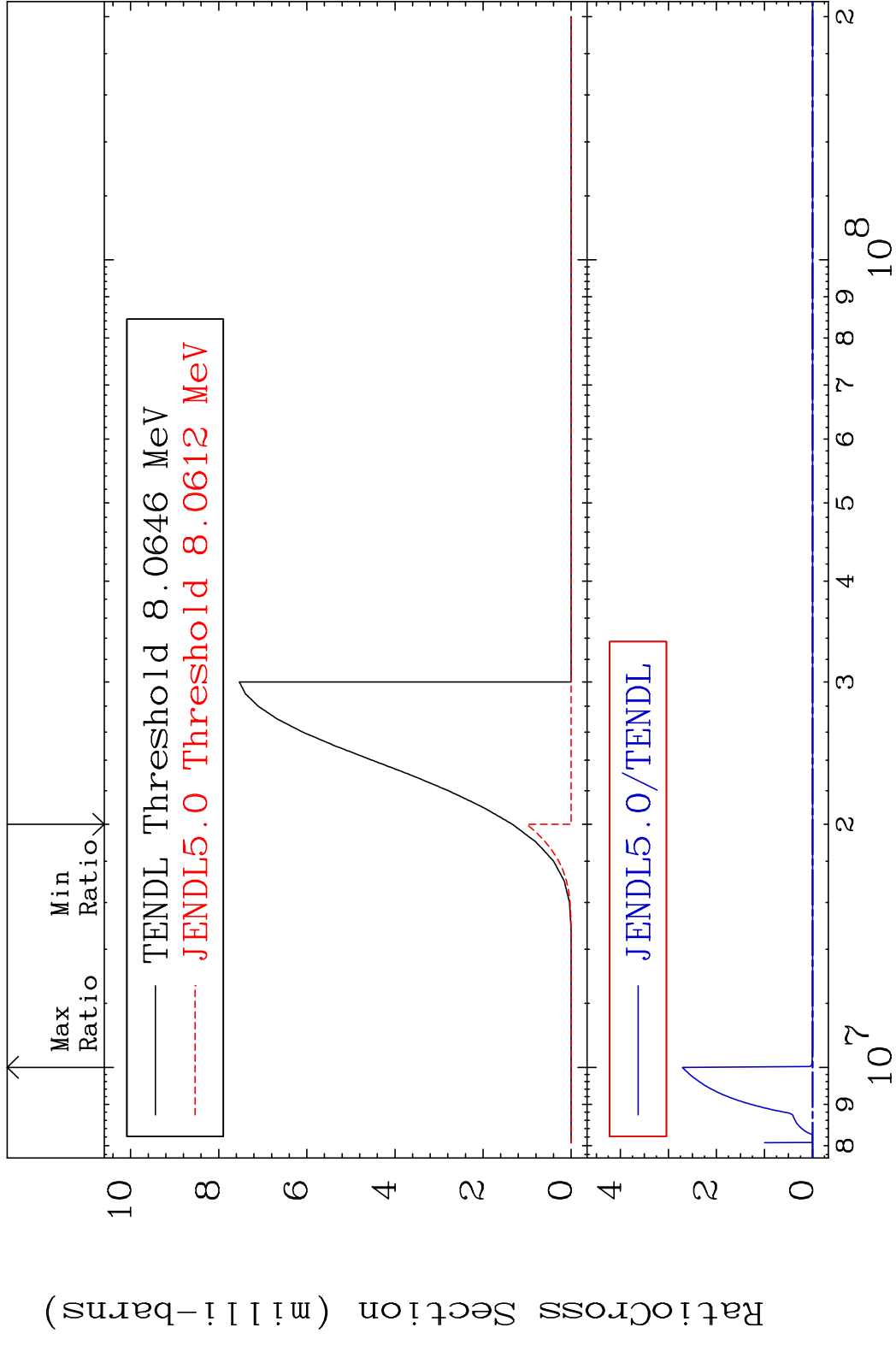


40

Incident Energy (eV)

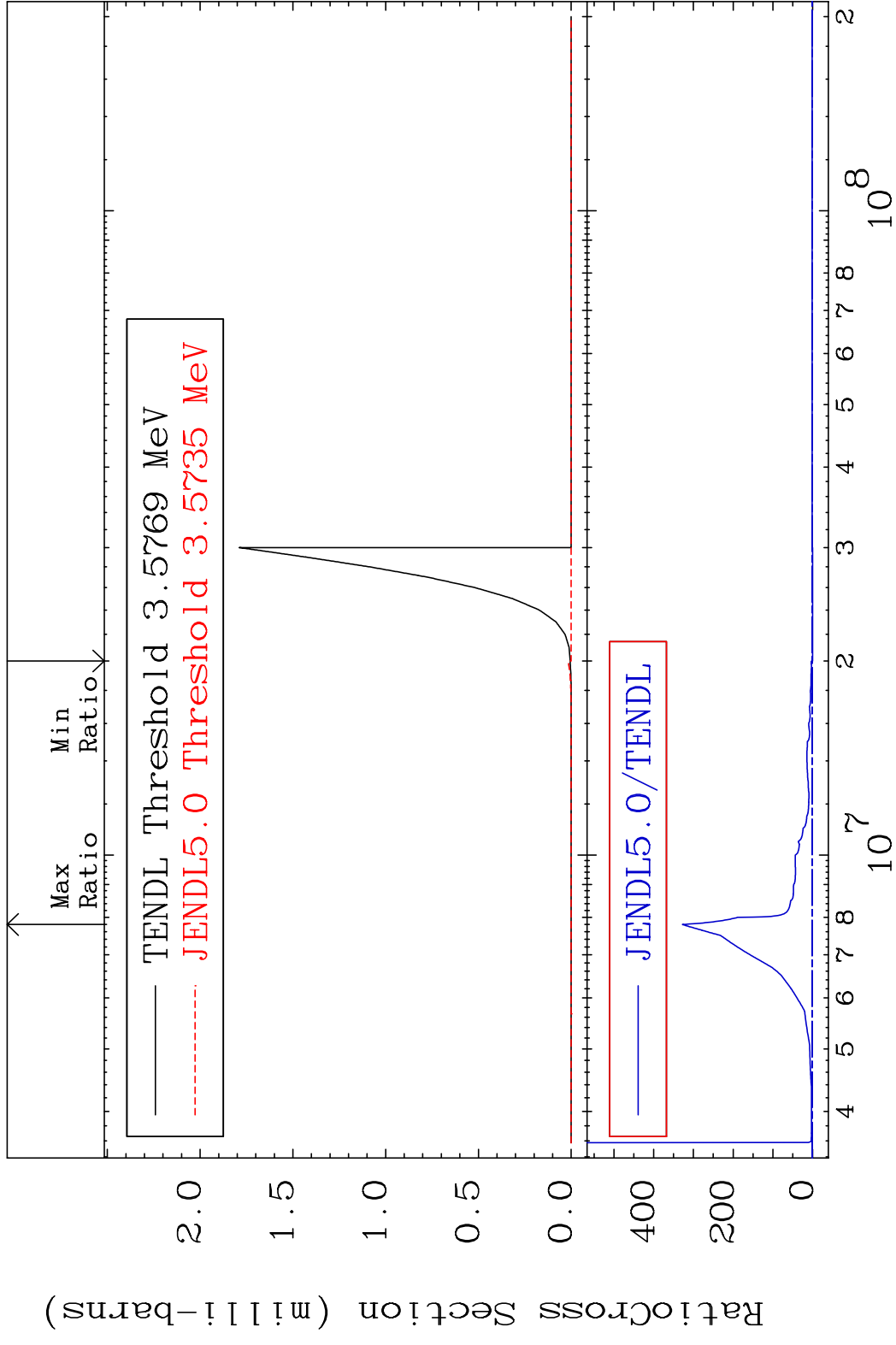
60-Nd-140

MAT 6019 (n, t) 60-Nd-140  
 Cross Section -100.0 To 9999. %



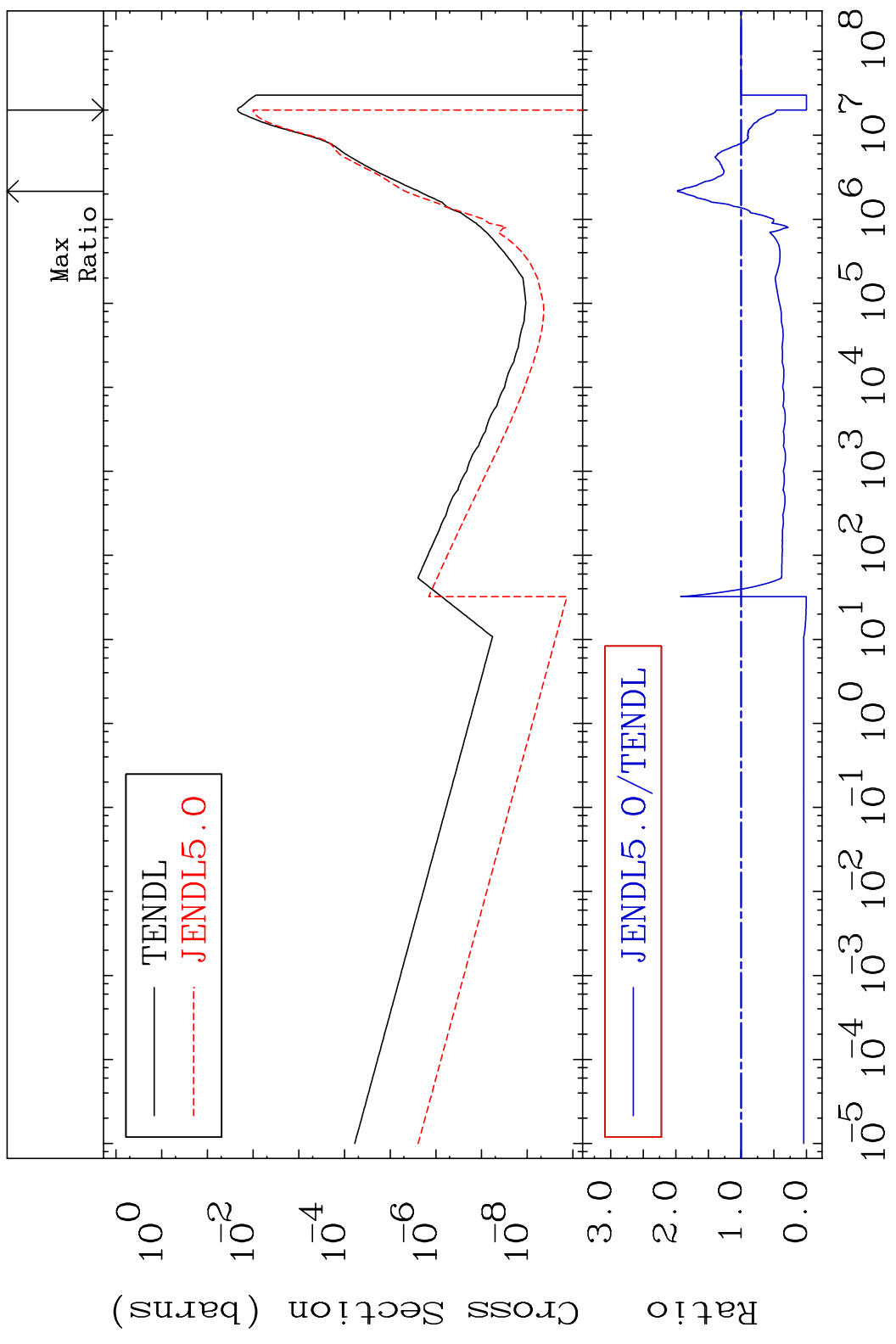
41 Incident Energy (eV) 60-Nd-140

MAT 6019 (n, He-3) 60-Nd-140  
 Cross Section -100.0 To 9999. %



MAT 6019

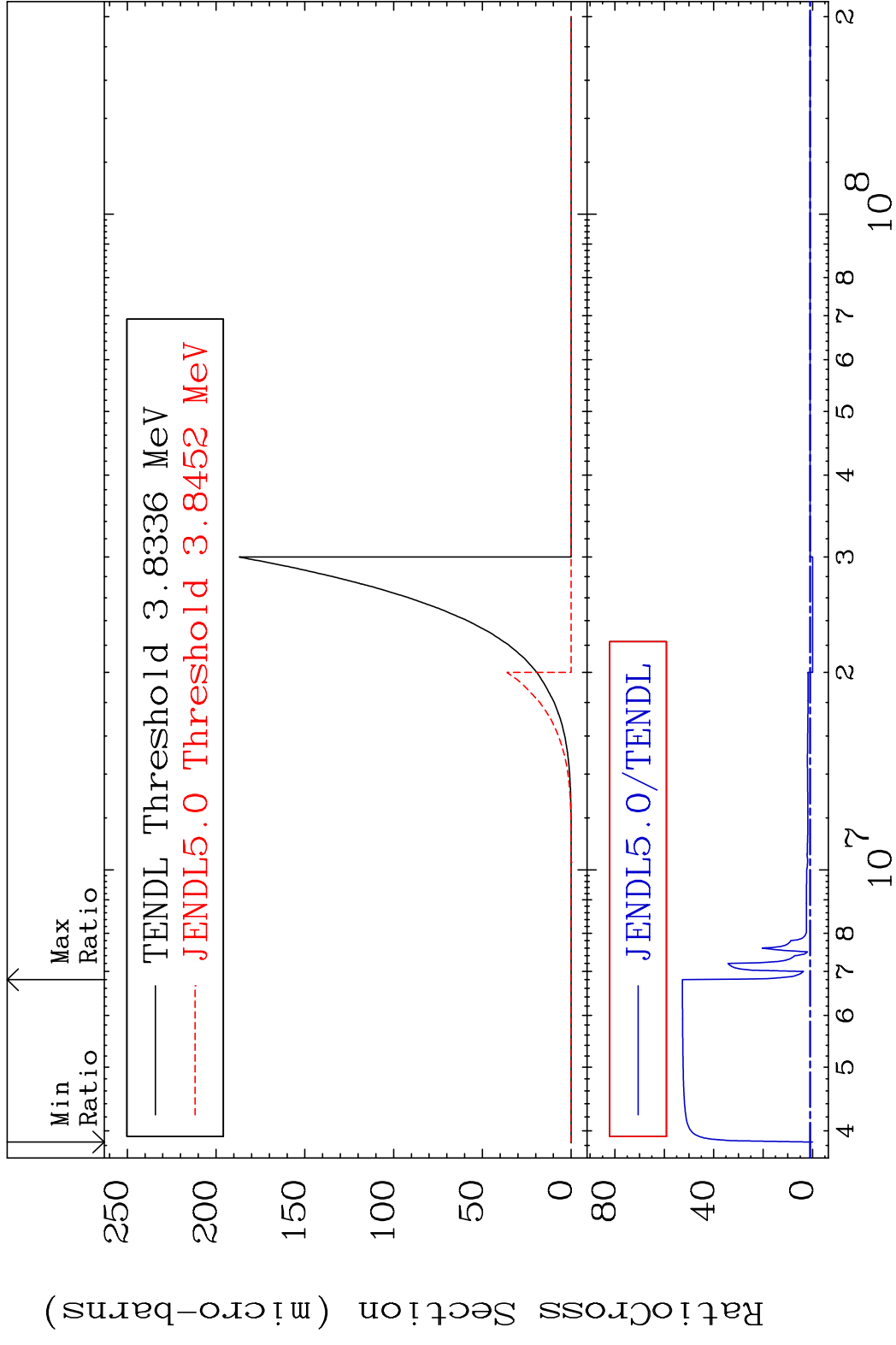
(n,  $\alpha$ )  
Cross Section -100.0 To 98.04 %  
60-Nd-140



43

Incident Energy (eV) 60-Nd-140

MAT 6019 (n,2p) 60-Nd-140  
 Cross Section -100.0 To 5168. %

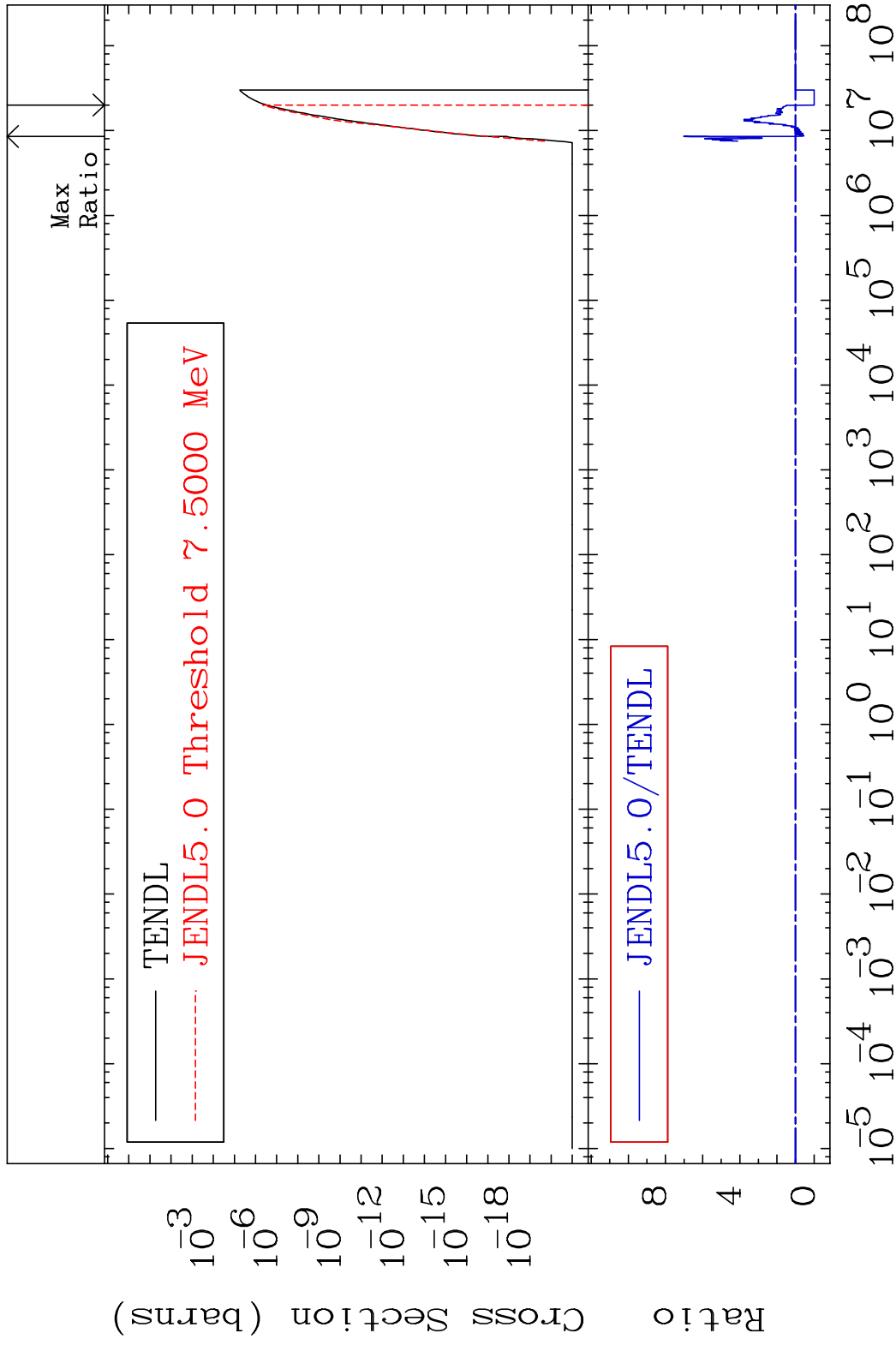


MAT 6019

(n,p)  $\alpha$

60-Nd-140

Cross Section -100.0 To 602.1 %

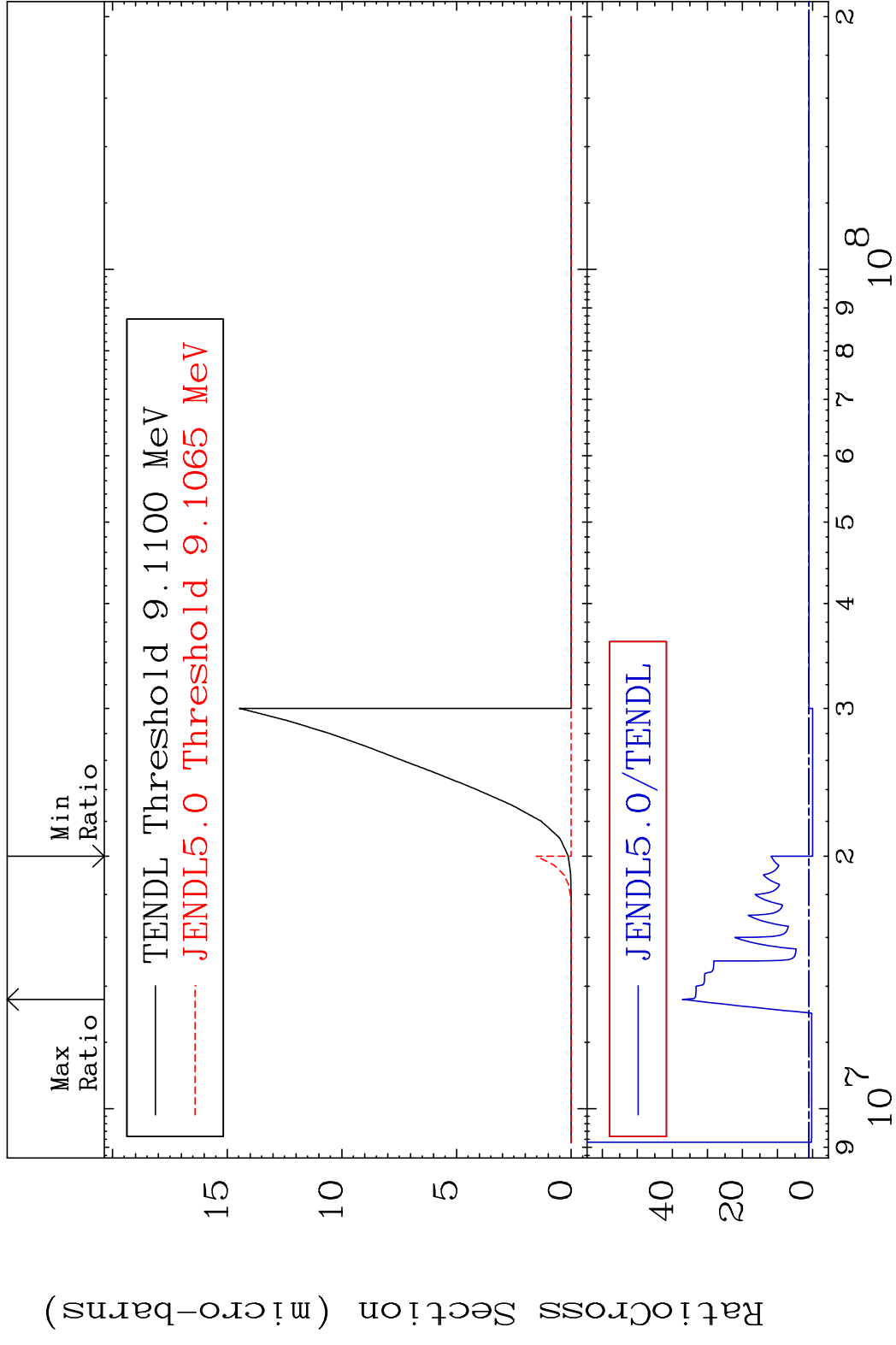


45

Incident Energy (eV)

60-Nd-140

MAT 6019 (n,p) d 60-Nd-140  
 Cross Section -100.0 To 3614. %

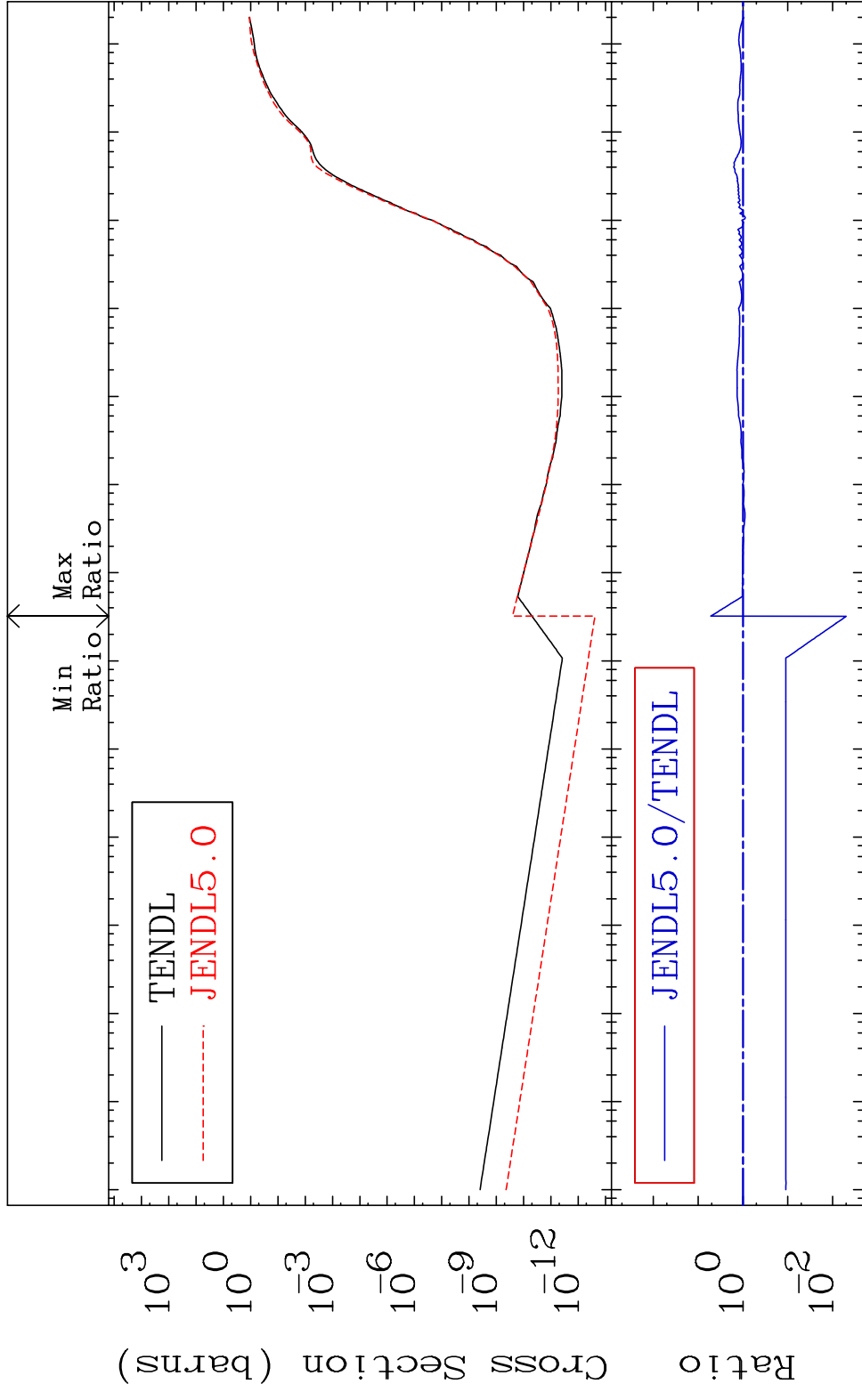


46 Incident Energy (eV) 60-Nd-140

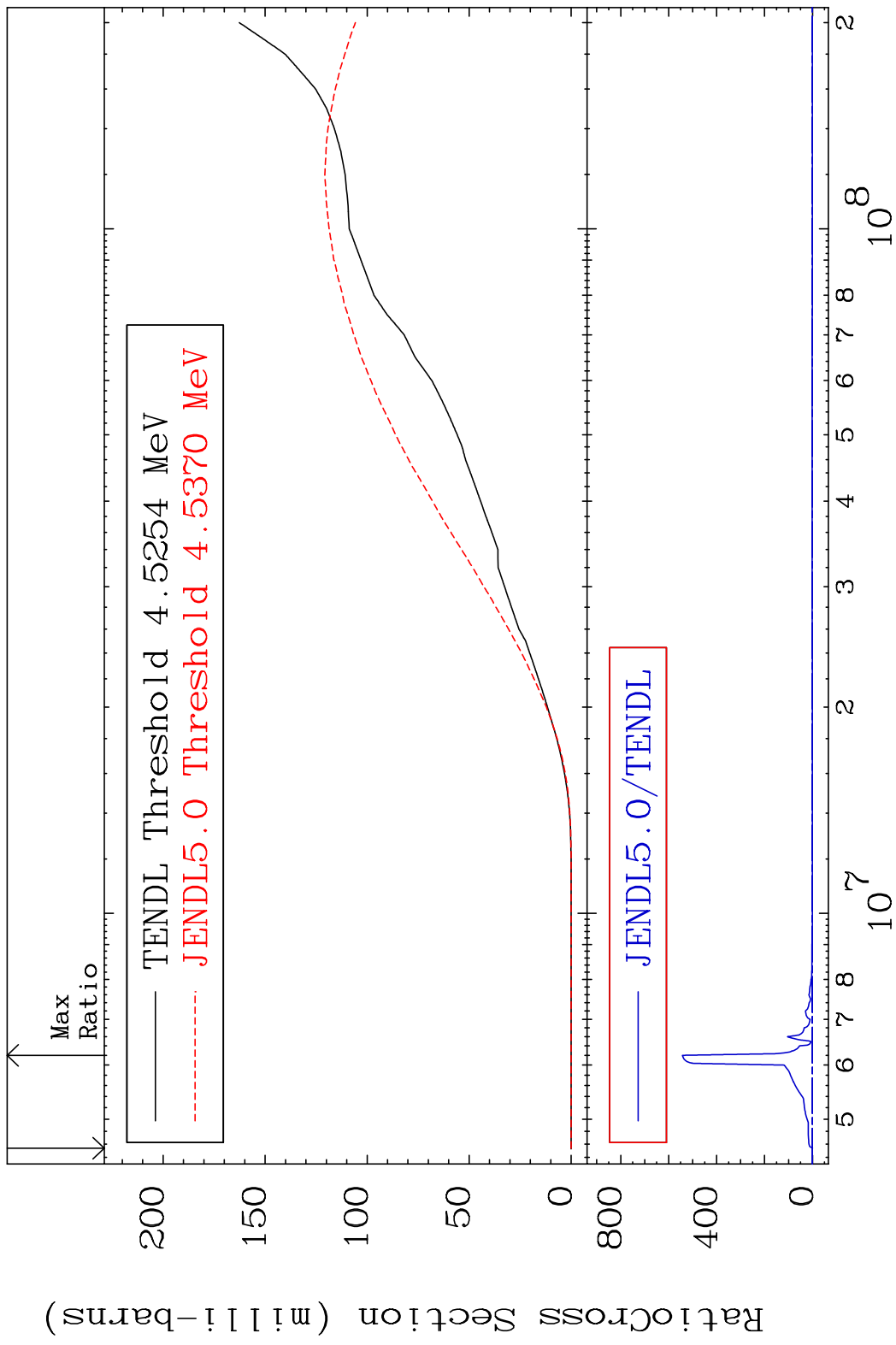
MAT 6019

Hydrogen Production  
Cross Section -99.50 To 423.2 %

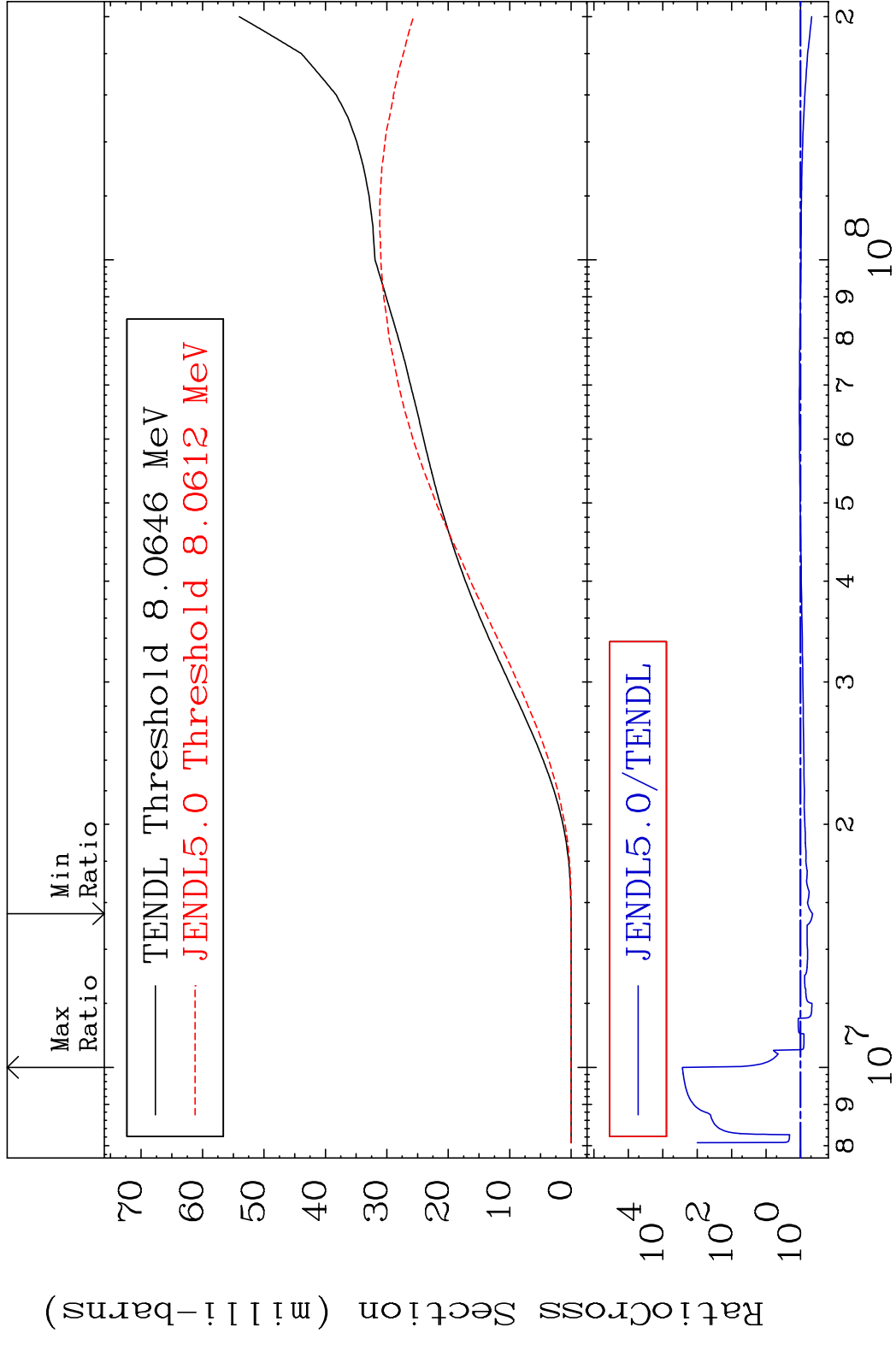
60-Nd-140



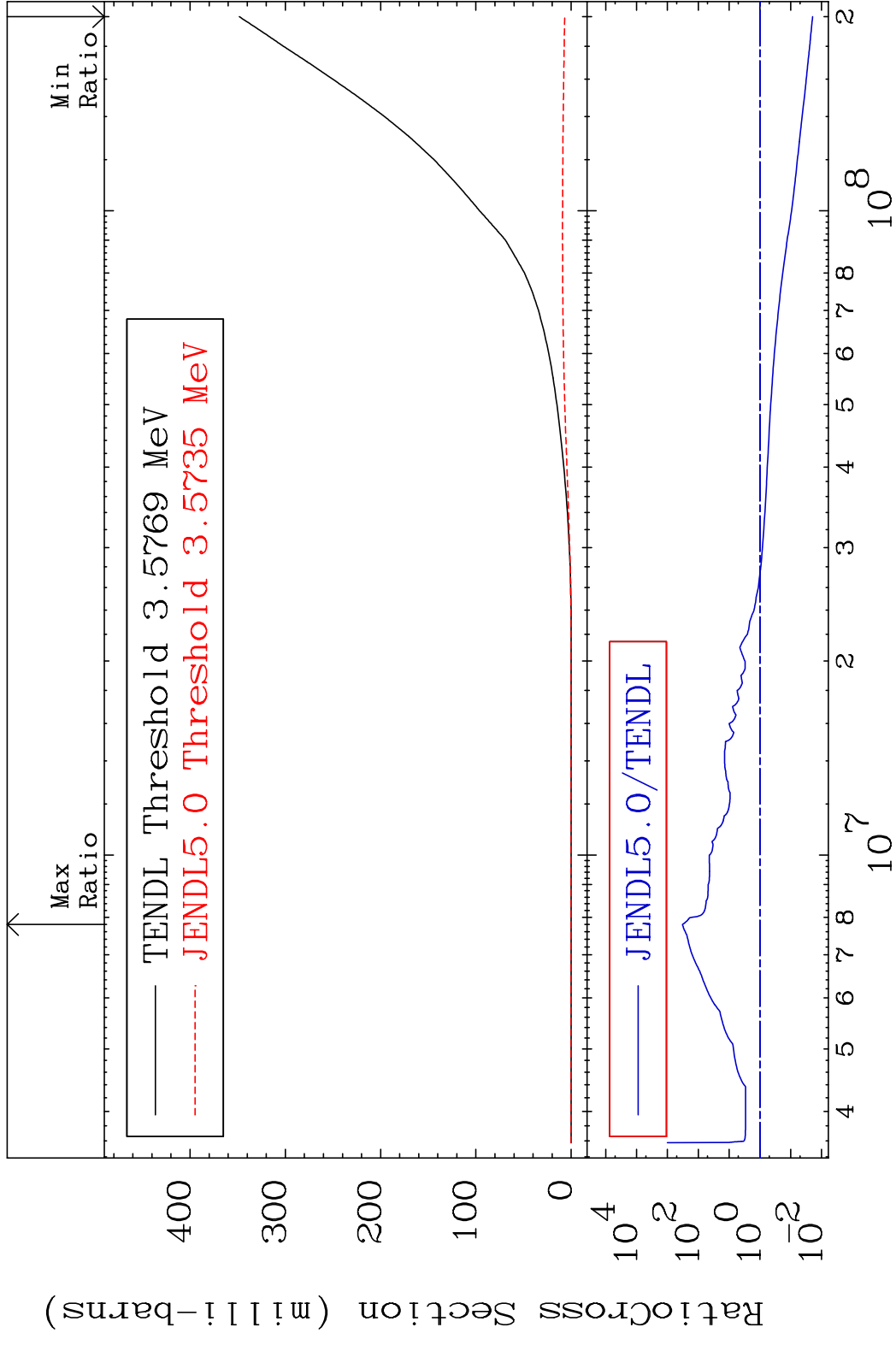
MAT 6019 Deuterium Production 60-Nd-140  
 Cross Section -100.0 To 9999. %



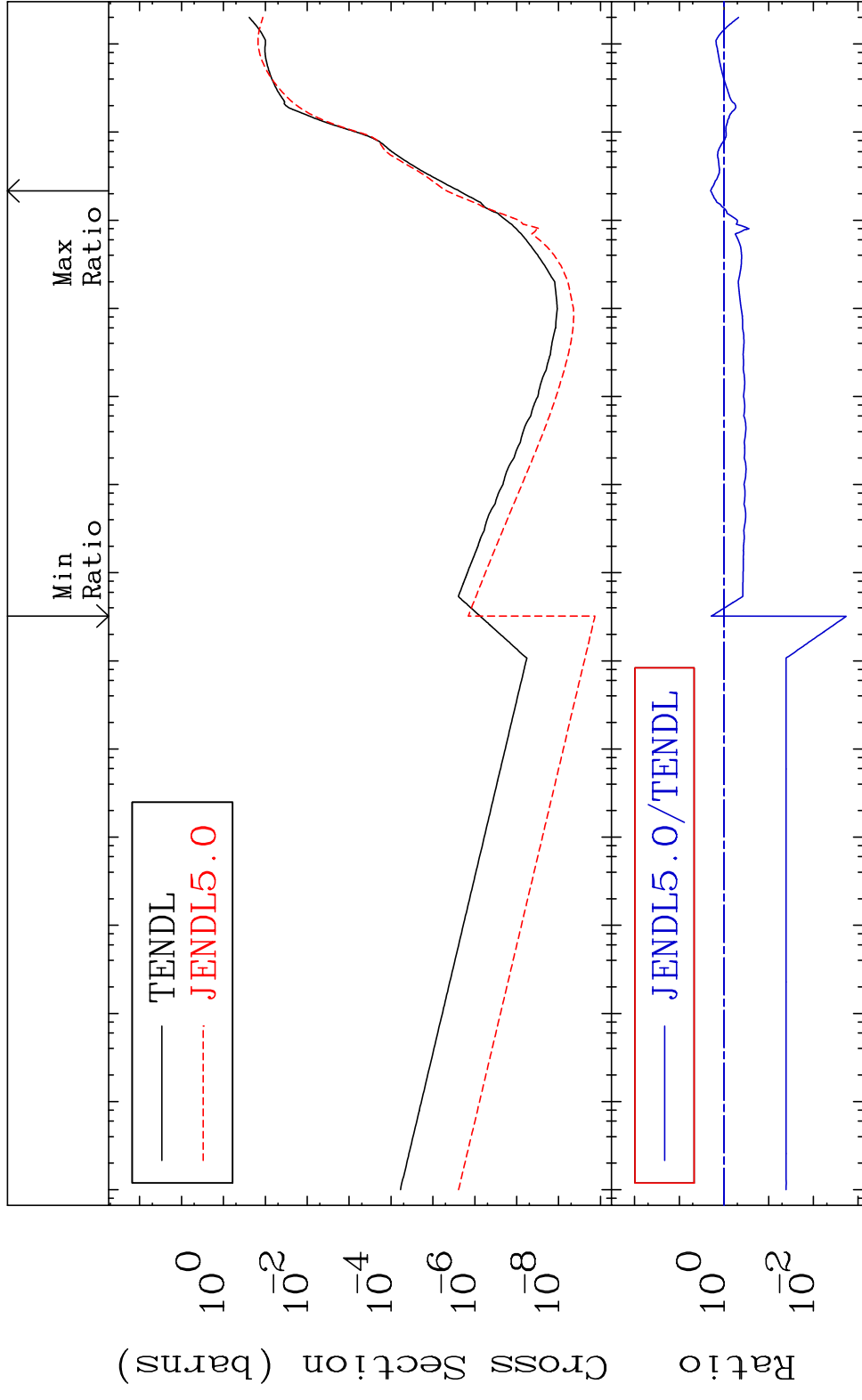
MAT 6019 Tritium Production 60-Nd-140  
 Cross Section -55.09 To 9999. %



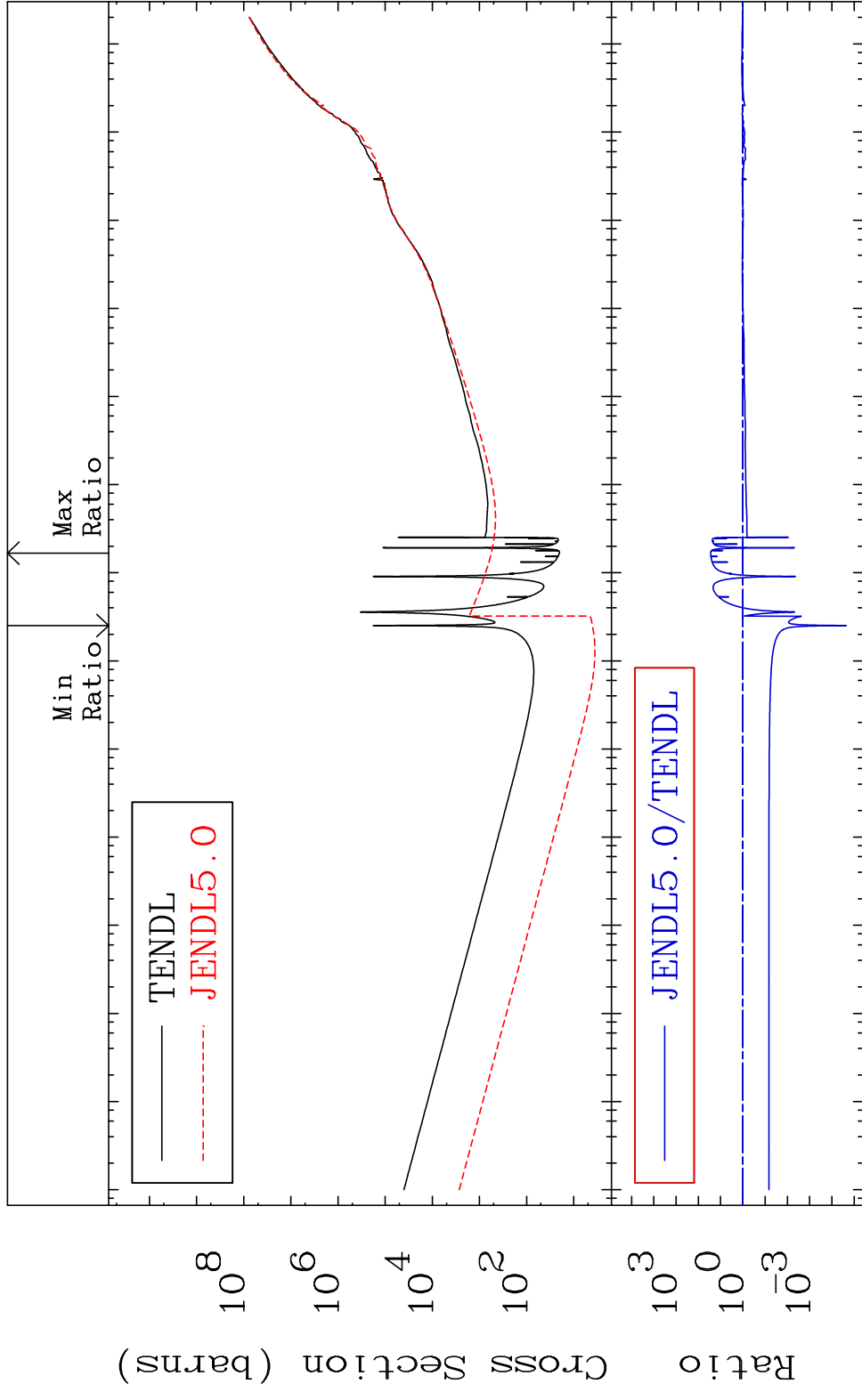
MAT 6019 He-3 Production 60-Nd-140  
 Cross Section -98.04 To 9999. %



MAT 6019 He-4 Production 60-Nd-140  
 Cross Section -99.82 To 98.04 %



MAT 6019 Kerma total (eV-barns) 60-Nd-140  
 Cross Section -100.0 To 2680. %



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

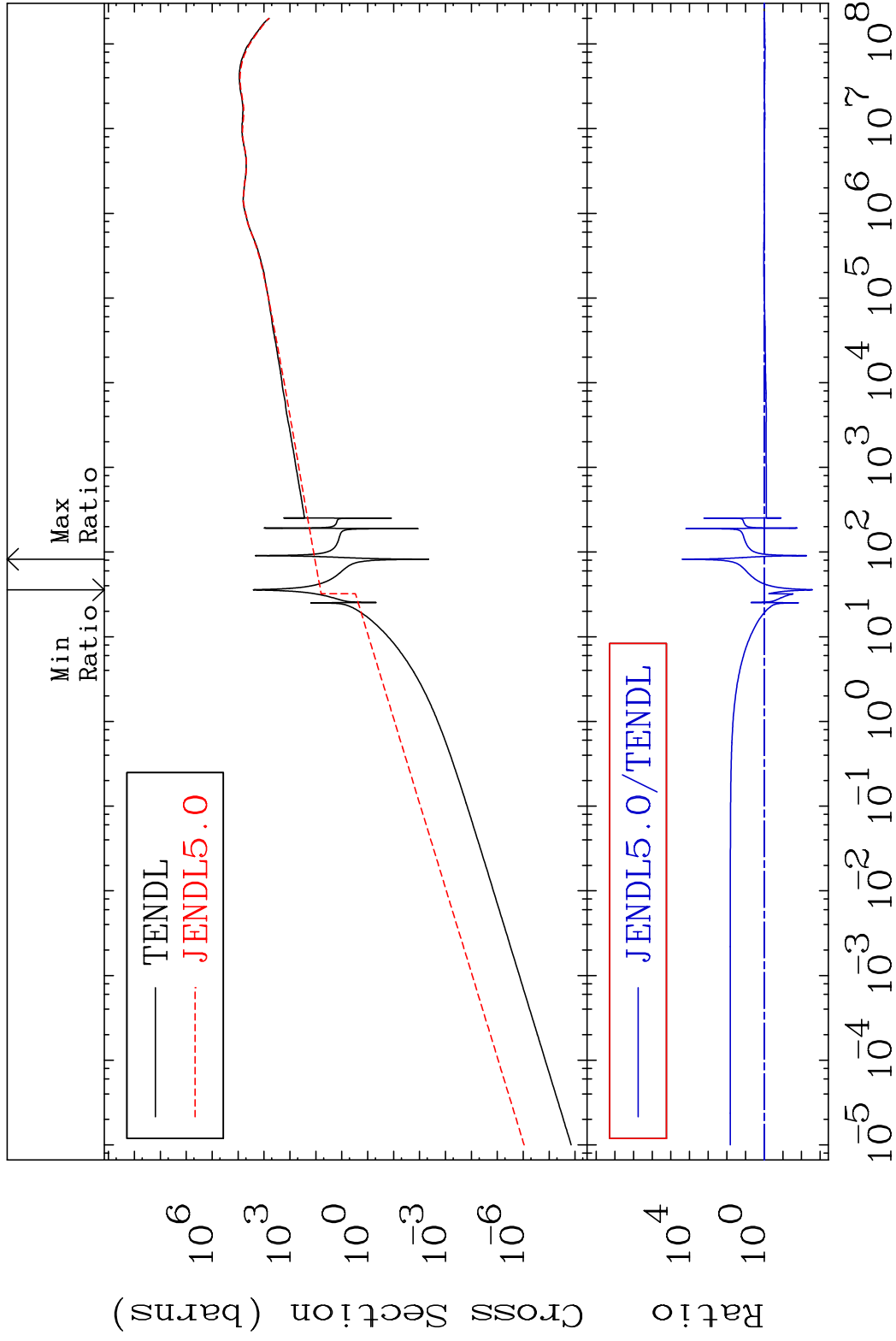
52 Incident Energy (eV) 60-Nd-140

MAT 6019

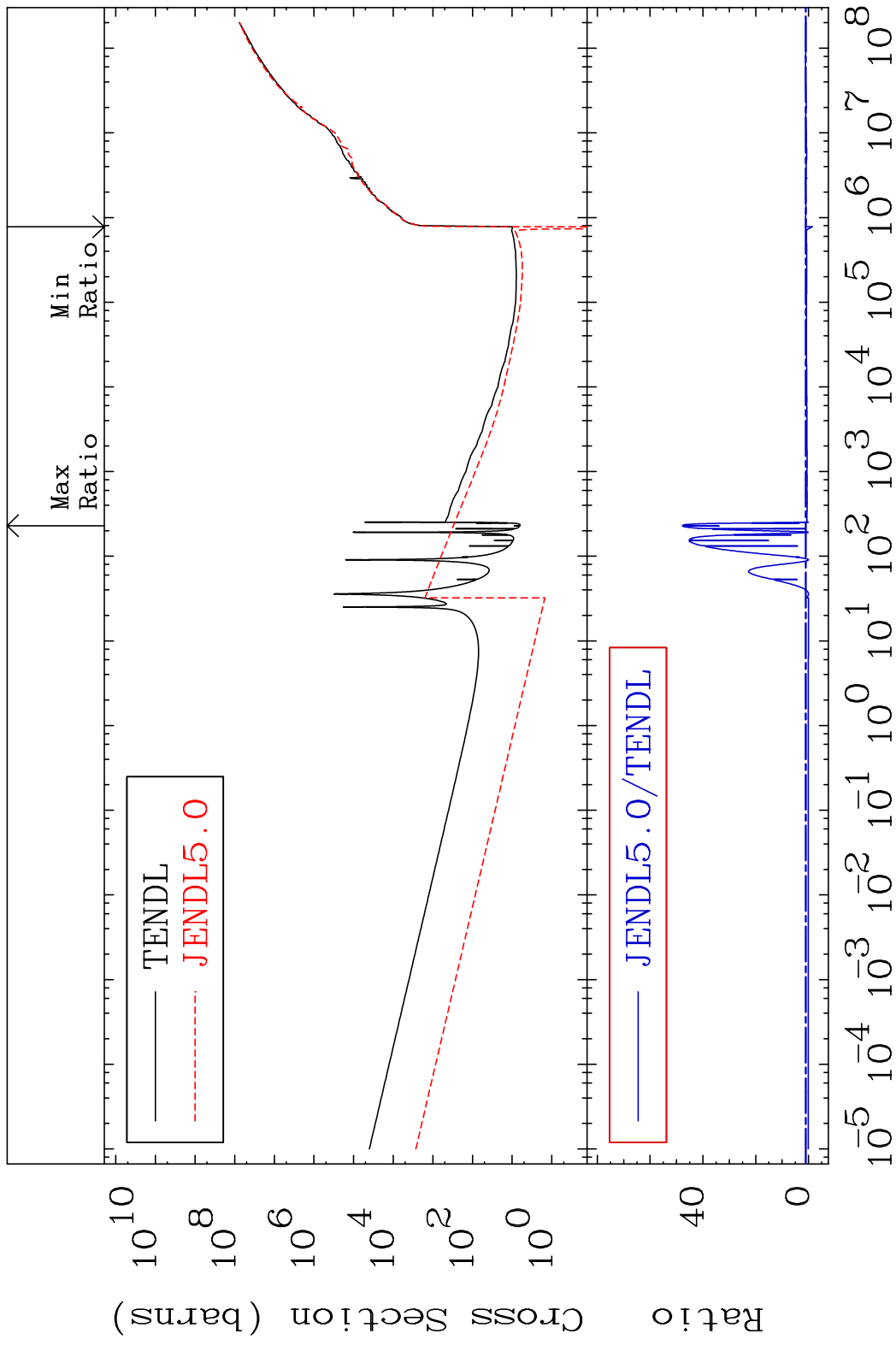
Kerma elastic

60-Nd-140

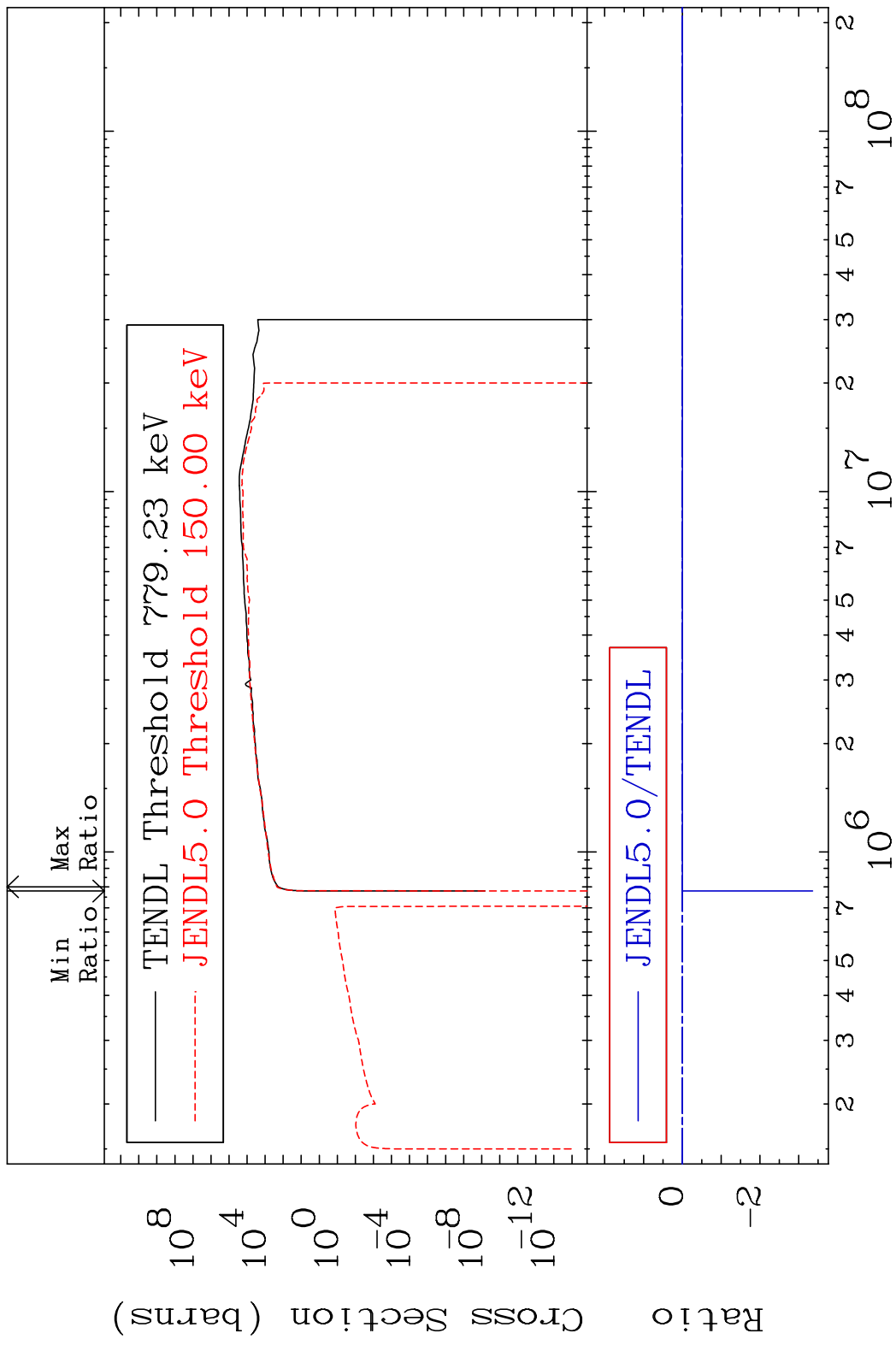
Cross Section -99.74 To 9999. %



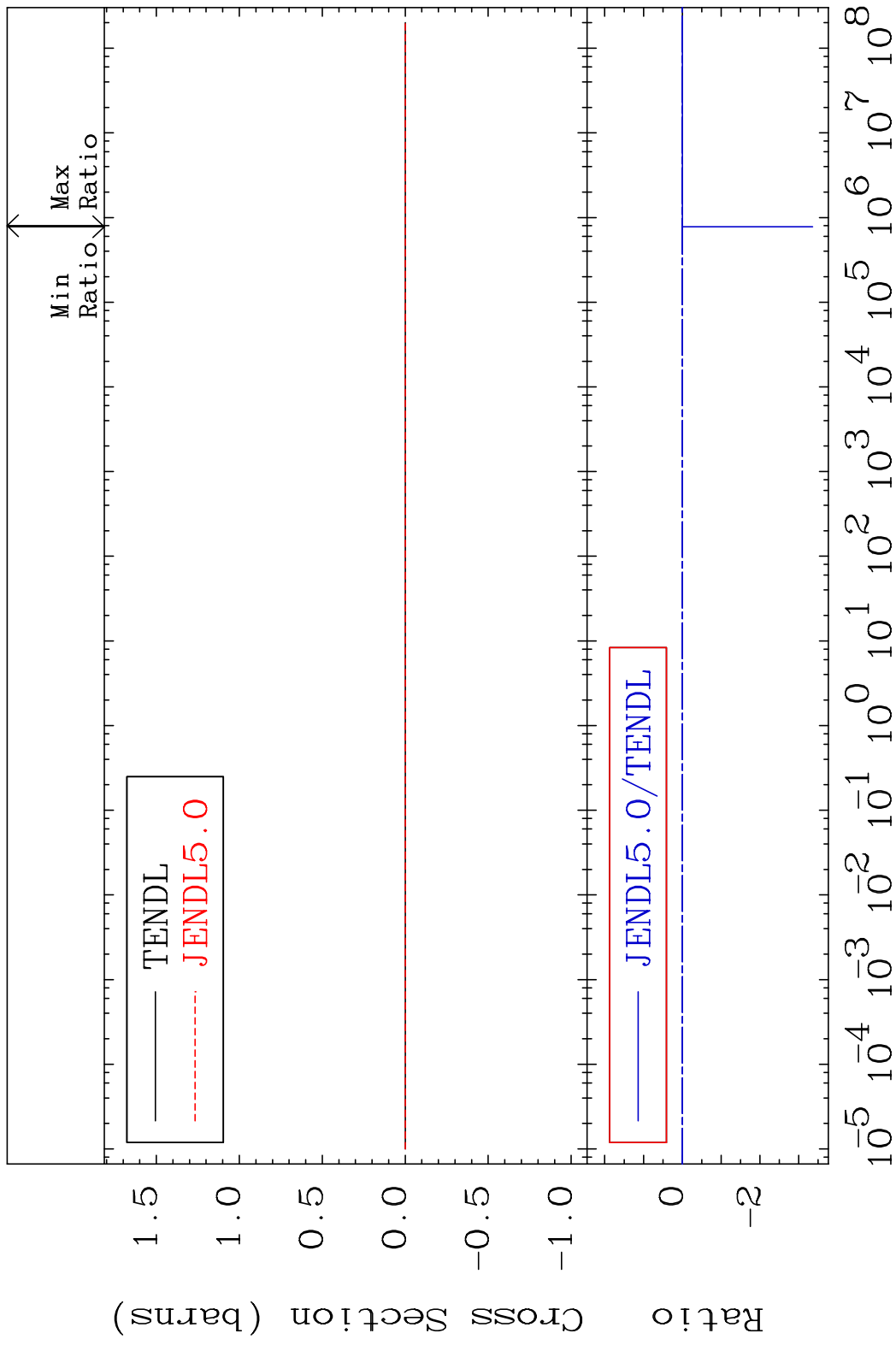
MAT 6019 Kerma non-elastic (all but mt2) 60-Nd-140  
 Cross Section -253.2 To 4679. %



MAT 6019 Kerma inelastic (mt51-91) 60-Nd-140  
 Cross Section -9999. To 19.16 %

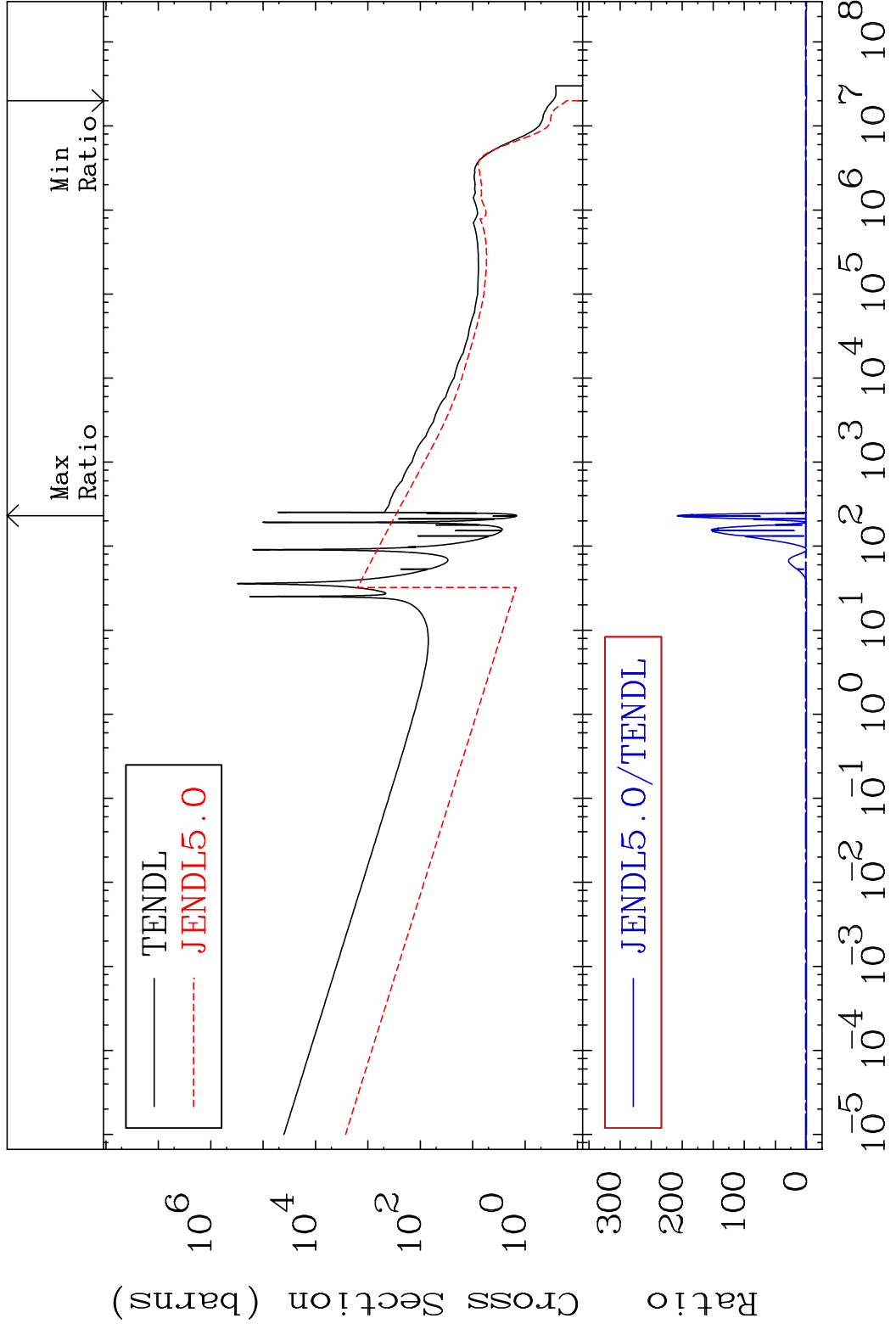


MAT 6019 Kerma fission (mt18 or mt19-20-21-38) 60-Nd-140  
 Cross Section -9999. To 19.16 %



MAT 6019

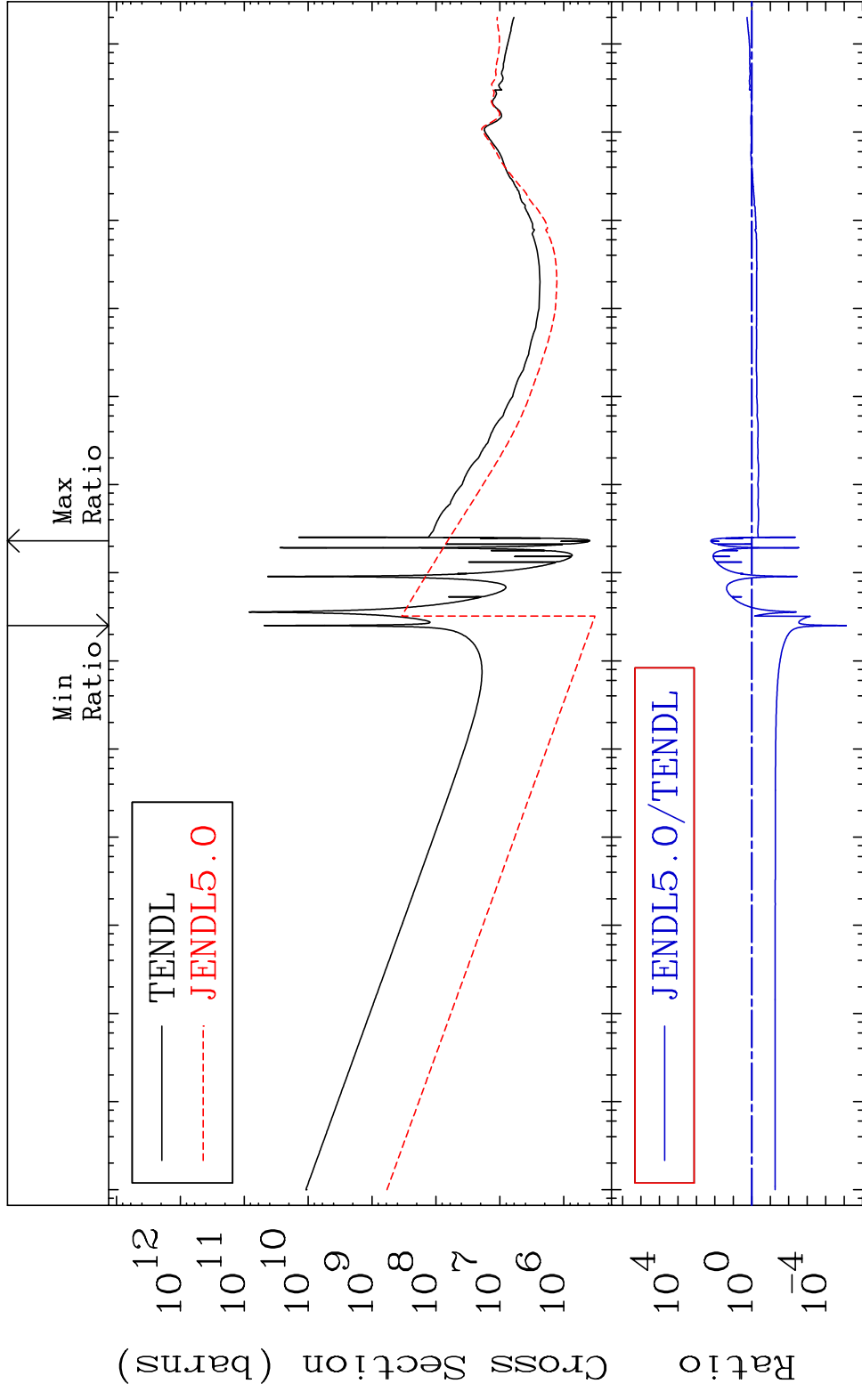
Kerma capture (mt102) 60-Nd-140  
Cross Section -100.0 To 9999. %



57

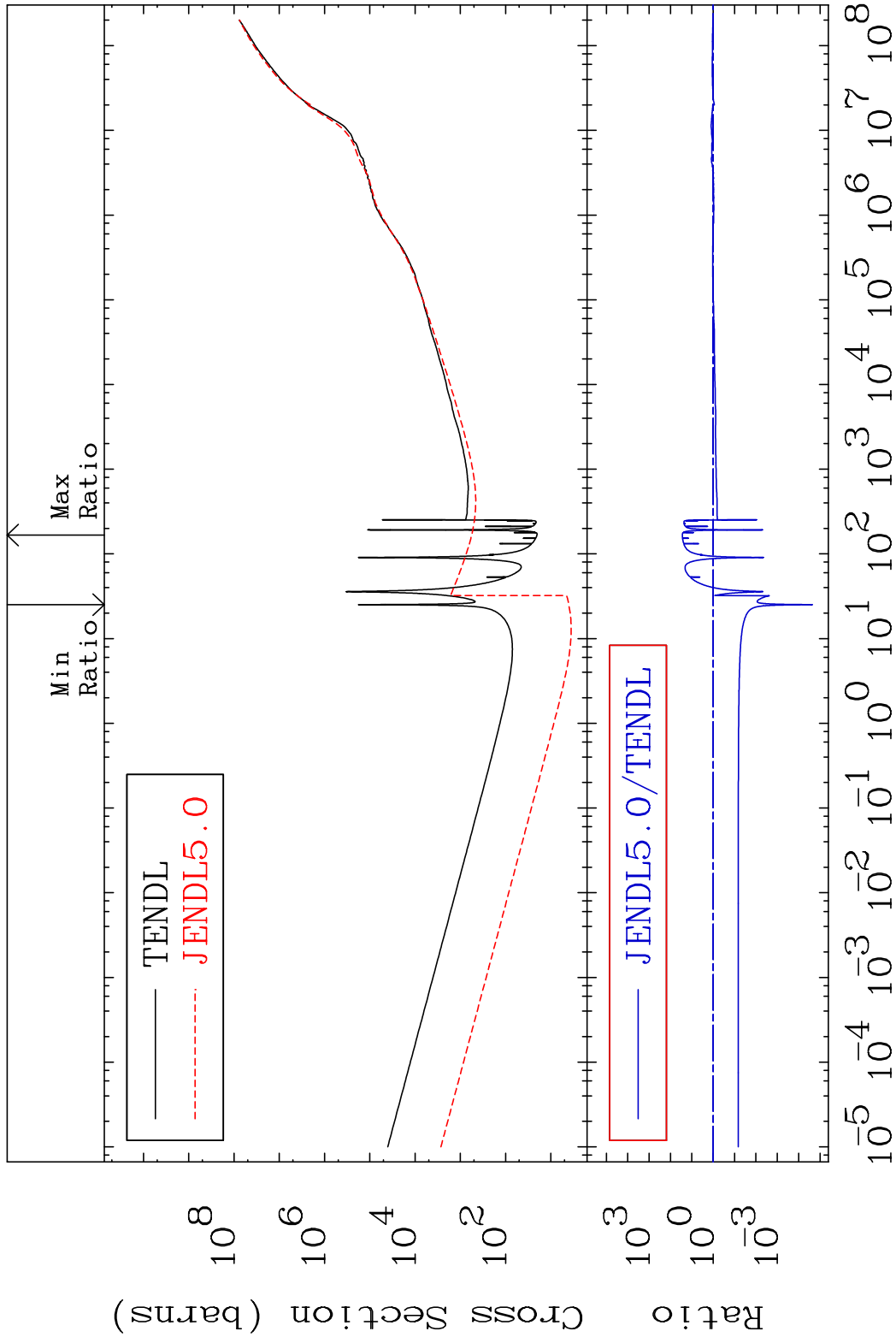
Incident Energy (eV) 60-Nd-140

MAT 6019 Total photon (eV-barns) 60-Nd-140  
 Cross Section -100.0 To 9999. %

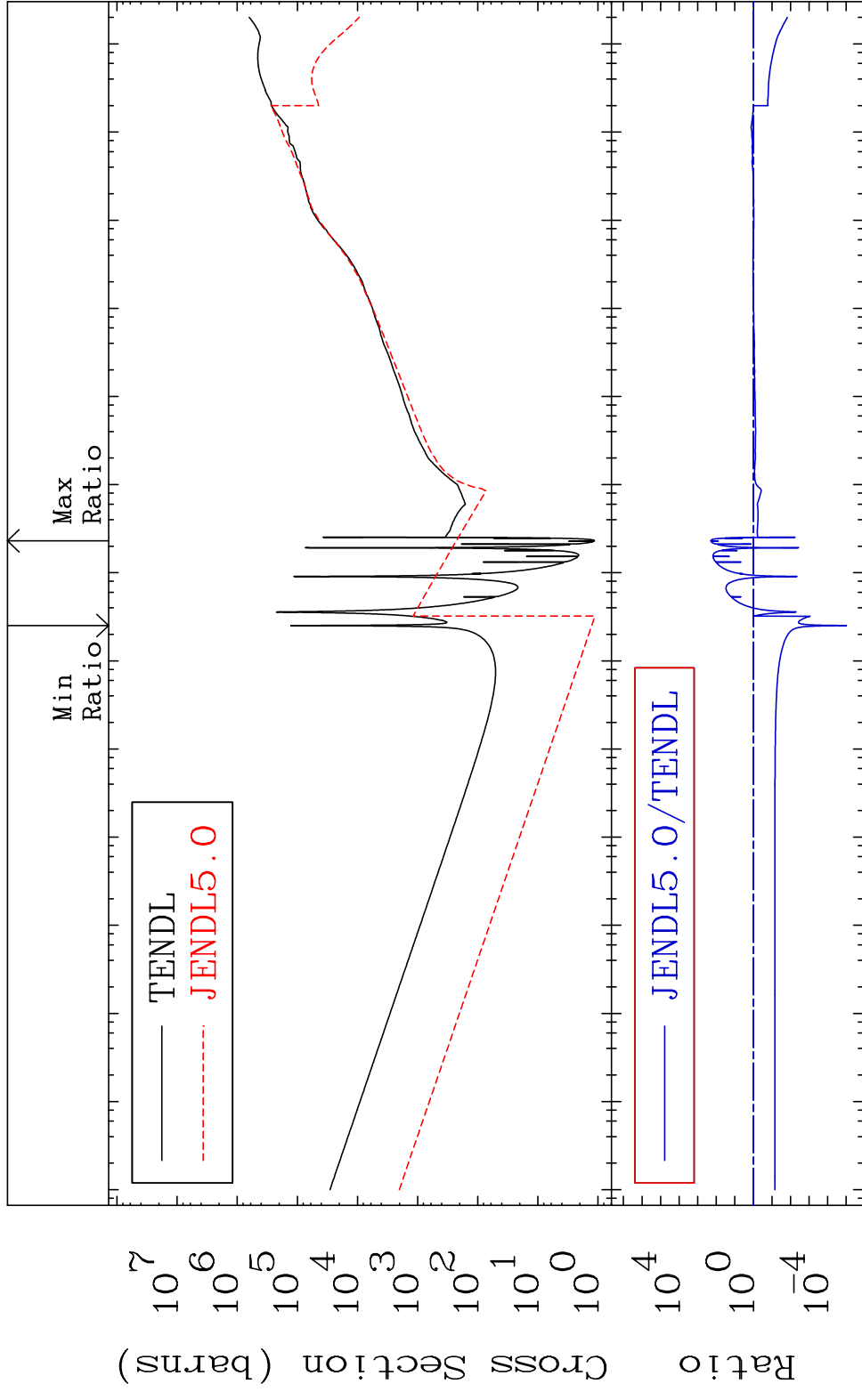


58 Incident Energy (eV) 60-Nd-140

MAT 6019 Total kinematic kerma (high limit) 60-Nd-140  
 Cross Section -100.0 To 2675. %



MAT 6019 Dpa total (eV-barns) 60-Nd-140  
 Cross Section -100.0 To 9999. %



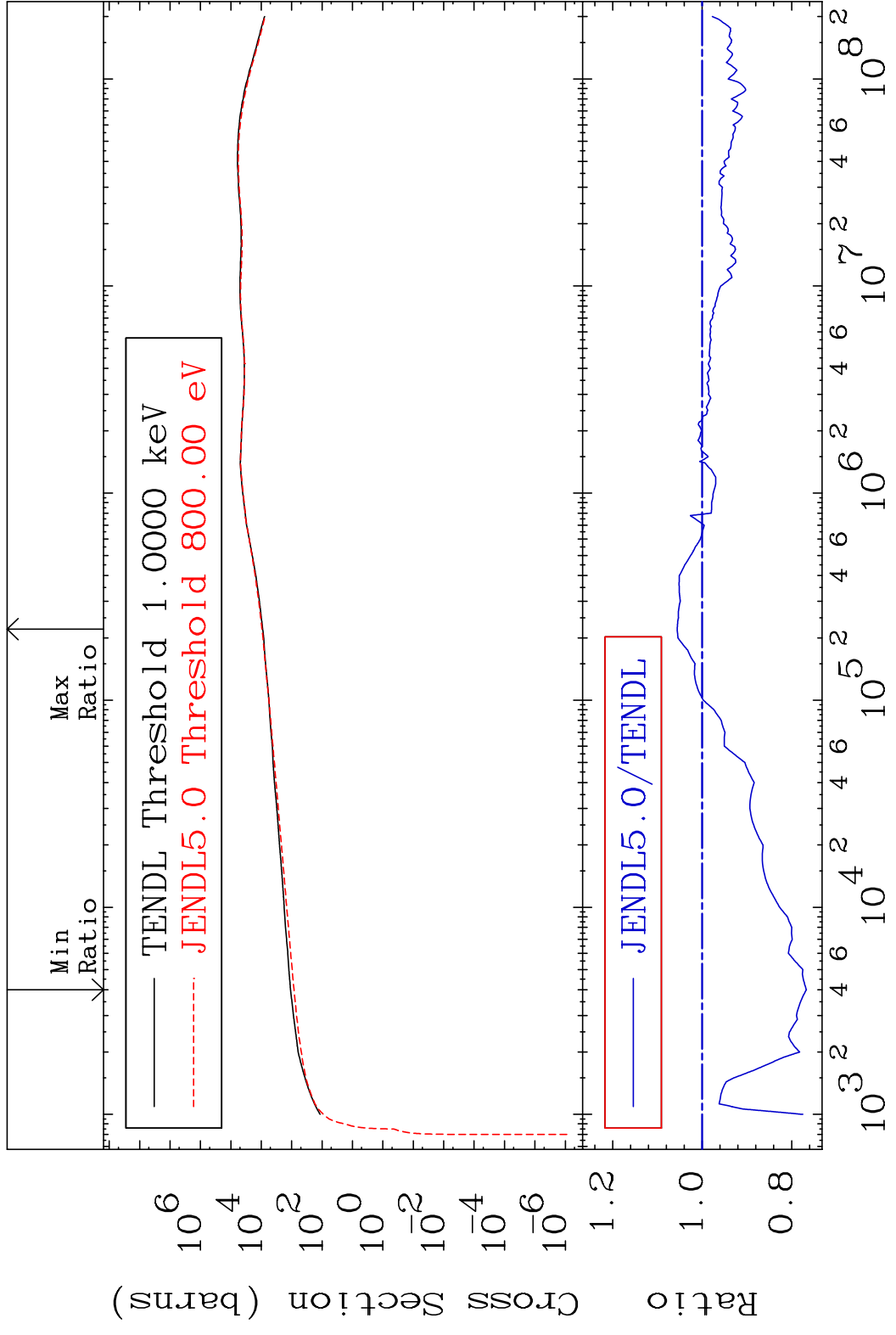
60 Incident Energy (eV) 60-Nd-140

MAT 6019

Dpa elastic (mt2)

60-Nd-140

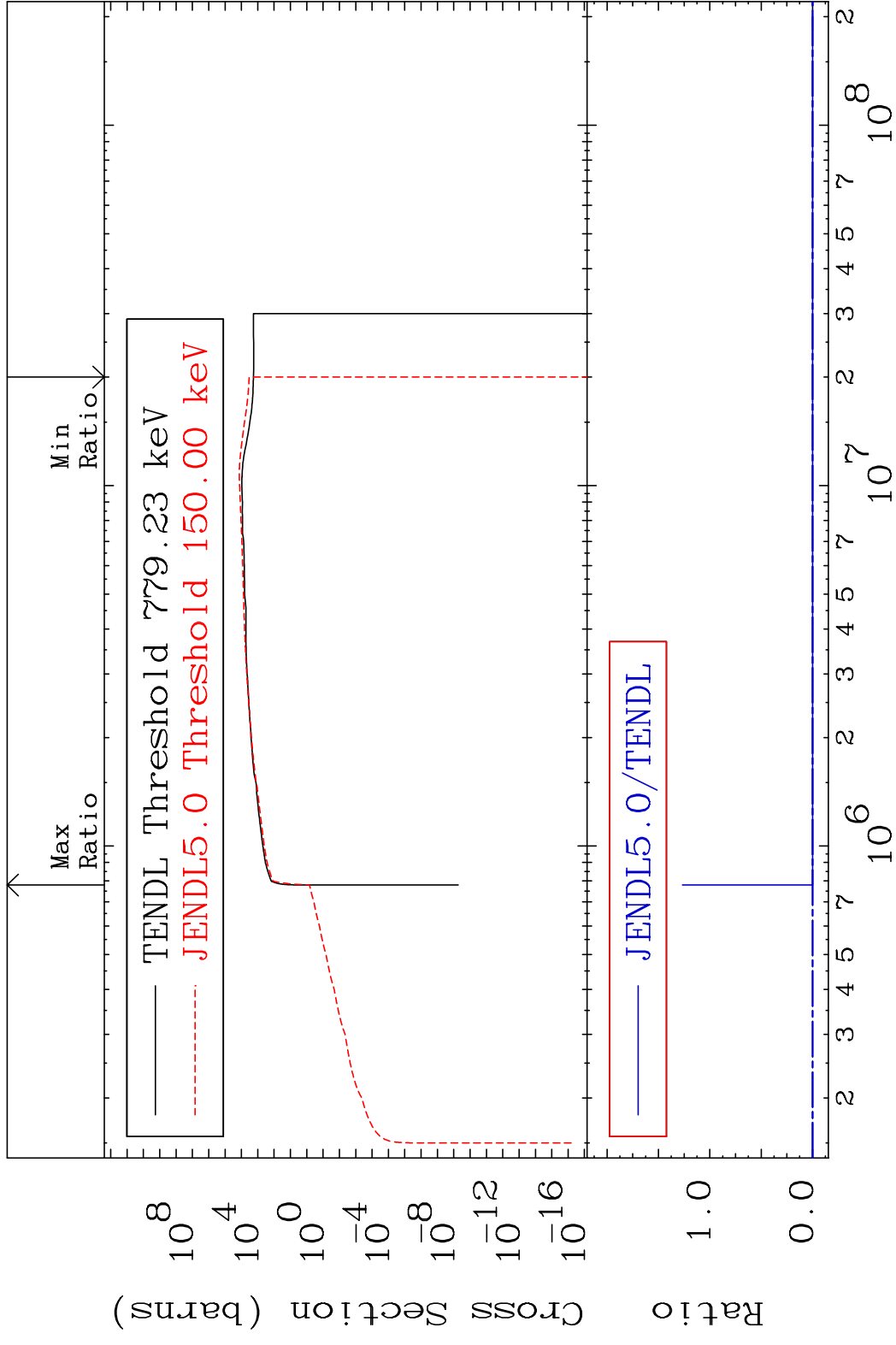
Cross Section -23.30 To 5.579 %



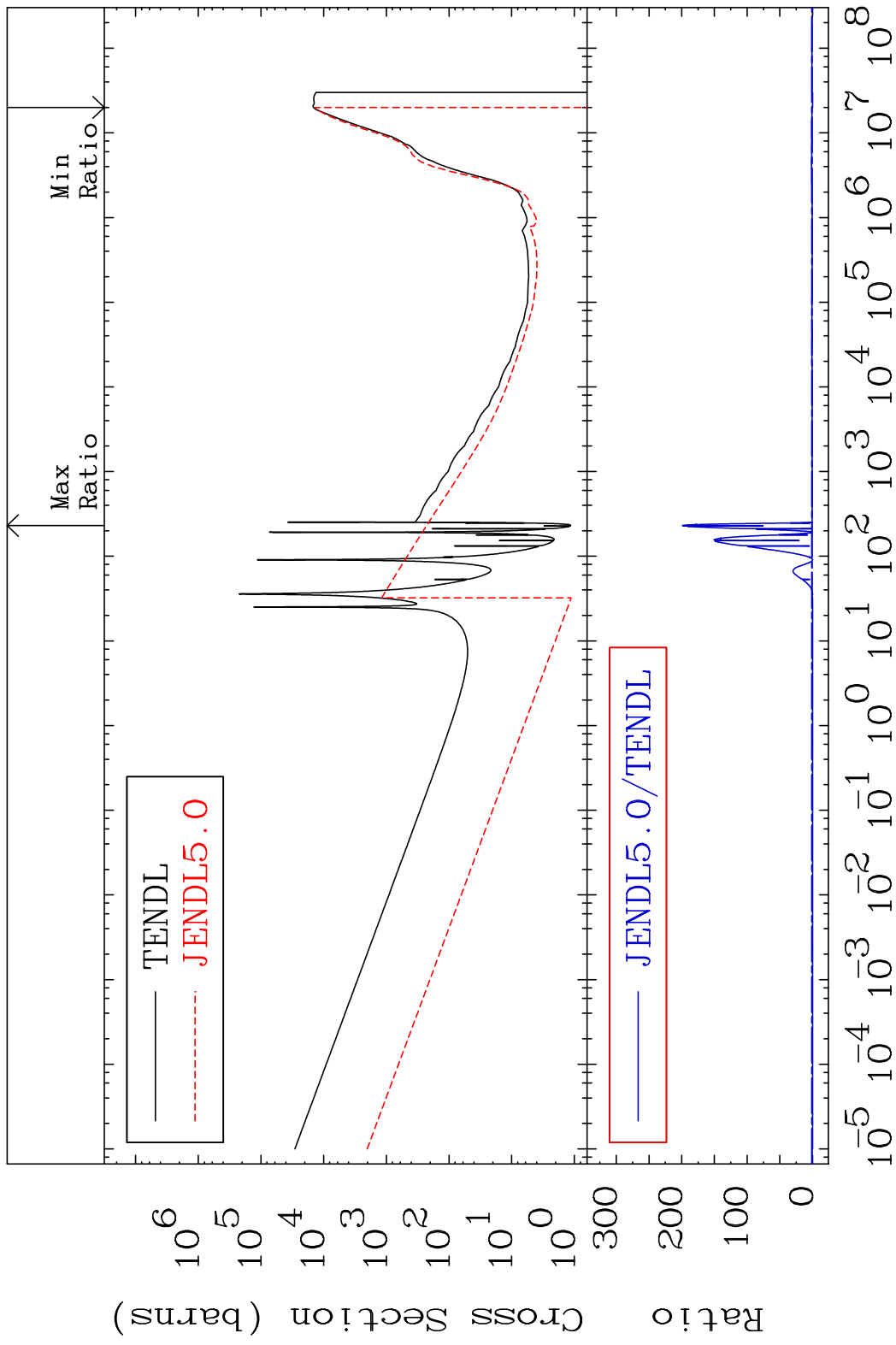
61

Incident Energy (eV)

60-Nd-140

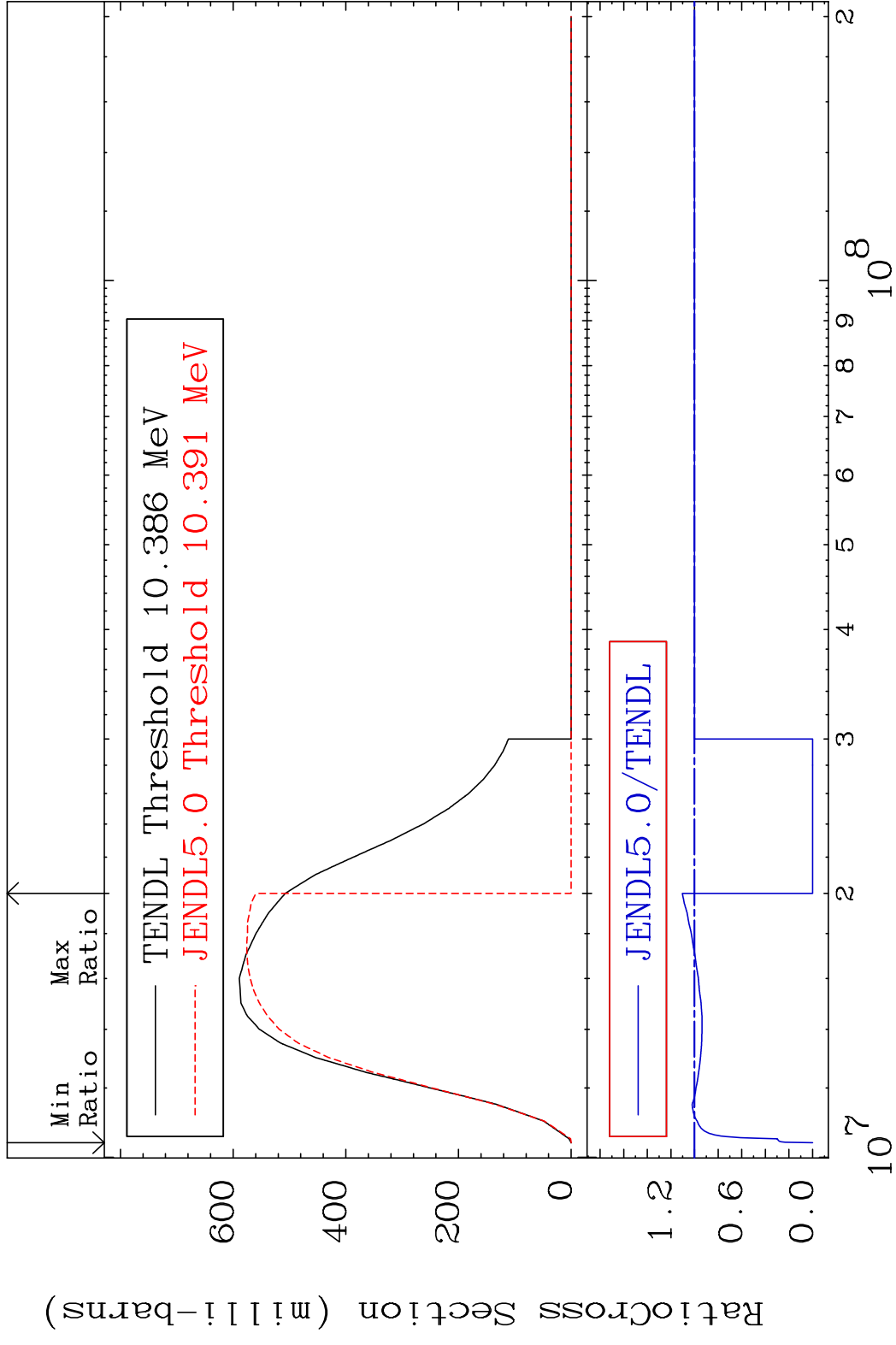


MAT 6019 Dpa disappearance (mt102 -120) 60-Nd-140  
 Cross Section -100.0 To 9999. %



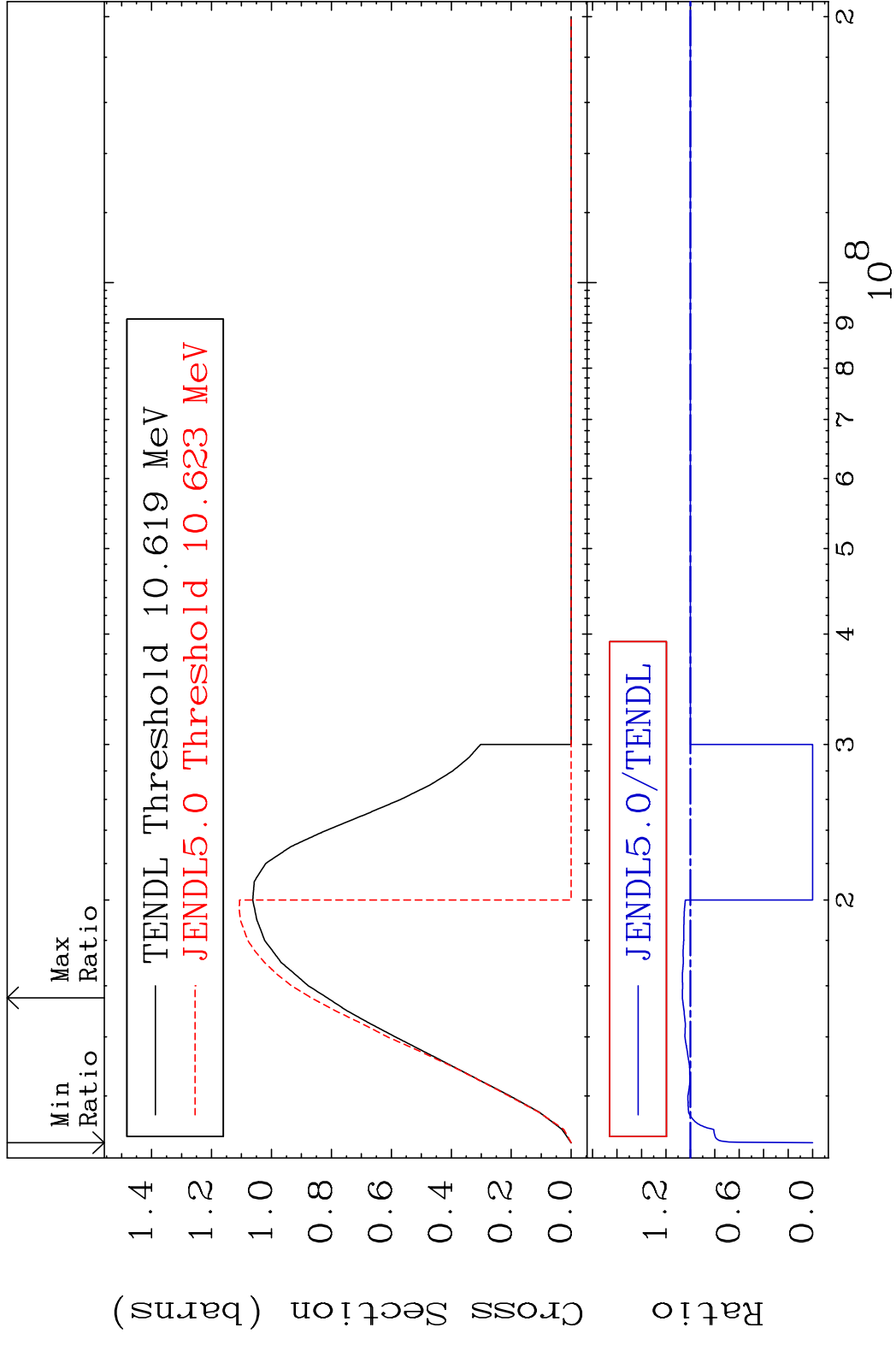
63 Incident Energy (eV) 60-Nd-140

MAT 6019 (n,2n):60-Nd-139g 60-Nd-140  
 Radionuclide Production Cross Section 10.30 %

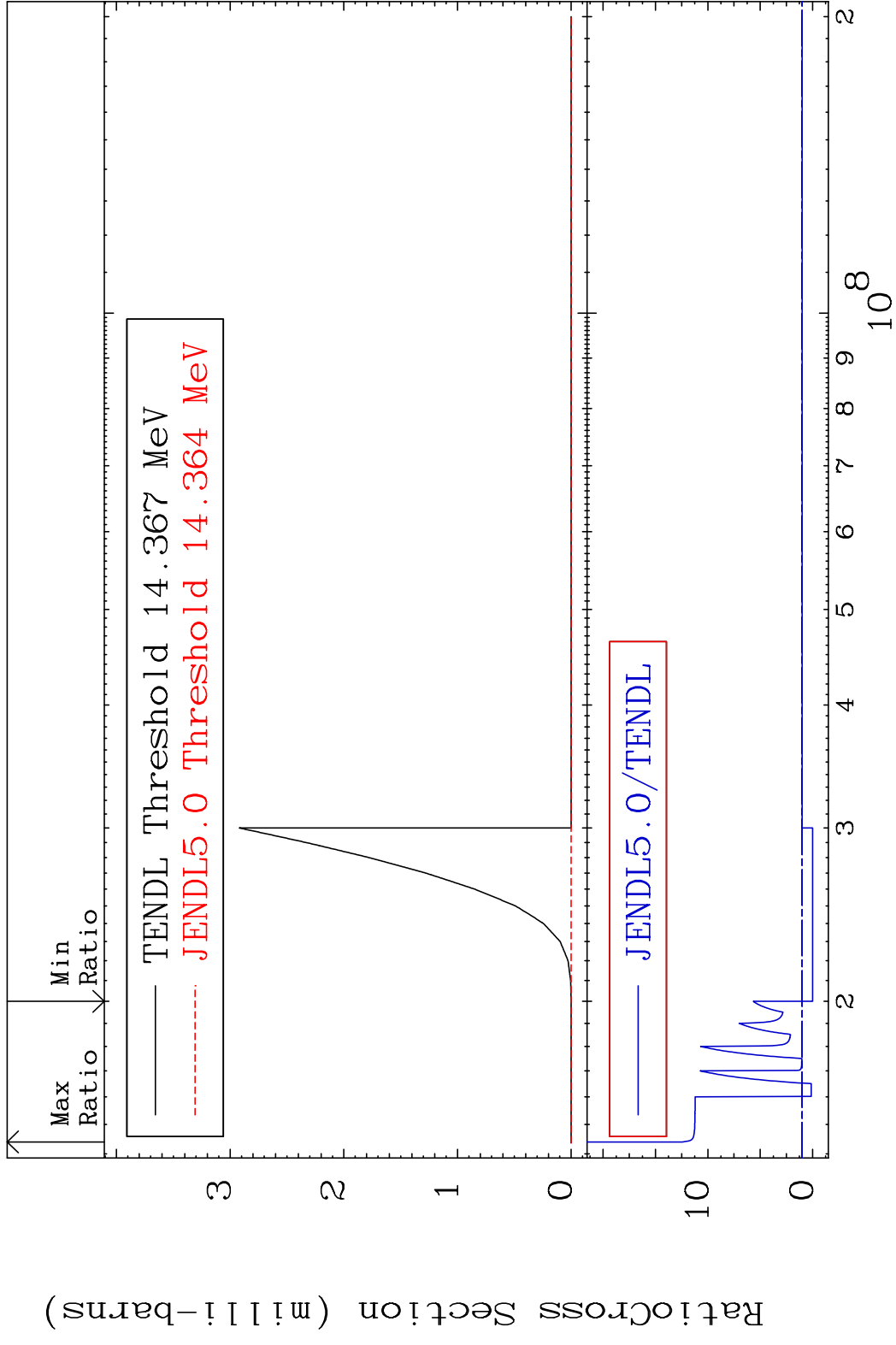


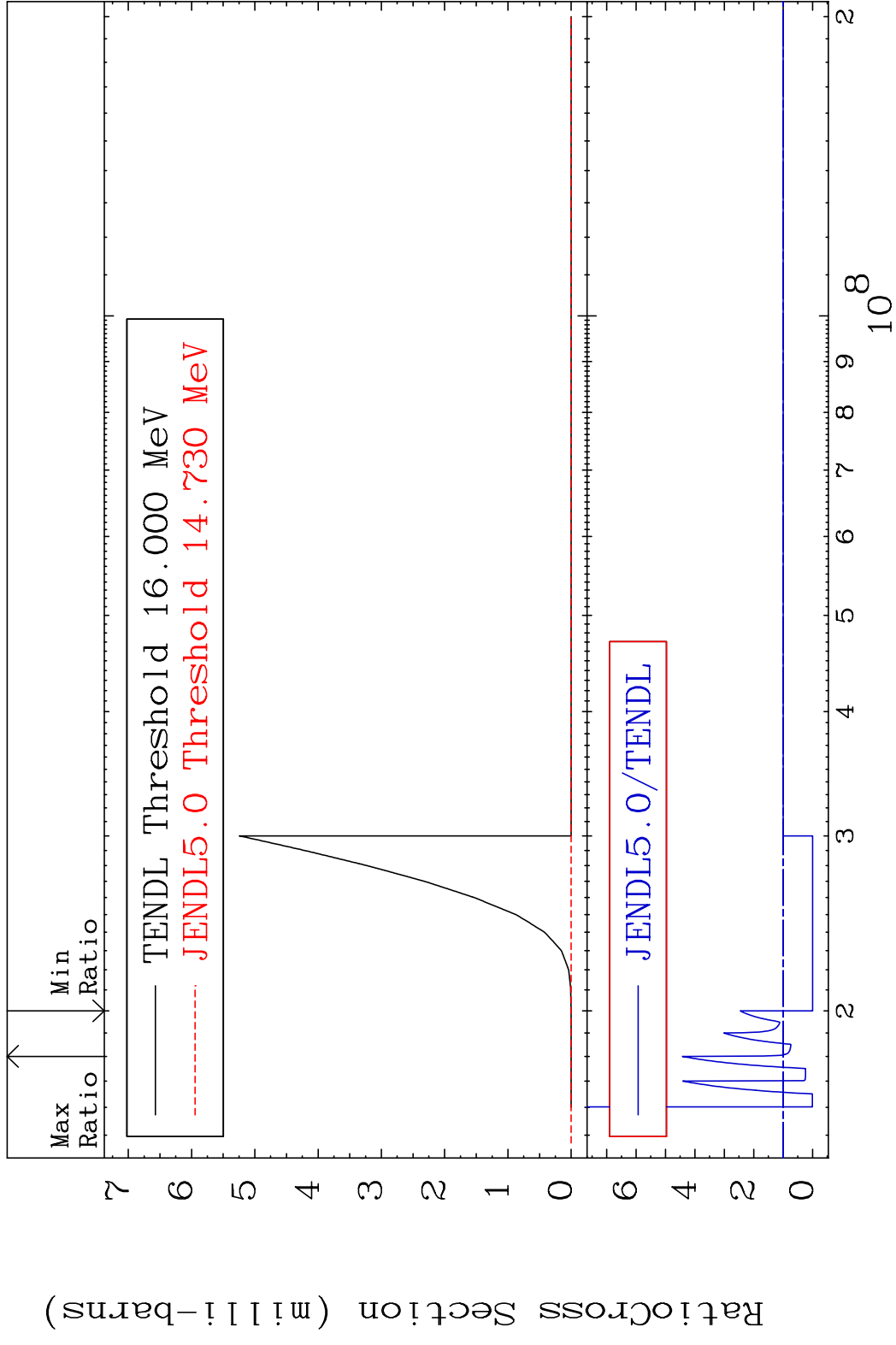
64 Incident Energy (eV) 60-Nd-140

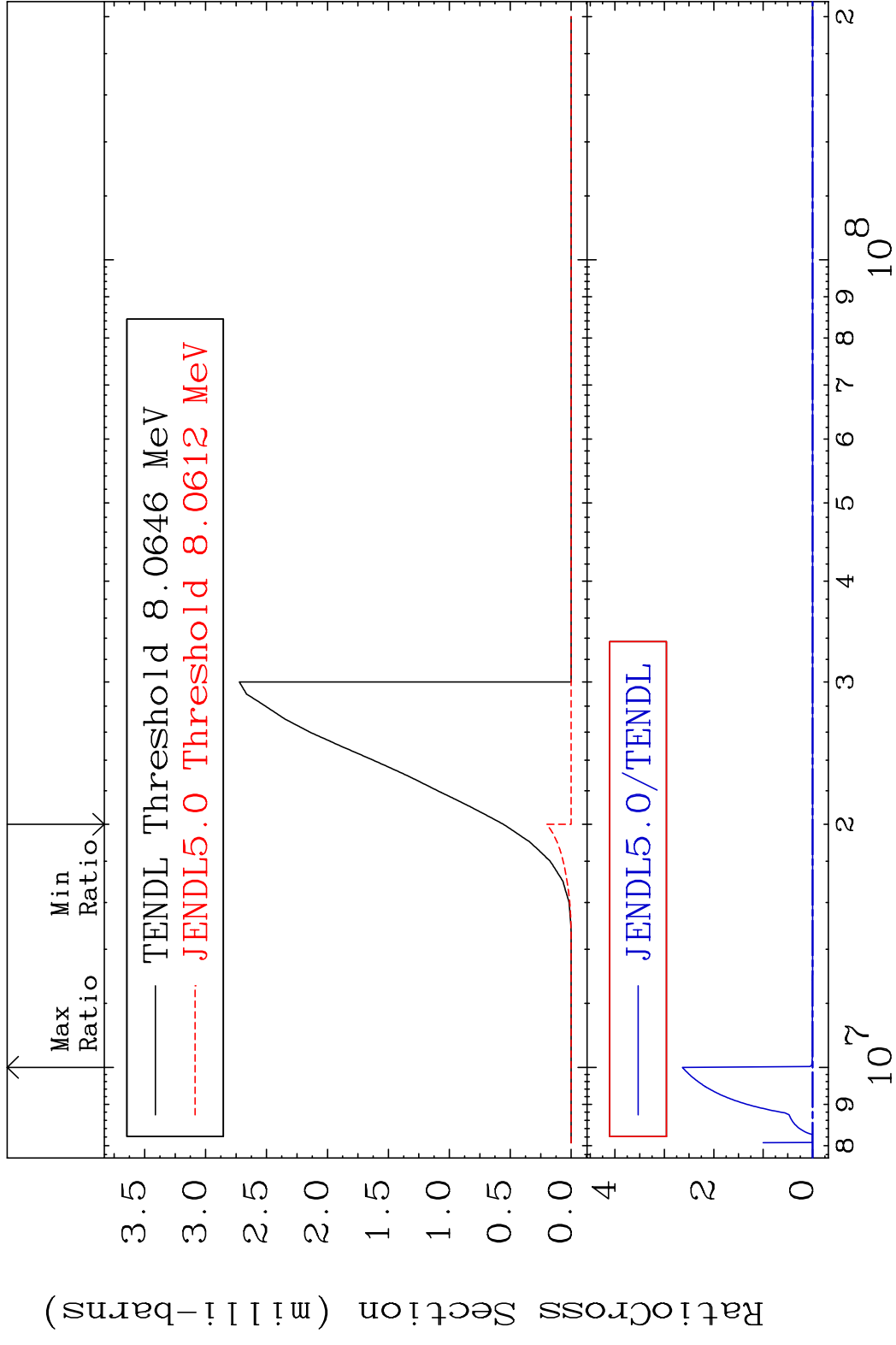
MAT 6019 (n,2n):60-Nd-139m2 60-Nd-140  
 Radionuclide Production Cross Section Ratio 6.549 %



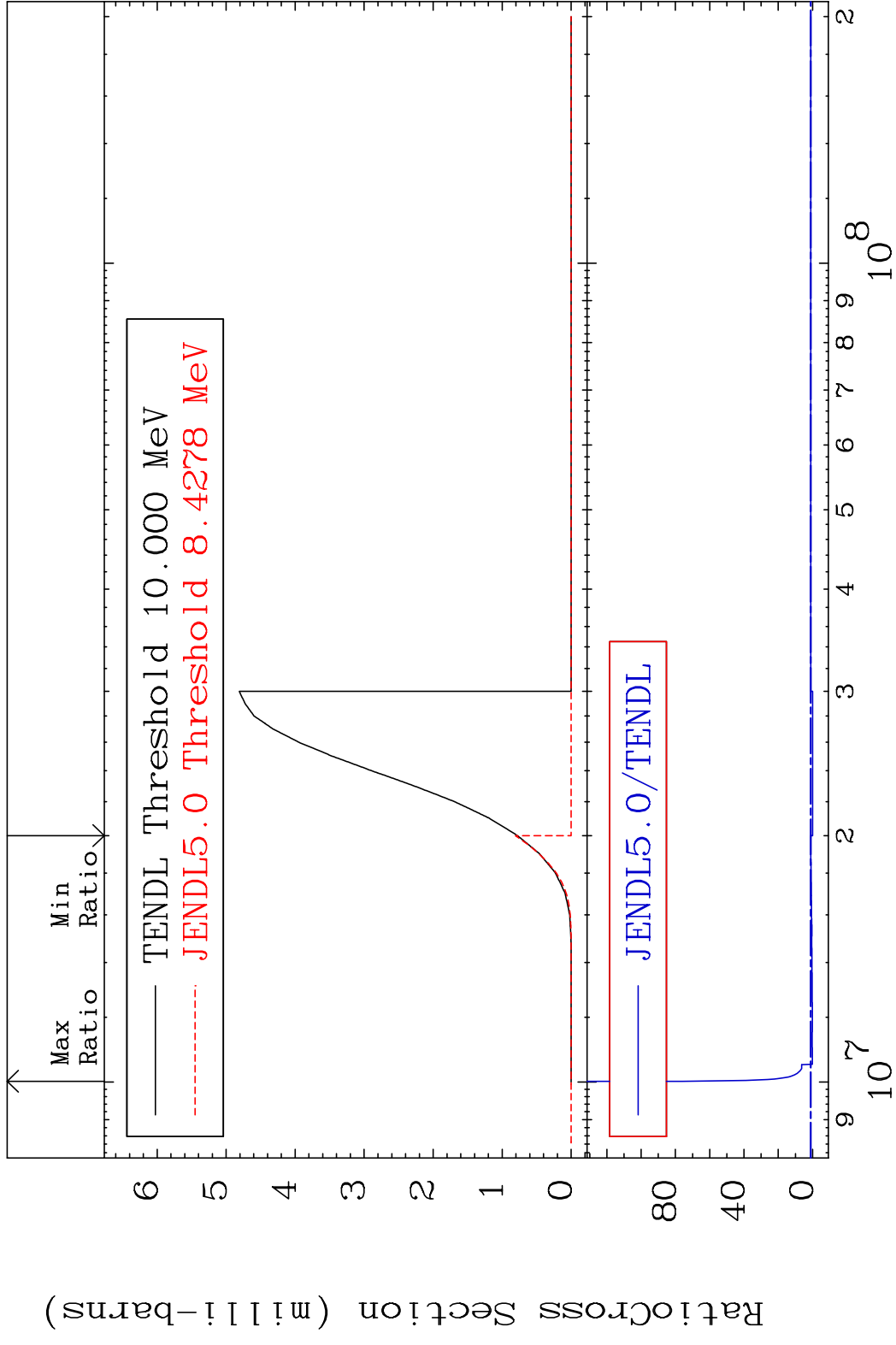
MAT 6019 (n, n') d:59-Pr-138g 60-Nd-140  
 Radionuclide Production Cross Section 1800 d to 1143. %





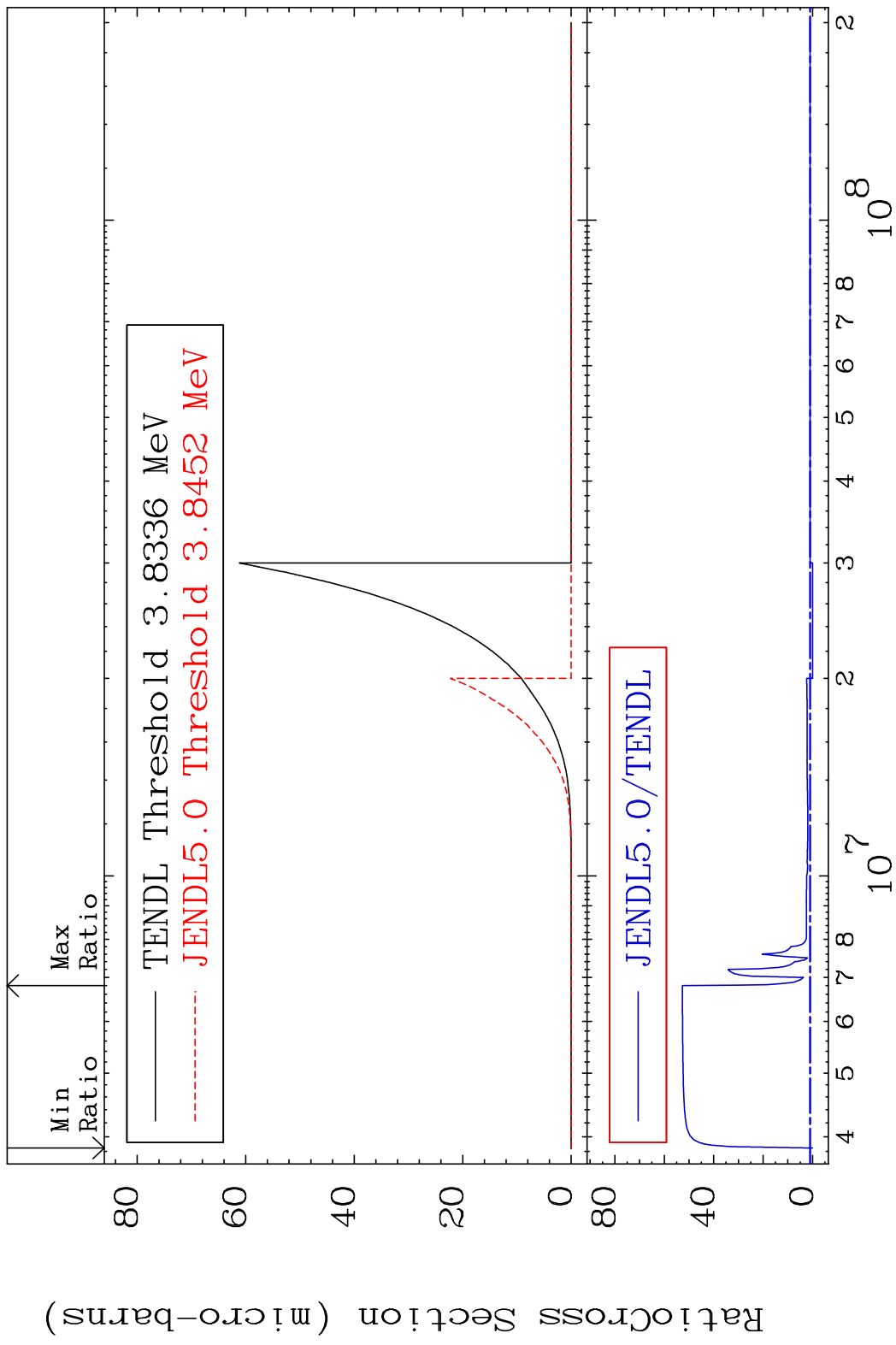


MAT 6019 (n, t):59-Pr-138m5 60-Nd-140  
 Radionuclide Production Cross Section 180.0 mb 7496. %



69 60-Nd-140

MAT 6019 (n,2p):58-Ce-139g 60-Nd-140  
 Radionuclide Production Cross Section to 5168. %



70 Incident Energy (eV) 60-Nd-140

