

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

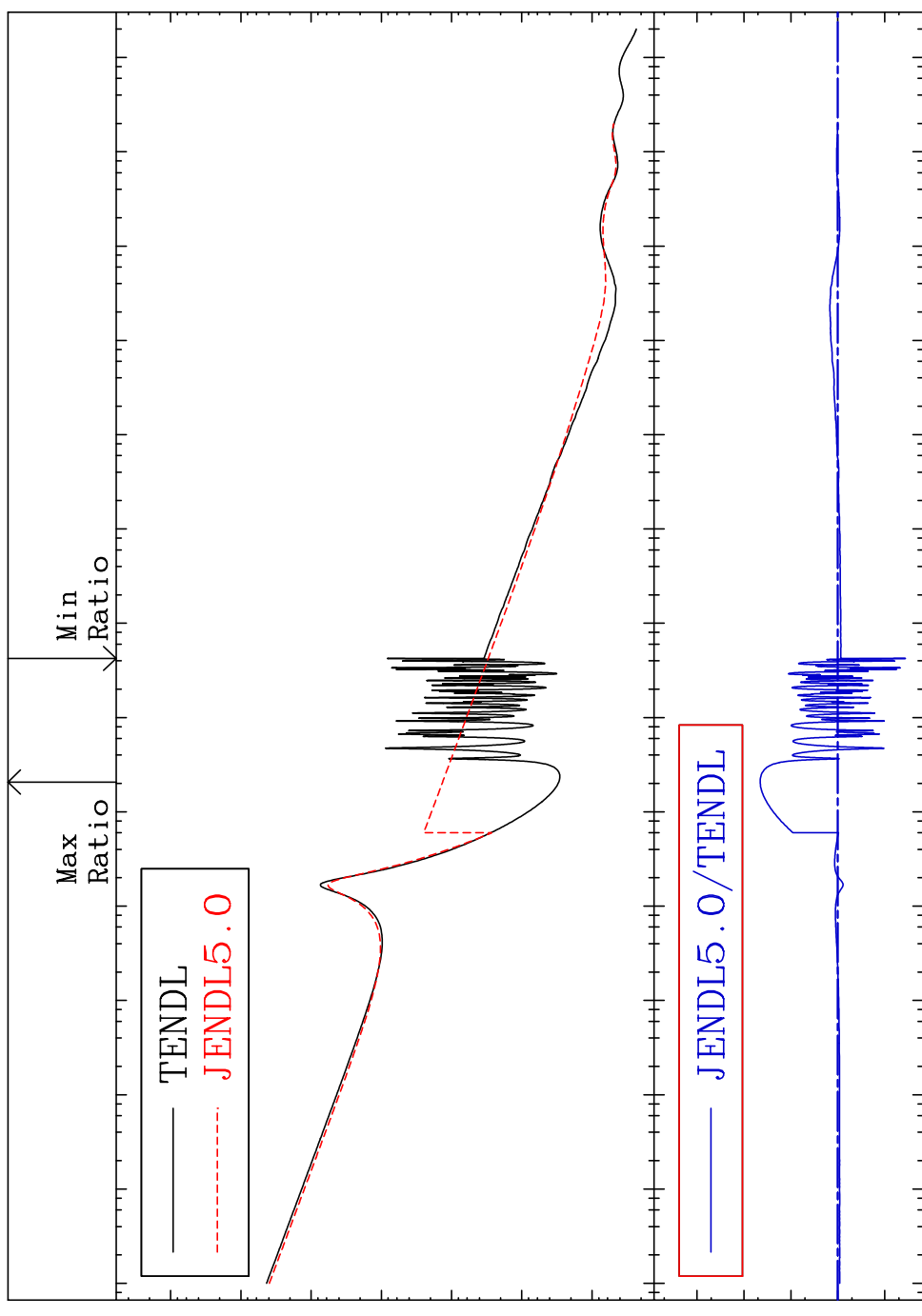
E.Mail:redcullen1@comcast.net
Web:redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 6153

Total
Cross Section -96.33 To 4402. %

61-Pm-148m



Cross Section (barns)
Ratio

10⁷
10⁶
10⁵
10⁴
10³
10²
10¹
10²
10⁰
10⁻⁵ 10⁻⁴ 10⁻³ 10⁻² 10⁻¹ 10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶ 10⁷ 10⁸

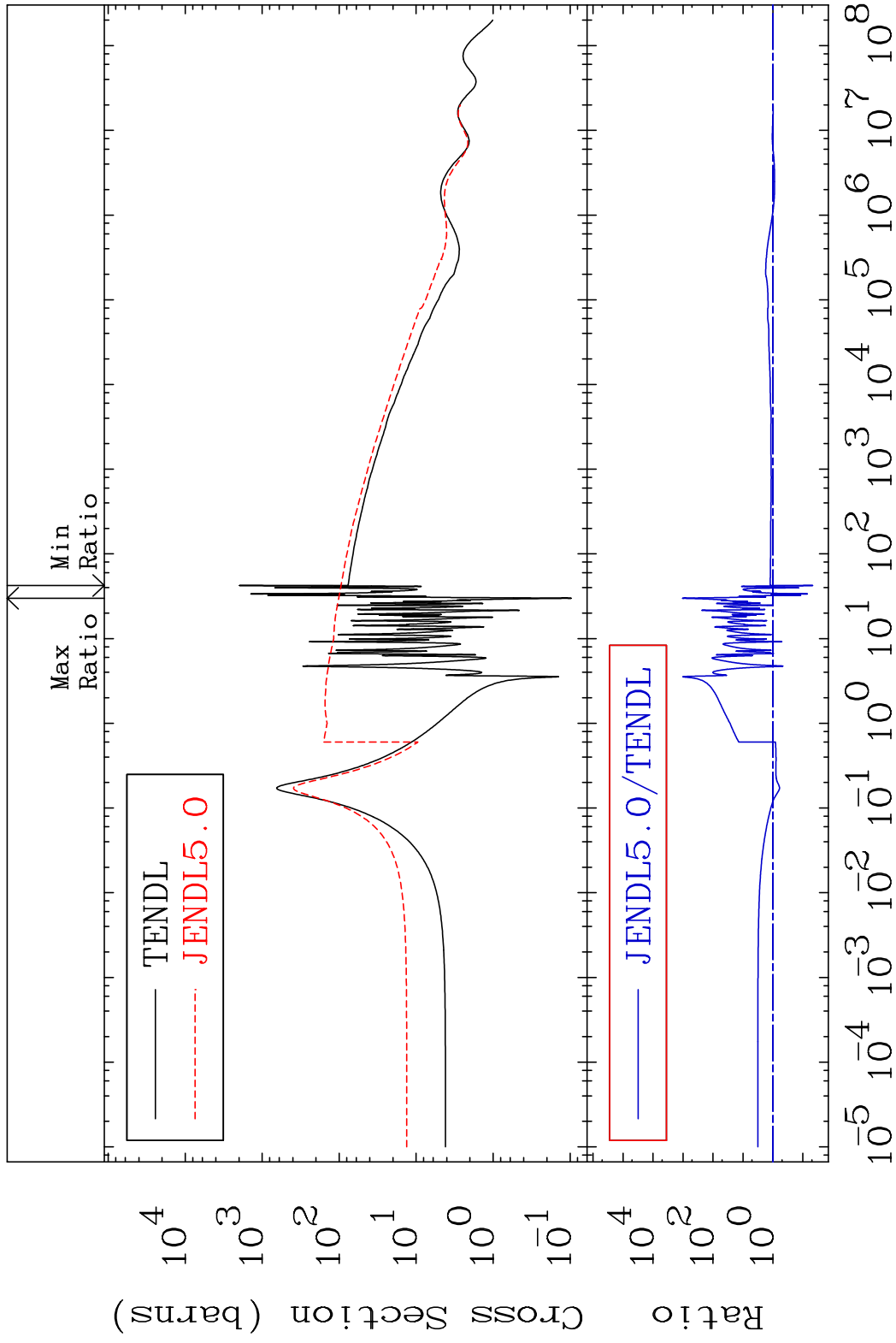
1 Incident Energy (eV) 61-Pm-148m

MAT 6153

Elastic

61-Pm-148m

Cross Section -95.23 To 9999. %



2

Incident Energy (eV)

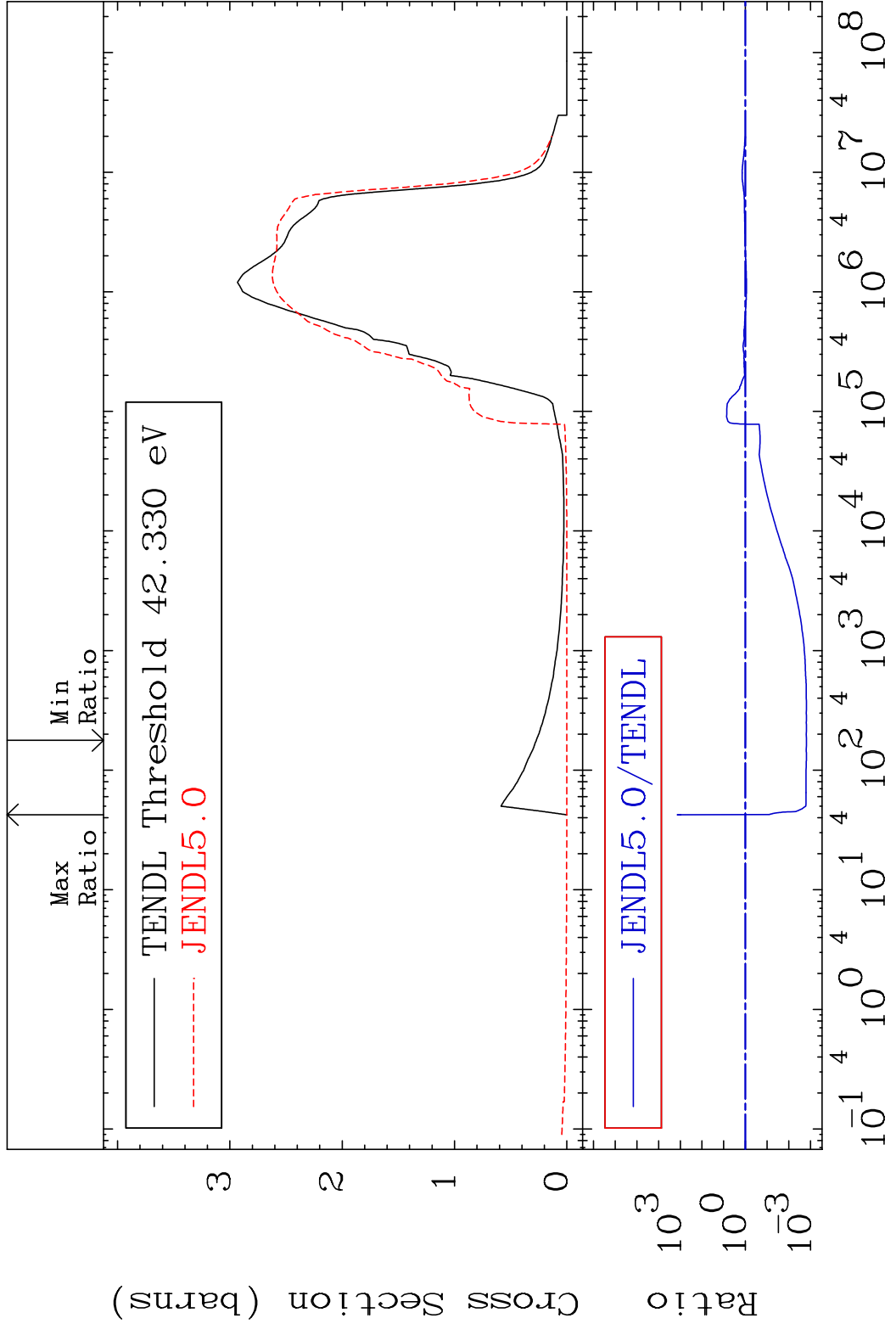
61-Pm-148m

MAT 6153

Inelastic

61-Pm-148m

Cross Section -99.85 To 9999. %



3

Incident Energy (eV)

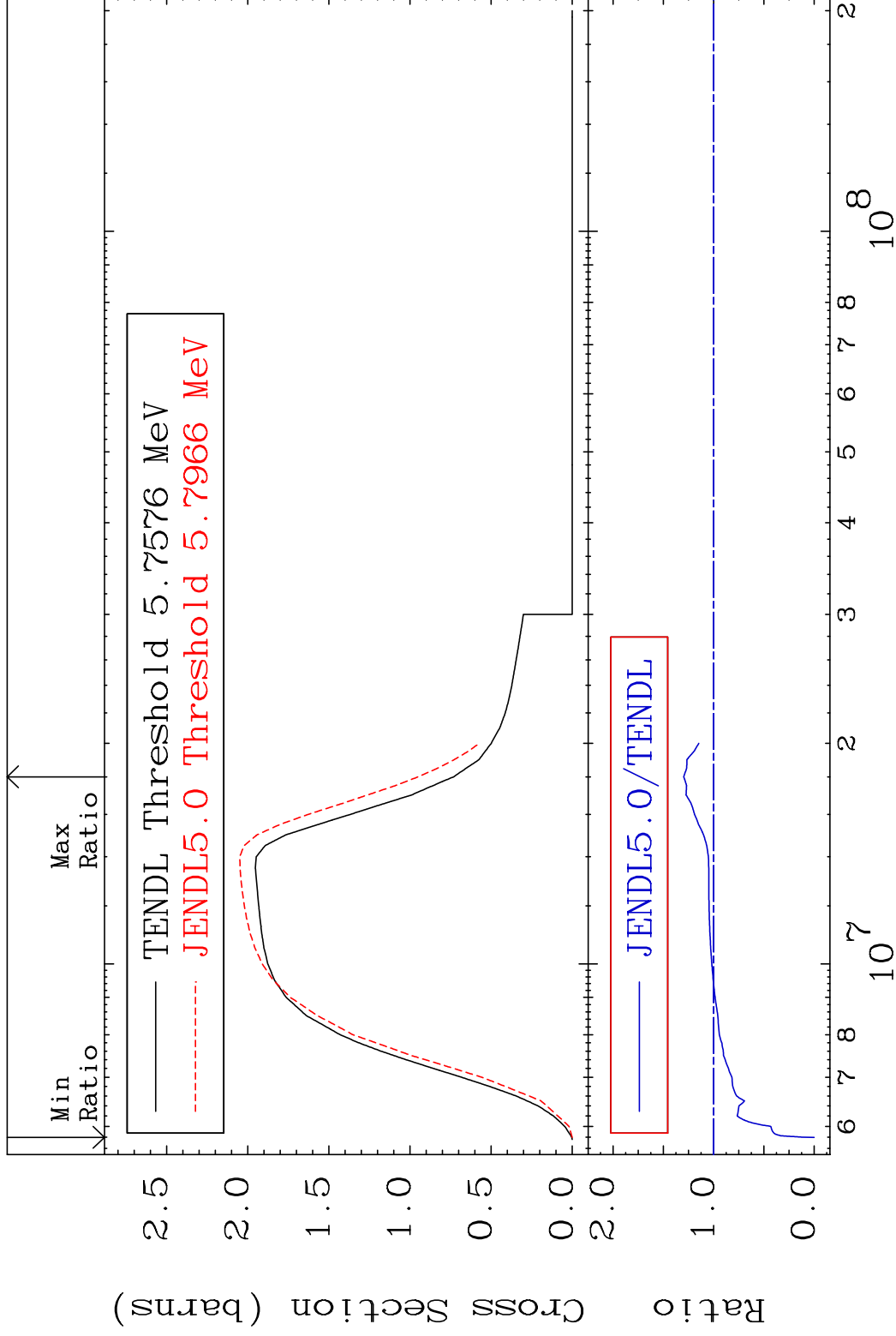
61-Pm-148m

MAT 6153

(n,2n)

61-Pm-148m

Cross Section -100.0 To 29.85 %



4

Incident Energy (eV)

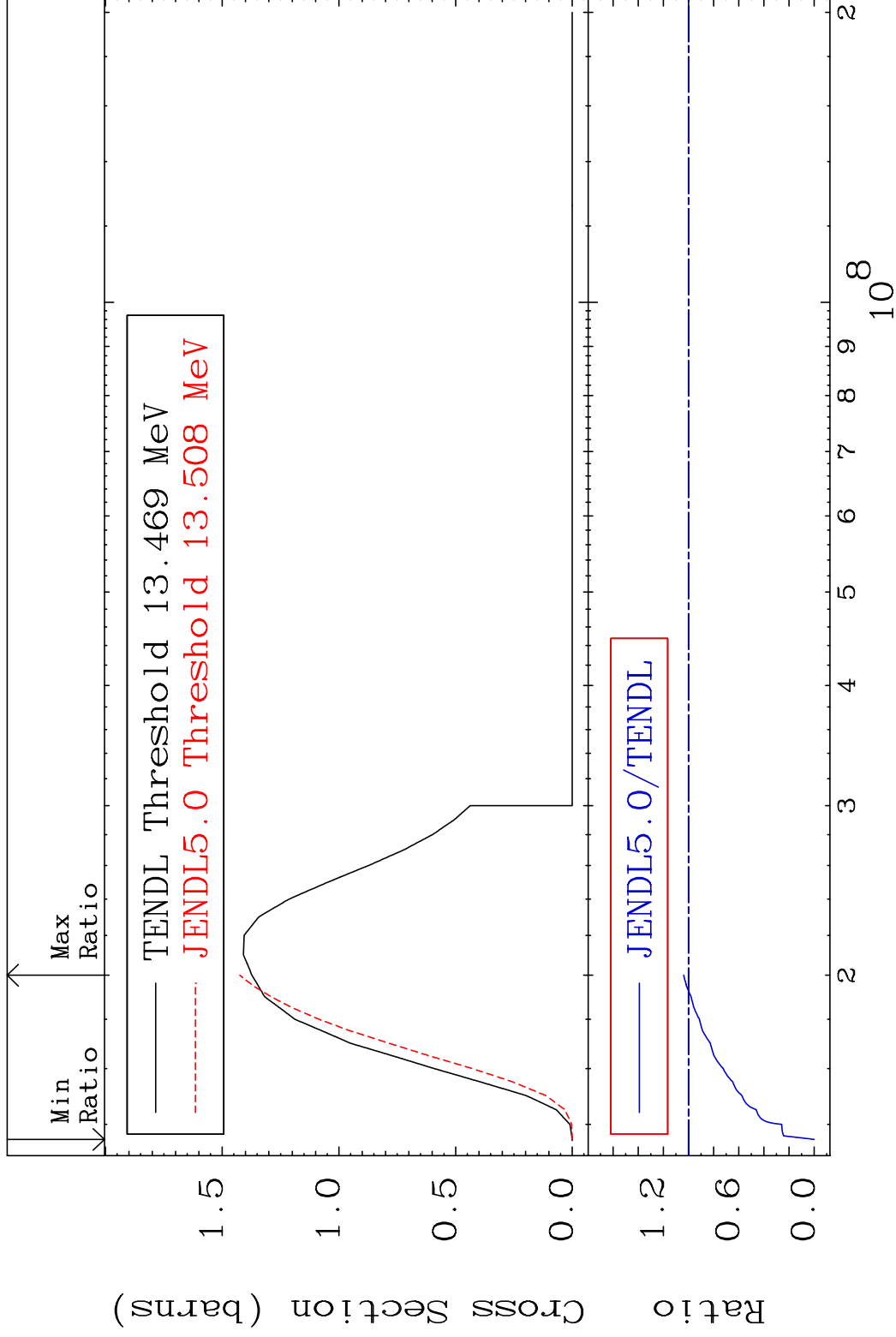
61-Pm-148m

MAT 6153

(n,3n)

61-Pm-148m

Cross Section -100.0 To 3.800 %



5

Incident Energy (eV)

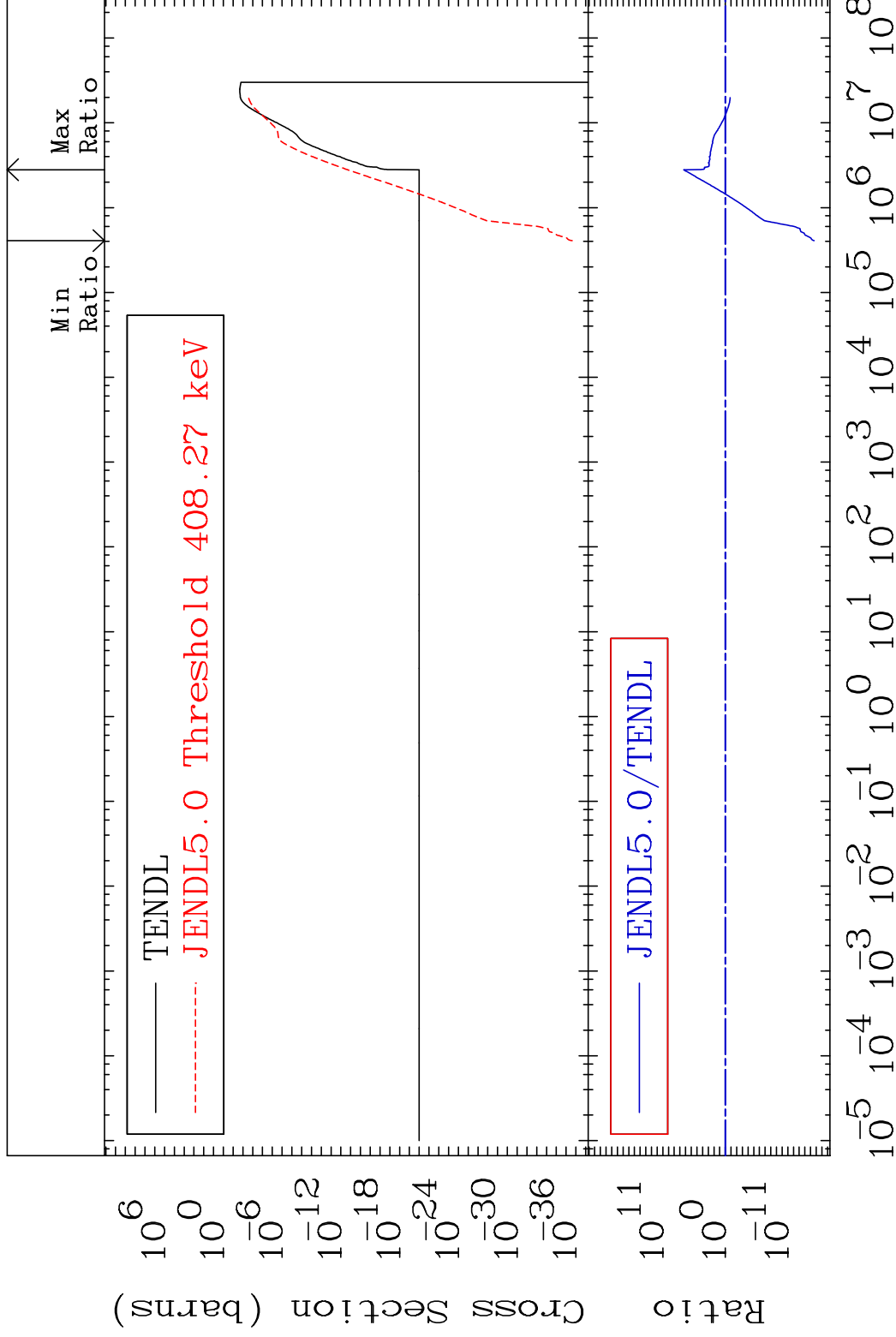
61-Pm-148m

MAT 6153

(n, n') α

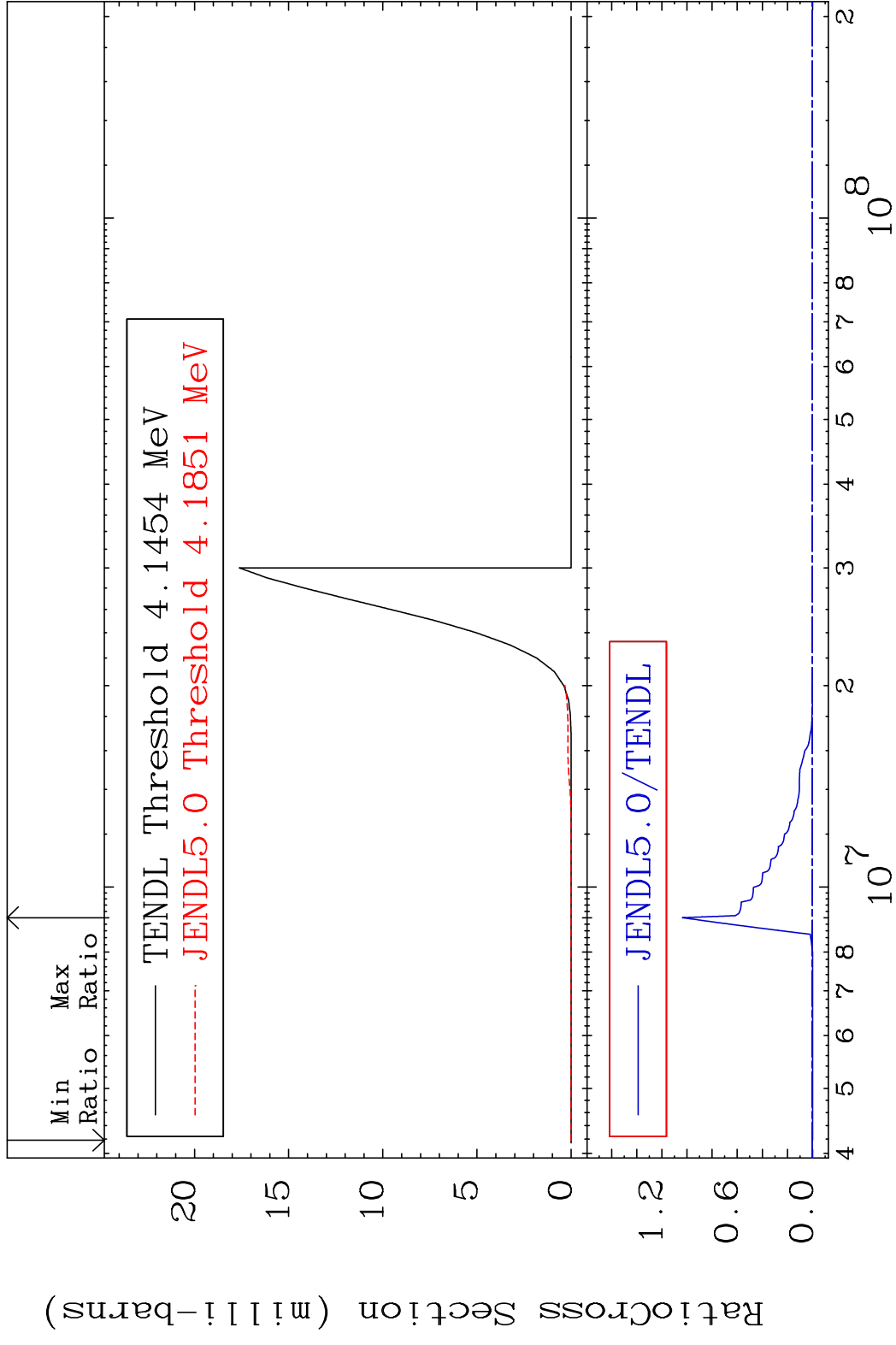
61-Pm-148m

Cross Section -100.0 To 9999. %



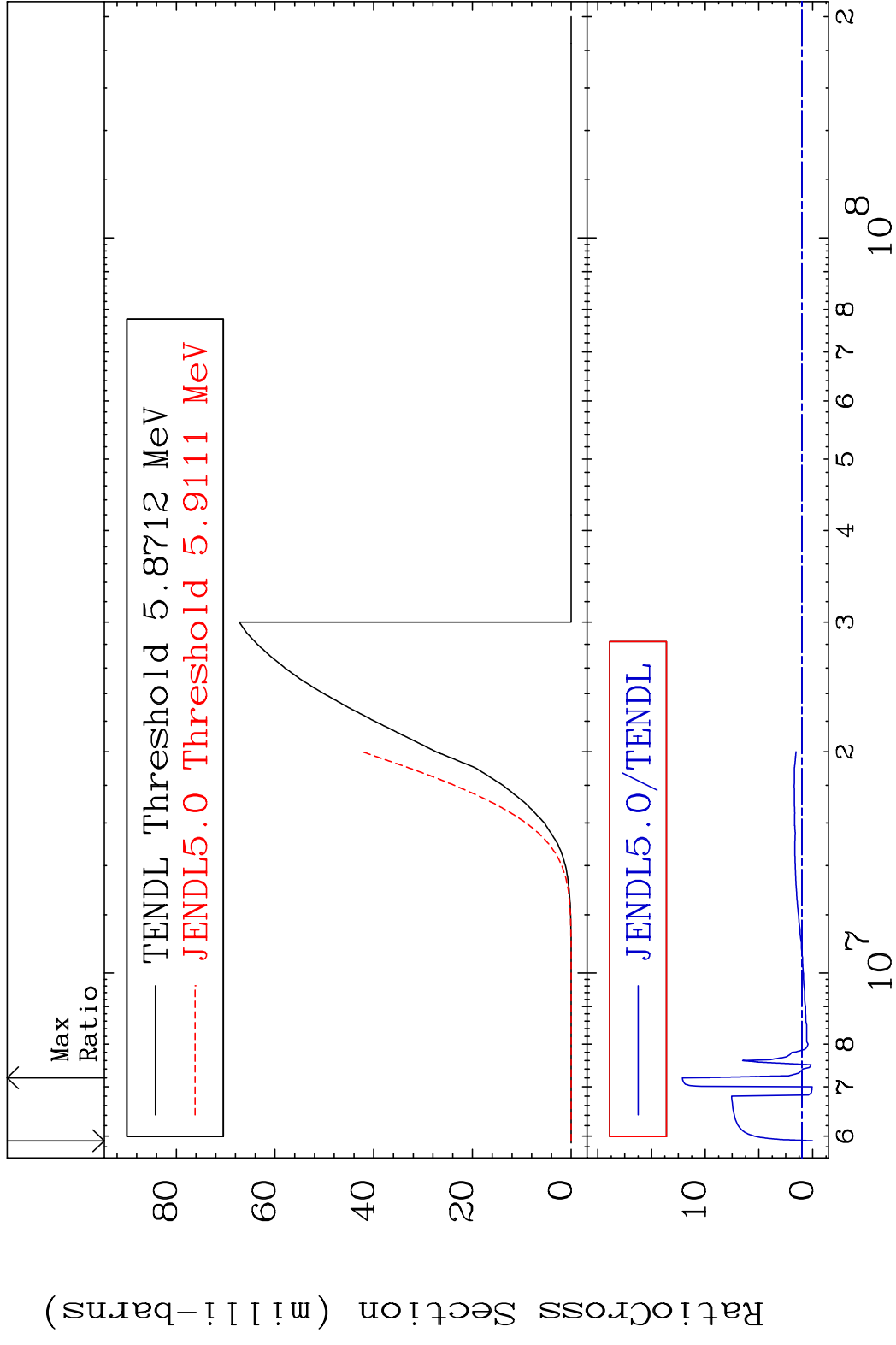
MAT 6153

(n,2n) α 61-Pm-148m
Cross Section -100.0 To 9999. %



MAT 6153

(n, n') p 61-Pm-148m
Cross Section -100.0 To 1113. %



8

Incident Energy (eV)

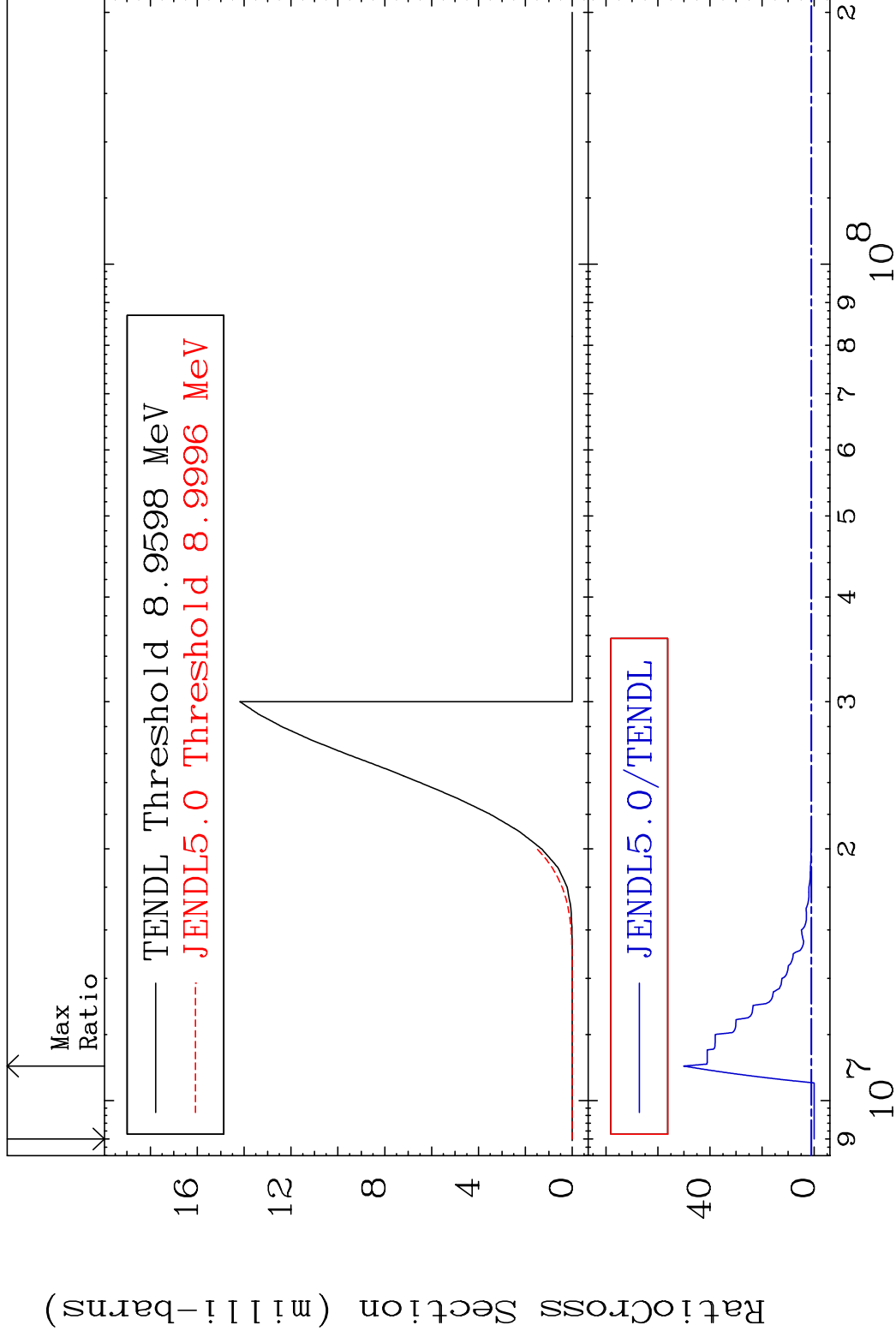
61-Pm-148m

MAT 6153

(n, n') d

61-Pm-148m

Cross Section -100.0 To 4913. %



9

Incident Energy (eV)

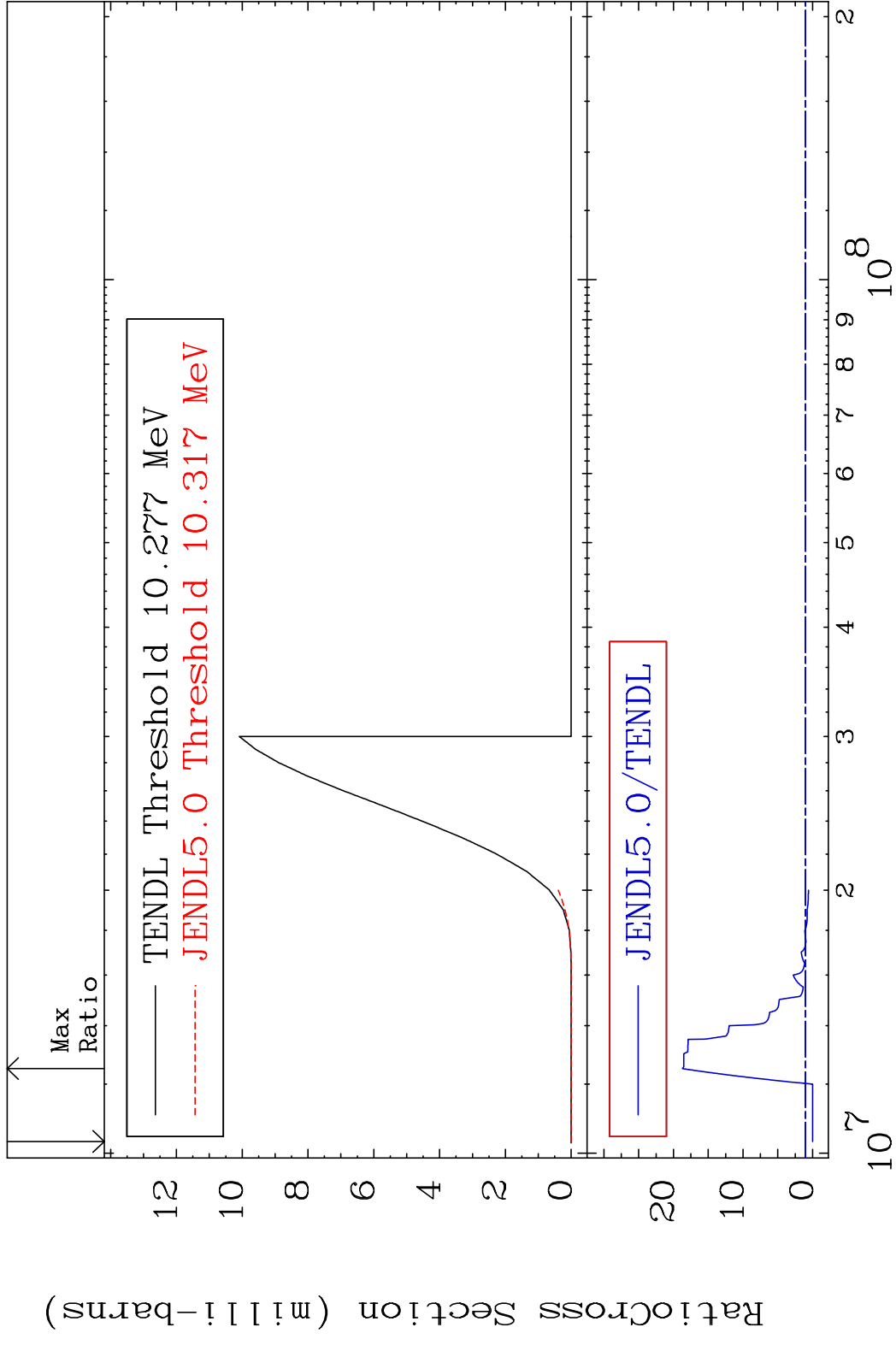
61-Pm-148m

MAT 6153

(n, n') t

61-Pm-148m

Cross Section -100.0 To 1772. %



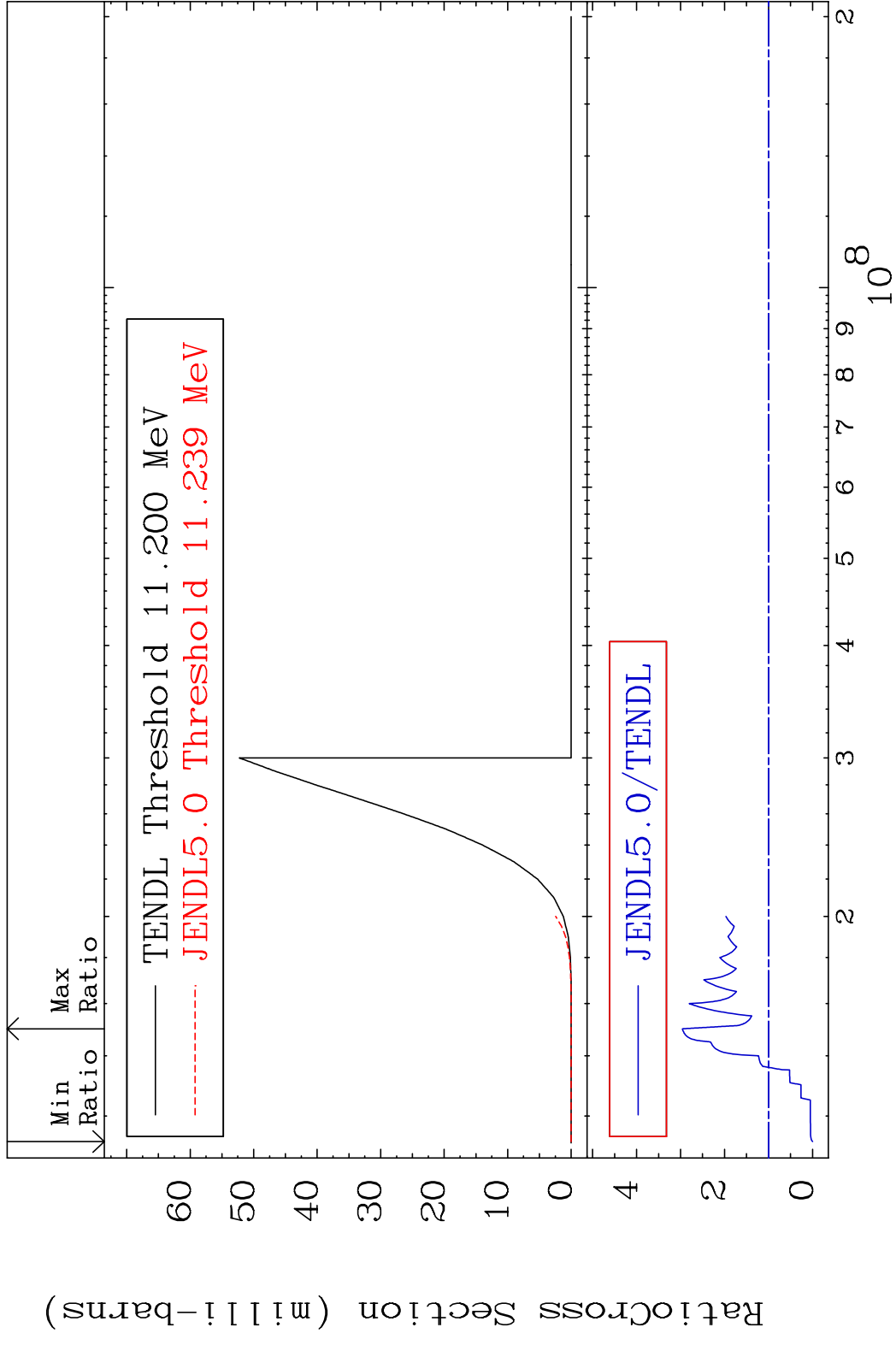
10

Incident Energy (eV)

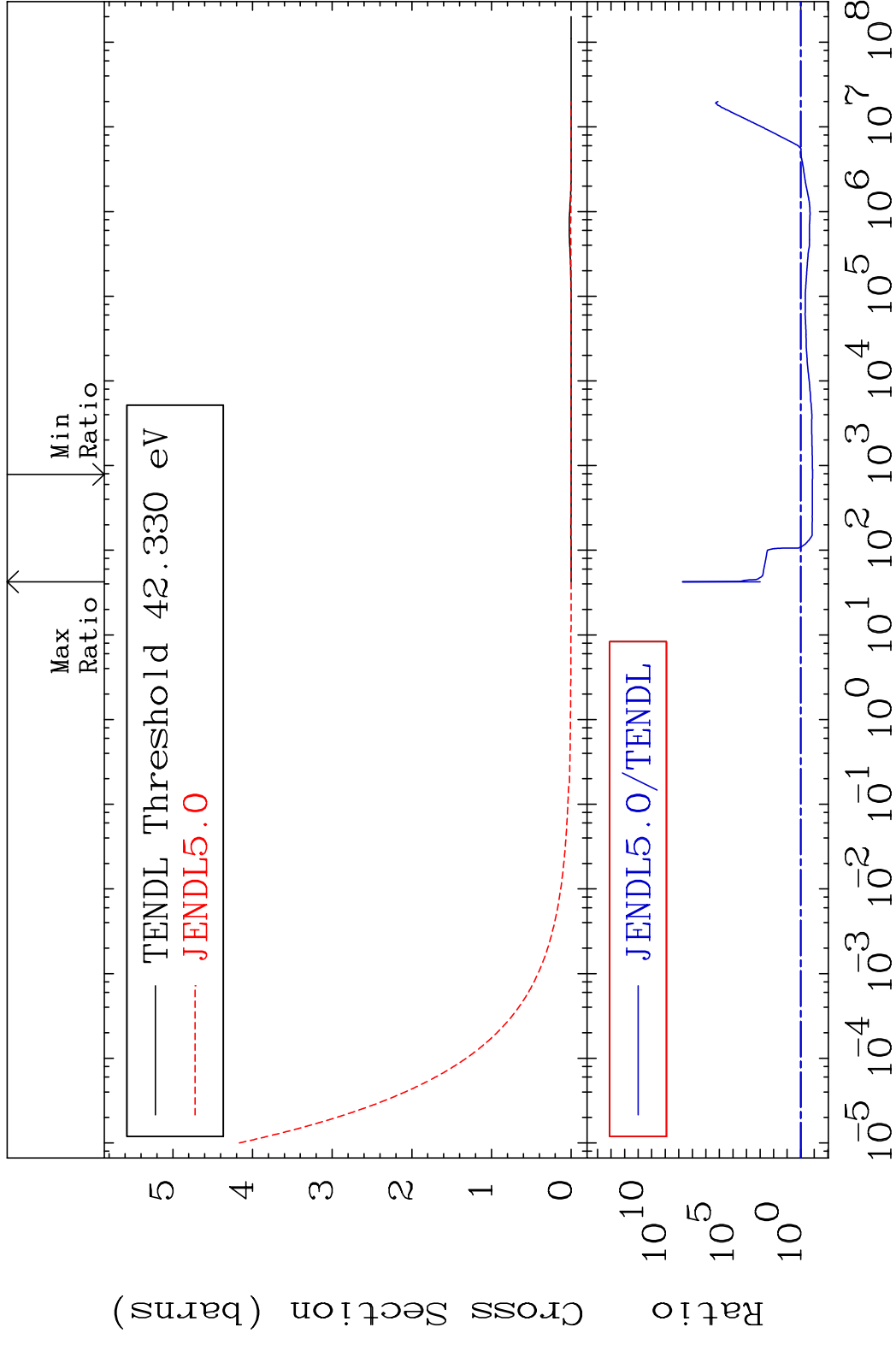
61-Pm-148m

MAT 6153

(n,2n) p 61-Pm-148m
Cross Section -100.0 To 195.9 %

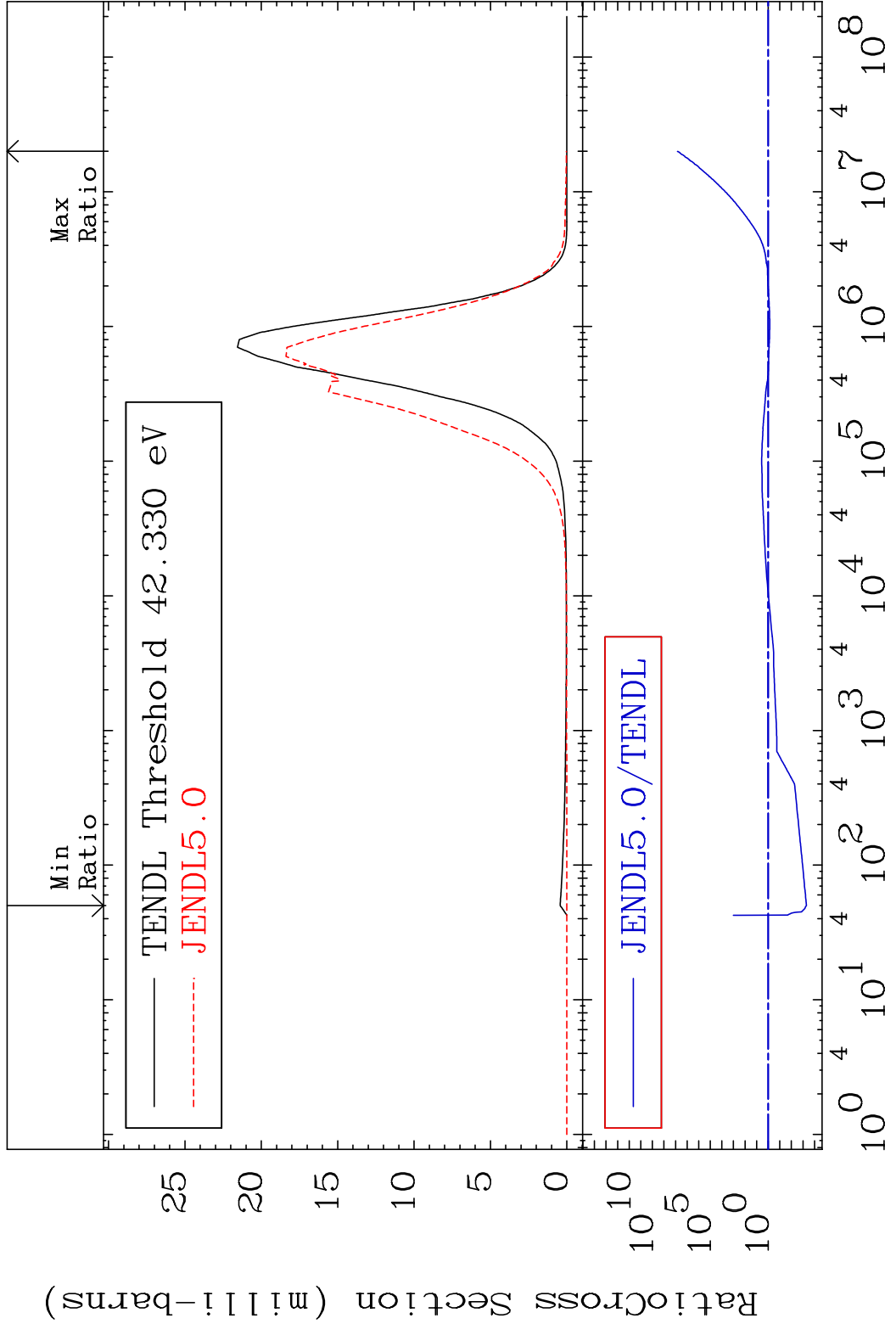


MAT 6153 MT= 51 (n, n') Level 61-Pm-148m
 Cross Section -86.66 To 9999. %



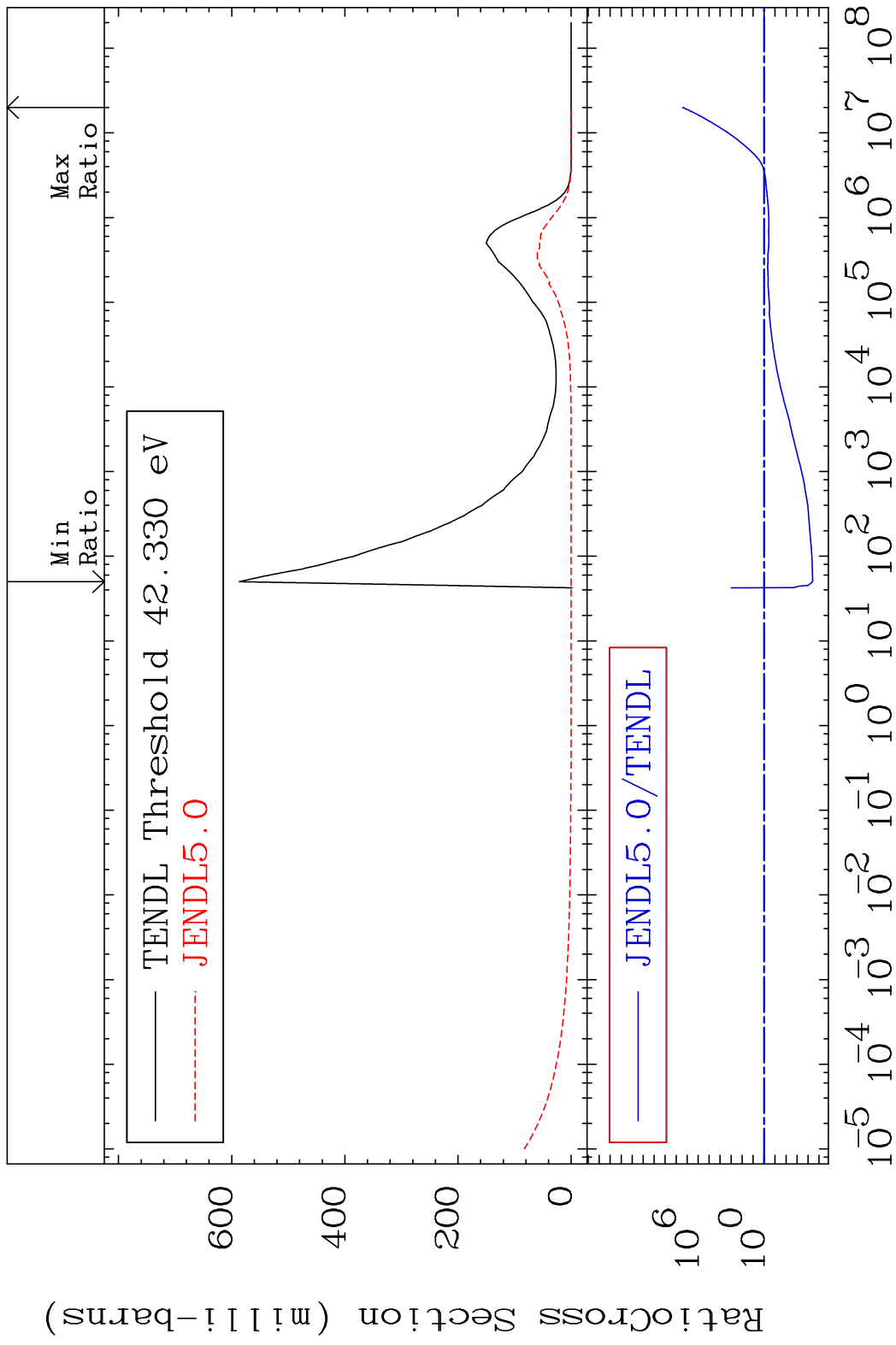
12 Incident Energy (eV) 61-Pm-148m

MAT 6153 MT= 52 (n, n') Level 61-Pm-148m
 Cross Section -99.95 To 9999. %

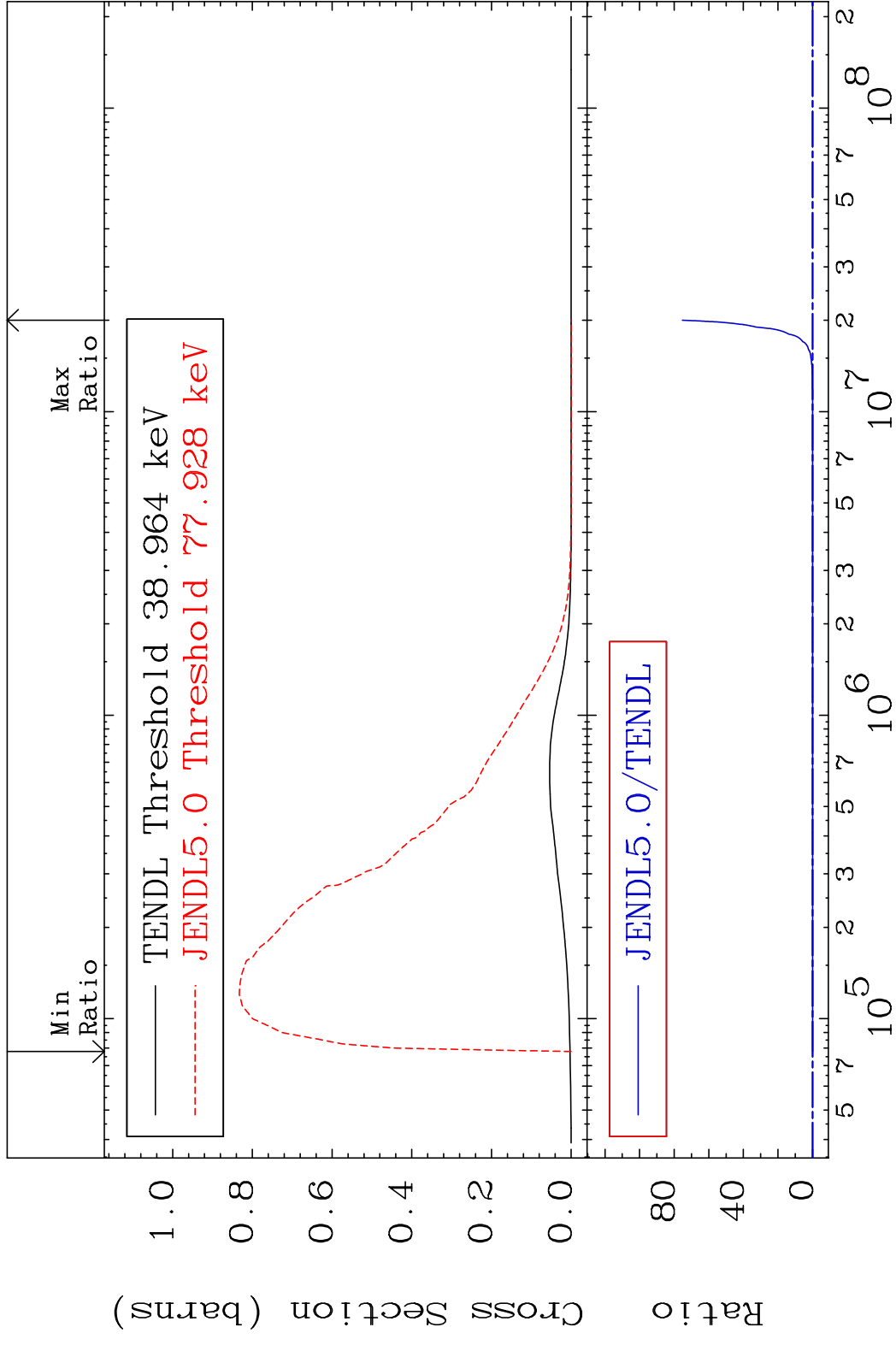


13 61-Pm-148m

MAT 6153 MT= 53 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

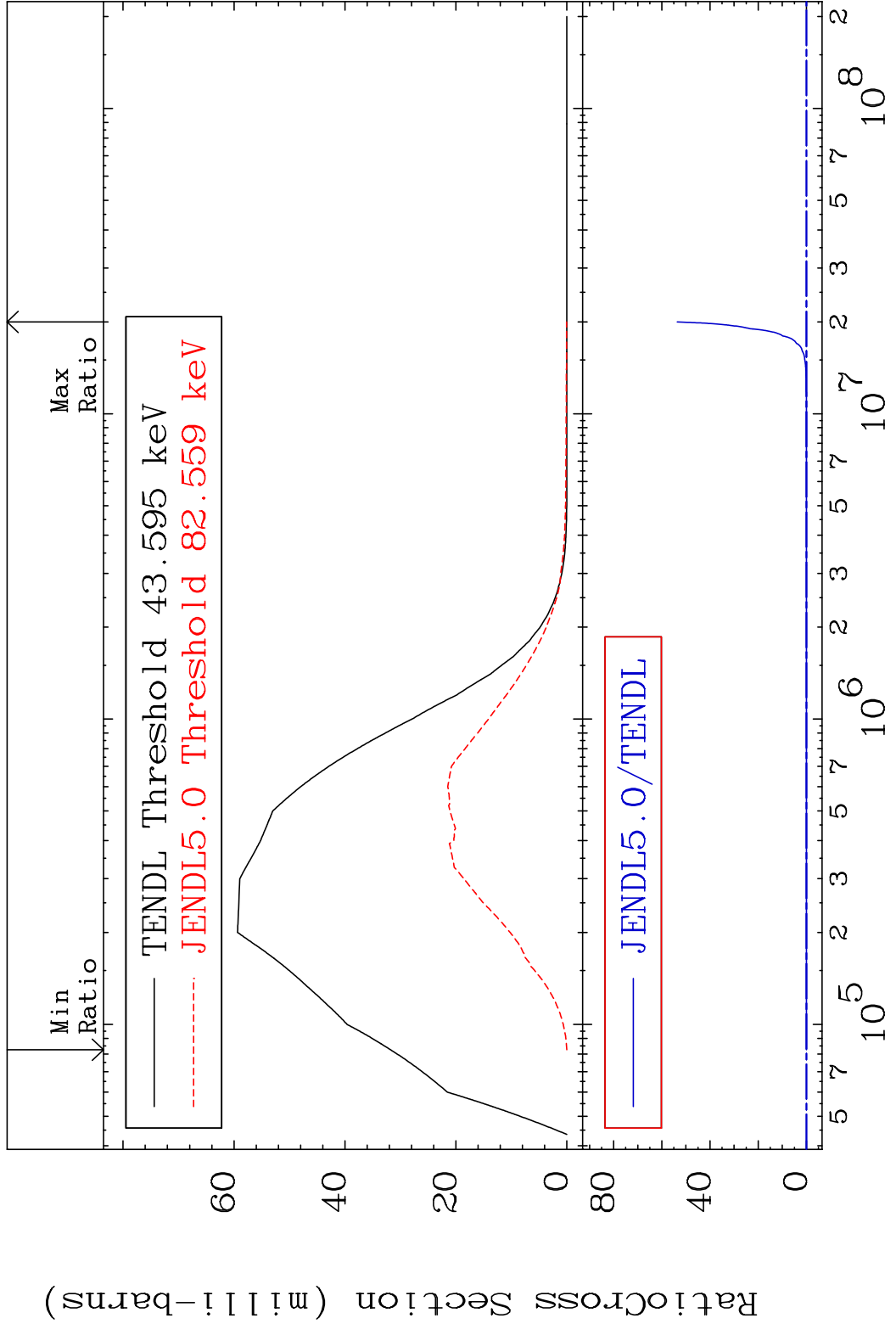


MAT 6153 MT= 54 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

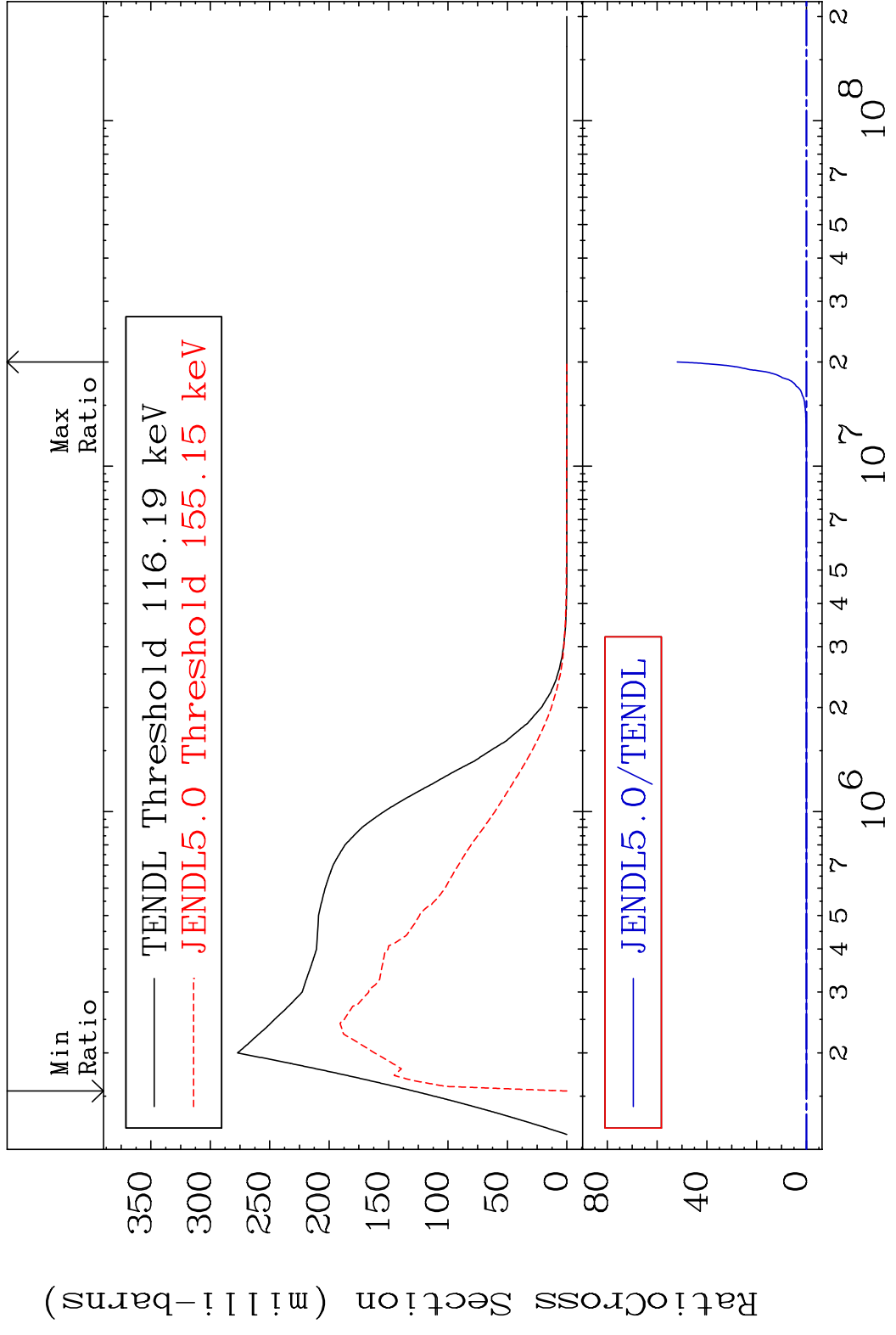


15 Incident Energy (eV) 61-Pm-148m

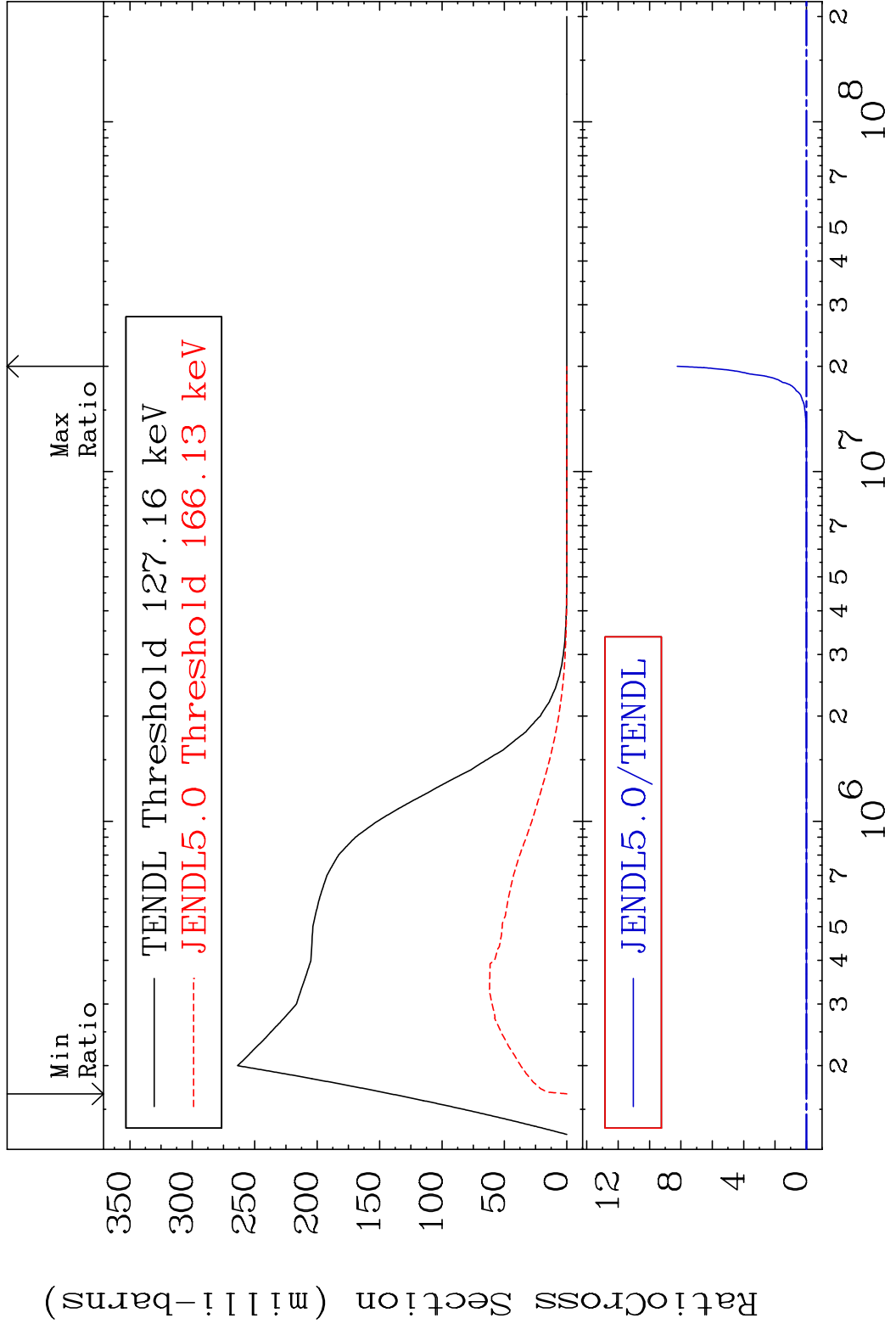
MAT 6153 MT= 55 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



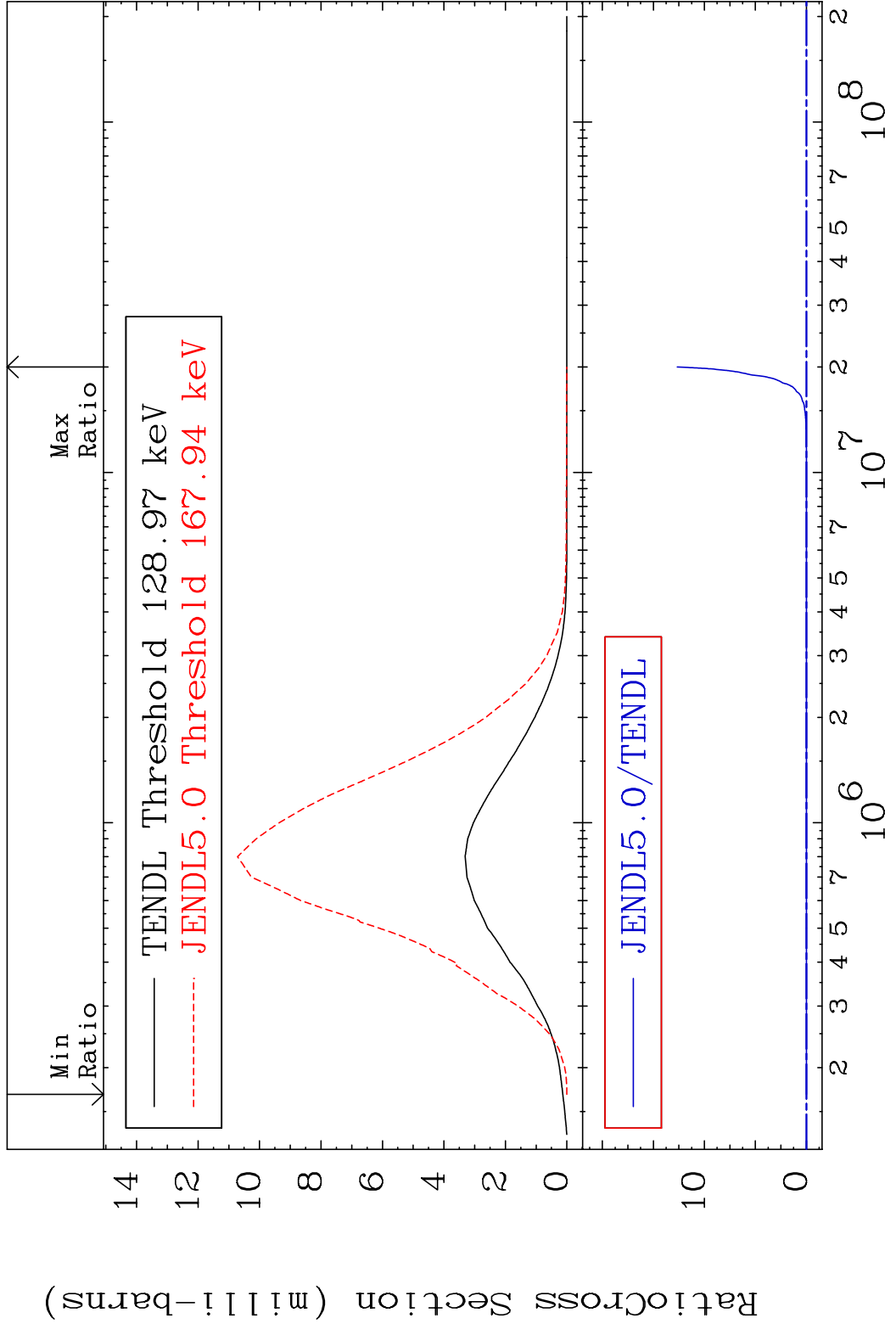
MAT 6153 MT= 56 (n,n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



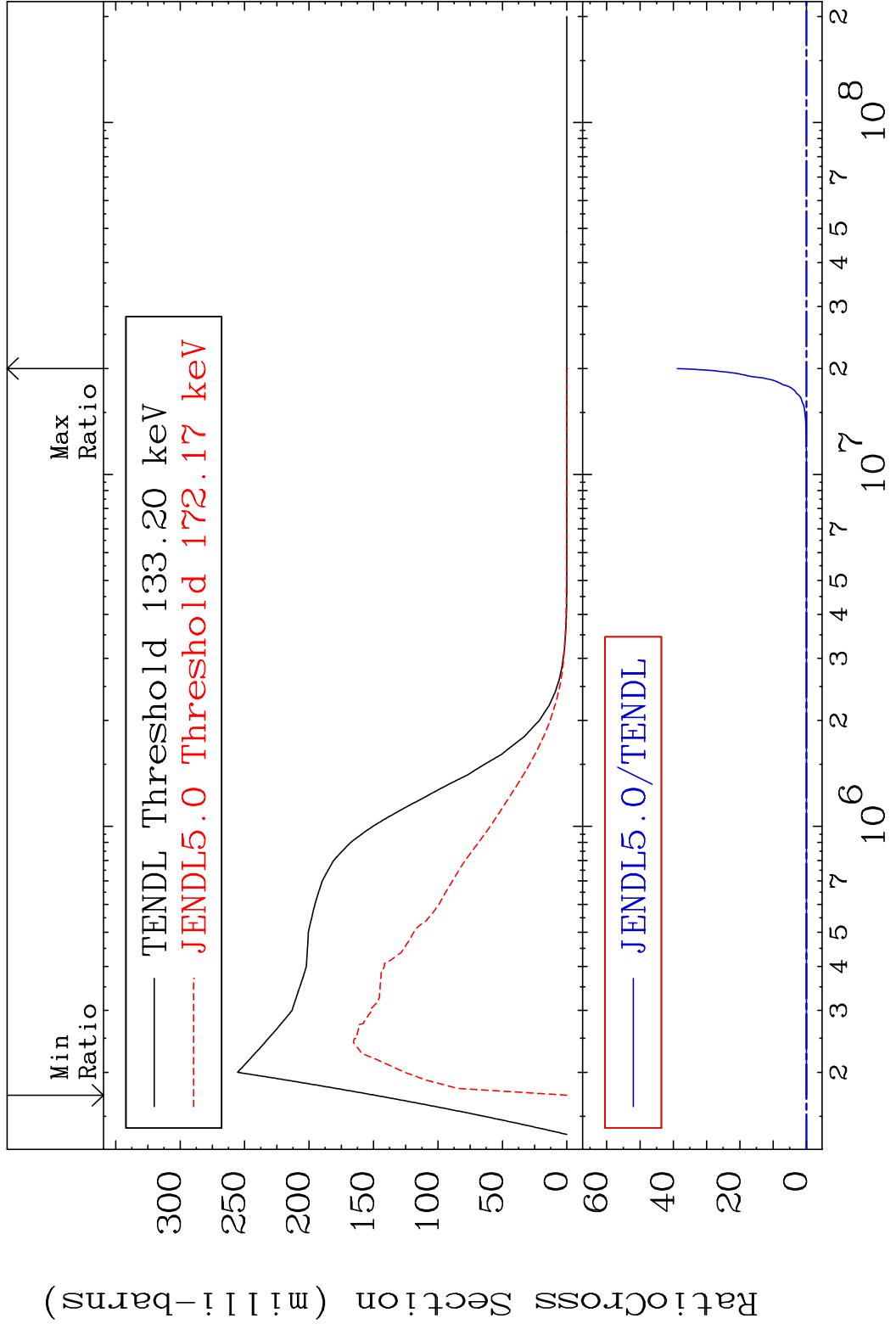
MAT 6153 MT= 57 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



MAT 6153 MT= 58 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

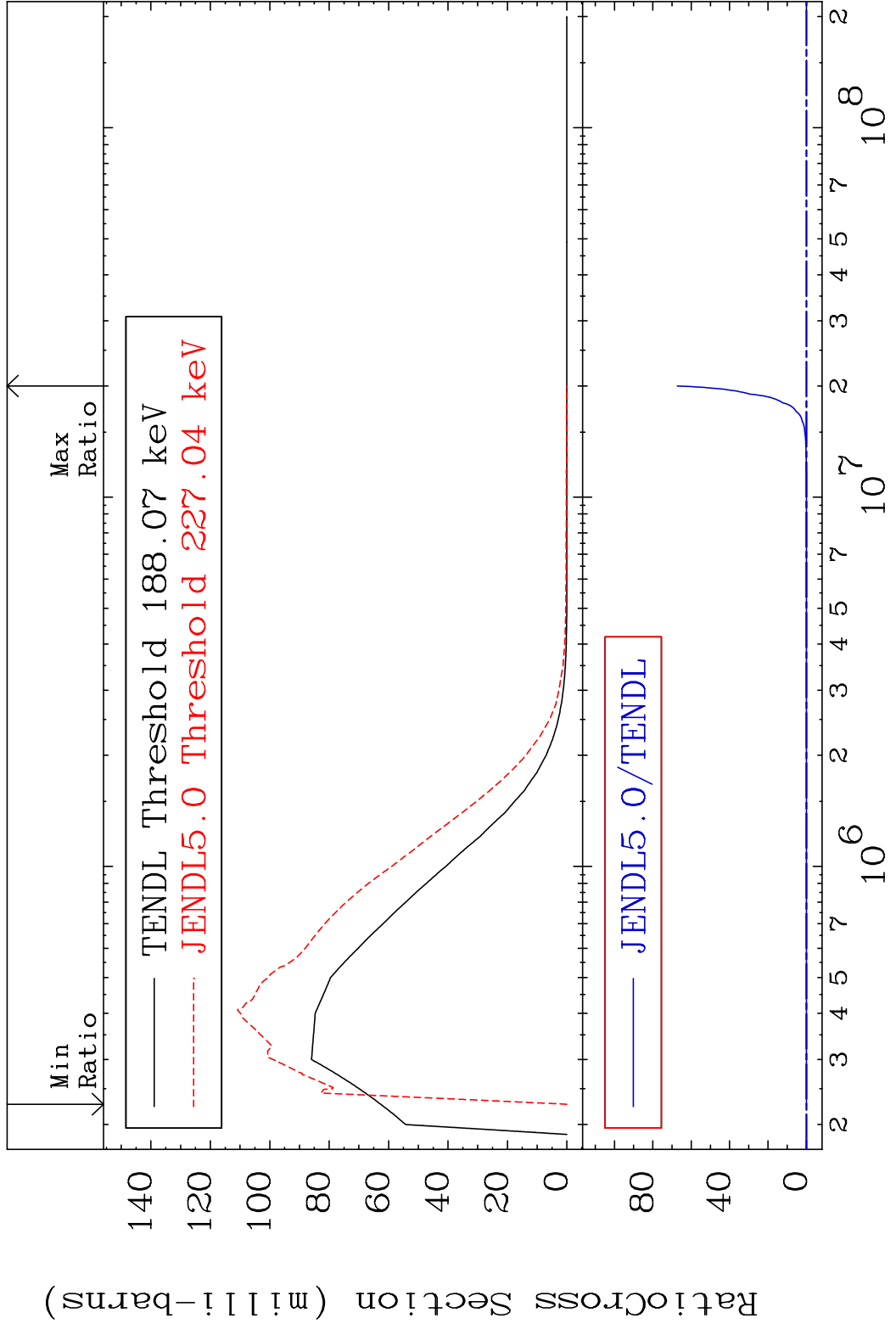


MAT 6153 MT= 59 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



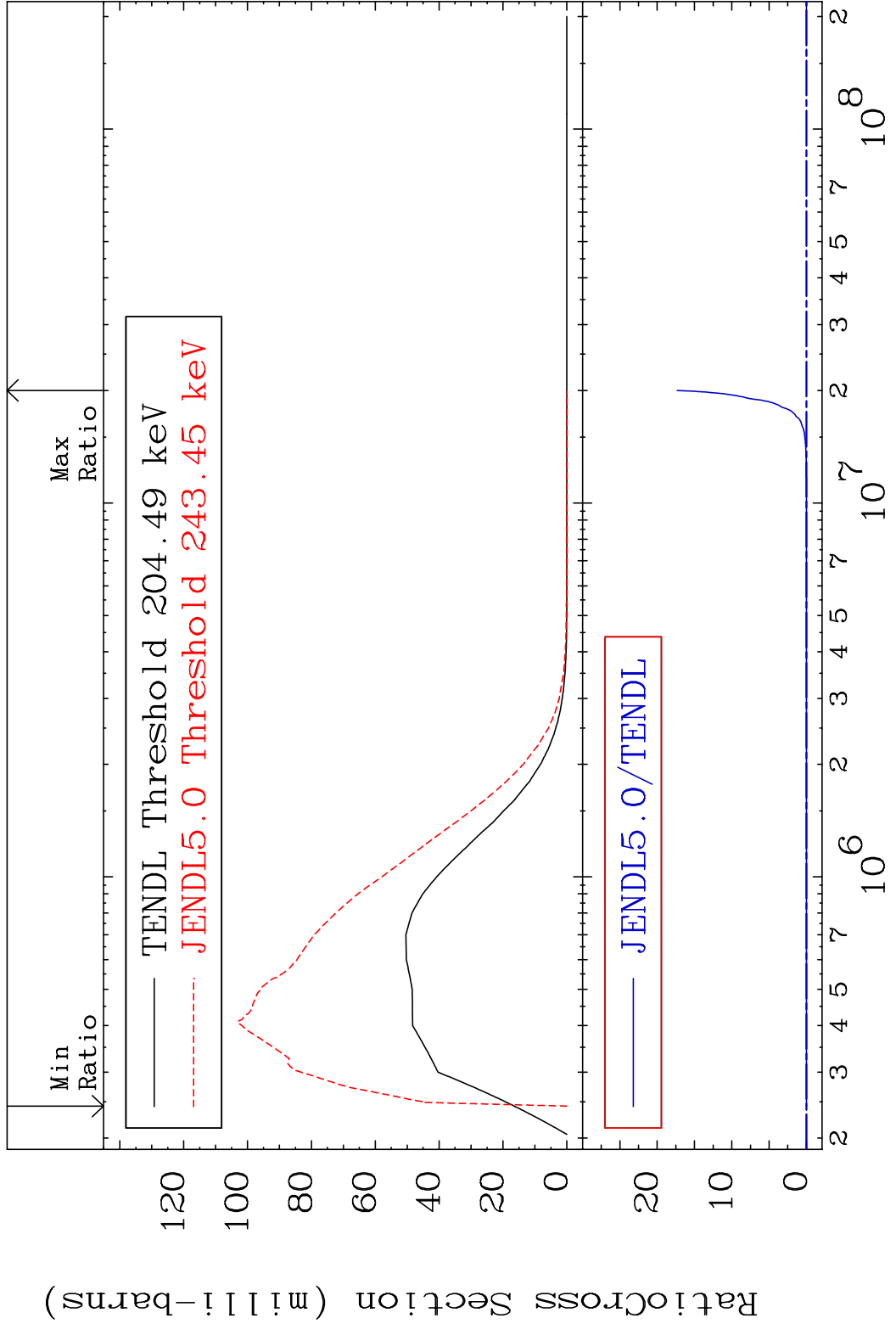
20 Incident Energy (eV) 61-Pm-148m

MAT 6153 MT= 60 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



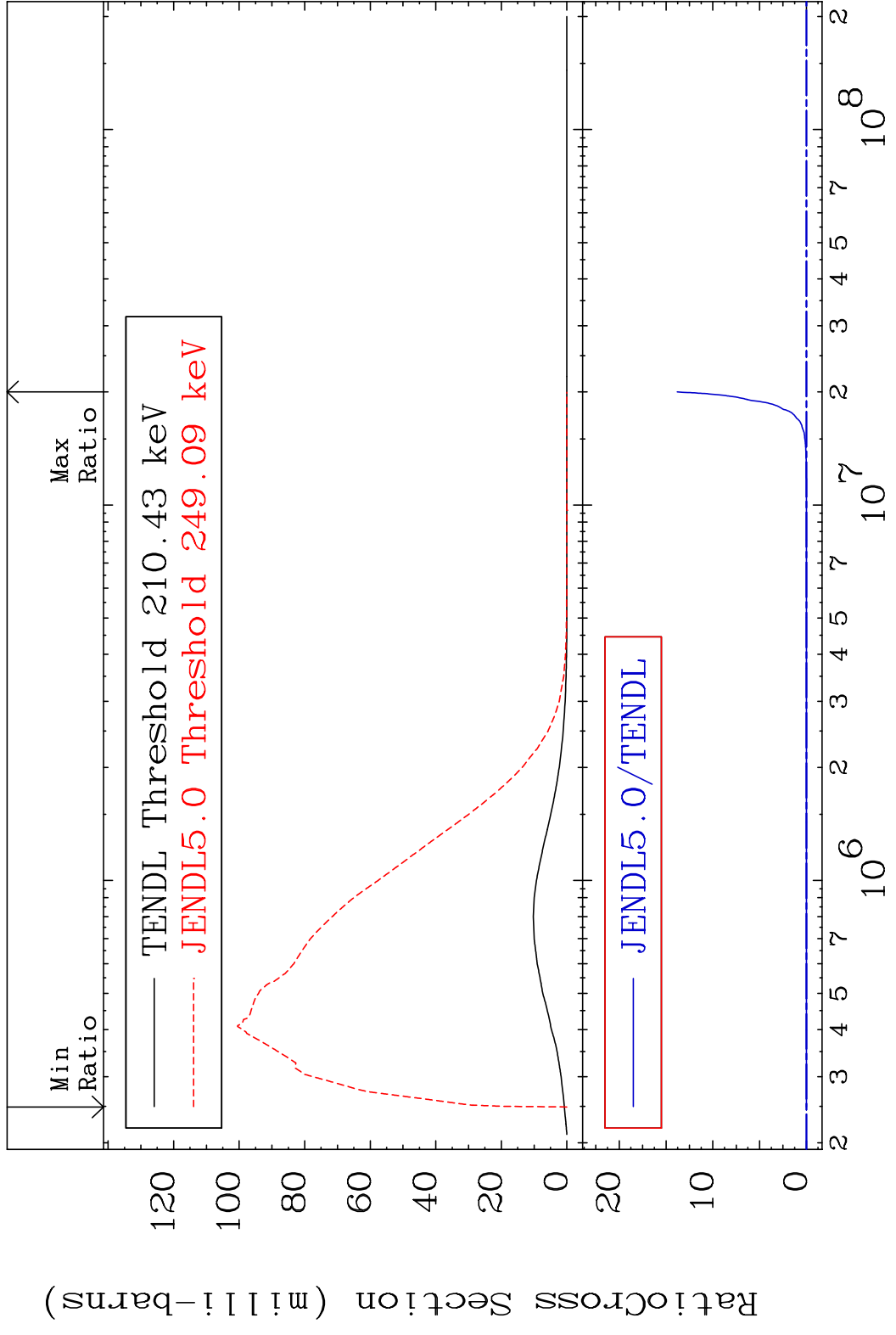
21 Incident Energy (eV) 61-Pm-148m

MAT 6153 MT= 61 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

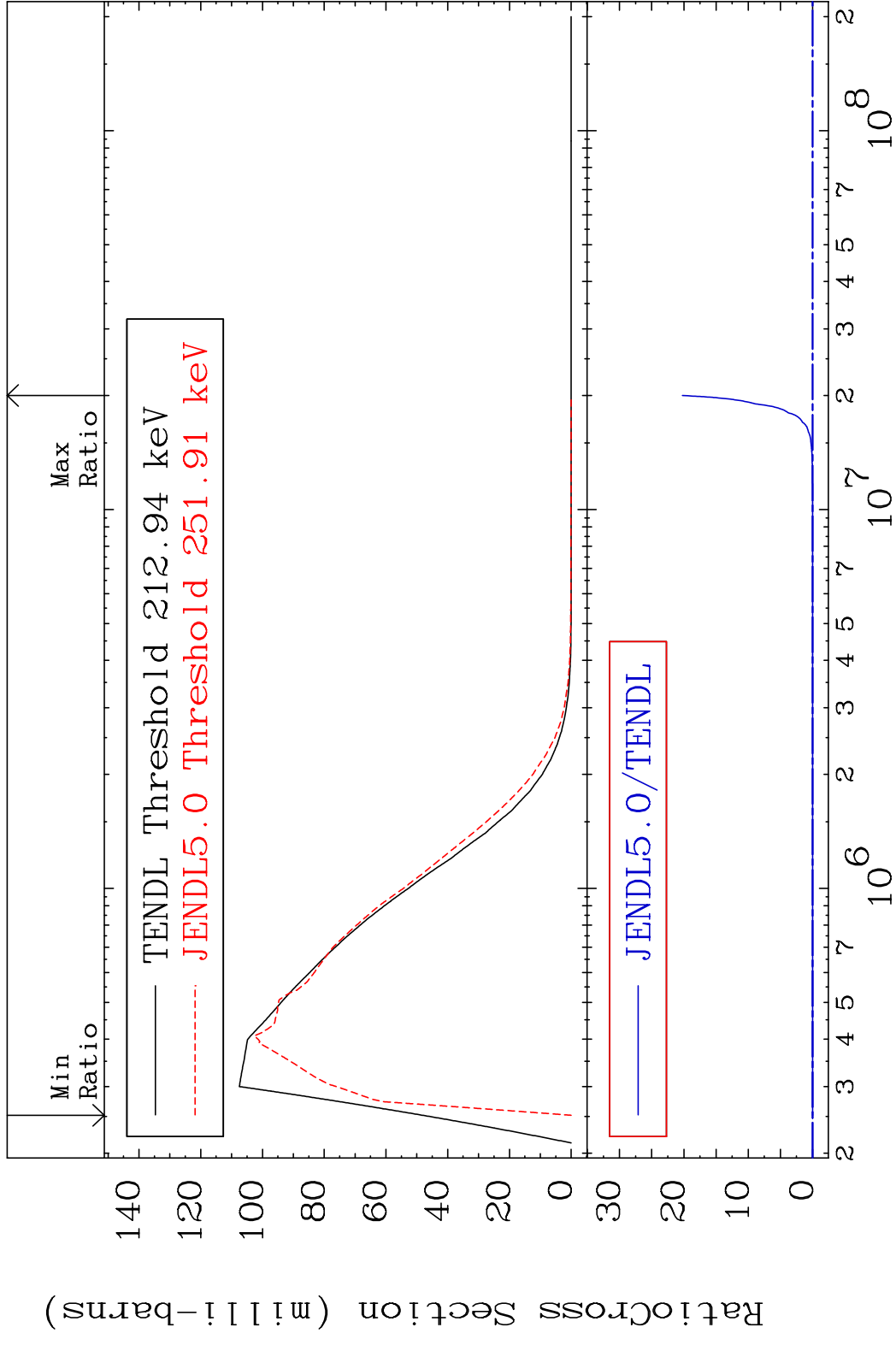


22 Incident Energy (eV) 61-Pm-148m

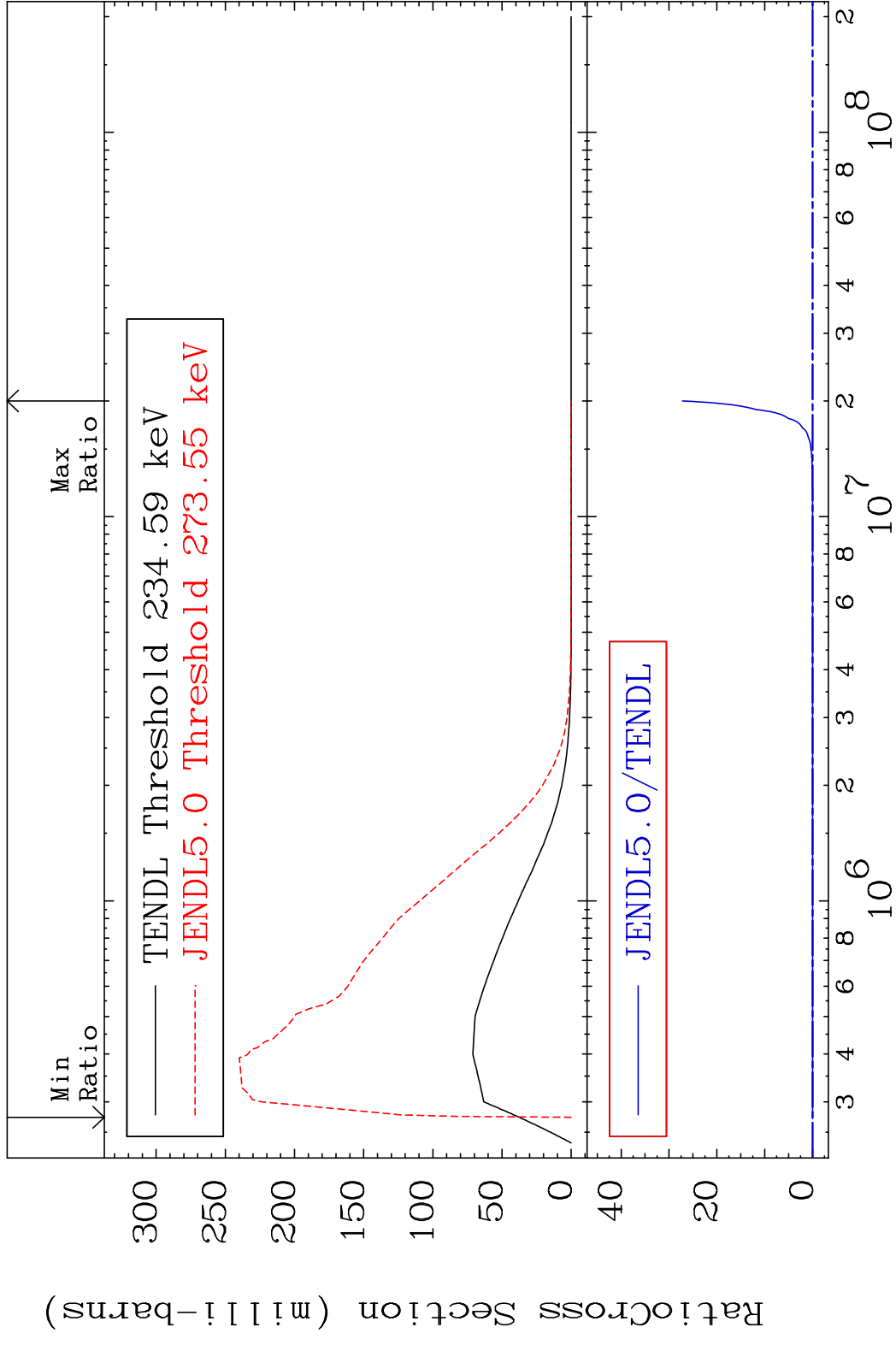
MAT 6153 MT= 62 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



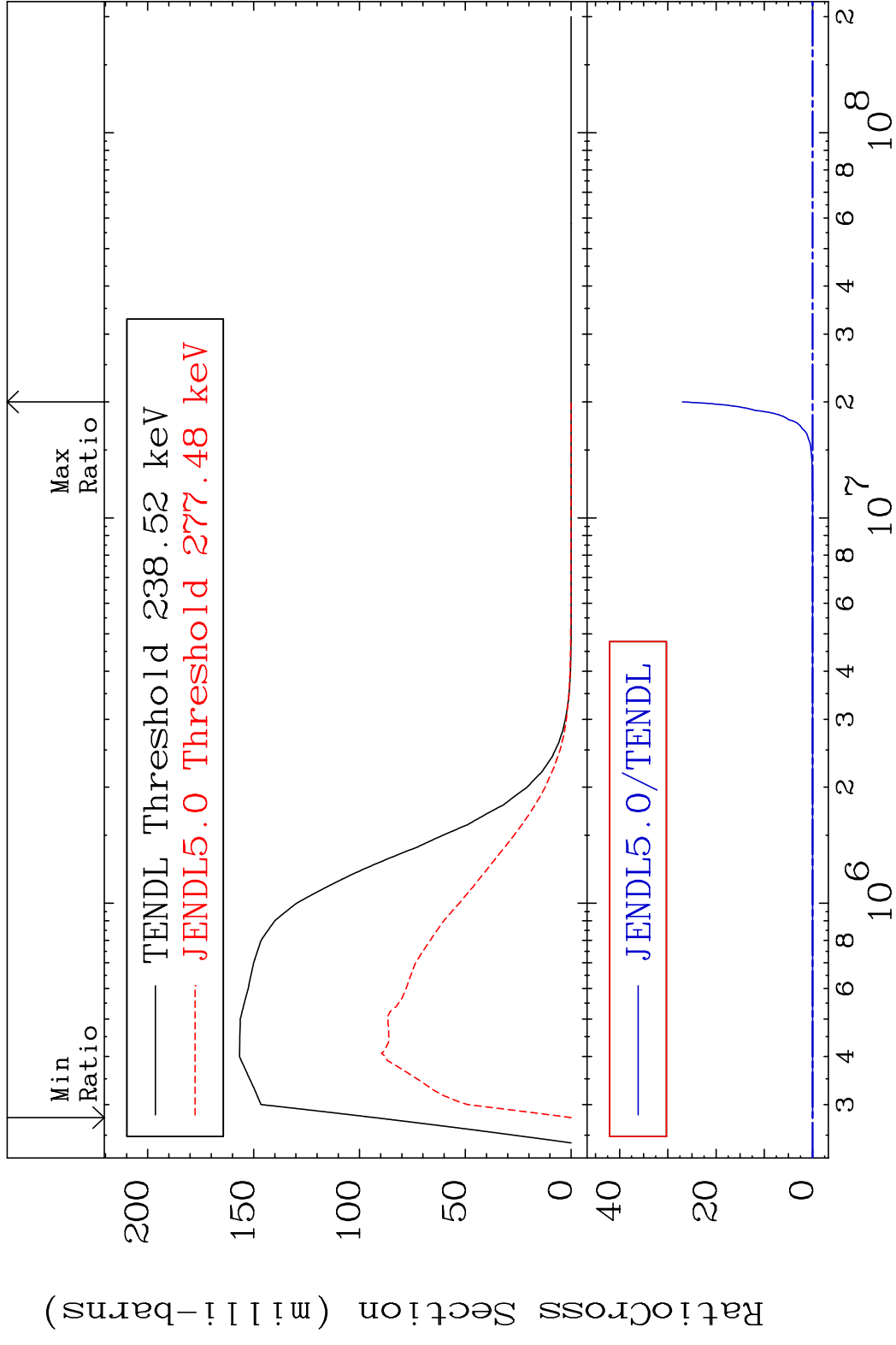
MAT 6153 MT= 63 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



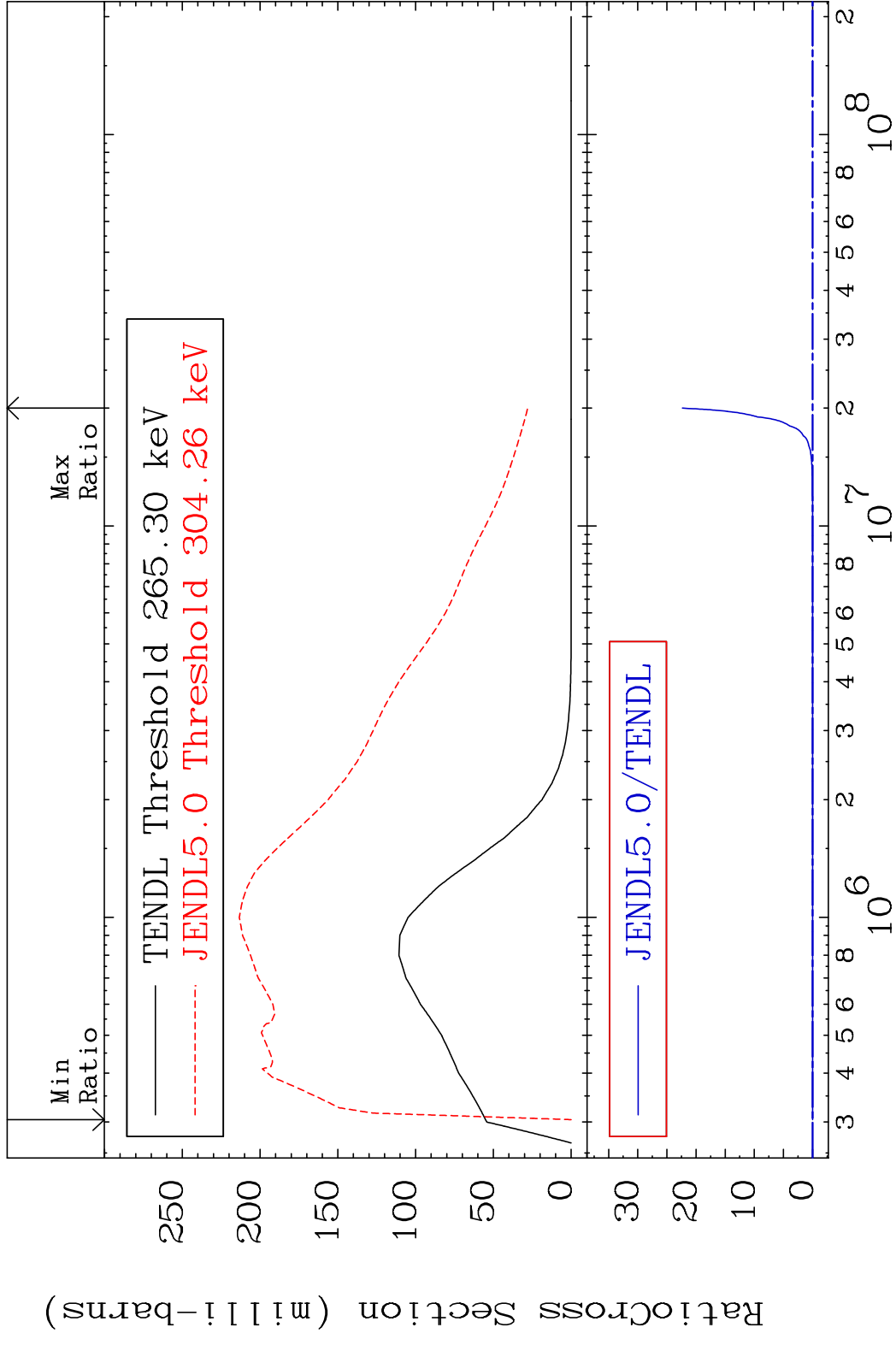
MAT 6153 MT= 64 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



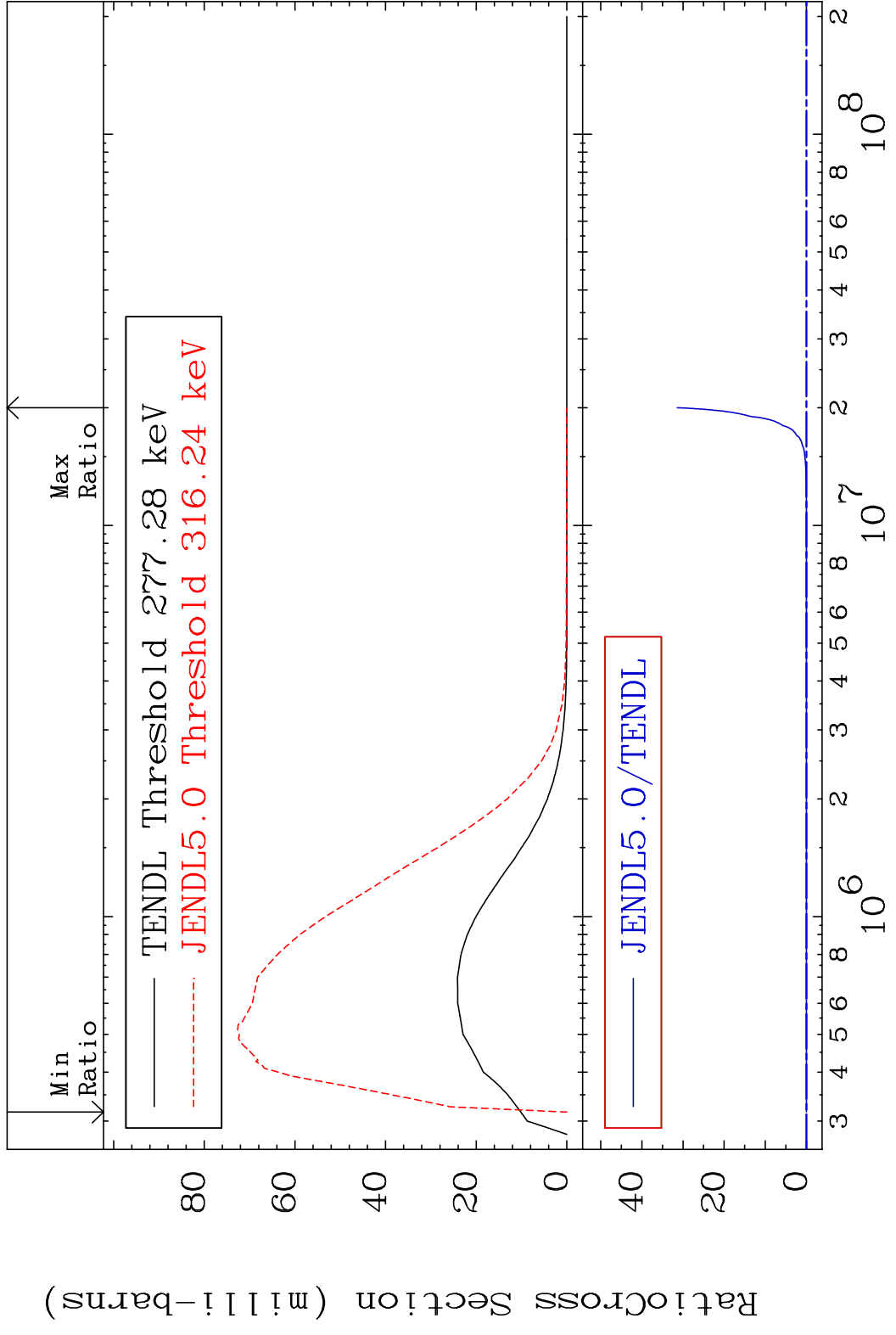
MAT 6153 MT= 65 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



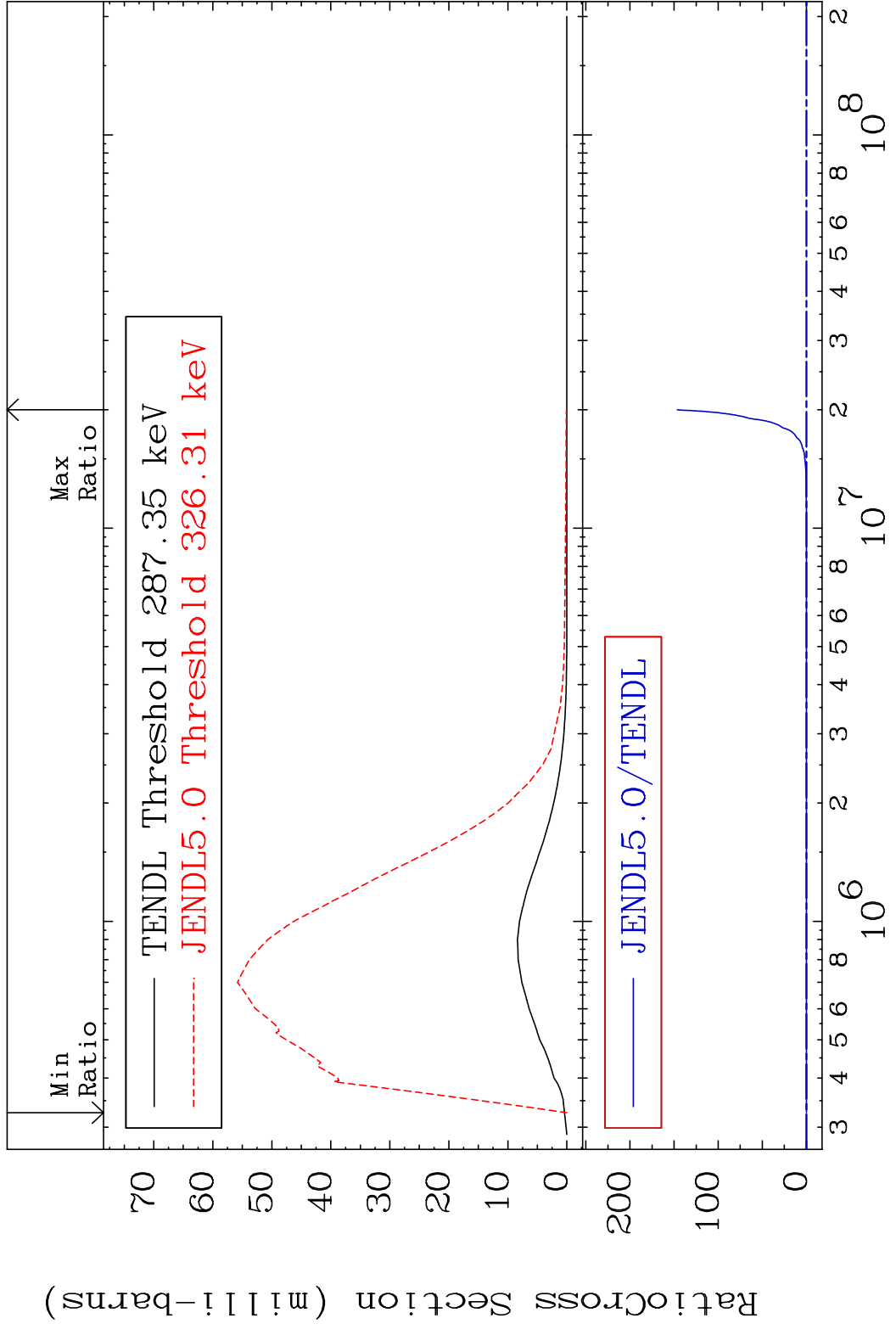
MAT 6153 MT= 66 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



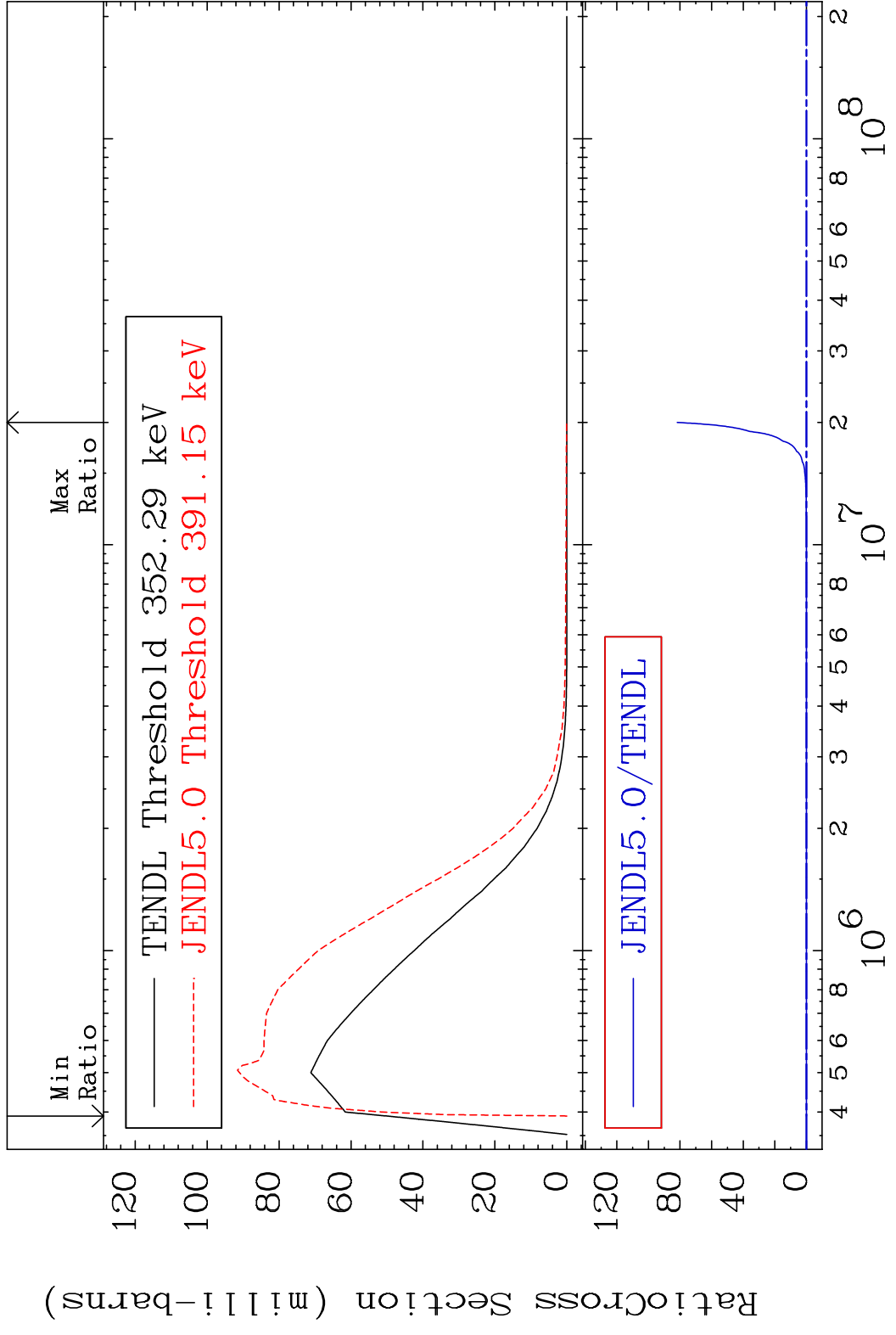
MAT 6153 MT= 67 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



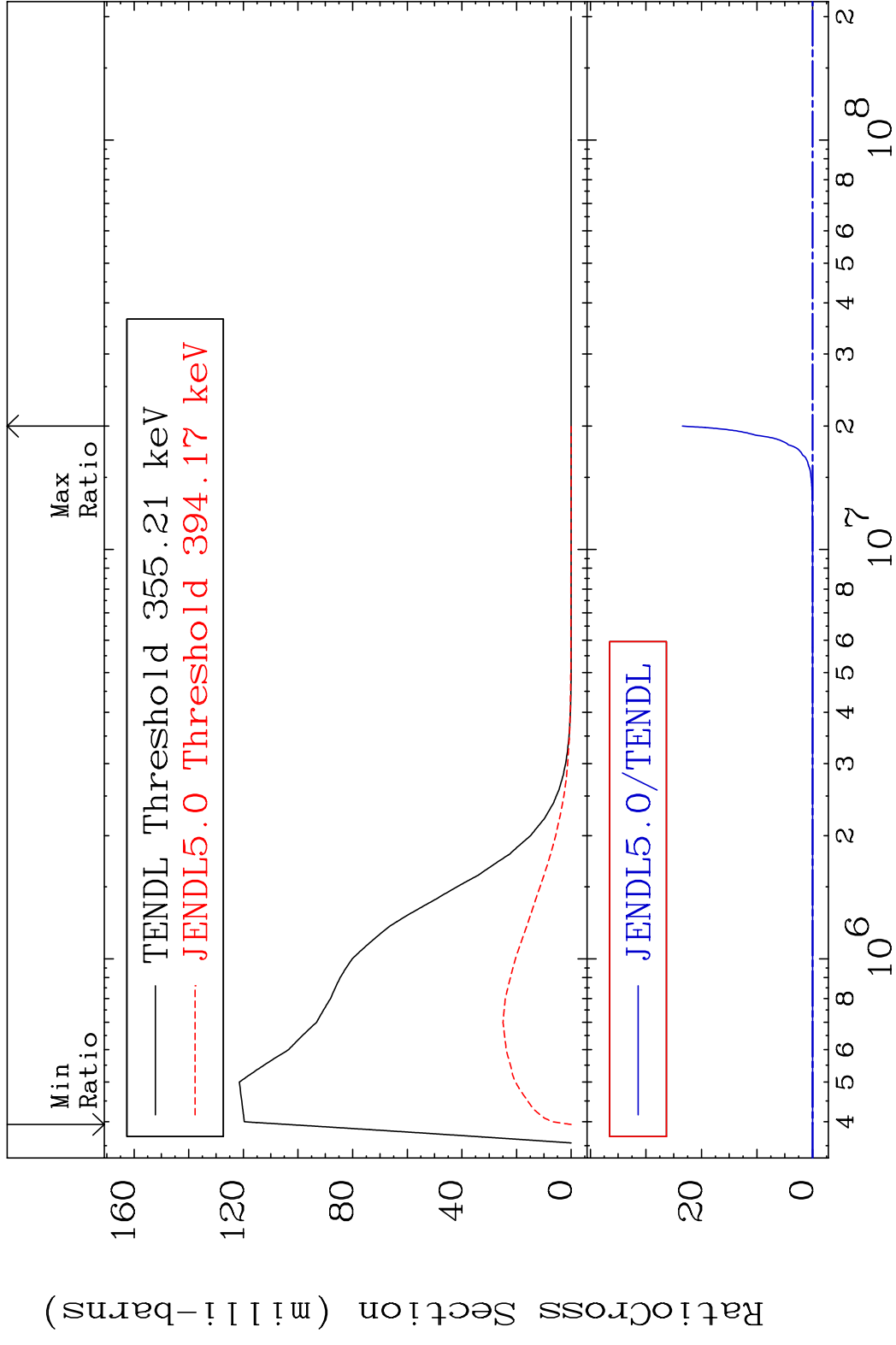
MAT 6153 MT= 68 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



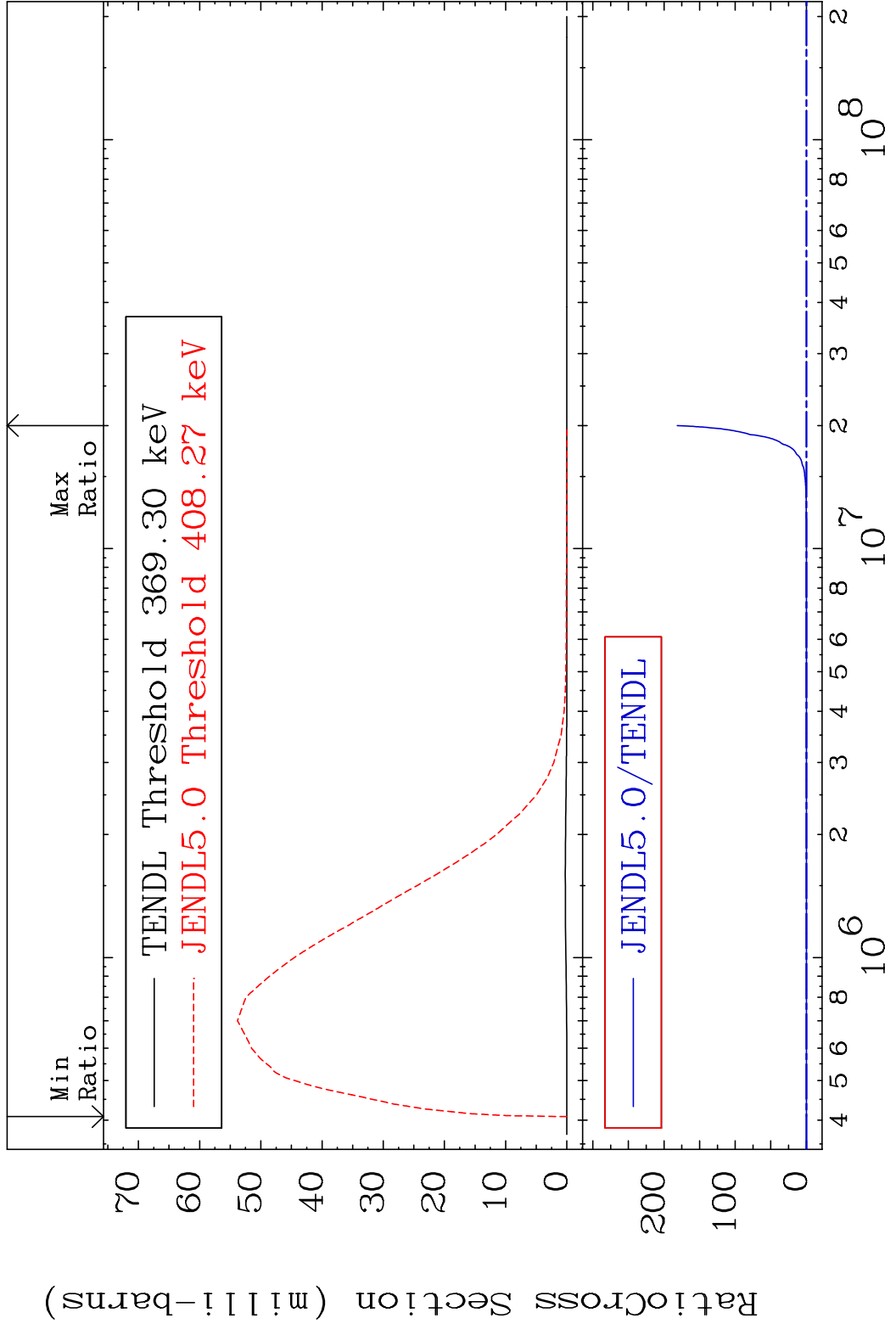
MAT 6153 MT= 69 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



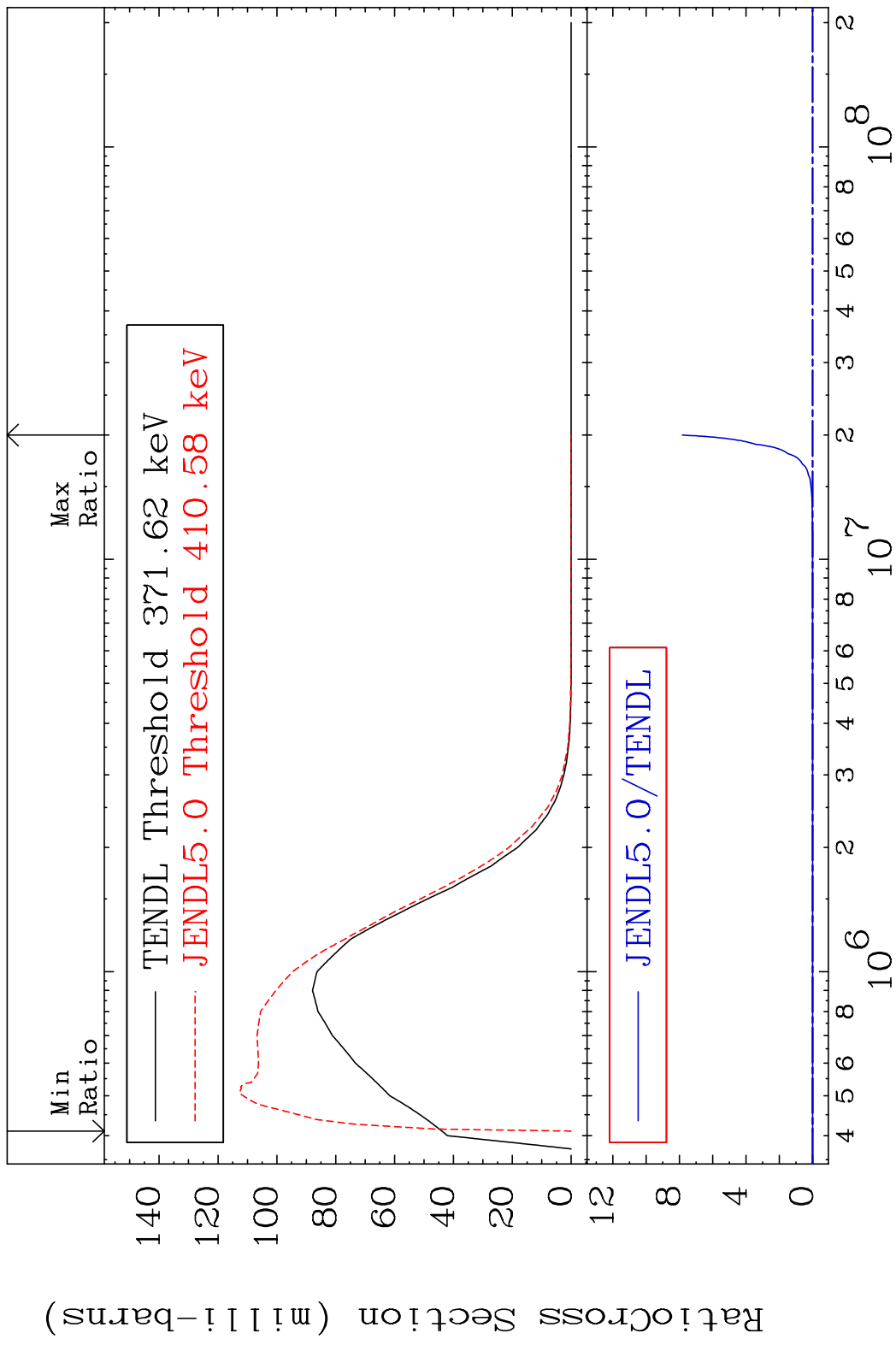
MAT 6153 MT= 70 (n,n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



MAT 6153 MT= 71 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

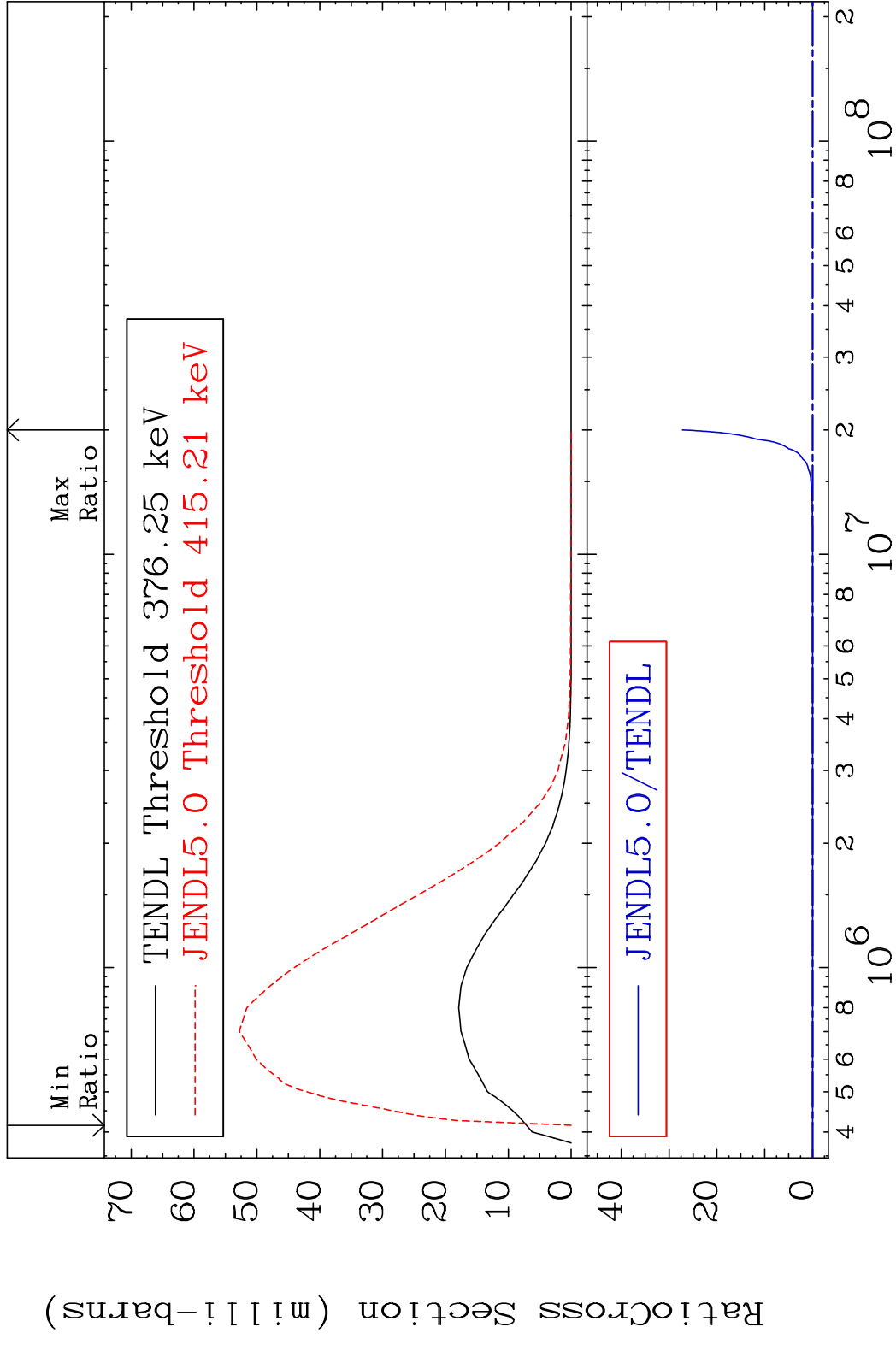


MAT 6153 MT= 72 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

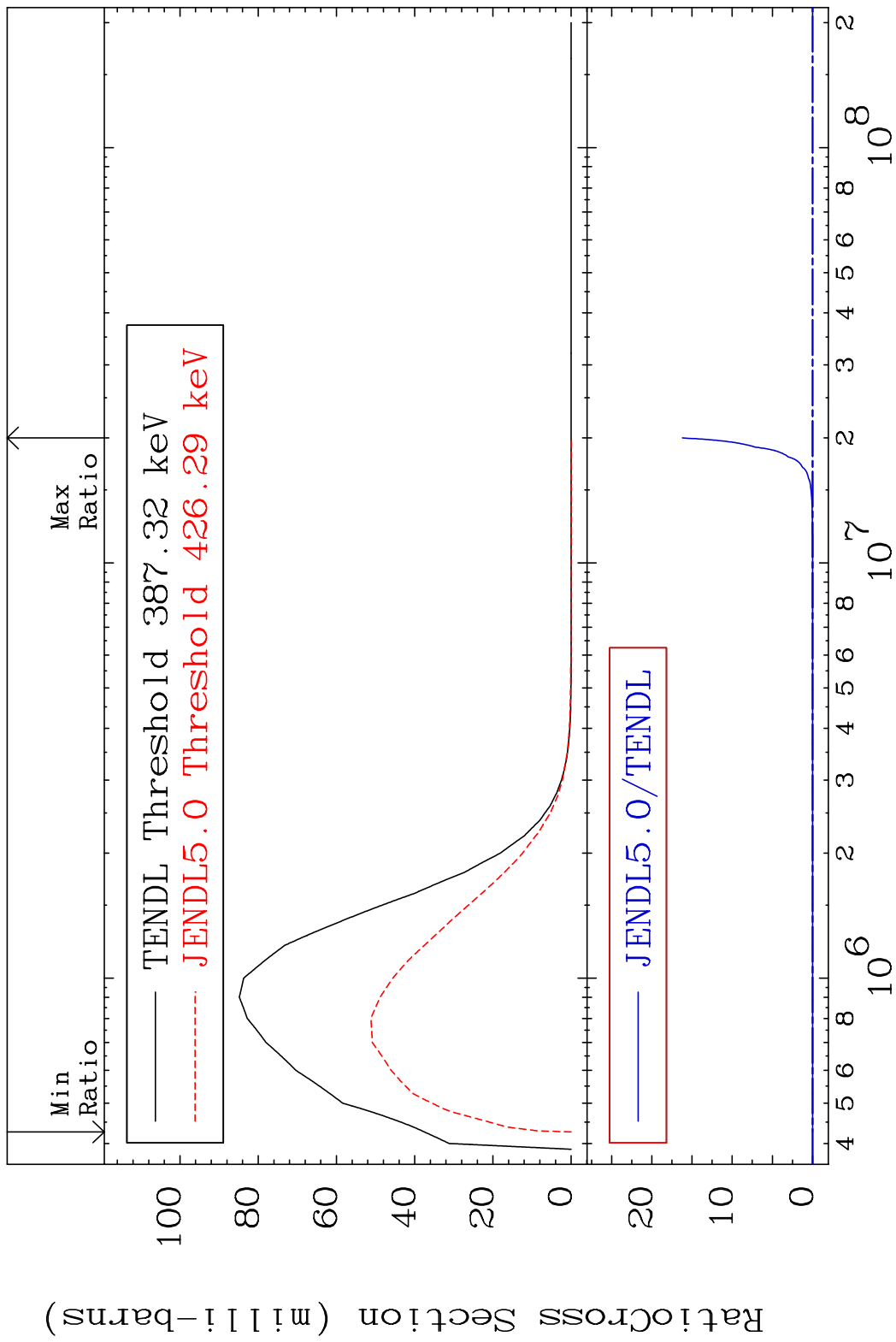


33 Incident Energy (eV) 61-Pm-148m

MAT 6153 MT= 73 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

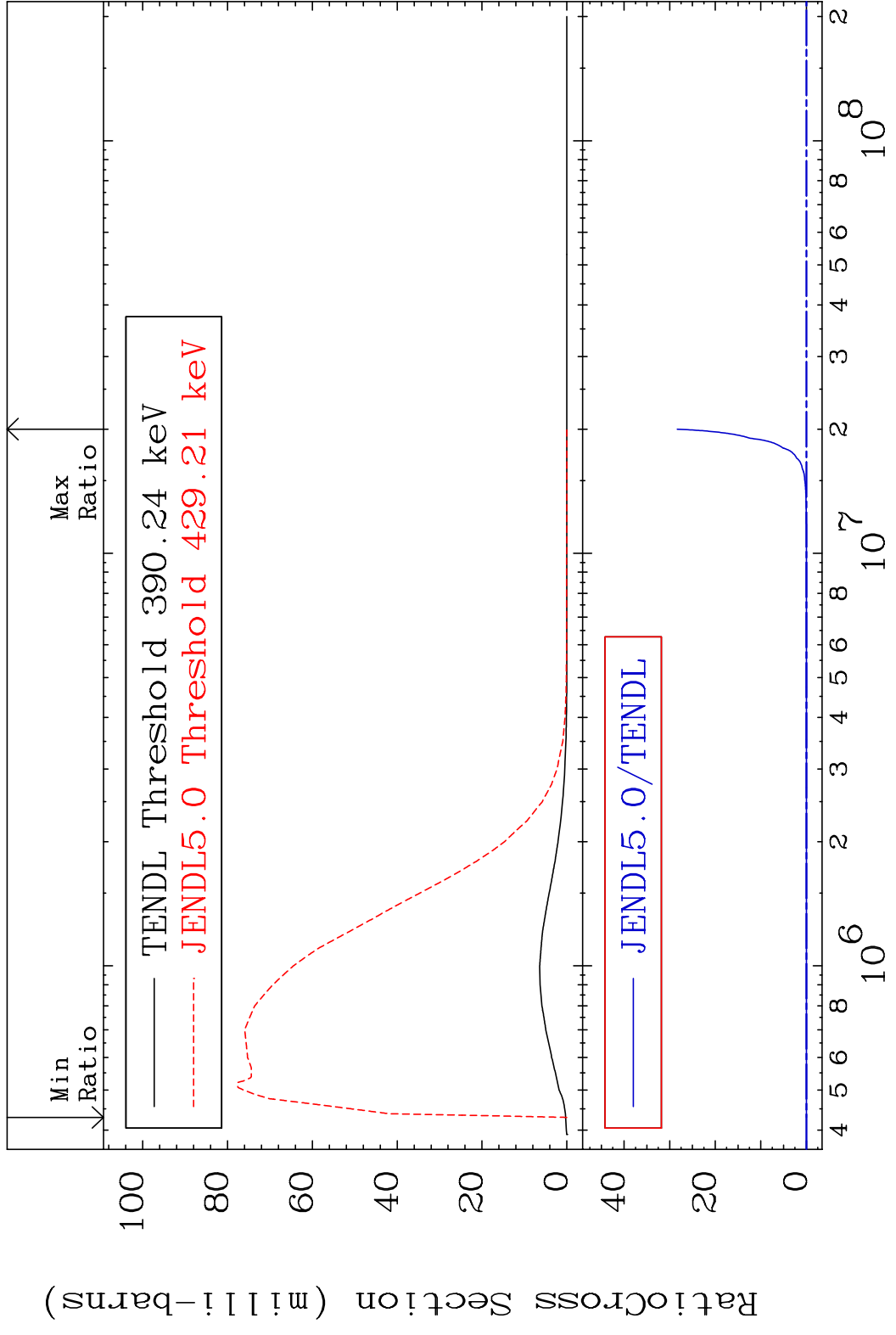


MAT 6153 MT= 74 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

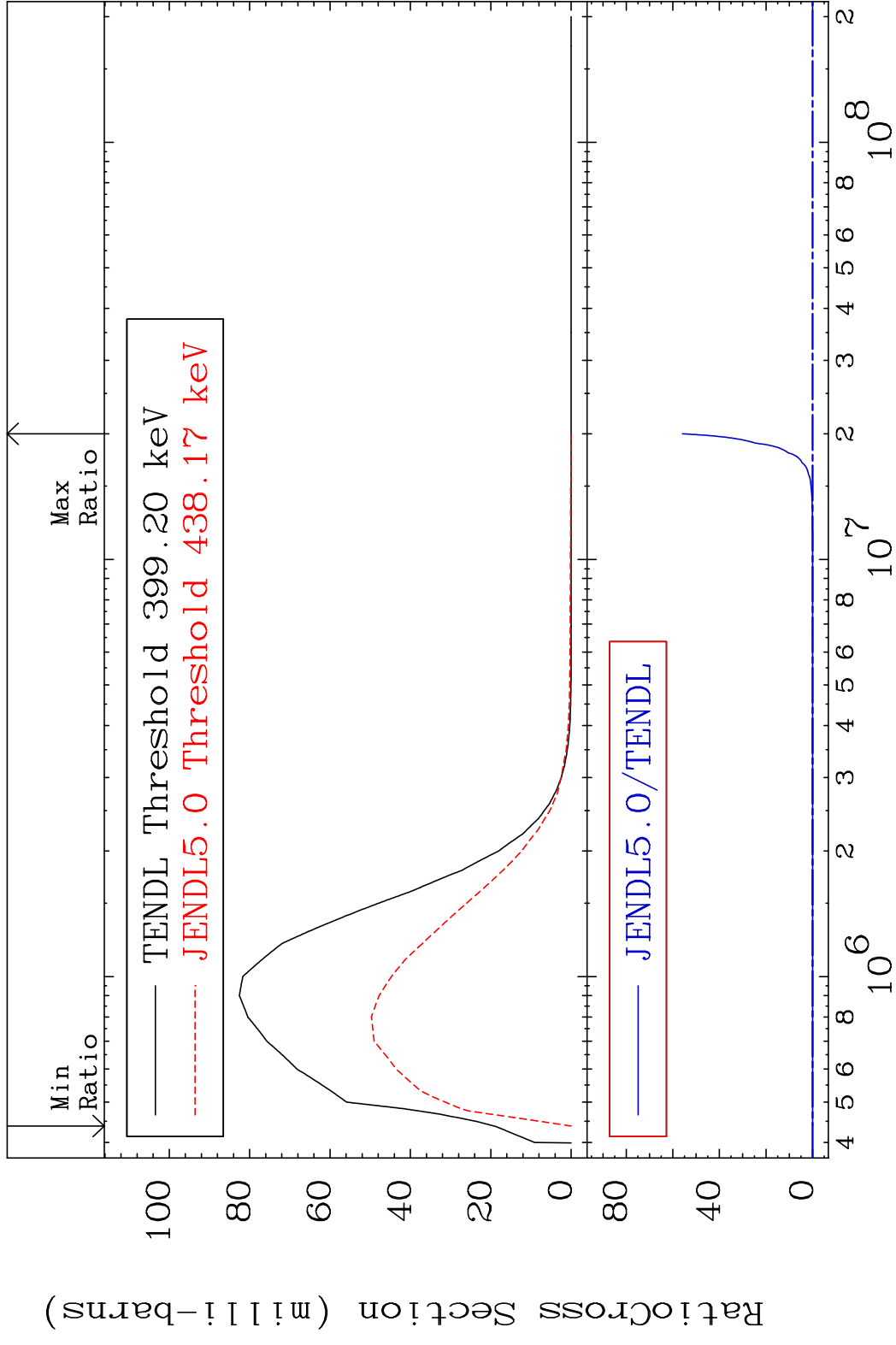


35 Incident Energy (eV) 61-Pm-148m

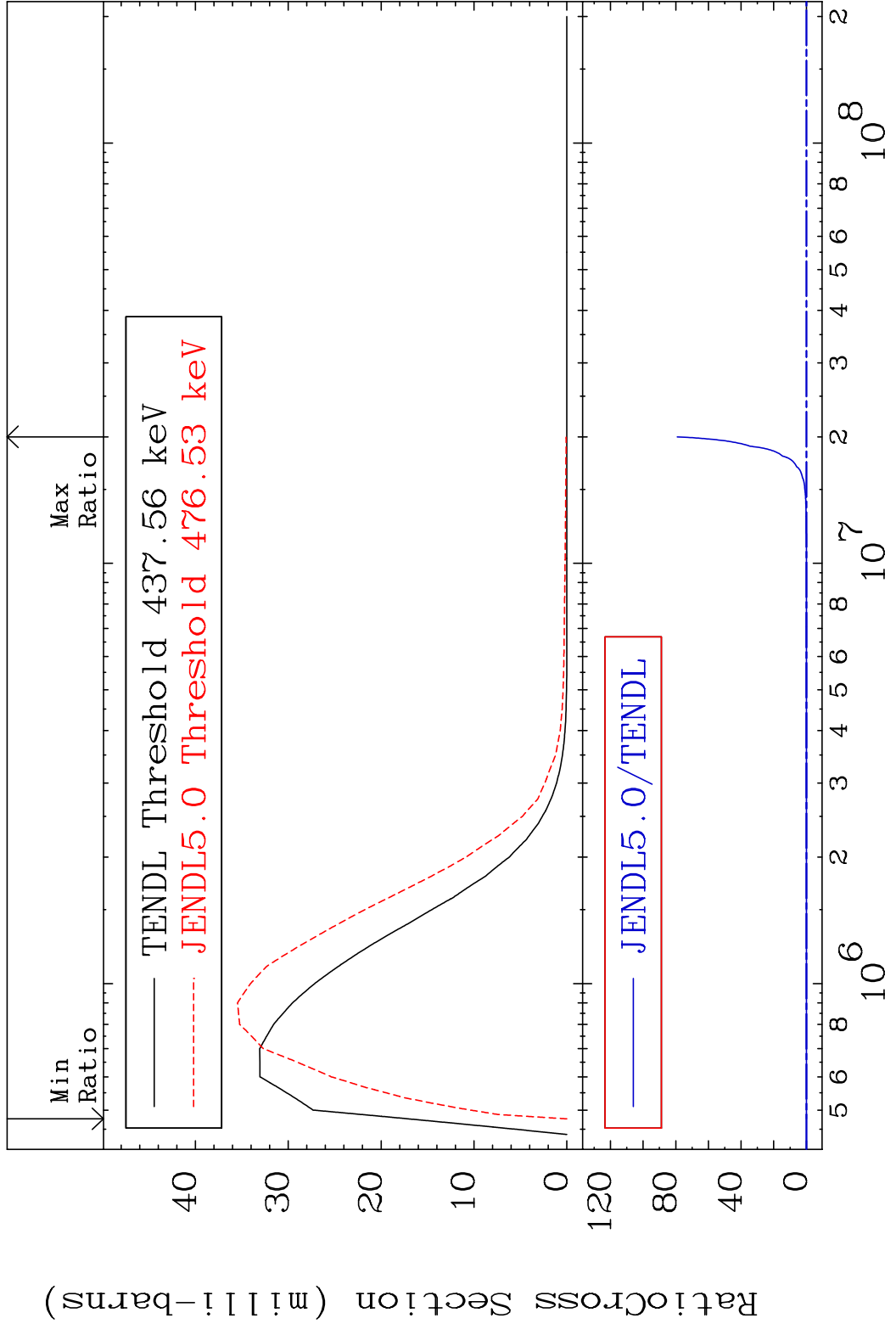
MAT 6153 MT= 75 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



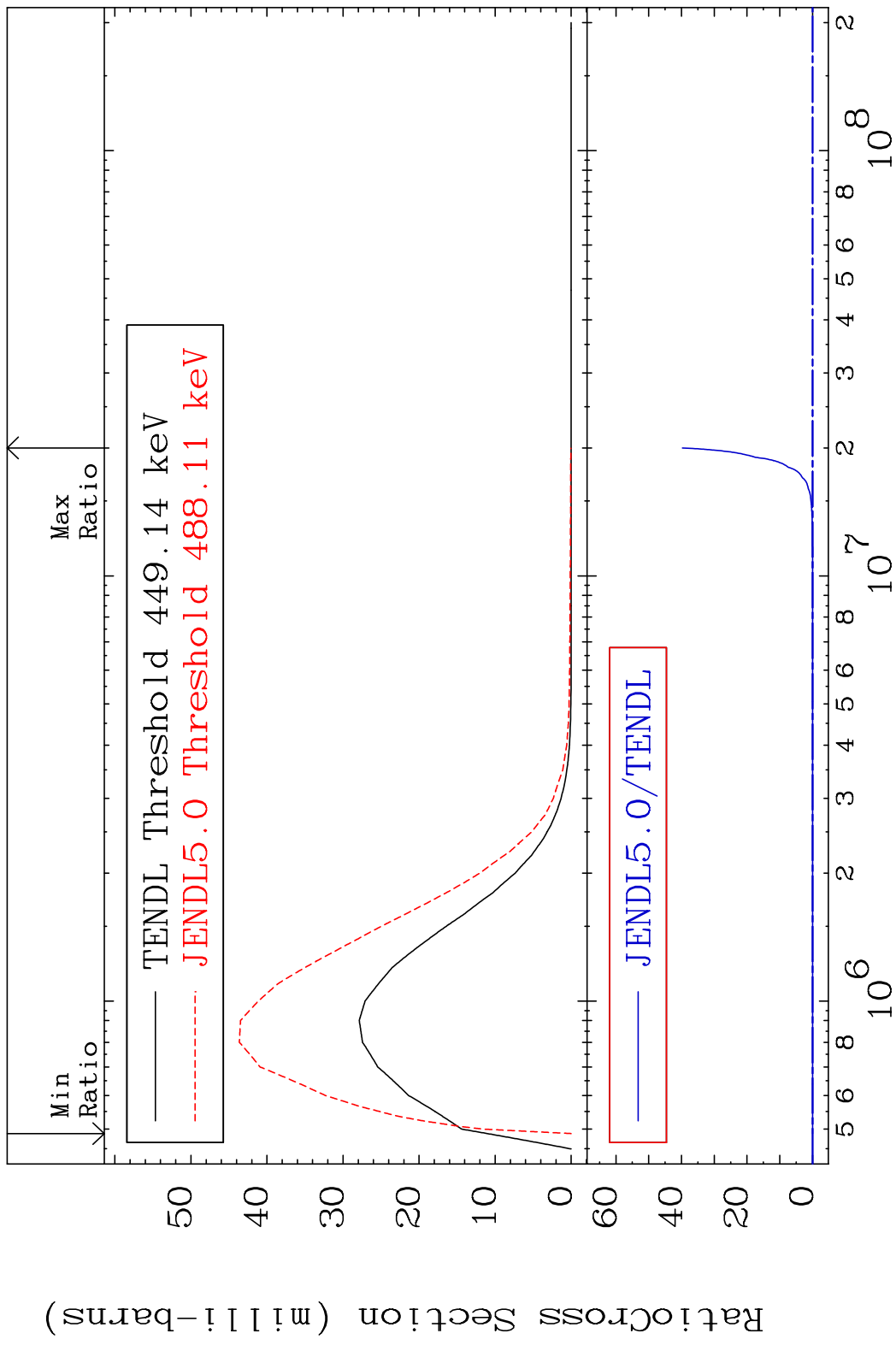
MAT 6153 MT= 76 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



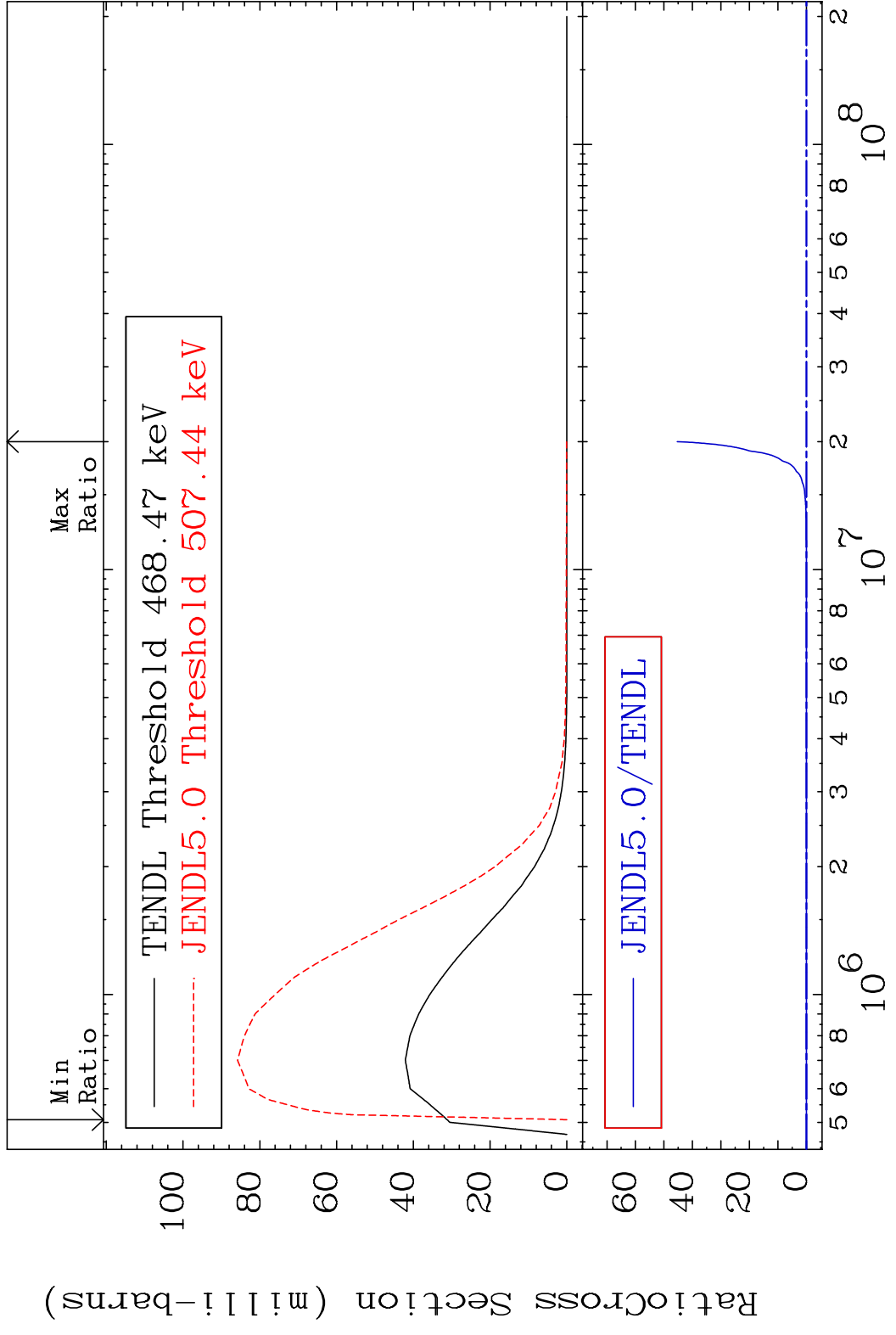
MAT 6153 MT= 77 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



MAT 6153 MT= 78 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

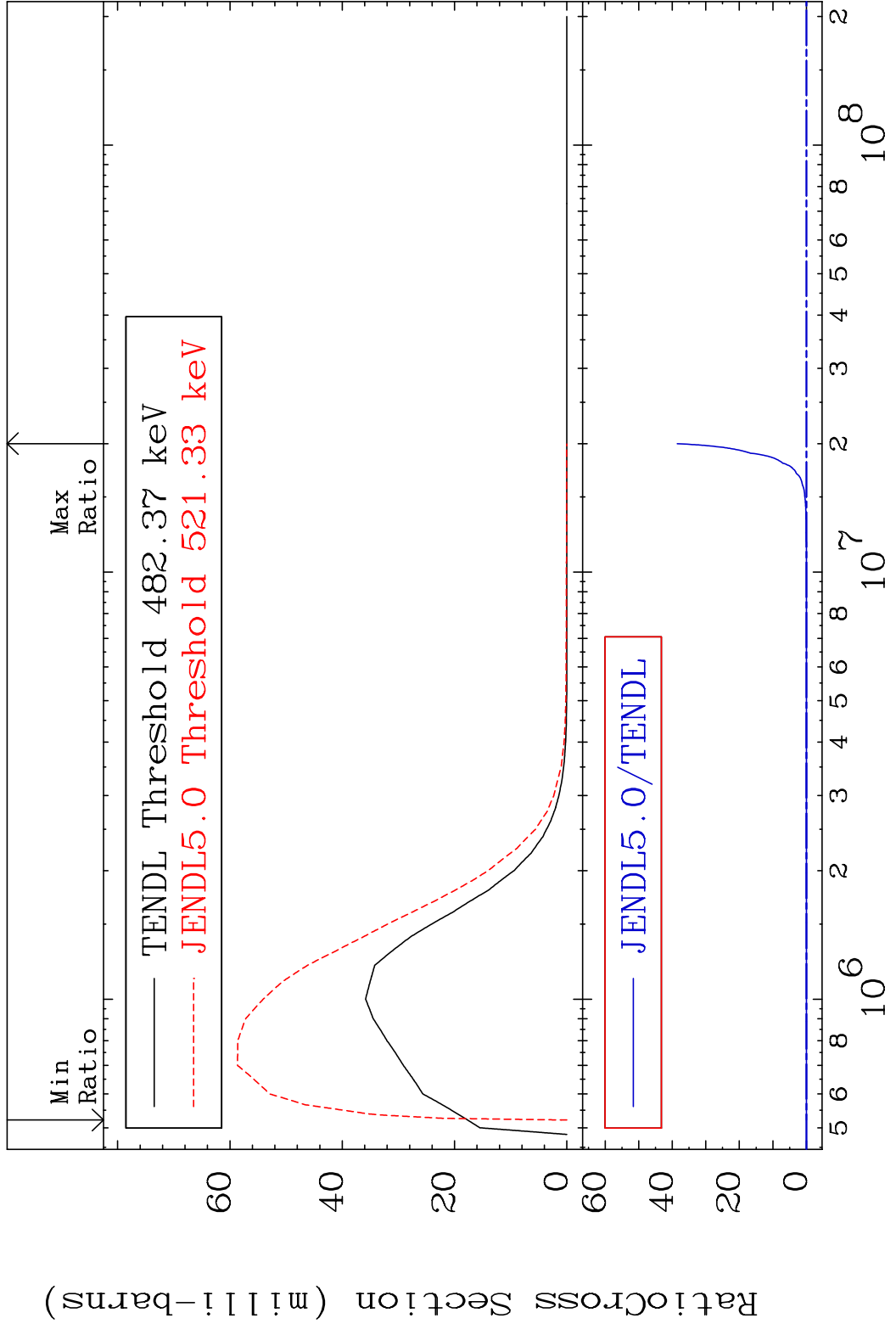


MAT 6153 MT= 79 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %



40 Incident Energy (eV) 61-Pm-148m

MAT 6153 MT= 80 (n, n') Level 61-Pm-148m
 Cross Section -100.0 To 9999. %

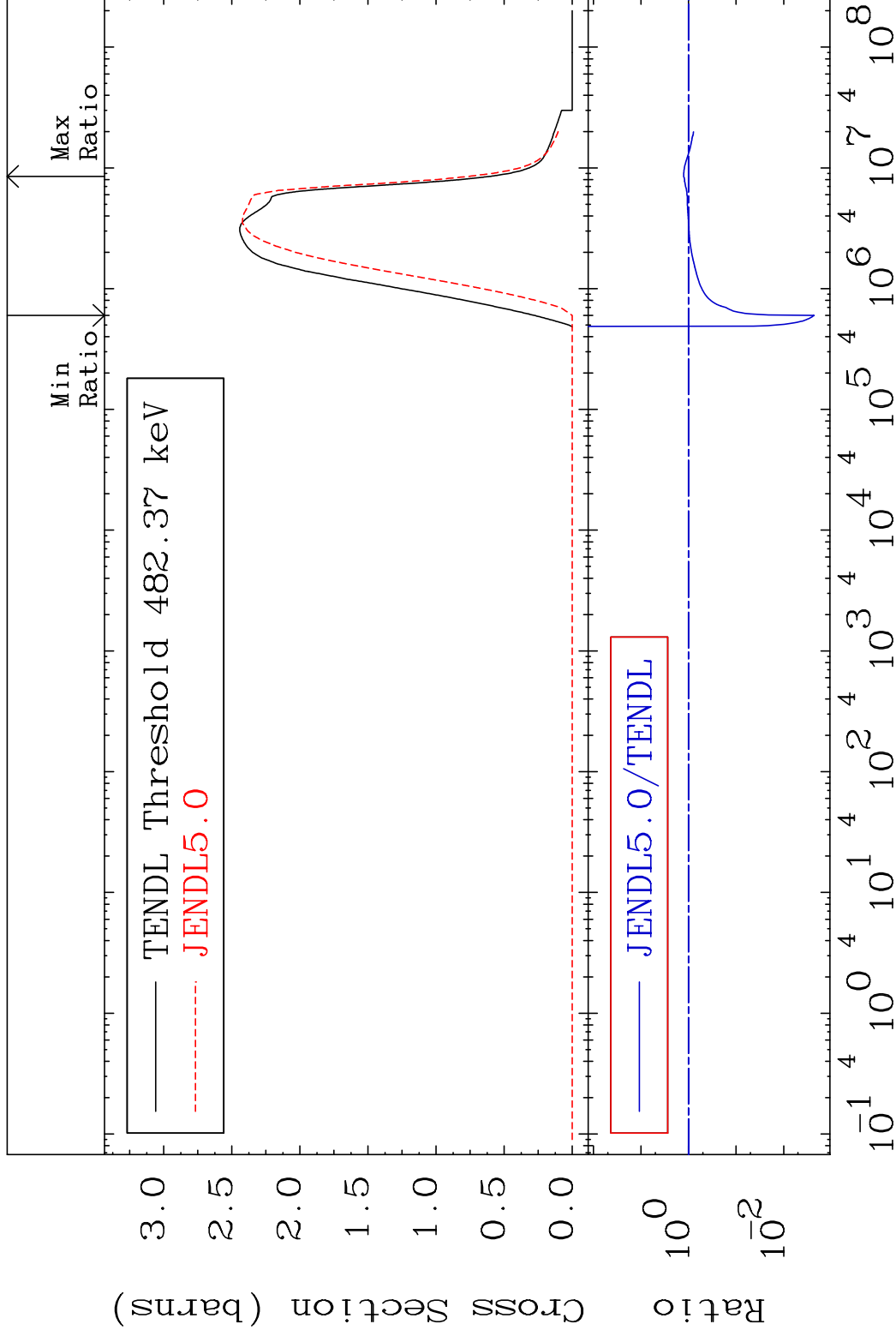


MAT 6153

(n,n') Continuum

61-Pm-148m

Cross Section -99.77 To 26.83 %



42

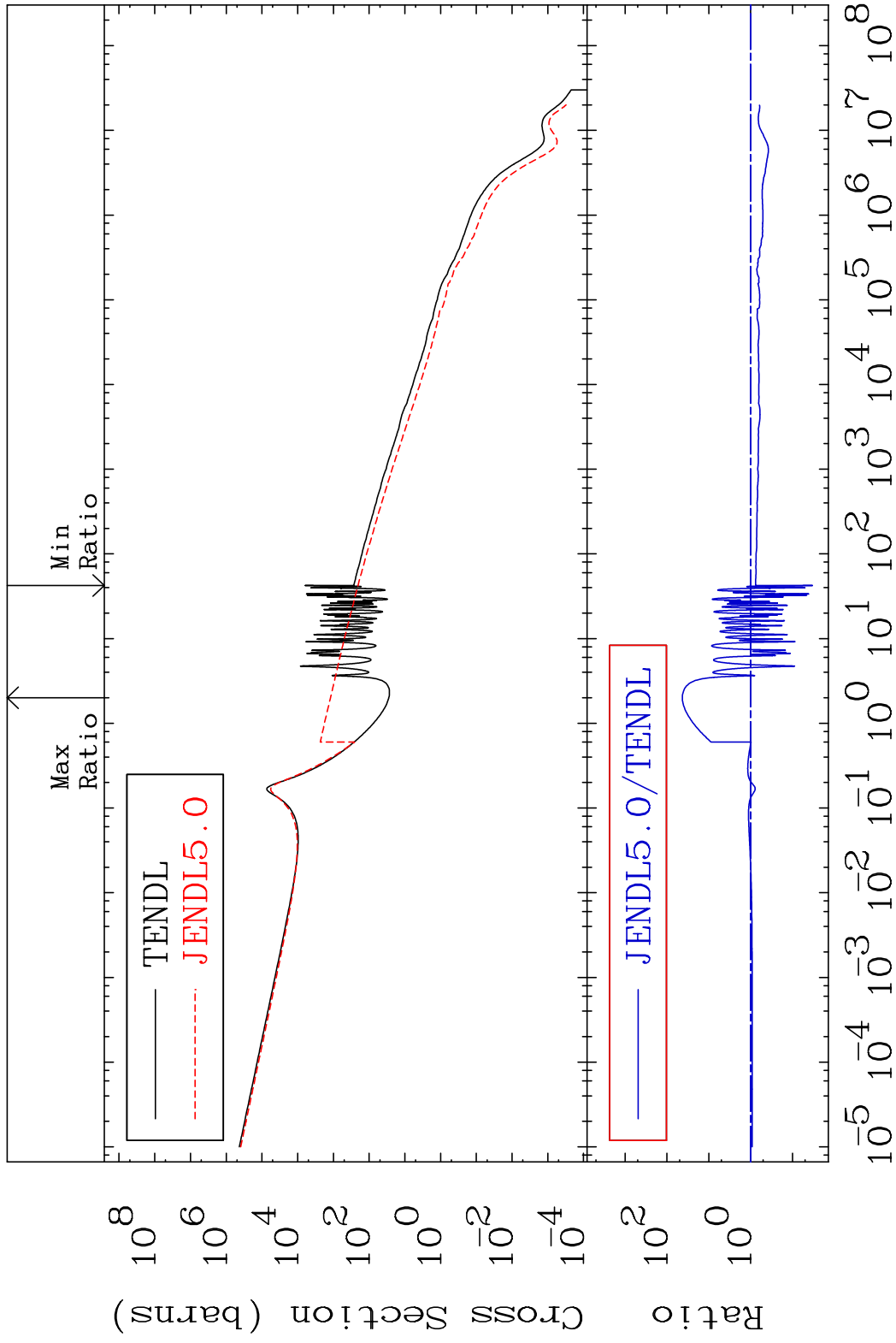
Incident Energy (eV)

61-Pm-148m

MAT 6153

(n, γ)
Cross Section -96.69 To 4191. %

61-Pm-148m



43

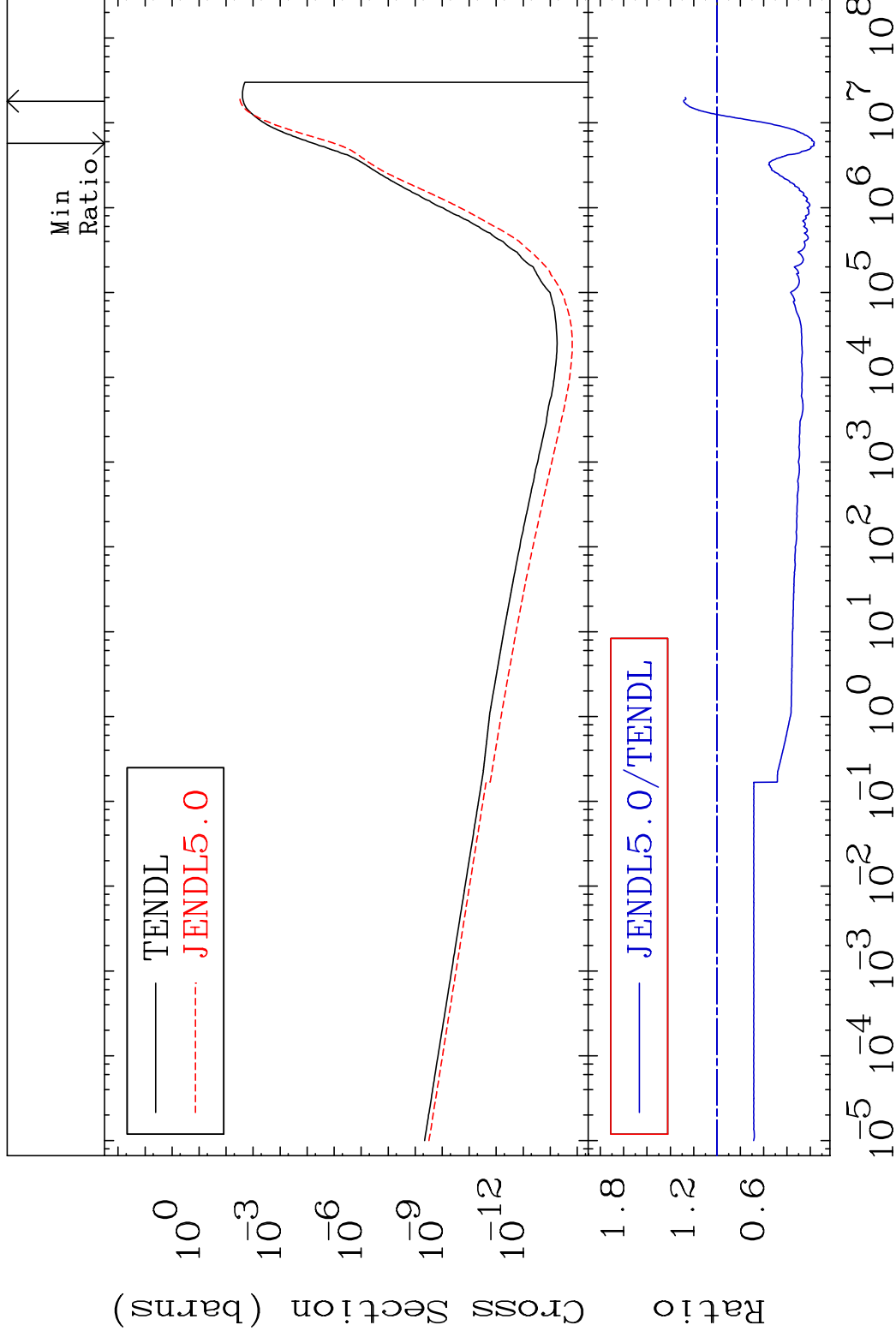
Incident Energy (eV) 61-Pm-148m

MAT 6153

(n, p)

61-Pm-148m

Cross Section -83.37 To 28.56 %



44

Incident Energy (eV)

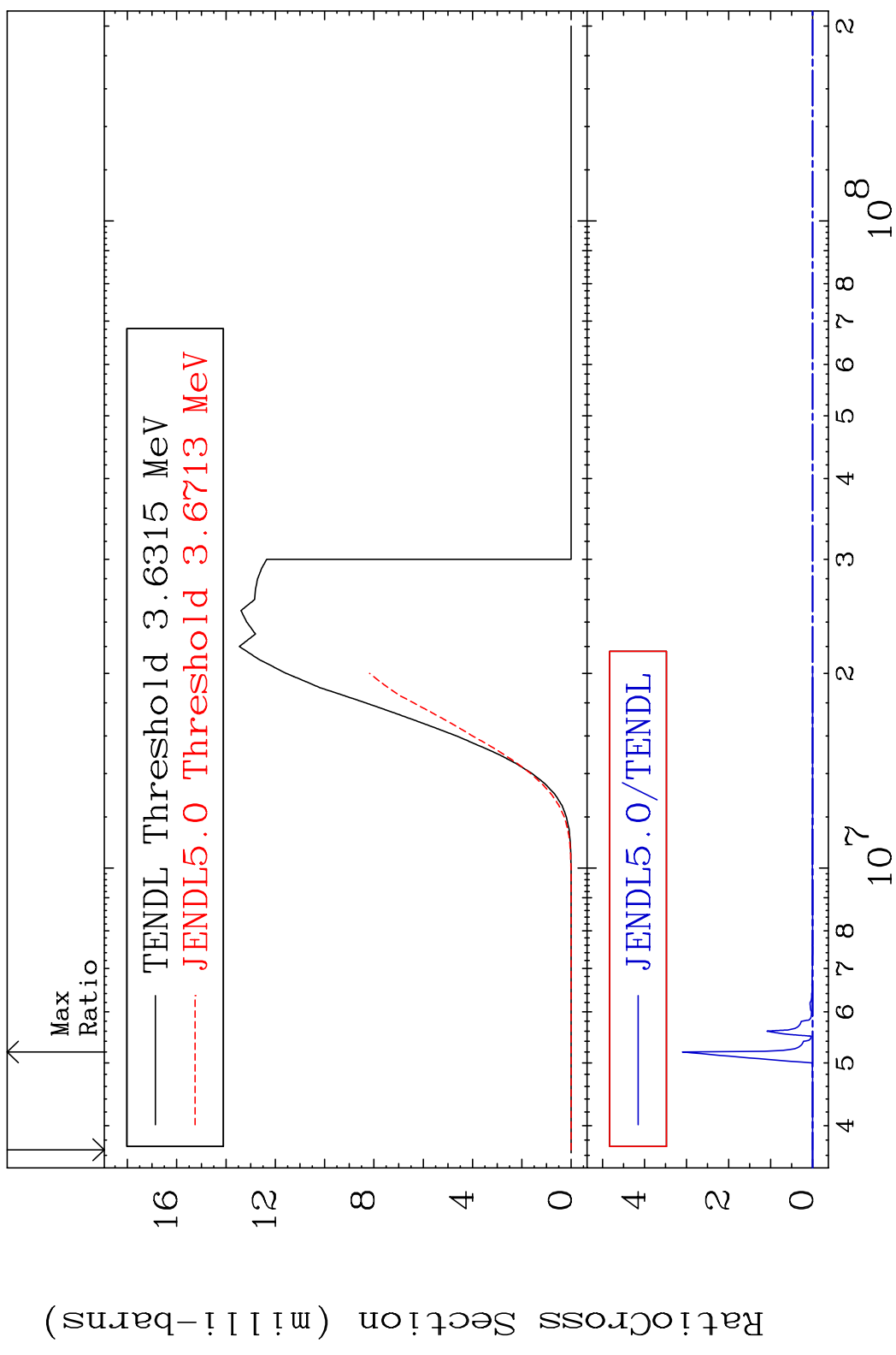
61-Pm-148m

MAT 6153

(n,d)

61-Pm-148m

Cross Section -100.0 To 9999. %

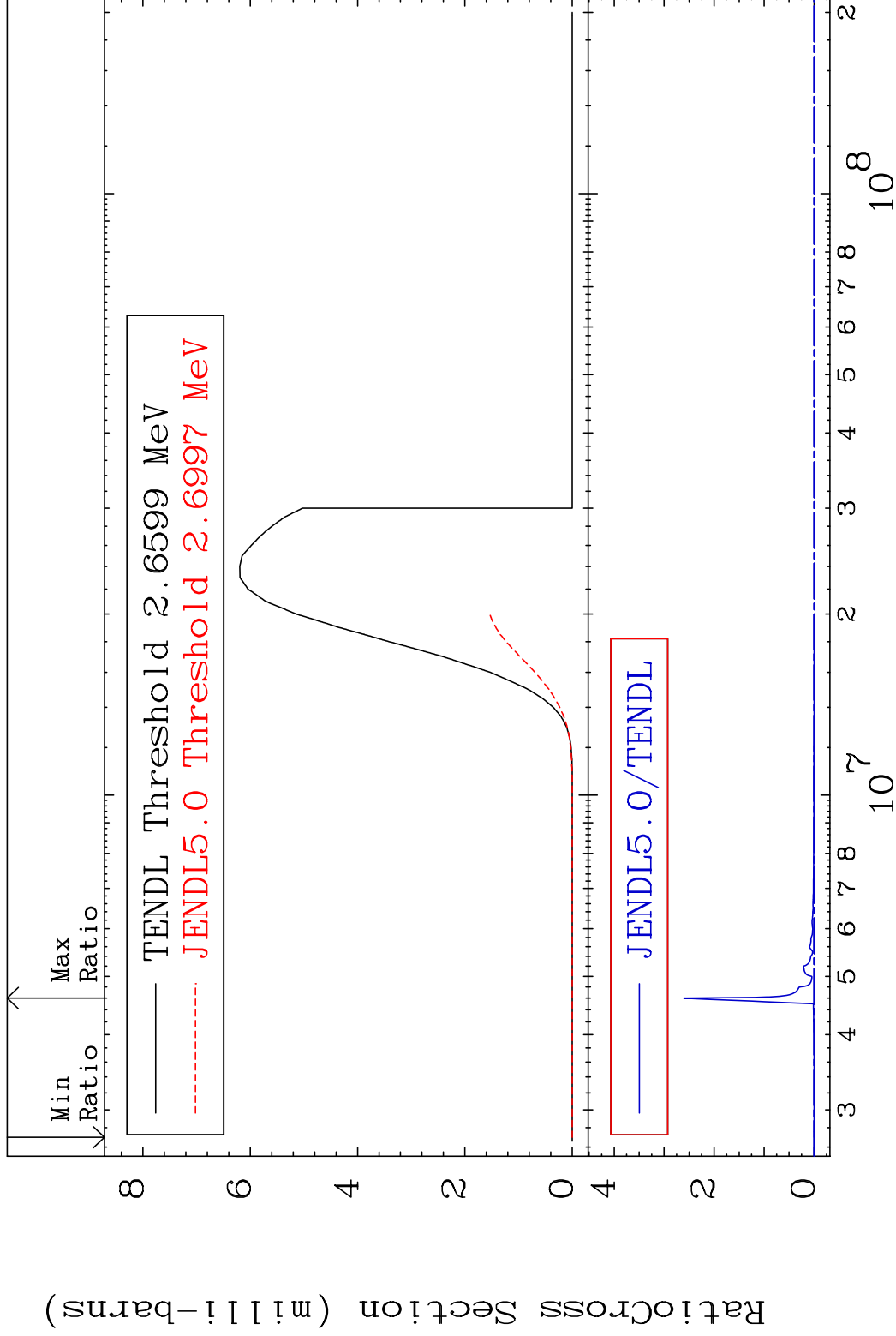


MAT 6153

(n, t)

61-Pm-148m

Cross Section -100.0 To 9999. %



46

Incident Energy (eV)

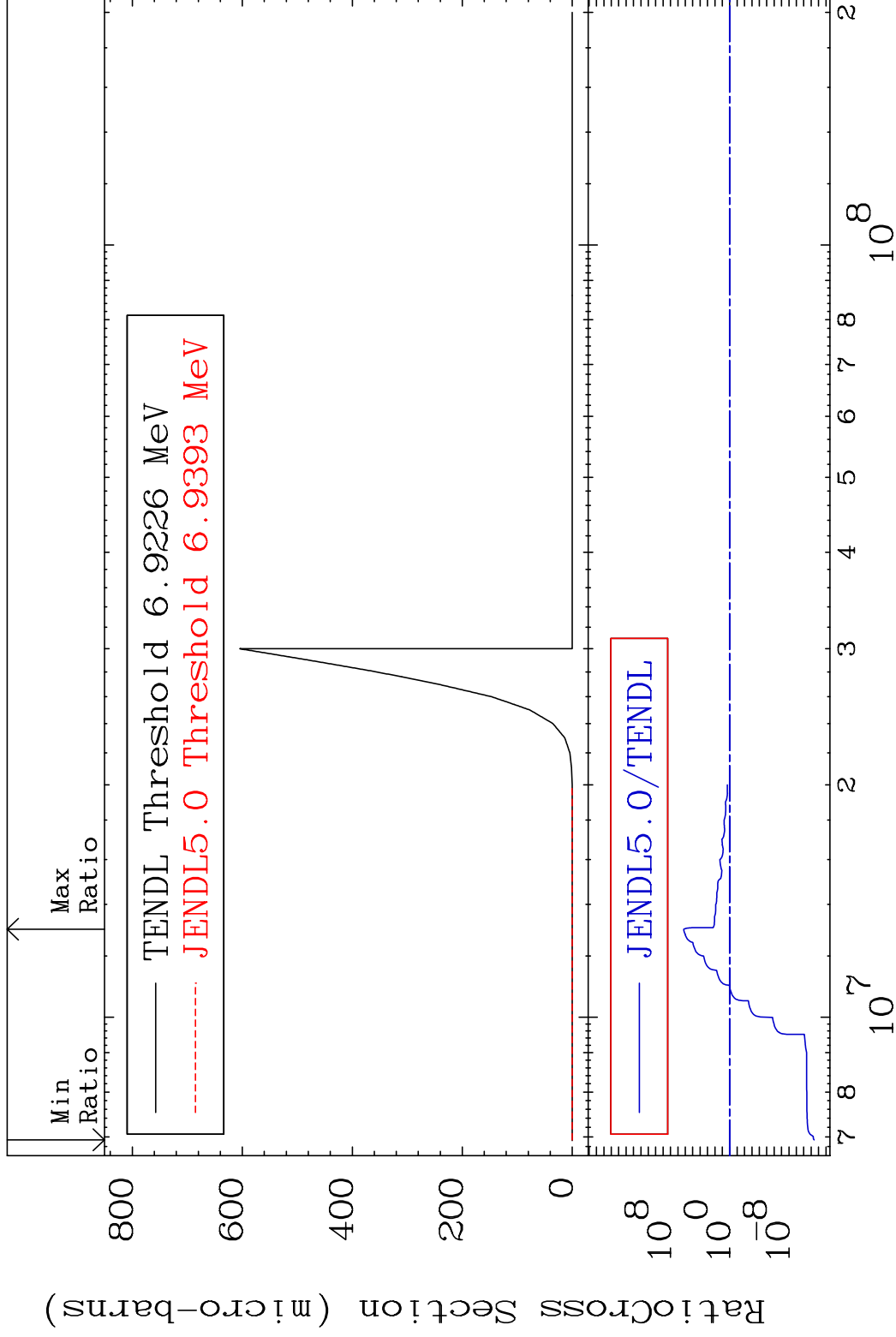
61-Pm-148m

MAT 6153

(n, He-3)

61-Pm-148m

Cross Section -100.0 To 9999. %



47

Incident Energy (eV)

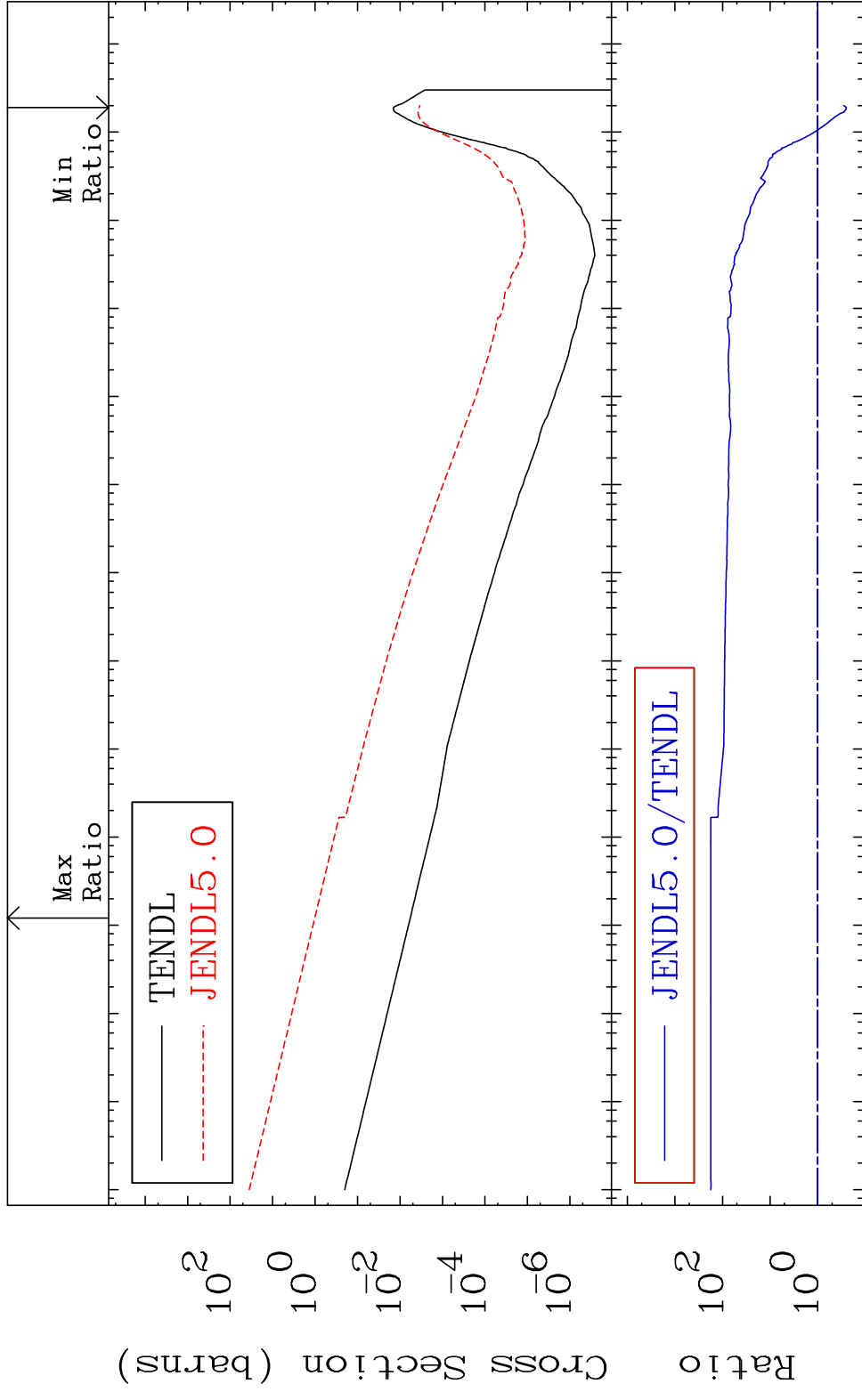
61-Pm-148m

MAT 6153

(n, α)

Cross Section -74.95 To 9999. %

61-Pm-148m



10⁻⁵ 10⁻⁴ 10⁻³ 10⁻² 10⁻¹ 10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶ 10⁷ 10⁸

48

Incident Energy (eV)

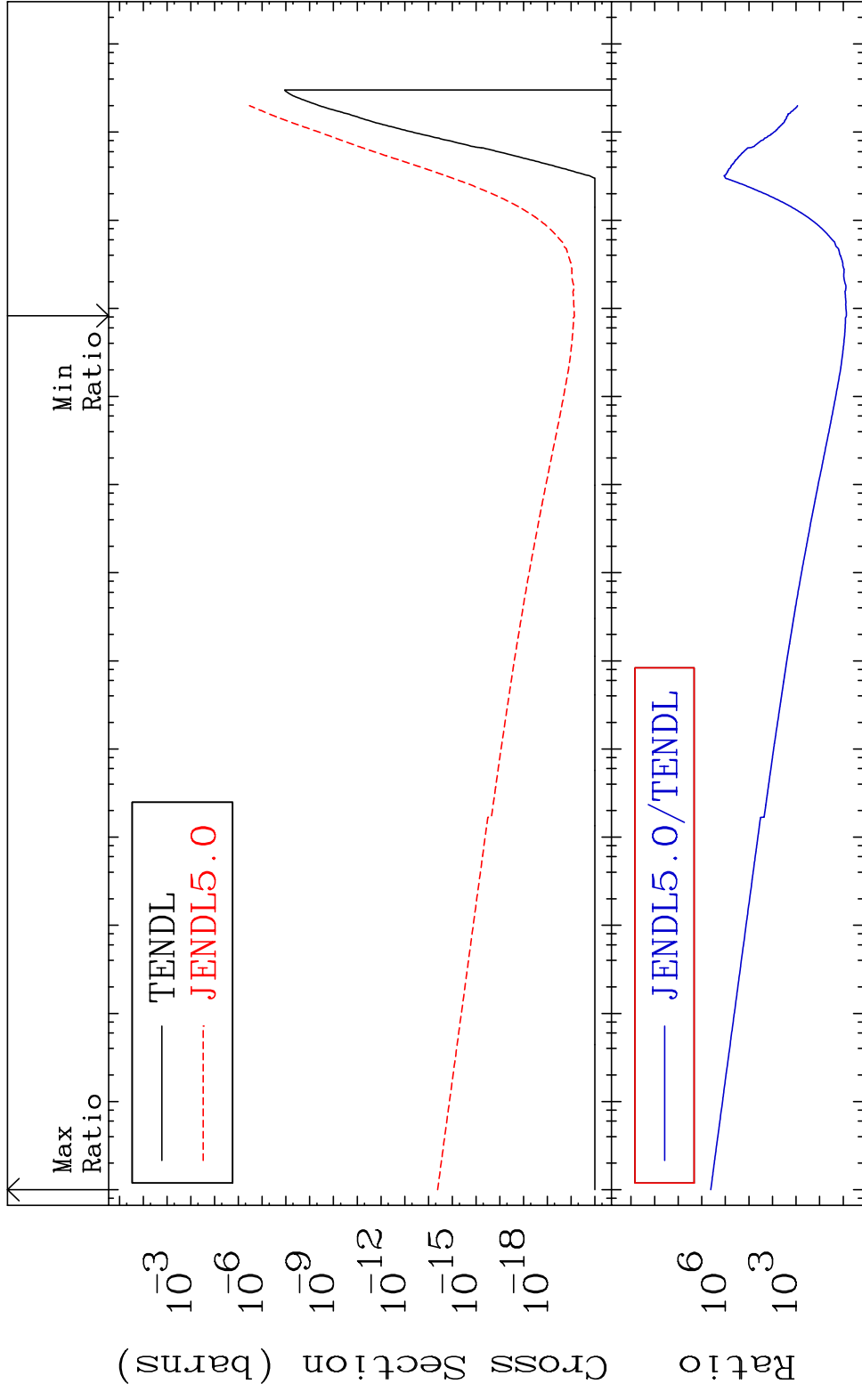
61-Pm-148m

MAT 6153

(n, 2α)

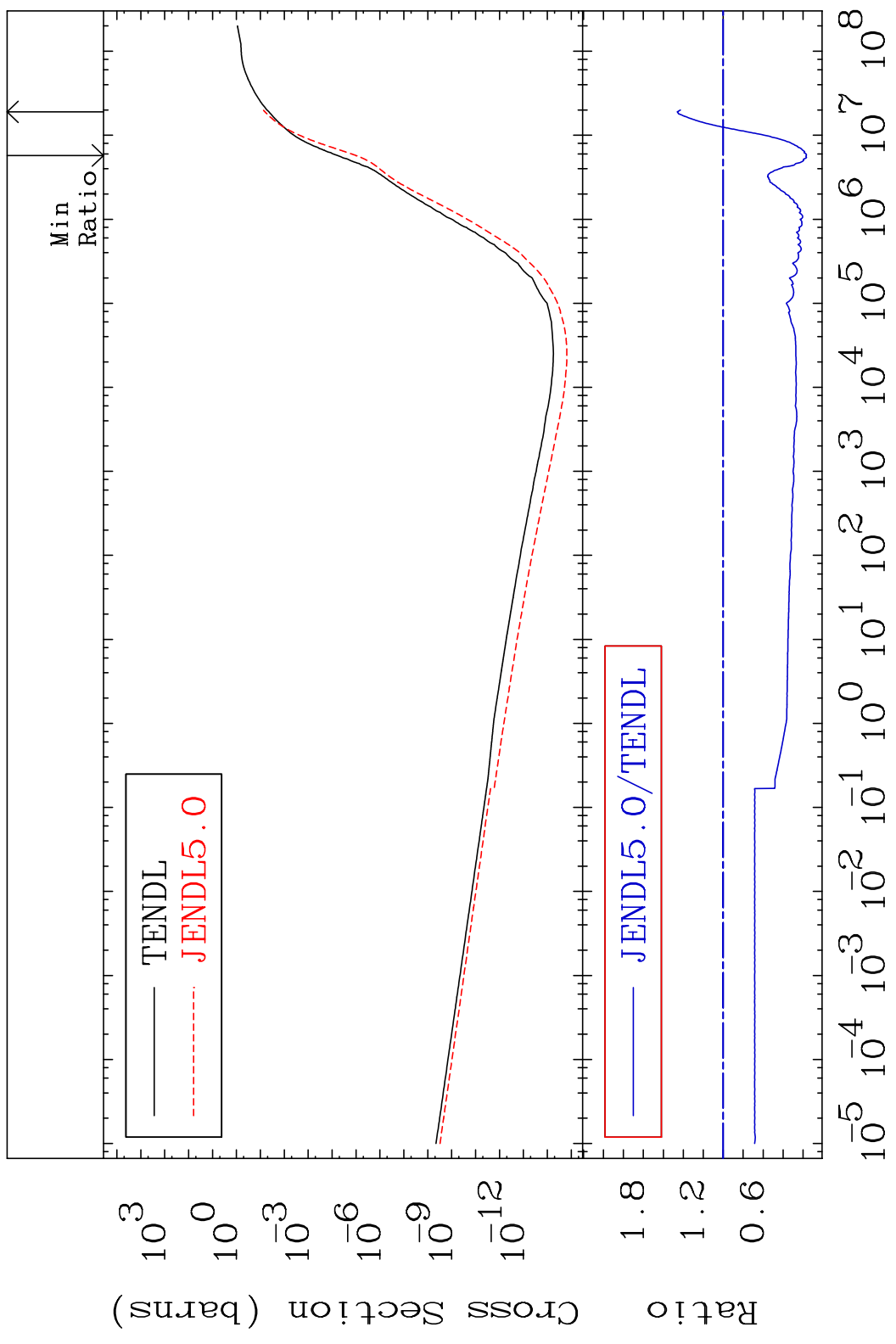
61-Pm-148m

Cross Section 636.6 To 9999. %



MAT 6153

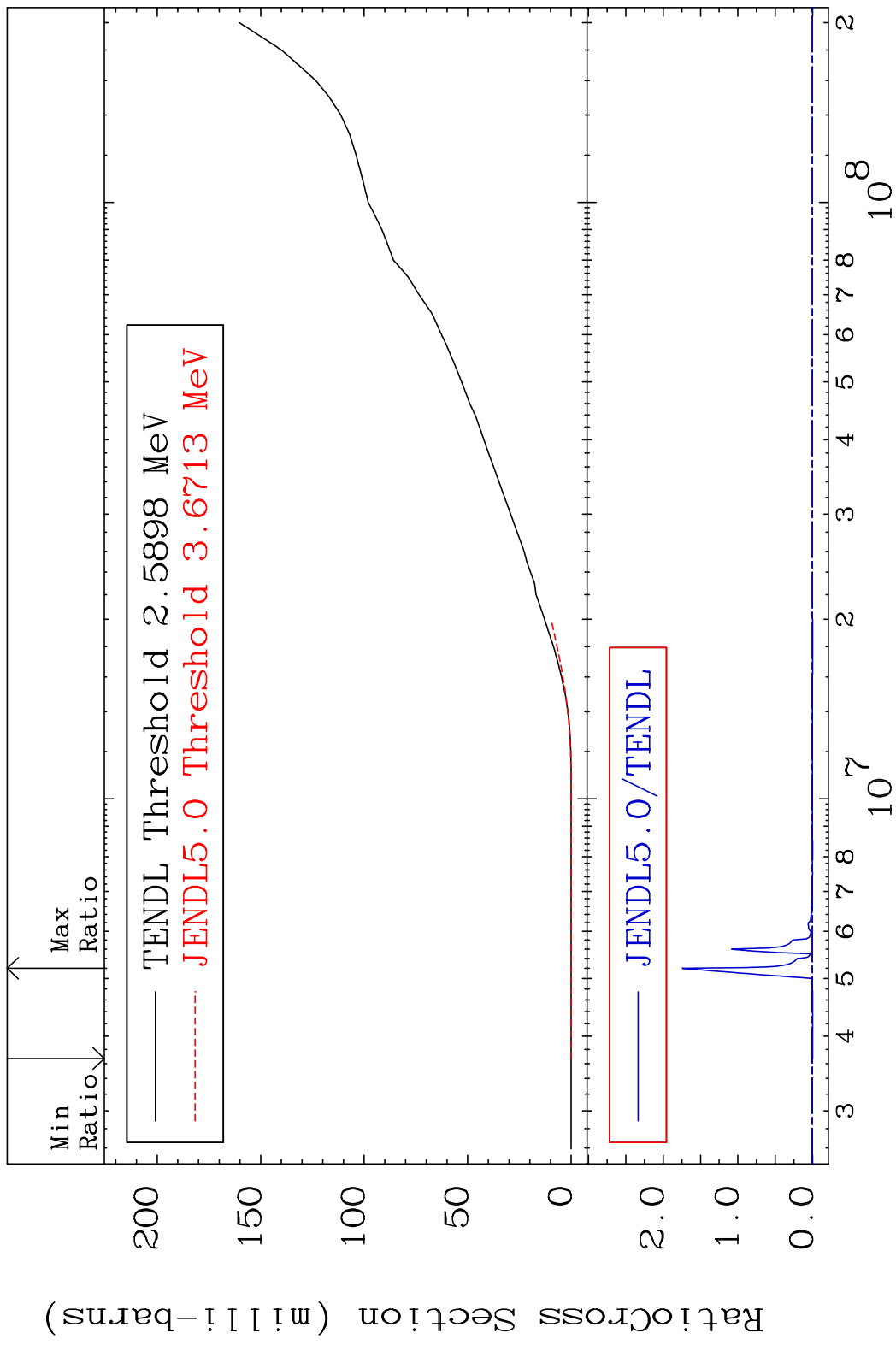
Hydrogen Production 61-Pm-148m
Cross Section -83.37 To 46.10 %



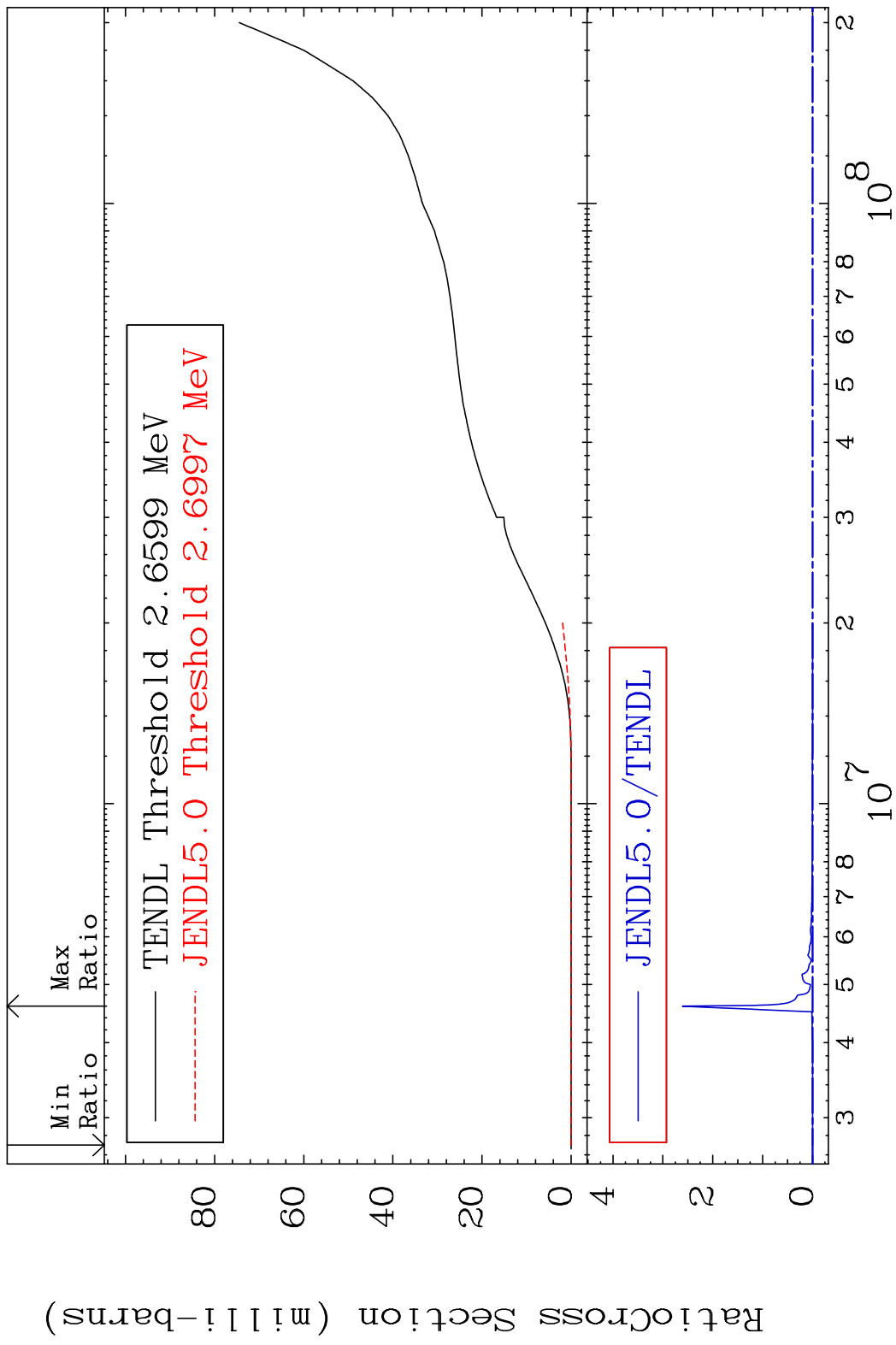
50

Incident Energy (eV) 61-Pm-148m

MAT 6153 Deuterium Production 61-Pm-148m
 Cross Section -100.0 To 9999. %



MAT 6153 Tritium Production 61-Pm-148m
 Cross Section -100.0 To 9999. %

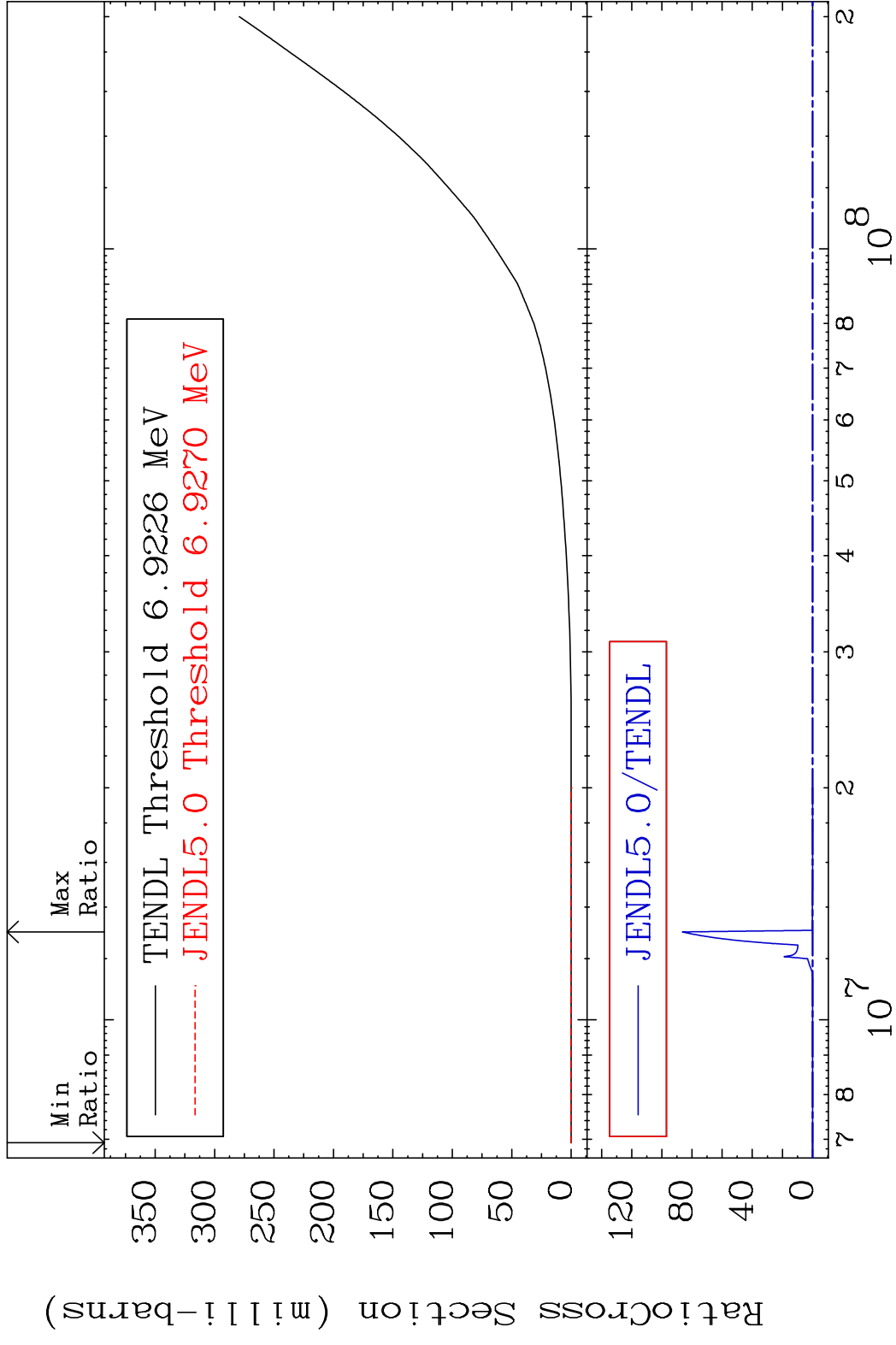


MAT 6153

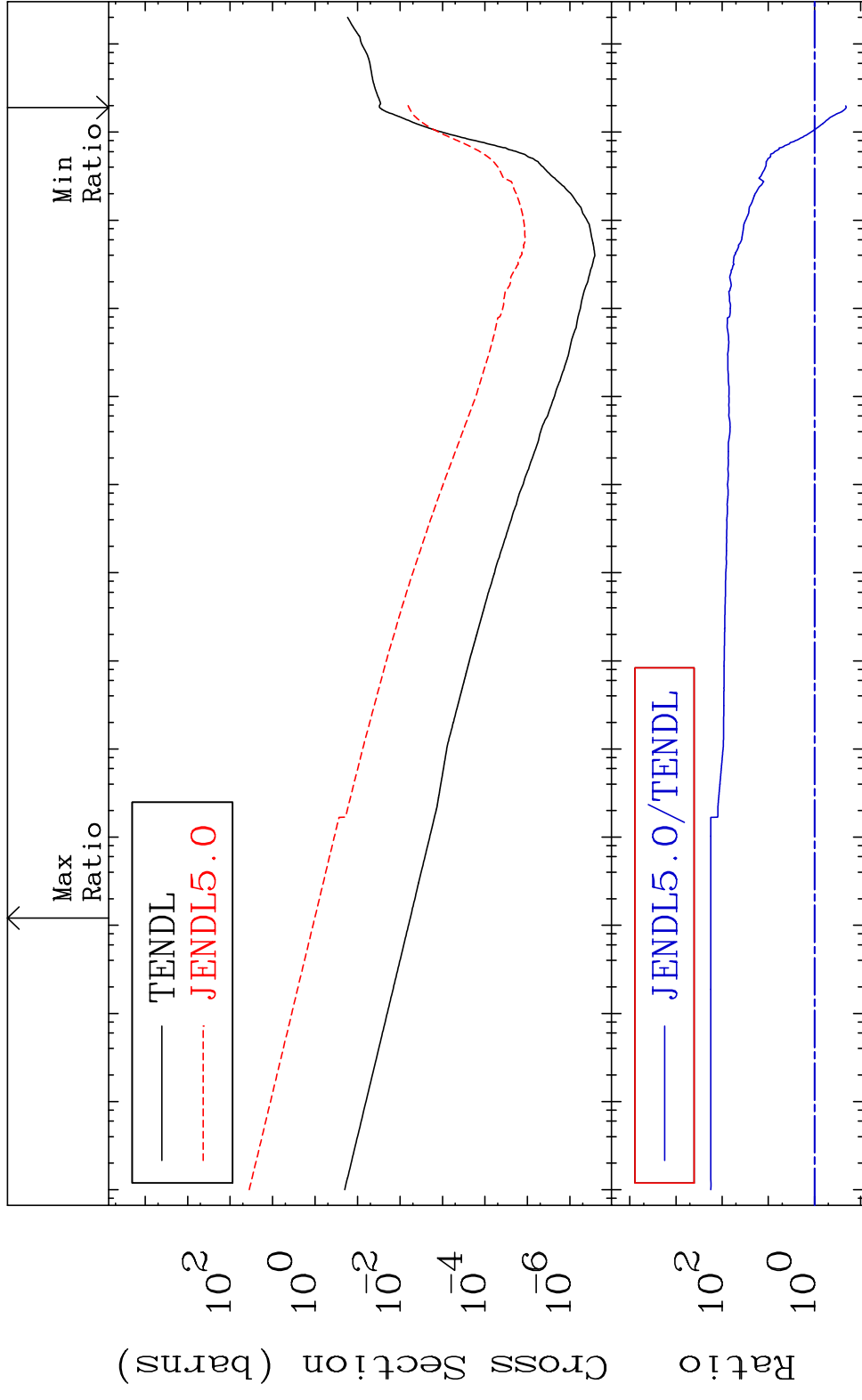
He-3 Production

61-Pm-148m

Cross Section -100.0 To 9999. %

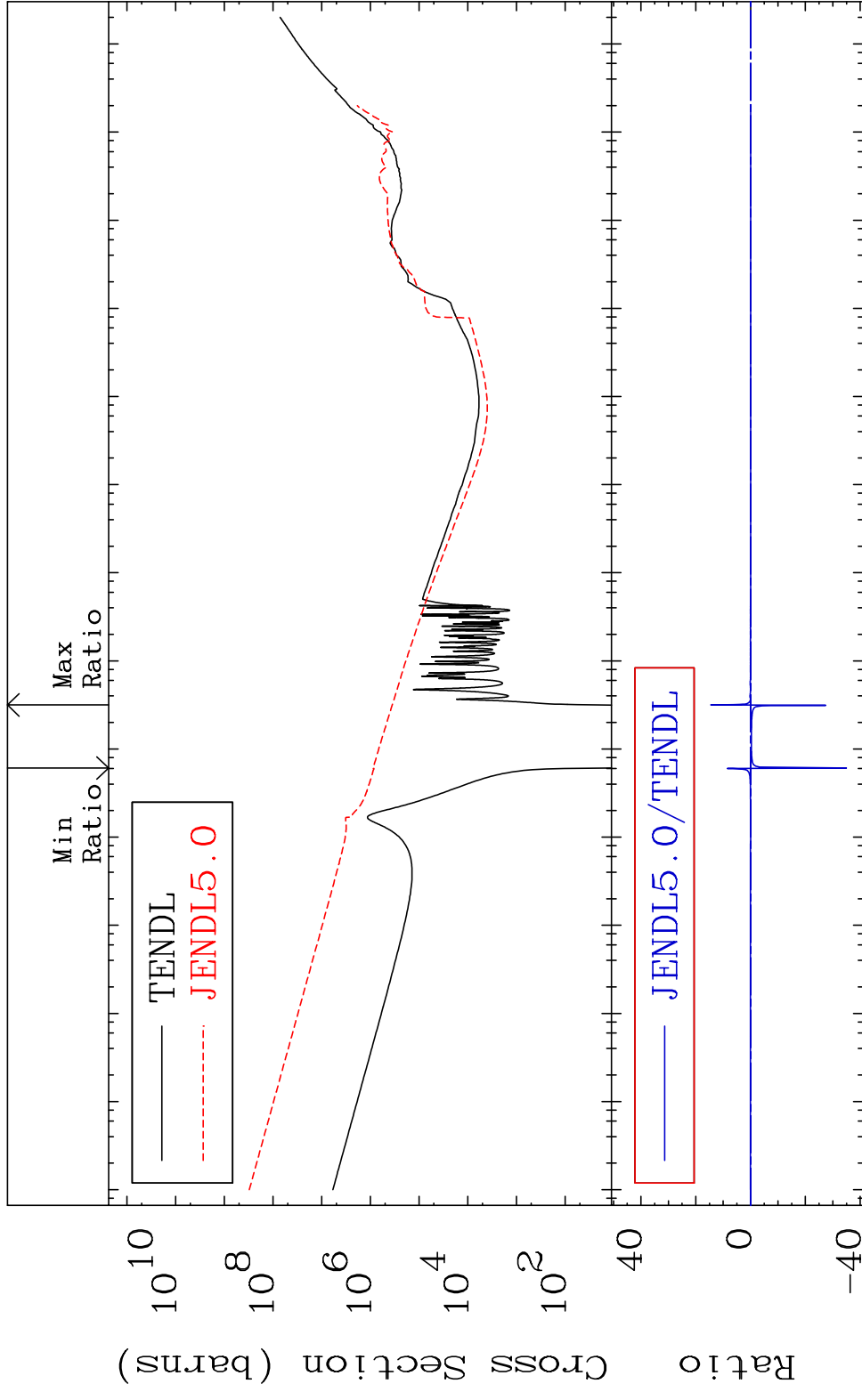


MAT 6153 He-4 Production 61-Pm-148m
 Cross Section -79.64 To 9999. %



54 Incident Energy (eV) 61-Pm-148m

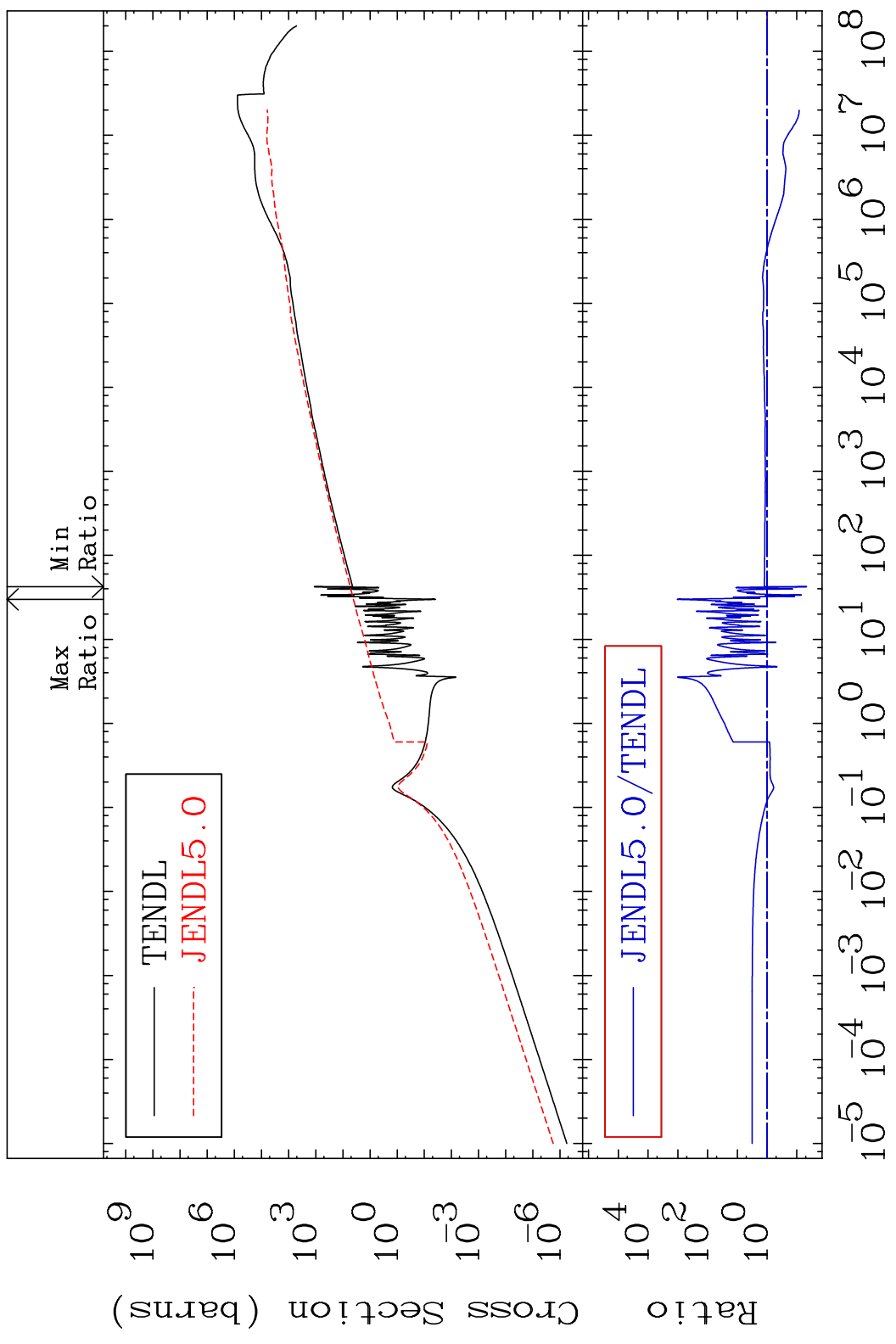
MAT 6153 Kerma total (eV-barns) 61-Pm-148m
 Cross Section -9999. To 9999. %



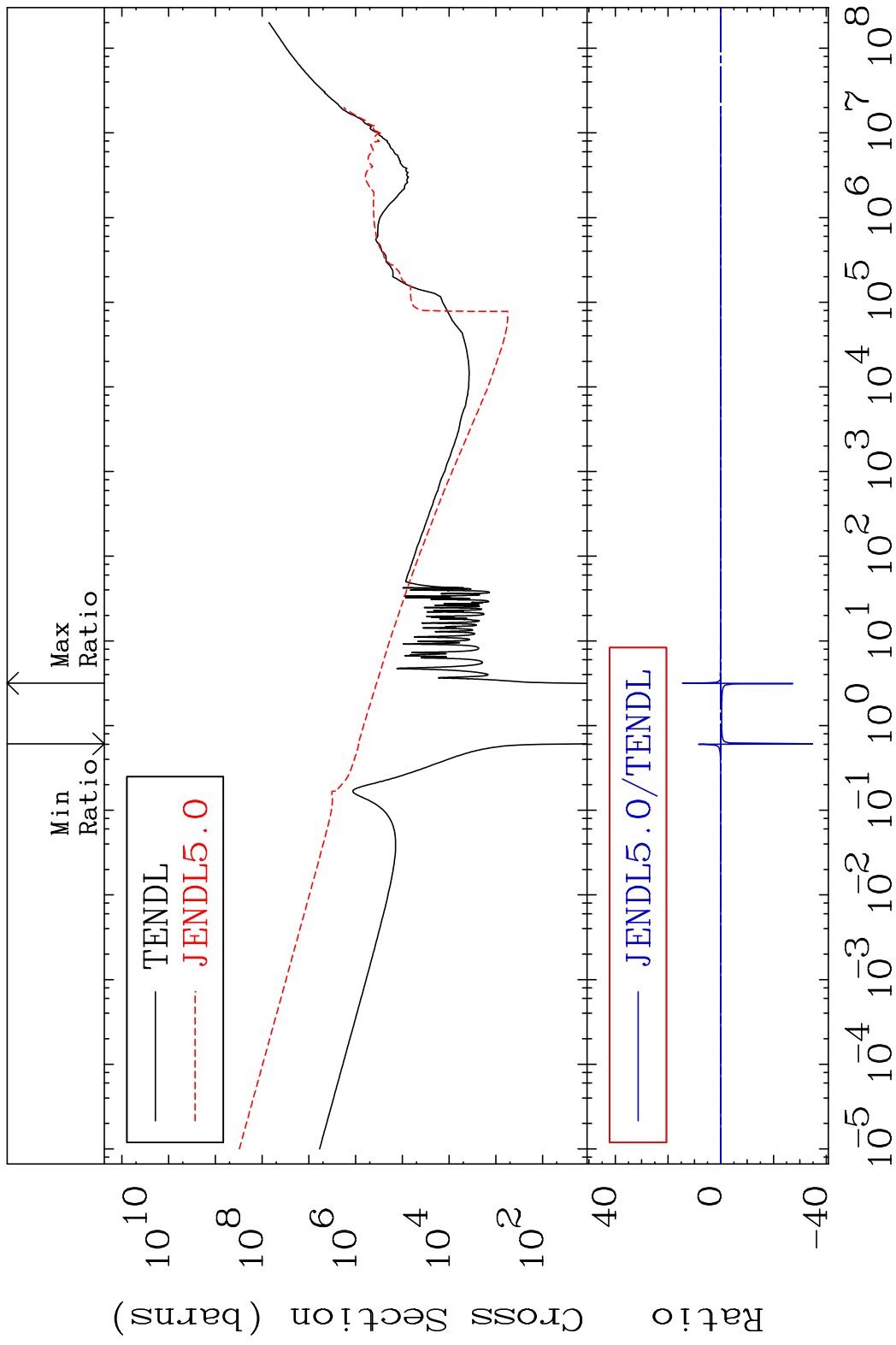
55 Incident Energy (eV) 61-Pm-148m

MAT 6153

Kerma elastic 61-Pm-148m
Cross Section -95.23 To 9999. %

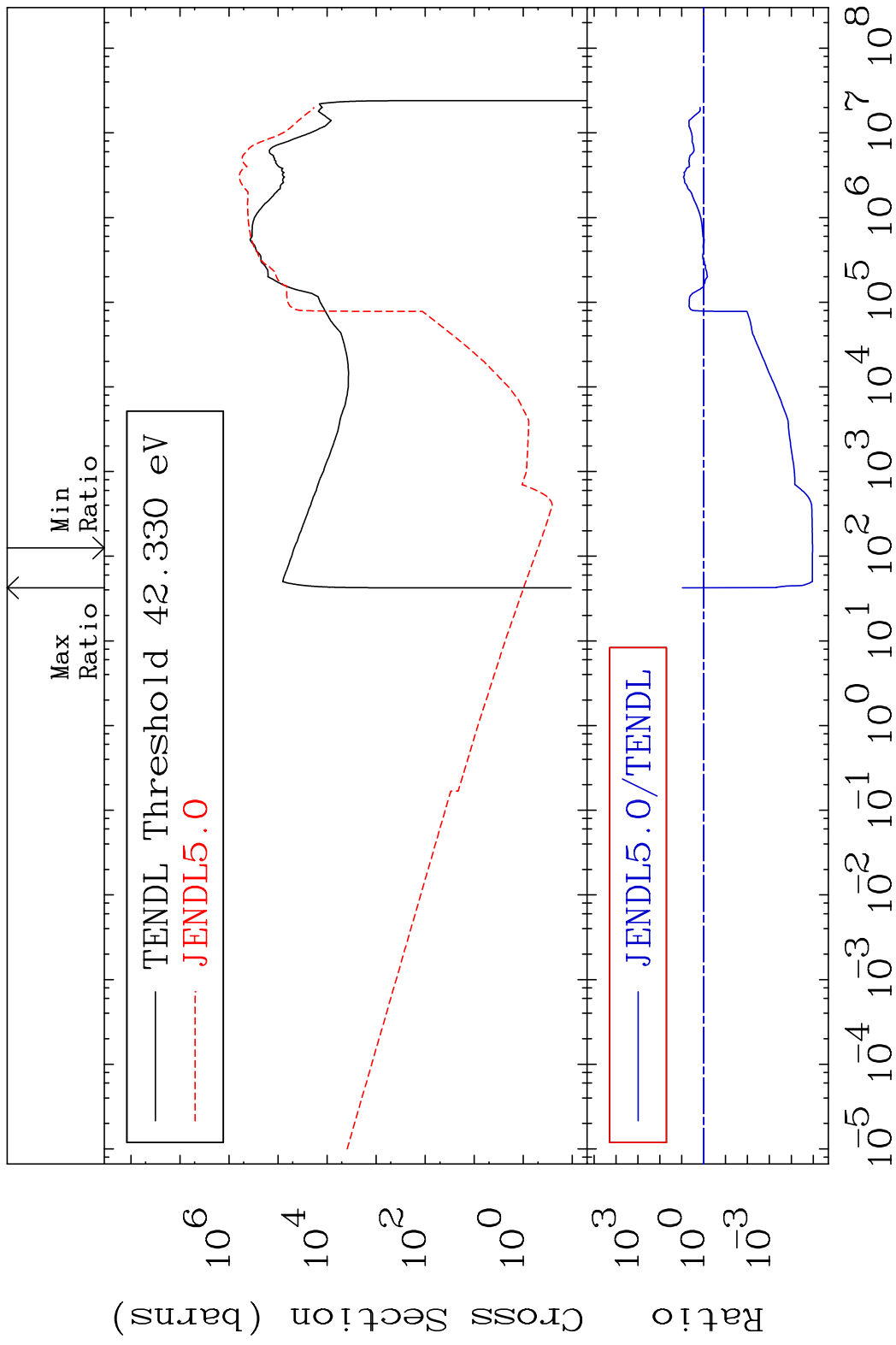


MAT 6153 Kerma non-elastic (all but mt2) 61-Pm-148m
 Cross Section -9999. To 9999. %

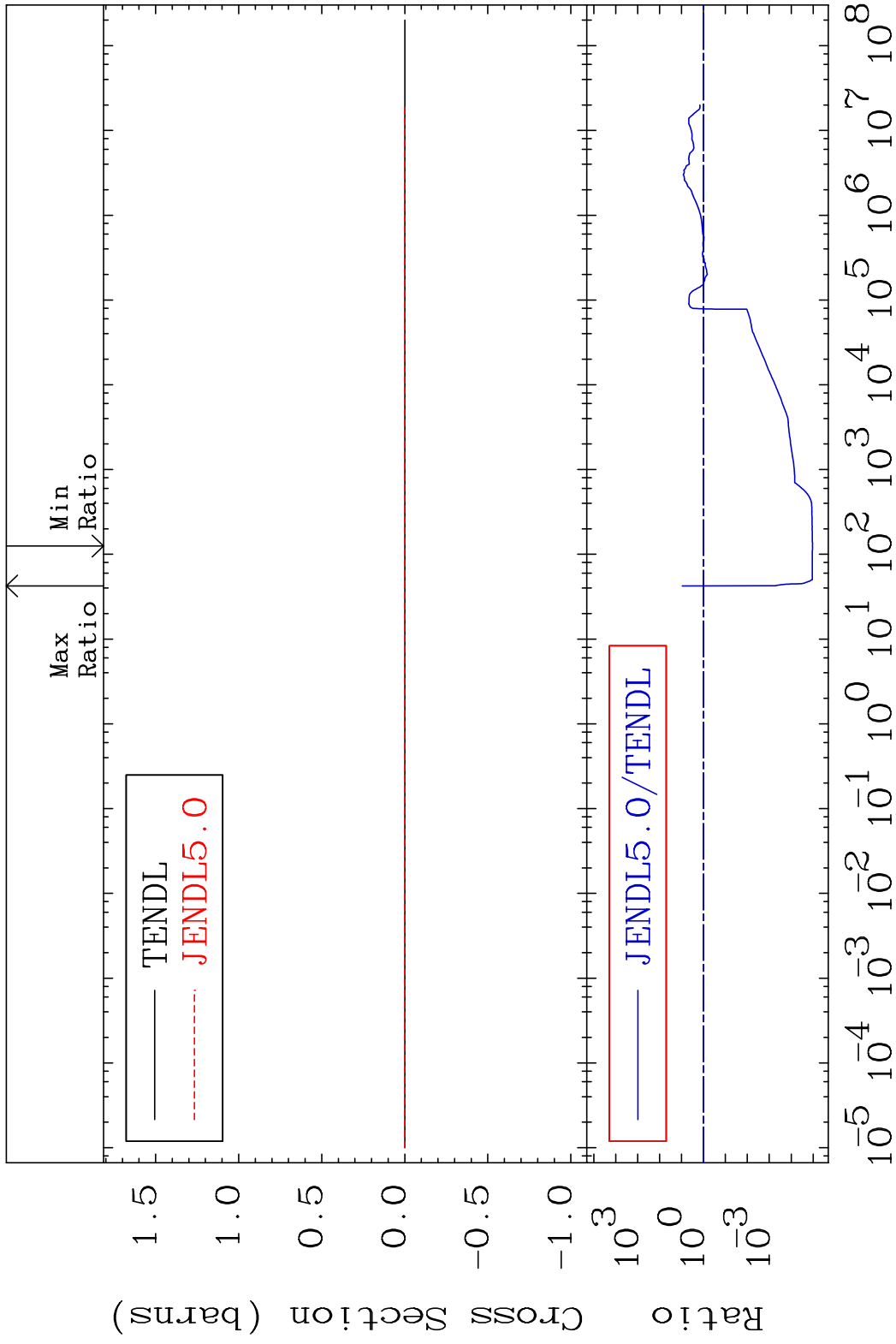


57 Incident Energy (eV) 61-Pm-148m

MAT 6153 Kerma inelastic (mt51-91) 61-Pm-148m
 Cross Section -100.0 To 835.7 %

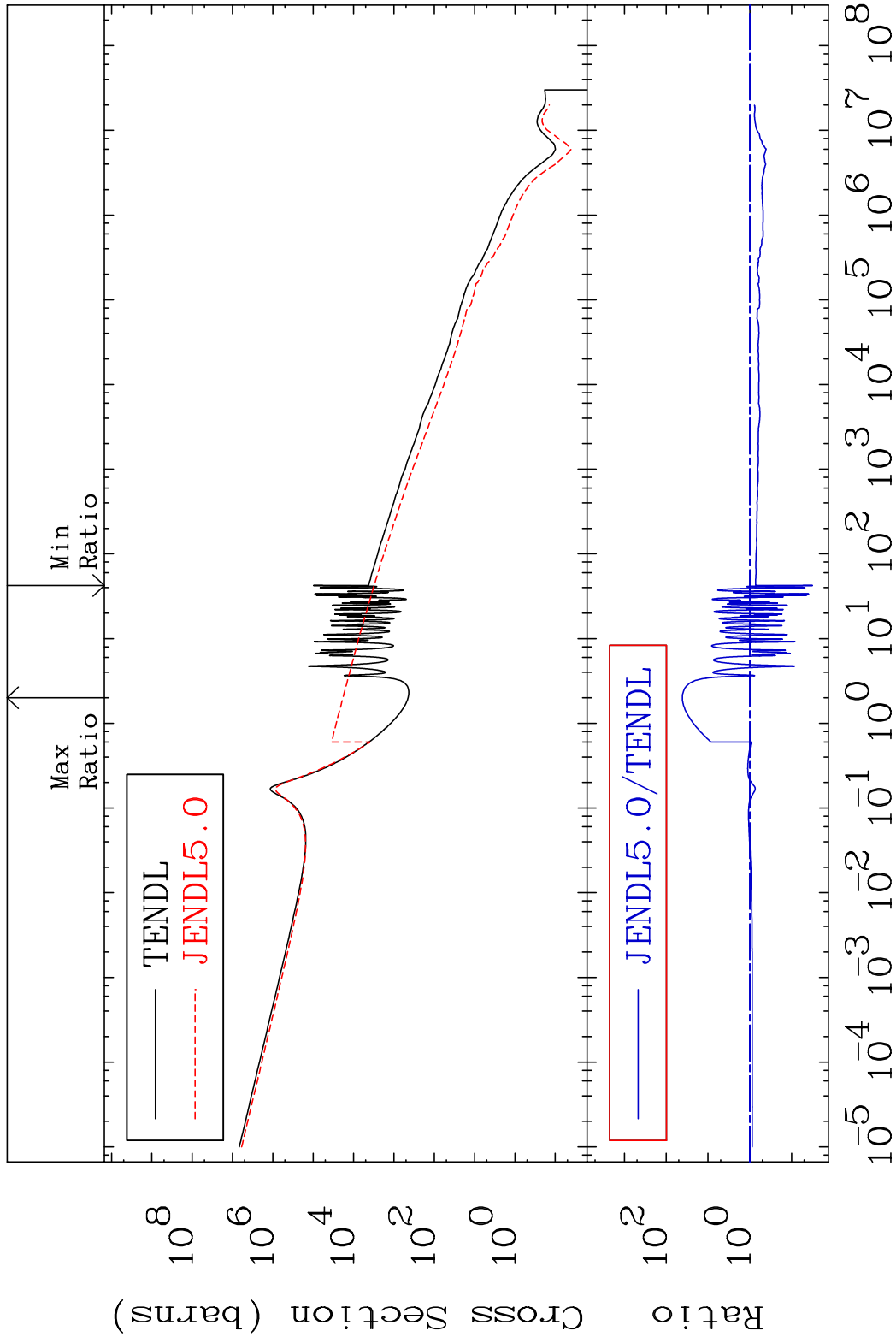


MAT 6153 Kerma fission (mt18 or mt19-20-21-36)-Pm-148m
 Cross Section -100.0 To 835.7 %



MAT 6153

Kerma capture (mt102) 61-Pm-148m
Cross Section -96.83 To 4007. %

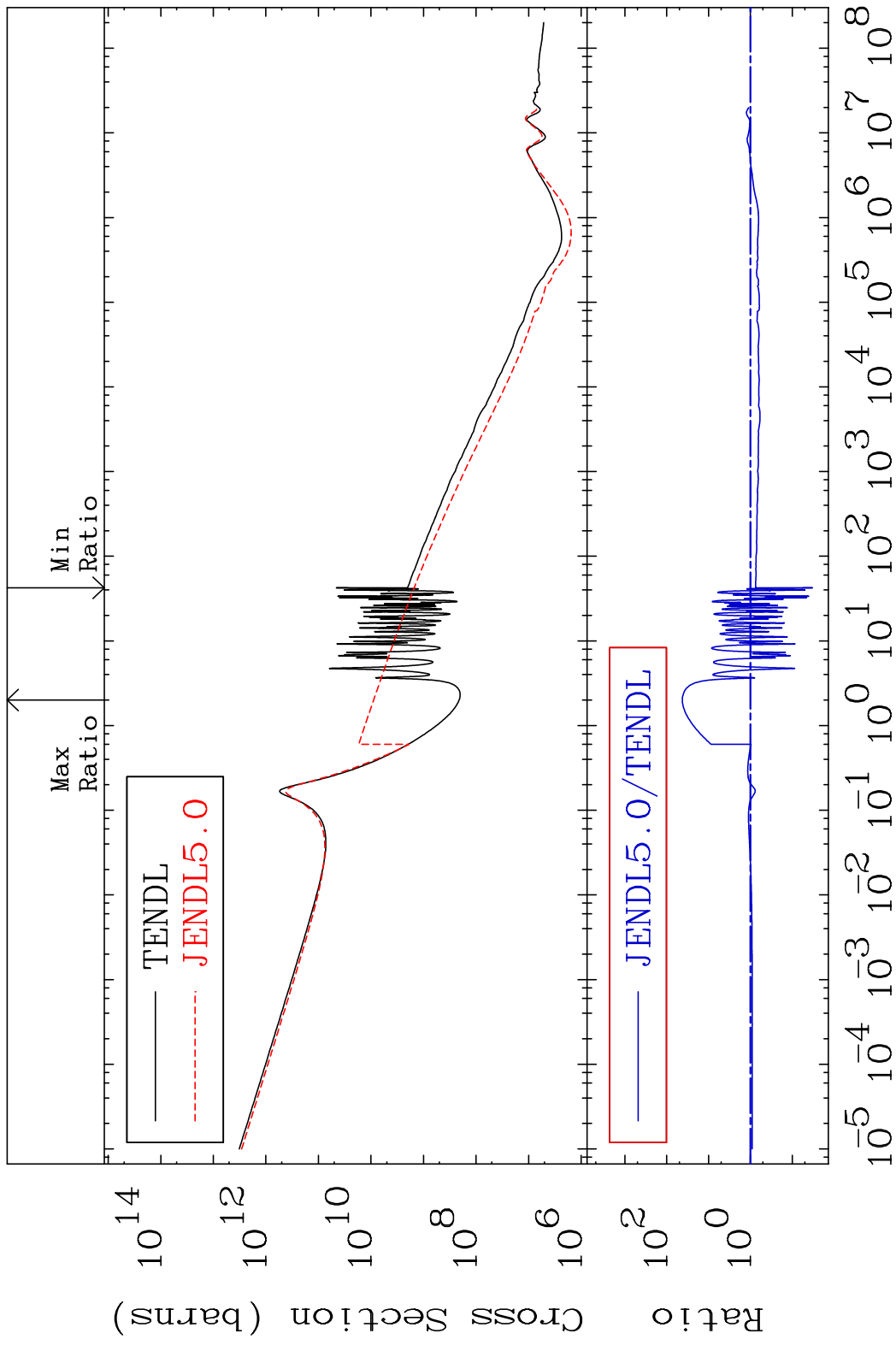


60

Incident Energy (eV)

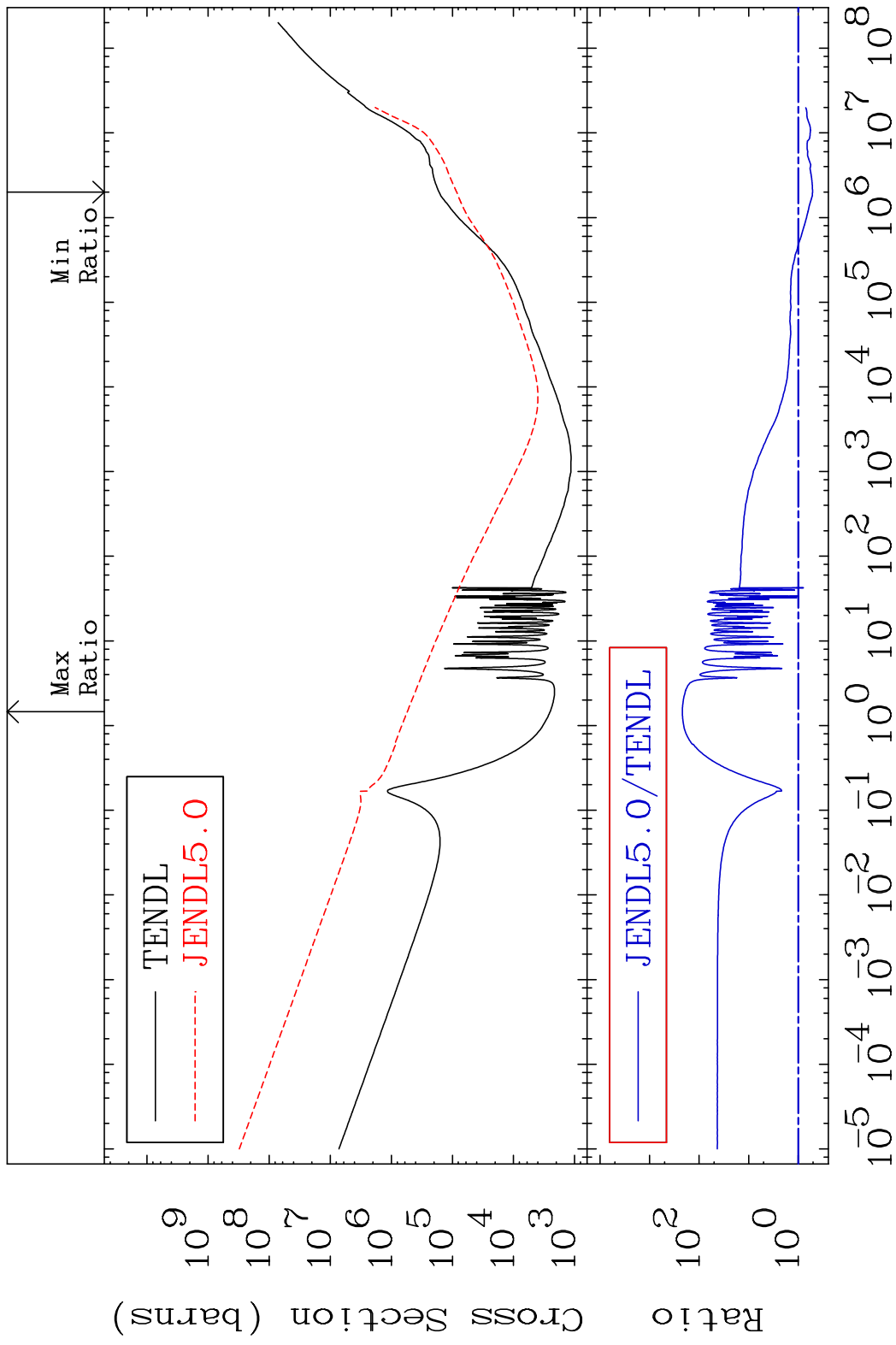
61-Pm-148m

MAT 6153 Total photon (eV-barns) 61-Pm-148m
Cross Section -96.74 To 4132. %



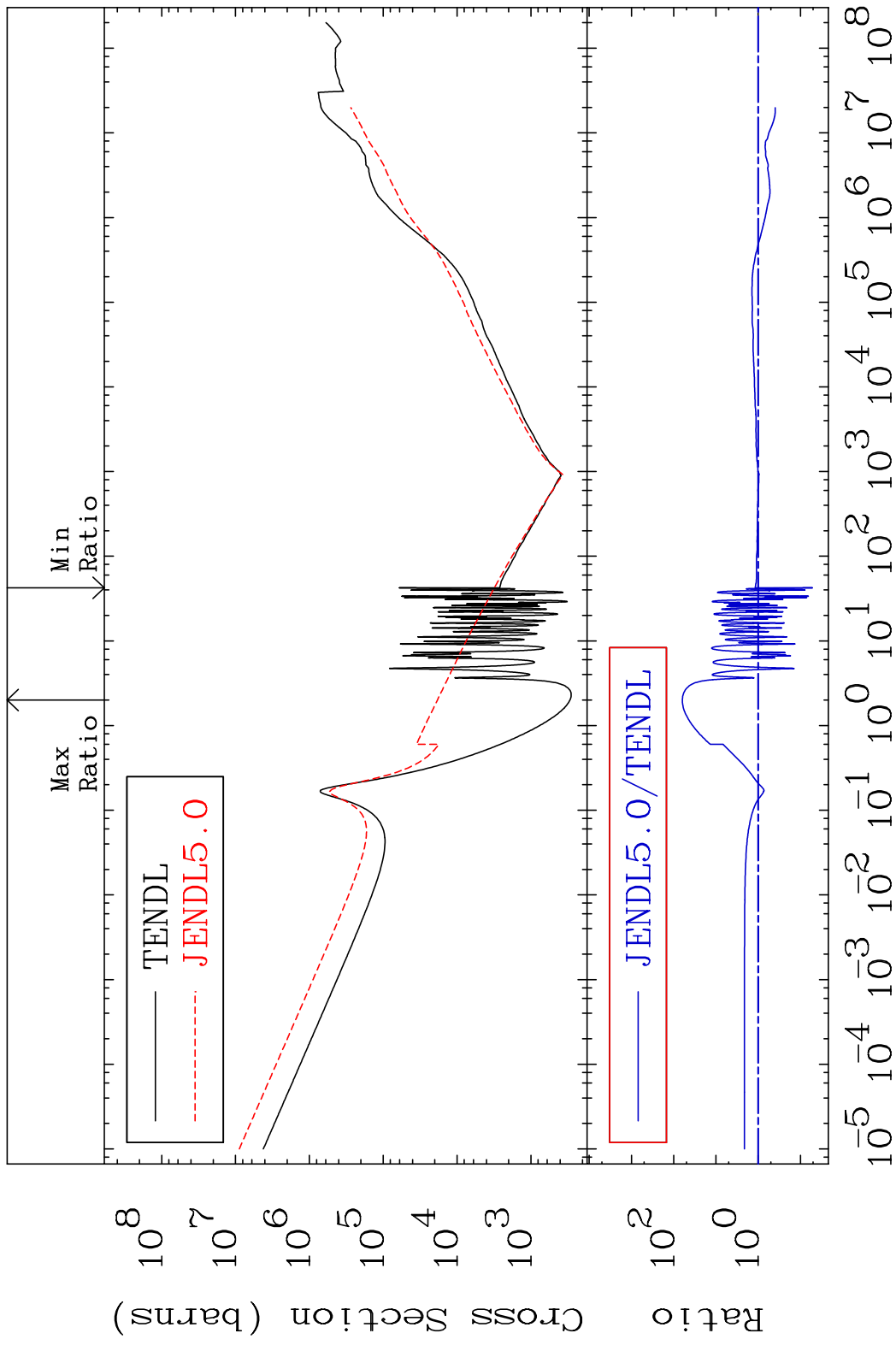
61 Incident Energy (eV) 61-Pm-148m

MAT 6153 Total kinematic kerma (high limit)61-Pm-148m
 Cross Section -48.60 To 9999. %

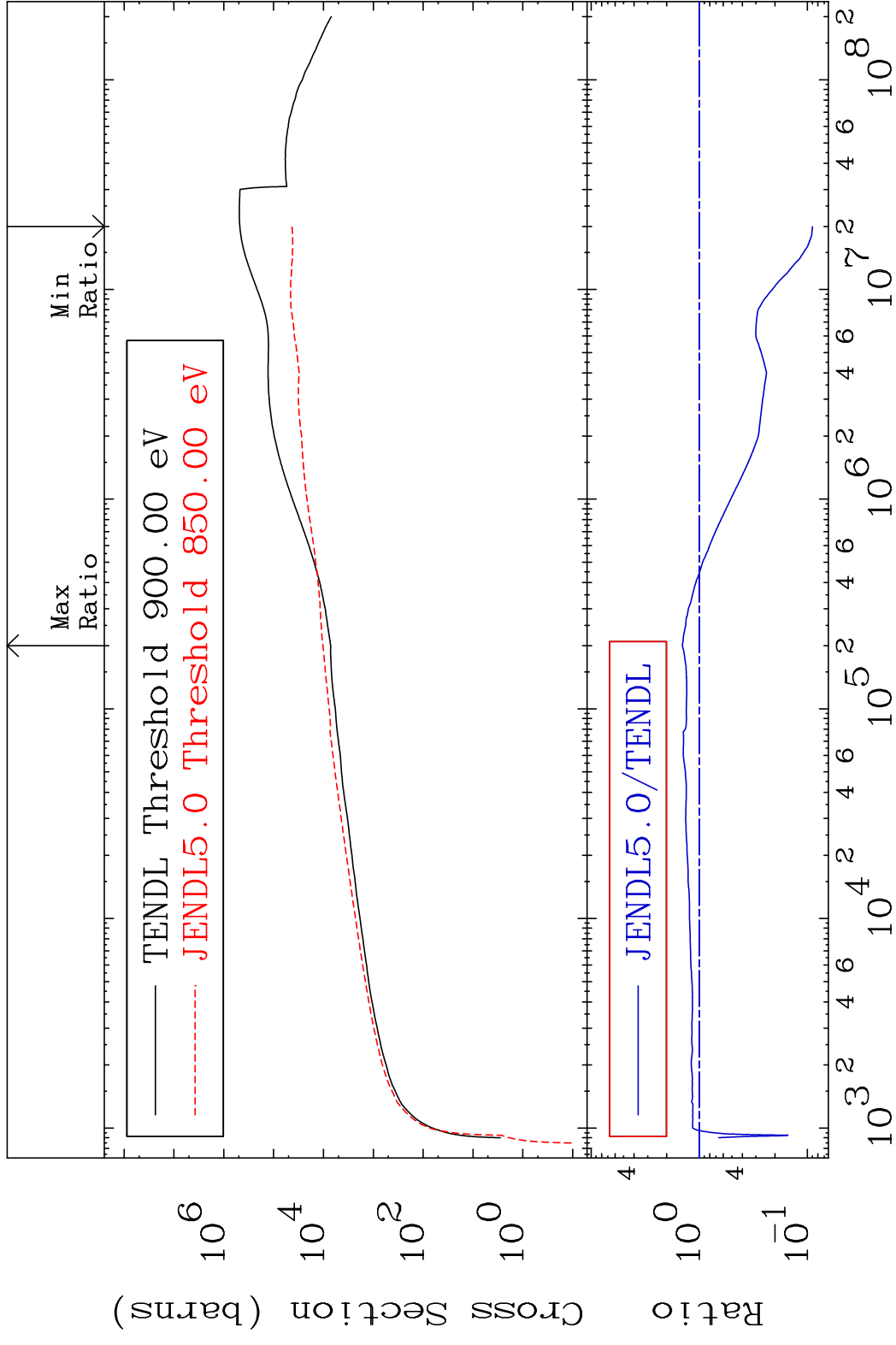


62 Incident Energy (eV) 61-Pm-148m

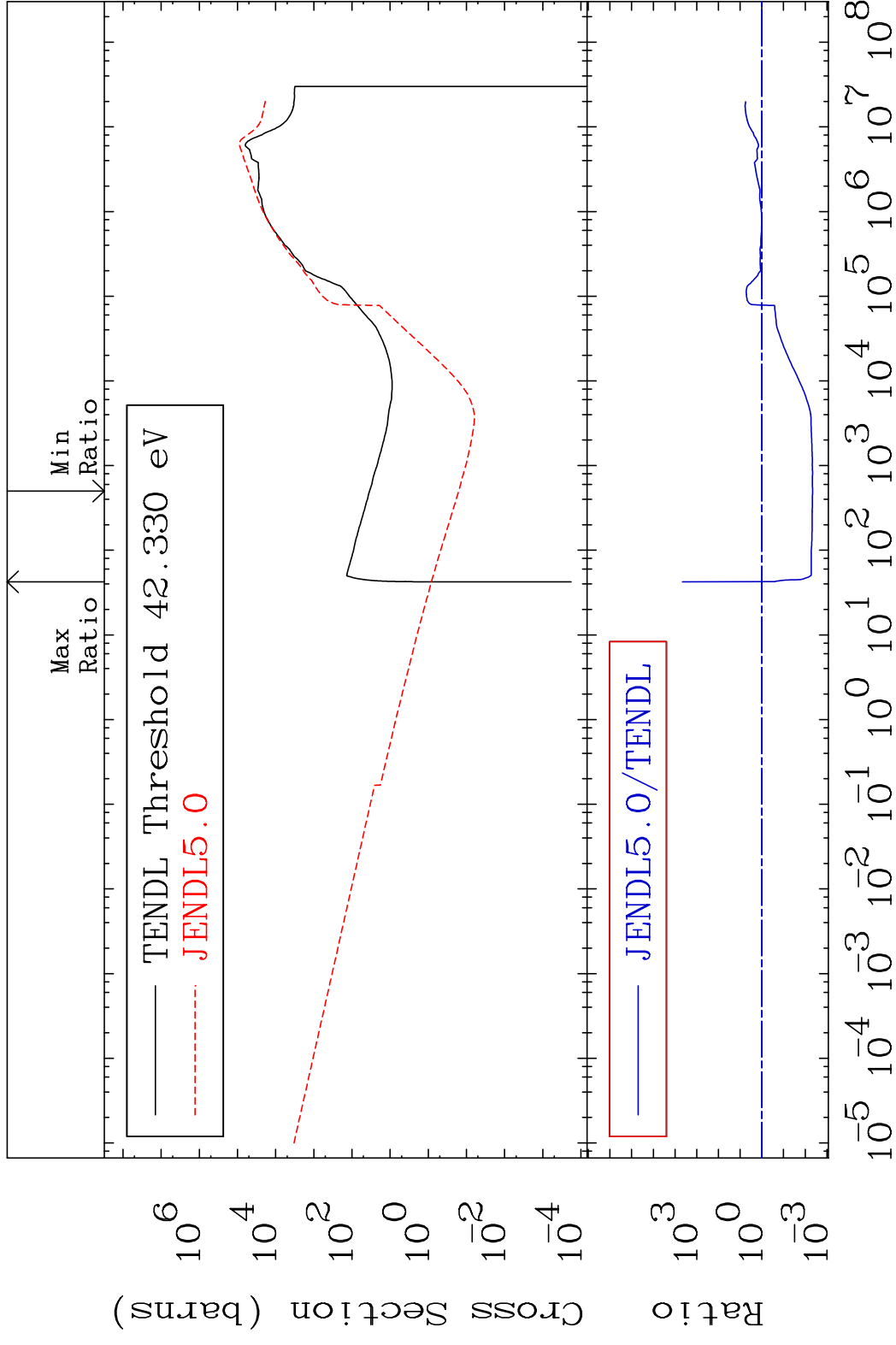
MAT 6153 Dpa total (eV-barns) 61-Pm-148m
 Cross Section -94.83 To 6135. %



MAT 6153 Dpa elastic (mt2) 61-Pm-148m
 Cross Section -91.03 To 43.31 %

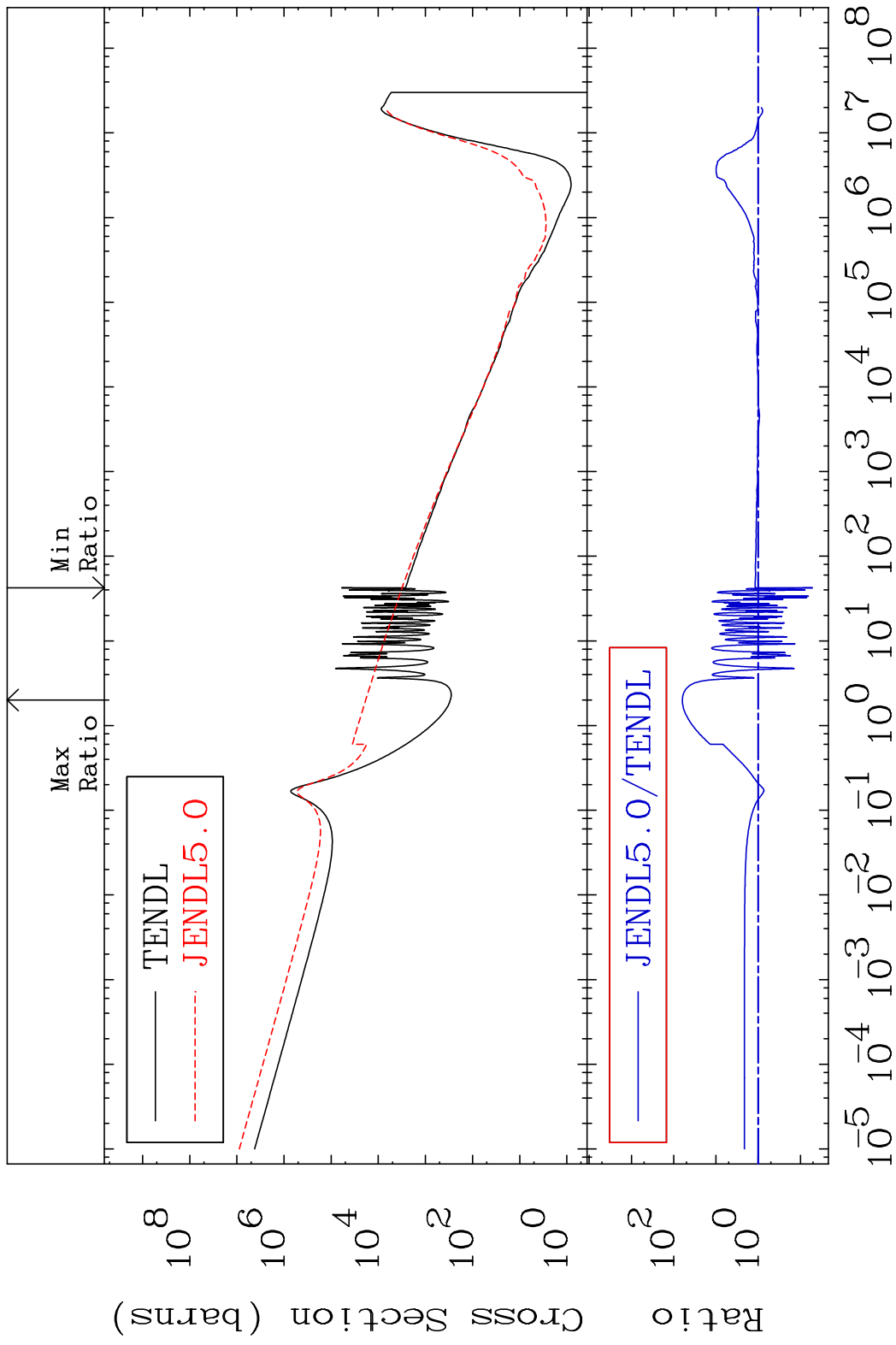


MAT 6153 Dpa inelastic (mt51-91) 61-Pm-148m
 Cross Section -99.54 To 9999. %



65 Incident Energy (eV) 61-Pm-148m

MAT 6153 Dpa disappearance (mt102 -120) 61-Pm-148m
 Cross Section -94.84 To 6134. %

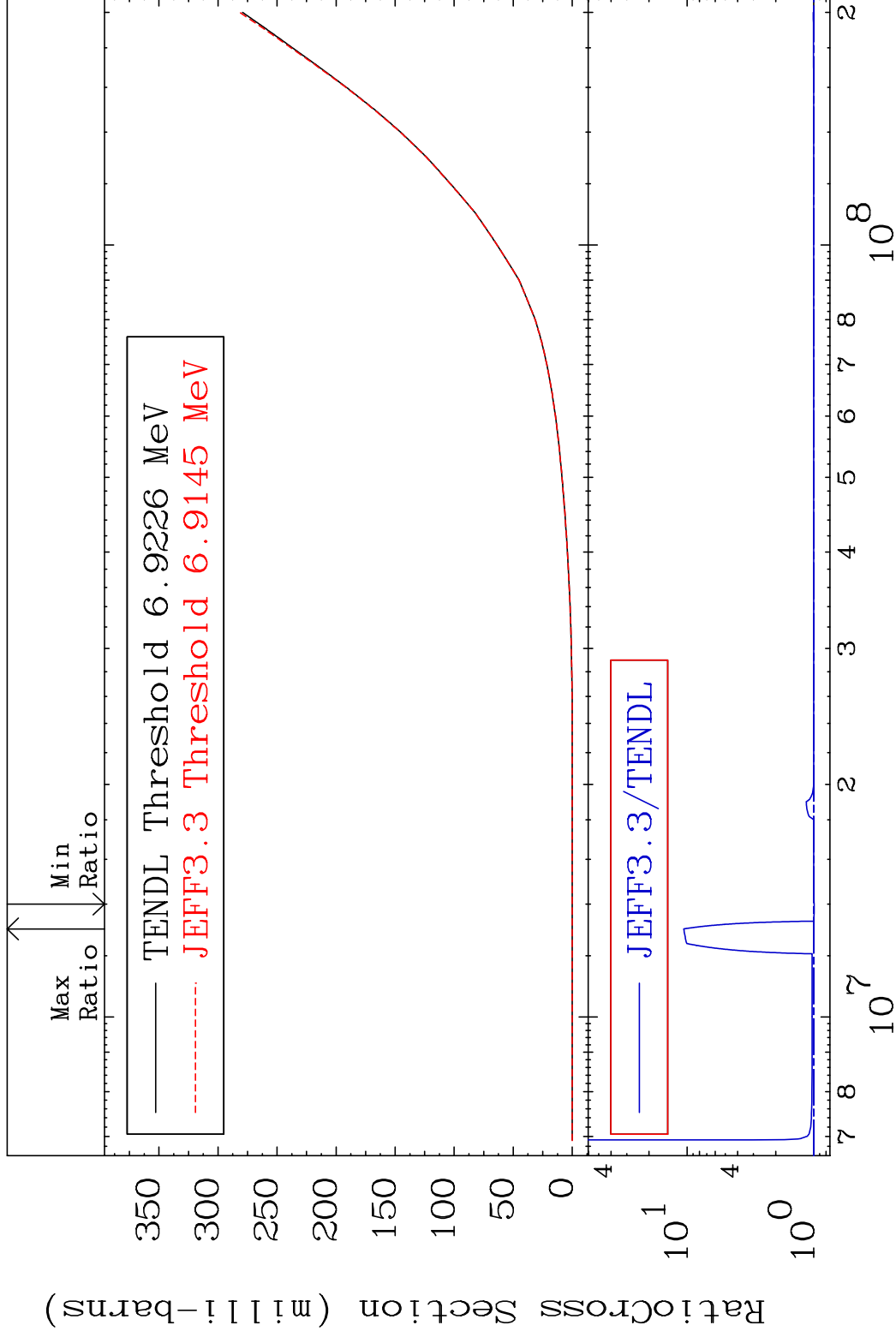


MAT 6153

He-3 Production

61-Pm-148m

Cross Section -0.573 To 965.9 %



67

Incident Energy (eV)

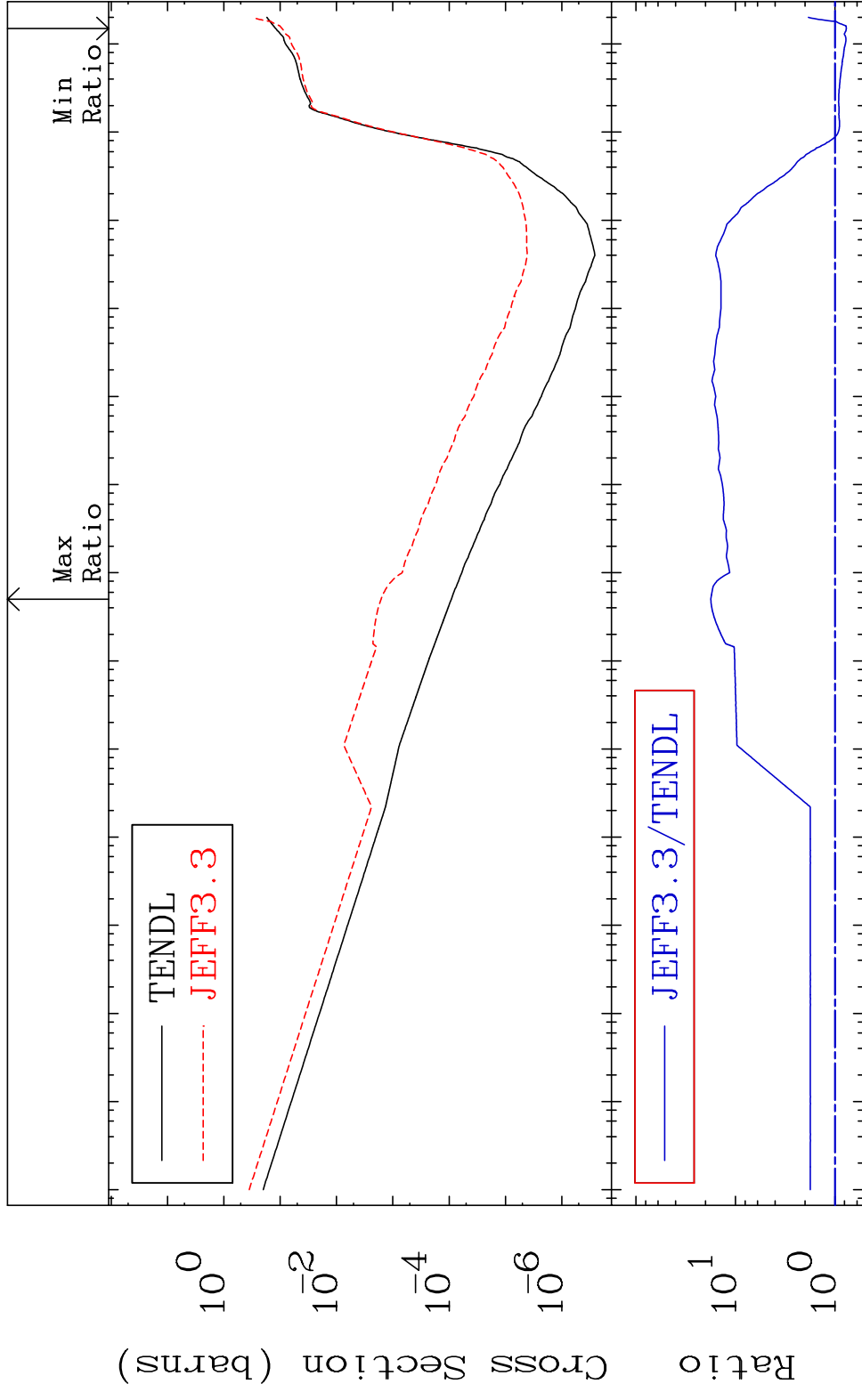
61-Pm-148m

MAT 6153

He-4 Production

61-Pm-148m

Cross Section -23.27 To 1673. %

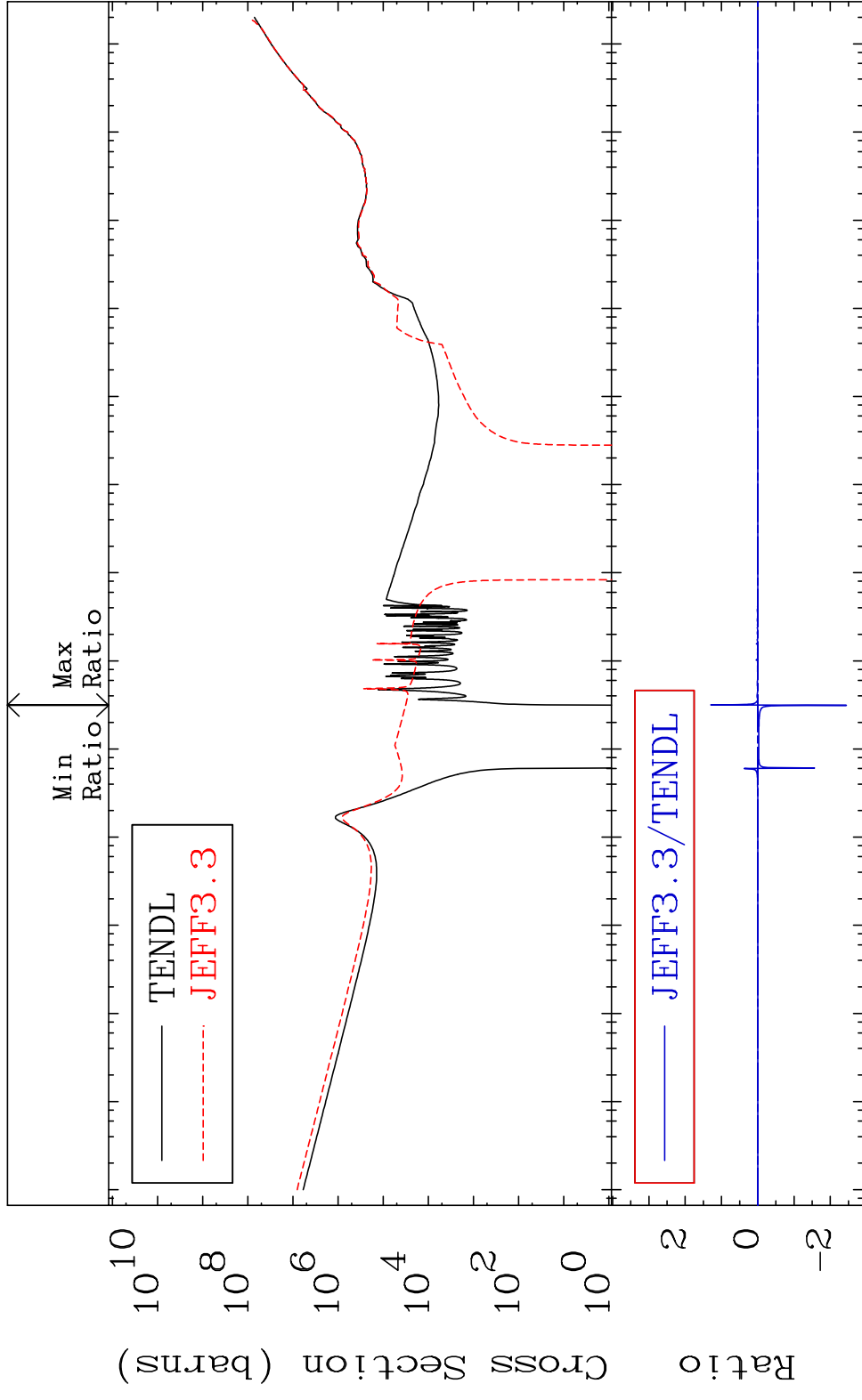


68

Incident Energy (eV)

61-Pm-148m

MAT 6153 Kerma total (eV-barns) 61-Pm-148m
 Cross Section -9999. To 9999. %

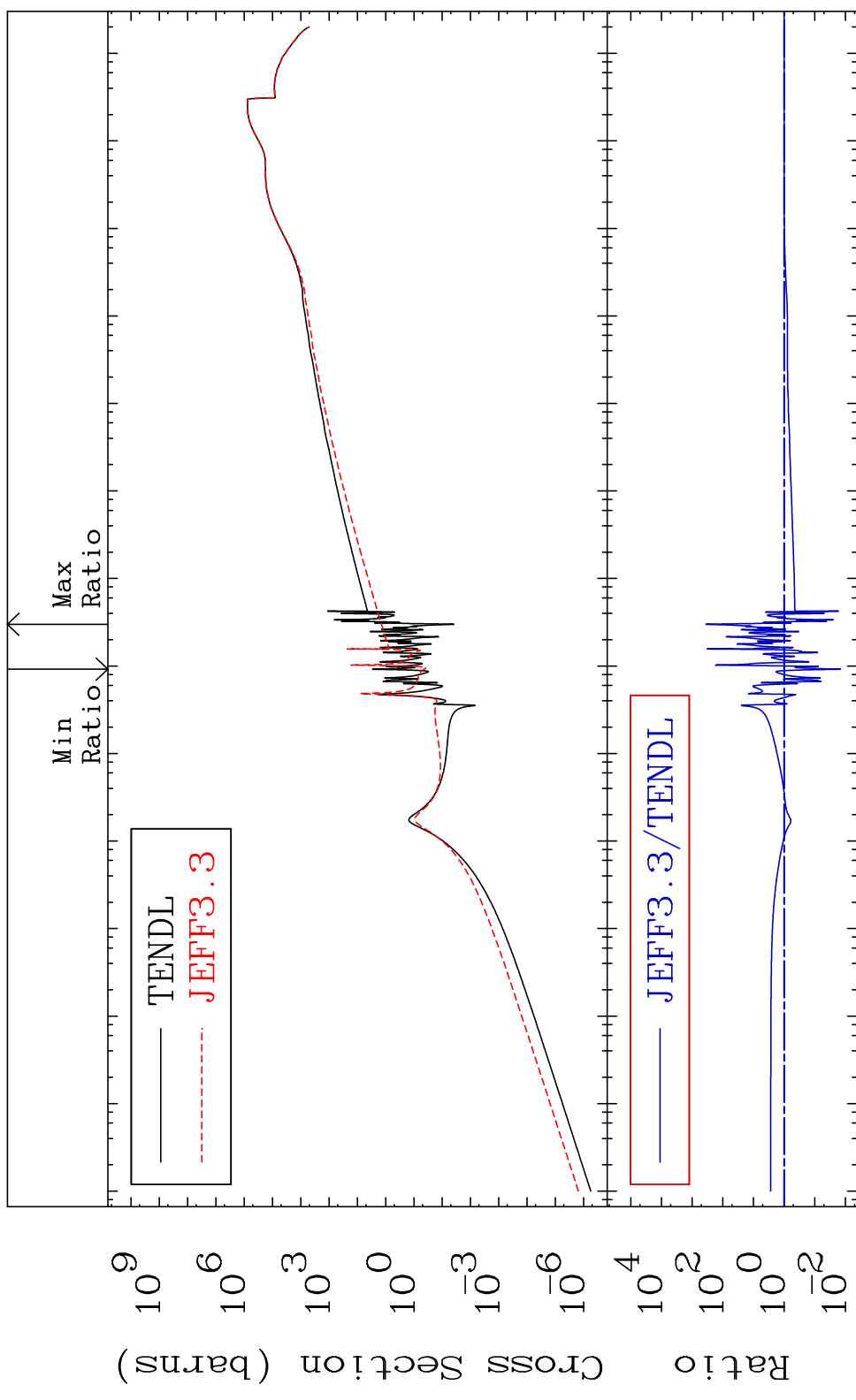


69 Incident Energy (eV) 61-Pm-148m

MAT 6153

Kerma elastic
Cross Section -98.54 To 9999. %

61-Pm-148m

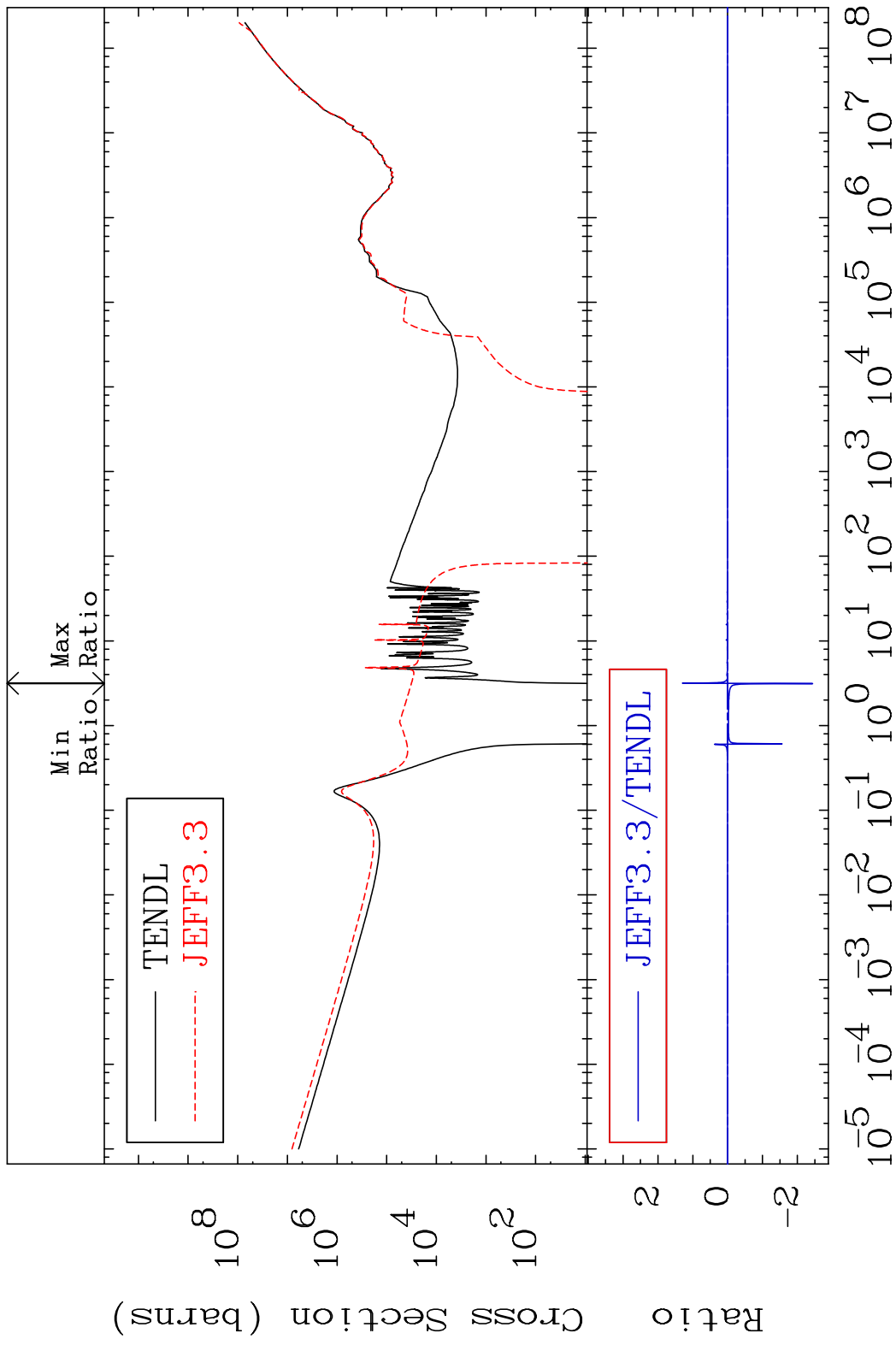


70

Incident Energy (eV)

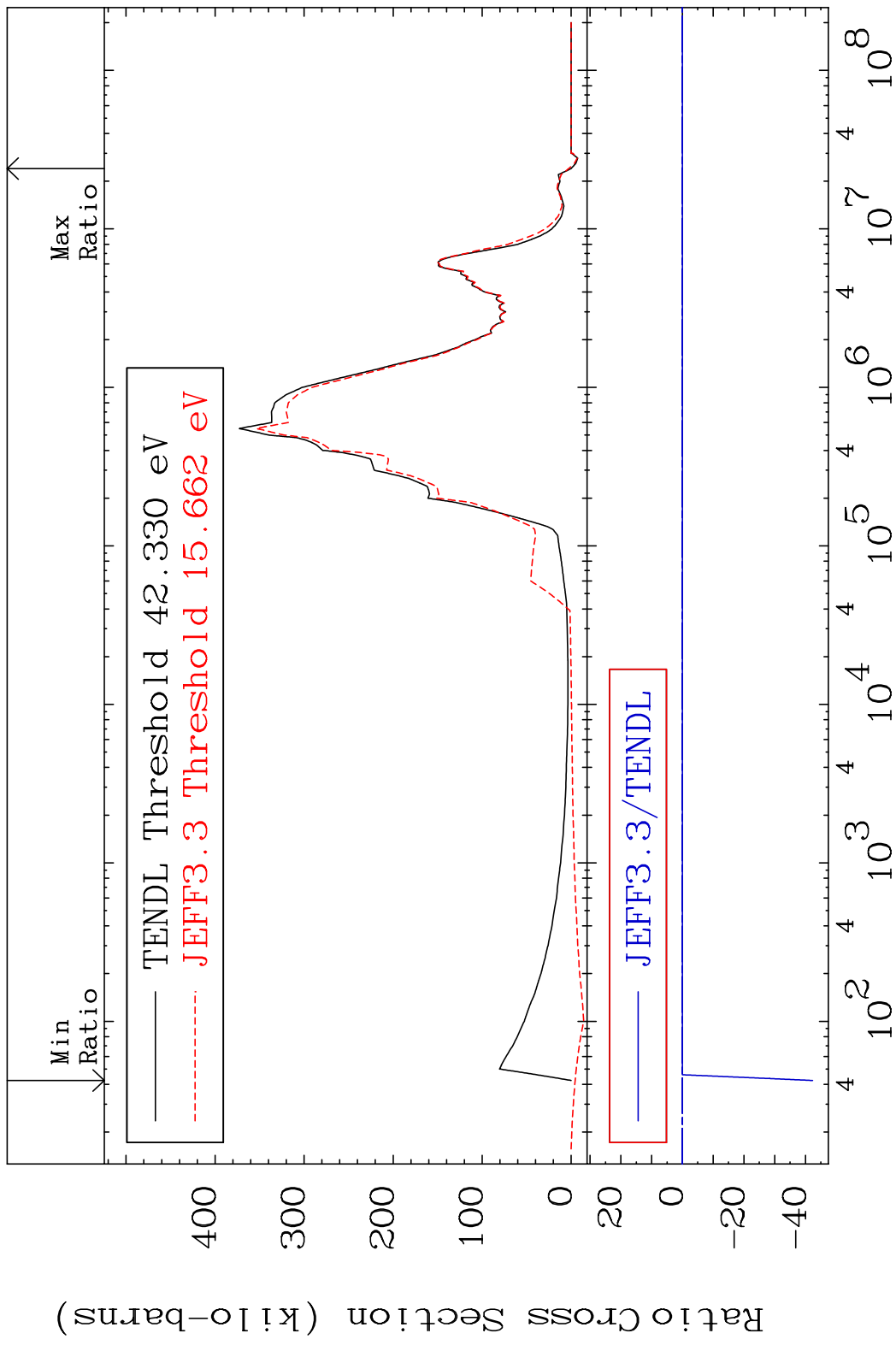
61-Pm-148m

MAT 6153 Kerma non-elastic (all but mt2) 61-Pm-148m
 Cross Section -9999. To 9999. %

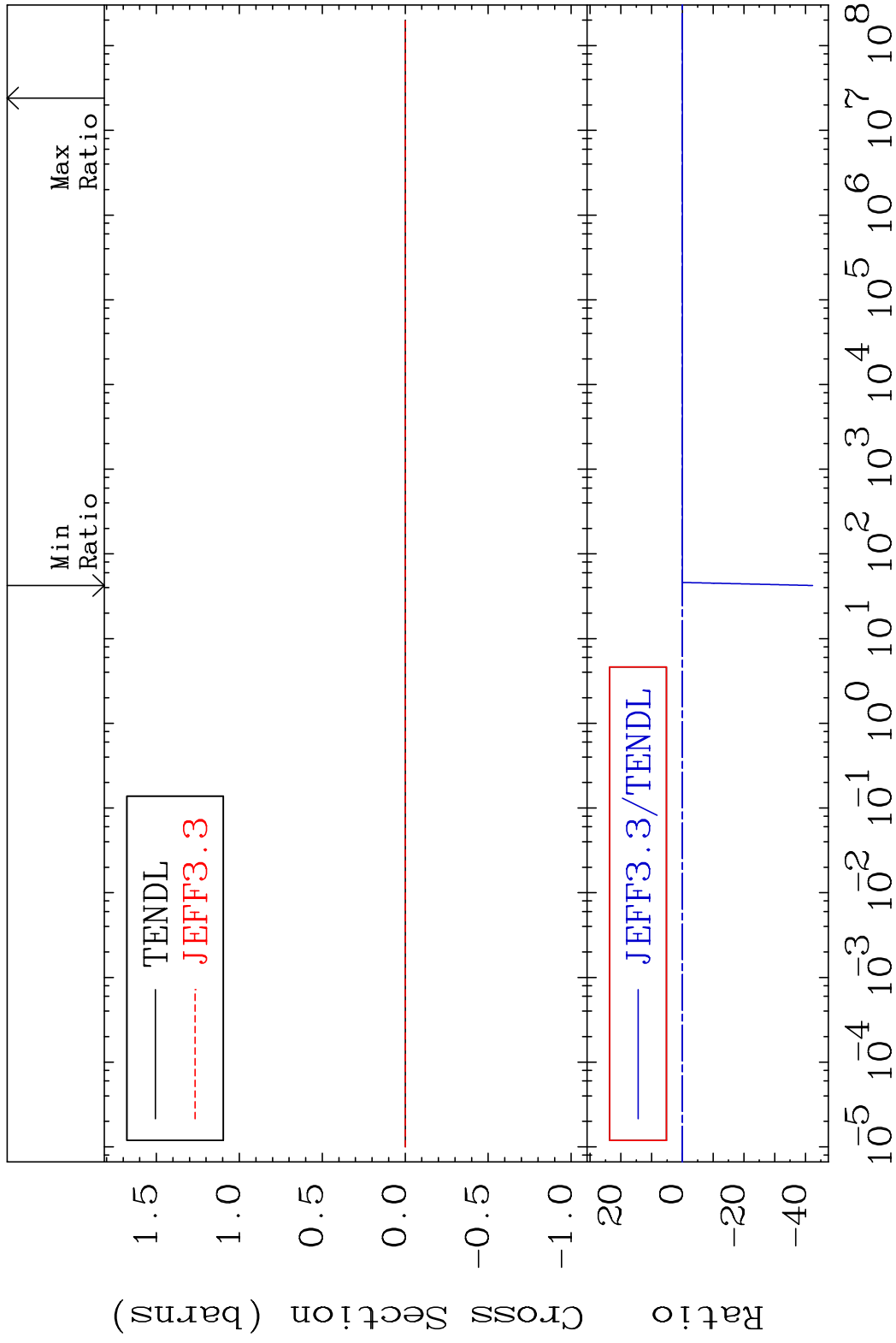


71 Incident Energy (eV) 61-Pm-148m

MAT 6153 Kerma inelastic (mt51-91) 61-Pm-148m
 Cross Section -9999. To 1316. %



MAT 6153 Kerma fission (mt18 or mt19-20-21-36)-Pm-148m
 Cross Section -9999. To 1316. %

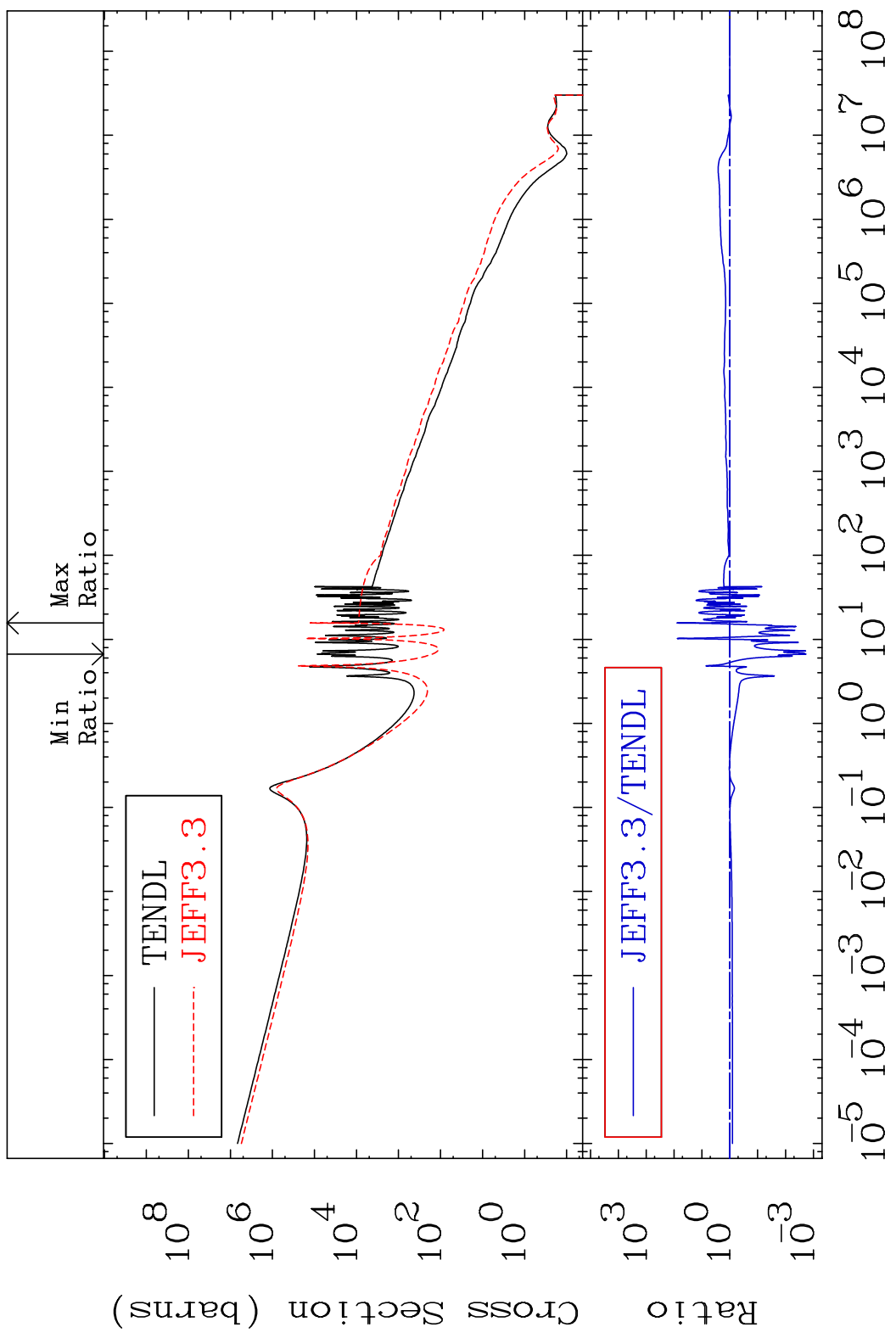


73

Incident Energy (eV) 61-Pm-148m

MAT 6153

Kerma capture (mt102) 61-Pm-148m
Cross Section -99.82 To 7639. %

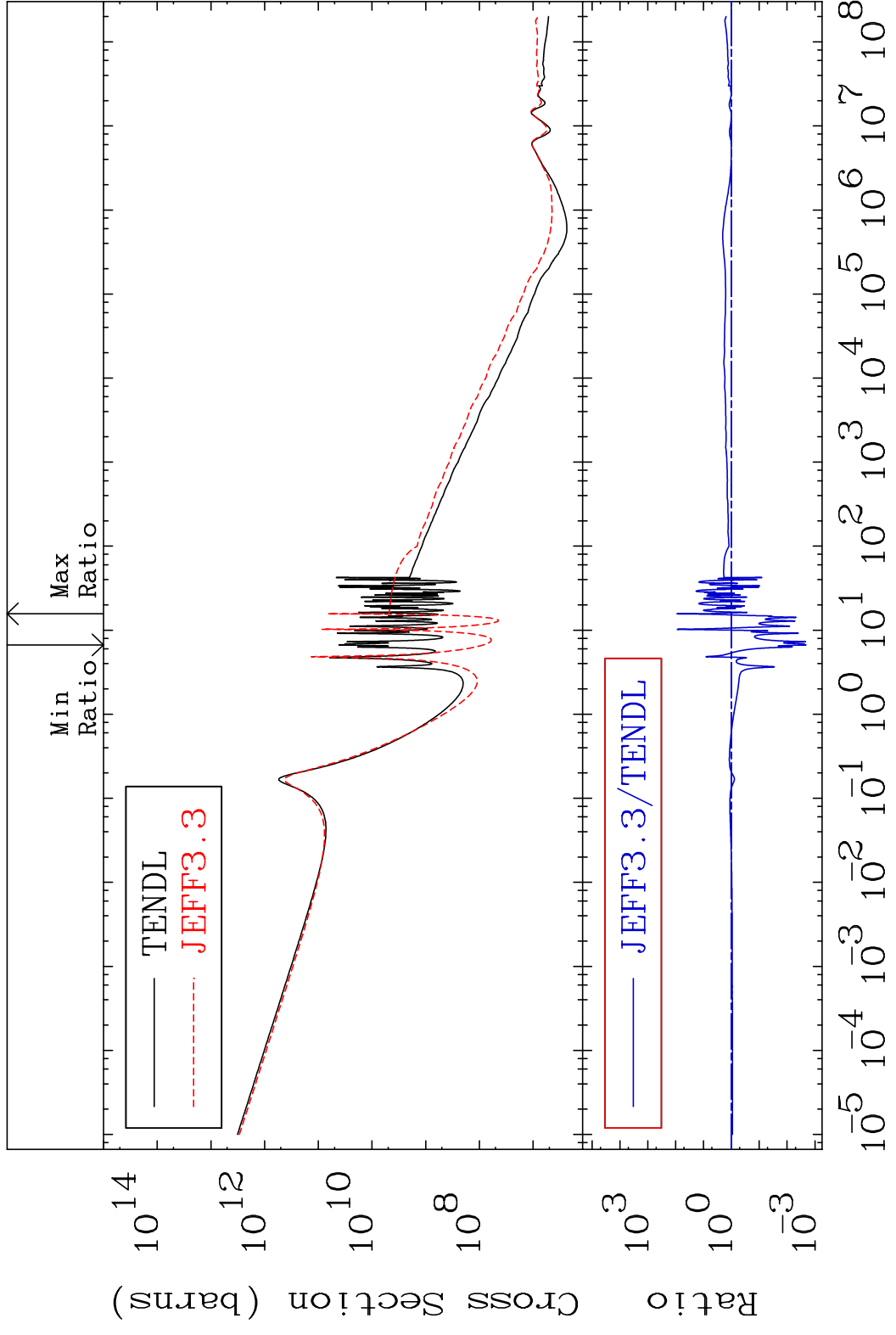


74

Incident Energy (eV) 61-Pm-148m

MAT 6153

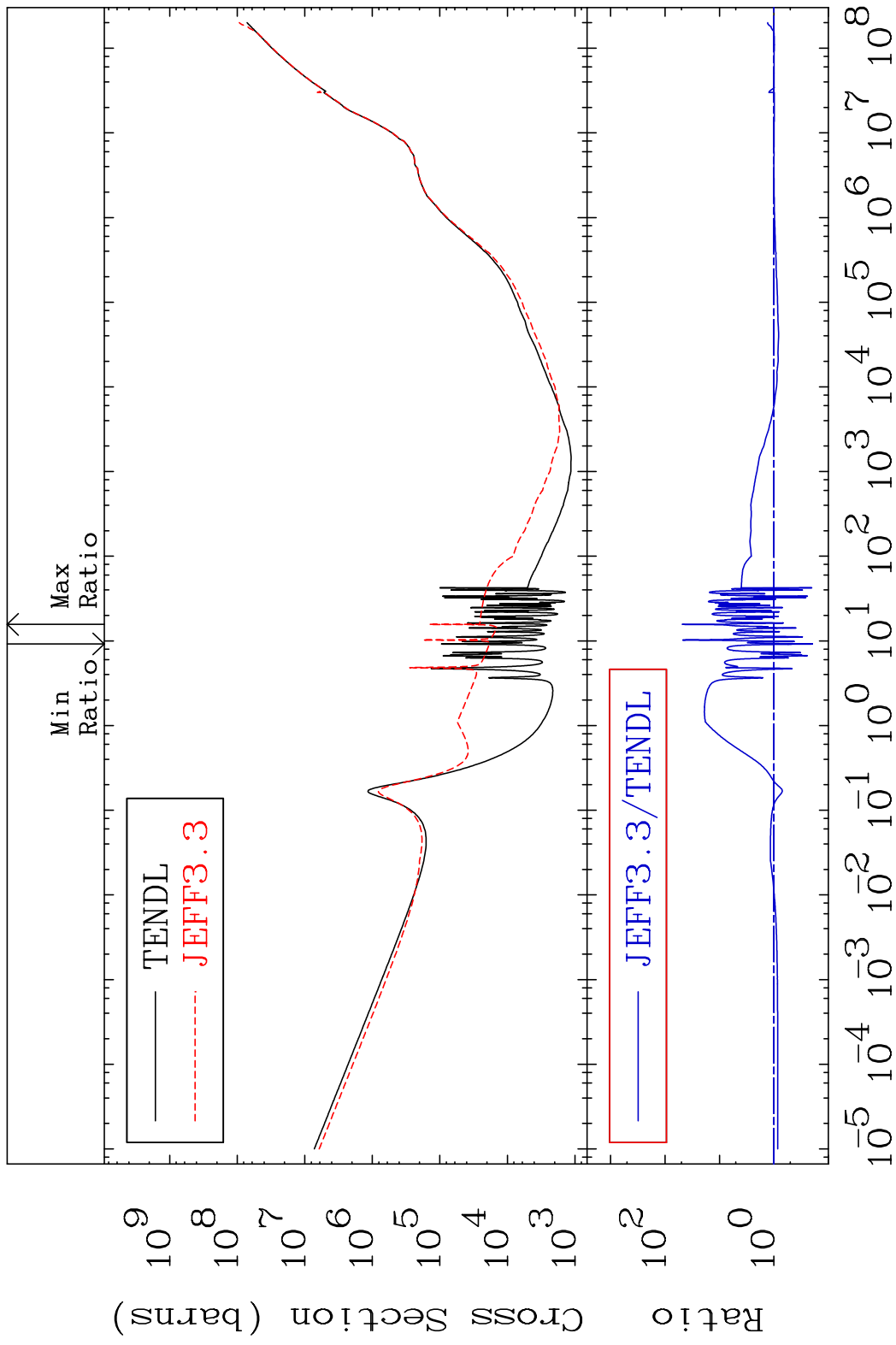
Total photon (eV-barns) 61-Pm-148m
Cross Section -99.80 To 8702. %



75

Incident Energy (eV) 61-Pm-148m

MAT 6153 Total kinematic kerma (high limit)61-Pm-148m
 Cross Section -80.54 To 4705. %

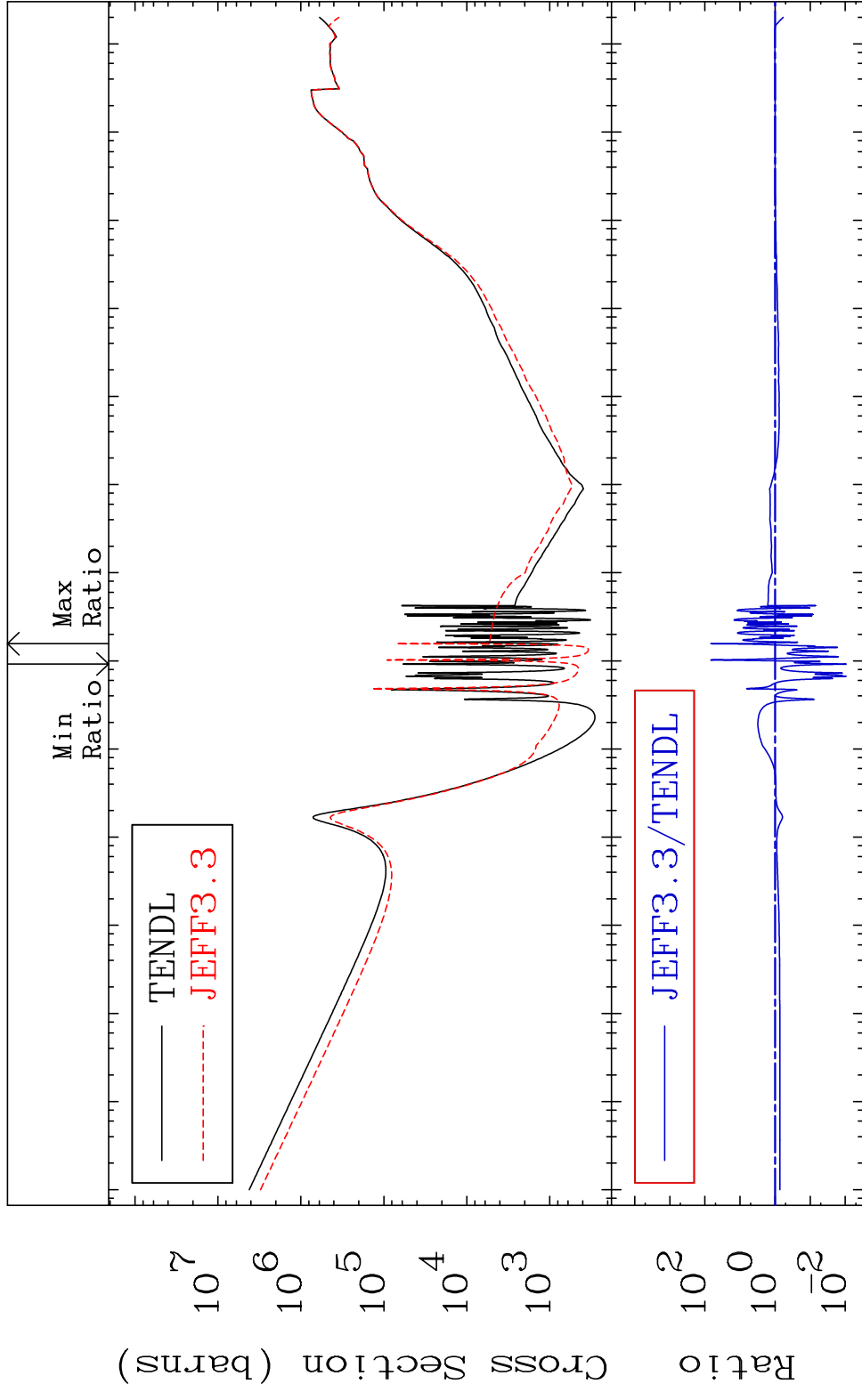


MAT 6153

Dpa total (eV-barns)

61-Pm-148m

Cross Section -99.07 To 6725. %

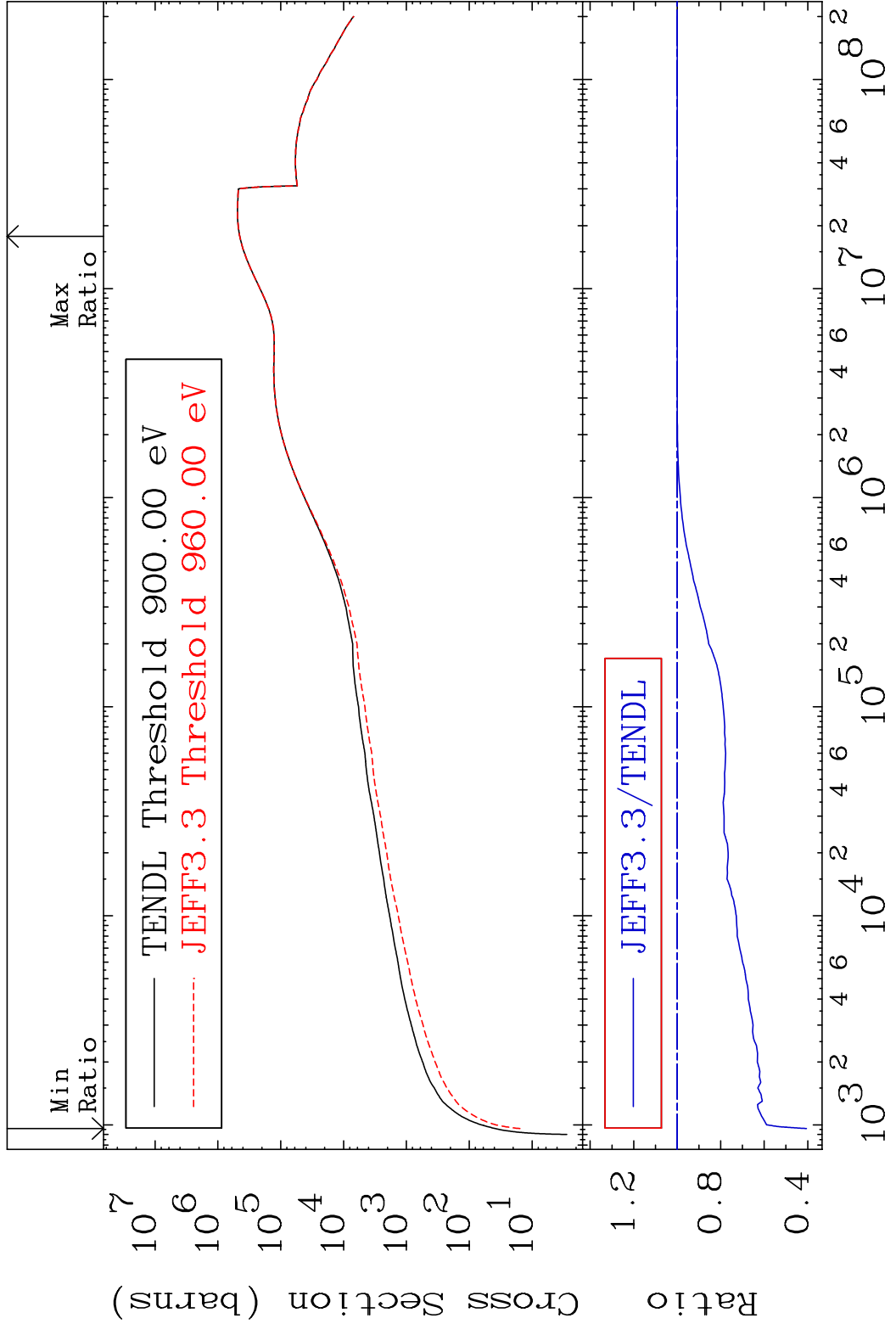


77

Incident Energy (eV)

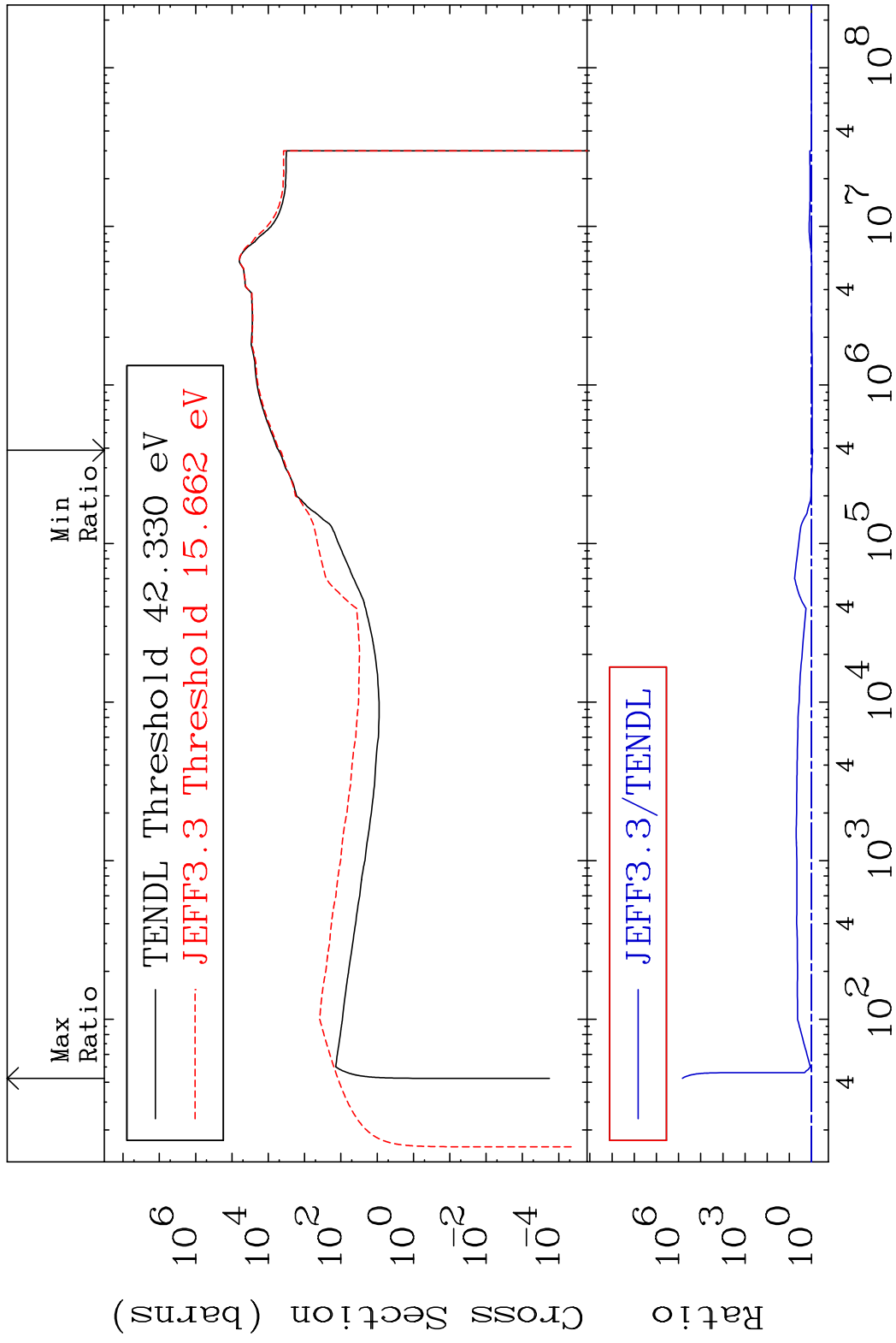
61-Pm-148m

MAT 6153 Dpa elastic (mt2) 61-Pm-148m
 Cross Section -59.40 To 0.006 %

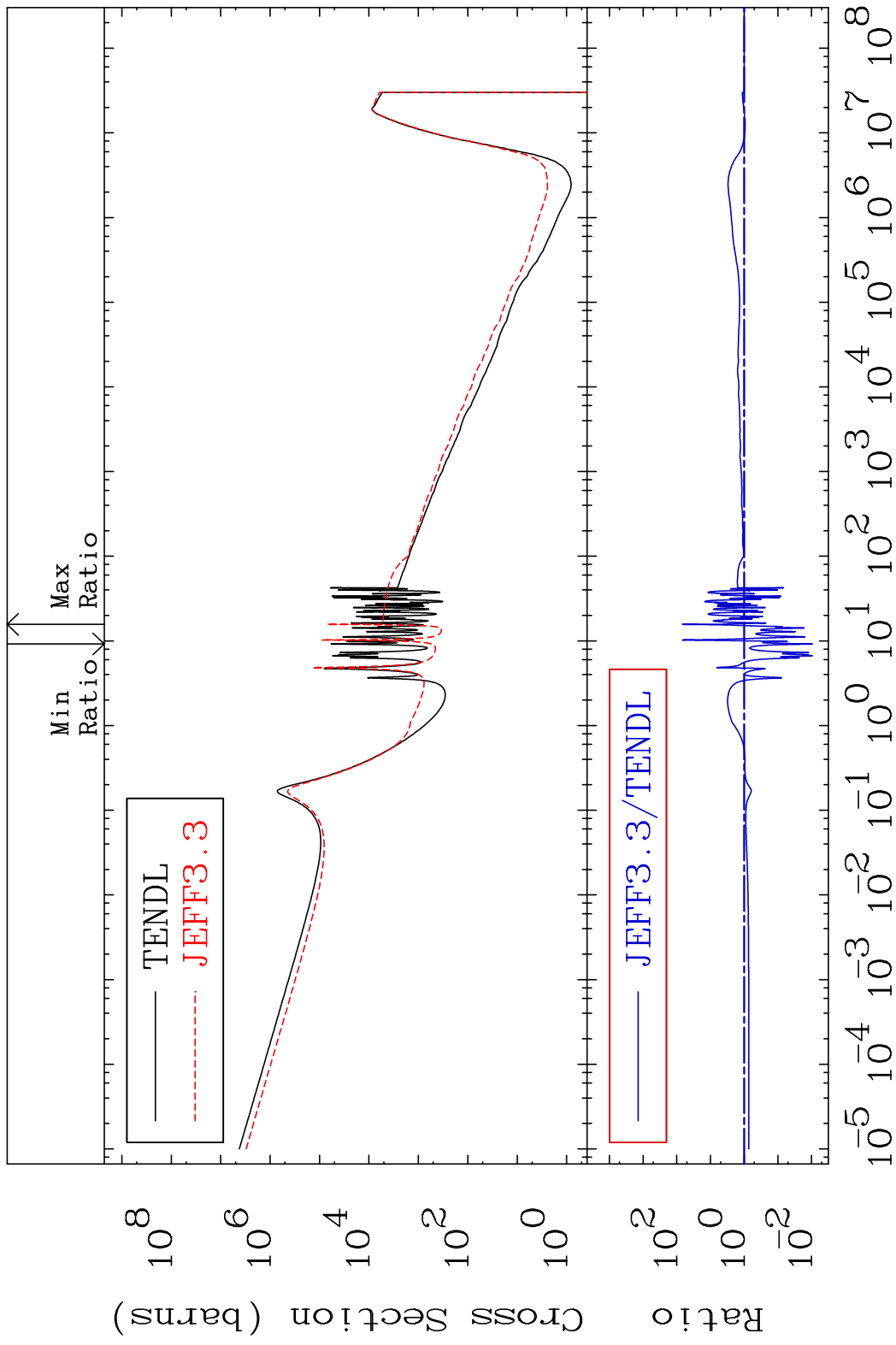


78 Incident Energy (eV) 61-Pm-148m

MAT 6153 Dpa inelastic (mt51-91) 61-Pm-148m
 Cross Section -10.04 To 9999. %



MAT 6153 Dpa disappearance (mt102 -120) 61-Pm-148m
 Cross Section -99.07 To 6725. %



80 Incident Energy (eV) 61-Pm-148m

MAT 6153 (n,3n) α :59-Pr-142g 61-Pm-148m
 Radionuclide Production Cross Section to 9999. %

