

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

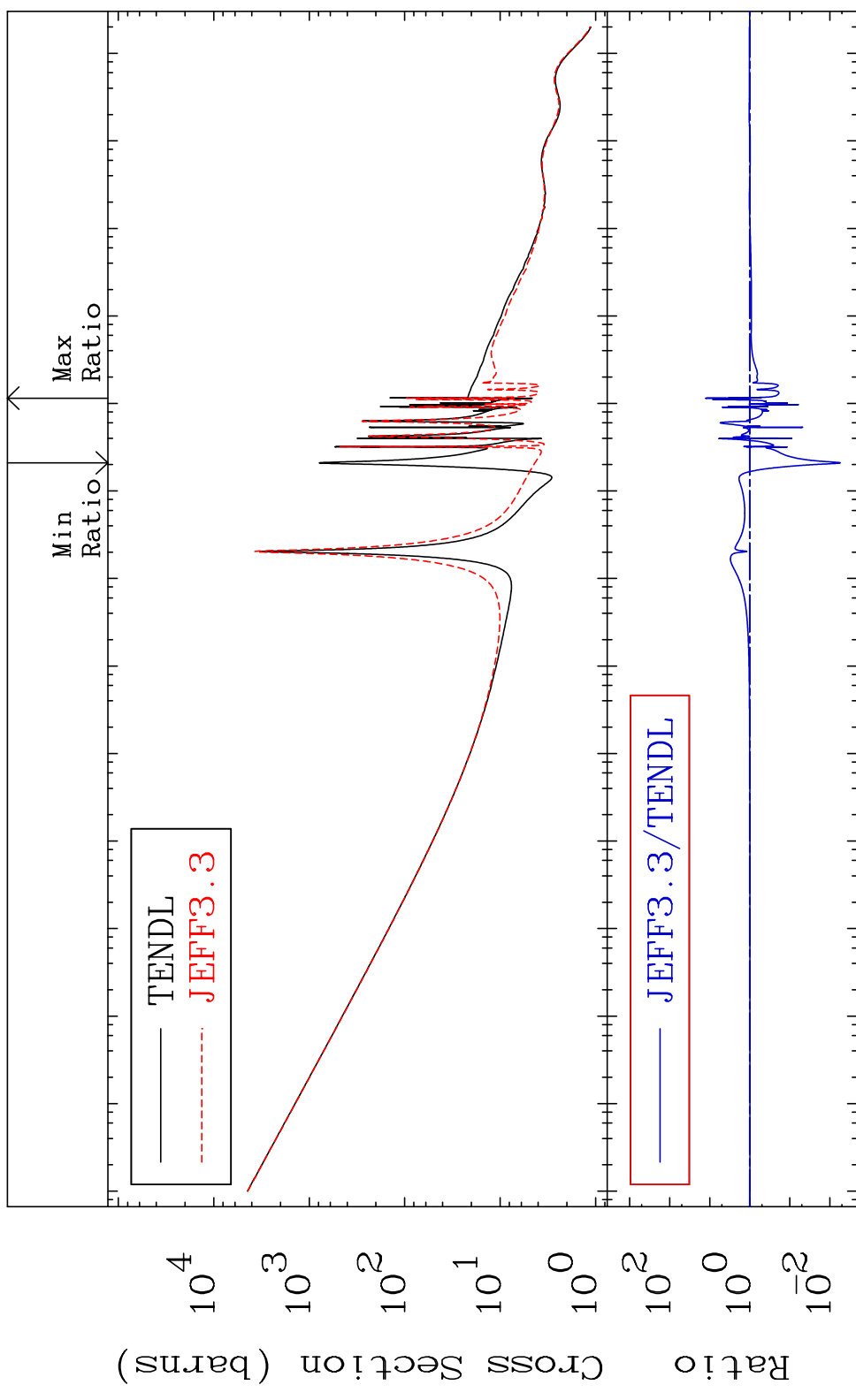
Press Mouse Button to Start

MAT 2828

Total

28-Ni-59

Cross Section -99.45 To 1153. %



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

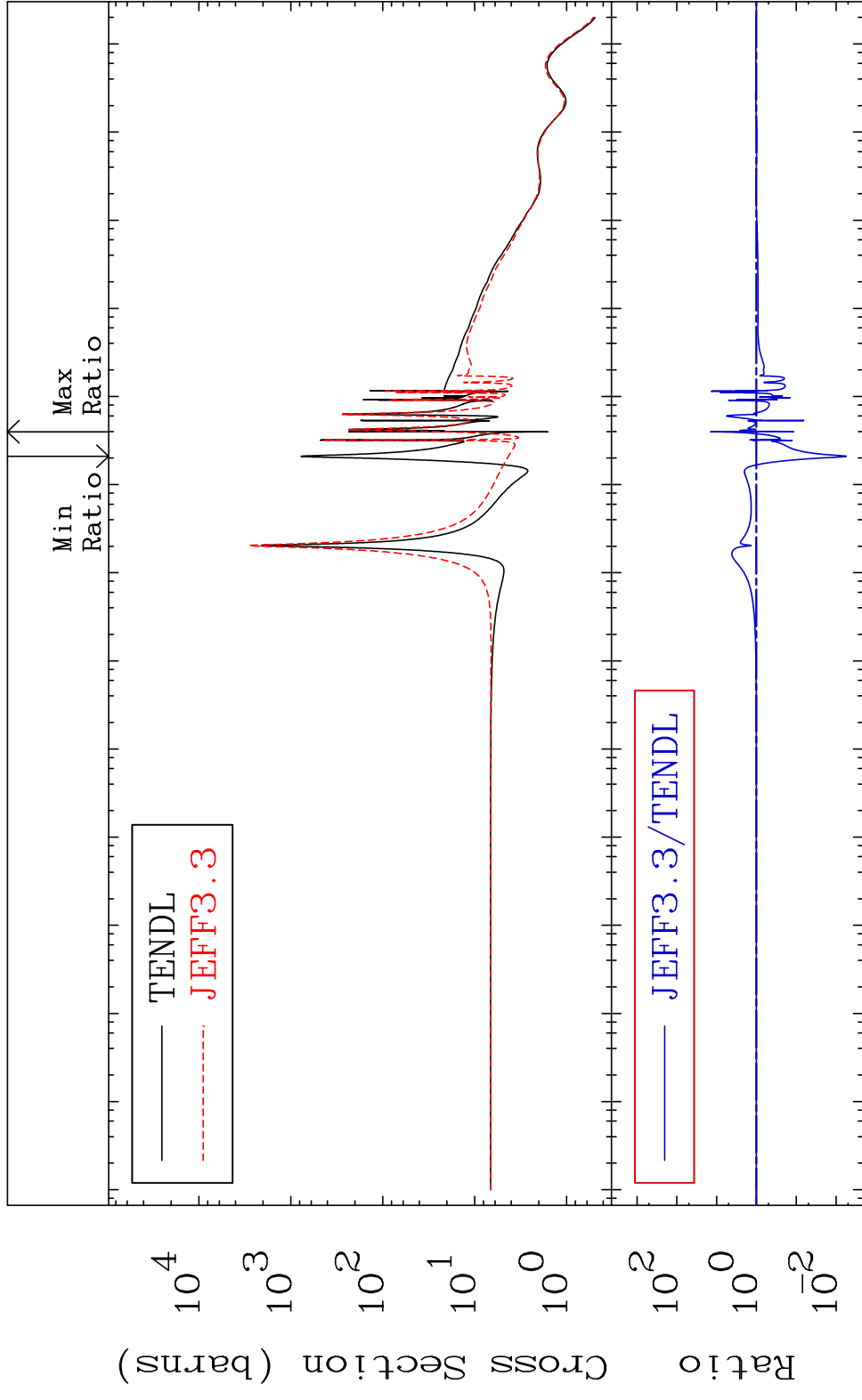
1

Incident Energy (eV)

28-Ni-59

MAT 2828

Elastic Cross Section -99.45 To 1308. %
28-Ni-59



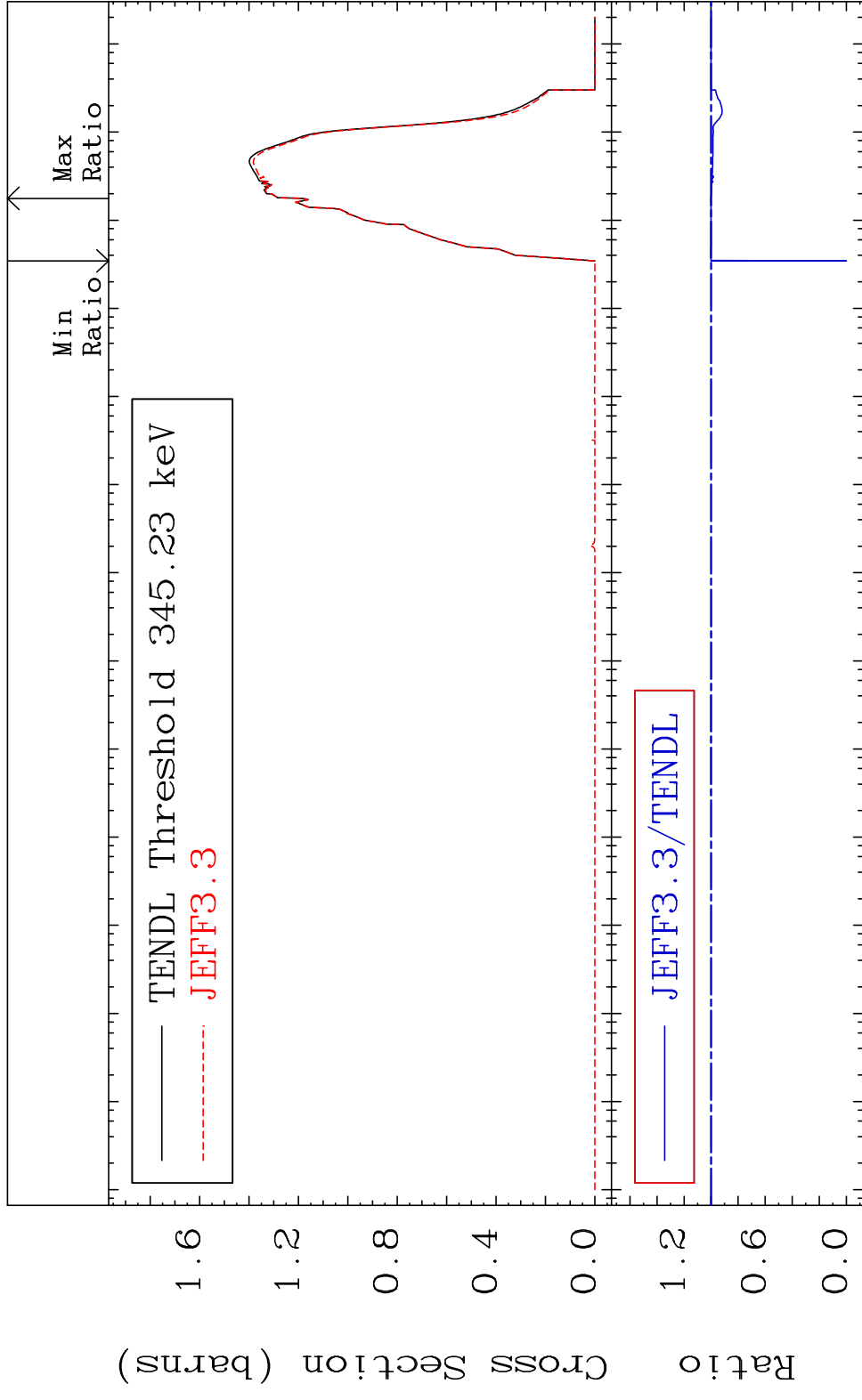
10⁻⁵ 10⁻⁴ 10⁻³ 10⁻² 10⁻¹ 10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶ 10⁷ 10⁸

2

Incident Energy (eV)

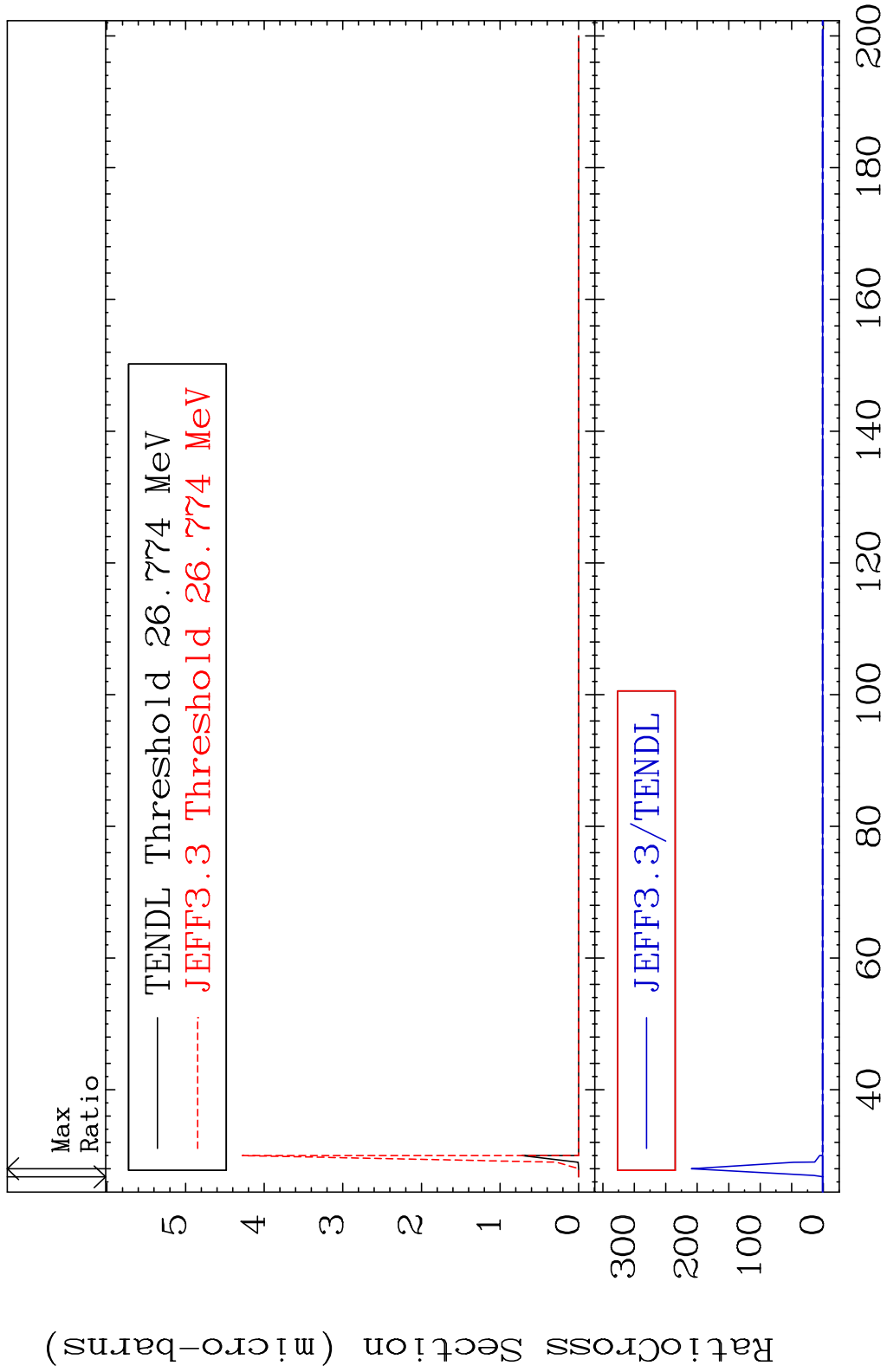
28-Ni-59

MAT 2828 Inelastic 28-Ni-59
 Cross Section -100.0 To 0.285 %



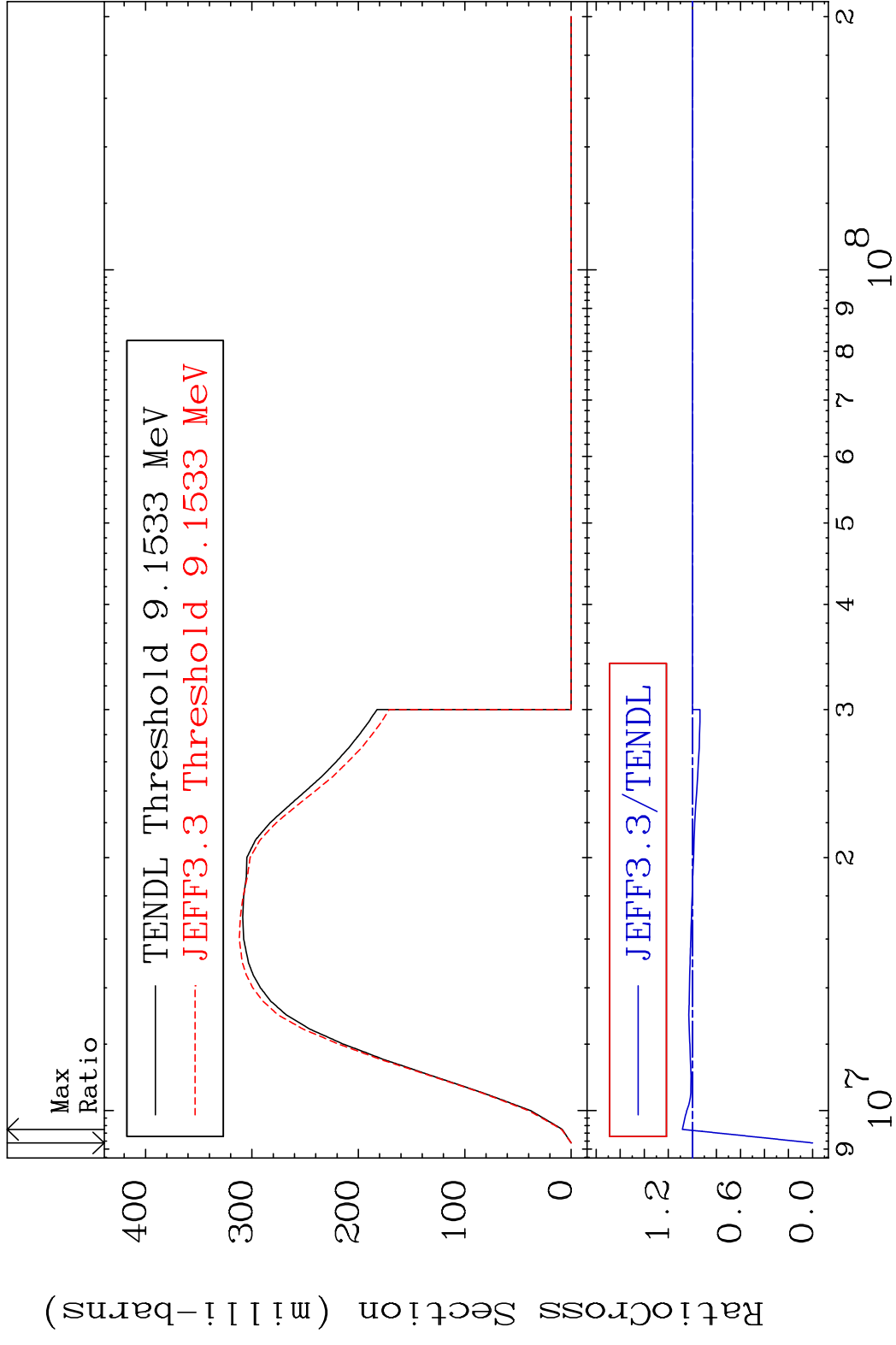
3 Incident Energy (eV) 28-Ni-59

MAT 2828 (n,2n) d 28-Ni-59
 Cross Section -100.0 To 9999. %



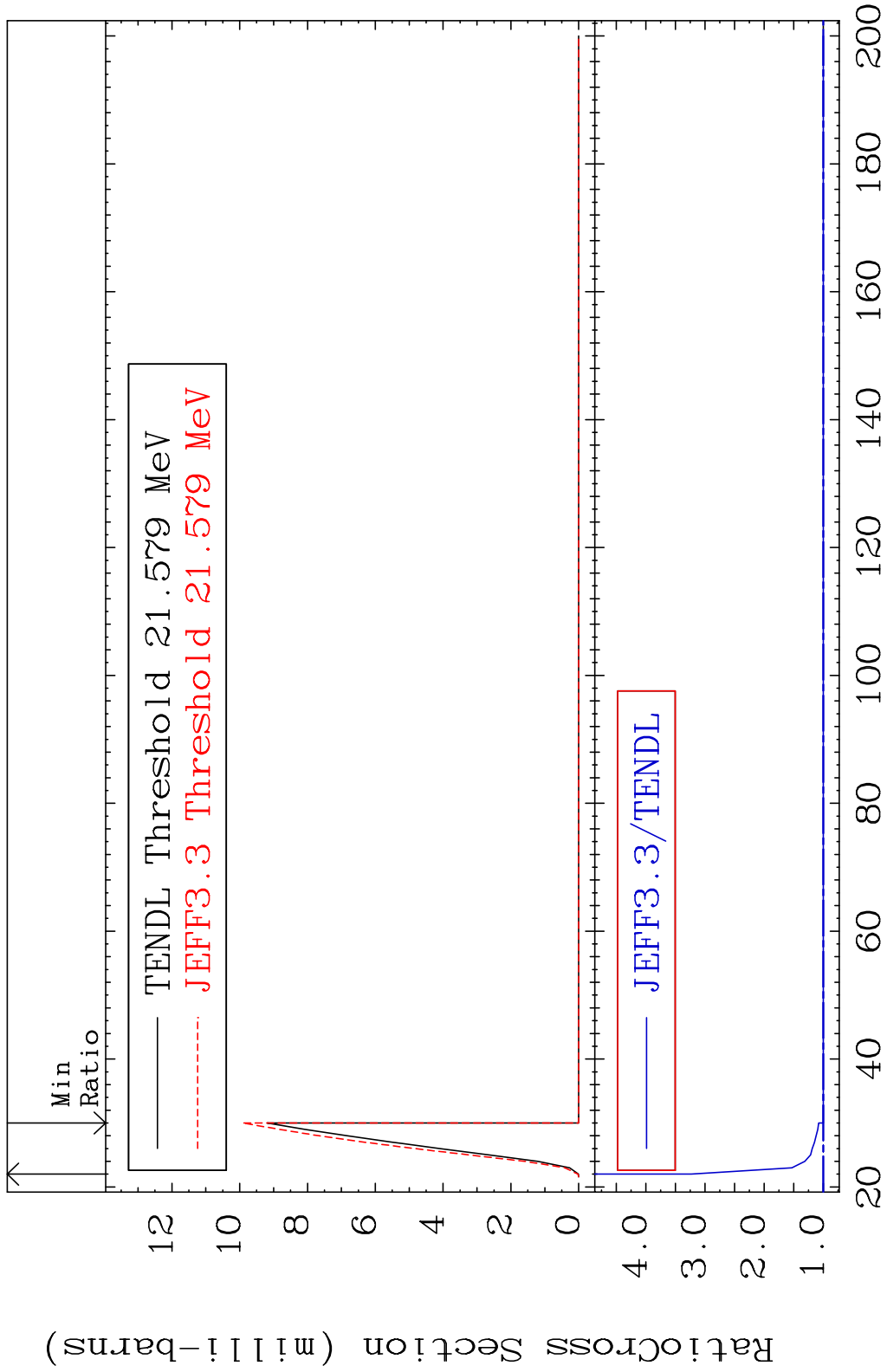
4 Incident Energy (MeV) 28-Ni-59

MAT 2828 (n,2n) 28-Ni-59
 Cross Section -100.0 To 8.312 %

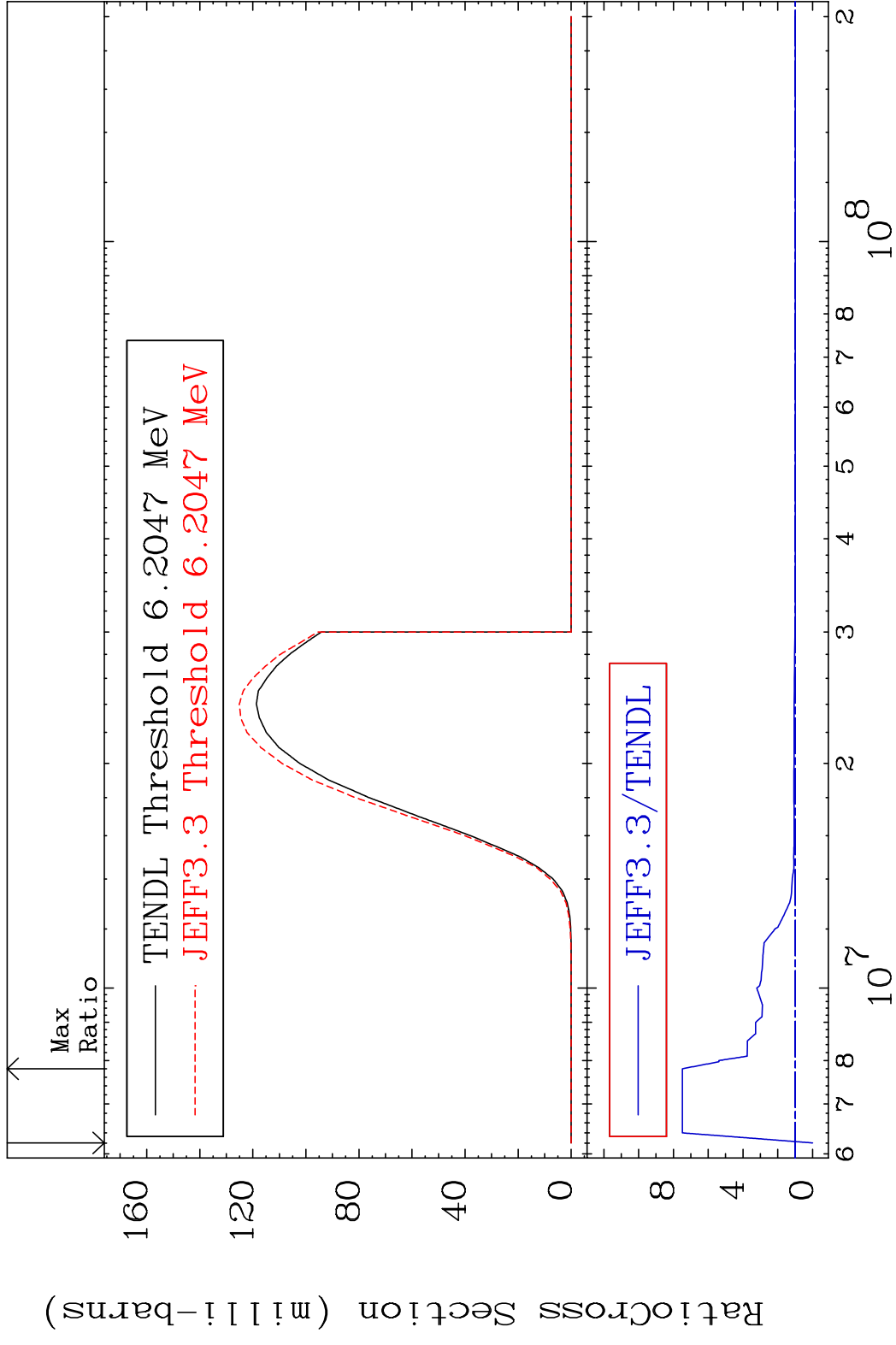


5 Incident Energy (eV) 28-Ni-59

MAT 2828 (n,3n) 28-Ni-59
 Cross Section 0.000 To 223.0 %

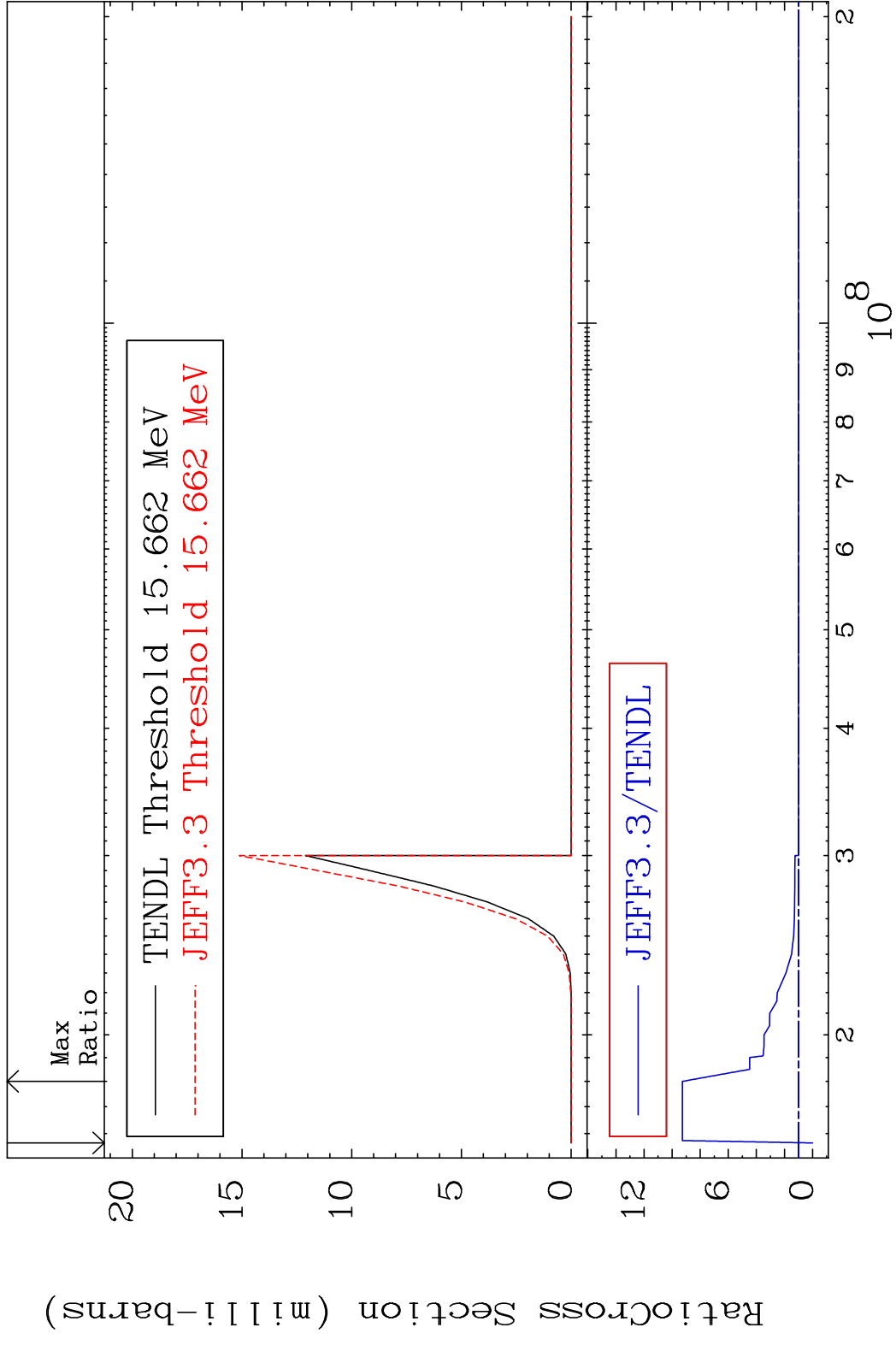


MAT 2828 (n, n') α 28-Ni-59
 Cross Section -100.0 To 648.6 %



7 28-Ni-59

MAT 2828 (n,2n) α 28-Ni-59
 Cross Section -100.0 To 827.1 %

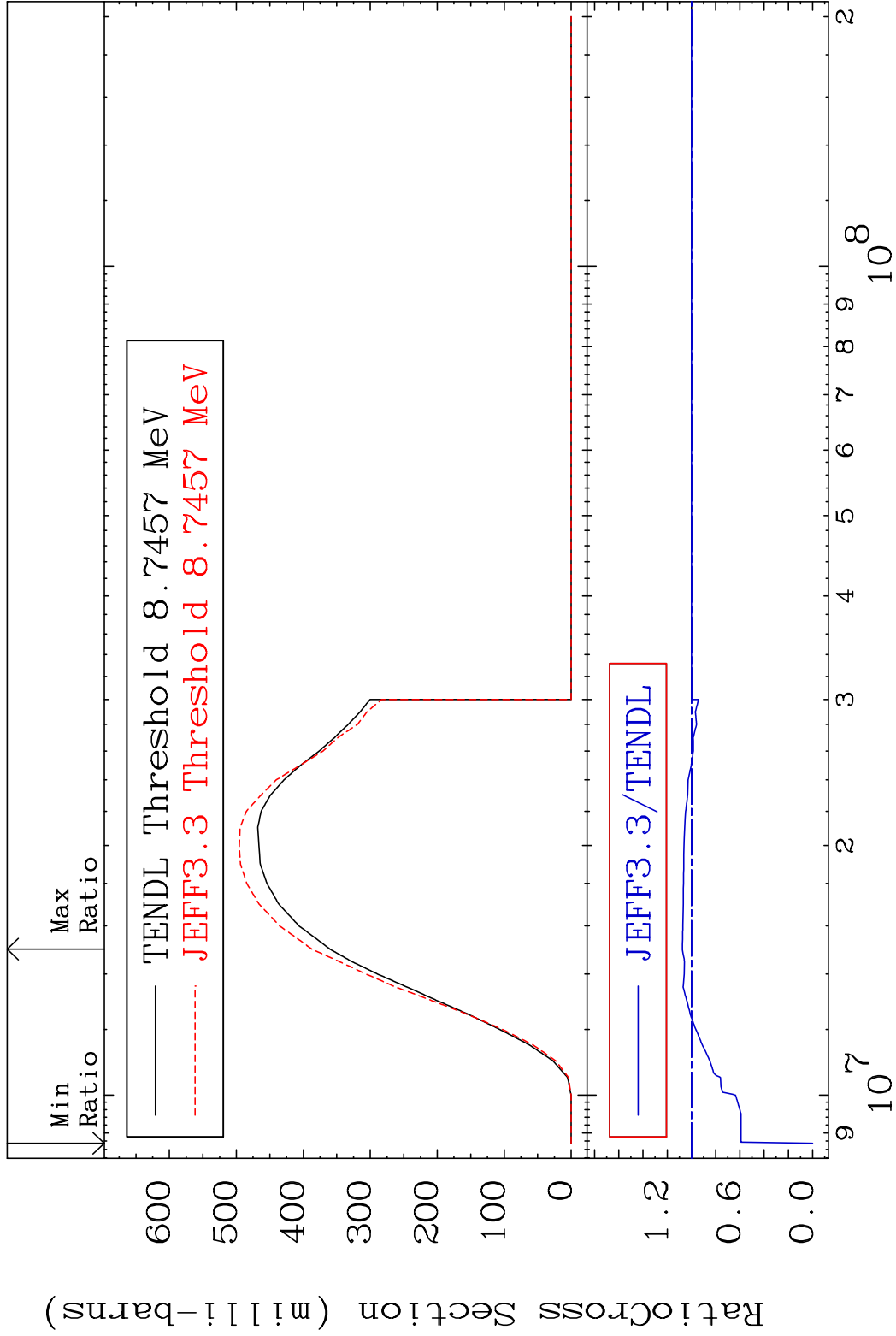


MAT 2828

(n, n') p

28-Ni-59

Cross Section -100.0 To 7.513 %



9

Incident Energy (eV)

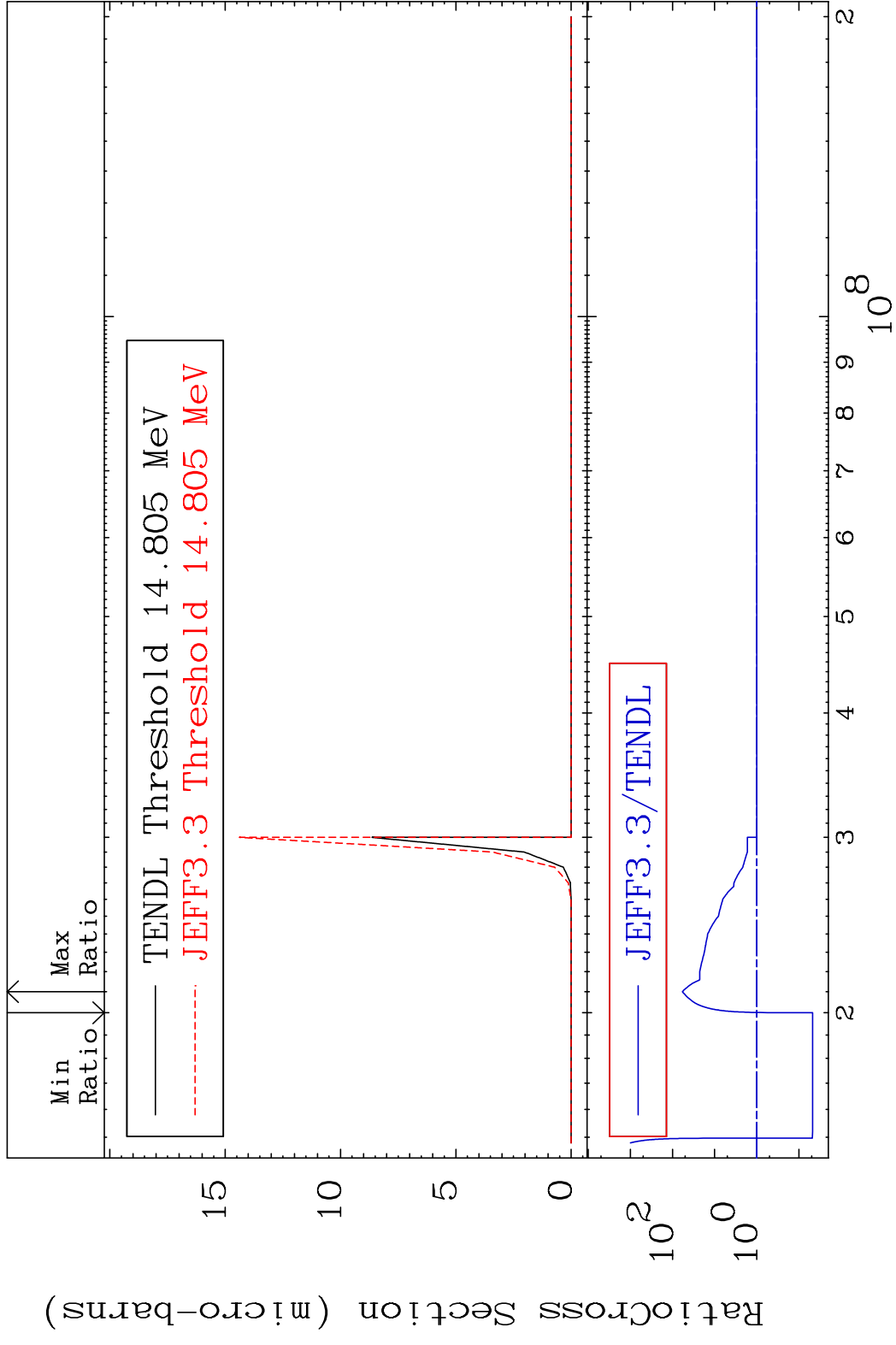
28-Ni-59

MAT 2828

(n, n') 2α

28-Ni-59

Cross Section -95.26 To 5746. %

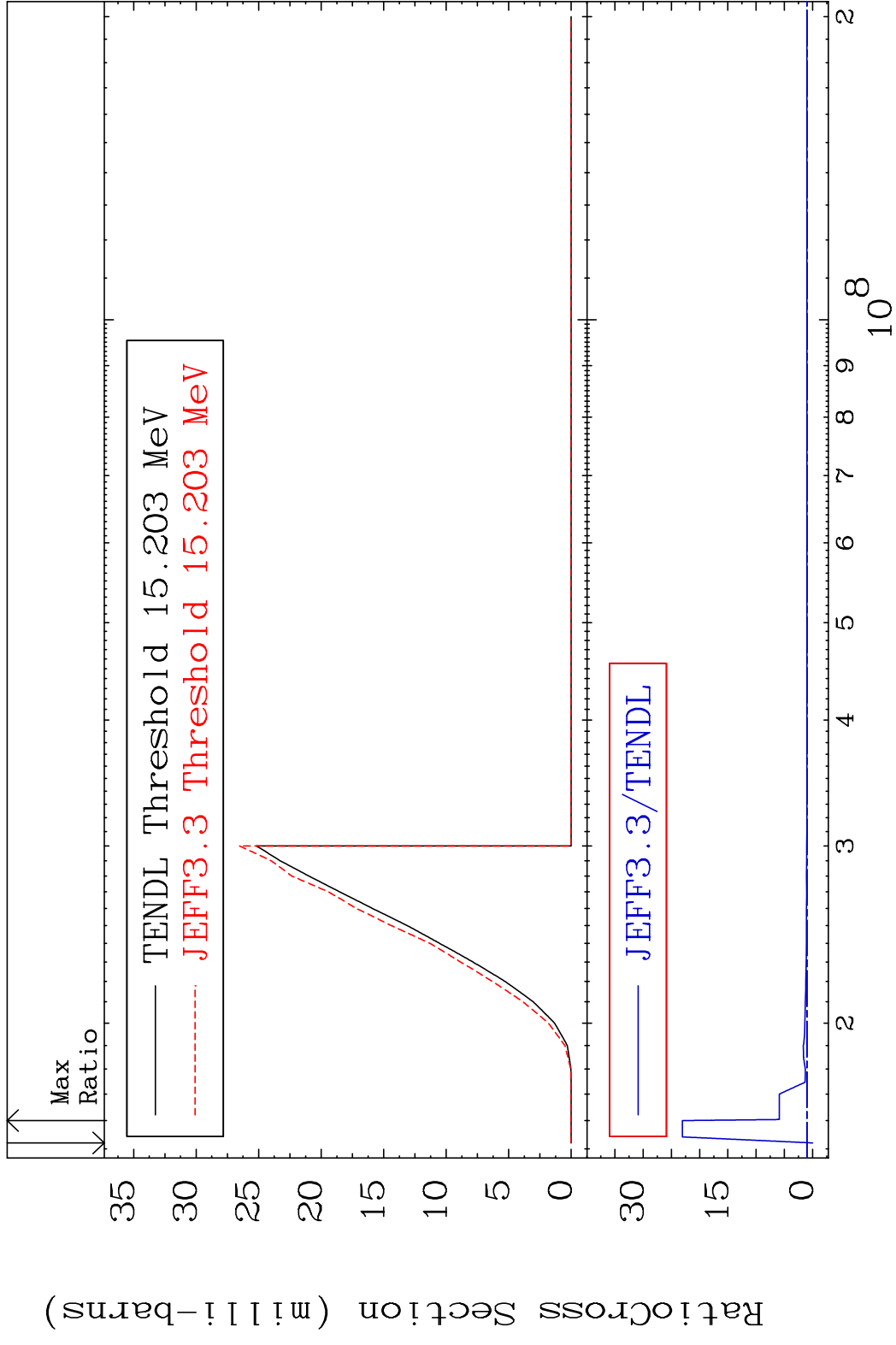


10

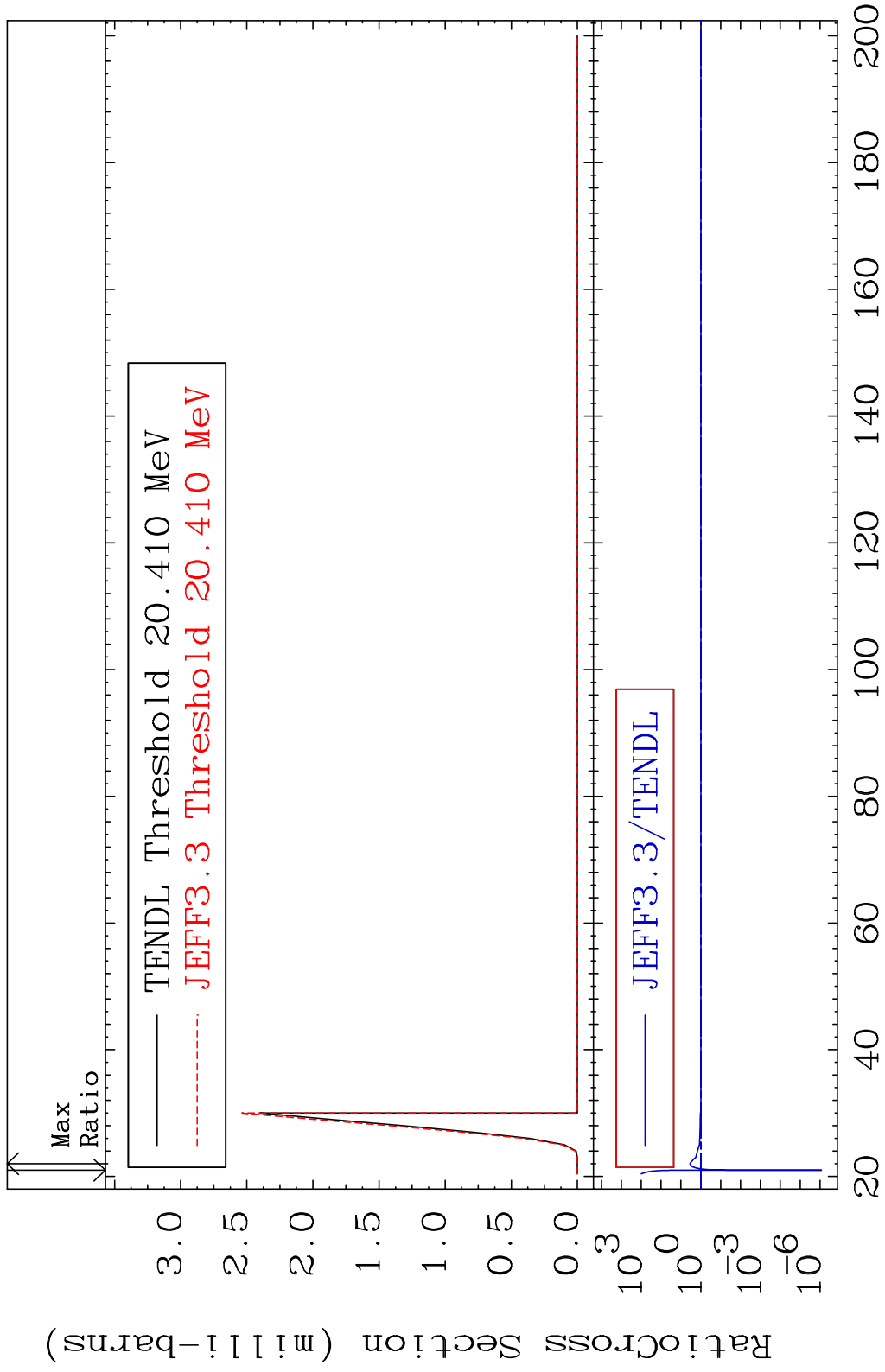
Incident Energy (eV)

28-Ni-59

MAT 2828 (n, n') d 28-Ni-59
 Cross Section -100.0 To 2206. %



MAT 2828 (n, n') t 28-Ni-59
 Cross Section -100.0 To 258.9 %

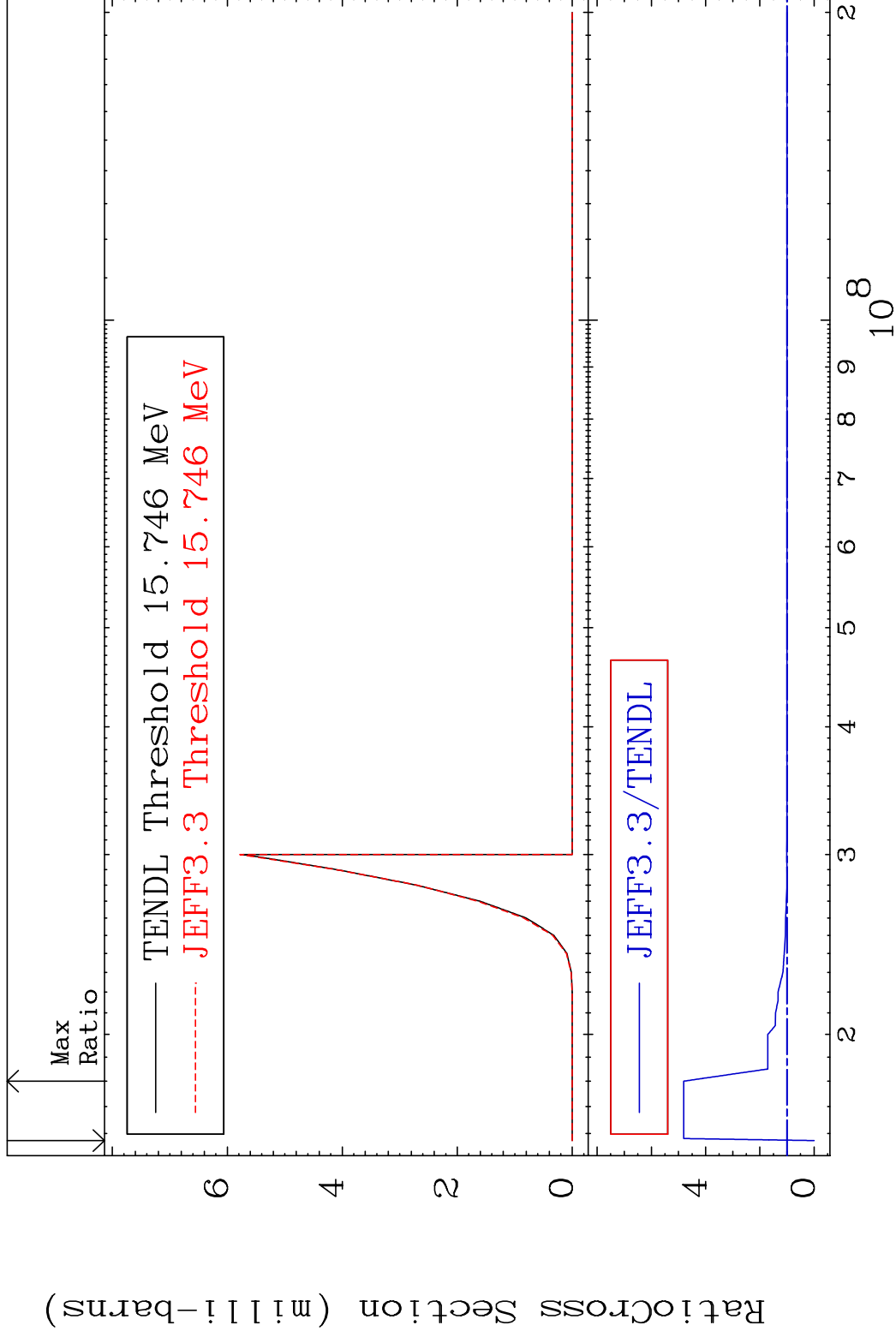


MAT 2828

(n,n') He-3

28-Ni-59

Cross Section -100.0 To 381.0 %

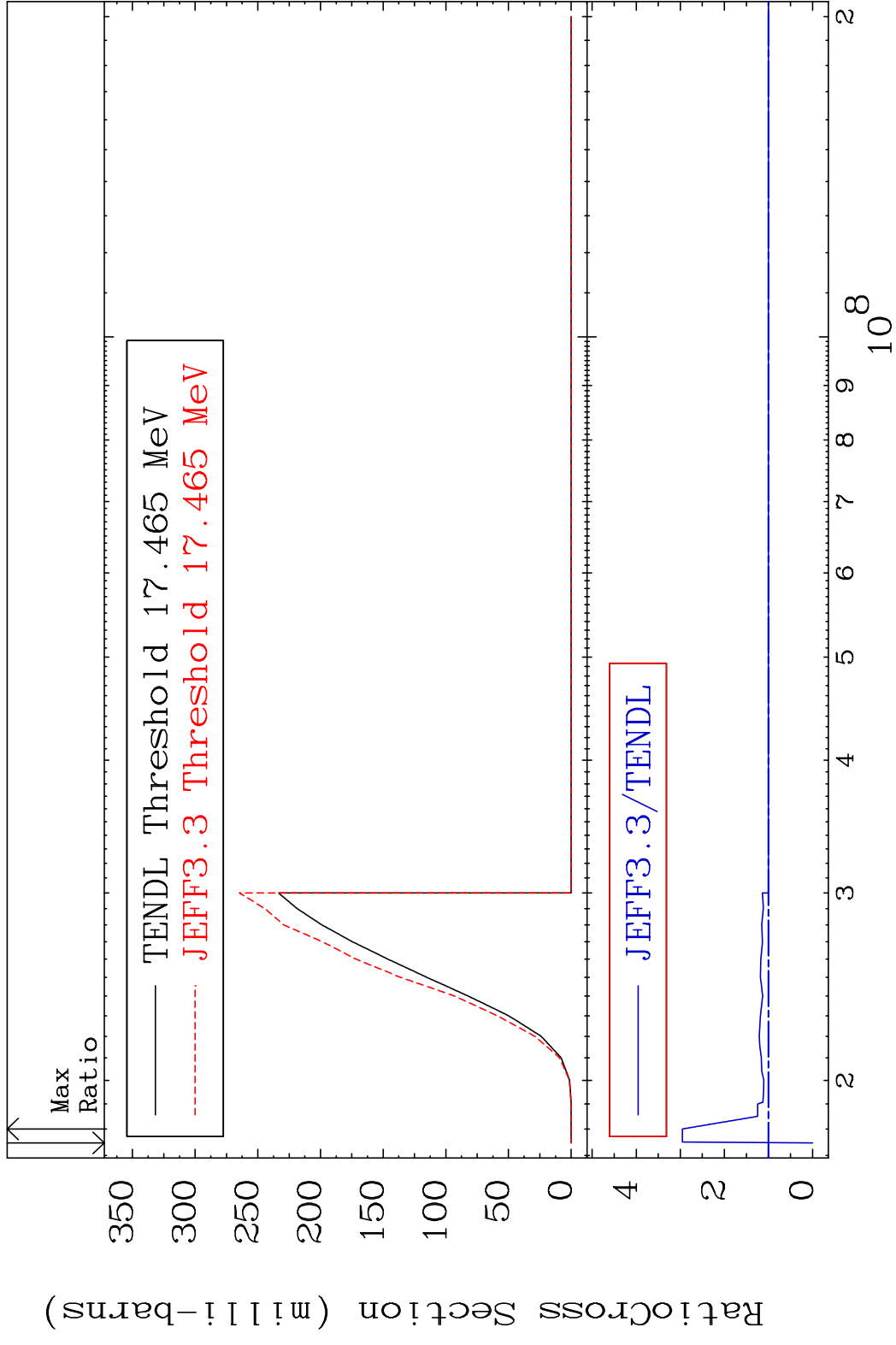


13

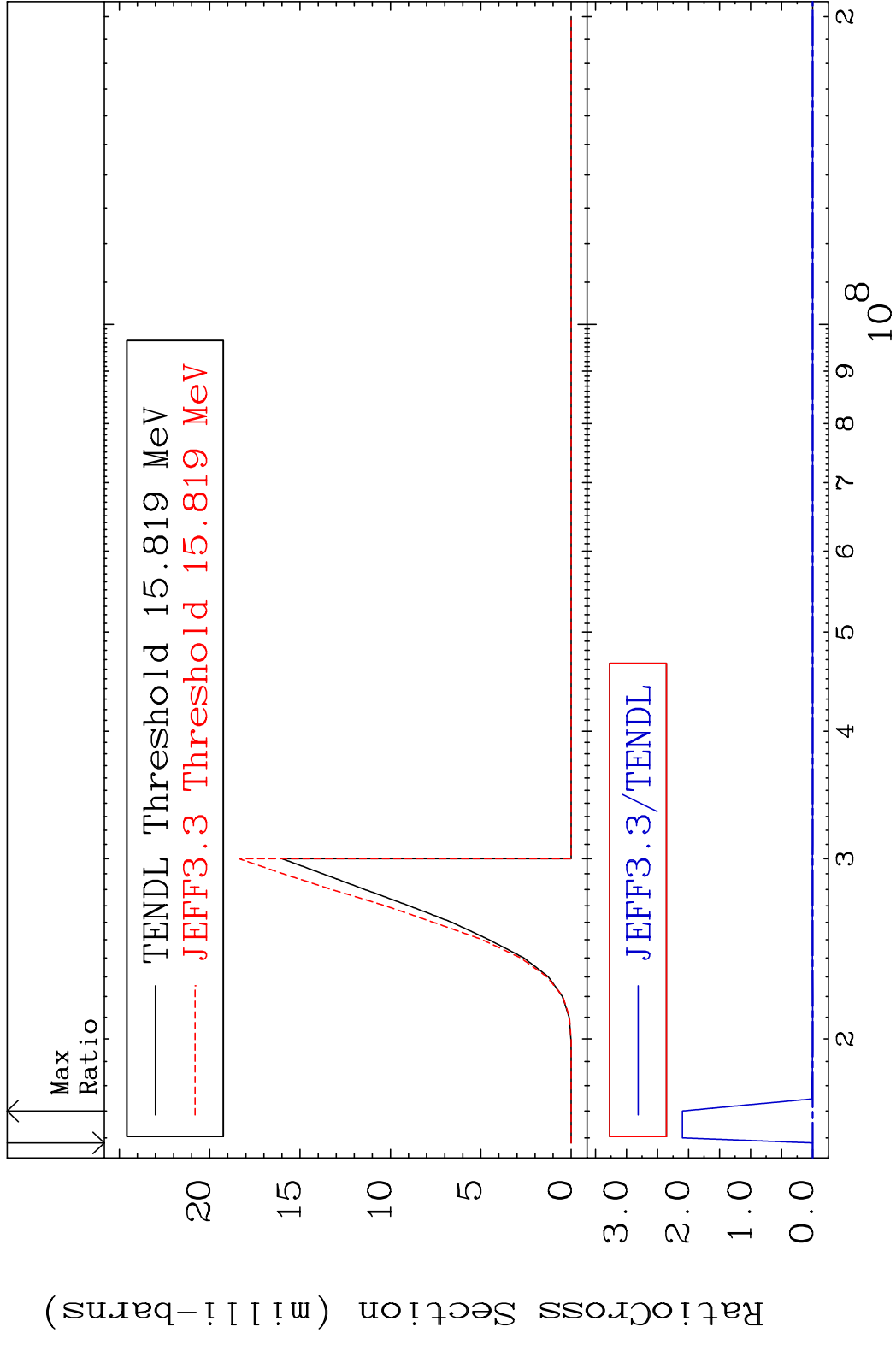
Incident Energy (eV)

28-Ni-59

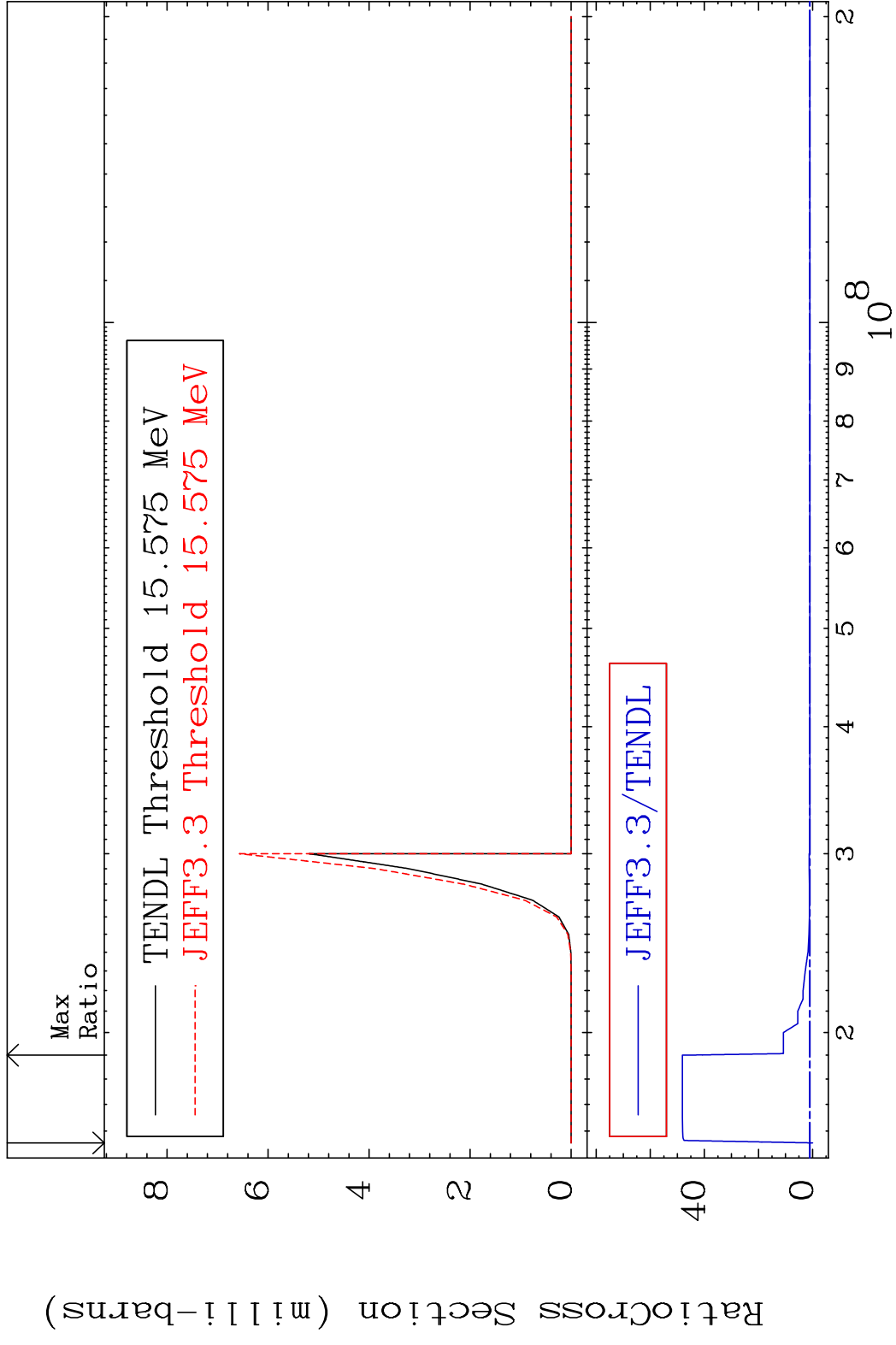
MAT 2828 (n,2n) p 28-Ni-59
 Cross Section -100.0 To 195.3 %



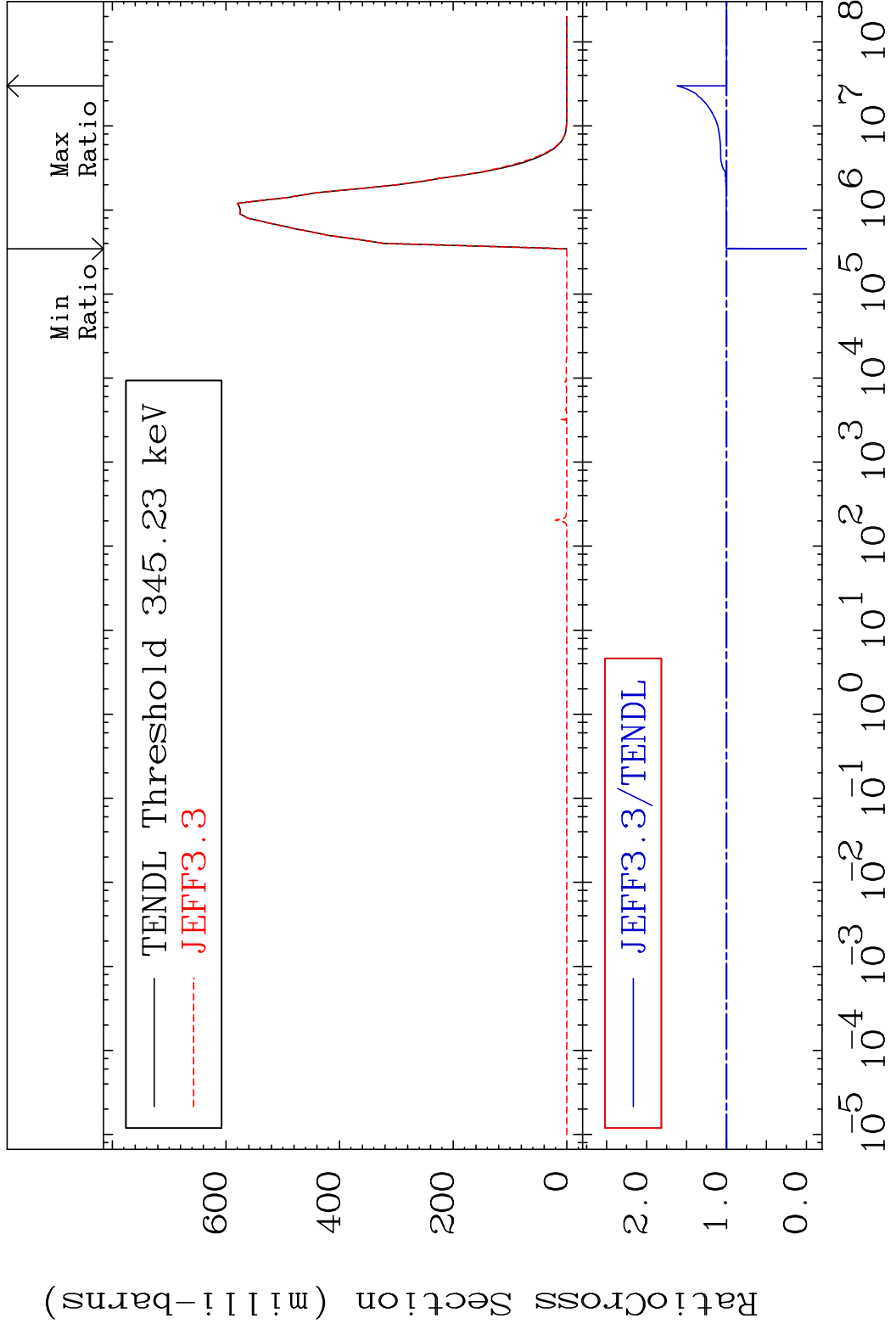
MAT 2828 (n,2n) p 28-Ni-59
 Cross Section -100.0 To 9999. %



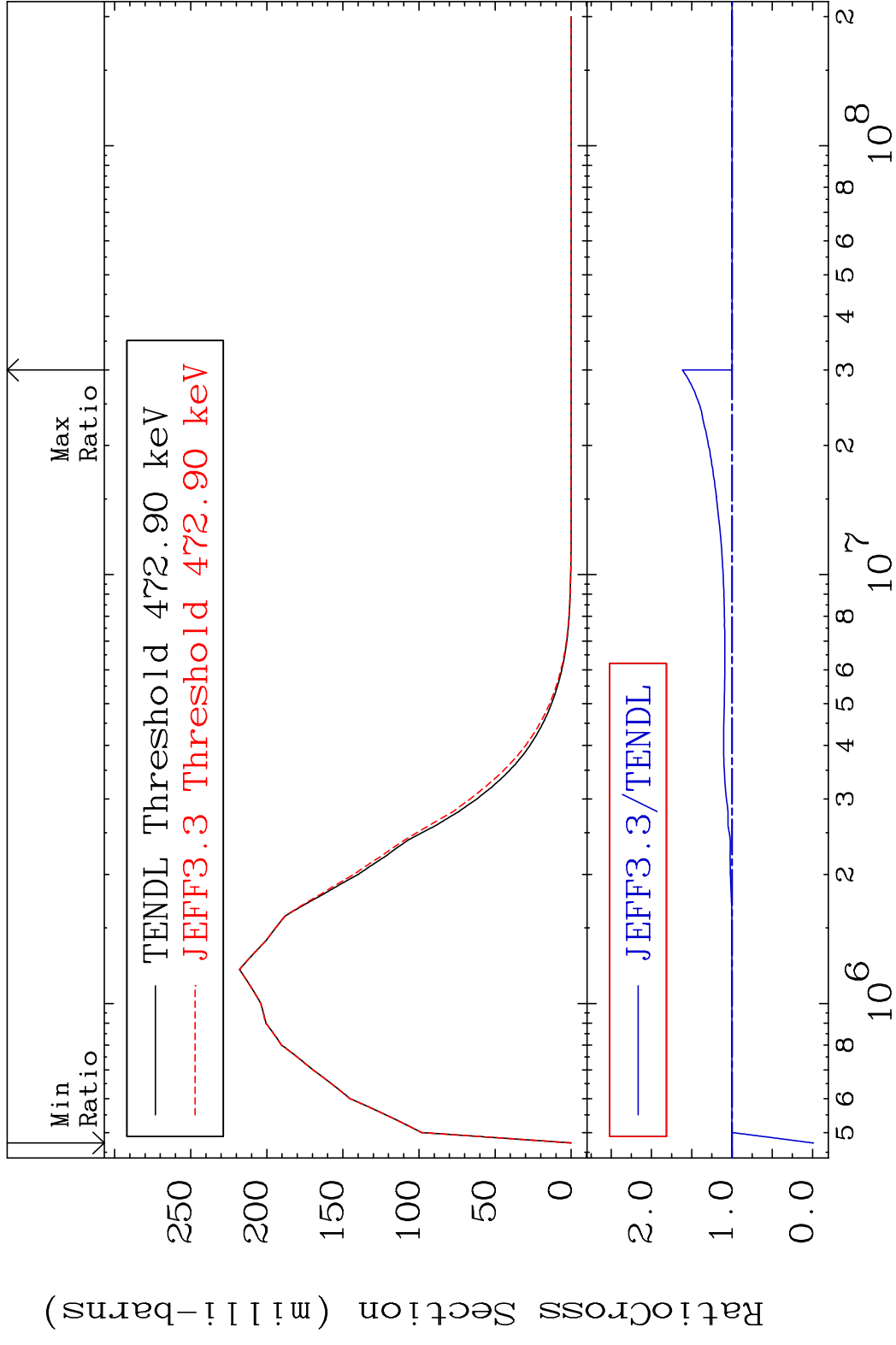
MAT 2828 (n,n') p α 28-Ni-59
 Cross Section -100.0 To 4714. %



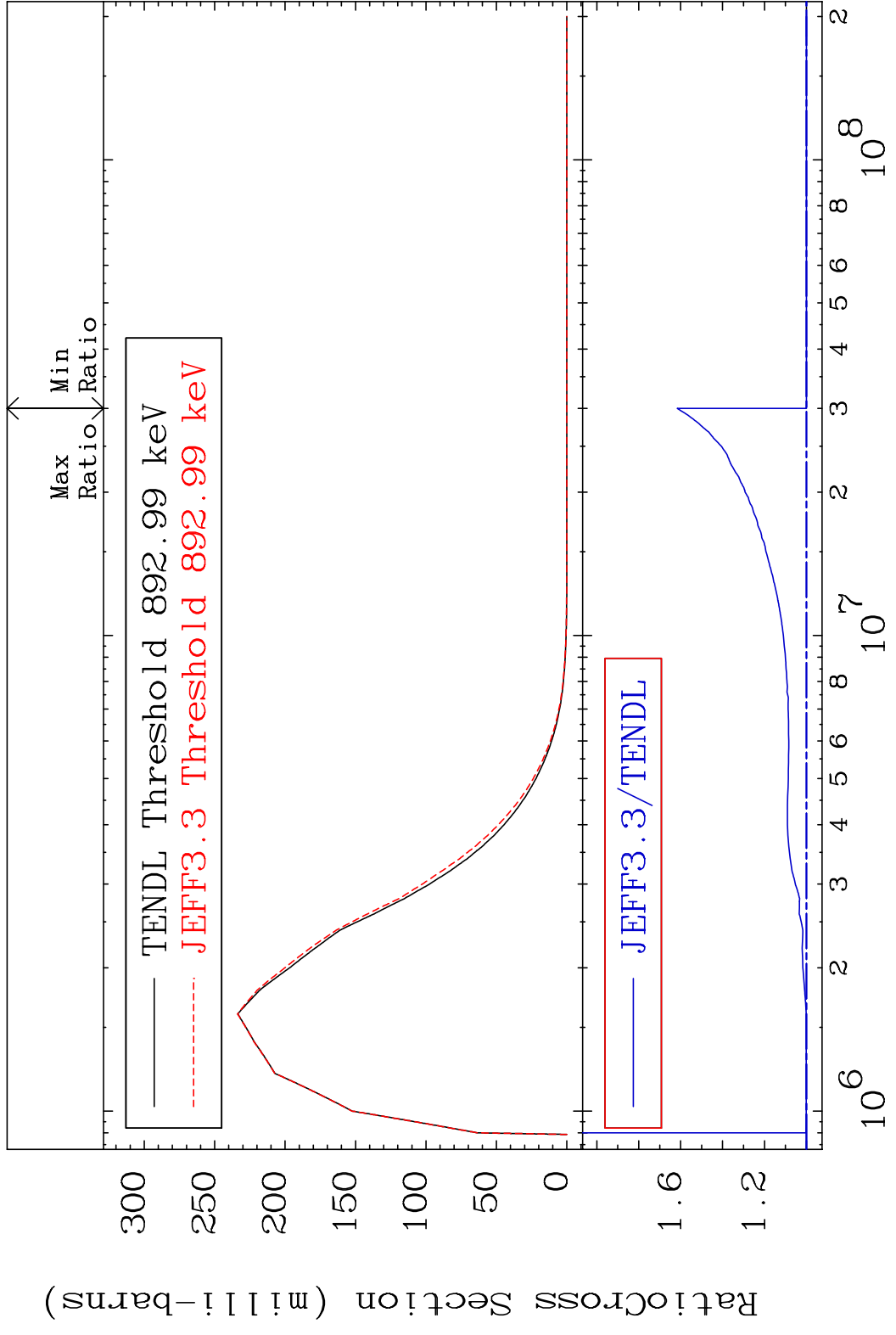
MAT 2828 MT= 51 (n,n') Level 28-Ni-59
 Cross Section -100.0 To 61.68 %



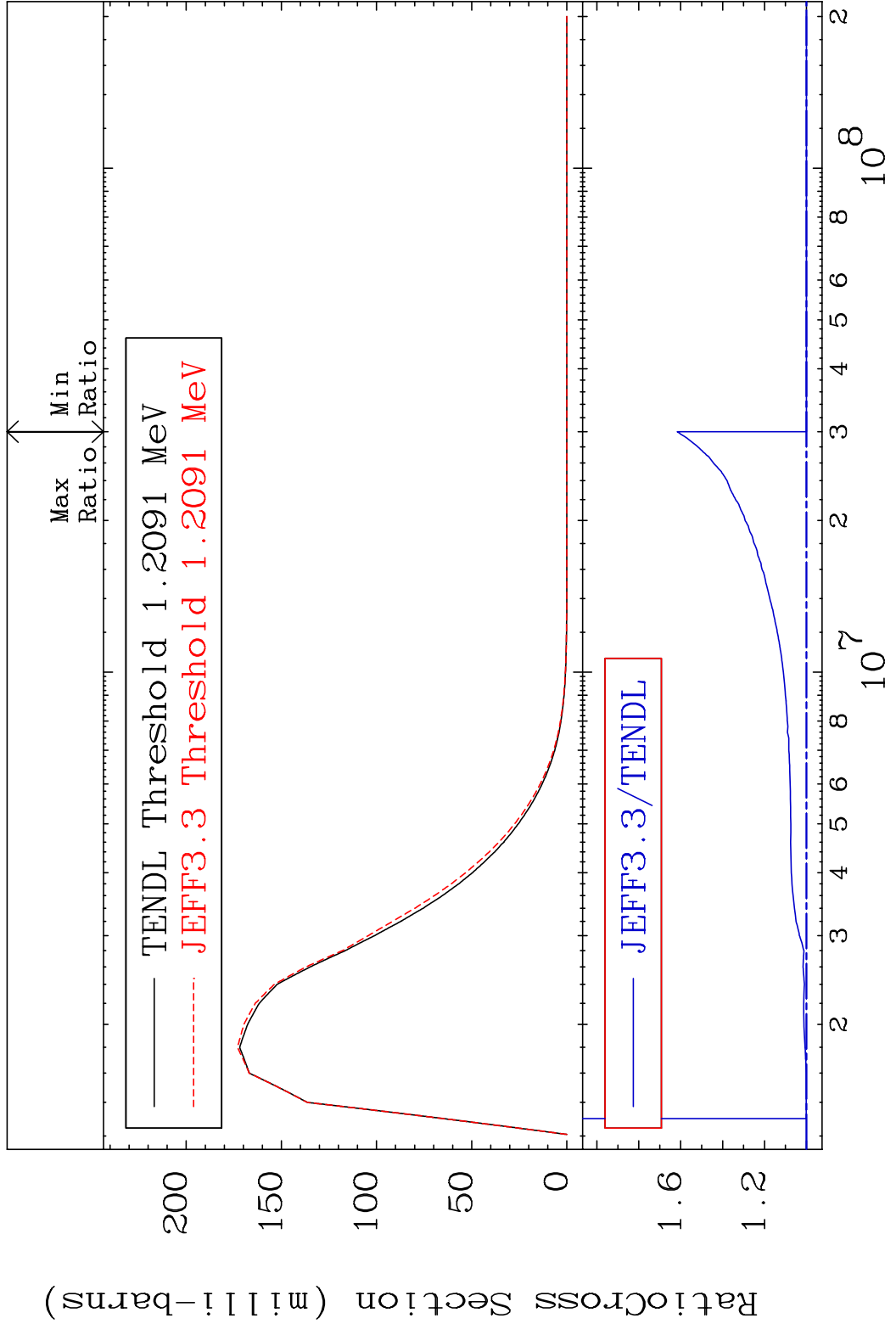
MAT 2828 MT= 52 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 61.65 %



MAT 2828 MT= 53 (n, n') Level 28-Ni-59
 Cross Section 0.000 To 61.66 %

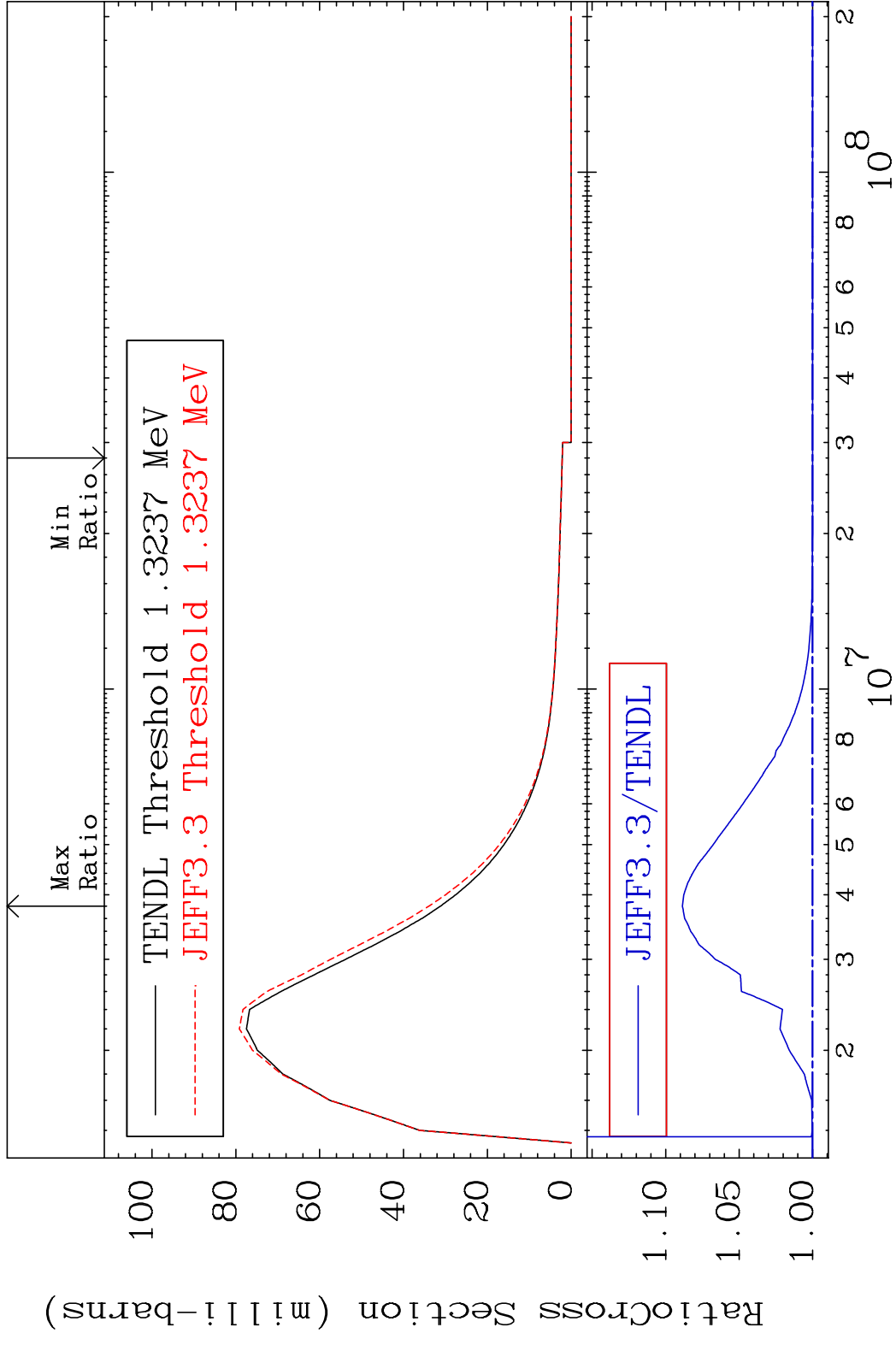


MAT 2828 MT= 54 (n, n') Level 28-Ni-59
 Cross Section 0.000 To 61.68 %



20 28-Ni-59

MAT 2828 MT= 55 (n, n') Level 28-Ni-59
 Cross Section 0.000 To 8.862 %

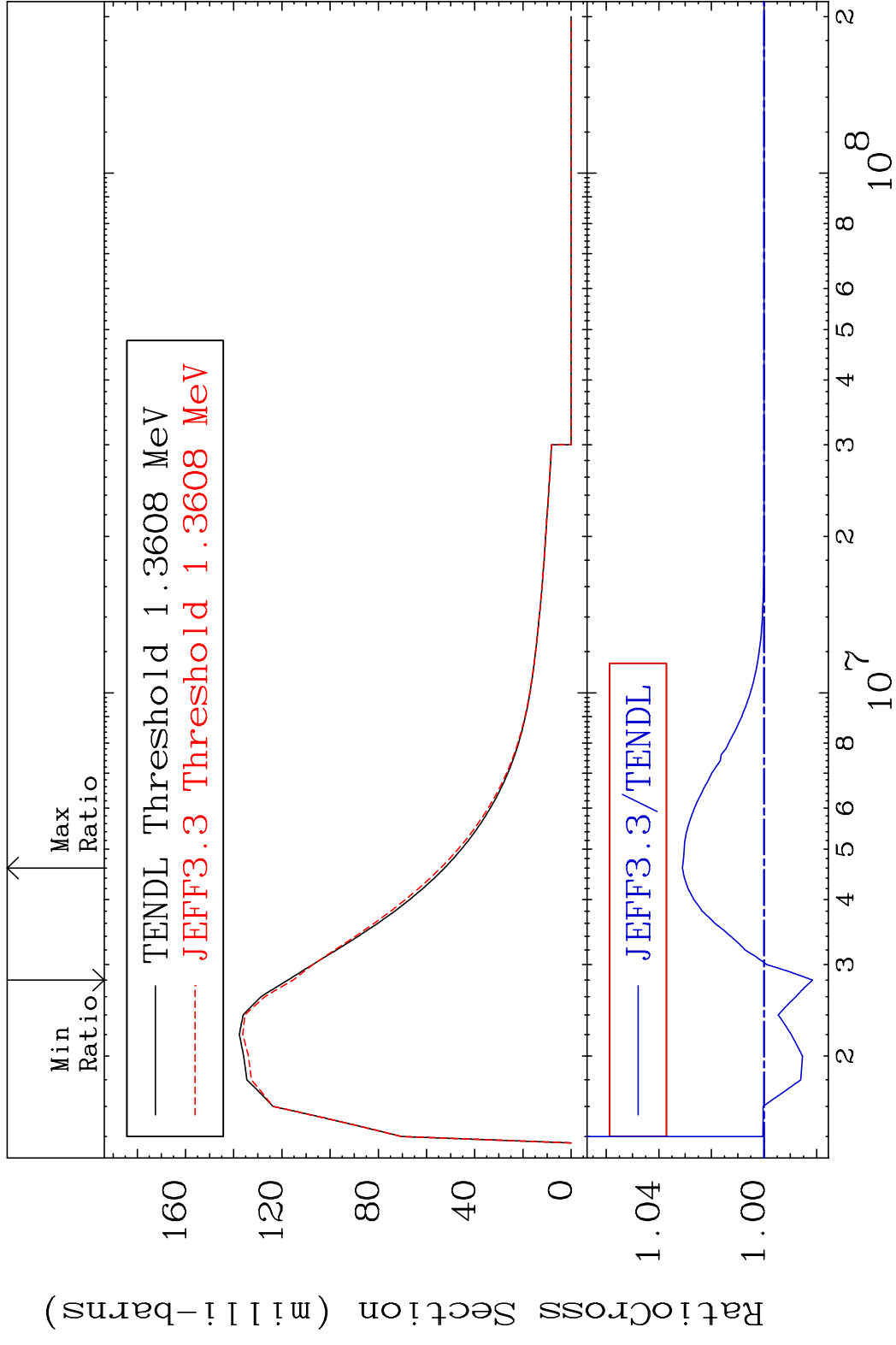


MAT 2828

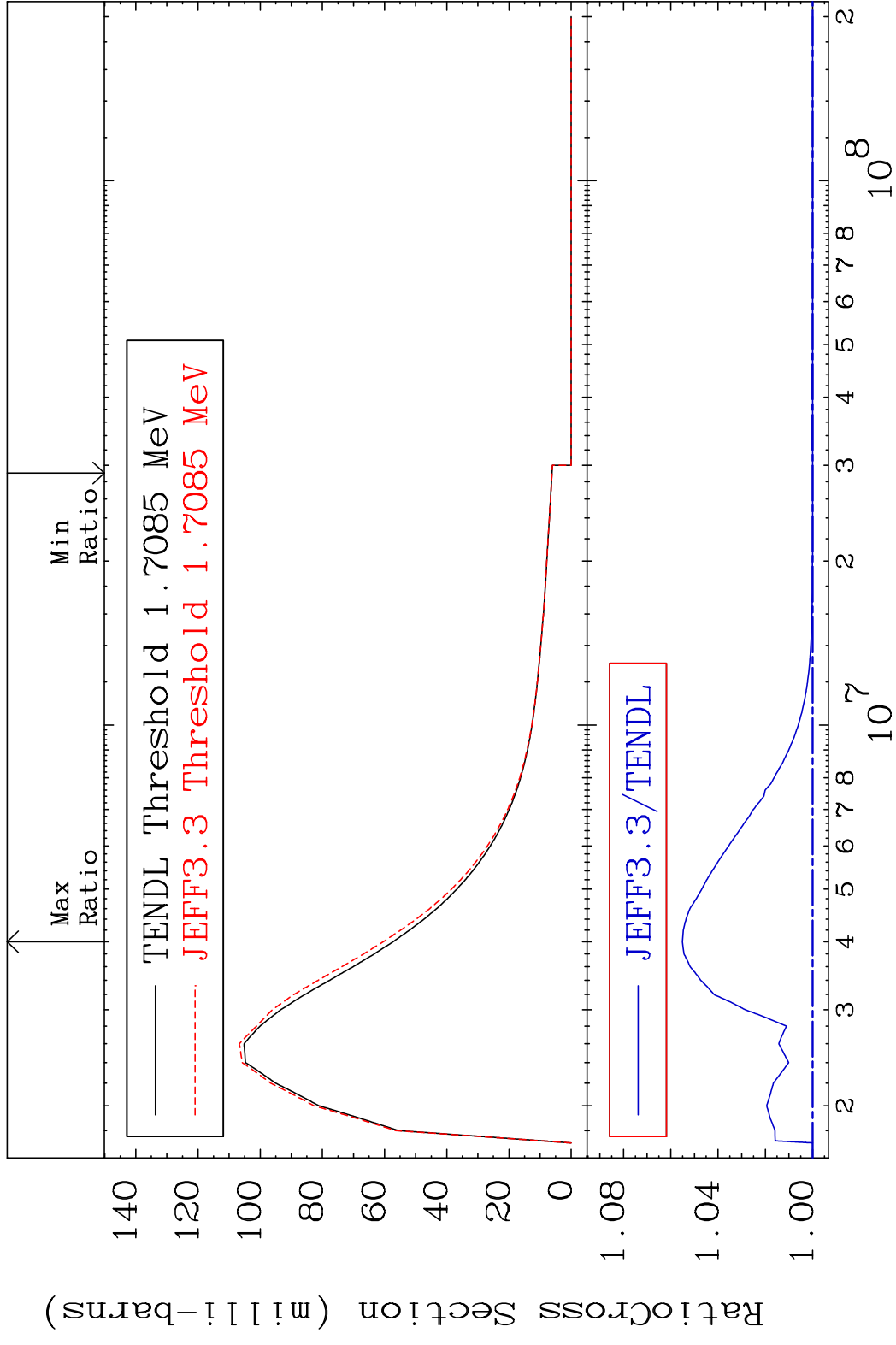
MT= 56 (n,n') Level

28-Ni-59

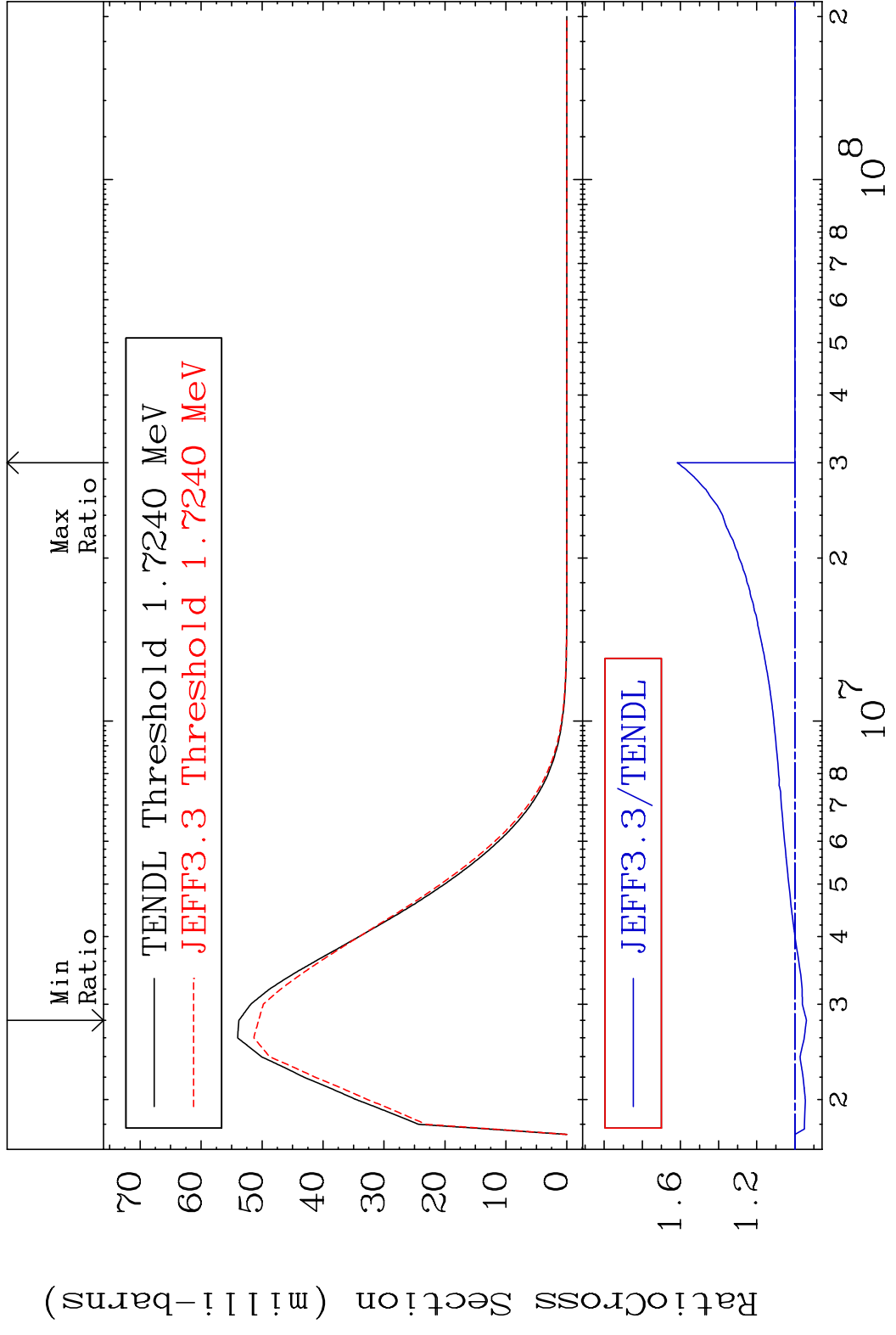
Cross Section -1.843 To 3.105 %



MAT 2828 MT= 57 (n, n') Level 28-Ni-59
 Cross Section 0.000 To 5.510 %

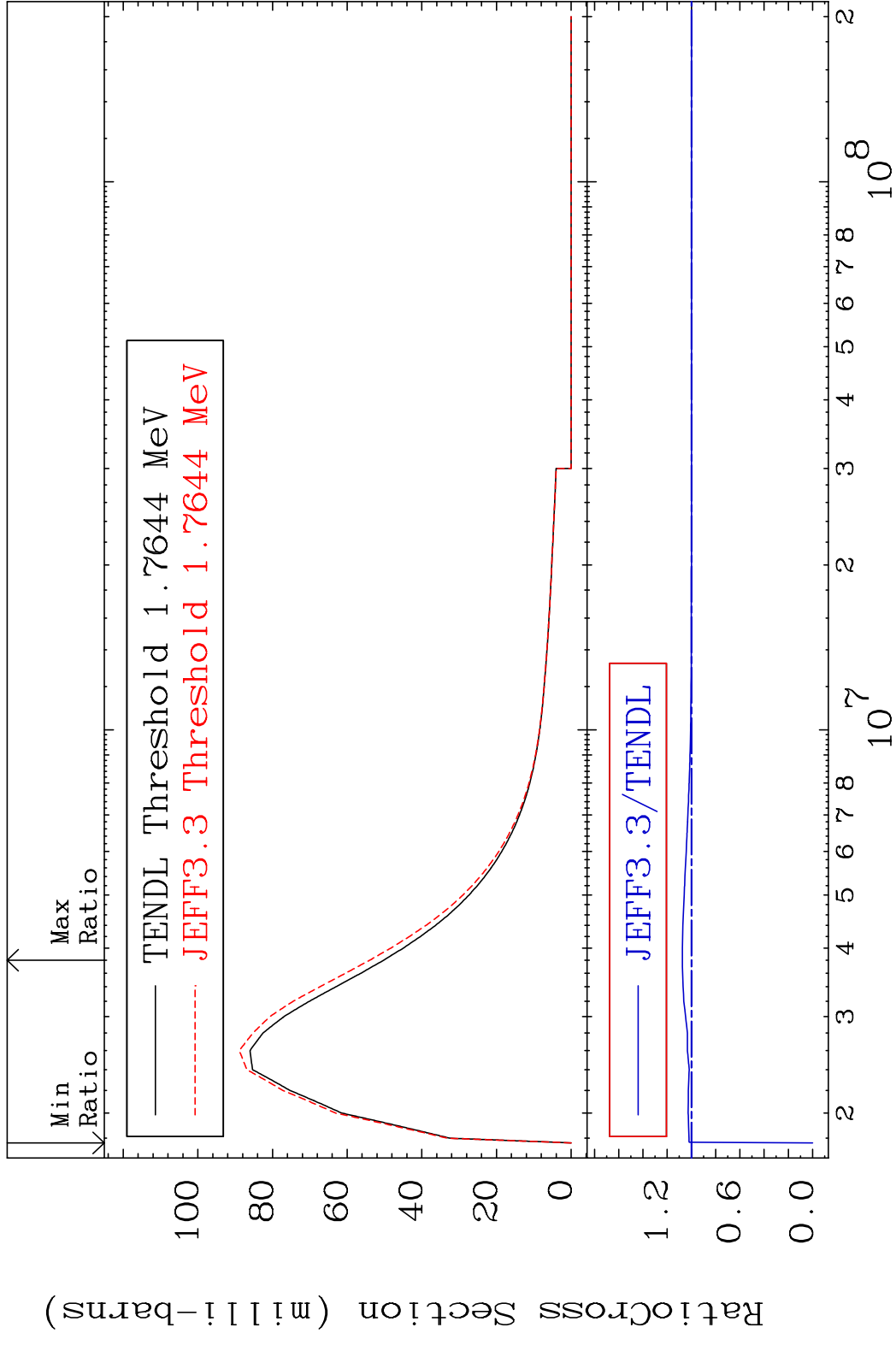


MAT 2828 MT= 58 (n, n') Level 28-Ni-59
 Cross Section -6.033 To 61.73 %

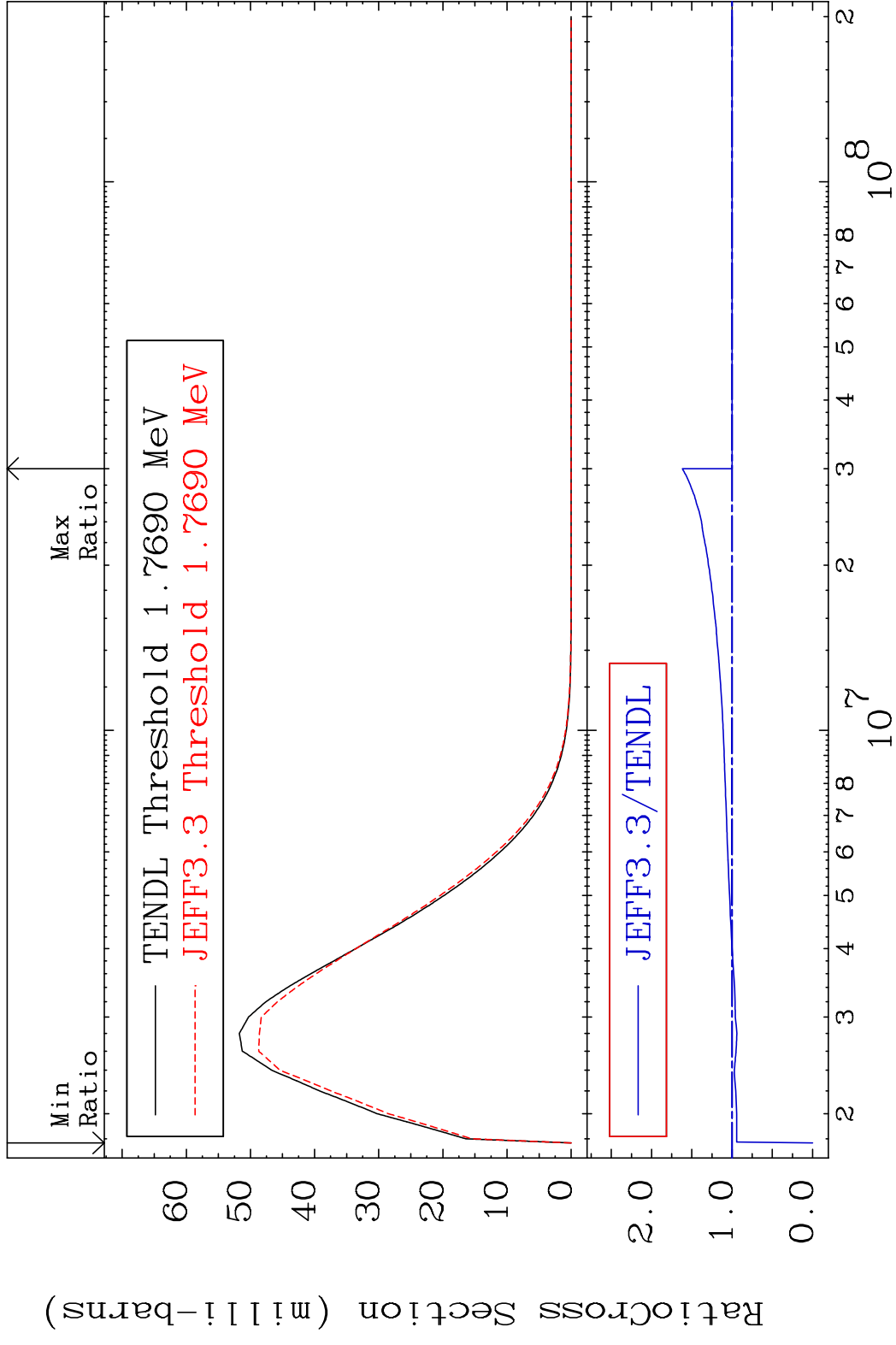


24 Incident Energy (eV) 28-Ni-59

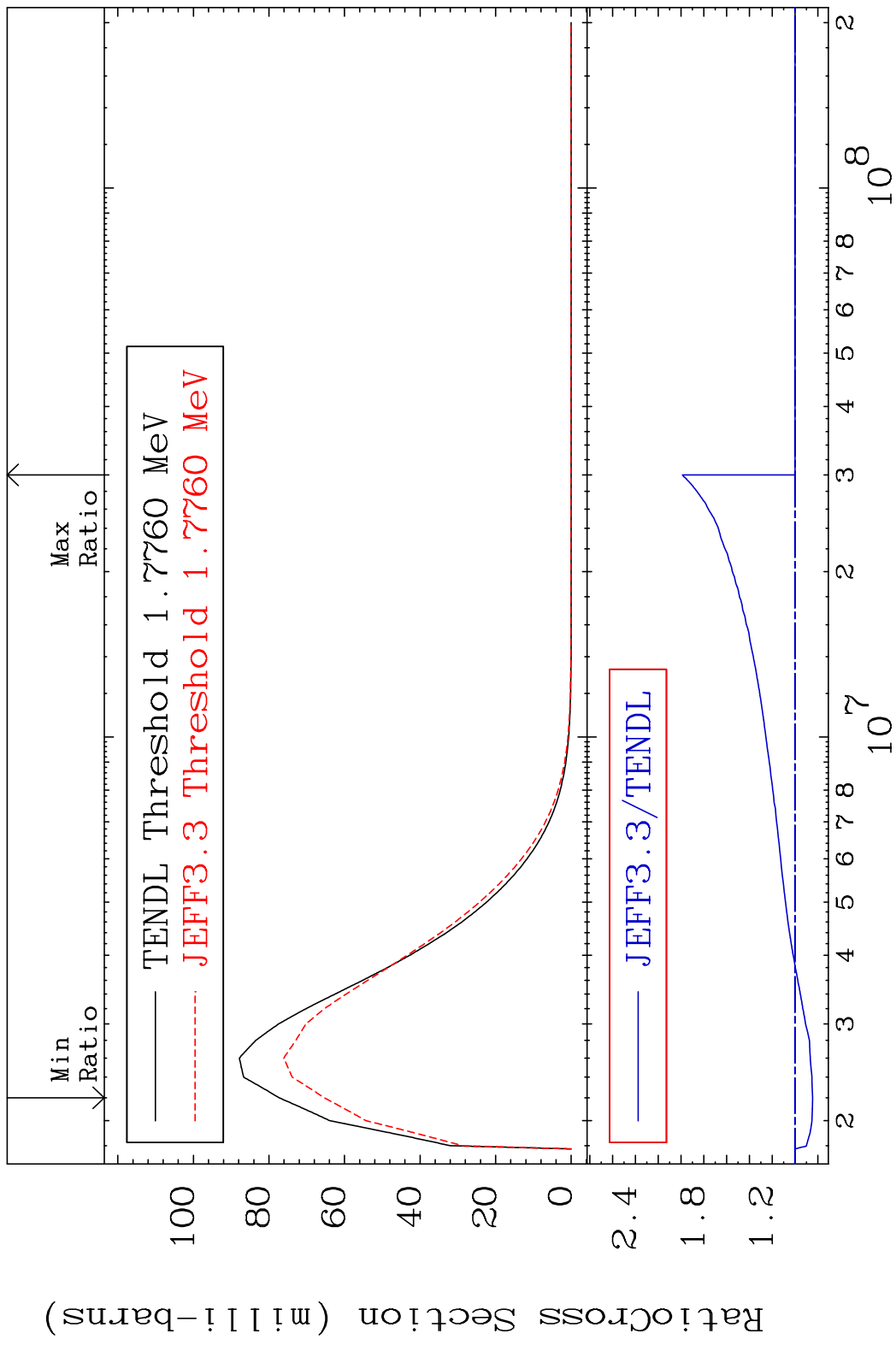
MAT 2828 MT= 59 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 7.468 %



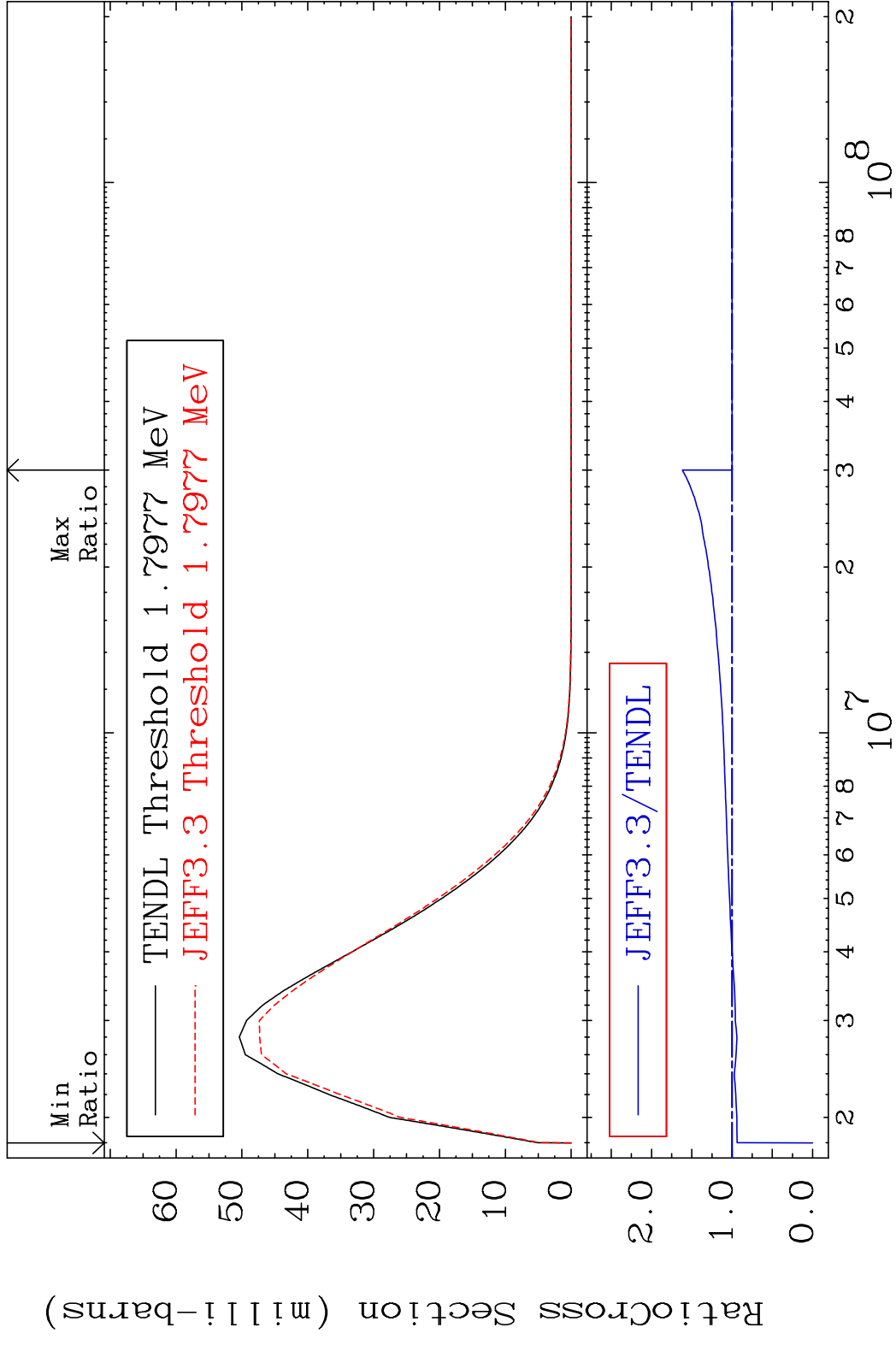
MAT 2828 MT= 60 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 61.73 %



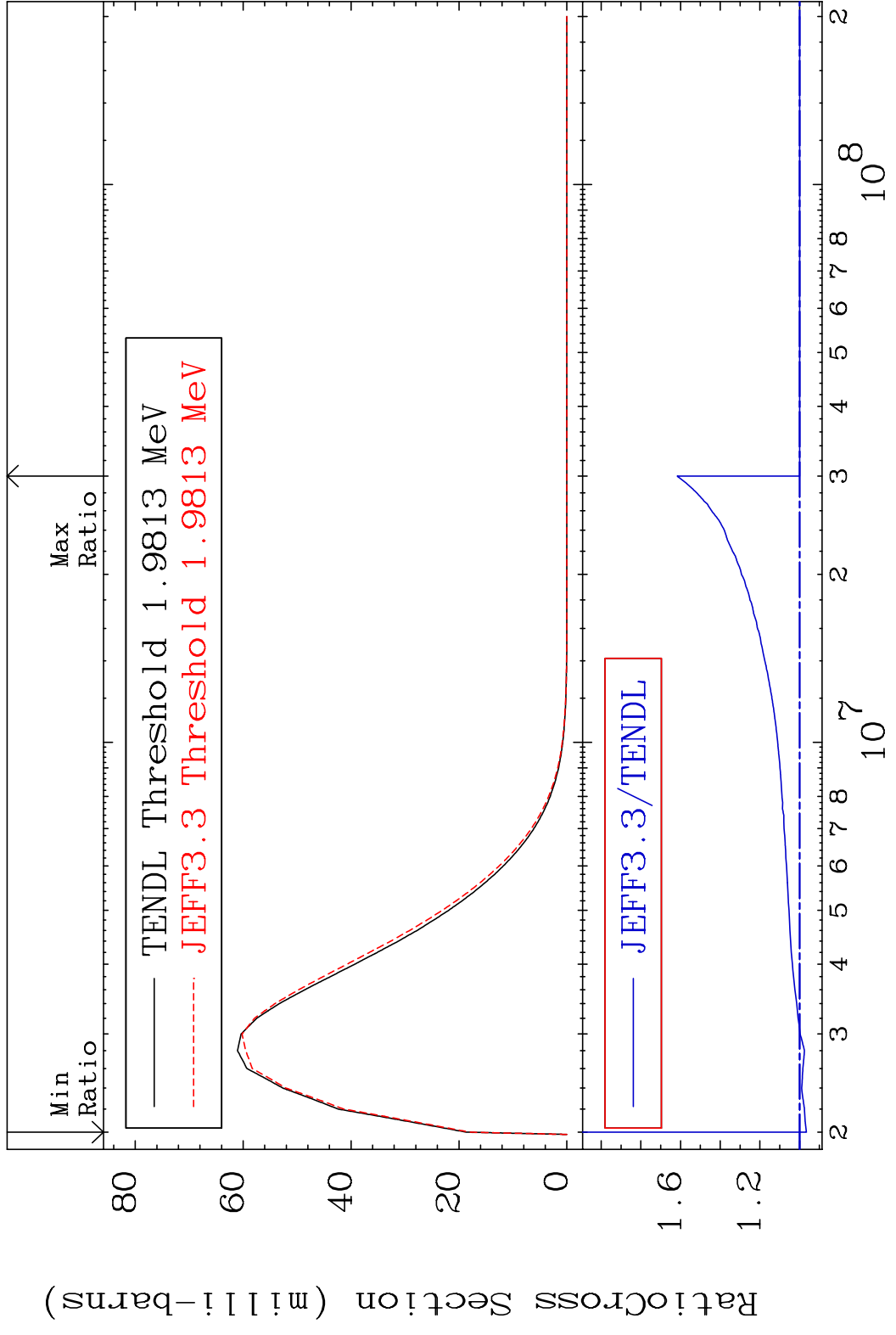
MAT 2828 MT= 61 (n, n') Level 28-Ni-59
 Cross Section -15.45 To 98.75 %



MAT 2828 MT= 62 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 61.73 %

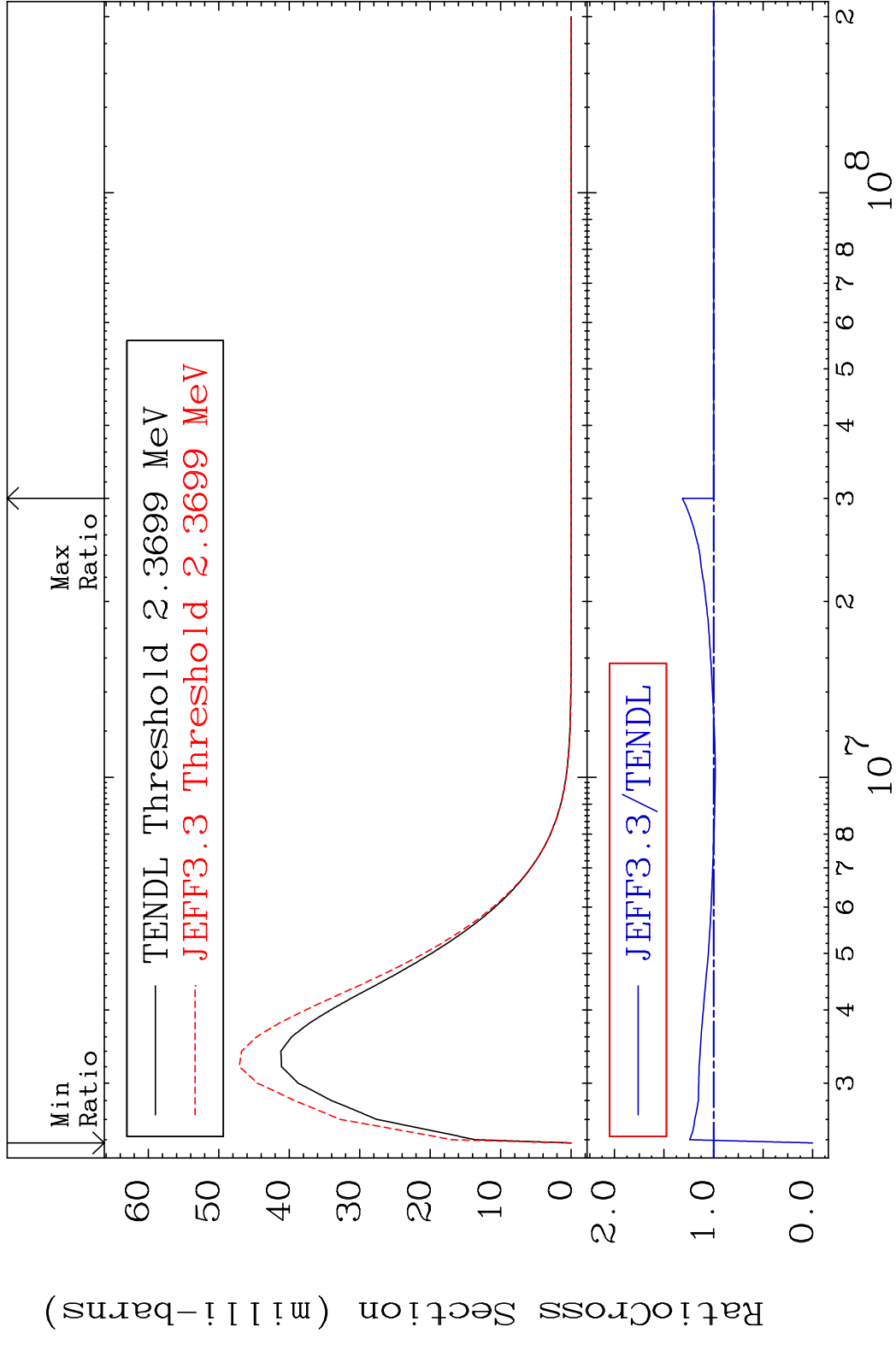


MAT 2828 MT= 63 (n, n') Level 28-Ni-59
 Cross Section -3.435 To 61.70 %

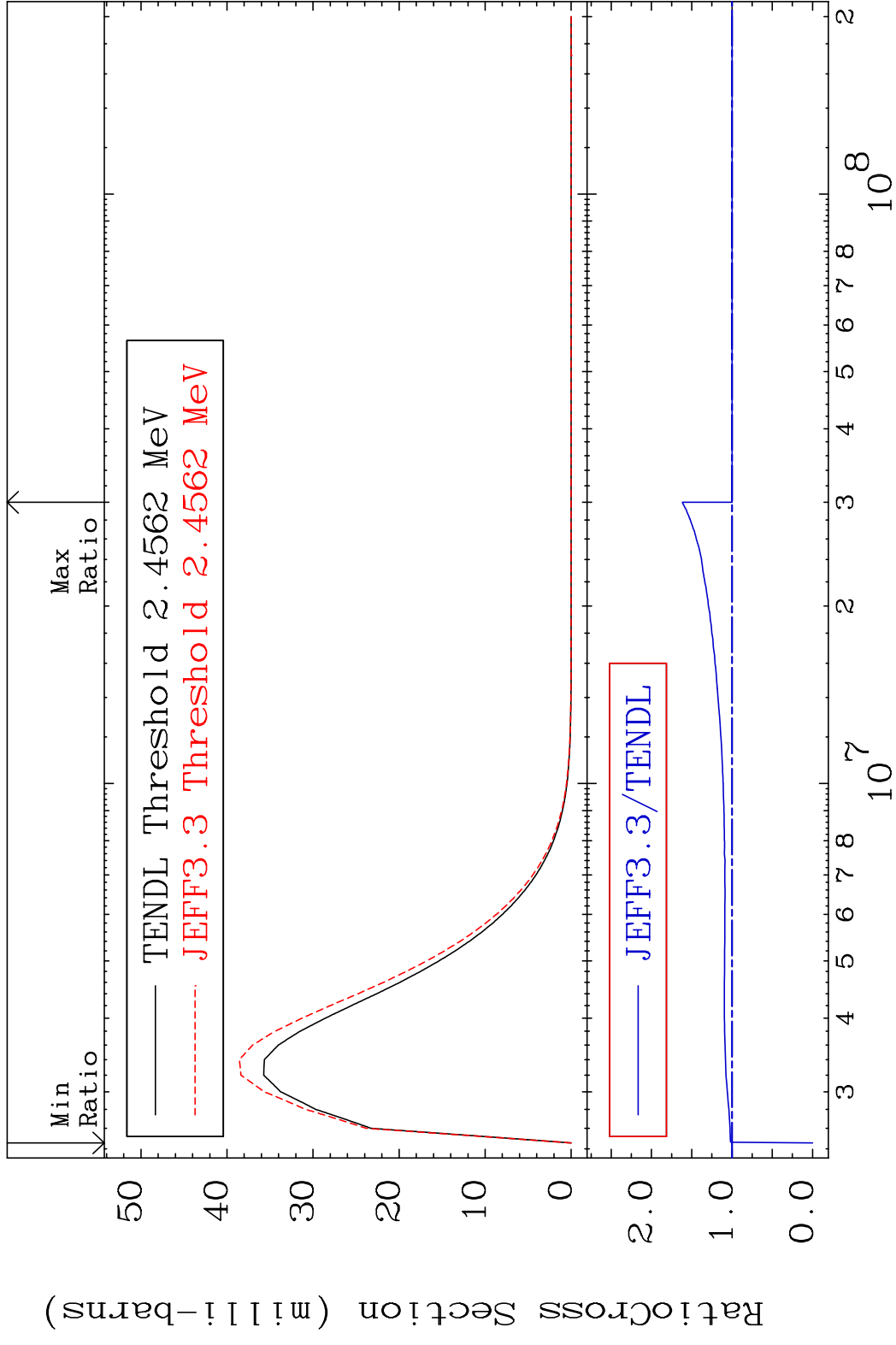


29 Incident Energy (eV) 28-Ni-59

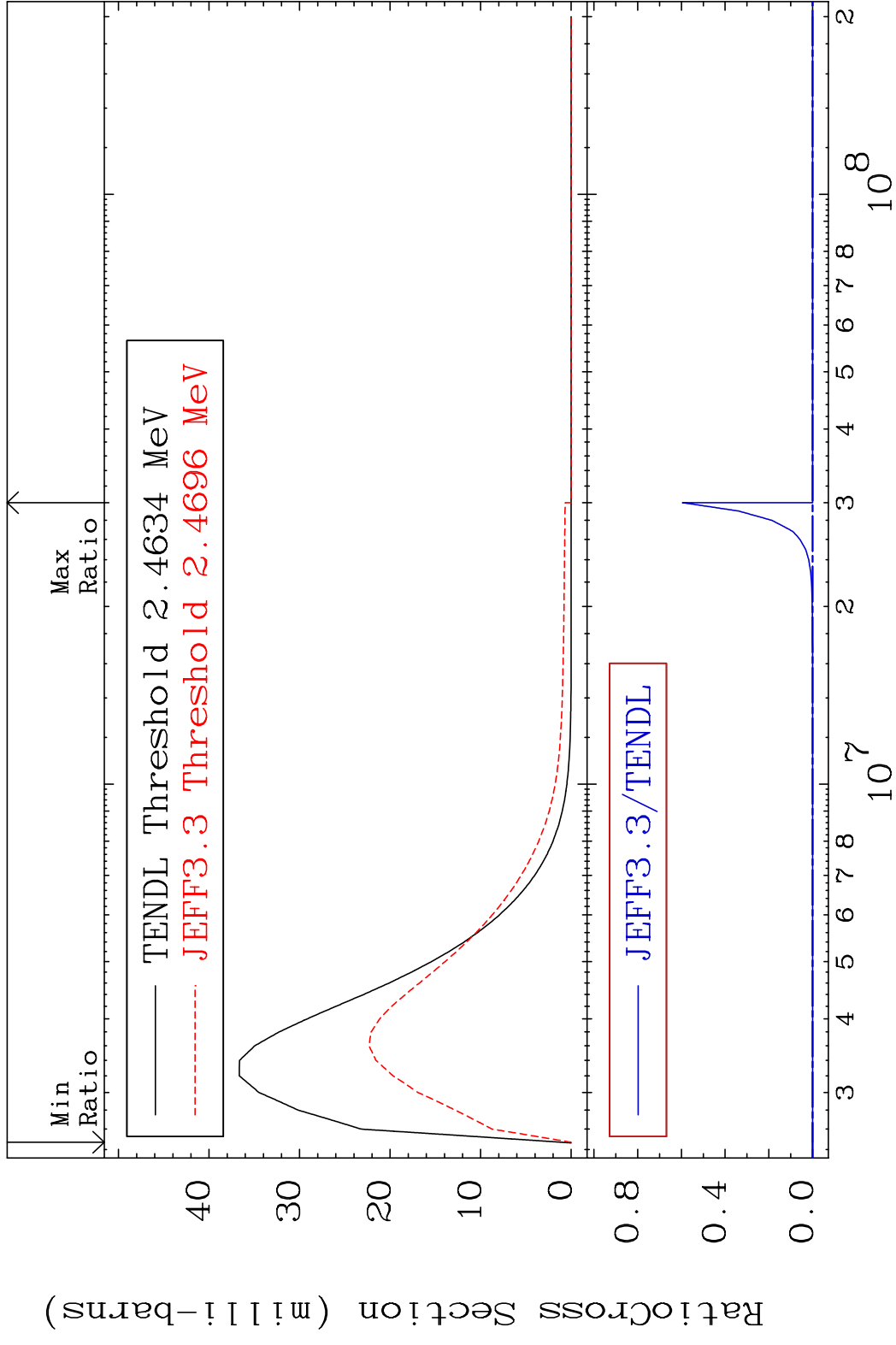
MAT 2828 MT= 64 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 31.49 %



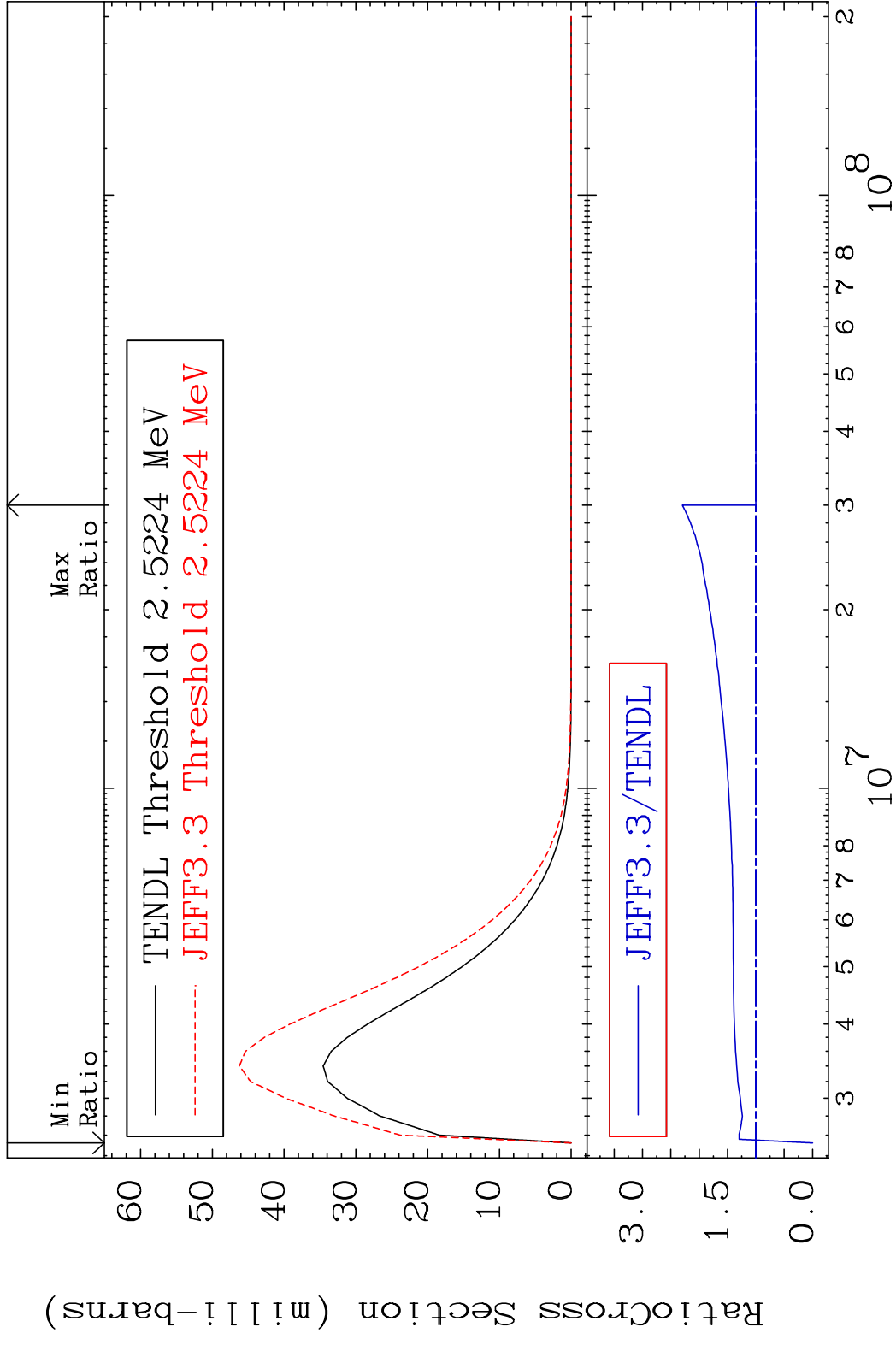
MAT 2828 MT= 65 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 61.66 %



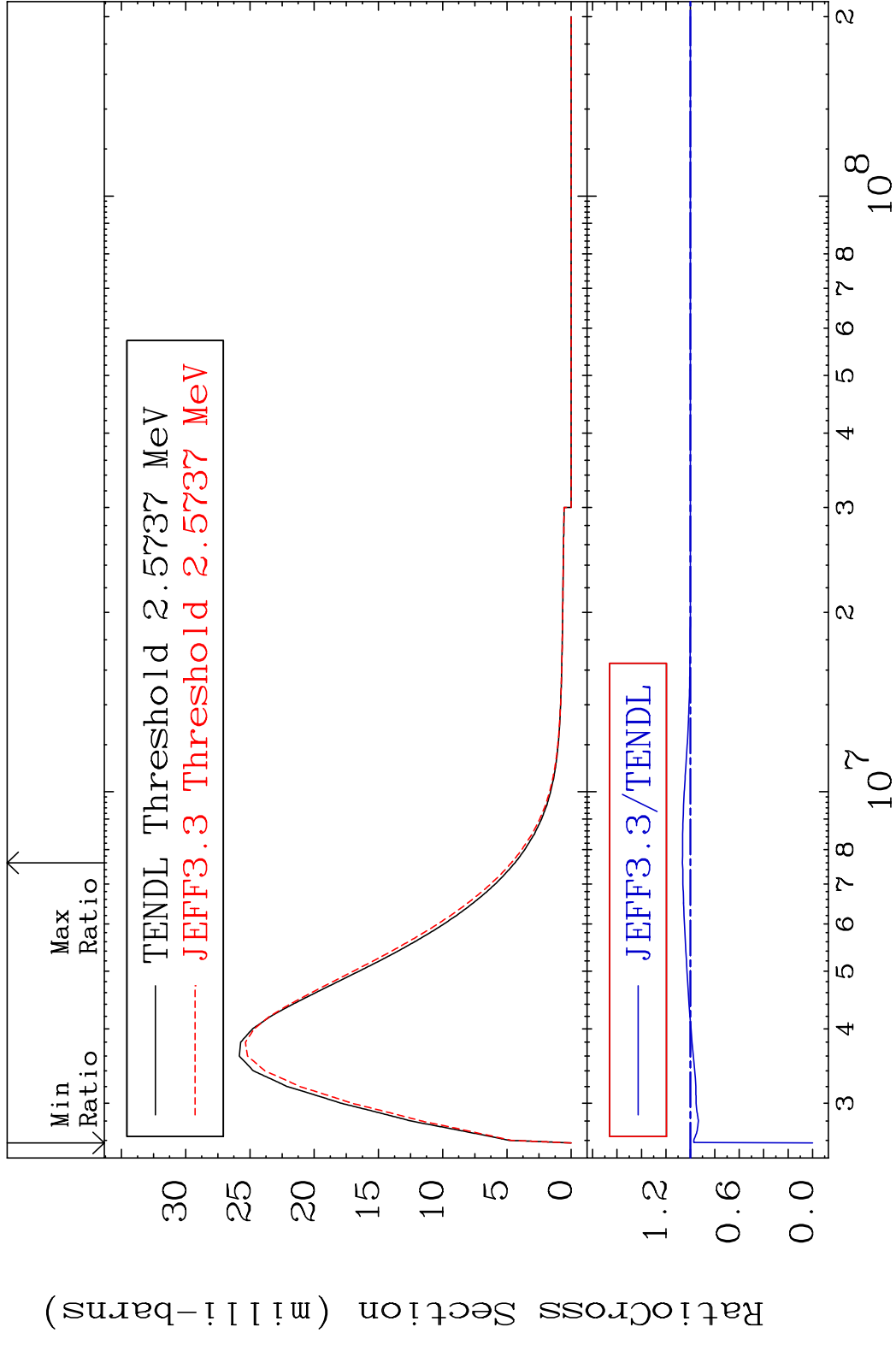
MAT 2828 MT= 66 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 9999. %



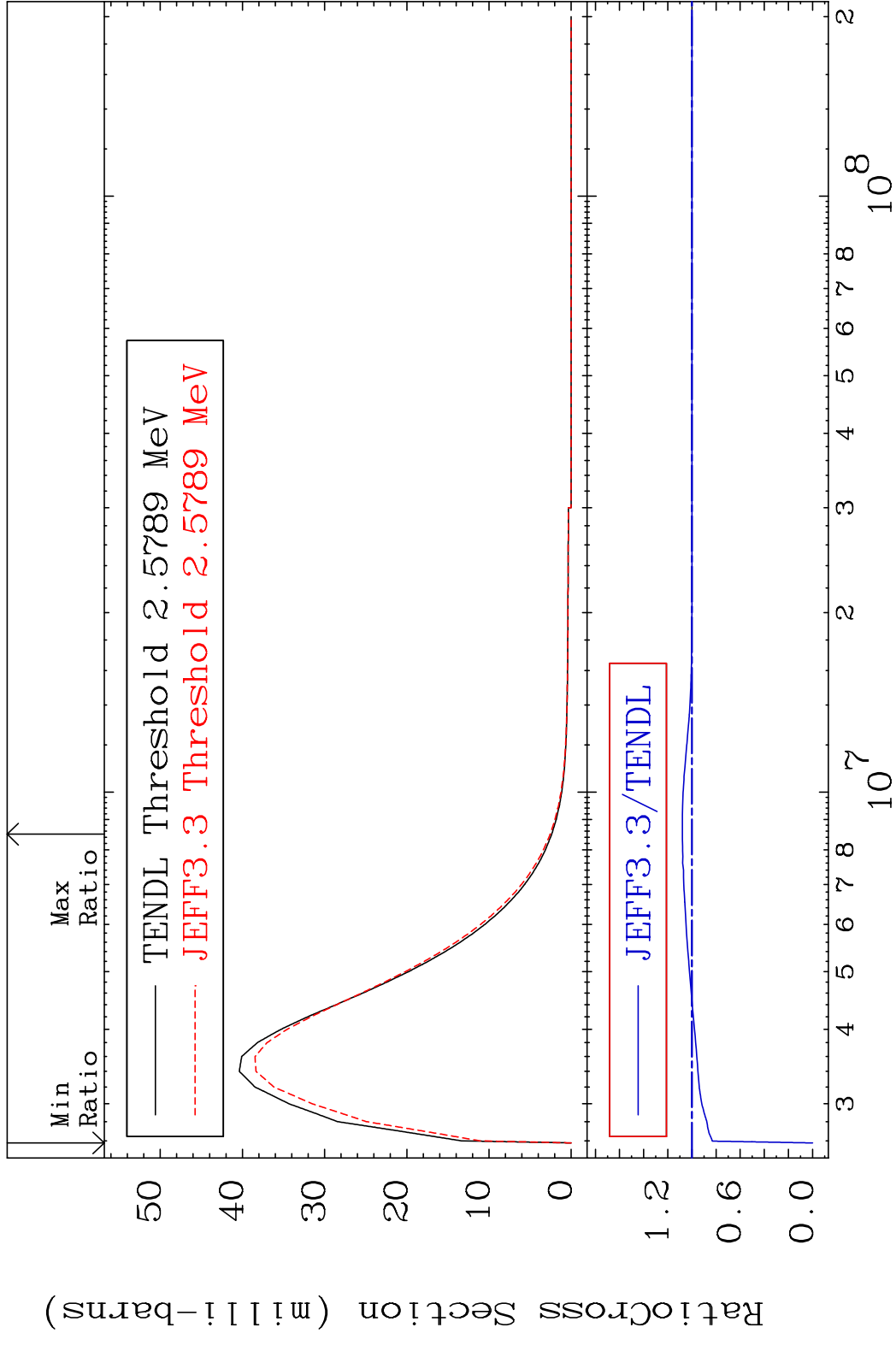
MAT 2828 MT= 67 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 129.7 %



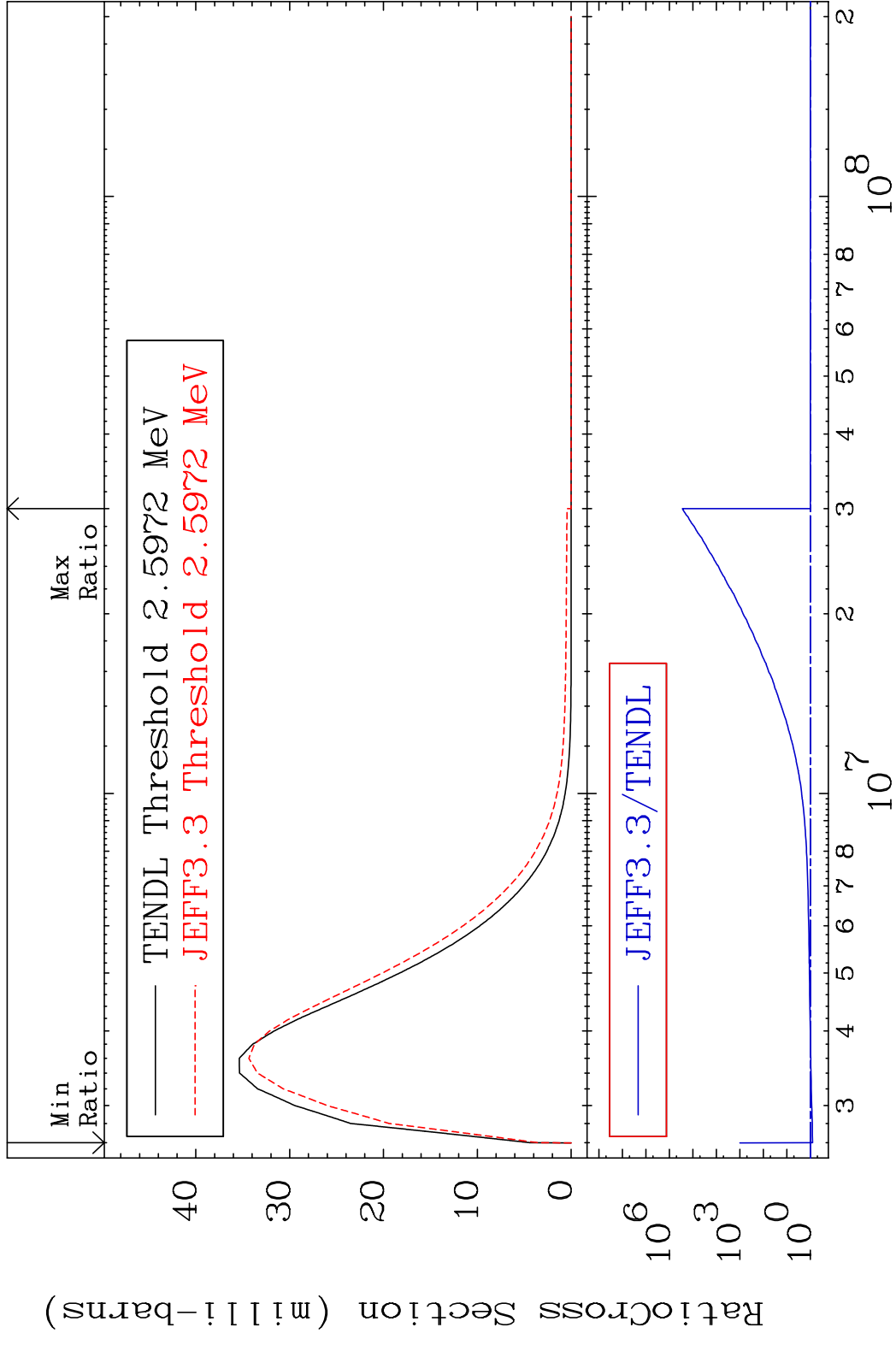
MAT 2828 MT= 68 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 6.539 %



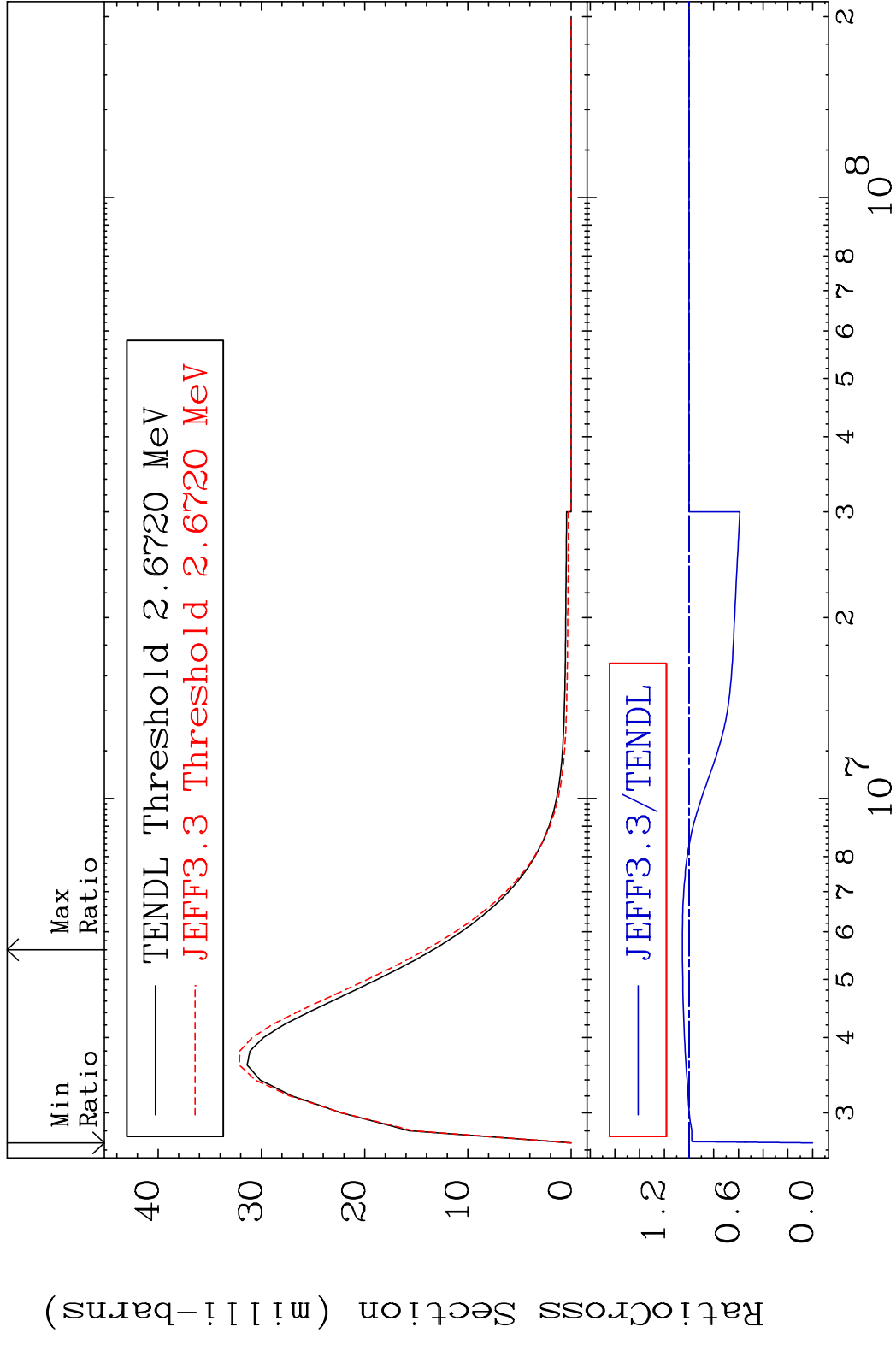
MAT 2828 MT= 69 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 7.937 %



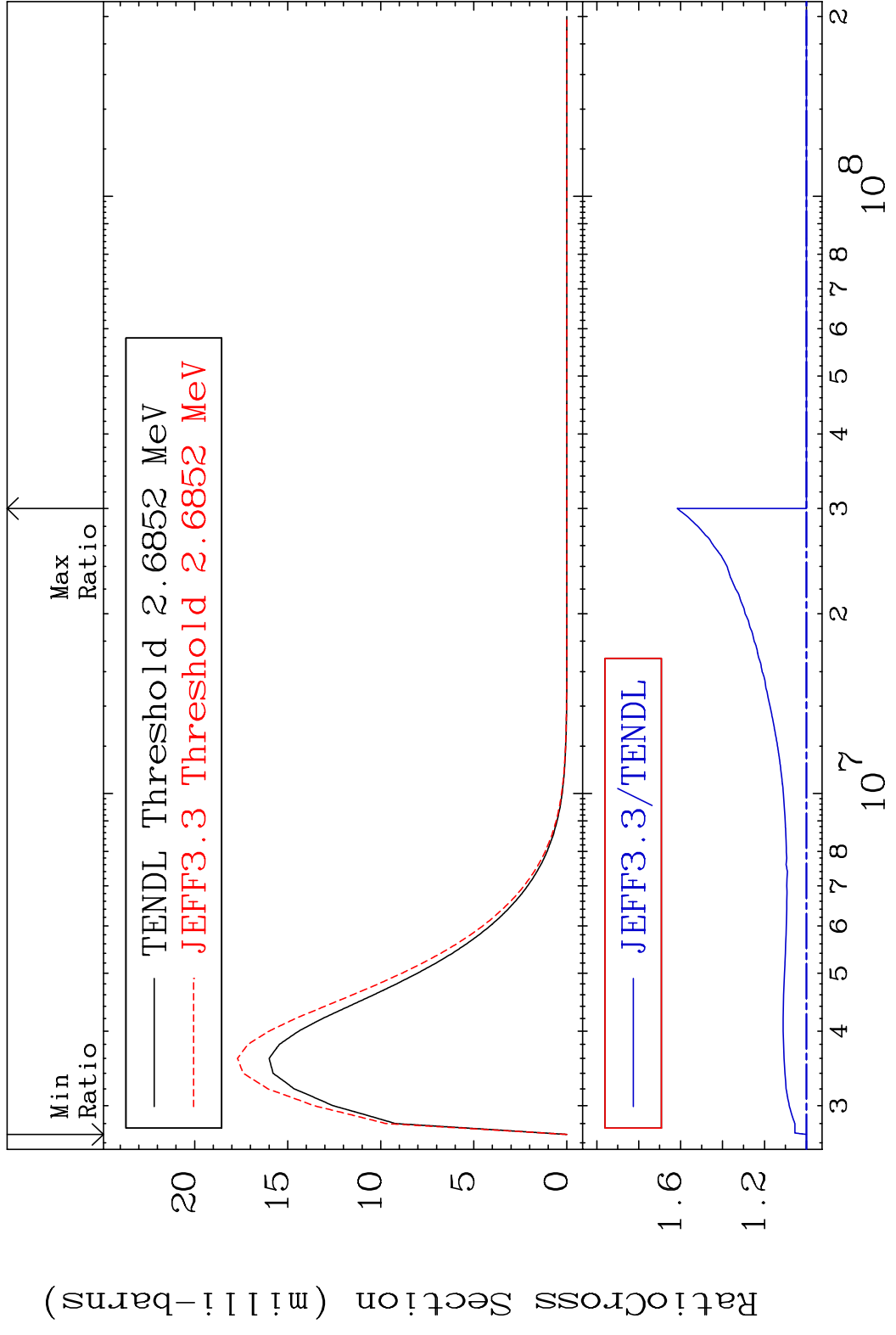
MAT 2828 MT= 70 (n, n') Level 28-Ni-59
 Cross Section -18.86 To 9999. %



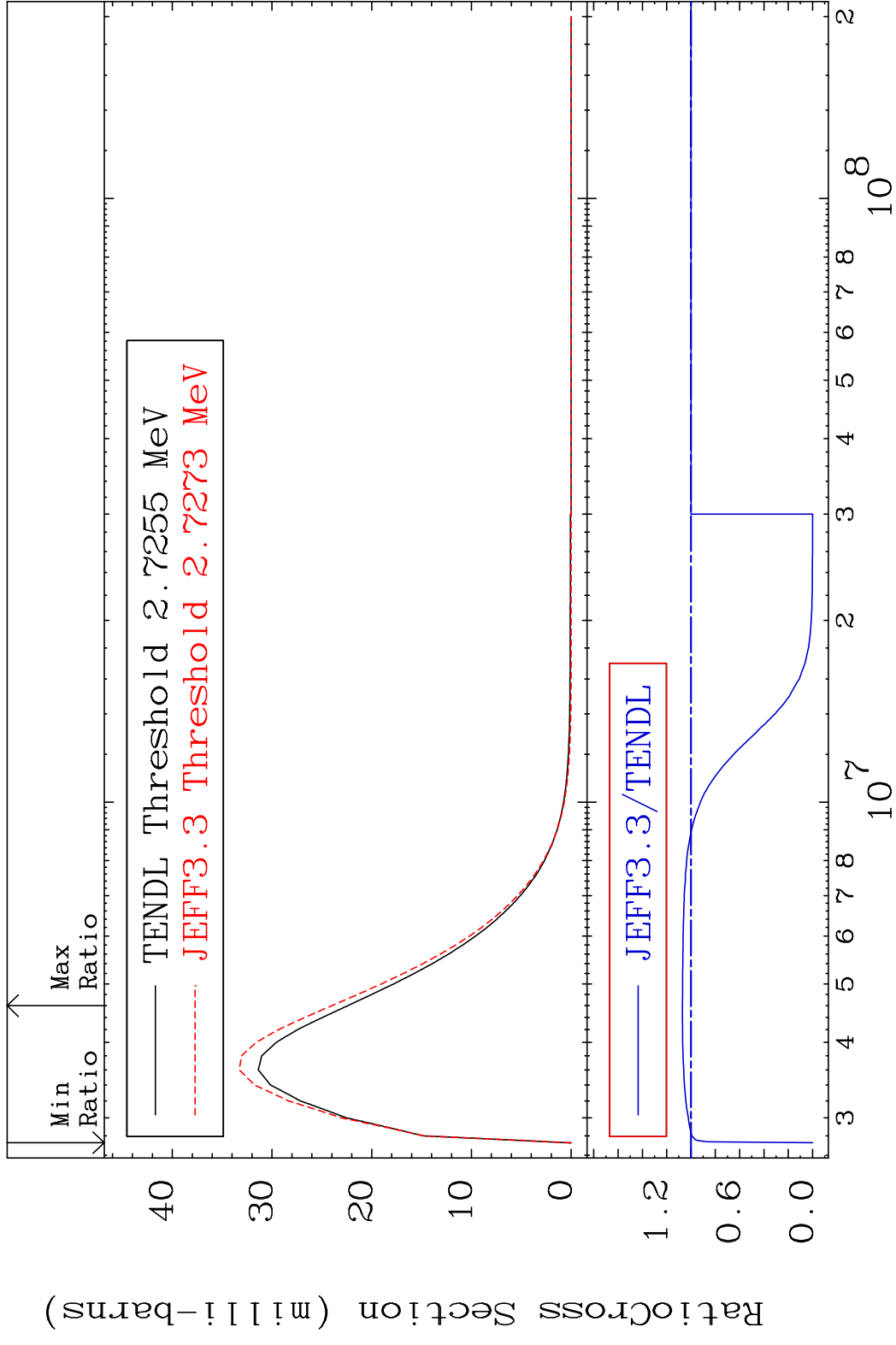
MAT 2828 MT= 71 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 5.399 %



MAT 2828 MT= 72 (n, n') Level 28-Ni-59
 Cross Section 0.000 To 61.64 %



MAT 2828 MT= 73 (n, n') Level 28-Ni-59
 Cross Section -100.0 To 7.119 %

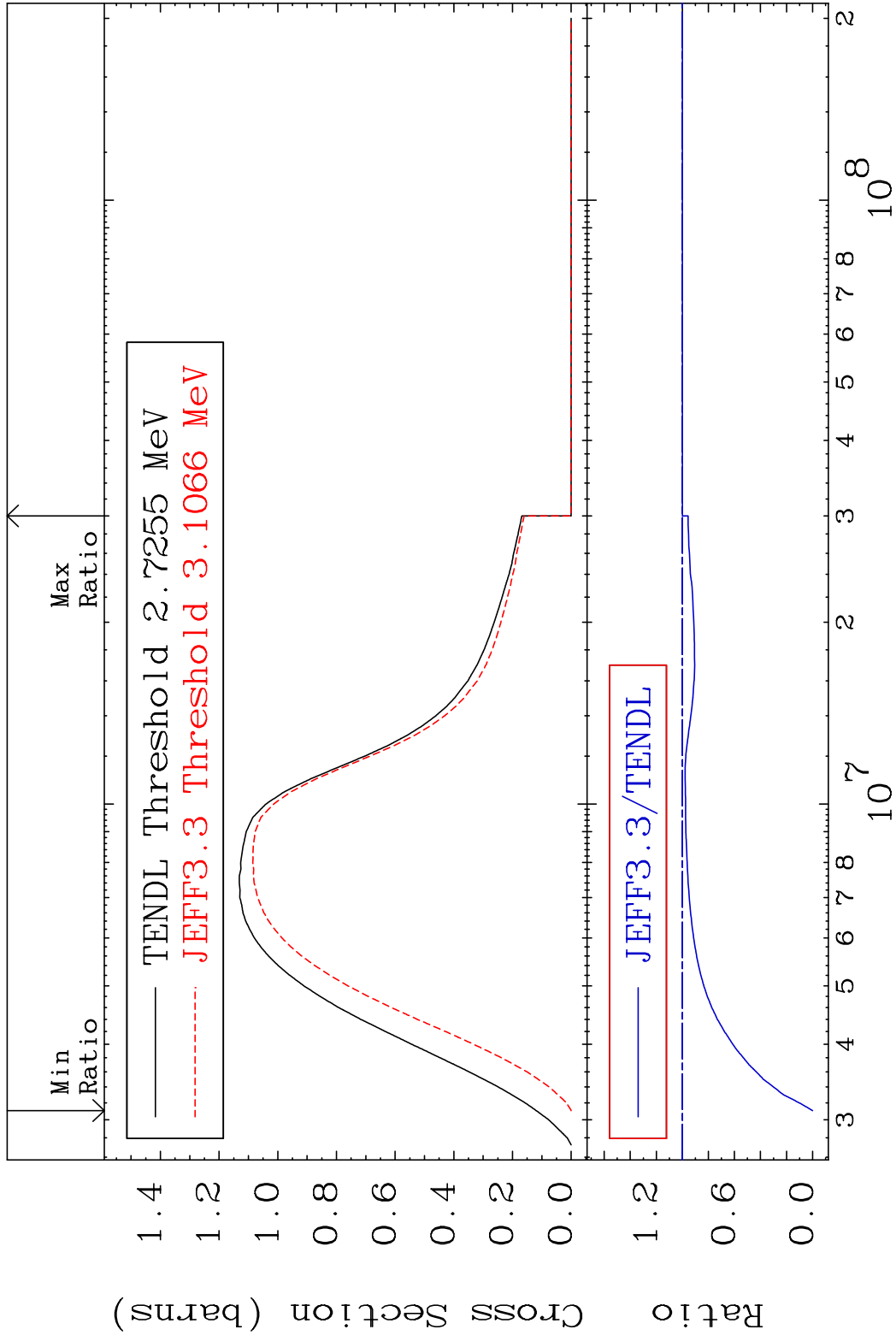


MAT 2828

(n, n') Continuum

28-Ni-59

Cross Section -100.0 To 0.000 %



40

Incident Energy (eV)

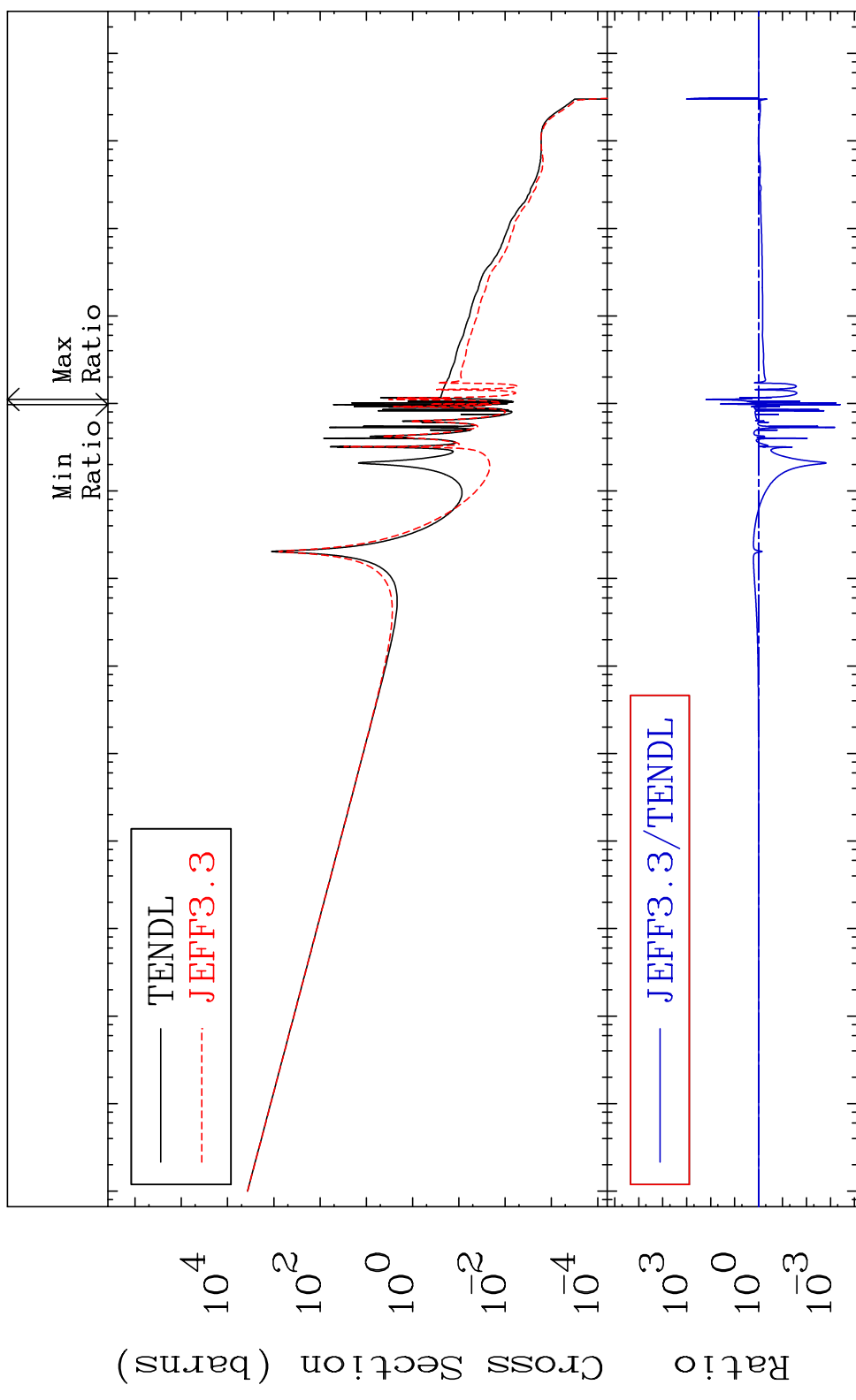
28-Ni-59

MAT 2828

(n, γ)

28-Ni-59

Cross Section -99.96 To 9999. %



41

Incident Energy (eV)

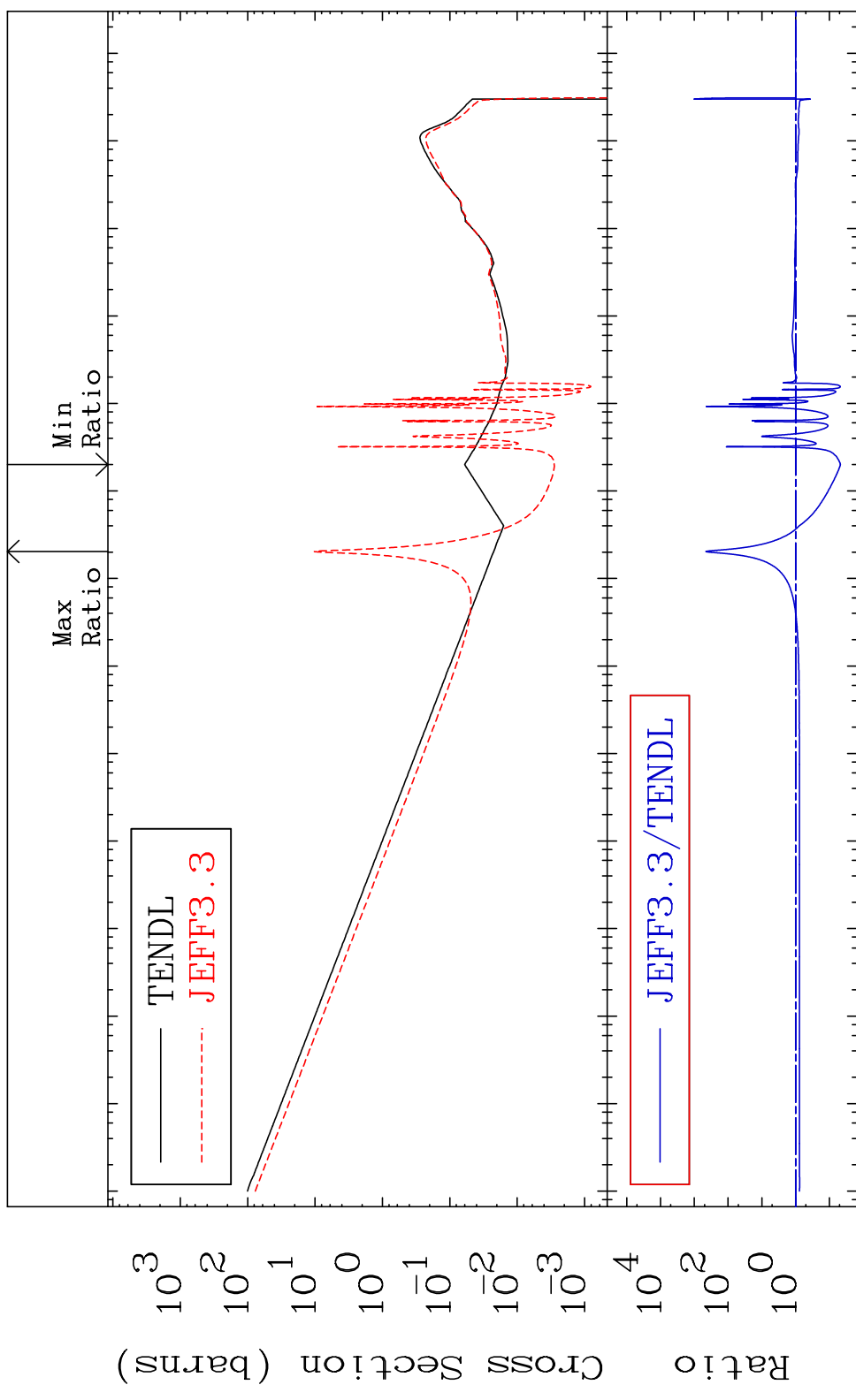
28-Ni-59

MAT 2828

(n, p)

28-Ni-59

Cross Section -95.31 To 9999. %



Incident Energy (eV)

42

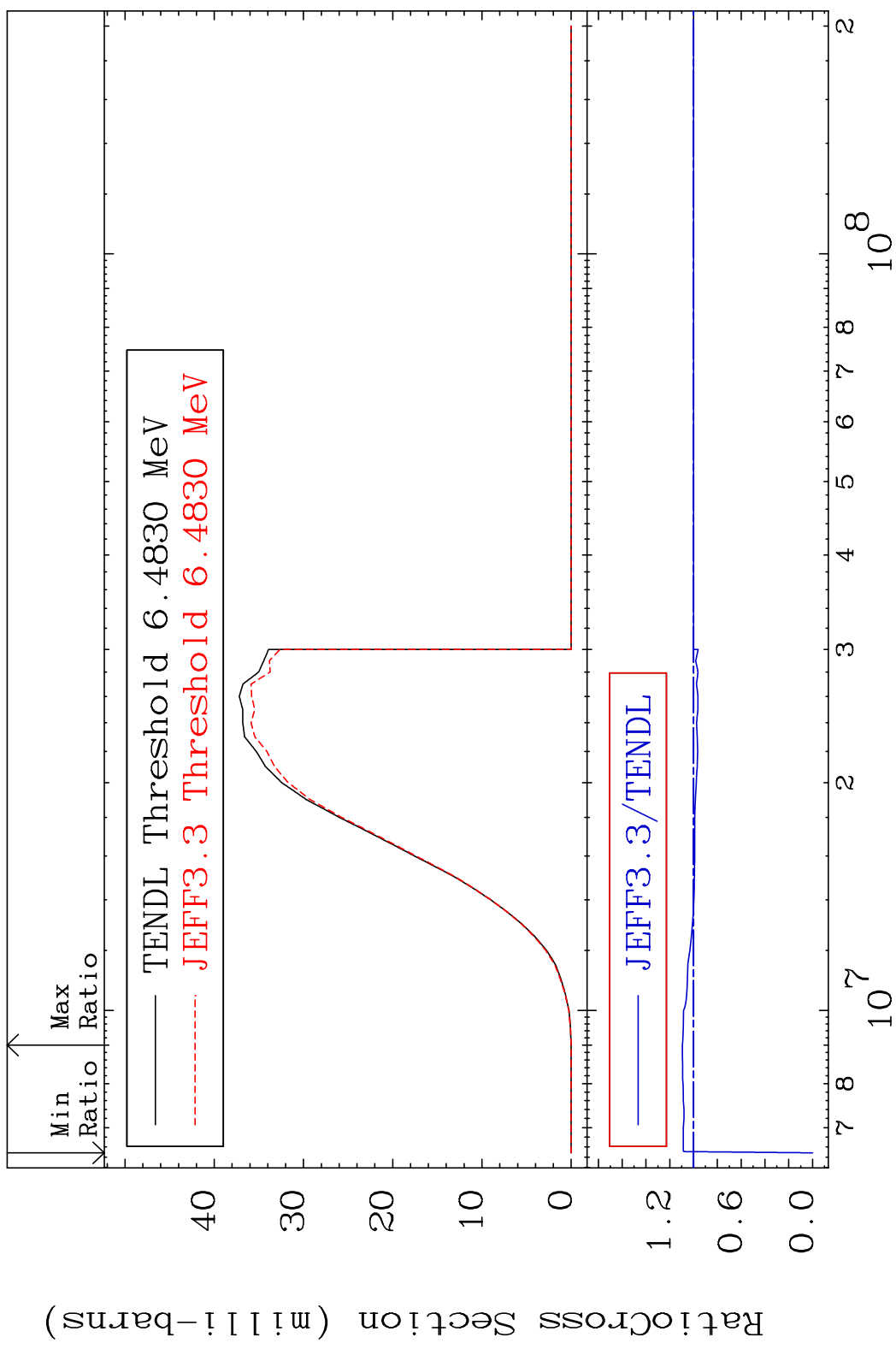
28-Ni-59

MAT 2828

(n, d)

28-Ni-59

Cross Section -100.0 To 9.434 %



43

Incident Energy (eV)

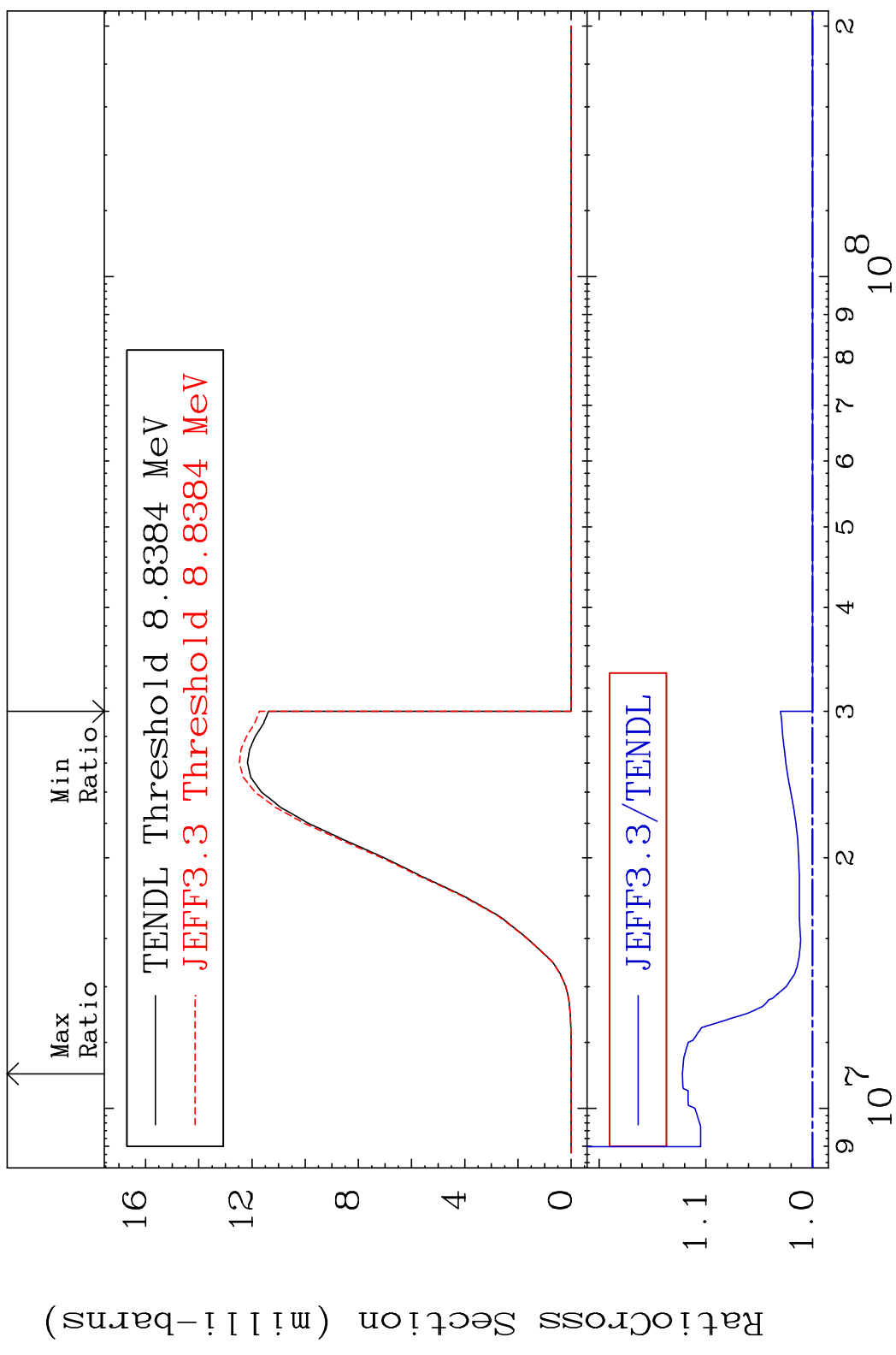
28-Ni-59

MAT 2828

(n, t)

28-Ni-59

Cross Section 0.000 To 12.21 %



44

Incident Energy (eV)

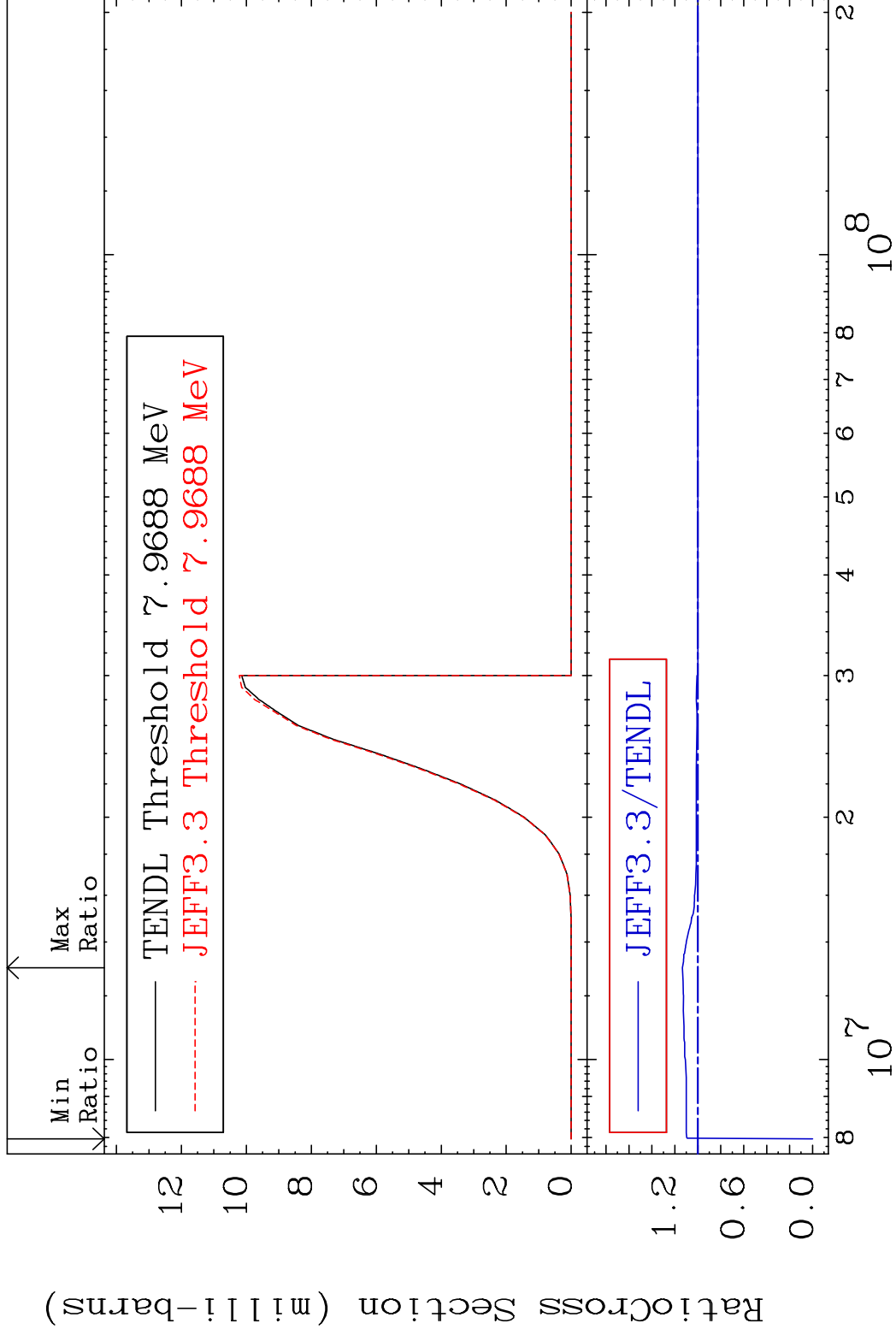
28-Ni-59

MAT 2828

(n, He-3)

28-Ni-59

Cross Section -100.0 To 13.47 %



45

Incident Energy (eV)

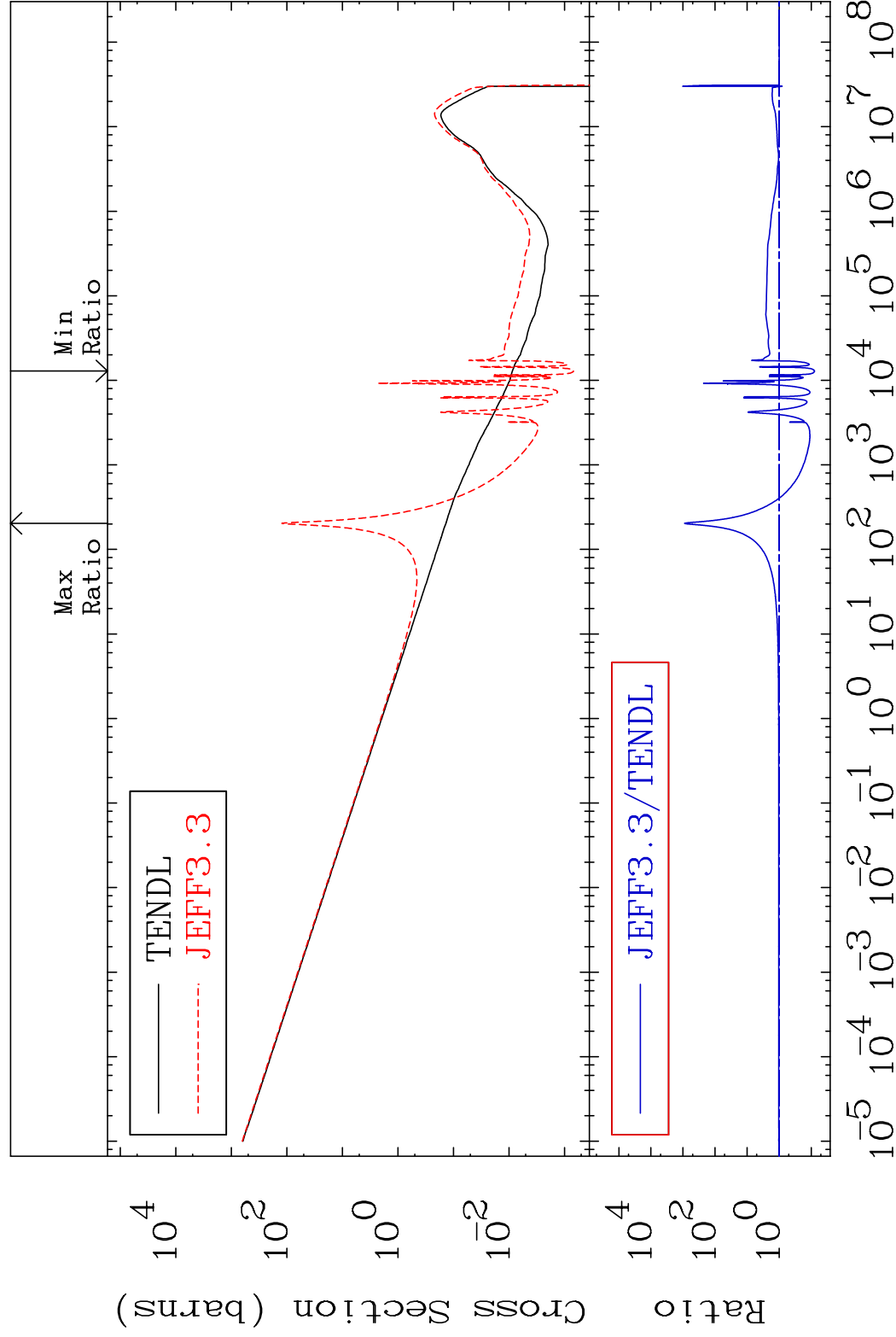
28-Ni-59

MAT 2828

(n, α)

28-Ni-59

Cross Section -92.07 To 9999. %

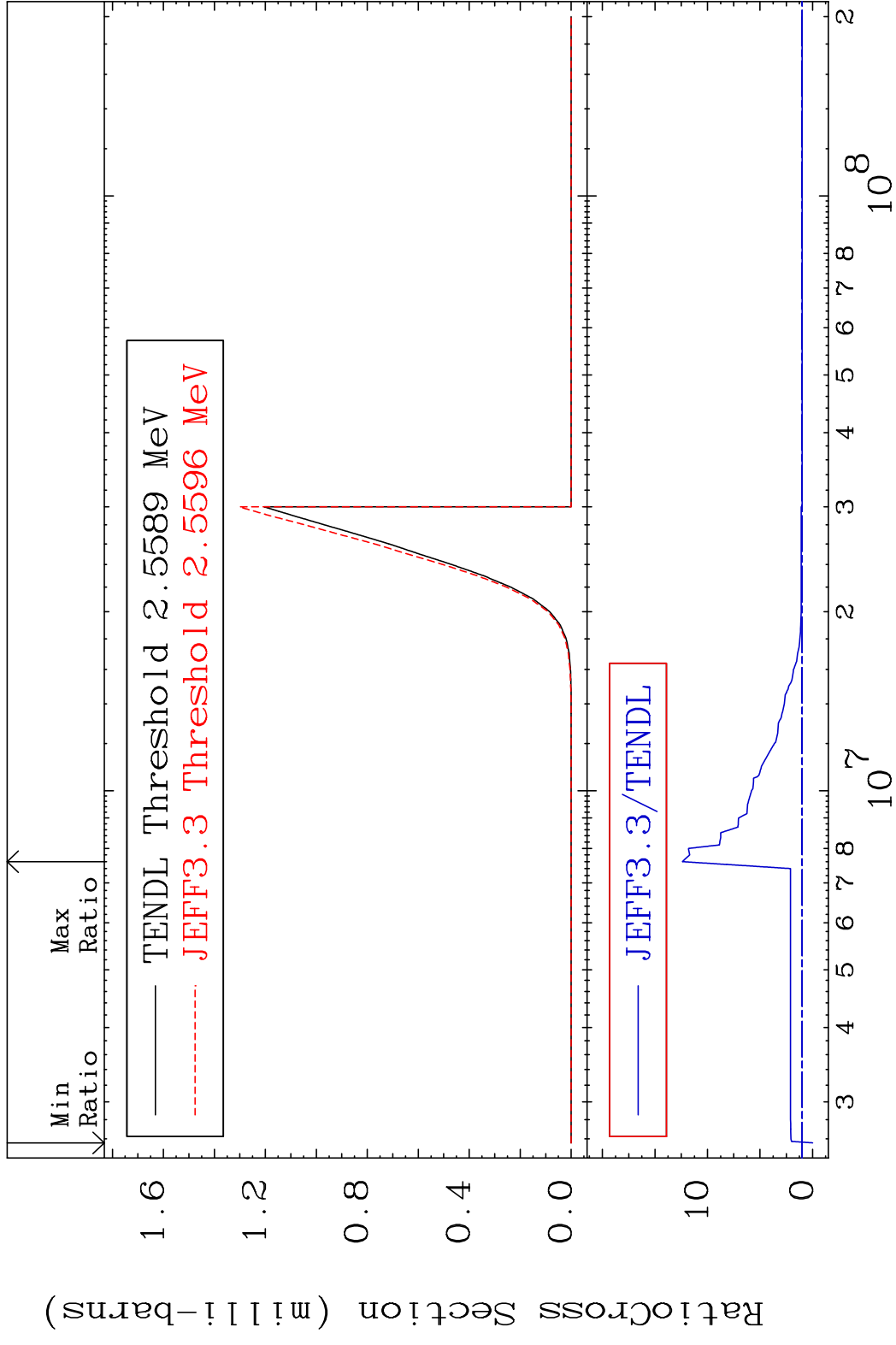


46

Incident Energy (eV)

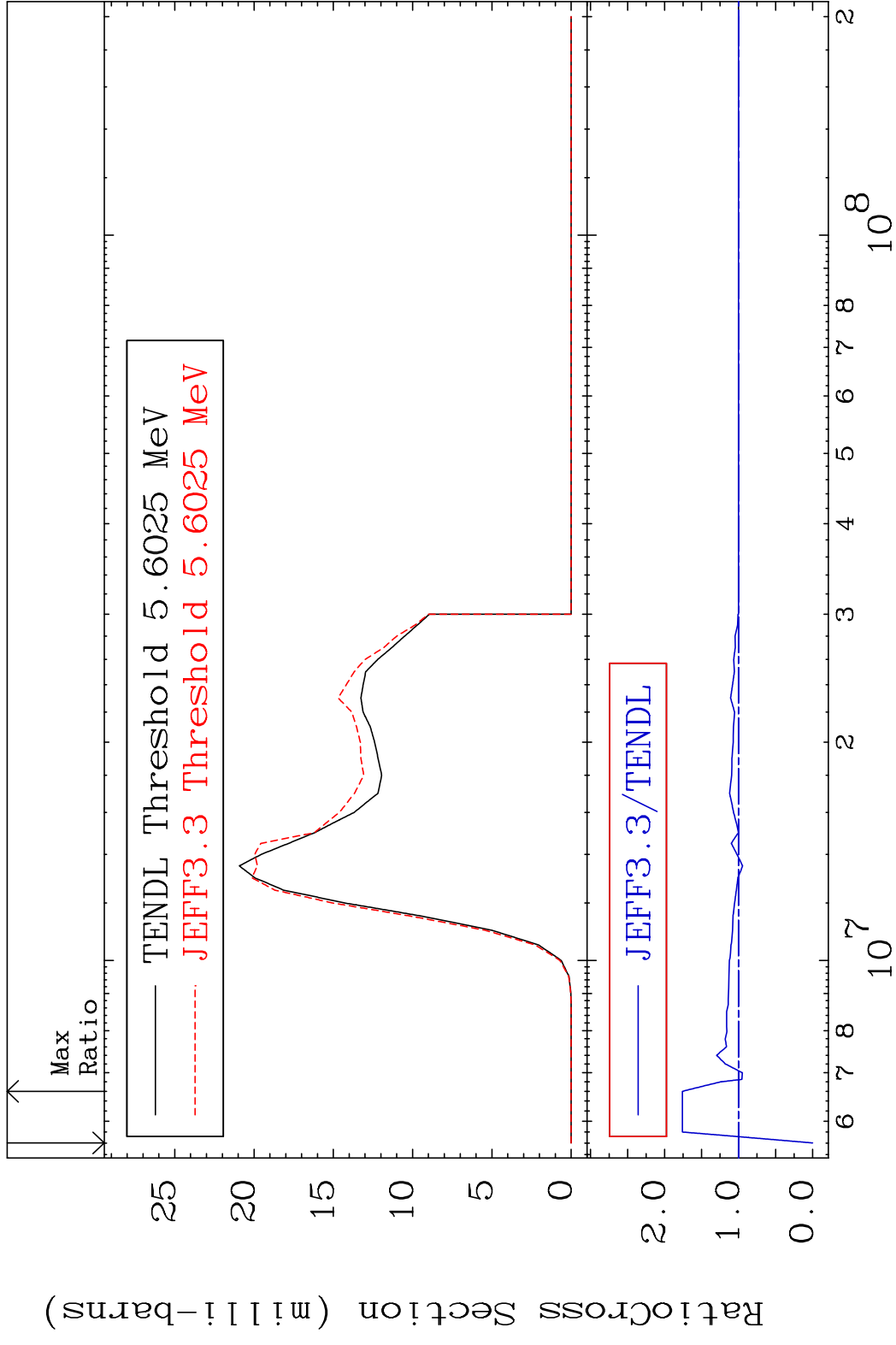
28-Ni-59

MAT 2828 (n,2α) 28-Ni-59
 Cross Section -100.0 To 1139. %

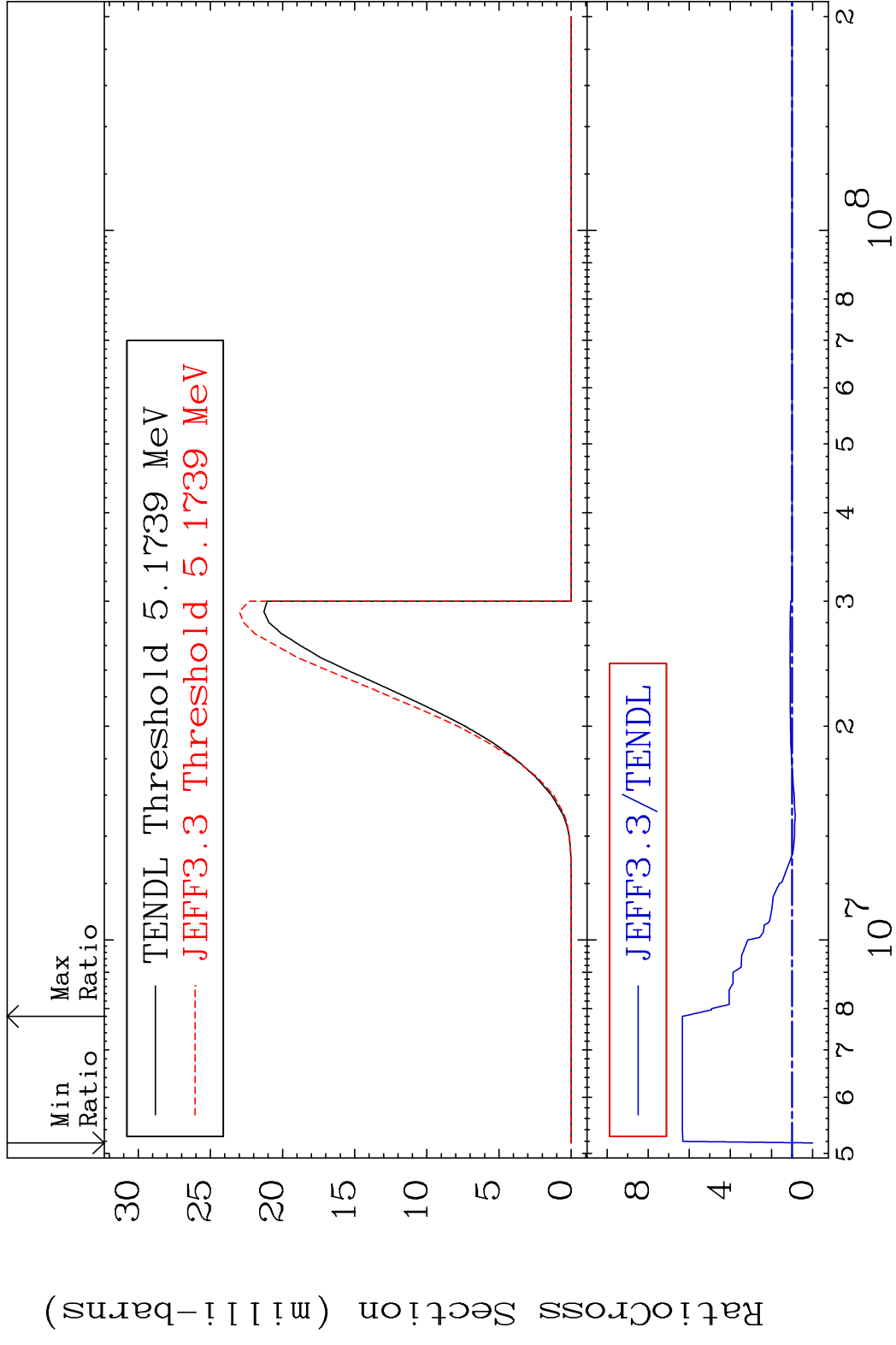


47 28-Ni-59

MAT 2828 (n,2p) 28-Ni-59
 Cross Section -100.0 To 75.97 %



MAT 2828 (n,p) α $^{28}\text{Ni-59}$
 Cross Section -100.0 To 533.6 %

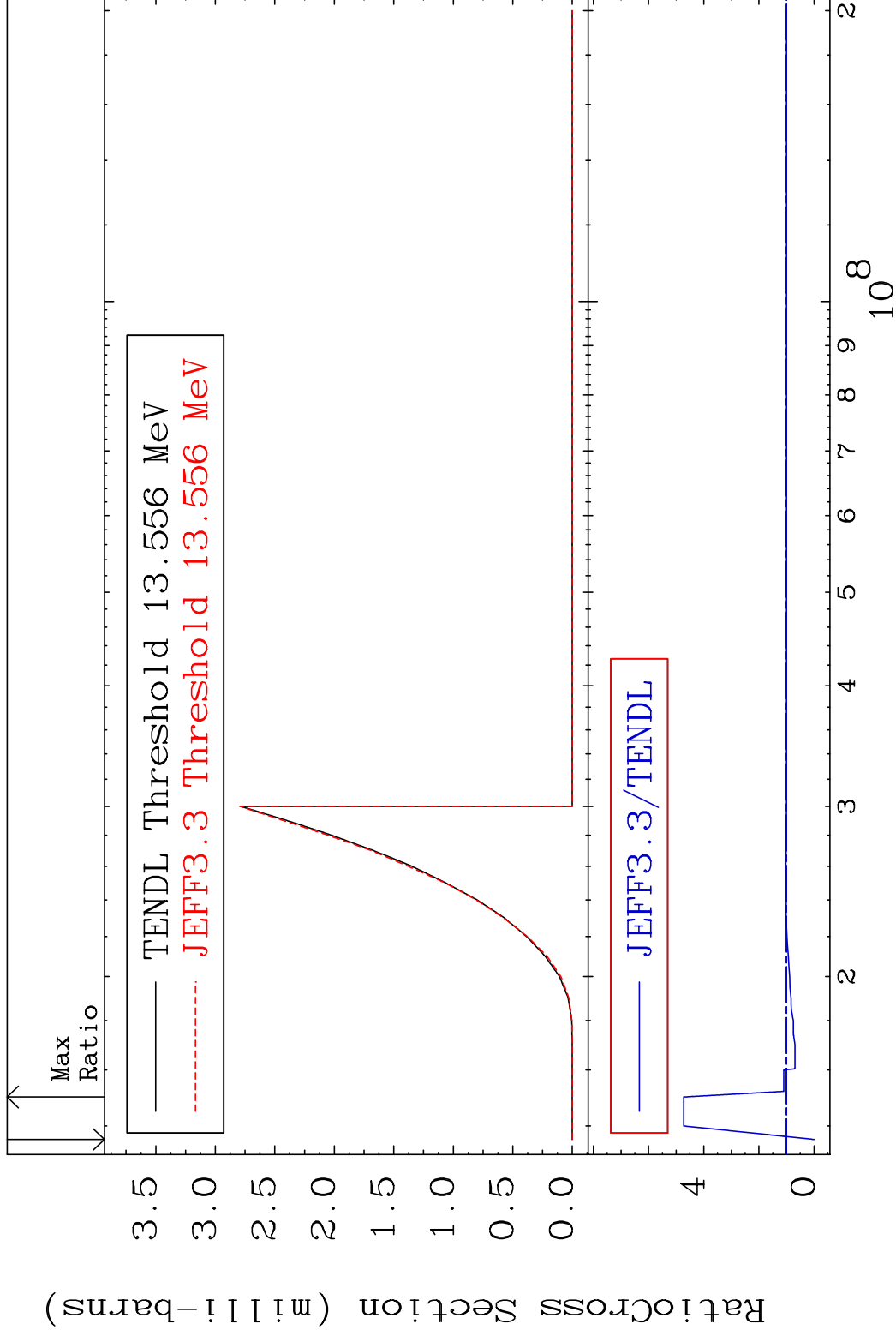


MAT 2828

(n,p) d

28-Ni-59

Cross Section -100.0 To 372.9 %

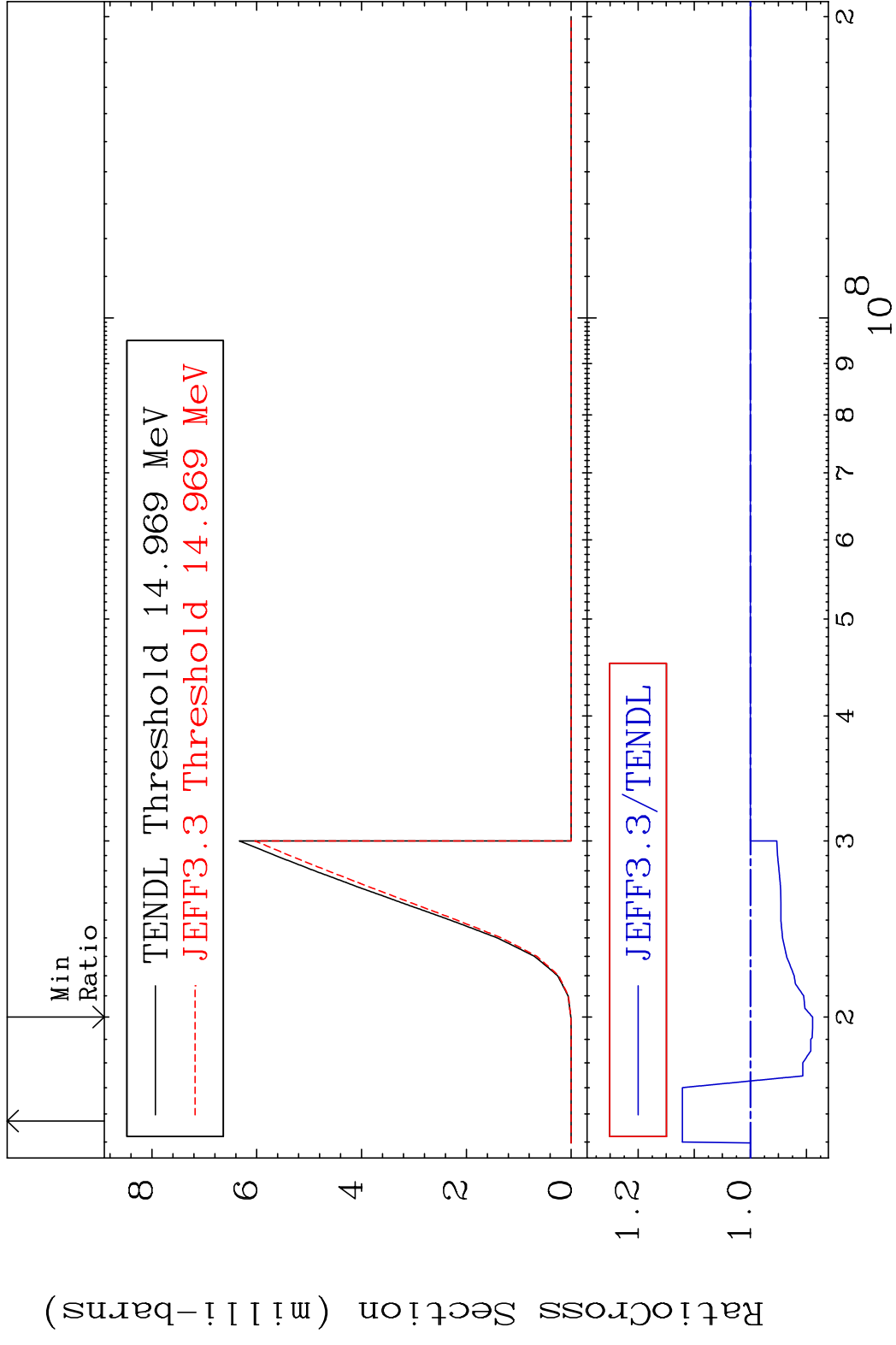


50

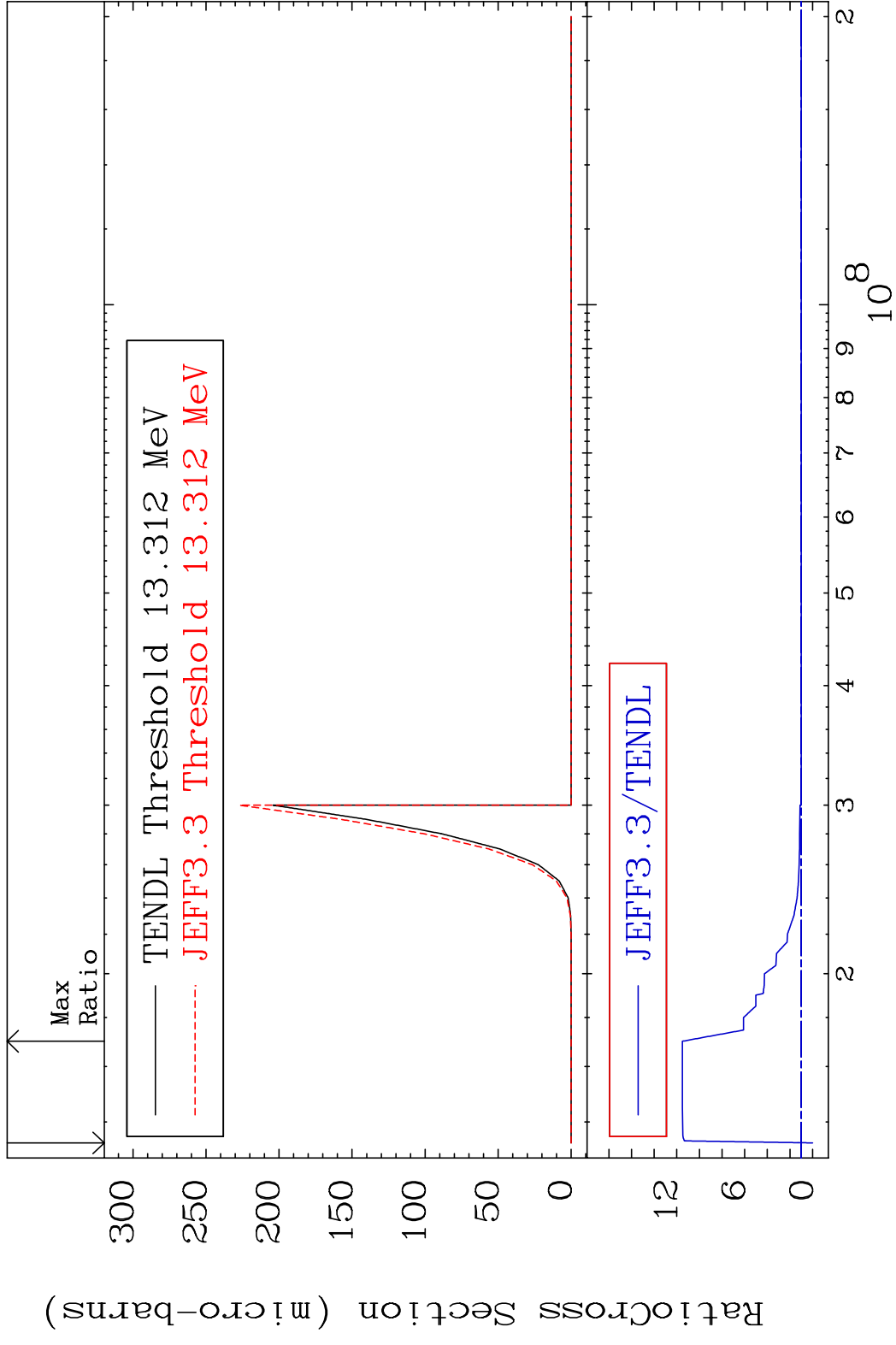
Incident Energy (eV)

28-Ni-59

MAT 2828 (n,p) t 28-Ni-59
 Cross Section -11.08 To 12.13 %



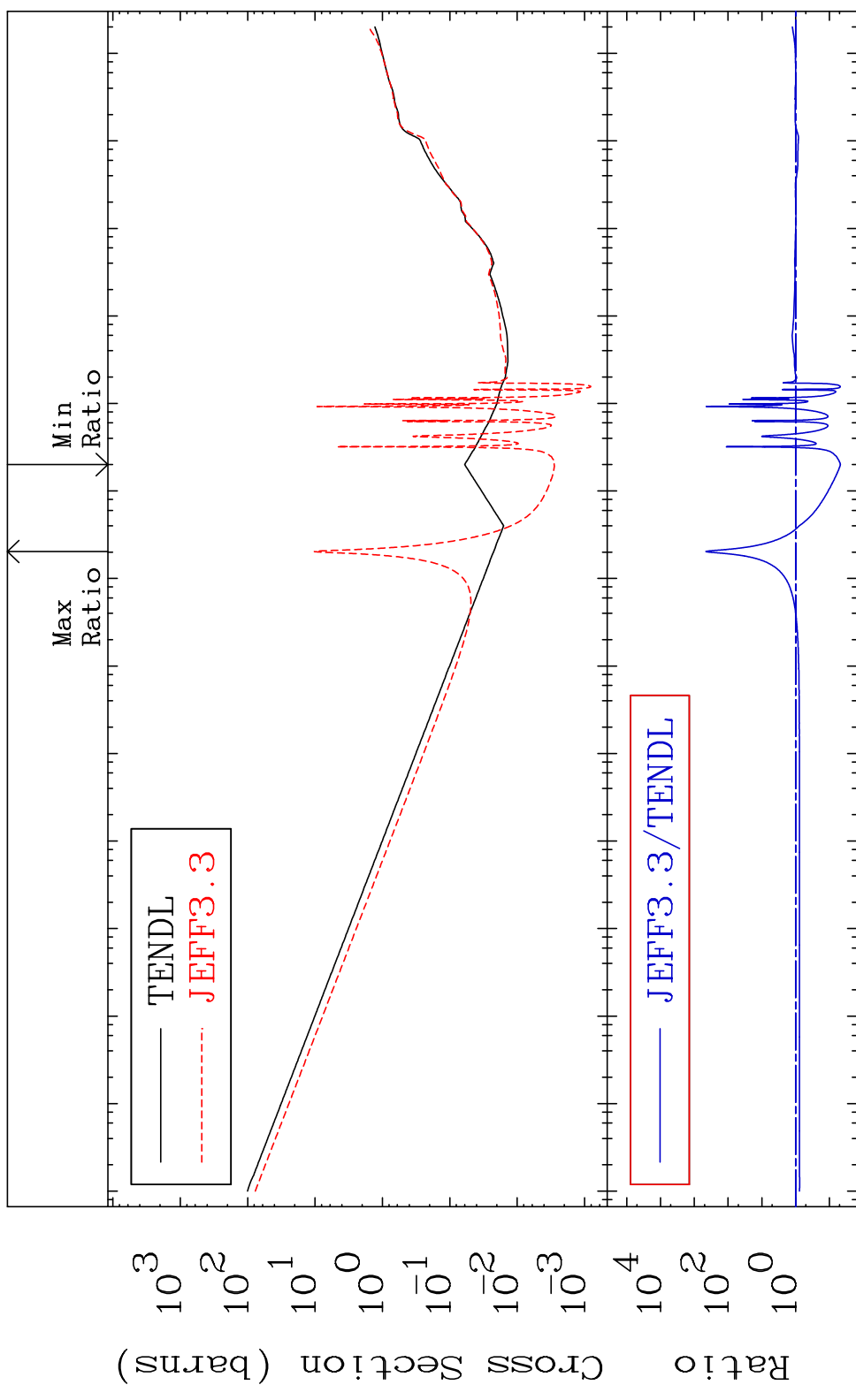
MAT 2828 (n,d) α 28-Ni-59
 Cross Section -100.0 To 1051. %



MAT 2828

Hydrogen Production
Cross Section -95.31 To 9999. %

28-Ni-59

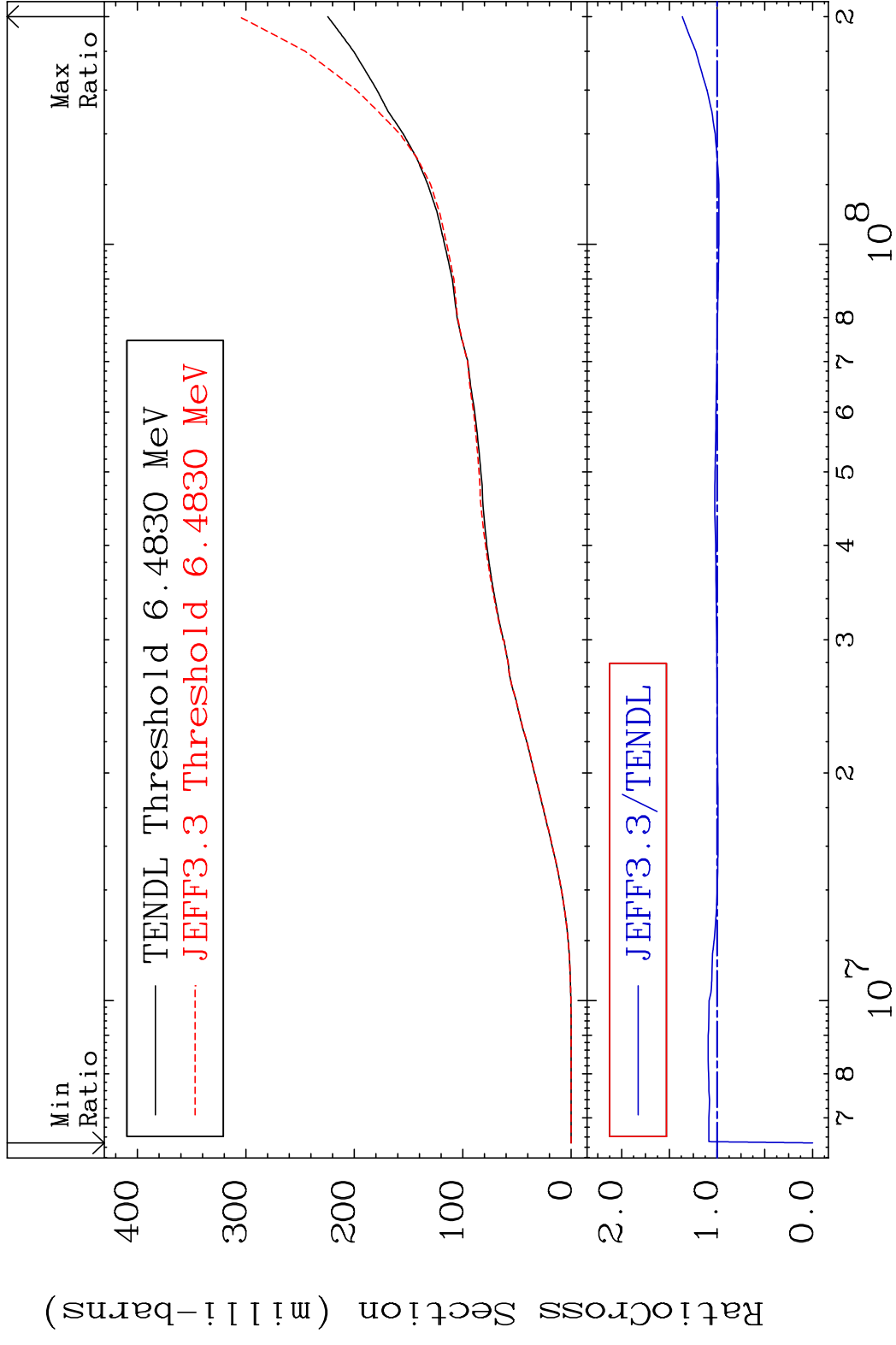


MAT 2828

Deuterium Production

²⁸Ni-59

Cross Section -100.0 To 36.39 %



54

Incident Energy (eV)

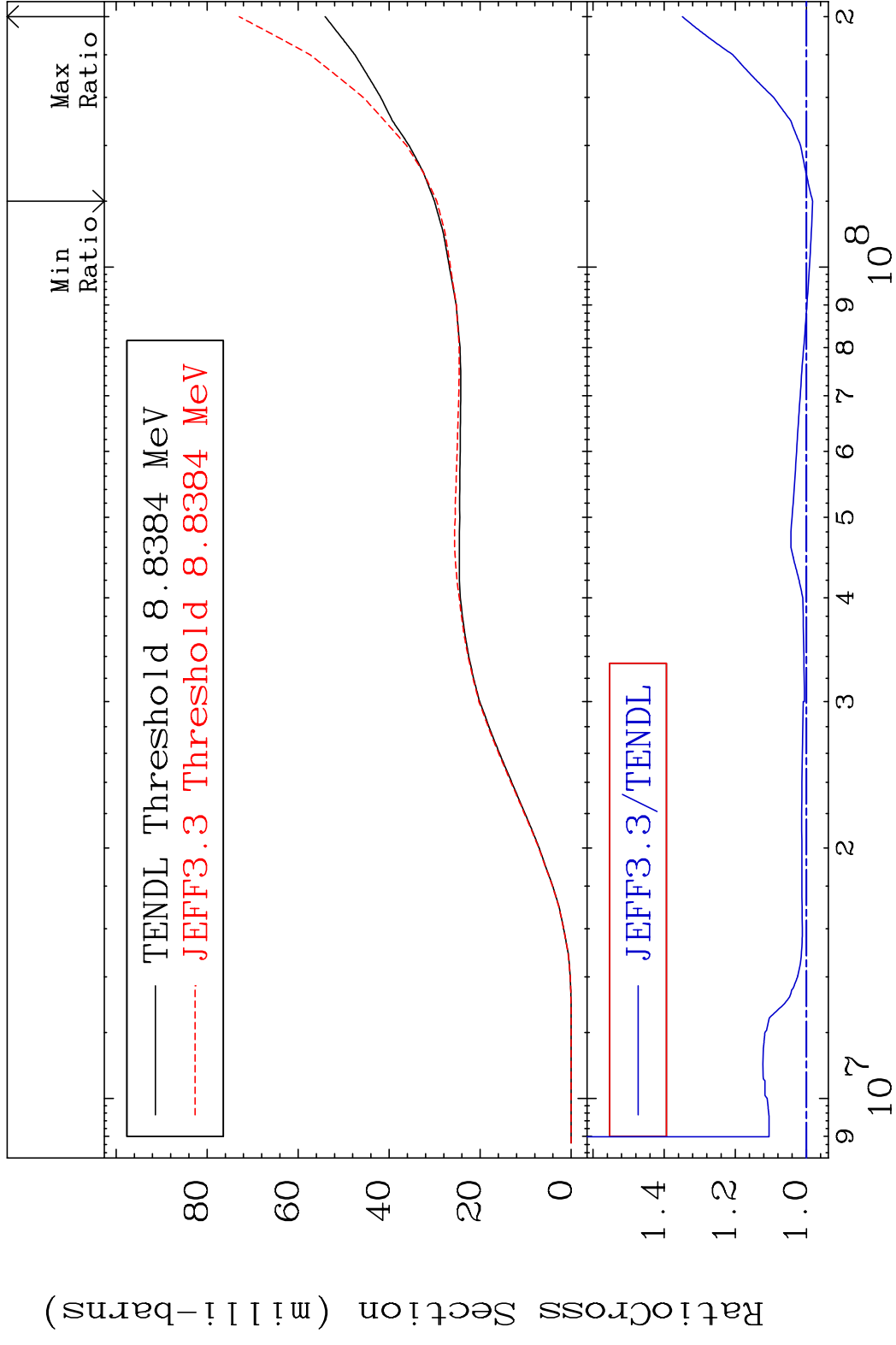
²⁸Ni-59

MAT 2828

Tritium Production

²⁸Ni-59

Cross Section -1.739 To 34.89 %



55

Incident Energy (eV)

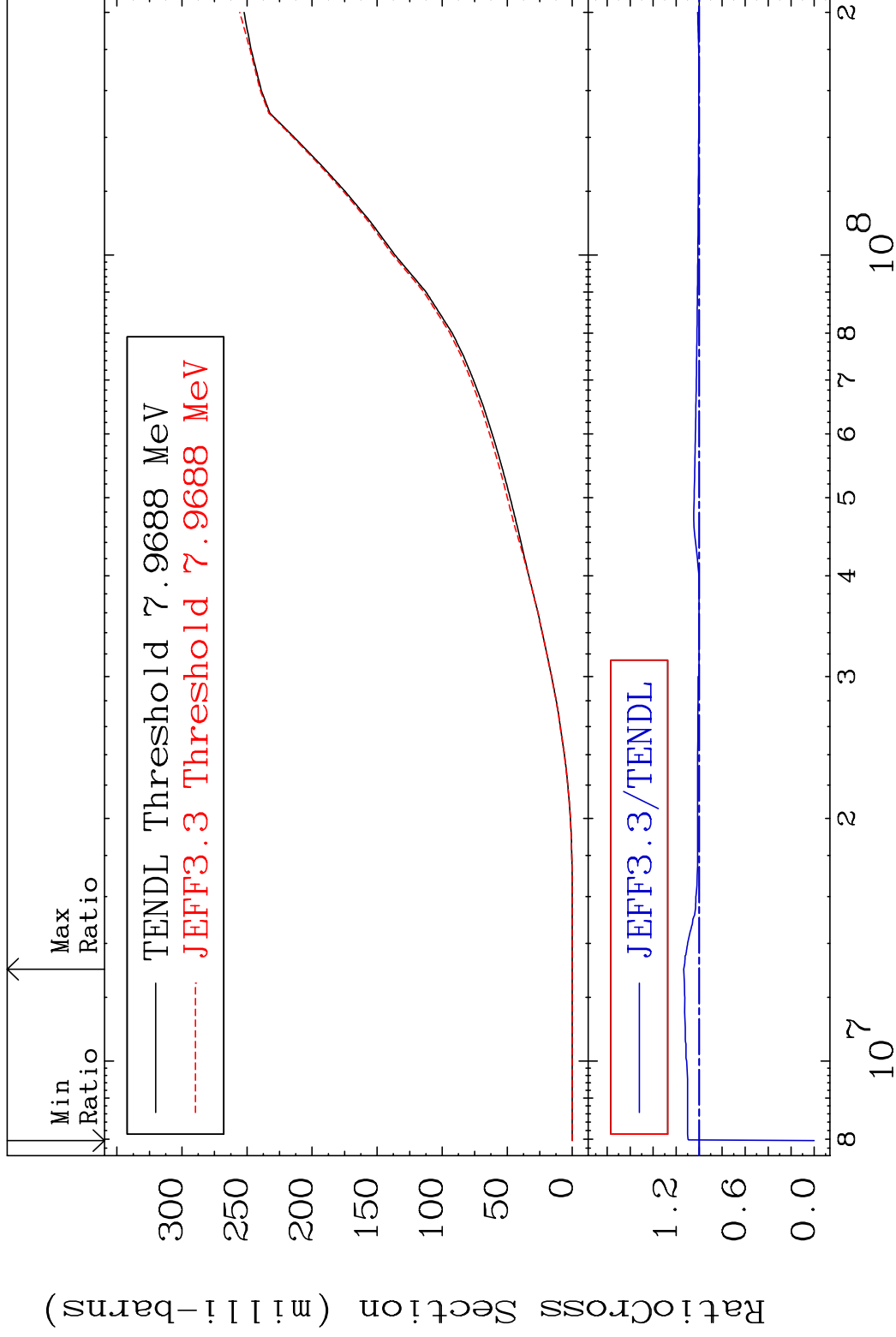
²⁸Ni-59

MAT 2828

He-3 Production

28-Ni-59

Cross Section -100.0 To 13.47 %



56

Incident Energy (eV)

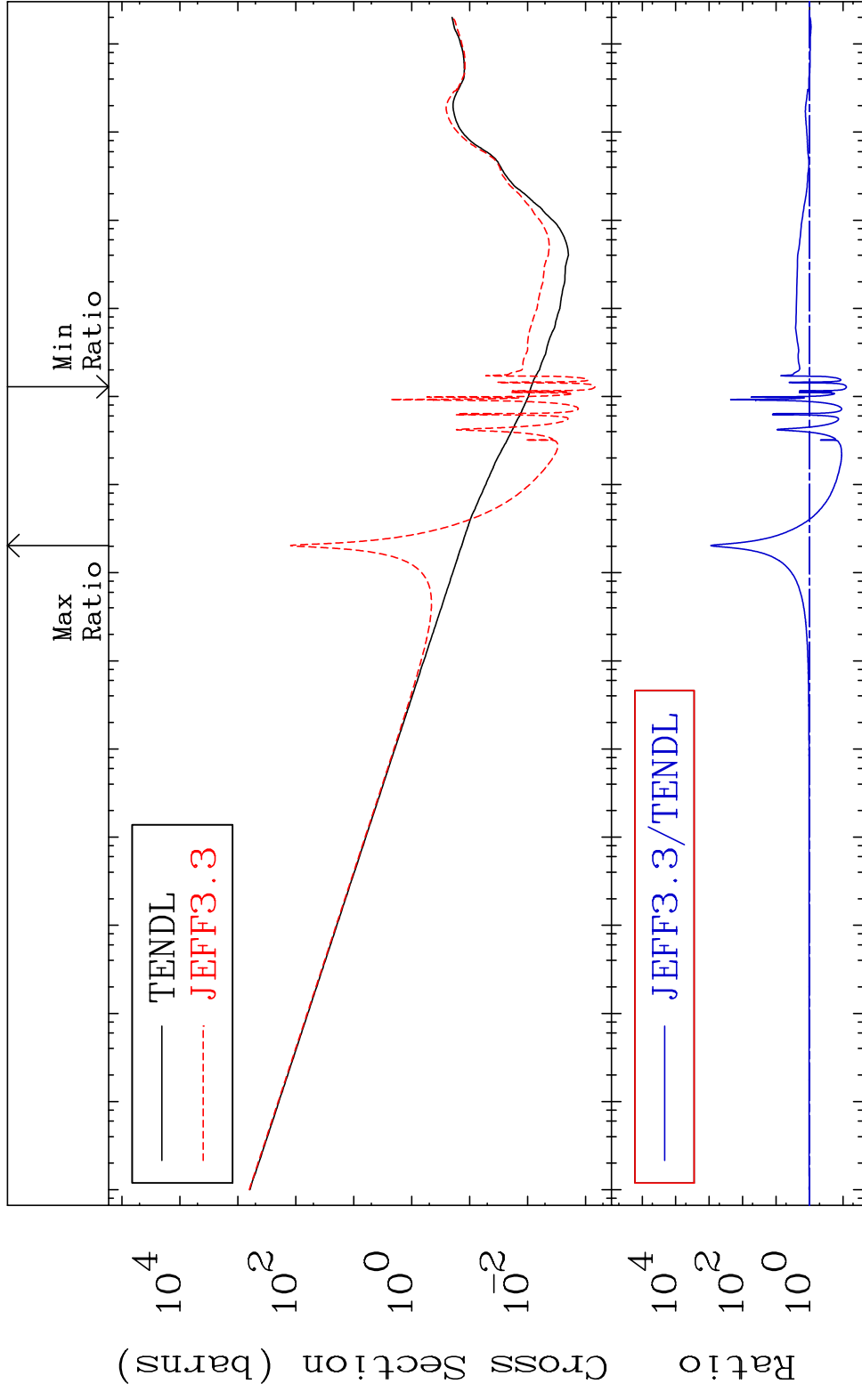
28-Ni-59

MAT 2828

He-4 Production

28-Ni-59

Cross Section -92.07 To 9999. %

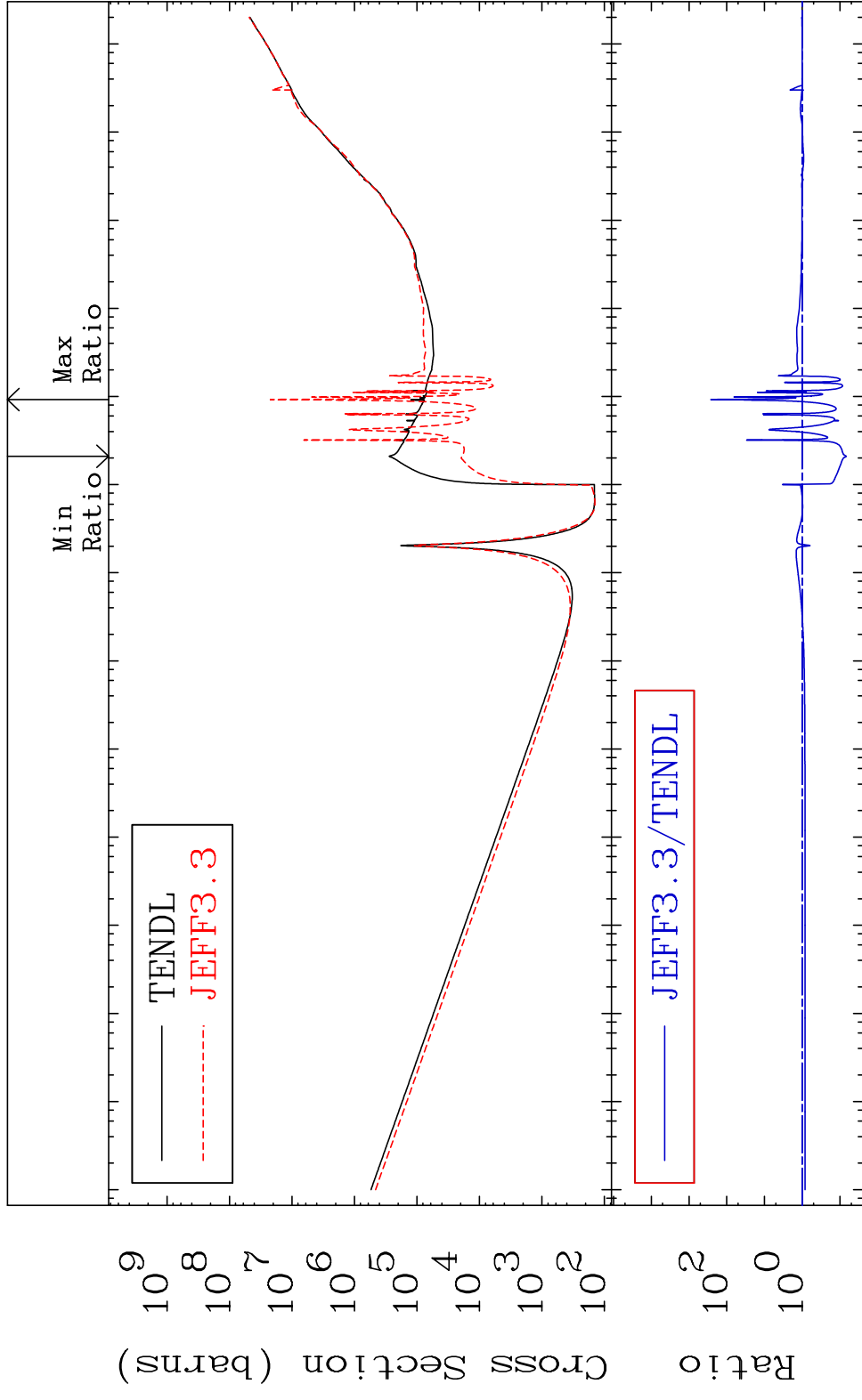


57

Incident Energy (eV)

28-Ni-59

MAT 2828 Kerma total (eV-barns) 28-Ni-59
 Cross Section -93.20 To 9999. %



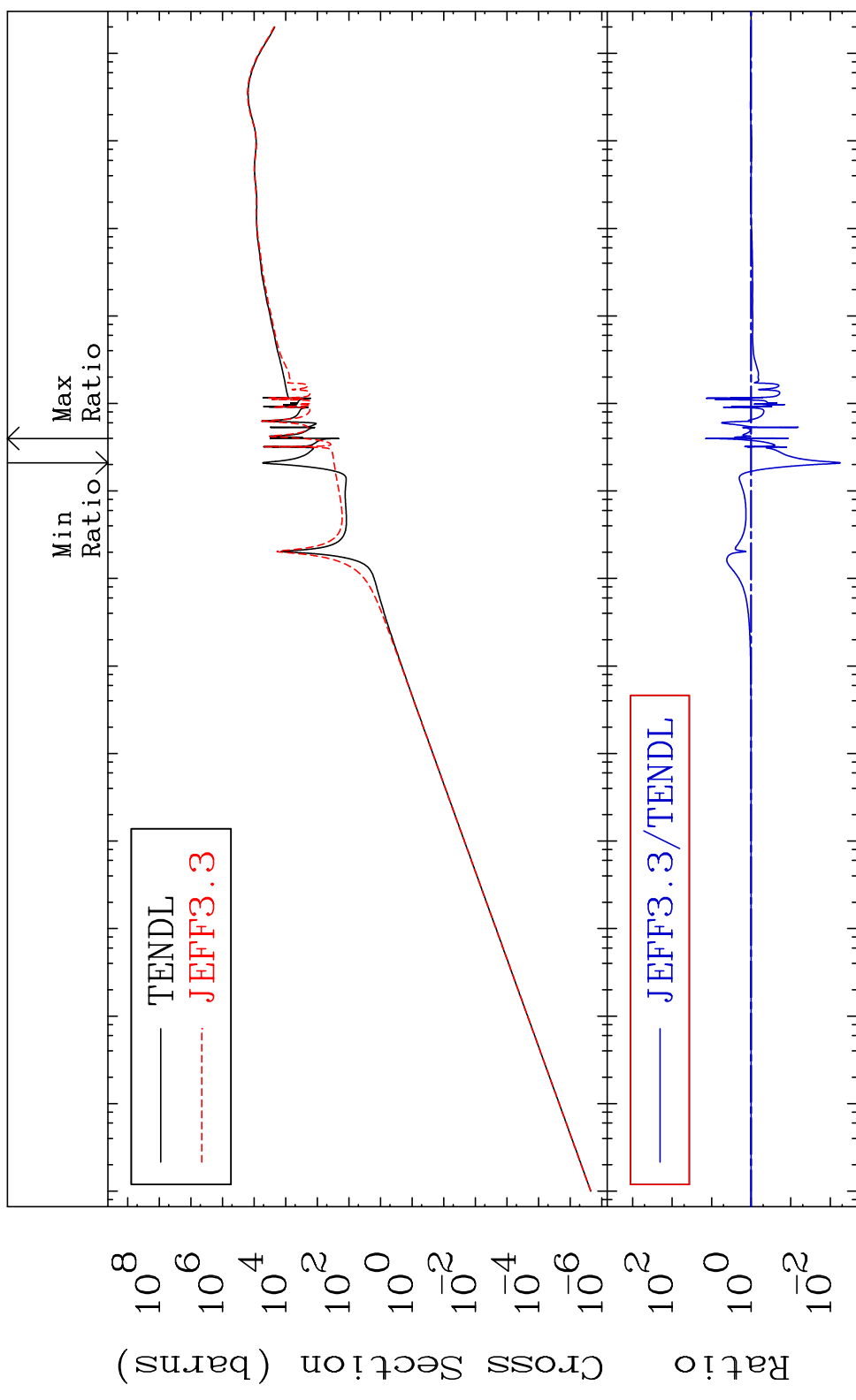
10⁹
 10⁸
 10⁷
 10⁶
 10⁵
 10⁴
 10³
 10²
 Cross Section (barns)

10²
 10⁰
 Ratio

10⁻⁵ 10⁻⁴ 10⁻³ 10⁻² 10⁻¹ 10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶ 10⁷ 10⁸
 Incident Energy (eV)

MAT 2828

Kerma elastic Cross Section -99.45 To 1308. %
28-Ni-59



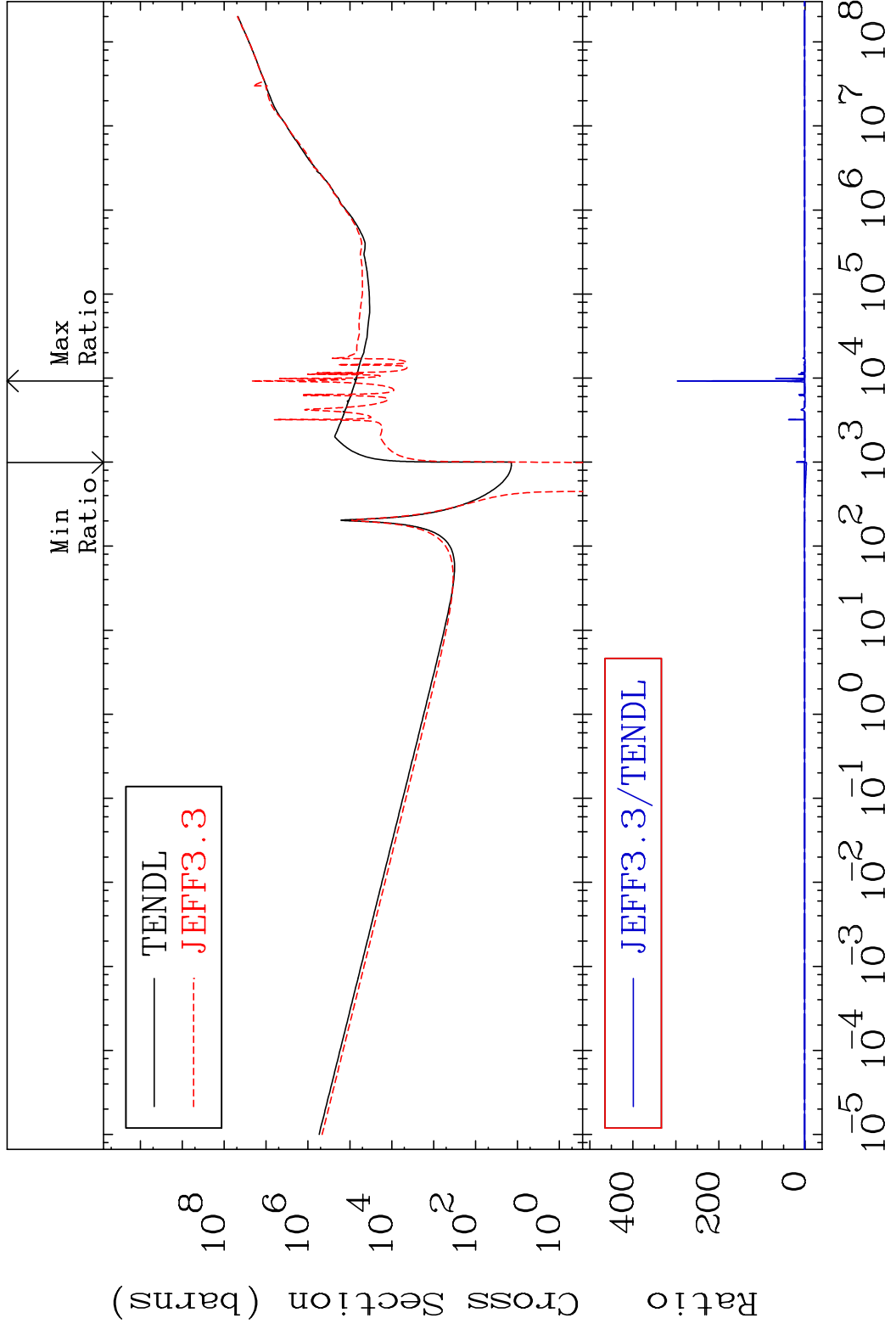
Ratio
10⁸
10⁶
10⁴
10²
10⁰
10⁻²
10⁻⁴
10⁻⁶
10⁻⁸
10⁻⁵ 10⁻⁴ 10⁻³ 10⁻² 10⁻¹ 10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶ 10⁷ 10⁸

59

Incident Energy (eV)

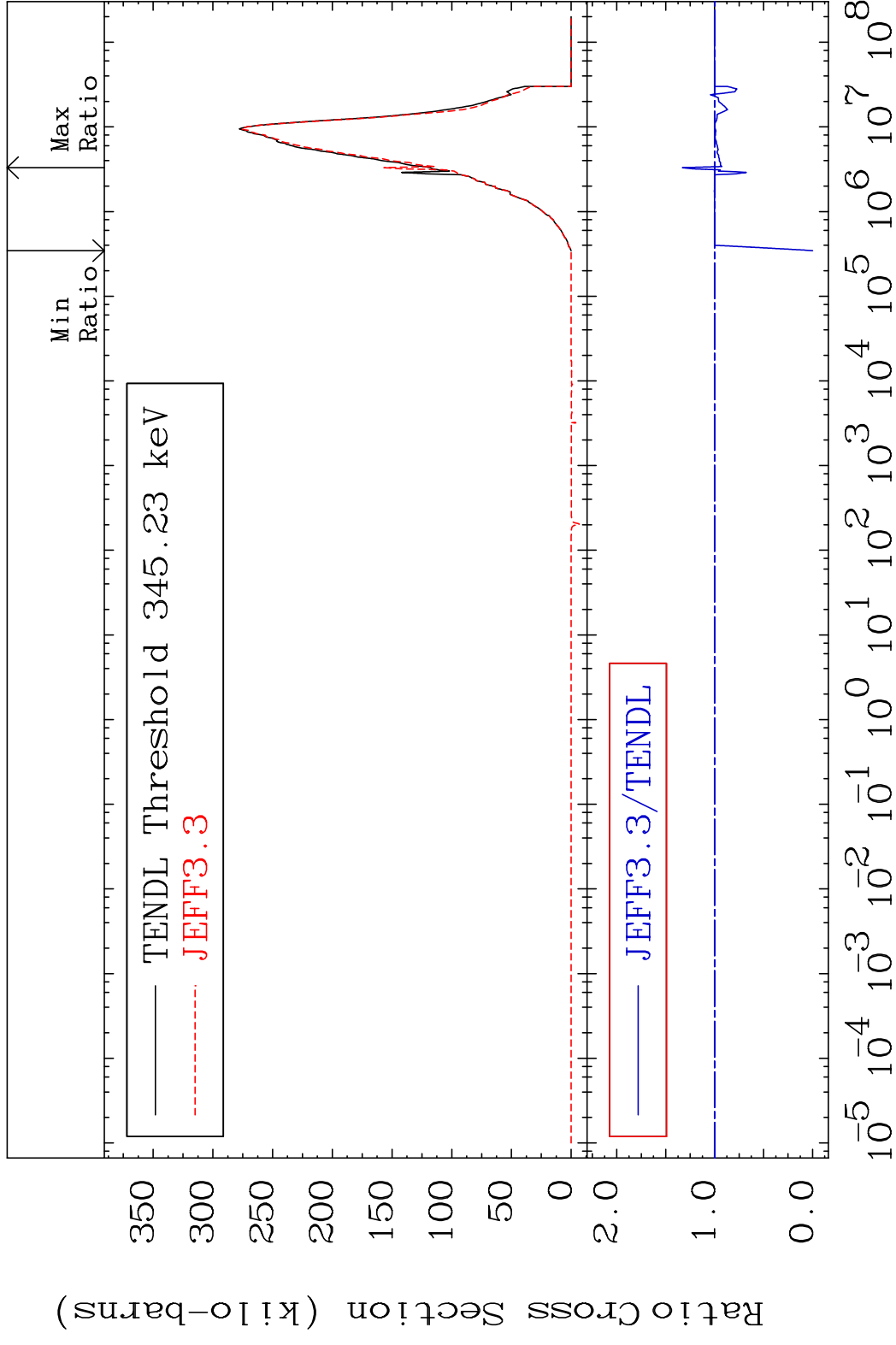
28-Ni-59

MAT 2828 Kerma non-elastic (all but mt2) 28-Ni-59
 Cross Section -414.6 To 9999. %



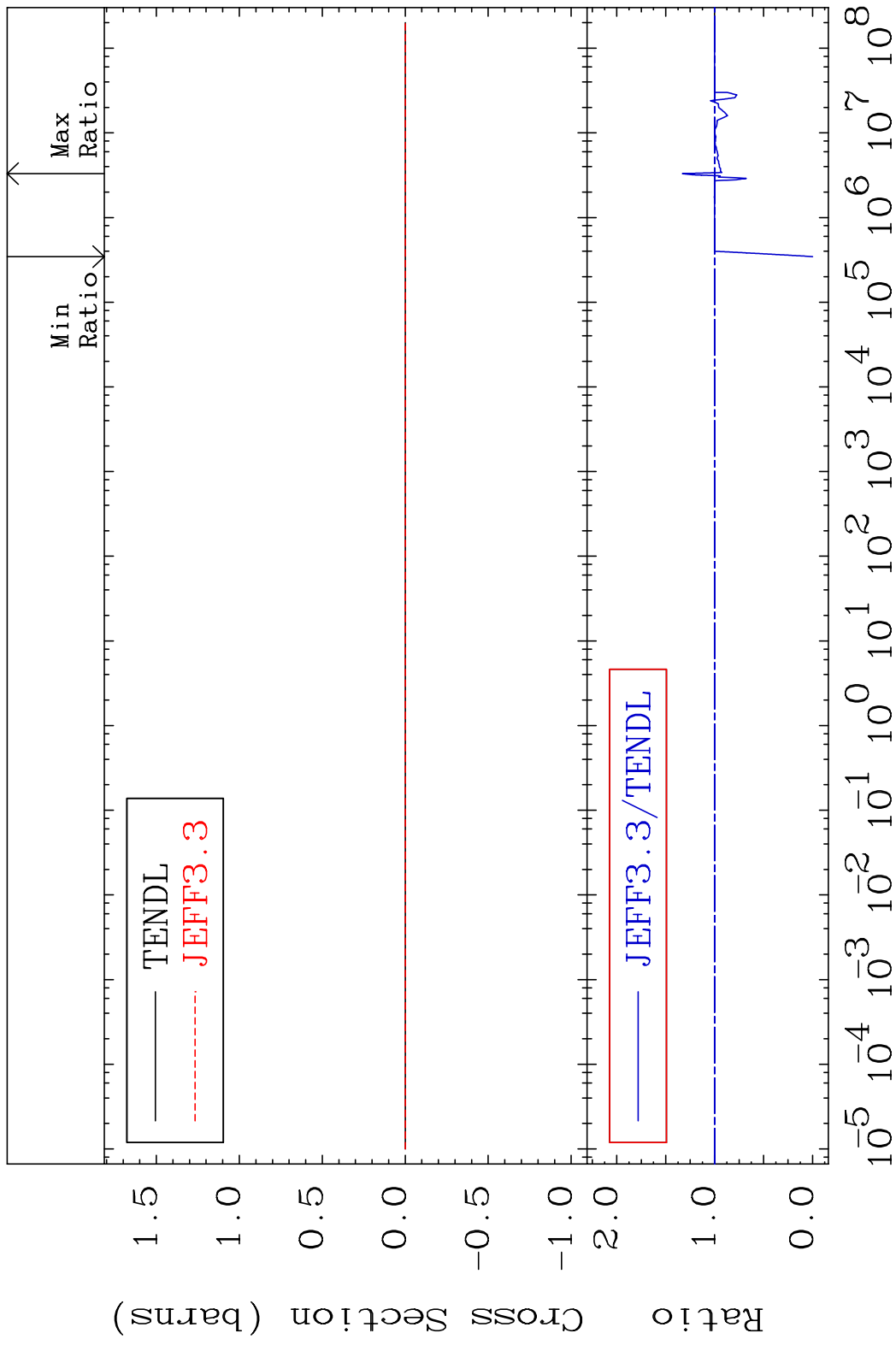
60 Incident Energy (eV) 28-Ni-59

MAT 2828 Kerma inelastic (mt51-91) 28-Ni-59
 Cross Section -100.0 To 33.00 %



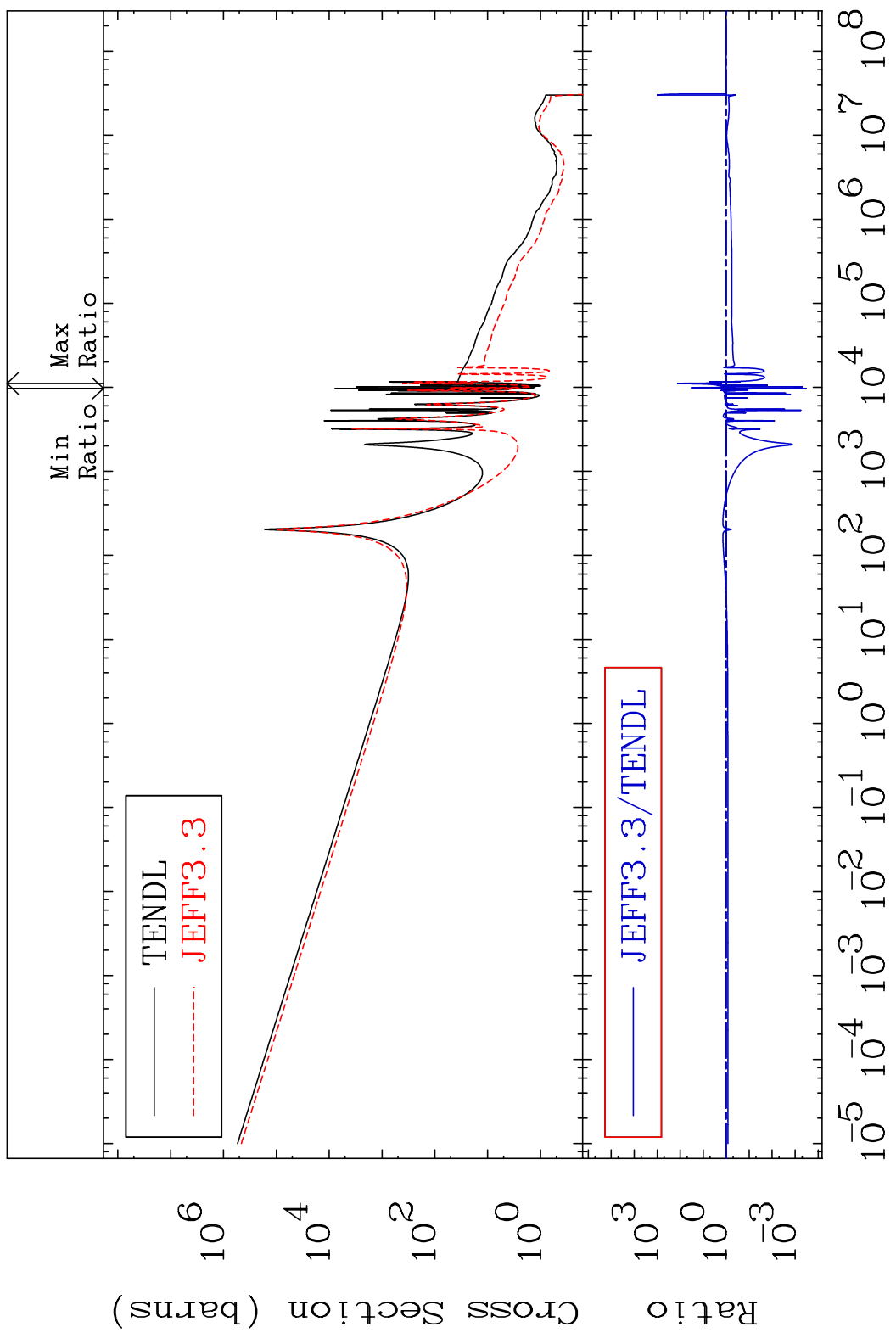
61 Incident Energy (eV) 28-Ni-59

MAT 2828 Kerma fission (mt18 or mt19-20-21-38) 28-Ni-59
 Cross Section -100.0 To 33.00 %



MAT 2828

Kerma capture (mt102) 28-Ni-59
Cross Section -99.97 To 9999. %

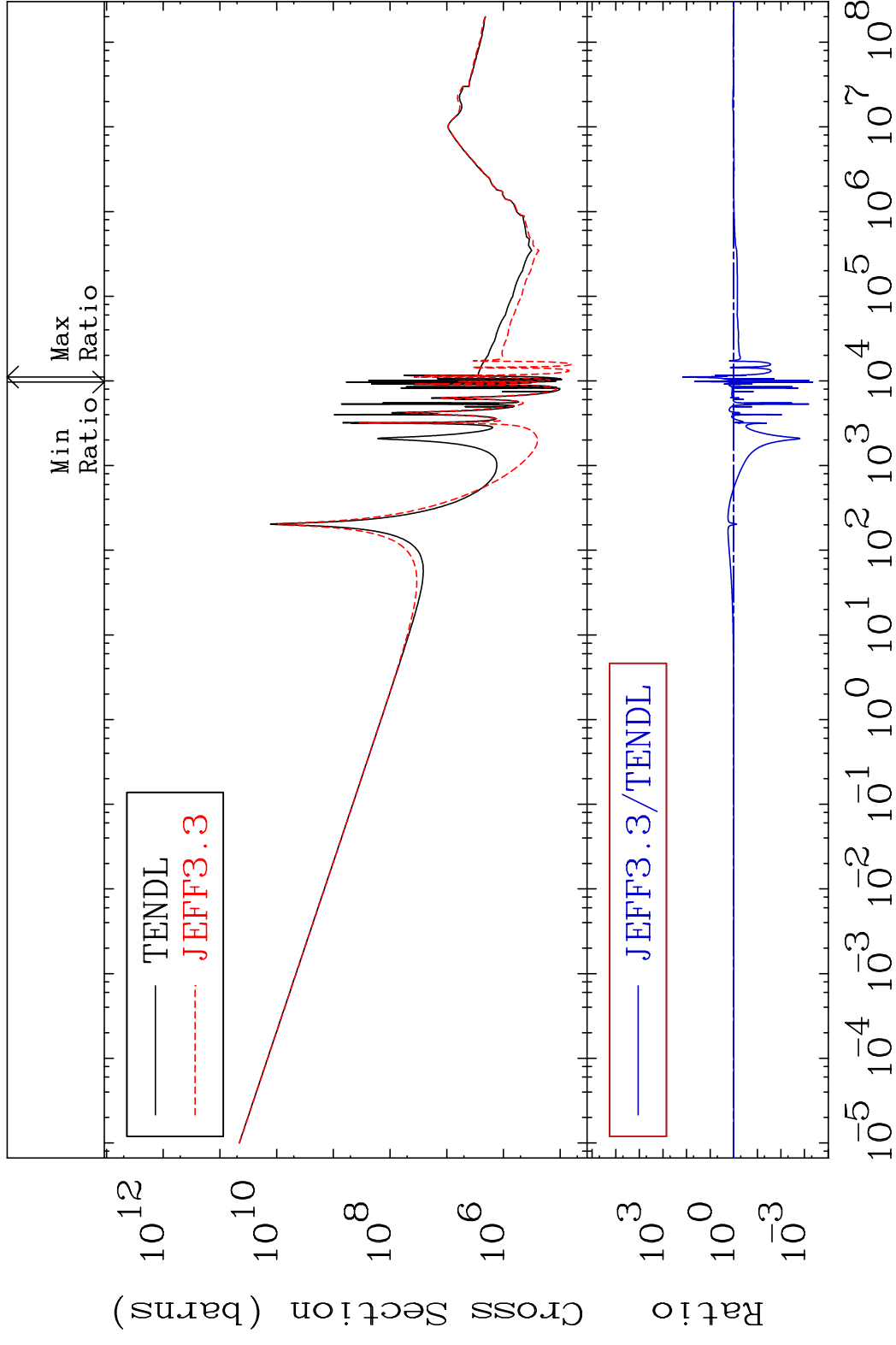


63

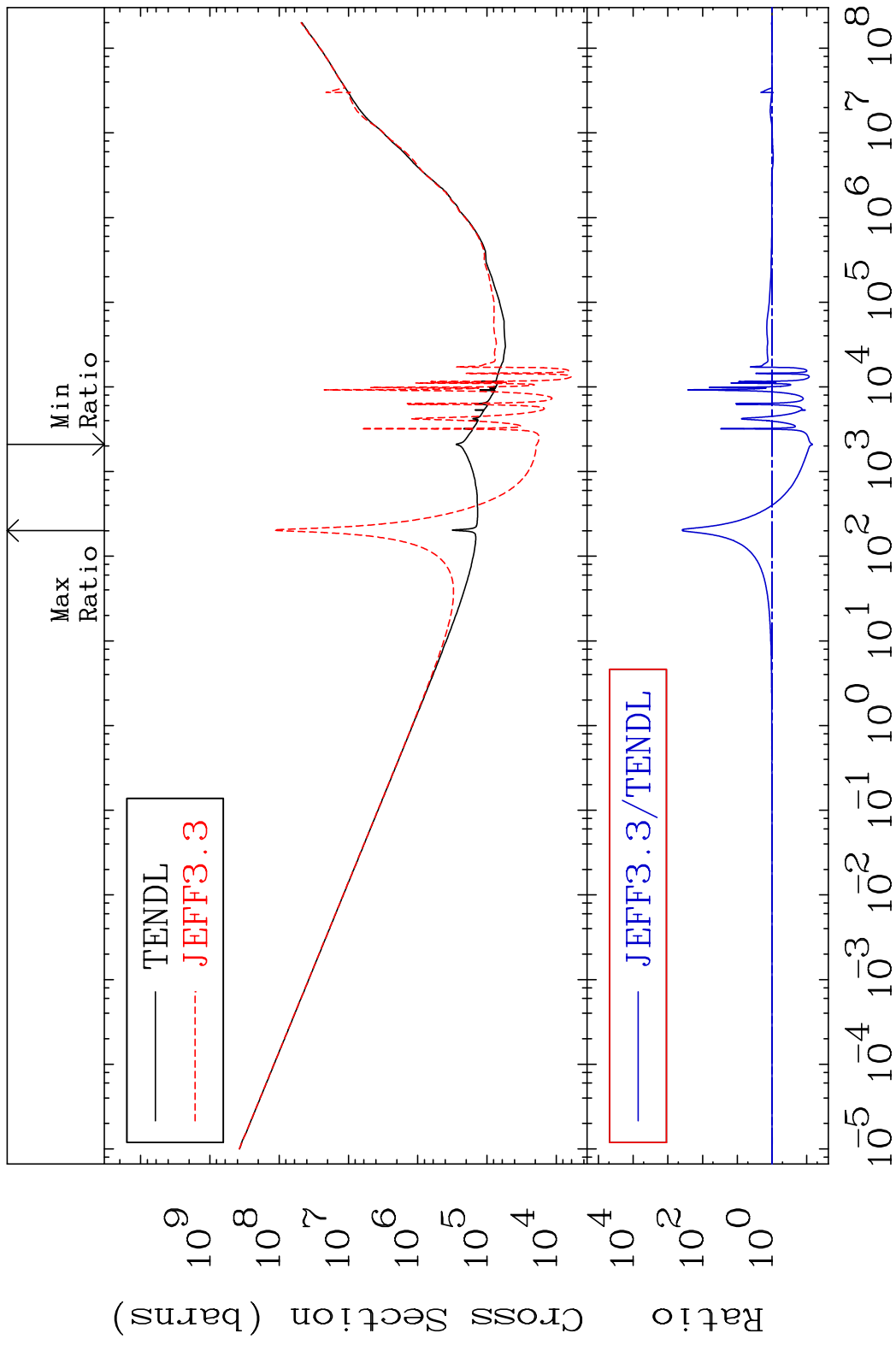
Incident Energy (eV)

28-Ni-59

MAT 2828 Total photon (eV-barns) 28-Ni-59
 Cross Section -99.95 To 9999. %

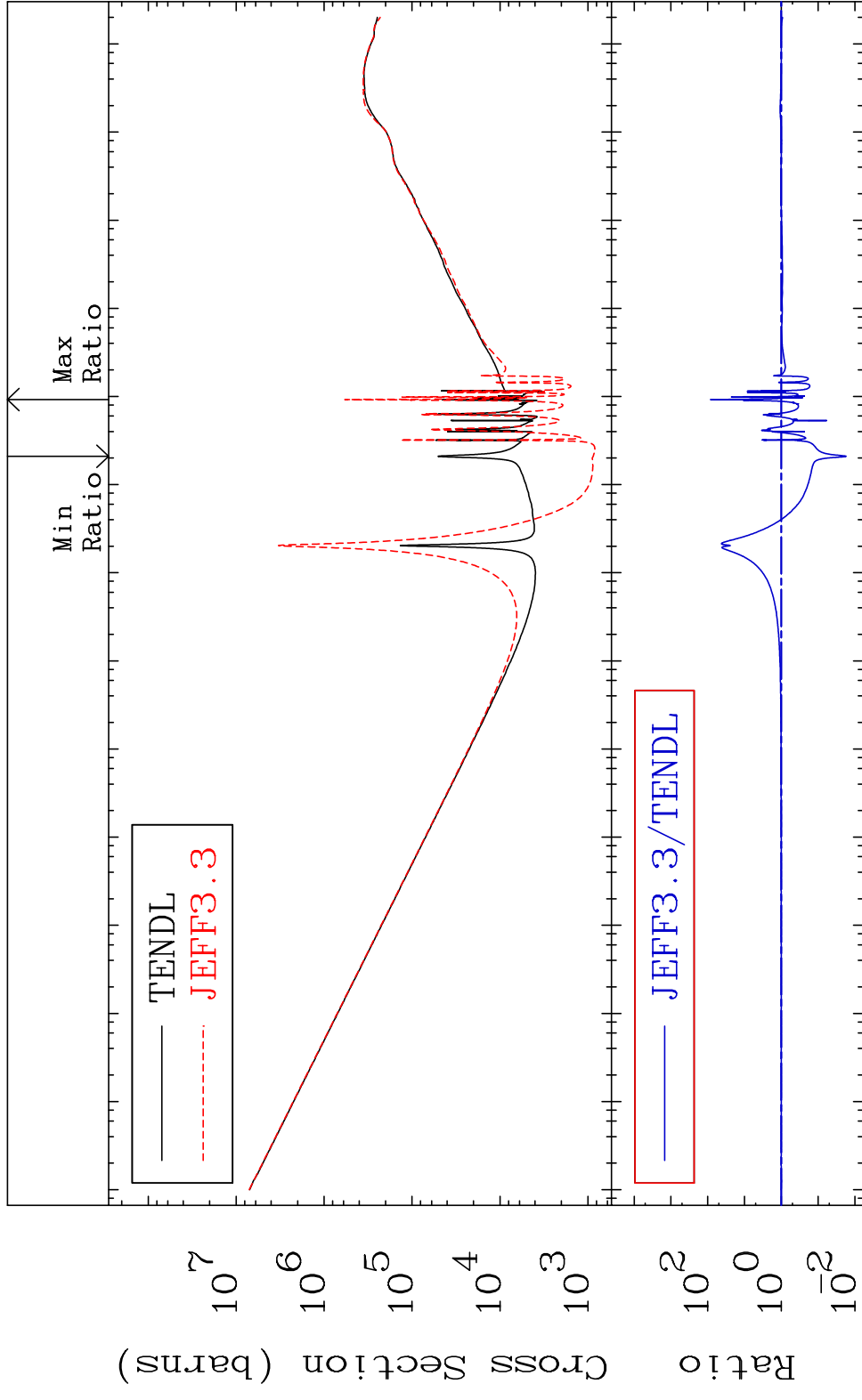


MAT 2828 Total kinematic kerma (high limit) 28-Ni-59
 Cross Section -93.19 To 9999. %



65 Incident Energy (eV) 28-Ni-59

MAT 2828 Dpa total (eV-barns) 28-Ni-59
 Cross Section -98.28 To 8215. %

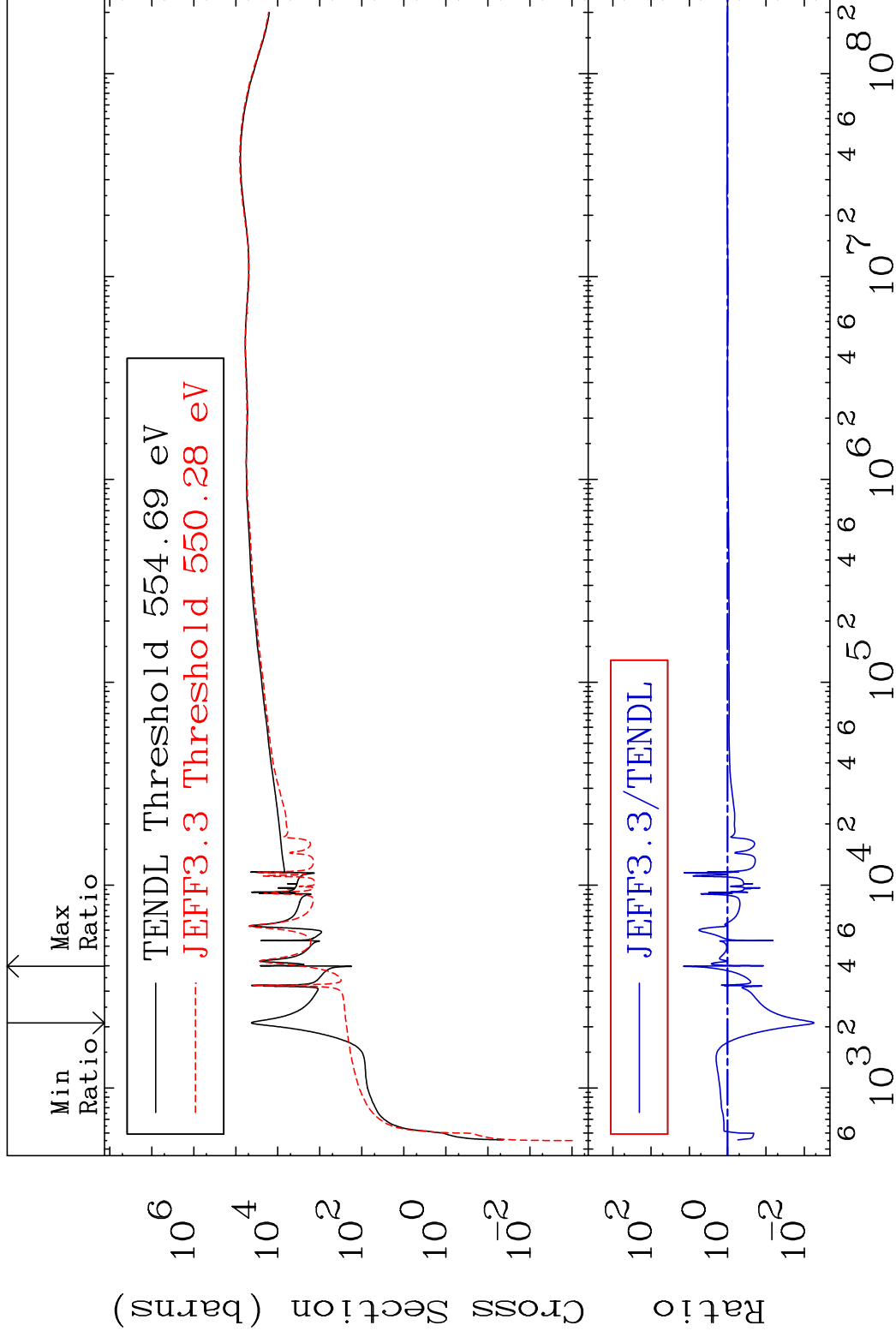


MAT 2828

Dpa elastic (mt2)

28-Ni-59

Cross Section -99.45 To 1308. %



67

Incident Energy (eV)

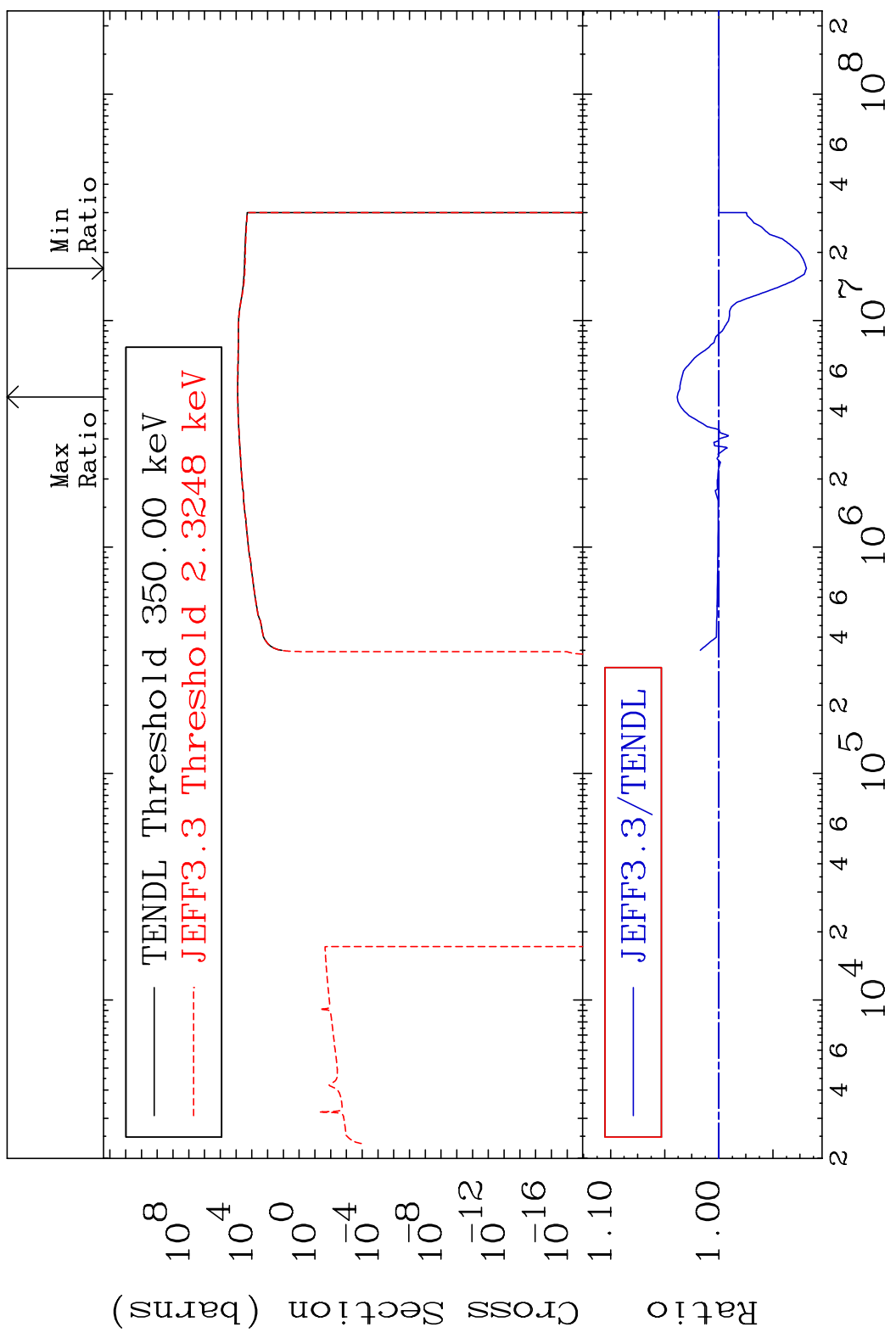
28-Ni-59

MAT 2828

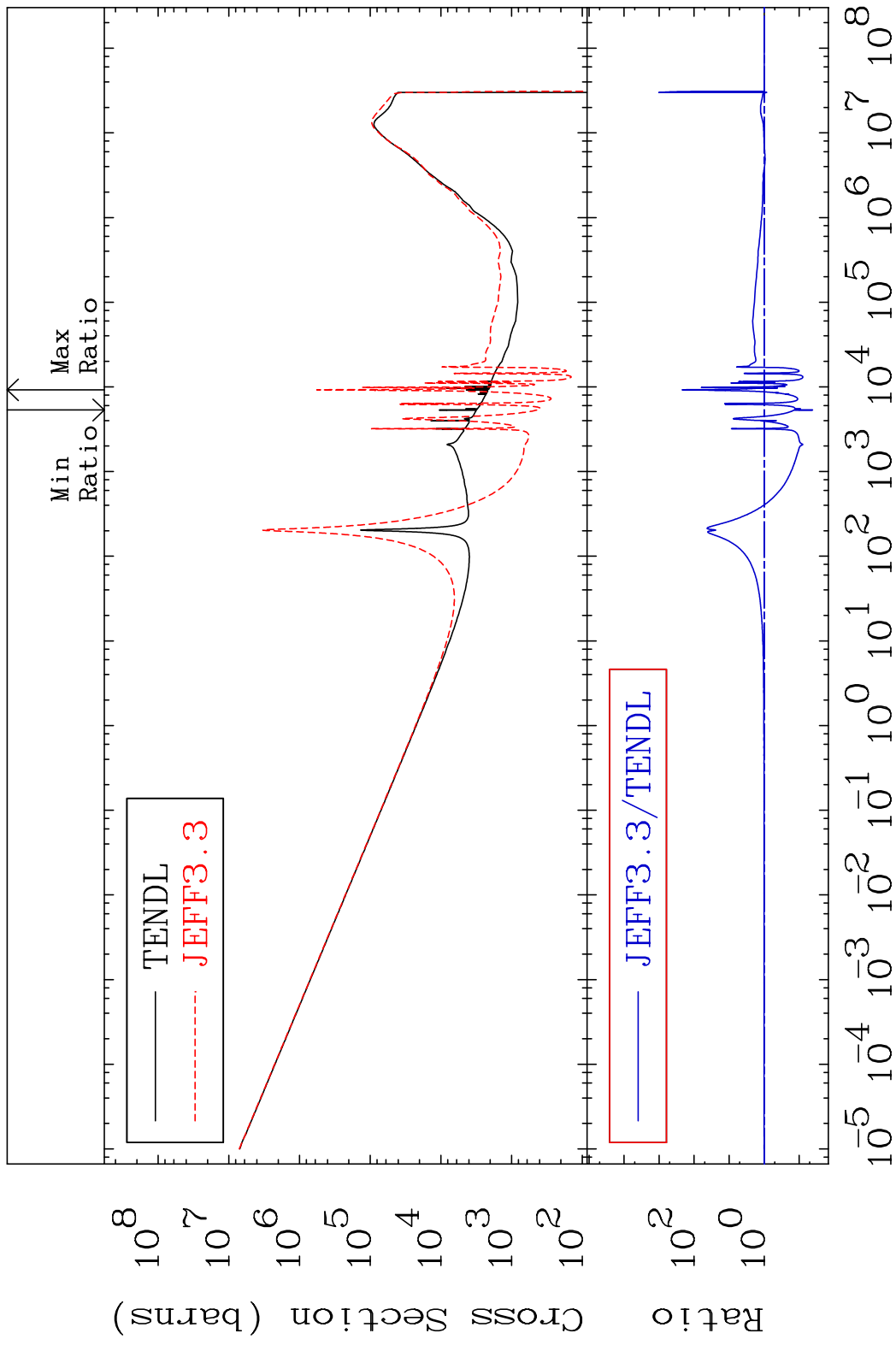
Dpa inelastic (mt51-91)

28-Ni-59

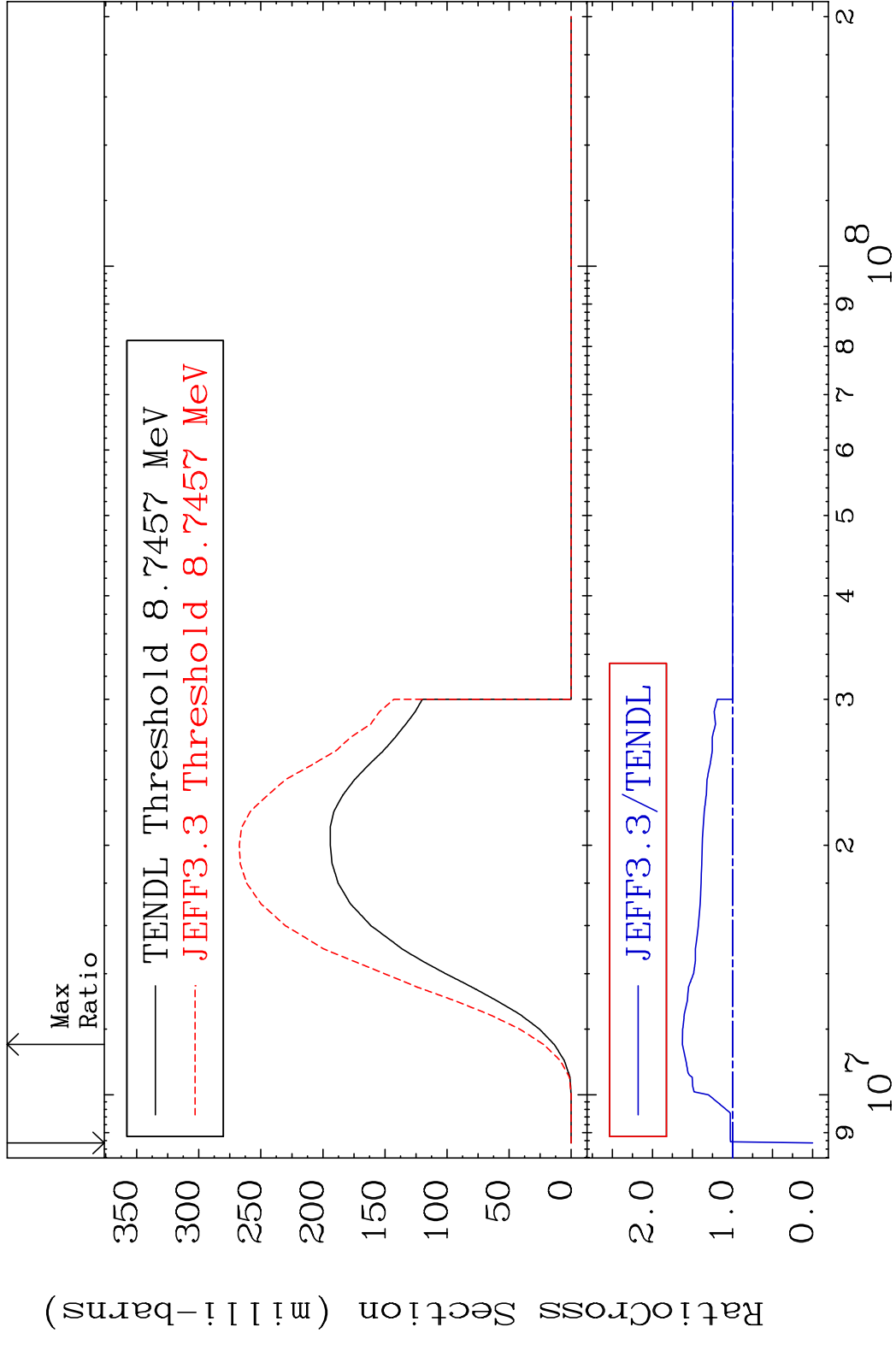
Cross Section -8.095 To 3.847 %



MAT 2828 Dpa disappearance (mt102 -120) 28-Ni-59
 Cross Section -95.85 To 9999. %

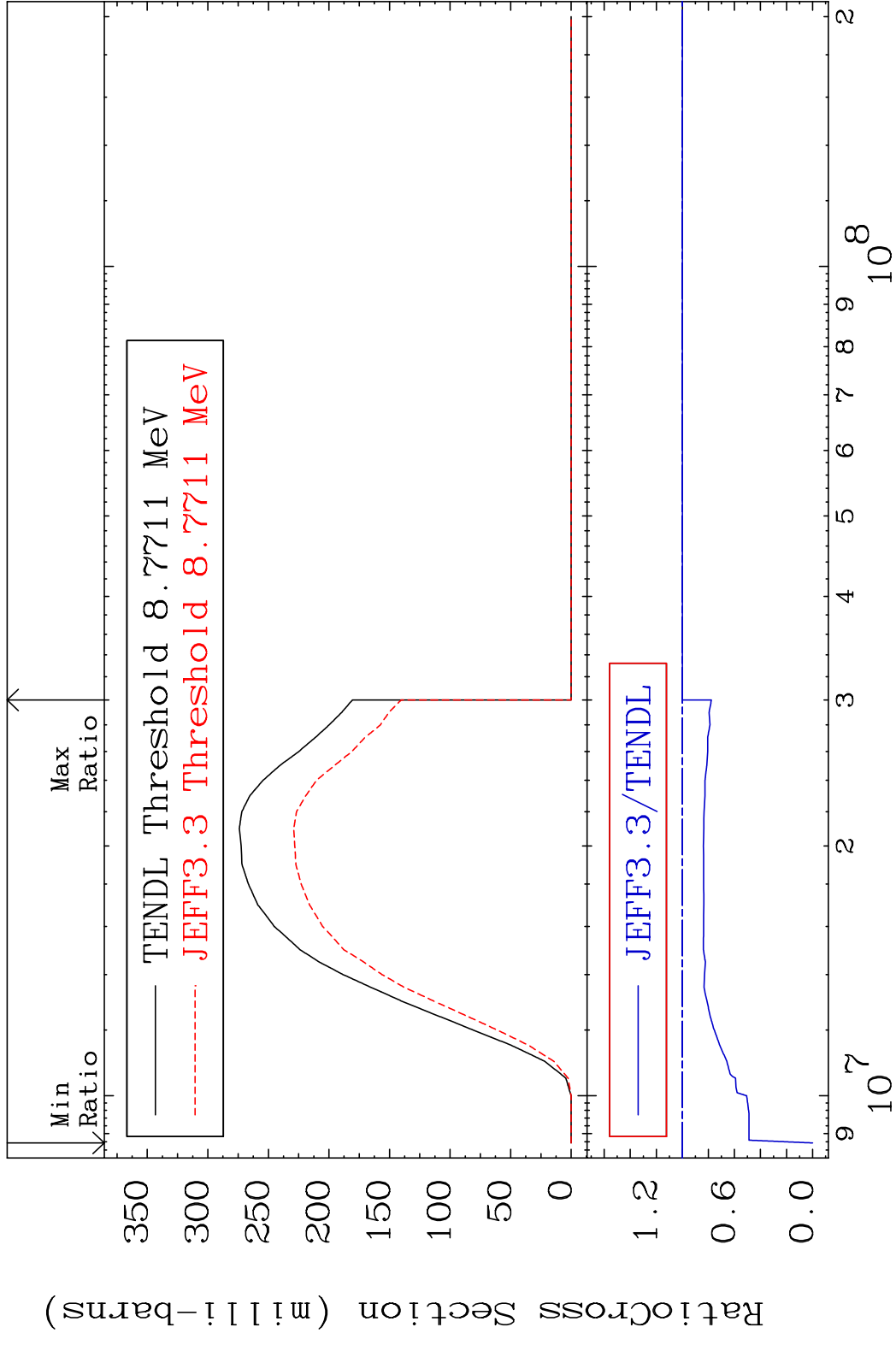


MAT 2828 (n, n') p:27-Co-58g 28-Ni-59
 Radionuclide Production Cross Section 180.01 dth 62.64 %



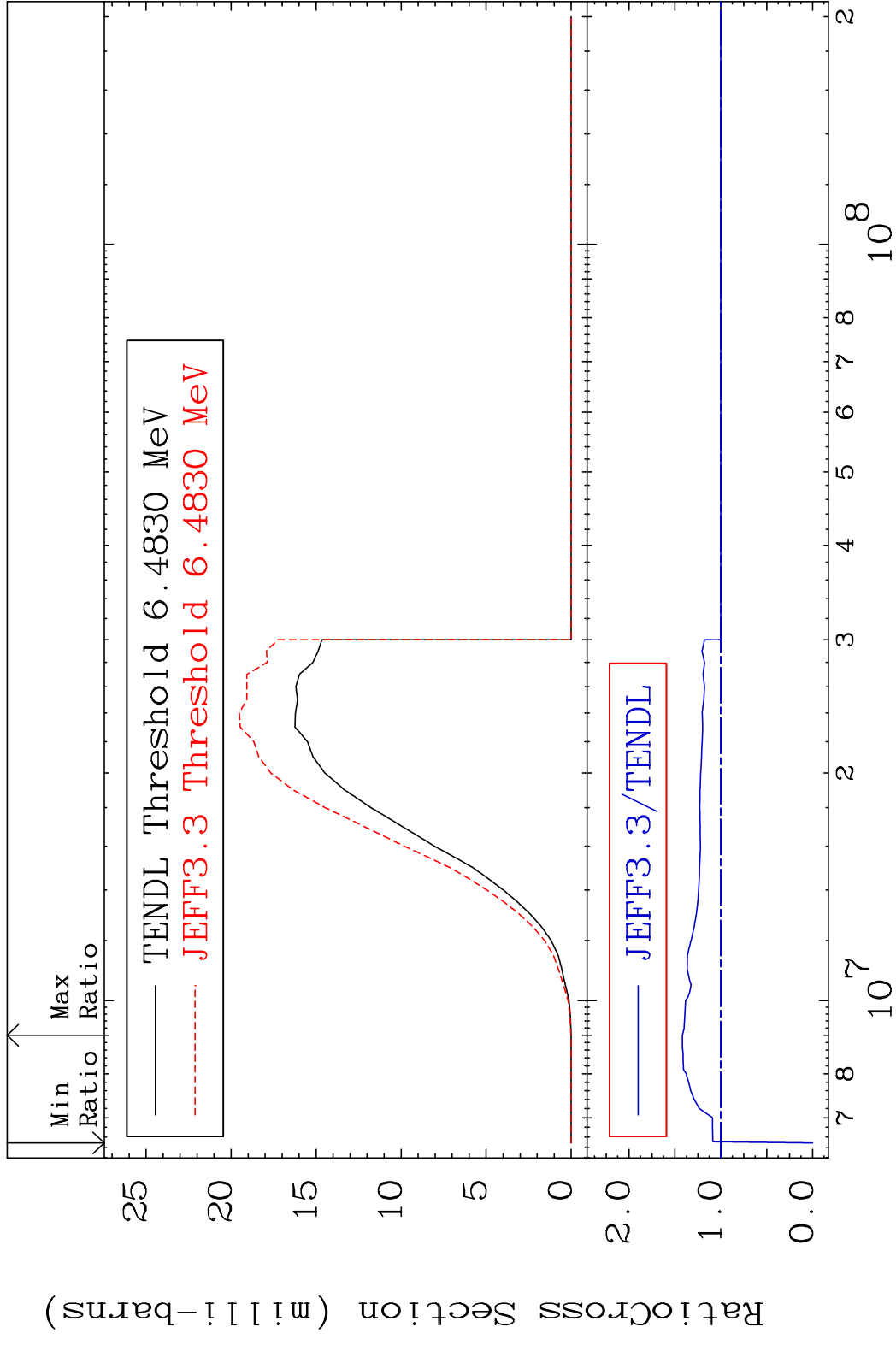
70 Incident Energy (eV) 28-Ni-59

MAT 2828 (n, n') p:27-Co-58m1 28-Ni-59
 Radionuclide Production Cross Section Ratio 0.000 %



71 Incident Energy (eV) 28-Ni-59

MAT 2828 (n,d):27-Co-58g 28-Ni-59
 Radionuclide Production Cross Section 180.01 dth 41.91 %



MAT 2828 (n,d):27-Co-58m1 28-Ni-59
 Radionuclide Production Cross Section Ratio

