

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

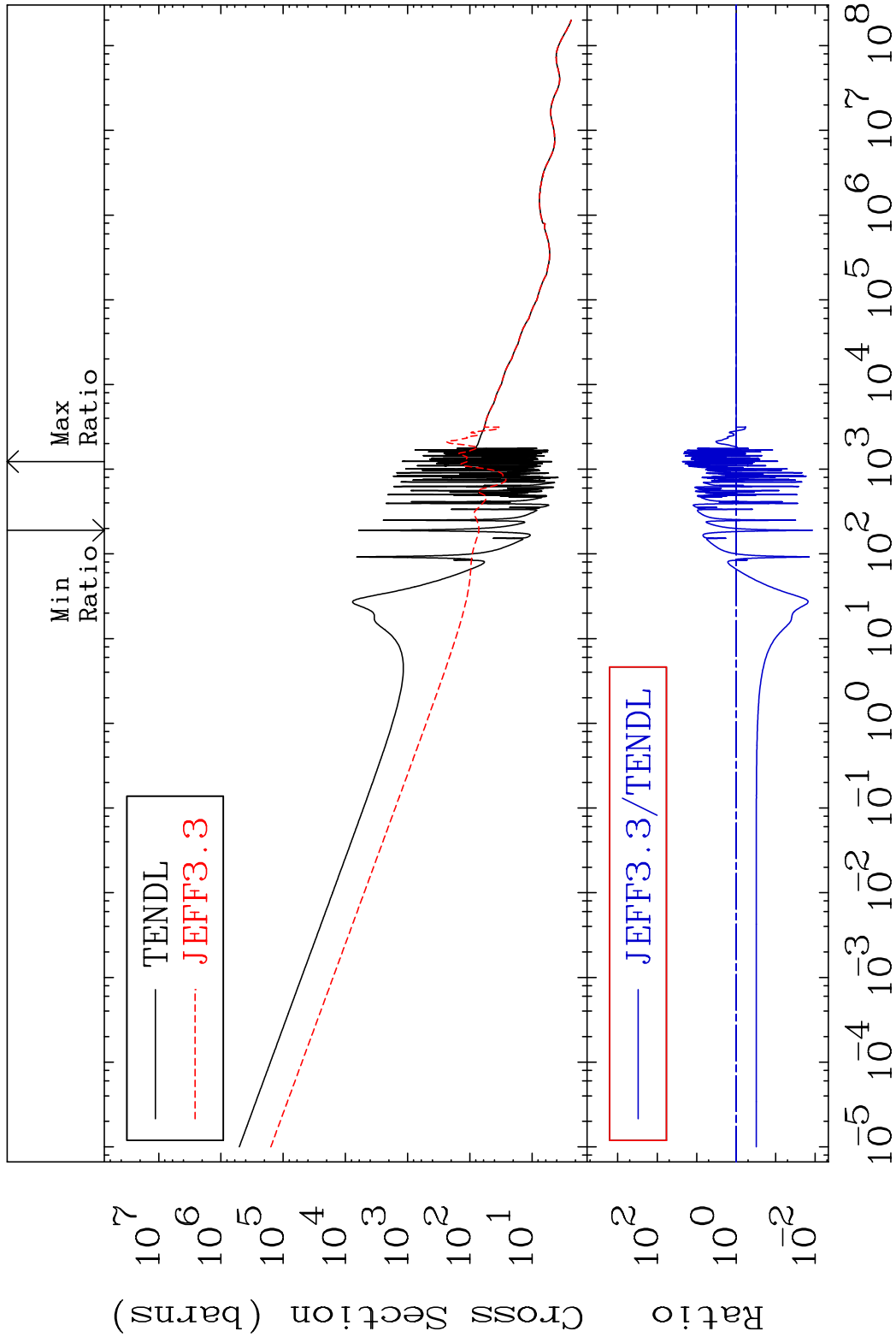
Press Mouse Button to Start

MAT 6413

Total

64-Gd-148

Cross Section -98.84 To 2207. %



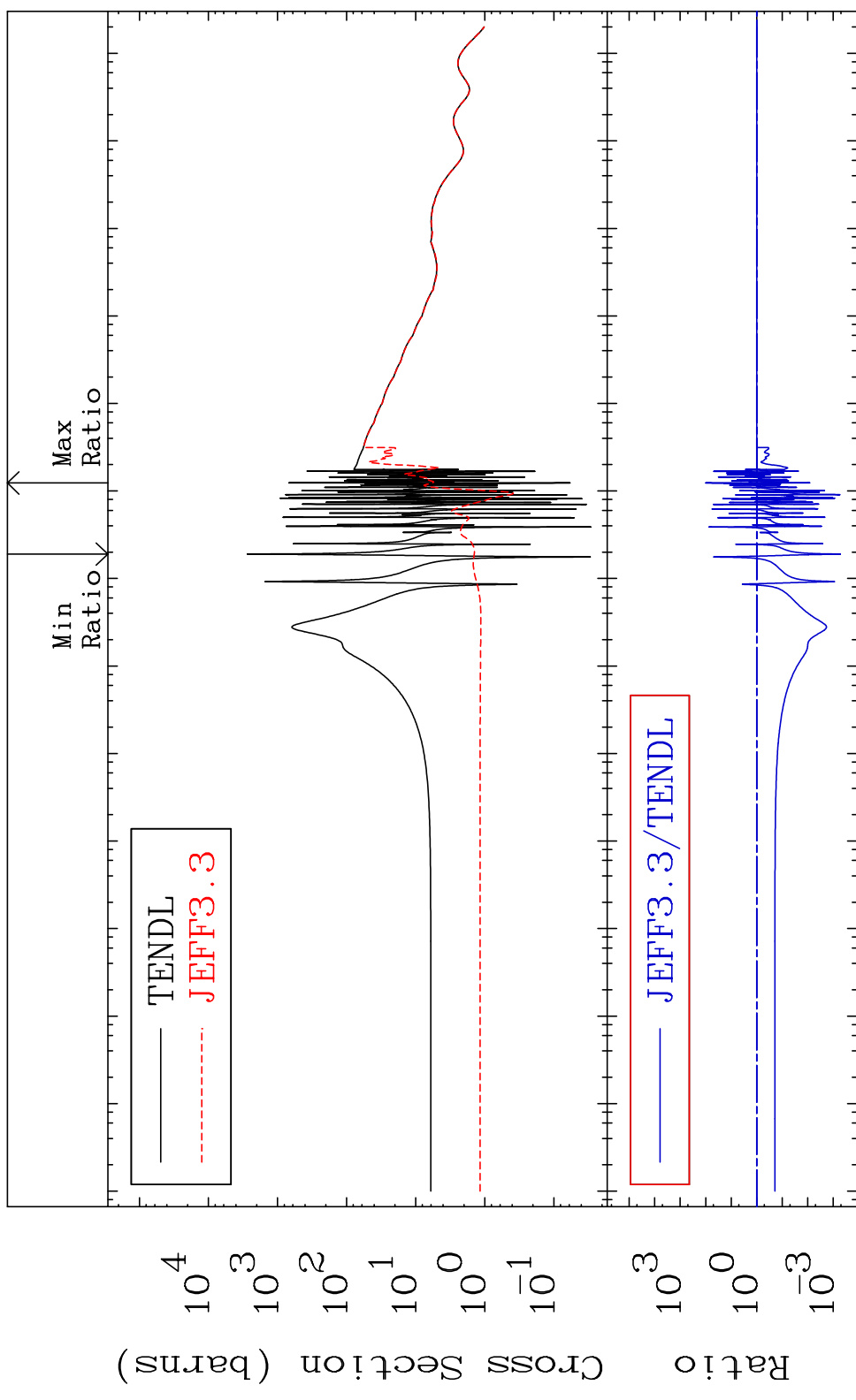
1

Incident Energy (eV)

64-Gd-148

MAT 6413

Elastic Cross Section 64-Gd-148  
-99.95 To 9844. %



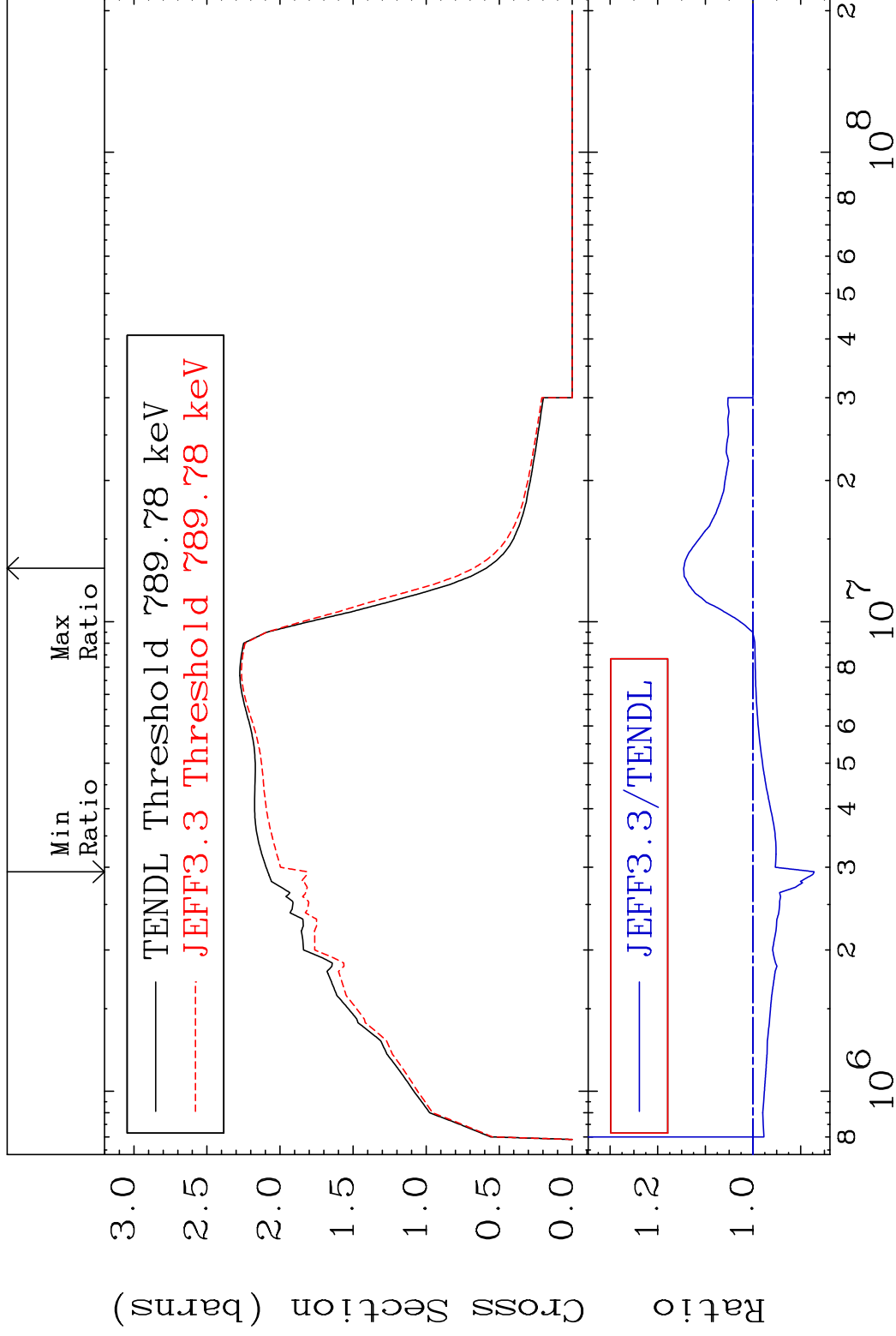
2 Incident Energy (eV) 64-Gd-148

MAT 6413

Inelastic

64-Gd-148

Cross Section -12.84 To 14.56 %



3

Incident Energy (eV)

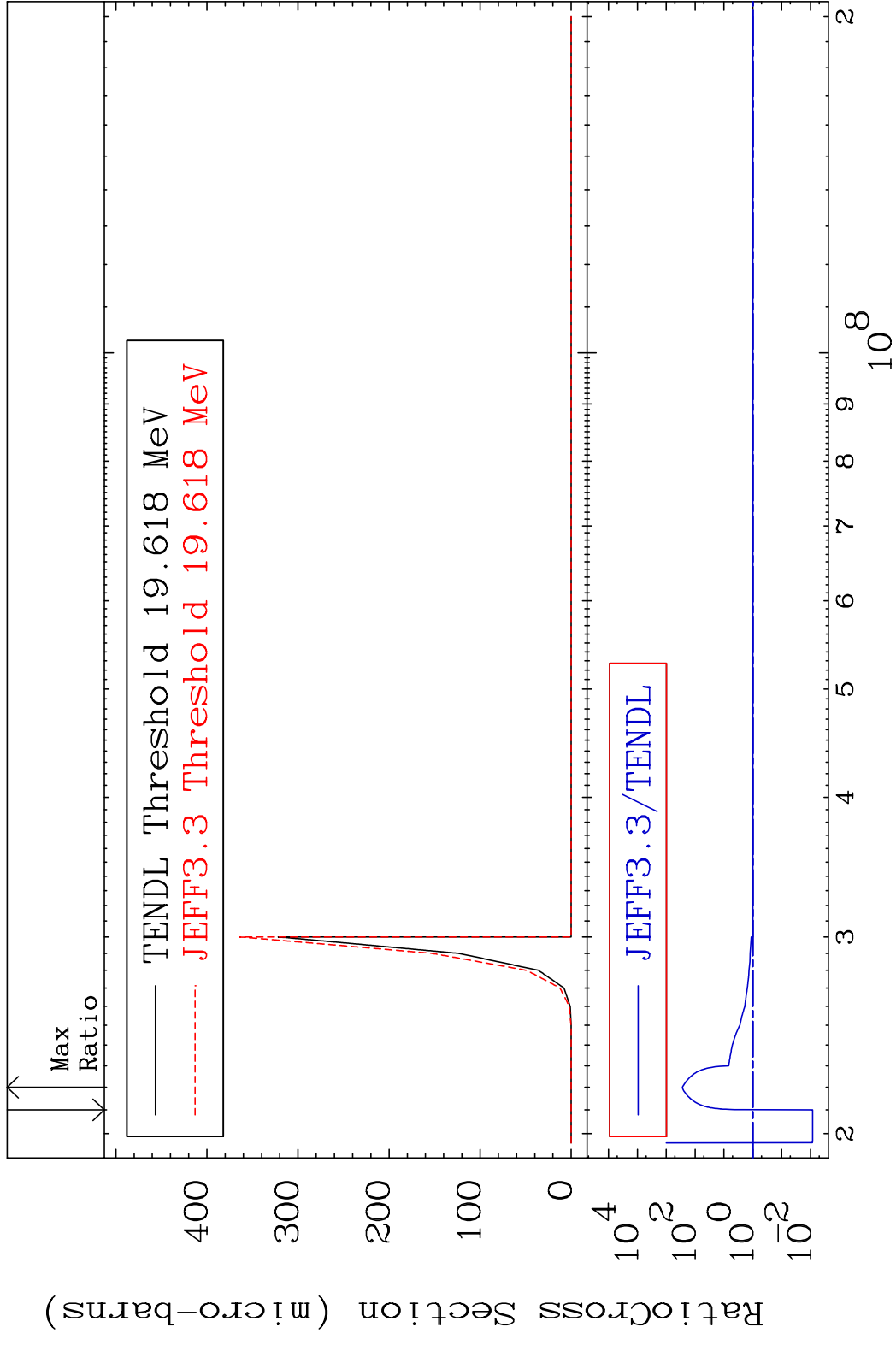
64-Gd-148

MAT 6413

(n,2n) d

64-Gd-148

Cross Section -99.15 To 9999. %

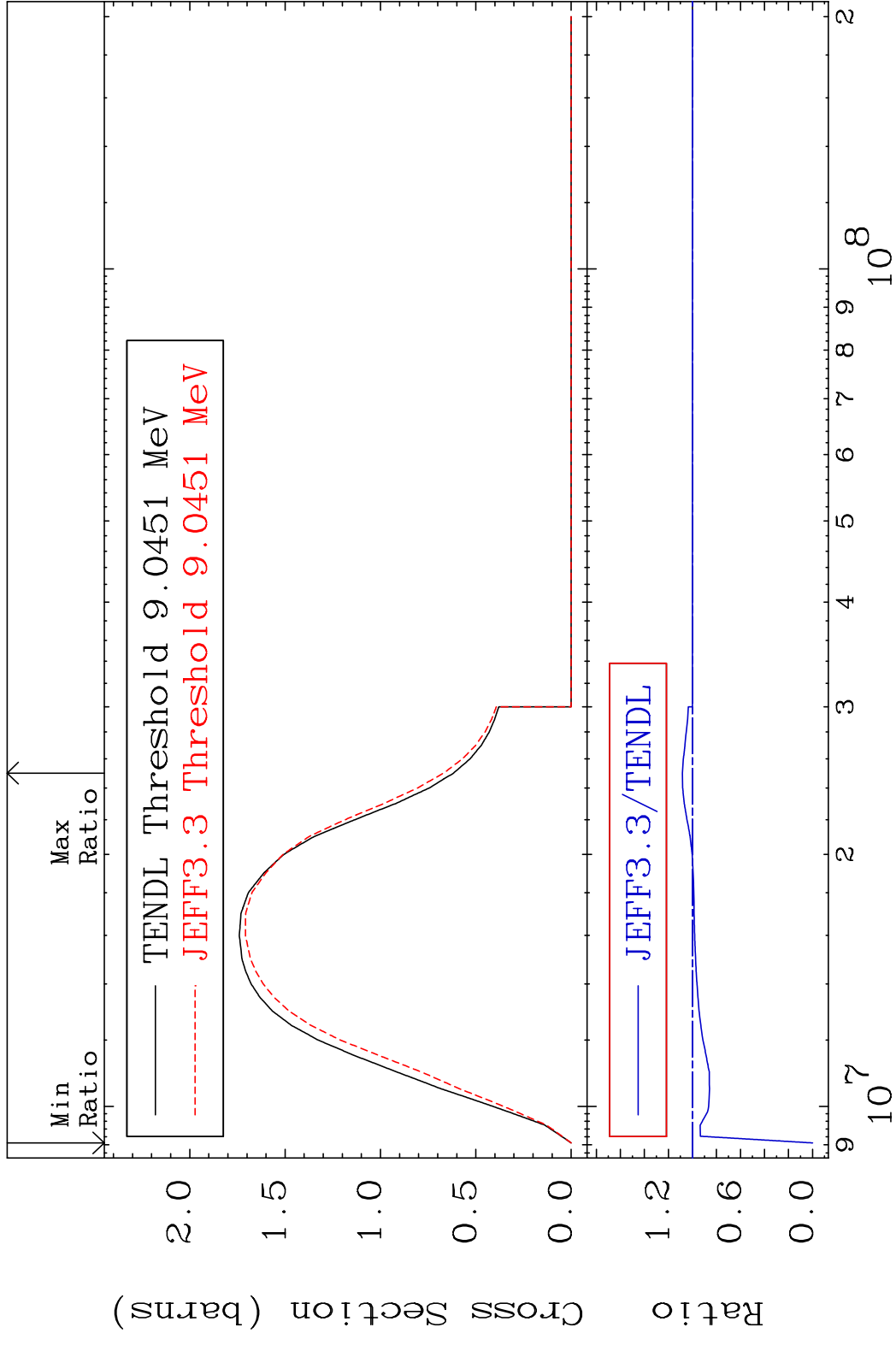


MAT 6413

(n,2n)

64-Gd-148

Cross Section -100.0 To 8.383 %



5

Incident Energy (eV)

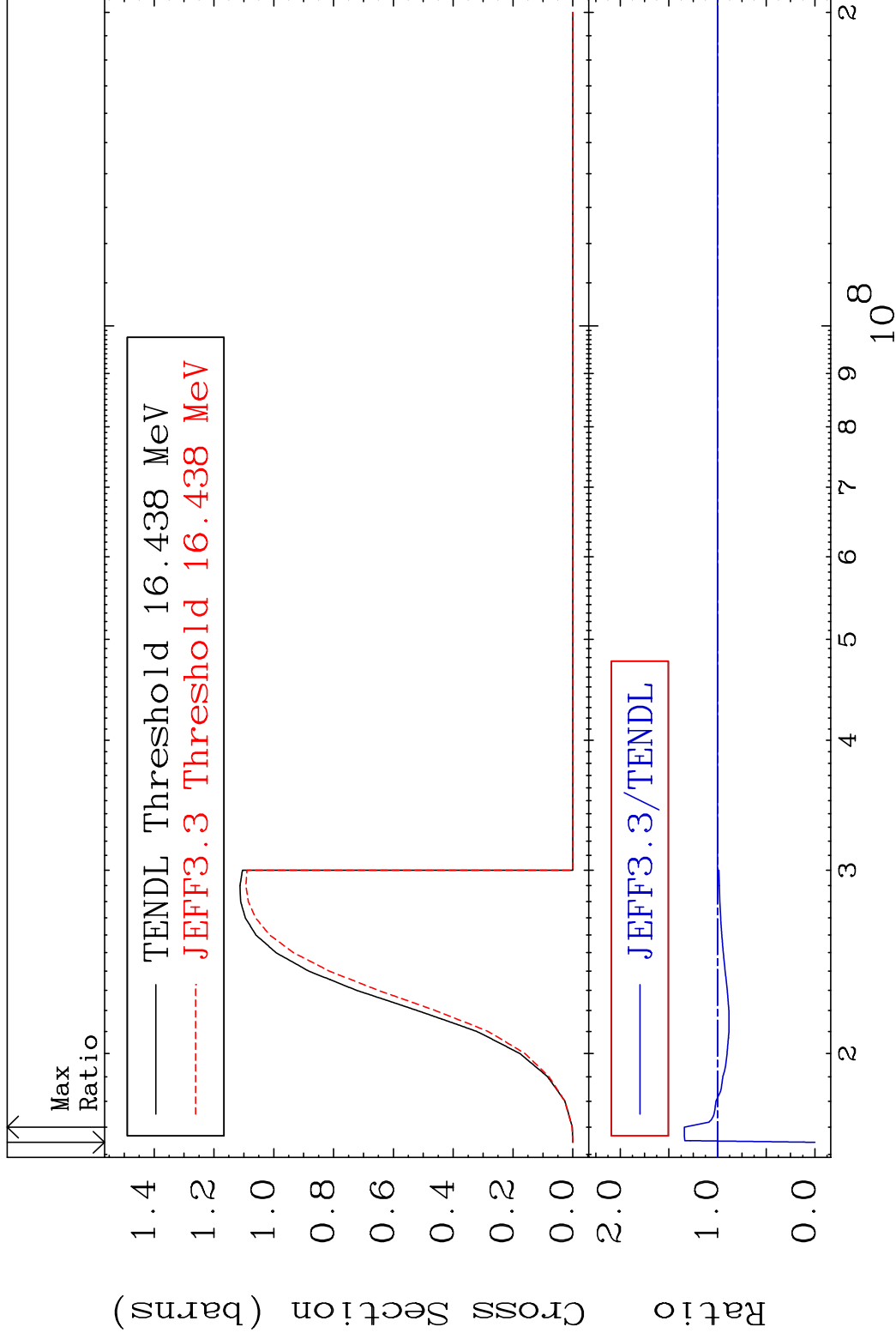
64-Gd-148

MAT 6413

(n,3n)

64-Gd-148

Cross Section -100.0 To 34.14 %



6

Incident Energy (eV)

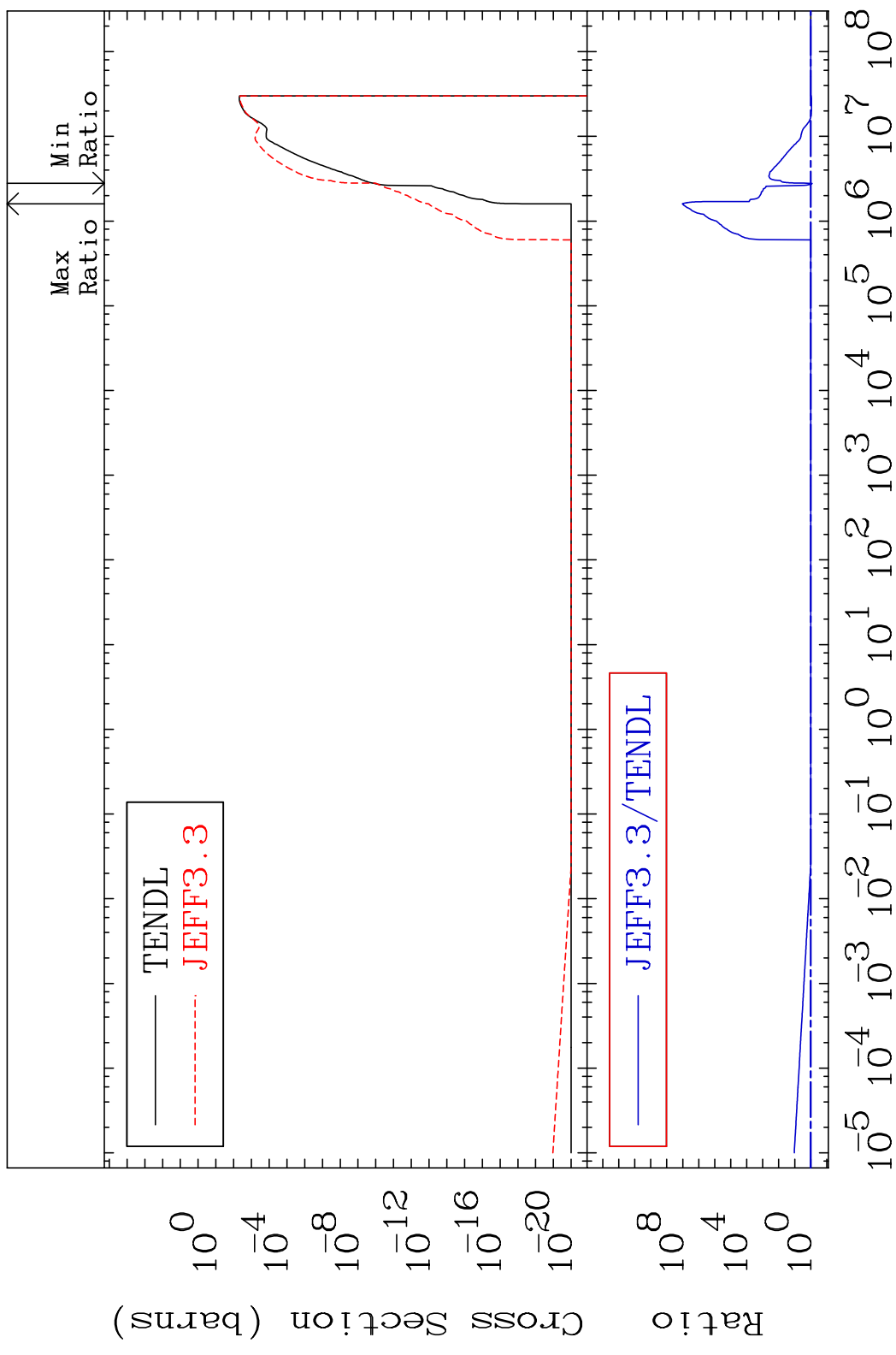
64-Gd-148

MAT 6413

(n, n')  $\alpha$

64-Gd-148

Cross Section -23.08 To 9999. %

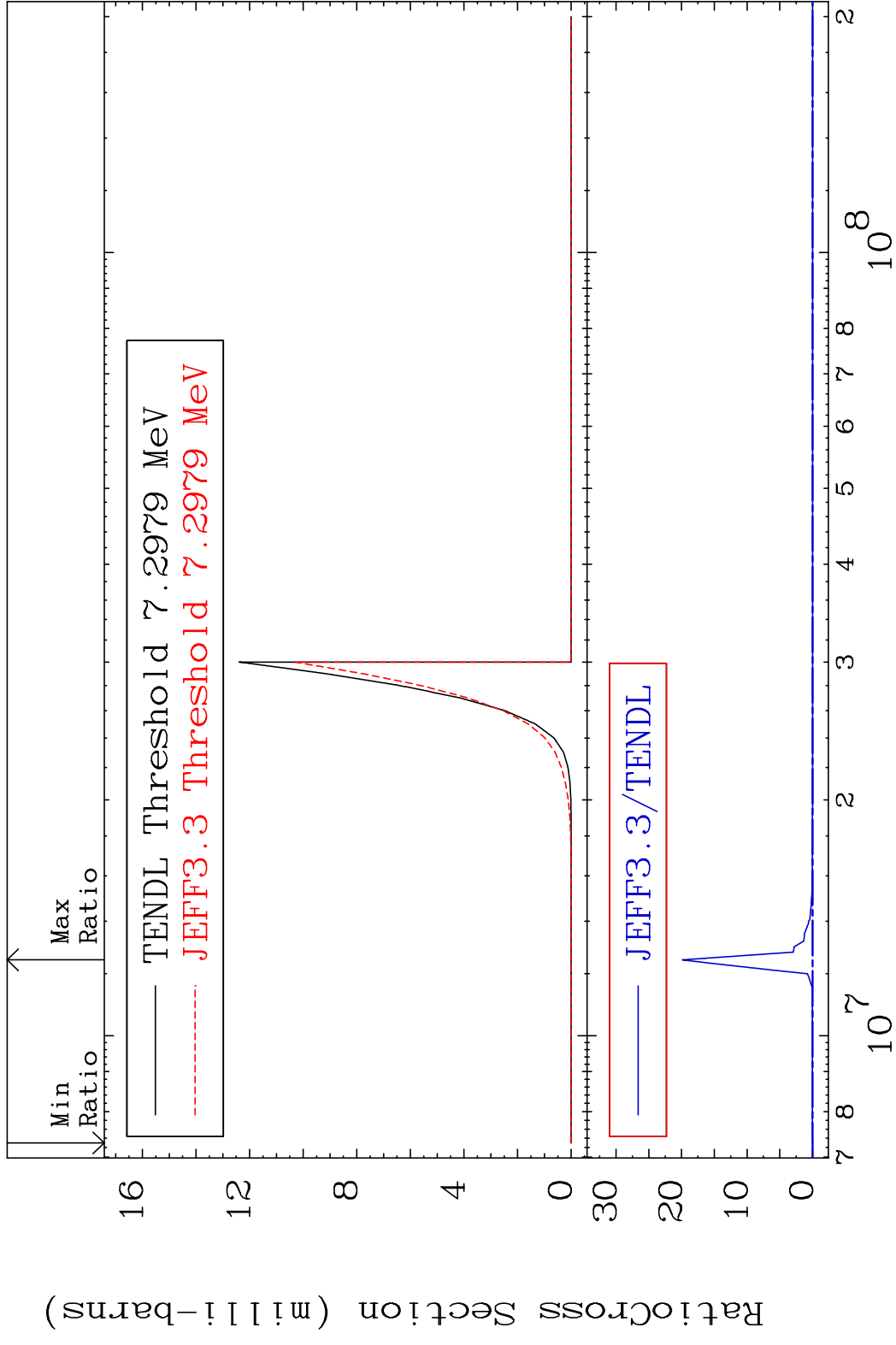


7

Incident Energy (eV)

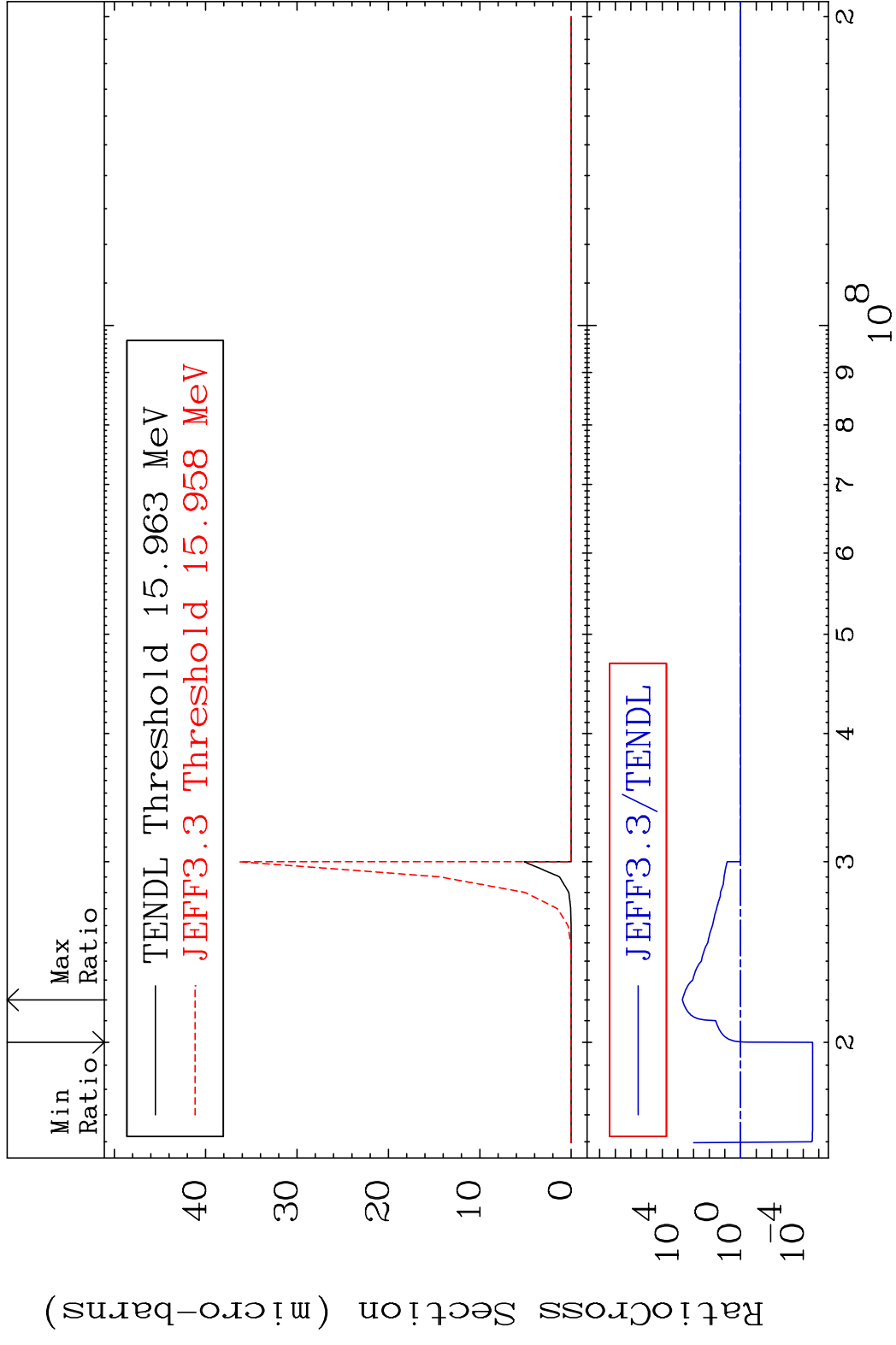
64-Gd-148

MAT 6413 (n,2n)  $\alpha$  64-Gd-148  
 Cross Section -100.0 To 9999. %



8 Incident Energy (eV) 64-Gd-148

MAT 6413 (n,3n)  $\alpha$  64-Gd-148  
 Cross Section -100.0 To 9999. %

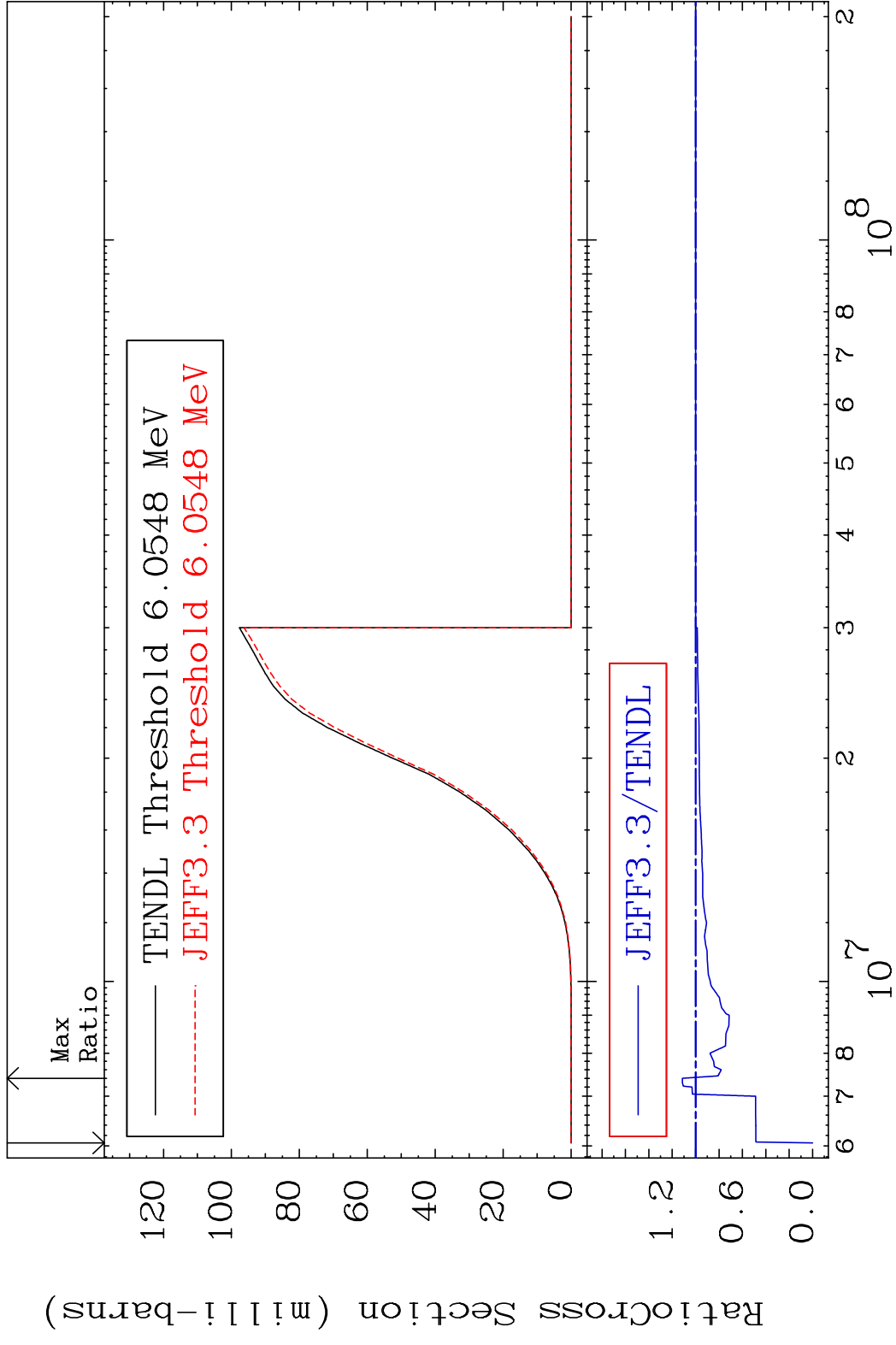


MAT 6413

(n, n') p

64-Gd-148

Cross Section -100.0 To 11.34 %



10

Incident Energy (eV)

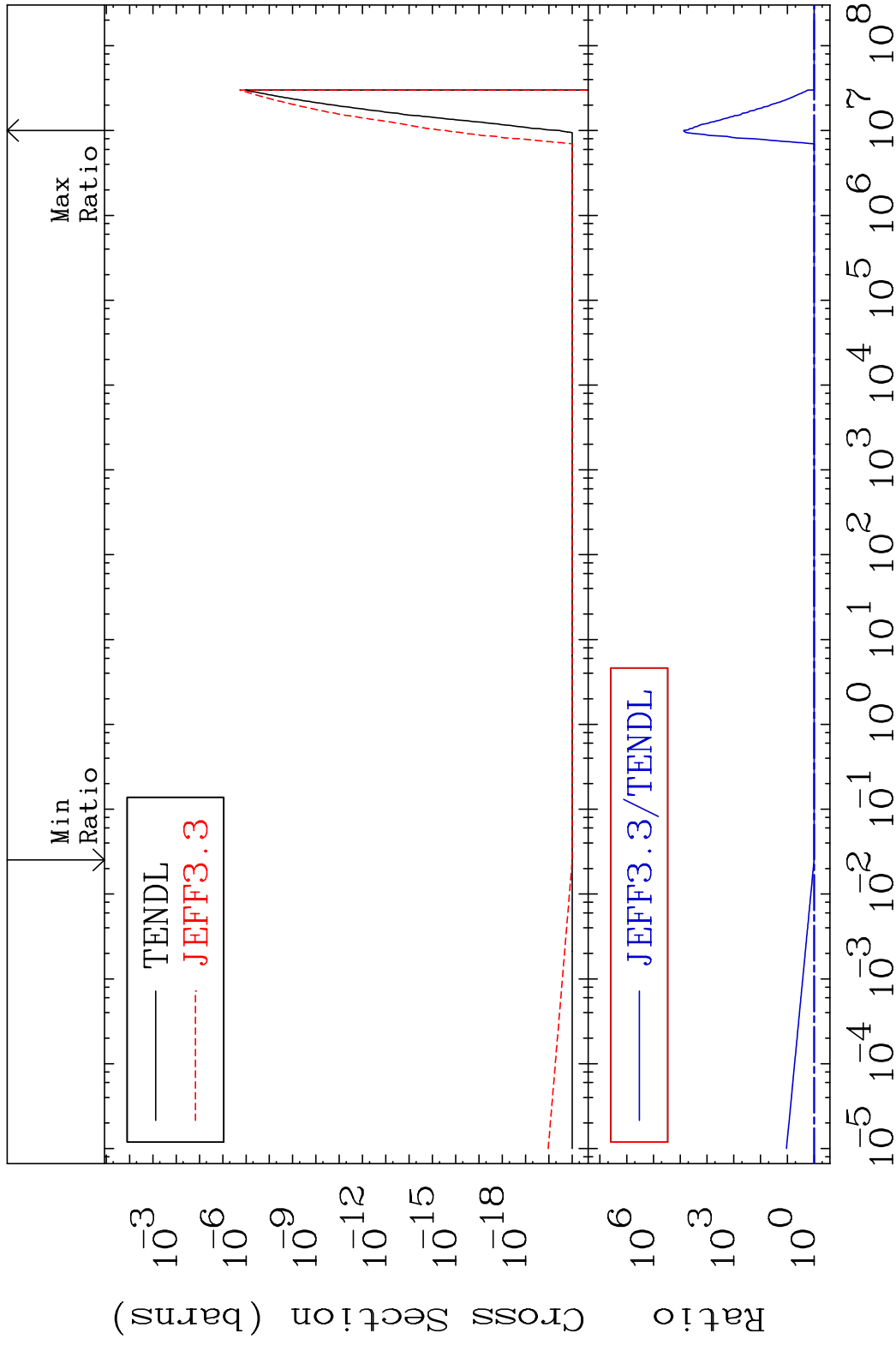
64-Gd-148

MAT 6413

(n, n') 2α

64-Gd-148

Cross Section 0.000 To 9999. %



11

Incident Energy (eV)

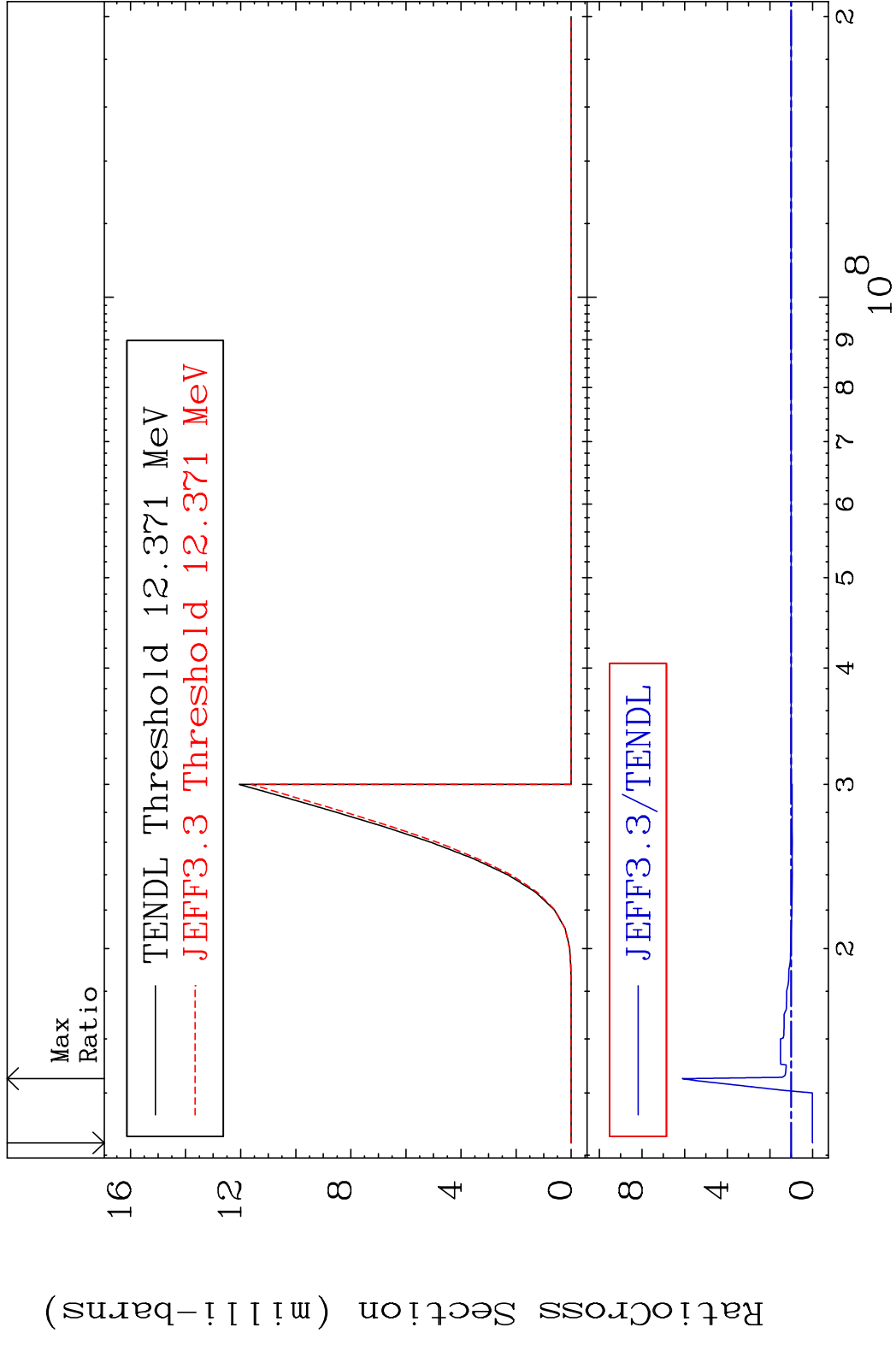
64-Gd-148

MAT 6413

(n, n') d

64-Gd-148

Cross Section -100.0 To 510.5 %

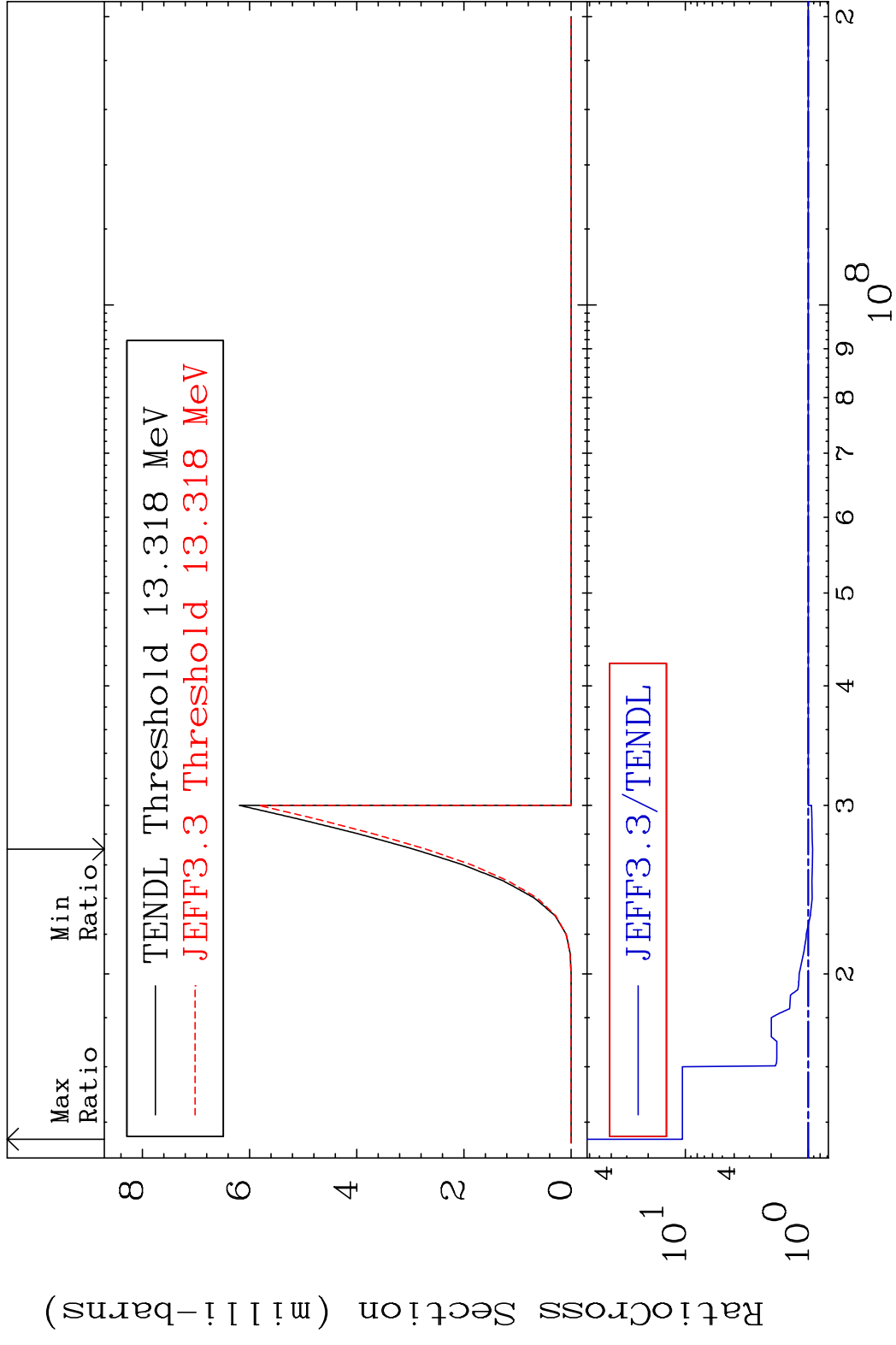


MAT 6413

(n, n') t

64-Gd-148

Cross Section -7.867 To 956.5 %

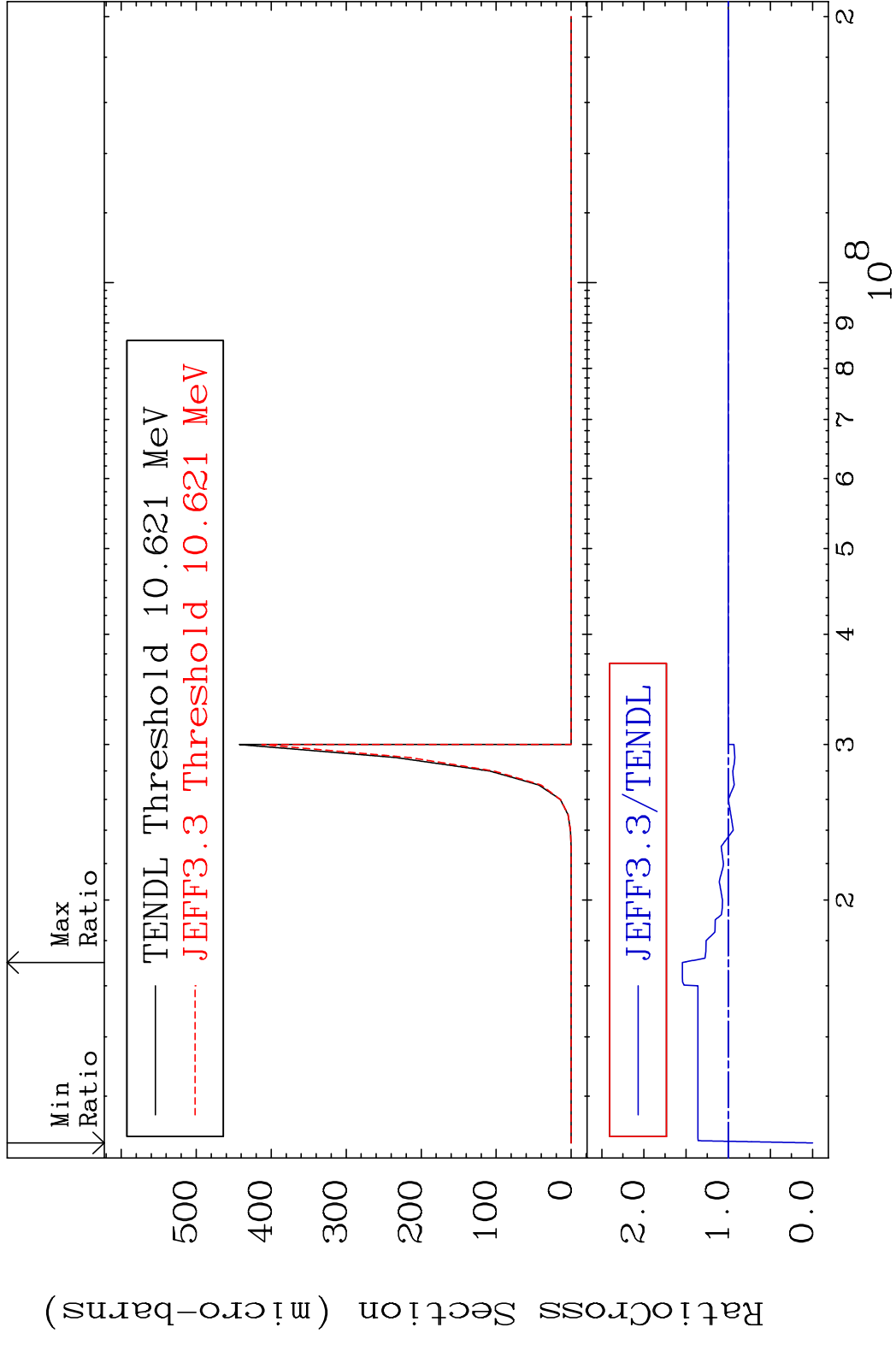


MAT 6413

(n,n') He-3

64-Gd-148

Cross Section -100.0 To 54.43 %

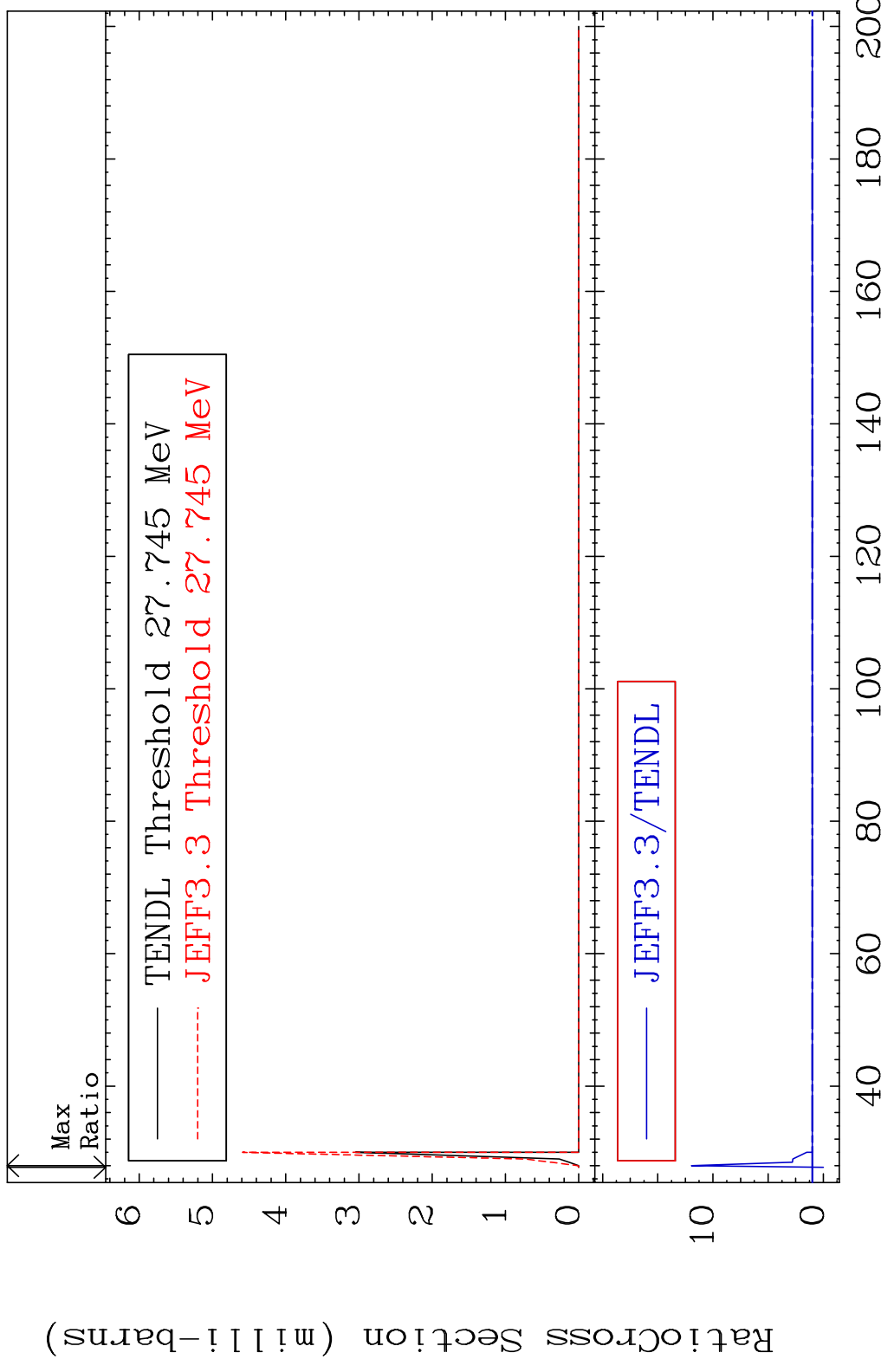


MAT 6413

(n,4n)

64-Gd-148

Cross Section -100.0 To 1095. %

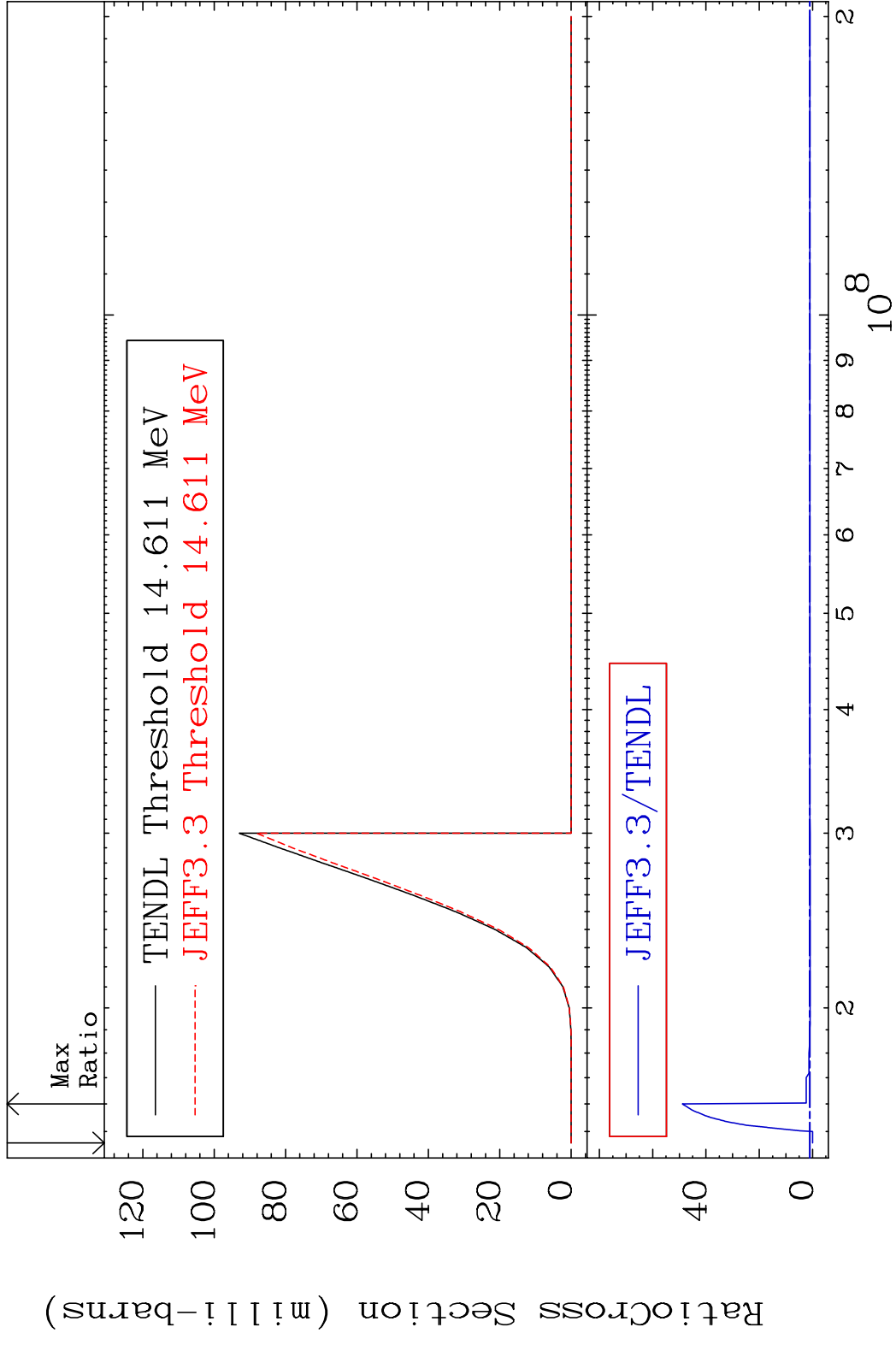


MAT 6413

(n,2n) p

64-Gd-148

Cross Section -100.0 To 4787. %

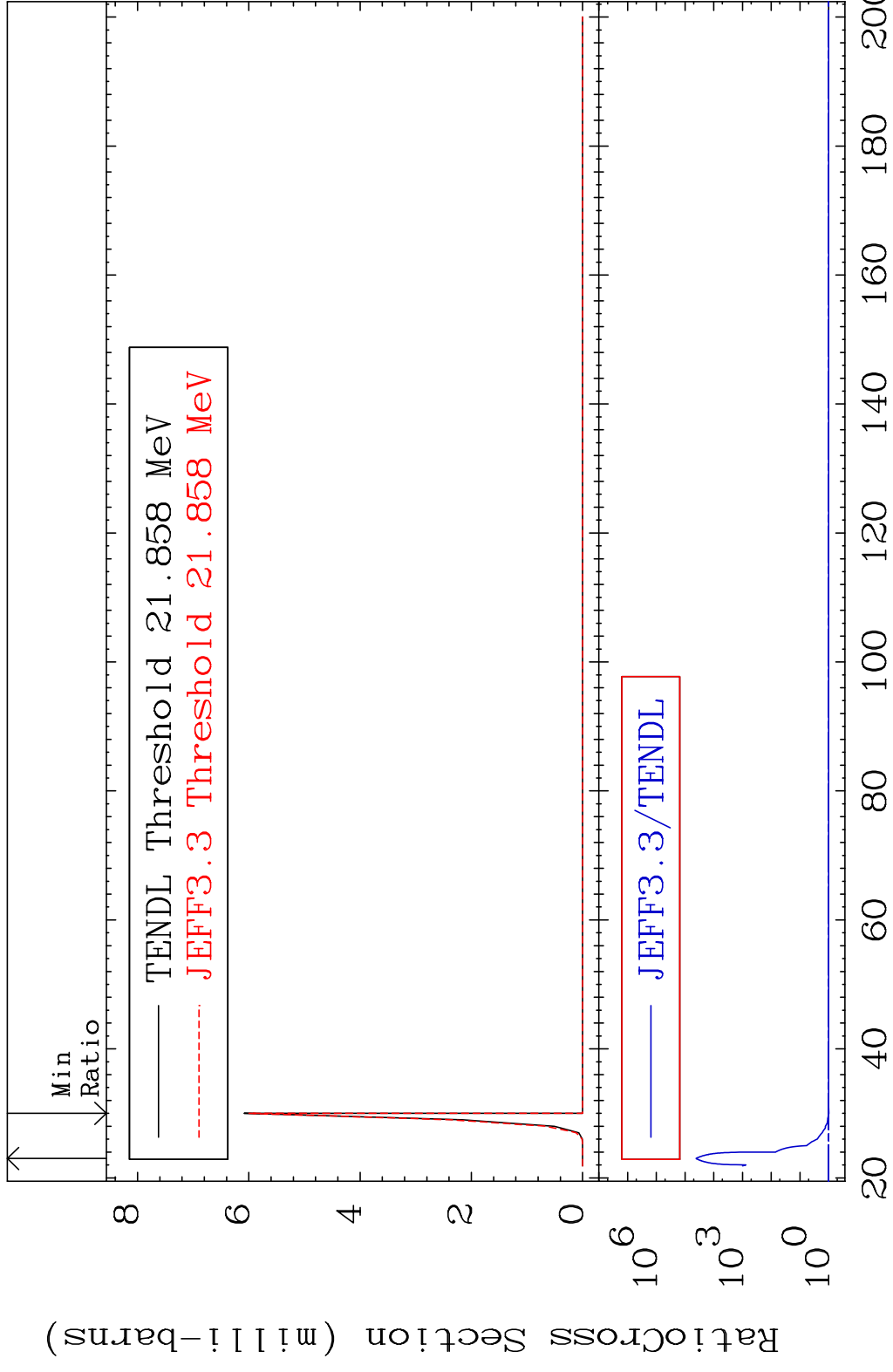


MAT 6413

(n,3n) p

64-Gd-148

Cross Section -1.375 To 9999. %

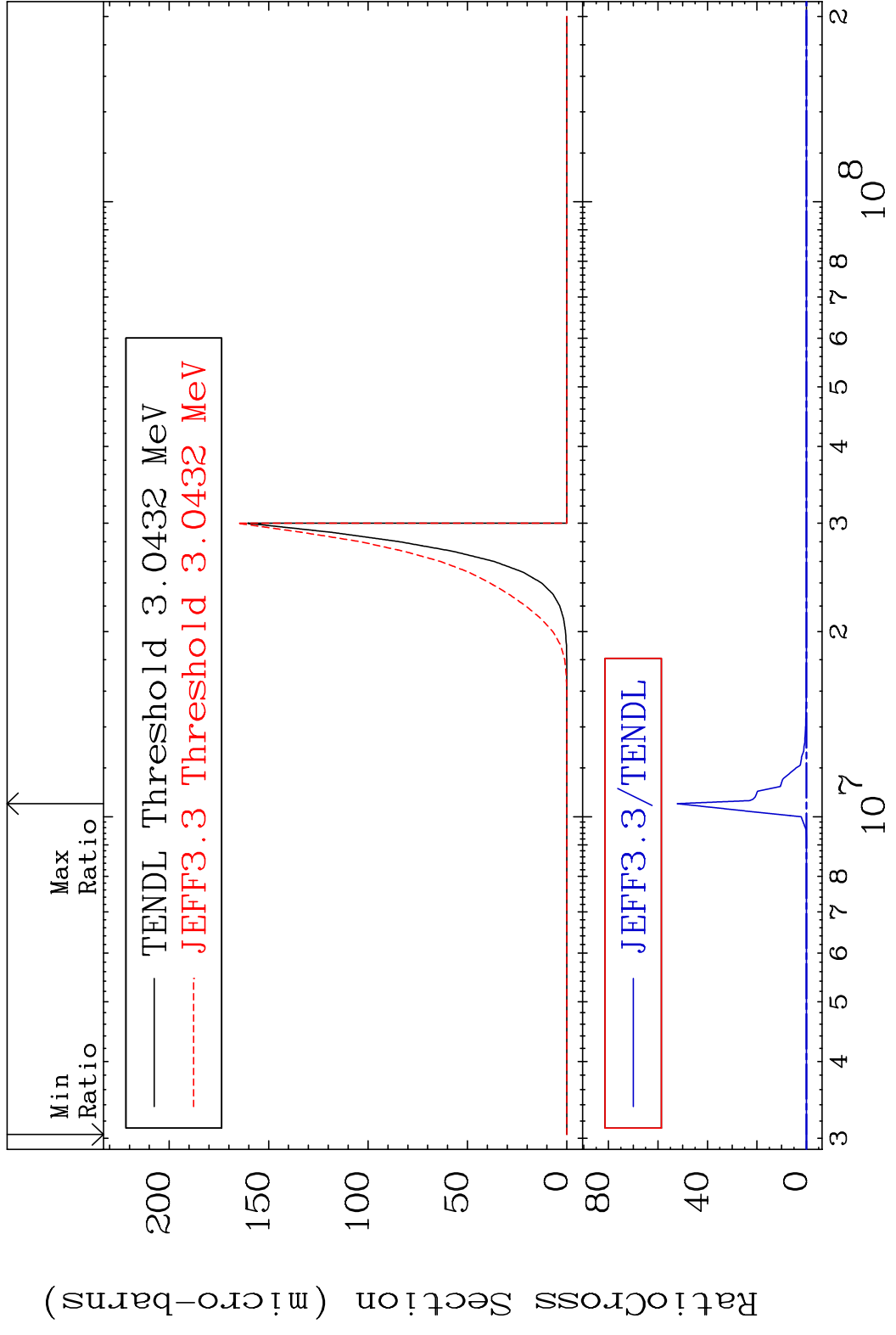




MAT 6413

(n,n') p α  
Cross Section -100.0 To 9999. %

64-Gd-148



19

Incident Energy (eV)

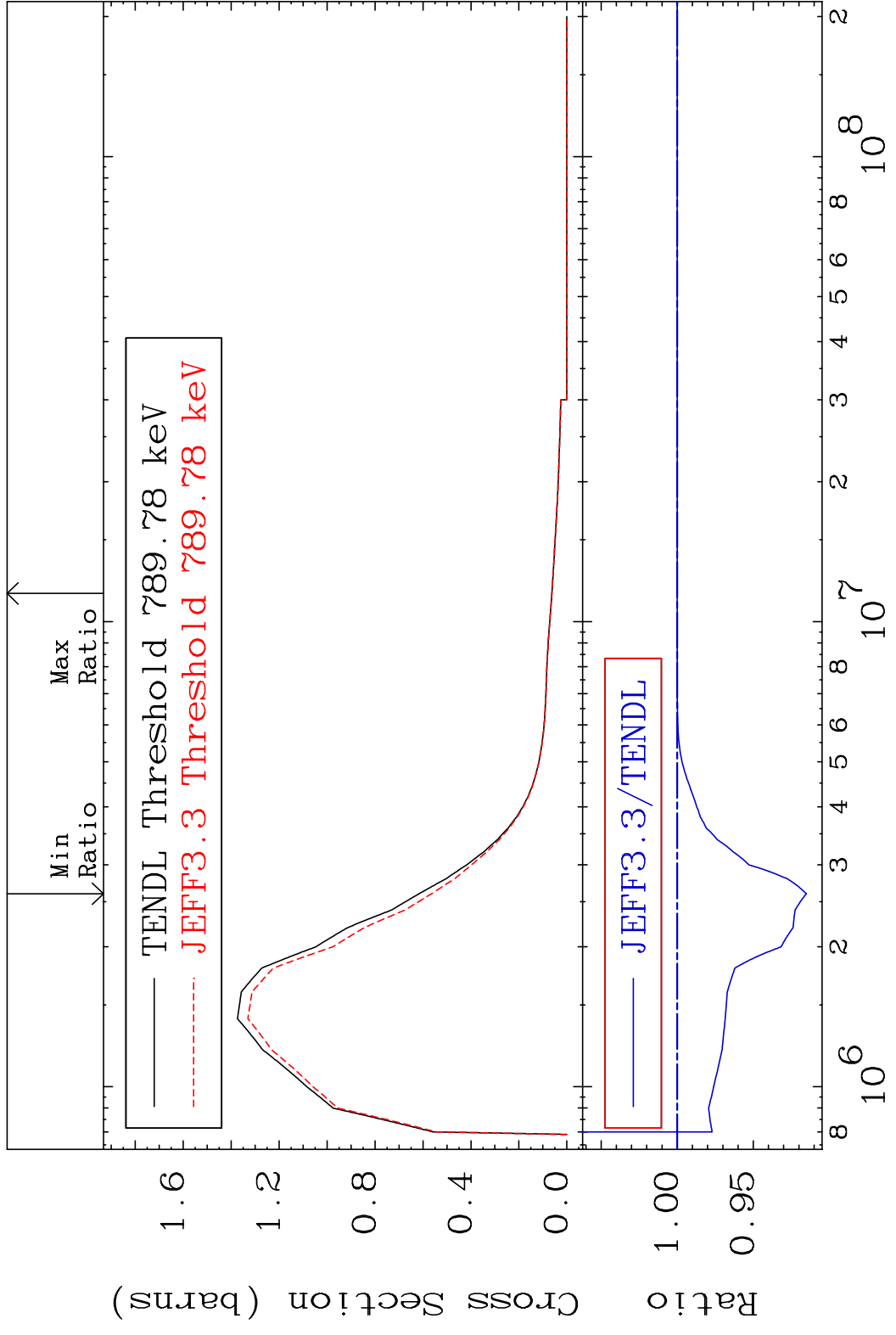
64-Gd-148

MAT 6413

MT= 51 (n, n') Level

64-Gd-148

Cross Section -8.494 To 0.000 %

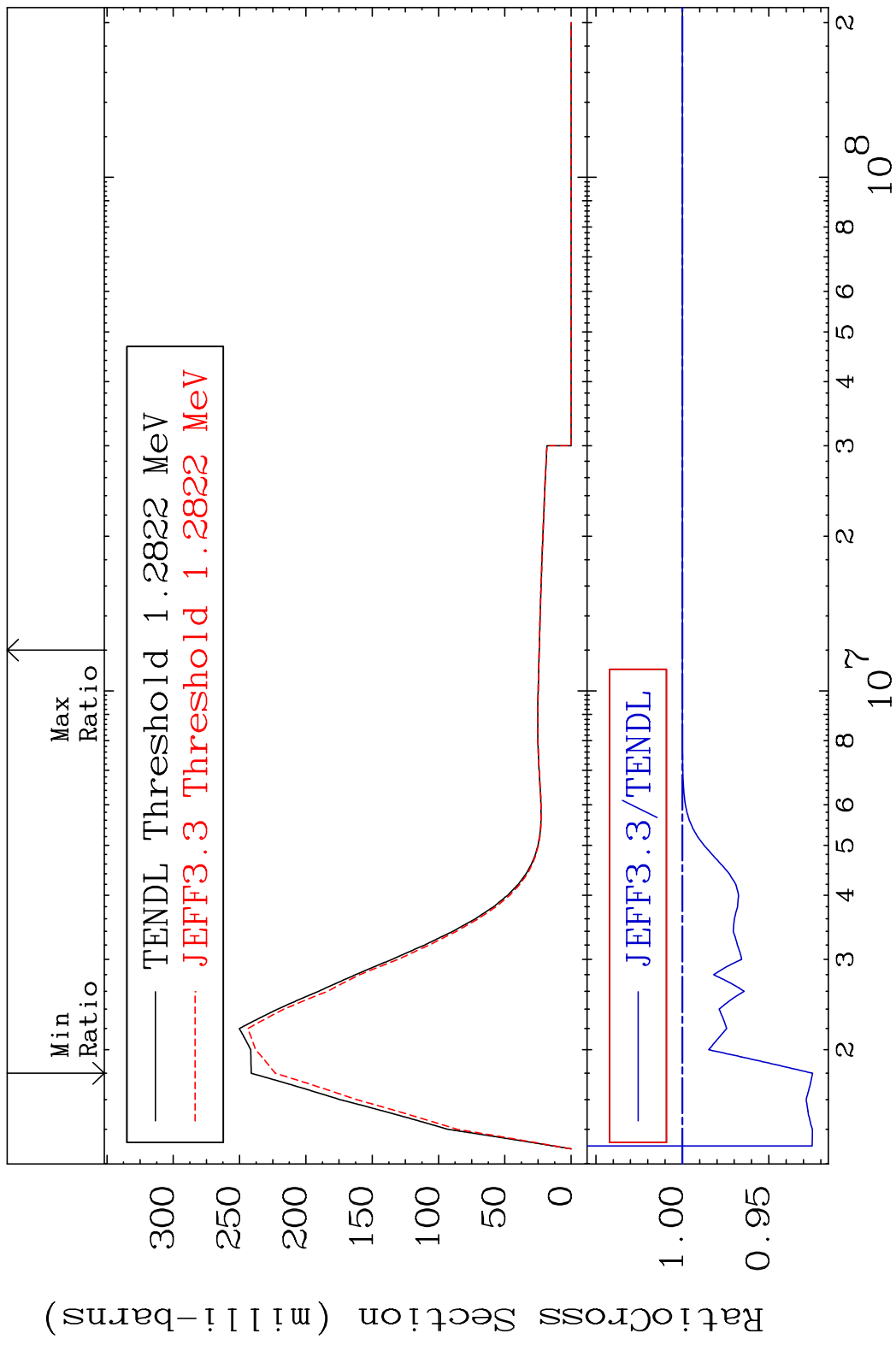


20

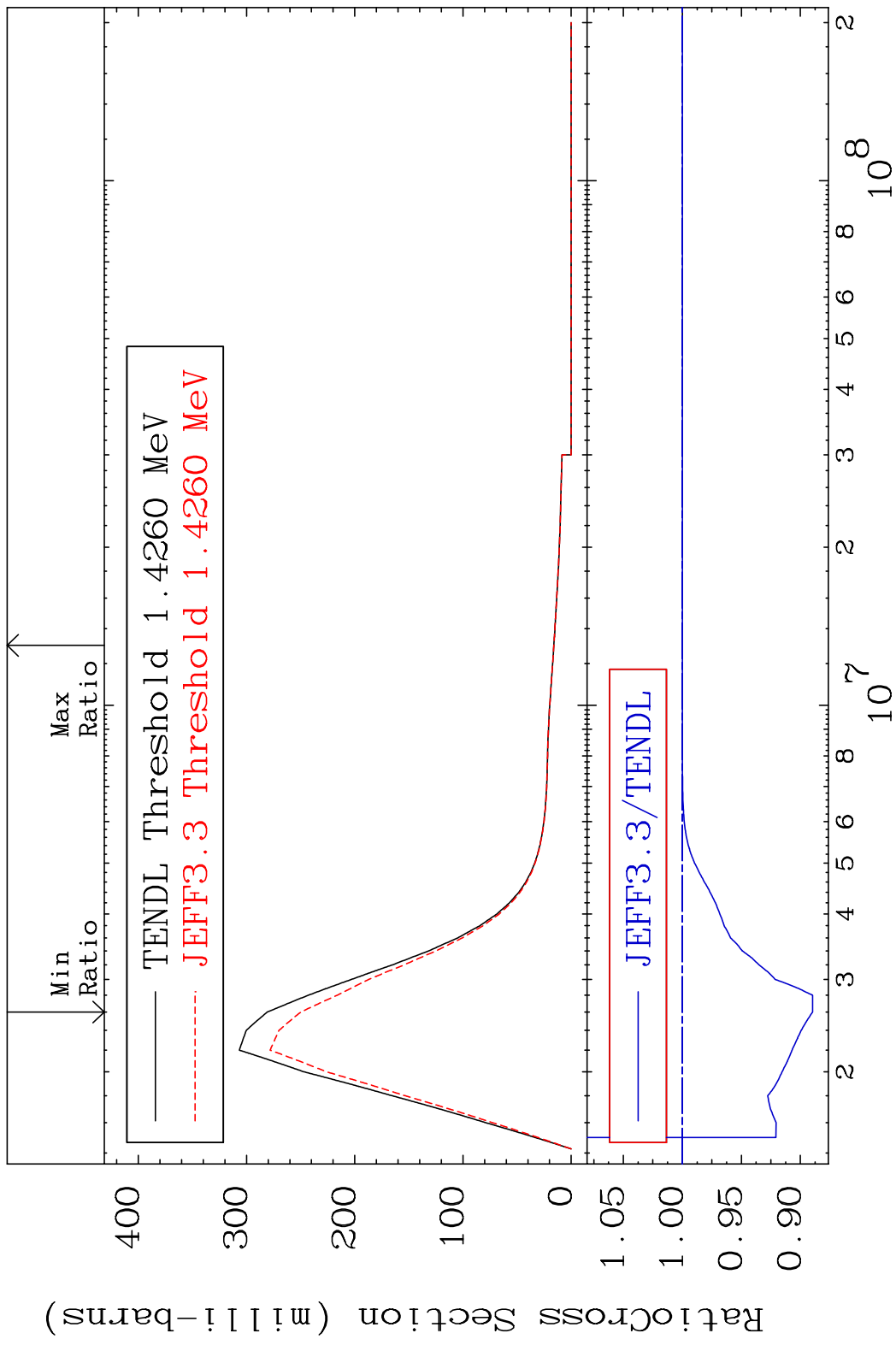
Incident Energy (eV)

64-Gd-148

MAT 6413 MT= 52 (n,n') Level 64-Gd-148  
 Cross Section -7.528 To 0.000 %



MAT 6413 MT= 53 (n,n') Level 64-Gd-148  
 Cross Section -11.03 To 0.000 %

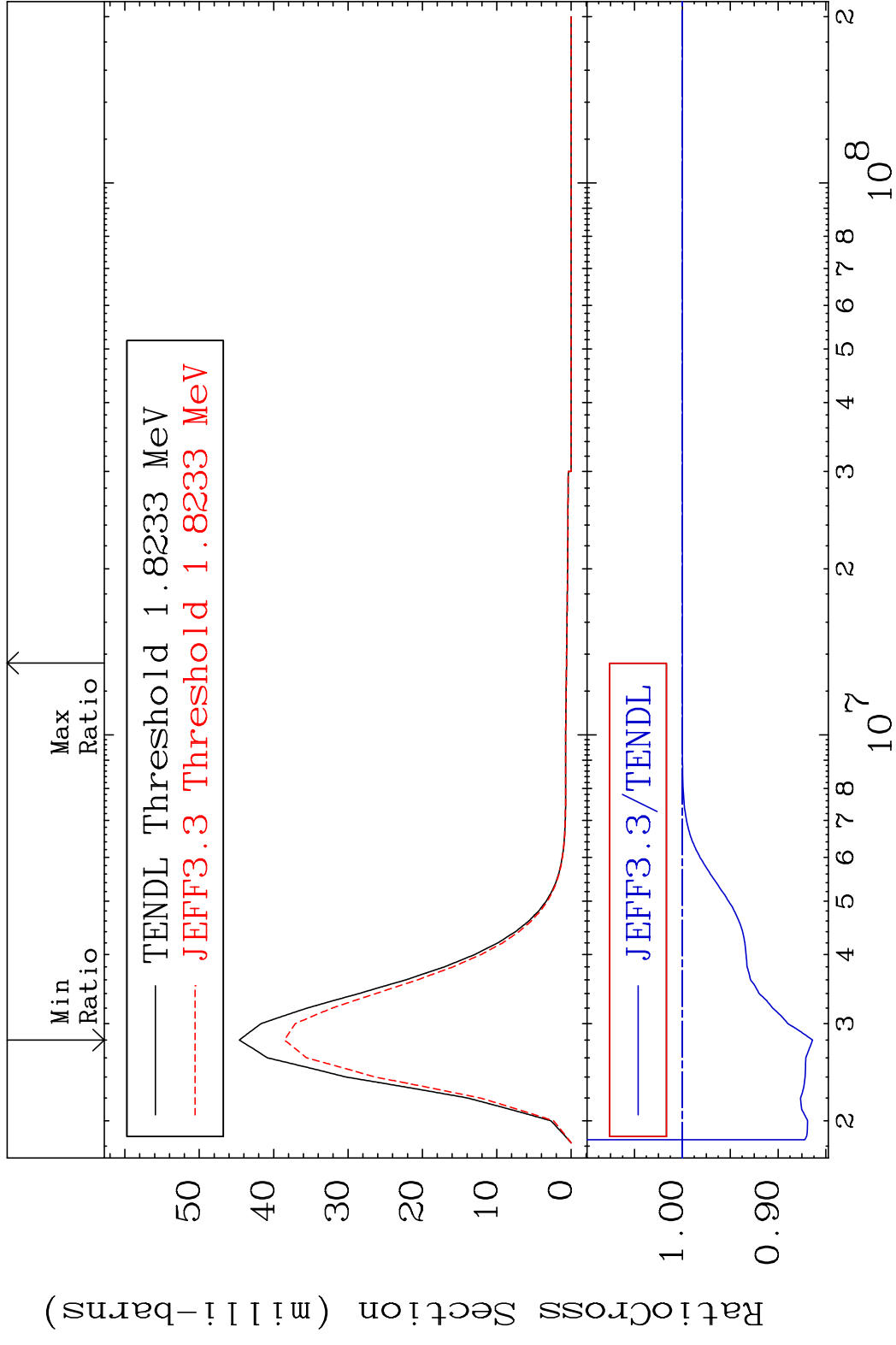


MAT 6413

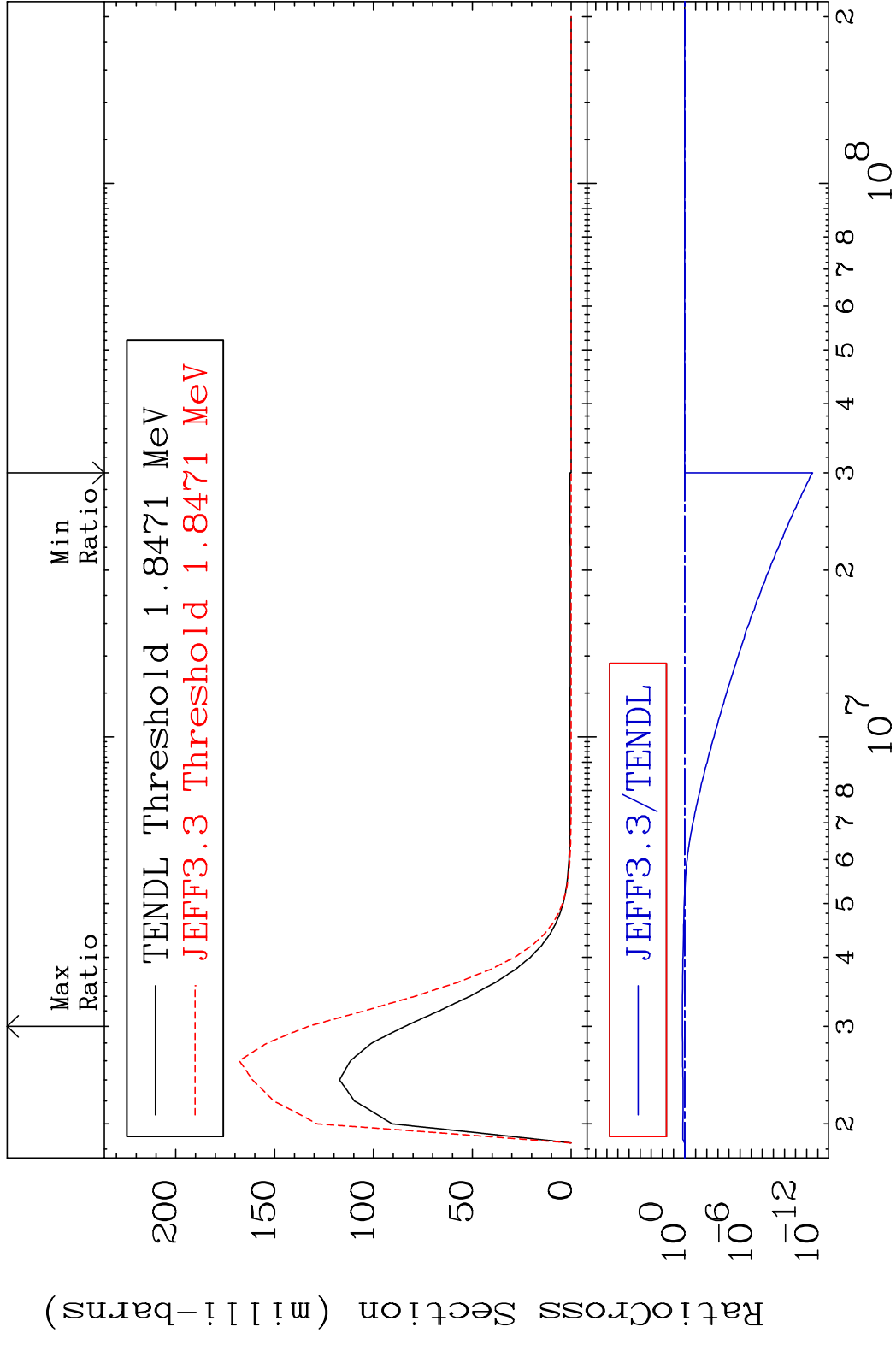
MT= 54 (n,n') Level

64-Gd-148

Cross Section -13.60 To 0.000 %

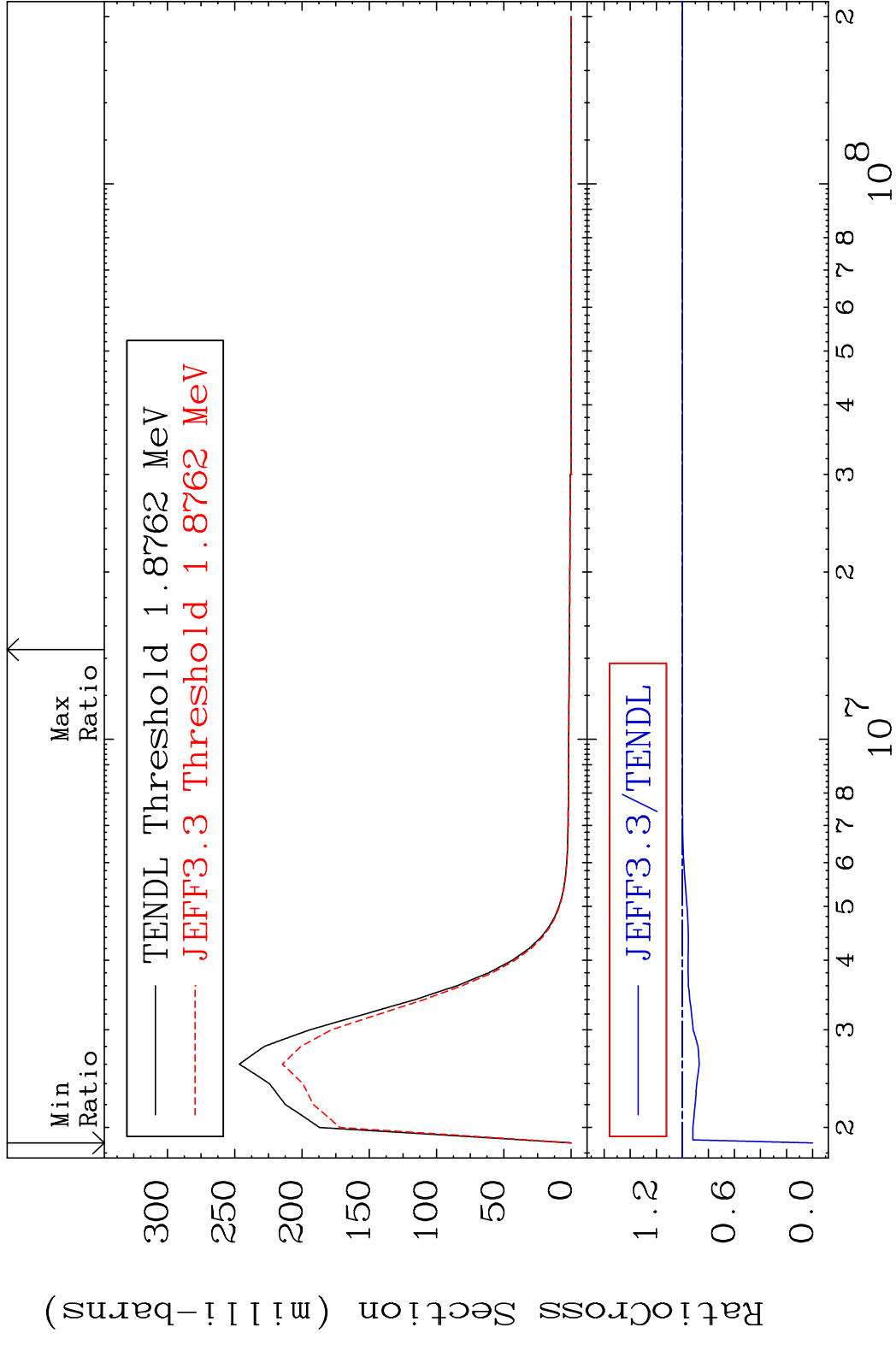


MAT 6413 MT= 55 (n, n') Level 64-Gd-148  
 Cross Section -100.0 To 58.16 %

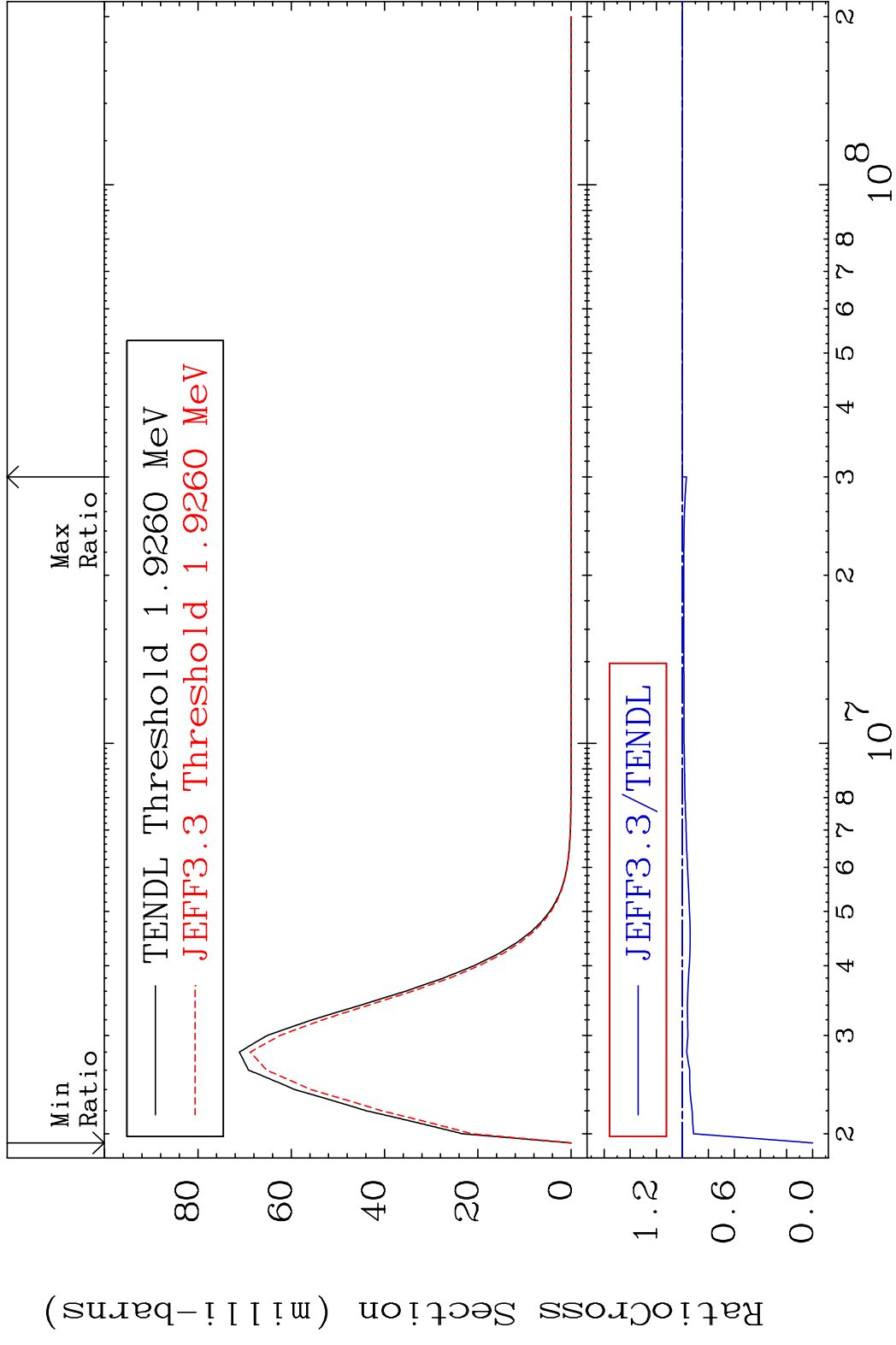


24 Incident Energy (eV) 64-Gd-148

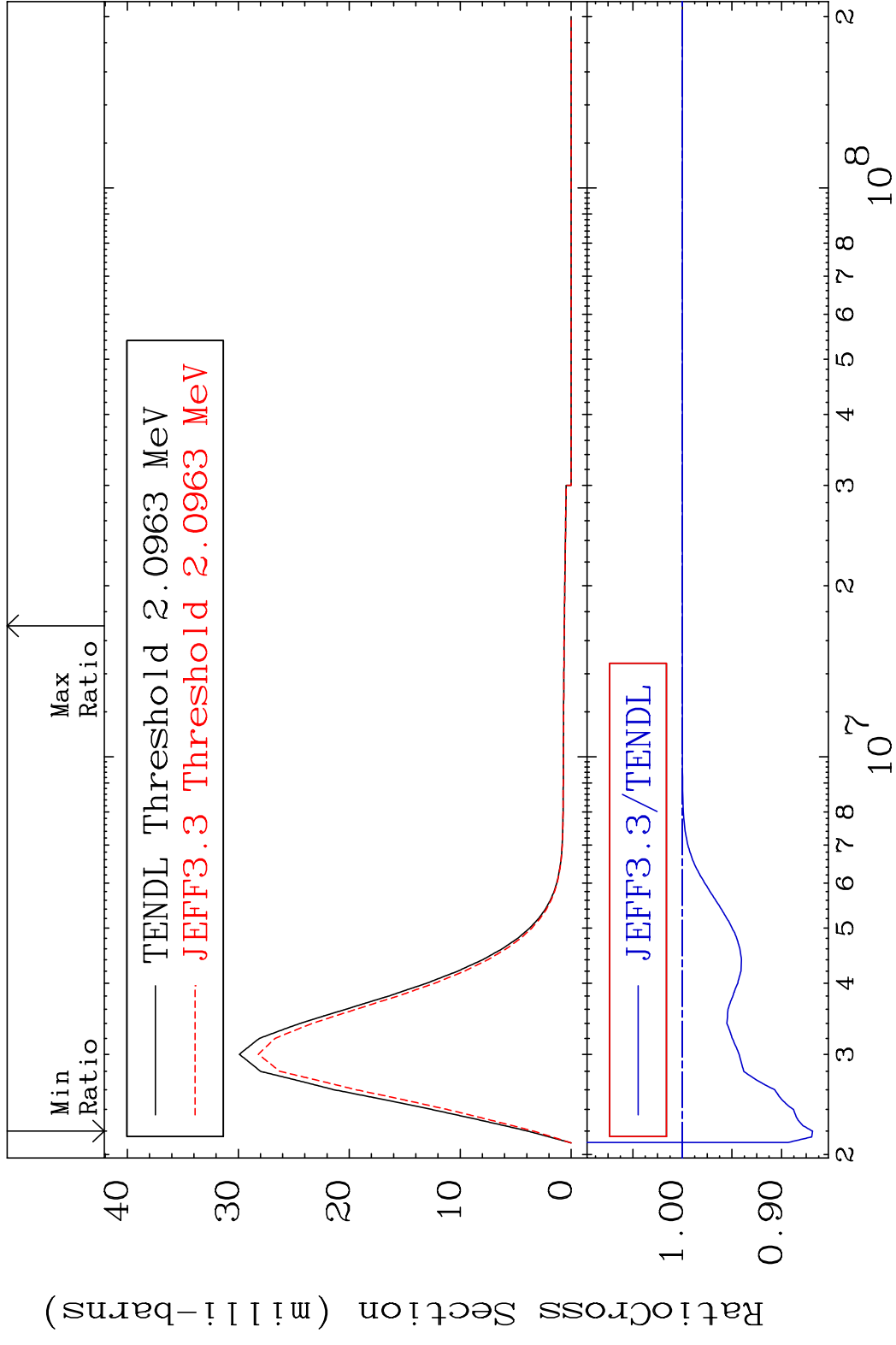
MAT 6413 MT= 56 (n,n') Level 64-Gd-148  
 Cross Section -100.0 To 0.000 %



MAT 6413 MT= 57 (n, n') Level 64-Gd-148  
 Cross Section -100.0 To 0.000 %



MAT 6413 MT= 58 (n, n') Level 64-Gd-148  
 Cross Section -13.13 To 0.000 %



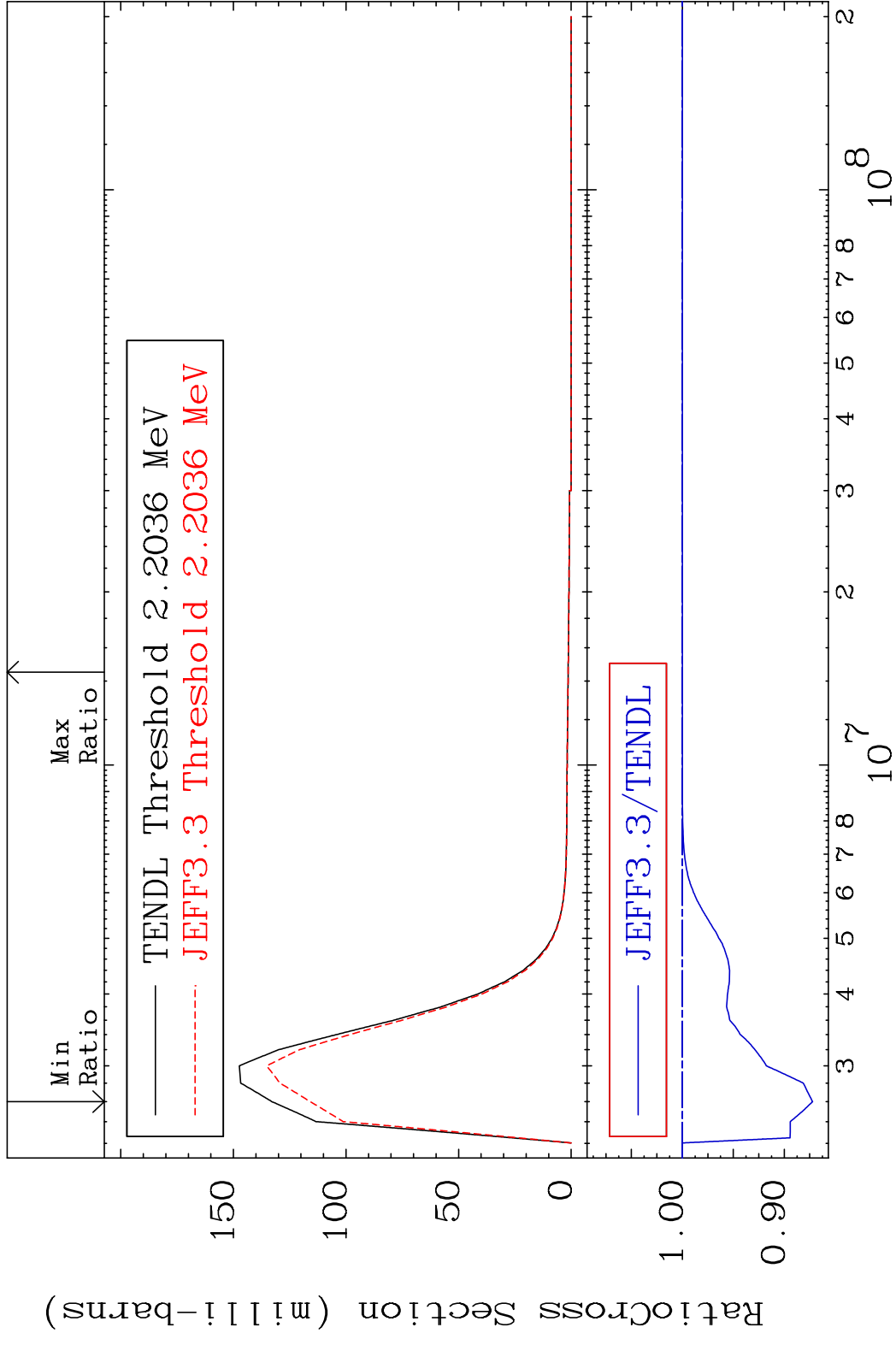
27 Incident Energy (eV) 64-Gd-148

MAT 6413

MT= 59 (n, n') Level

64-Gd-148

Cross Section -12.77 To 0.000 %

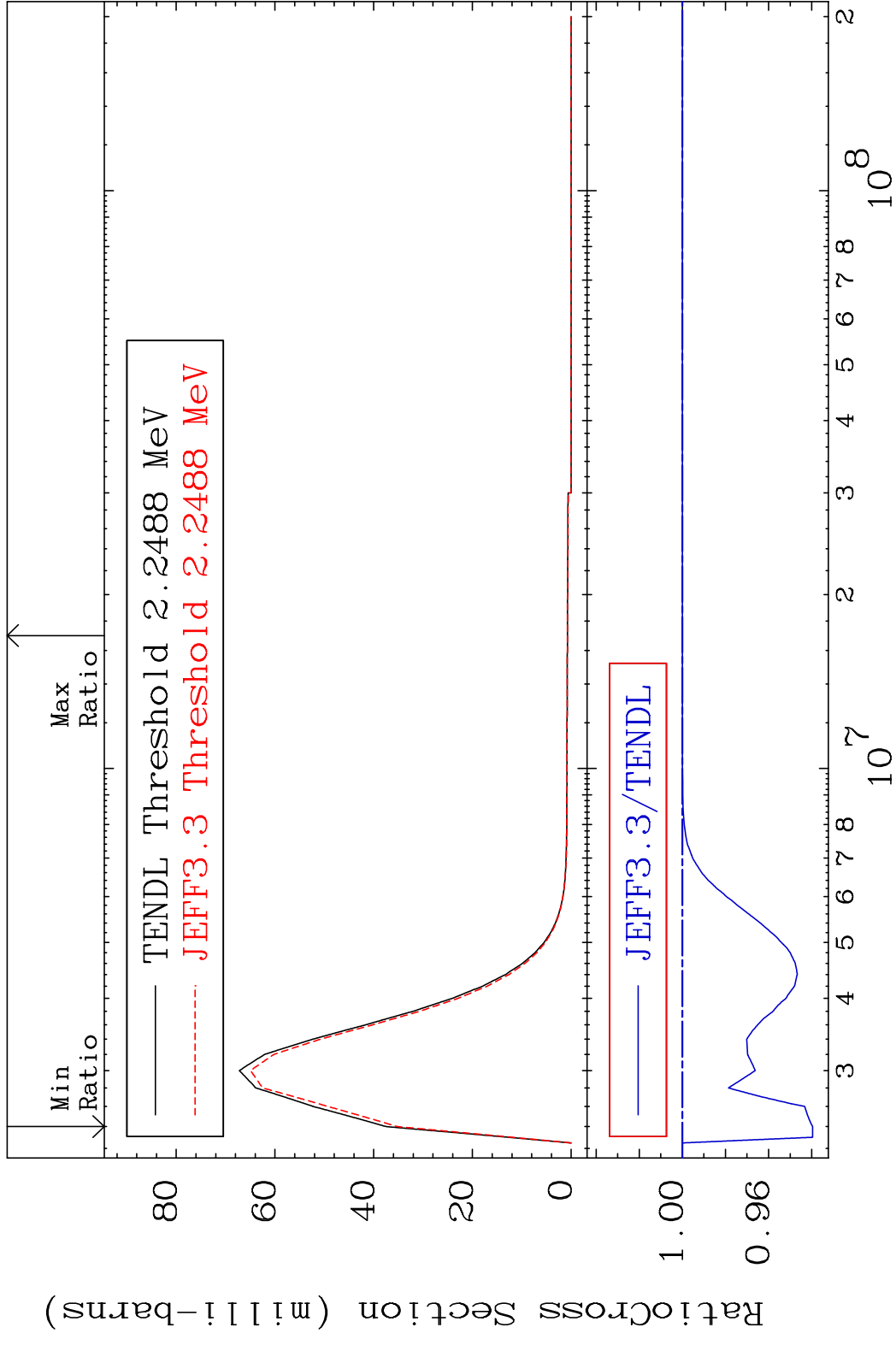


MAT 6413

MT= 60 (n, n') Level

64-Gd-148

Cross Section -6.038 To 0.000 %

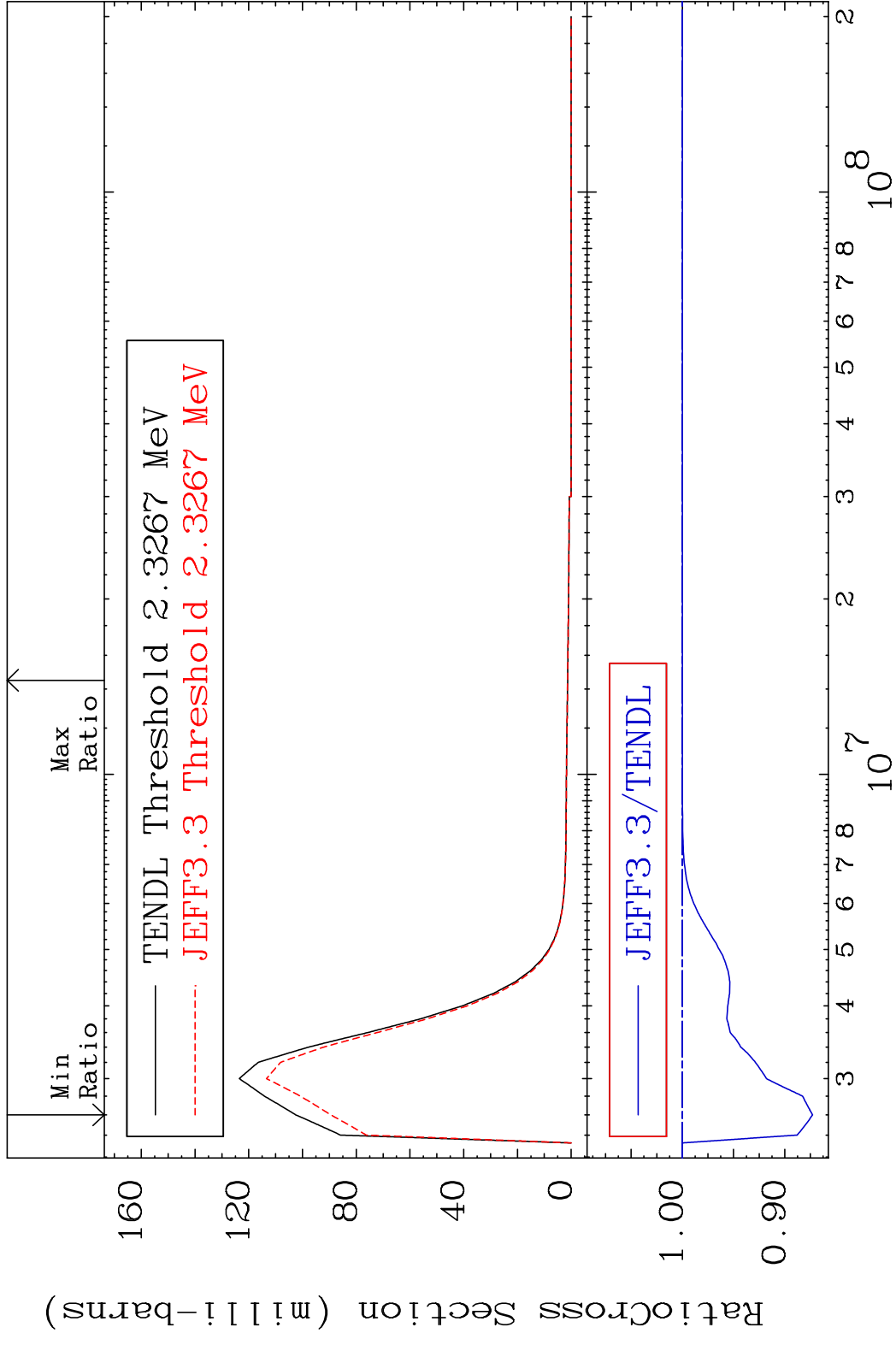


MAT 6413

MT= 61 (n, n') Level

64-Gd-148

Cross Section -12.71 To 0.000 %

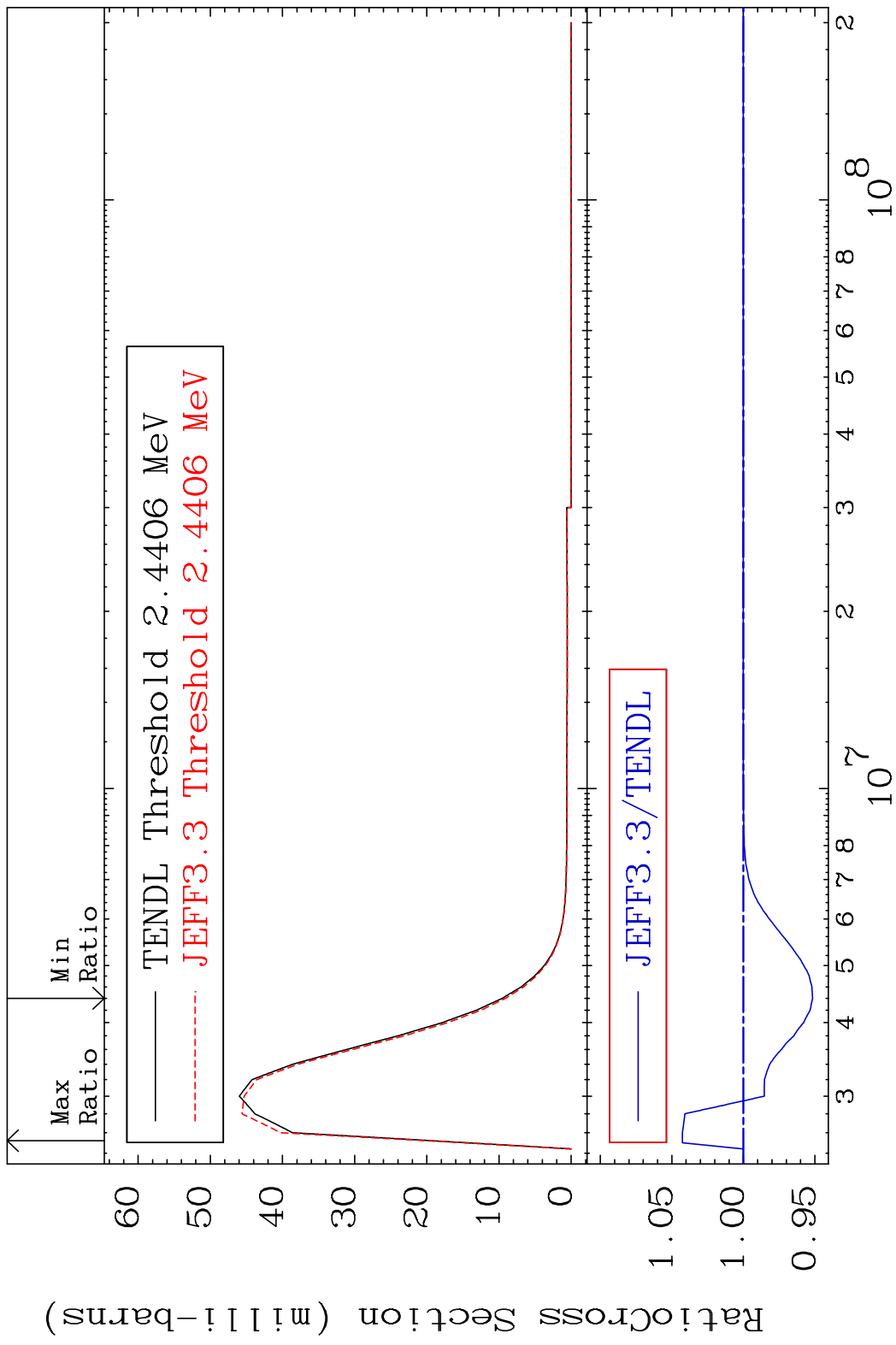


30

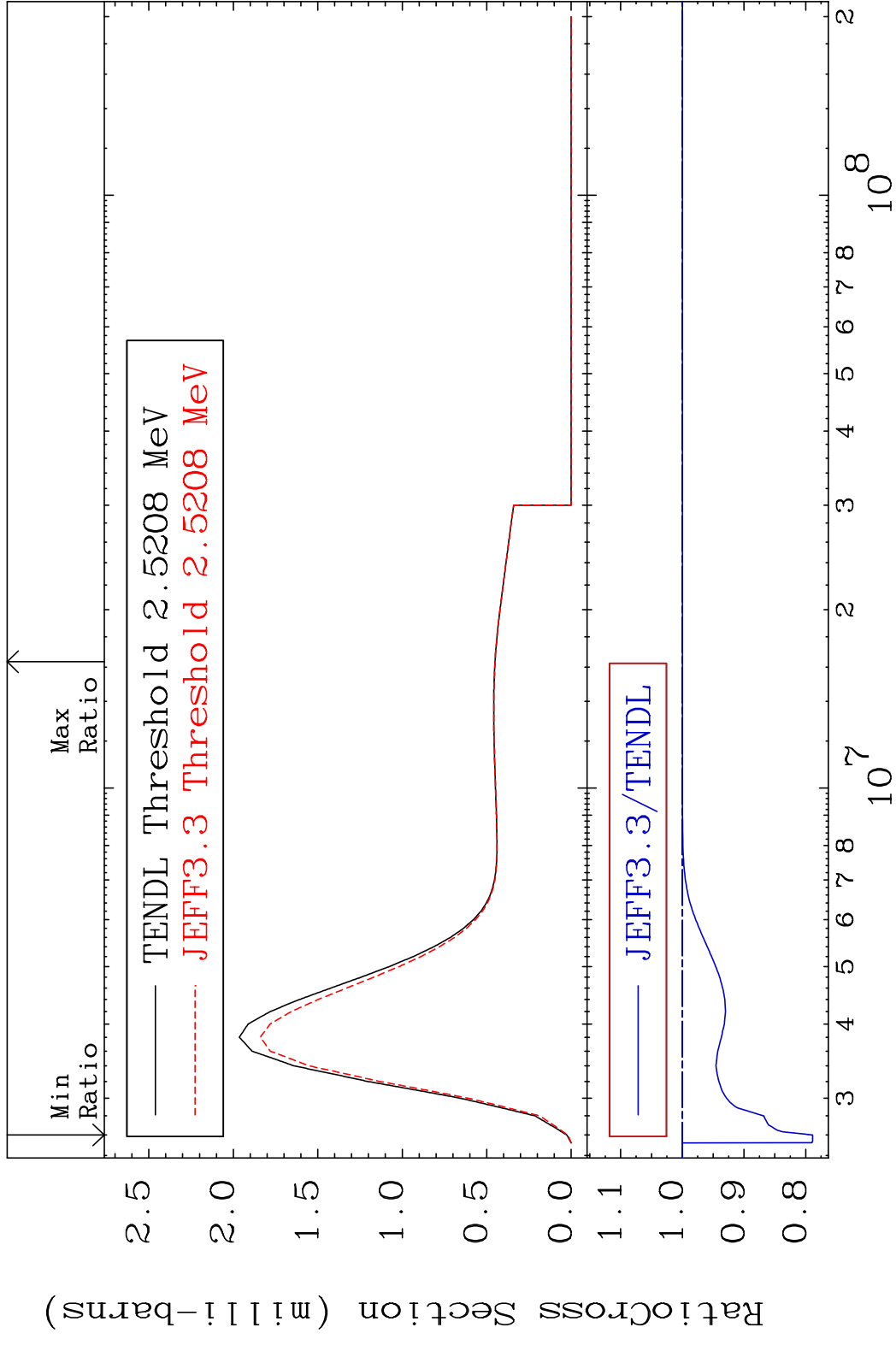
Incident Energy (eV)

64-Gd-148

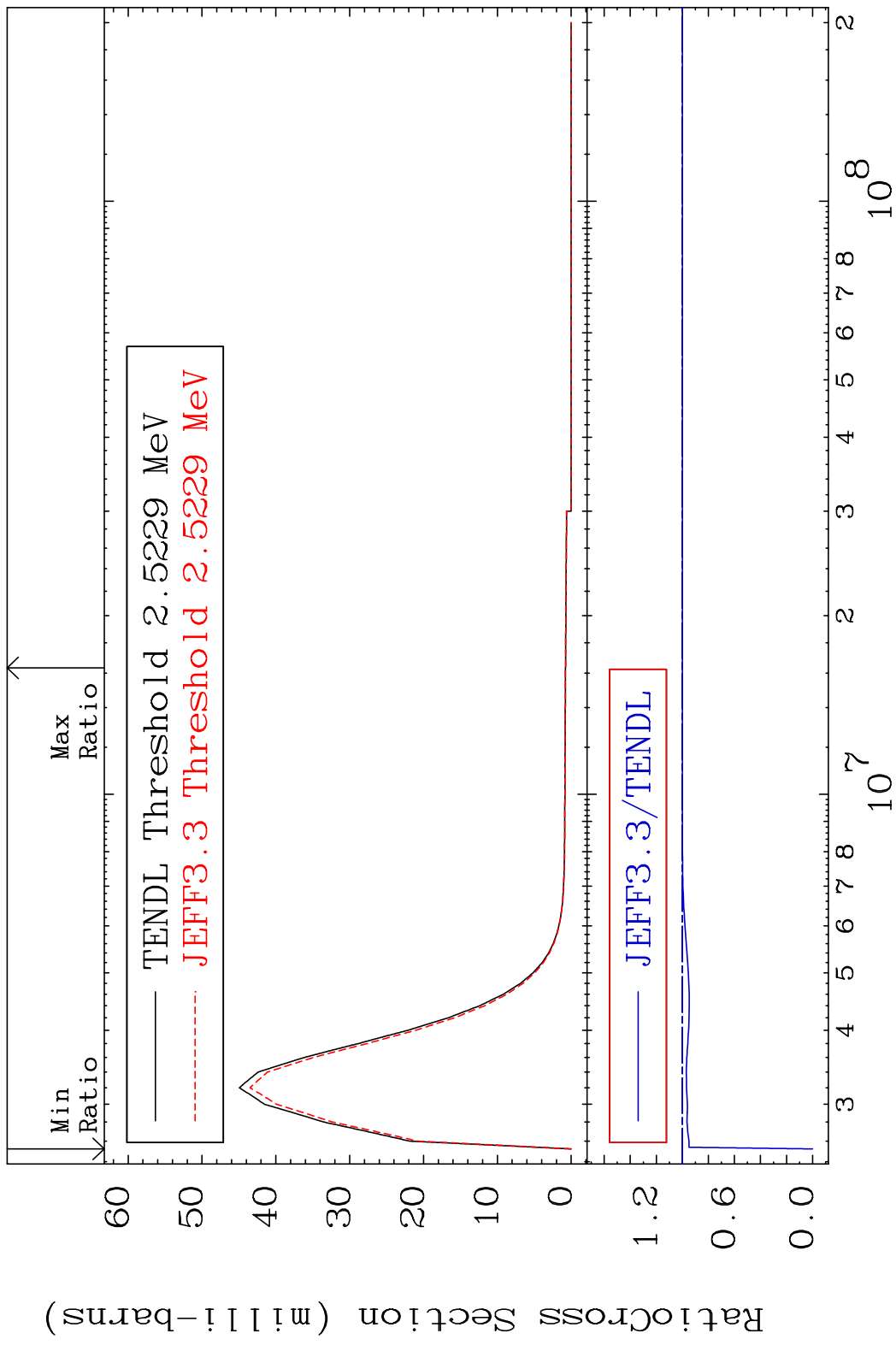
MAT 6413 MT= 62 (n, n') Level 64-Gd-148  
 Cross Section -4.836 To 4.265 %



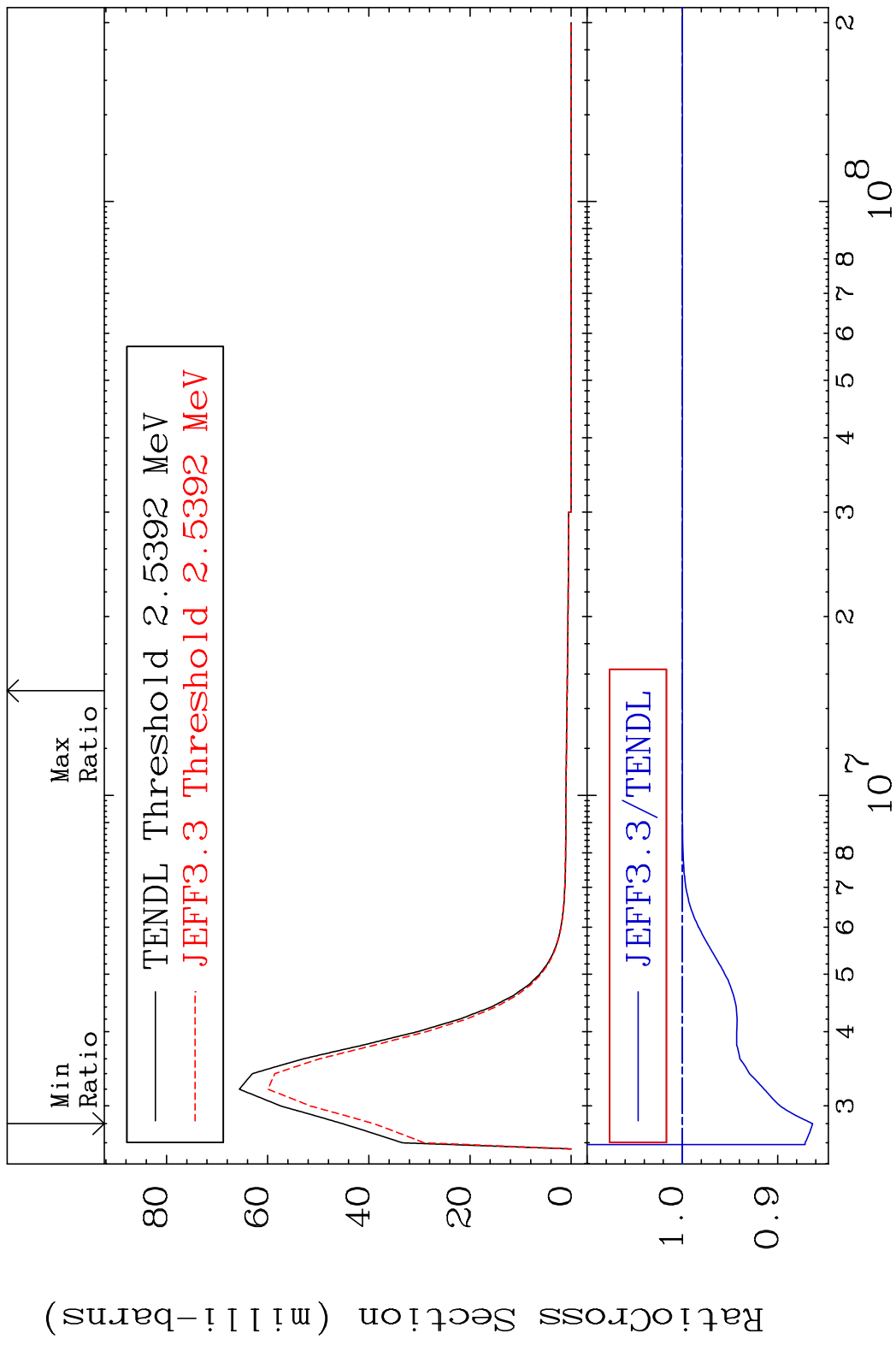
MAT 6413 MT= 63 (n, n') Level 64-Gd-148  
 Cross Section -21.12 To 0.000 %



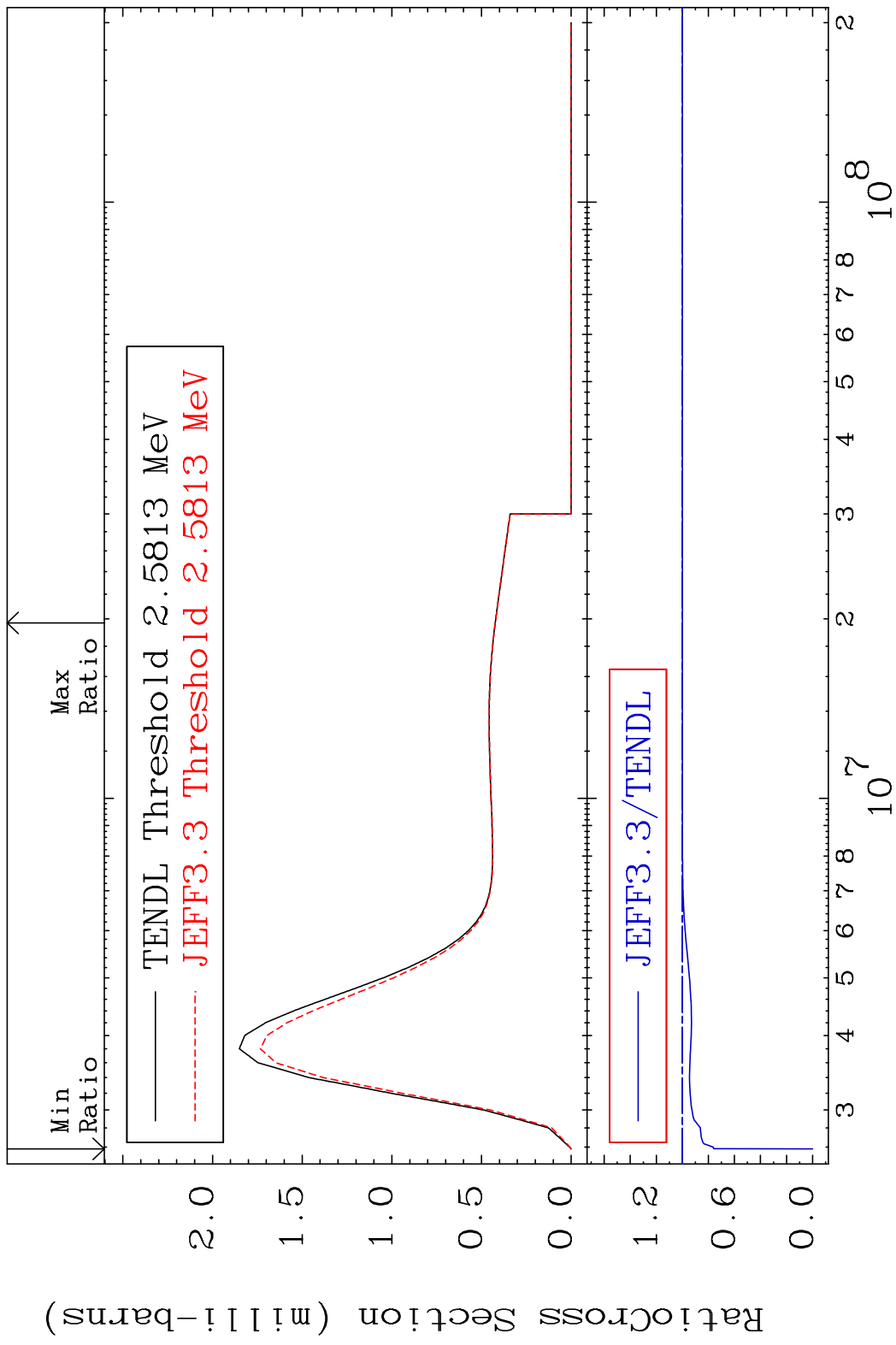
MAT 6413 MT= 64 (n, n') Level 64-Gd-148  
 Cross Section -100.0 To 0.000 %



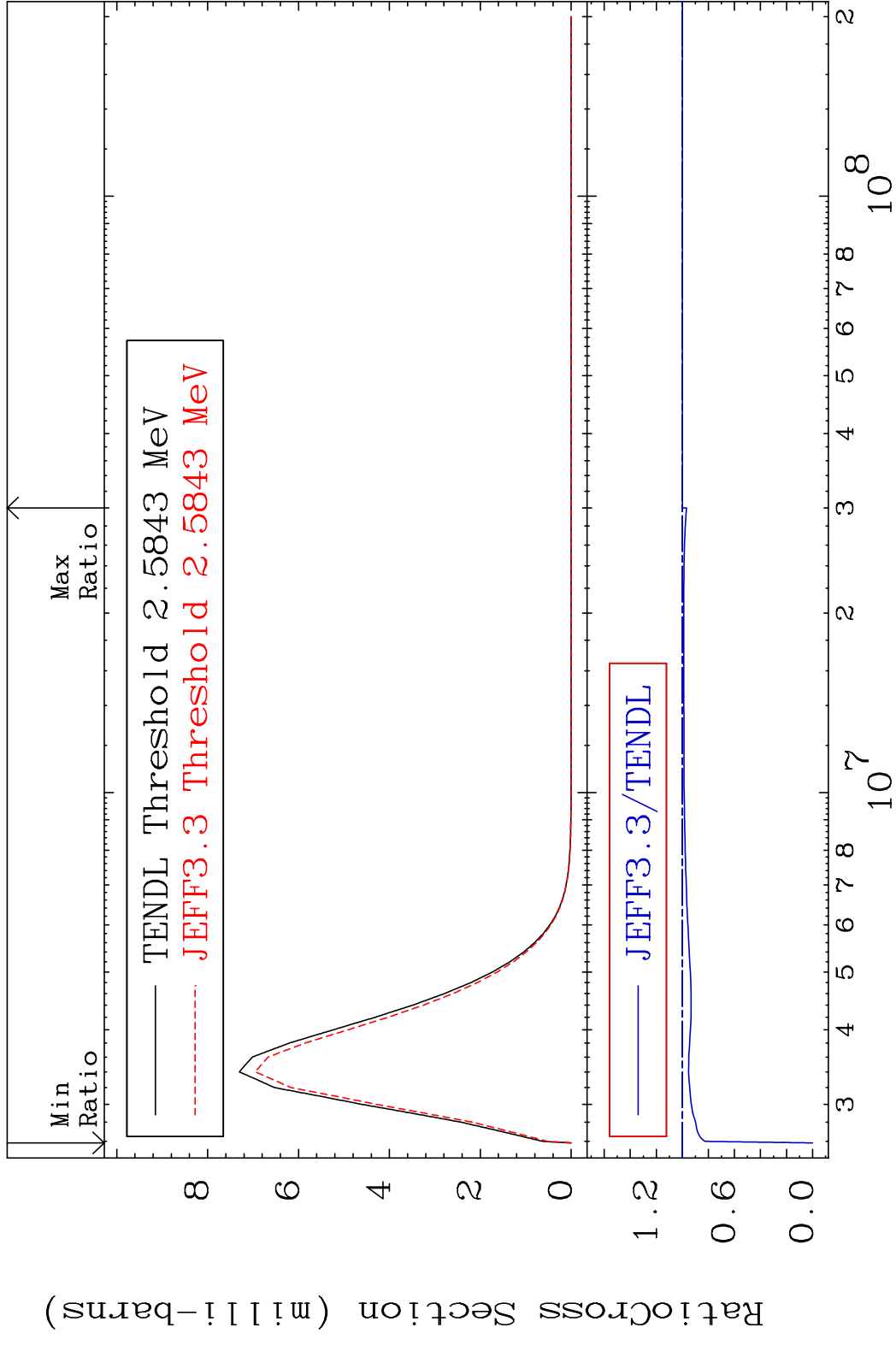
MAT 6413 MT= 65 (n,n') Level 64-Gd-148  
 Cross Section -13.67 To 0.000 %



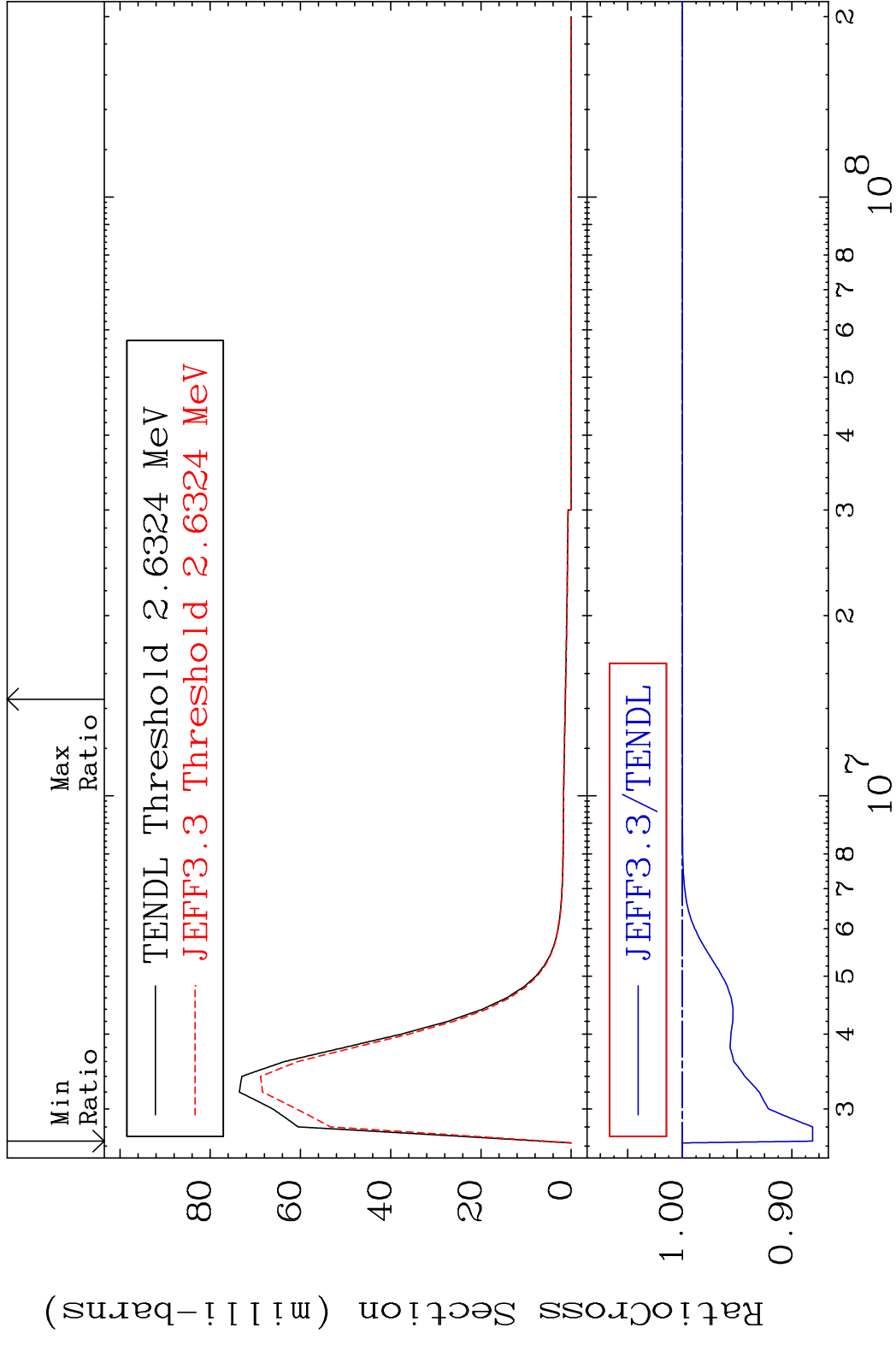
MAT 6413 MT= 66 (n,n') Level 64-Gd-148  
 Cross Section -100.0 To 0.000 %



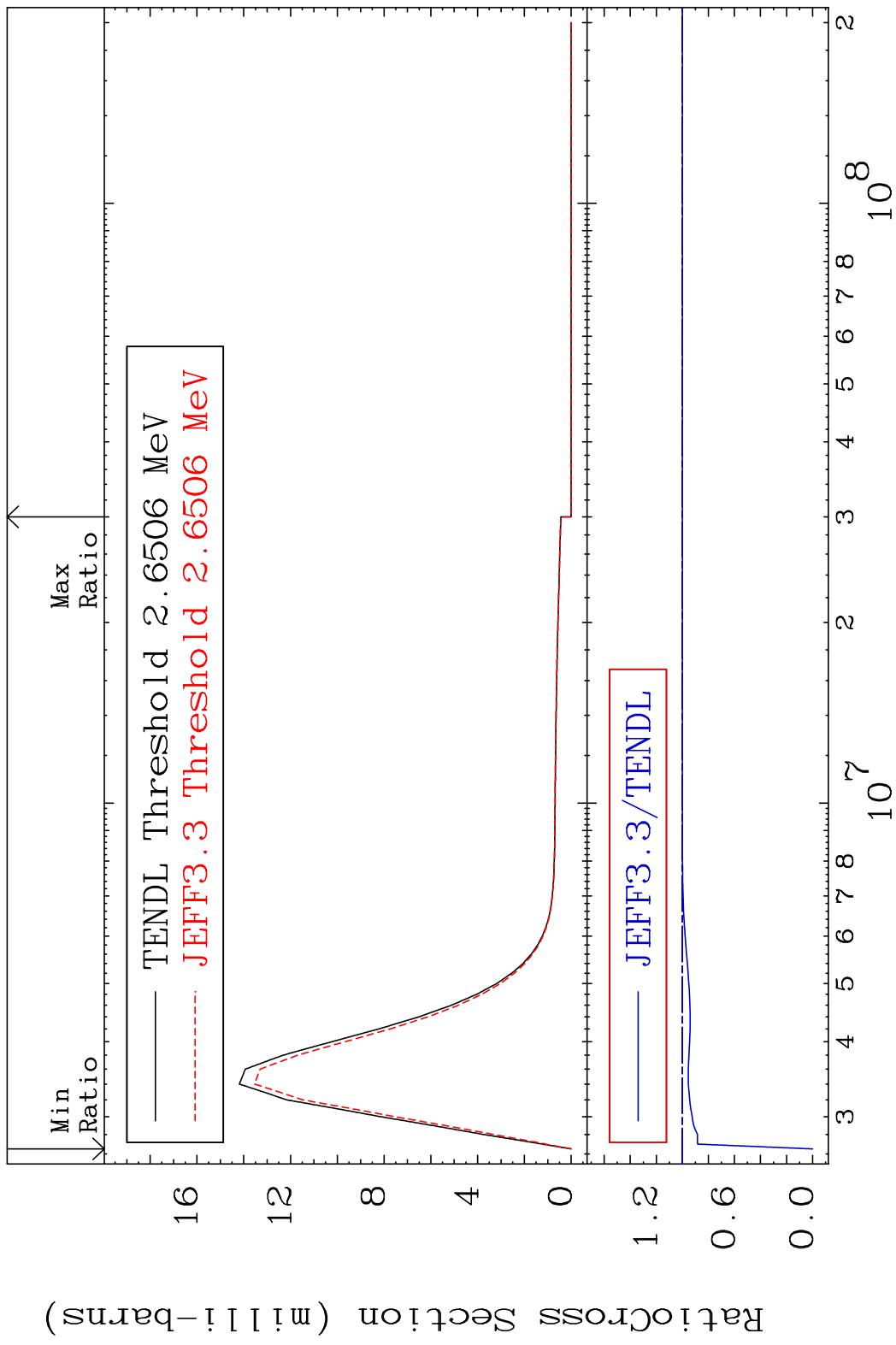
MAT 6413 MT= 67 (n, n') Level 64-Gd-148  
 Cross Section -100.0 To 0.000 %



MAT 6413 MT= 68 (n, n') Level 64-Gd-148  
 Cross Section -11.90 To 0.000 %



MAT 6413 MT= 69 (n, n') Level 64-Gd-148  
 Cross Section -100.0 To 0.000 %

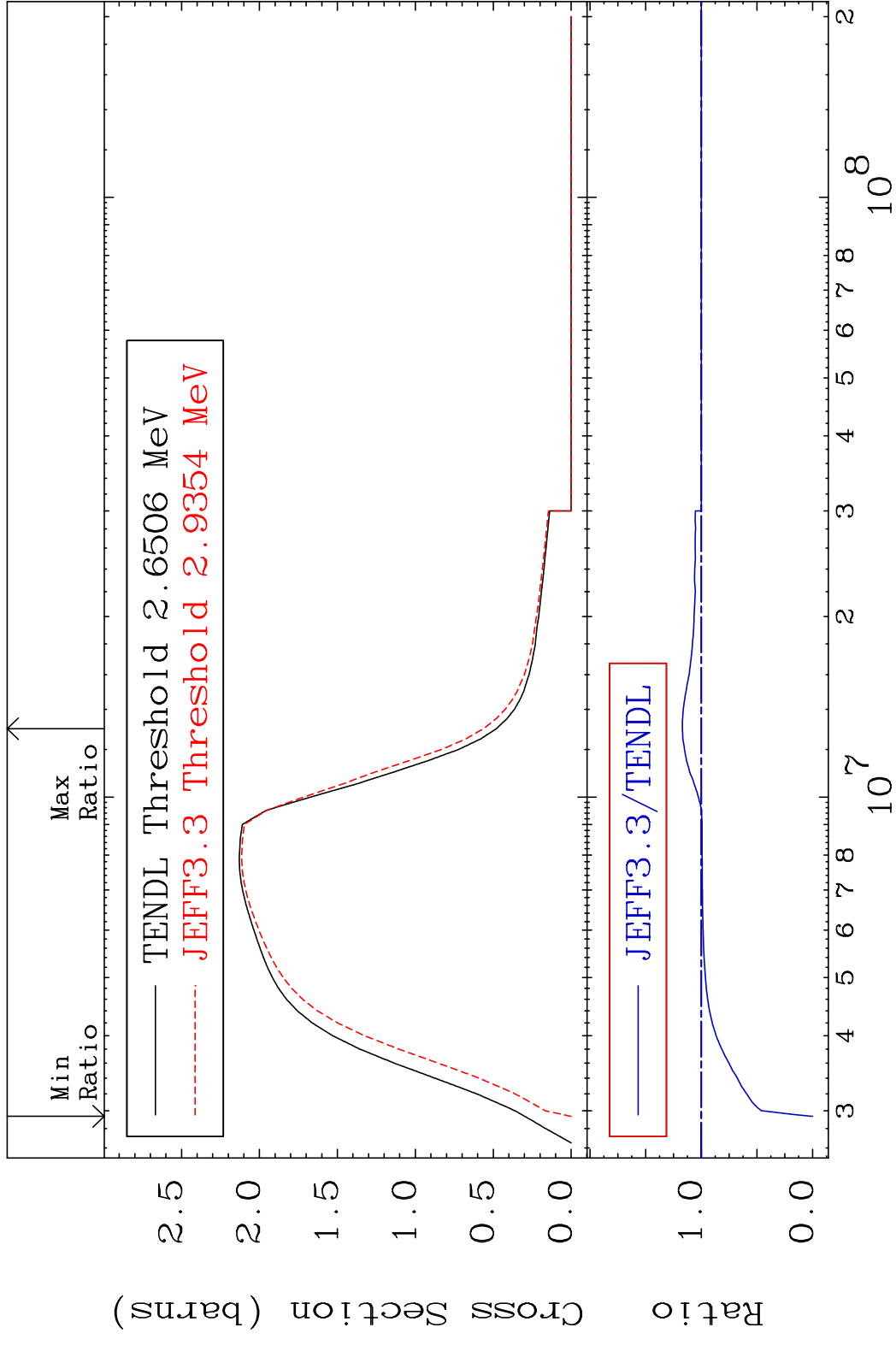


MAT 6413

(n,n') Continuum

64-Gd-148

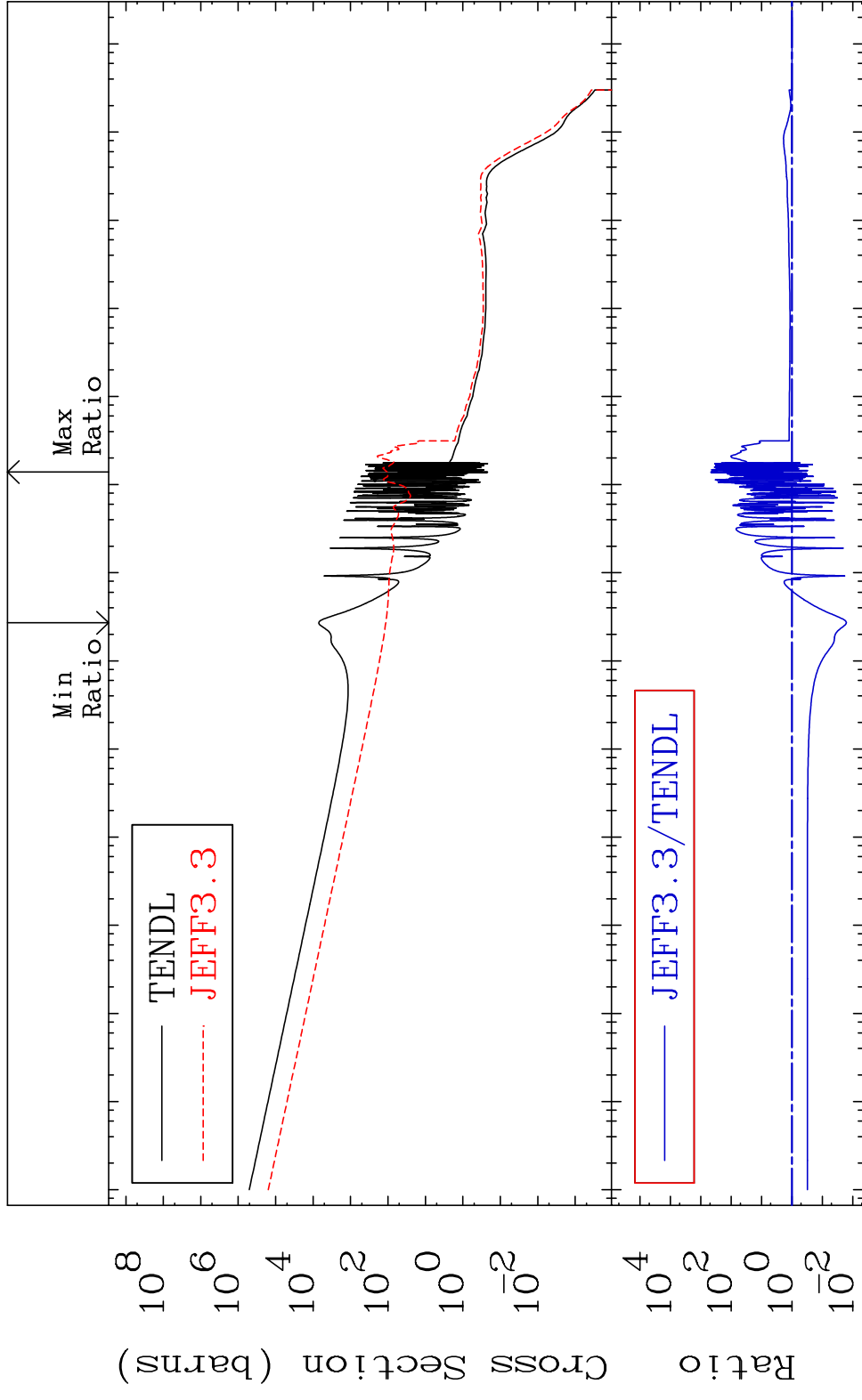
Cross Section -100.0 To 17.03 %



MAT 6413

(n,  $\gamma$ )  
Cross Section -98.38 To 9999. %

64-Gd-148



40

Incident Energy (eV)

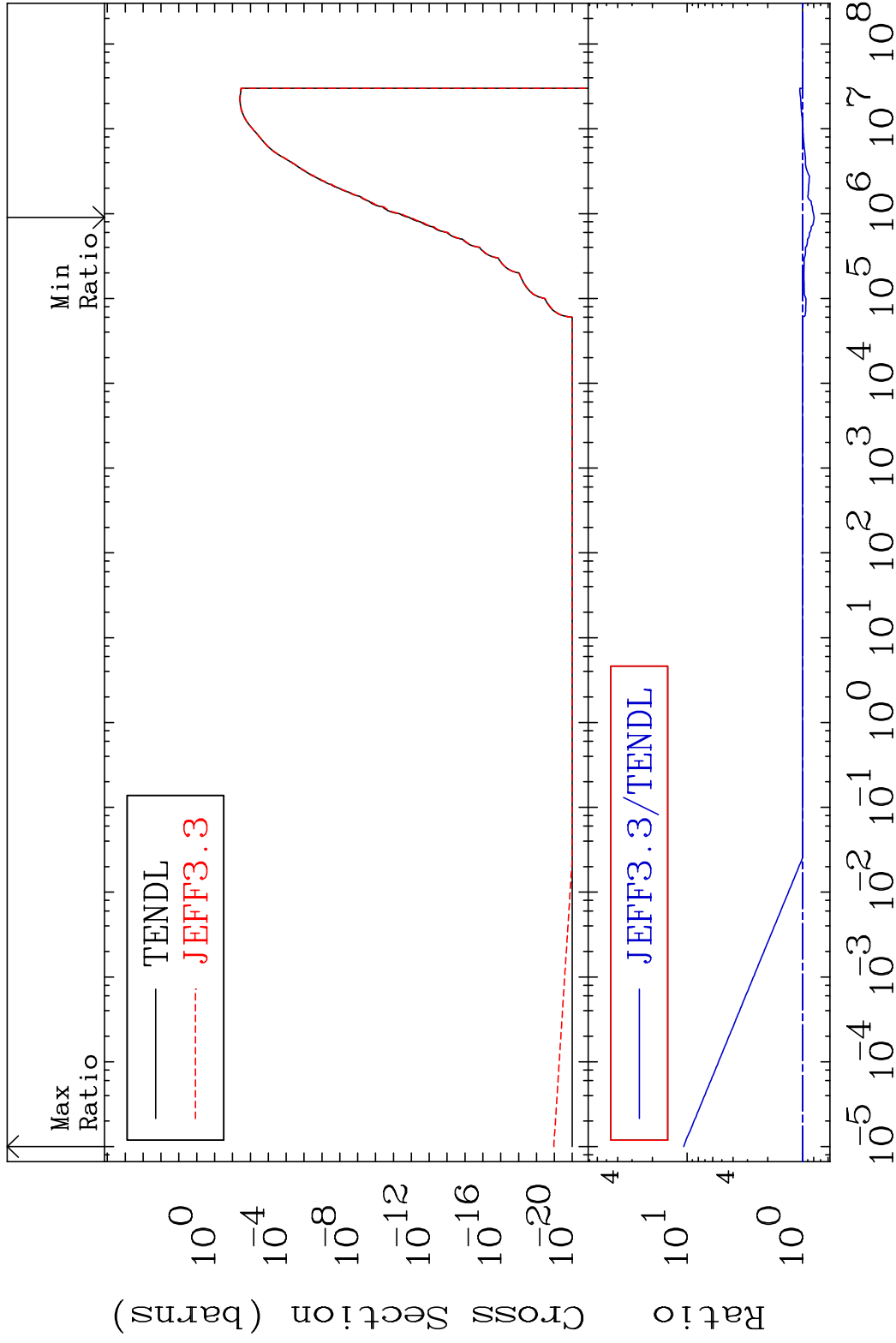
64-Gd-148

MAT 6413

(n, p)

64-Gd-148

Cross Section -20.54 To 972.4 %



41

Incident Energy (eV)

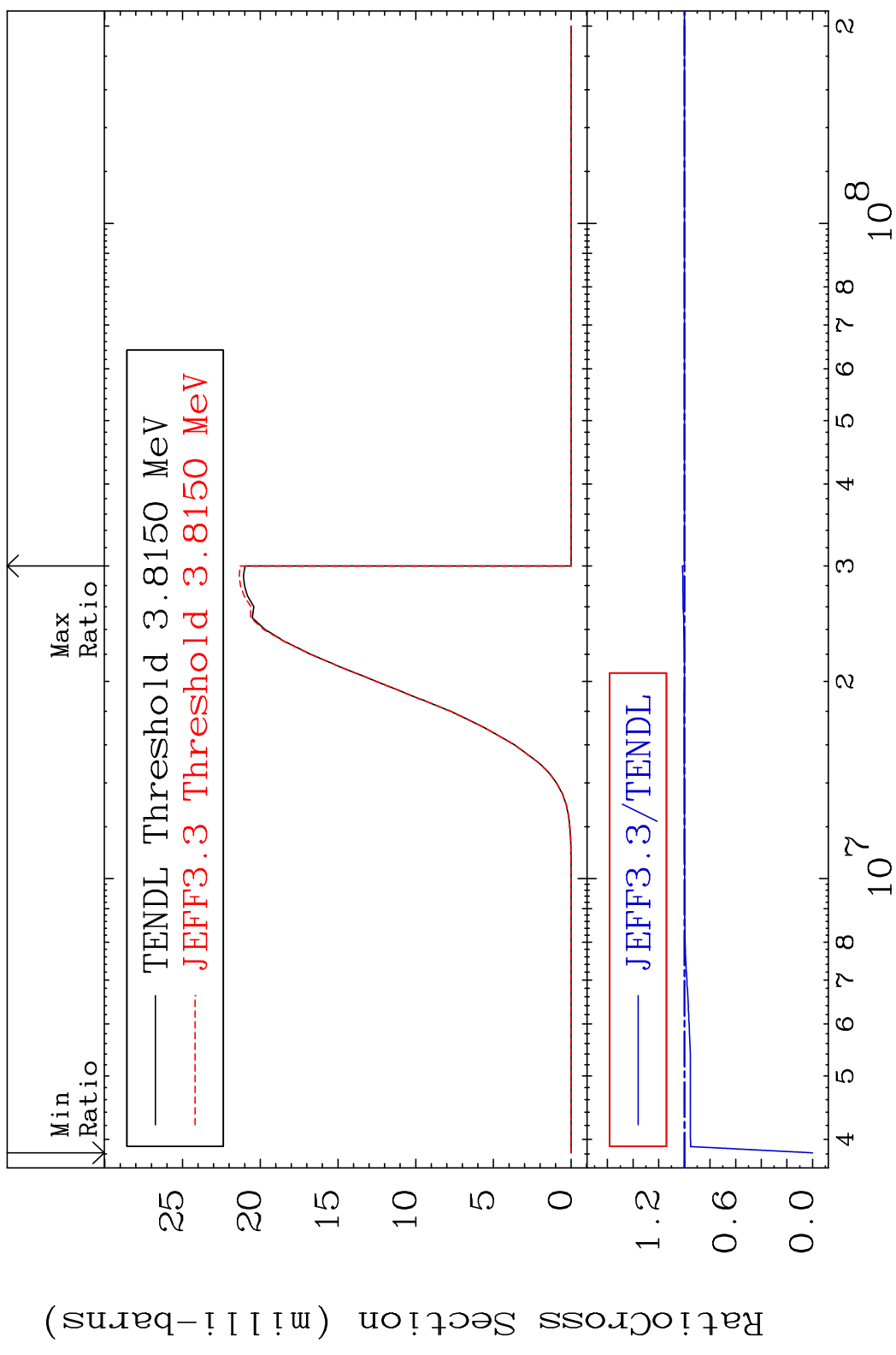
64-Gd-148

MAT 6413

(n, d)

64-Gd-148

Cross Section -100.0 To 1.568 %



42

Incident Energy (eV)

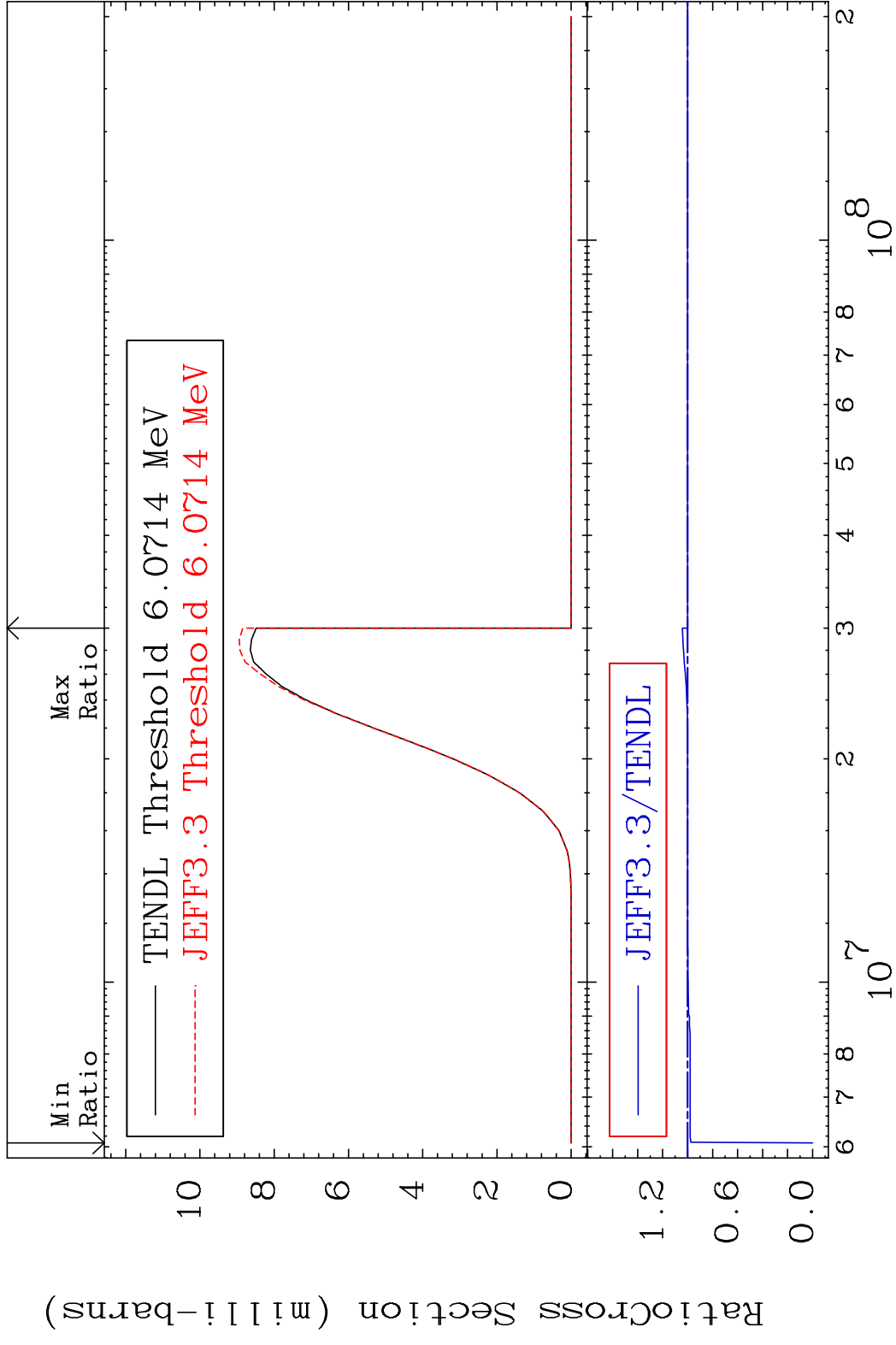
64-Gd-148

MAT 6413

64-Gd-148

(n, t)

Cross Section -100.0 To 4.228 %

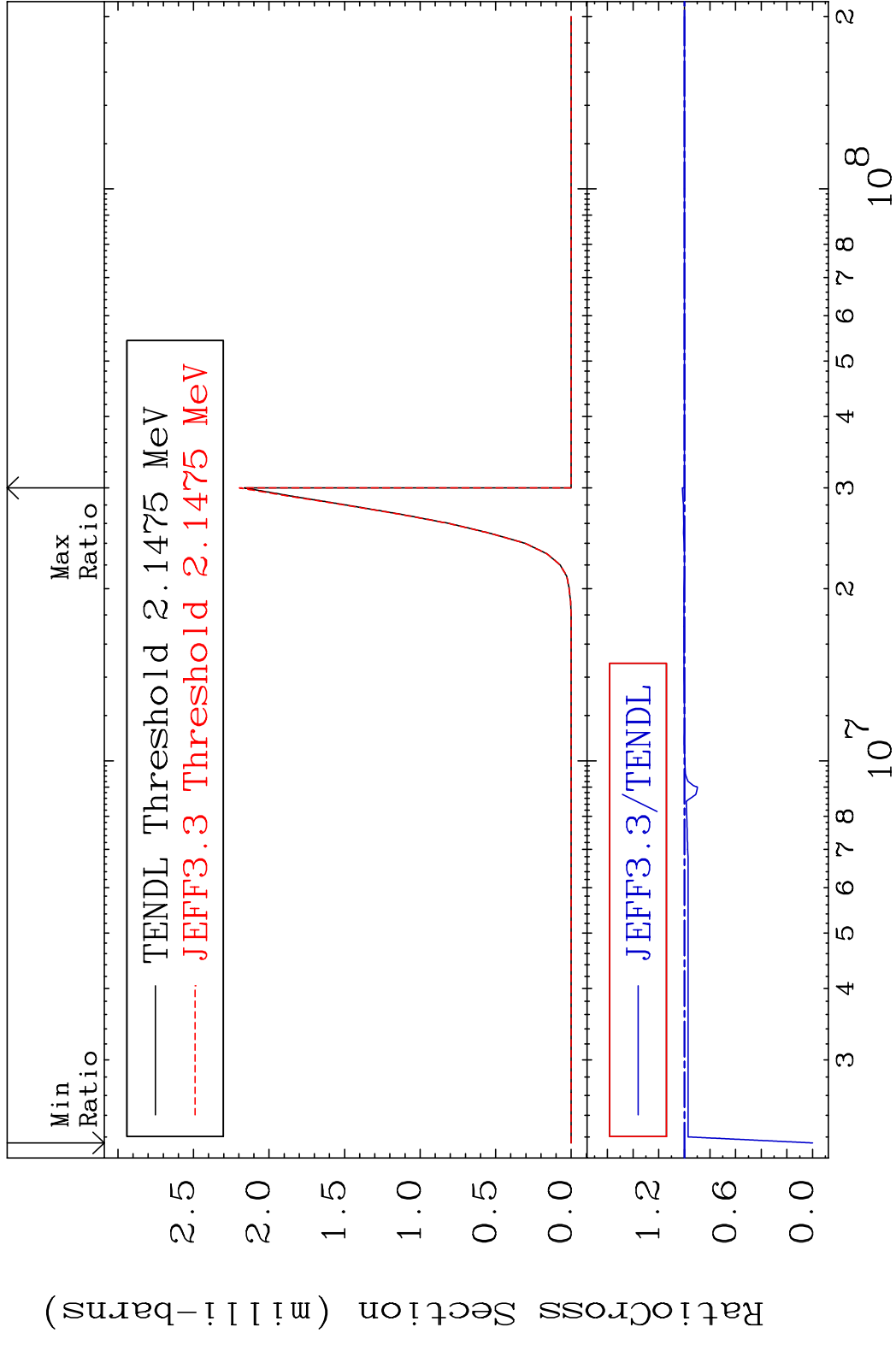


43

Incident Energy (eV)

64-Gd-148

MAT 6413 (n, He-3) 64-Gd-148  
 Cross Section -100.0 To 1.552 %

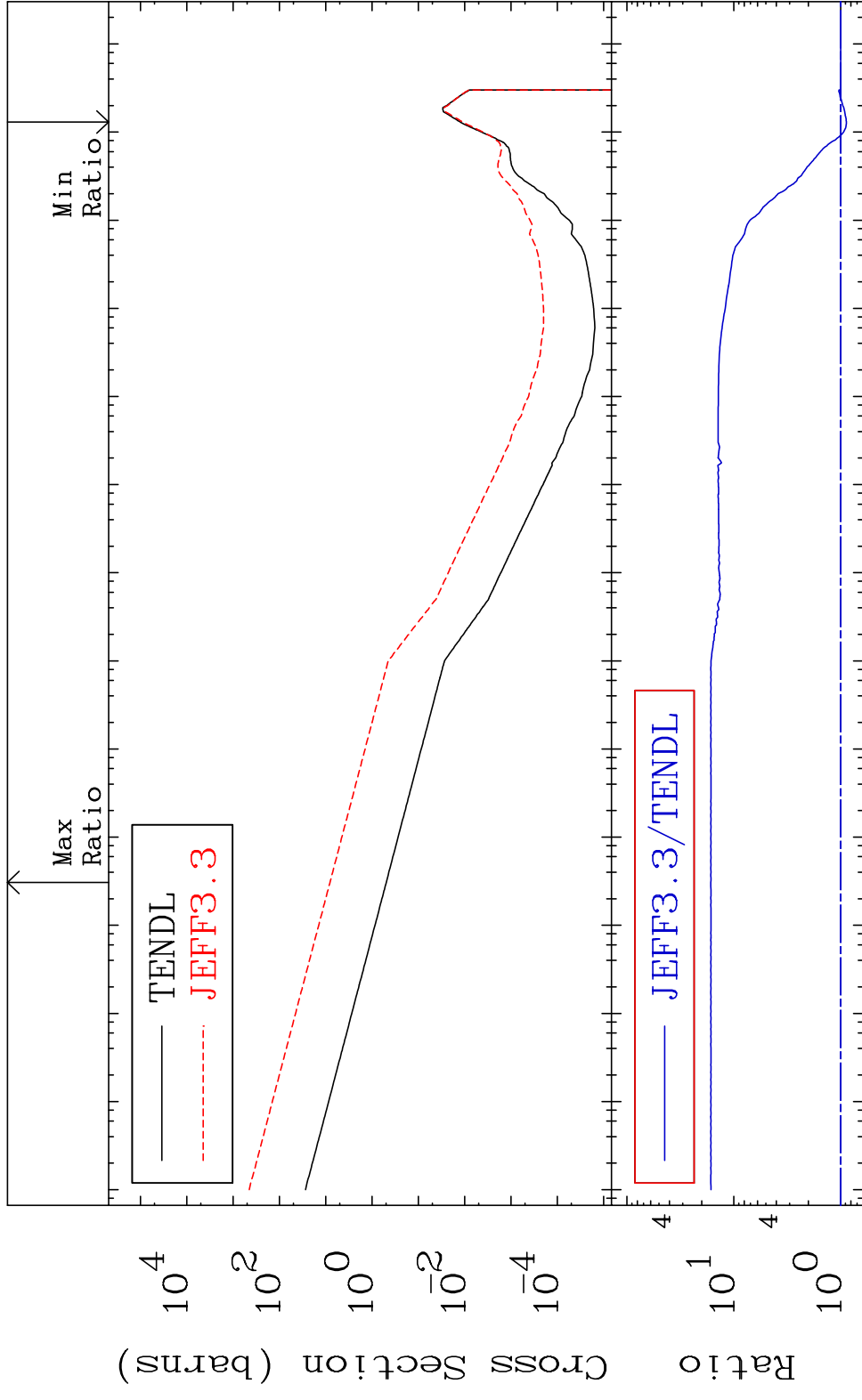


MAT 6413

64-Gd-148

(n,  $\alpha$ )

Cross Section -11.56 To 1544. %

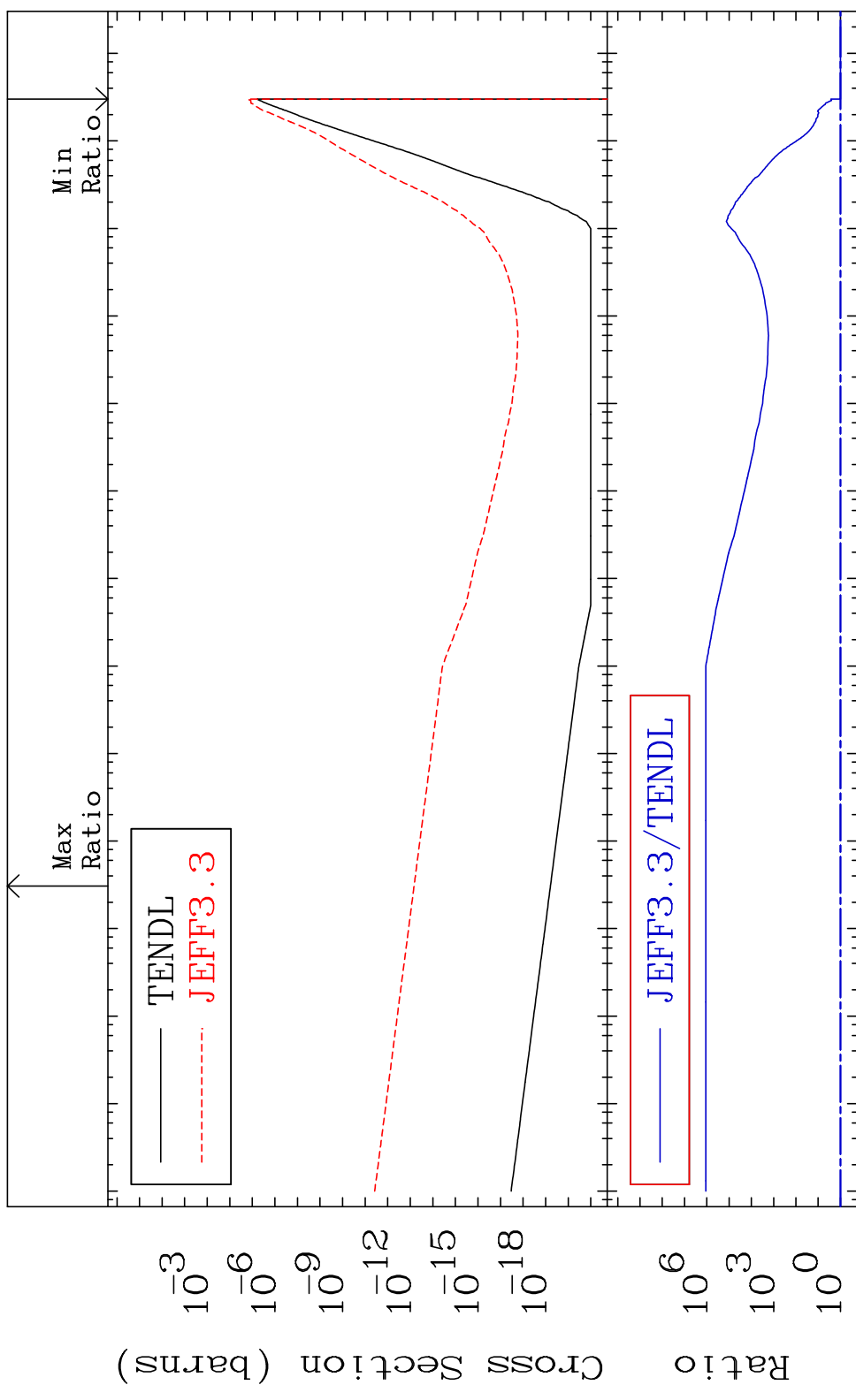


MAT 6413

(n, 2α)

64-Gd-148

Cross Section 0.000 To 9999. %

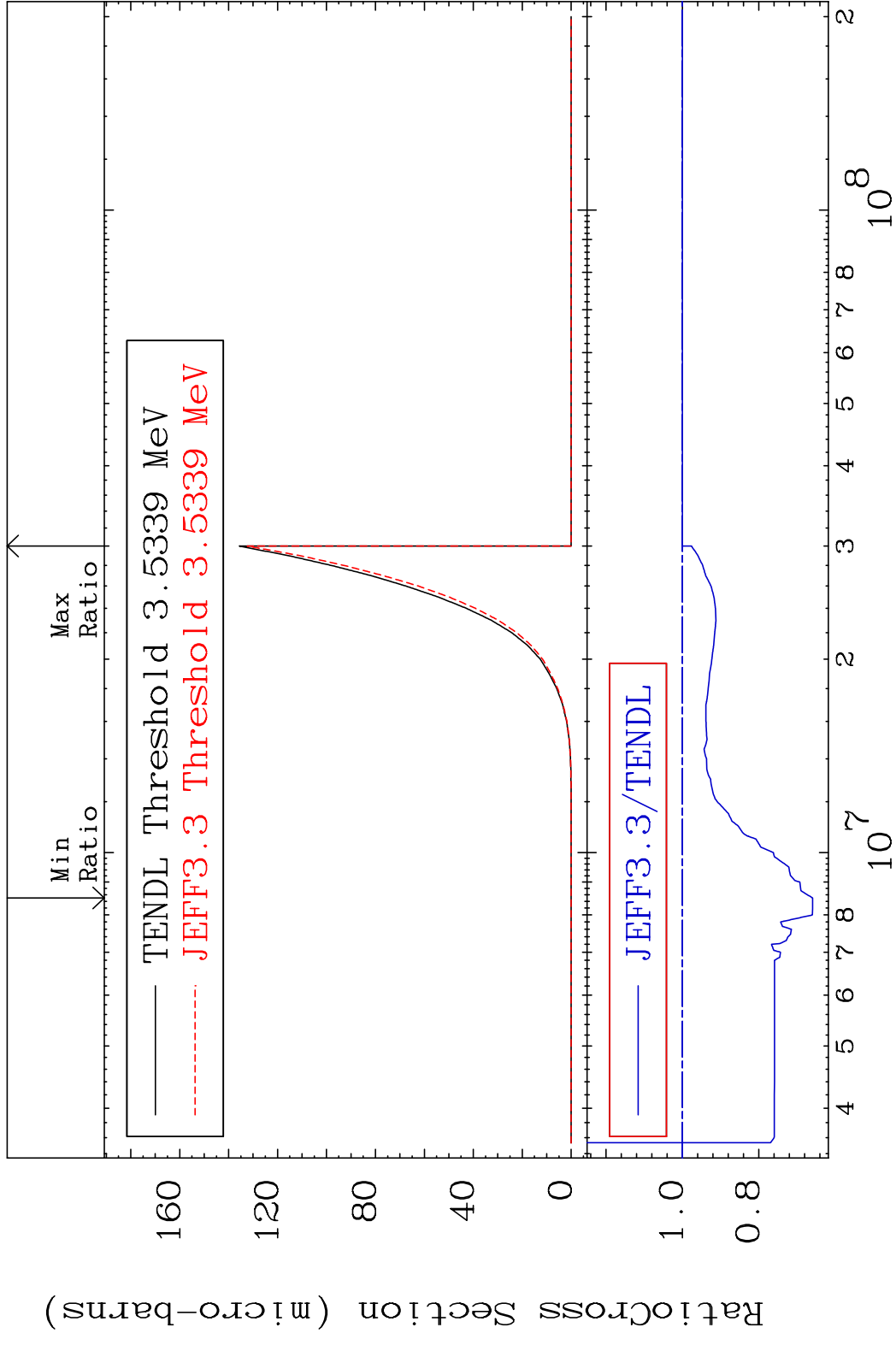


MAT 6413

(n,2p)

64-Gd-148

Cross Section -34.07 To 0.000 %

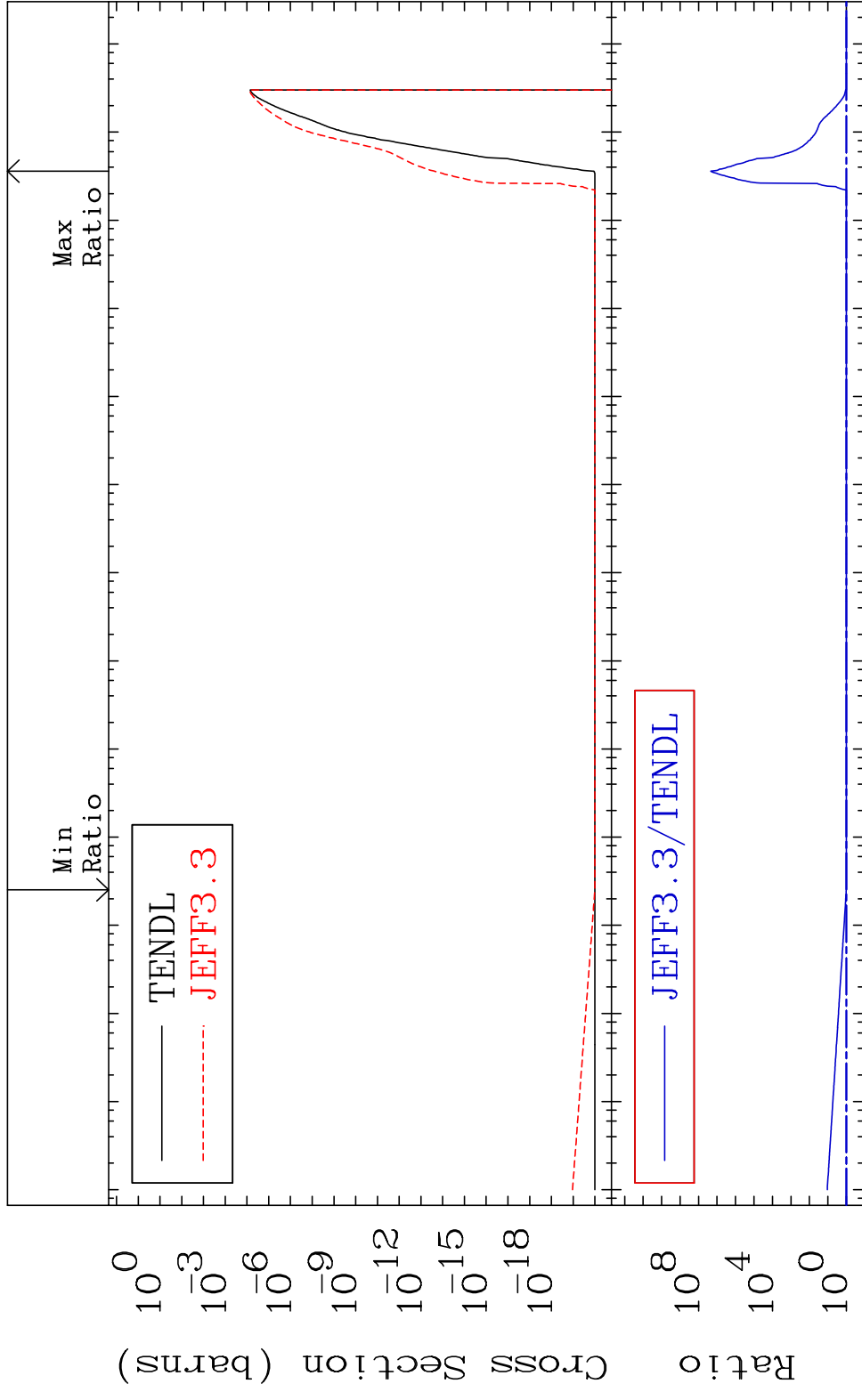


MAT 6413

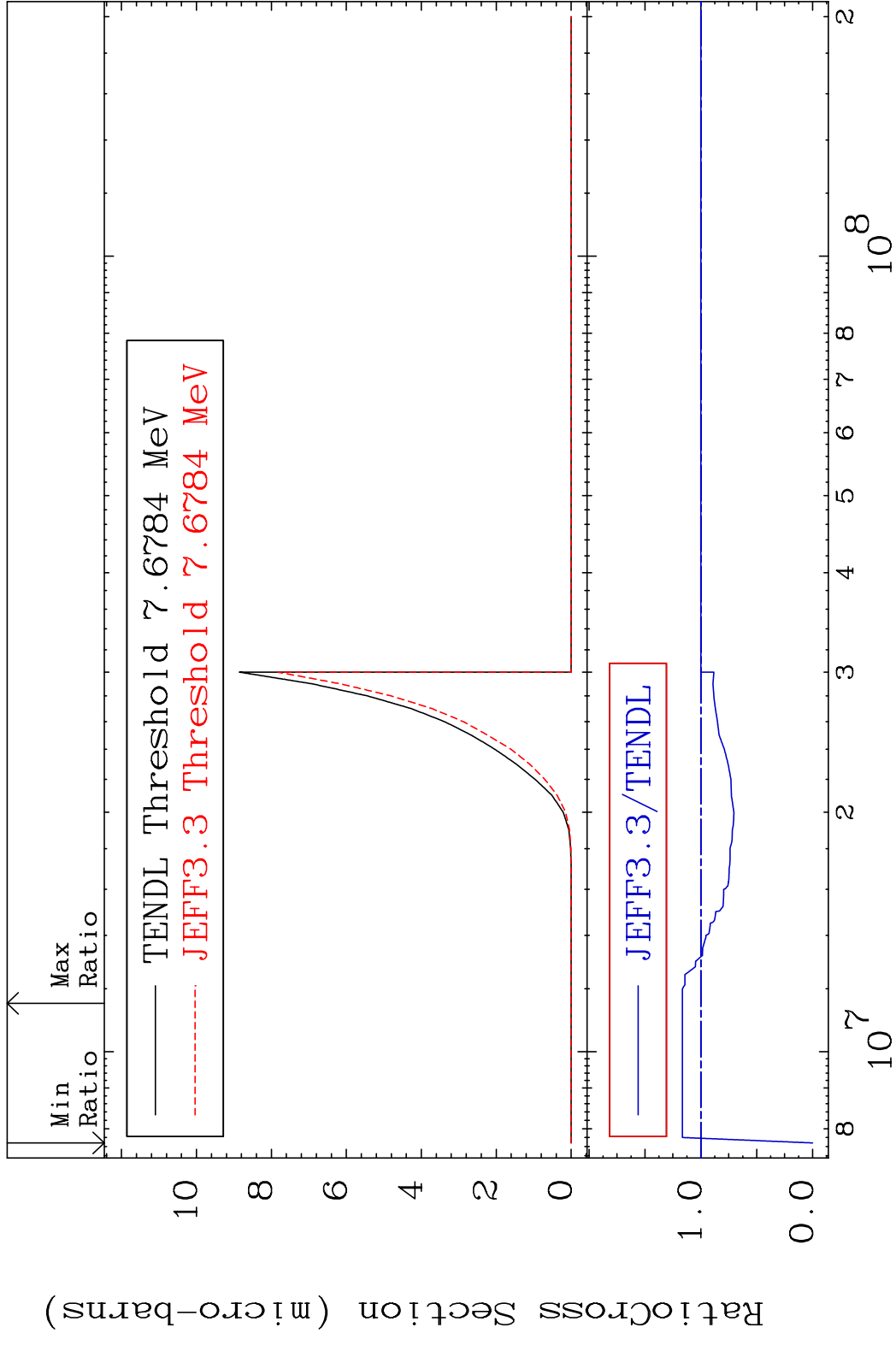
(n,p)  $\alpha$

64-Gd-148

Cross Section 0.000 To 9999. %



MAT 6413 (n,p) d 64-Gd-148  
 Cross Section -100.0 To 16.52 %



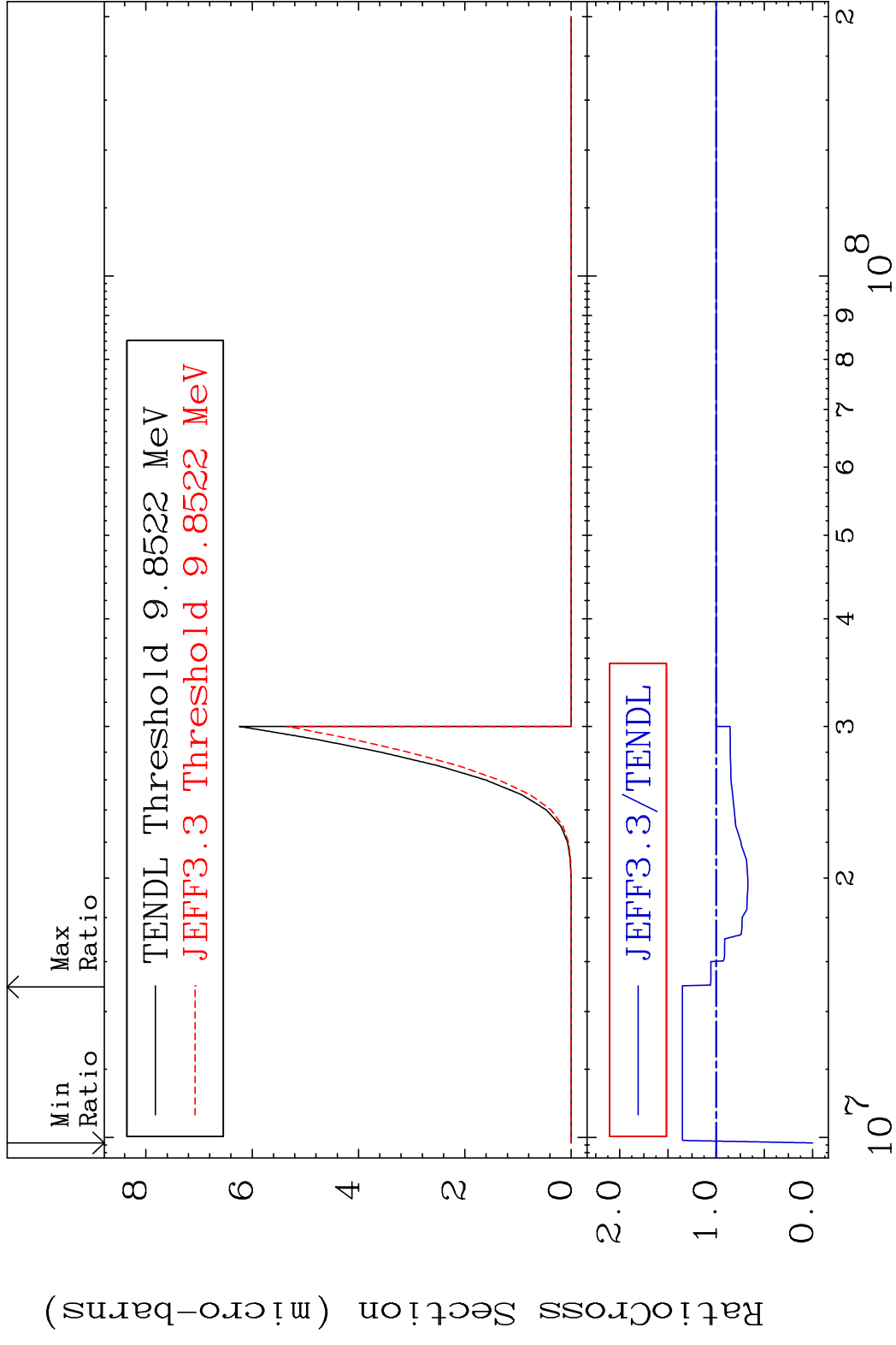
49 Incident Energy (eV) 64-Gd-148

MAT 6413

(n,p) t

64-Gd-148

Cross Section -100.0 To 35.07 %



50

Incident Energy (eV)

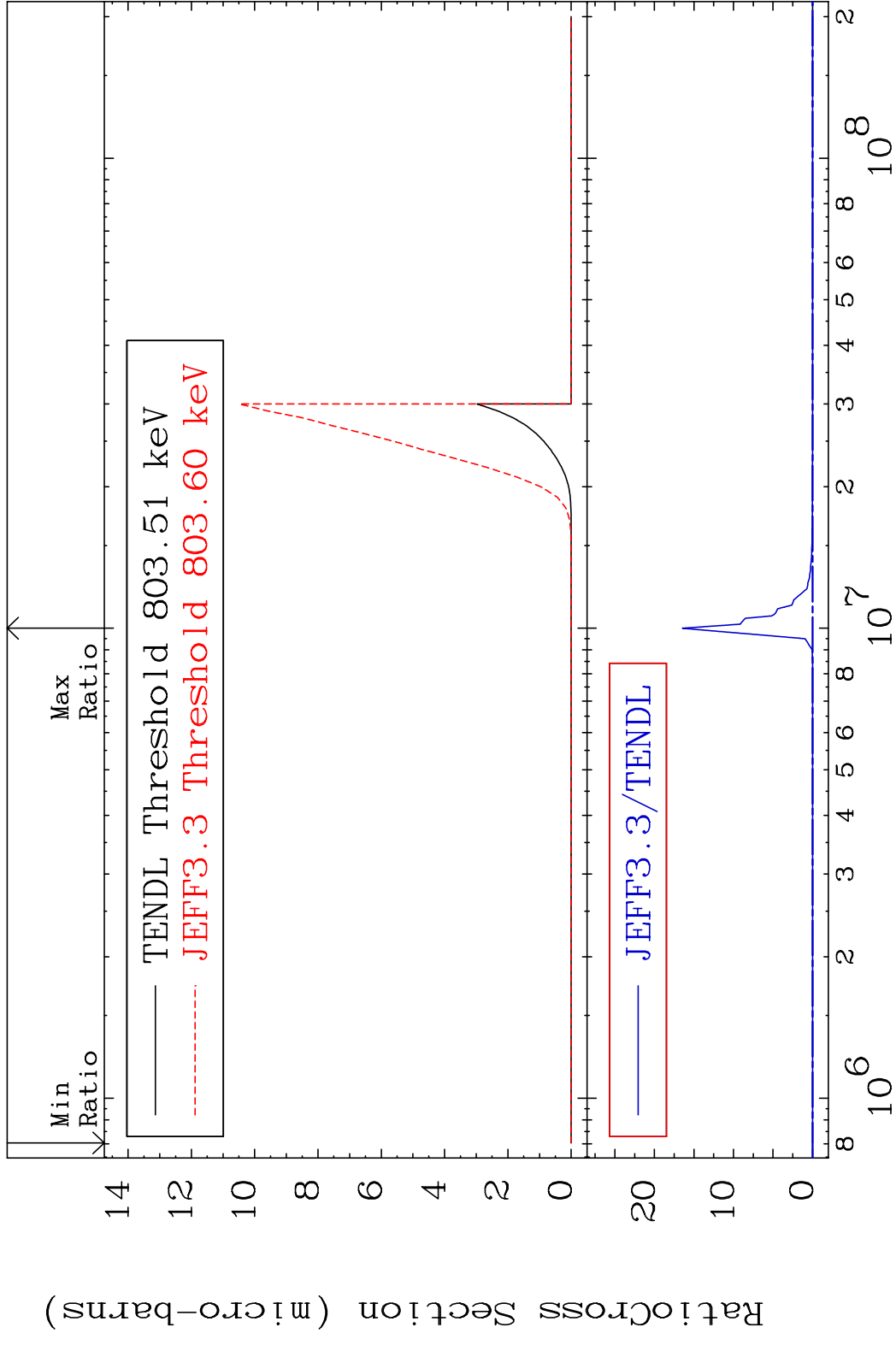
64-Gd-148

MAT 6413

(n,d)  $\alpha$

64-Gd-148

Cross Section -100.0 To 9999. %

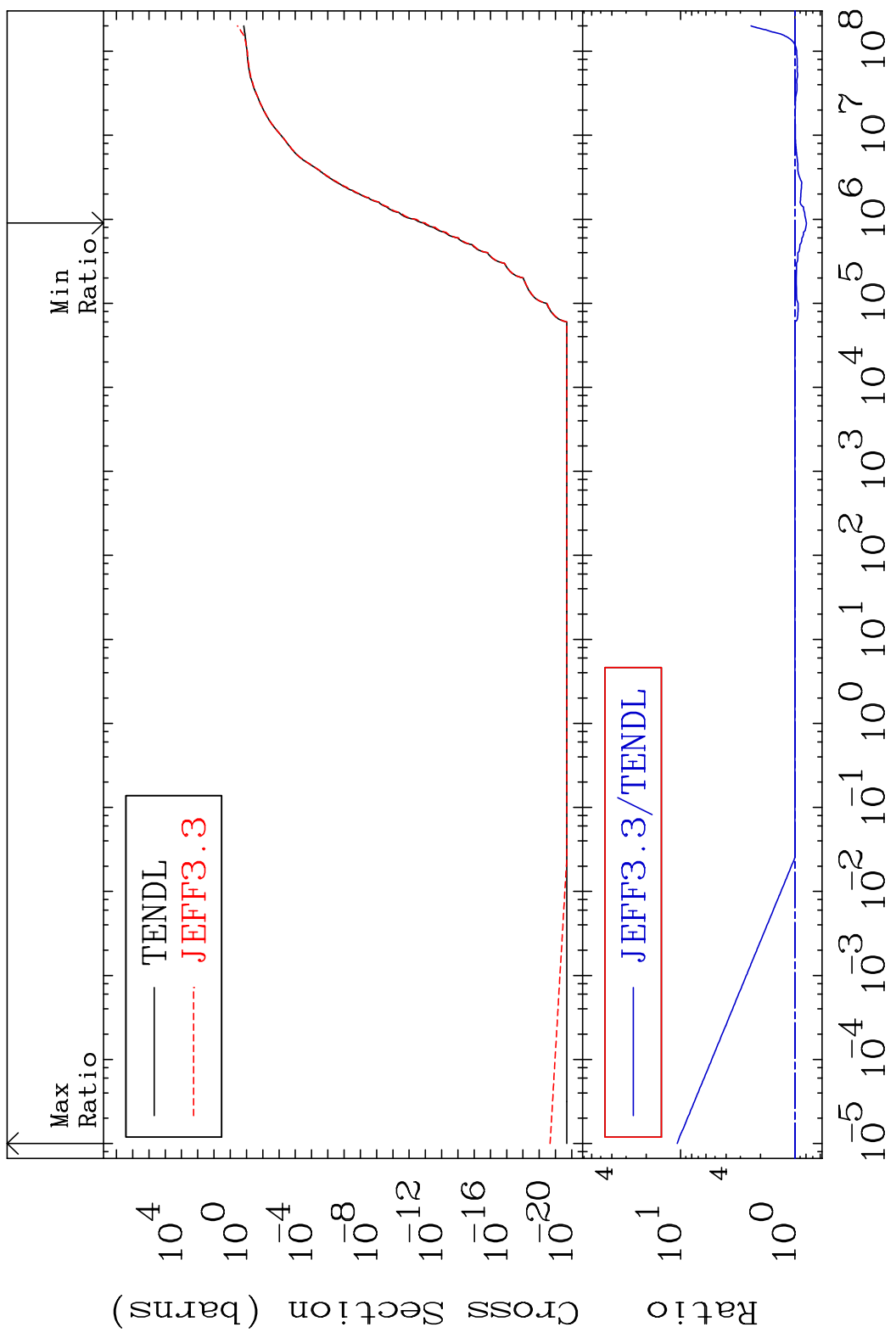


MAT 6413

Hydrogen Production

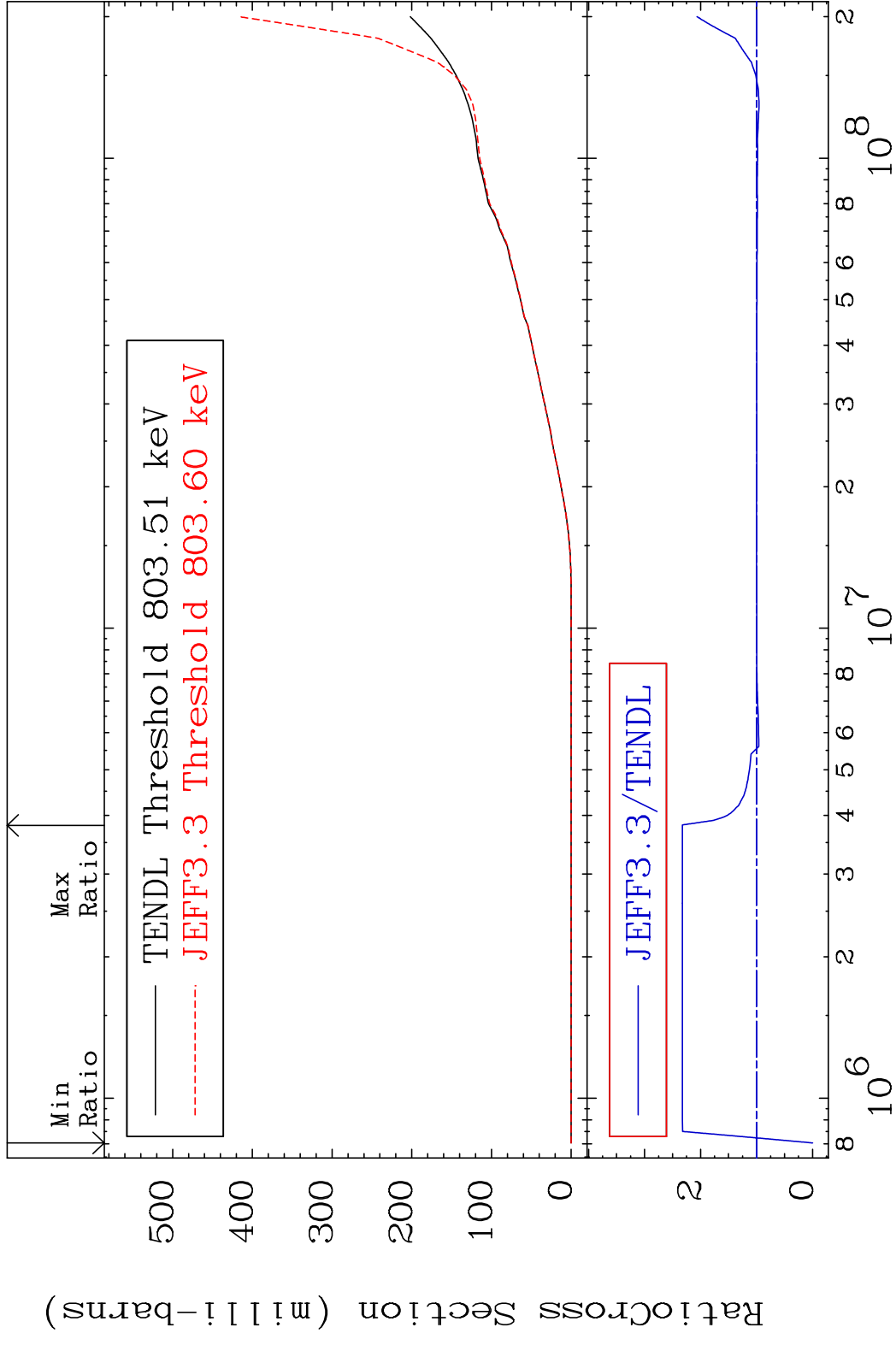
64-Gd-148

Cross Section -20.54 To 972.4 %



MAT 6413

Deuterium Production 64-Gd-148  
Cross Section -100.0 To 132.5 %

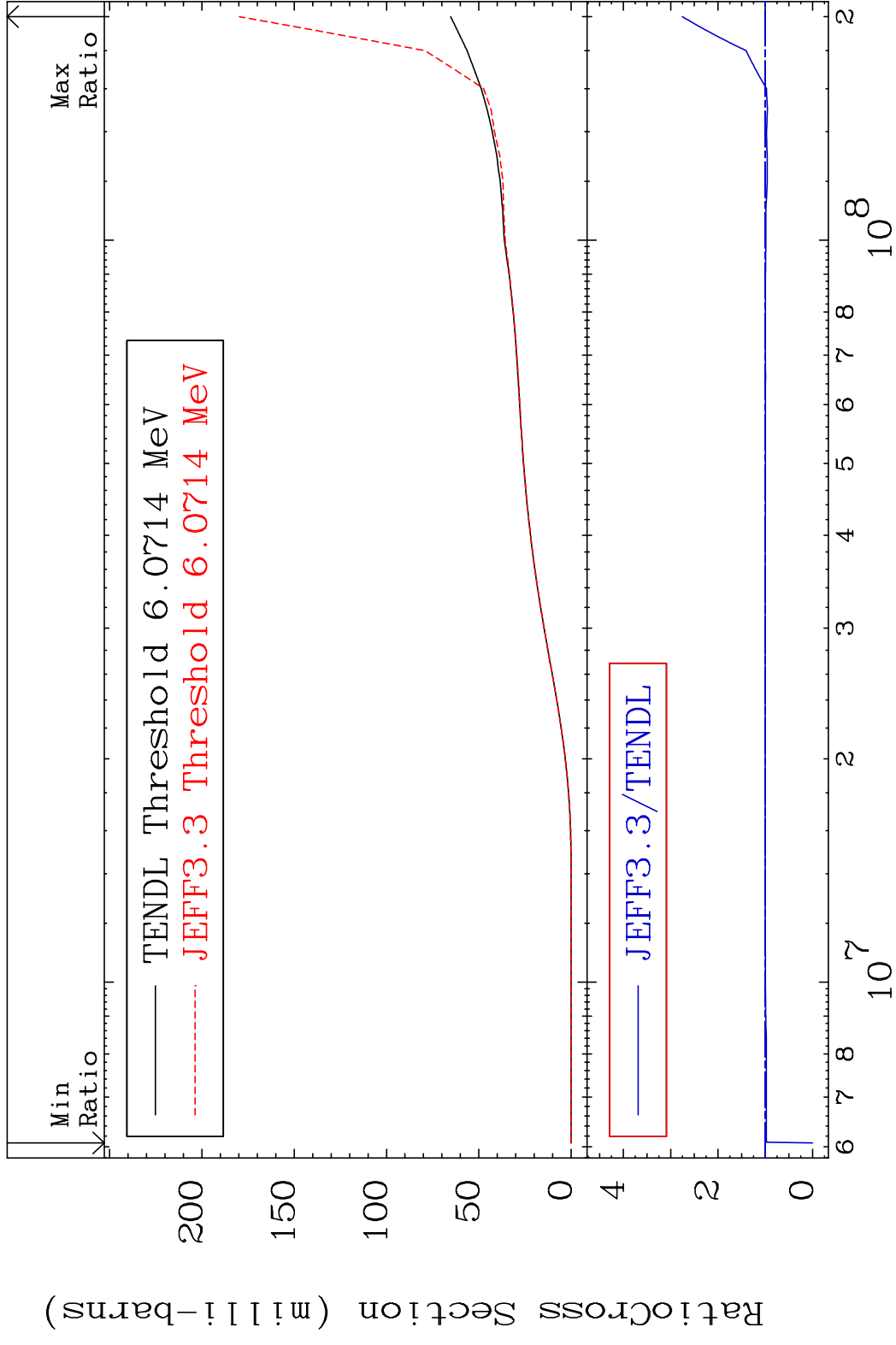


MAT 6413

Tritium Production

64-Gd-148

Cross Section -100.0 To 175.3 %

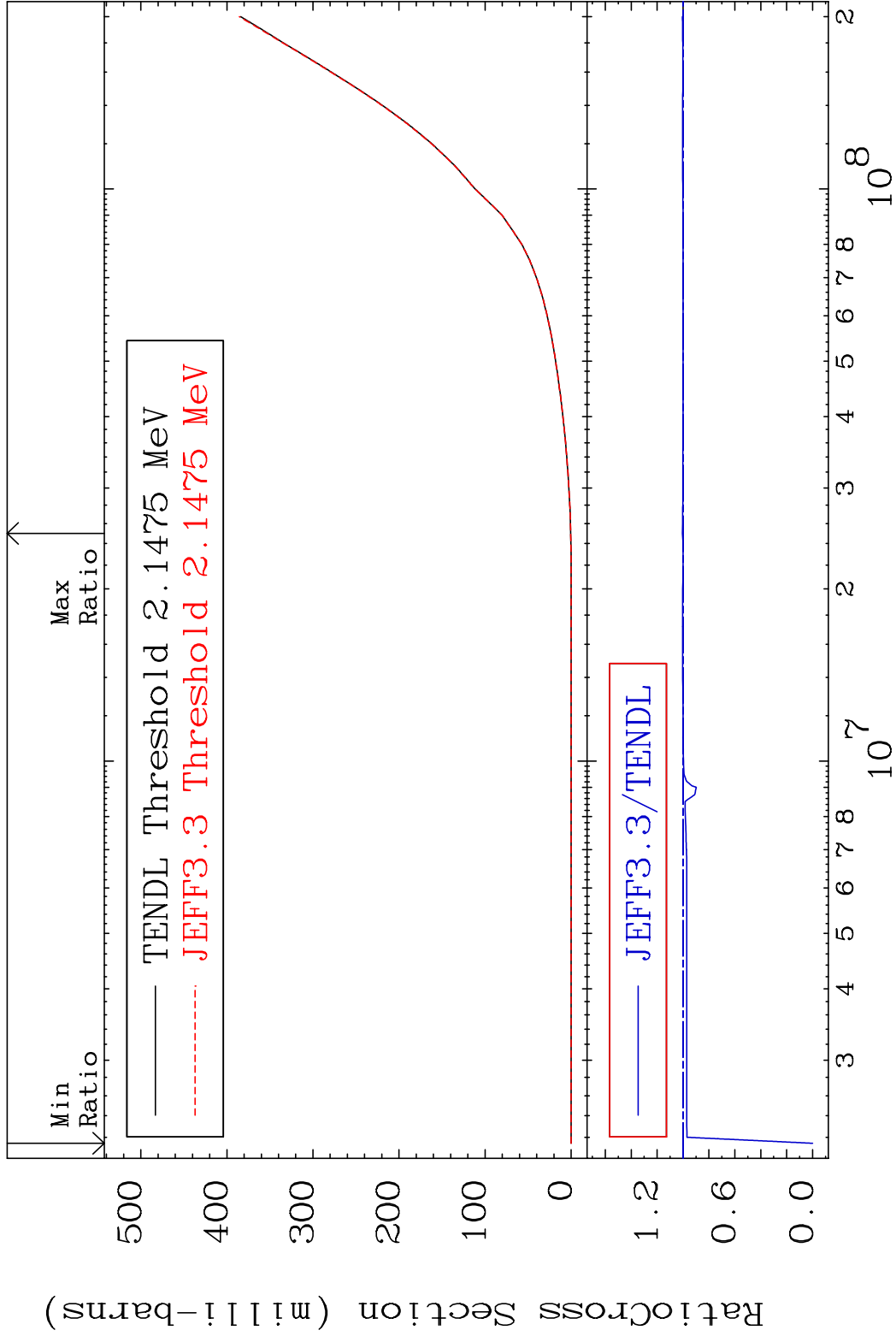


MAT 6413

He-3 Production

64-Gd-148

Cross Section -100.0 To 0.521 %

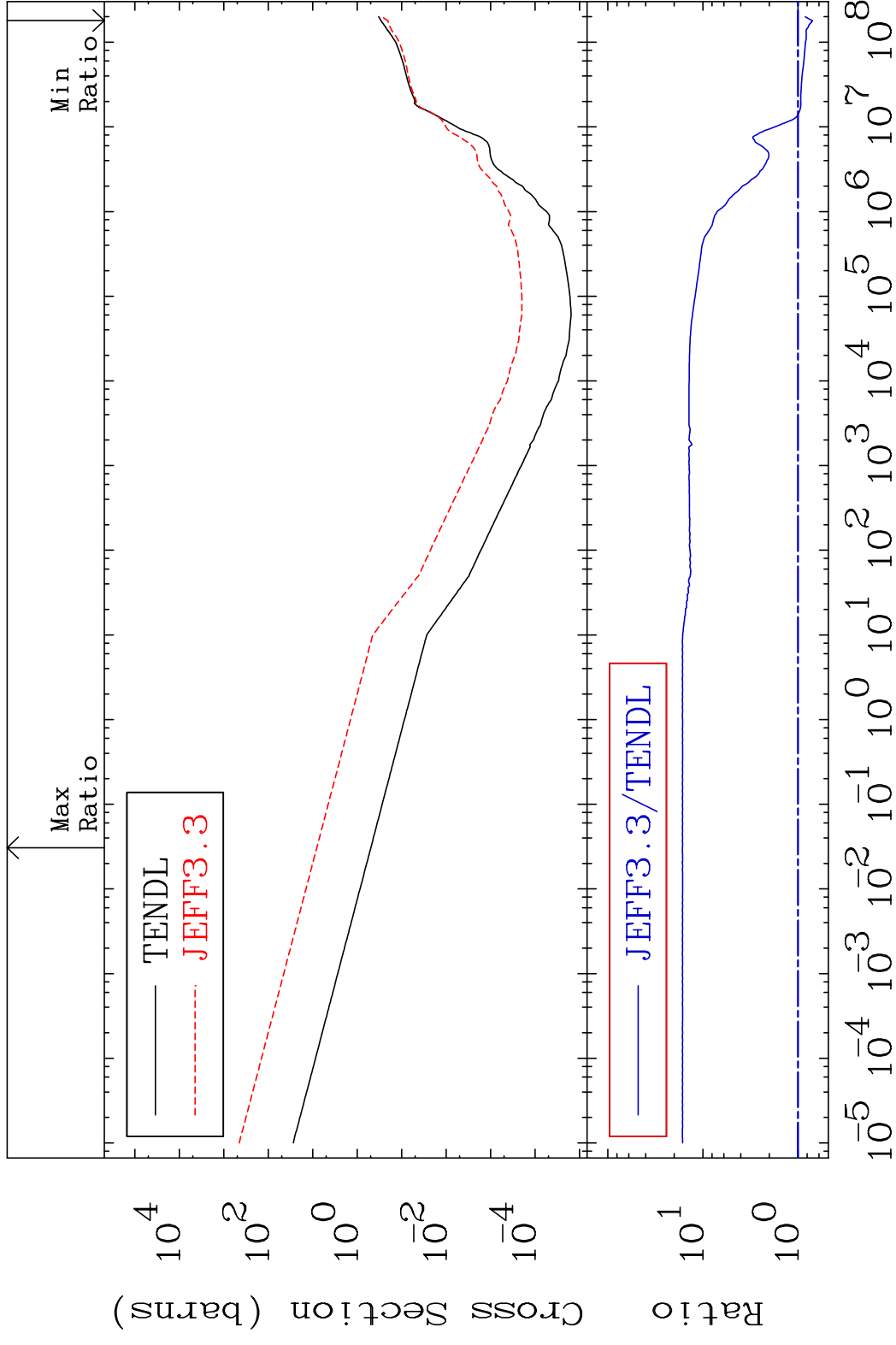


MAT 6413

He-4 Production

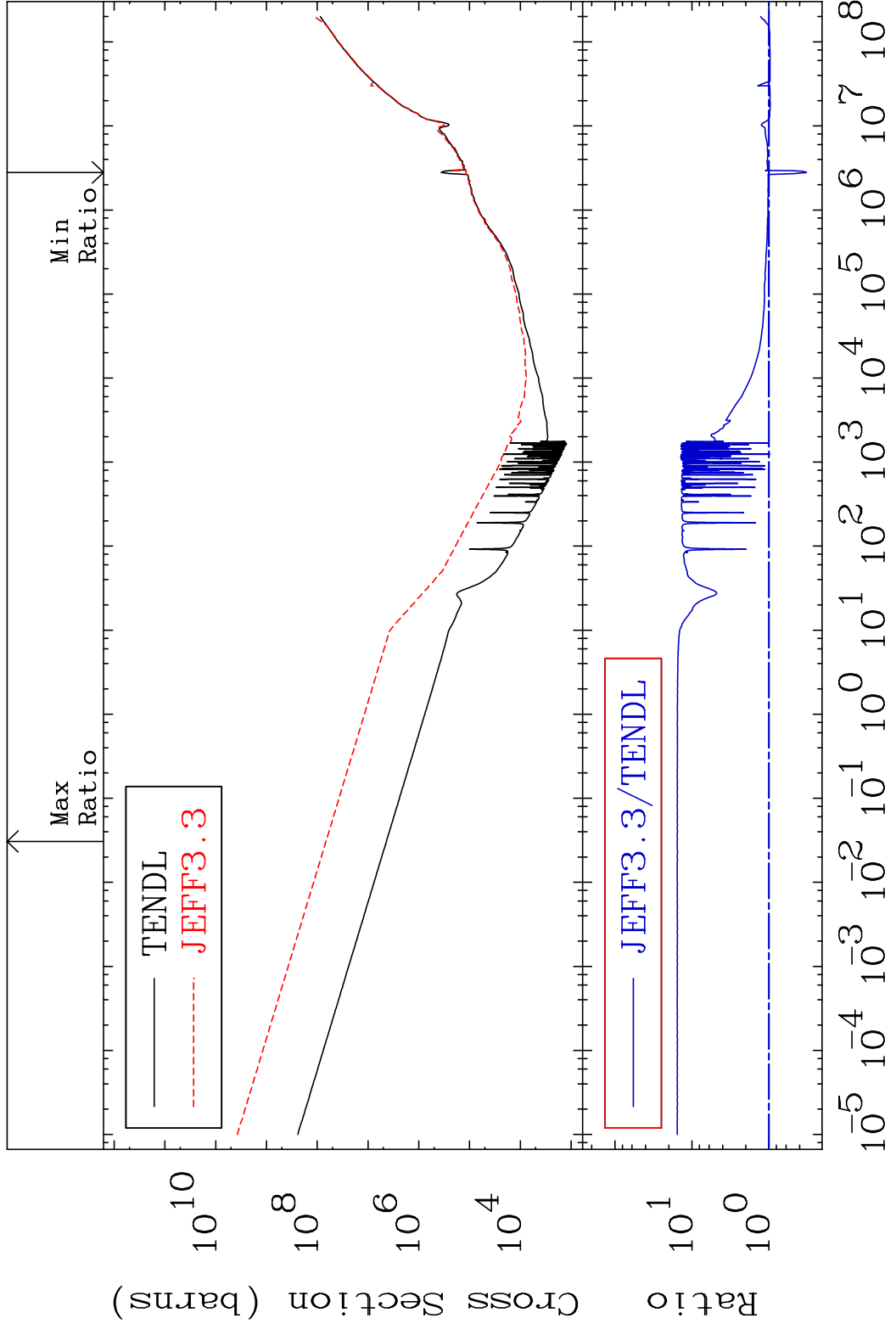
64-Gd-148

Cross Section -29.88 To 1544. %



MAT 6413

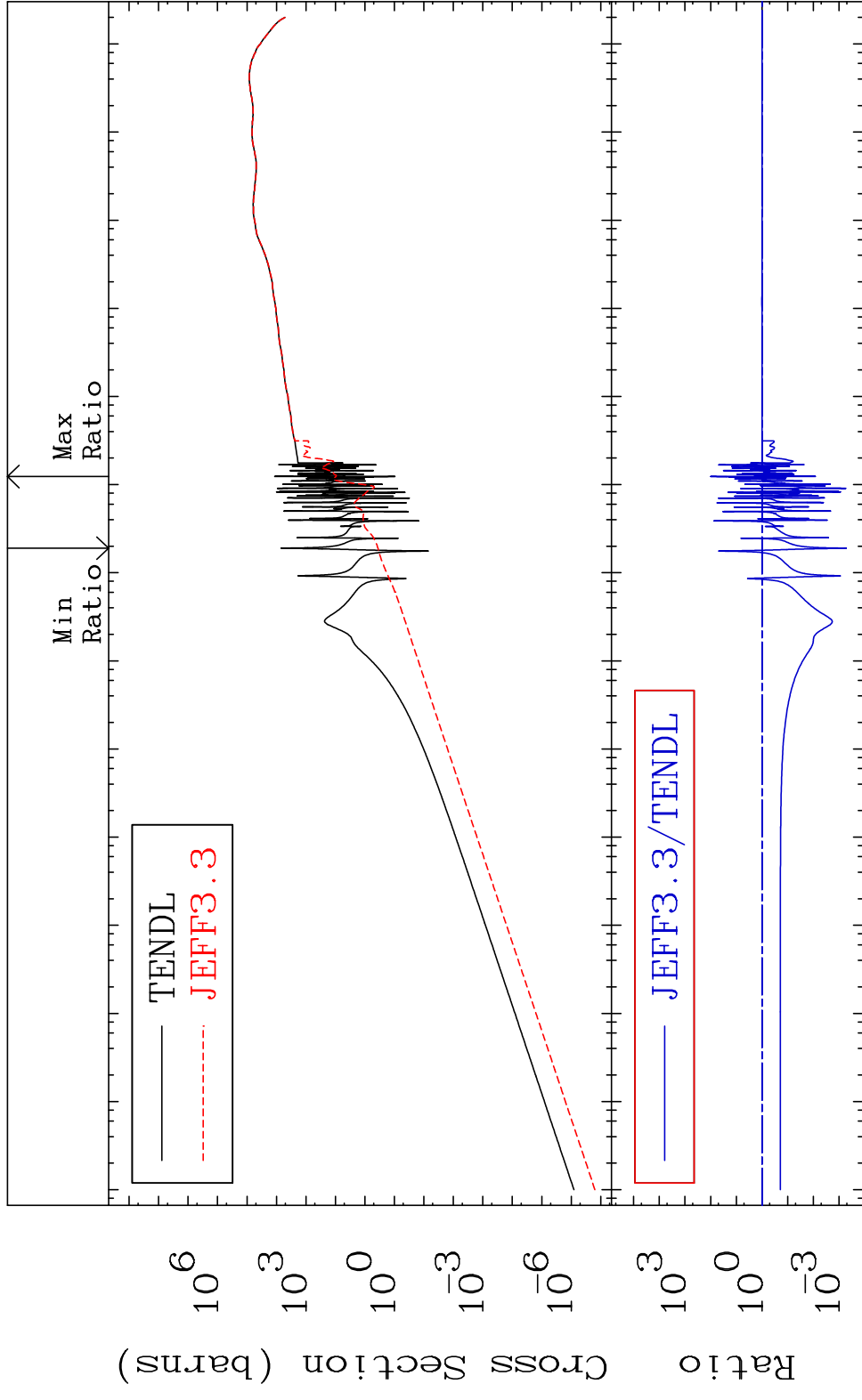
Kerma total (eV-barns) 64-Gd-148  
Cross Section -67.31 To 1455. %



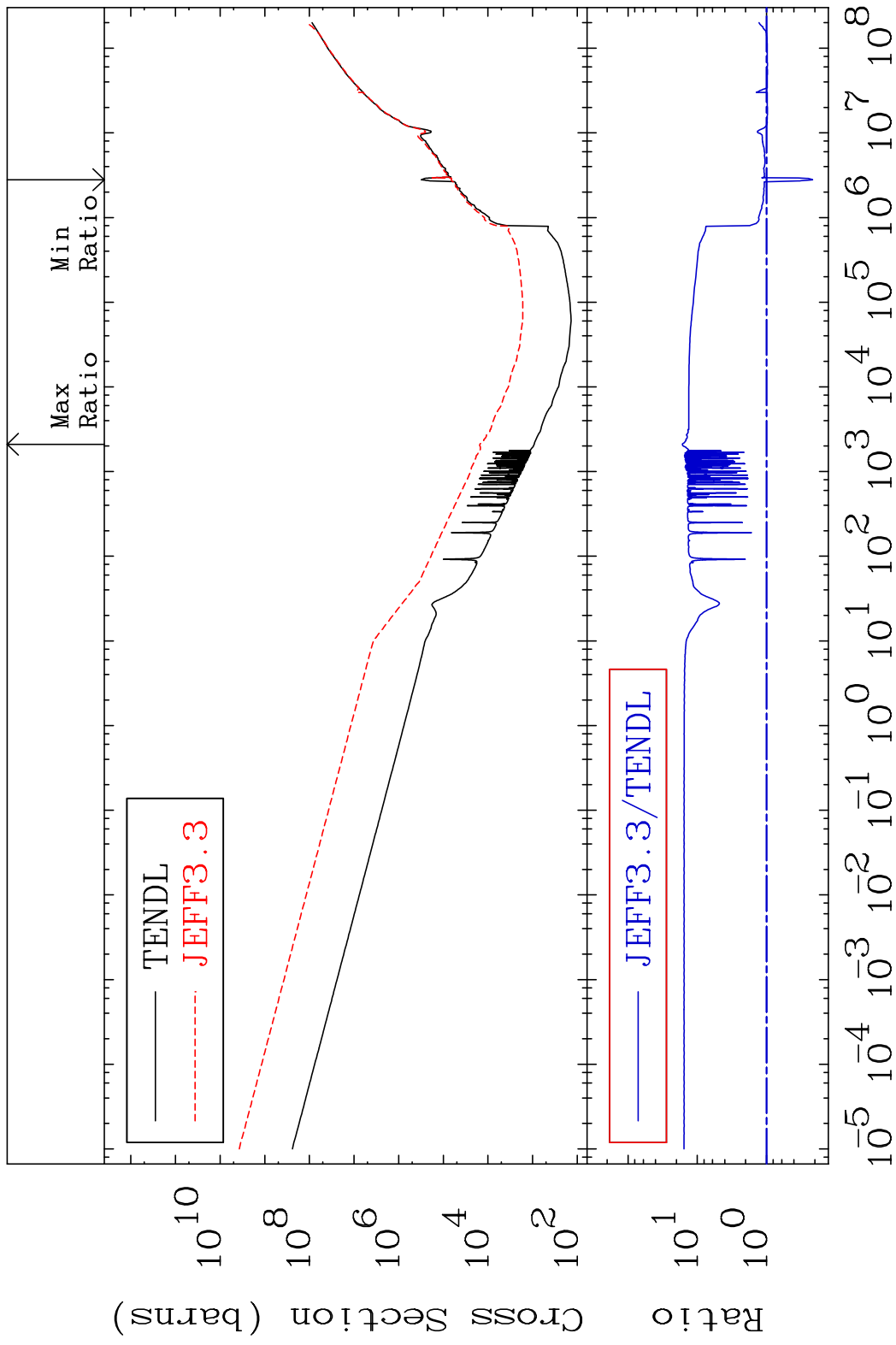
MAT 6413

Kerma elastic Cross Section -99.95 To 9844. %

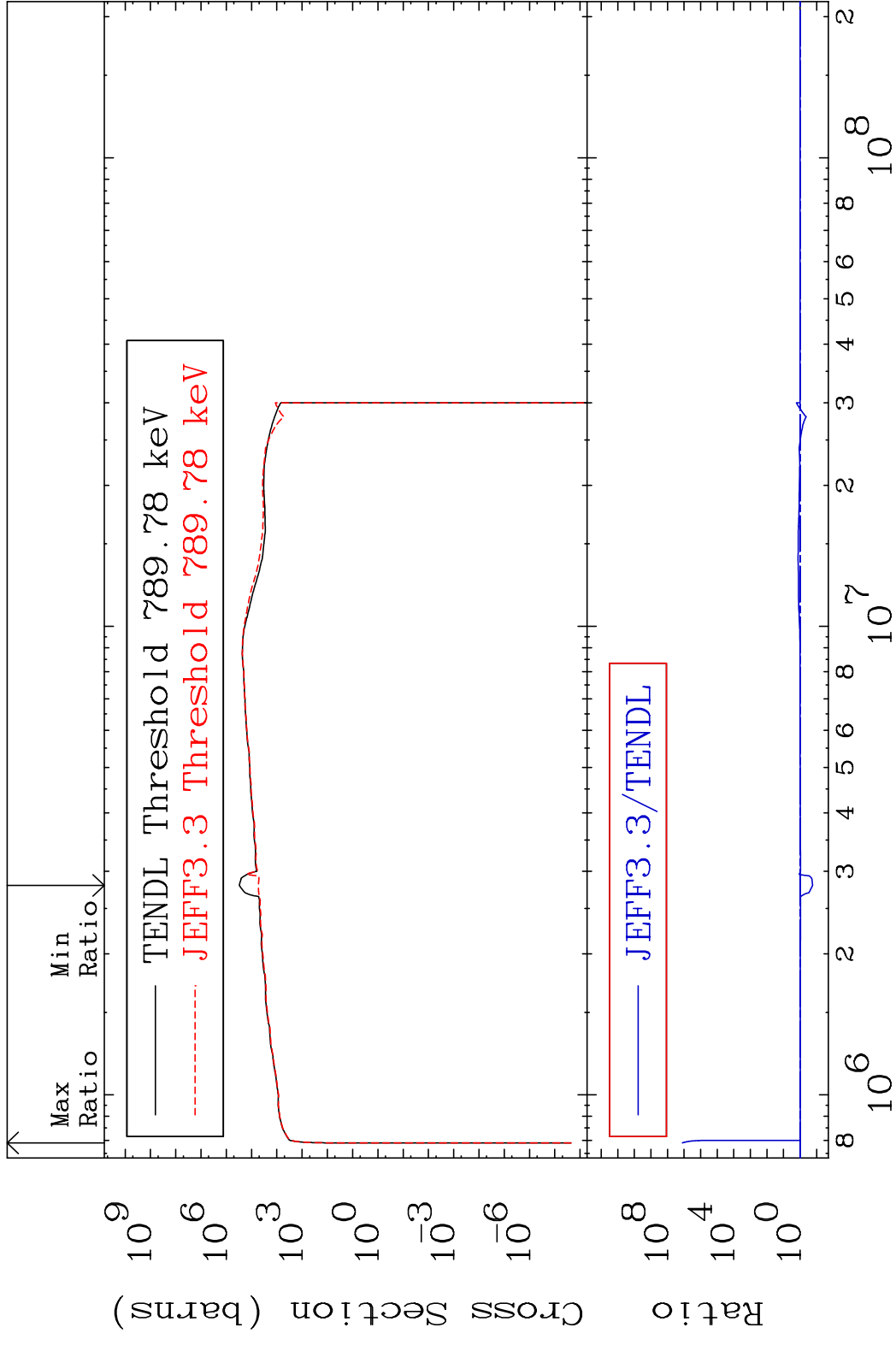
64-Gd-148



MAT 6413 Kerma non-elastic (all but mt2) 64-Gd-148  
 Cross Section -78.43 To 1541. %

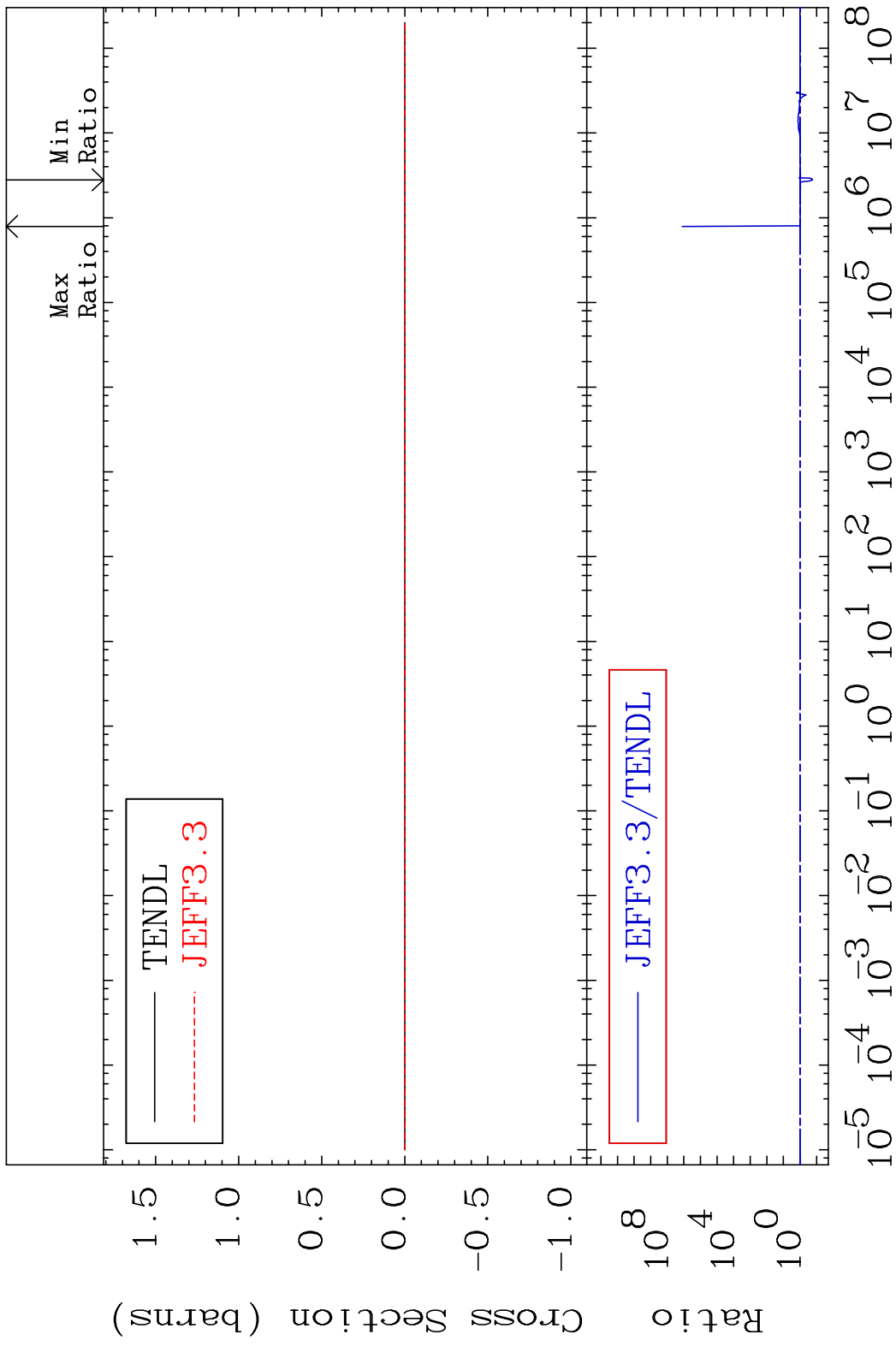


MAT 6413 Kerma inelastic (mt51-91) 64-Gd-148  
 Cross Section -82.45 To 9999. %



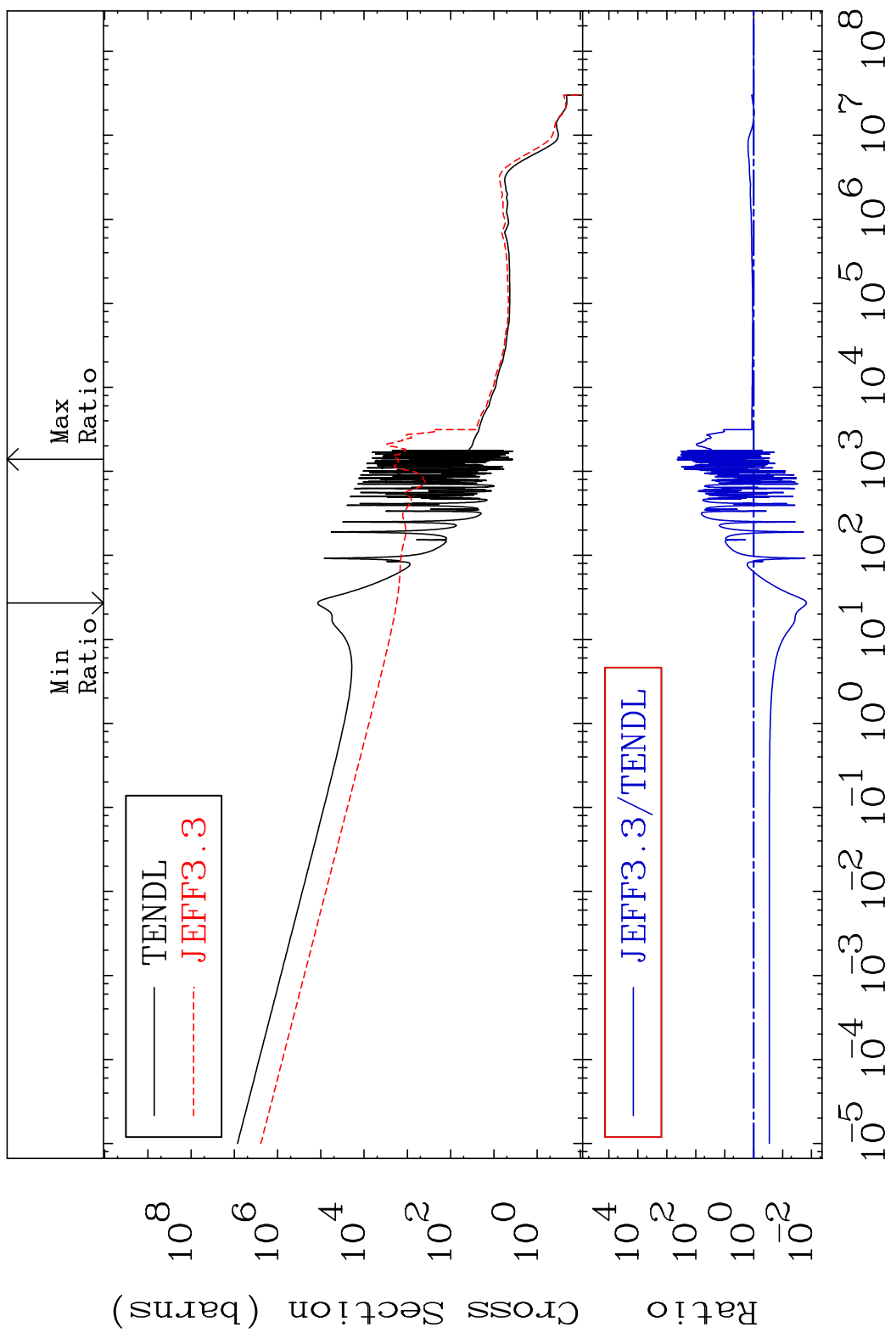
60 Incident Energy (eV) 64-Gd-148

MAT 6413 Kerma fission (mt18 or mt19-20-21-38) 64-Gd-148  
 Cross Section -82.45 To 9999. %



MAT 6413

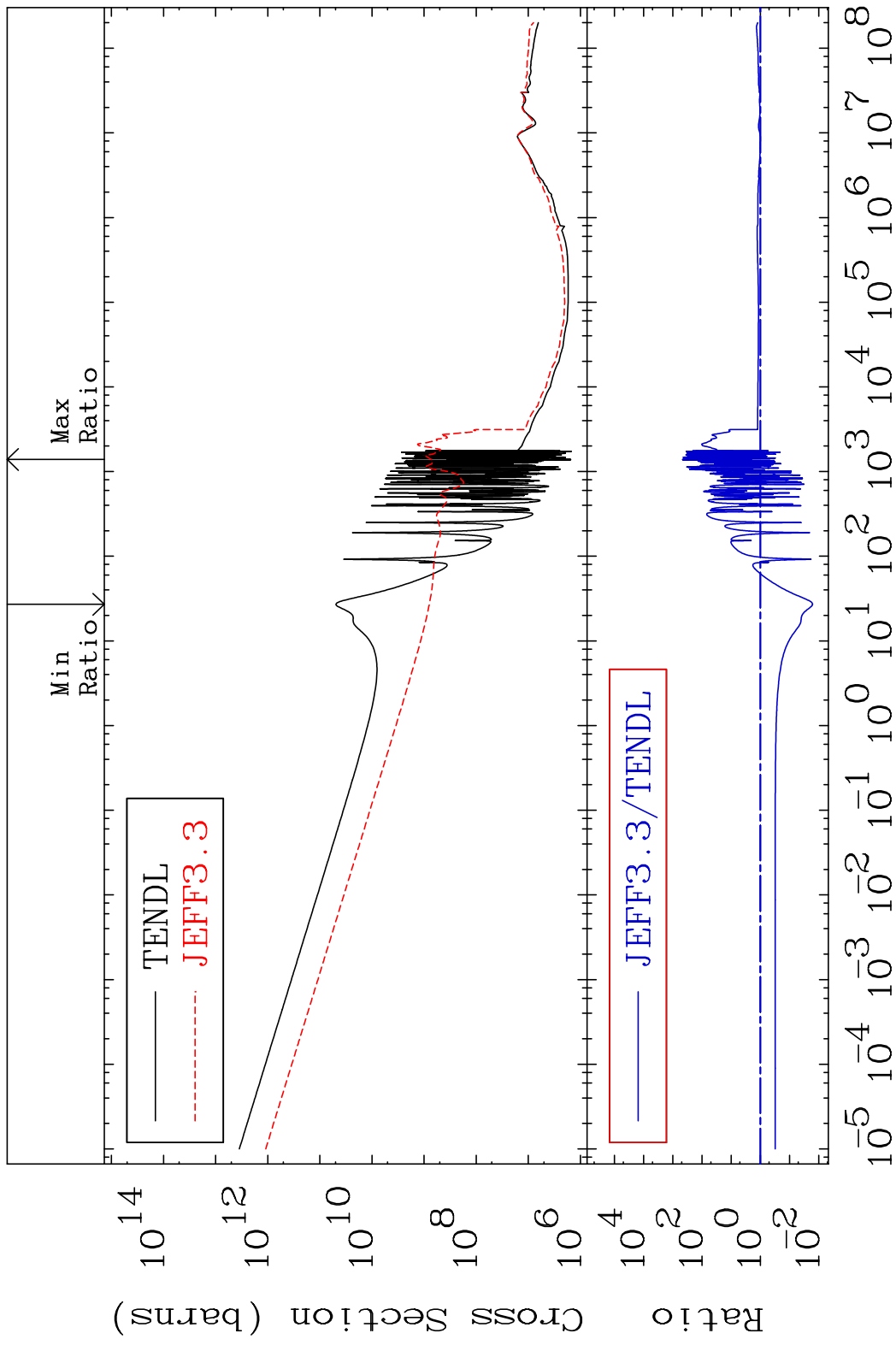
Kerma capture (mt102) 64-Gd-148  
Cross Section -98.50 To 9999. %



62

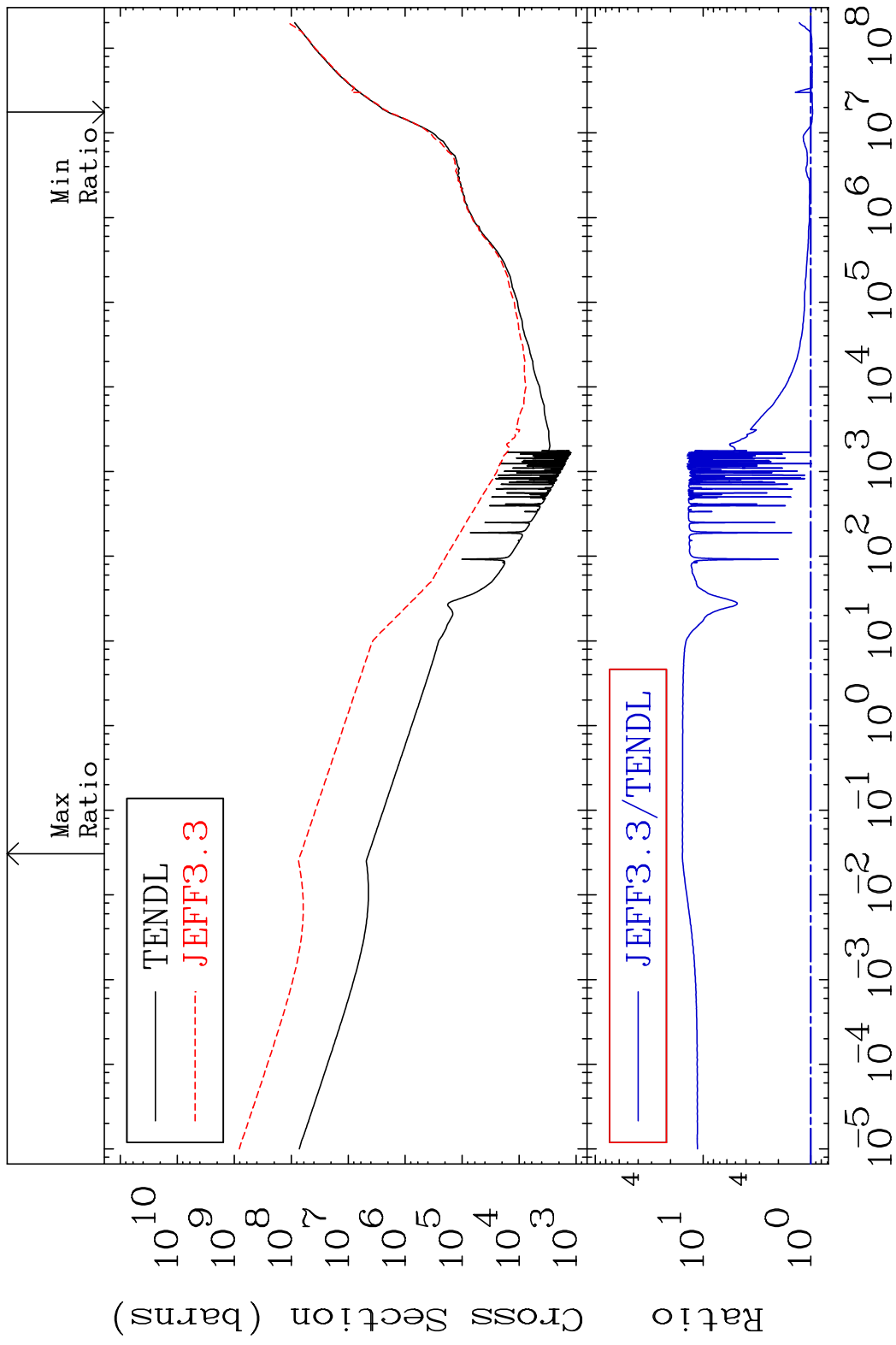
Incident Energy (eV) 64-Gd-148

MAT 6413 Total photon (eV-barns) 64-Gd-148  
 Cross Section -98.38 To 9999. %



63 Incident Energy (eV) 64-Gd-148

MAT 6413 Total kinematic kerma (high limit) 64-Gd-148  
 Cross Section -3.720 To 1456. %

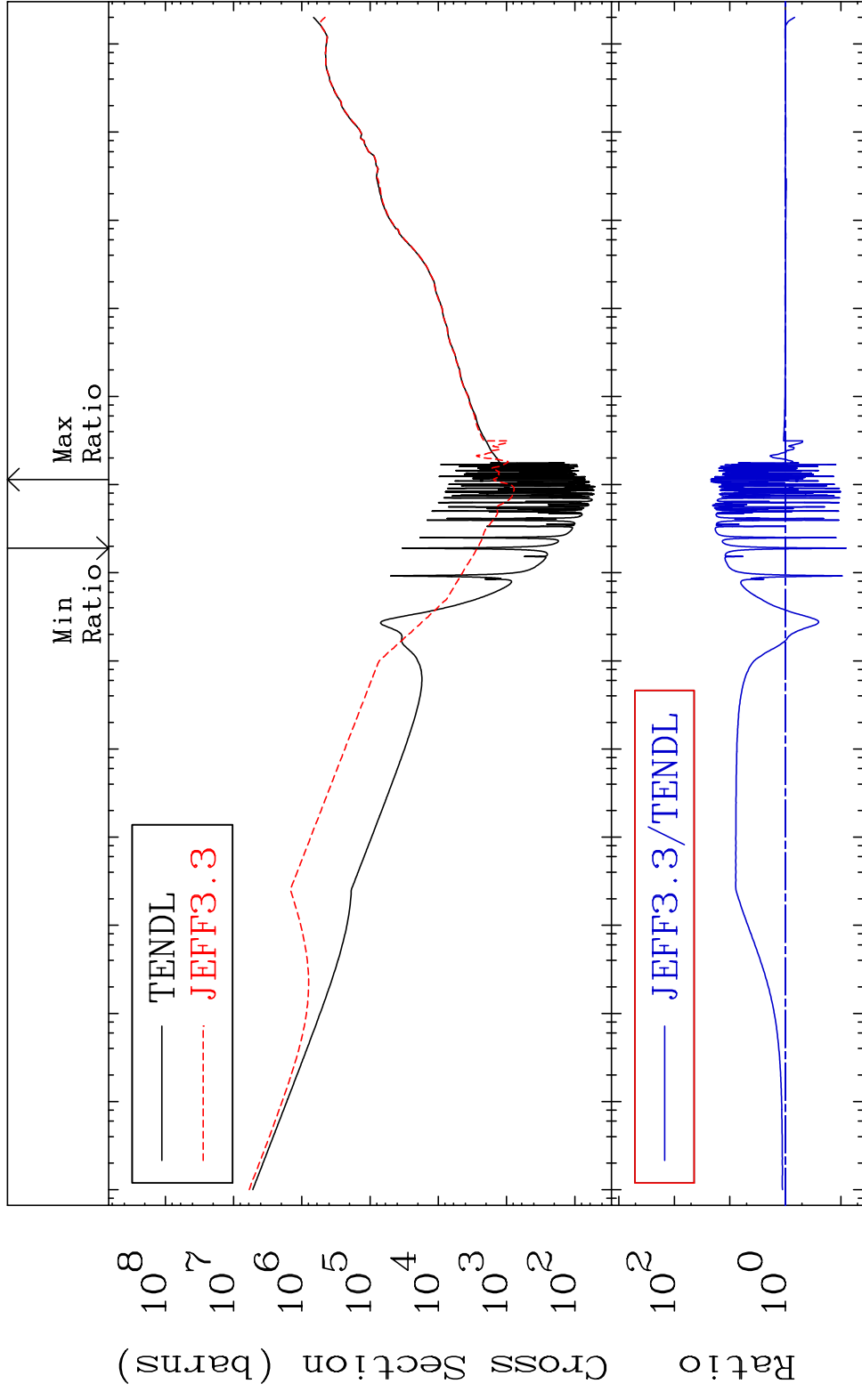


MAT 6413

Dpa total (eV-barns)

64-Gd-148

Cross Section -92.04 To 2113. %



65

Incident Energy (eV)

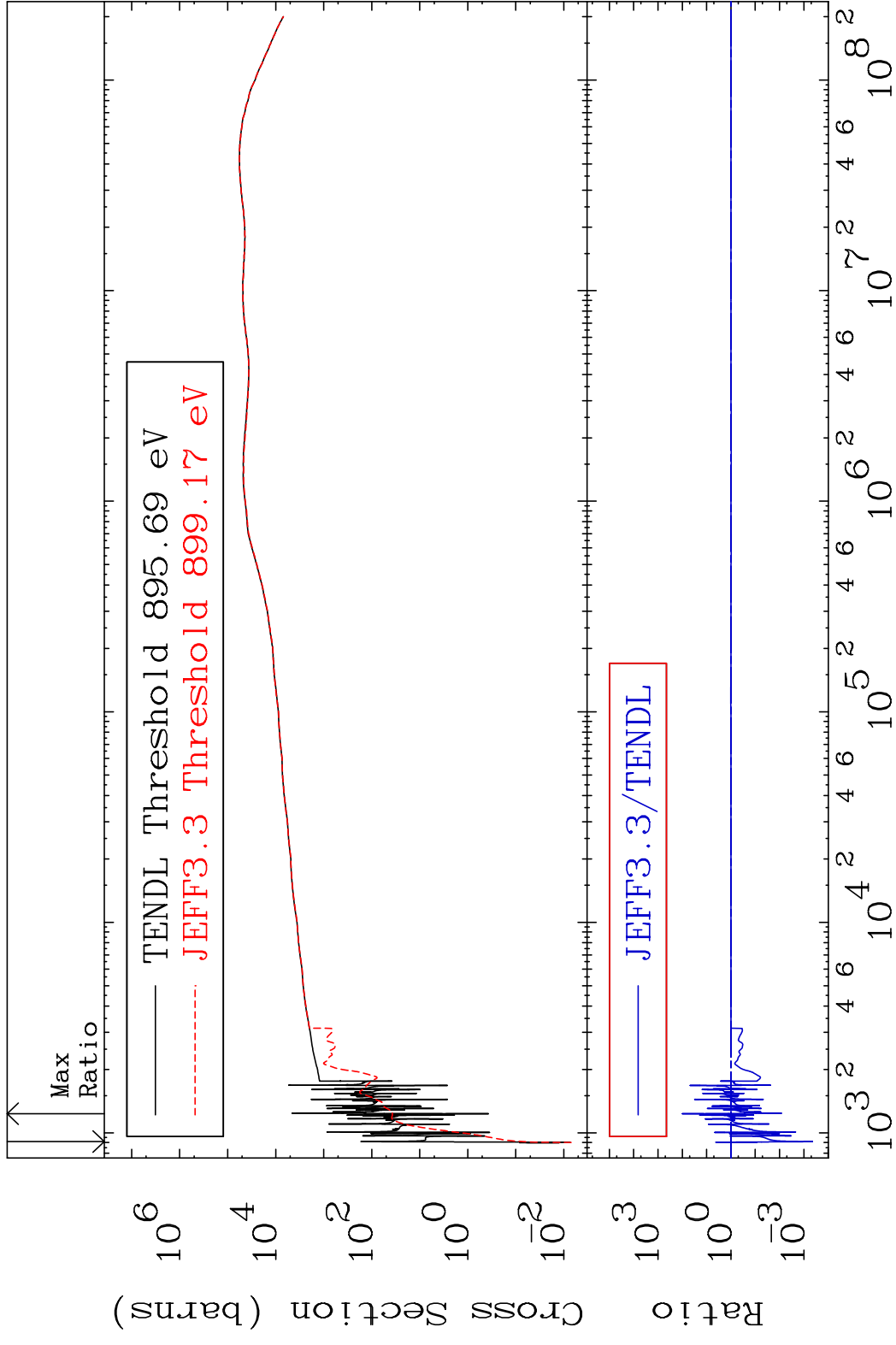
64-Gd-148

MAT 6413

Dpa elastic (mt2)

64-Gd-148

Cross Section -99.96 To 9843. %

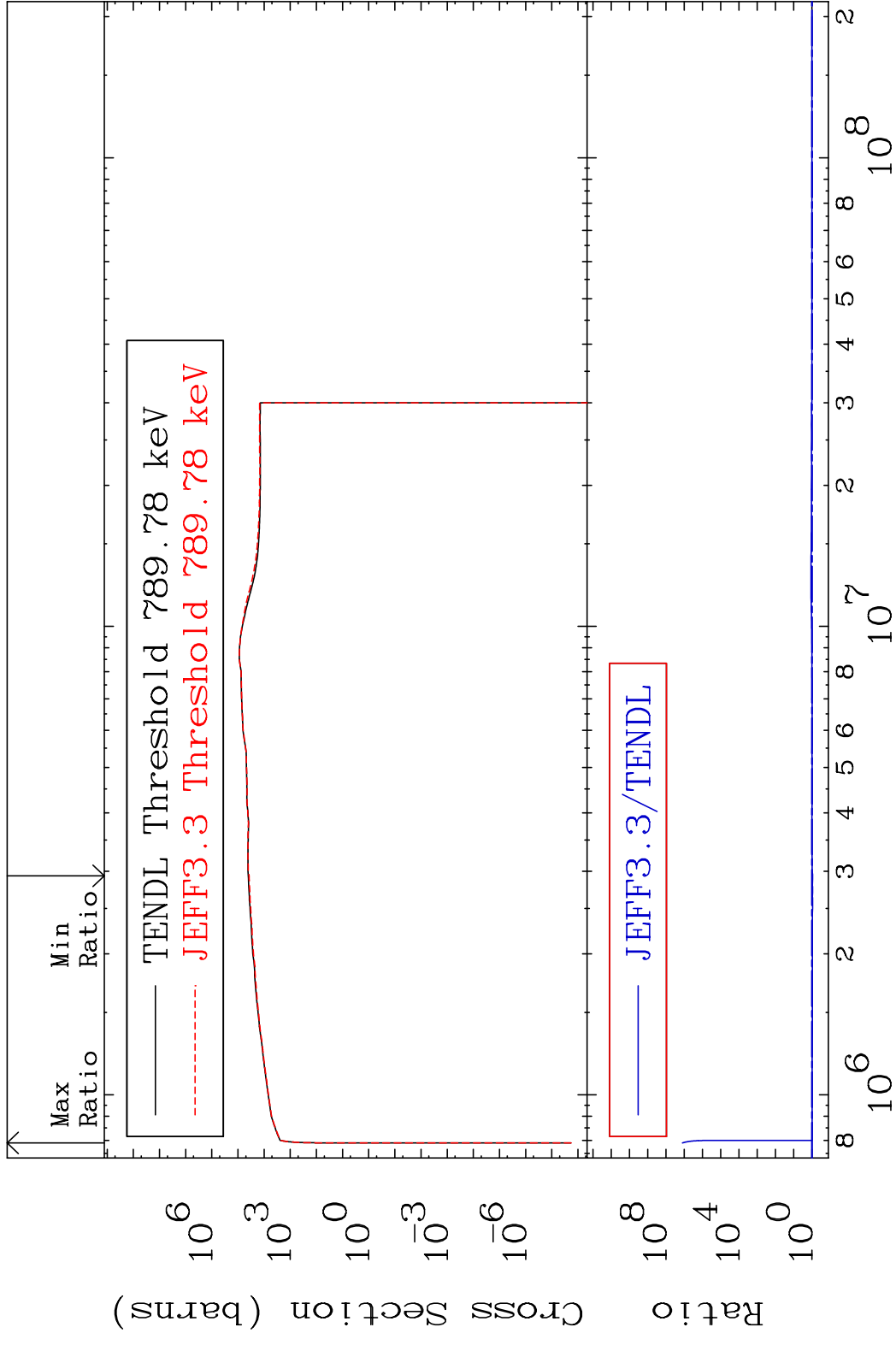


66

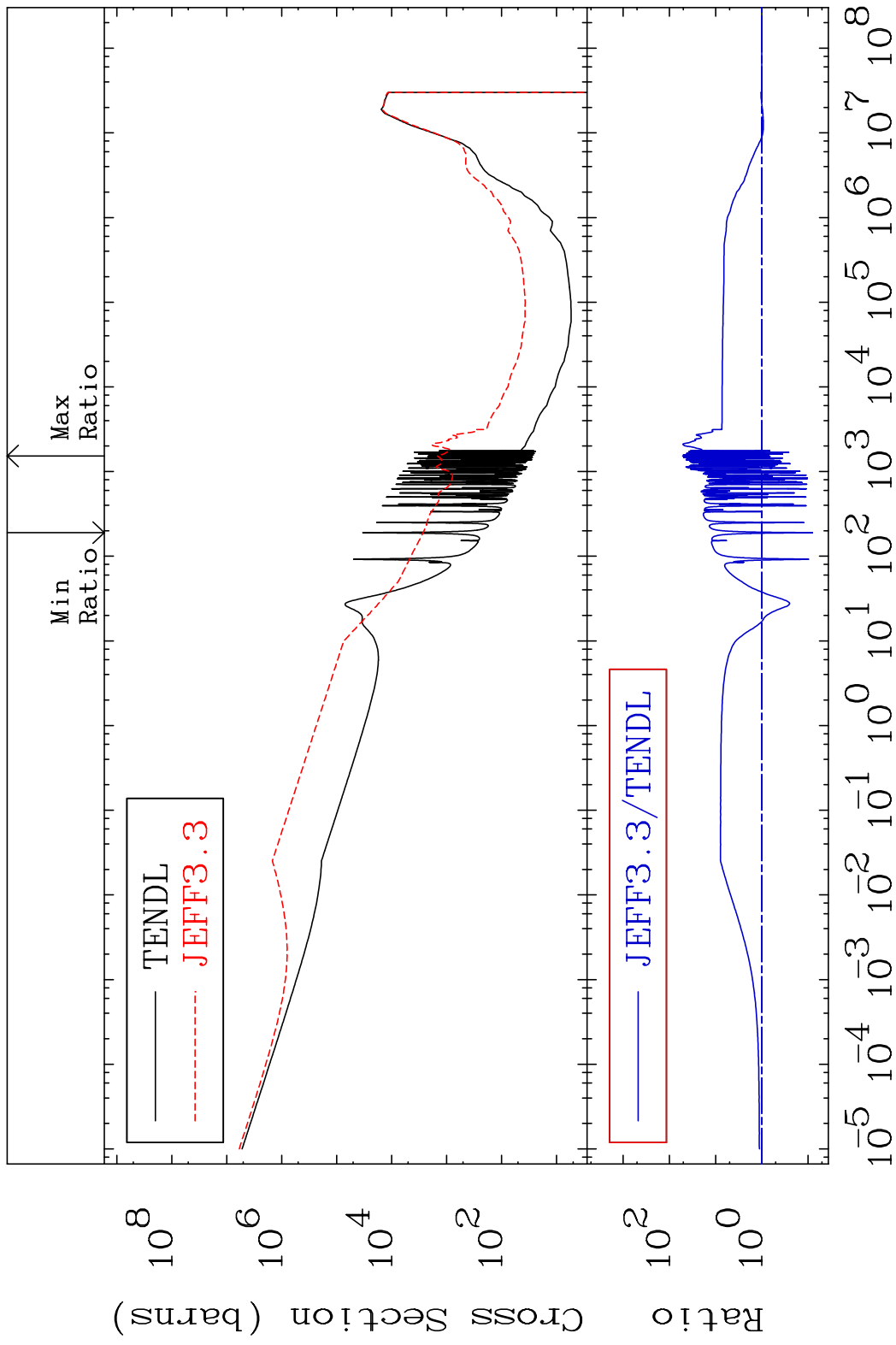
Incident Energy (eV)

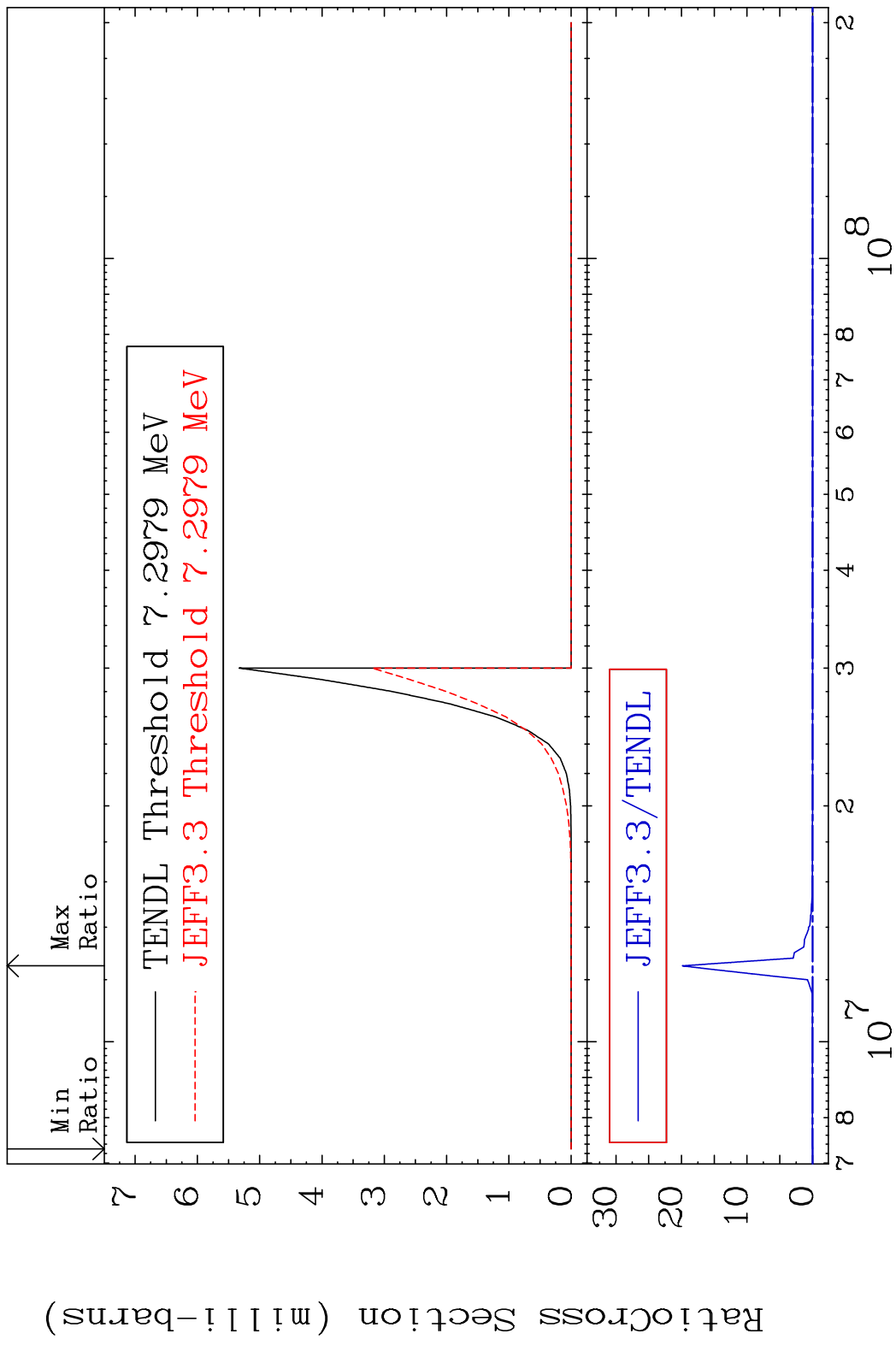
64-Gd-148

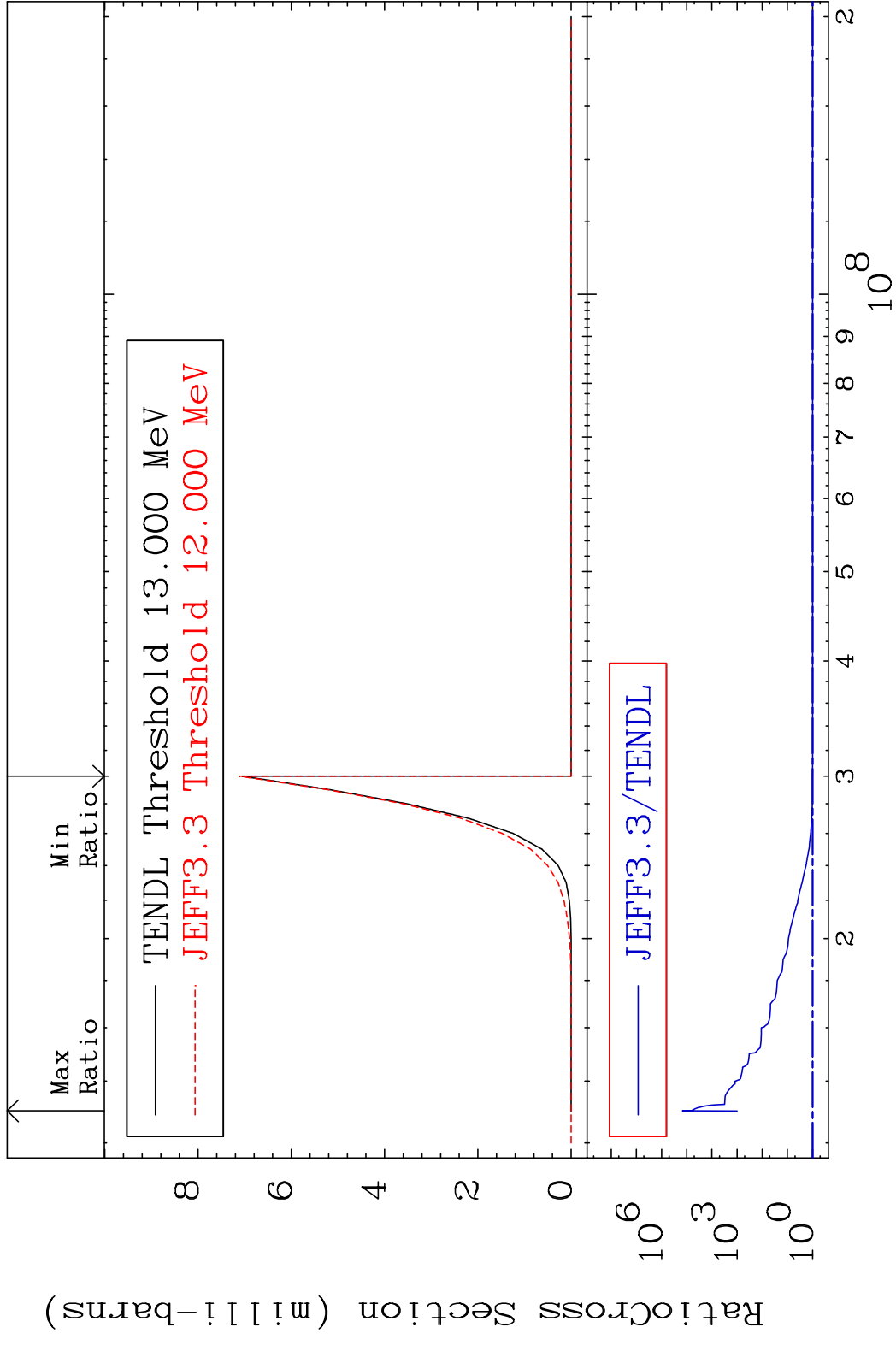
MAT 6413 Dpa inelastic (mt51-91) 64-Gd-148  
 Cross Section -6.621 To 9999. %



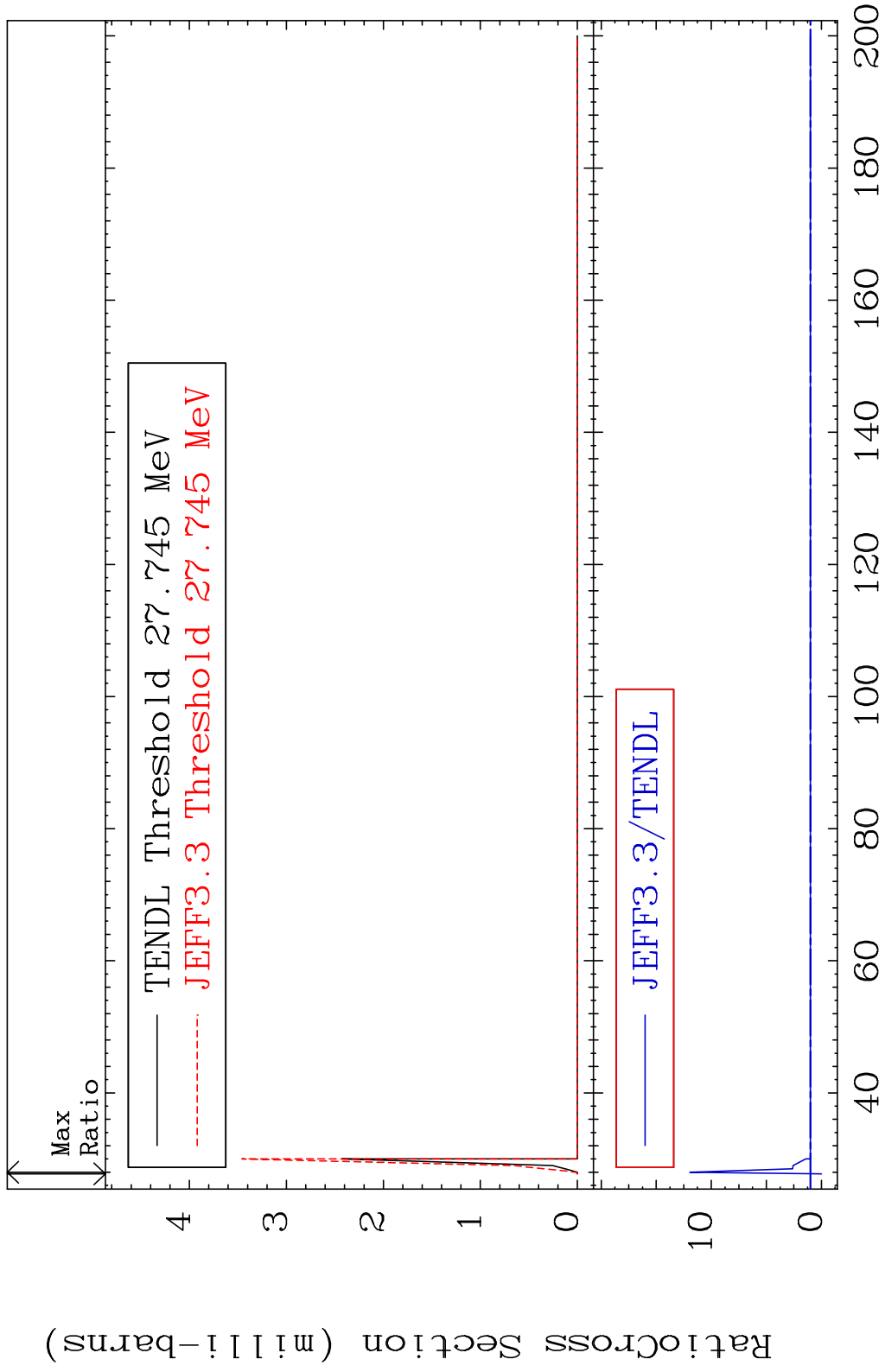
MAT 6413 Dpa disappearance (mt102 -120) 64-Gd-148  
 Cross Section -92.04 To 5135. %







MAT 6413 (n,4n):64-Gd-145g 64-Gd-148  
 Radionuclide Production Cross Section 100% to 1095. %



MAT 6413 (n, 4n):64-Gd-145m2 64-Gd-148  
 Radionuclide Production Cross Section Ratio 623.6 %

