

Program Complot  
(Version 2018-1)

by

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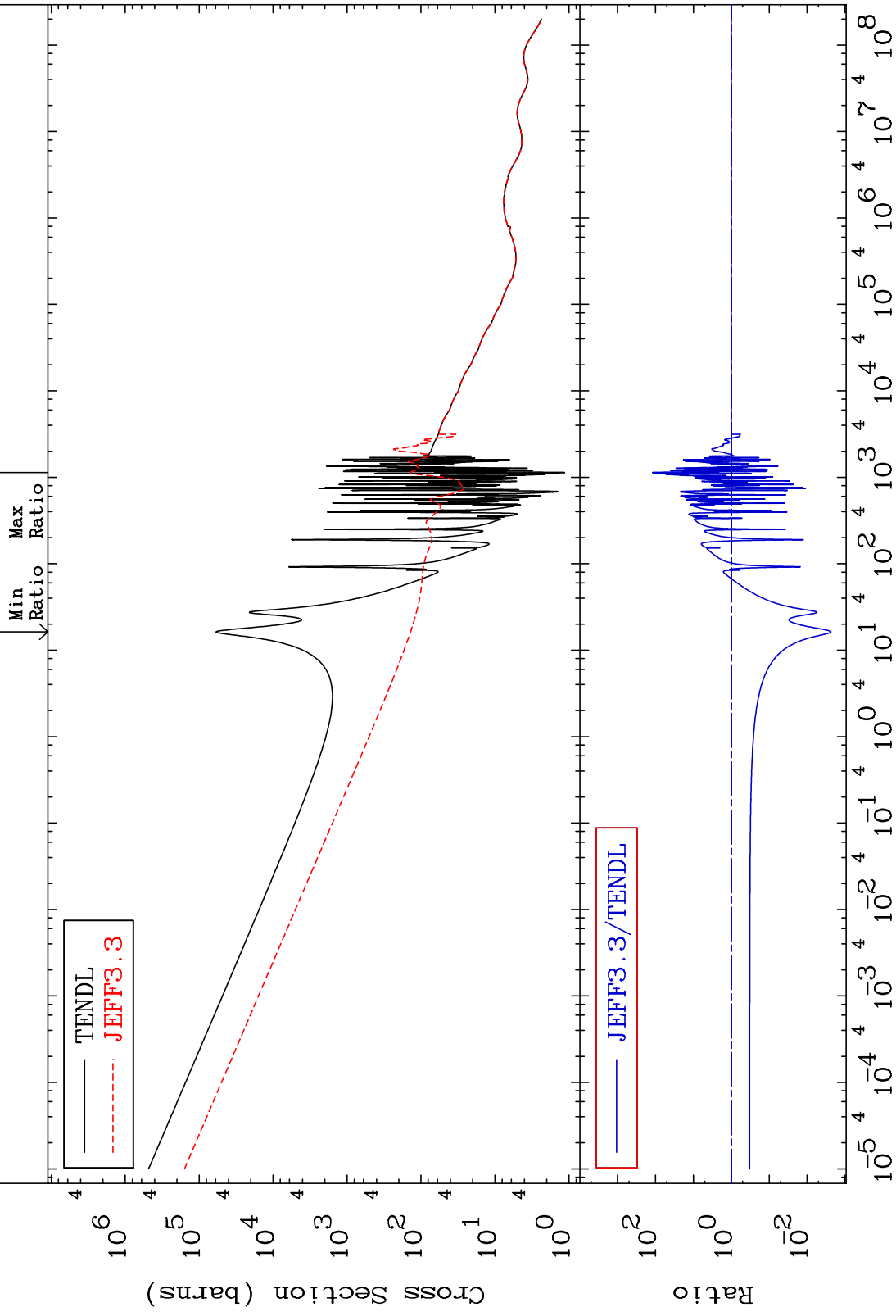
Press Mouse Button to Start

MAT 6413

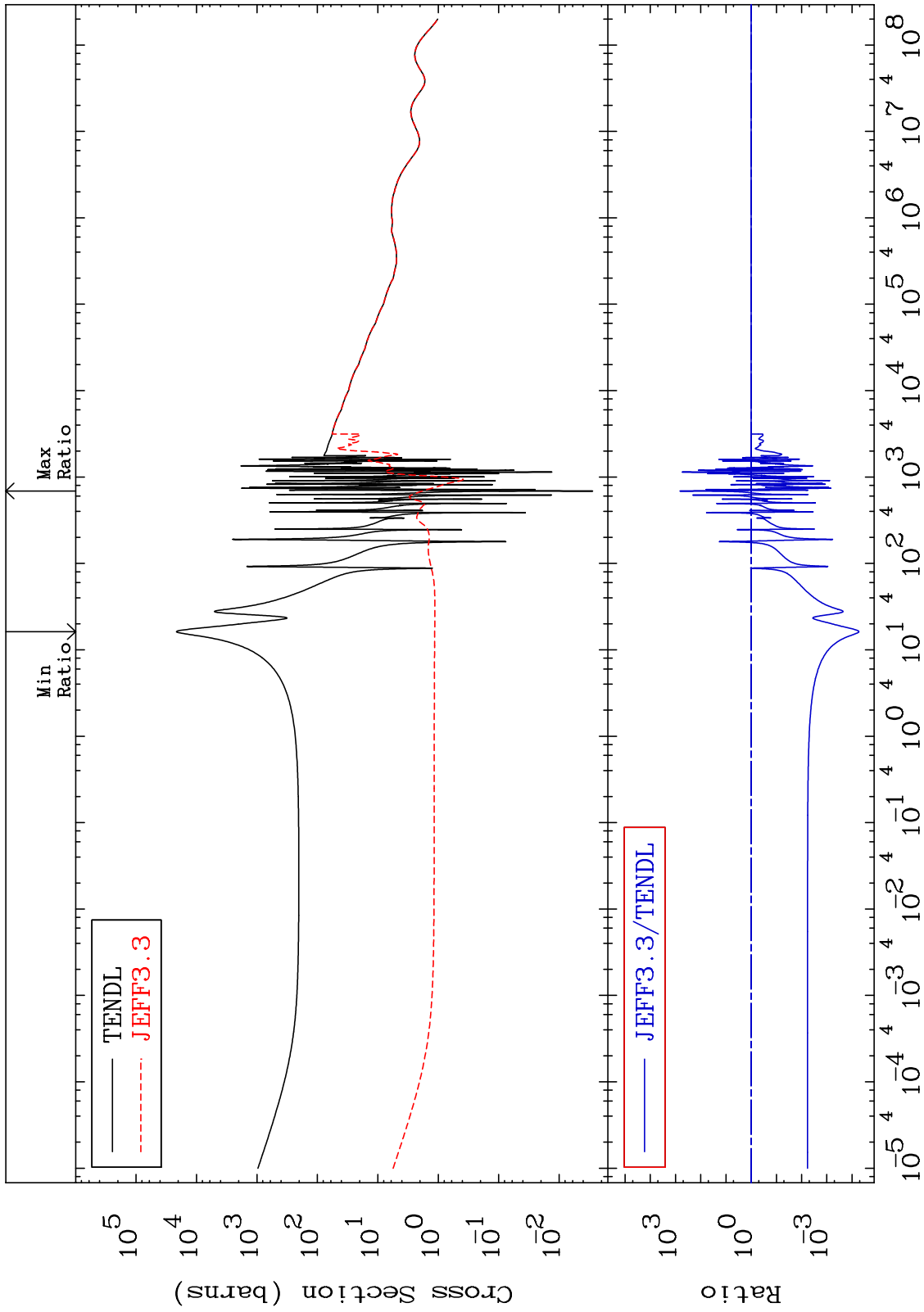
64-Gd-148

-99.77 To 9999. %

Total  
Cross Section

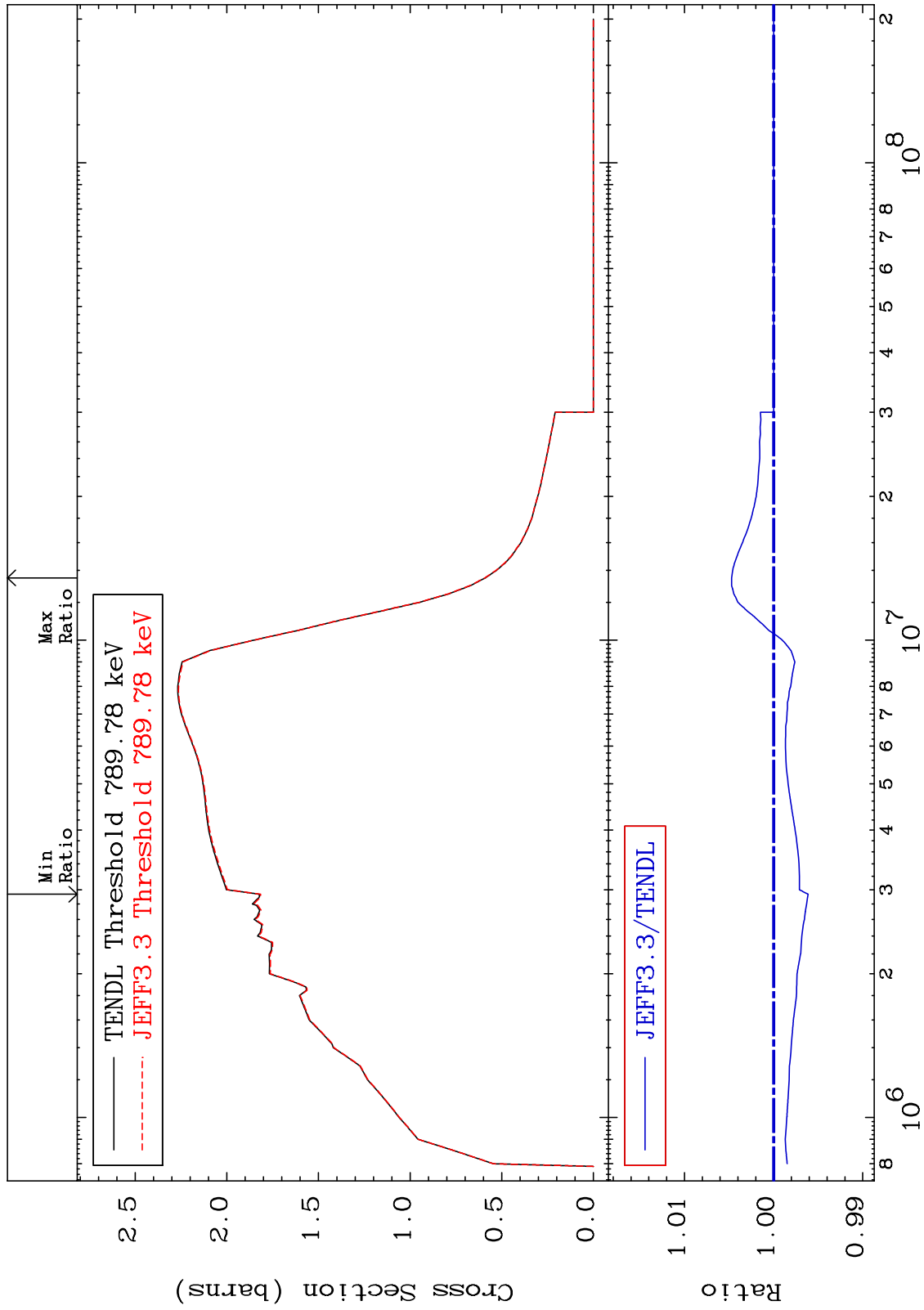


MAT 6413 Elastic Cross Section 64-Gd-148 -99.99 To 9999. %



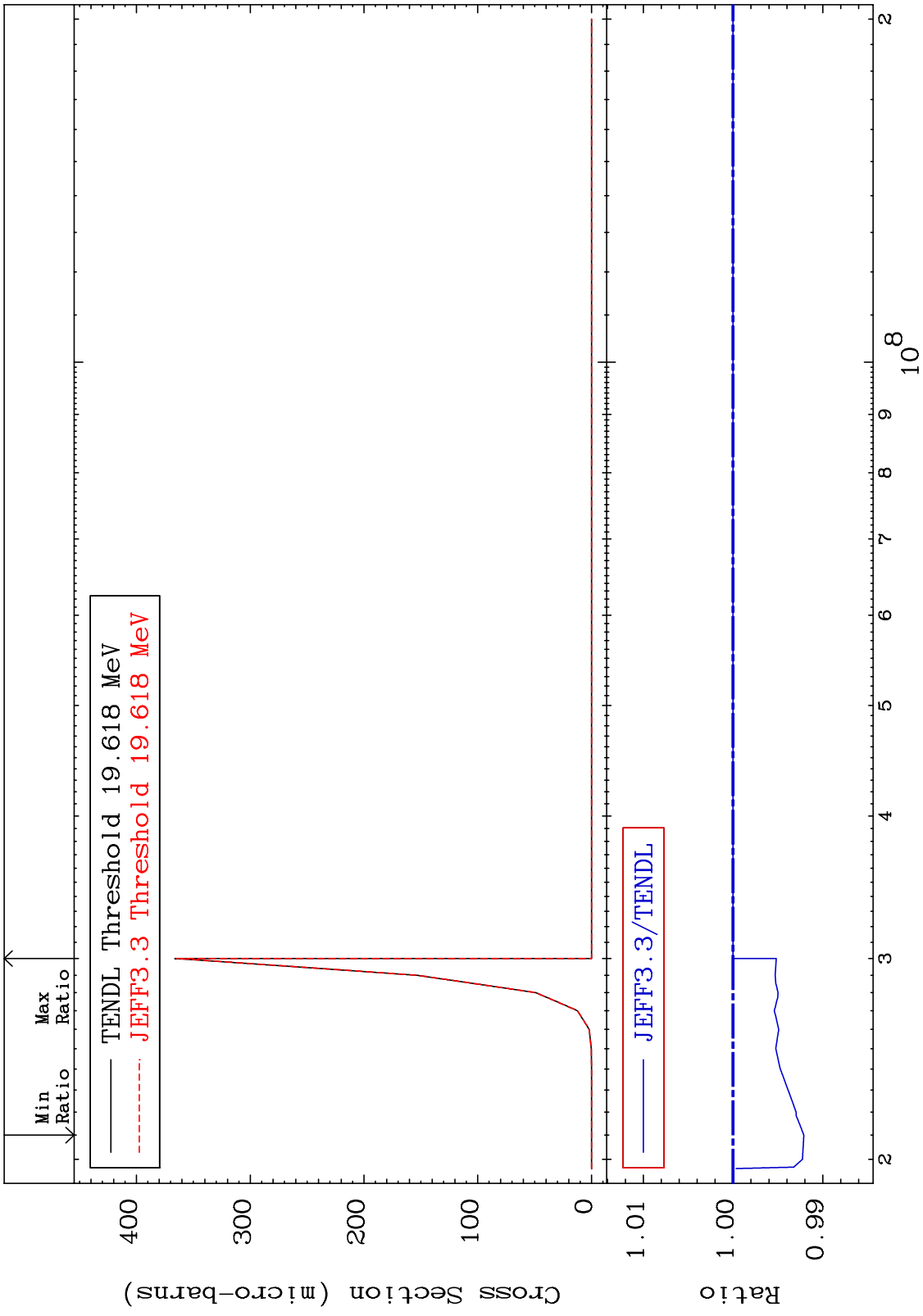
2 64-Gd-148

MAT 6413 64-Gd-148 Inelastic Cross Section -0.387 To 0.472 %

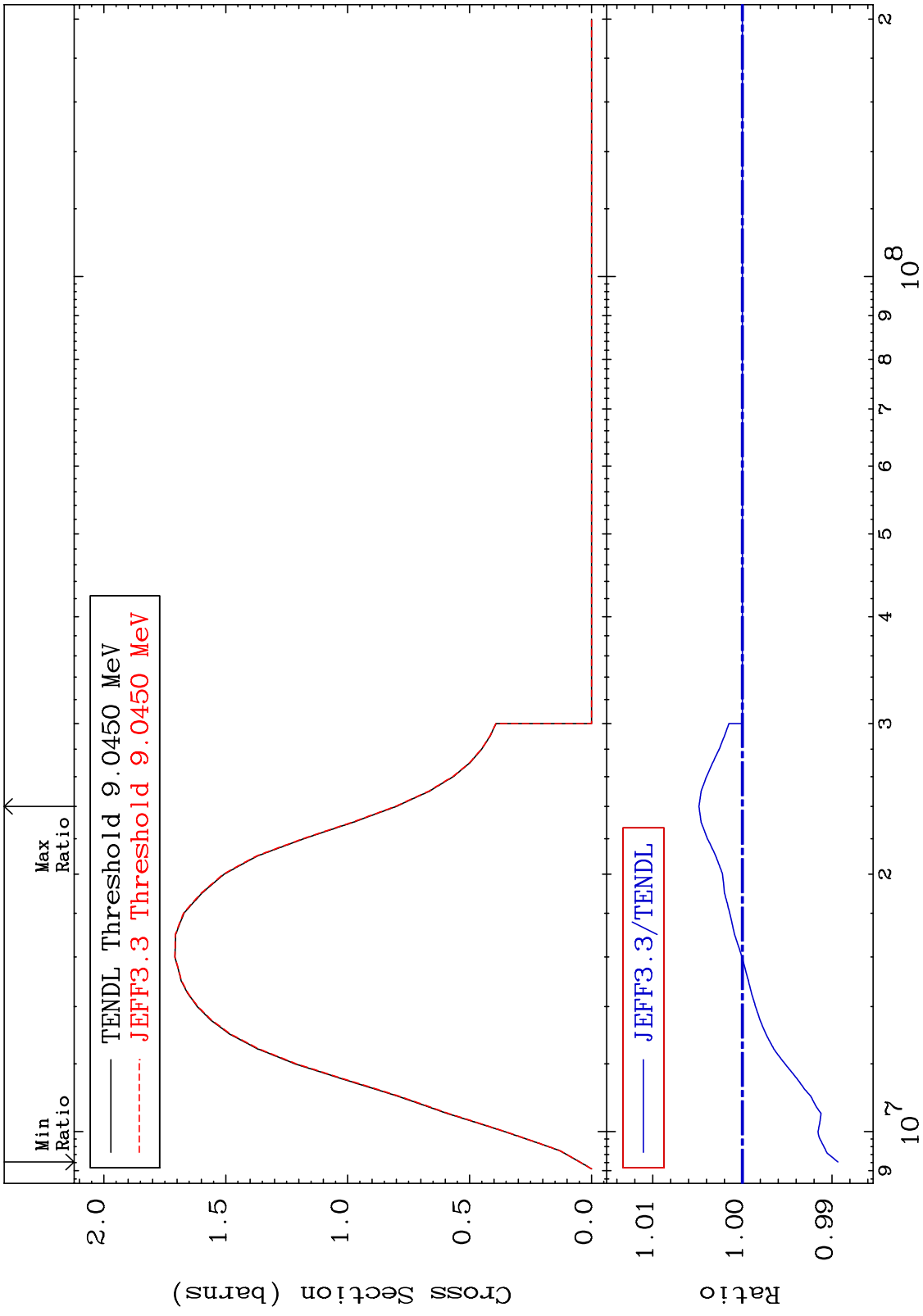


64-Gd-148 Incident Energy (eV) 64-Gd-148

MAT 6413 (n,2n) d 64-Gd-148  
 Cross Section -0.789 To 0.000 %

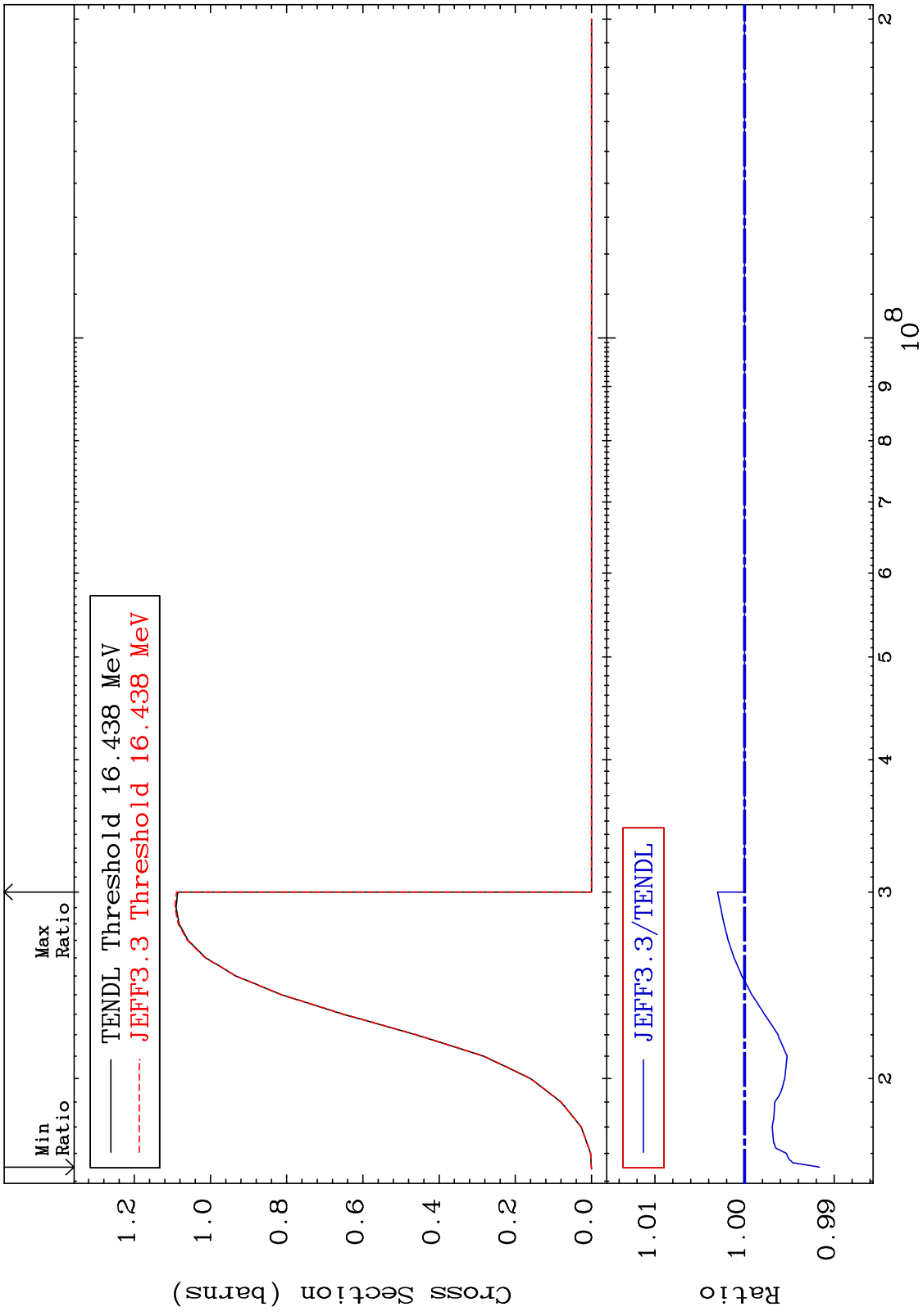


MAT 6413  $(n,2n)$  Cross Section  $^{64}\text{Gd}-148$   $-1.066$  To  $0.484$  %



64-Gd-148

MAT 6413 (n,3n) Cross Section 64-Gd-148 -0.835 To 0.302 %



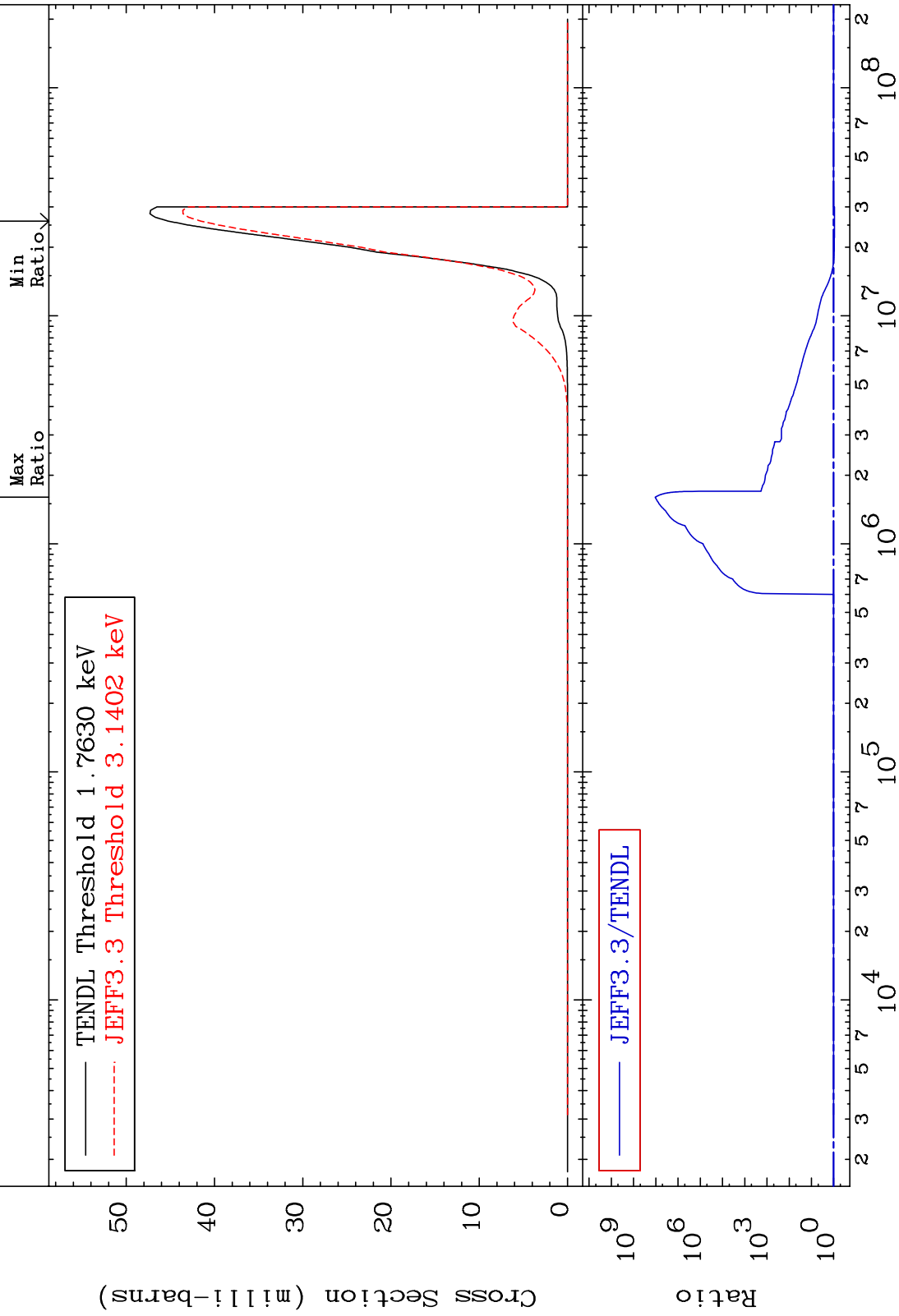
MAT 6413

(n,n')  $\alpha$

64-Gd-148

-8.117 To 9999. %

Cross Section



7

Incident Energy (eV)

64-Gd-148



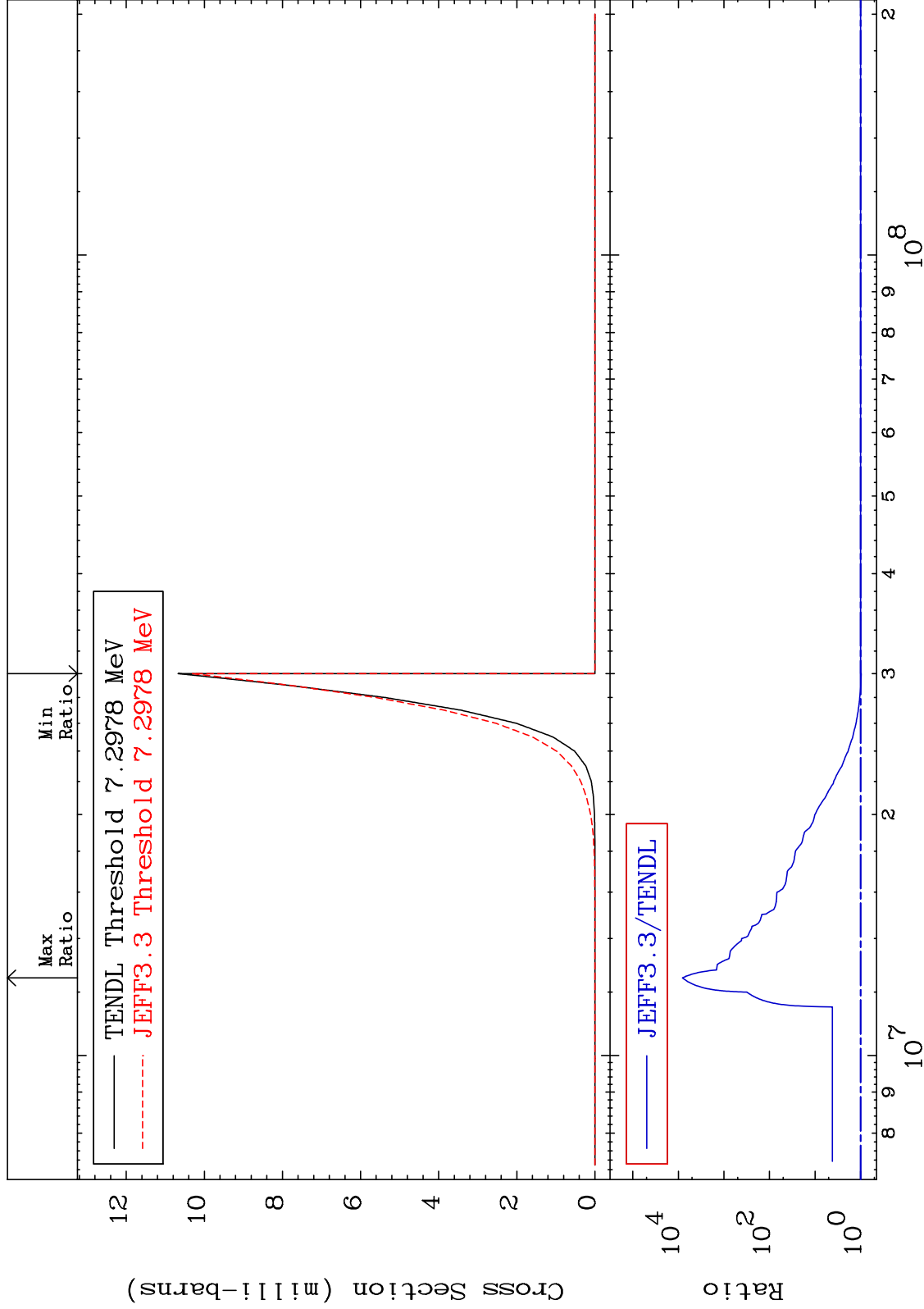
MAT 6413

(n,2n)  $\alpha$

64-Gd-148

-3.327 To 9999. %

Cross Section

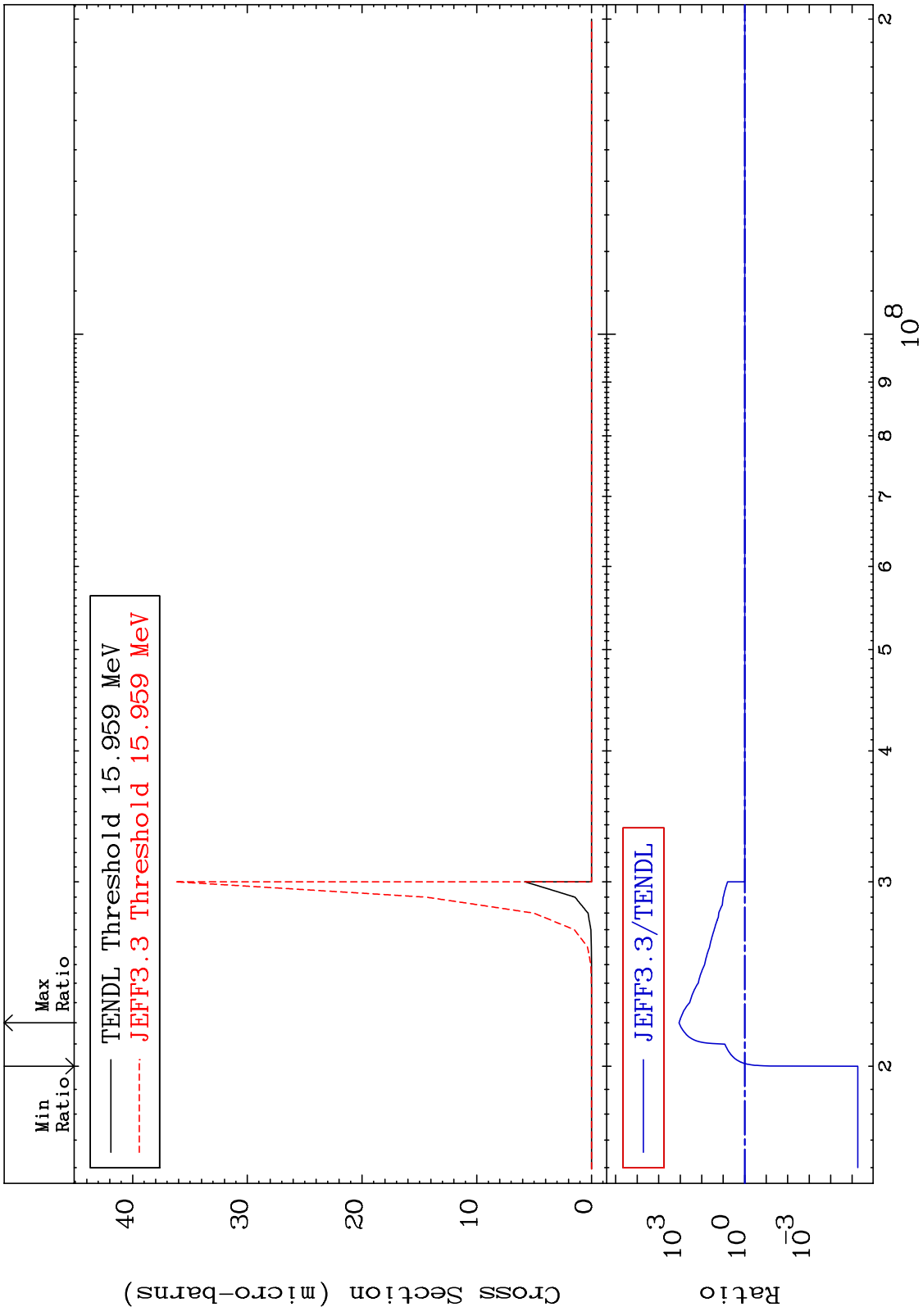


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Incident Energy (eV)

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

-2.817 To 0.052 %

Cross Section

Min Ratio

Max Ratio

TENDL Threshold 6.0546 MeV  
JEFF3.3 Threshold 6.0546 MeV

Cross Section (milli-barns)

100

80

60

40

20

0

Ratio

1.00

0.99

0.98

0.97

JEFF3.3/TENDL

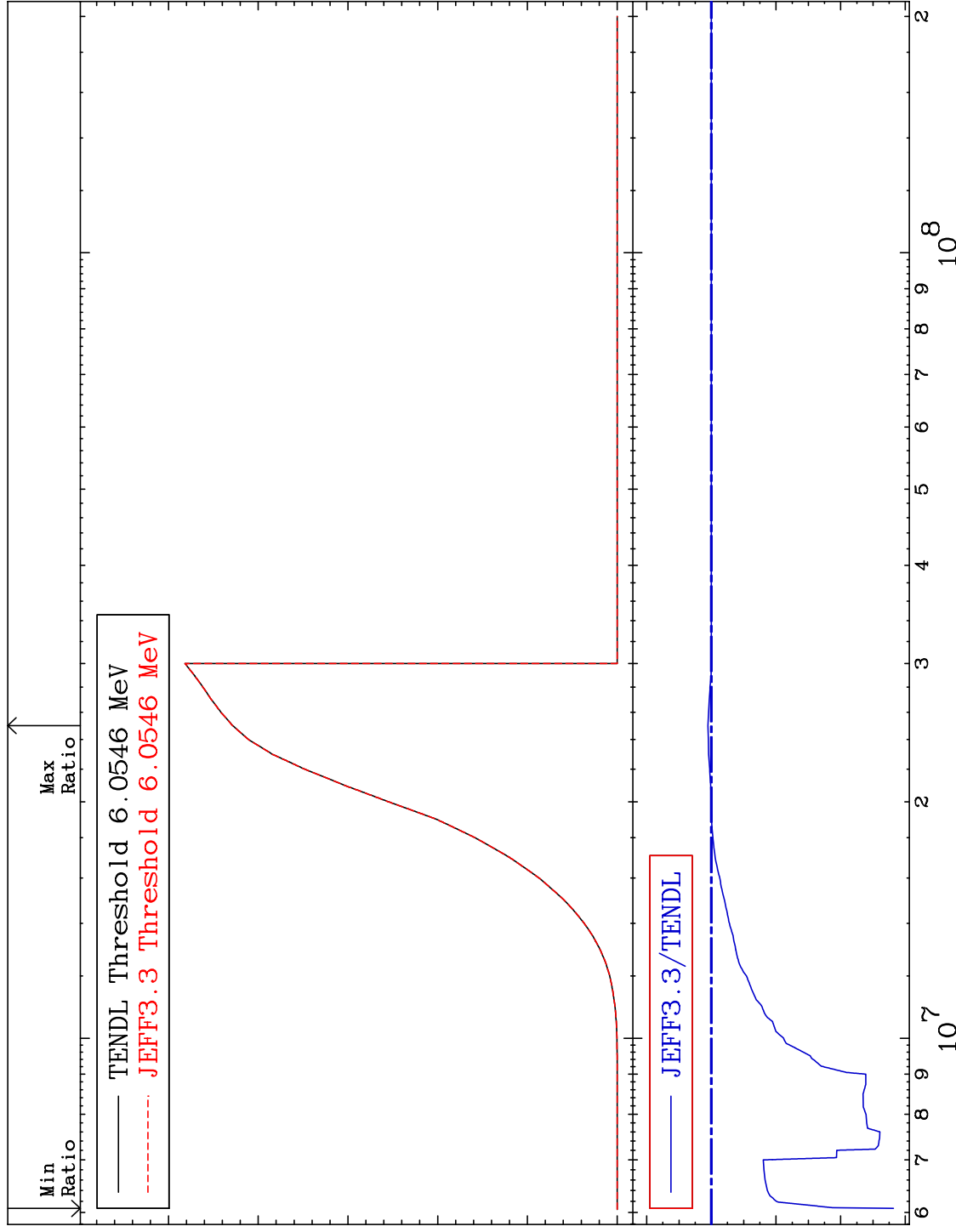
10<sup>7</sup>

10<sup>8</sup>

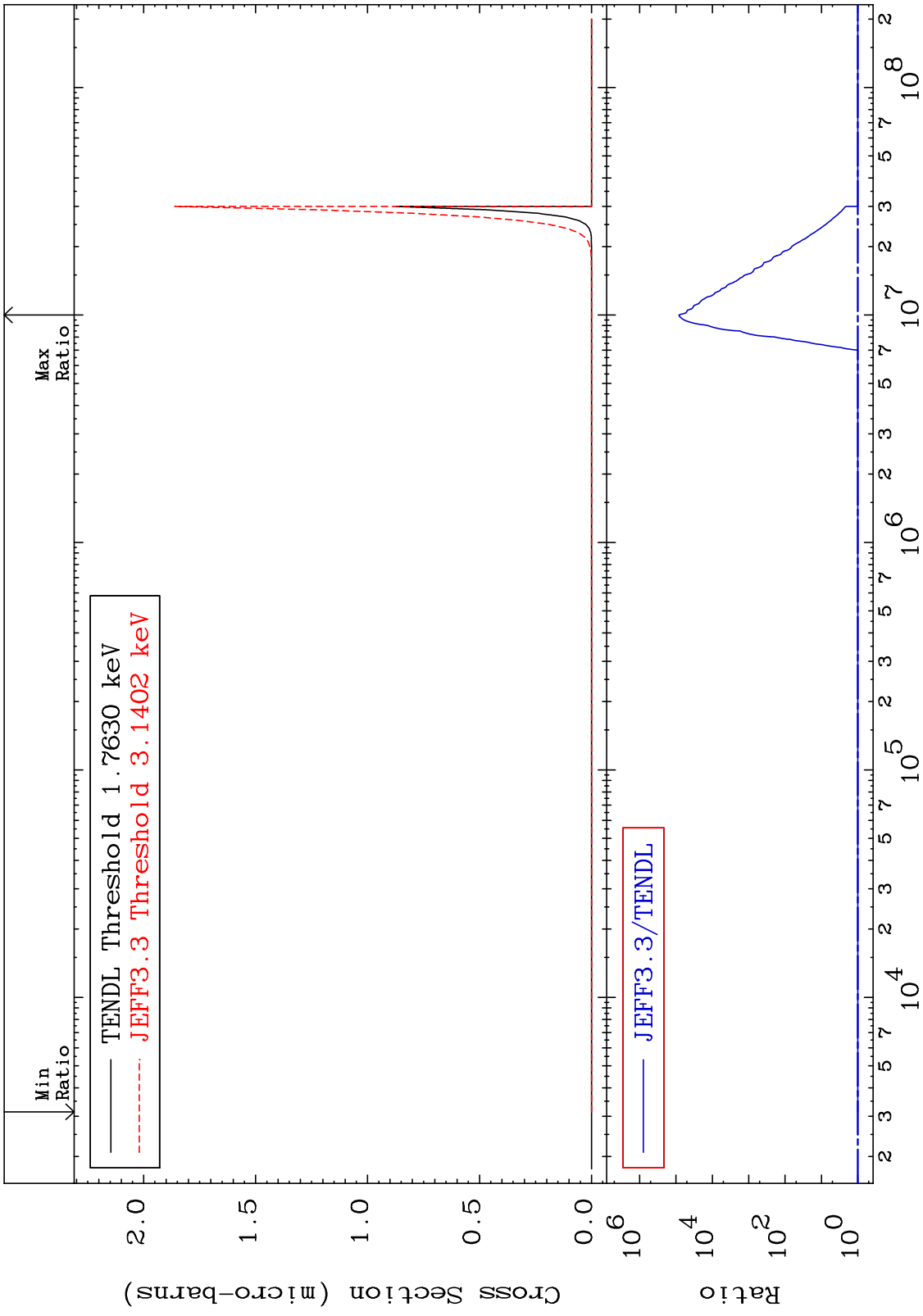
10

Incident Energy (eV)

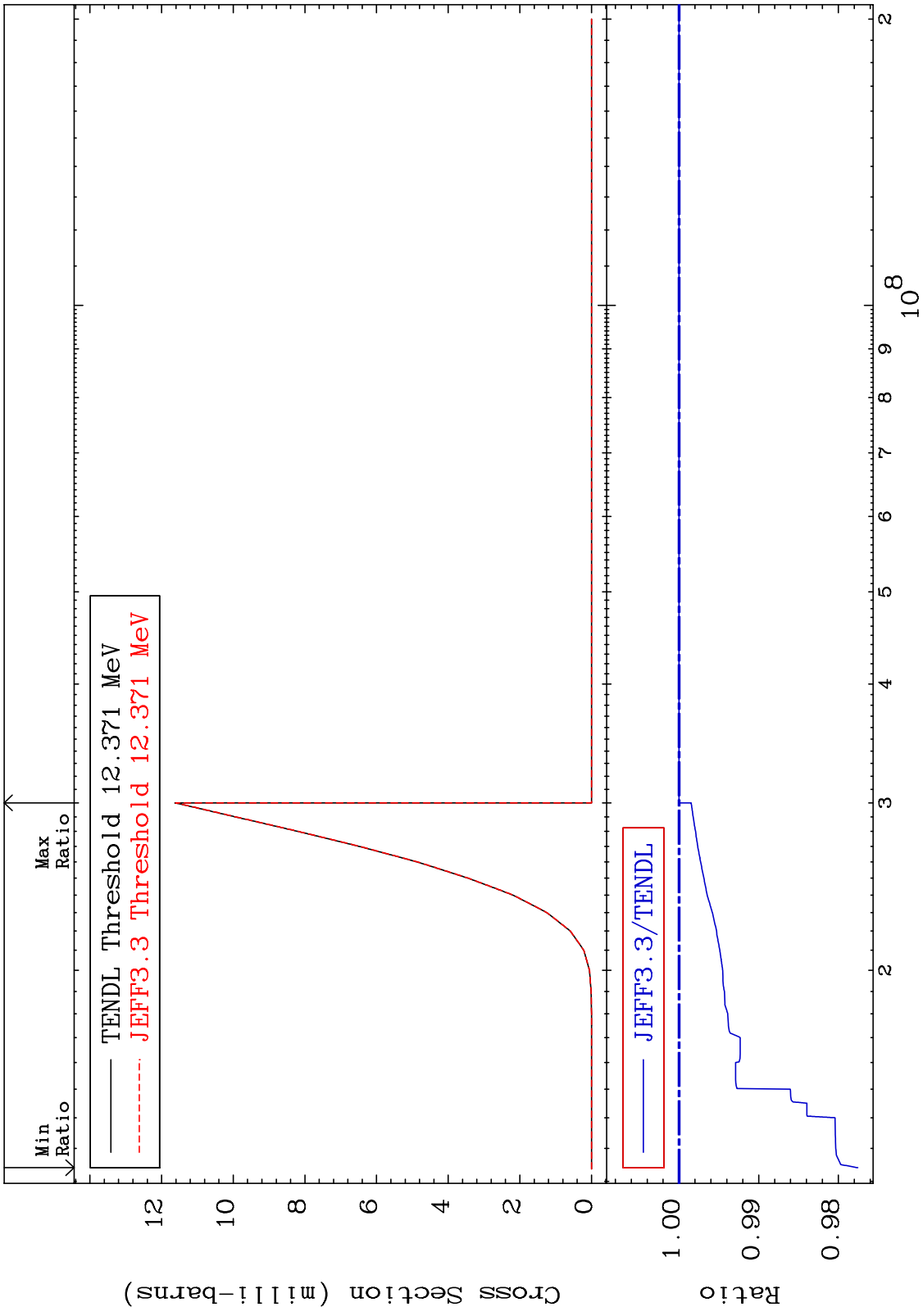
64-Gd-148



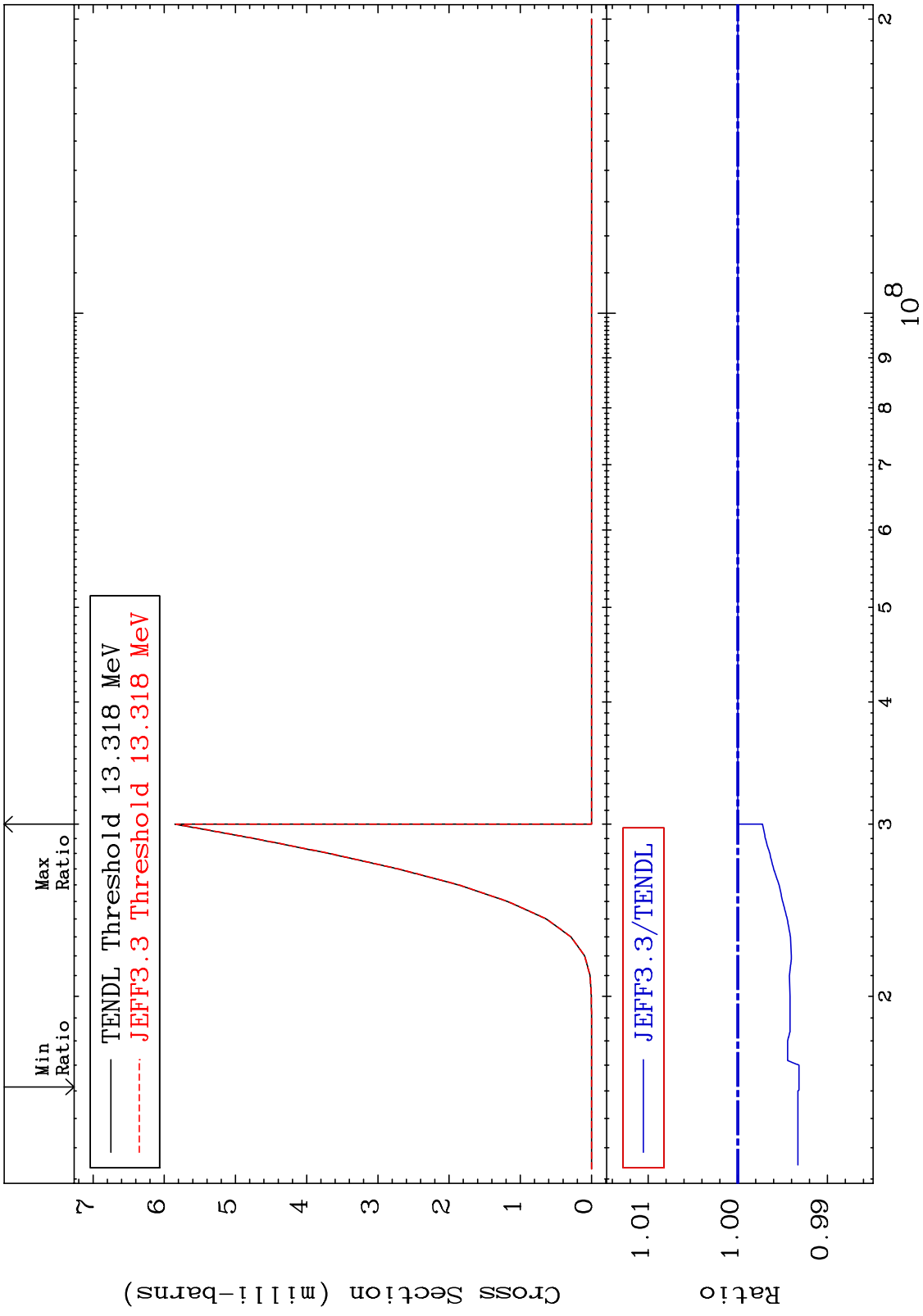
MAT 6413 (n,n') 2α Cross Section 64-Gd-148 To 9999. %



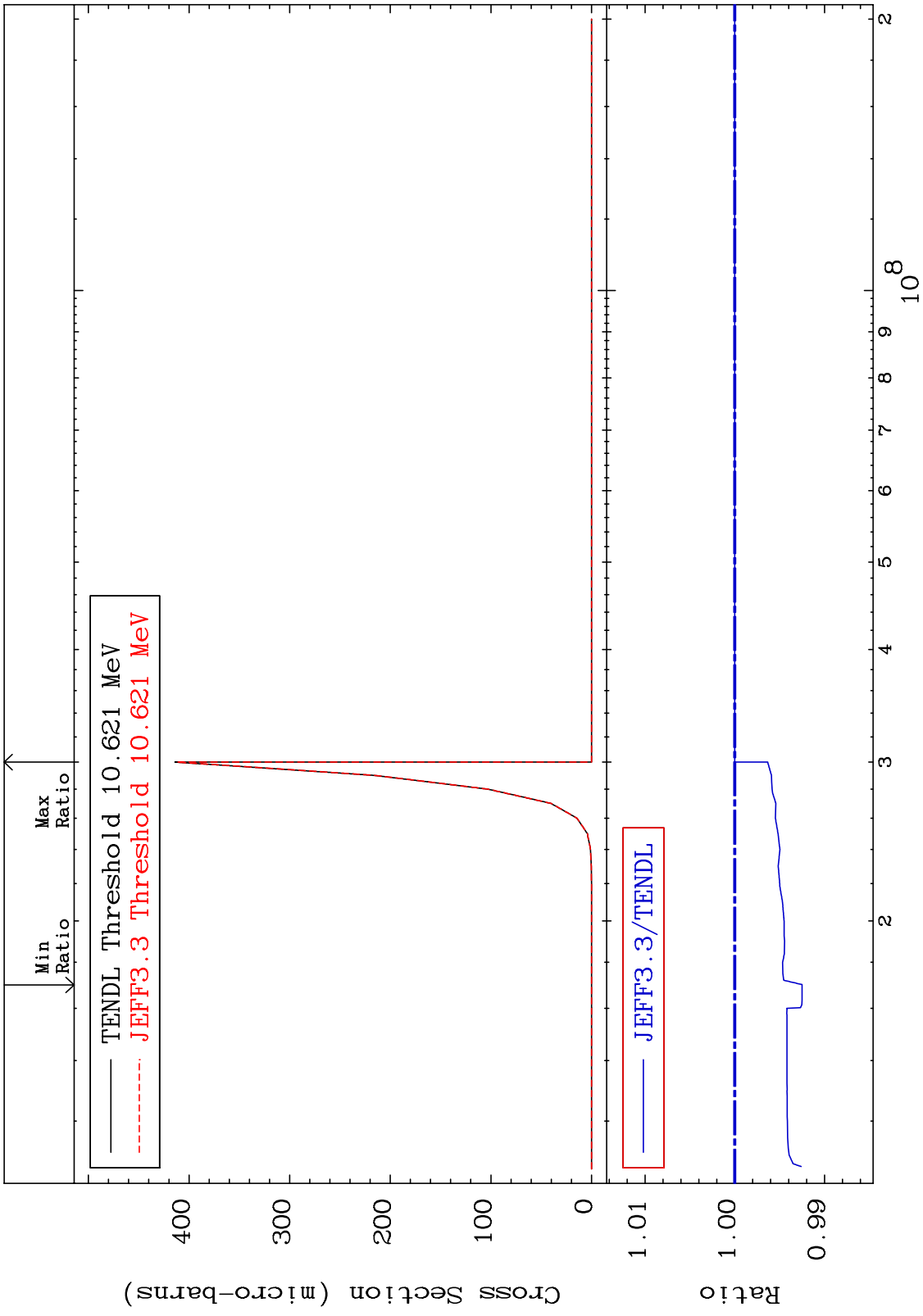
MAT 6413  $(n, n')$  d 64-Gd-148  
 Cross Section -2.245 To 0.000 %



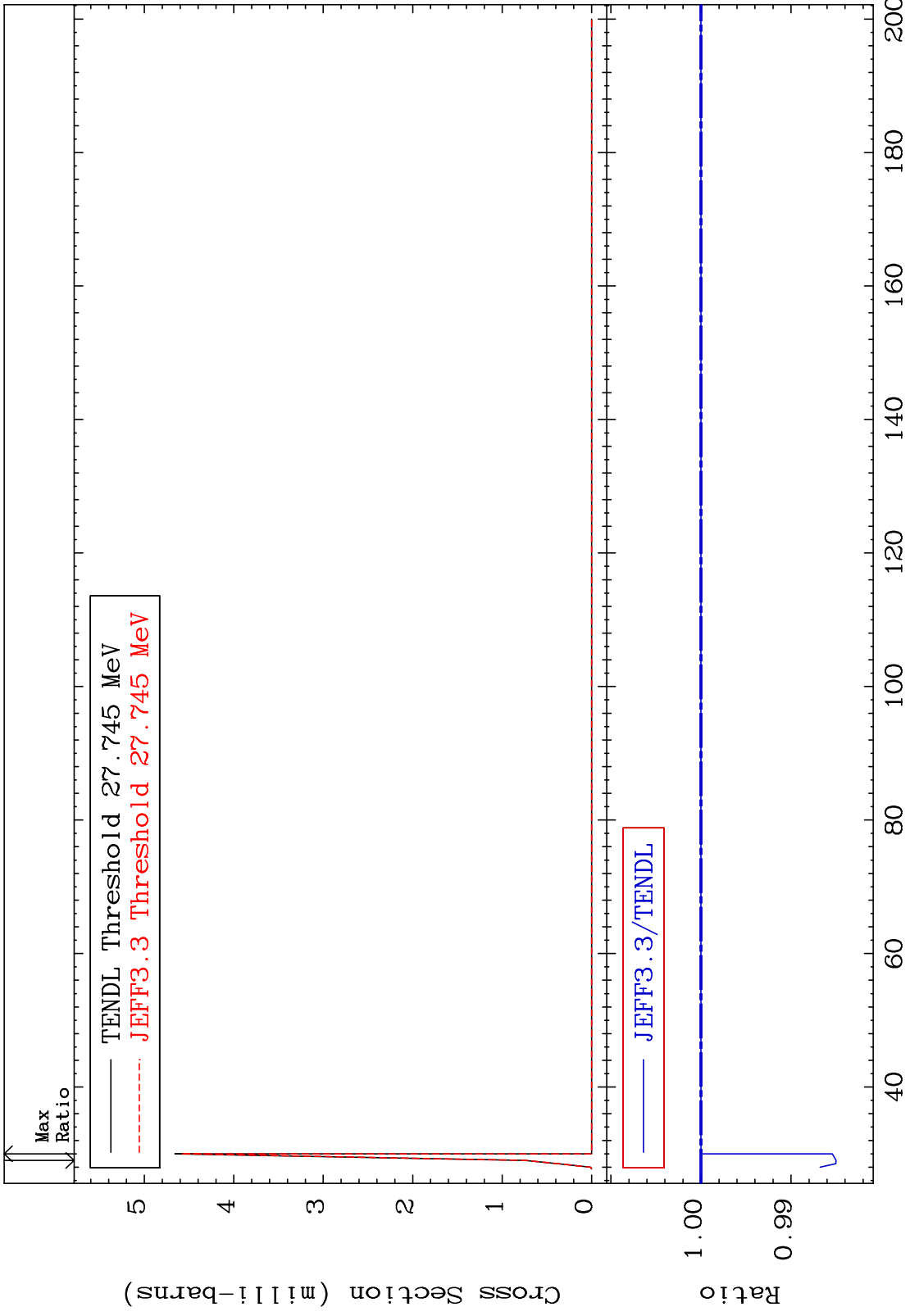
MAT 6413  $(n, n')$  t  $^{64}\text{Gd}-148$   
 Cross Section  $-0.683$  To  $0.000$  %



MAT 6413 (n, n') He-3 Cross Section 64-Gd-148 -0.750 To 0.000 %

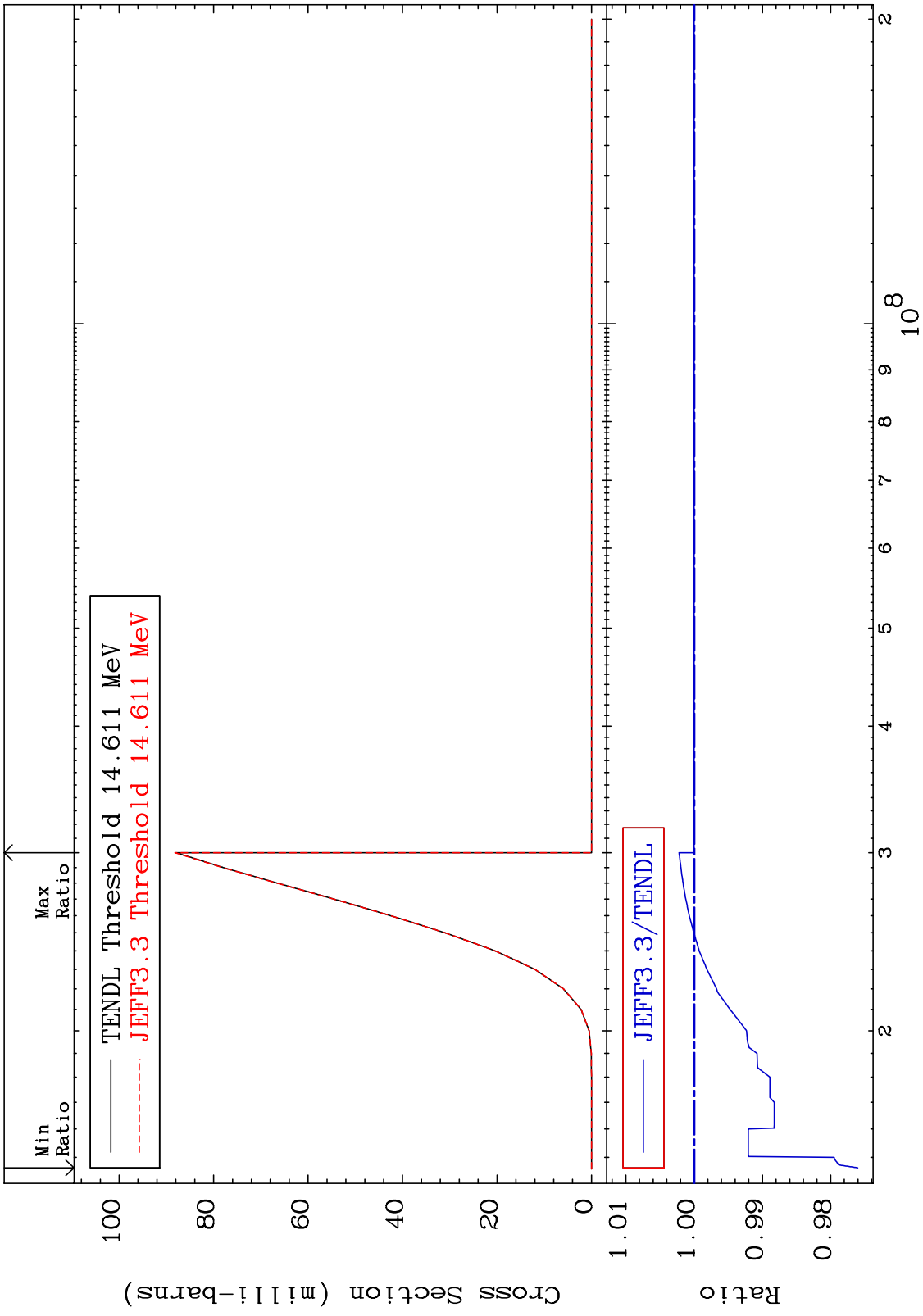


MAT 6413 (n,4n) Cross Section 64-Gd-148 -1.500 To 0.000 %

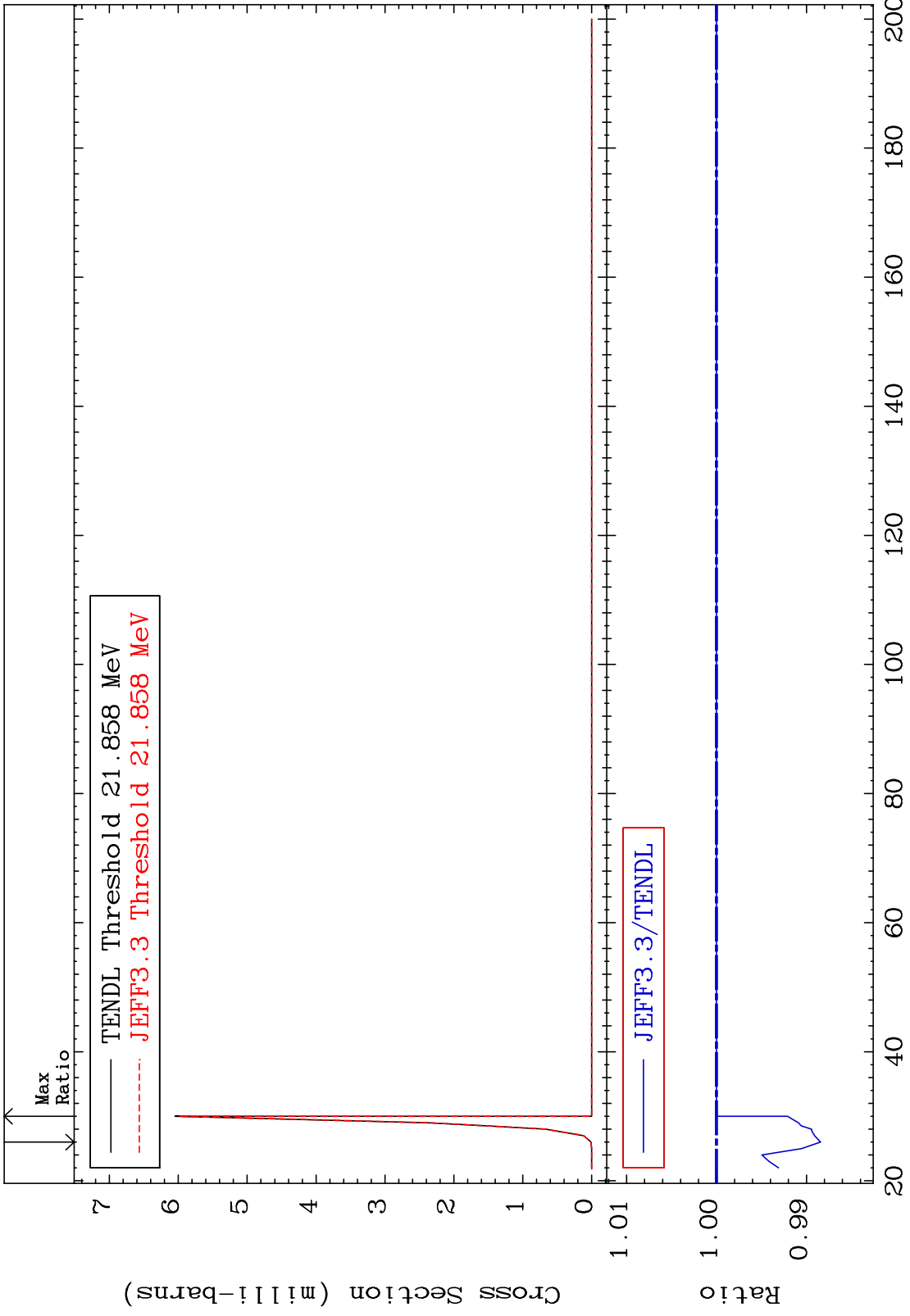




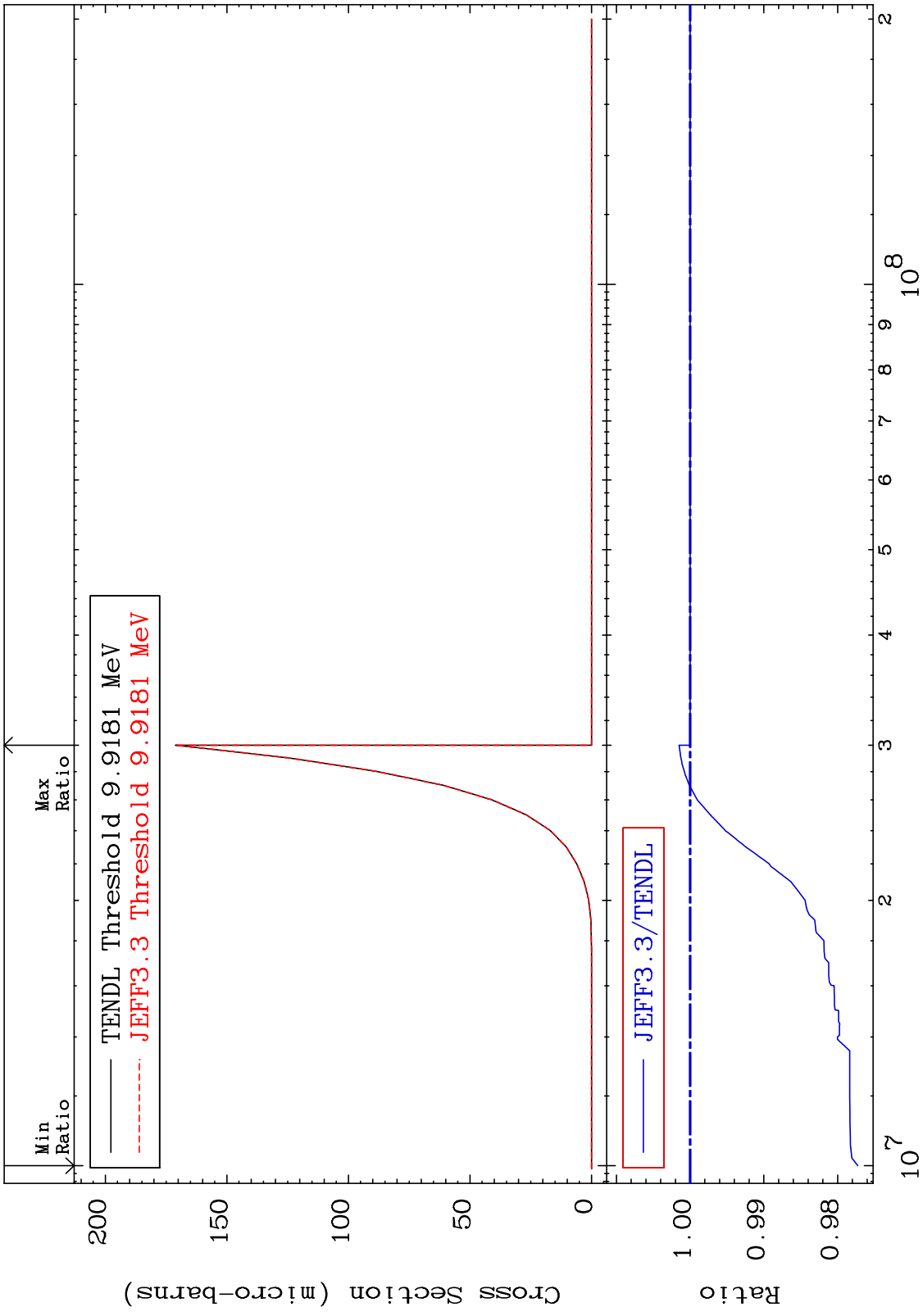
MAT 6413 (n,2n) p 64-Gd-148  
 Cross Section -2.398 To 0.220 %



MAT 6413 (n,3n) p 64-Gd-148  
Cross Section -1.157 To 0.000 %



MAT 6413 64-Gd-148  
 (n,2n) p -2.273 To 0.150 %  
 Cross Section

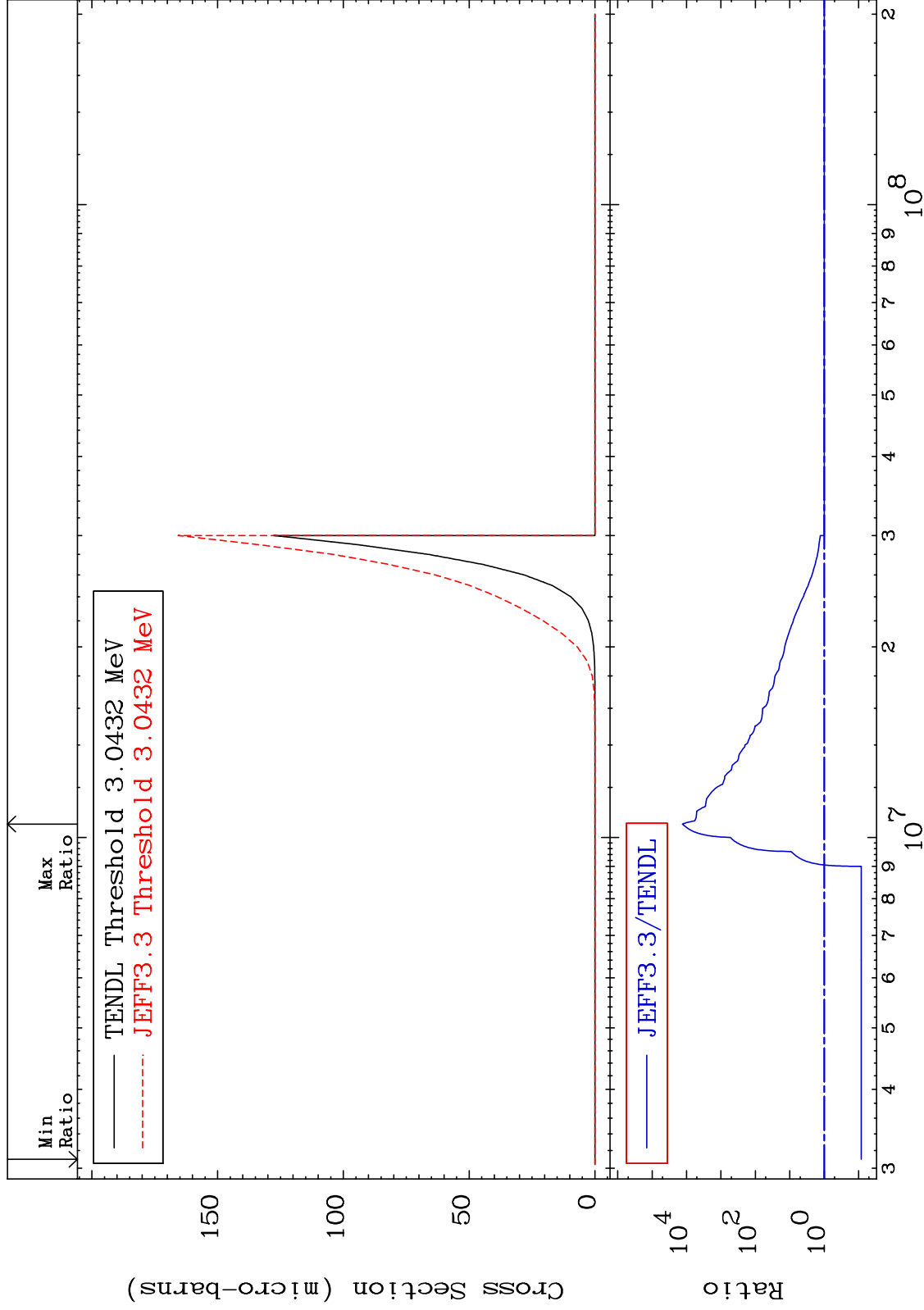


18 64-Gd-148

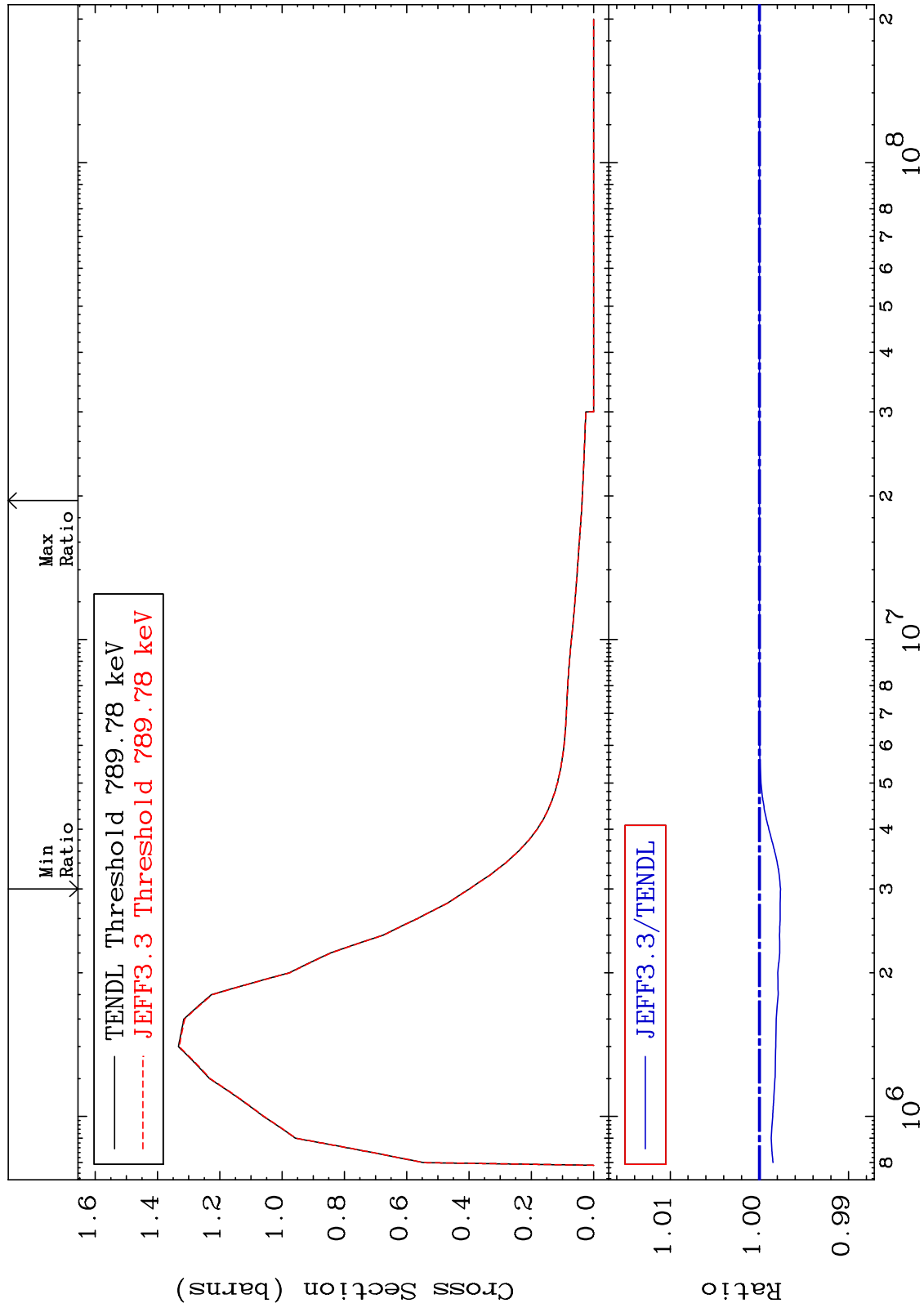
MAT 6413

(n,n') p  $\alpha$   
Cross Section

64-Gd-148  
-91.63 To 9999. %

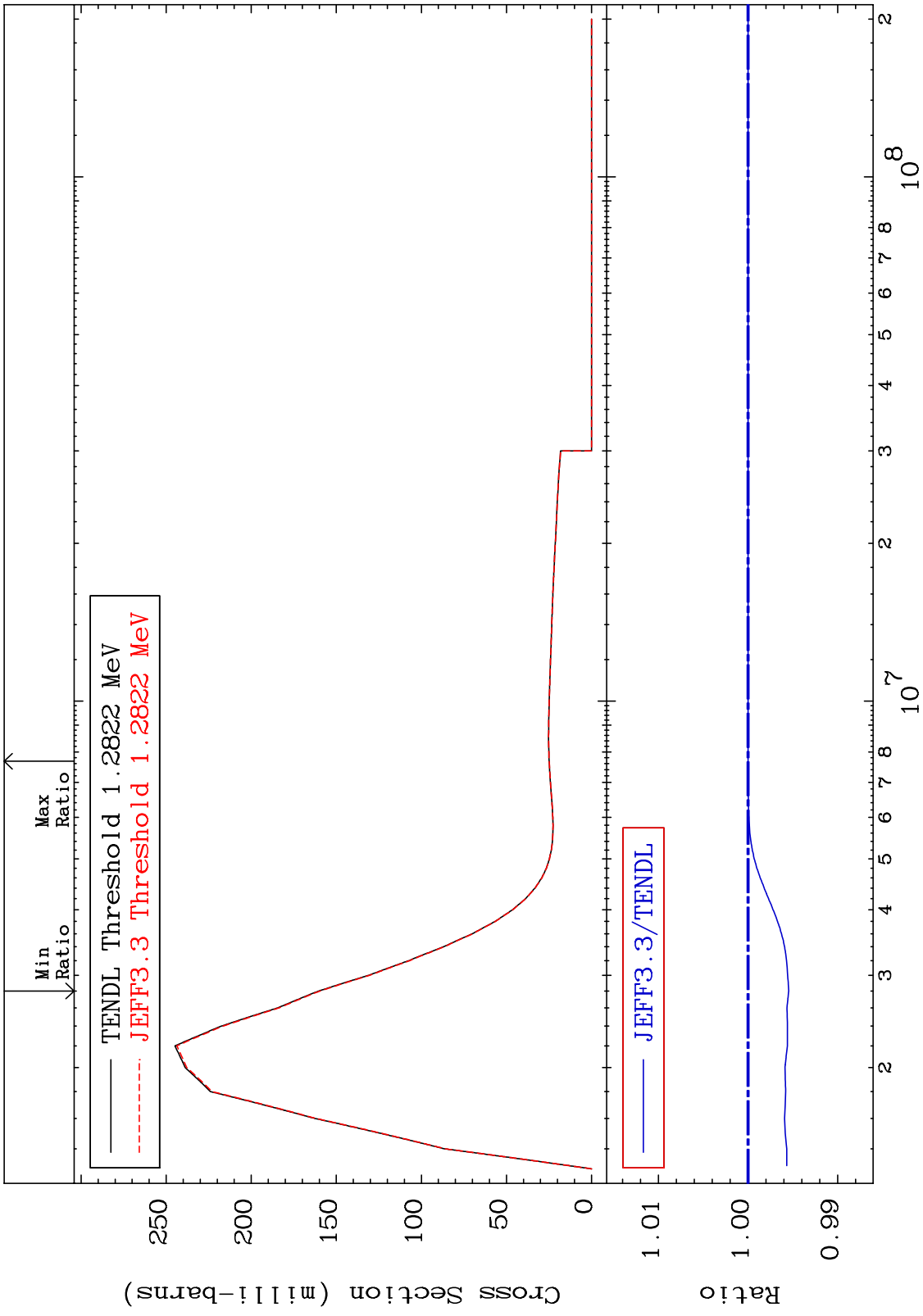


MAT 6413 MT= 51 (n,n') Level Cross Section 64-Gd-148 -0.236 To 0.000 %

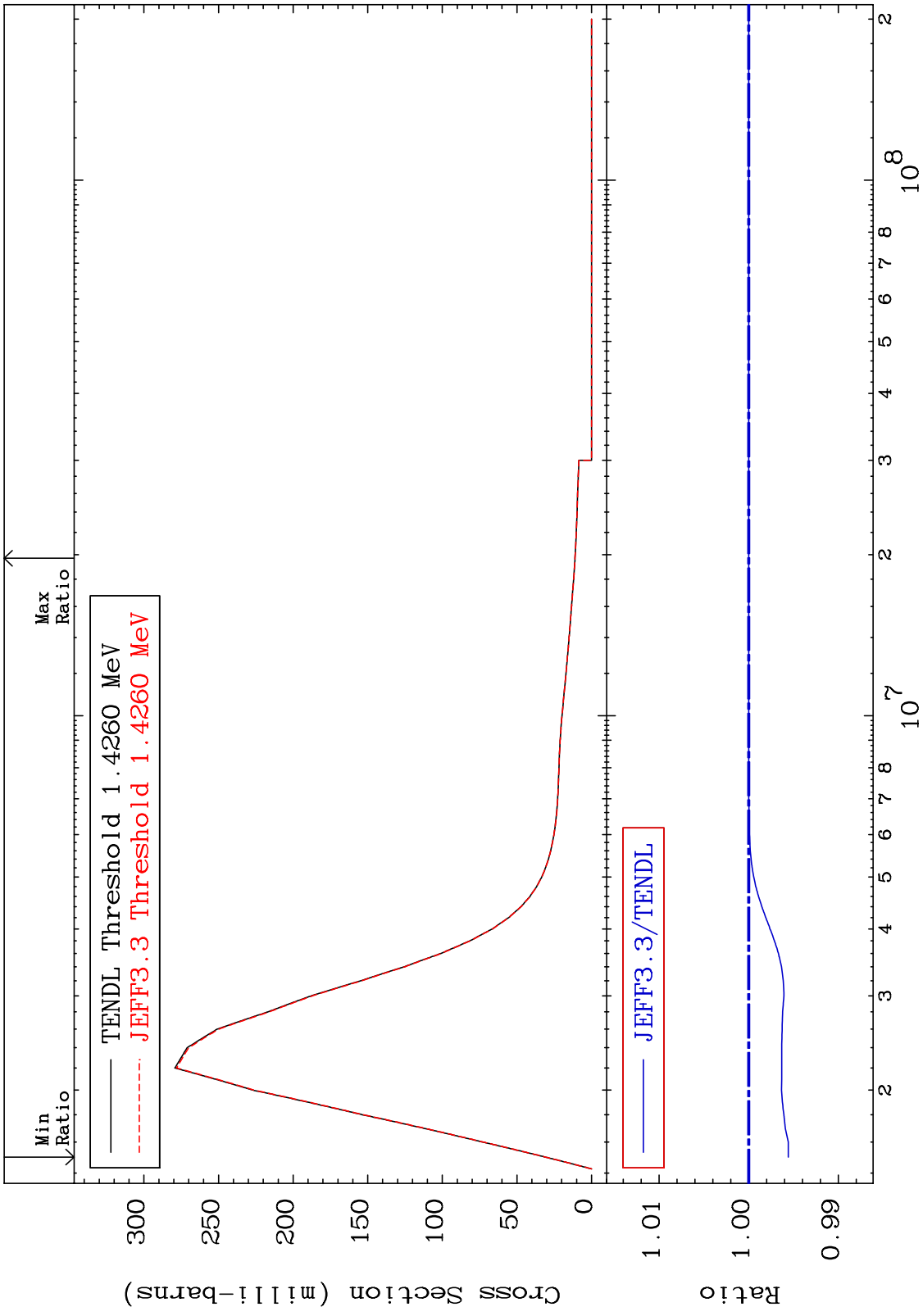


20 64-Gd-148

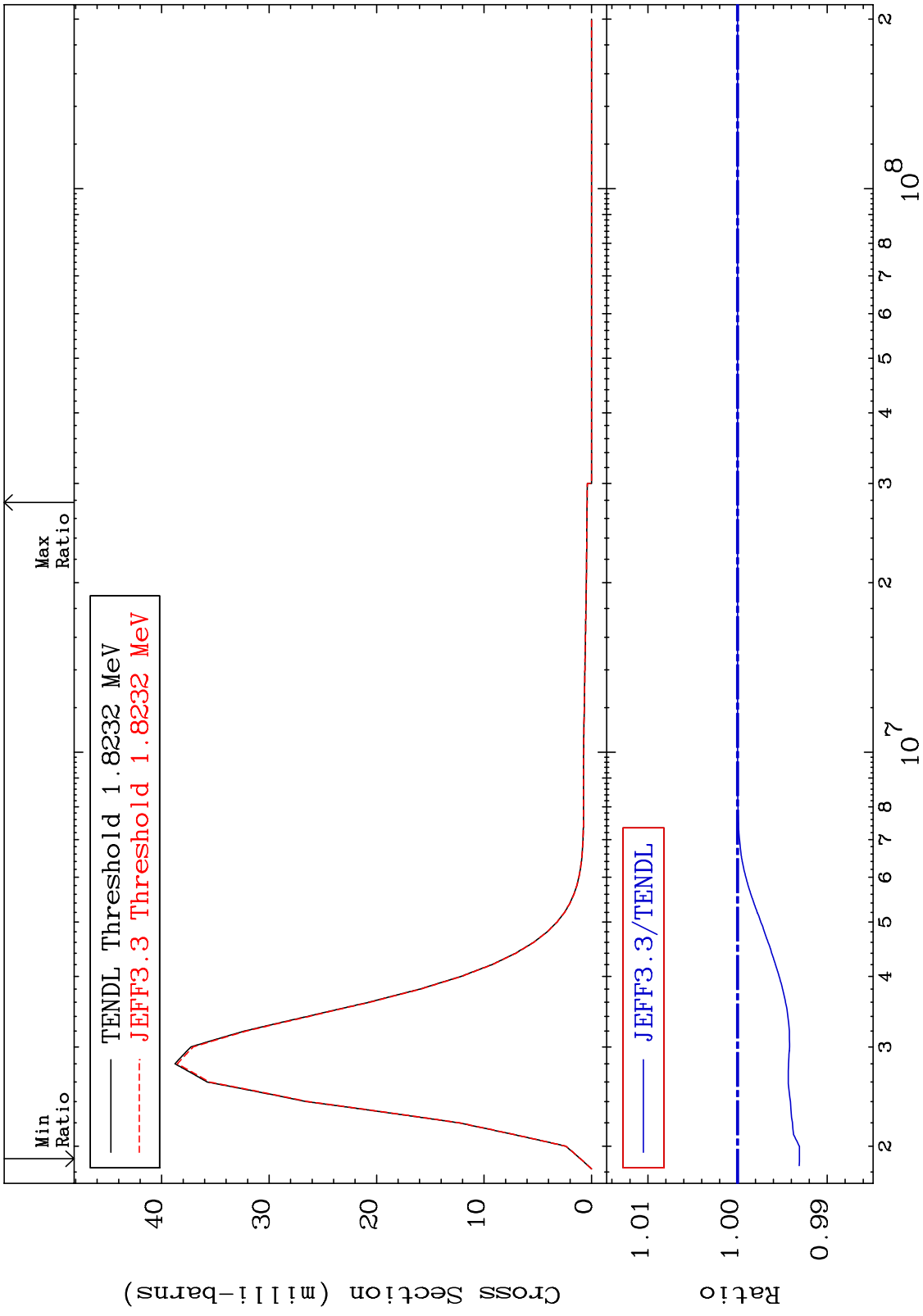
MAT 6413 MT= 52 (n,n') Level Cross Section 64-Gd-148  
 -0.454 To 0.000 %



MAT 6413 MT= 53 (n, n') Level Cross Section 64-Gd-148  
 -0.441 To 0.000 %

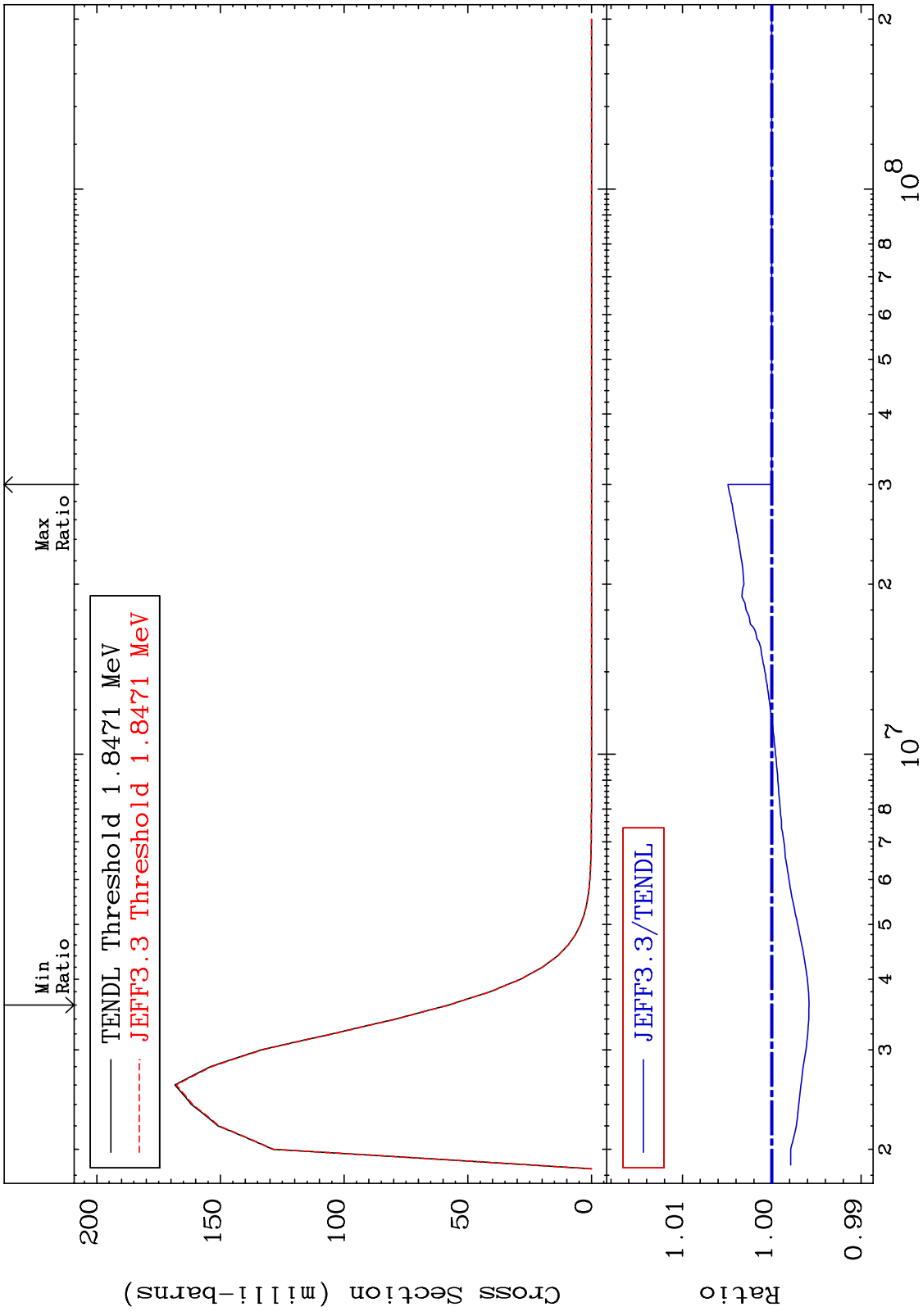


MAT 6413 MT= 54 (n,n') Level Cross Section 64-Gd-148  
 -0.688 To 0.000 %

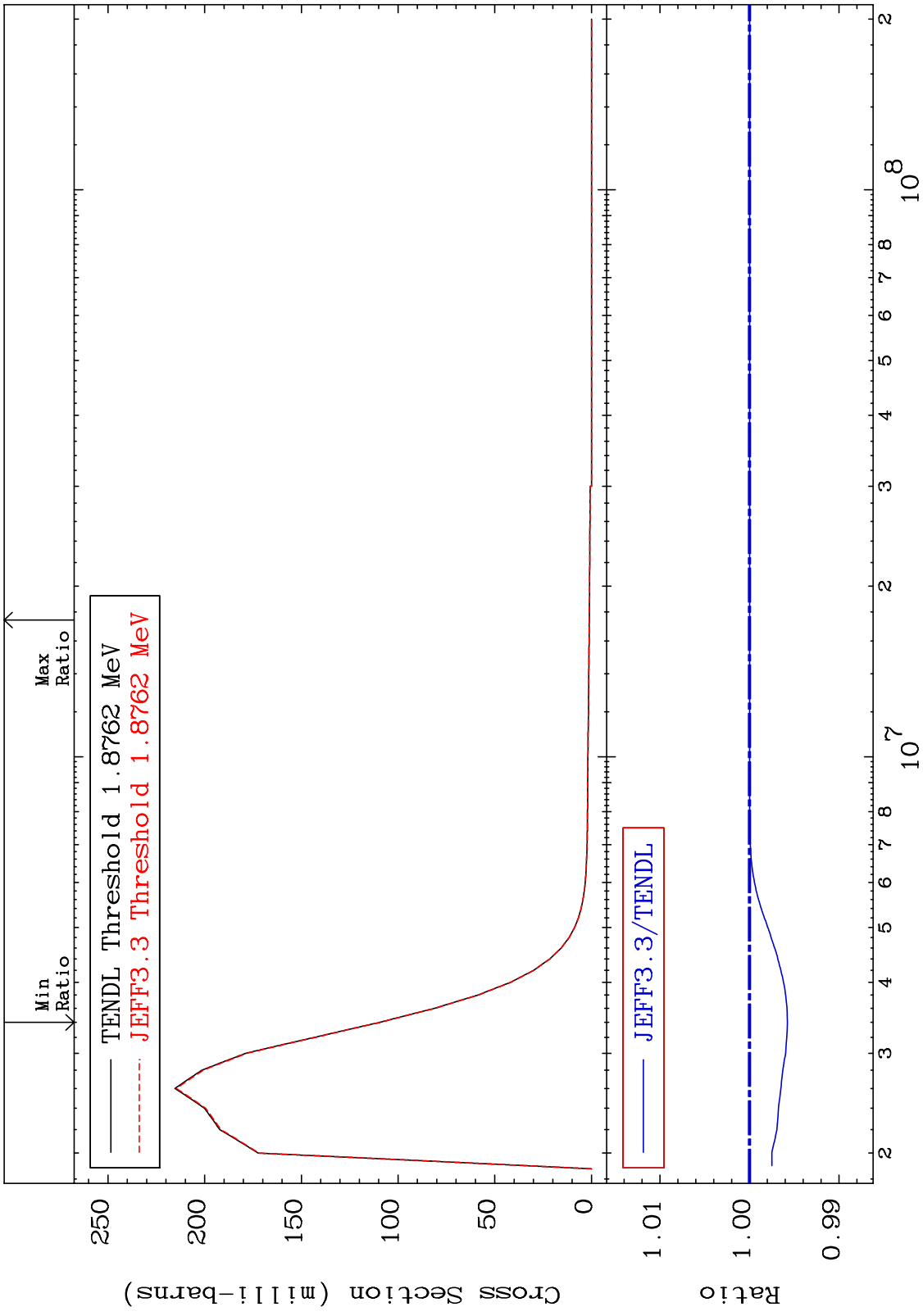




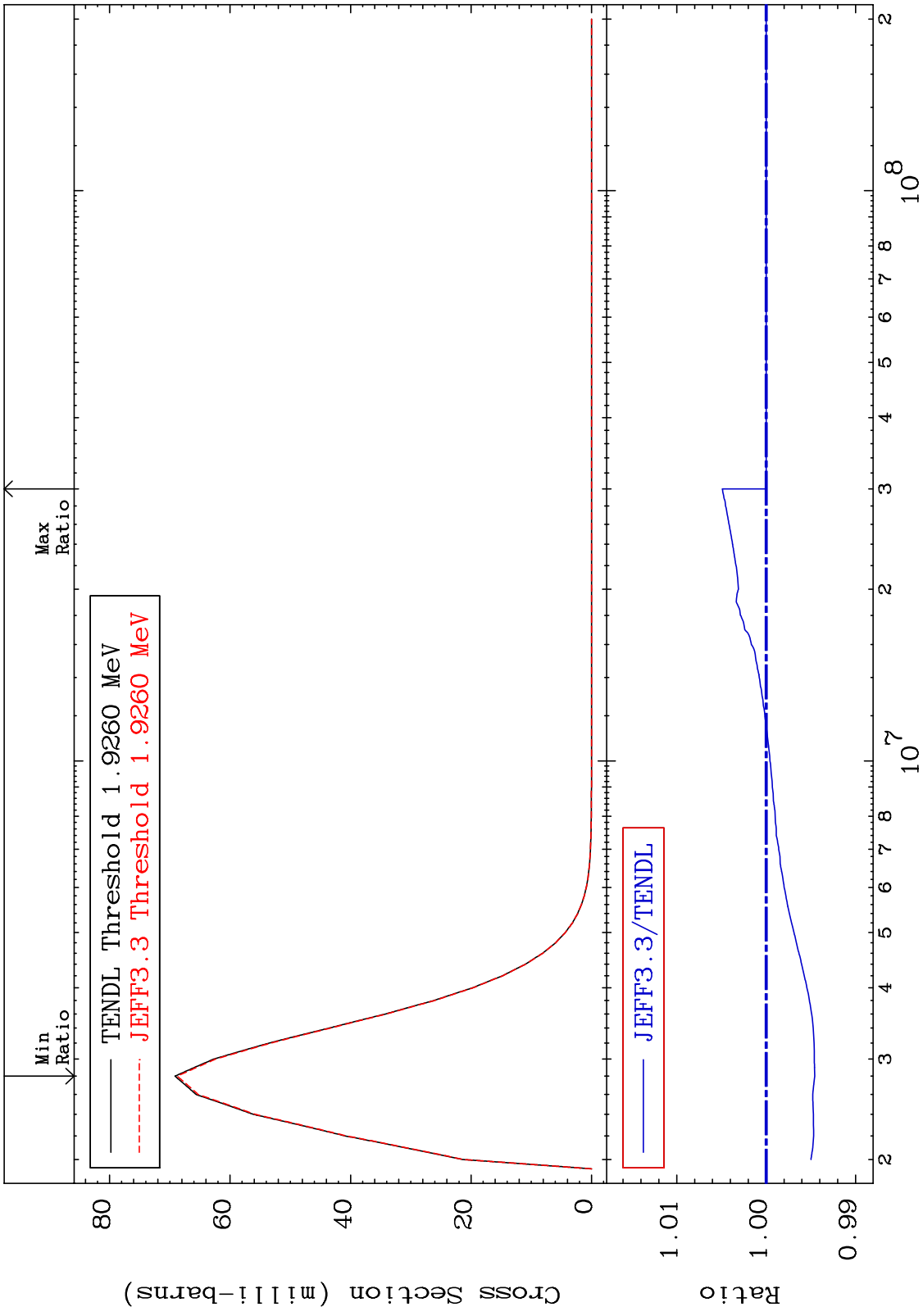
MAT 6413 MT= 55 (n,n') Level Cross Section 64-Gd-148  
 -0.417 To 0.491 %



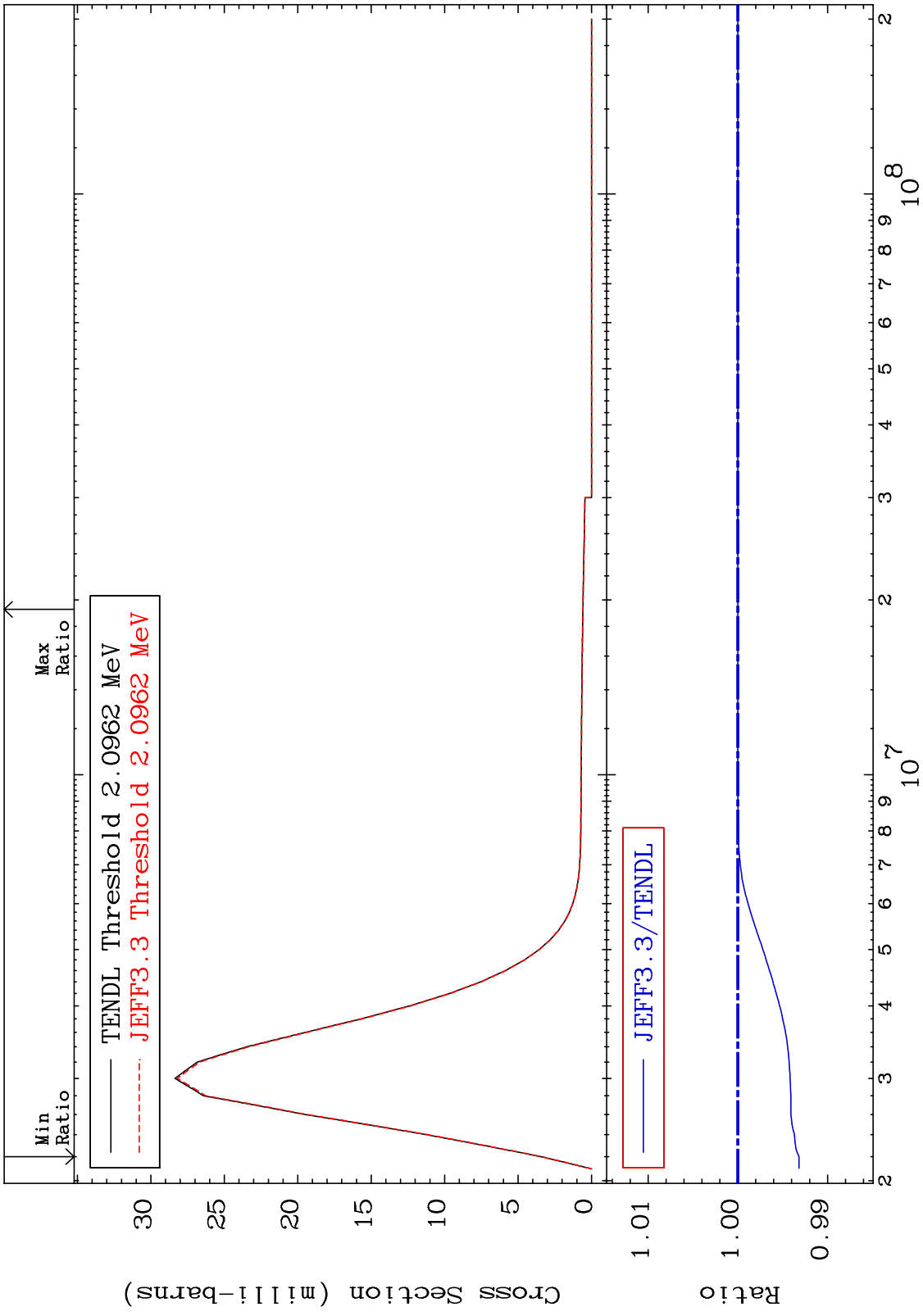
MAT 6413 MT= 56 (n,n') Level Cross Section 64-Gd-148  
 -0.423 To 0.000 %



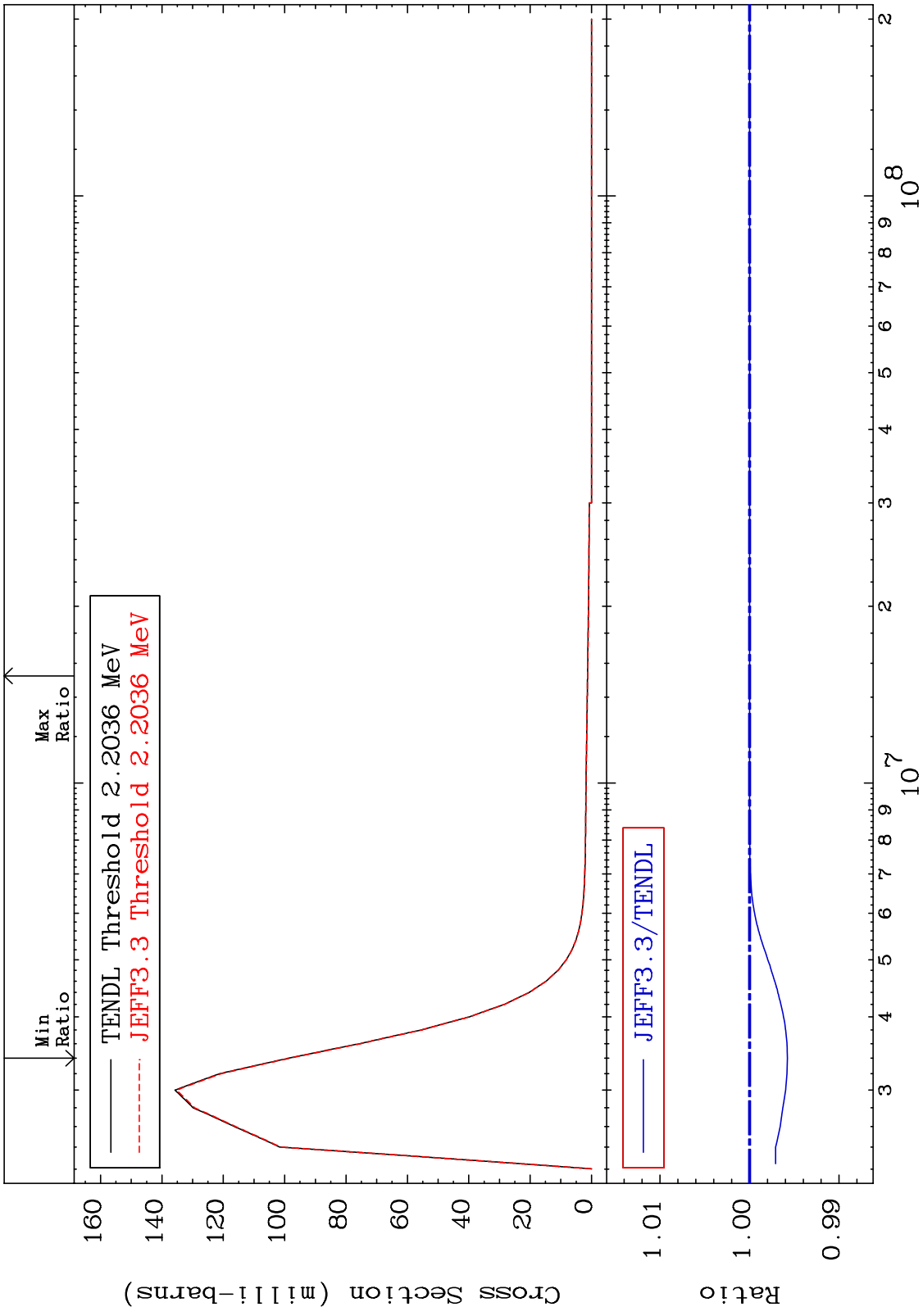
MAT 6413 MT= 57 (n,n') Level Cross Section 64-Gd-148 -0.542 To 0.491 %



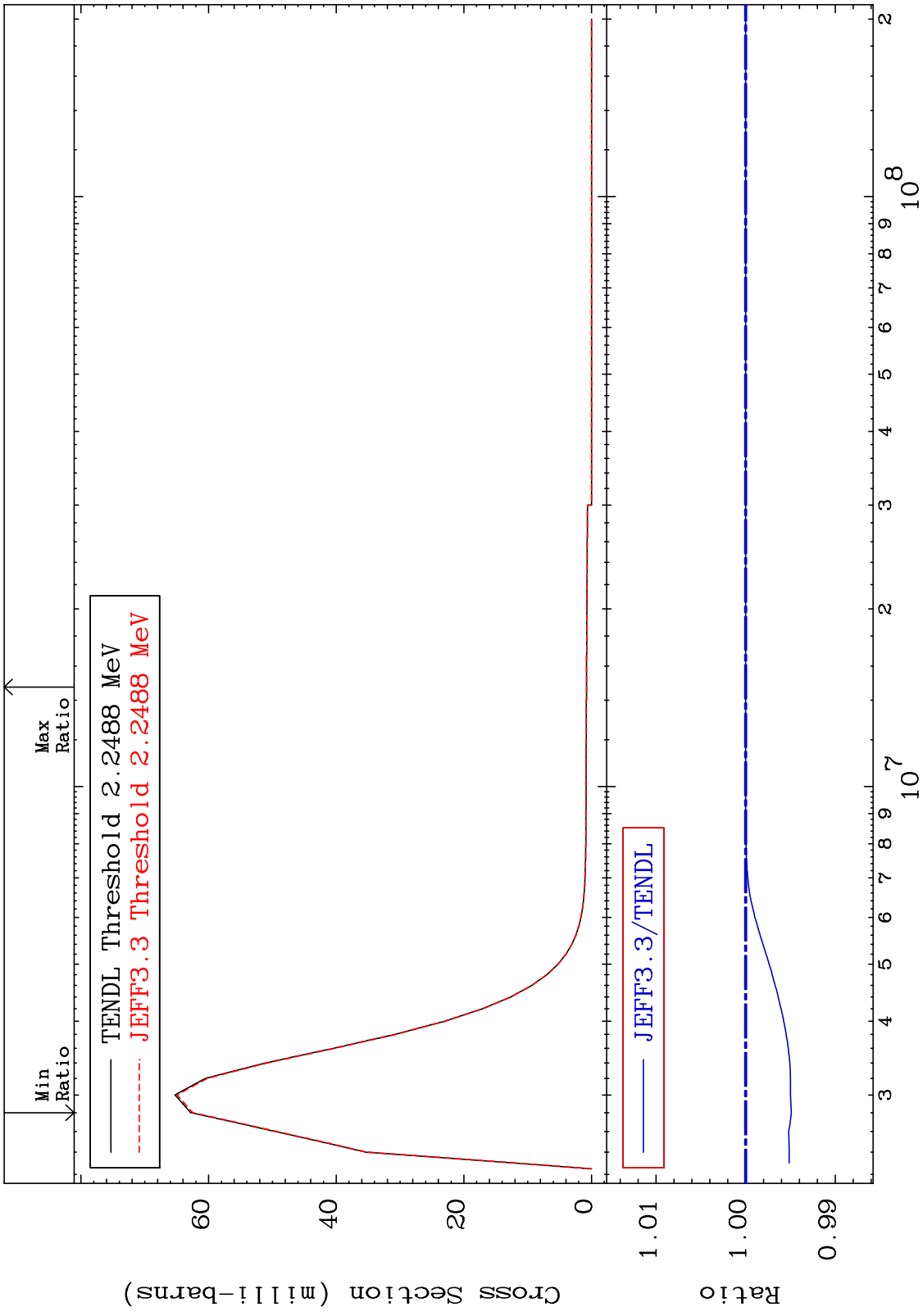
MAT 6413 MT= 58 (n,n') Level Cross Section 64-Gd-148  
 -0.683 To 0.000 %



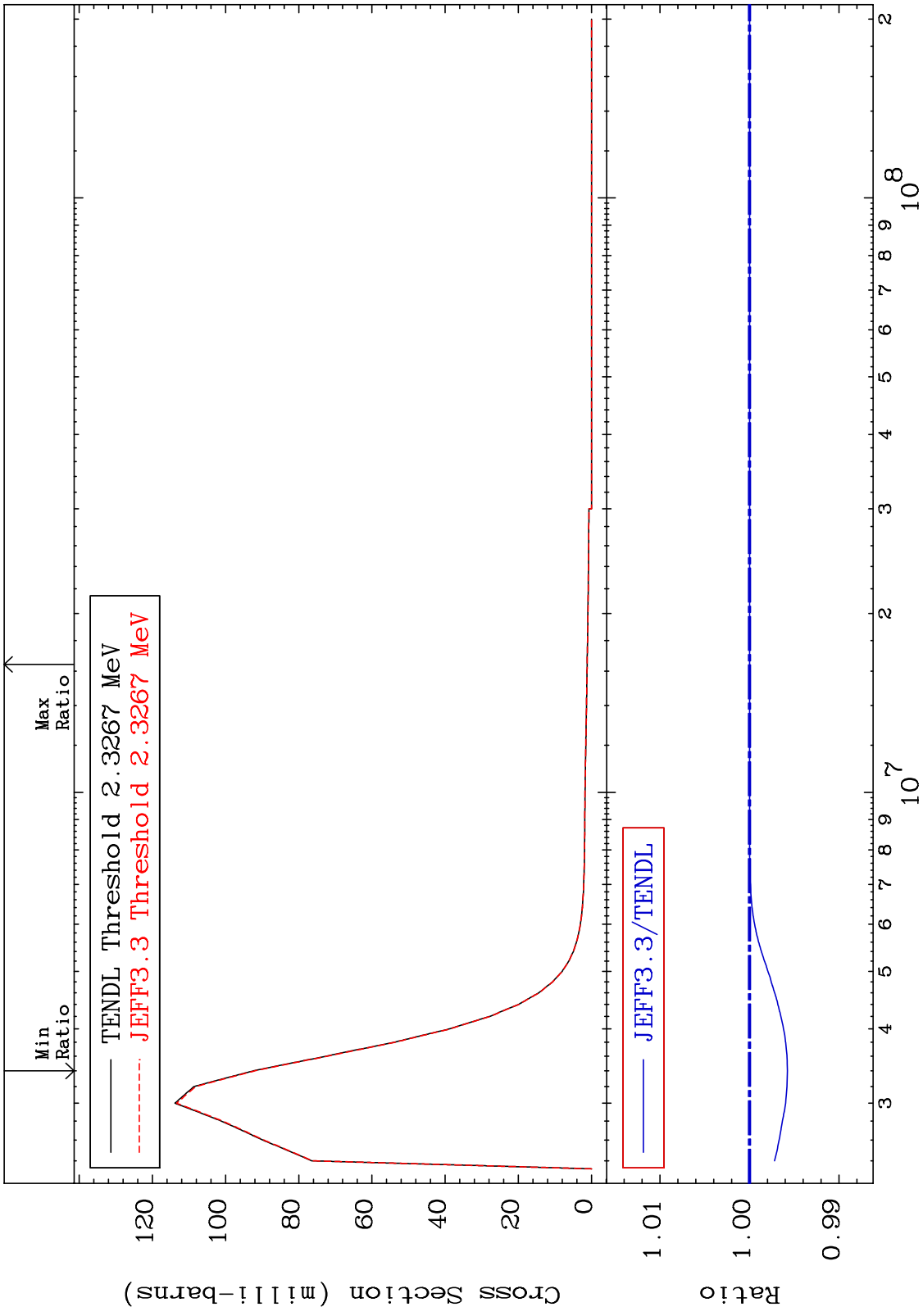
MAT 6413 MT= 59 (n,n') Level Cross Section 64-Gd-148  
 -0.423 To 0.000 %



MAT 6413 MT= 60 (n,n') Level Cross Section 64-Gd-148  
 -0.509 To 0.000 %

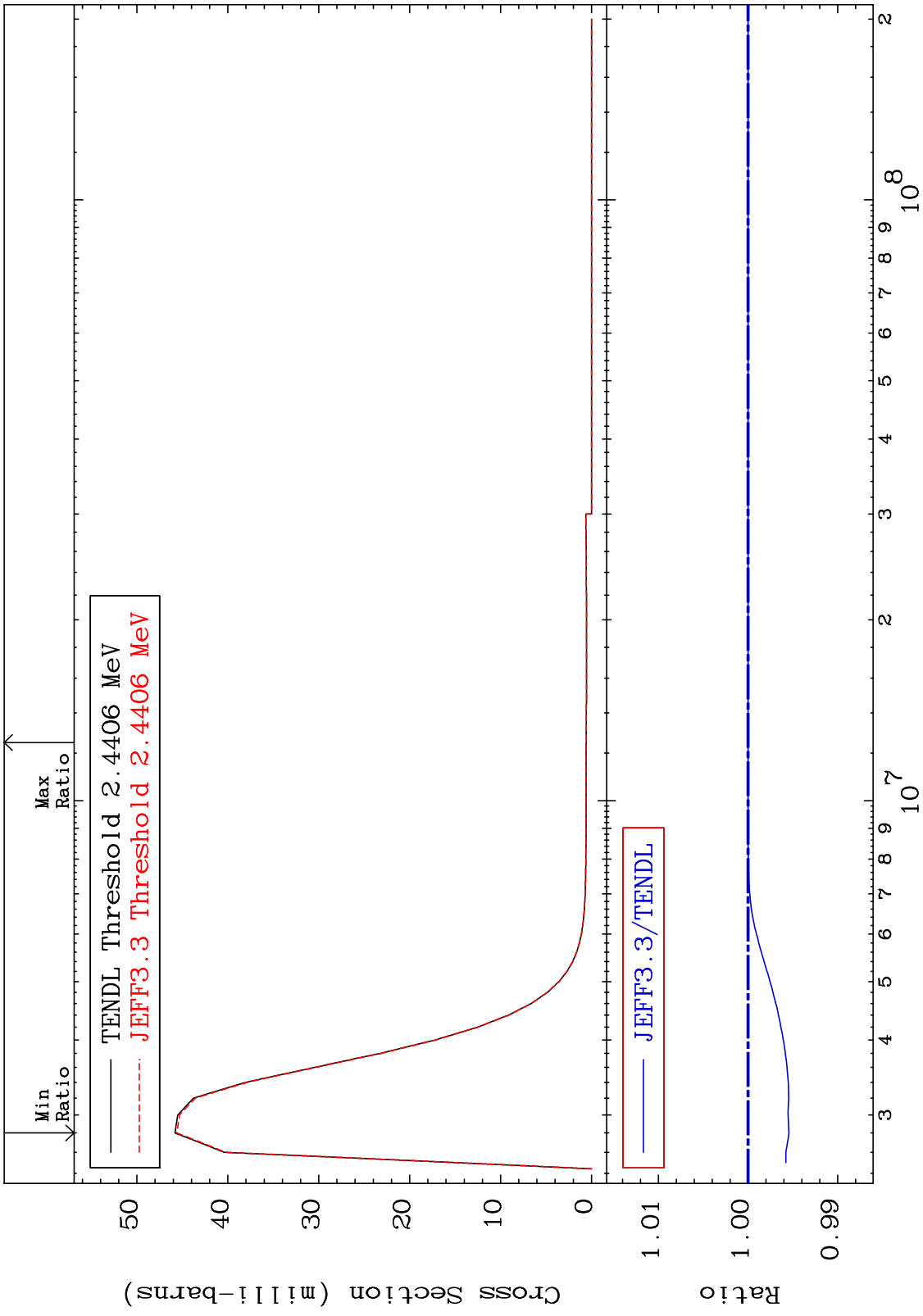


MAT 6413 MT= 61 (n,n') Level Cross Section 64-Gd-148  
 -0.423 To 0.000 %



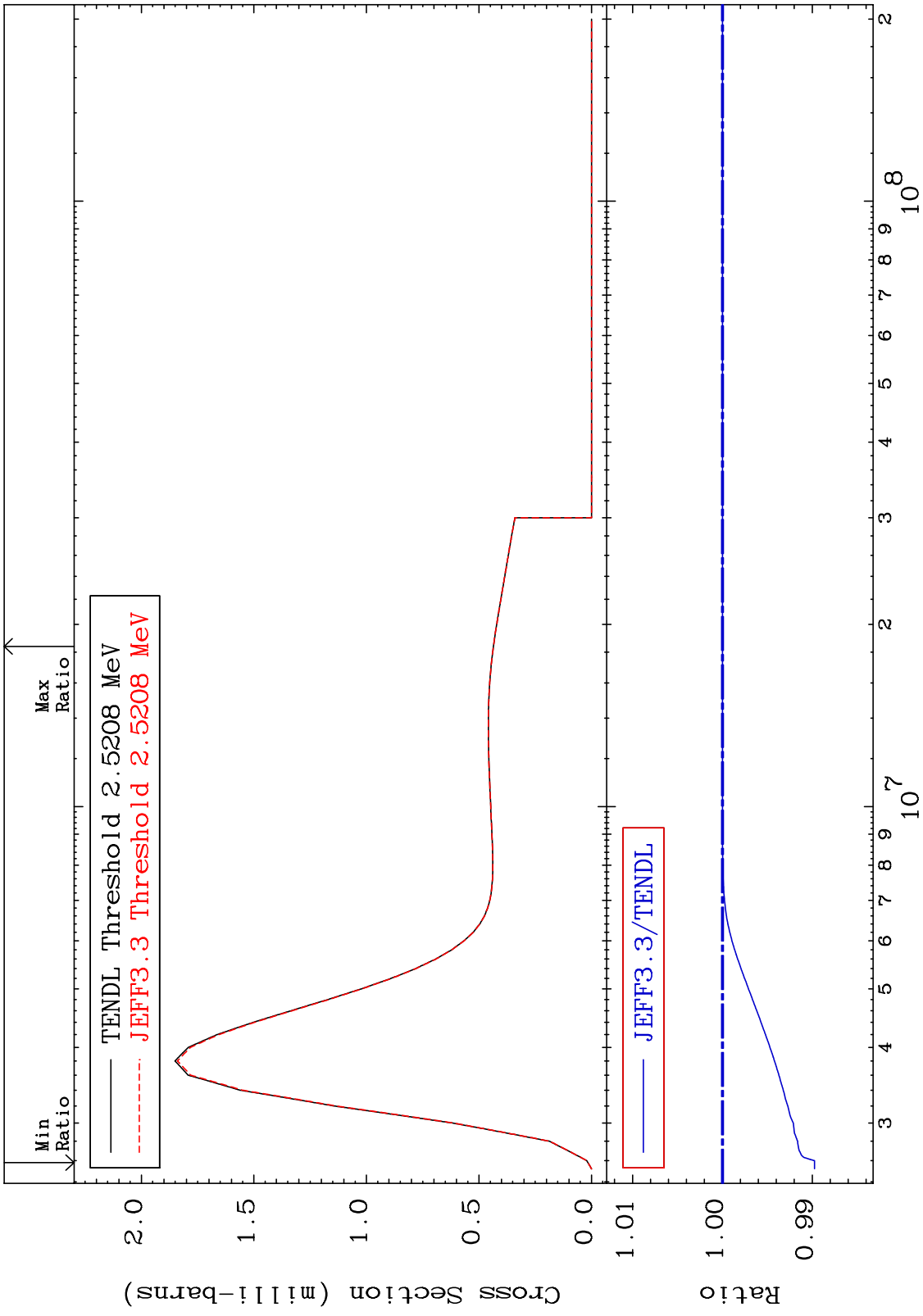
30 Incident Energy (eV) 64-Gd-148

MAT 6413 MT= 62 (n,n') Level Cross Section 64-Gd-148  
 -0.456 To 0.000 %

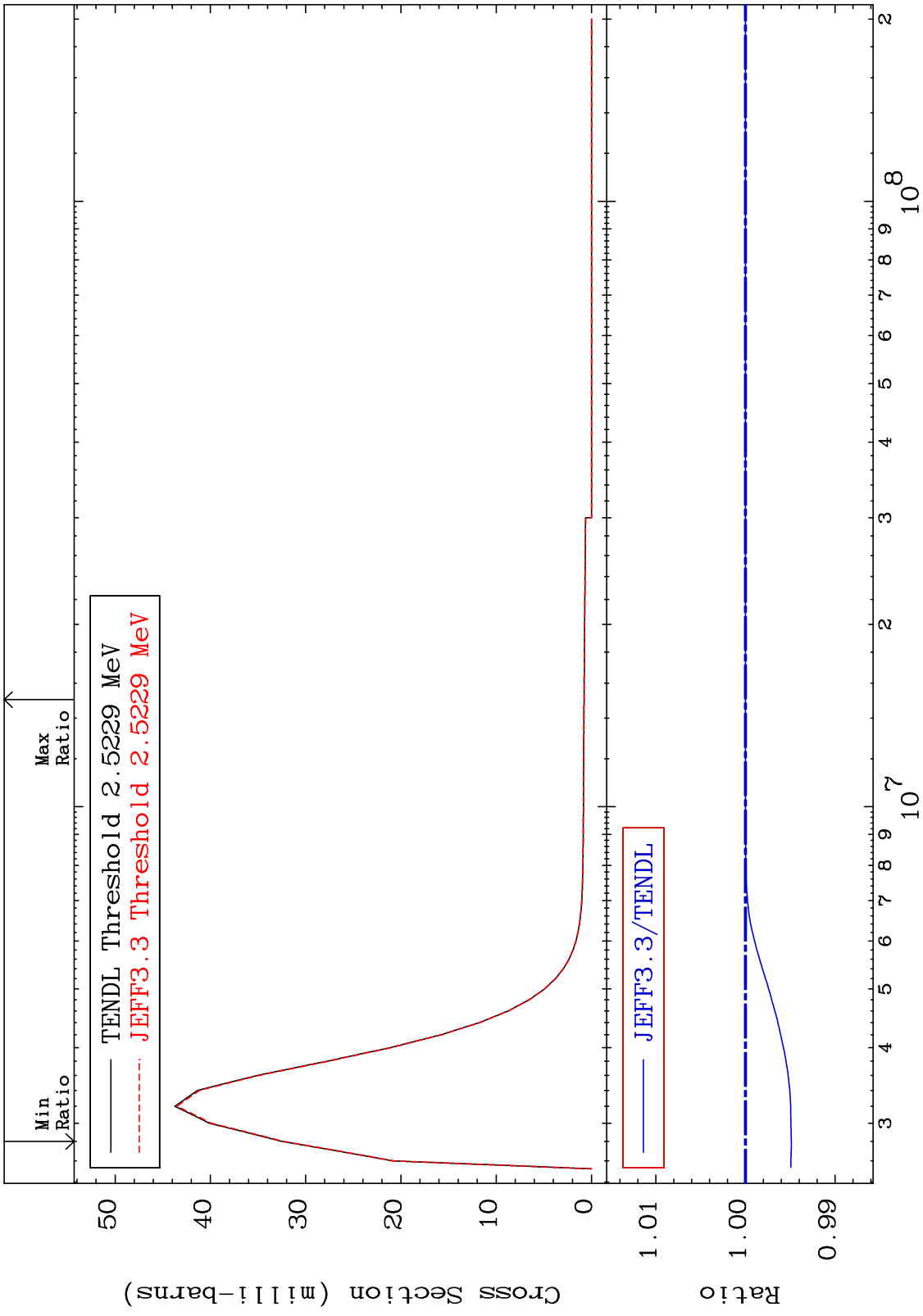




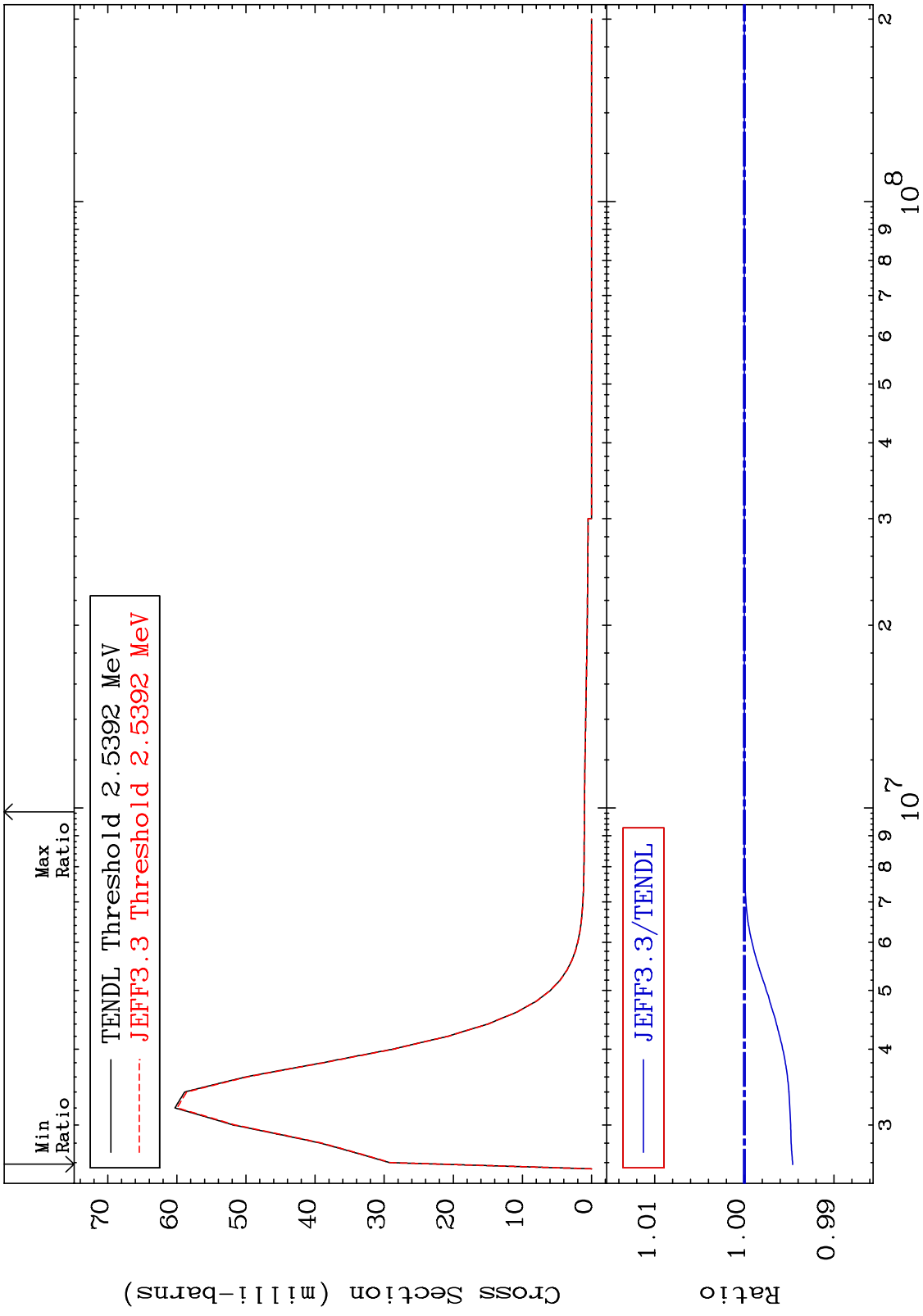
MAT 6413 MT= 63 (n,n') Level Cross Section 64-Gd-148 -1.025 To 0.000 %



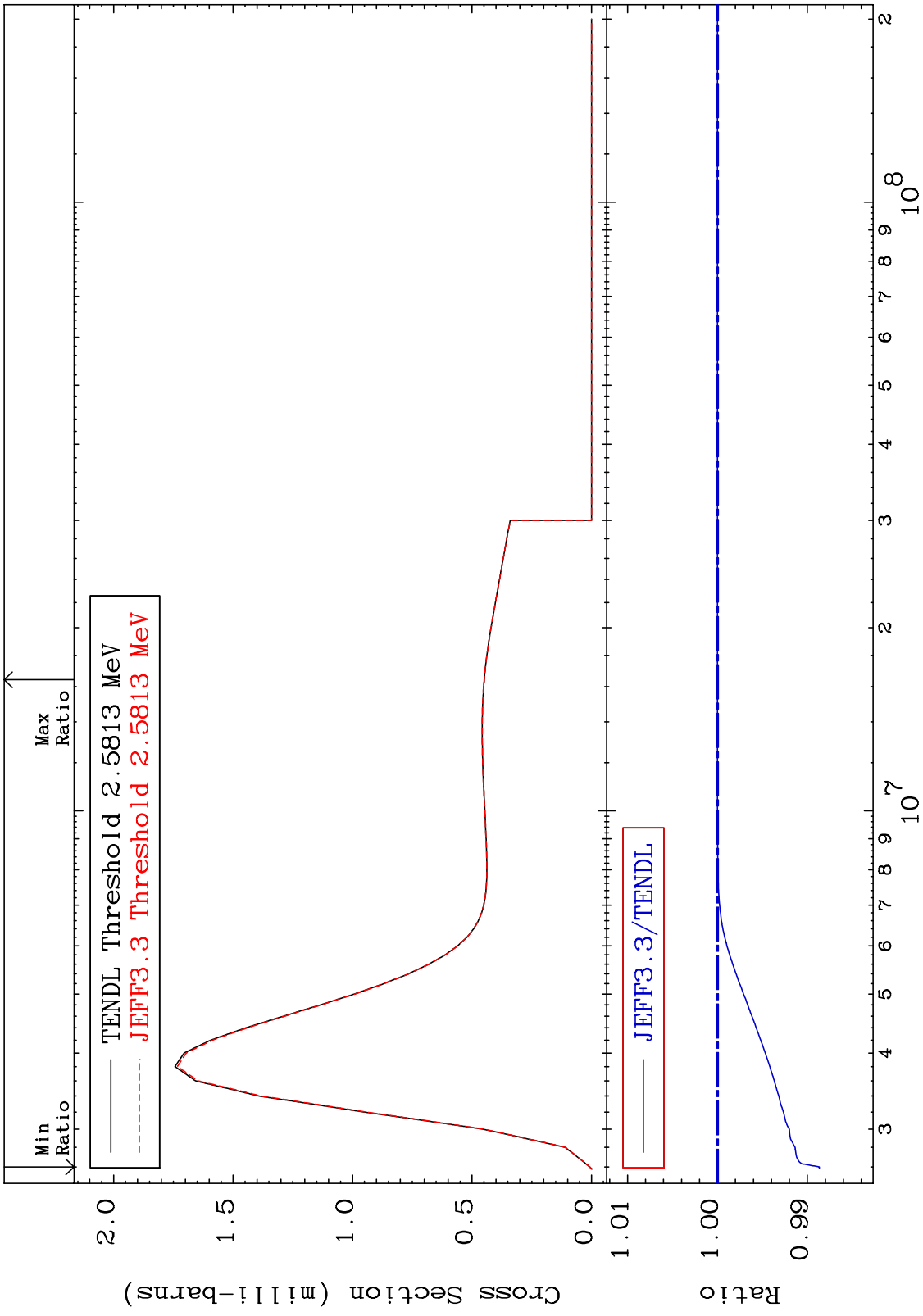
MAT 6413 MT= 64 (n,n') Level Cross Section 64-Gd-148  
 -0.513 To 0.000 %



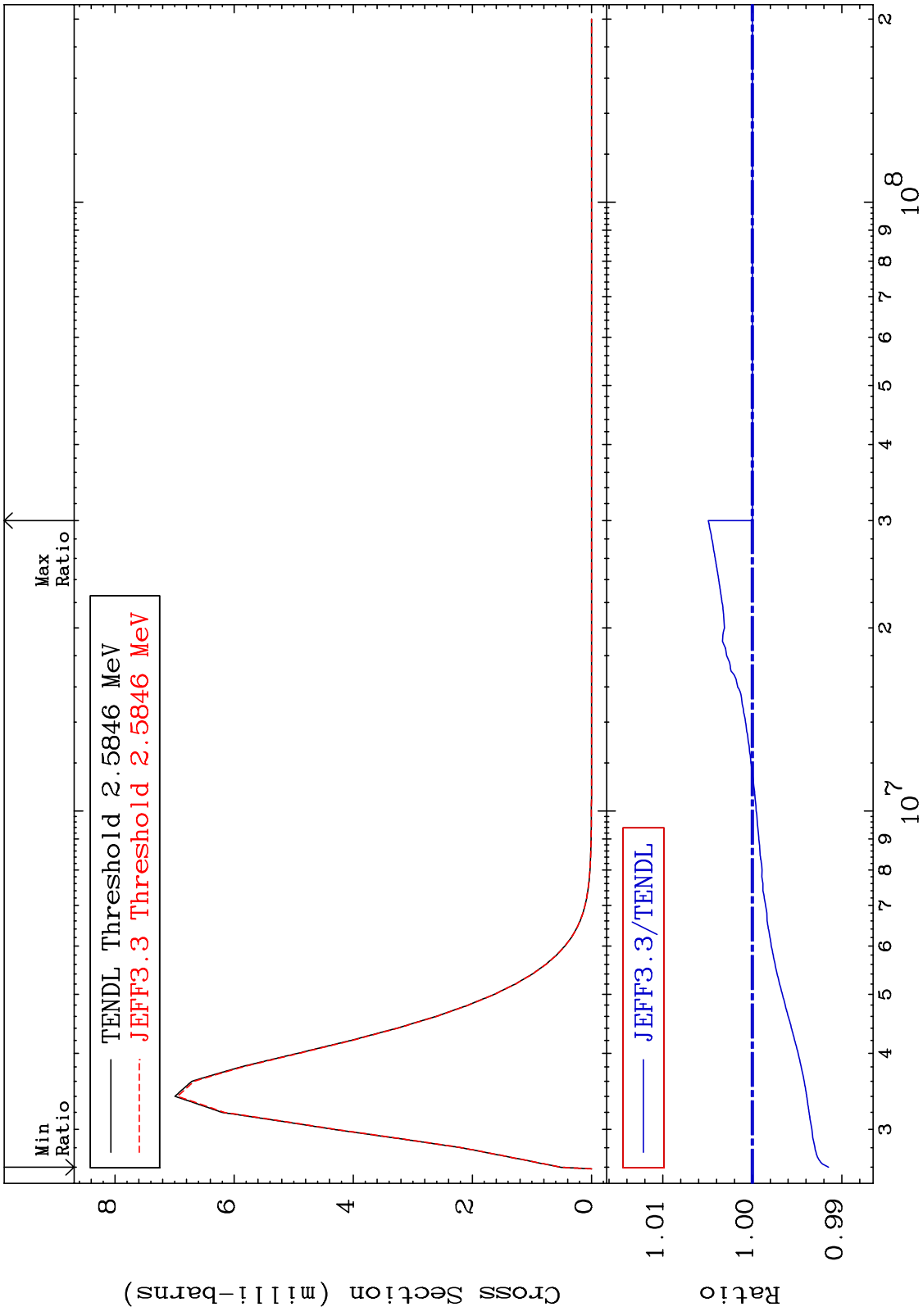
MAT 6413 MT= 65 (n,n') Level Cross Section 64-Gd-148 -0.539 To 0.000 %



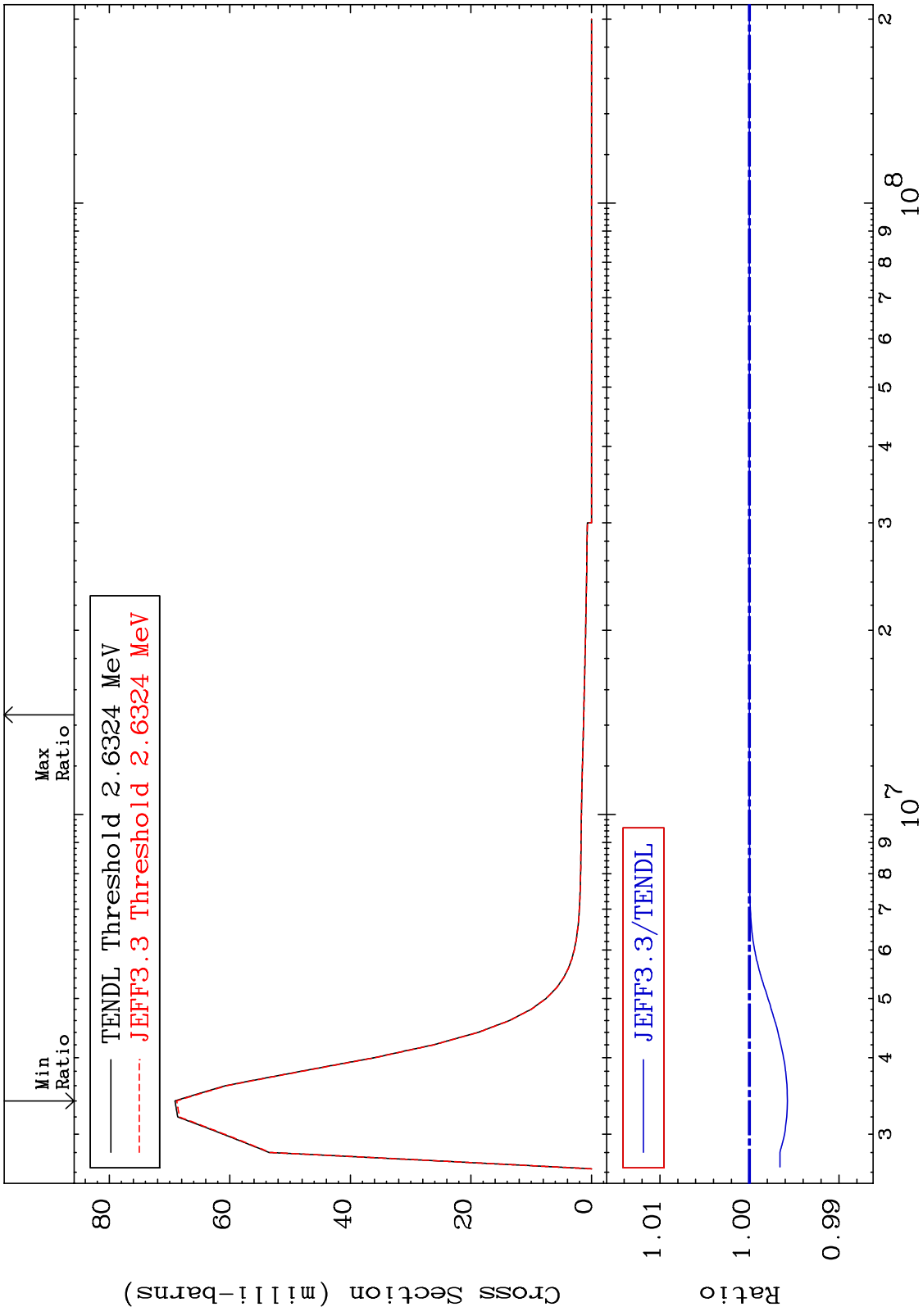
MAT 6413 MT= 66 (n,n') Level Cross Section 64-Gd-148  
 -1.134 To 0.000 %



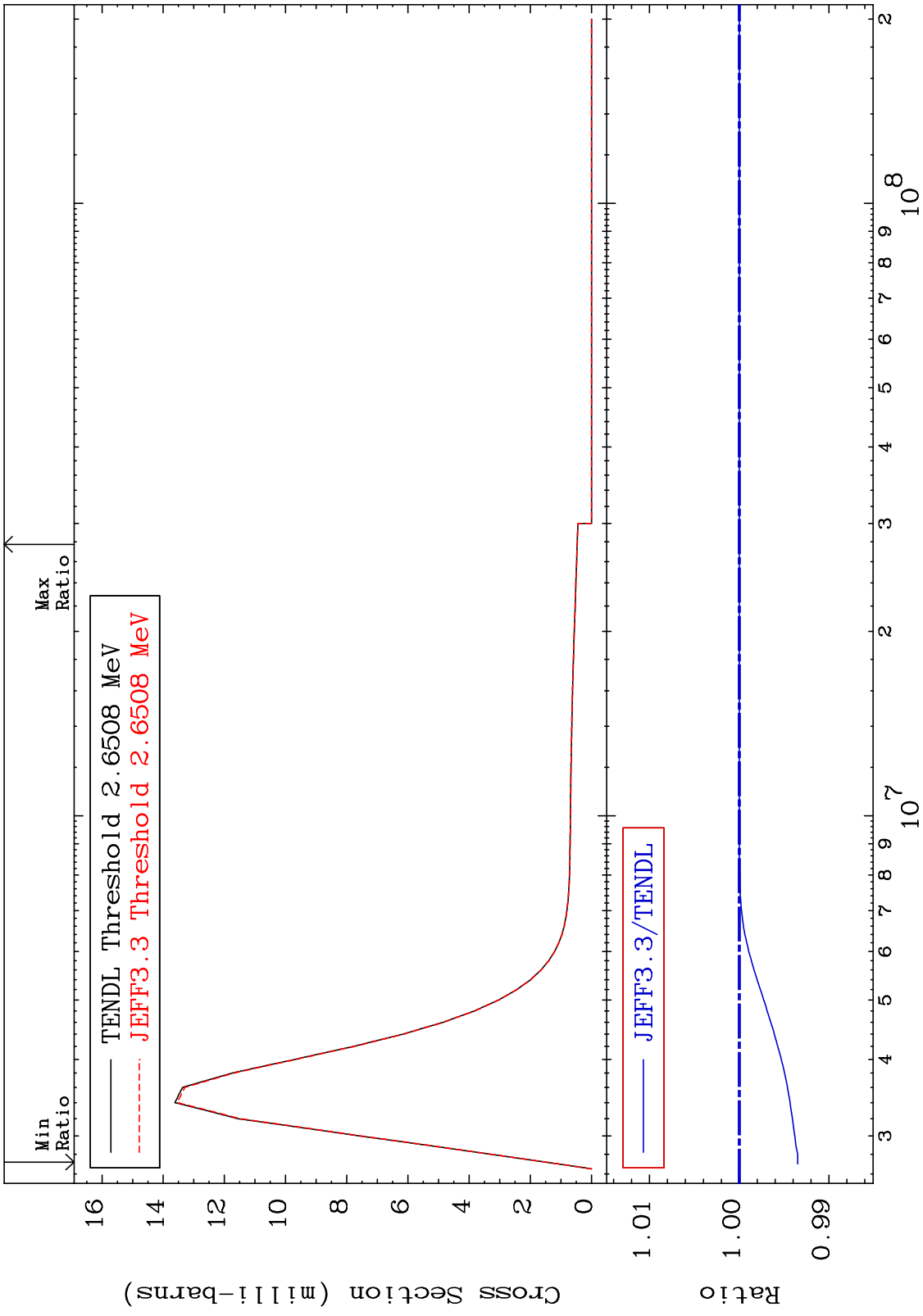
MAT 6413 MT= 67 (n, n') Level Cross Section 64-Gd-148 -0.851 To 0.491 %



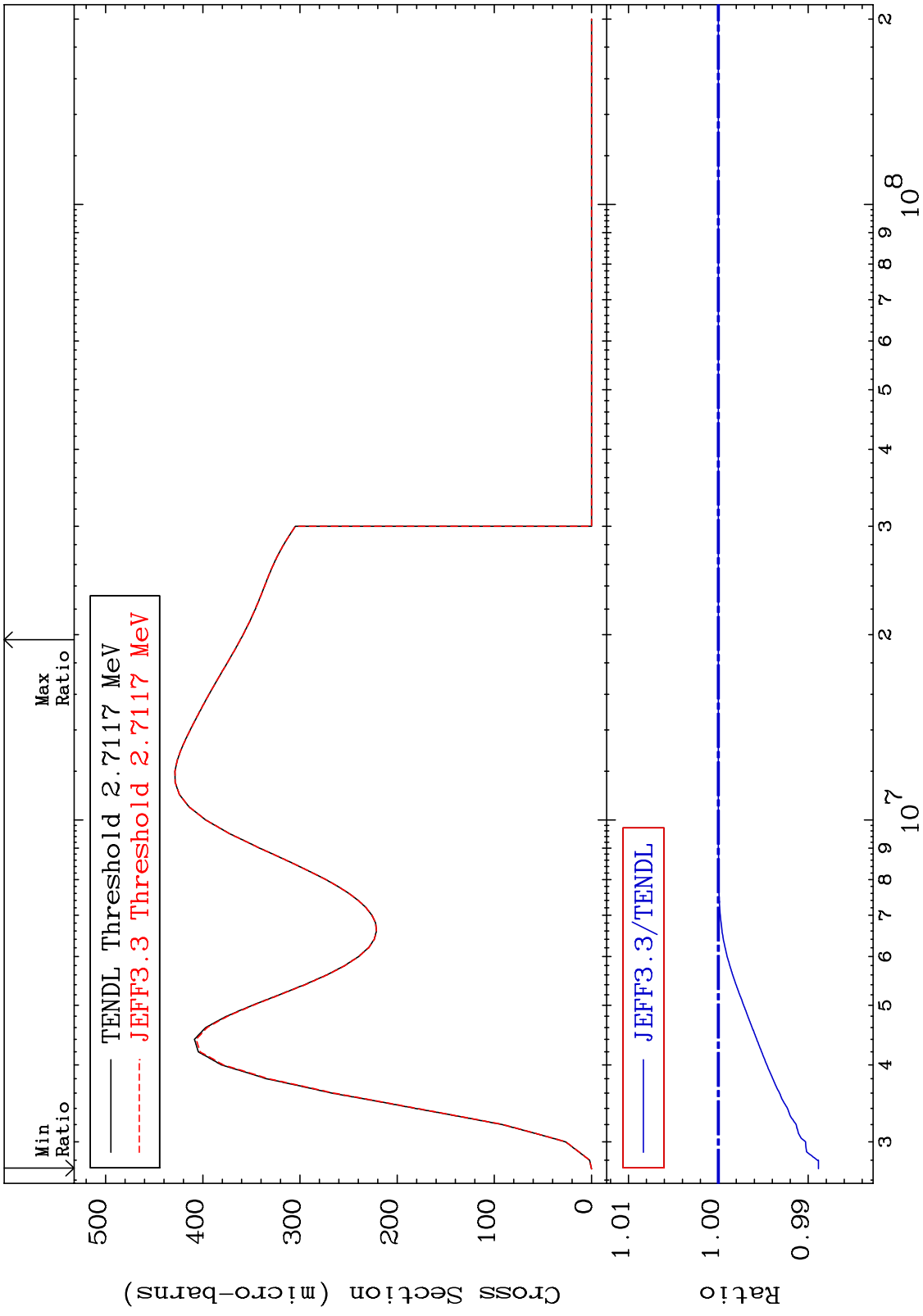
MAT 6413 MT= 68 (n,n') Level Cross Section 64-Gd-148  
 -0.424 To 0.000 %



MAT 6413 MT= 69 (n,n') Level Cross Section 64-Gd-148 -0.651 To 0.000 %

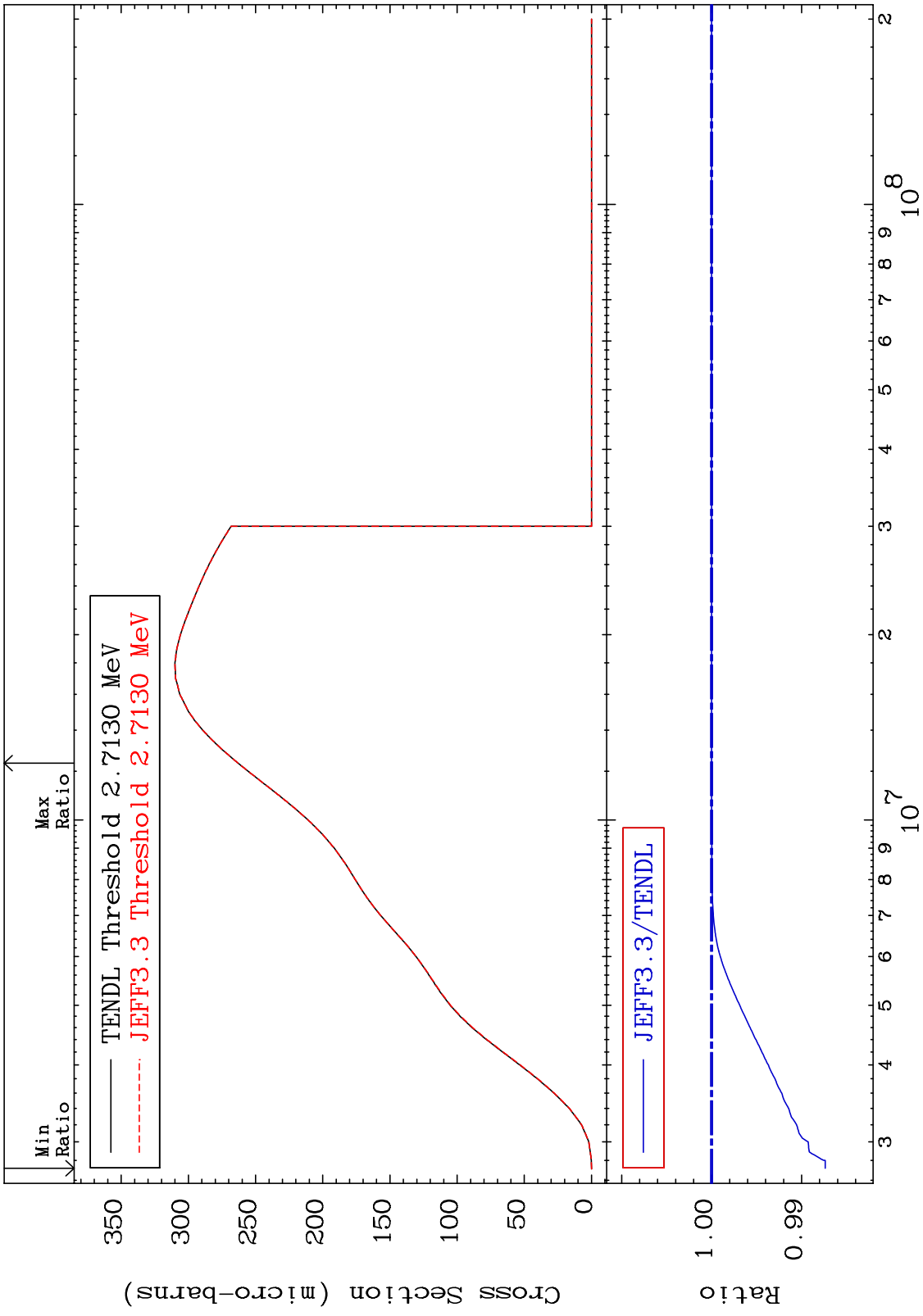


MAT 6413 MT= 70 (n,n') Level Cross Section 64-Gd-148  
 -1.114 To 0.000 %



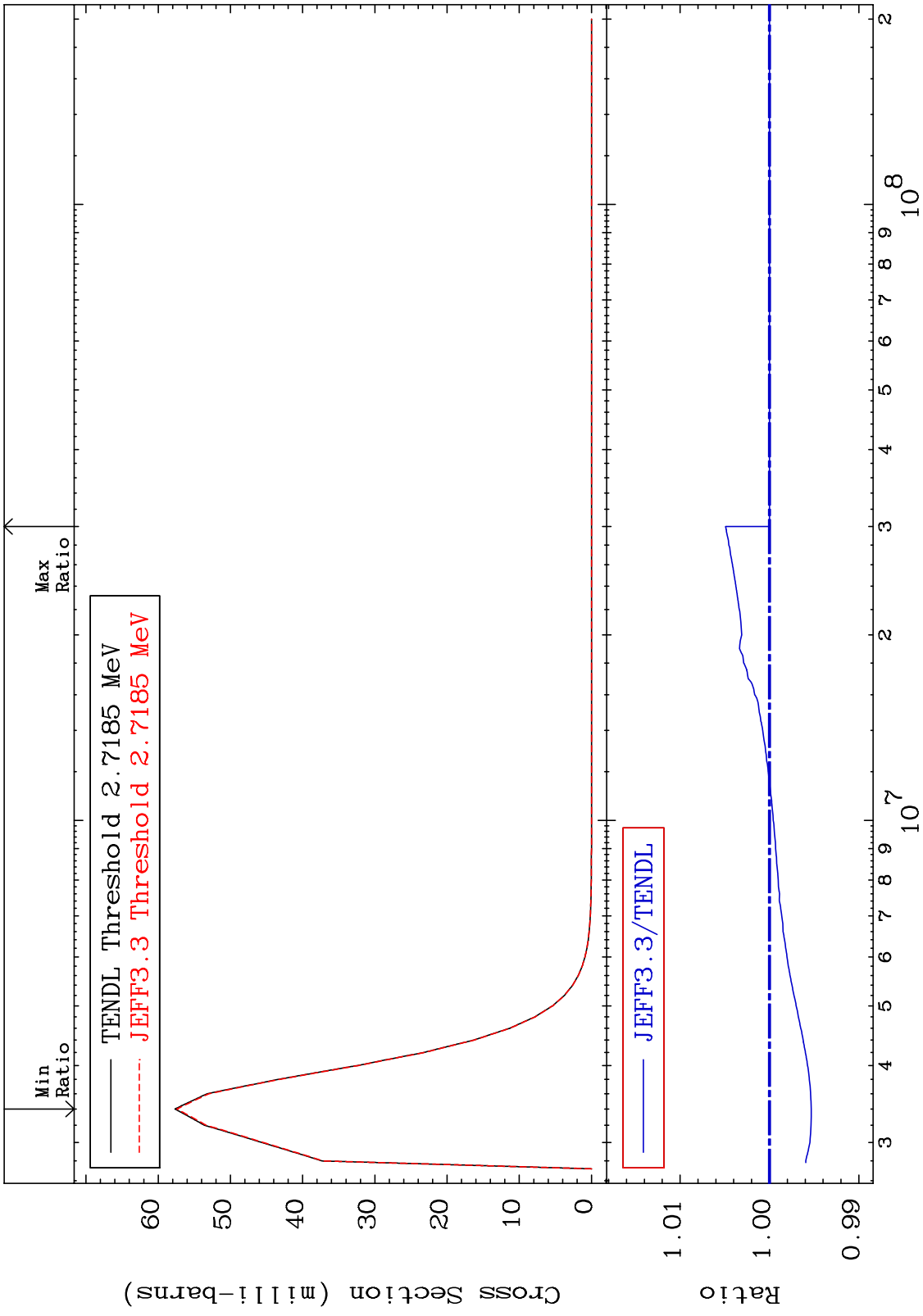


MAT 6413 MT= 71 (n,n') Level Cross Section 64-Gd-148 -1.263 To 0.000 %

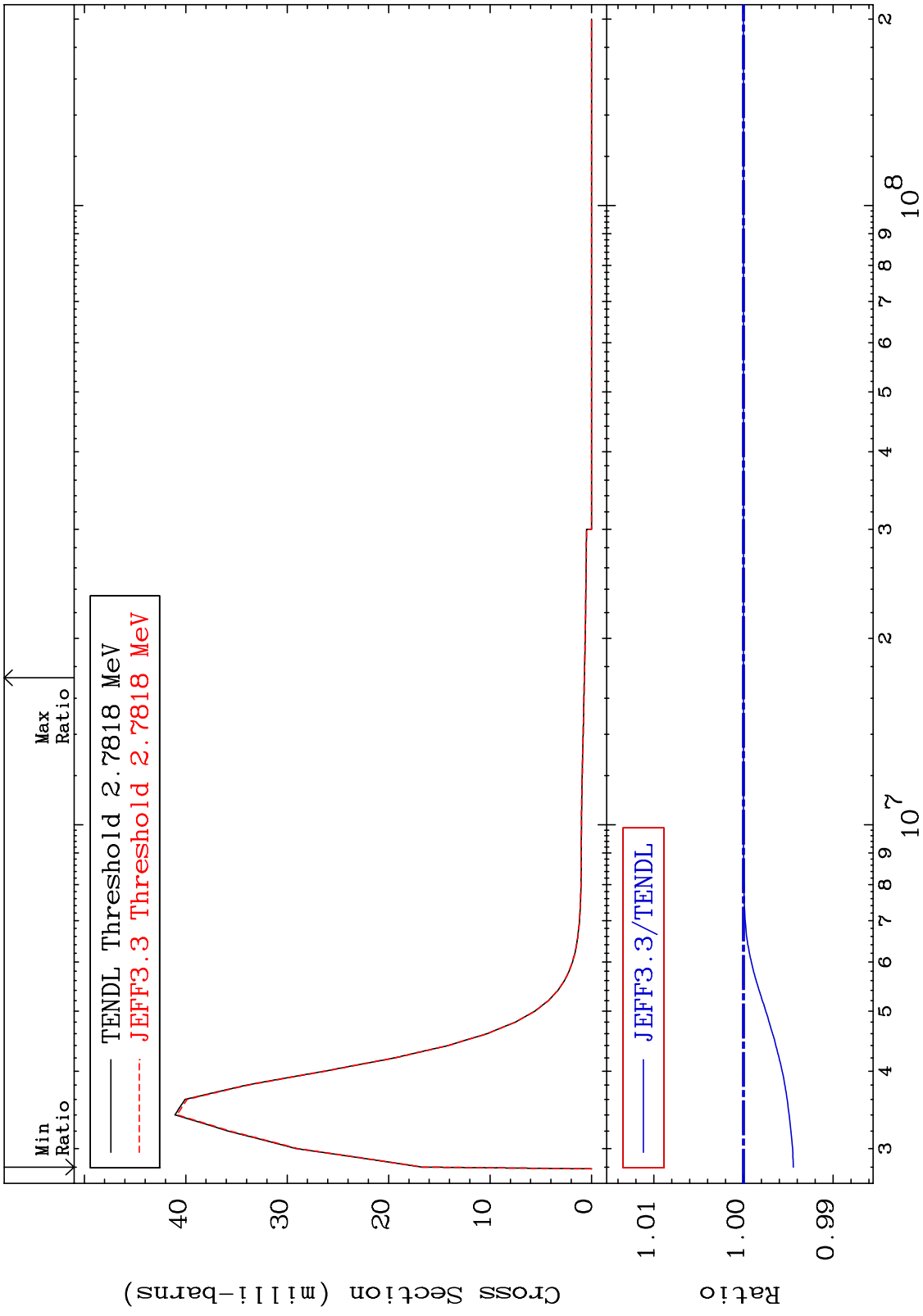


40 64-Gd-148 Incident Energy (eV)

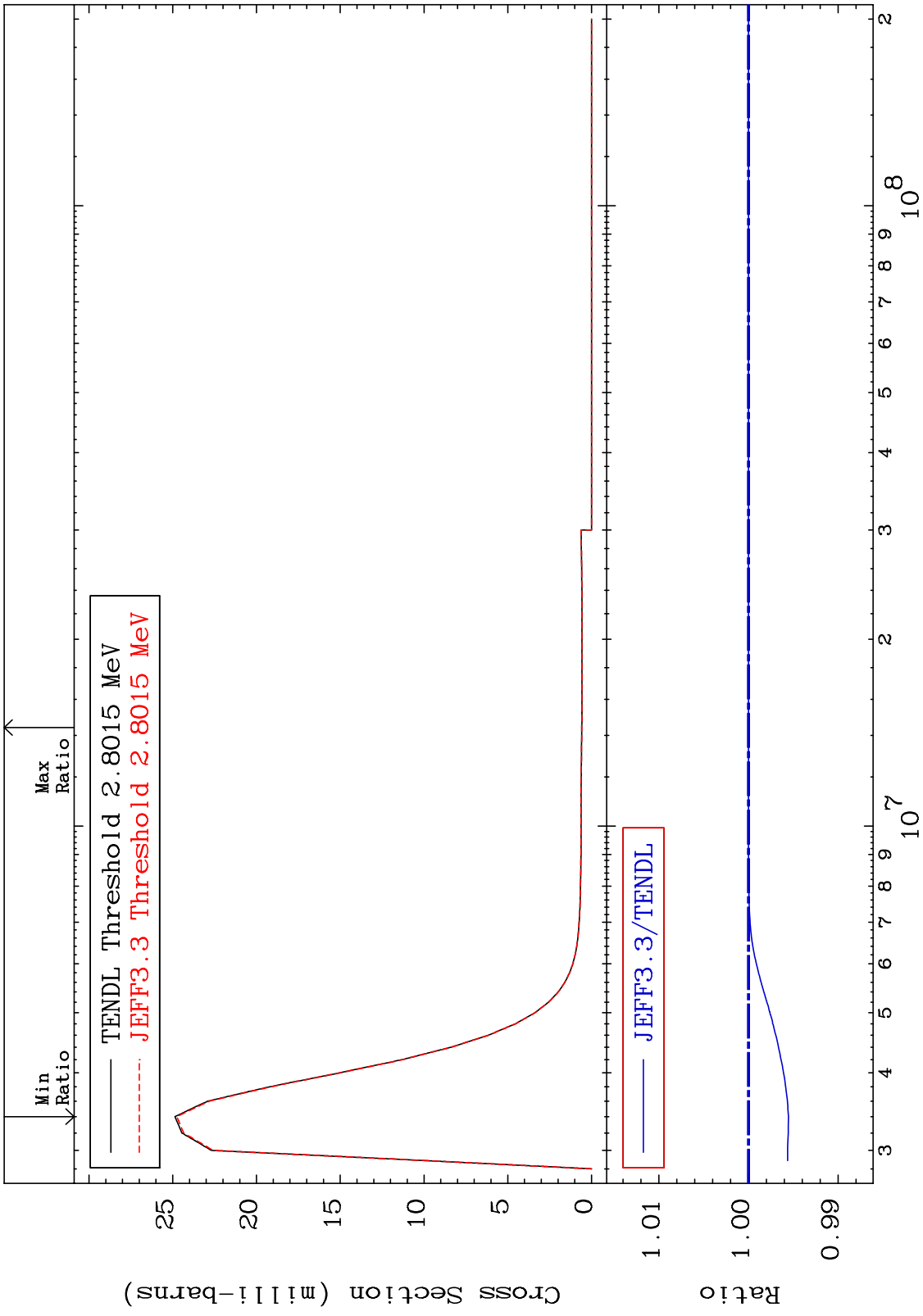
MAT 6413 MT= 72 (n, n') Level Cross Section 64-Gd-148  
 -0.468 To 0.491 %



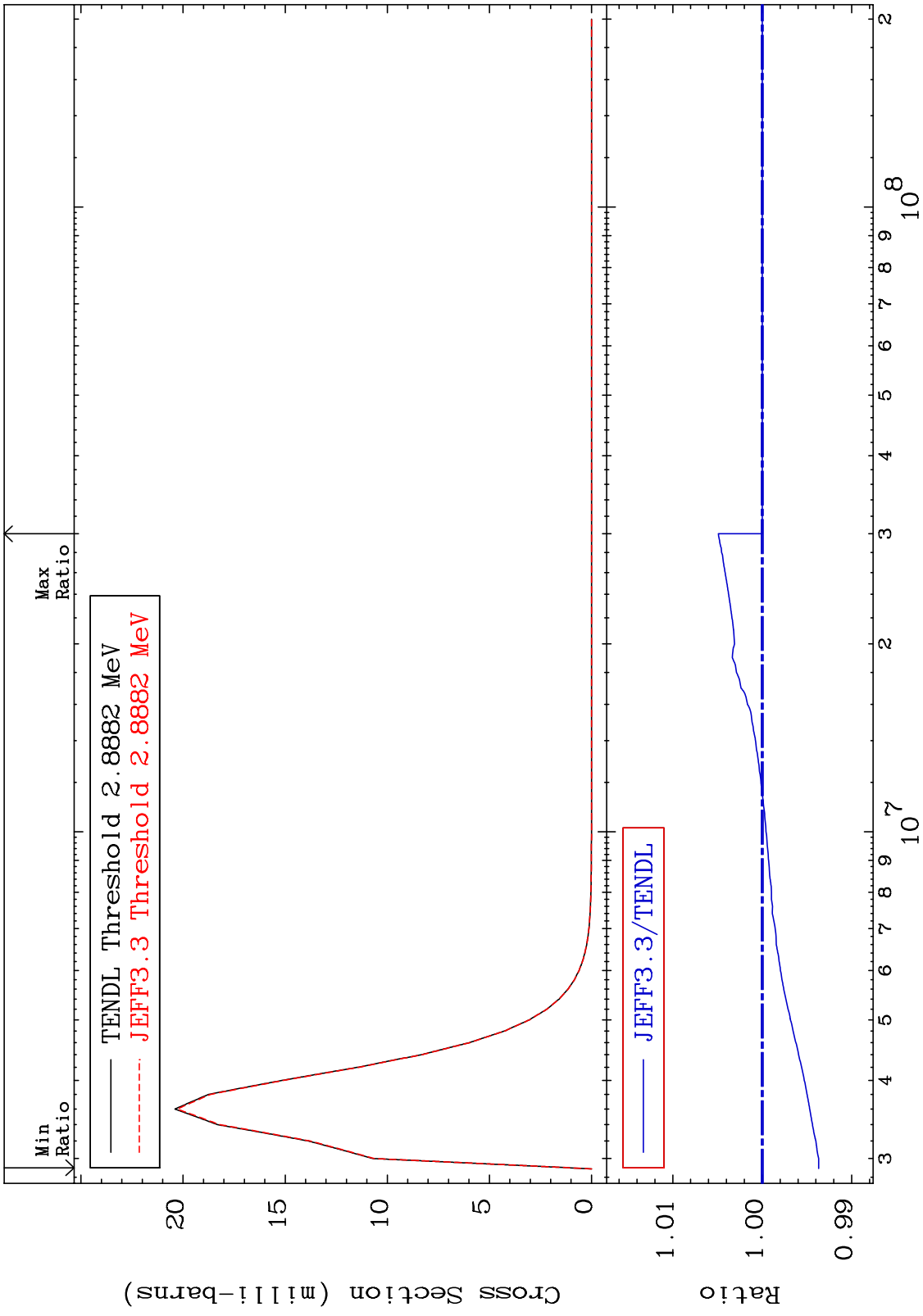
MAT 6413 MT= 73 (n,n') Level Cross Section 64-Gd-148 -0.556 To 0.000 %



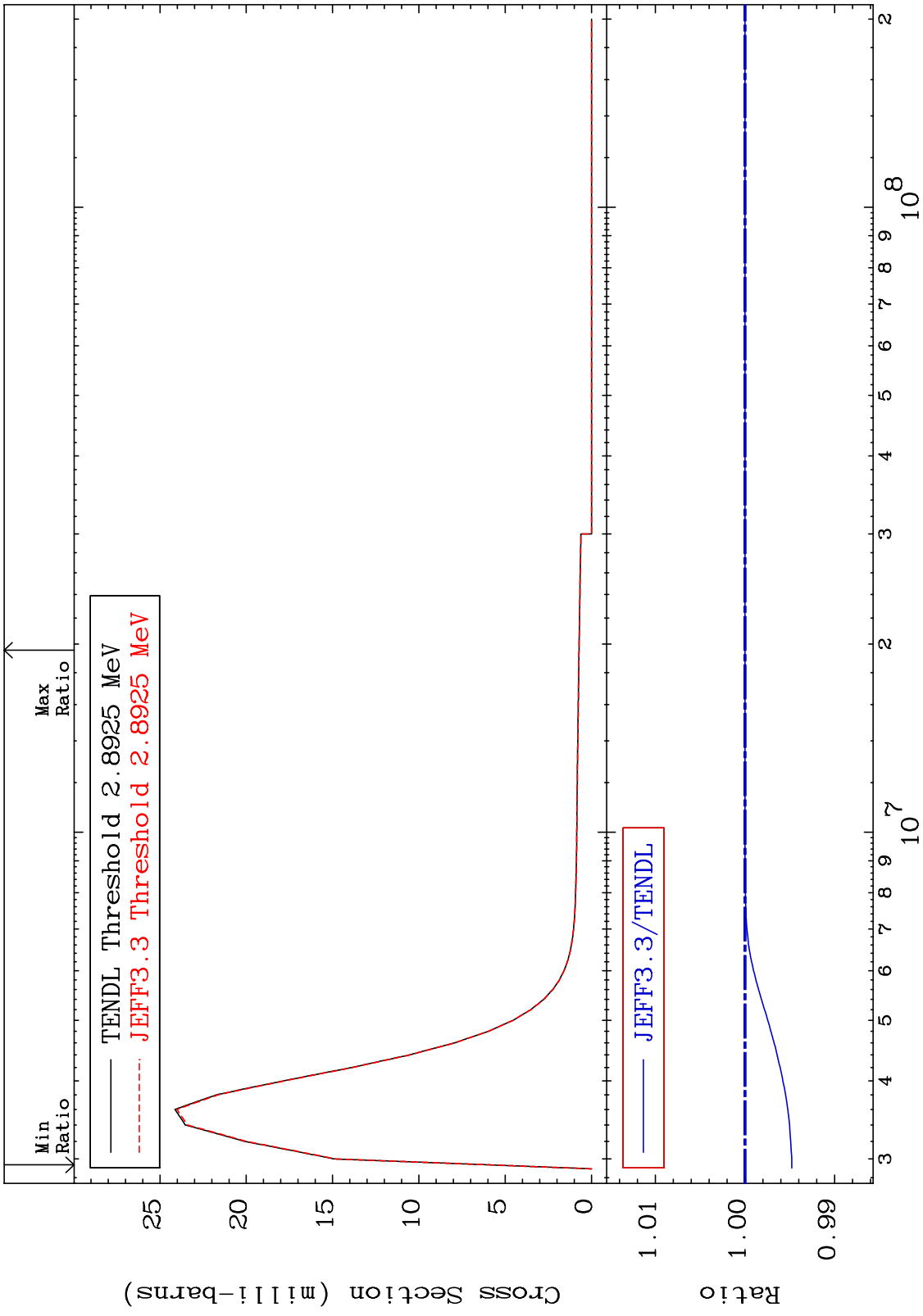
MAT 6413 MT= 74 (n,n') Level Cross Section 64-Gd-148  
 -0.446 To 0.000 %



MAT 6413 MT= 75 (n,n') Level Cross Section 64-Gd-148  
 -0.630 To 0.491 %



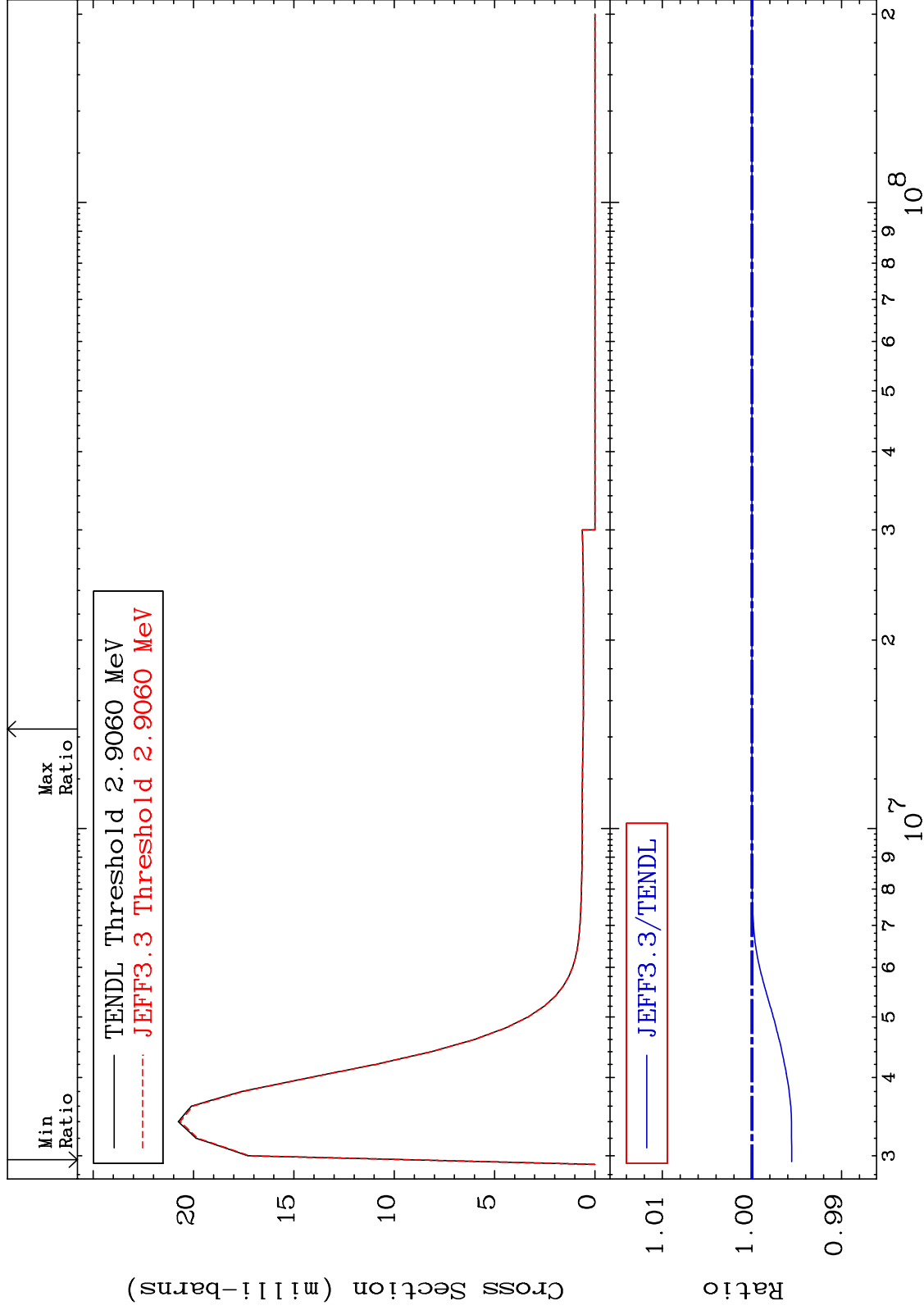
MAT 6413 MT= 76 (n,n') Level Cross Section 64-Gd-148  
 -0.523 To 0.000 %



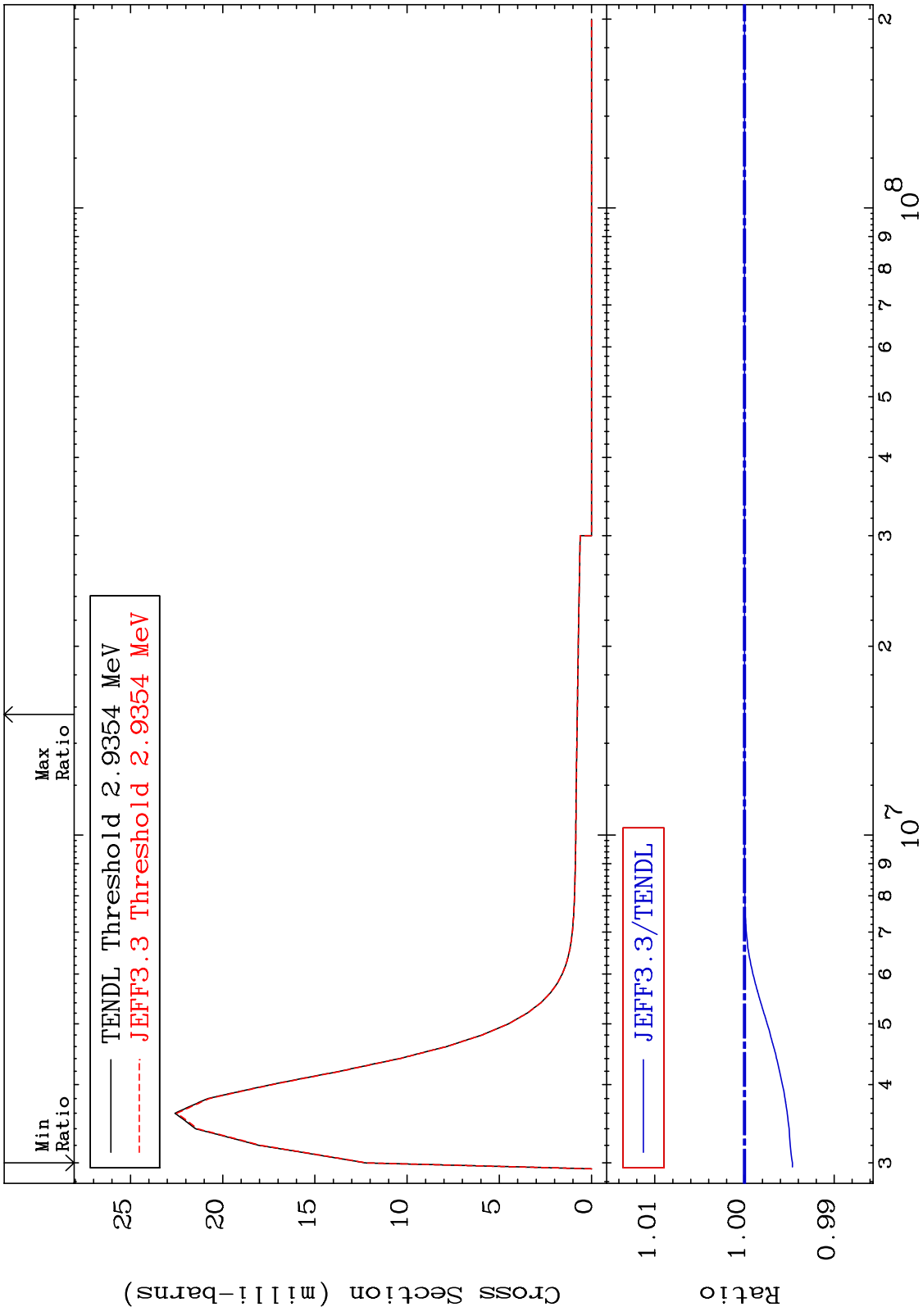
MAT 6413

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

64-Gd-148  
-0.444 To 0.000 %

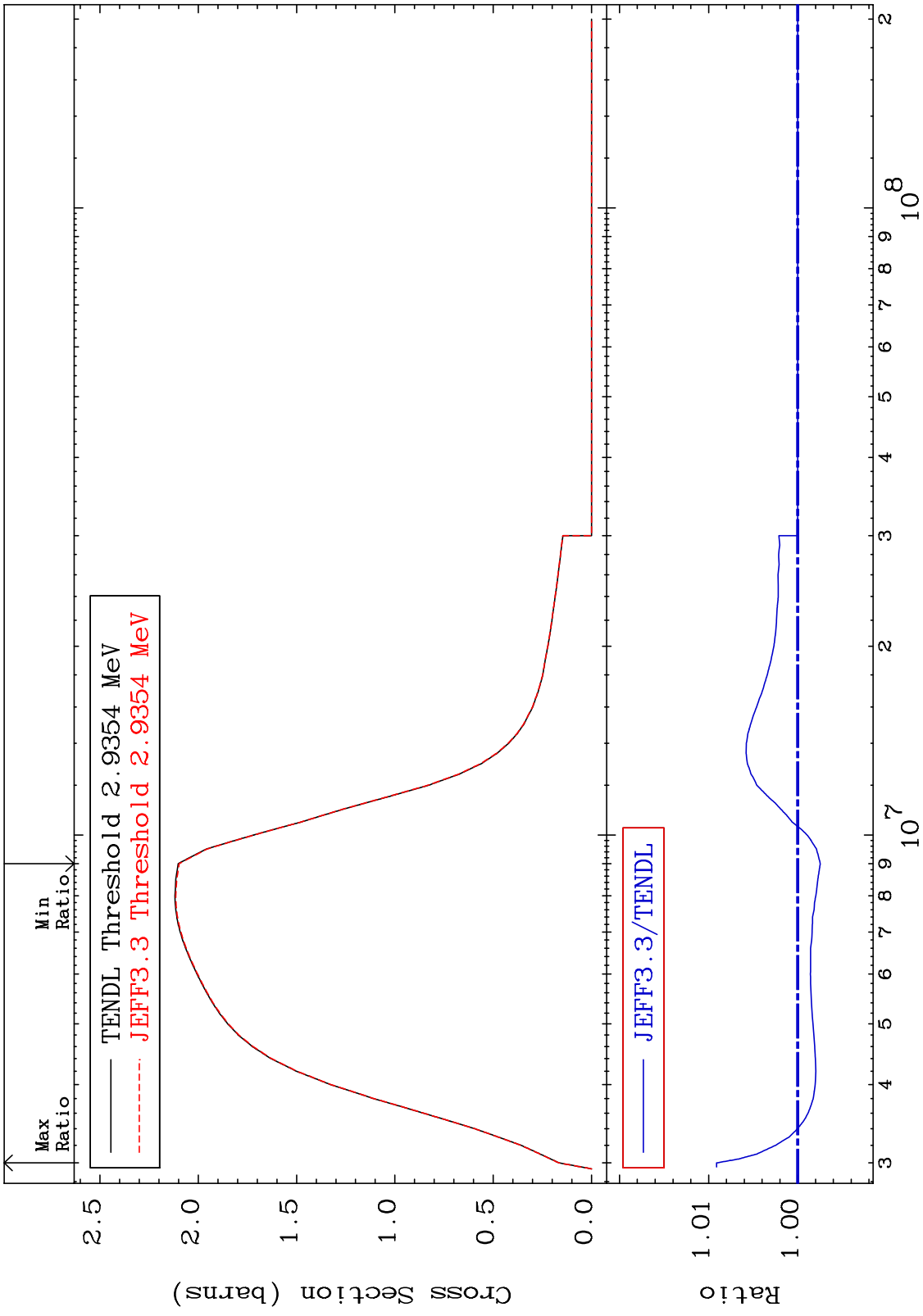


MAT 6413 MT= 78 (n,n') Level Cross Section 64-Gd-148  
 -0.535 To 0.000 %





MAT 6413 (n, n') Continuum Cross Section 64-Gd-148 -0.253 To 0.910 %

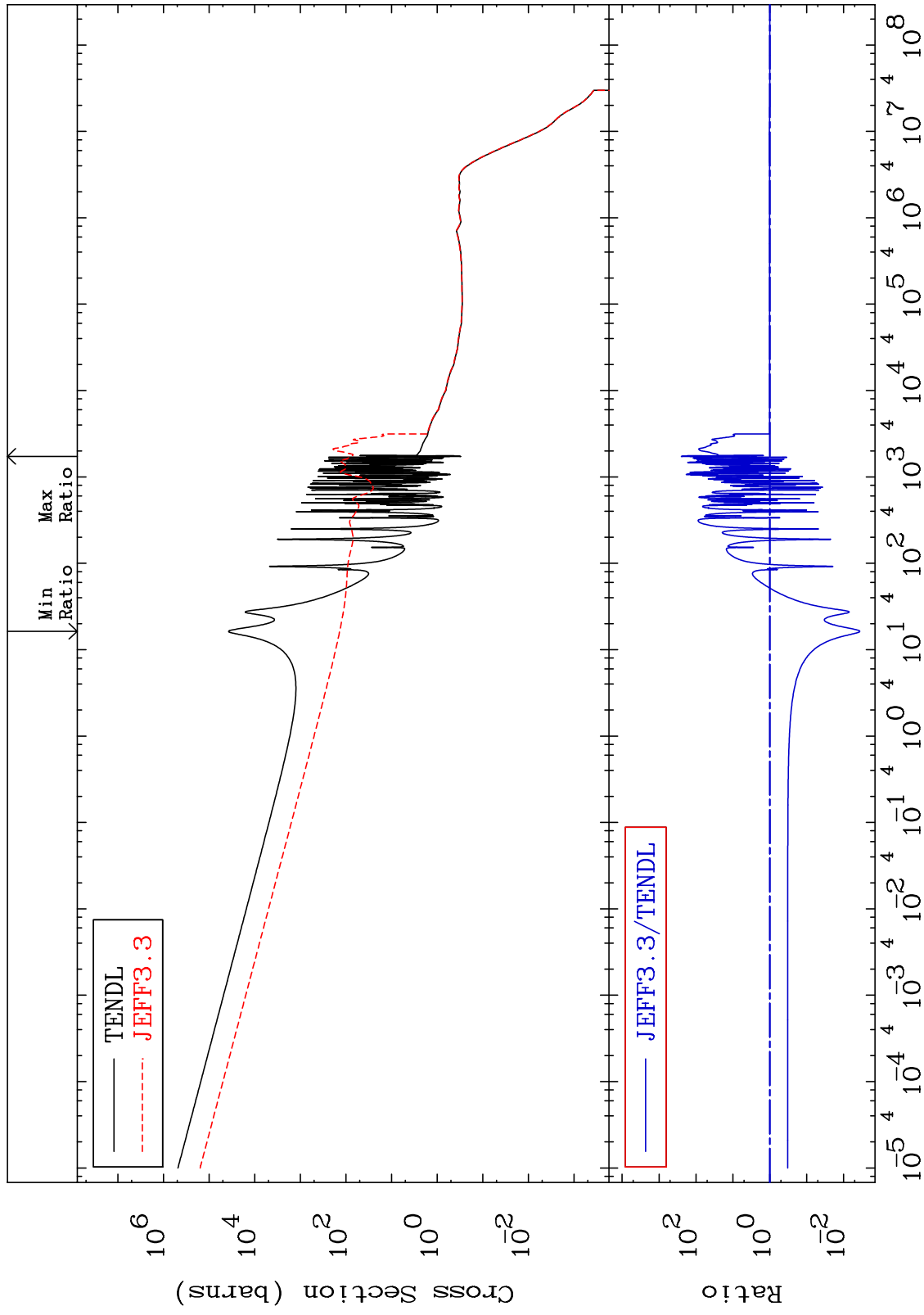


MAT 6413

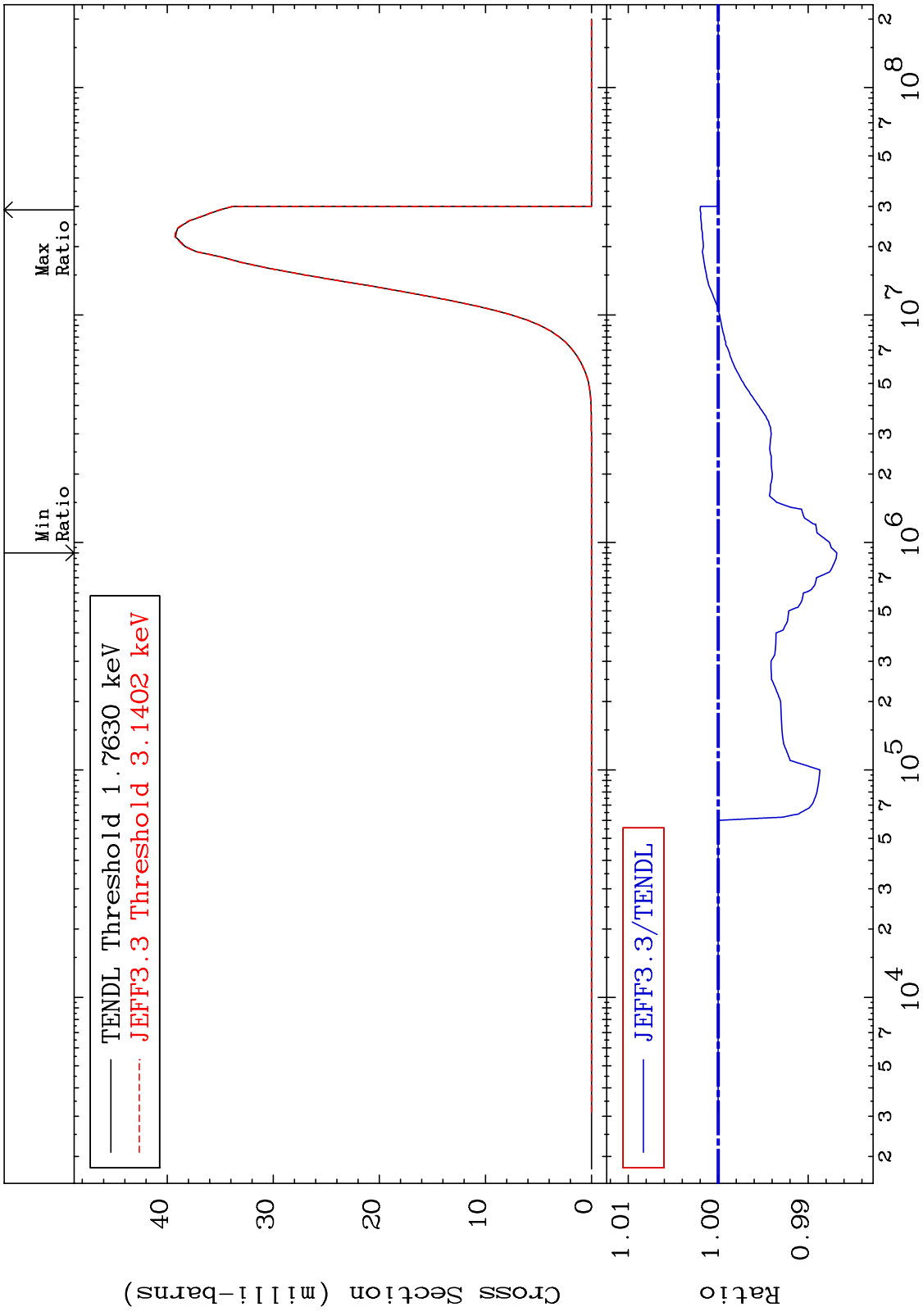
64-Gd-148

-99.64 To 9999. %

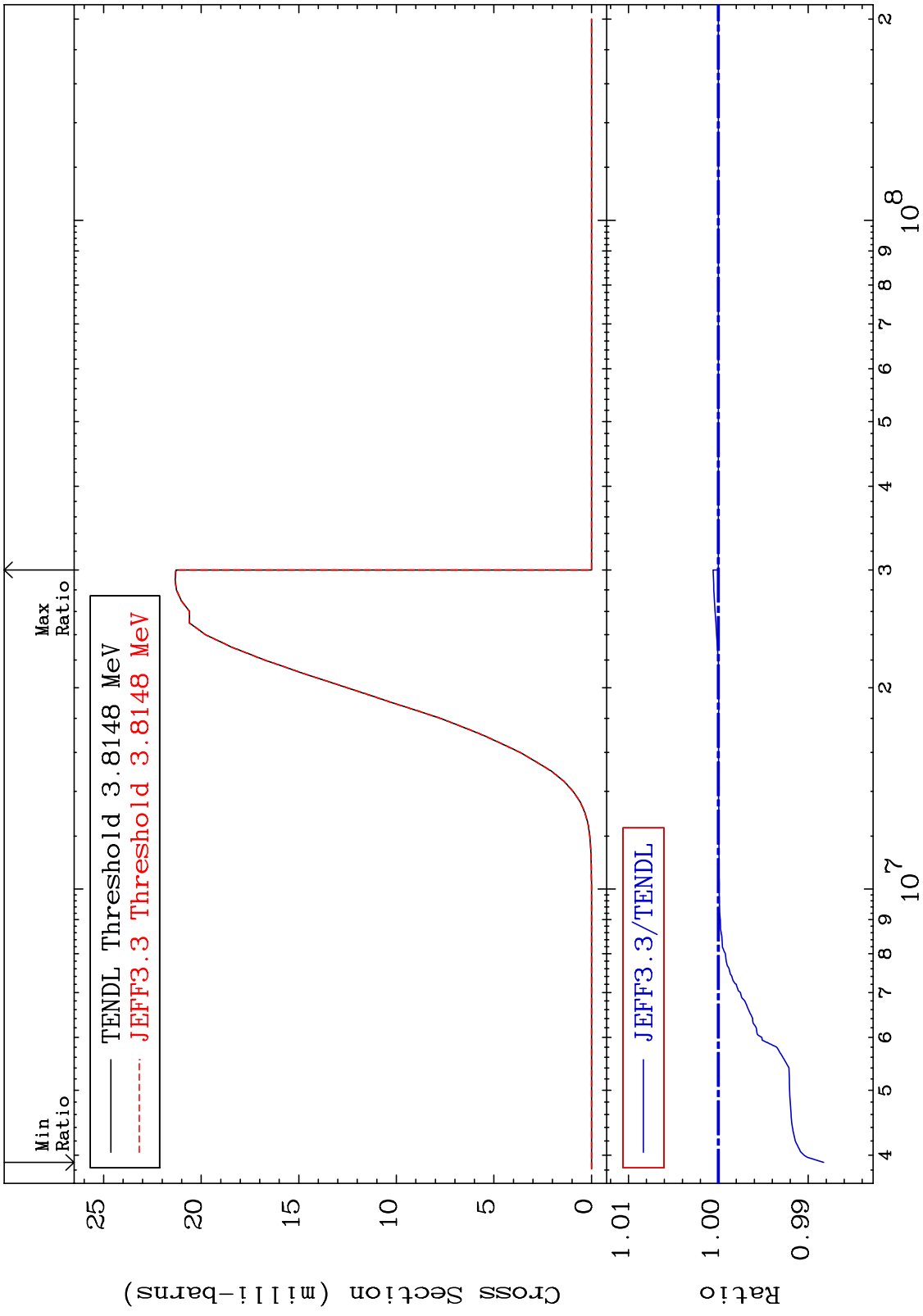
(n,  $\gamma$ )  
Cross Section



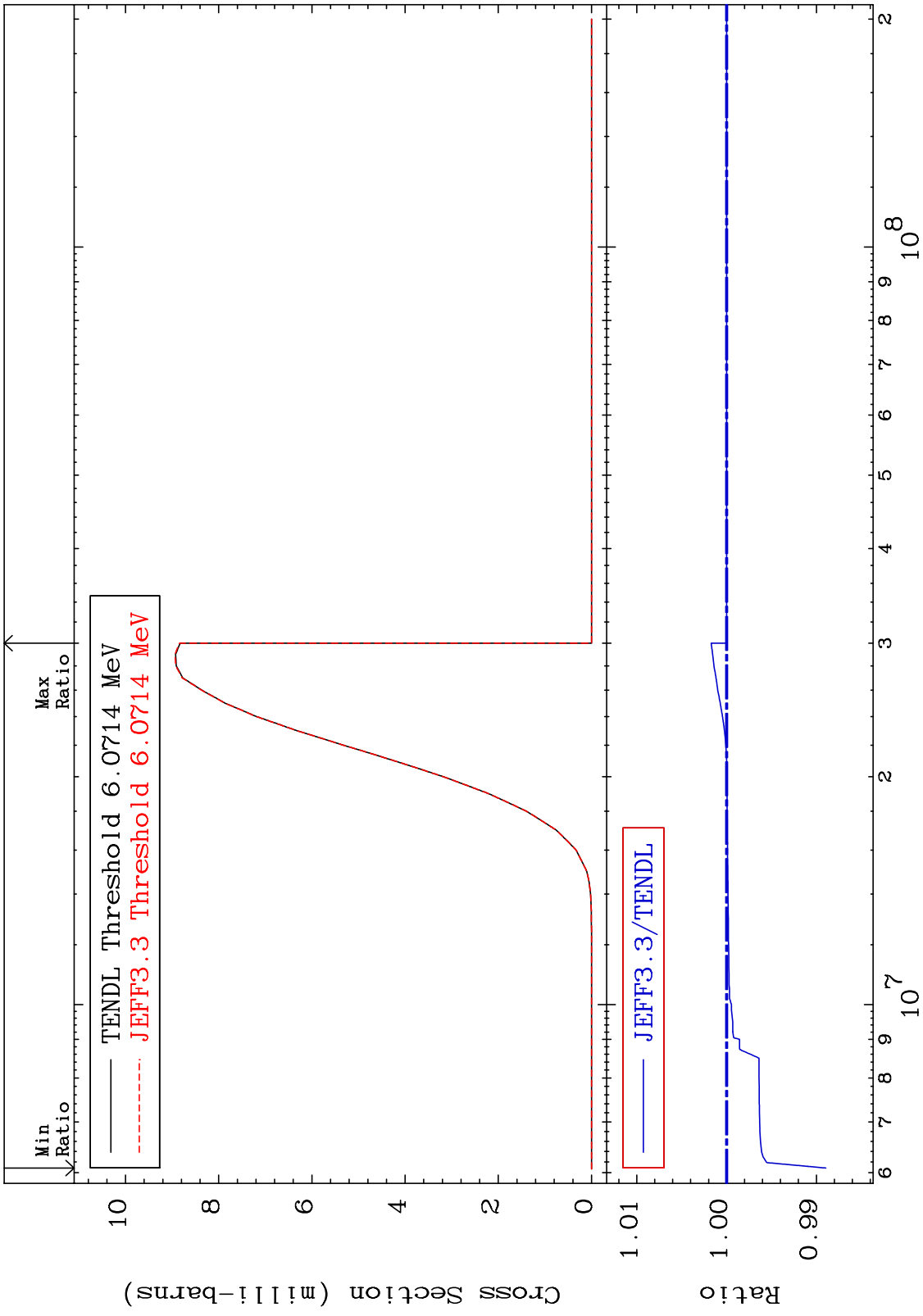
MAT 6413 (n,p) Cross Section 64-Gd-148  
 -1.319 To 0.201 %

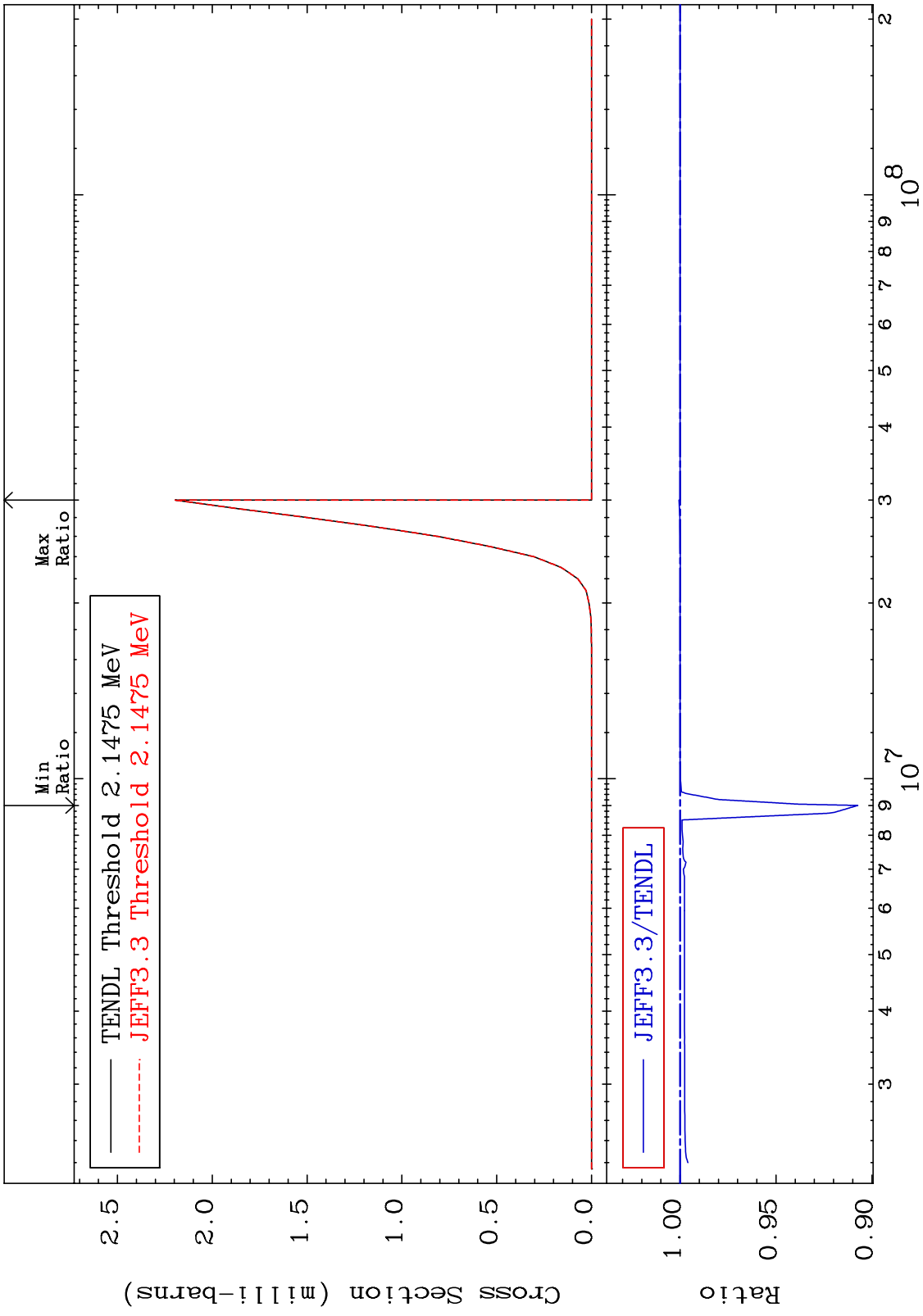


MAT 6413 (n,d) Cross Section 64-Gd-148  
 -1.172 To 0.058 %



MAT 6413 64-Gd-148  
-1.105 To 0.172 %  
(n, t)  
Cross Section





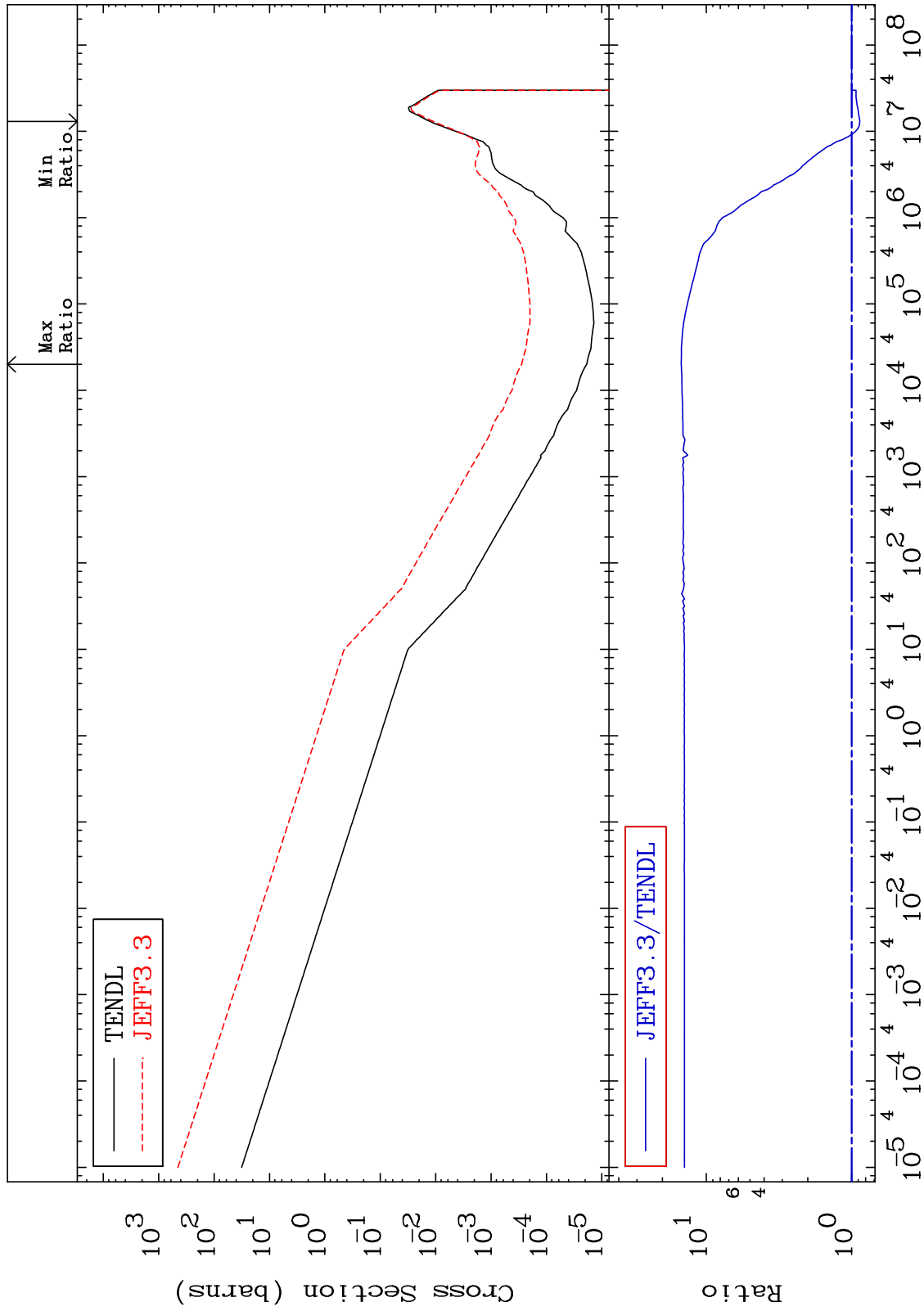
MAT 6413

(n,  $\alpha$ )

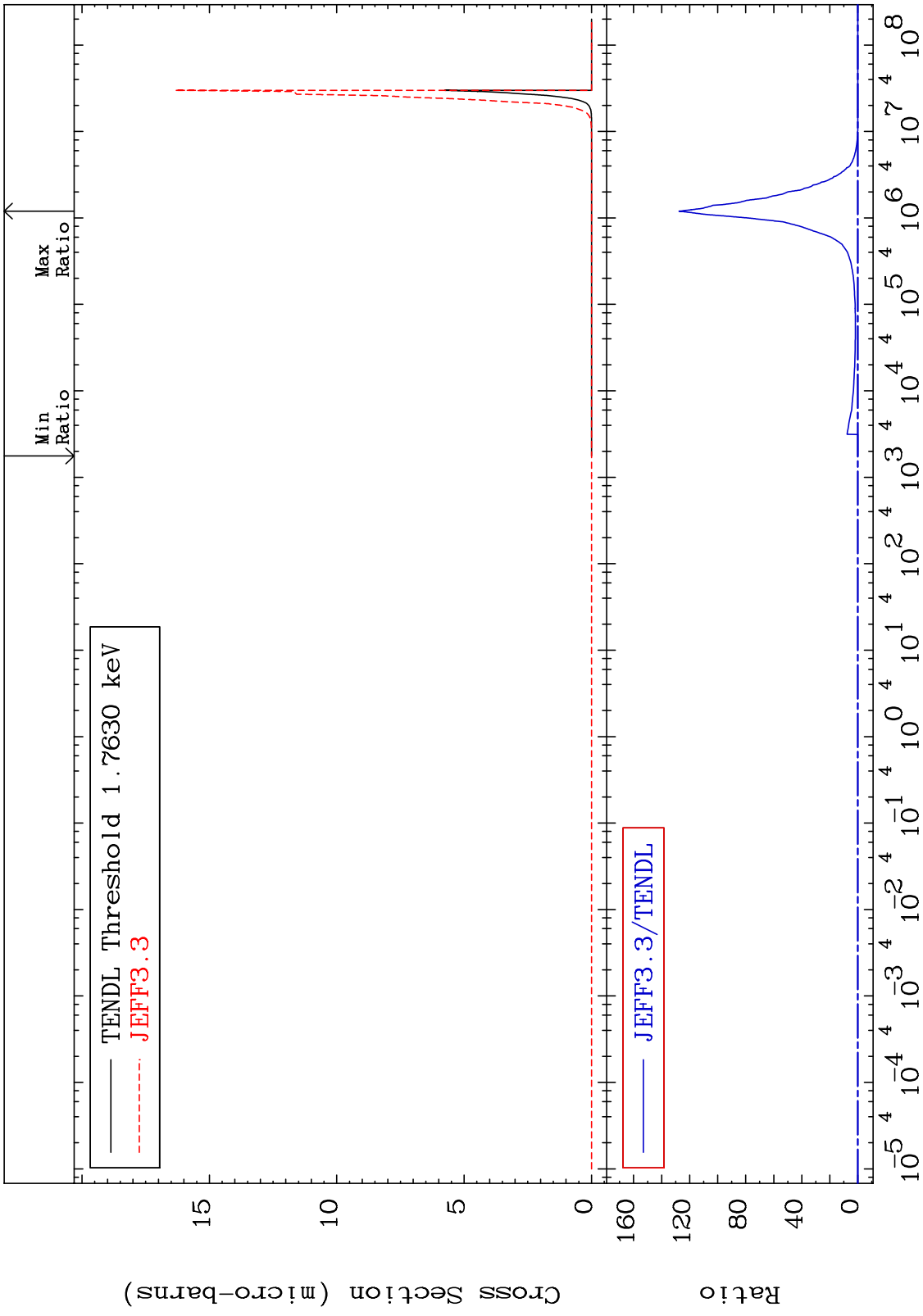
64-Gd-148

Cross Section

-12.18 To 1385. %



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





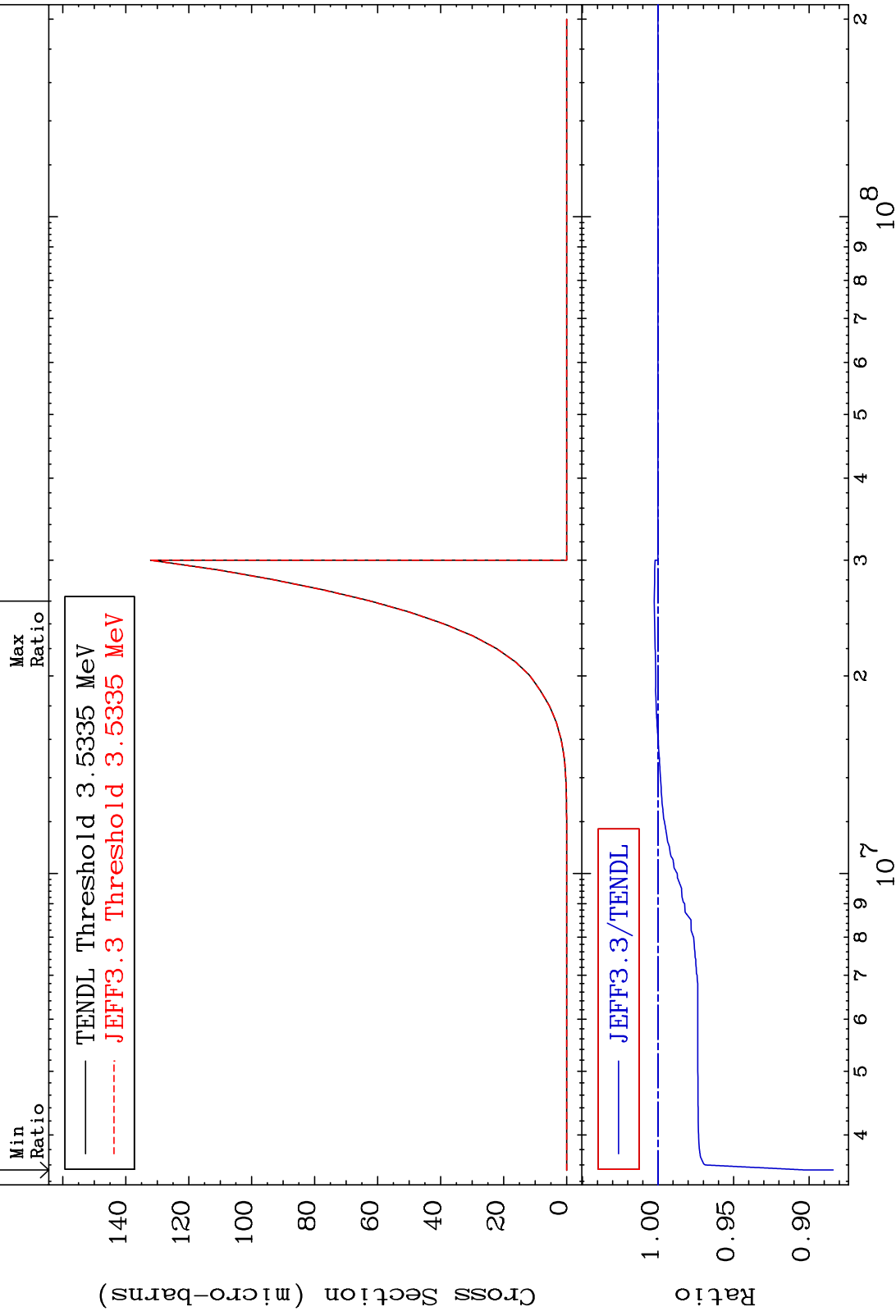
MAT 6413

(n,2p)

64-Gd-148

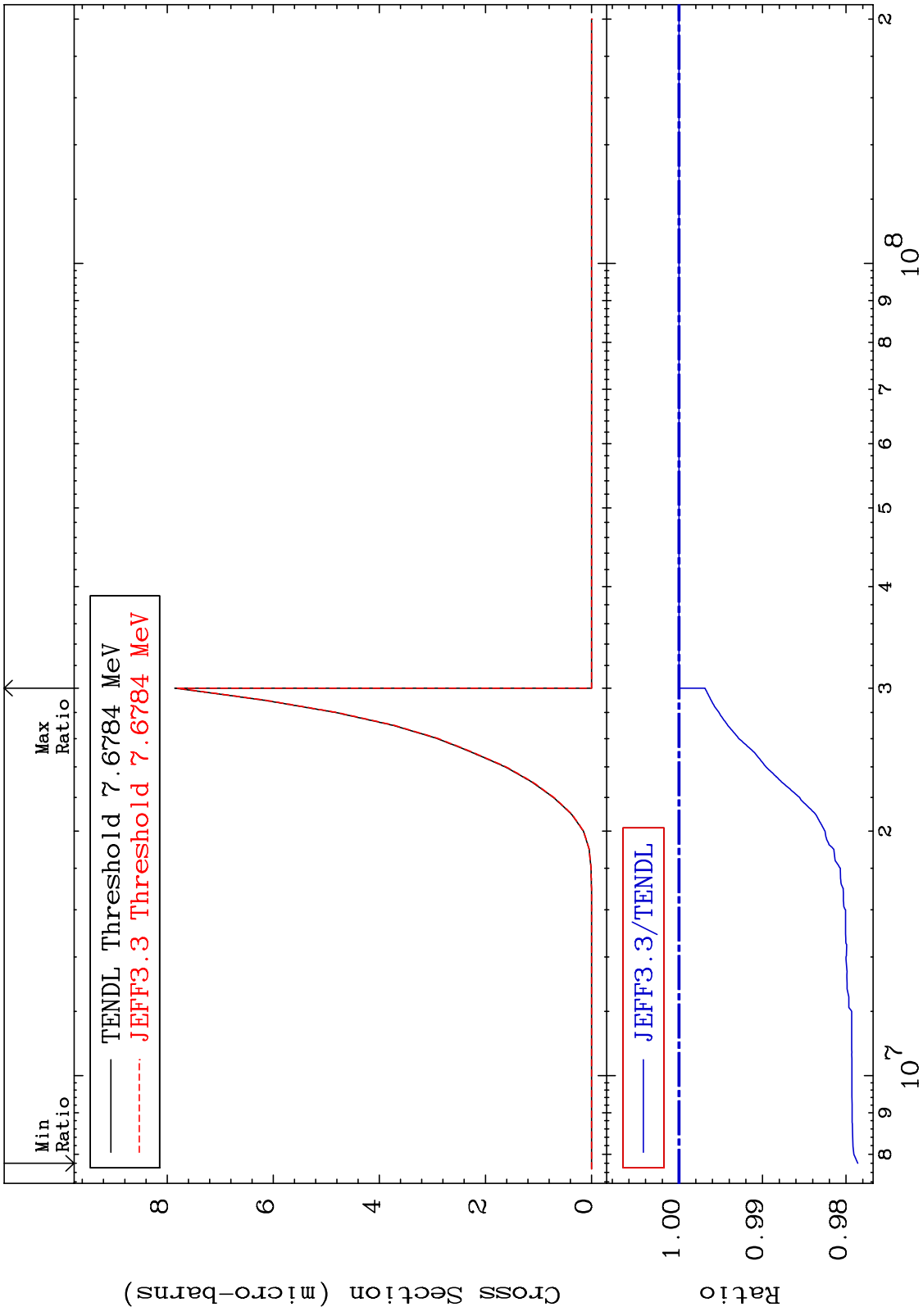
-11.60 To 0.247 %

Cross Section

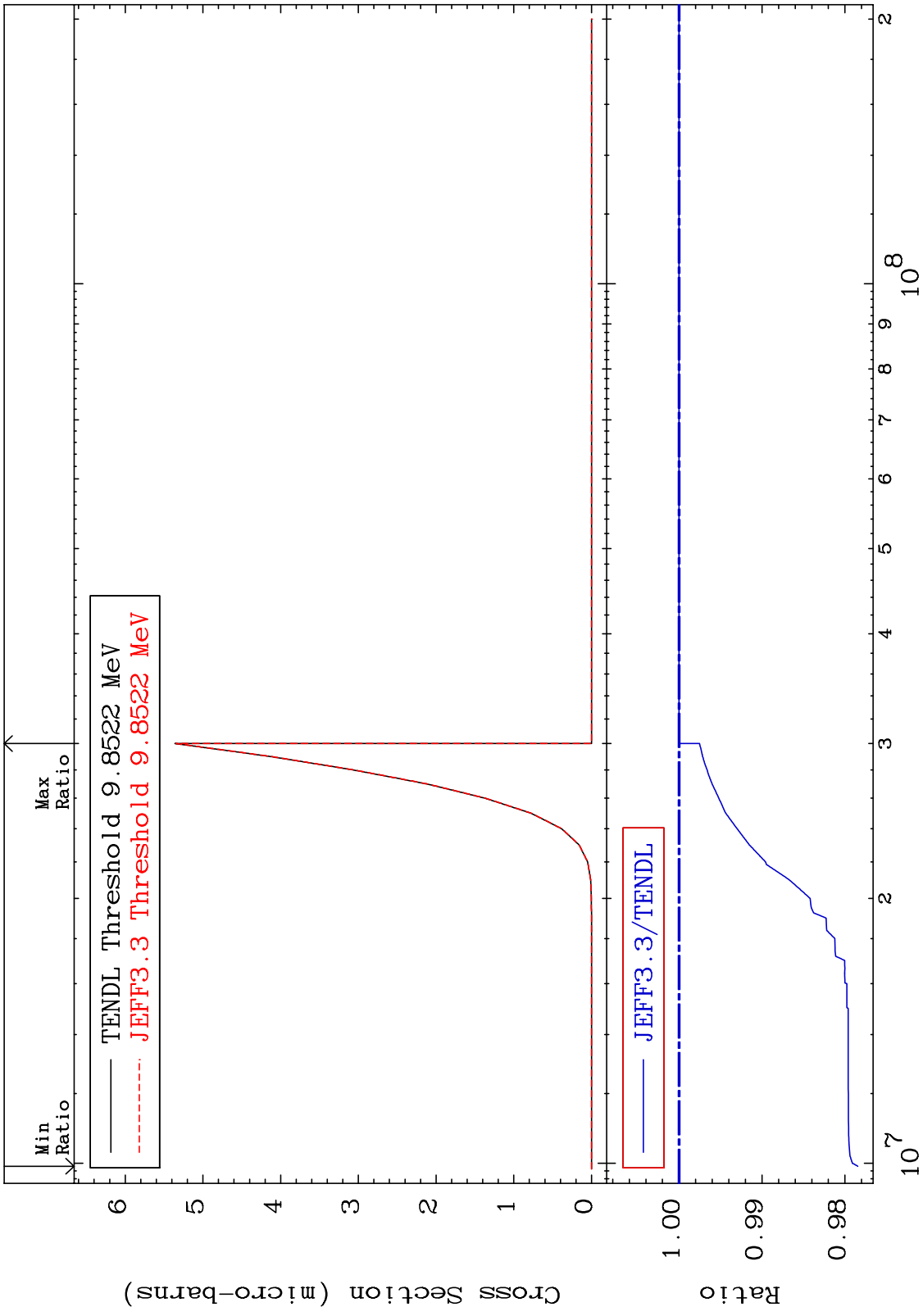




MAT 6413 (n,p) d 64-Gd-148  
 Cross Section -2.141 To 0.000 %



MAT 6413  $(n,p)$  t 64-Gd-148  
 Cross Section -2.155 To 0.000 %

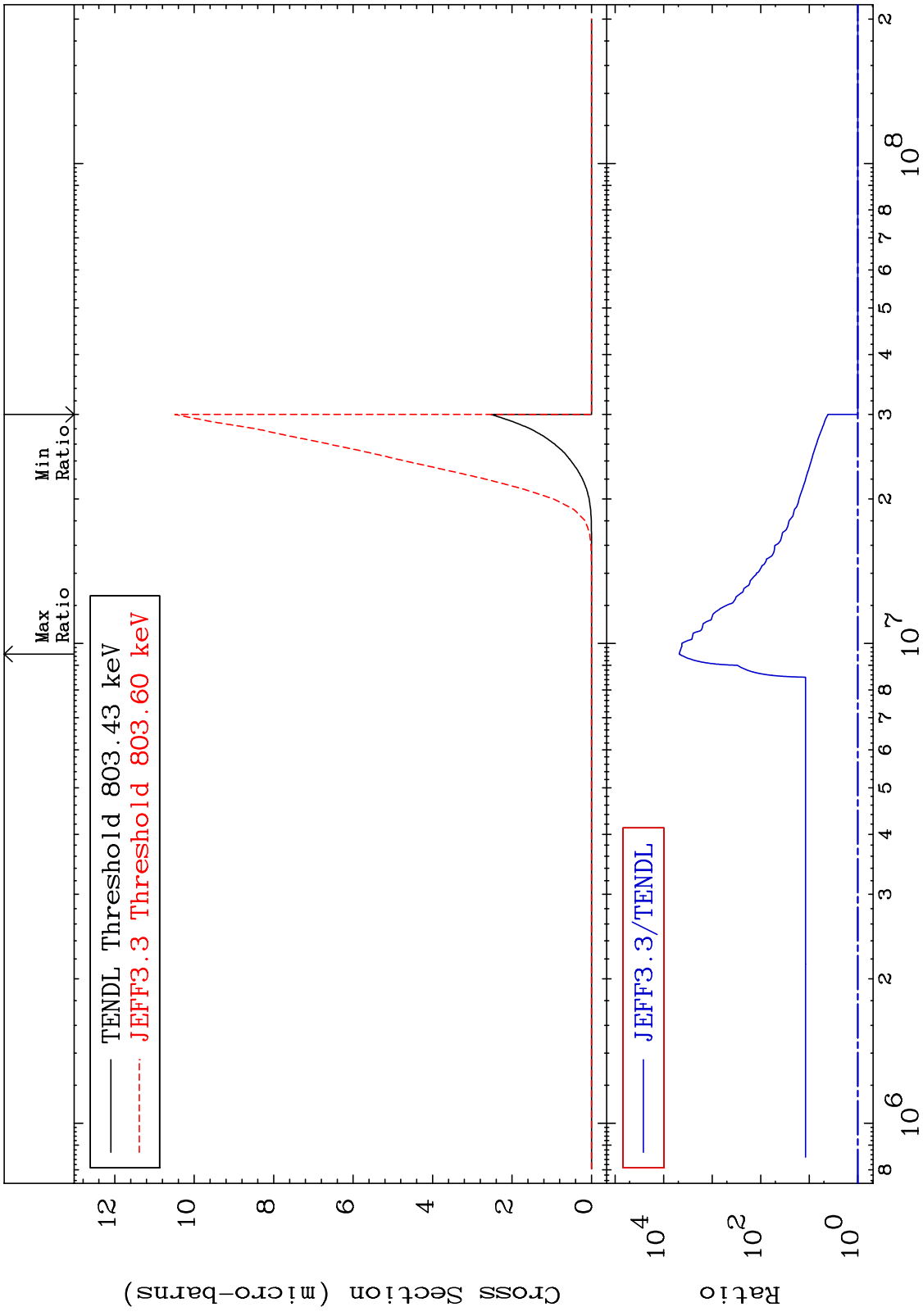


MAT 6413

(n,d)  $\alpha$

64-Gd-148

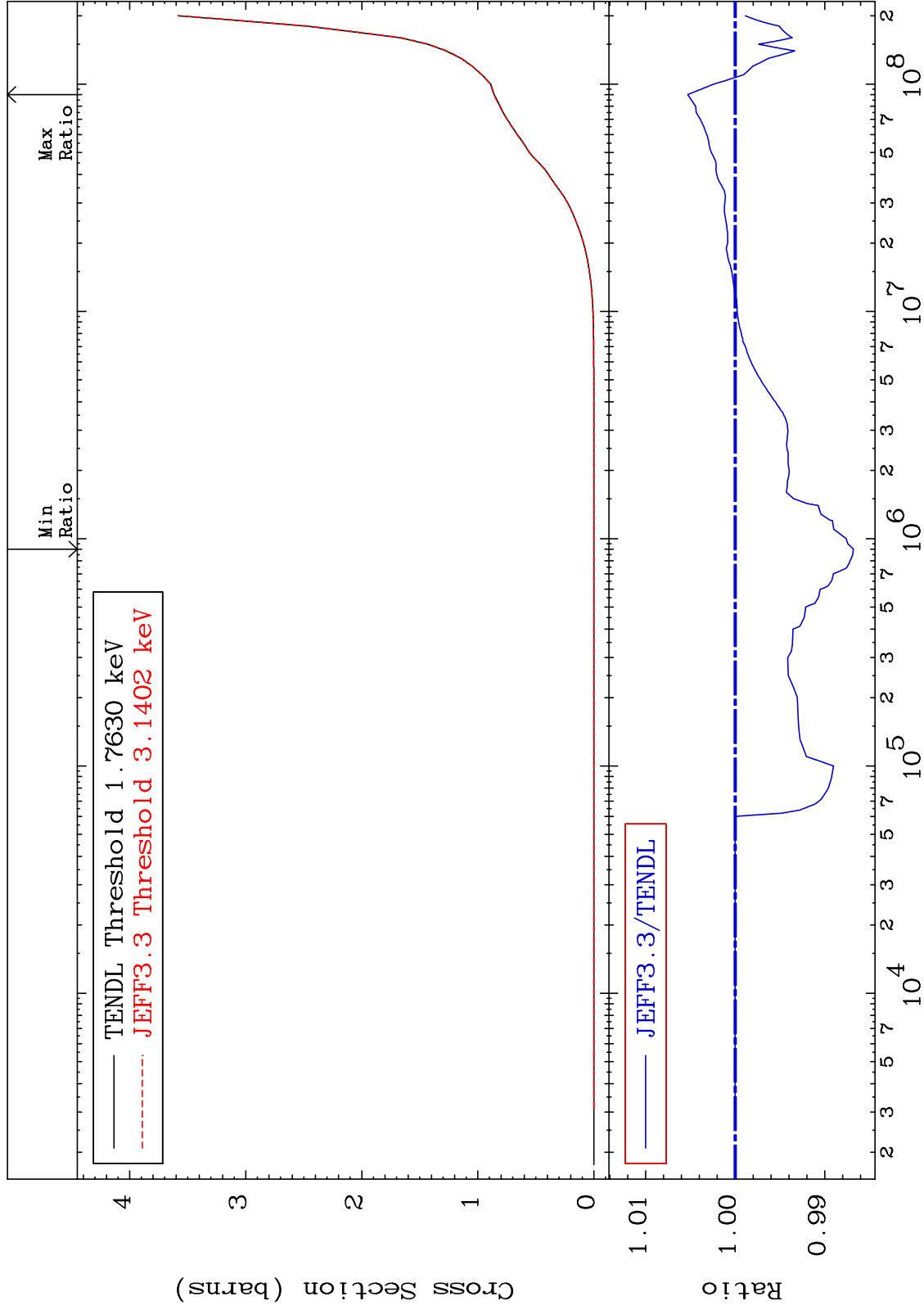
0.000 To 9999. %



MAT 6413

Hydrogen Production  
Cross Section

64-Gd-148  
-1.319 To 0.530 %

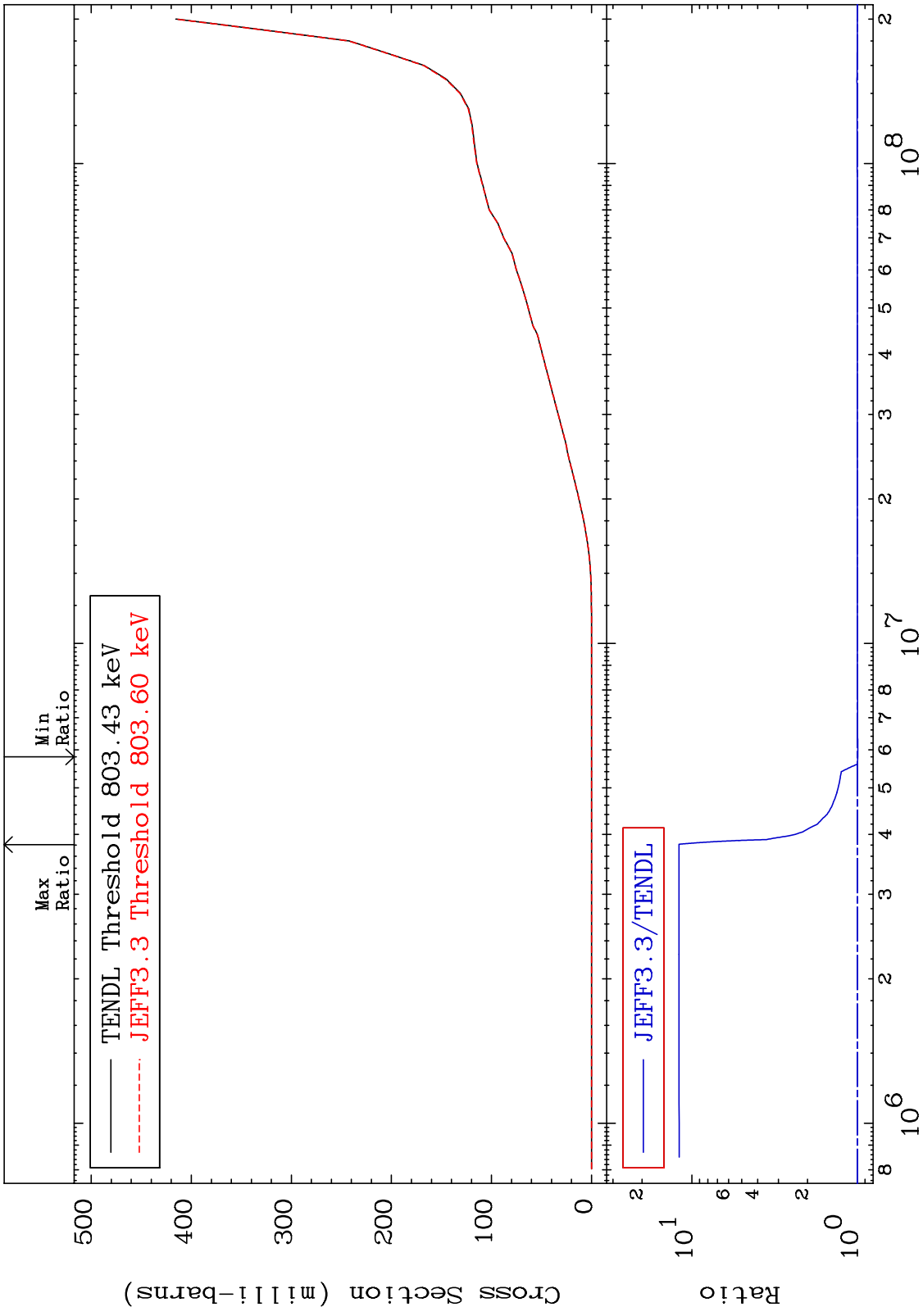


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Incident Energy (eV)

64-Gd-148

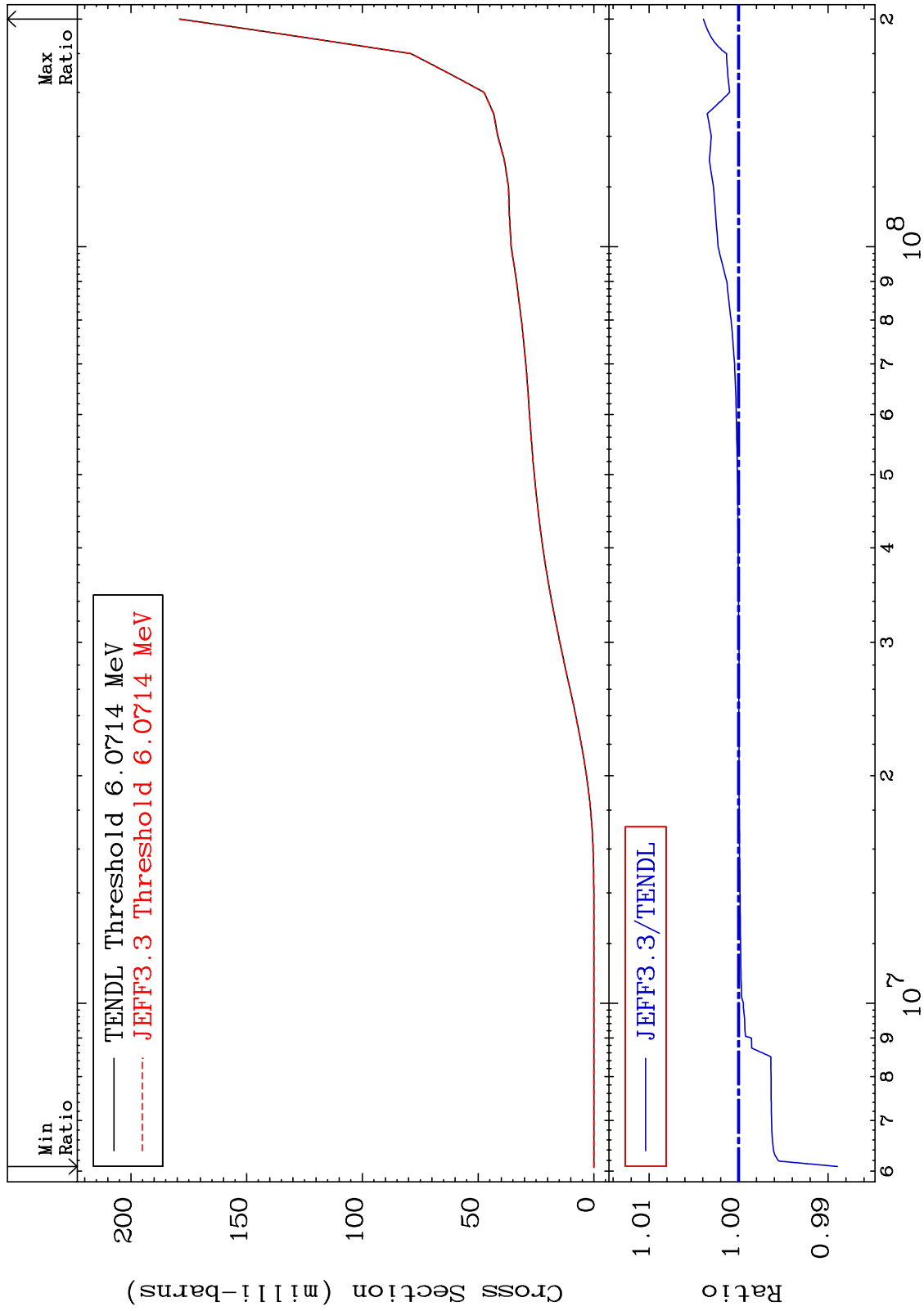
MAT 6413 Deuterium Production Cross Section 64-Gd-148 -0.600 To 1095. %



MAT 6413

Tritium Production  
Cross Section

64-Gd-148  
-1.105 To 0.392 %

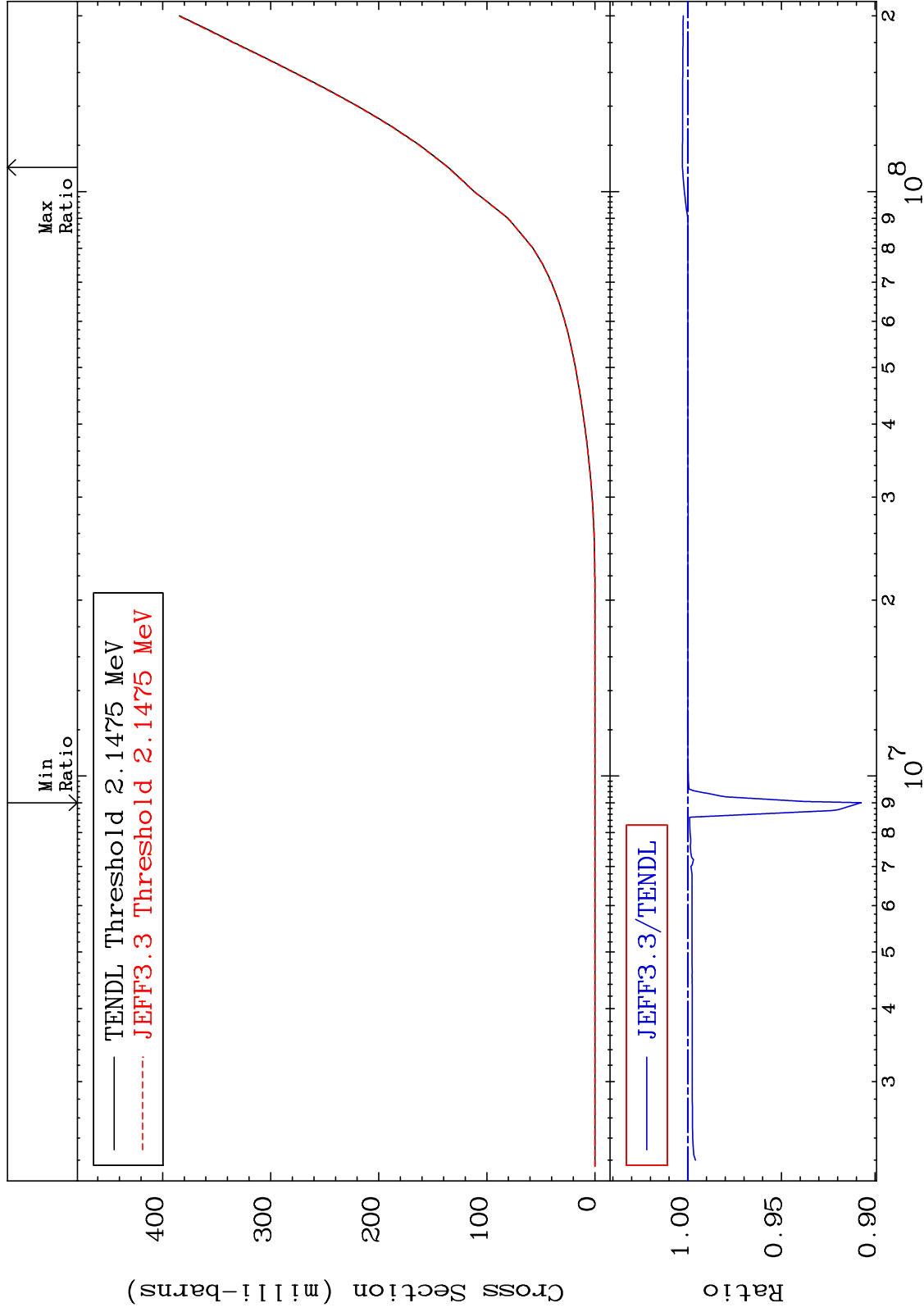




MAT 6413

He-3 Production  
Cross Section

64-Gd-148  
-9.265 To 0.286 %



64

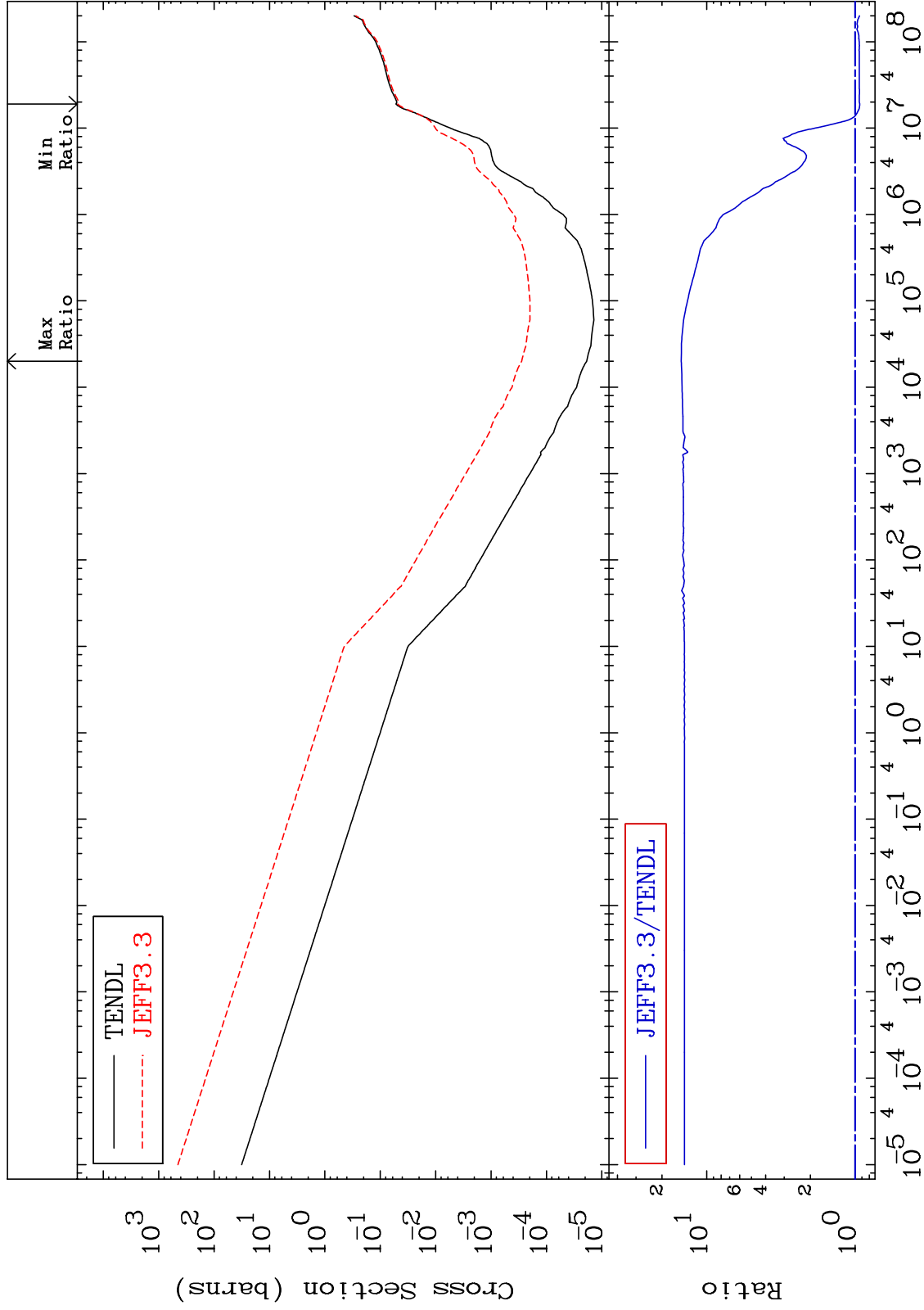
Incident Energy (eV)

64-Gd-148

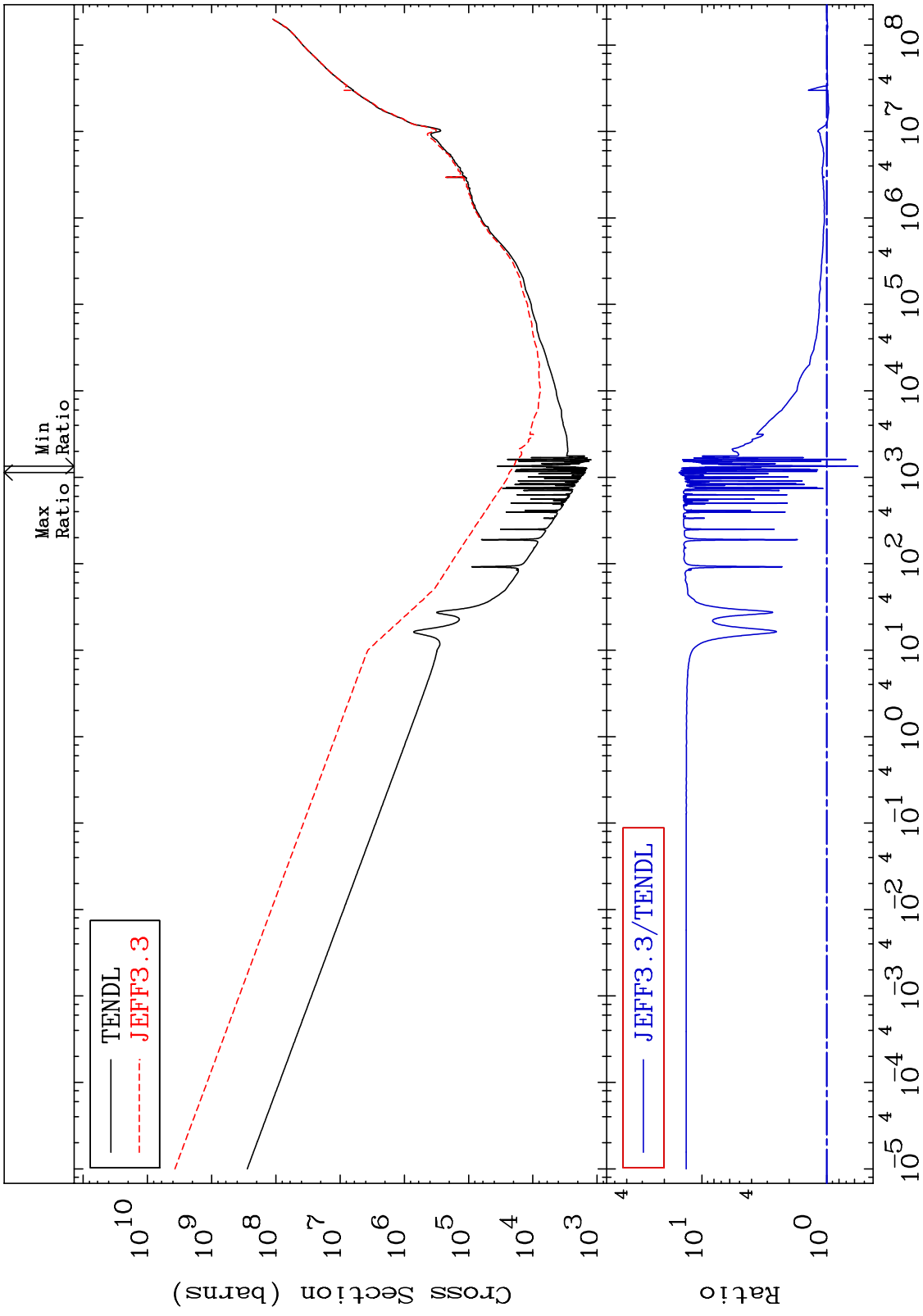
MAT 6413

He-4 Production  
Cross Section

64-Gd-148  
-7.087 To 1385. %



MAT 6413      Kerma total (eV-barns)      64-Gd-148  
 Cross Section      -43.60 To 1425. %

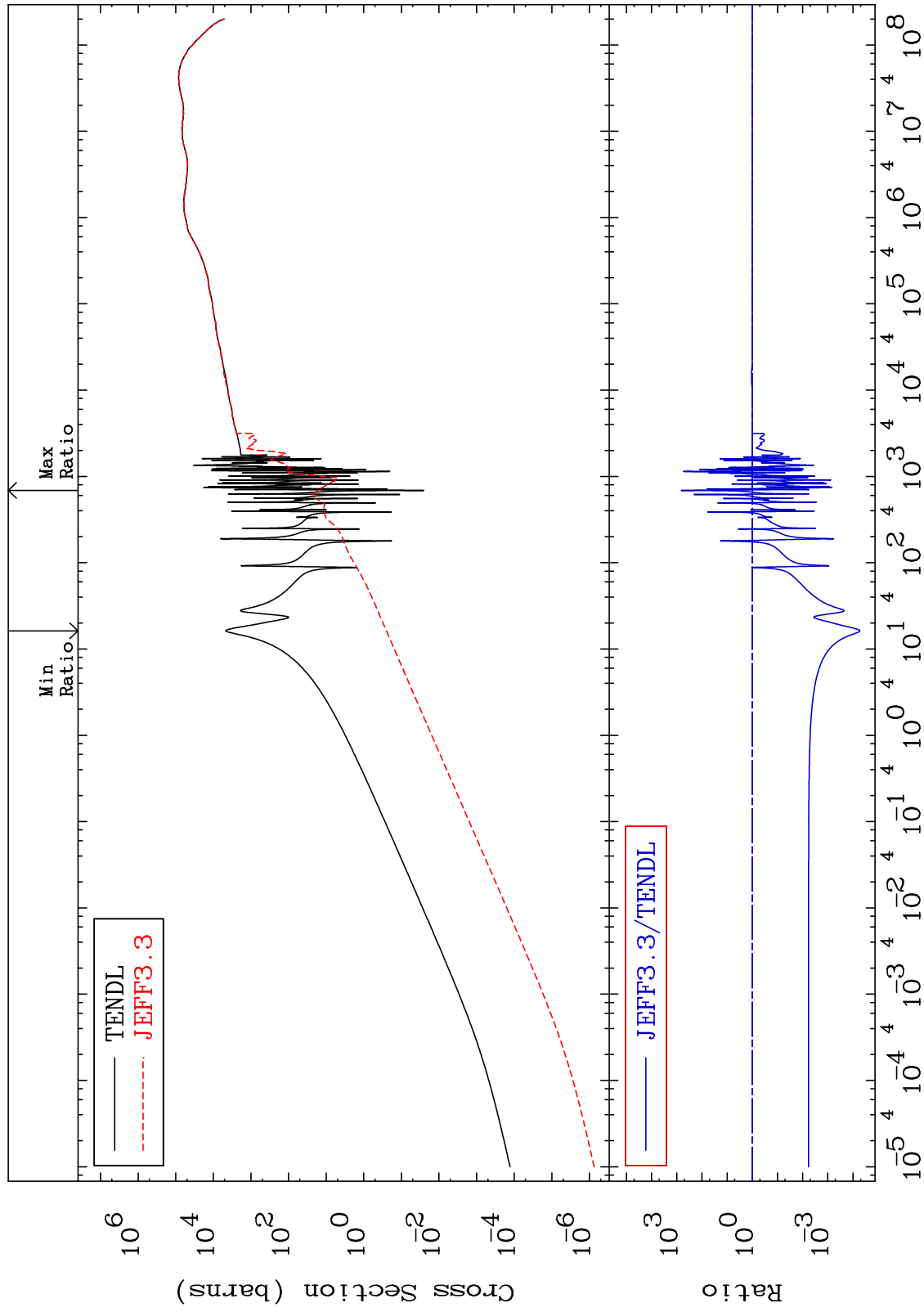


66      Incident Energy (eV)      64-Gd-148

MAT 6413

Kerma elastic  
Cross Section

64-Gd-148  
-99.99 To 9999. %

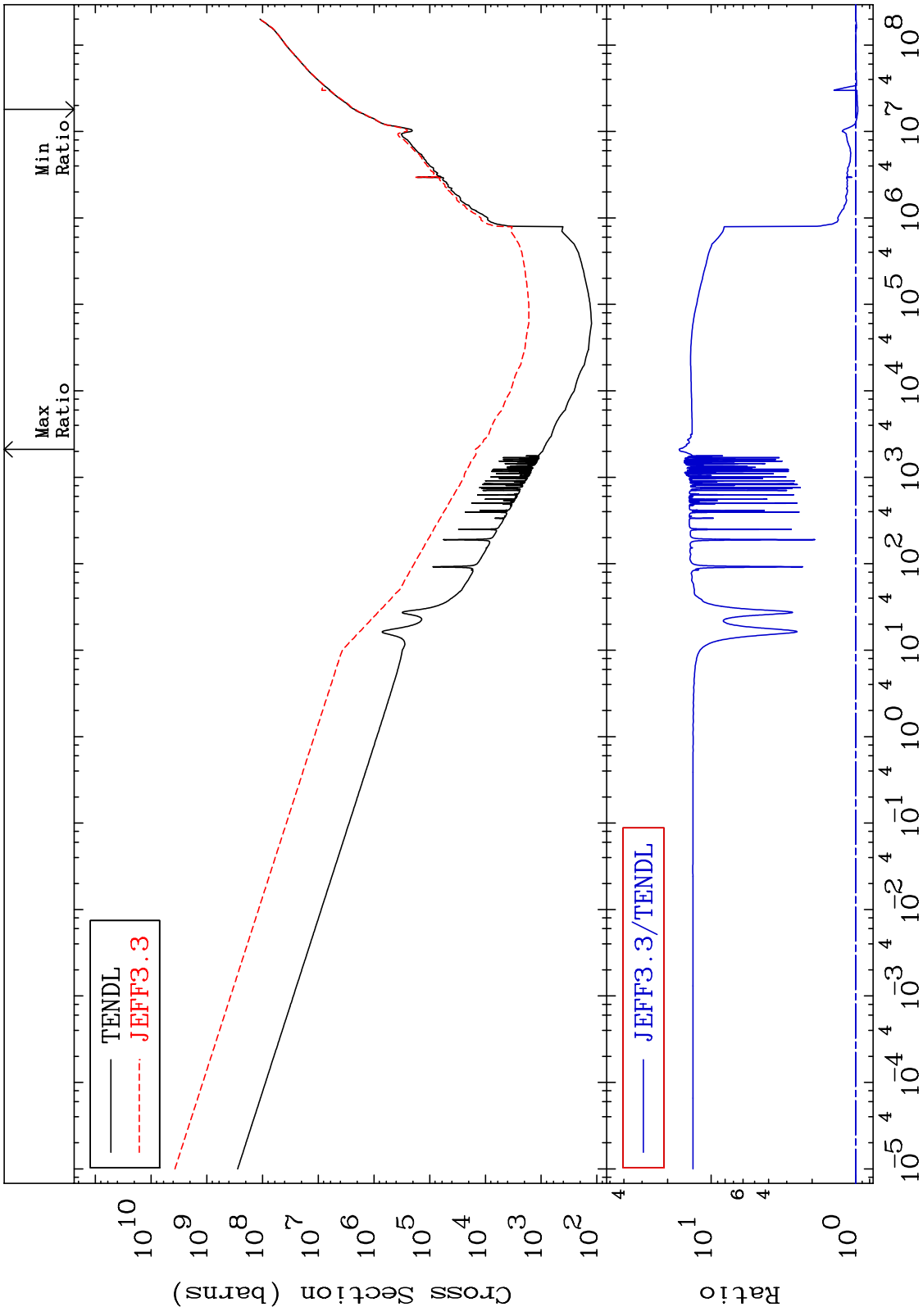


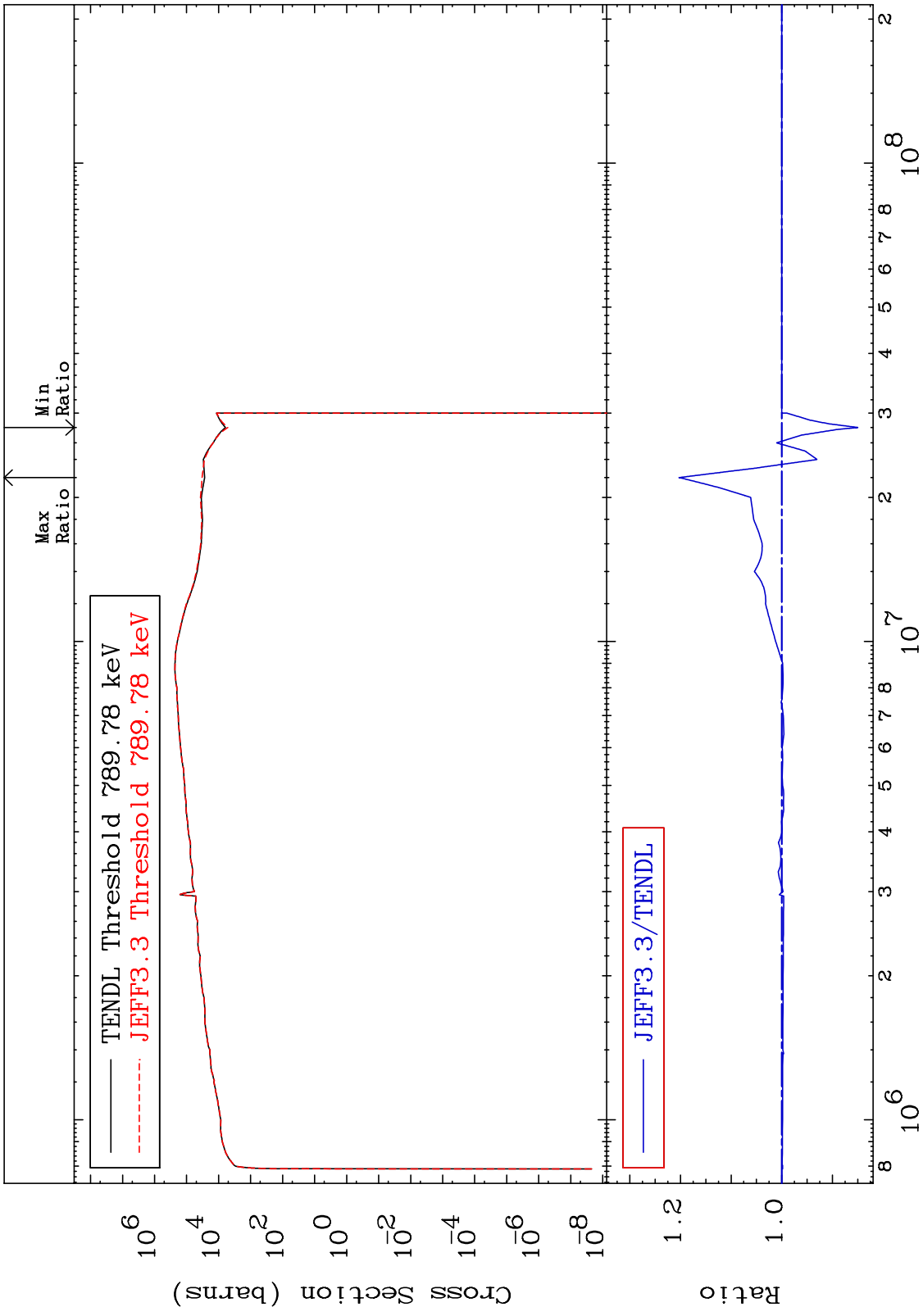
67

Incident Energy (eV)

64-Gd-148

MAT 6413      Kerma non-elastic (all but mt2)      64-Gd-148  
 Cross Section      -3.462 To 1564. %

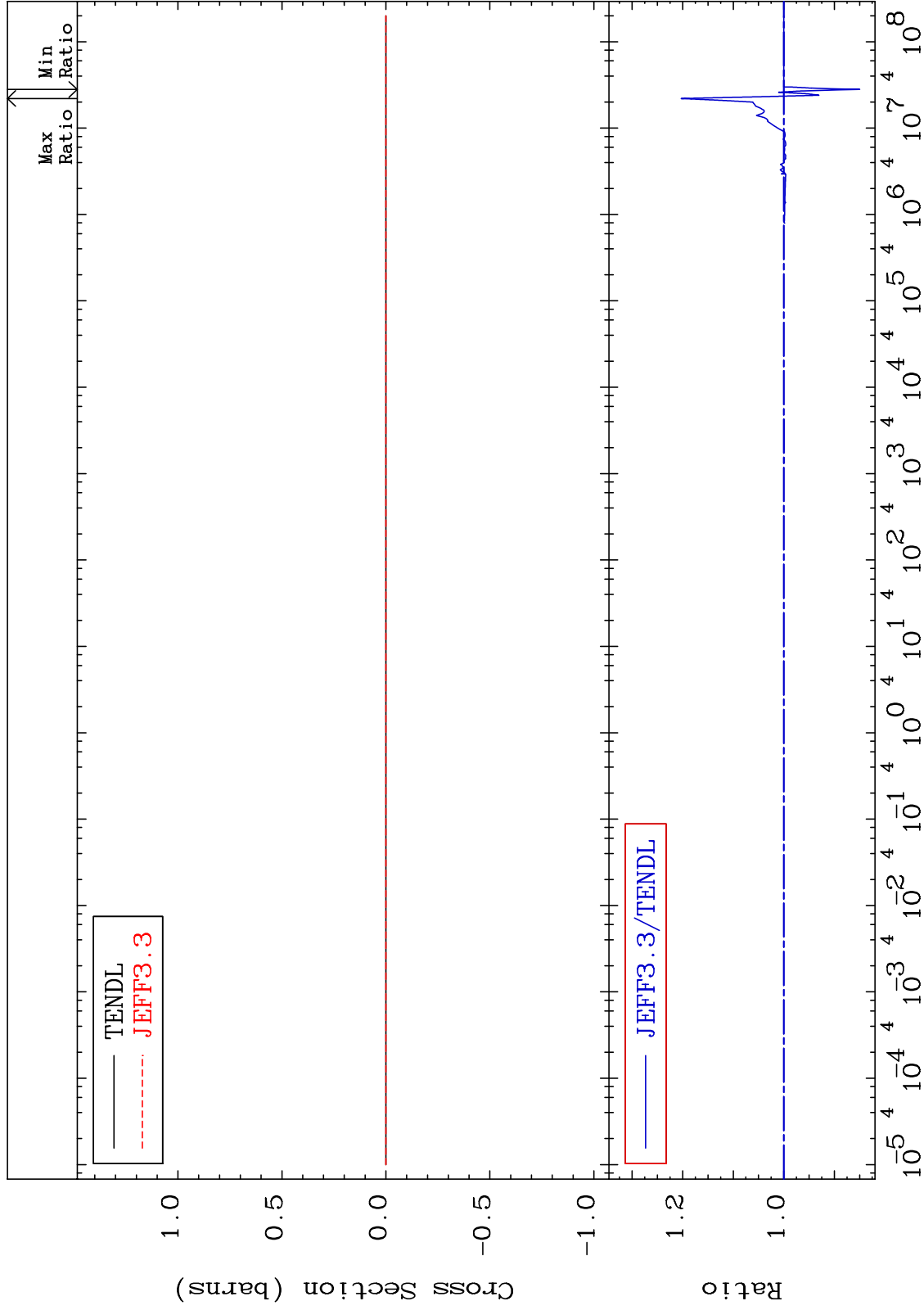




MAT 6413

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

64-Gd-148  
-15.03 To 20.28 %



70

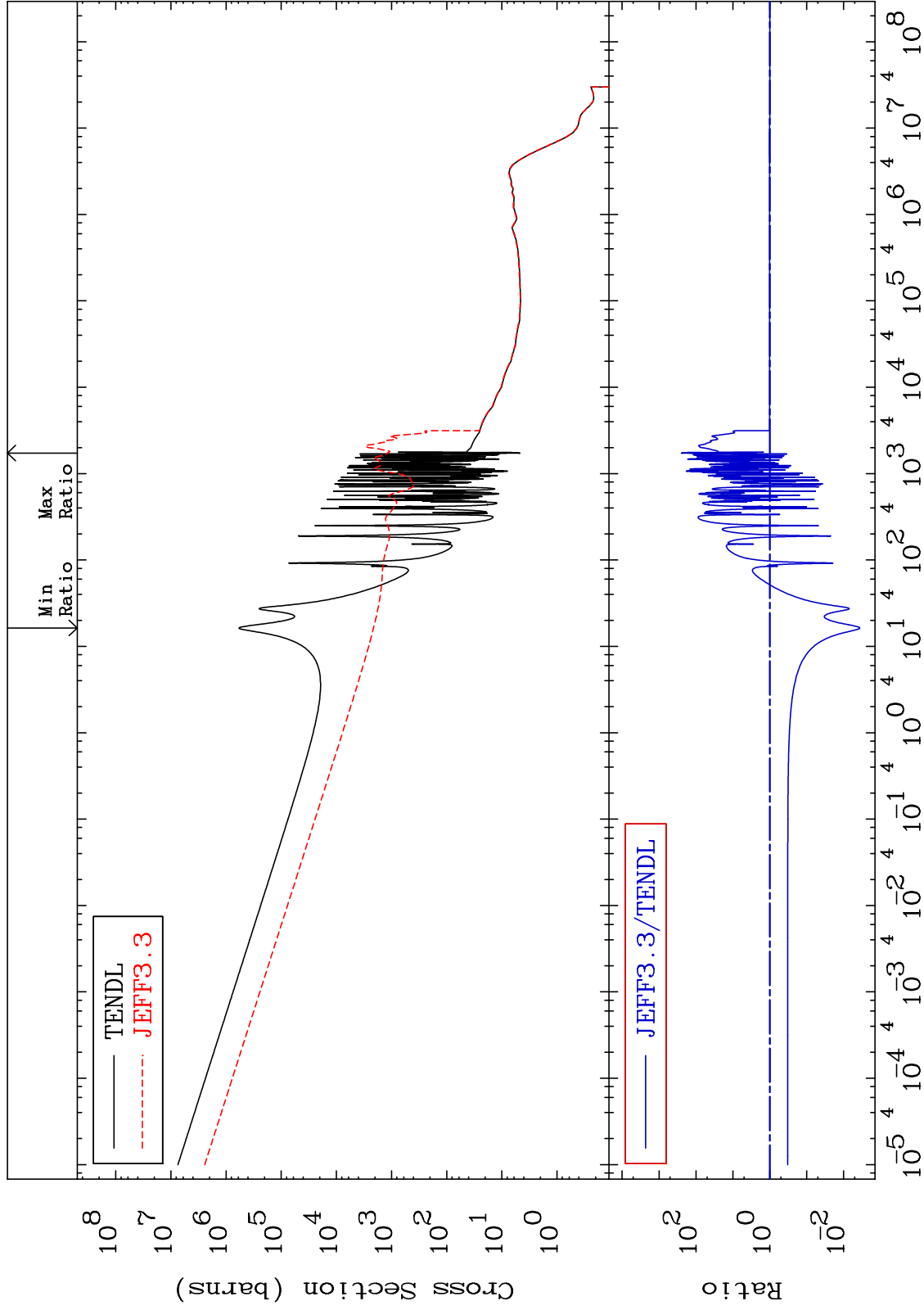
Incident Energy (eV)

64-Gd-148

MAT 6413

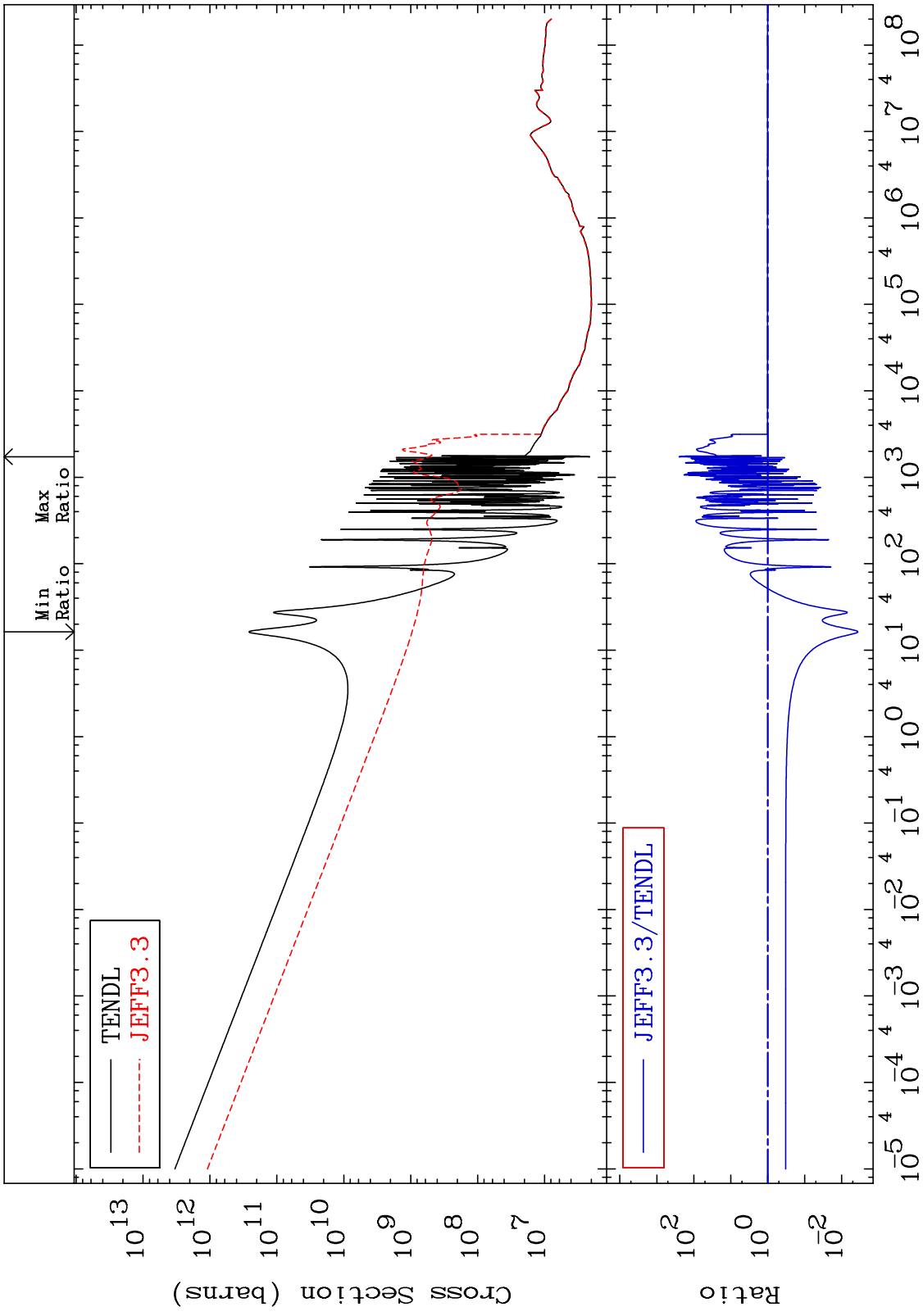
Kerma capture (mt102)  
Cross Section

64-Gd-148  
-99.64 To 9999. %





MAT 6413 64-Gd-148  
-99.64 To 9999. %  
 Total photon (eV-barns)  
 Cross Section

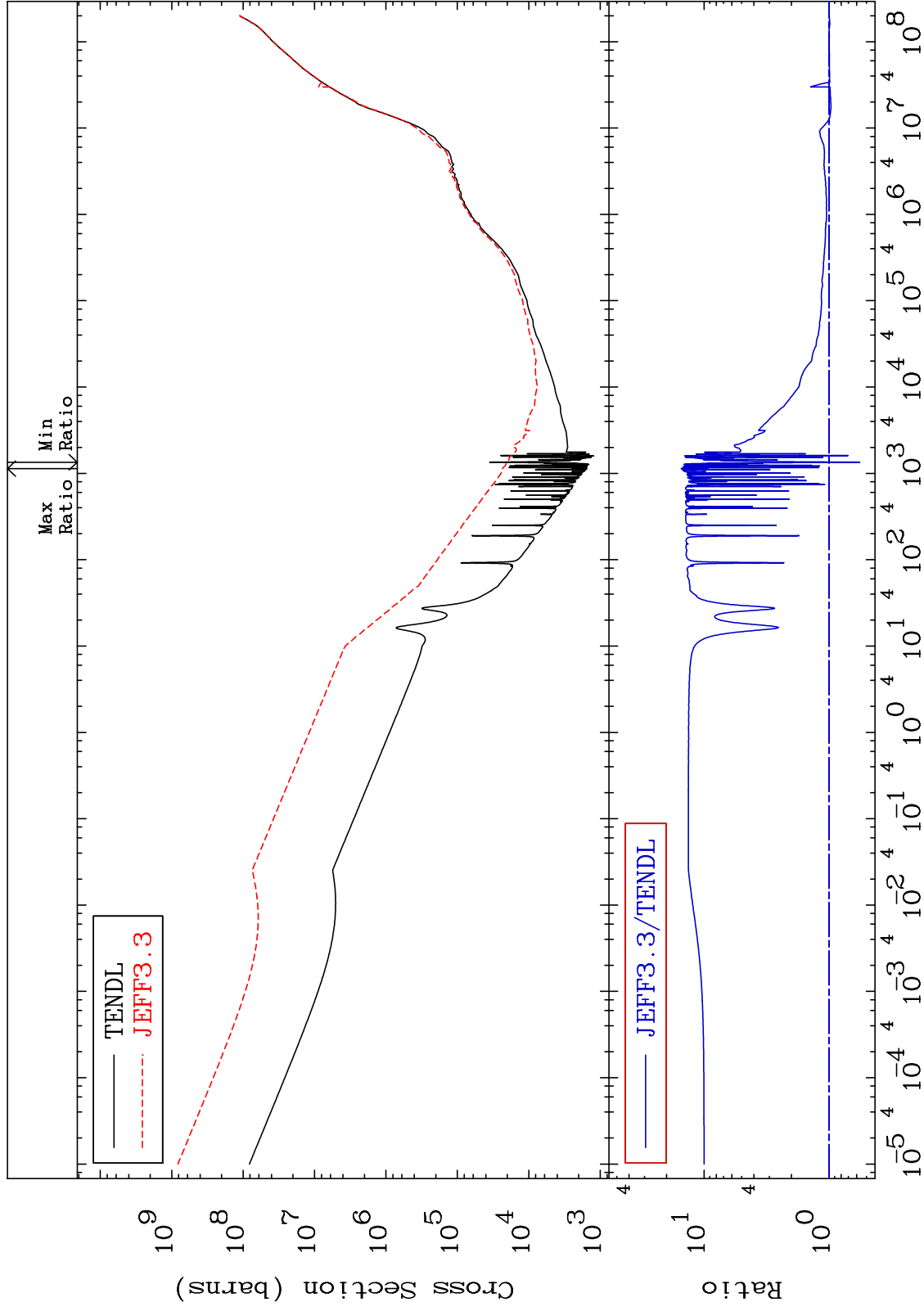


72 64-Gd-148  
 Incident Energy (eV)

MAT 6413

Total kinematic kerma (high limit)  
Cross Section

64-Gd-148  
-43.32 To 1424. %



73

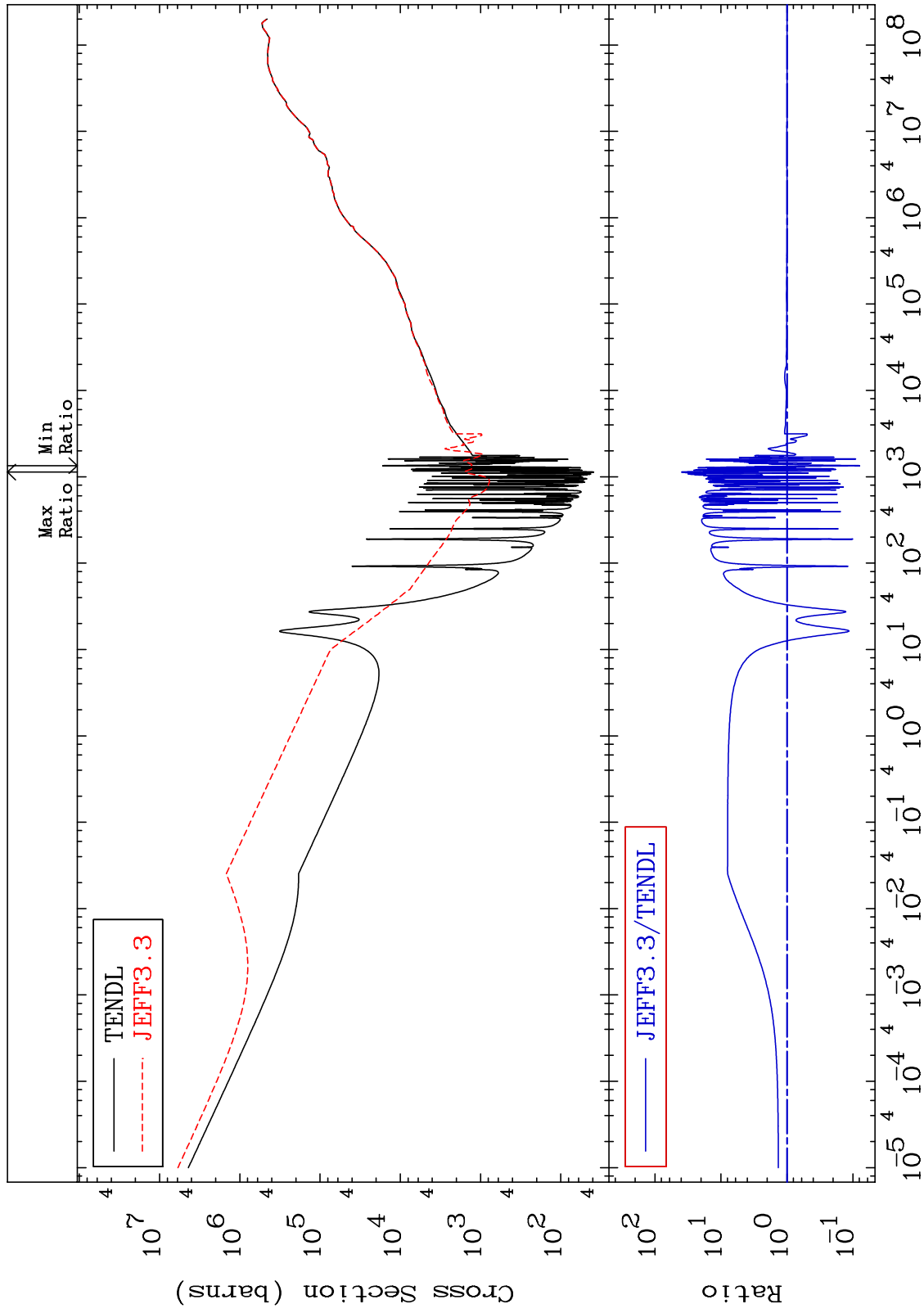
Incident Energy (eV)

64-Gd-148

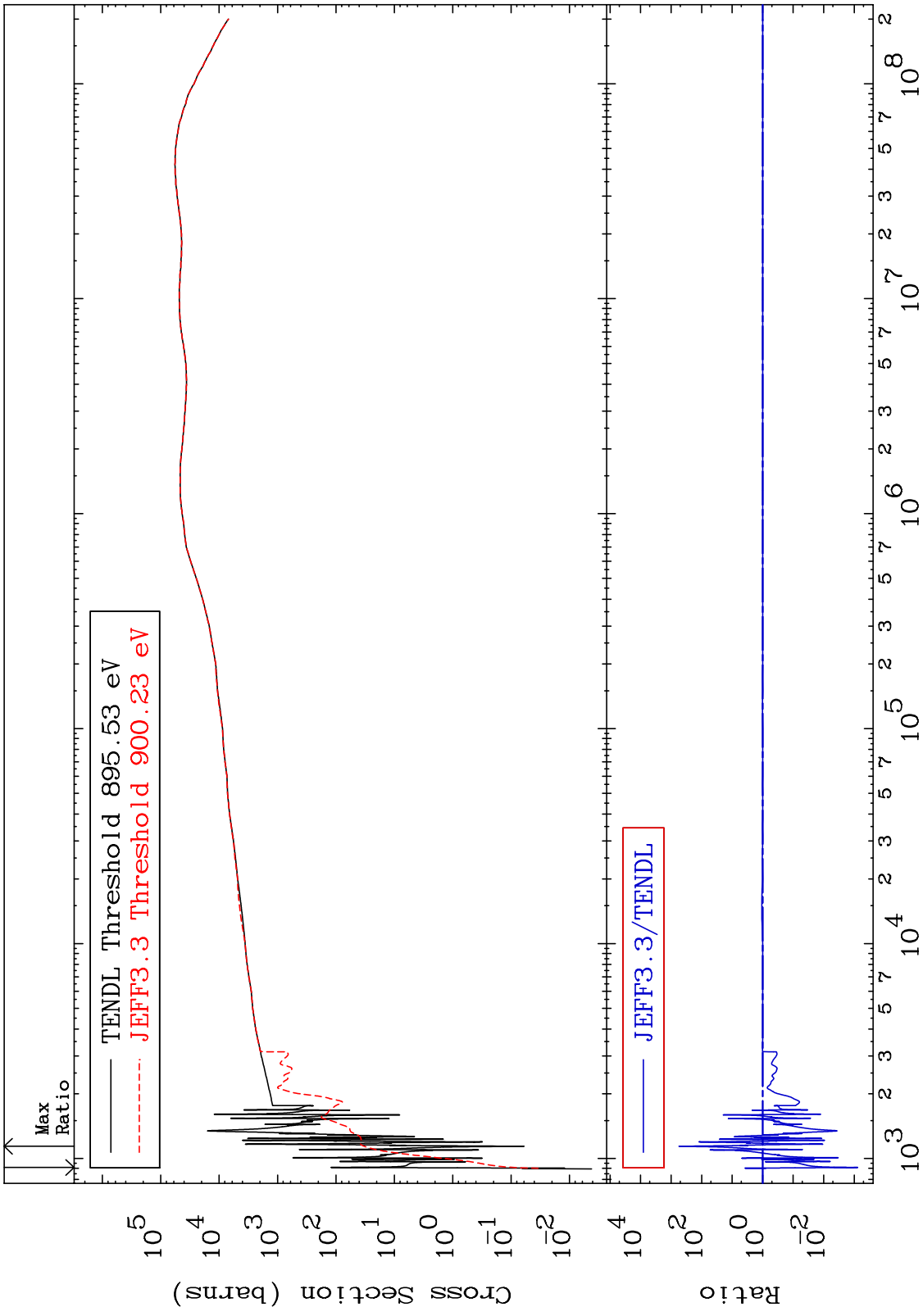
MAT 6413

Dpa total (eV-barns)  
Cross Section

64-Gd-148  
-92.11 To 3896. %



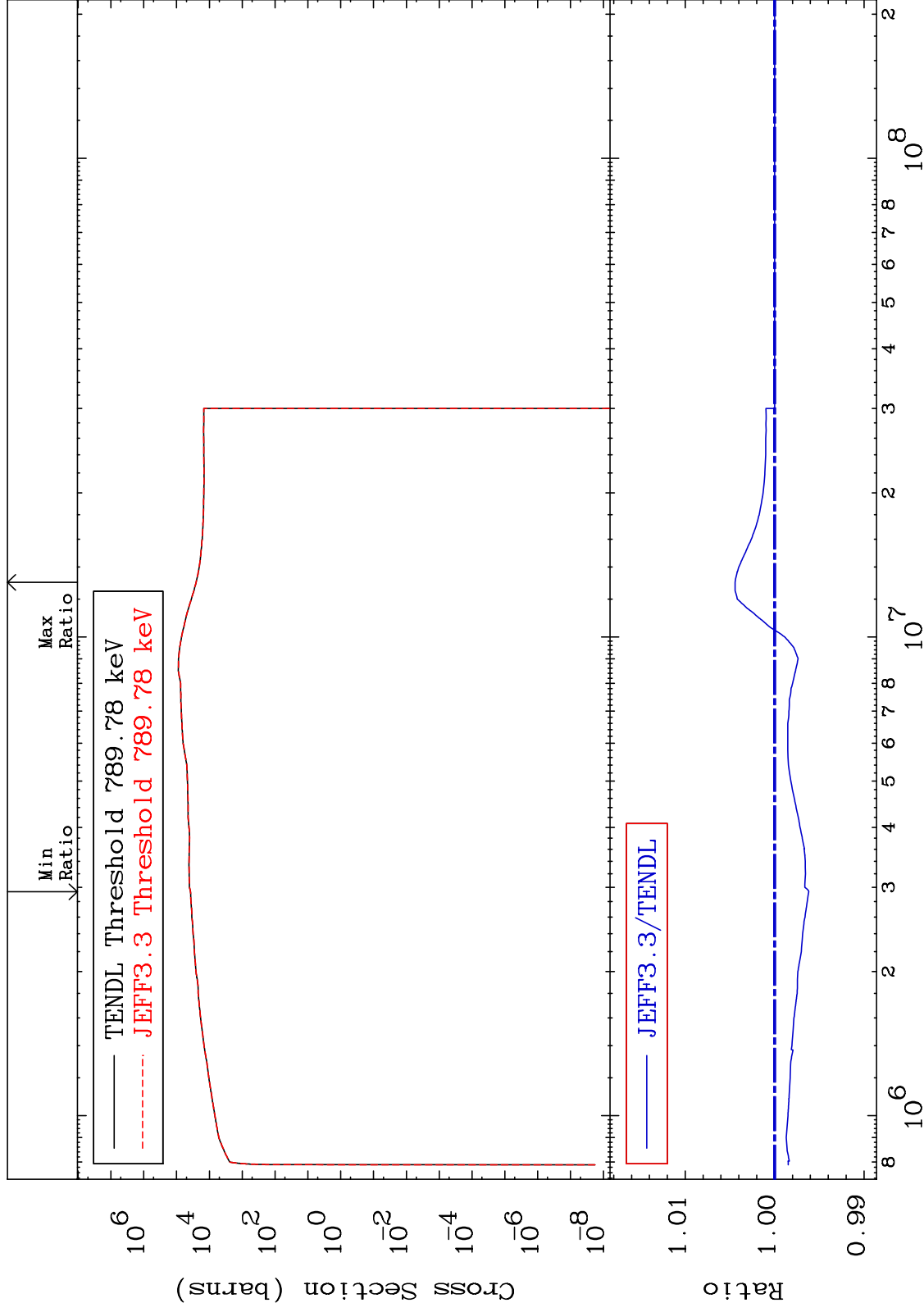
MAT 6413      Dpa elastic (mt2)      64-Gd-148  
Cross Section      -99.92 To 9999. %



MAT 6413

Dpa inelastic (mt51-91)  
Cross Section

64-Gd-148  
-0.382 To 0.443 %



76

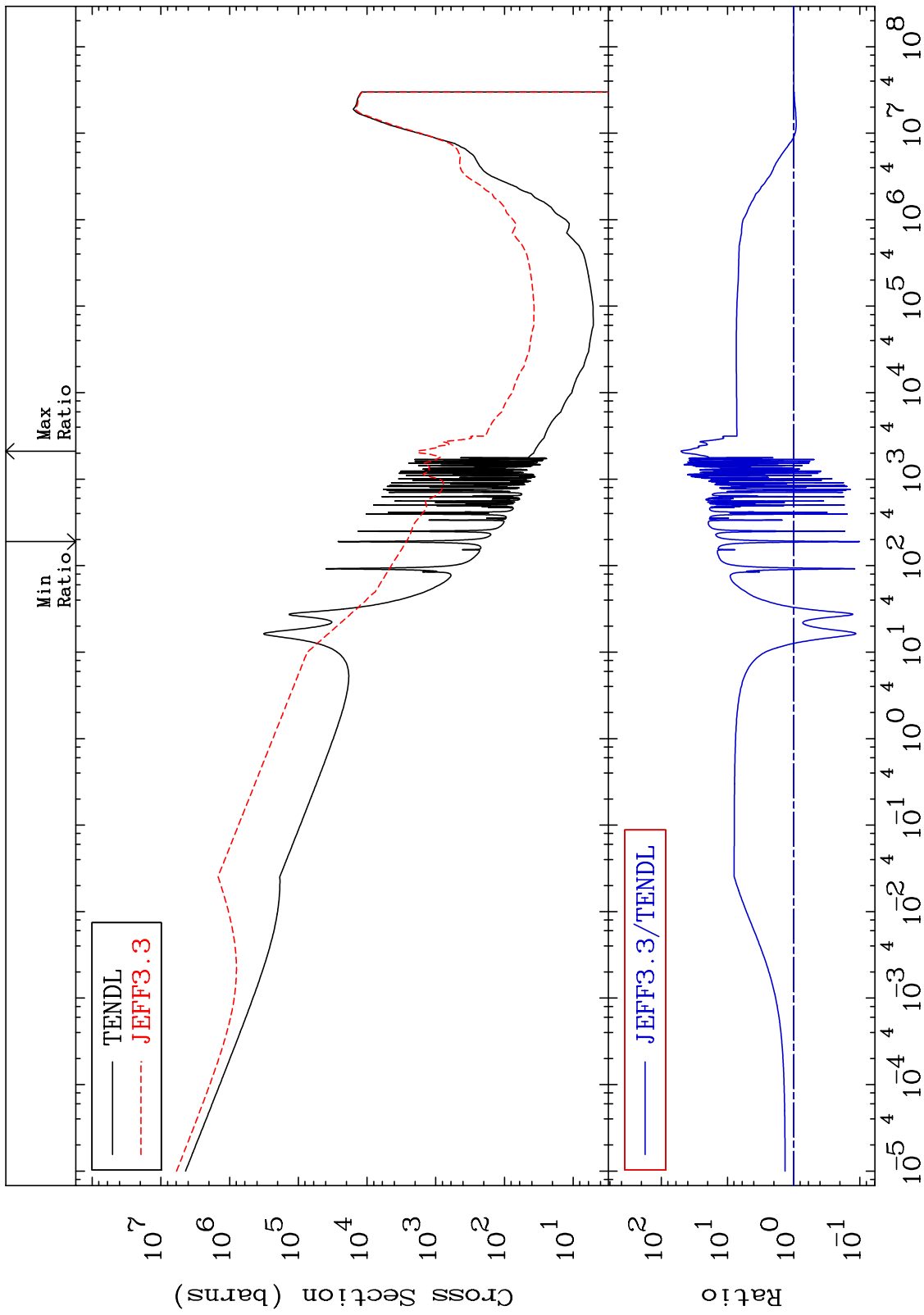
Incident Energy (eV)

64-Gd-148

MAT 6413

Dpa disappearance (mt102 -120)  
Cross Section

64-Gd-148  
-89.91 To 4977. %



77

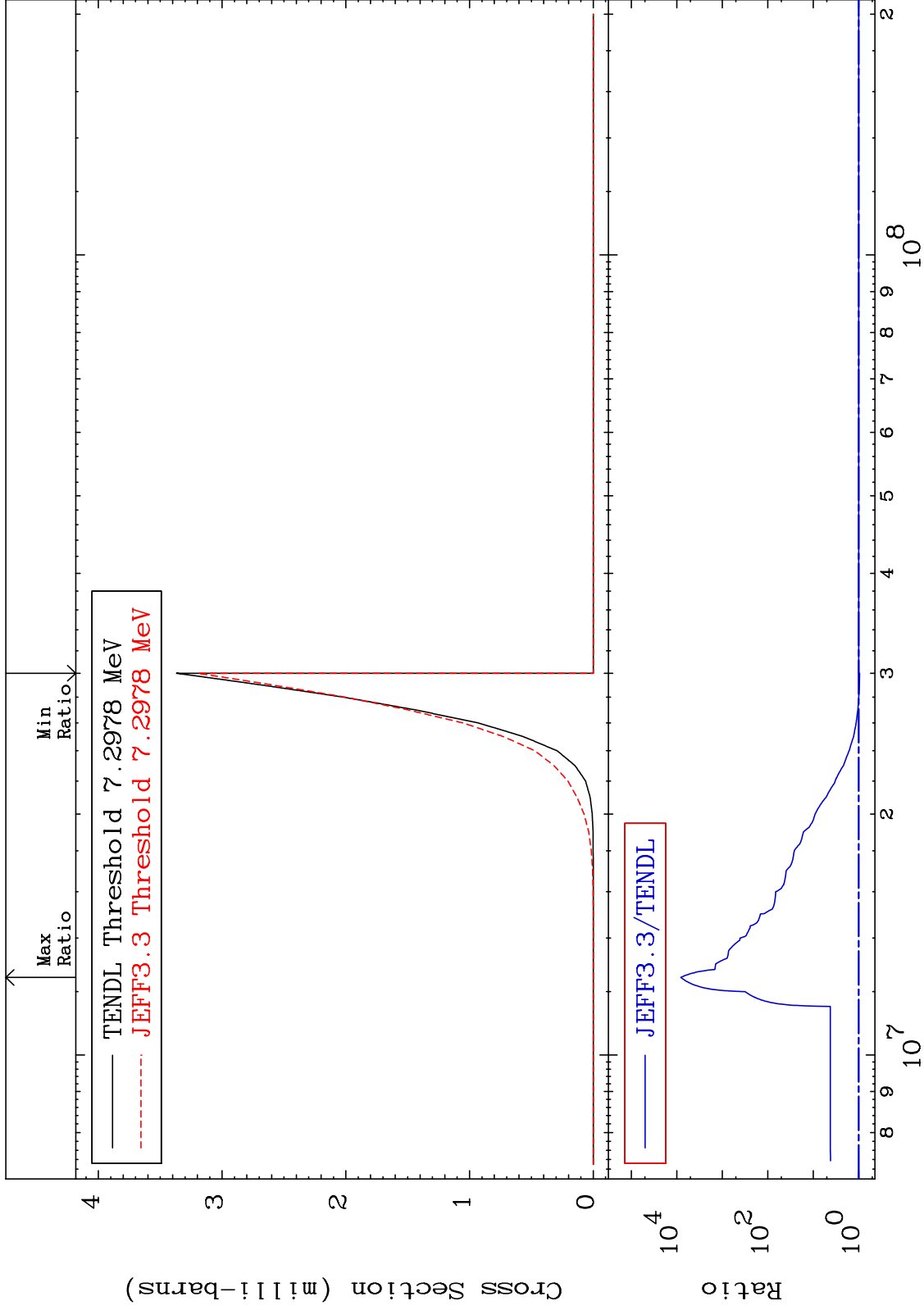
Incident Energy (eV)

64-Gd-148

MAT 6413

64-Gd-148

(n,2n)  $\alpha$ :62-Sm-143g  
Radionuclide Production Cross Section -5.047 To 9999. %



78

Incident Energy (eV)

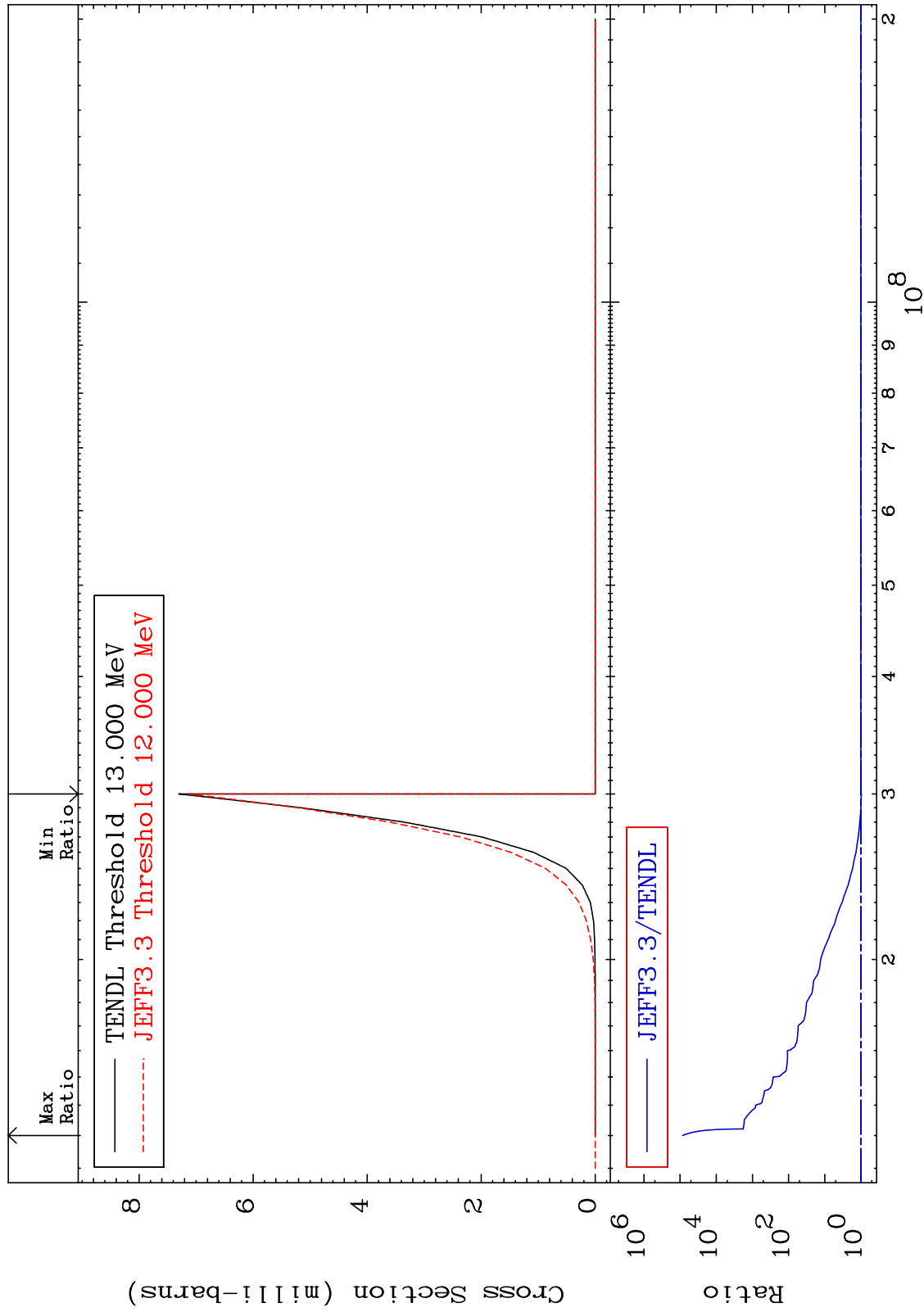
64-Gd-148

MAT 6413

(n,2n)  $\alpha$ : 62-Sm-143m2

64-Gd-148

Radionuclide Production Cross Section -2.534 To 9999. %



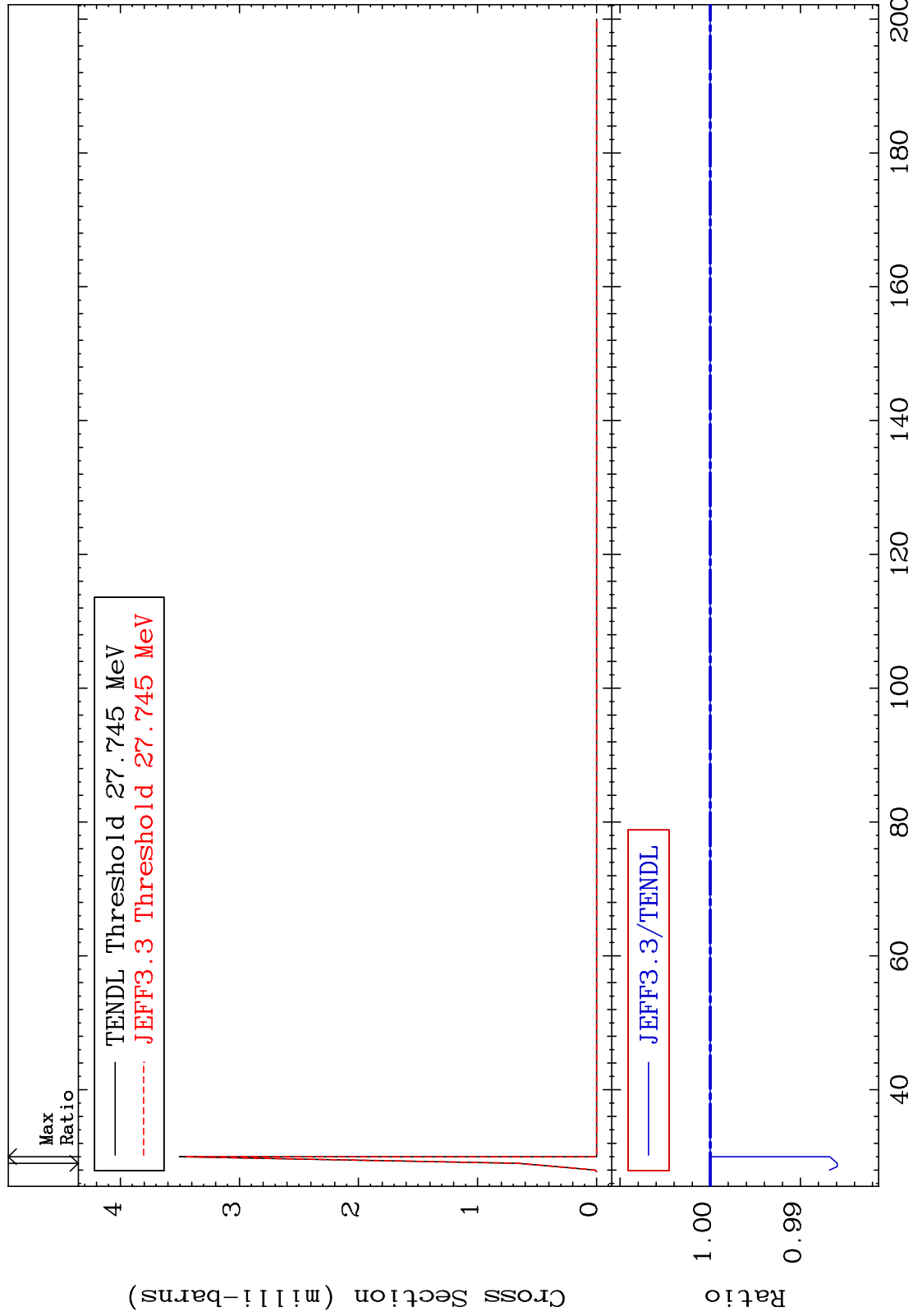


MAT 6413

(n,4n):64-Gd-145g

64-Gd-148

Radionuclide Production Cross Section -1.409 To 0.000 %



80

Incident Energy (MeV)

64-Gd-148

MAT 6413

(n,4n):64-Gd-145m2

64-Gd-148

Radionuclide Production Cross Section -2.235 To 0.000 %

