

Program Complot  
(Version 2018-1)

by

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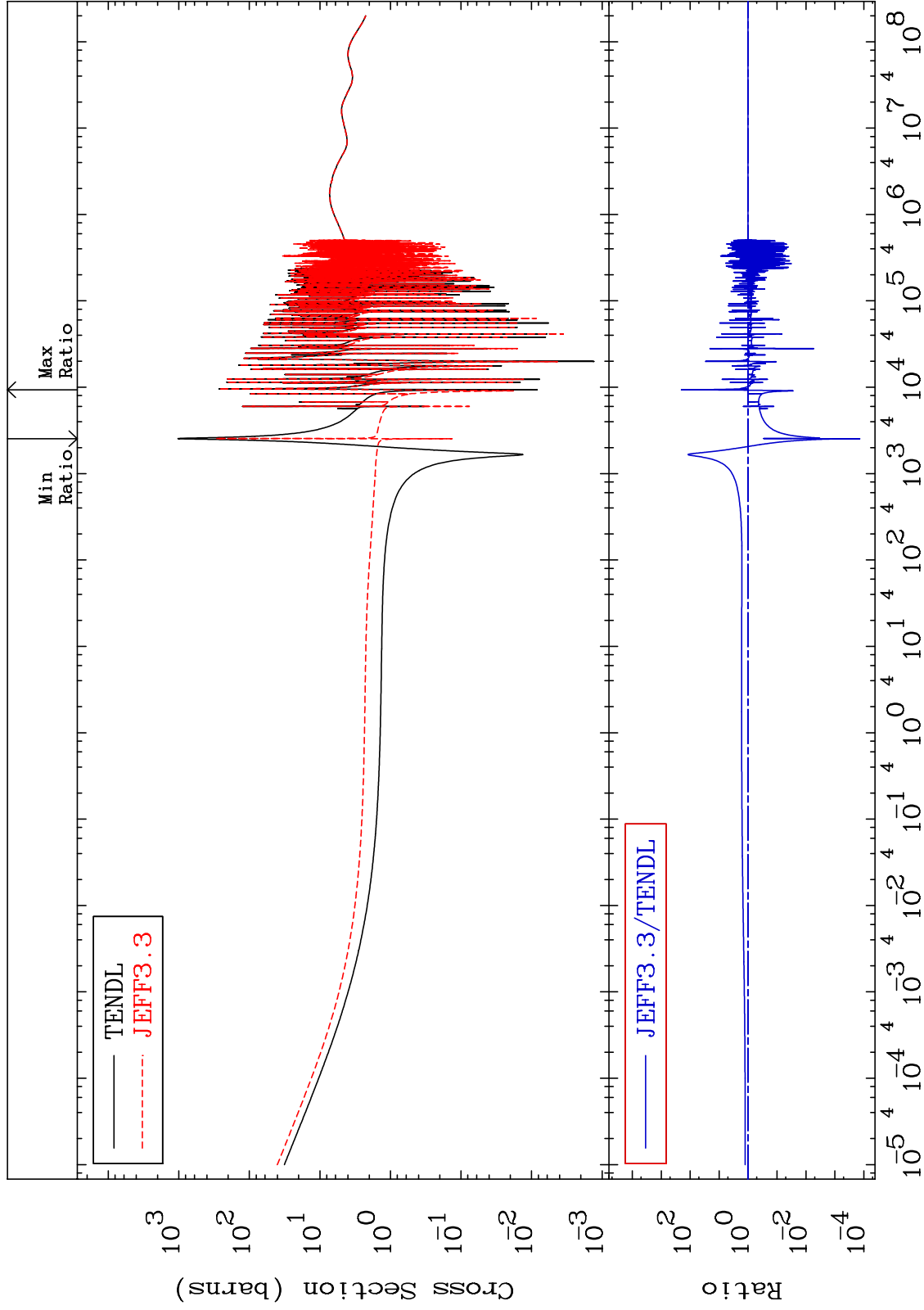
E.Mail: [redcullen1@comcast.net](mailto:redcullen1@comcast.net)  
Web: [redcullen1.net/HOMEPAGE.NEW](http://redcullen1.net/HOMEPAGE.NEW)

Press Mouse Button to Start

MAT 5837

Total  
Cross Section

58-Ce-140  
-99.99 To 9999. %



Incident Energy (eV)

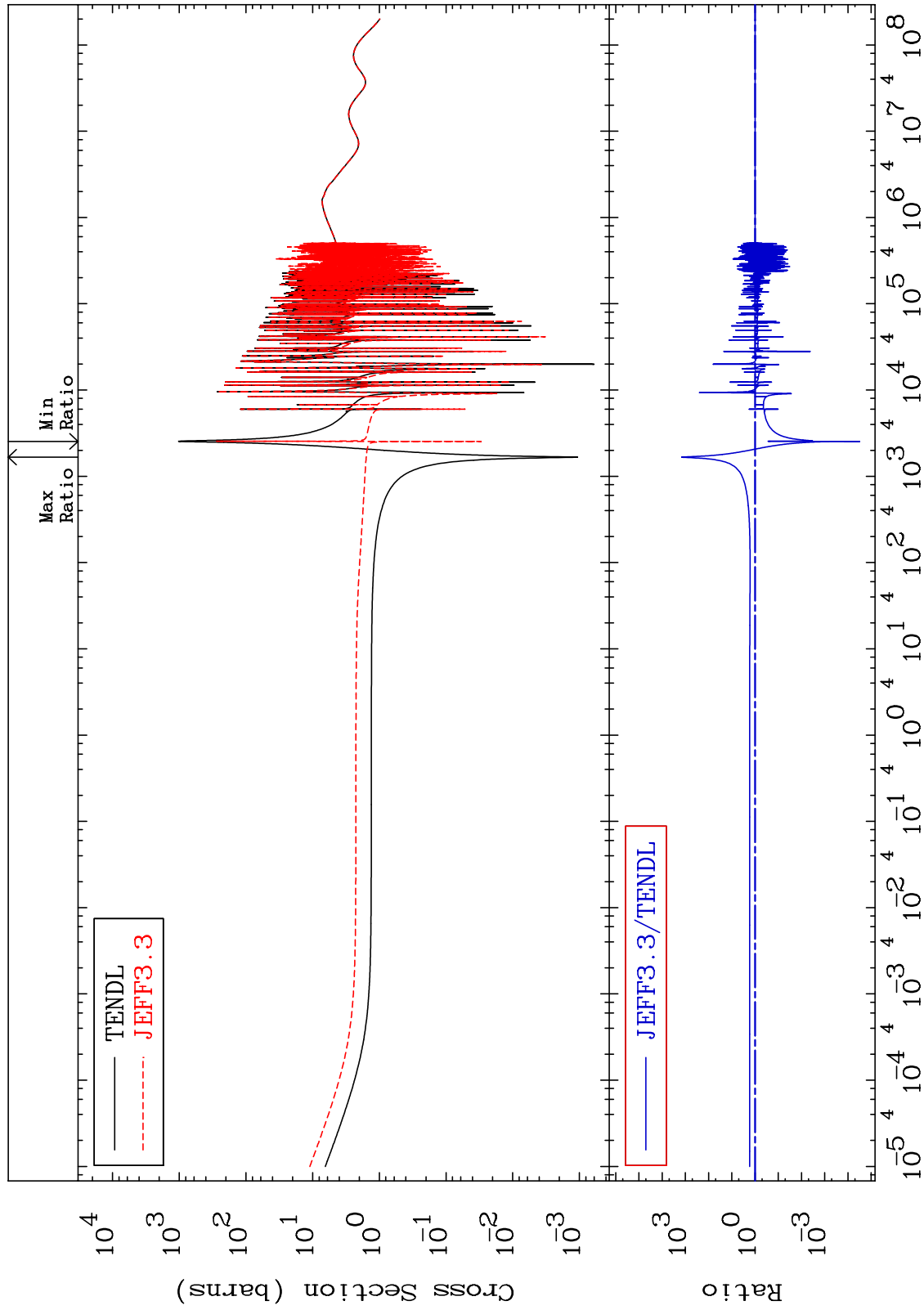
58-Ce-140

1

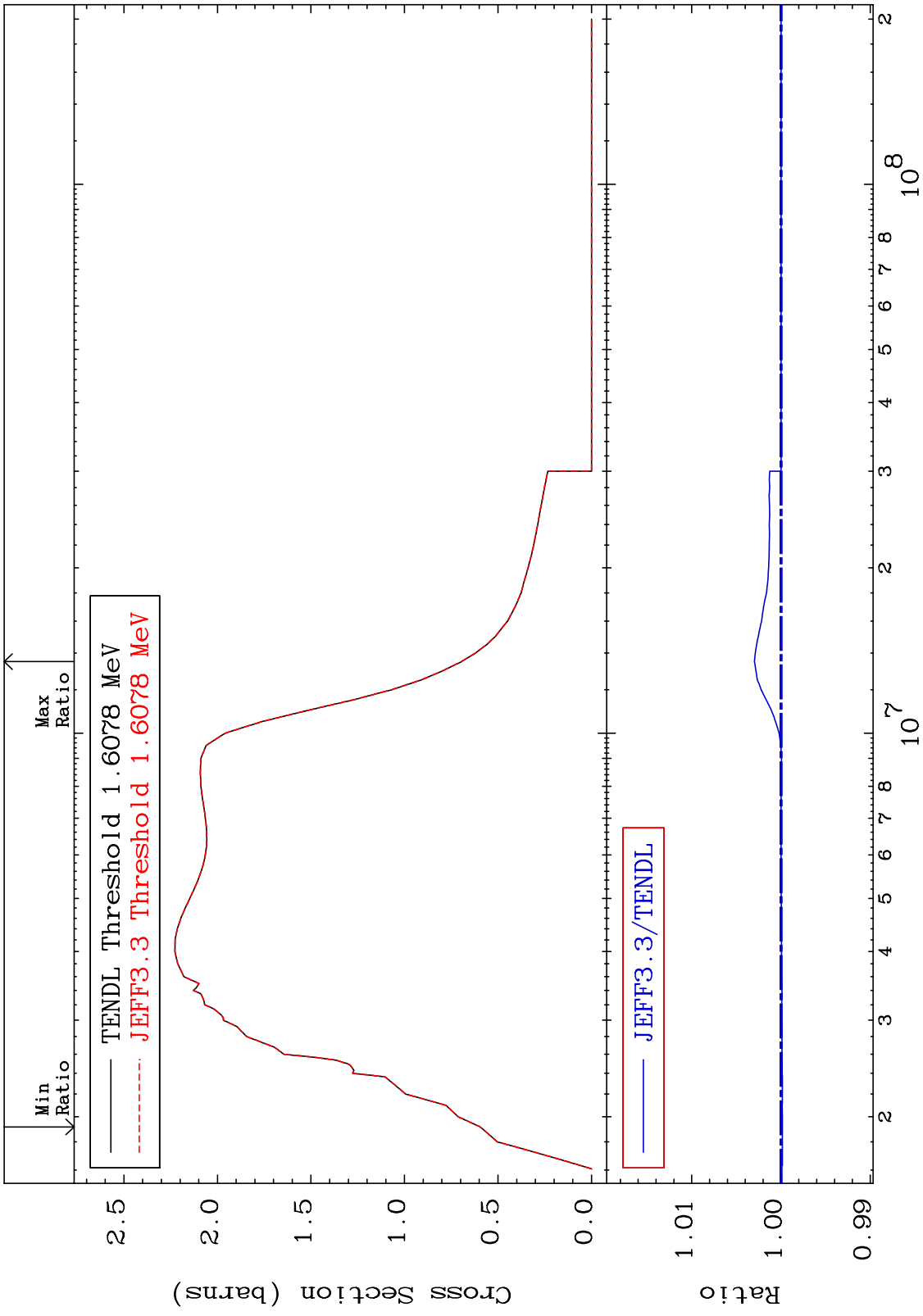
MAT 5837

Elastic  
Cross Section

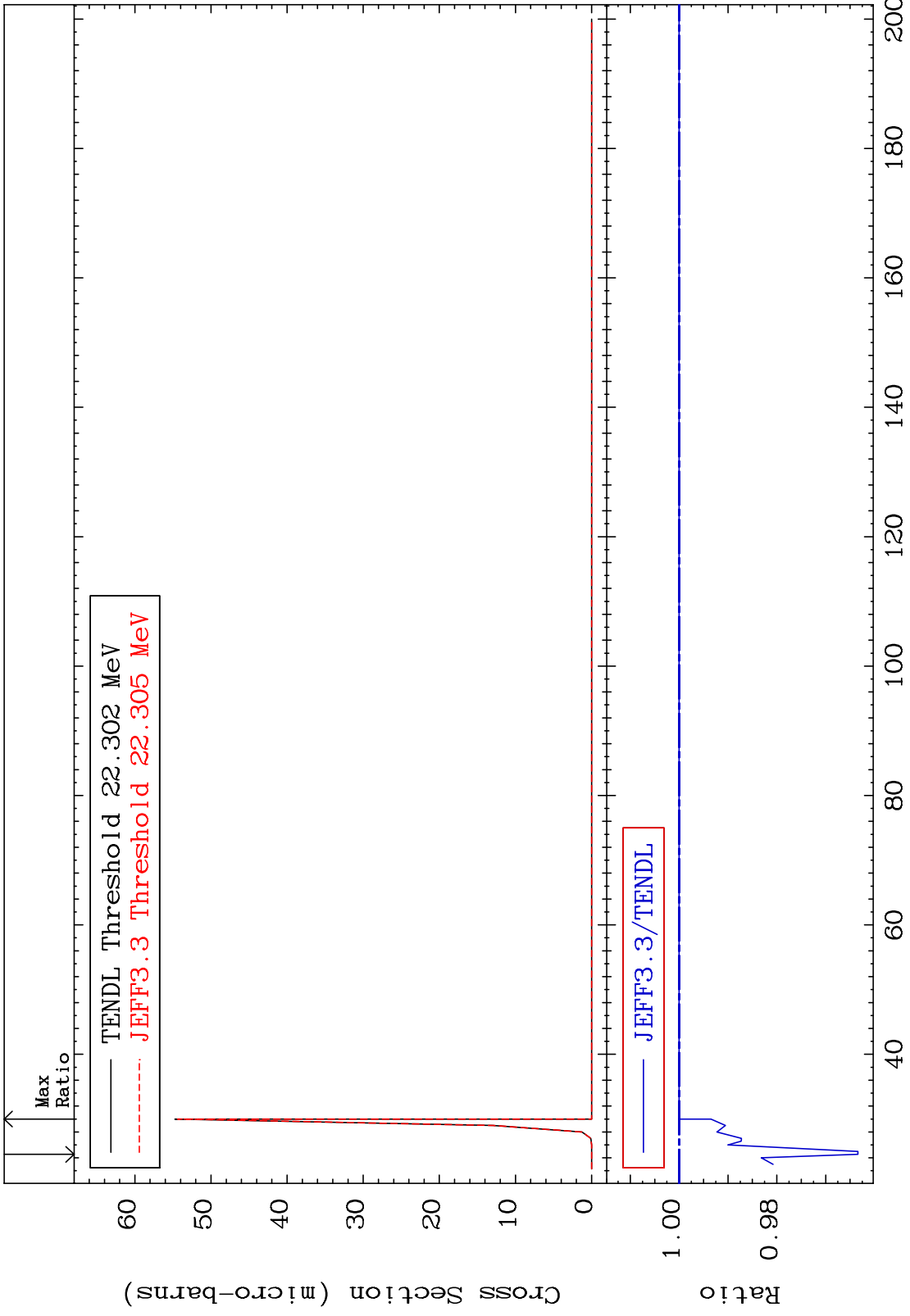
58-Ce-140  
-100.0 To 9999. %



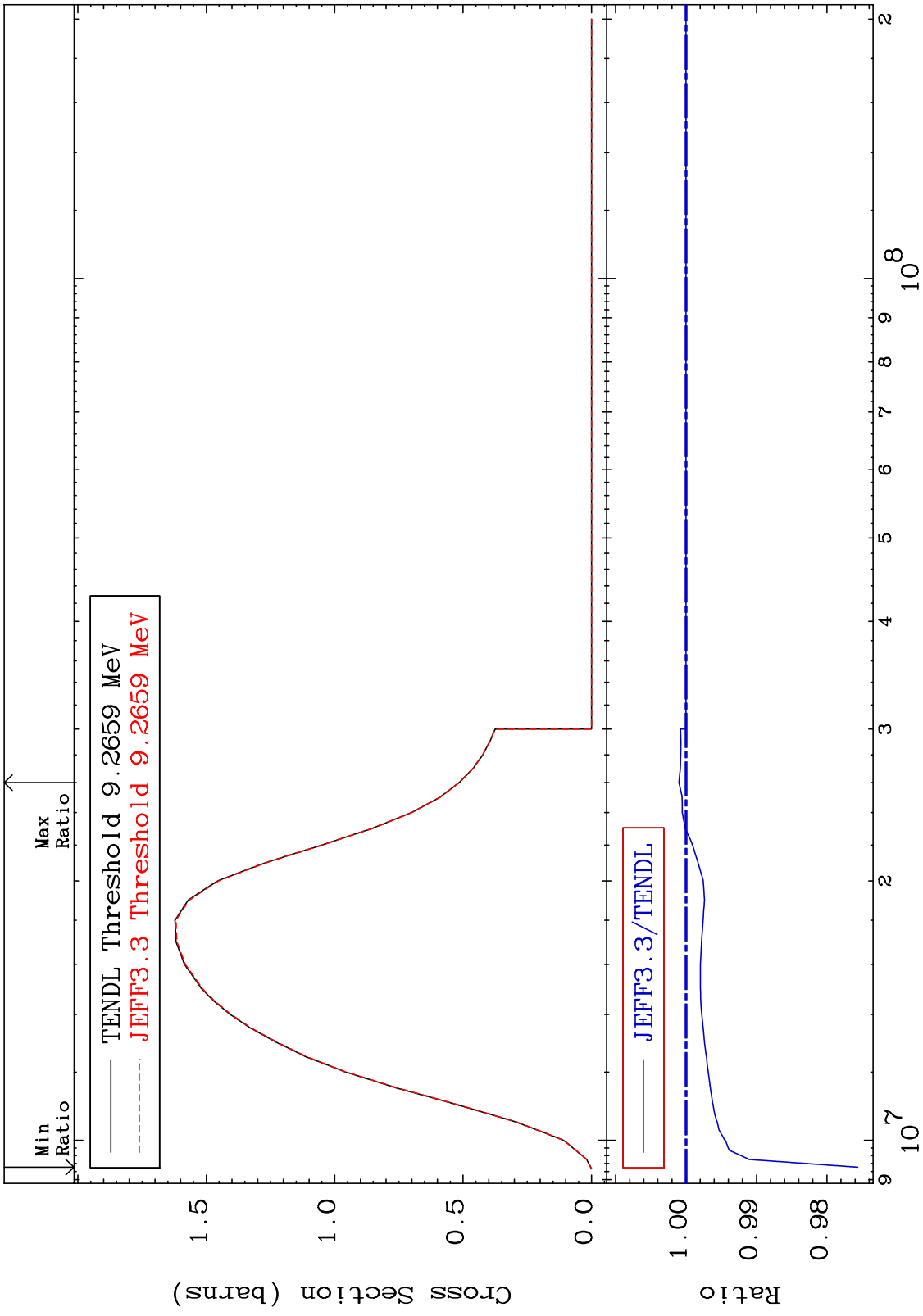
MAT 5837 Inelastic Cross Section 58-Ce-140 -0.016 To 0.297 %



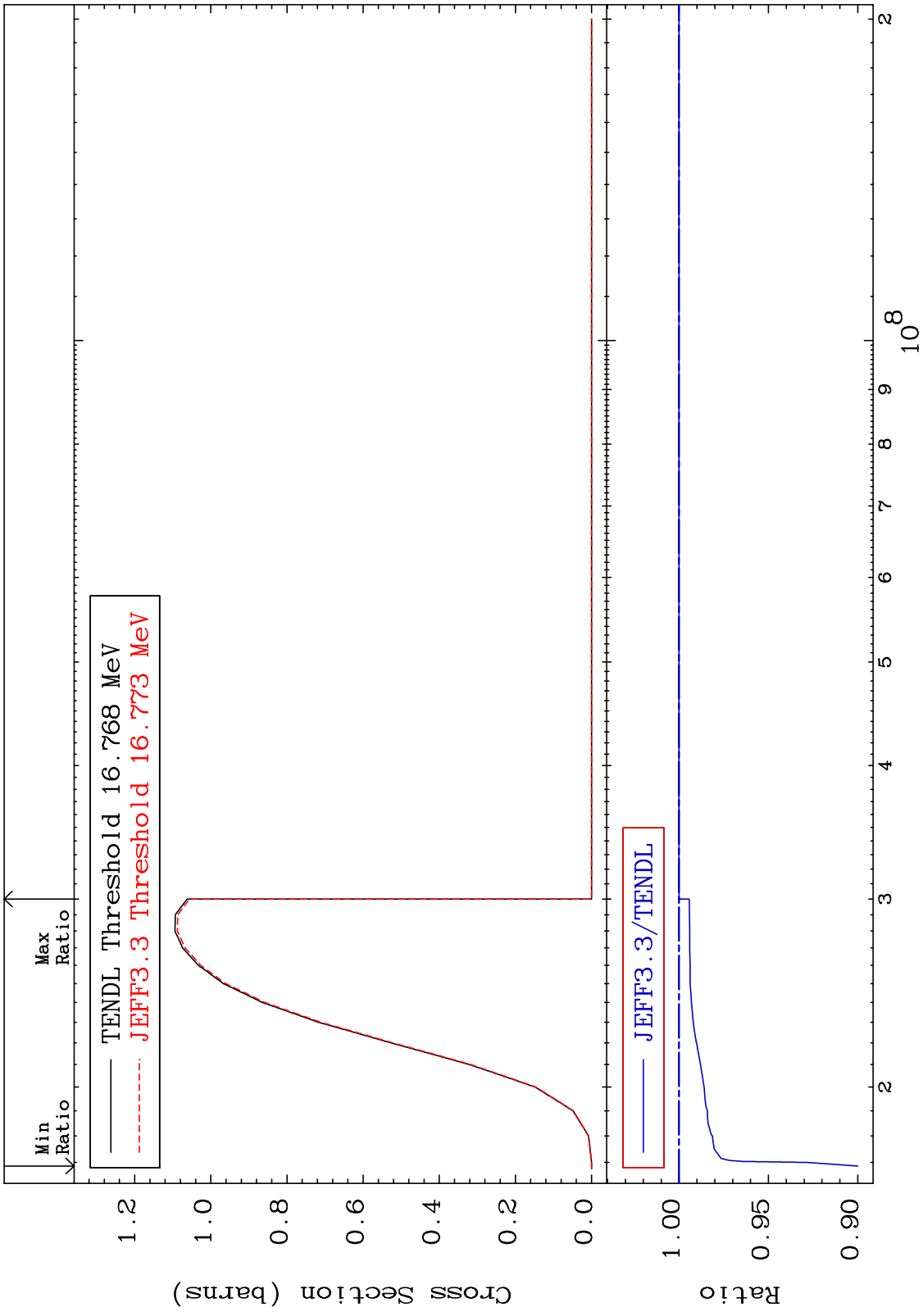
MAT 5837 (n,2n) d 58-Ce-140  
Cross Section -3.661 To 0.000 %



MAT 5837 (n,2n) Cross Section 58-Ce-140 -2.439 To 0.099 %



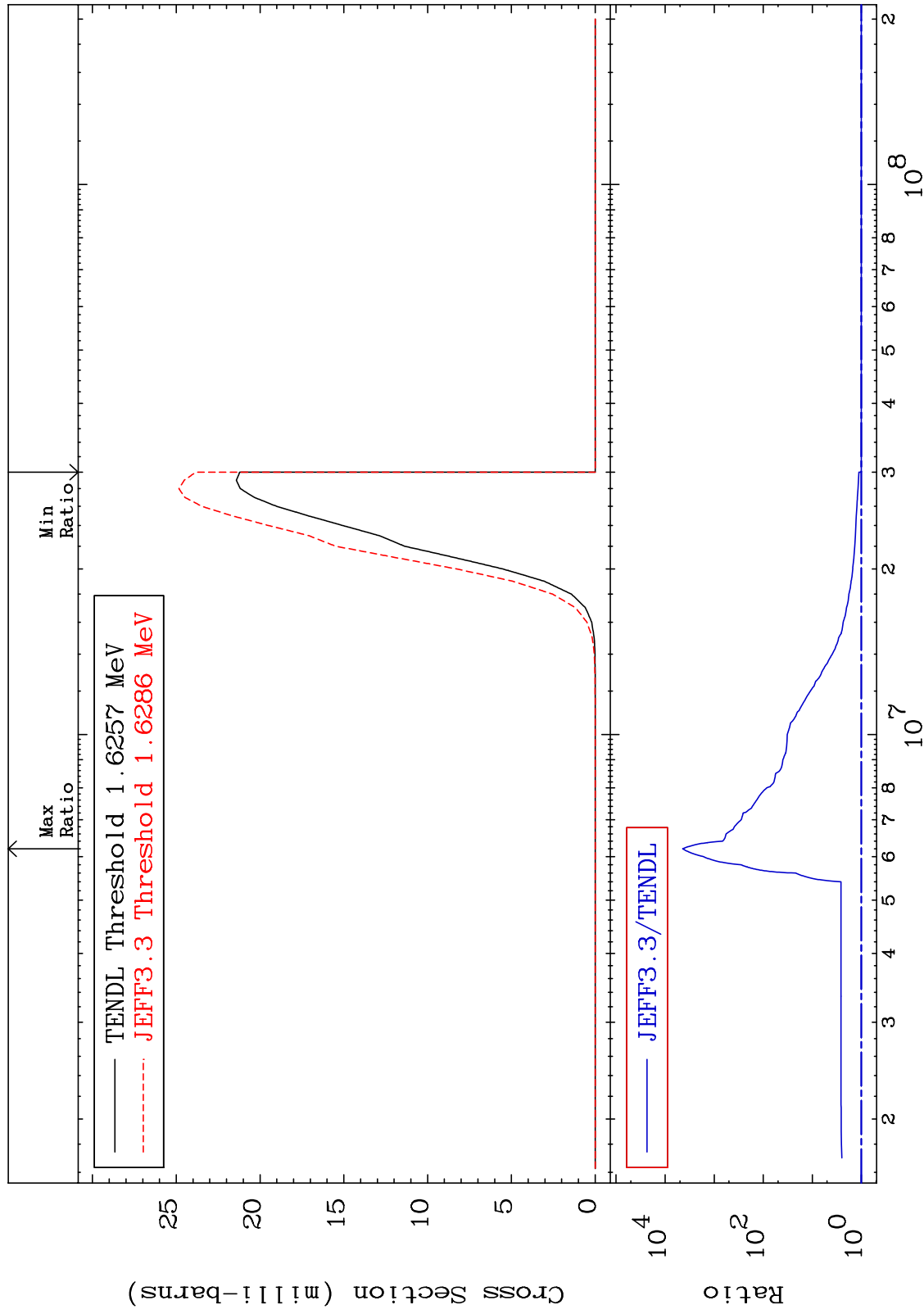
58-Ce-140



MAT 5837

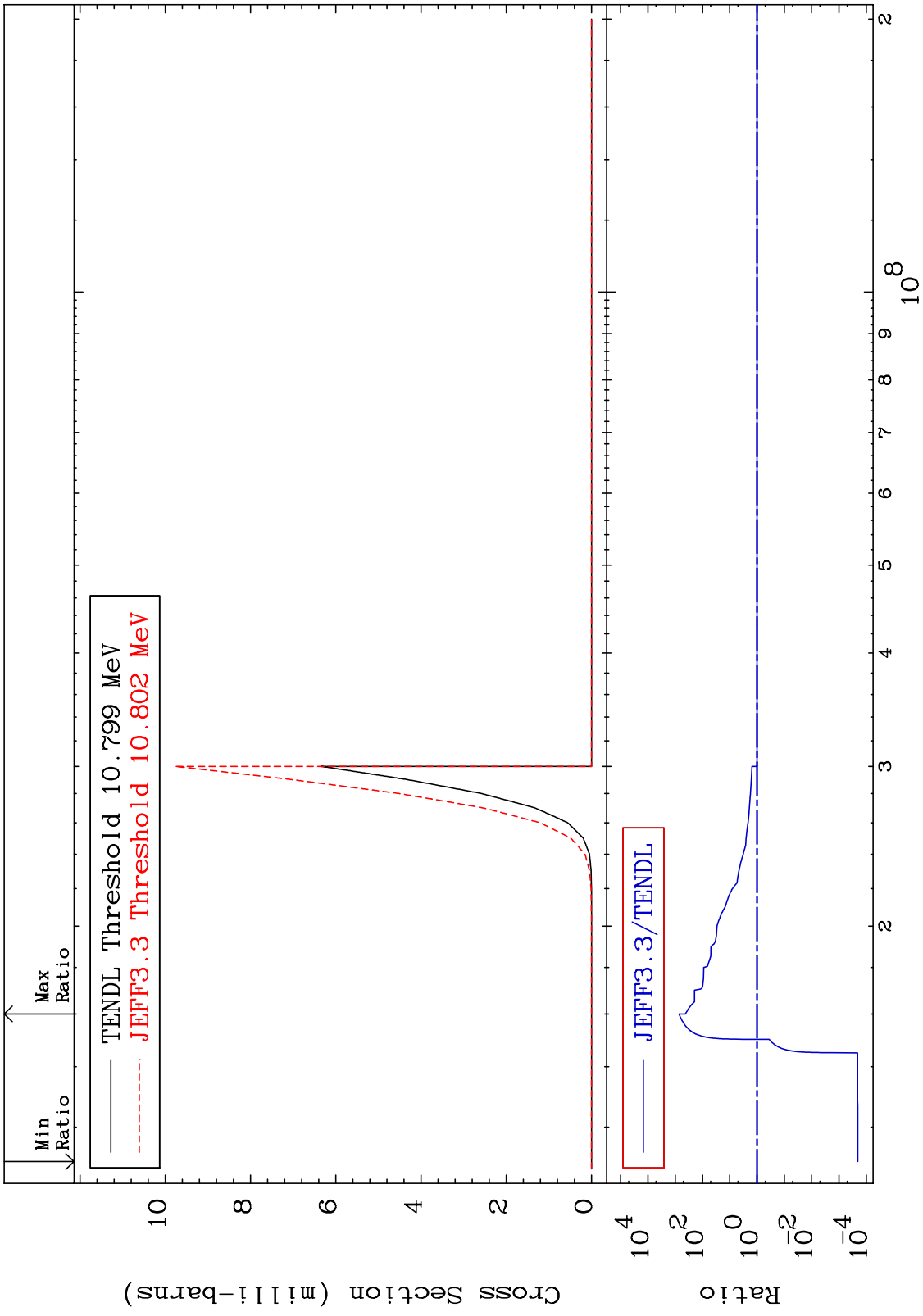
$(n, n') \alpha$   
Cross Section

58-Ce-140  
To 9999. %  
0.000

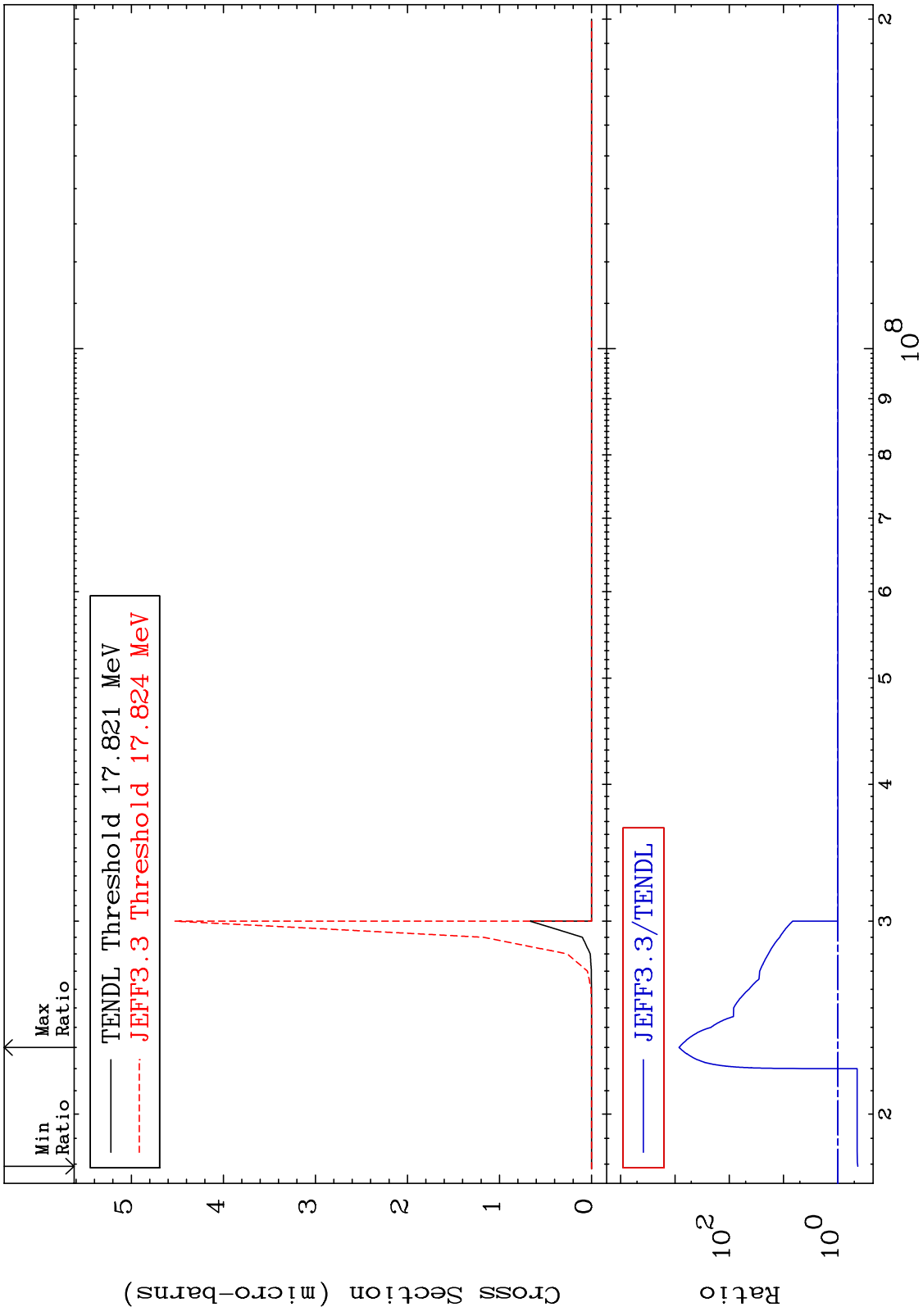




MAT 5837 (n,2n)  $\alpha$  58-Ce-140  
 Cross Section -99.98 To 9999. %



MAT 5837 (n,3n)  $\alpha$  58-Ce-140  
Cross Section -57.16 To 9999. %



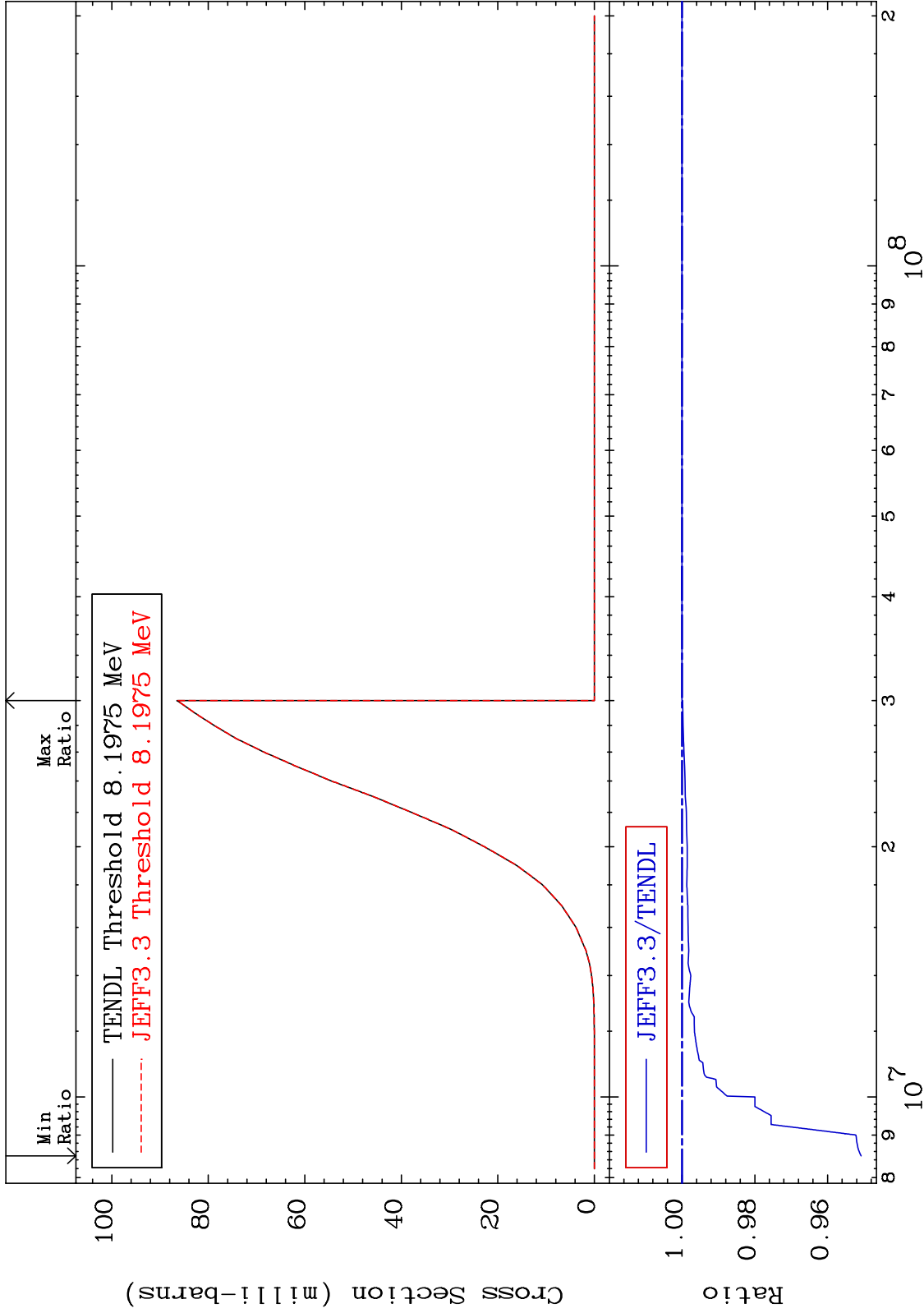
MAT 5837

(n, n') p

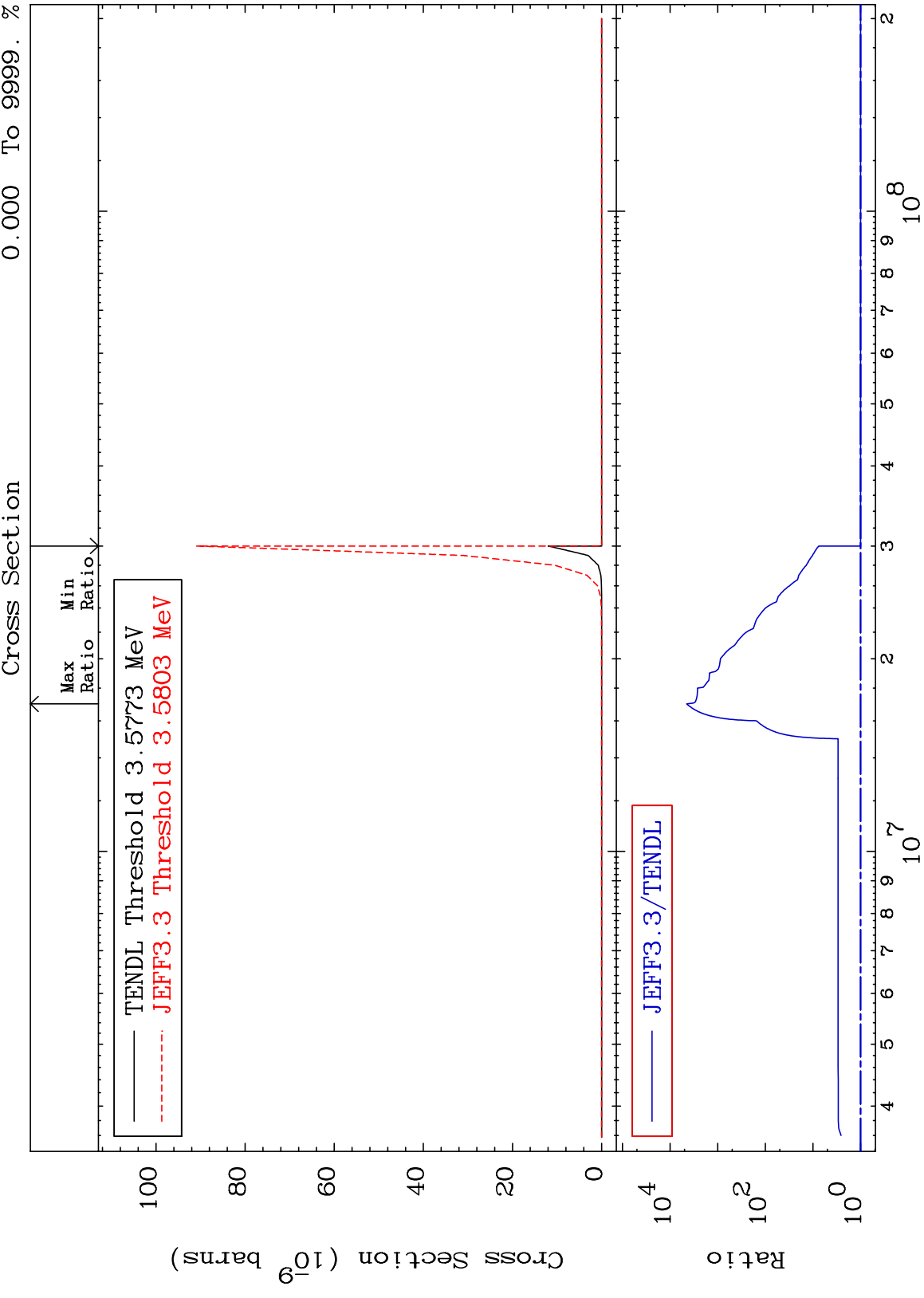
58-Ce-140

Cross Section

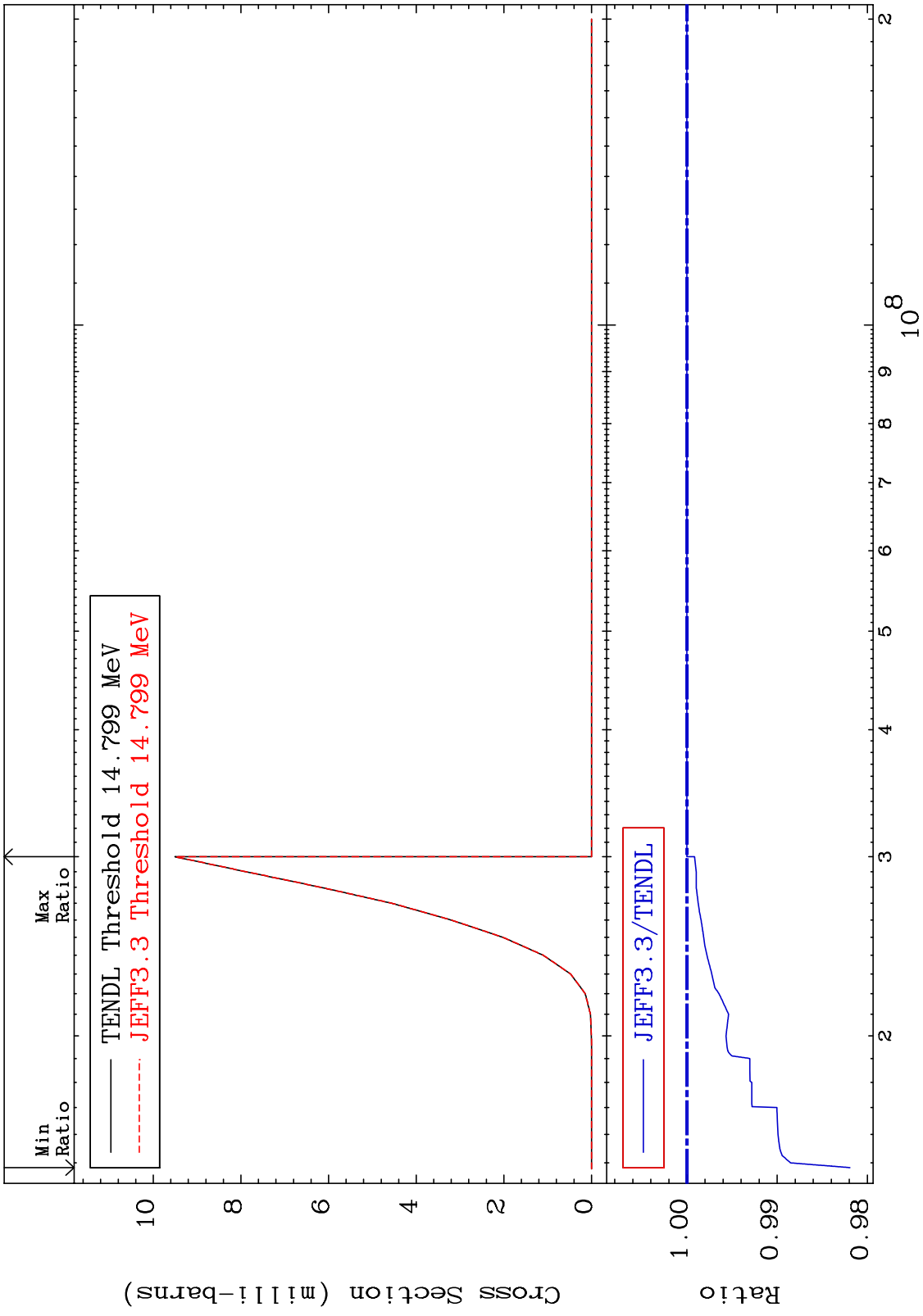
-4.923 To 0.000 %



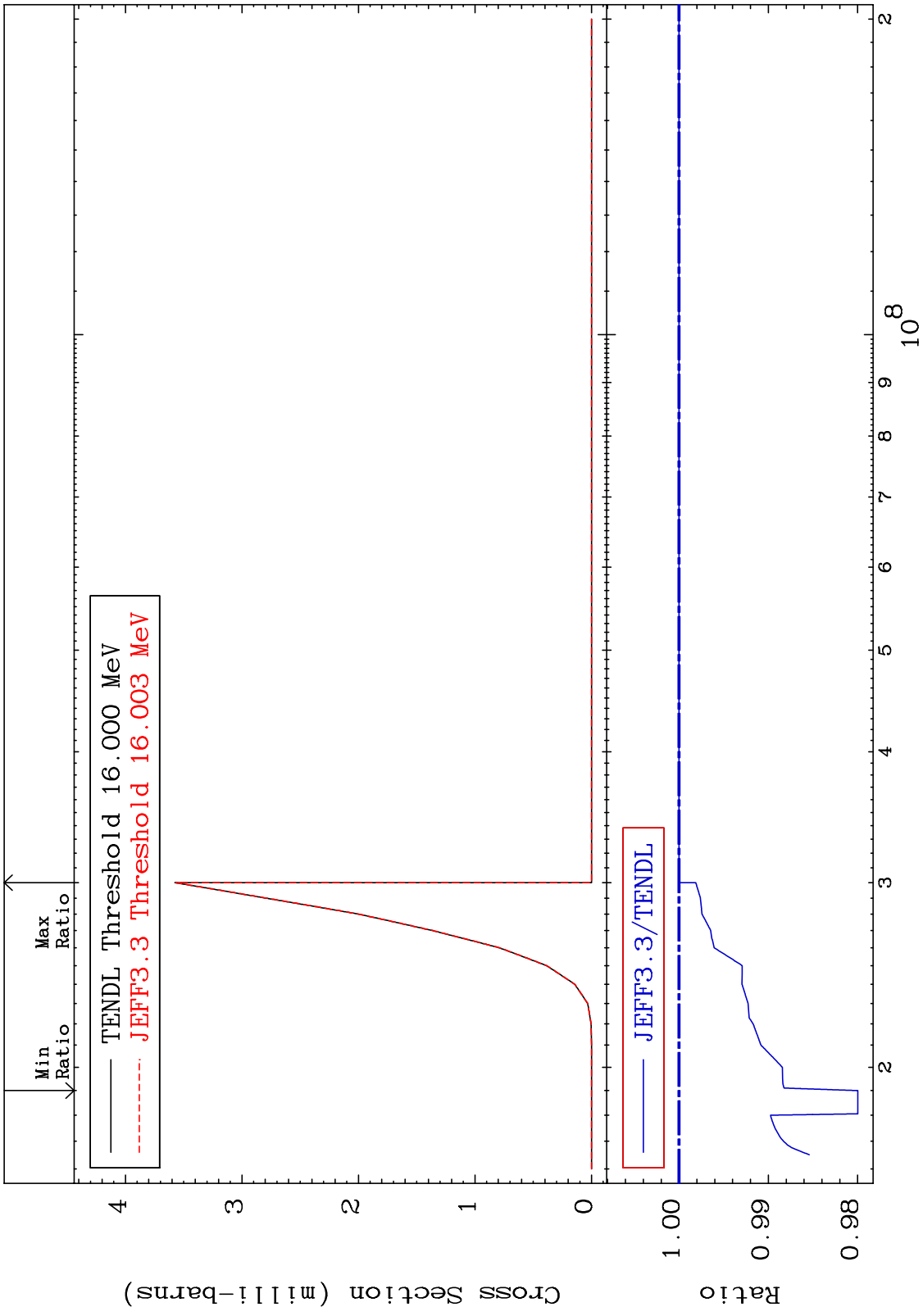
MAT 5837 (n,n') 2α 58-Ce-140 To 9999. %



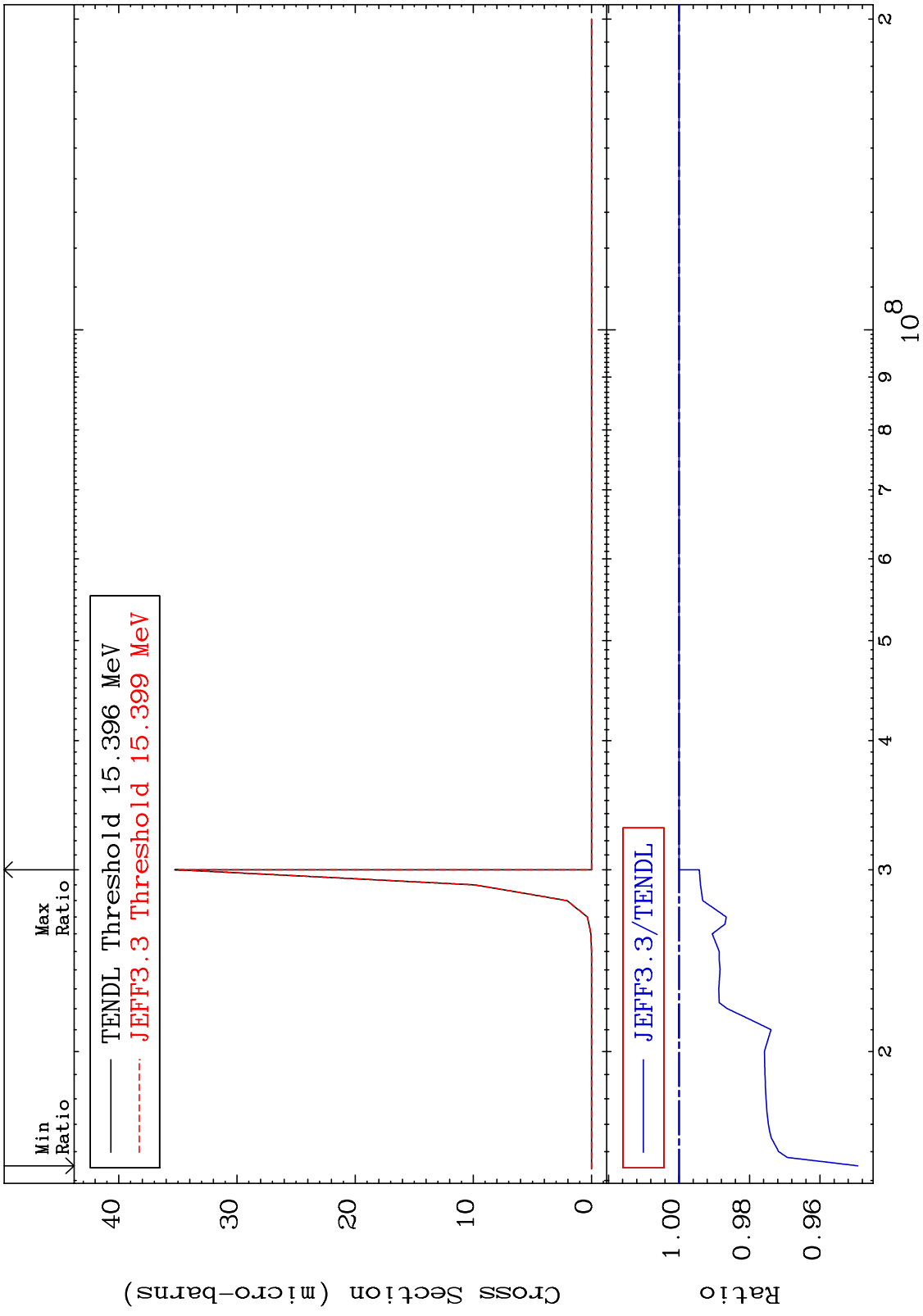
MAT 5837 (n,n') d 58-Ce-140  
 Cross Section -1.807 To 0.000 %



MAT 5837 (n,n') t 58-Ce-140  
 Cross Section -2.002 To 0.000 %



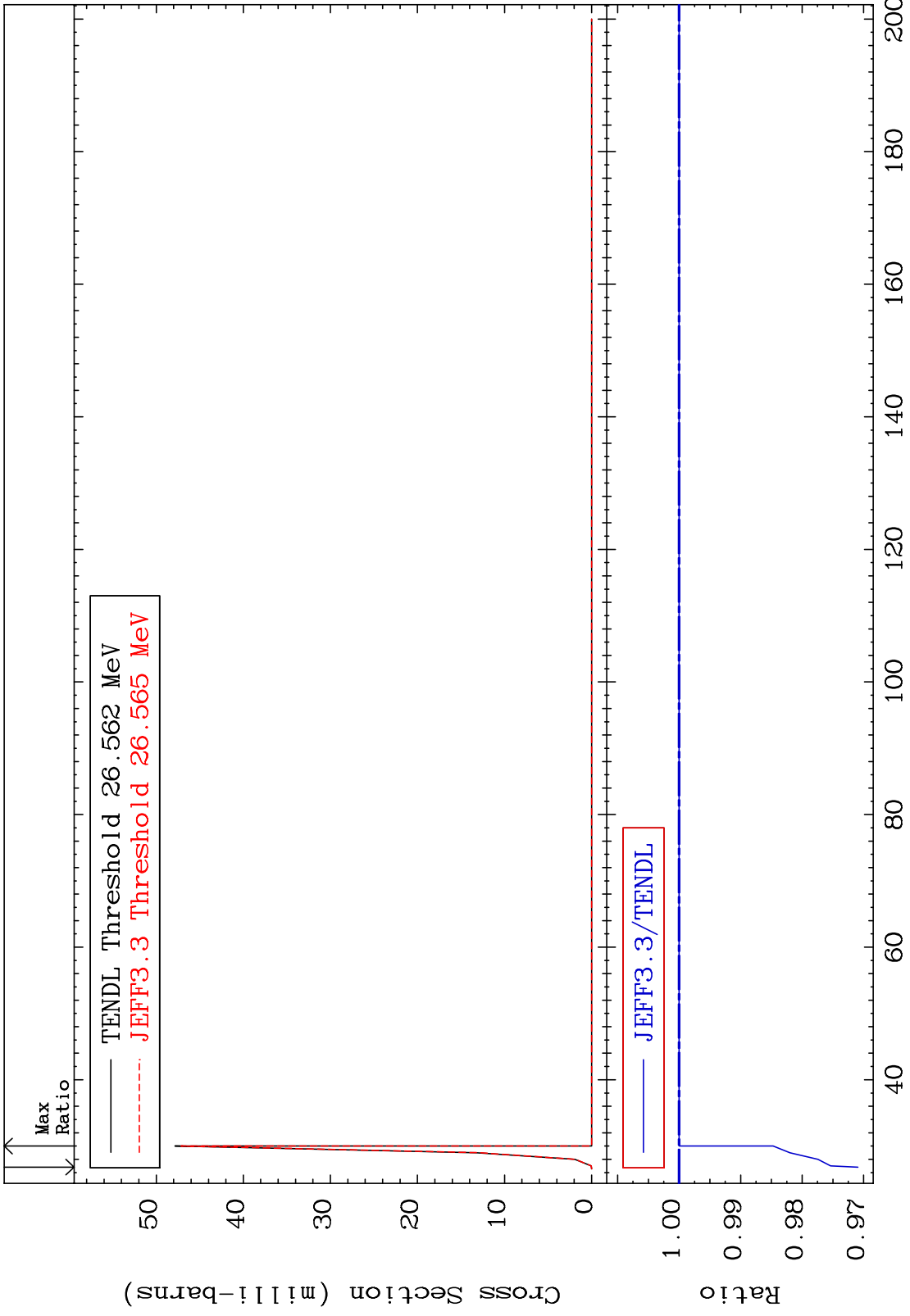
MAT 5837 (n, n') He-3 58-Ce-140  
 Cross Section -5.072 To 0.000 %



58-Ce-140

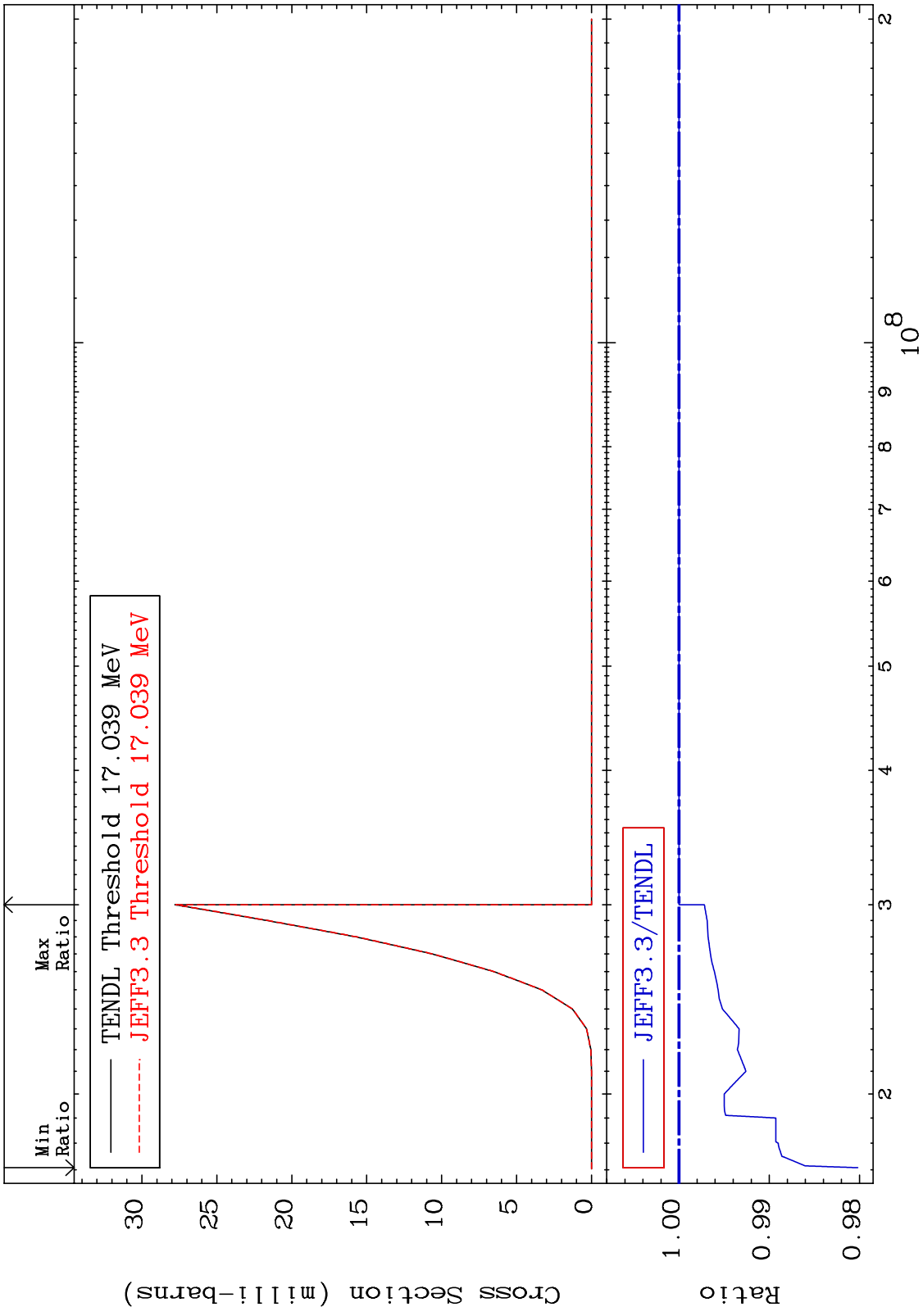
Incident Energy (eV)

MAT 5837 (n,4n) Cross Section 58-Ce-140 -2.907 To 0.000 %

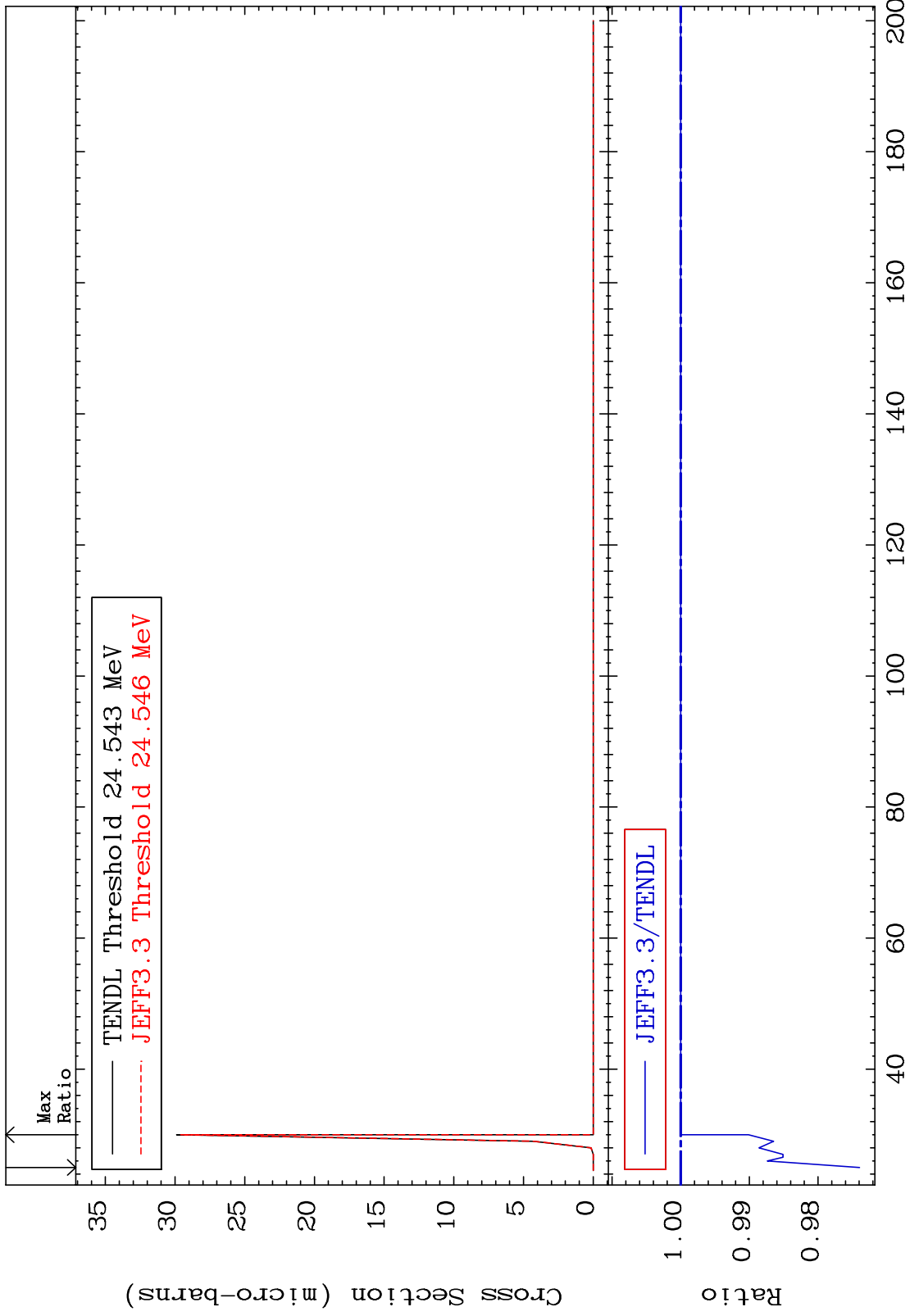




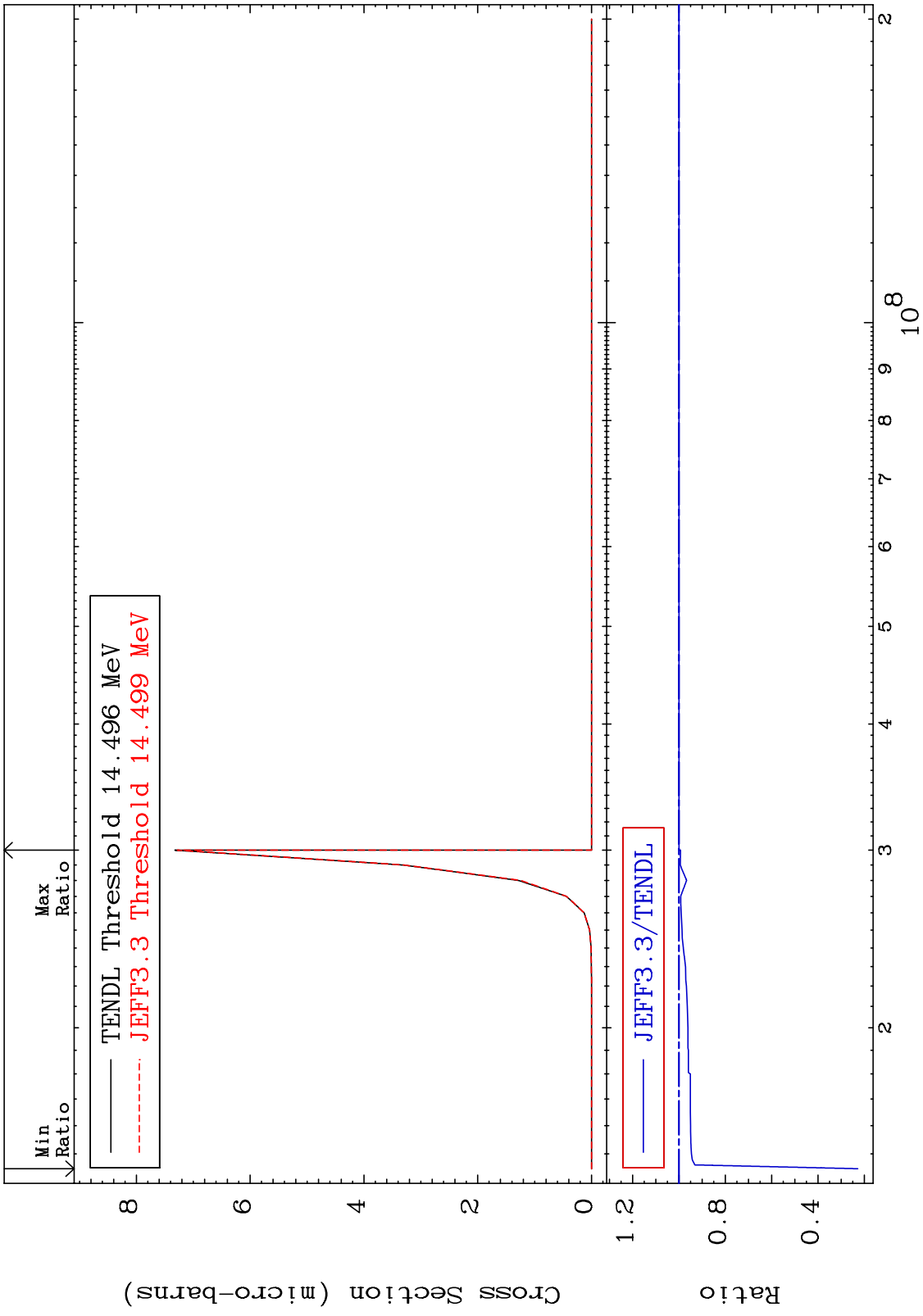
MAT 5837 (n,2n) p 58-Ce-140  
 Cross Section -1.981 To 0.000 %



MAT 5837 (n,3n) p 58-Ce-140  
Cross Section -2.606 To 0.000 %



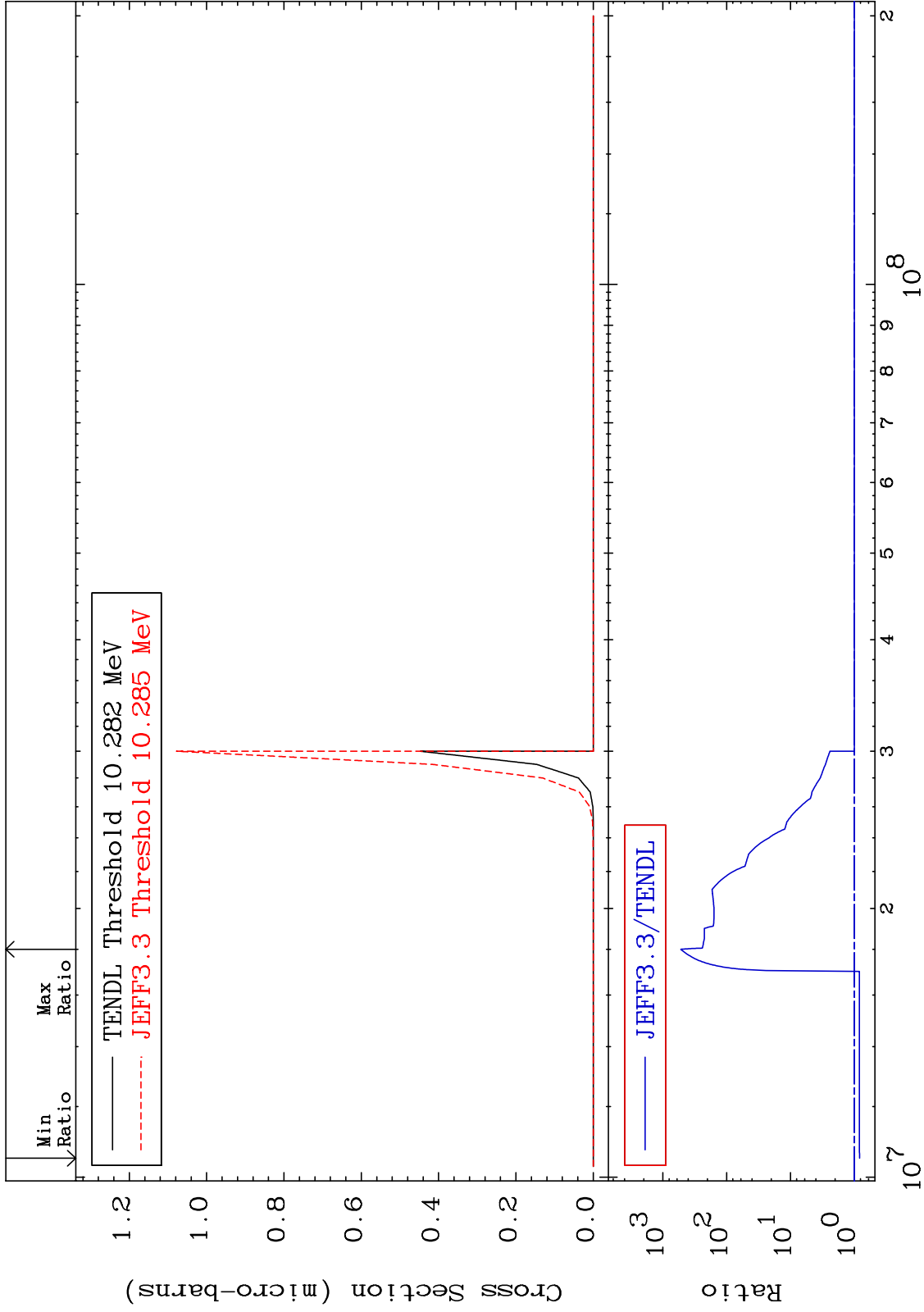
MAT 5837 (n,2n) p 58-Ce-140  
 Cross Section -77.20 To 0.000 %



MAT 5837

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

58-Ce-140  
-17.51 To 9999. %

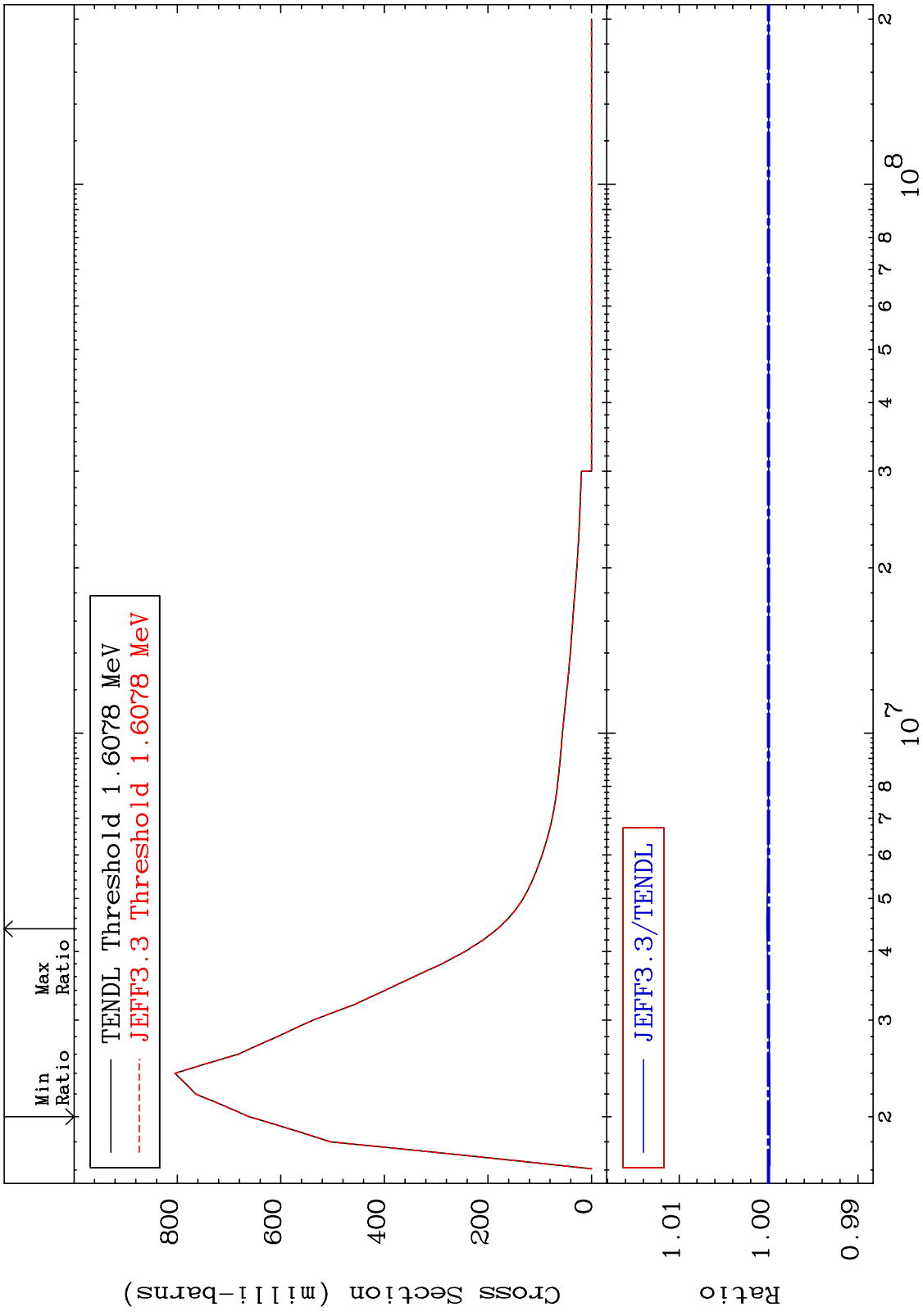


Incident Energy (eV)

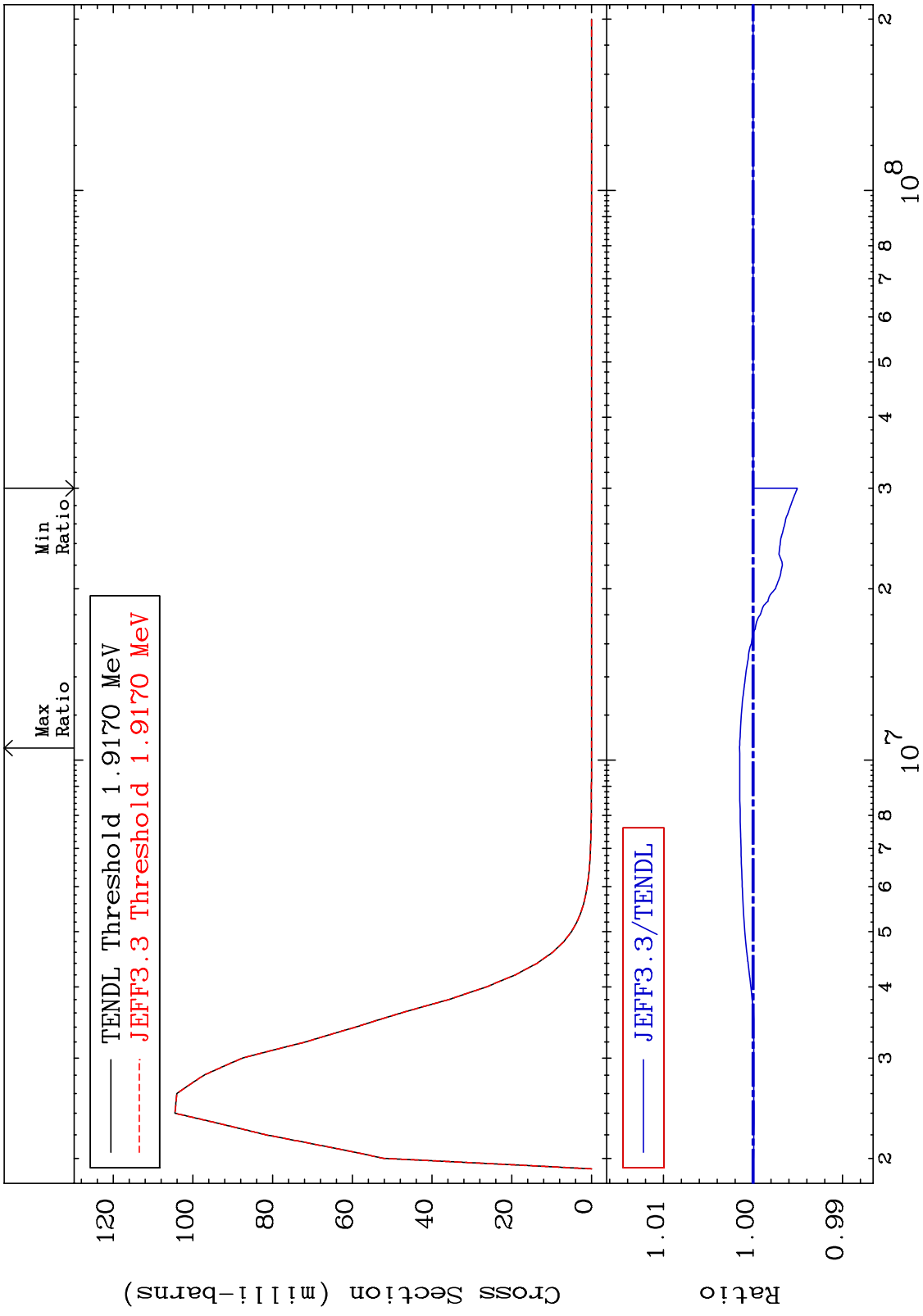
58-Ce-140

19

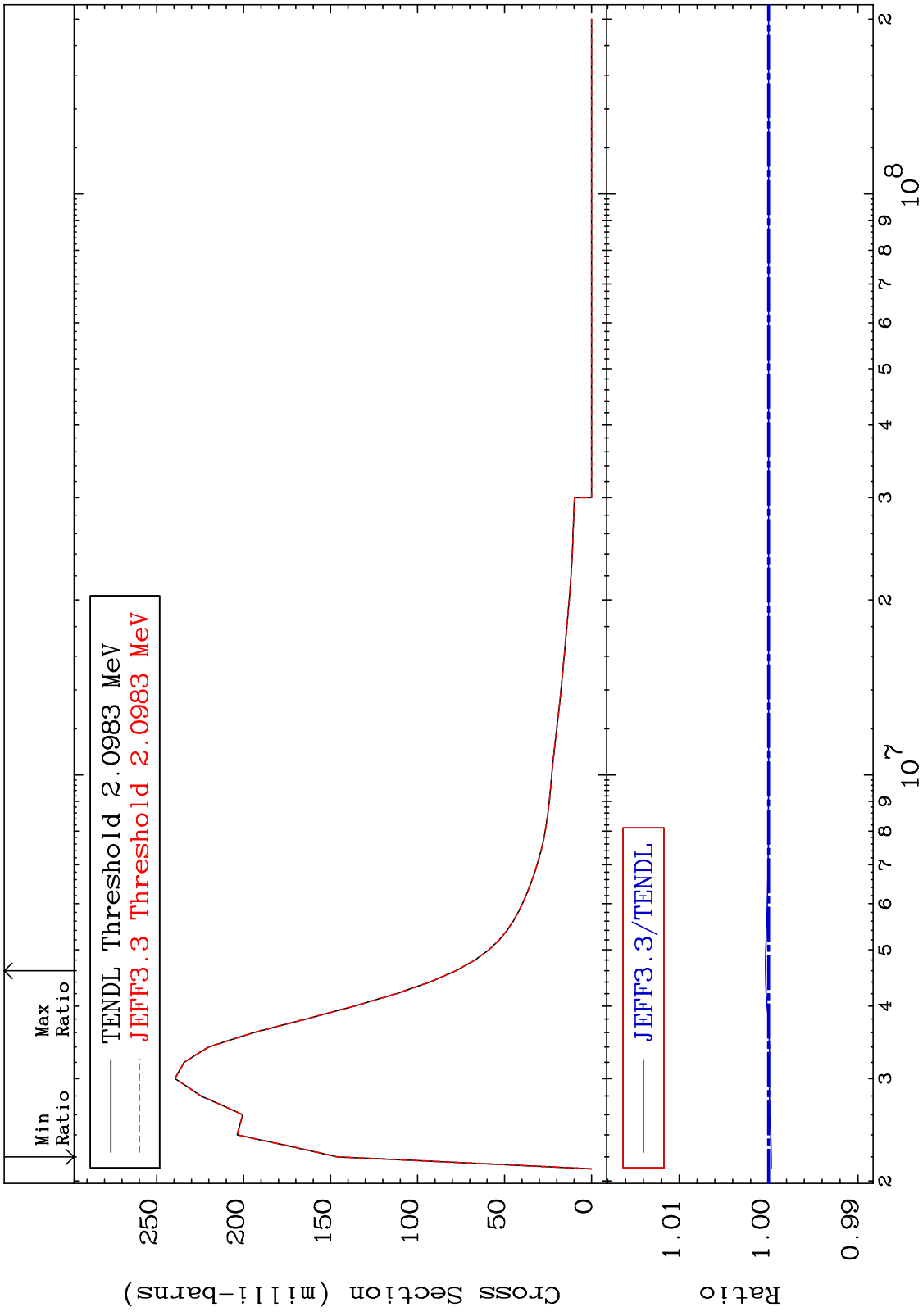
MAT 5837 MT= 51 (n,n') Level Cross Section 58-Ce-140 -0.017 To 0.018 %



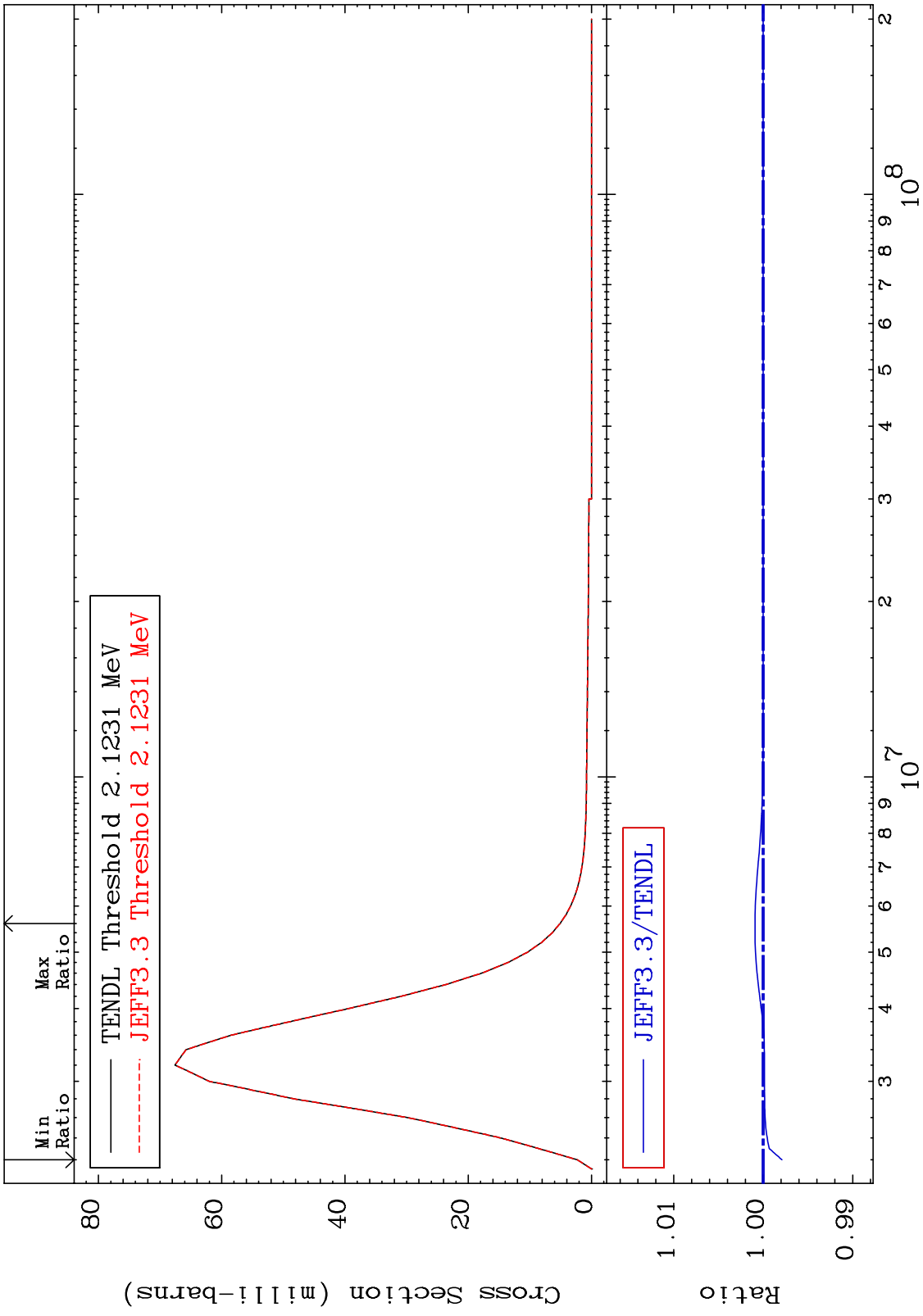
MAT 5837 MT= 52 (n,n') Level Cross Section 58-Ce-140  
 -0.495 To 0.151 %



MAT 5837 MT= 53 (n,n') Level Cross Section 58-Ce-140 -0.031 To 0.034 %

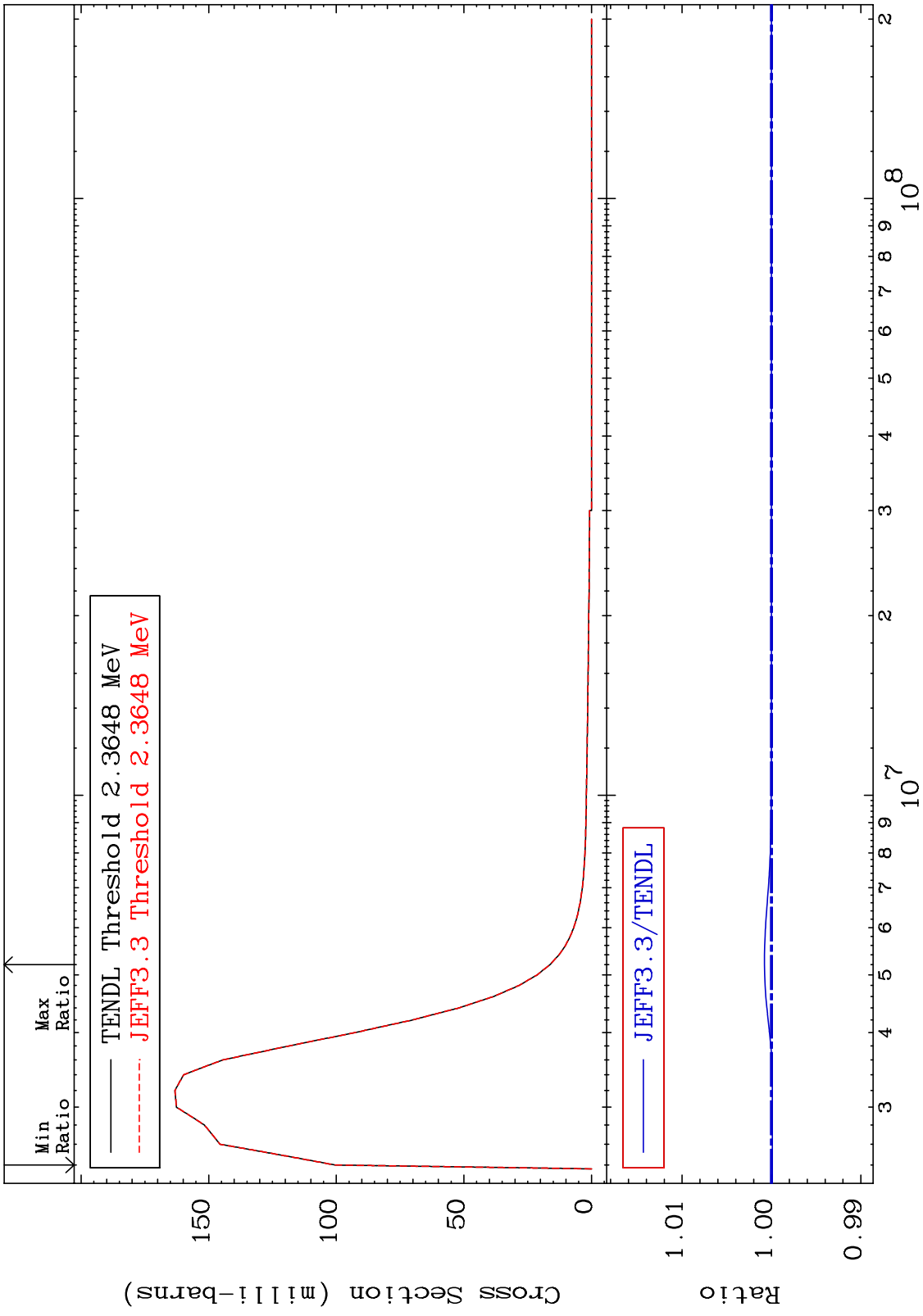


MAT 5837 MT= 54 (n,n') Level Cross Section 58-Ce-140 -0.209 To 0.092 %

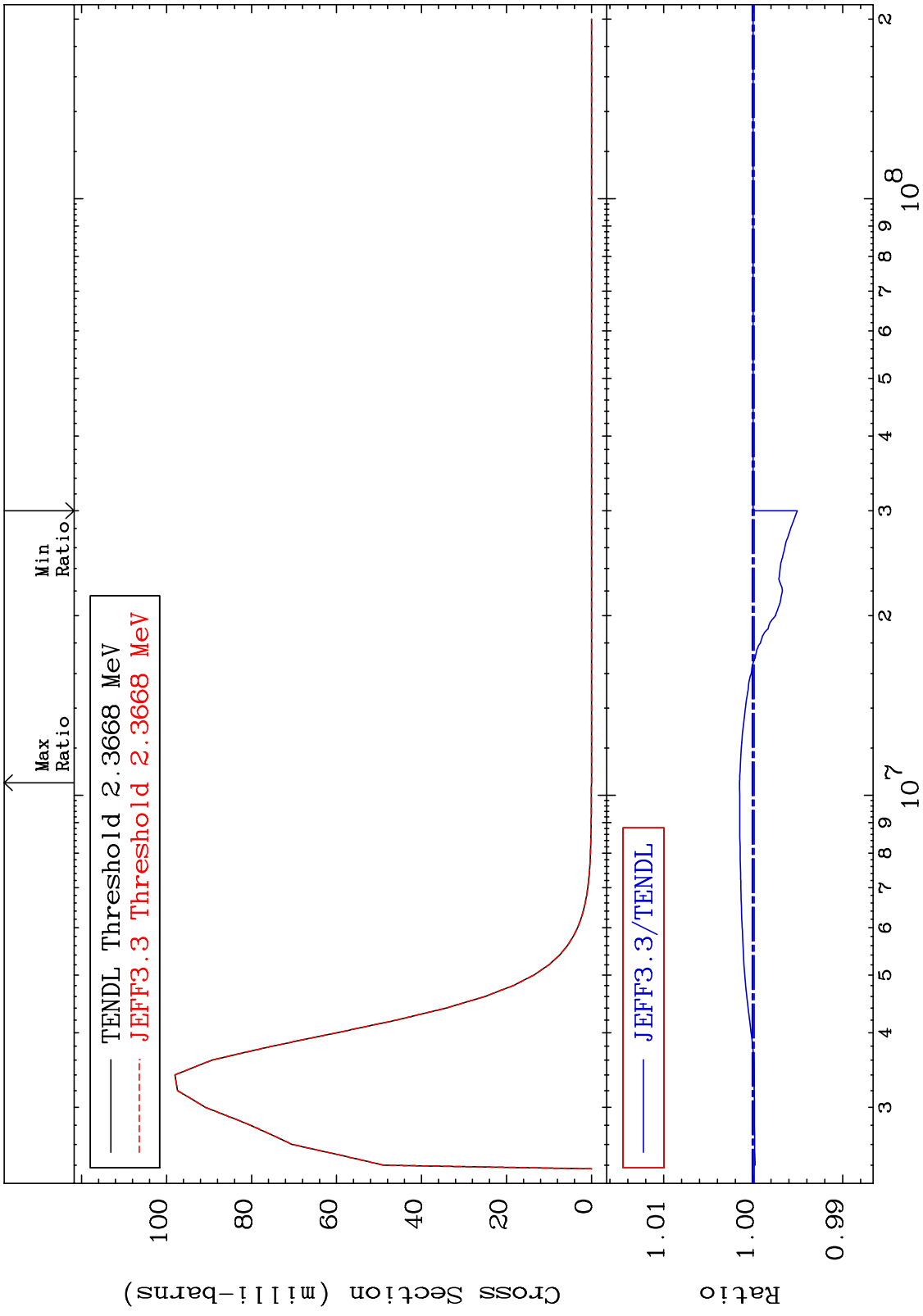




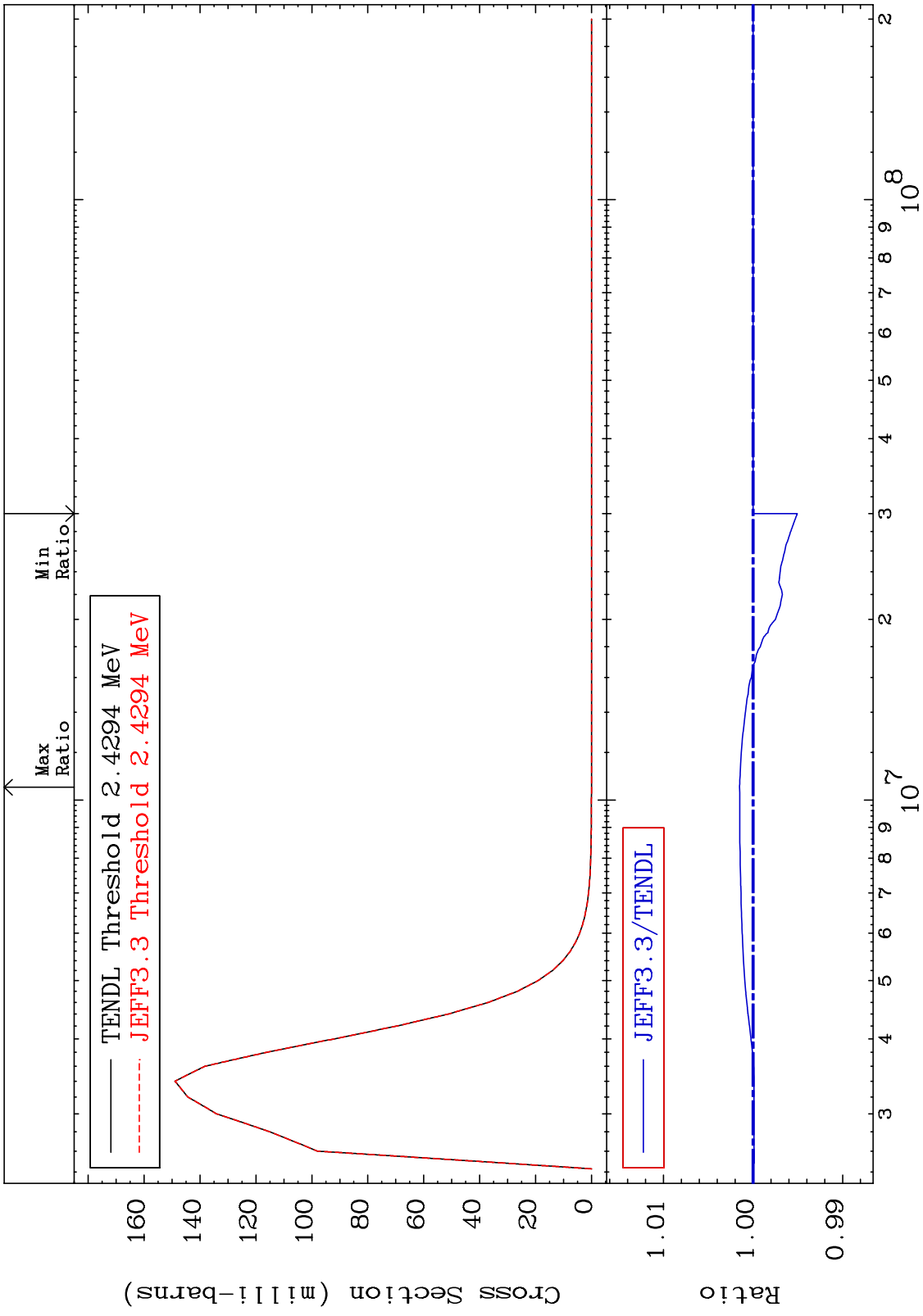
MAT 5837 MT= 55 (n,n') Level Cross Section 58-Ce-140 -0.010 To 0.079 %



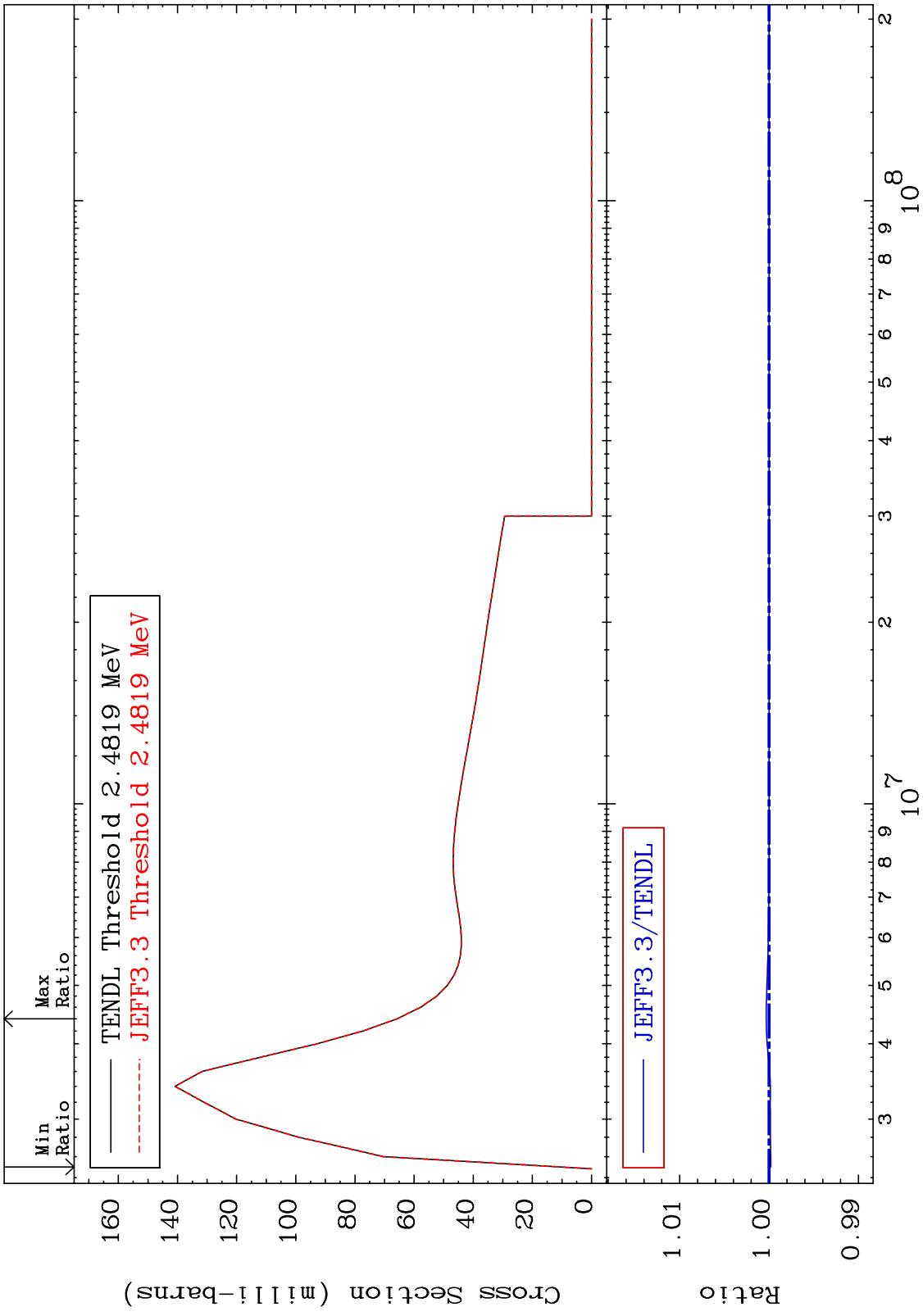
MAT 5837 MT= 56 (n,n') Level Cross Section 58-Ce-140  
 -0.493 To 0.152 %



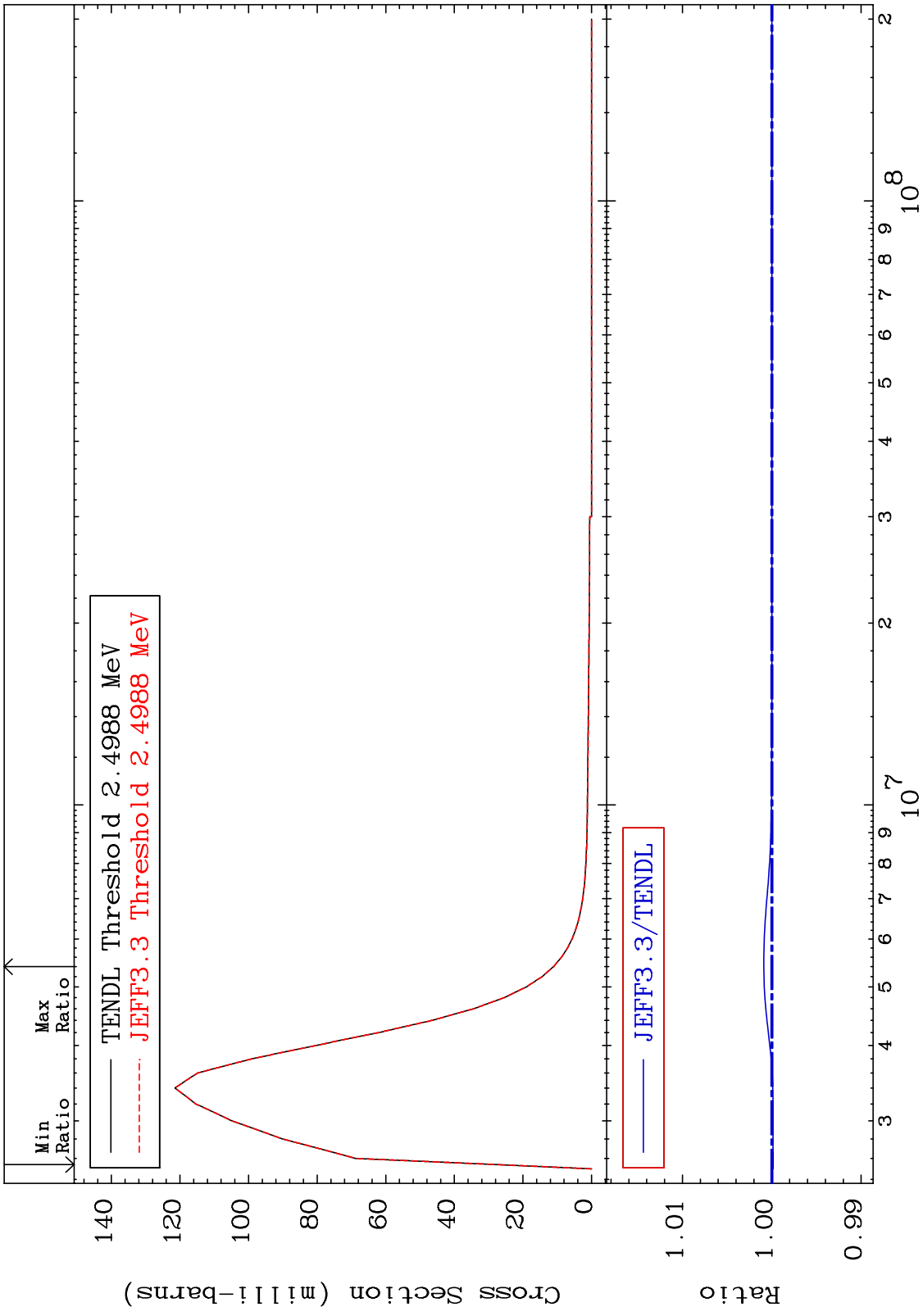
MAT 5837 MT= 57 (n, n') Level Cross Section 58-Ce-140 -0.494 To 0.151 %



MAT 5837 MT= 58 (n,n') Level Cross Section 58-Ce-140 -0.018 To 0.032 %



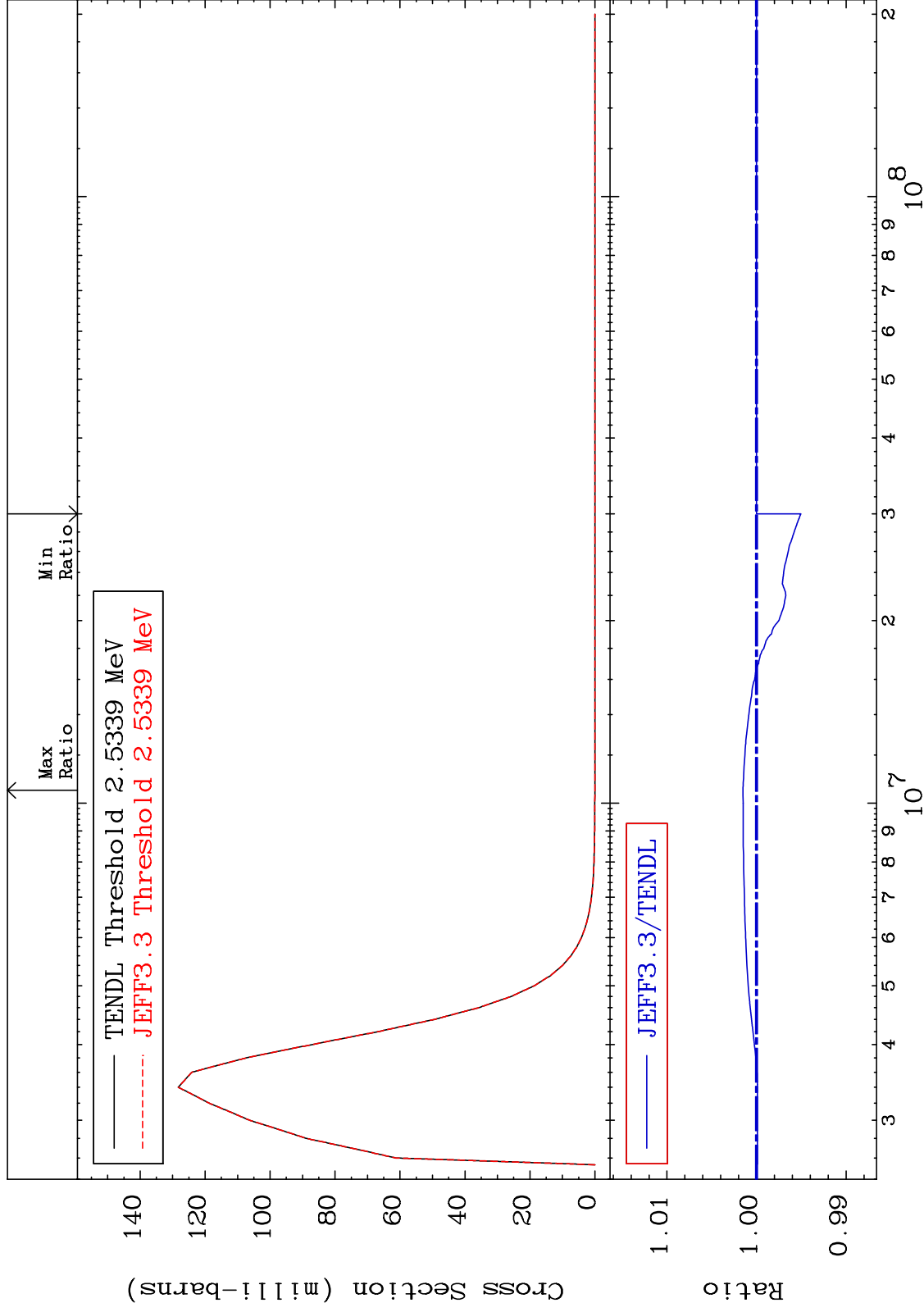
MAT 5837 MT= 59 (n,n') Level Cross Section 58-Ce-140 -0.015 To 0.090 %



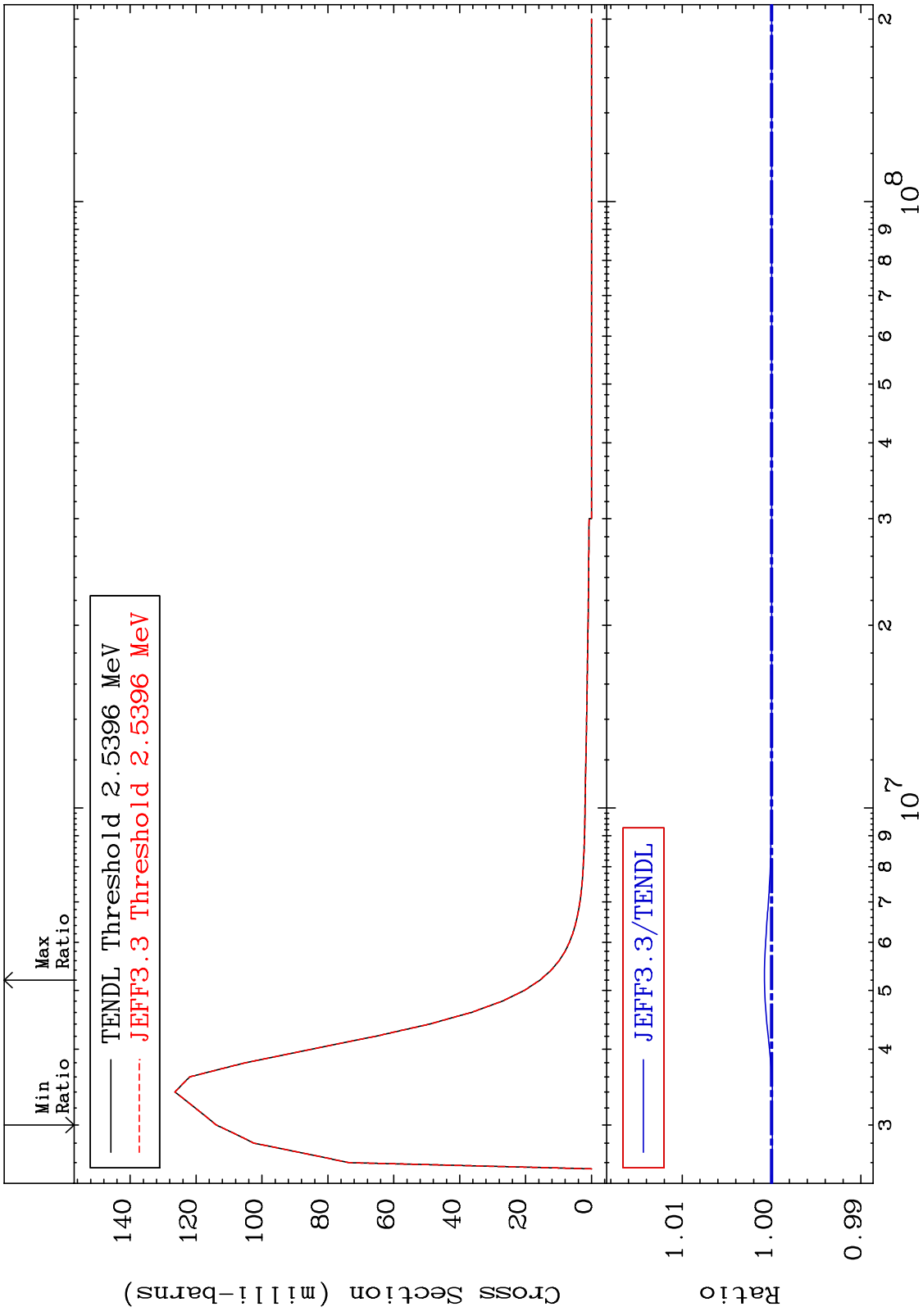
MAT 5837

MT= 60 (n,n') Level  
Cross Section

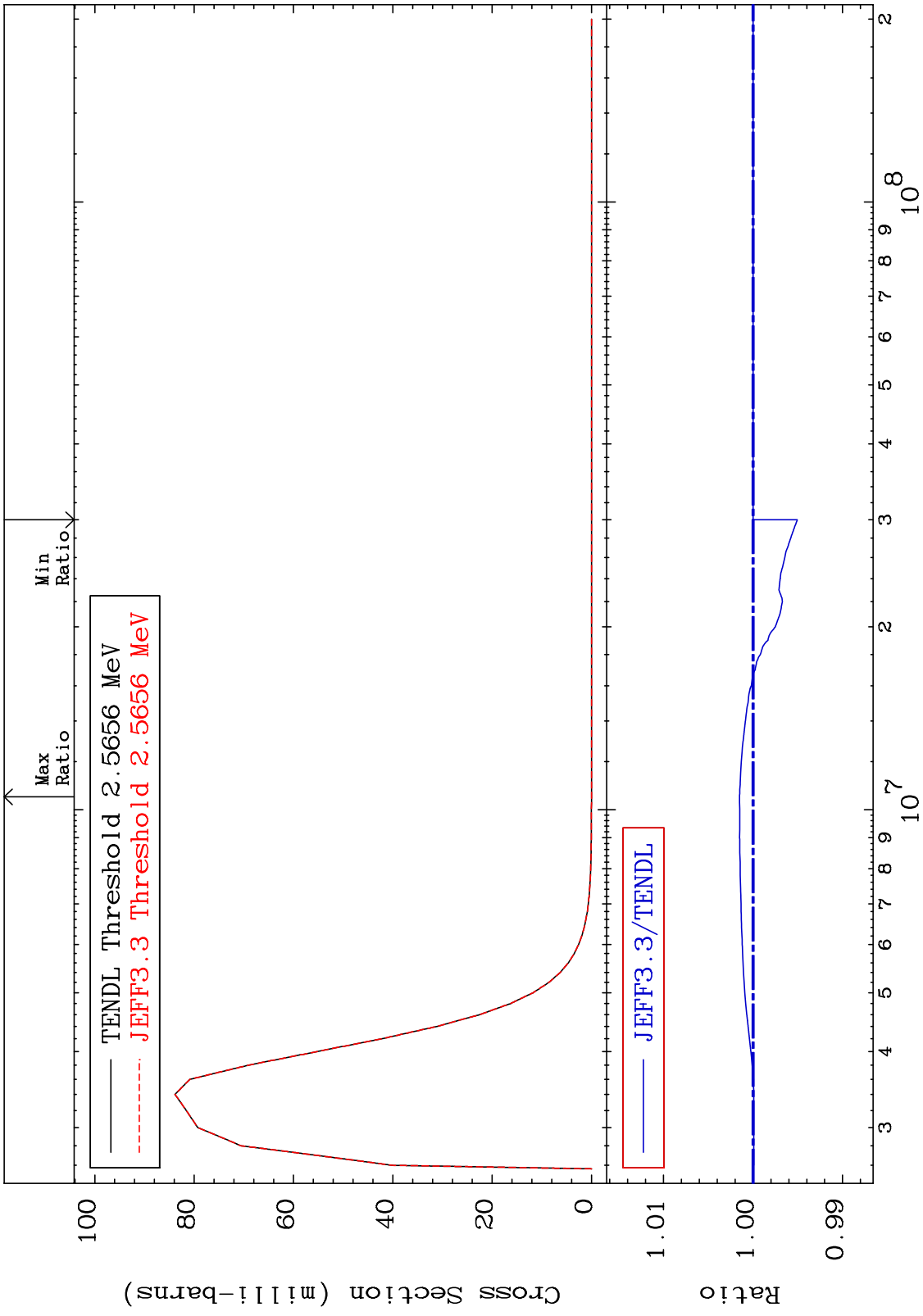
58-Ce-140  
-0.494 To 0.152 %



MAT 5837 MT= 61 (n,n') Level Cross Section 58-Ce-140 -0.010 To 0.079 %

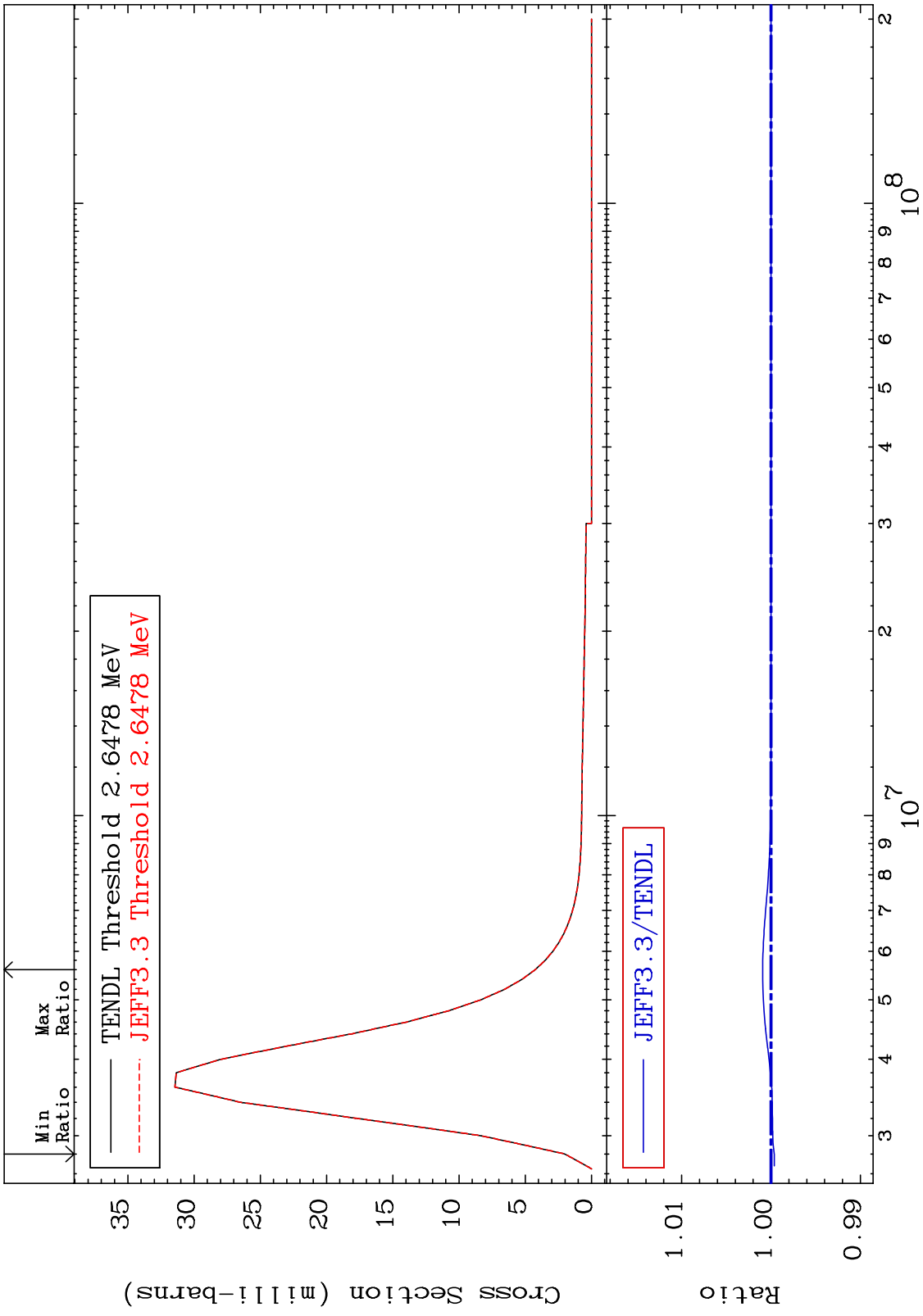


MAT 5837 MT= 62 (n,n') Level Cross Section 58-Ce-140  
 -0.495 To 0.151 %

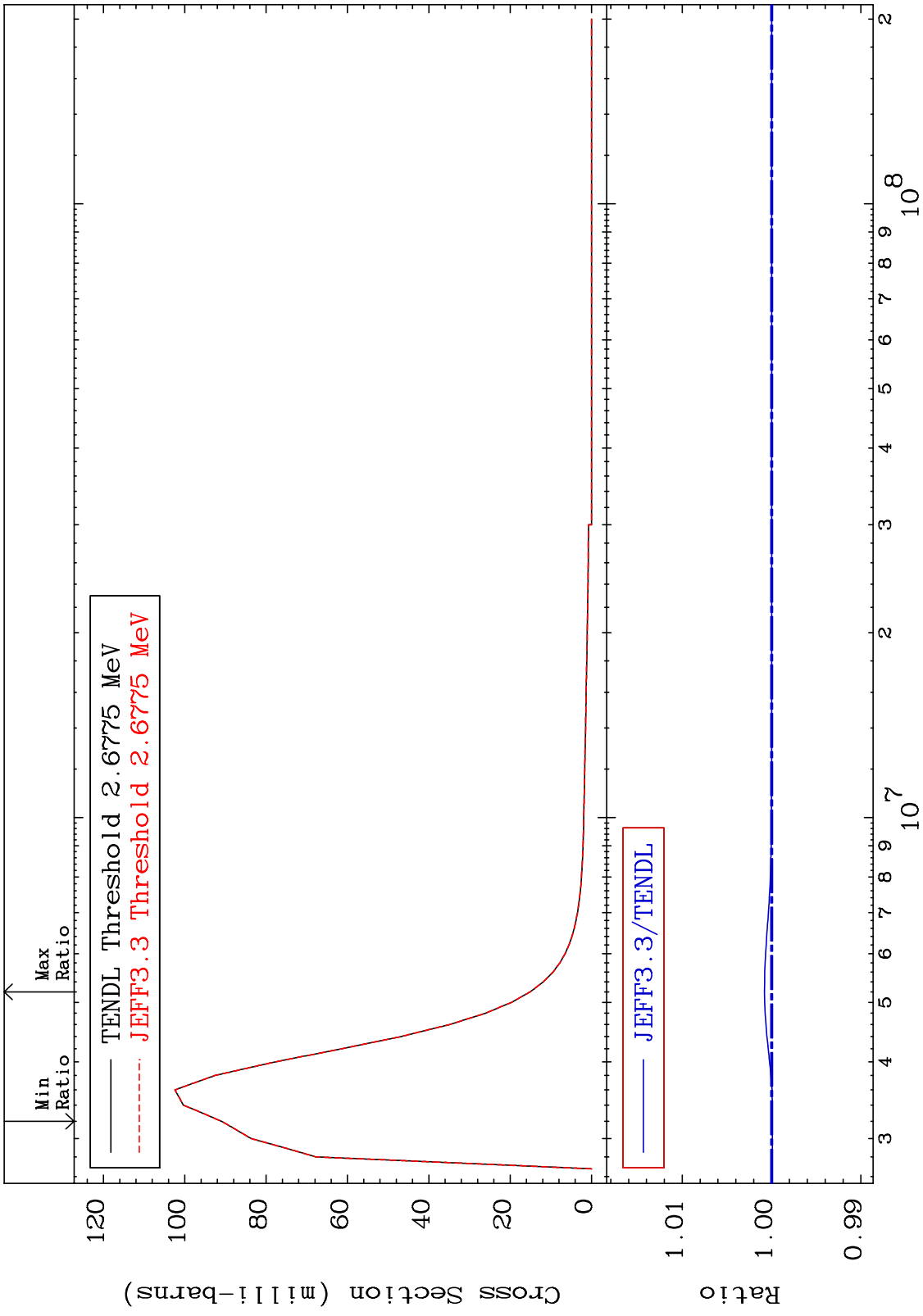




MAT 5837 MT= 63 (n,n') Level Cross Section 58-Ce-140 -0.036 To 0.093 %

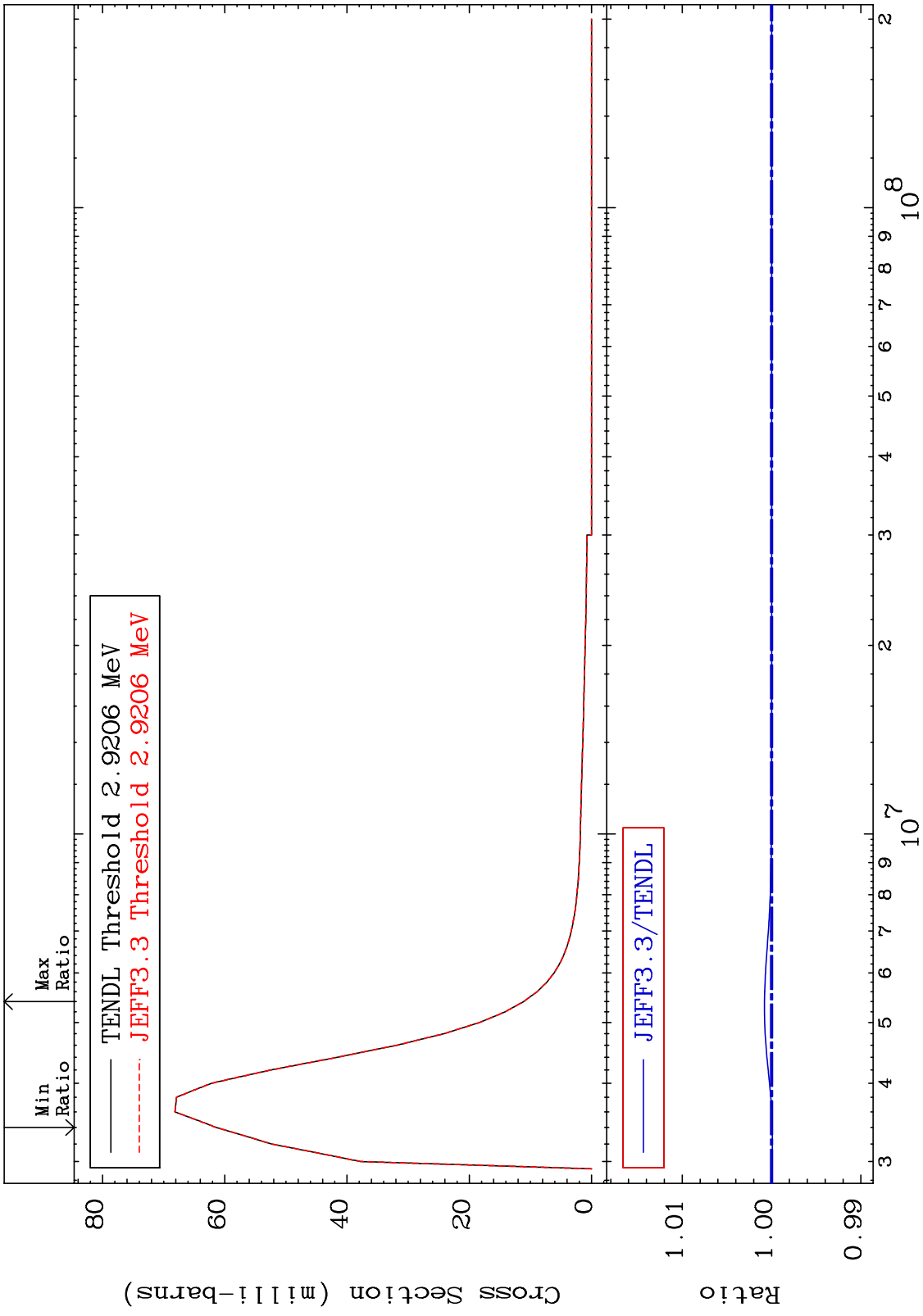


MAT 5837 MT= 64 (n,n') Level Cross Section 58-Ce-140 -0.009 To 0.080 %

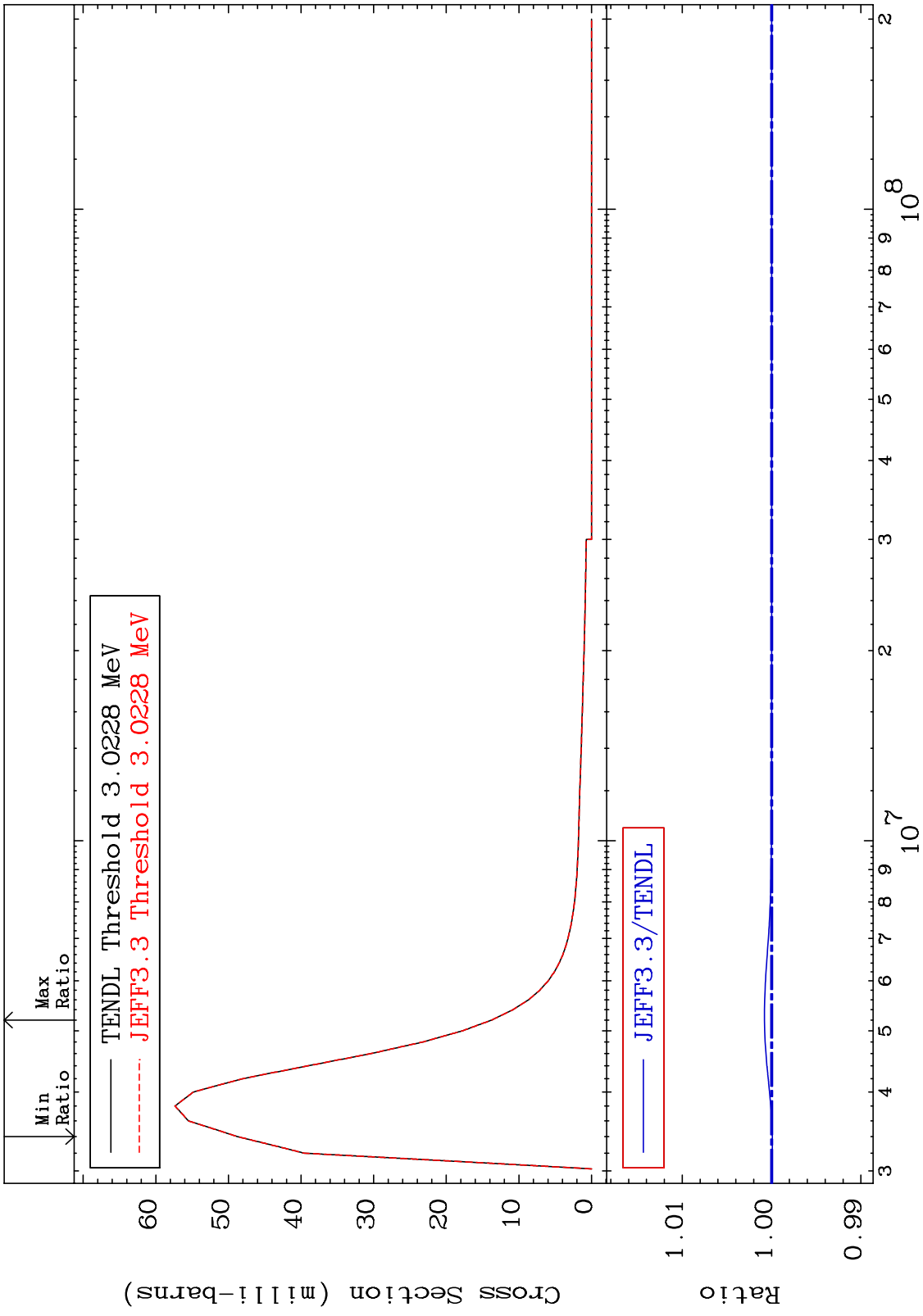


33 Incident Energy (eV) 58-Ce-140

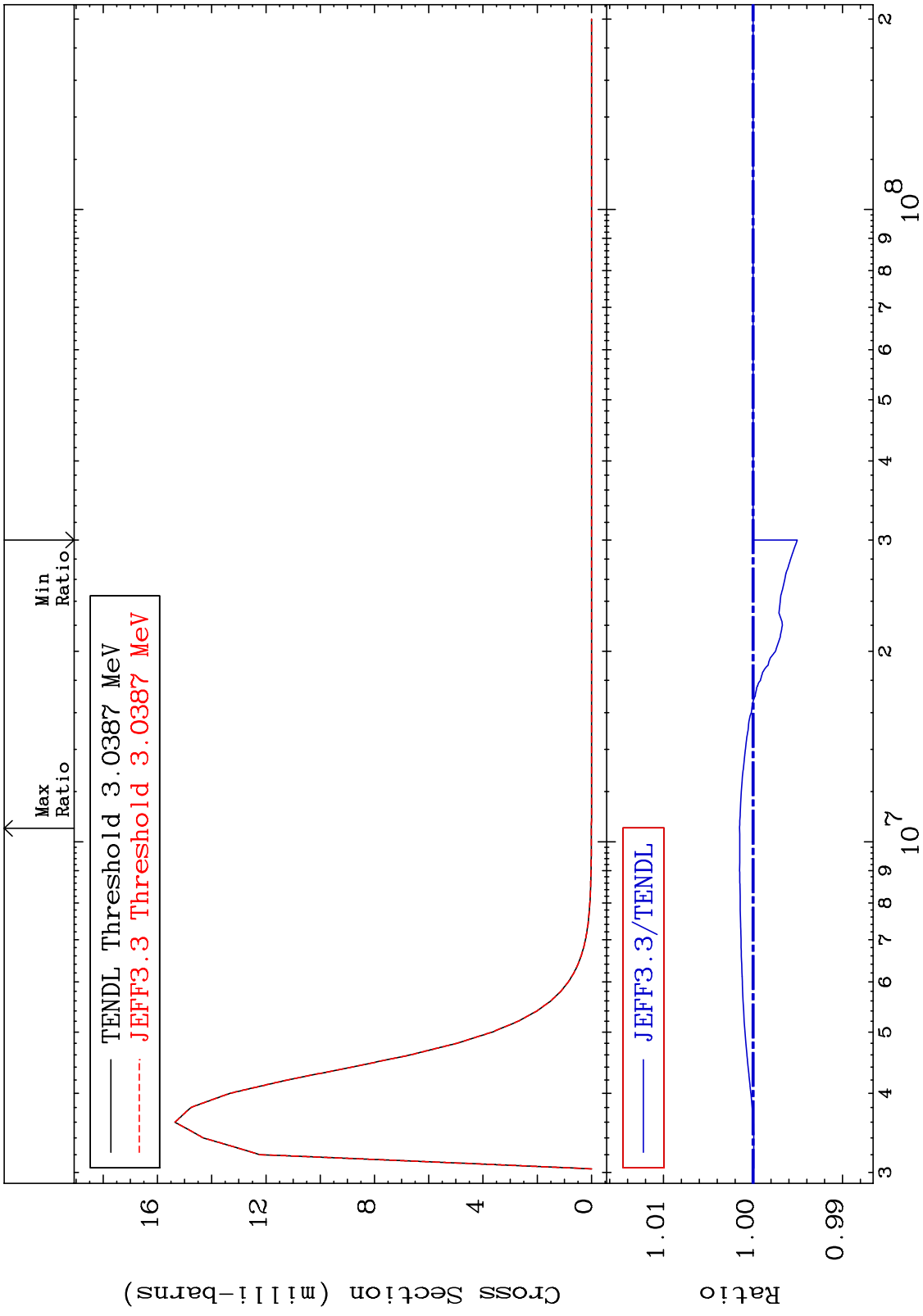
MAT 5837 MT= 65 (n,n') Level Cross Section 58-Ce-140 -0.009 To 0.079 %



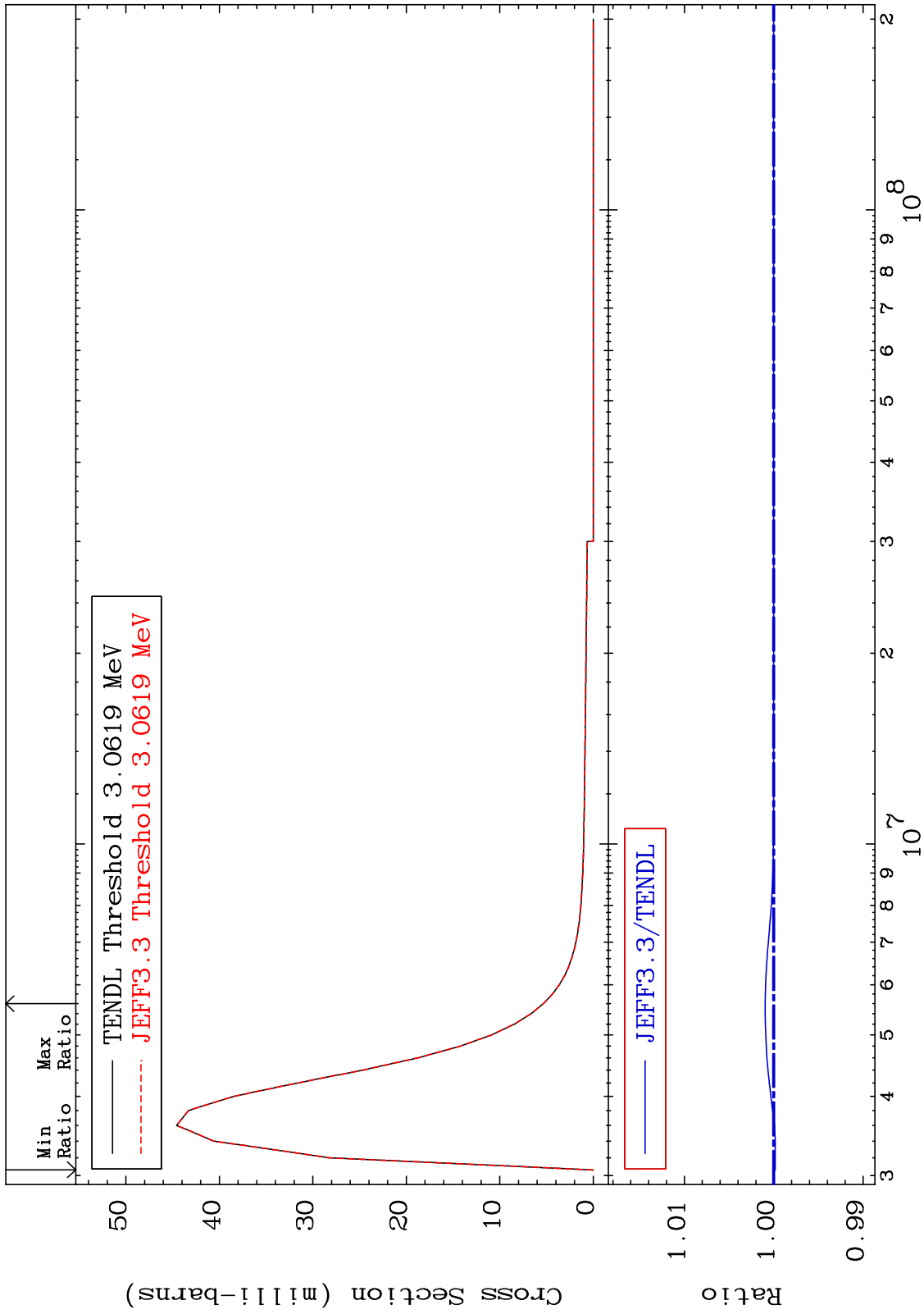
MAT 5837 MT= 66 (n,n') Level Cross Section 58-Ce-140  
 -0.009 To 0.079 %



MAT 5837 MT= 67 (n, n') Level Cross Section 58-Ce-140  
 -0.495 To 0.151 %

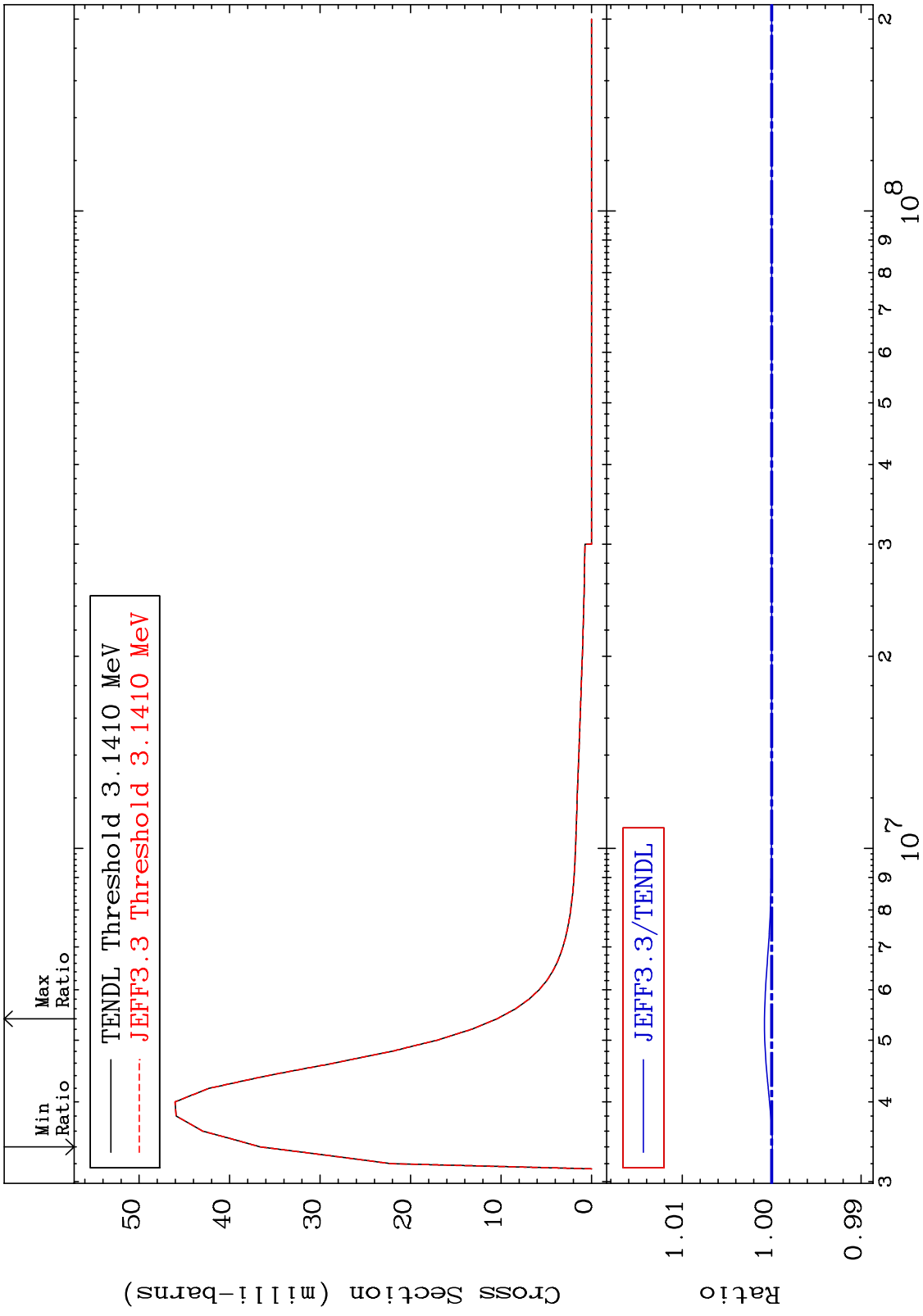


MAT 5837 MT= 68 (n,n') Level Cross Section 58-Ce-140 -0.017 To 0.096 %

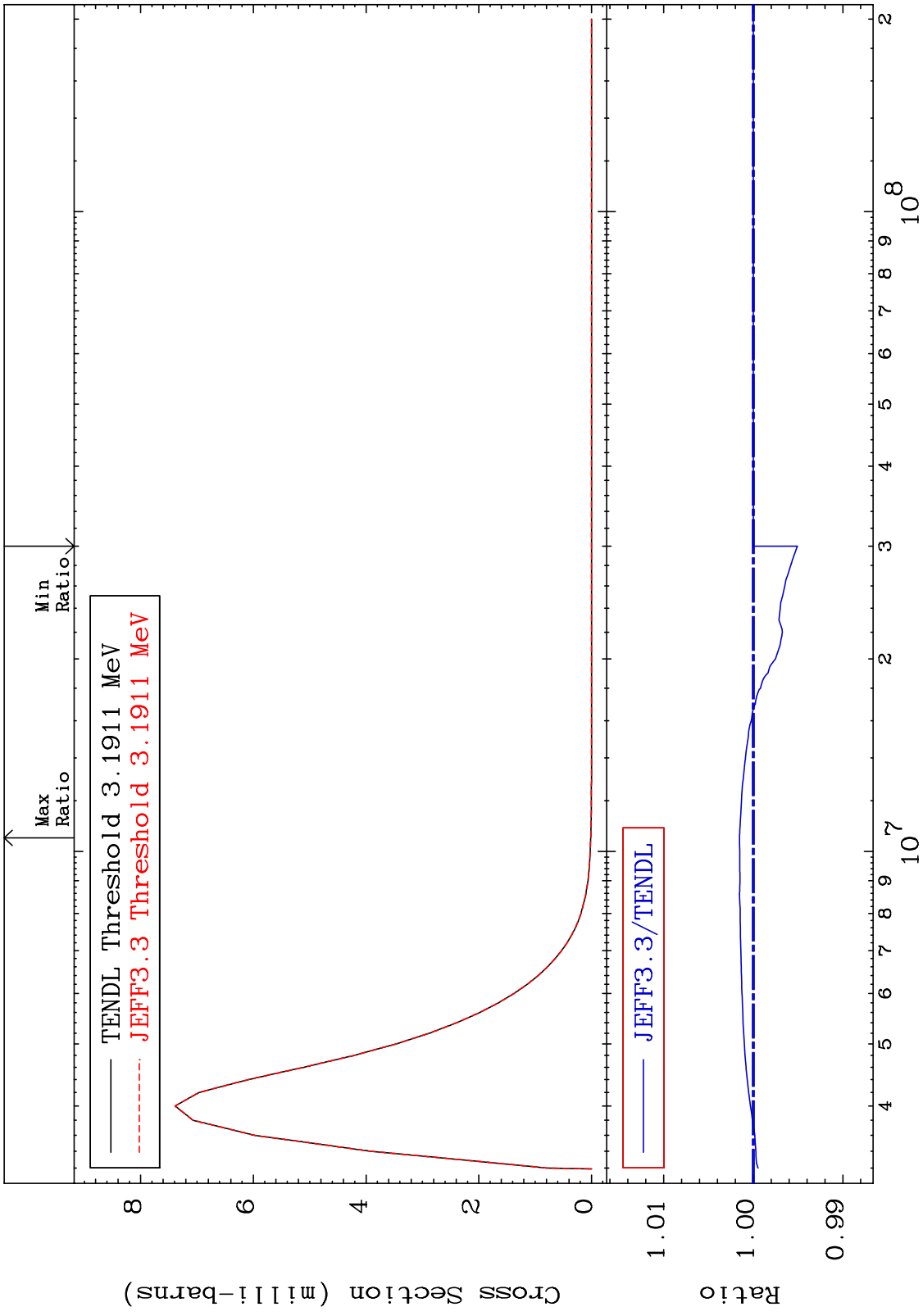


37 58-Ce-140

MAT 5837 MT= 69 (n,n') Level Cross Section 58-Ce-140  
 -0.009 To 0.080 %



MAT 5837 MT= 70 (n,n') Level Cross Section 58-Ce-140 -0.493 To 0.154 %

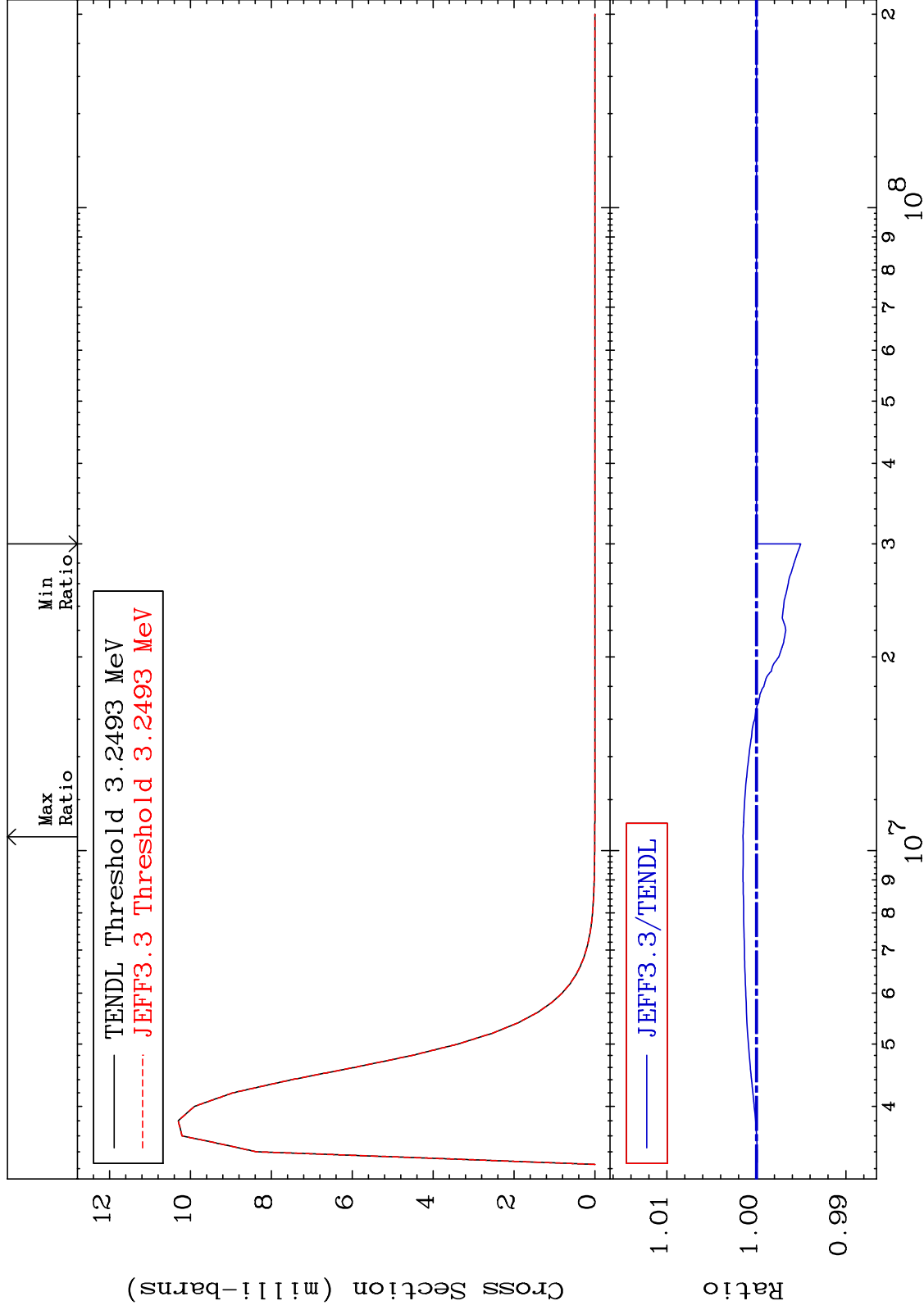




MAT 5837

MT= 71 (n,n') Level  
Cross Section

58-Ce-140  
-0.495 To 0.150 %

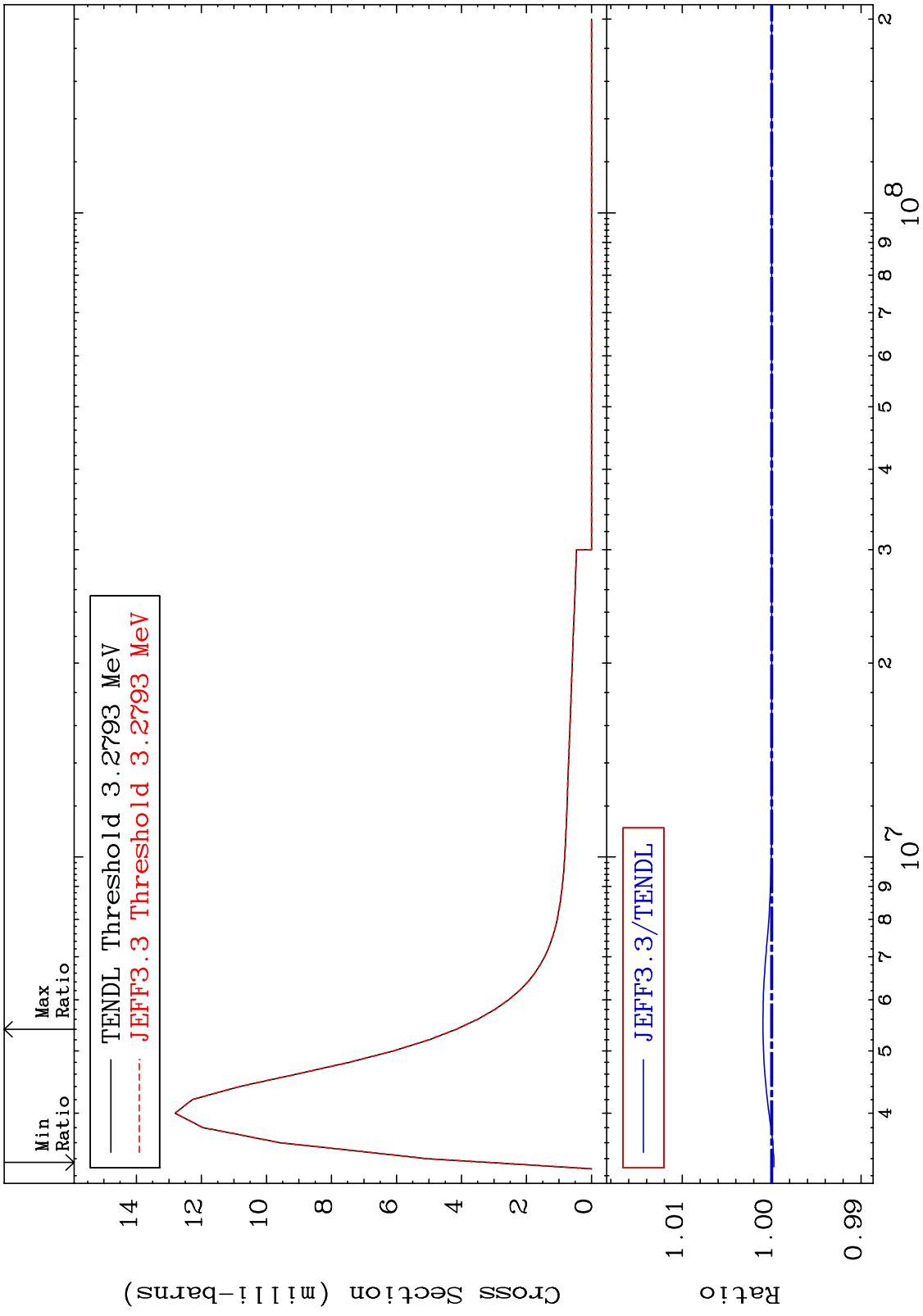


40

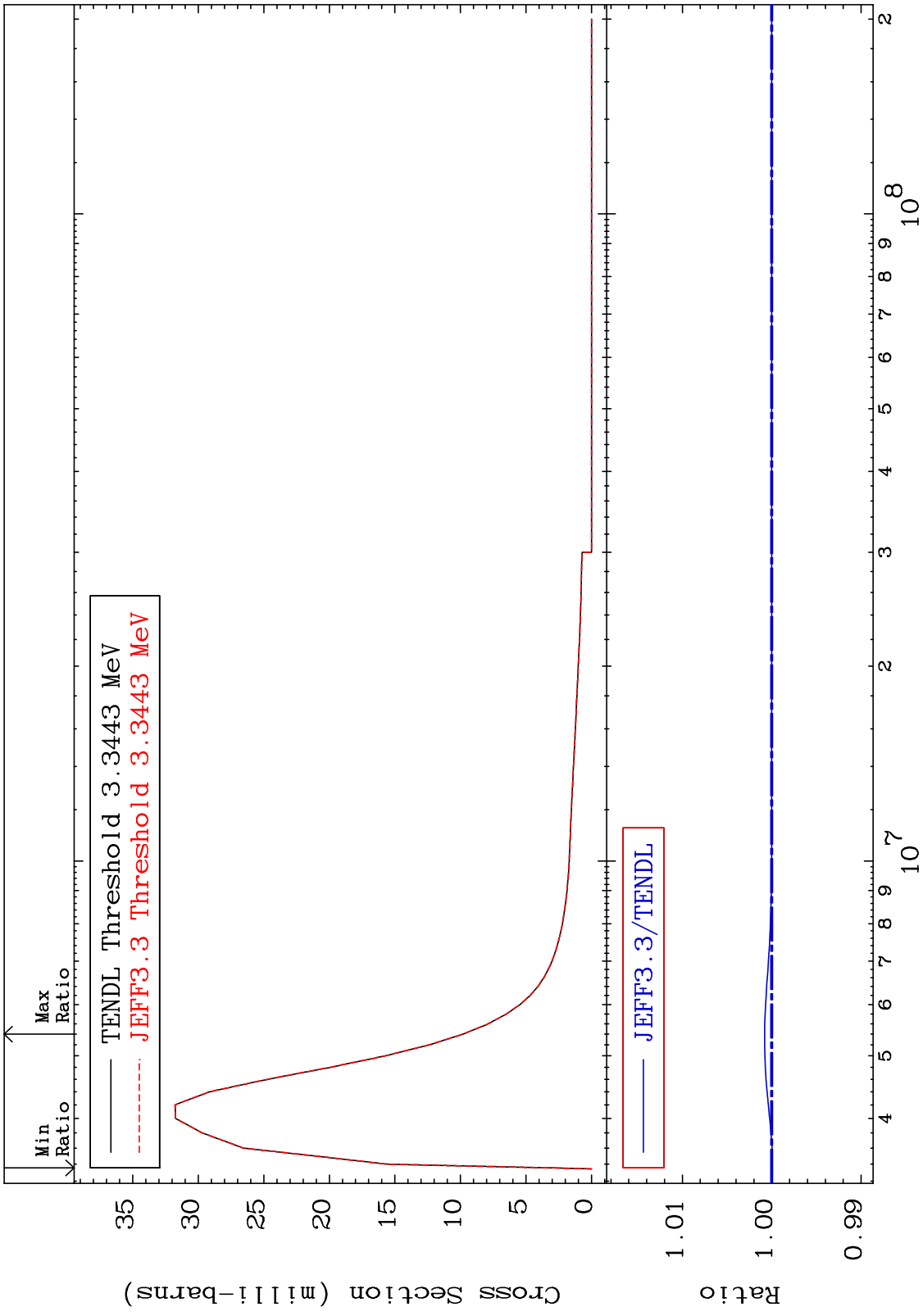
Incident Energy (eV)

58-Ce-140

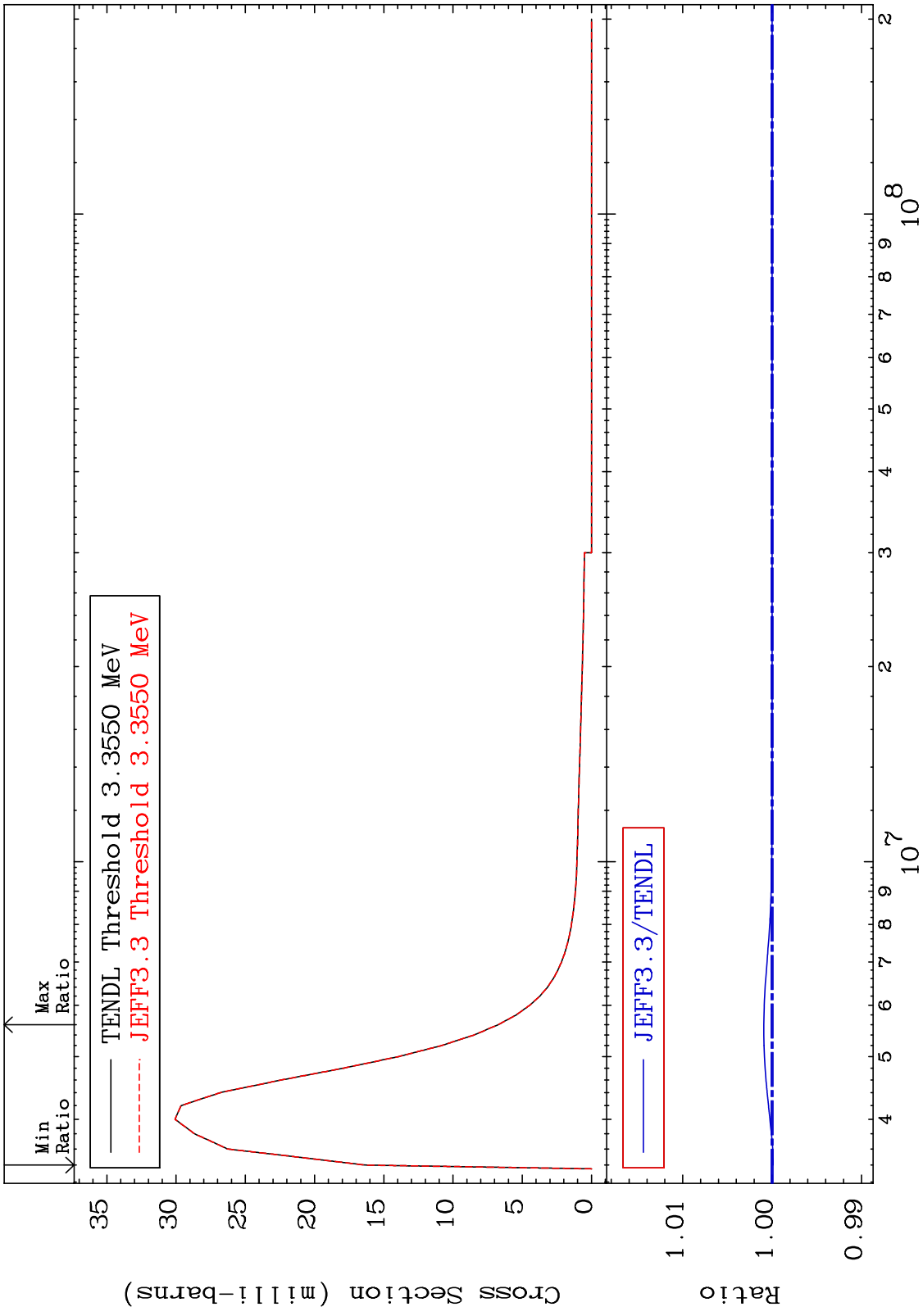
MAT 5837 MT= 72 (n,n') Level Cross Section 58-Ce-140  
 -0.026 To 0.098 %



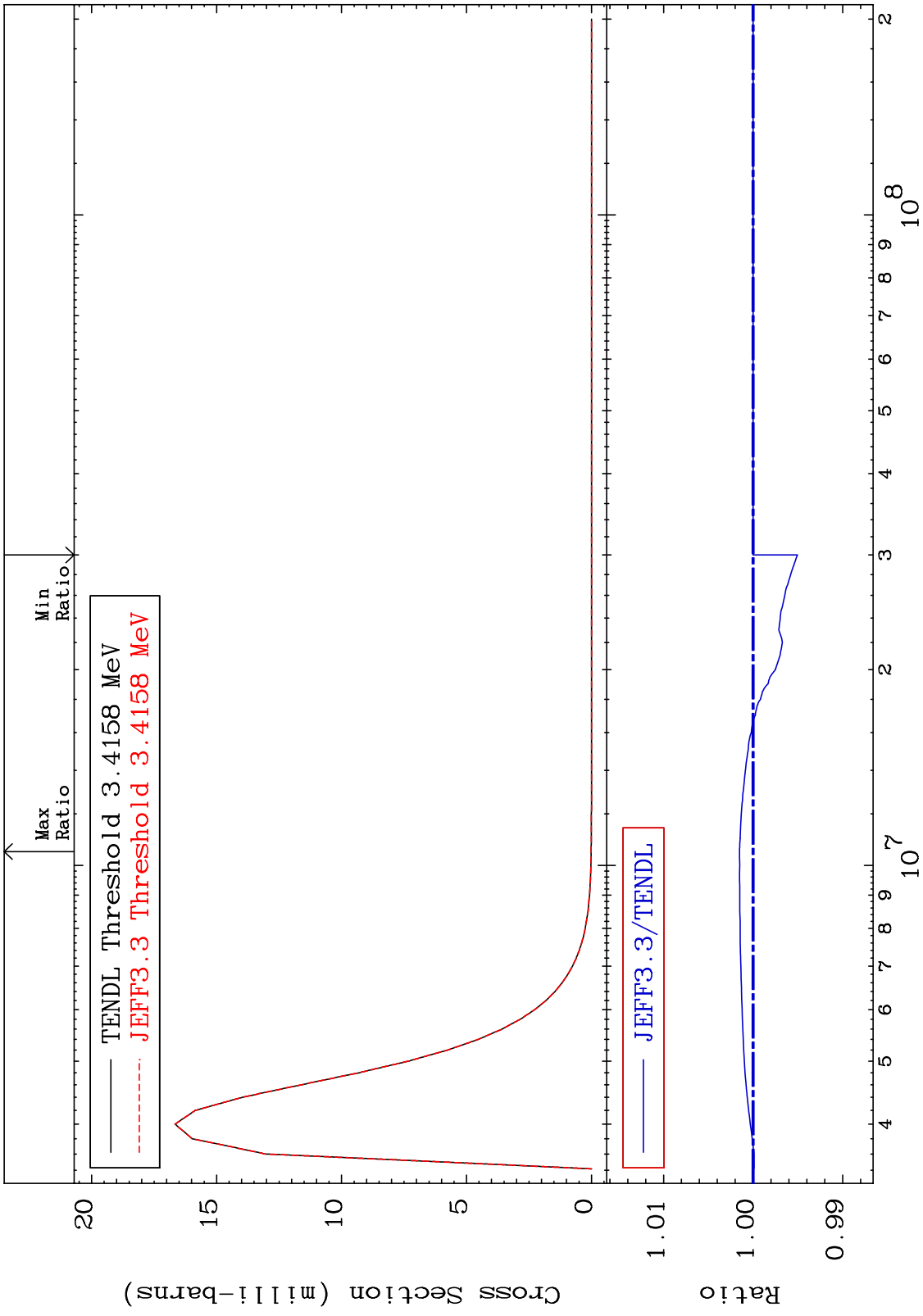
MAT 5837 MT= 73 (n,n') Level Cross Section 58-Ce-140 -0.006 To 0.080 %



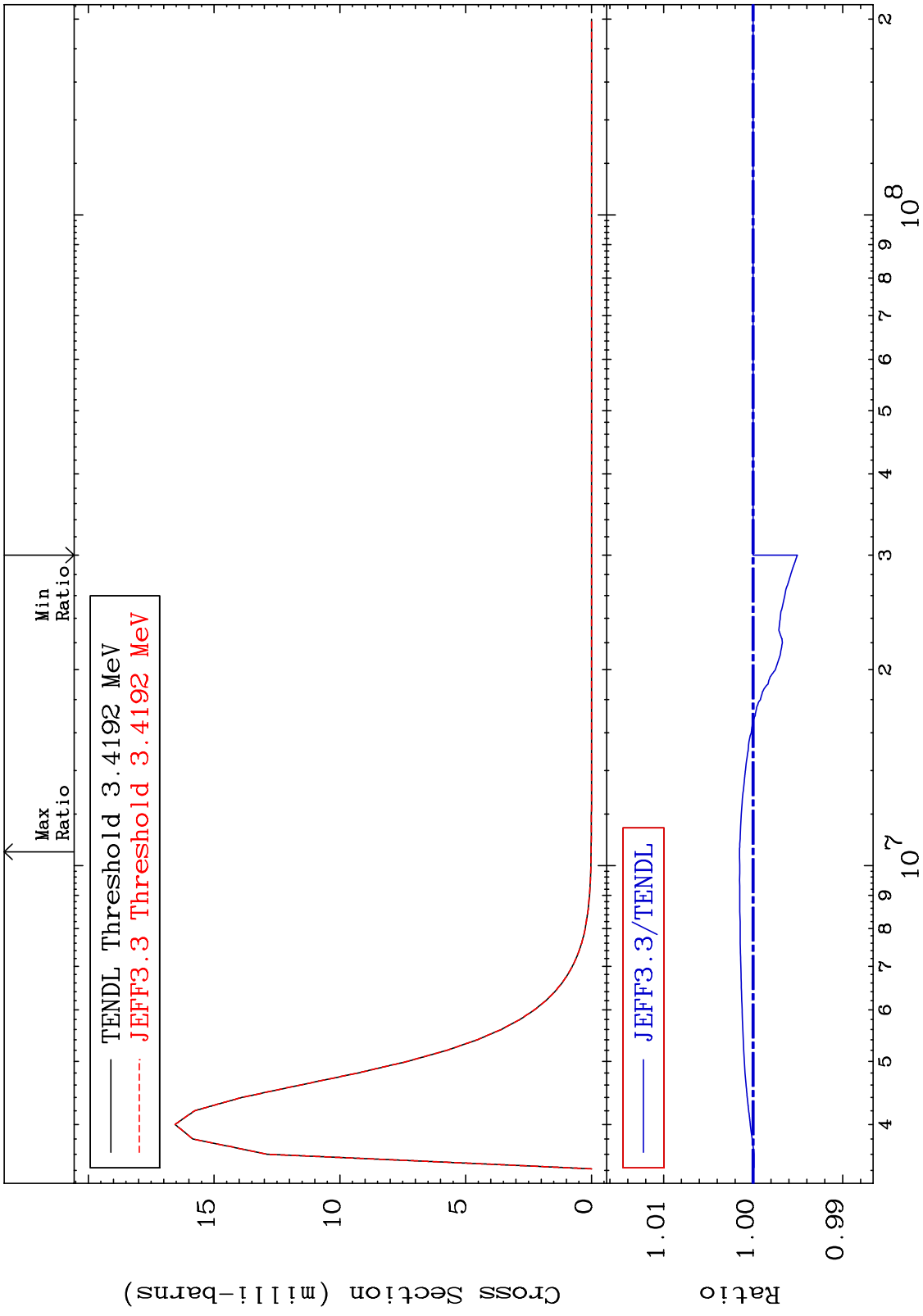
MAT 5837 MT= 74 (n,n') Level Cross Section 58-Ce-140 -0.011 To 0.092 %



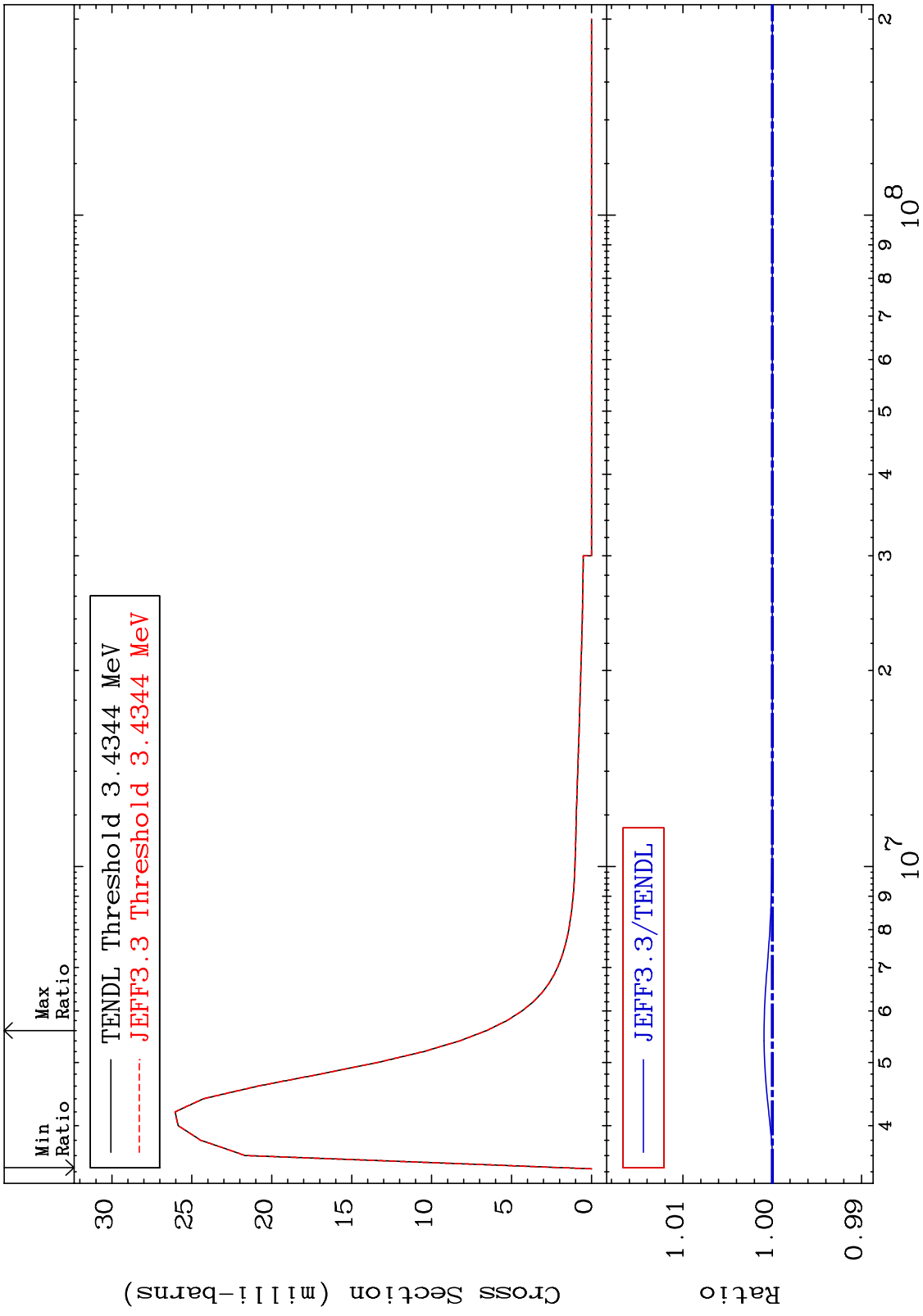
MAT 5837 MT= 75 (n,n') Level Cross Section 58-Ce-140  
 -0.494 To 0.152 %



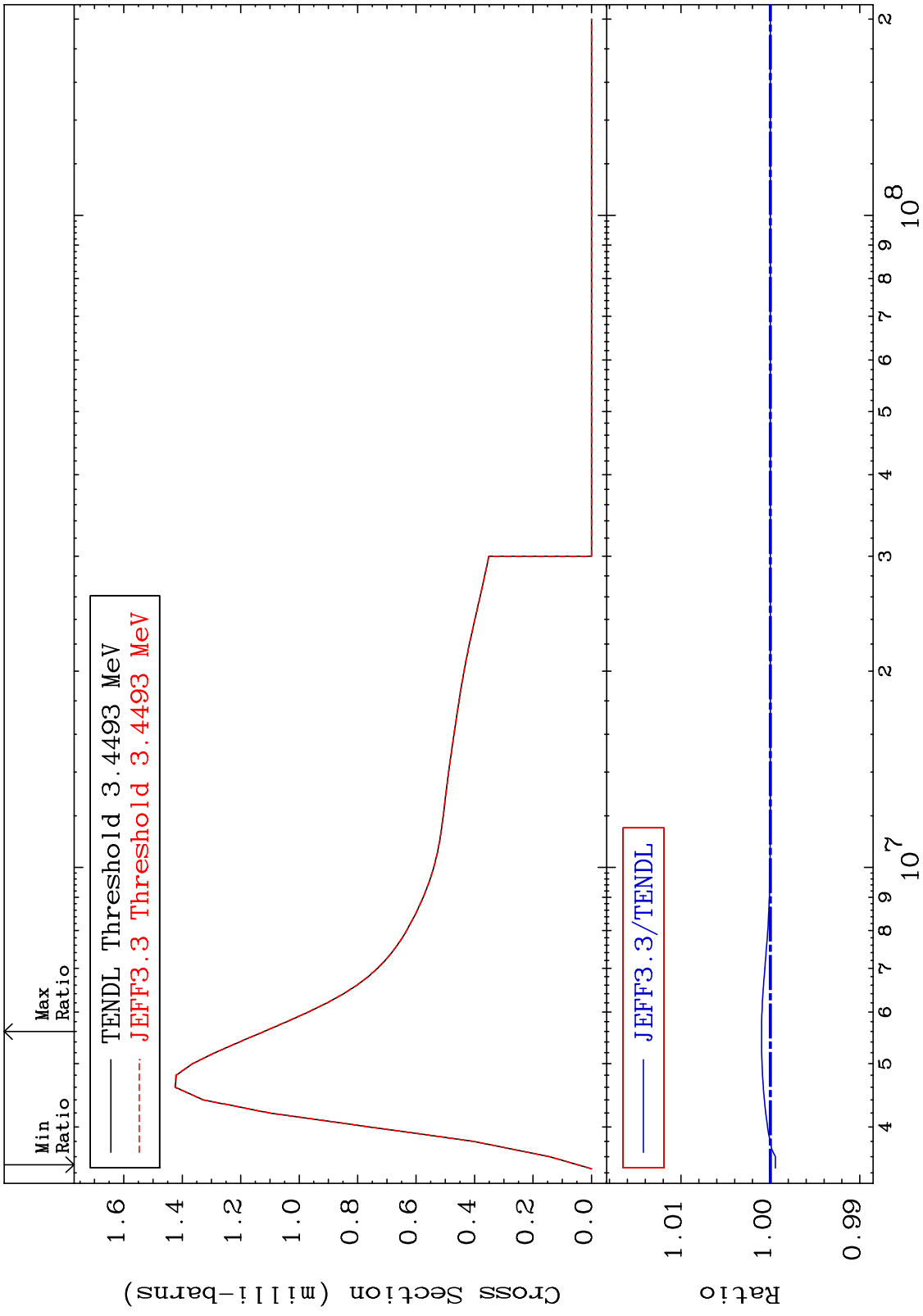
MAT 5837 MT= 76 (n,n') Level Cross Section 58-Ce-140  
 -0.494 To 0.152 %



MAT 5837 MT= 77 (n,n') Level Cross Section 58-Ce-140 -0.007 To 0.092 %

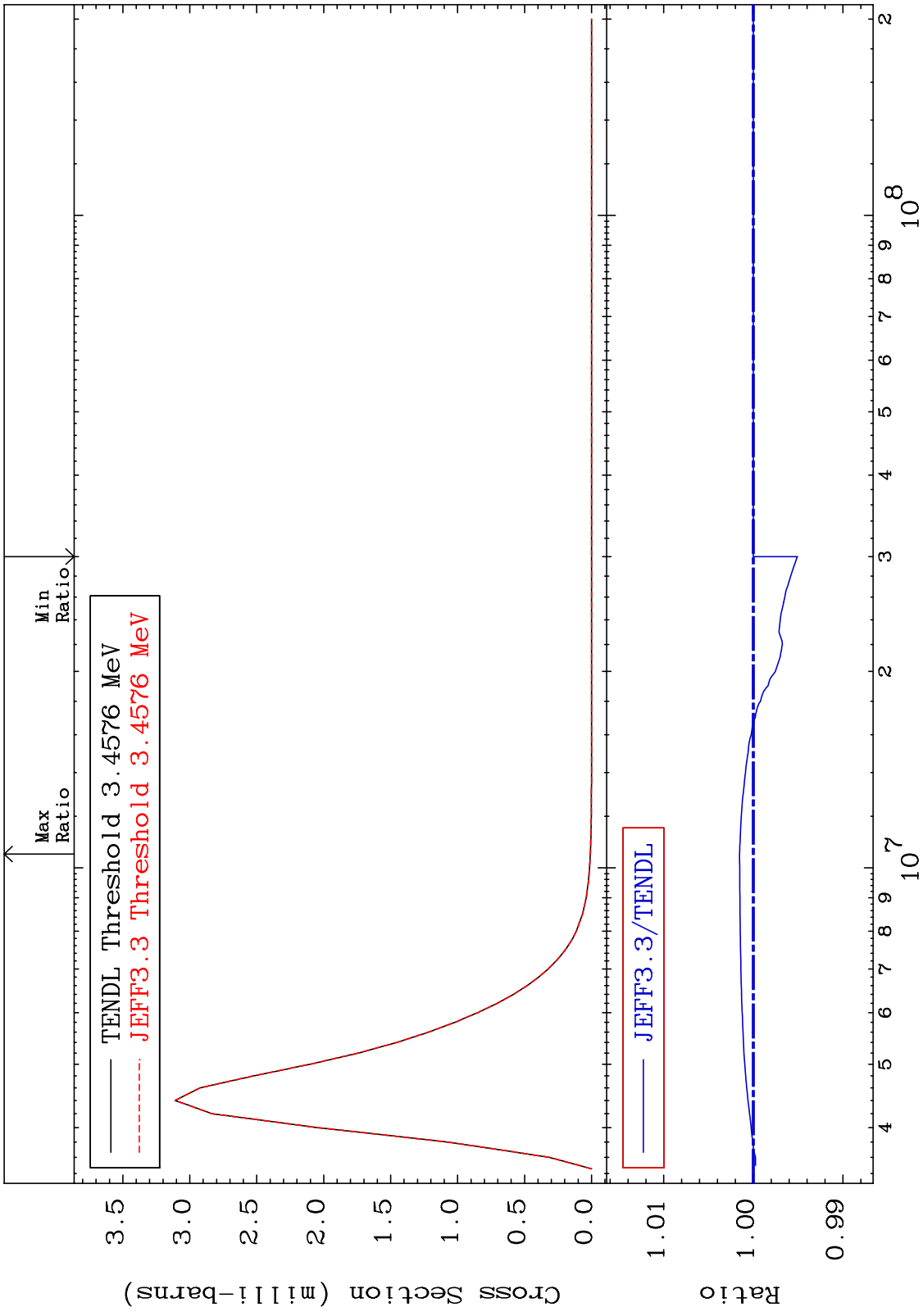


MAT 5837 MT= 78 (n,n') Level Cross Section 58-Ce-140 -0.055 To 0.099 %

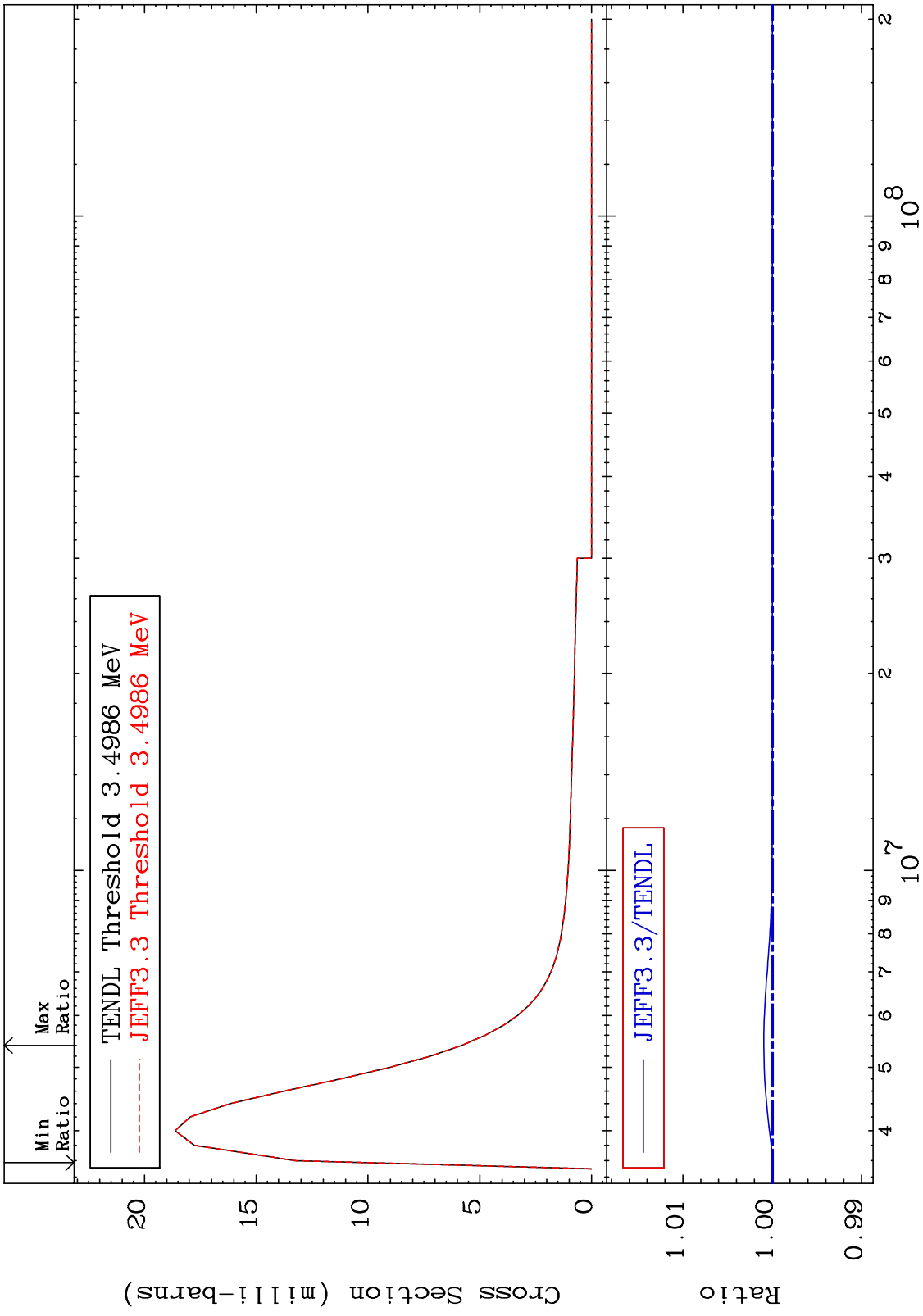




MAT 5837 MT= 79 (n,n') Level Cross Section 58-Ce-140  
 -0.492 To 0.154 %



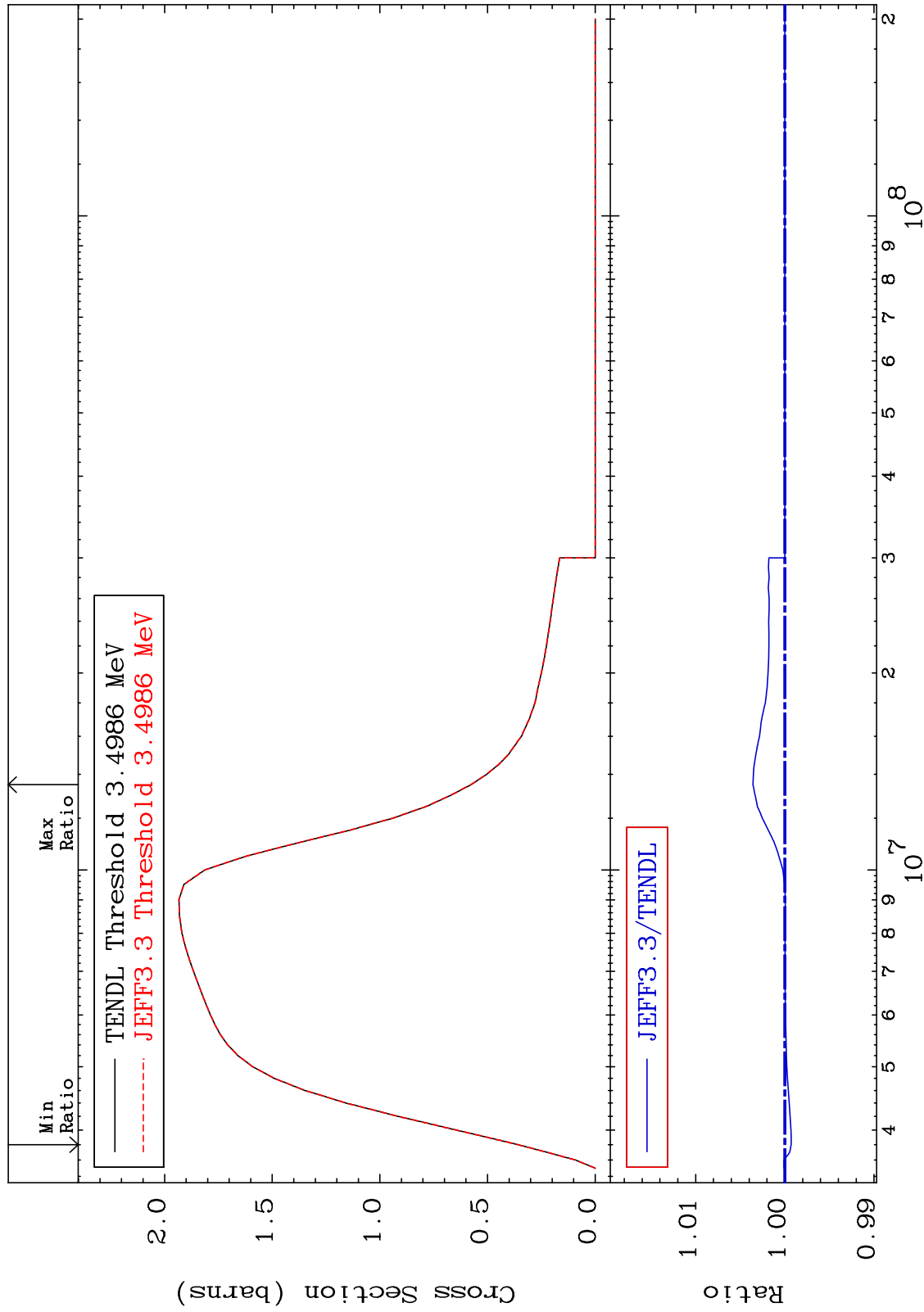
MAT 5837 MT= 80 (n,n') Level Cross Section 58-Ce-140 -0.009 To 0.094 %



MAT 5837

(n,n') Continuum  
Cross Section

58-Ce-140  
-0.071 To 0.358 %



50

Incident Energy (eV)

58-Ce-140

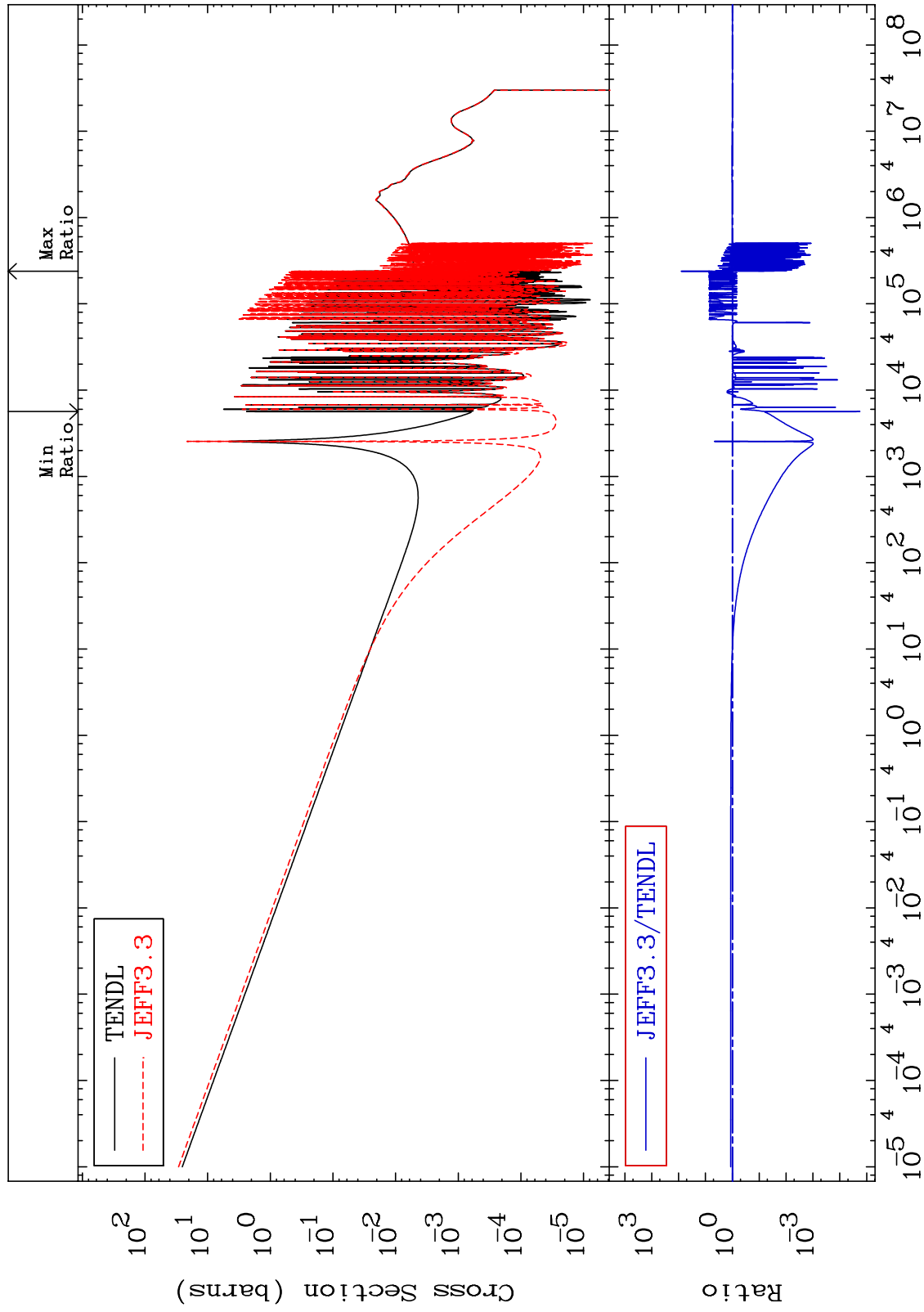
MAT 5837

(n,  $\gamma$ )

58-Ce-140

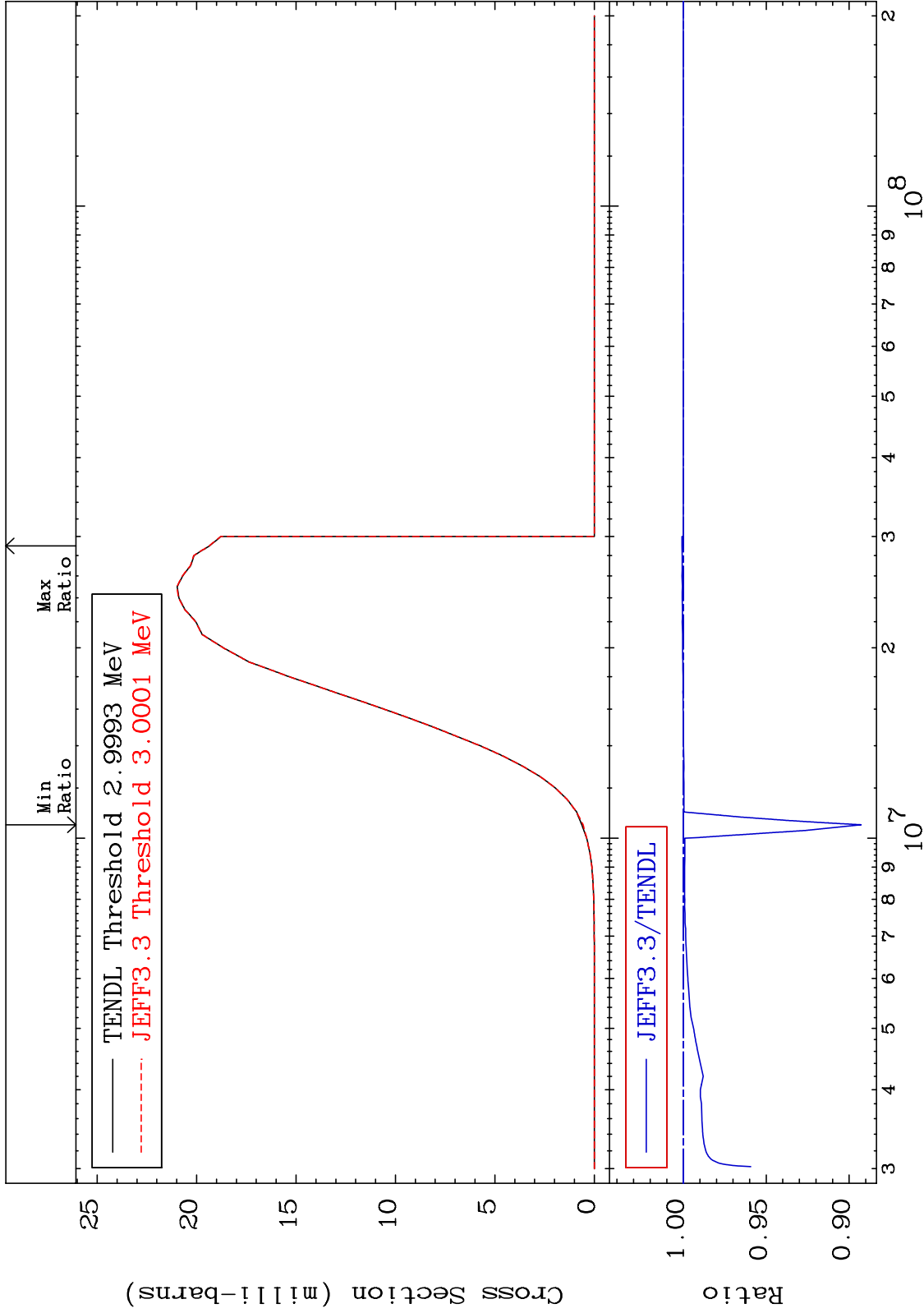
Cross Section

-100.0 To 7723. %

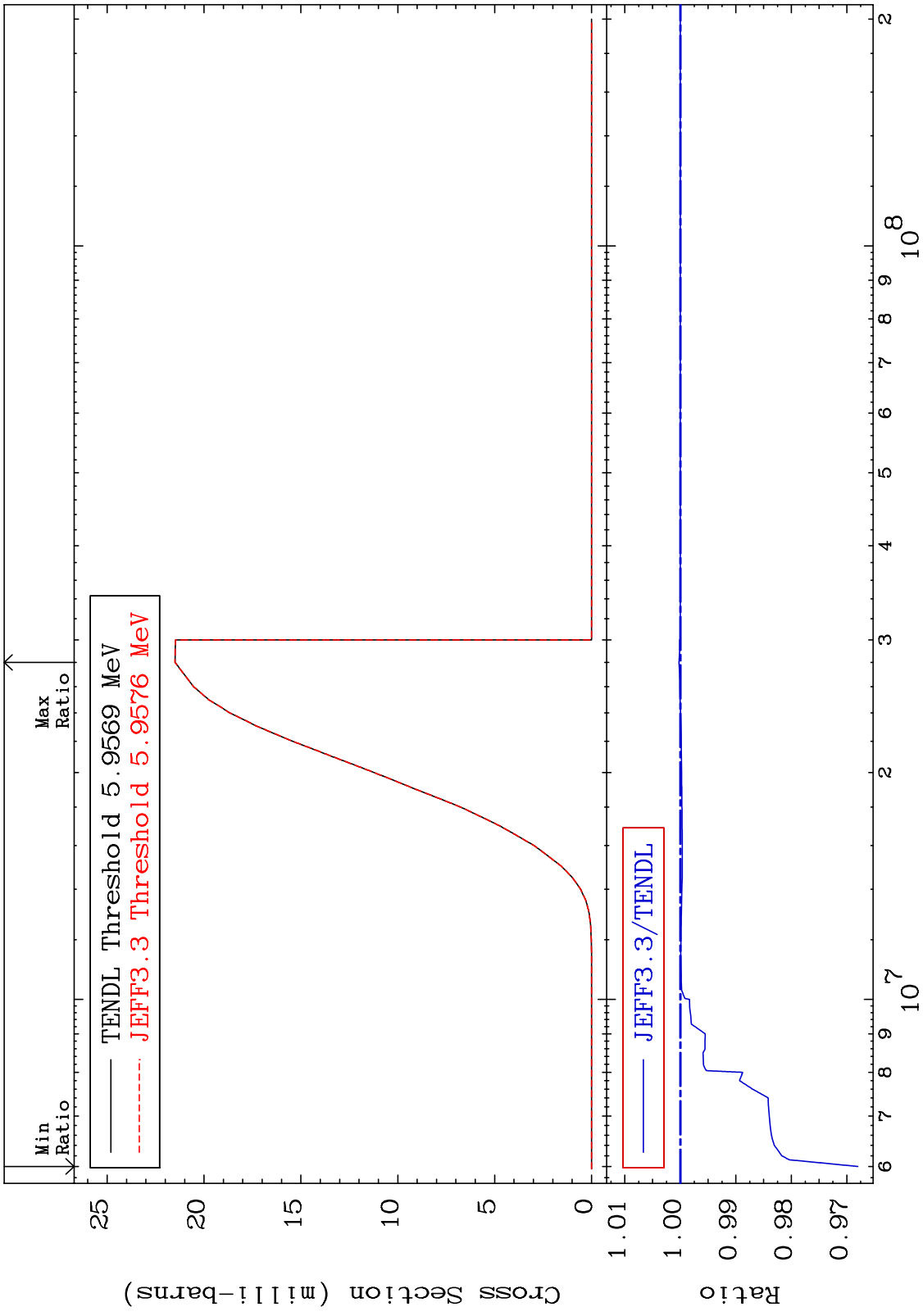


MAT 5837

(n,p) Cross Section  
58-Ce-140  
-10.73 To 0.079 %



MAT 5837 (n,d) Cross Section 58-Ce-140 -3.198 To 0.023 %



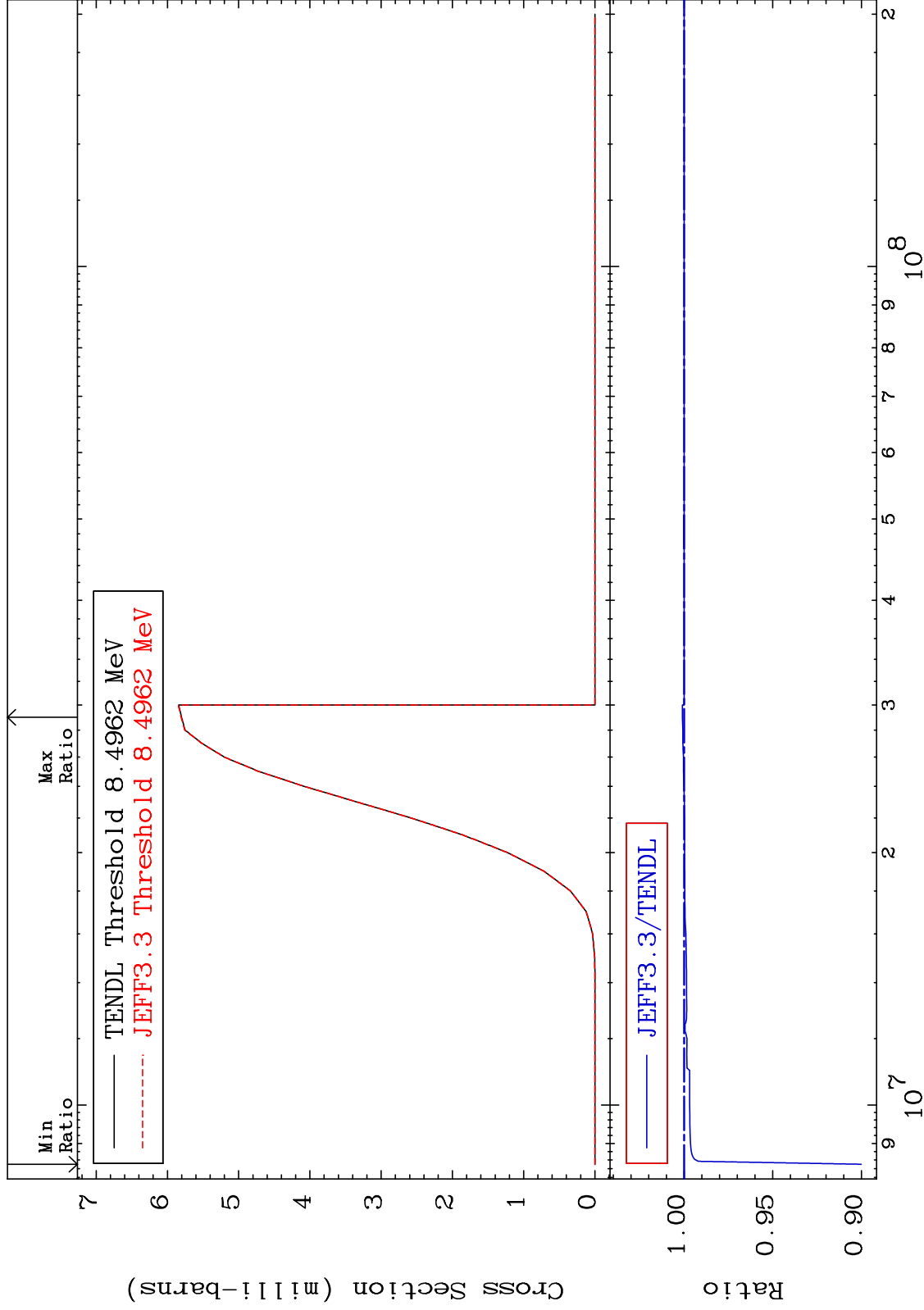
MAT 5837

(n,t)

58-Ce-140

-9.995 To 0.097 %

Cross Section



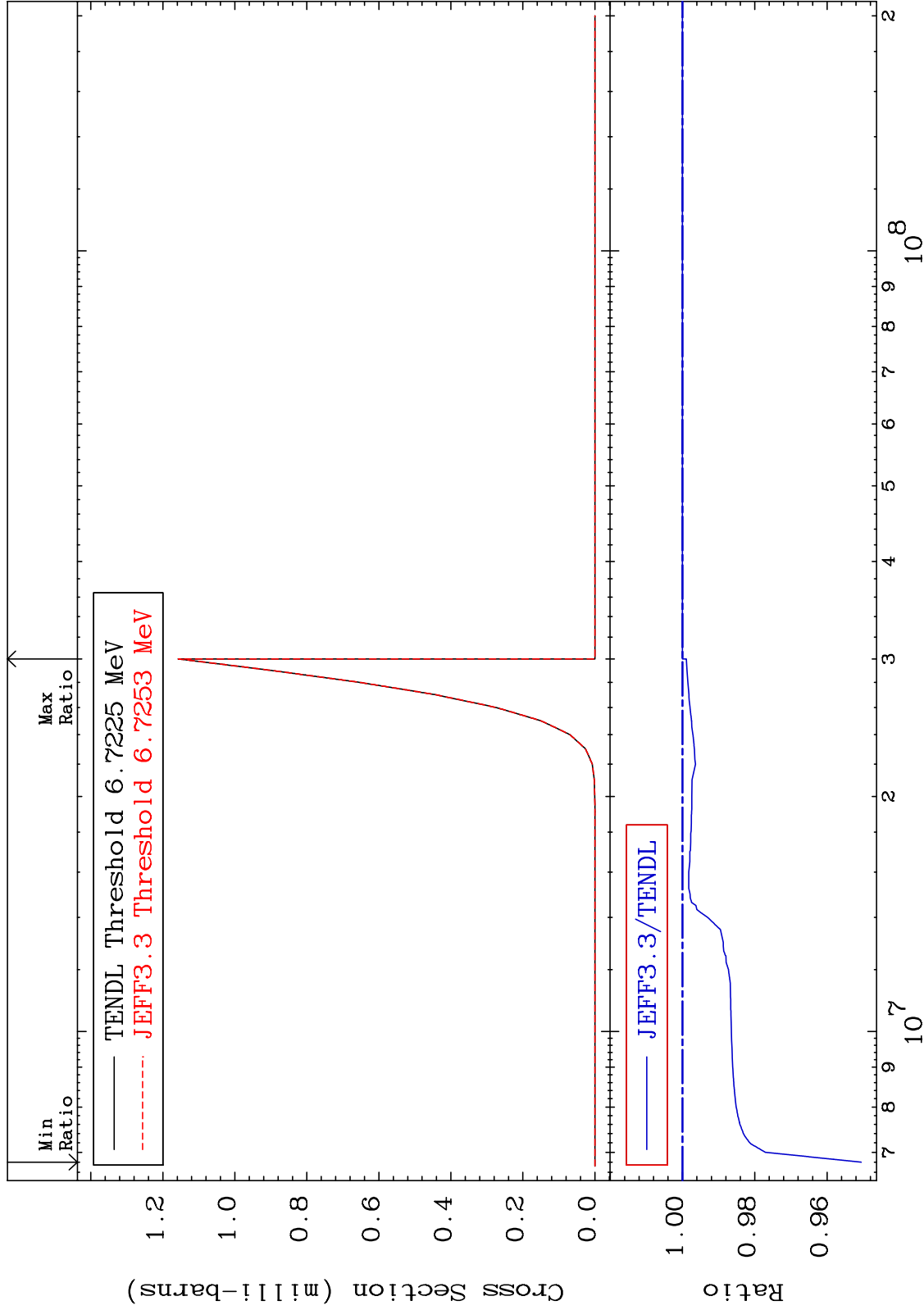
MAT 5837

(n, He-3)

58-Ce-140

-4.946 To 0.000 %

Cross Section



55

Incident Energy (eV)

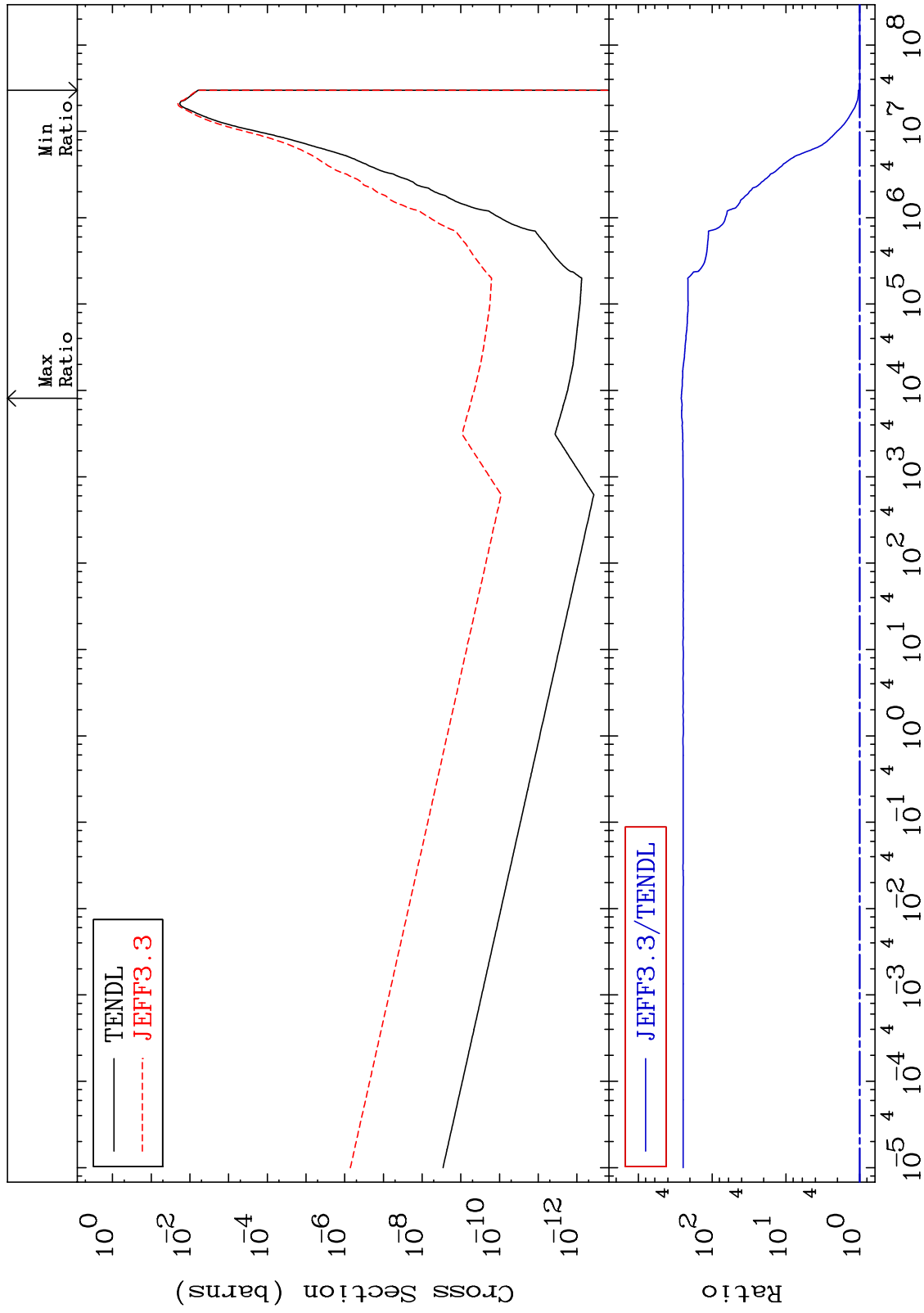
58-Ce-140



MAT 5837

(n,  $\alpha$ )  
Cross Section

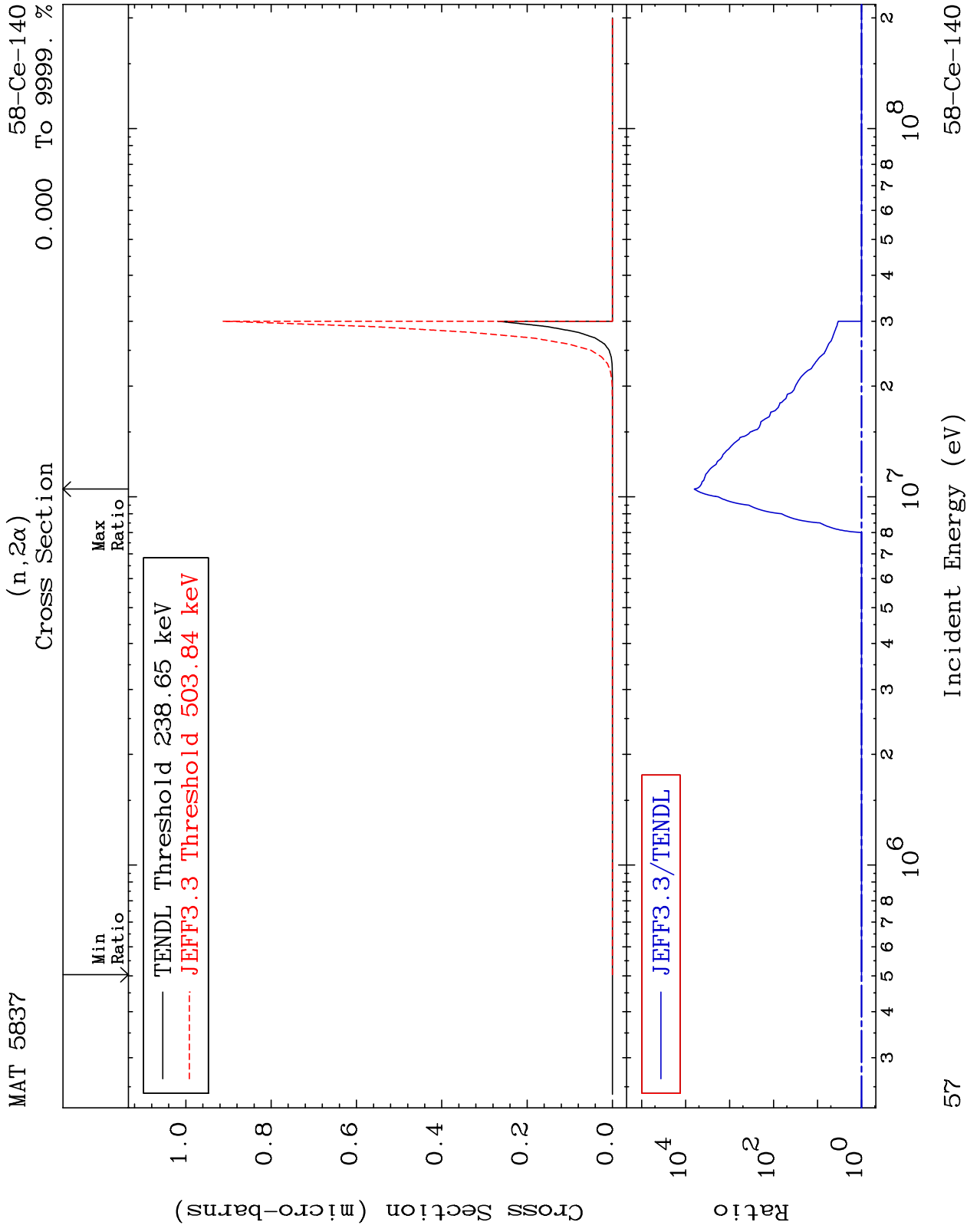
58-Ce-140  
To 9999. %



56

Incident Energy (eV)

58-Ce-140



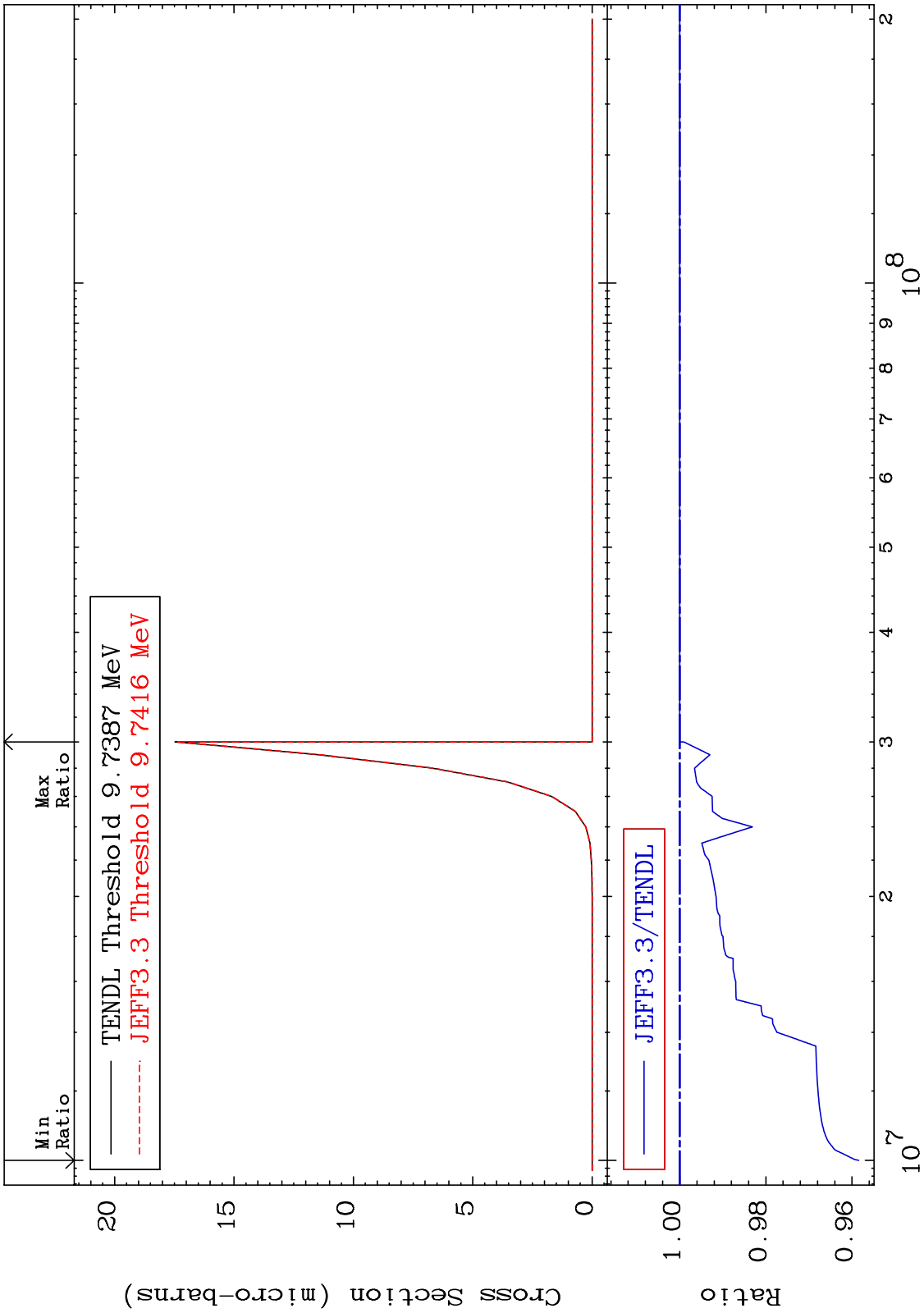
MAT 5837

(n,2p)

58-Ce-140

Cross Section

-4.157 To 0.000 %

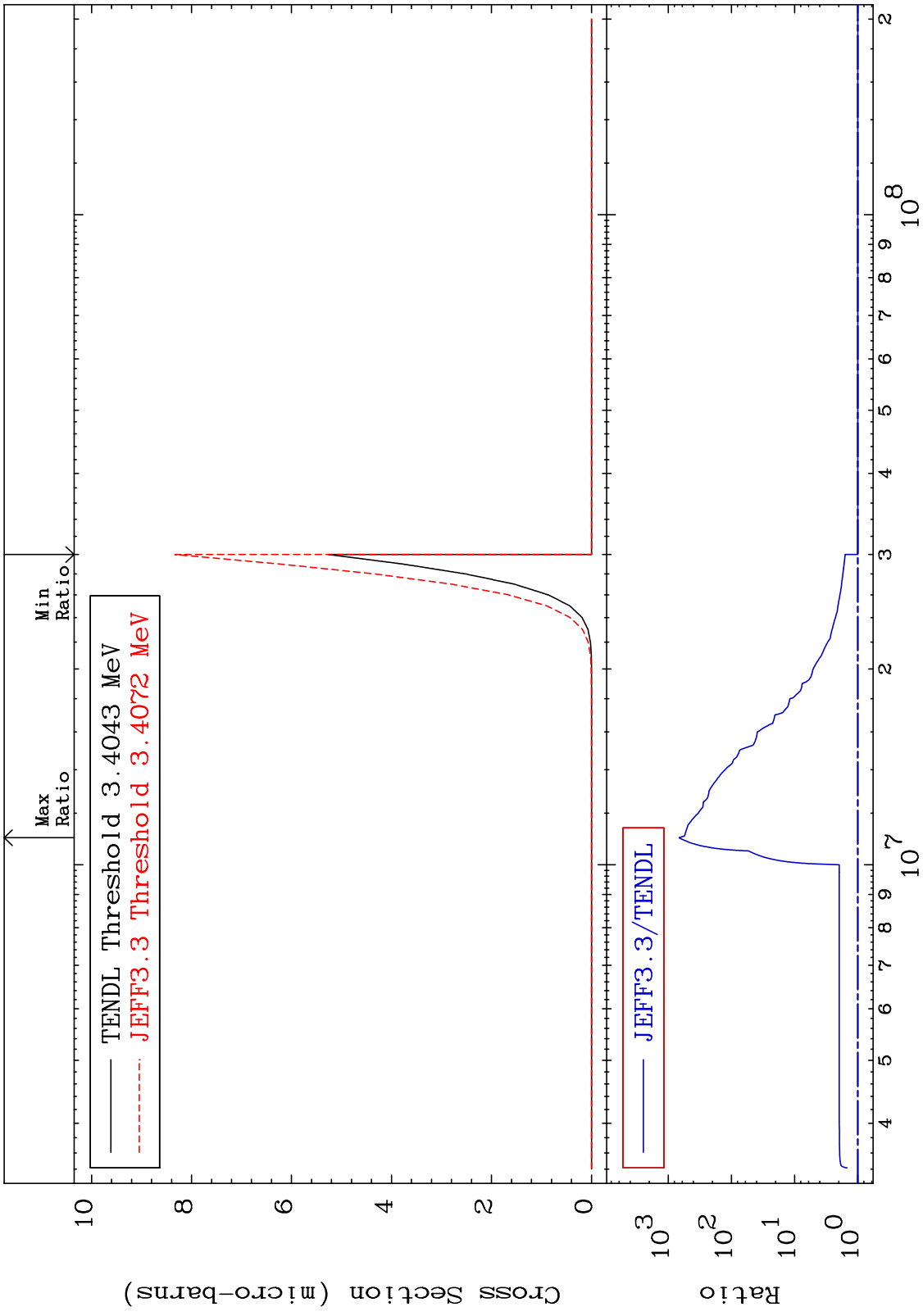


58

Incident Energy (eV)

58-Ce-140

MAT 5837  $(n, p) \alpha$  58-Ce-140 To 9999. %



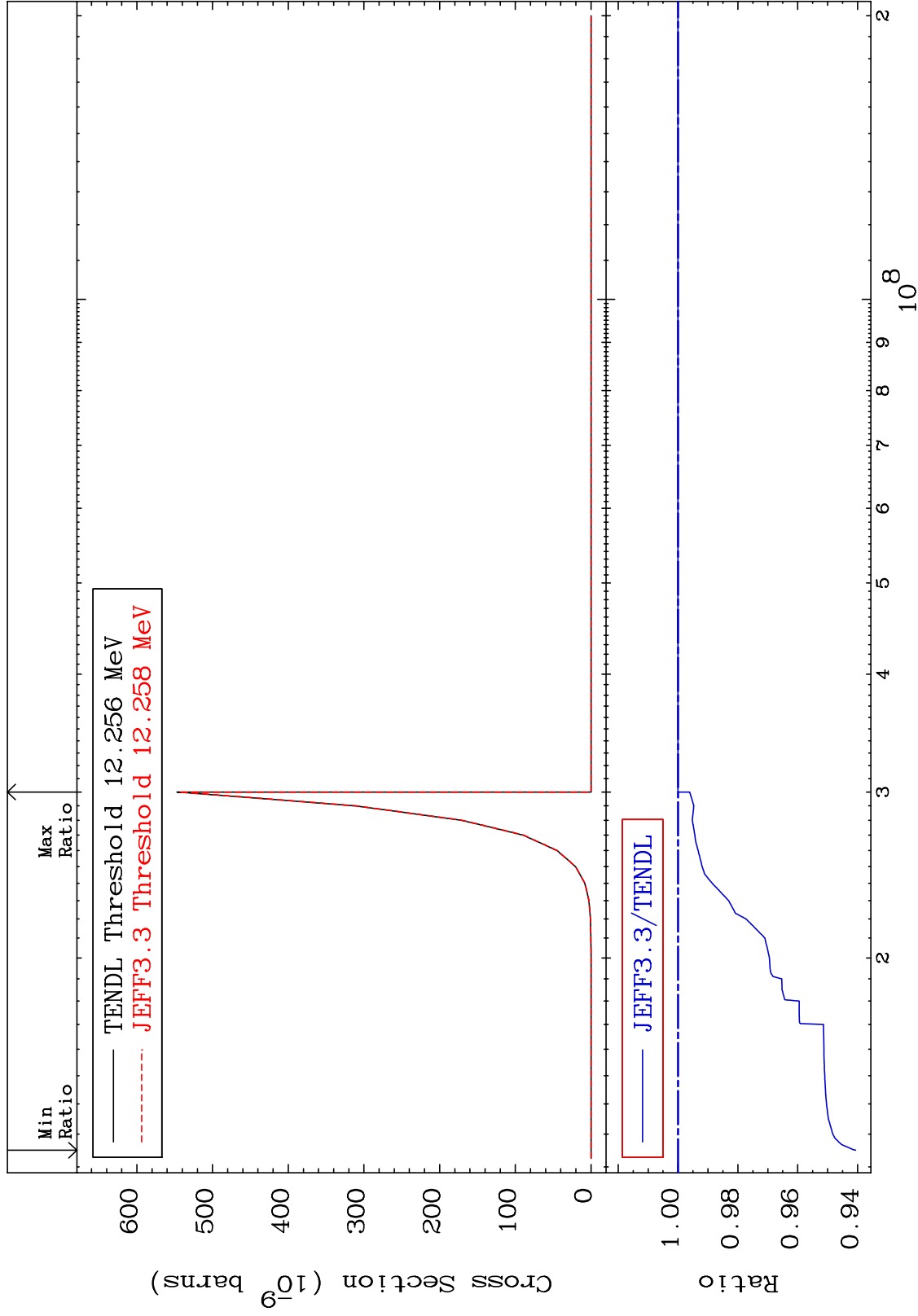
MAT 5837

(n,p) d

58-Ce-140

Cross Section

-5.937 To 0.000 %

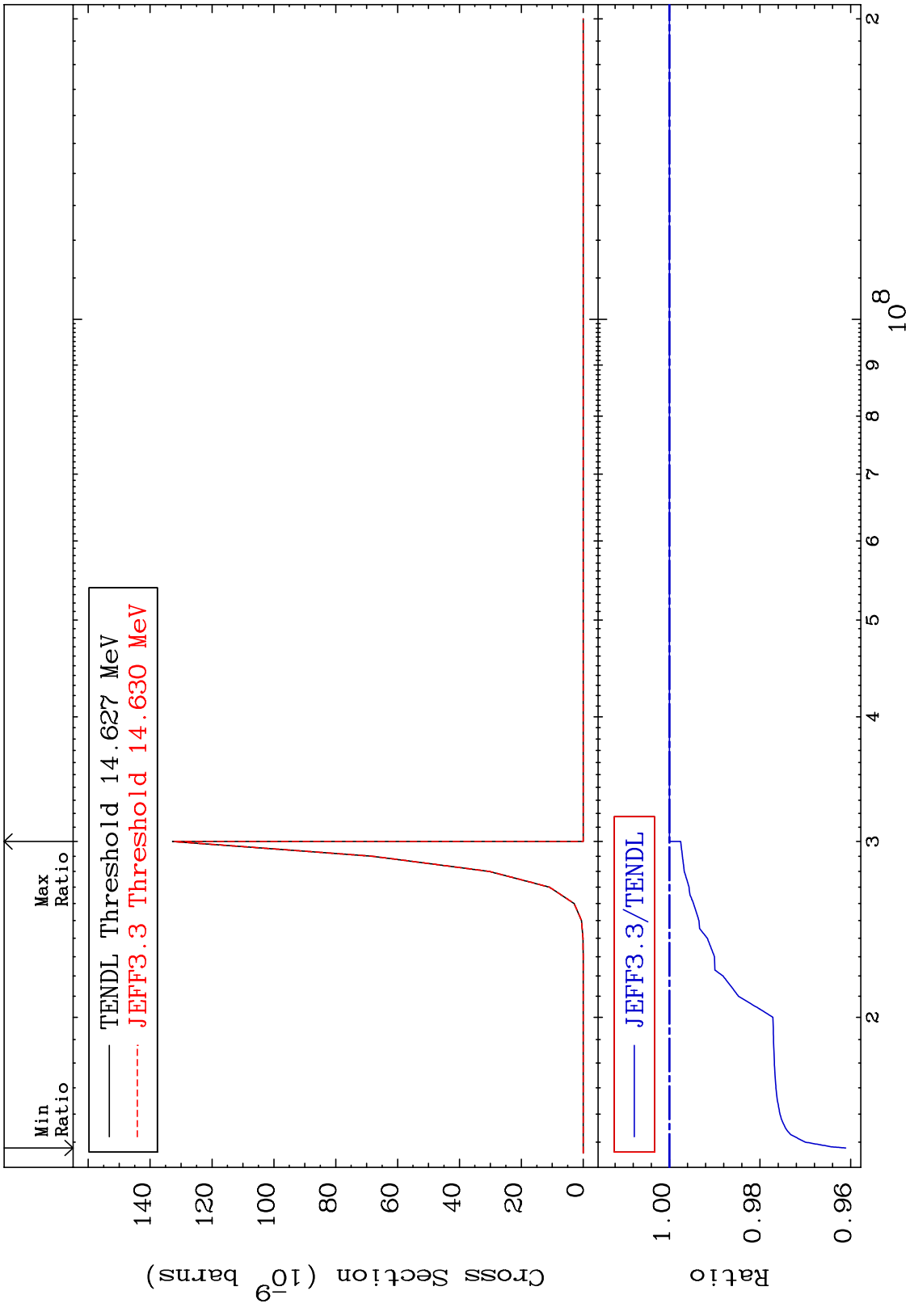


60

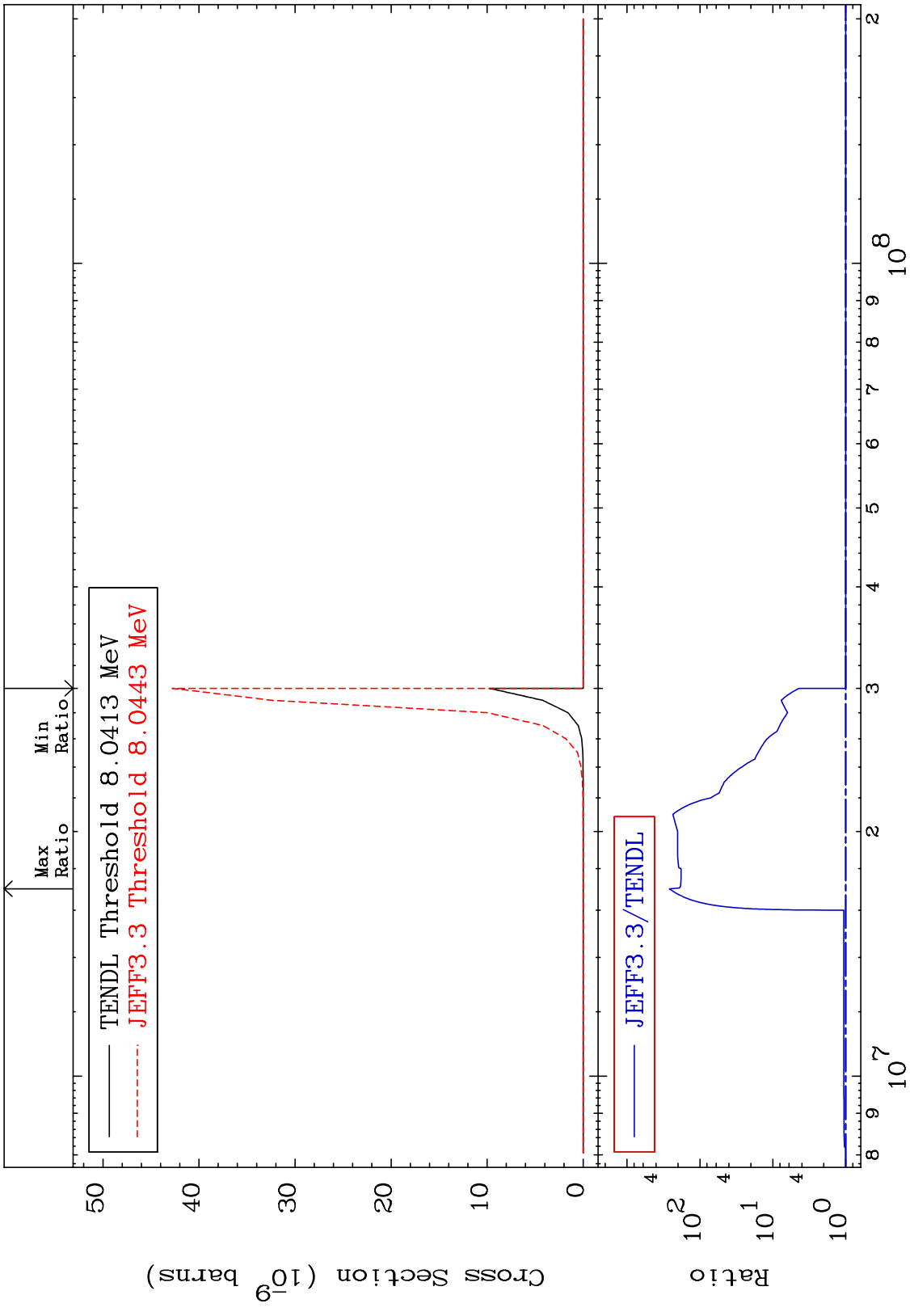
Incident Energy (eV)

58-Ce-140

MAT 5837 (n,p) t 58-Ce-140  
 Cross Section -3.893 To 0.000 %



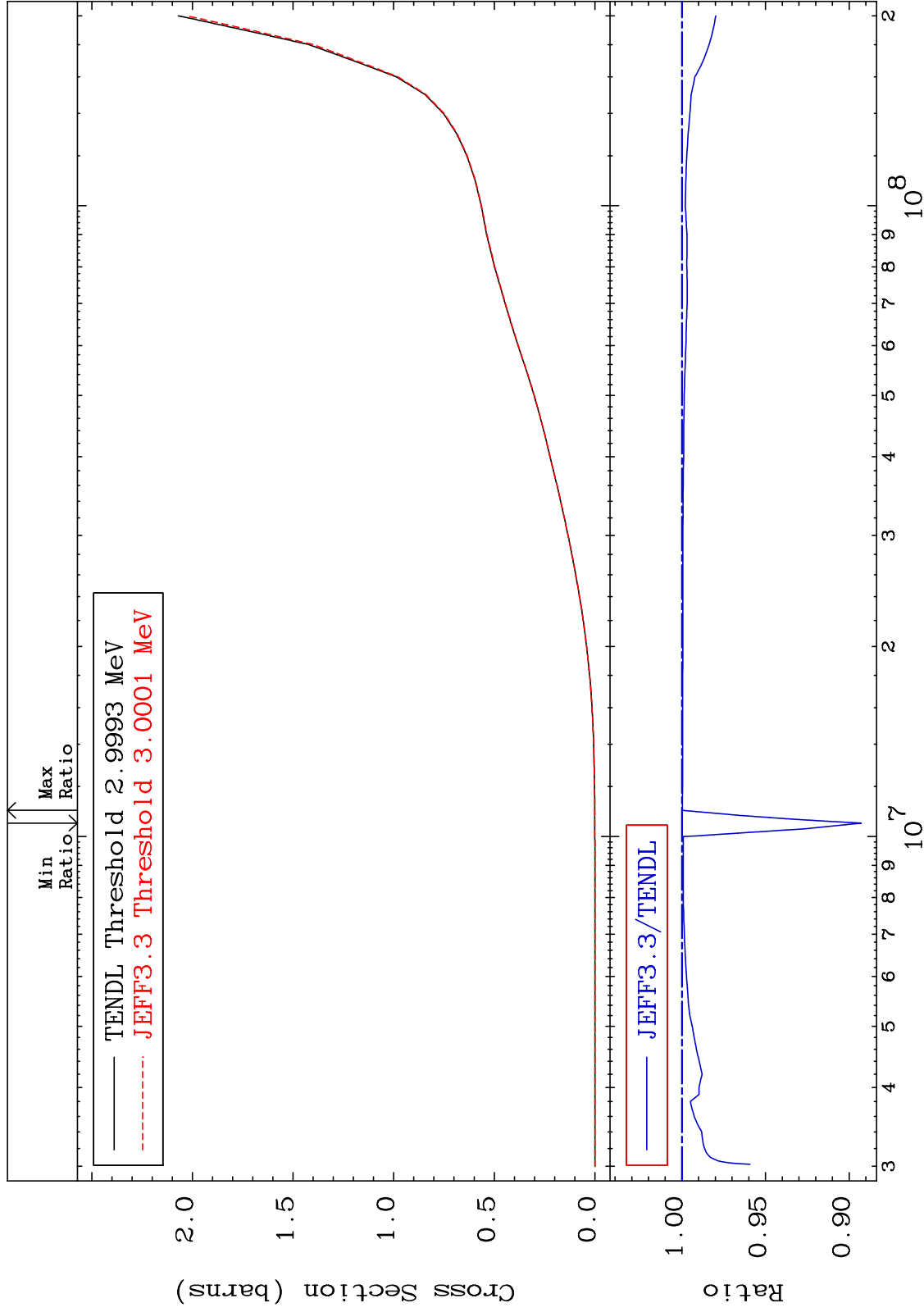
MAT 5837 (n,d)  $\alpha$  58-Ce-140  
 Cross Section To 9999. %



MAT 5837

Hydrogen Production  
Cross Section

58-Ce-140  
-10.73 To -0.031%

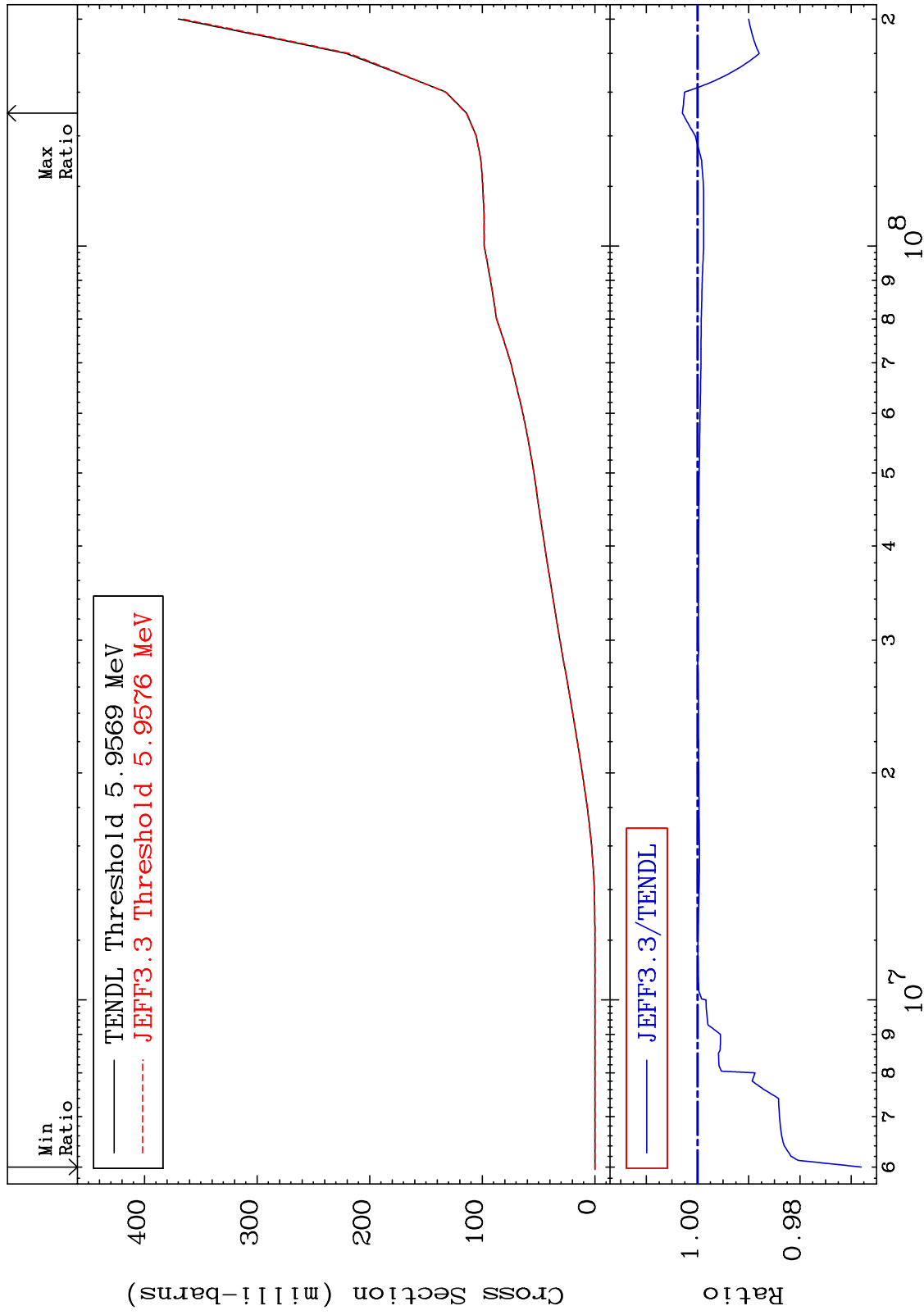




MAT 5837

Deuterium Production  
Cross Section

58-Ce-140  
-3.198 To 0.294 %

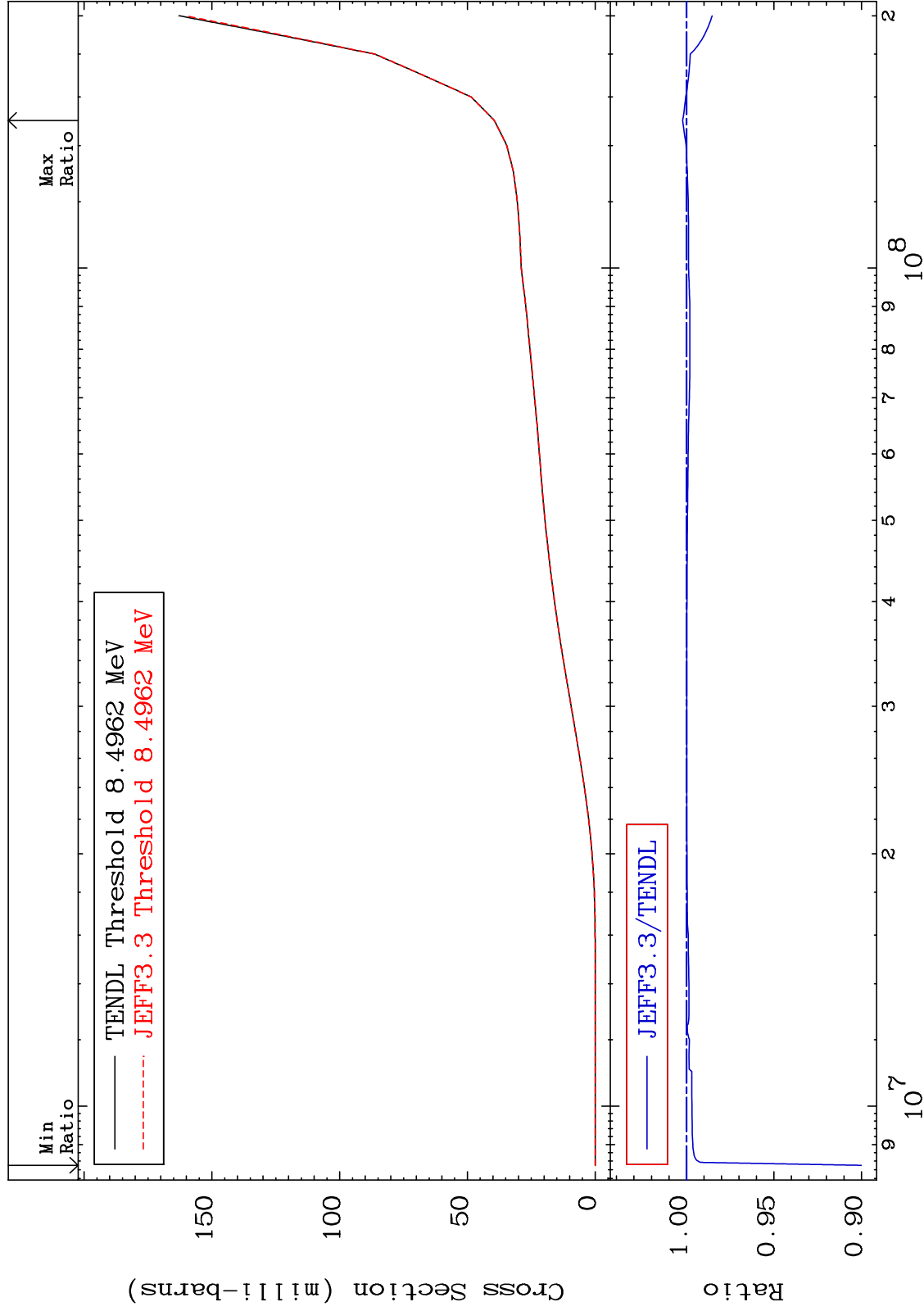


64

MAT 5837

Tritium Production  
Cross Section

58-Ce-140  
-9.995 To 0.217 %



65

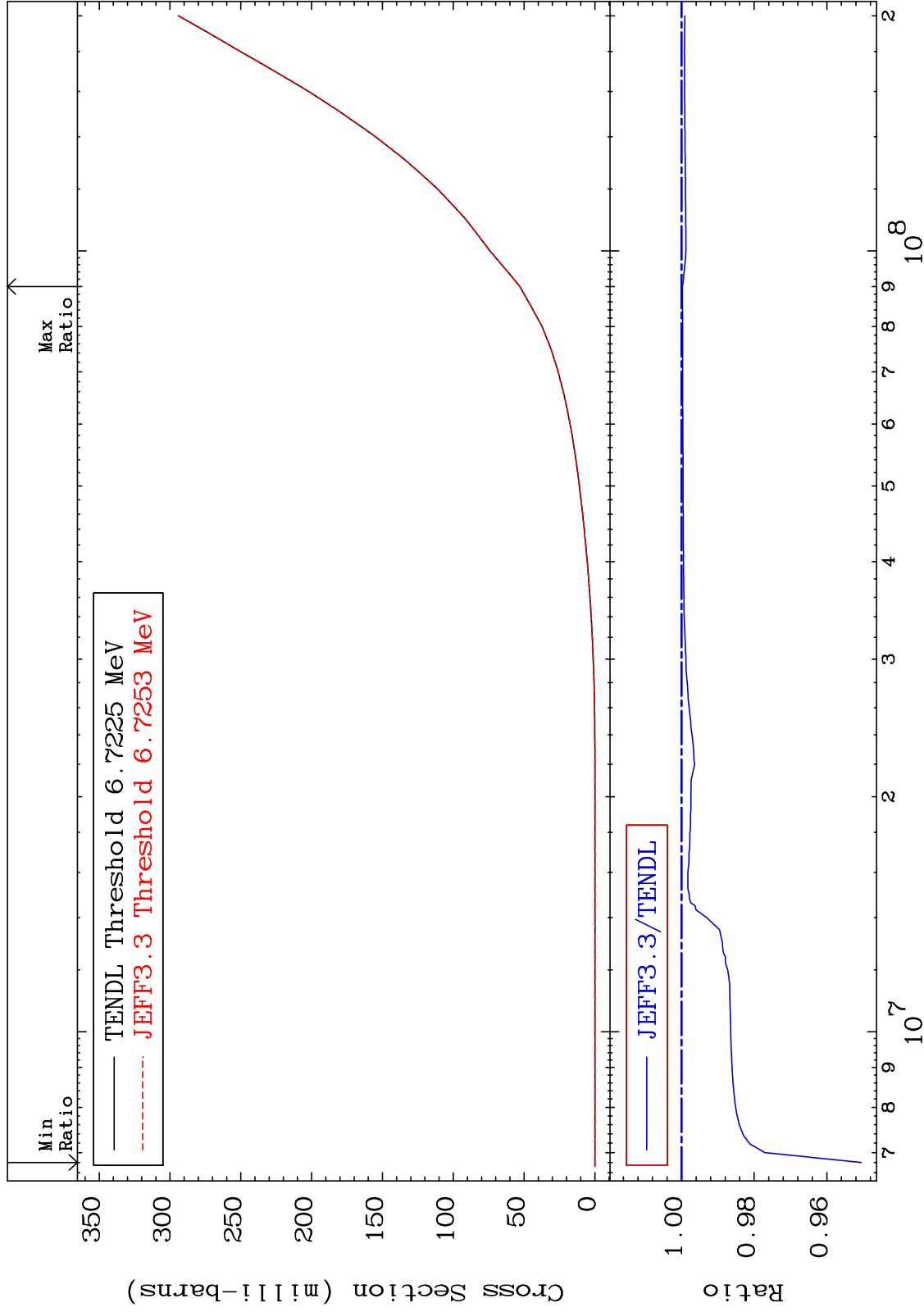
Incident Energy (eV)

58-Ce-140

MAT 5837

He-3 Production  
Cross Section

58-Ce-140  
-4.946 To -0.026%



66

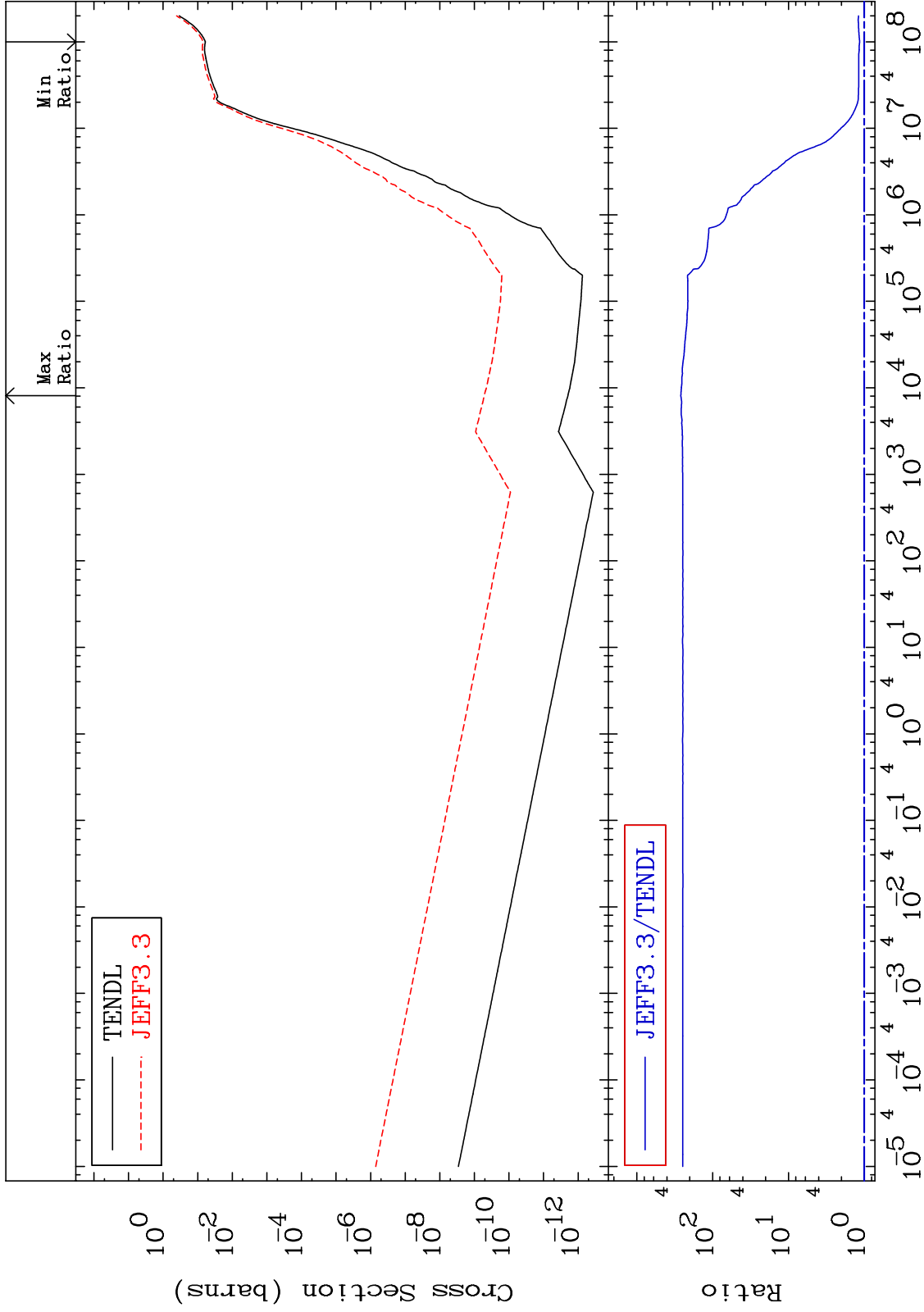
Incident Energy (eV)

58-Ce-140

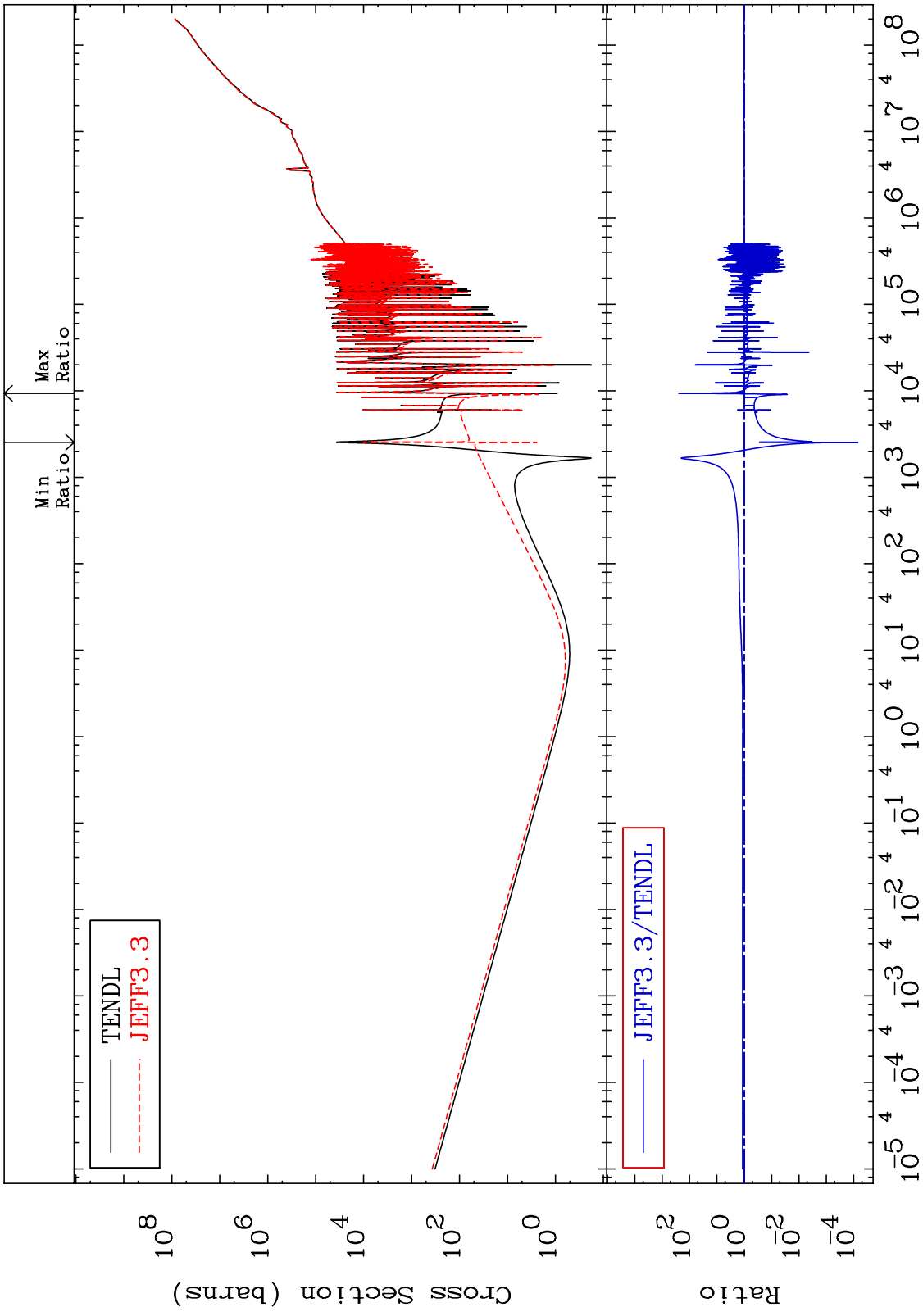
MAT 5837

He-4 Production  
Cross Section

58-Ce-140  
15.18 To 9999. %



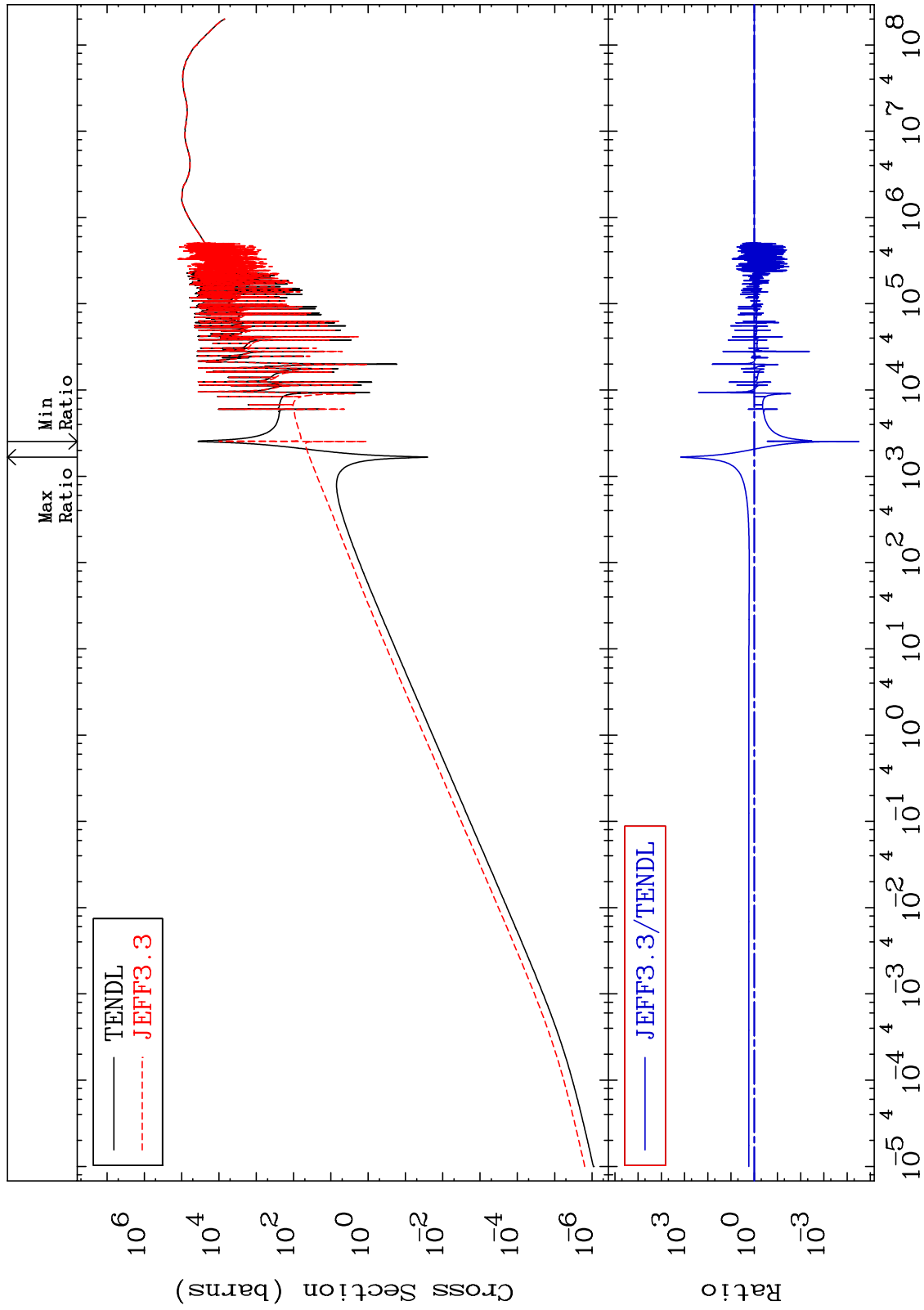
MAT 5837      Kerma total (eV-barns)      58-Ce-140  
 Cross Section      -99.99 To 9999. %



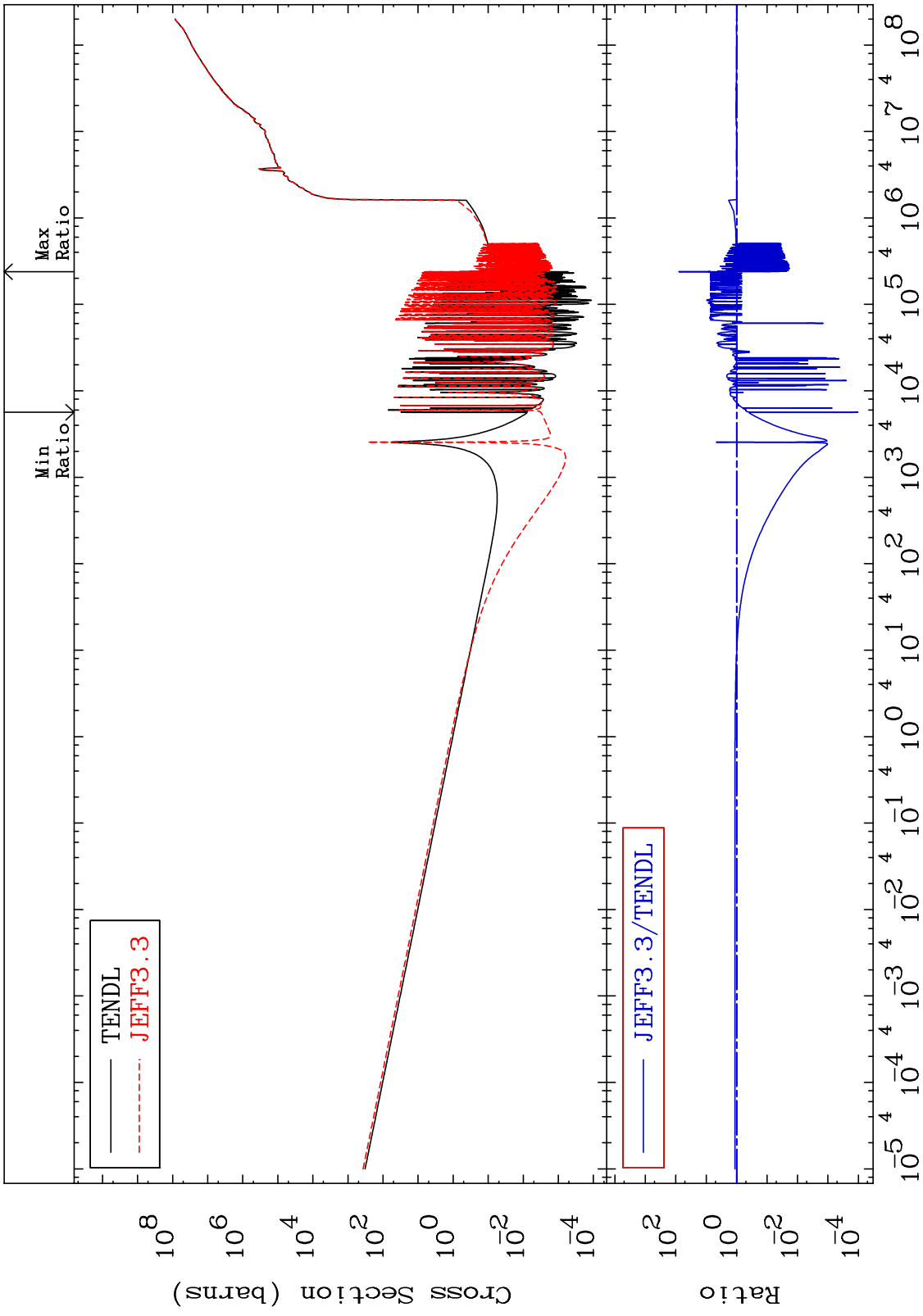
MAT 5837

Kerma elastic  
Cross Section

58-Ce-140  
-100.0 To 9999. %



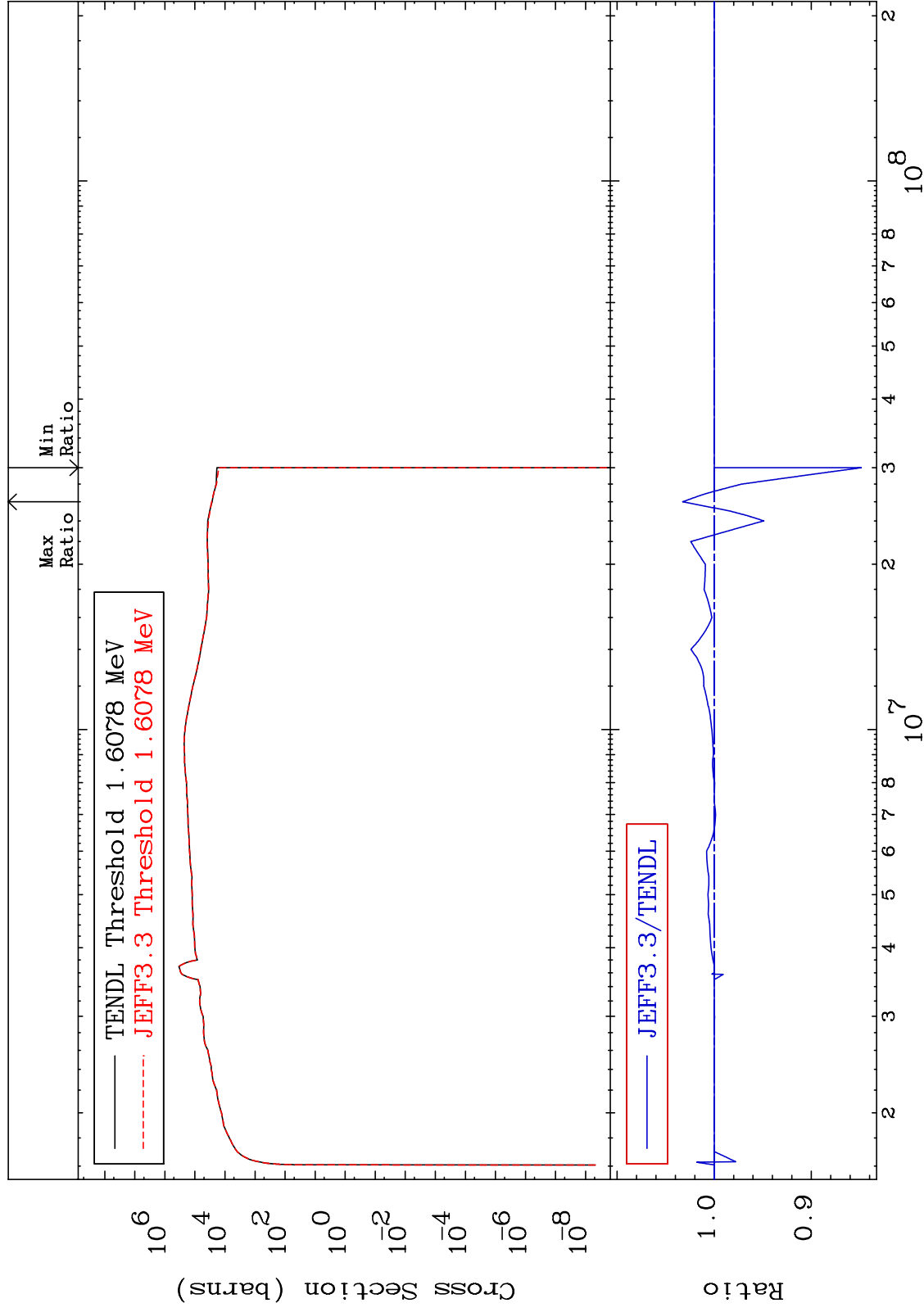
MAT 5837      Kerma non-elastic (all but mt2)      58-Ce-140  
 Cross Section      -99.99 To 7720. %



MAT 5837

Kerma inelastic (mt51-91)  
Cross Section

58-Ce-140  
-15.16 To 3.249 %

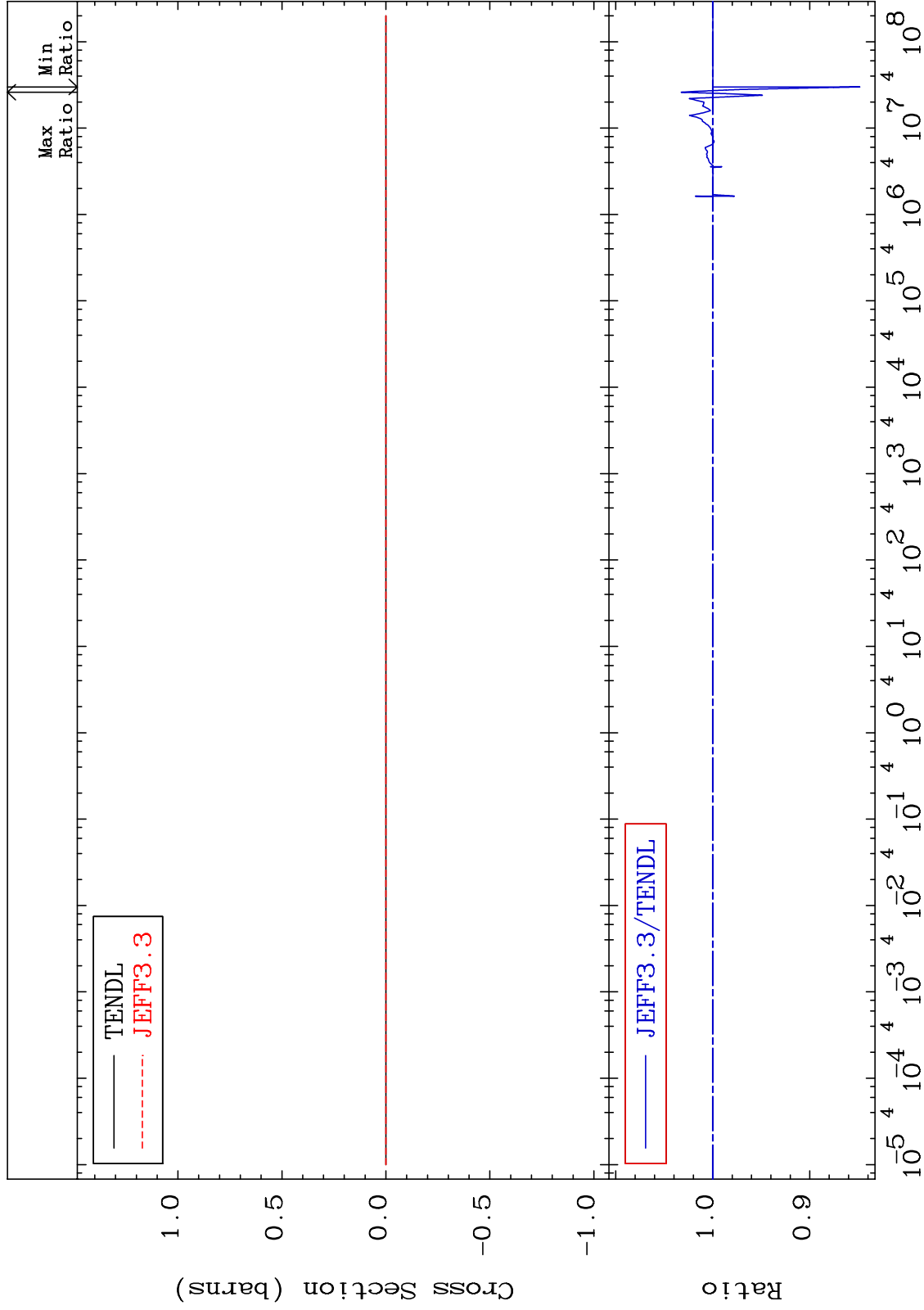




MAT 5837

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

58-Ce-140  
-15.16 To 3.249 %

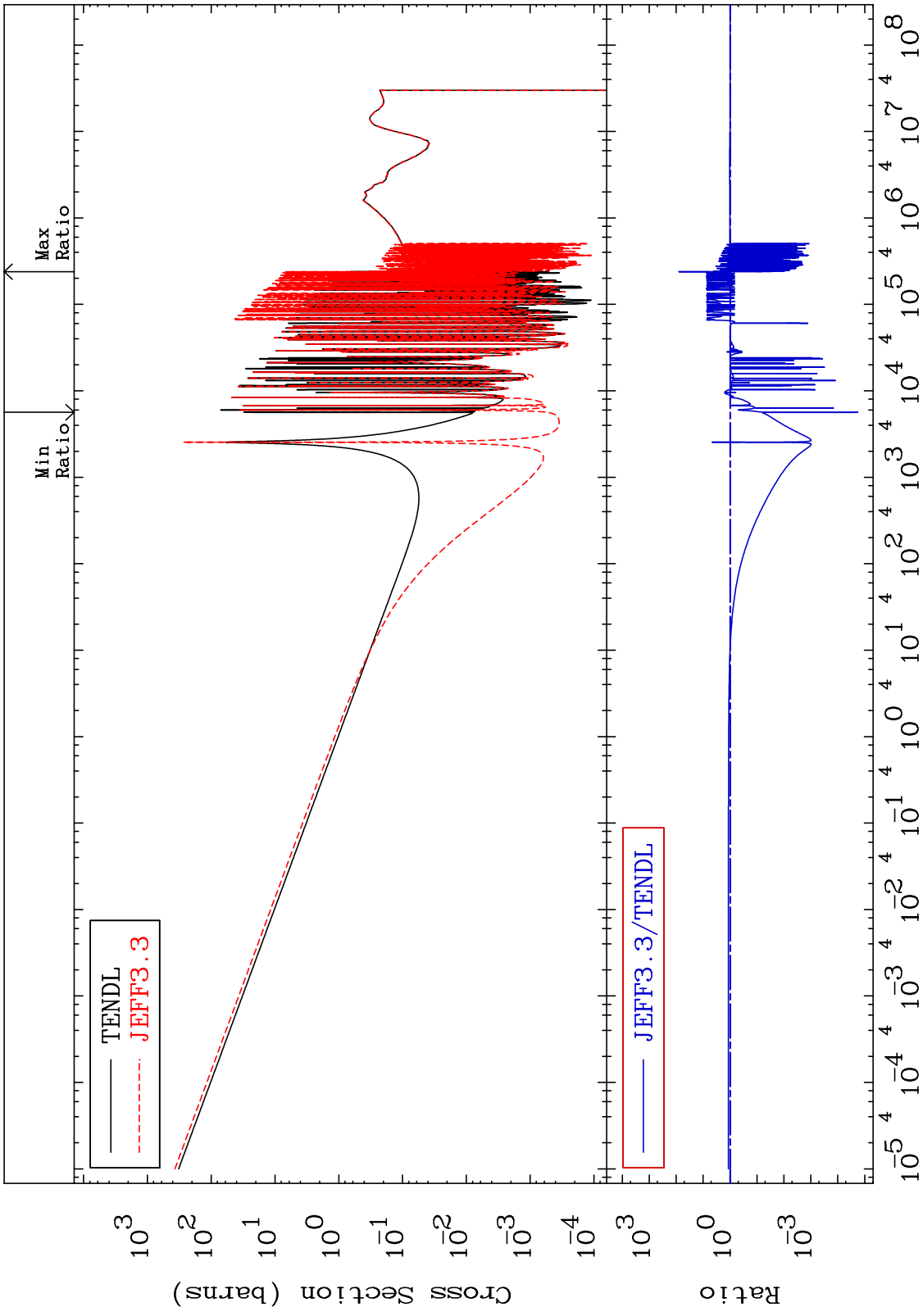


72

Incident Energy (eV)

58-Ce-140

MAT 5837      Kerma capture (mt102)      58-Ce-140  
Cross Section      -100.0 To 7720. %

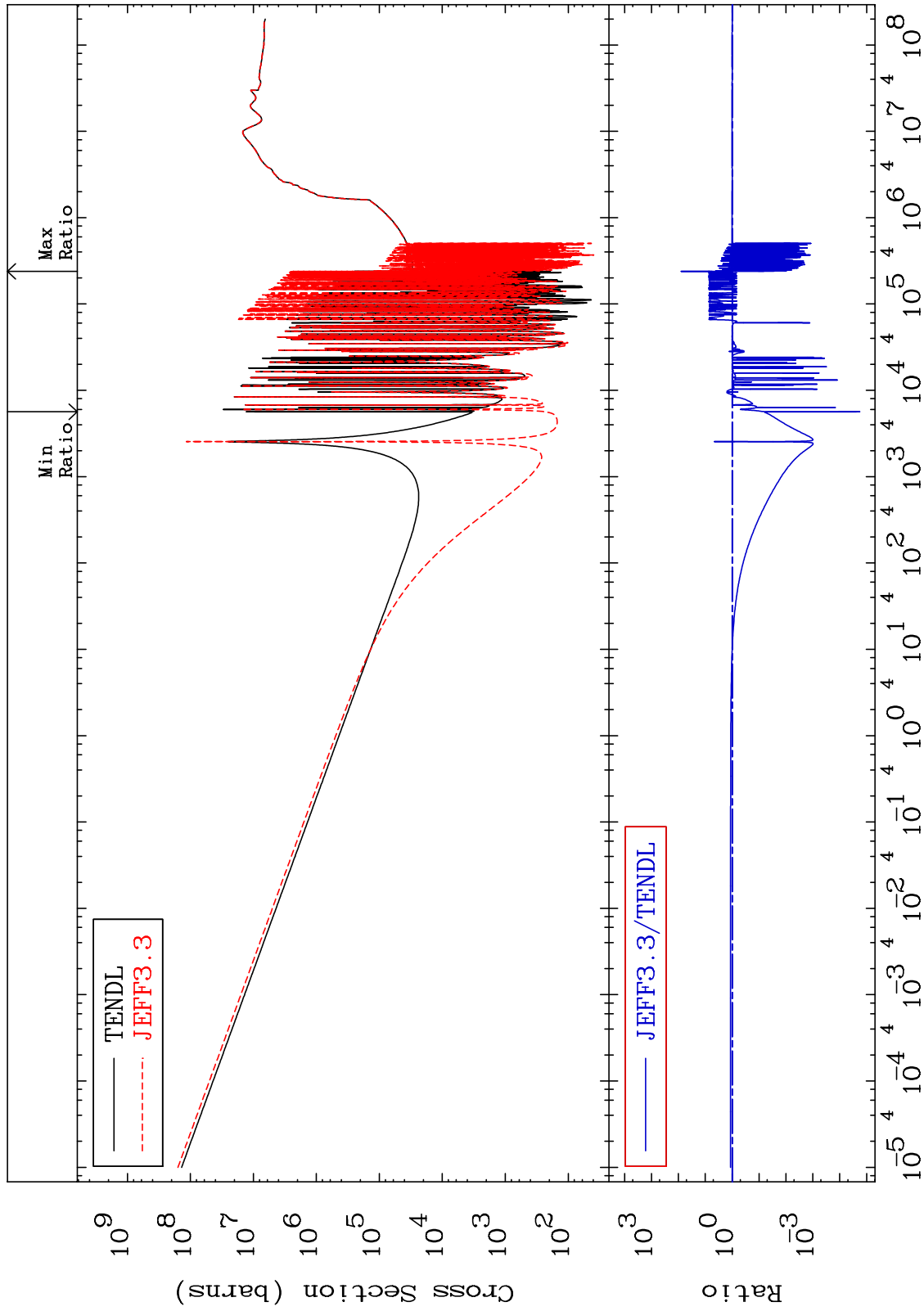


73      Incident Energy (eV)      58-Ce-140

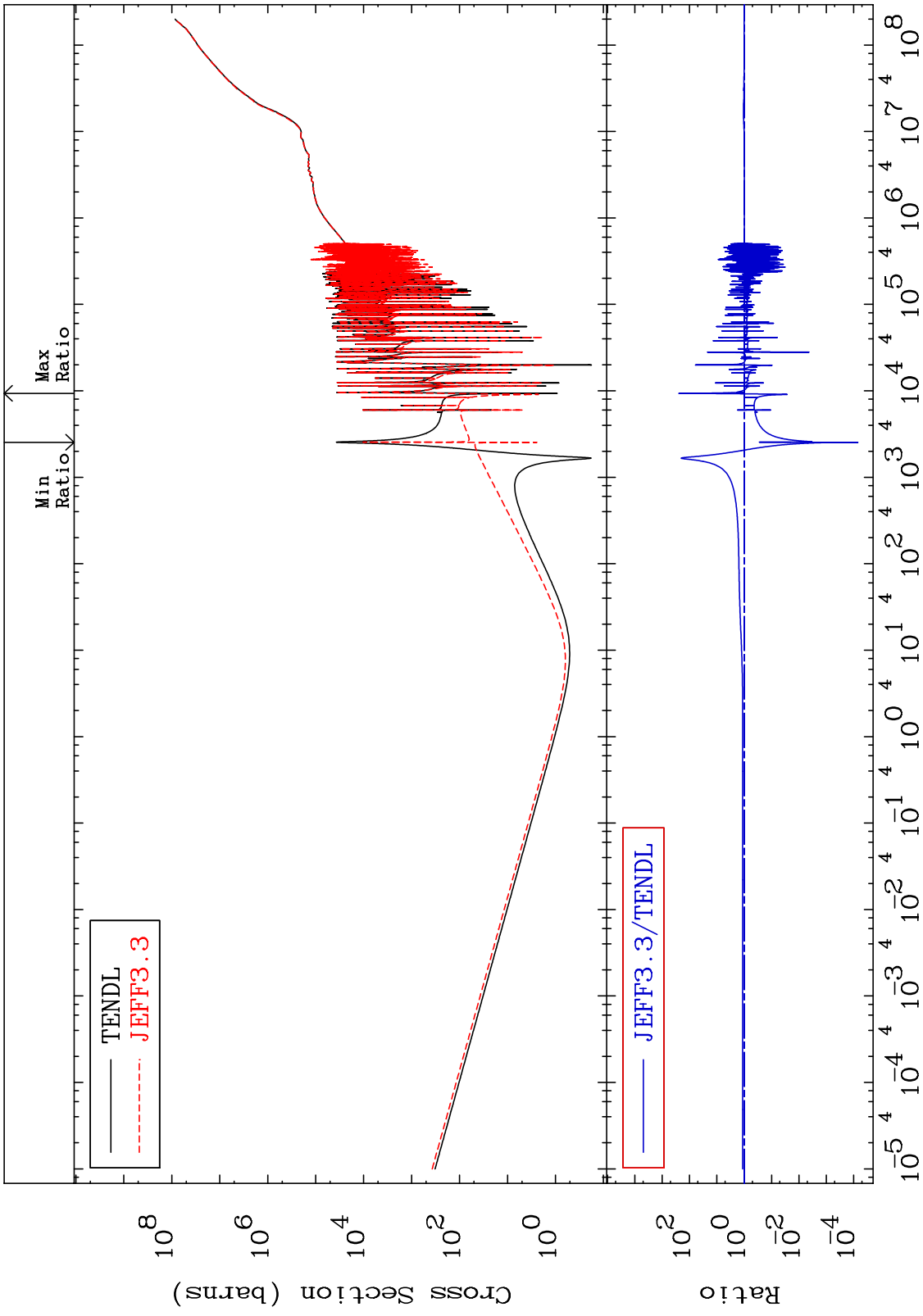
MAT 5837

Total photon (eV-barns)  
Cross Section

58-Ce-140  
-100.0 To 7723. %



MAT 5837      Total kinematic kerma (high limit)      58-Ce-140  
 Cross Section      -99.99 To 9999. %

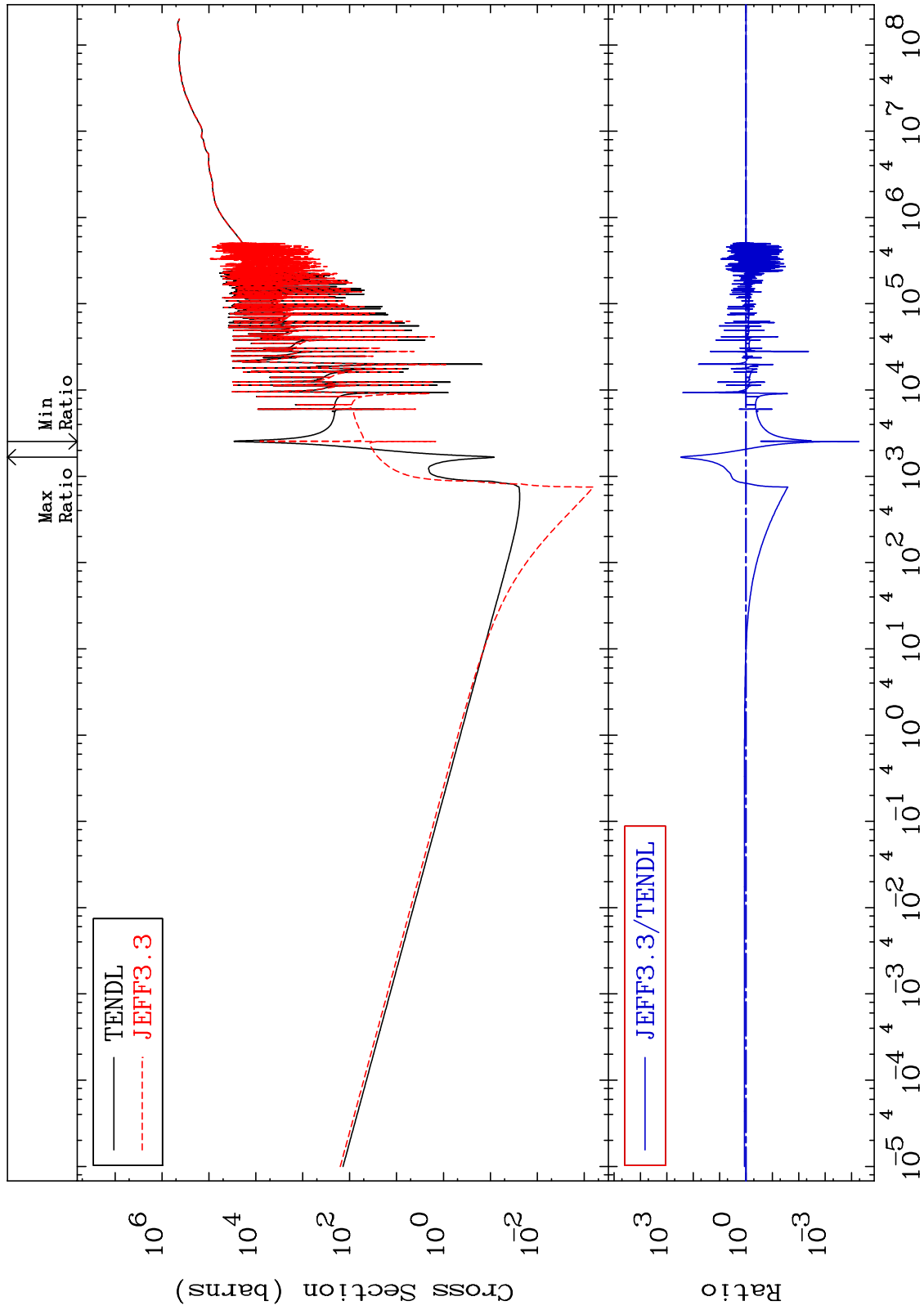


75      Incident Energy (eV)      58-Ce-140

MAT 5837

Dpa total (eV-barns)  
Cross Section

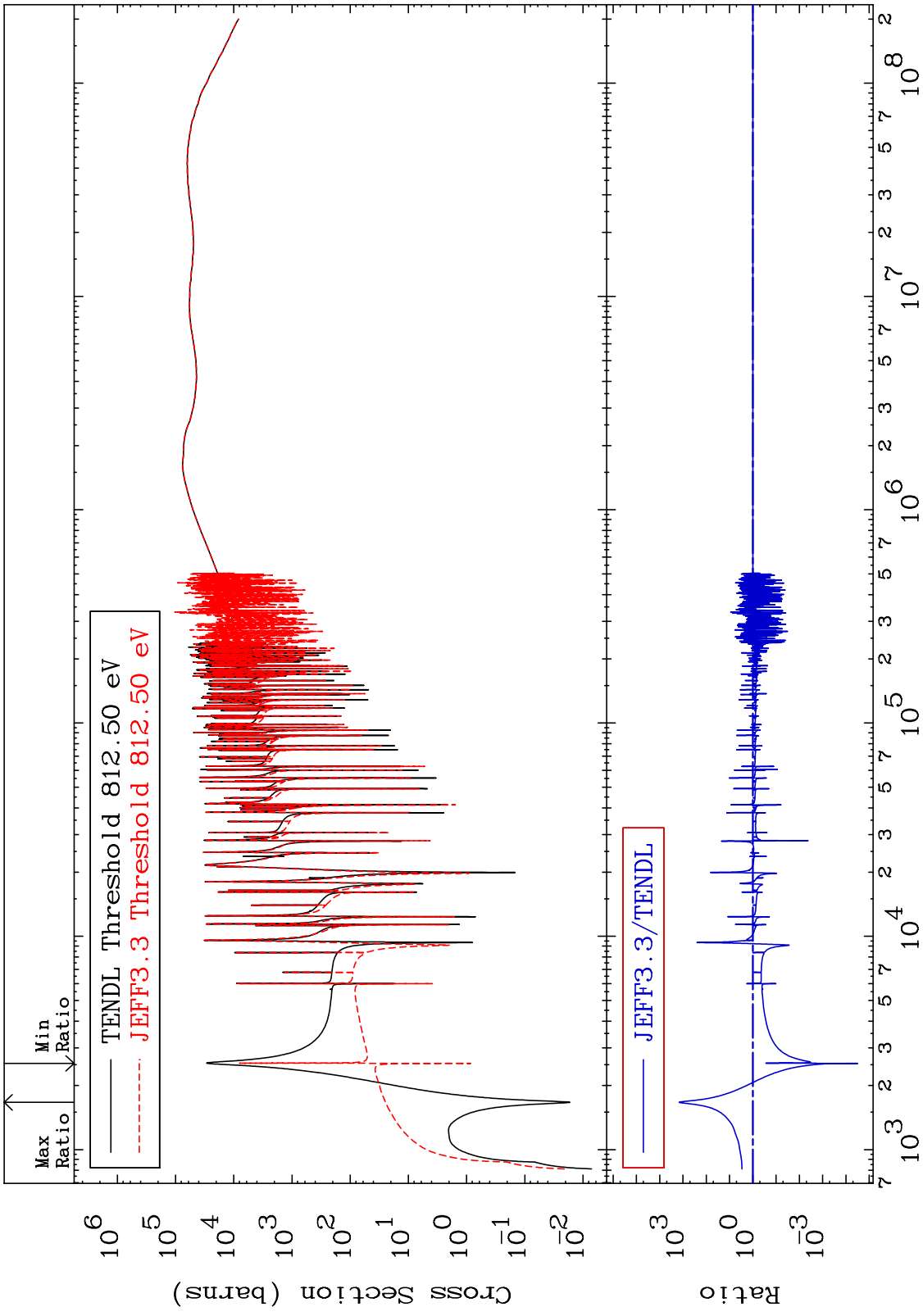
58-Ce-140  
-99.99 To 9999. %



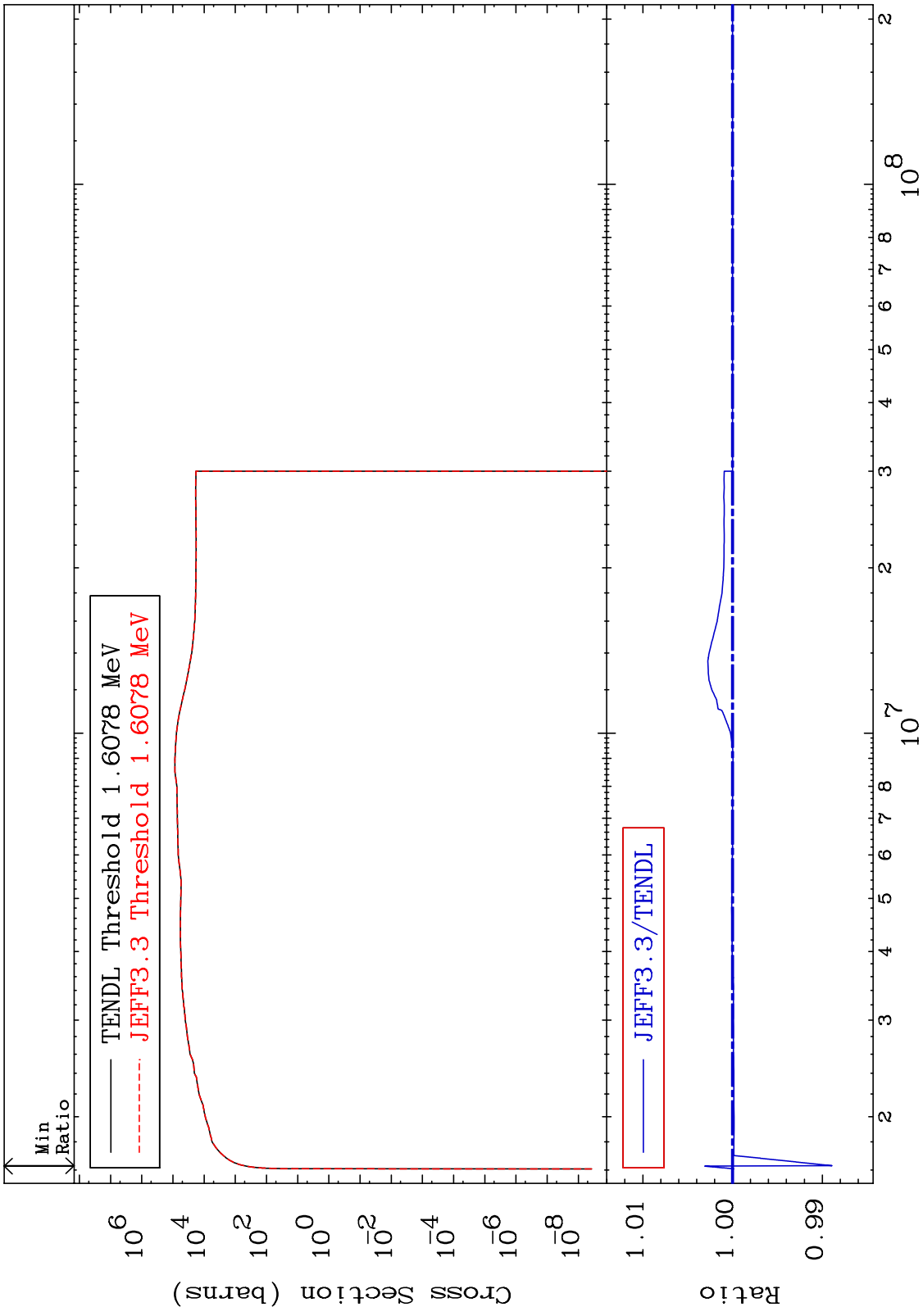
76

Incident Energy (eV)

58-Ce-140



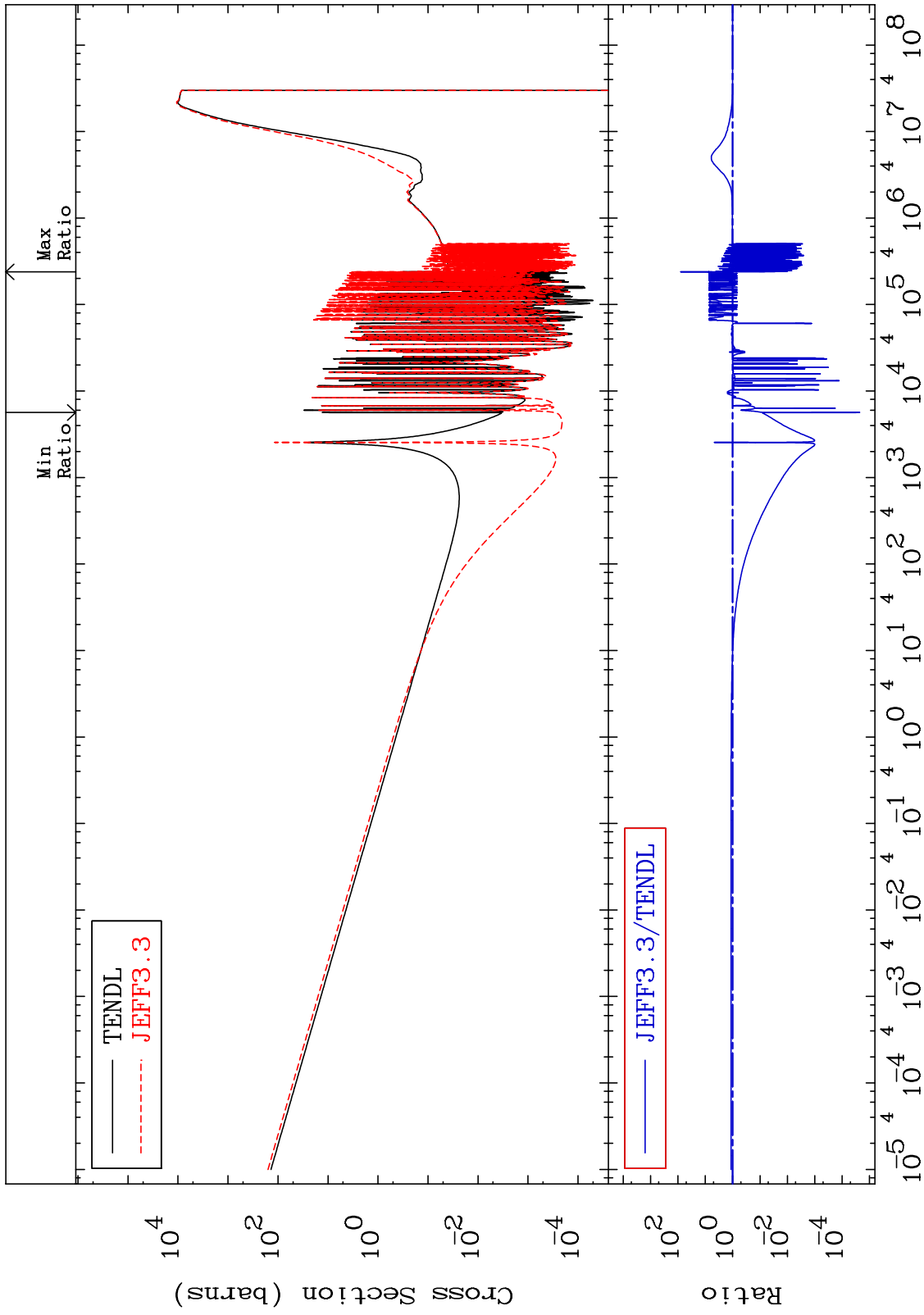
MAT 5837      Dpa inelastic (mt51-91)      58-Ce-140  
Cross Section      -1.109 To 0.309 %



MAT 5837

Dpa disappearance (mt102 -120)  
Cross Section

58-Ce-140  
-100.0 To 7718. %



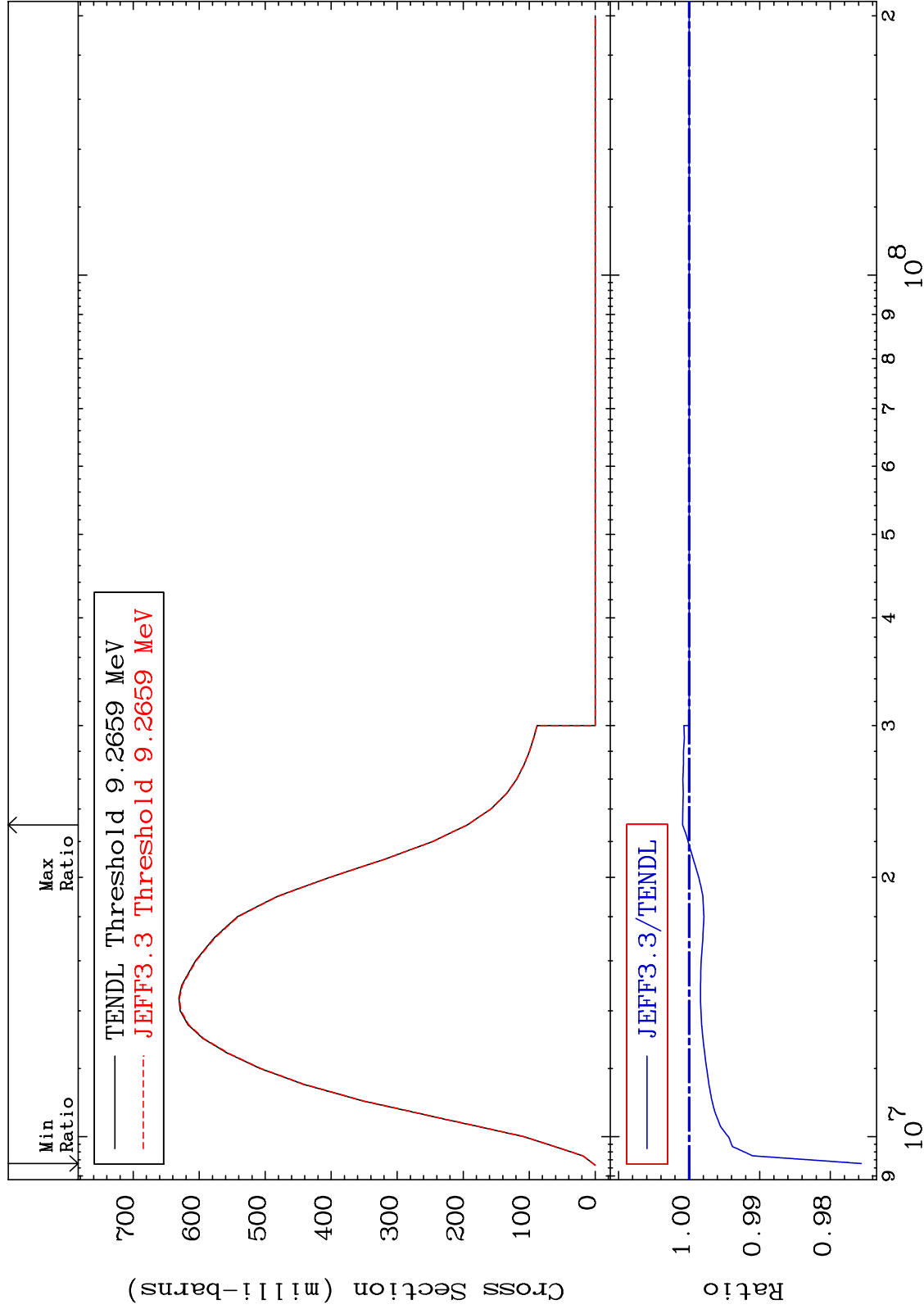


MAT 5837

(n,2n):58-Ce-139g

58-Ce-140

Radionuclide Production Cross Section -2.439 To 0.092 %



80

Incident Energy (eV)

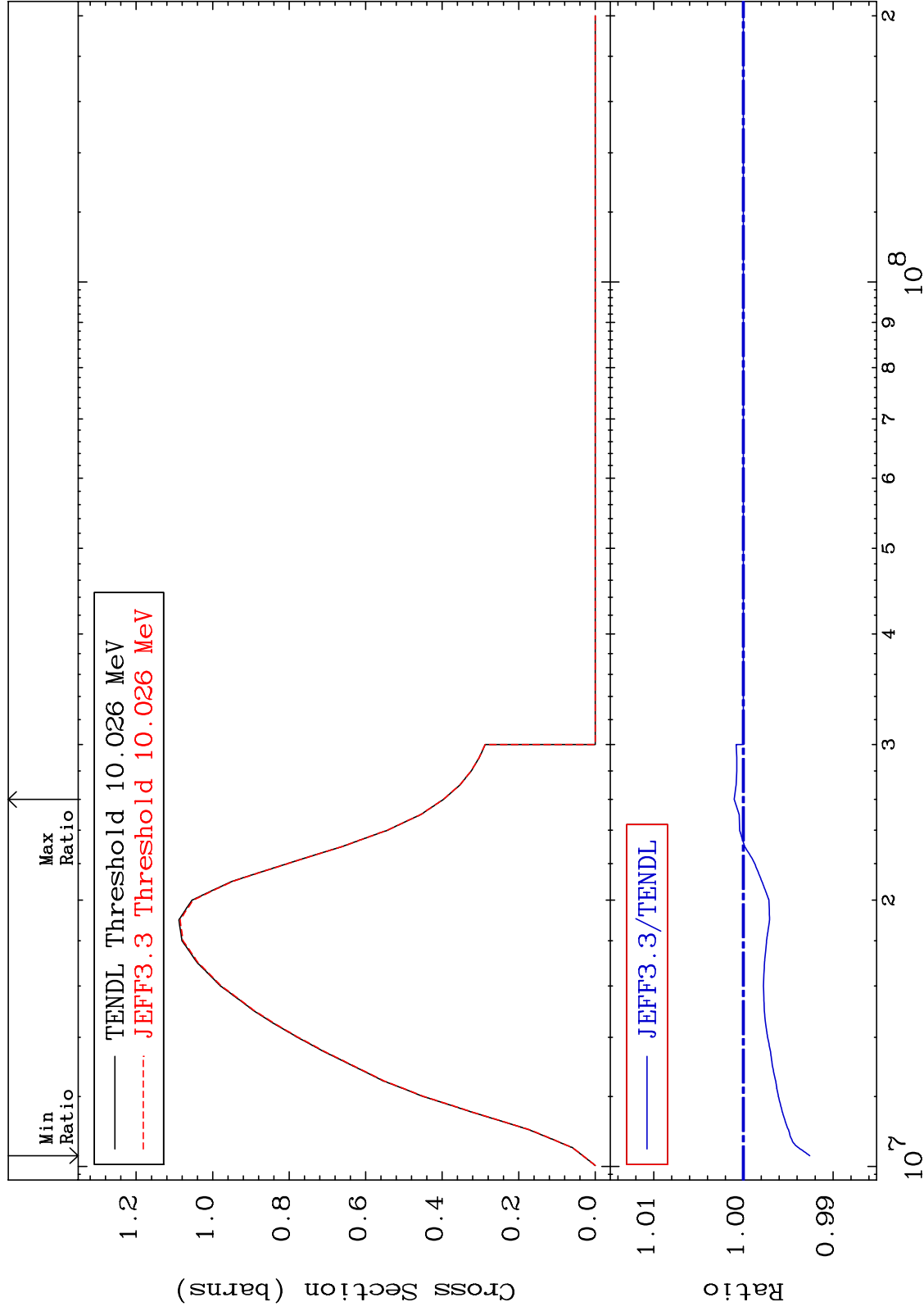
58-Ce-140

MAT 5837

(n,2n):58-Ce-139m2

58-Ce-140

Radionuclide Production Cross Section -0.741 To 0.102 %



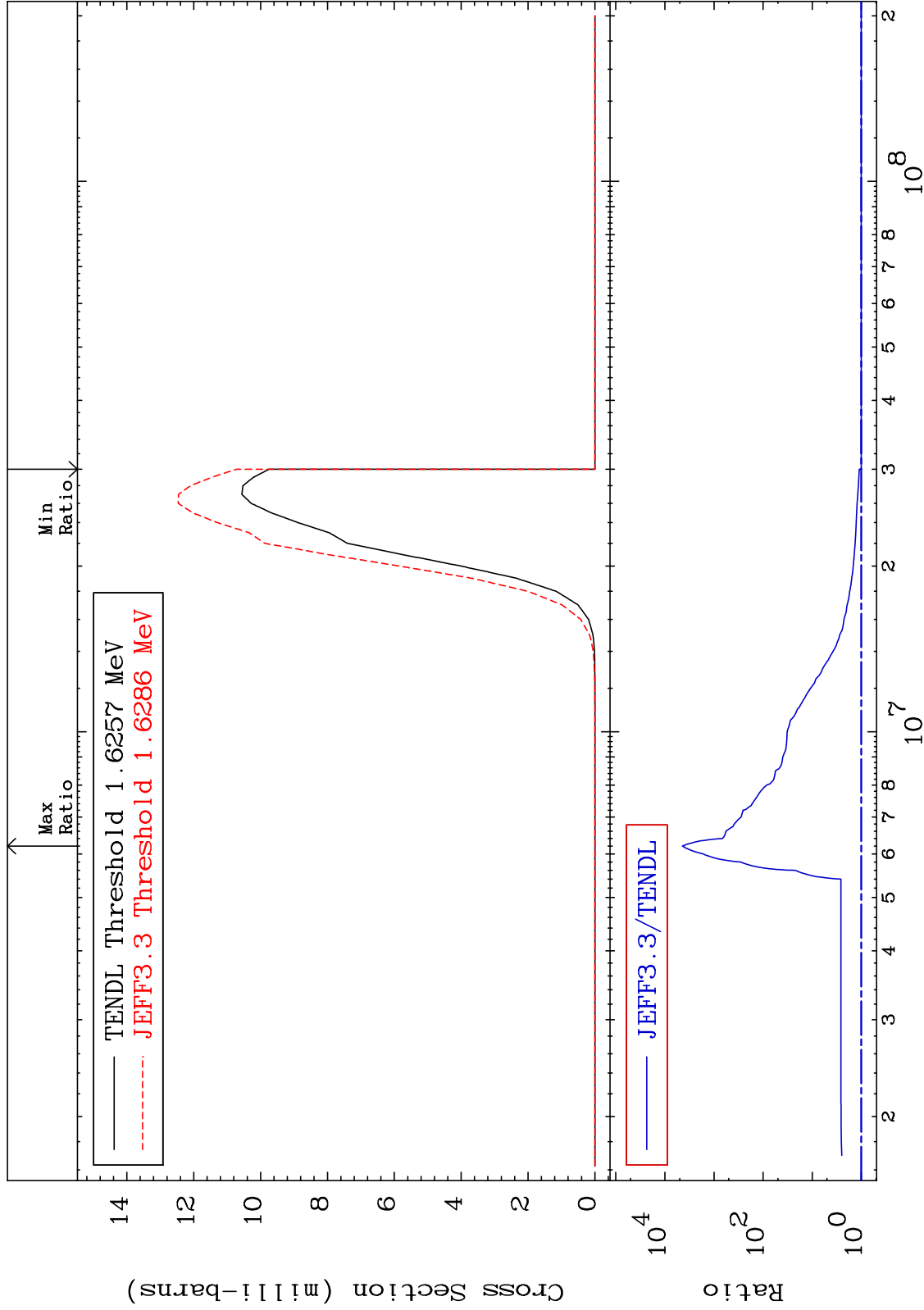
81

Incident Energy (eV)

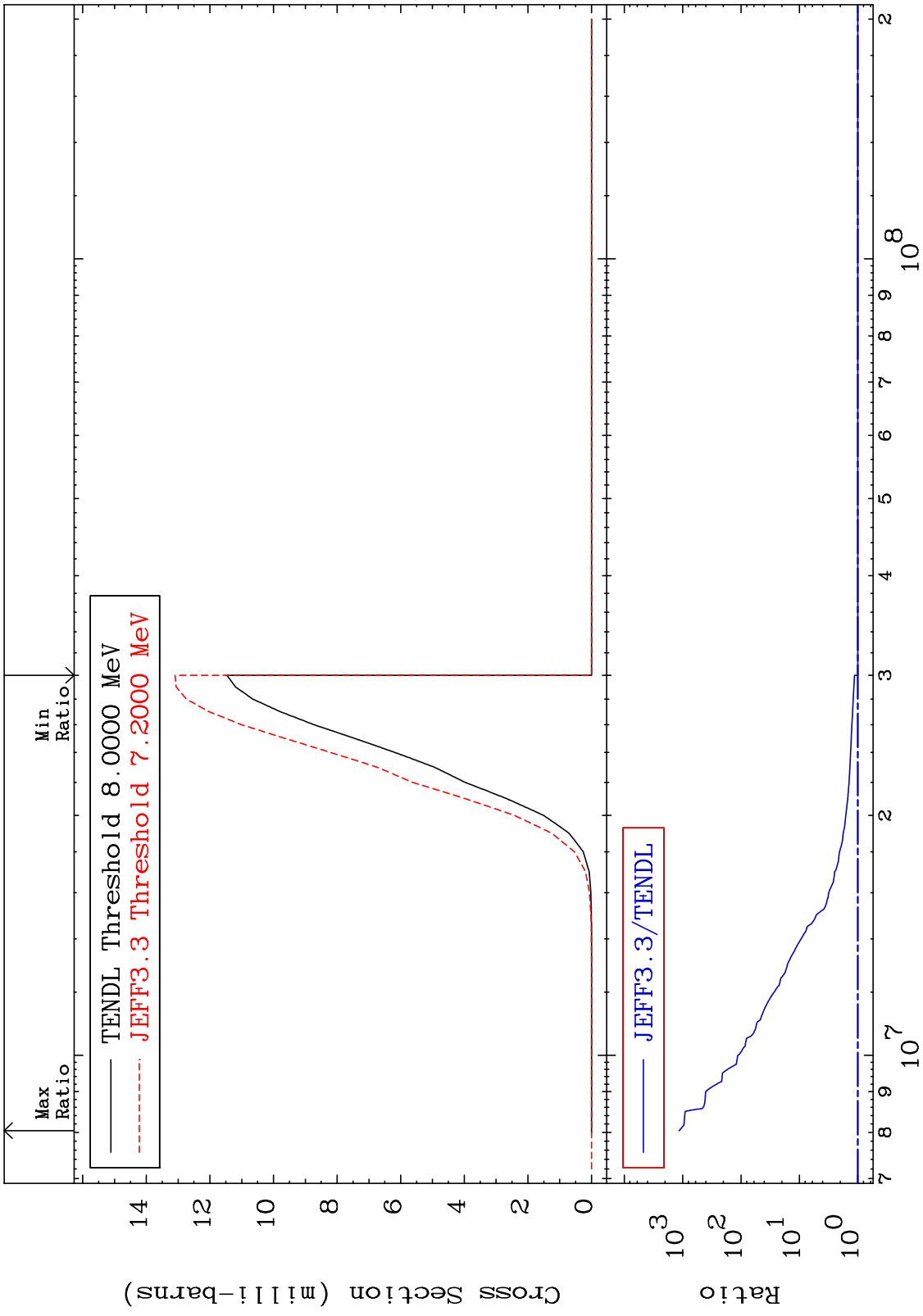
58-Ce-140

MAT 5837

(n, n')  $\alpha$ :56-Ba-136g 58-Ce-140  
Radionuclide Production Cross Section 0.000 To 9999. %



MAT 5837 (n,n')  $\alpha$ :56-Ba-136m5 58-Ce-140  
 Radionuclide Production Cross Section 0.000 To 9999. %

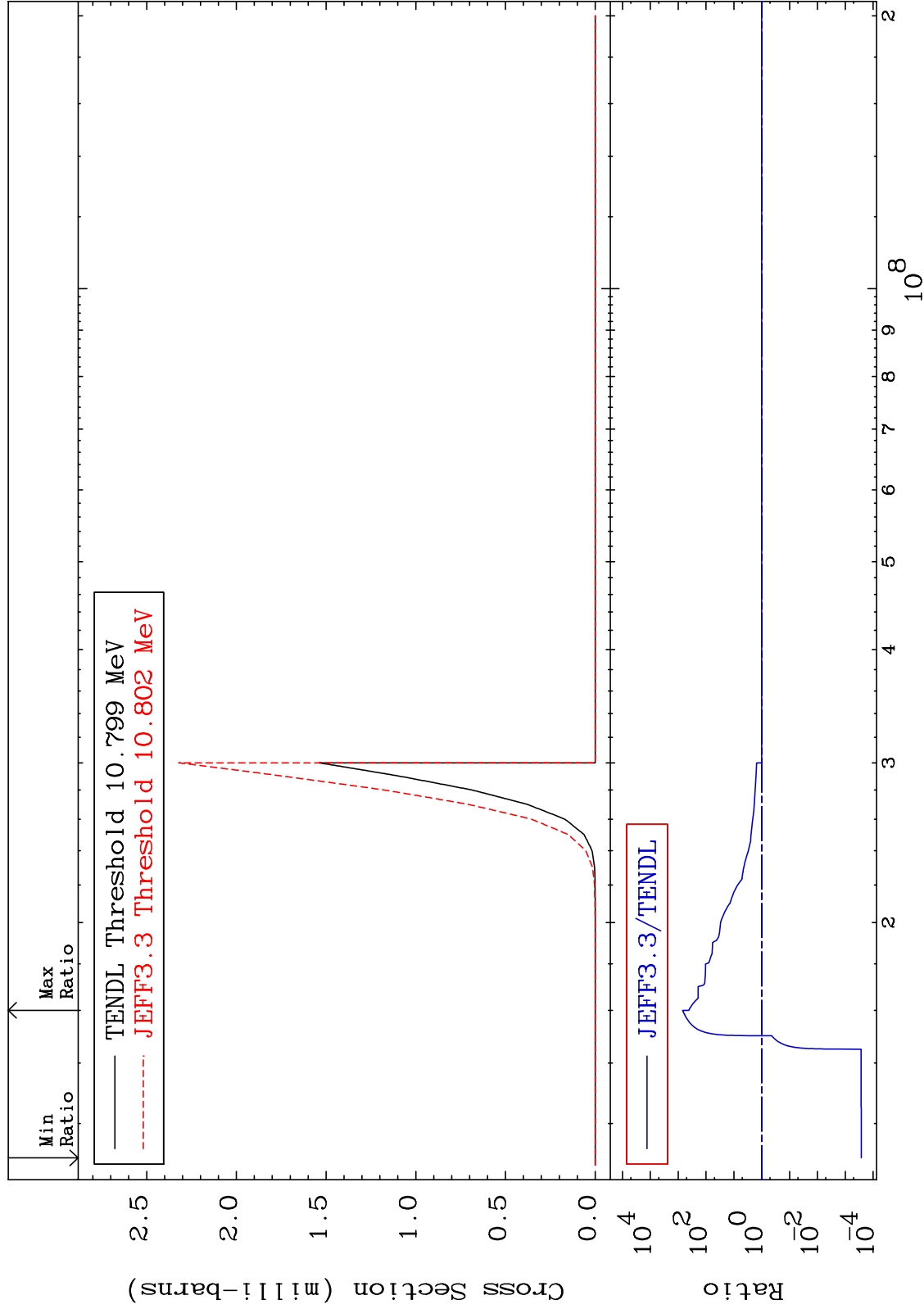


MAT 5837

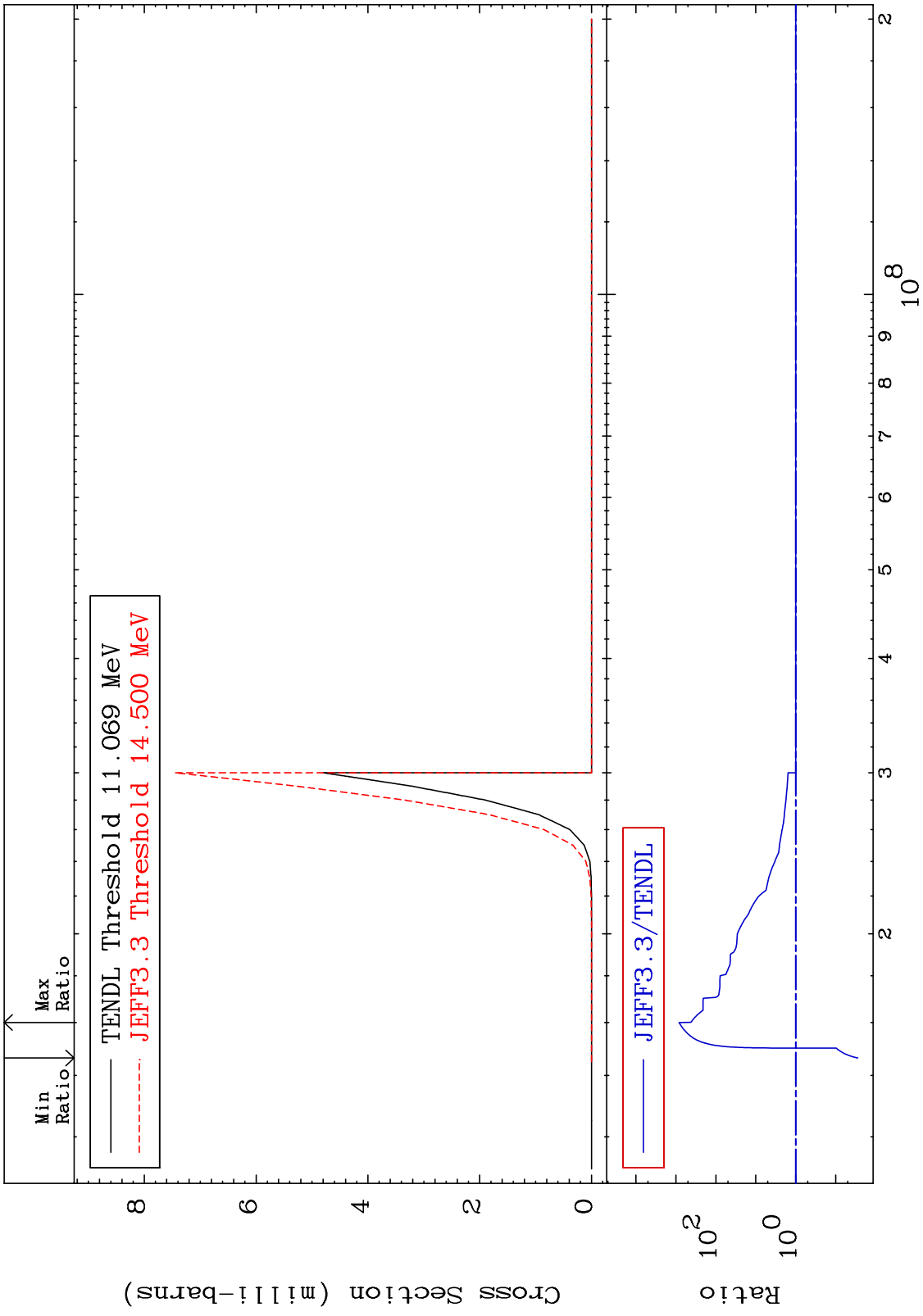
(n,2n)  $\alpha$ :56-Ba-135g

58-Ce-140

Radionuclide Production Cross Section -99.97 To 9999. %

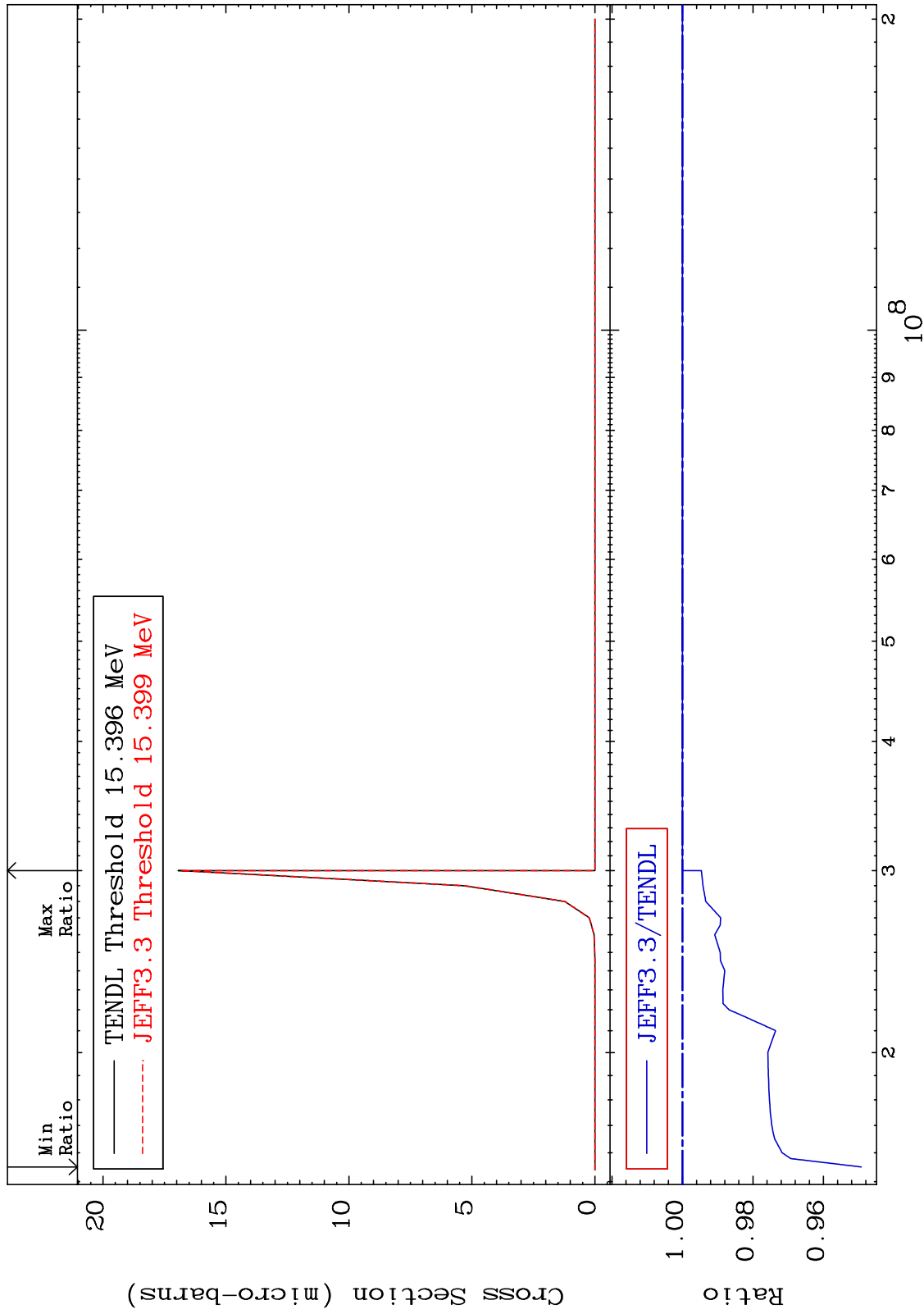


MAT 5837 (n,2n)  $\alpha$ :56-Ba-135m2 58-Ce-140  
 Radionuclide Production Cross Section -97.20 To 9999. %



MAT 5837

(n,n') He-3:56-Ba-137g 58-Ce-140  
Radionuclide Production Cross Section -5.072 To 0.000 %

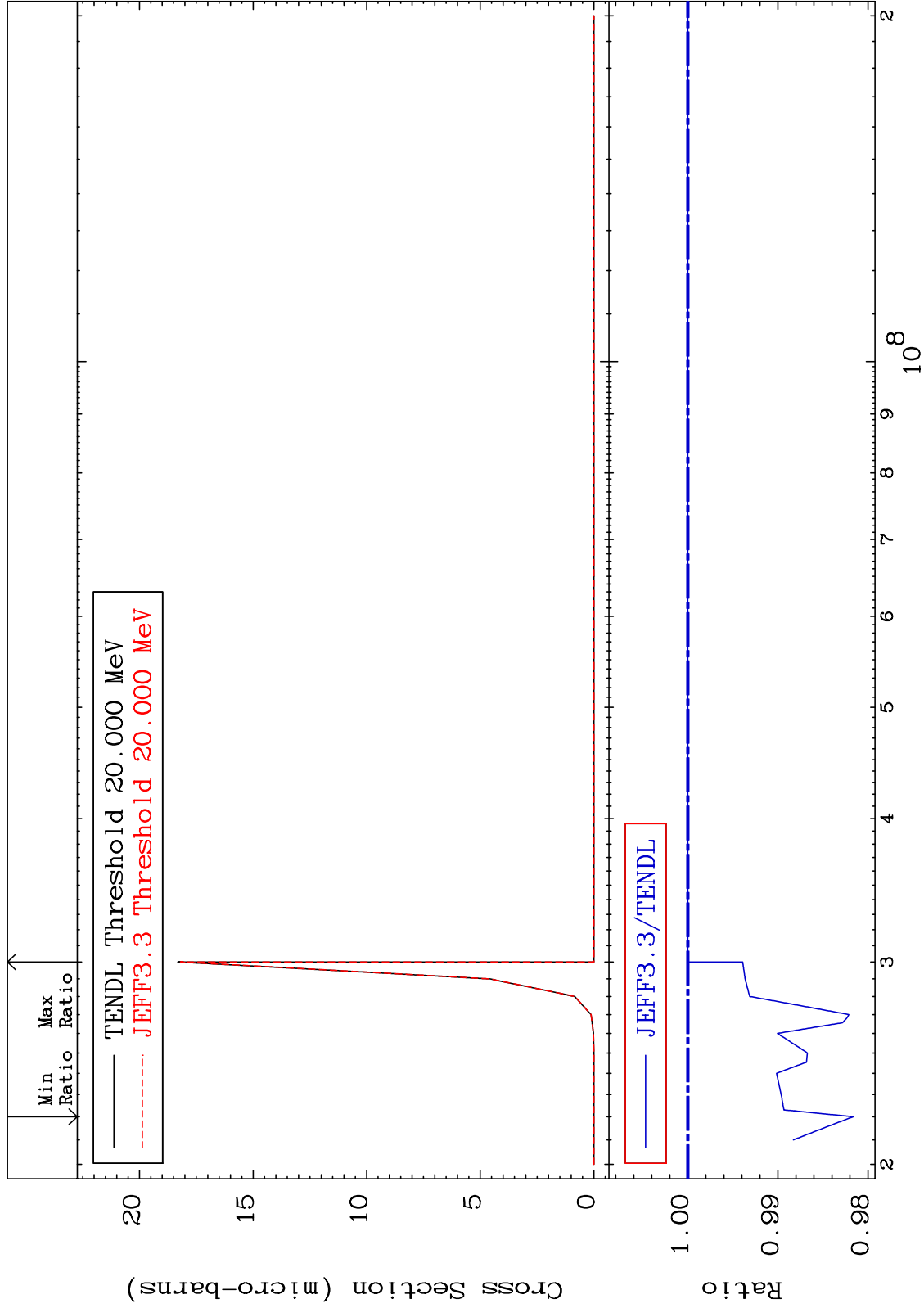


MAT 5837

(n,n') He-3:56-Ba-137m2

58-Ce-140

Radionuclide Production Cross Section -1.835 To 0.000 %



87

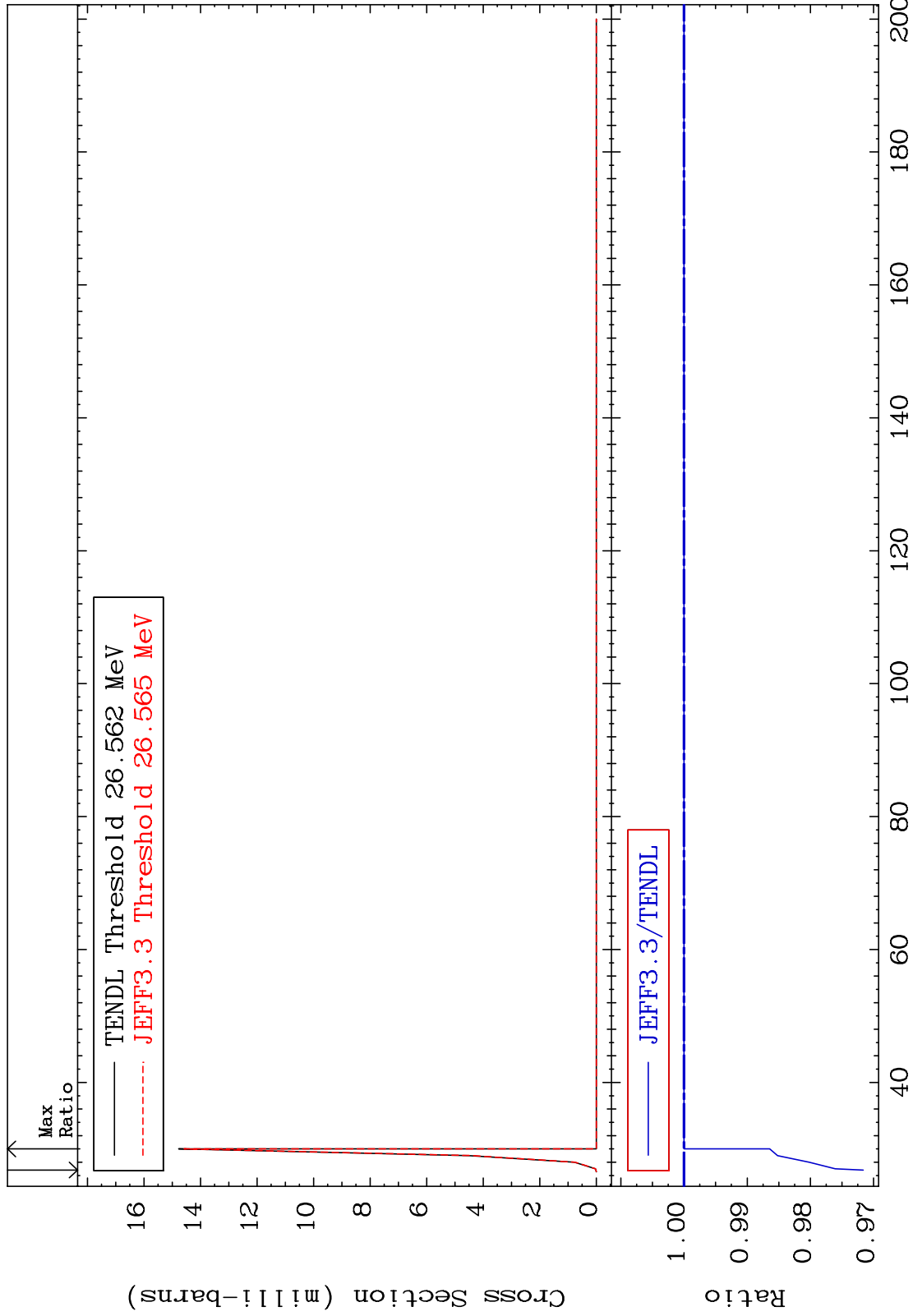
Incident Energy (eV)

58-Ce-140



MAT 5837

(n,4n):58-Ce-137g 58-Ce-140  
Radionuclide Production Cross Section -2.838 To 0.000 %

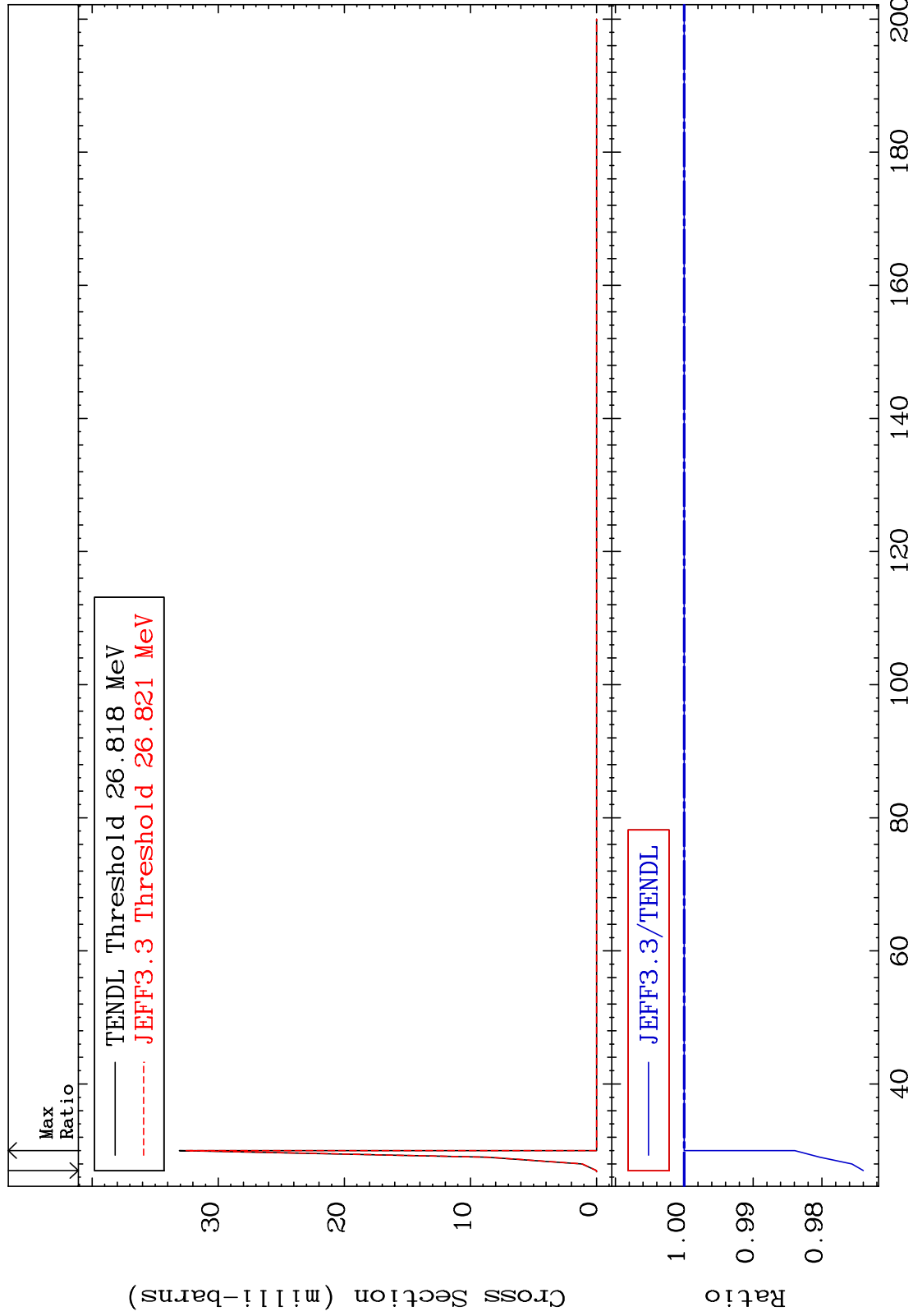


MAT 5837

(n,4n):58-Ce-137m2

58-Ce-140

Radionuclide Production Cross Section -2.602 To 0.000 %



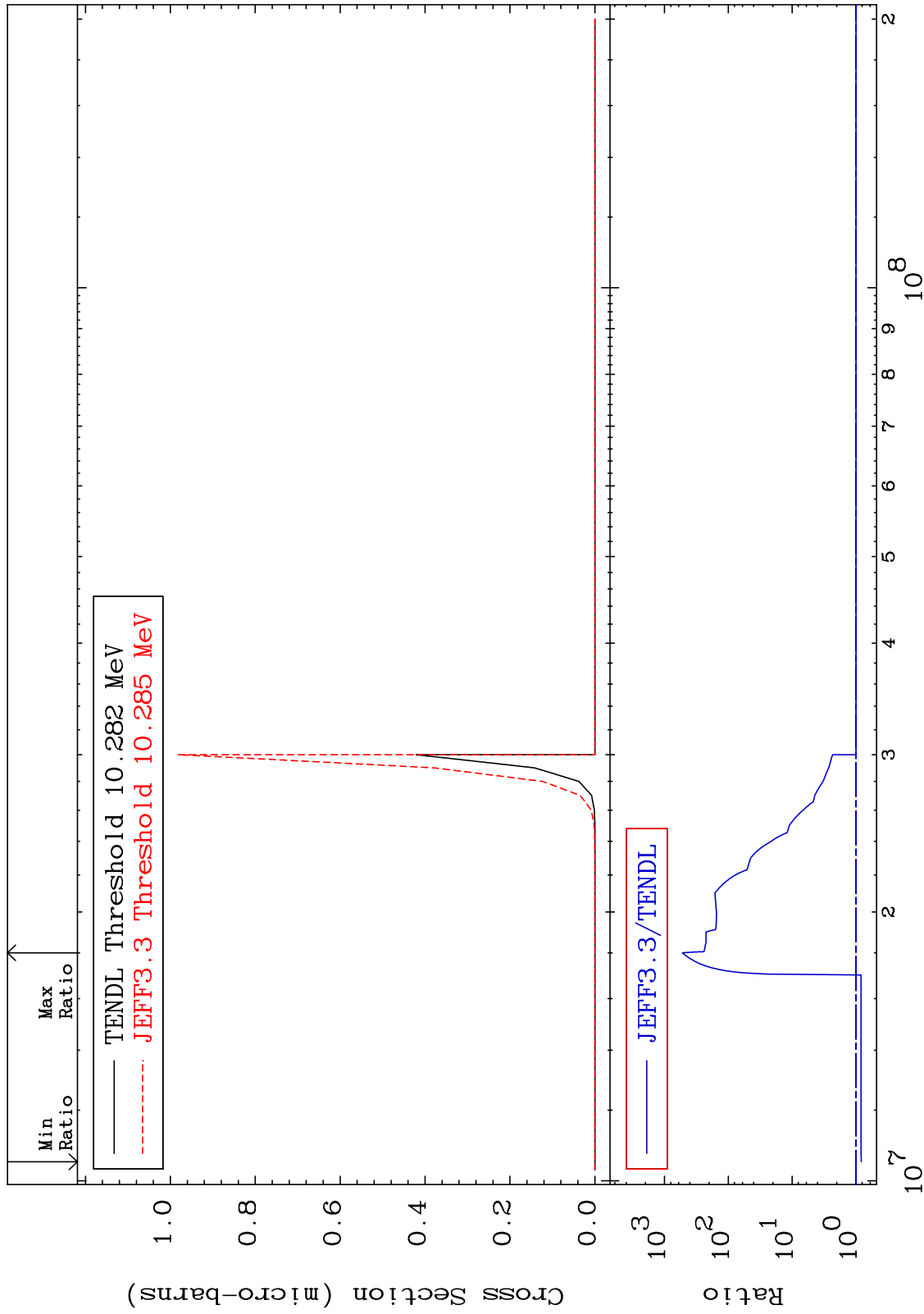
89

Incident Energy (MeV)

58-Ce-140

MAT 5837

(n,n') p  $\alpha$ :55-Cs-135g 58-Ce-140  
Radionuclide Production Cross Section -17.51 To 9999. %

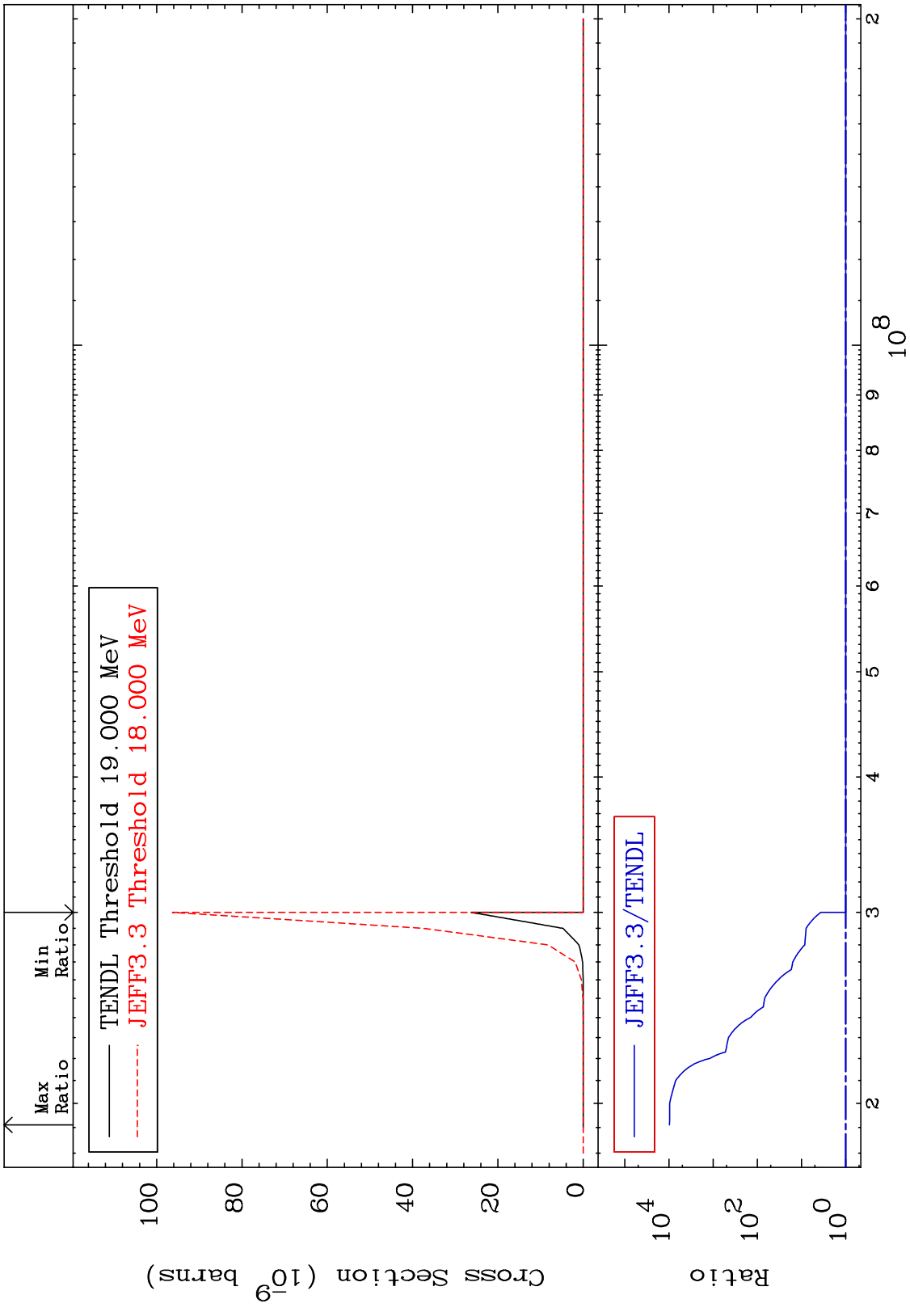


90

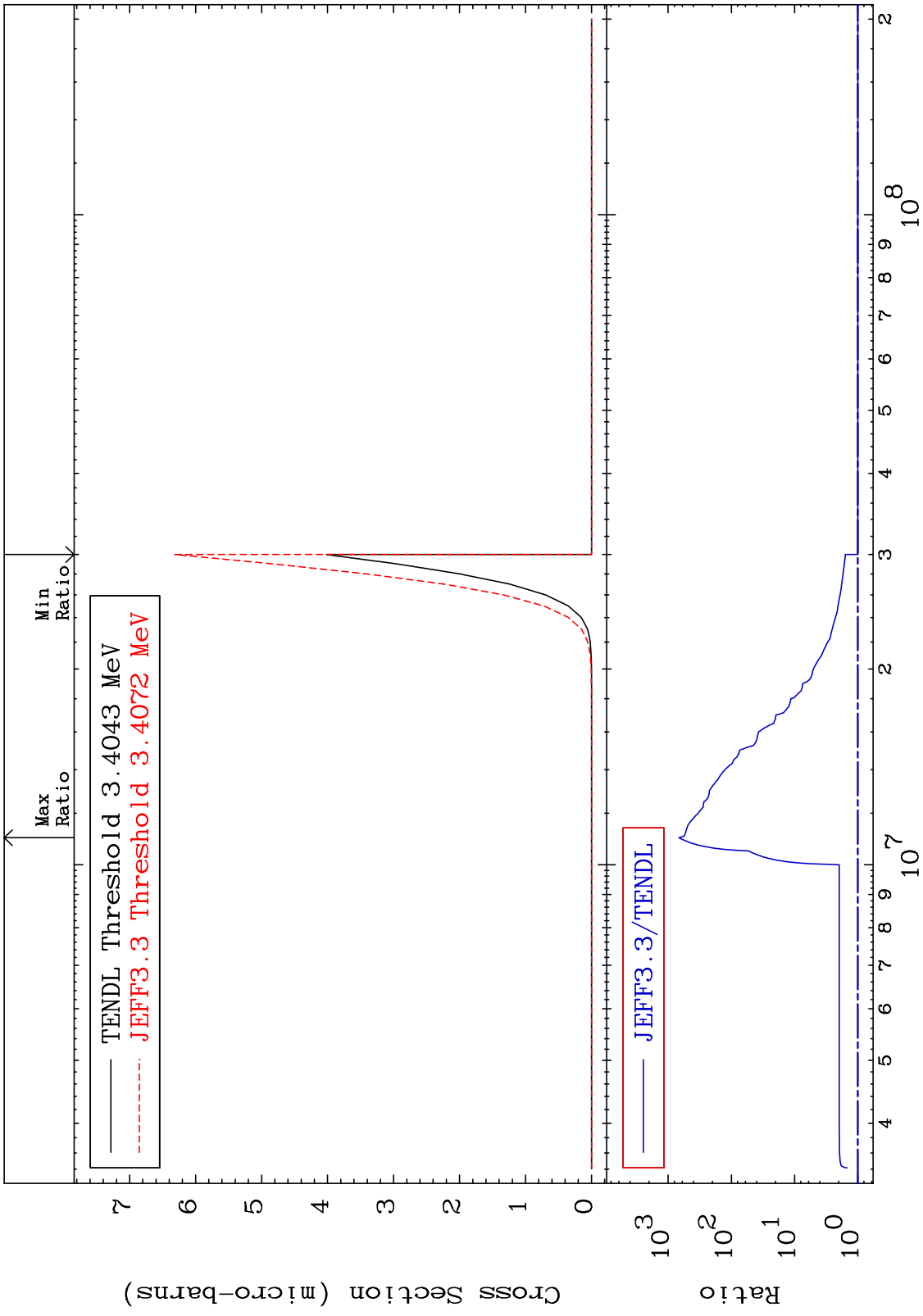
Incident Energy (eV)

58-Ce-140

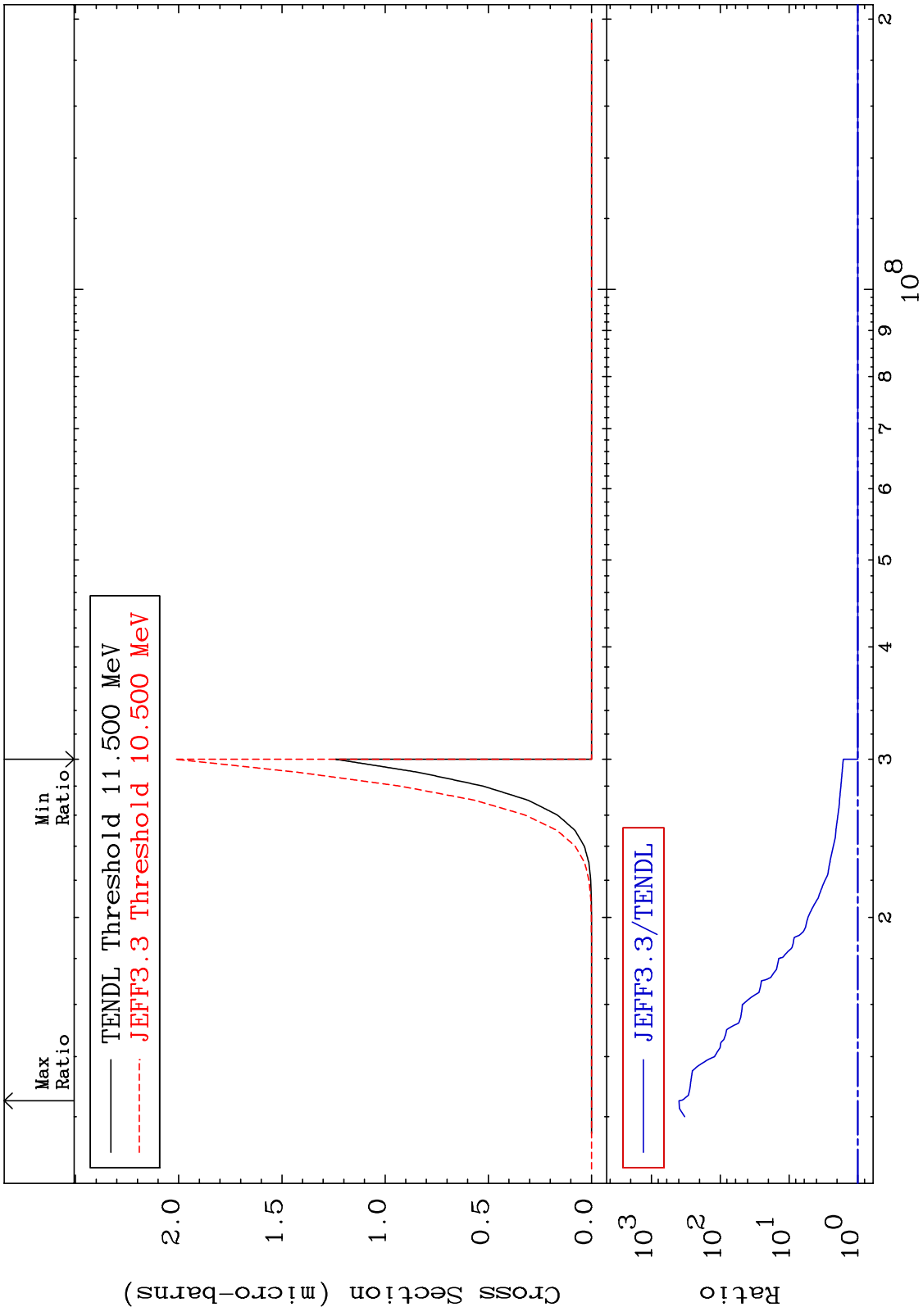
MAT 5837 (n,n') p α:55-Cs-135m10 58-Ce-140  
 Radionuclide Production Cross Section 0.000 To 9999. %



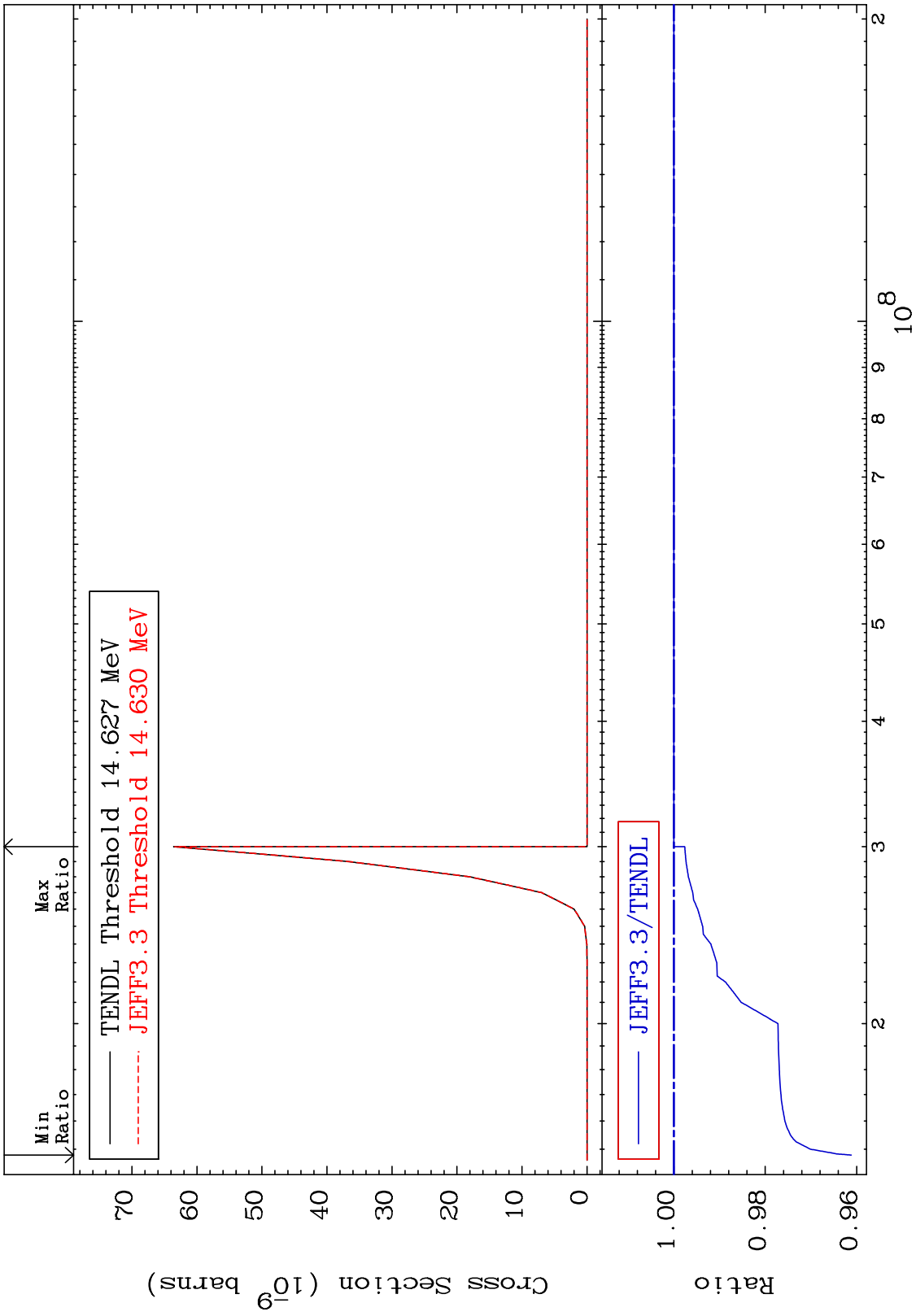
MAT 5837 (n,p)  $\alpha$ :55-Cs-136g 58-Ce-140  
 Radionuclide Production Cross Section 0.000 To 9999. %



MAT 5837 (n,p)  $\alpha$ :55-Cs-136m1 58-Ce-140  
 Radionuclide Production Cross Section 0.000 To 9999. %



MAT 5837 (n,p) t:56-Ba-137g 58-Ce-140  
 Radionuclide Production Cross Section -3.884 To 0.000 %

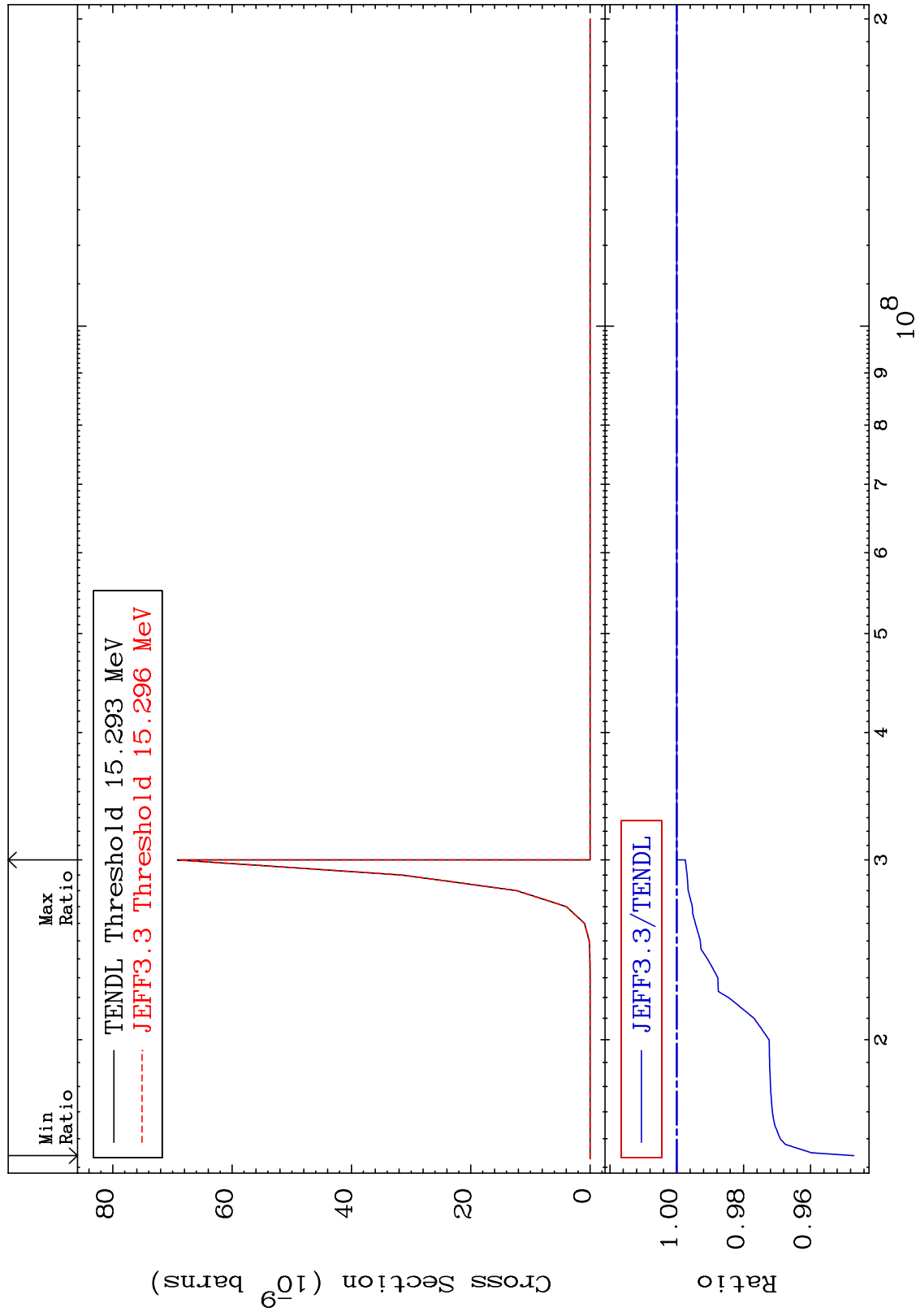


MAT 5837

(n,p) t:56-Ba-137m2

58-Ce-140

Radionuclide Production Cross Section -5.298 To 0.000 %



95

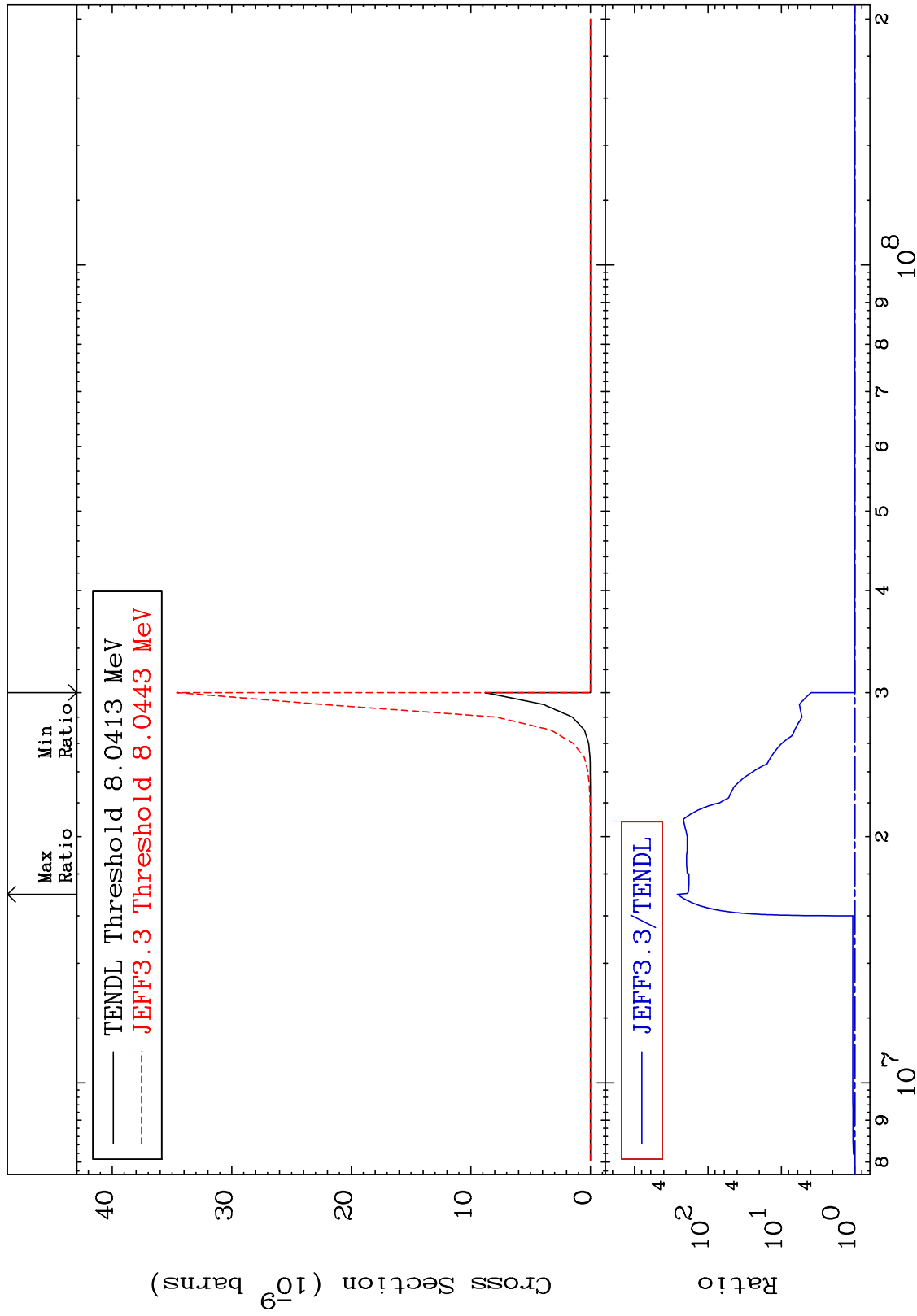
Incident Energy (eV)

58-Ce-140



MAT 5837

(n, d)  $\alpha$ :55-Cs-135g 58-Ce-140  
Radionuclide Production Cross Section 0.000 To 9999. %



96

Incident Energy (eV)

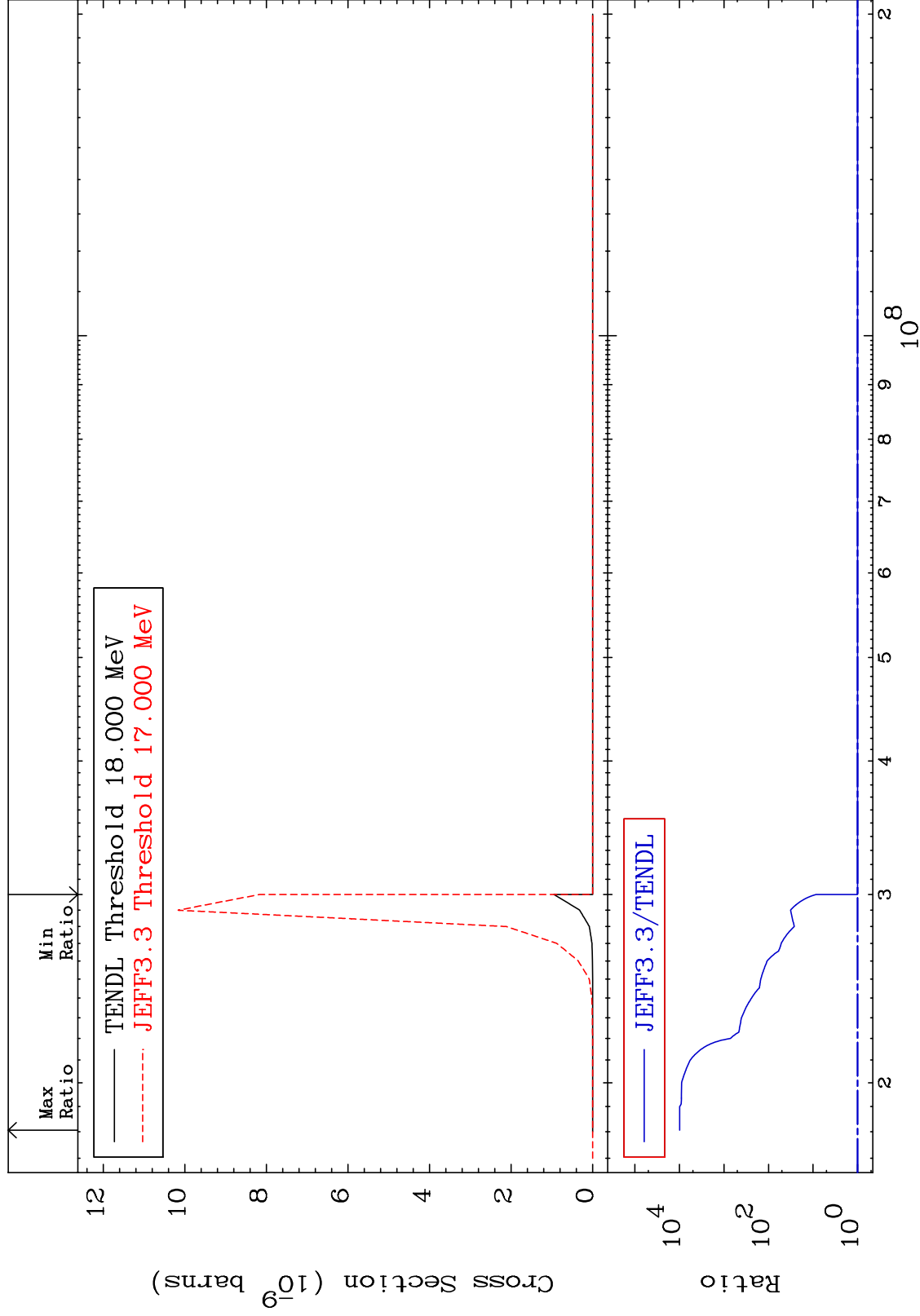
58-Ce-140

MAT 5837

(n,d)  $\alpha$ :55-Cs-135m10

58-Ce-140

Radionuclide Production Cross Section 0.000 To 9999. %



97

Incident Energy (eV)

58-Ce-140