

Program Complot
(Version 2018-1)

by

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Press Mouse Button to Start

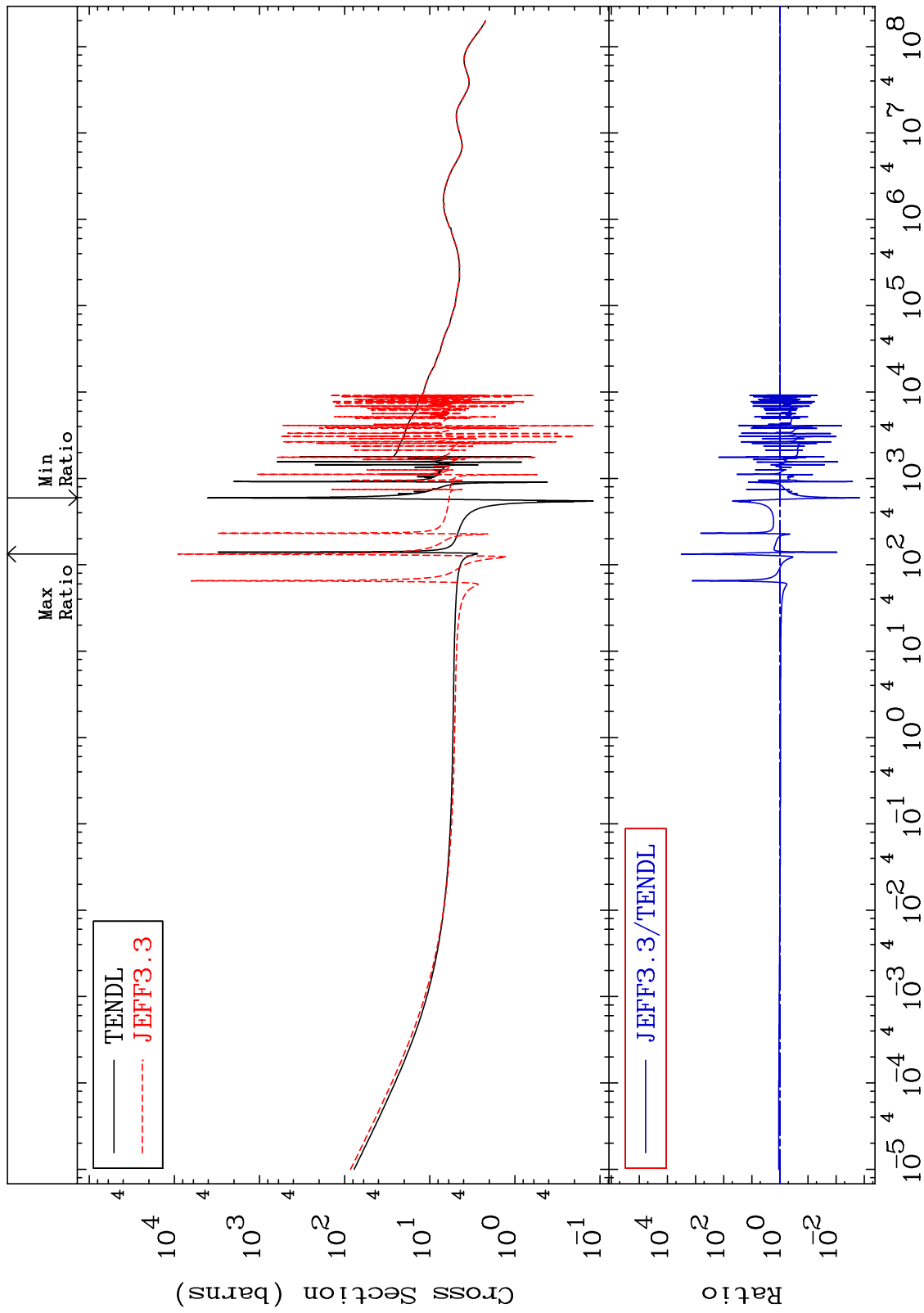
MAT 5831

Total

58-Ce-138

Cross Section

-99.86 To 9999. %

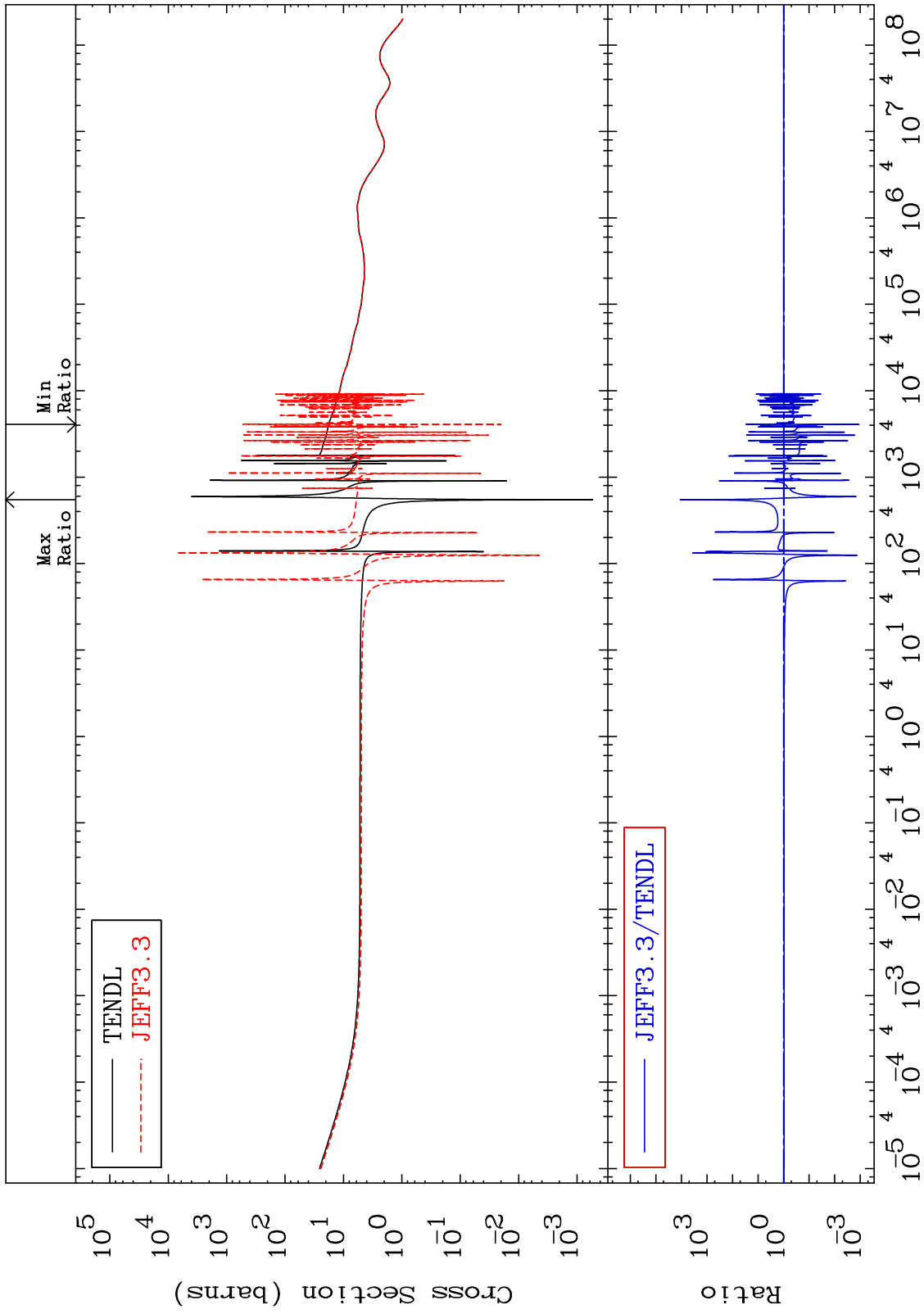


58-Ce-138

MAT 5831

Elastic
Cross Section

58-Ce-138
-99.89 To 9999. %

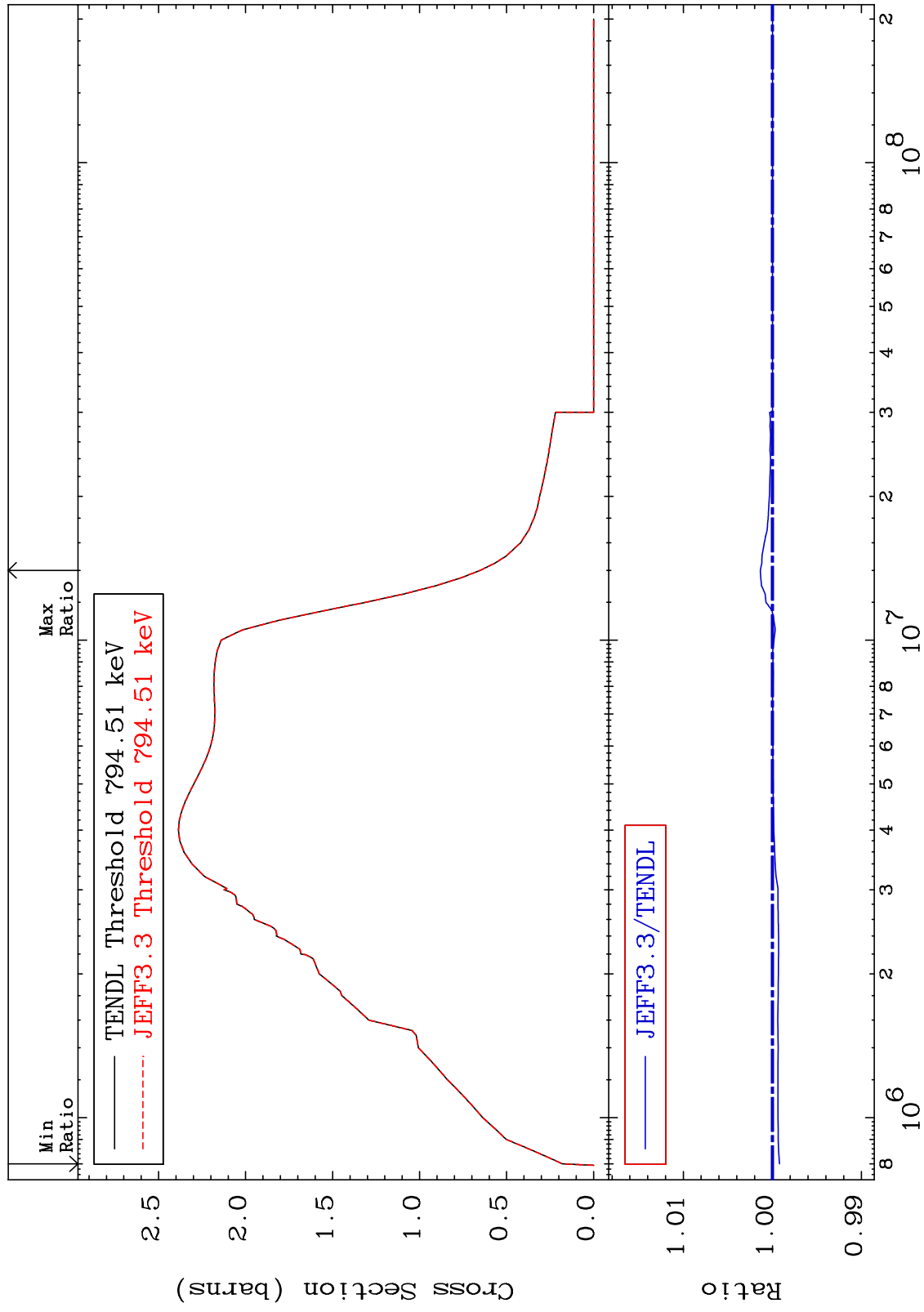


2

Incident Energy (eV)

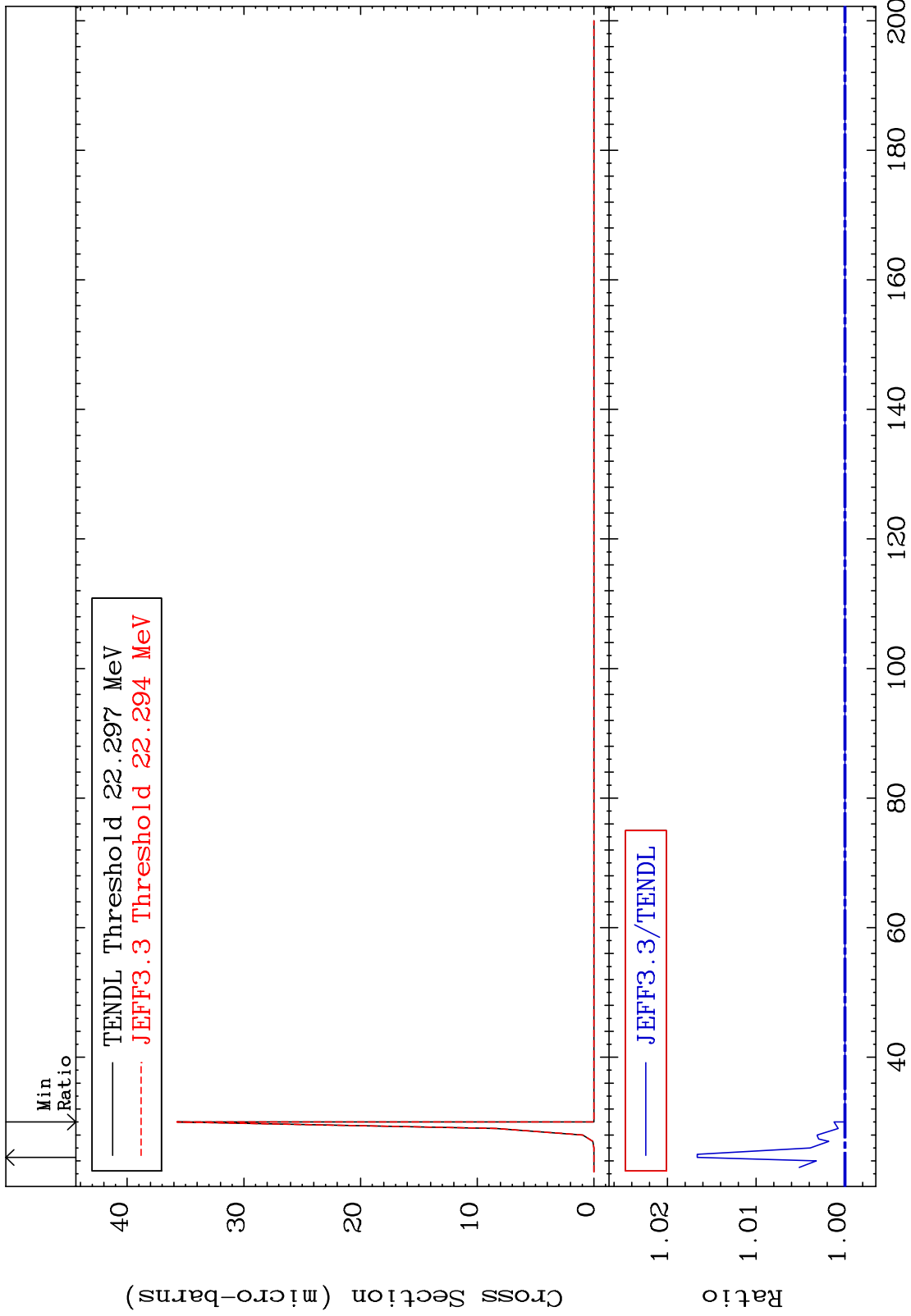
58-Ce-138

MAT 5831 Inelastic Cross Section 58-Ce-138 -0.080 To 0.136 %

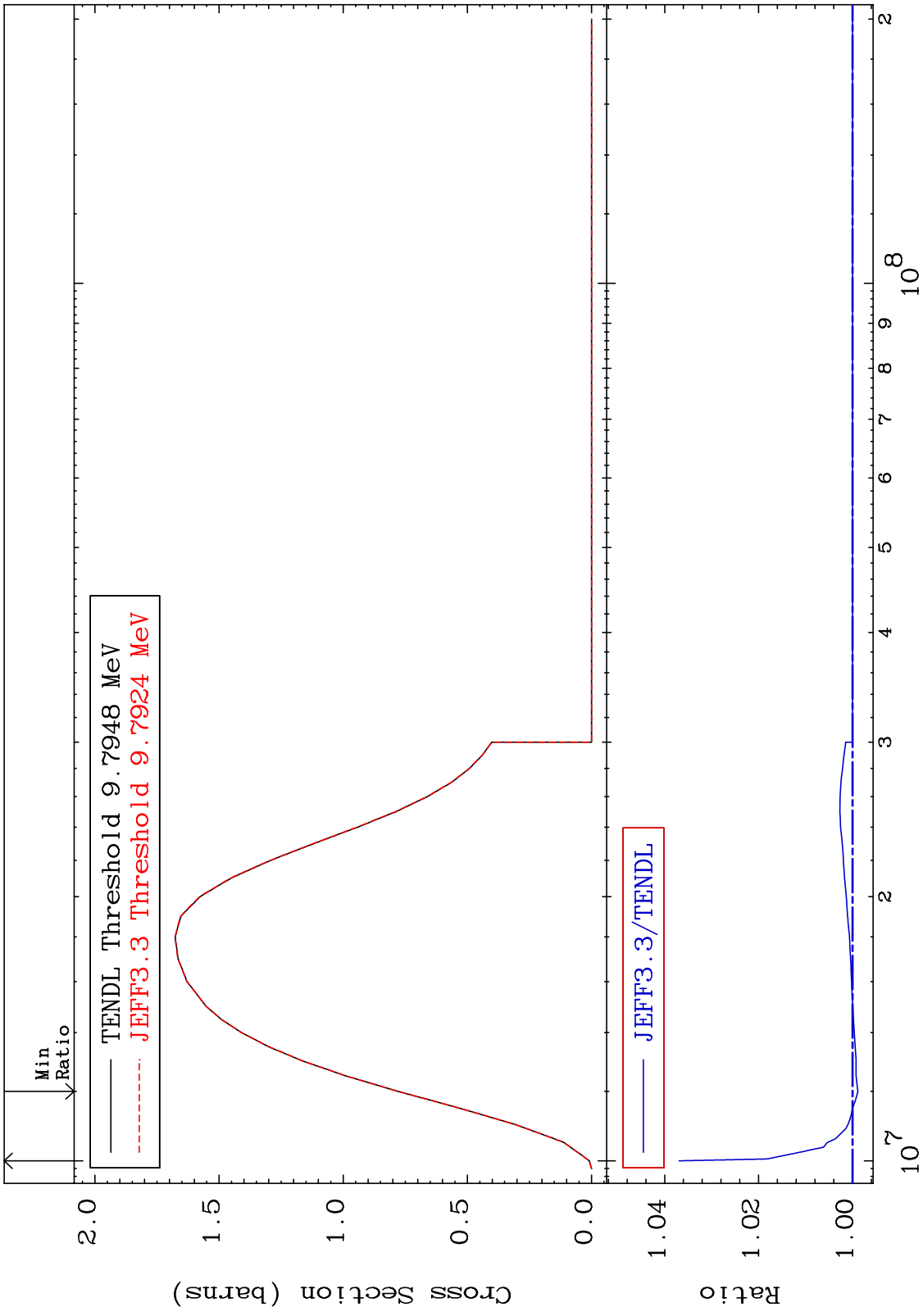


3 Incident Energy (eV) 58-Ce-138

MAT 5831 (n,2n) d 58-Ce-138
Cross Section 0.000 To 1.664 %

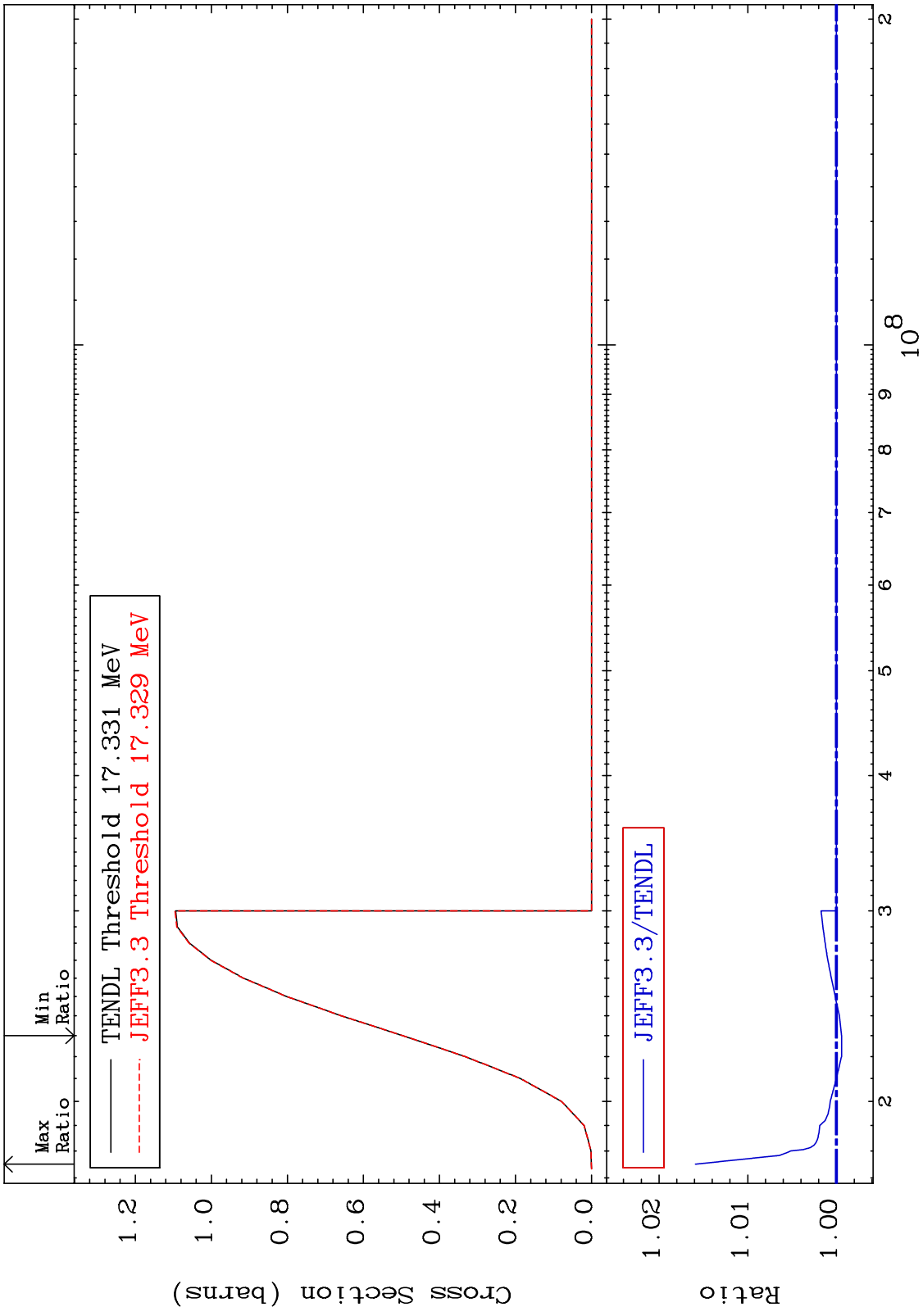


MAT 5831 (n,2n) Cross Section 58-Ce-138 -0.113 To 3.694 %



58-Ce-138

MAT 5831 (n,3n) Cross Section 58-Ce-138 -0.058 To 1.591 %



MAT 5831

$(n, n') \alpha$

58-Ce-138

-8.670 To 9999. %

Cross Section

Max Ratio

Min Ratio

TENDL Threshold 1.0536 MeV
JEFF3.3 Threshold 1.0512 MeV

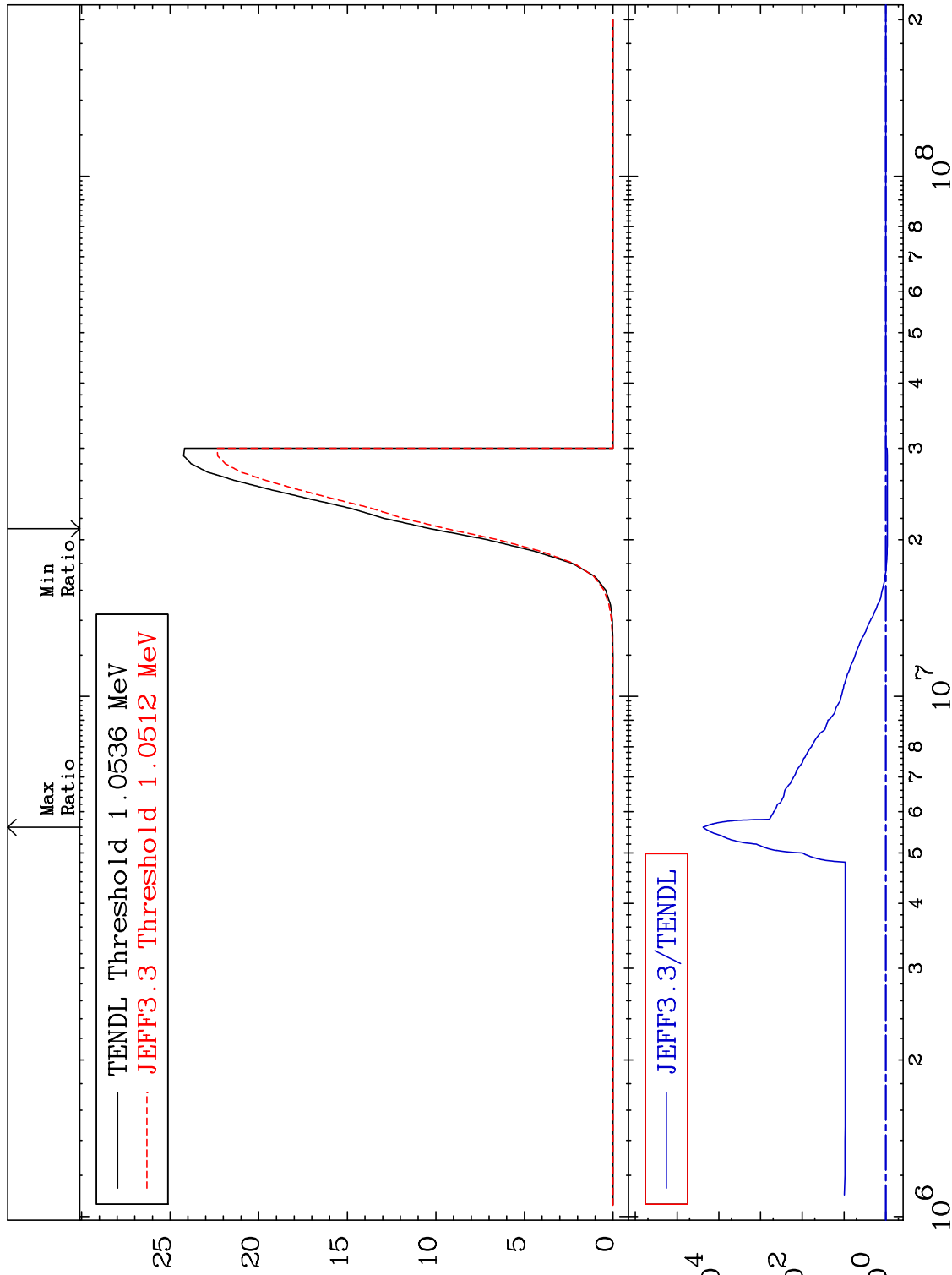
Cross Section (milli-barns)

JEFF3.3/TENDL

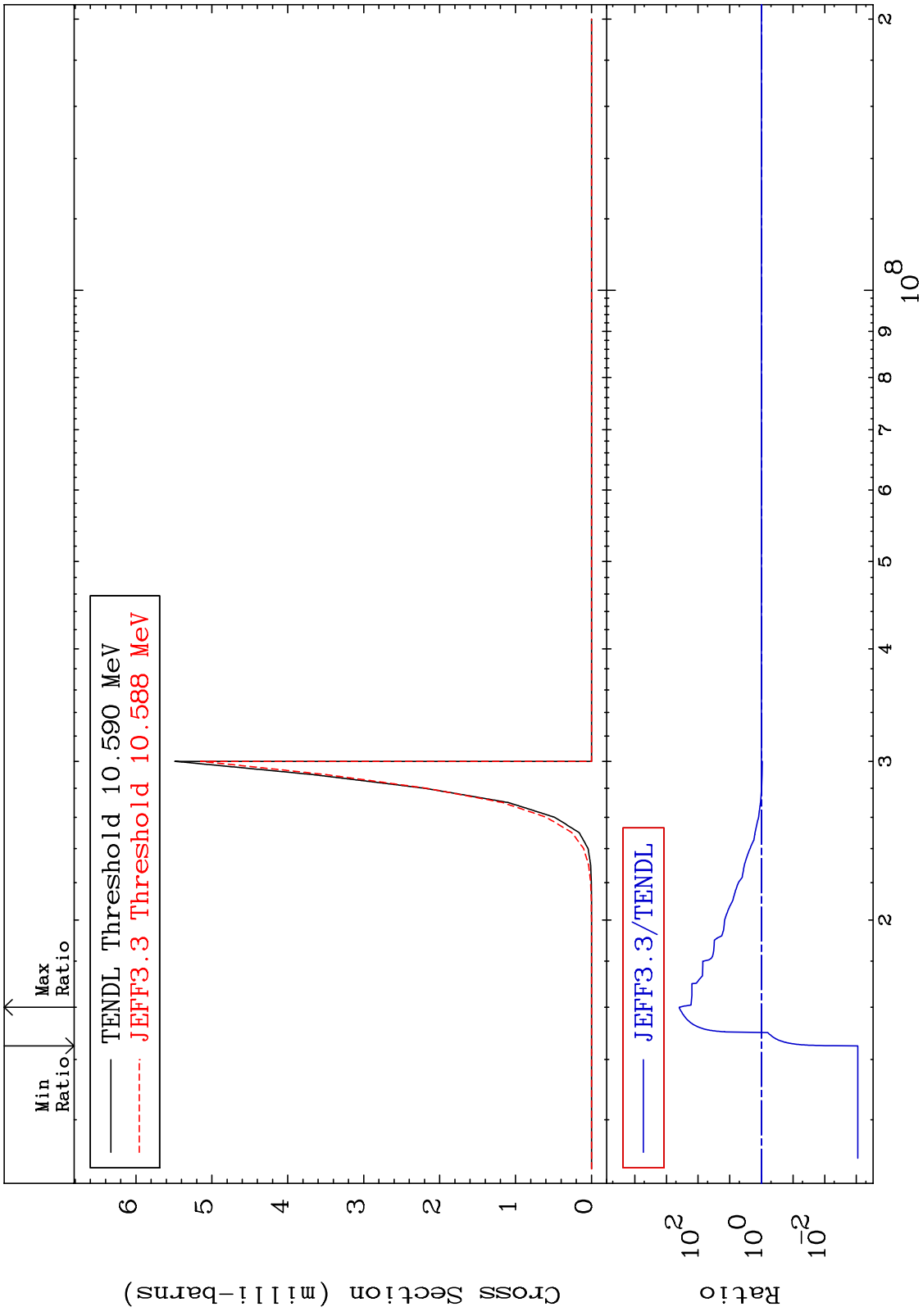
Ratio

Incident Energy (eV)

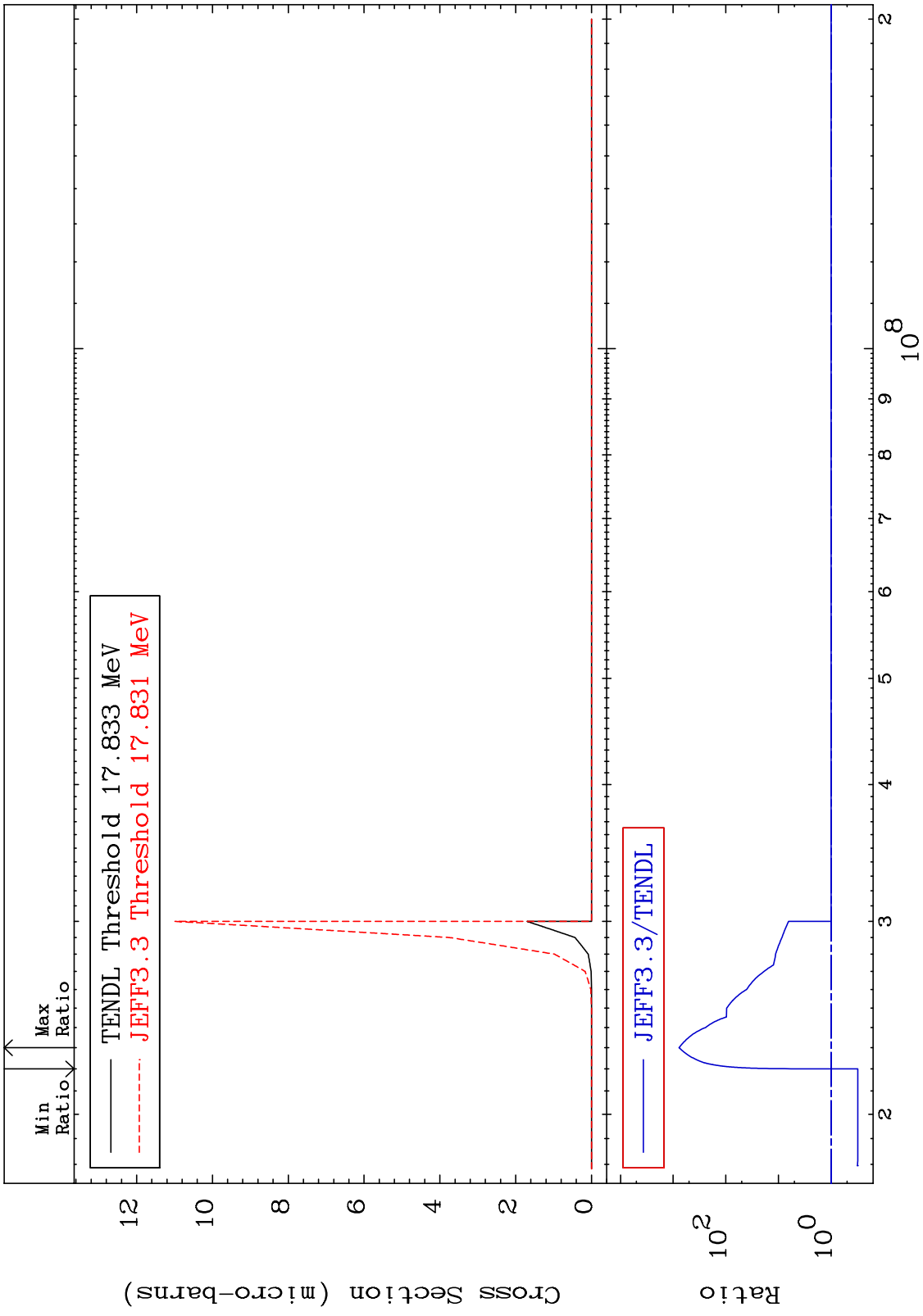
58-Ce-138



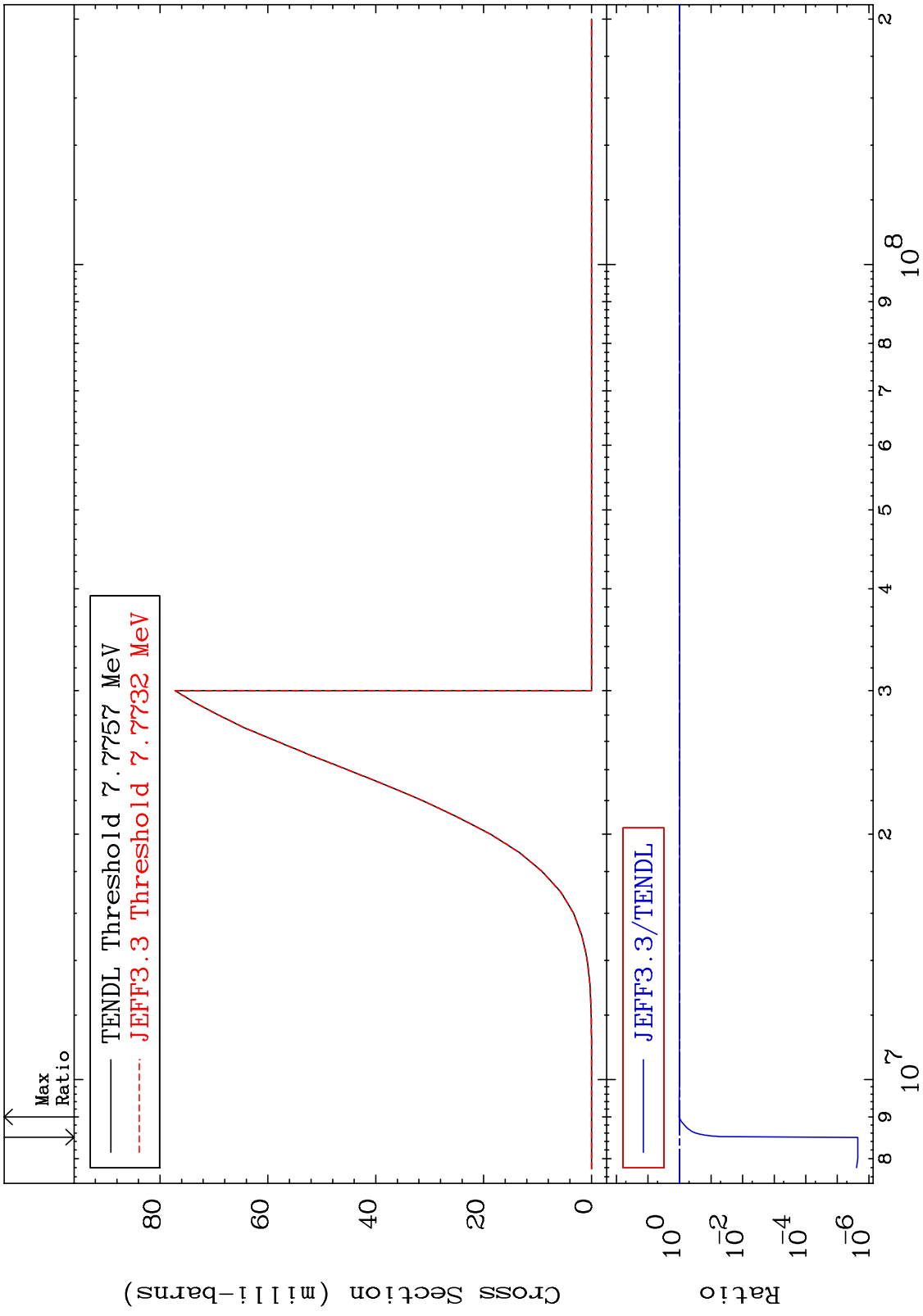
MAT 5831 $(n, 2n) \alpha$ 58-Ce-138
 Cross Section -99.91 To 9999. %



MAT 5831 (n,3n) α 58-Ce-138
 Cross Section -68.78 To 9999. %

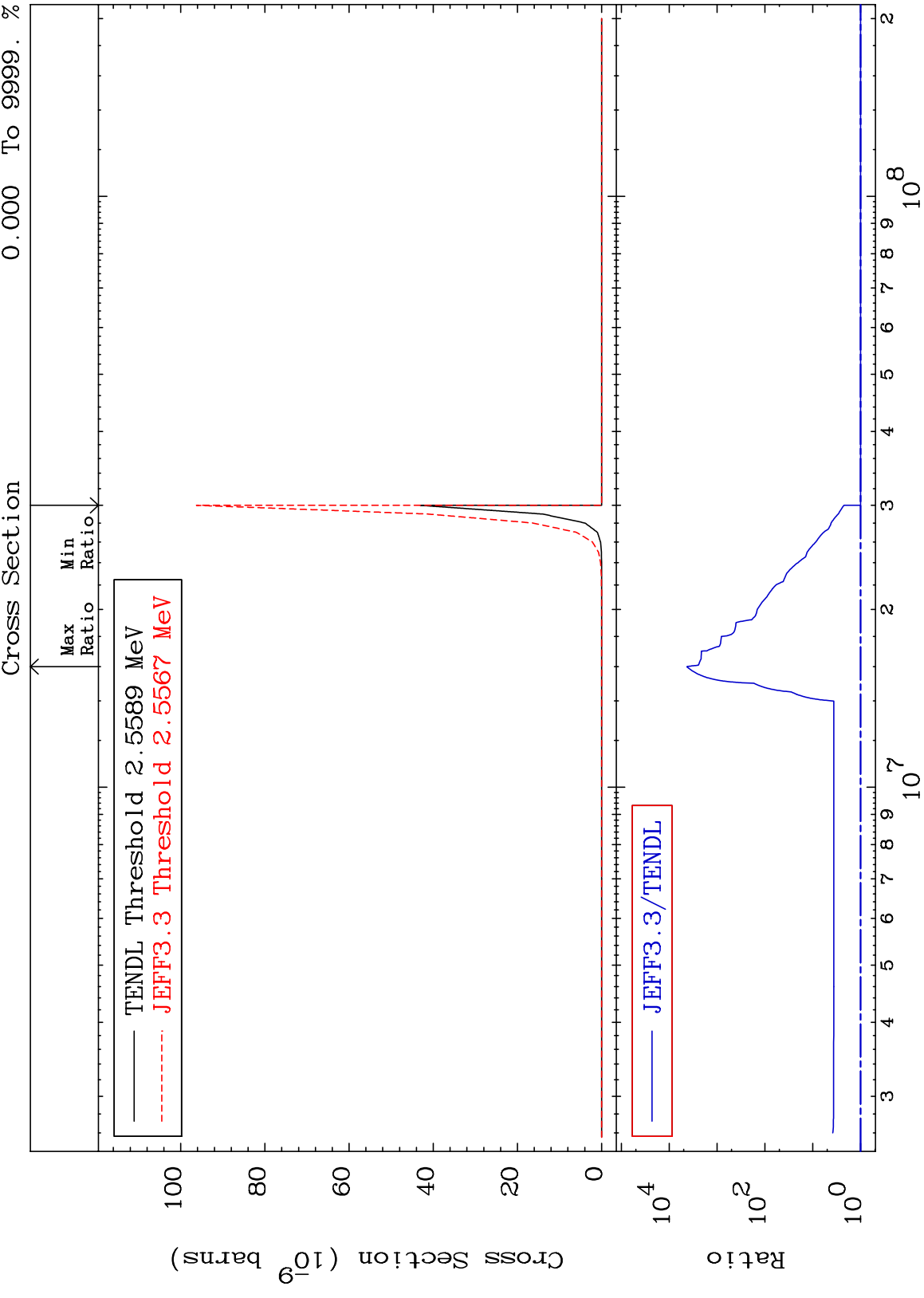


MAT 5831 (n,n') p 58-Ce-138
Cross Section -100.0 To 3.813 %

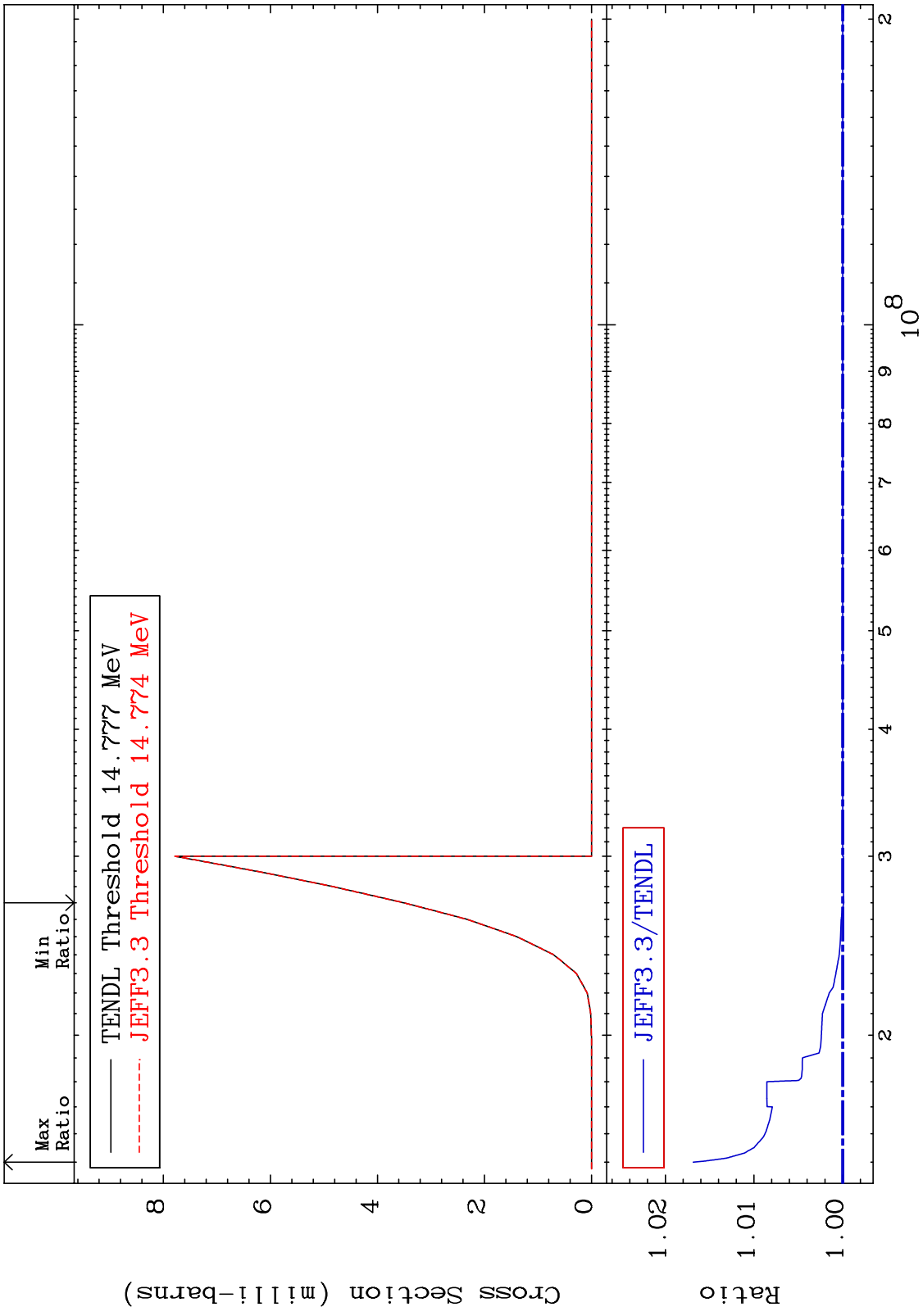


10 8 9 10⁷ 10⁸ 2
58-Ce-138

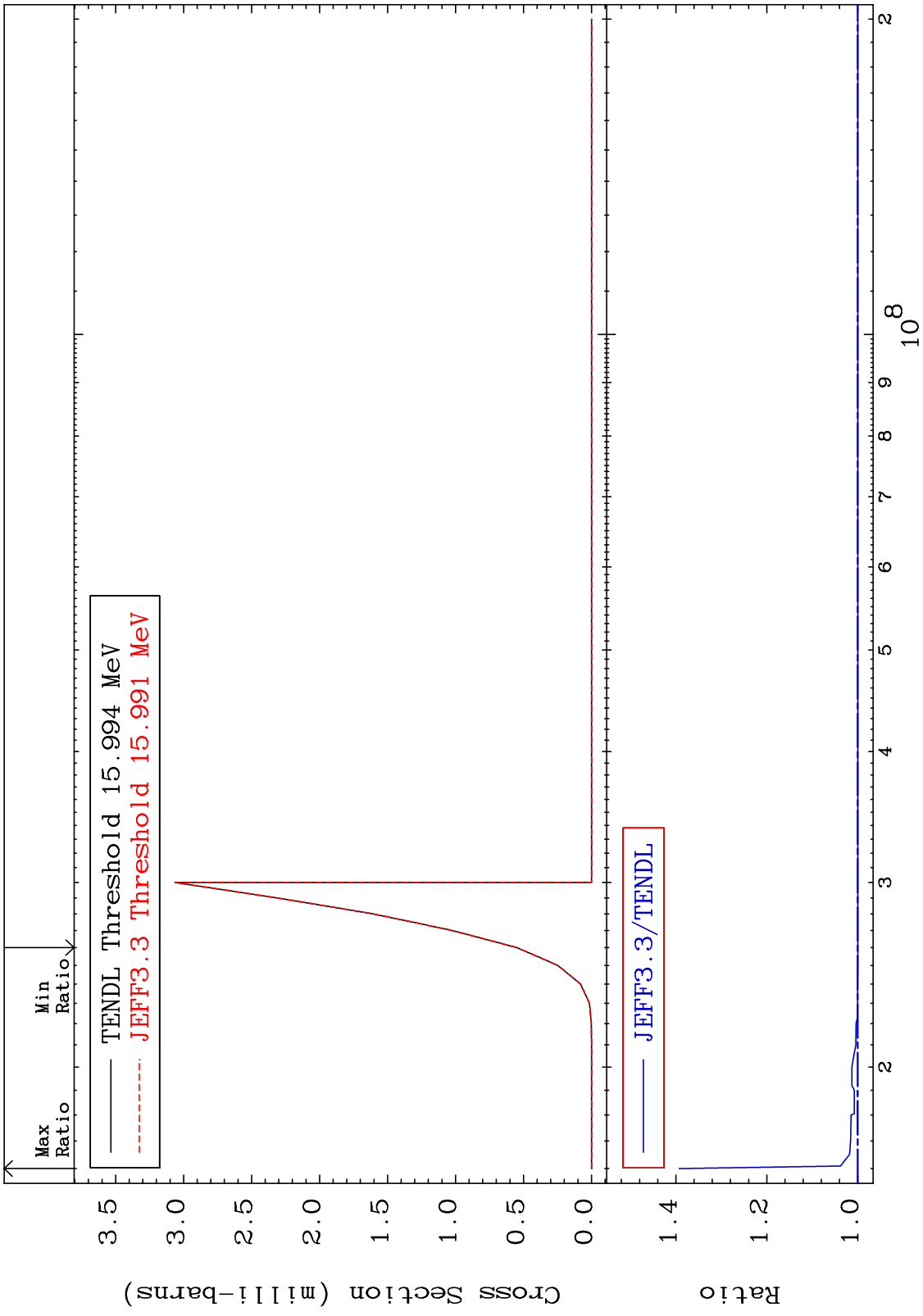
MAT 5831 (n,n') 2α 58-Ce-138 To 9999. %



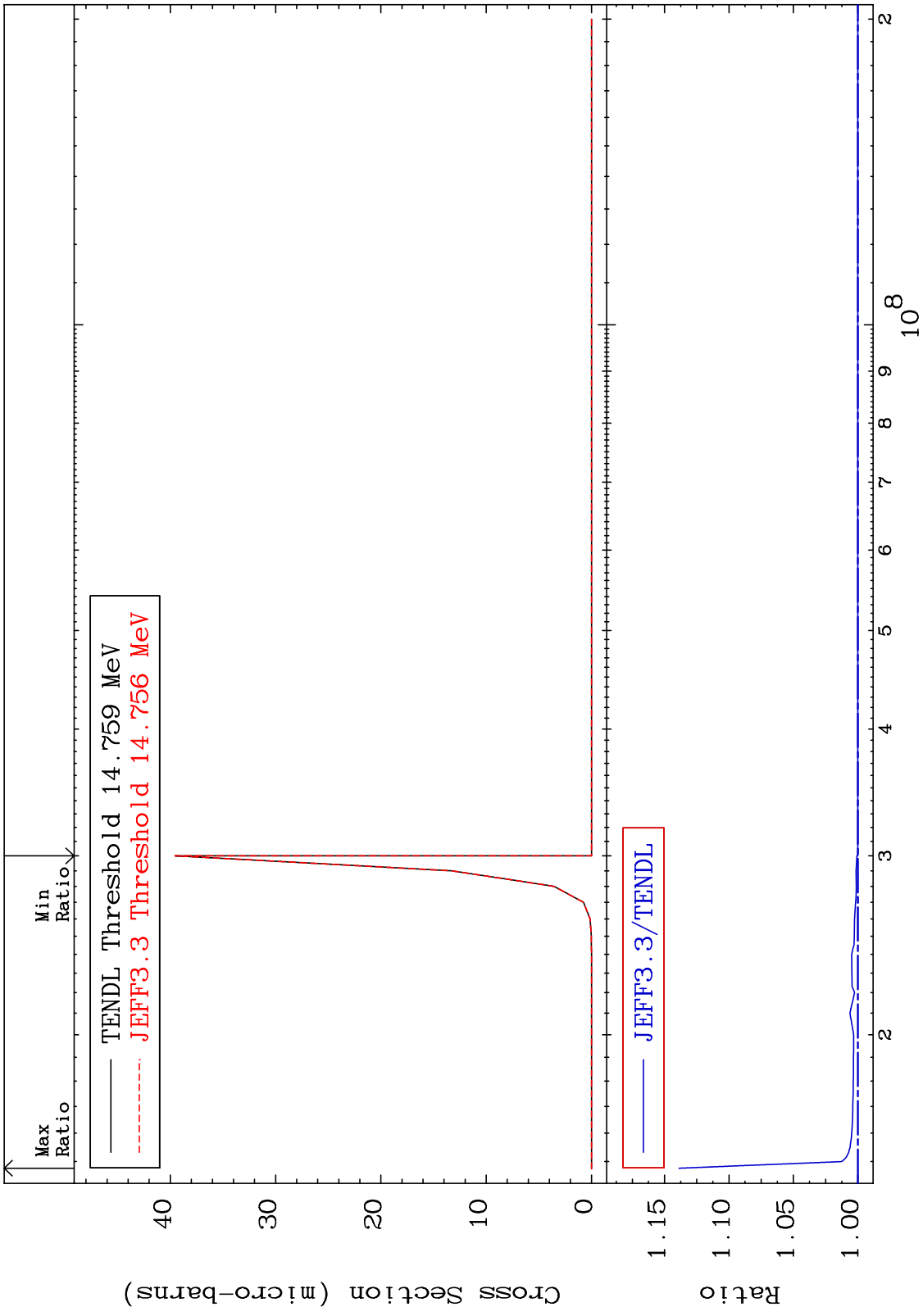
MAT 5831 (n,n') d 58-Ce-138
 Cross Section -0.012 To 1.686 %



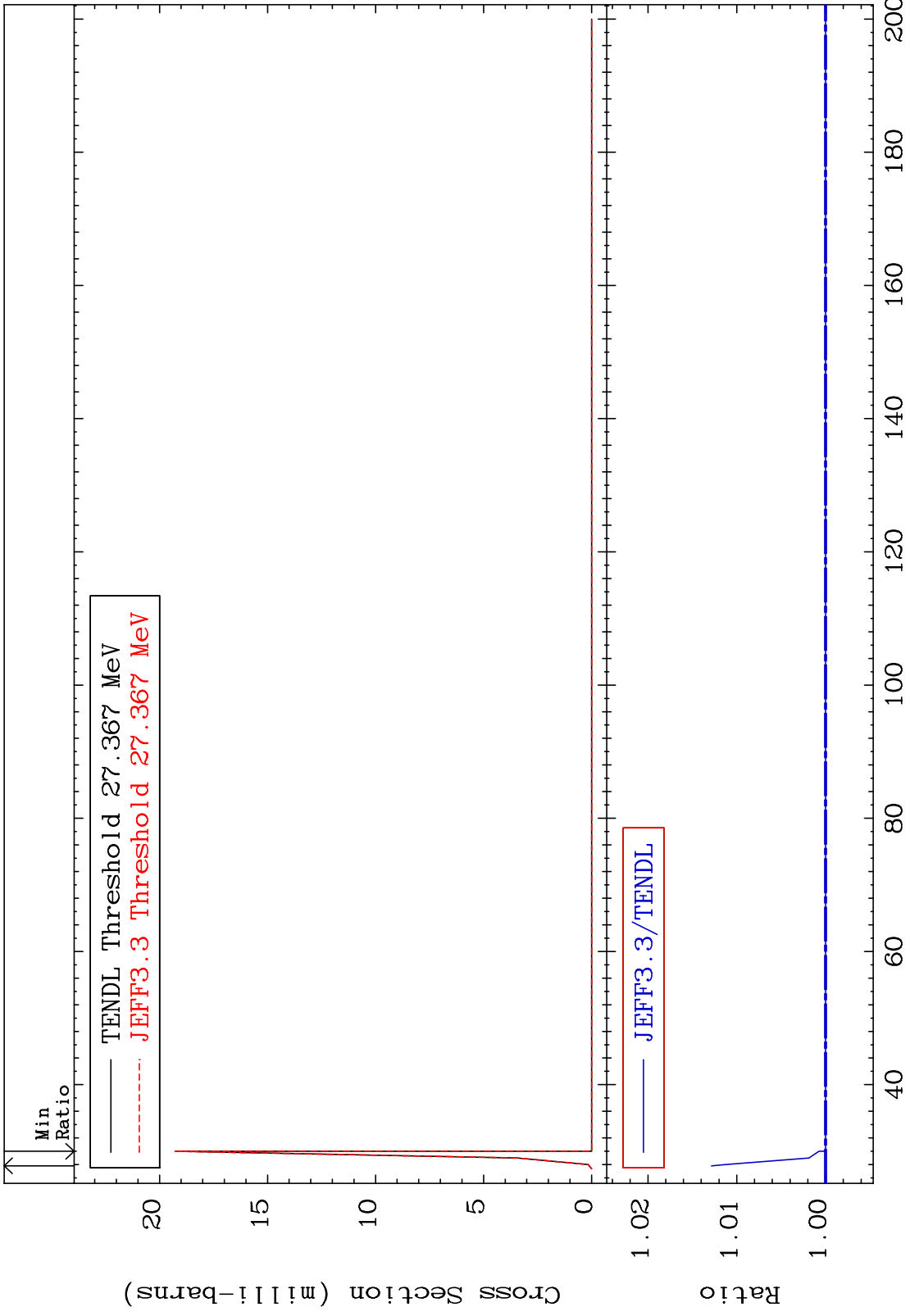
MAT 5831 (n,n') t 58-Ce-138
 Cross Section -0.032 To 39.31 %



MAT 5831 (n, n') He-3 58-Ce-138
 Cross Section 0.000 To 13.88 %

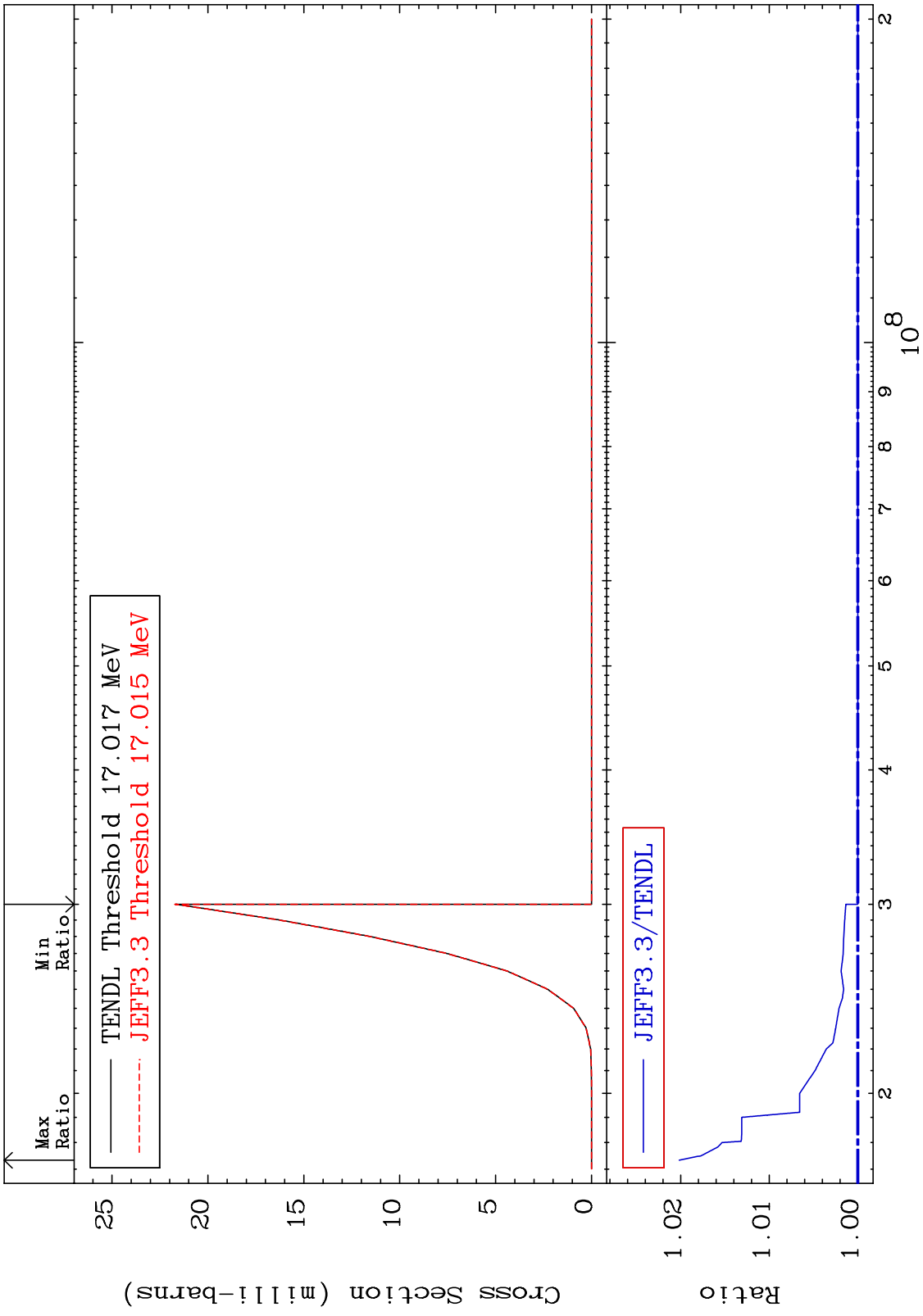


MAT 5831 (n,4n) Cross Section 58-Ce-138 To 1.284 %

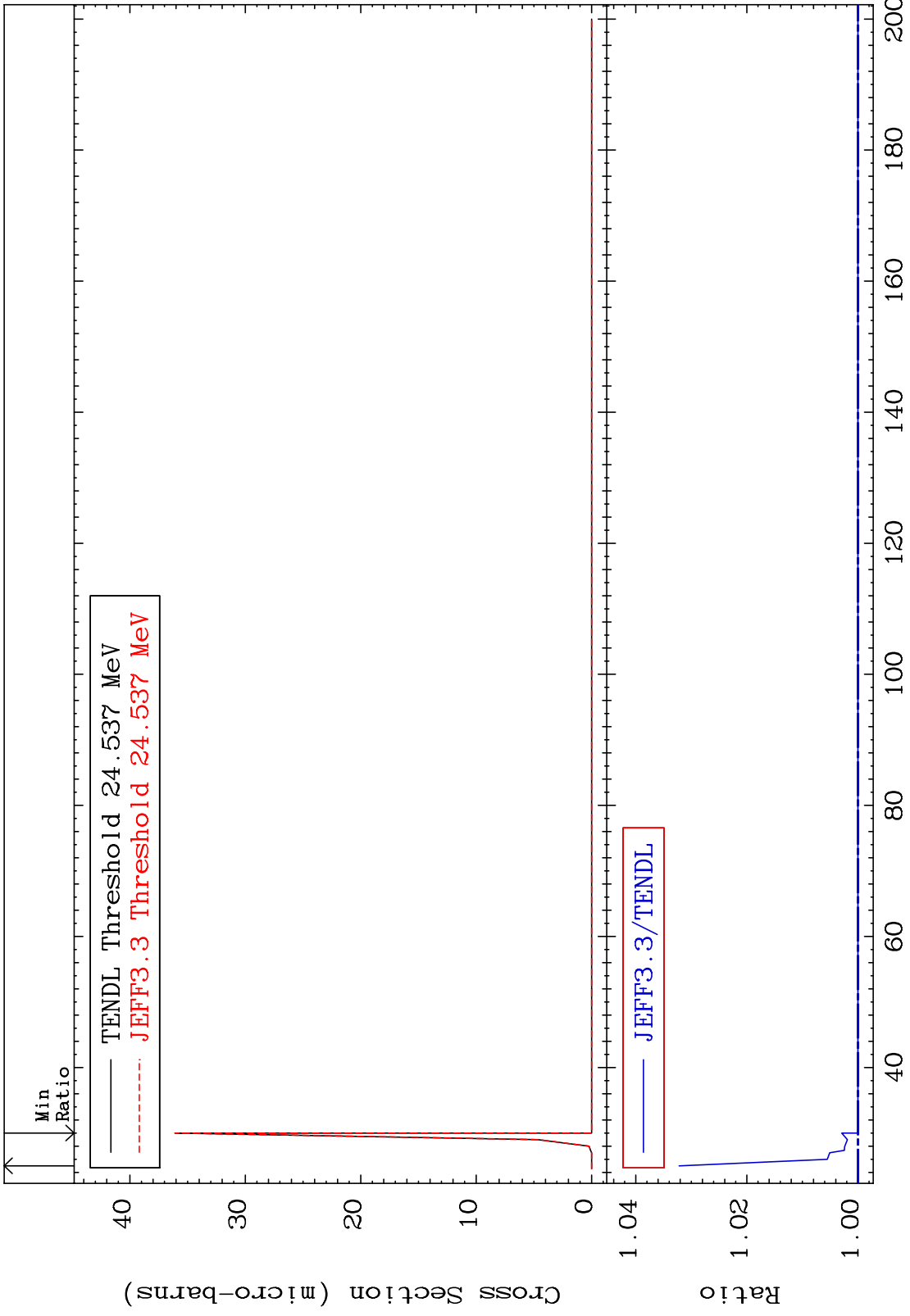


15 58-Ce-138

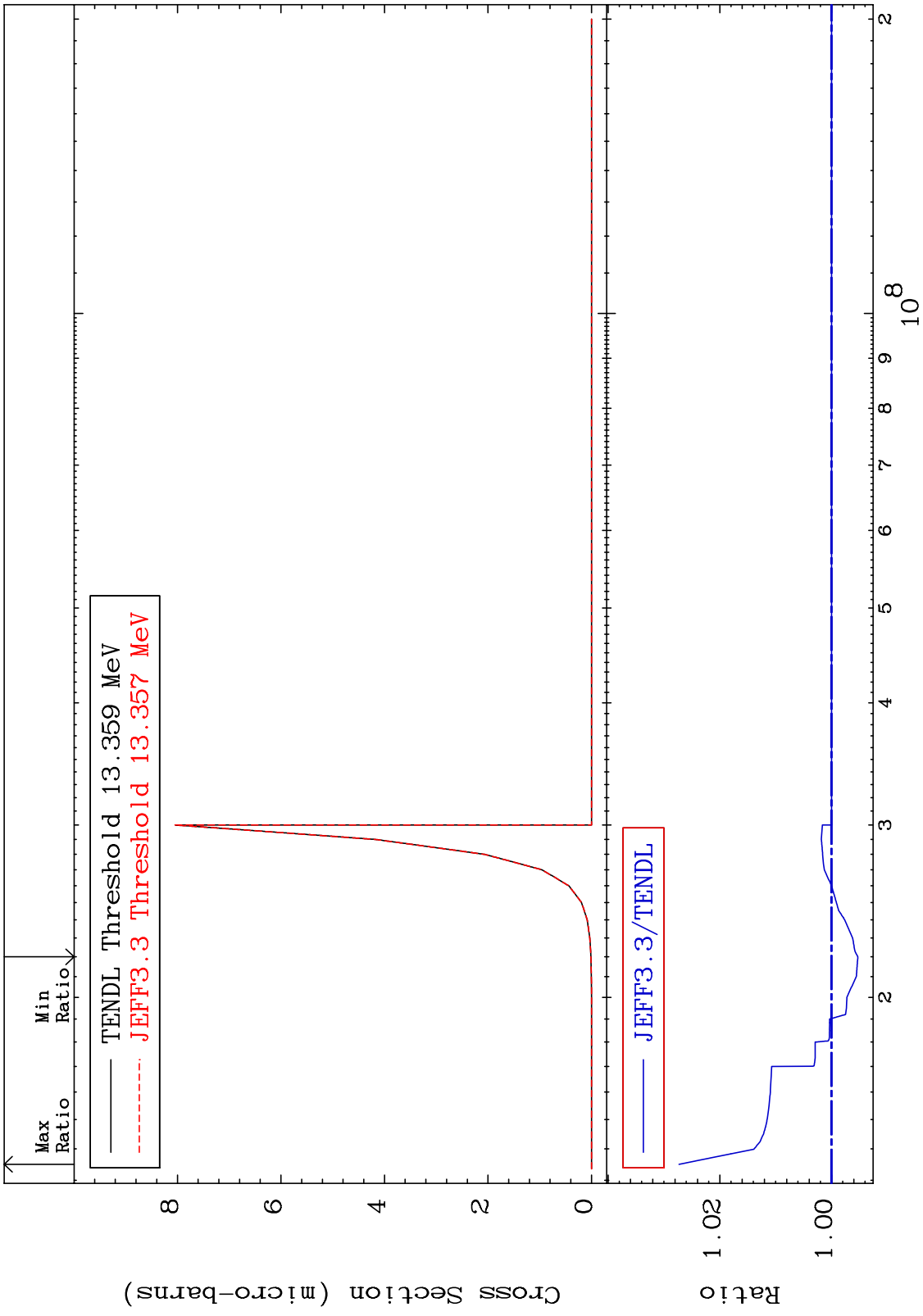
MAT 5831 (n,2n) p 58-Ce-138
 Cross Section 0.000 To 2.018 %



MAT 5831 (n,3n) p 58-Ce-138
Cross Section 0.000 To 3.220 %



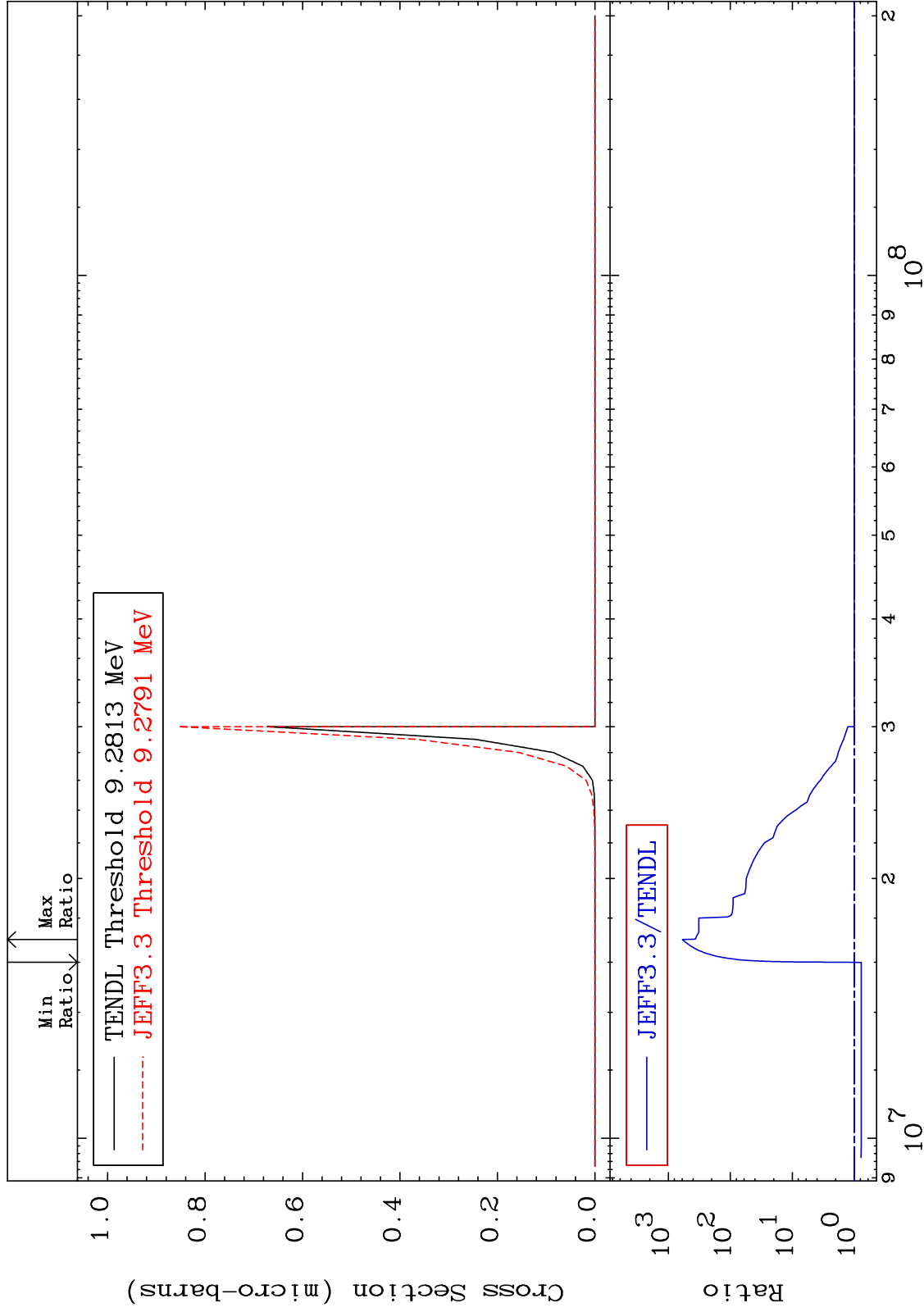
MAT 5831 (n,2n) p 58-Ce-138
 Cross Section -0.471 To 2.729 %



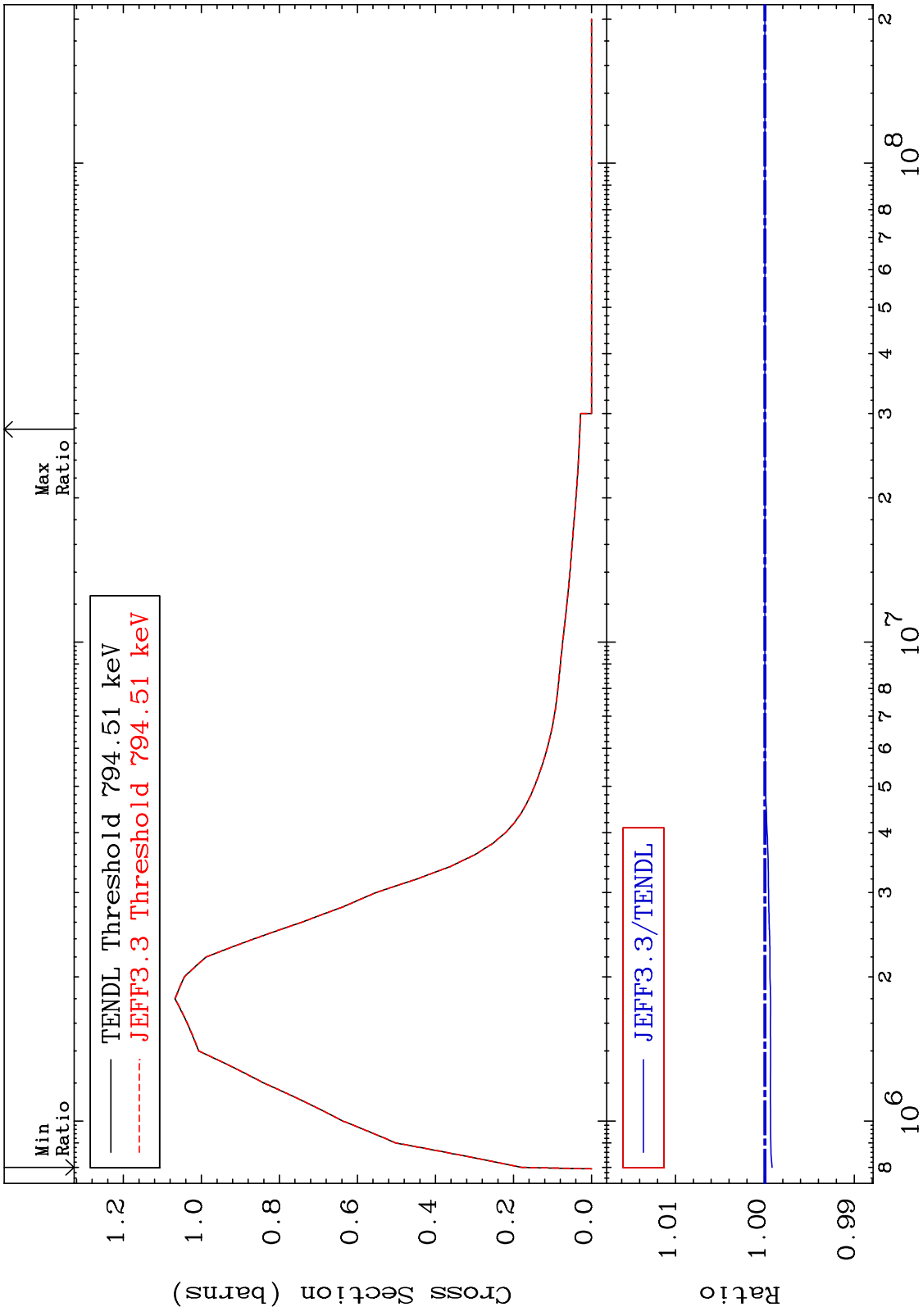
MAT 5831

(n,n') p α
Cross Section

58-Ce-138
-22.71 To 9999. %



MAT 5831 MT= 51 (n,n') Level Cross Section 58-Ce-138 -0.080 To 0.000 %



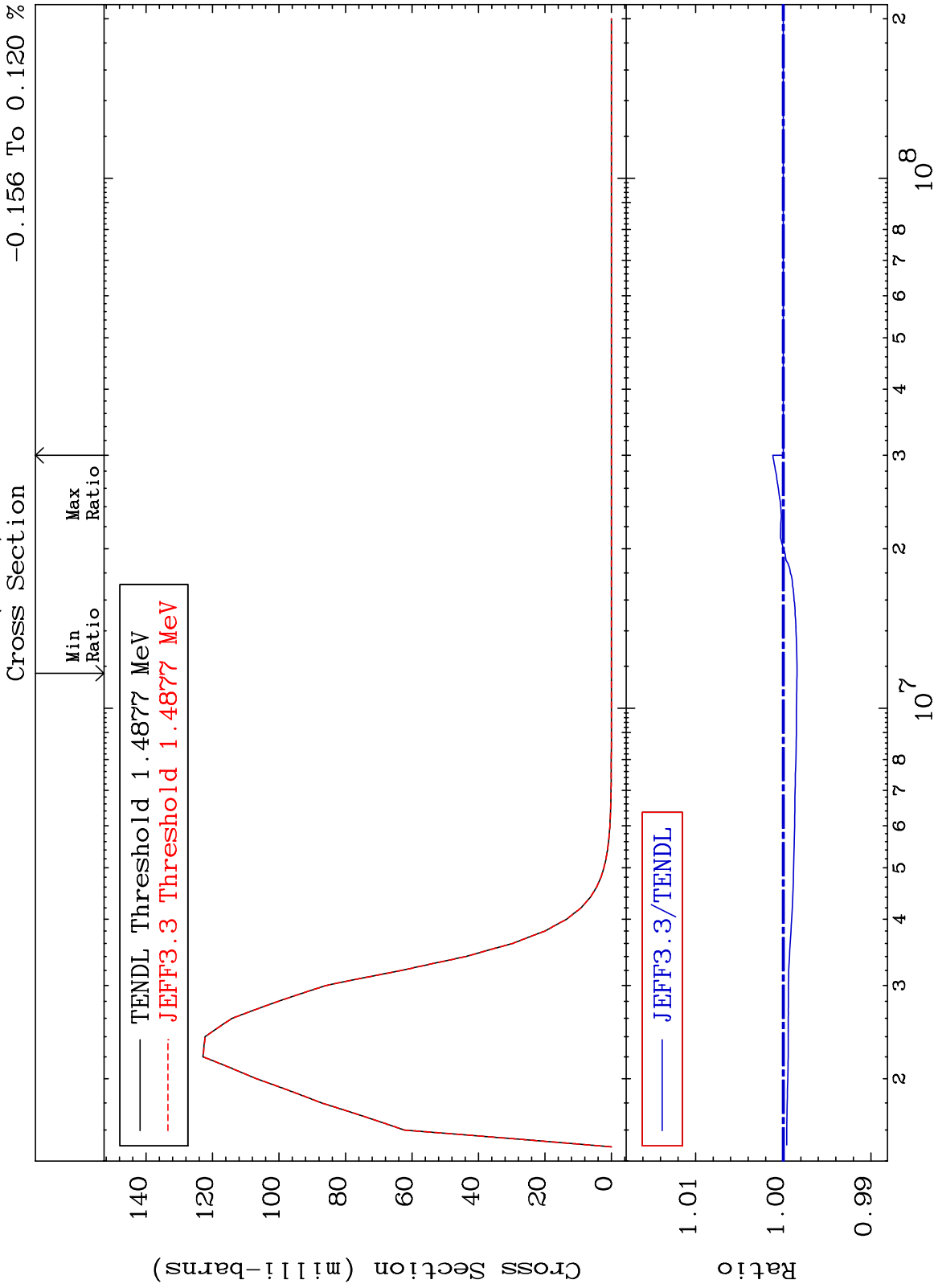
20 Incident Energy (eV) 58-Ce-138

MAT 5831

MT= 52 (n,n') Level

58-Ce-138

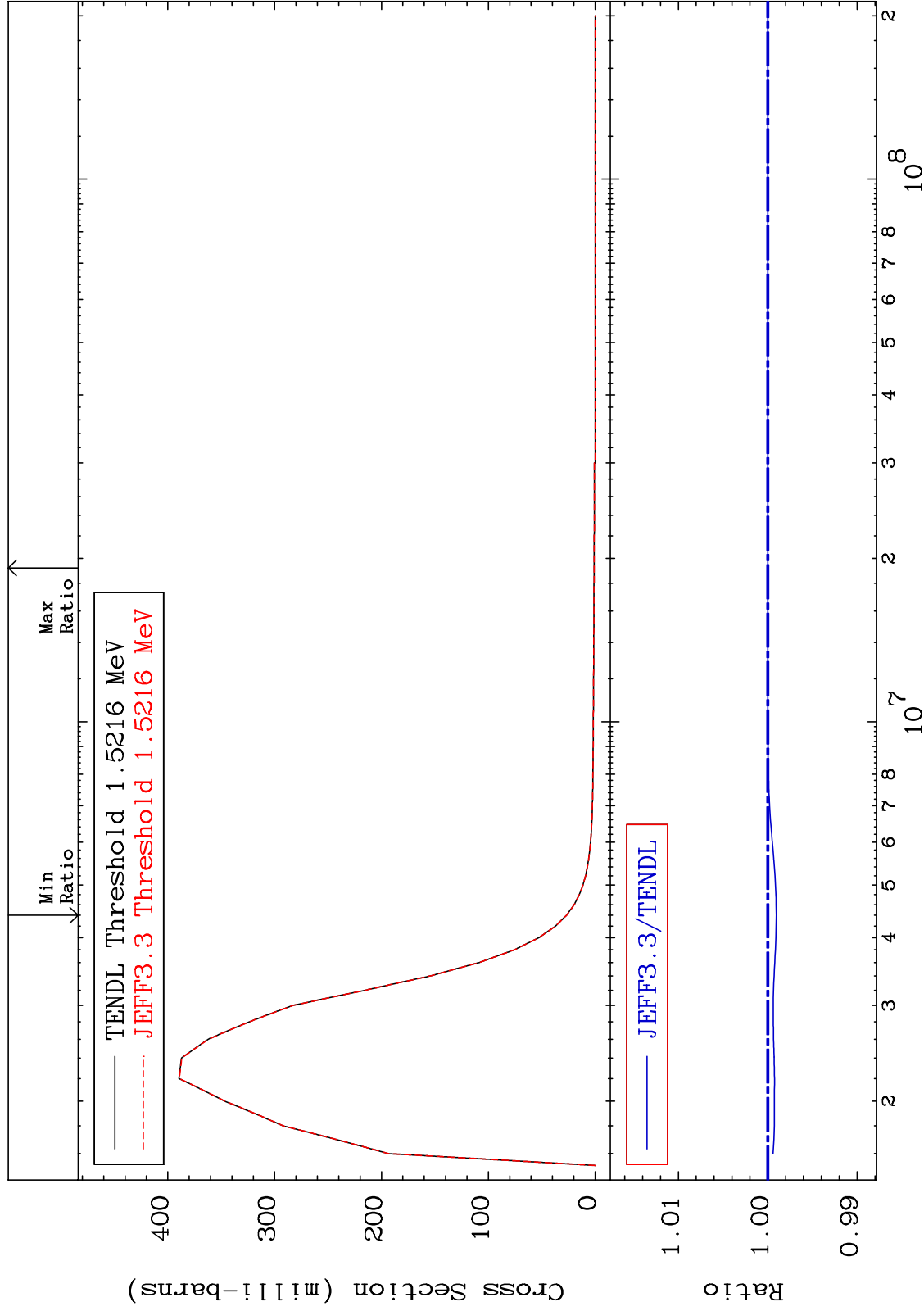
-0.156 To 0.120 %



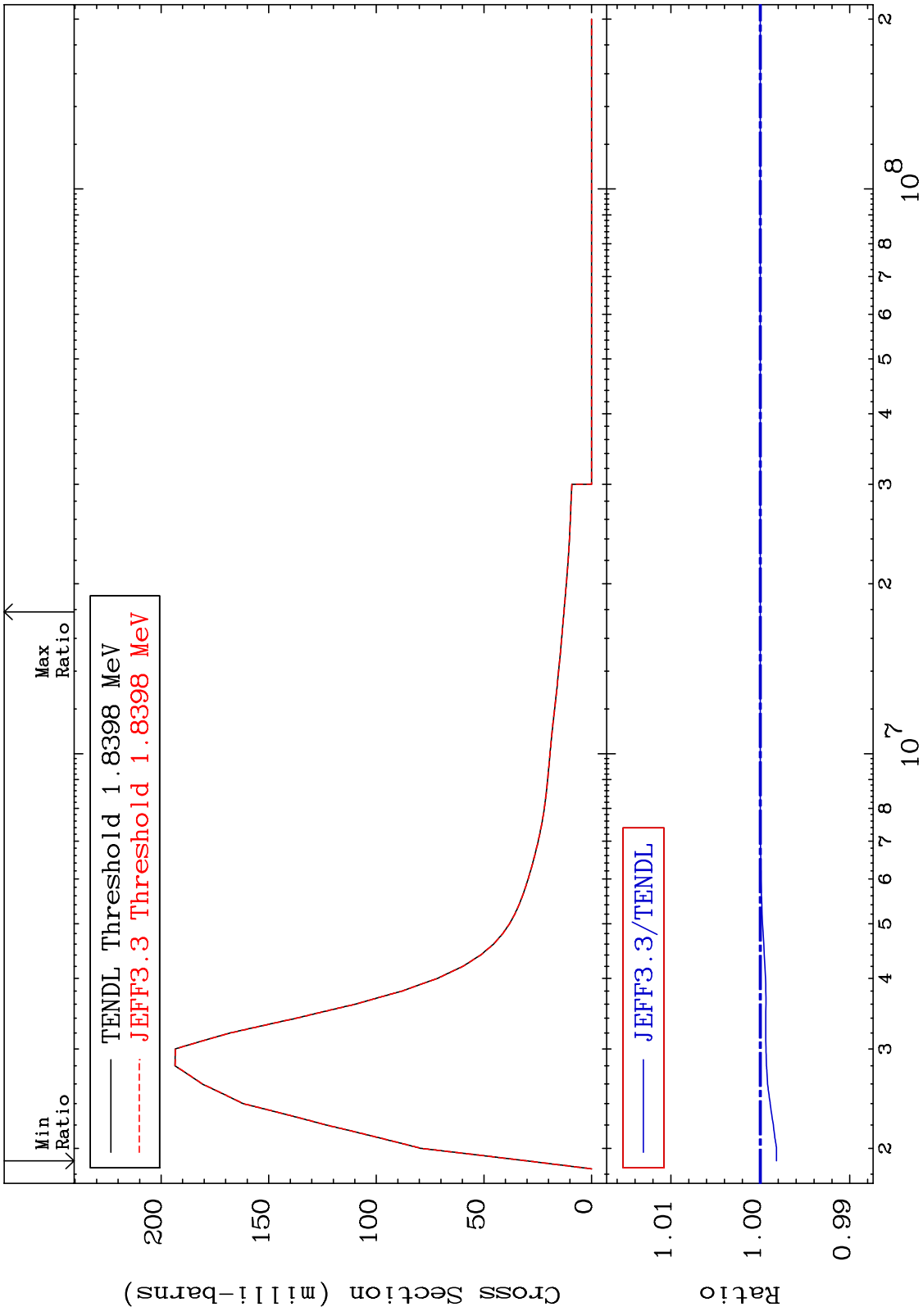
MAT 5831

MT= 53 (n,n') Level
Cross Section

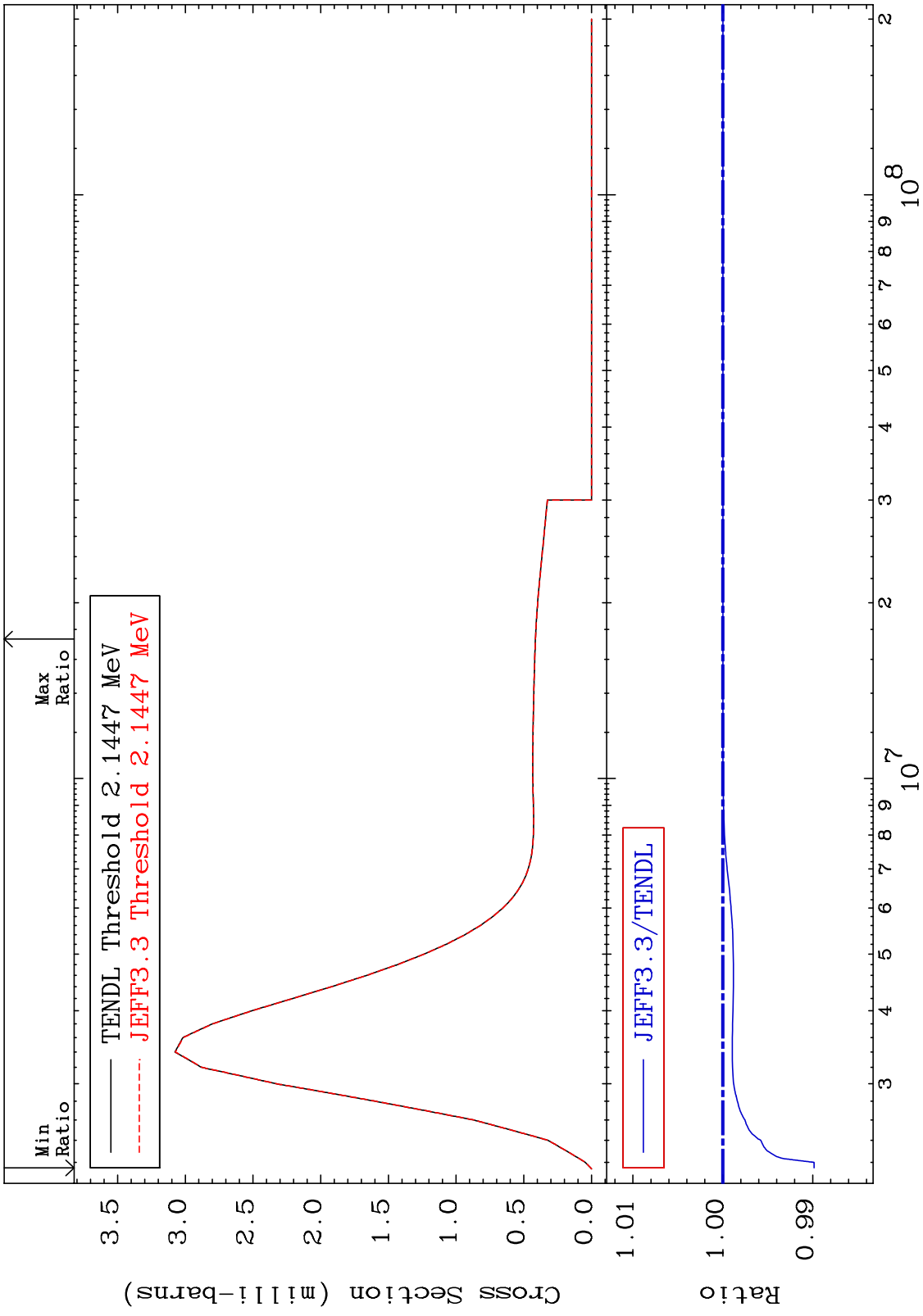
58-Ce-138
-0.096 To 0.000 %



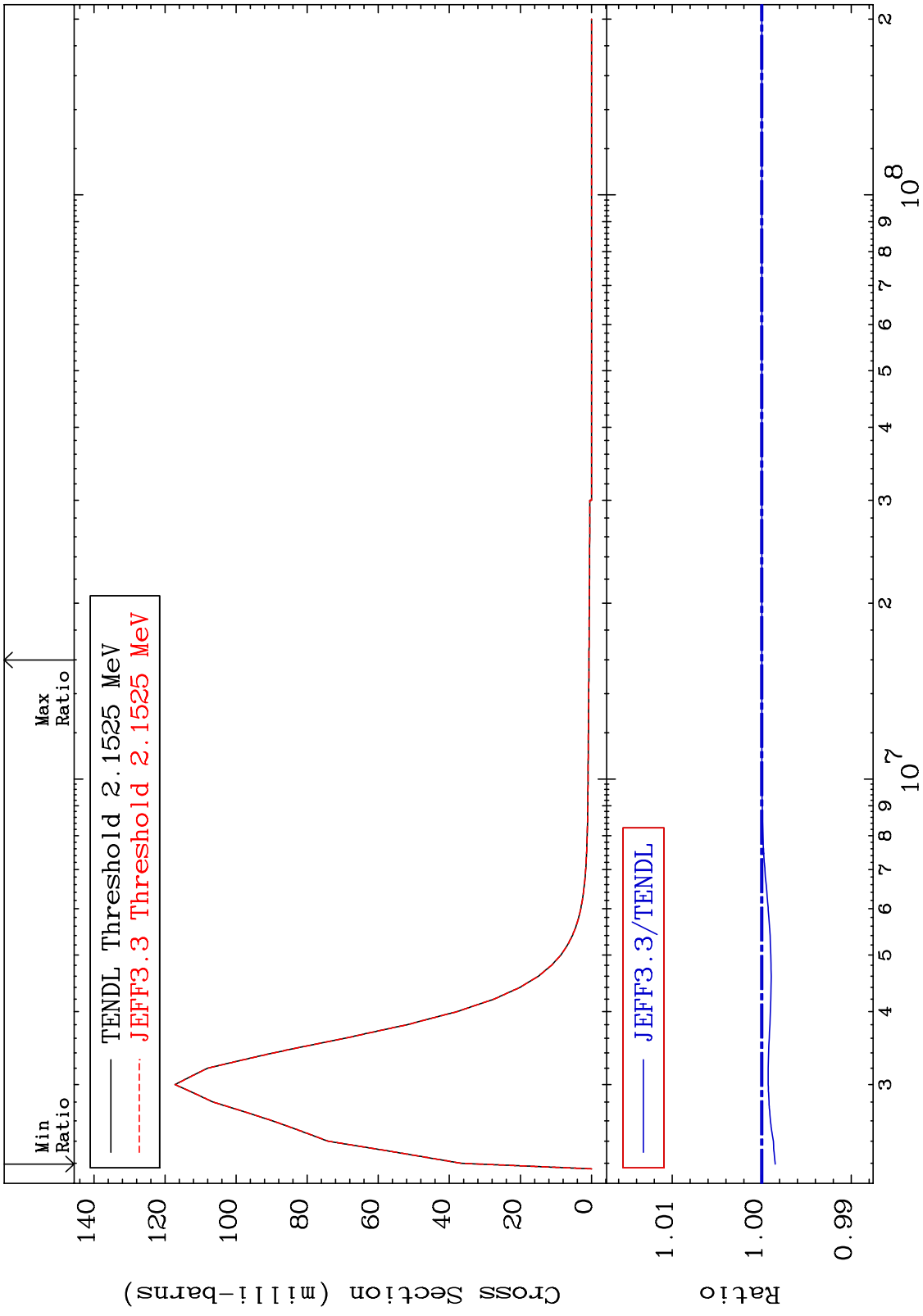
MAT 5831 MT= 54 (n,n') Level Cross Section 58-Ce-138
 -0.182 To 0.000 %



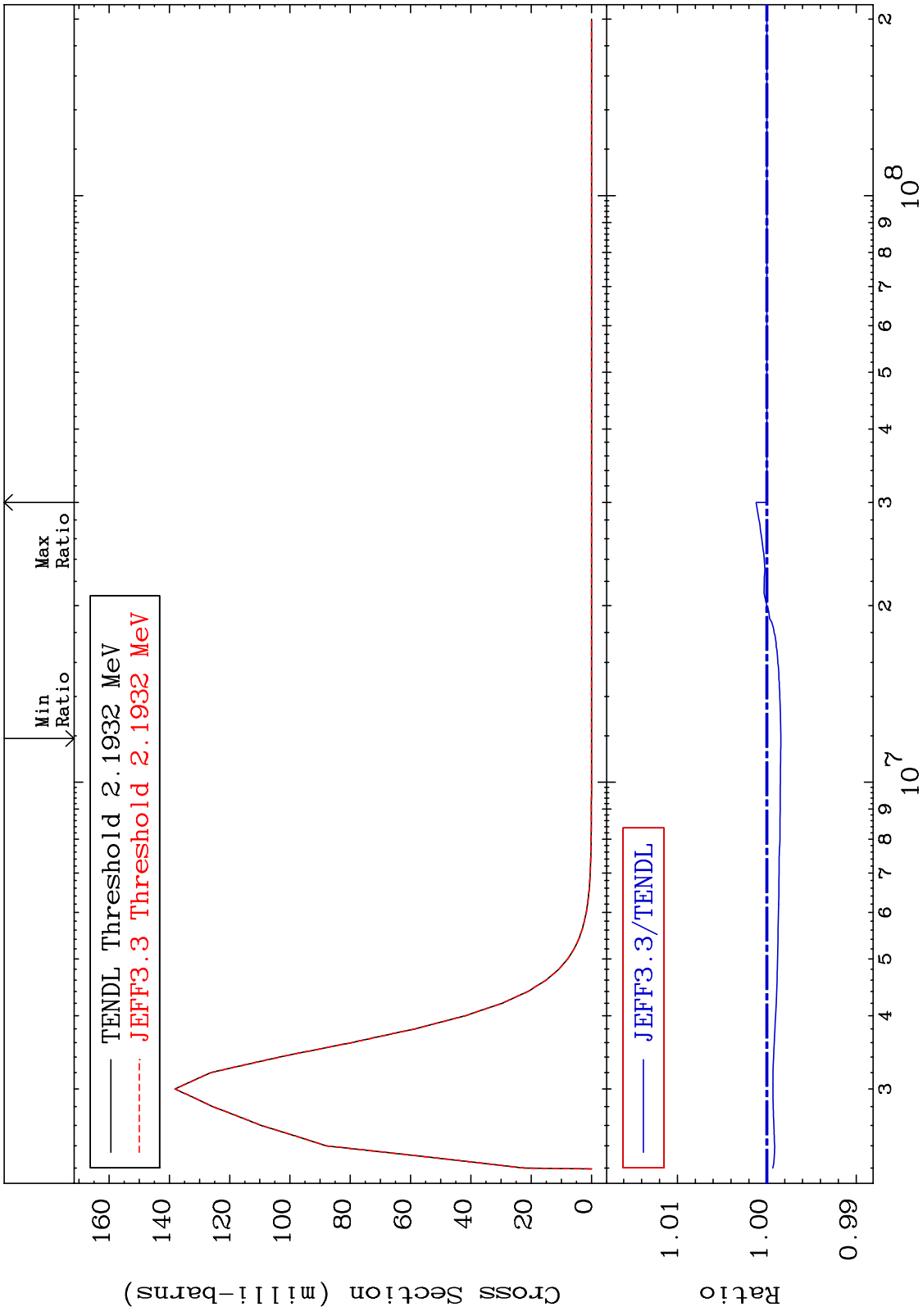
MAT 5831 MT= 55 (n,n') Level Cross Section 58-Ce-138
 -1.016 To 0.000 %



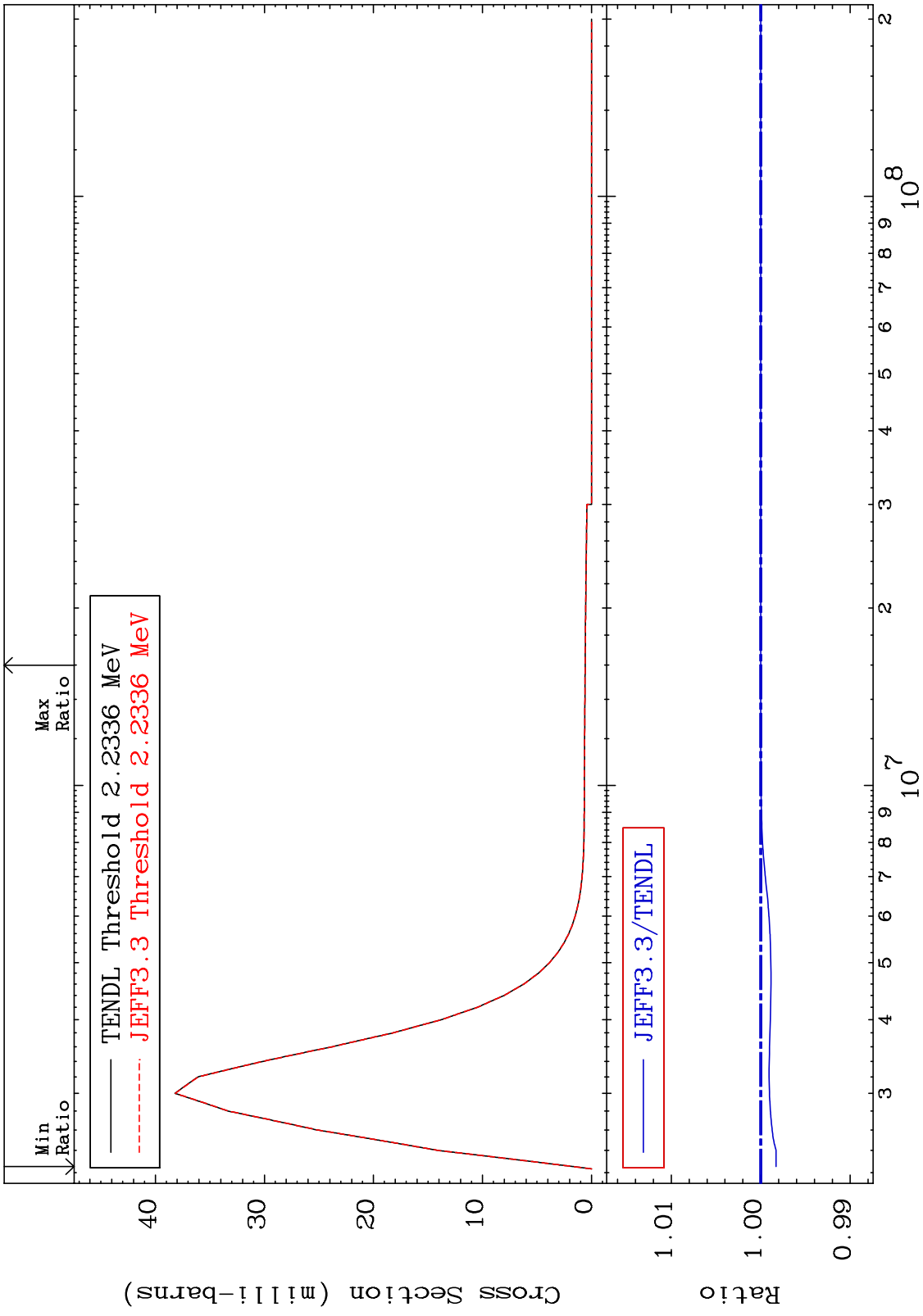
MAT 5831 MT= 56 (n,n') Level Cross Section 58-Ce-138
 -0.150 To 0.000 %



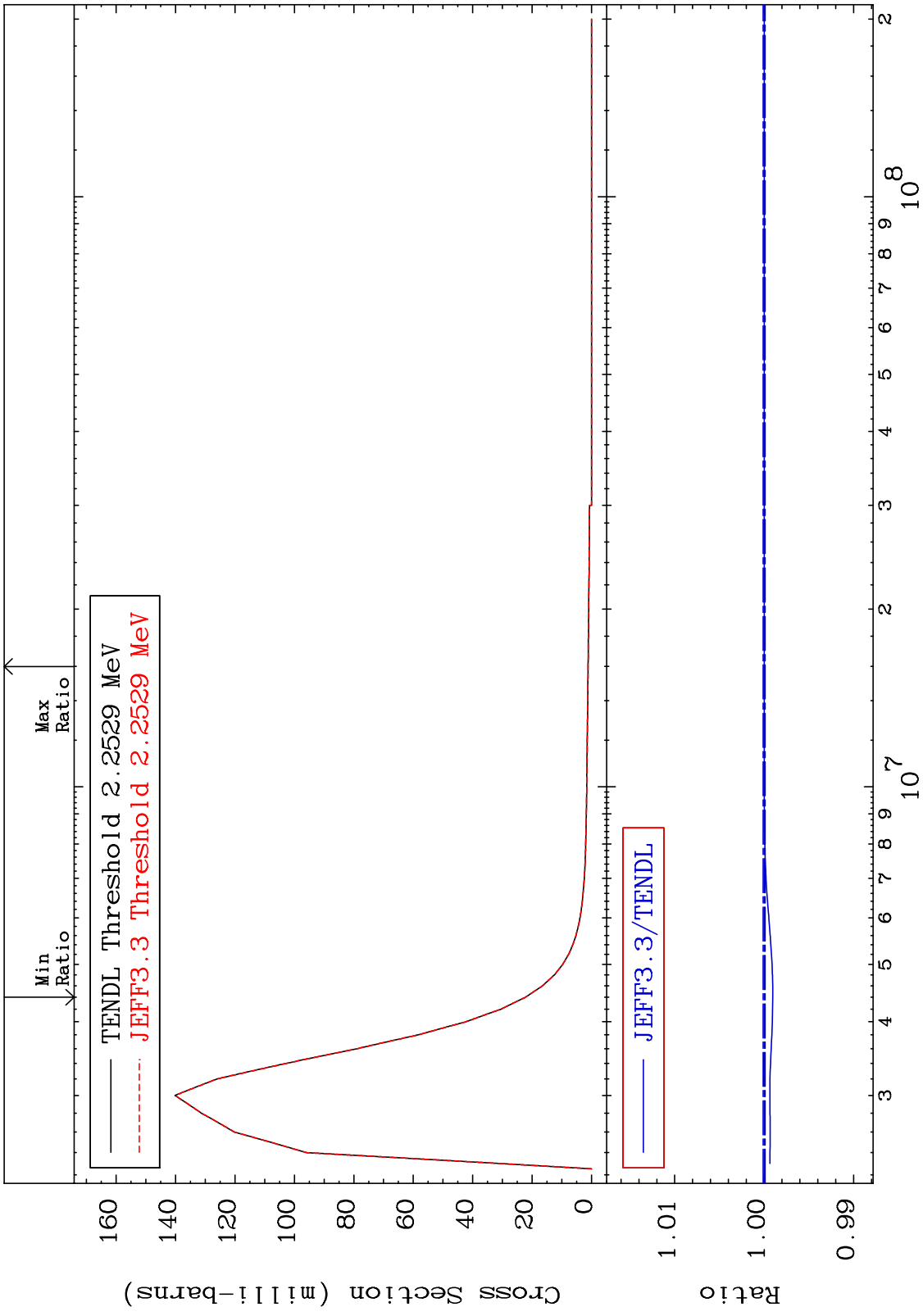
MAT 5831 MT= 57 (n,n') Level Cross Section 58-Ce-138 -0.157 To 0.120 %



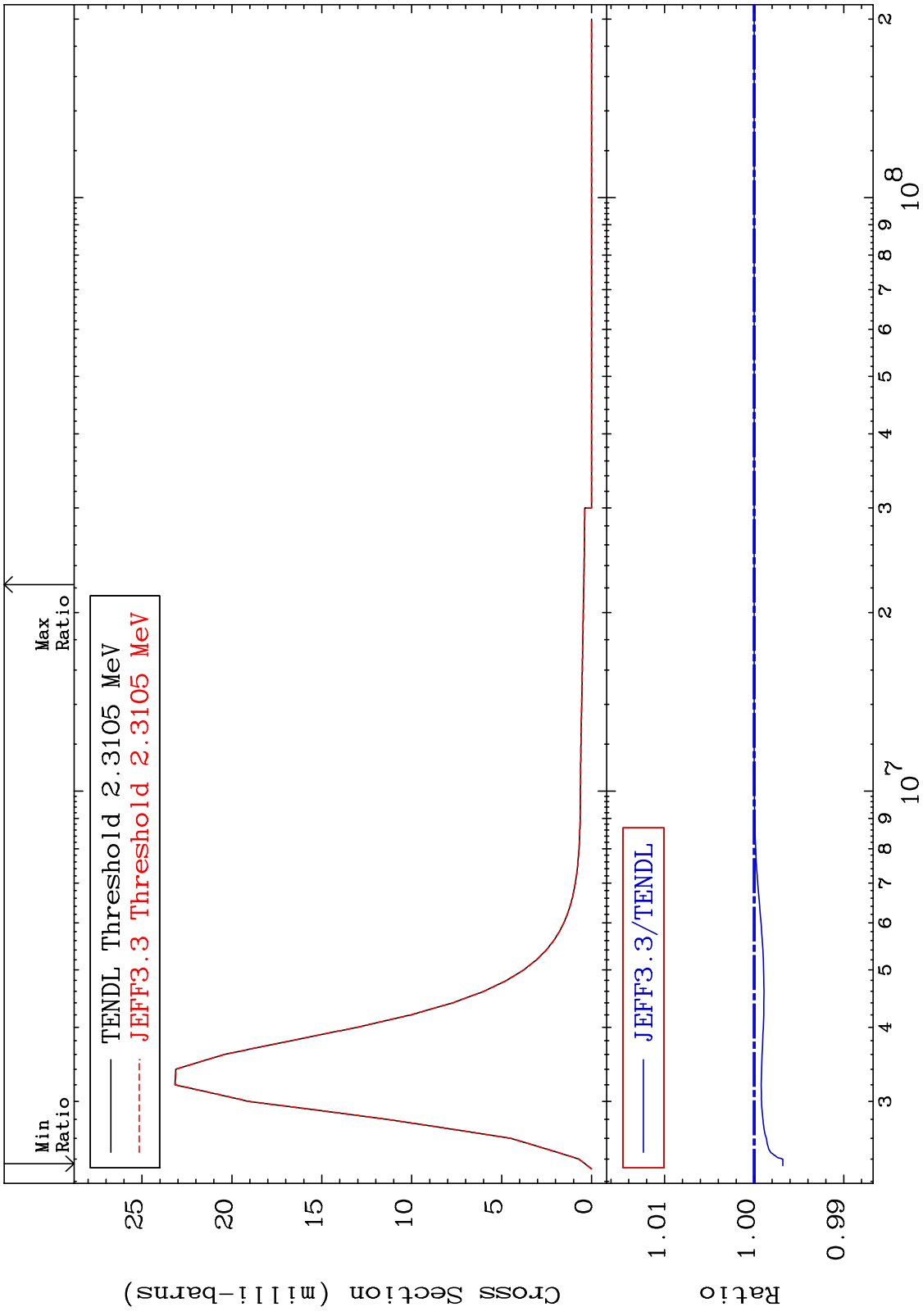
MAT 5831 MT= 58 (n,n') Level Cross Section 58-Ce-138 -0.171 To 0.000 %



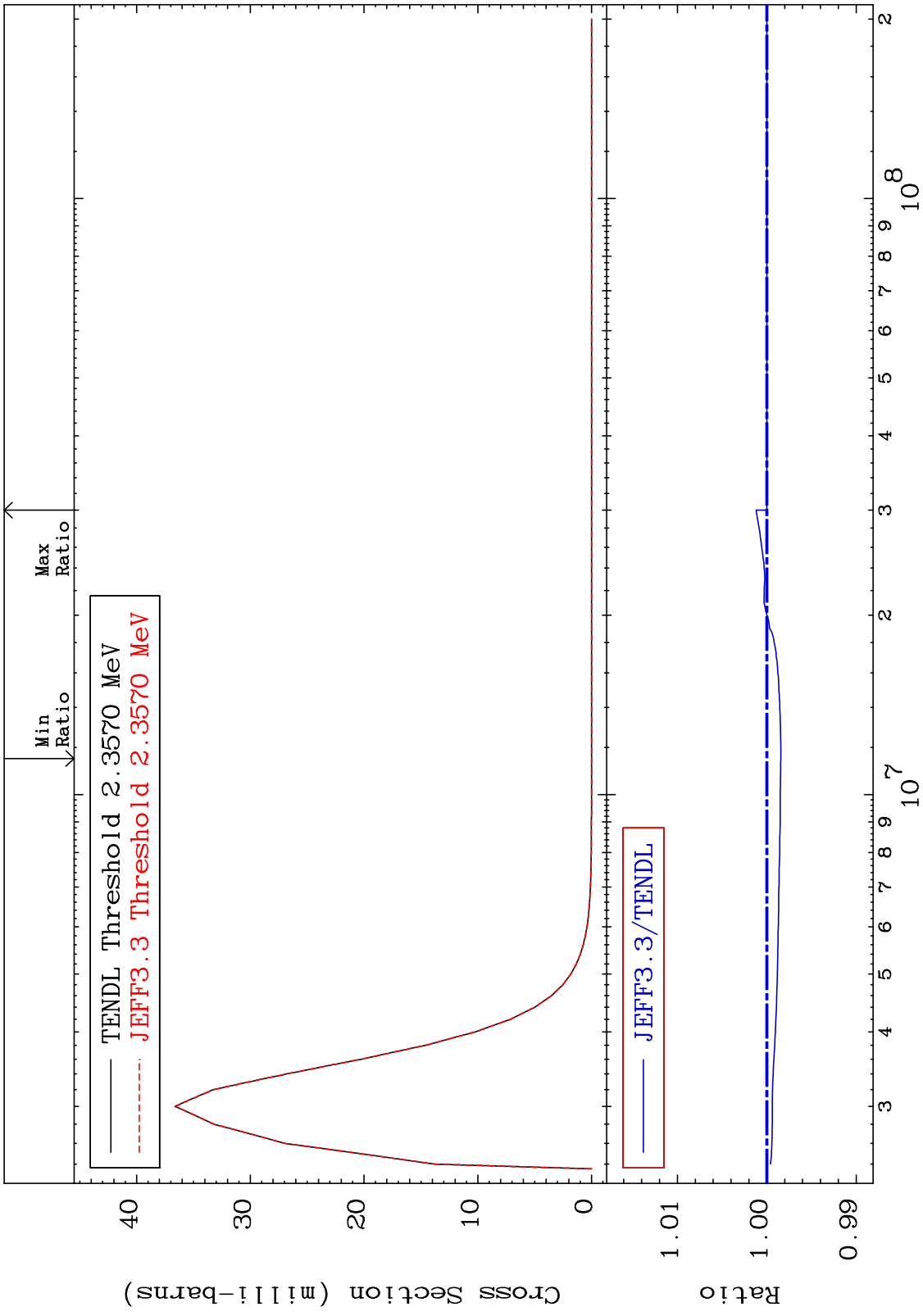
MAT 5831 MT= 59 (n,n') Level Cross Section 58-Ce-138
 -0.096 To 0.000 %



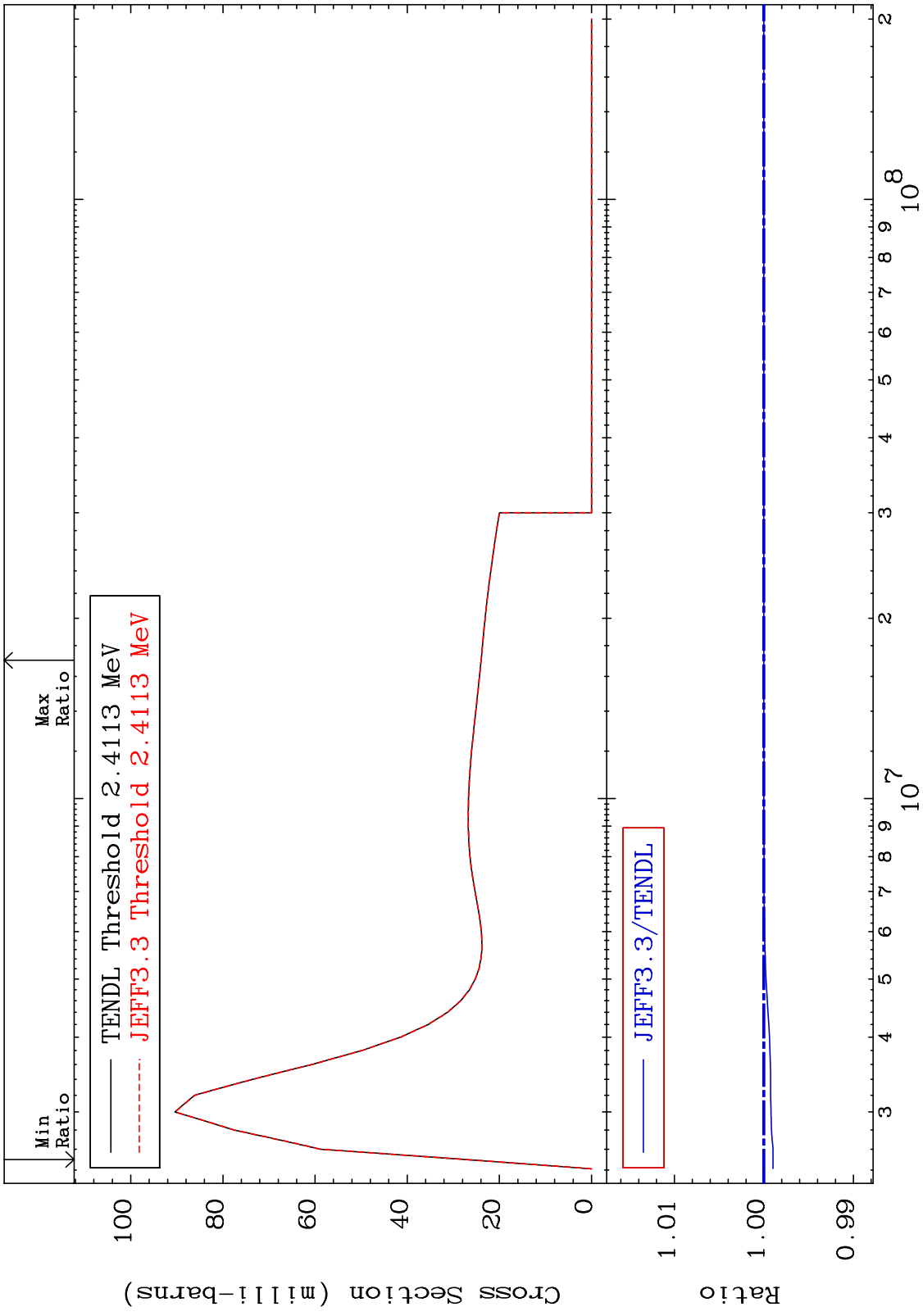
MAT 5831 MT= 60 (n,n') Level Cross Section 58-Ce-138
 -0.319 To 0.000 %



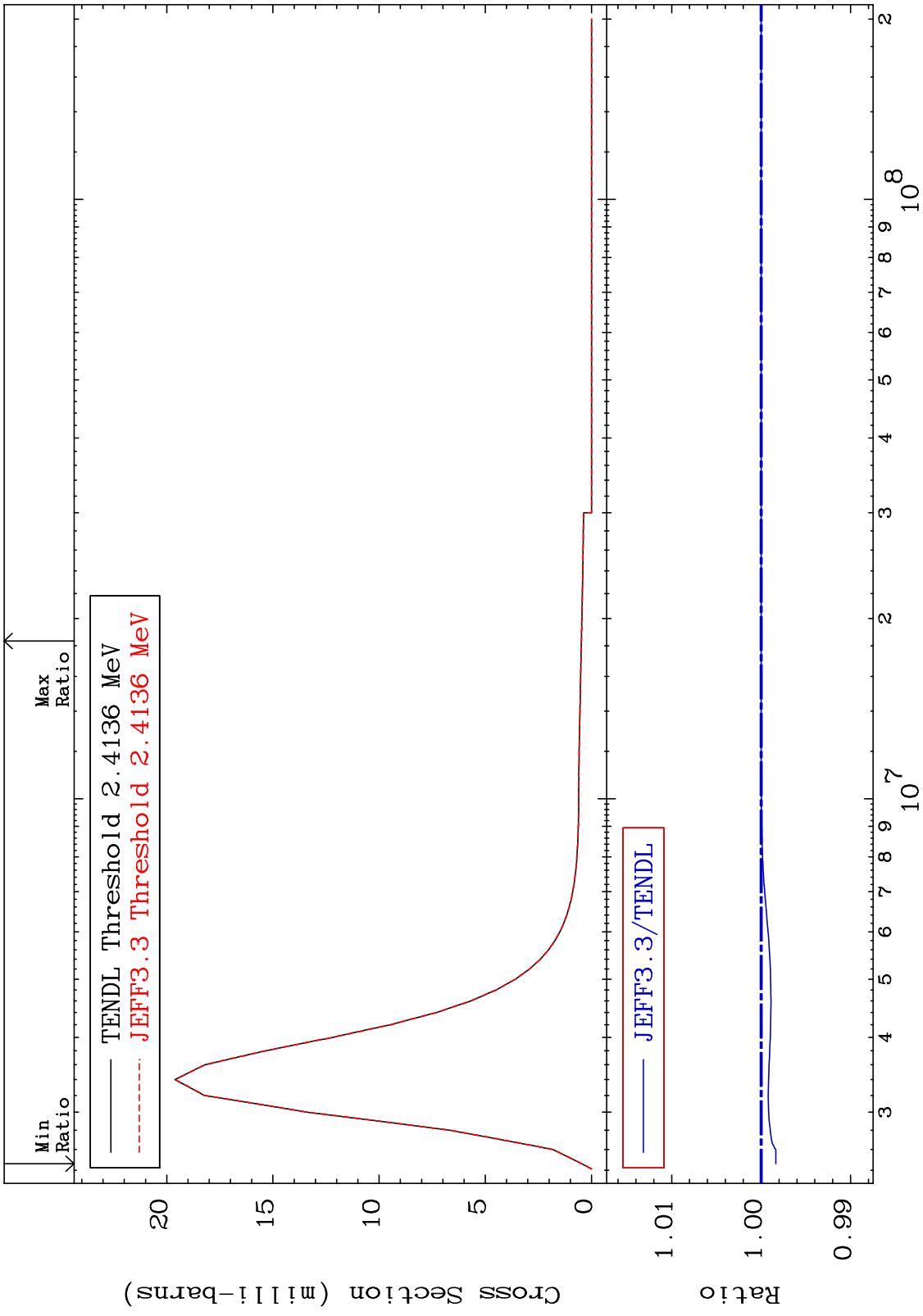
MAT 5831 MT= 61 (n,n') Level Cross Section 58-Ce-138
 -0.156 To 0.120 %



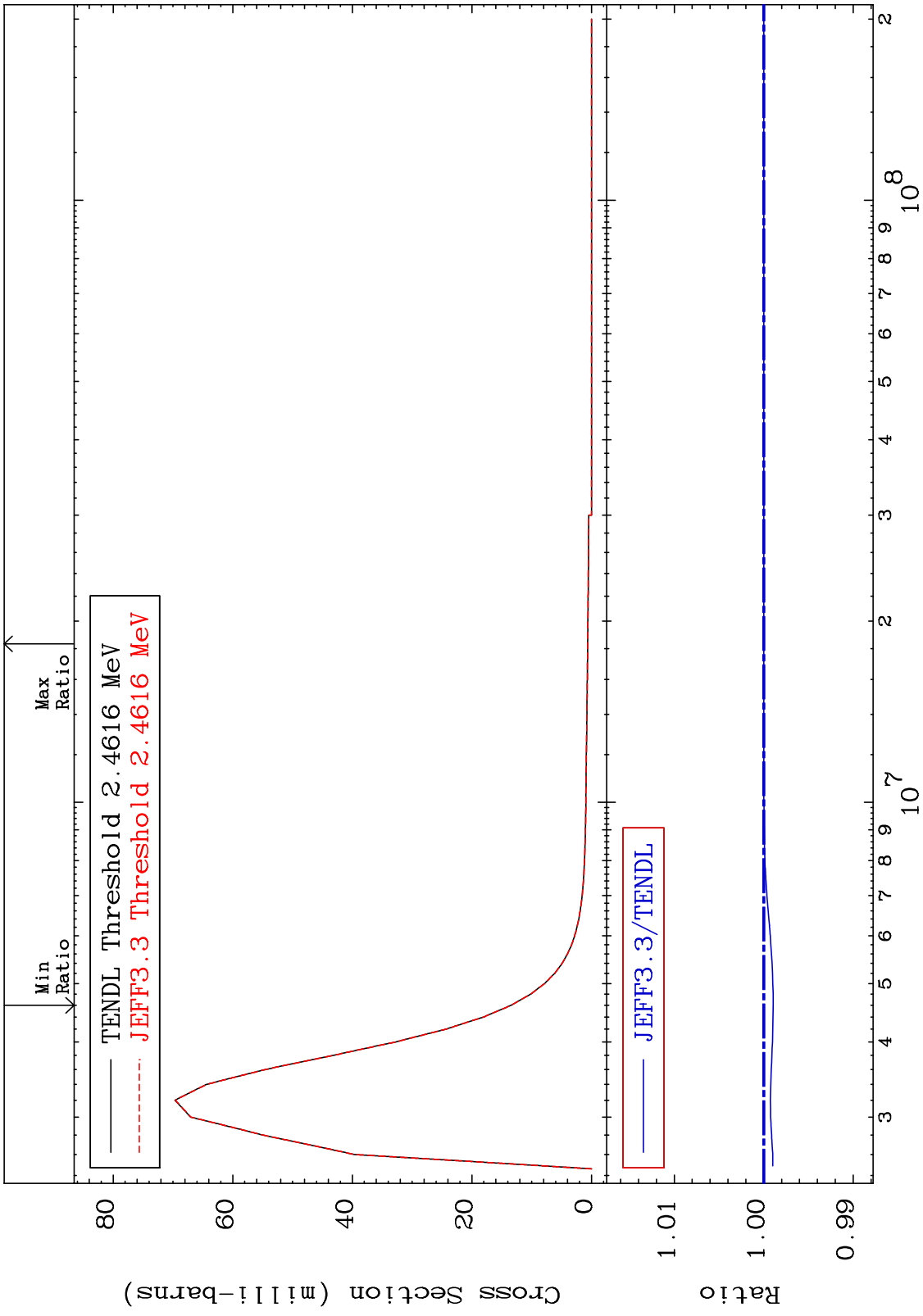
MAT 5831 MT= 62 (n,n') Level Cross Section 58-Ce-138
 -0.102 To 0.000 %



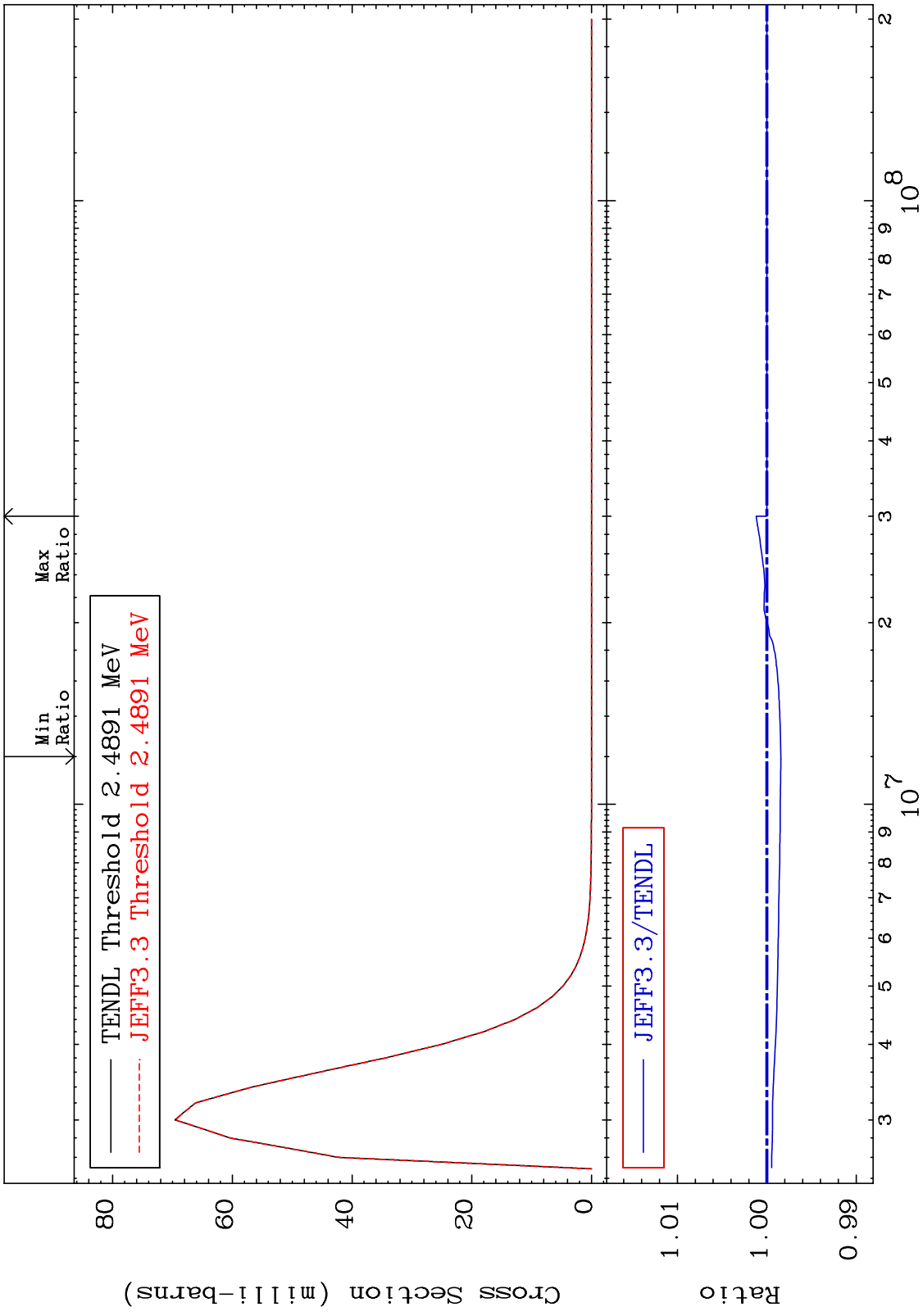
MAT 5831 MT= 63 (n,n') Level Cross Section 58-Ce-138
 -0.163 To 0.000 %



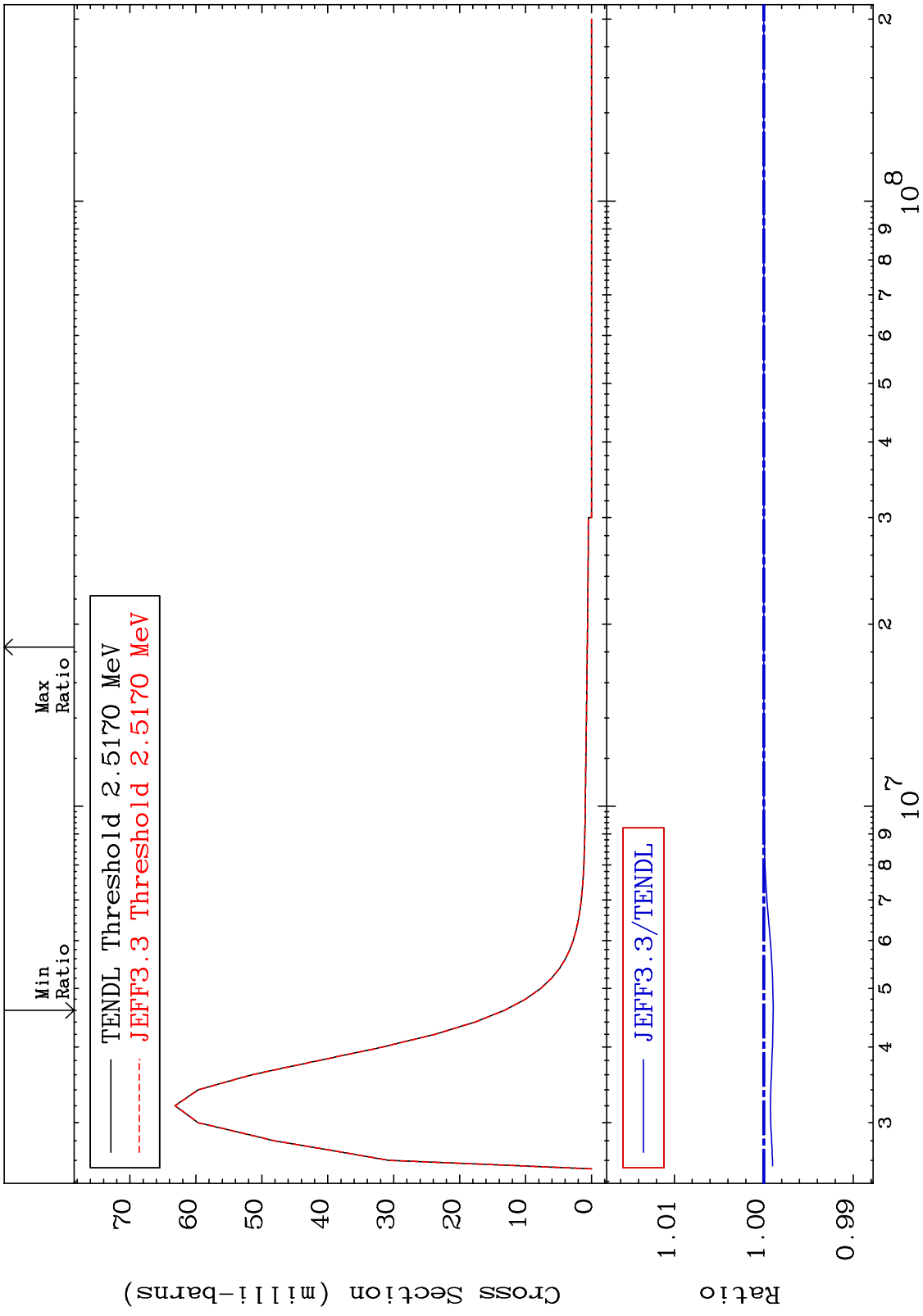
MAT 5831 MT= 64 (n,n') Level Cross Section 58-Ce-138
 -0.105 To 0.000 %



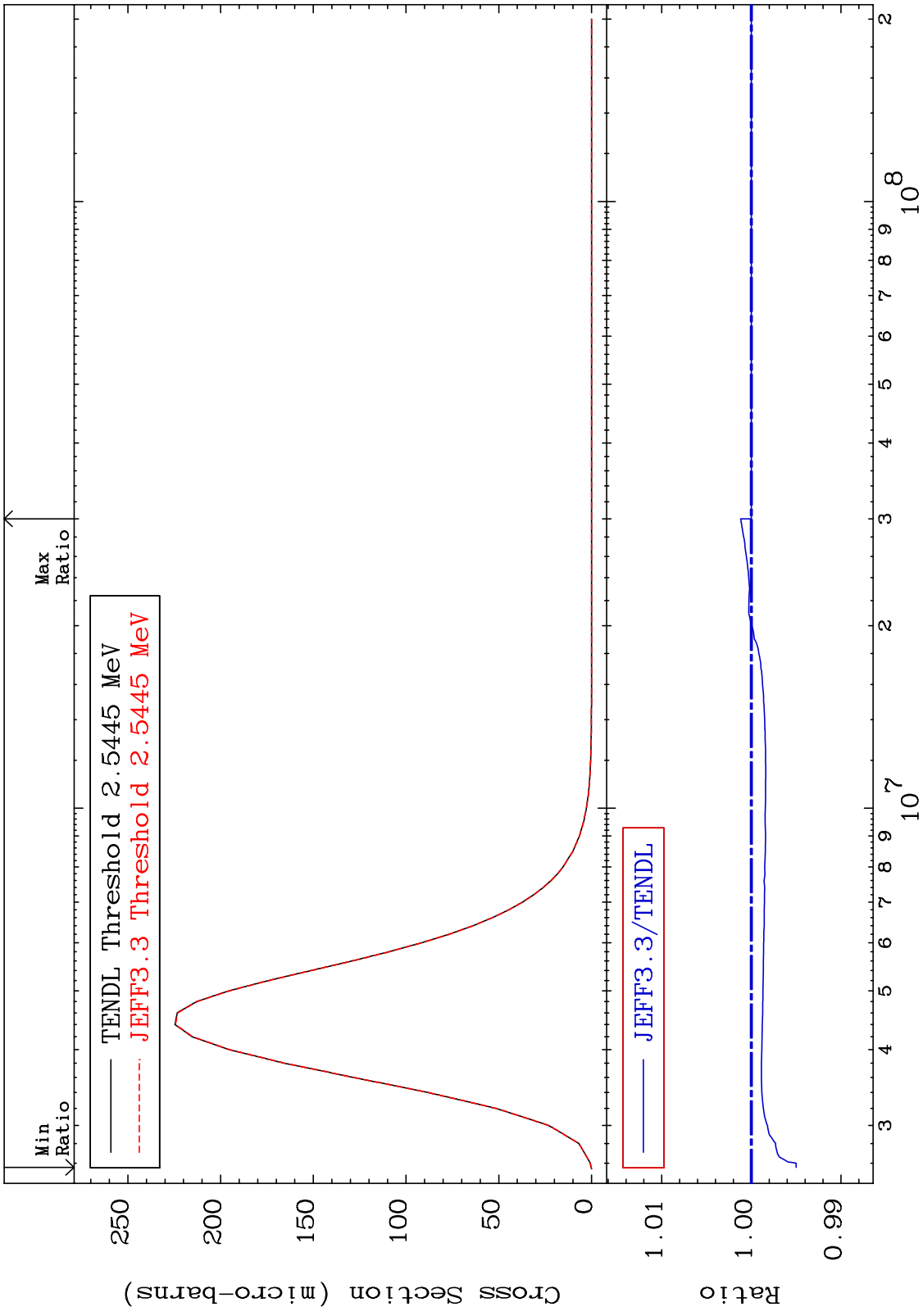
MAT 5831 MT= 65 (n,n') Level Cross Section 58-Ce-138
 -0.156 To 0.120 %



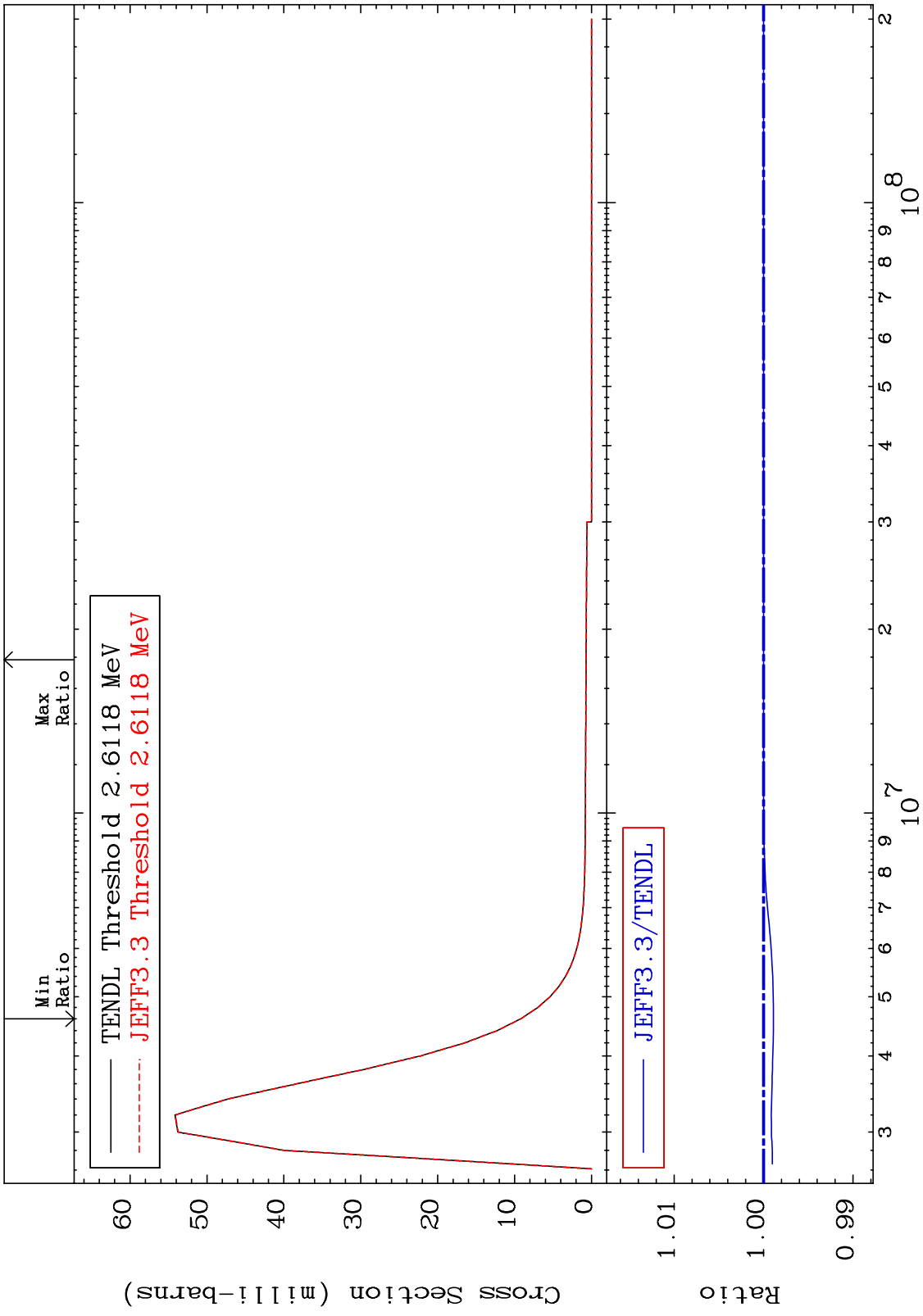
MAT 5831 MT= 66 (n,n') Level Cross Section 58-Ce-138
 -0.105 To 0.000 %



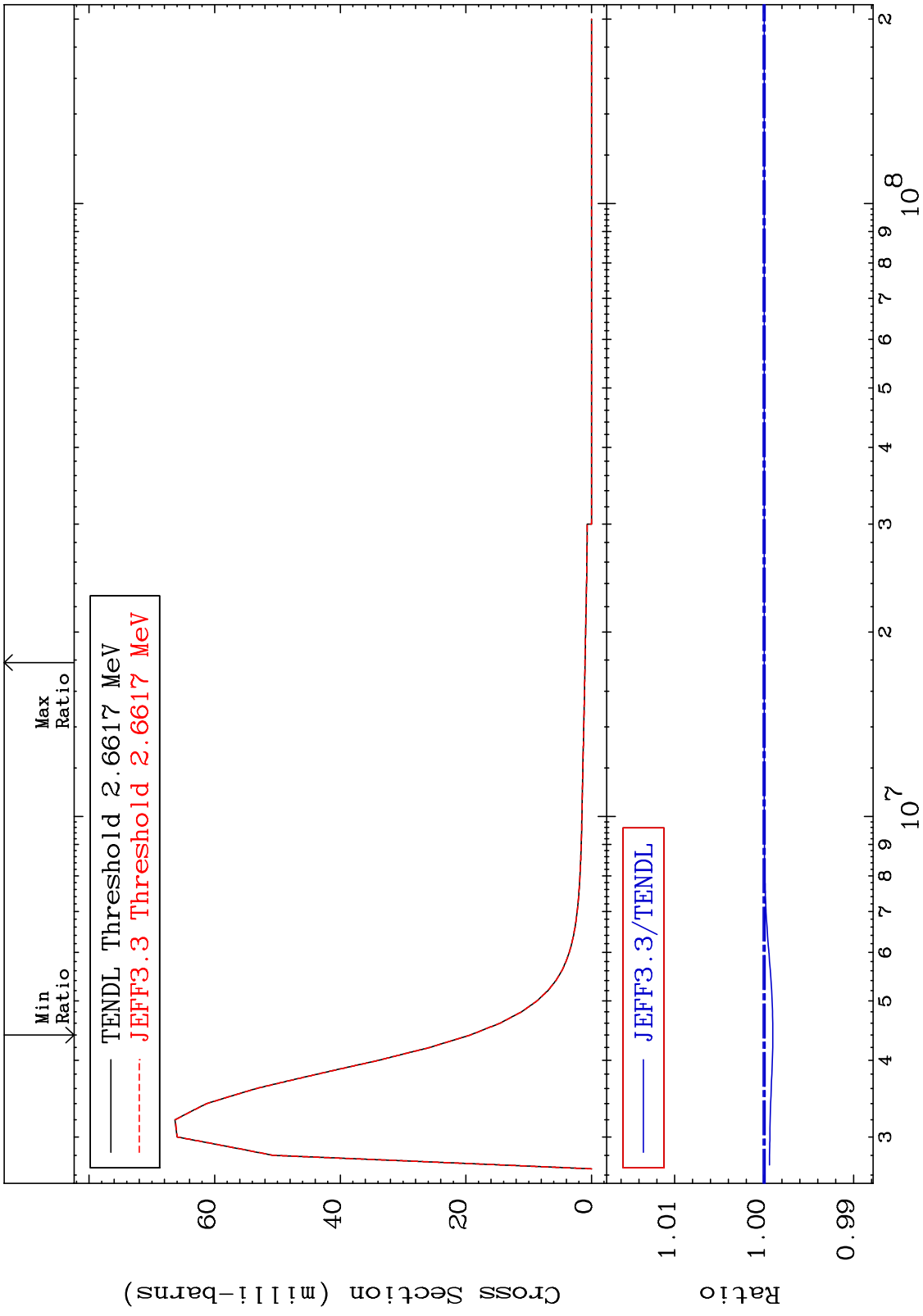
MAT 5831 MT= 67 (n, n') Level Cross Section 58-Ce-138
 -0.501 To 0.119 %



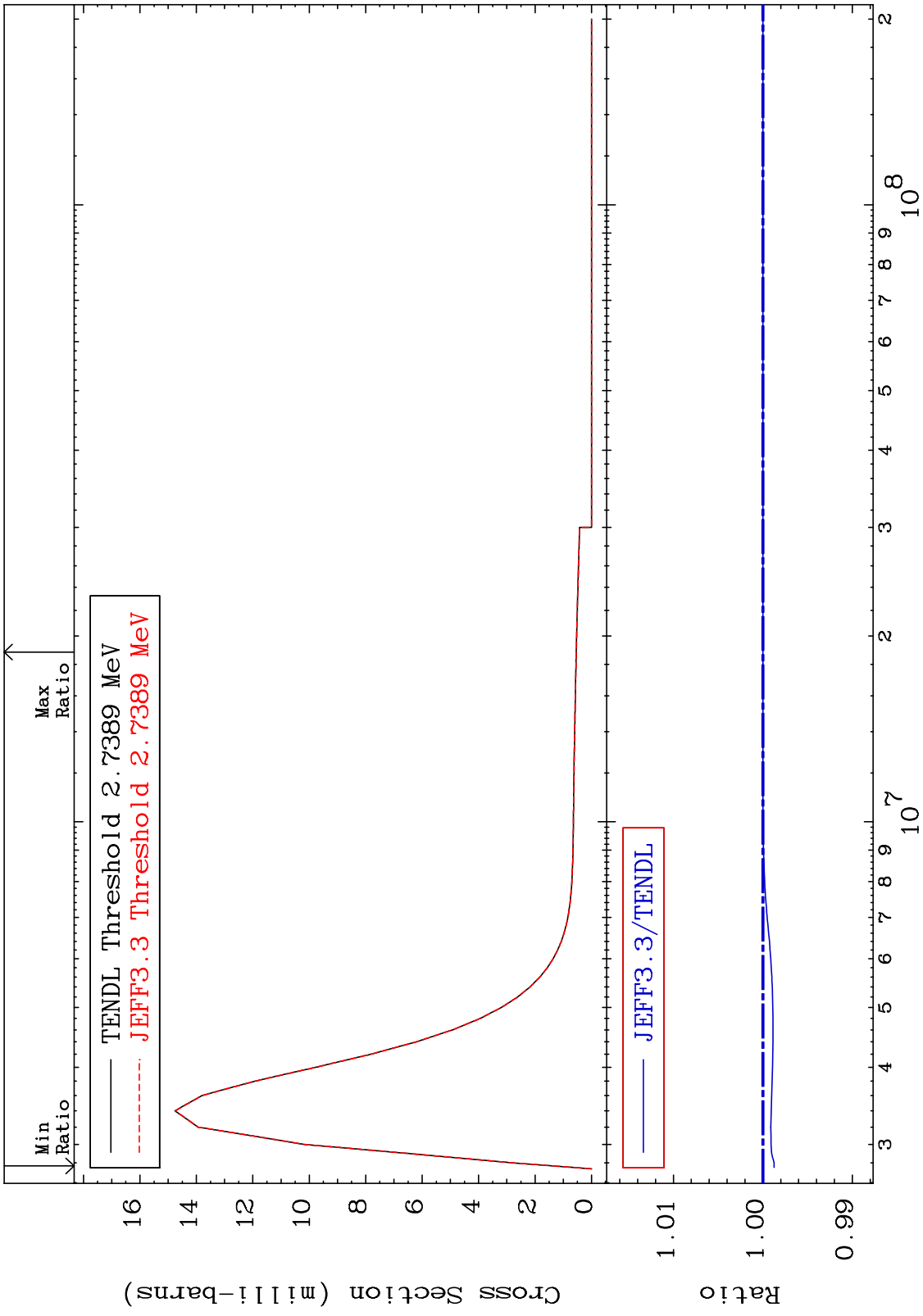
MAT 5831 MT= 68 (n,n') Level Cross Section 58-Ce-138
 -0.110 To 0.000 %



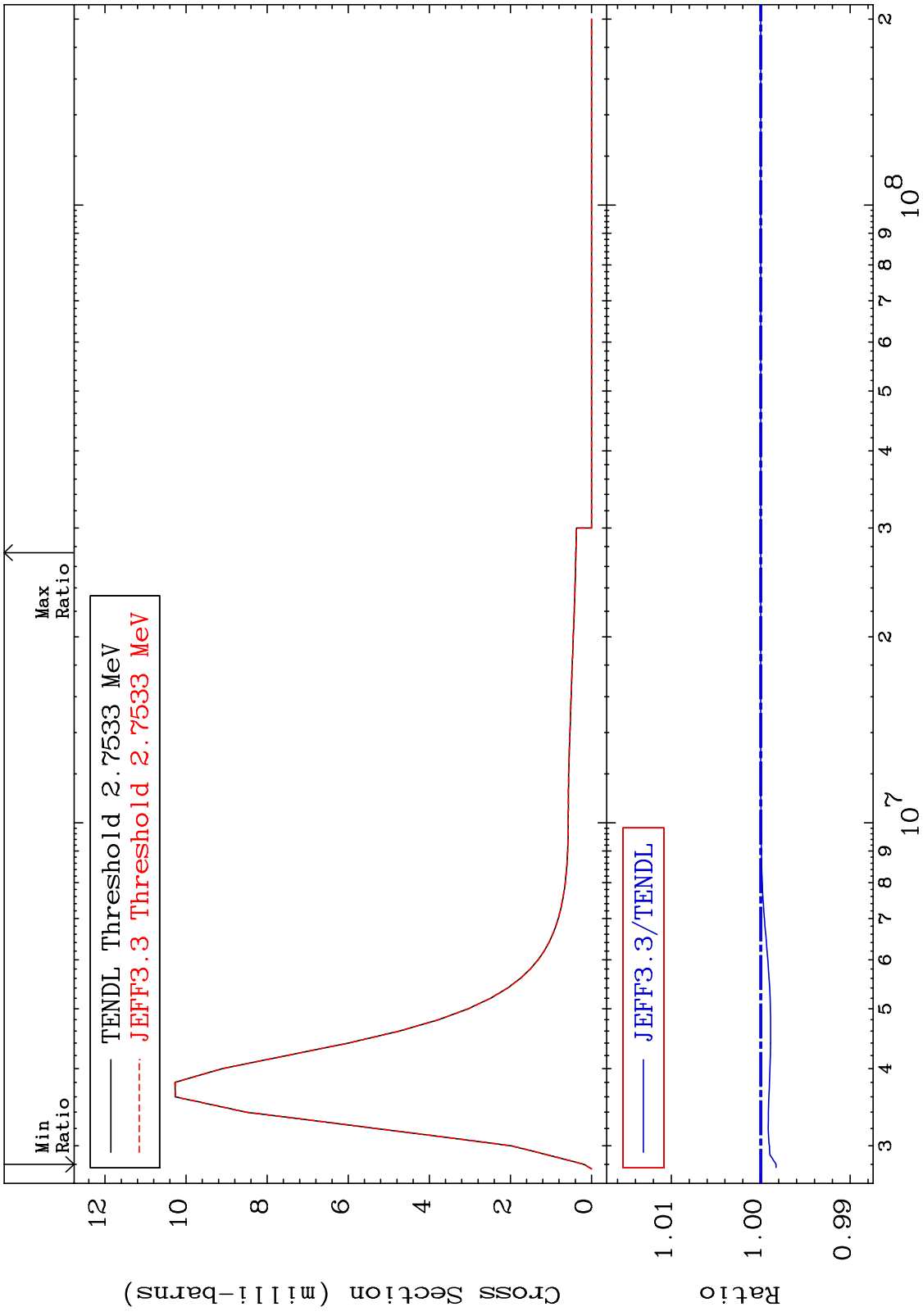
MAT 5831 MT= 69 (n,n') Level Cross Section 58-Ce-138
 -0.096 To 0.000 %



MAT 5831 MT= 70 (n,n') Level Cross Section 58-Ce-138 -0.125 To 0.000 %



MAT 5831 MT= 71 (n,n') Level Cross Section 58-Ce-138 -0.172 To 0.000 %

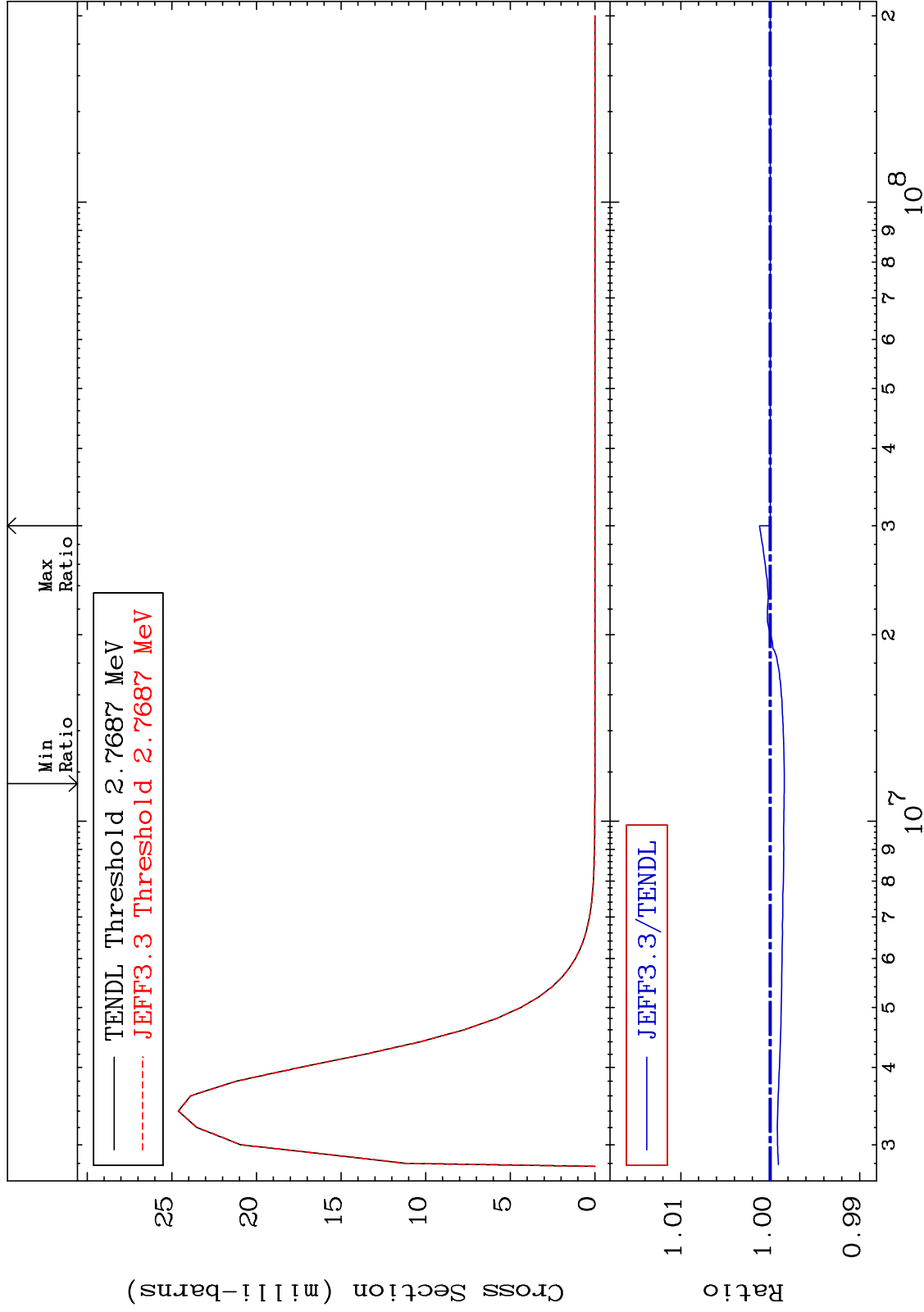


40 58-Ce-138

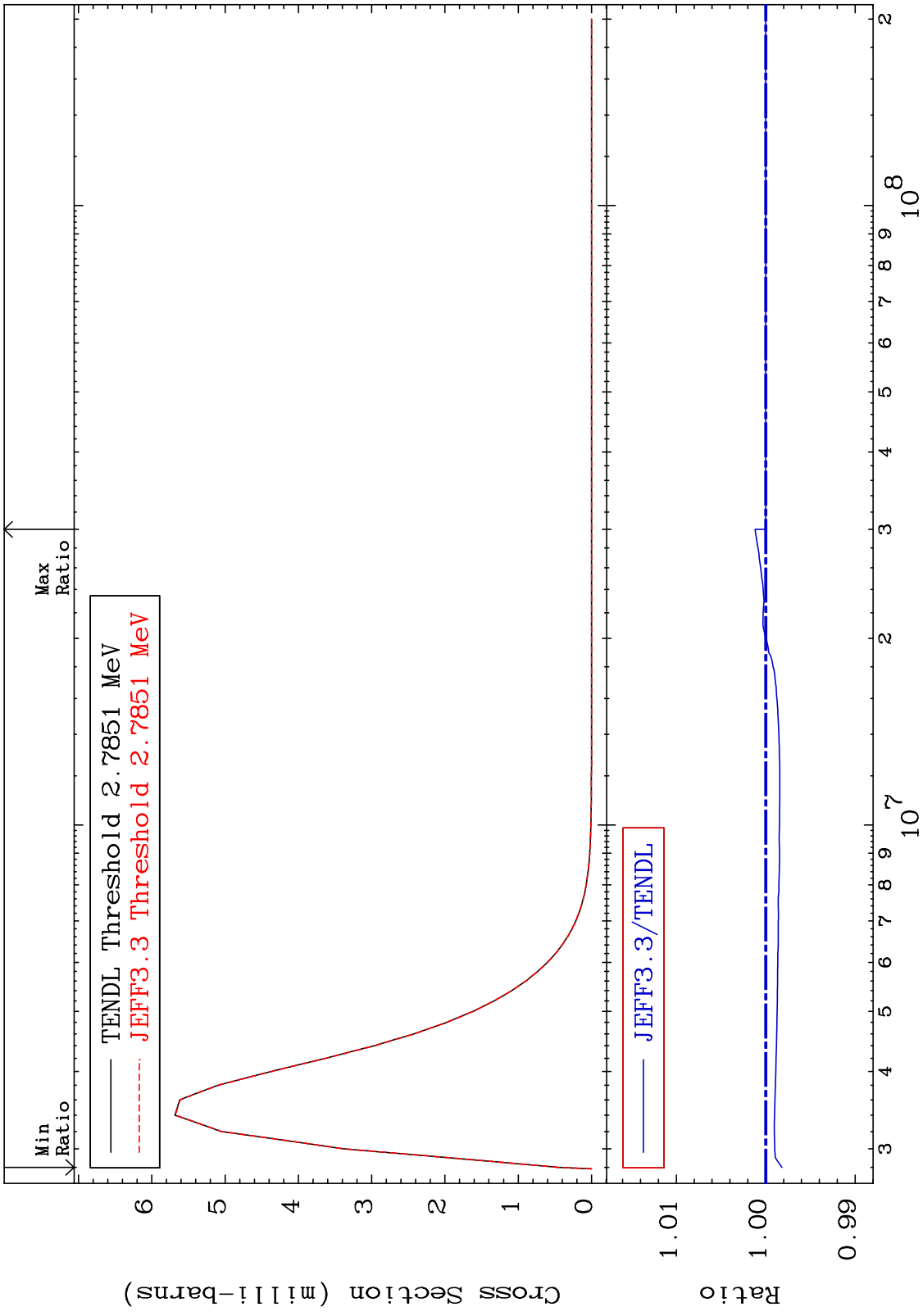
MAT 5831

MT= 72 (n, n') Level
Cross Section

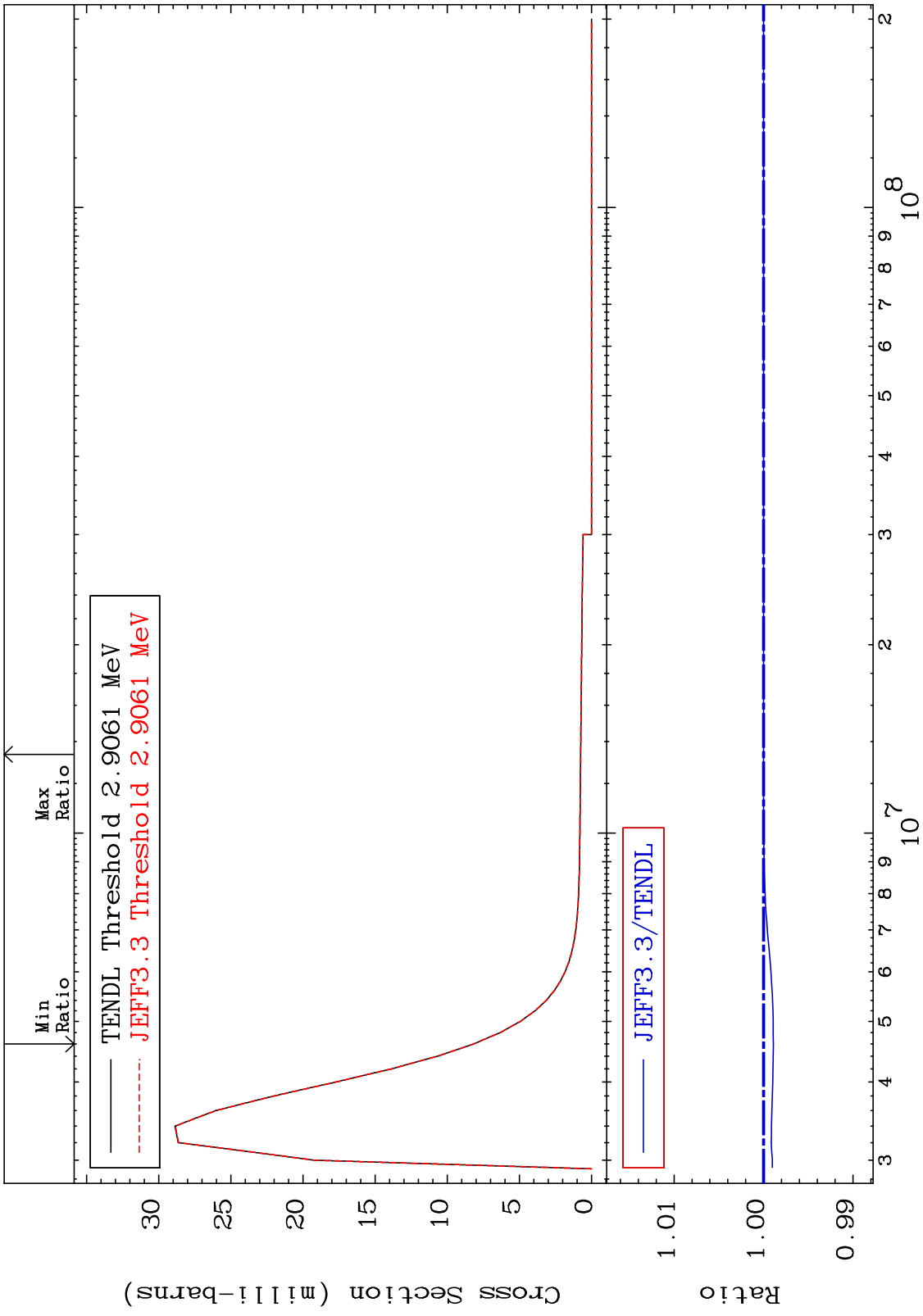
58-Ce-138
-0.157 To 0.120 %



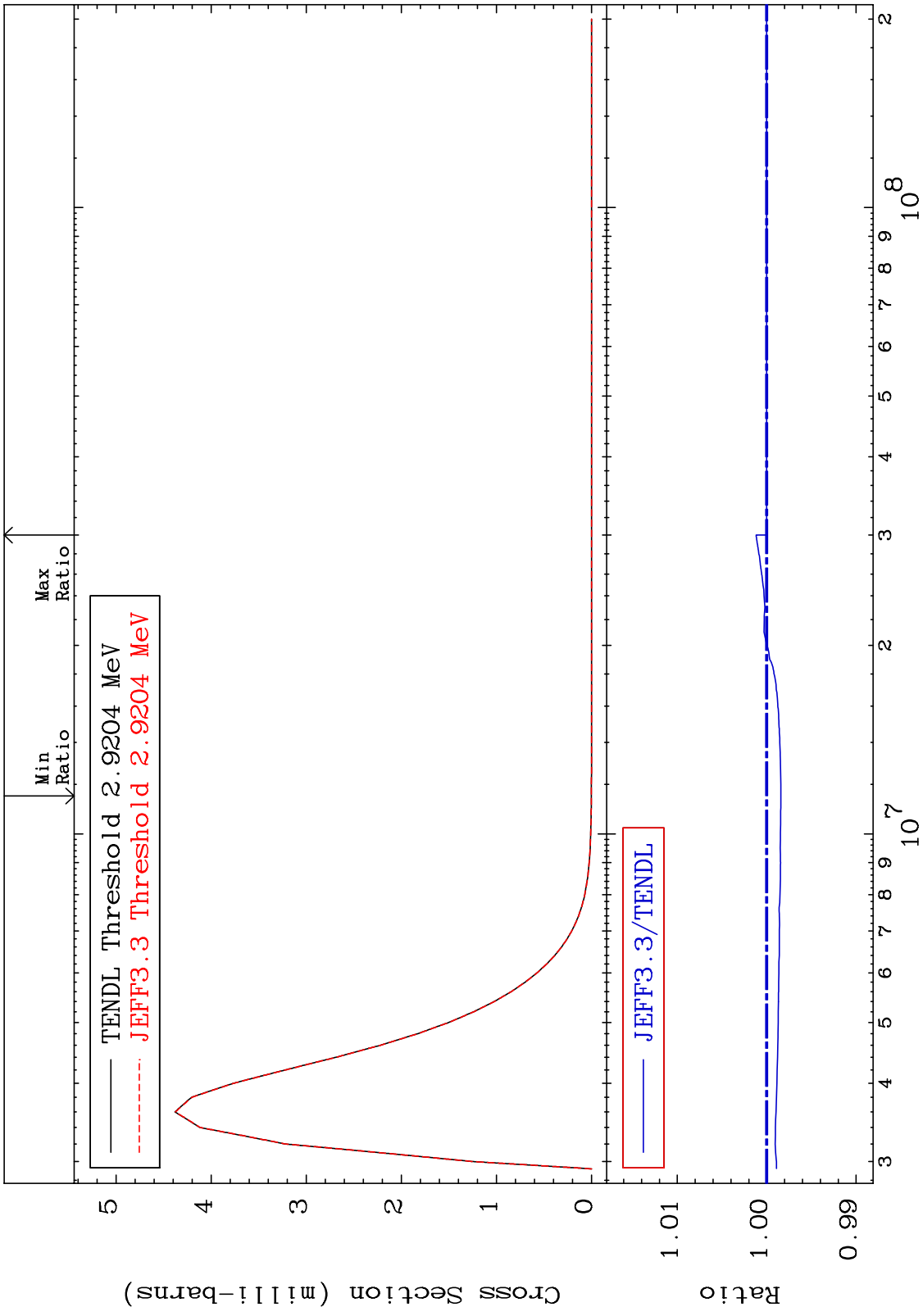
MAT 5831 MT= 73 (n, n') Level Cross Section 58-Ce-138 -0.180 To 0.119 %



MAT 5831 MT= 74 (n,n') Level Cross Section 58-Ce-138
 -0.109 To 0.000 %



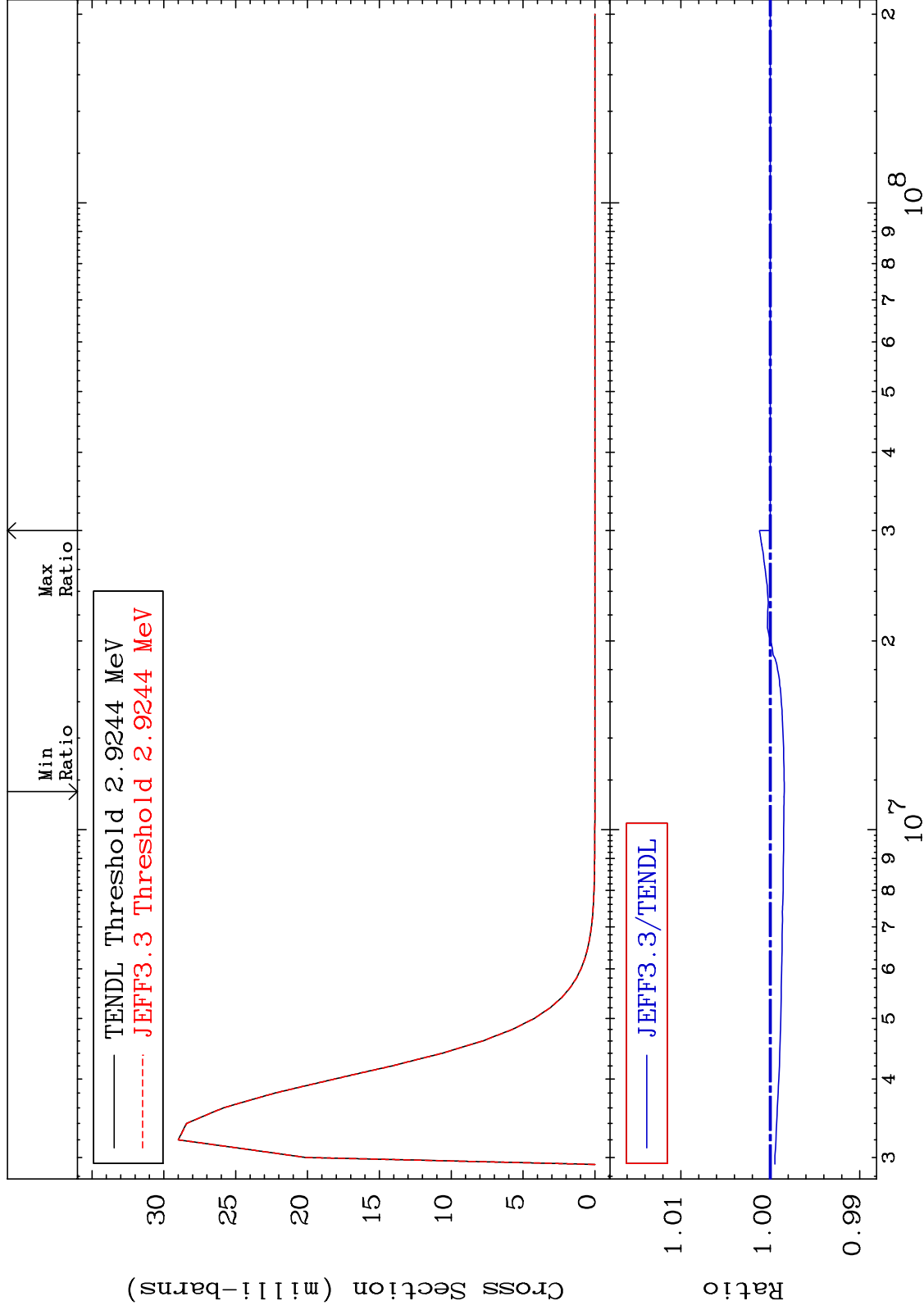
MAT 5831 MT= 75 (n, n') Level Cross Section 58-Ce-138
 -0.158 To 0.119 %



MAT 5831

MT= 76 (n,n') Level
Cross Section

58-Ce-138
-0.157 To 0.120 %



45

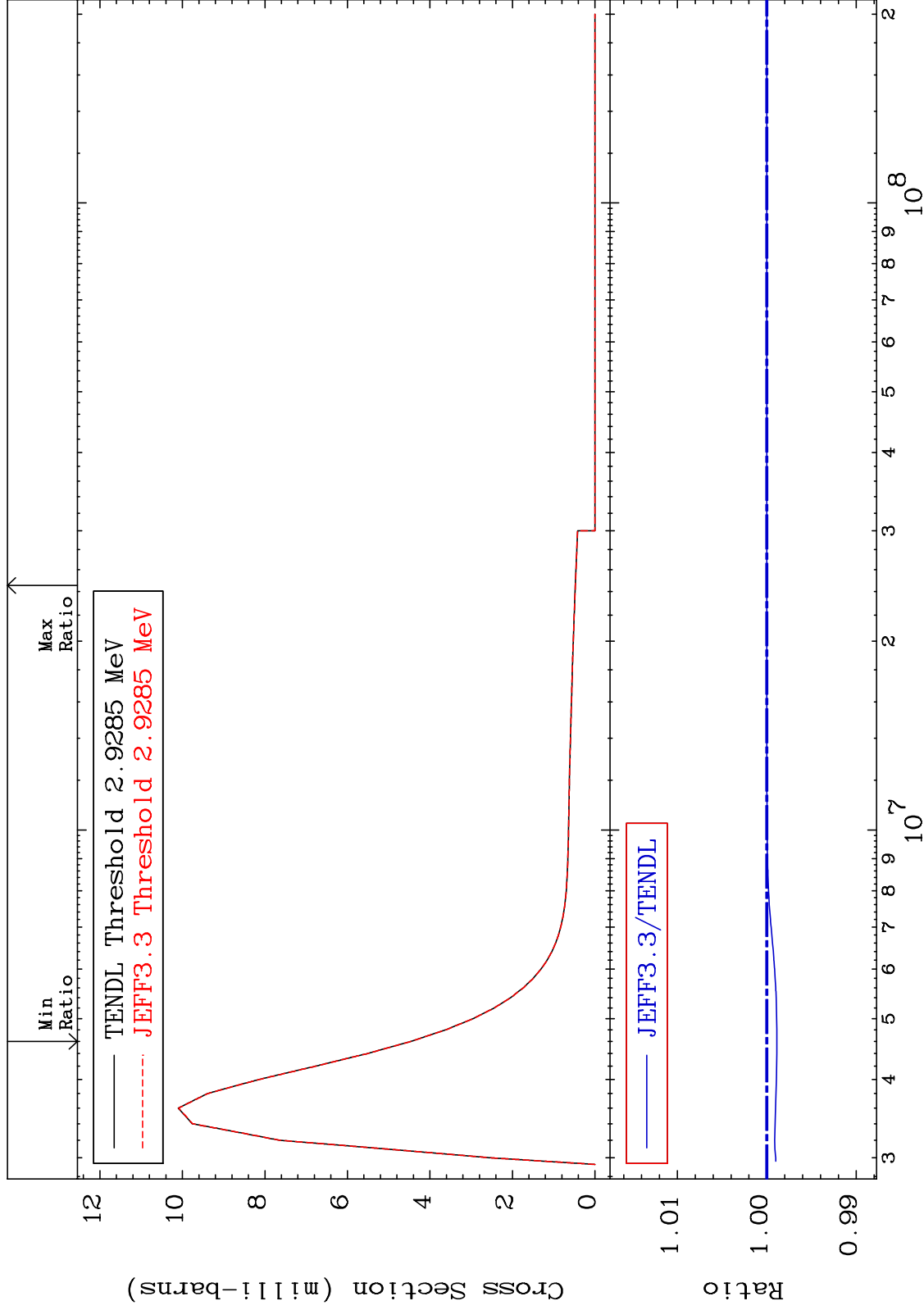
Incident Energy (eV)

58-Ce-138

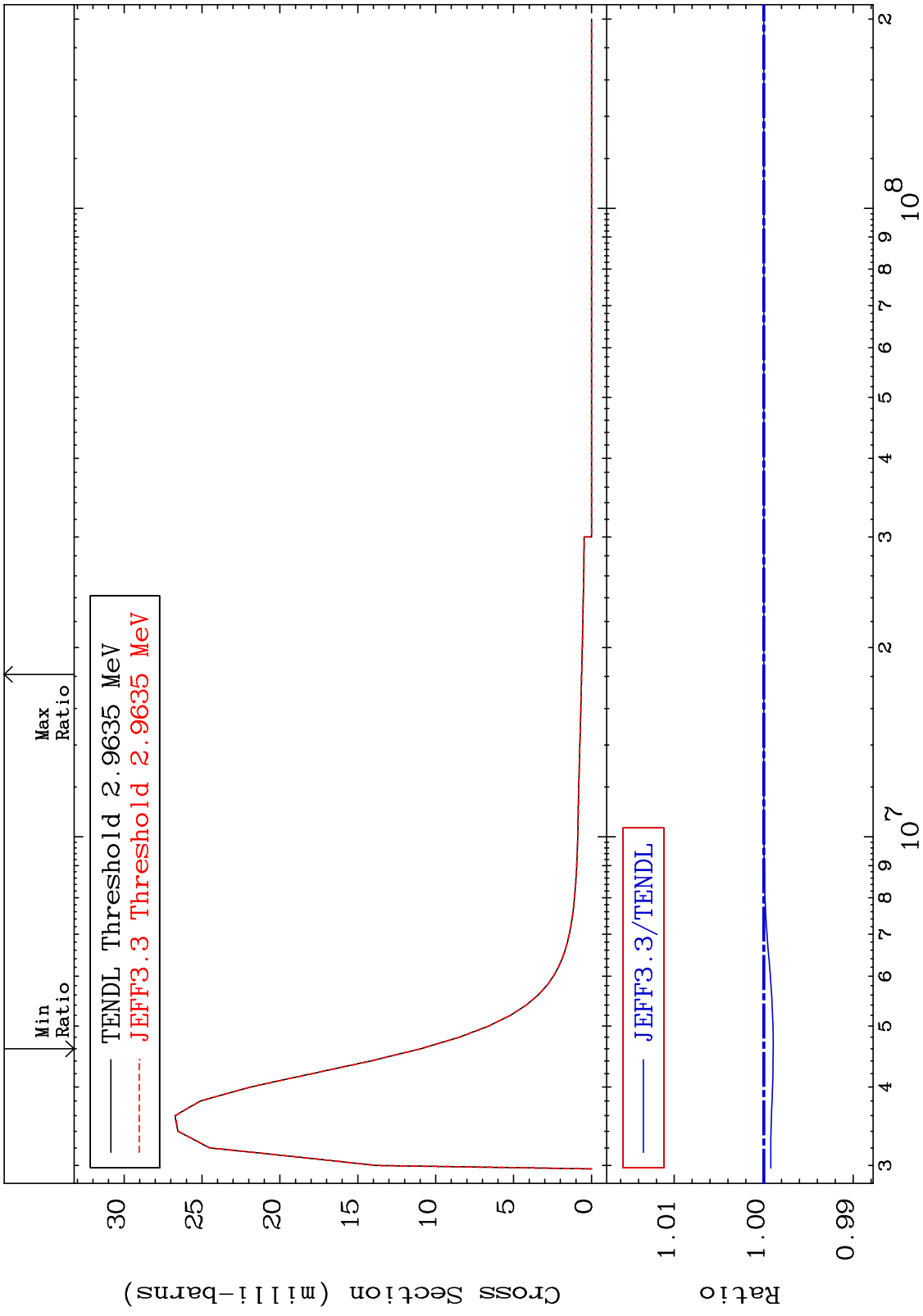
MAT 5831

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

58-Ce-138
-0.112 To 0.000 %



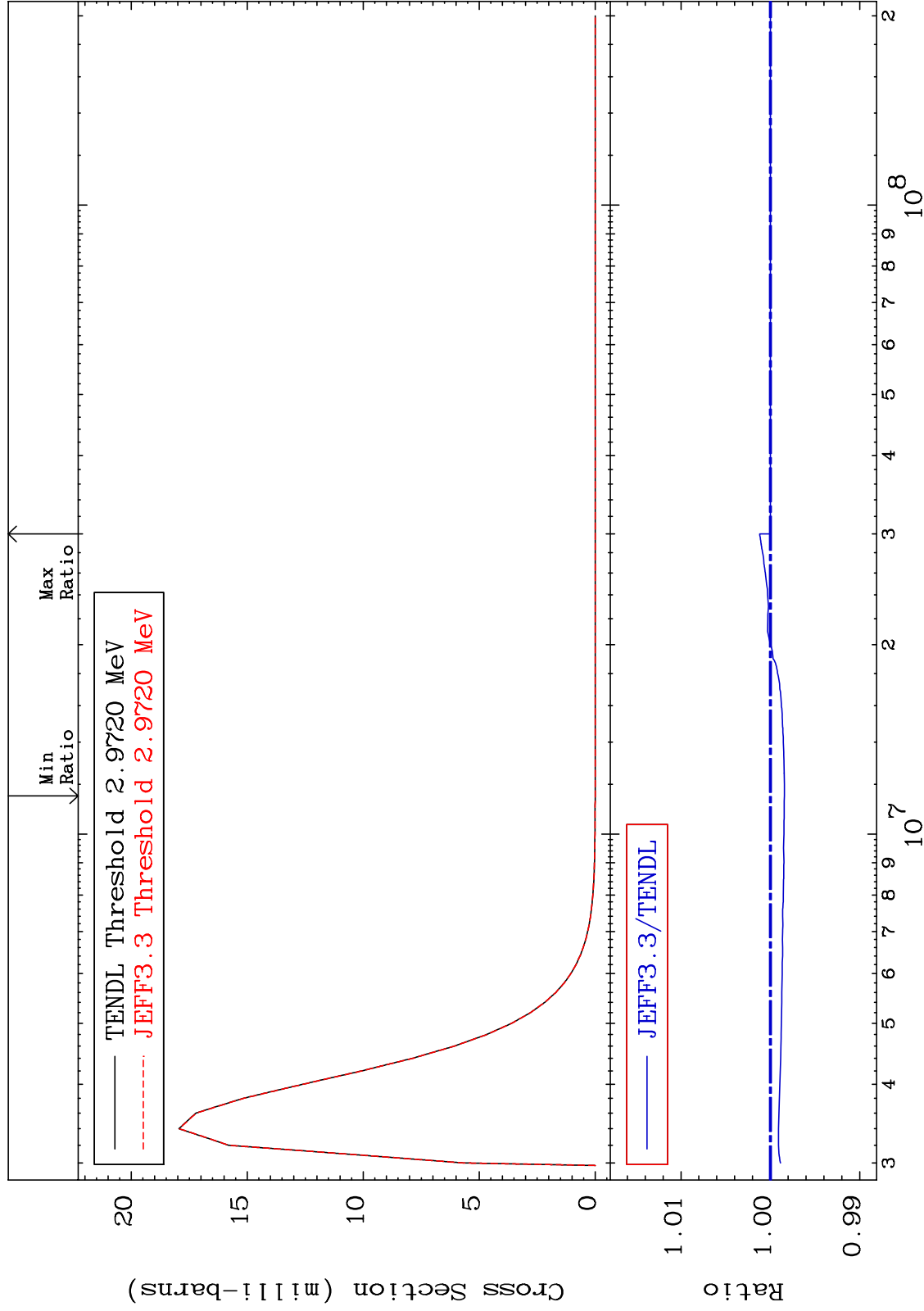
MAT 5831 MT= 78 (n,n') Level Cross Section 58-Ce-138
-0.106 To 0.000 %



MAT 5831

MT= 79 (n,n') Level
Cross Section

58-Ce-138
-0.157 To 0.119 %



48

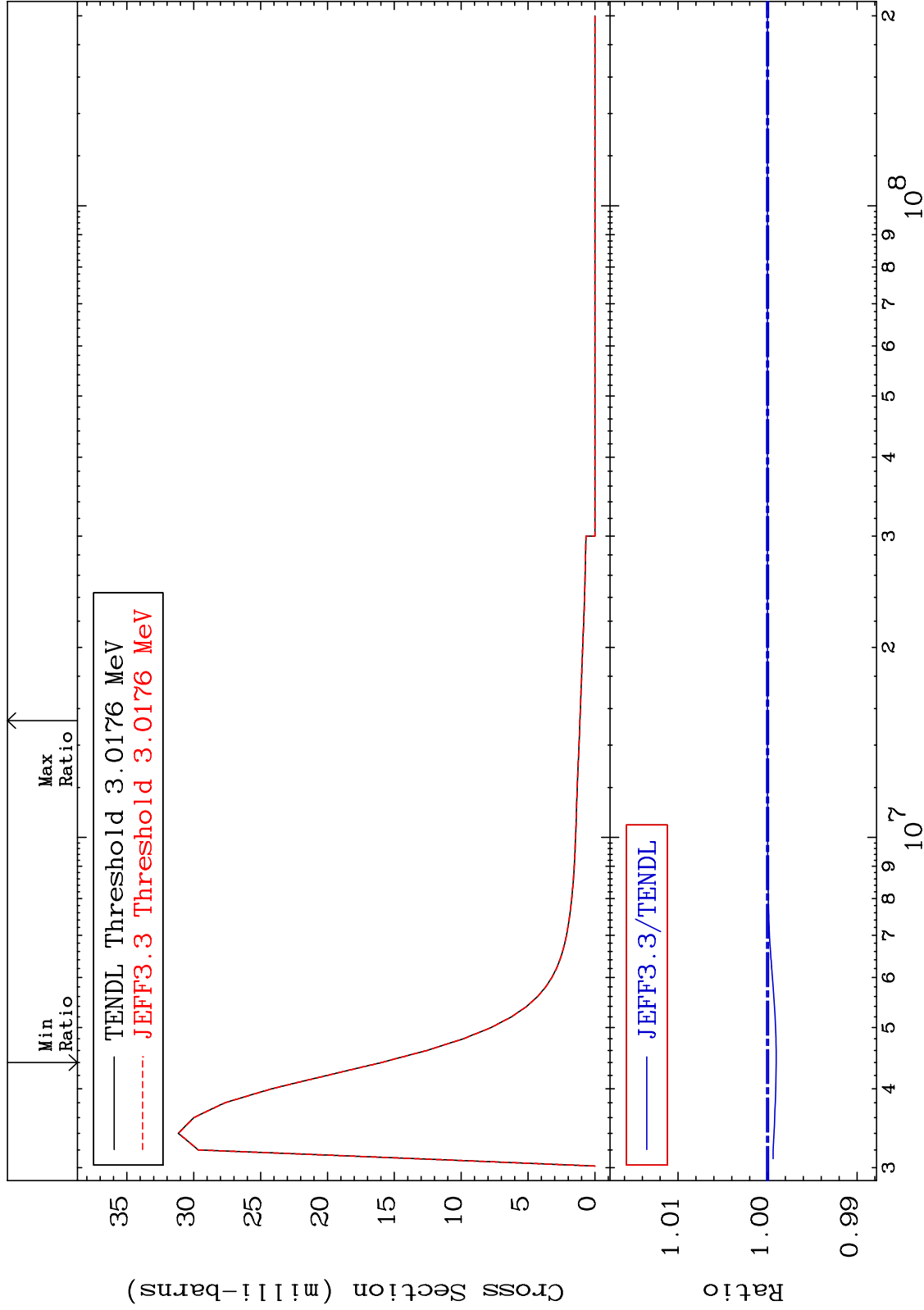
Incident Energy (eV)

58-Ce-138

MAT 5831

MT= 80 (n,n') Level
Cross Section

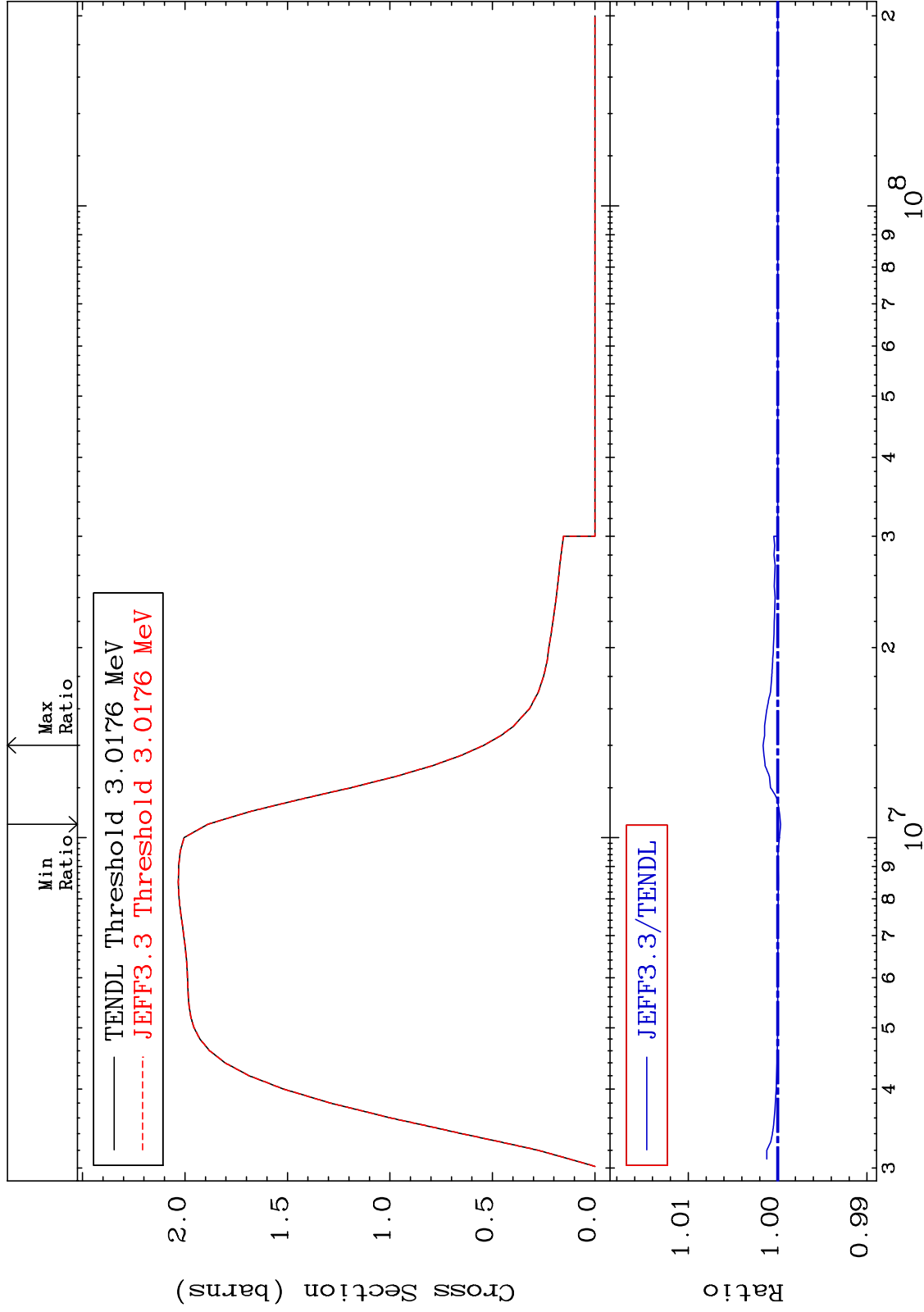
58-Ce-138
-0.097 To 0.000 %



MAT 5831

(n,n') Continuum
Cross Section

58-Ce-138
-0.034 To 0.163 %



50

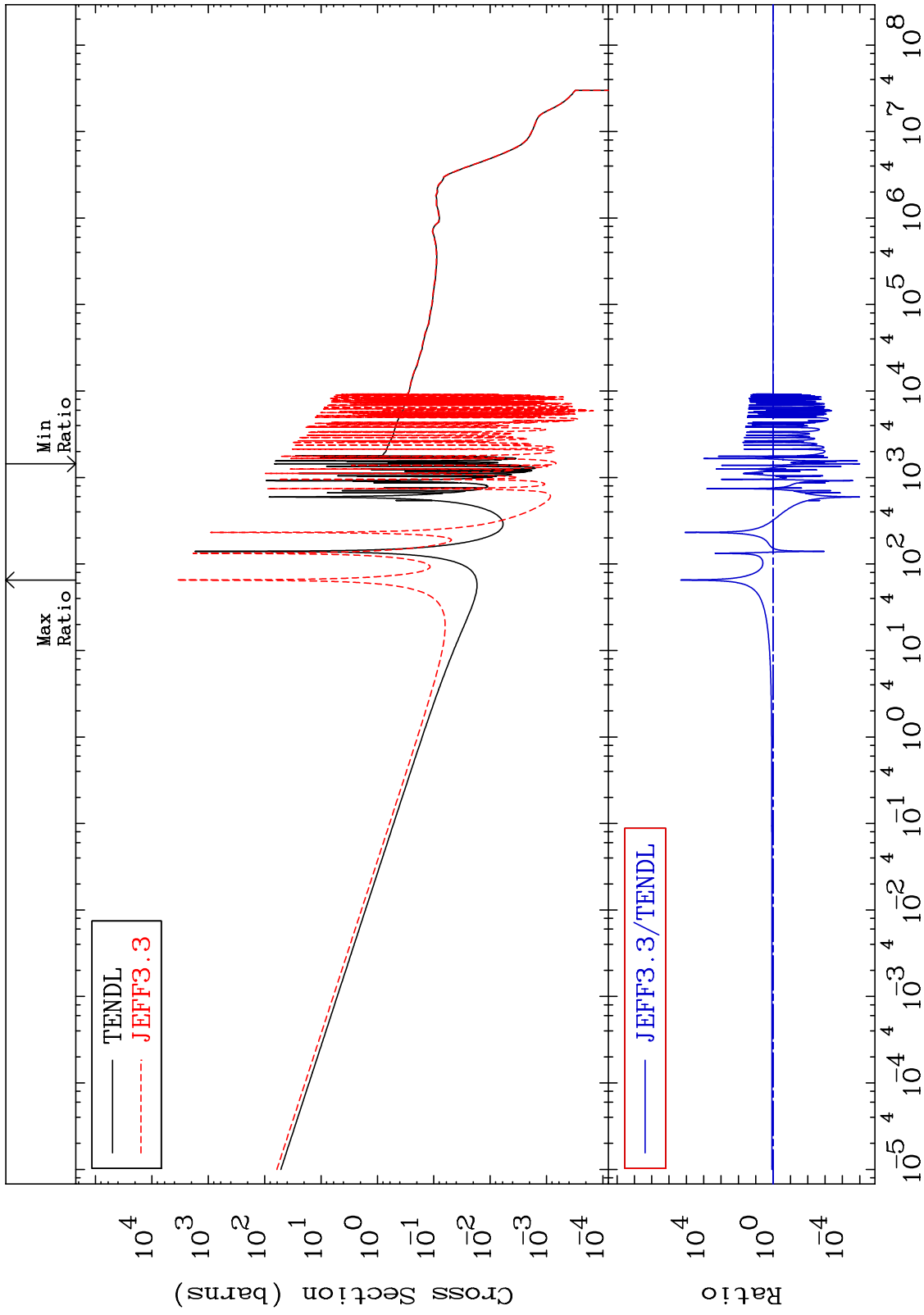
Incident Energy (eV)

58-Ce-138

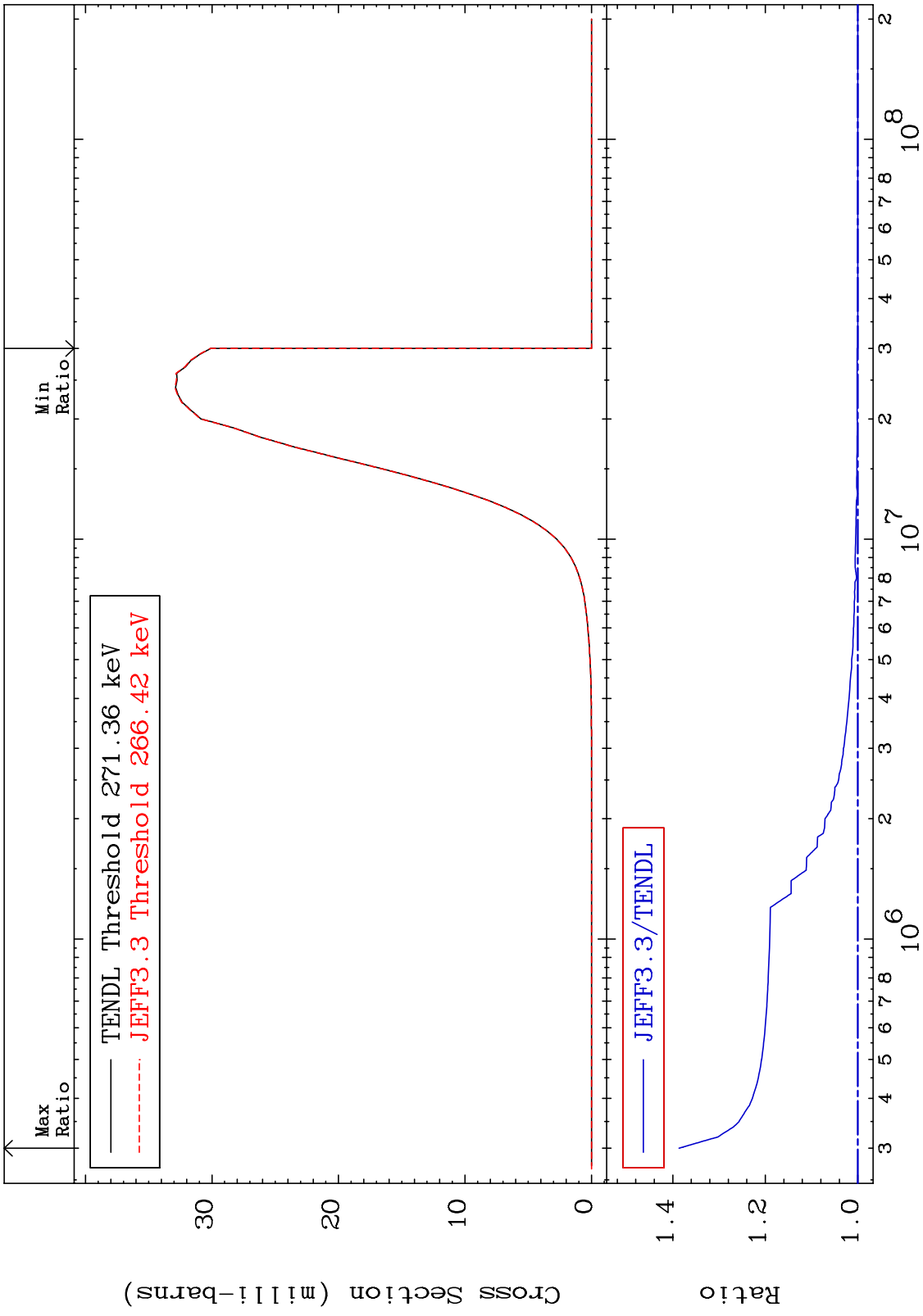
MAT 5831

(n, γ)
Cross Section

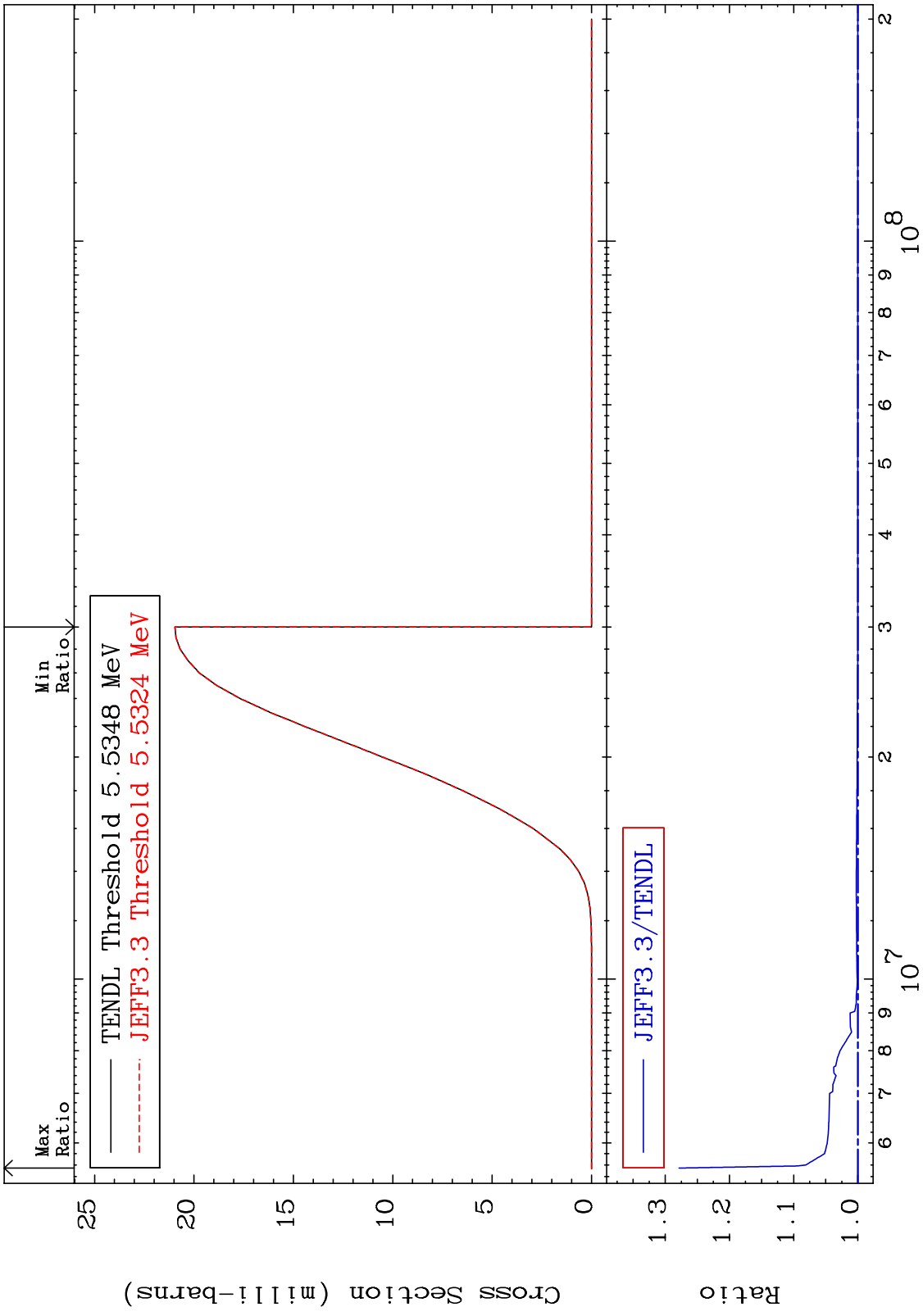
58-Ce-138
-100.0 To 9999. %



MAT 5831 (n,p) Cross Section 58-Ce-138 To 38.64 %

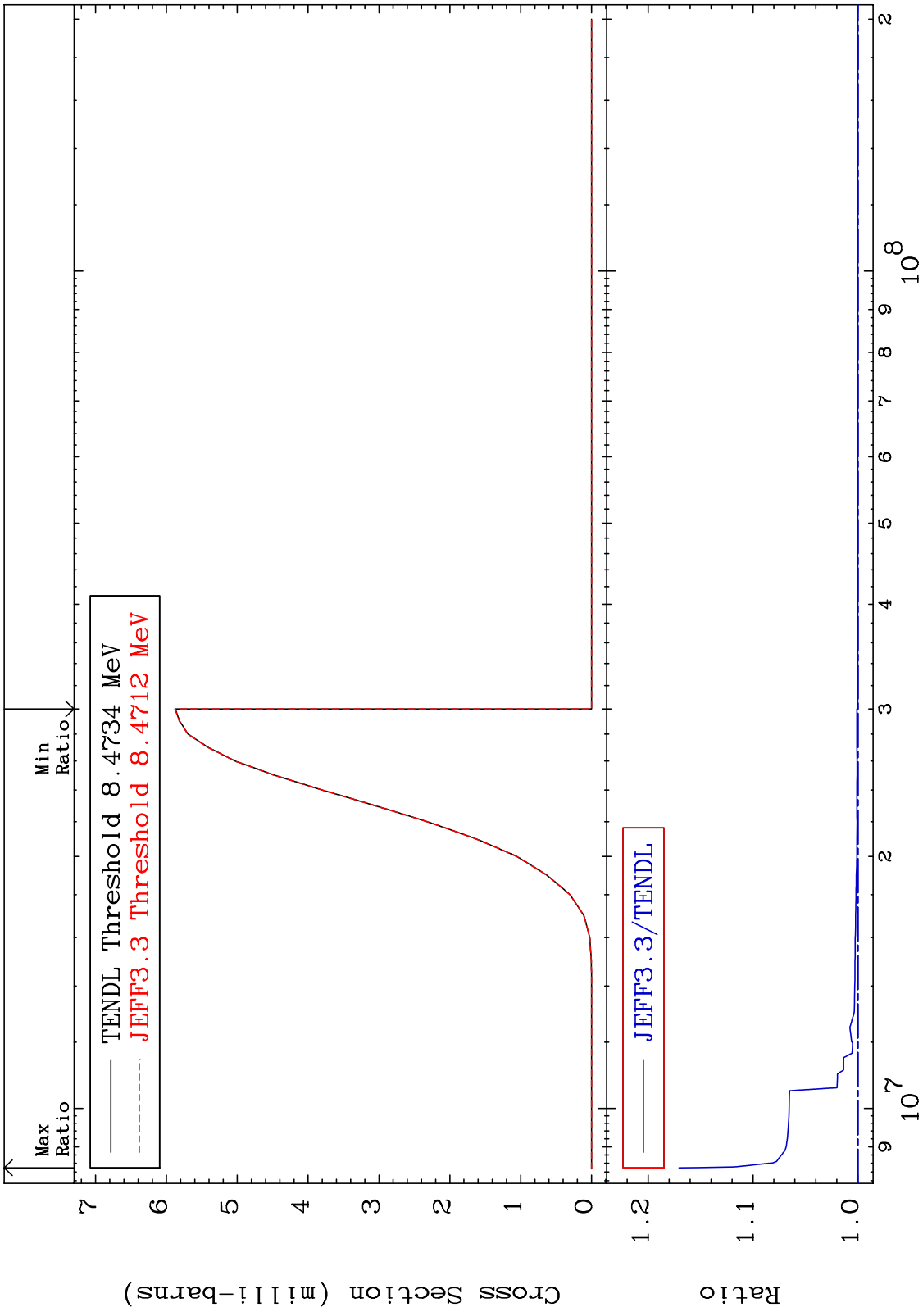


MAT 5831 (n,d) Cross Section 58-Ce-138 To 27.85 %

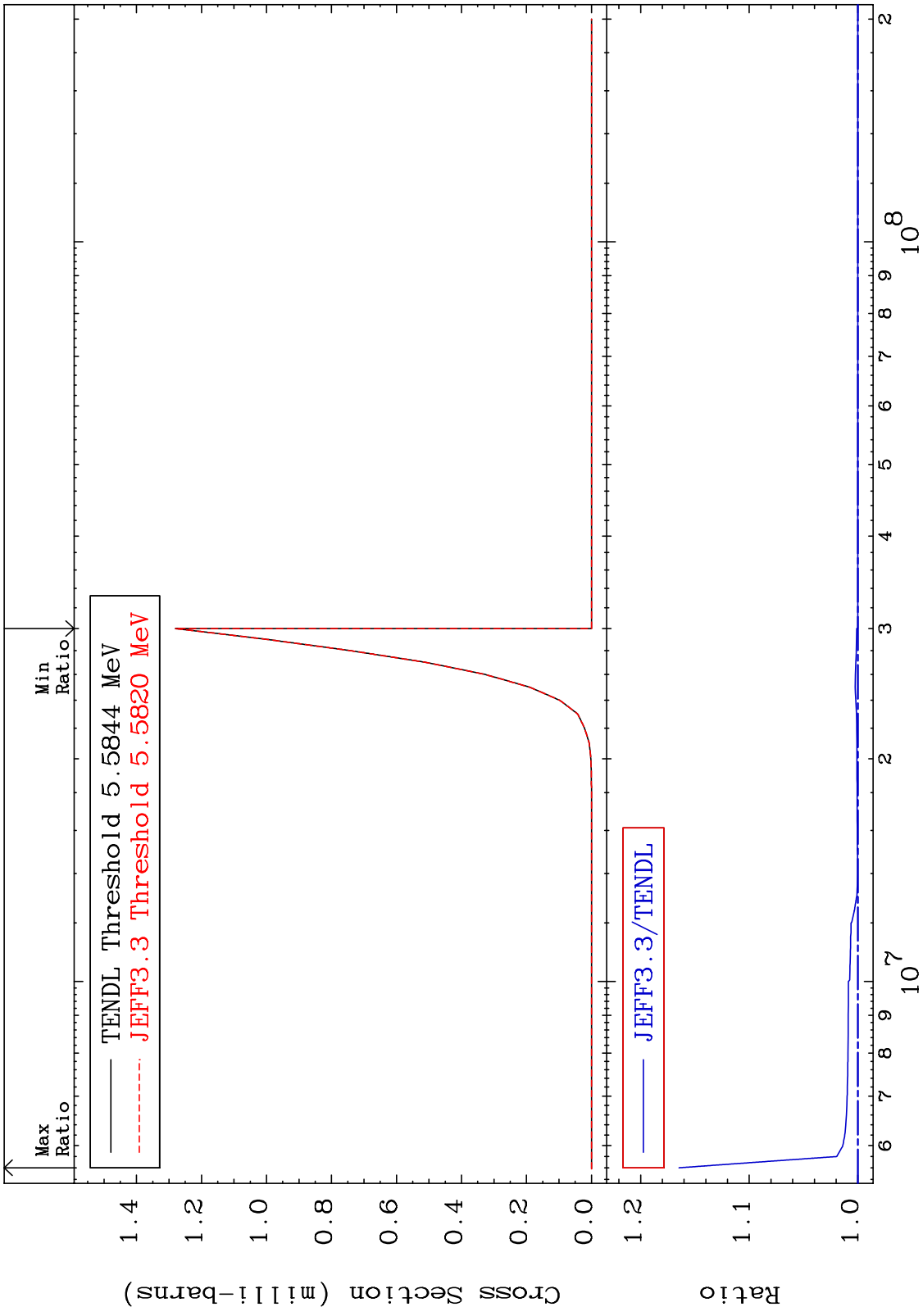


53 58-Ce-138 Incident Energy (eV)

MAT 5831 (n,t) Cross Section 58-Ce-138 To 17.05 %



MAT 5831 (n,He-3) Cross Section 58-Ce-138 To 16.47 %



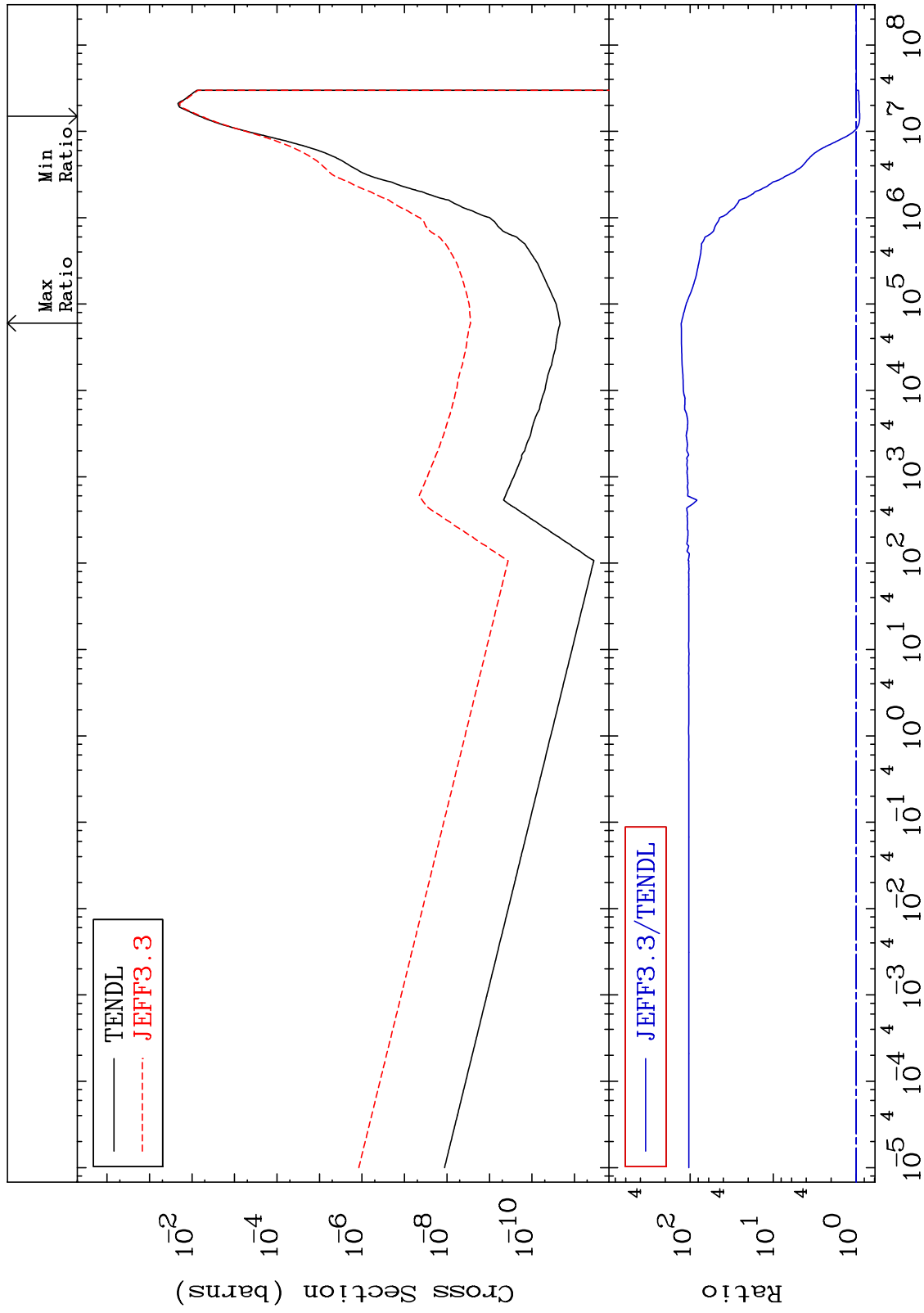
MAT 5831

(n, α)

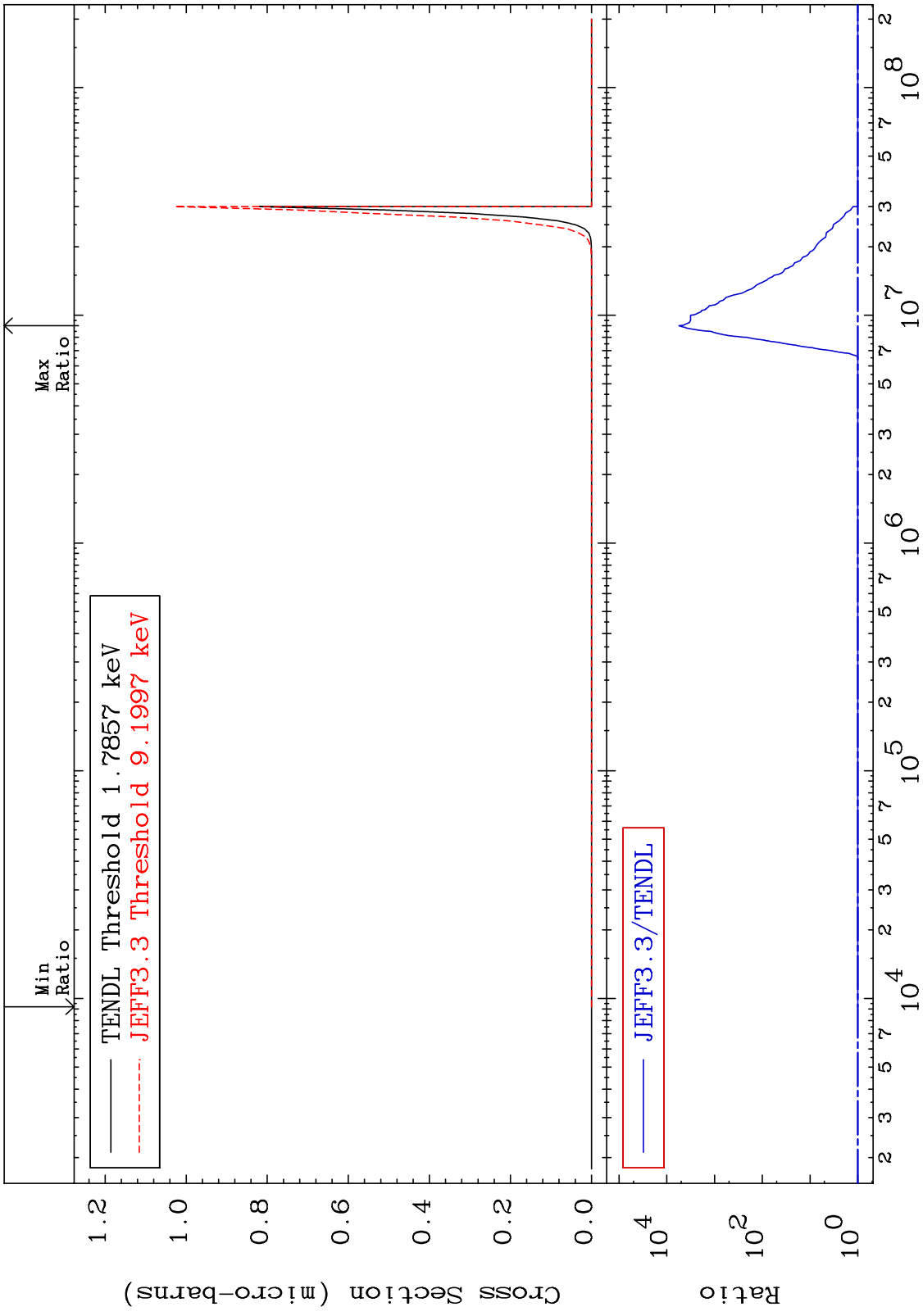
58-Ce-138

Cross Section

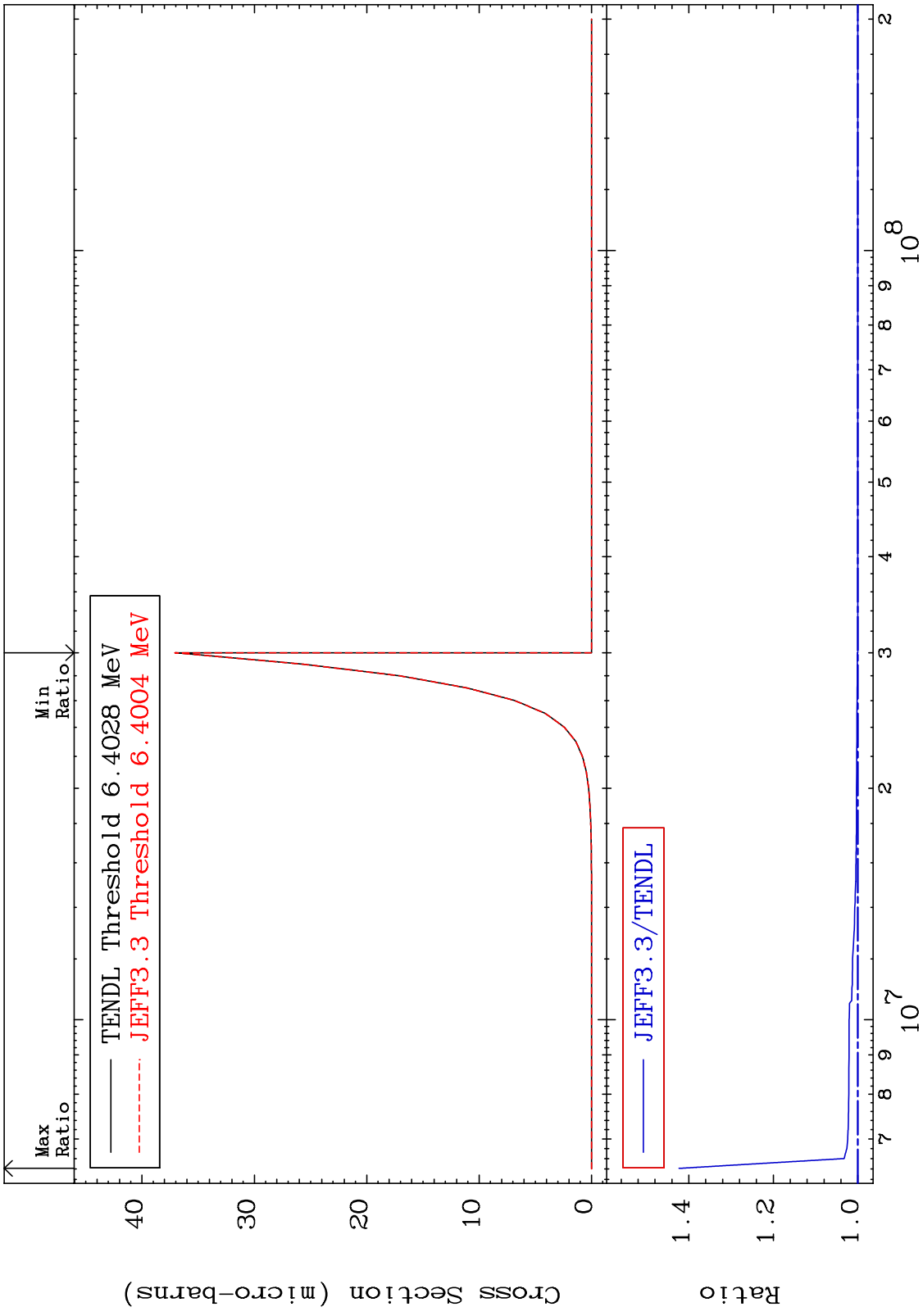
-9.470 To 9999. %



MAT 5831 (n,2α) Cross Section 58-Ce-138 To 9999. %



MAT 5831 (n,2p) Cross Section 58-Ce-138 To 42.31 %



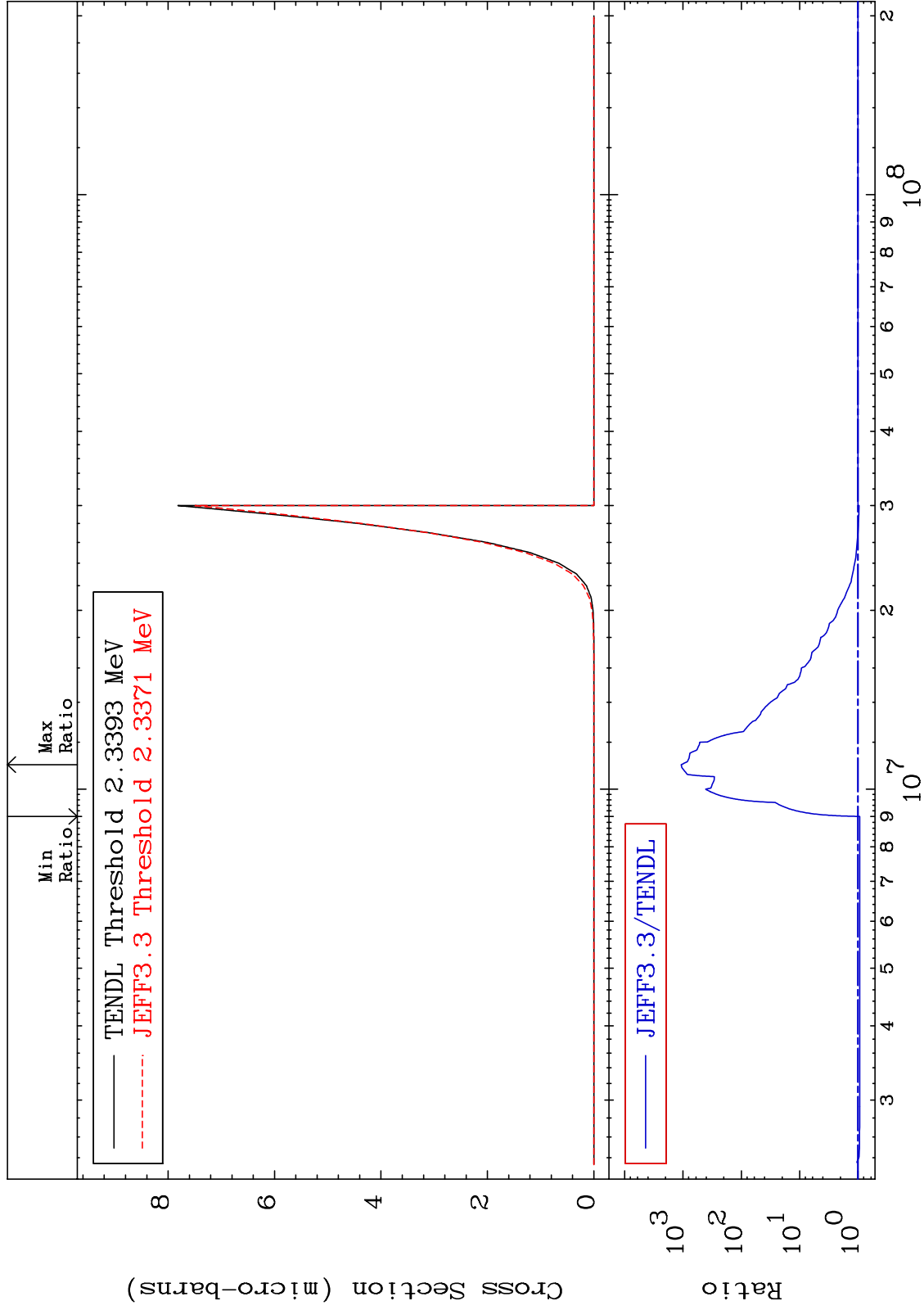
MAT 5831

(n,p) α

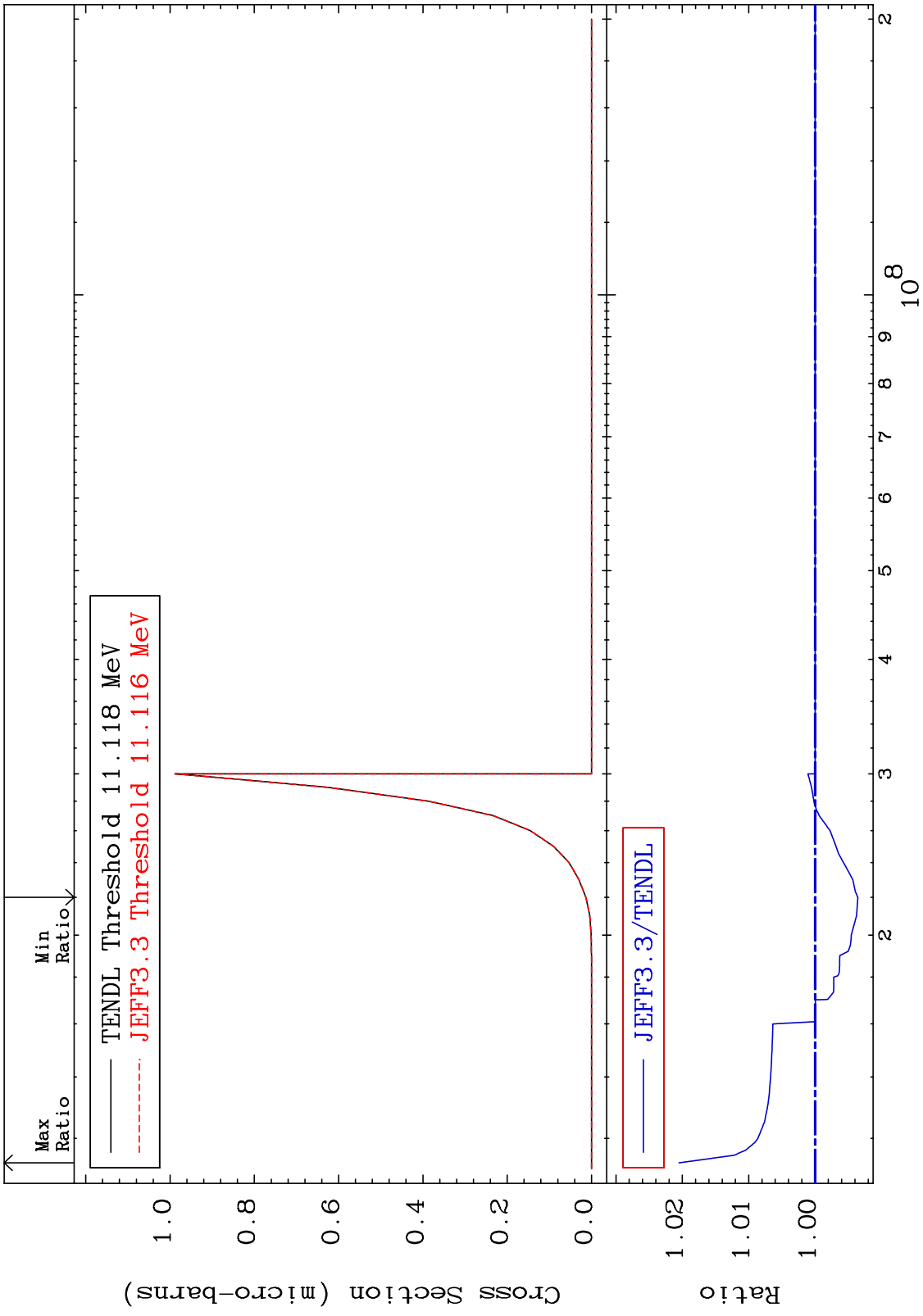
58-Ce-138

-6.574 To 9999. %

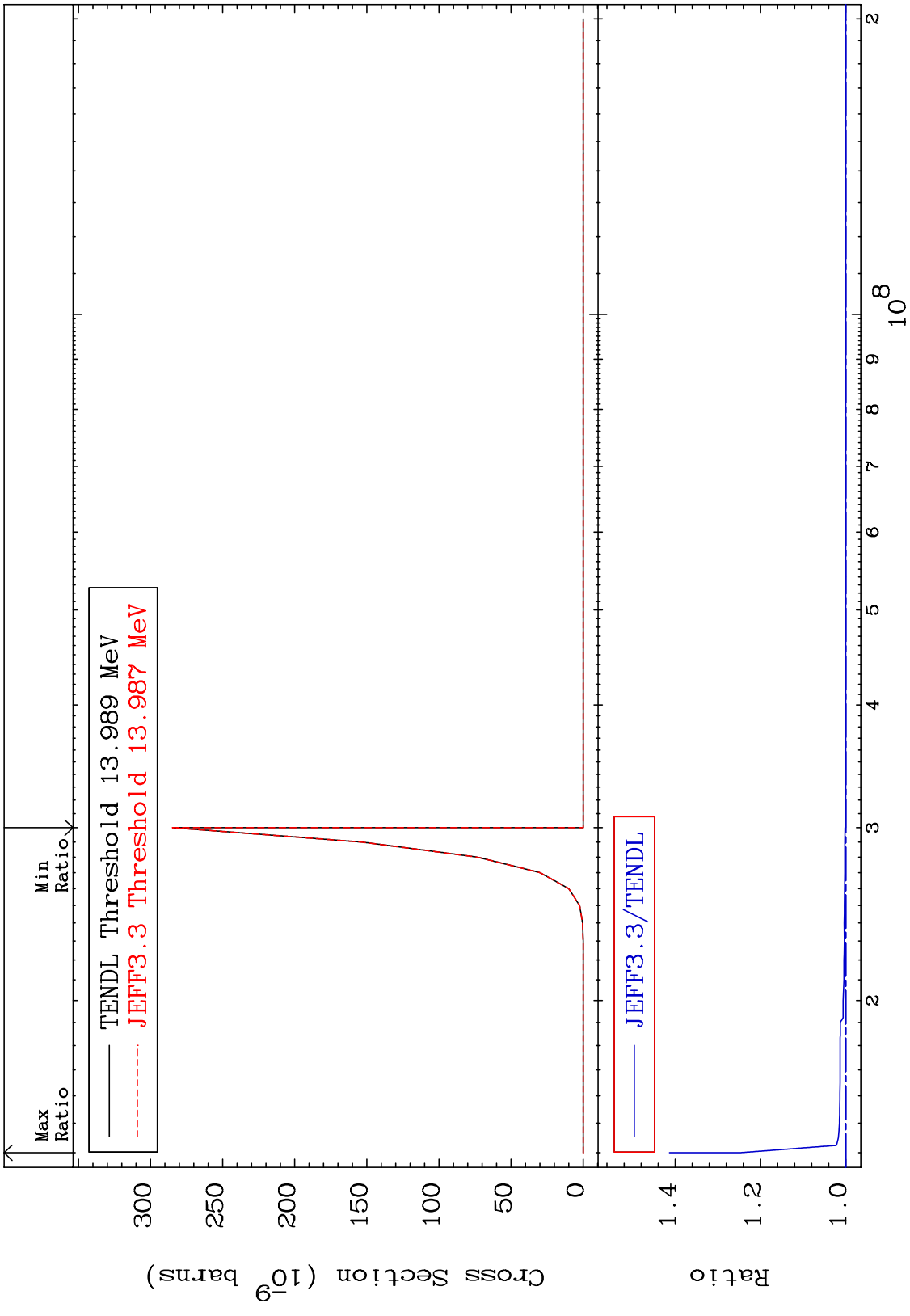
Cross Section



MAT 5831 (n,p) d 58-Ce-138
 Cross Section -0.644 To 2.050 %



MAT 5831 (n,p) t 58-Ce-138
 Cross Section 0.000 To 41.34 %



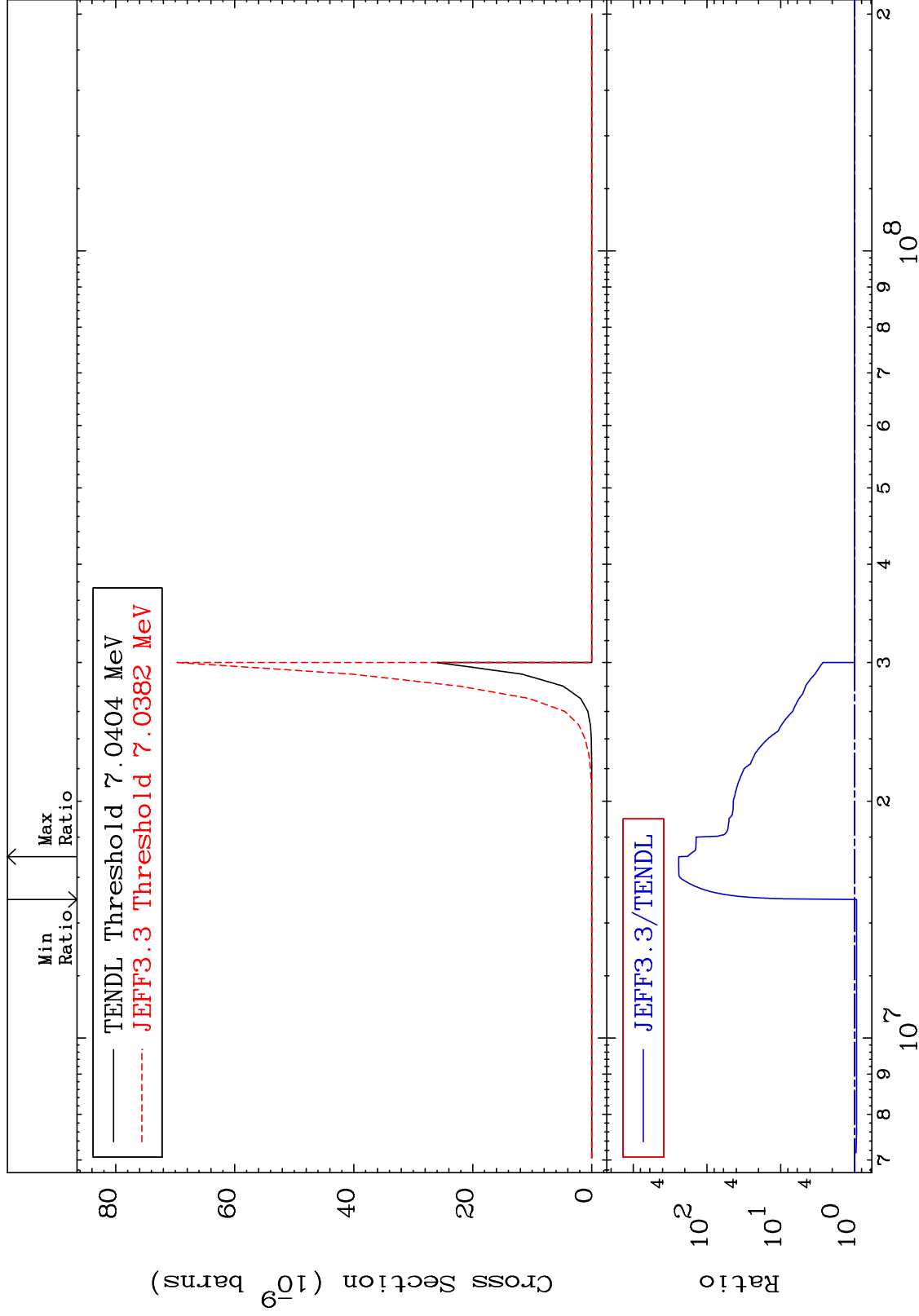
MAT 5831

(n,d) α

58-Ce-138

Cross Section

-6.495 To 9999. %



62

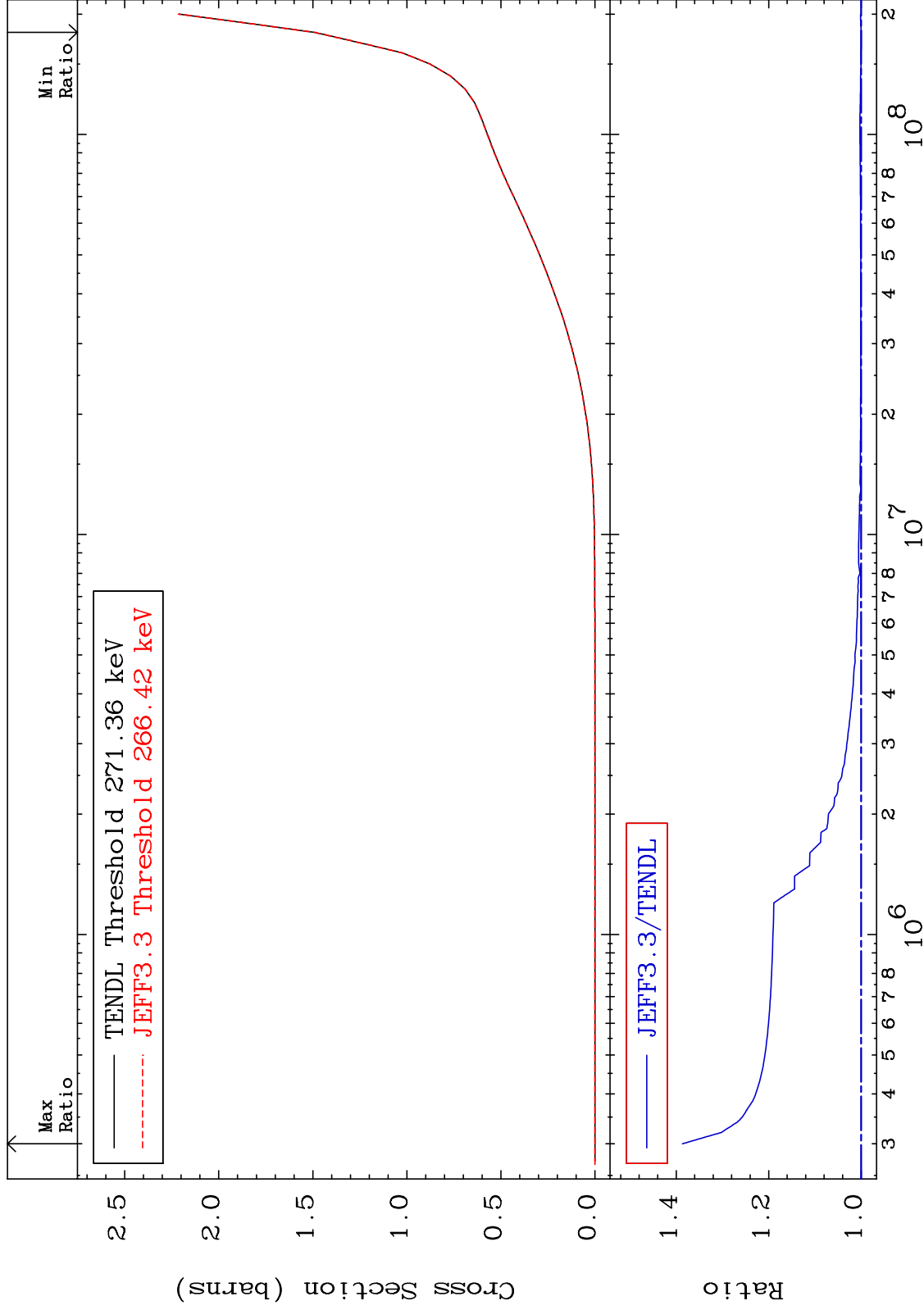
Incident Energy (eV)

58-Ce-138

MAT 5831

Hydrogen Production
Cross Section

58-Ce-138
-0.031 To 38.64 %

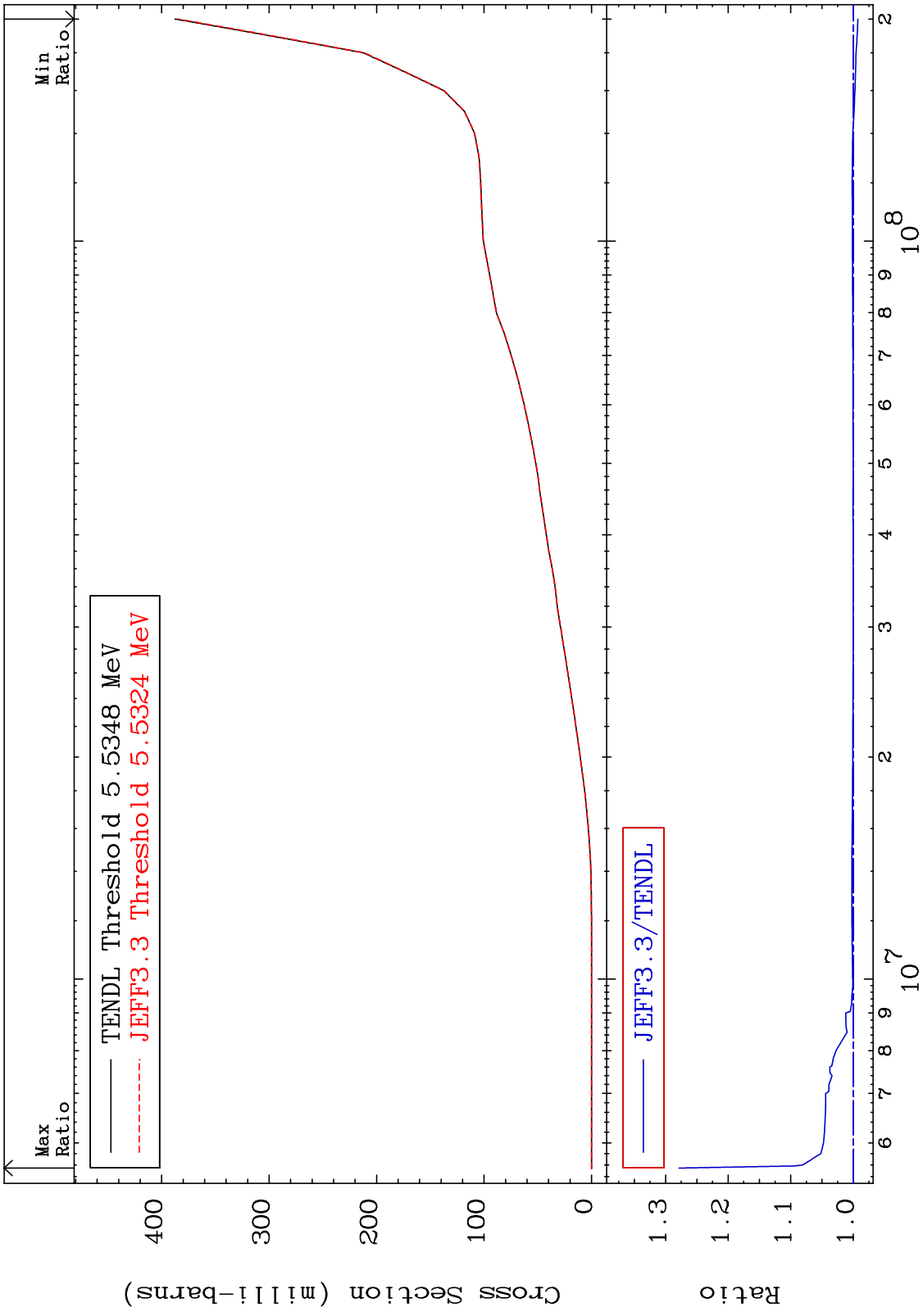


63

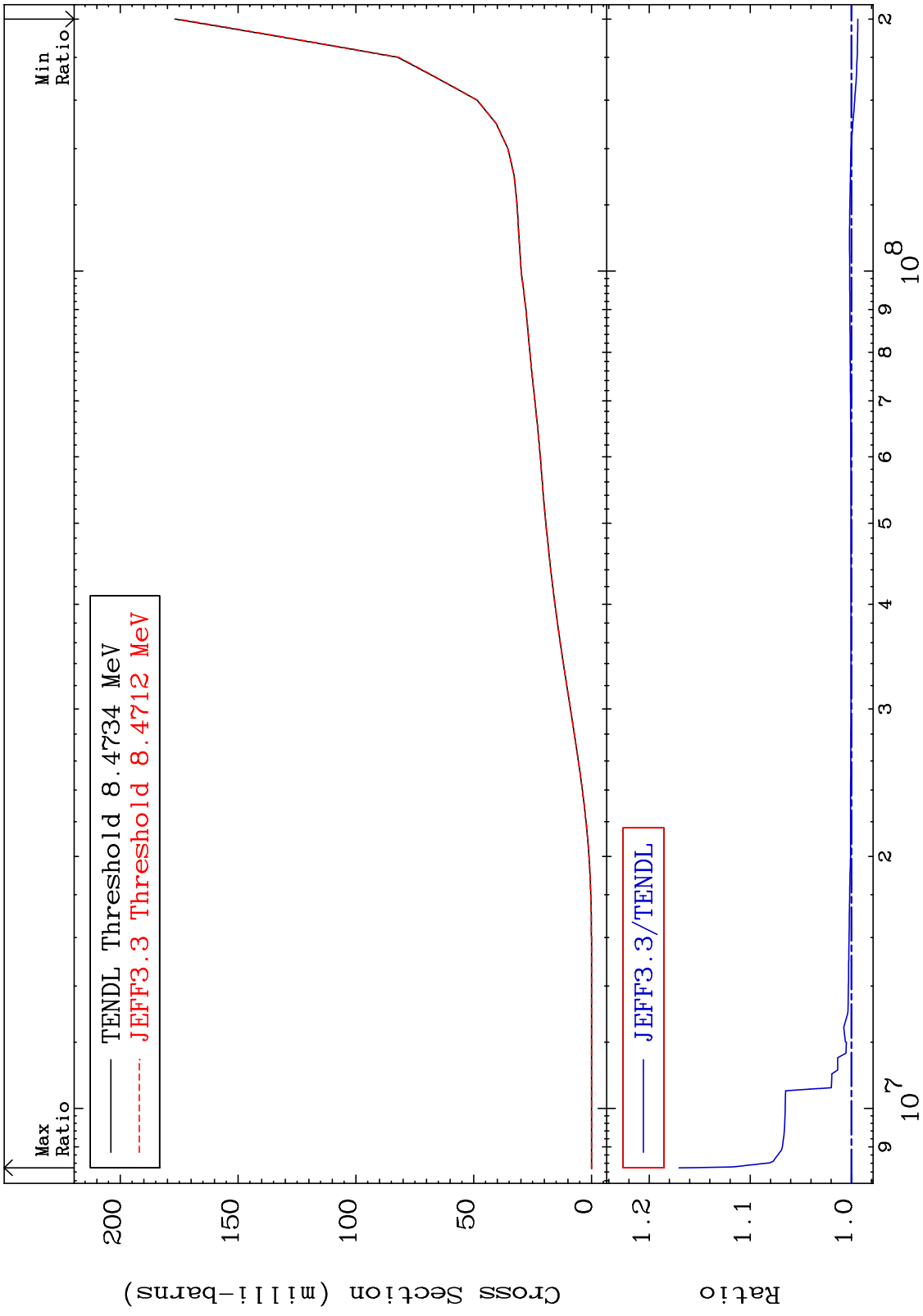
Incident Energy (eV)

58-Ce-138

MAT 5831 Deuterium Production Cross Section 58-Ce-138 -0.728 To 27.85 %

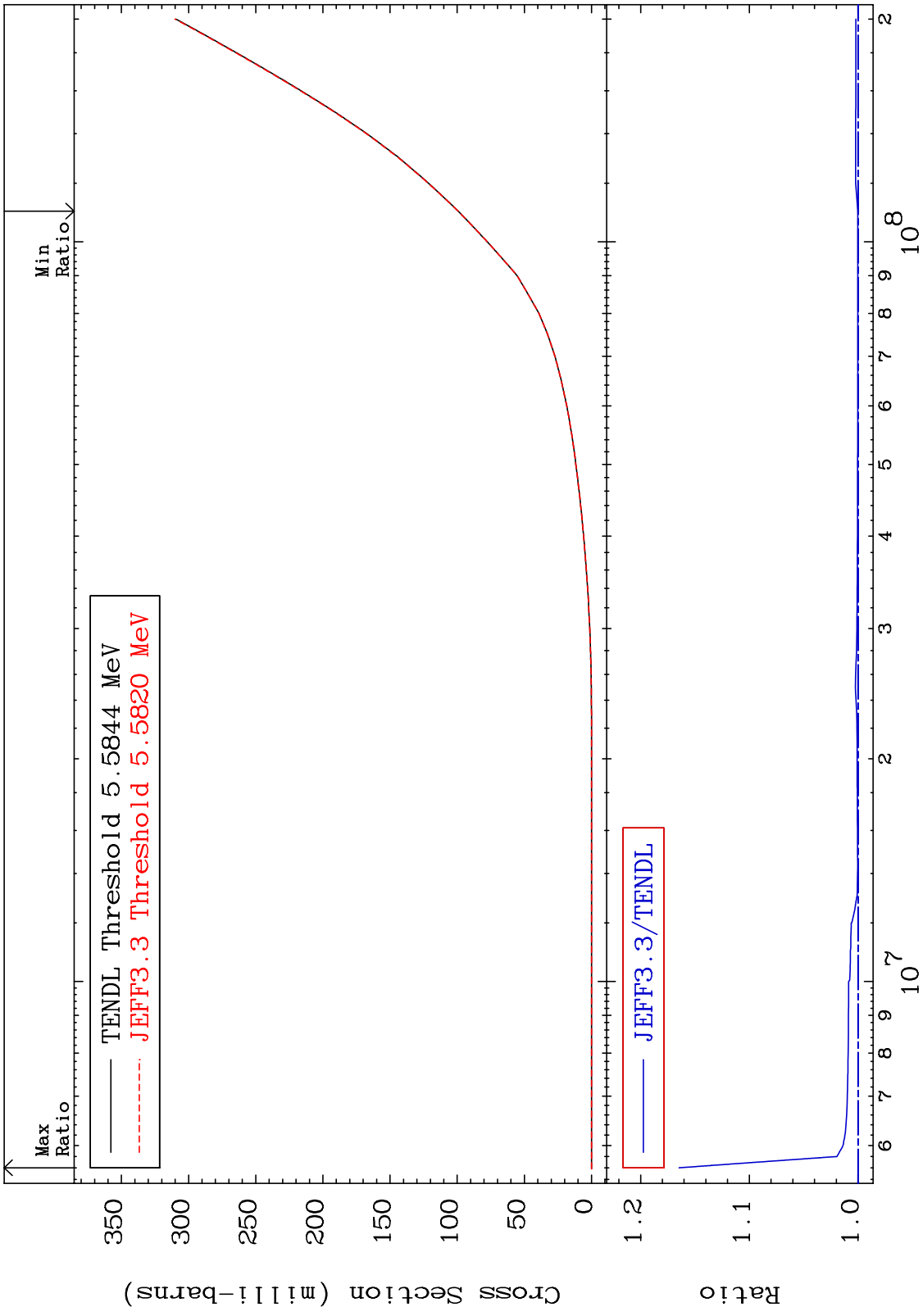


MAT 5831 Tritium Production Cross Section 58-Ce-138 -0.633 To 17.05 %



65 58-Ce-138 Incident Energy (eV)

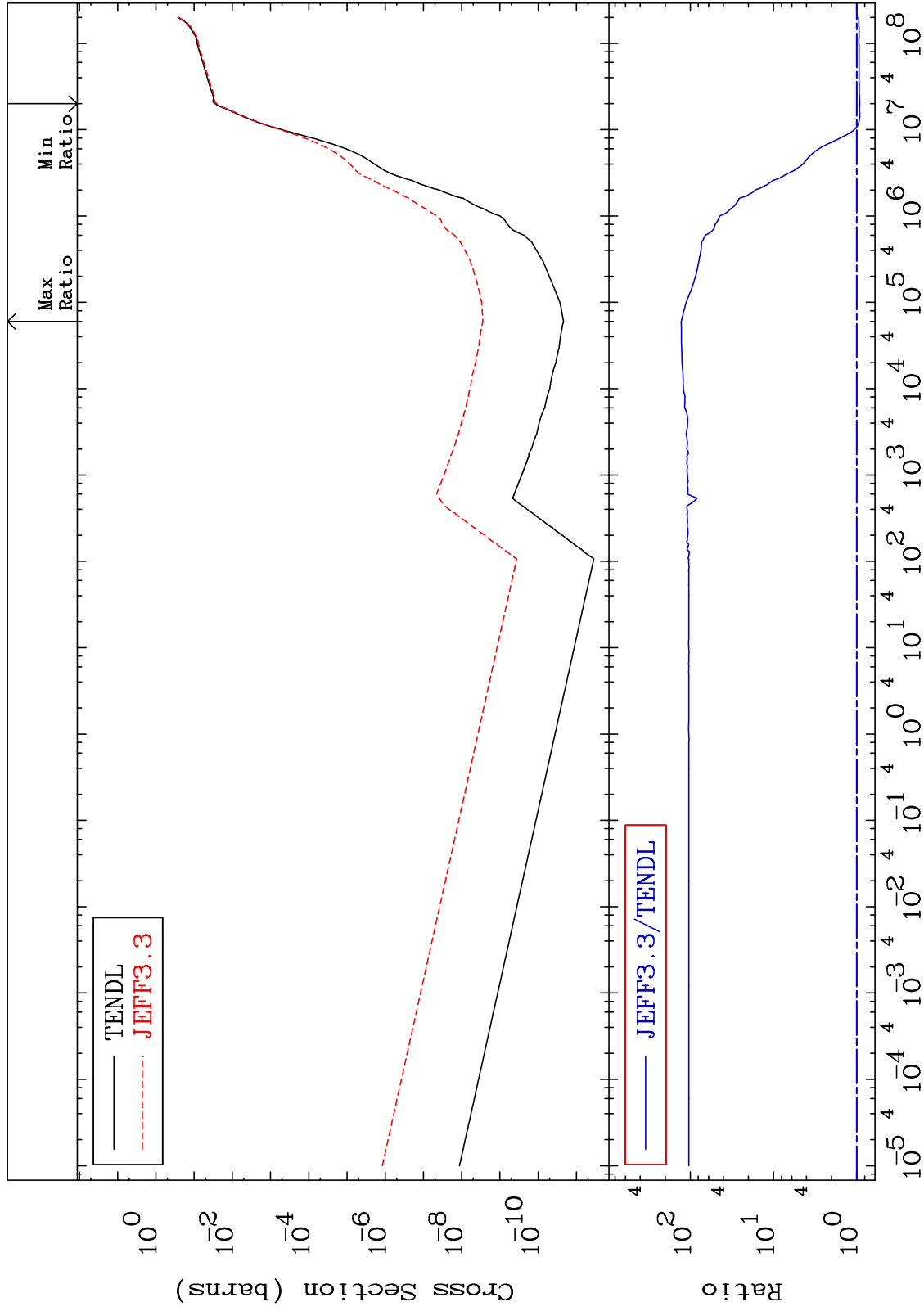
MAT 5831 He-3 Production Cross Section 58-Ce-138 To 16.47 %



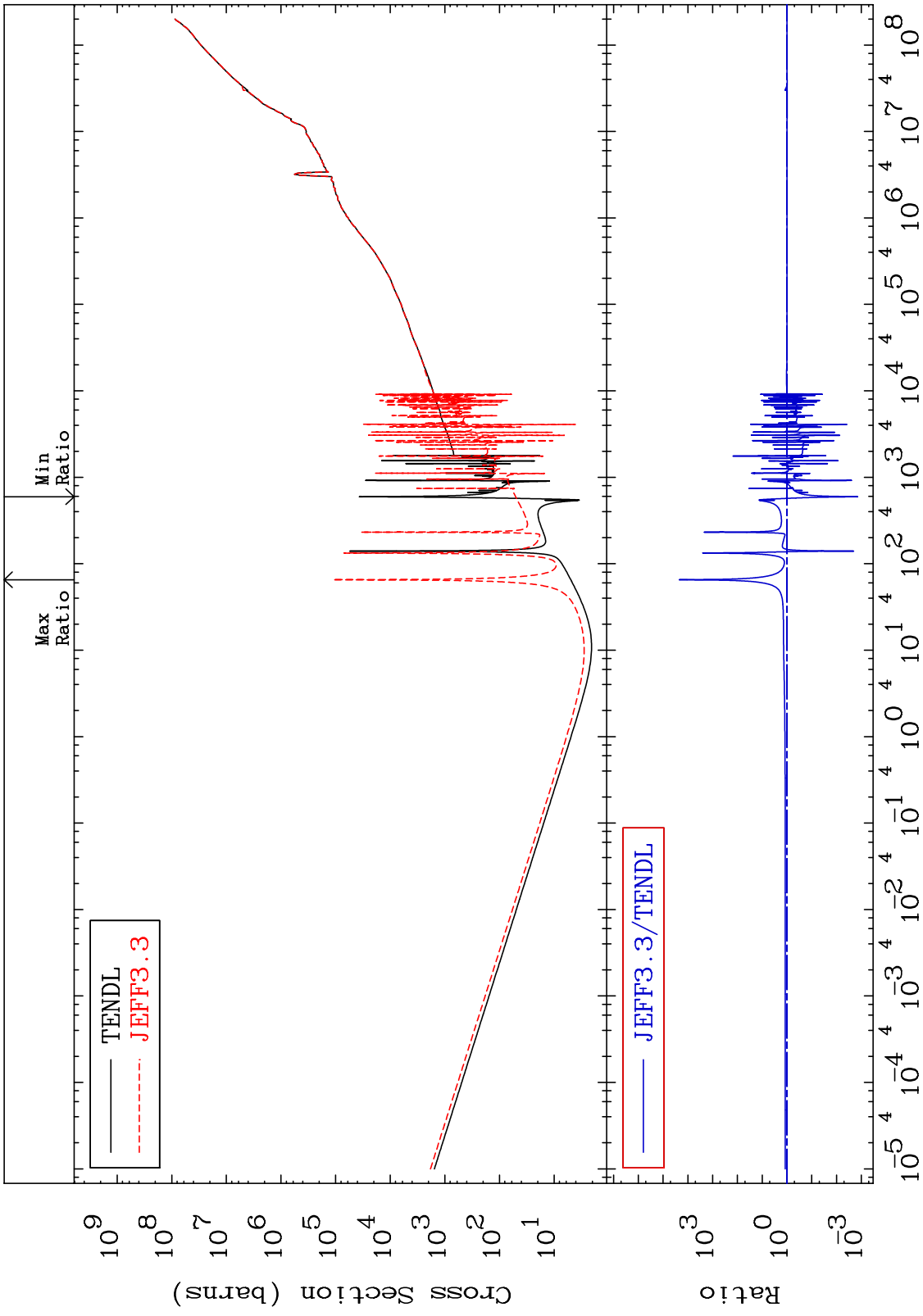
MAT 5831

He-4 Production
Cross Section

58-Ce-138
-8.330 To 9999. %



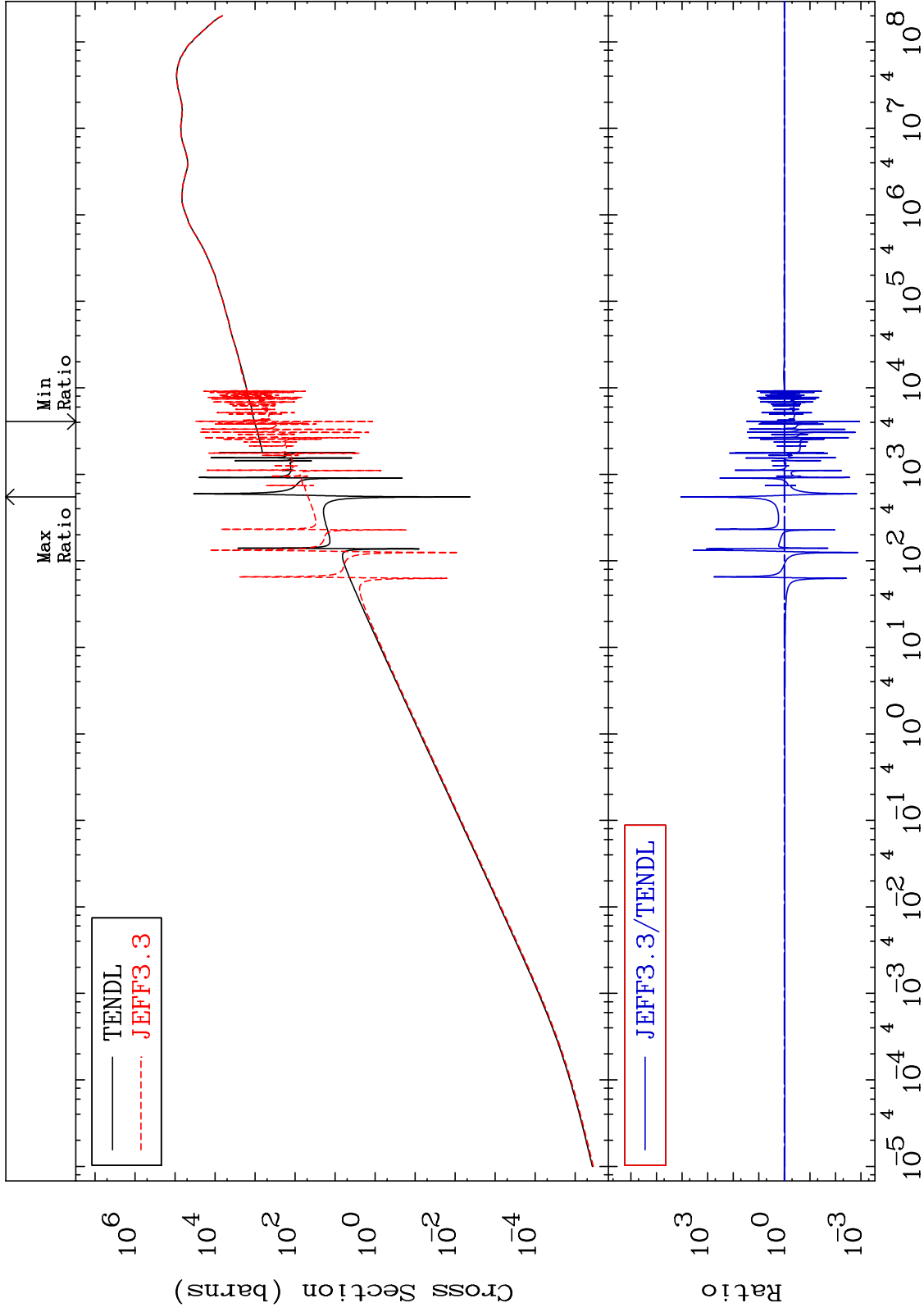
MAT 5831 Kerma total (eV-barns) 58-Ce-138
Cross Section -99.86 To 9999. %



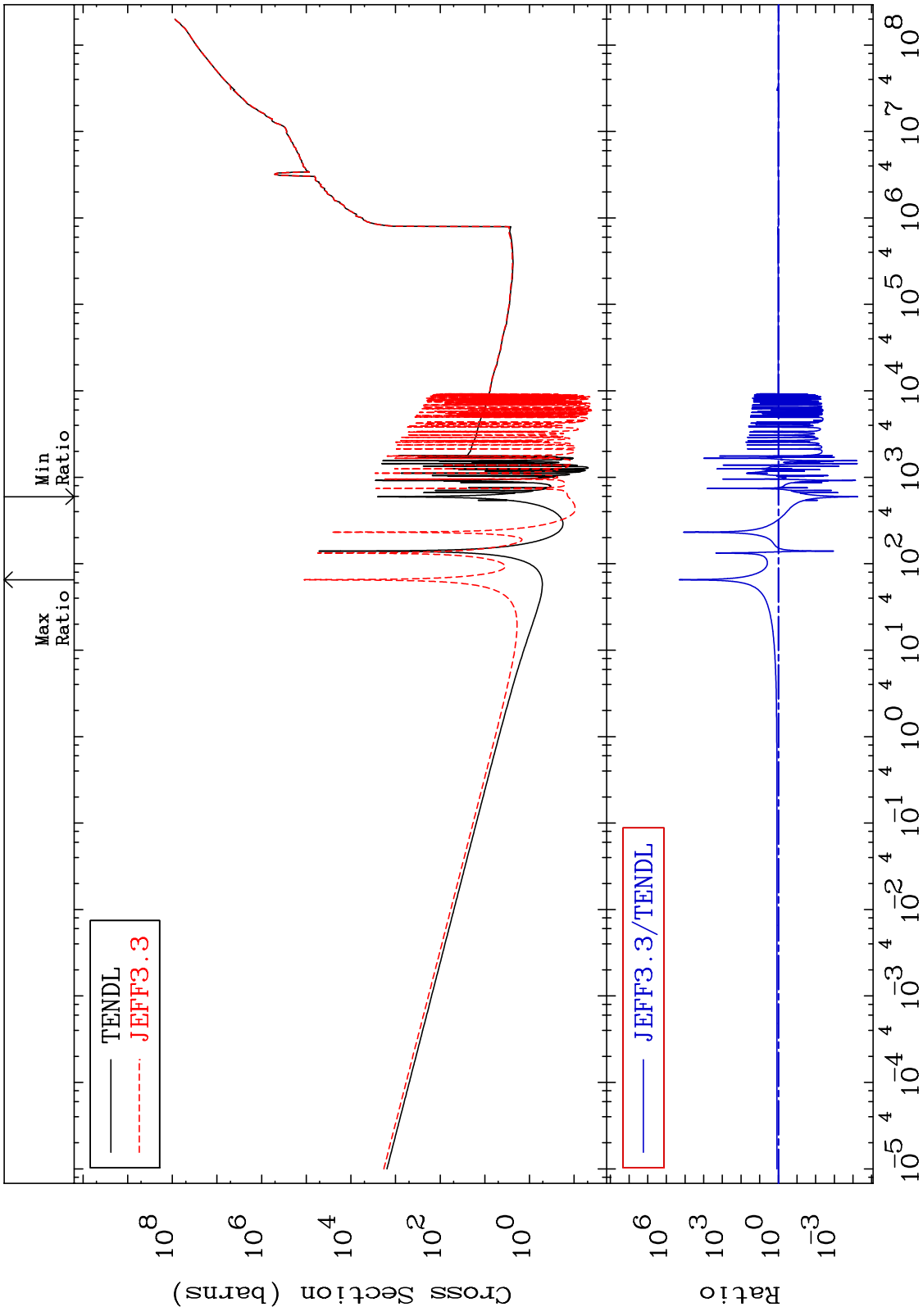
MAT 5831

Kerma elastic
Cross Section

58-Ce-138
-99.89 To 9999. %



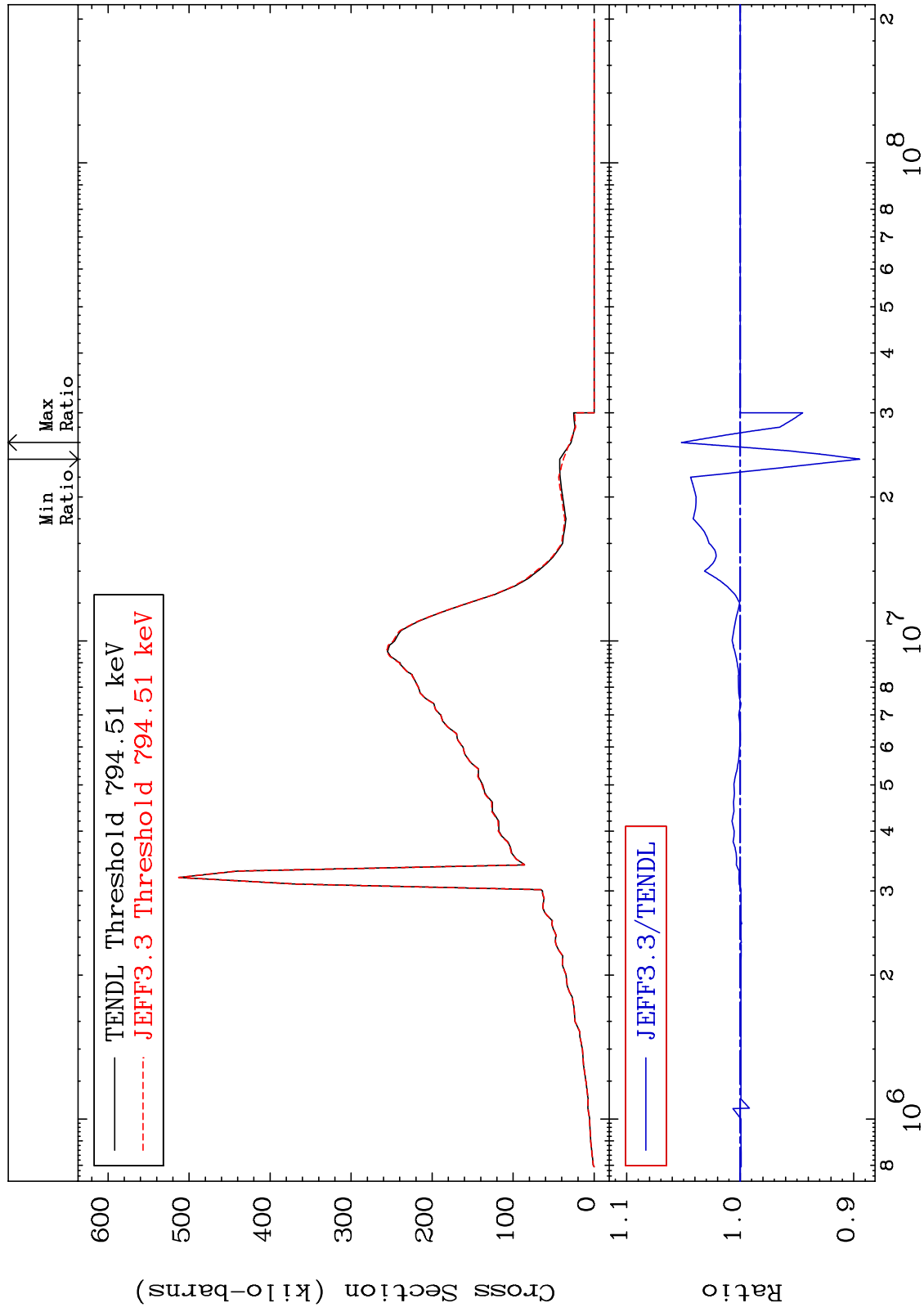
MAT 5831 Kerma non-elastic (all but mt2) 58-Ce-138
 Cross Section -99.99 To 9999. %



MAT 5831

Kerma inelastic (mt51-91)
Cross Section

58-Ce-138
-10.53 To 5.181 %



71

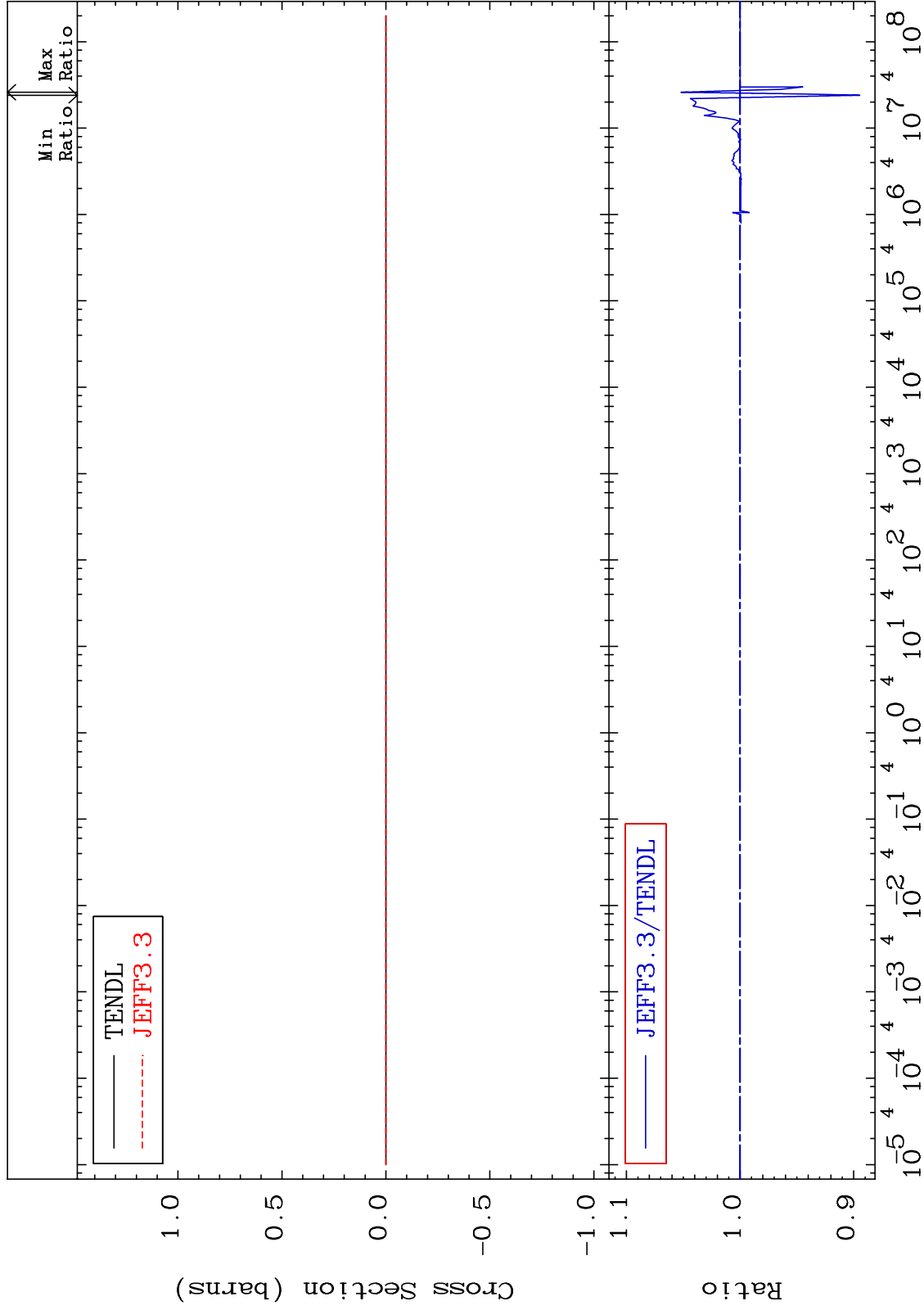
Incident Energy (eV)

58-Ce-138

MAT 5831

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

58-Ce-138
-10.53 To 5.181 %



72

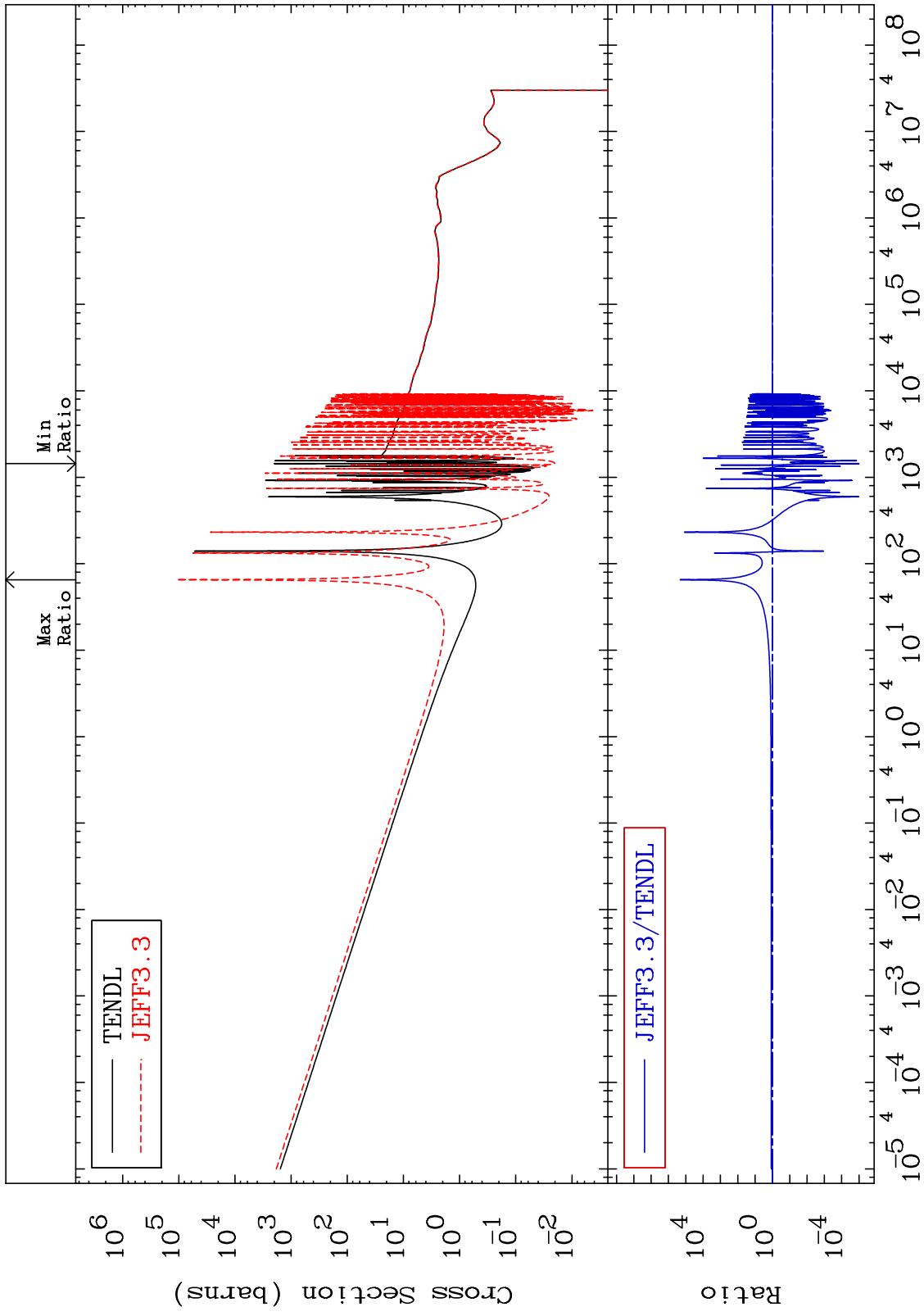
Incident Energy (eV)

58-Ce-138

MAT 5831

Kerma capture (mt102)
Cross Section

58-Ce-138
-100.0 To 9999. %



73

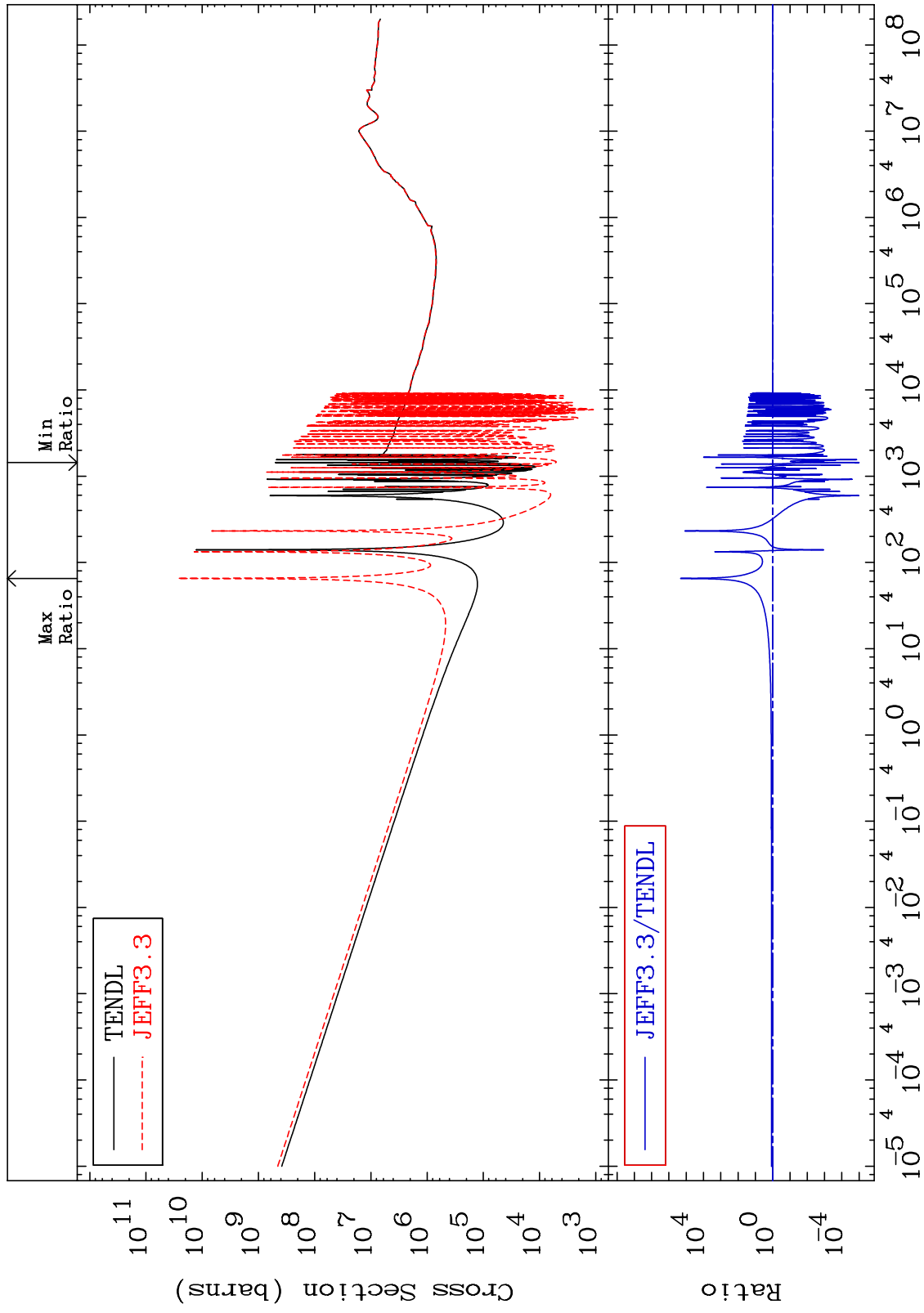
Incident Energy (eV)

58-Ce-138

MAT 5831

Total photon (eV-barns)
Cross Section

58-Ce-138
-100.0 To 9999. %



74

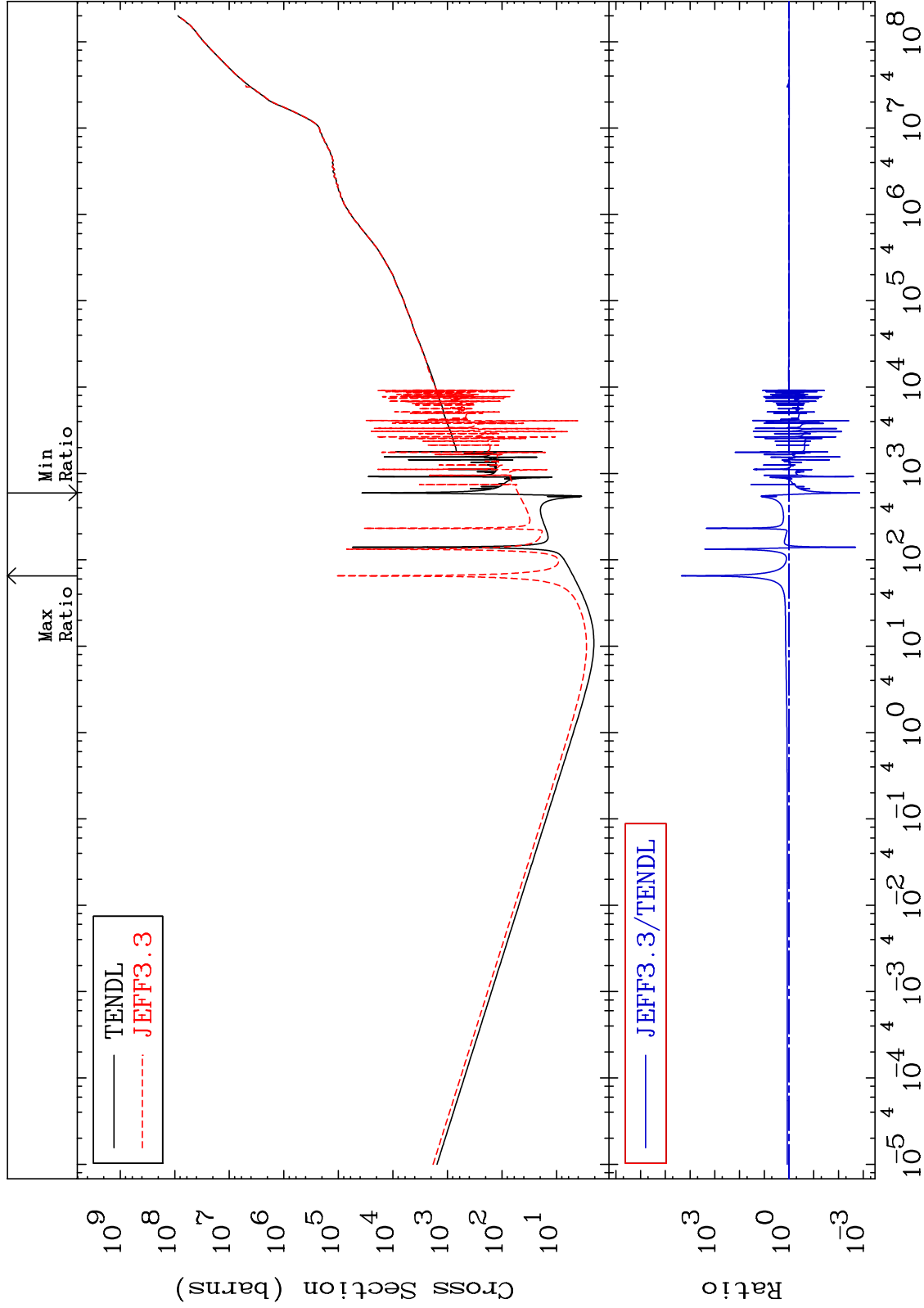
Incident Energy (eV)

58-Ce-138

MAT 5831

Total kinematic kerma (high limit)
Cross Section

58-Ce-138
-99.86 To 9999. %



75

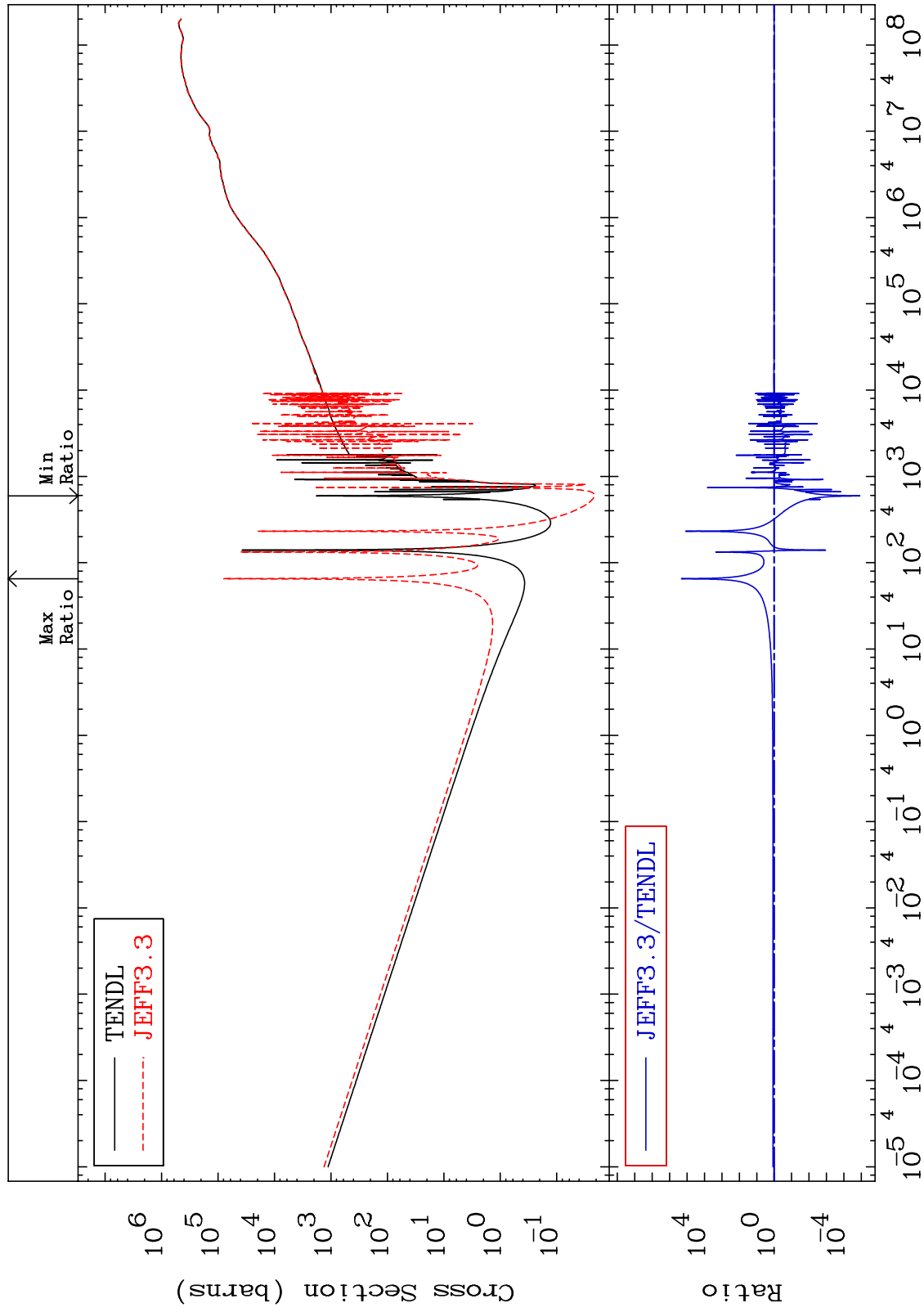
Incident Energy (eV)

58-Ce-138

MAT 5831

Dpa total (eV-barns)
Cross Section

58-Ce-138
-100.0 To 9999. %



76

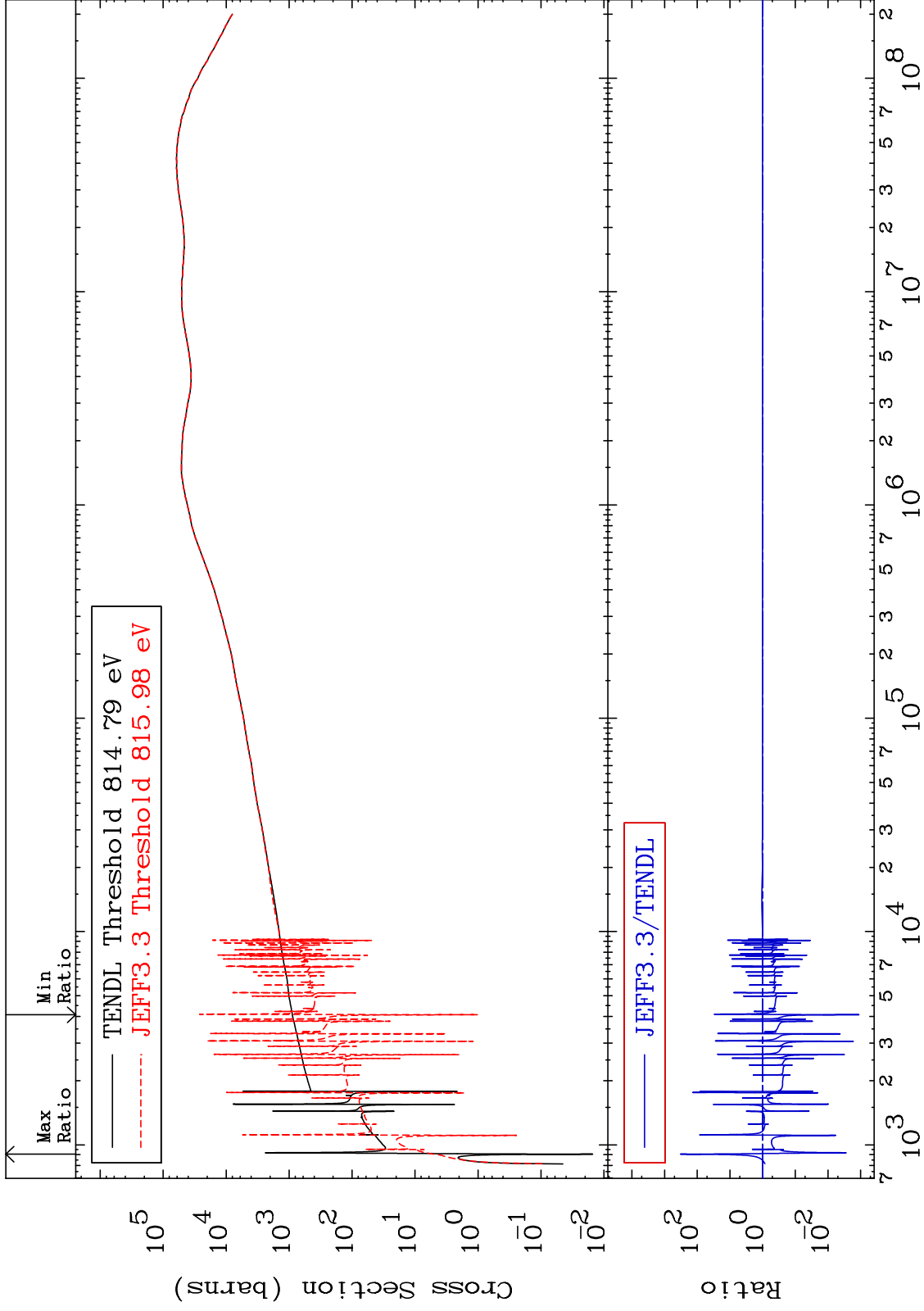
Incident Energy (eV)

58-Ce-138

MAT 5831

Dpa elastic (mt2)
Cross Section

58-Ce-138
-99.89 To 9999. %

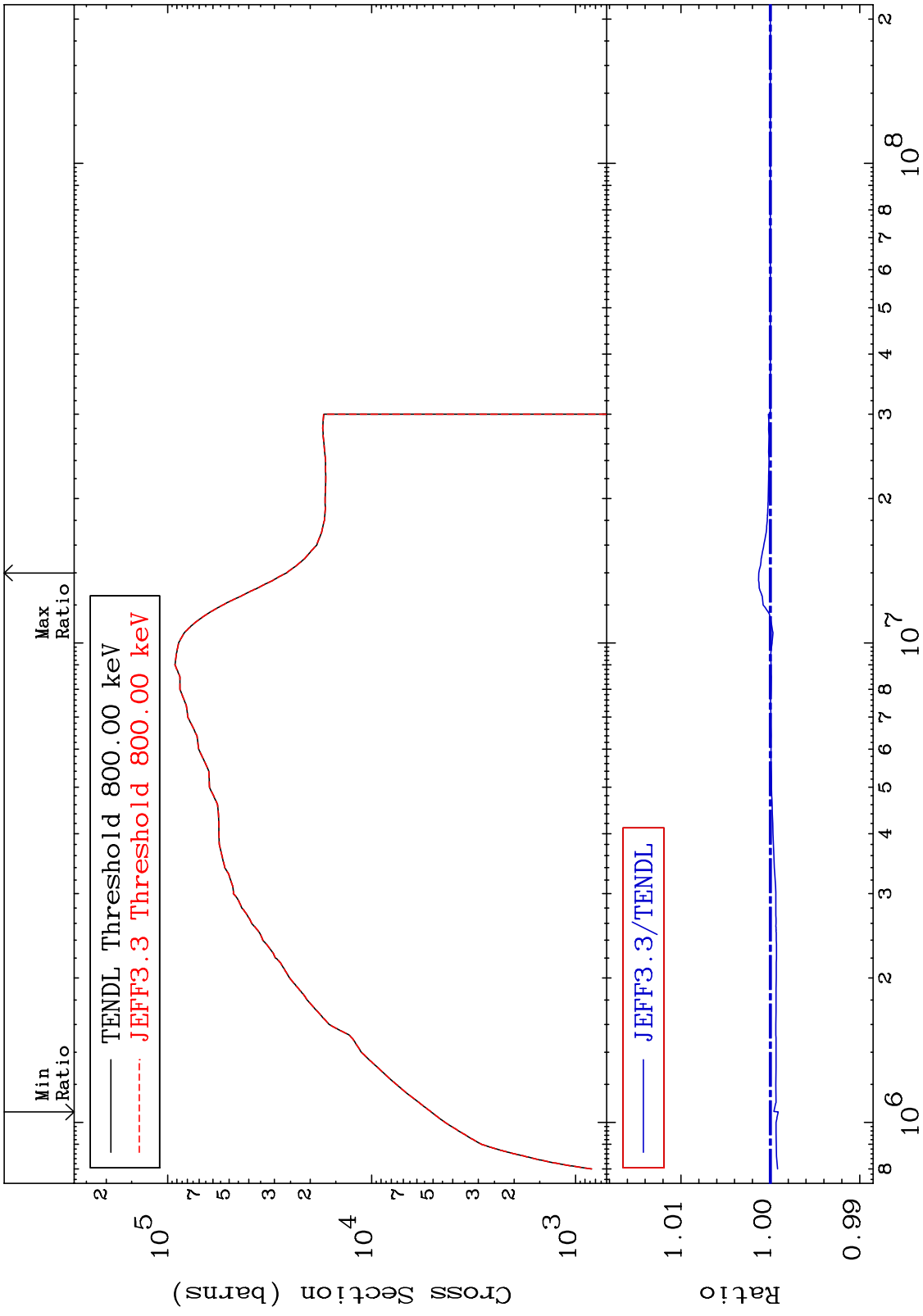


77

Incident Energy (eV)

58-Ce-138

MAT 5831 Dpa inelastic (mt51-91) 58-Ce-138
 Cross Section -0.089 To 0.131 %

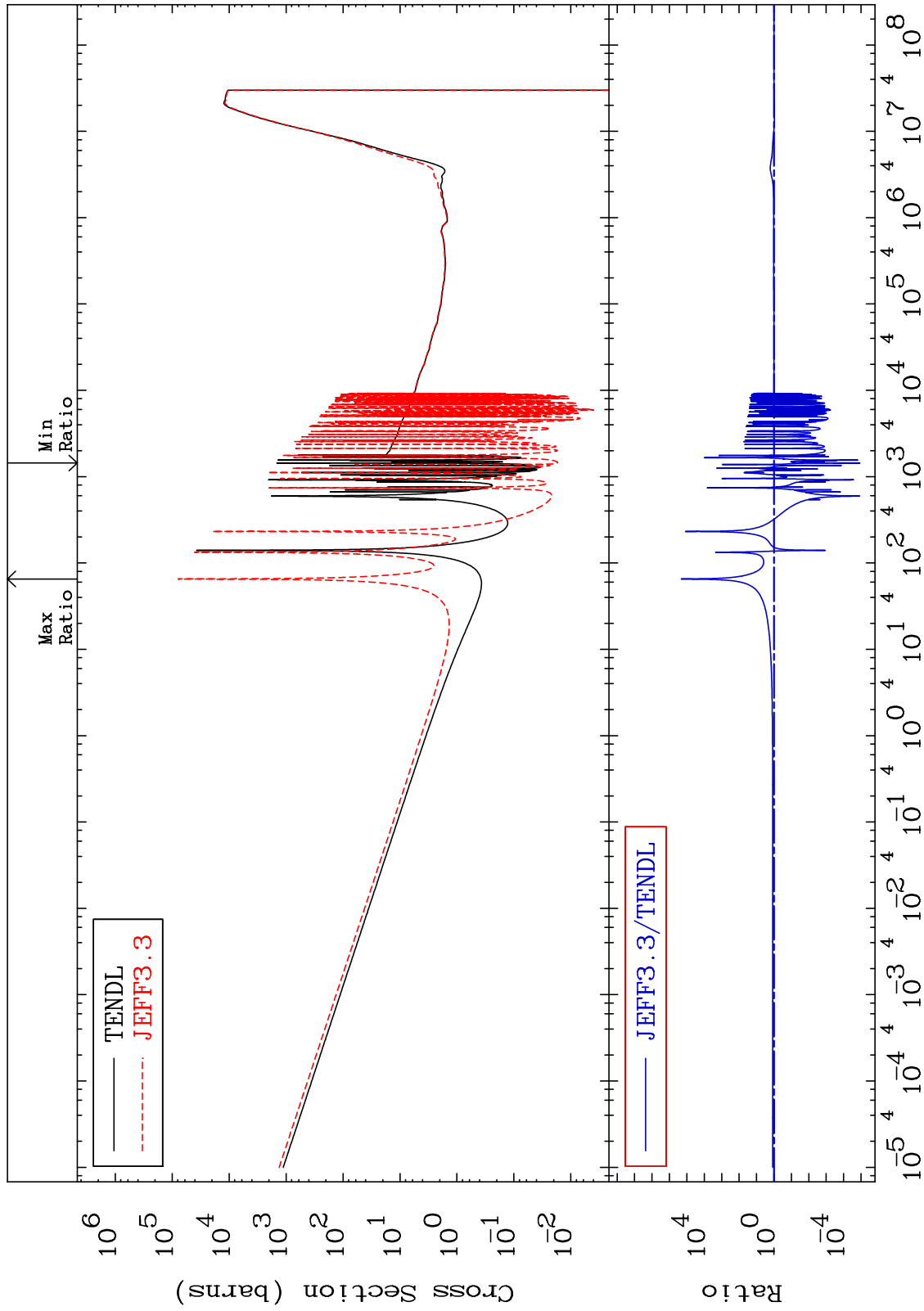


78 Incident Energy (eV) 58-Ce-138

MAT 5831

Dpa disappearance (mt102 -120)
Cross Section

58-Ce-138
-100.0 To 9999. %

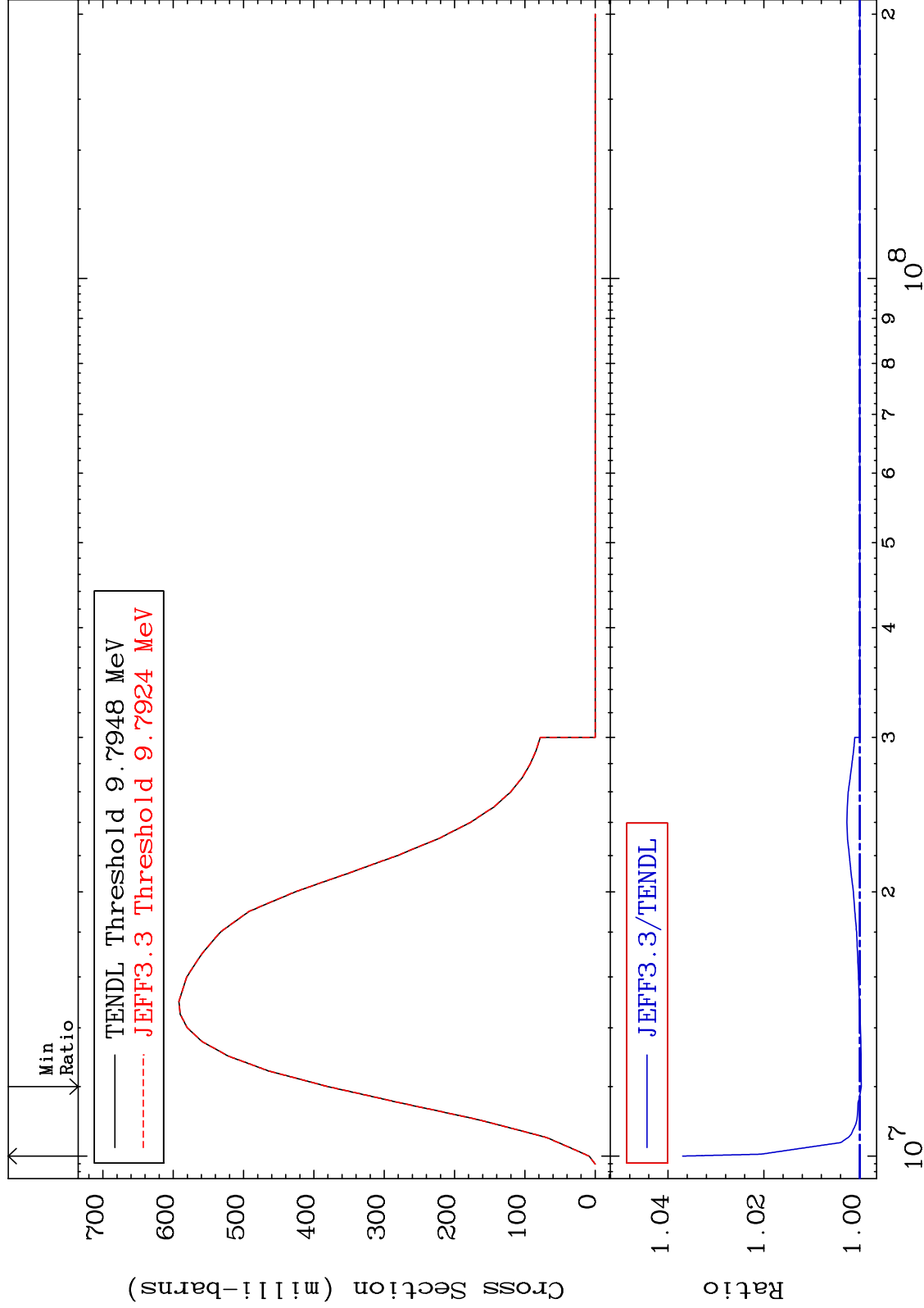


MAT 5831

(n,2n):58-Ce-137g

58-Ce-138

Radionuclide Production Cross Section -0.033 To 3.694 %



Incident Energy (eV)

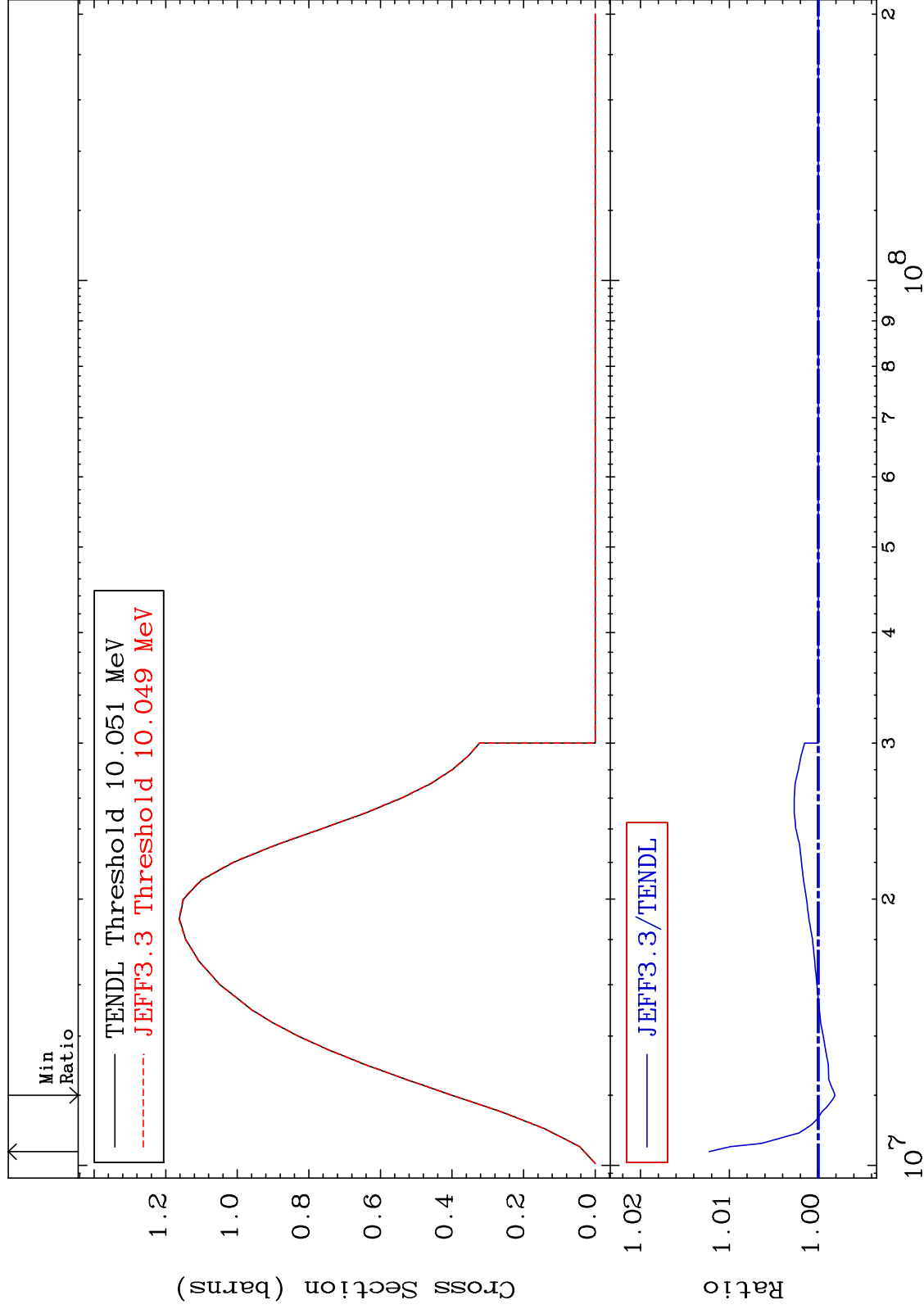
58-Ce-138

MAT 5831

(n,2n):58-Ce-137m2

58-Ce-138

Radionuclide Production Cross Section -0.190 To 1.230 %



81

Incident Energy (eV)

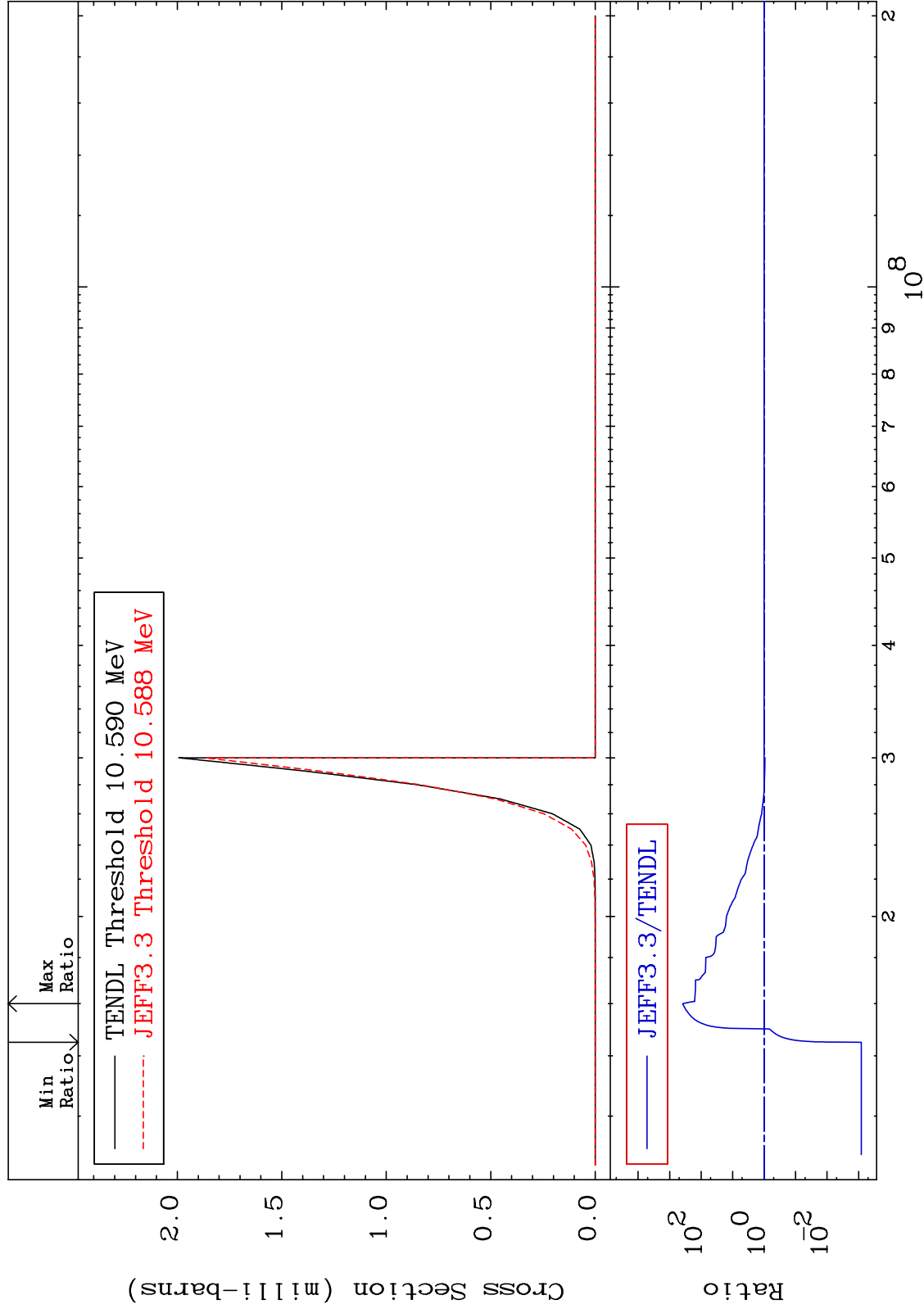
58-Ce-138

MAT 5831

(n,2n) α :56-Ba-133g

58-Ce-138

Radionuclide Production Cross Section -99.92 To 9999. %

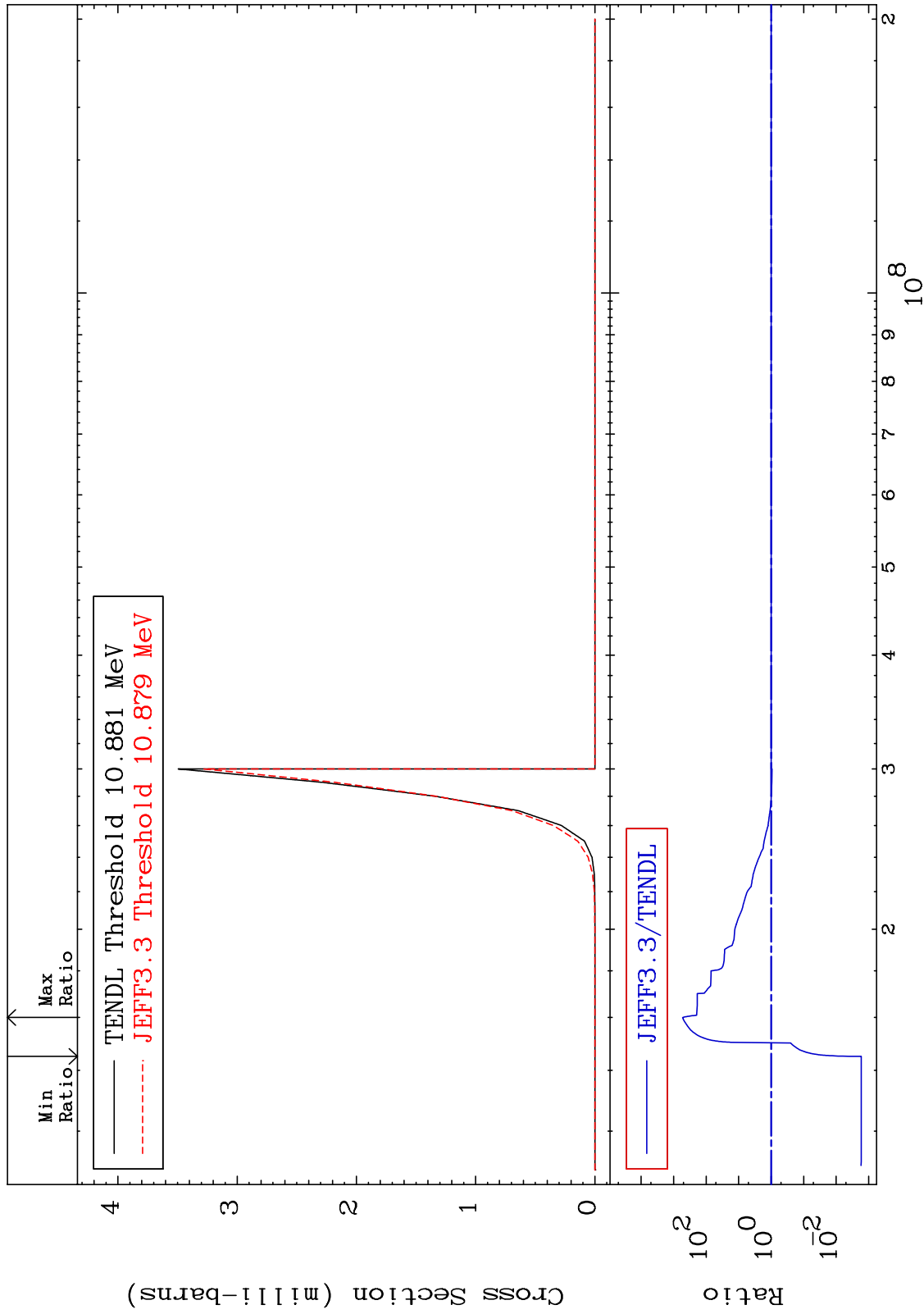


MAT 5831

(n,2n) α :56-Ba-133m2

58-Ce-138

Radionuclide Production Cross Section -99.83 To 9999. %



83

Incident Energy (eV)

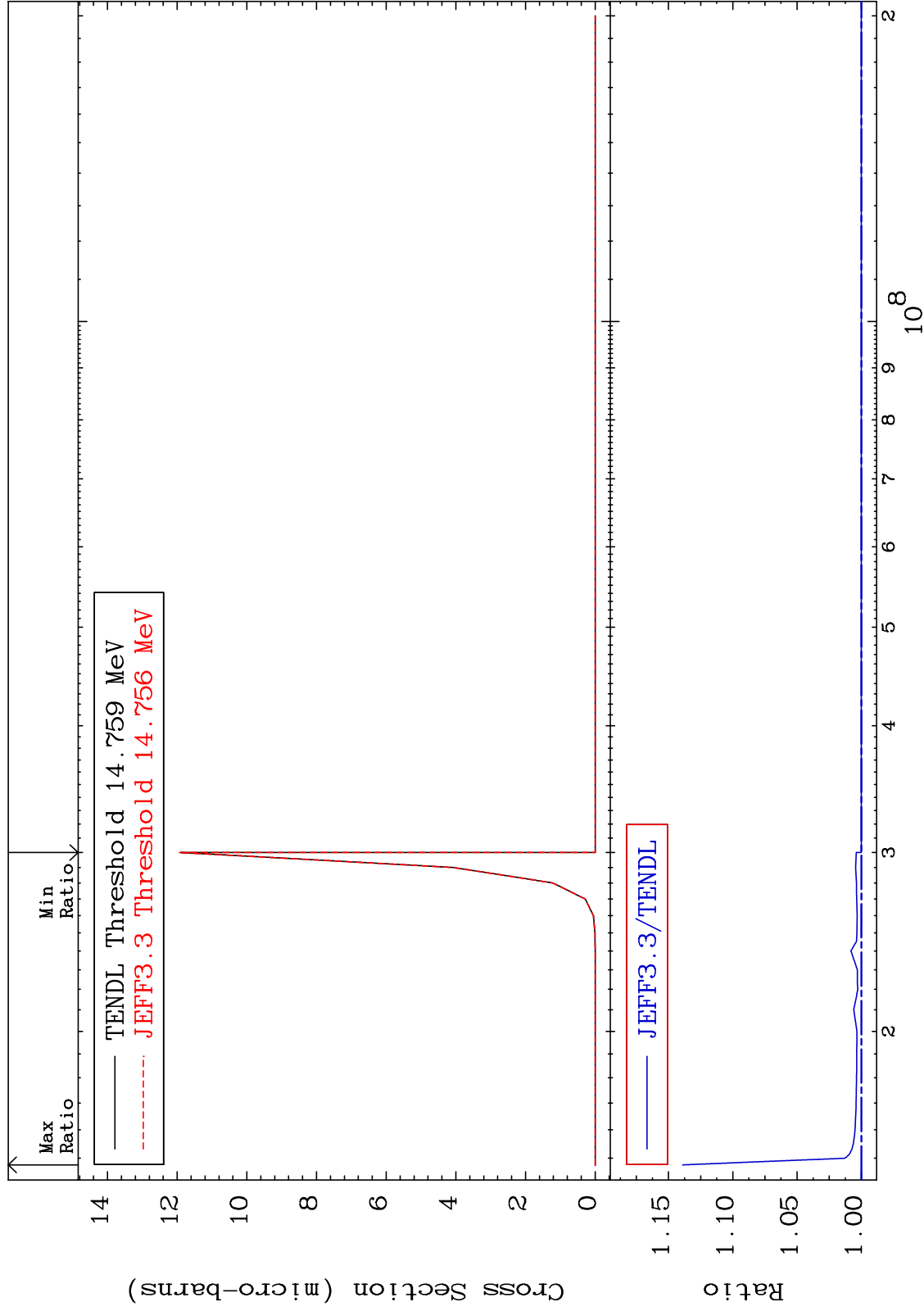
58-Ce-138

MAT 5831

(n, n') He-3:56-Ba-135g

58-Ce-138

Radionuclide Production Cross Section 0.000 To 13.90 %

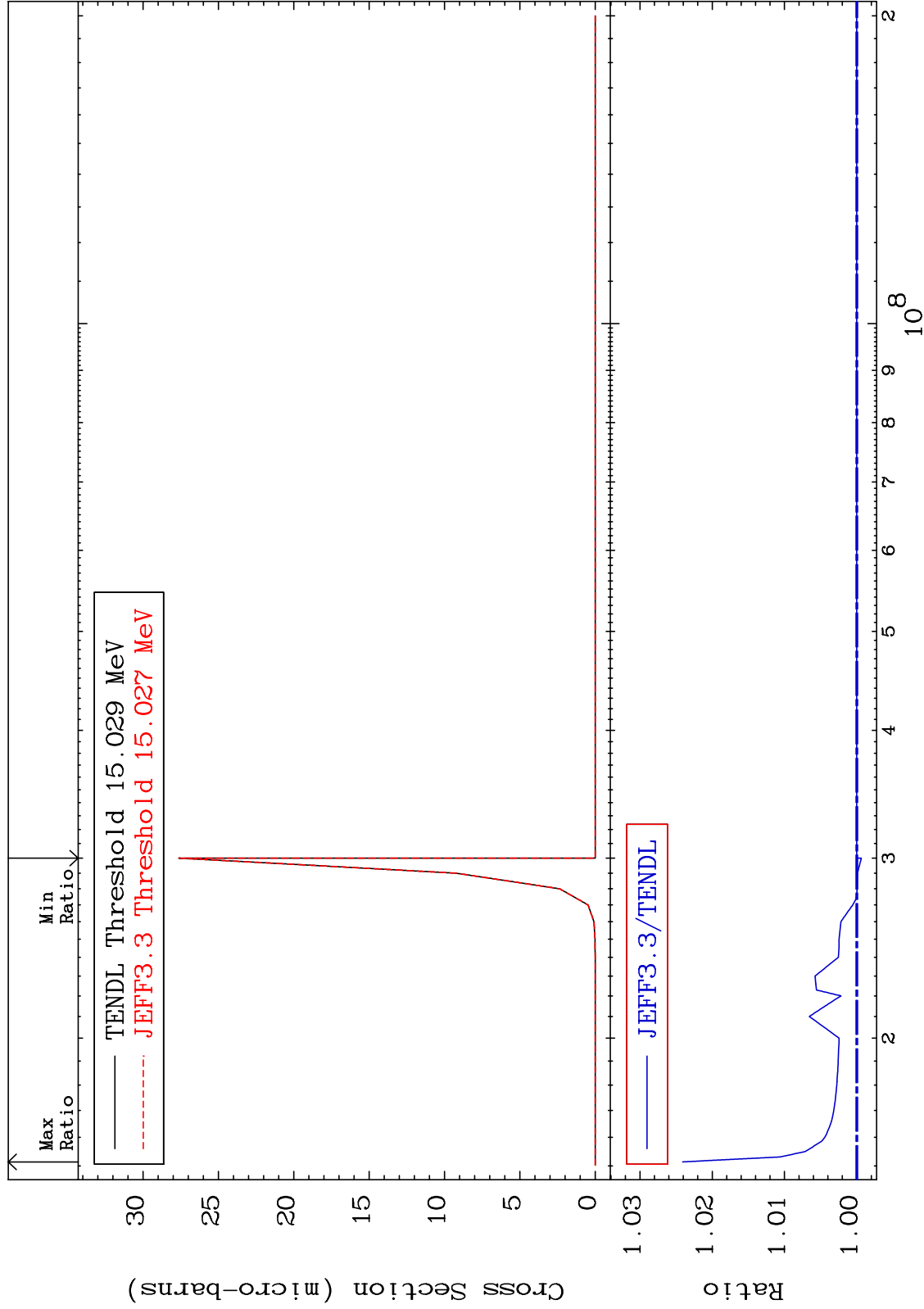


MAT 5831

(n, n') He-3:56-Ba-135m2

58-Ce-138

Radionuclide Production Cross Section -0.063 To 2.409 %



85

Incident Energy (eV)

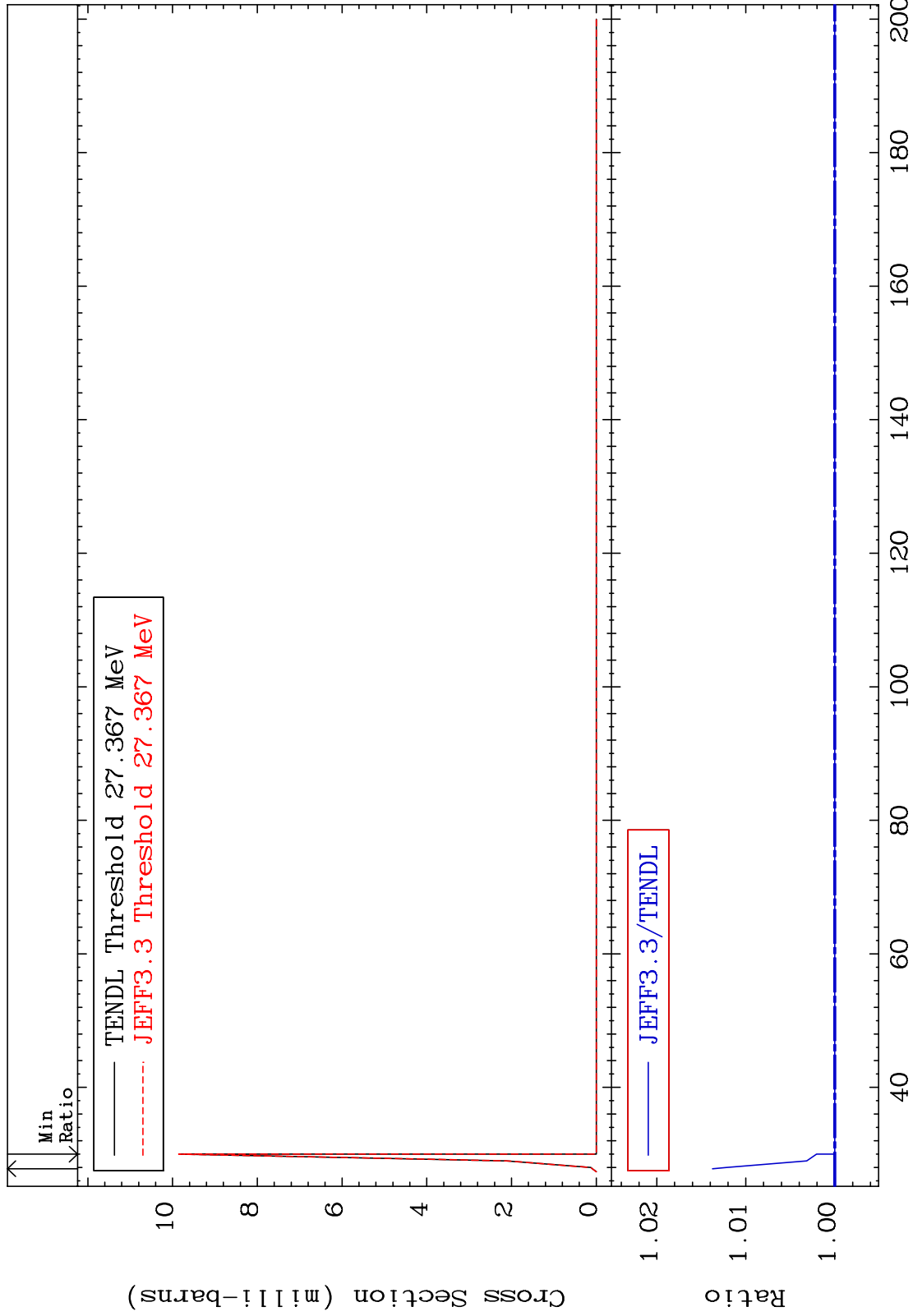
58-Ce-138

MAT 5831

(n,4n):58-Ce-135g

58-Ce-138

Radionuclide Production Cross Section 0.000 To 1.375 %

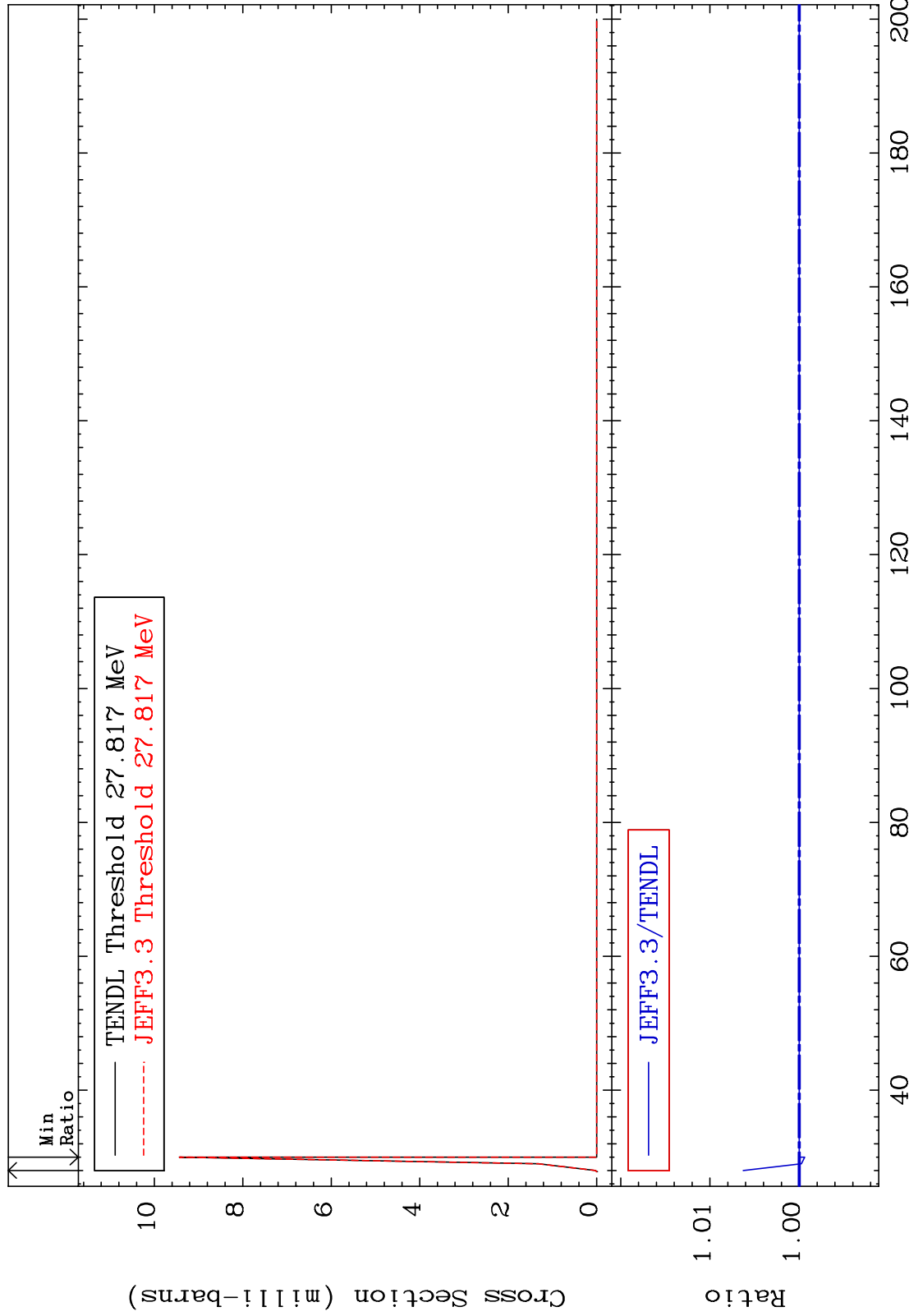


MAT 5831

(n,4n):58-Ce-135m4

58-Ce-138

Radionuclide Production Cross Section -0.061 To 0.629 %



87

Incident Energy (MeV)

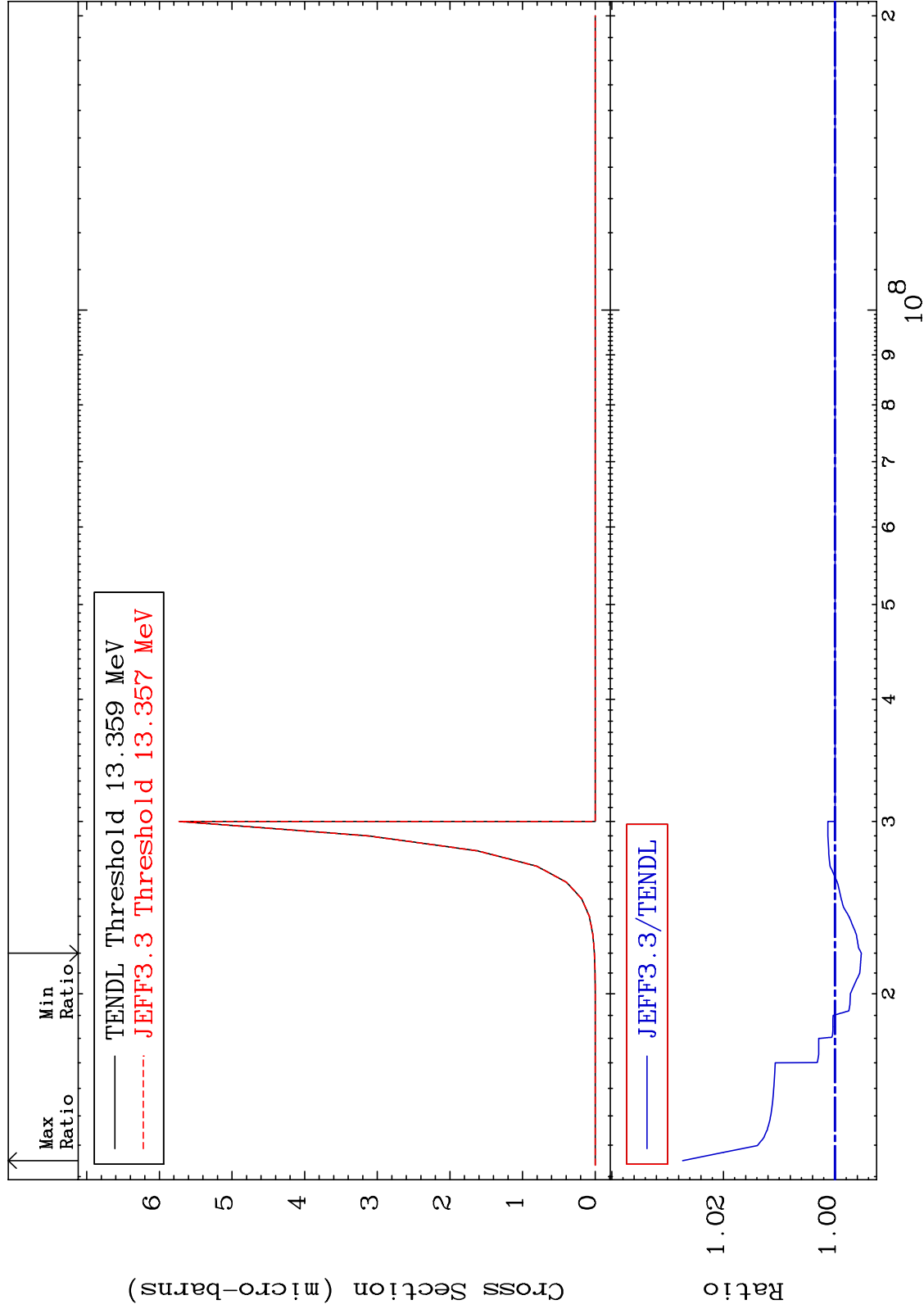
58-Ce-138

MAT 5831

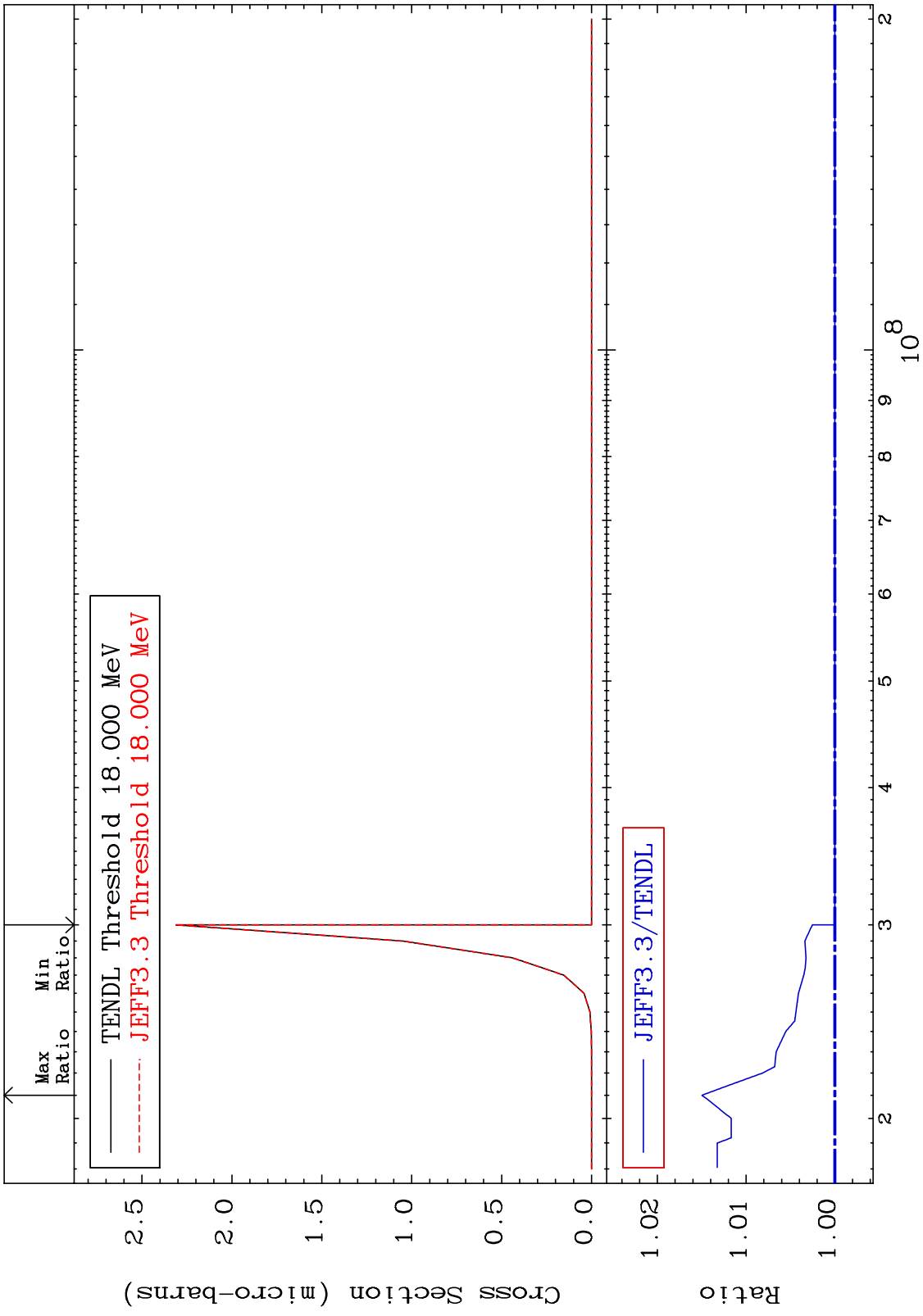
(n,2n) p:56-Ba-136g

58-Ce-138

Radionuclide Production Cross Section -0.472 To 2.729 %



MAT 5831 (n,2n) p:56-Ba-136m5 58-Ce-138
 Radionuclide Production Cross Section 0.000 To 1.497 %

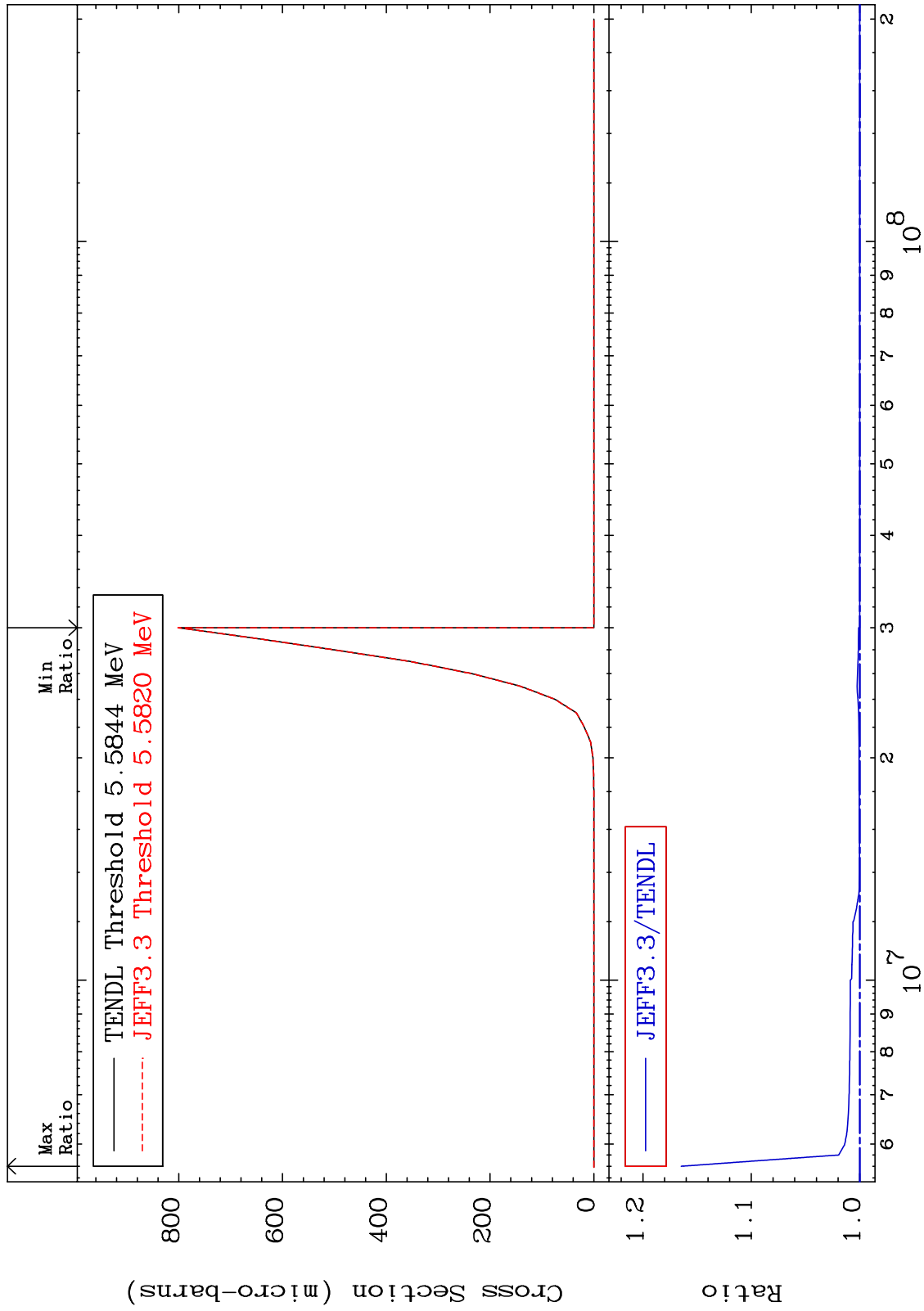


MAT 5831

58-Ce-138

(n, He-3) : 56-Ba-136g

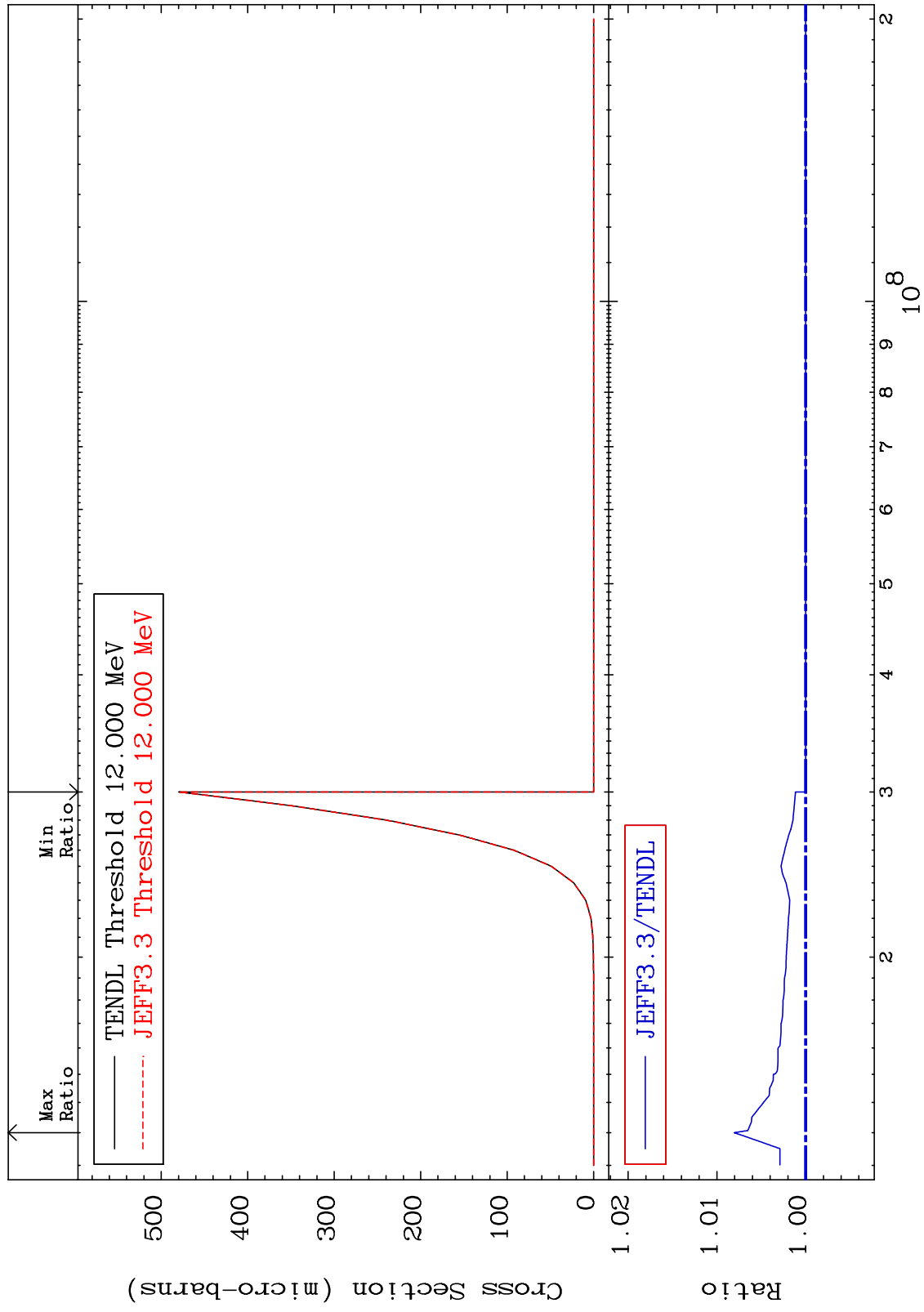
Radionuclide Production Cross Section 0.000 To 16.47 %



90

58-Ce-138

MAT 5831 (n,He-3):56-Ba-136m5 58-Ce-138
Radionuclide Production Cross Section 0.000 To 0.804 %

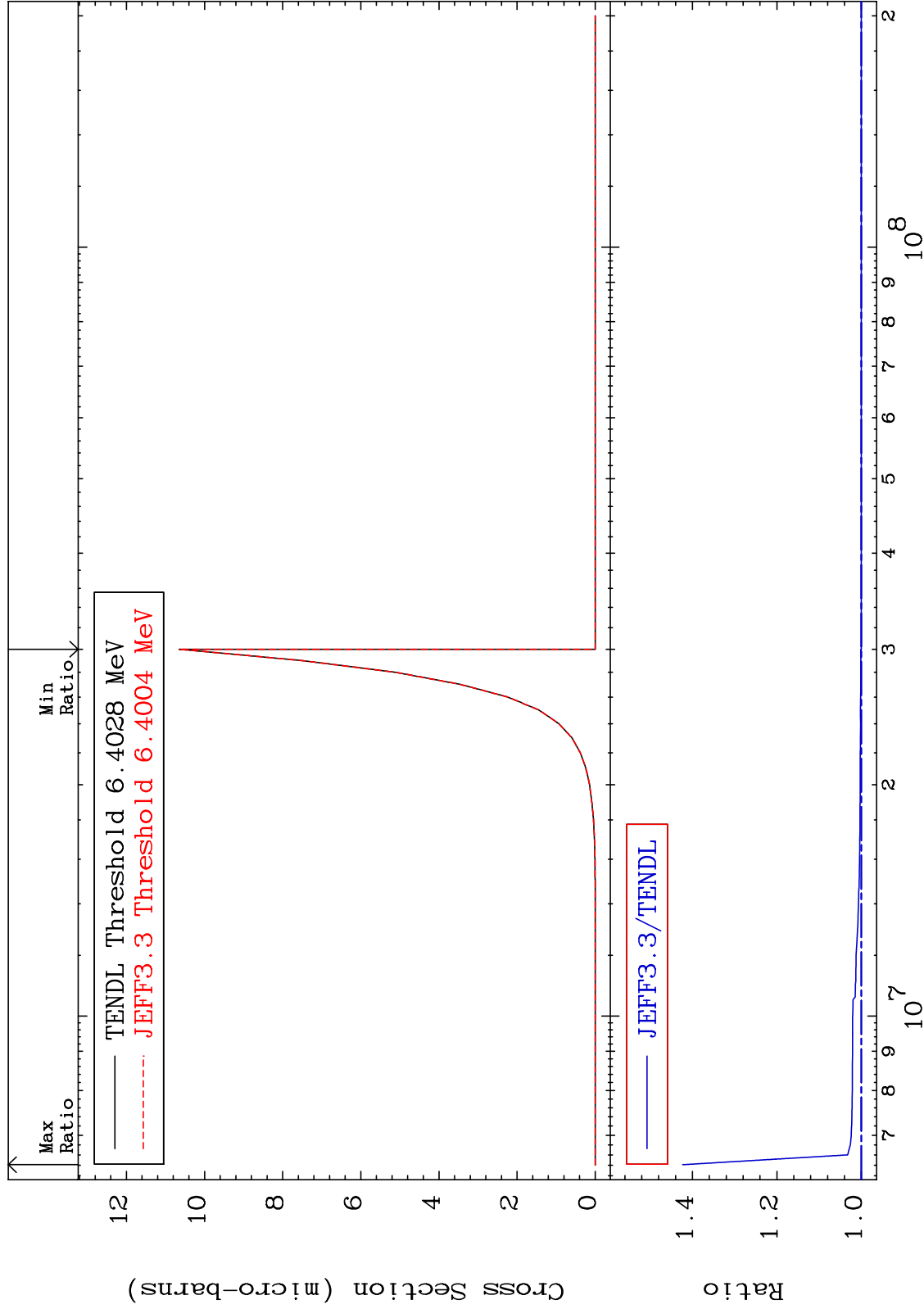


MAT 5831

(n,2p):56-Ba-137g

58-Ce-138

Radionuclide Production Cross Section 0.000 To 42.31 %



92

Incident Energy (eV)

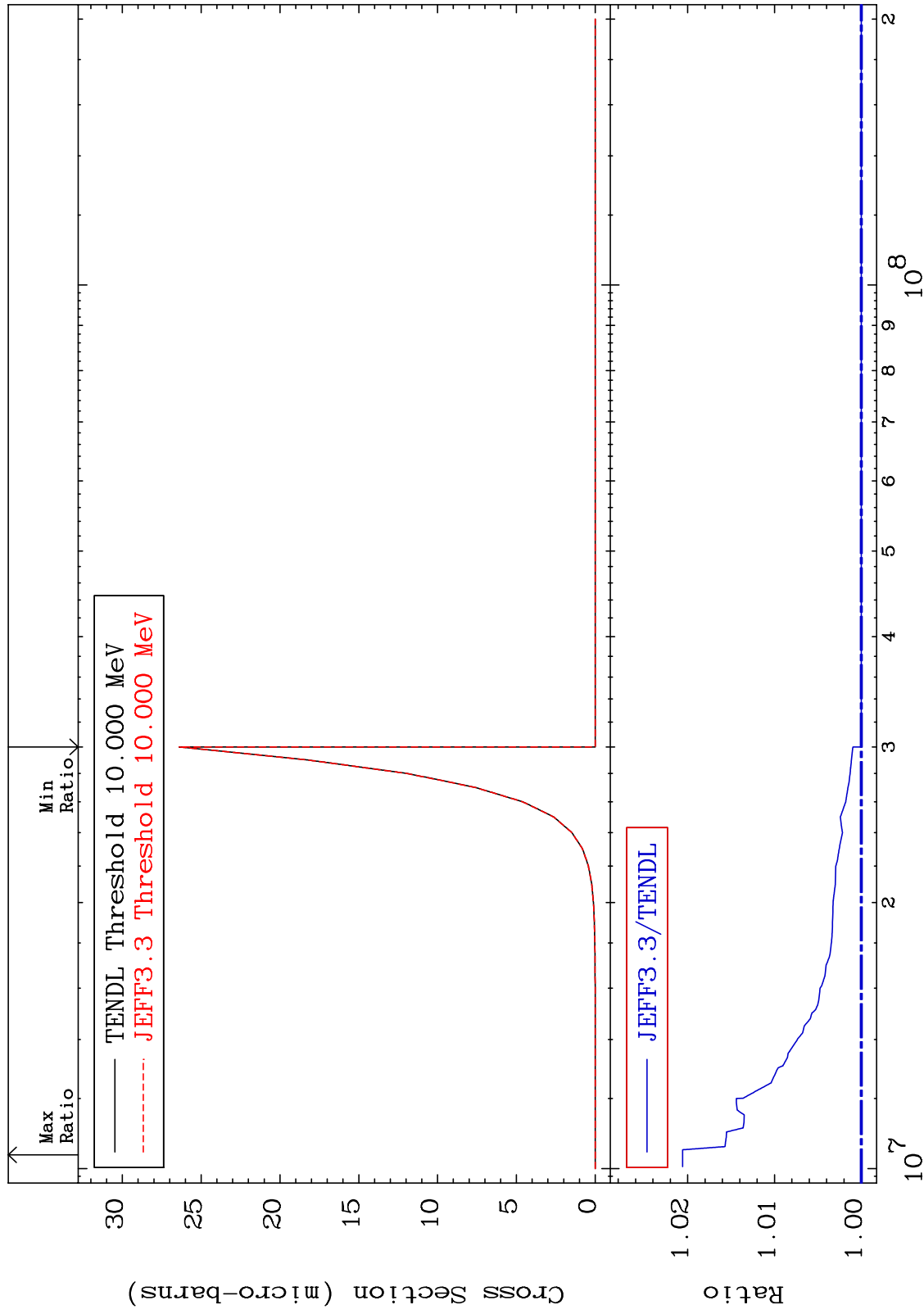
58-Ce-138

MAT 5831

(n,2p):56-Ba-137m2

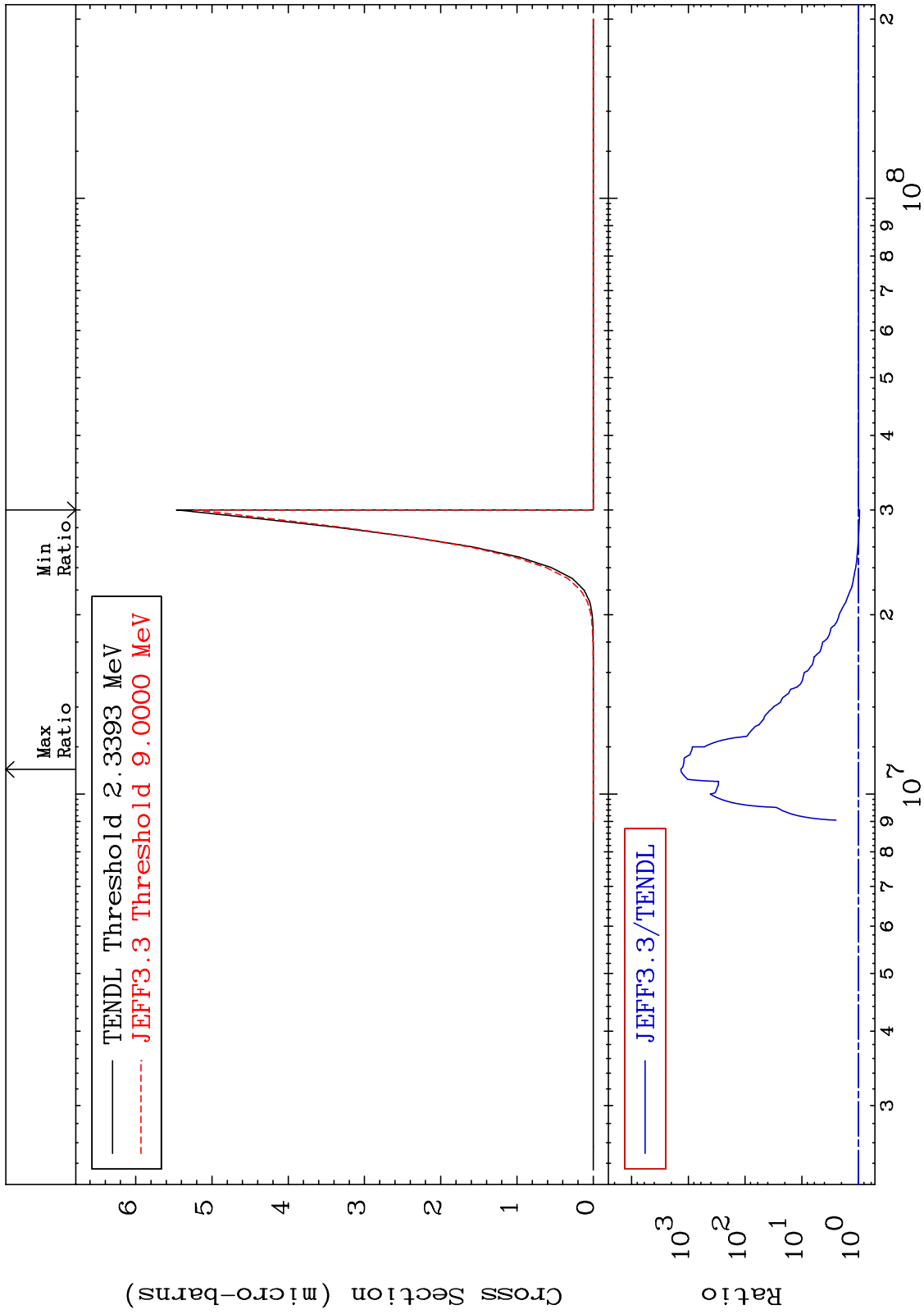
58-Ce-138

Radionuclide Production Cross Section 0.000 To 2.058 %



MAT 5831

(n,p) α :55-Cs-134g 58-Ce-138
Radionuclide Production Cross Section -4.417 To 9999. %

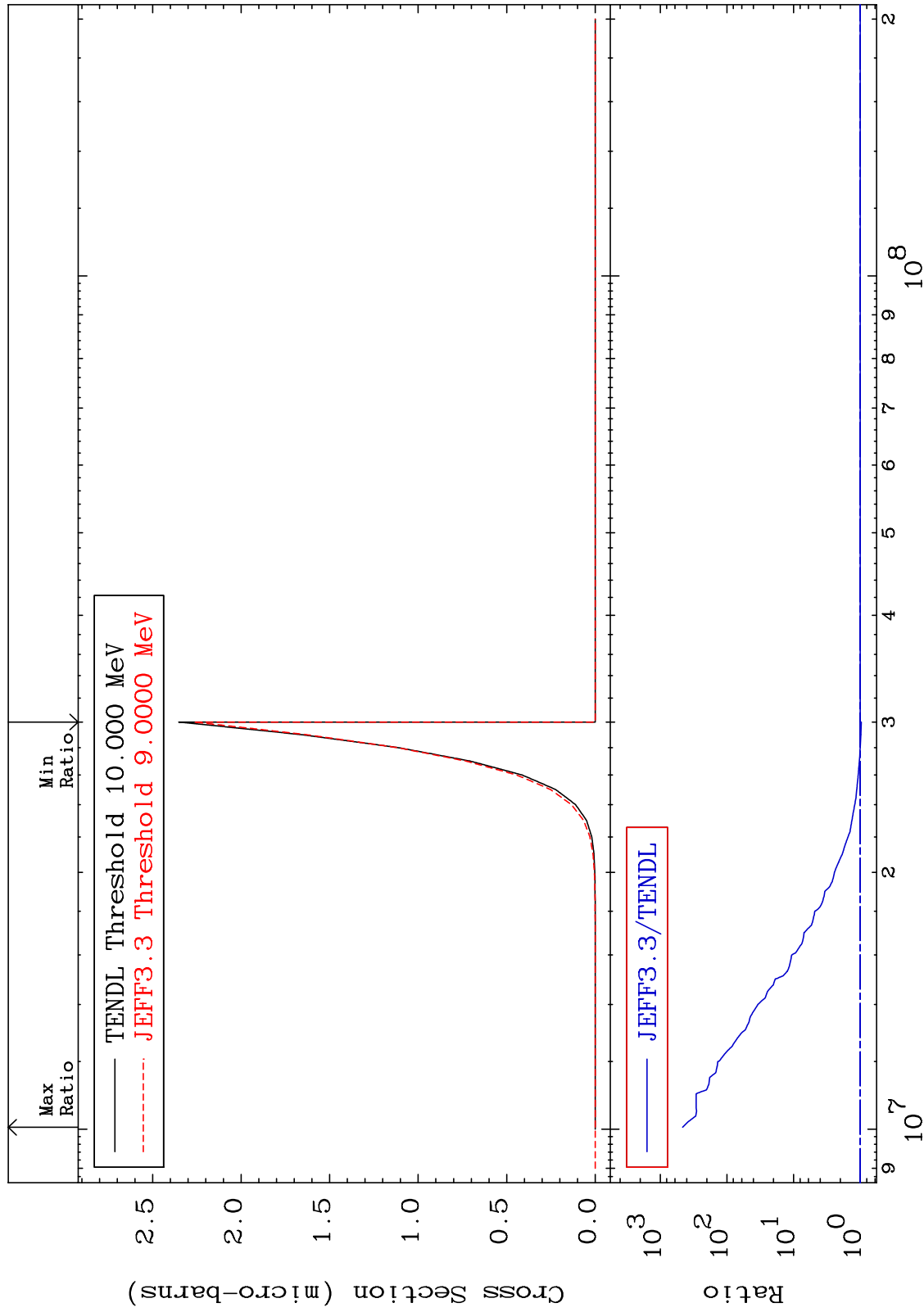


MAT 5831

(n,p) α :55-Cs-134m3

58-Ce-138

Radionuclide Production Cross Section -3.541 To 9999. %



95

Incident Energy (eV)

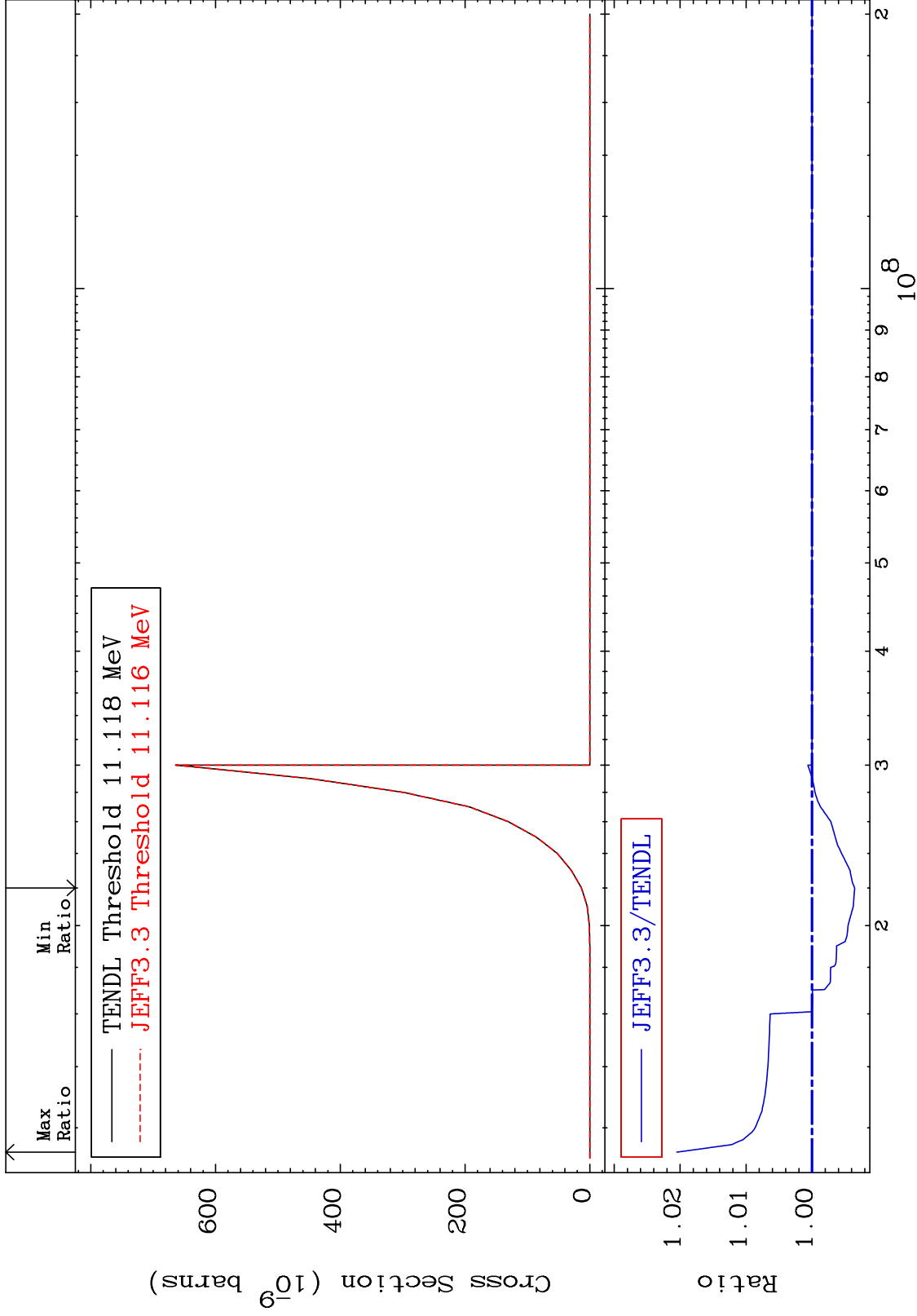
58-Ce-138

MAT 5831

(n,p) d:56-Ba-136g

58-Ce-138

Radionuclide Production Cross Section -0.646 To 2.050 %

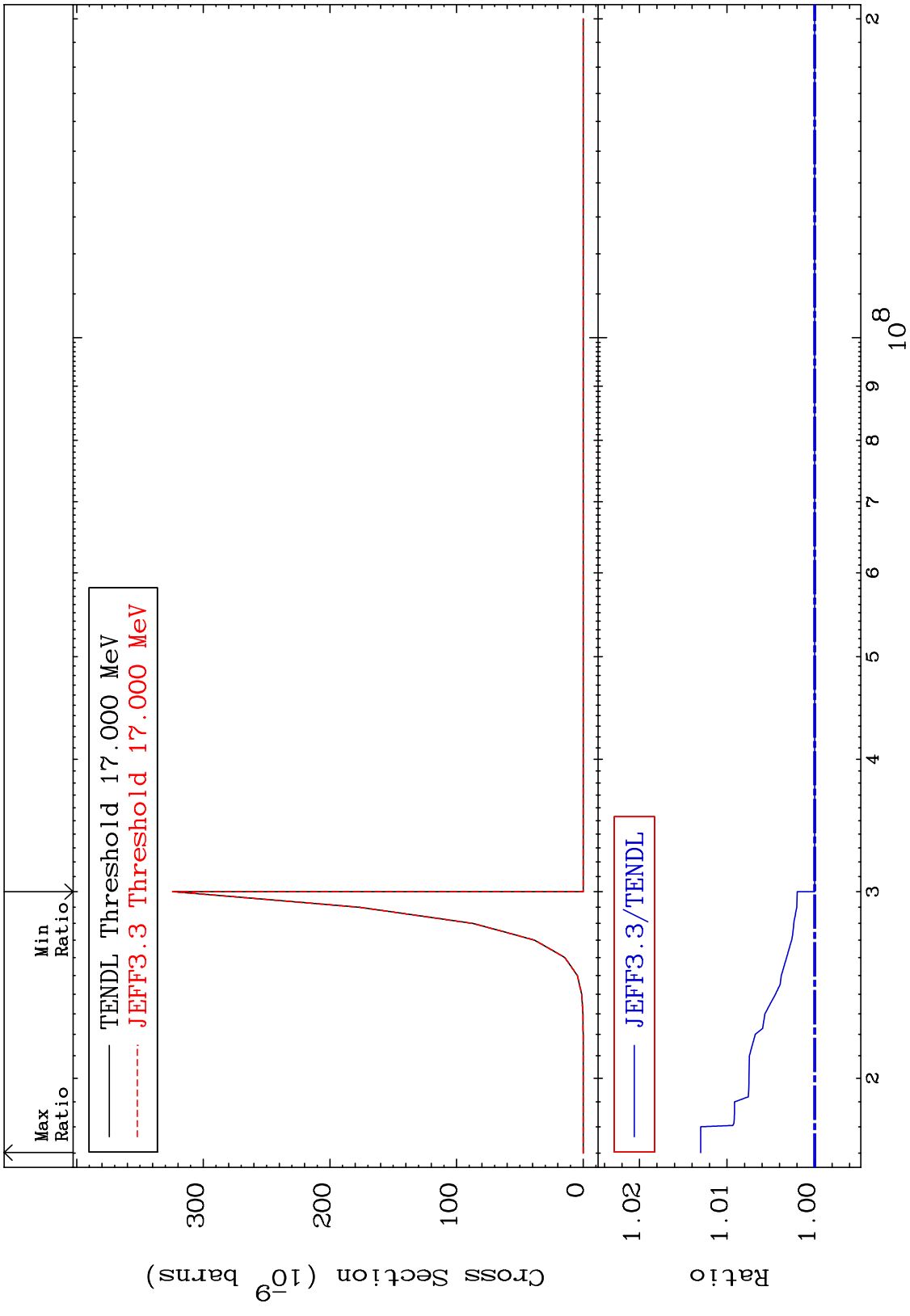


96

Incident Energy (eV)

58-Ce-138

MAT 5831 (n,p) d:56-Ba-136m5 58-Ce-138
 Radionuclide Production Cross Section 0.000 To 1.302 %



MAT 5831

(n,p) t:56-Ba-135m2

58-Ce-138

Radionuclide Production Cross Section -0.105 To 2.173 %

