

Program Complot
(Version 2018-1)

by

Dermott E. Cullen
(Present Contact Information)

Dermott E. Cullen
1466 Hudson Way
Livermore, CA 94550

U.S.A.

Tele: 925-443-1911

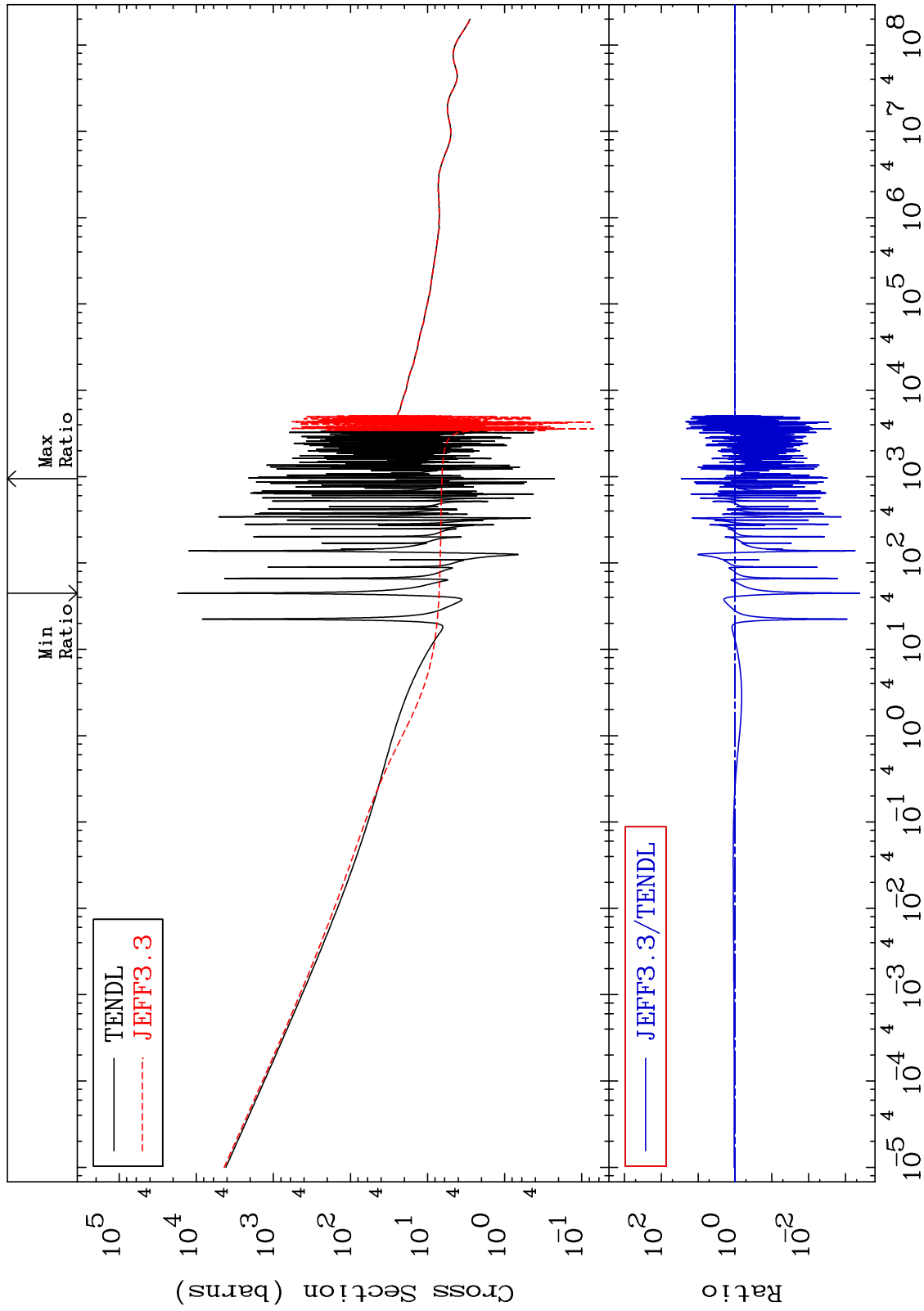
E.Mail: redcullen1@comcast.net
Web: redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 7631

Total
Cross Section

76-0s-186
-99.96 To 2769. %



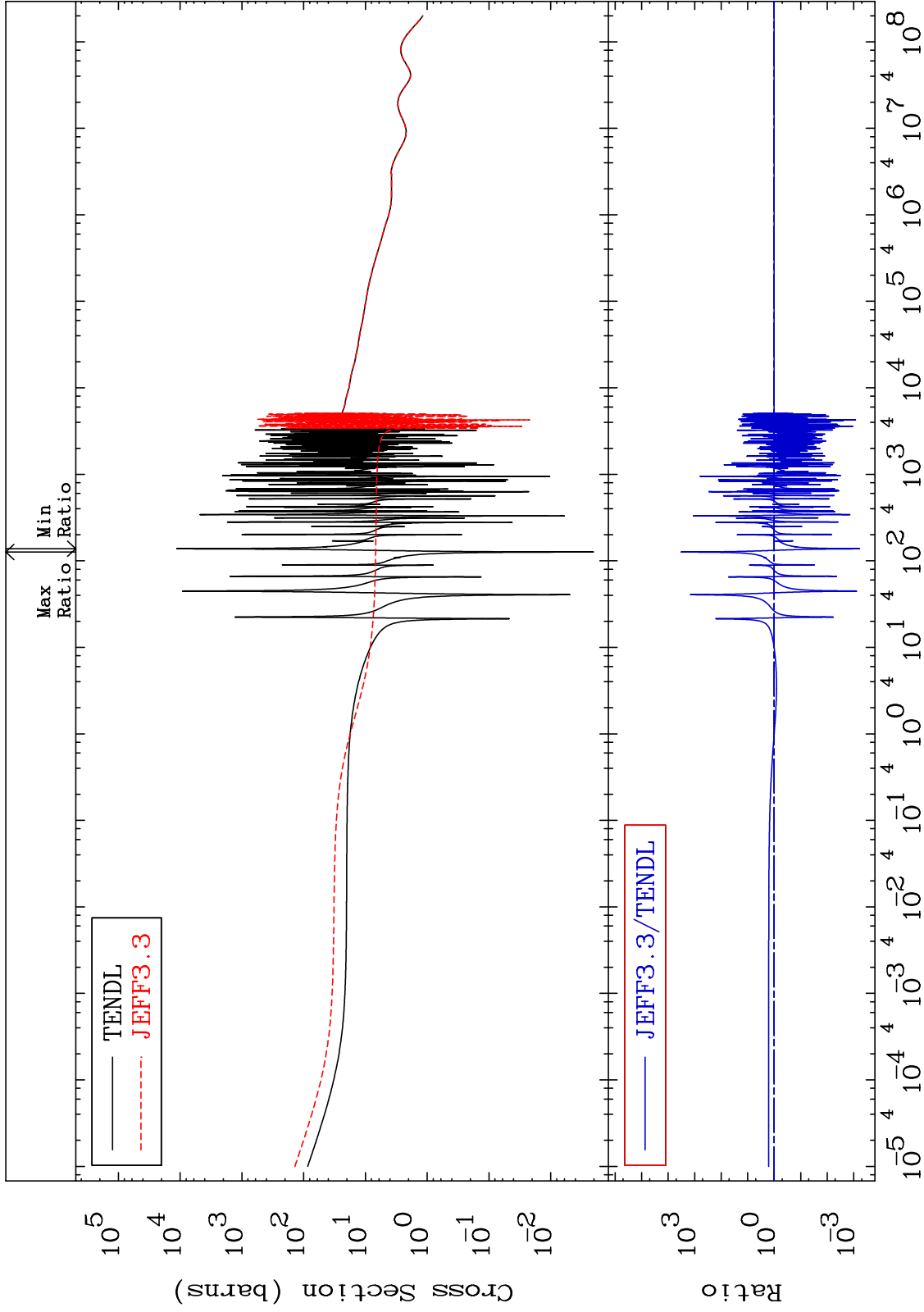
Incident Energy (eV)

76-0s-186

MAT 7631

Elastic
Cross Section

76-Os-186
-99.94 To 9999. %

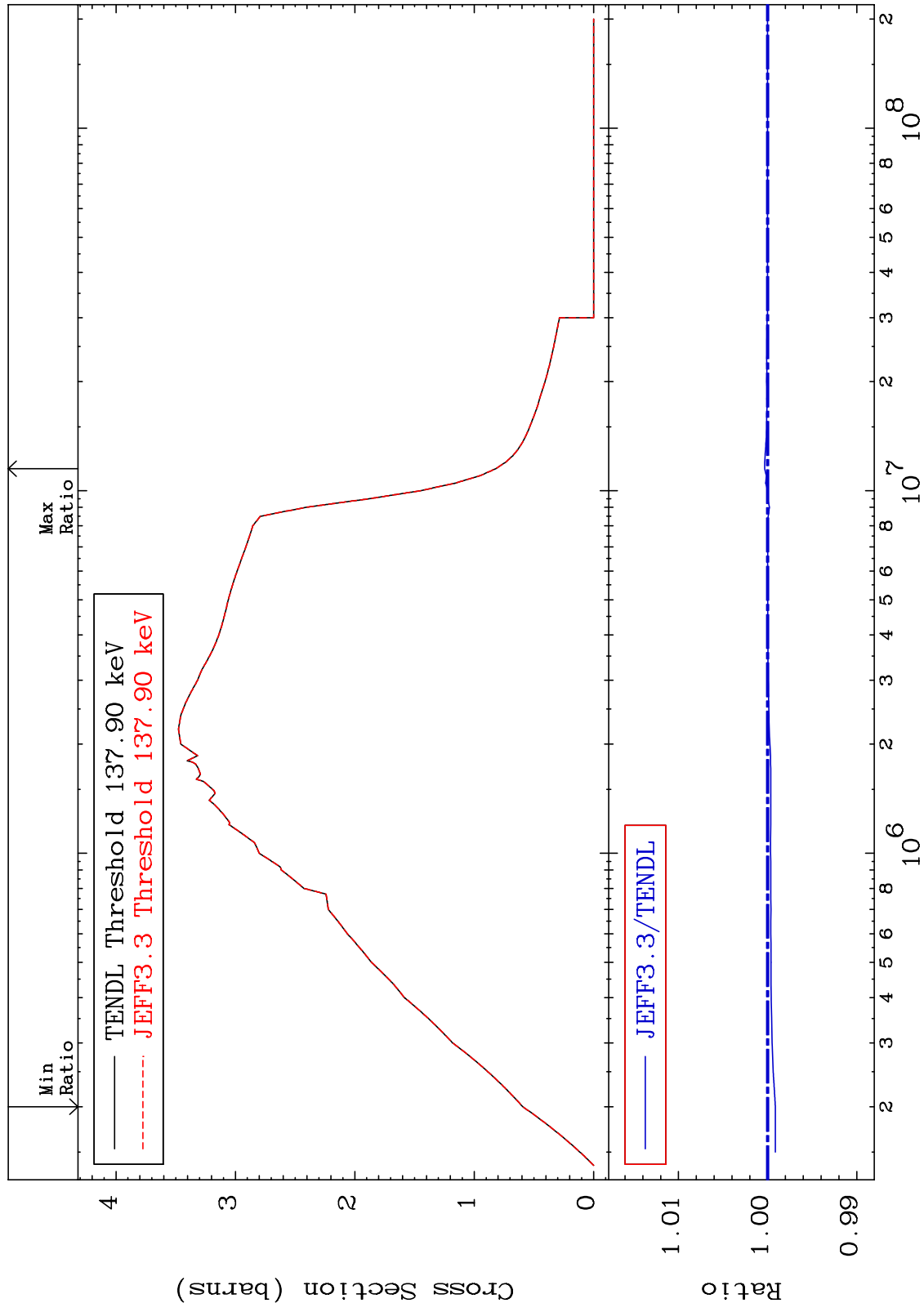


2

Incident Energy (eV)

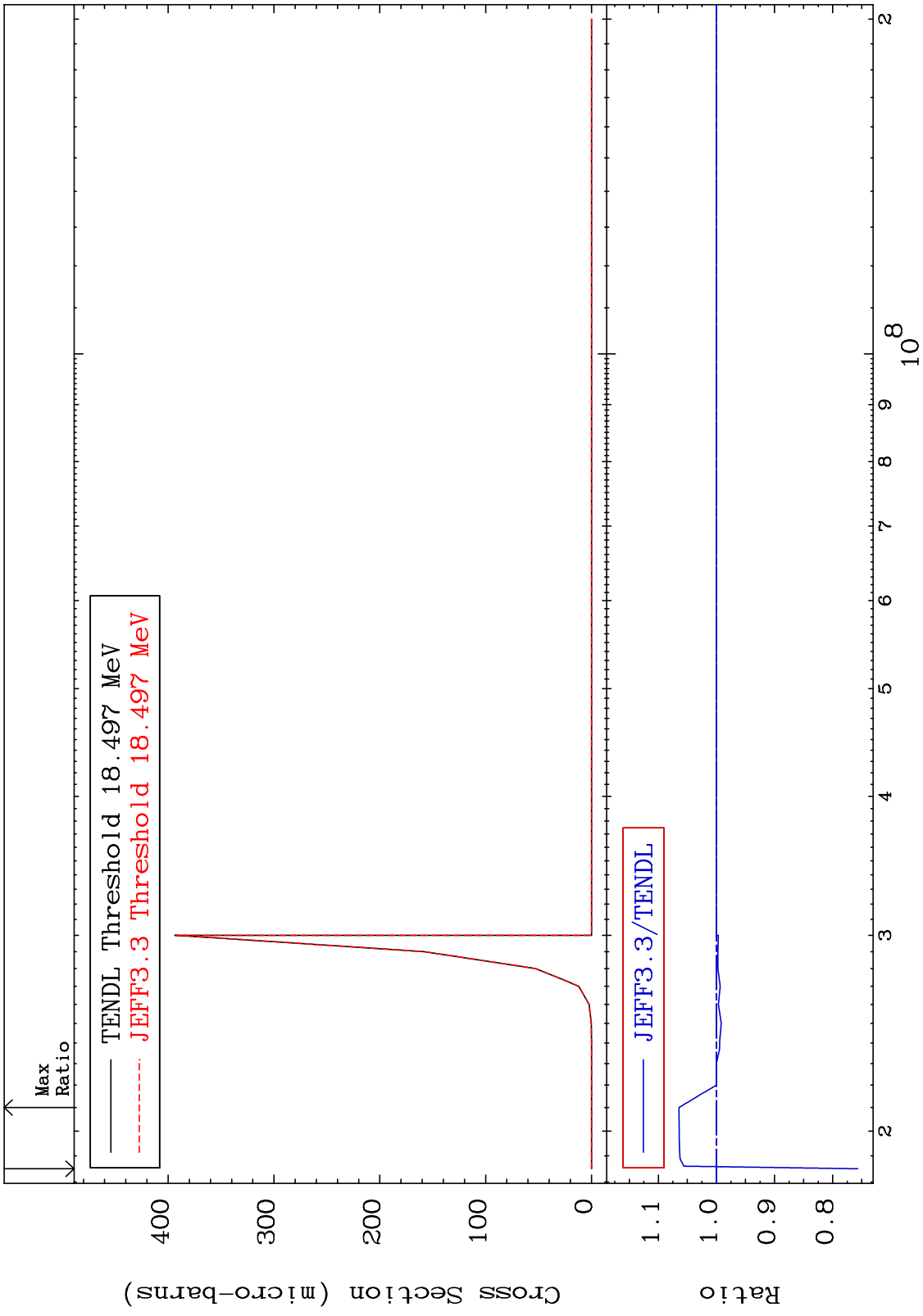
76-Os-186

MAT 7631 Inelastic Cross Section 76-0s-186 -0.087 To 0.034 %

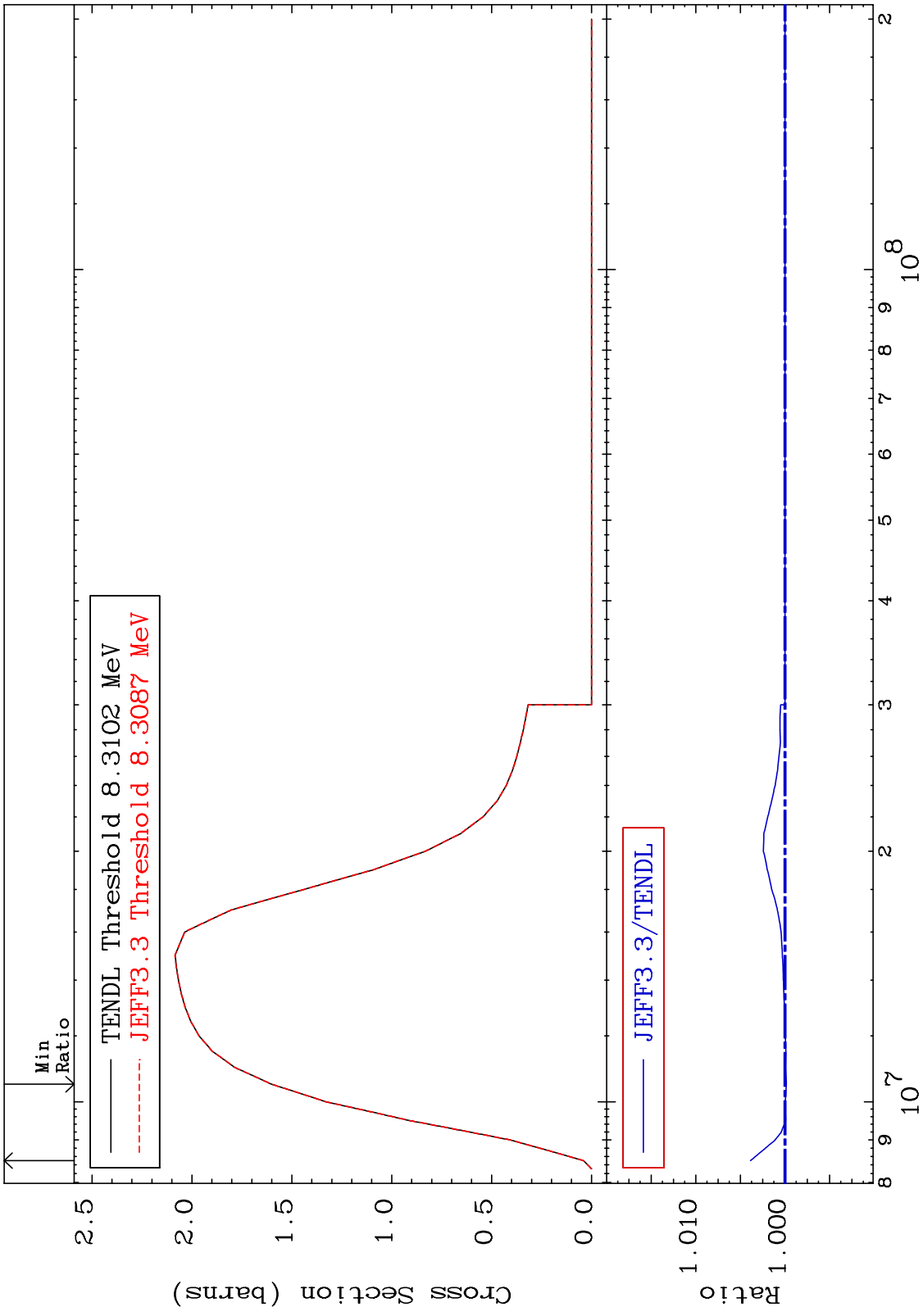


3 76-0s-186

MAT 7631 (n,2n) d 76-0s-186
 Cross Section -24.33 To 6.436 %

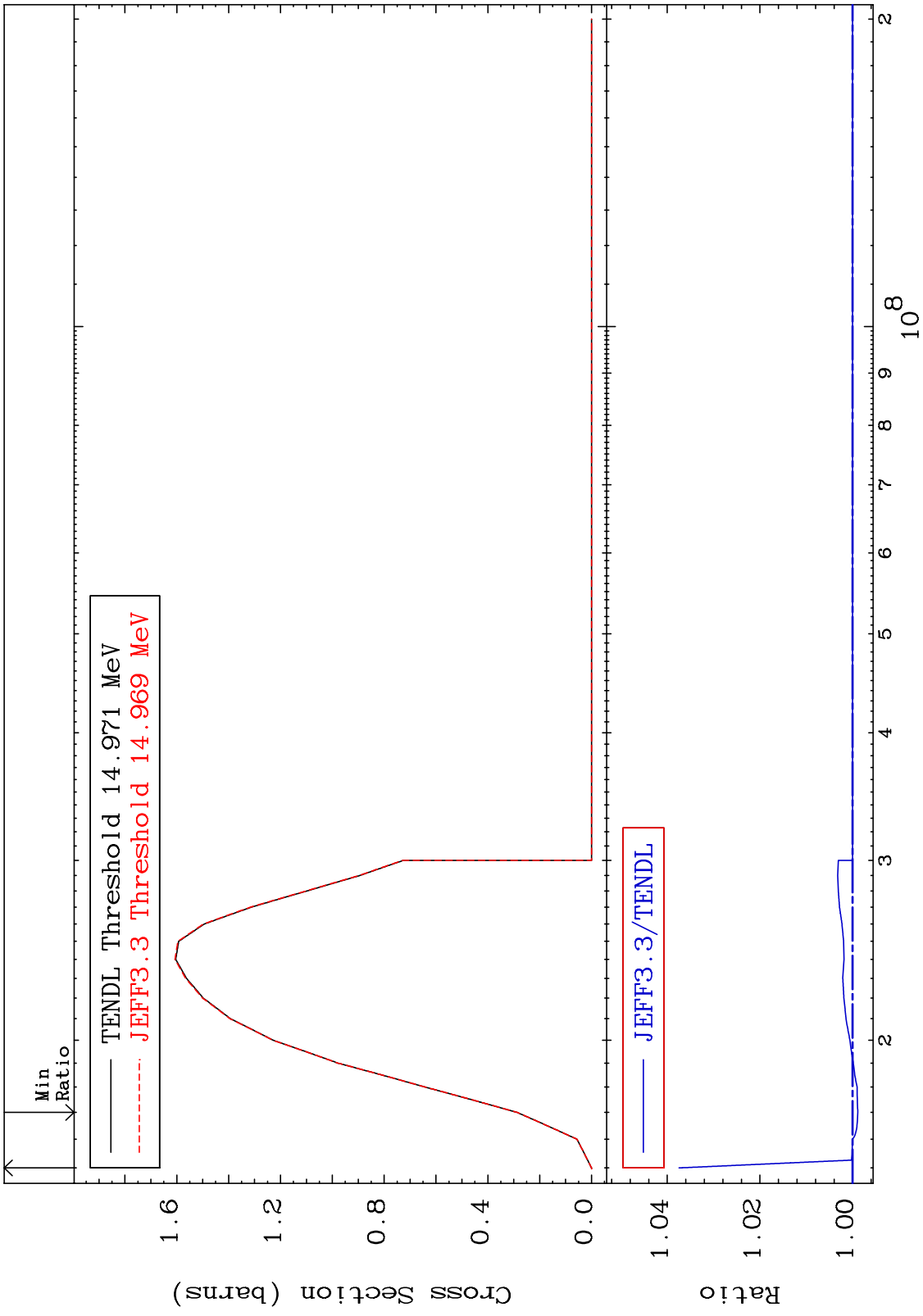


MAT 7631 (n,2n) Cross Section 76-0s-186
-0.014 To 0.387 %



5 Incident Energy (eV) 76-0s-186

MAT 7631 (n,3n) 76-0s-186
Cross Section -0.113 To 3.745 %



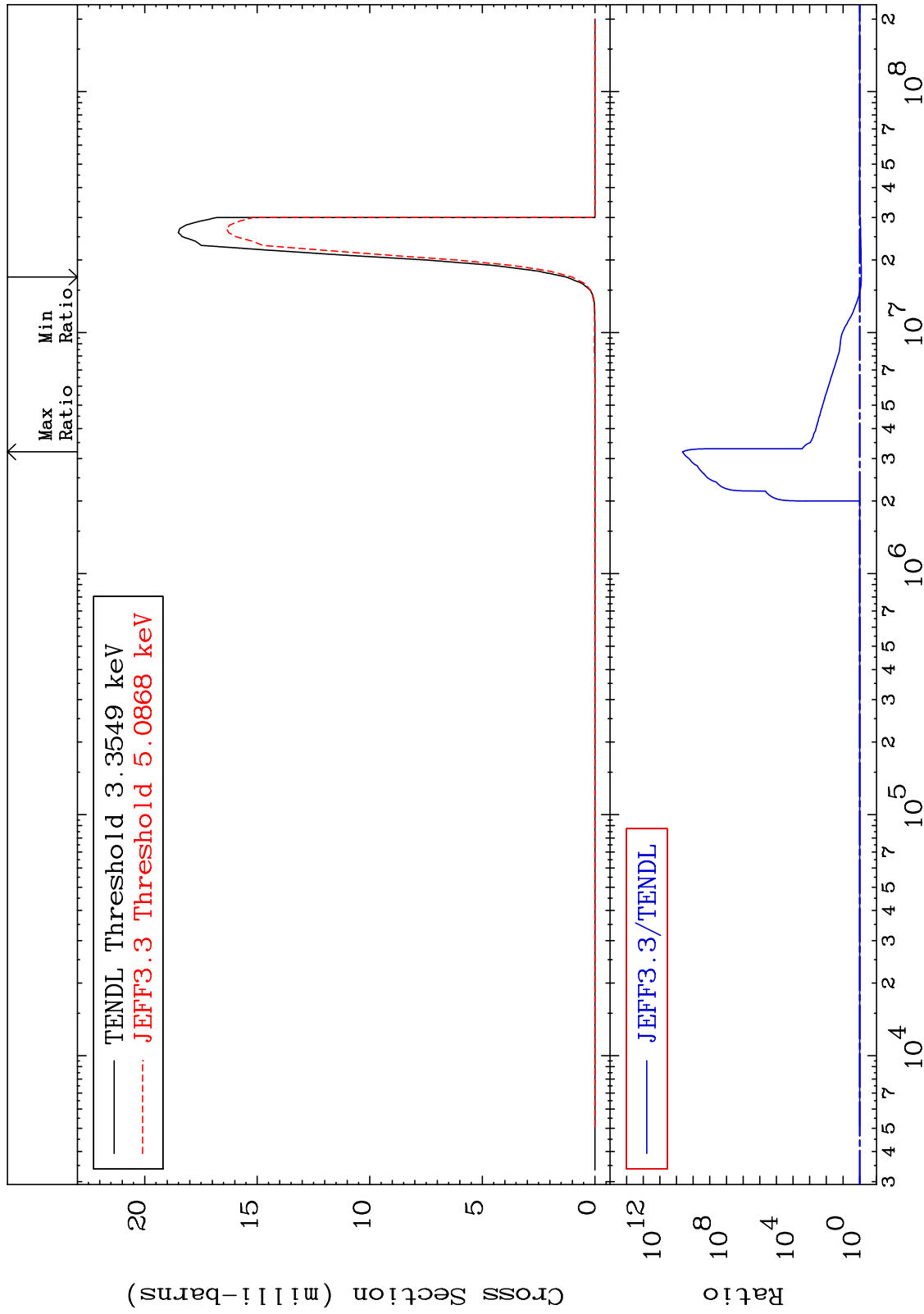
MAT 7631

(n, n') α

76-Os-186

-20.37 To 9999. %

Cross Section

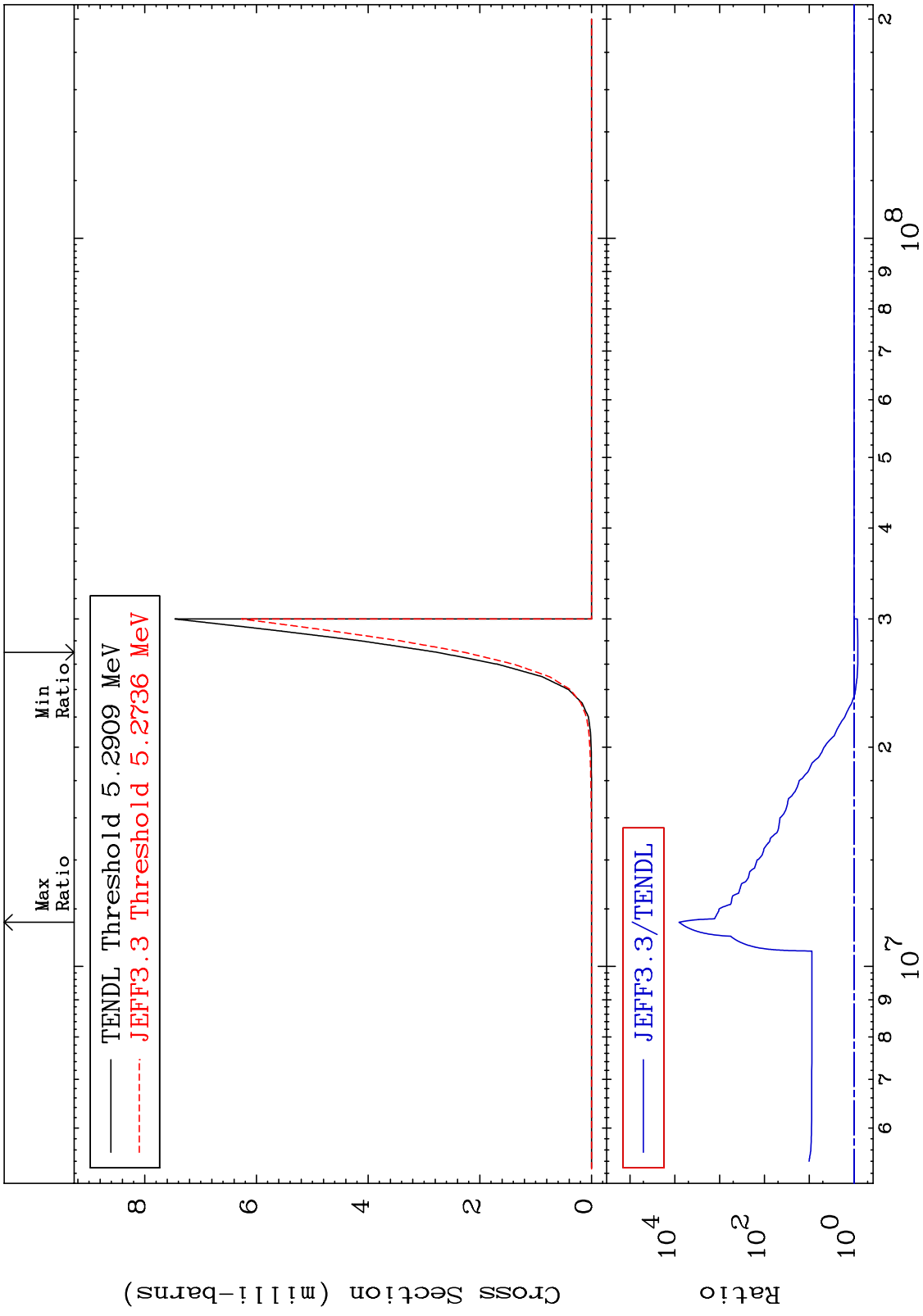


7

Incident Energy (eV)

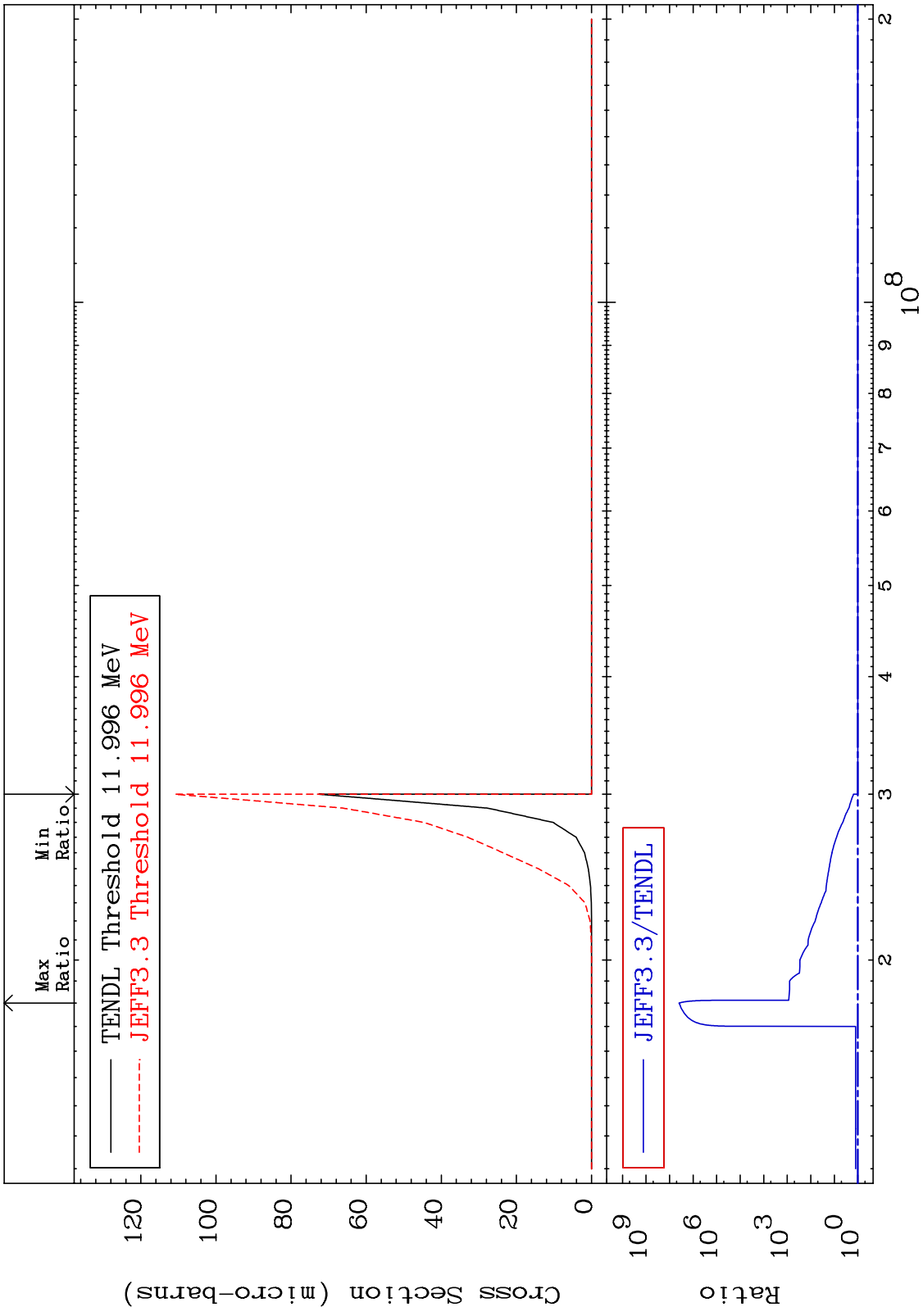
76-Os-186

MAT 7631 $(n, 2n) \alpha$ 76-Os-186
 Cross Section -17.65 To 9999. %

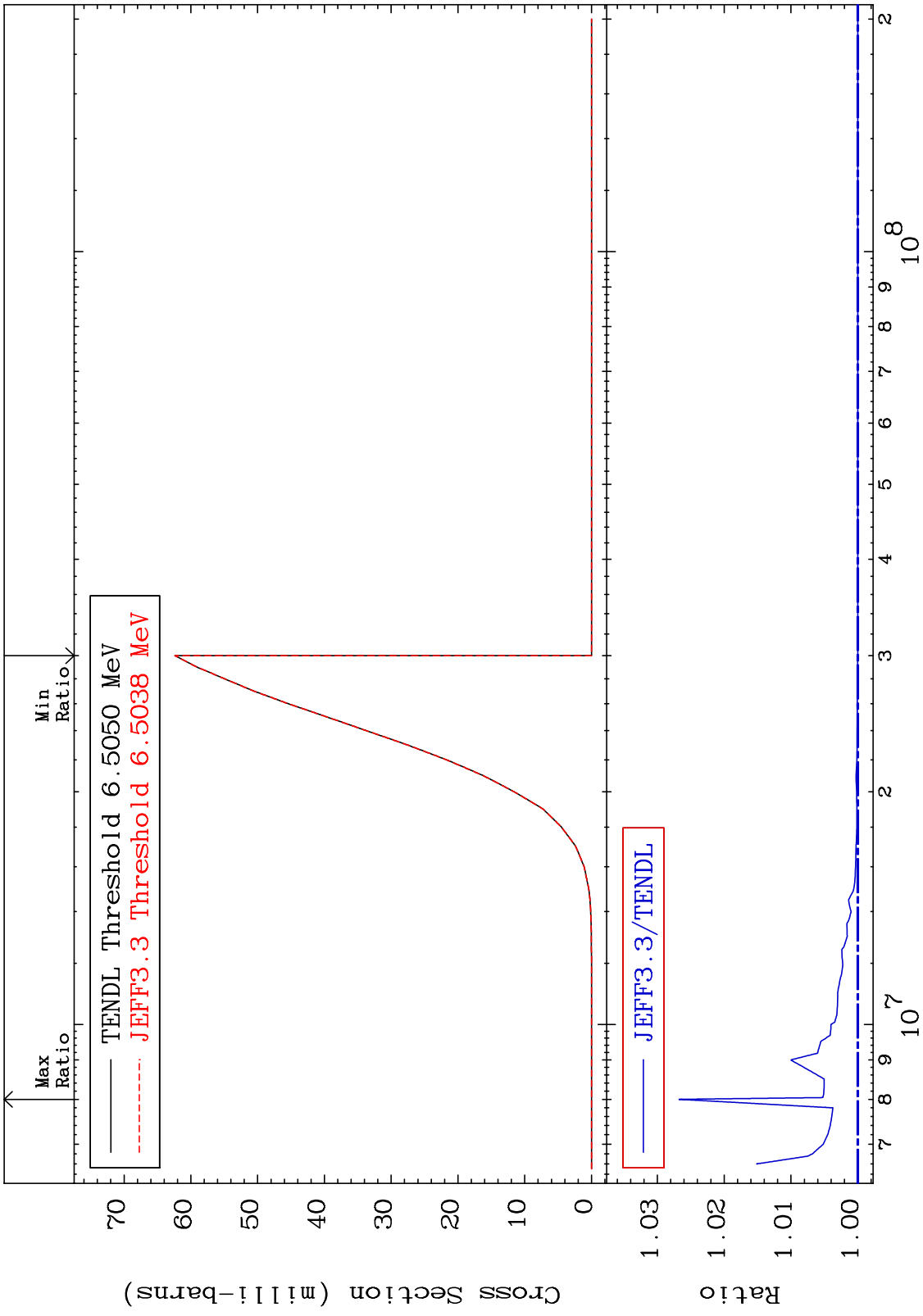


8 Incident Energy (eV) 76-Os-186

MAT 7631 (n,3n) α 76-Os-186
 Cross Section 0.000 To 9999. %

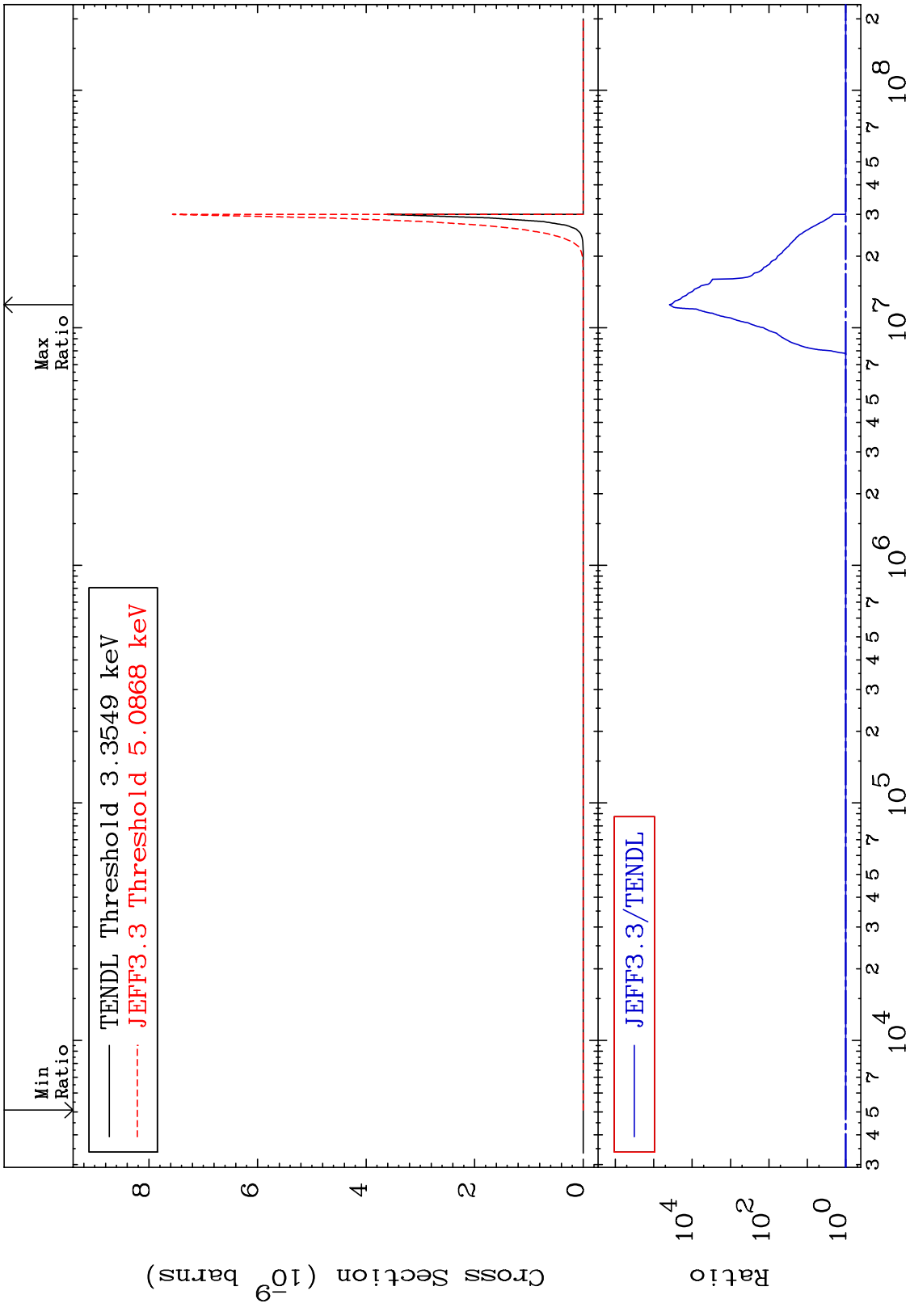


MAT 7631 (n,n') p Cross Section 76-Os-186 To 2.675 %

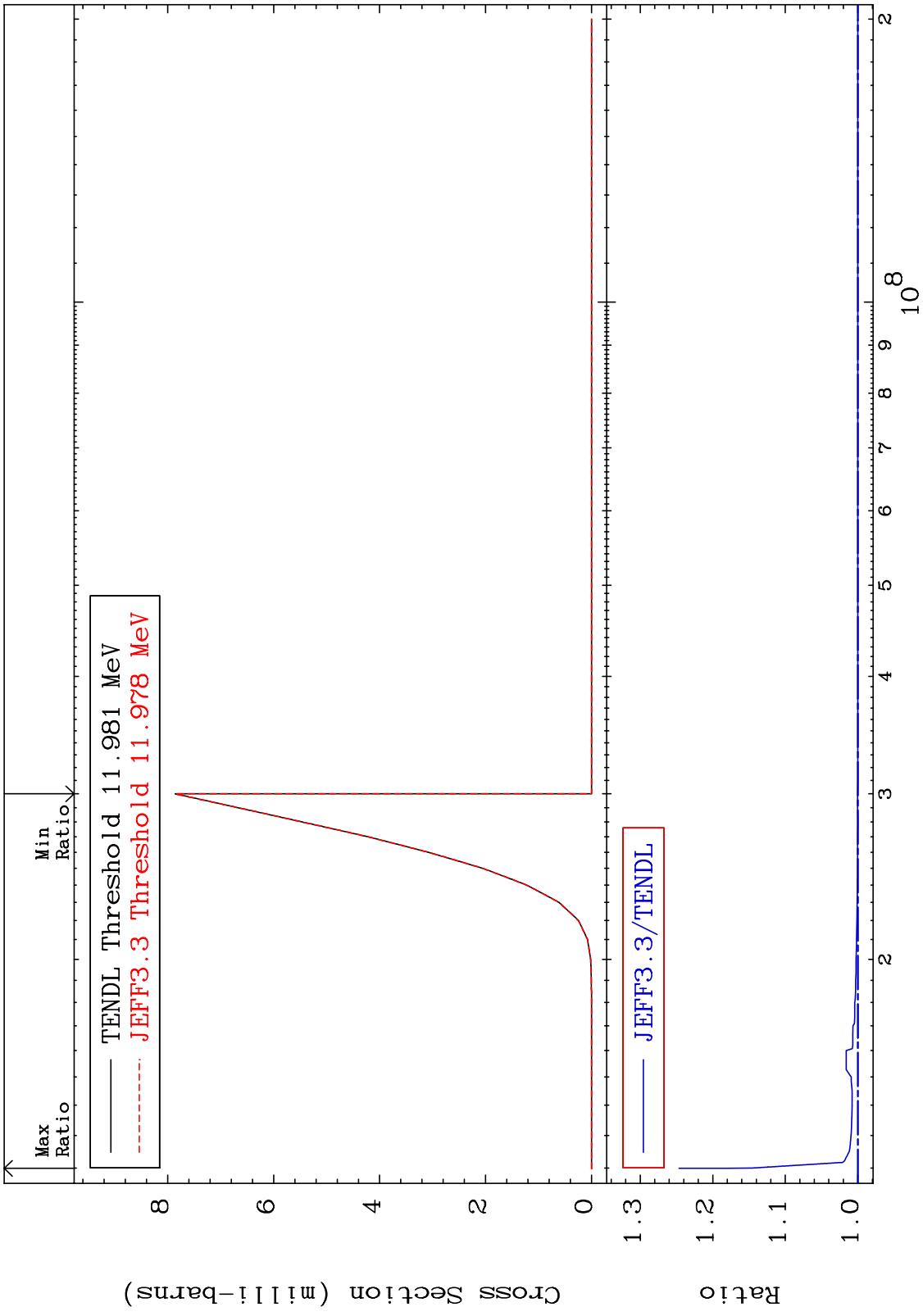


10 Incident Energy (eV) 76-Os-186

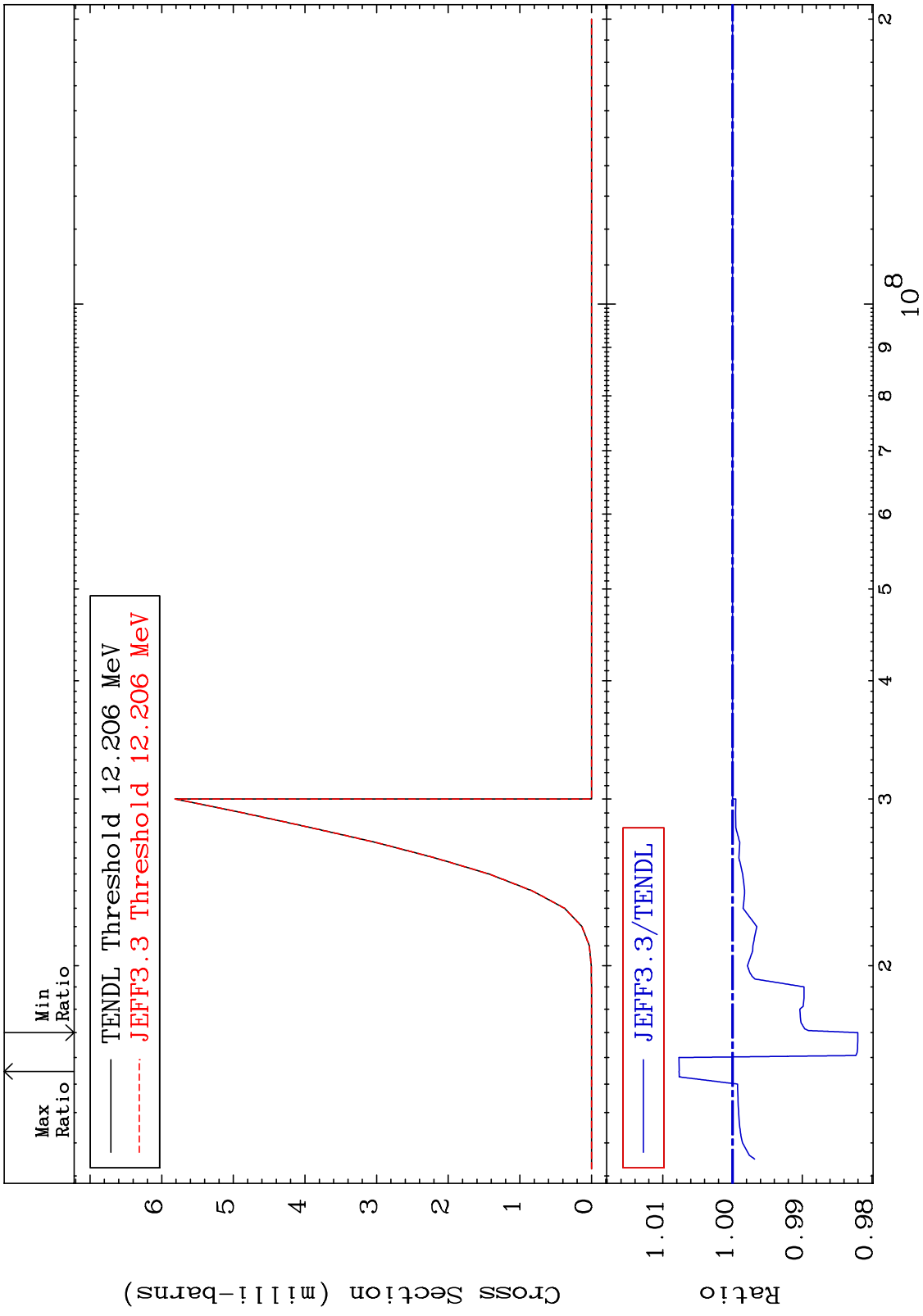
MAT 7631 (n,n') 2α Cross Section 76-Os-186 To 9999. %



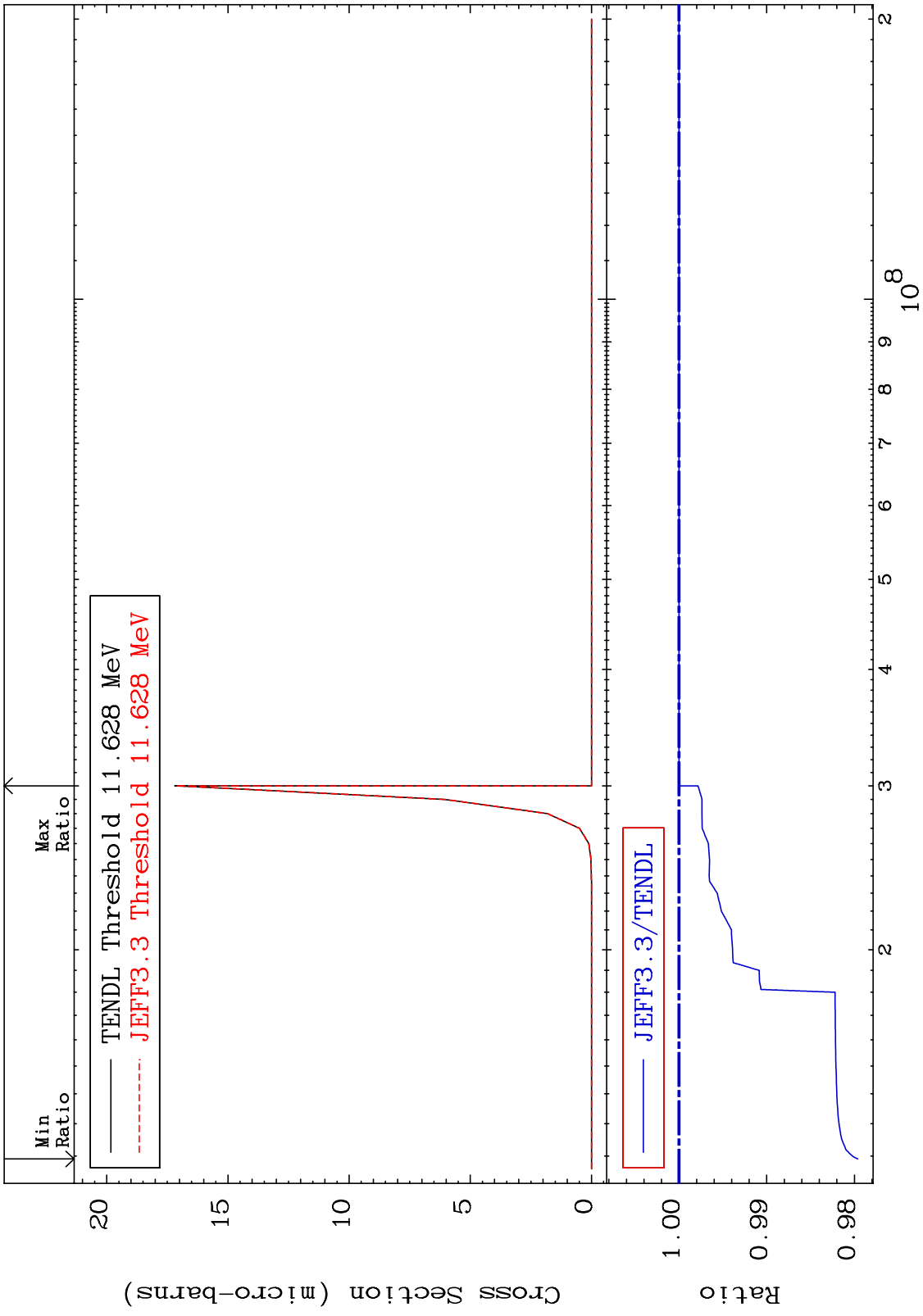
MAT 7631 (n, n') d 76-Os-186
 Cross Section 0.000 To 24.65 %



MAT 7631 (n, n') t 76-0s-186
 Cross Section -1.798 To 0.768 %



MAT 7631 (n, n') He-3 76-0s-186
 Cross Section -2.039 To 0.000 %



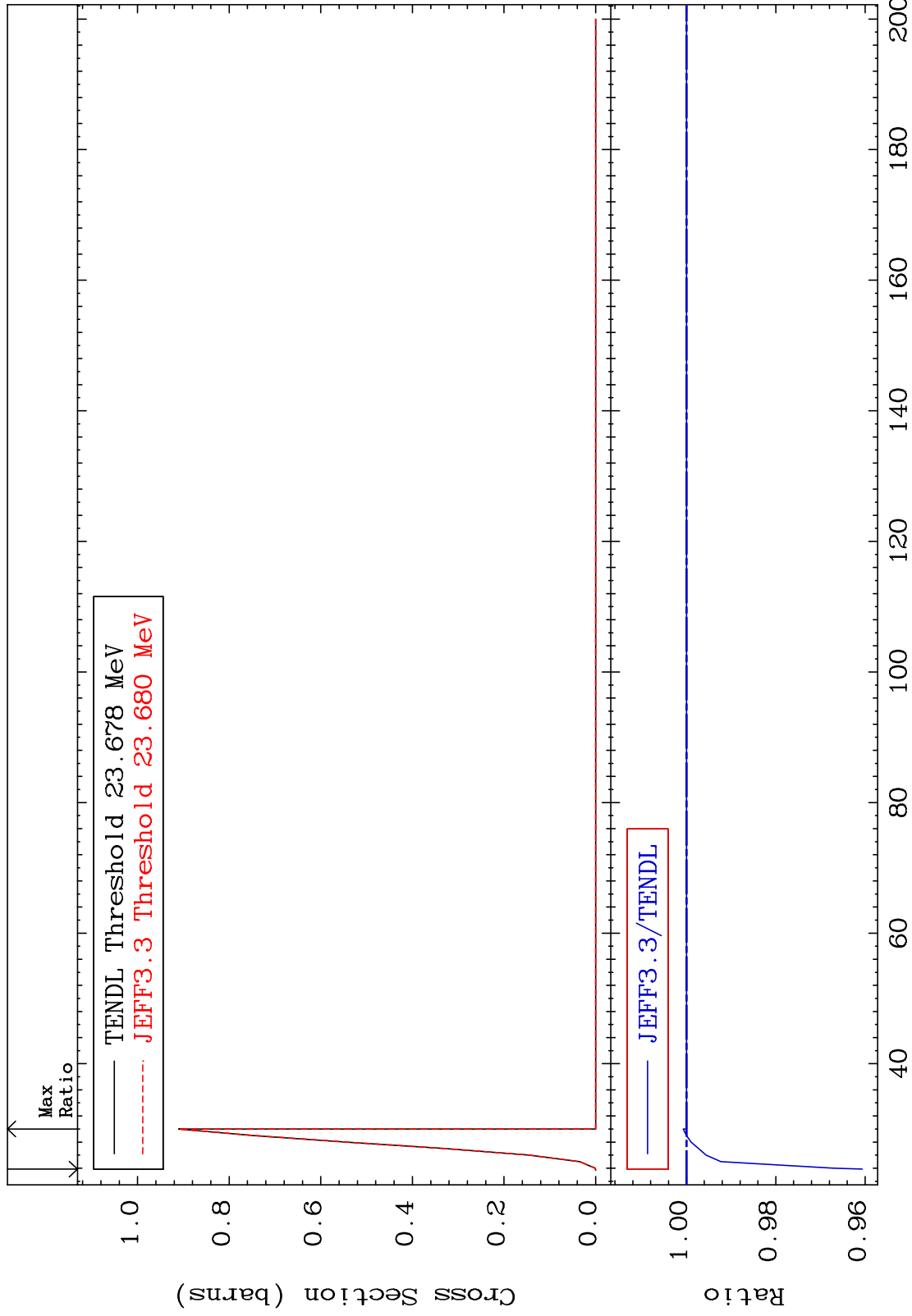
MAT 7631

(n,4n)

76-0s-186

Cross Section

-3.938 To 0.071 %

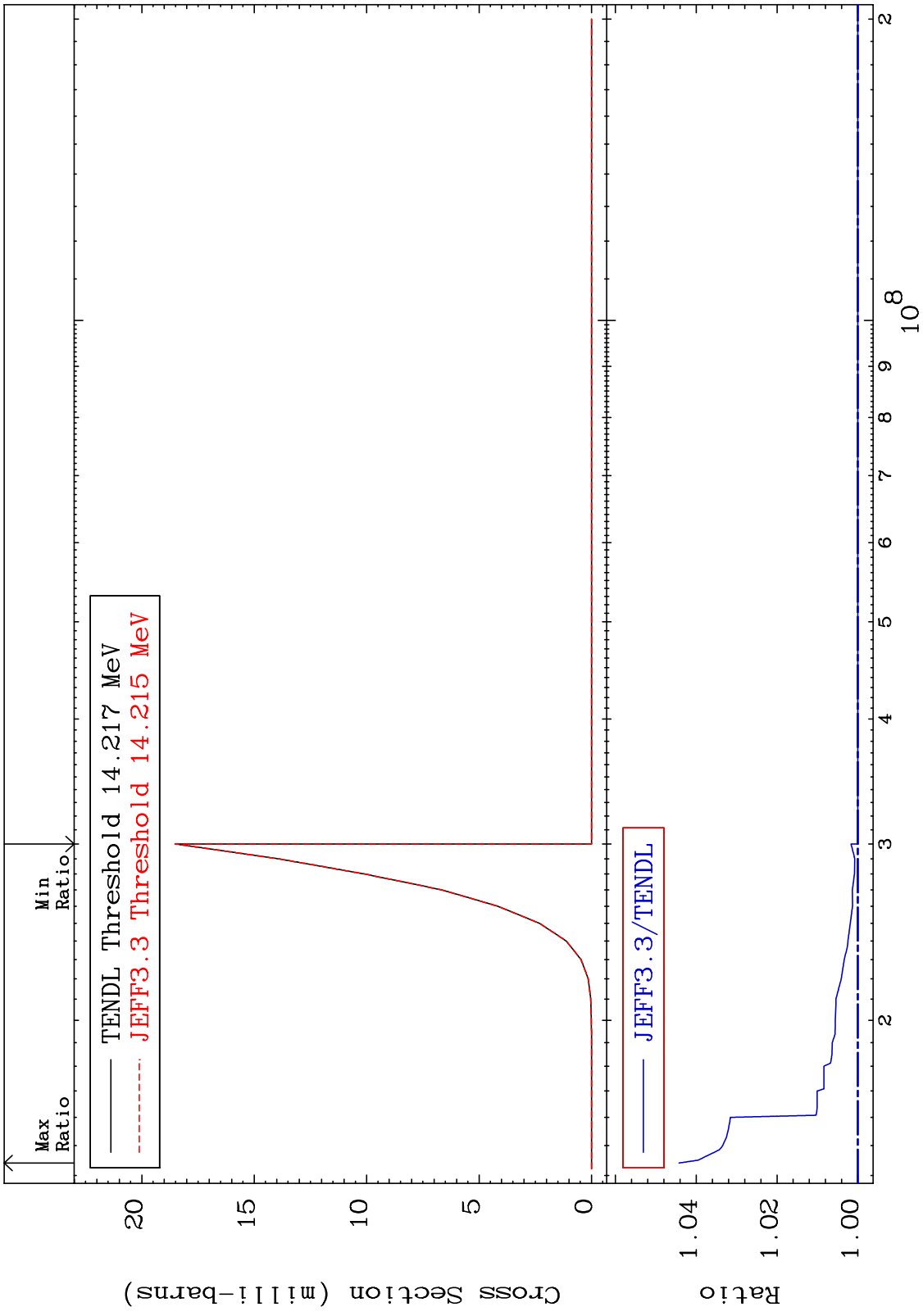


15

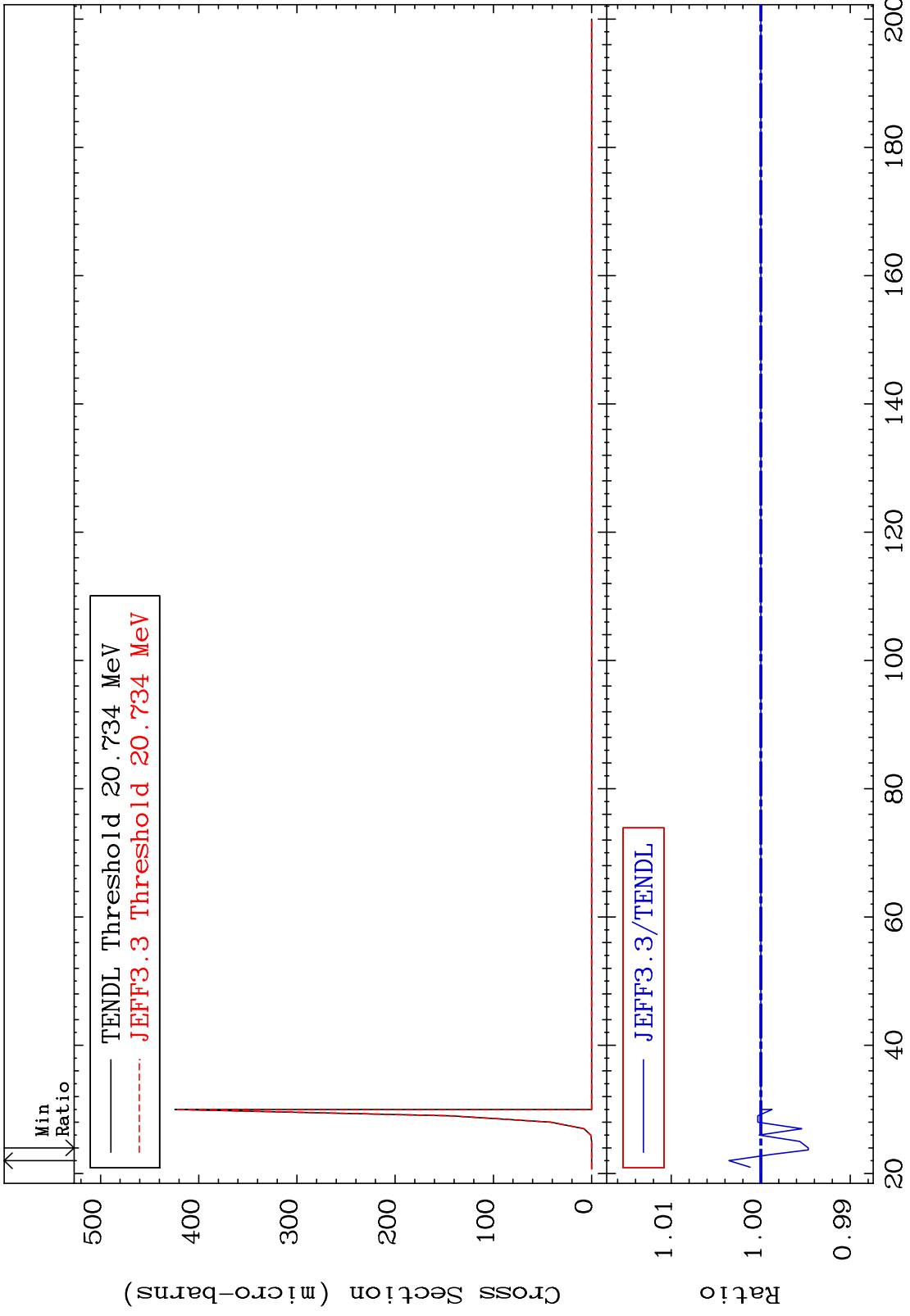
Incident Energy (MeV)

76-0s-186

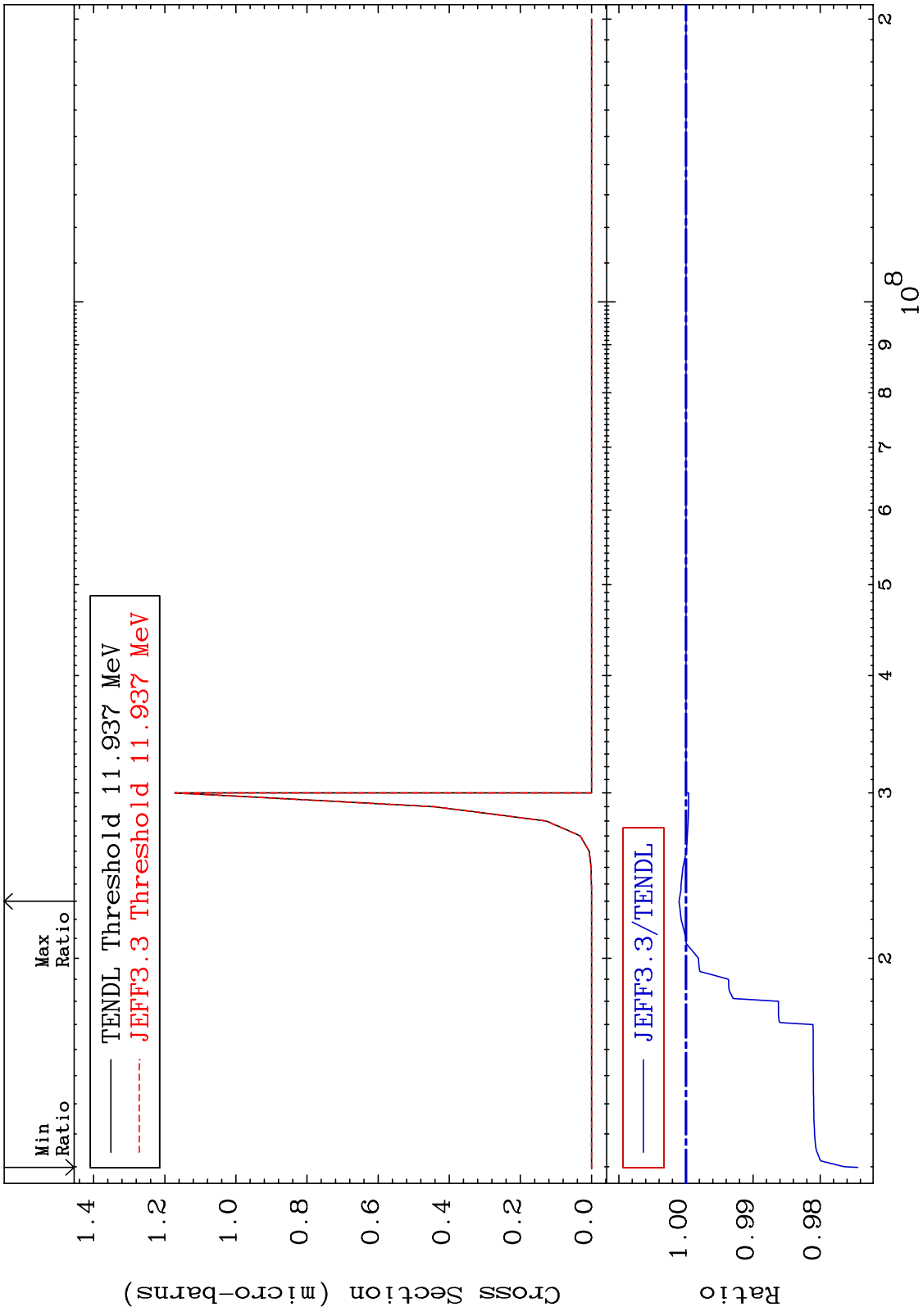
MAT 7631 (n,2n) p 76-Os-186
 Cross Section 0.000 To 4.425 %



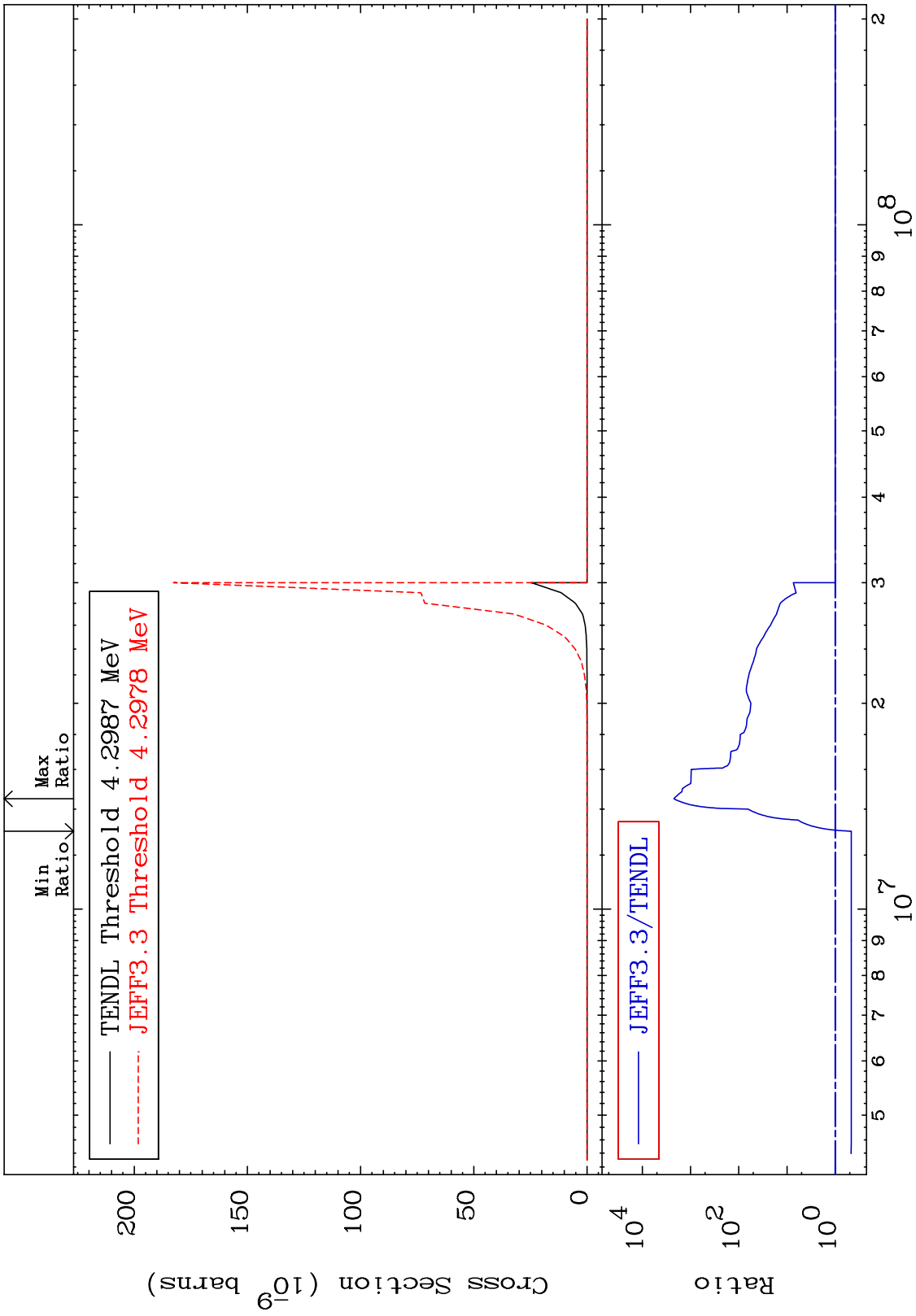
MAT 7631 (n,3n) p 76-Os-186
Cross Section -0.530 To 0.357 %



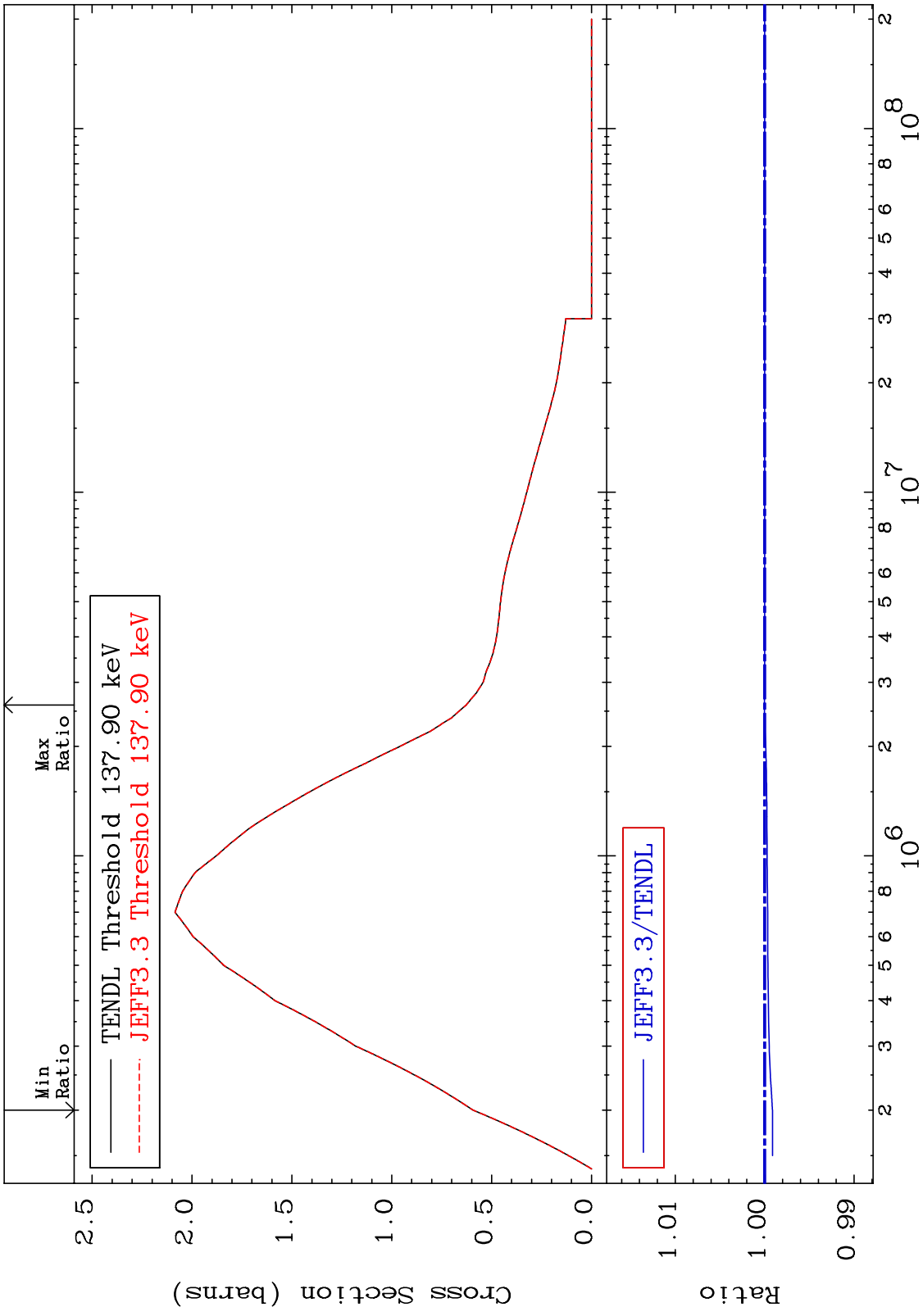
MAT 7631 (n,2n) p 76-0s-186
 Cross Section -2.561 To 0.103 %



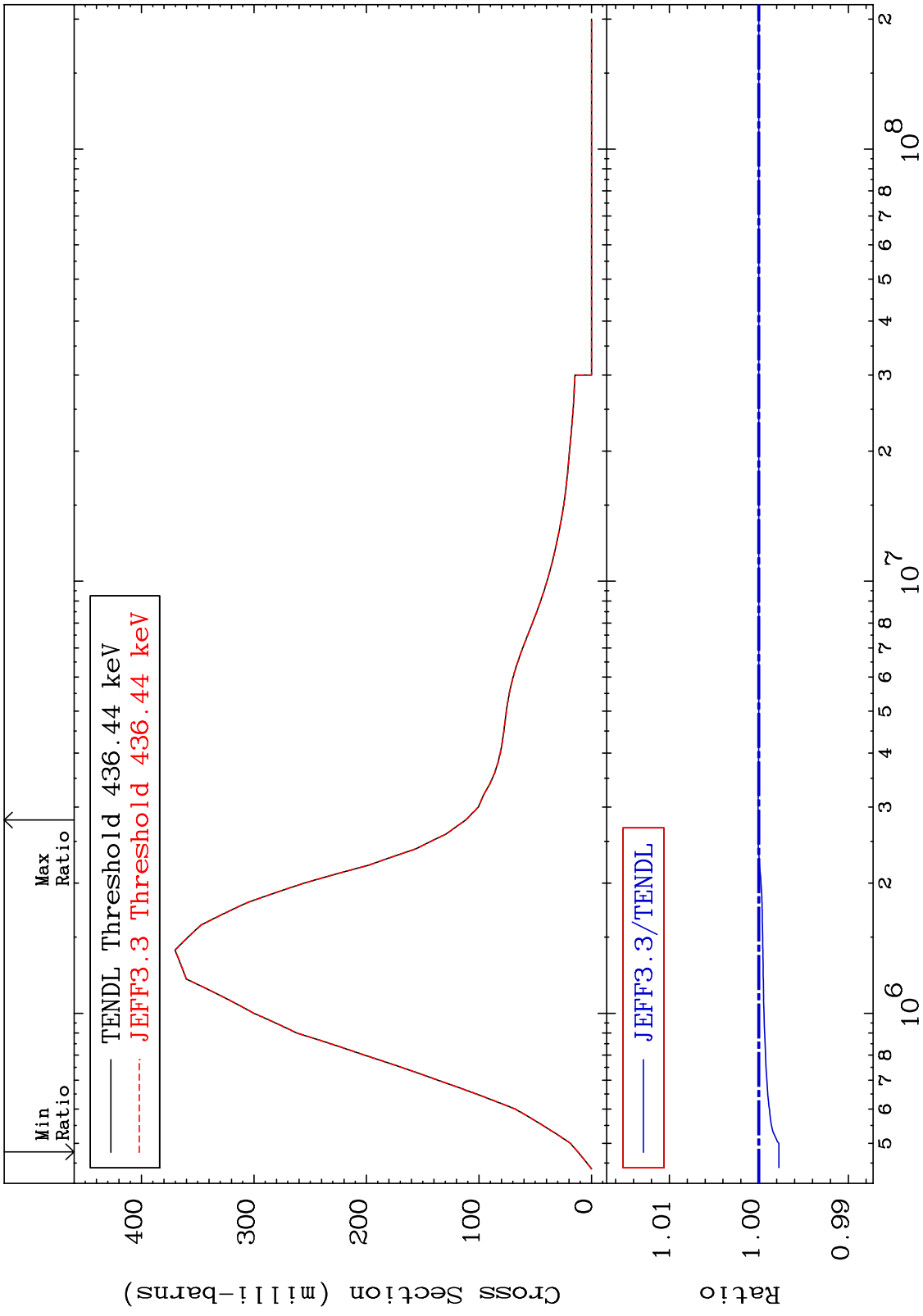
MAT 7631 (n,n') p α 76-0s-186
 Cross Section -53.64 To 9999. %



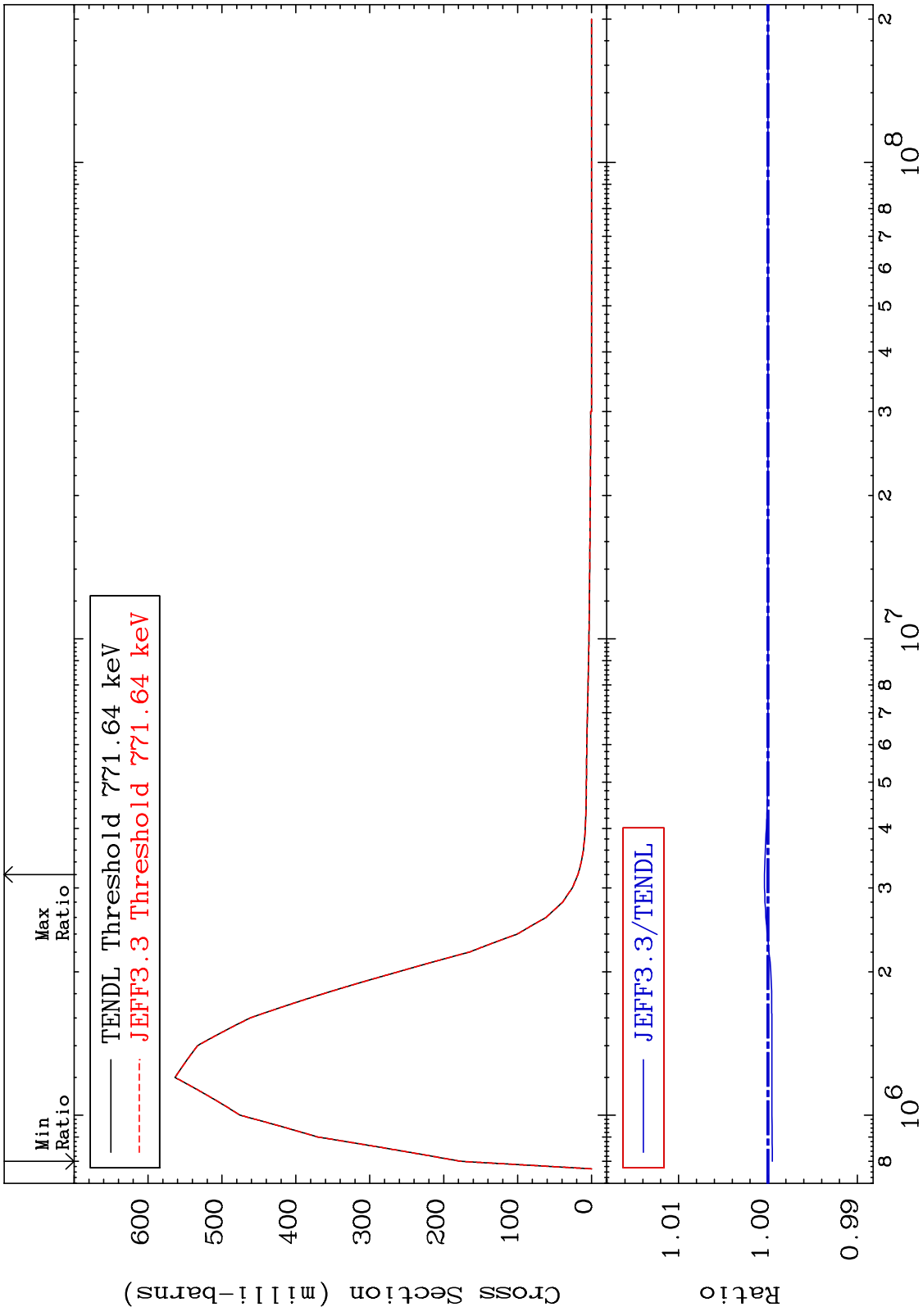
MAT 7631 MT= 51 (n,n') Level Cross Section 76-0s-186
 -0.087 To 0.003 %



MAT 7631 MT= 52 (n,n') Level Cross Section 76-0s-186
 -0.224 To 0.009 %

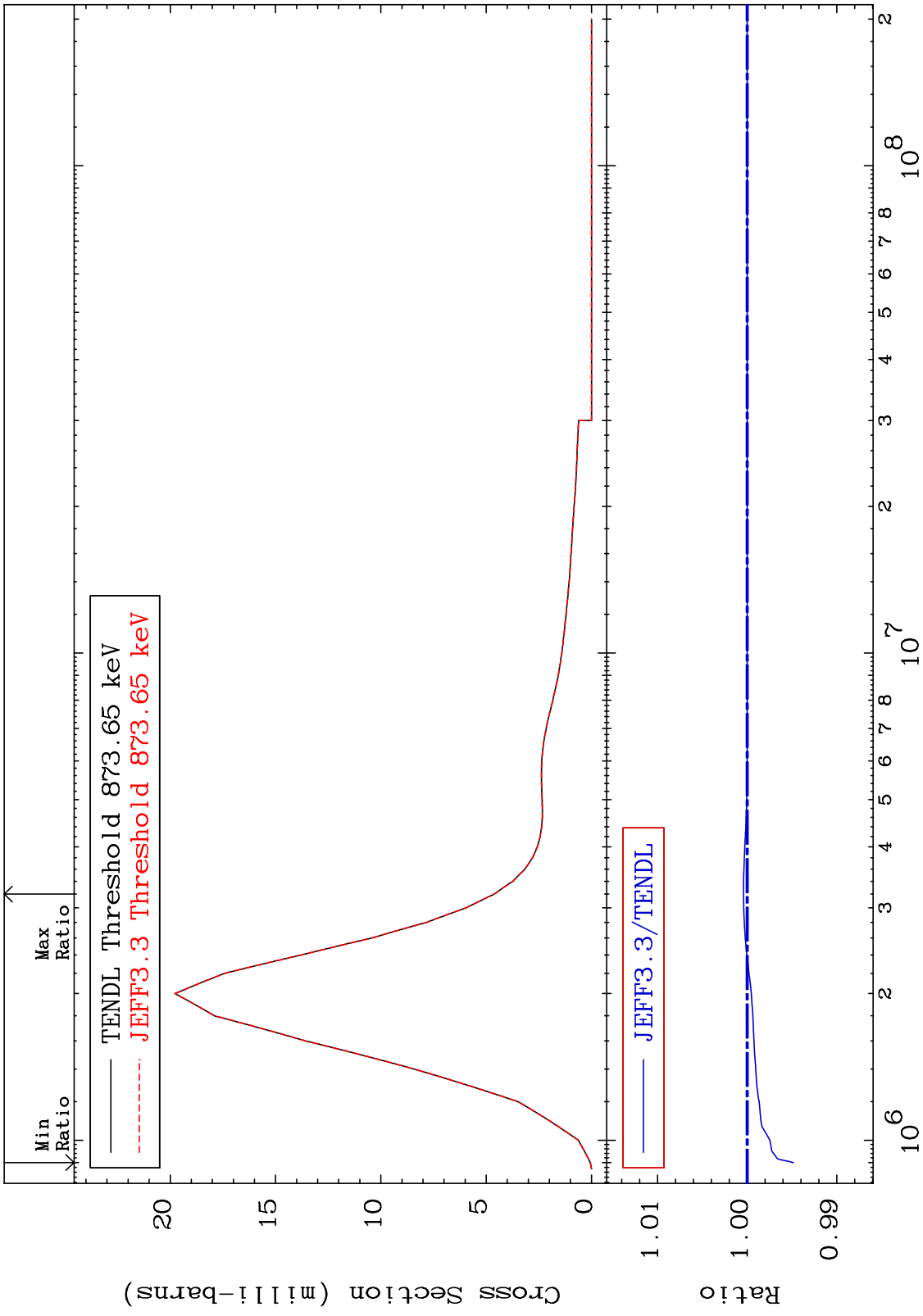


MAT 7631 MT= 53 (n,n') Level Cross Section 76-0s-186
 -0.049 To 0.039 %



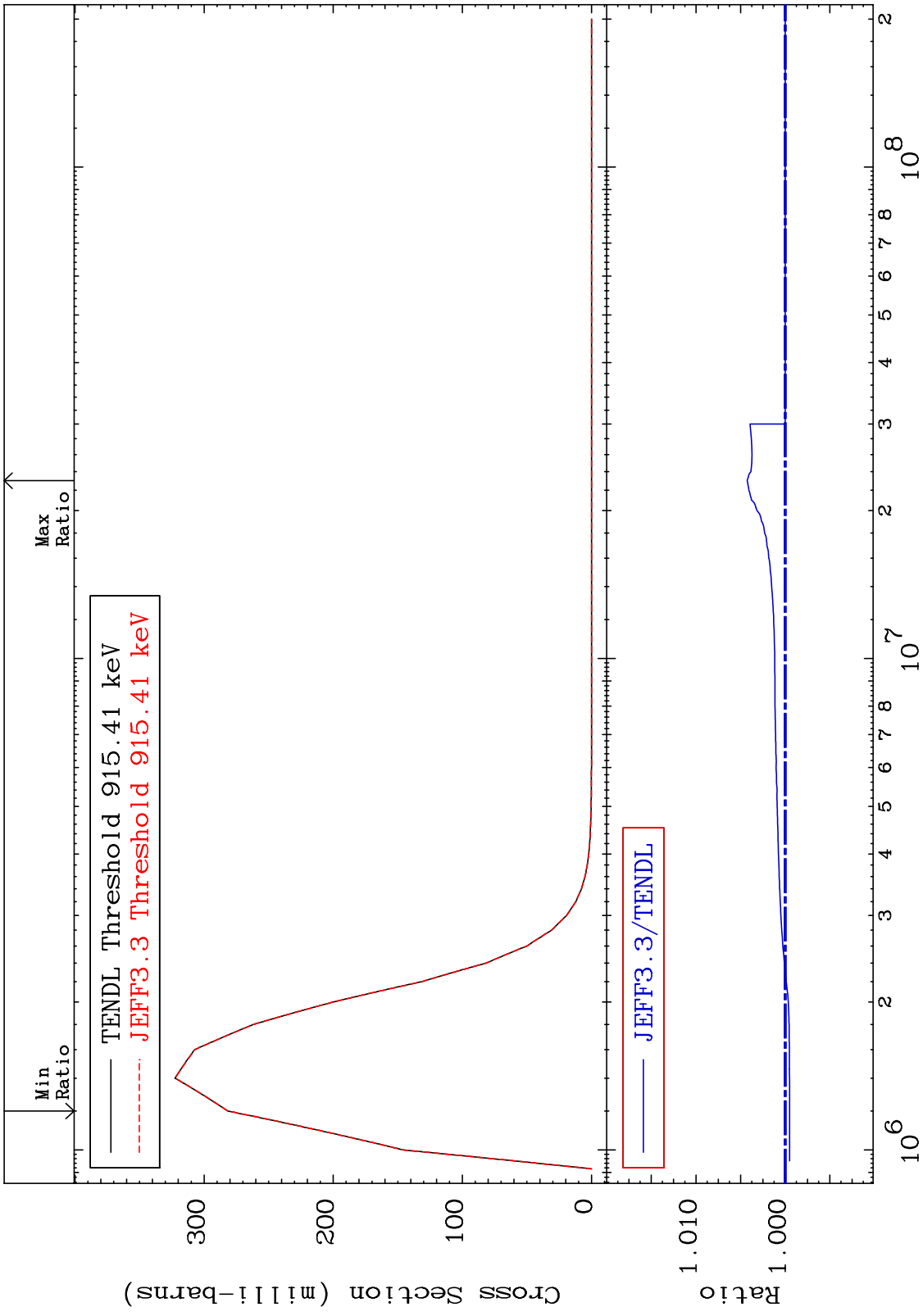
Incident Energy (eV) 76-0s-186

MAT 7631 MT= 54 (n,n') Level Cross Section 76-0s-186
-0.515 To 0.043 %

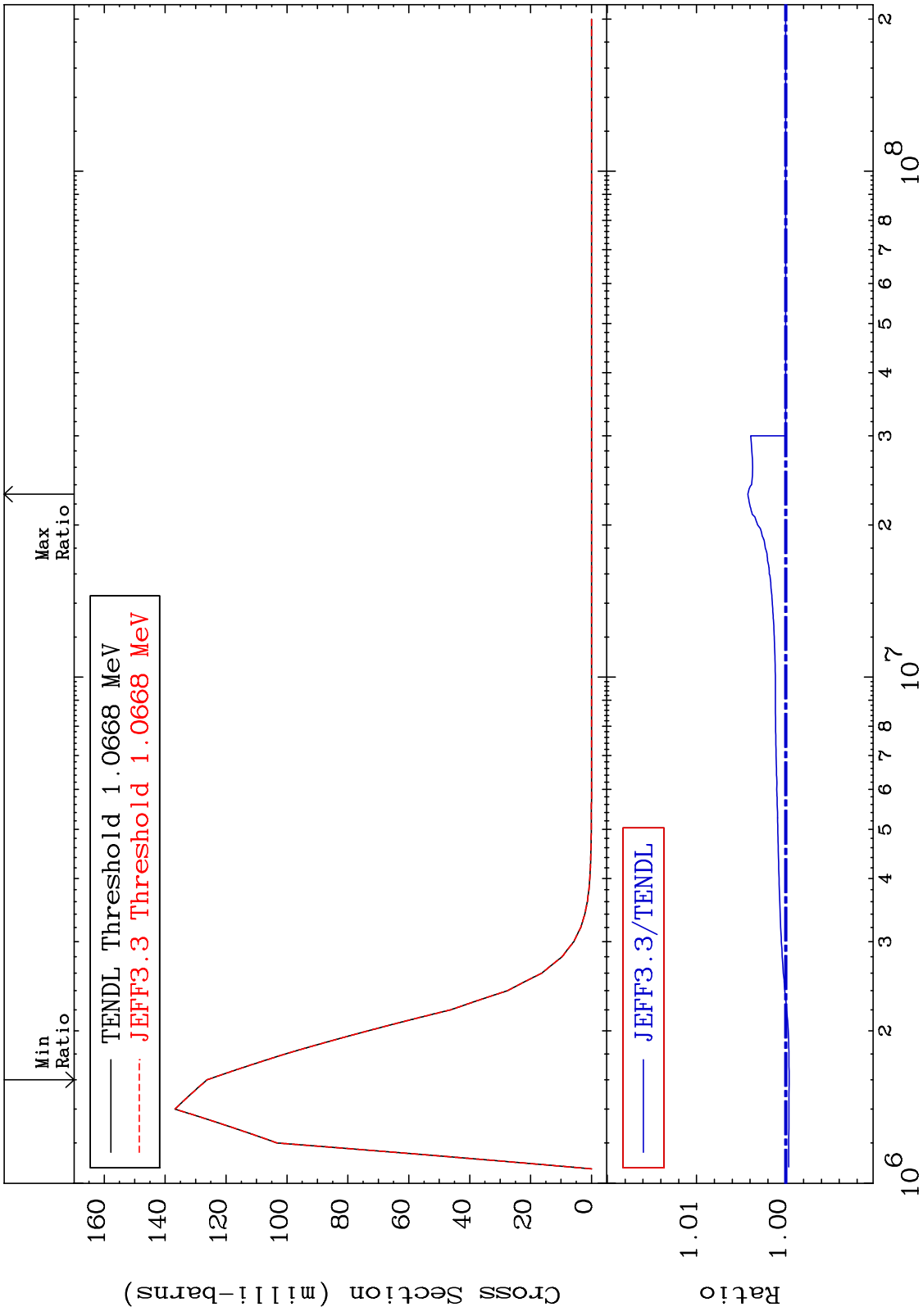


23 76-0s-186

MAT 7631 MT= 55 (n,n') Level Cross Section 76-0s-186
 -0.050 To 0.425 %

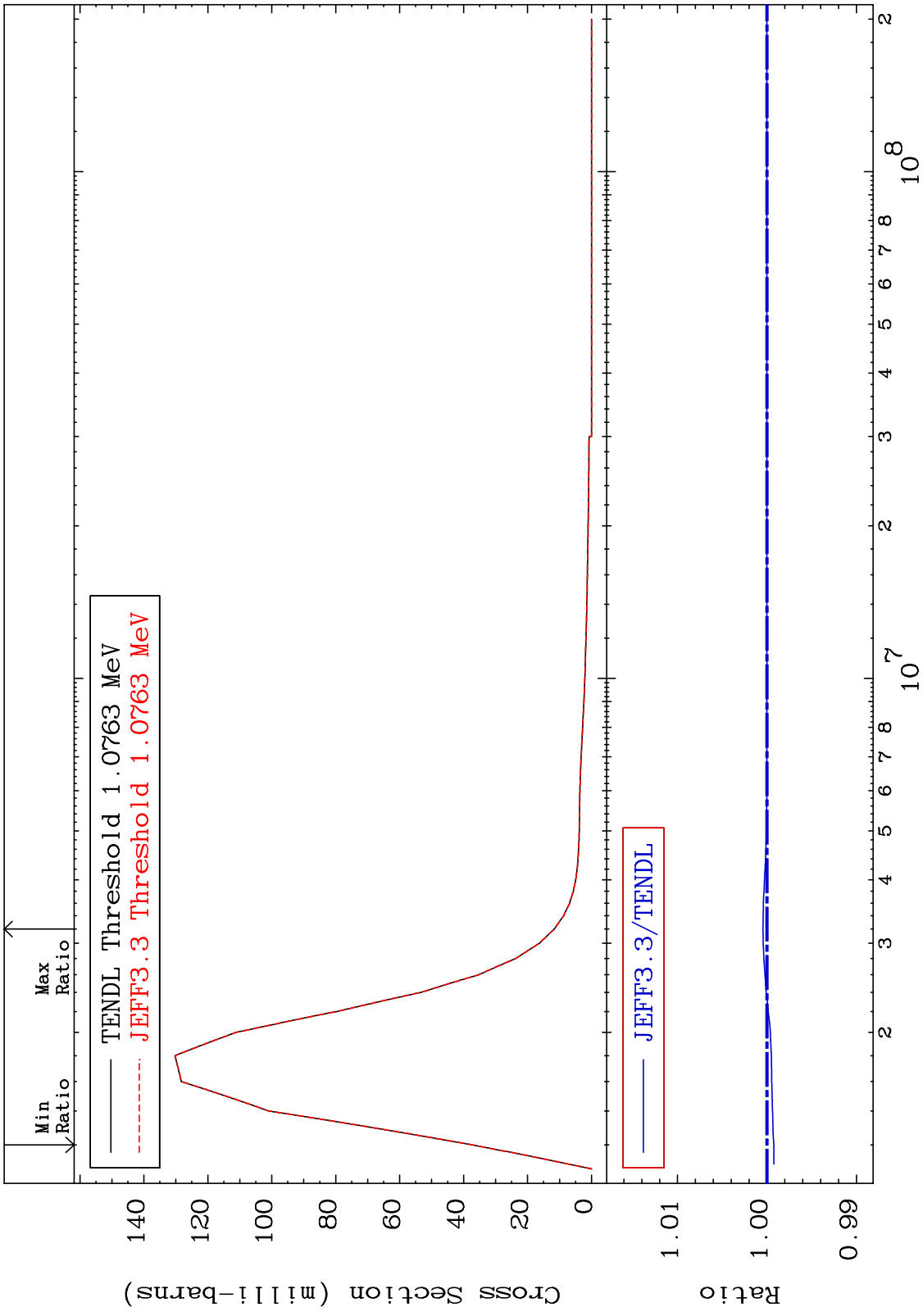


MAT 7631 MT= 56 (n,n') Level Cross Section 76-0s-186
-0.037 To 0.425 %

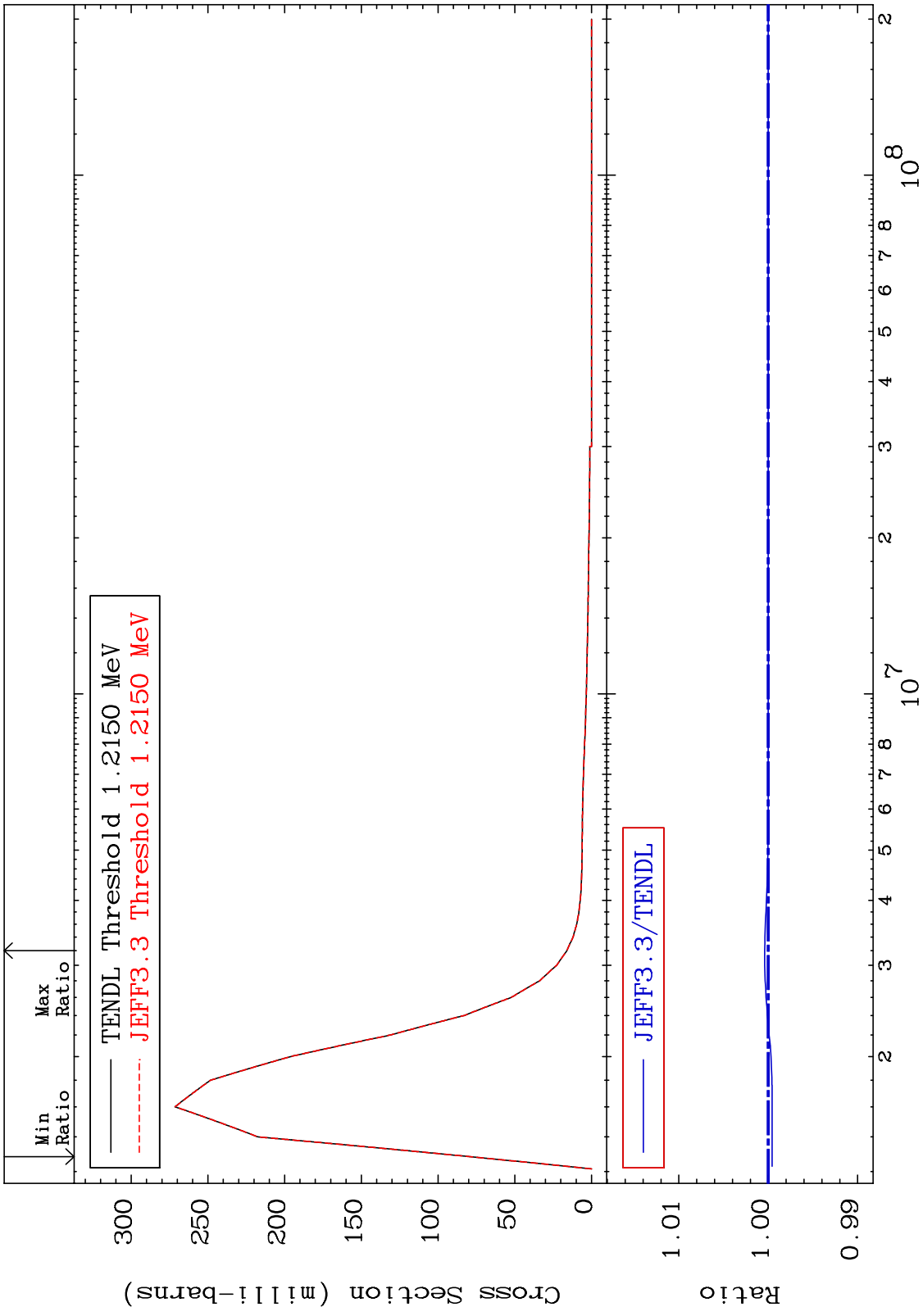


25 Incident Energy (eV) 76-0s-186

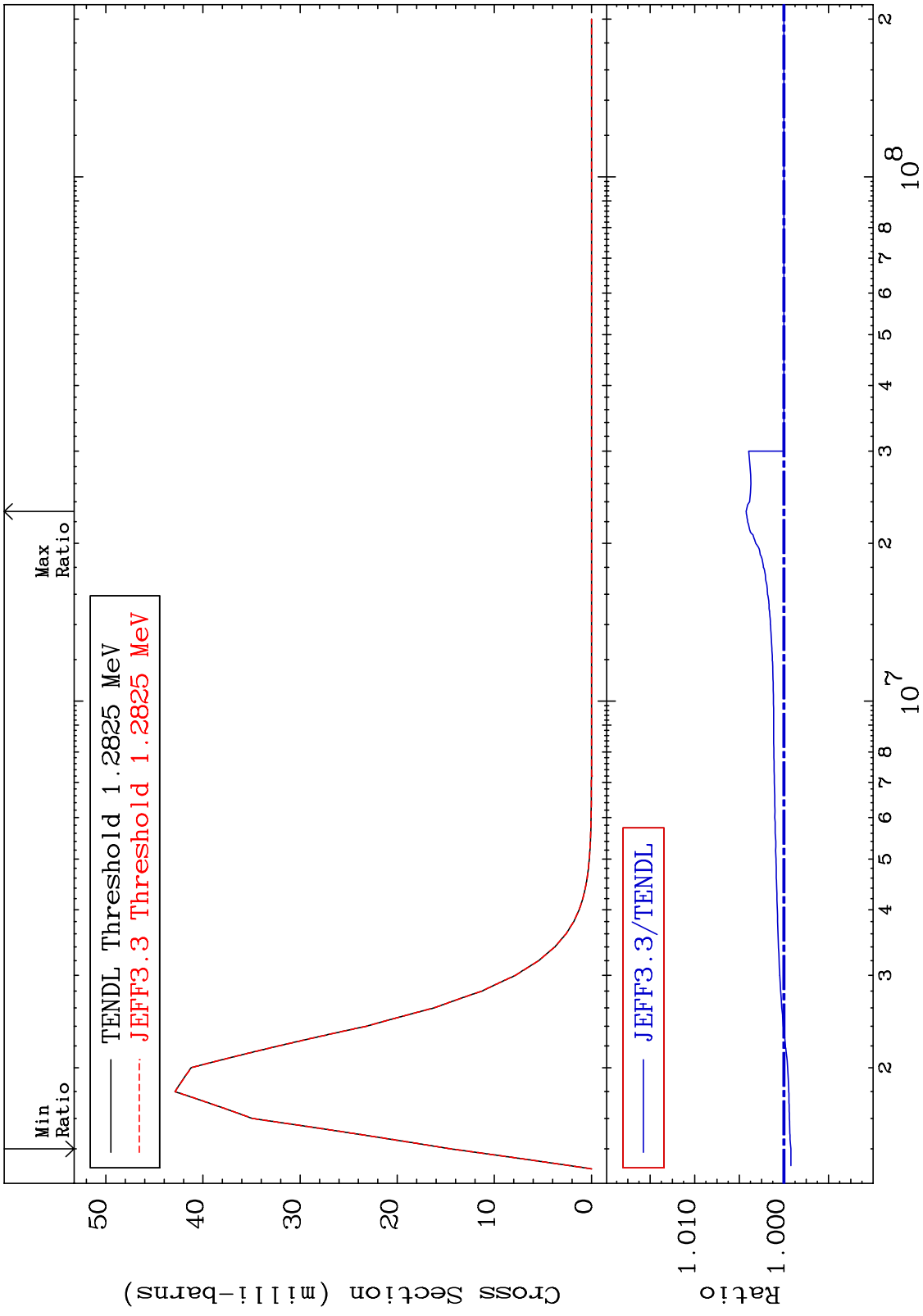
MAT 7631 MT= 57 (n,n') Level Cross Section 76-0s-186
 -0.078 To 0.045 %



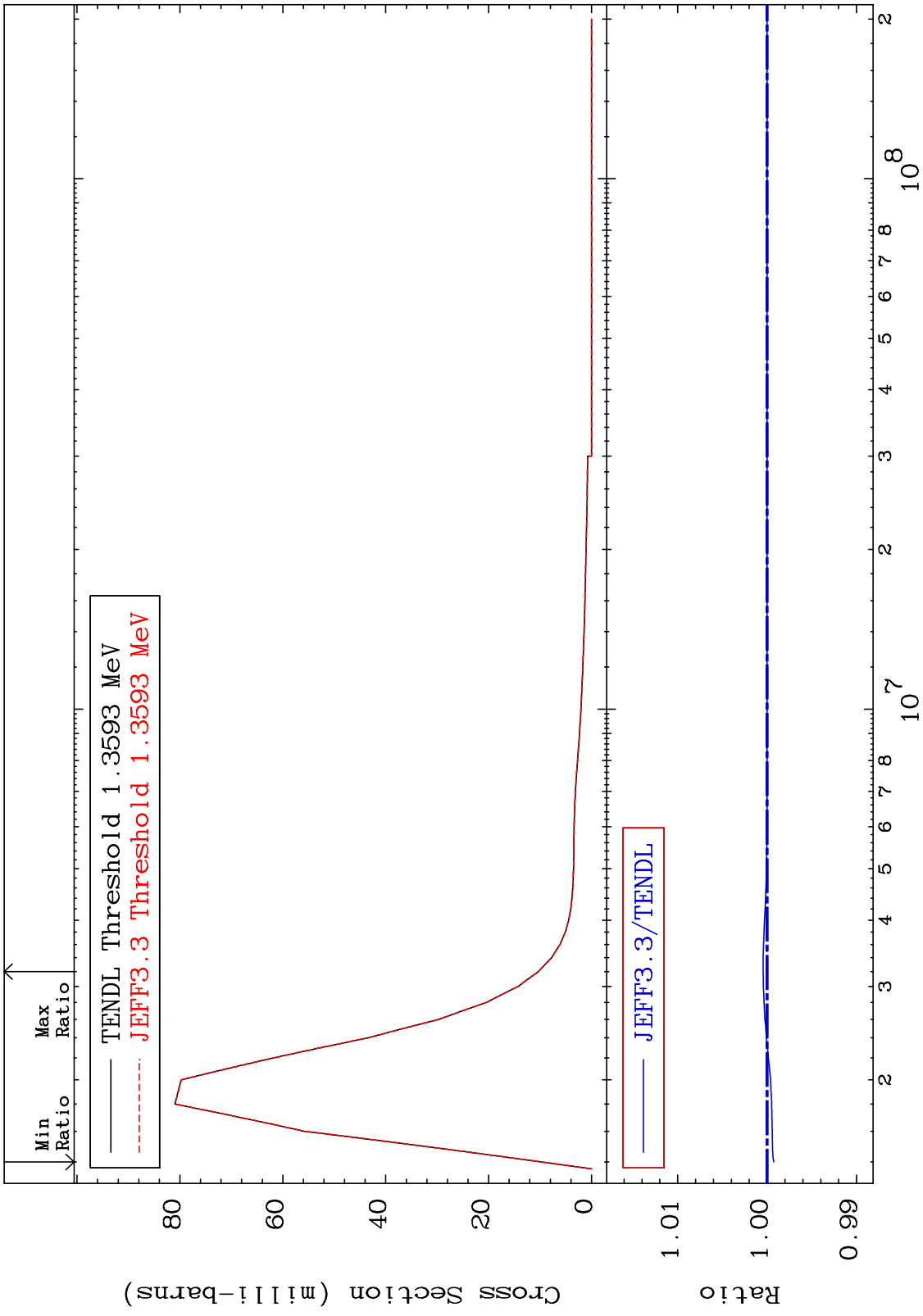
MAT 7631 MT= 58 (n,n') Level Cross Section 76-0s-186 -0.044 To 0.040 %



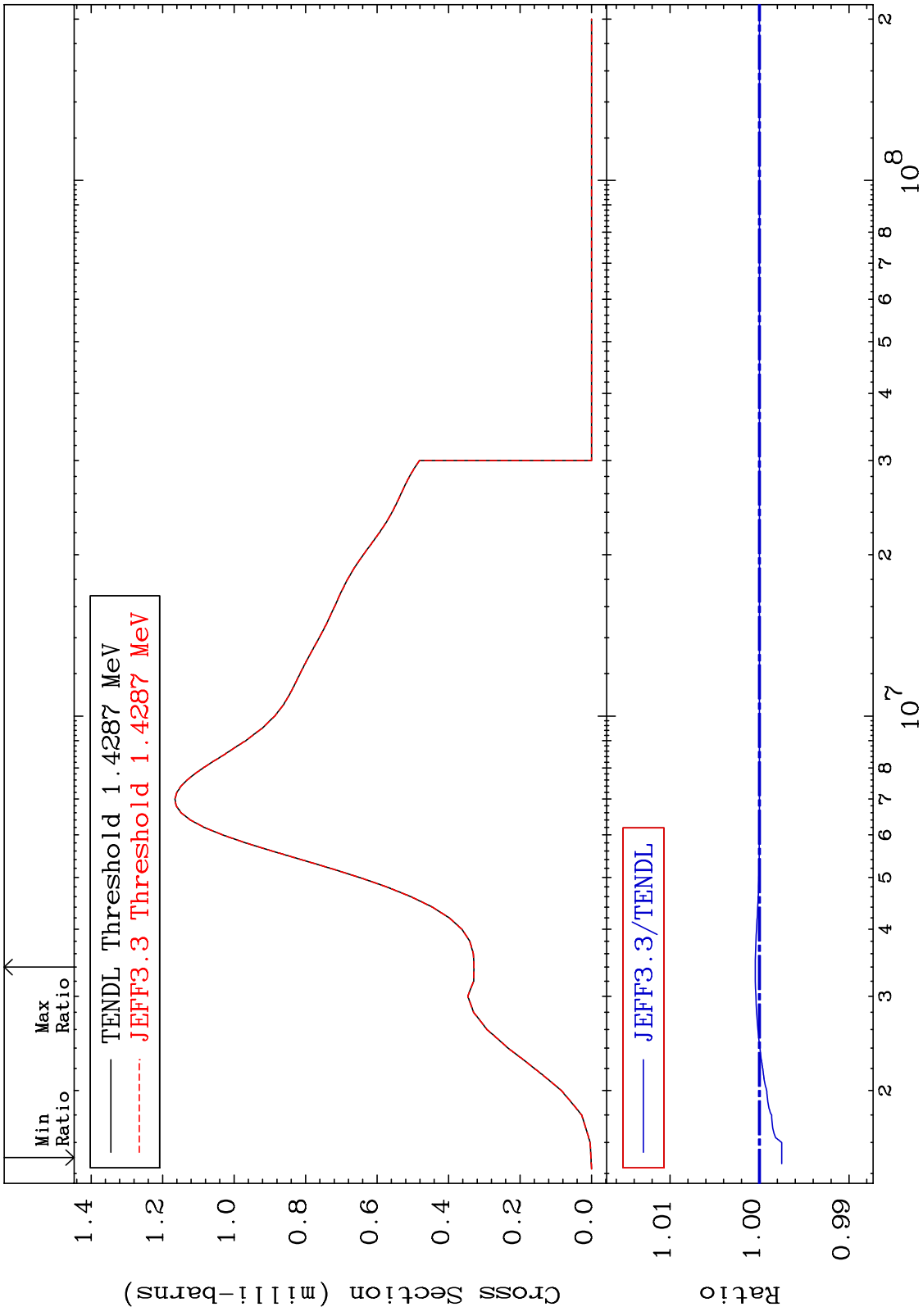
MAT 7631 MT= 59 (n,n') Level Cross Section 76-0s-186
 -0.077 To 0.424 %



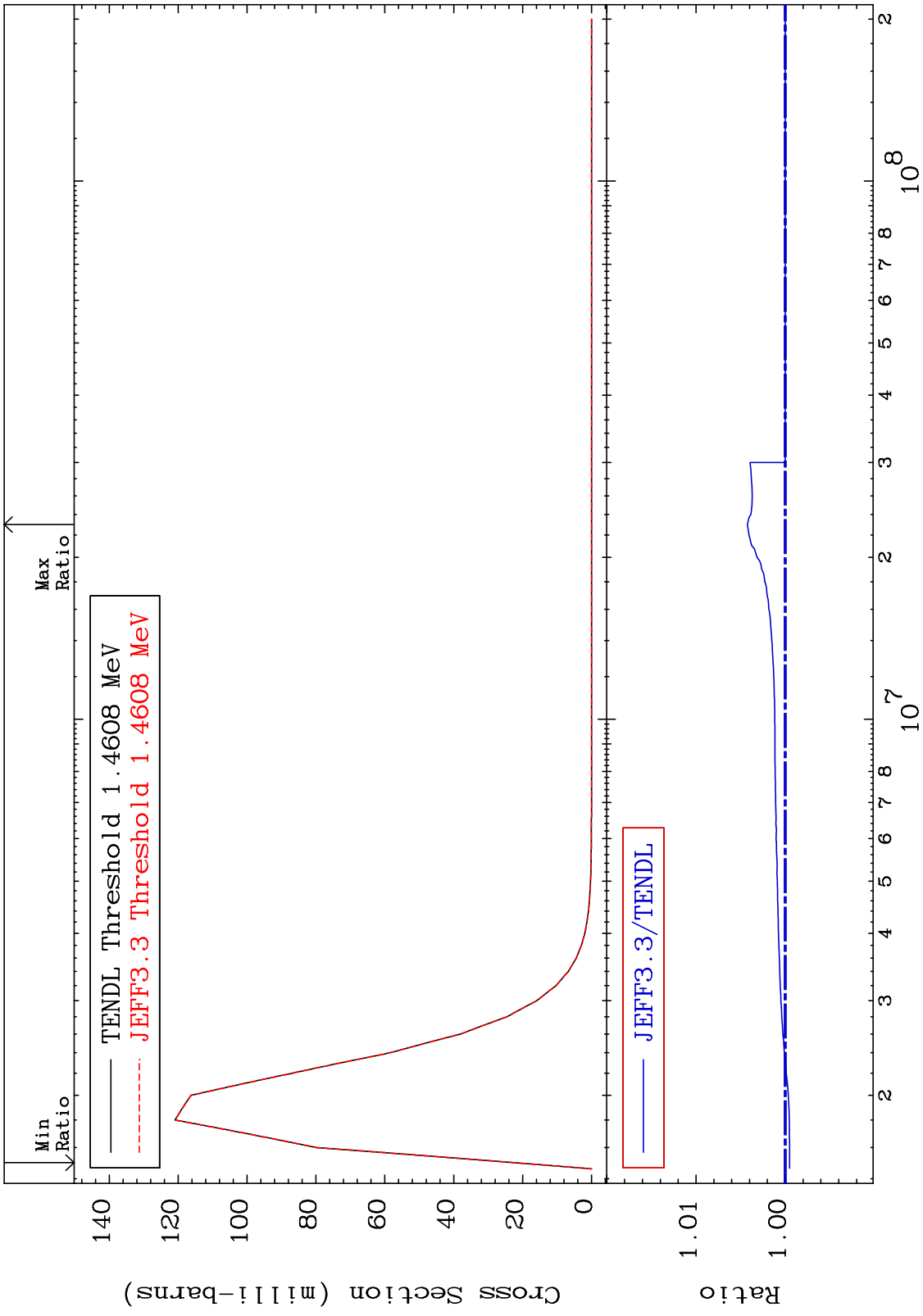
MAT 7631 MT= 60 (n,n') Level Cross Section 76-0s-186
 -0.074 To 0.045 %



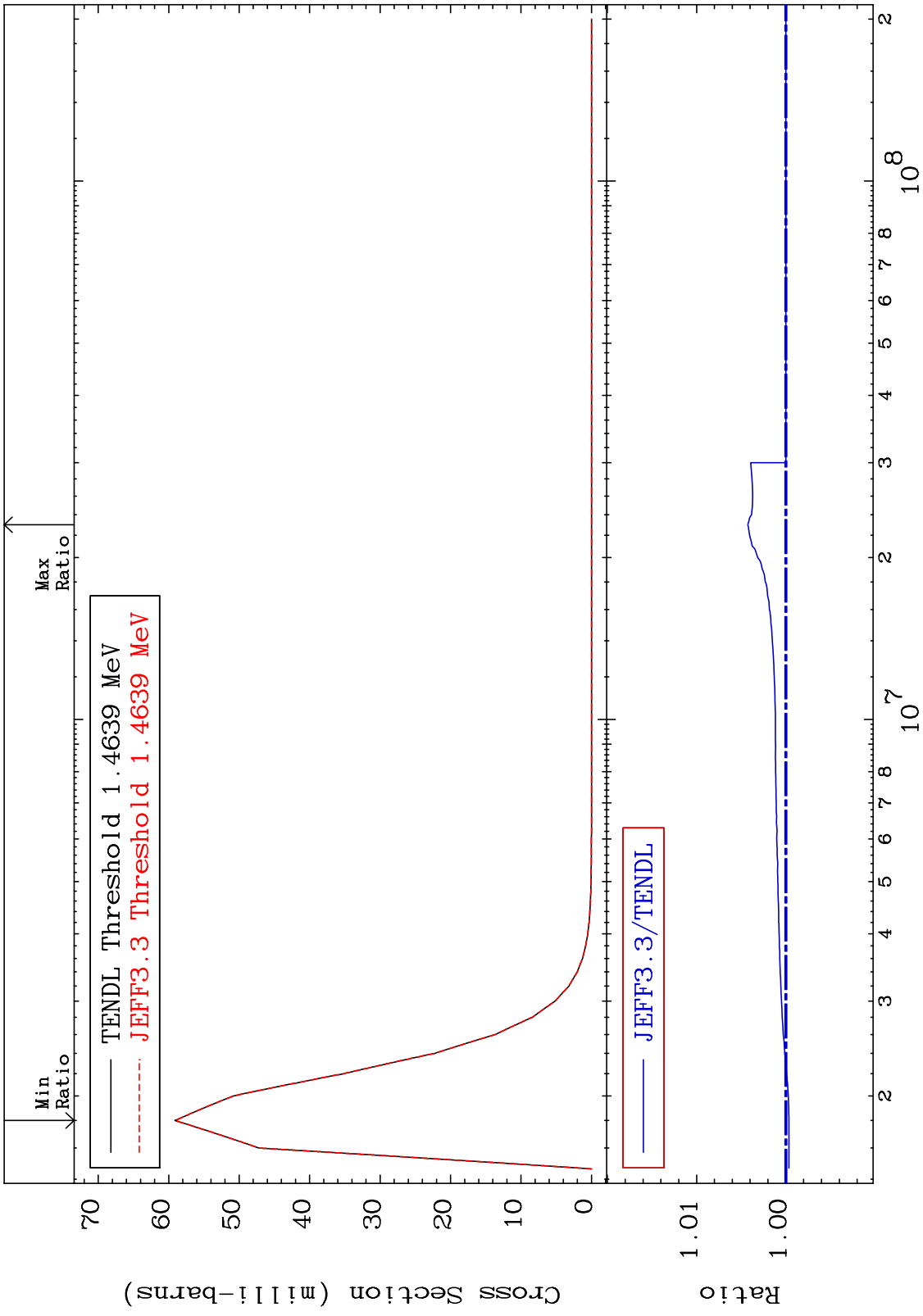
MAT 7631 MT= 61 (n,n') Level Cross Section 76-0s-186
 -0.248 To 0.048 %



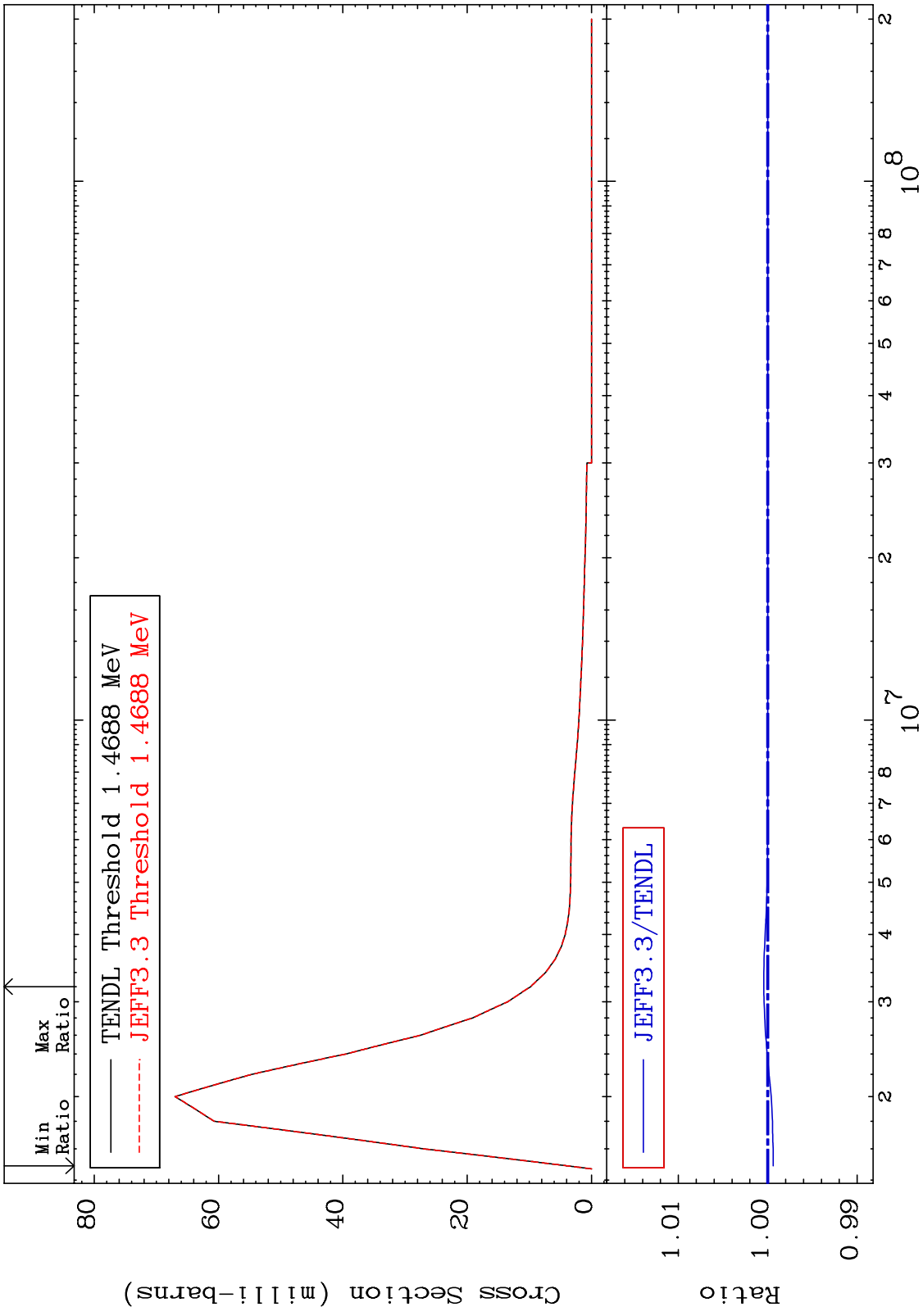
MAT 7631 MT= 62 (n,n') Level Cross Section 76-0s-186 -0.048 To 0.425 %



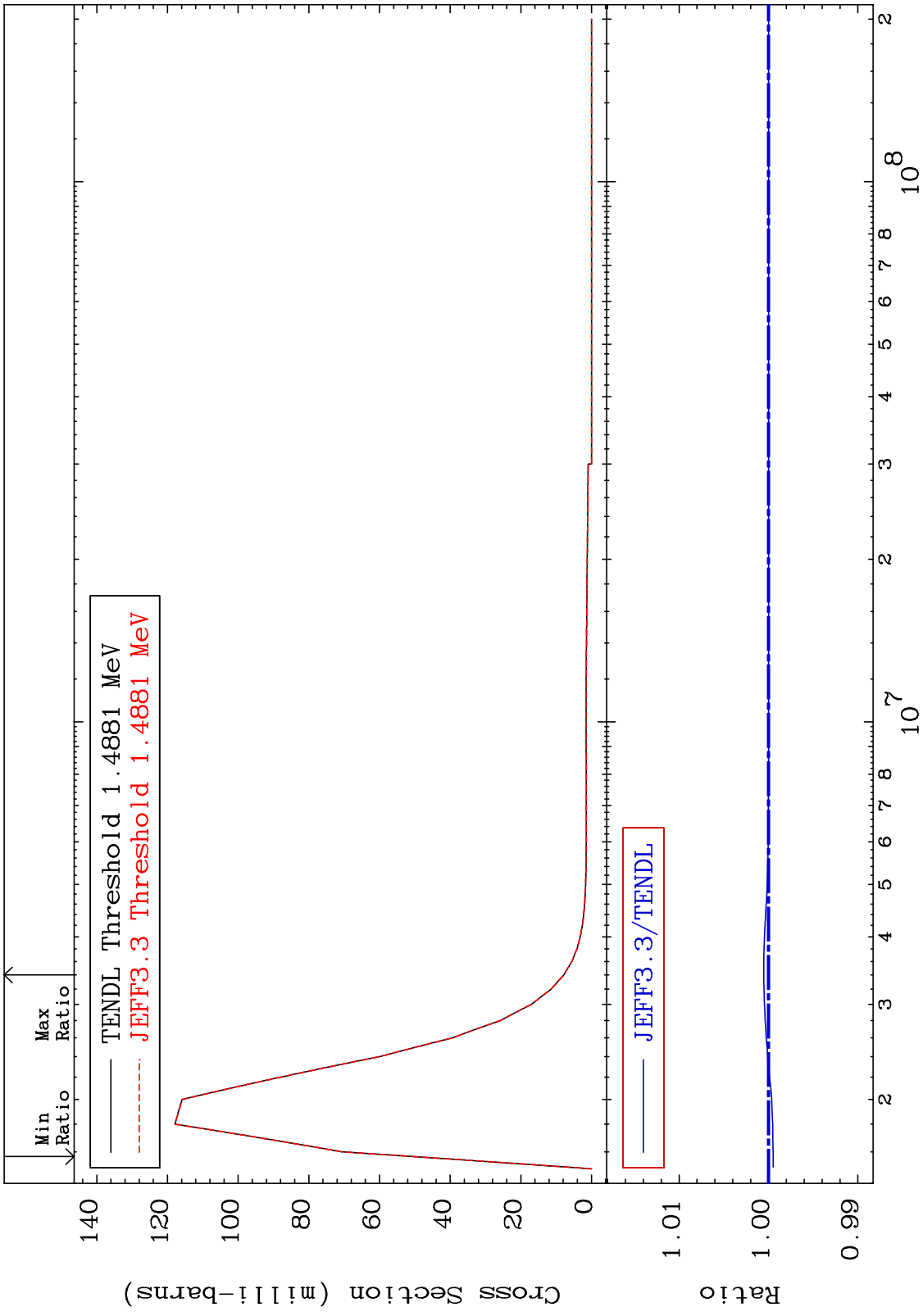
MAT 7631 MT= 63 (n, n') Level Cross Section 76-0s-186
 -0.035 To 0.425 %



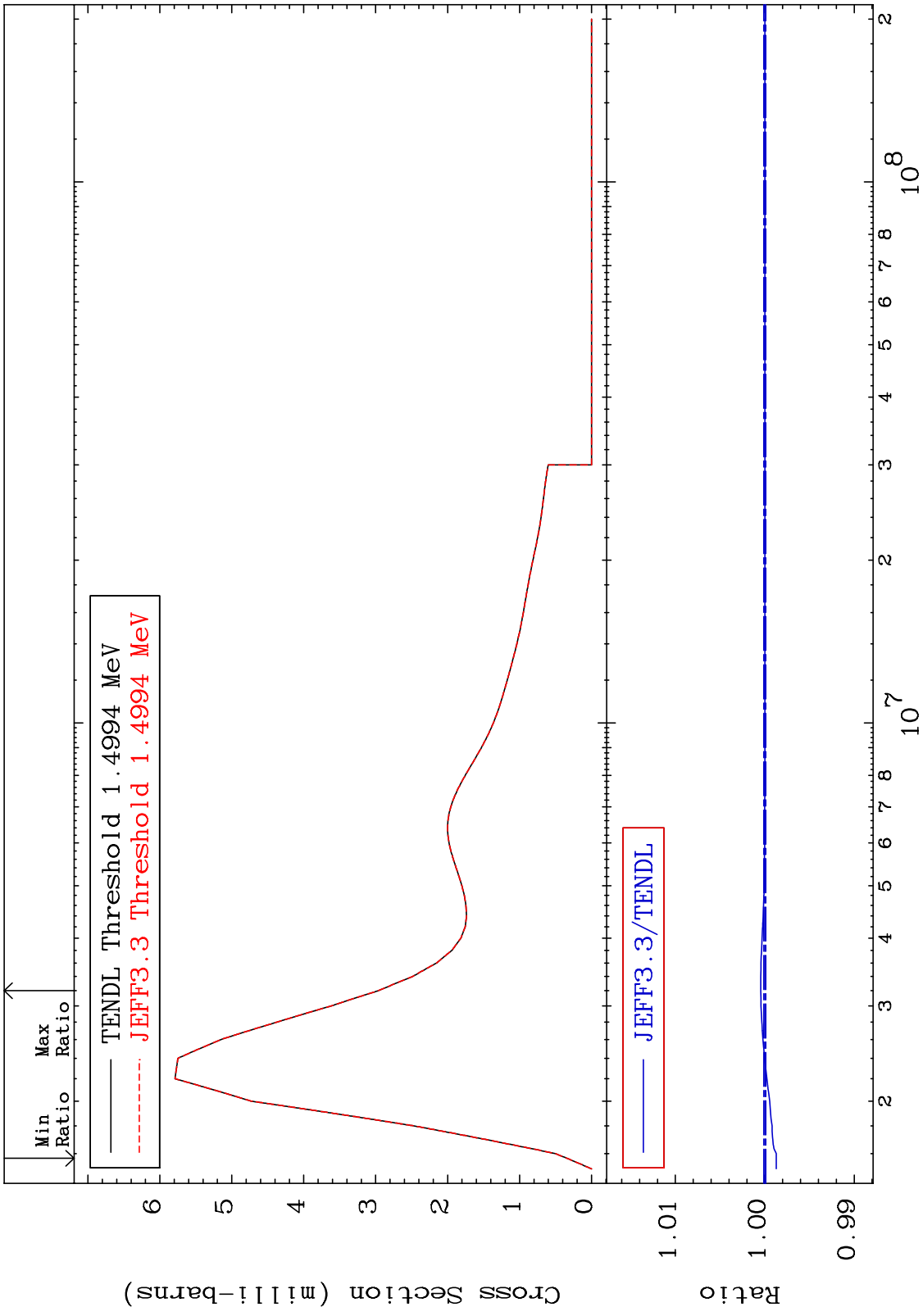
MAT 7631 MT= 64 (n,n') Level Cross Section 76-0s-186
 -0.060 To 0.045 %



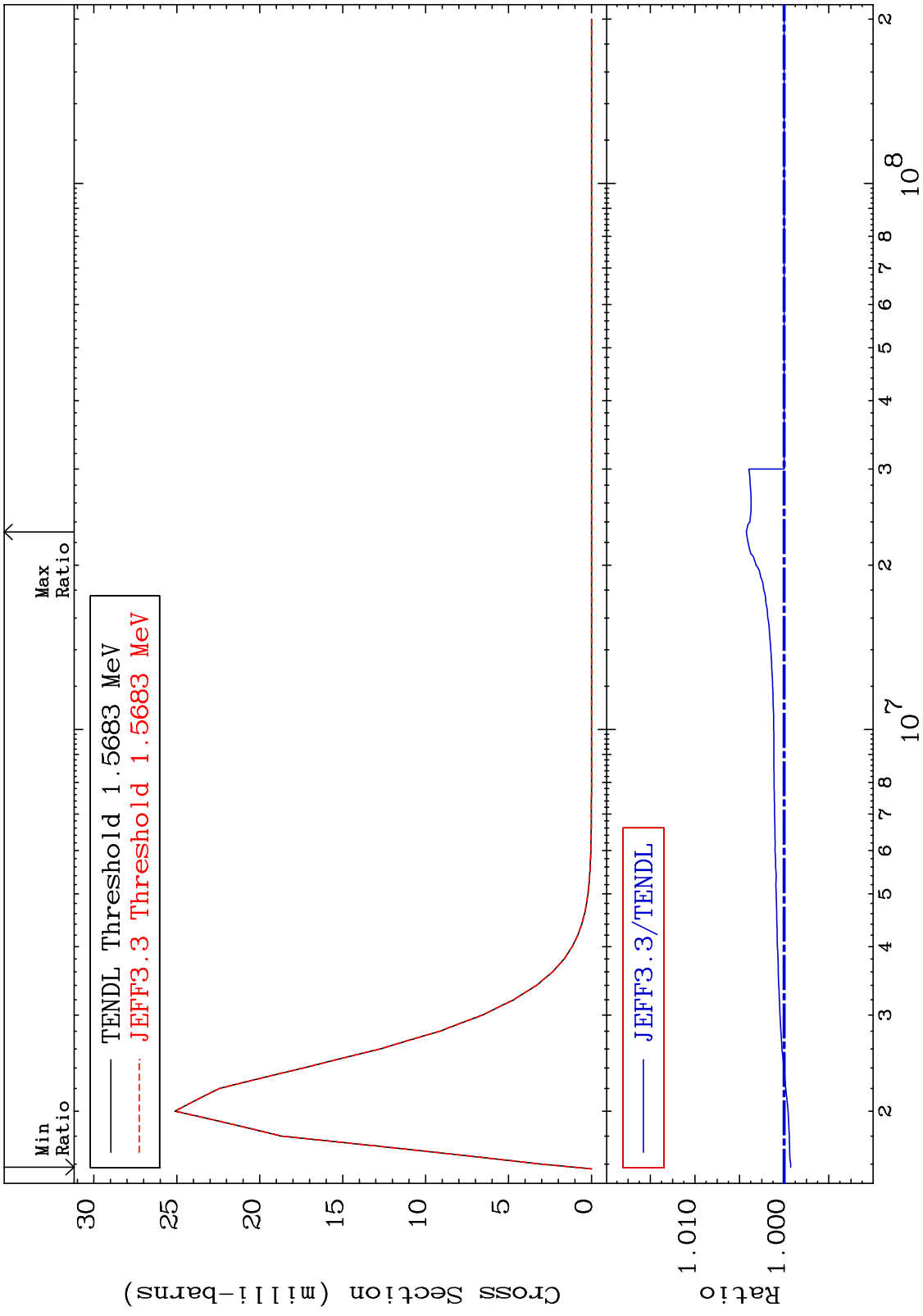
MAT 7631 MT= 65 (n,n') Level Cross Section 76-0s-186
 -0.052 To 0.053 %



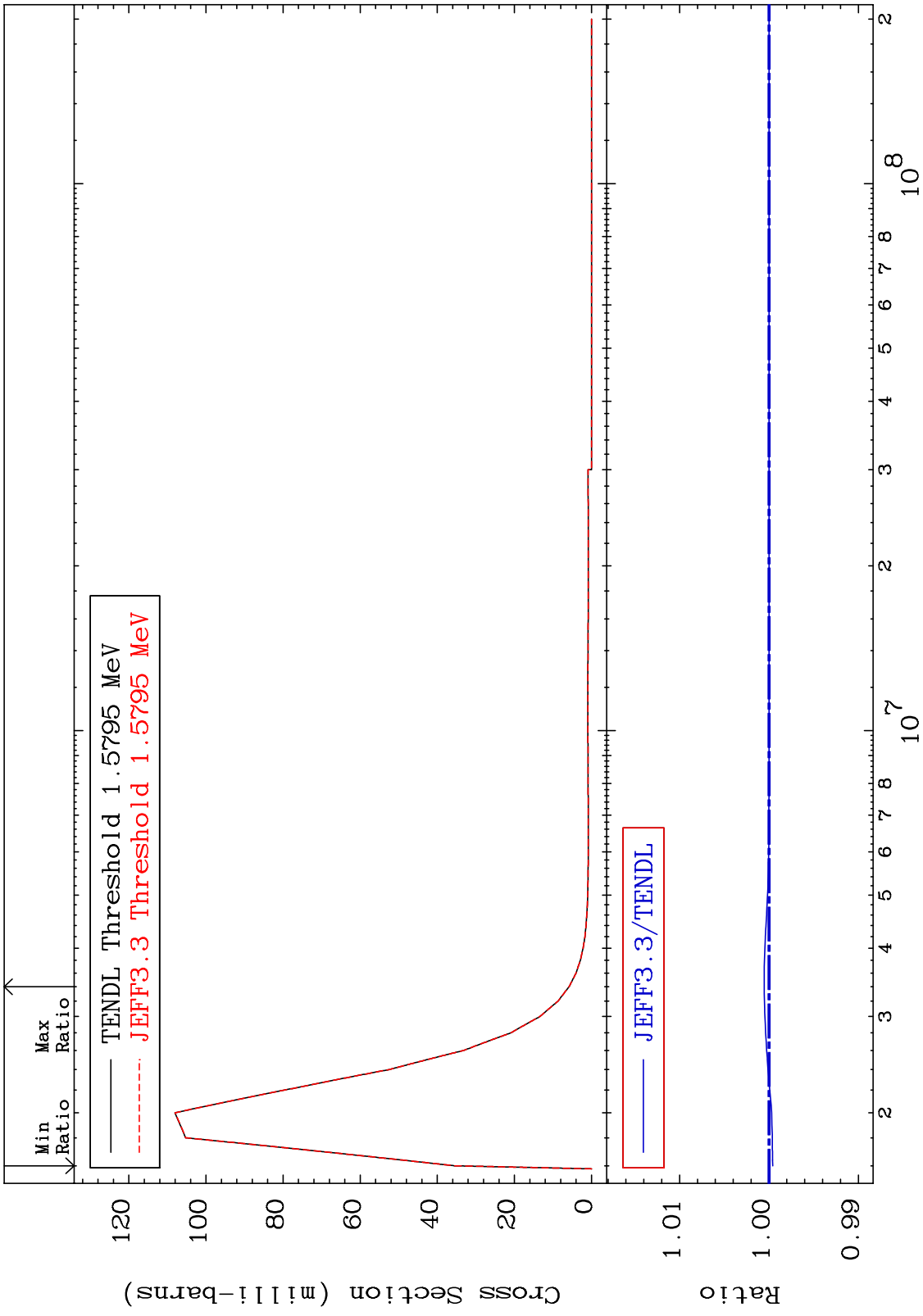
MAT 7631 MT= 66 (n,n') Level Cross Section 76-0s-186
 -0.127 To 0.046 %



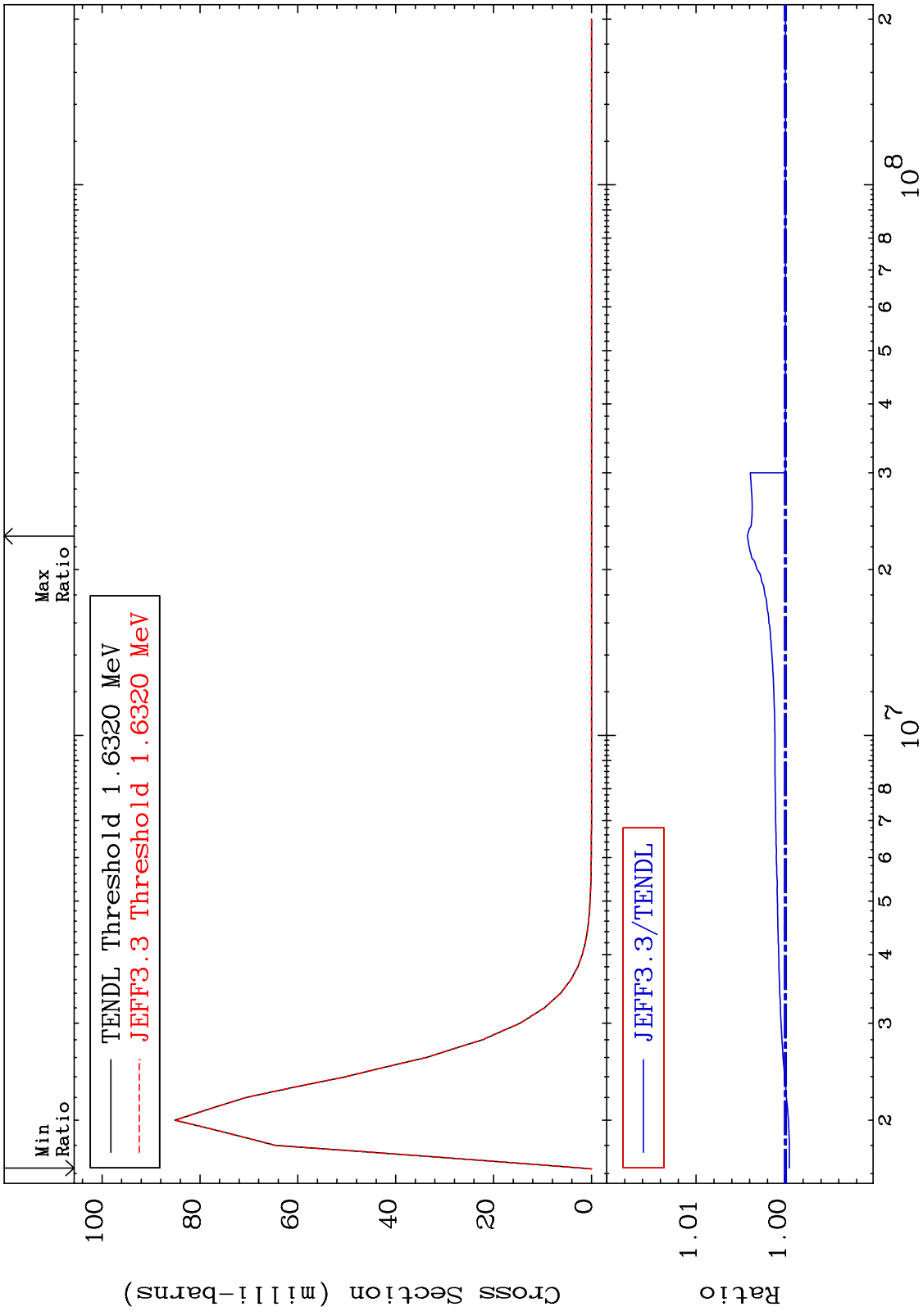
MAT 7631 MT= 67 (n, n') Level Cross Section 76-0s-186 -0.072 To 0.425 %



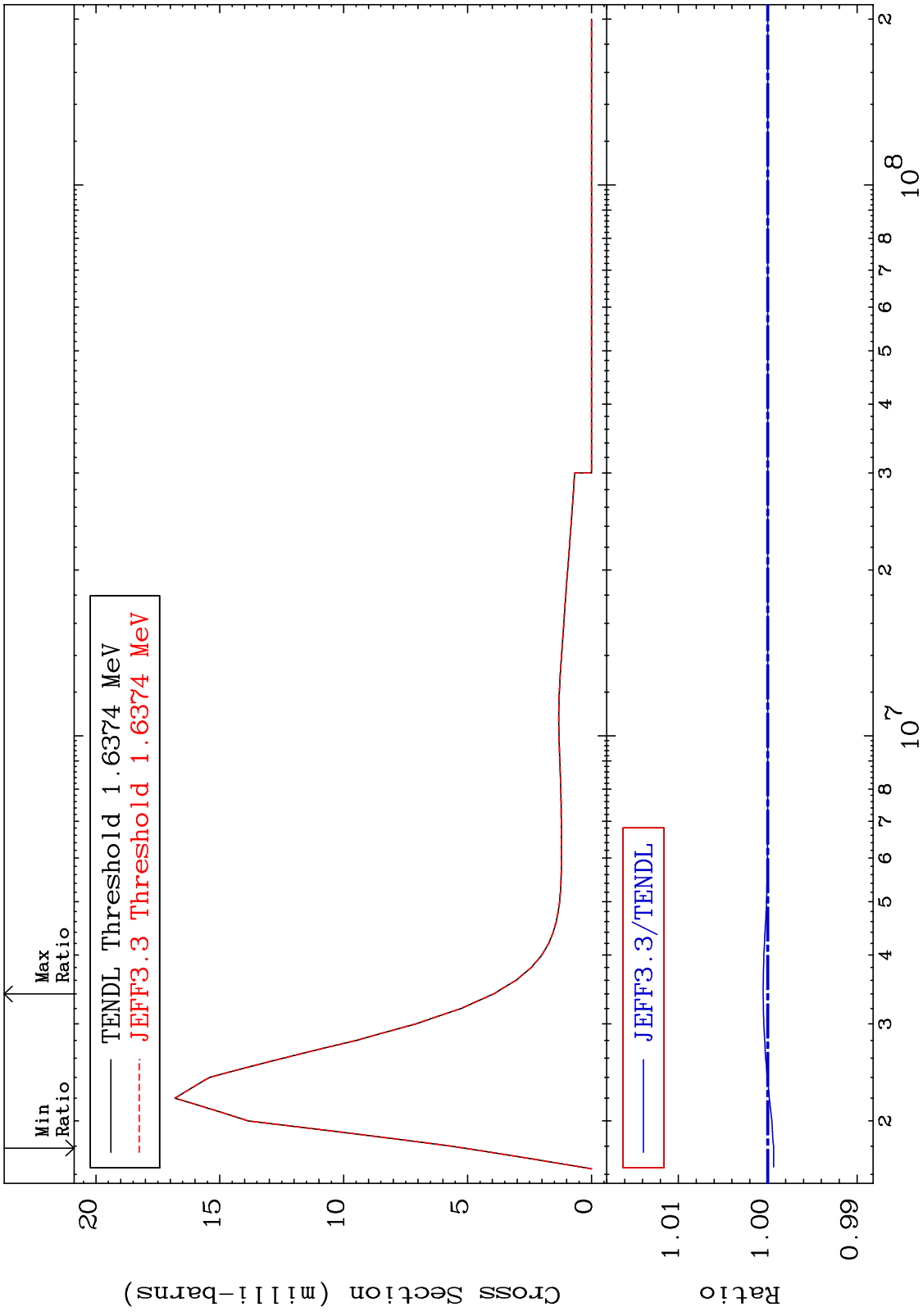
MAT 7631 MT= 68 (n,n') Level Cross Section 76-0s-186
 -0.042 To 0.053 %



MAT 7631 MT= 69 (n,n') Level Cross Section 76-0s-186
 -0.046 To 0.425 %



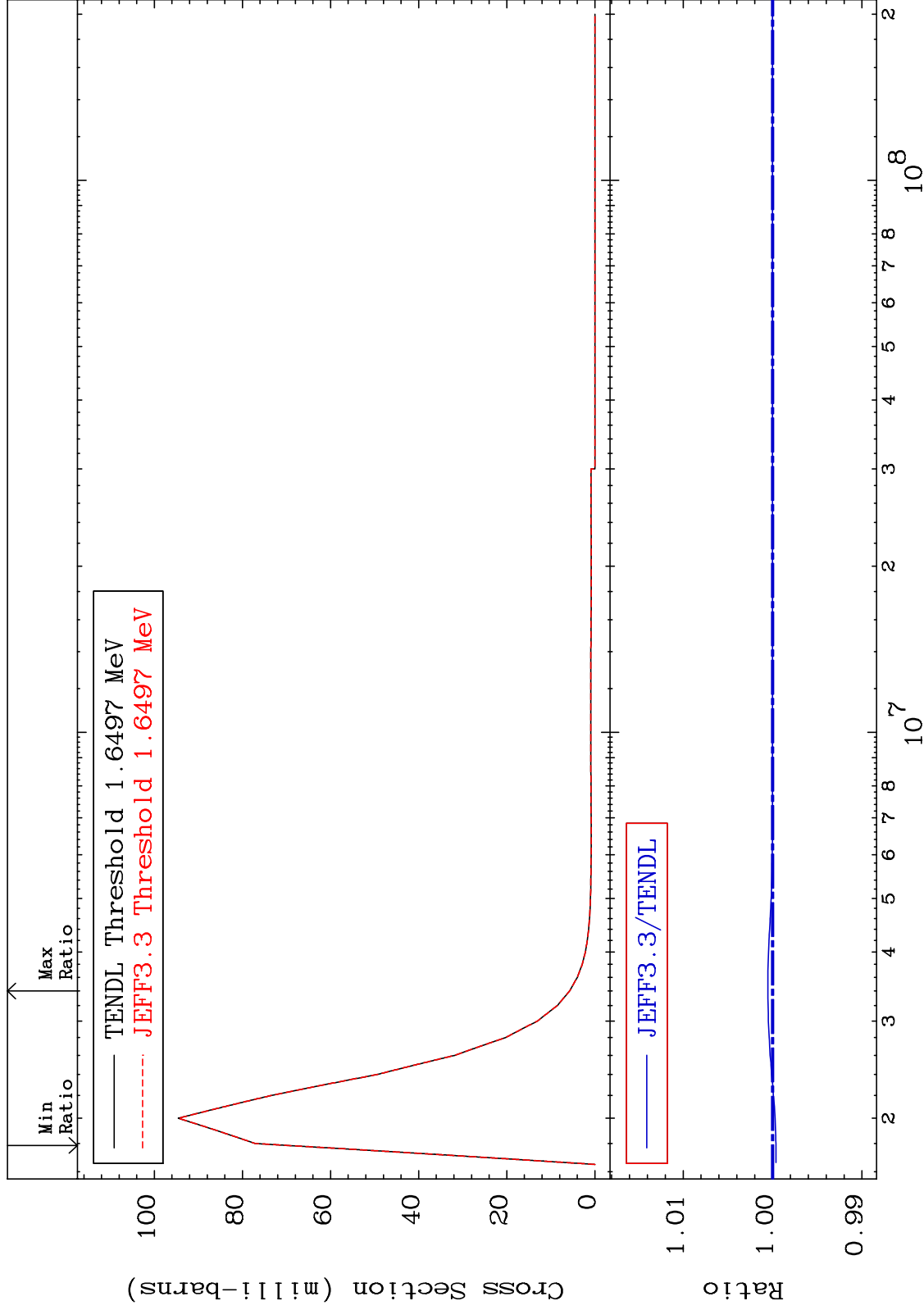
MAT 7631 MT= 70 (n,n') Level Cross Section 76-0s-186
 -0.066 To 0.051 %



MAT 7631

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

76-0s-186
-0.038 To 0.053 %

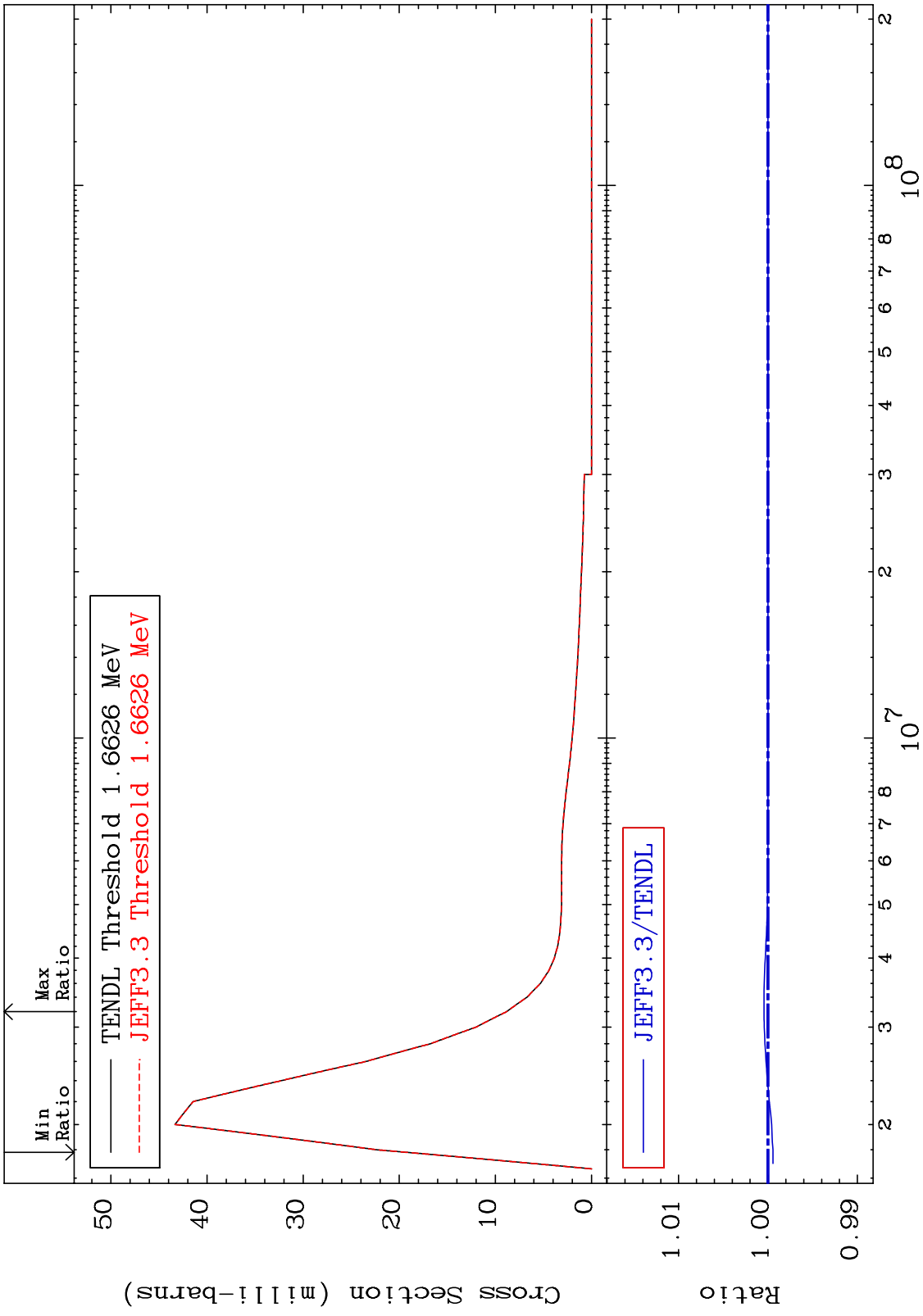


40

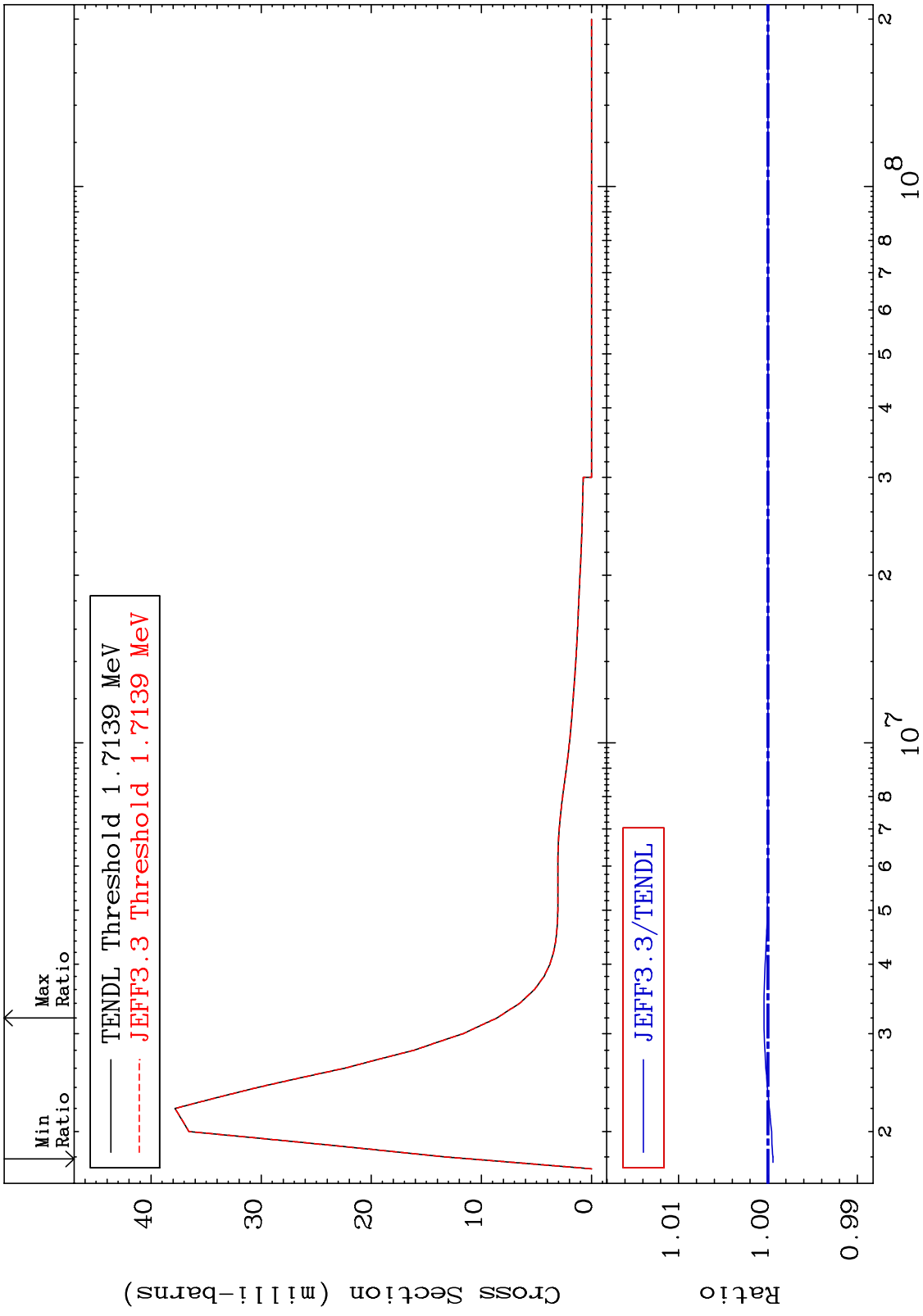
Incident Energy (eV)

76-0s-186

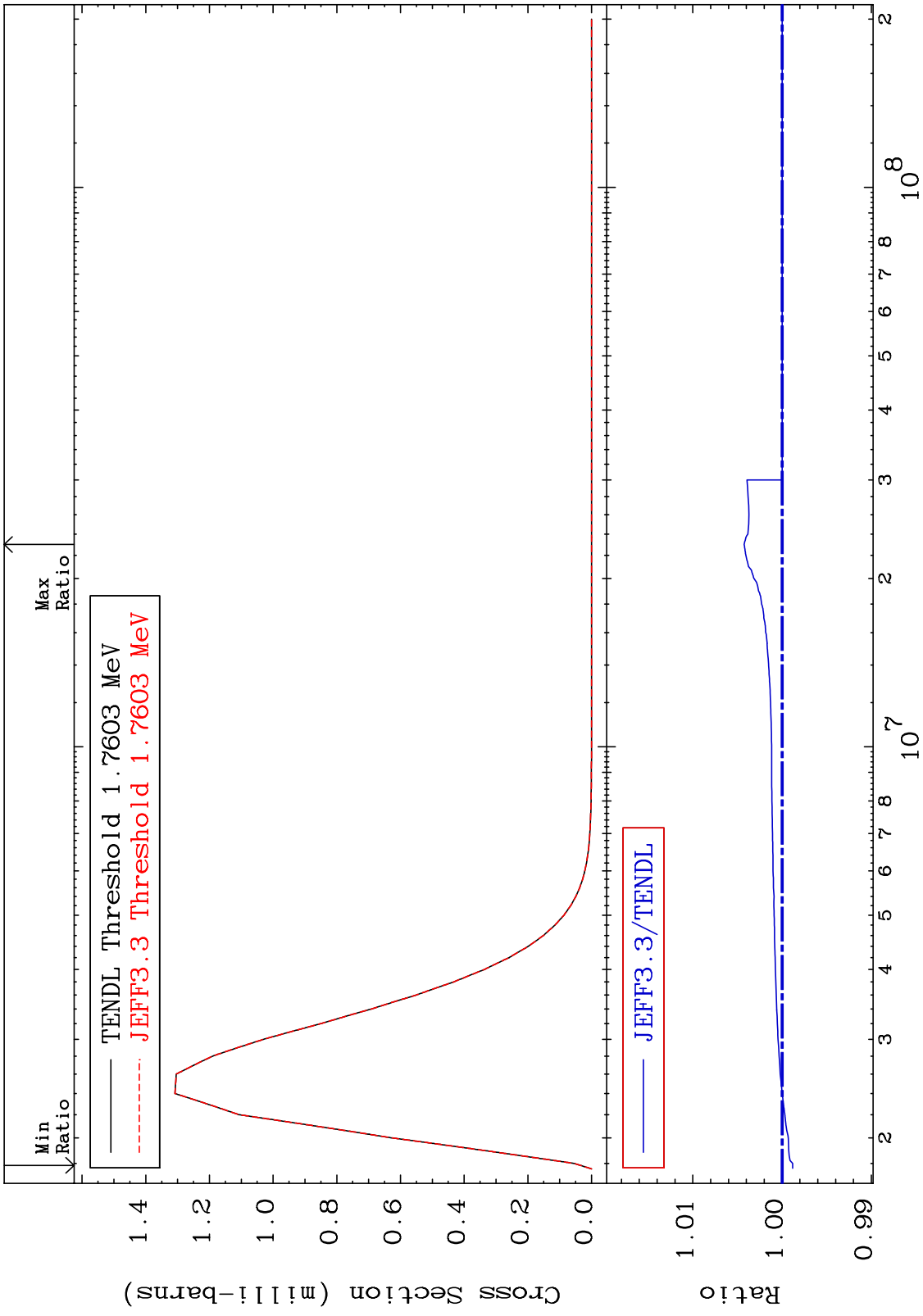
MAT 7631 MT= 72 (n,n') Level Cross Section 76-0s-186
 -0.055 To 0.045 %



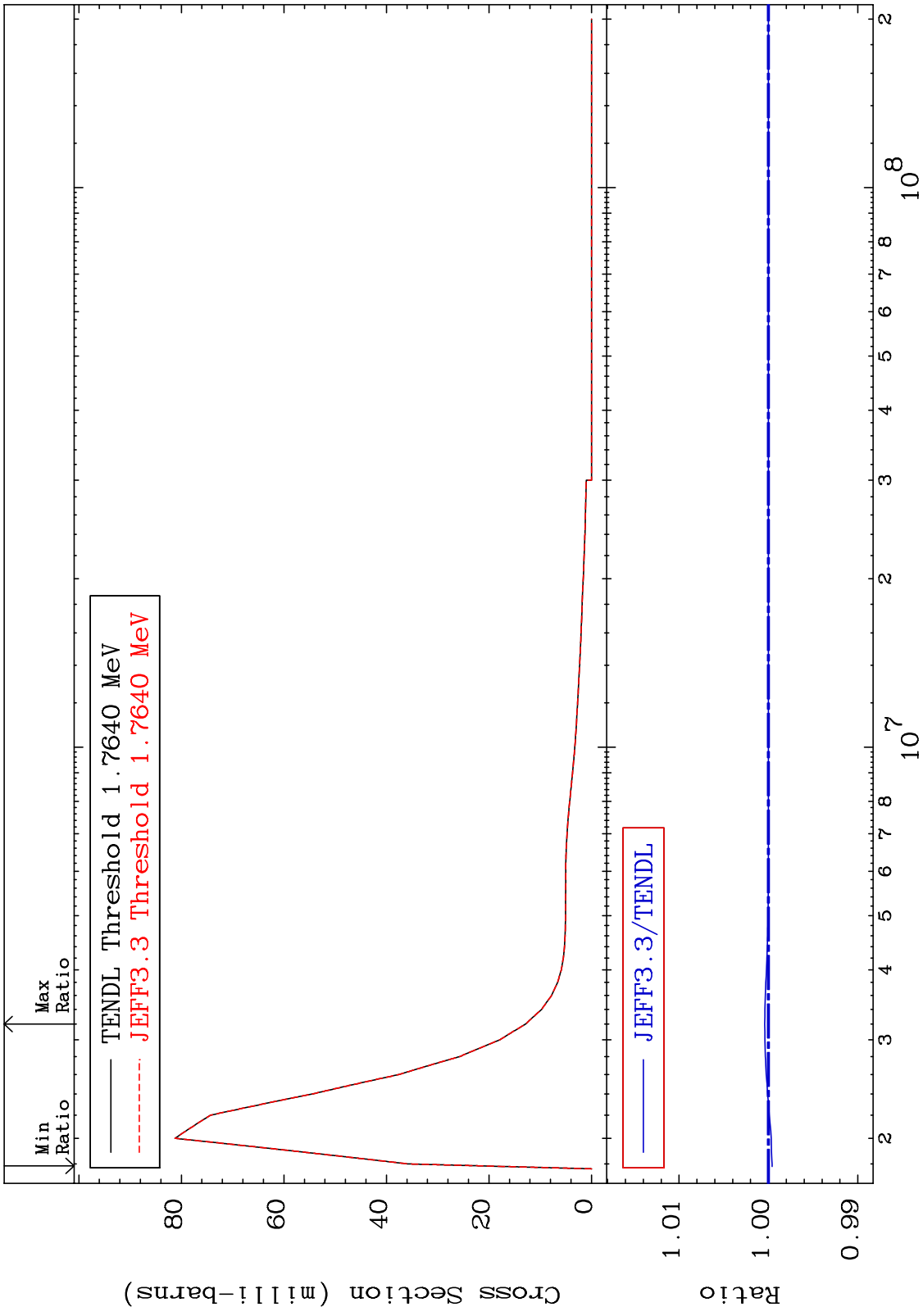
MAT 7631 MT= 73 (n,n') Level Cross Section 76-0s-186
 -0.056 To 0.046 %



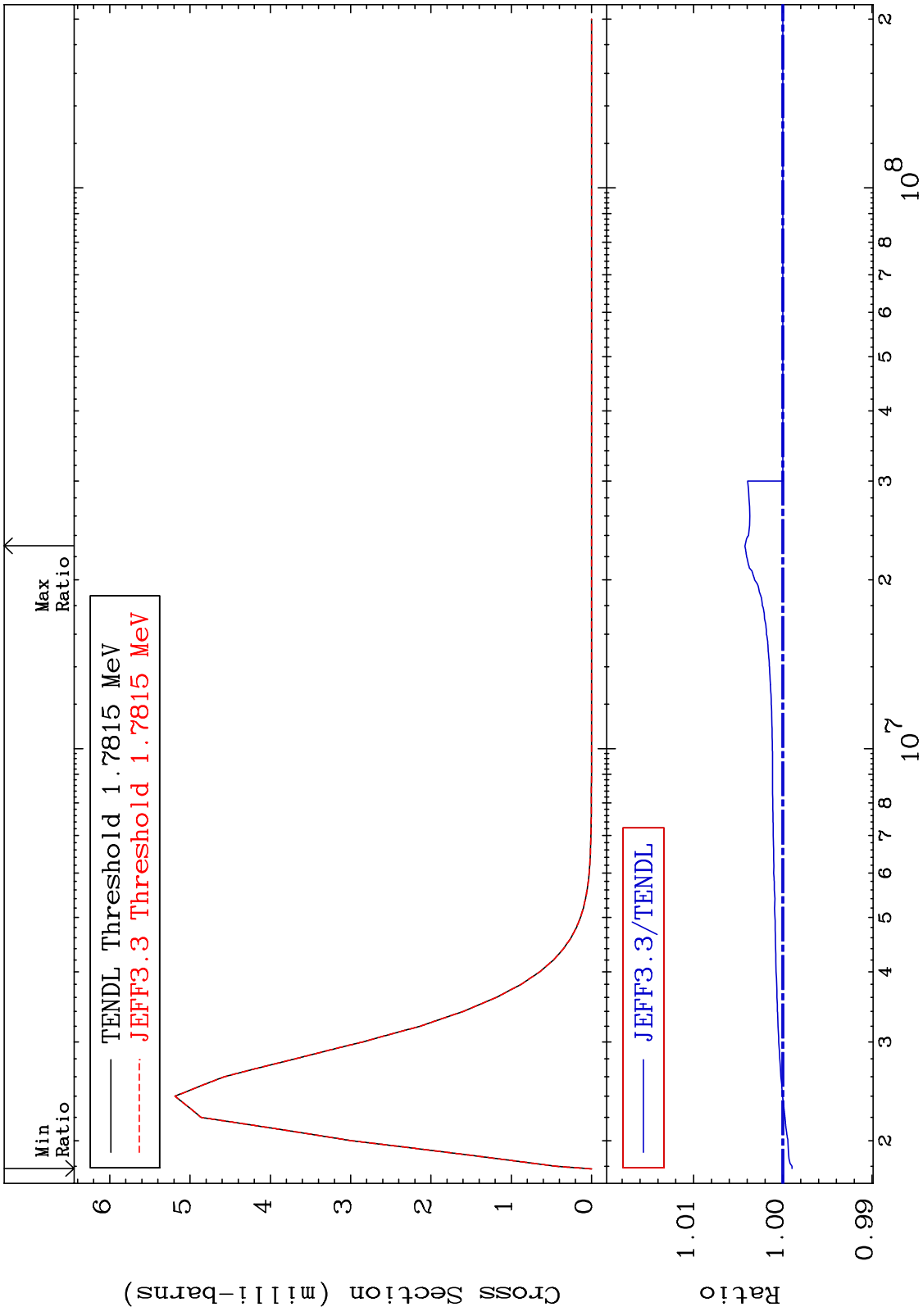
MAT 7631 MT= 74 (n,n') Level Cross Section 76-0s-186
 -0.119 To 0.425 %



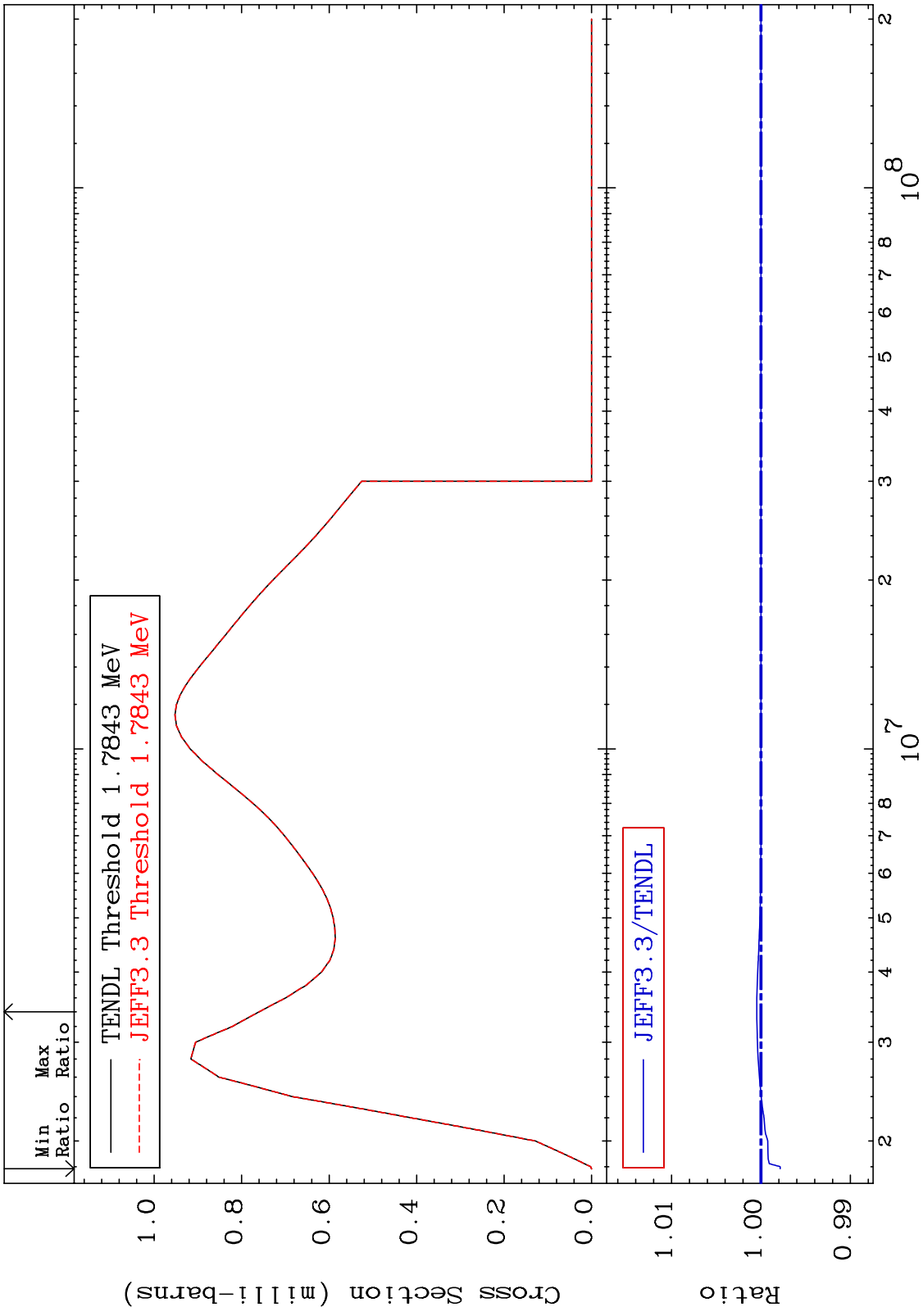
MAT 7631 MT= 75 (n,n') Level Cross Section 76-0s-186
 -0.041 To 0.041 %



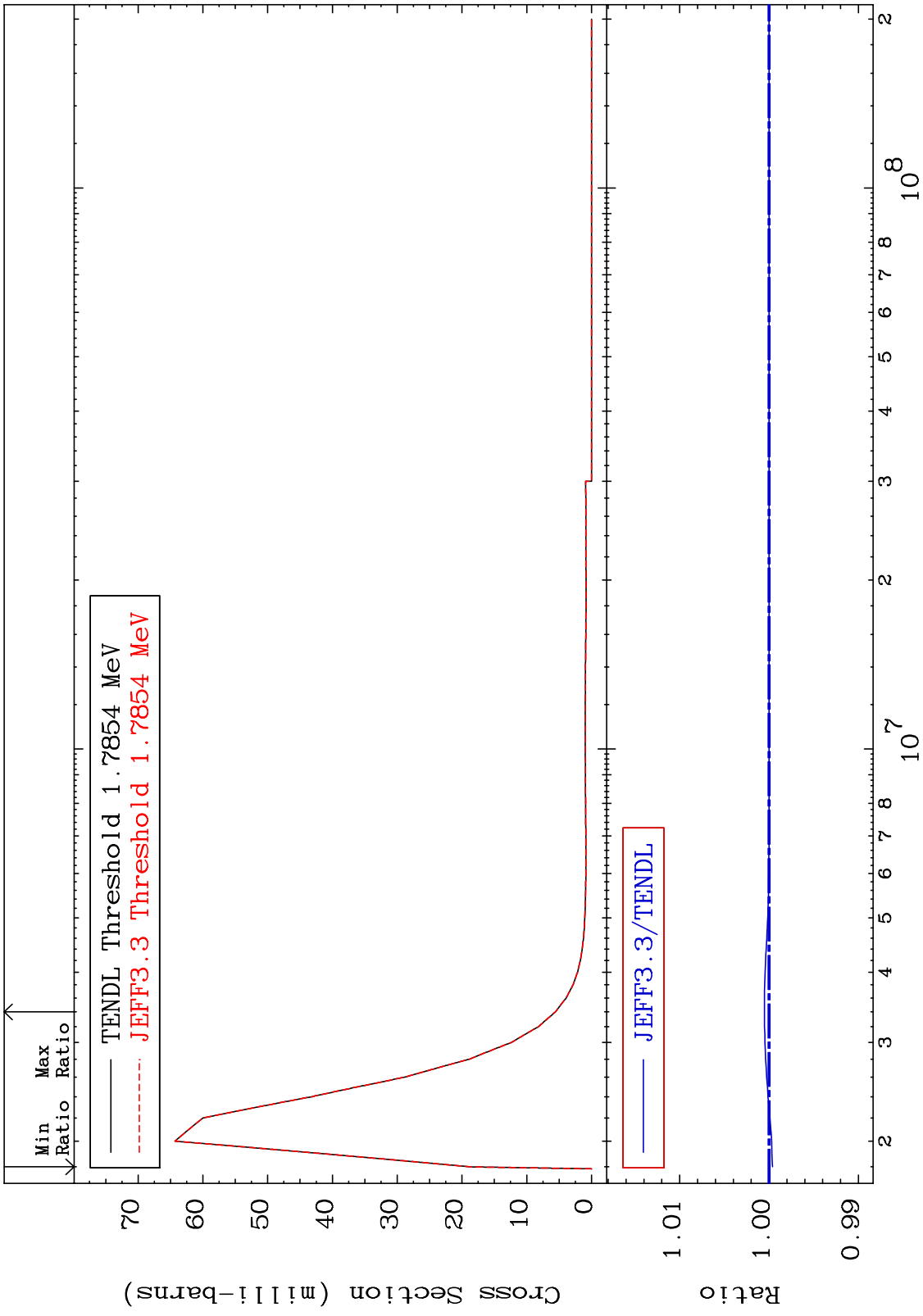
MAT 7631 MT= 76 (n,n') Level Cross Section 76-0s-186
 -0.102 To 0.425 %



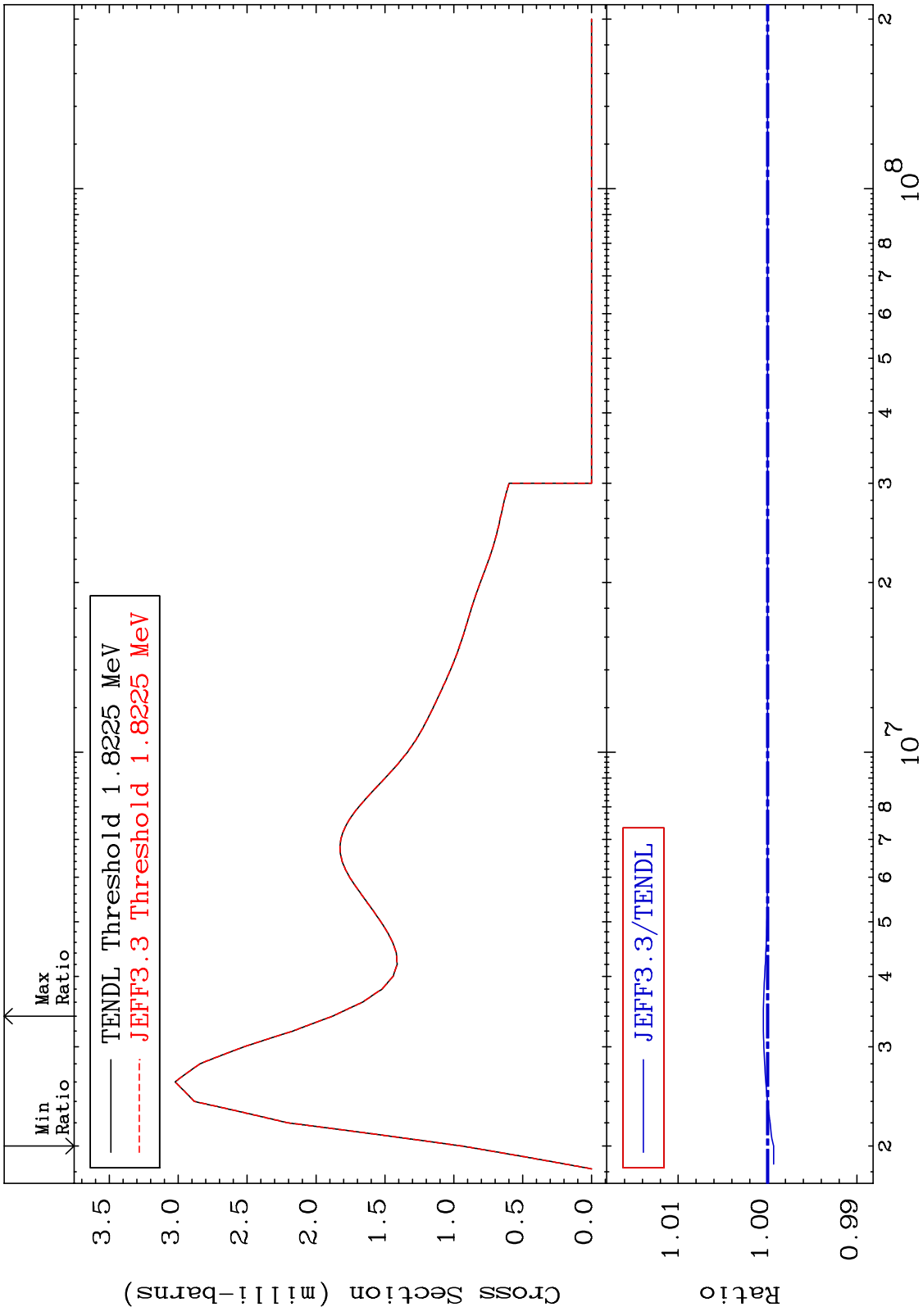
MAT 7631 MT= 77 (n,n') Level Cross Section 76-0s-186
 -0.214 To 0.047 %



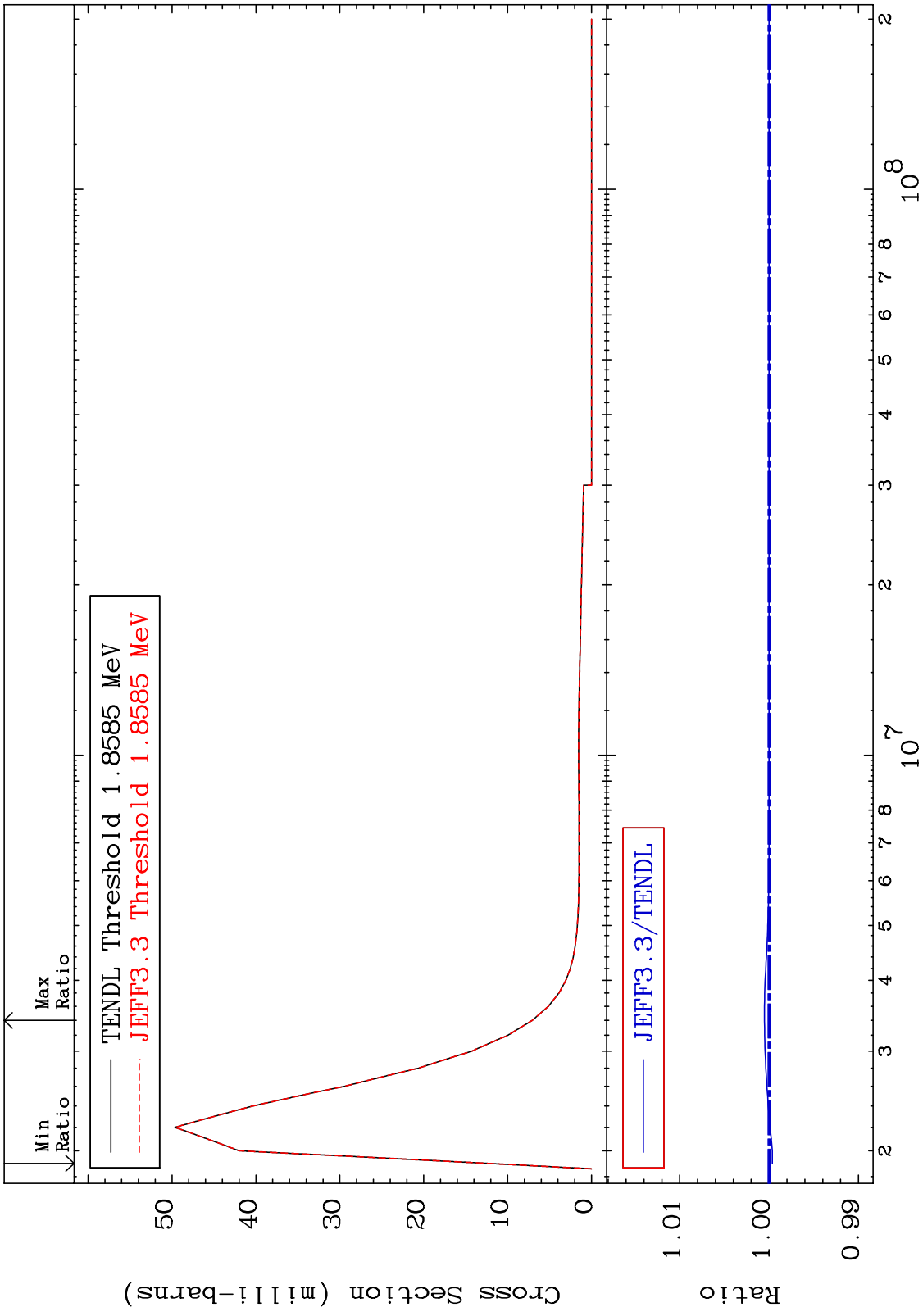
MAT 7631 MT= 78 (n,n') Level Cross Section 76-0s-186 -0.039 To 0.052 %



MAT 7631 MT= 79 (n,n') Level Cross Section 76-0s-186
-0.066 To 0.048 %



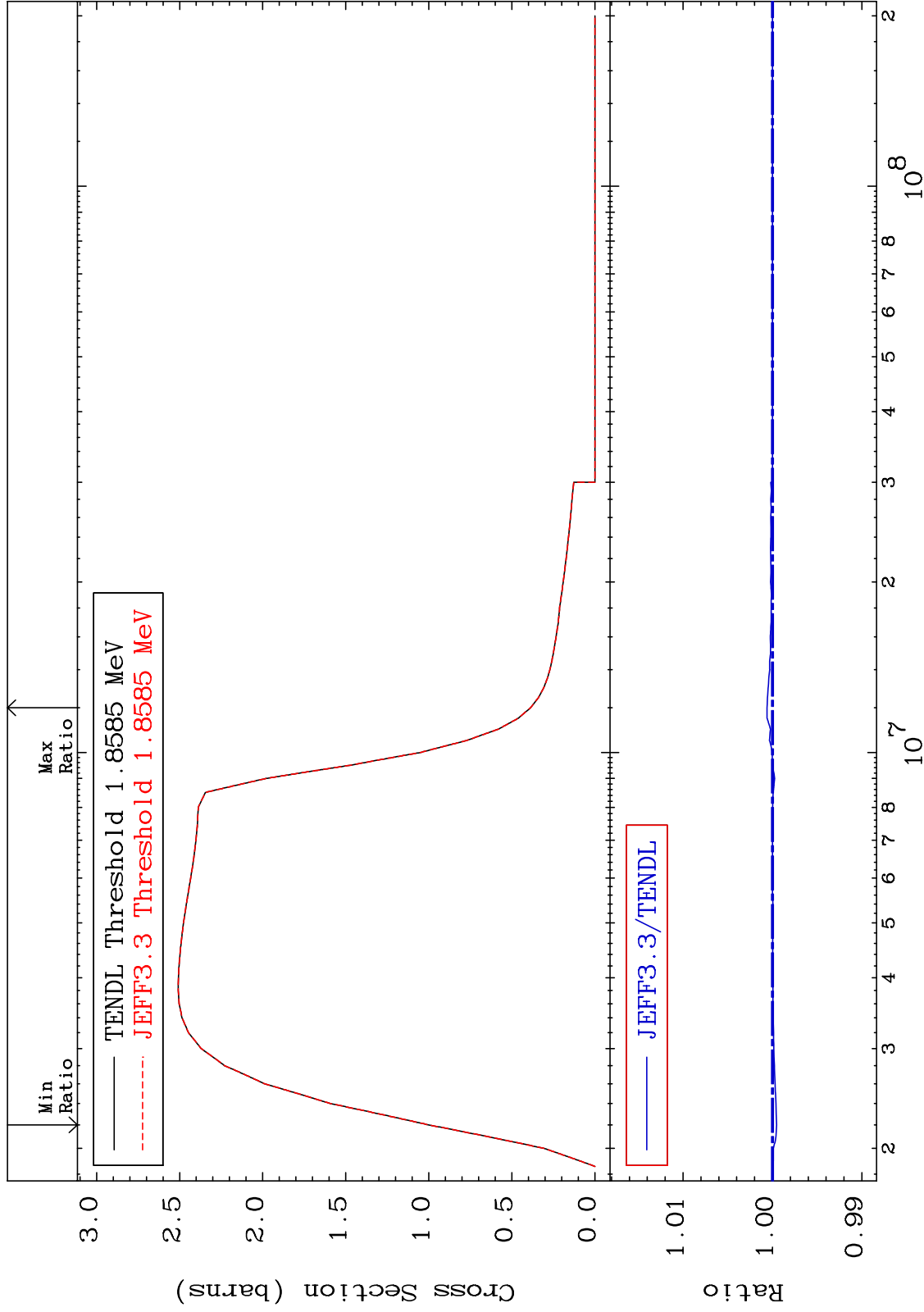
MAT 7631 MT= 80 (n,n') Level Cross Section 76-0s-186
 -0.037 To 0.052 %



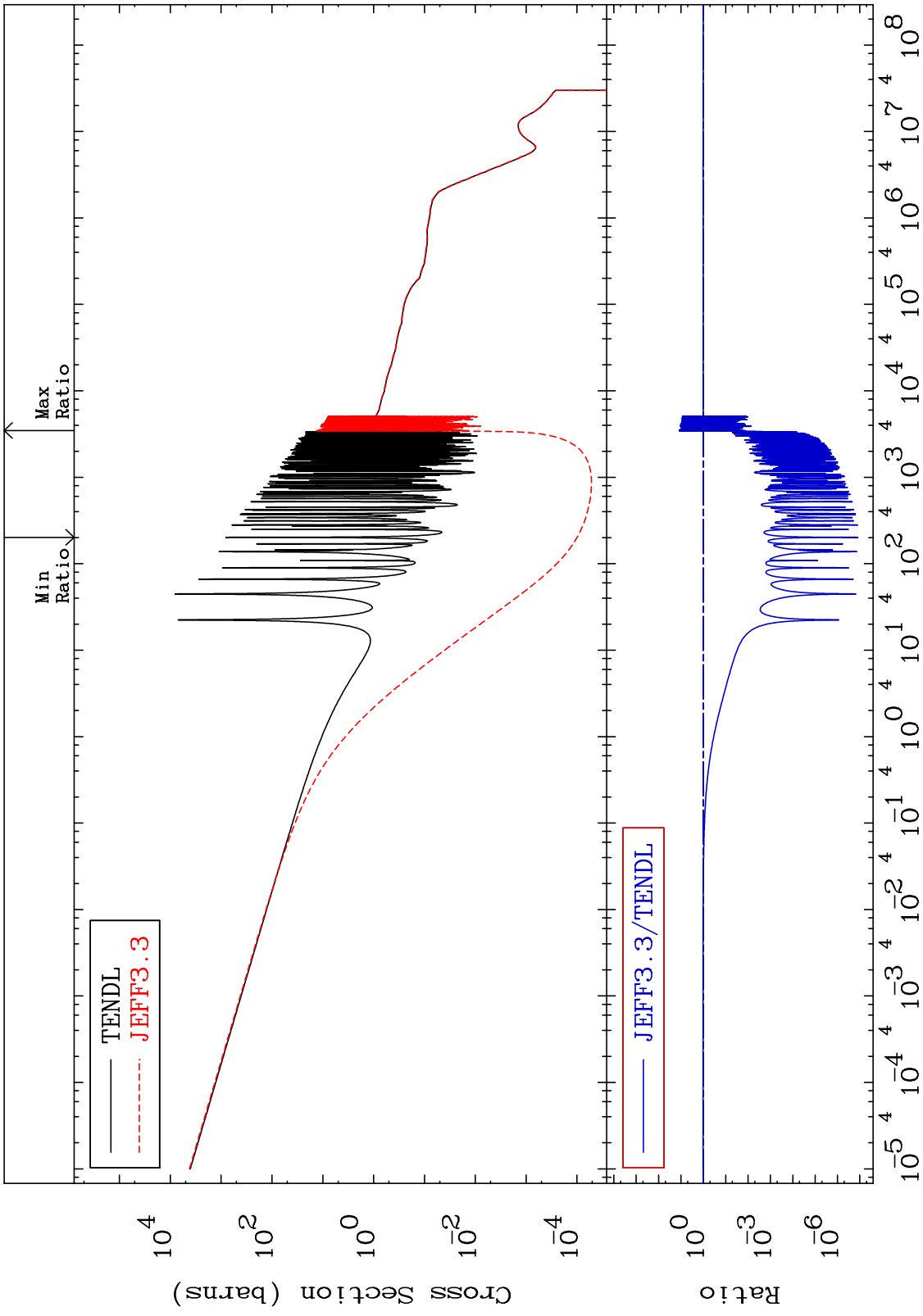
MAT 7631

(n,n') Continuum
Cross Section

76-0s-186
-0.047 To 0.060 %

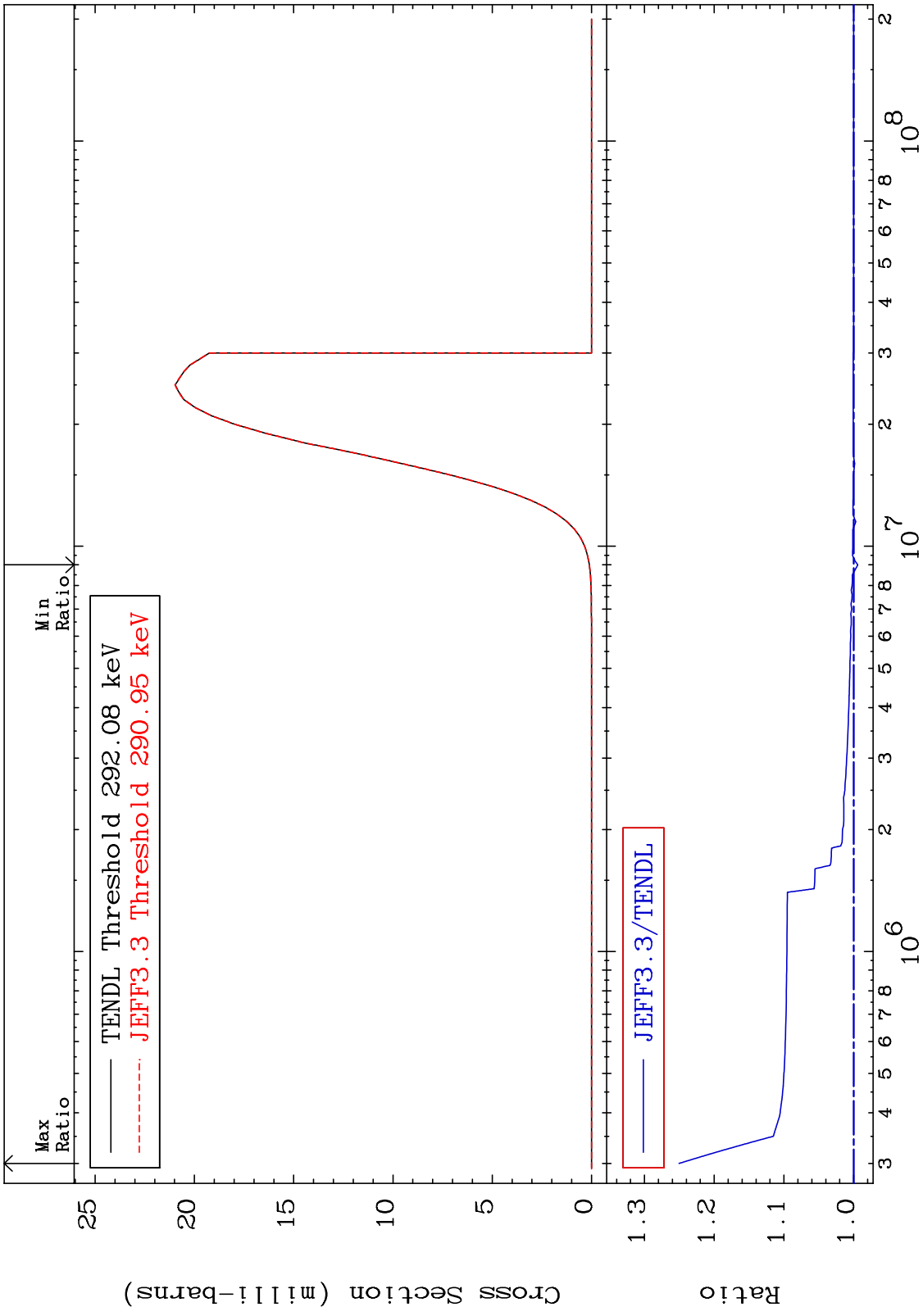


MAT 7631 (n, γ) Cross Section 76-0s-186 -100.0 To 1117. %



51 76-0s-186

MAT 7631 (n,p) Cross Section 76-Os-186
 -0.596 To 25.04 %



52 76-Os-186

MAT 7631

(n,d)

76-0s-186

Cross Section

0.000

To 84.37 %

Max Ratio

Min Ratio

TENDL Threshold 4.2683 MeV
JEFF3.3 Threshold 4.2672 MeV

Cross Section (milli-barns)

16

12

8

4

0

2.0

1.6

1.2

JEFF3.3/TENDL

Ratio

5

6

7

8

9

10

10⁷

2

3

4

5

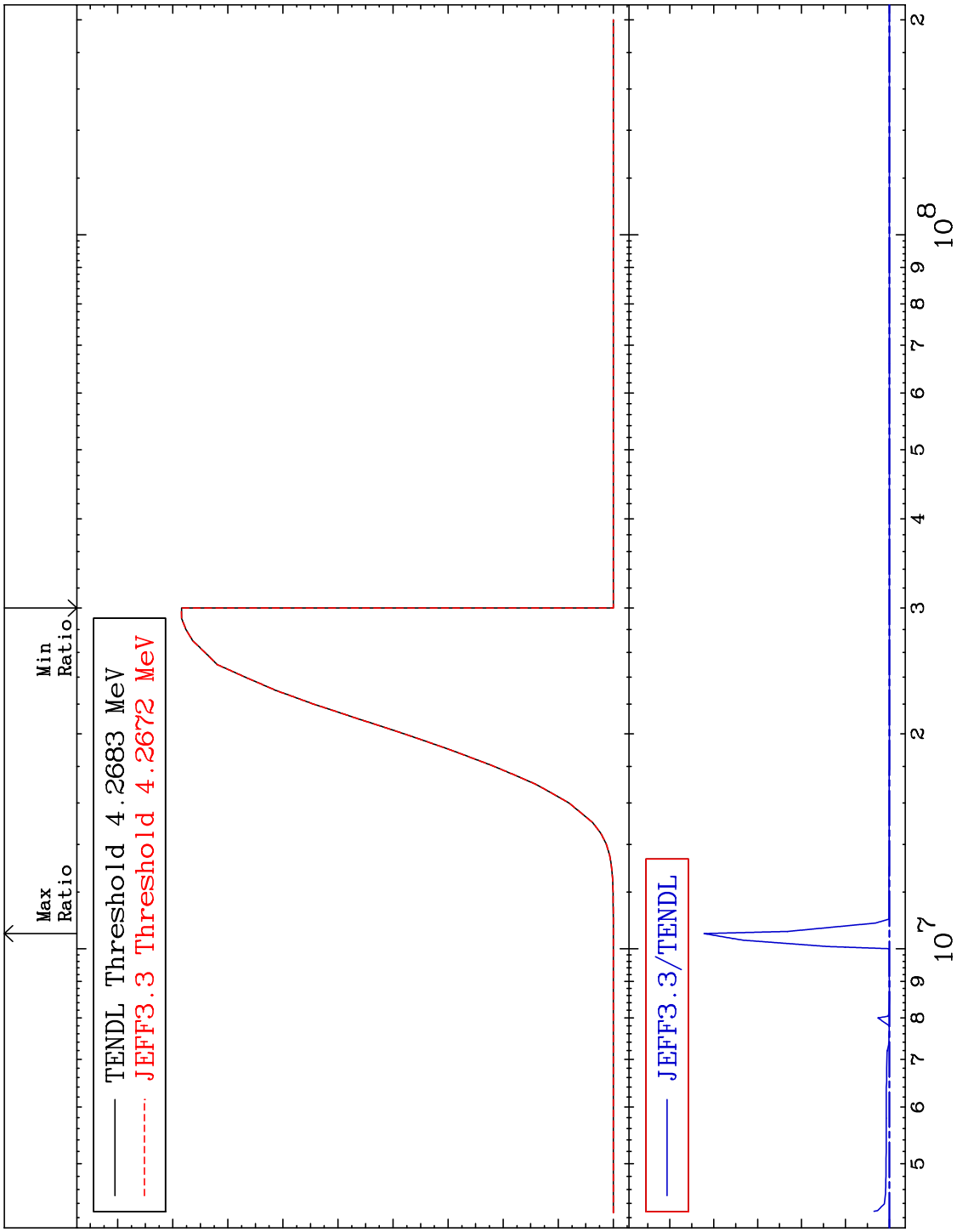
6

7

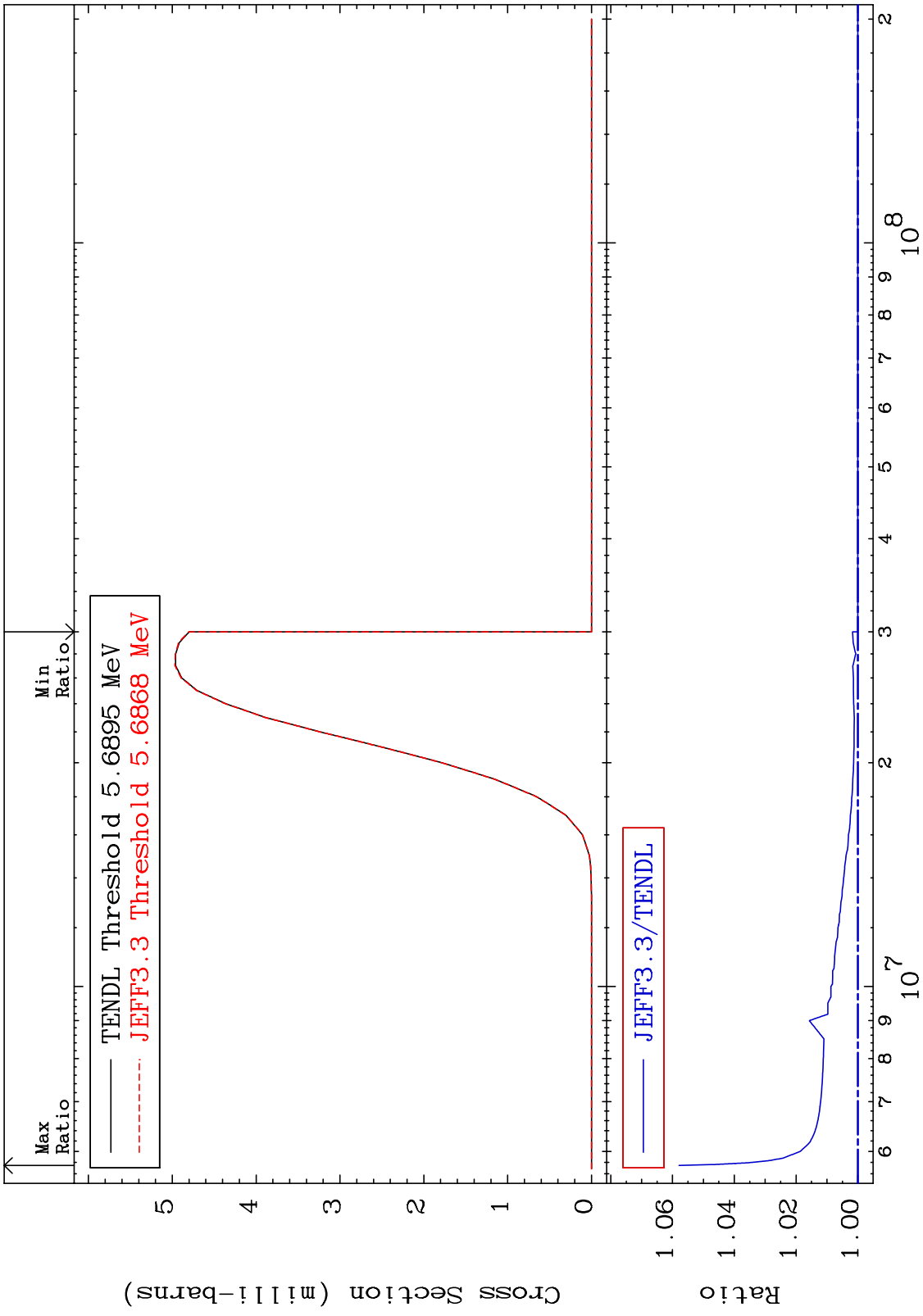
8

9

10⁸



MAT 7631 (n,t) Cross Section 76-0s-186 To 5.789 %



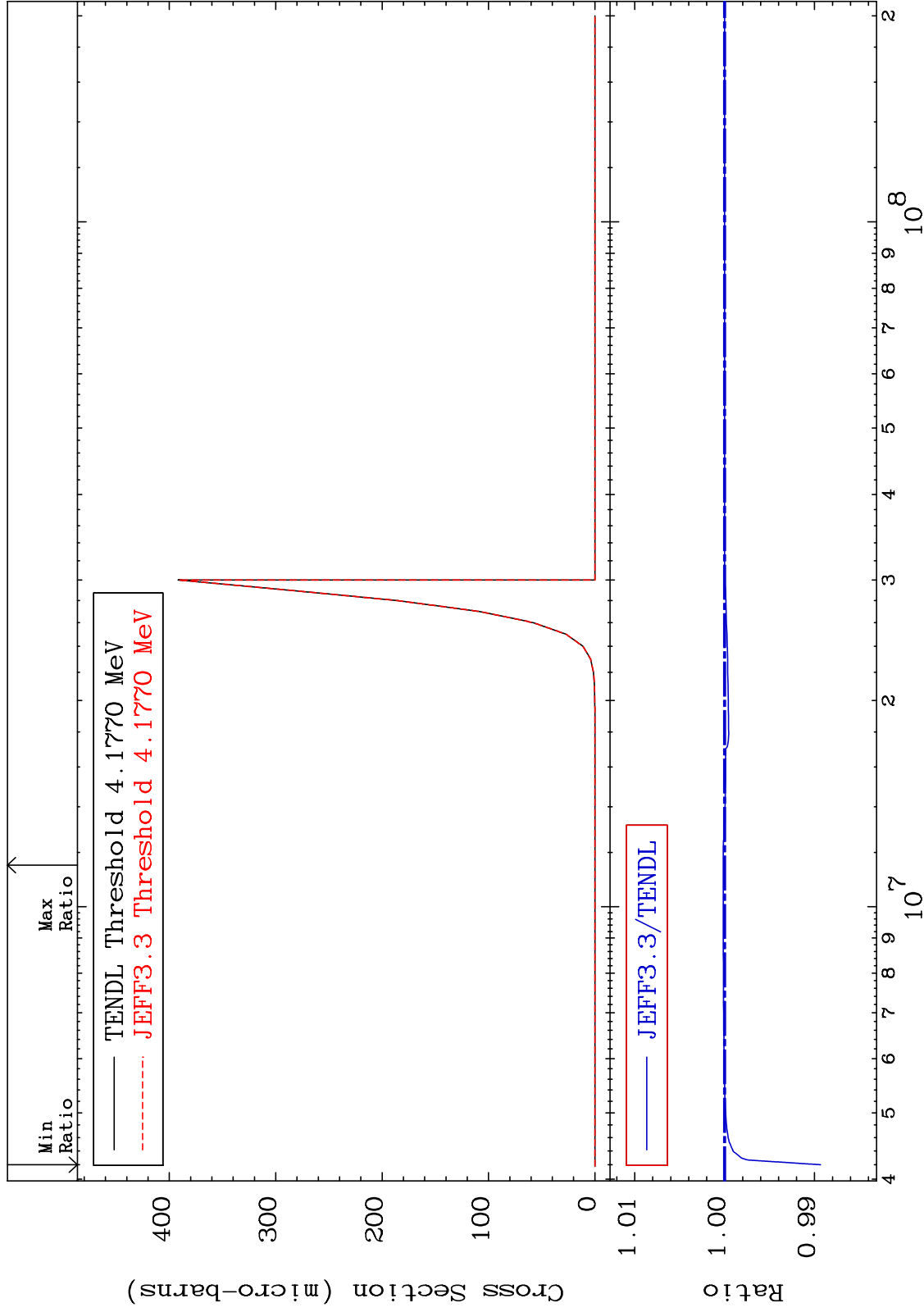
MAT 7631

(n, He-3)

76-0s-186

Cross Section

-1.067 To 0.017 %



55

Incident Energy (eV)

76-0s-186

MAT 7631

(n, α)

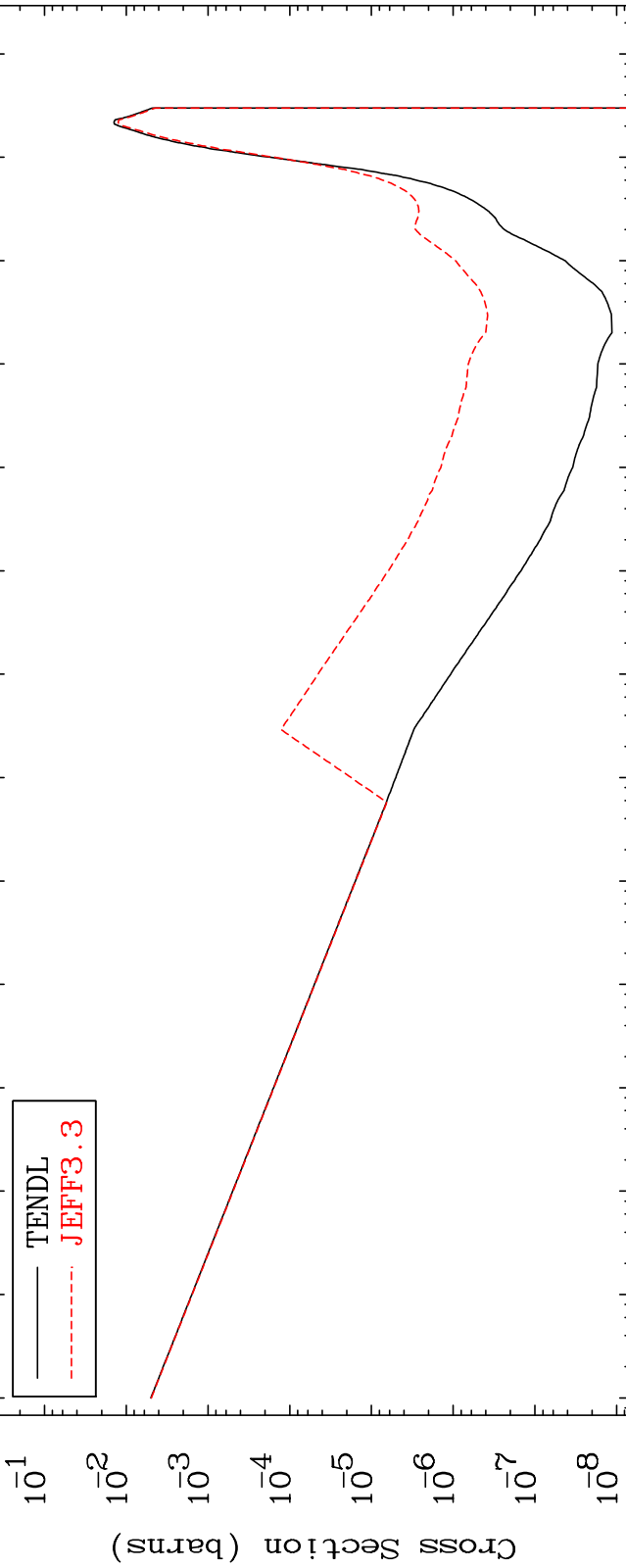
76-0s-186

-21.26 To 4111. %

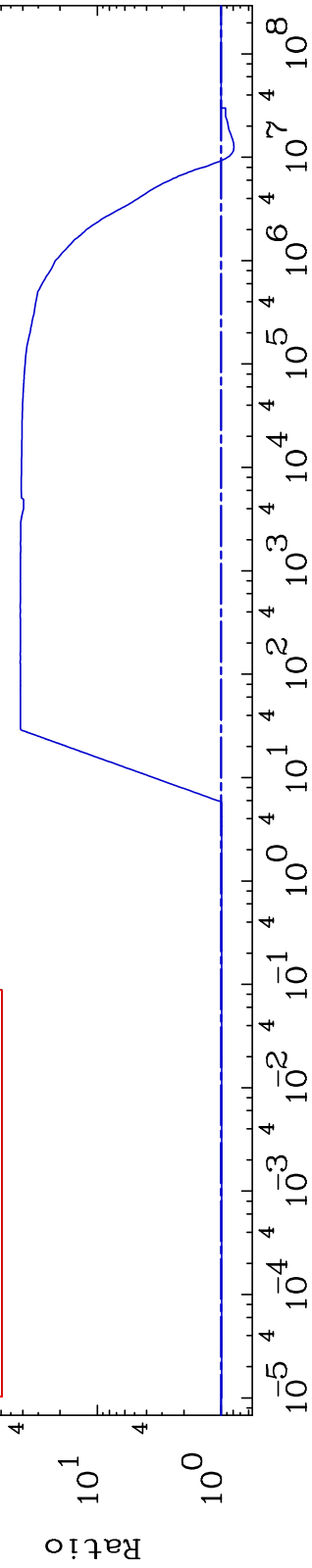
Cross Section

Max Ratio

Min Ratio



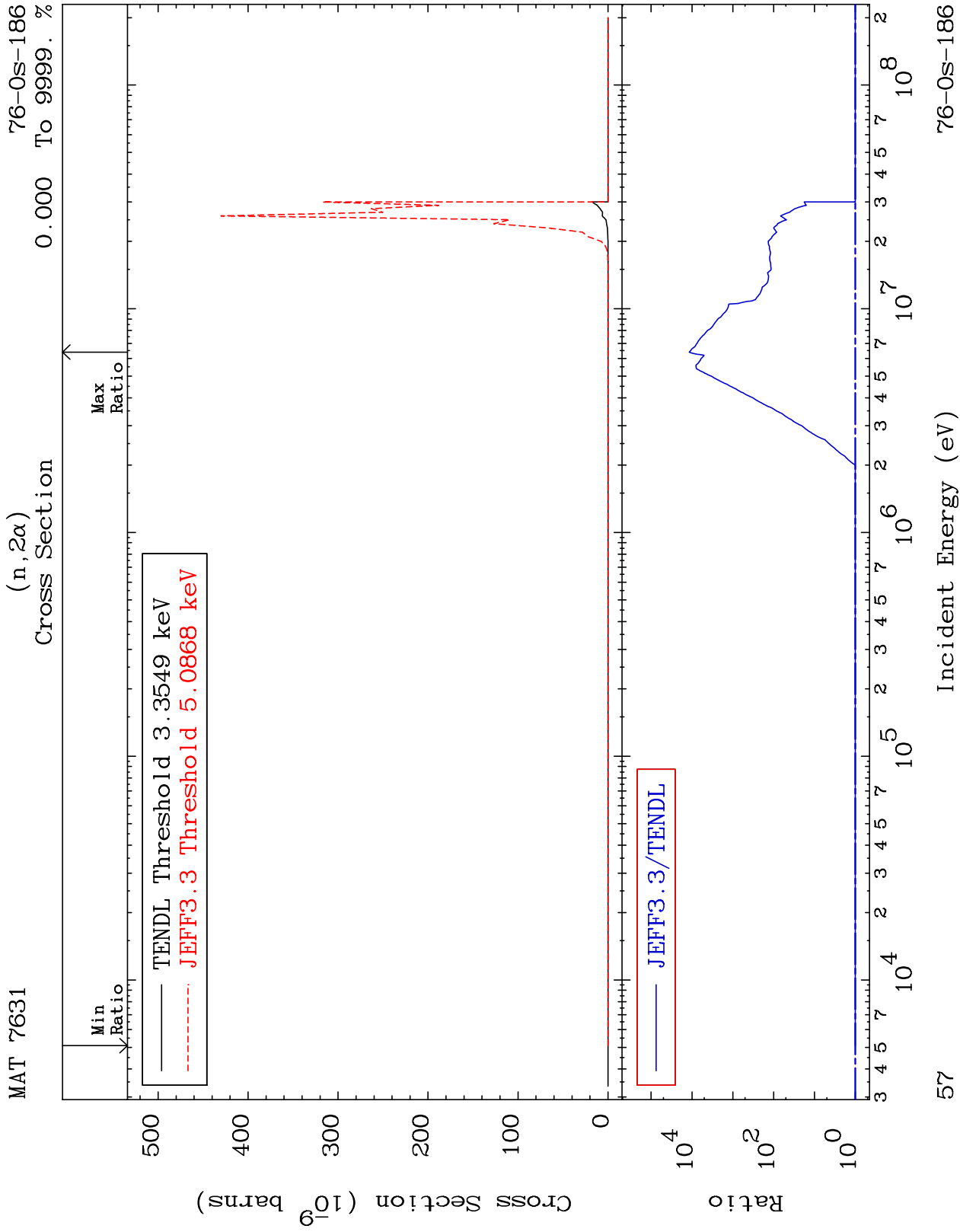
JEFF3.3/TENDL



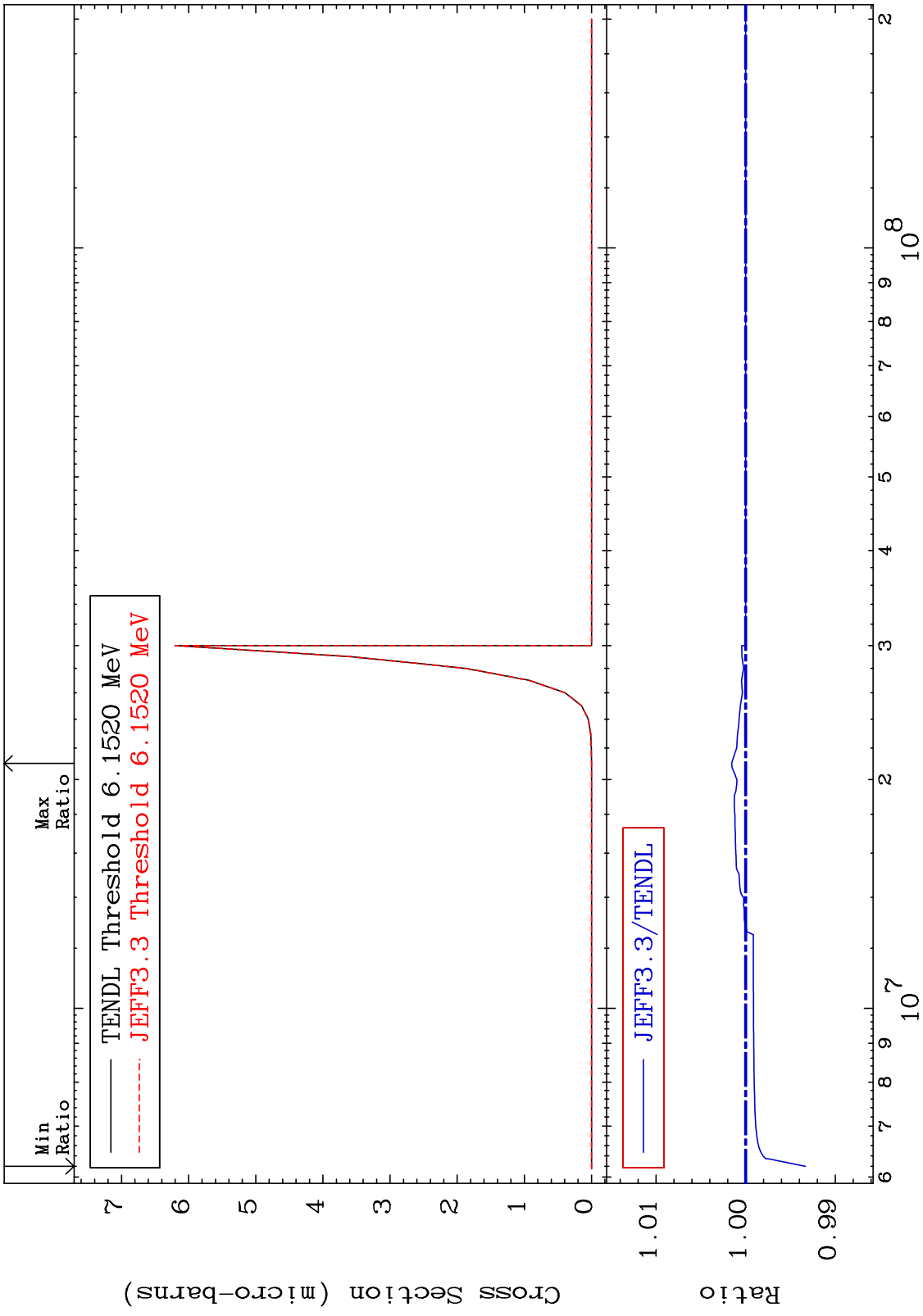
56

Incident Energy (eV)

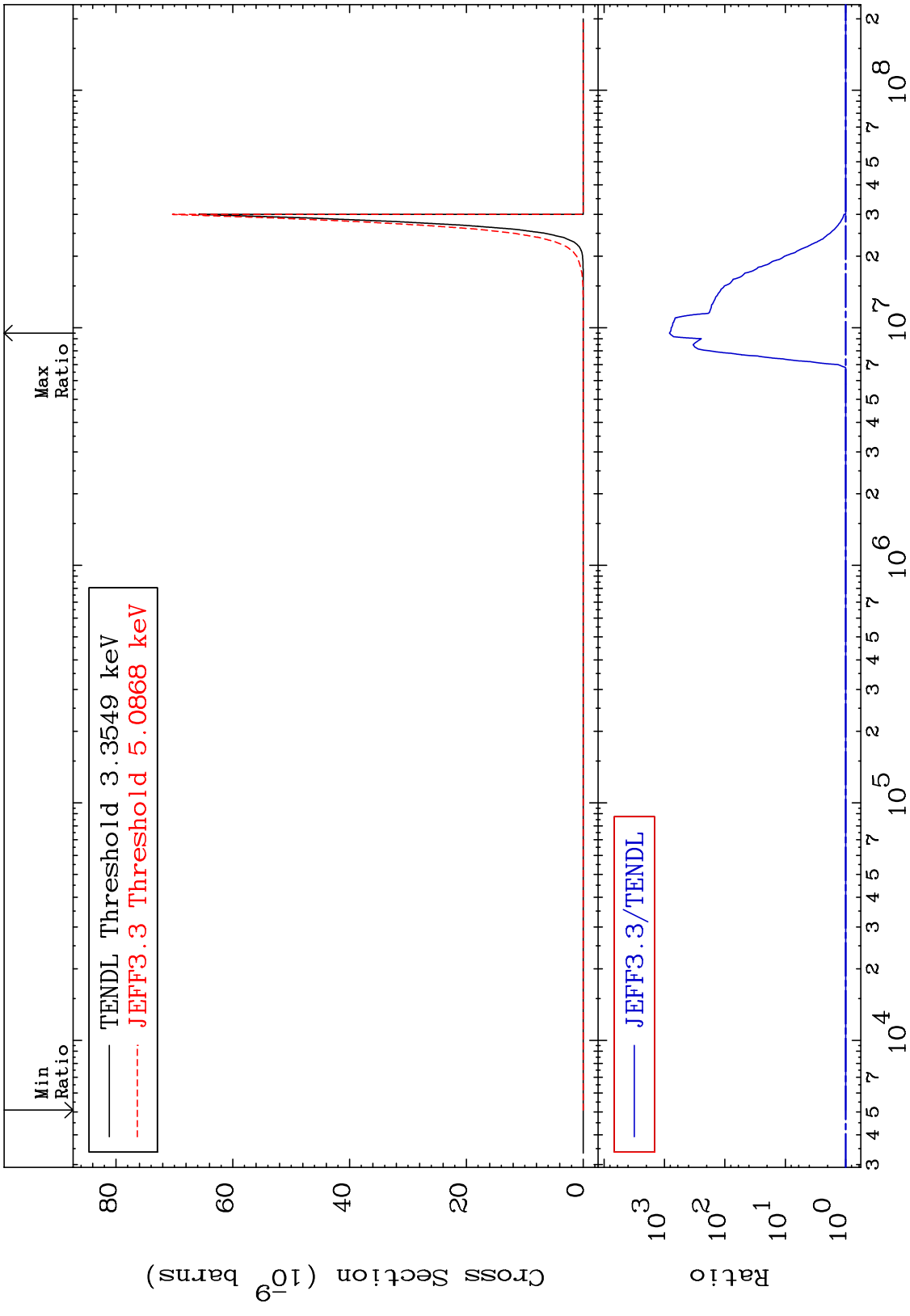
76-0s-186



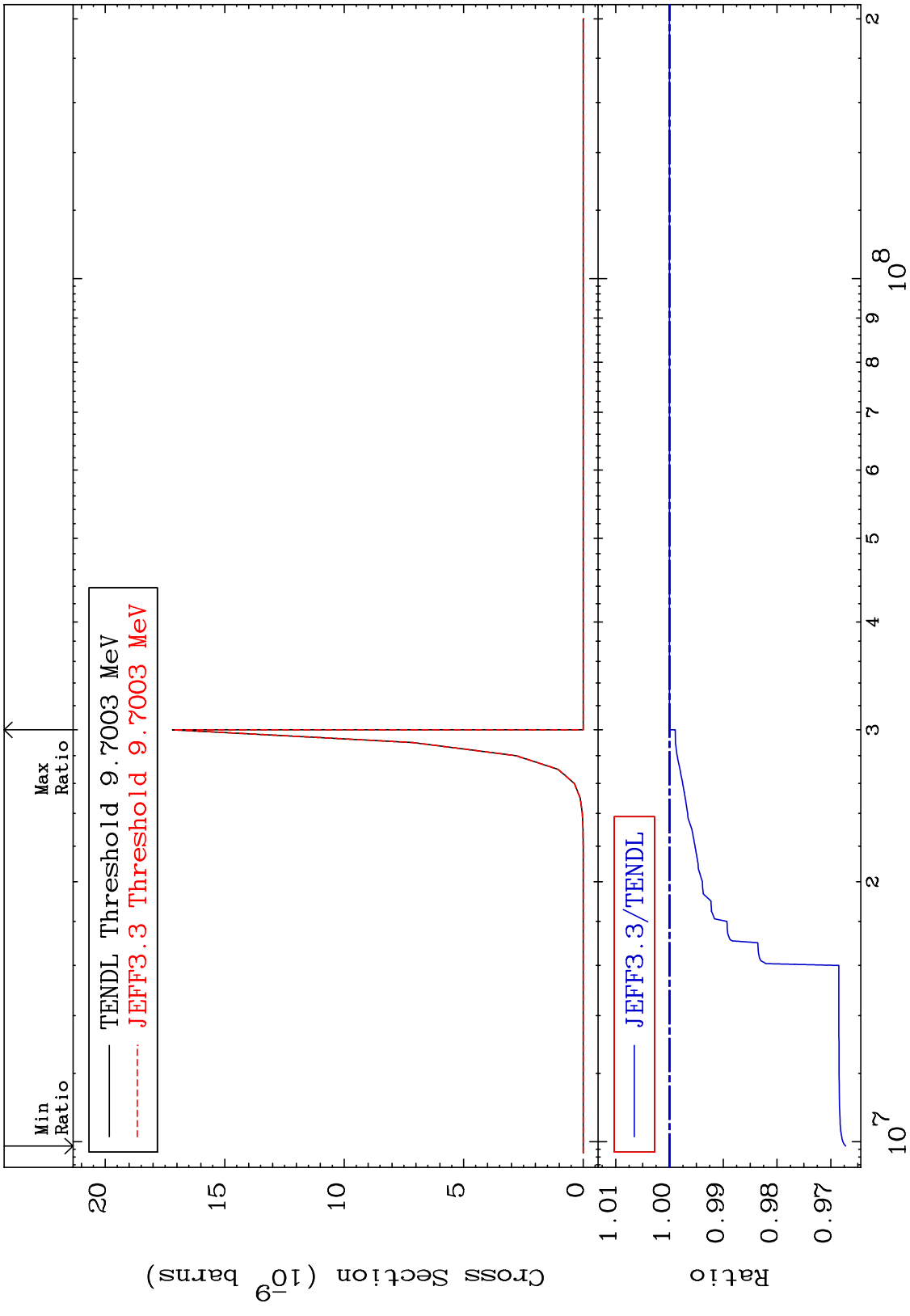
MAT 7631 (n,2p) 76-0s-186
 Cross Section -0.665 To 0.156 %



MAT 7631 (n,p) α 76-Os-186
Cross Section 0.000 To 9999. %

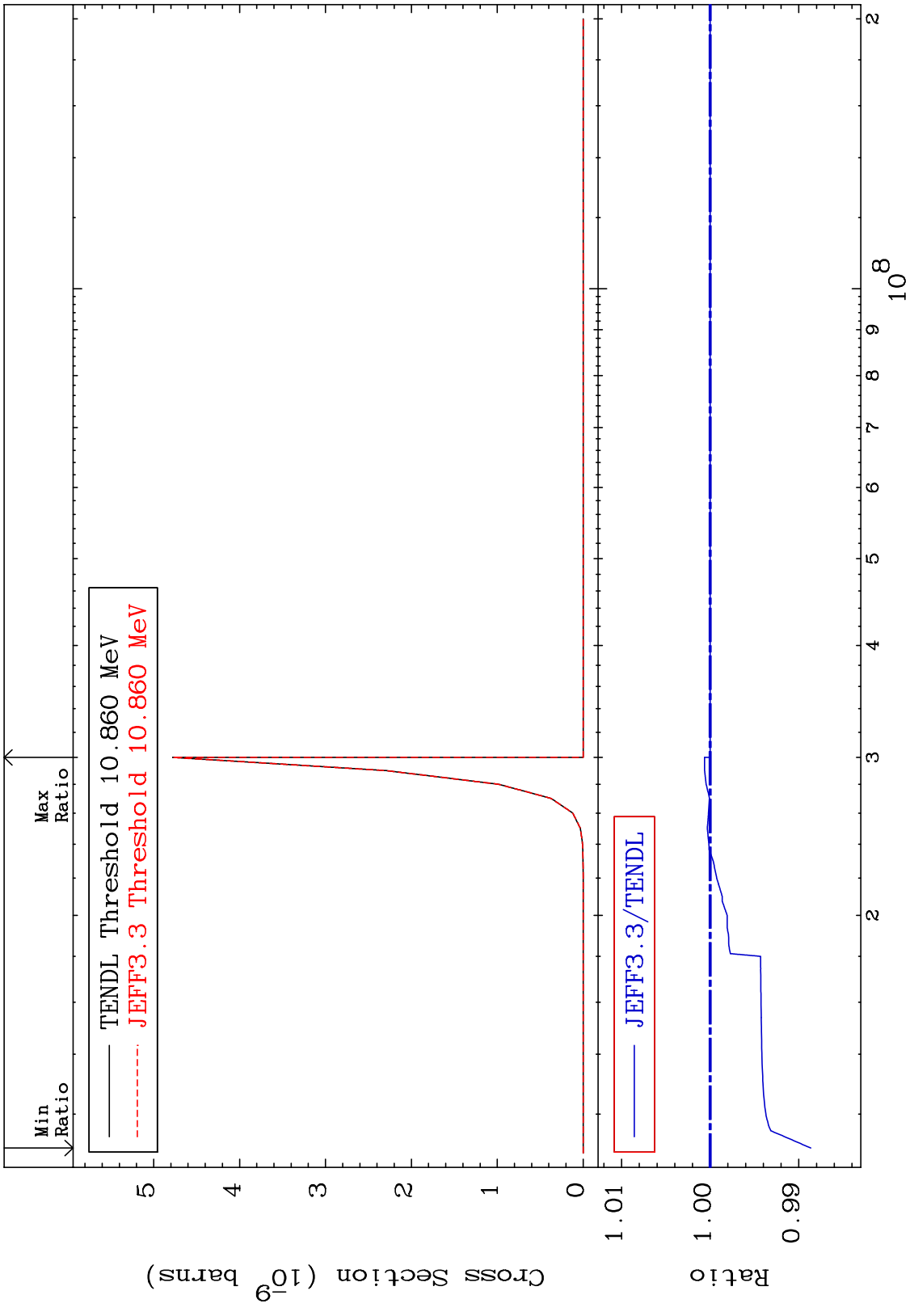


MAT 7631 (n,p) d 76-0s-186
 Cross Section -3.278 To 0.000 %



60 Incident Energy (eV) 76-0s-186

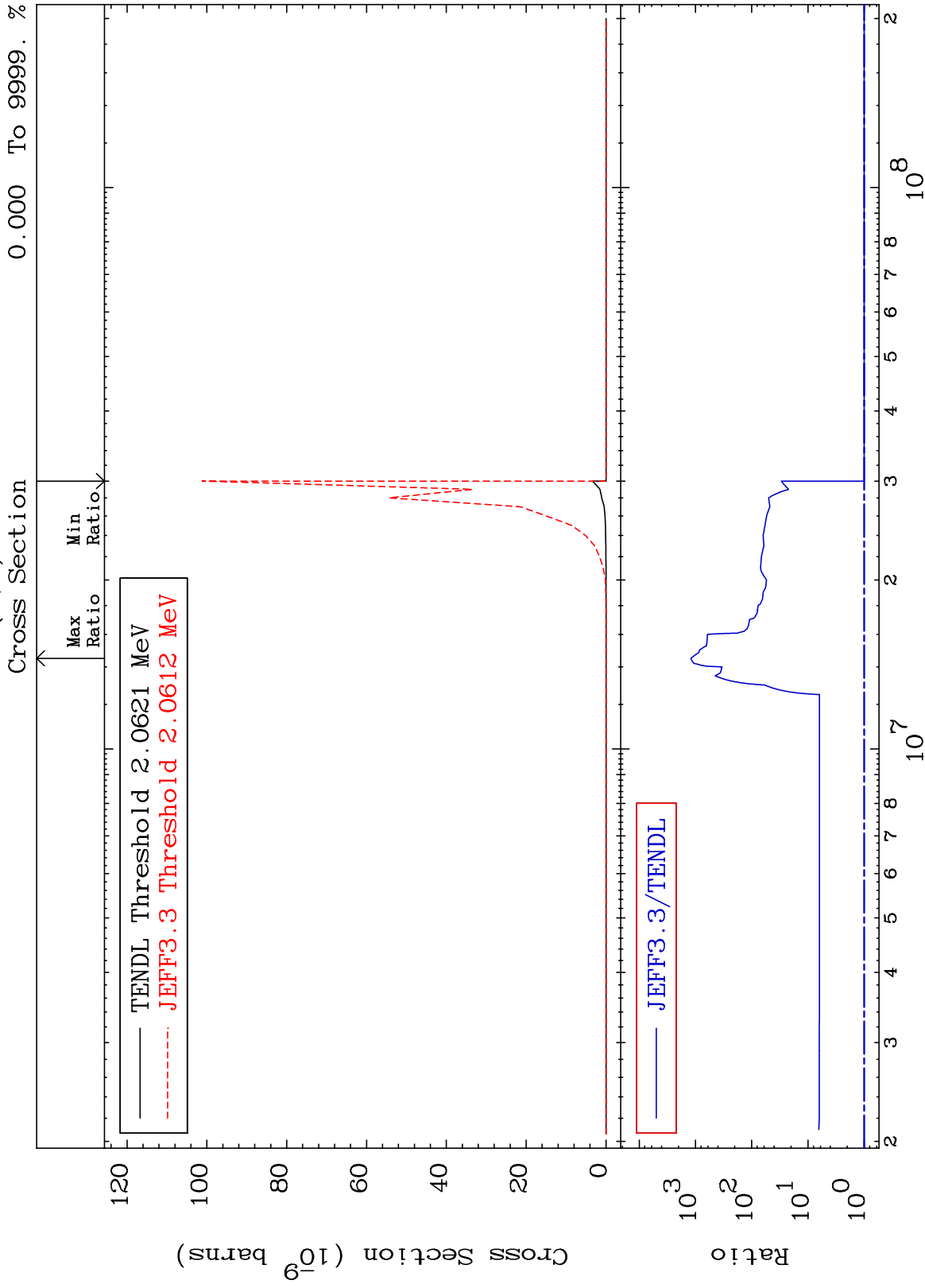
MAT 7631 (n,p) t 76-0s-186
 Cross Section -1.134 To 0.064 %



MAT 7631

(n,d) α

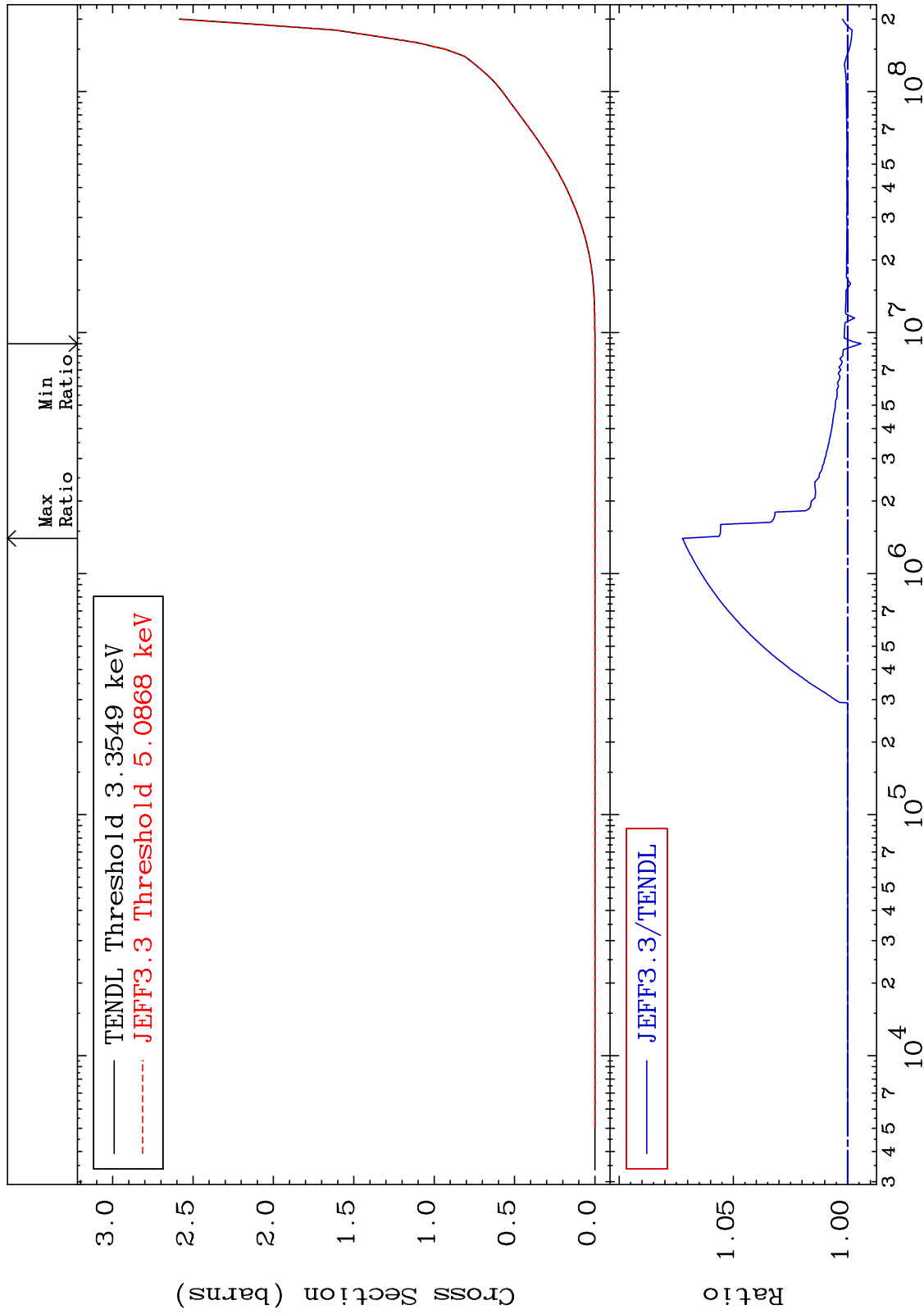
76-Os-186
To 9999. %
0.000



MAT 7631

Hydrogen Production
Cross Section

76-0s-186
-0.596 To 7.229 %



63

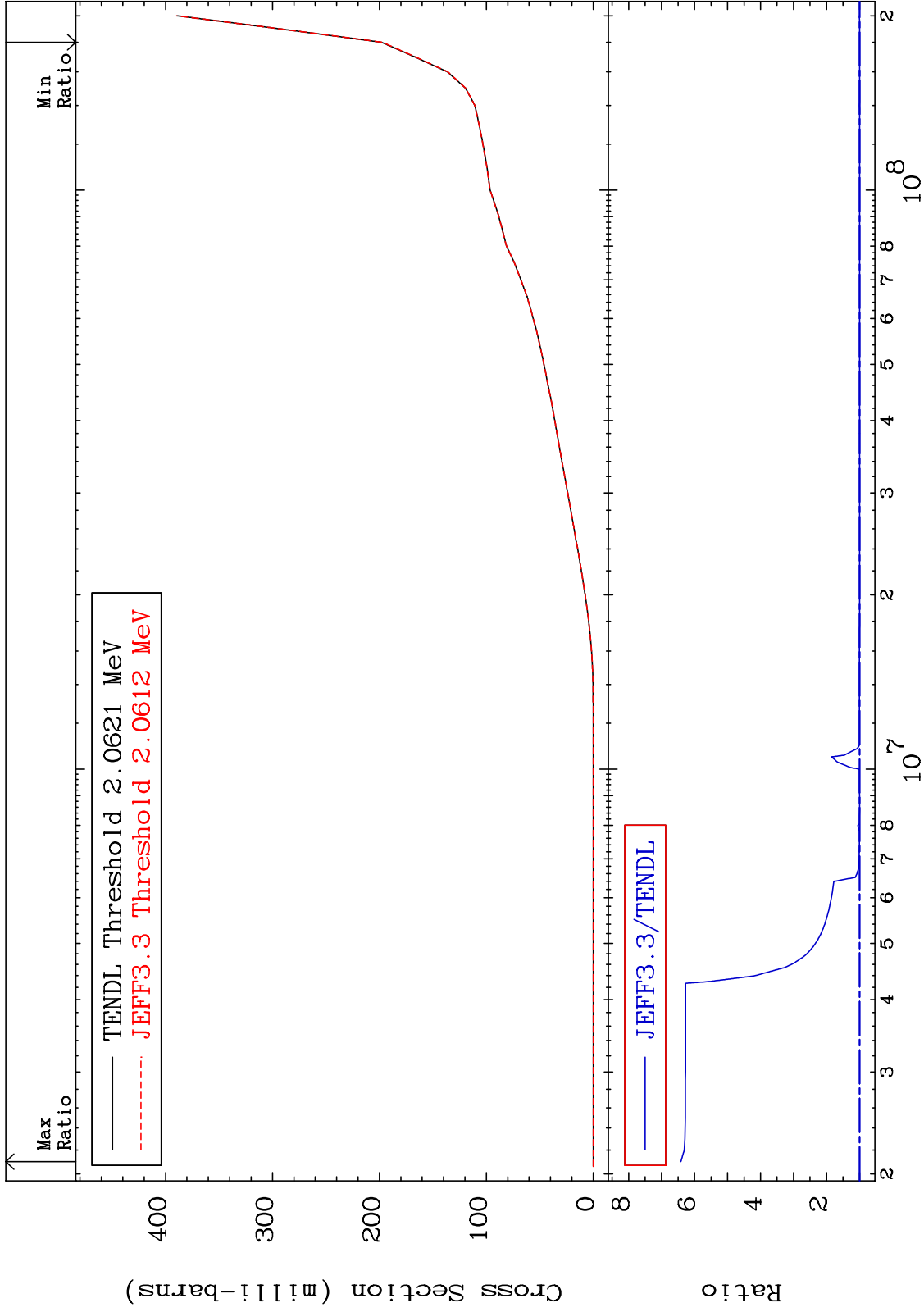
Incident Energy (eV)

76-0s-186

MAT 7631

Deuterium Production
Cross Section

76-0s-186
-0.397 To 541.8 %



64

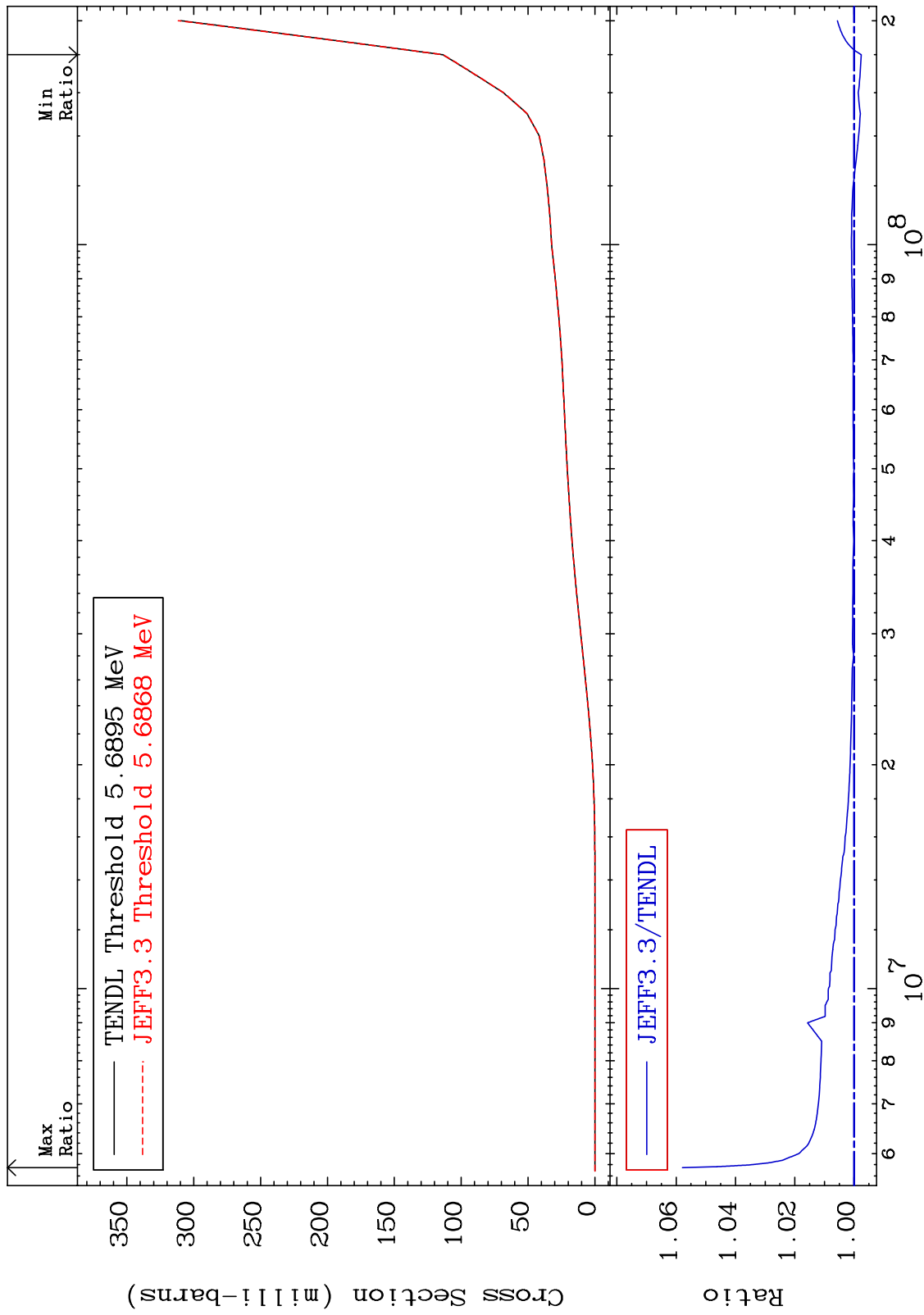
Incident Energy (eV)

76-0s-186

MAT 7631

Tritium Production
Cross Section

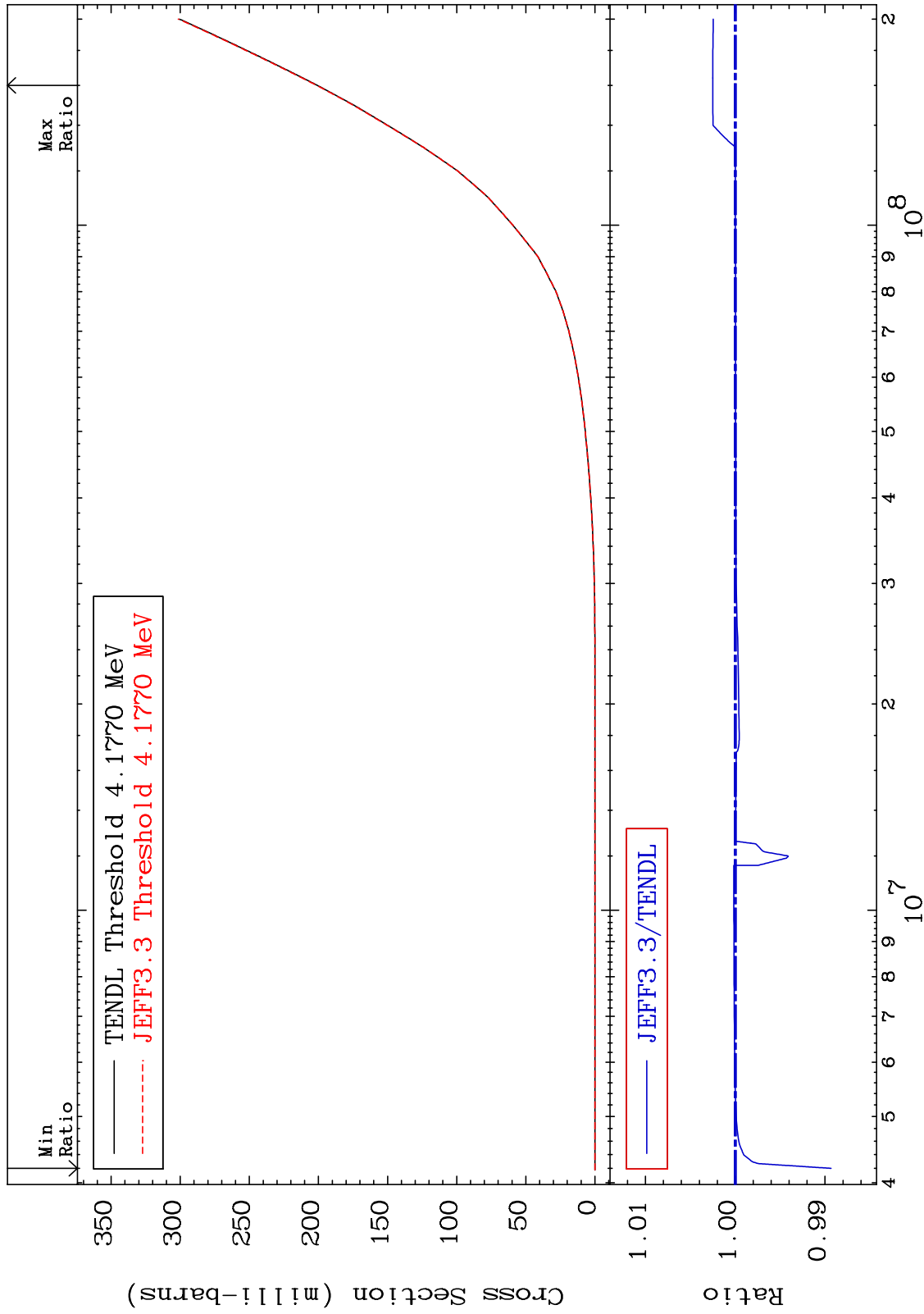
76-0s-186
-0.241 To 5.789 %



MAT 7631

He-3 Production
Cross Section

76-0s-186
-1.067 To 0.251 %



66

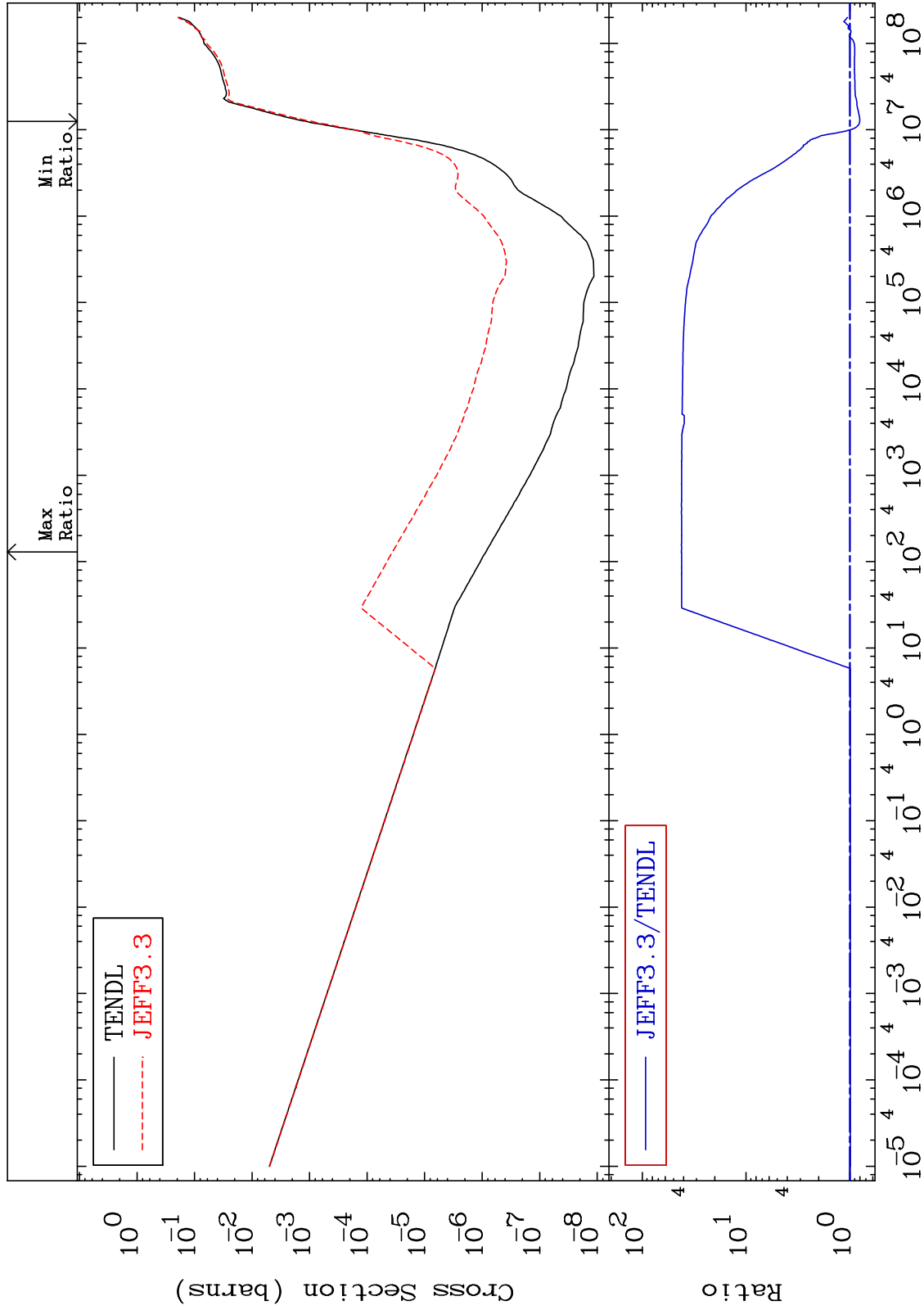
Incident Energy (eV)

76-0s-186

MAT 7631

He-4 Production
Cross Section

76-0s-186
-19.74 To 4111. %

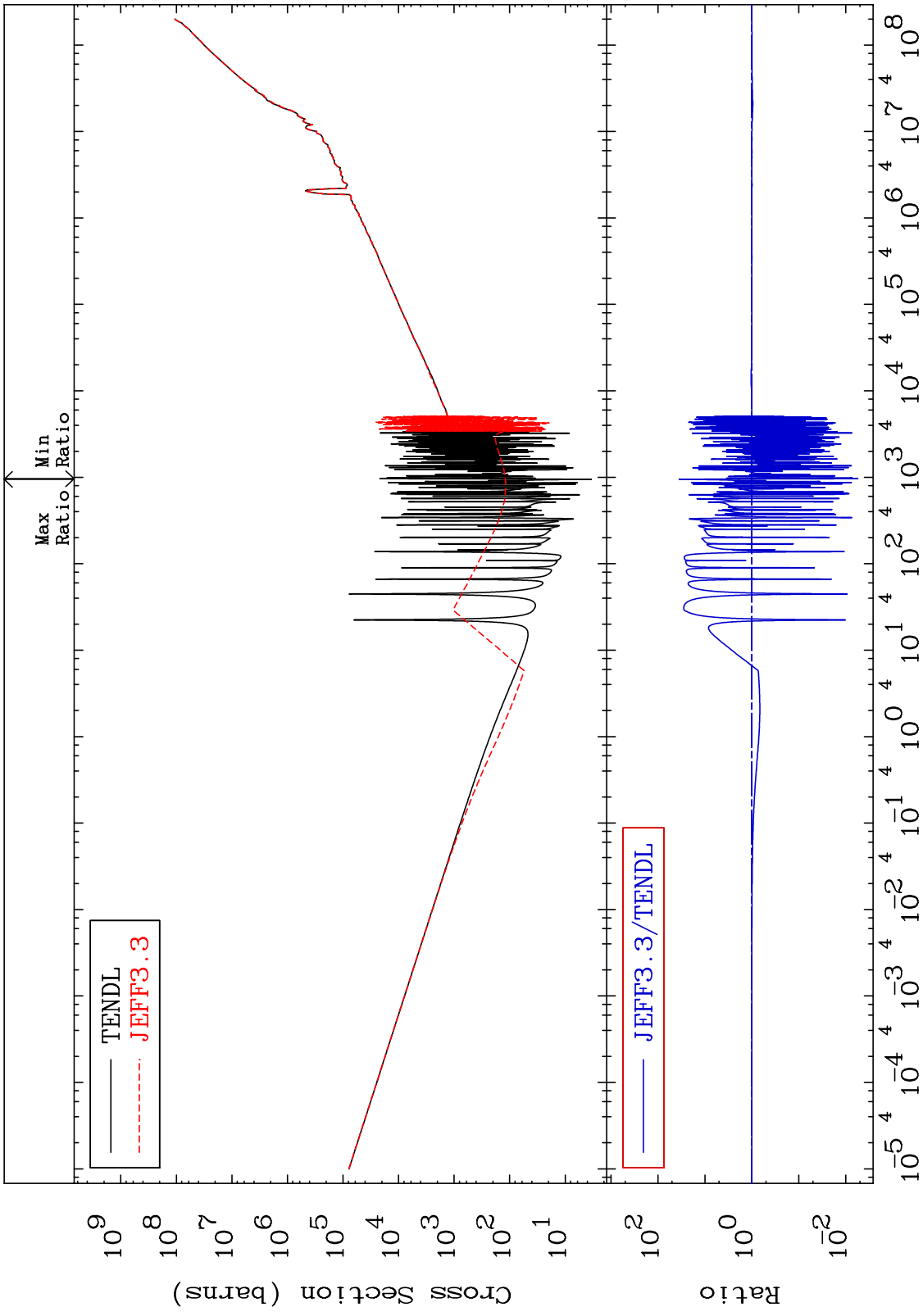


67

Incident Energy (eV)

76-0s-186

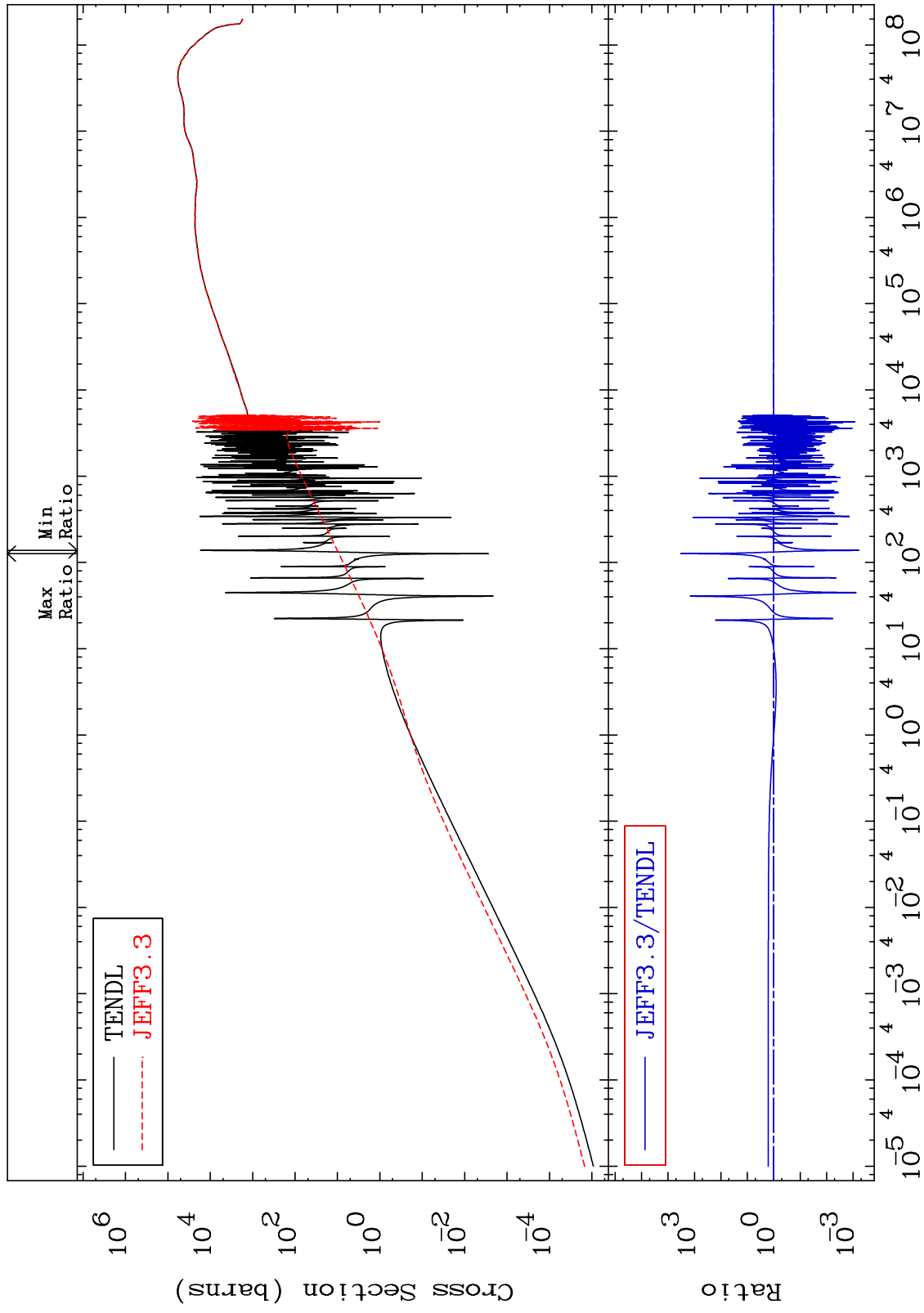
MAT 7631 Kerma total (eV-barns) 76-Os-186
 Cross Section -99.45 To 3455. %



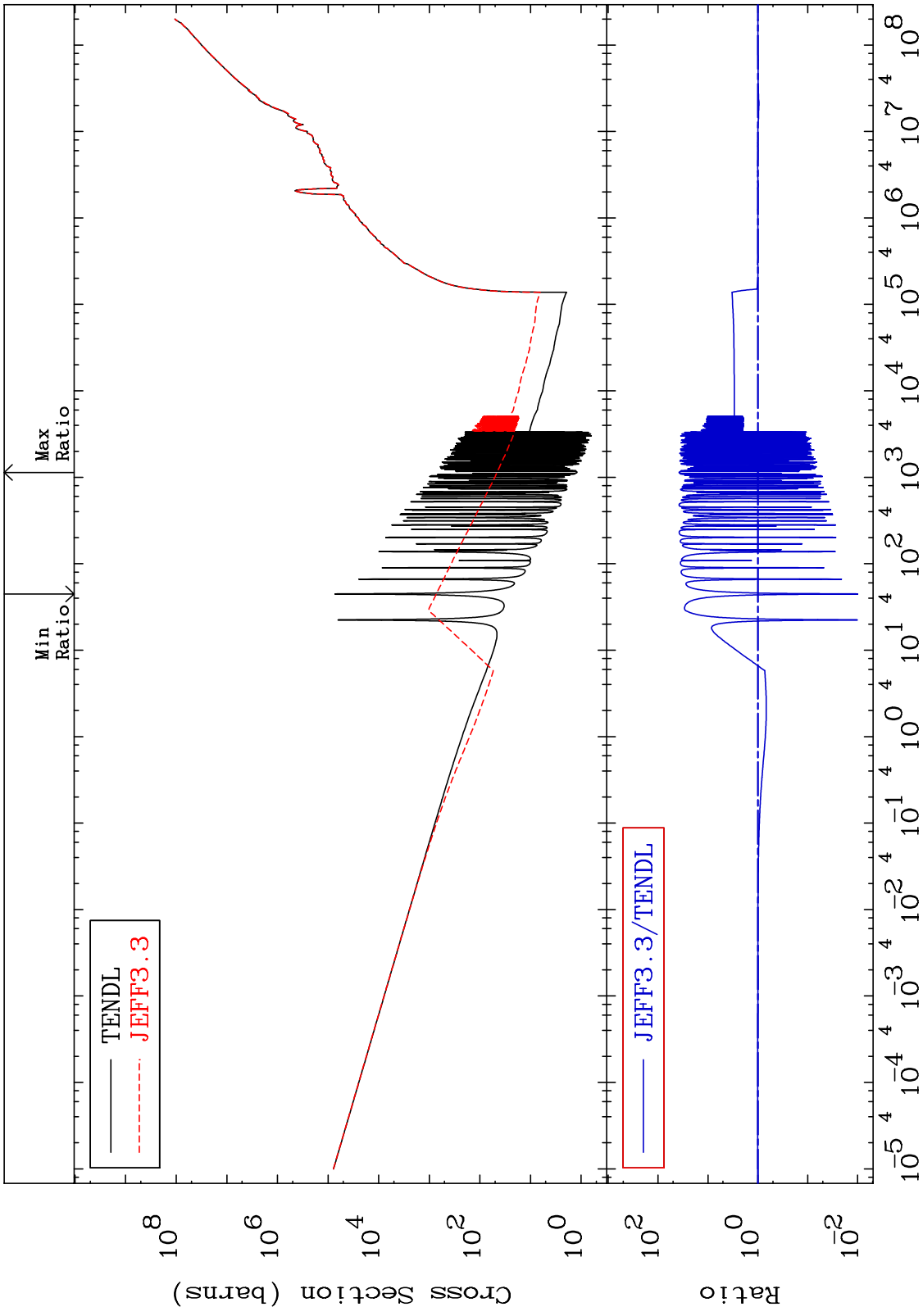
MAT 7631

Kerma elastic
Cross Section

76-Os-186
-99.94 To 9999. %



MAT 7631 Kerma non-elastic (all but mt2) 76-Os-186
 -99.01 To 3695. %
 Cross Section

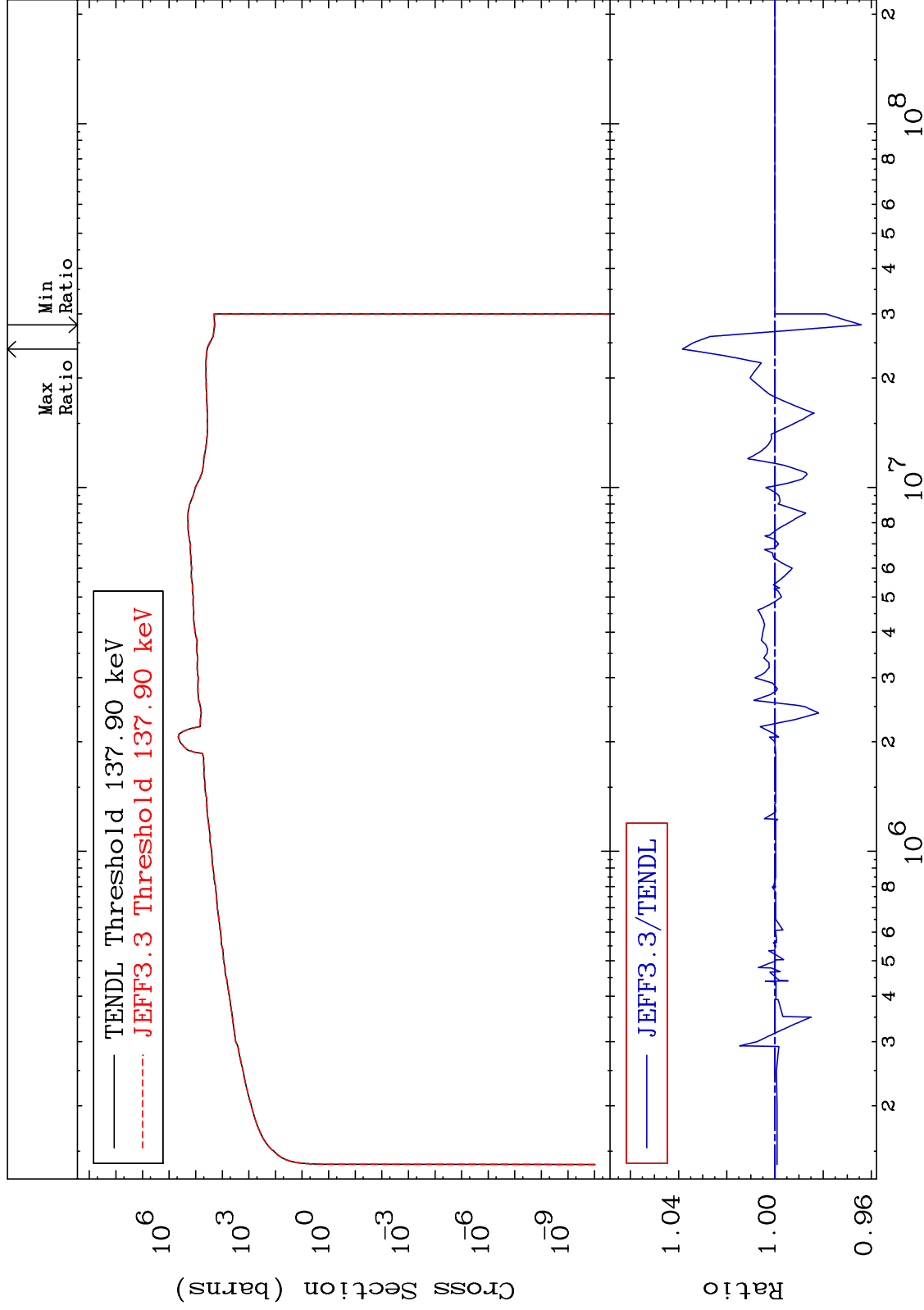


70 76-Os-186

MAT 7631

Kerma inelastic (mt51-91)
Cross Section

76-0s-186
-3.585 To 3.838 %



71

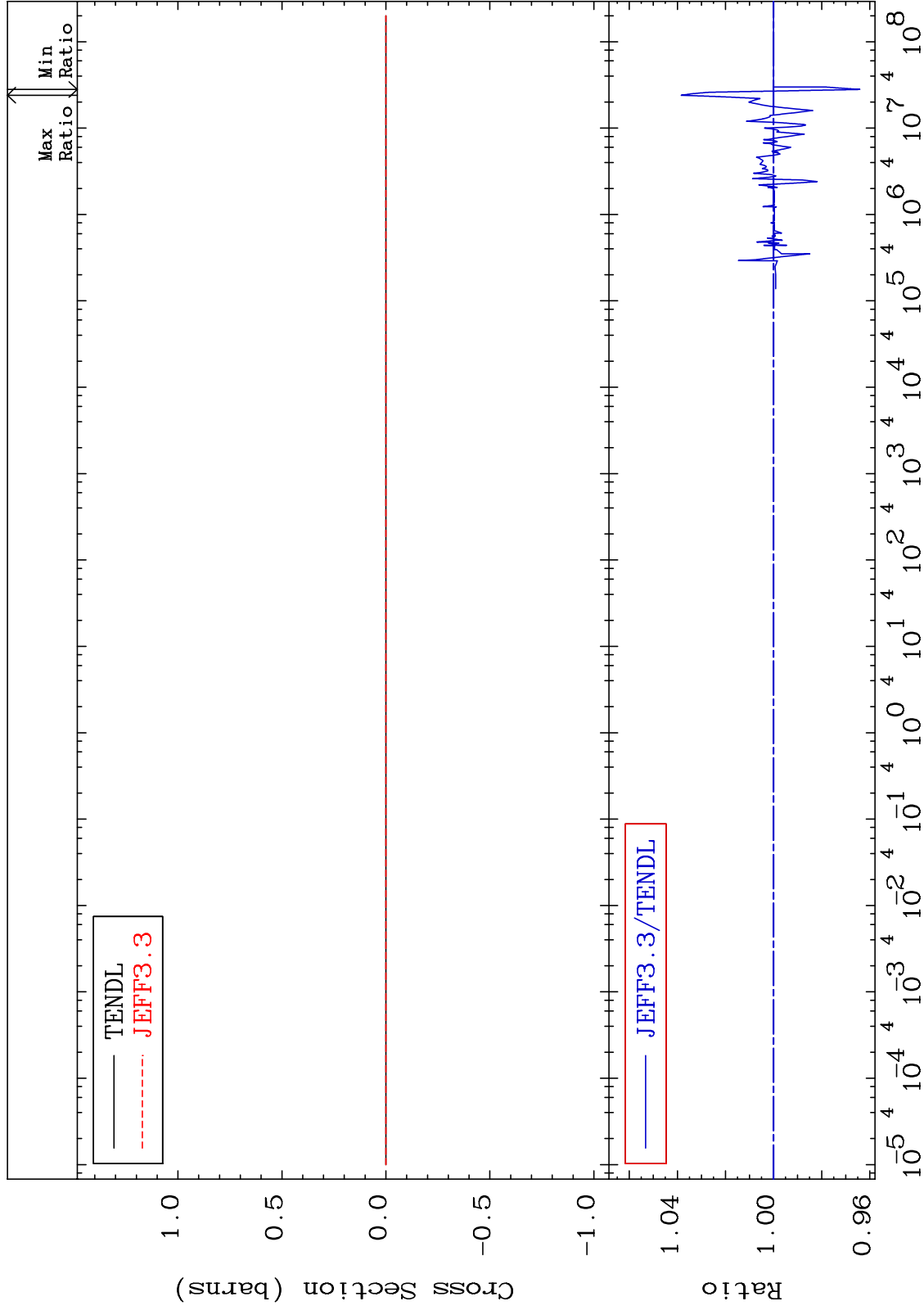
Incident Energy (eV)

76-0s-186

MAT 7631

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

76-0s-186
-3.585 To 3.838 %



72

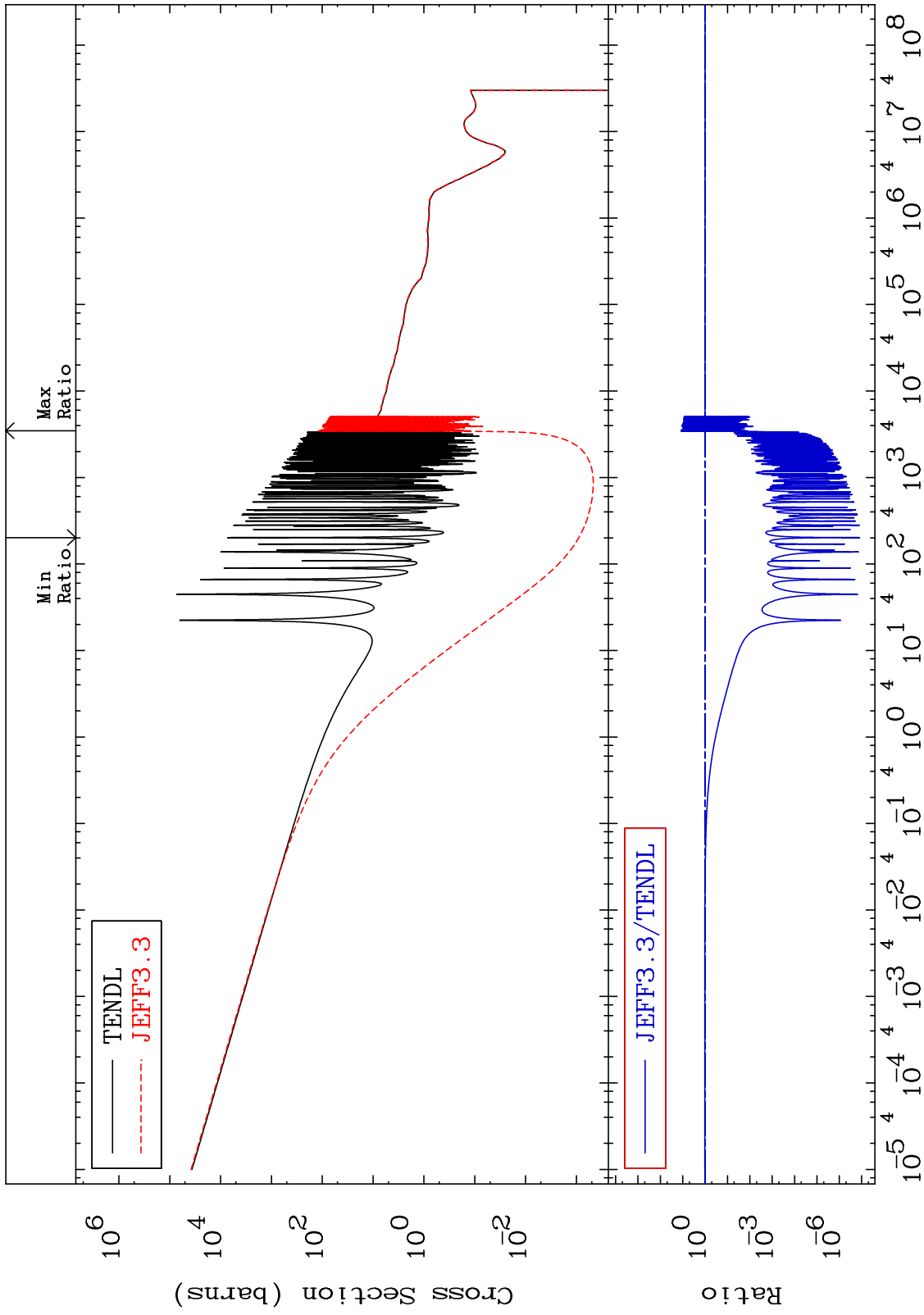
Incident Energy (eV)

76-0s-186

MAT 7631

Kerma capture (mt102)
Cross Section

76-0s-186
-100.0 To 1117. %

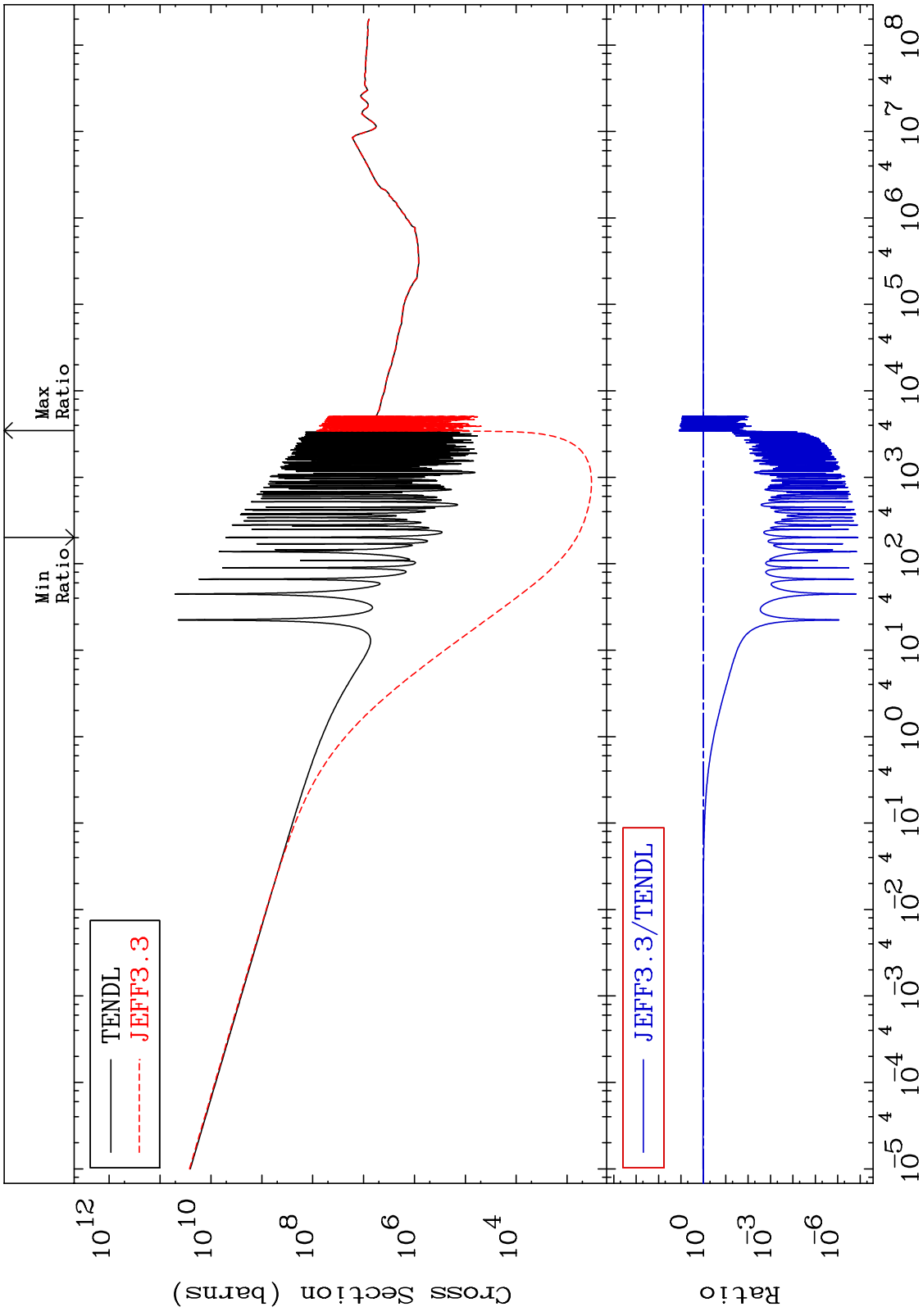


73

Incident Energy (eV)

76-0s-186

MAT 7631 Total photon (eV-barns) Cross Section 76-Os-186 -100.0 To 1117. %

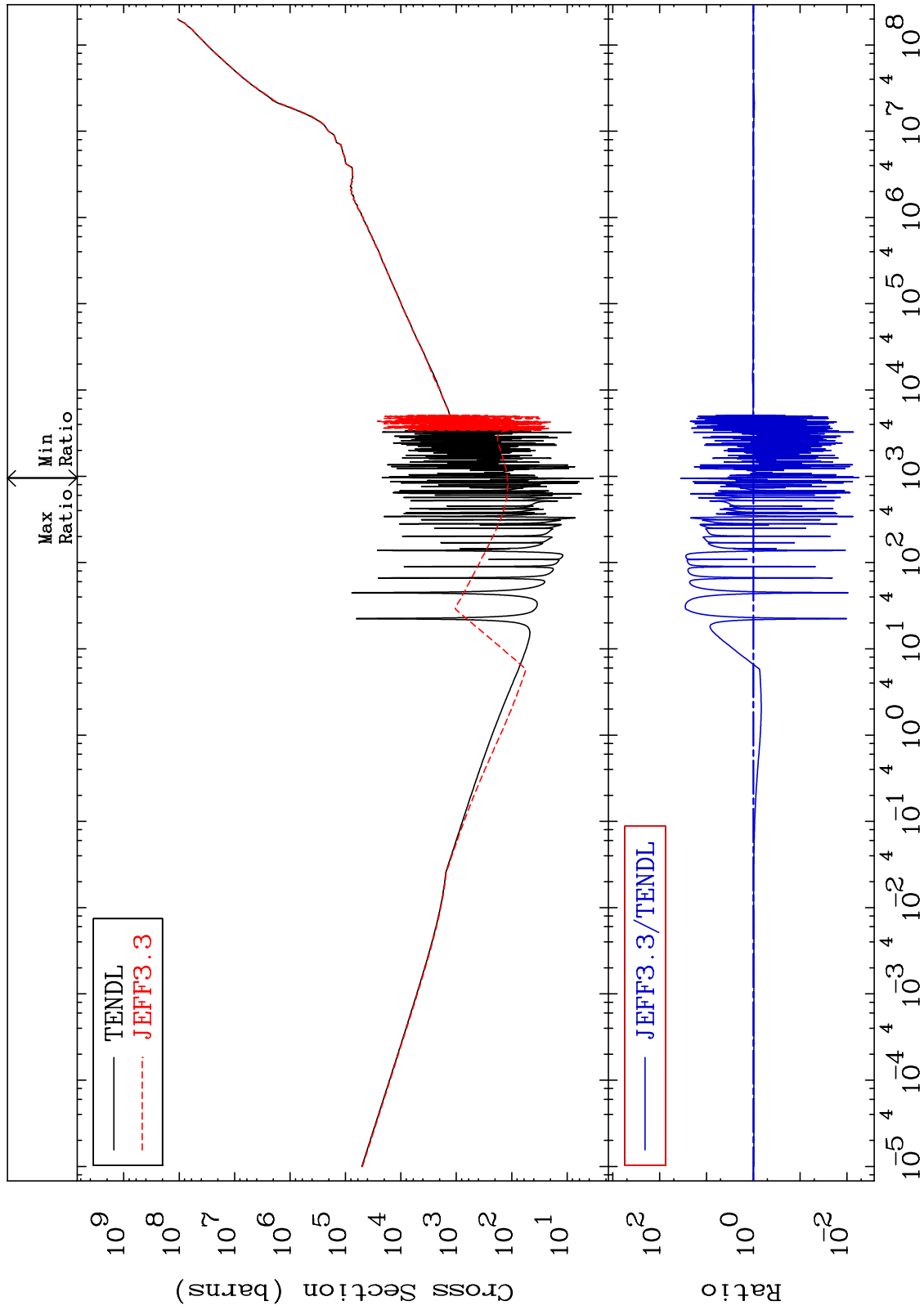


74 76-Os-186

MAT 7631

Total kinematic kerma (high limit)
Cross Section

76-Os-186
-99.44 To 3457. %

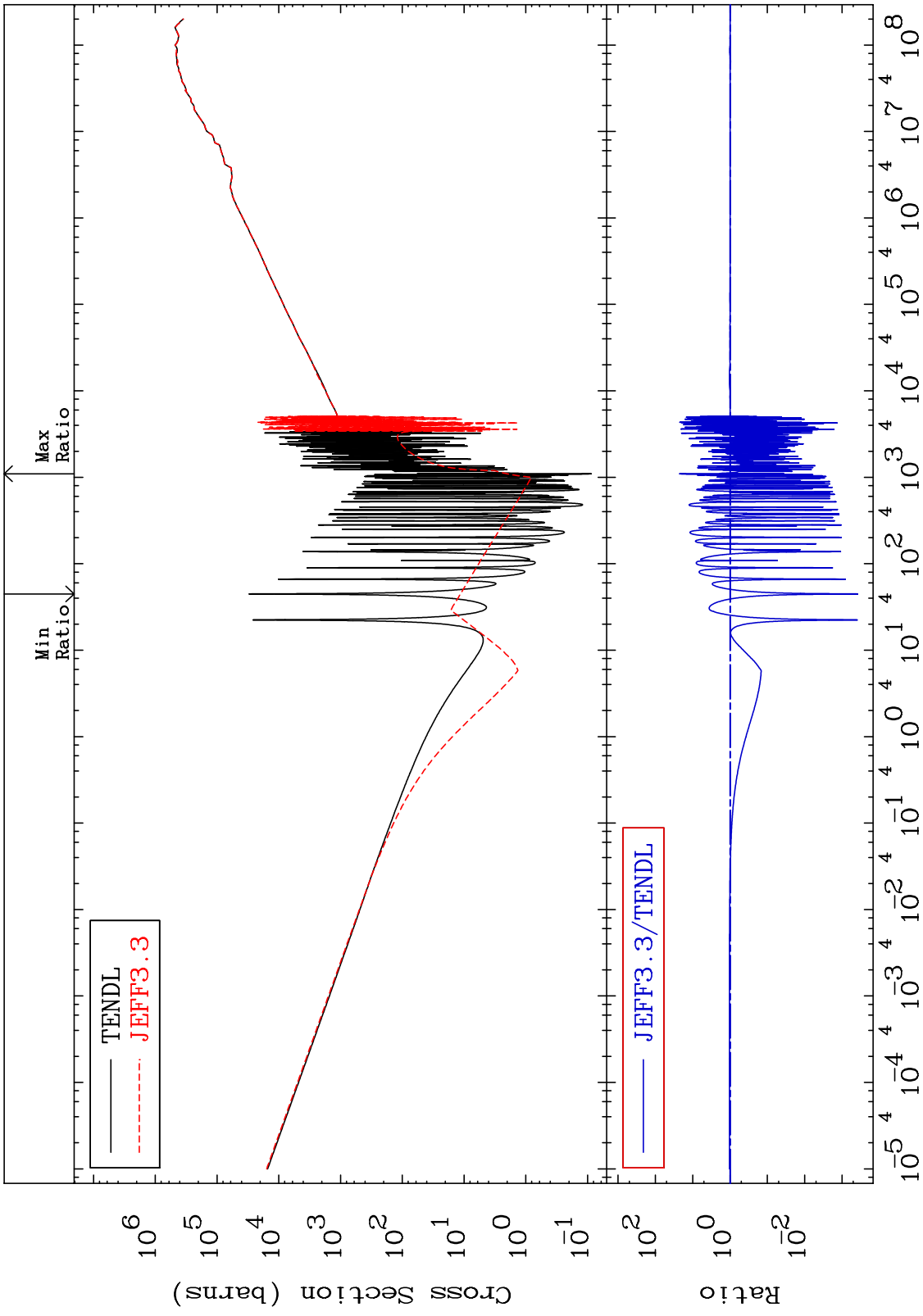


75

Incident Energy (eV)

76-Os-186

MAT 7631 Dpa total (eV-barns) 76-0s-186
 Cross Section -99.96 To 2221. %

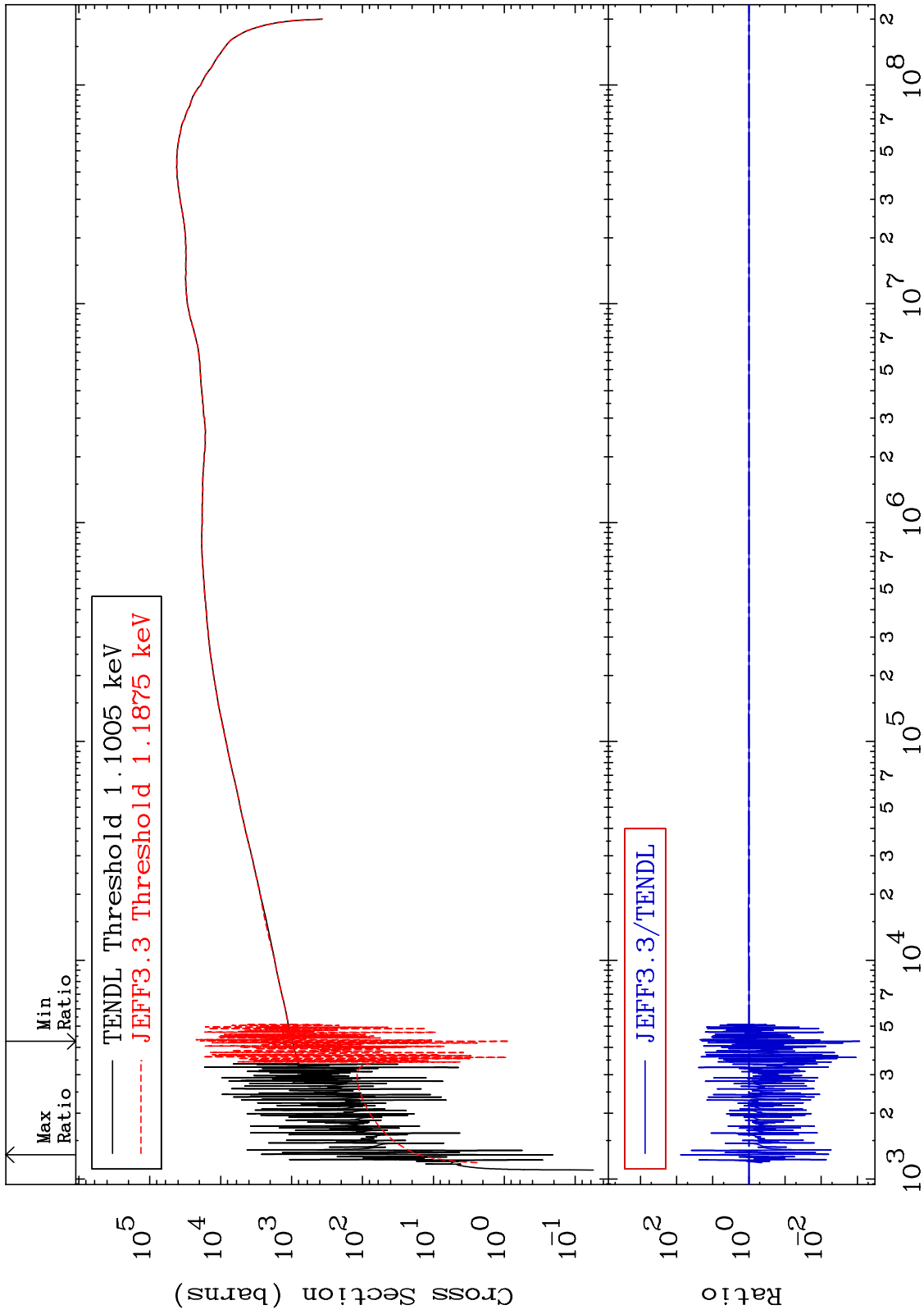


76 Incident Energy (eV) 76-0s-186

MAT 7631

Dpa elastic (mt2)
Cross Section

76-Os-186
-99.91 To 7530. %



77

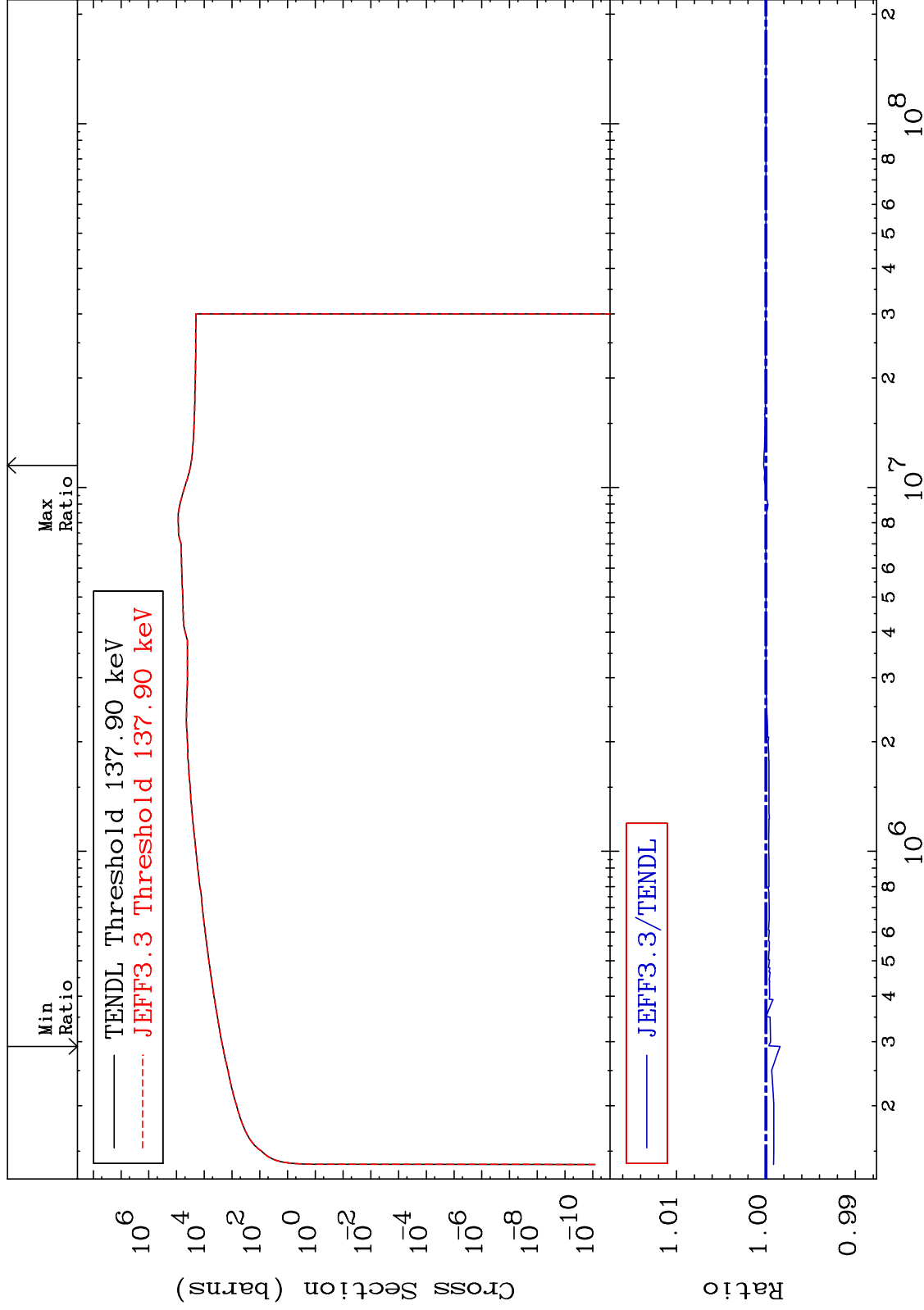
Incident Energy (eV)

76-Os-186

MAT 7631

Dpa inelastic (mt51-91)
Cross Section

76-0s-186
-0.159 To 0.025 %

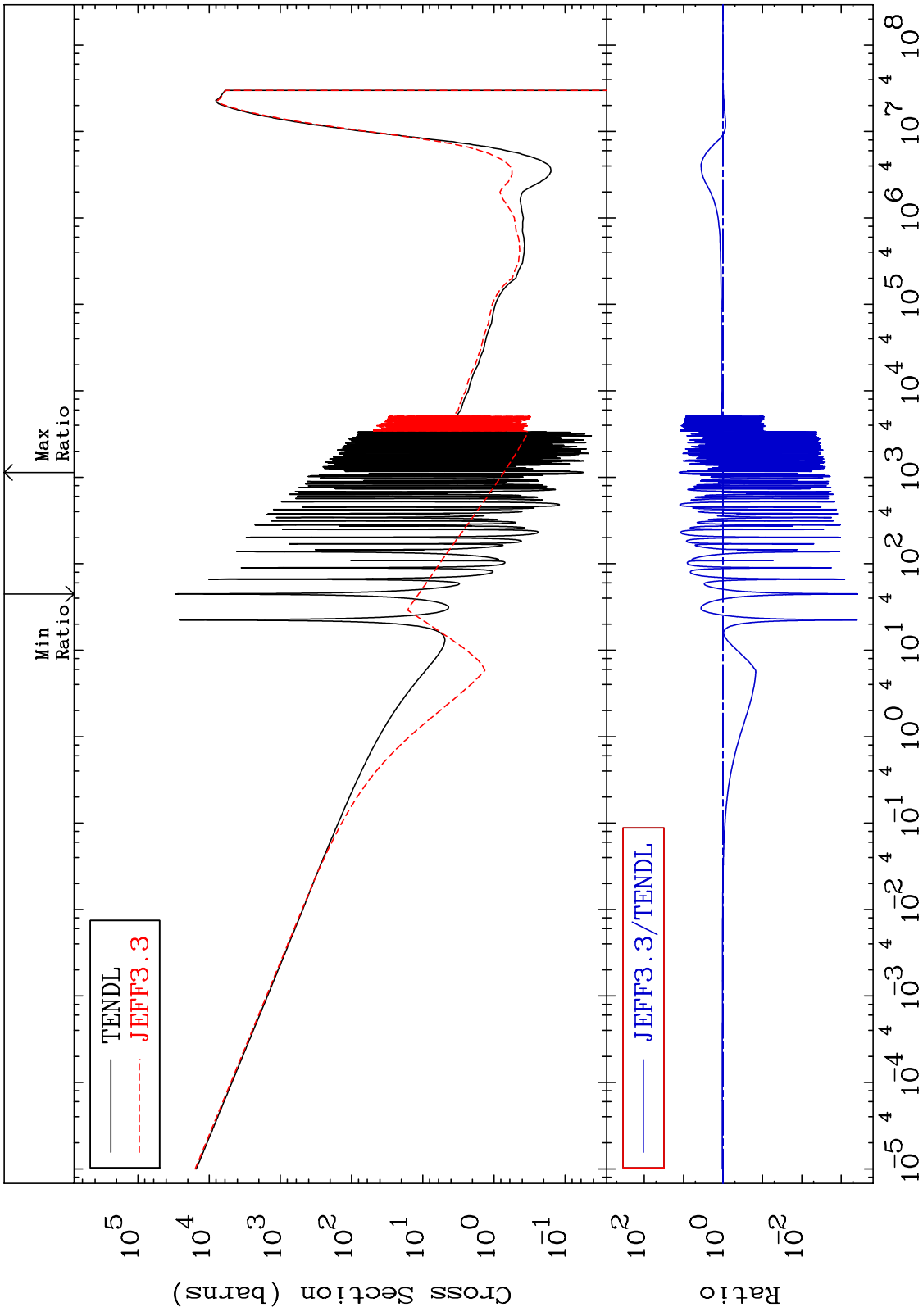


78

Incident Energy (eV)

76-0s-186

MAT 7631 Dpa disappearance (mt102 -120) 76-Os-186
 Cross Section -99.96 To 1204. %



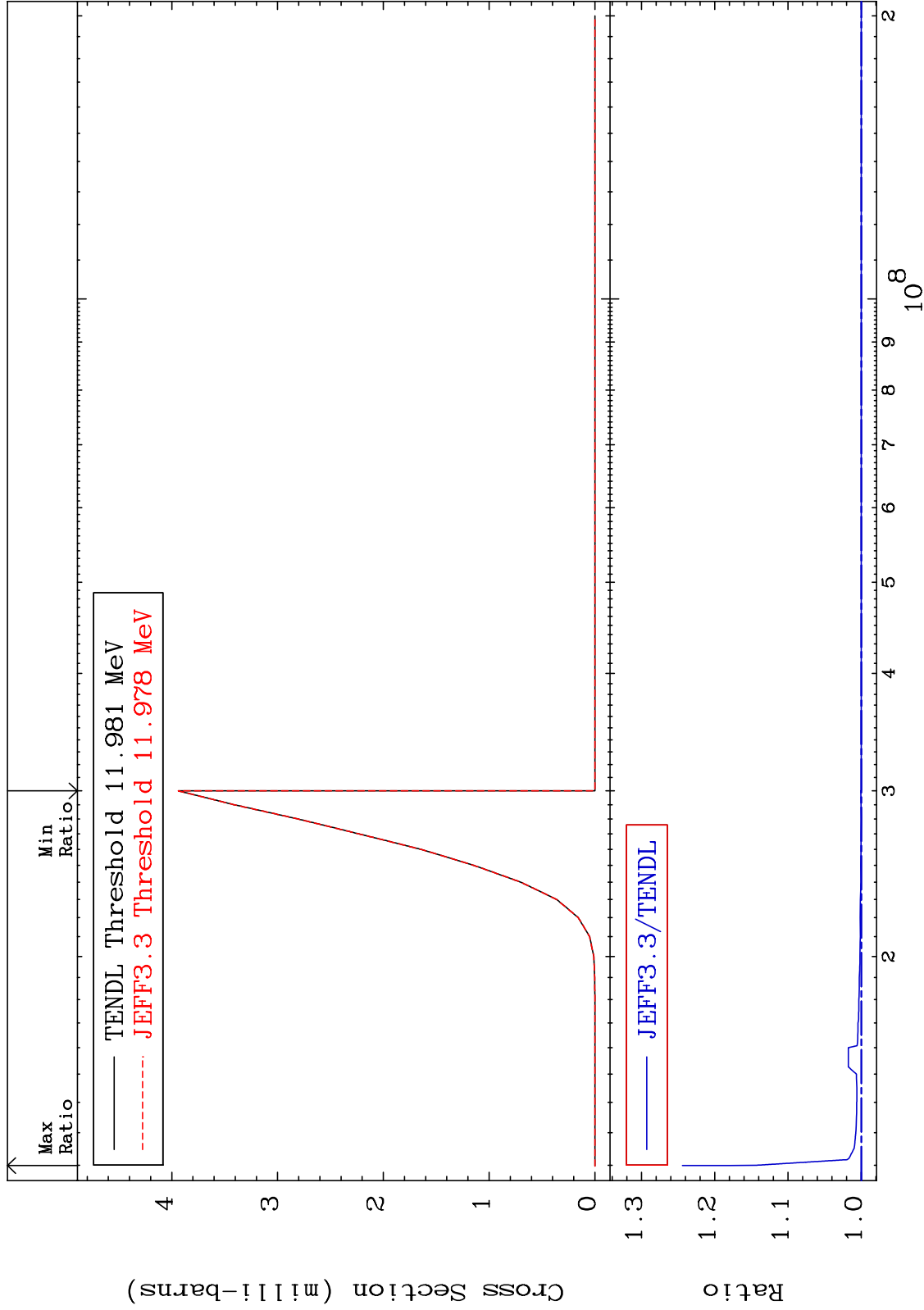
79 Incident Energy (eV) 76-Os-186

MAT 7631

(n, n') d: 75-Re-184g

76-Os-186

Radionuclide Production Cross Section 0.000 To 24.42 %



80

Incident Energy (eV)

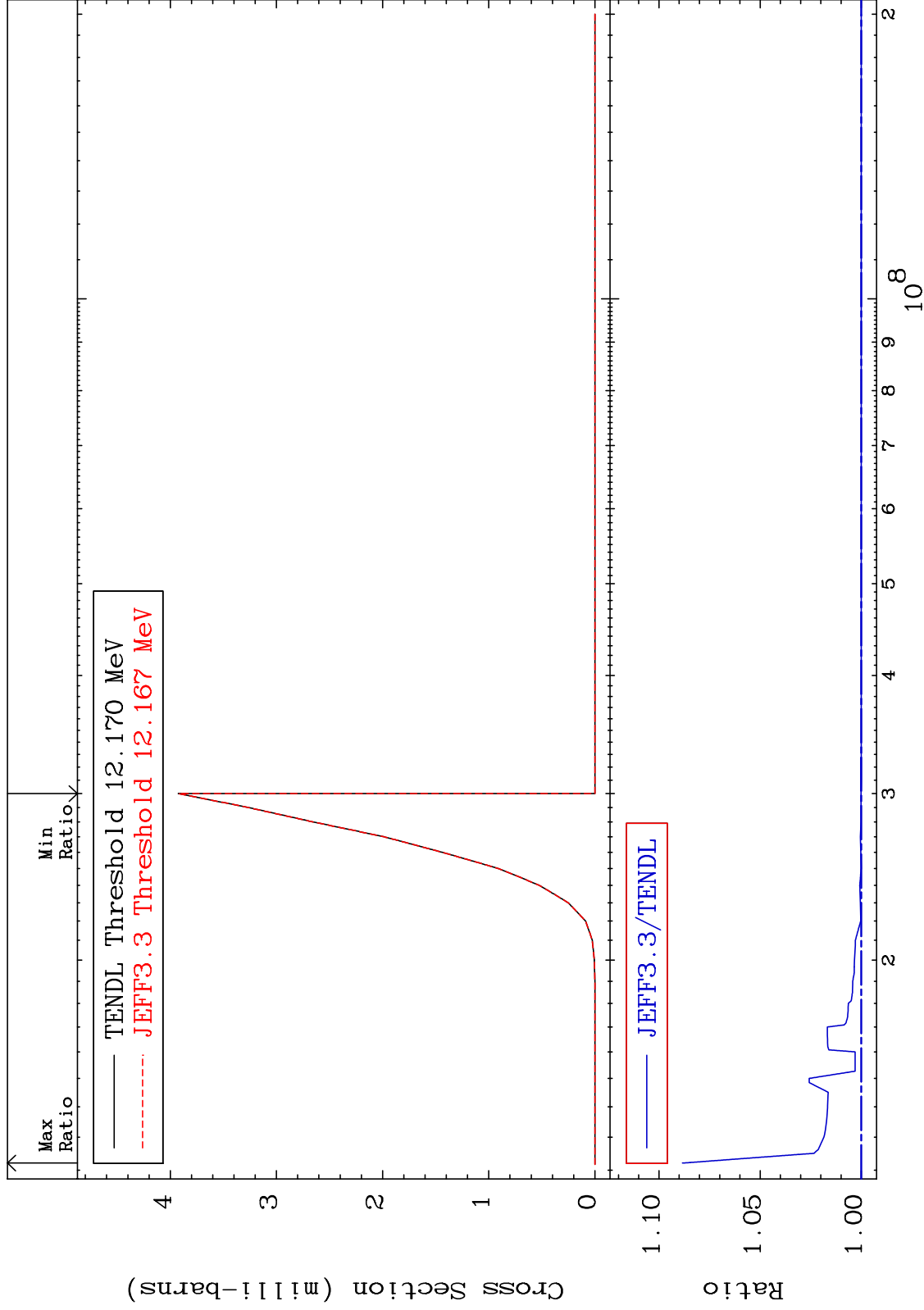
76-Os-186

MAT 7631

(n, n') d: 75-Re-184m5

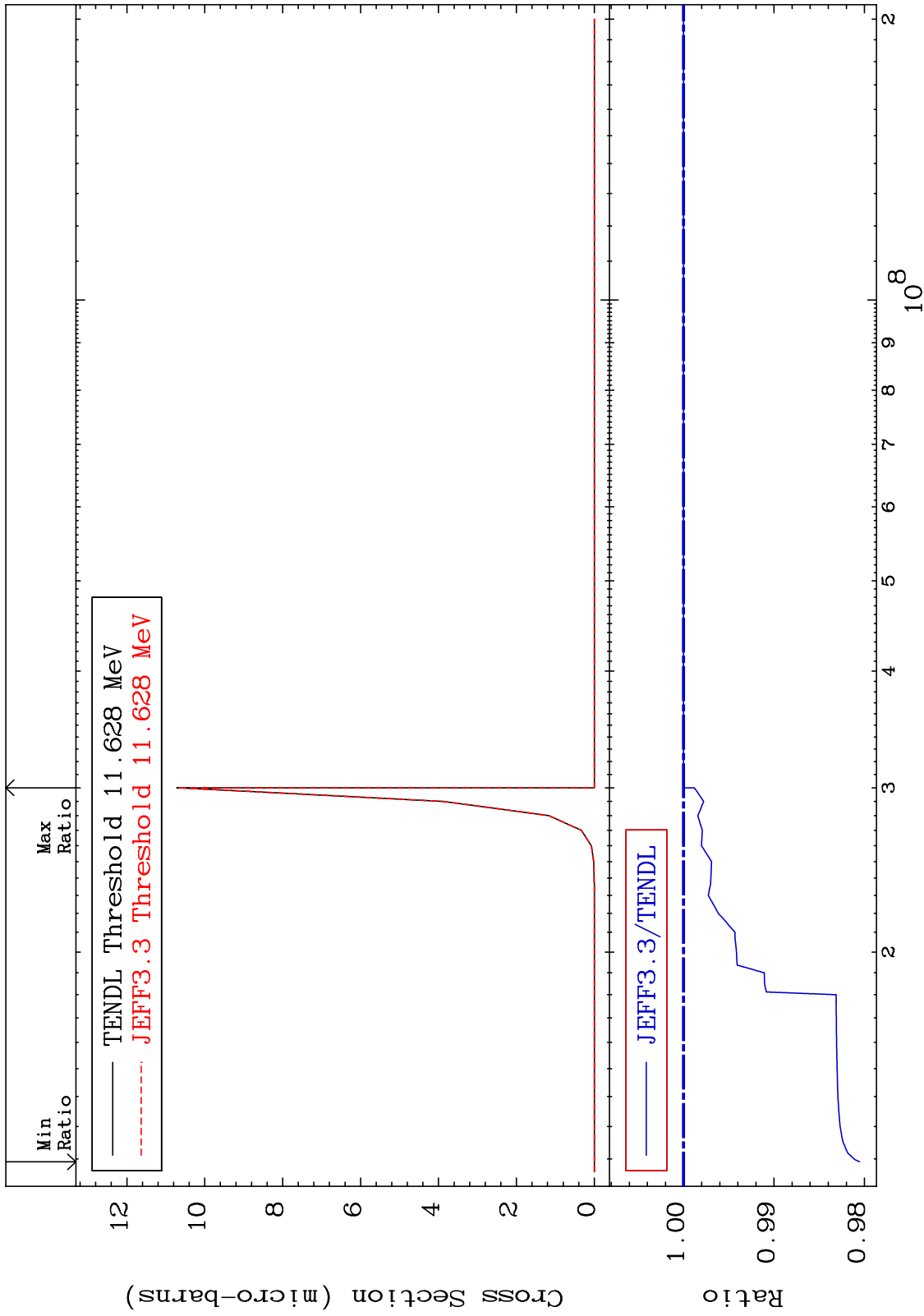
76-0s-186

Radionuclide Production Cross Section 0.000 To 8.840 %



MAT 7631

(n,n') He-3:74-W -183g 76-0s-186
Radionuclide Production Cross Section -1.947 To 0.000 %



82

Incident Energy (eV)

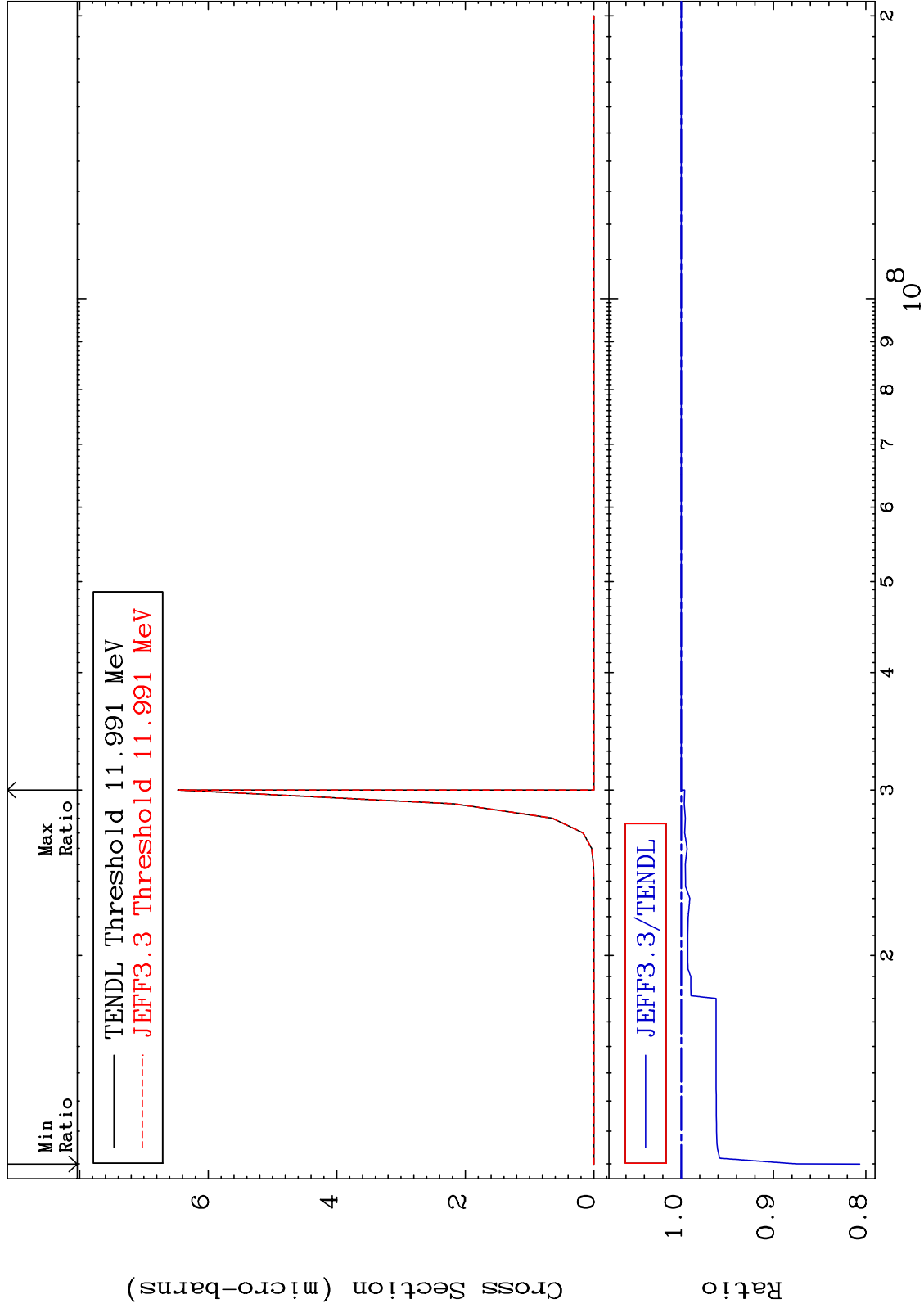
76-0s-186

MAT 7631

(n, n') He-3:74-W -183m7

76-0s-186

Radionuclide Production Cross Section -19.35 To 0.000 %

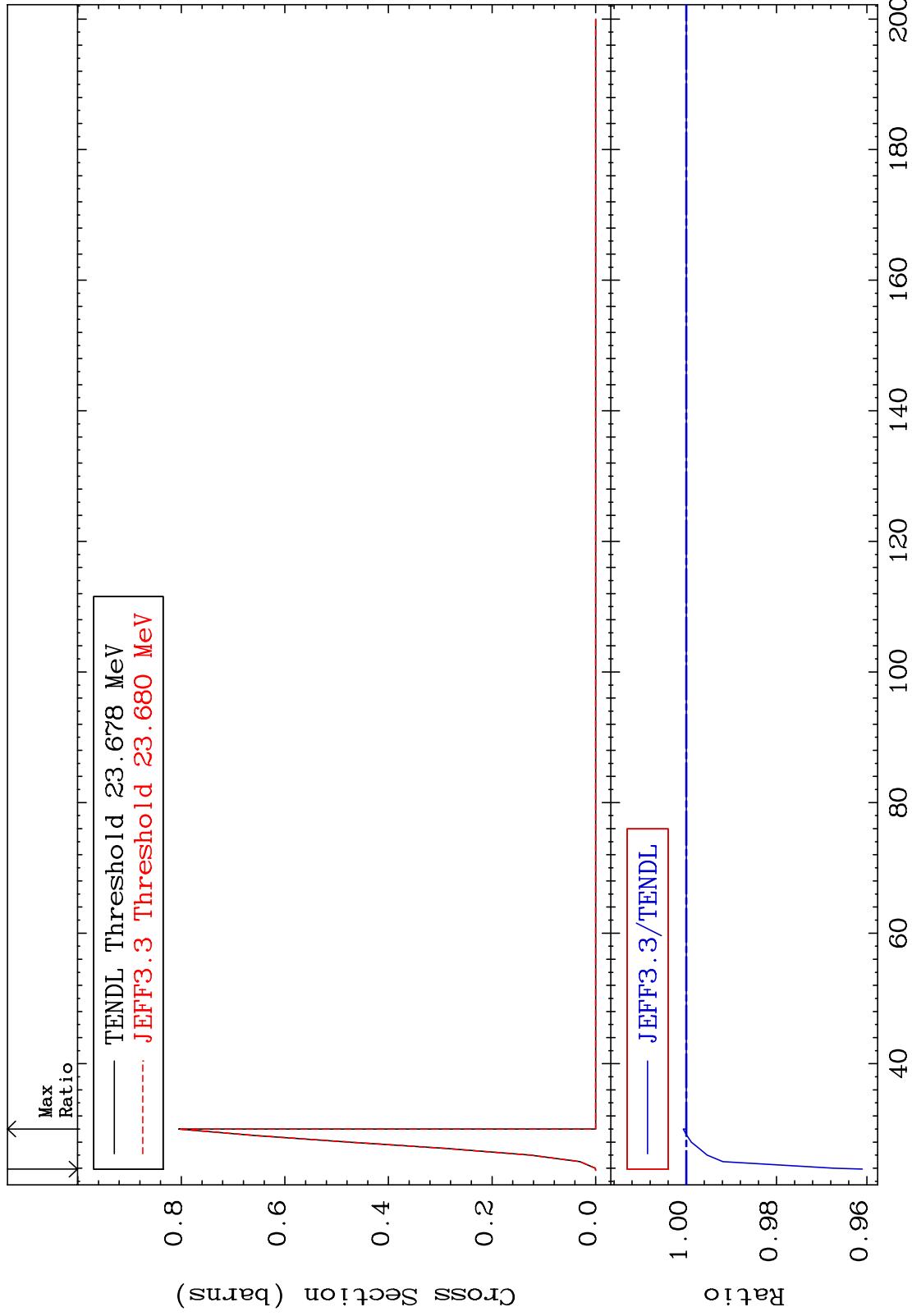


MAT 7631

(n,4n):76-0s-183g

76-0s-186

Radionuclide Production Cross Section -3.901 To 0.065 %

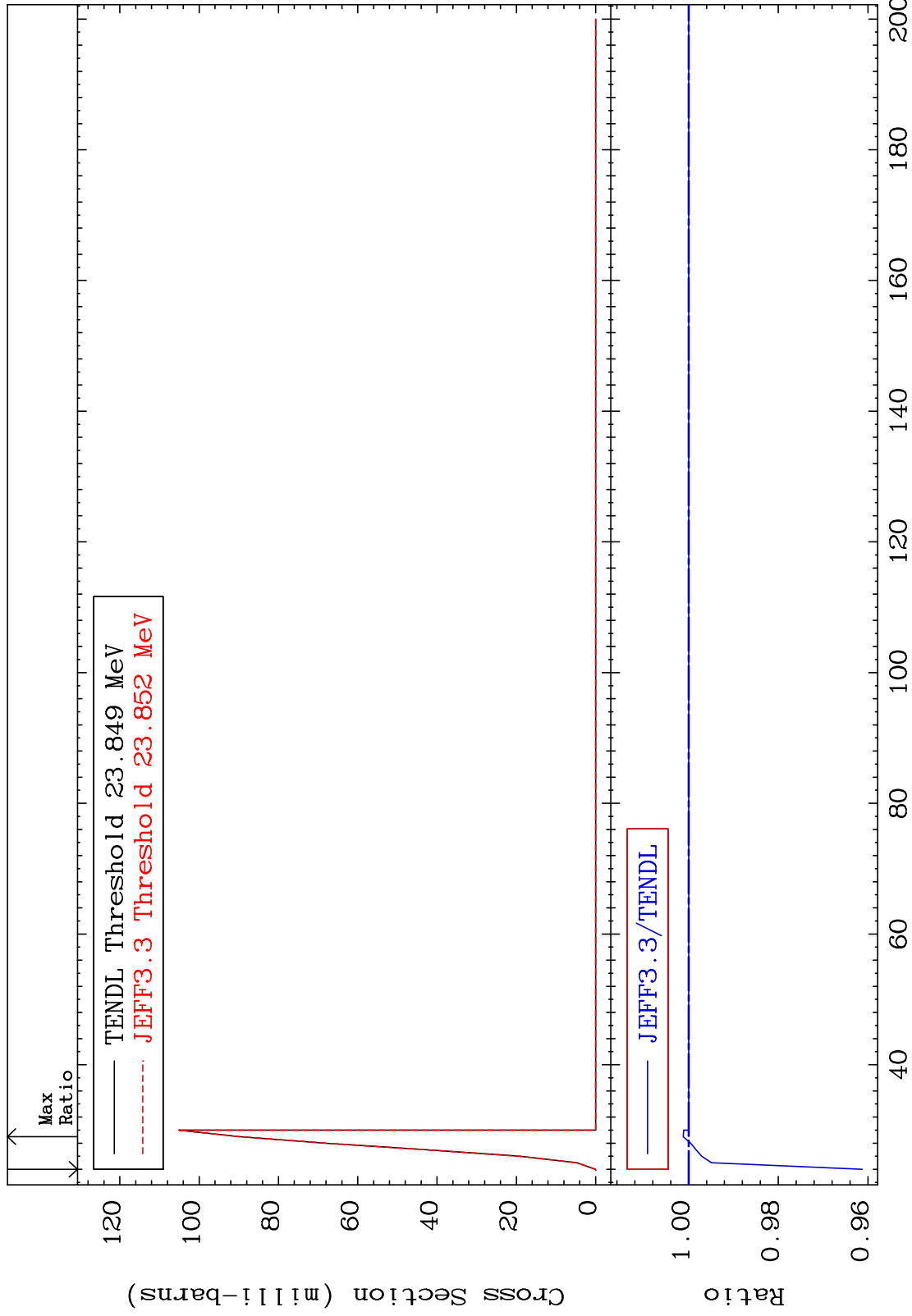


MAT 7631

(n,4n):76-0s-183m2

76-0s-186

Radionuclide Production Cross Section -3.876 To 0.119 %



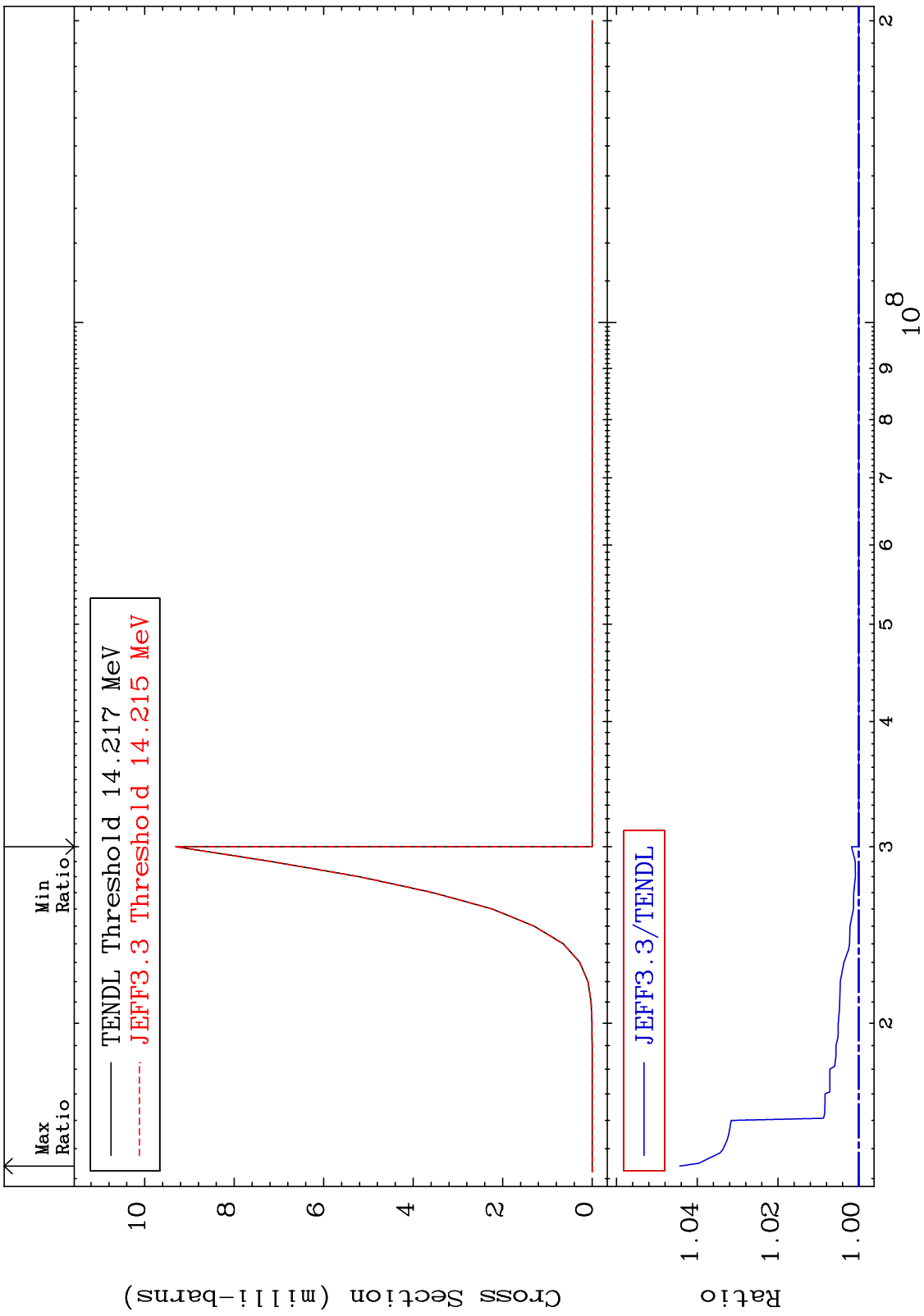
85

Incident Energy (MeV)

76-0s-186

MAT 7631

(n,2n) p:75-Re-184g 76-0s-186
Radionuclide Production Cross Section 0.000 To 4.434 %



86

Incident Energy (eV)

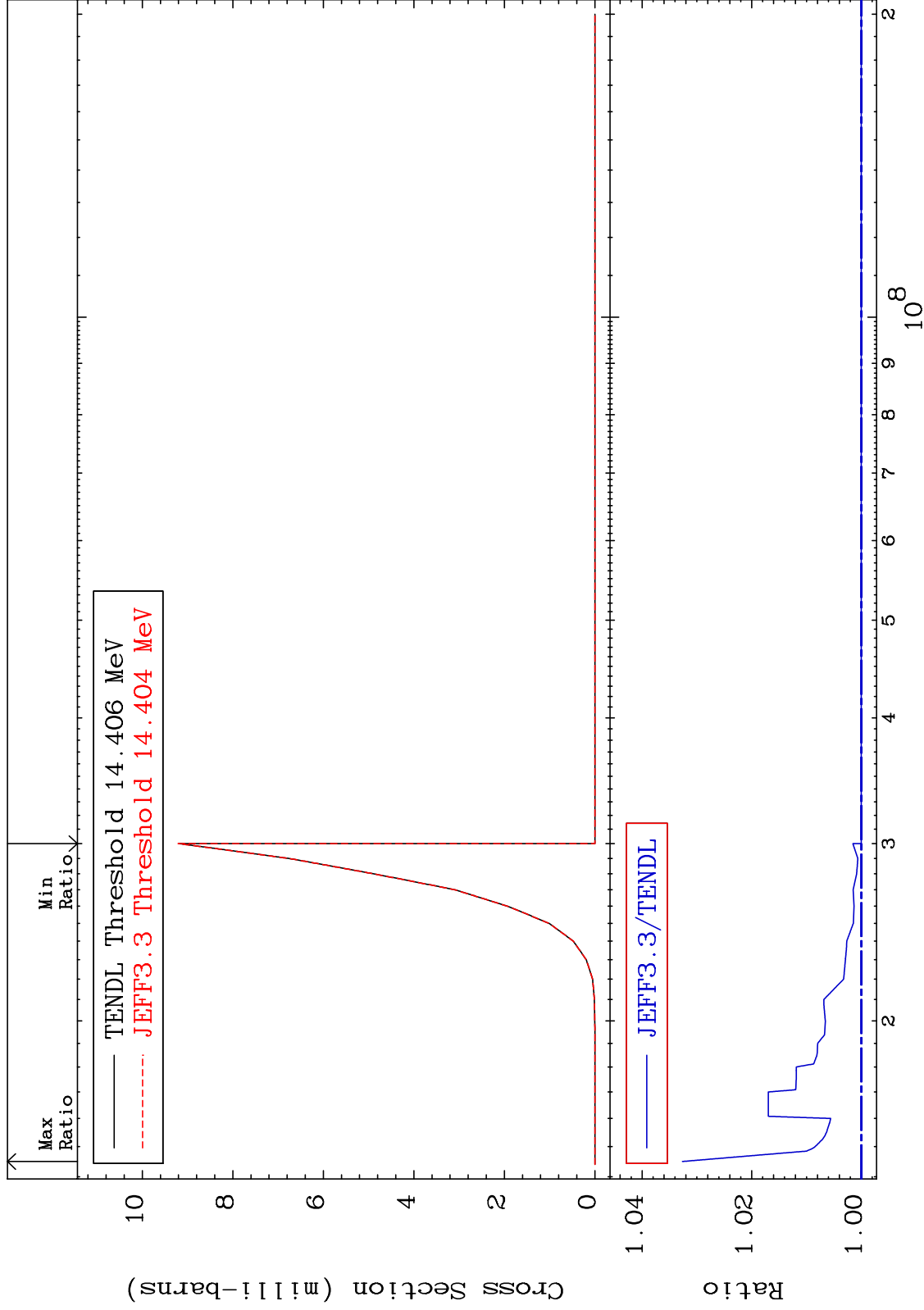
76-0s-186

MAT 7631

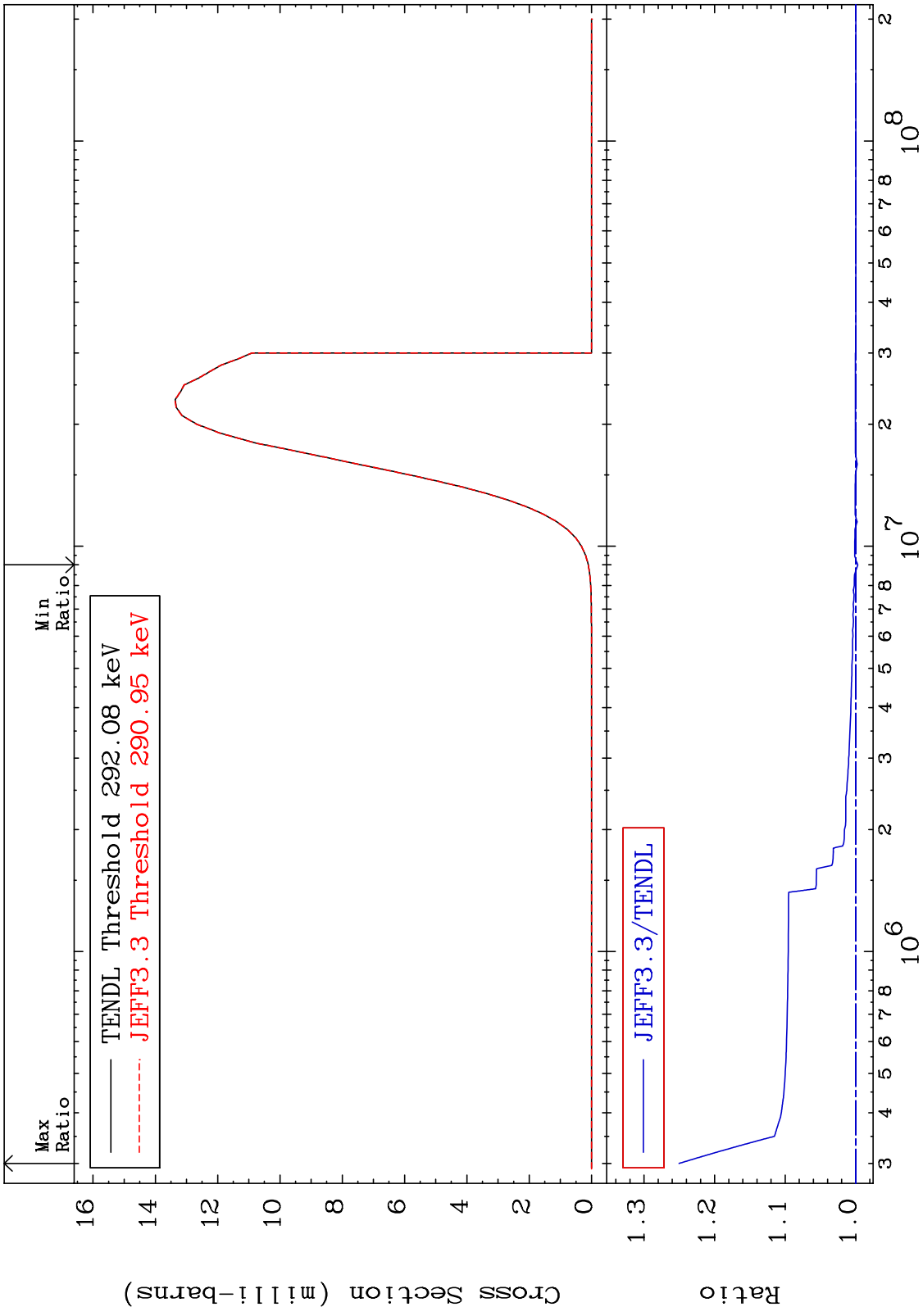
(n,2n) p:75-Re-184m5

76-0s-186

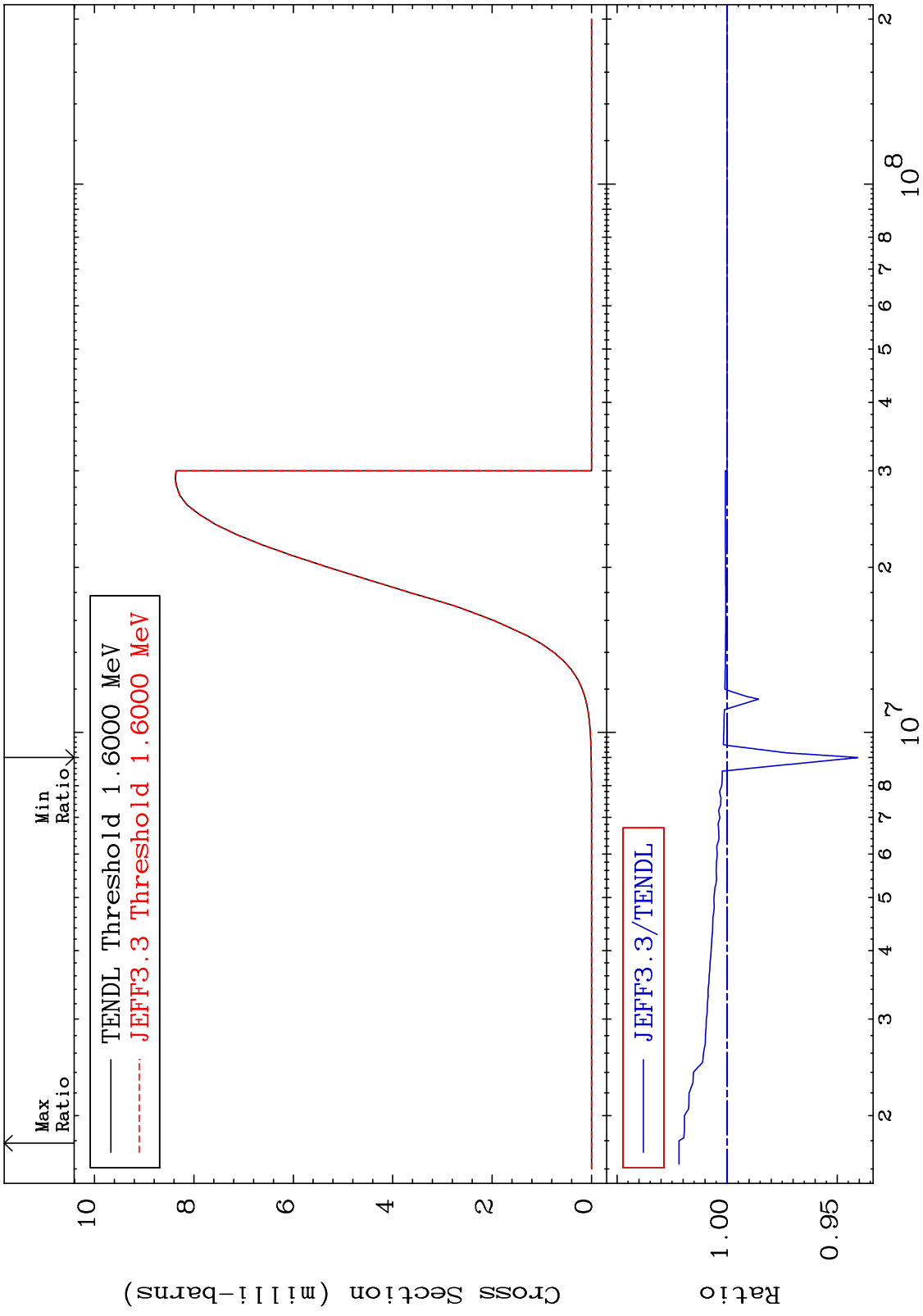
Radionuclide Production Cross Section 0.000 To 3.263 %



MAT 7631 (n,p):75-Re-186 76-Os-186
 Radionuclide Production Cross Section -0.294 To 25.04 %



MAT 7631 (n,p): 75-Re-186m4 76-0s-186
 Radionuclide Production Cross Section -5.936 To 2.183 %

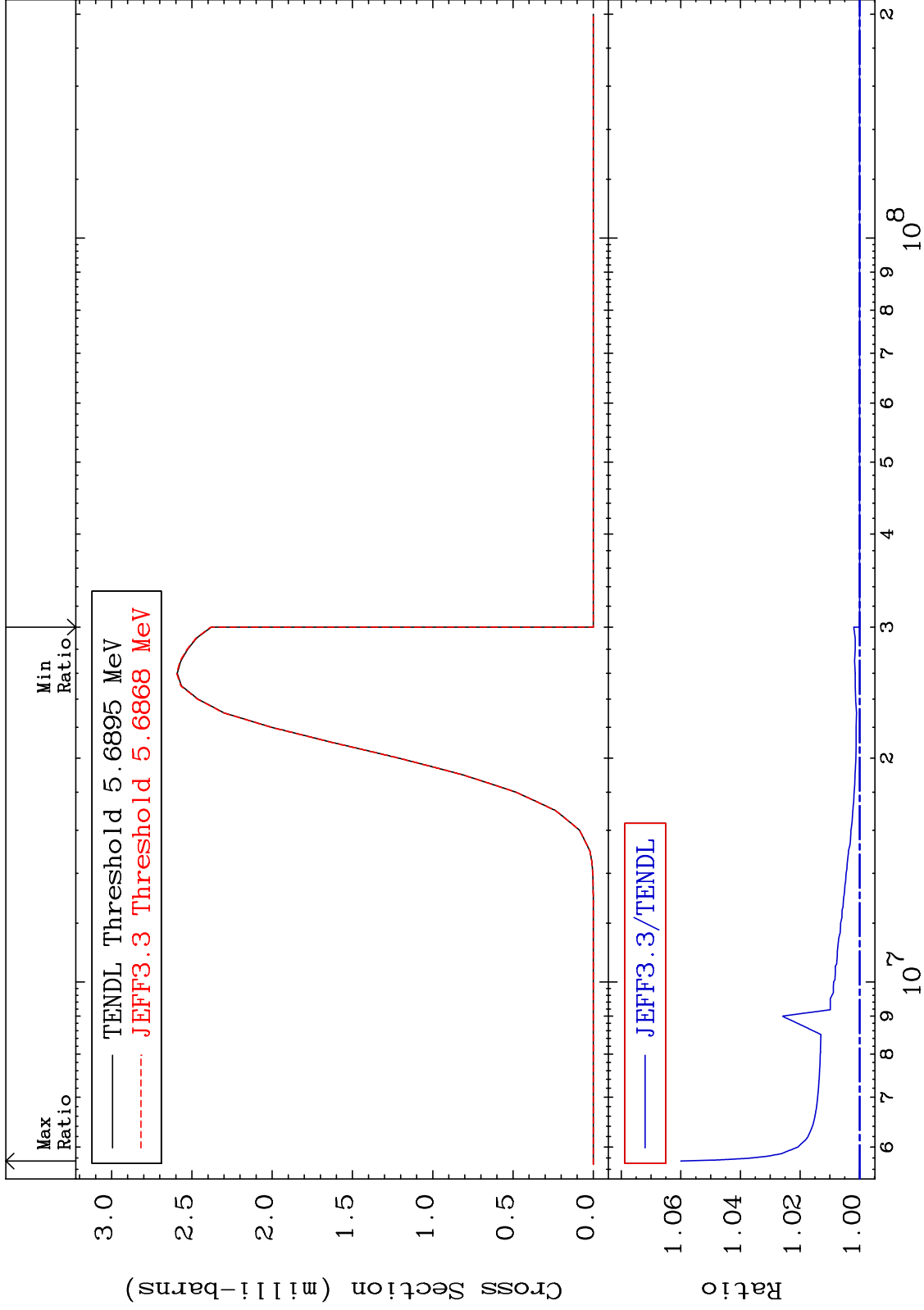


MAT 7631

(n,t):75-Re-184g

76-Os-186

Radionuclide Production Cross Section 0.000 To 6.001 %

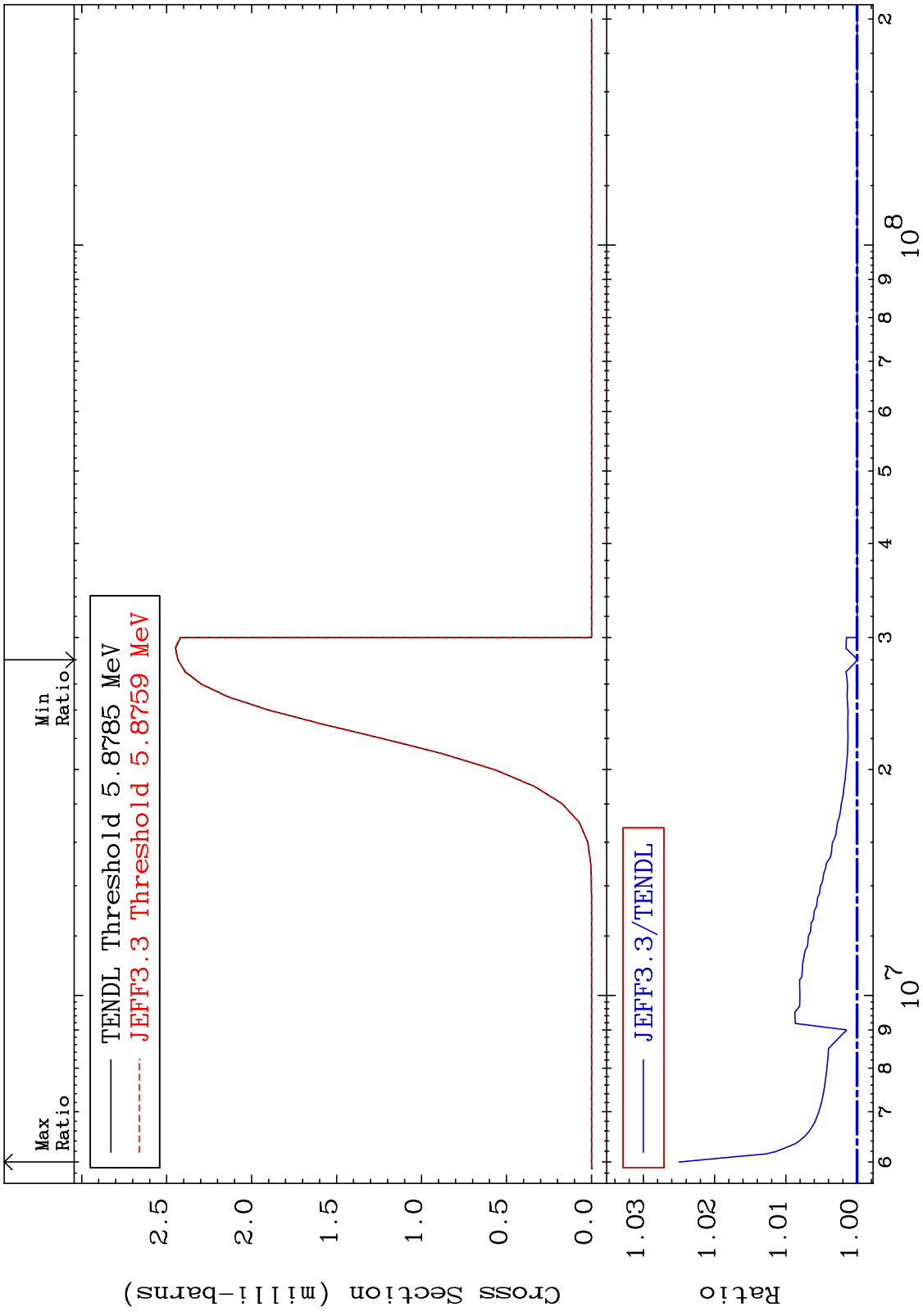


90

Incident Energy (eV)

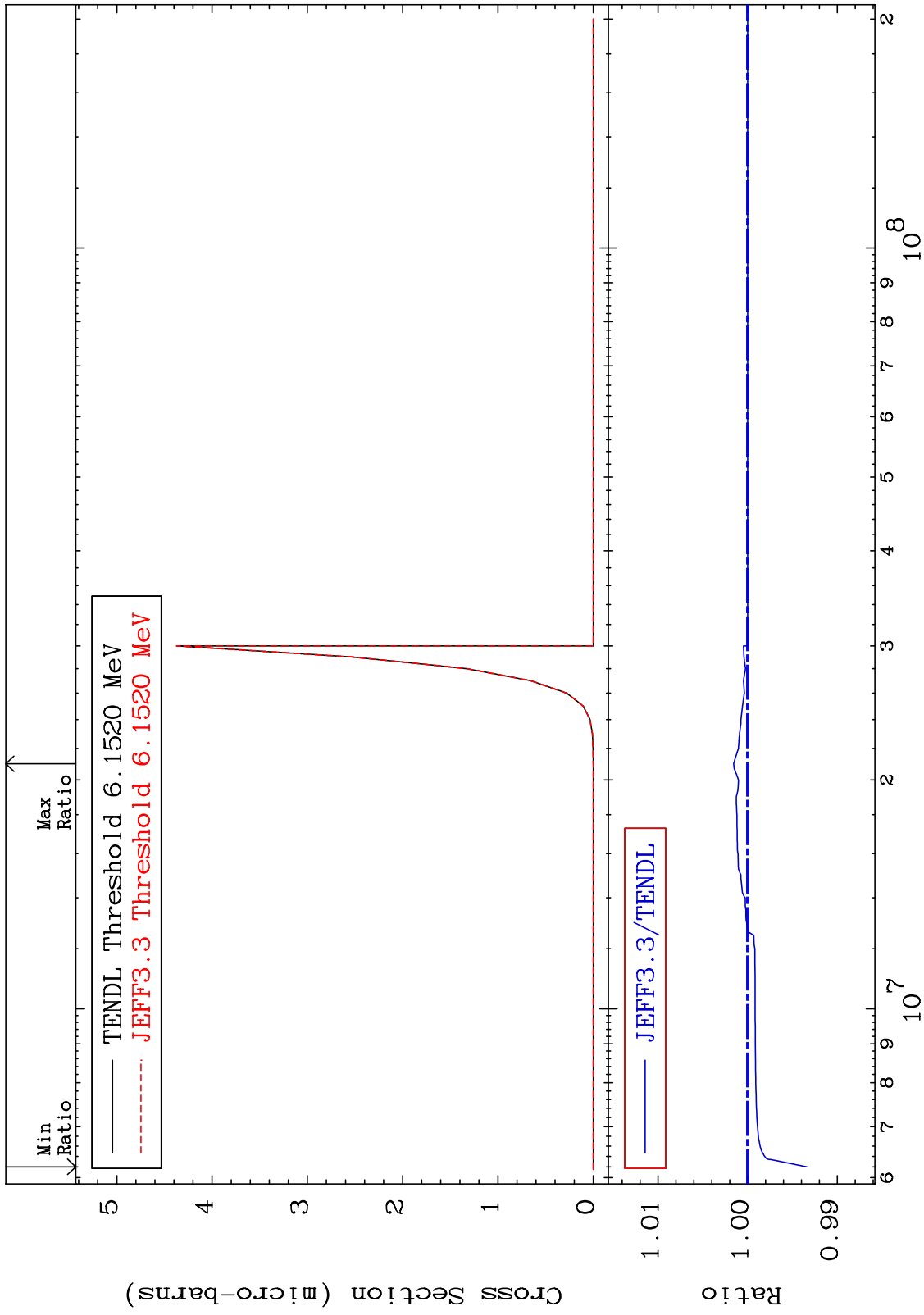
76-Os-186

MAT 7631 (n, t) : ⁷⁵Re-184m5 76-0s-186
 Radionuclide Production Cross Section -0.011 To 2.499 %



MAT 7631

(n,2p):74-W -185g 76-0s-186
Radionuclide Production Cross Section -0.661 To 0.157 %



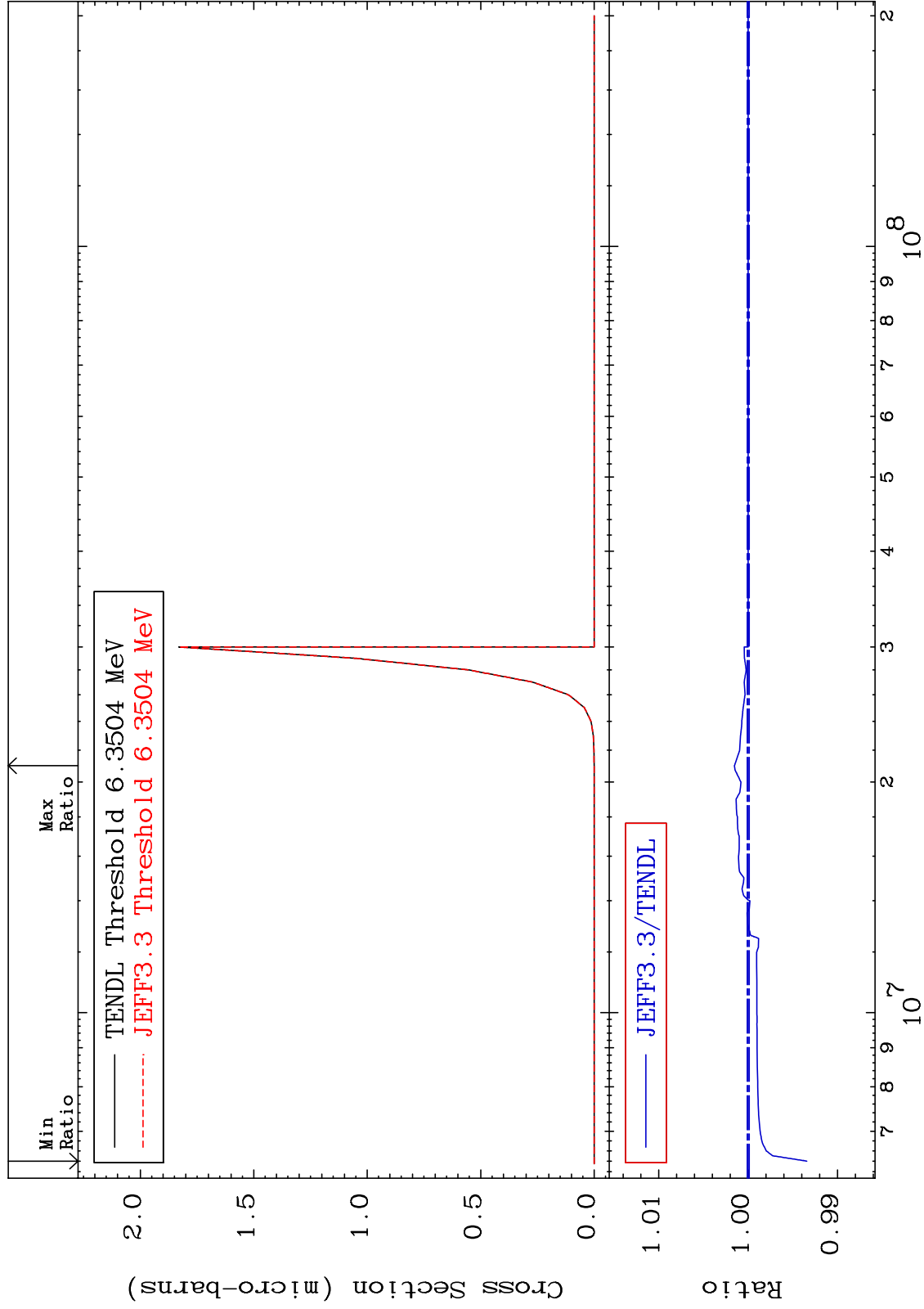
92

MAT 7631

(n,2p):74-W -185m6

76-0s-186

Radionuclide Production Cross Section -0.655 To 0.154 %



93

Incident Energy (eV)

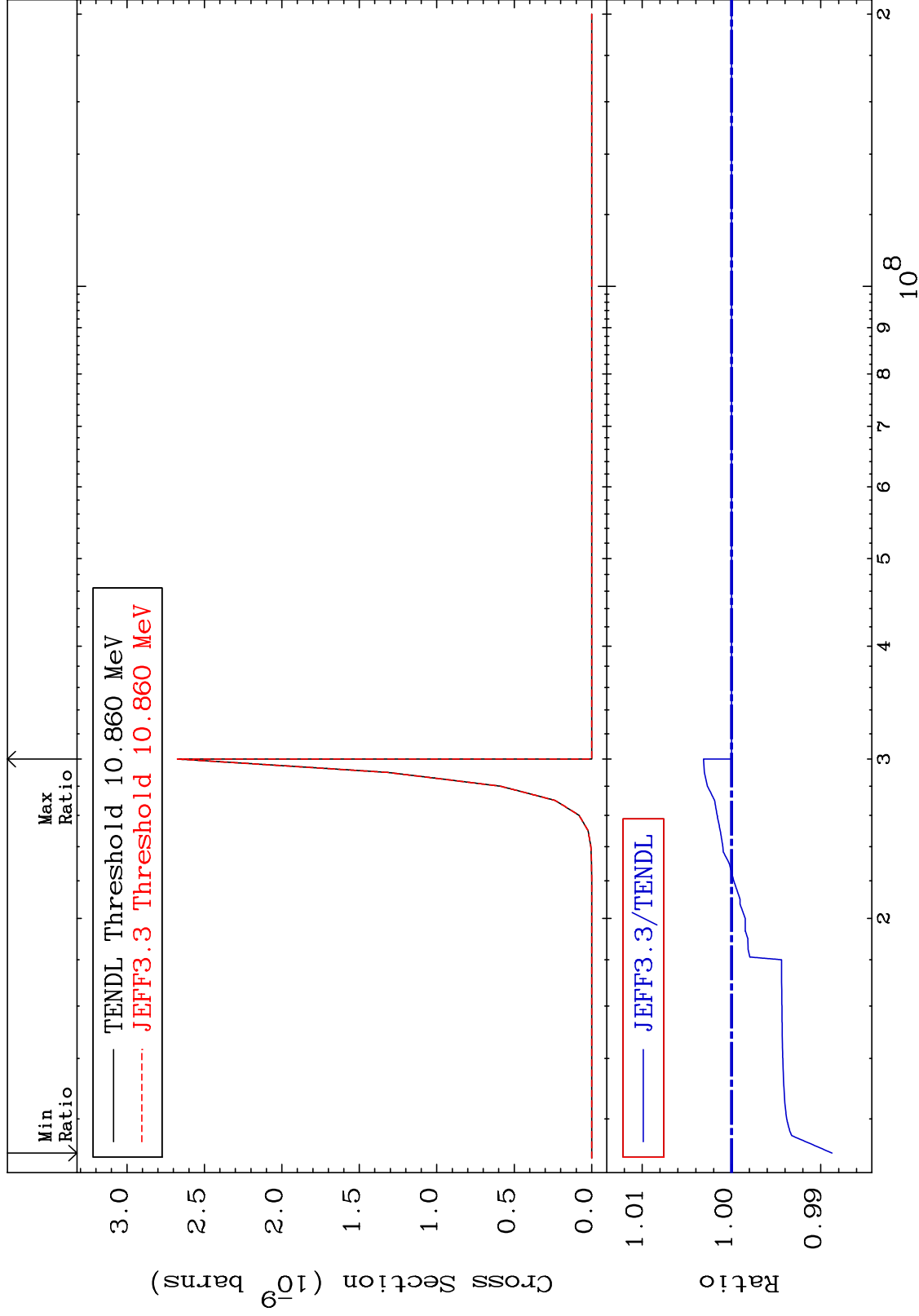
76-0s-186

MAT 7631

(n,p) t:74-W -183g

76-0s-186

Radionuclide Production Cross Section -1.126 To 0.315 %



94

Incident Energy (eV)

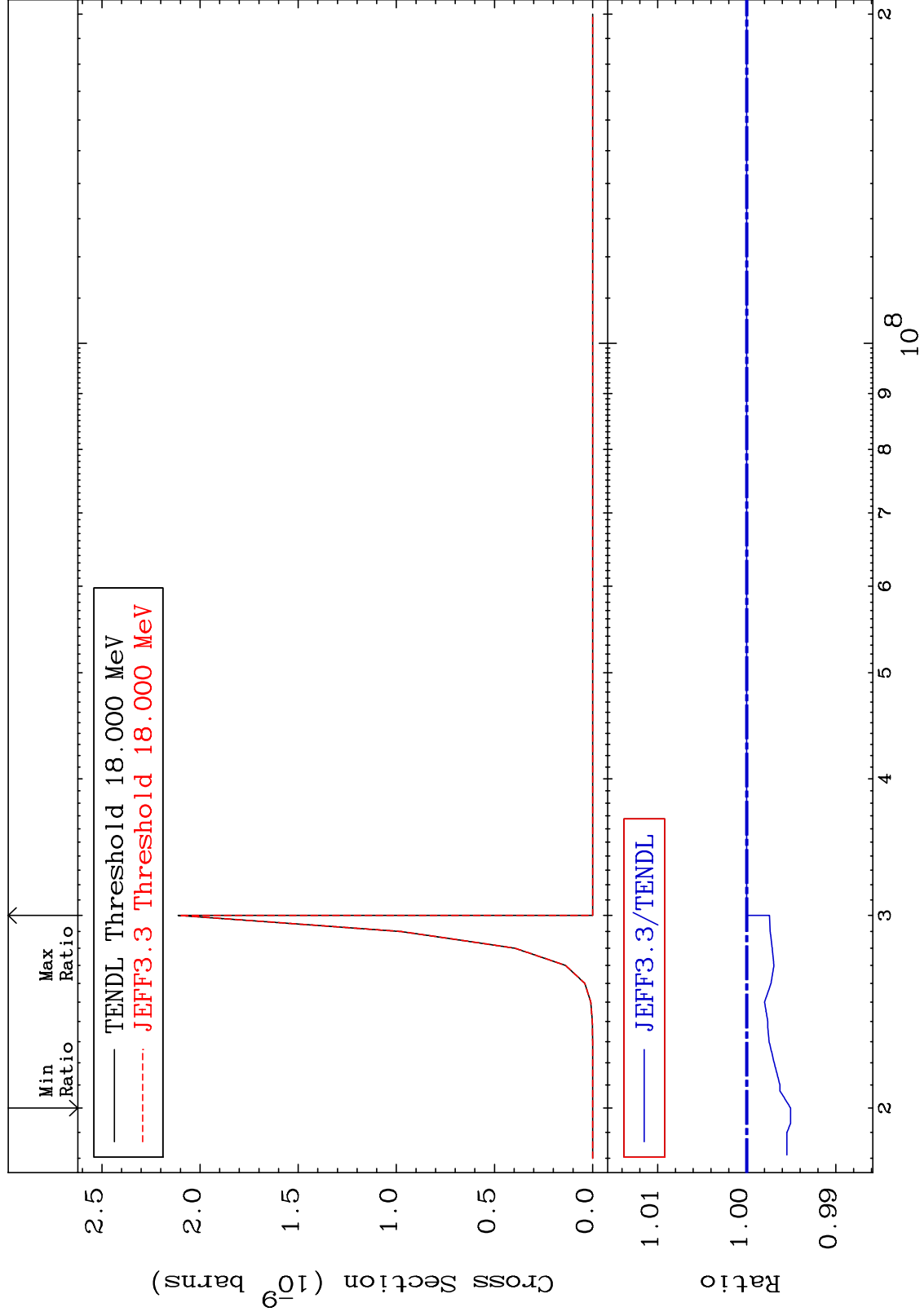
76-0s-186

MAT 7631

(n,p) t:74-W -183m7

76-0s-186

Radionuclide Production Cross Section -0.492 To 0.000 %



95

Incident Energy (eV)

76-0s-186