

Program Complot
(Version 2018-1)

by

Dermott E. Cullen
(Present Contact Information)

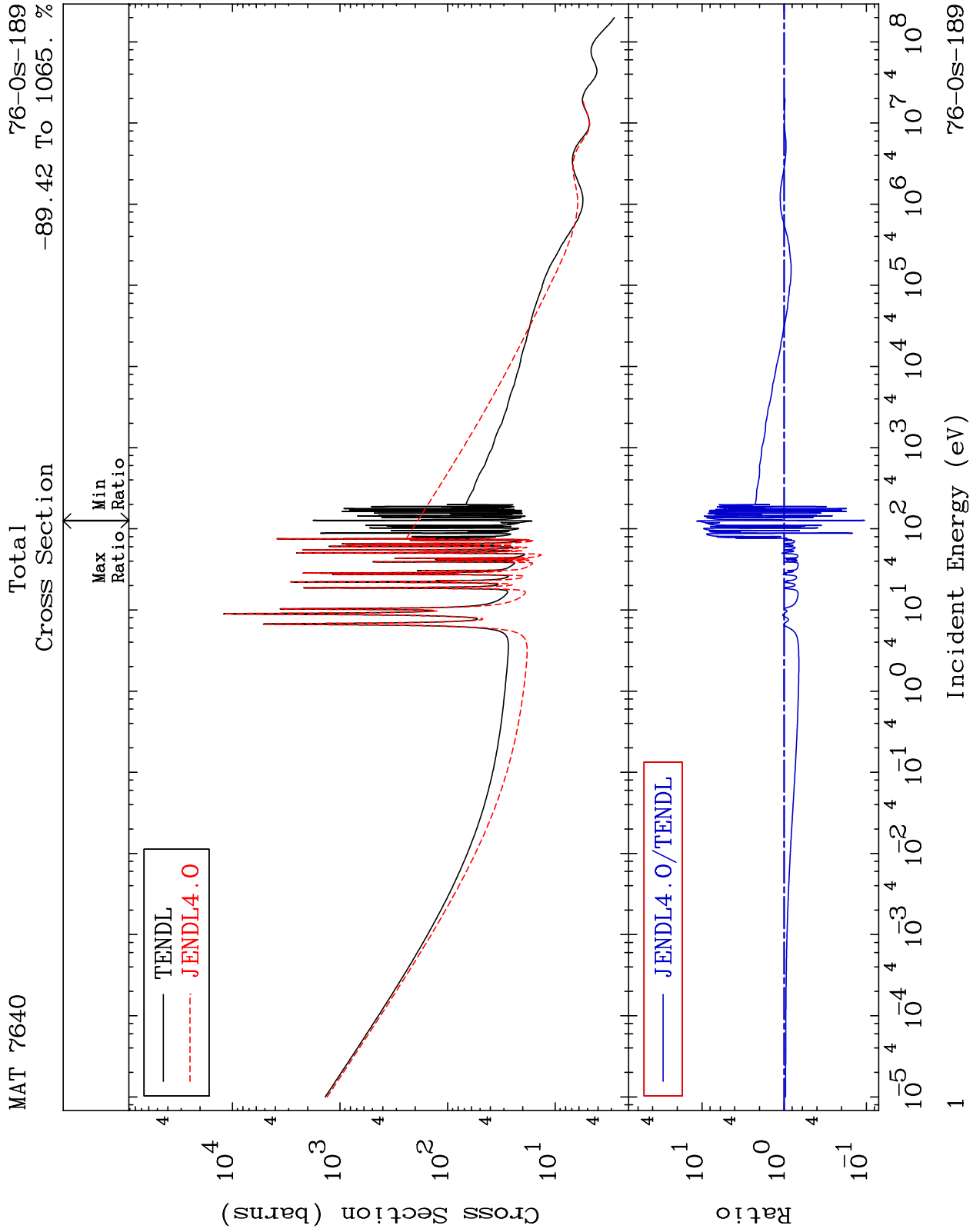
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Press Mouse Button to Start



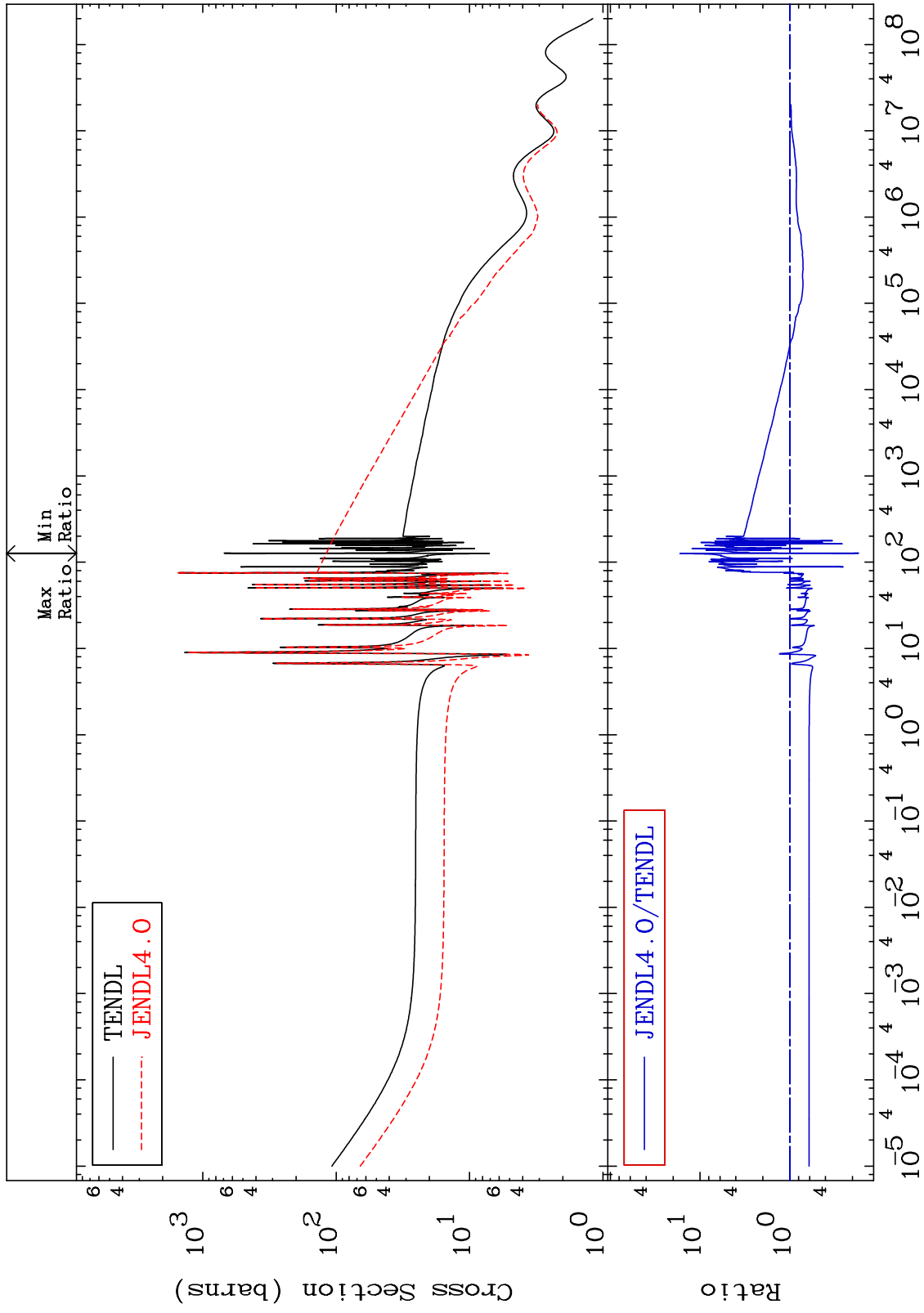
MAT 7640

Elastic

Cross Section

76-0s-189

-82.80 To 1575. %



Incident Energy (eV)

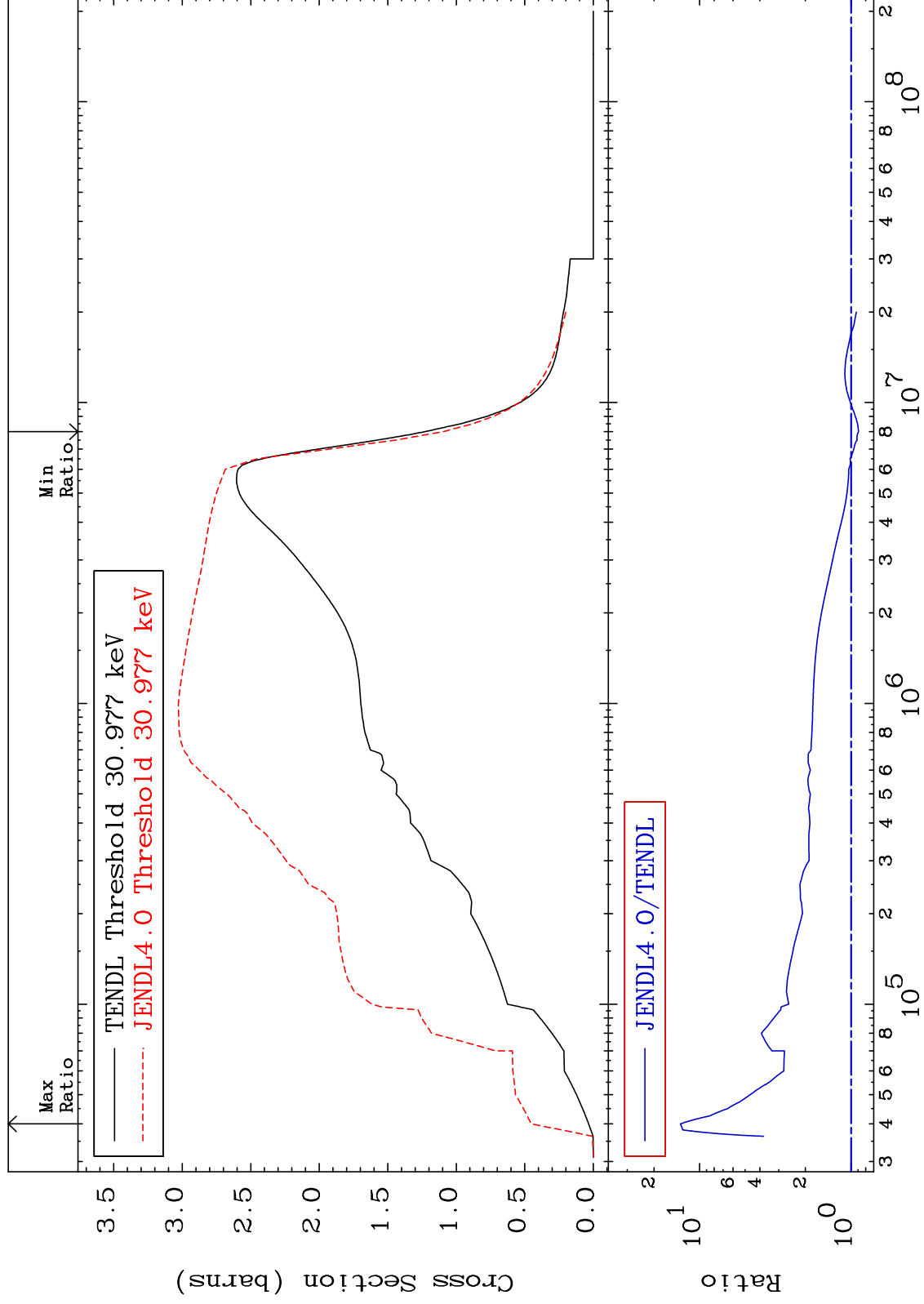
76-0s-189

2

MAT 7640

Inelastic
Cross Section

76-0s-189
-10.74 To 1237. %



3

Incident Energy (eV)

76-0s-189

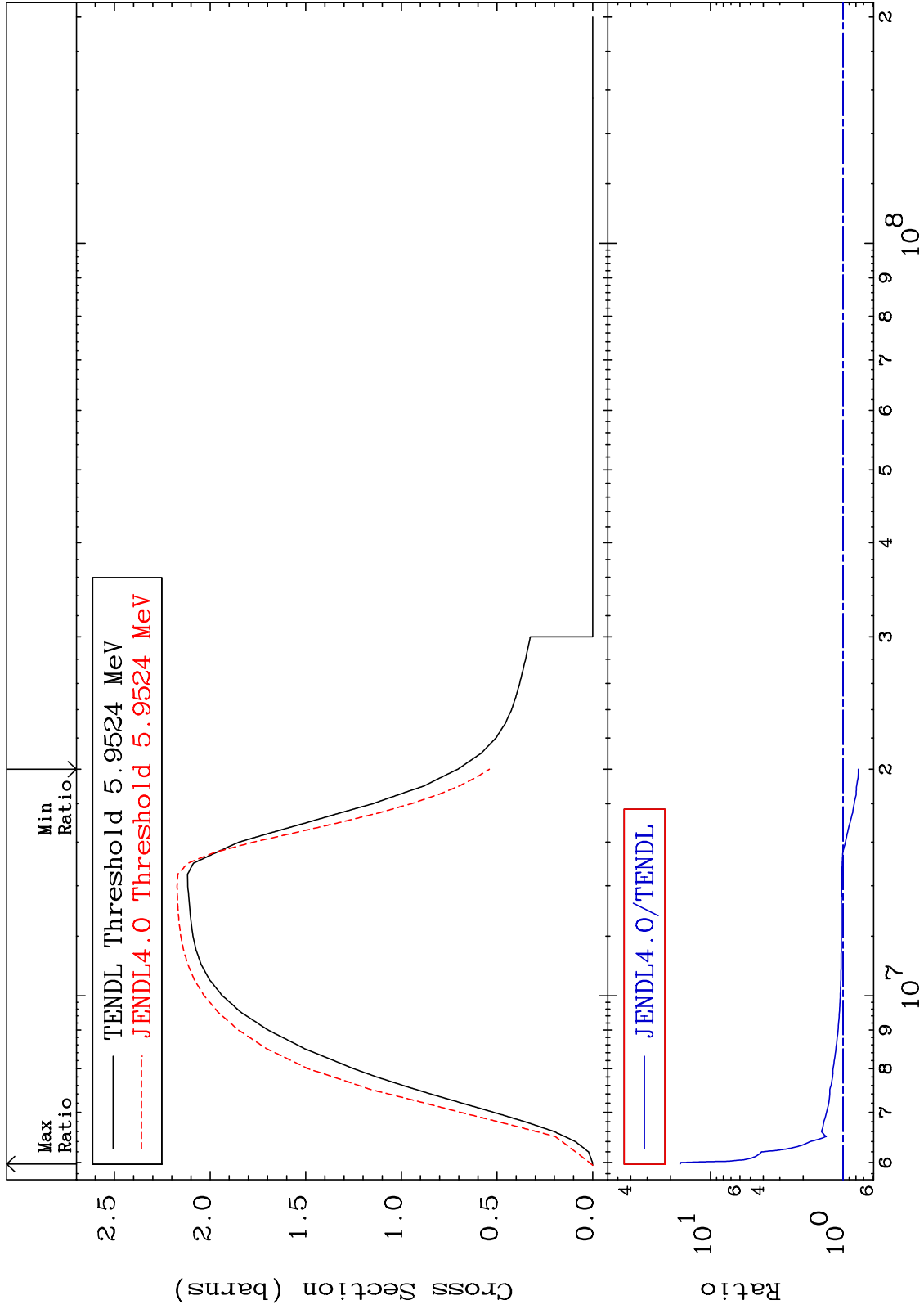
MAT 7640

(n,2n)

76-0s-189

Cross Section

-23.41 To 1599. %



4

Incident Energy (eV)

76-0s-189

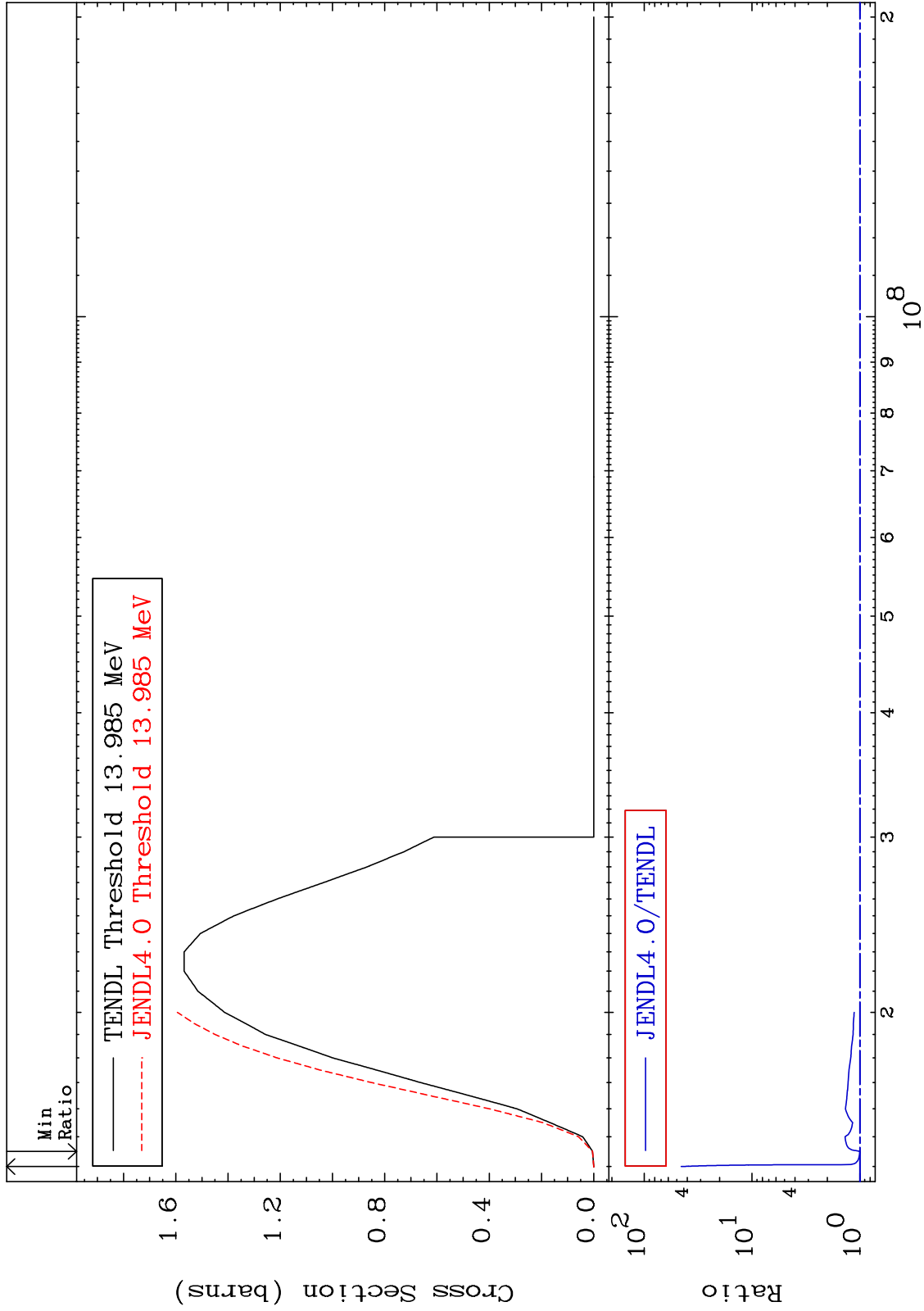
MAT 7640

(n,3n)

76-0s-189

Cross Section

-0.313 To 4444. %



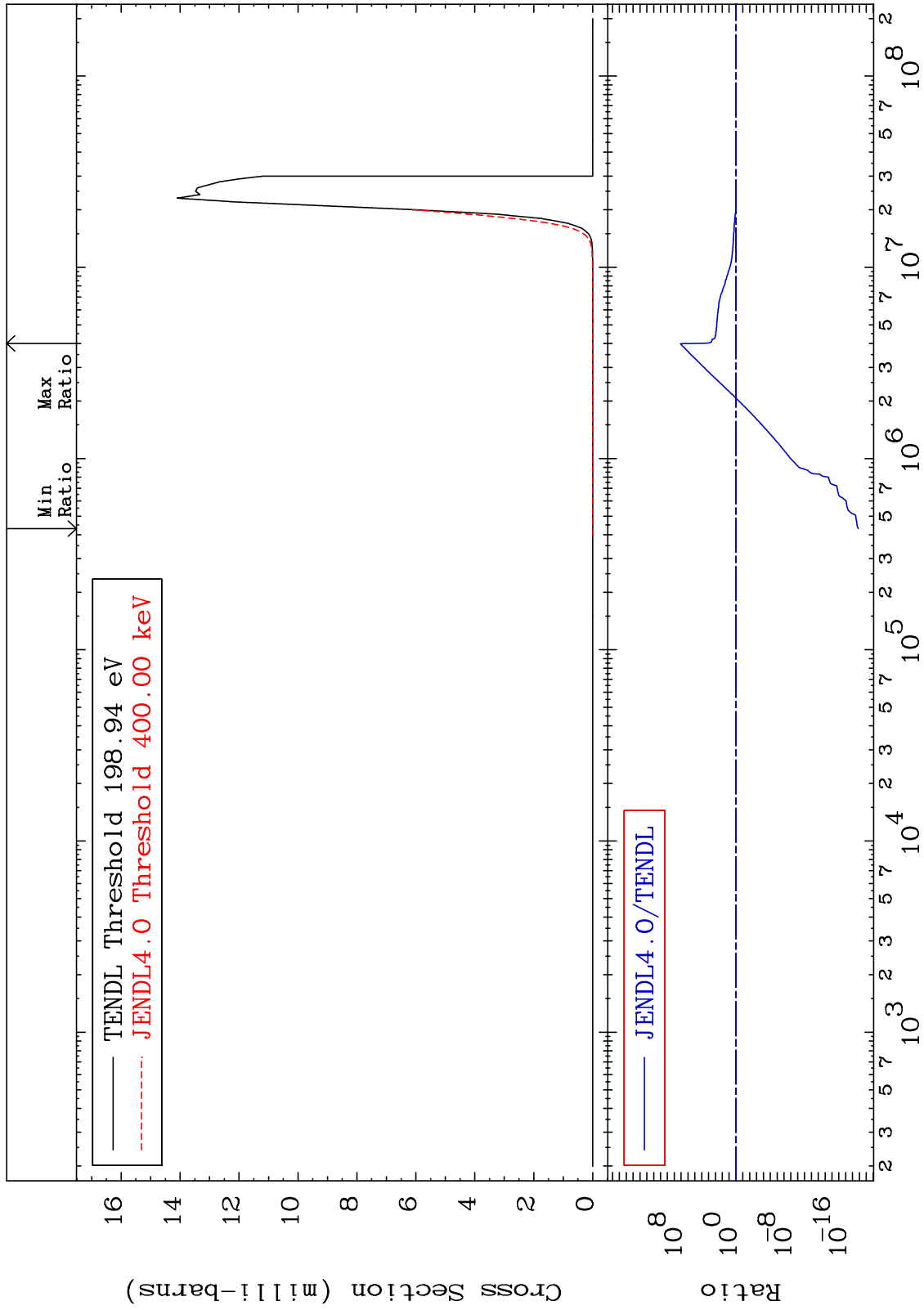
MAT 7640

(n, n') α

76-0s-189

Cross Section

-100.0 To 9999. %



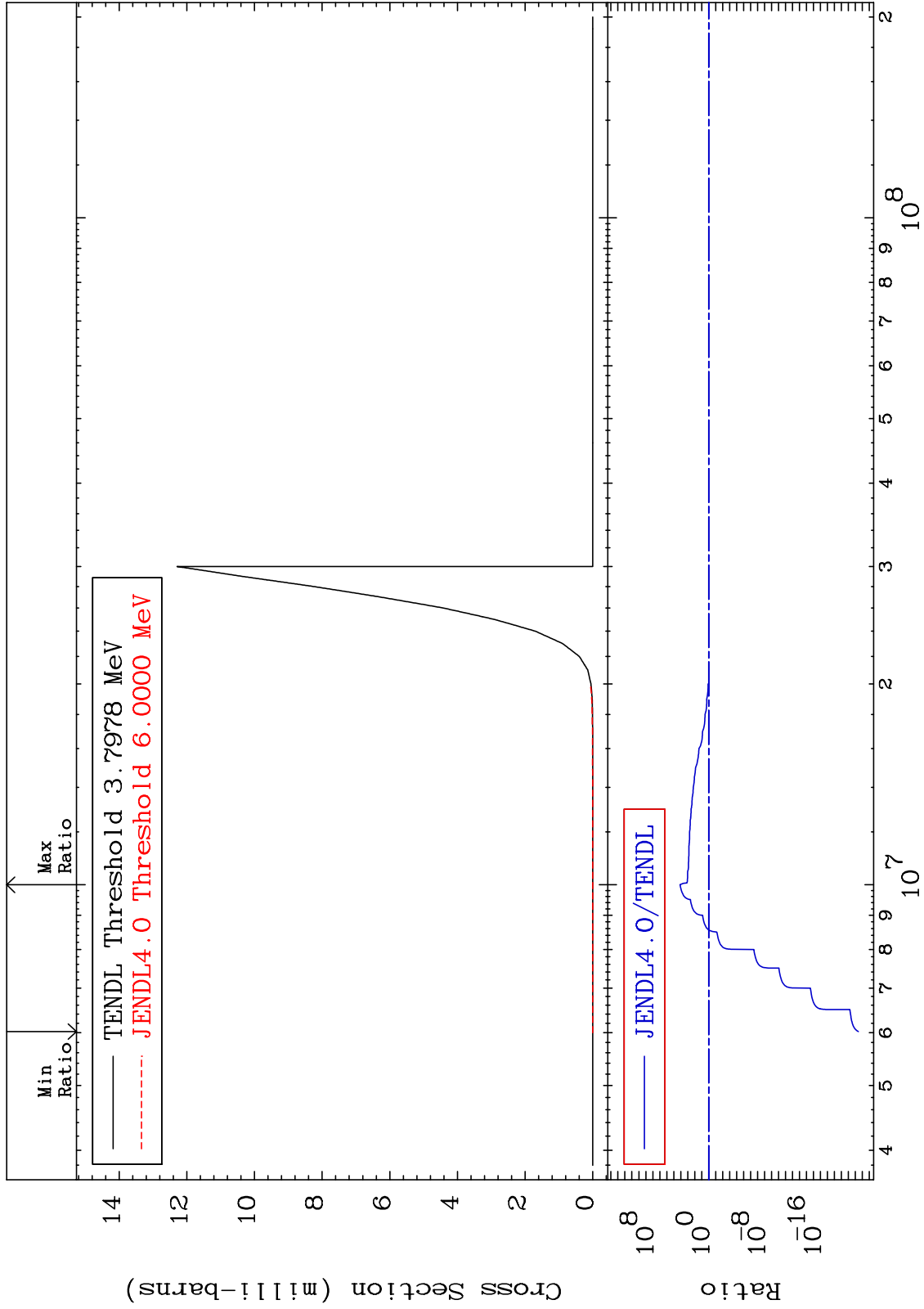
MAT 7640

(n,2n) α

76-0s-189

Cross Section

-100.0 To 9999. %



7

Incident Energy (eV)

76-0s-189

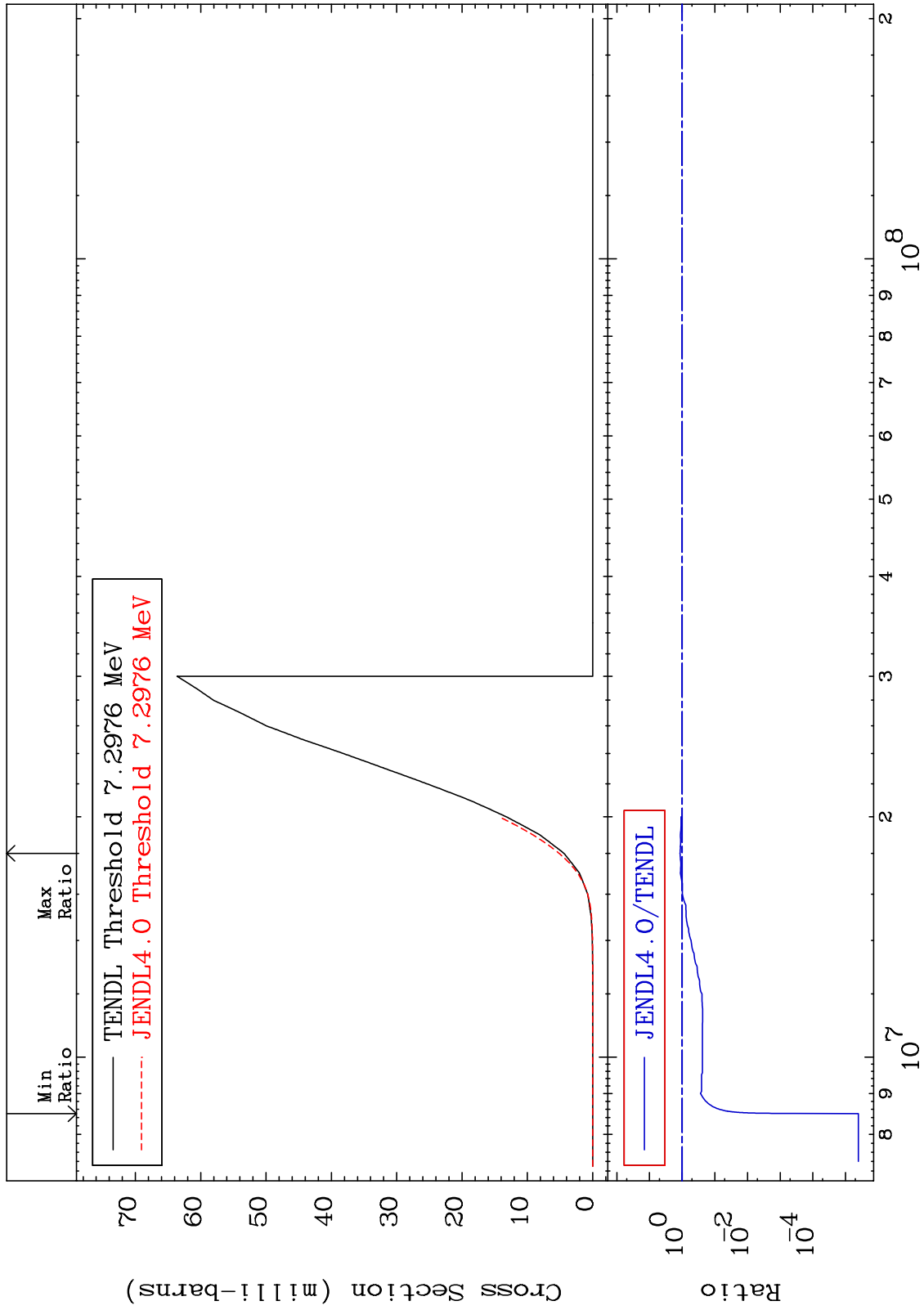
MAT 7640

(n,n') p

76-0s-189

Cross Section

-100.0 To 16.55 %



8

Incident Energy (eV)

76-0s-189

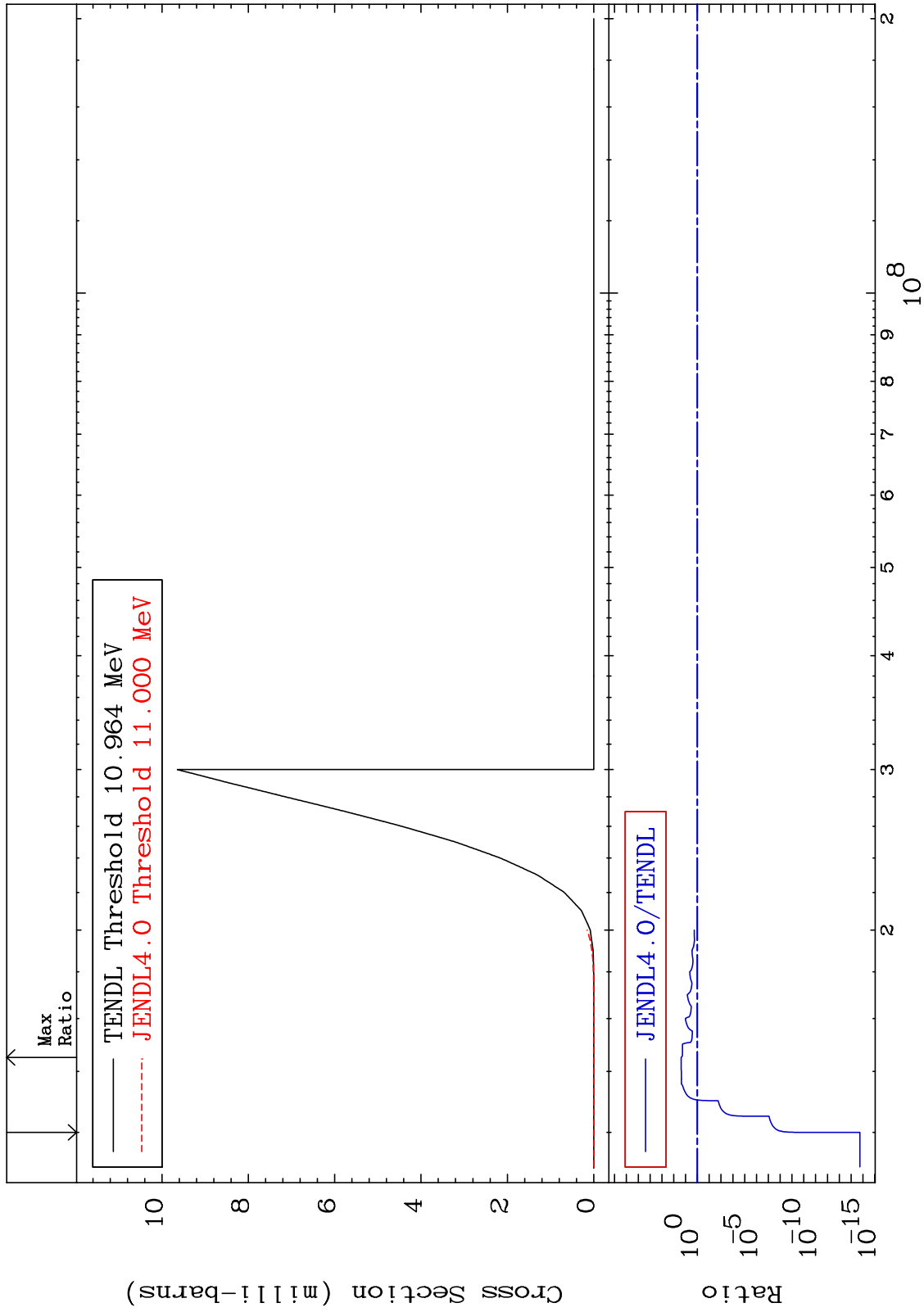
MAT 7640

(n,n') d

76-0s-189

Cross Section

-100.0 To 2218. %



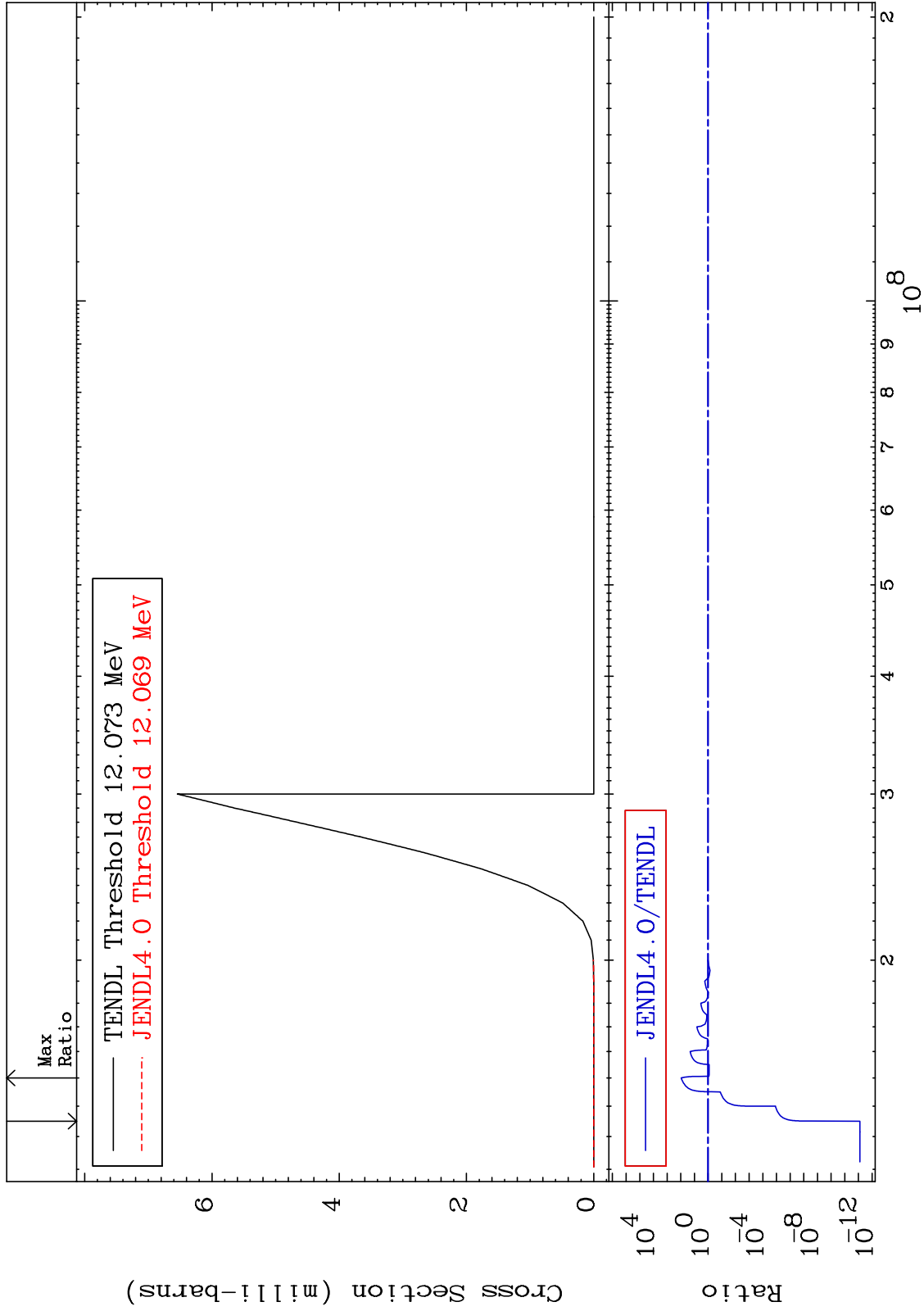
MAT 7640

(n,n') t

76-0s-189

Cross Section

-100.0 To 9154. %



10

Incident Energy (eV)

76-0s-189

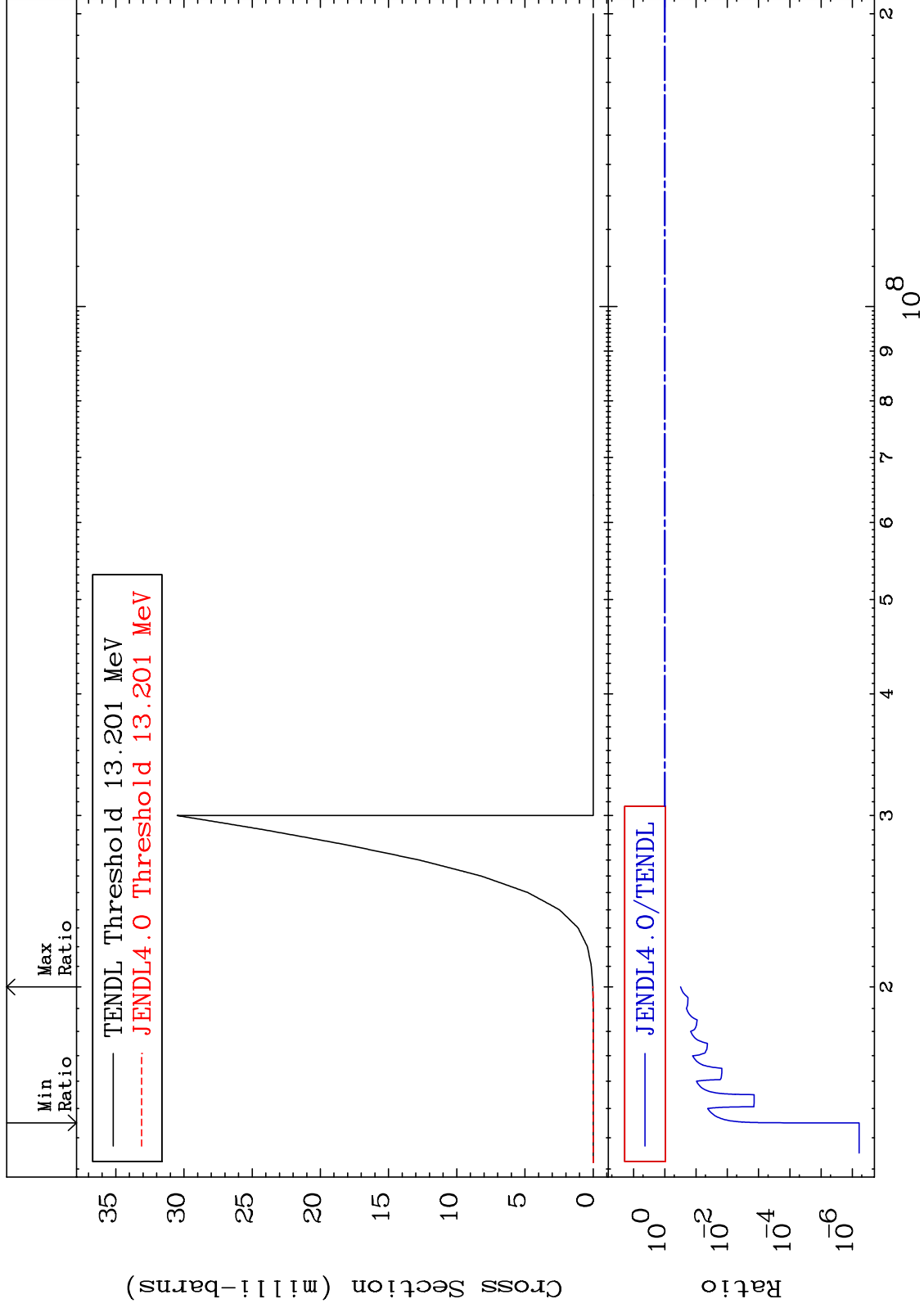
MAT 7640

(n,2n) p

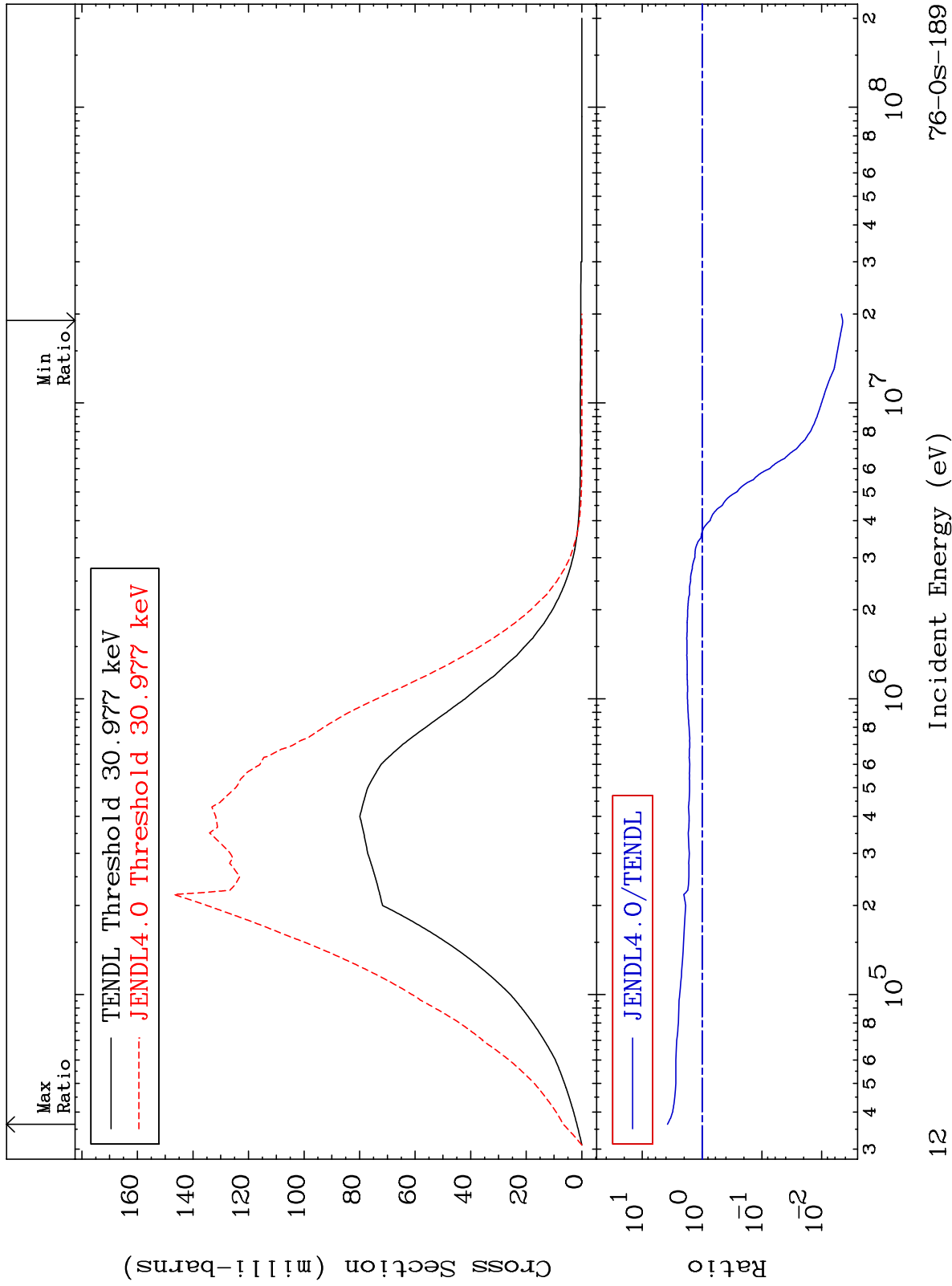
76-0s-189

Cross Section

-100.0 To -68.72%



MAT 7640 MT= 51 (n,n') Level Cross Section 76-0s-189
 -99.55 To 278.1 %

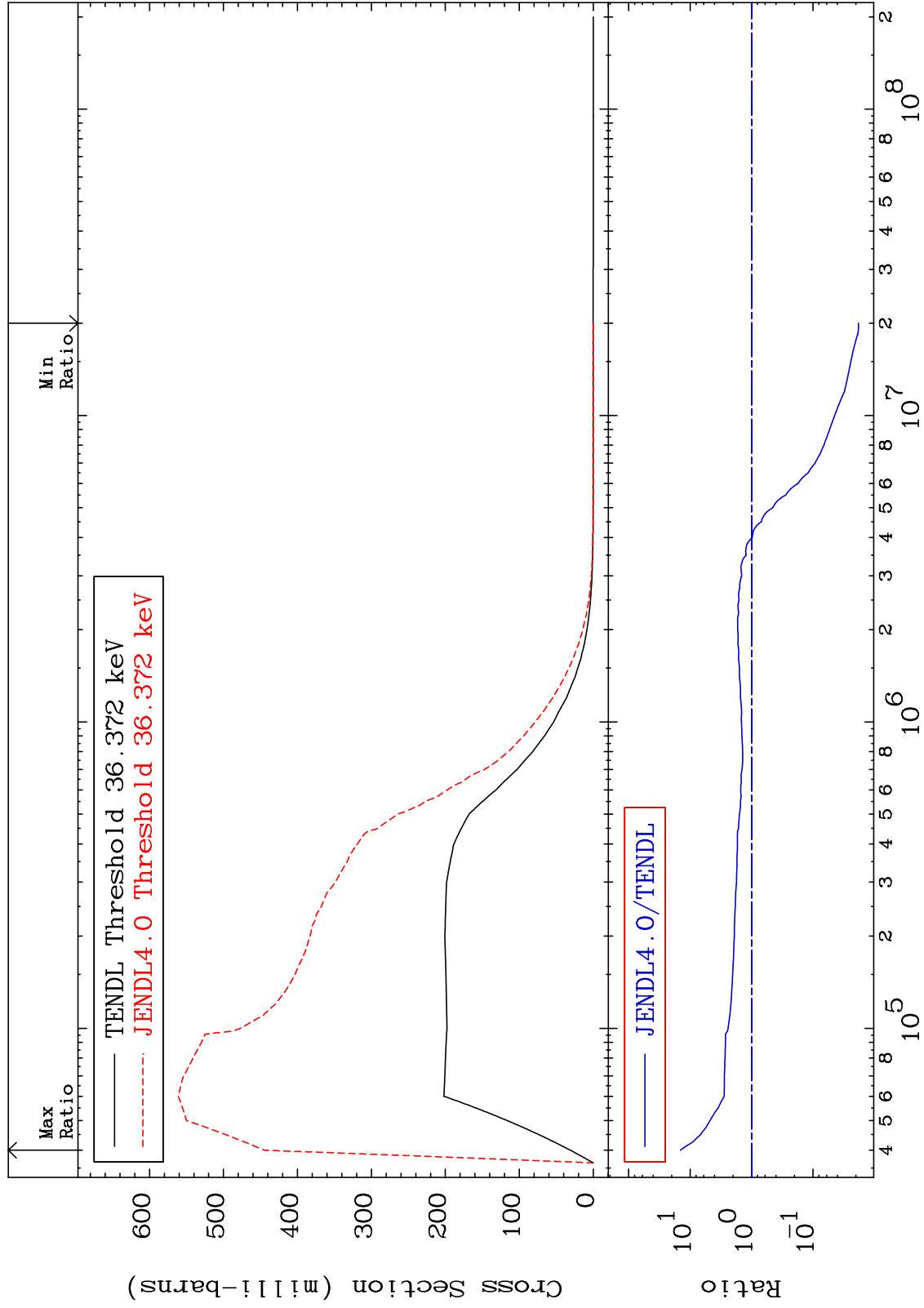


12 76-0s-189

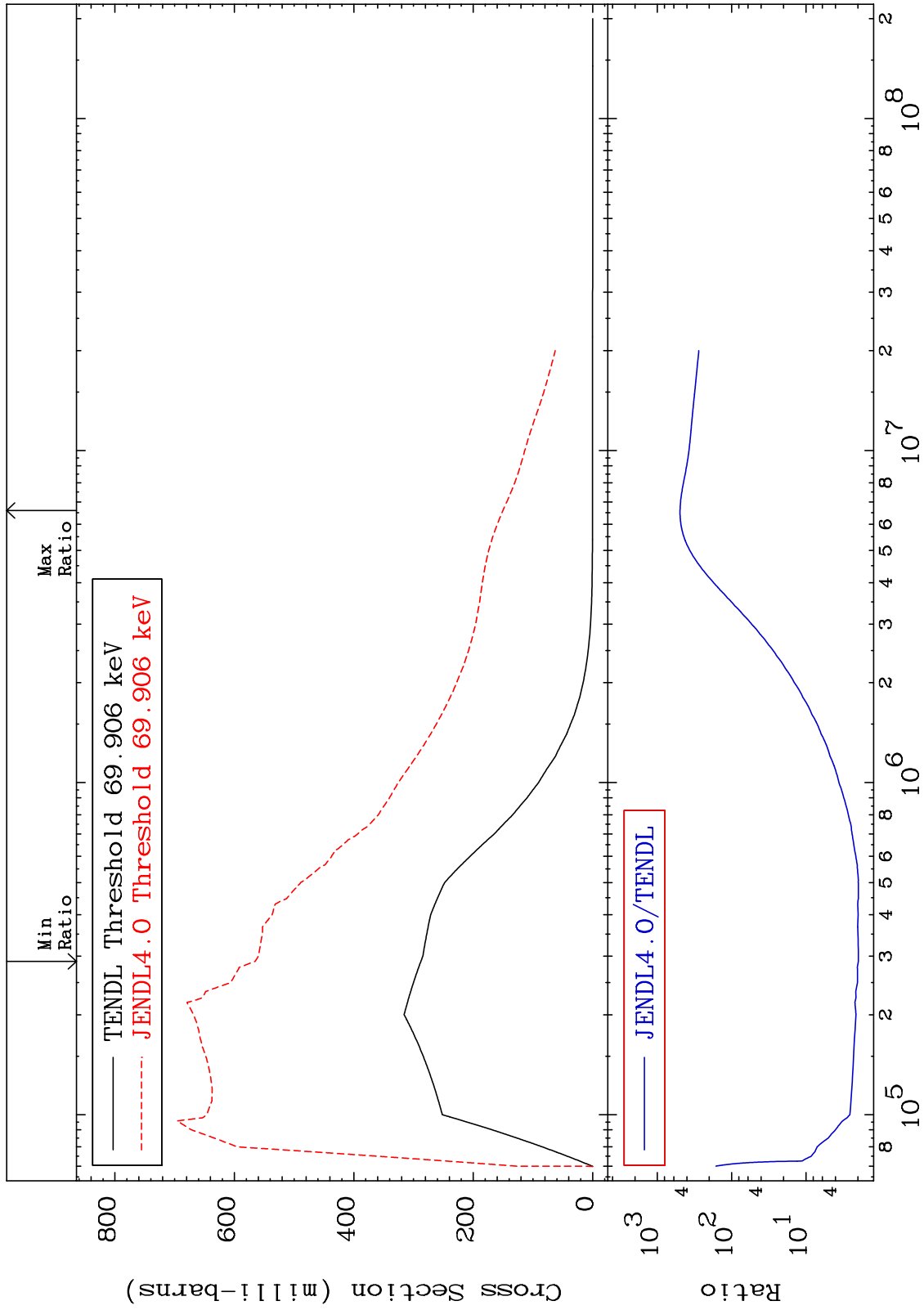
MAT 7640

MT= 52 (n,n') Level
Cross Section

76-0s-189
-98.19 To 1334. %



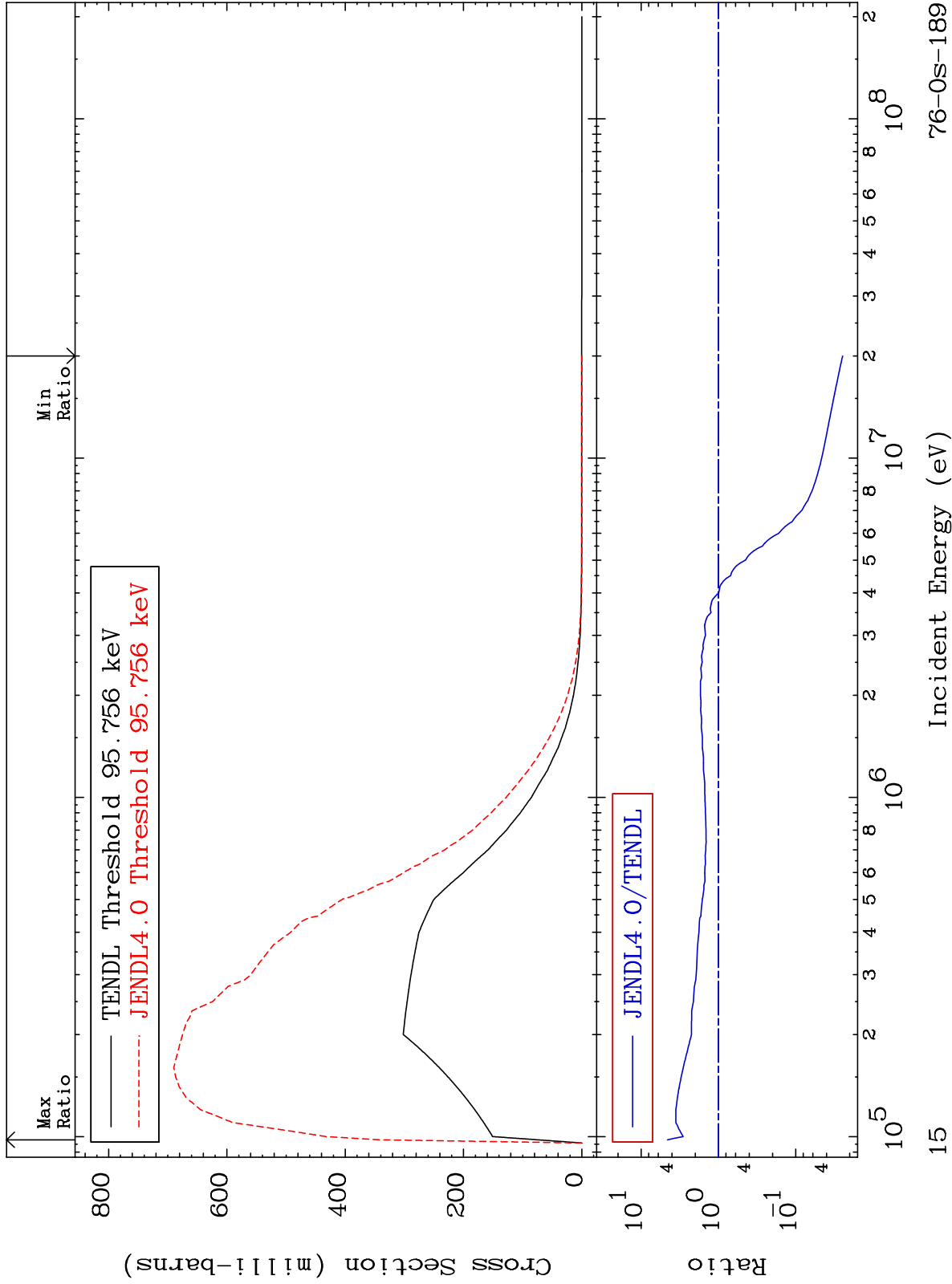
MAT 7640 MT= 53 (n,n') Level Cross Section 76-0s-189
 96.48 To 9999. %



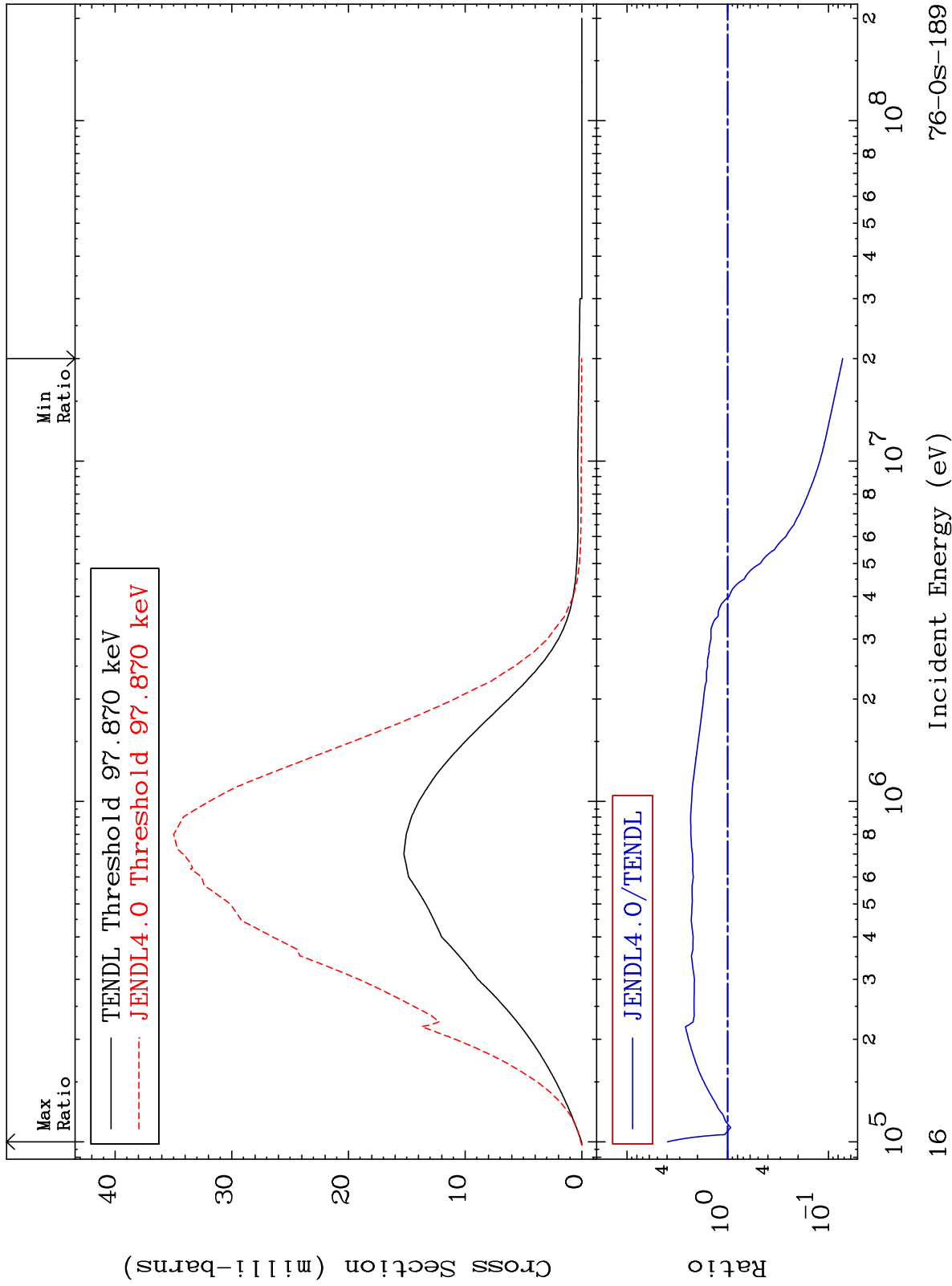
MAT 7640

MT= 54 (n,n') Level
Cross Section

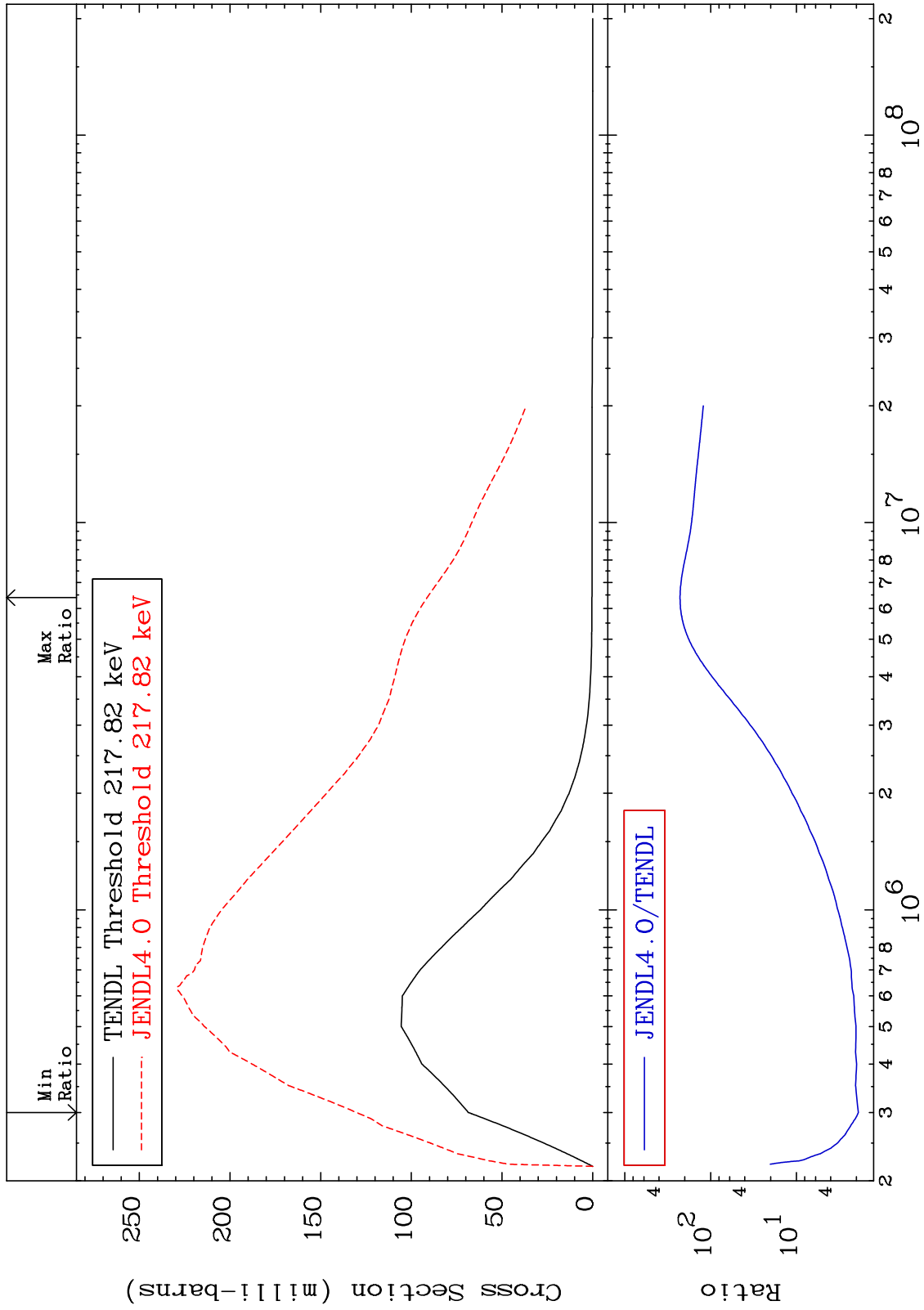
76-0s-189
-97.53 To 356.2 %



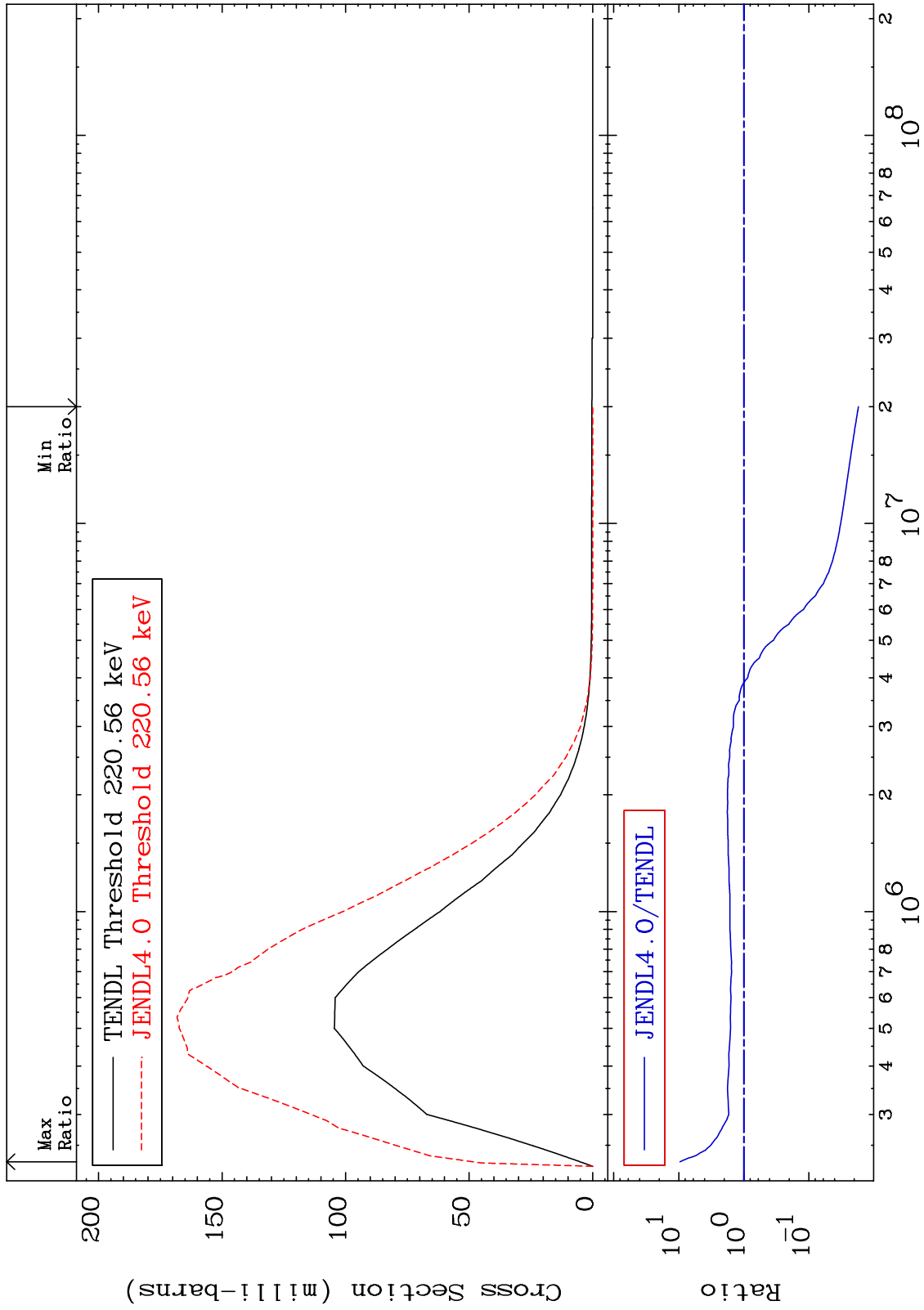
MAT 7640 MT= 55 (n,n') Level Cross Section 76-0s-189
 -92.78 To 296.0 %



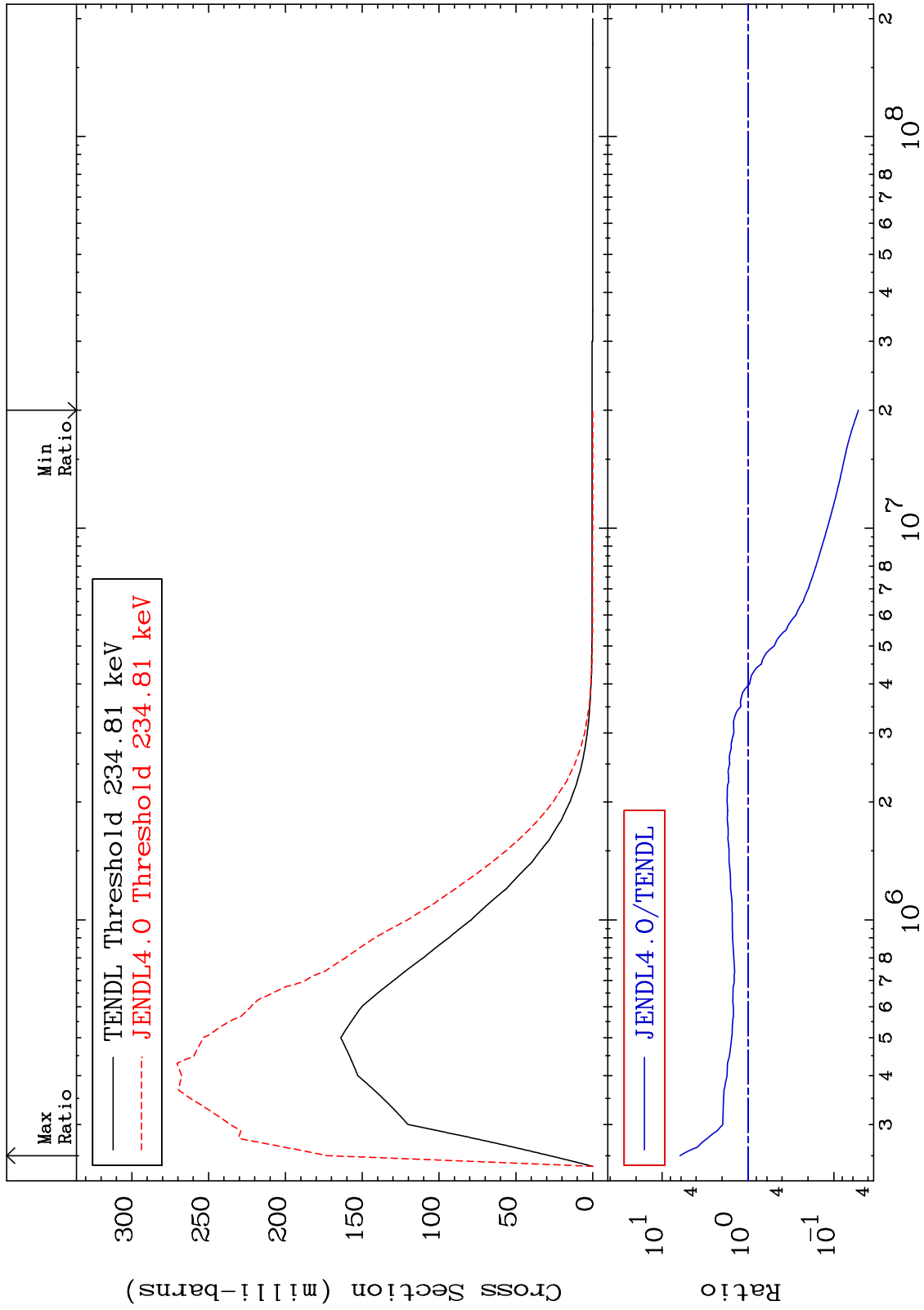
MAT 7640 MT= 56 (n,n') Level Cross Section 76-0s-189
 89.93 To 9999. %



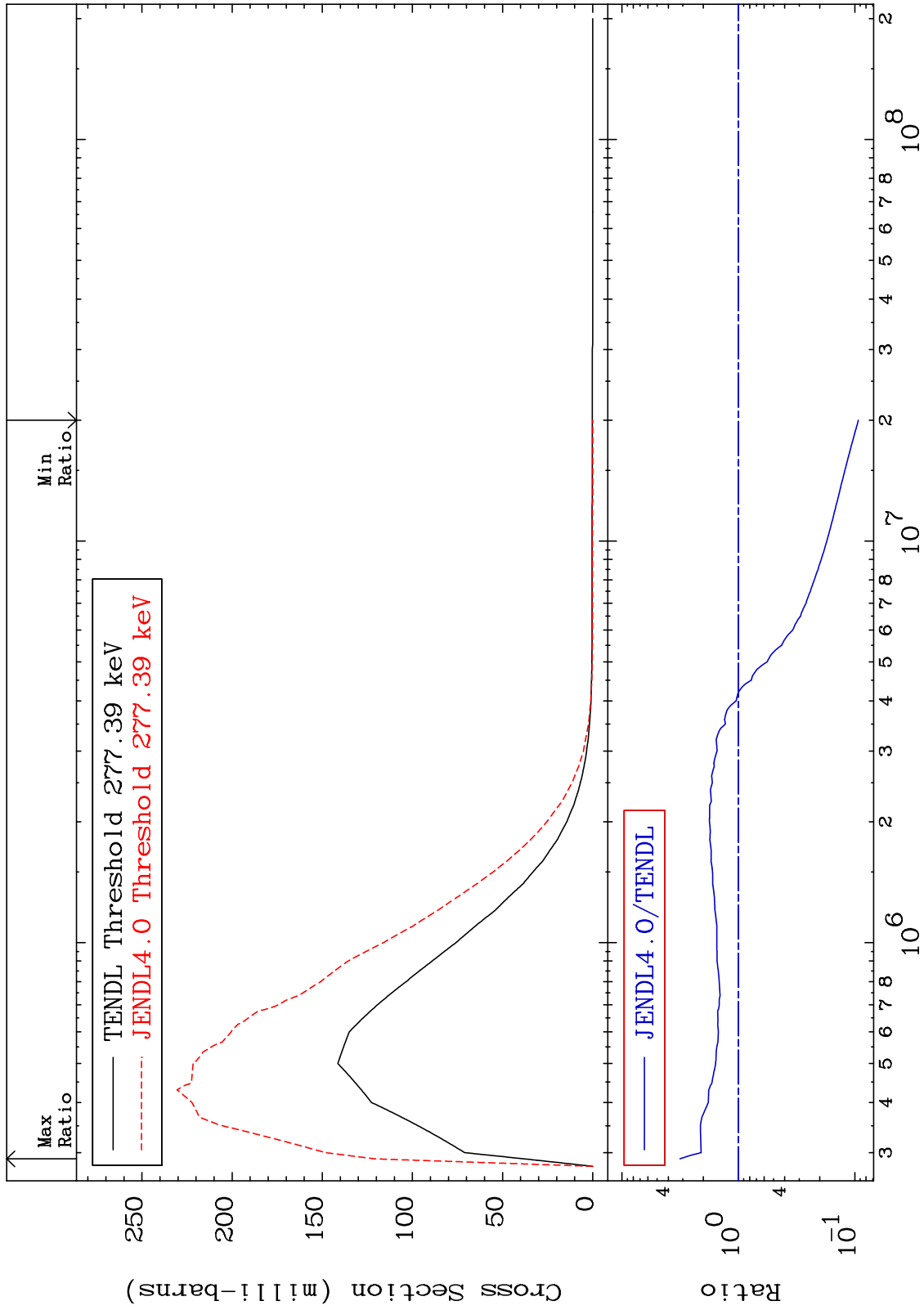
MAT 7640 MT= 57 (n,n') Level Cross Section 76-0s-189
 -98.27 To 856.9 %

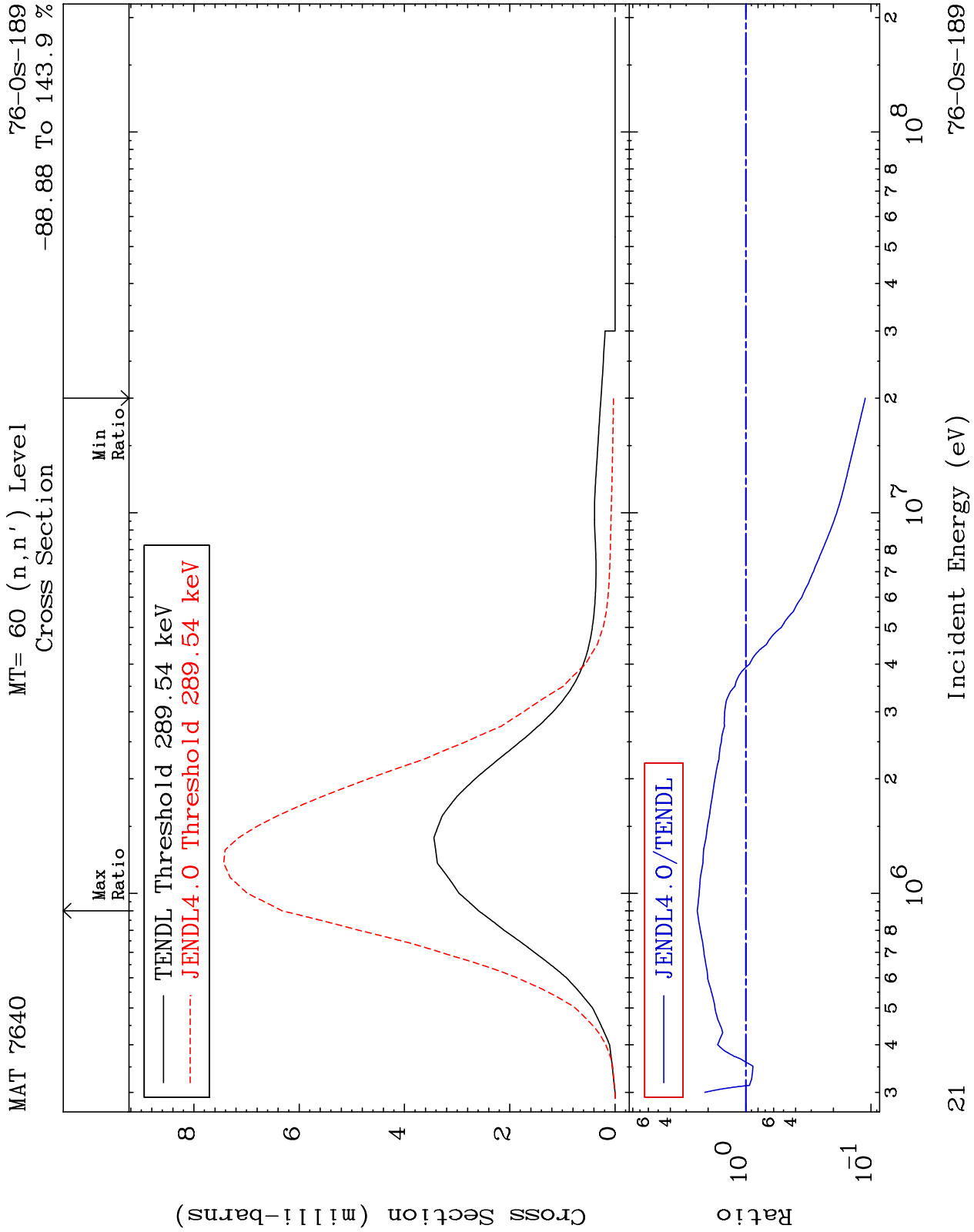


MAT 7640 MT= 58 (n,n') Level Cross Section 76-0s-189
 -94.82 To 516.8 %

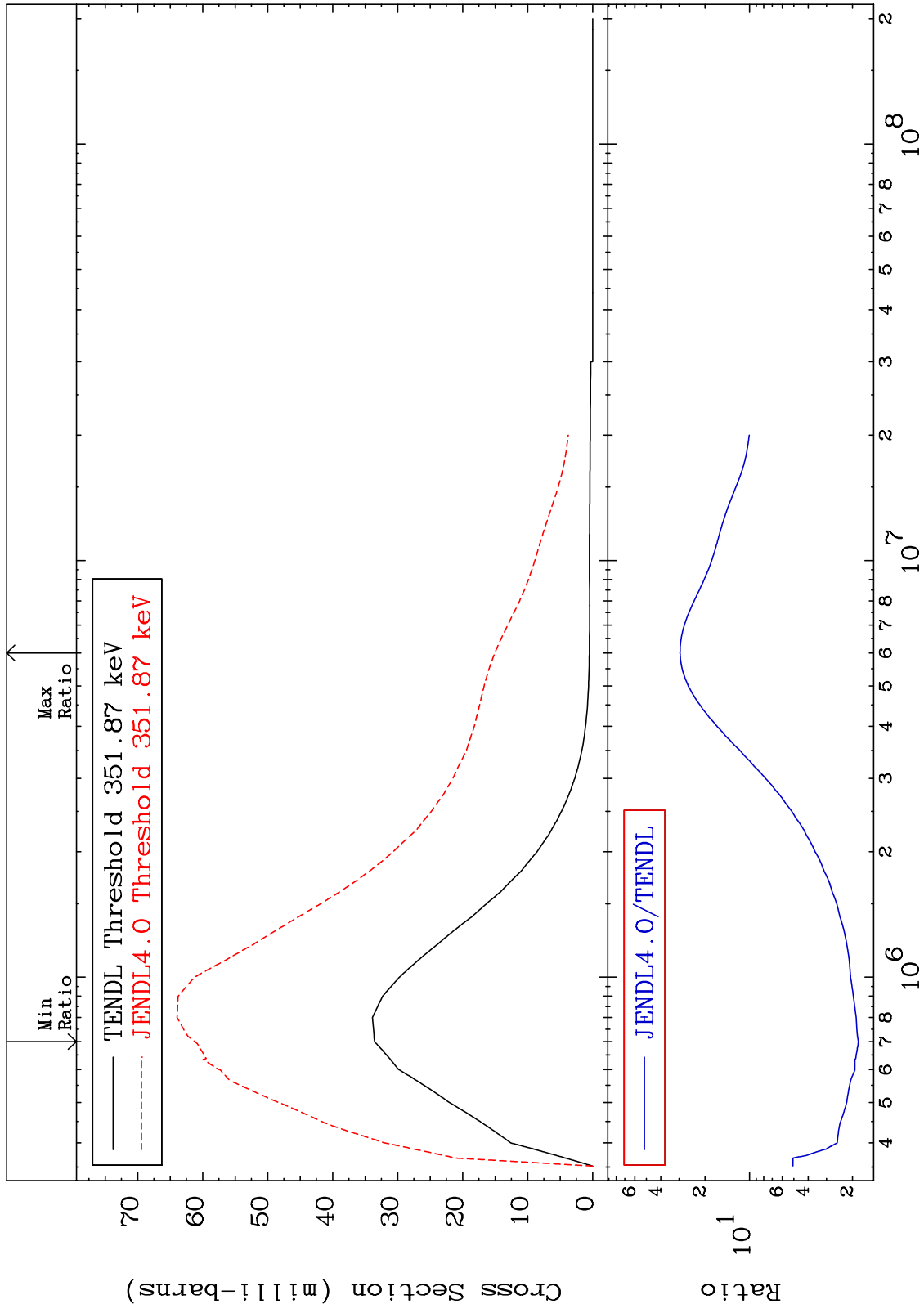


MAT 7640 MT= 59 (n,n') Level Cross Section 76-0s-189
-90.69 To 217.2 %

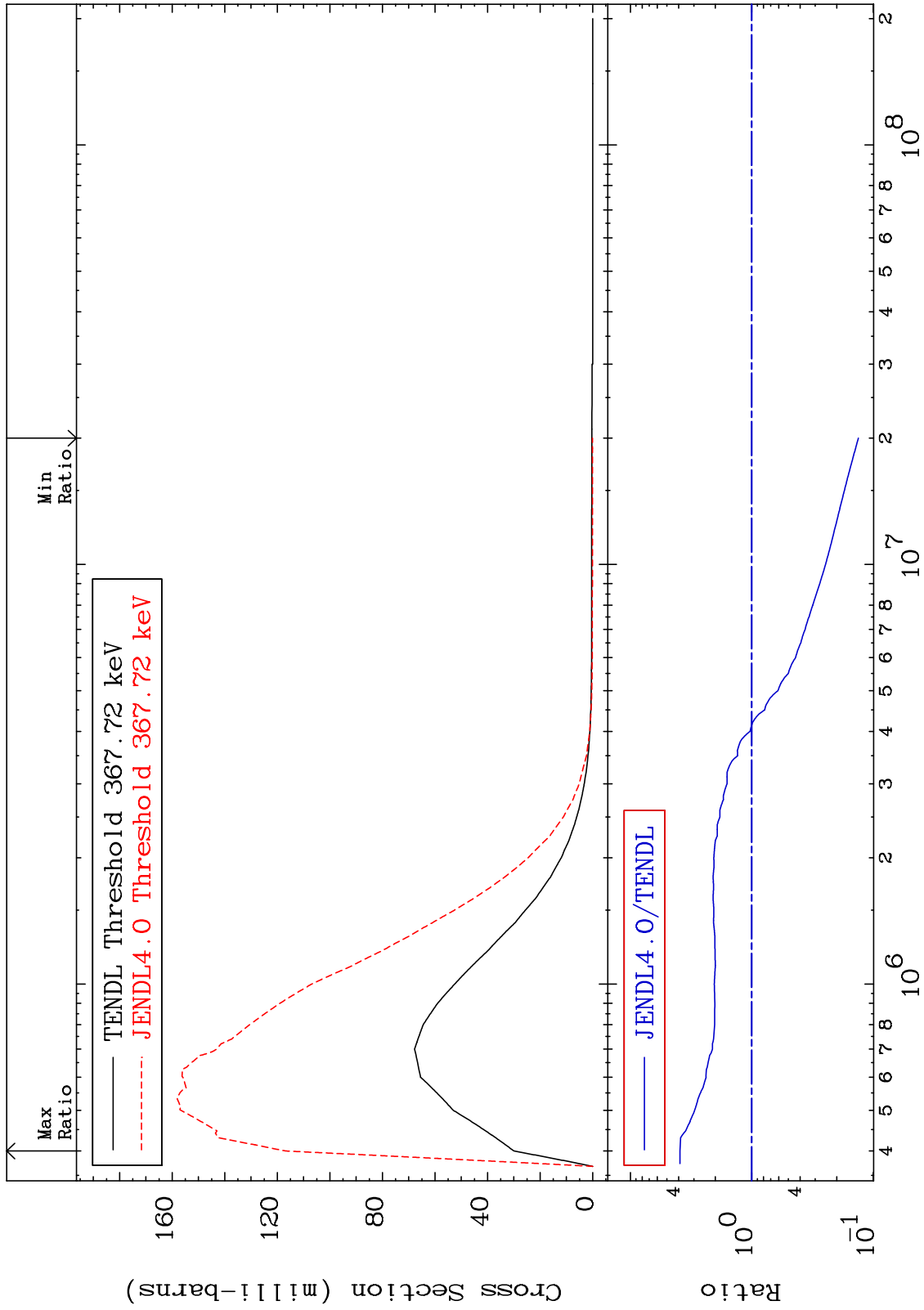




MAT 7640 MT= 61 (n,n') Level Cross Section 76-0s-189
 82.31 To 2857. %



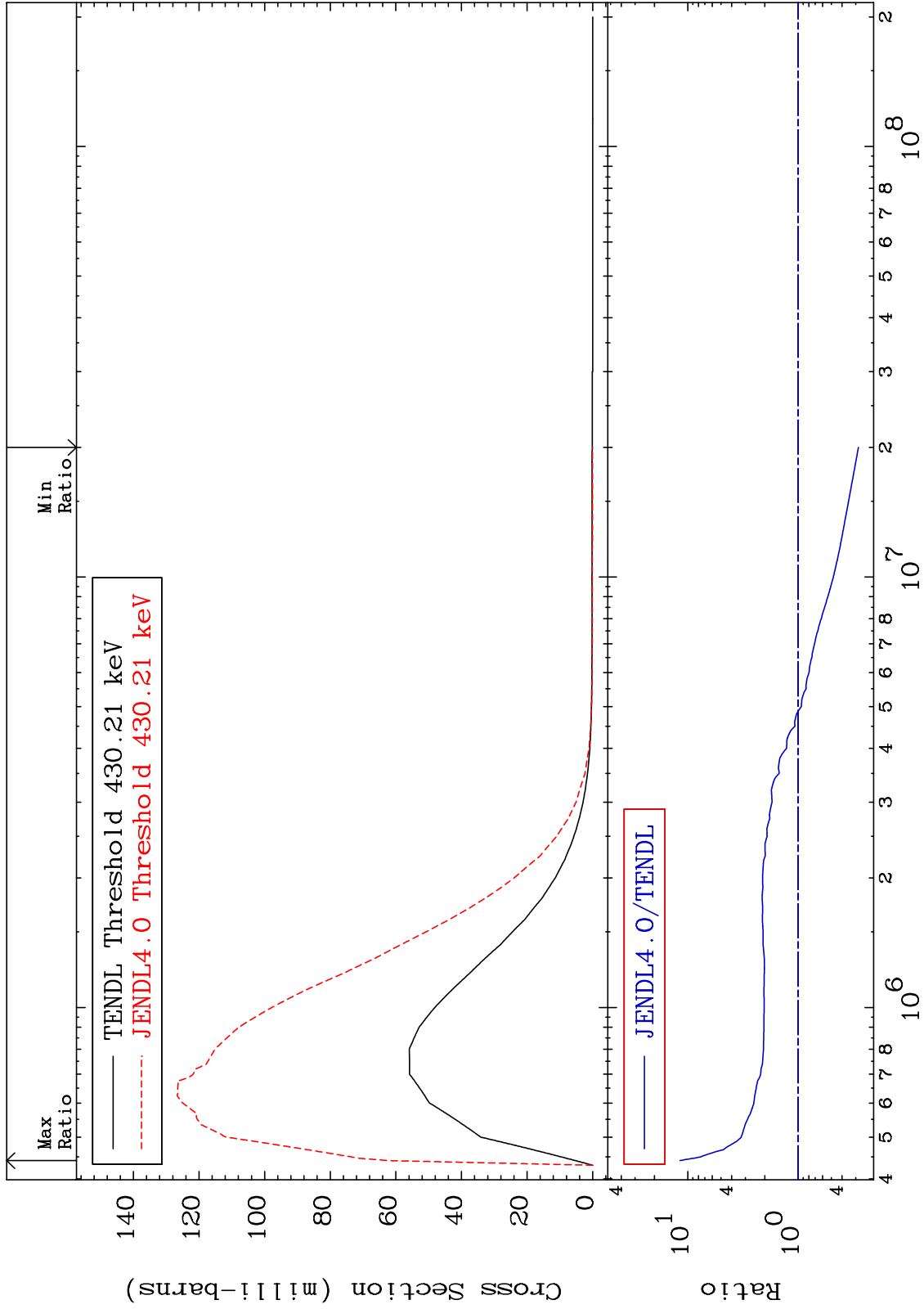
MAT 7640 MT= 62 (n,n') Level Cross Section 76-0s-189
 -86.76 To 290.0 %



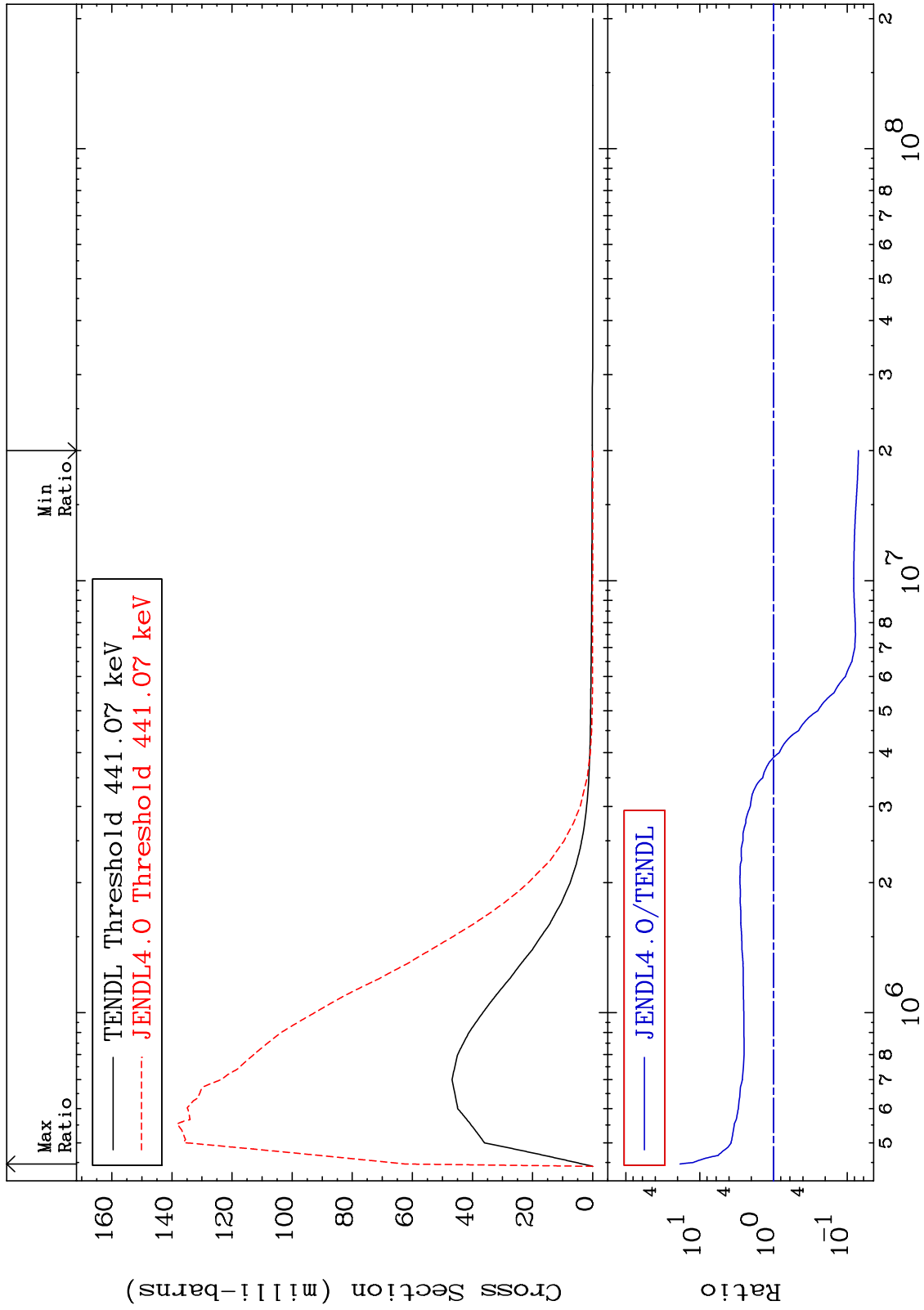
MAT 7640

MT= 63 (n,n') Level
Cross Section

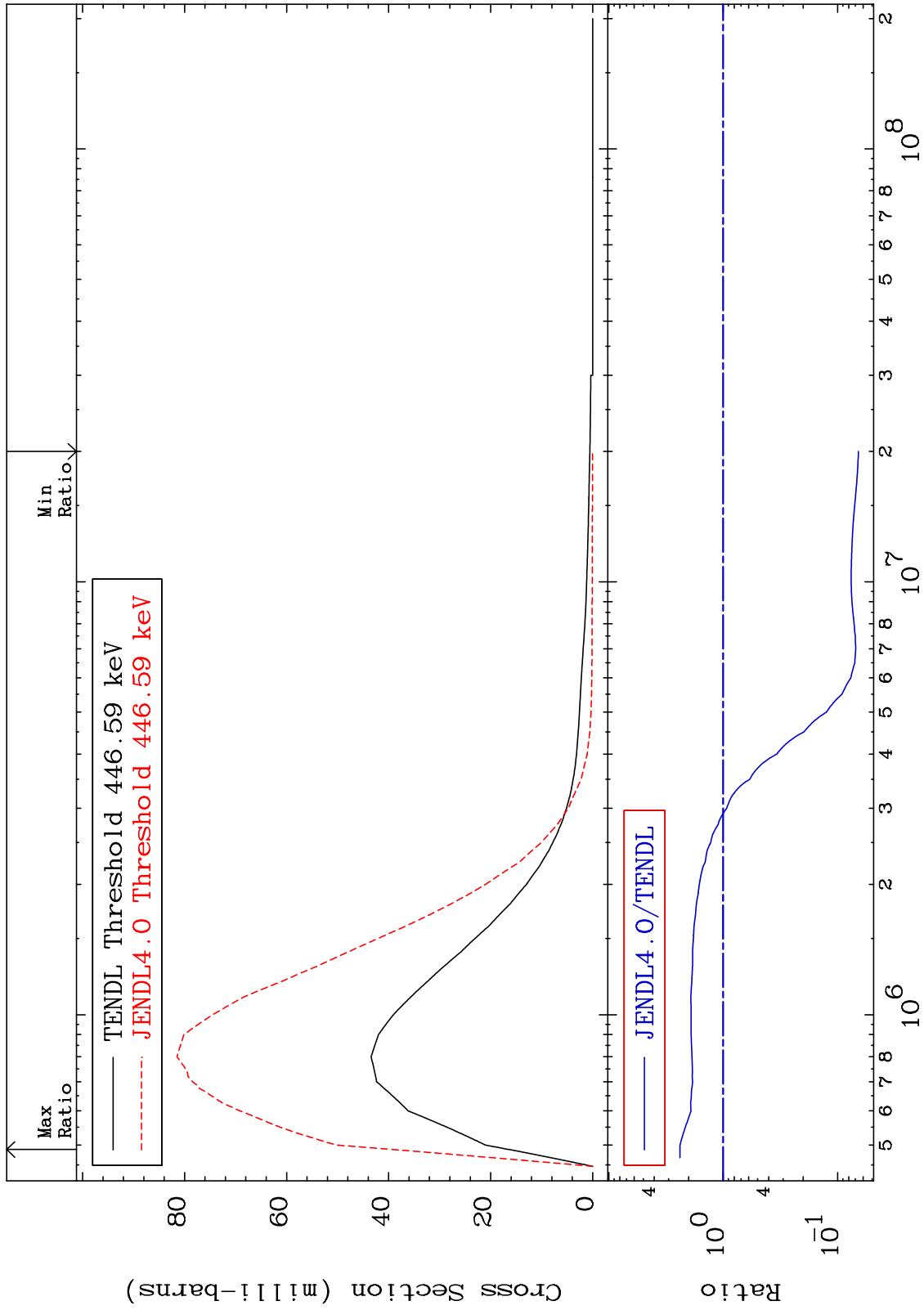
76-0s-189
-71.62 To 1075. %



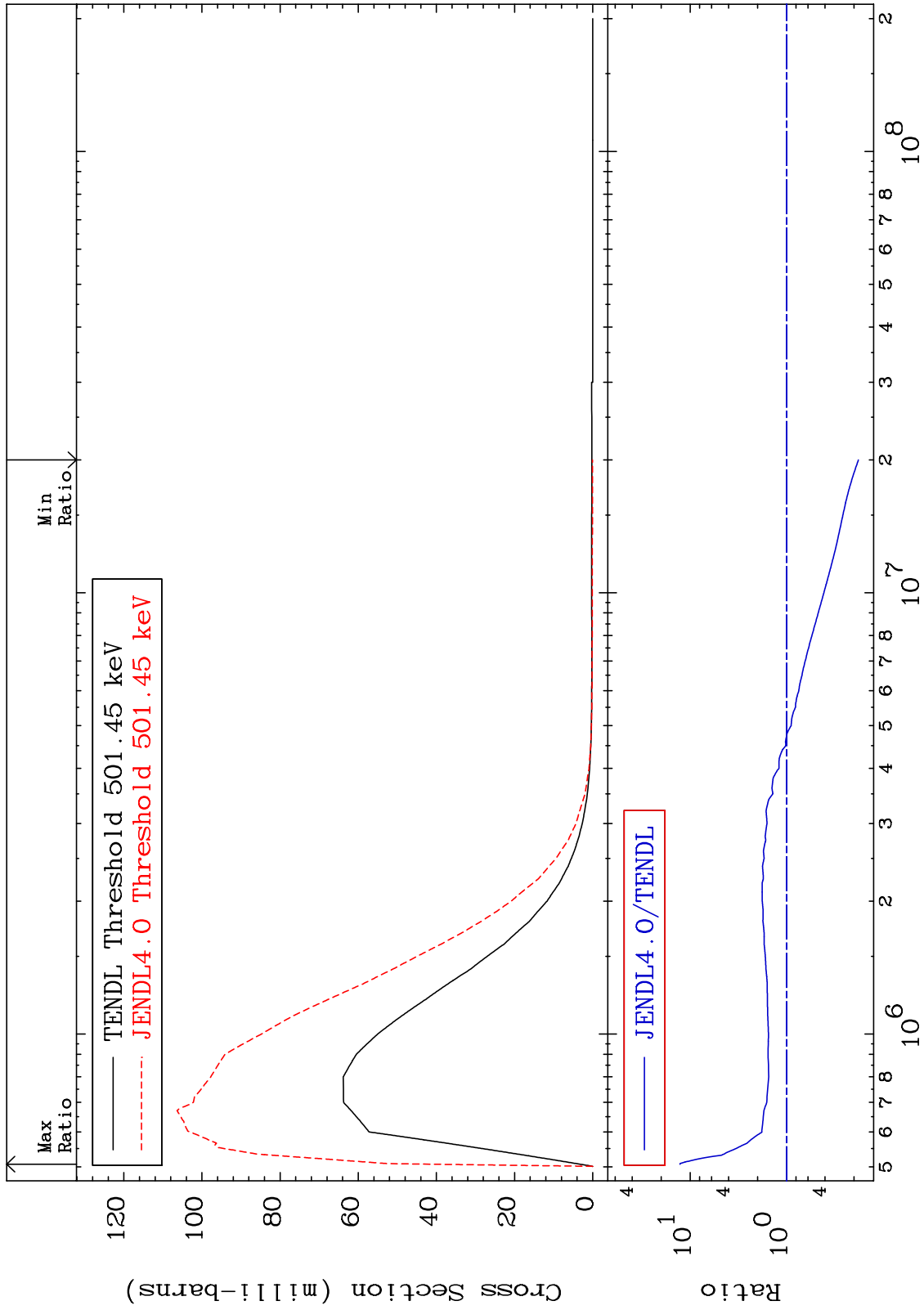
MAT 7640 MT= 64 (n,n') Level Cross Section 76-0s-189 -92.93 To 1751. %



MAT 7640 MT= 65 (n,n') Level Cross Section 76-0s-189
 -93.41 To 138.5 %



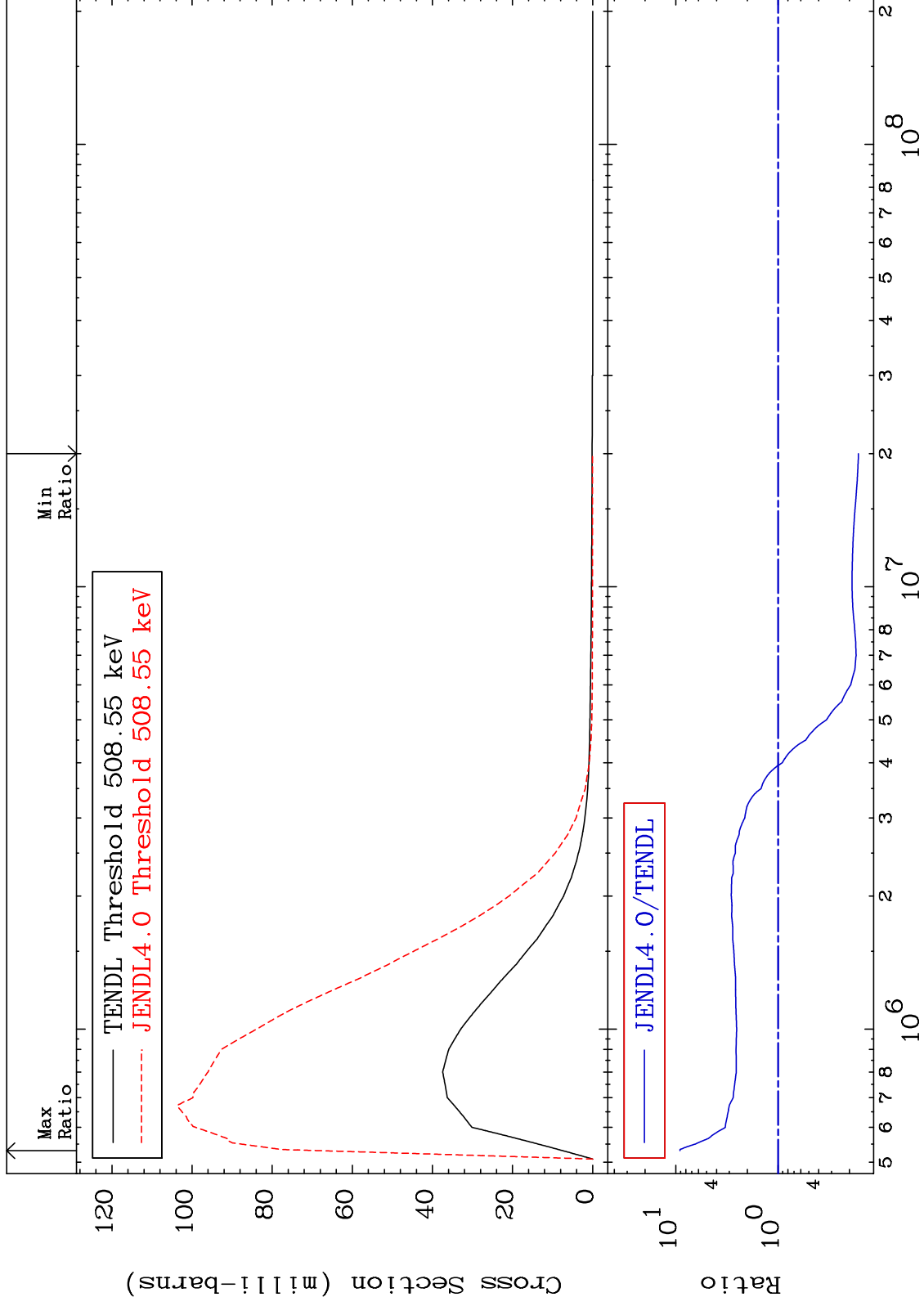
MAT 7640 MT= 66 (n,n') Level Cross Section 76-0s-189 -82.02 To 1174. %



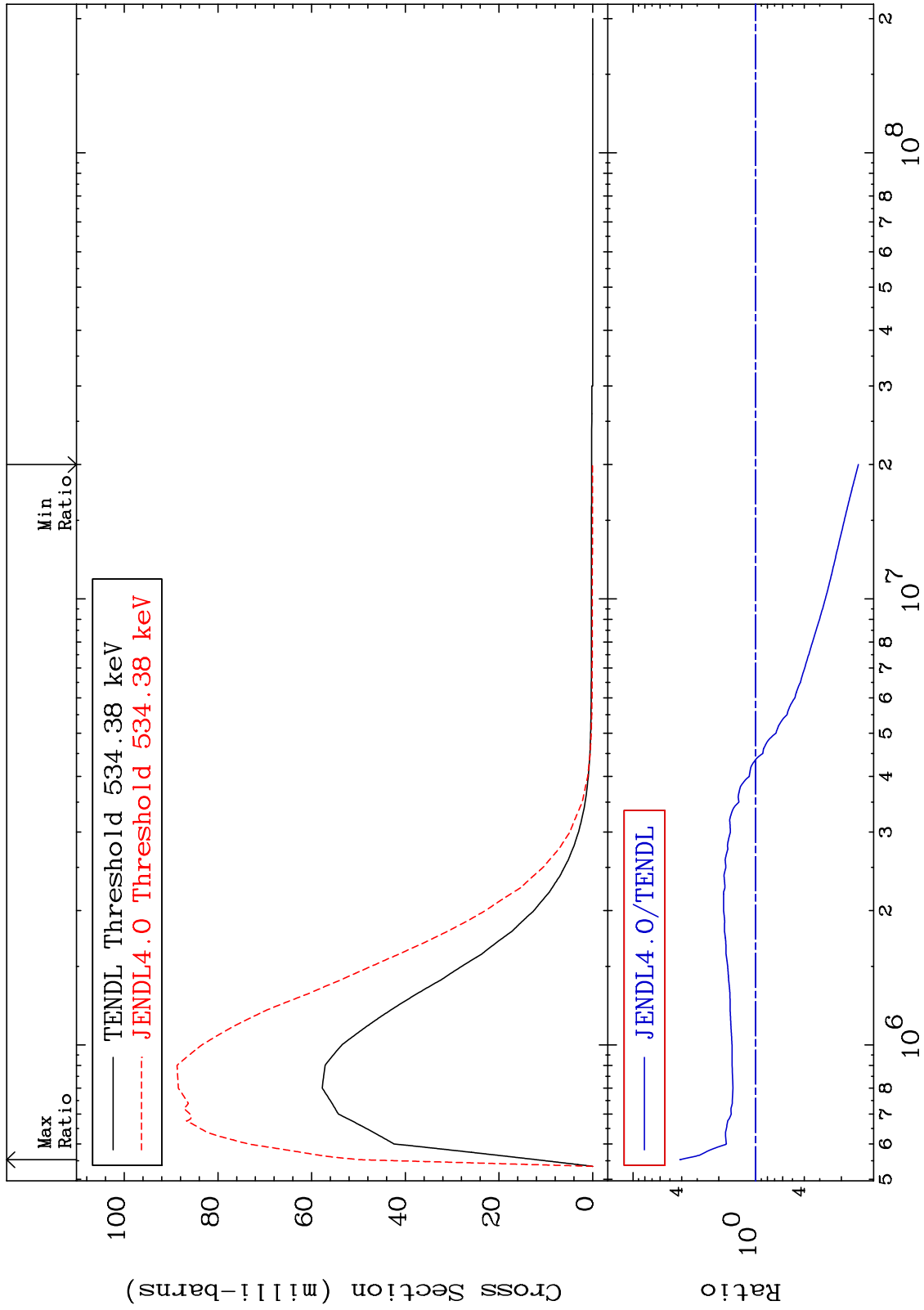
MAT 7640

MT= 67 (n,n') Level
Cross Section

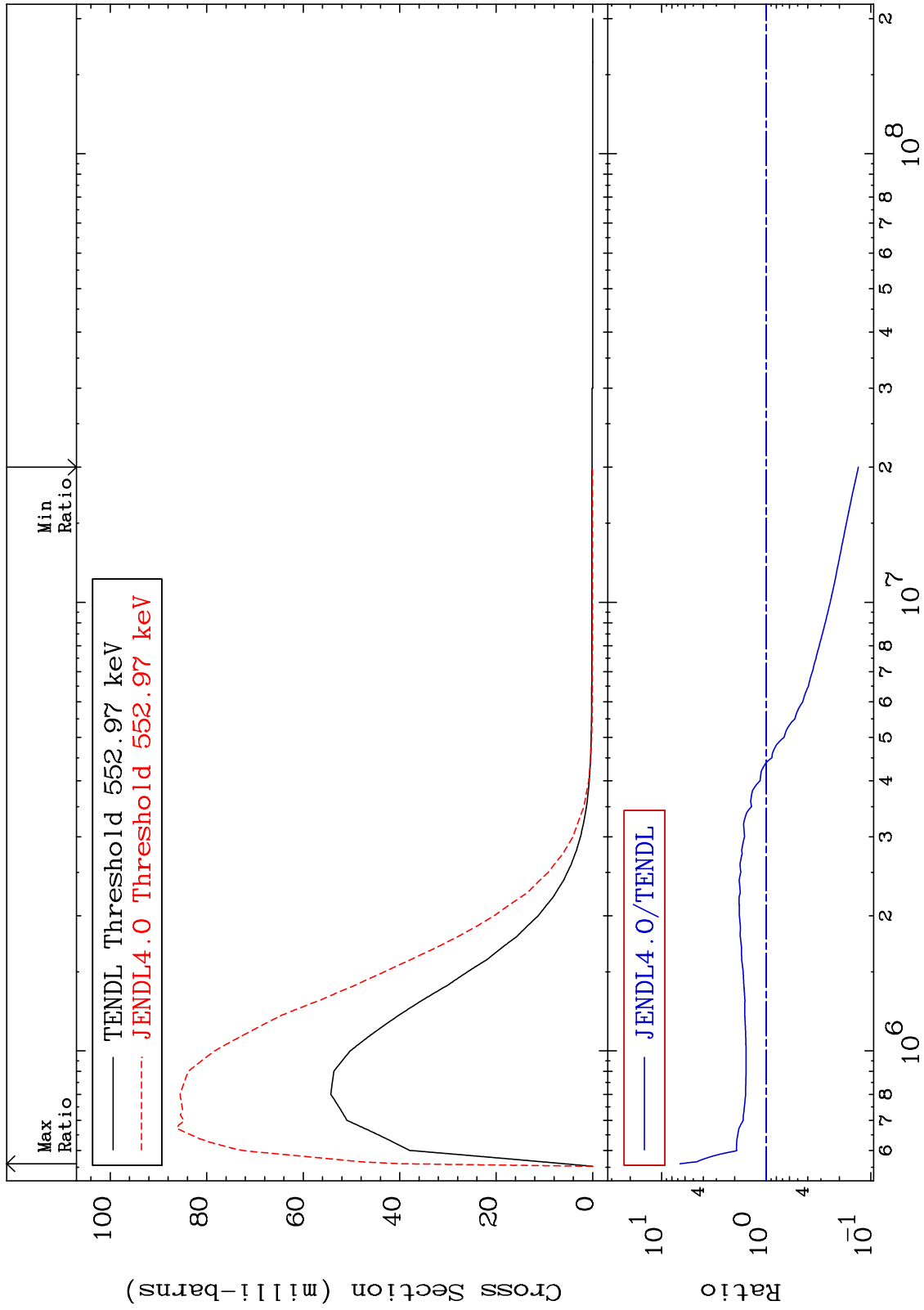
76-0s-189
-83.63 To 811.3 %



MAT 7640 MT= 68 (n,n') Level Cross Section 76-0s-189
 -85.50 To 313.5 %

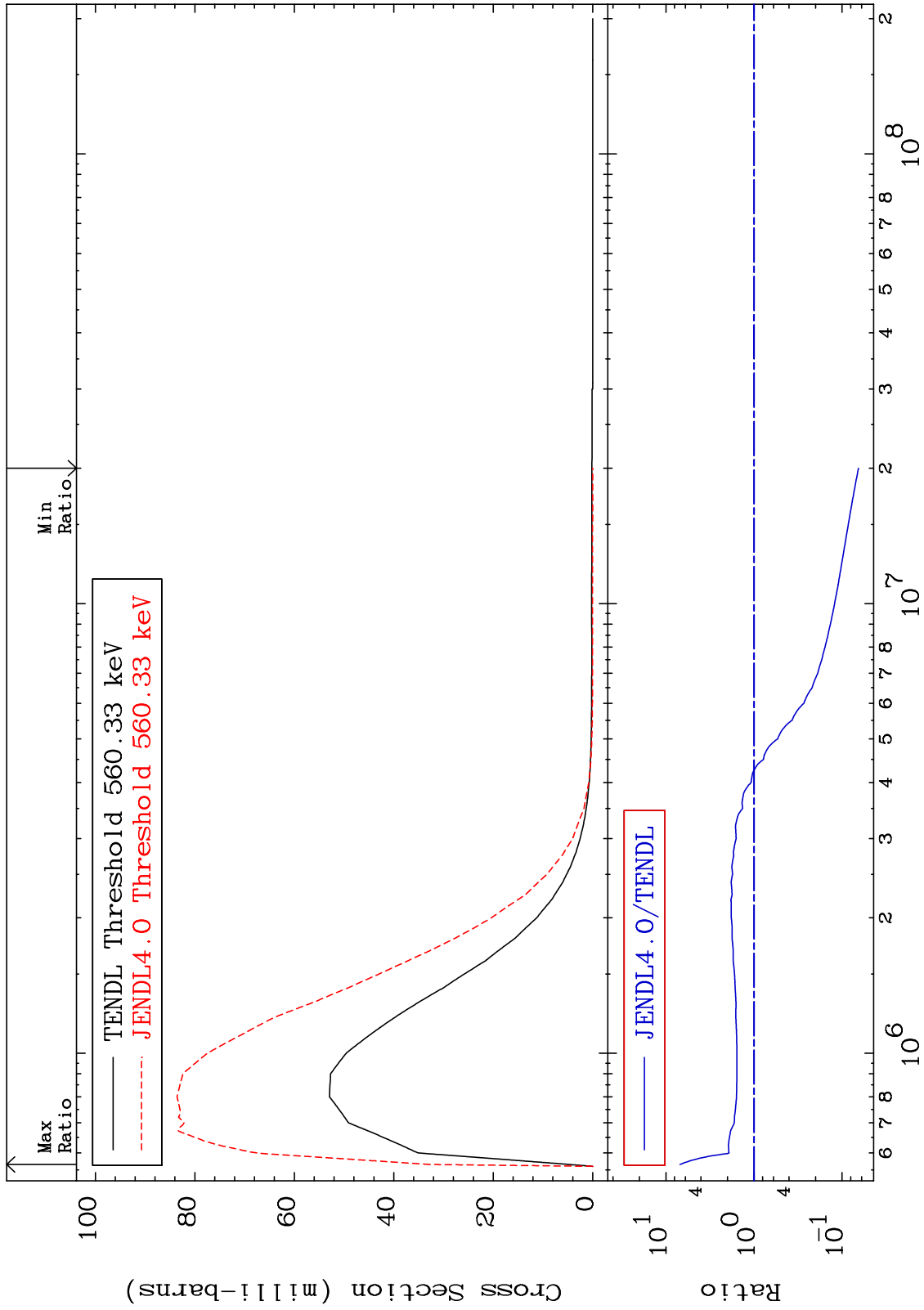


MAT 7640 MT= 69 (n,n') Level Cross Section 76-0s-189 -86.86 To 567.7 %

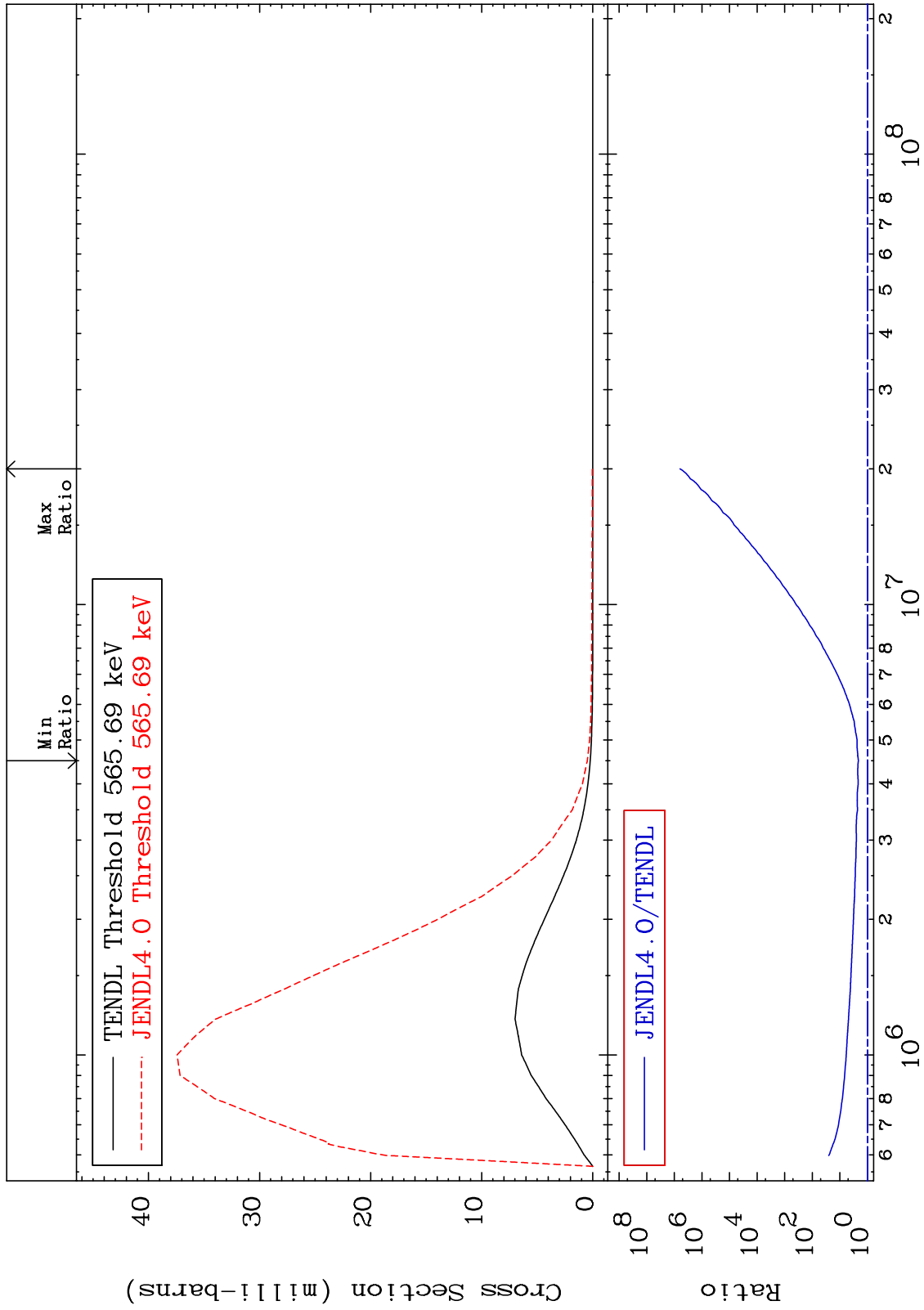


30 Incident Energy (eV) 76-0s-189

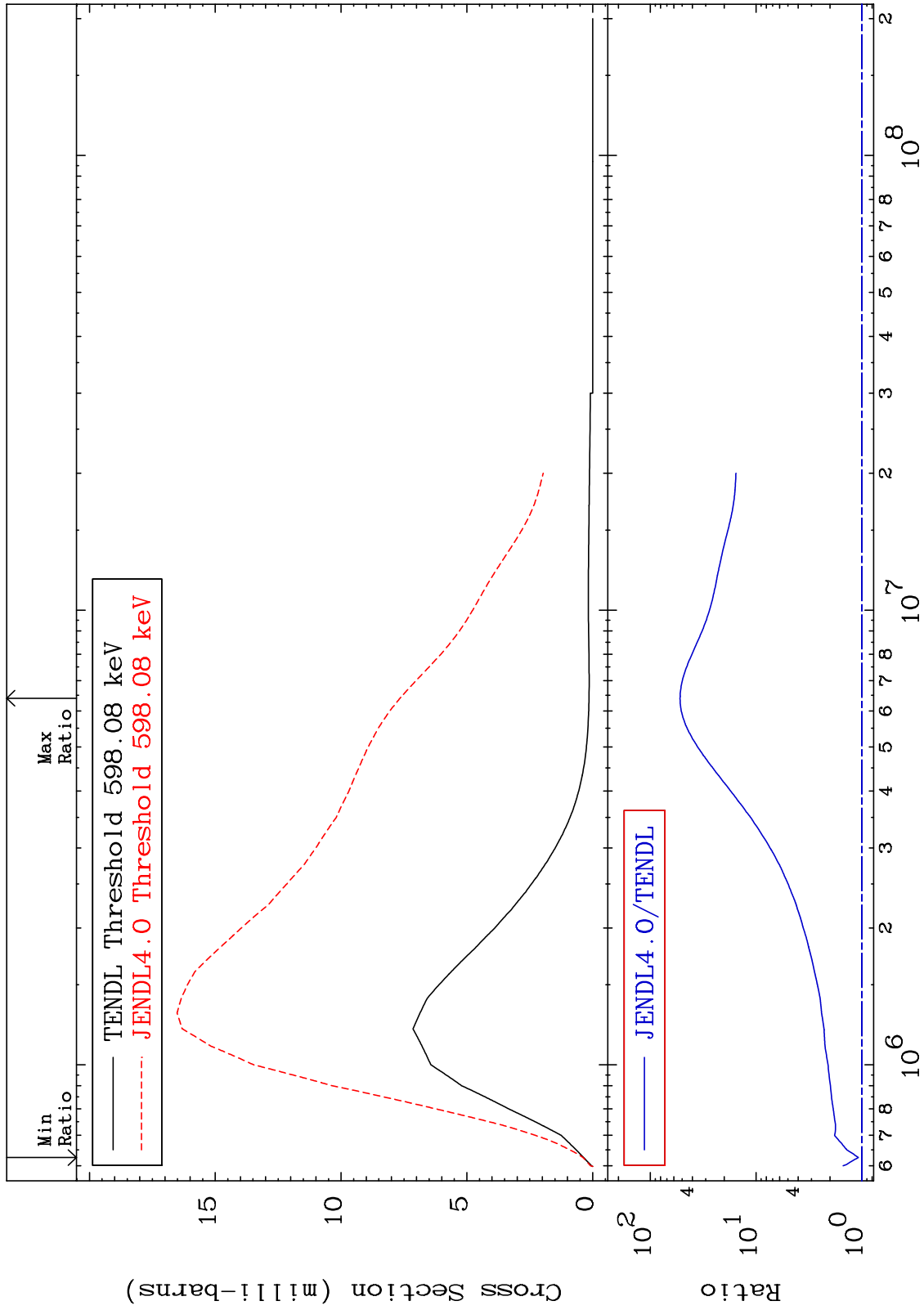
MAT 7640 MT= 70 (n,n') Level Cross Section 76-0s-189 -93.47 To 591.8 %



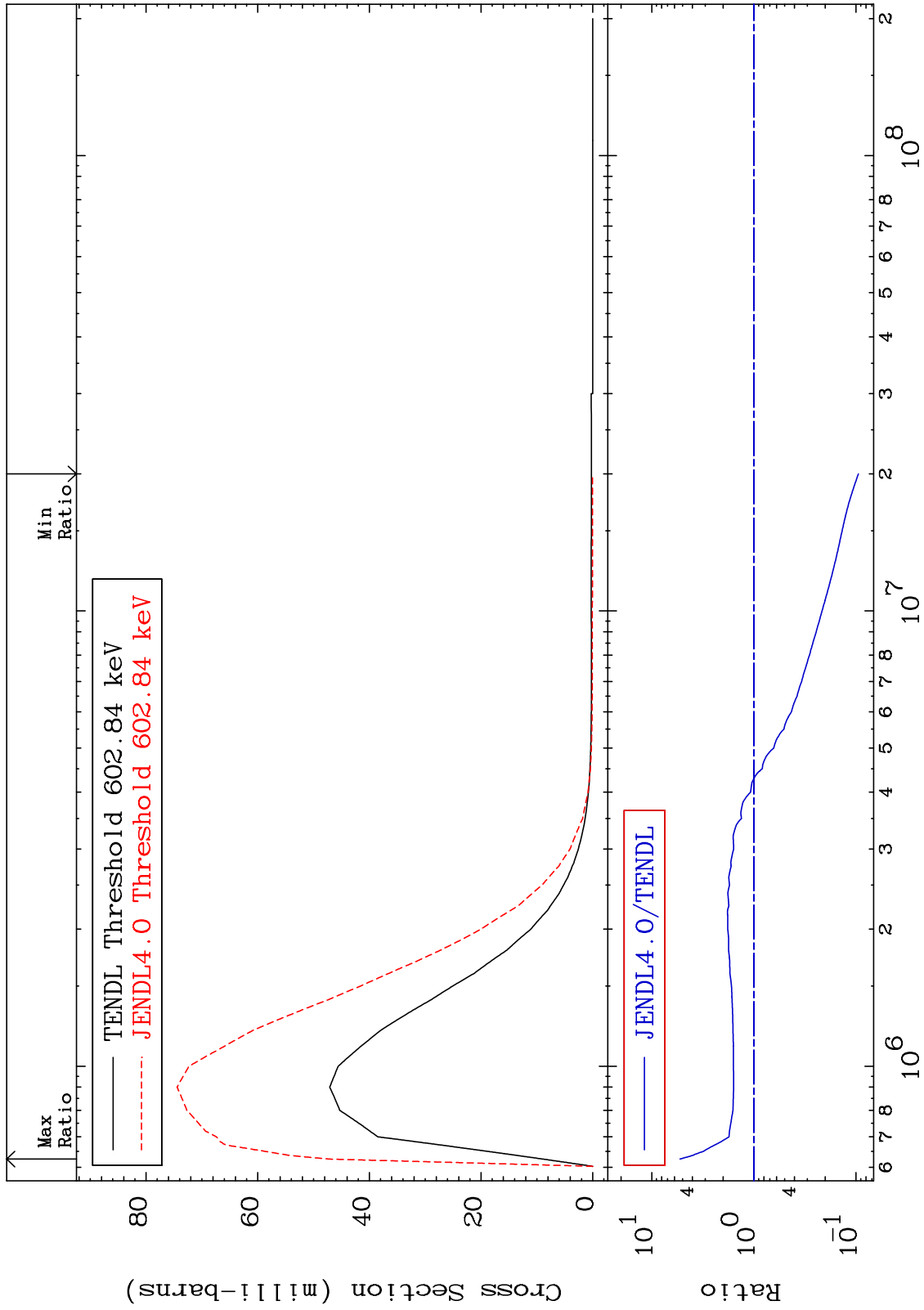
MAT 7640 MT= 71 (n,n') Level Cross Section 76-0s-189
 112.2 To 9999. %



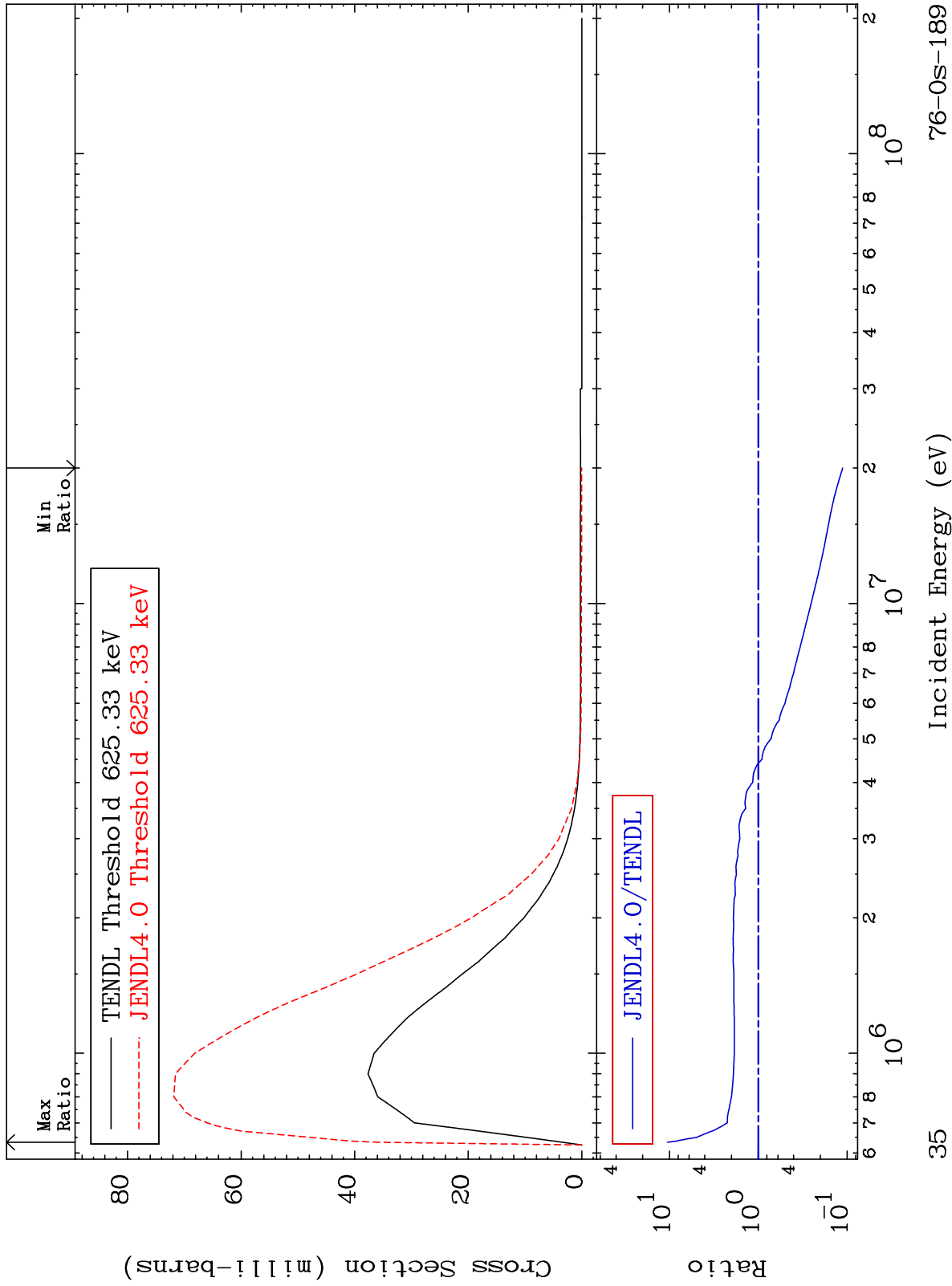
MAT 7640 MT= 72 (n,n') Level Cross Section 76-0s-189
 8.020 To 5147. %



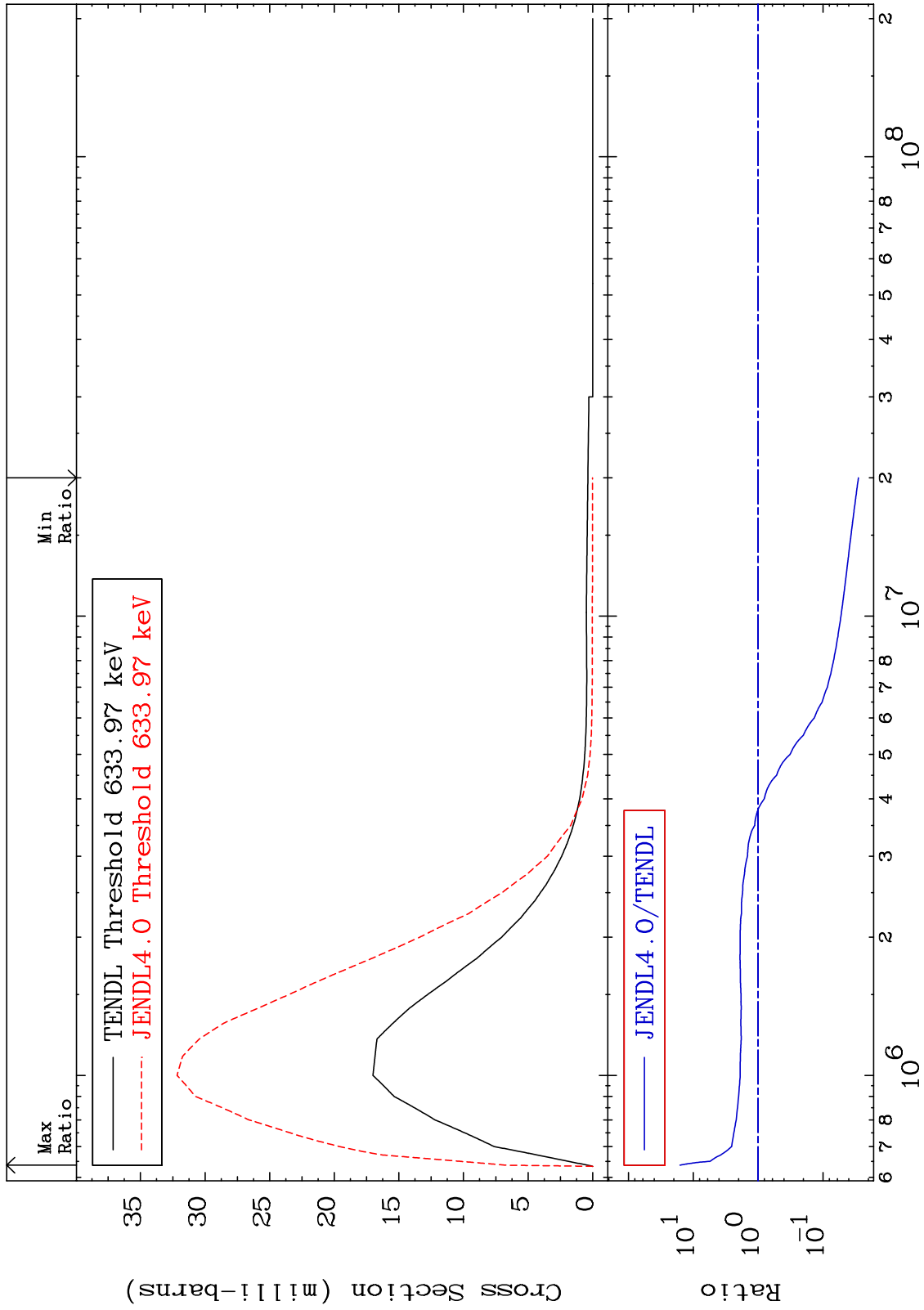
MAT 7640 MT= 73 (n,n') Level Cross Section 76-0s-189
 -90.52 To 429.2 %



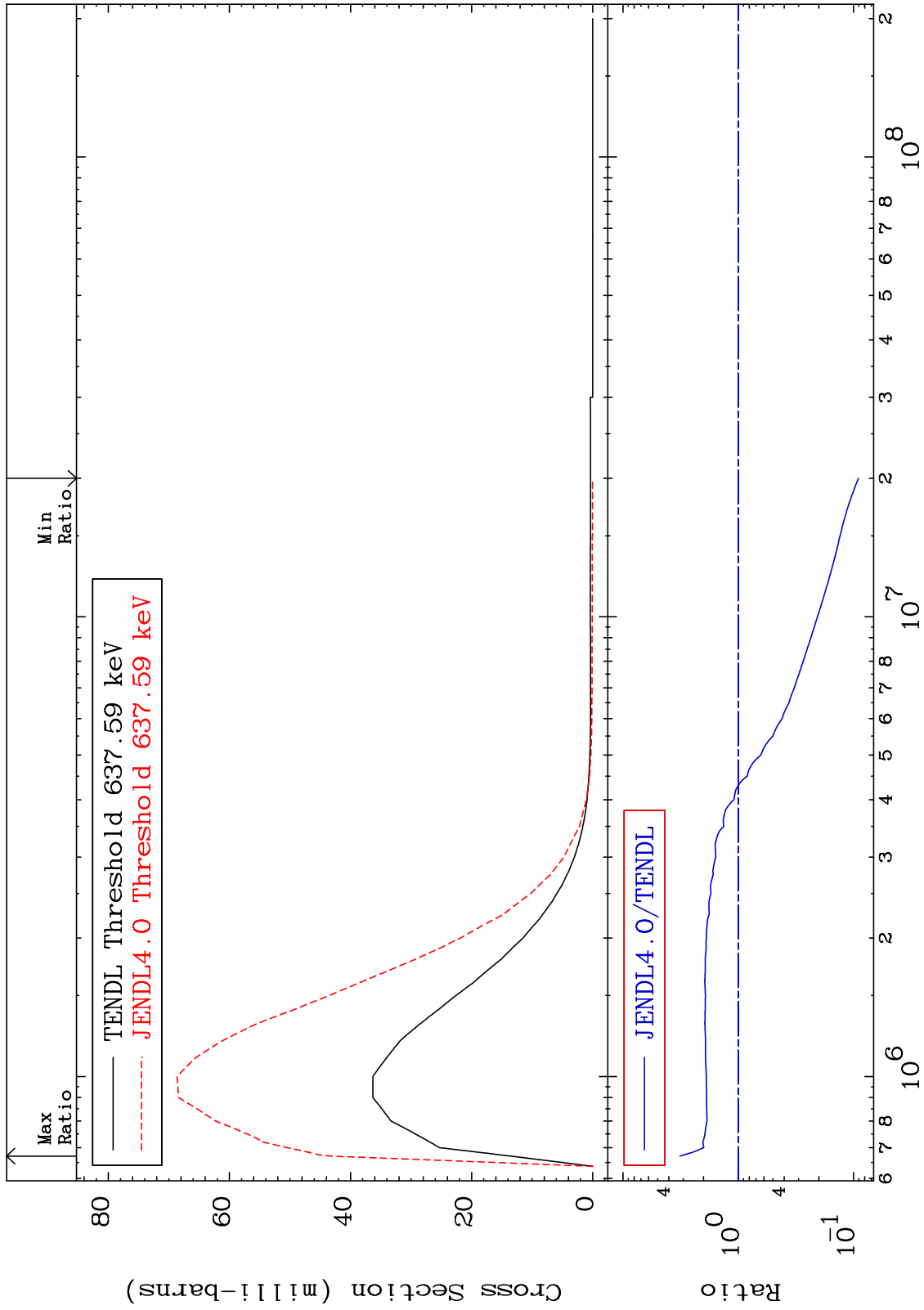
MAT 7640 MT= 74 (n,n') Level Cross Section 76-0s-189
 -88.77 To 951.2 %



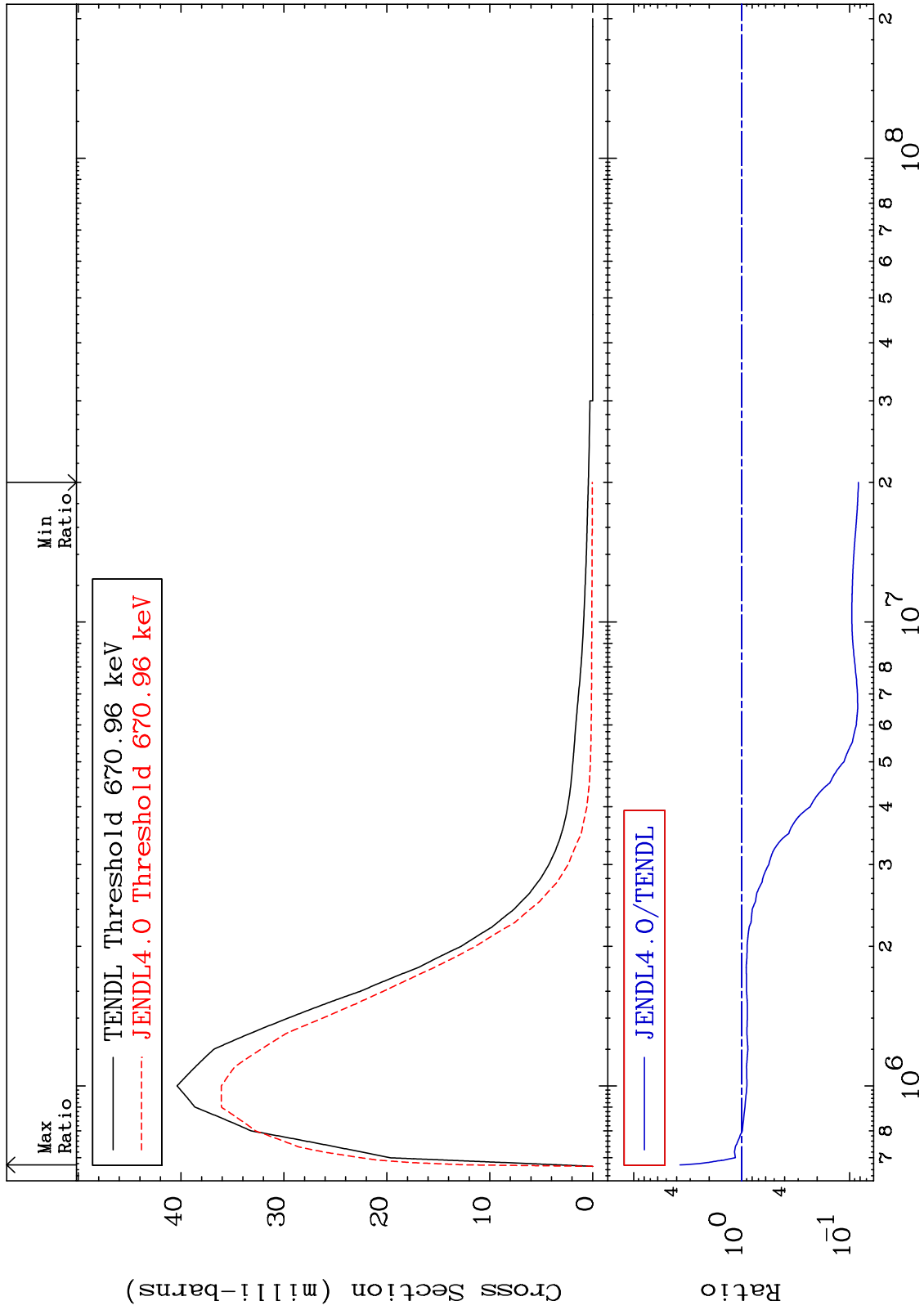
MAT 7640 MT= 75 (n,n') Level Cross Section 76-0s-189
 -97.16 To 1501. %



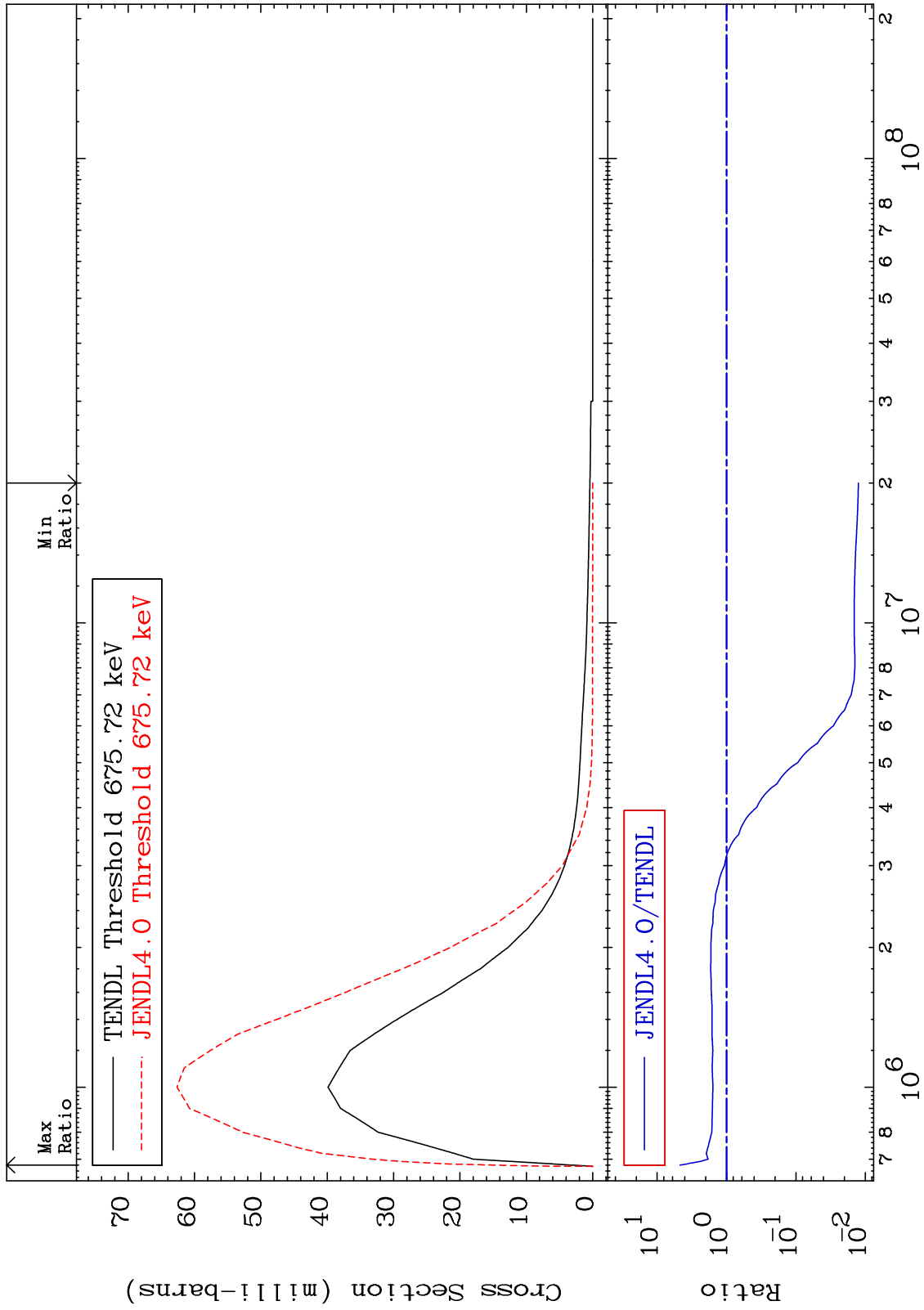
MAT 7640 MT= 76 (n,n') Level Cross Section 76-0s-189
 -90.93 To 219.9 %



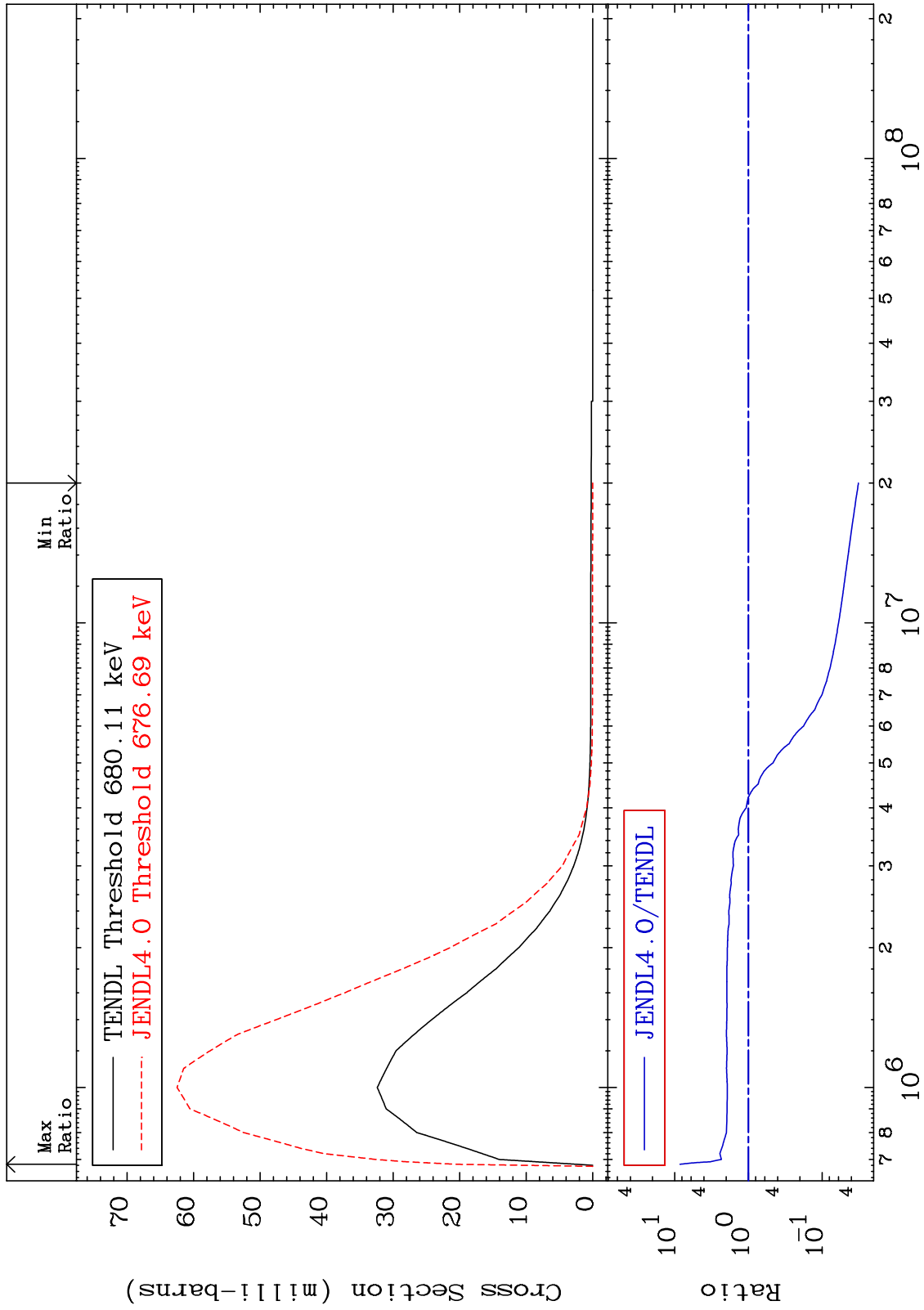
MAT 7640 MT= 77 (n,n') Level Cross Section 76-0s-189
-91.70 To 272.0 %



MAT 7640 MT= 78 (n,n') Level Cross Section 76-0s-189 -98.74 To 368.0 %

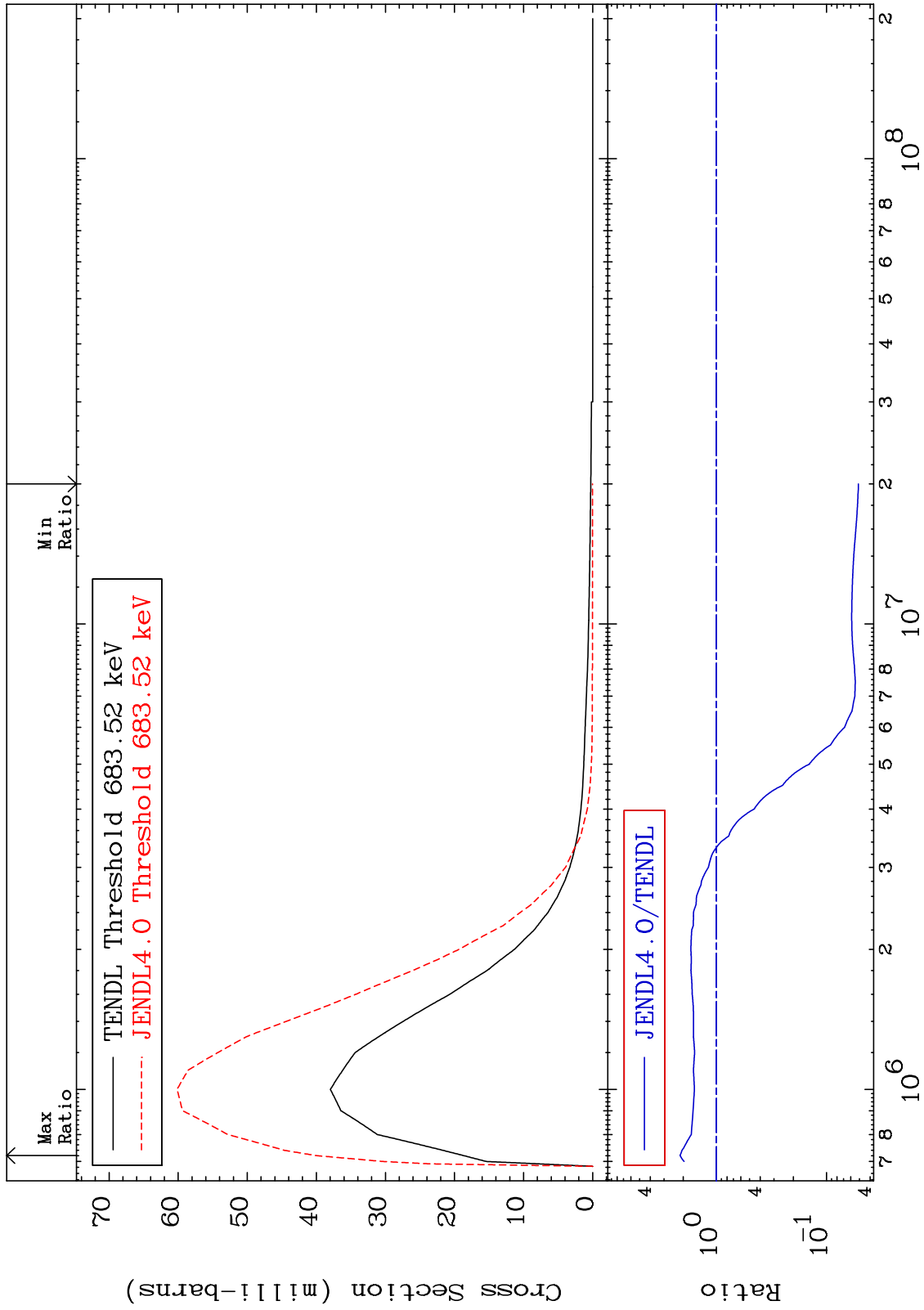


MAT 7640 MT= 79 (n,n') Level Cross Section 76-0s-189 -96.78 To 747.5 %



40 Incident Energy (eV) 76-0s-189

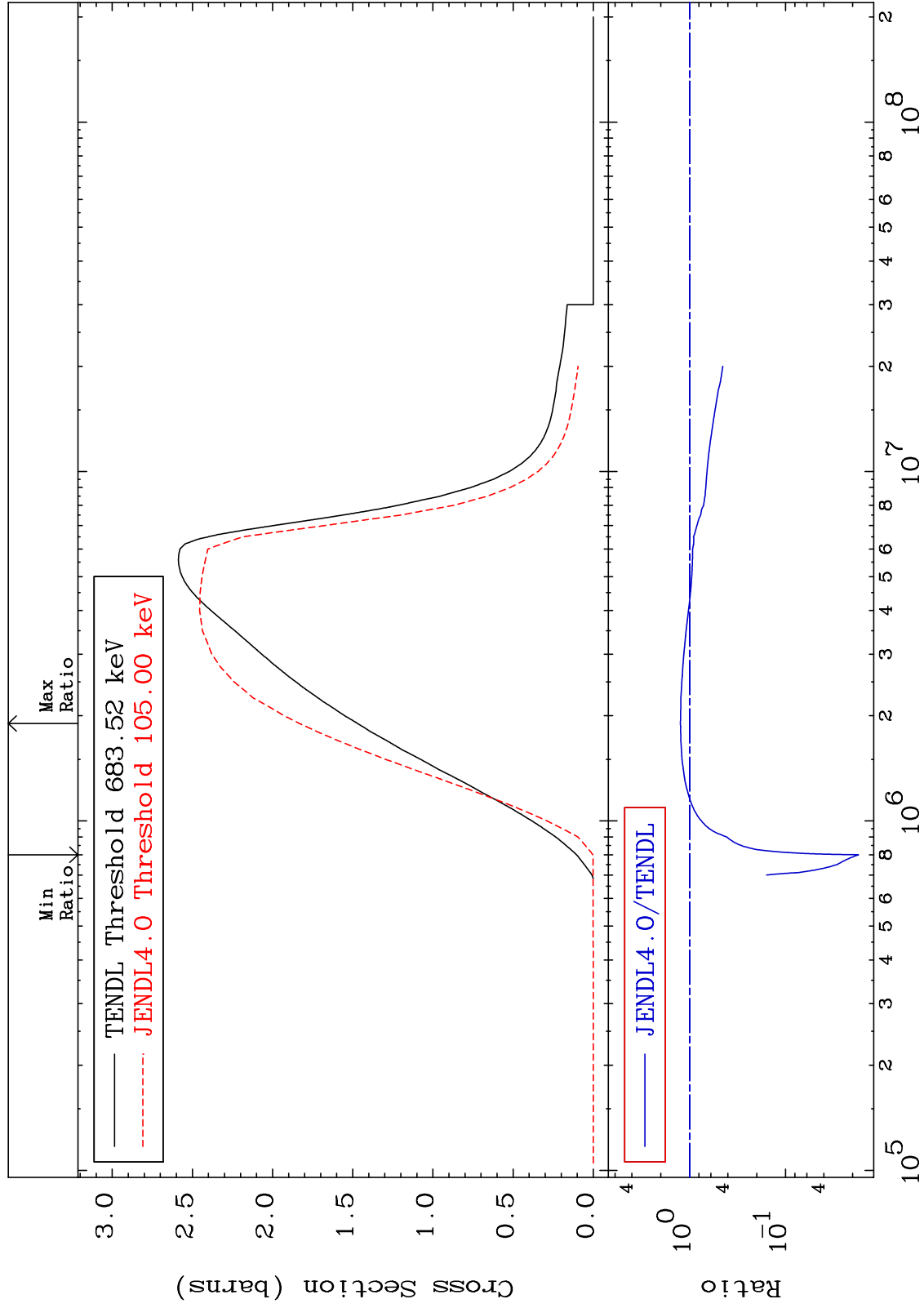
MAT 7640 MT= 80 (n,n') Level Cross Section 76-0s-189
 -94.88 To 114.2 %



MAT 7640

(n, n') Continuum
Cross Section

76-0s-189
-98.26 To 24.69 %



42

76-0s-189

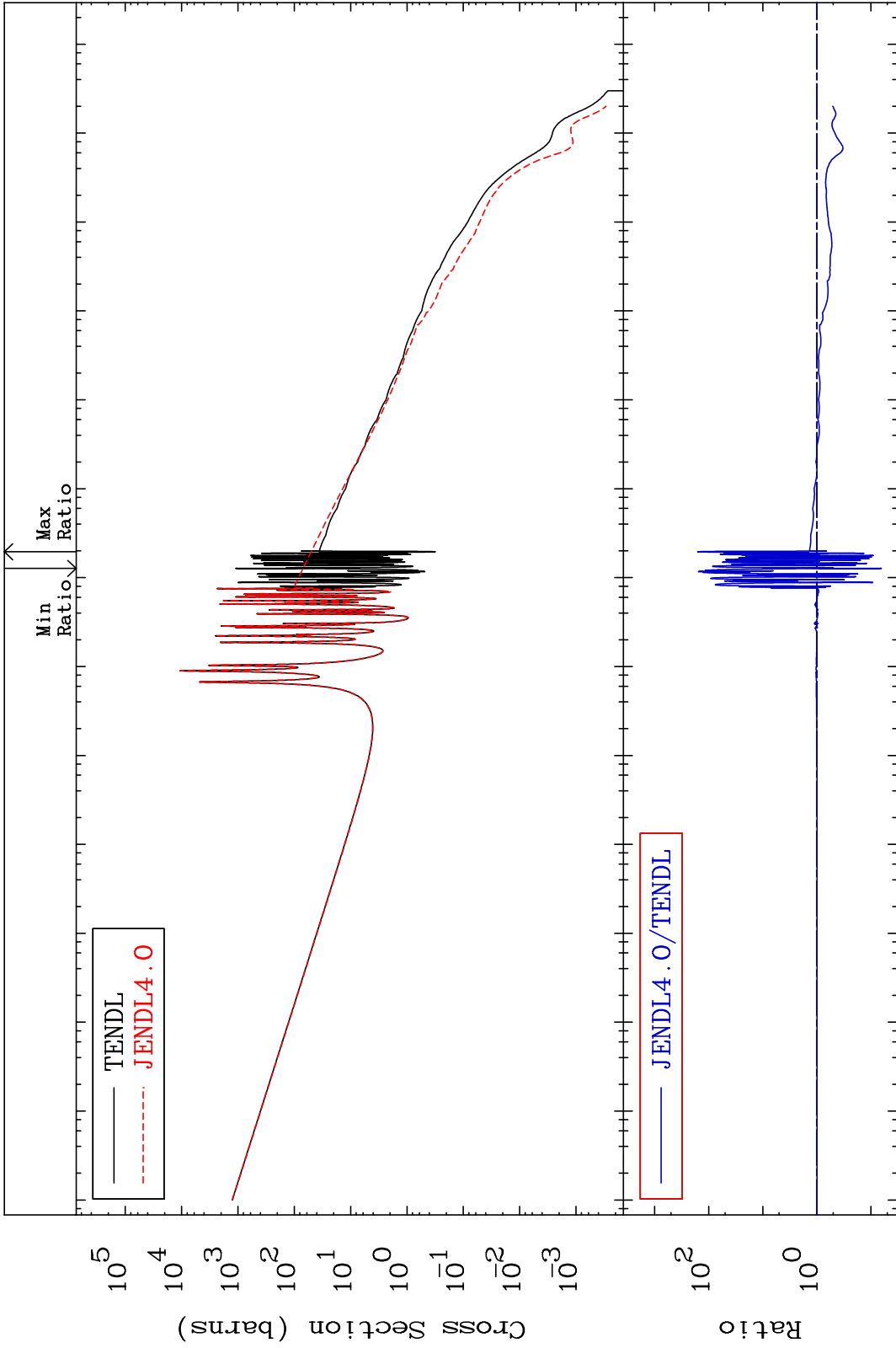
MAT 7640

(n, γ)

76-0s-189

-93.62 To 9999. %

Cross Section



Incident Energy (eV)

76-0s-189

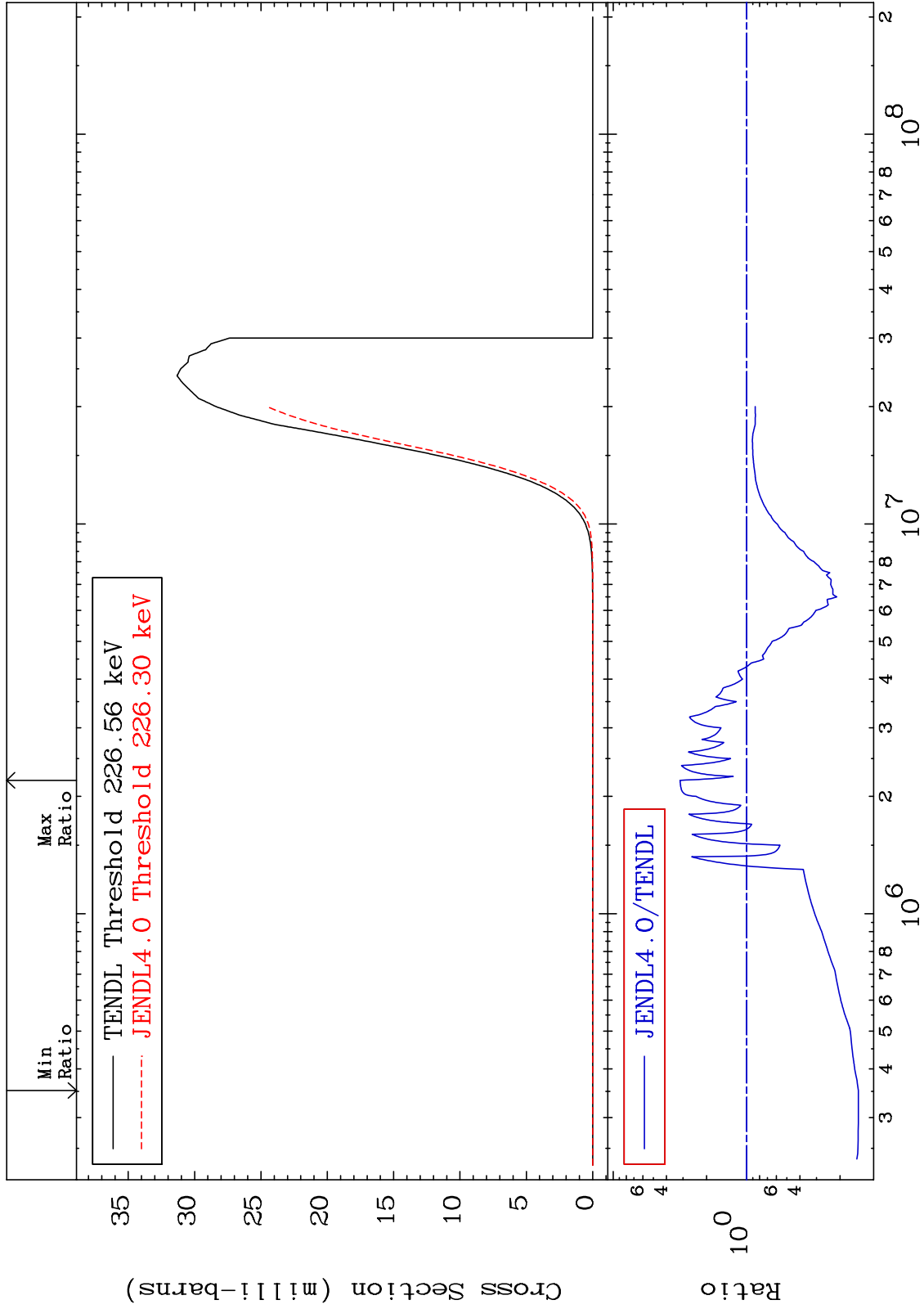
MAT 7640

(n, p)

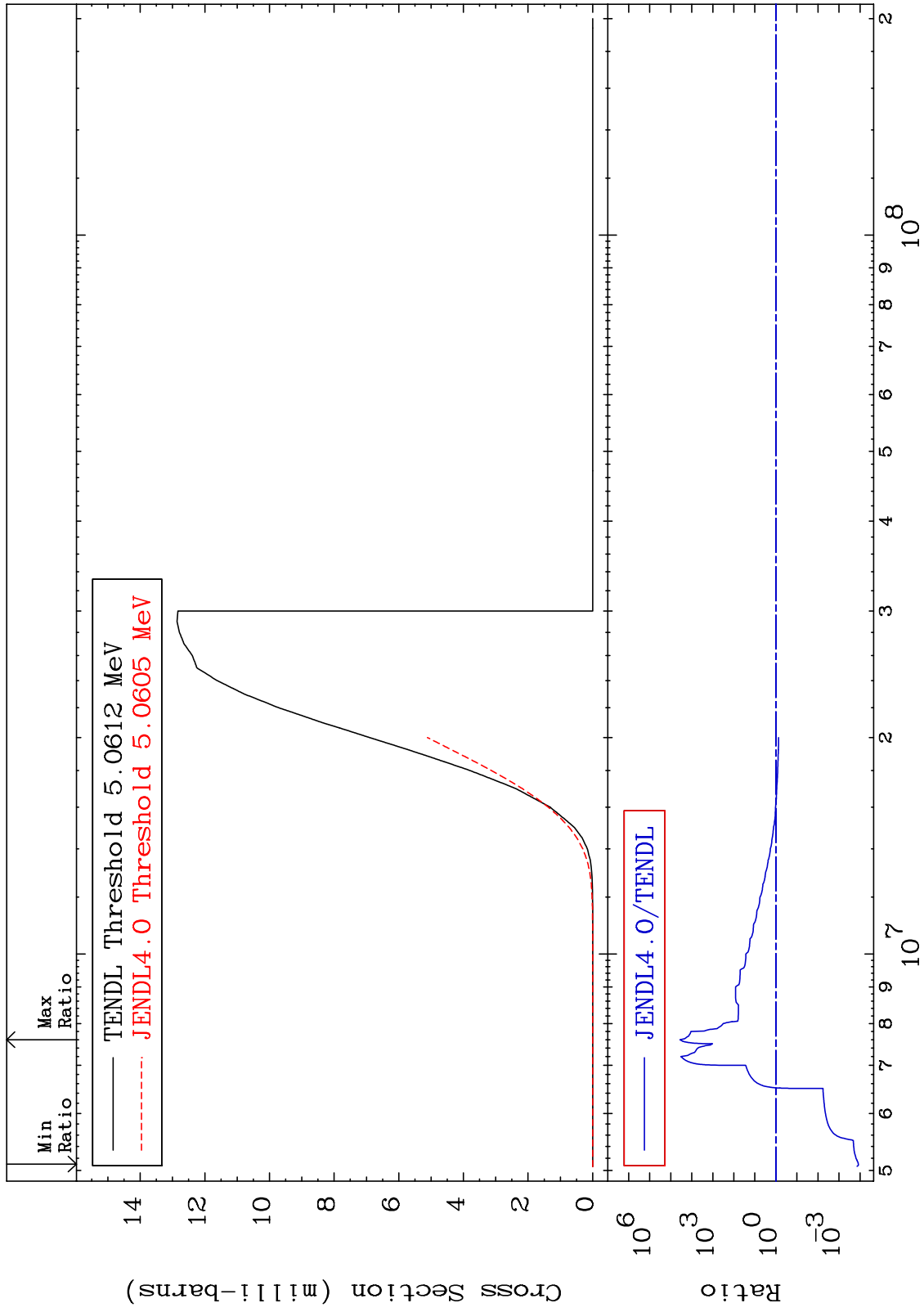
76-0s-189

Cross Section

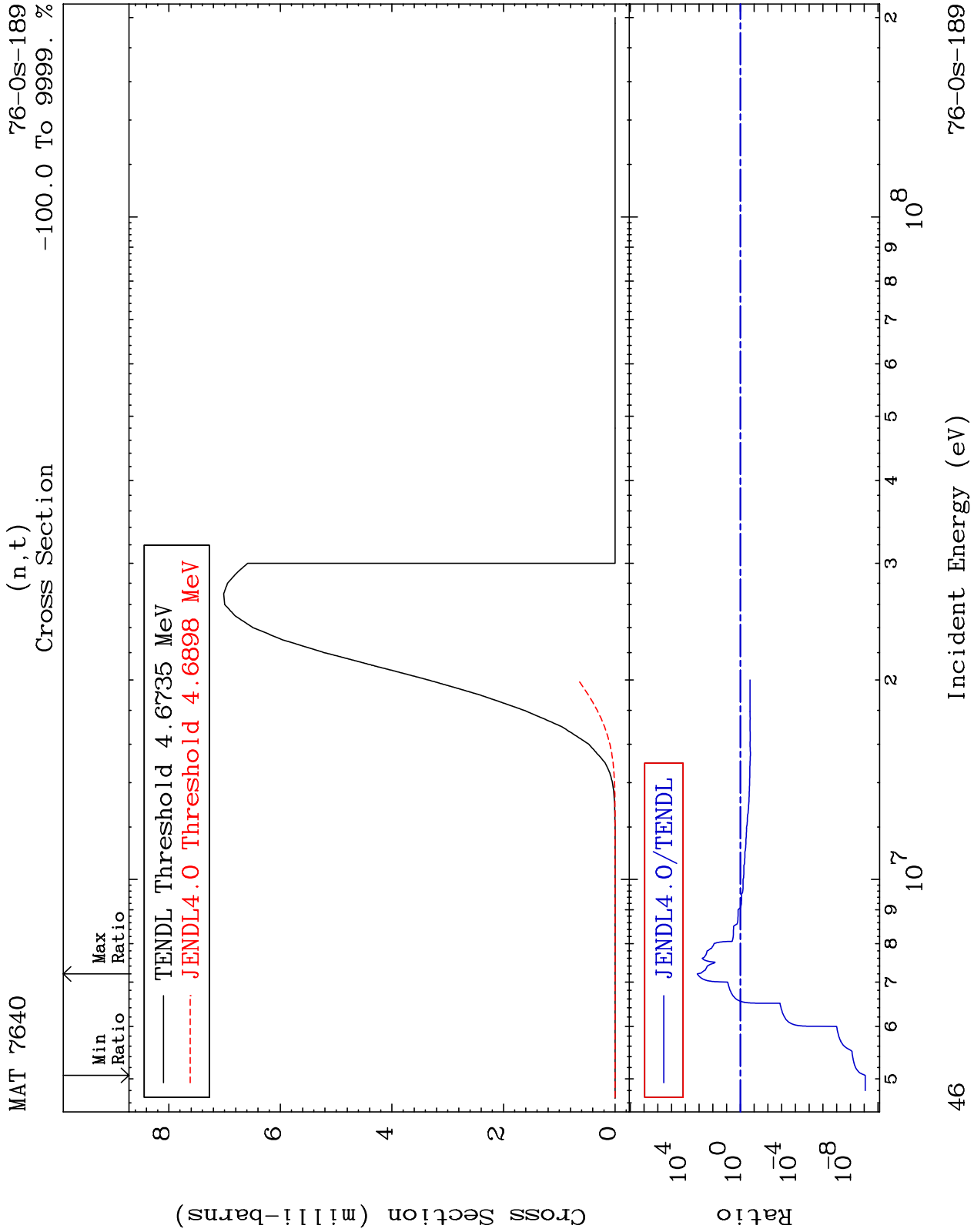
-85.44 To 216.1 %



MAT 7640 (n,d) 76-0s-189
Cross Section -99.99 To 9999. %



45 Incident Energy (eV) 76-0s-189



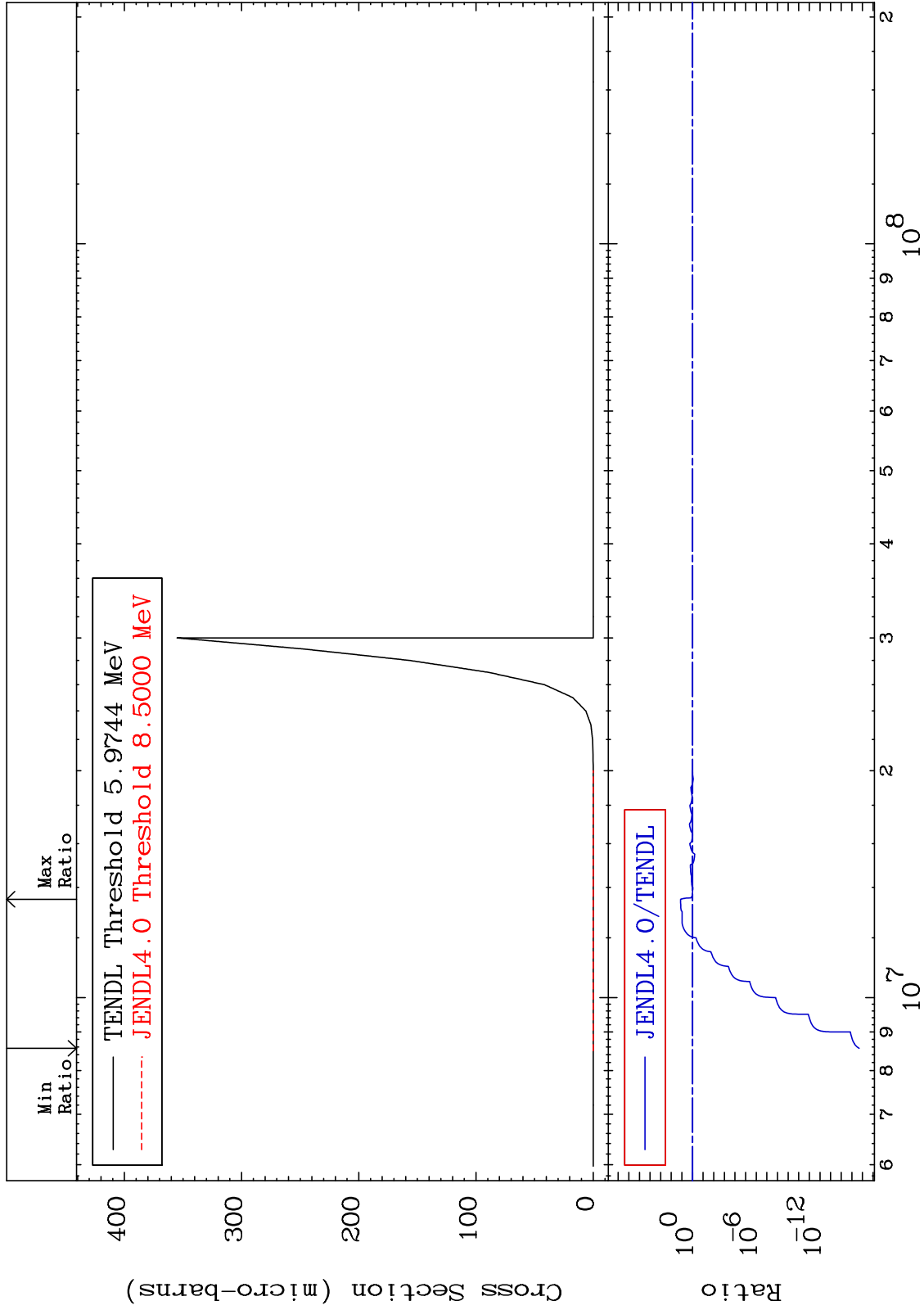
MAT 7640

(n, He-3)

76-0s-189

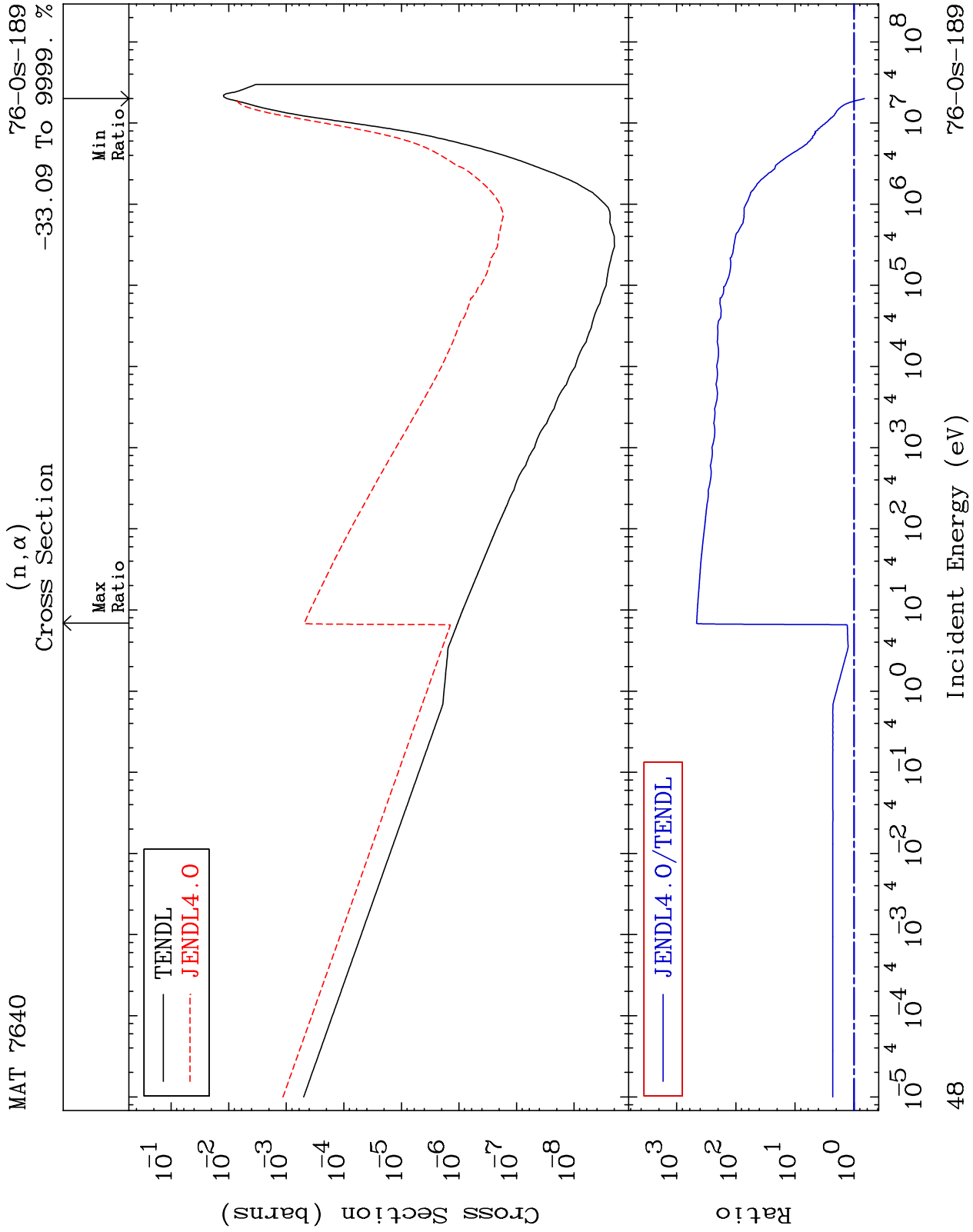
Cross Section

-100.0 To 1218. %



47

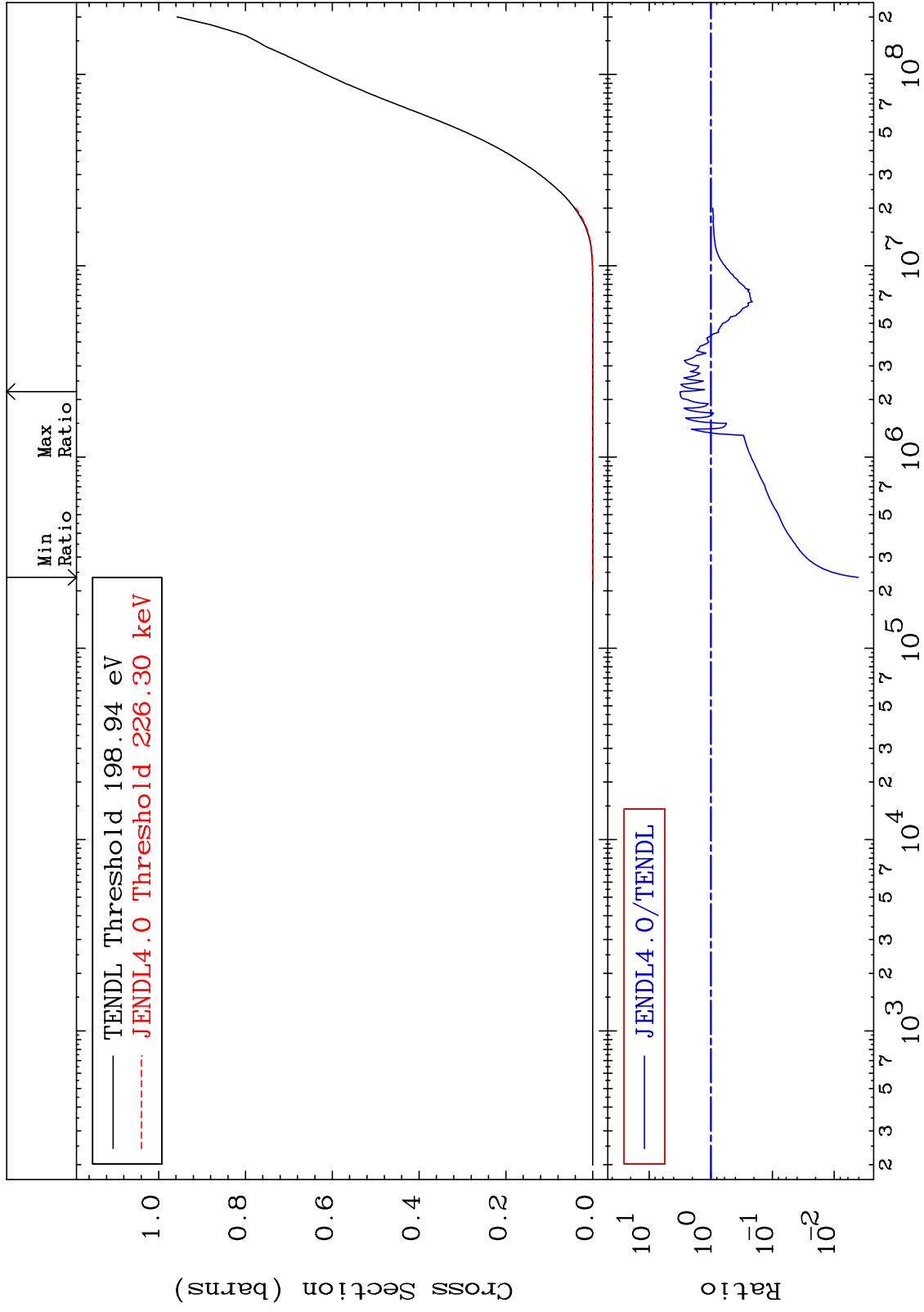
76-0s-189



MAT 7640

Hydrogen Production
Cross Section

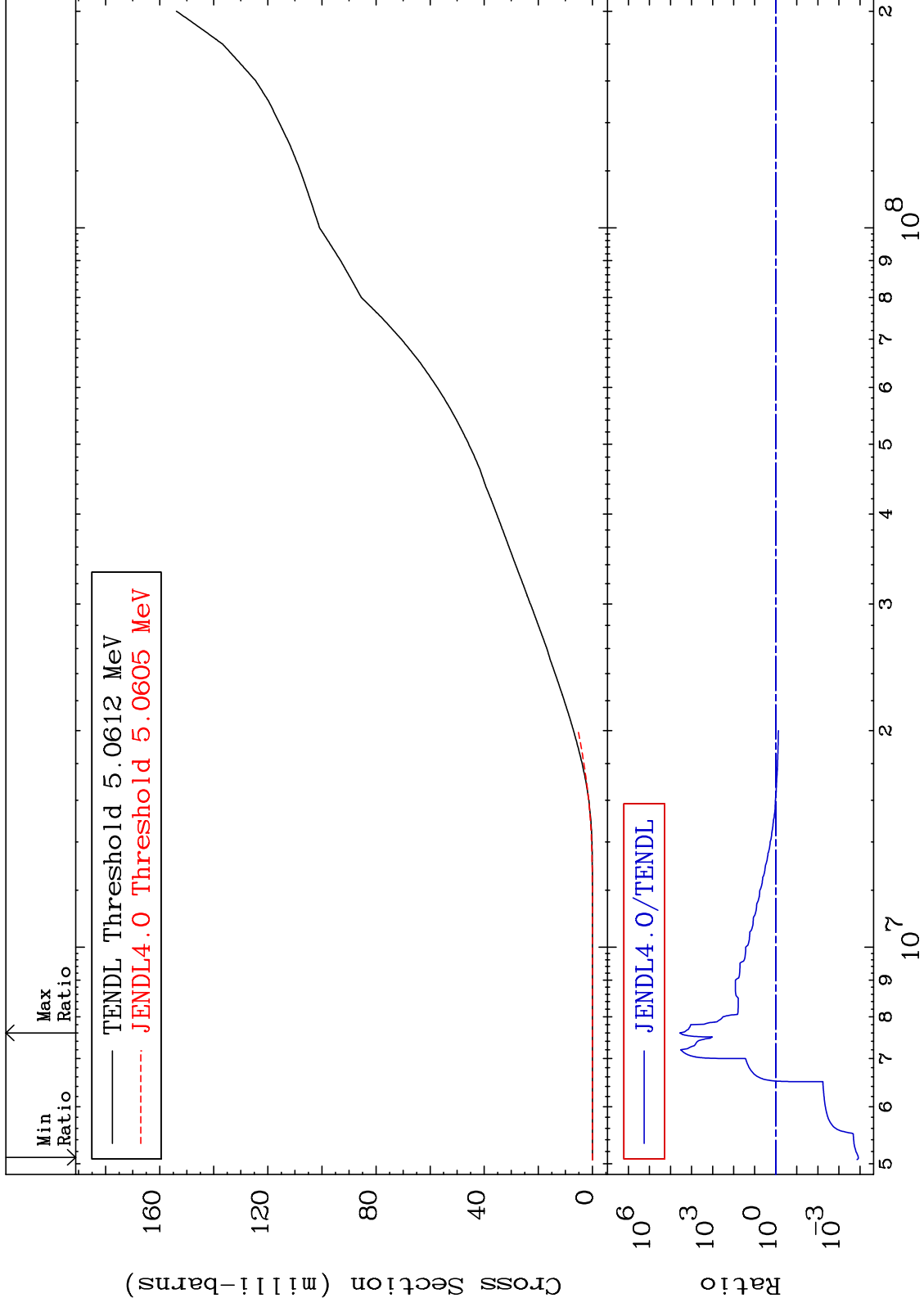
76-0s-189
-99.59 To 216.1 %



MAT 7640

Deuterium Production
Cross Section

76-0s-189
-99.99 To 9999. %



Min Ratio

Max Ratio

TENDL Threshold 5.0612 MeV
JENDL4.0 Threshold 5.0605 MeV

JENDL4.0/TENDL

50

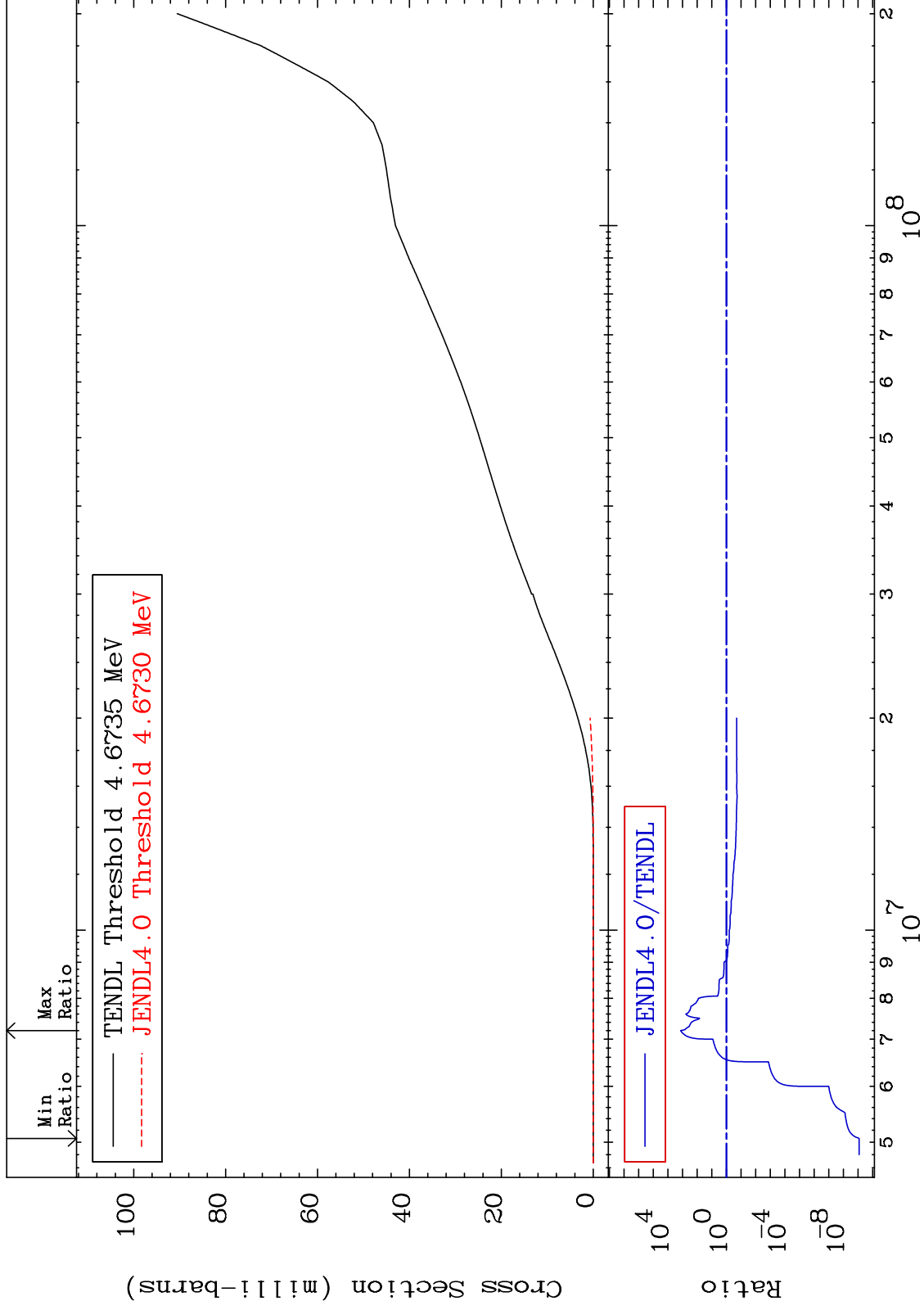
Incident Energy (eV)

76-0s-189

MAT 7640

Tritium Production
Cross Section

76-0s-189
-100.0 To 9999. %



51

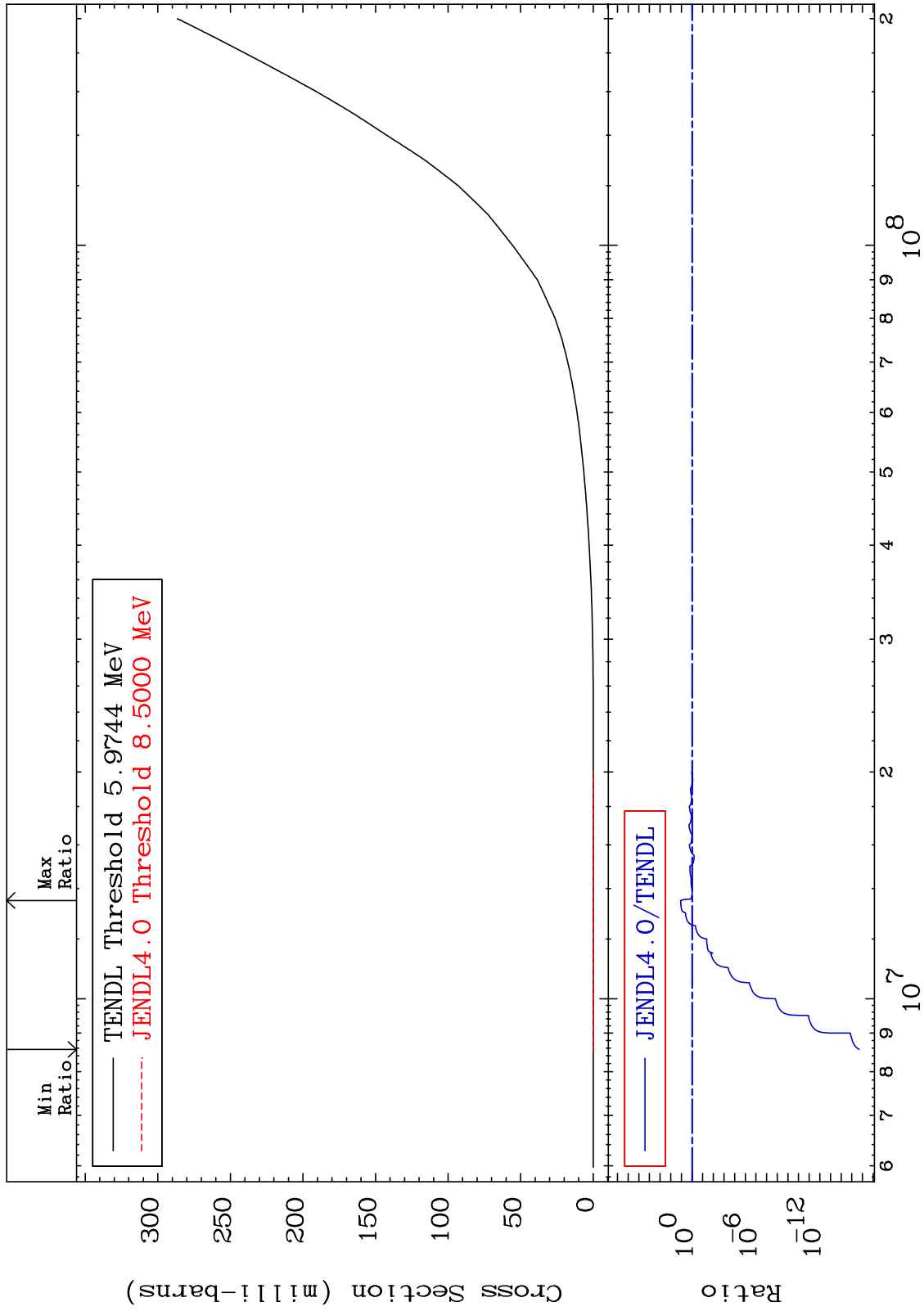
Incident Energy (eV)

76-0s-189

MAT 7640

He-3 Production
Cross Section

76-0s-189
-100.0 To 1080. %



52

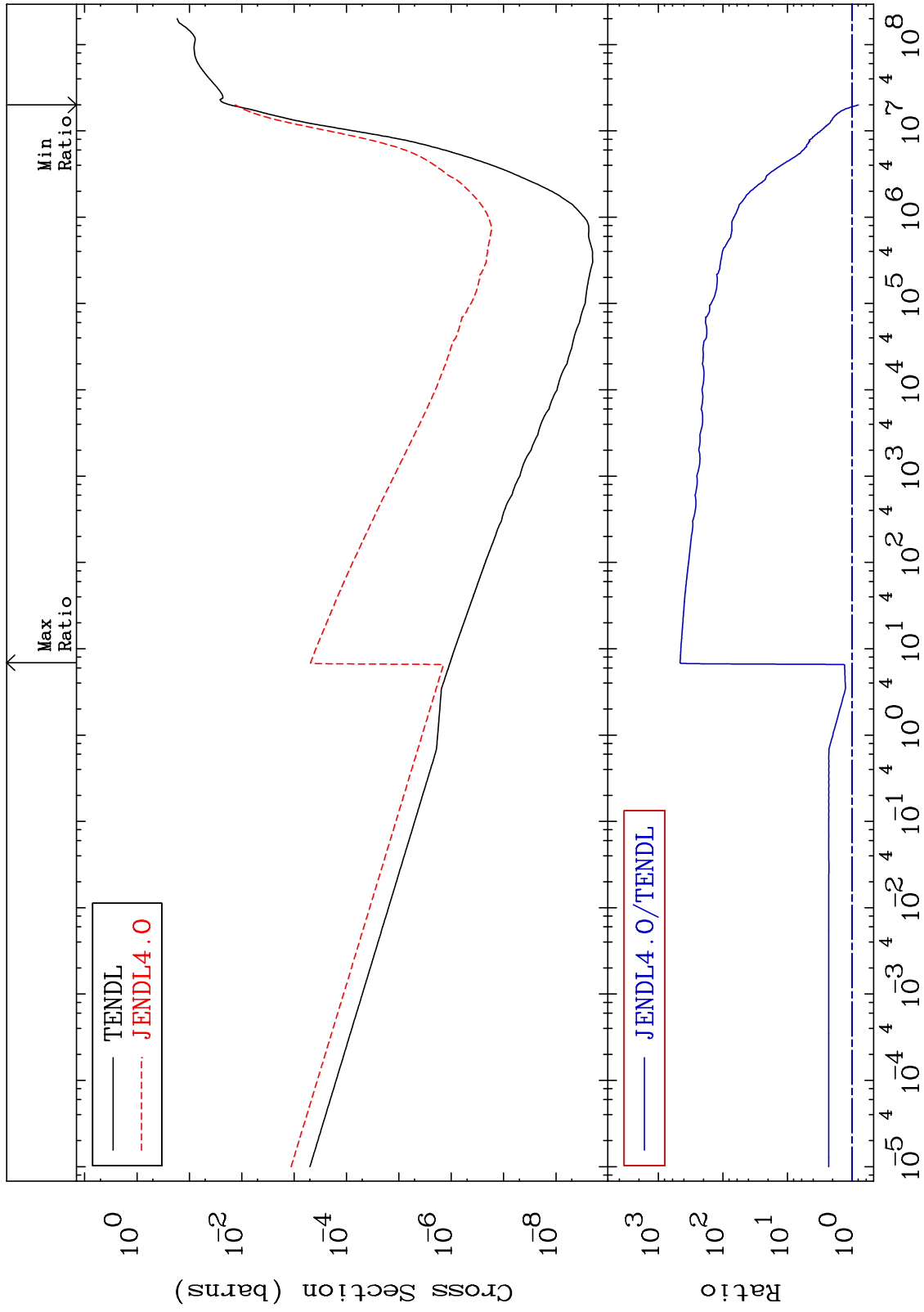
Incident Energy (eV)

76-0s-189

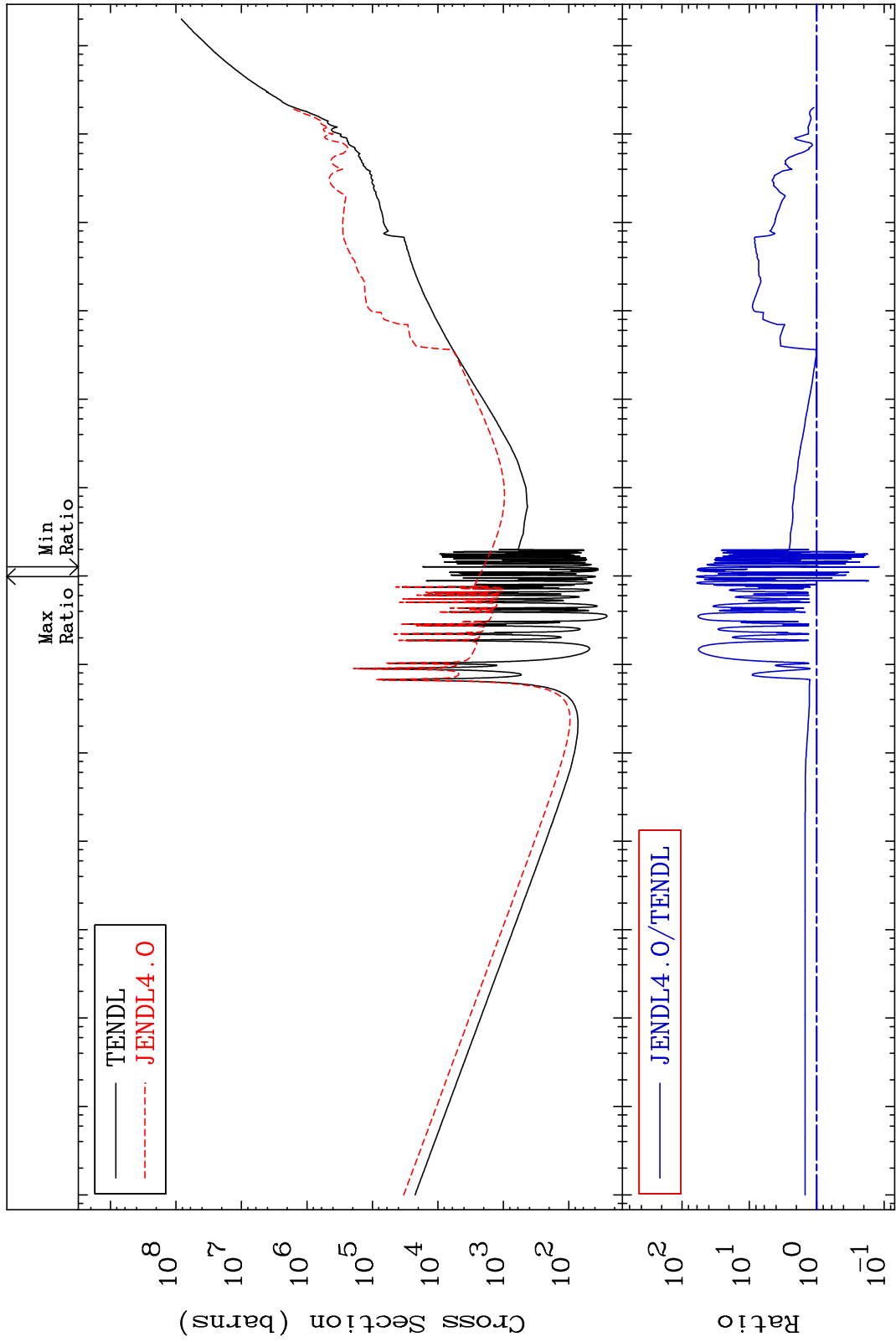
MAT 7640

He-4 Production
Cross Section

76-0s-189
-20.49 To 9999. %



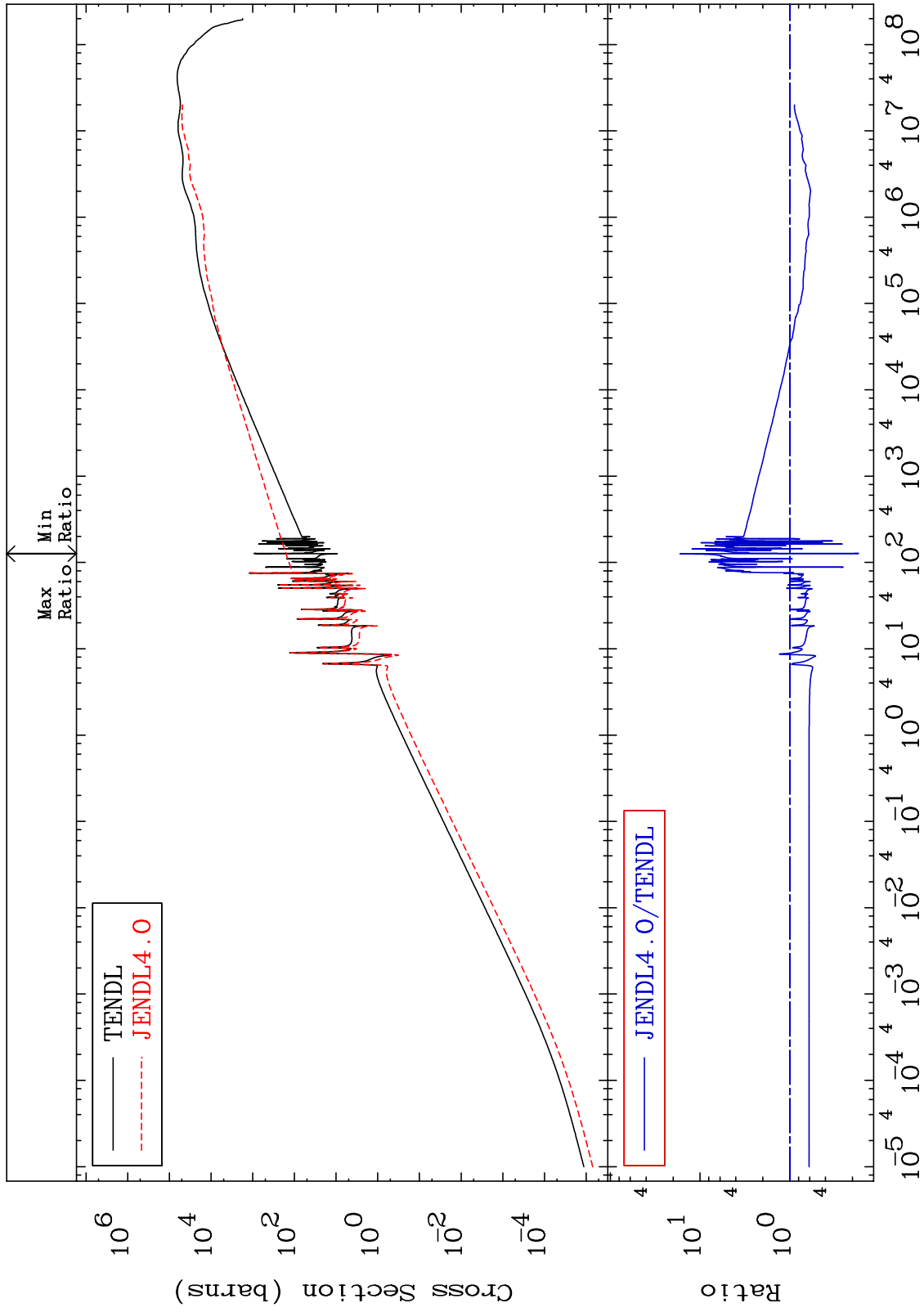
MAT 7640 Kerma total (eV-barns) 76-0s-189
 Cross Section -88.14 To 6004. %



MAT 7640

Kerma elastic
Cross Section

76-0s-189
-82.80 To 1575. %



55

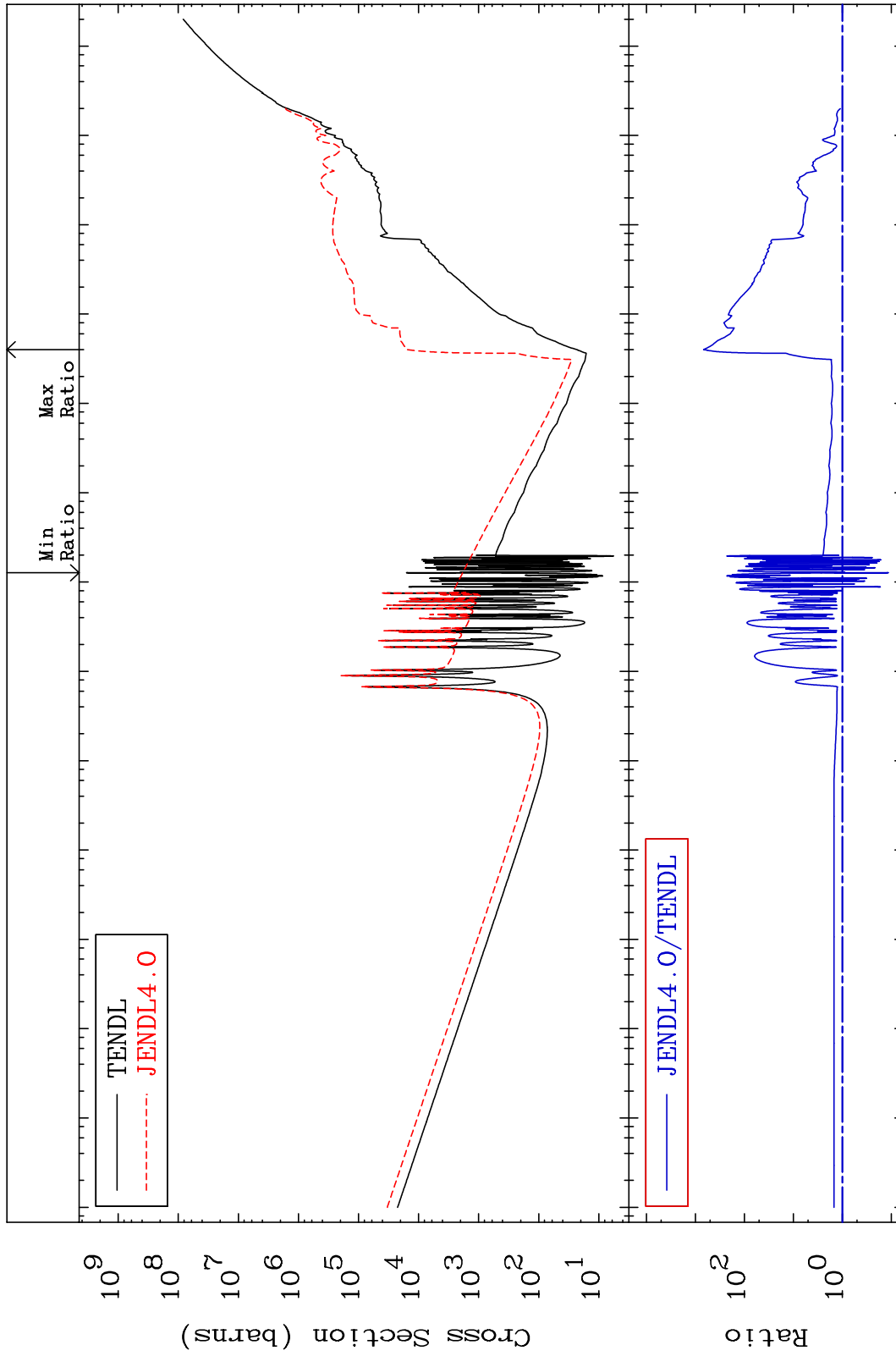
Incident Energy (eV)

76-0s-189

MAT 7640

Kerma non-elastic (all but mt2)
Cross Section

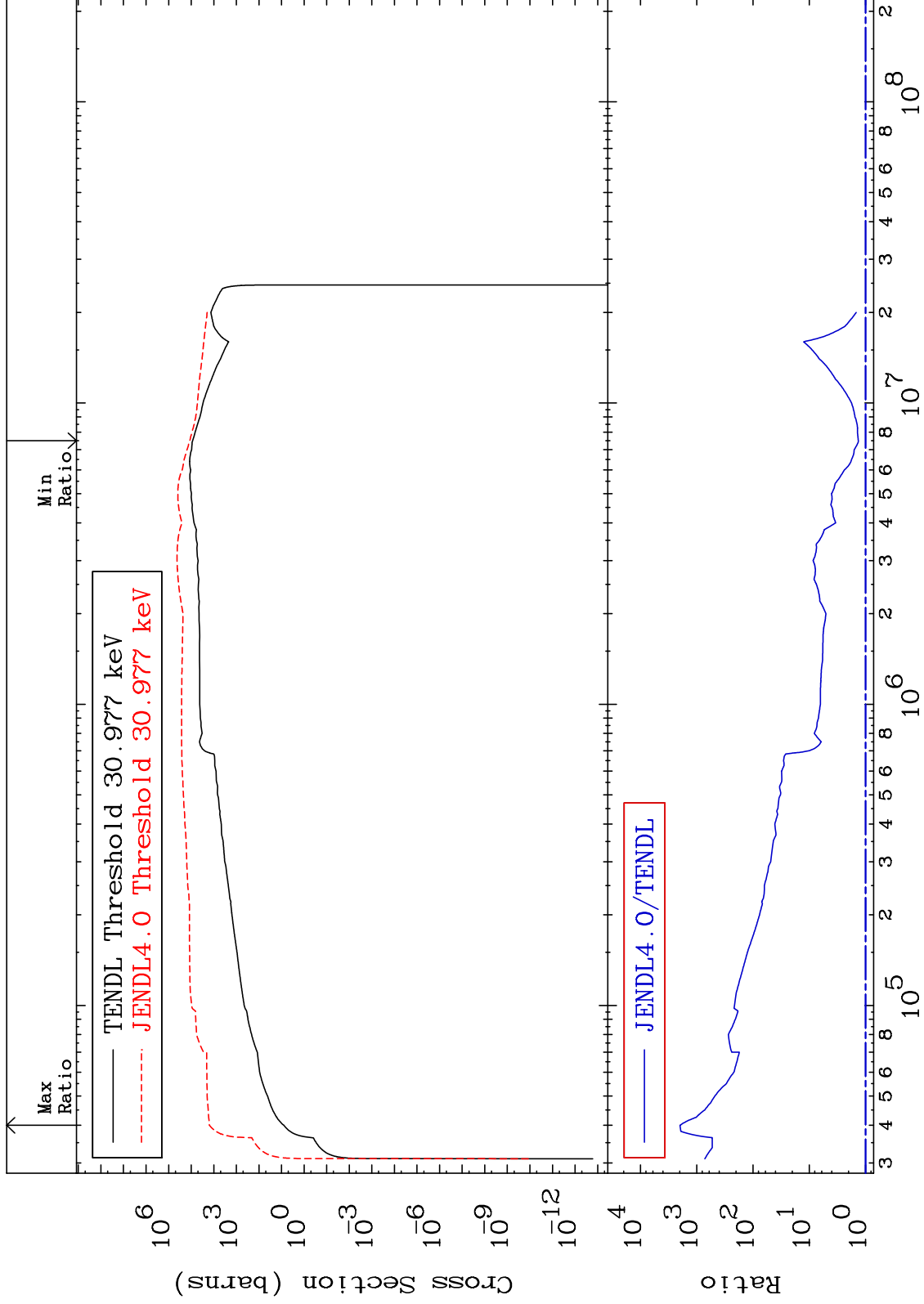
76-0s-189
-88.45 To 9999. %



MAT 7640

Kerma inelastic (mt51-91)
Cross Section

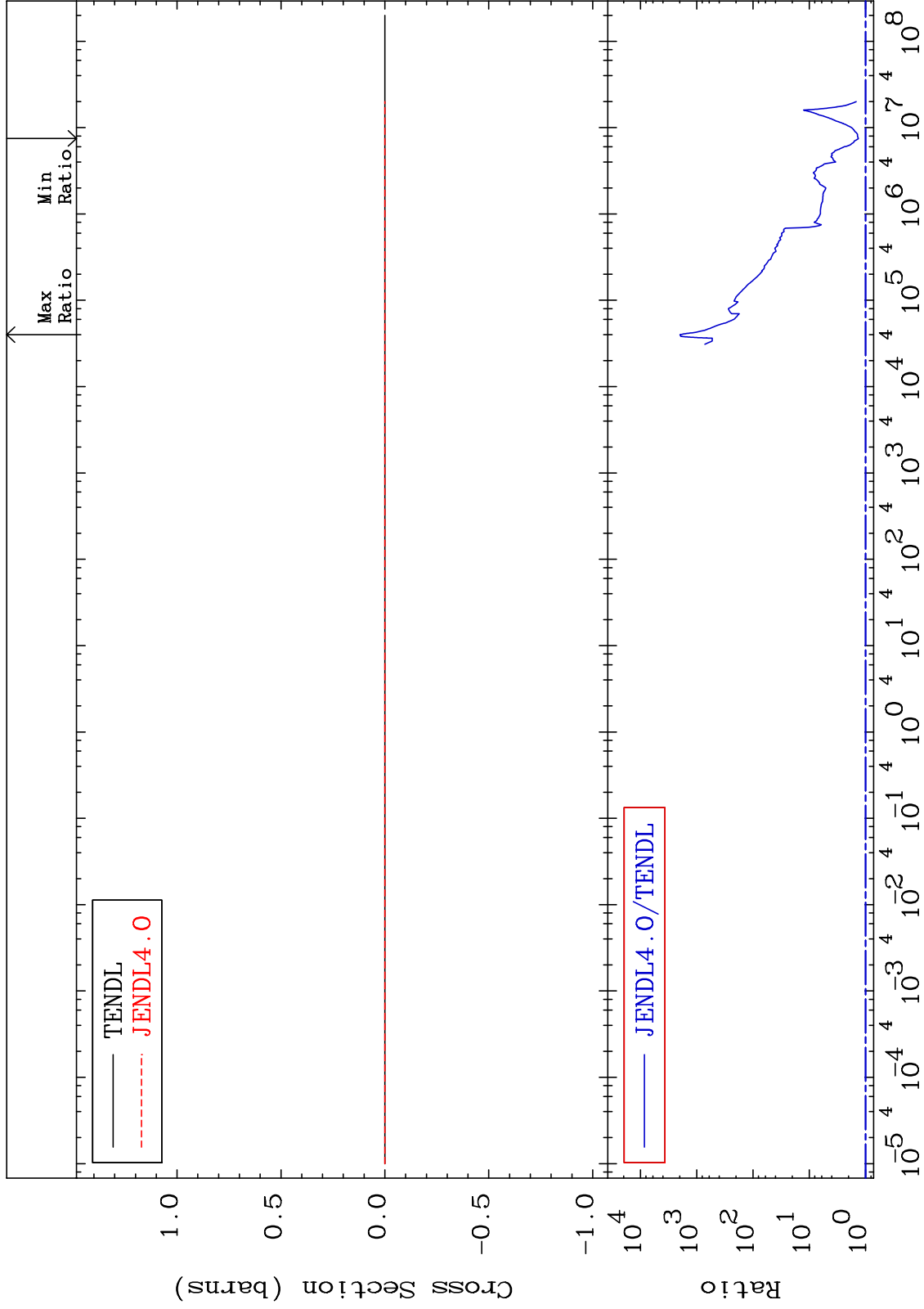
76-0s-189
33.75 To 9999. %



MAT 7640

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

76-0s-189
33.75 To 9999. %



58

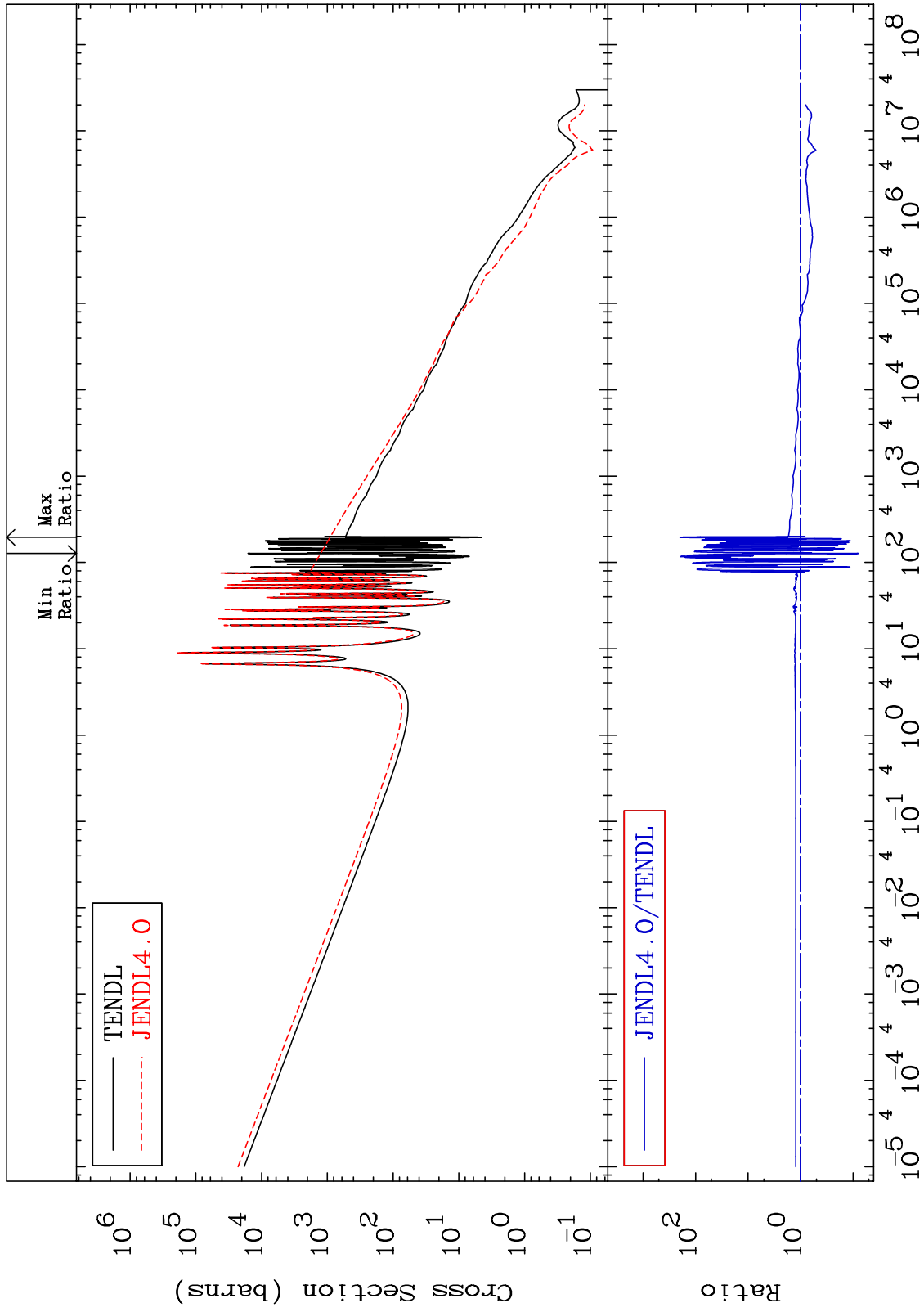
Incident Energy (eV)

76-0s-189

MAT 7640

Kerma capture (mt102)
Cross Section

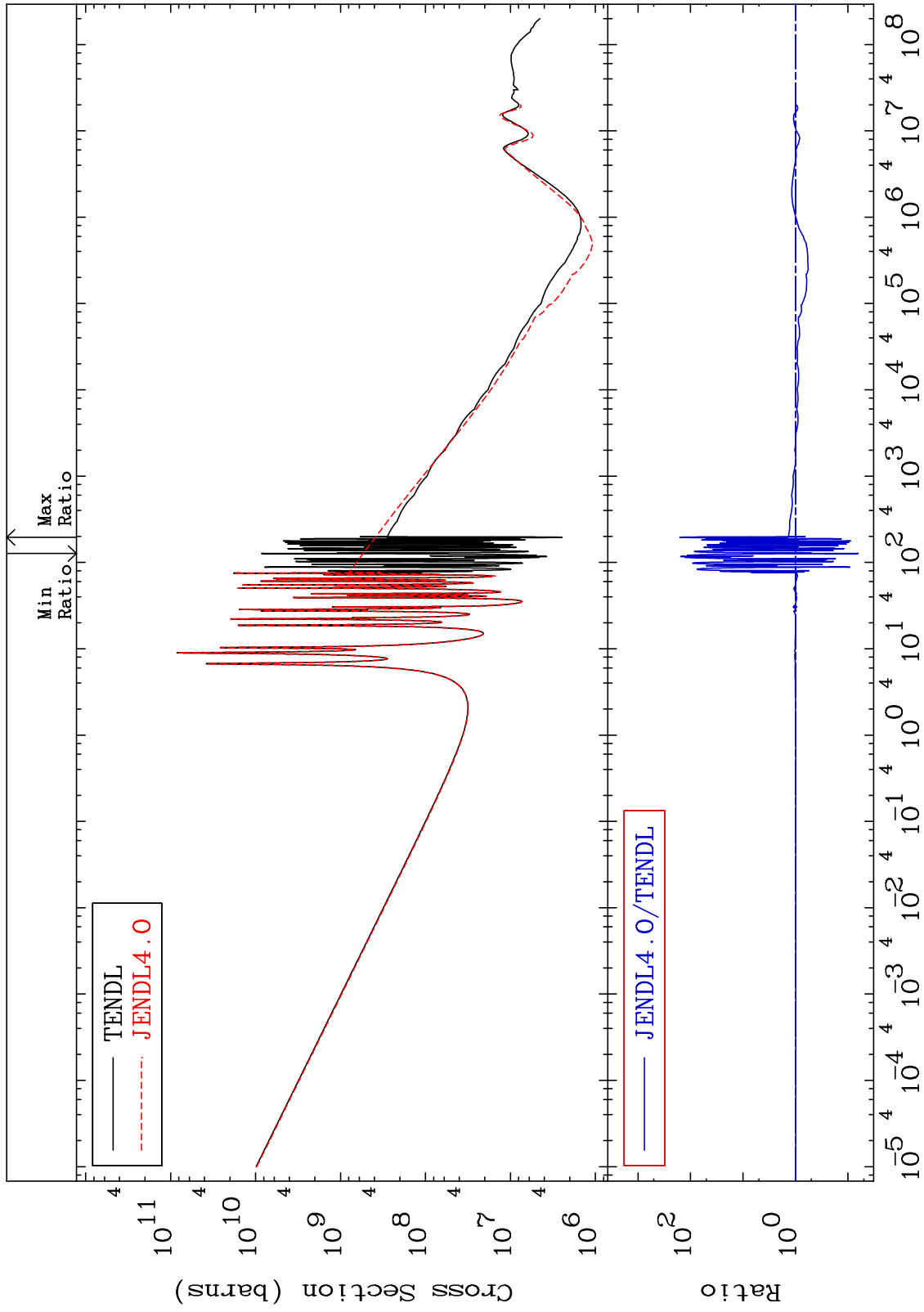
76-0s-189
-92.09 To 9999. %



MAT 7640

Total photon (eV-barns)
Cross Section

76-0s-189
-93.67 To 9999. %

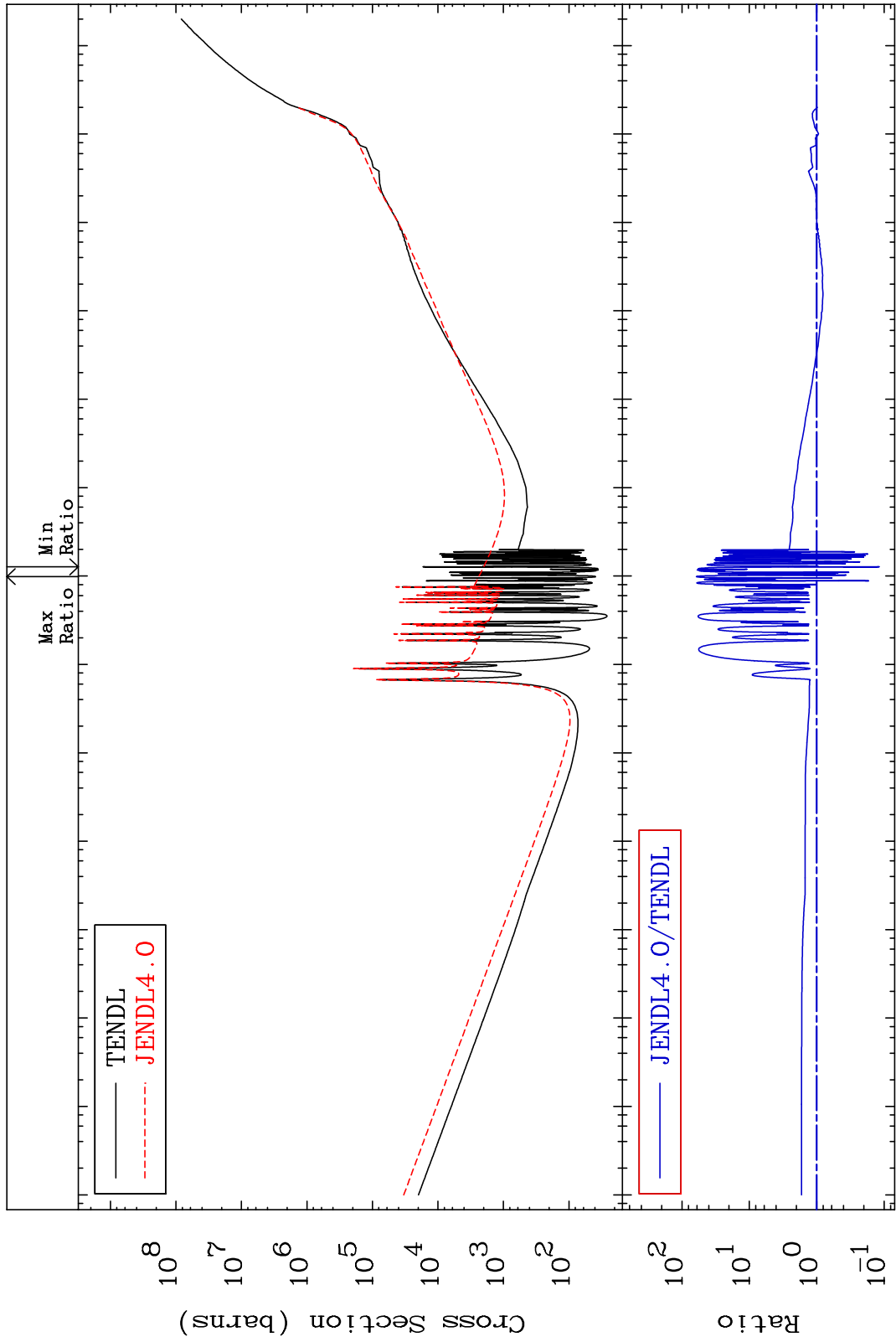


60

Incident Energy (eV)

76-0s-189

MAT 7640 Total kinematic kerma (high limit) 76-0s-189
 Cross Section -88.14 To 6002. %



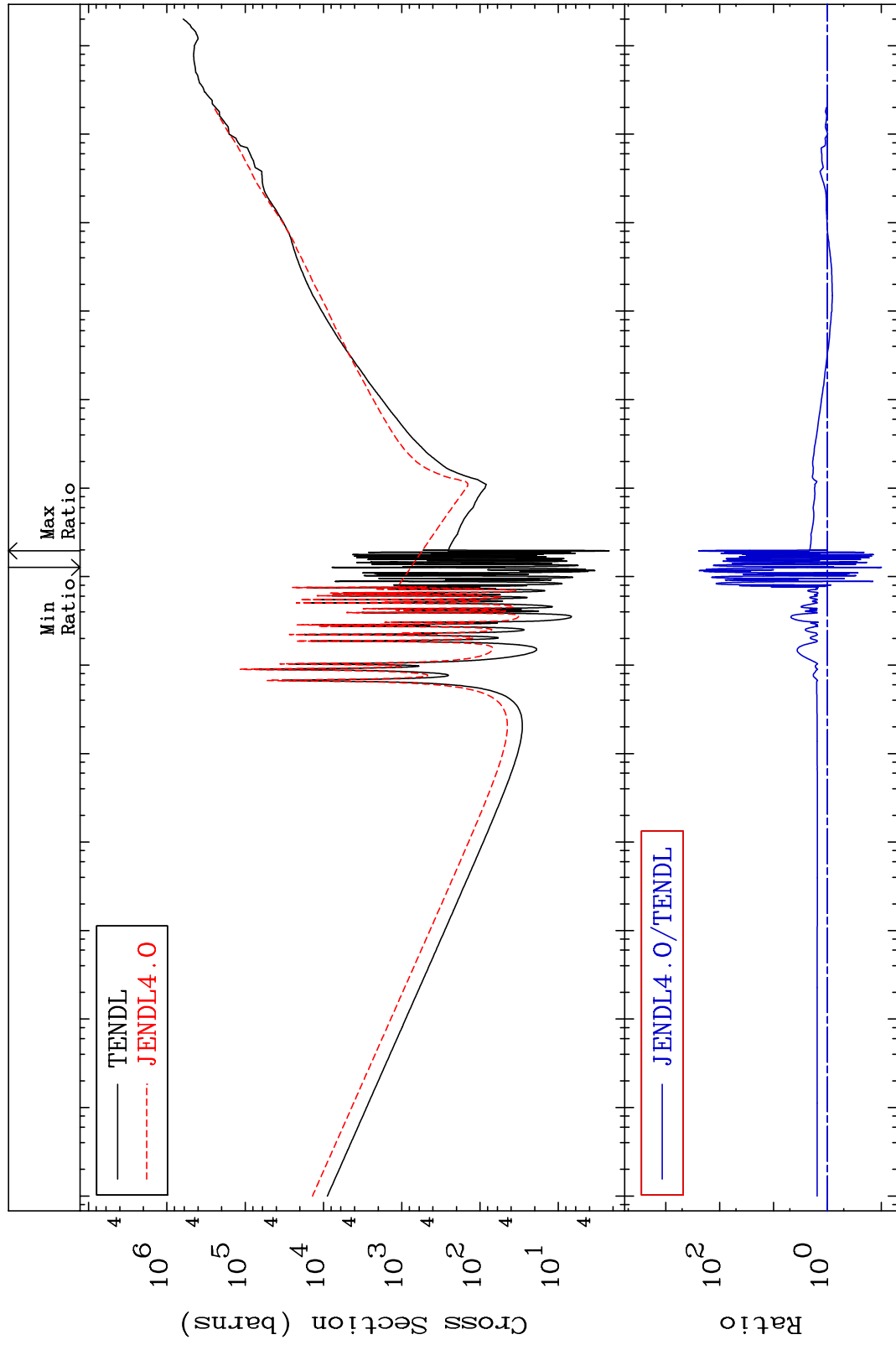
MAT 7640

Dpa total (eV-barns)

76-0s-189

-90.10 To 9999. %

Cross Section



62

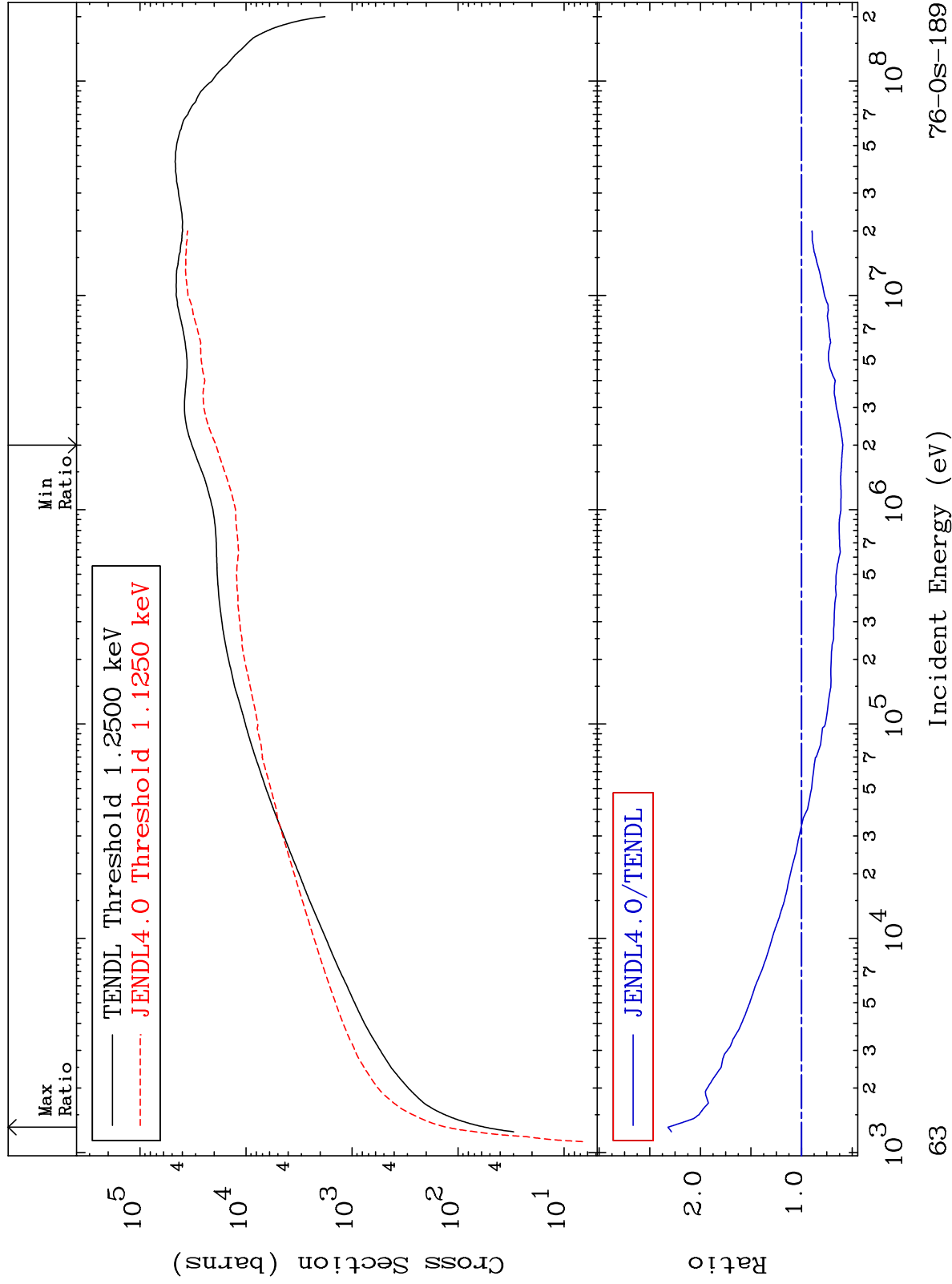
Incident Energy (eV)

76-0s-189

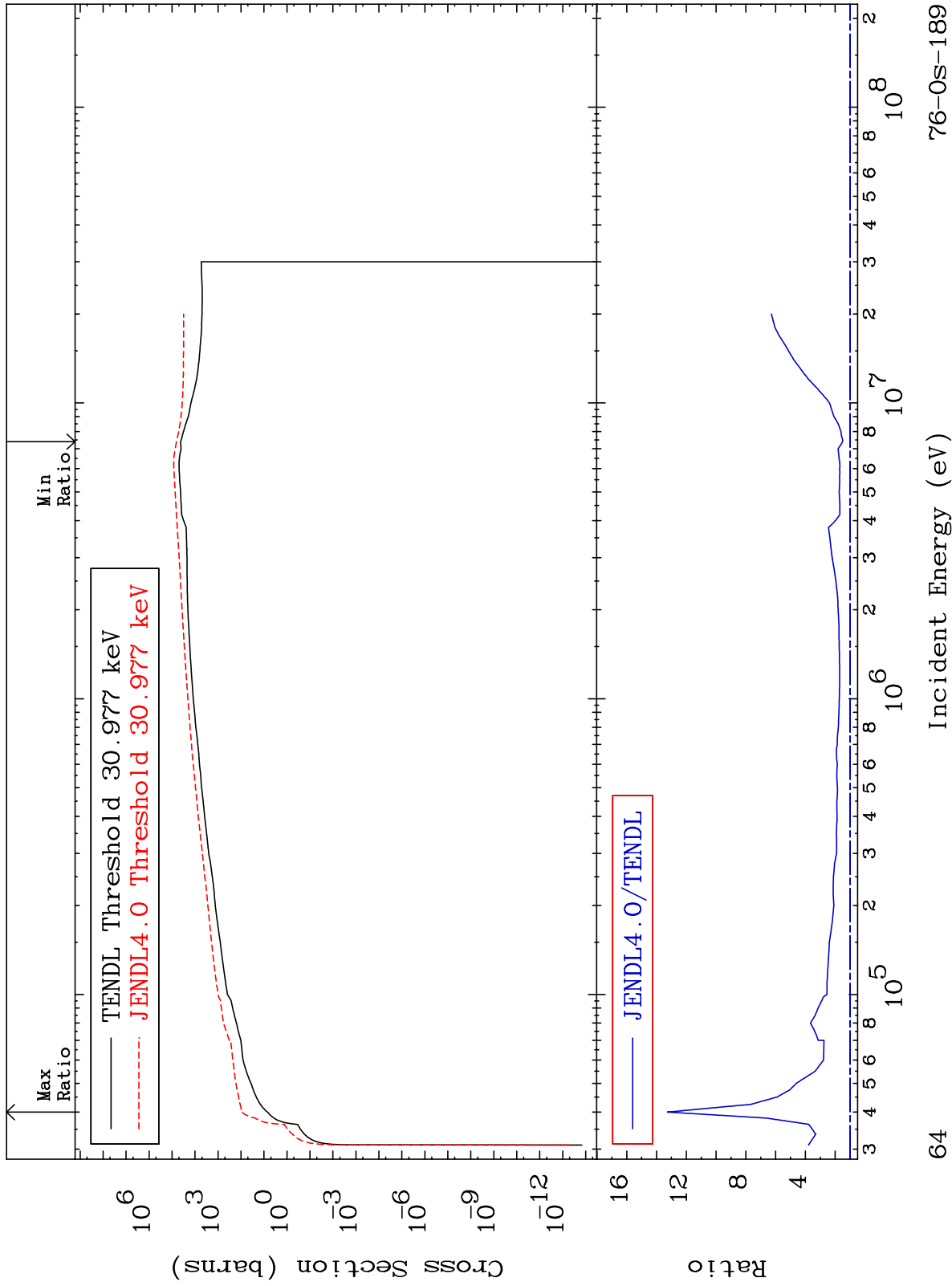
MAT 7640

Dpa elastic (mt2)
Cross Section

76-0s-189
-40.79 To 132.0 %



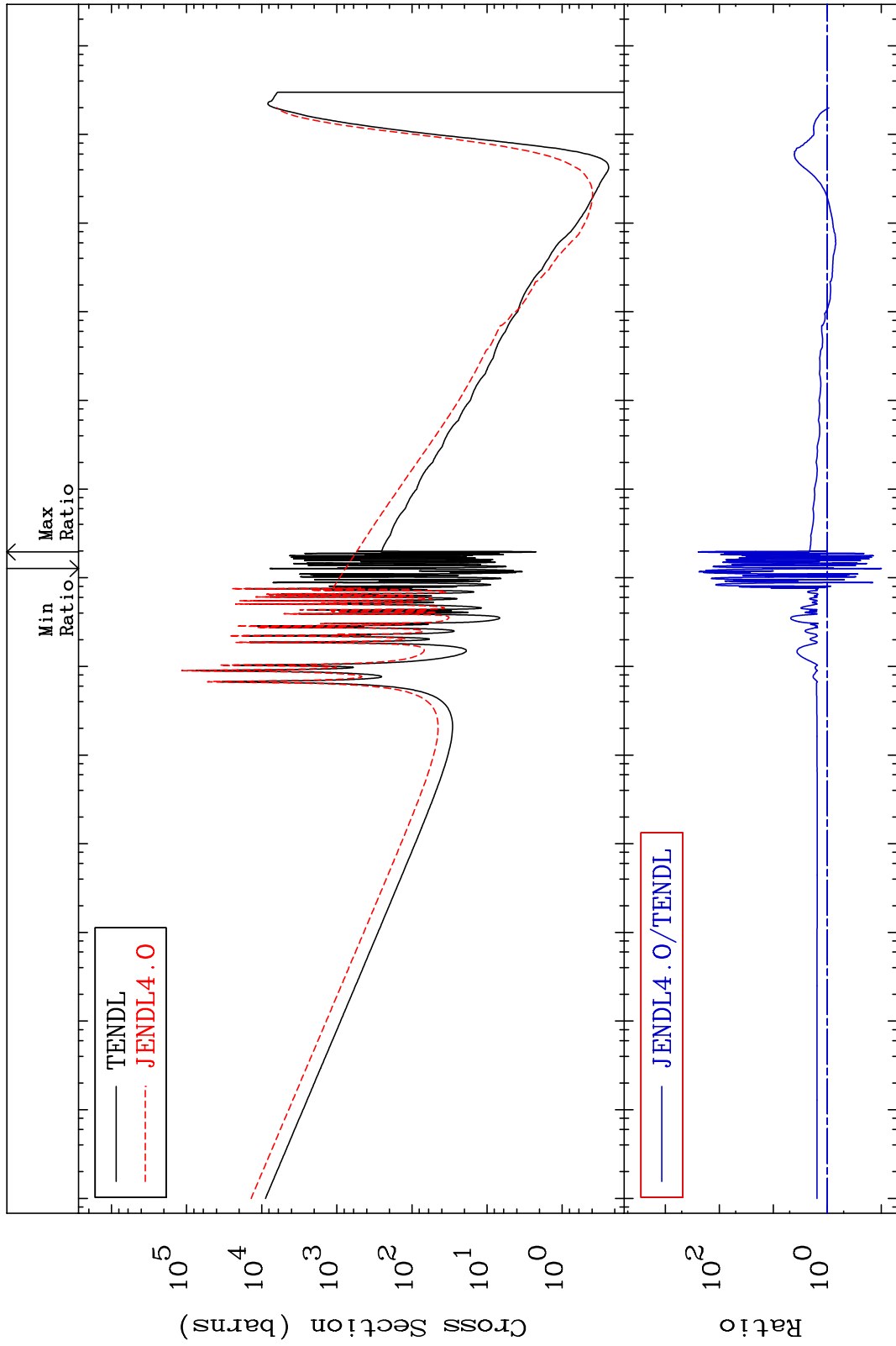
MAT 7640 Dpa inelastic (mt51-91) 76-0s-189
 Cross Section 49.57 To 1226. %



MAT 7640

Dpa disappearance (mt102 -120)
Cross Section

76-0s-189
-90.10 To 9999. %



10⁵
10⁴
10³
10²
10¹
10⁰
Cross Section (barns)

10²
10⁰
Ratio

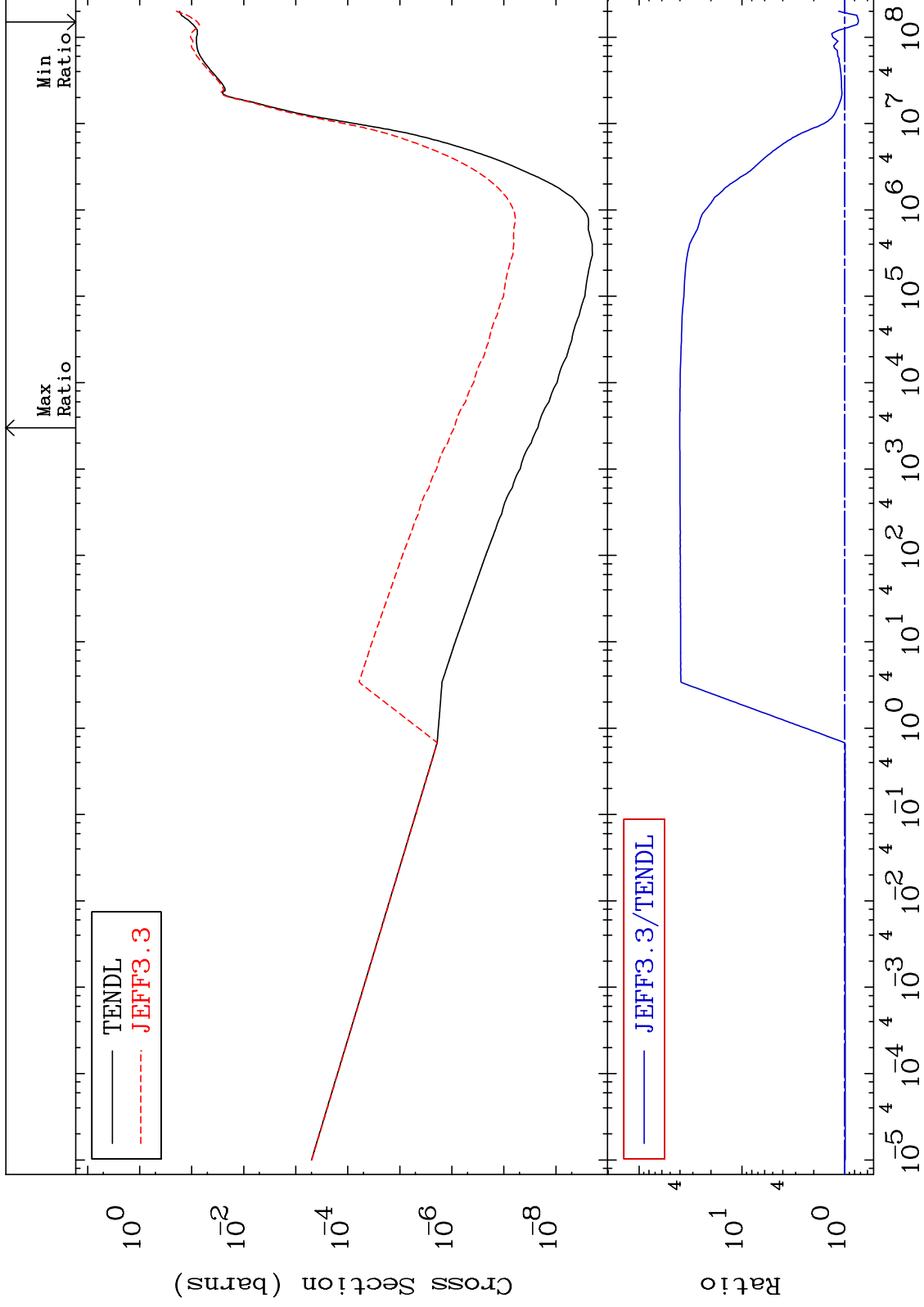
10⁻⁵ 10⁻⁴ 10⁻³ 10⁻² 10⁻¹ 10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶ 10⁷ 10⁸
Incident Energy (eV)

76-0s-189

MAT 7640

He-4 Production
Cross Section

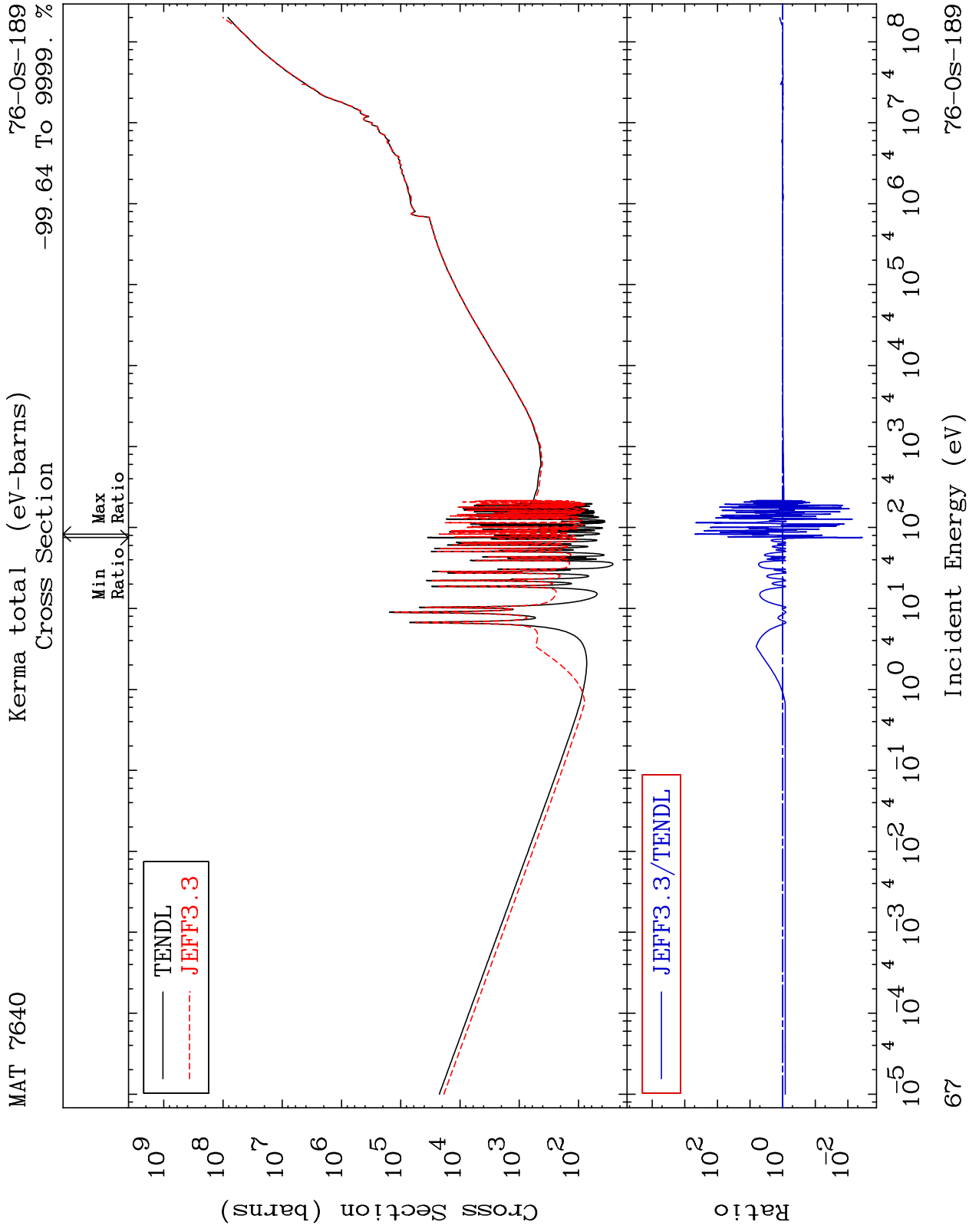
76-0s-189
-26.39 To 3917. %



66

Incident Energy (eV)

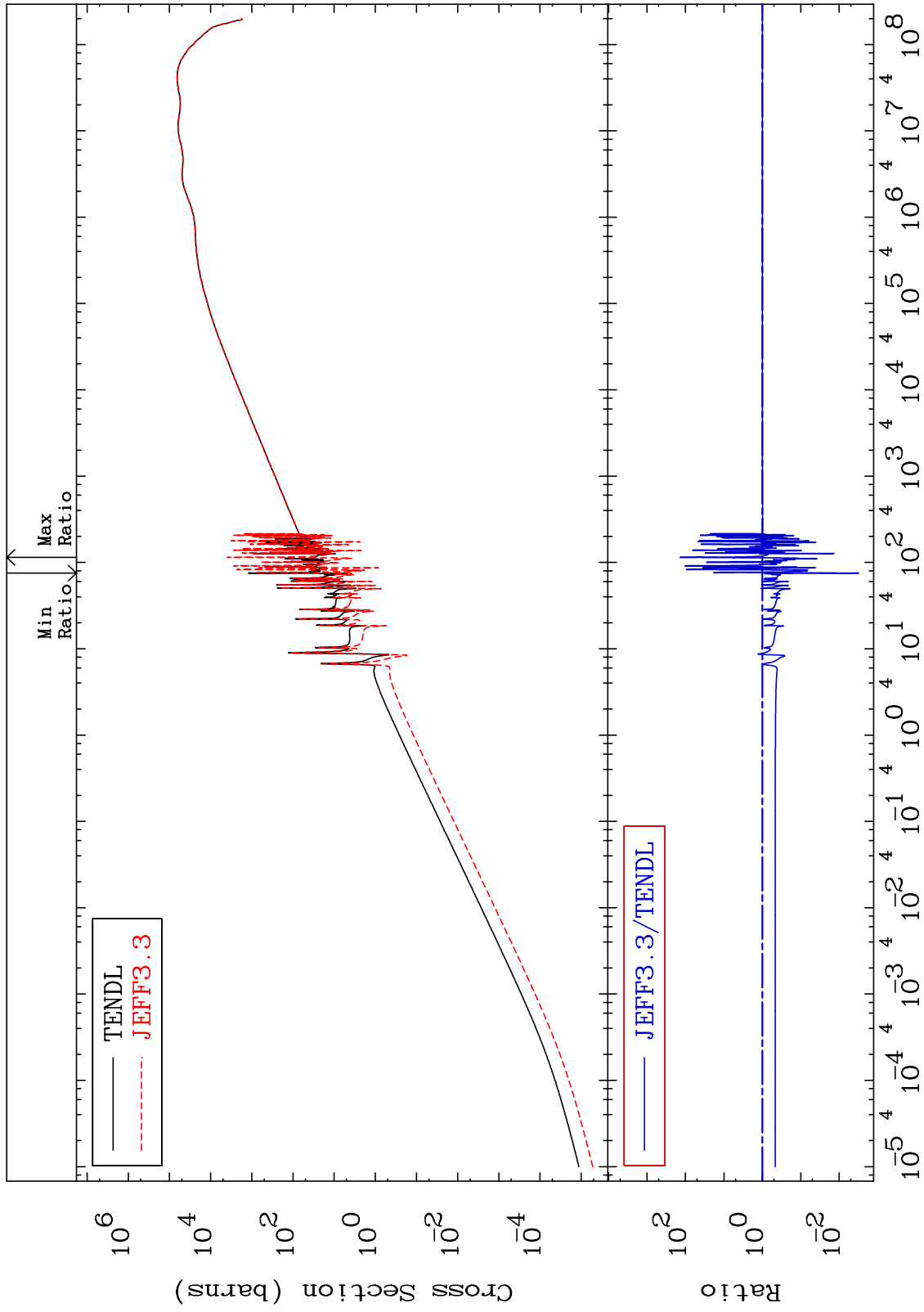
76-0s-189



MAT 7640

Kerma elastic
Cross Section

76-0s-189
-99.68 To 9999. %



68

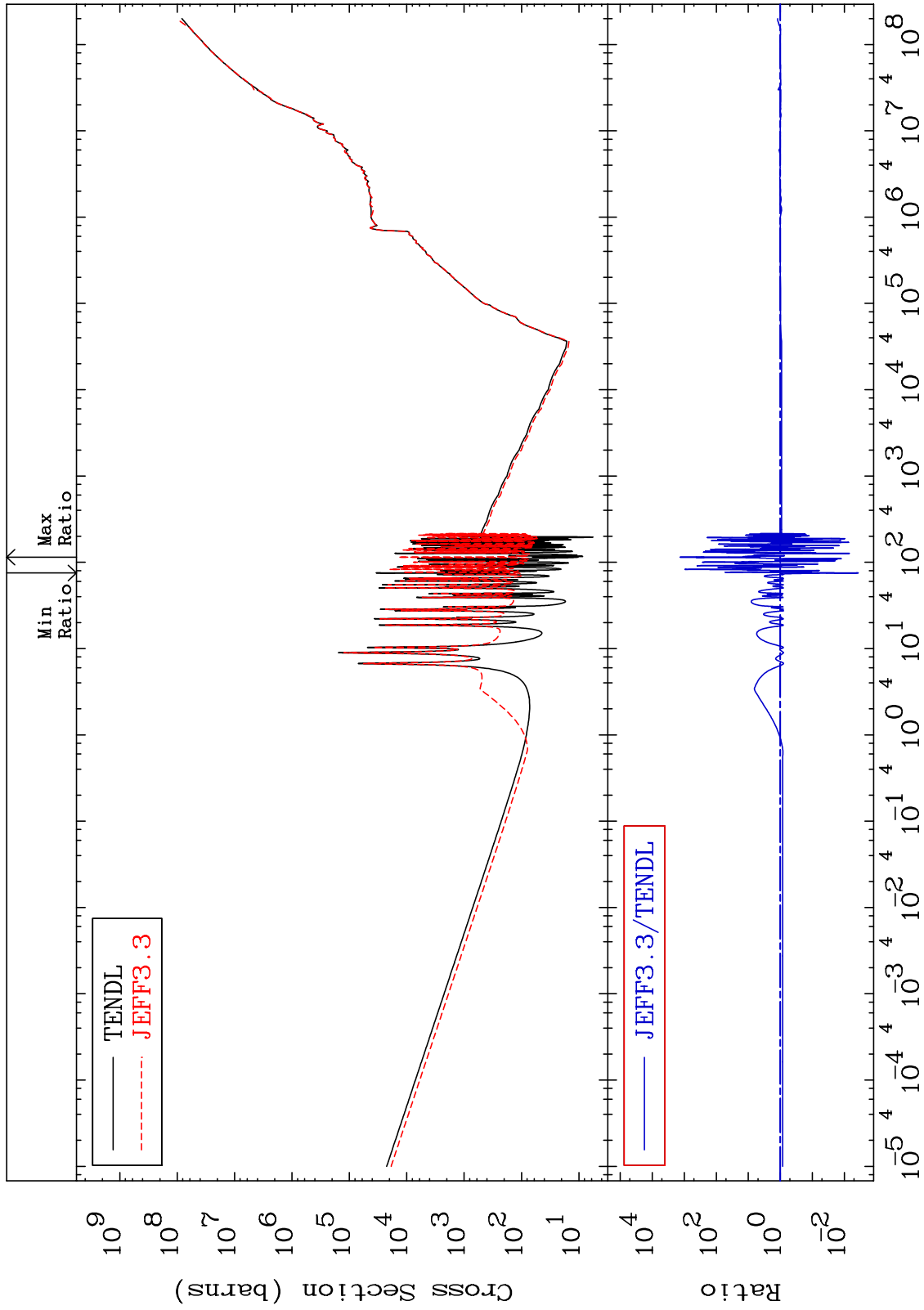
Incident Energy (eV)

76-0s-189

MAT 7640

Kerma non-elastic (all but mt2)
Cross Section

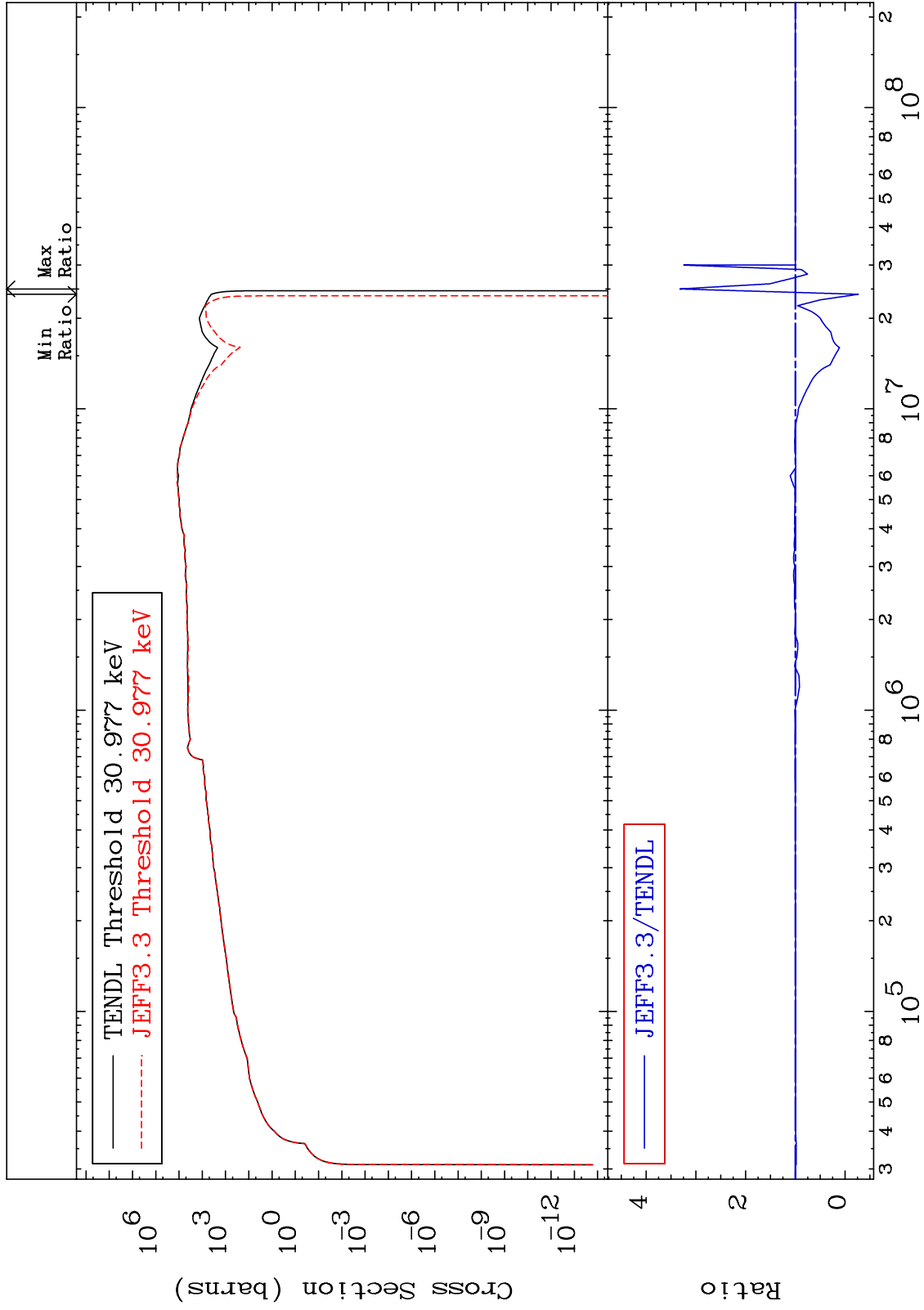
76-0s-189
-99.64 To 9999. %



MAT 7640

Kerma inelastic (mt51-91)
Cross Section

76-0s-189
-127.0 To 231.8 %



70

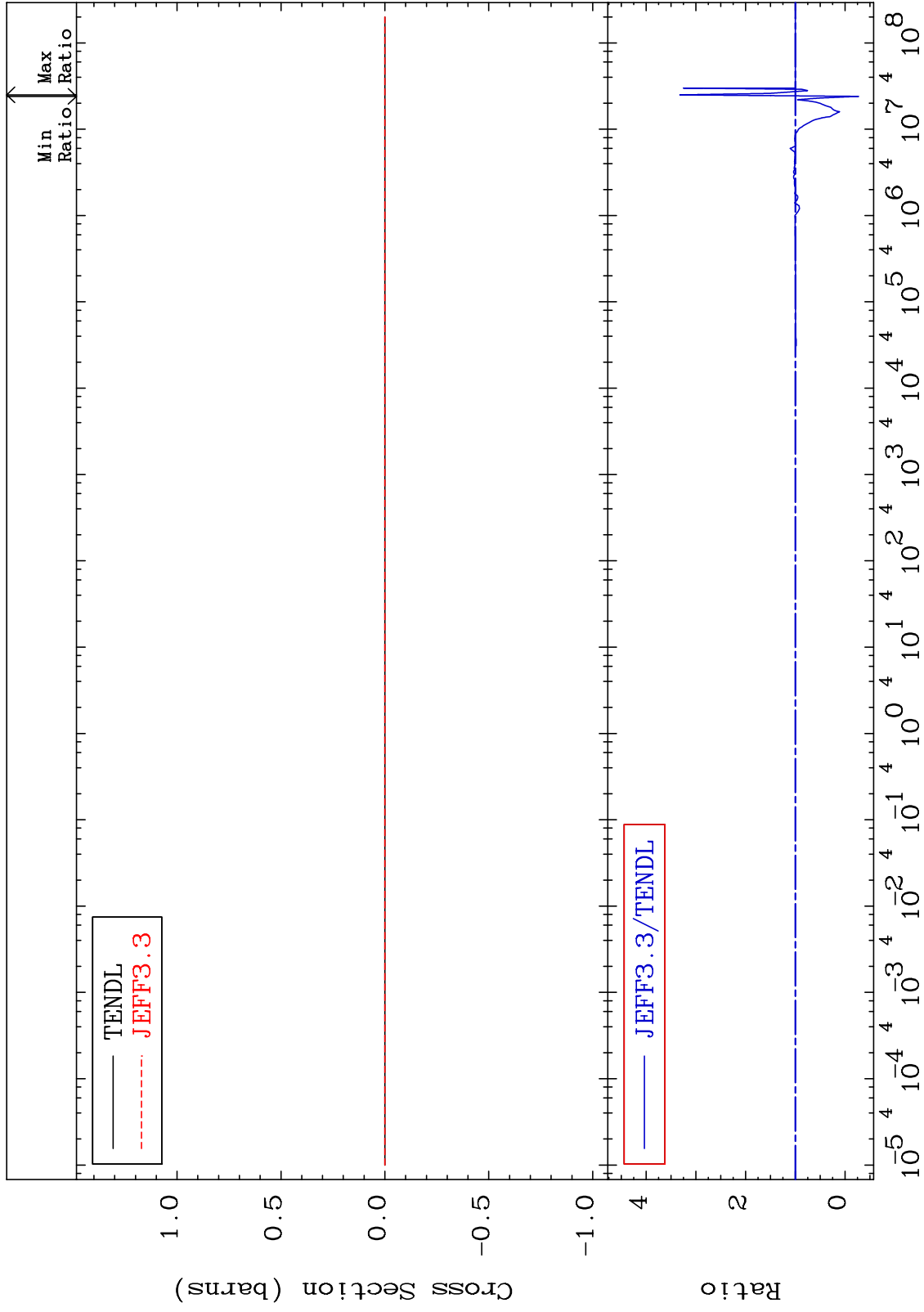
Incident Energy (eV)

76-0s-189

MAT 7640

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

76-0s-189
-127.0 To 231.8 %

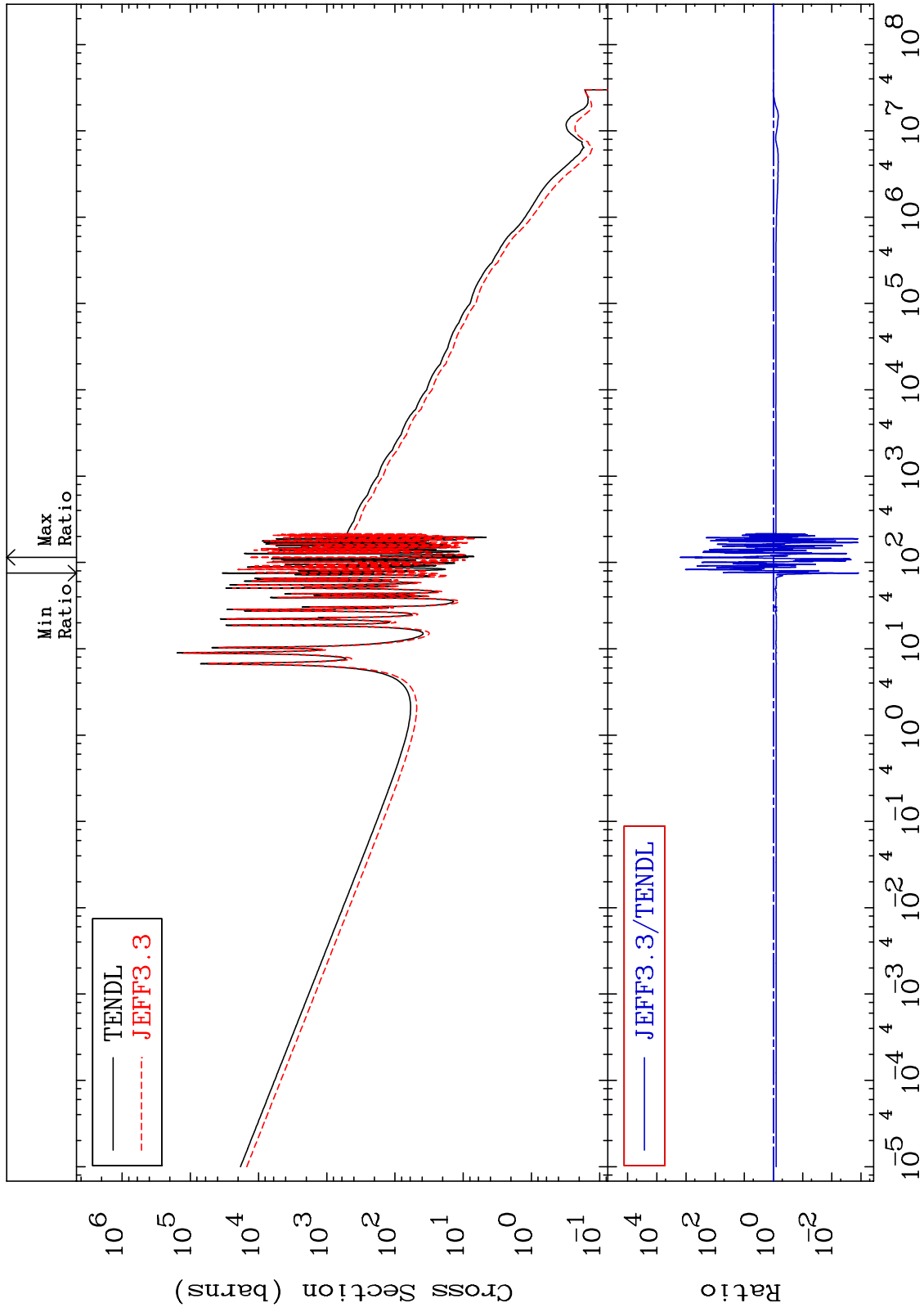


76-0s-189

MAT 7640

Kerma capture (mt102)
Cross Section

76-0s-189
-99.88 To 9999. %



72

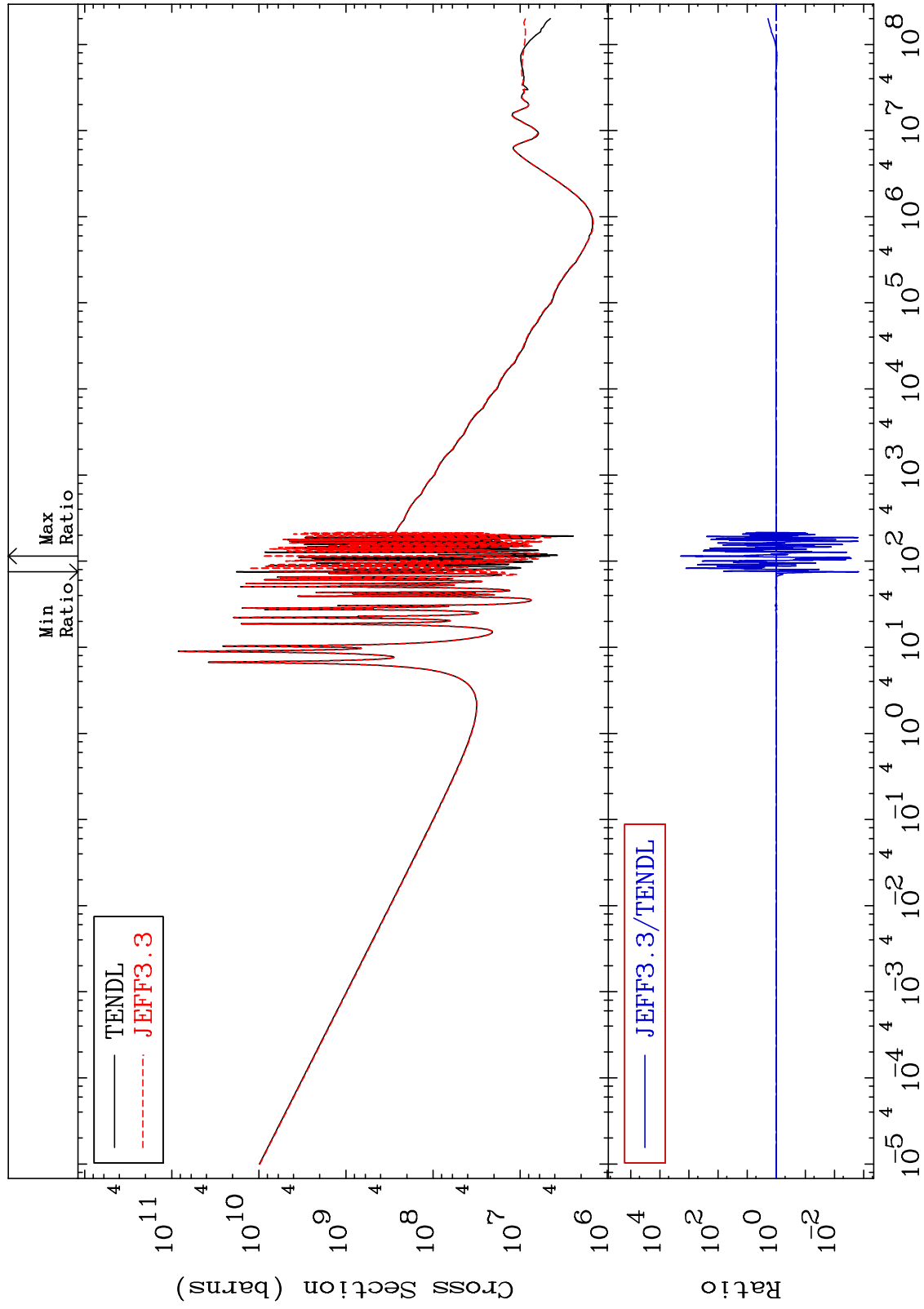
Incident Energy (eV)

76-0s-189

MAT 7640

Total photon (eV-barns)
Cross Section

76-0s-189
-99.85 To 9999. %

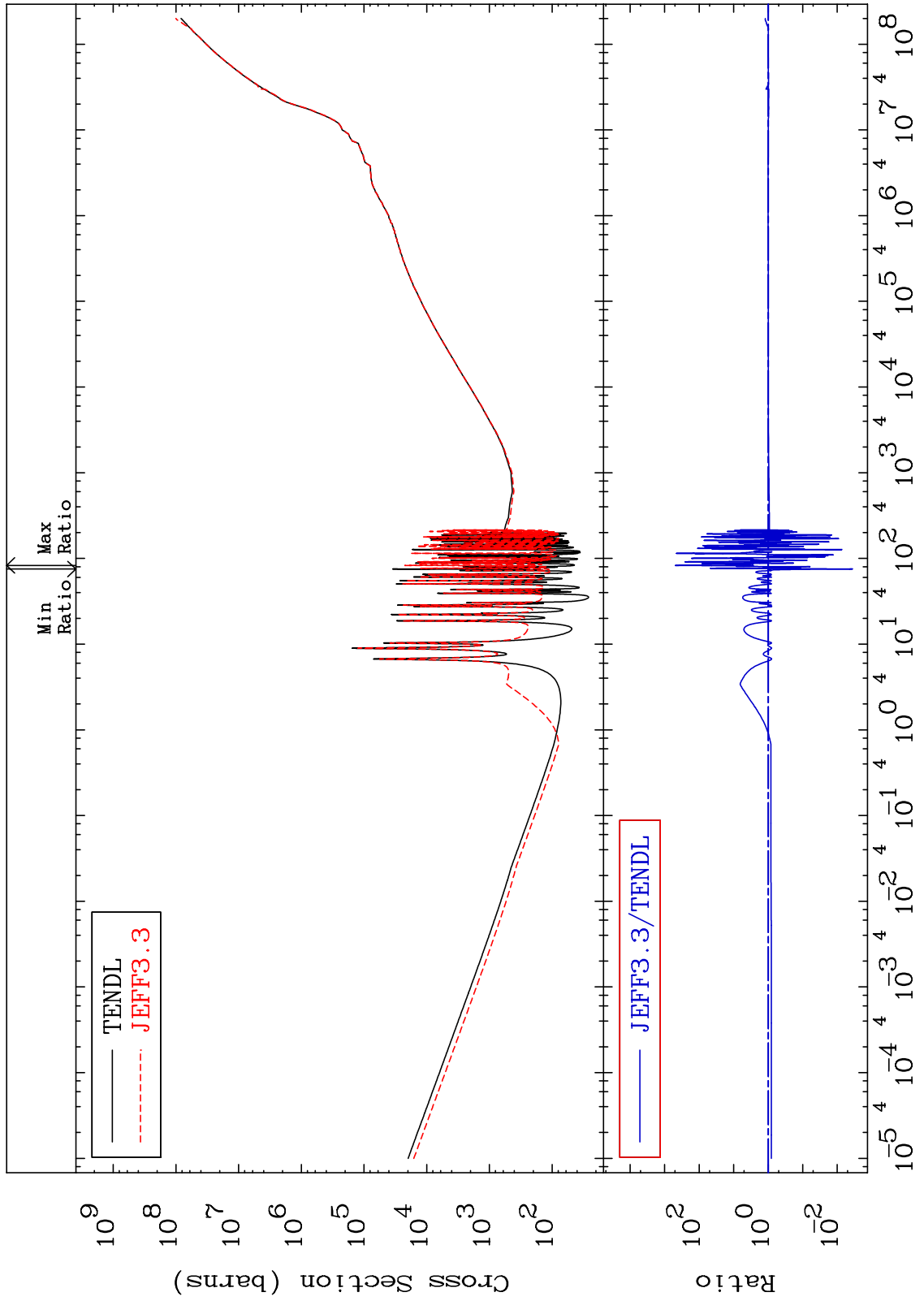


73

Incident Energy (eV)

76-0s-189

MAT 7640 Total kinematic kerma (high limit) 76-0s-189
Cross Section -99.64 To 9999. %



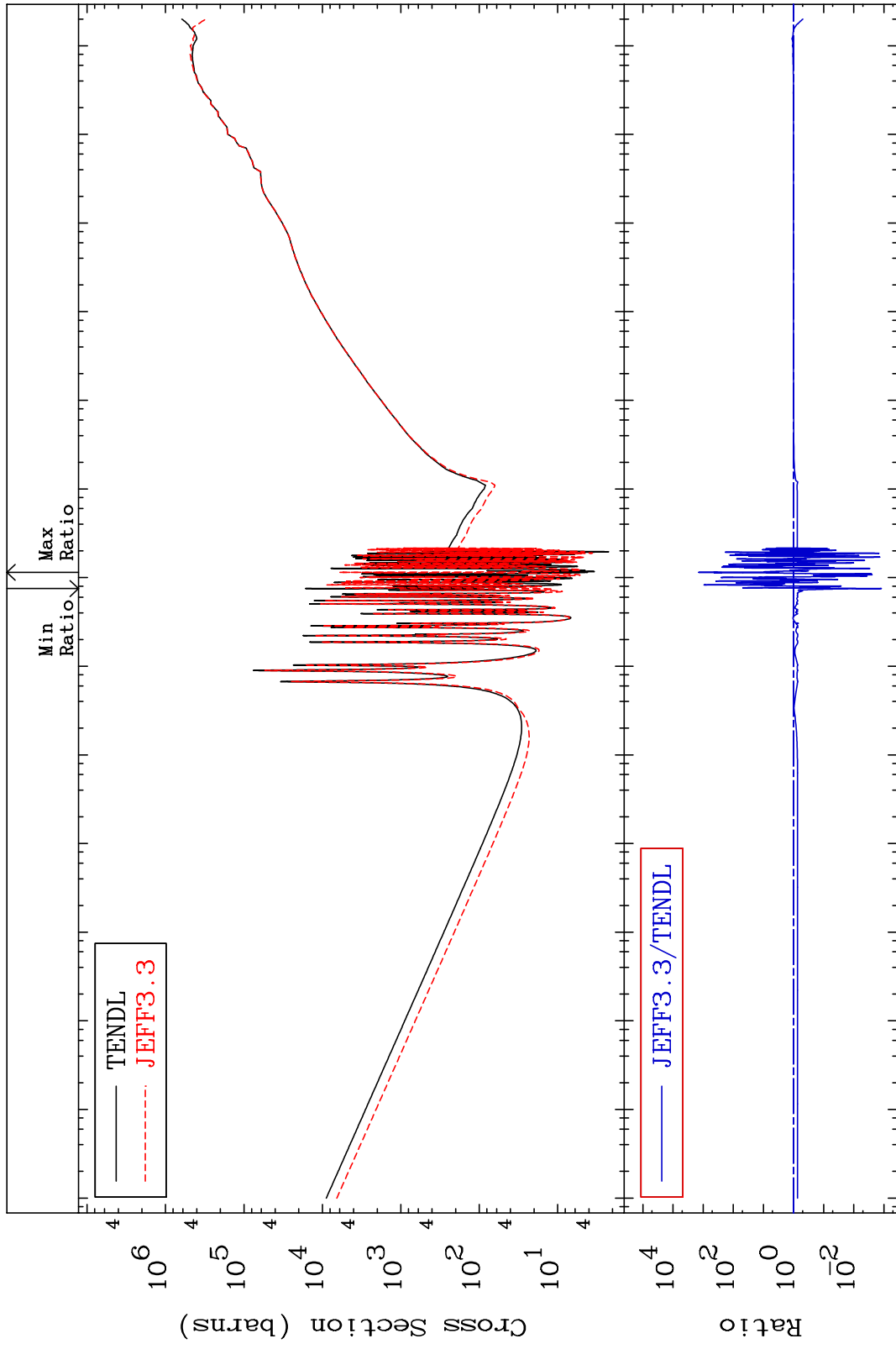
MAT 7640

Dpa total (eV-barns)

76-0s-189

-99.88 To 9999. %

Cross Section



75

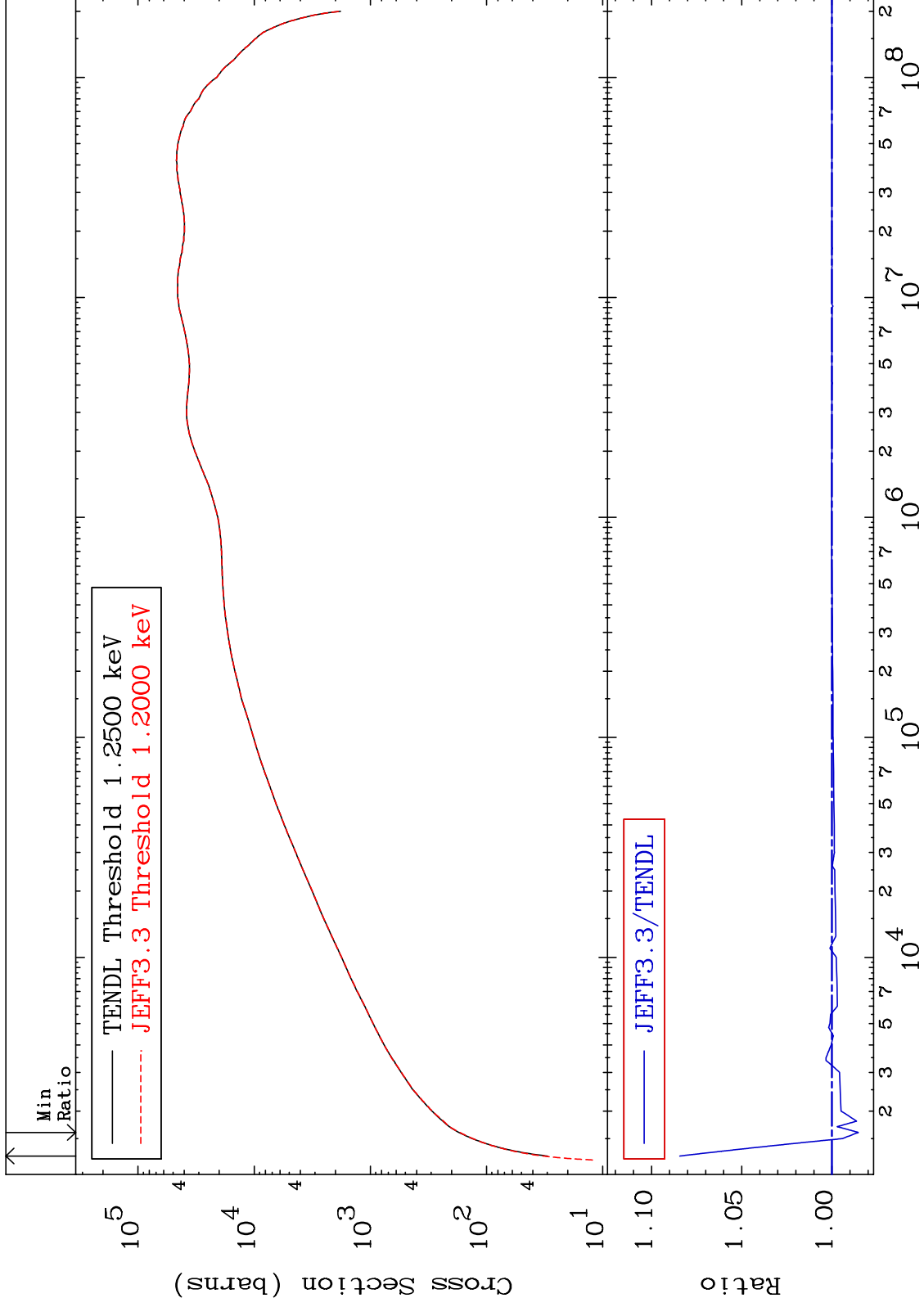
Incident Energy (eV)

76-0s-189

MAT 7640

Dpa elastic (mt2)
Cross Section

76-0s-189
-1.463 To 8.431 %



76

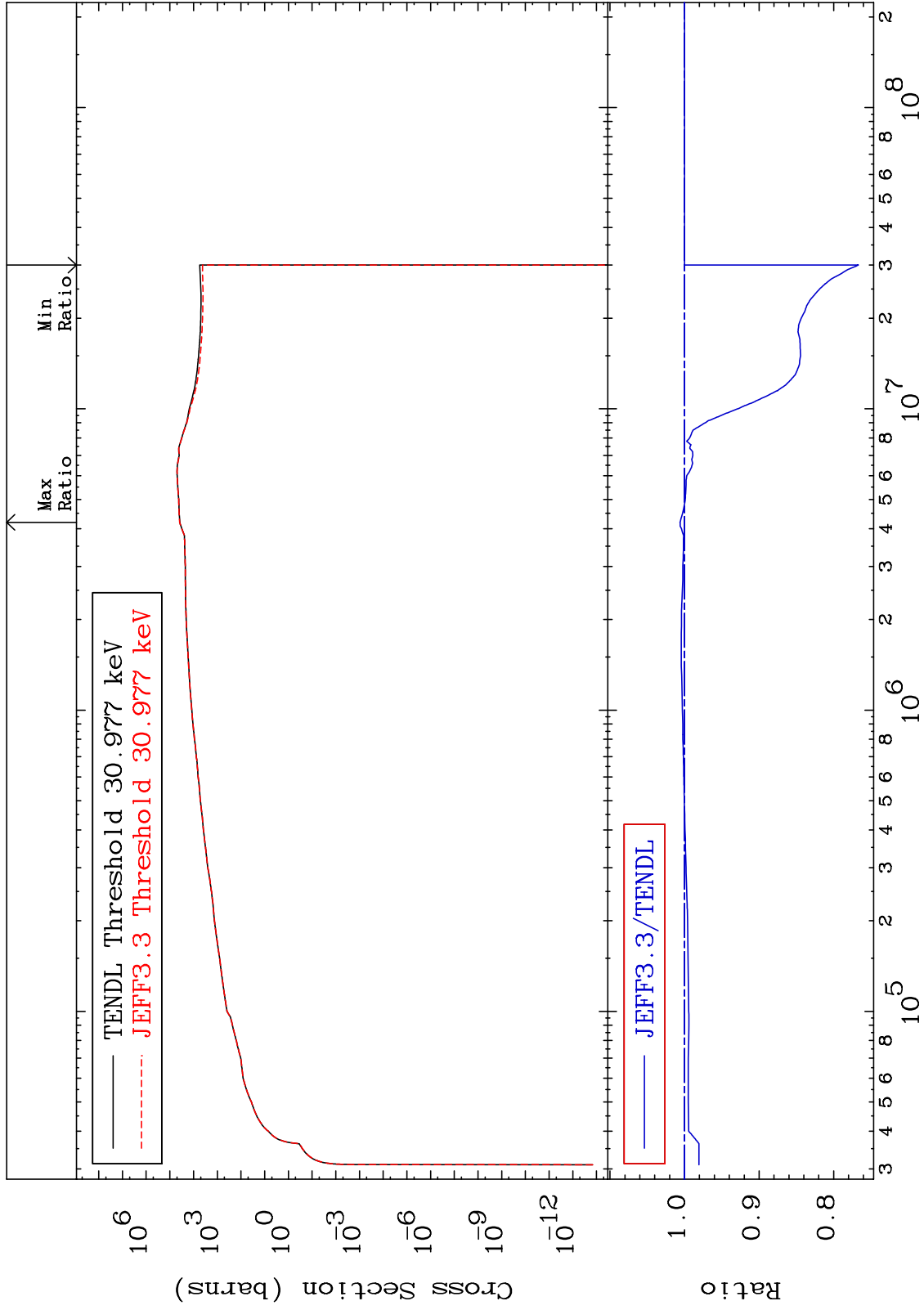
Incident Energy (eV)

76-0s-189

MAT 7640

Dpa inelastic (mt51-91)
Cross Section

76-0s-189
-23.32 To 0.608 %



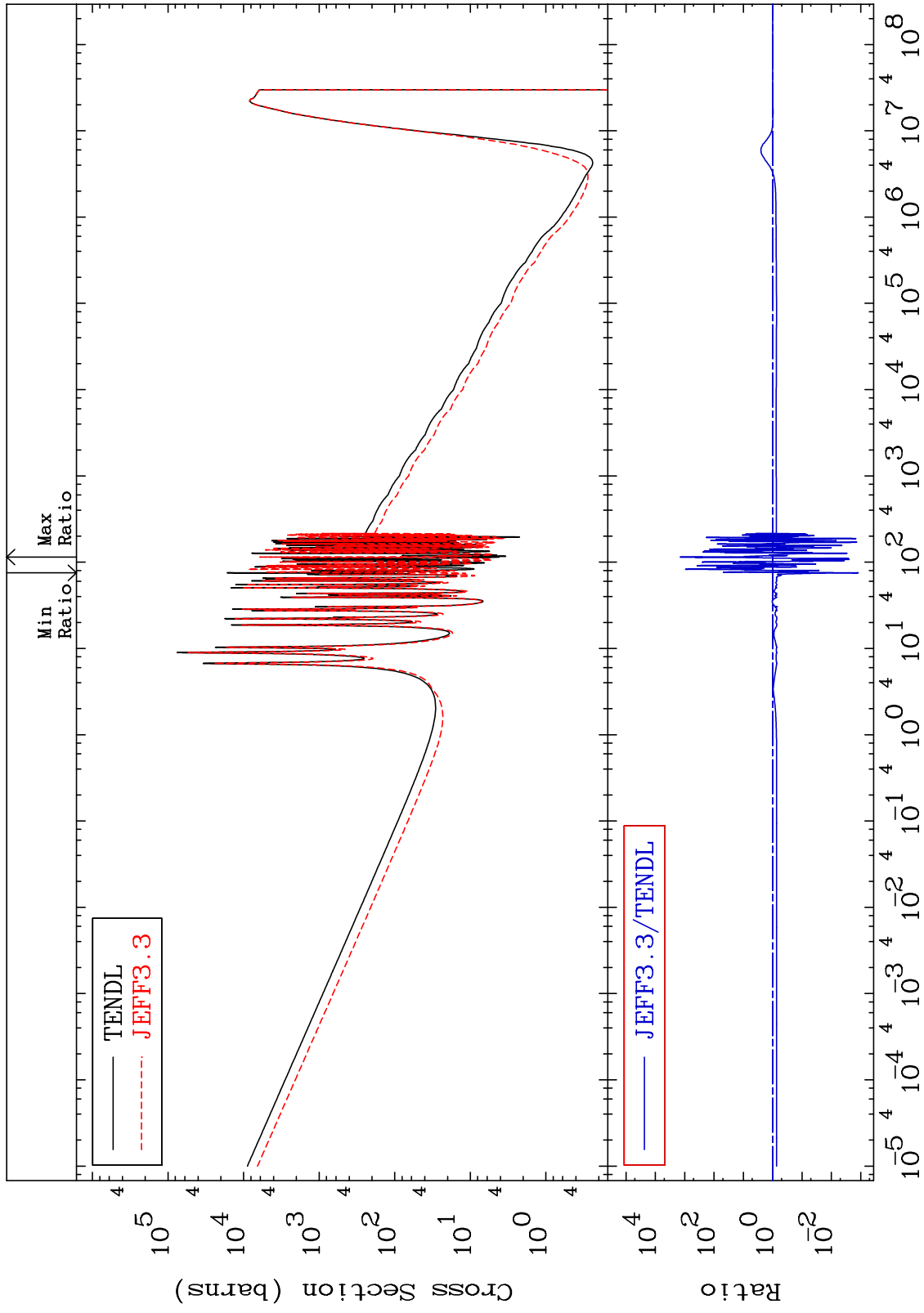
77

76-0s-189

MAT 7640

Dpa disappearance (mt102 -120)
Cross Section

76-0s-189
-99.88 To 9999. %



78

Incident Energy (eV)

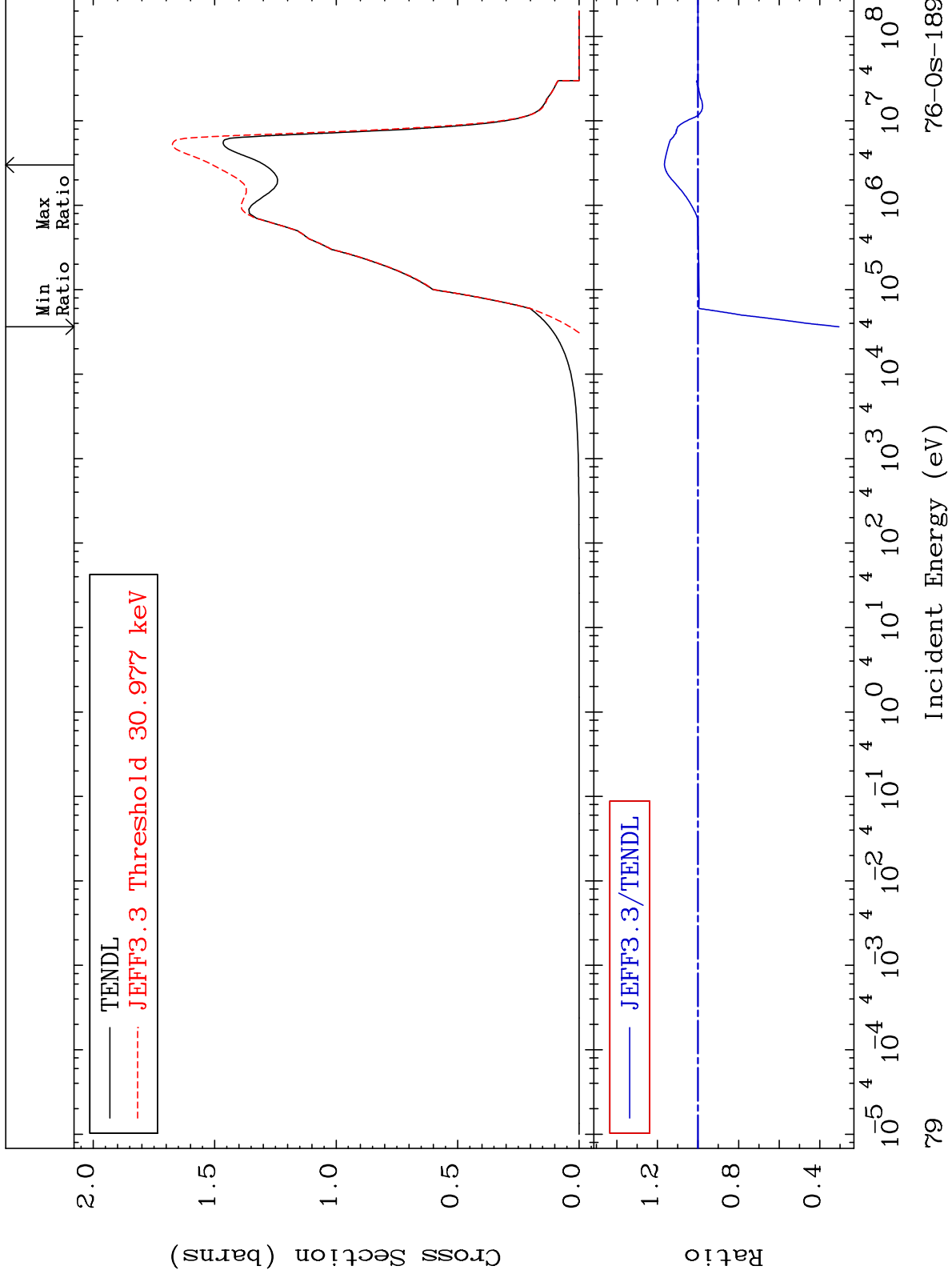
76-0s-189

MAT 7640

Inelastic: 76-0s-189g

76-0s-189

Radionuclide Production Cross Section -69.46 To 16.48 %

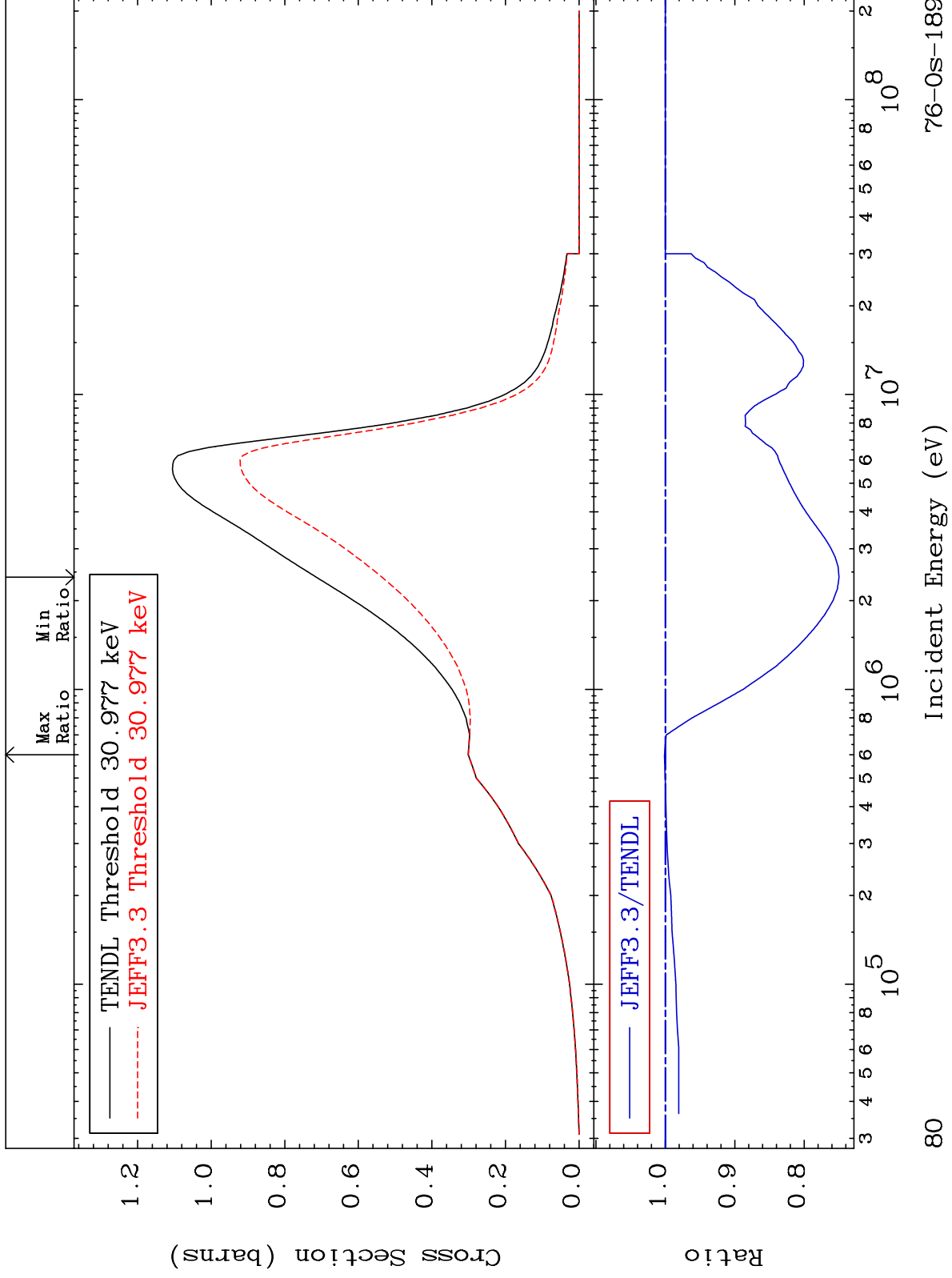


MAT 7640

Inelastic: 76-0s-189m1

76-0s-189

Radionuclide Production Cross Section -25.01 To 0.121 %

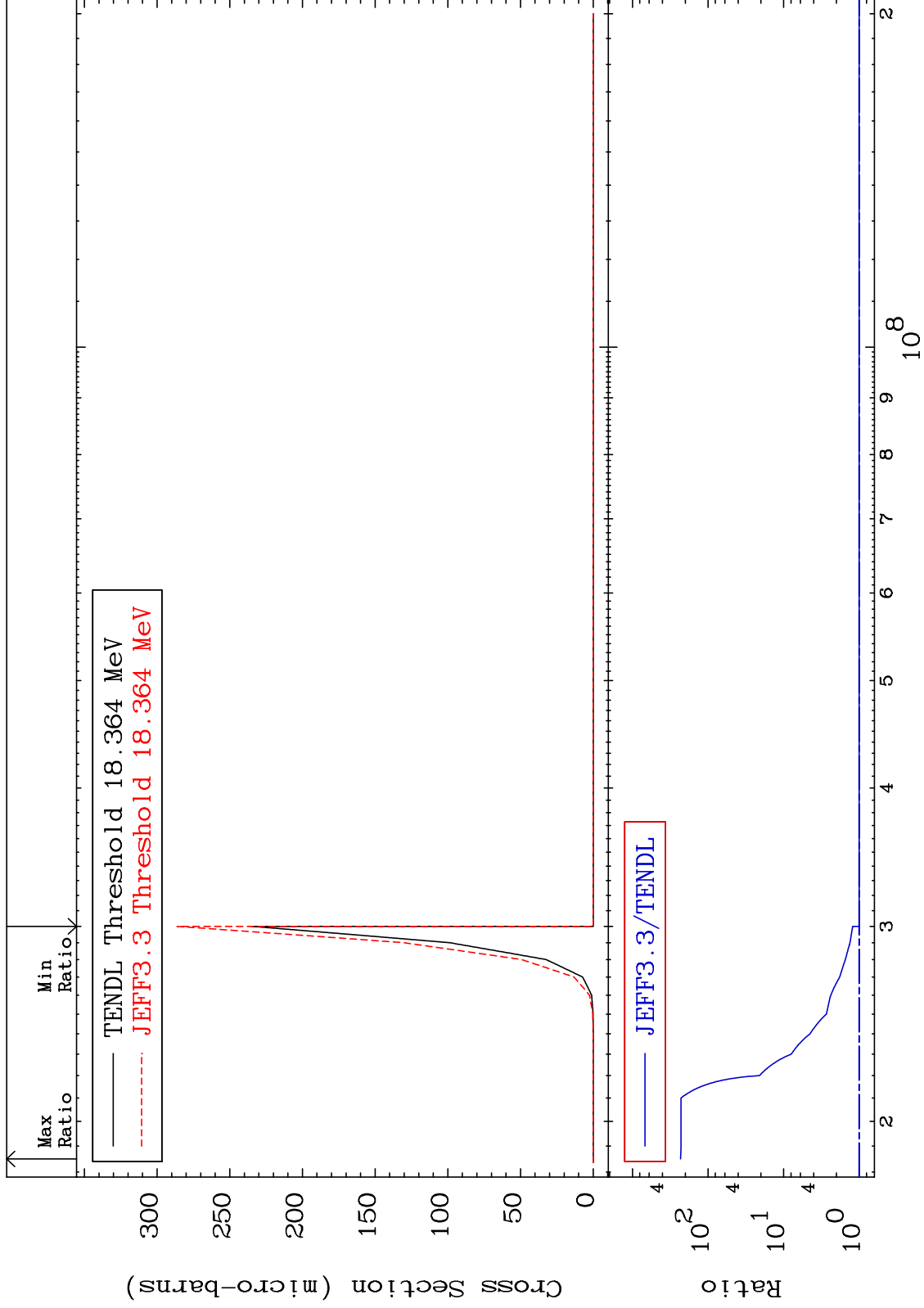


MAT 7640

(n,2n) d:75-Re-186g

76-0s-189

Radionuclide Production Cross Section 0.000 To 9999. %

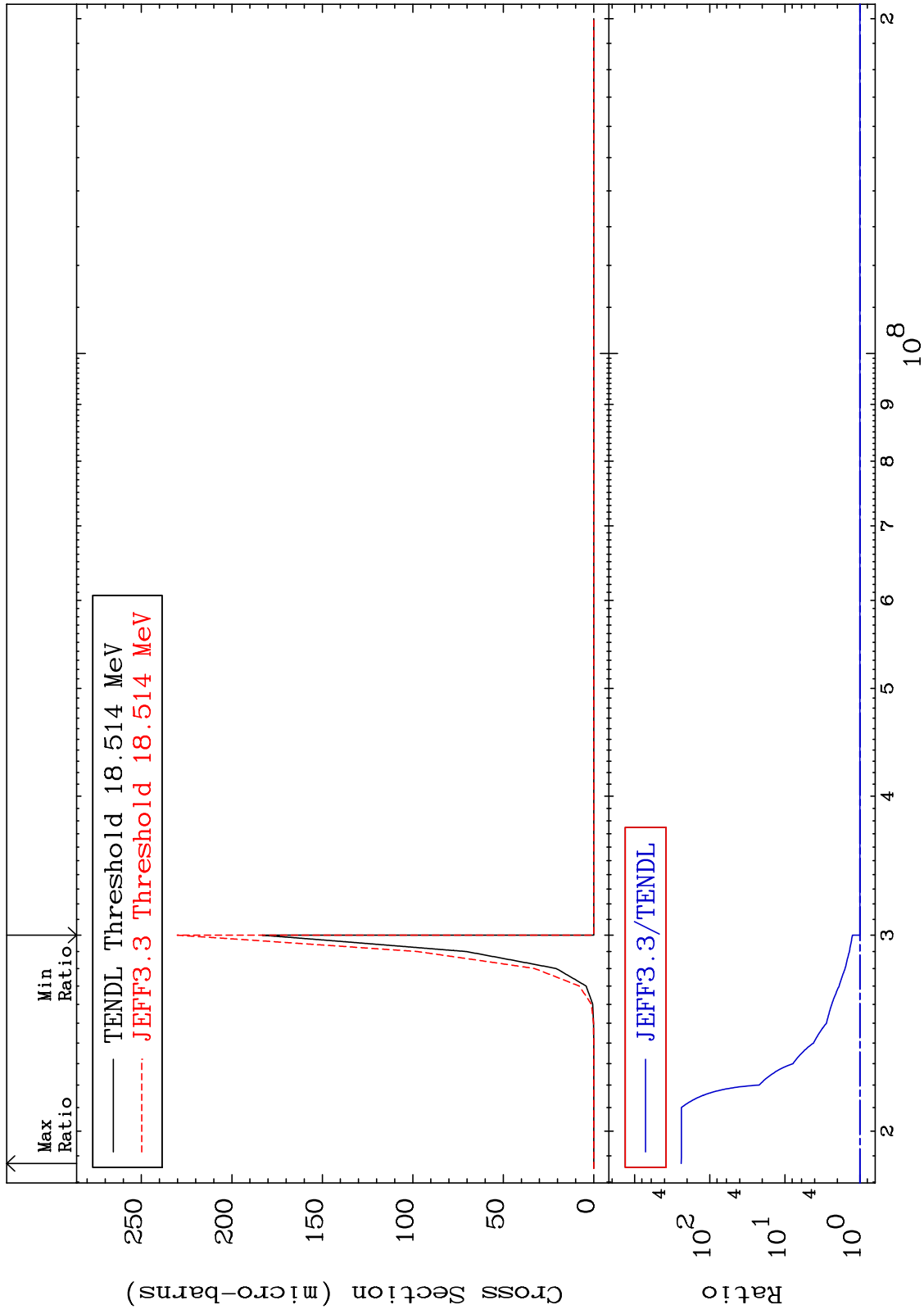


MAT 7640

(n,2n) d:75-Re-186m4

76-0s-189

Radionuclide Production Cross Section 0.000 To 9999. %

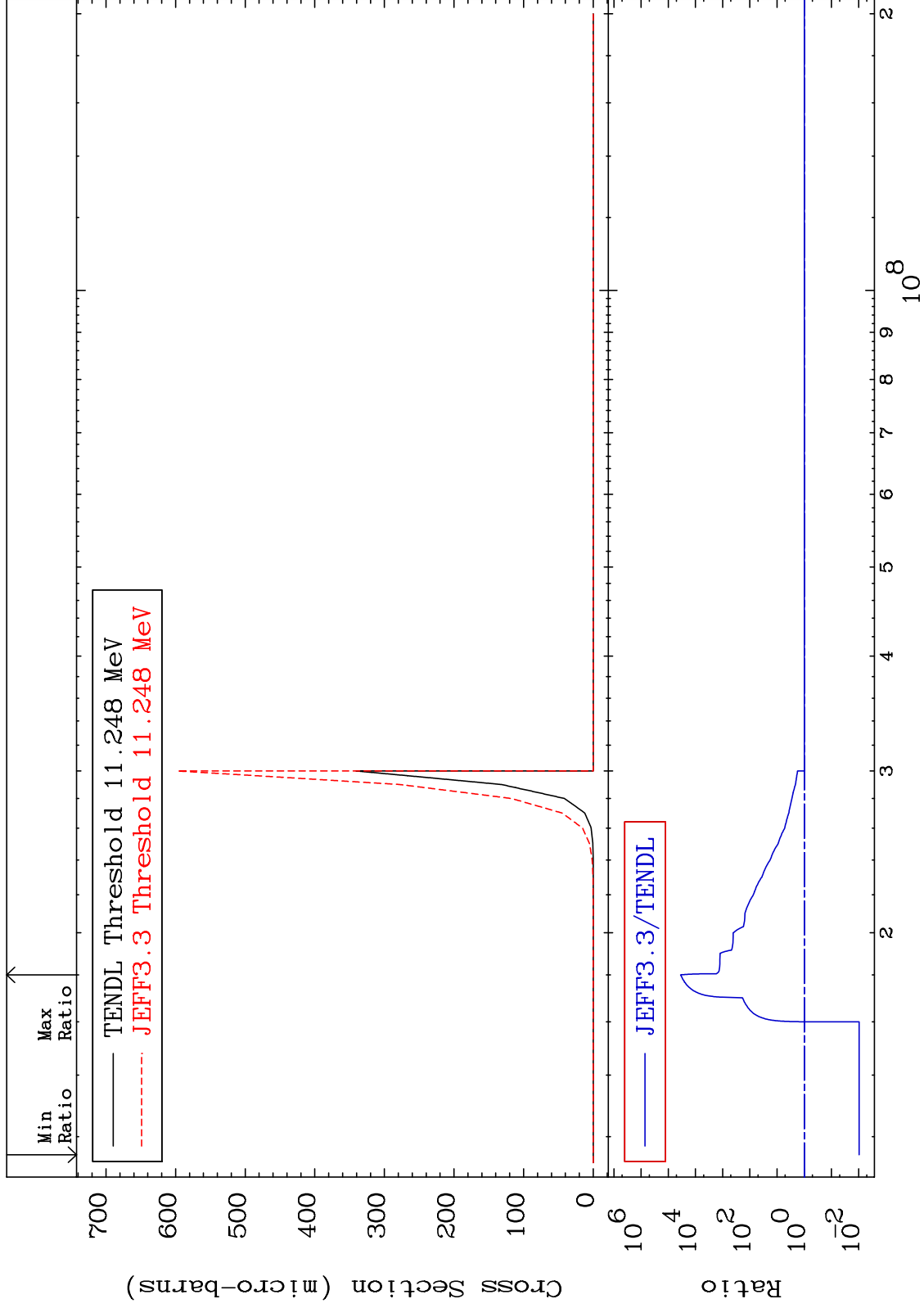


MAT 7640

(n,3n) α :74-W -183g

76-0s-189

Radionuclide Production Cross Section -99.05 To 9999. %

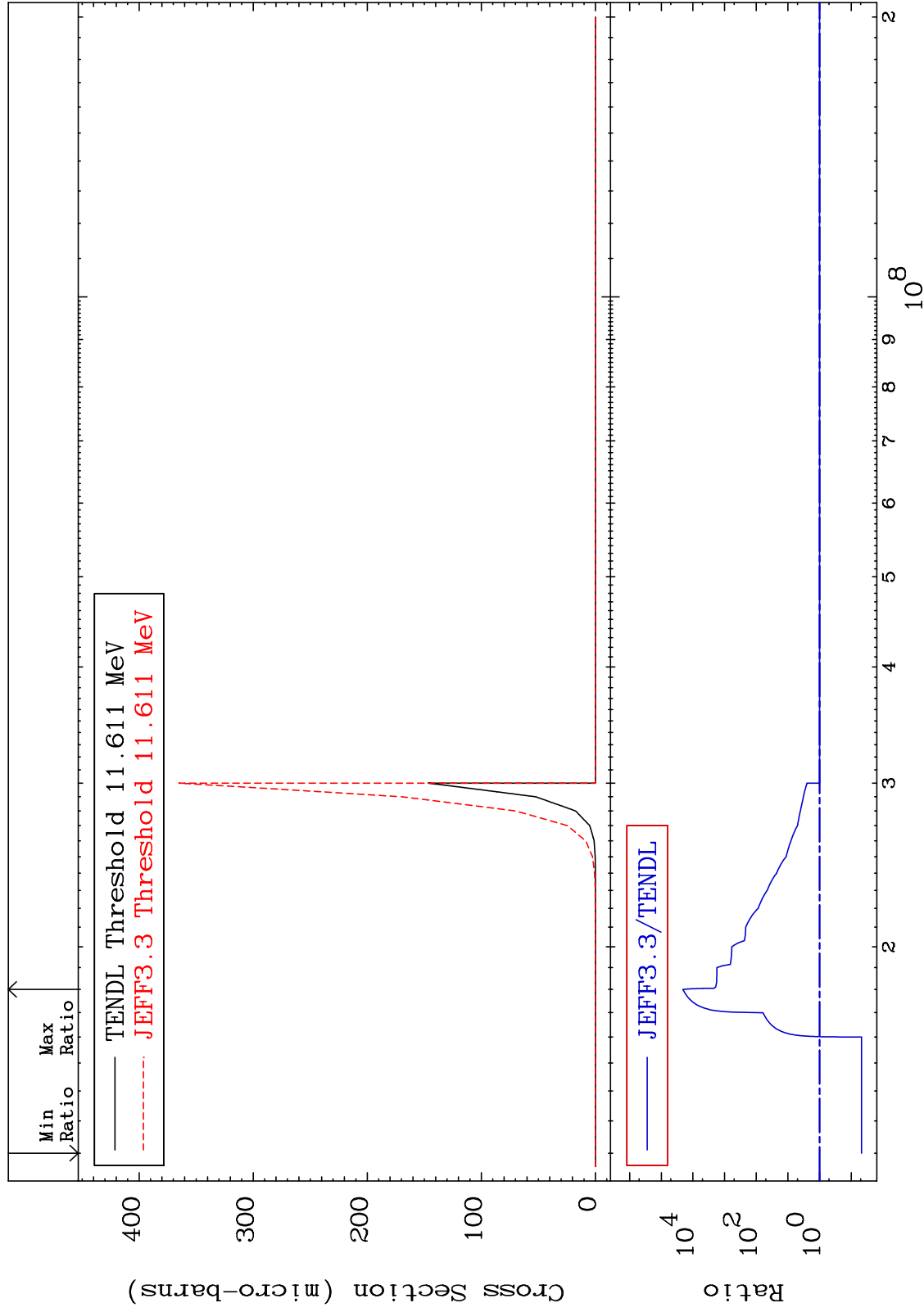


MAT 7640

(n,3n) α :74-W -183m7

76-0s-189

Radionuclide Production Cross Section -95.31 To 9999. %

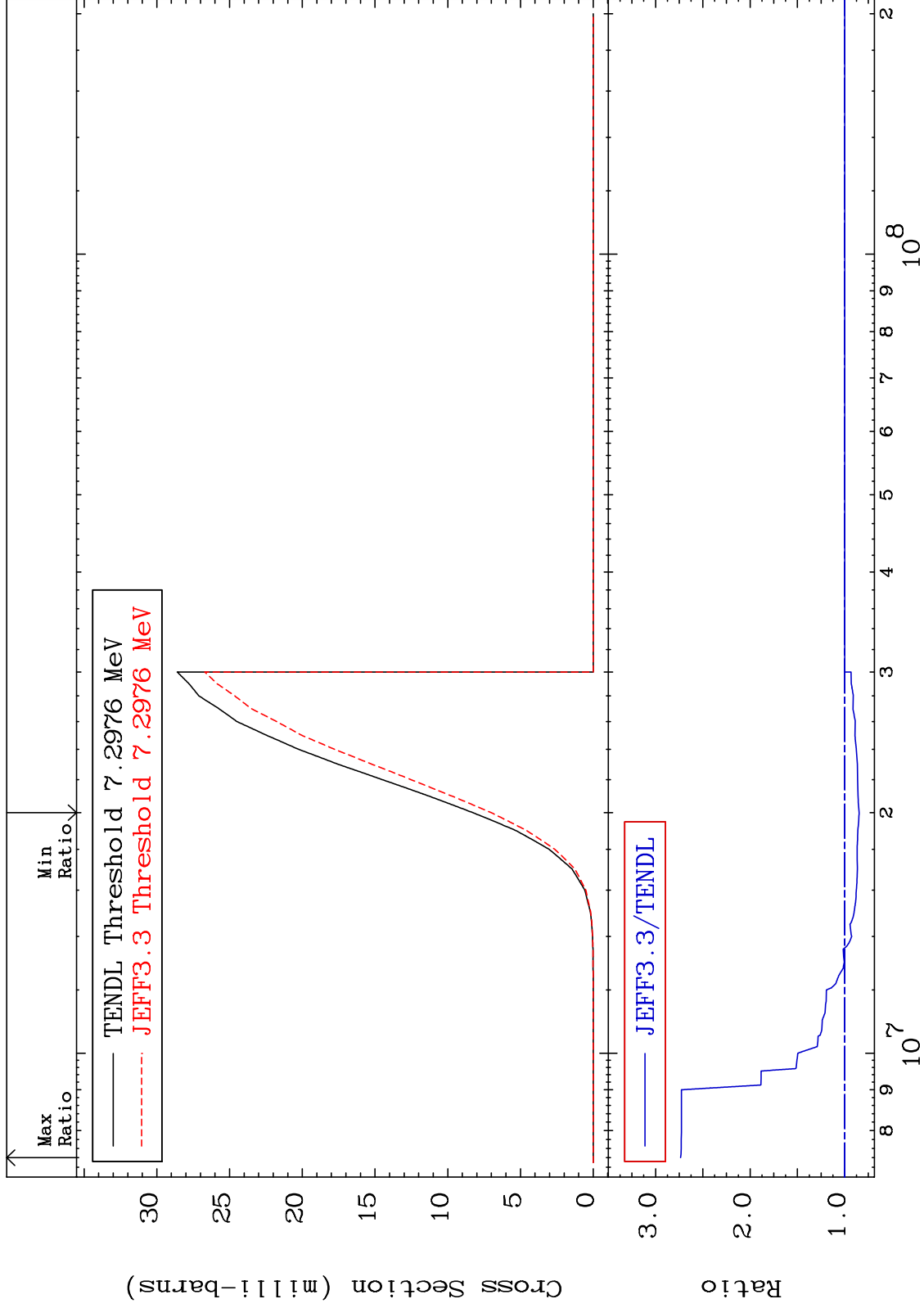


MAT 7640

(n, n') p:75-Re-188g

76-0s-189

Radionuclide Production Cross Section -15.26 To 173.5 %



85

Incident Energy (eV)

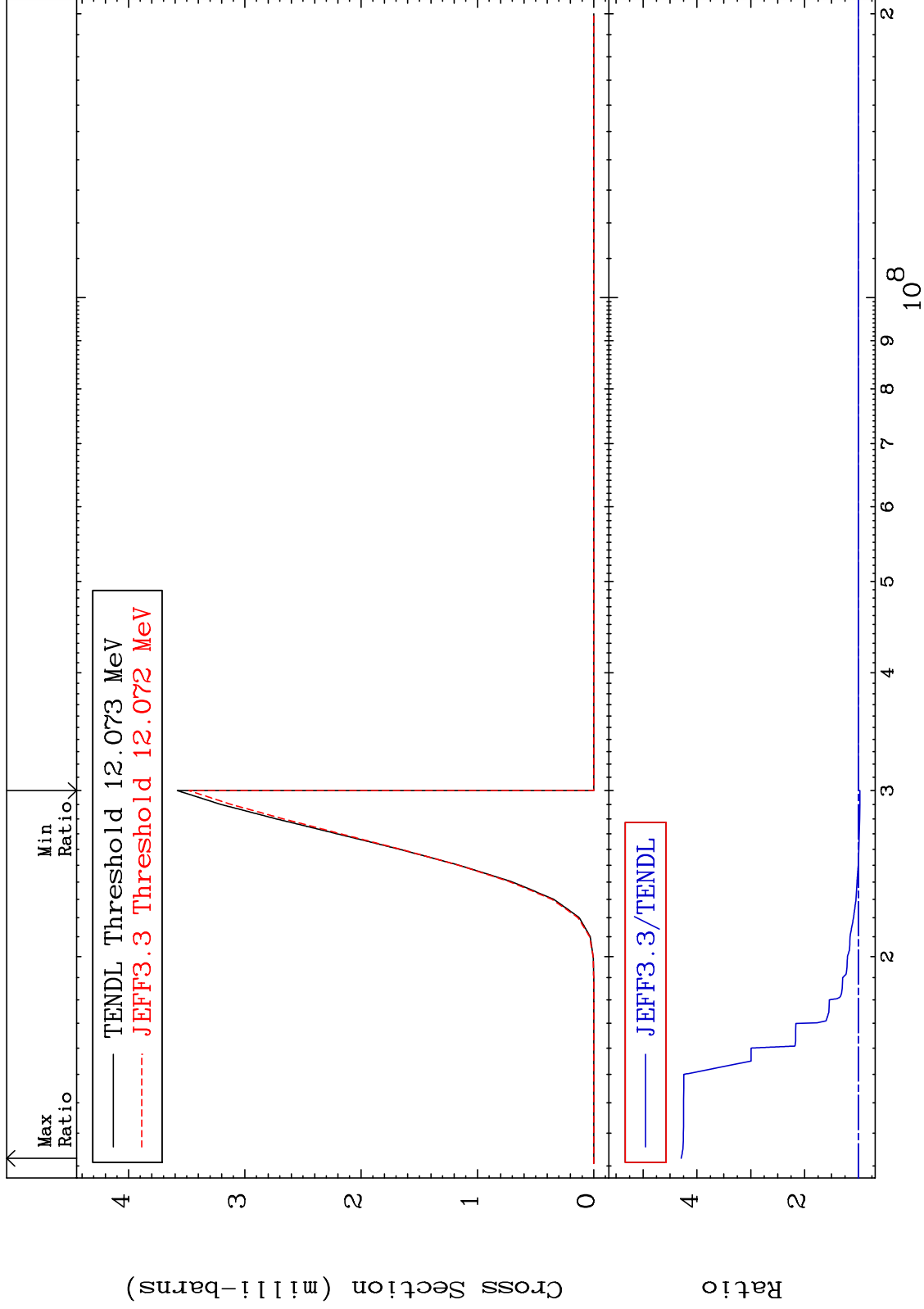
76-0s-189

MAT 7640

(n, n') t:75-Re-186g

76-0s-189

Radionuclide Production Cross Section -2.775 To 329.1 %

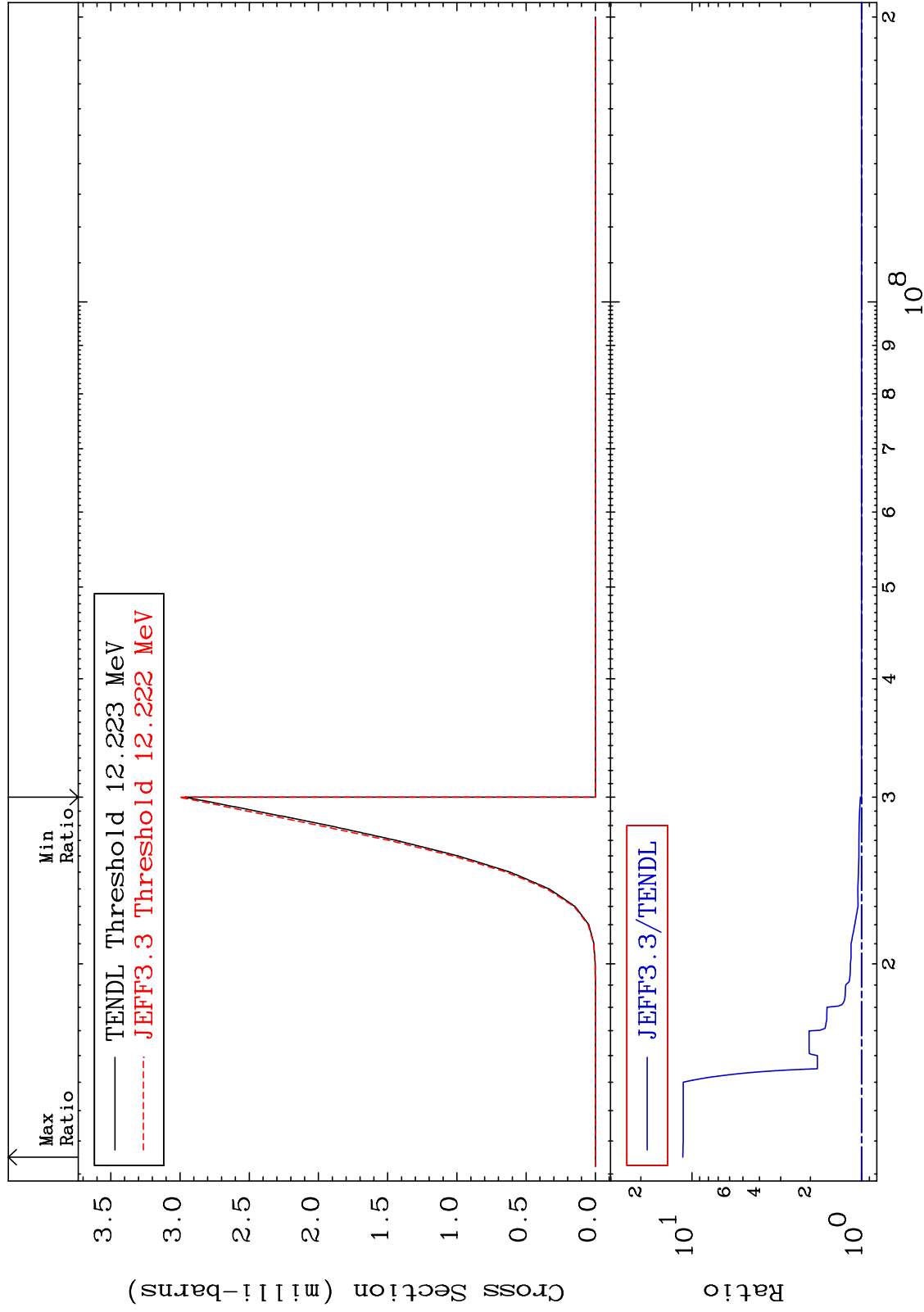


MAT 7640

(n, n') t:75-Re-186m4

76-0s-189

Radionuclide Production Cross Section 0.000 To 1031. %

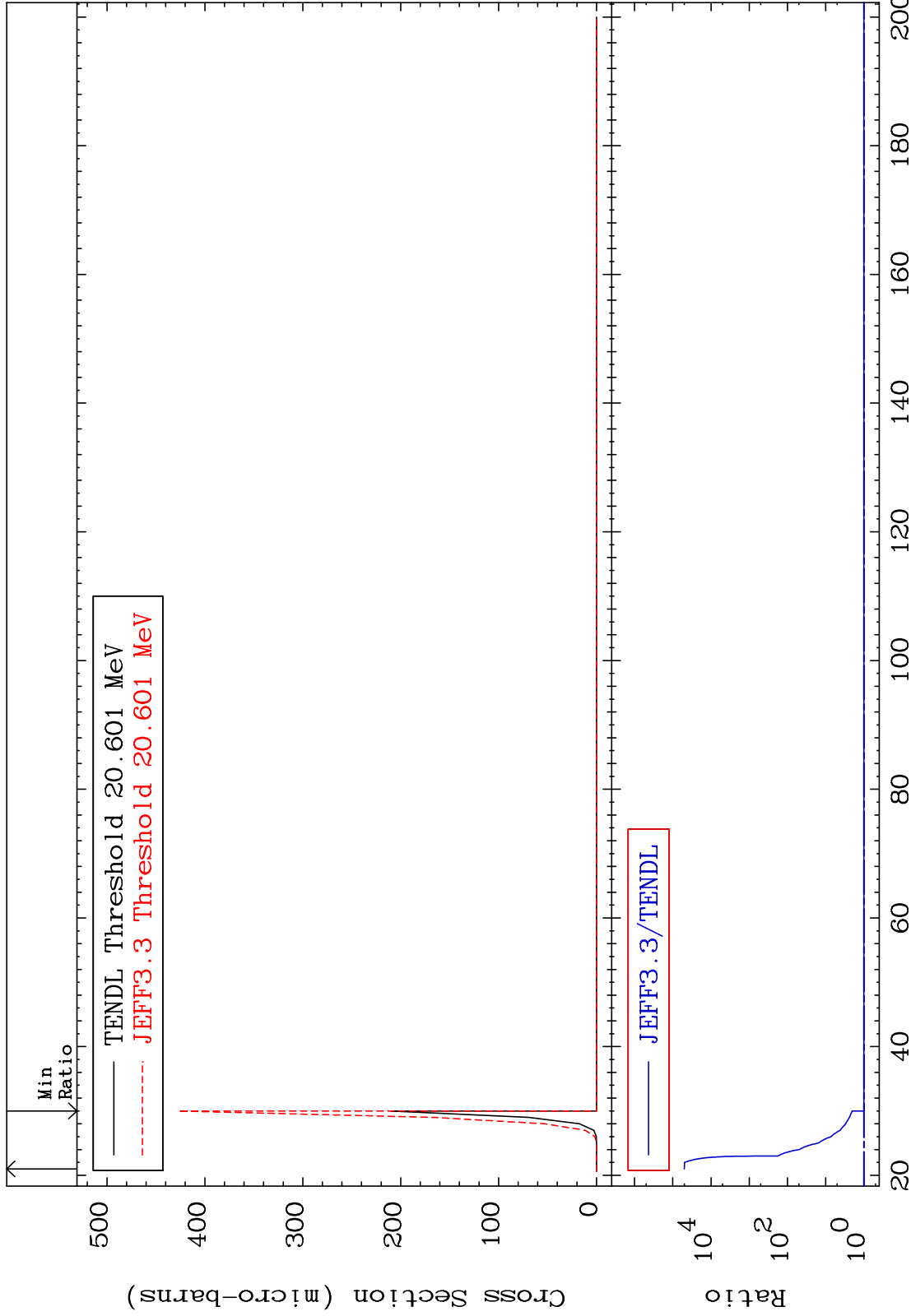


MAT 7640

(n,3n) p:75-Re-186g

76-0s-189

Radionuclide Production Cross Section 0.000 To 9999. %

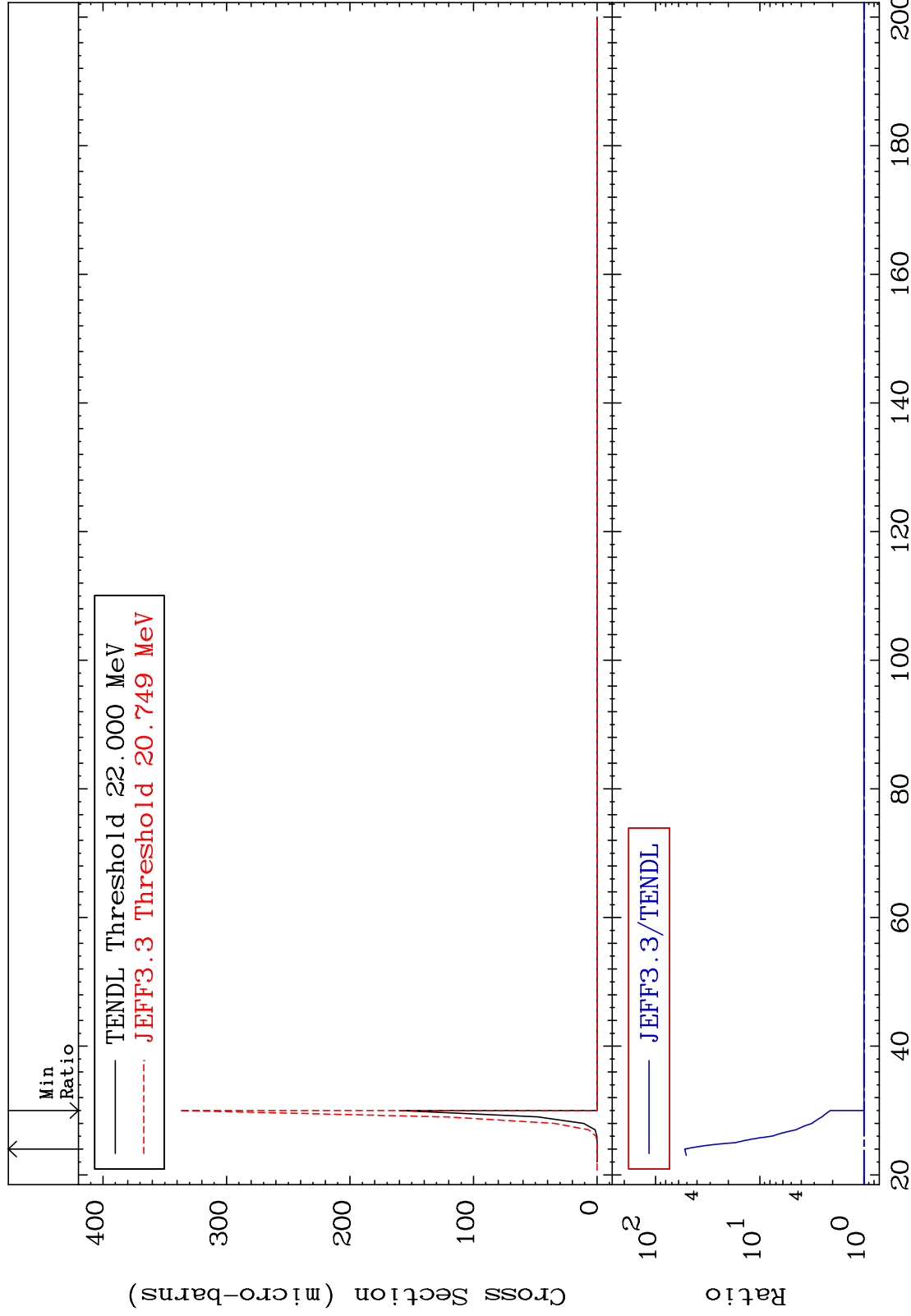


MAT 7640

(n,3n) p:75-Re-186m4

76-0s-189

Radionuclide Production Cross Section 0.000 To 5142. %

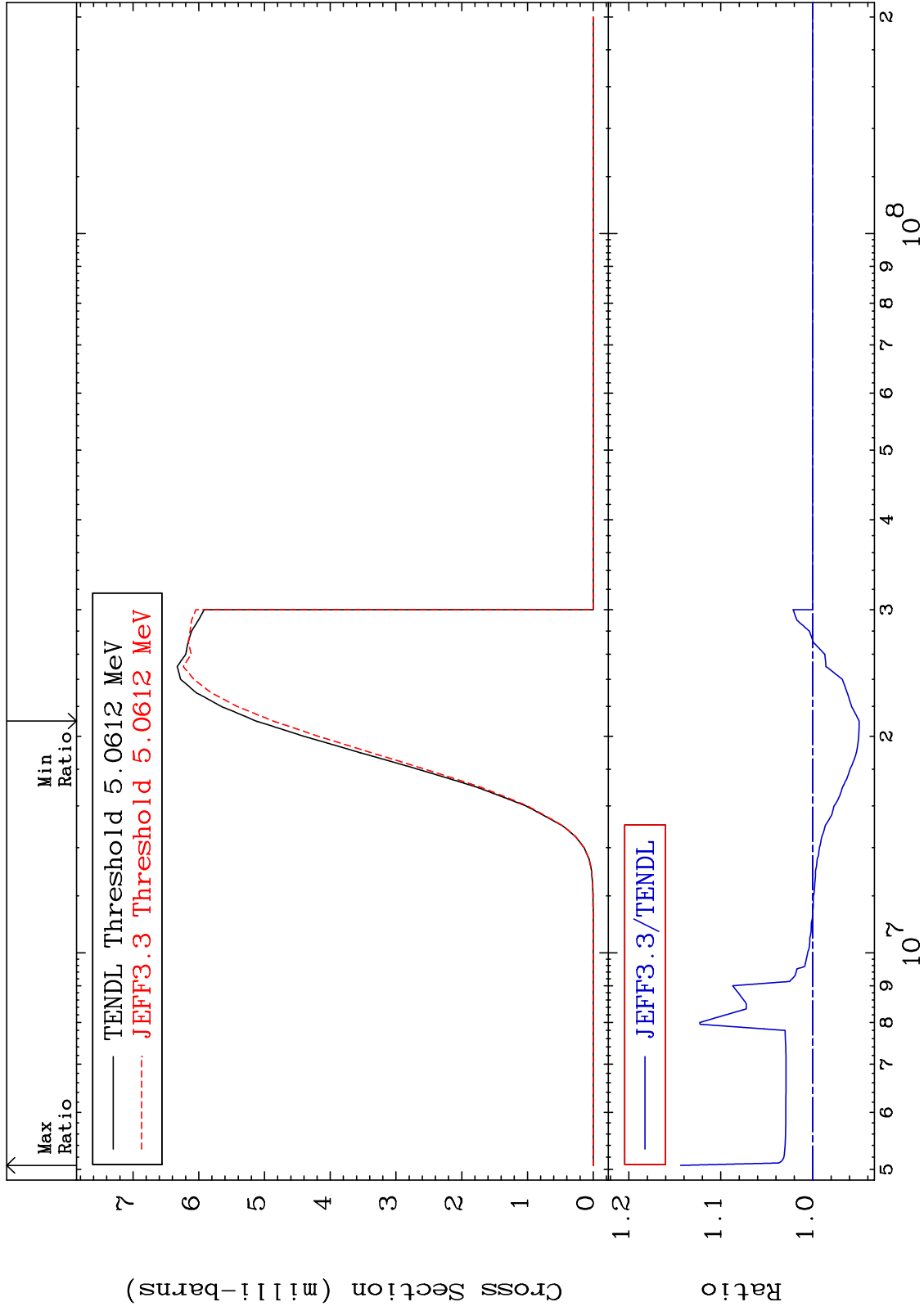


MAT 7640

(n, d) : 75-Re-188g

76-0s-189

Radionuclide Production Cross Section -5.057 To 14.37 %



90

Incident Energy (eV)

76-0s-189