

Program Complot
(Version 2018-1)

by

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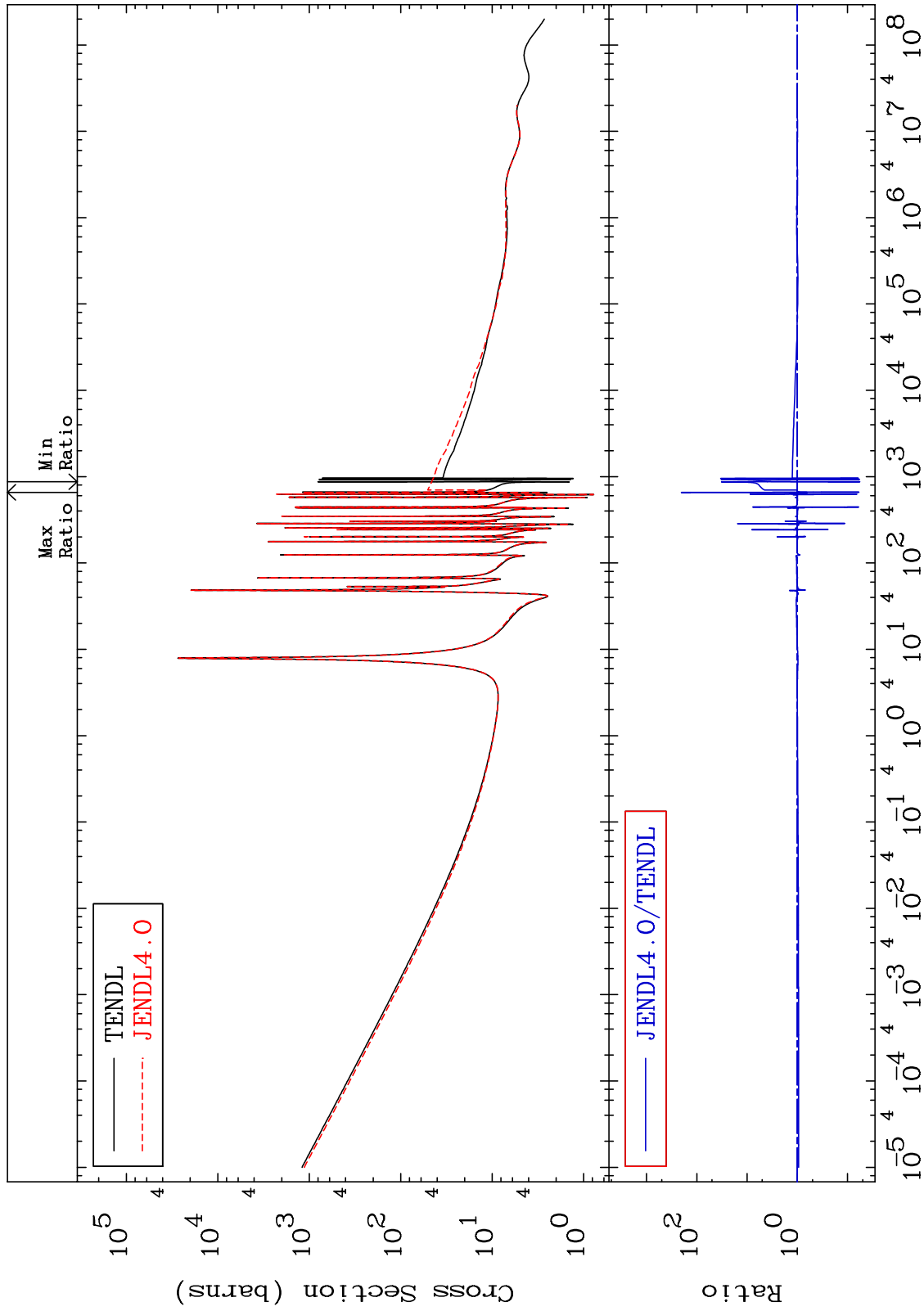
Press Mouse Button to Start

MAT 7231

Total
Cross Section

72-Hf-176

-94.27 To 9999. %



1

Incident Energy (eV)

72-Hf-176

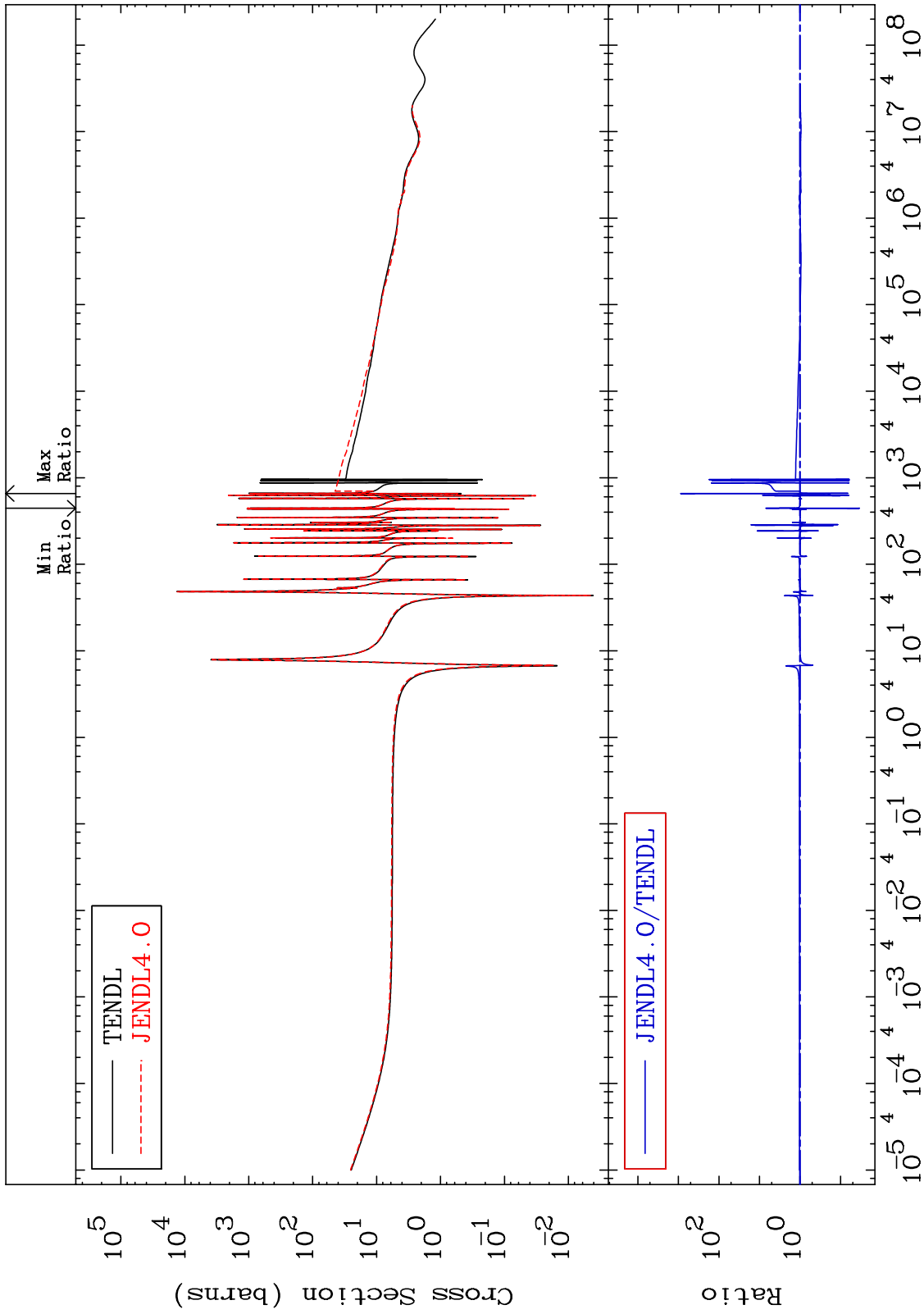
MAT 7231

Elastic

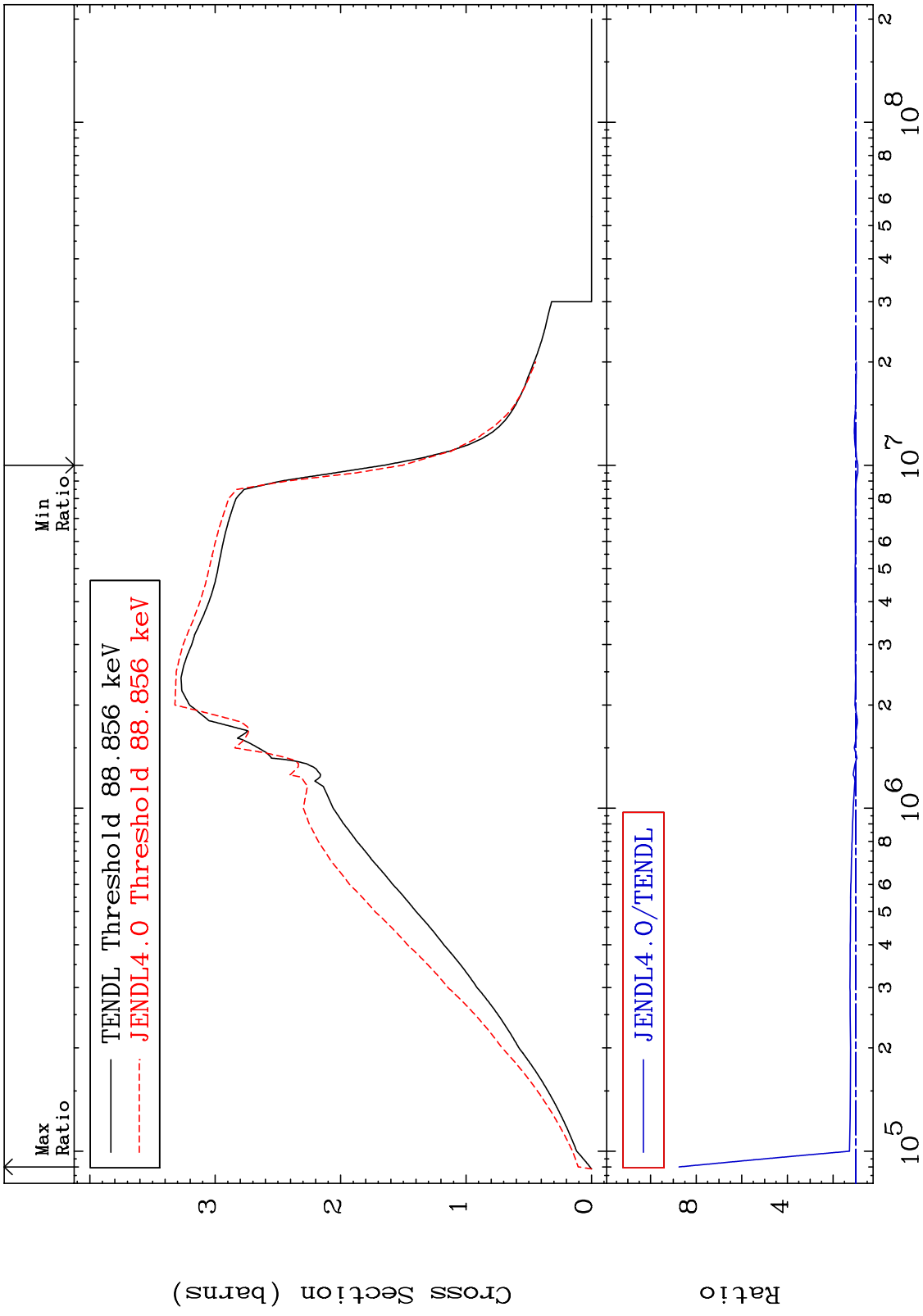
72-Hf-176

Cross Section

-96.62 To 9999. %

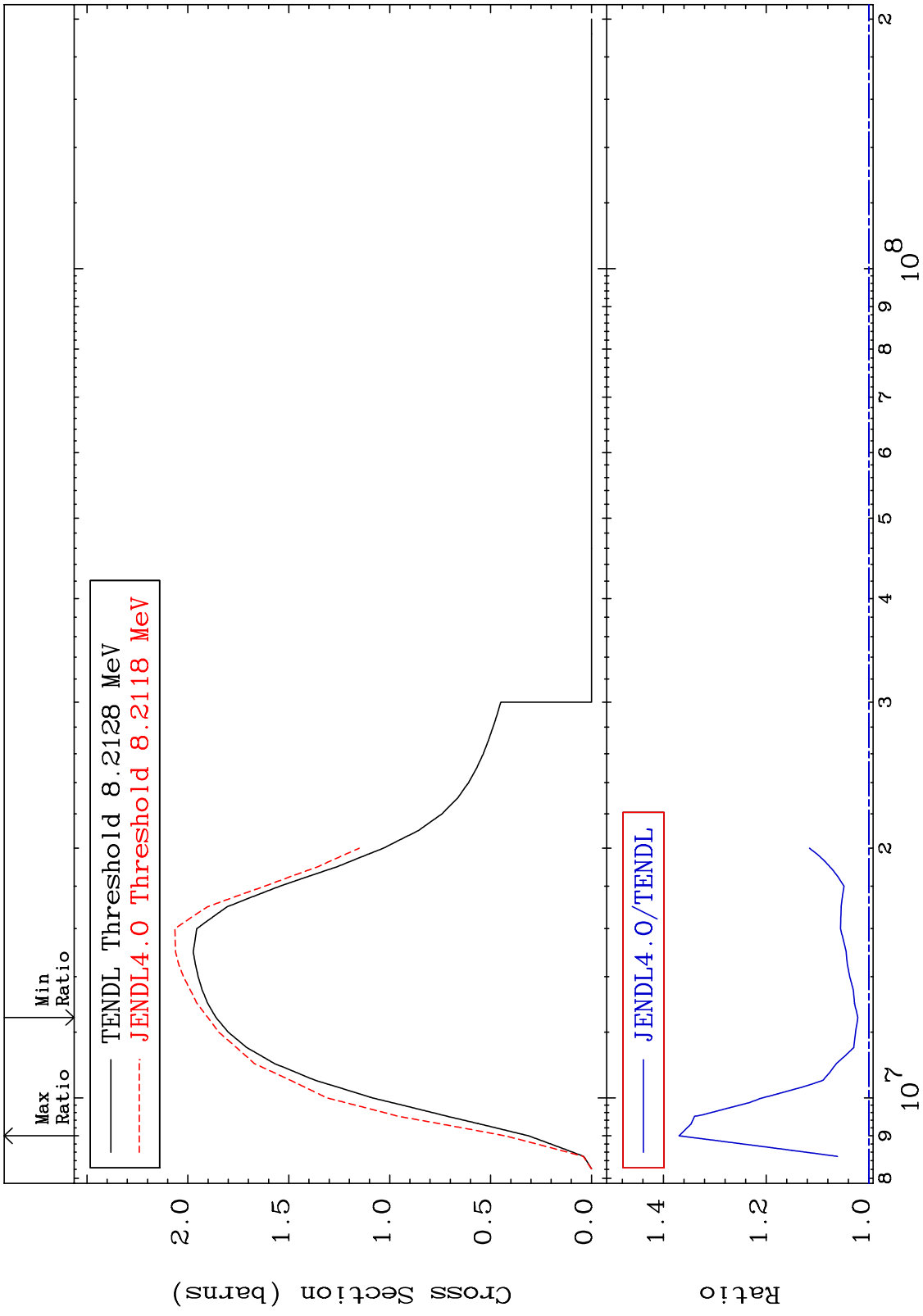


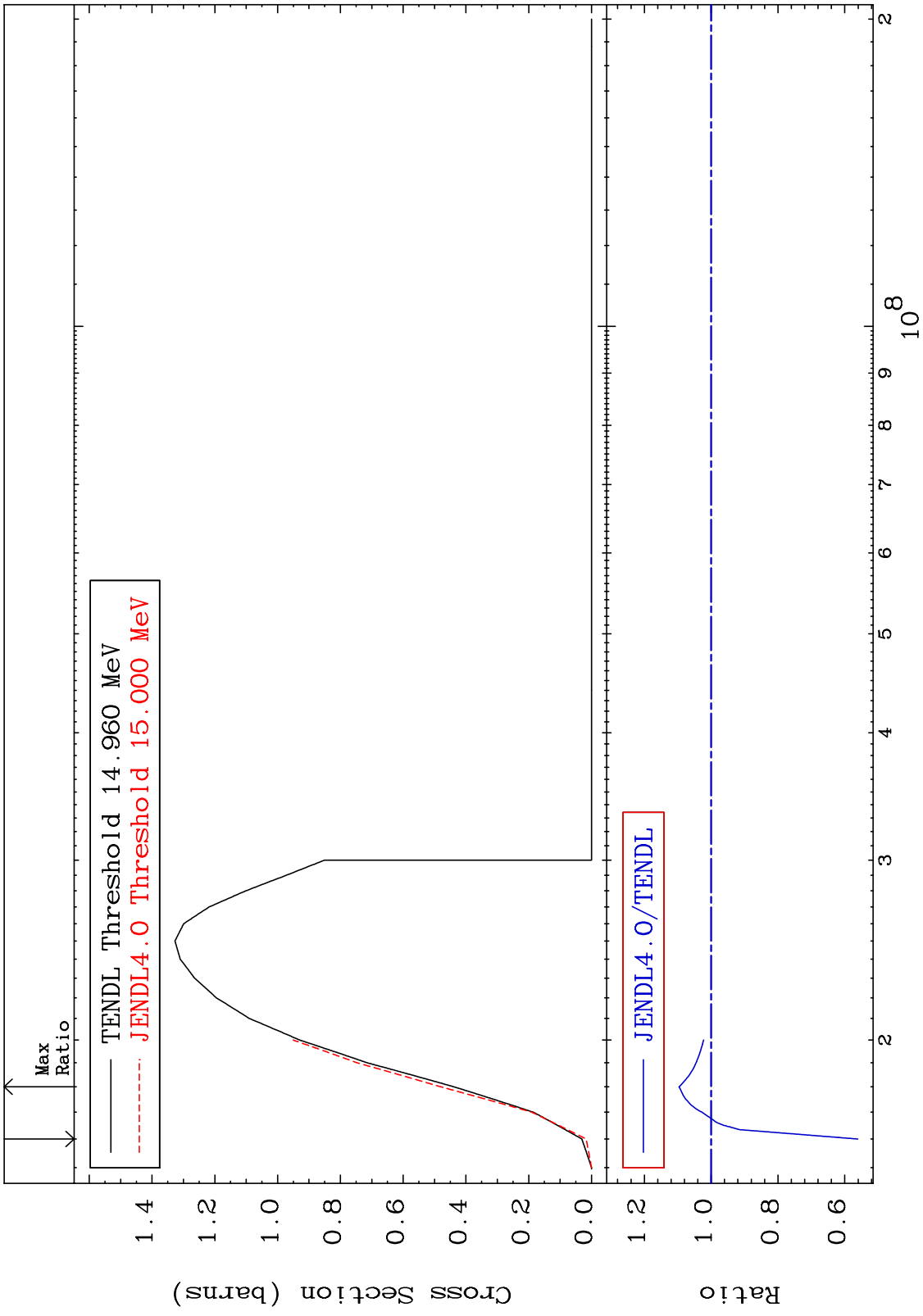
MAT 7231 Inelastic Cross Section 72-Hf-176 -8.900 To 775.2 %



72-Hf-176

MAT 7231 (n,2n) Cross Section 72-Hf-176 To 36.97 %
 2.169





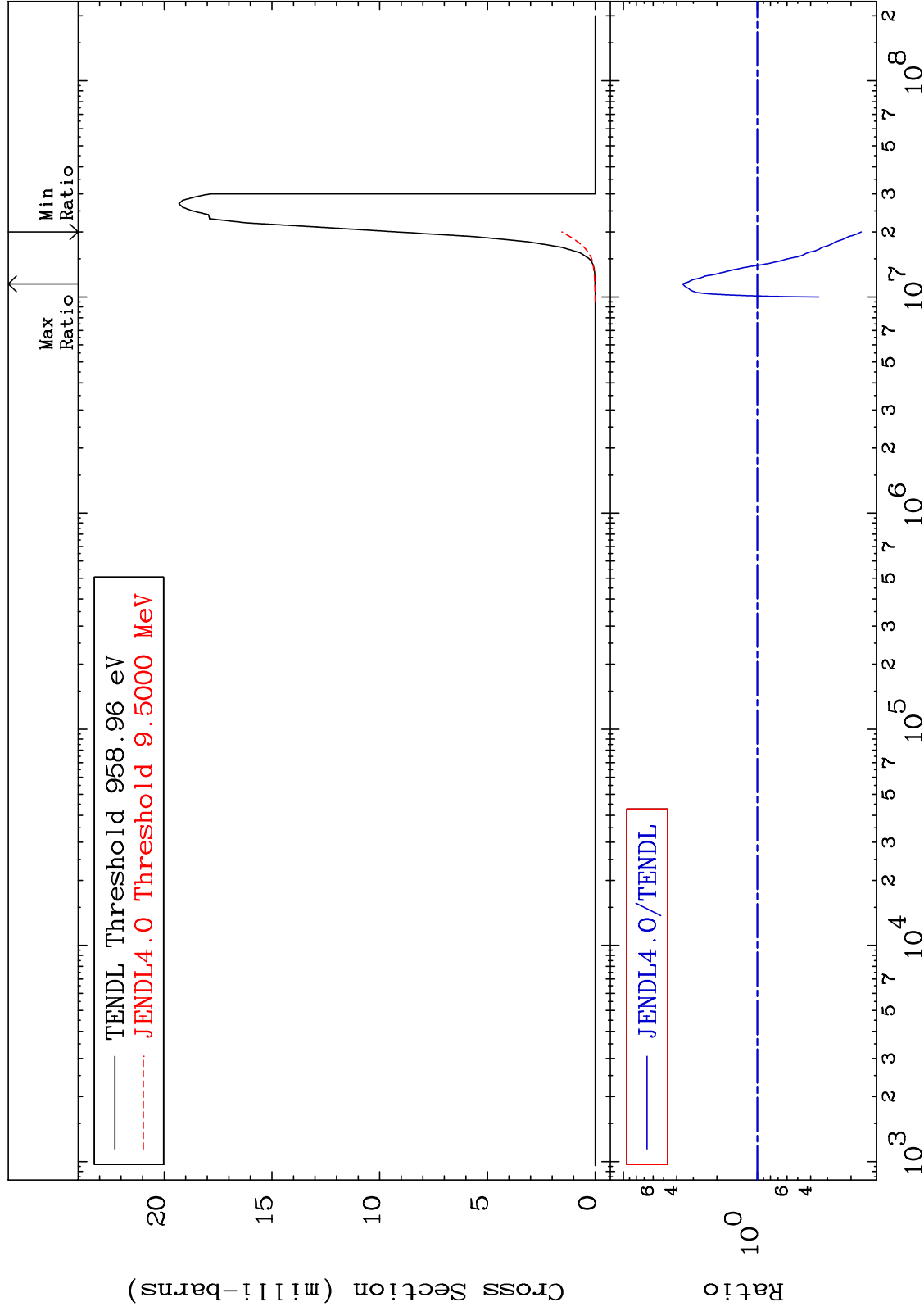
MAT 7231

(n, n') α

Cross Section

72-Hf-176

-83.26 To 260.8 %



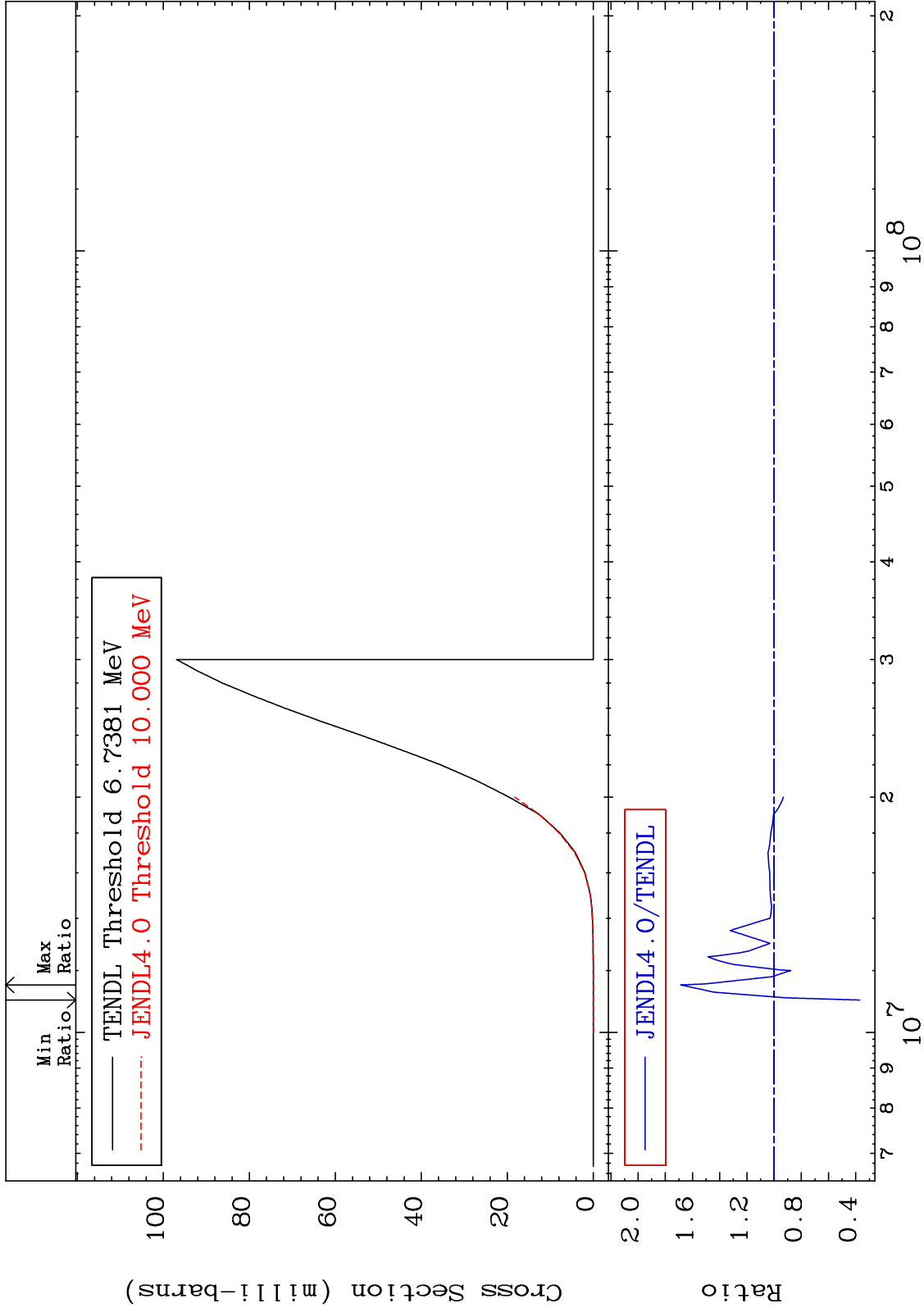
72-Hf-176

72-Hf-176

MAT 7231

(n,n') p
Cross Section

72-Hf-176
-62.88 To 68.60 %

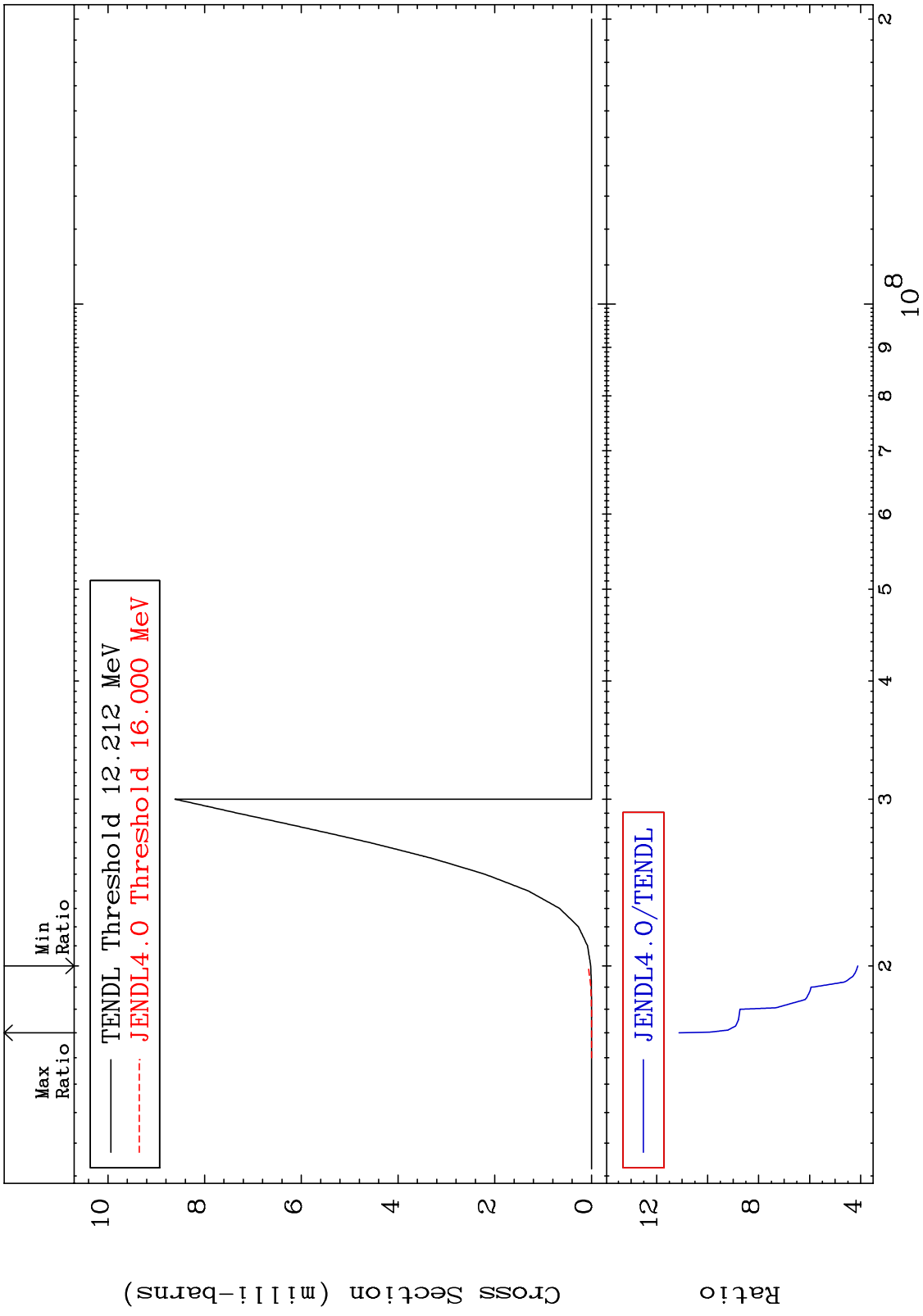


7

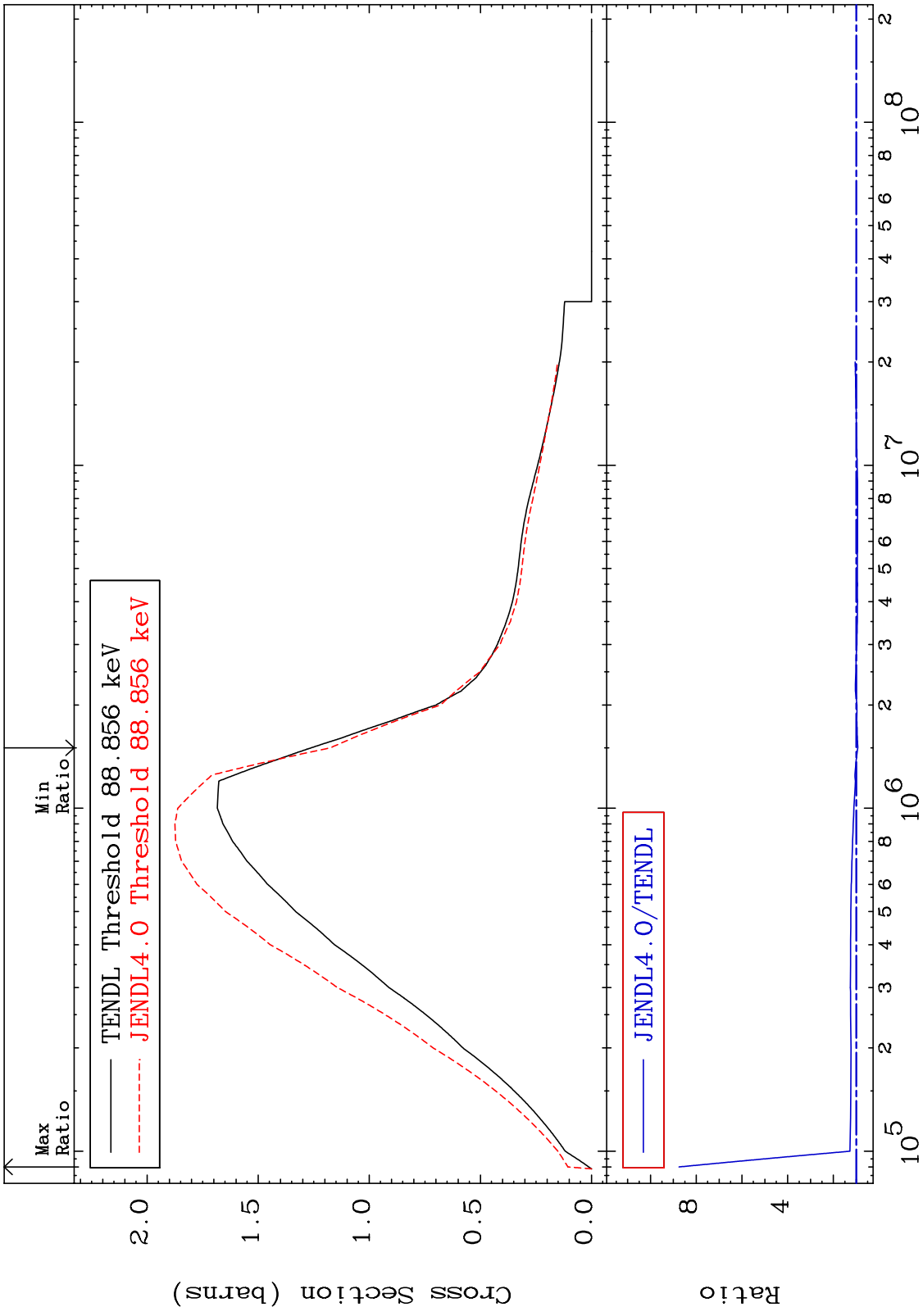
Incident Energy (eV)

72-Hf-176

MAT 7231 (n,n') d 72-Hf-176
 Cross Section 311.1 To 1012. %

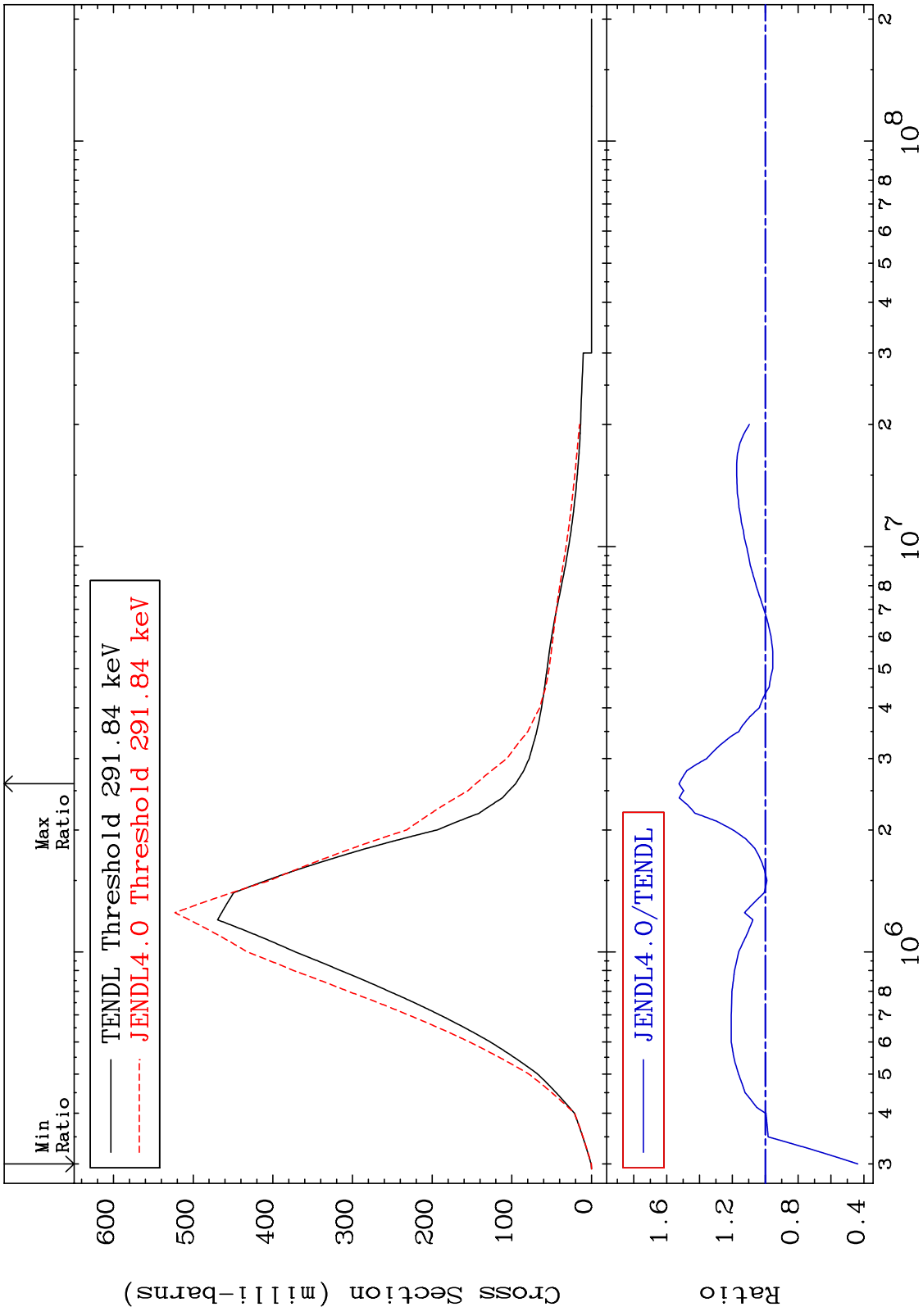


MAT 7231 MT= 51 (n,n') Level Cross Section 72-Hf-176 -6.828 To 775.2 %



Incident Energy (eV) 72-Hf-176

MAT 7231 MT= 52 (n,n') Level Cross Section 72-Hf-176
 -56.36 To 52.47 %

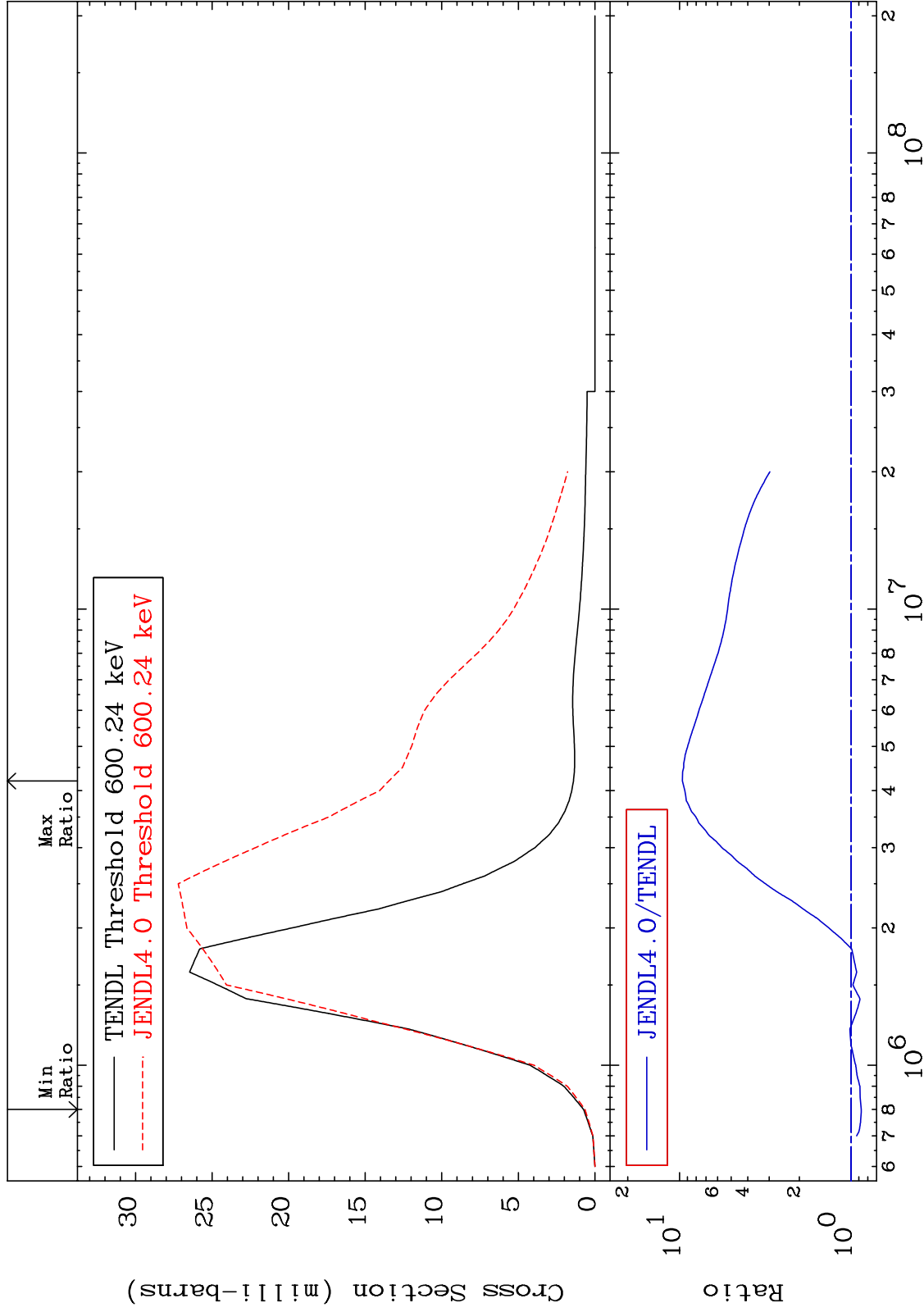


10 Incident Energy (eV) 72-Hf-176

MAT 7231

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

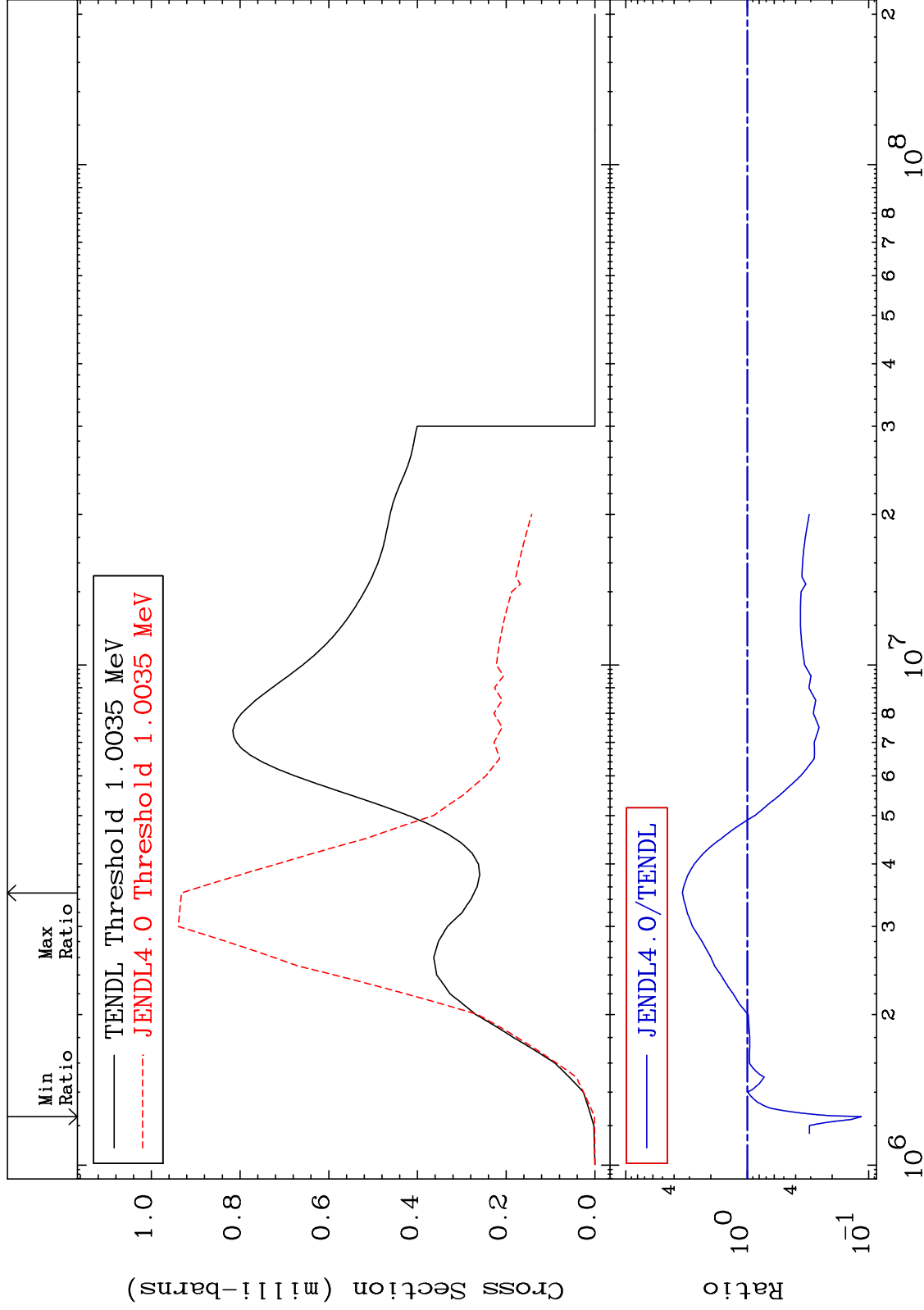
72-Hf-176
-12.79 To 860.5 %



MAT 7231

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

72-Hf-176
-88.48 To 241.8 %

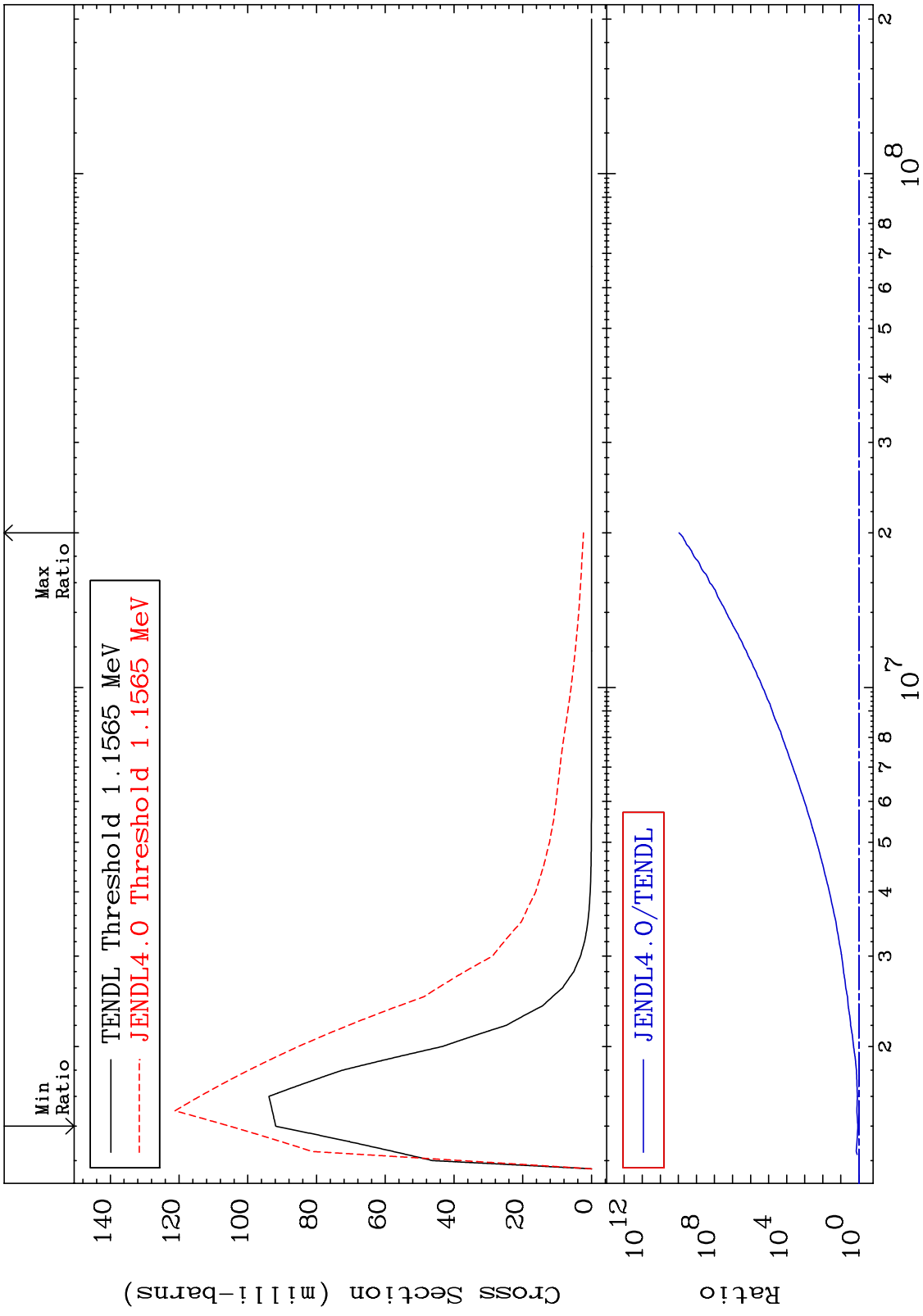


12

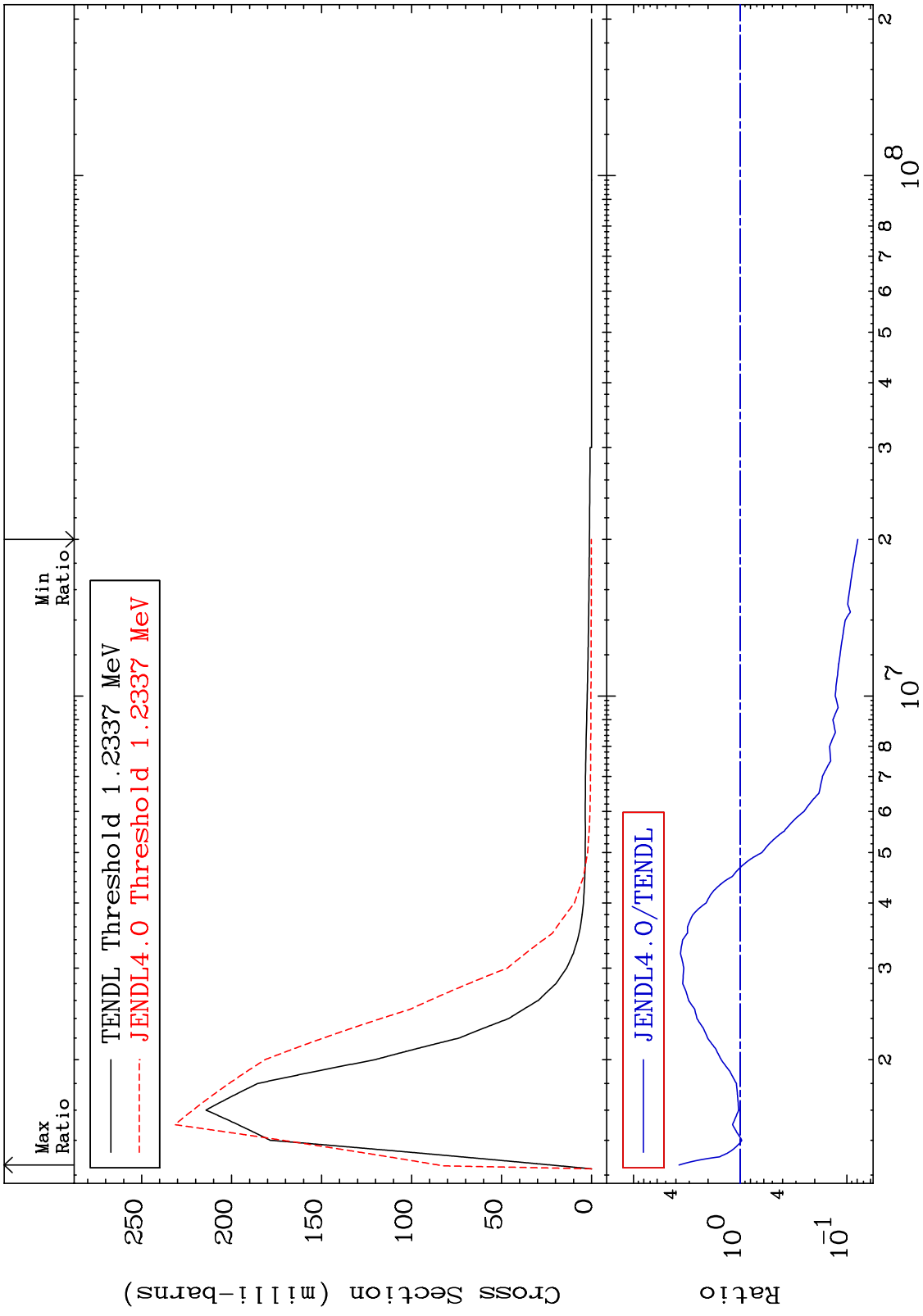
Incident Energy (eV)

72-Hf-176

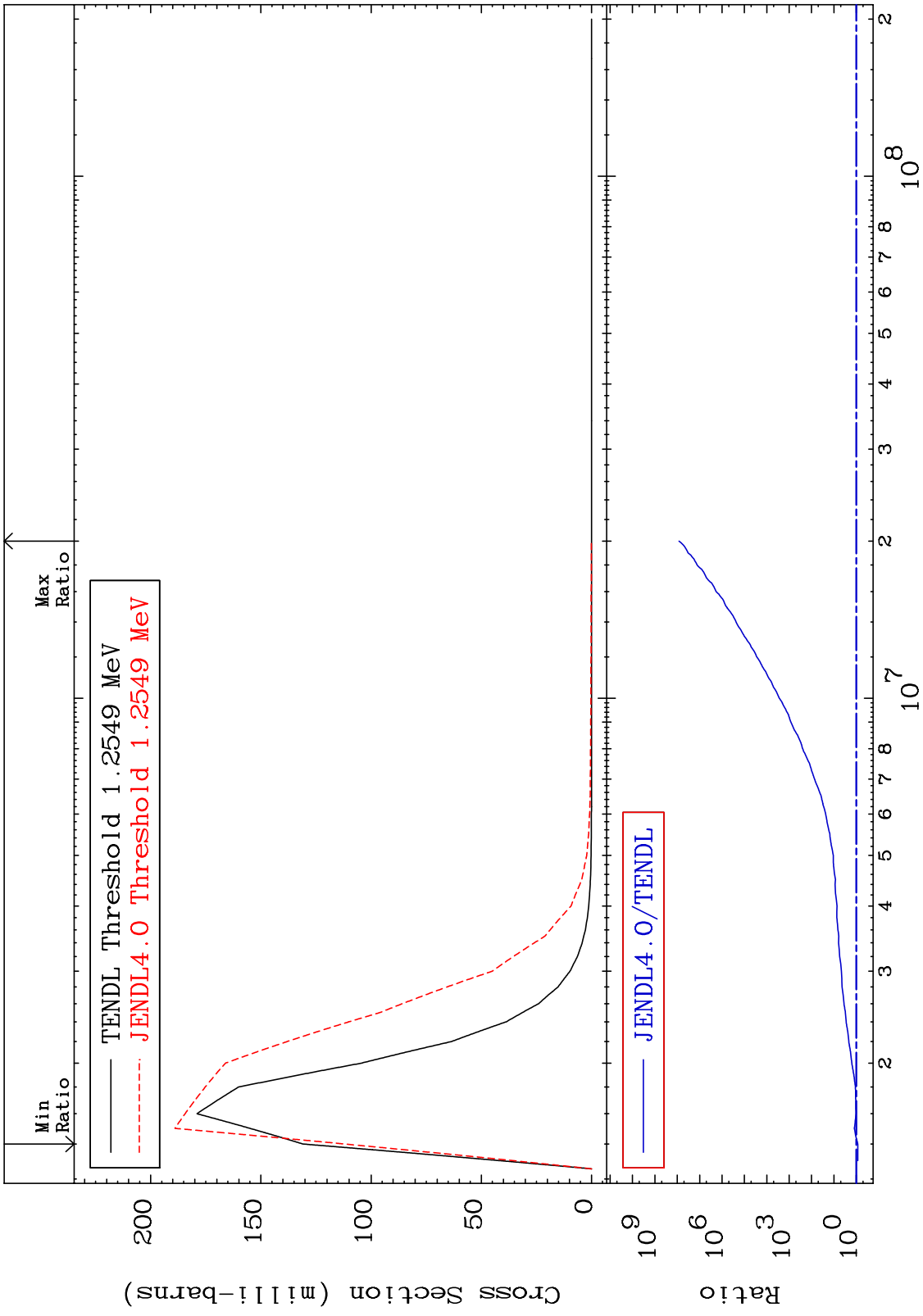
MAT 7231 MT= 55 (n,n') Level Cross Section 72-Hf-176 14.52 To 9999. %



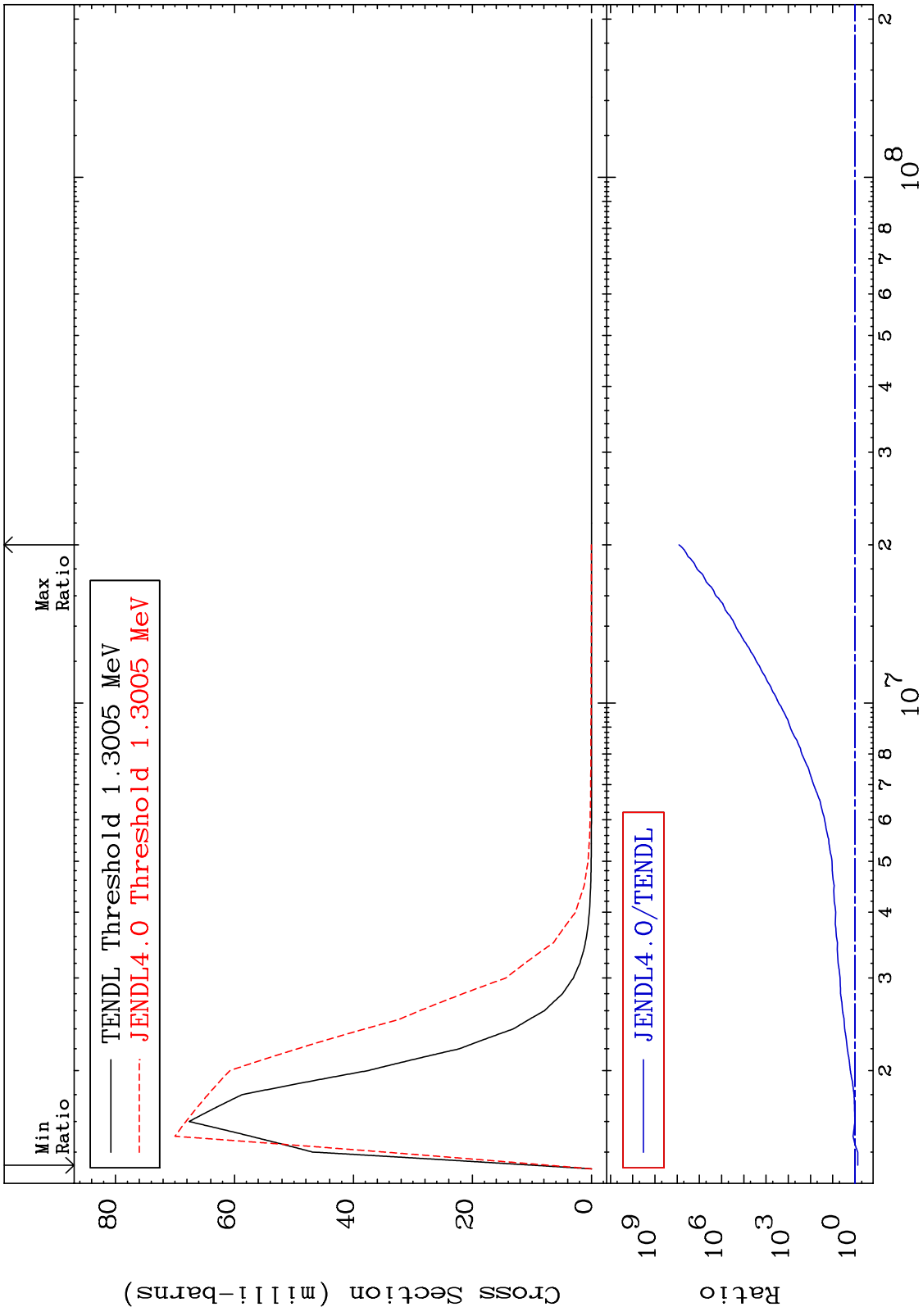
MAT 7231 MT= 56 (n,n') Level Cross Section 72-Hf-176 -92.10 To 274.5 %



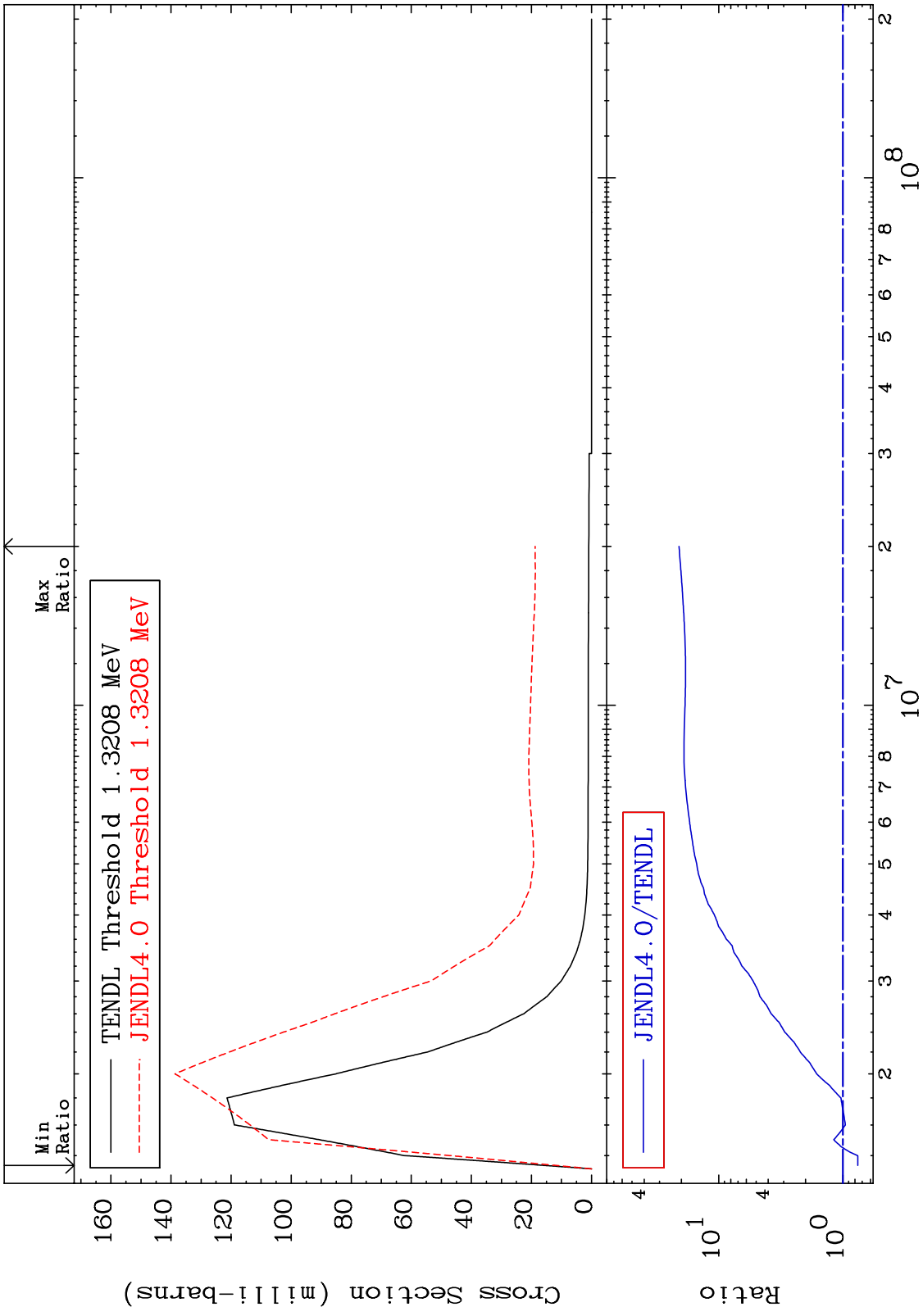
MAT 7231 MT= 57 (n,n') Level Cross Section -14.51 To 9999. % 72-Hf-176



MAT 7231 MT= 58 (n,n') Level Cross Section 72-Hf-176
 -25.62 To 9999. %



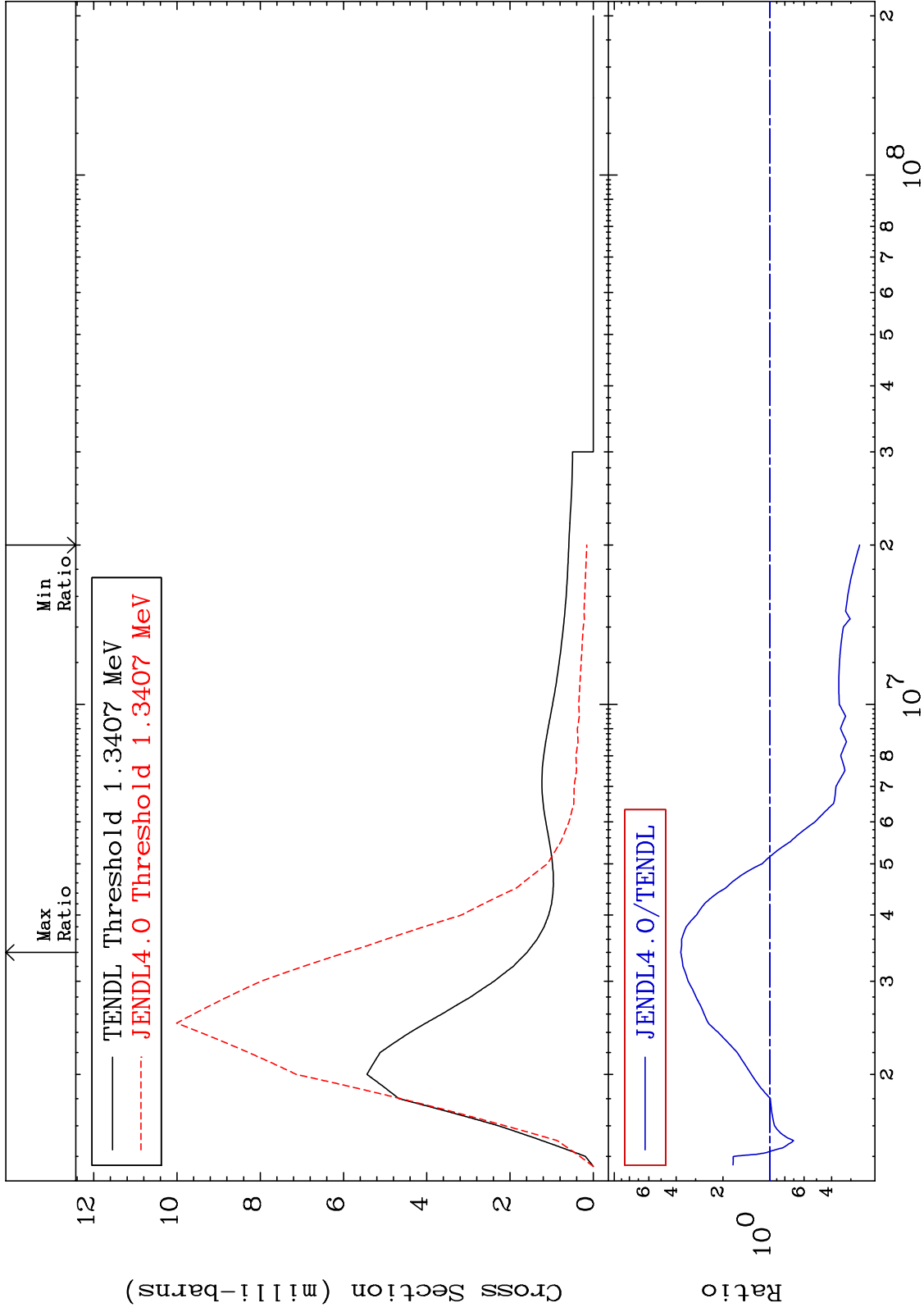
MAT 7231 MT= 59 (n,n') Level Cross Section 72-Hf-176 -24.05 To 1993. %



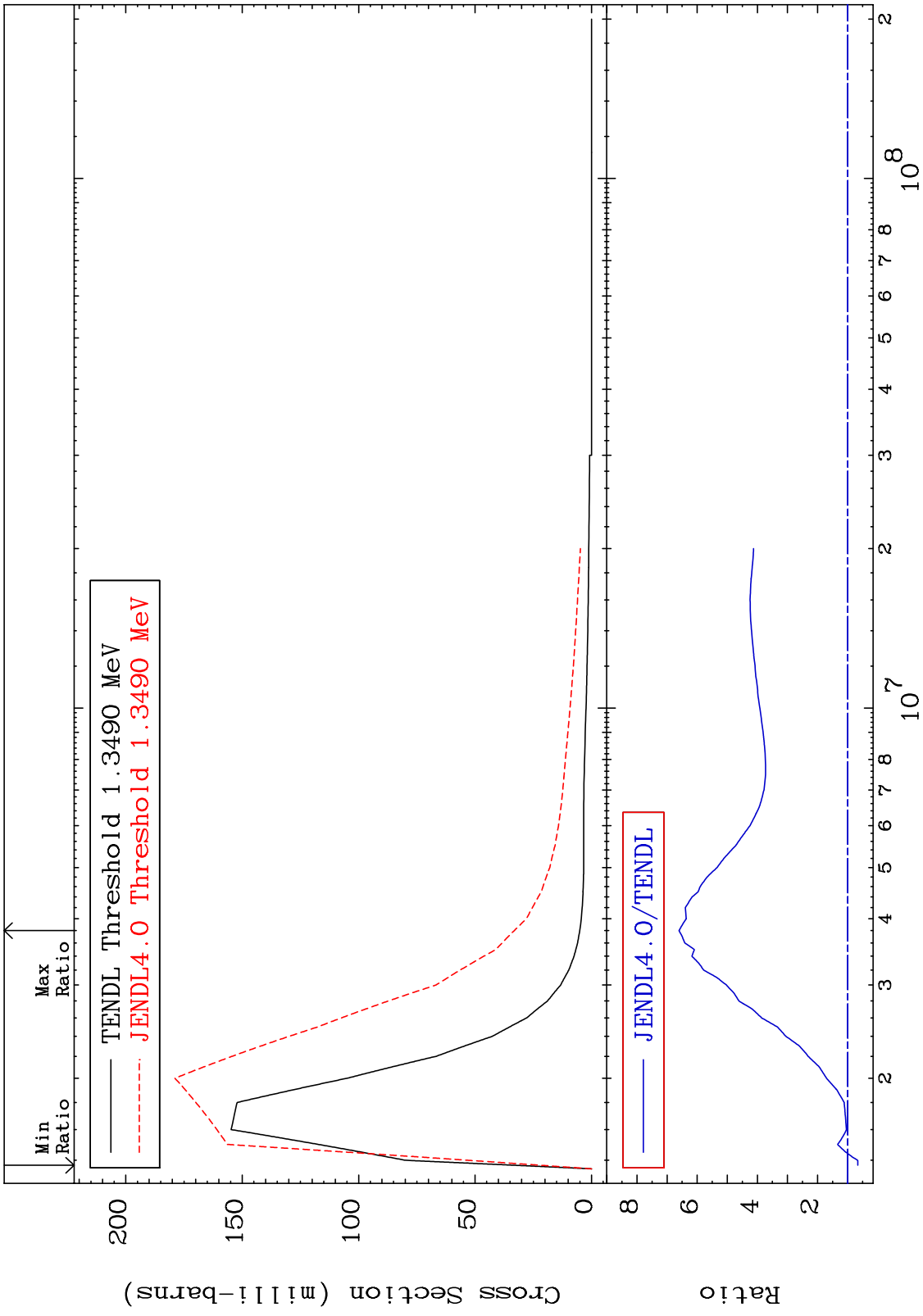
MAT 7231

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

72-Hf-176
-73.64 To 273.5 %



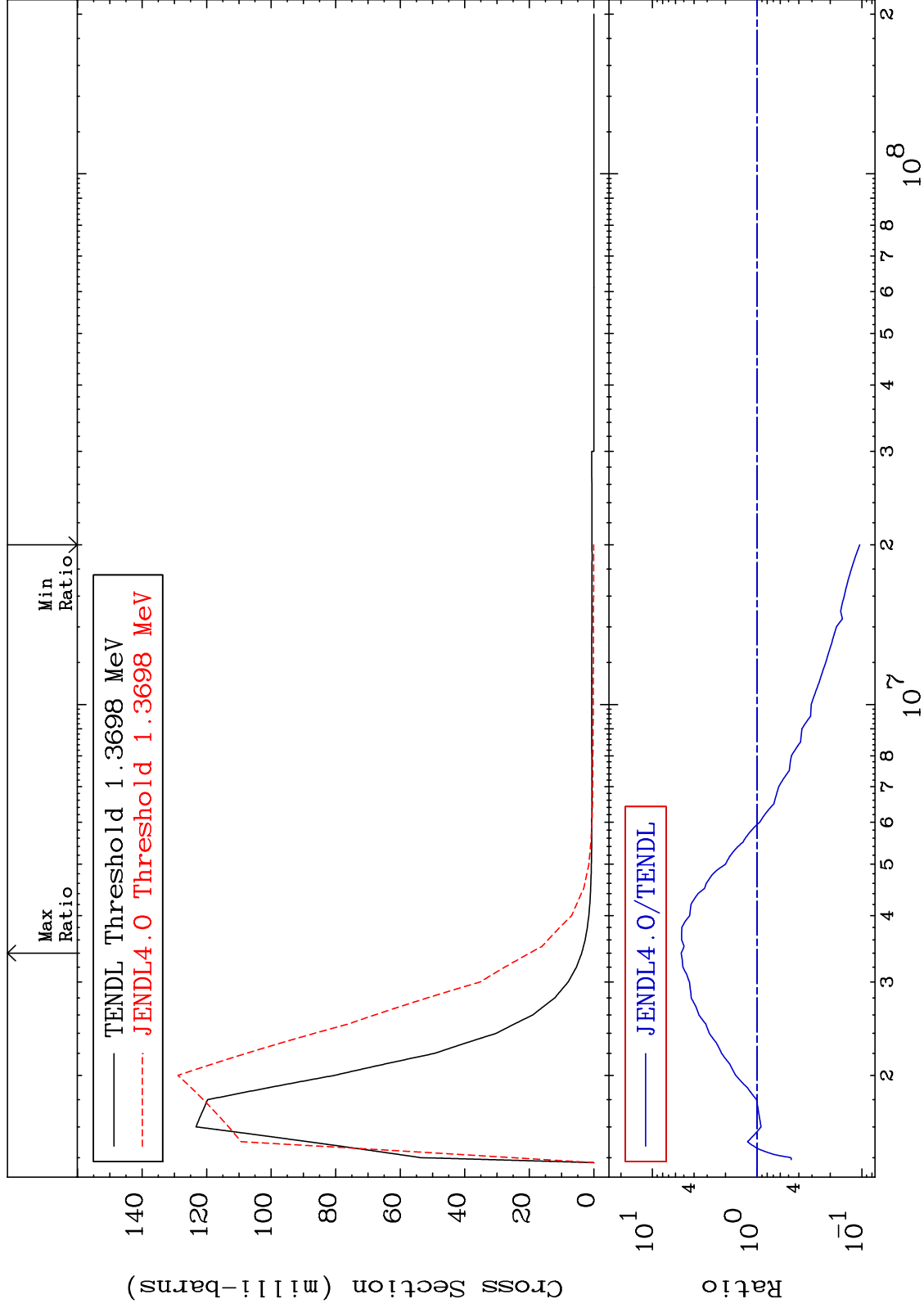
MAT 7231 MT= 61 (n,n') Level Cross Section 72-Hf-176 -33.85 To 560.3 %



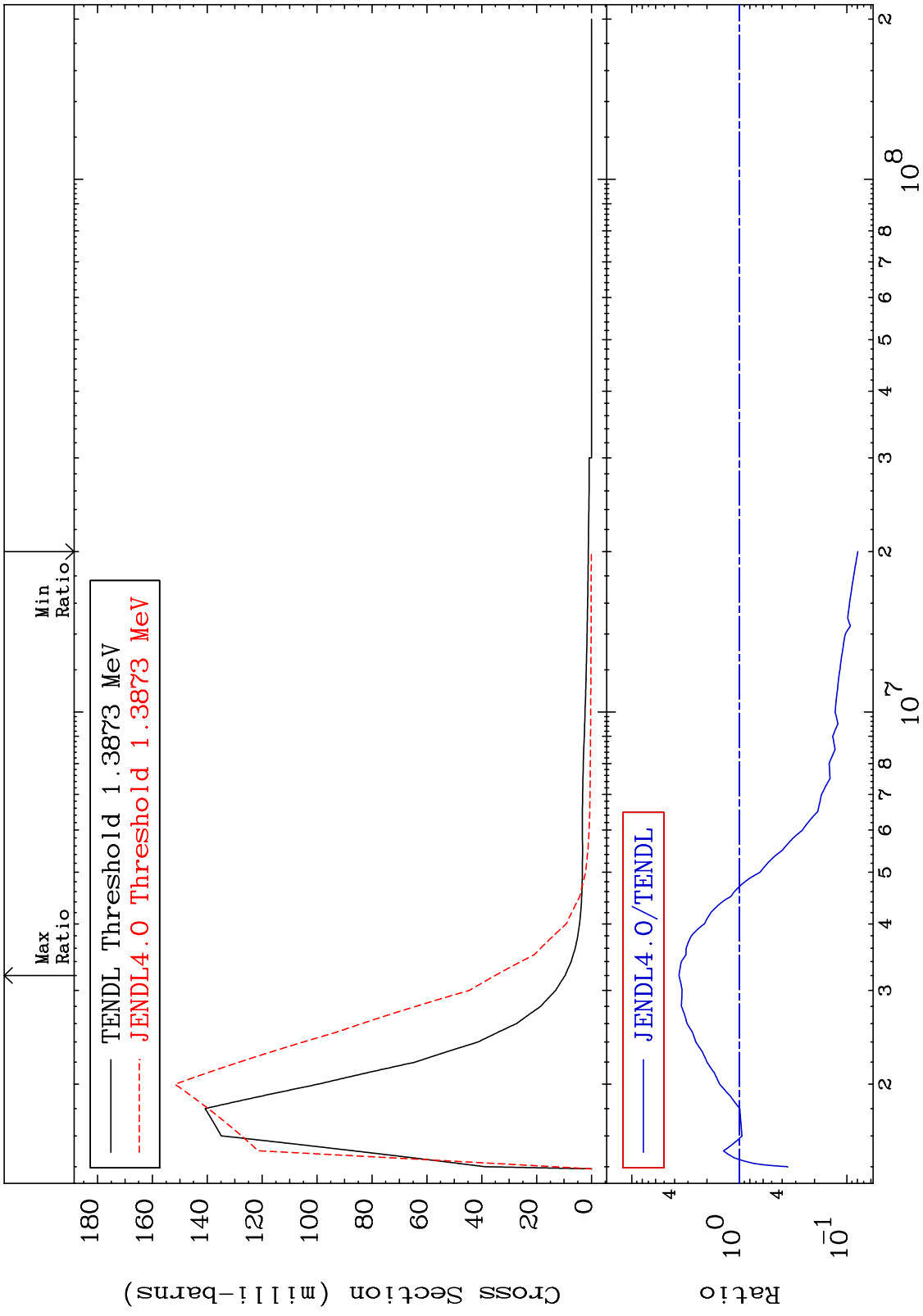
MAT 7231

MT= 62 (n,n') Level
Cross Section

72-Hf-176
-89.54 To 430.0 %



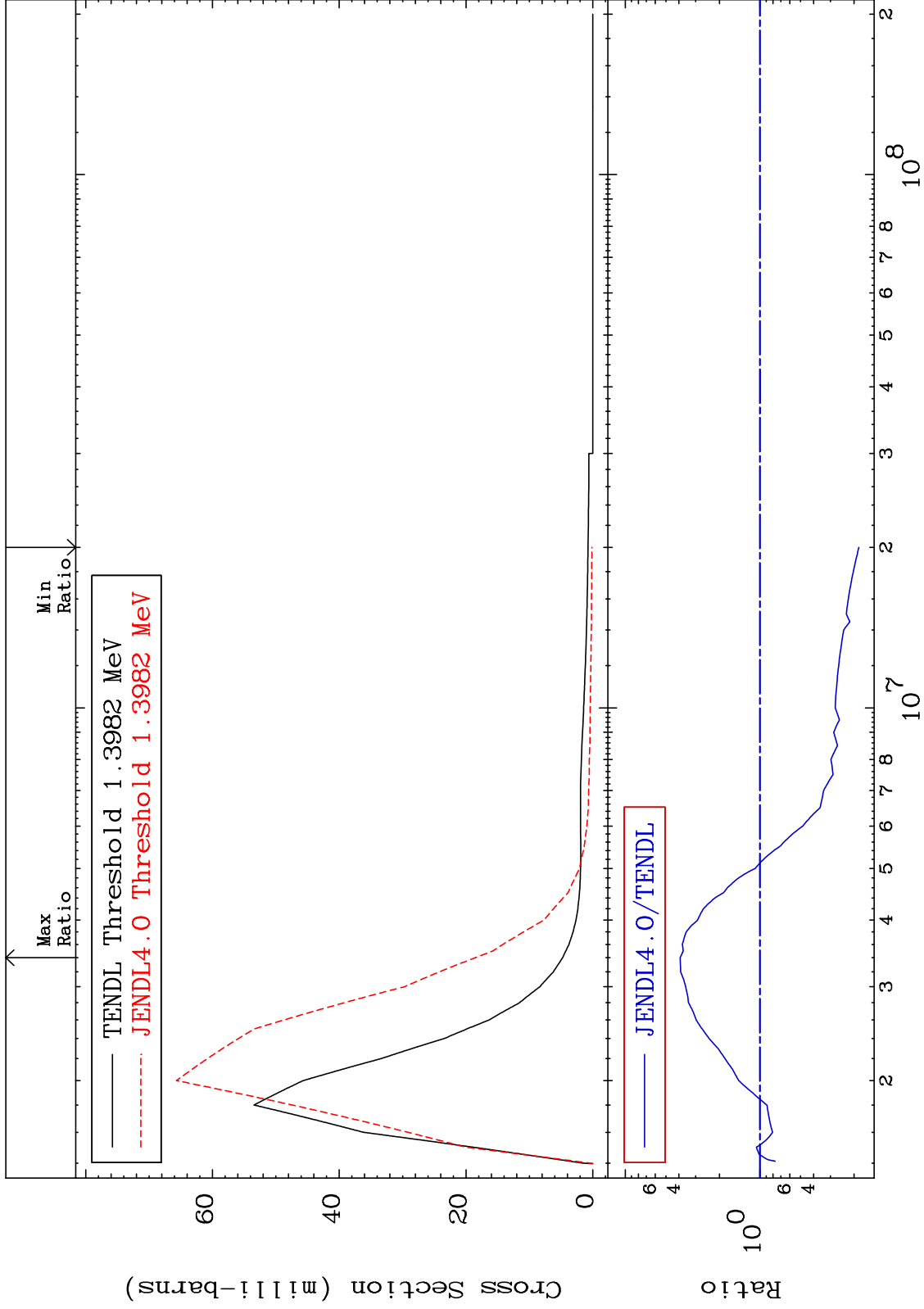
MAT 7231 MT= 63 (n,n') Level Cross Section 72-Hf-176 -92.08 To 263.7 %



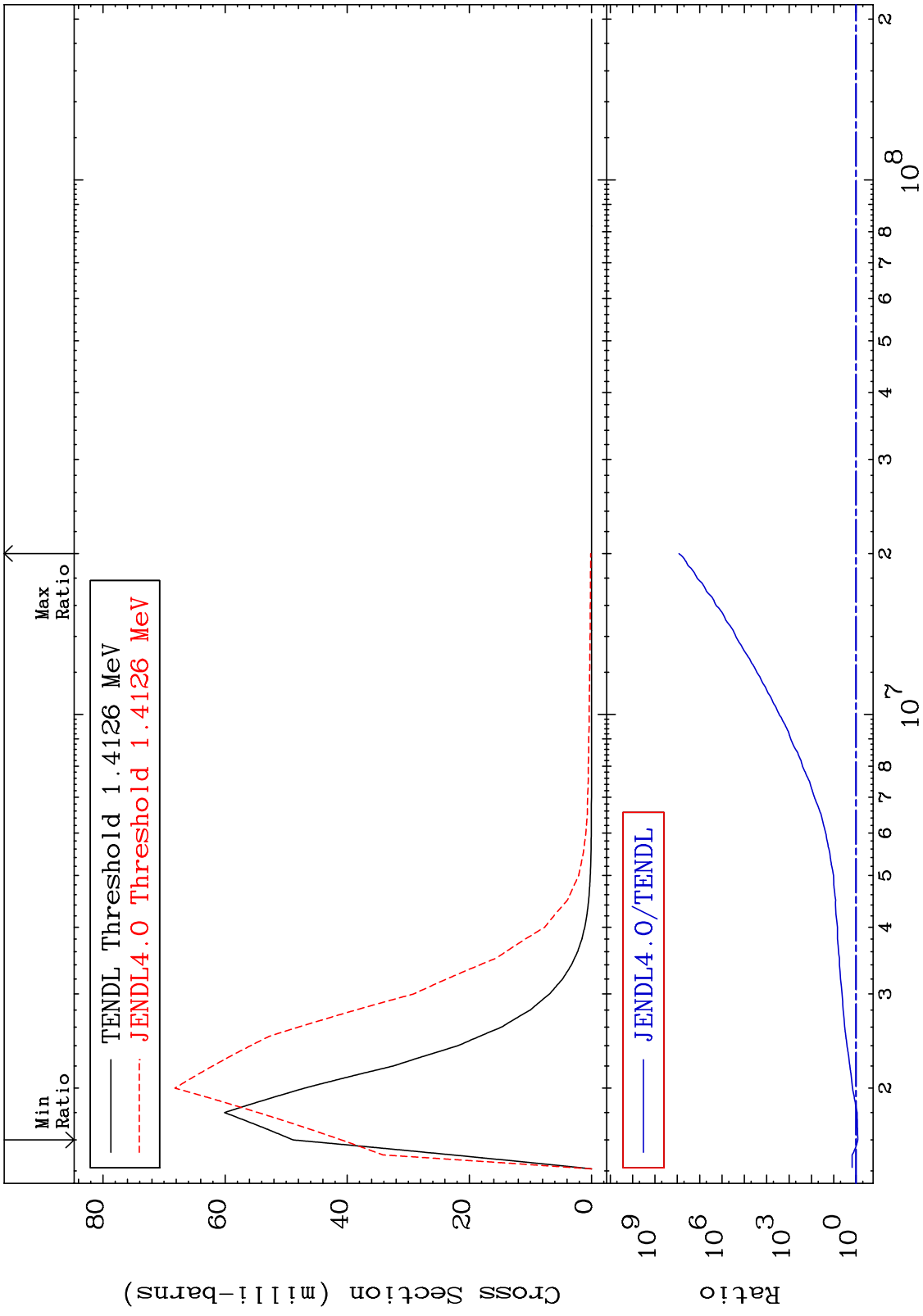
MAT 7231

MT= 64 (n,n') Level
Cross Section

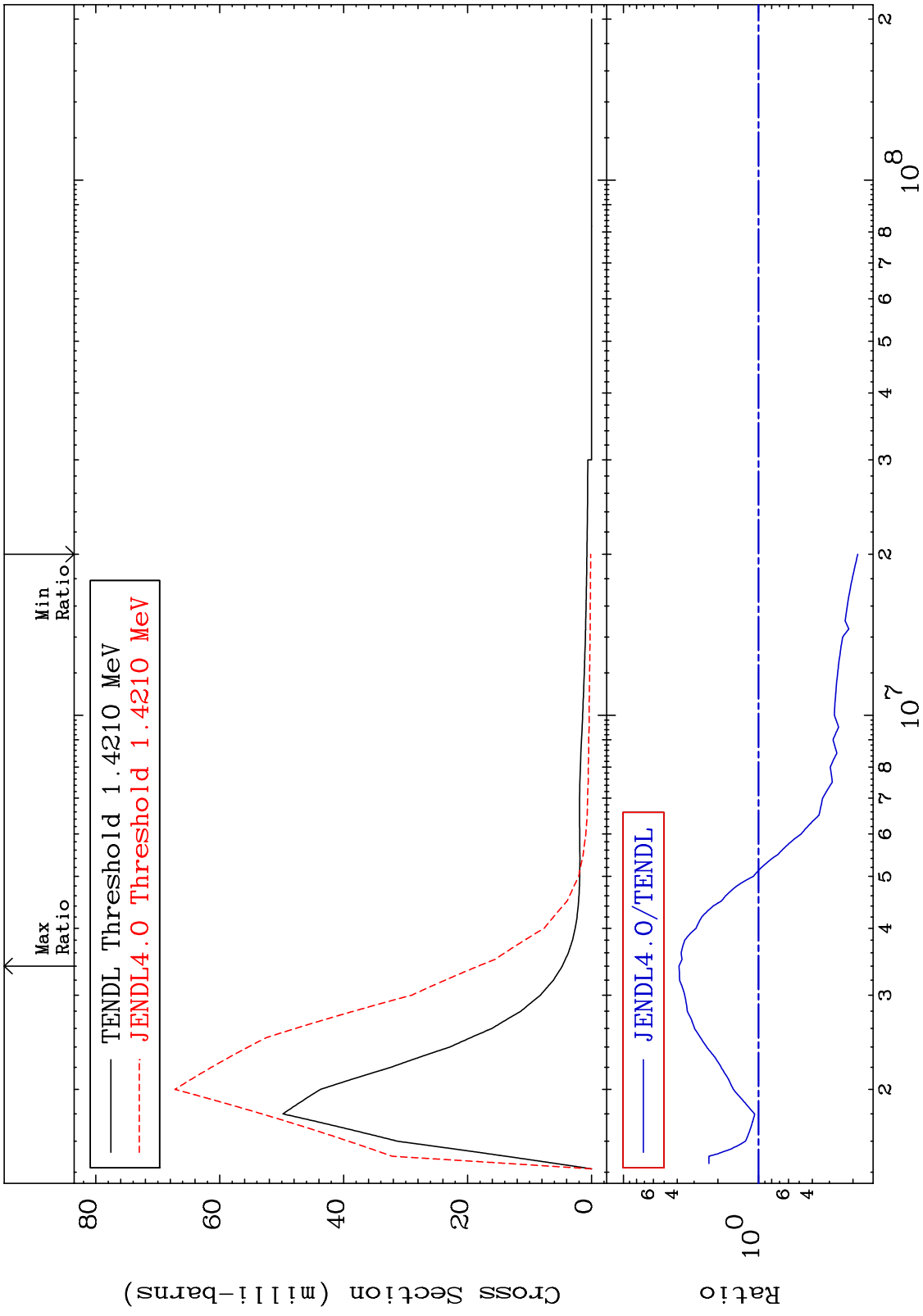
72-Hf-176
-81.57 To 291.2 %



MAT 7231 MT= 65 (n,n') Level Cross Section 72-Hf-176
 -16.15 To 9999. %



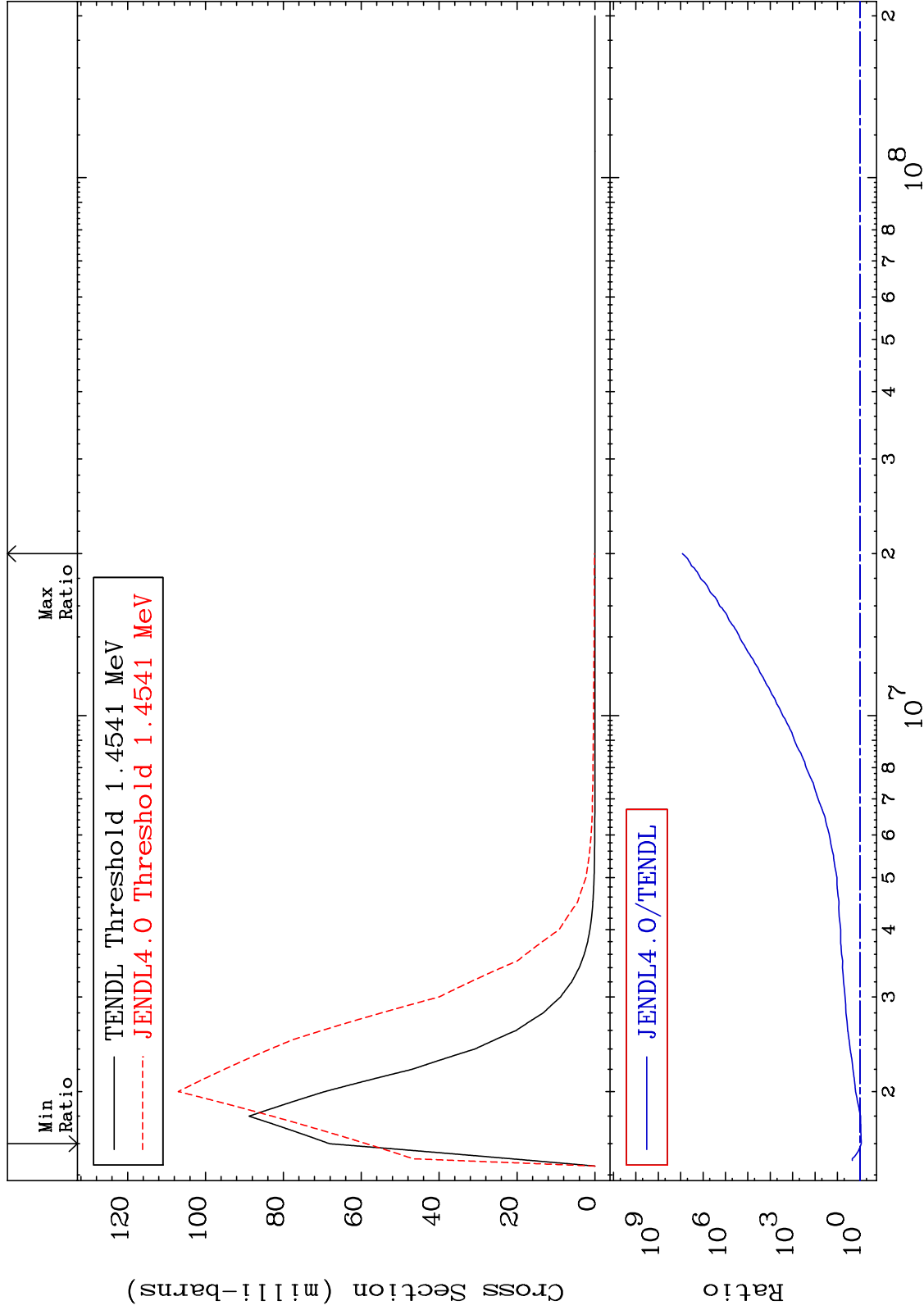
MAT 7231 MT= 66 (n,n') Level Cross Section 72-Hf-176 -81.56 To 287.8 %



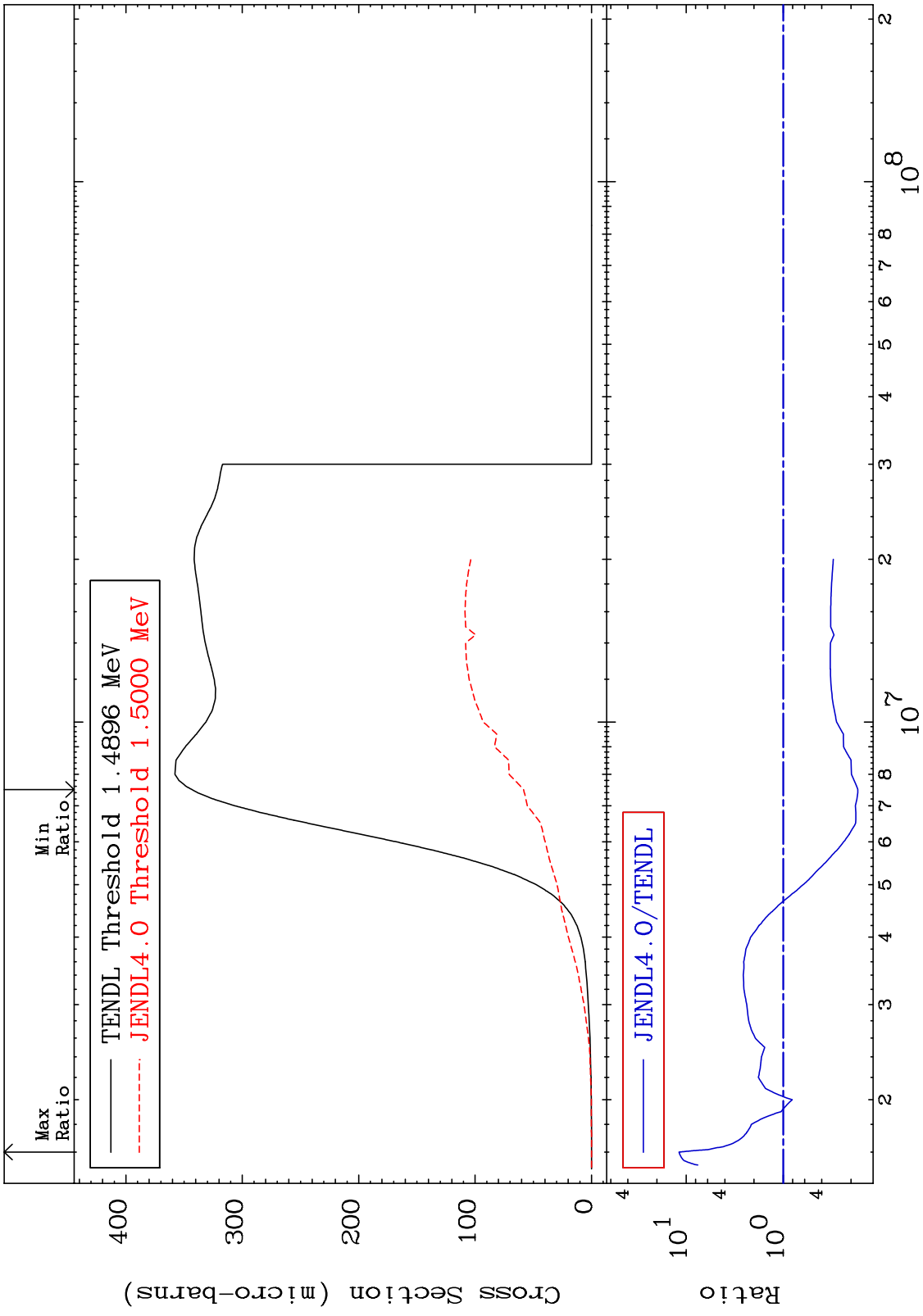
MAT 7231

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

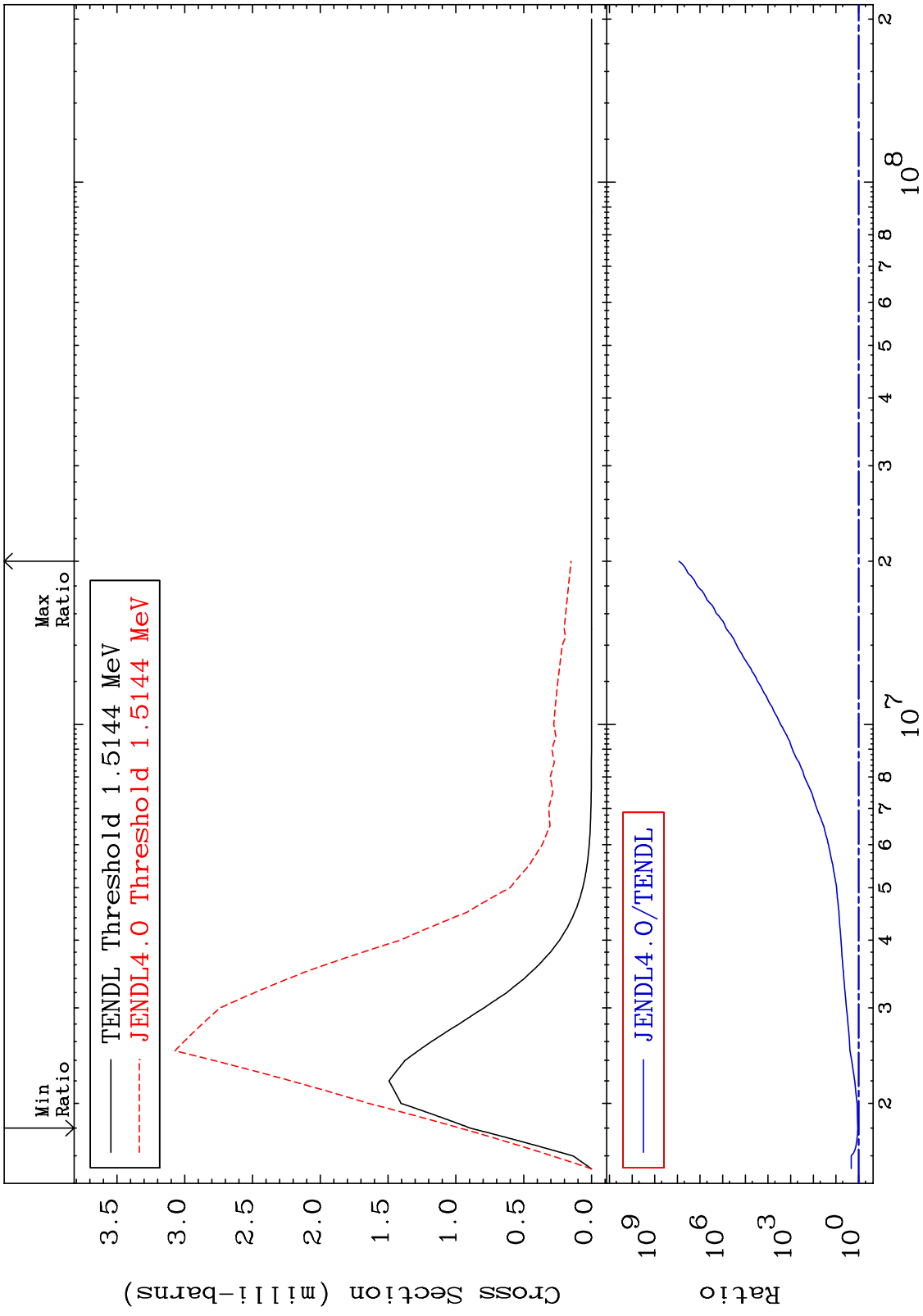
72-Hf-176
-13.85 To 9999. %



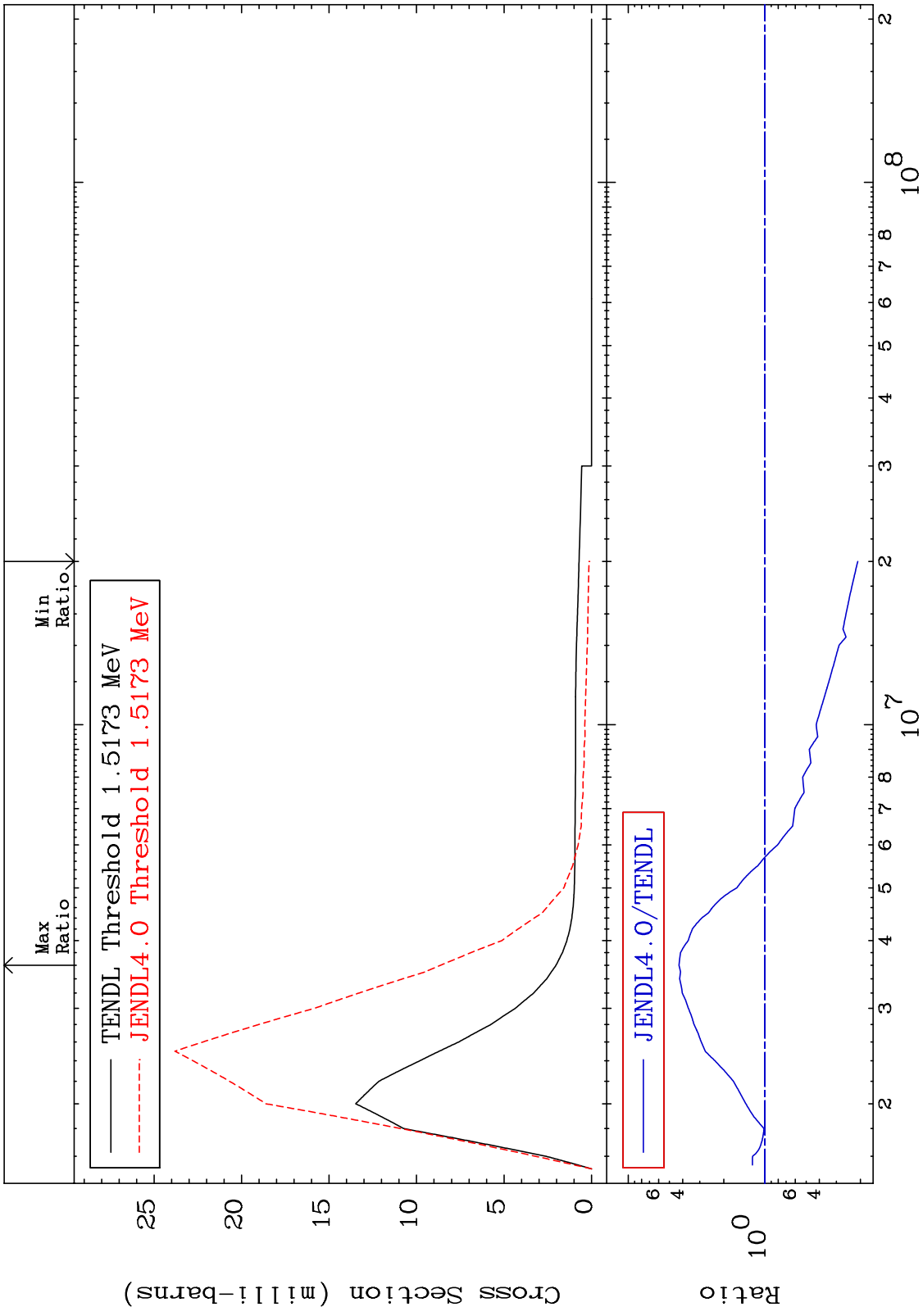
MAT 7231 MT= 68 (n,n') Level Cross Section 72-Hf-176
 -83.02 To 1085. %



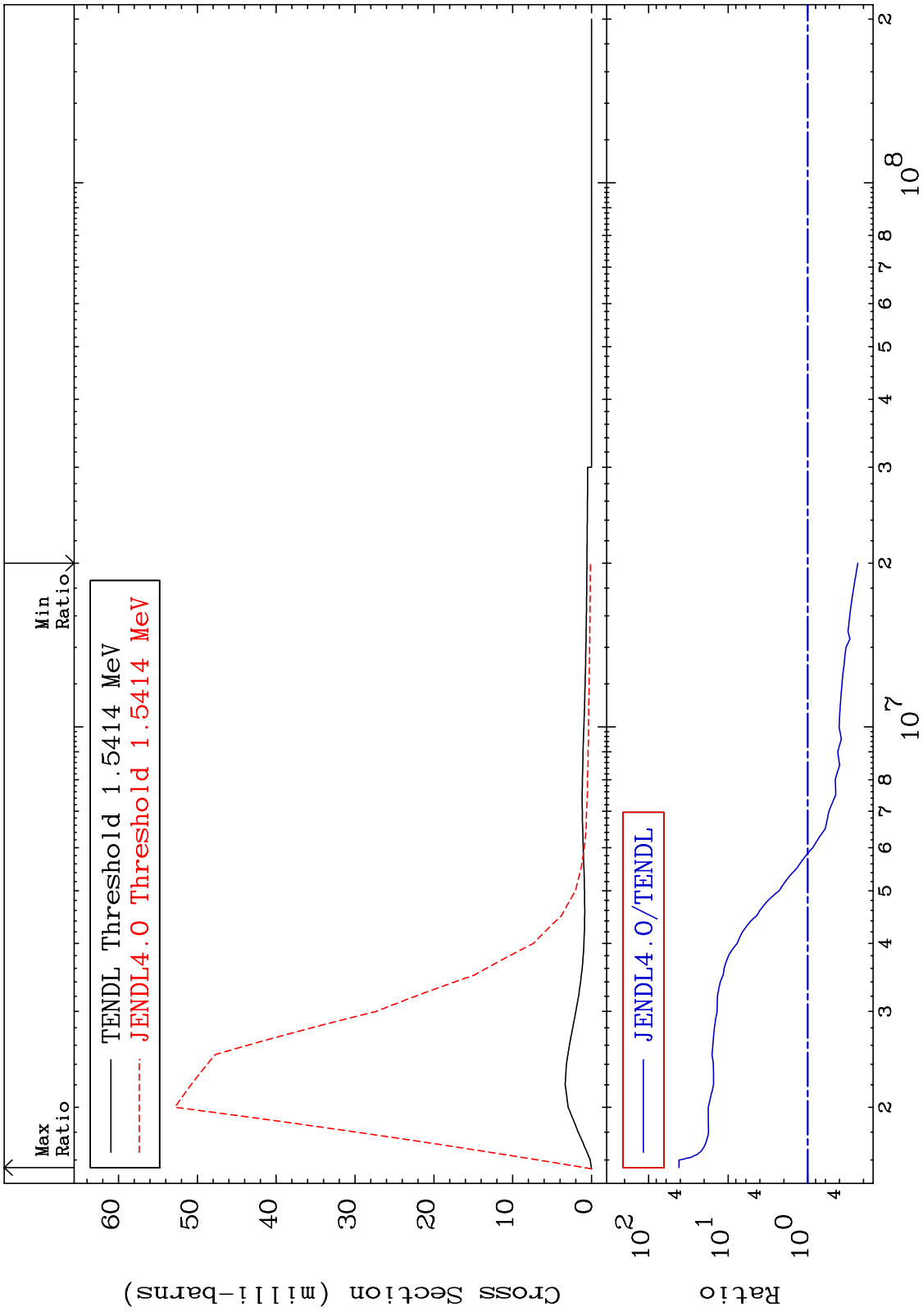
MAT 7231 MT= 69 (n,n') Level Cross Section 8.383 To 9999. % 72-Hf-176



MAT 7231 MT= 70 (n,n') Level Cross Section 72-Hf-176 -79.08 To 325.3 %



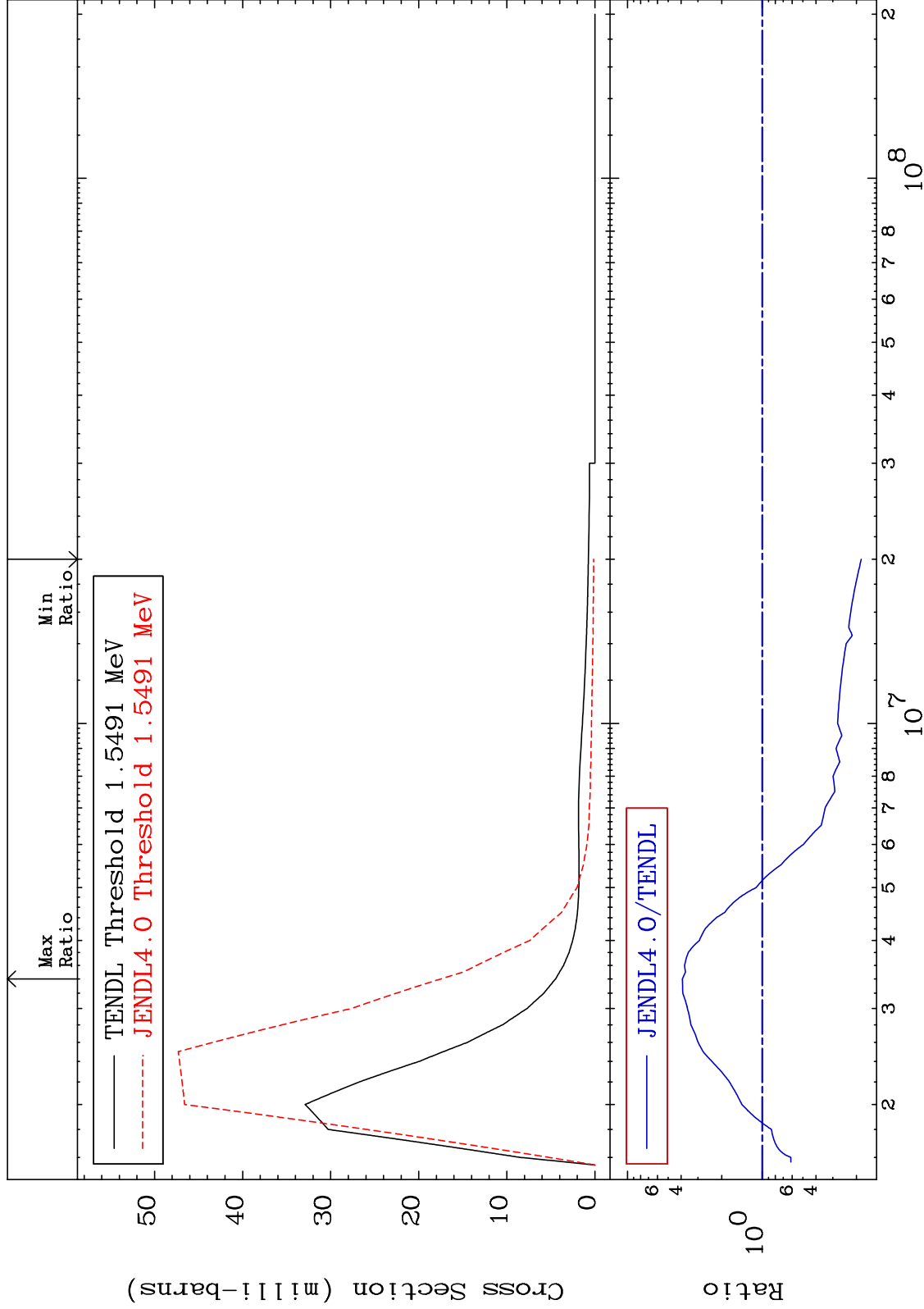
MAT 7231 MT= 71 (n,n') Level Cross Section 72-Hf-176 -76.47 To 4034. %



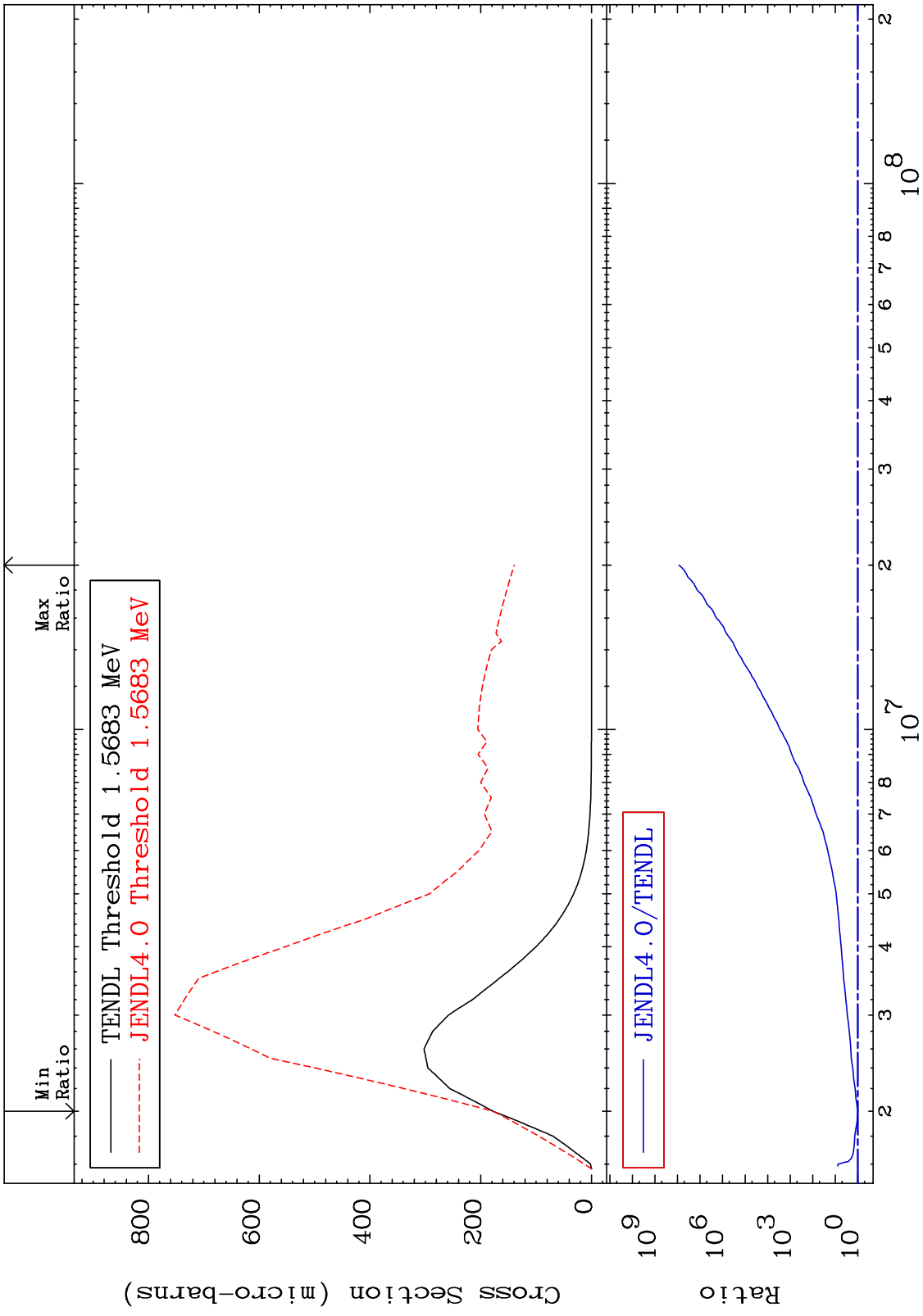
MAT 7231

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

72-Hf-176
-81.57 To 291.2 %



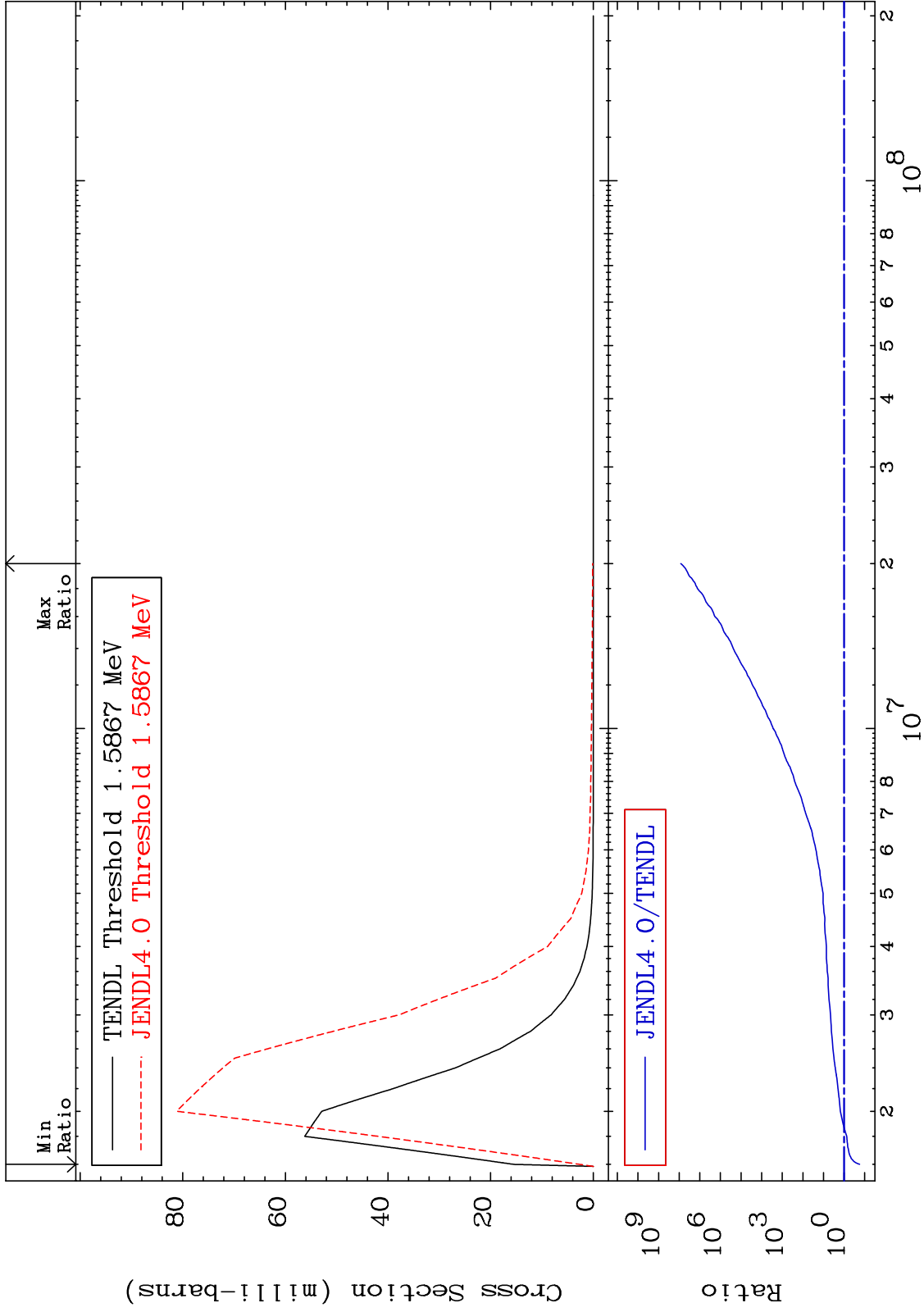
MAT 7231 MT= 73 (n,n') Level Cross Section 72-Hf-176
 -0.201 To 9999. %



MAT 7231

MT= 74 (n,n') Level
Cross Section

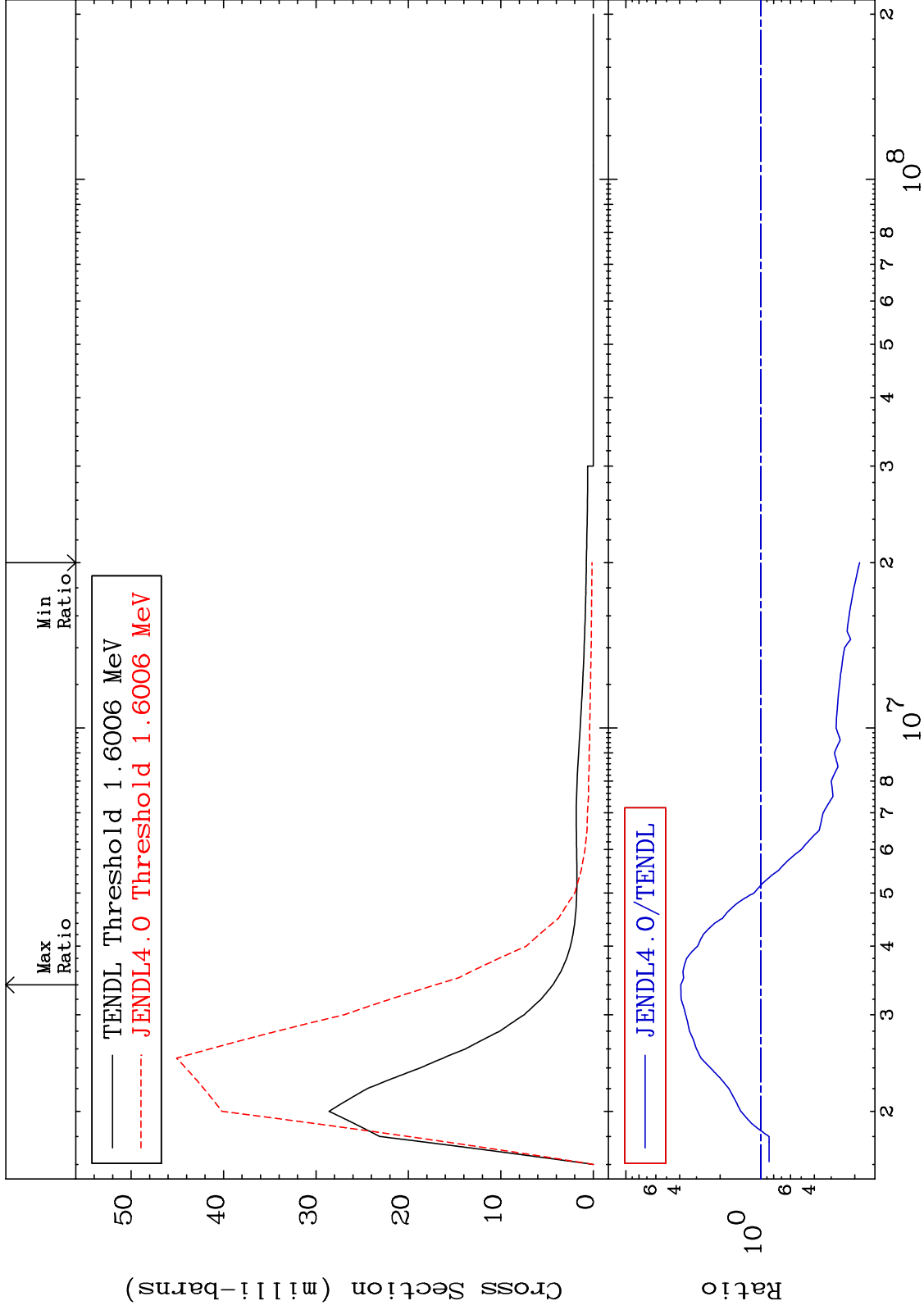
72-Hf-176
-82.35 To 9999. %



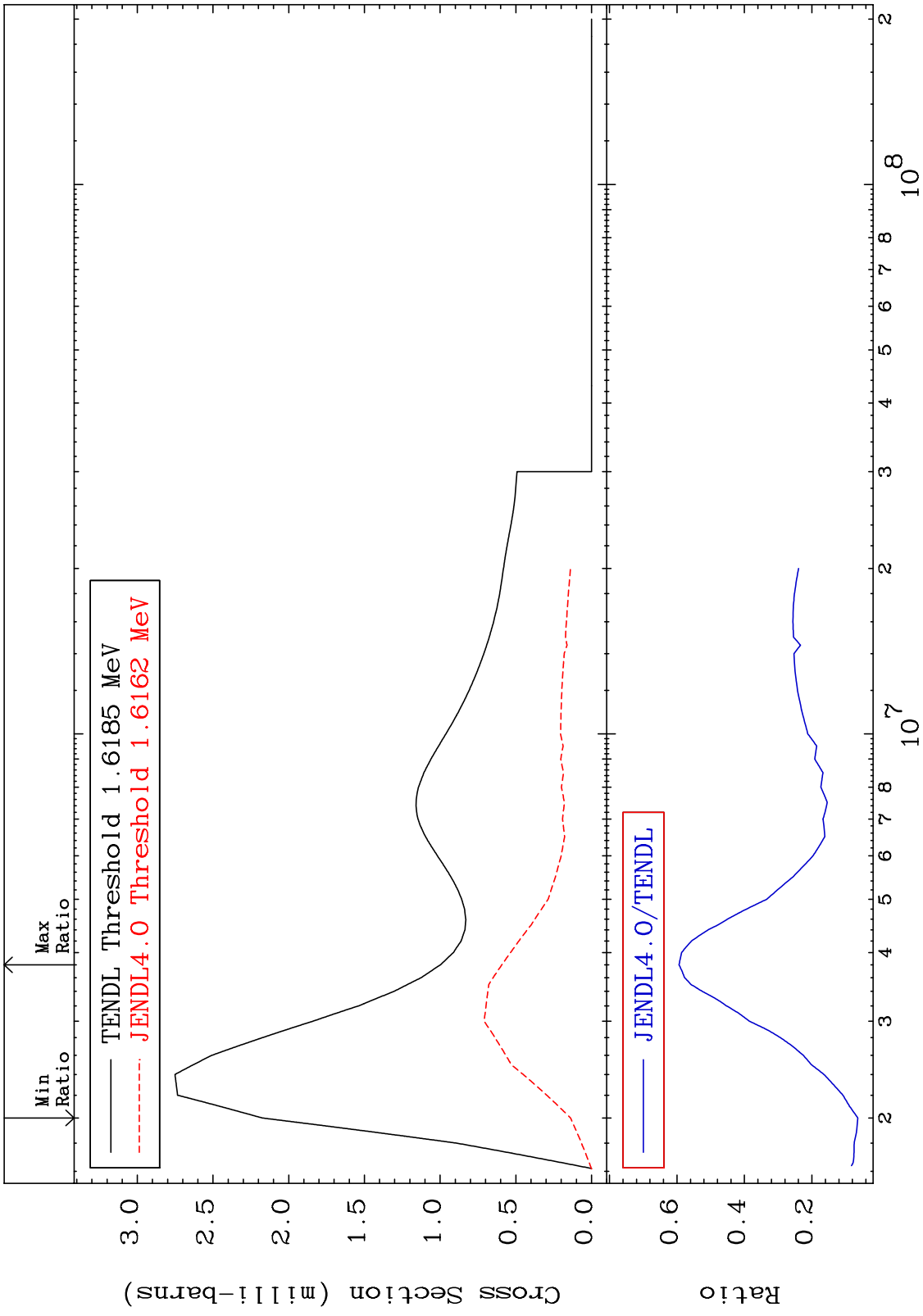
MAT 7231

MT= 75 (n,n') Level
Cross Section

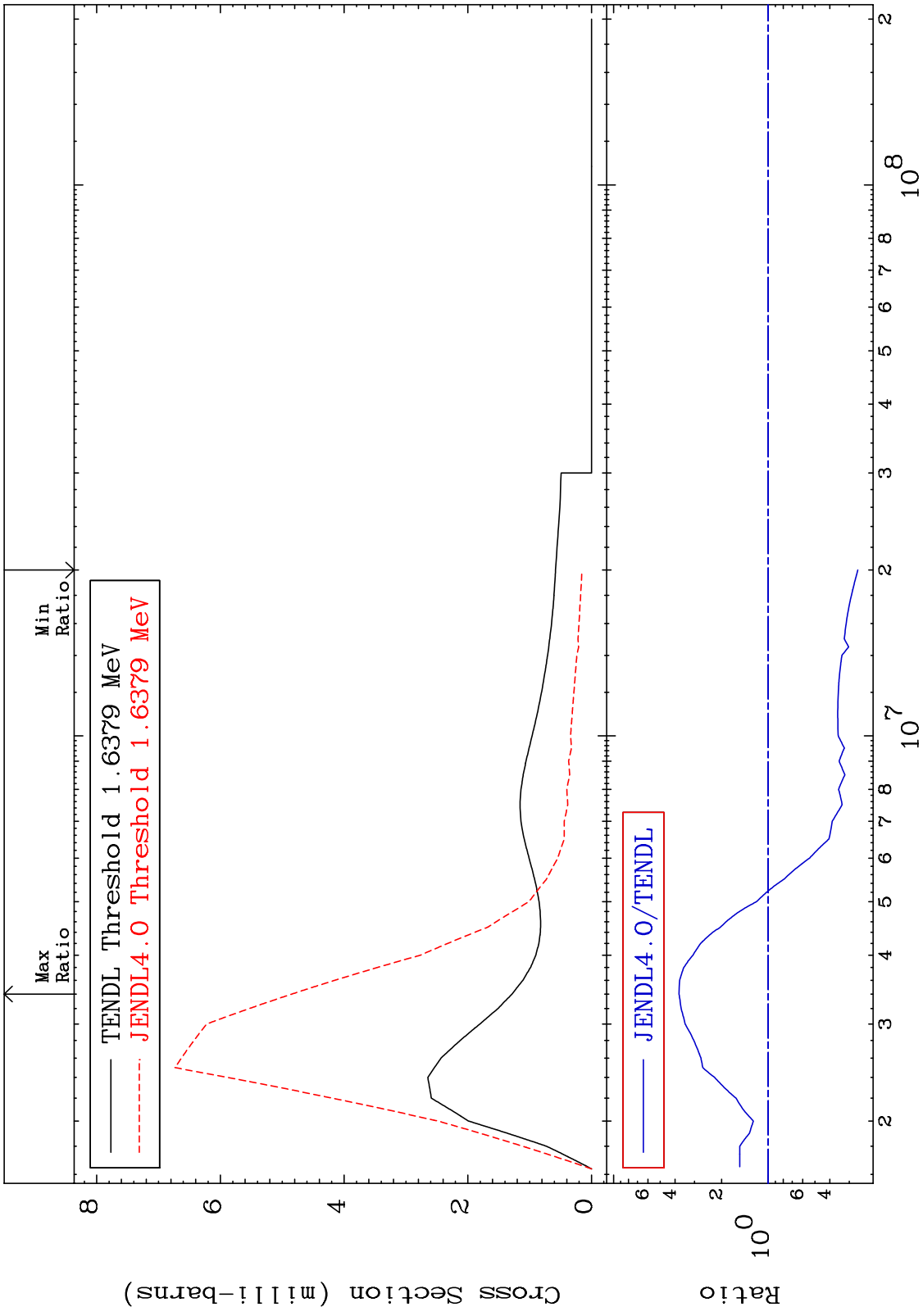
72-Hf-176
-81.57 To 291.5 %



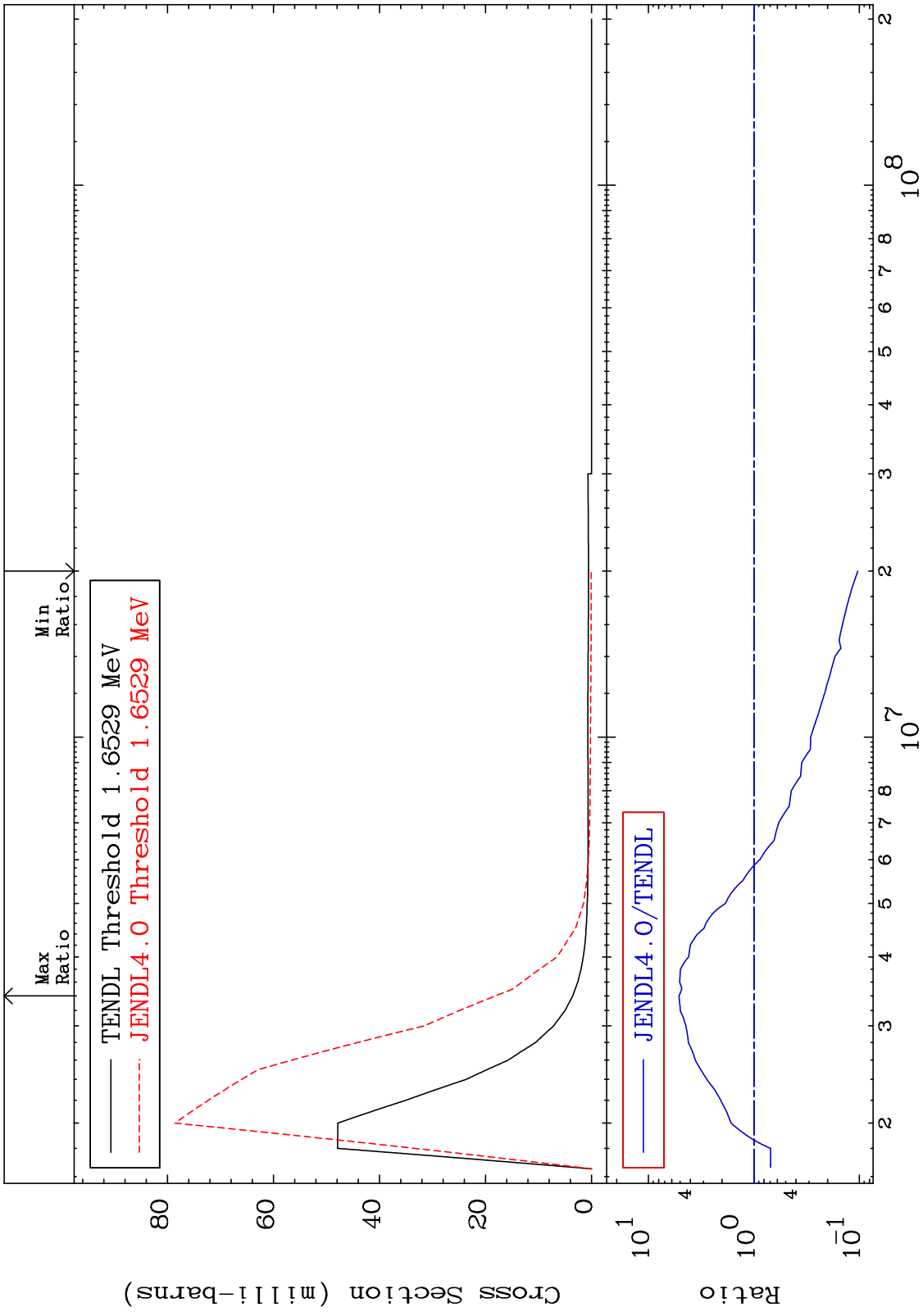
MAT 7231 MT= 76 (n,n') Level Cross Section 72-Hf-176 -93.61 To -40.62%



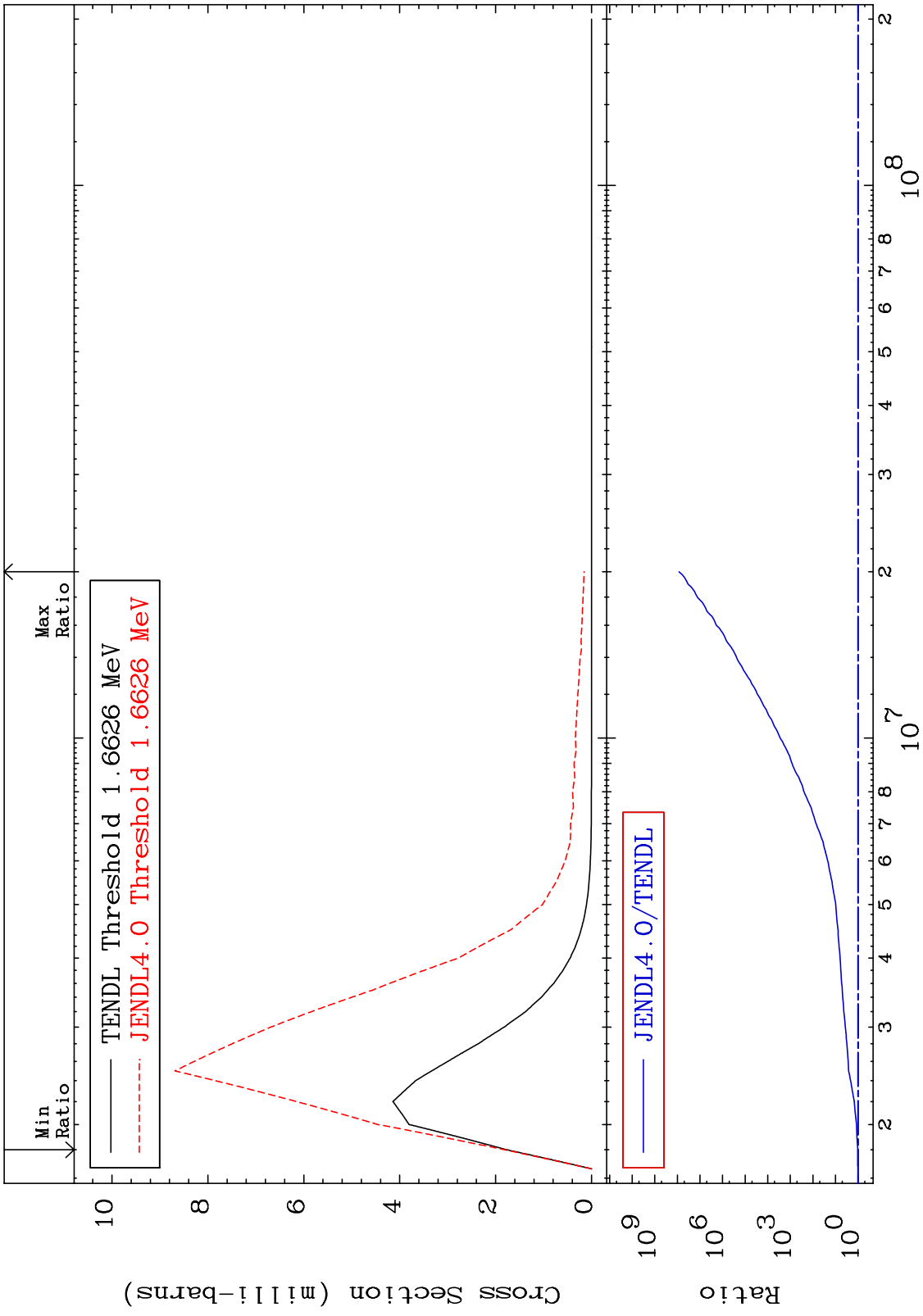
MAT 7231 MT= 77 (n,n') Level Cross Section 72-Hf-176
 -73.63 To 277.2 %



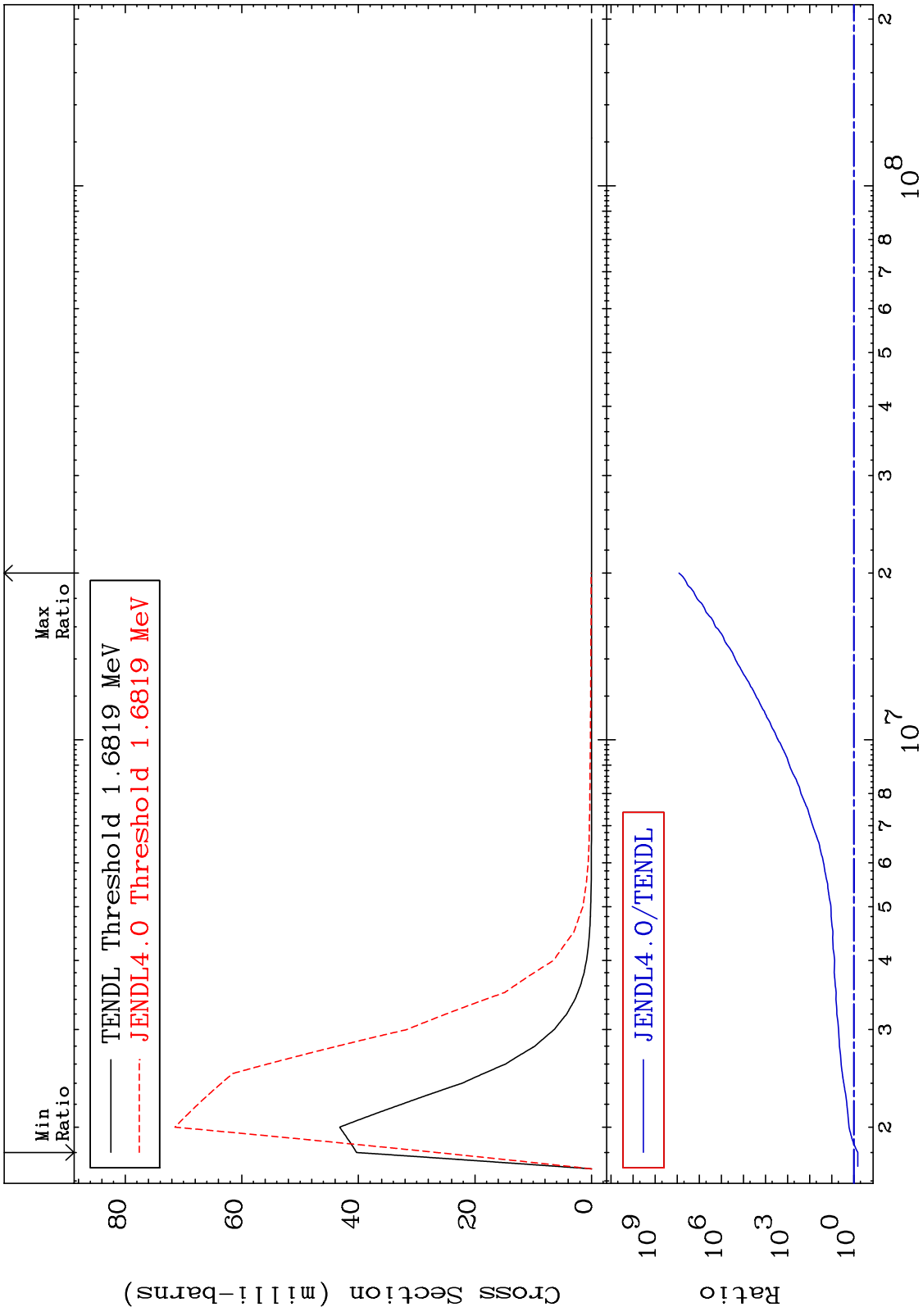
MAT 7231 MT= 78 (n,n') Level Cross Section 72-Hf-176
 -89.66 To 412.4 %

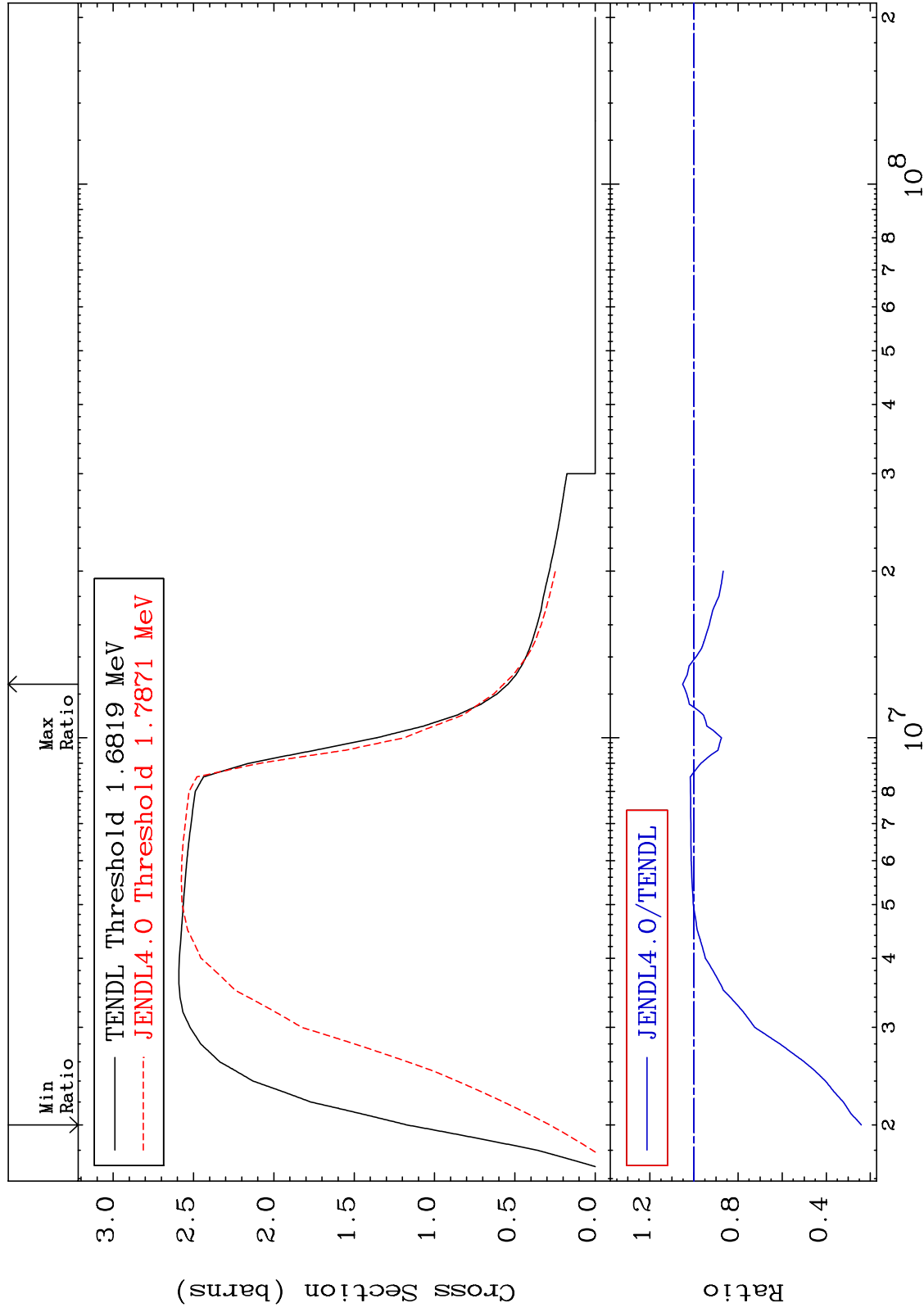


MAT 7231 MT= 79 (n,n') Level Cross Section 72-Hf-176 2.602 To 9999. %



MAT 7231 MT= 80 (n,n') Level Cross Section 72-Hf-176
 -34.17 To 9999. %





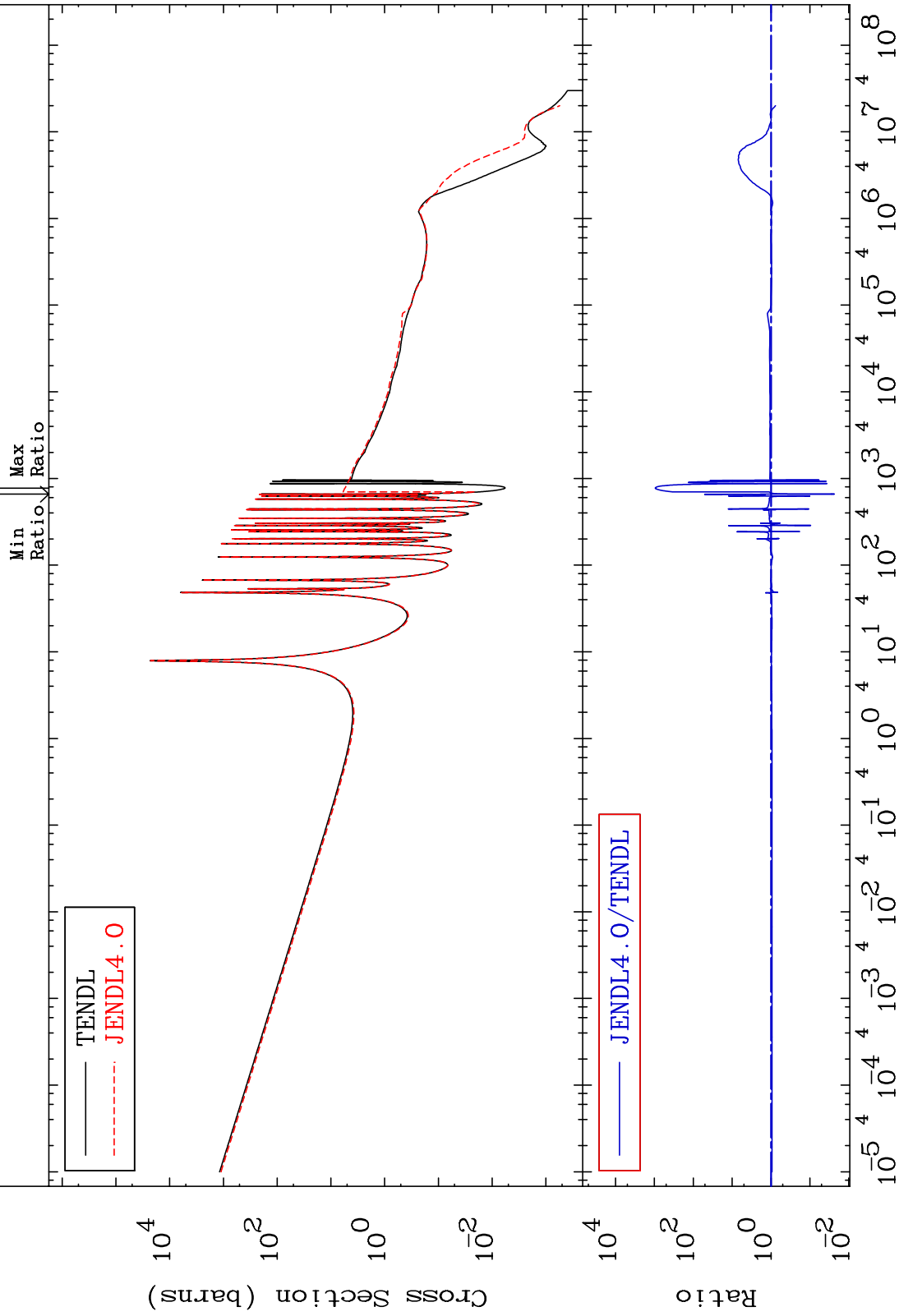
MAT 7231

(n, γ)

72-Hf-176

-97.67 To 9999. %

Cross Section



40

Incident Energy (eV)

72-Hf-176

MAT 7231

(n,p)

72-Hf-176

-98.80 To 322.9 %

Cross Section

Min Ratio

Max Ratio

TENDL Threshold 414.09 keV
JENDL4.0 Threshold 4.0000 MeV

Cross Section (milli-barns)

35
30
25
20
15
10
5
0

JENDL4.0/TENDL

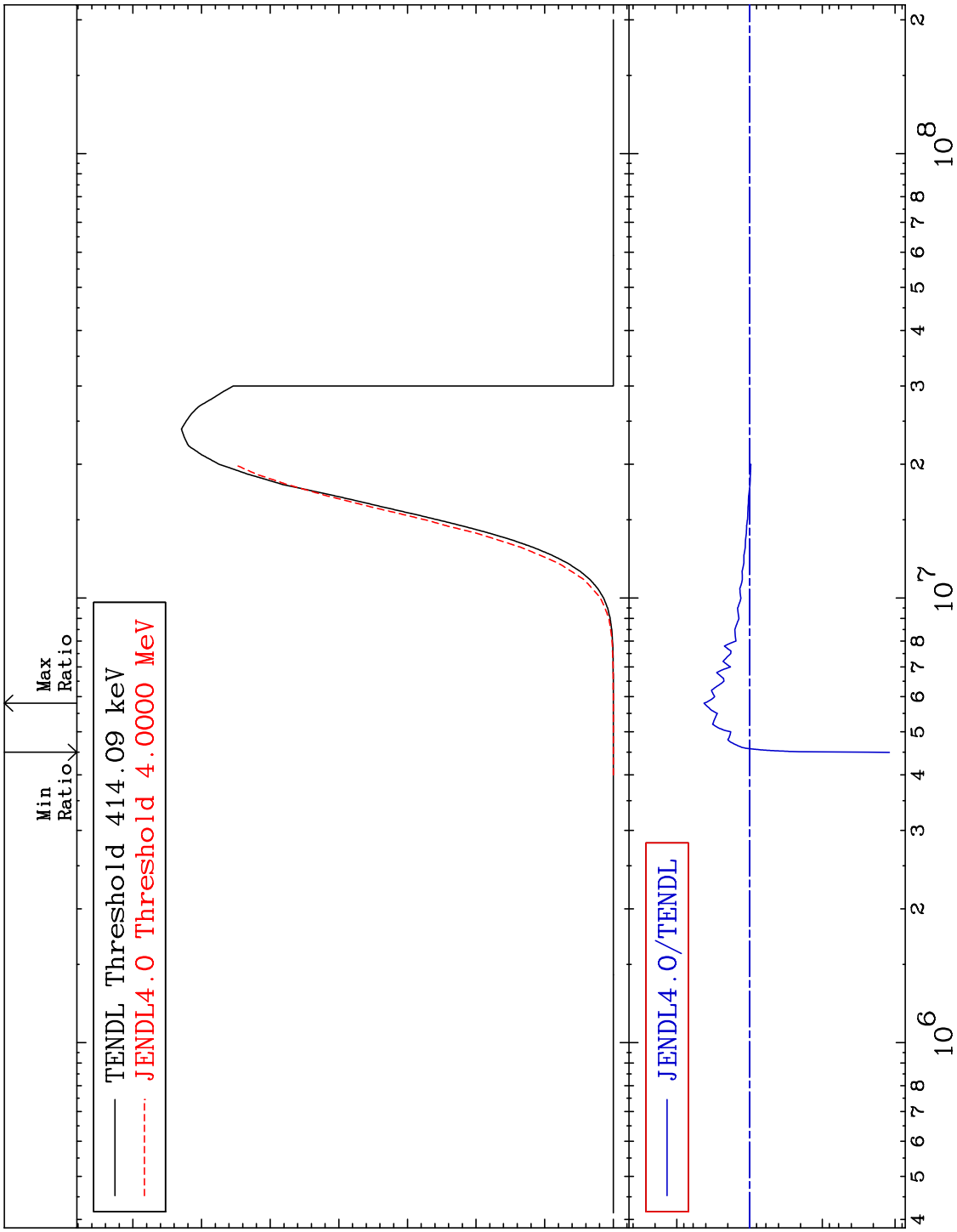
Ratio

10^1
 10^0
 10^{-1}
 10^{-2}

41

Incident Energy (eV)

72-Hf-176



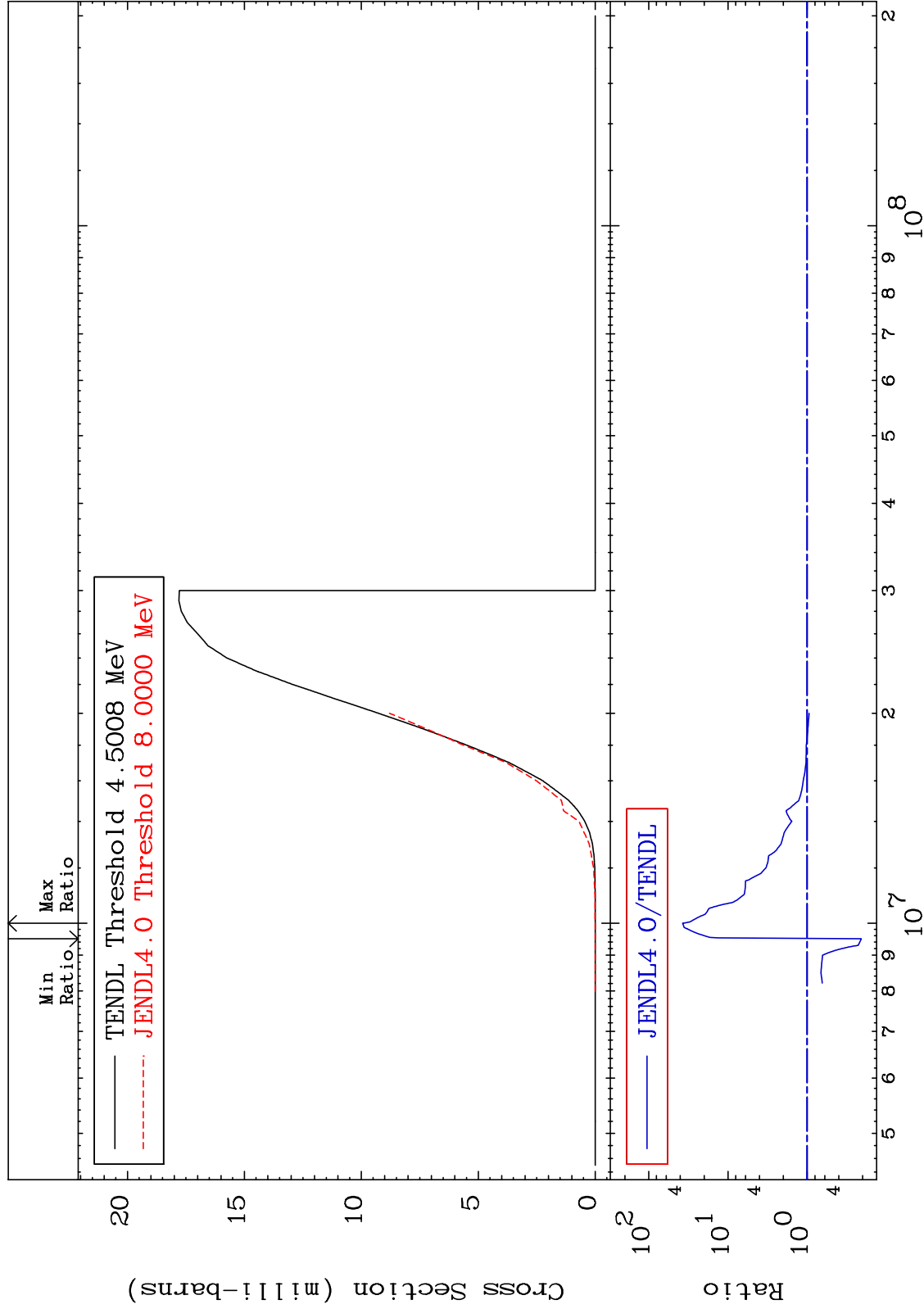
MAT 7231

(n,d)

72-Hf-176

Cross Section

-79.25 To 3631. %

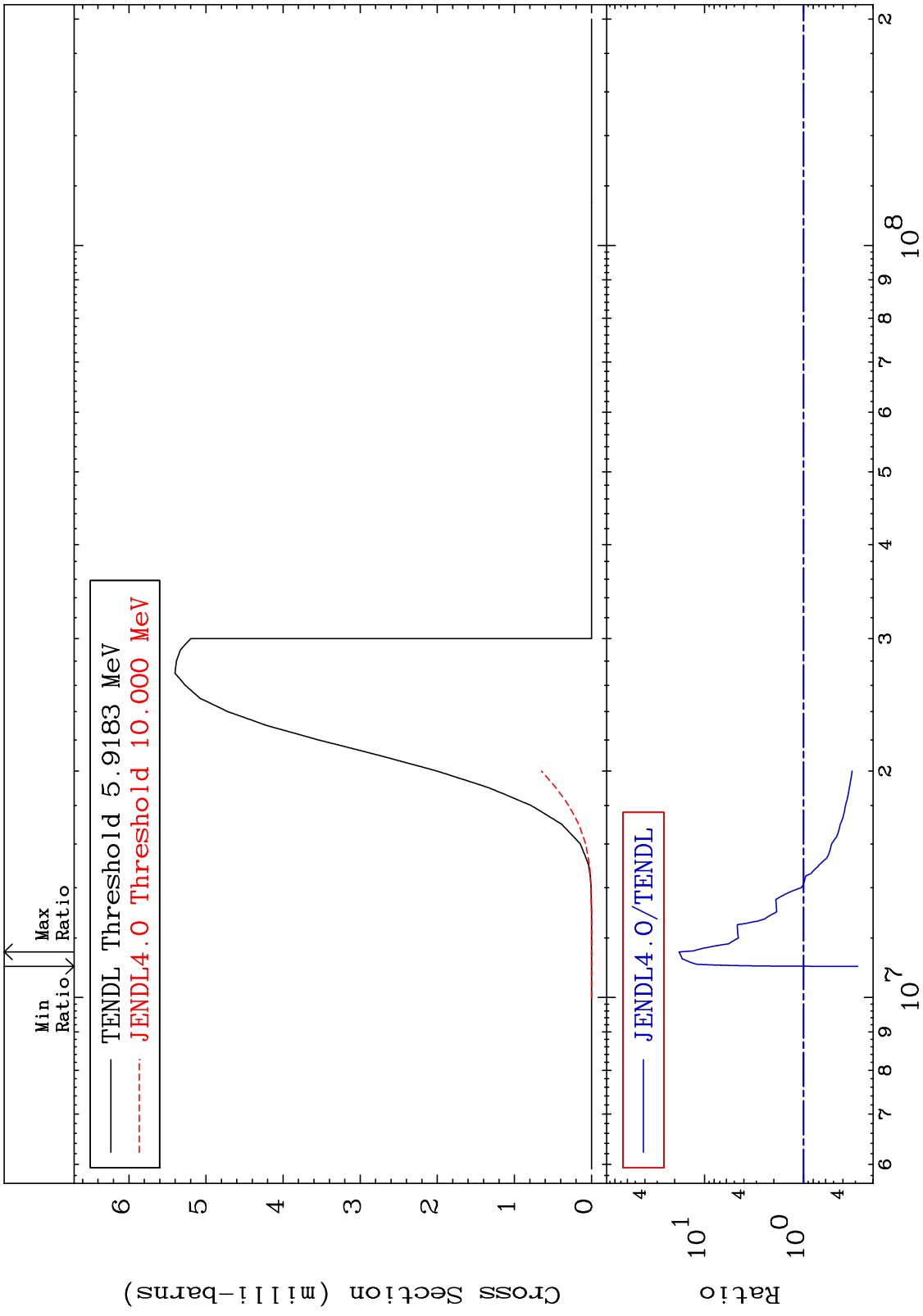


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Incident Energy (eV)

72-Hf-176

MAT 7231 (n,t) 72-Hf-176
 Cross Section -71.65 To 1707. %



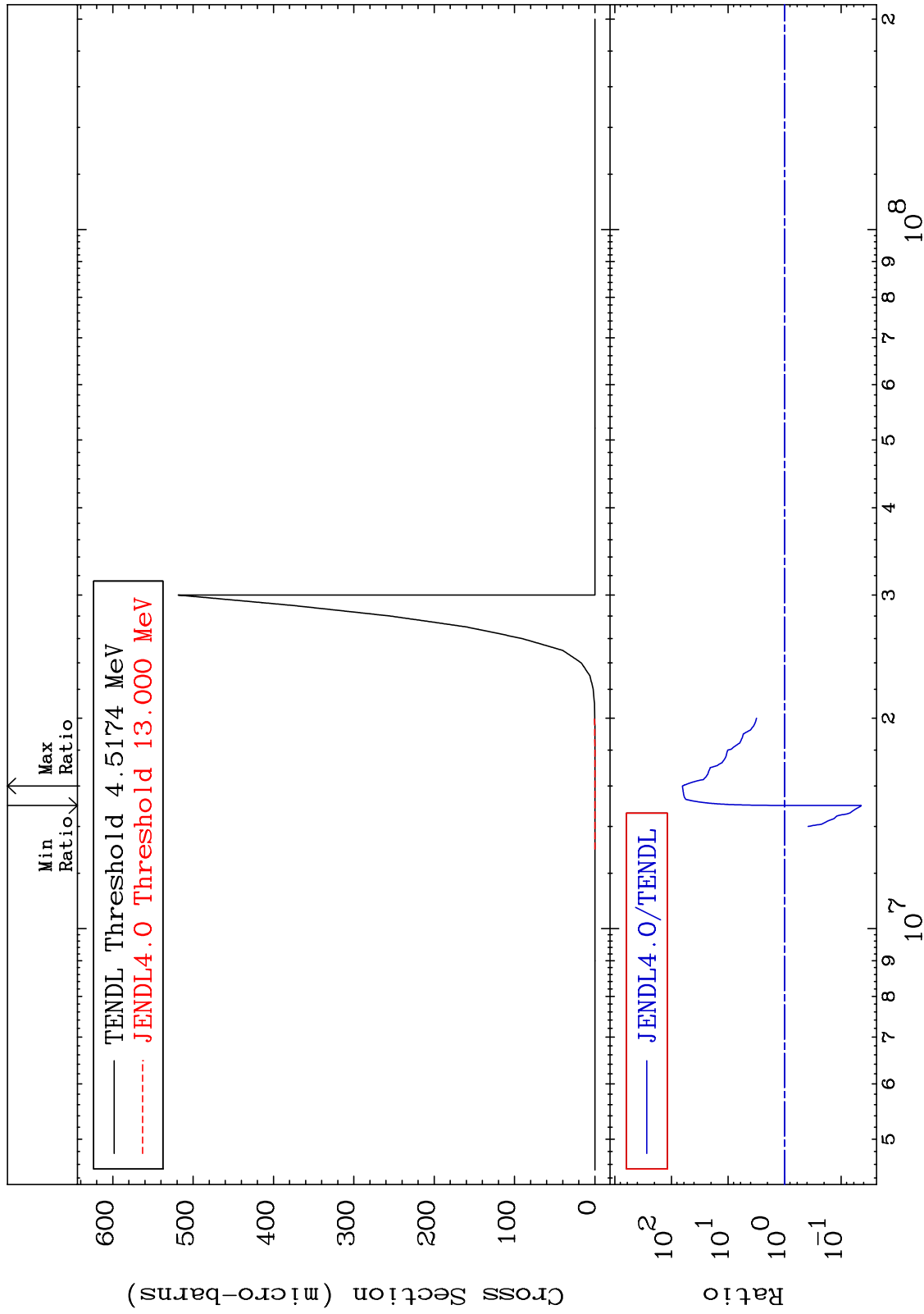
MAT 7231

(n, He-3)

72-Hf-176

Cross Section

-95.59 To 6277. %



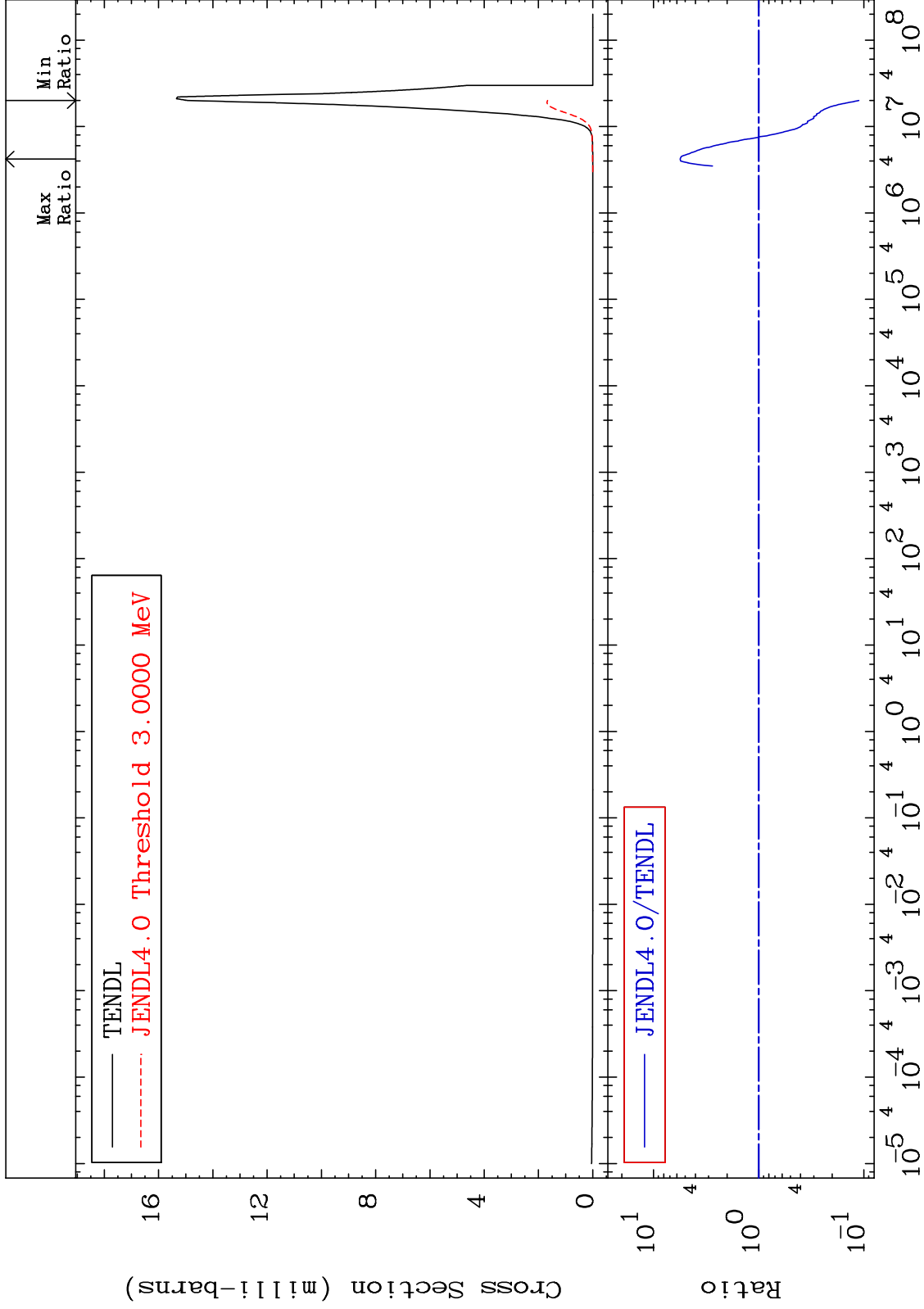
MAT 7231

(n, α)

72-Hf-176

Cross Section

-88.83 To 458.1 %



45

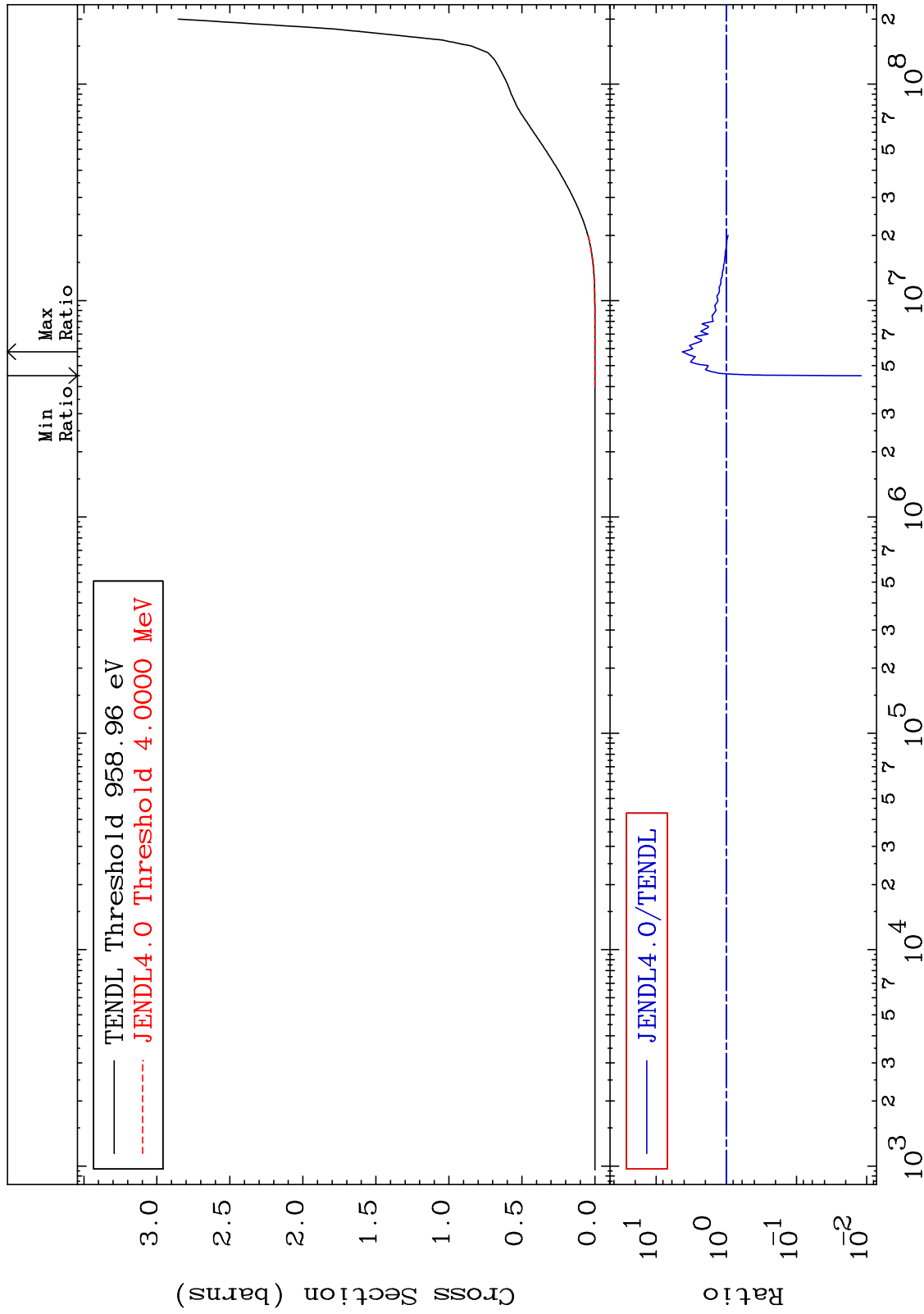
Incident Energy (eV)

72-Hf-176

MAT 7231

Hydrogen Production
Cross Section

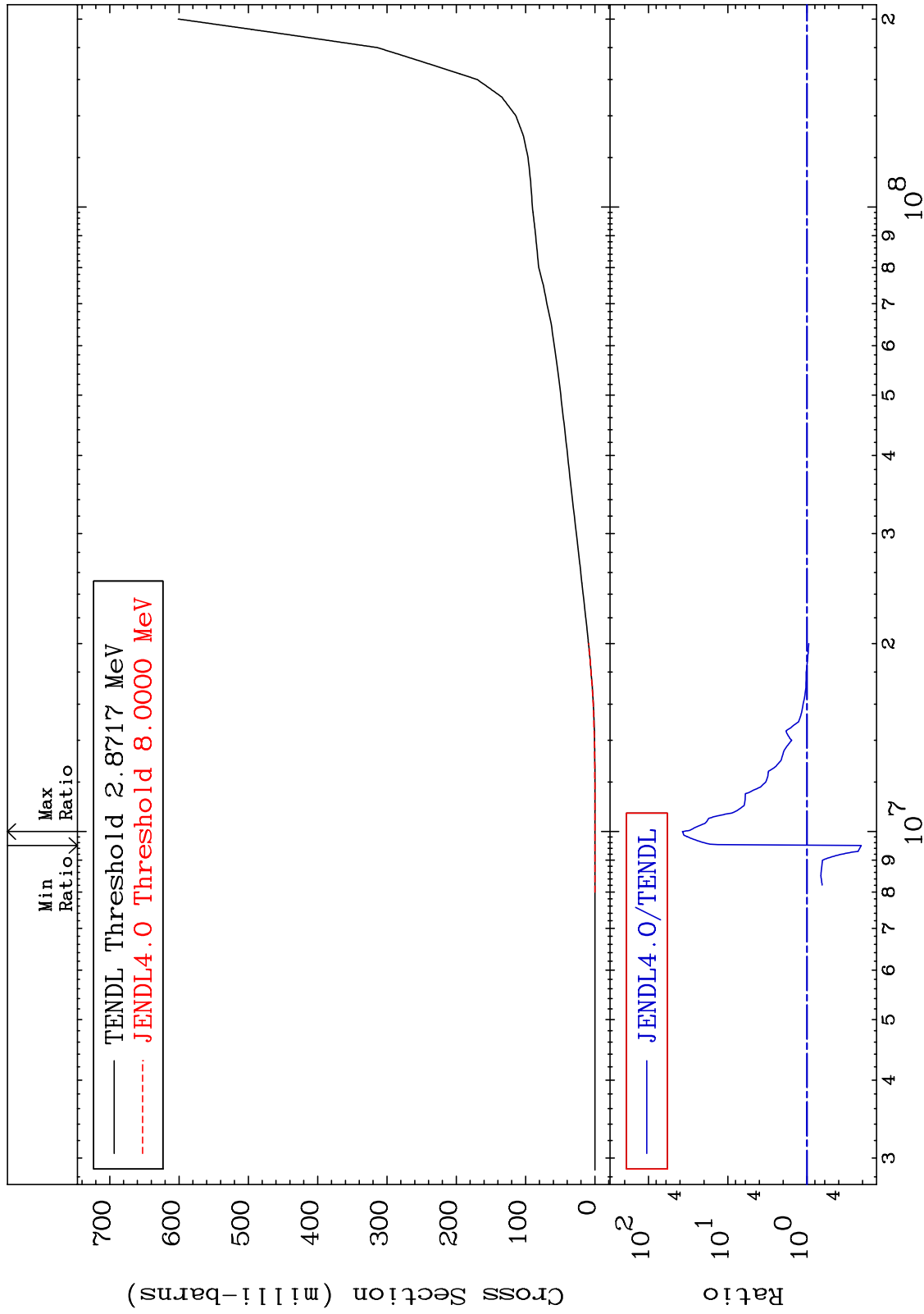
72-Hf-176
-98.80 To 322.9 %



MAT 7231

Deuterium Production
Cross Section

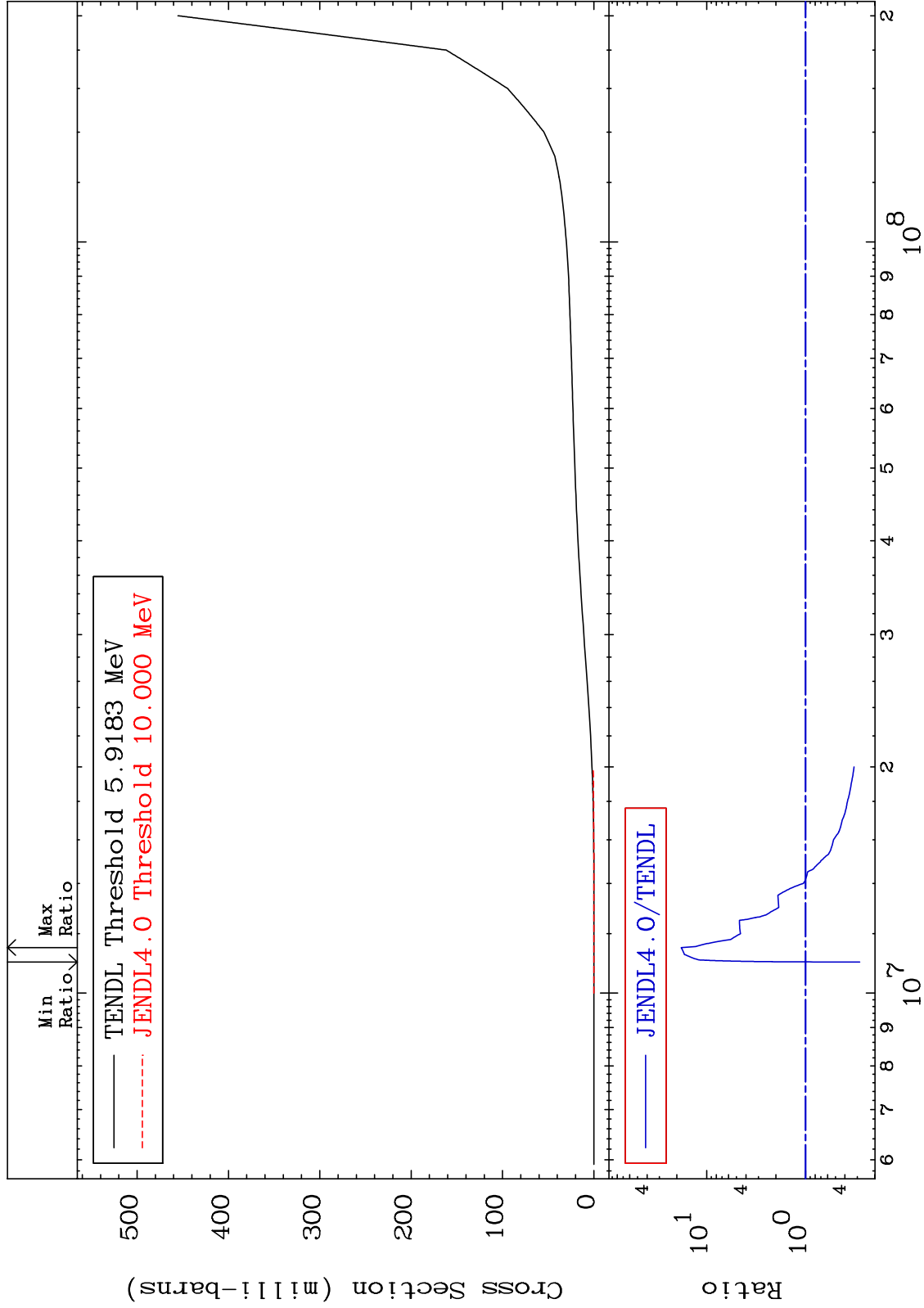
72-Hf-176
-79.25 To 3631. %



MAT 7231

Tritium Production
Cross Section

72-Hf-176
-71.65 To 1707. %



48

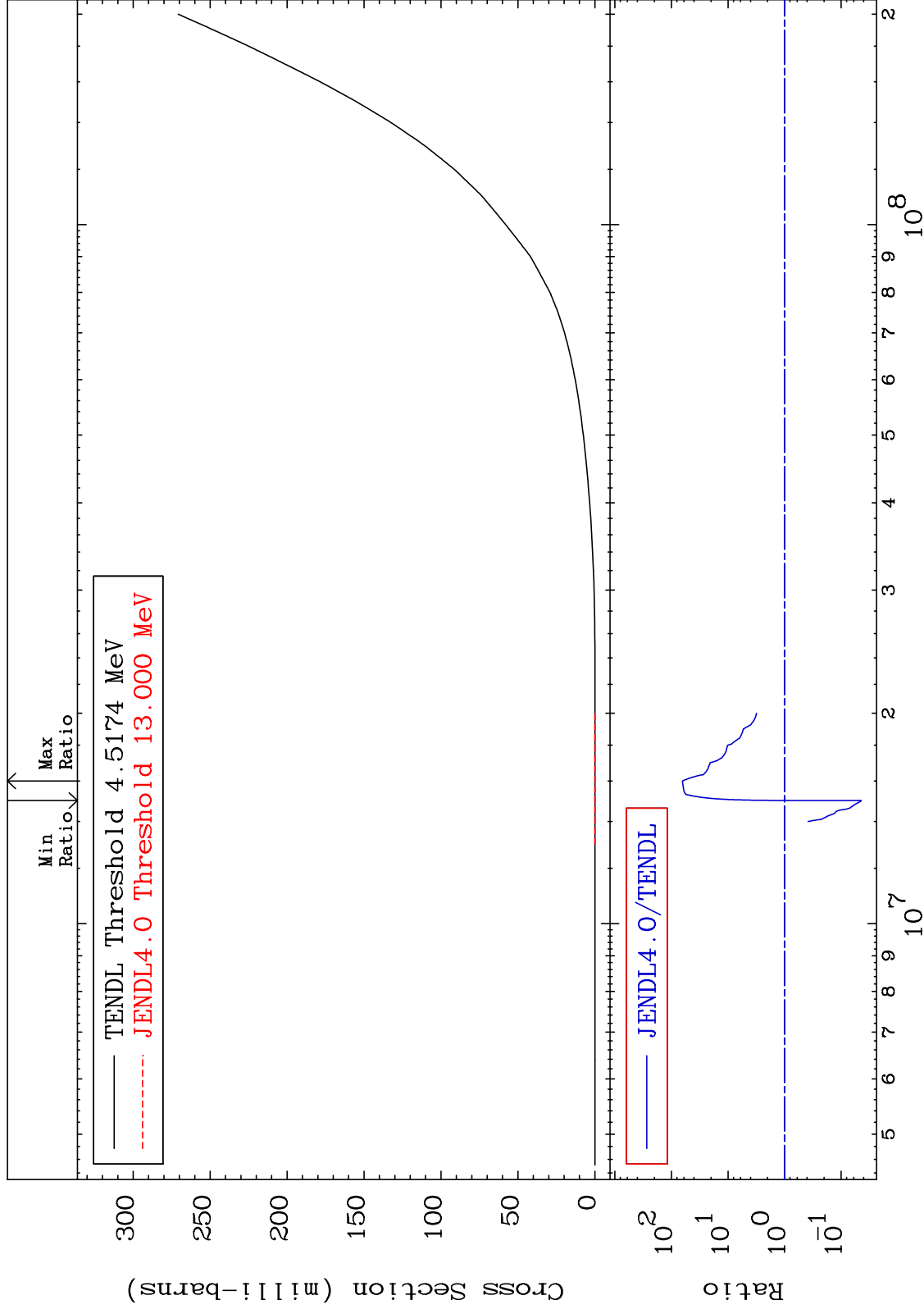
Incident Energy (eV)

72-Hf-176

MAT 7231

He-3 Production
Cross Section

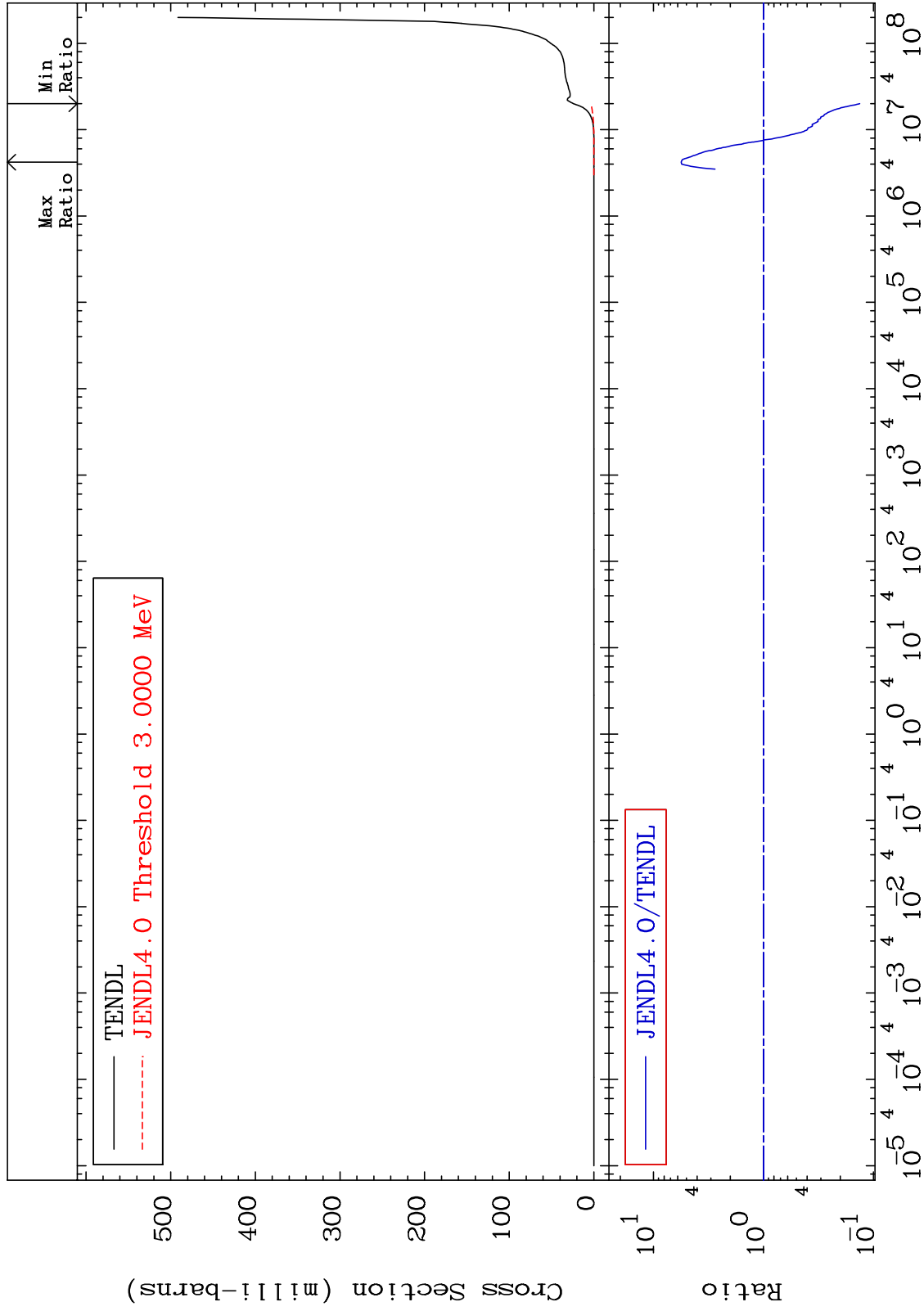
72-Hf-176
-95.59 To 6277. %



MAT 7231

He-4 Production
Cross Section

72-Hf-176
-86.71 To 458.1 %

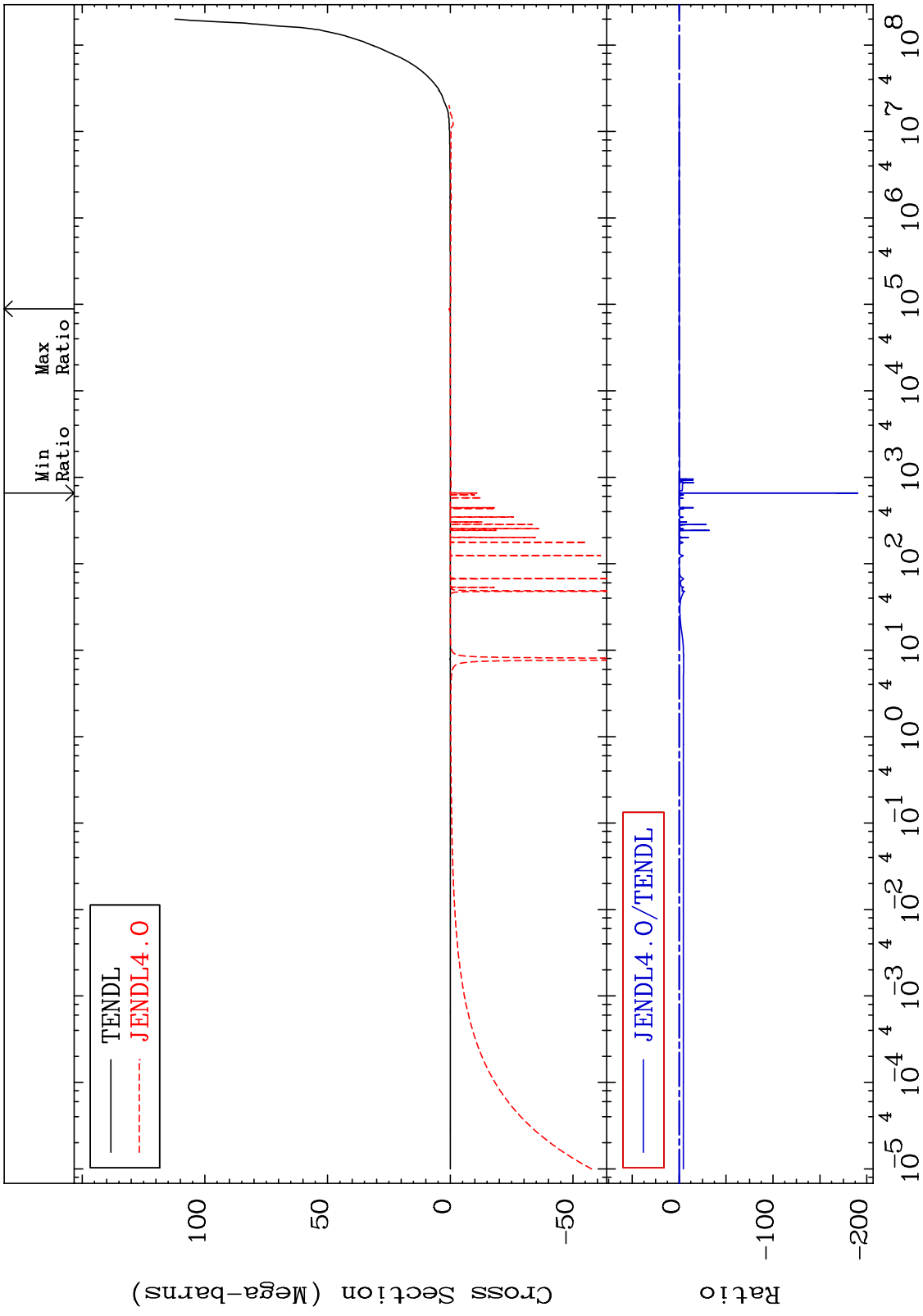


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Incident Energy (eV)

72-Hf-176

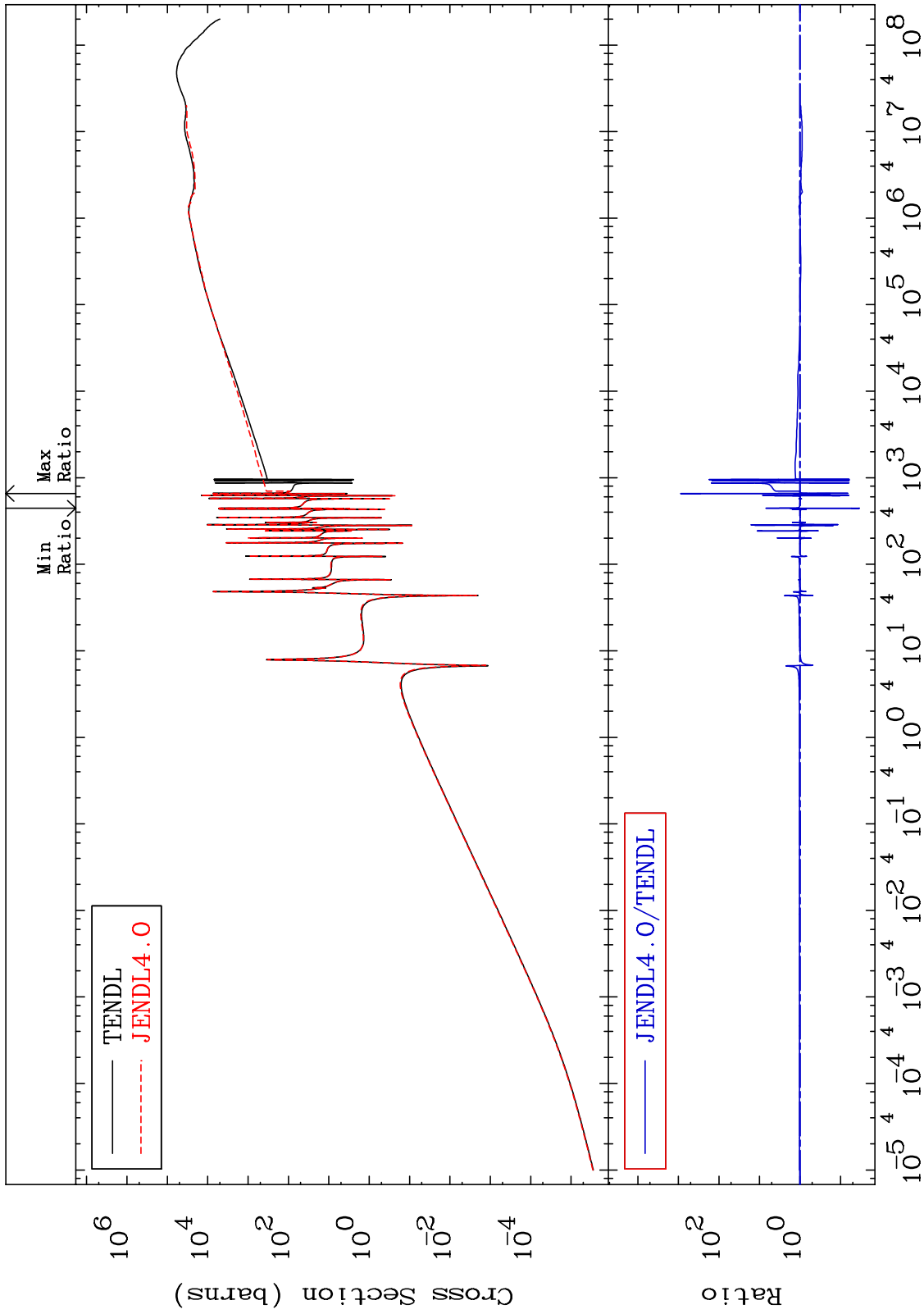
MAT 7231 Kerma total (eV-barns) 72-Hf-176
 Cross Section -9999. To 5637. %



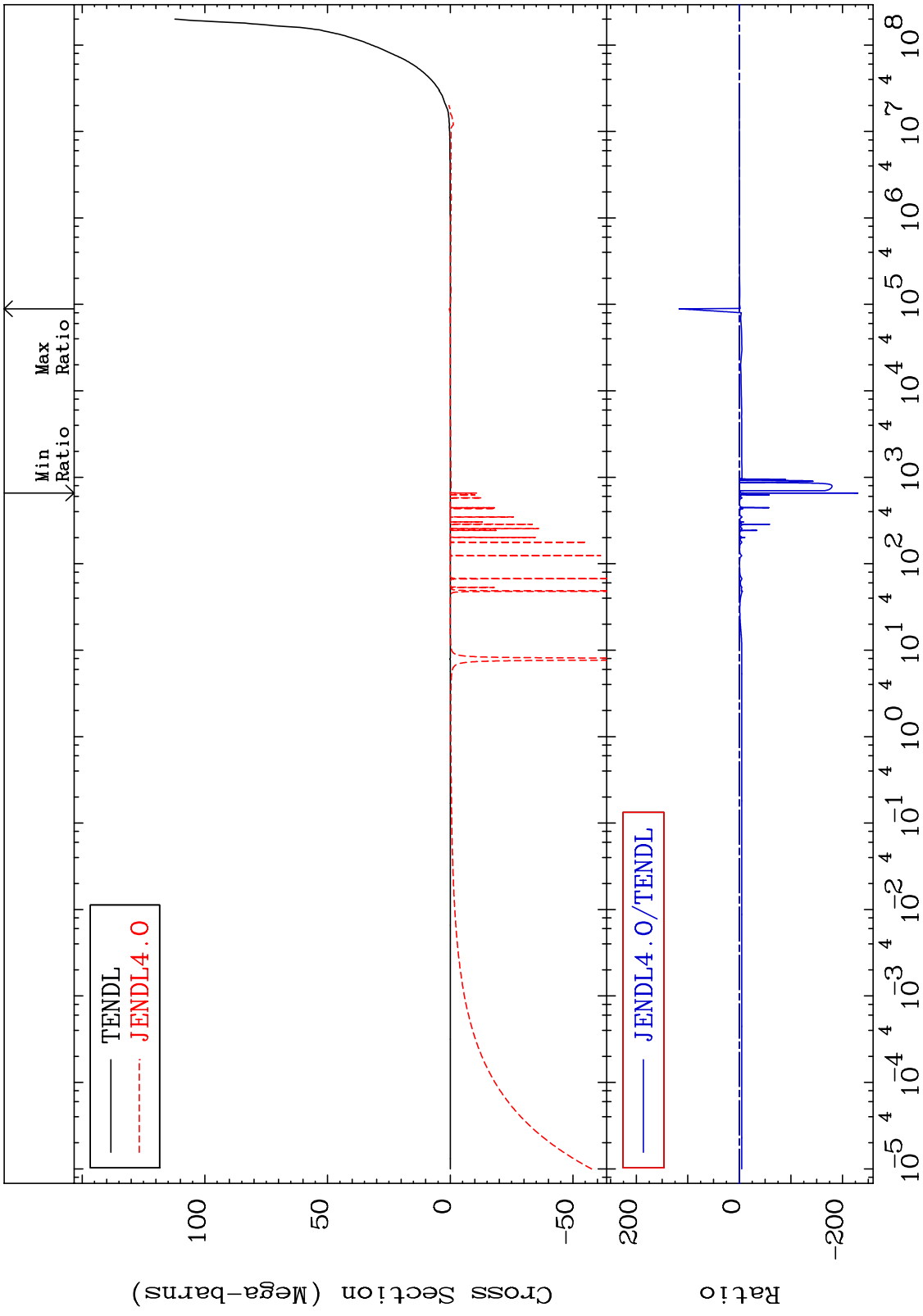
MAT 7231

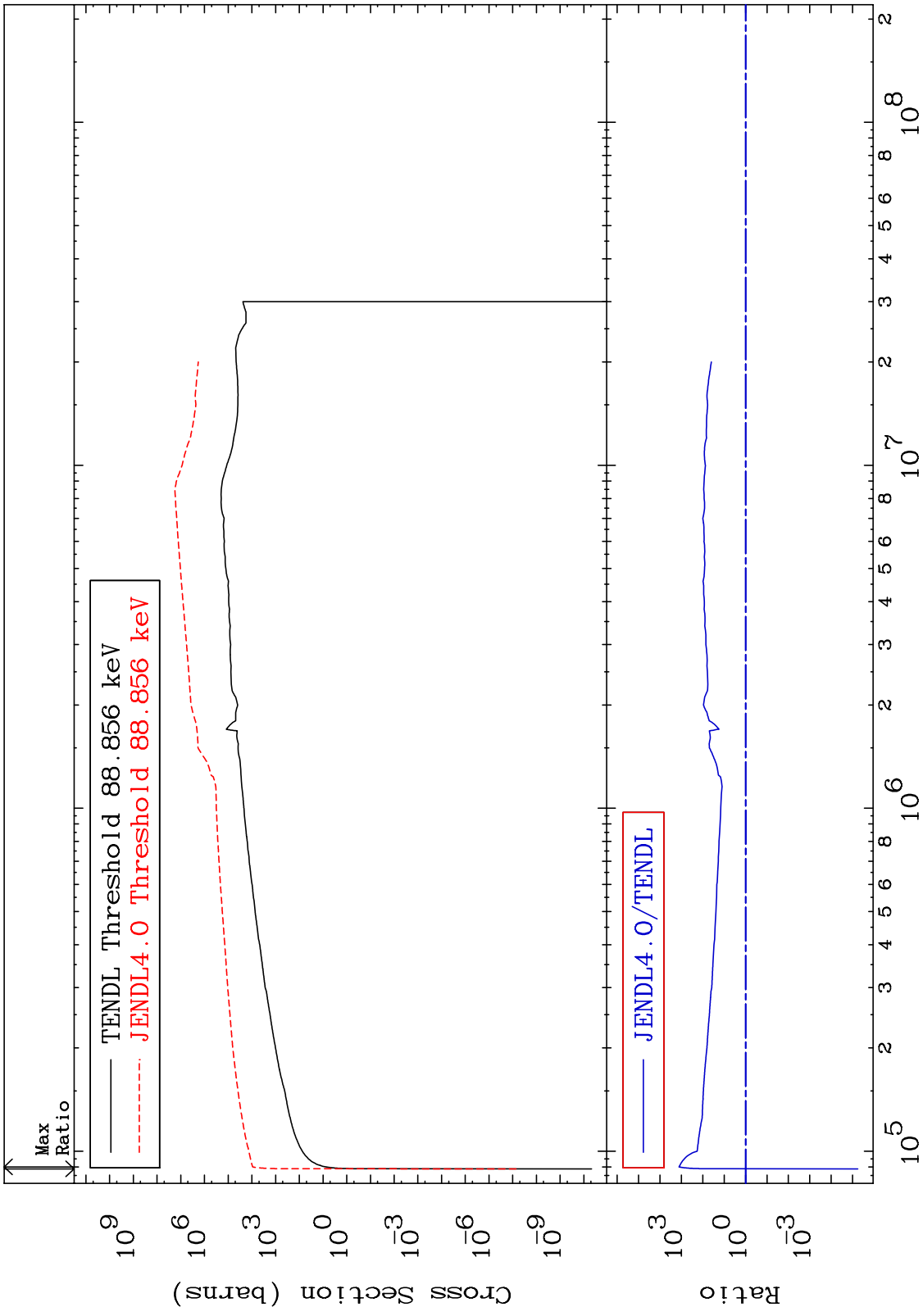
Kerma elastic
Cross Section

72-Hf-176
-96.62 To 9999. %



MAT 7231 Kerma non-elastic (all but mt2) 72-Hf-176
 Cross Section -9999. To 9999. %

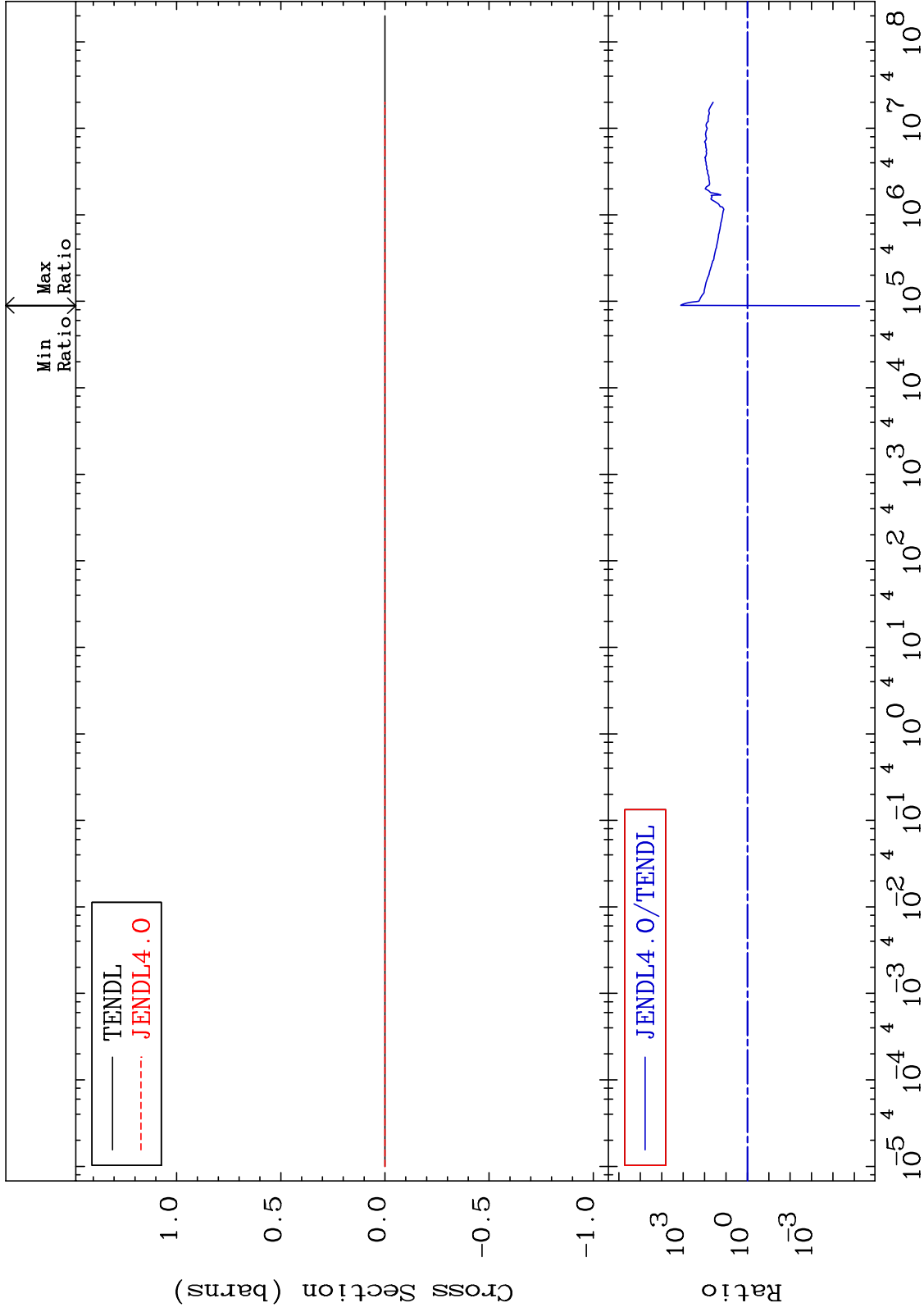




MAT 7231

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

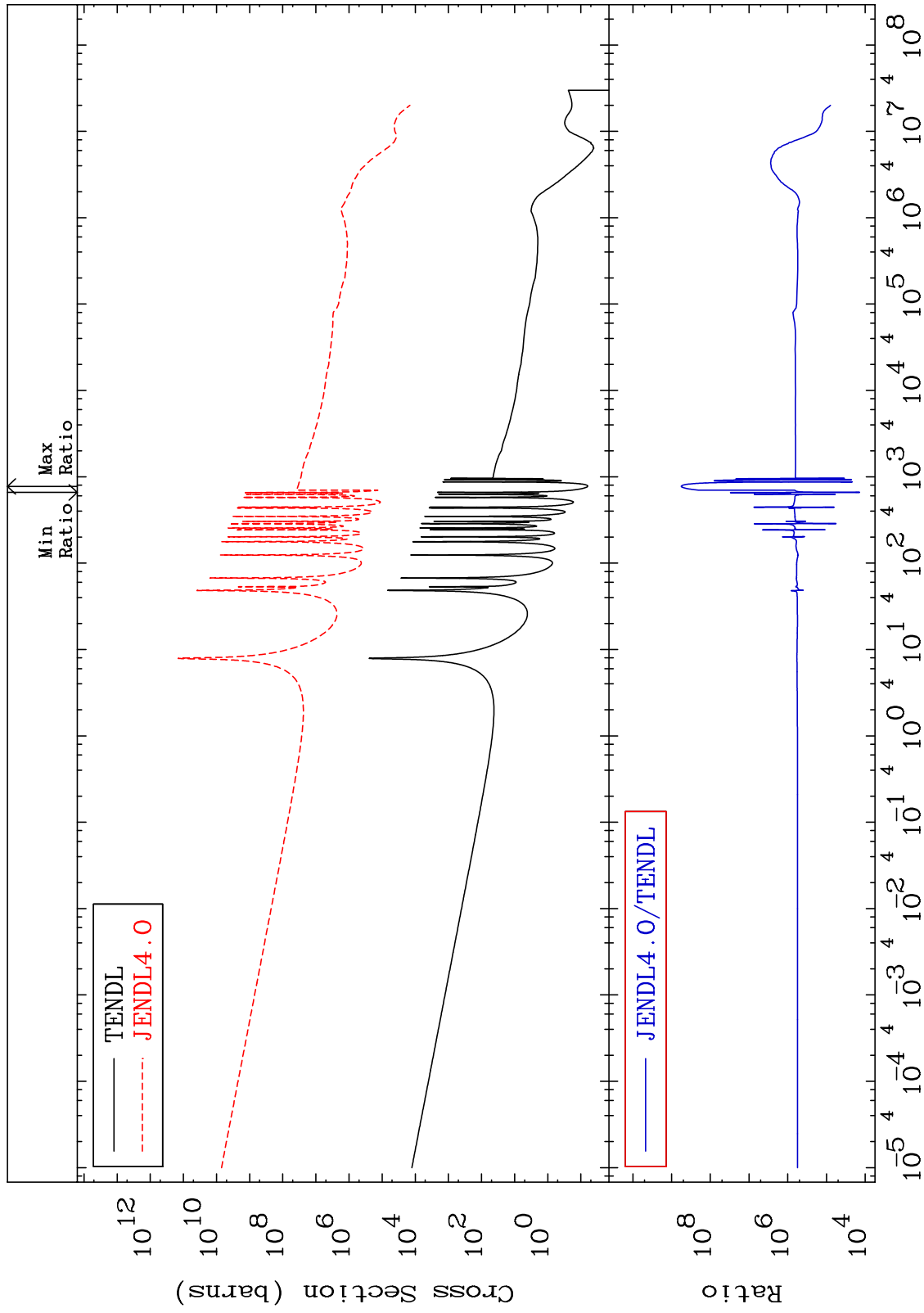
72-Hf-176
-100.0 To 9999. %



MAT 7231

Kerma capture (mt102)
Cross Section

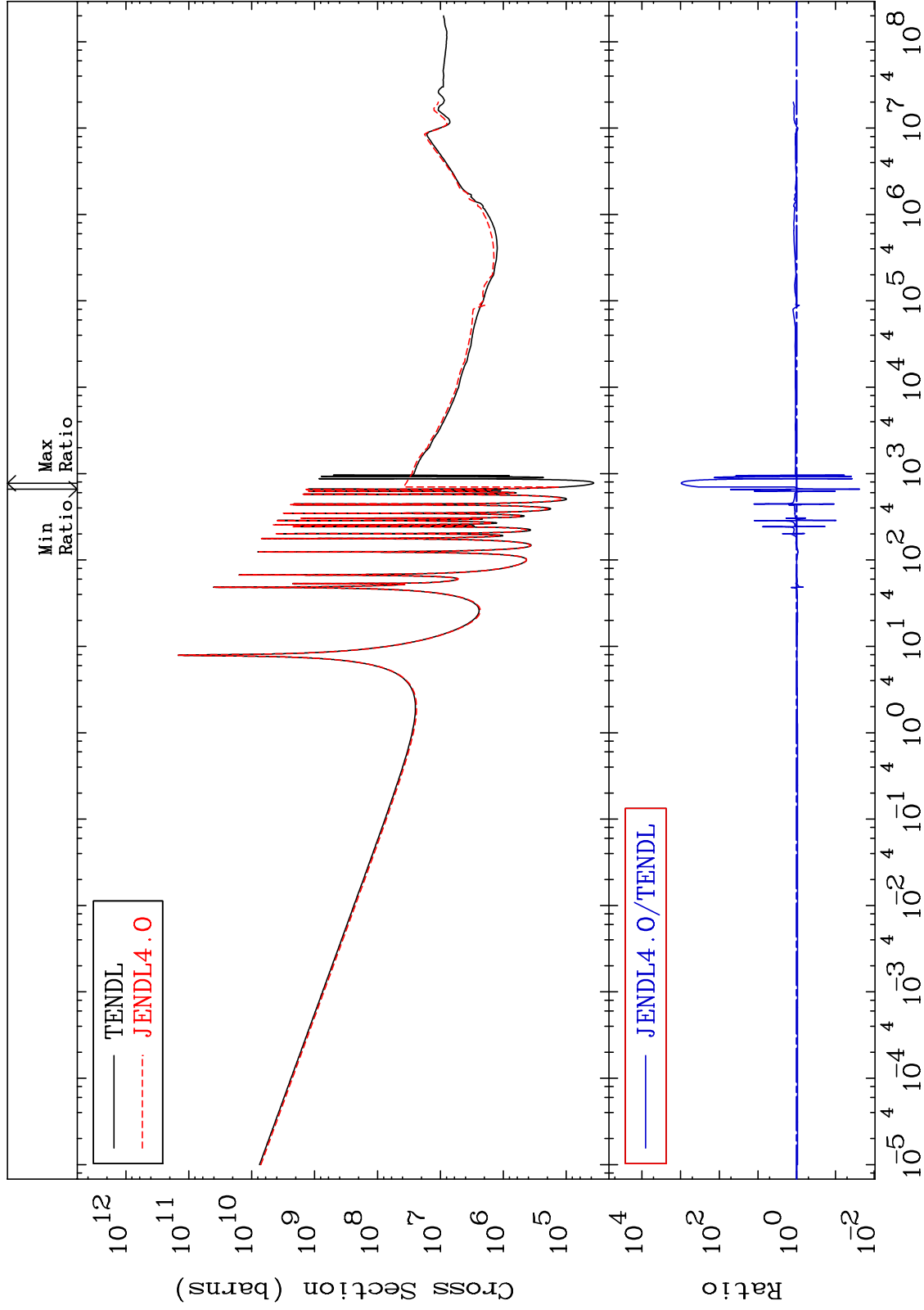
72-Hf-176
9999. To 9999. %



MAT 7231

Total photon (eV-barns)
Cross Section

72-Hf-176
-97.65 To 9999. %

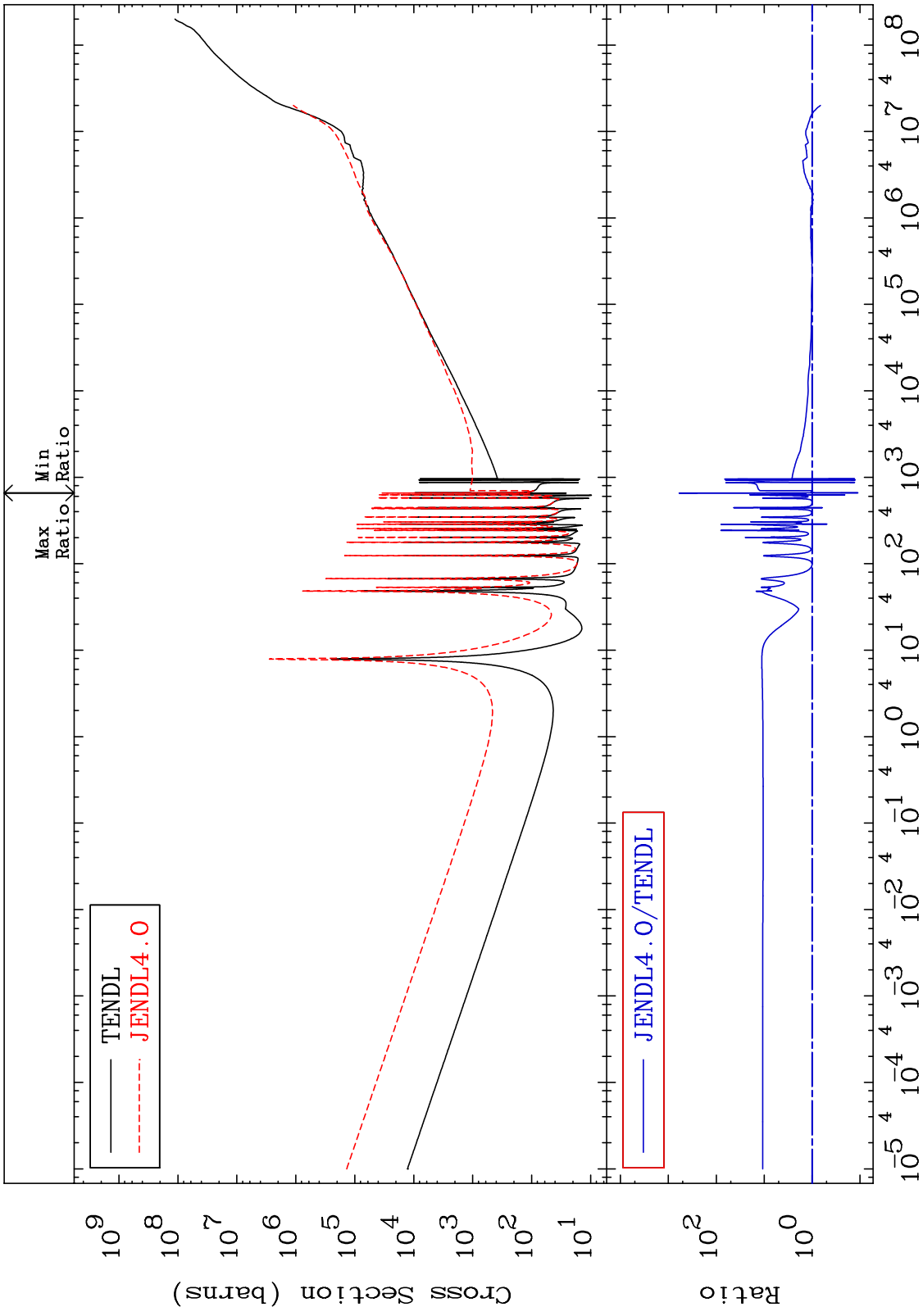


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Incident Energy (eV)

72-Hf-176

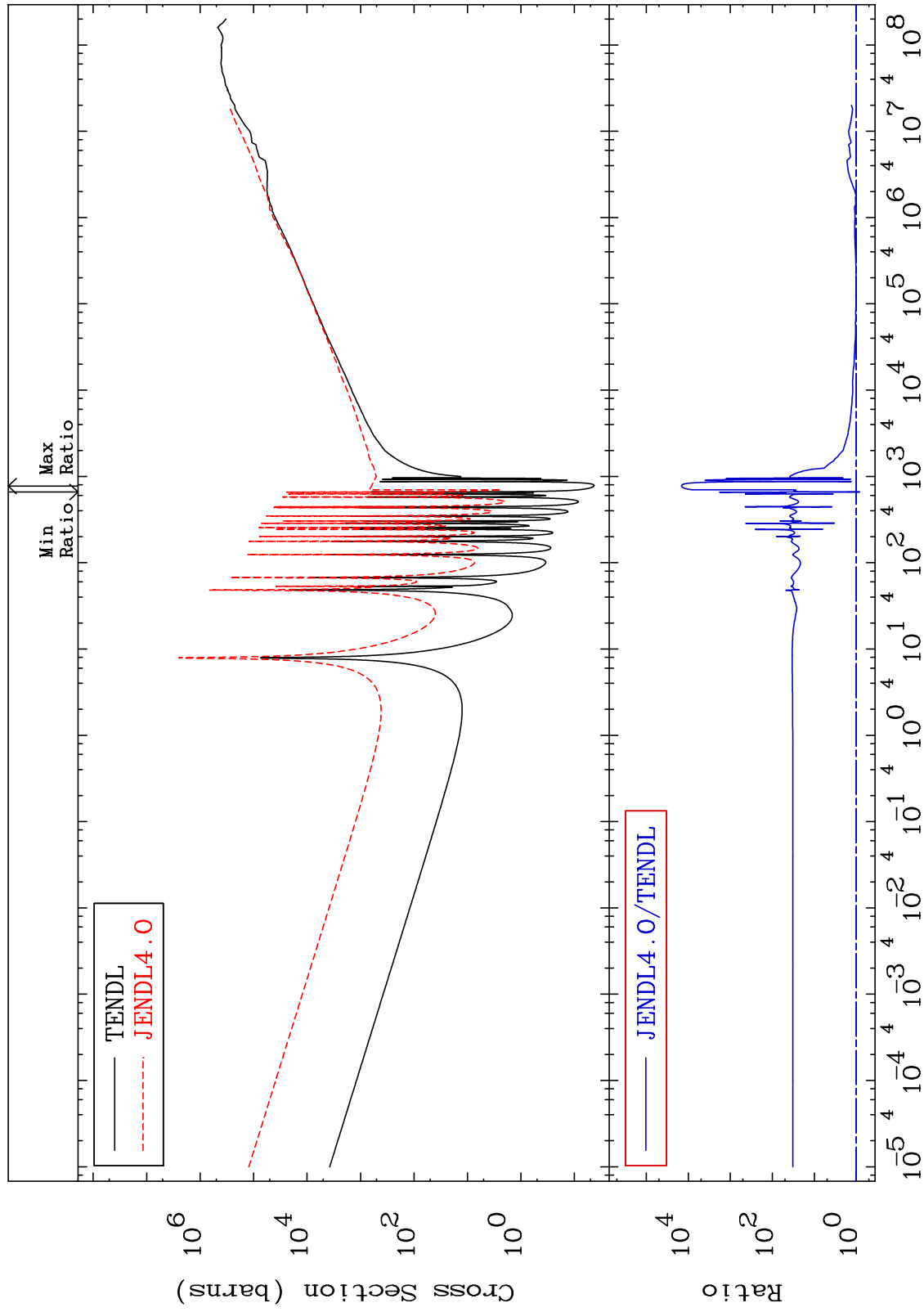
MAT 7231 Total kinematic kerma (high limit) 72-Hf-176
 Cross Section -88.90 To 9999. %



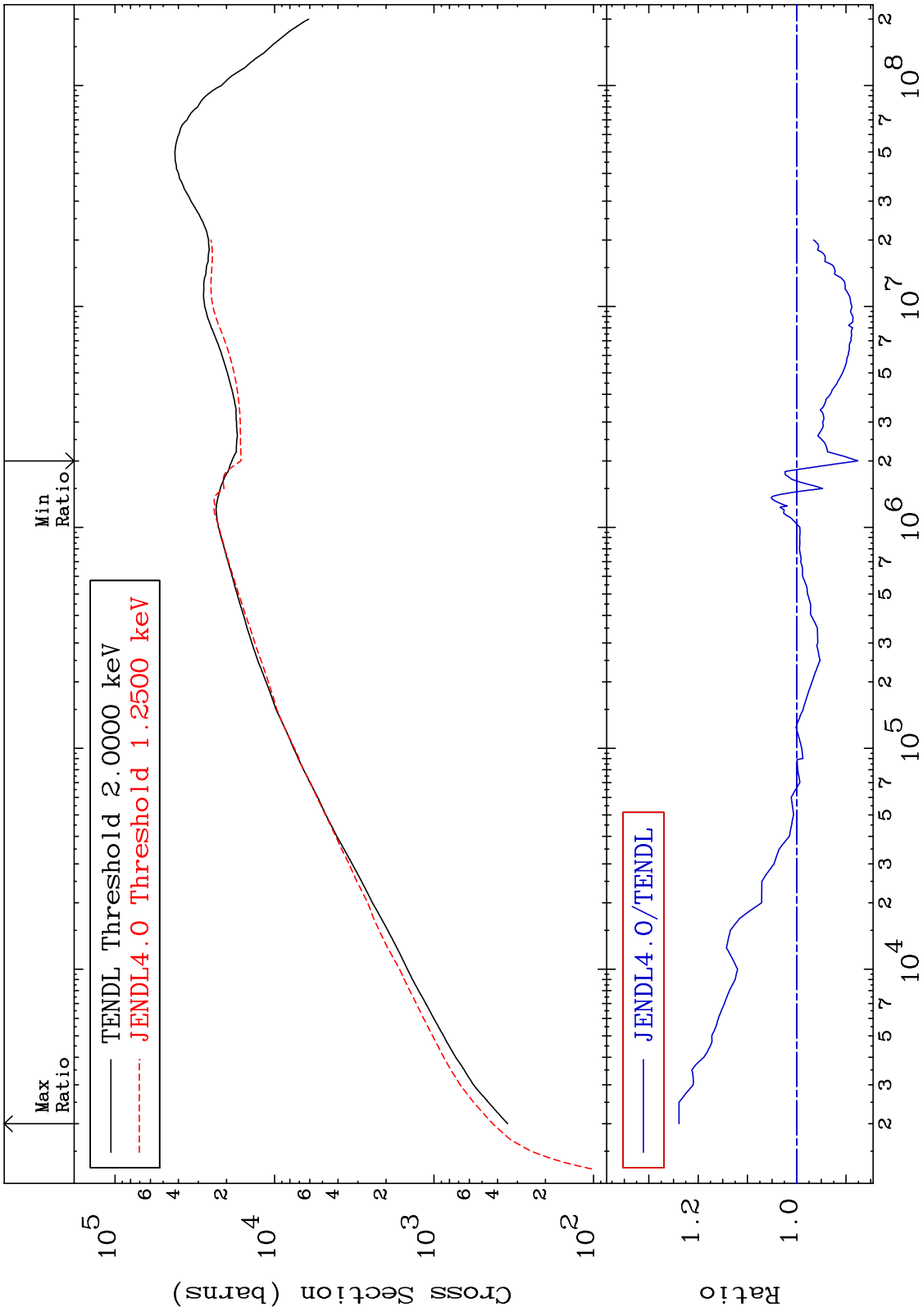
MAT 7231

Dpa total (eV-barns)
Cross Section

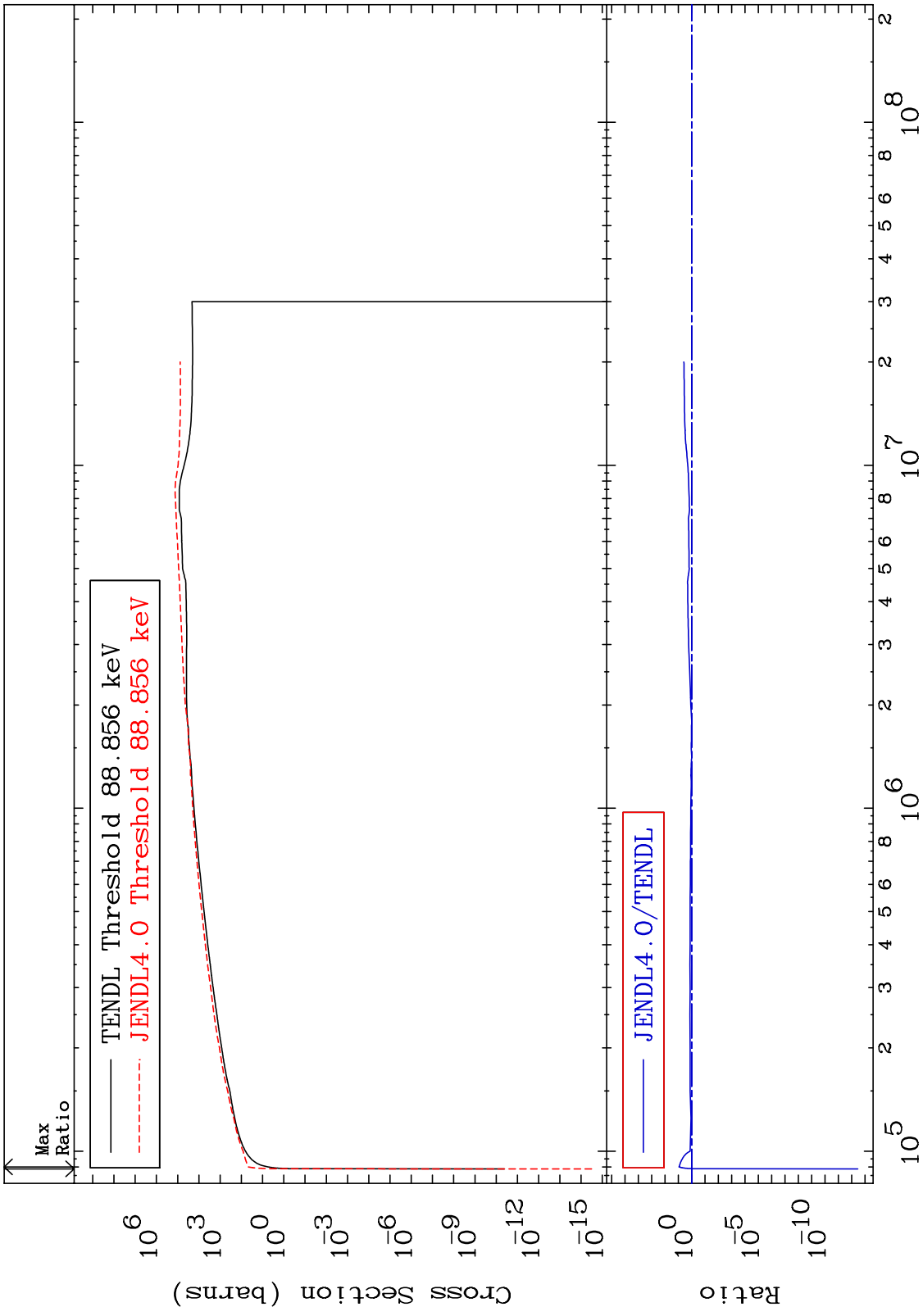
72-Hf-176
-17.42 To 9999. %



MAT 7231 Dpa elastic (mt2) 72-Hf-176
Cross Section -12.40 To 23.88 %



MAT 7231 Dpa inelastic (mt51-91) 72-Hf-176
 Cross Section -100.0 To 775.7 %



MAT 7231

Dpa disappearance (mt102 -120)
Cross Section

72-Hf-176
-33.52 To 9999. %

