

Program Complot
(Version 2018-1)

by

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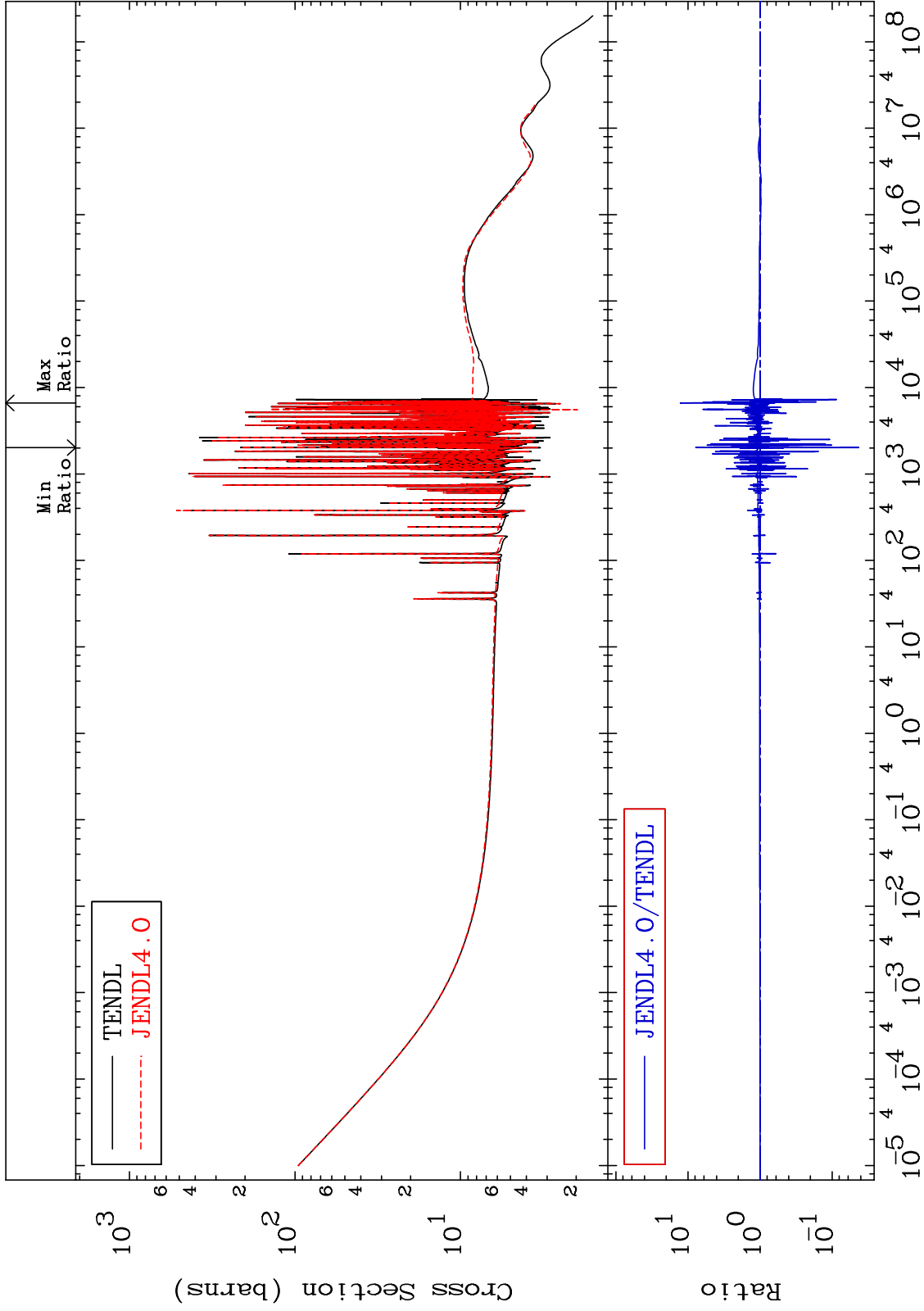
E.Mail: redcullen1@comcast.net
Web: redcullen1.net/HOMEPAGE.NEW

Press Mouse Button to Start

MAT 4125

Total
Cross Section

41-Nb-93
-95.75 To 1180. %

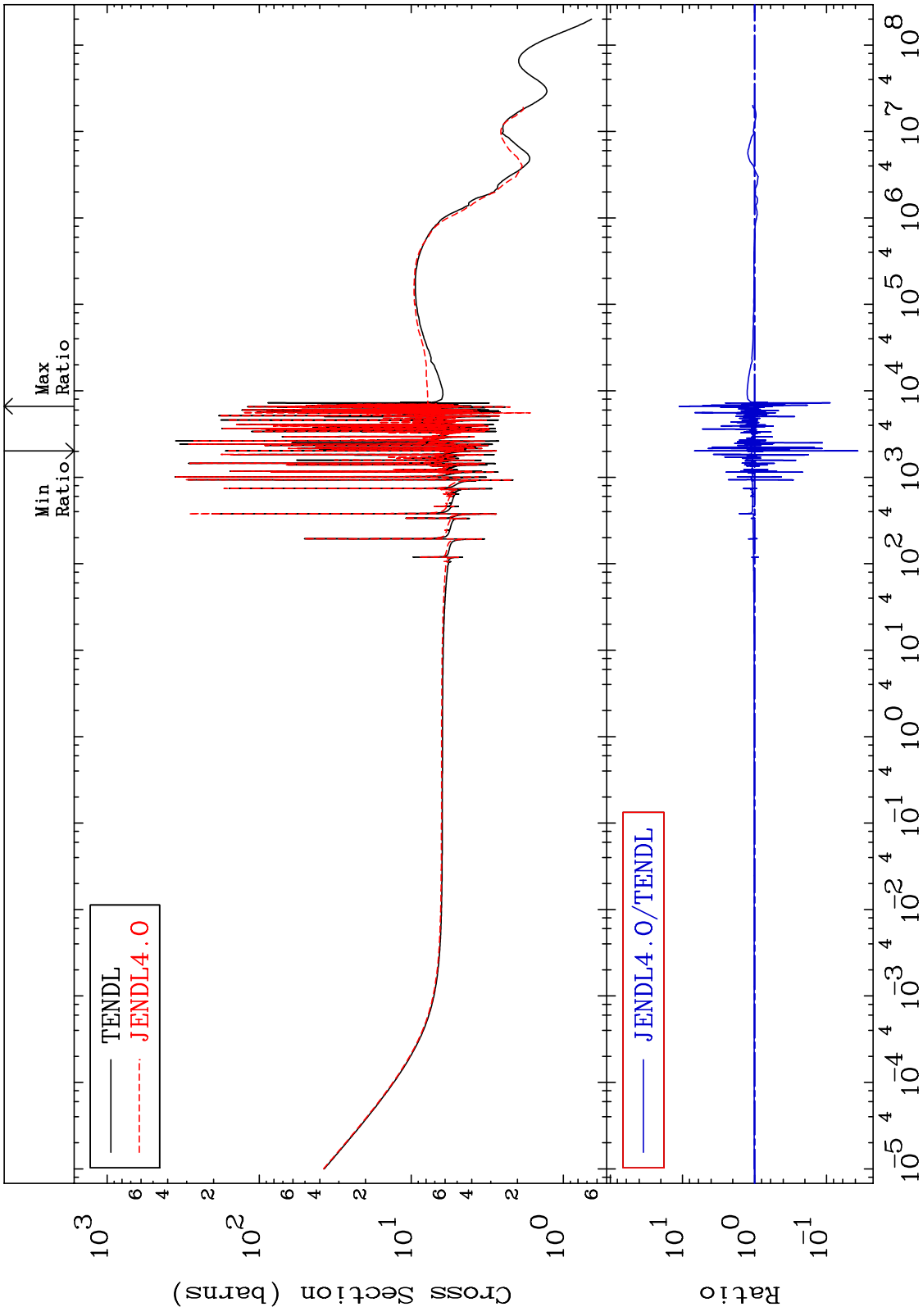


1

Incident Energy (eV)

41-Nb-93

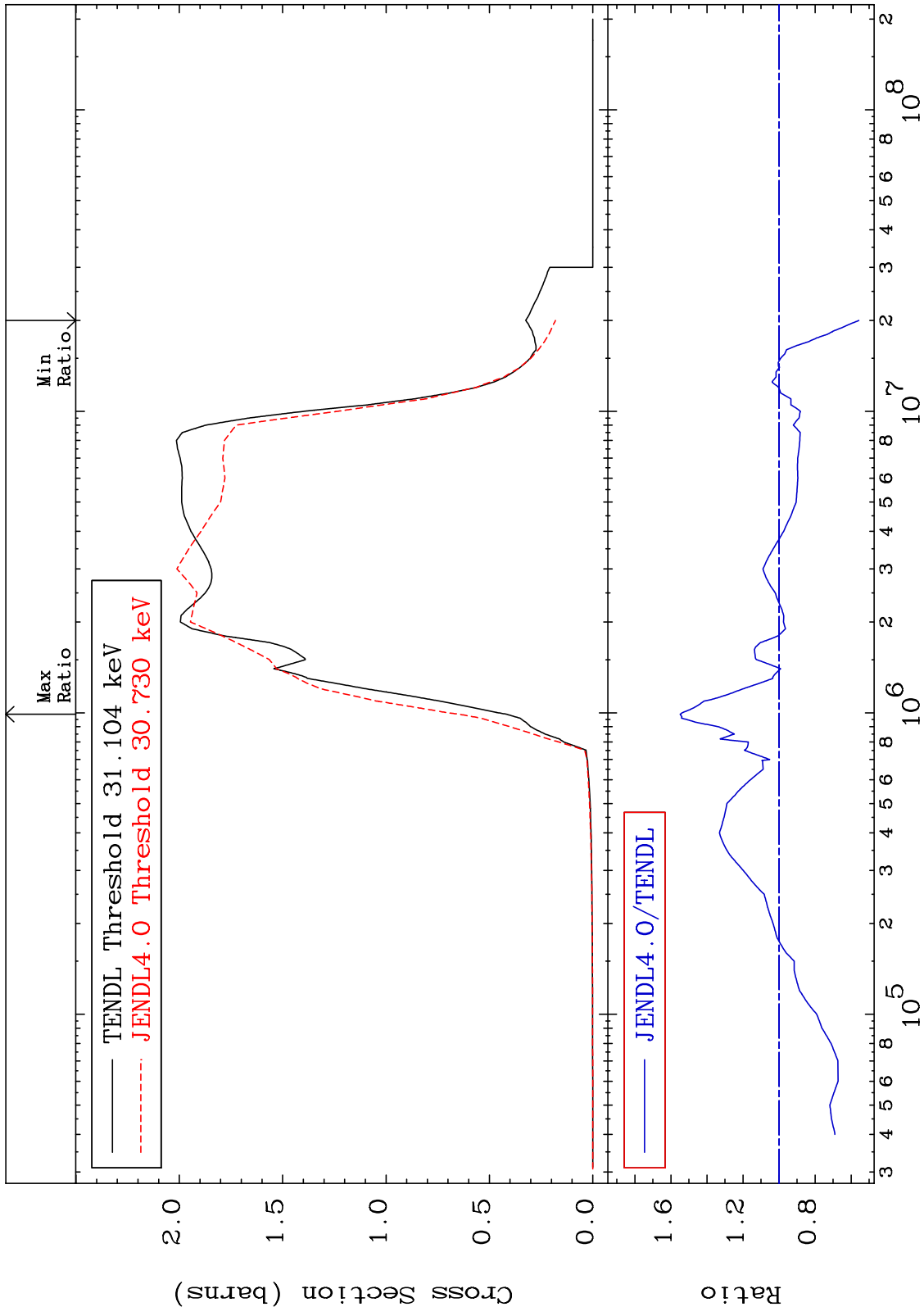
MAT 4125 Elastic Cross Section 41-Nb-93 -96.31 To 1016. %



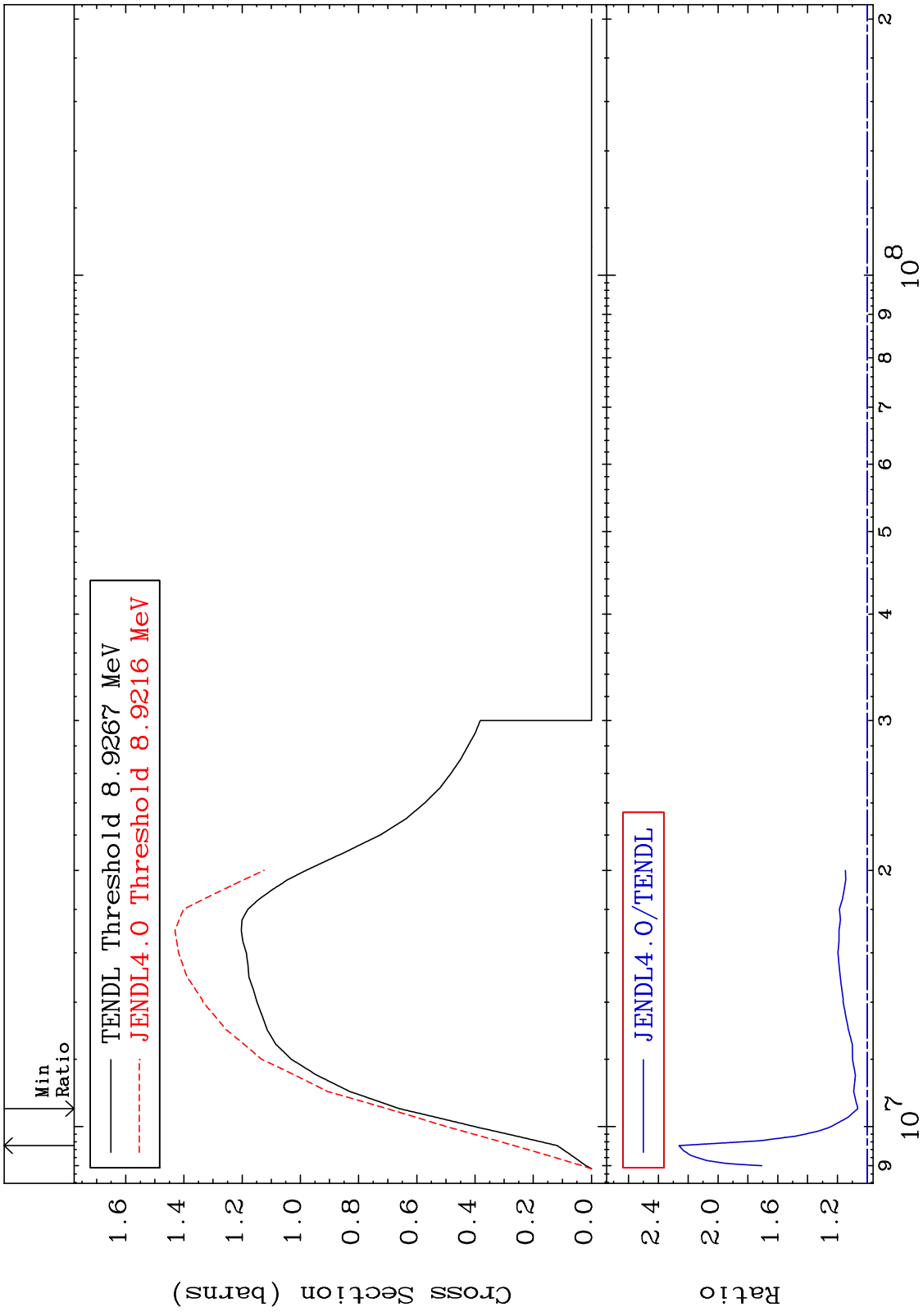
MAT 4125

Inelastic
Cross Section

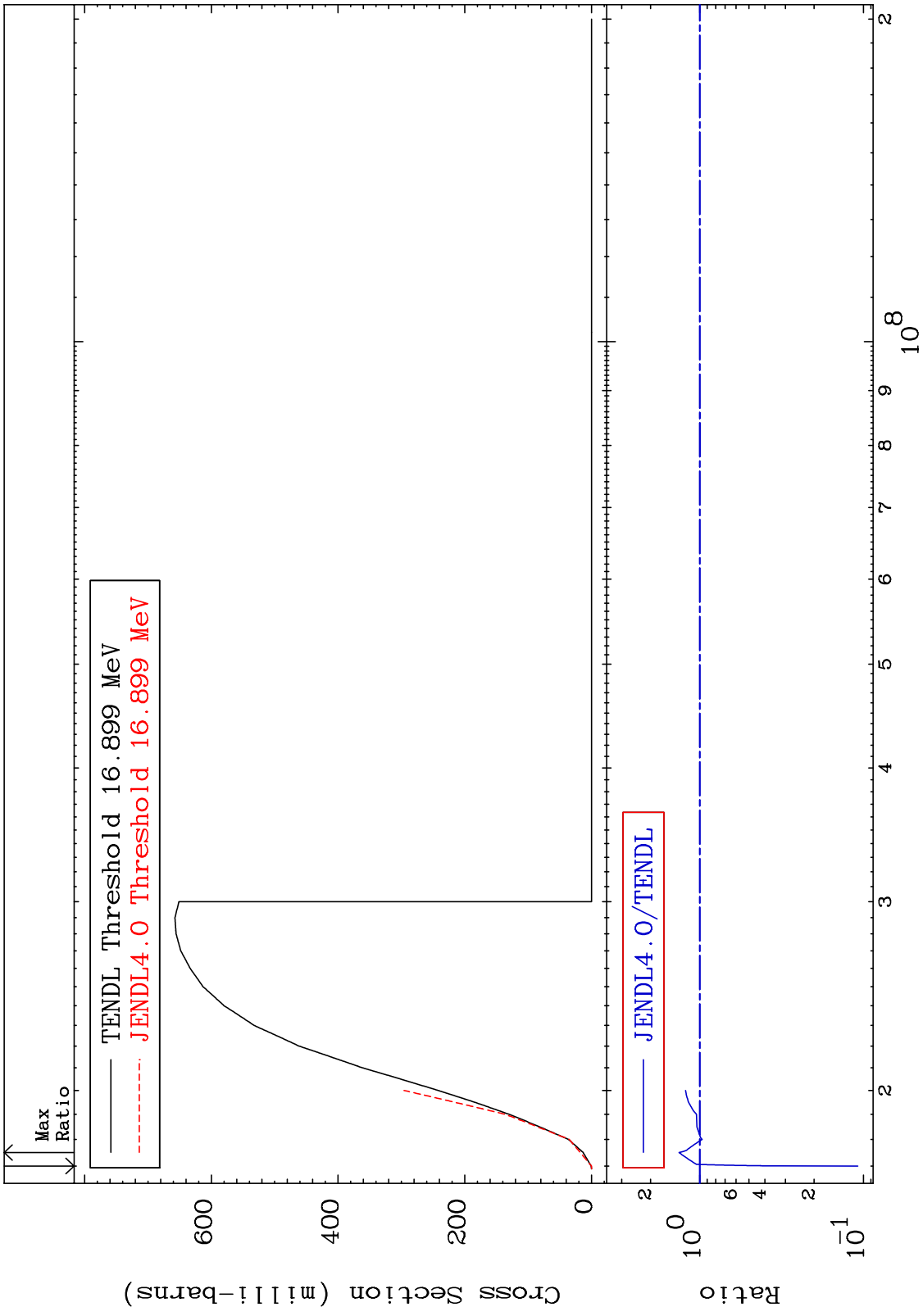
41-Nb-93
-44.28 To 54.85 %



MAT 4125 (n,2n) Cross Section 41-Nb-93 To 126.1 % 6.328



MAT 4125 (n,3n) Cross Section 41-Nb-93 -89.18 To 33.83 %



MAT 4125

(n,n') α

41-Nb-93

Cross Section

-24.43 To 9999. %

Max Ratio

Min Ratio

TENDL Threshold 1.9503 MeV
JENDL4.0 Threshold 5.0000 MeV

Cross Section (milli-barns)

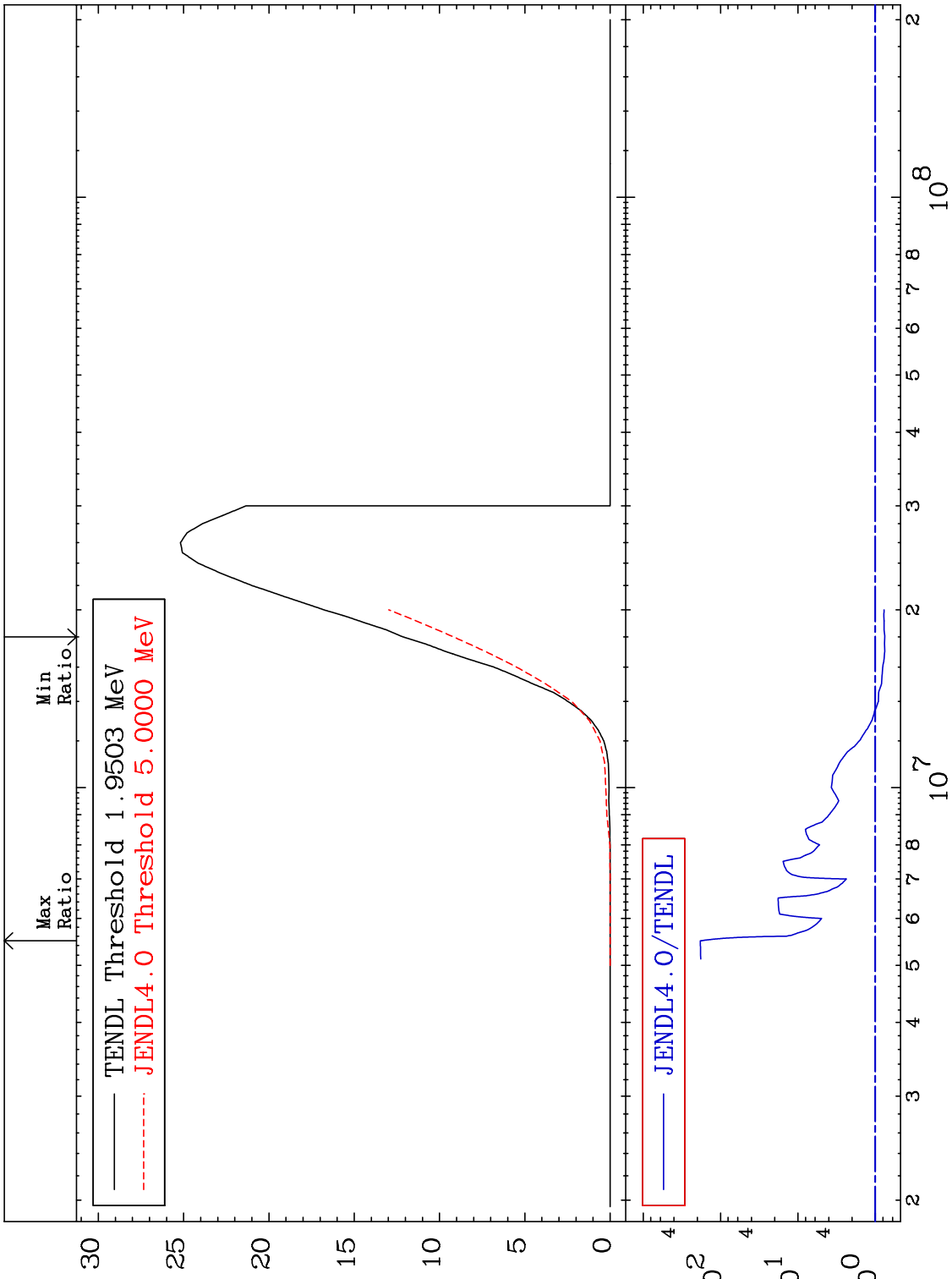
JENDL4.0/TENDL

Ratio

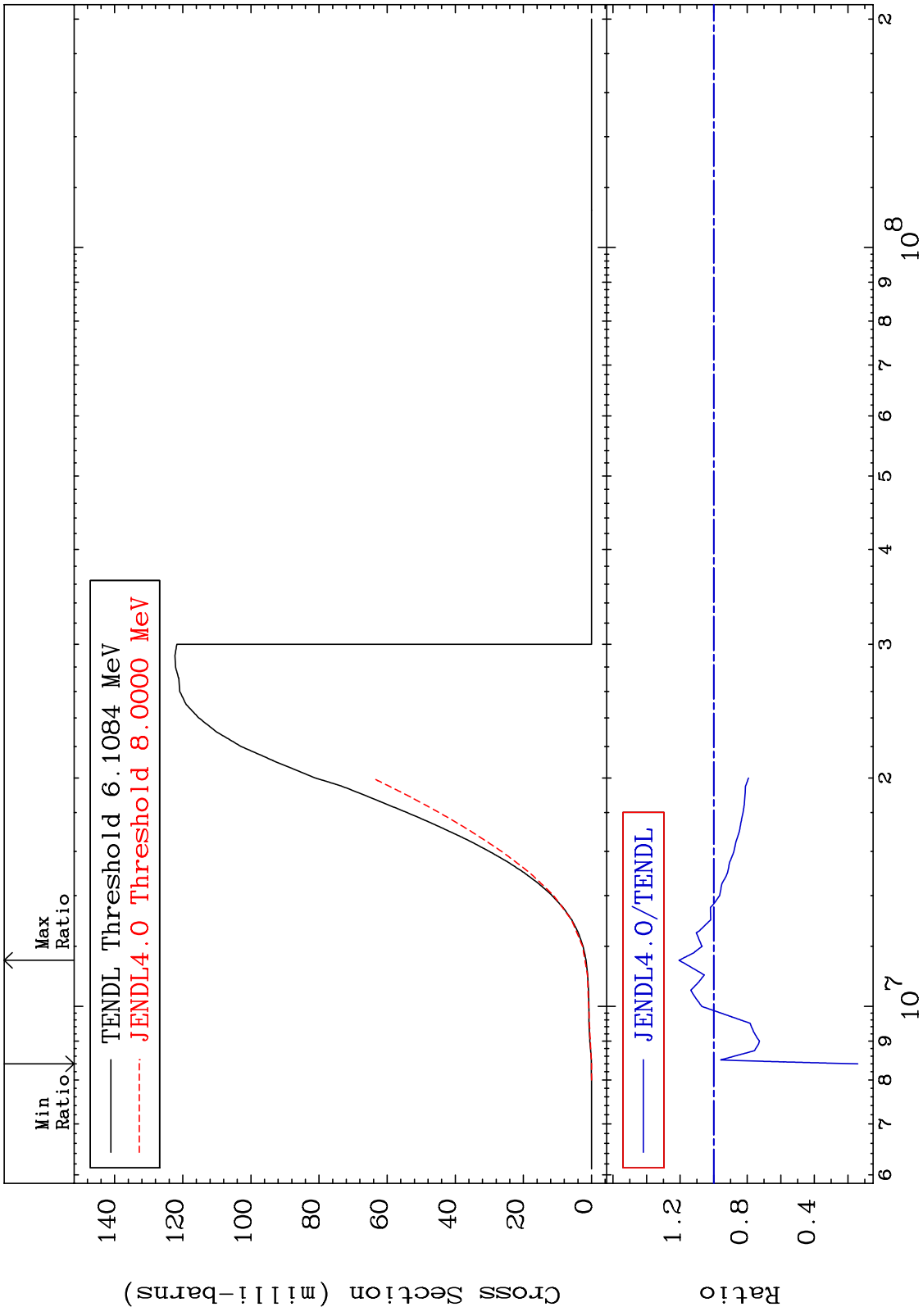
6

Incident Energy (eV)

41-Nb-93

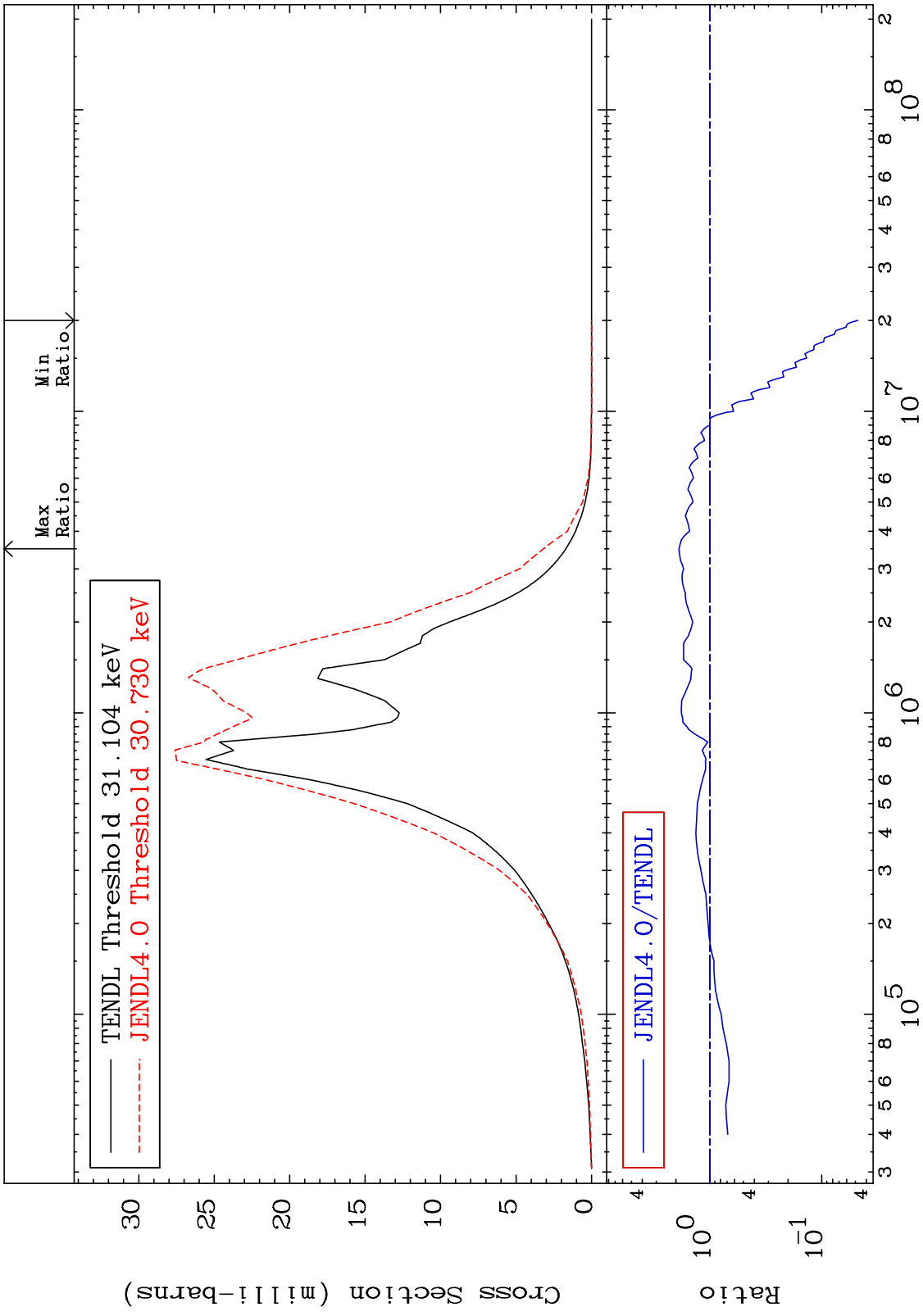


MAT 4125 (n, n') p 41-Nb-93
 Cross Section -85.89 To 20.66 %

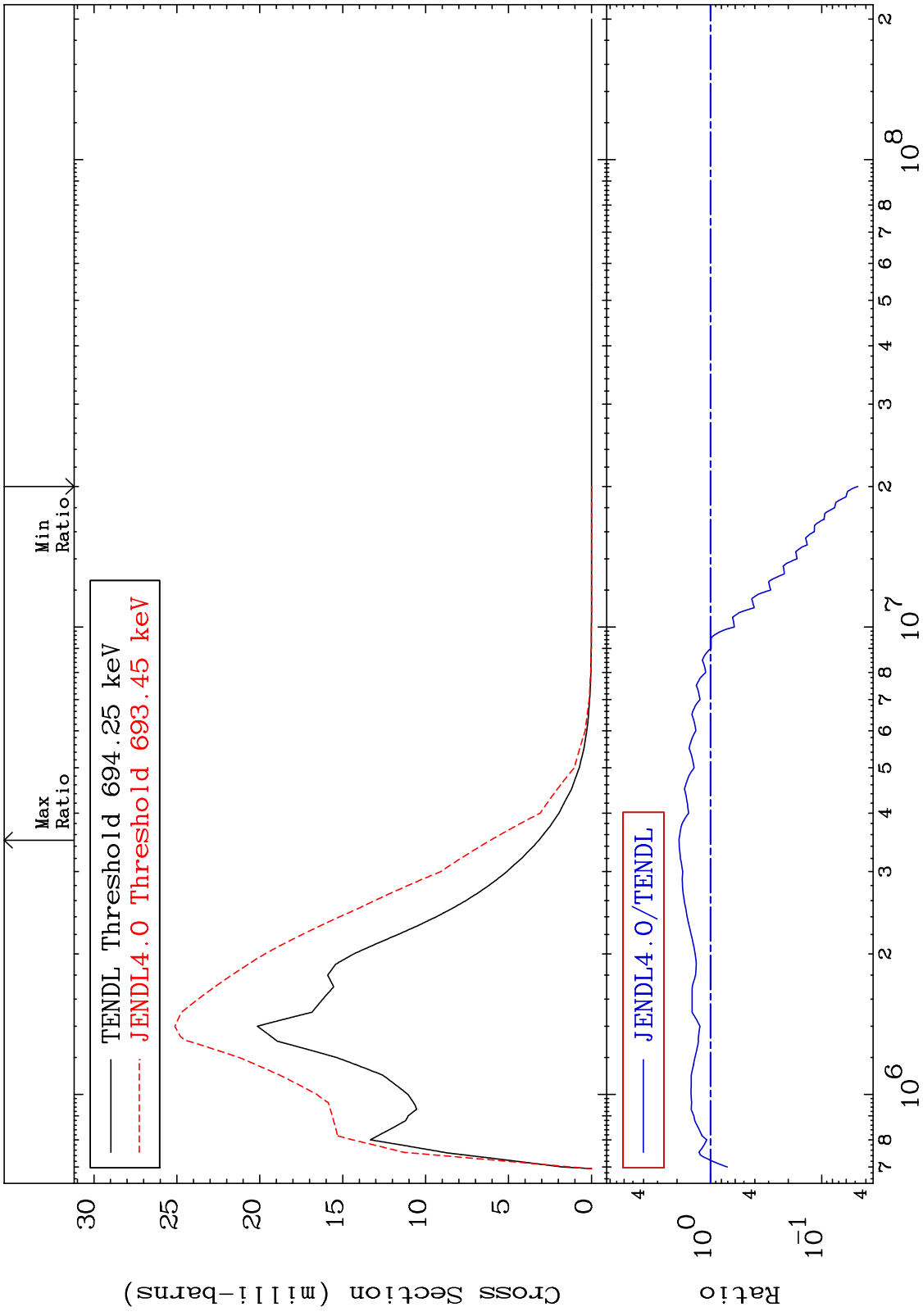


7 6 7 8 9 10⁷ 10⁸ 2
 41-Nb-93

MAT 4125 MT= 51 (n,n') Level Cross Section 41-Nb-93
 -95.24 To 87.90 %

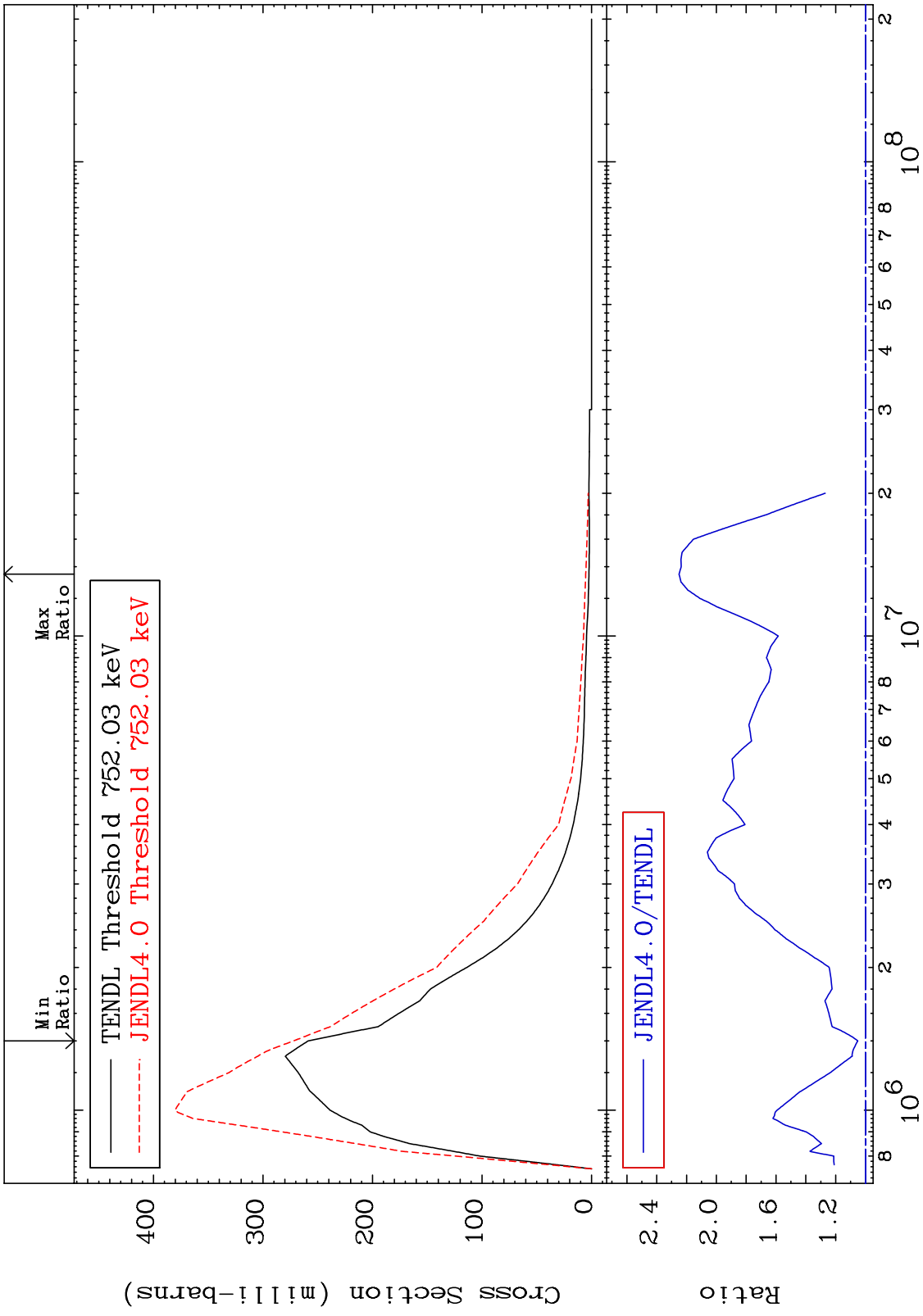


MAT 4125 MT= 52 (n,n') Level Cross Section 41-Nb-93 -95.27 To 91.94 %



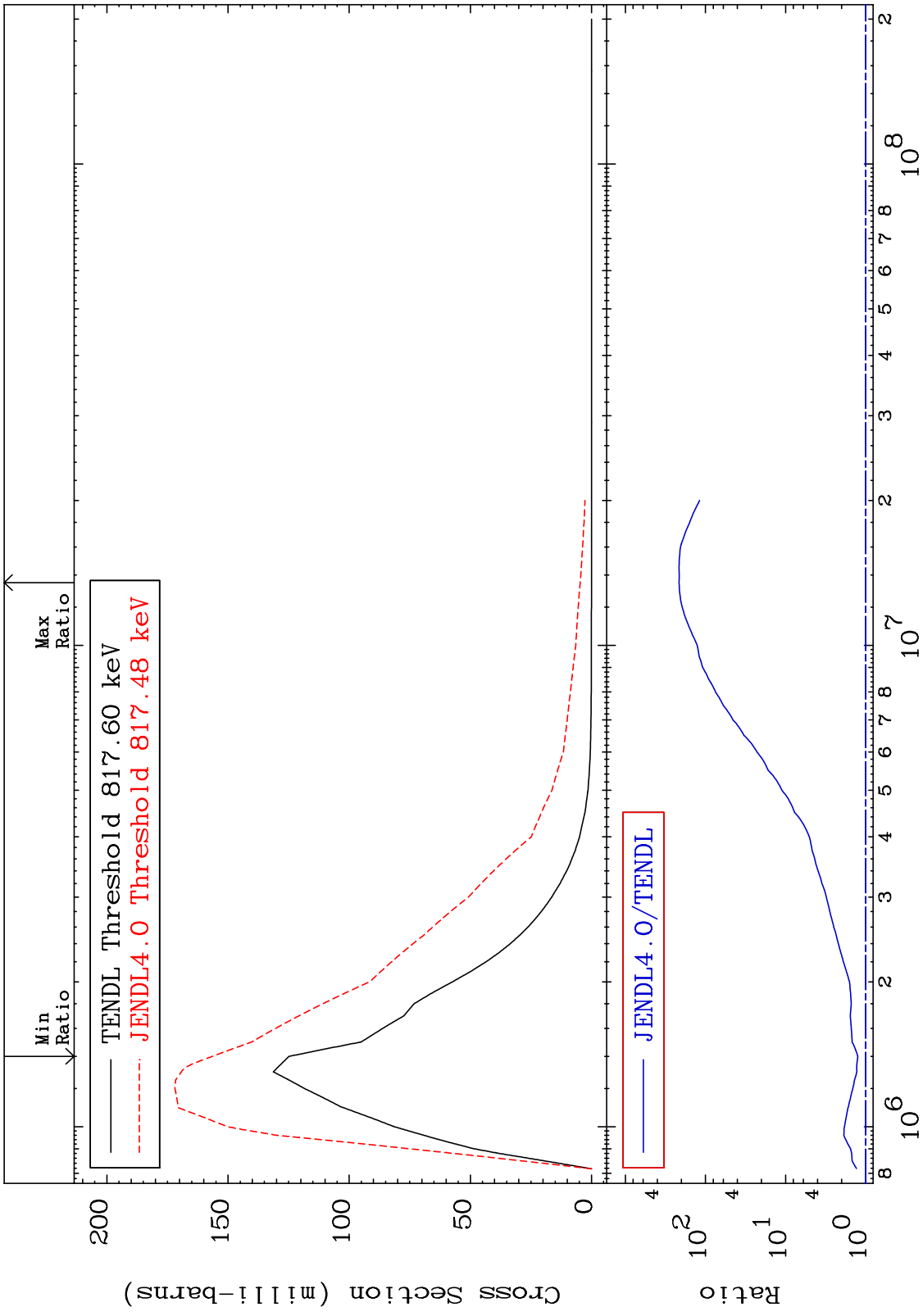
9 Incident Energy (eV) 41-Nb-93

MAT 4125 MT= 53 (n,n') Level Cross Section 41-Nb-93 5.142 To 125.0 %

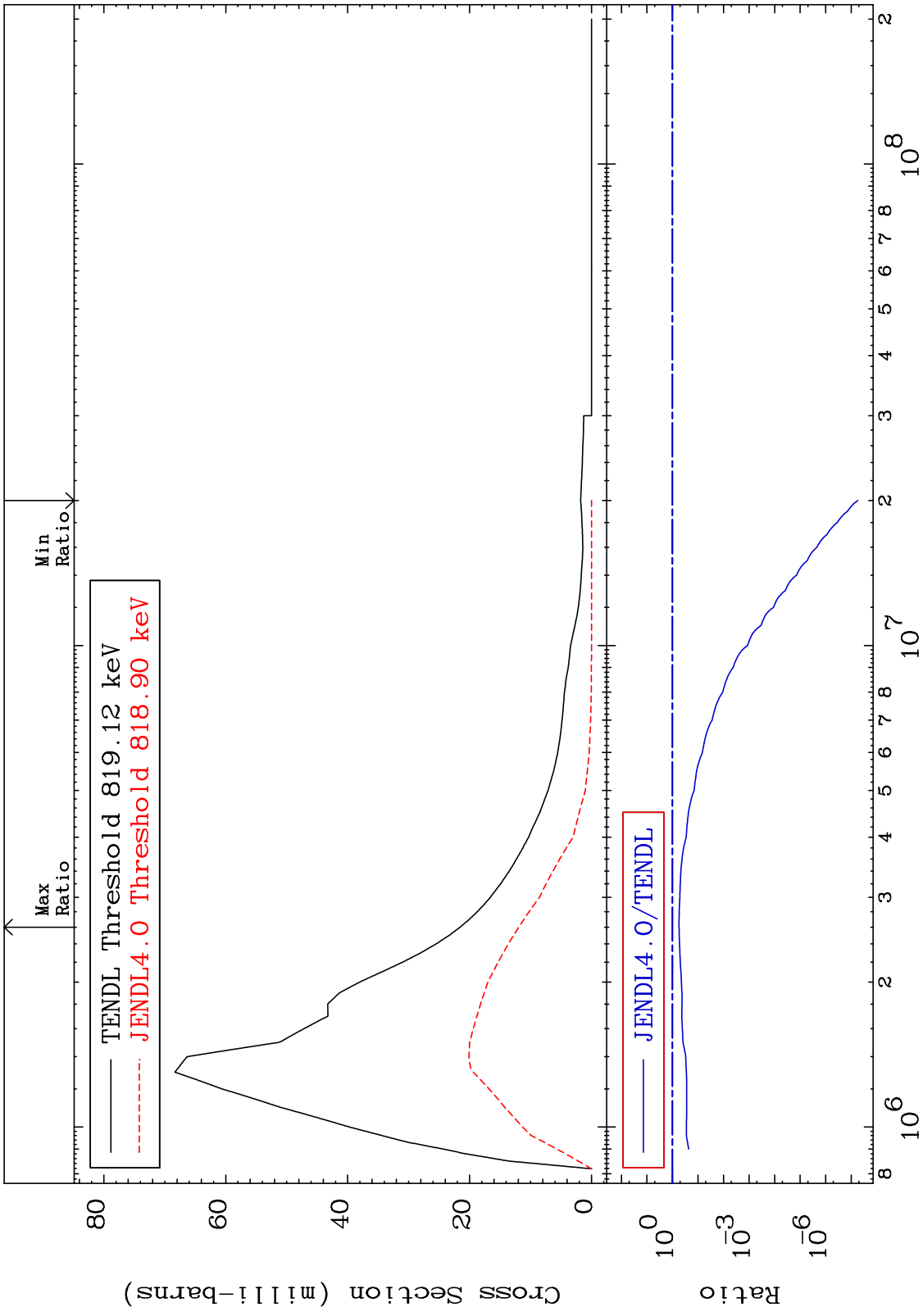


41-Nb-93

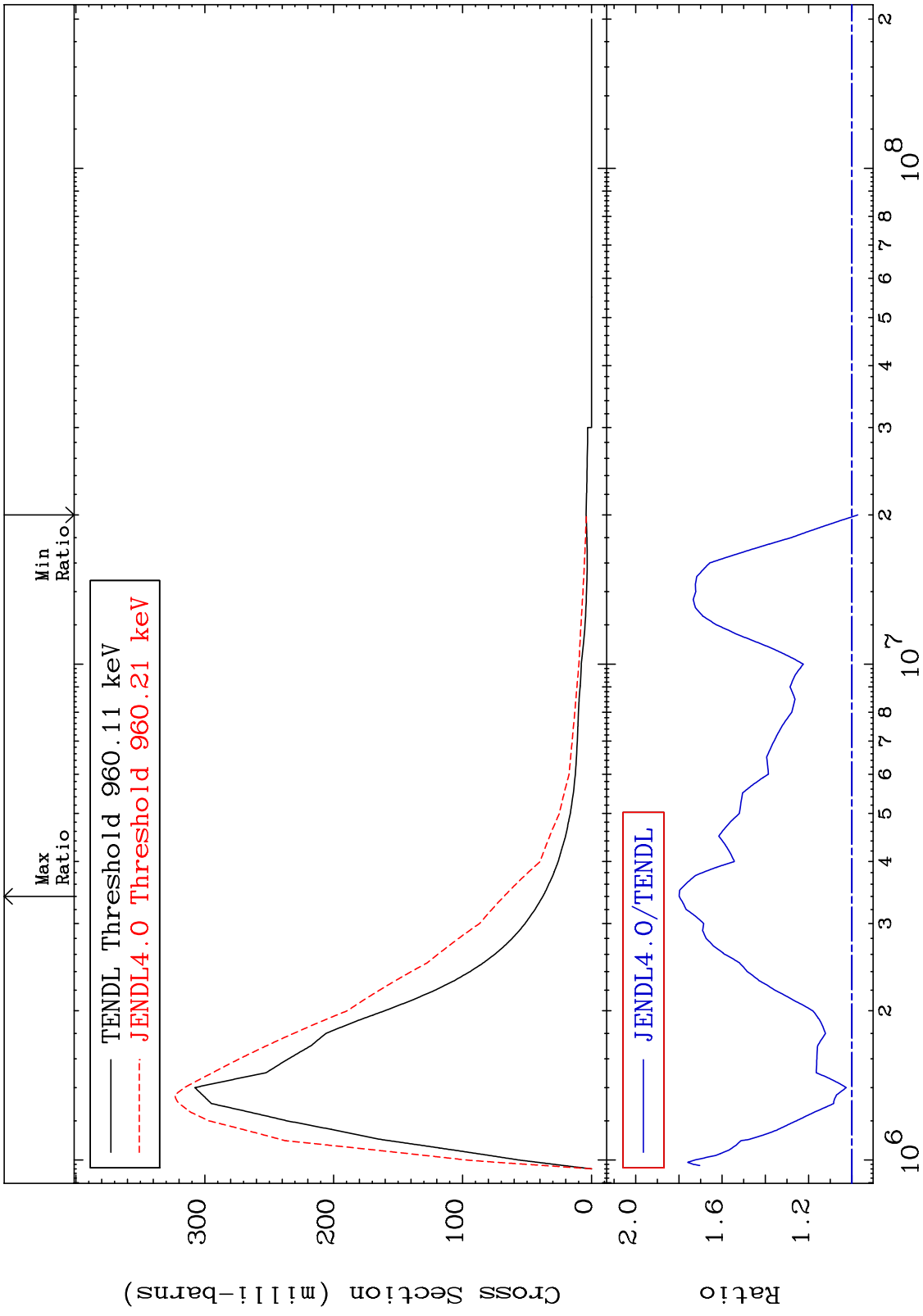
MAT 4125 MT= 54 (n,n') Level Cross Section 41-Nb-93 25.35 To 9999. %



MAT 4125 MT= 55 (n,n') Level Cross Section 41-Nb-93 -100.0 To -44.62%

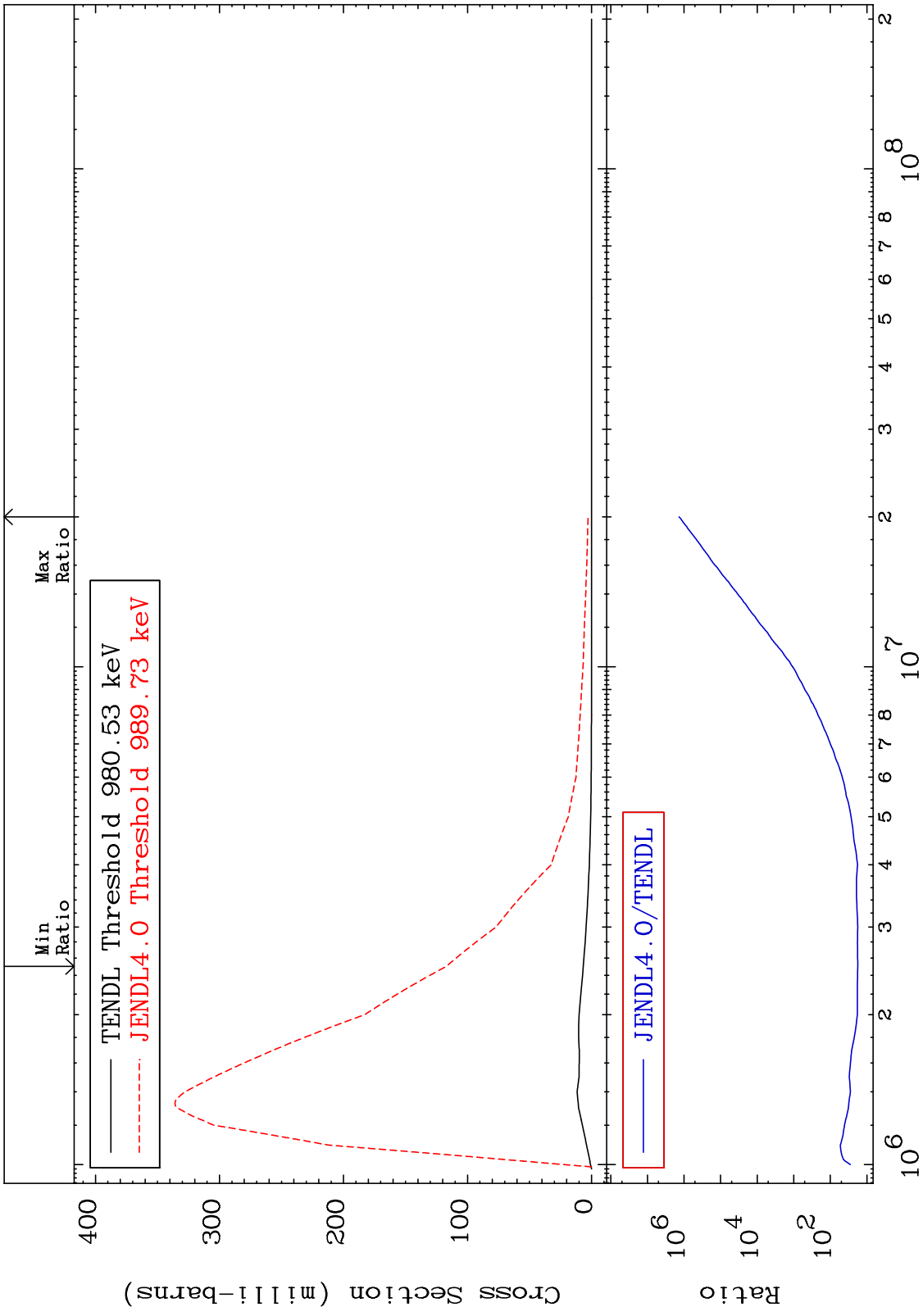


MAT 4125 MT= 56 (n,n') Level Cross Section -2.752 To 79.93 % 41-Nb-93

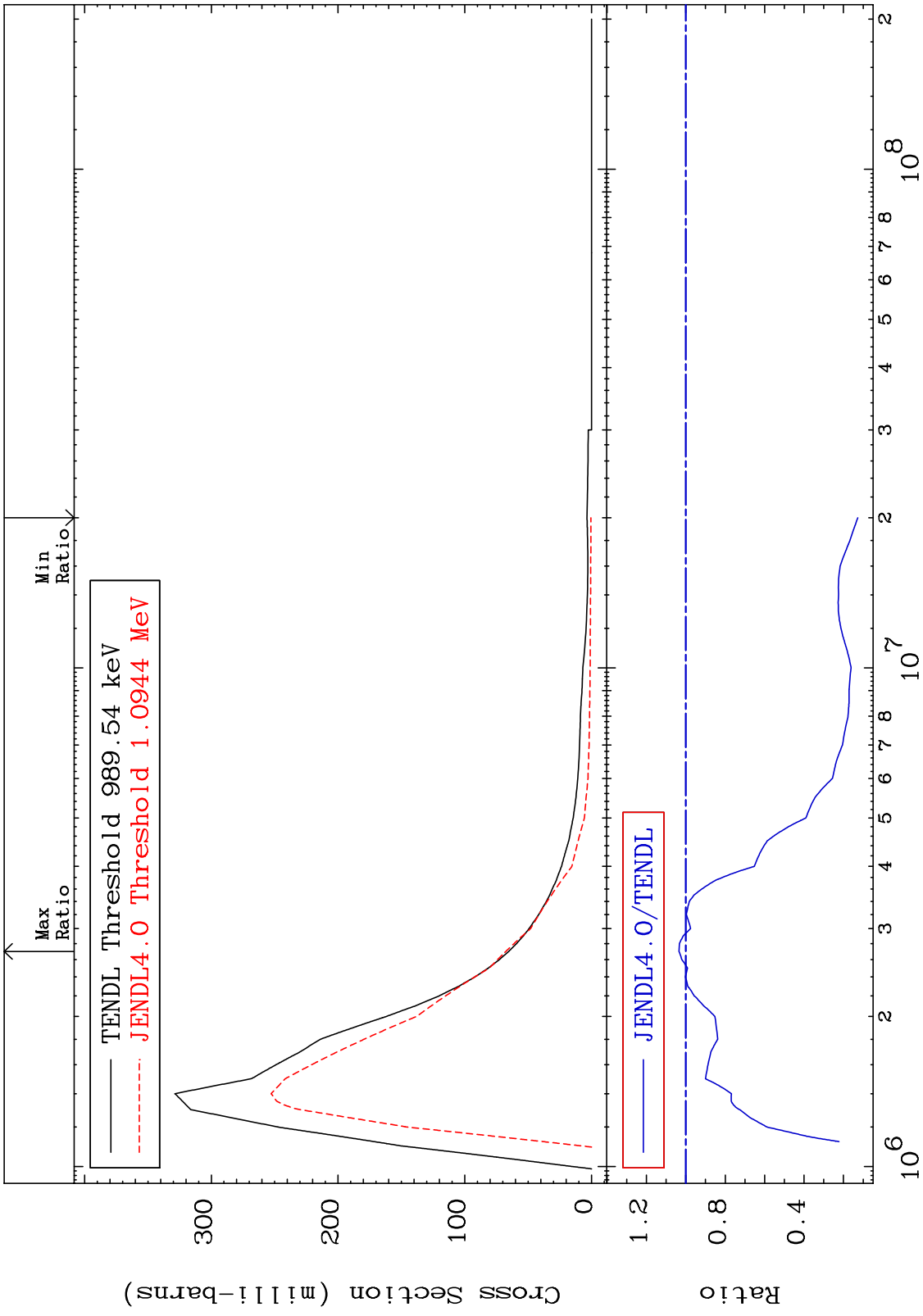


13 41-Nb-93

MAT 4125 MT= 57 (n,n') Level Cross Section 41-Nb-93 1670. To 9999. %

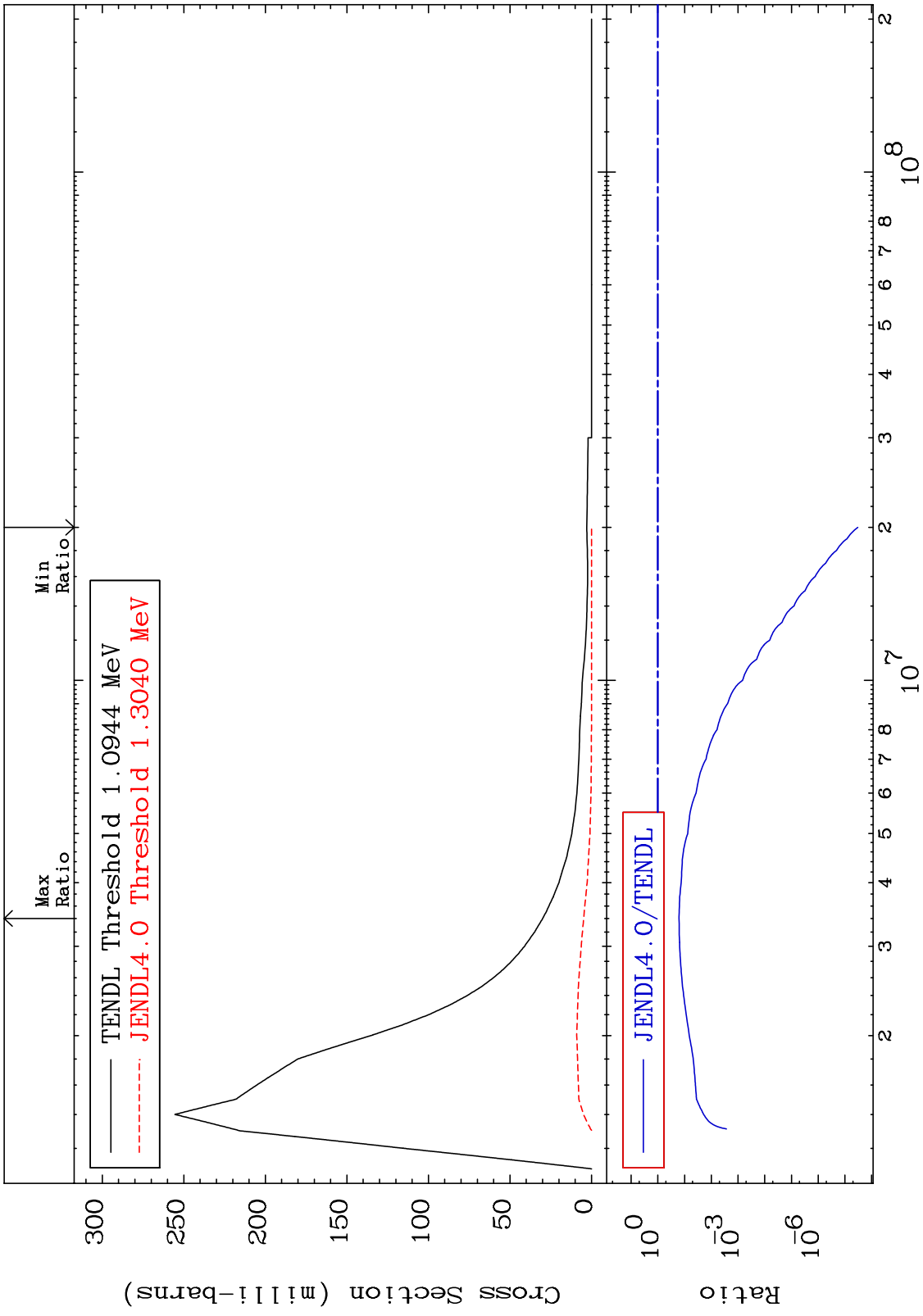


MAT 4125 MT= 58 (n,n') Level Cross Section -87.30 To 3.428 % 41-Nb-93

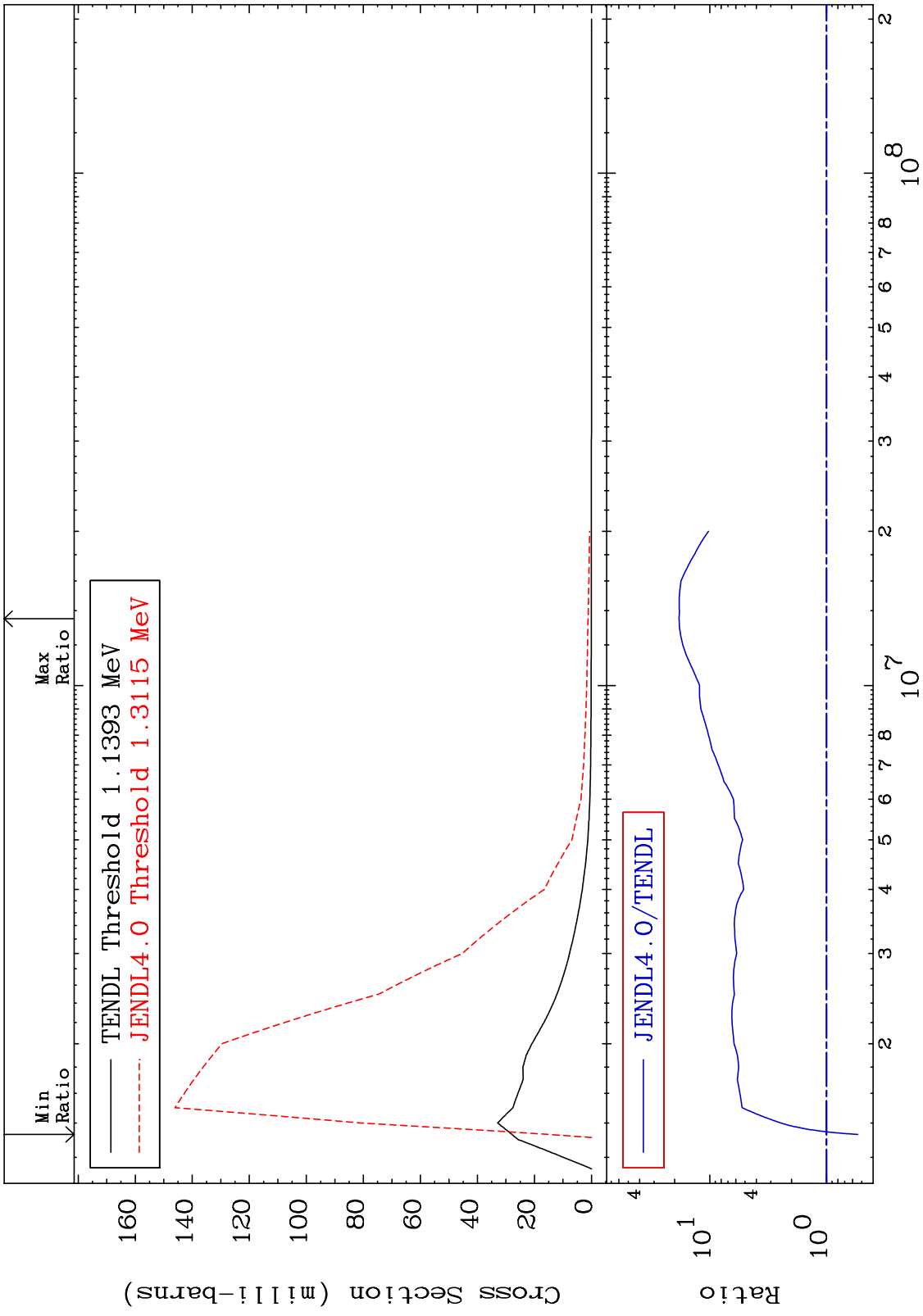


15 41-Nb-93

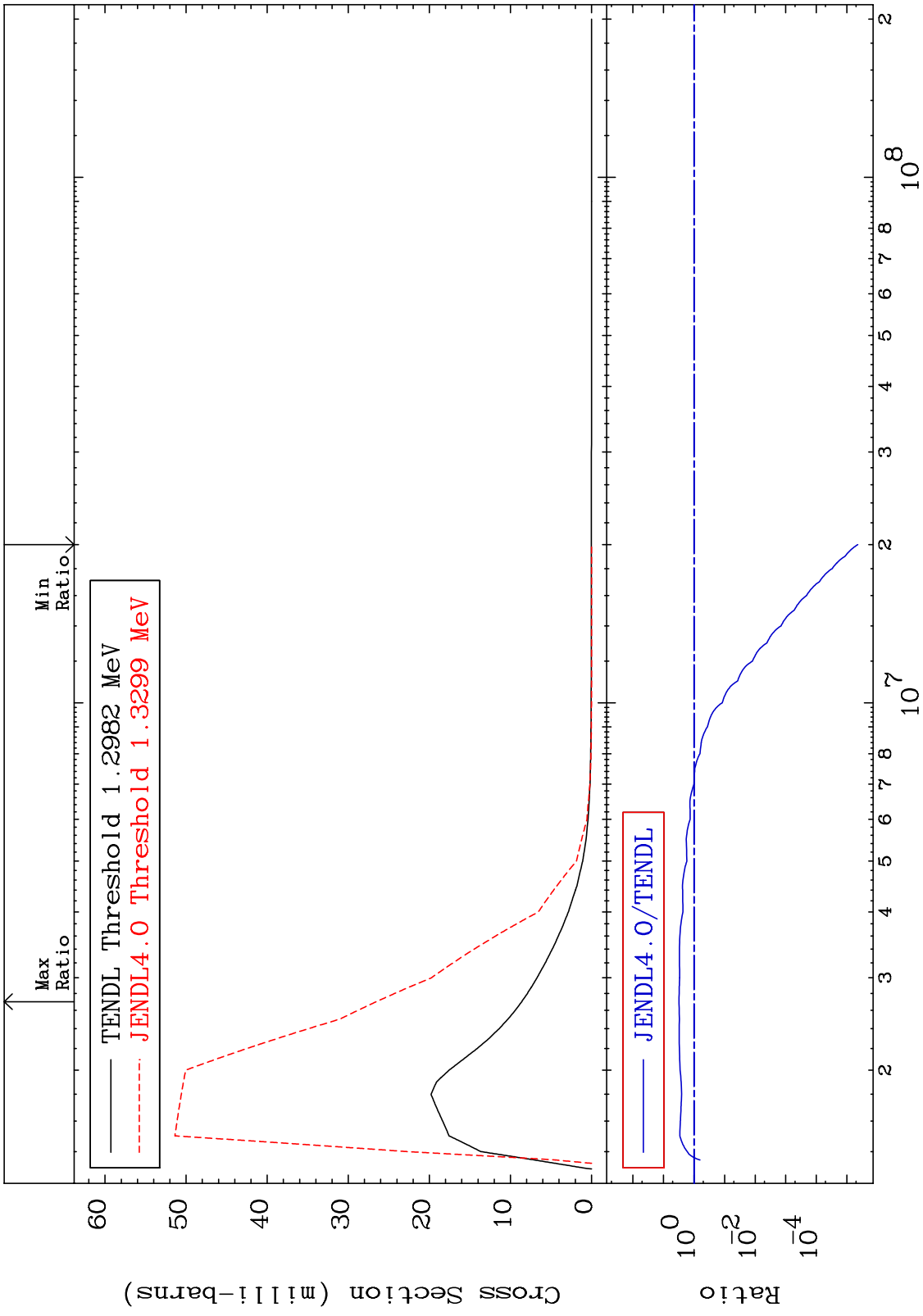
MAT 4125 MT= 59 (n,n') Level Cross Section 41-Nb-93 -100.0 To -83.87%



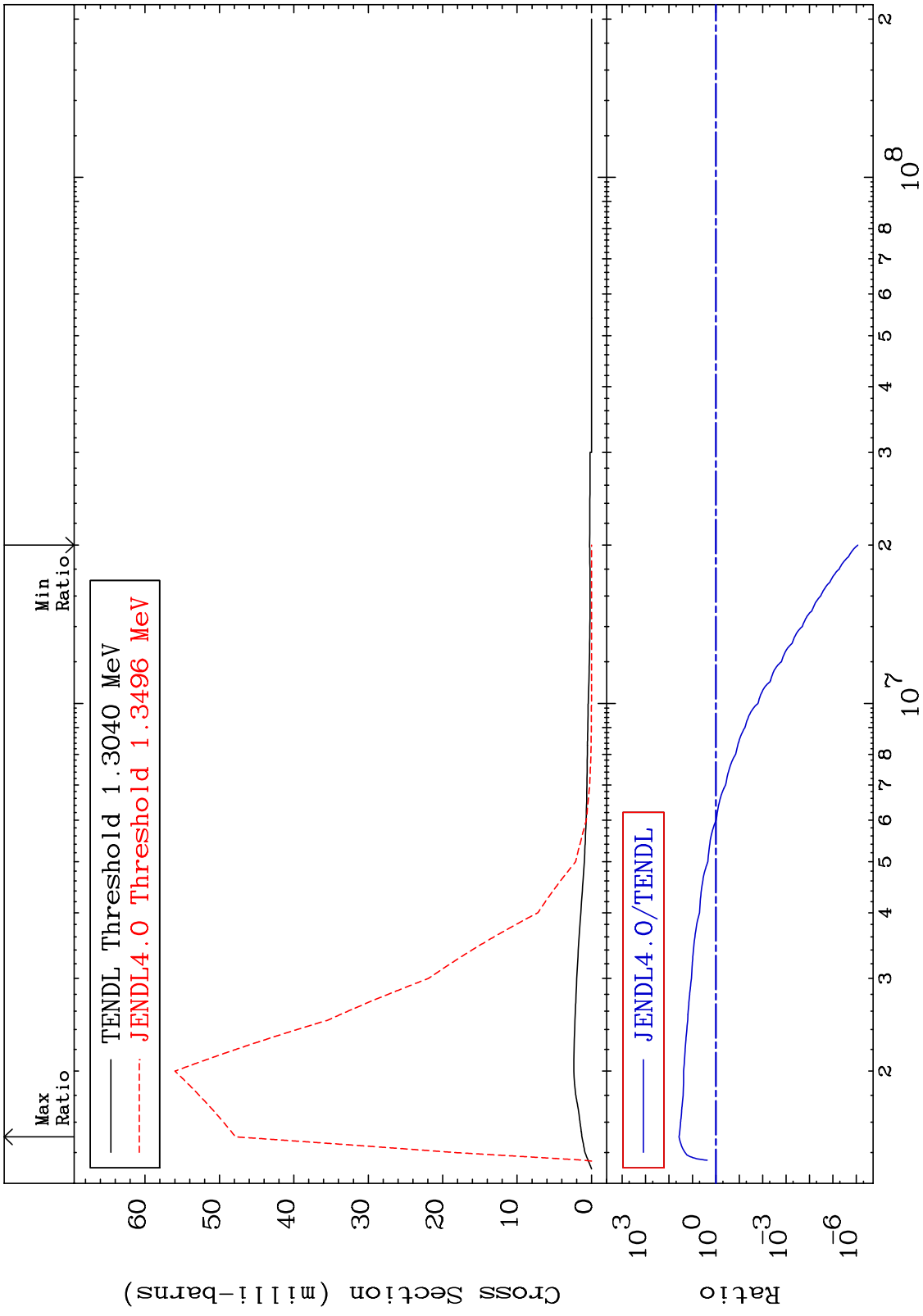
MAT 4125 MT= 60 (n,n') Level Cross Section -45.99 To 1735. % 41-Nb-93

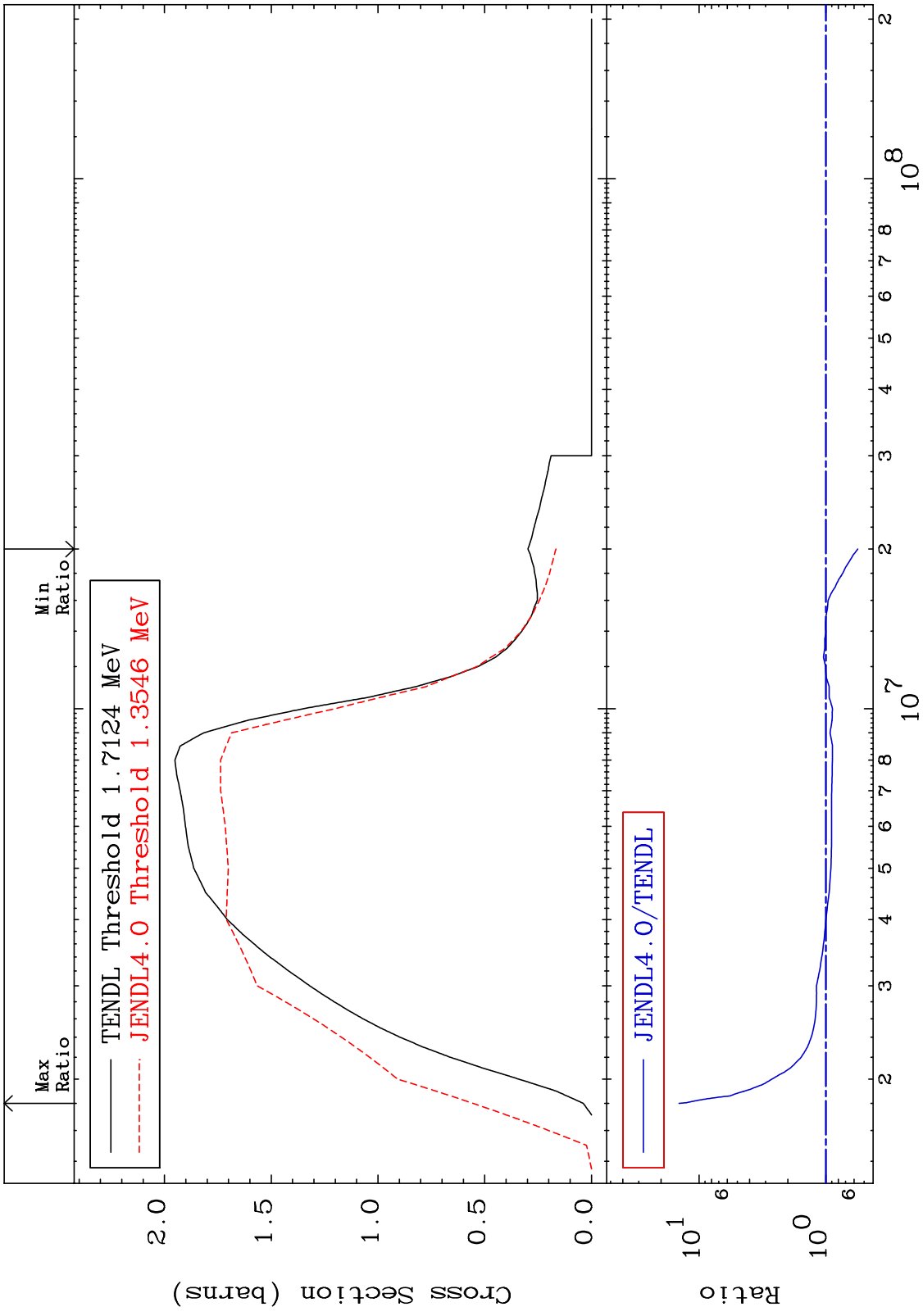


MAT 4125 MT= 61 (n,n') Level Cross Section -100.0 To 208.3 % 41-Nb-93



MAT 4125 MT= 62 (n,n') Level Cross Section -100.0 To 3627. % 41-Nb-93





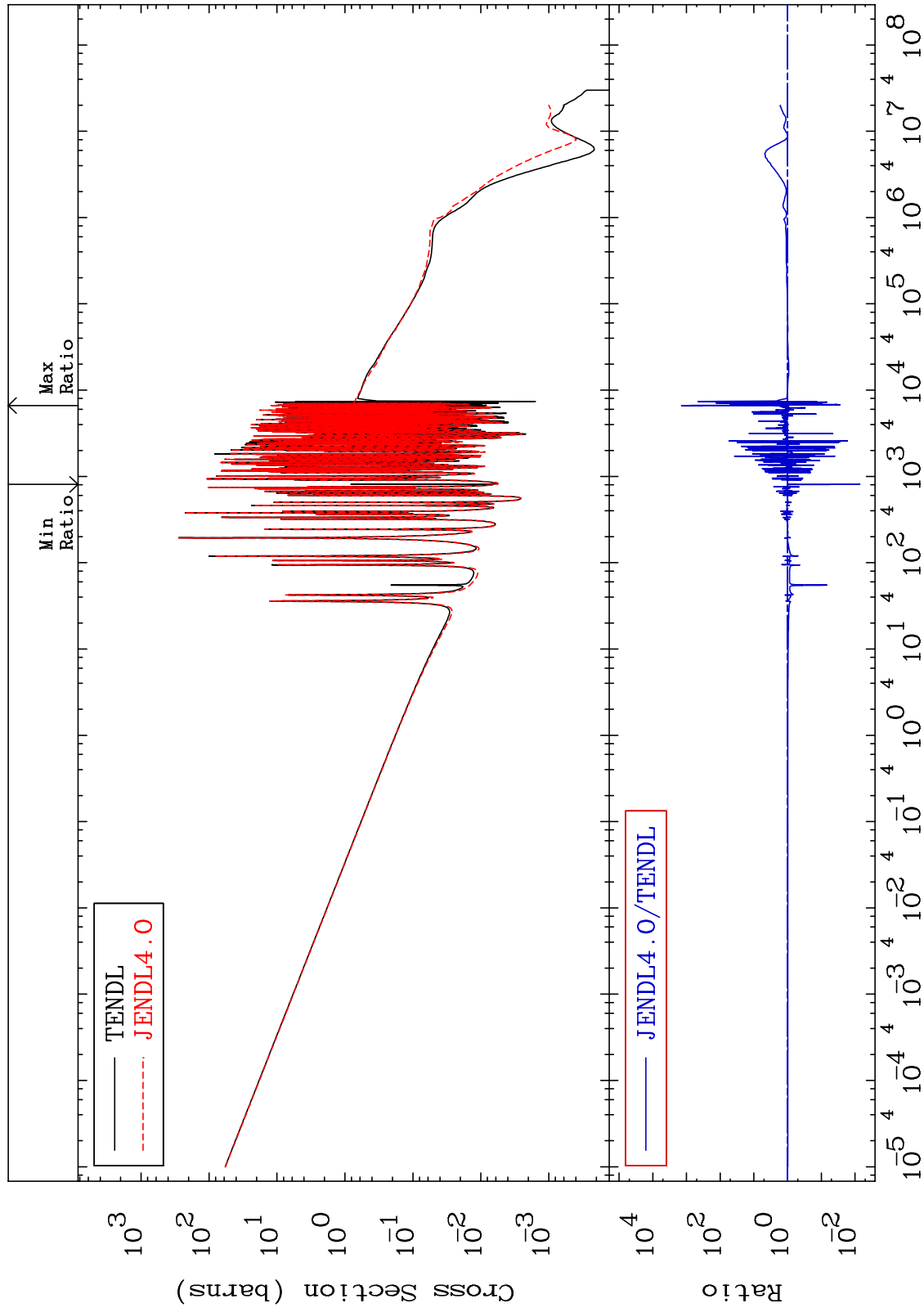
MAT 4125

(n, γ)

41-Nb-93

Cross Section

-99.28 To 9999. %



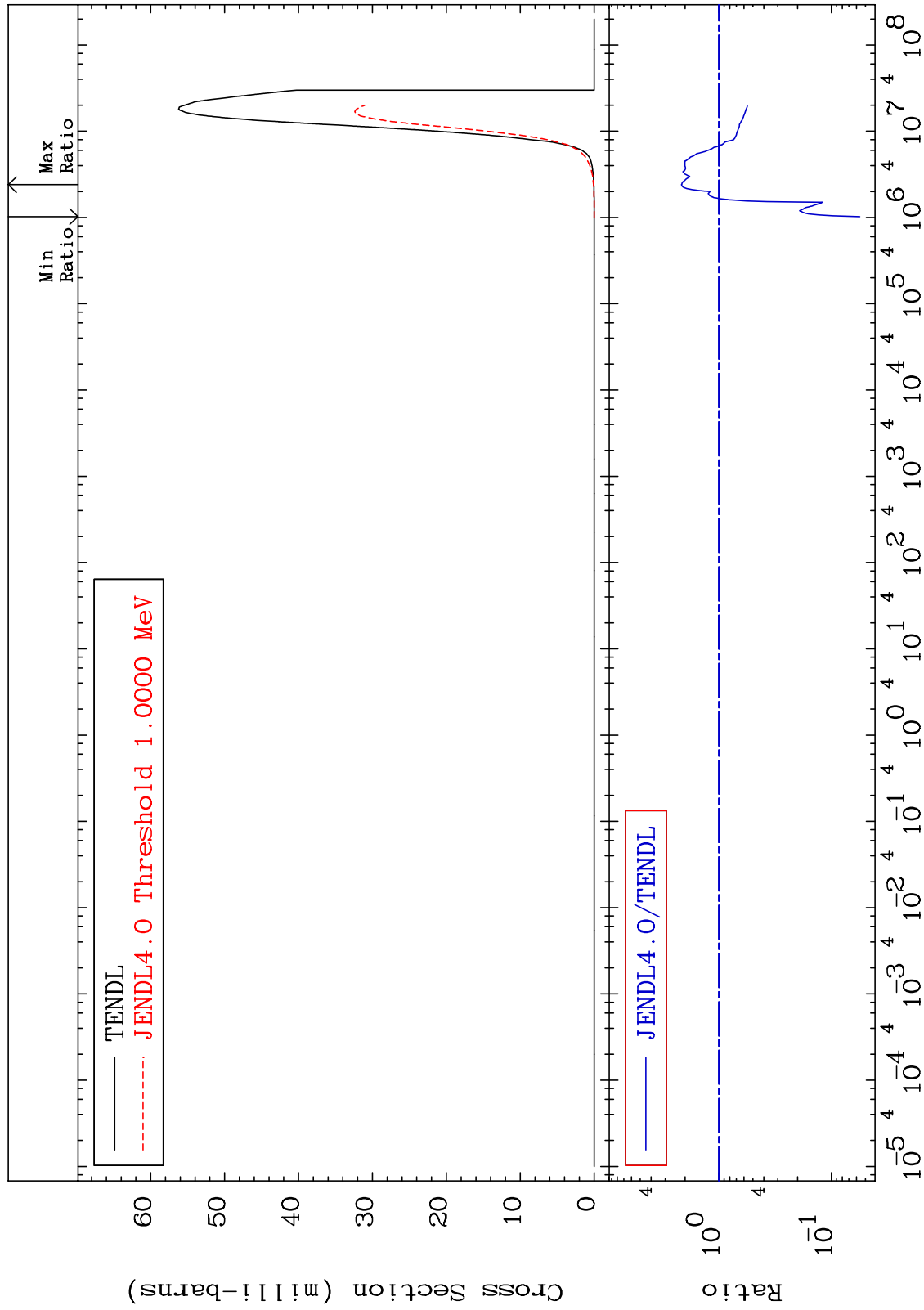
MAT 4125

(n,p)

41-Nb-93

Cross Section

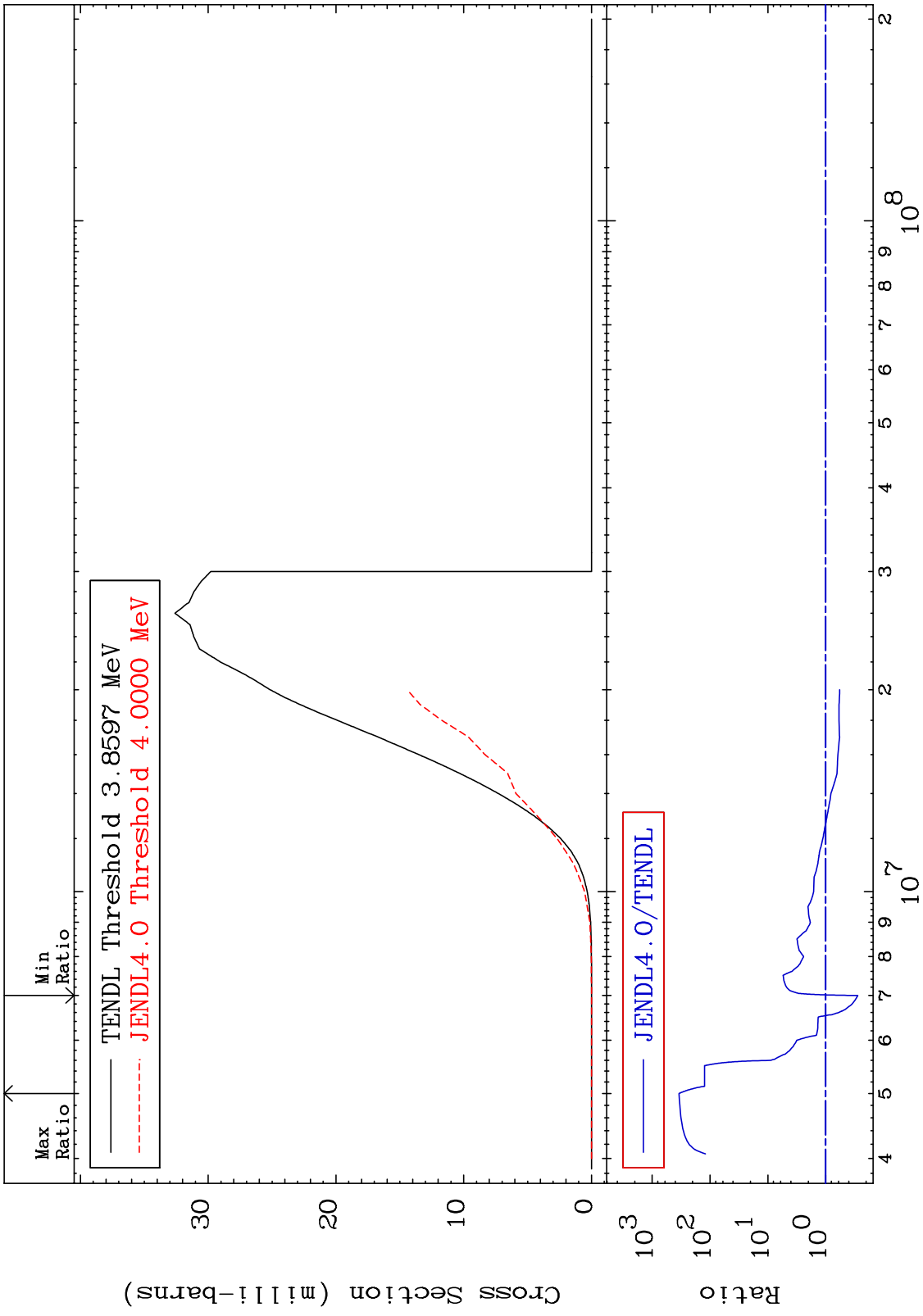
-94.40 To 115.3 %



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Incident Energy (eV)

41-Nb-93



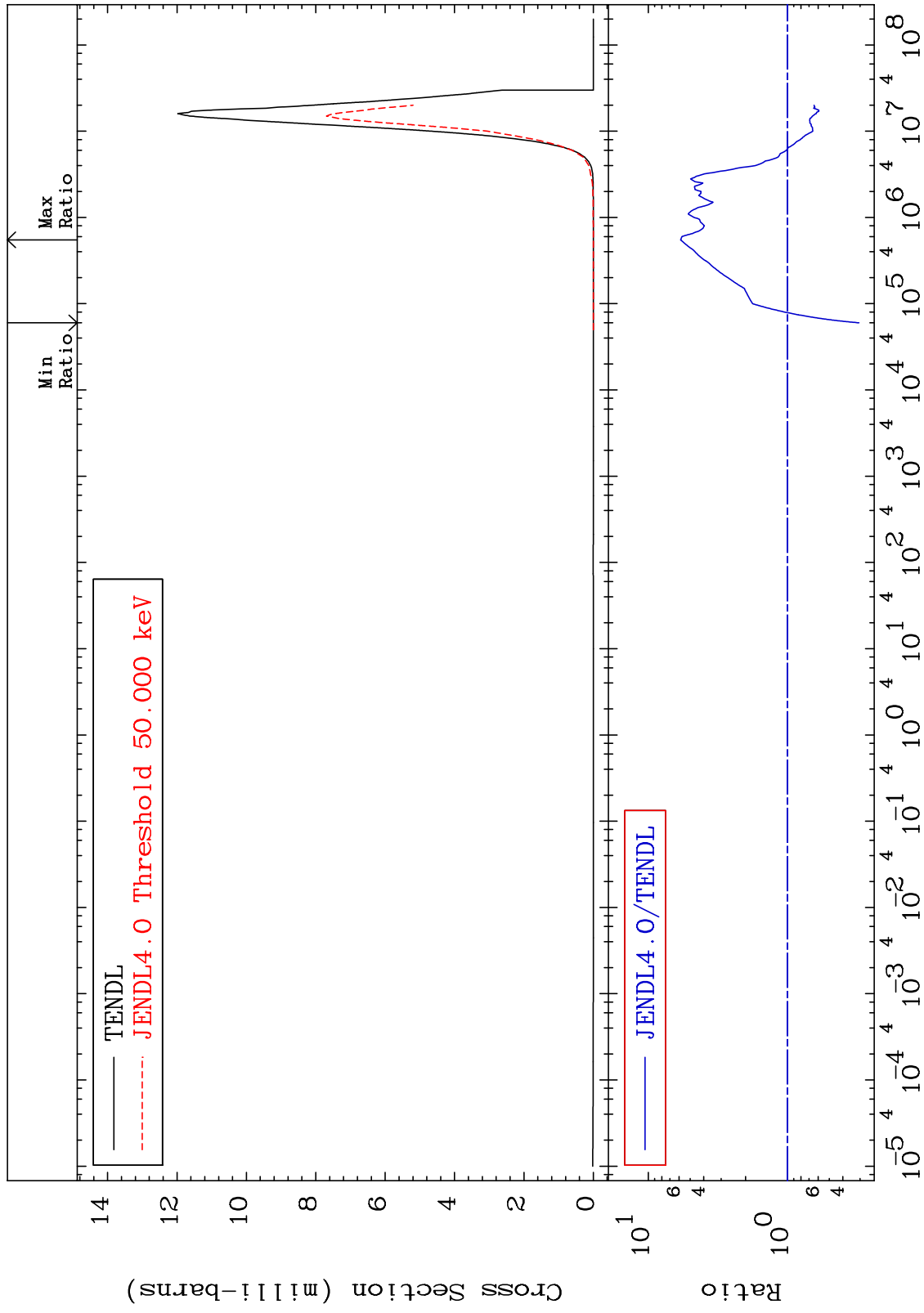
MAT 4125

(n, α)

41-Nb-93

Cross Section

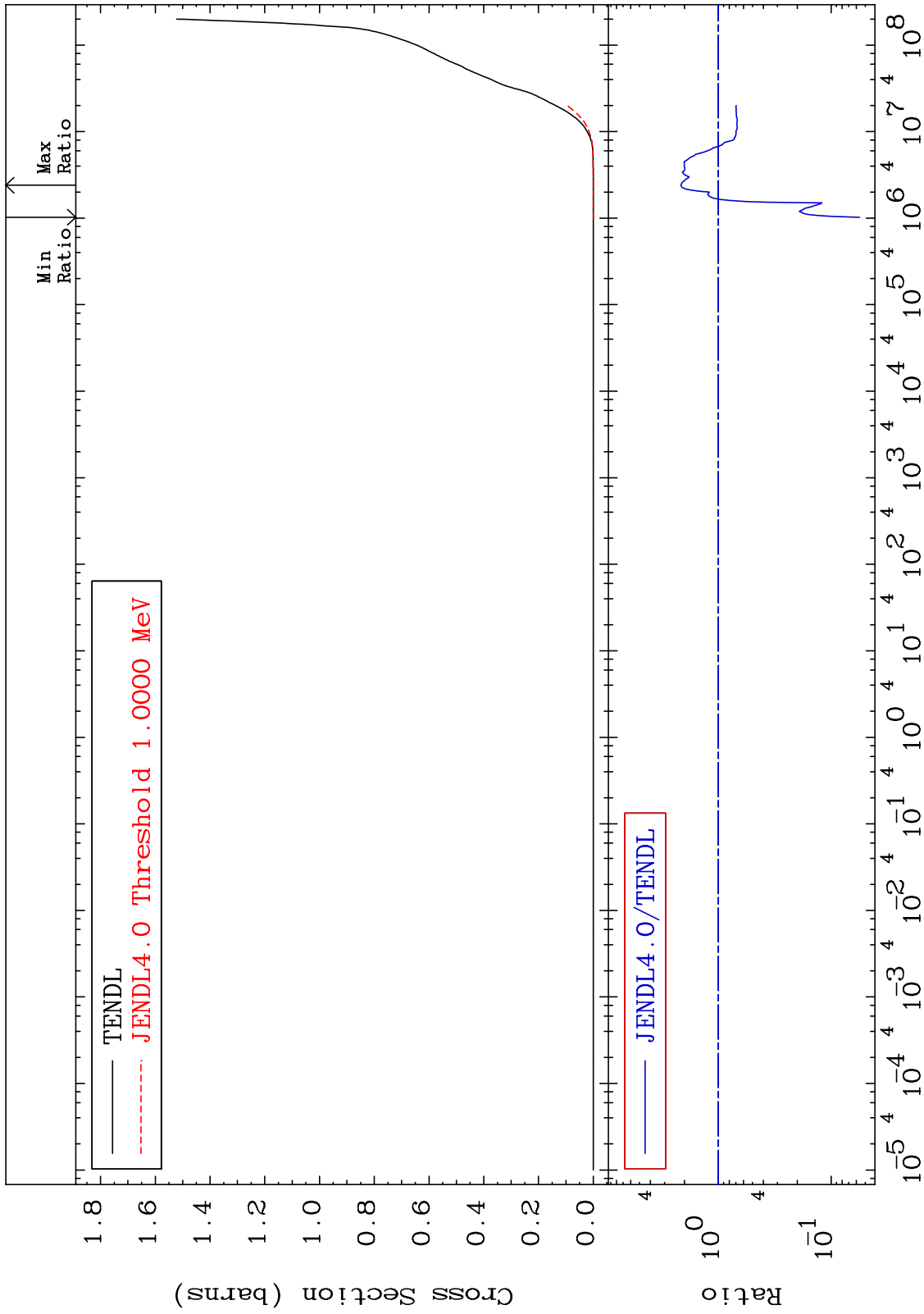
-69.43 To 485.4 %



MAT 4125

Hydrogen Production Cross Section

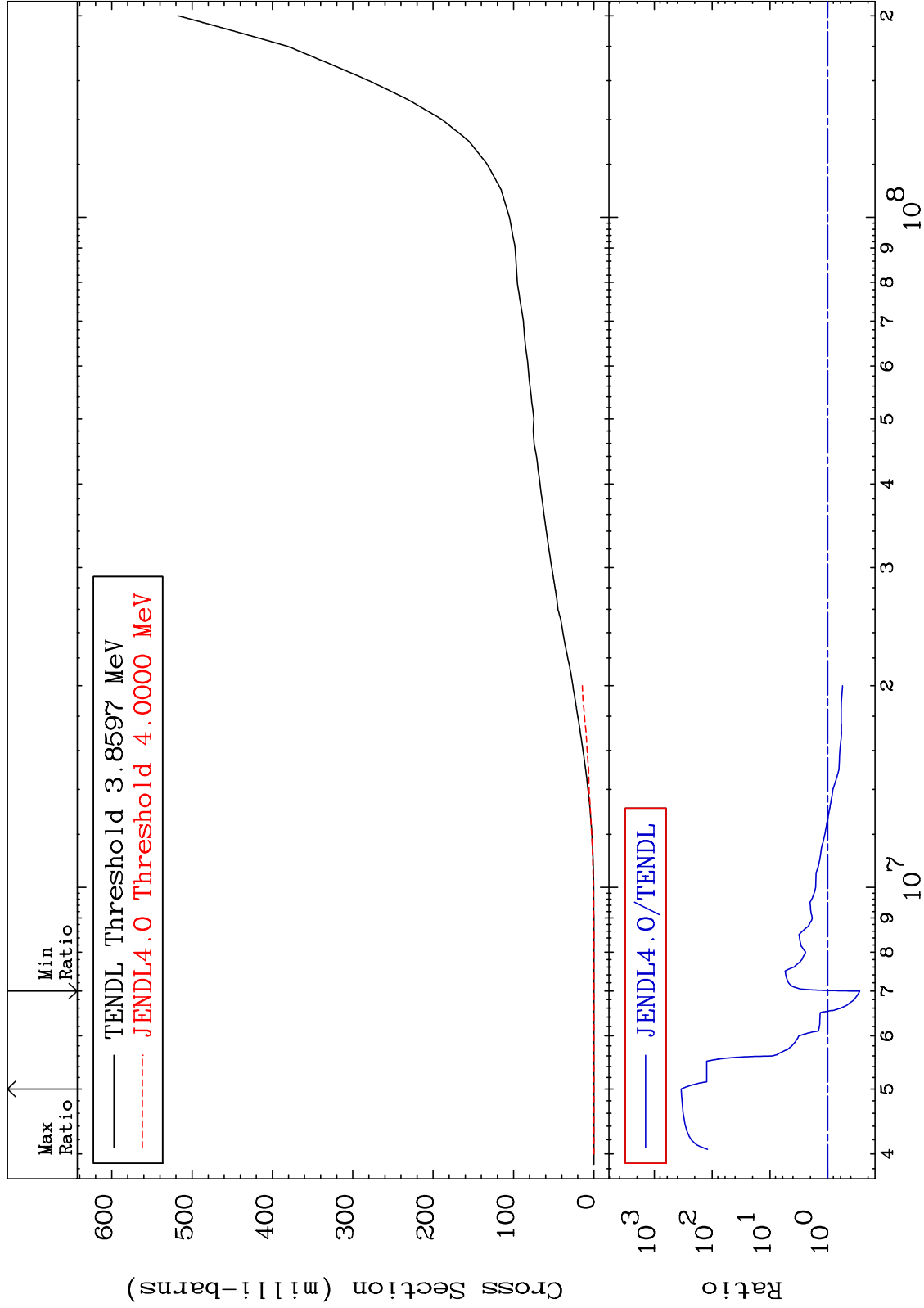
41-Nb-93
-94.40 To 115.3 %



MAT 4125

Deuterium Production Cross Section

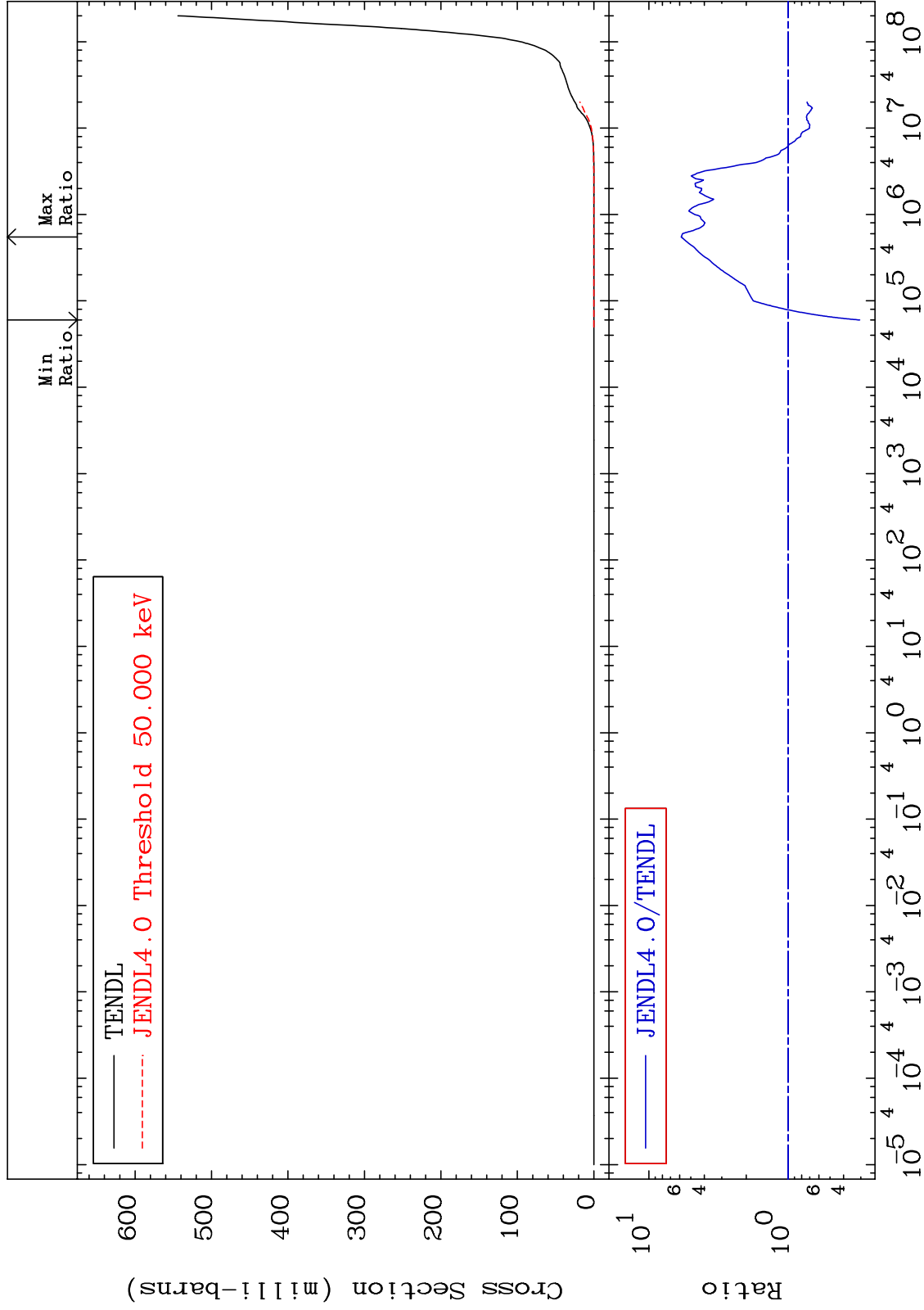
41-Nb-93
-72.17 To 9999. %



MAT 4125

He-4 Production
Cross Section

41-Nb-93
-69.43 To 485.4 %

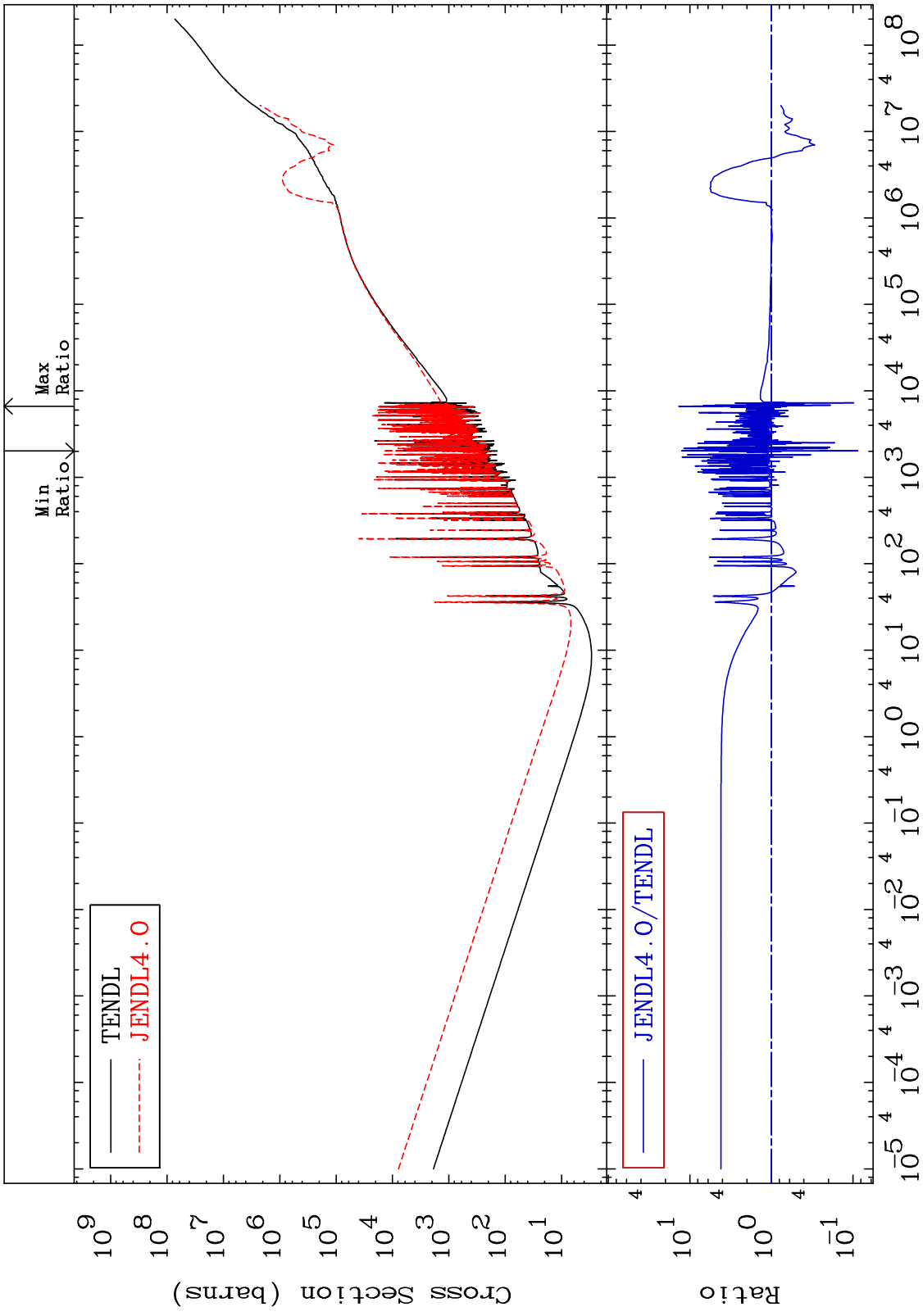


27

Incident Energy (eV)

41-Nb-93

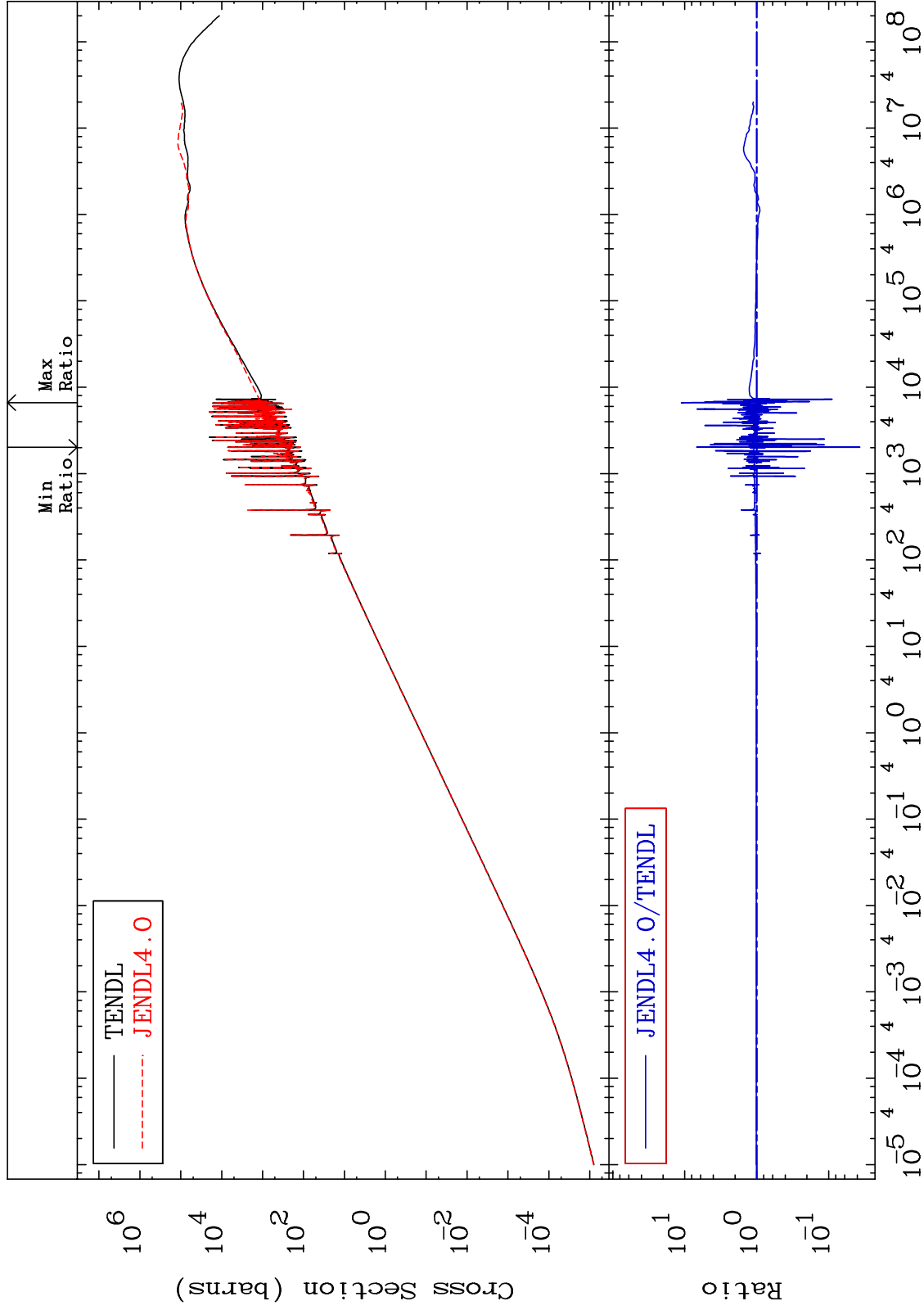
MAT 4125 Kerma total (eV-barns) 41-Nb-93
 Cross Section -91.28 To 1260. %



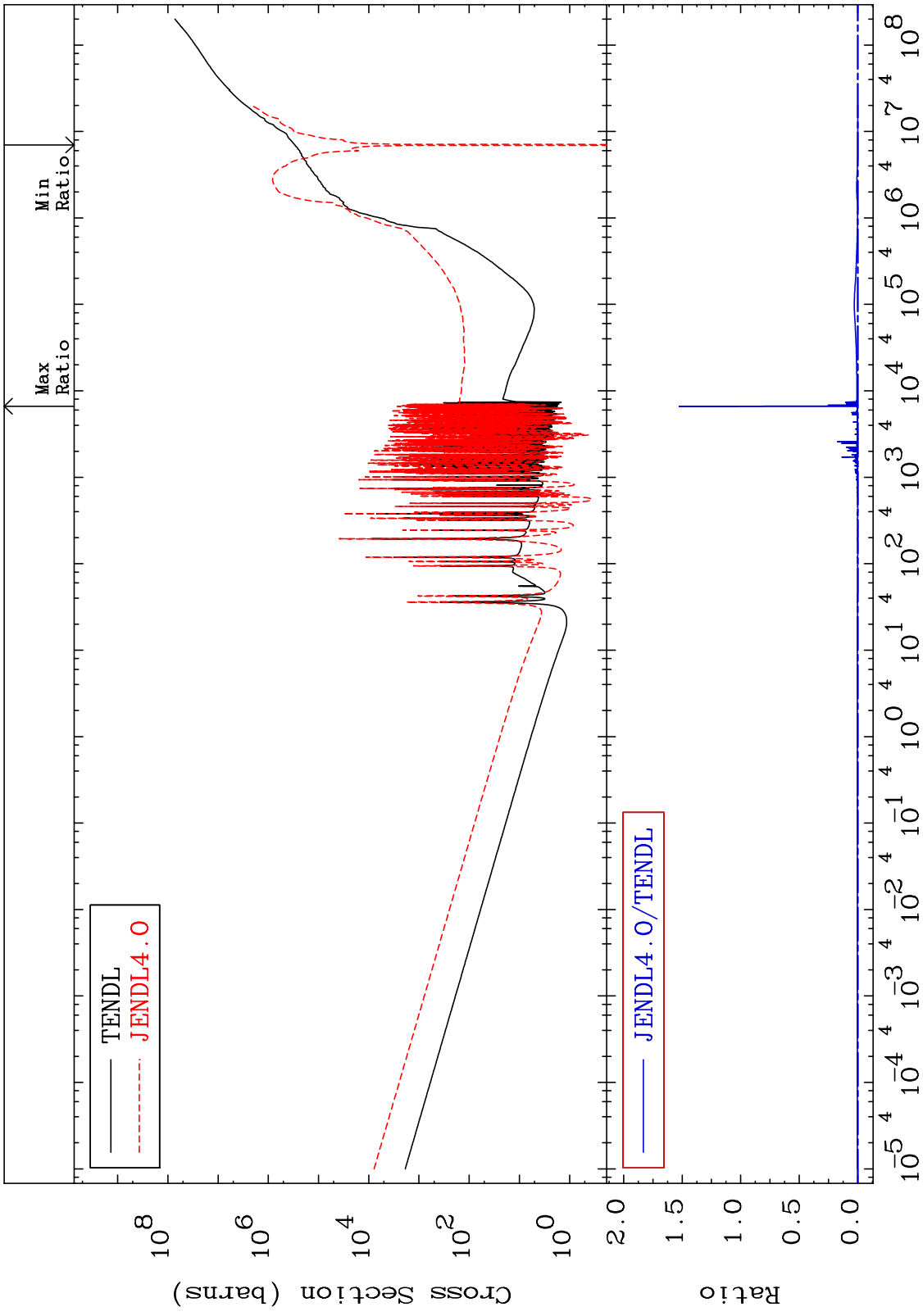
MAT 4125

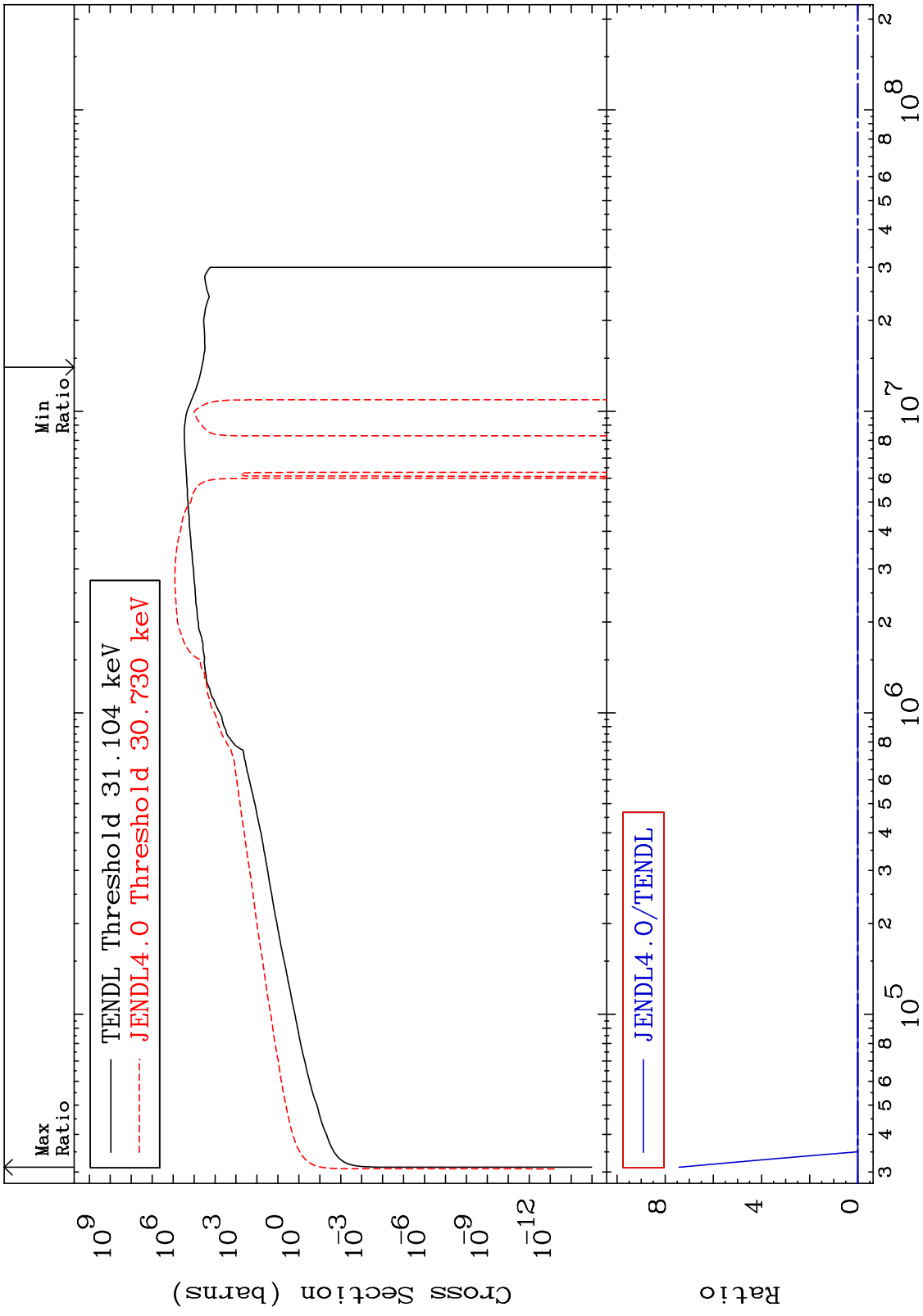
Kerma elastic
Cross Section

41-Nb-93
-96.31 To 1018. %



MAT 4125 Kerma non-elastic (all but mt2) 41-Nb-93
 Cross Section -102.2 To 9999. %

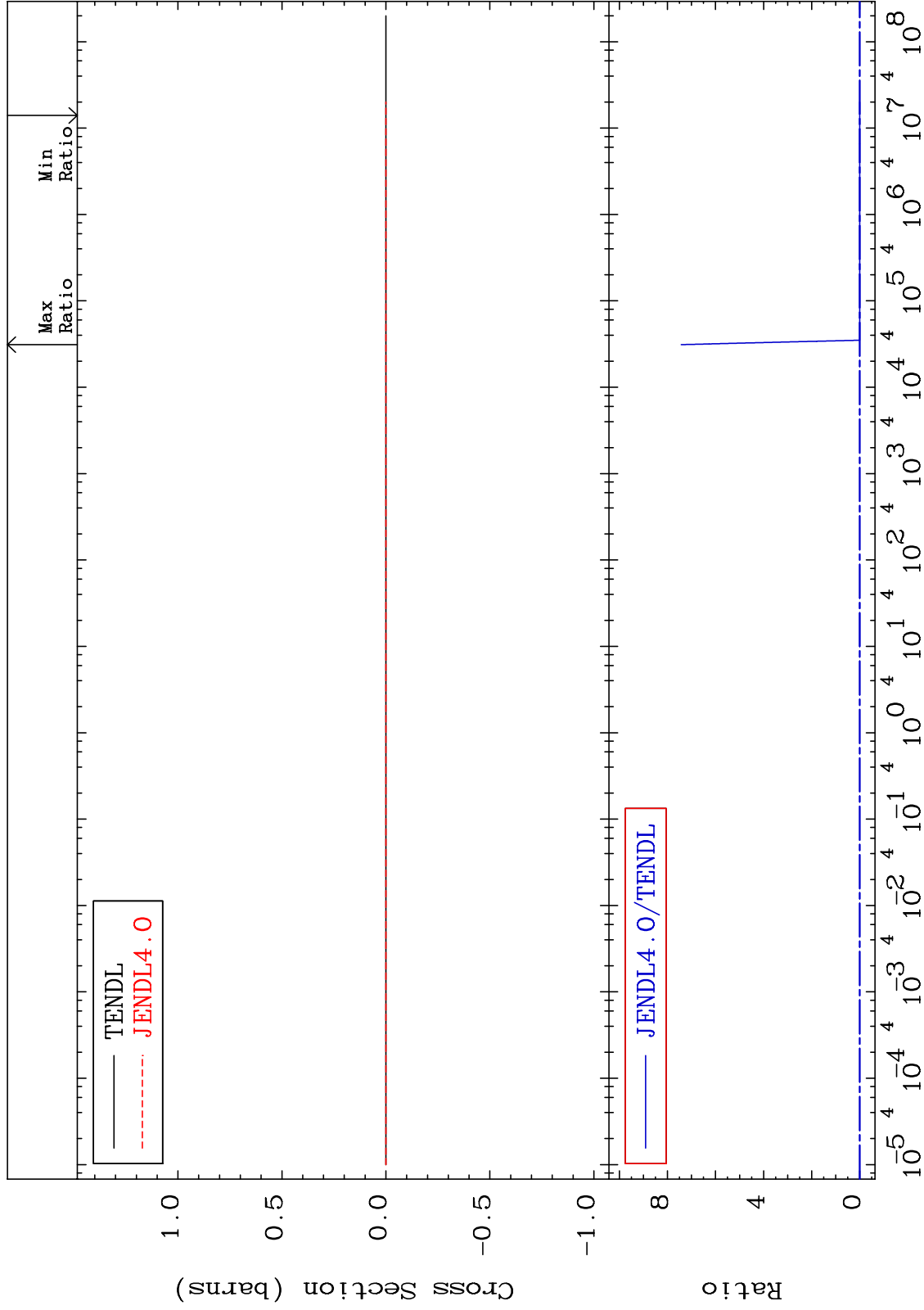




MAT 4125

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

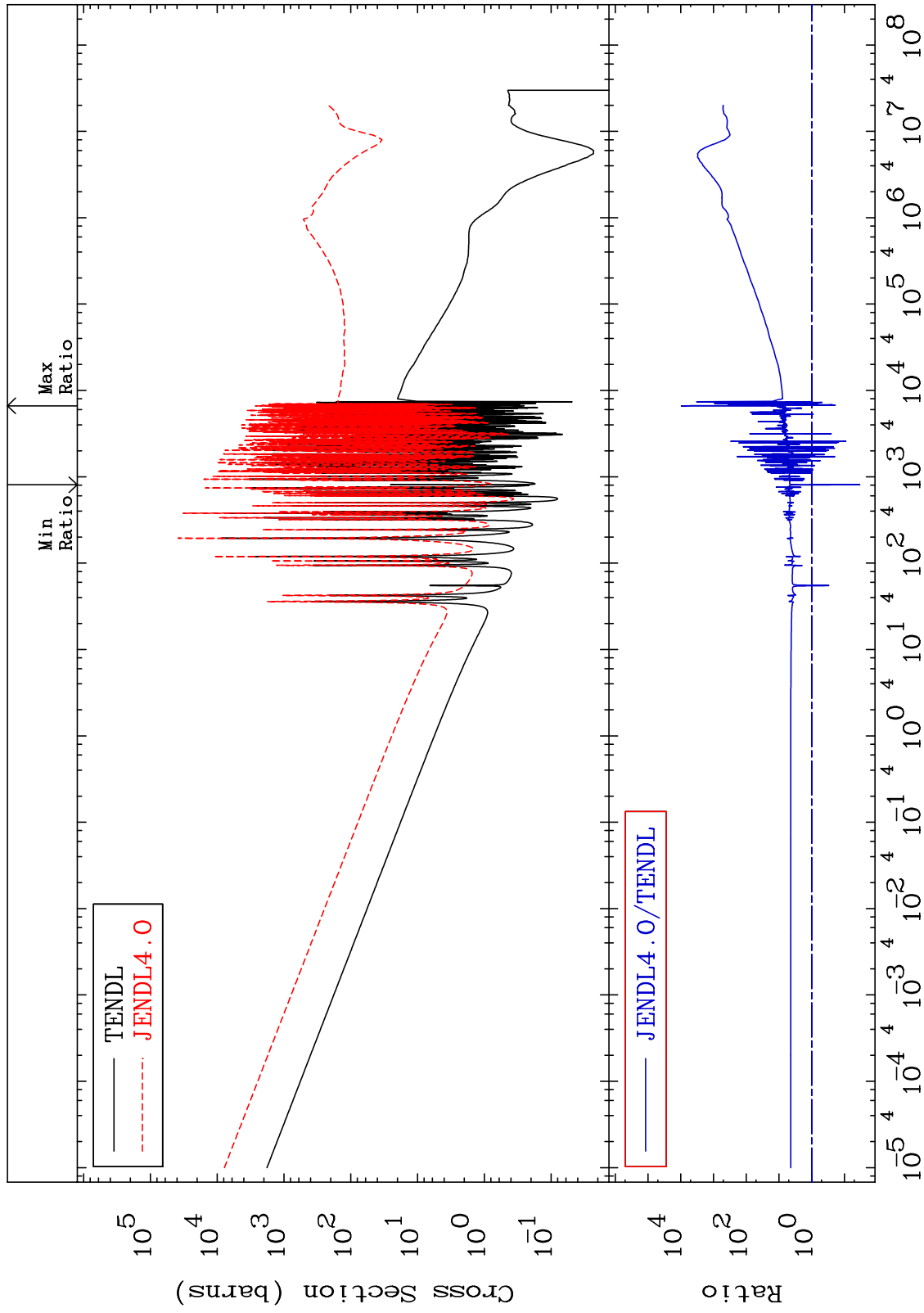
41-Nb-93
-906.1 To 9999. %



MAT 4125

Kerma capture (mt102)
Cross Section

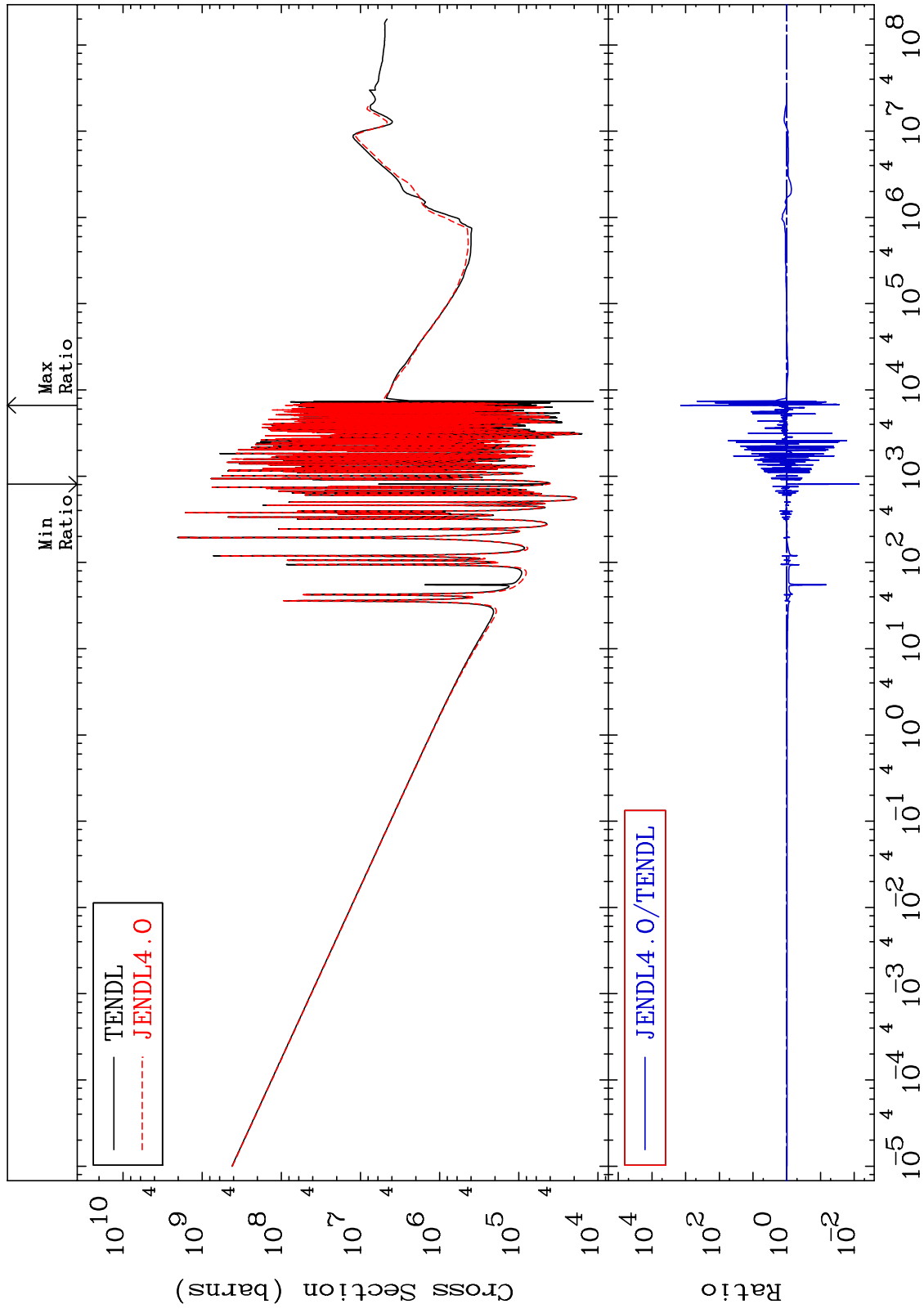
41-Nb-93
-96.62 To 9999. %



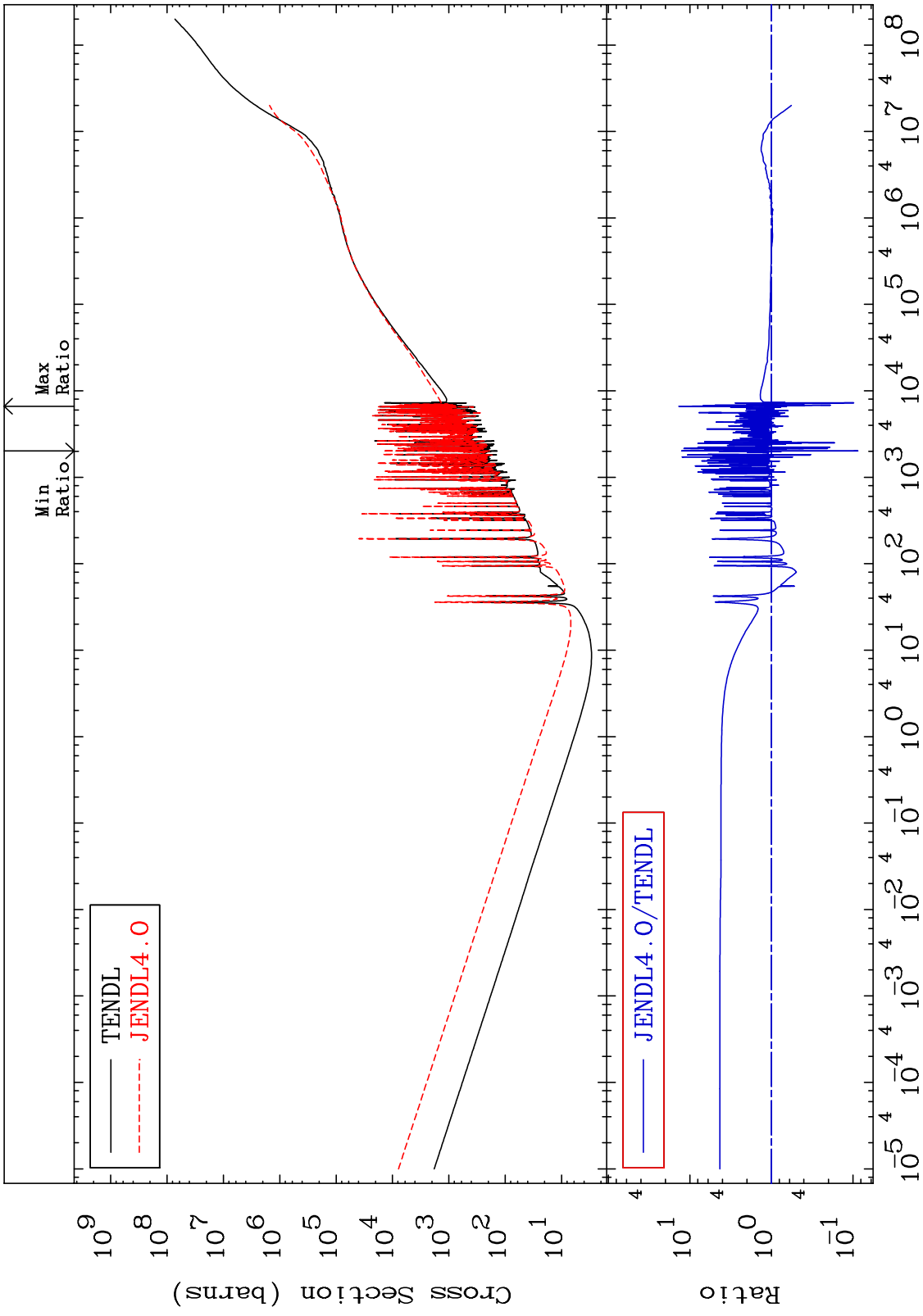
MAT 4125

Total photon (eV-barns)
Cross Section

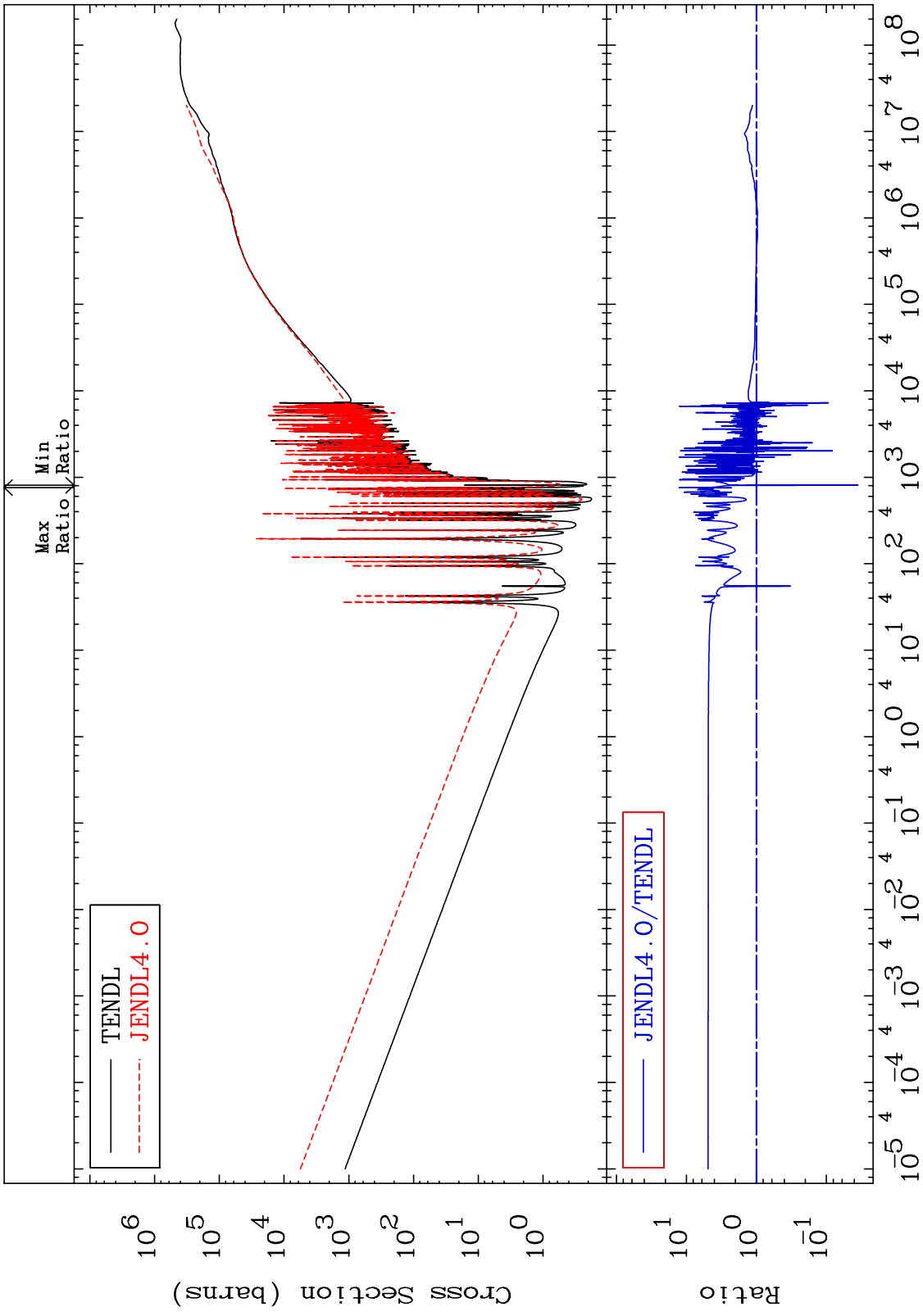
41-Nb-93
-99.28 To 9999. %



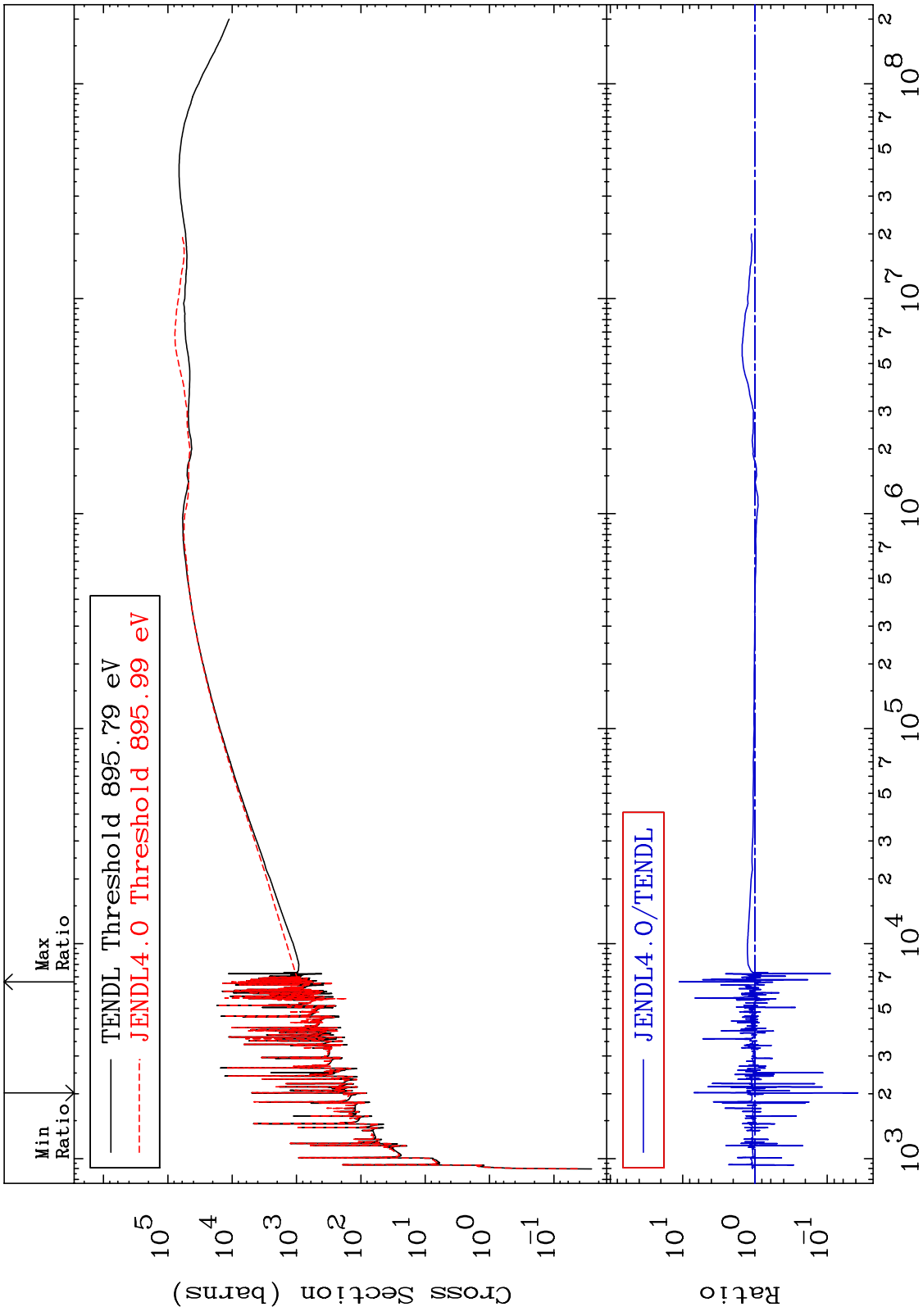
MAT 4125 Total kinematic kerma (high limit) 41-Nb-93
 Cross Section -91.28 To 1260. %

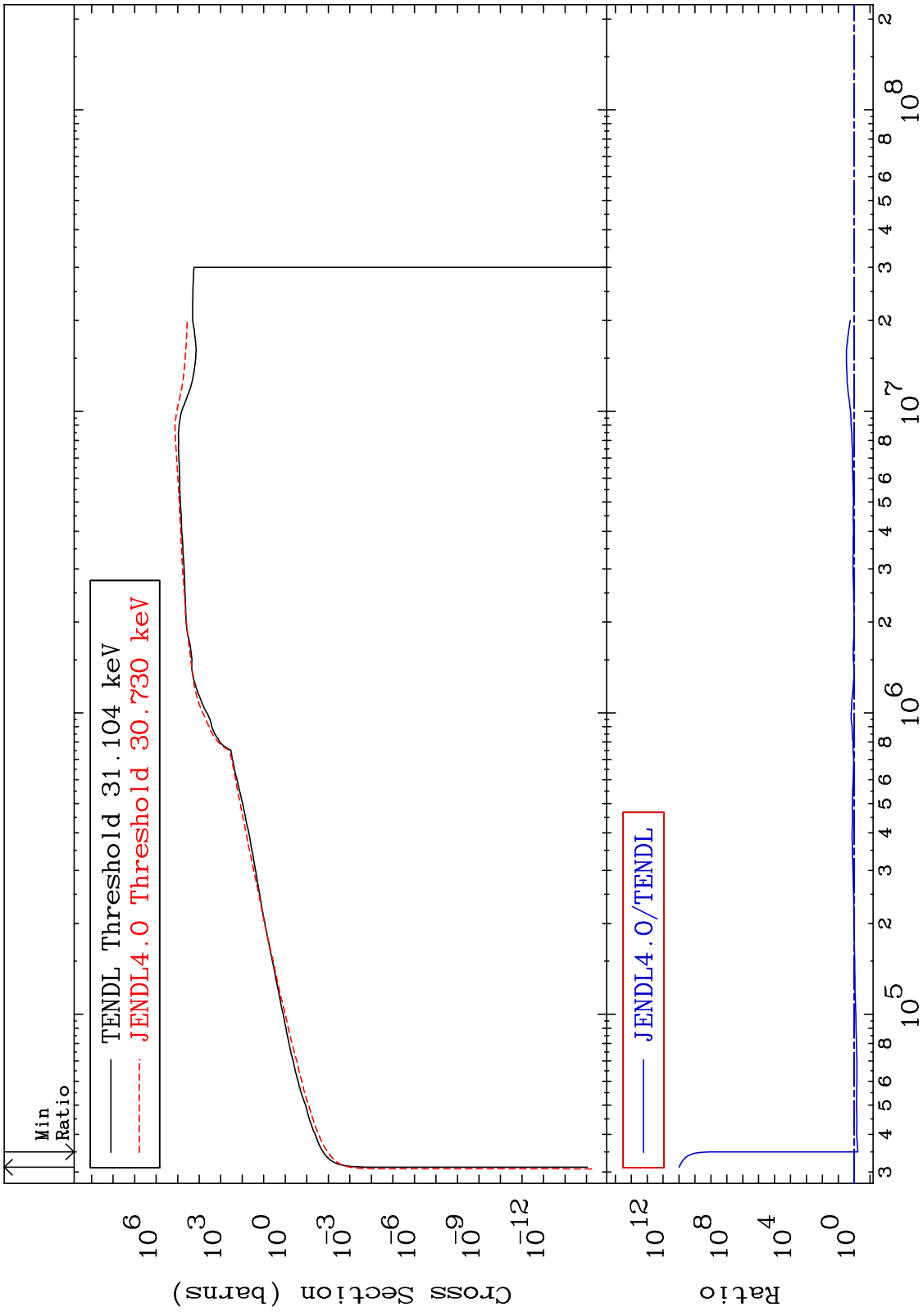


MAT 4125 Dpa total (eV-barns) 41-Nb-93
 Cross Section -96.44 To 1175. %



MAT 4125 41-Nb-93 -96.25 To 1020. %
Dpa elastic (mt2)
Cross Section

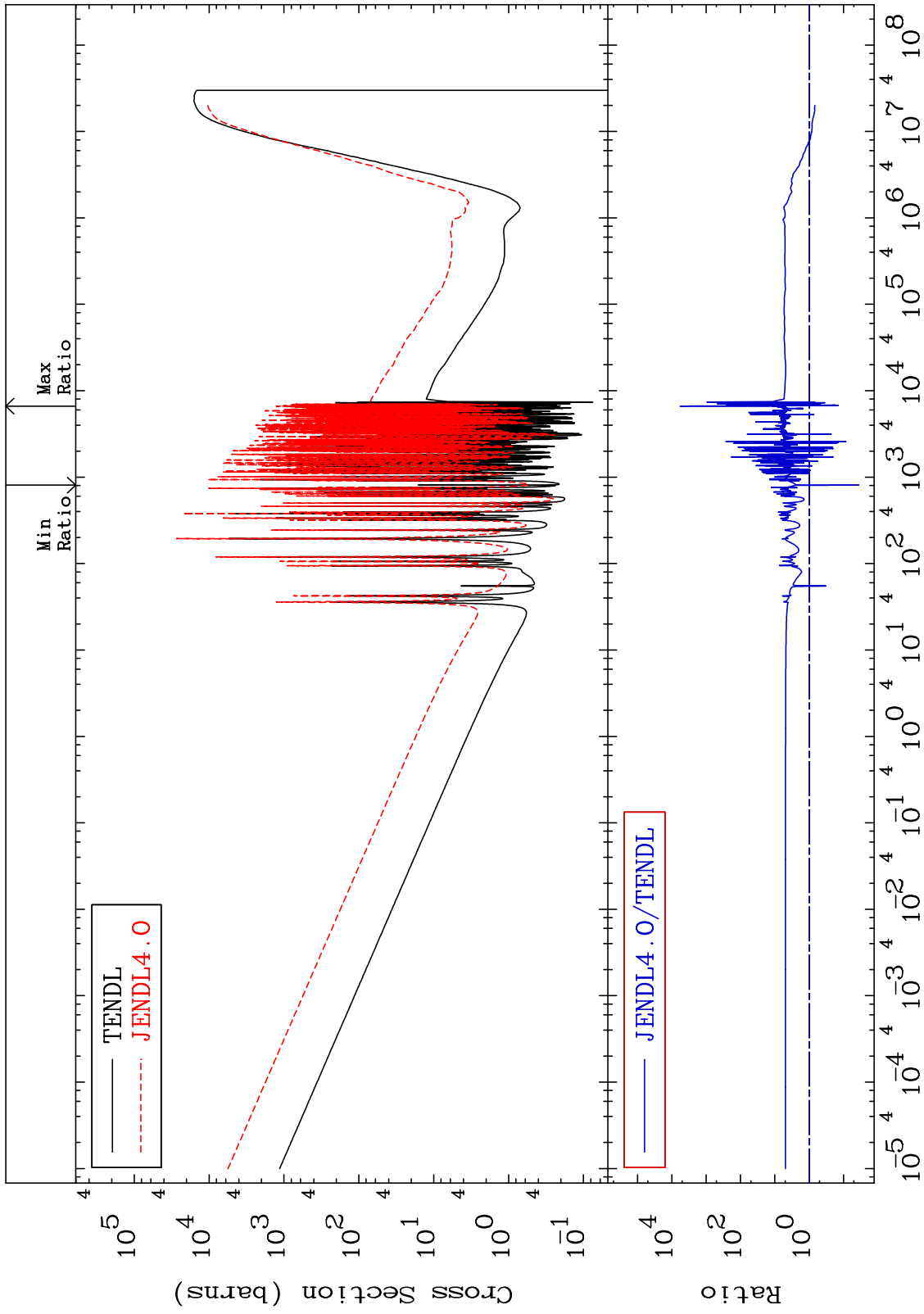




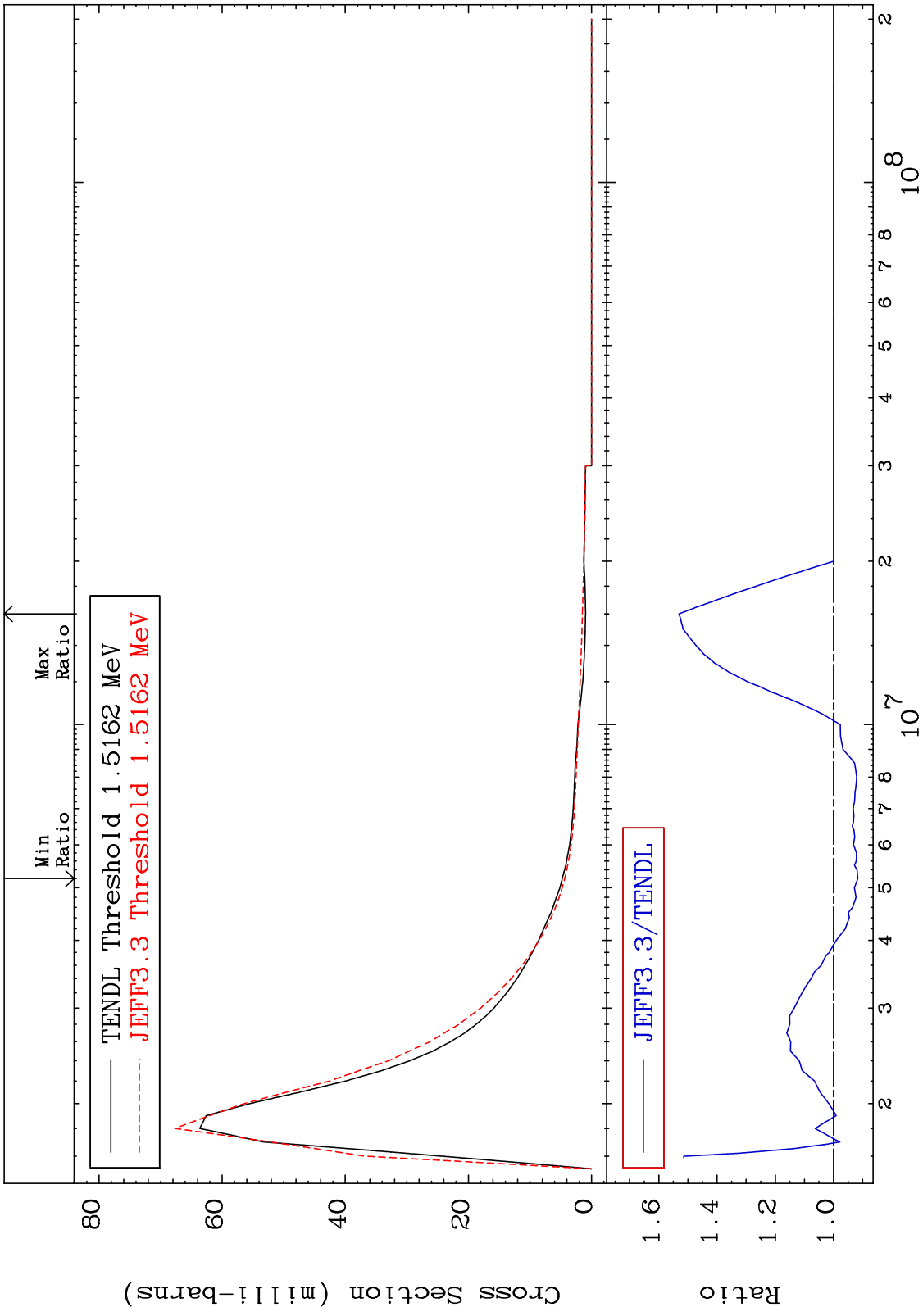
MAT 4125

Dpa disappearance (mt102 -120)
Cross Section

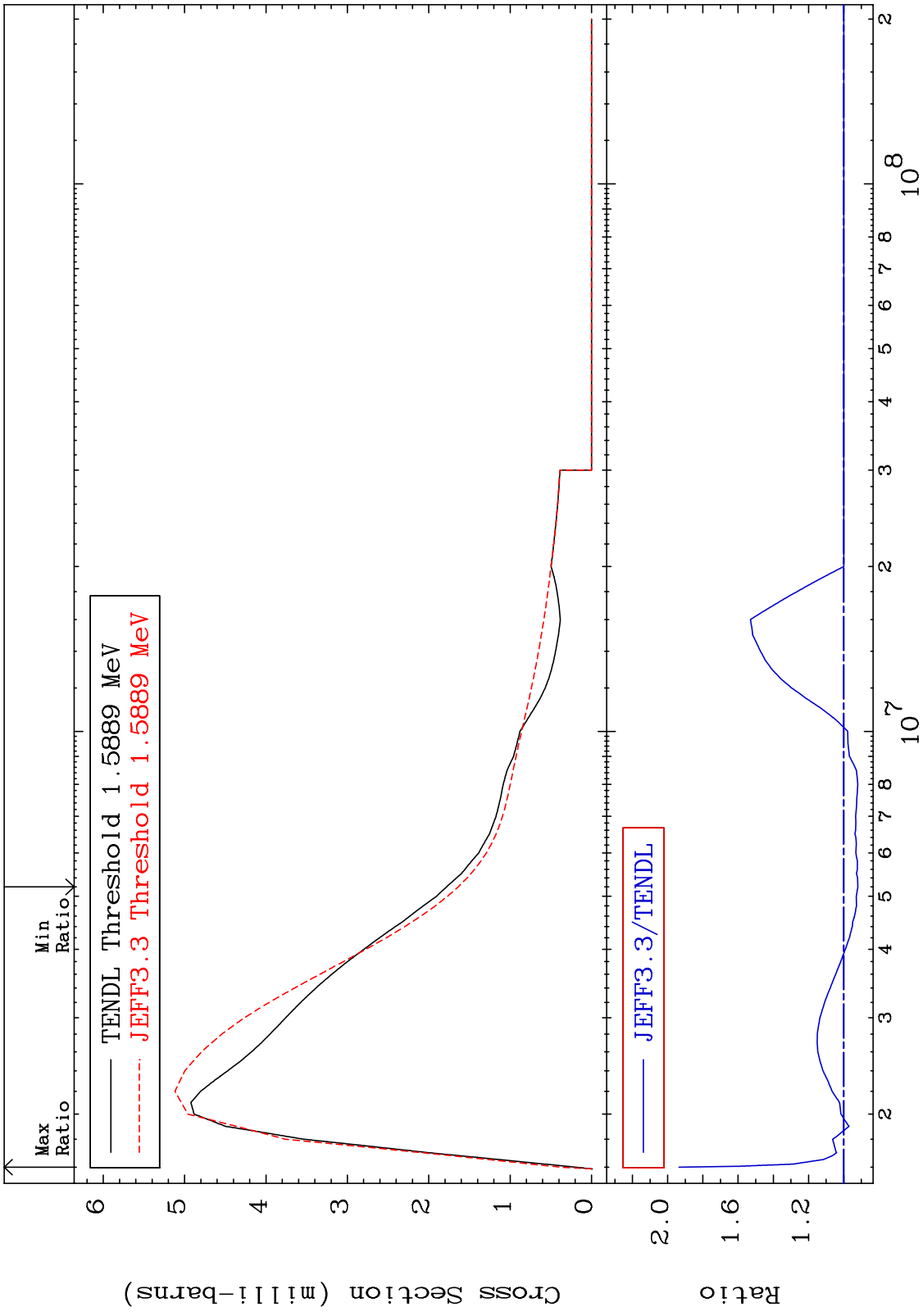
41-Nb-93
-96.44 To 9999. %



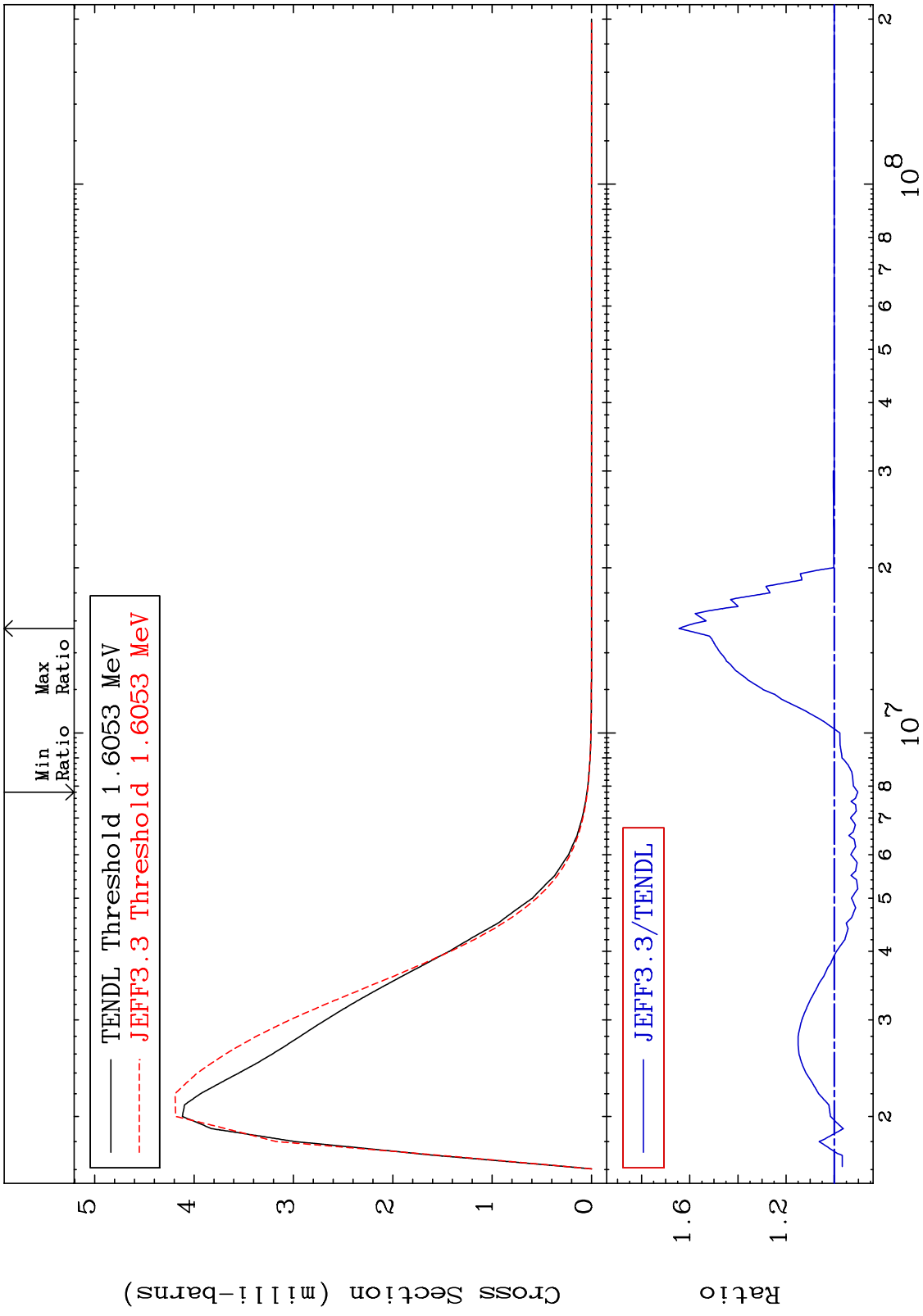
MAT 4125 MT= 71 (n,n') Level Cross Section -8.347 To 53.04 % 41-Nb-93



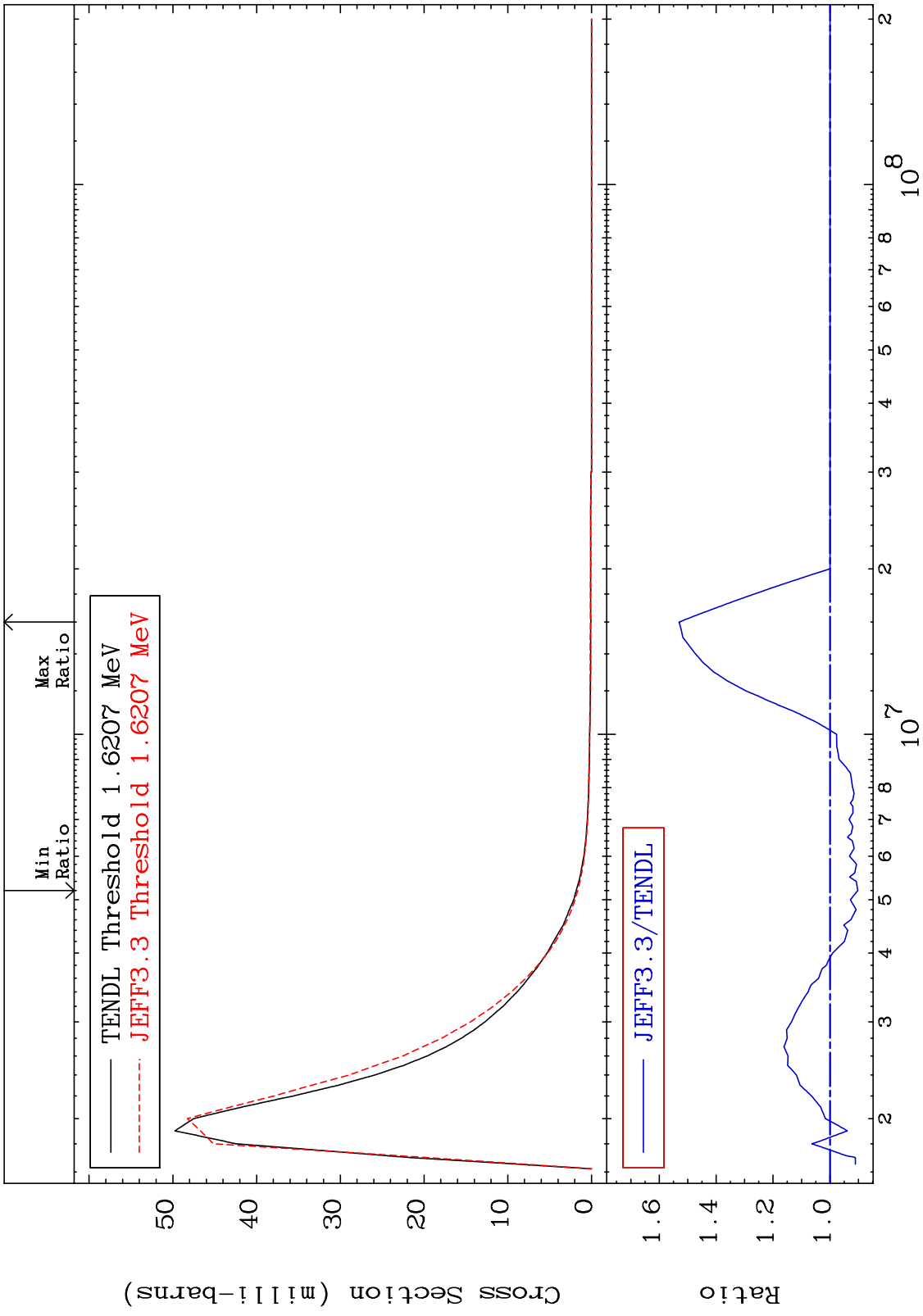
MAT 4125 MT= 72 (n,n') Level Cross Section 41-Nb-93 -8.029 To 93.55 %



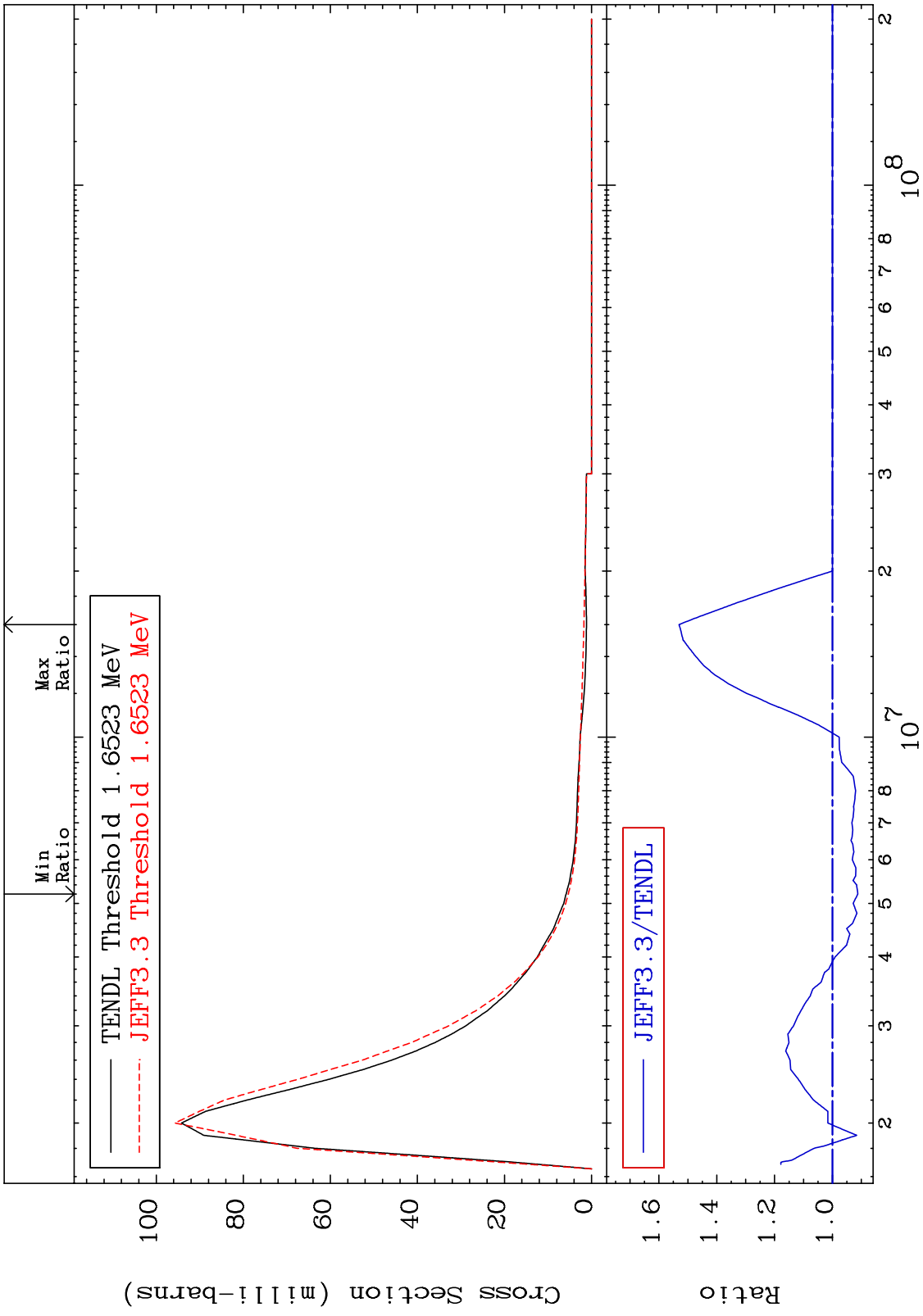
MAT 4125 MT= 73 (n,n') Level Cross Section -9.778 To 64.46 % 41-Nb-93



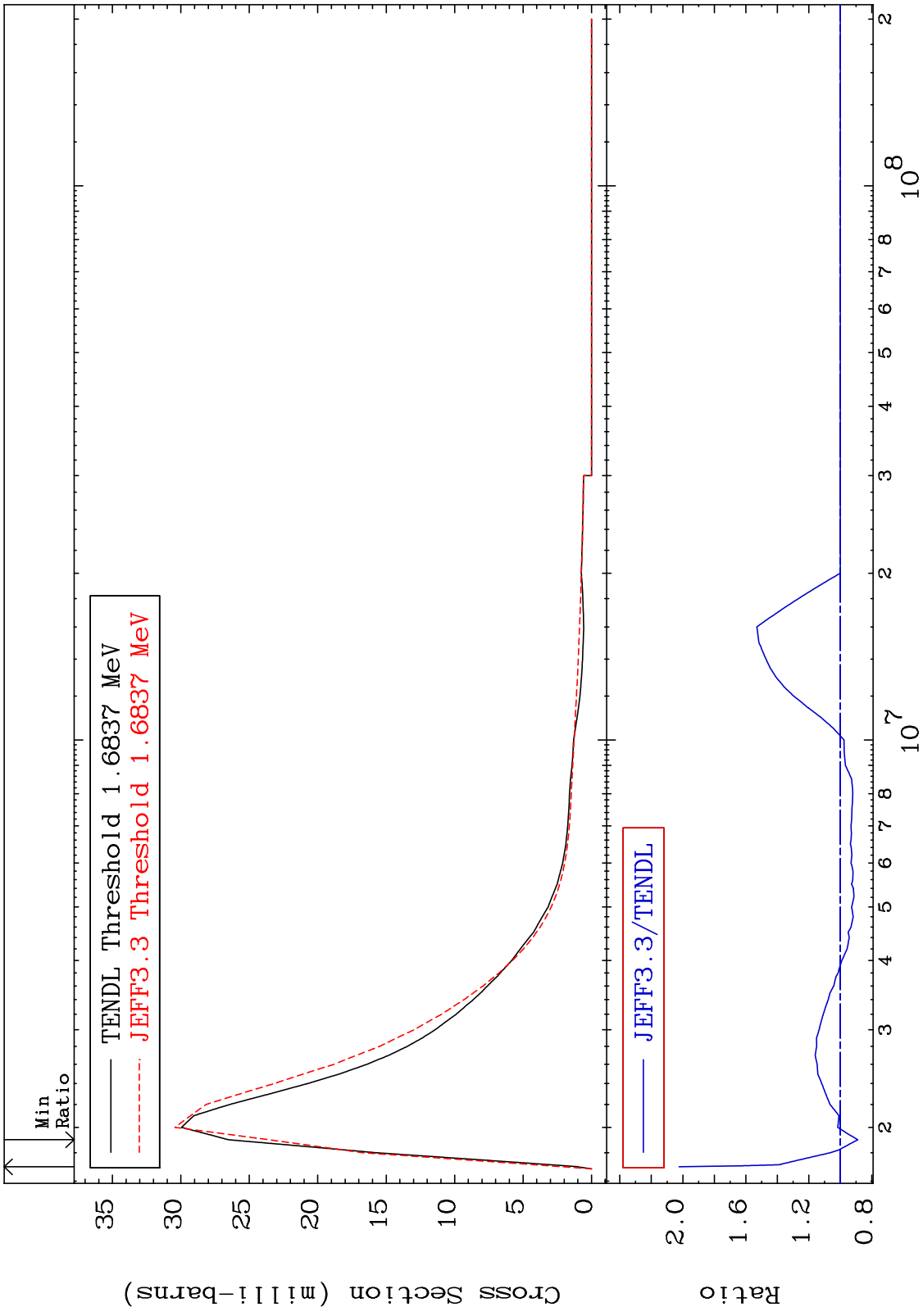
MAT 4125 MT= 74 (n,n') Level Cross Section -9.799 To 53.04 % 41-Nb-93



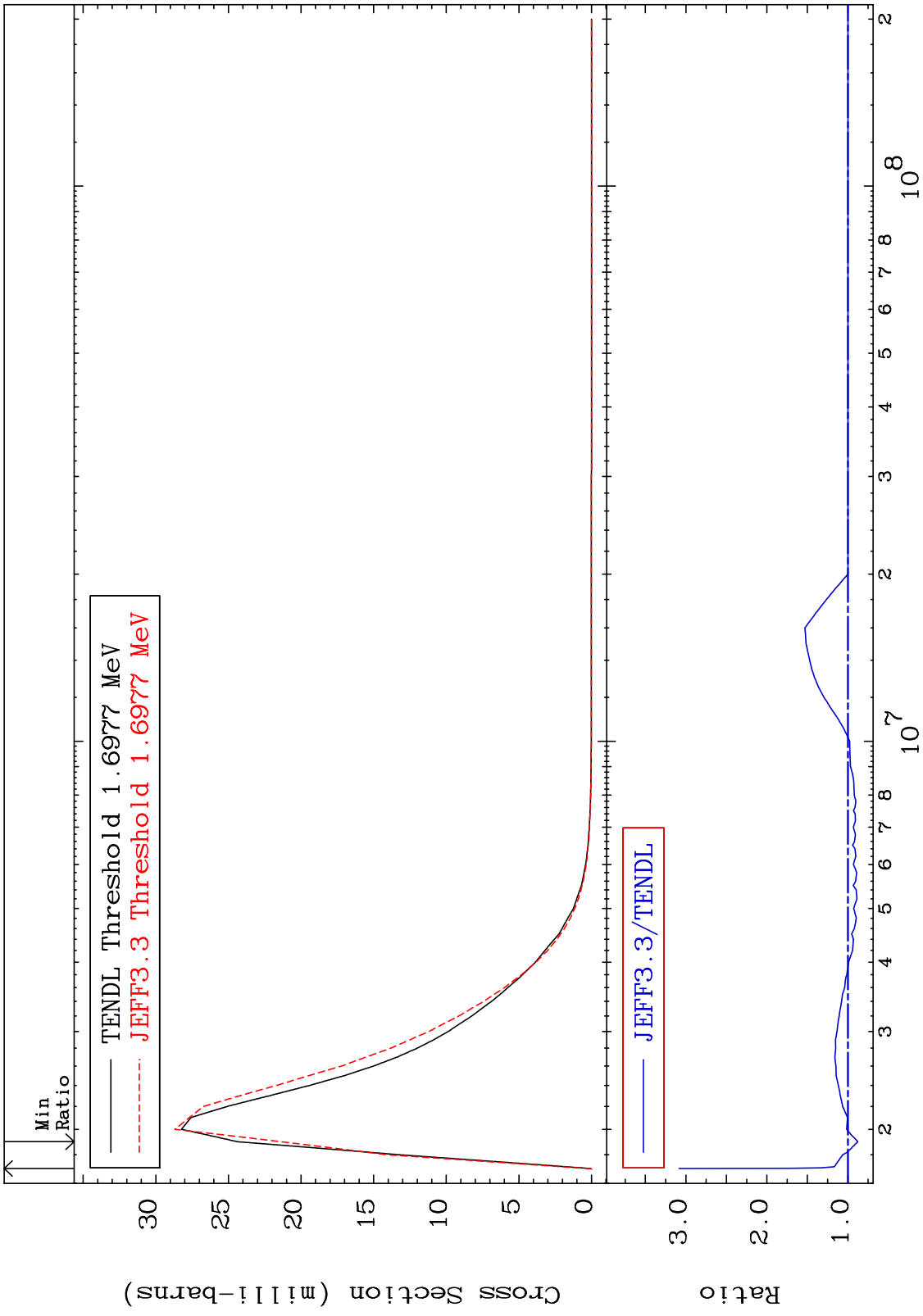
MAT 4125 MT= 75 (n,n') Level Cross Section -8.777 To 53.04 % 41-Nb-93



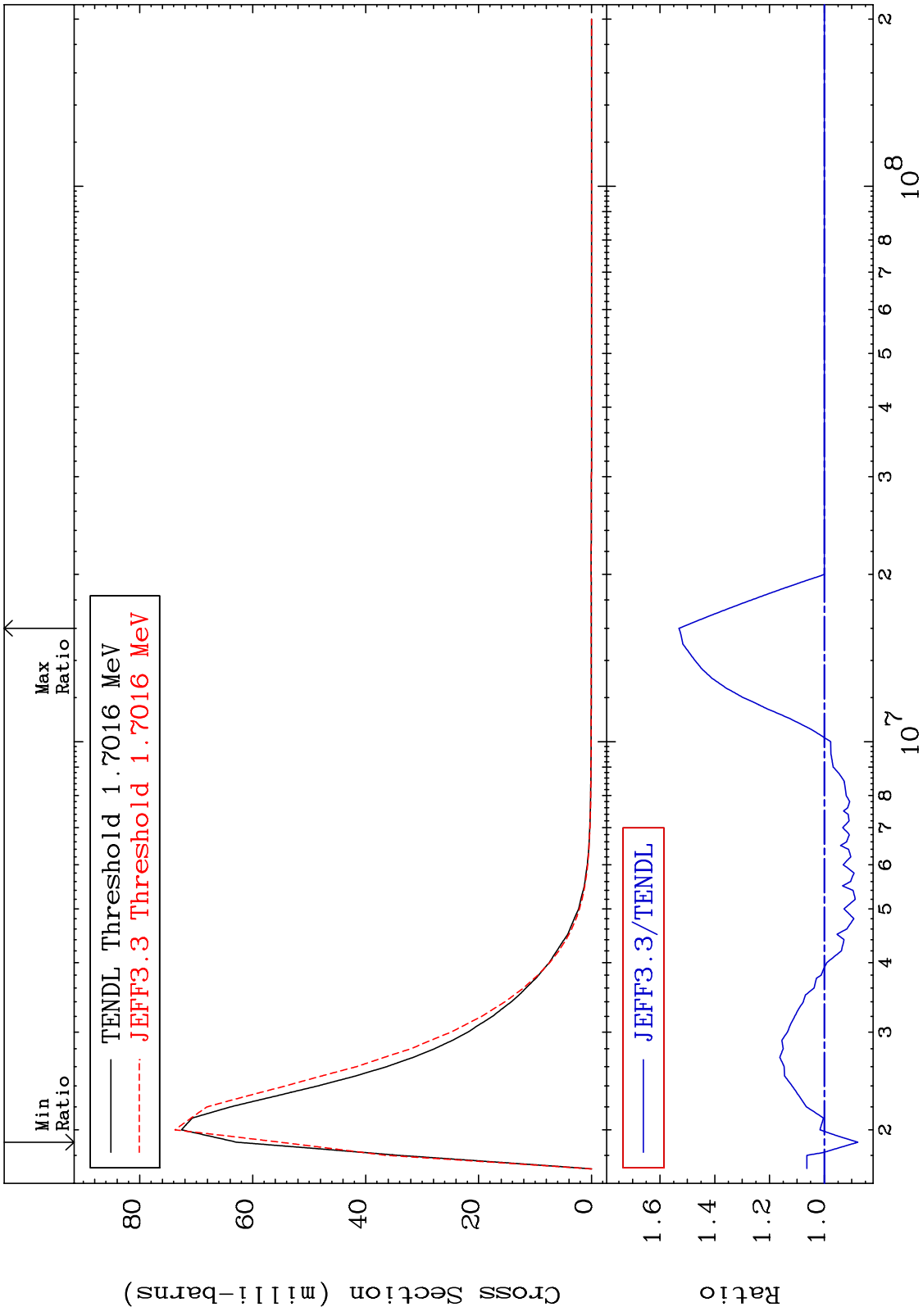
MAT 4125 MT= 76 (n,n') Level Cross Section 41-Nb-93 -11.13 To 102.4 %



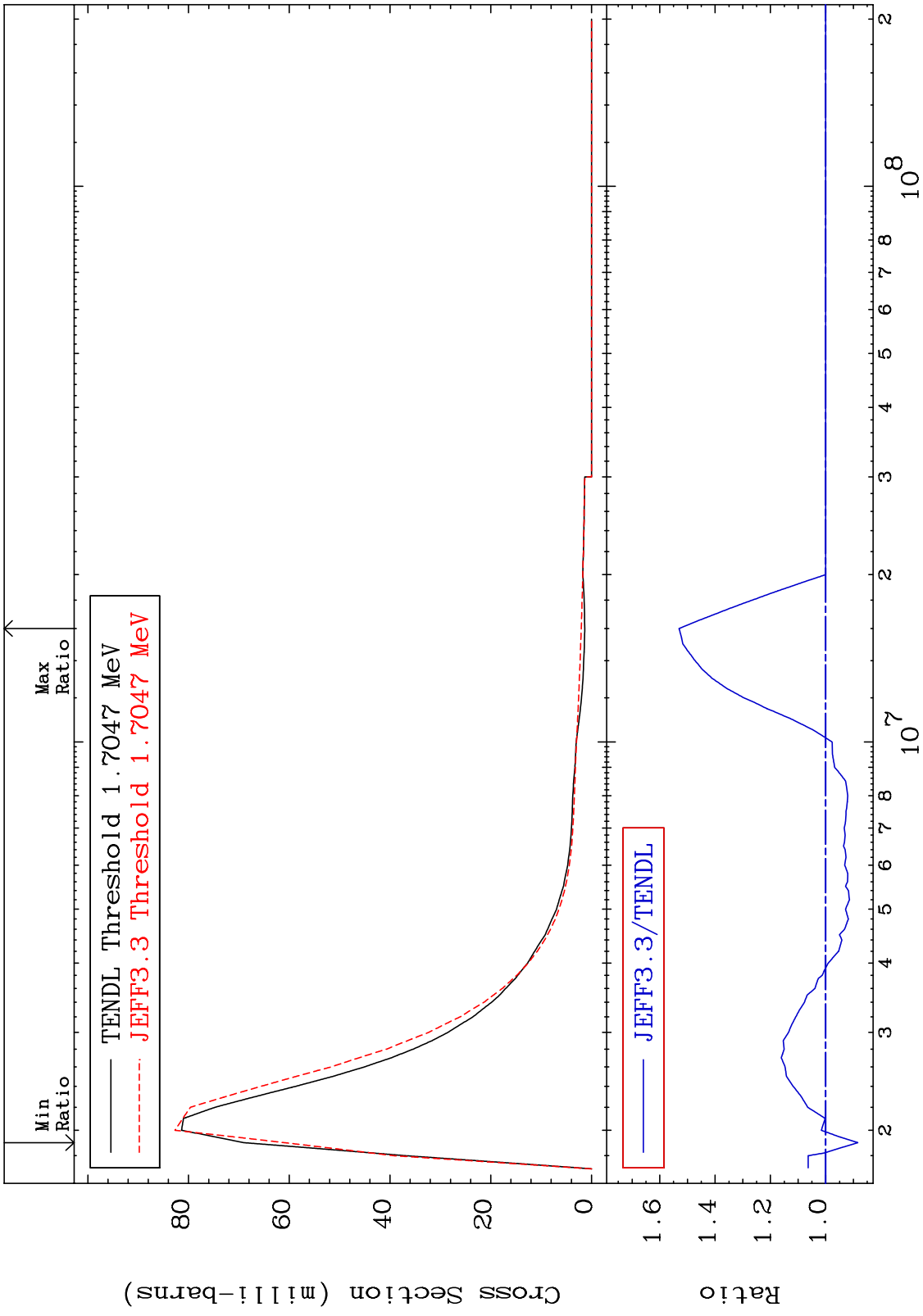
MAT 4125 MT= 77 (n,n') Level Cross Section -12.31 To 208.5 % 41-Nb-93



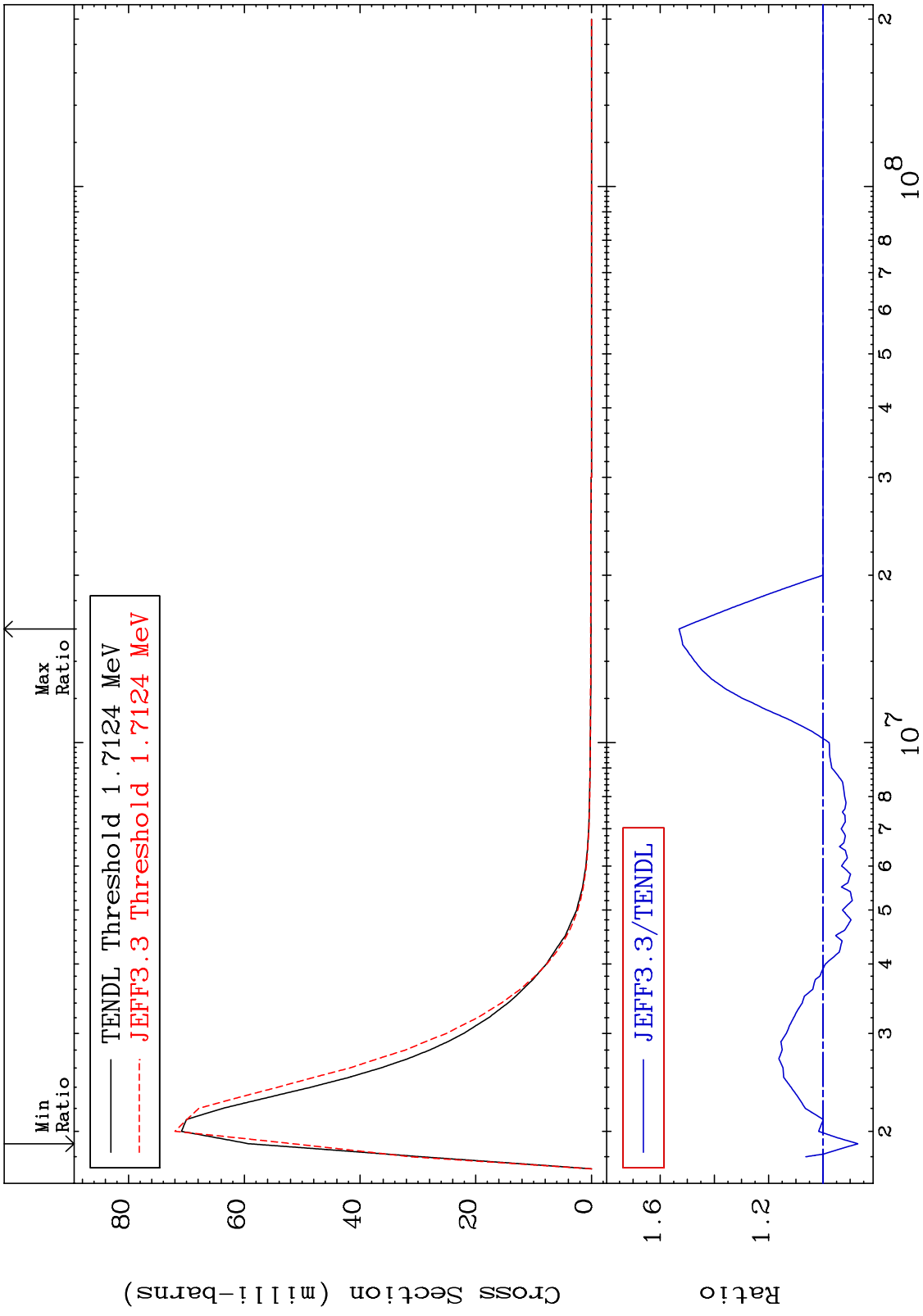
MAT 4125 MT= 78 (n,n') Level Cross Section -12.24 To 53.04 % 41-Nb-93



MAT 4125 MT= 79 (n,n') Level Cross Section -11.61 To 53.04 % 41-Nb-93



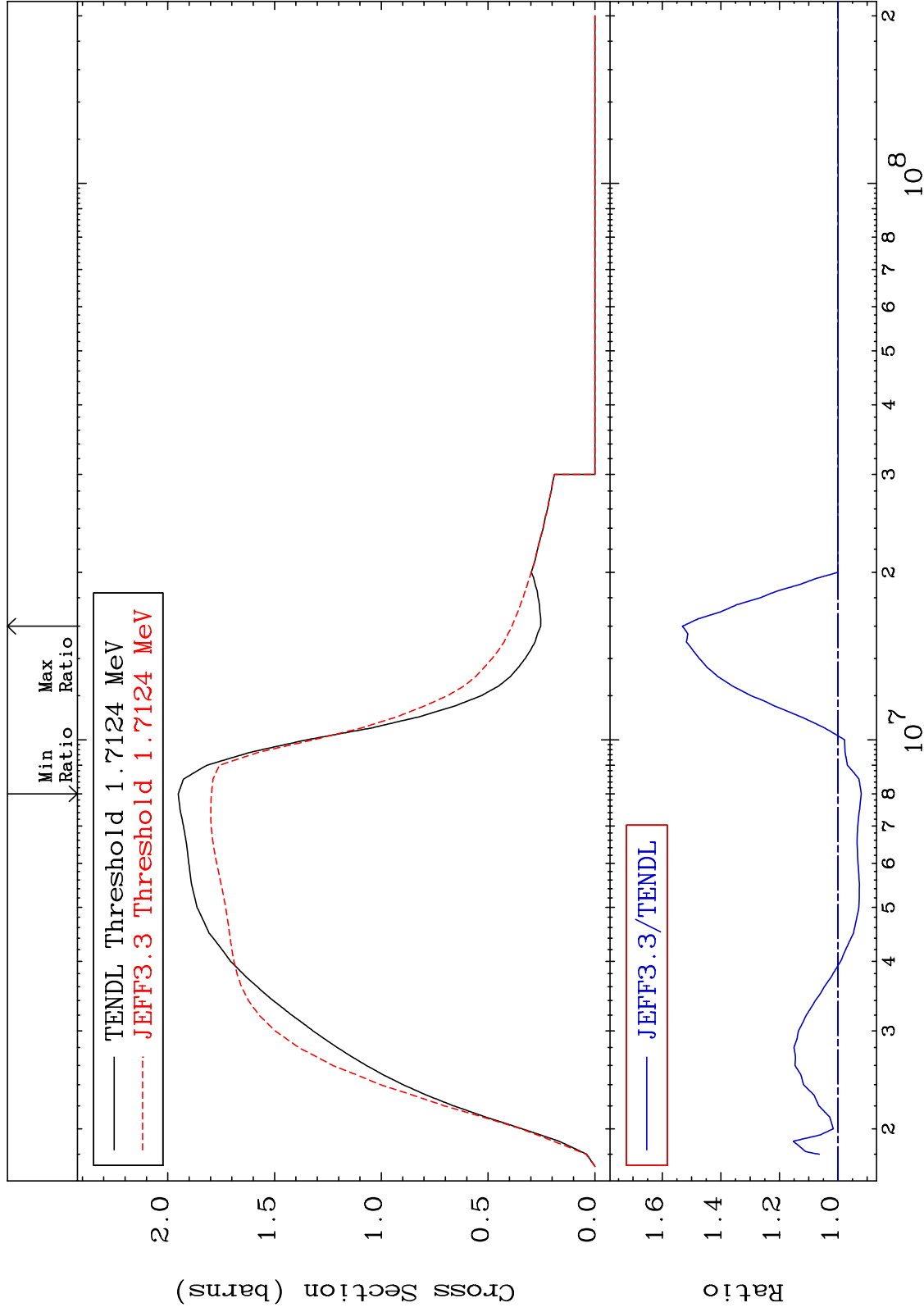
MAT 4125 MT= 80 (n,n') Level Cross Section -12.85 To 53.04 % 41-Nb-93



MAT 4125

(n, n') Continuum
Cross Section

41-Nb-93
-7.972 To 53.13 %



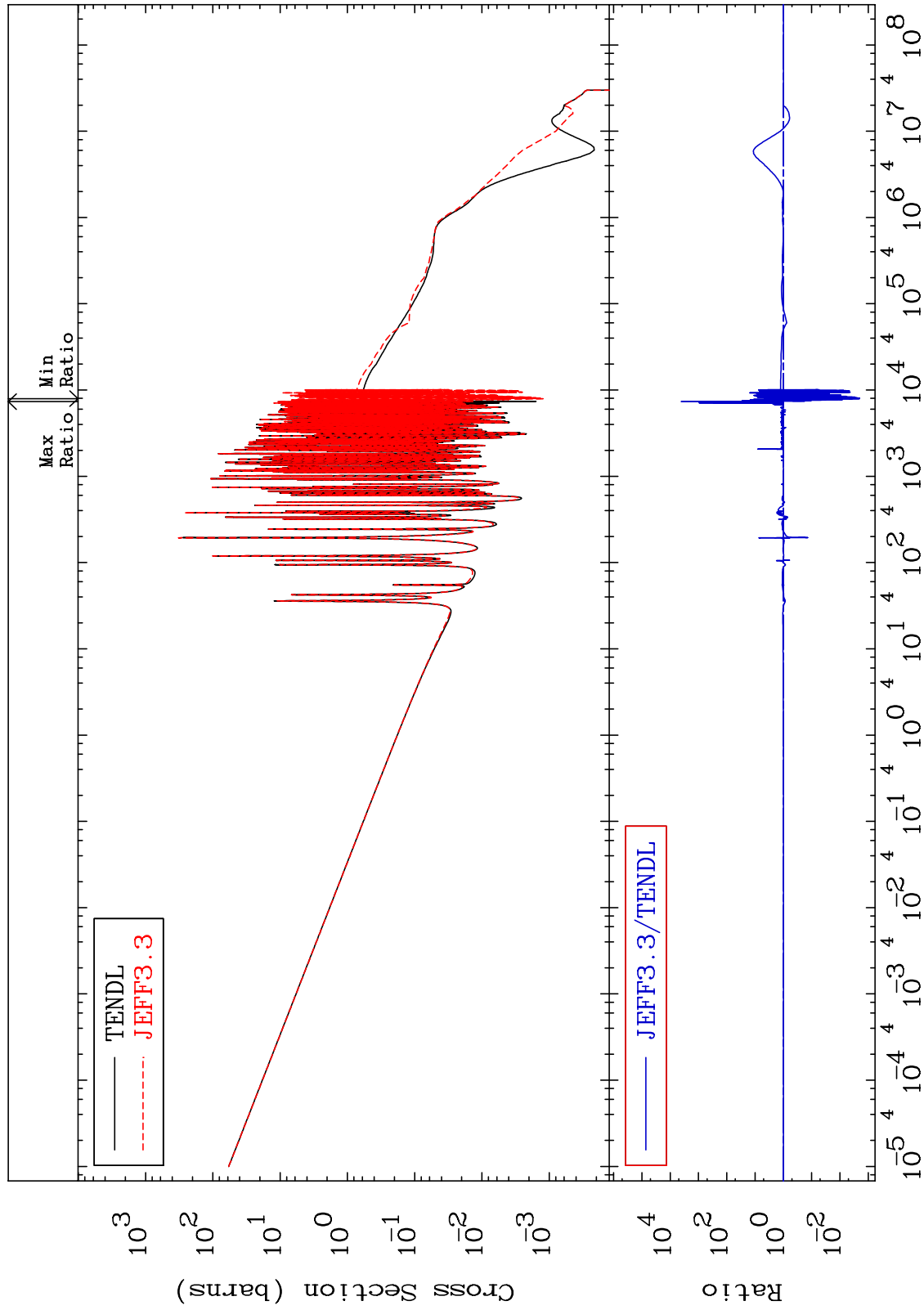
MAT 4125

(n, γ)

41-Nb-93

Cross Section

-99.80 To 9999. %



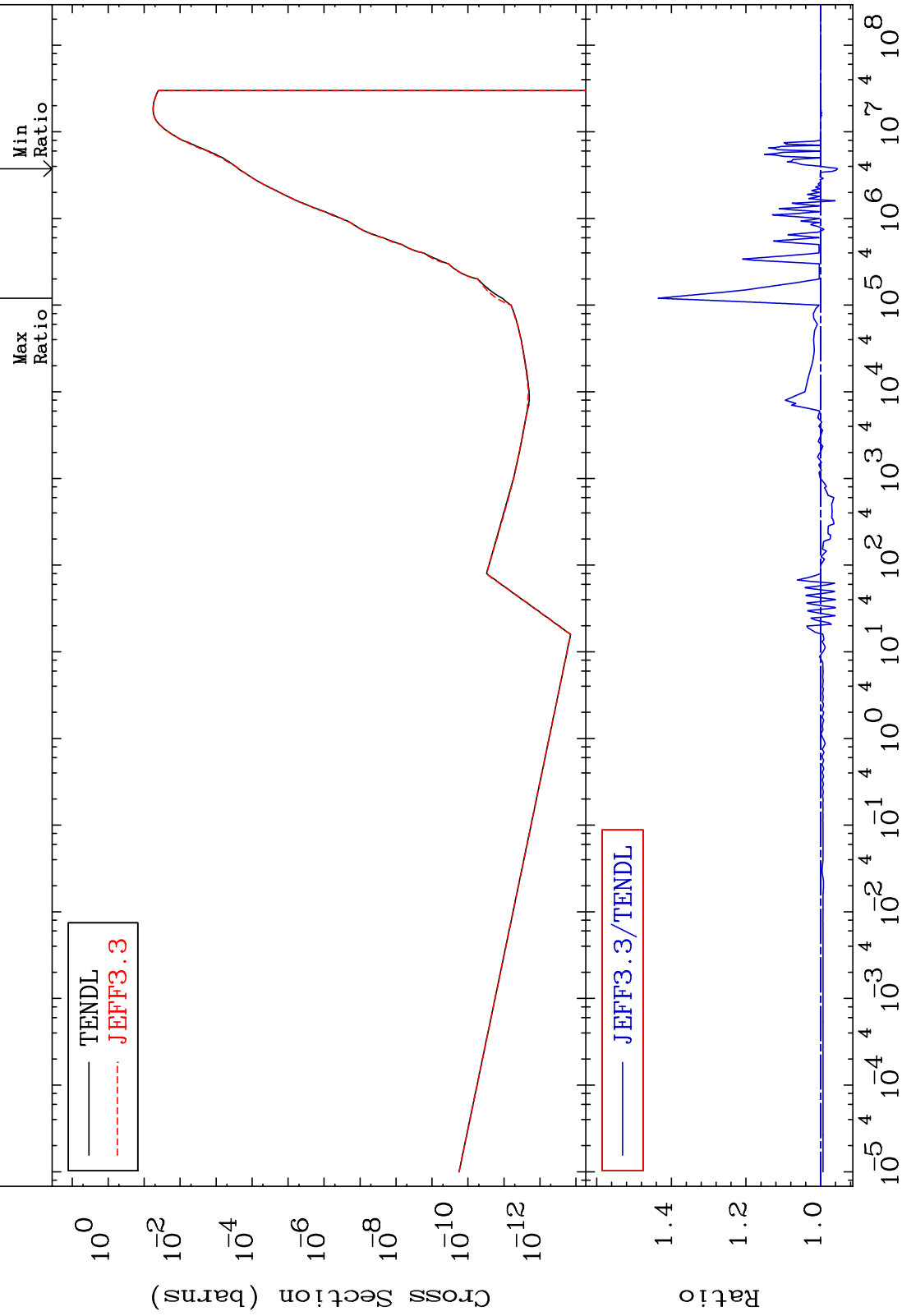
MAT 4125

(n,p)

41-Nb-93

Cross Section

-4.512 To 43.48 %



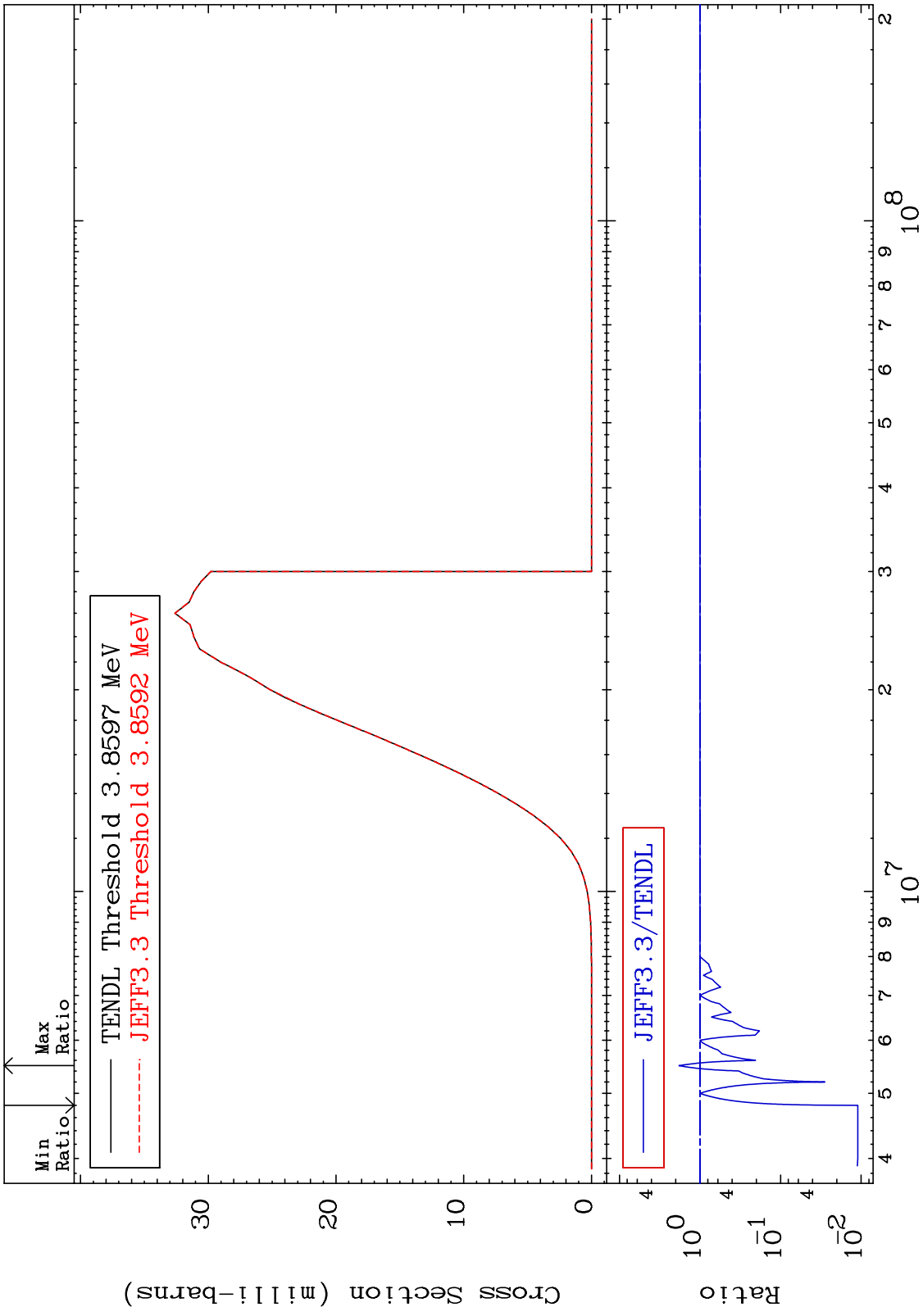
MAT 4125

(n,d)

Cross Section

41-Nb-93

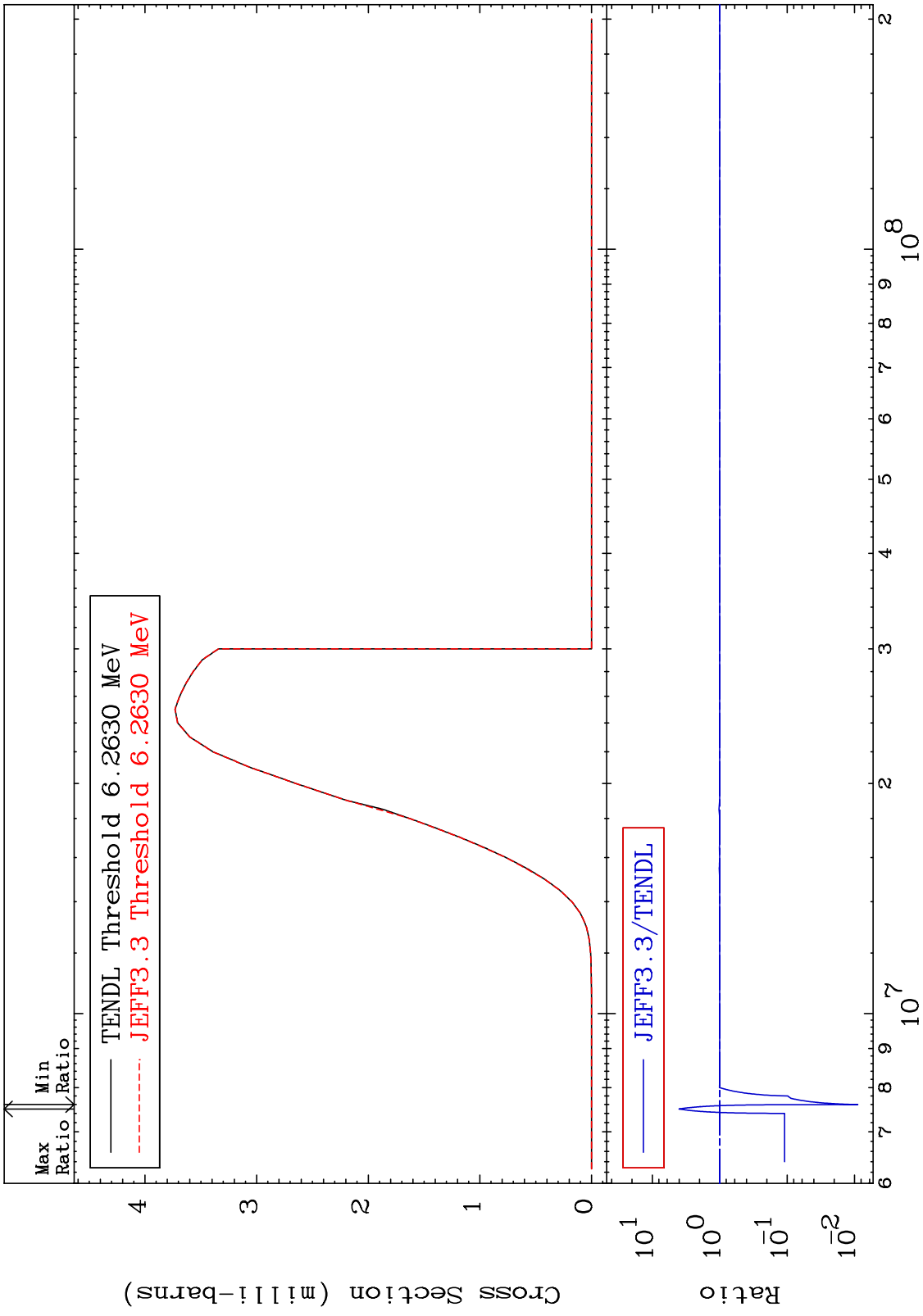
-98.90 To 81.91 %



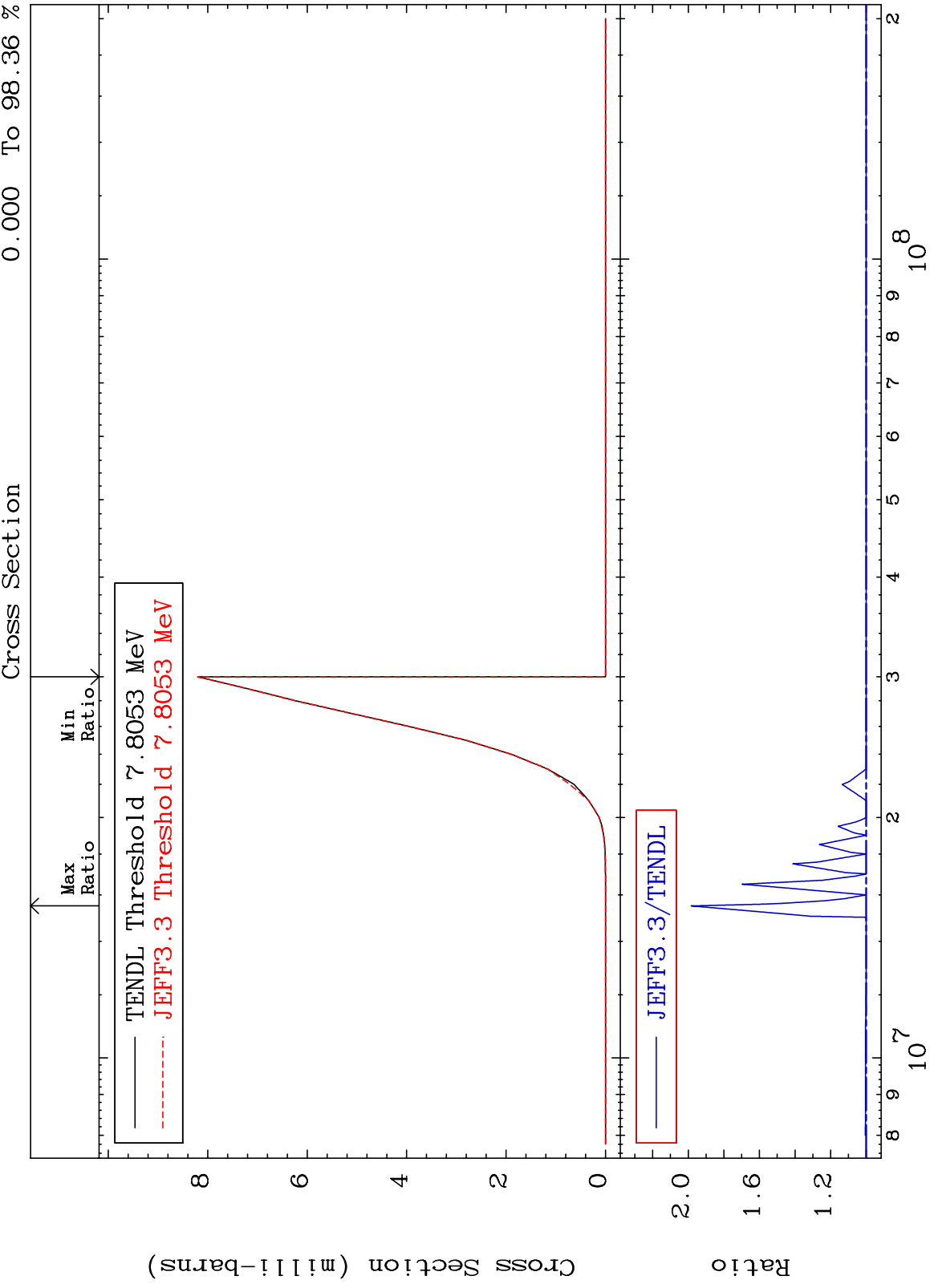
41-Nb-93

Incident Energy (eV)

53

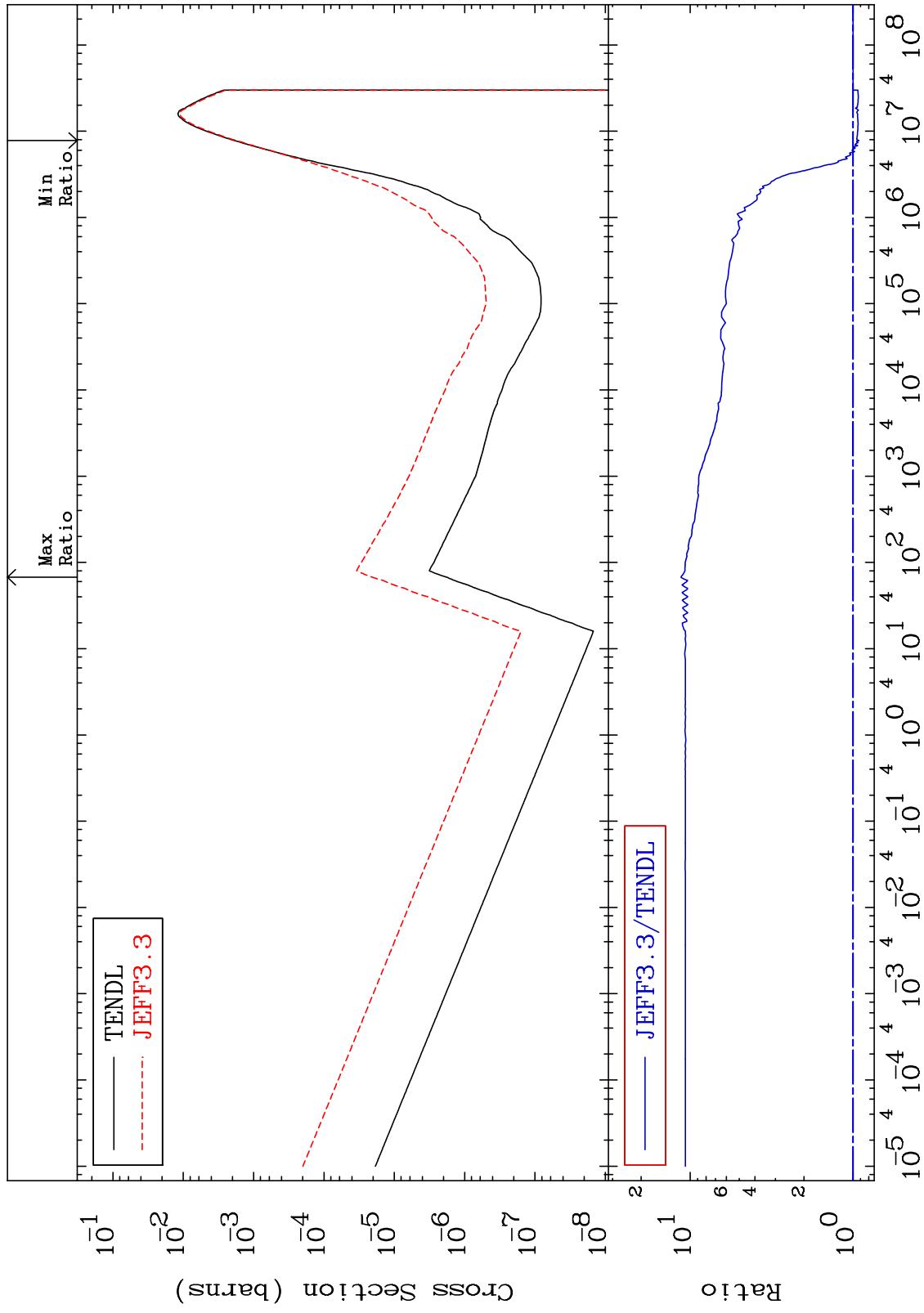


MAT 4125 (n, He-3) 41-Nb-93 To 98.36 %



MAT 4125

(n, α) Cross Section
41-Nb-93
-8.072 To 1045. %



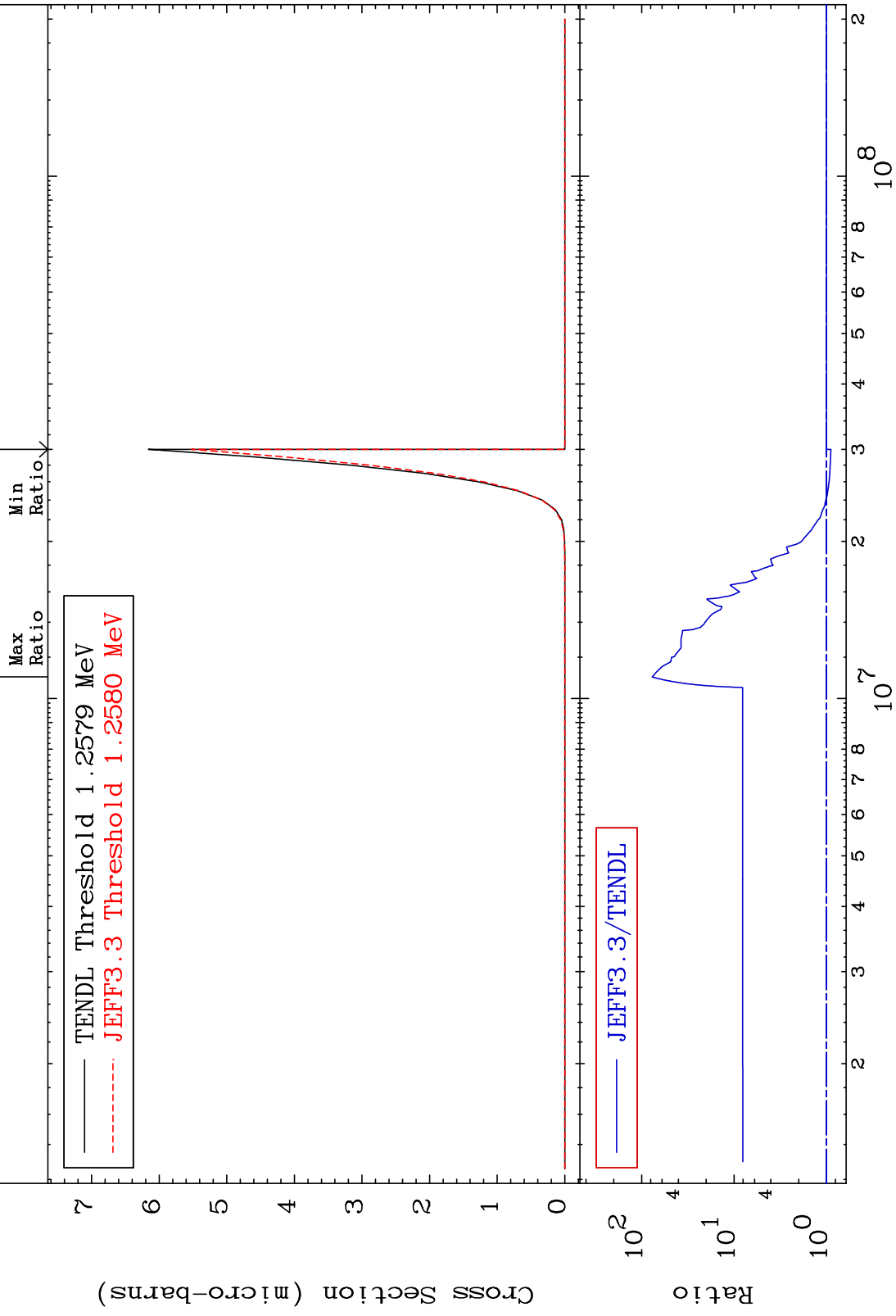
MAT 4125

(n,2α)

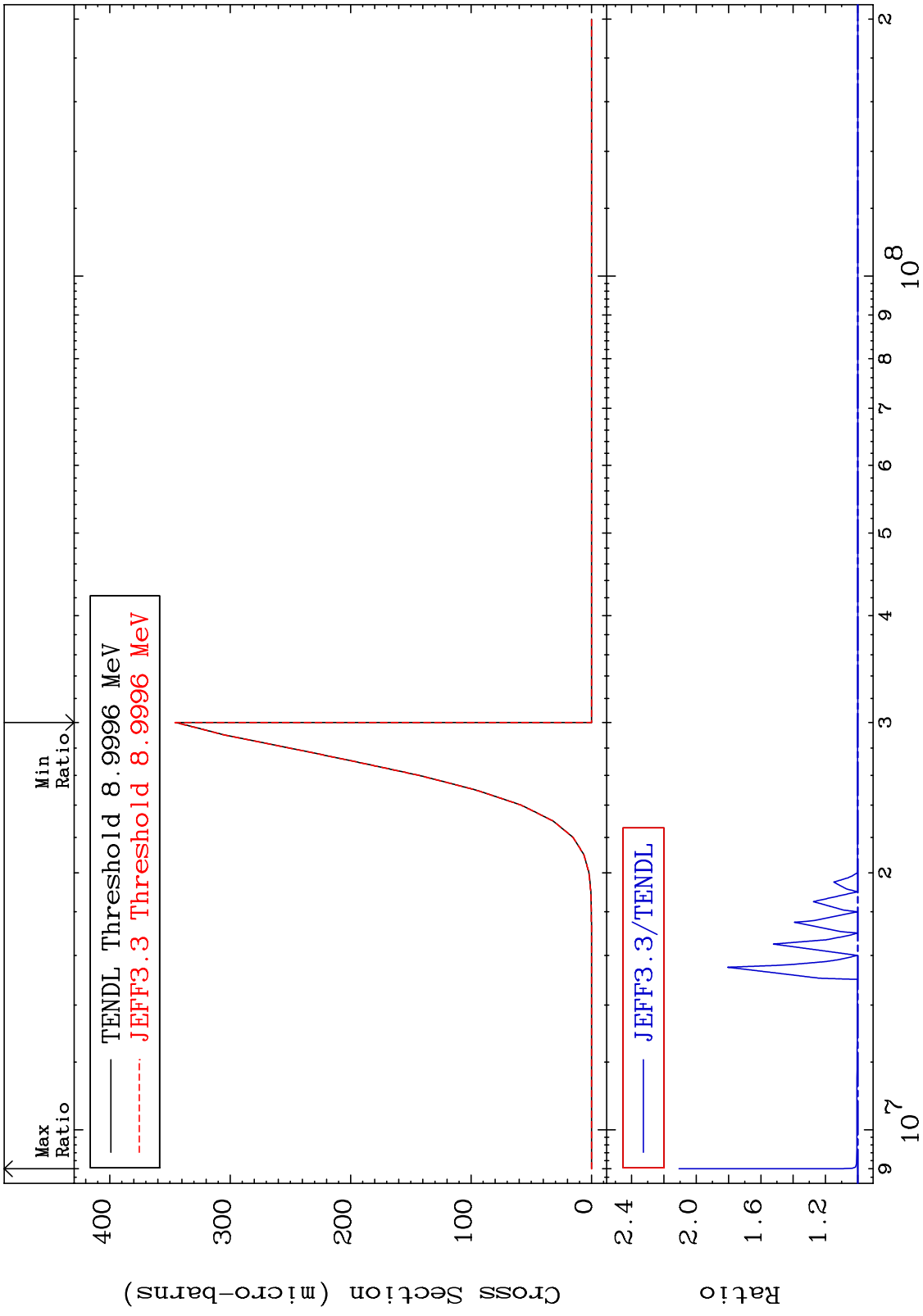
41-Nb-93

-10.36 To 7570. %

Cross Section



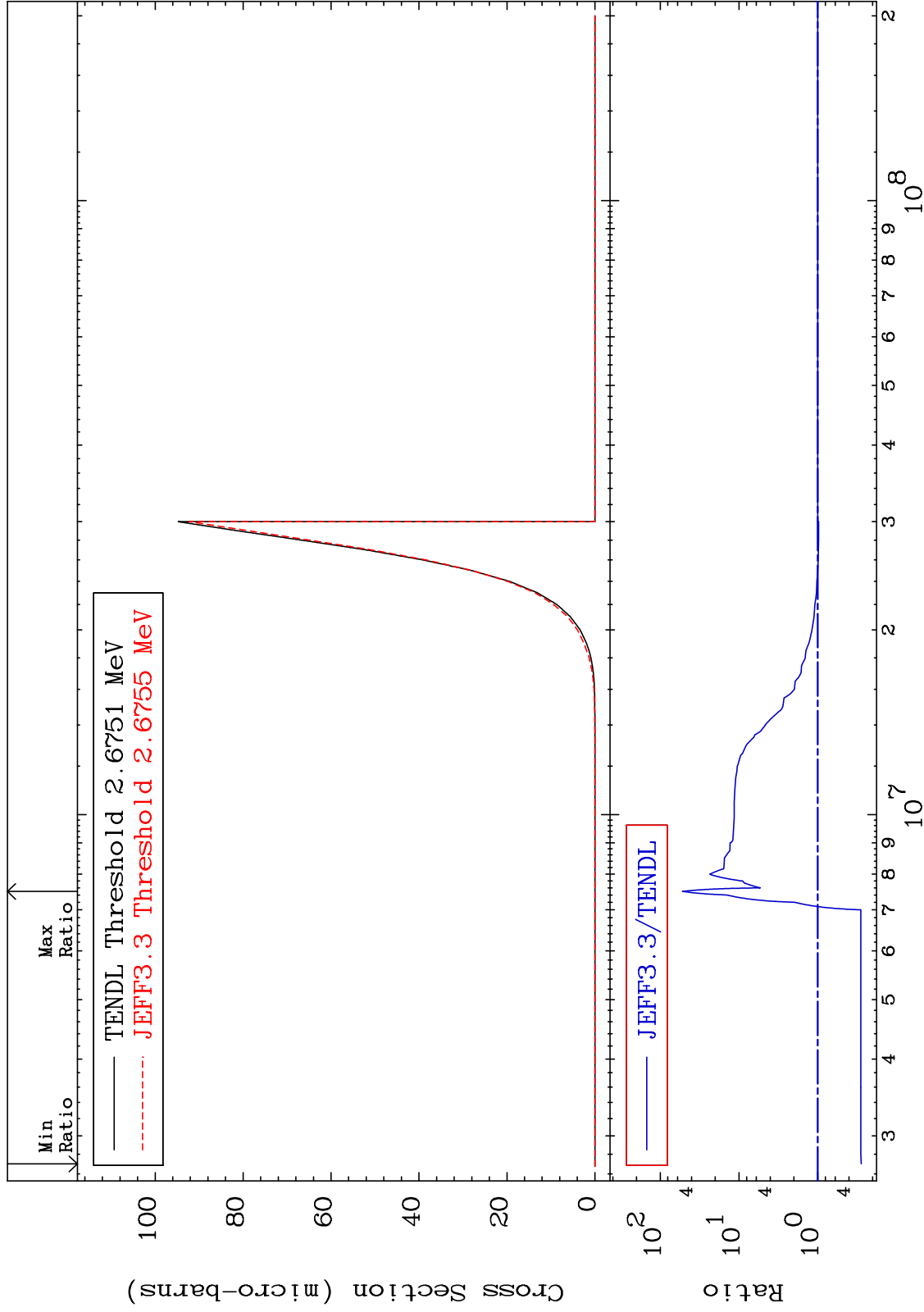
MAT 4125 (n,2p) Cross Section 41-Nb-93 To 110.6 %



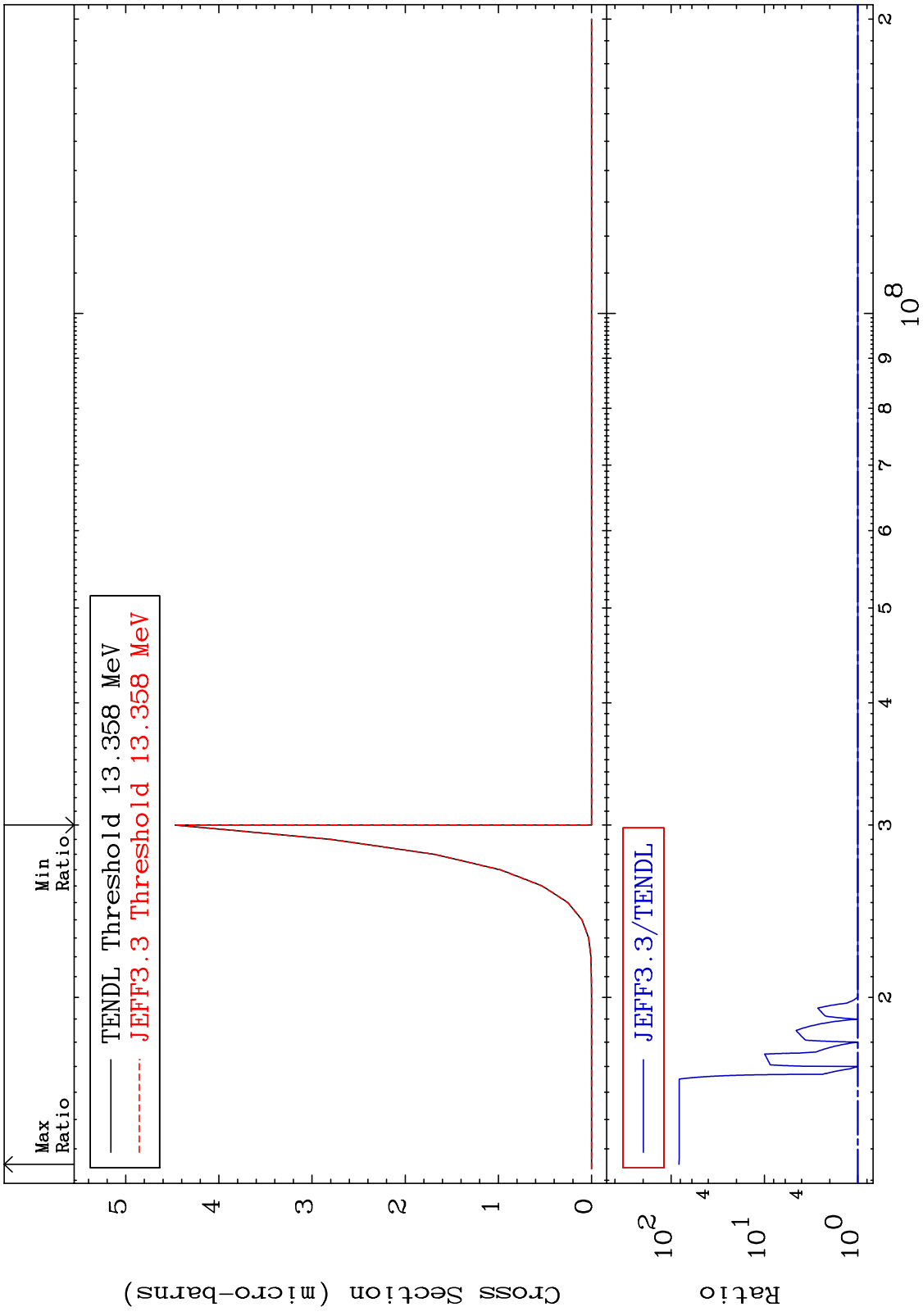
MAT 4125

(n,p) α
Cross Section

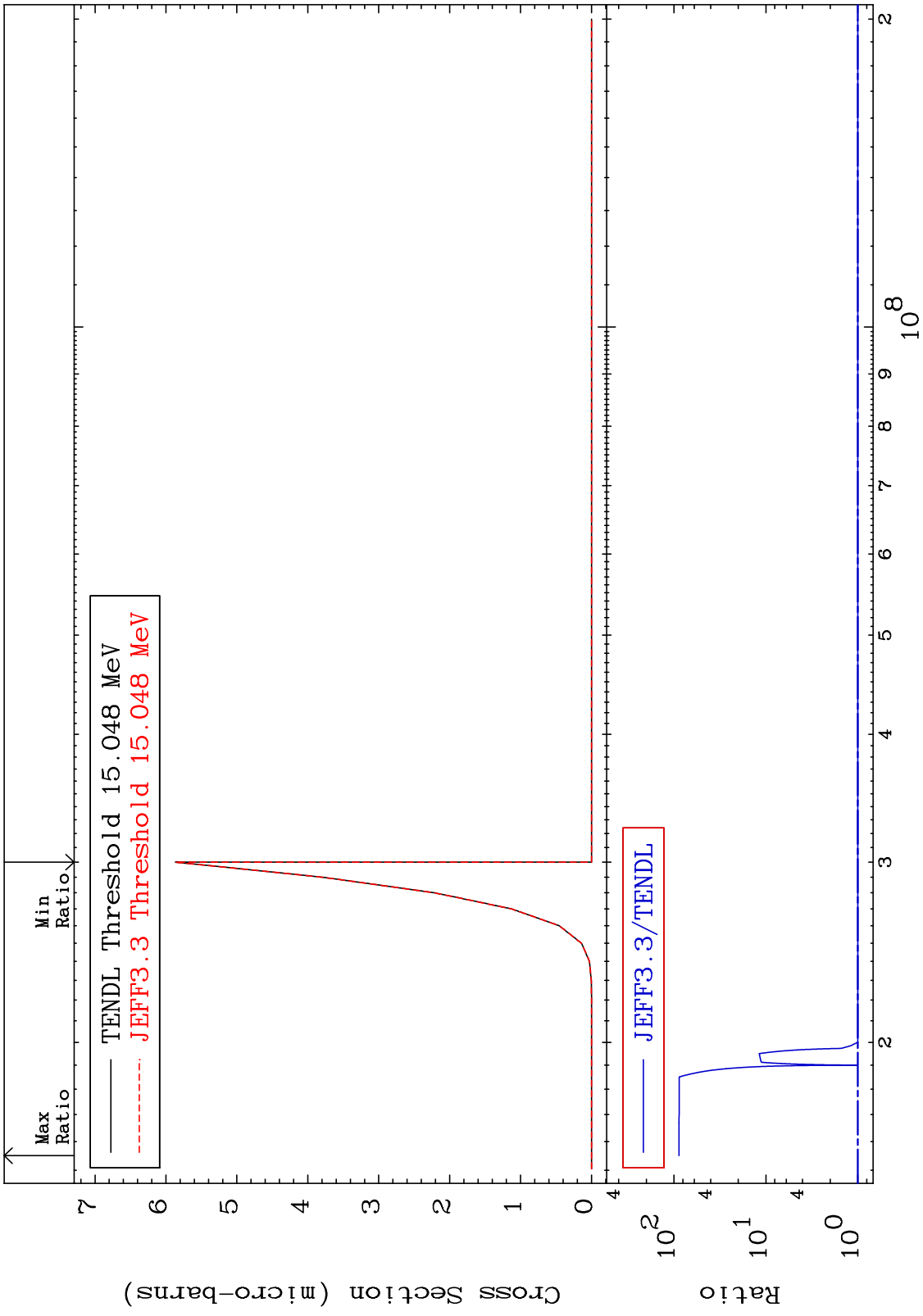
41-Nb-93
-72.10 To 5118. %



MAT 4125 (n,p) d 41-Nb-93
 Cross Section 0.000 To 8137. %



MAT 4125 (n,p) t 41-Nb-93
 Cross Section 0.000 To 8710. %



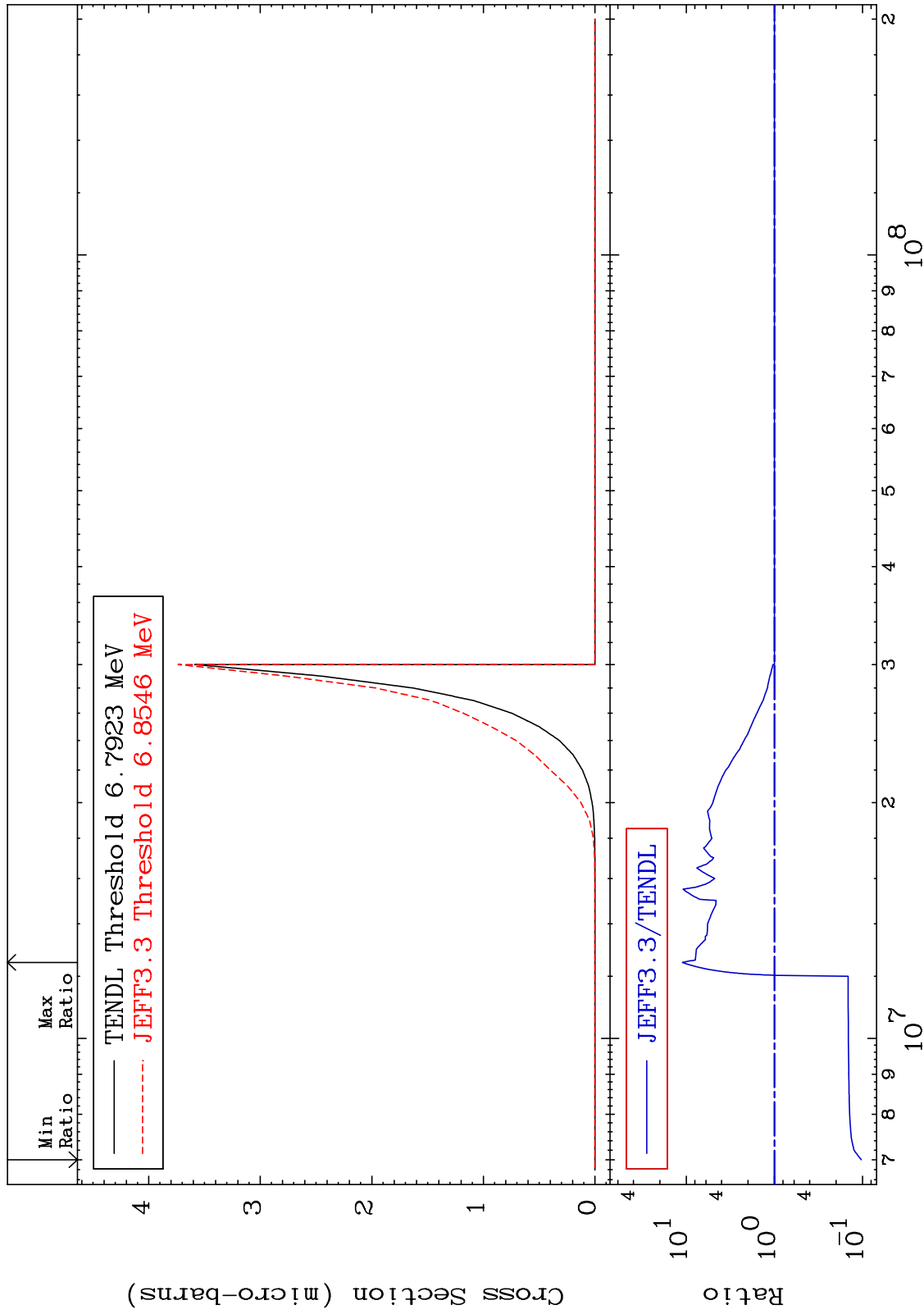
MAT 4125

(n,d) α

41-Nb-93

Cross Section

-89.66 To 1009. %



62

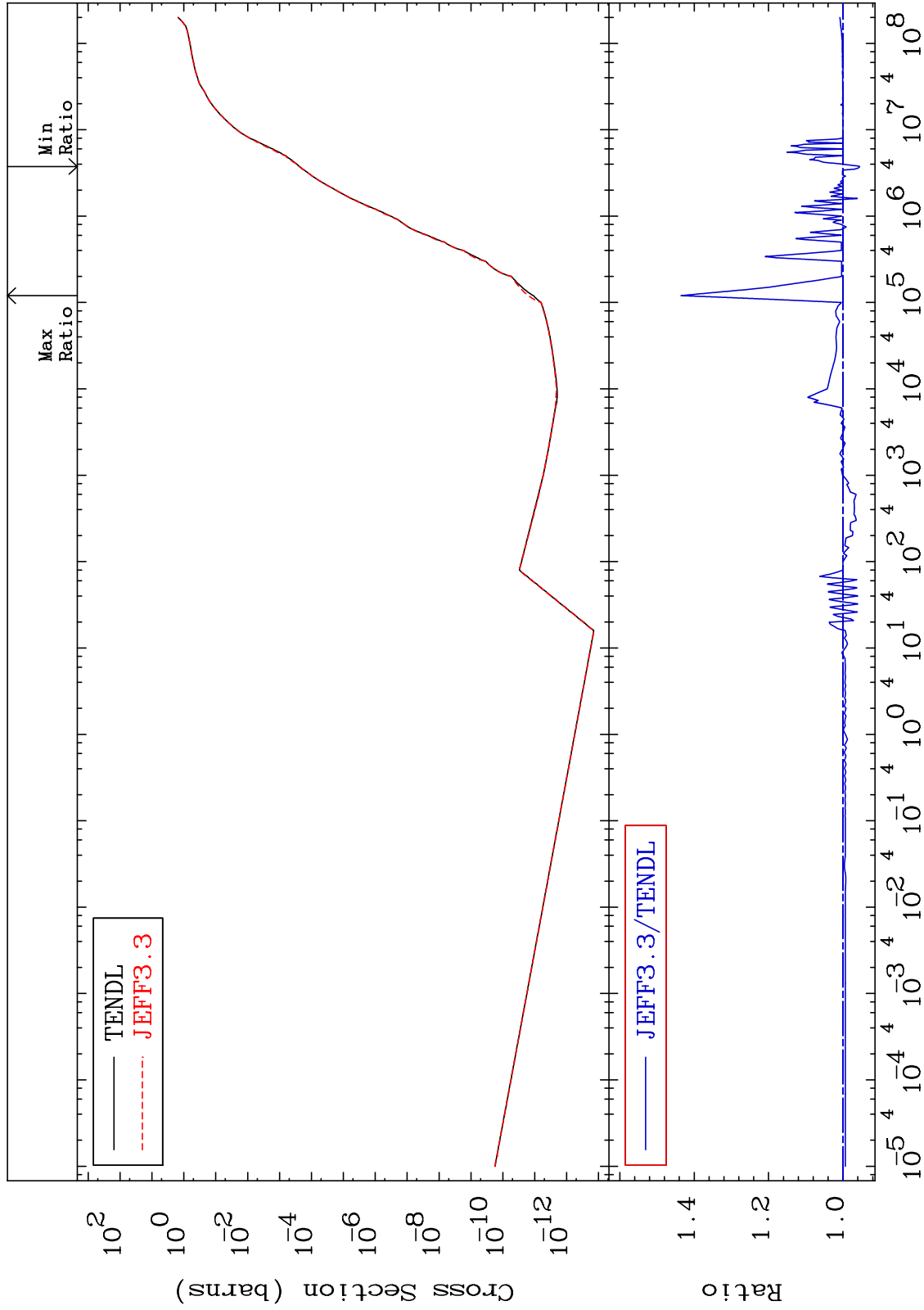
Incident Energy (eV)

41-Nb-93

MAT 4125

Hydrogen Production Cross Section

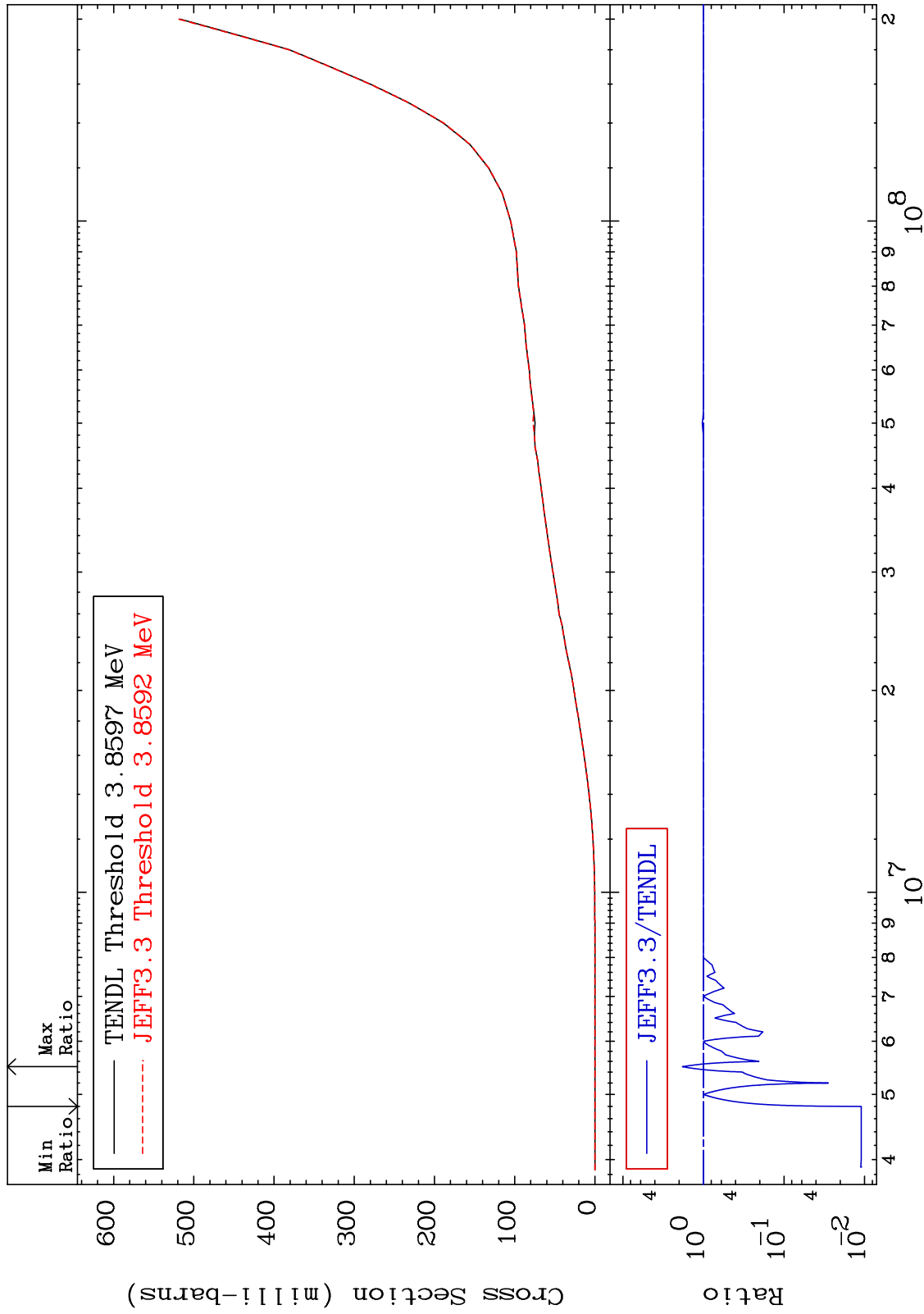
41-Nb-93
-4.512 To 43.48 %



MAT 4125

Deuterium Production
Cross Section

41-Nb-93
-98.90 To 81.91 %



64

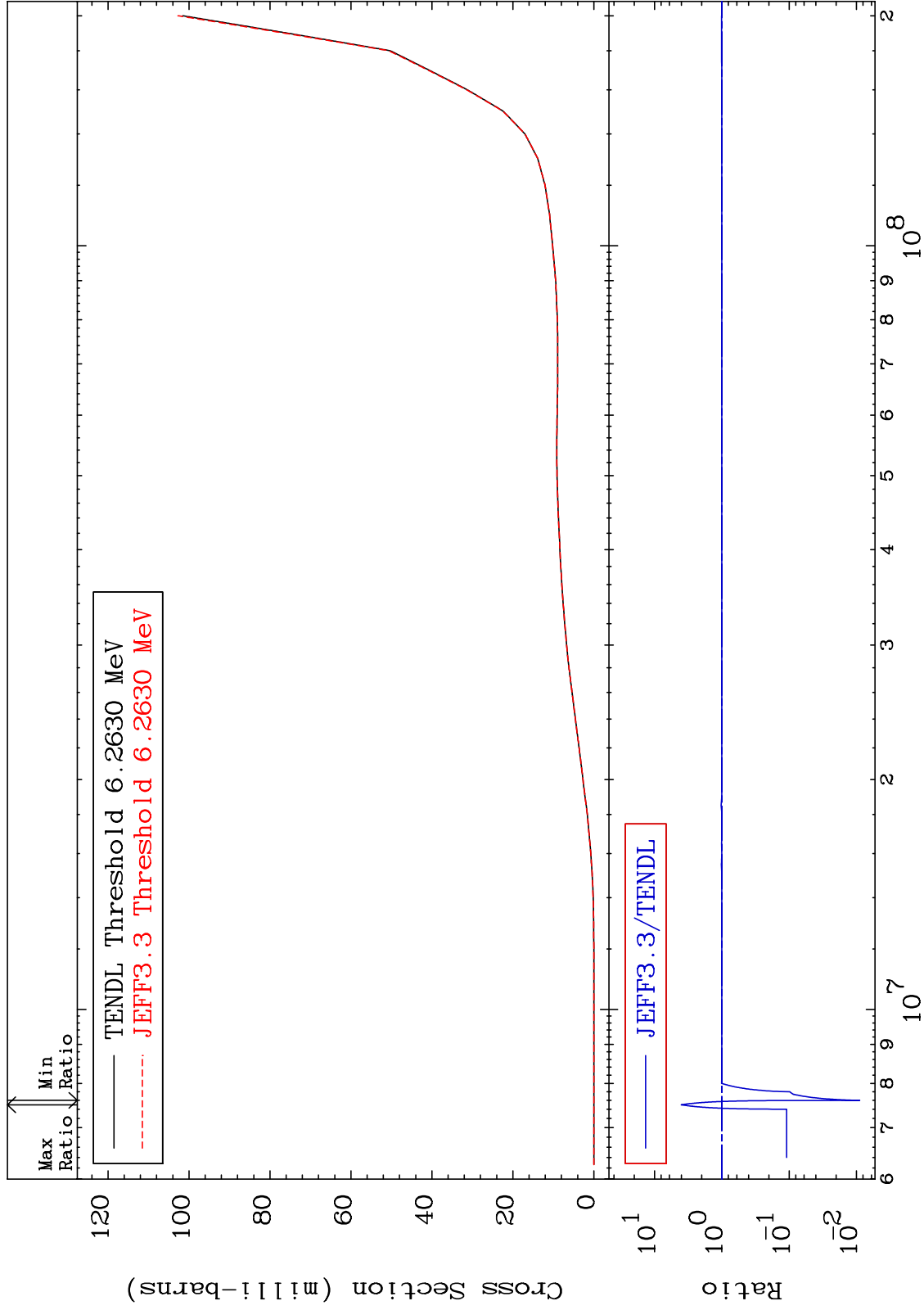
Incident Energy (eV)

41-Nb-93

MAT 4125

Tritium Production
Cross Section

41-Nb-93
-99.11 To 301.2 %

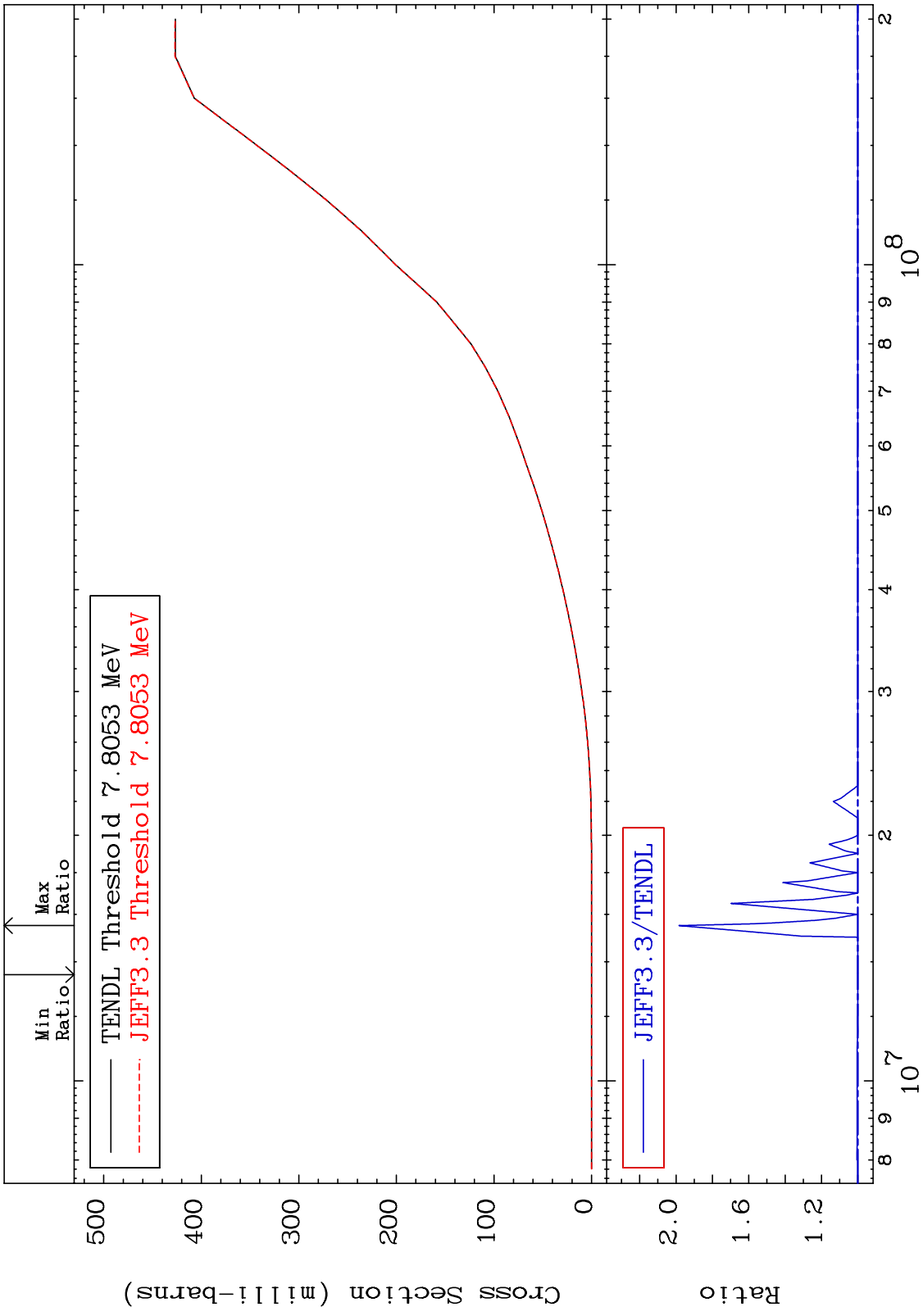


65

Incident Energy (eV)

41-Nb-93

MAT 4125 He-3 Production Cross Section 41-Nb-93 To 98.36 %

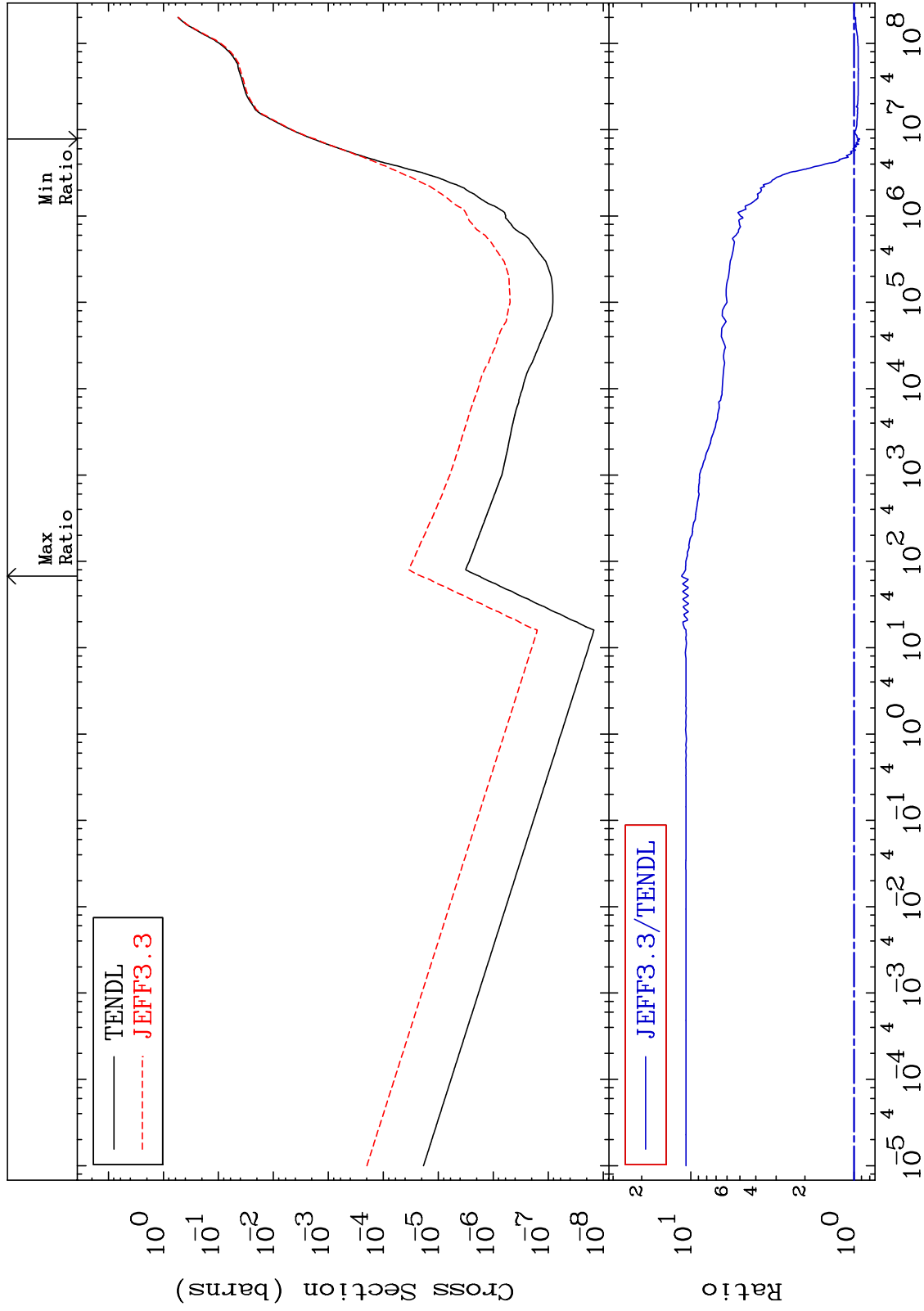


66 41-Nb-93

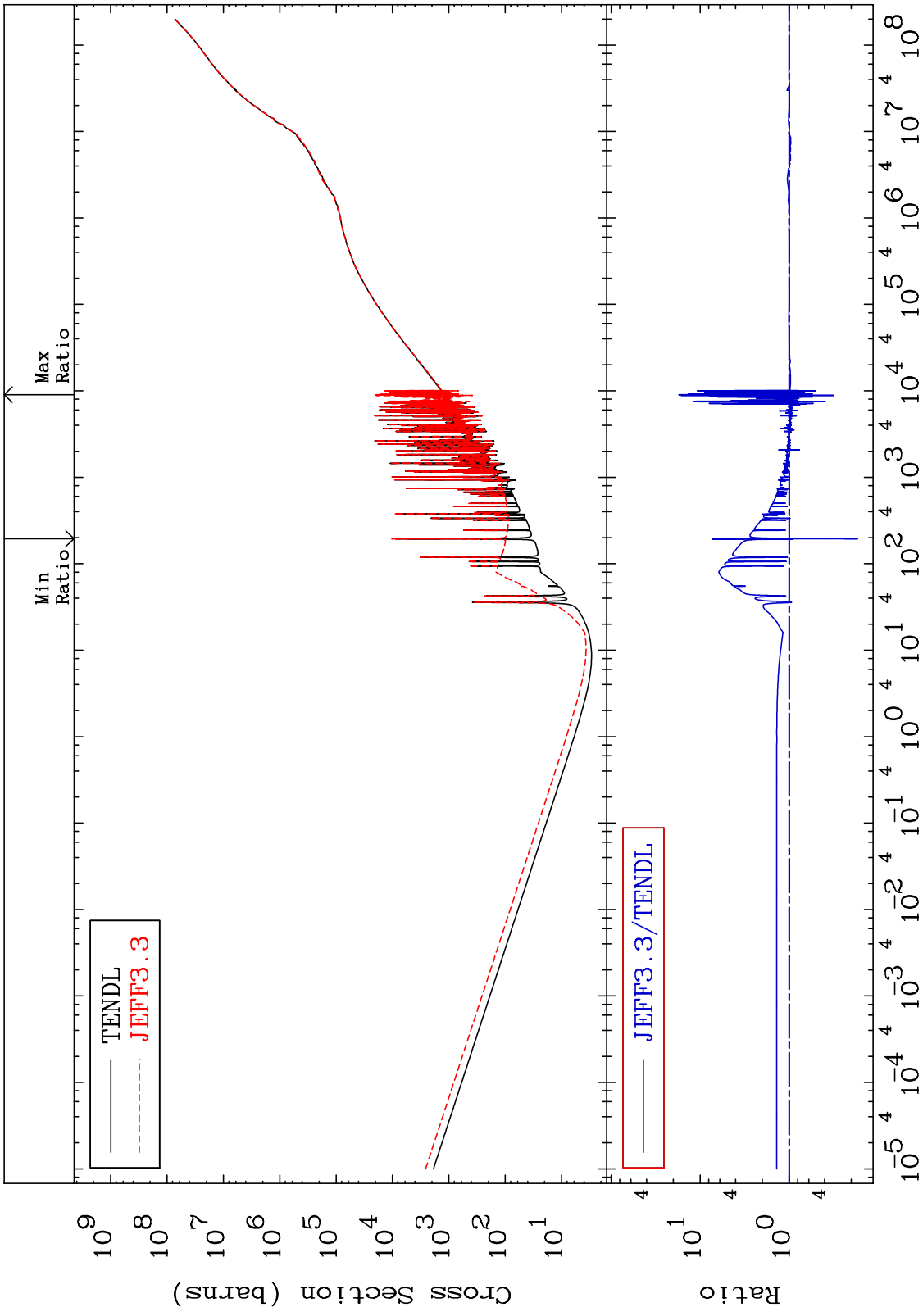
MAT 4125

He-4 Production
Cross Section

41-Nb-93
-7.769 To 1045. %



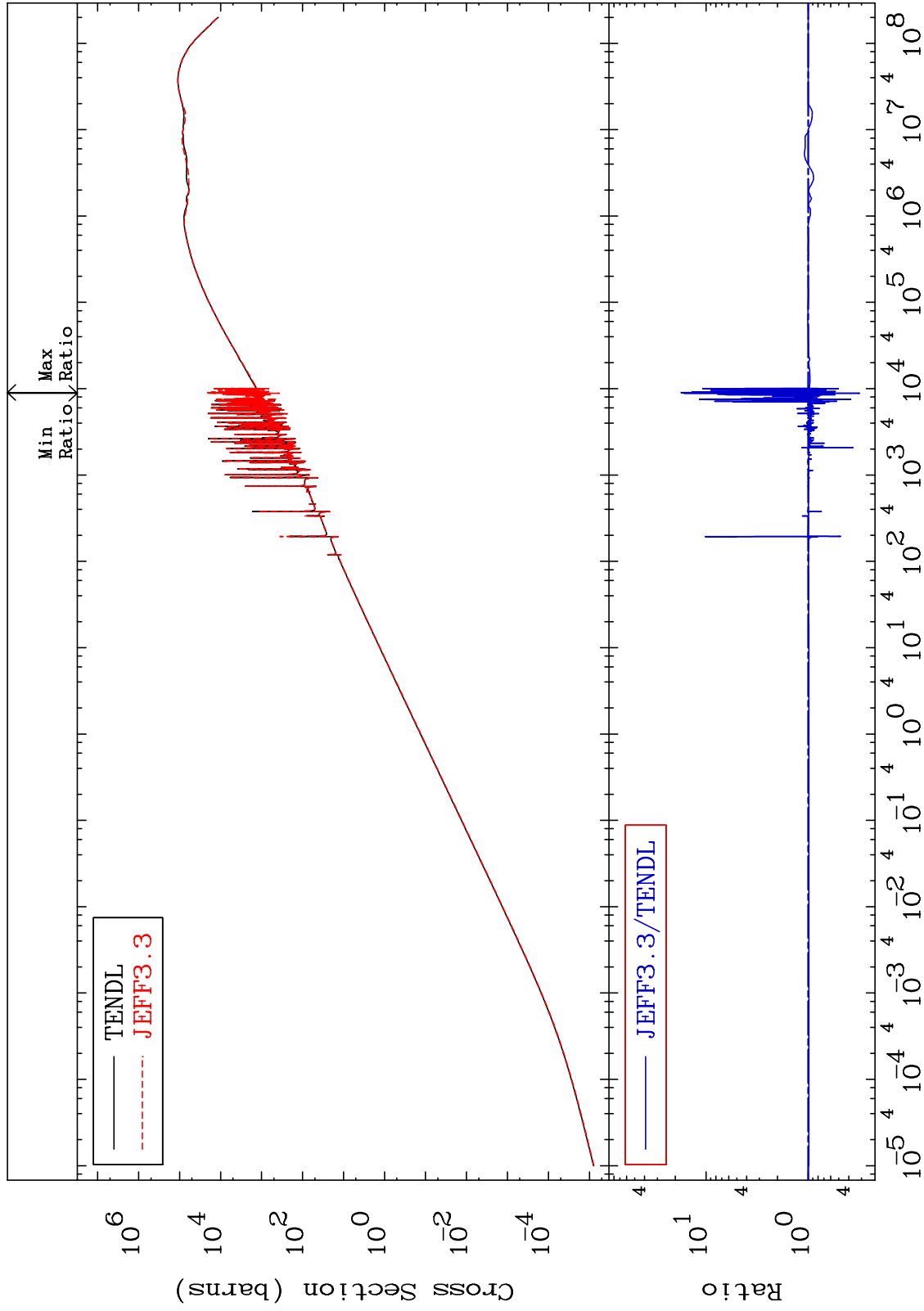
MAT 4125 Kerma total (eV-barns) 41-Nb-93
 Cross Section -83.12 To 1628. %



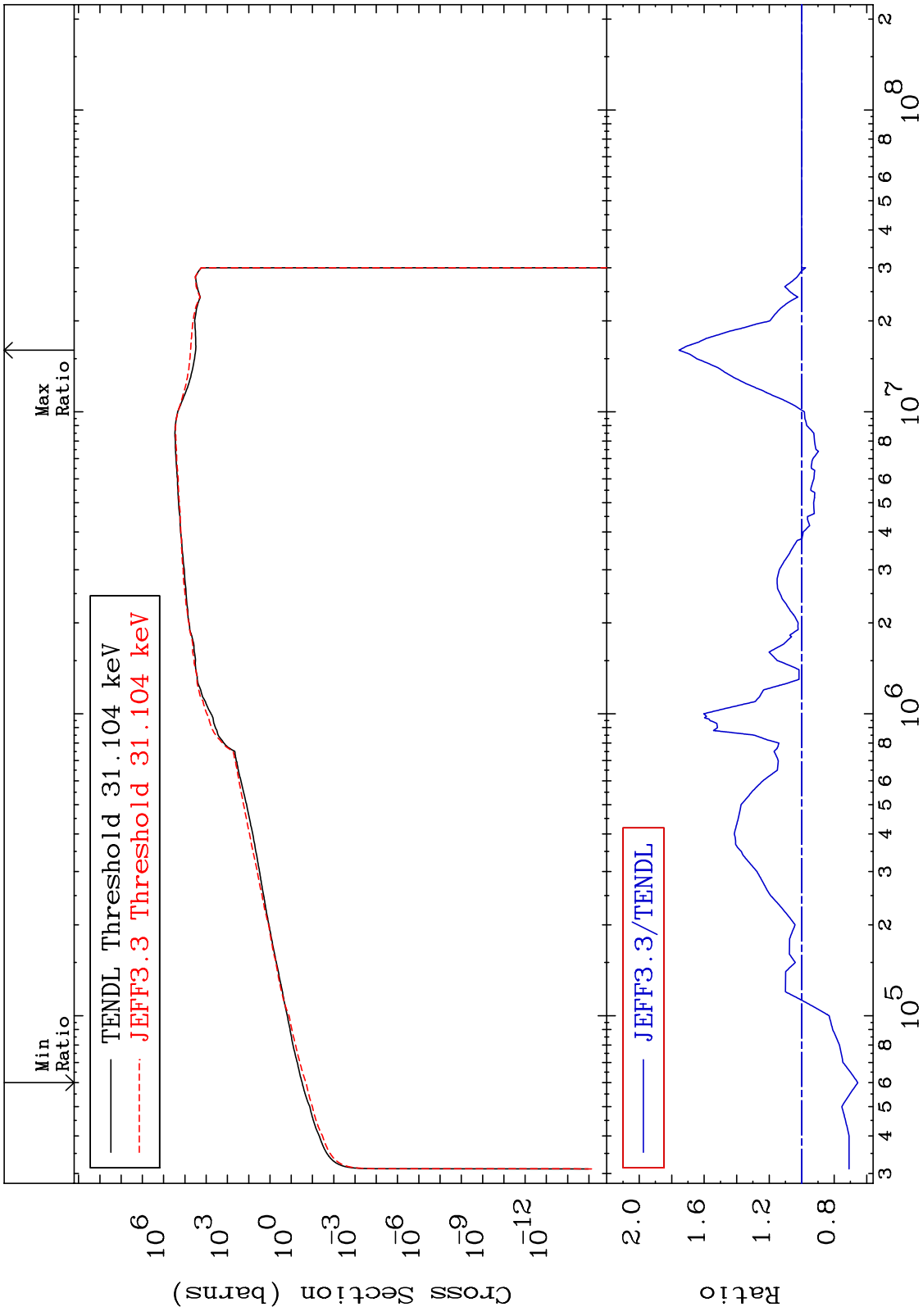
MAT 4125

Kerma elastic
Cross Section

41-Nb-93
-68.82 To 1650. %



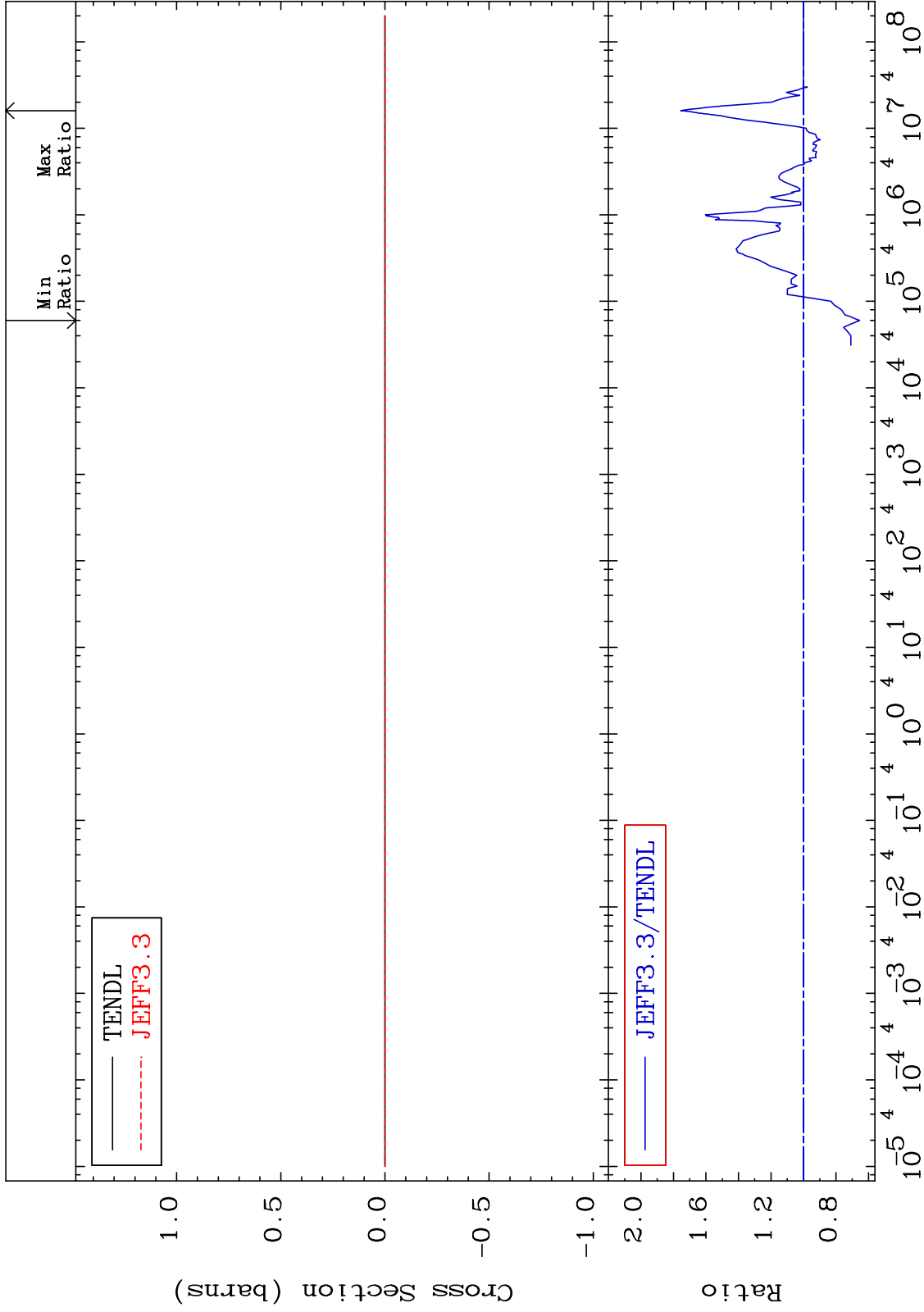
MAT 4125 Kerma inelastic (mt51-91) 41-Nb-93
 Cross Section -34.54 To 75.48 %



MAT 4125

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

41-Nb-93
-34.54 To 75.48 %



72

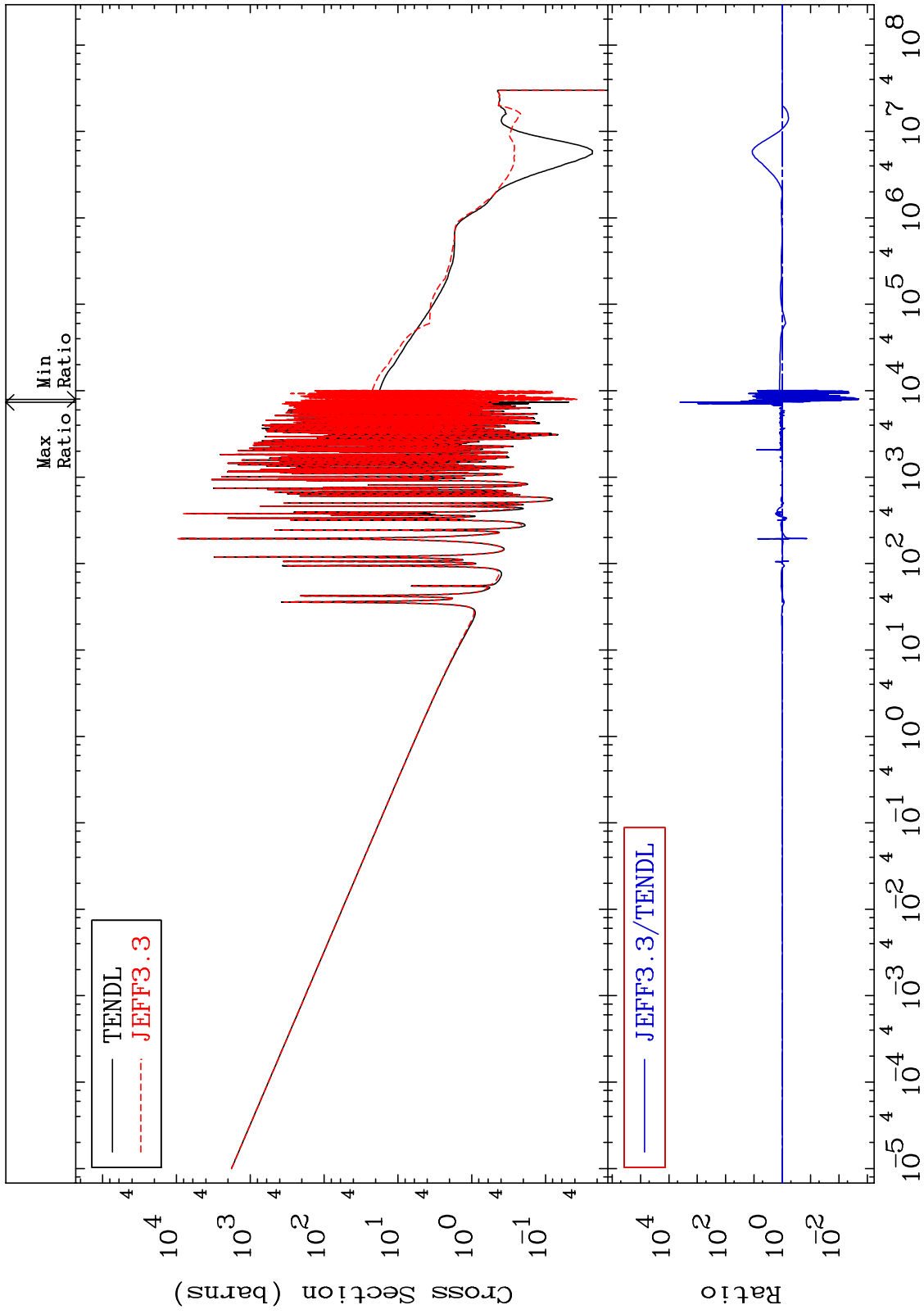
Incident Energy (eV)

41-Nb-93

MAT 4125

Kerma capture (mt102)
Cross Section

41-Nb-93
-99.80 To 9999. %



73

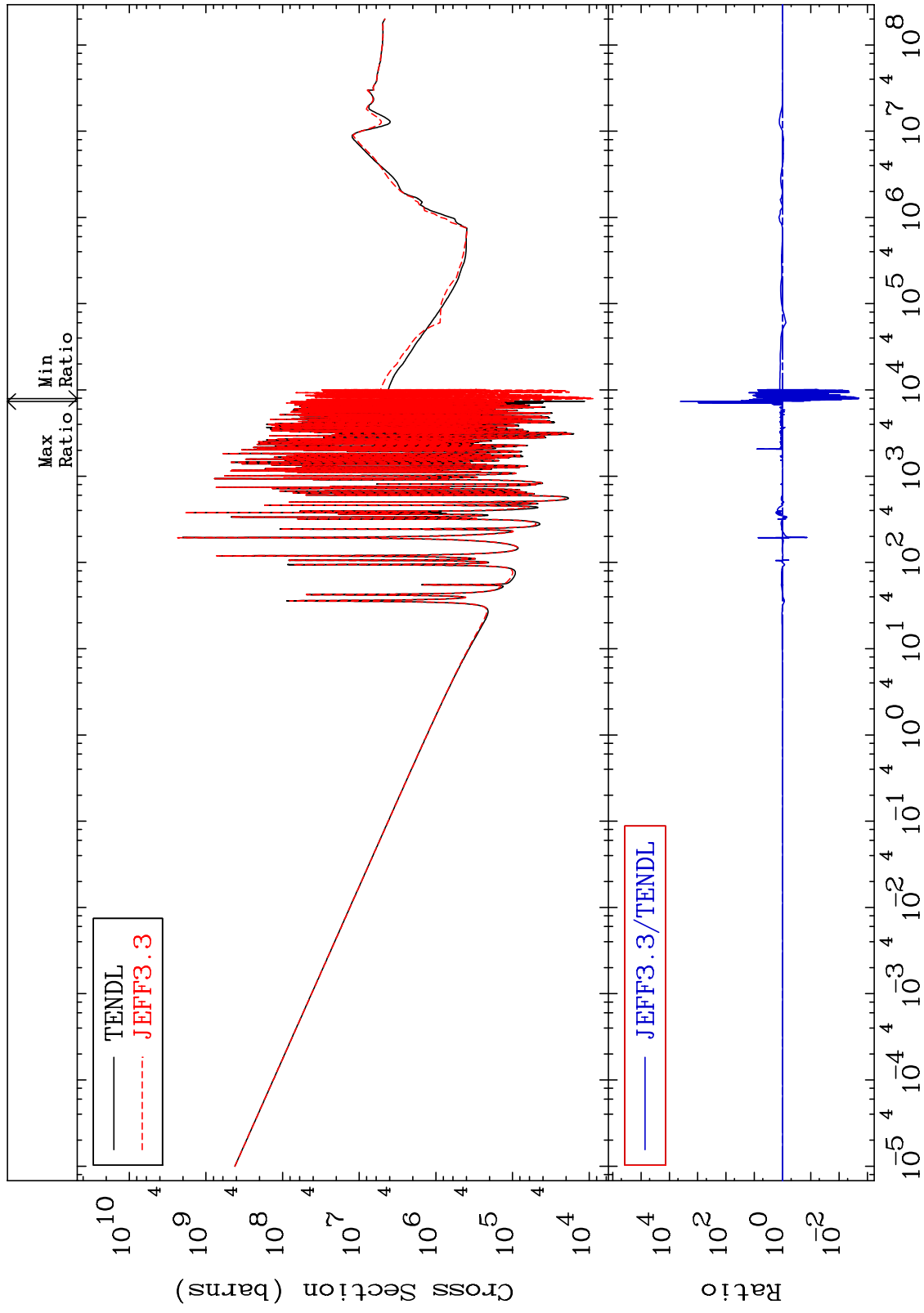
Incident Energy (eV)

41-Nb-93

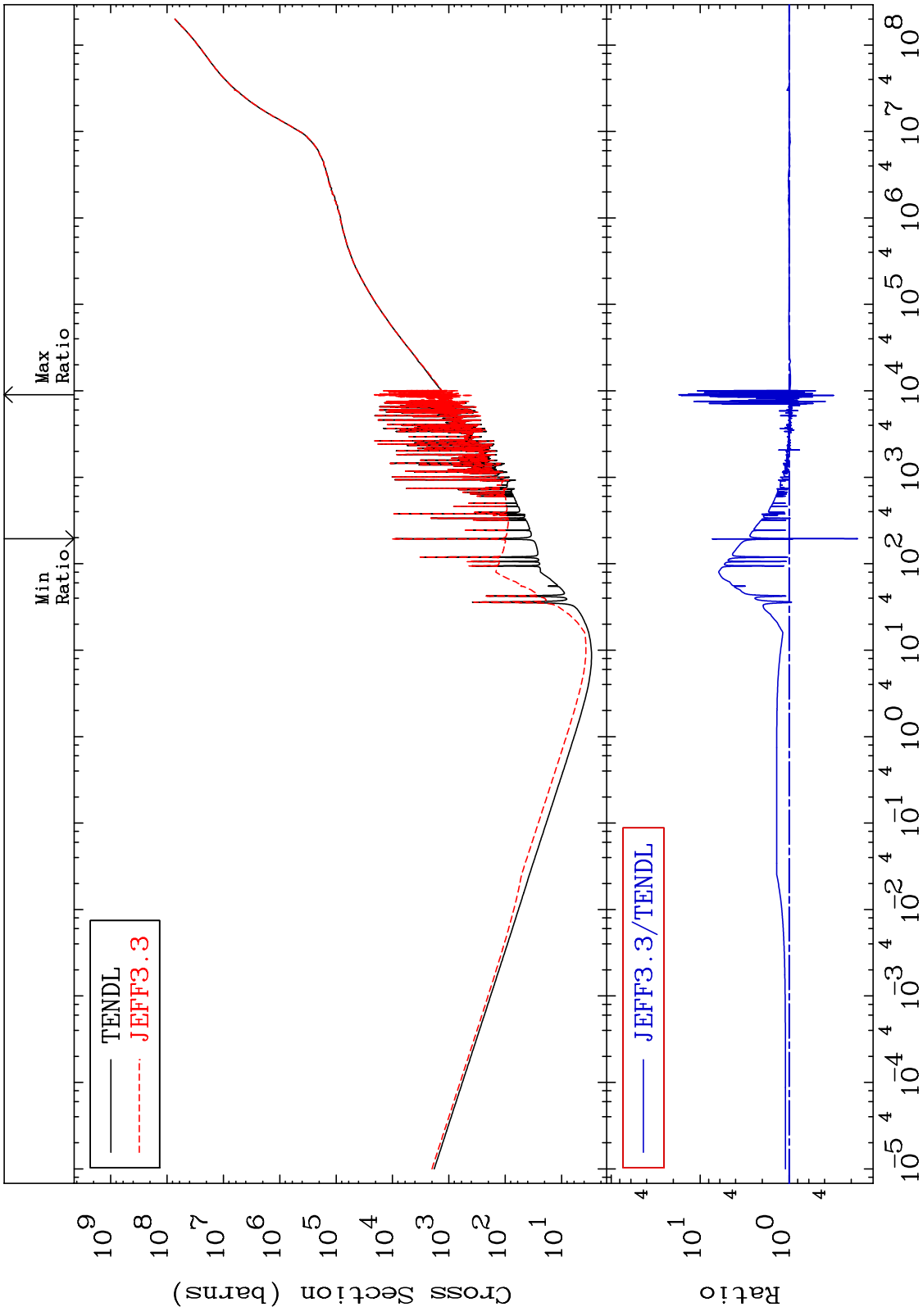
MAT 4125

Total photon (eV-barns)
Cross Section

41-Nb-93
-99.80 To 9999. %



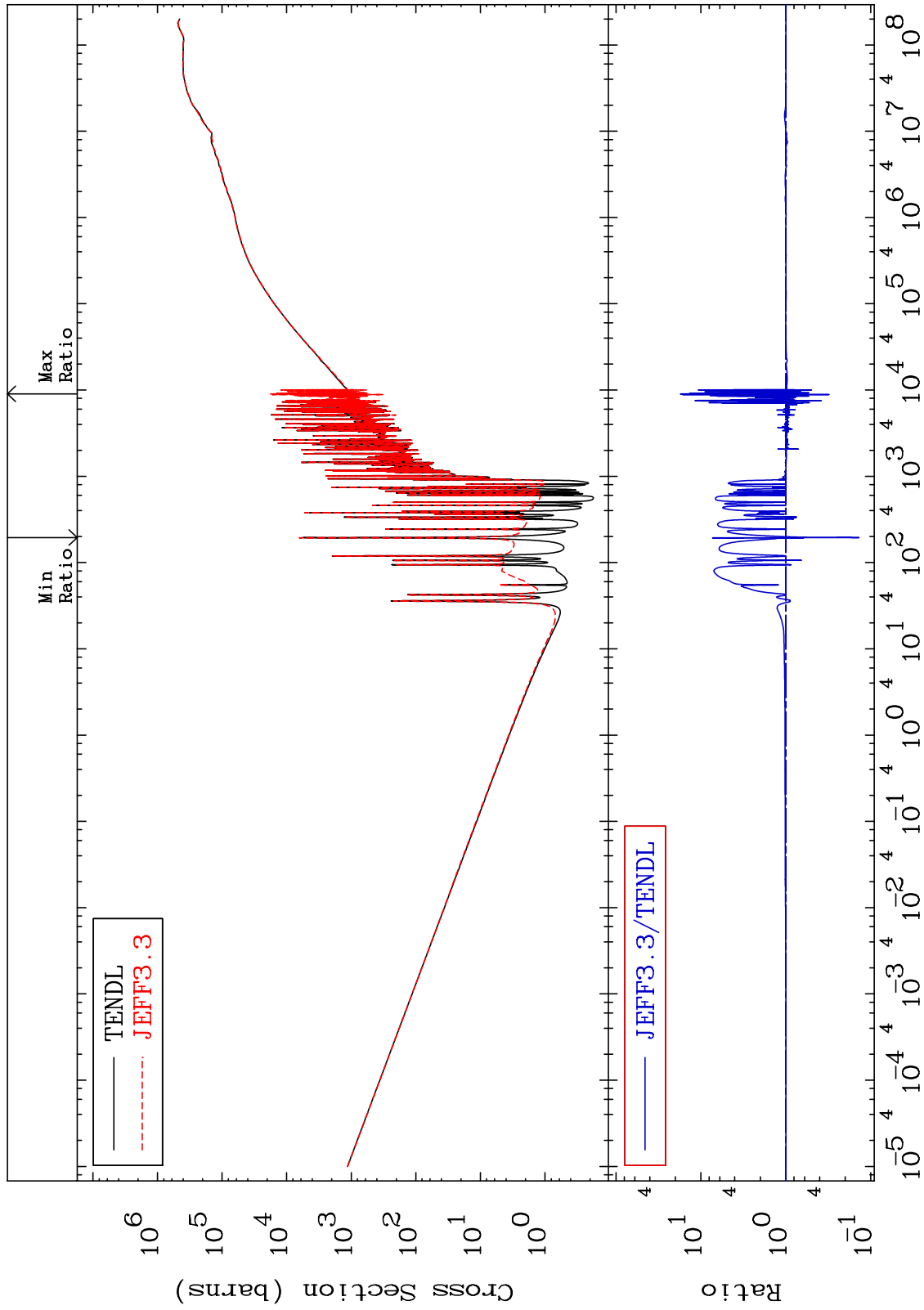
MAT 4125 Total kinematic kerma (high limit) 41-Nb-93
Cross Section -83.11 To 1628. %



MAT 4125

Dpa total (eV-barns)
Cross Section

41-Nb-93
-86.26 To 1634. %

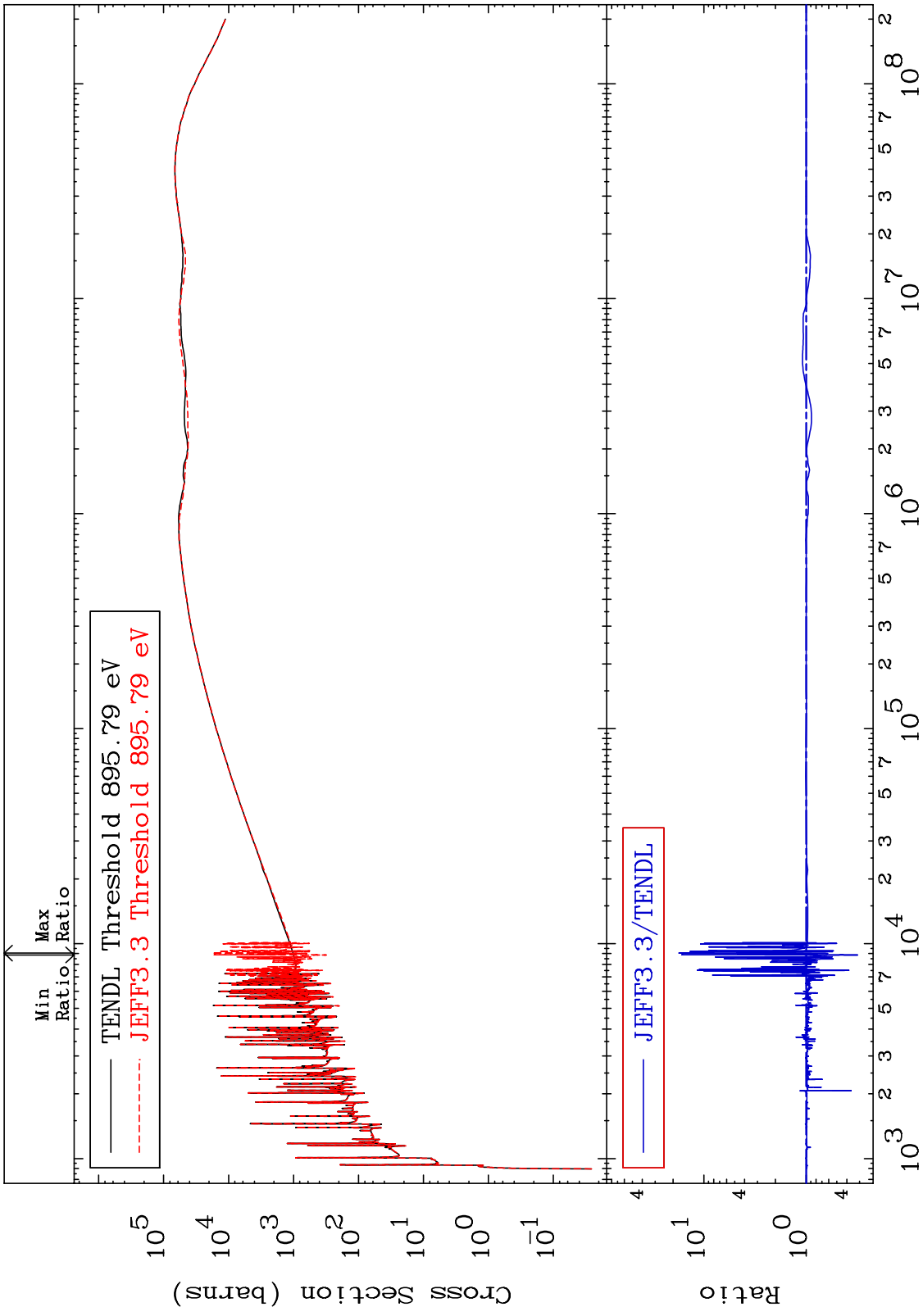


76

Incident Energy (eV)

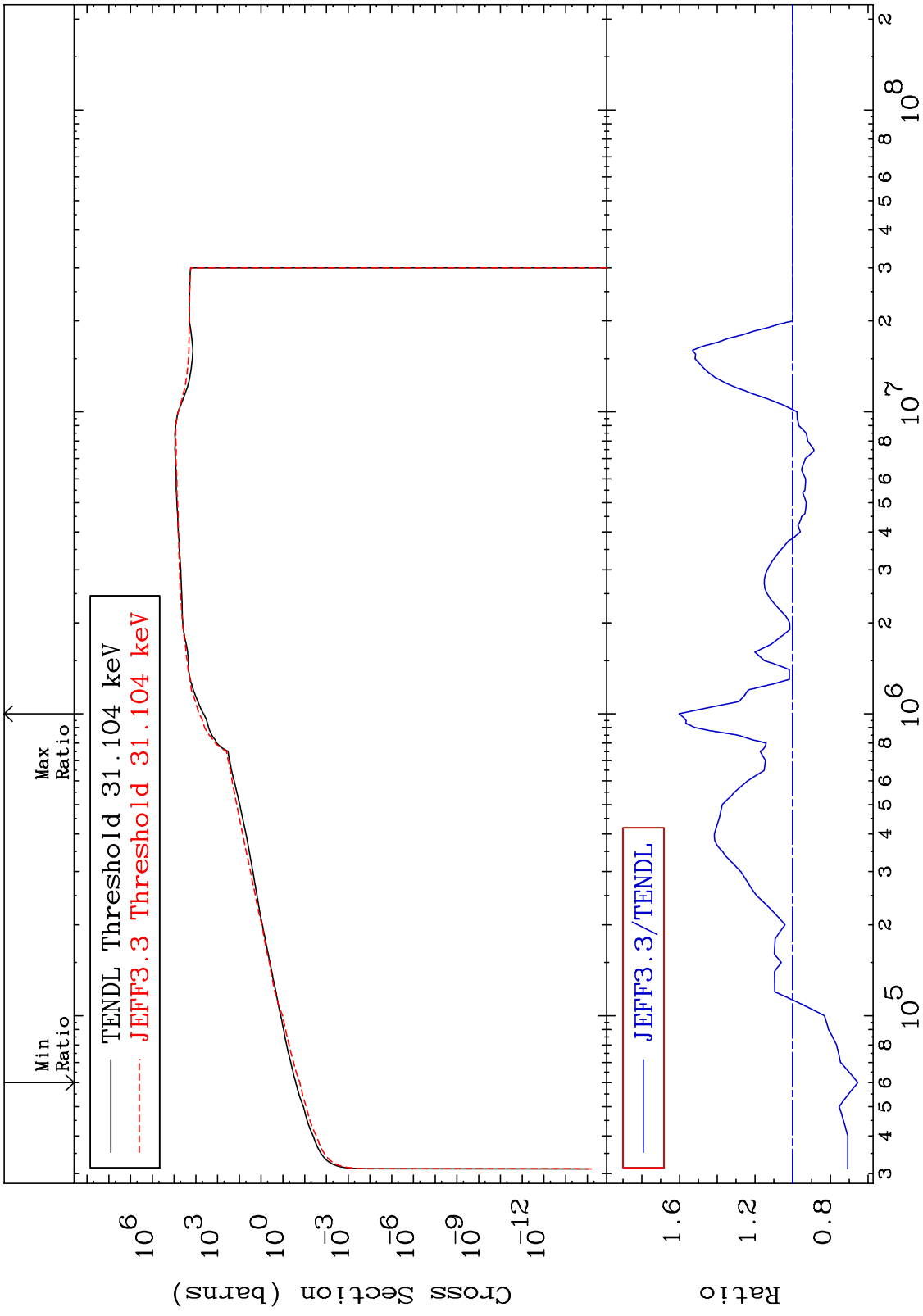
41-Nb-93

MAT 4125 41-Nb-93 -68.81 To 1650. %
Dpa elastic (mt2)
Cross Section



77 41-Nb-93

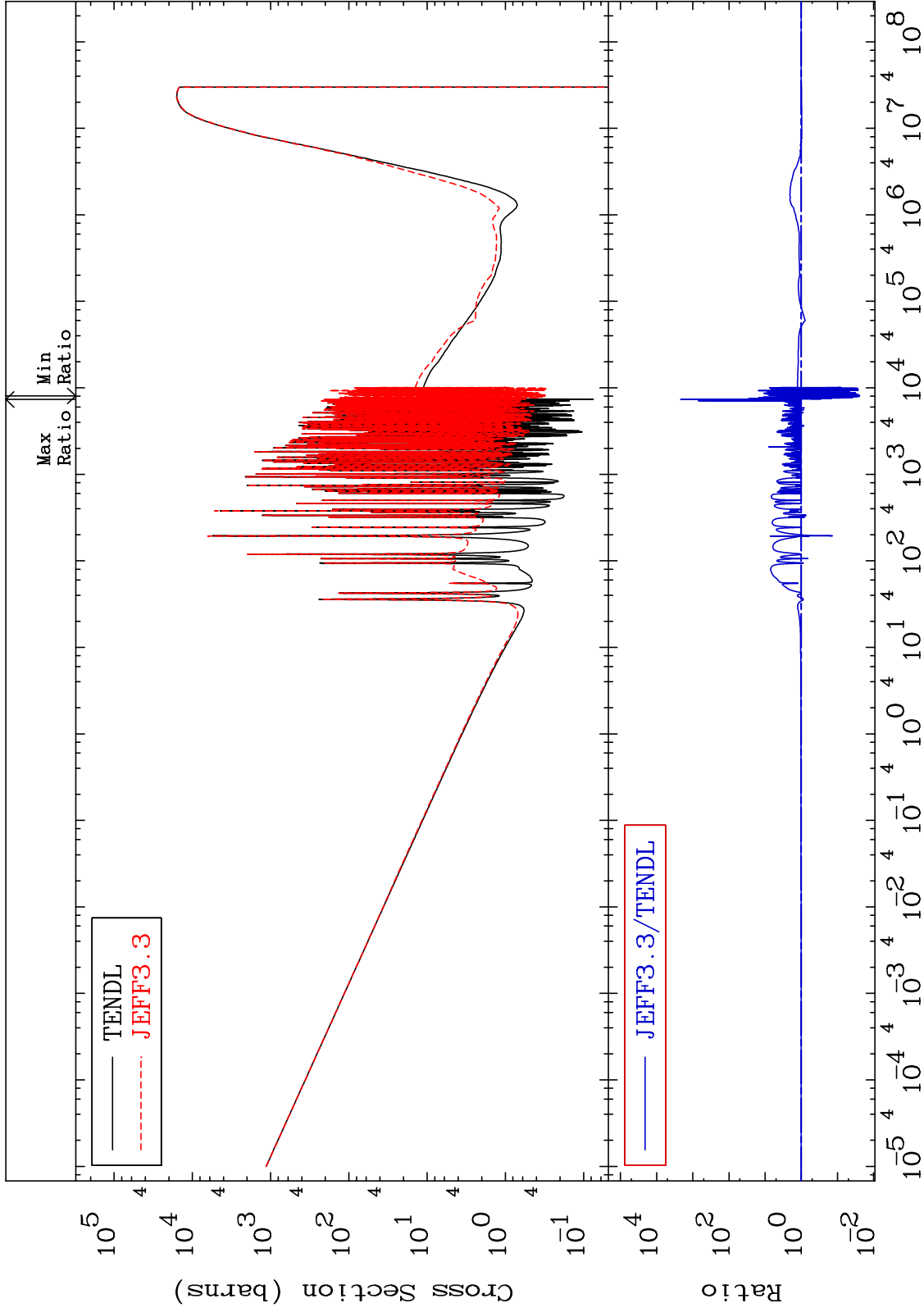
MAT 4125 Dpa inelastic (mt51-91) 41-Nb-93
 Cross Section -34.54 To 60.26 %



MAT 4125

Dpa disappearance (mt102 -120)
Cross Section

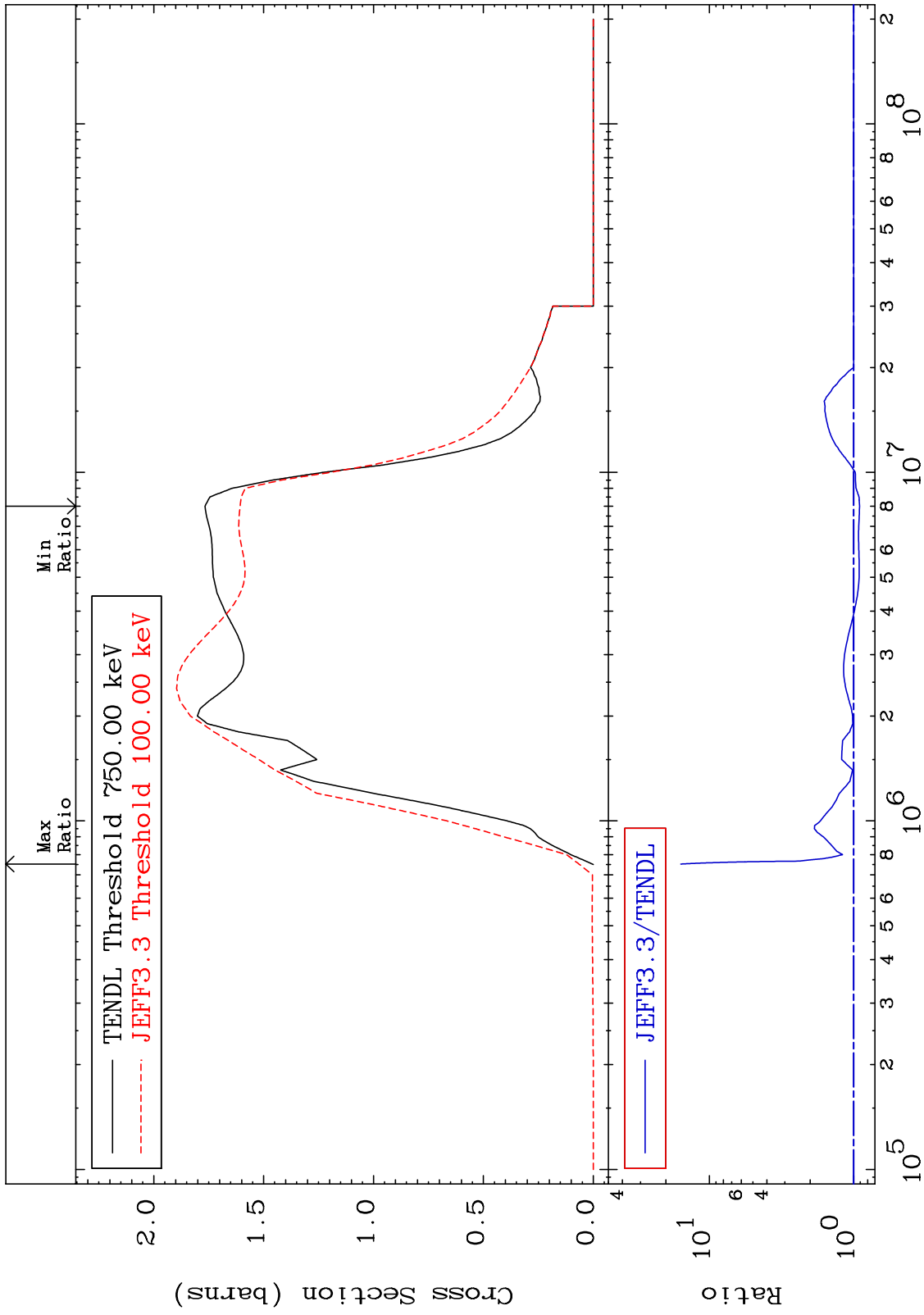
41-Nb-93
-97.56 To 9999. %



MAT 4125

Inelastic: 41-Nb-93
Radionuclide Production Cross Section -9.080 To 1477. %

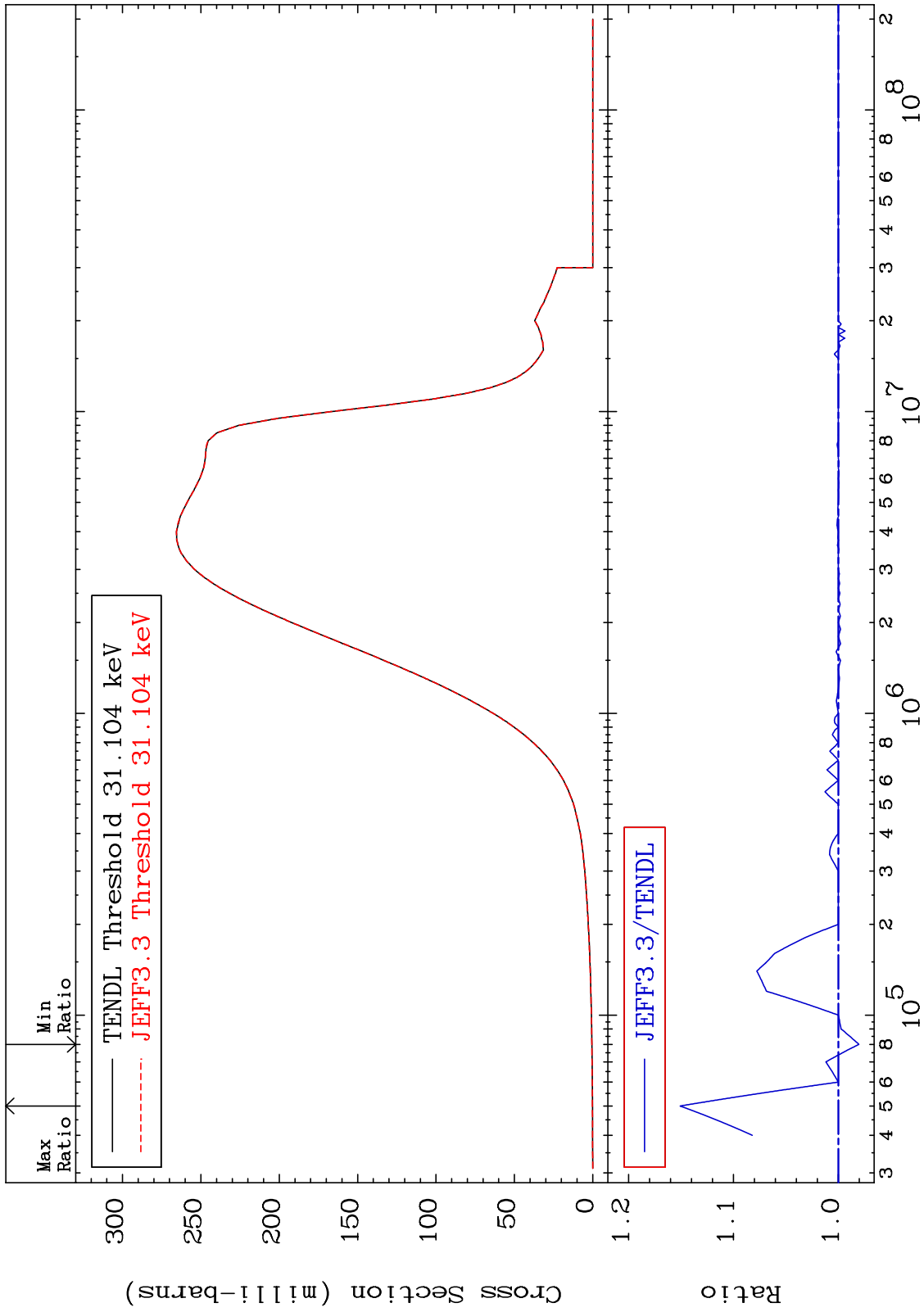
41-Nb-93



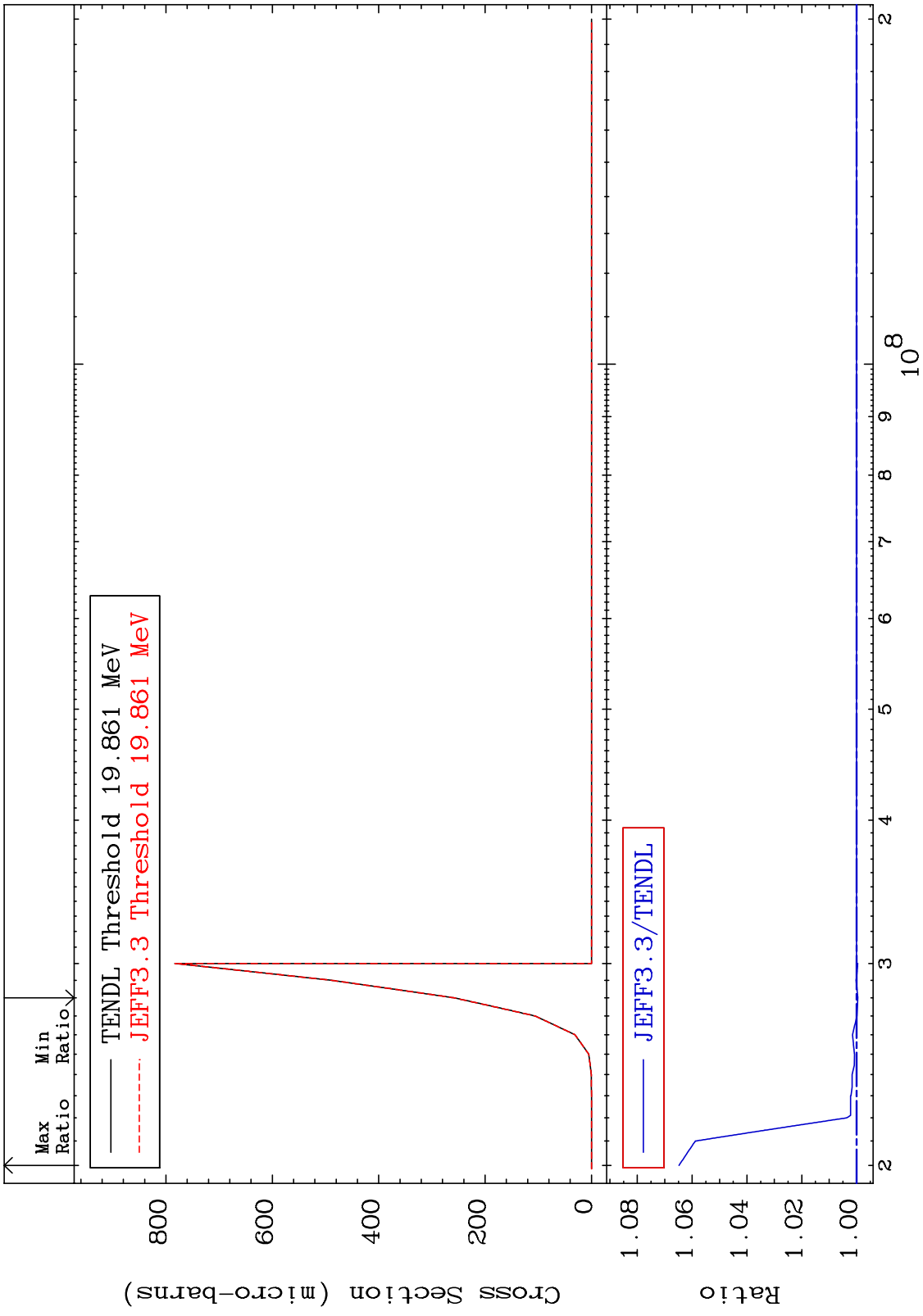
80

Incident Energy (eV)

41-Nb-93



MAT 4125 (n,2n) d:40-Zr-90g 41-Nb-93
 Radionuclide Production Cross Section -0.046 To 6.478 %

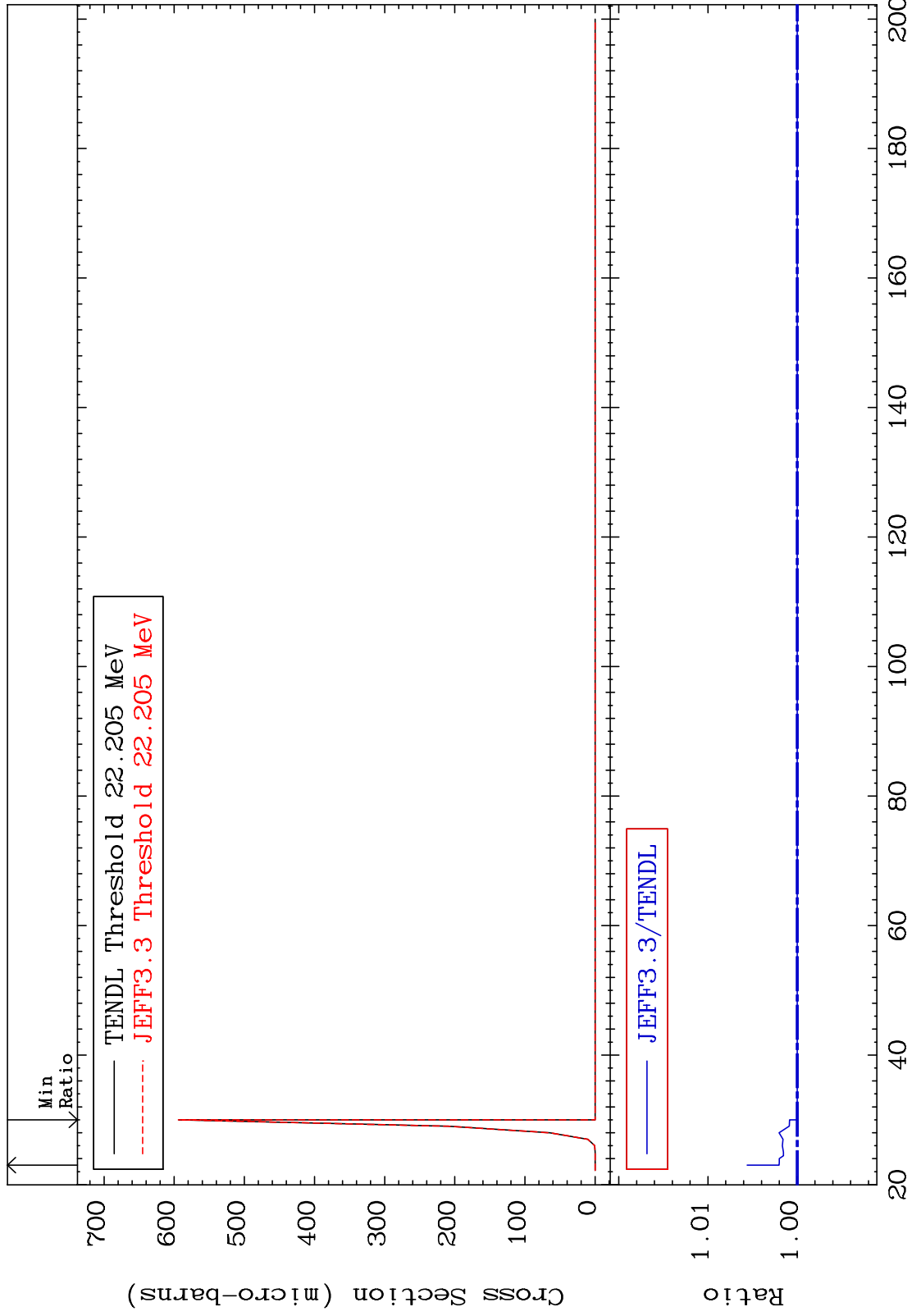


MAT 4125

(n,2n) d:40-Zr-90m3

41-Nb-93

Radionuclide Production Cross Section 0.000 To 0.561 %



83

Incident Energy (MeV)

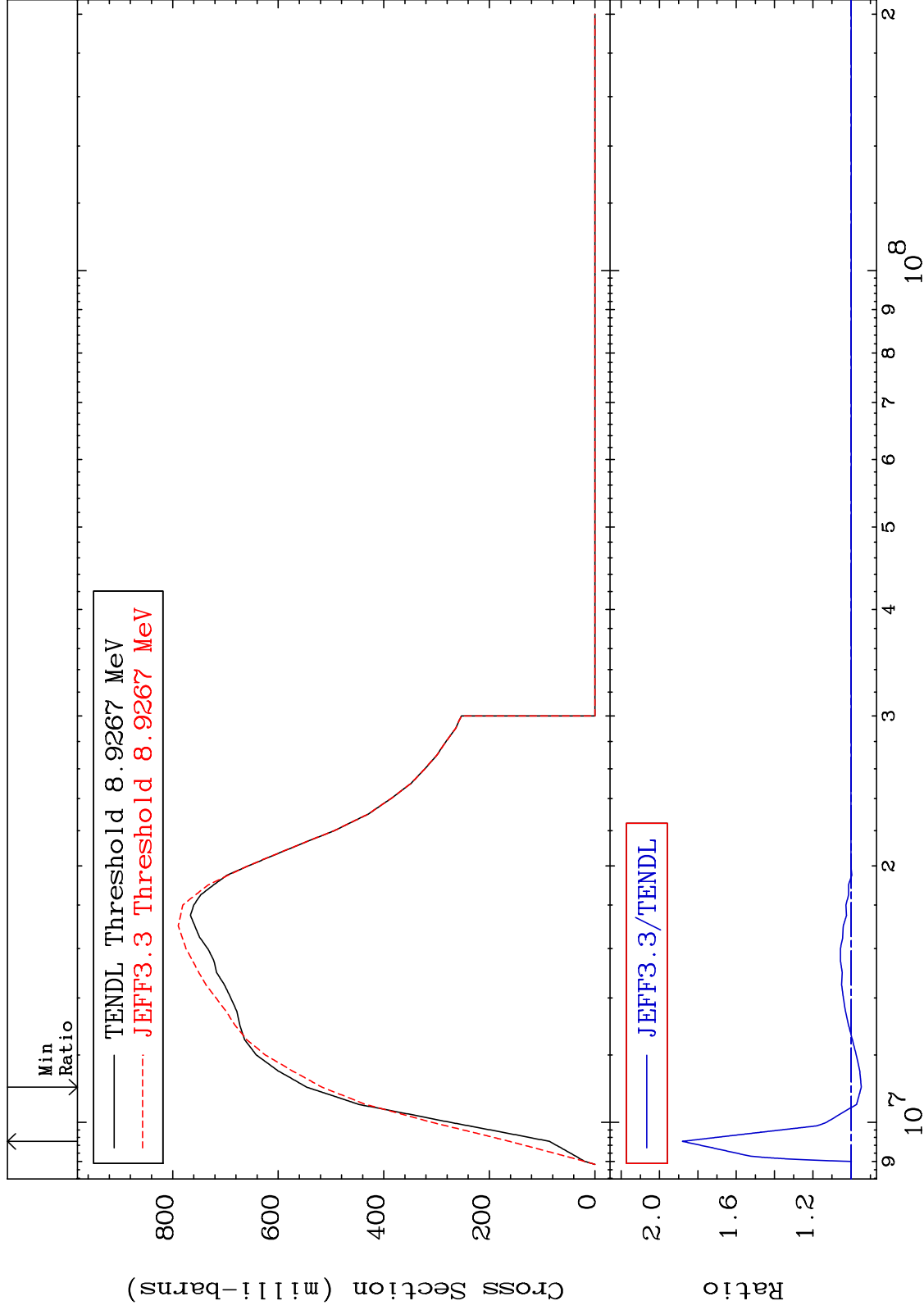
41-Nb-93

MAT 4125

(n,2n) : 41-Nb-92g

41-Nb-93

Radionuclide Production Cross Section -5.283 To 88.03 %



84

Incident Energy (eV)

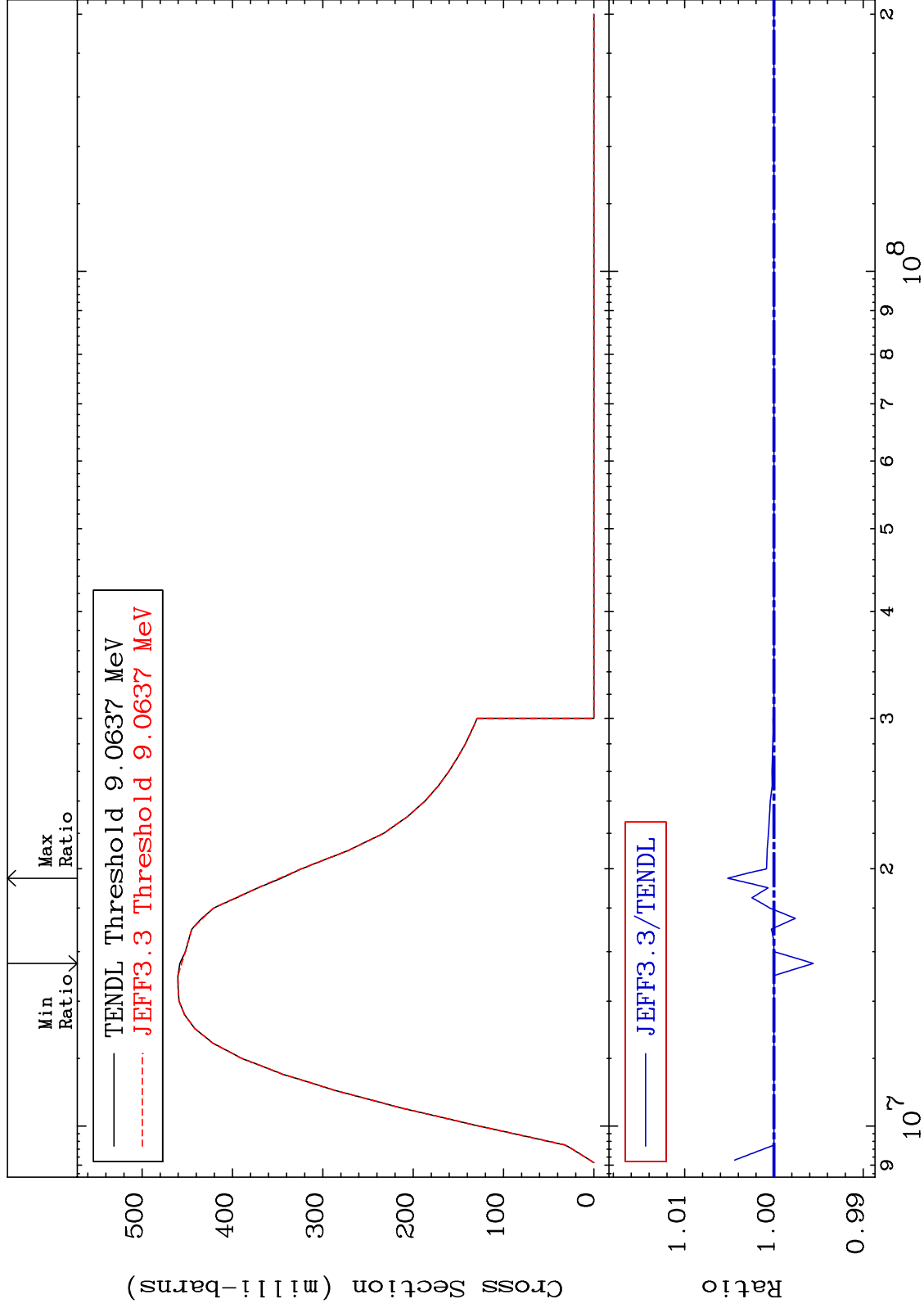
41-Nb-93

MAT 4125

(n,2n):41-Nb-92m1

41-Nb-93

Radionuclide Production Cross Section -0.441 To 0.518 %



85

Incident Energy (eV)

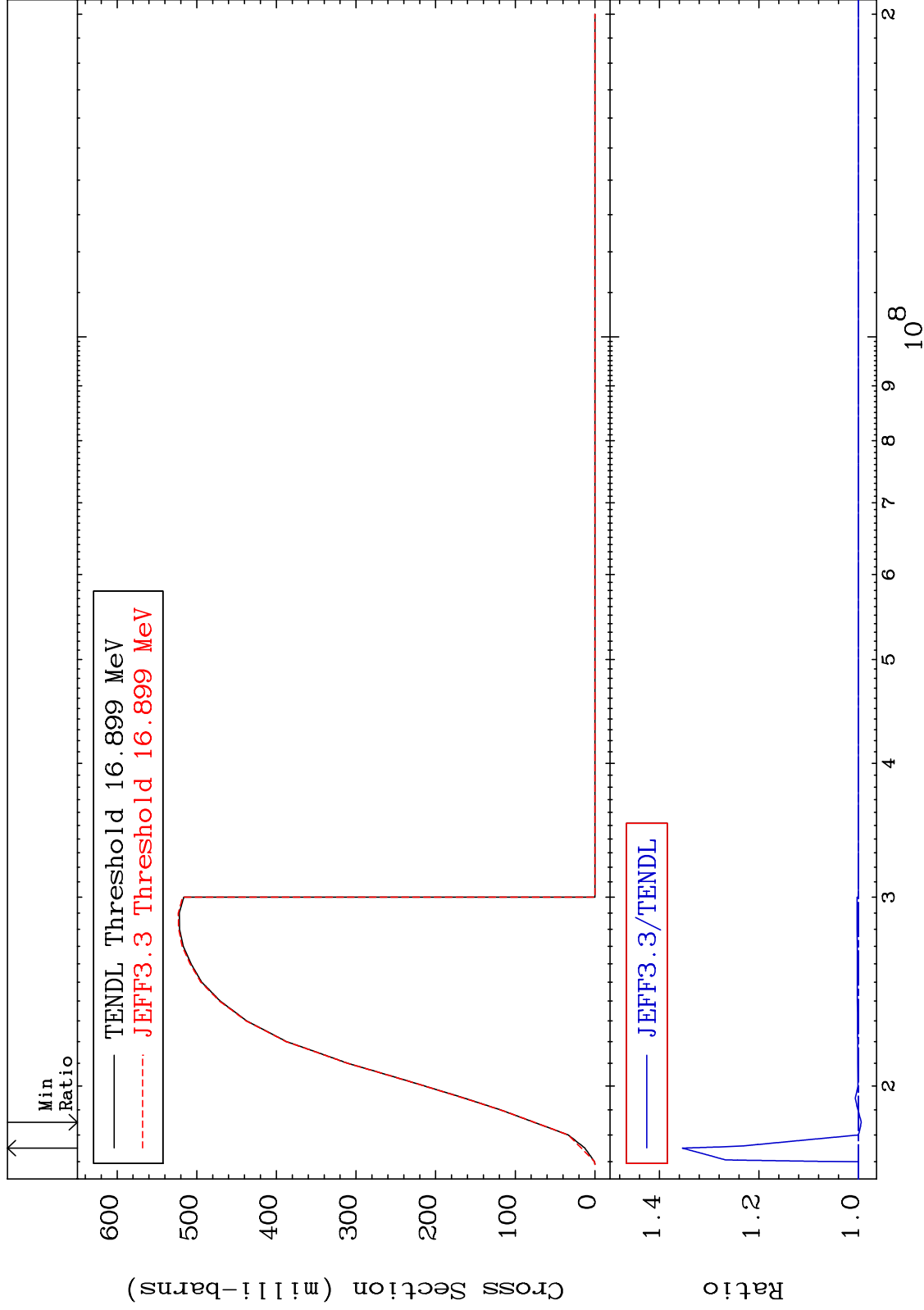
41-Nb-93

MAT 4125

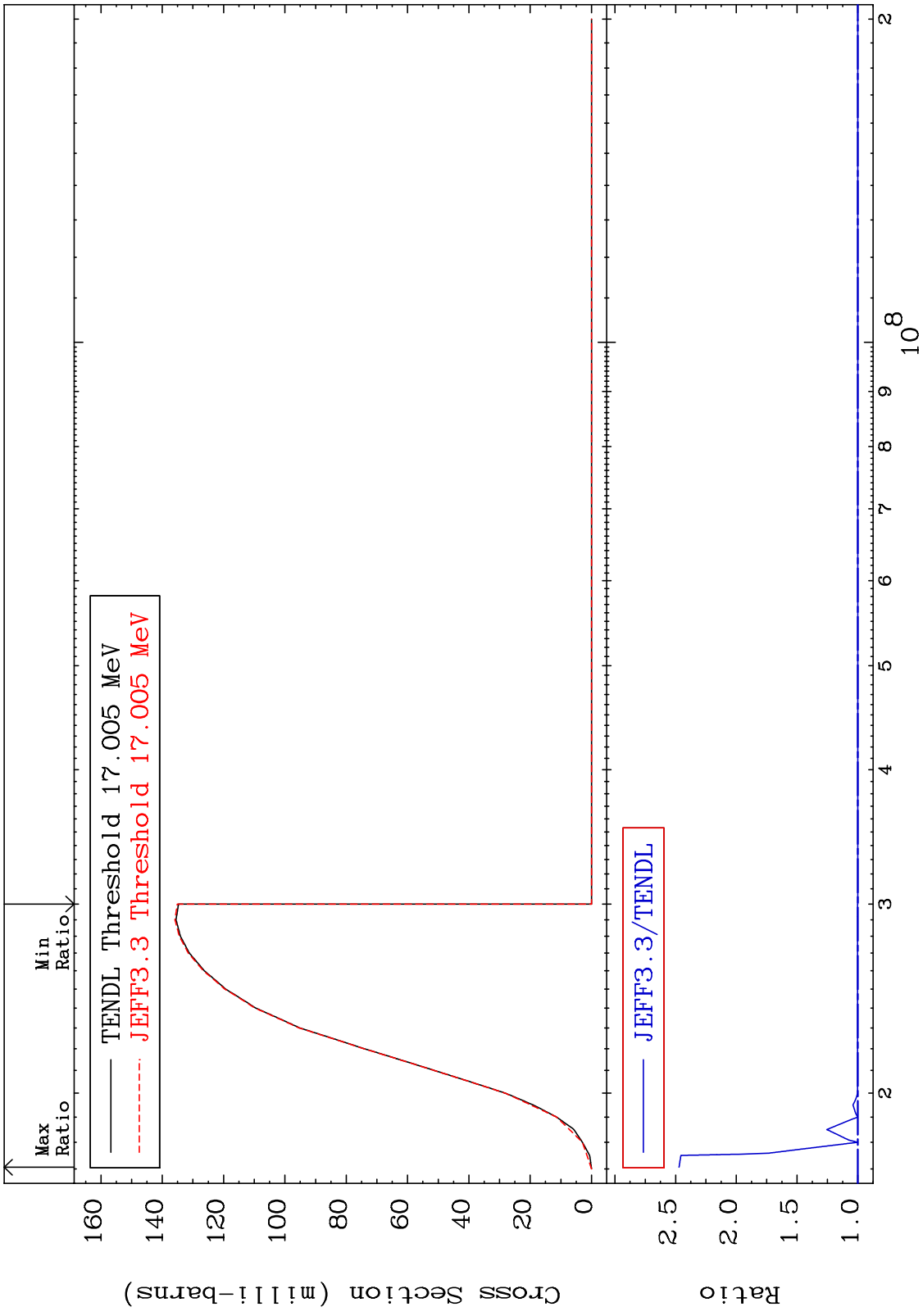
(n,3n):41-Nb-91g

41-Nb-93

Radionuclide Production Cross Section -0.579 To 35.38 %



MAT 4125 (n,3n):41-Nb-91m1 41-Nb-93
 Radionuclide Production Cross Section 0.000 To 147.2 %

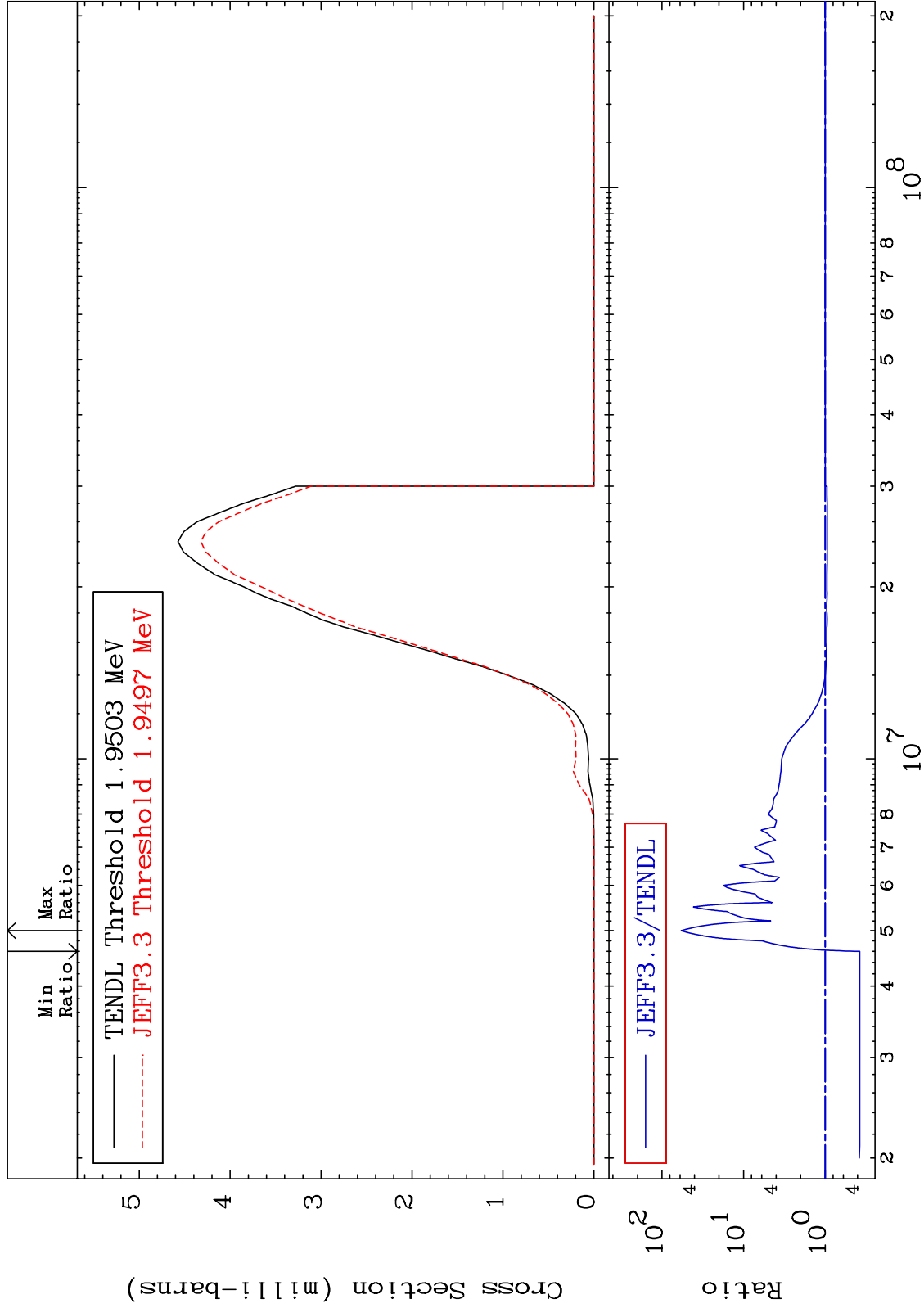


MAT 4125

(n, n') α : 39-Y -89g

41-Nb-93

Radionuclide Production Cross Section -62.33 To 5709. %

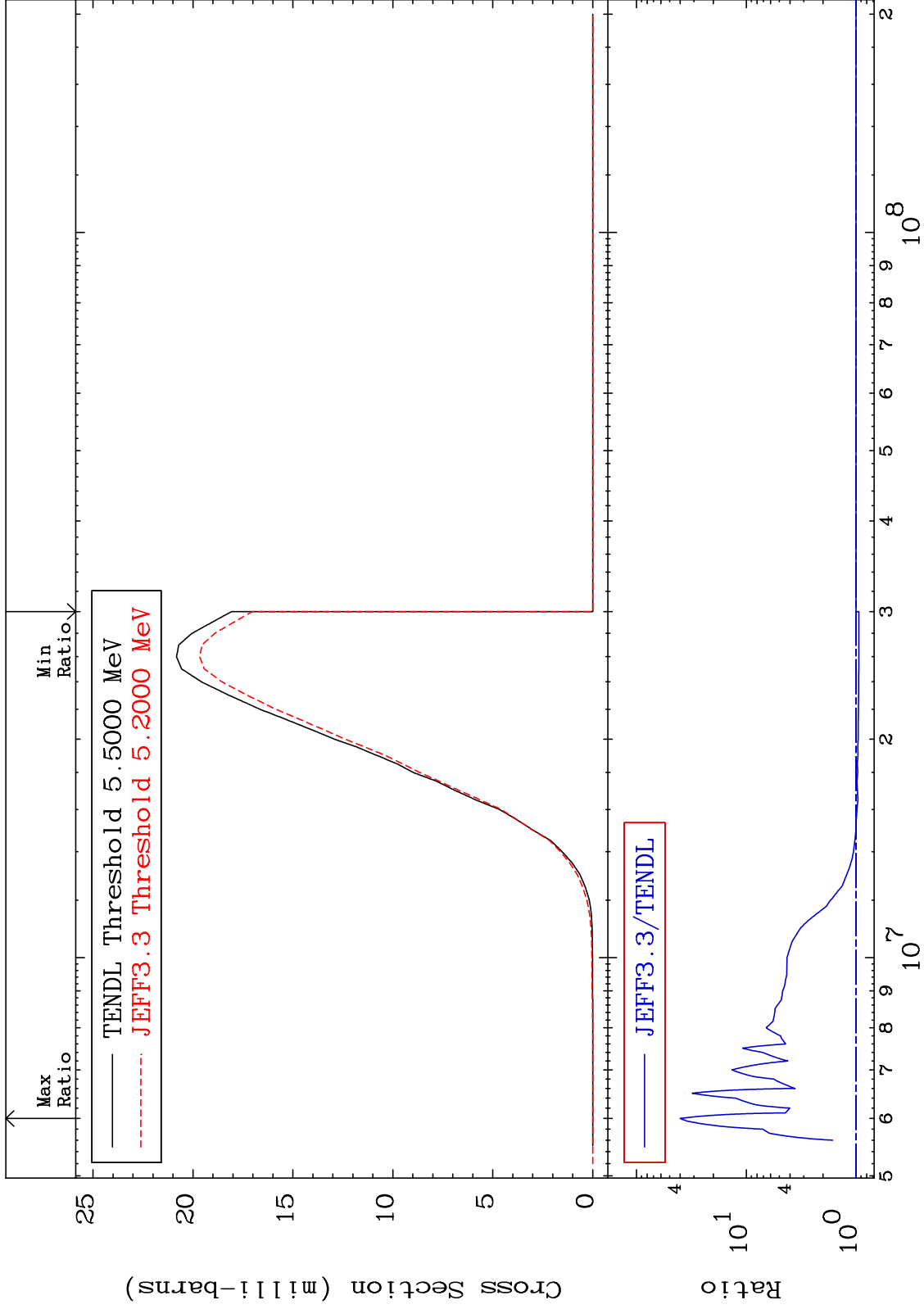


MAT 4125

(n, n') α :39-Y -89m1

41-Nb-93

Radionuclide Production Cross Section -5.727 To 3900. %



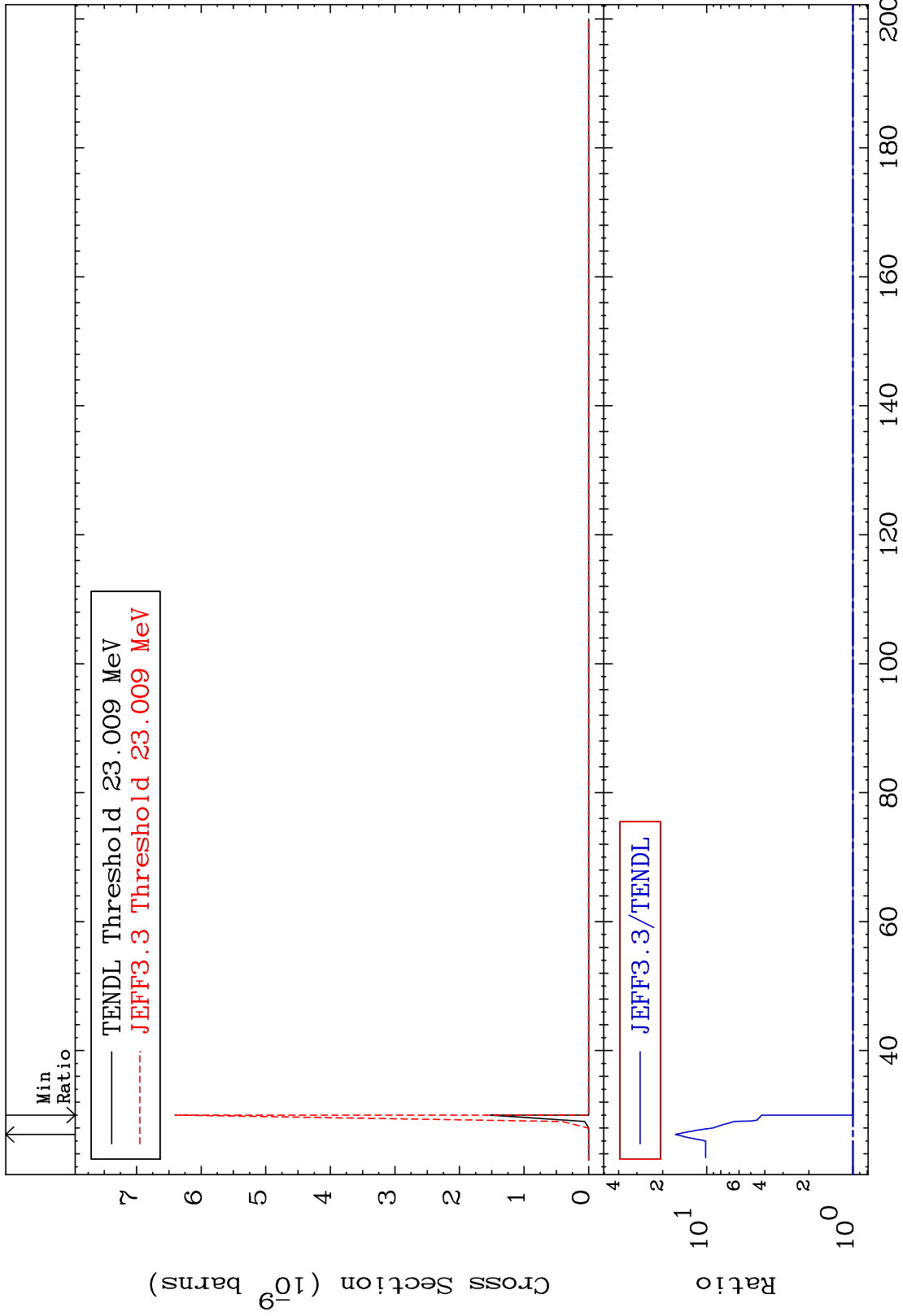
89

Incident Energy (eV)

41-Nb-93

MAT 4125

(n,3n) α : 39-Y -87g 41-Nb-93
Radionuclide Production Cross Section 0.000 To 1532. %

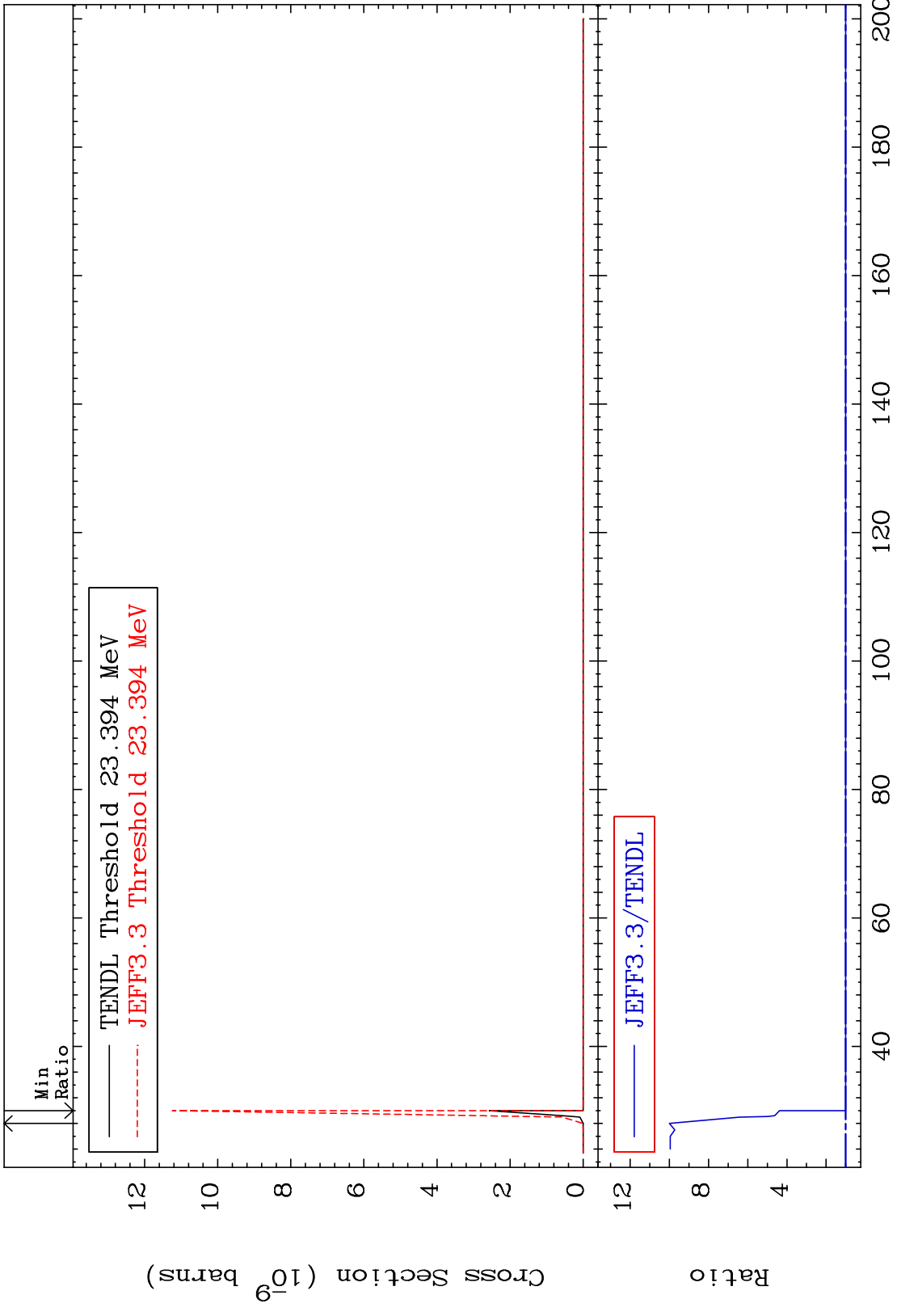


90

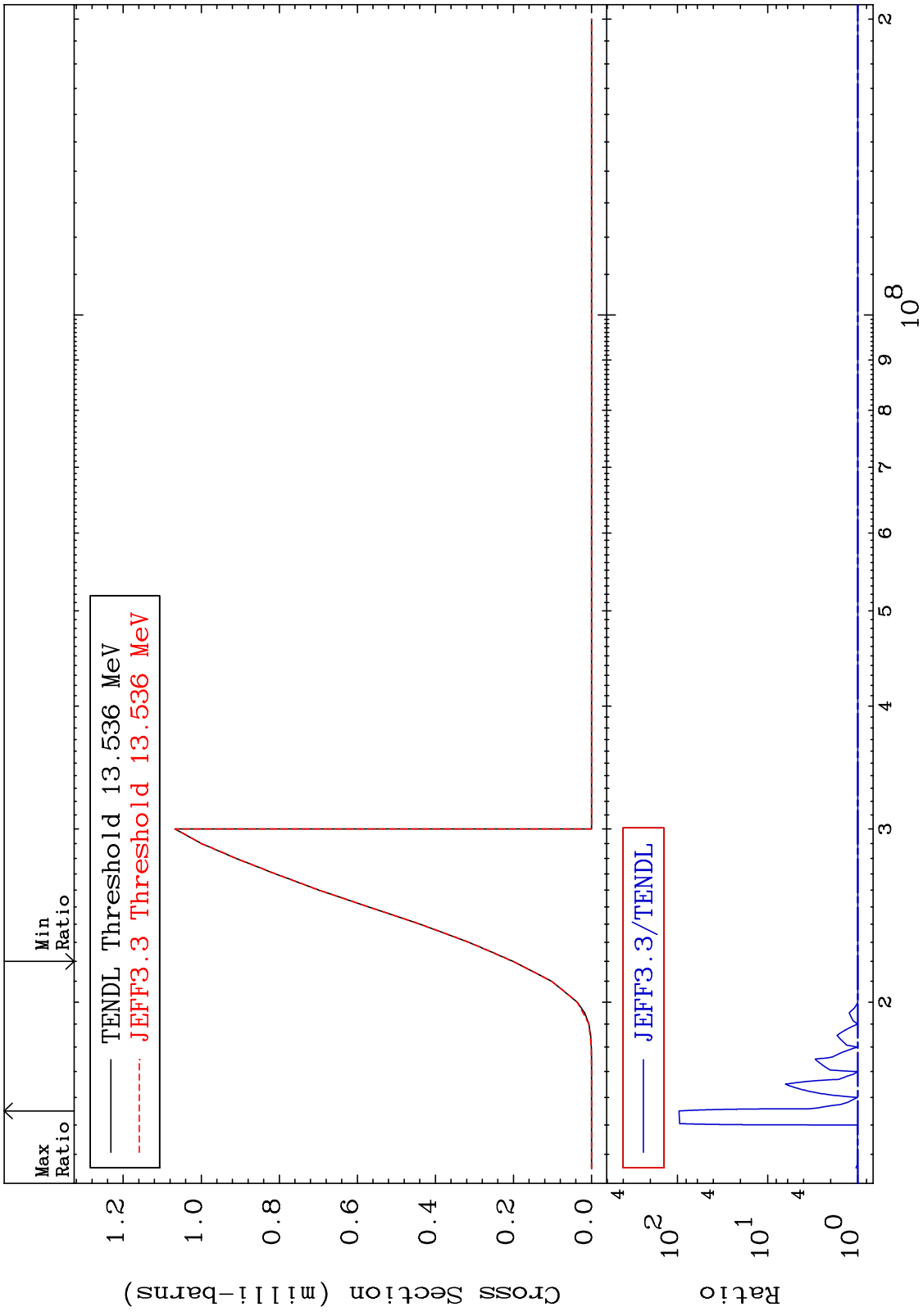
Incident Energy (MeV)

41-Nb-93

MAT 4125 (n,3n) α :39-Y -87m1 41-Nb-93
 Radionuclide Production Cross Section 0.000 To 899.8 %



MAT 4125 (n, n') t:40-Zr-90g 41-Nb-93
 Radionuclide Production Cross Section -0.090 To 9498. %

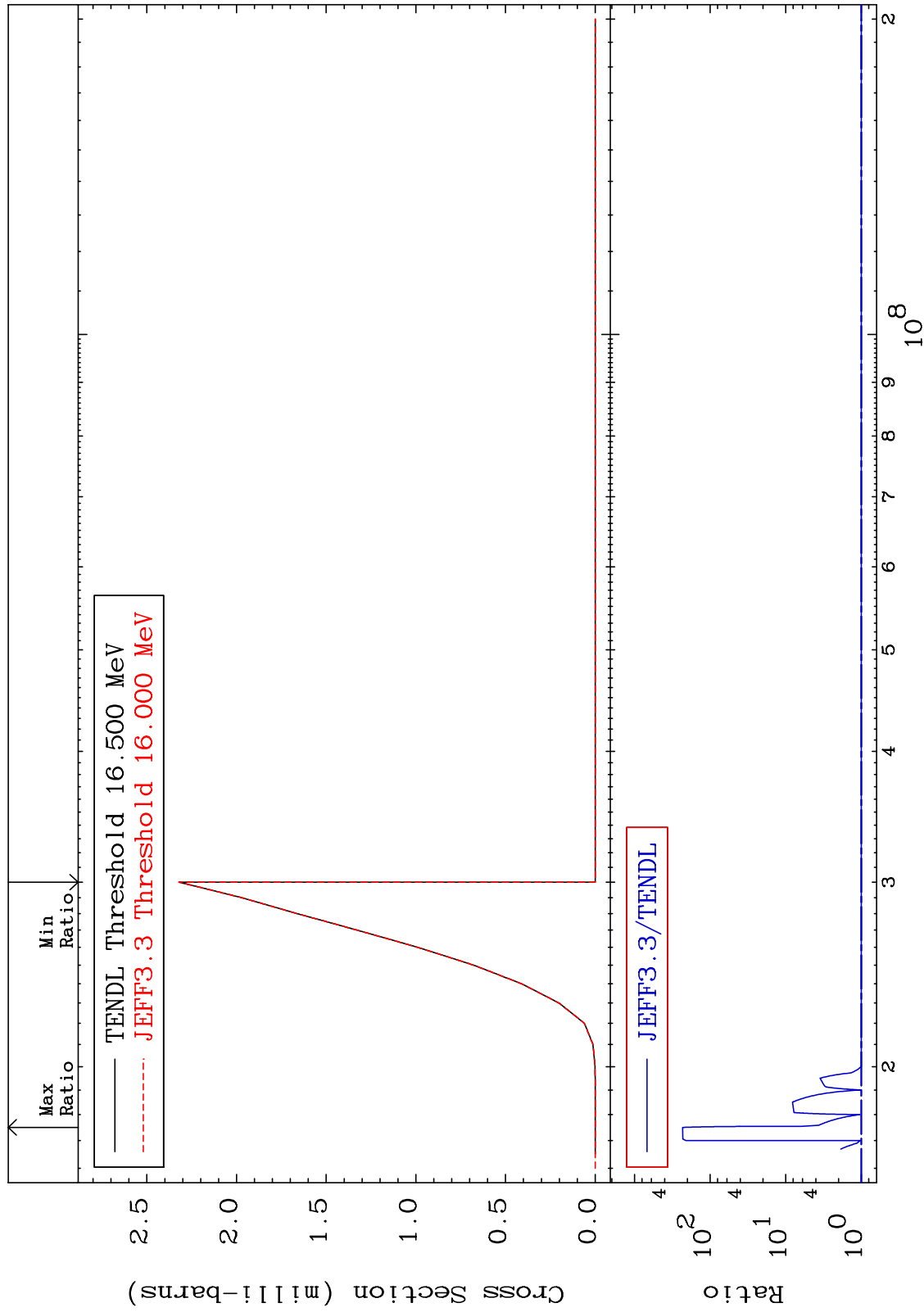


MAT 4125

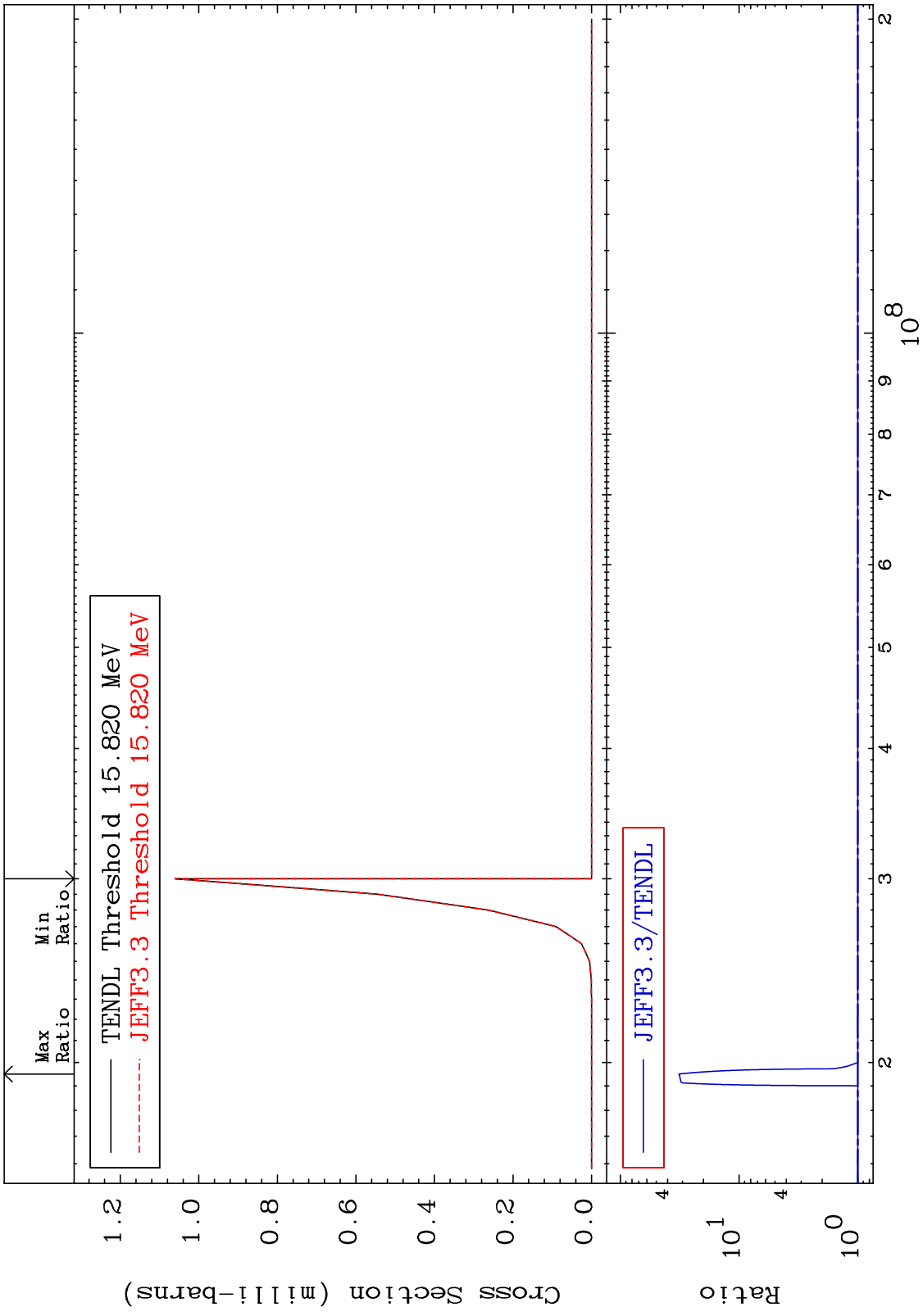
(n, n') t:40-Zr-90m3

41-Nb-93

Radionuclide Production Cross Section 0.000 To 9999. %



MAT 4125 (n,n') He-3:39-Y -90g 41-Nb-93
 Radionuclide Production Cross Section 0.000 To 3109. %

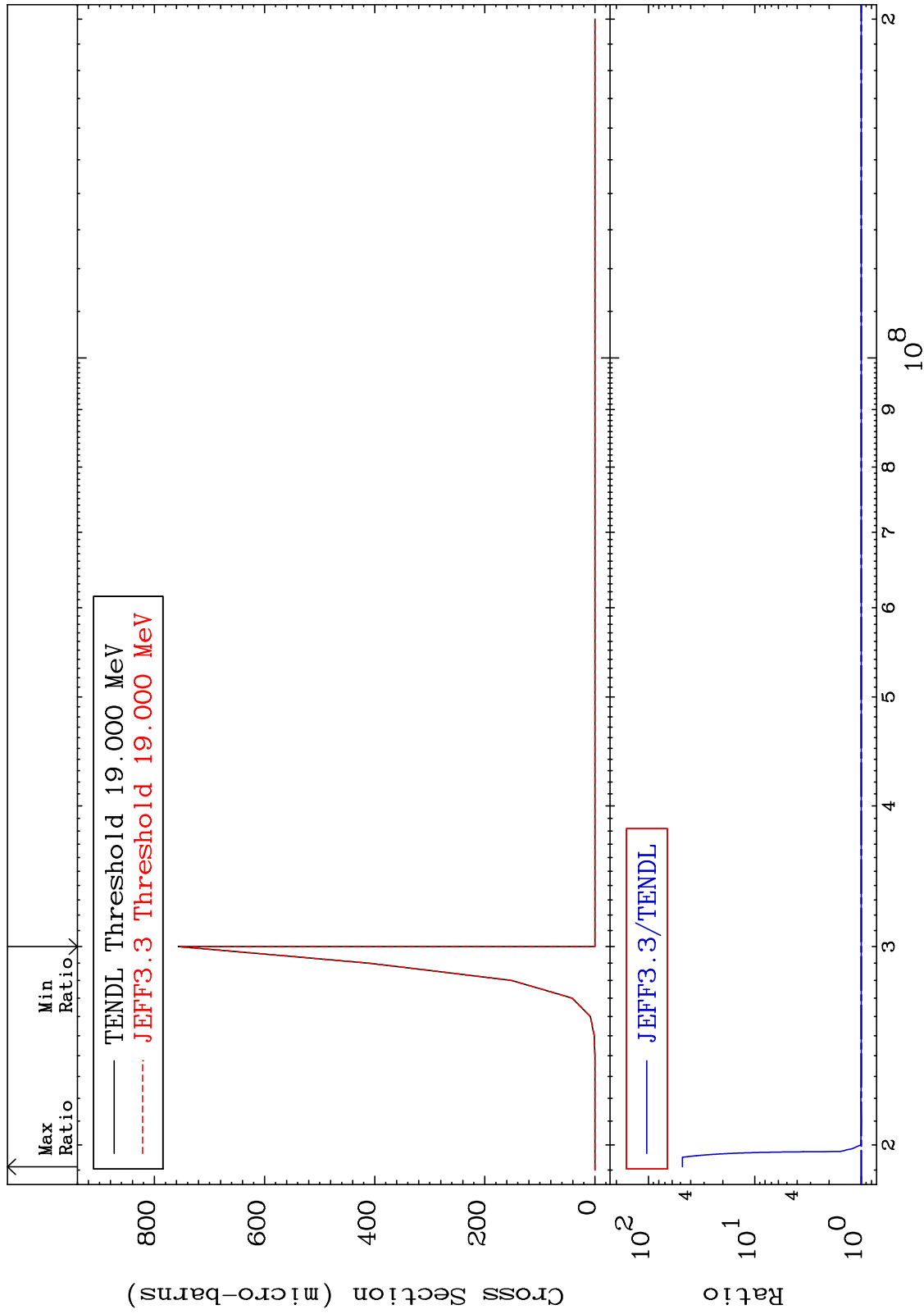


MAT 4125

(n,n') He-3:39-Y -90m2

41-Nb-93

Radionuclide Production Cross Section -0.179 To 4687. %

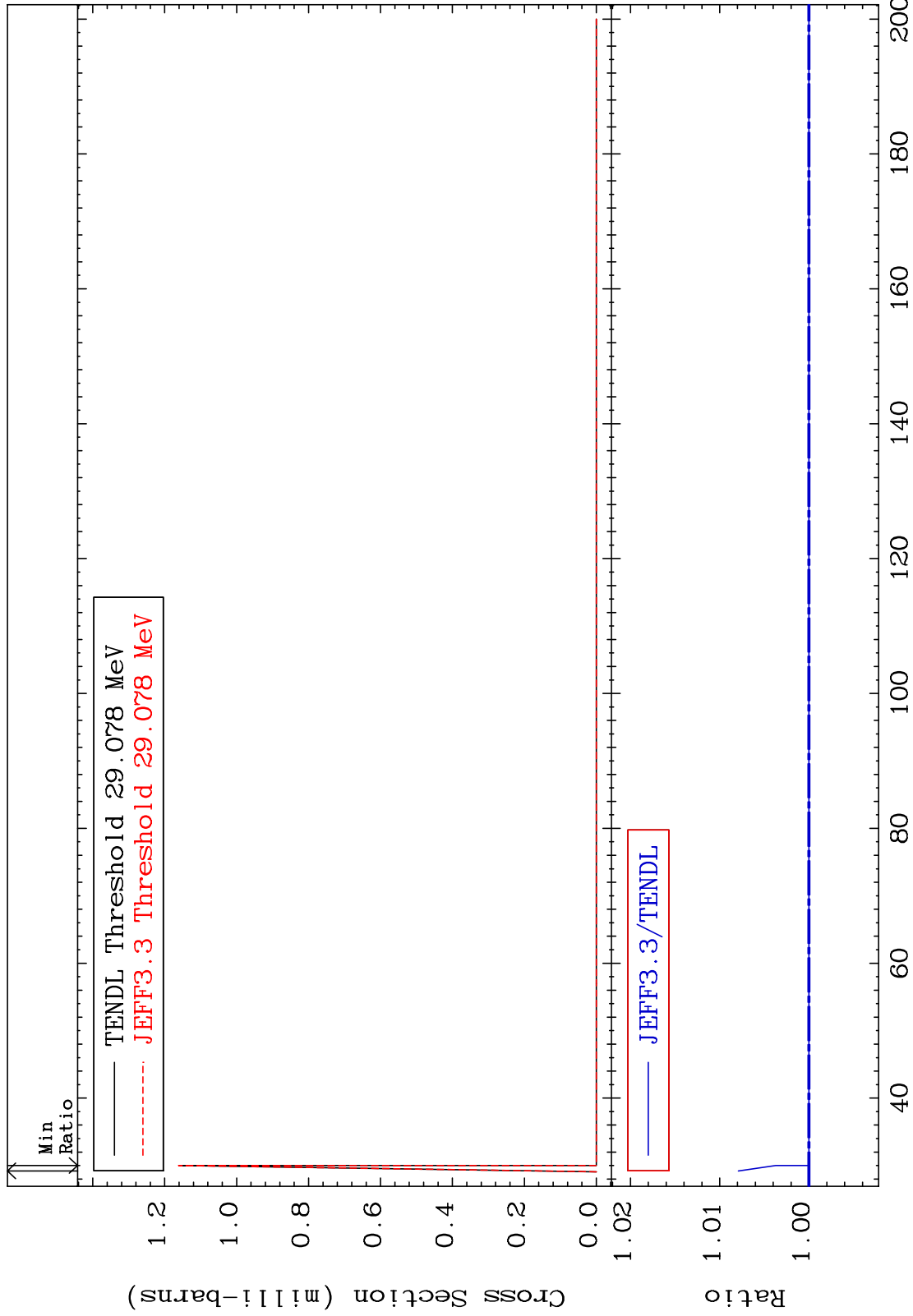


MAT 4125

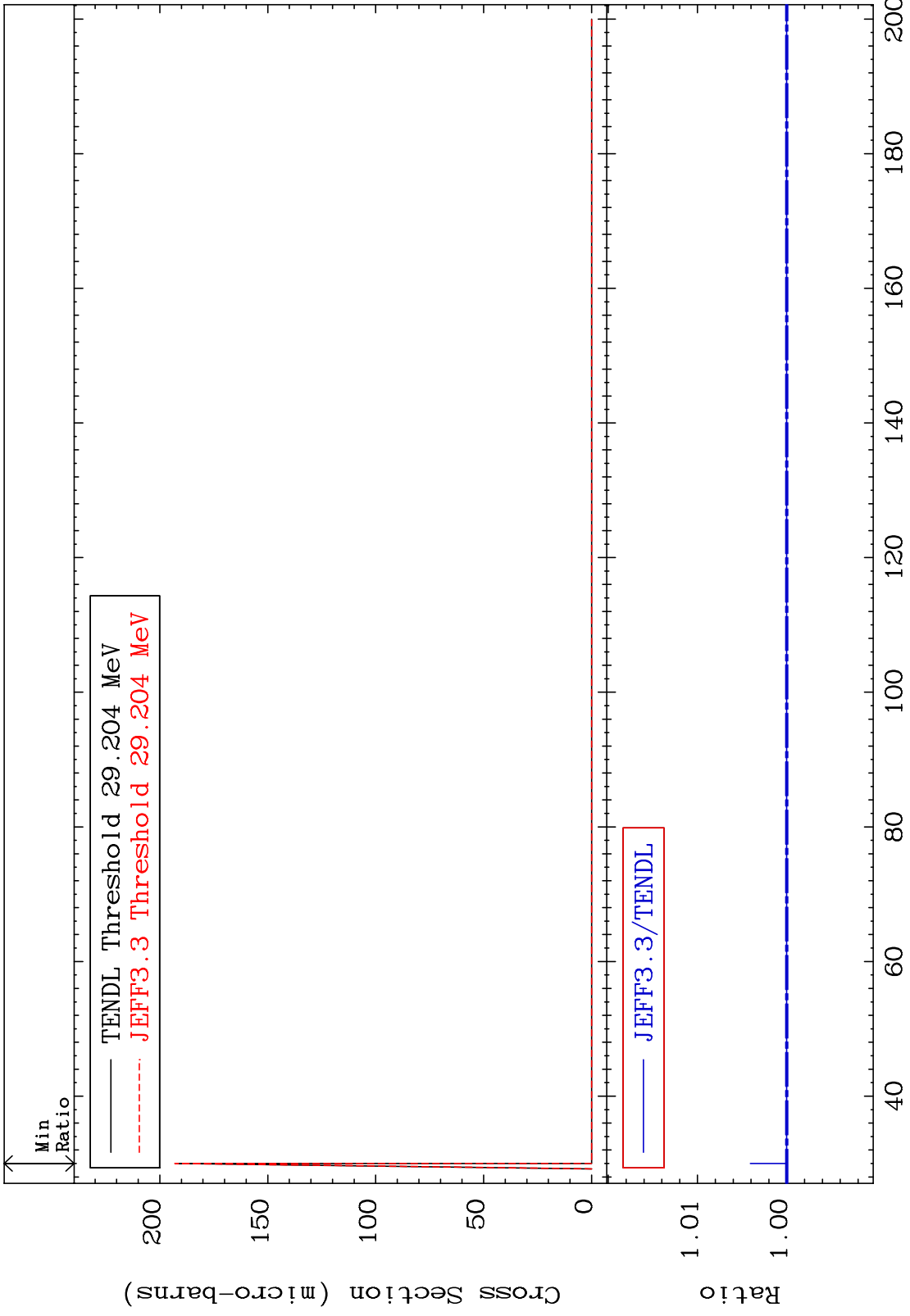
(n,4n) : 41-Nb-90g

41-Nb-93

Radionuclide Production Cross Section 0.000 To 0.791 %



MAT 4125 (n,4n):41-Nb-90m2 41-Nb-93
Radionuclide Production Cross Section 0.000 To 0.408 %

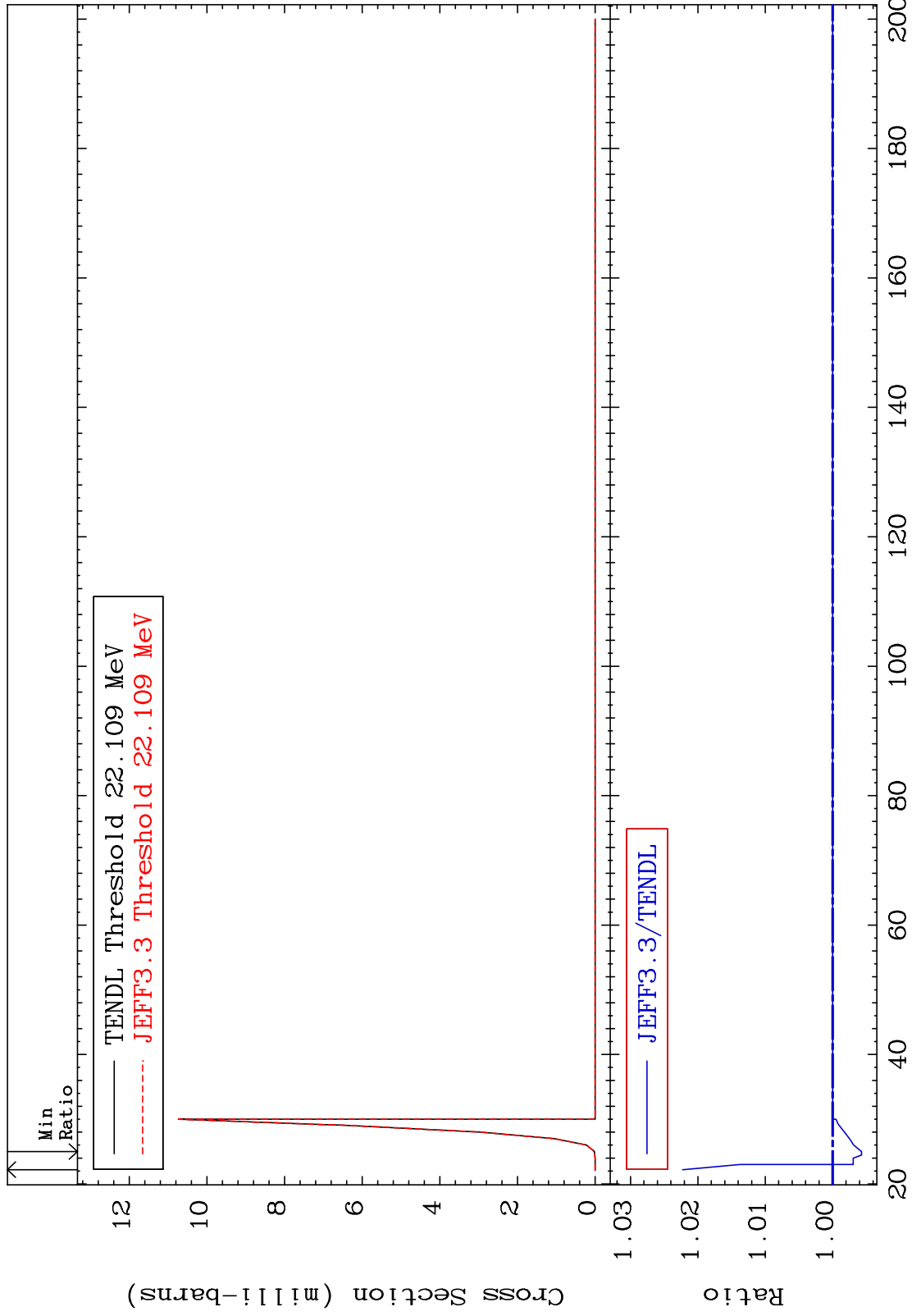


MAT 4125

(n,3n) p:40-Zr-90g

41-Nb-93

Radionuclide Production Cross Section -0.430 To 2.225 %

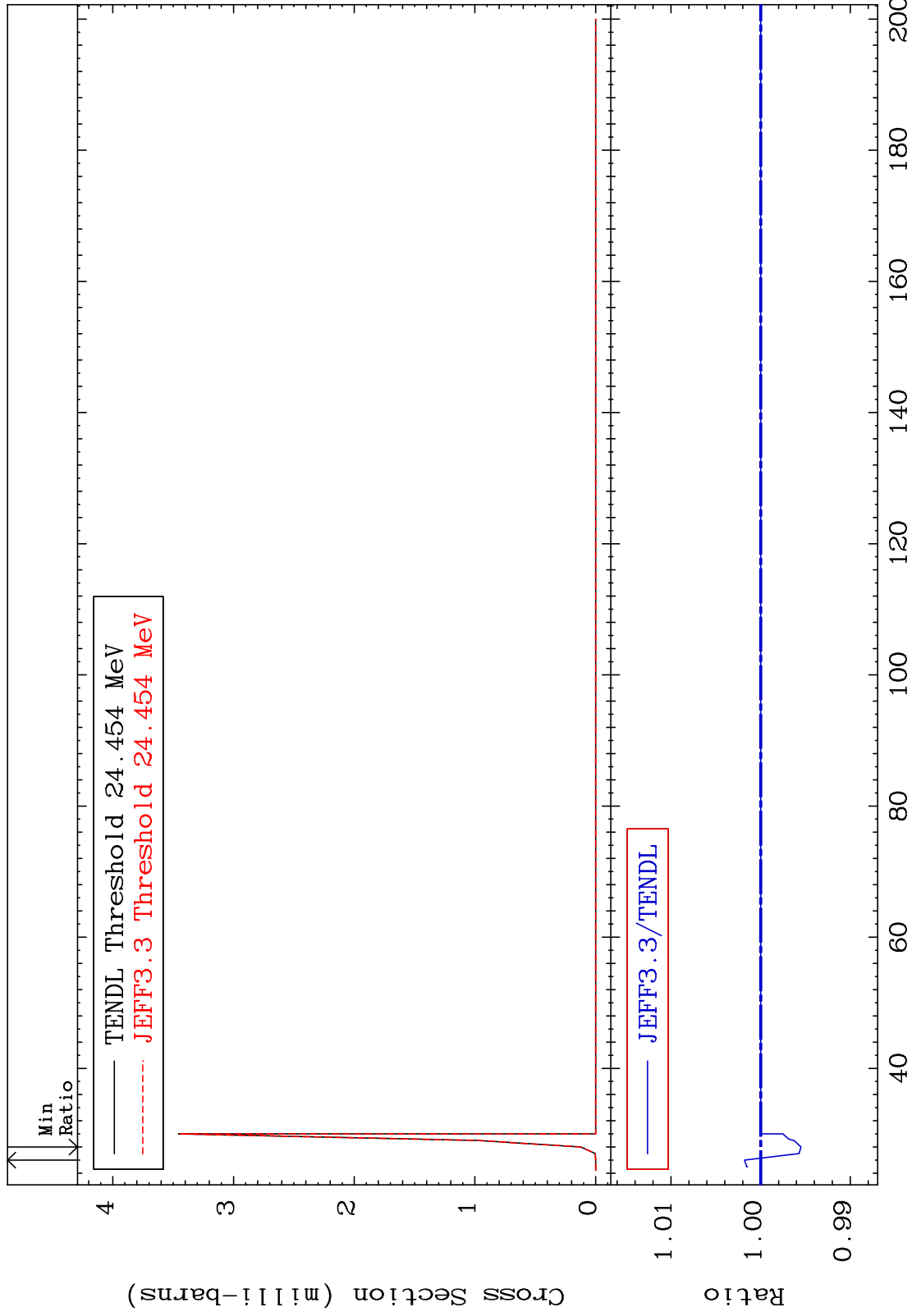


MAT 4125

(n,3n) p:40-Zr-90m3

41-Nb-93

Radionuclide Production Cross Section -0.451 To 0.180 %

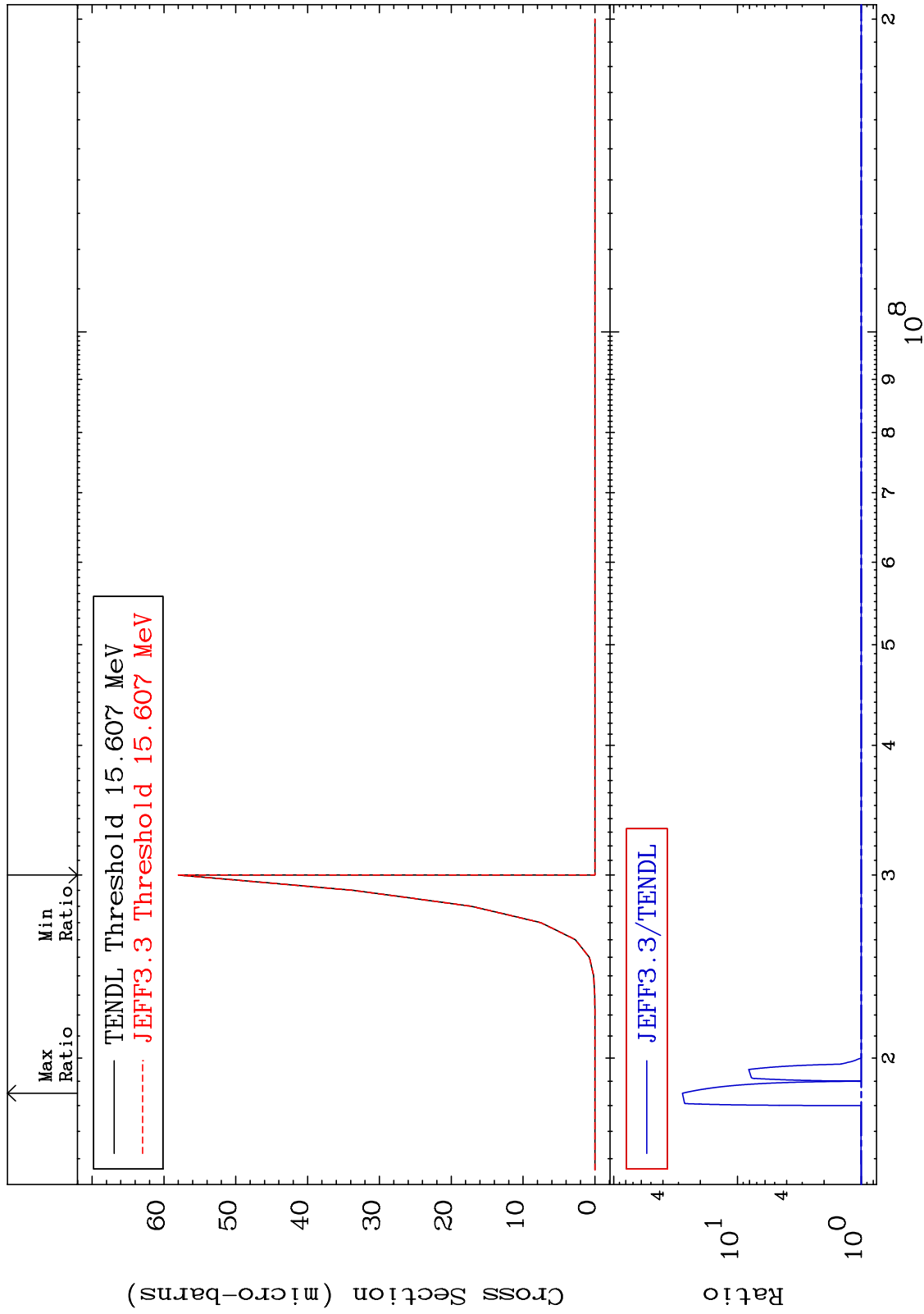


MAT 4125

41-Nb-93

(n,2n) p:39-Y -91g

Radionuclide Production Cross Section 0.000 To 2684. %

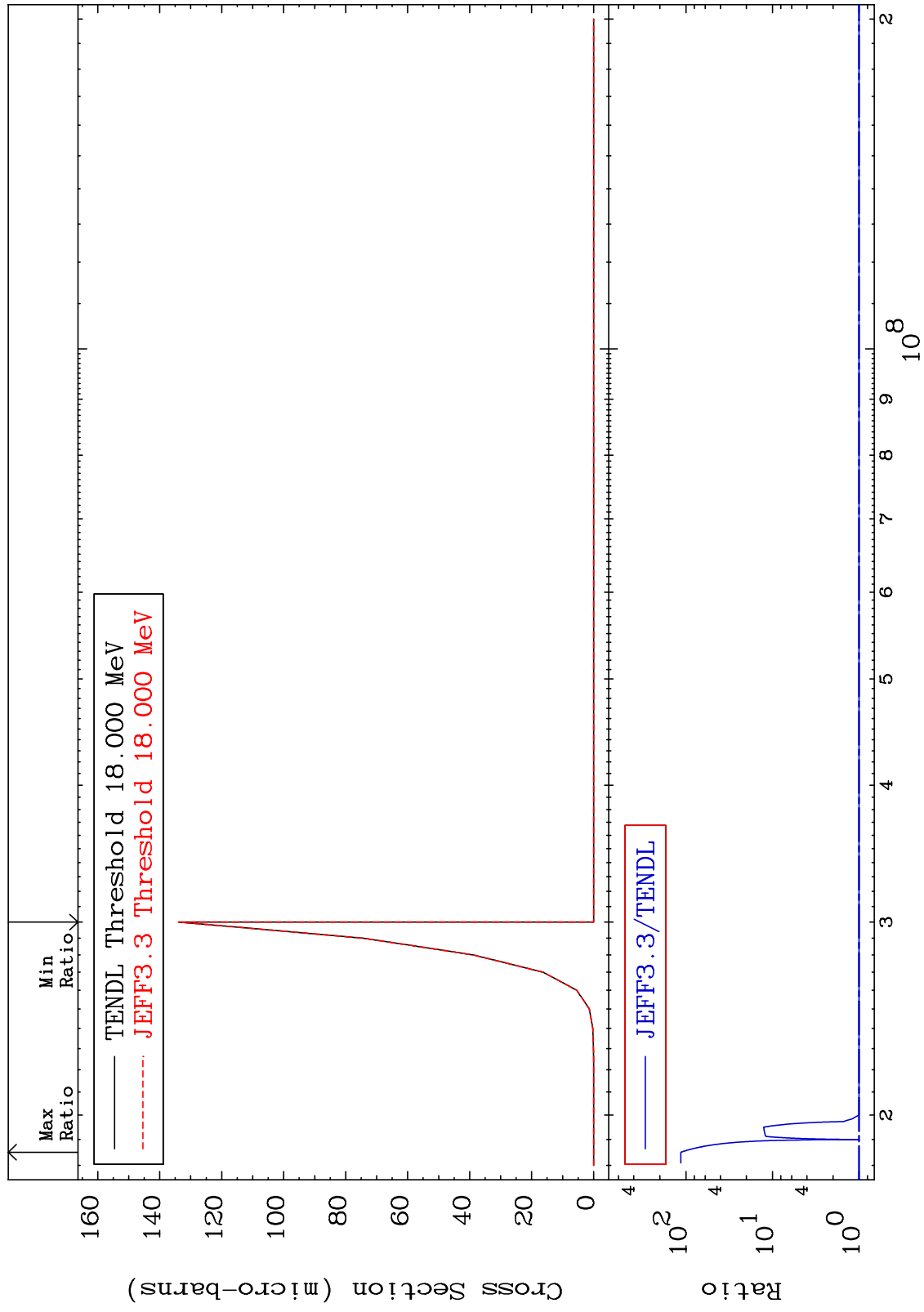


100

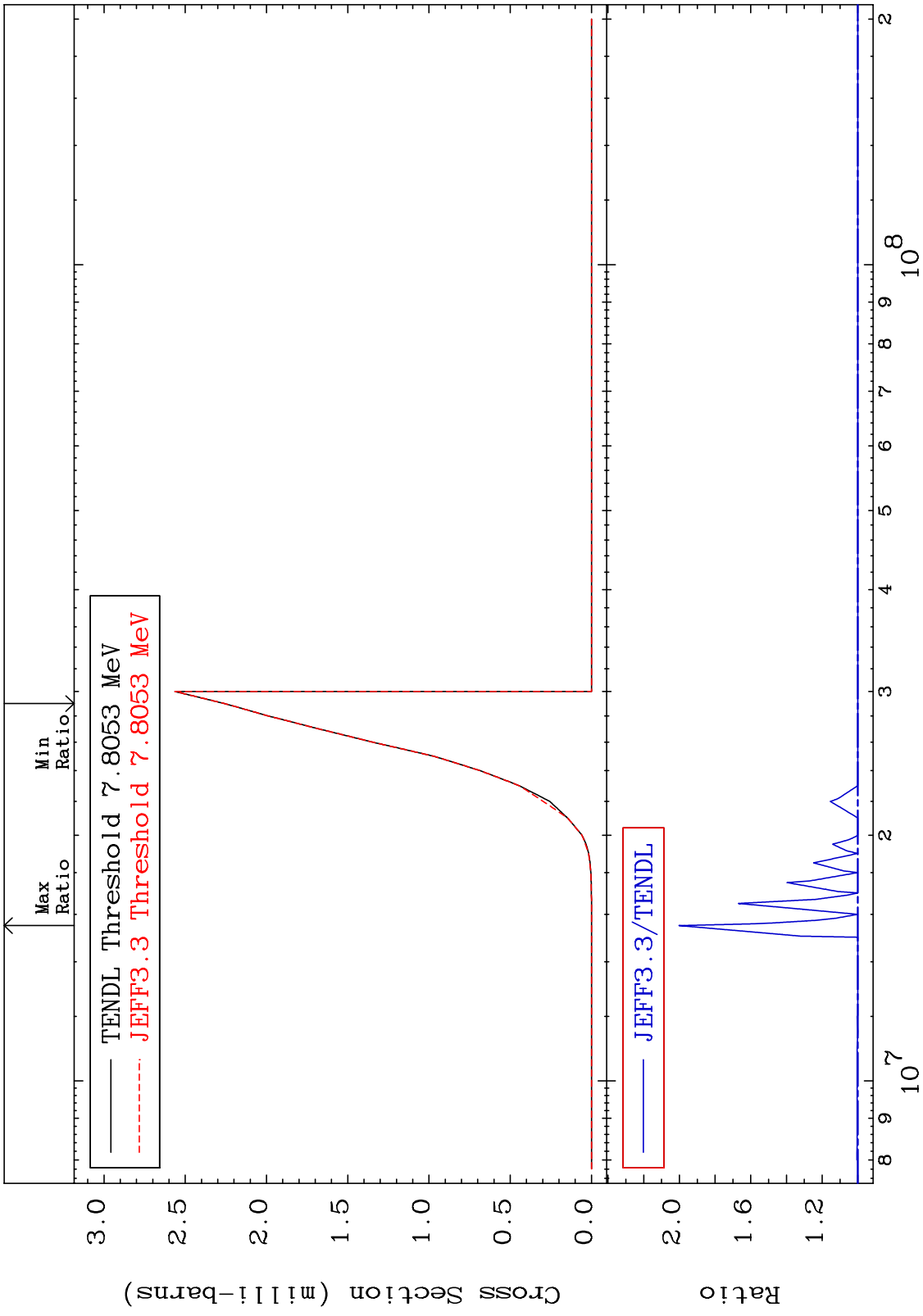
Incident Energy (eV)

41-Nb-93

MAT 4125 (n,2n) p:39-Y -91m1 41-Nb-93
Radionuclide Production Cross Section 0.000 To 9999. %



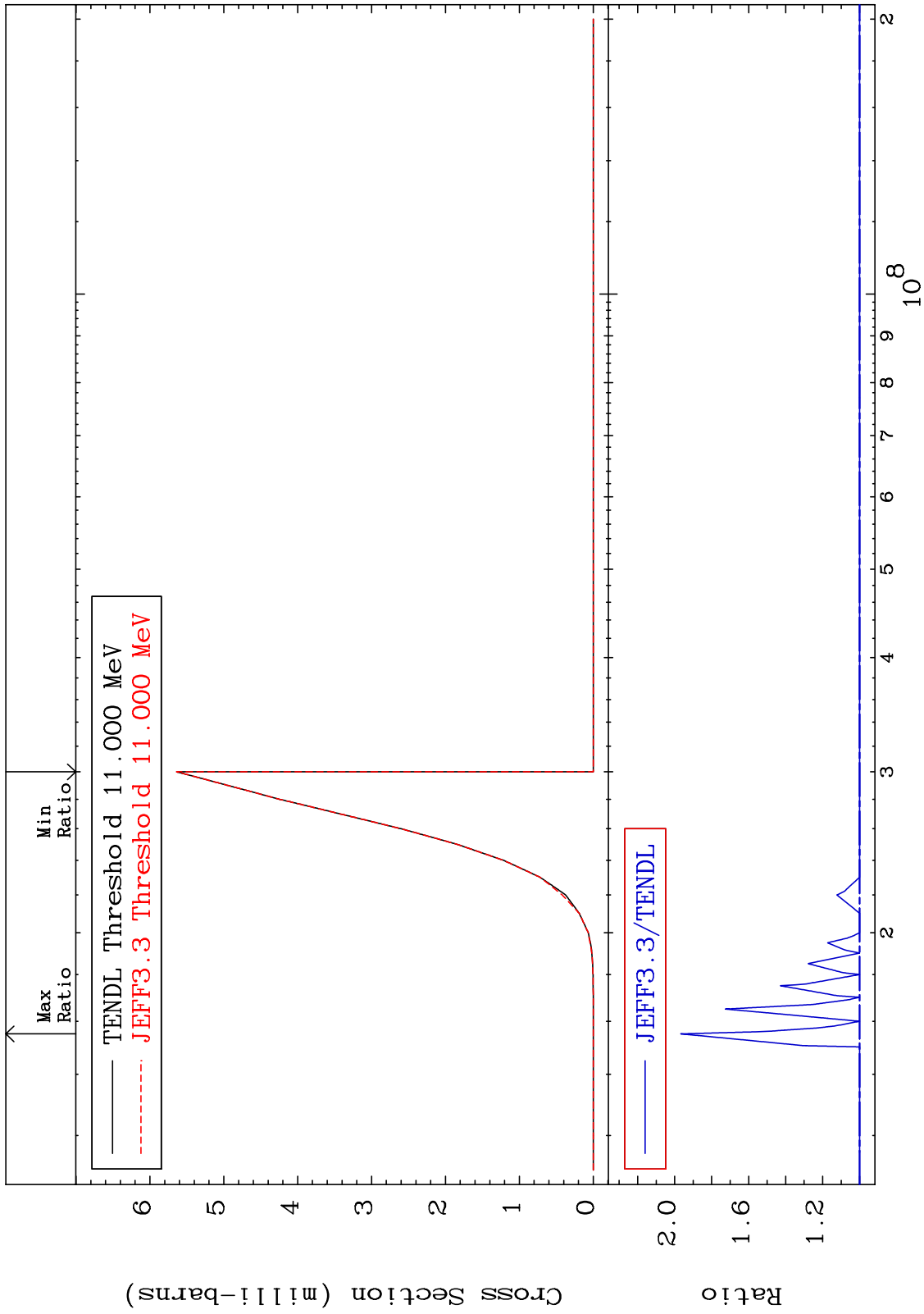
MAT 4125 (n,He-3):39-Y -91g 41-Nb-93
 Radionuclide Production Cross Section -0.006 To 100.2 %



102 41-Nb-93

MAT 4125 (n,He-3):39-Y -91m1 41-Nb-93

Radionuclide Production Cross Section 0.000 To 96.68 %

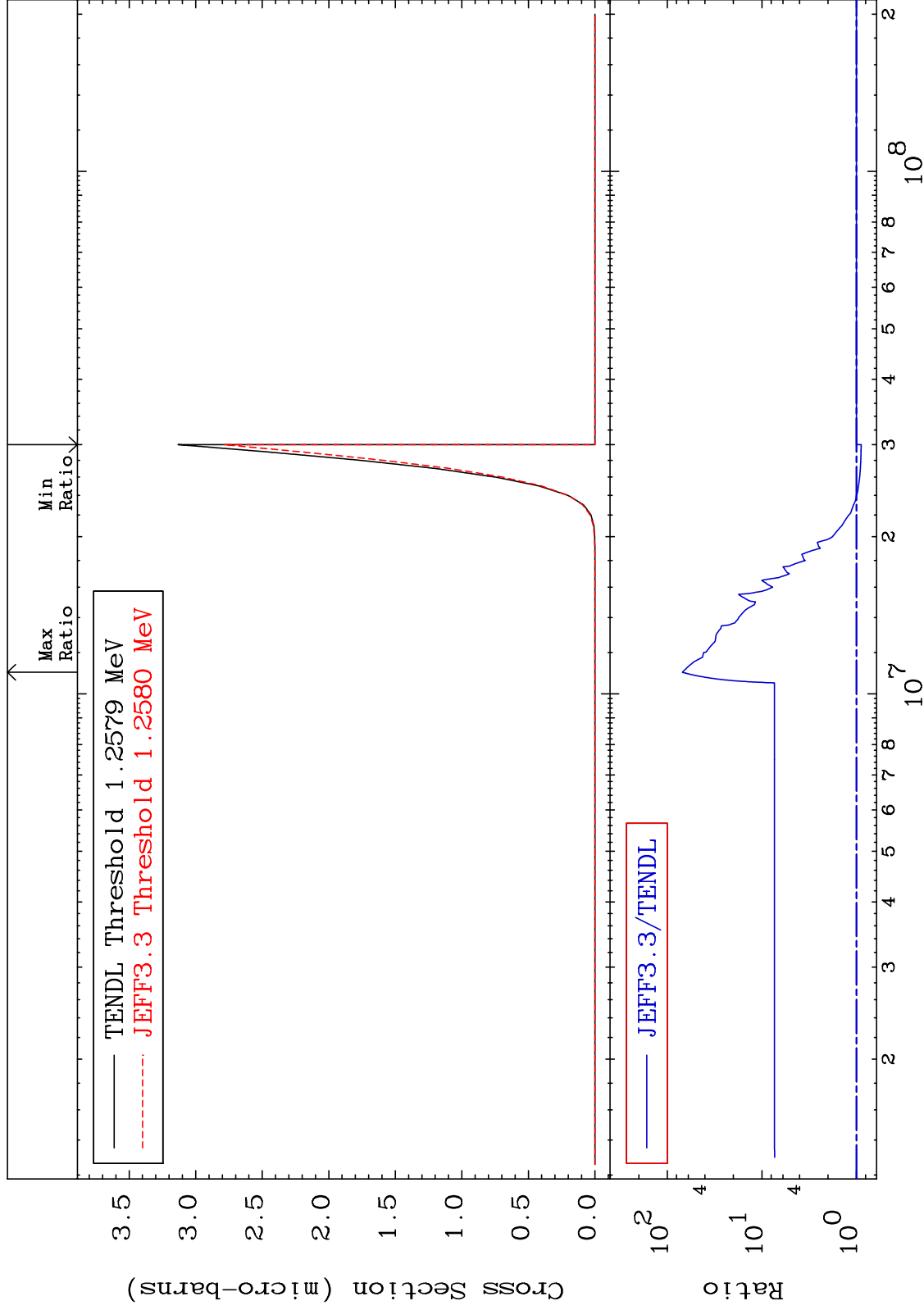


MAT 4125

(n,2α):37-Rb-86g

41-Nb-93

Radionuclide Production Cross Section -10.95 To 6811. %

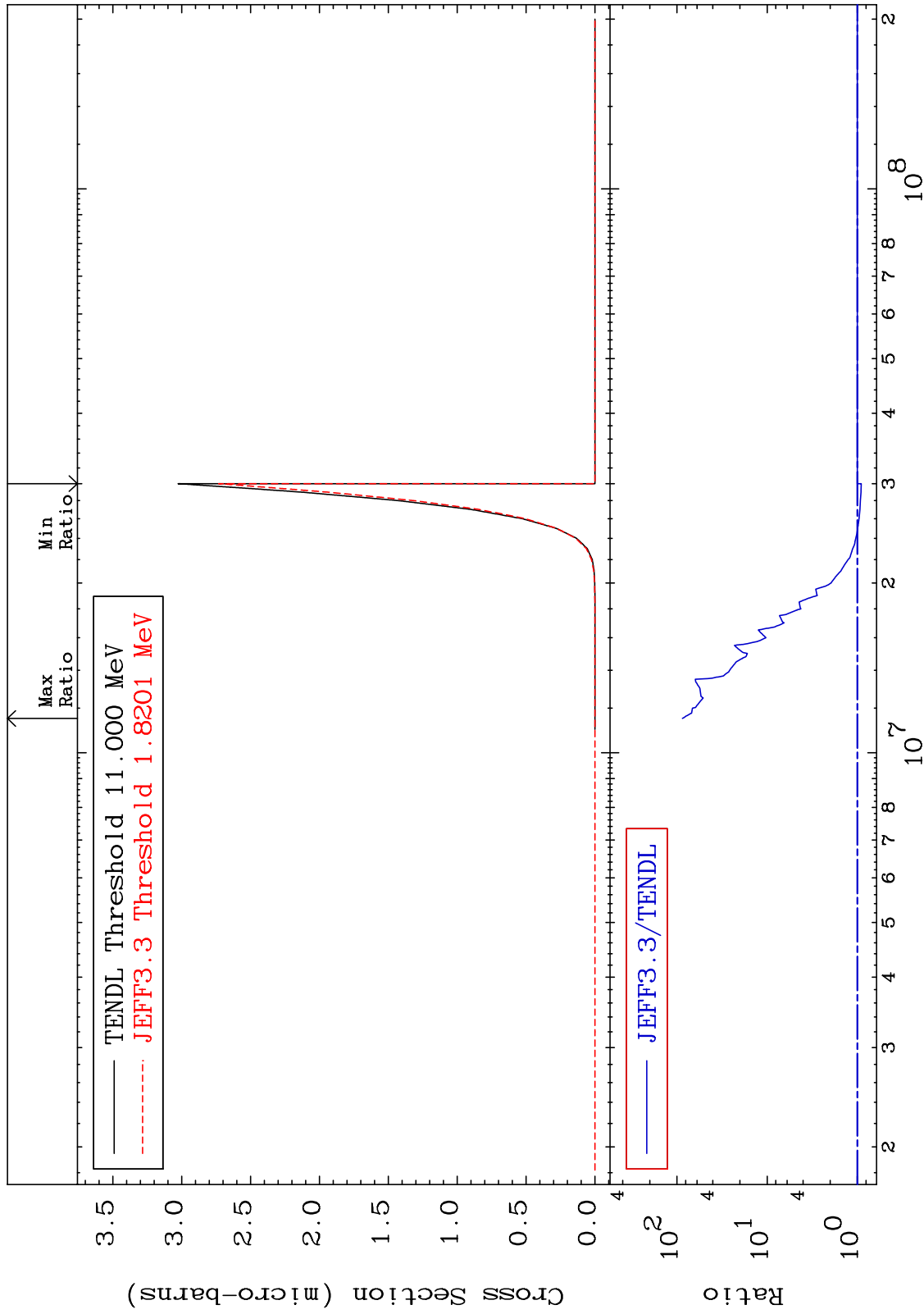


MAT 4125

(n,2α):37-Rb-86m2

41-Nb-93

Radionuclide Production Cross Section -9.761 To 8593. %

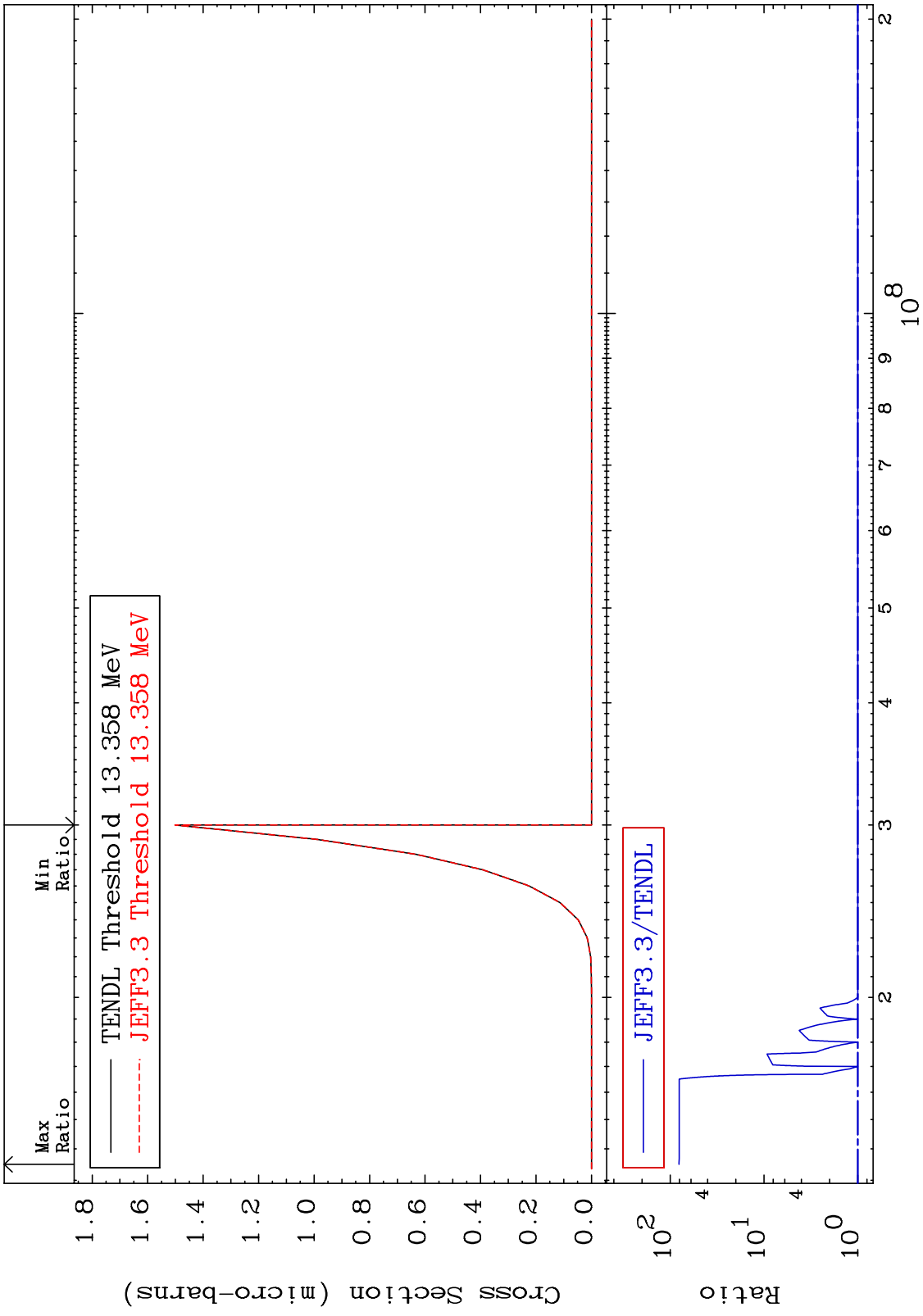


105

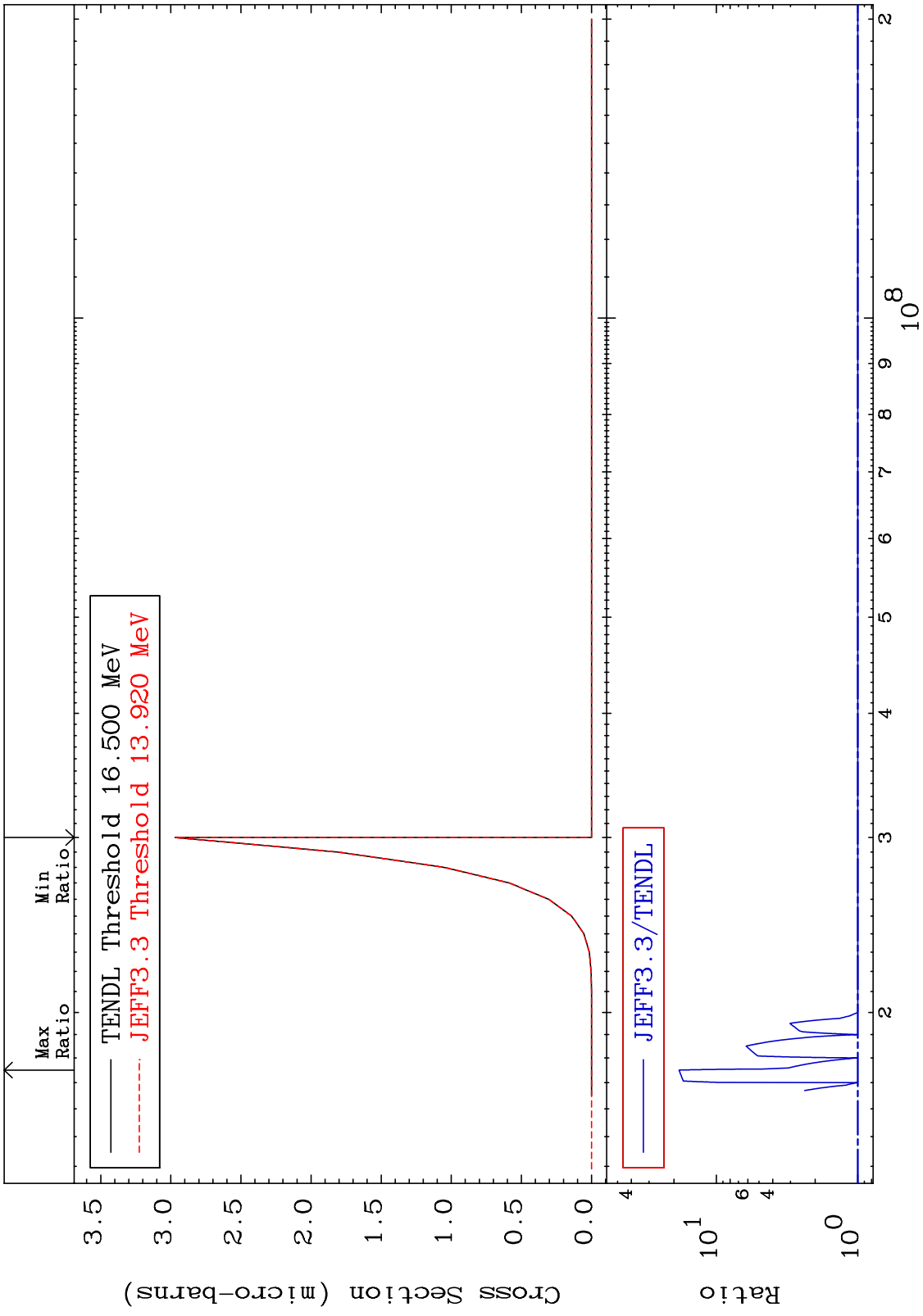
Incident Energy (eV)

41-Nb-93

MAT 4125 (n,p) d:39-Y -91g 41-Nb-93
 Radionuclide Production Cross Section 0.000 To 7957. %



MAT 4125 (n,p) d:39-Y -91m1 41-Nb-93
 Radionuclide Production Cross Section 0.000 To 1738. %

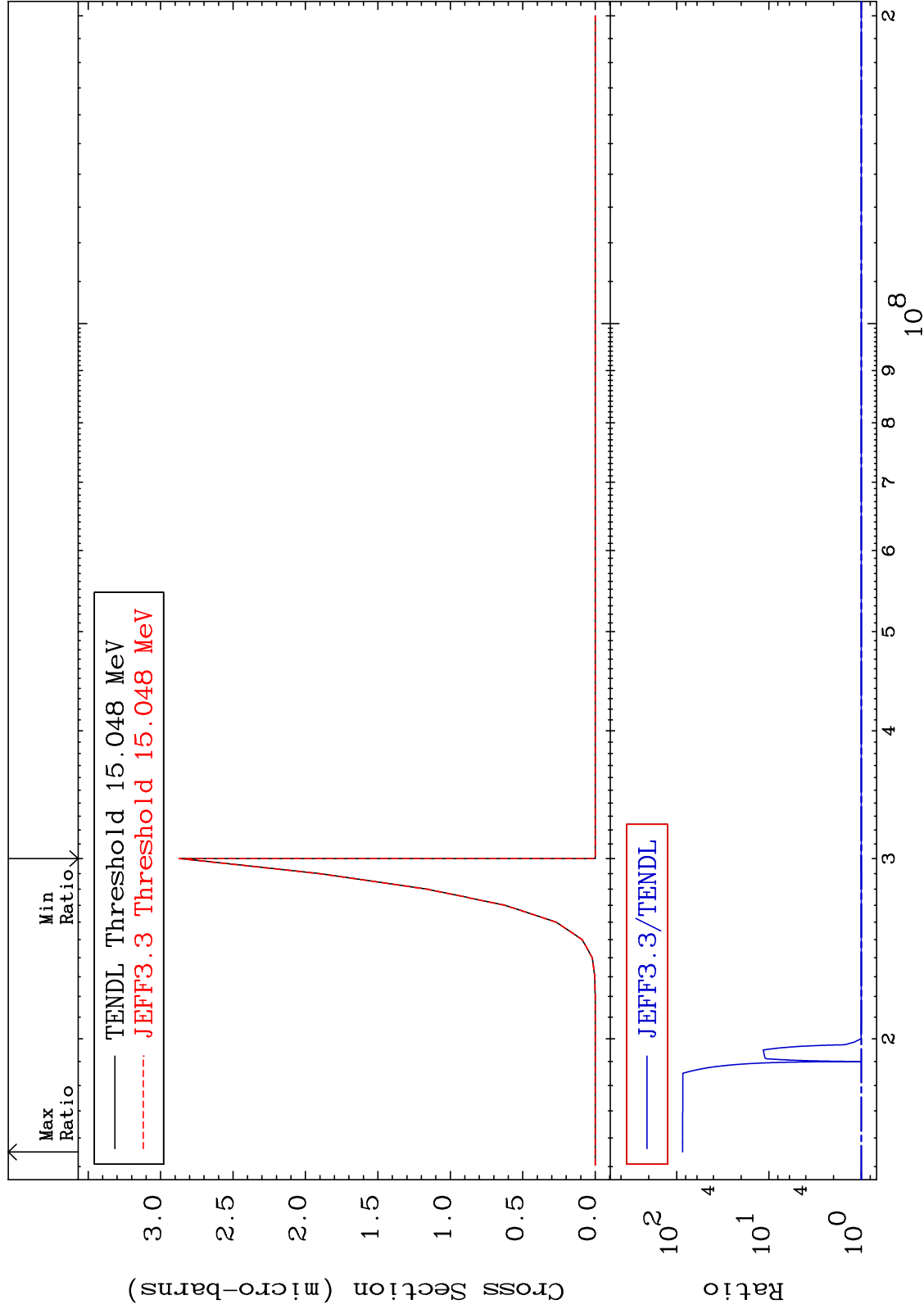


MAT 4125

(n,p) t:39-Y -90g

41-Nb-93

Radionuclide Production Cross Section 0.000 To 8500. %



MAT 4125

(n,p) t:39-Y -90m2

41-Nb-93

Radionuclide Production Cross Section -0.238 To 1515. %

