

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

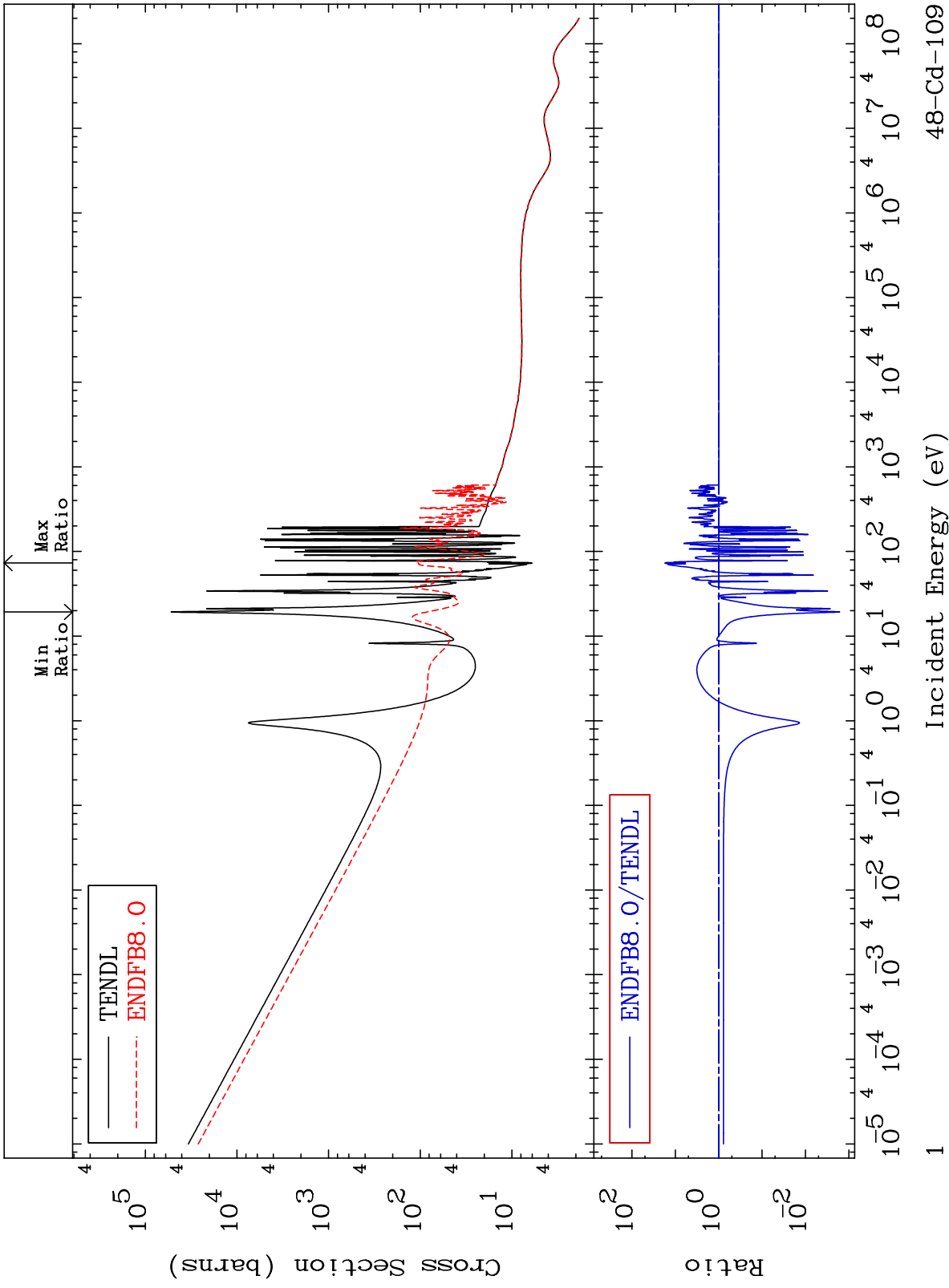
Press Mouse Button to Start

MAT 4834

48-Cd-109

-99.84 To 1656. %

Total
Cross Section



48-Cd-109

Incident Energy (eV)

1

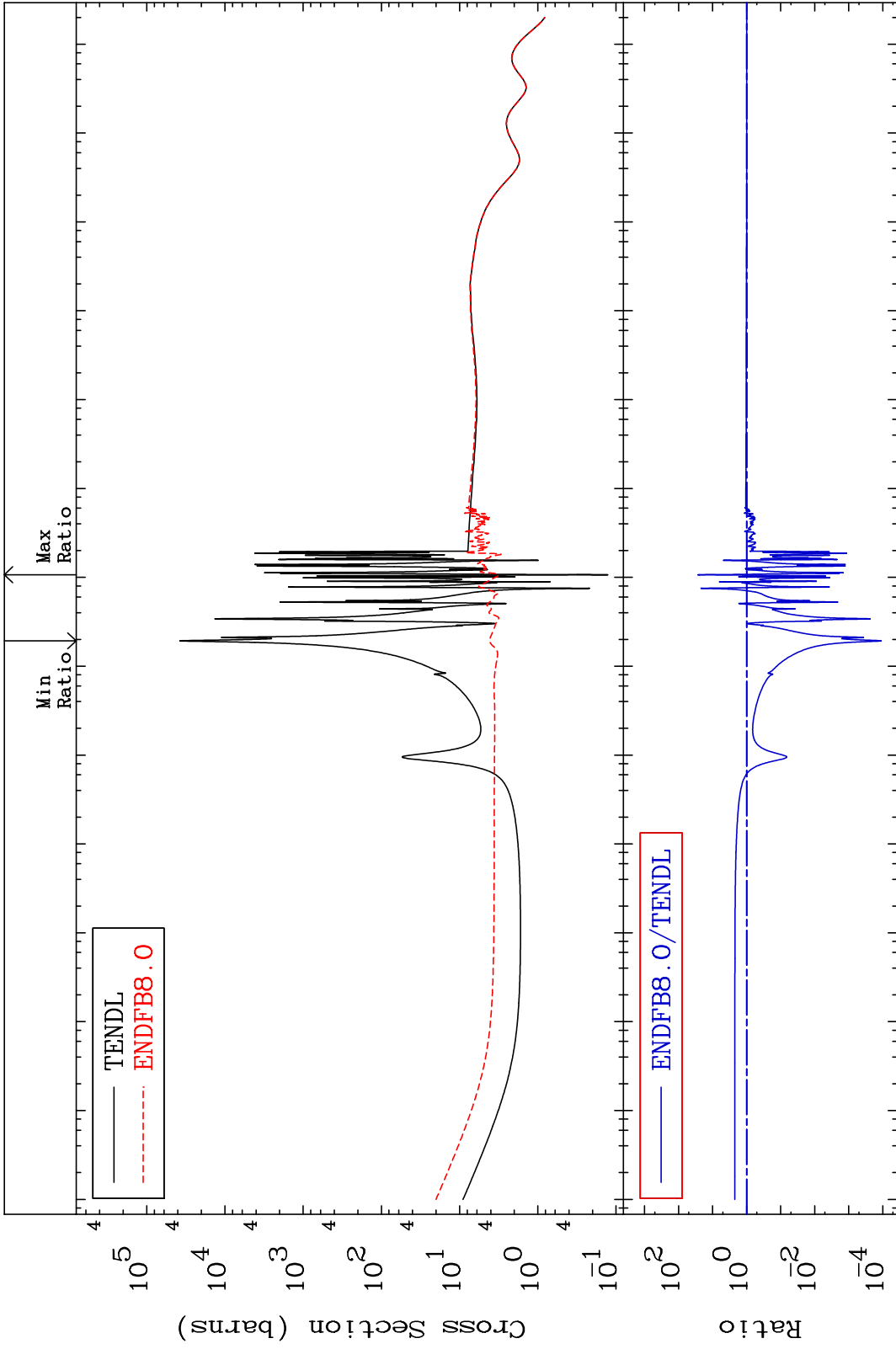
MAT 4834

Elastic

48-Cd-109

-99.99 To 2616. %

Cross Section

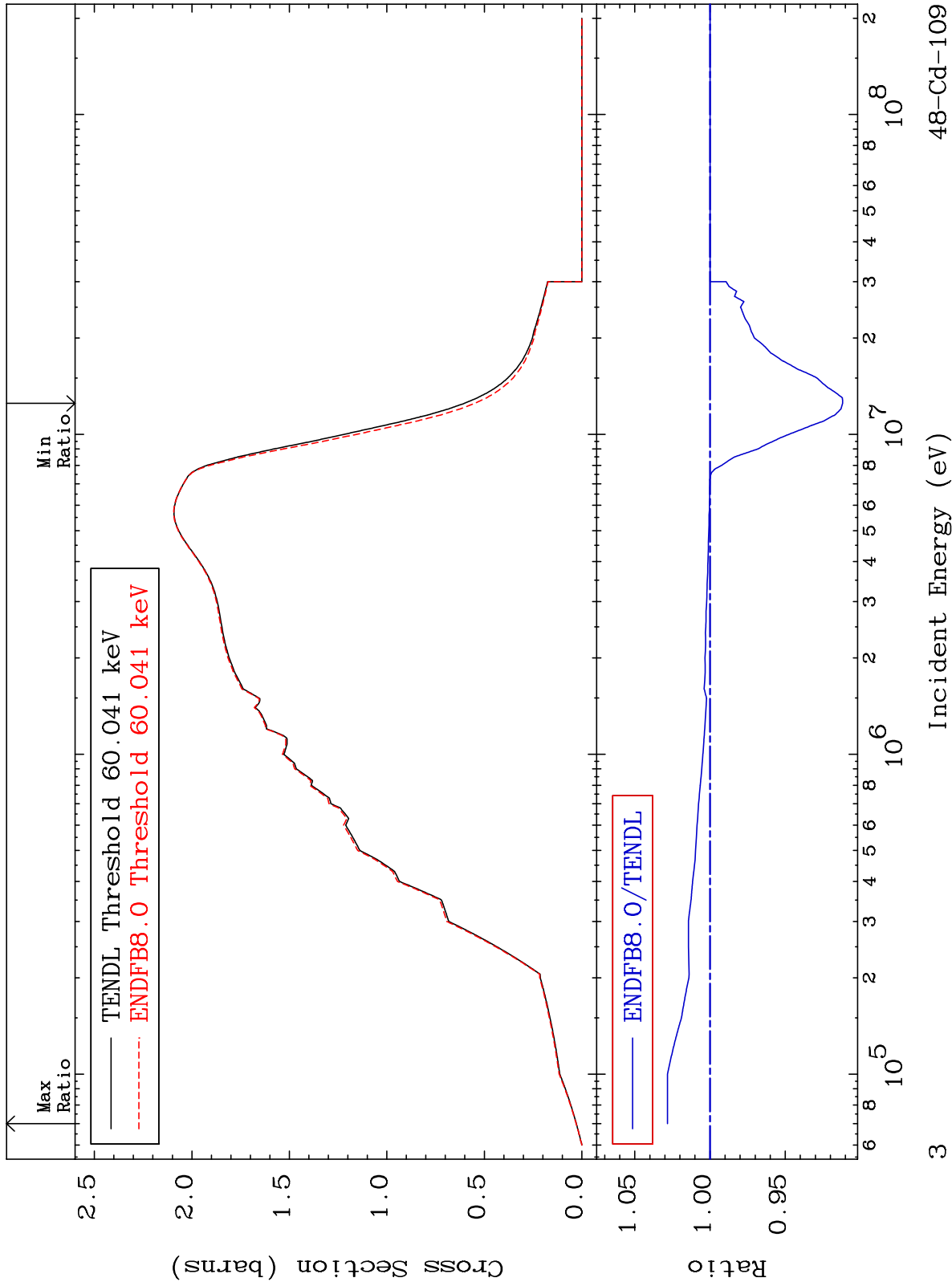


Incident Energy (eV)

48-Cd-109

2

MAT 4834 Inelastic Cross Section 48-Cd-109 -8.813 To 2.823 %



3 48-Cd-109

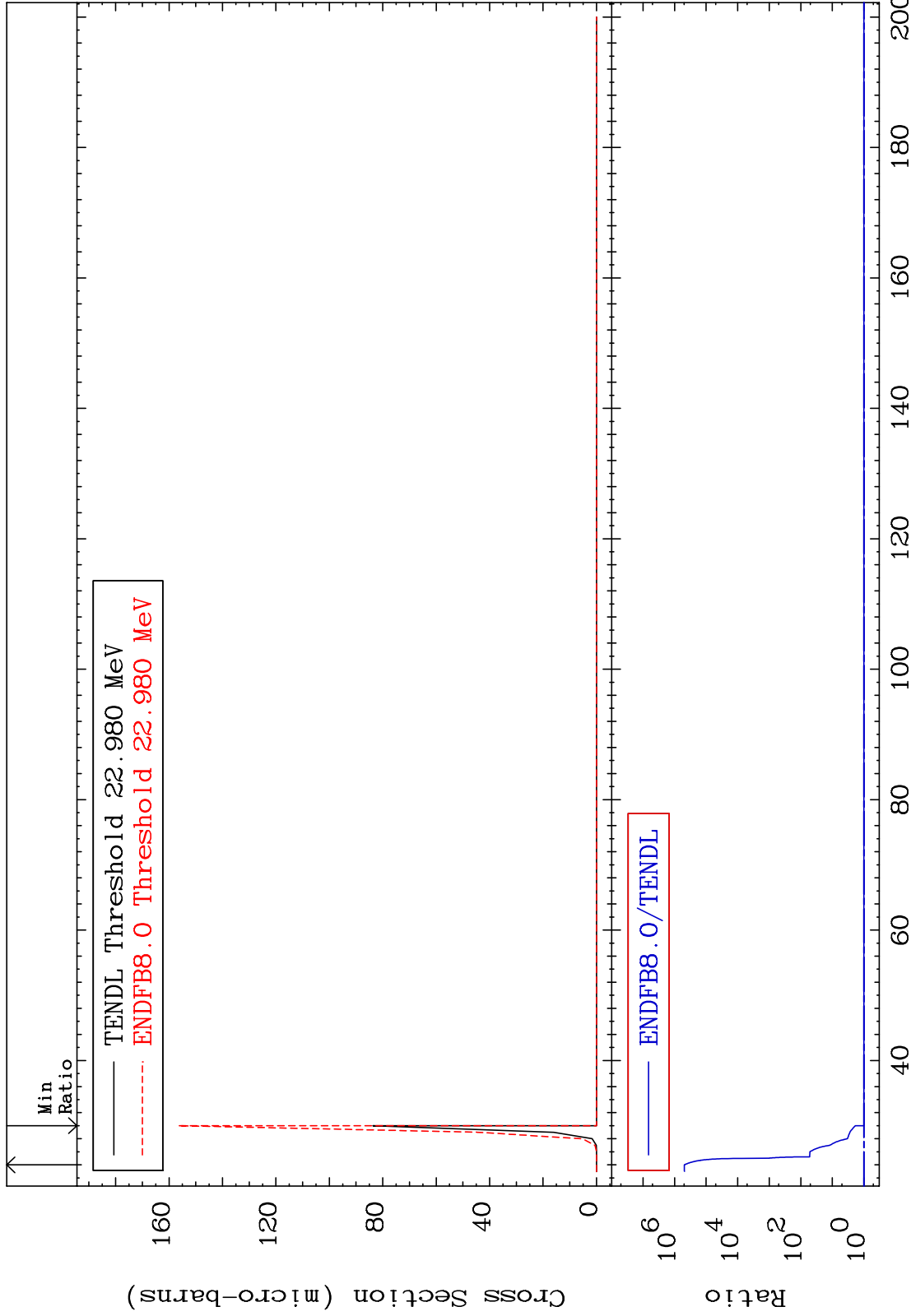
MAT 4834

(n,2n) d

48-Cd-109

Cross Section

0.000 To 9999. %



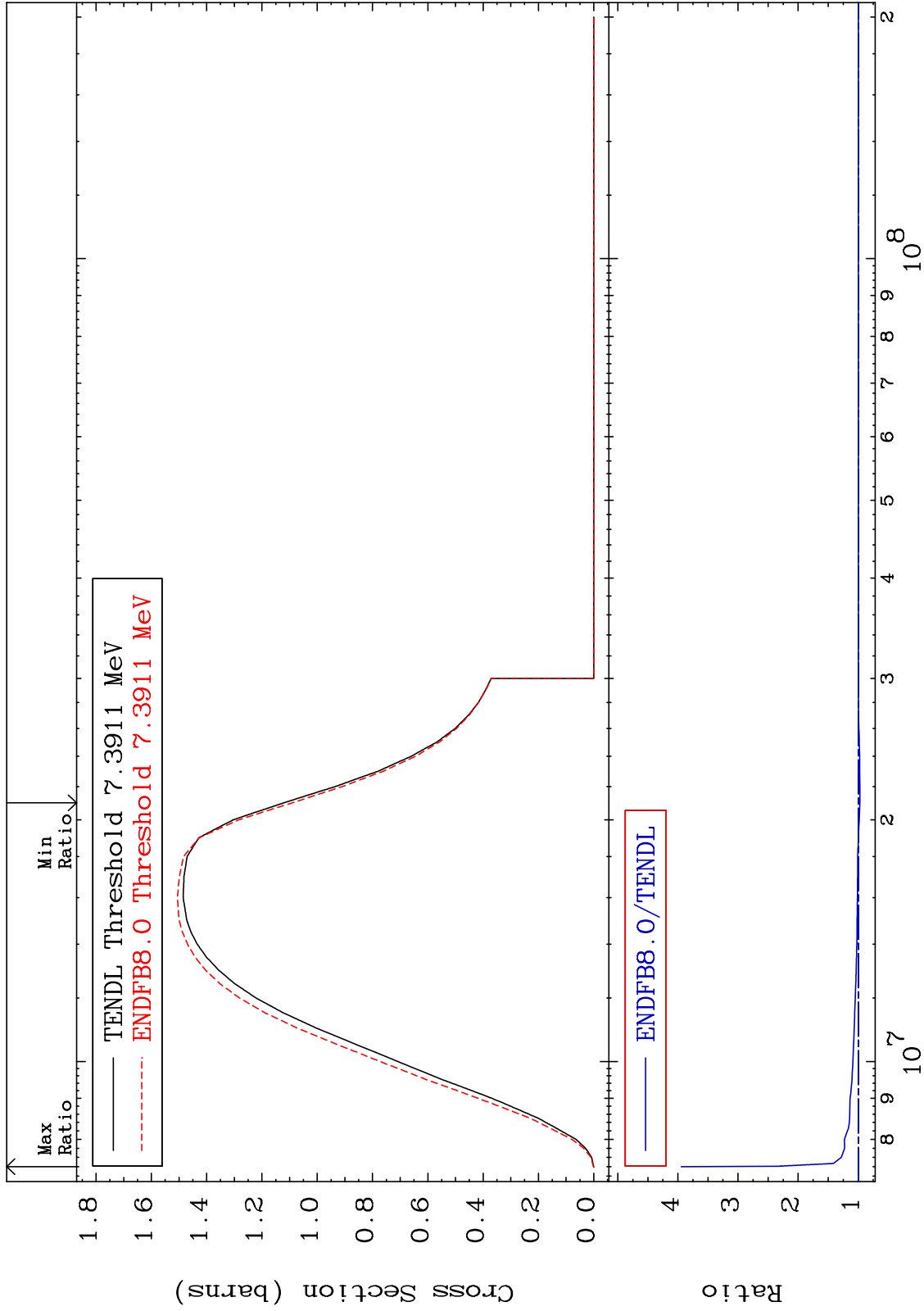
MAT 4834

(n,2n)

48-Cd-109

Cross Section

-2.766 To 294.5 %



5

Incident Energy (eV)

48-Cd-109

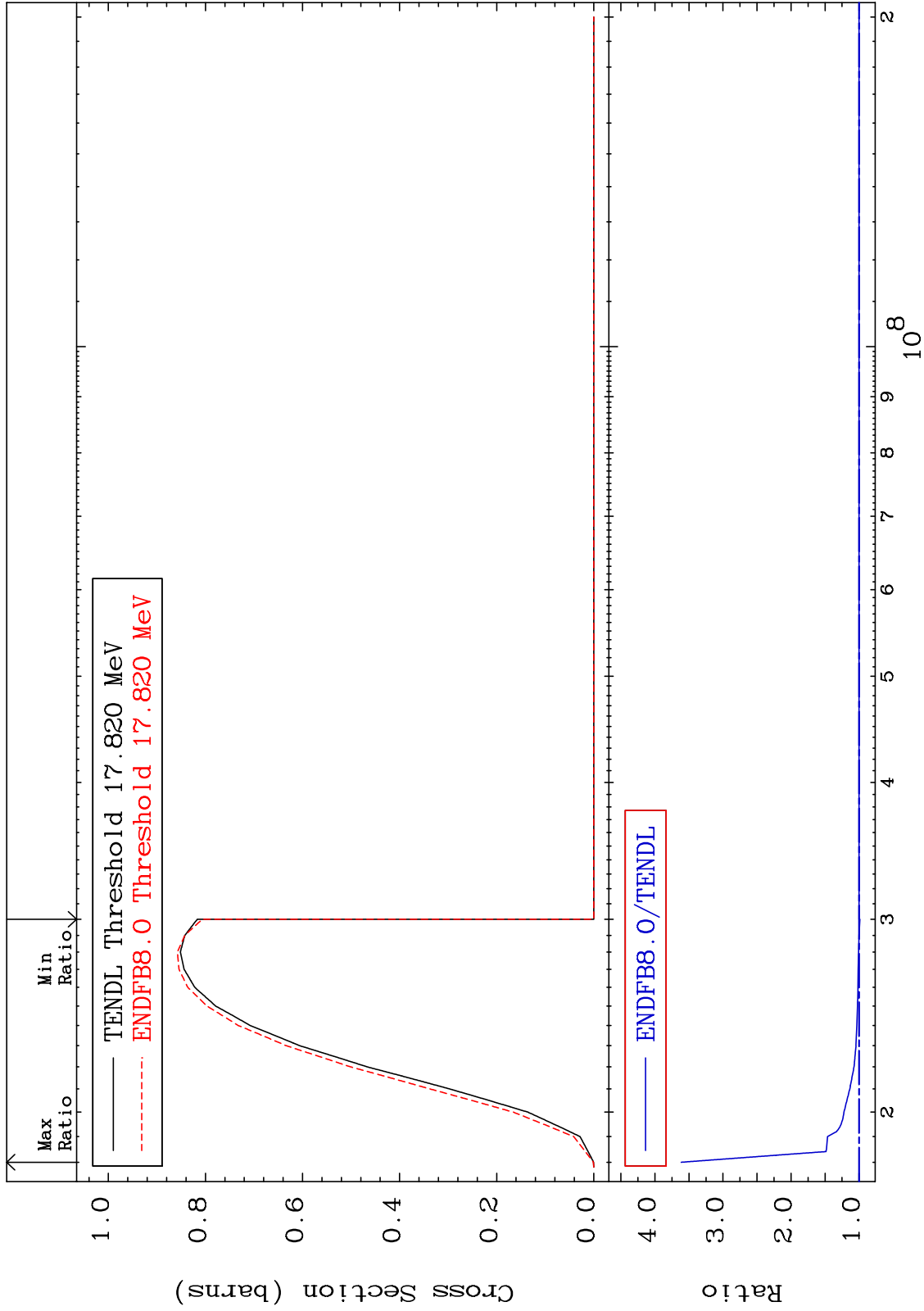
MAT 4834

(n,3n)

48-Cd-109

Cross Section

-1.254 To 261.4 %



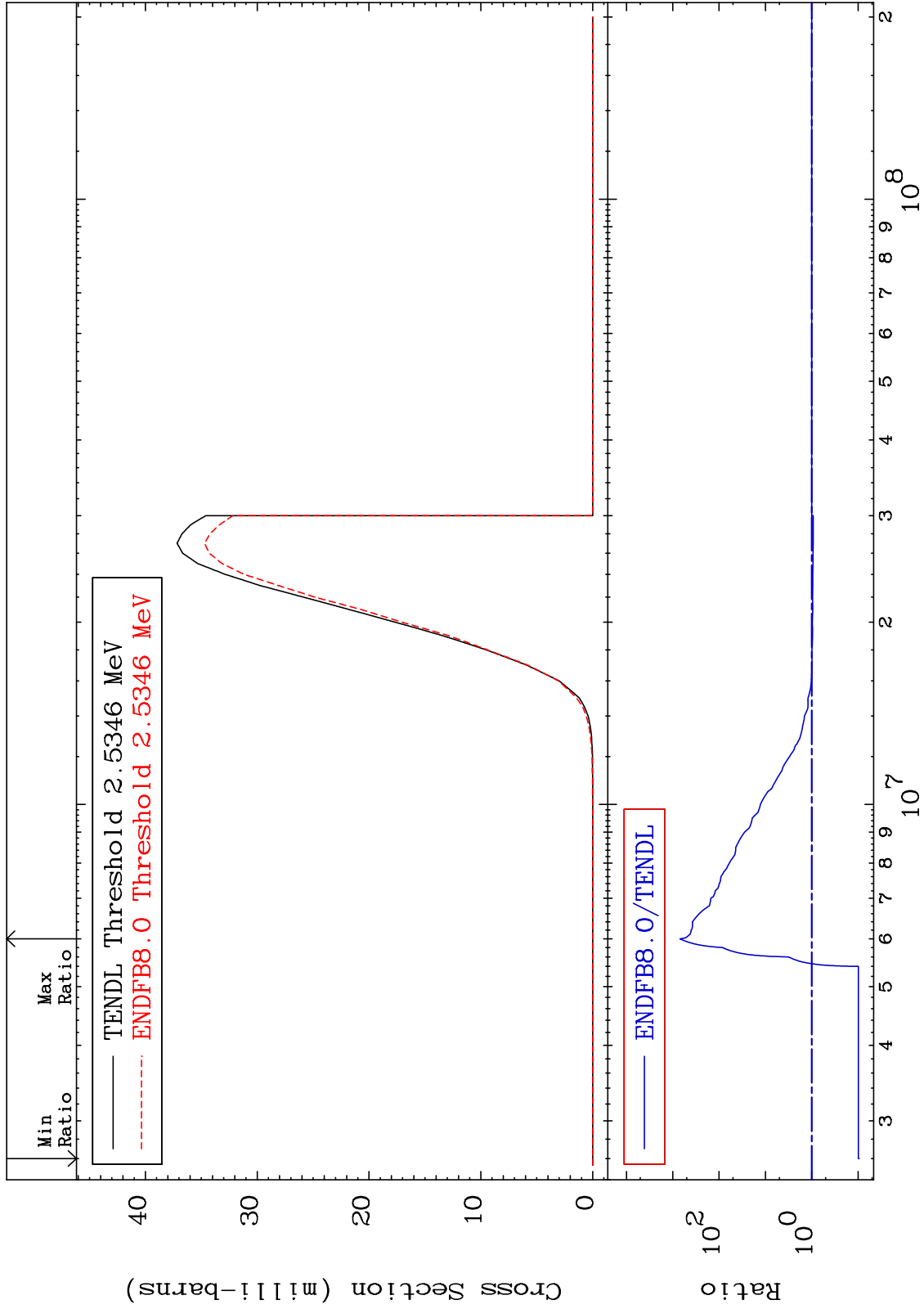
MAT 4834

(n,n') α

48-Cd-109

-90.17 To 9999. %

Cross Section



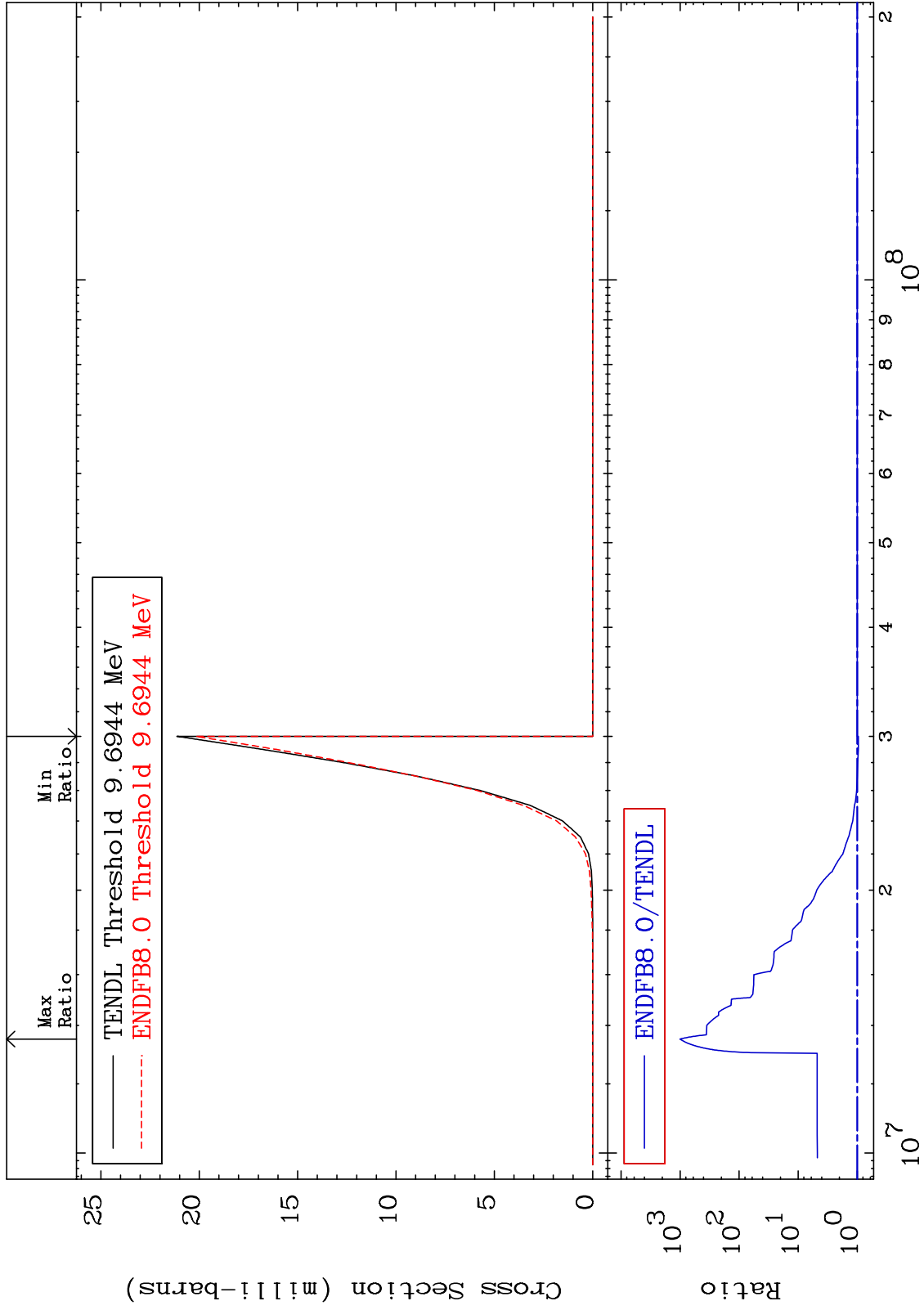
MAT 4834

(n,2n) α

48-Cd-109

Cross Section

-4.470 To 9999. %



Incident Energy (eV)

48-Cd-109

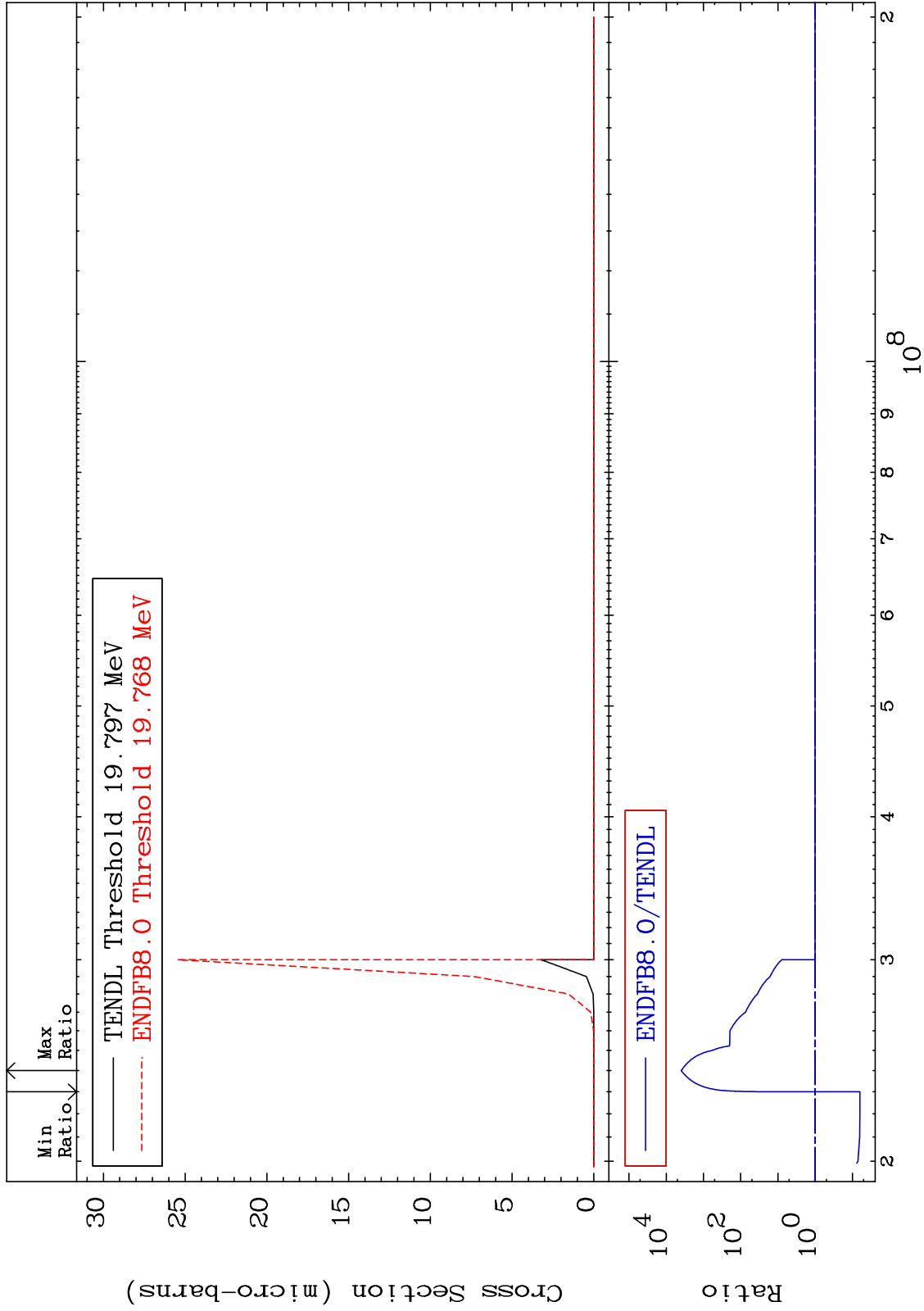
MAT 4834

(n,3n) α

48-Cd-109

Cross Section

-93.73 To 9999. %



9

Incident Energy (eV)

48-Cd-109

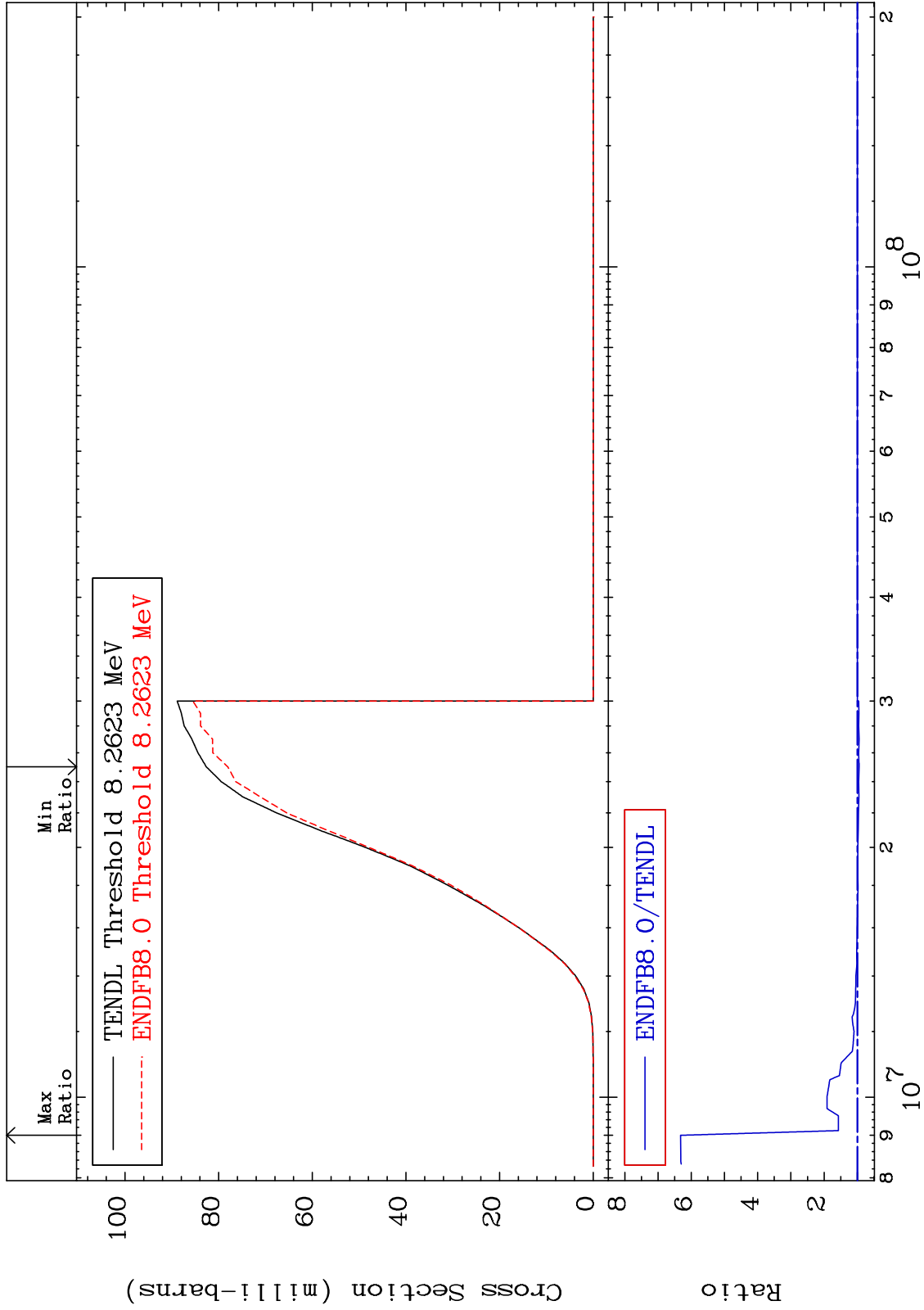
MAT 4834

(n,n') p

48-Cd-109

Cross Section

-5.561 To 532.0 %



48-Cd-109

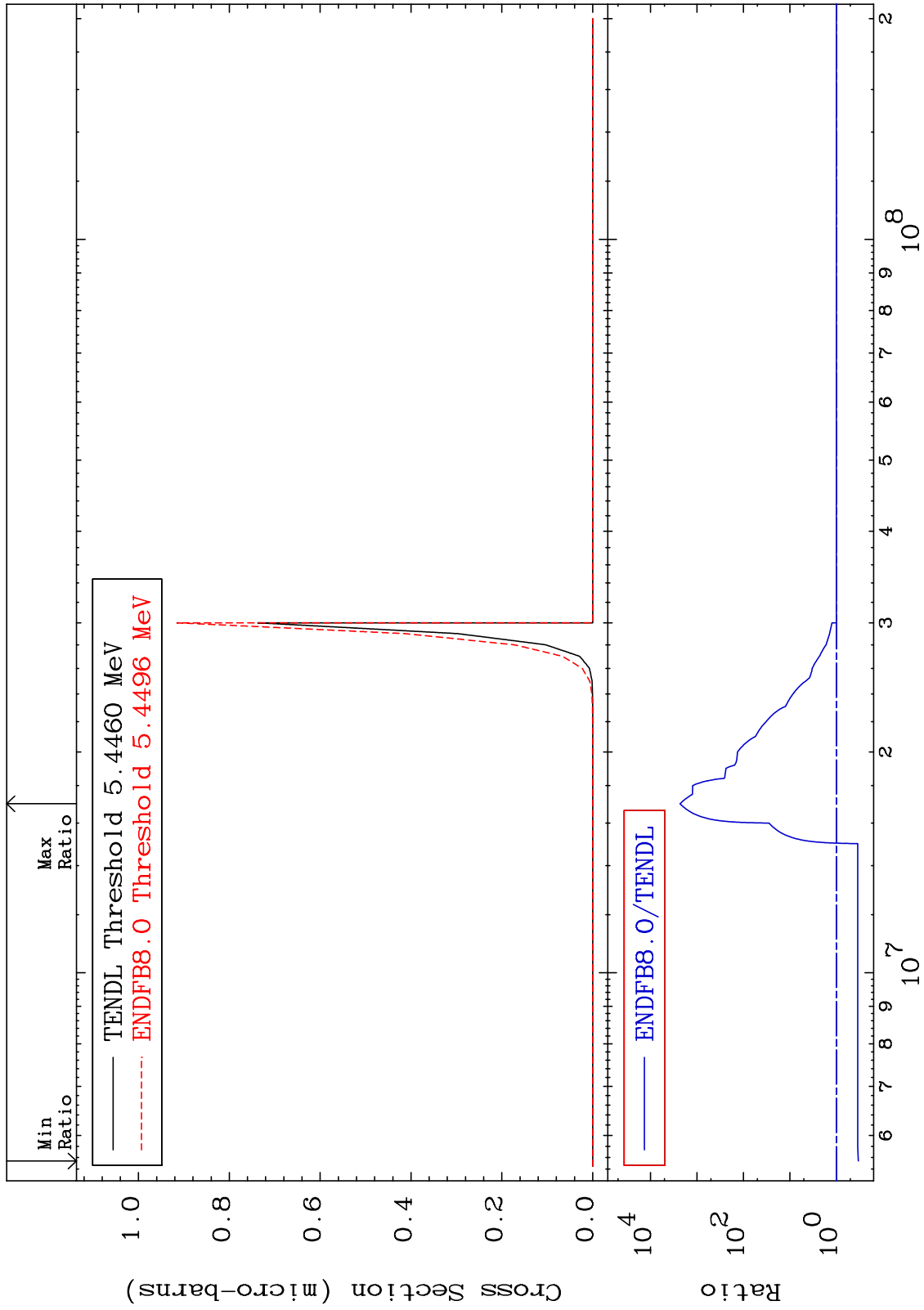
Incident Energy (eV)

10

MAT 4834

(n,n') 2α
Cross Section

48-Cd-109
-66.49 To 9999. %



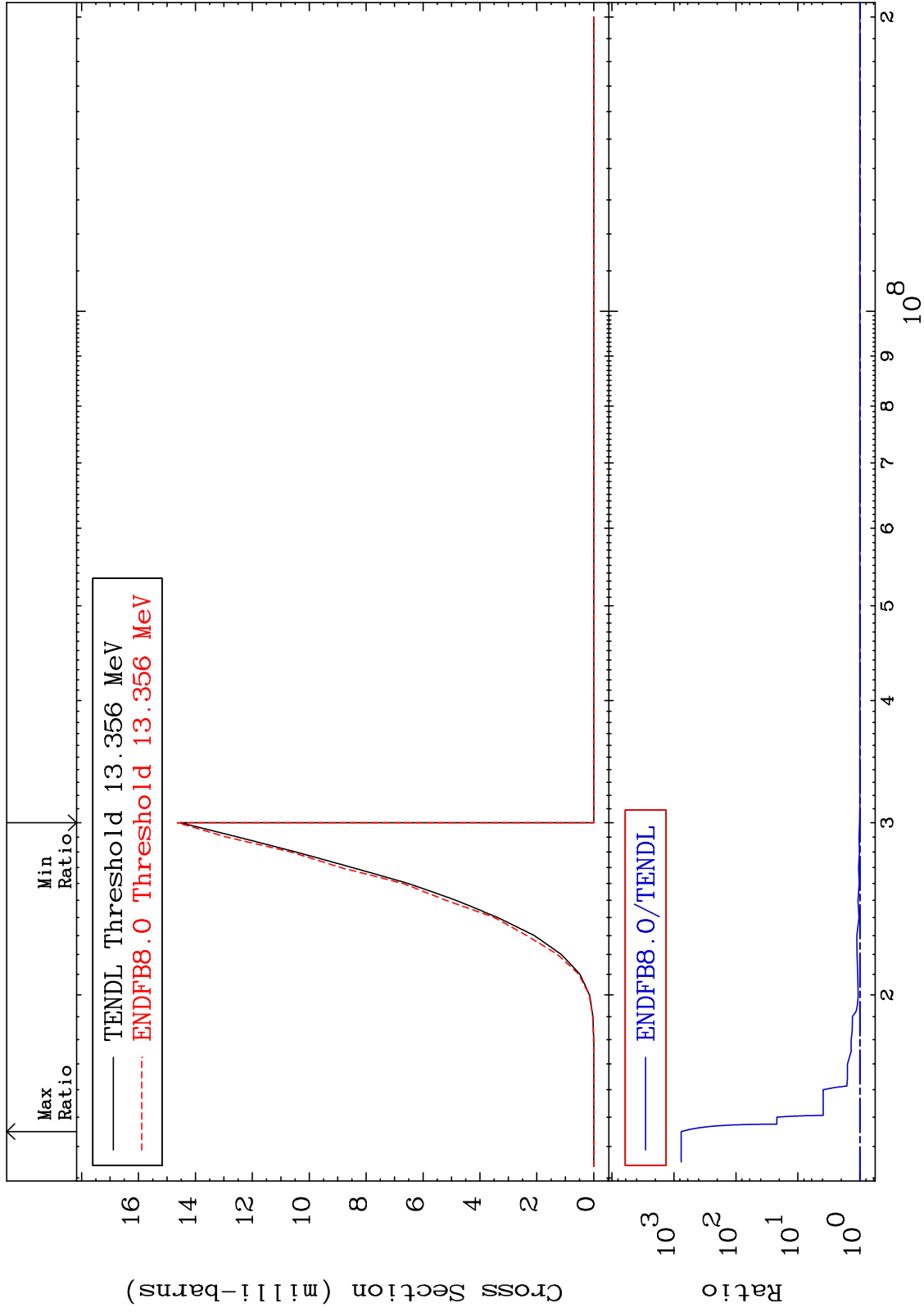
MAT 4834

(n,n') d

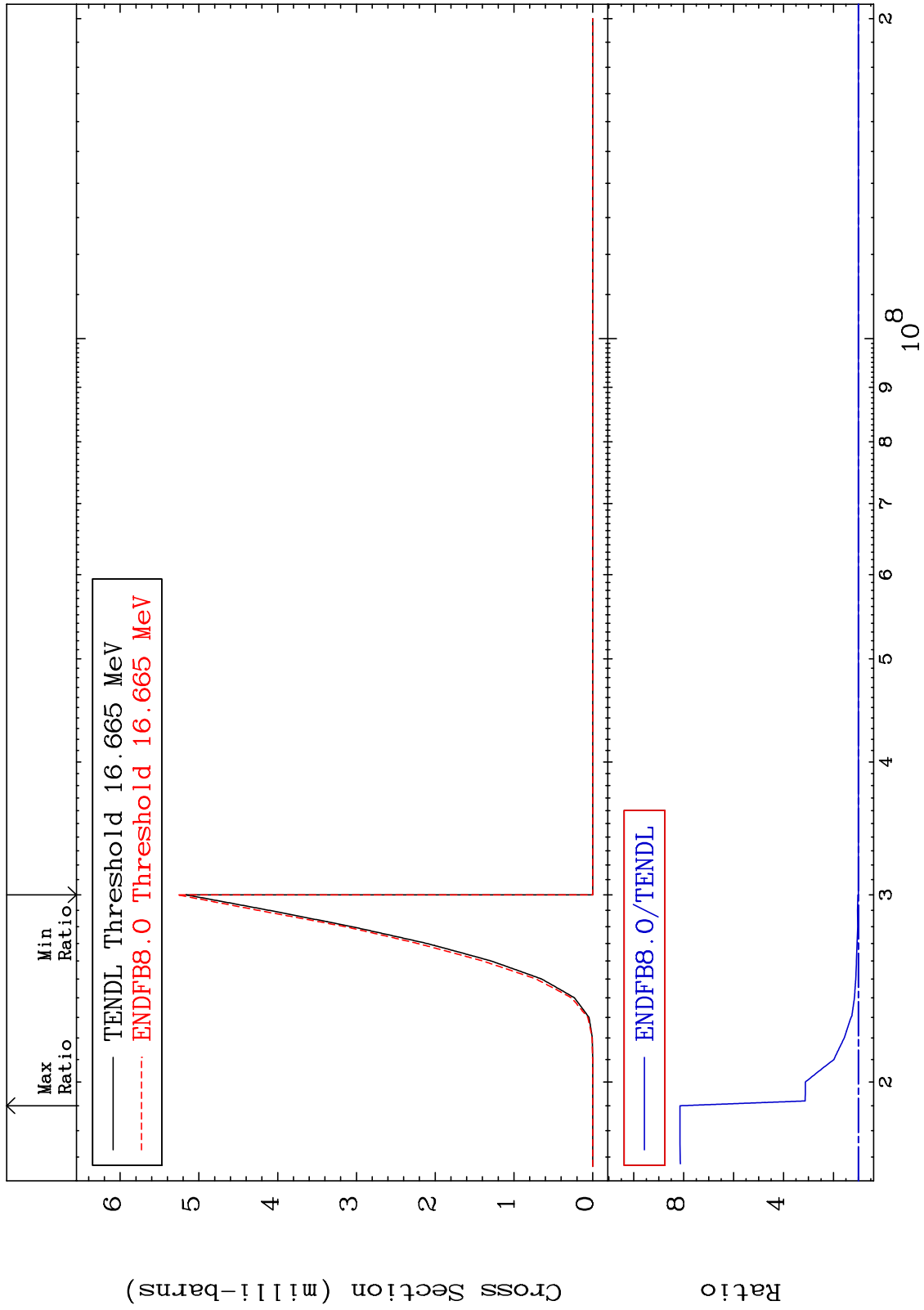
48-Cd-109

Cross Section

0.000 To 9999. %



MAT 4834 (n,n') t 48-Cd-109
Cross Section 0.000 To 714.9 %

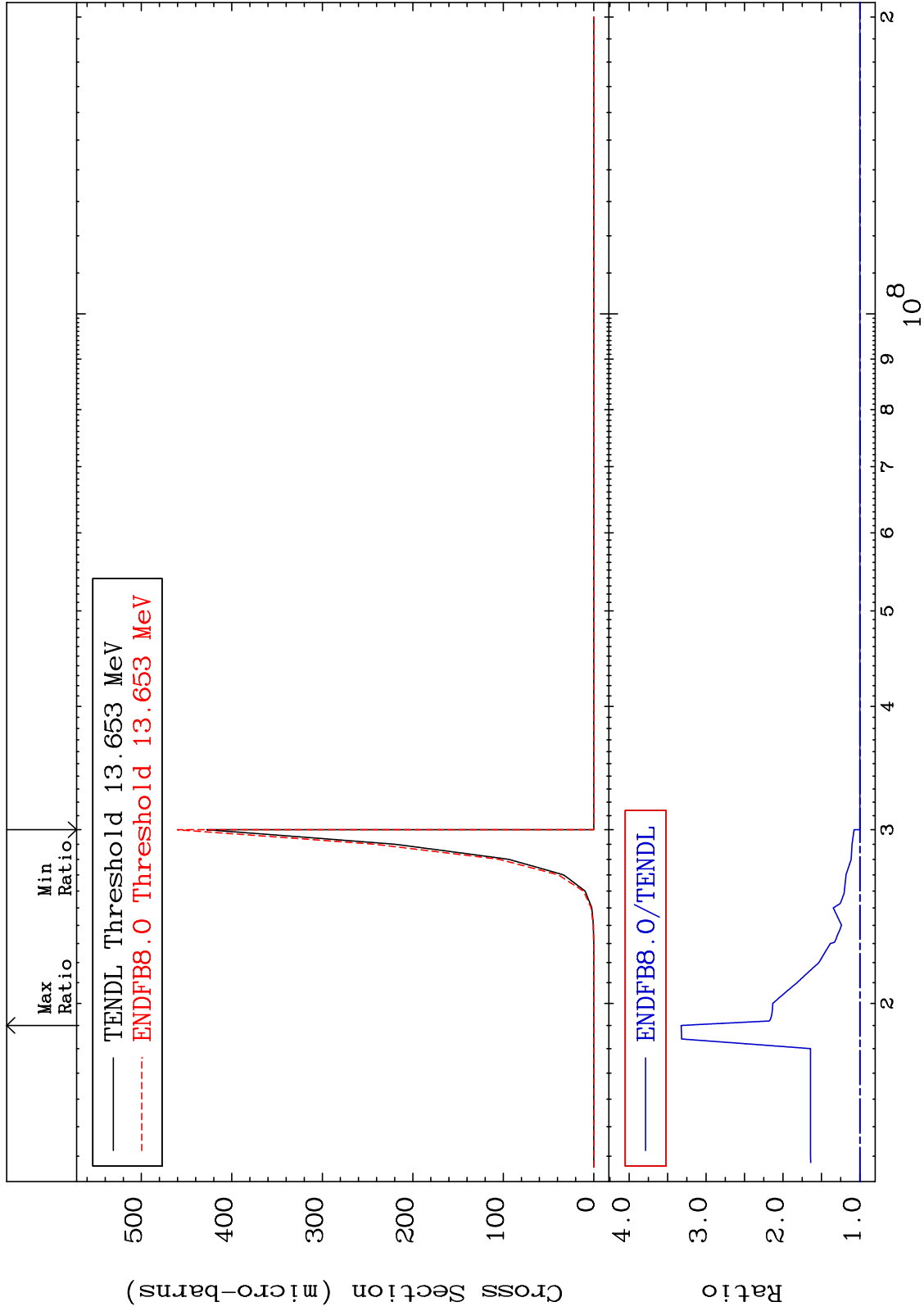


48-Cd-109 Incident Energy (eV)

MAT 4834

(n, n') He-3
Cross Section

48-Cd-109
0.000 To 232.3 %



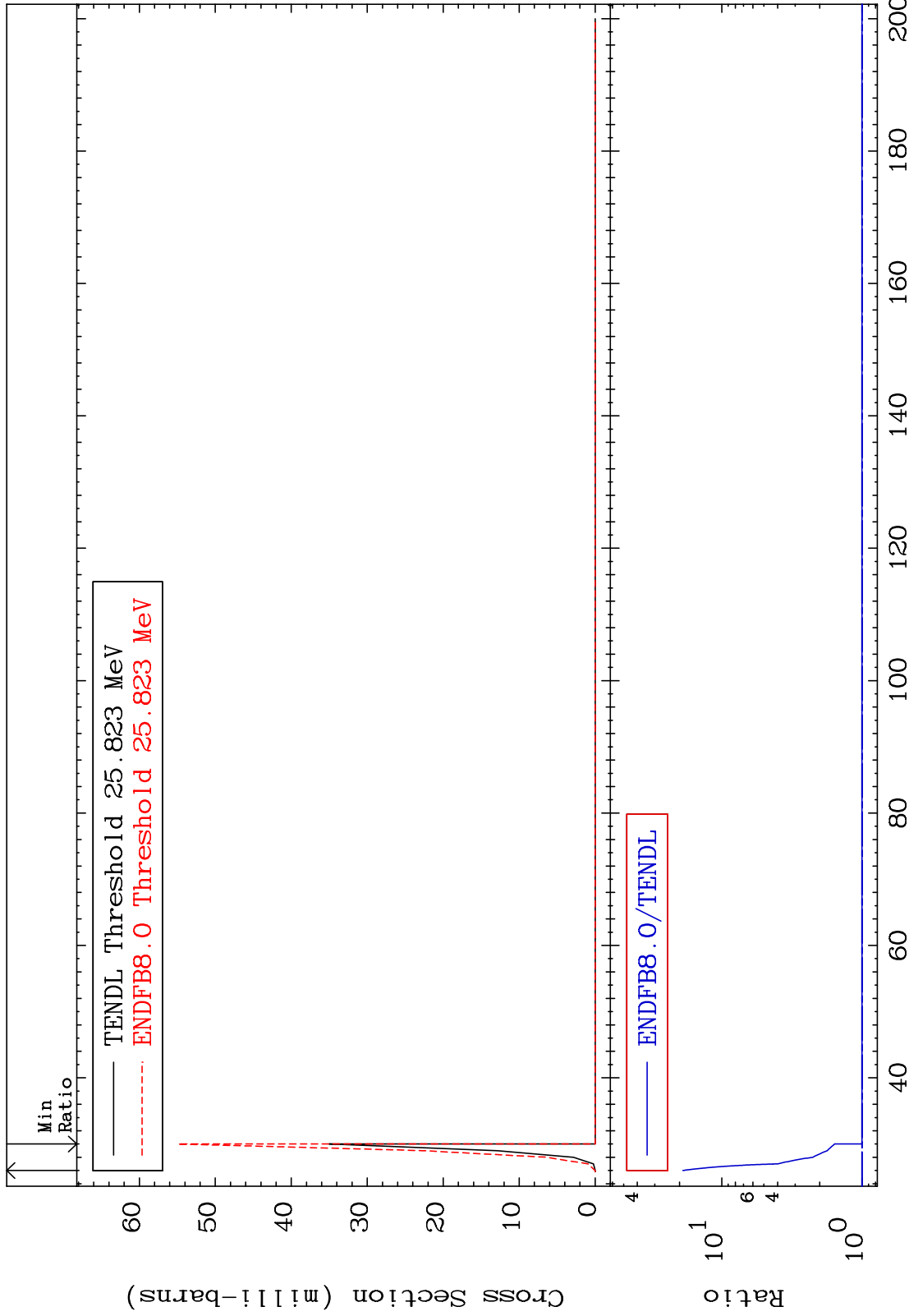
MAT 4834

(n, 4n)

48-Cd-109

Cross Section

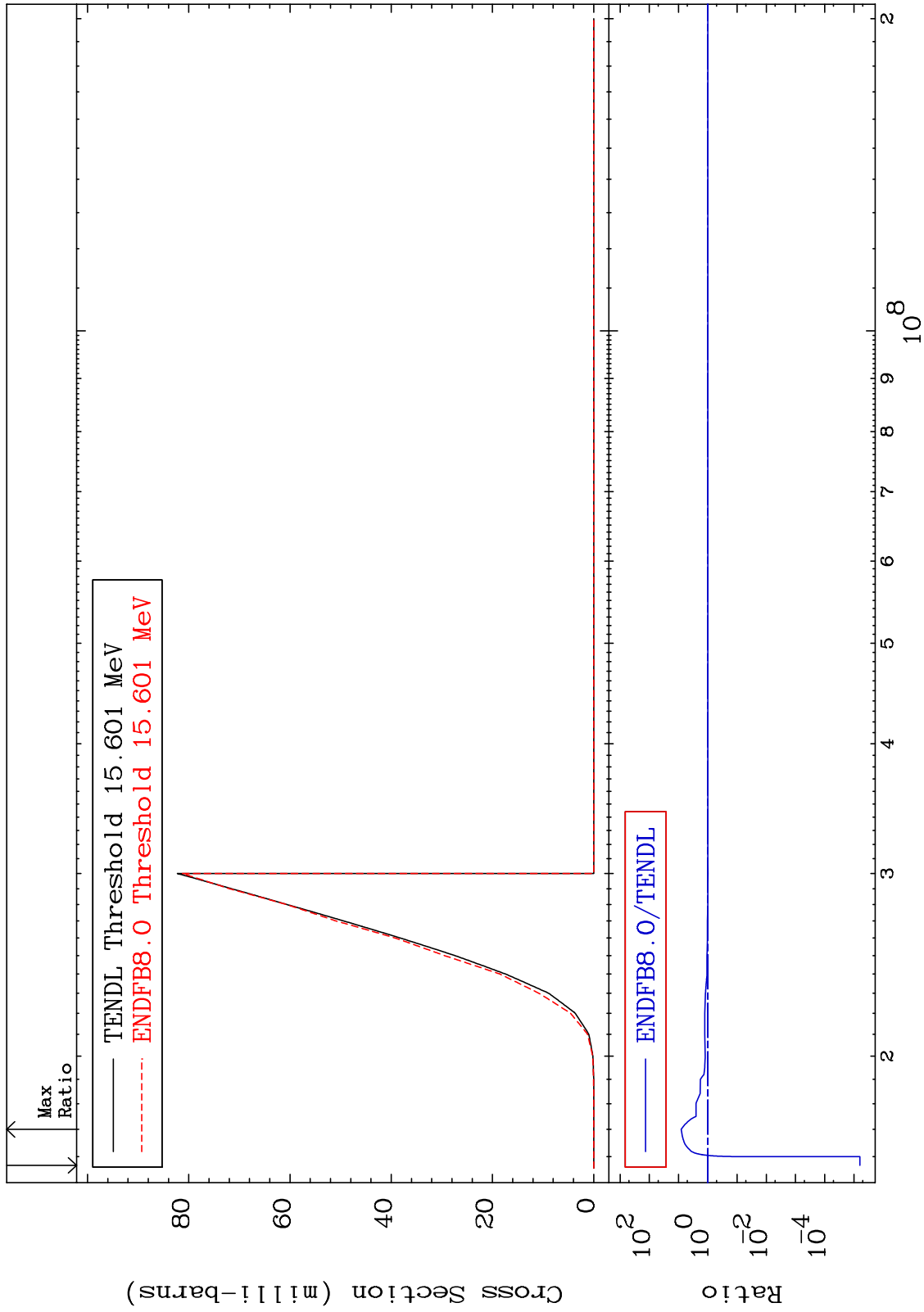
0.000 To 1791. %



MAT 4834

(n,2n) p
Cross Section

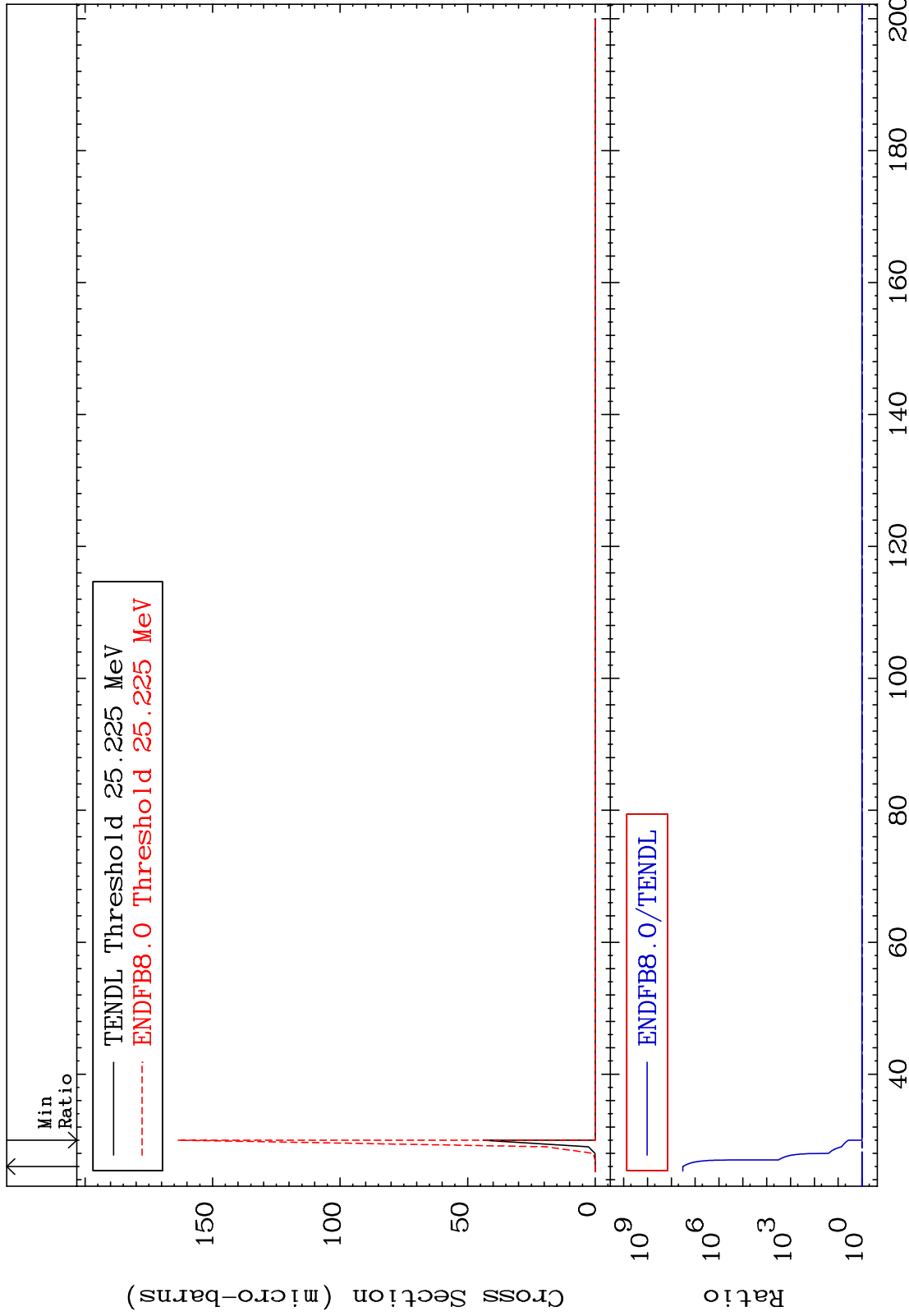
48-Cd-109
-100.0 To 712.2 %



MAT 4834

(n,3n) p
Cross Section

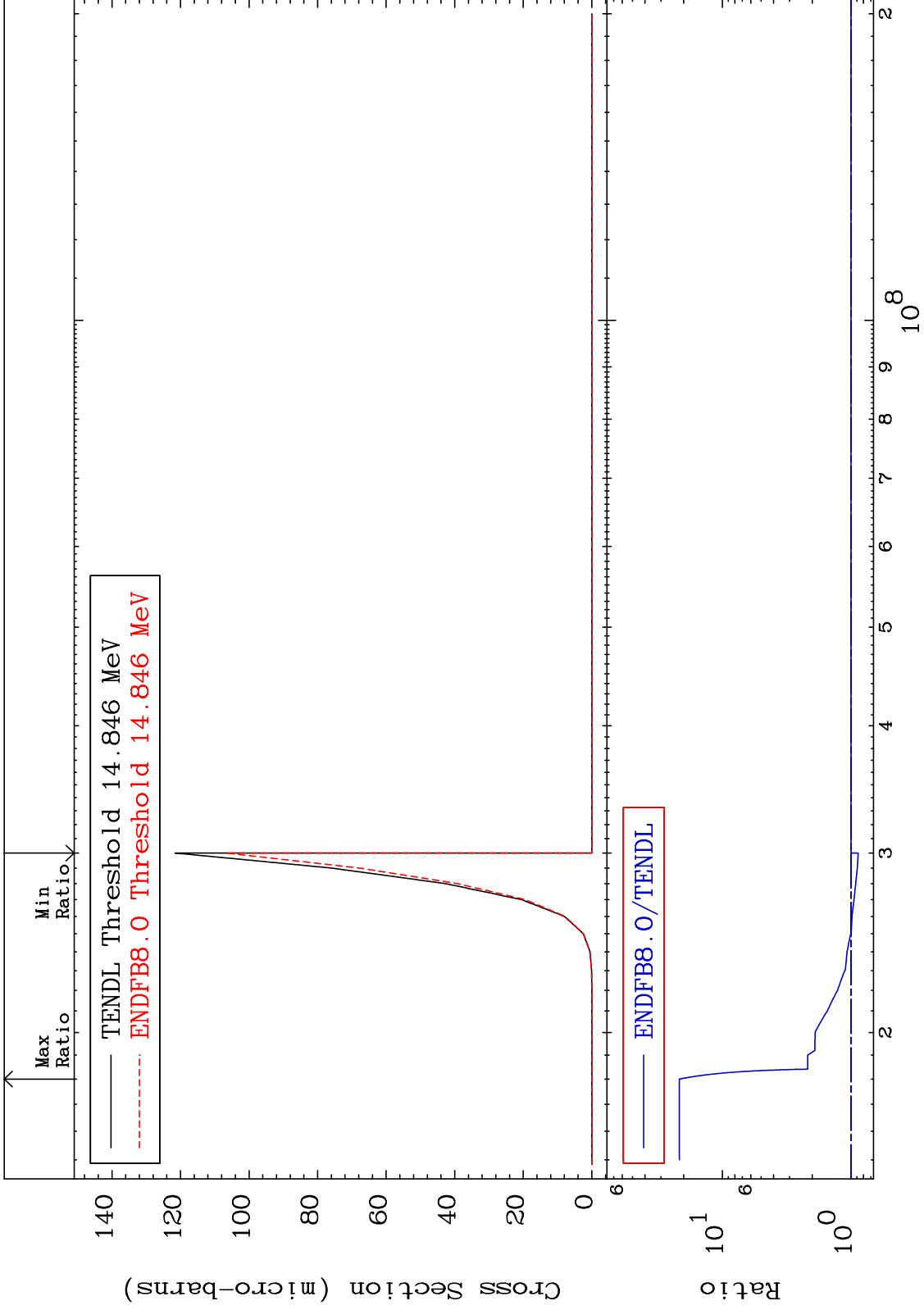
48-Cd-109
0.000 To 9999. %



MAT 4834

(n,2n) p
Cross Section

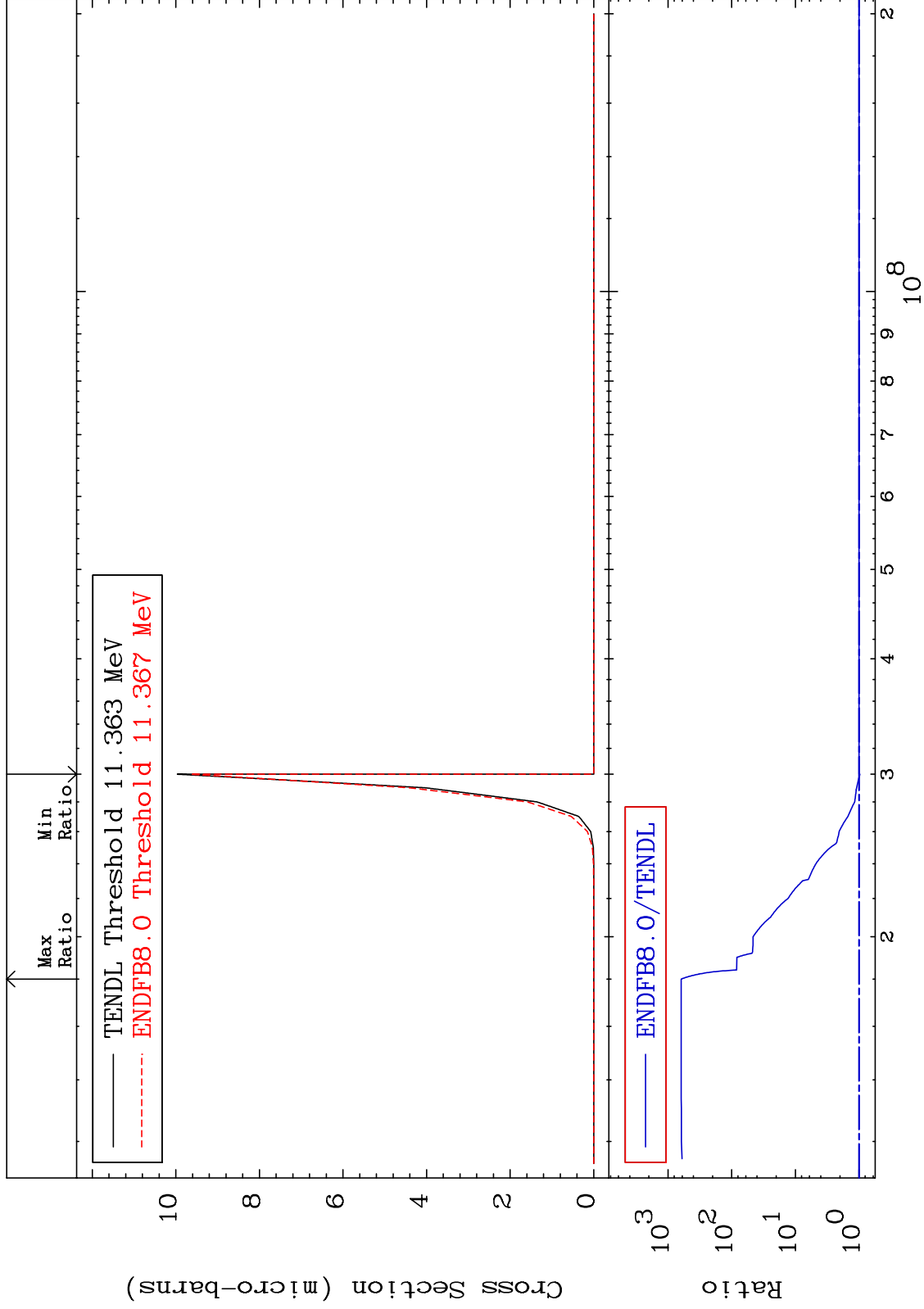
48-Cd-109
-12.21 To 2060. %



MAT 4834

(n,n') p α
Cross Section

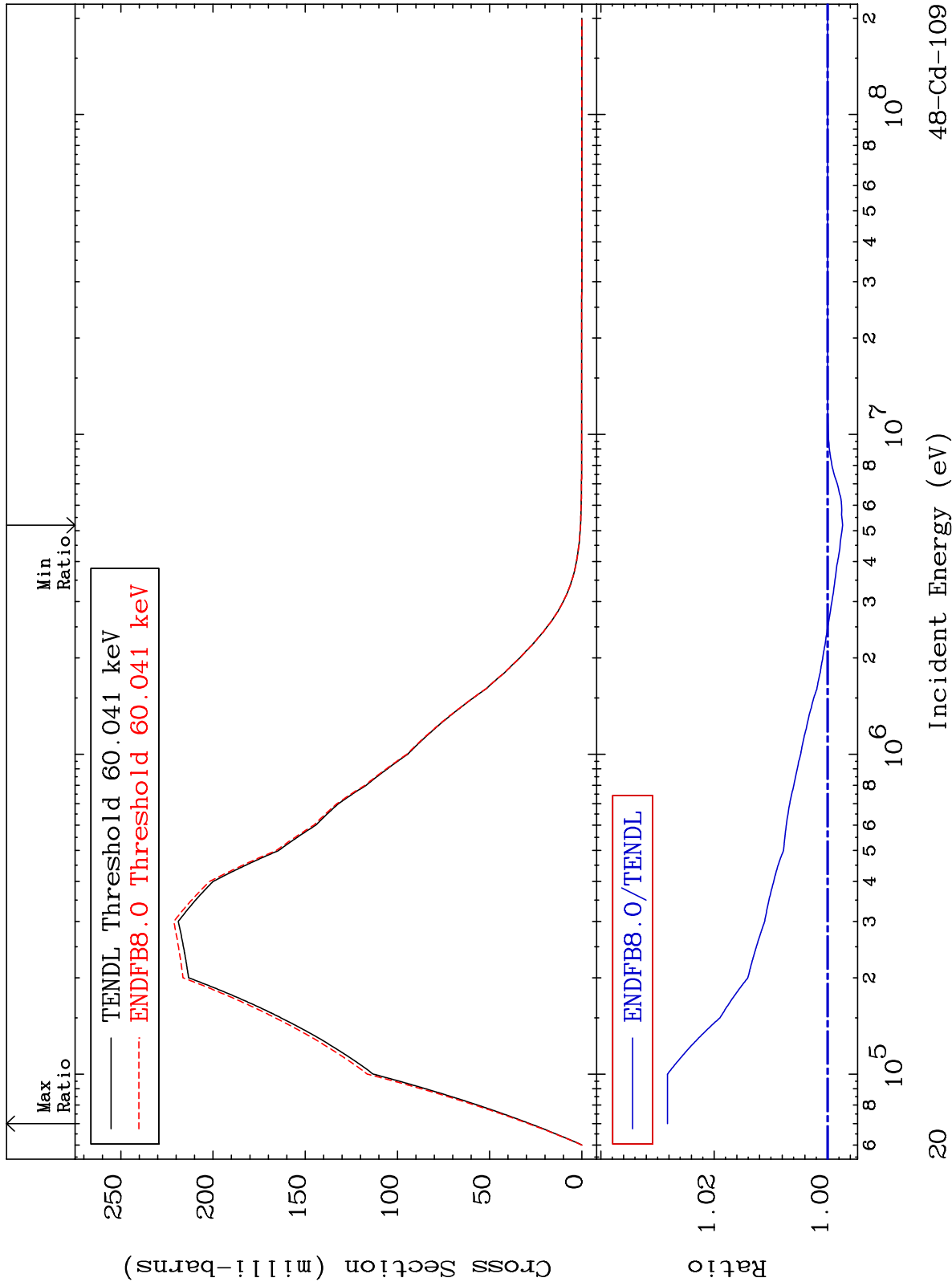
48-Cd-109
-3.107 To 9999. %



MAT 4834

MT= 51 (n,n') Level
Cross Section

48-Cd-109
-0.266 To 2.823 %

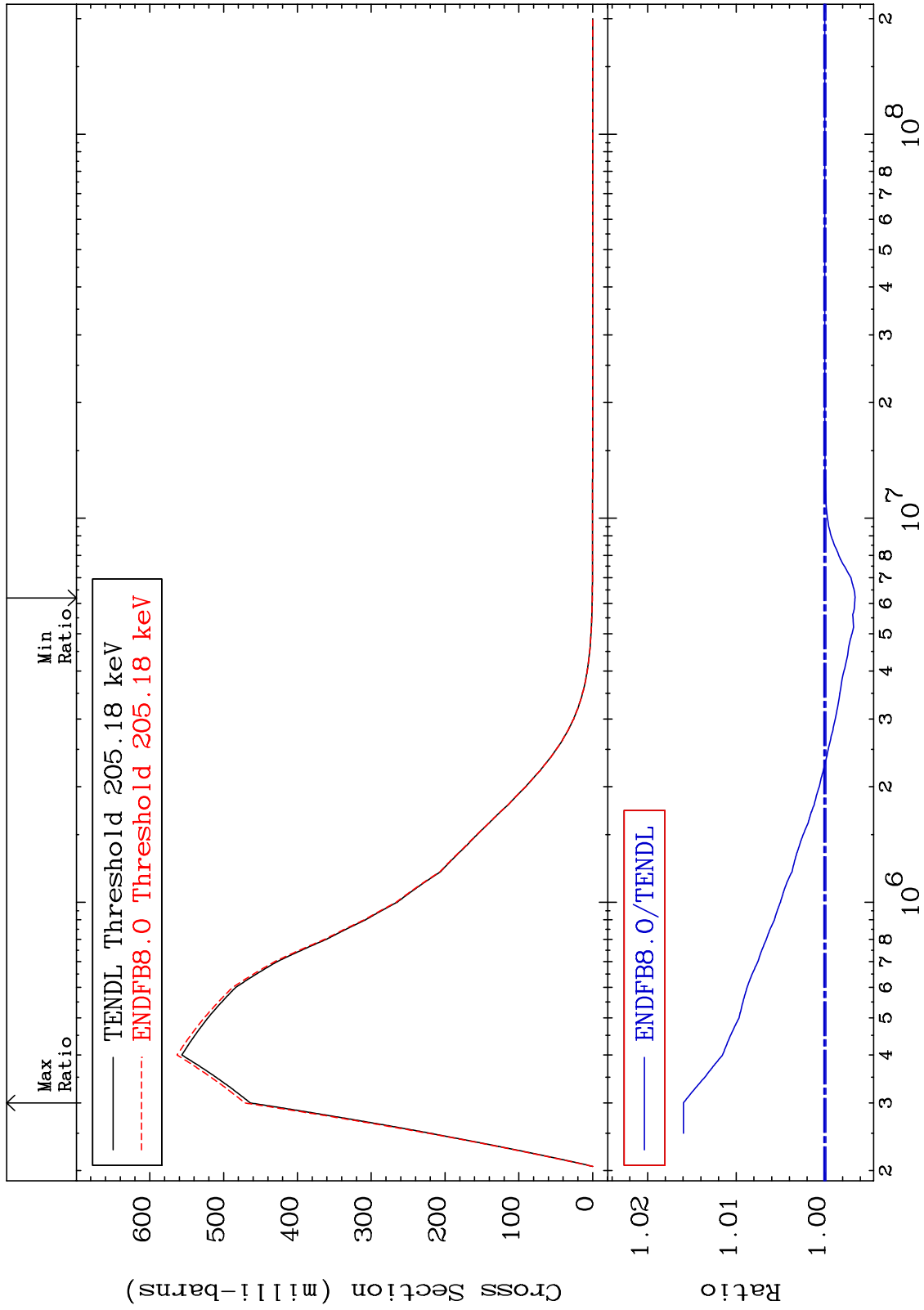


20

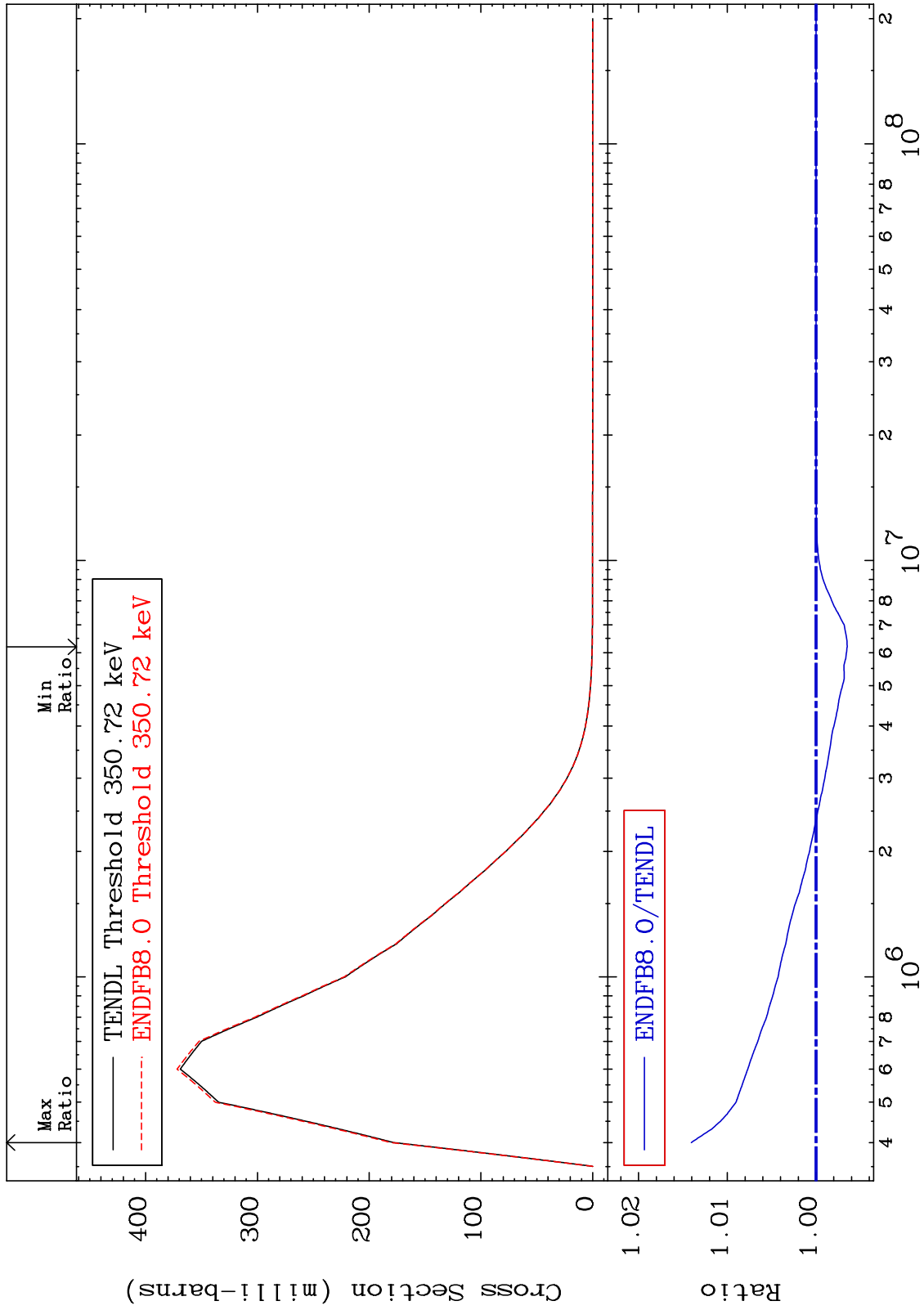
Incident Energy (eV)

48-Cd-109

MAT 4834 MT= 52 (n,n') Level Cross Section 48-Cd-109 -0.340 To 1.596 %



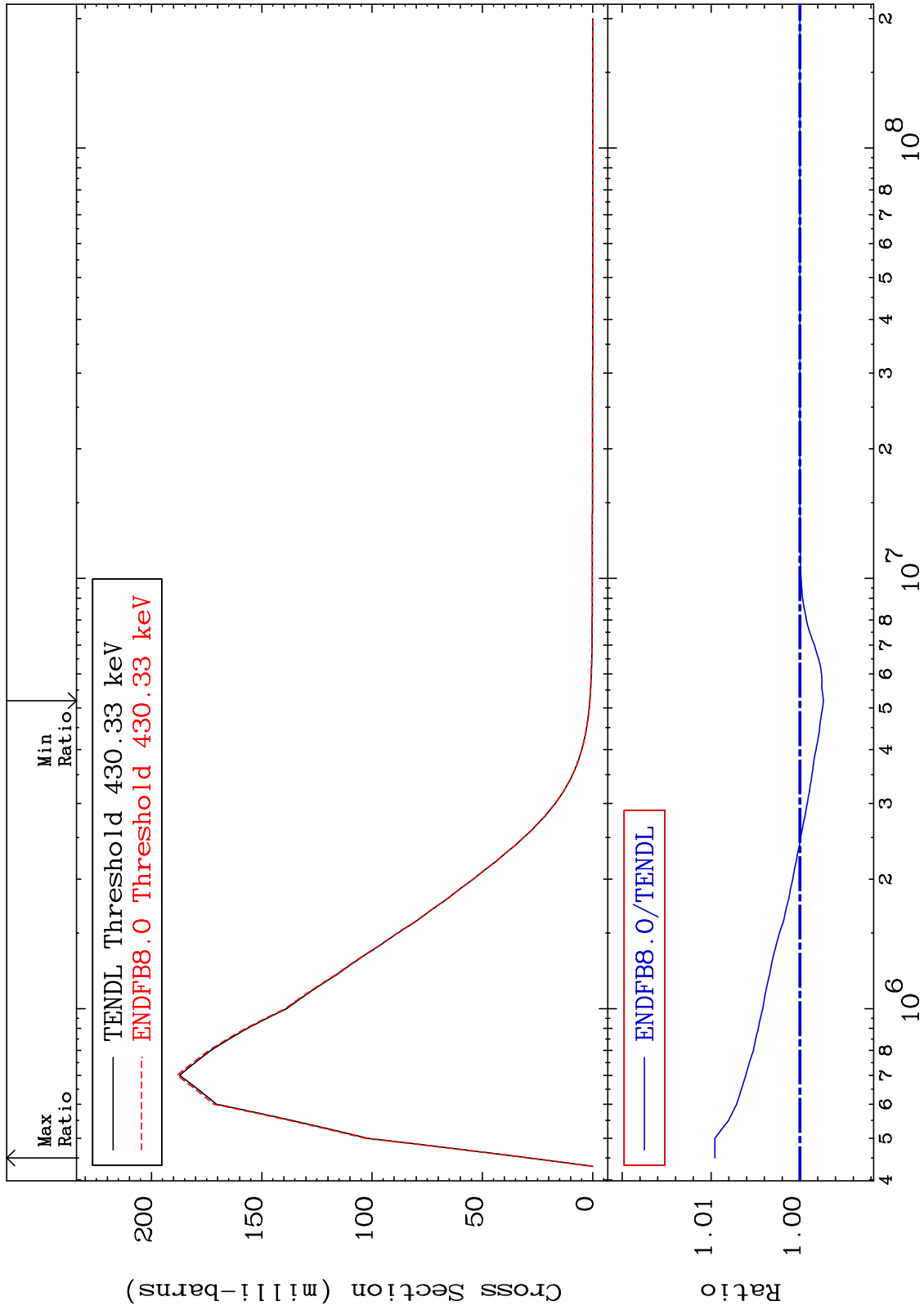
MAT 4834 MT= 53 (n,n') Level
 Cross Section 48-Cd-109
 -0.350 To 1.406 %



MAT 4834

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

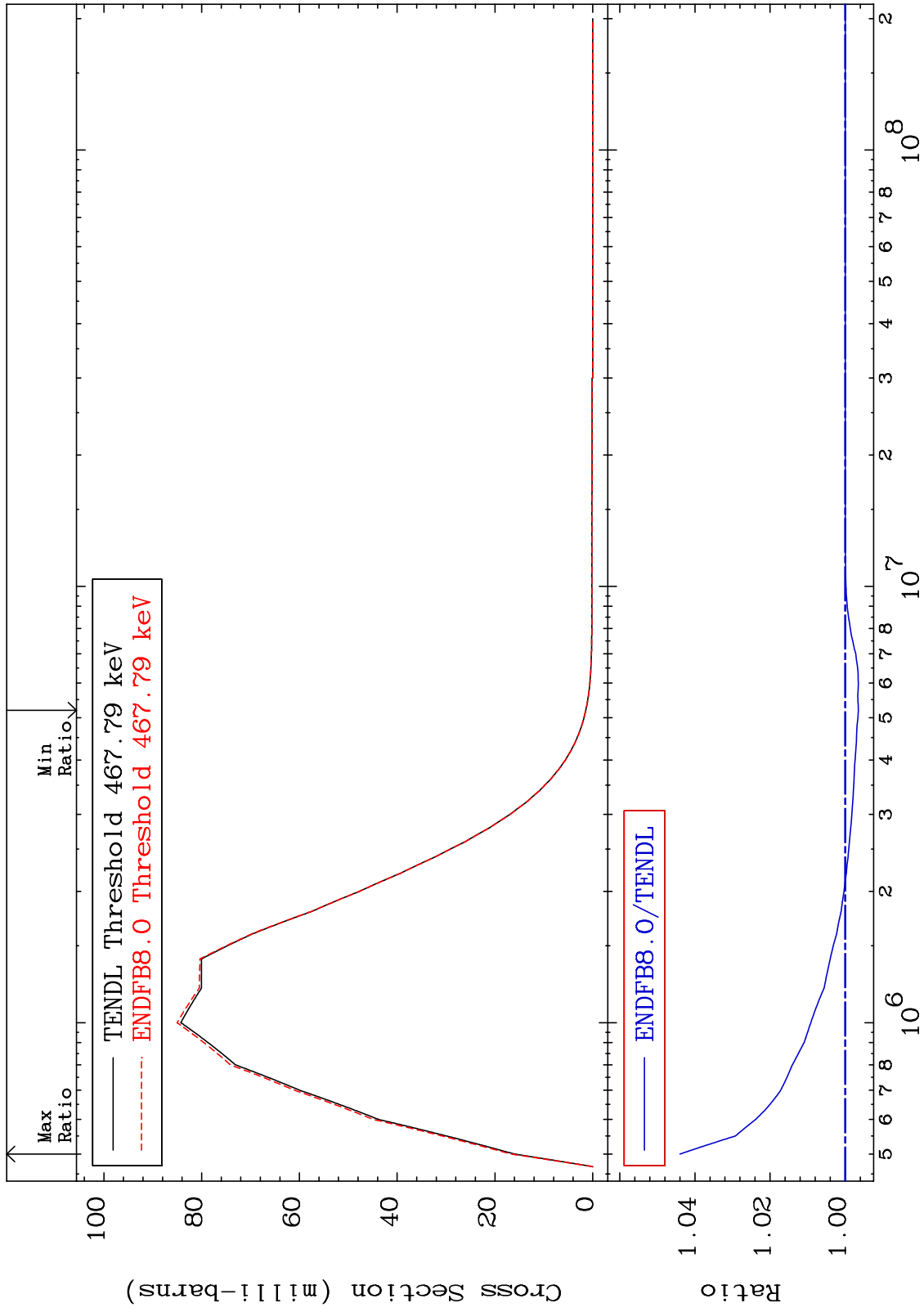
48-Cd-109
-0.265 To 0.957 %



MAT 4834

MT= 55 (n,n') Level
Cross Section

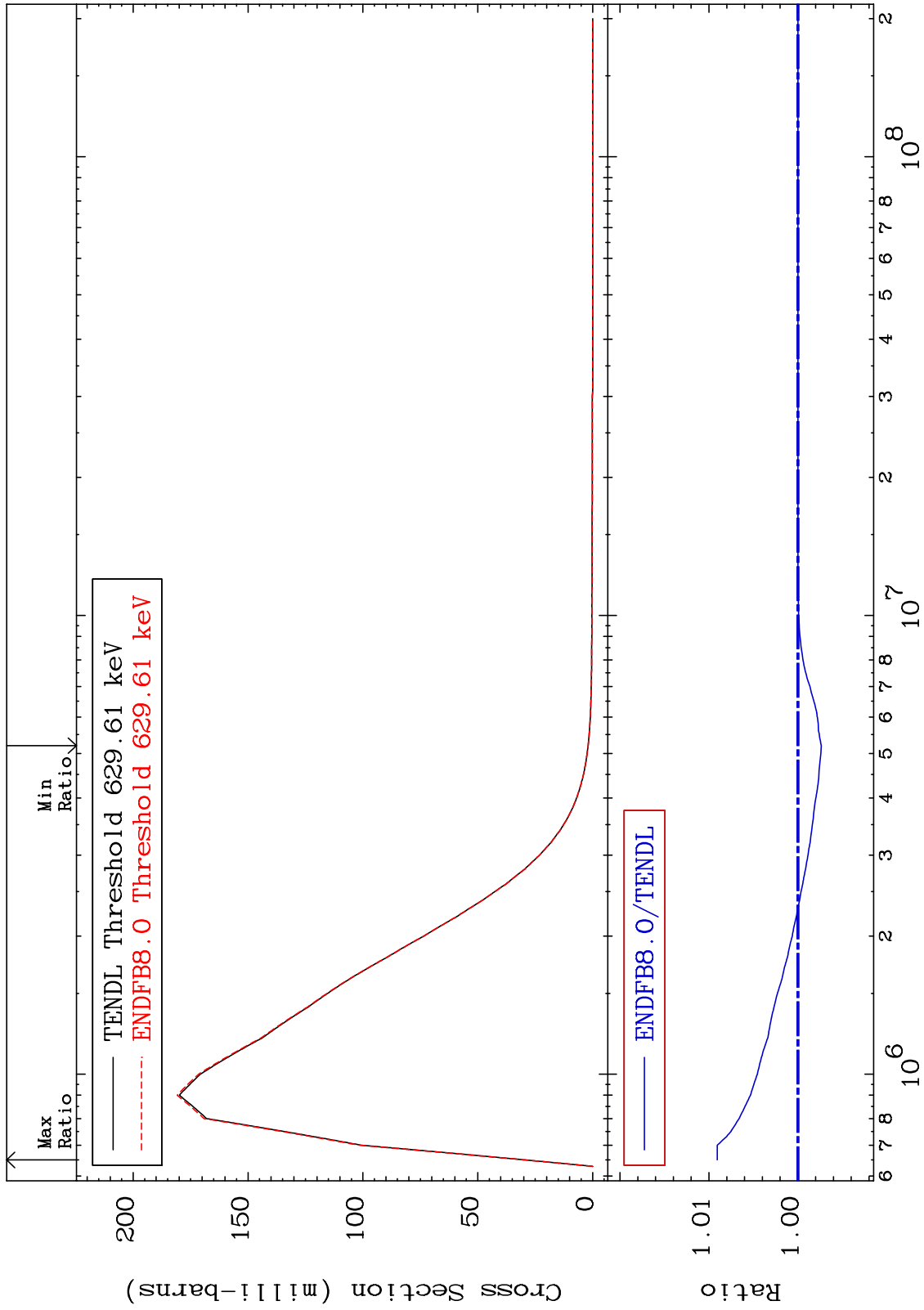
48-Cd-109
-0.352 To 4.397 %



MAT 4834

MT= 56 (n,n') Level
Cross Section

48-Cd-109
-0.263 To 0.907 %



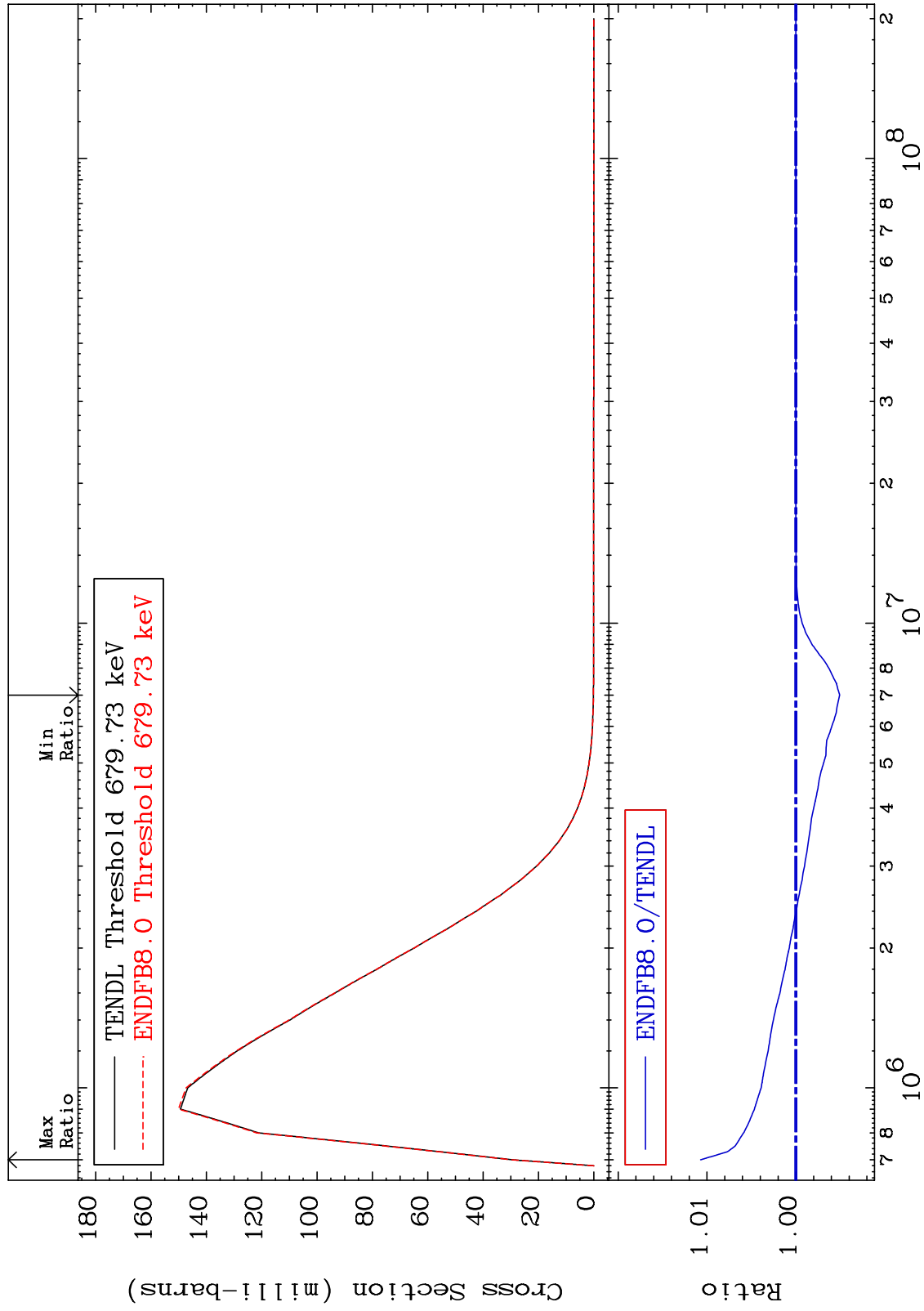
25

48-Cd-109

MAT 4834

MT= 57 (n,n') Level
Cross Section

48-Cd-109
-0.493 To 1.071 %



26

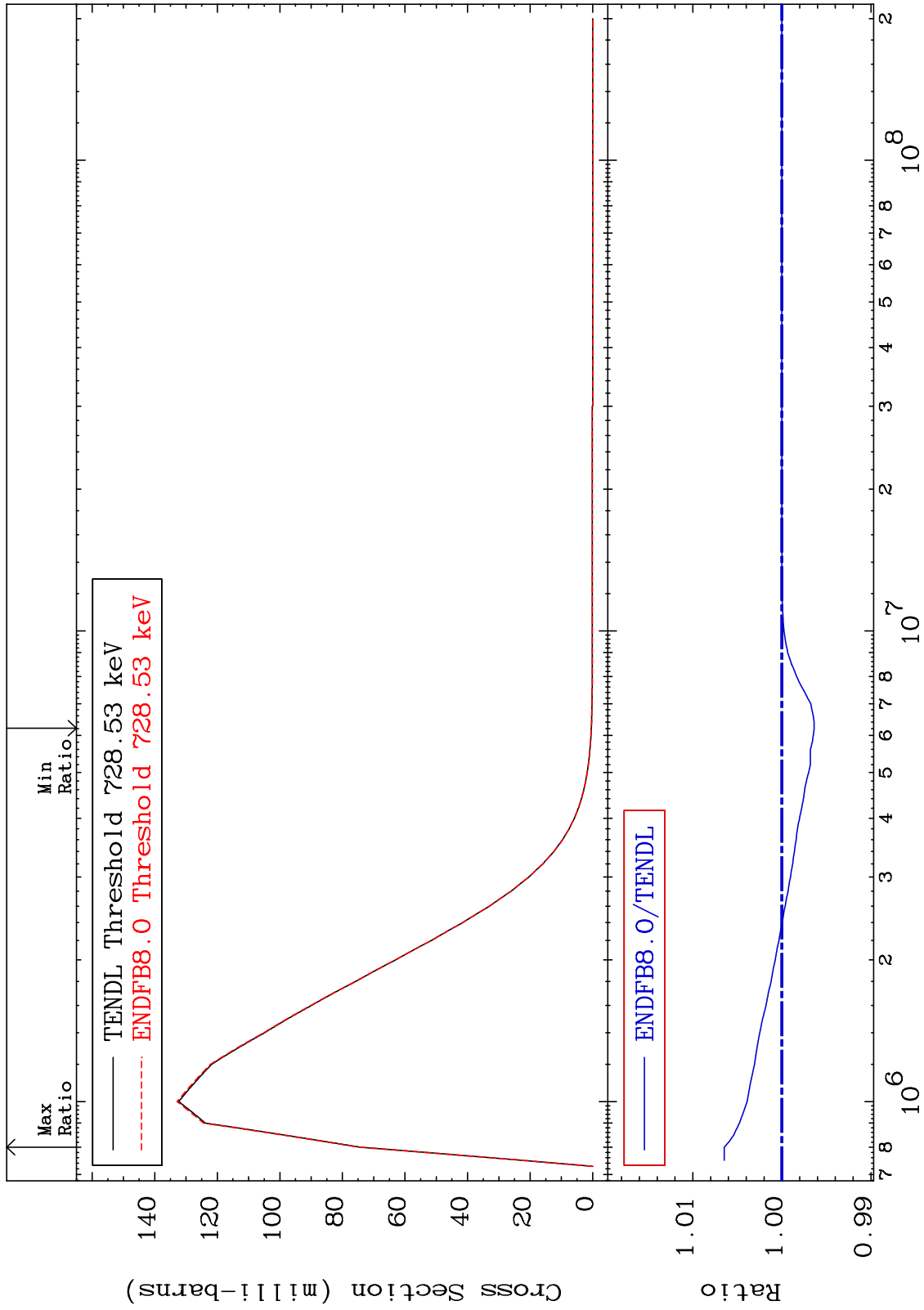
Incident Energy (eV)

48-Cd-109

MAT 4834

MT= 58 (n,n') Level
Cross Section

48-Cd-109
-0.362 To 0.646 %



27

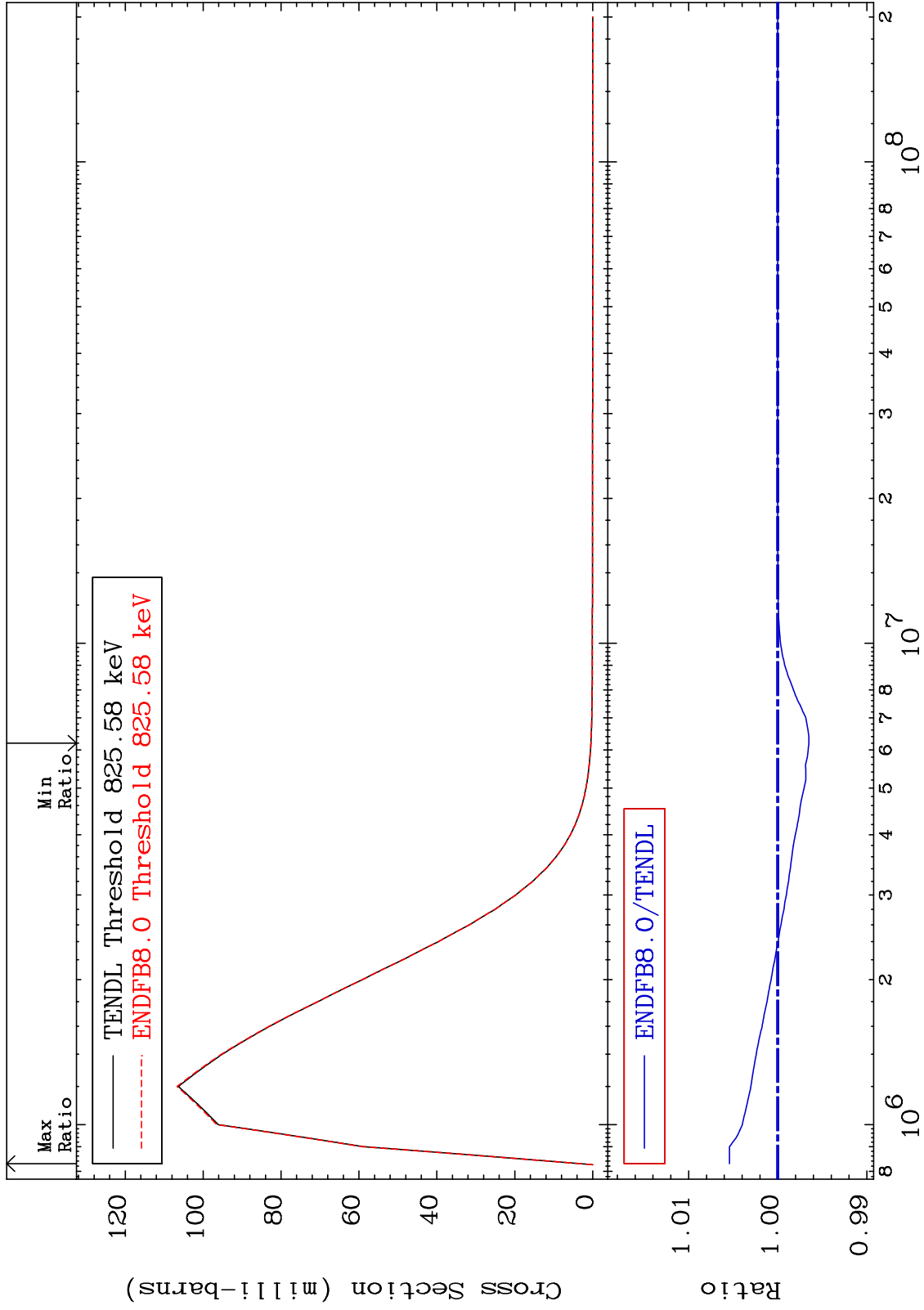
Incident Energy (eV)

48-Cd-109

MAT 4834

MT= 59 (n,n') Level
Cross Section

48-Cd-109
-0.349 To 0.541 %



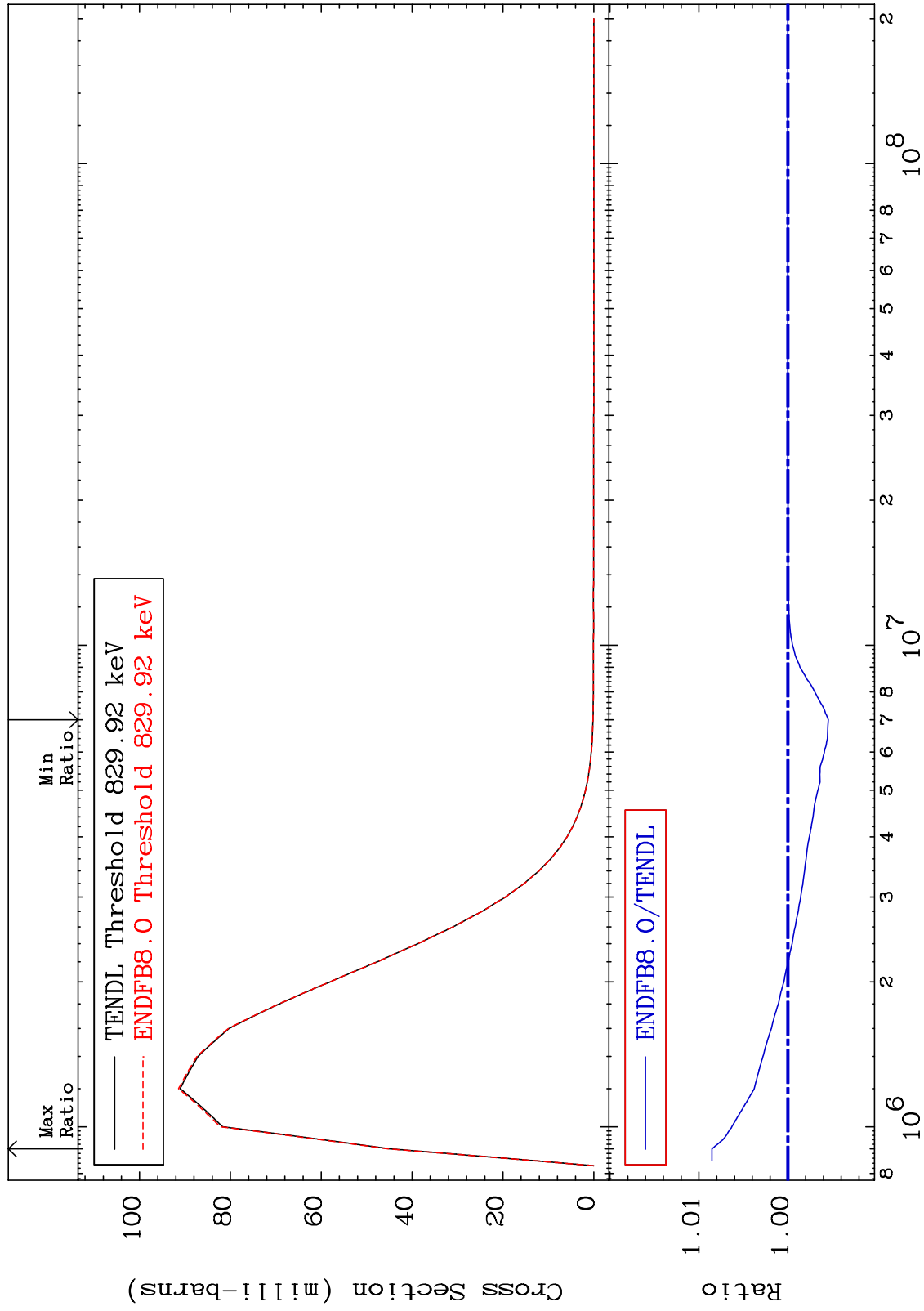
28

48-Cd-109

MAT 4834

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

48-Cd-109
-0.455 To 0.853 %



29

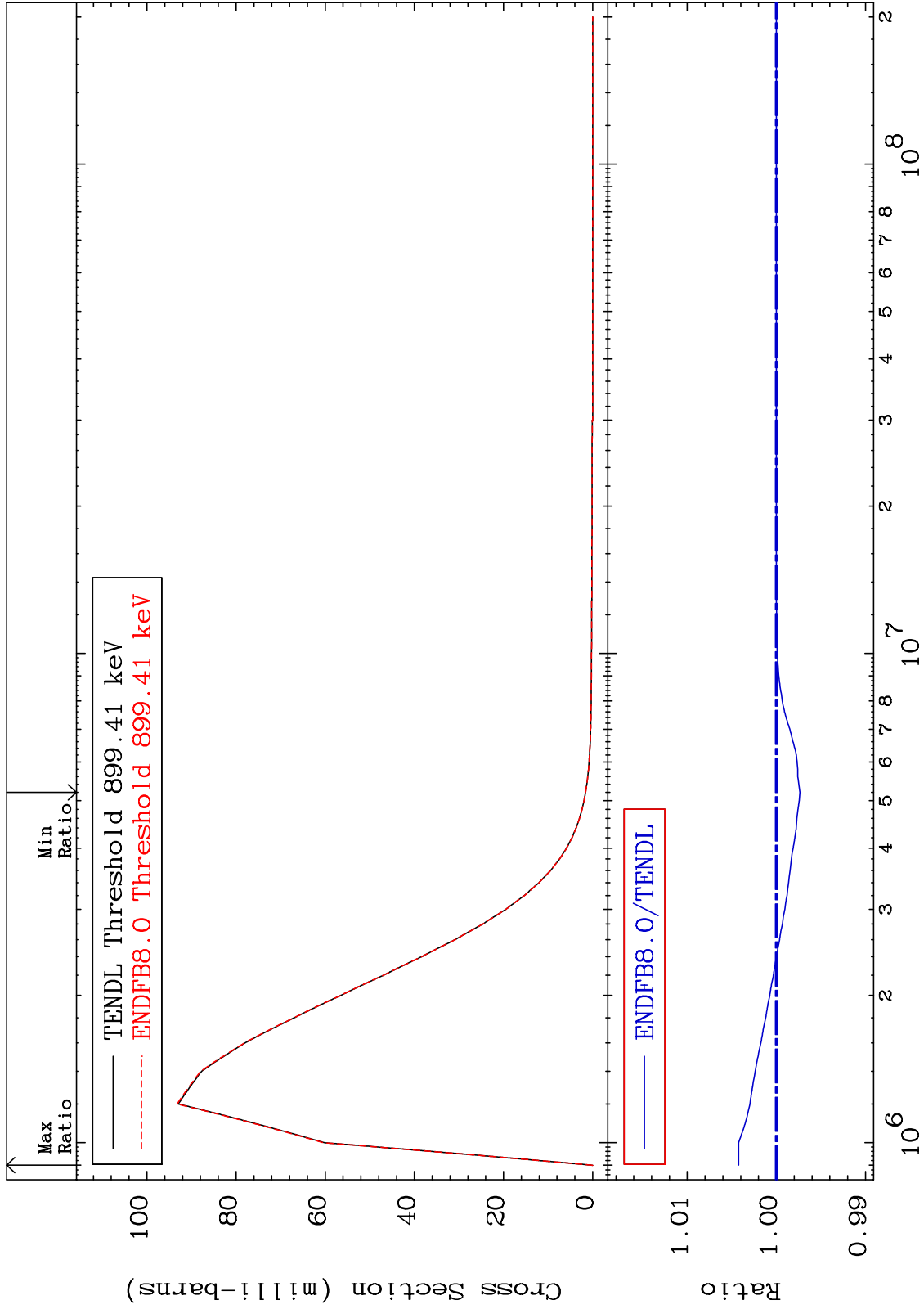
Incident Energy (eV)

48-Cd-109

MAT 4834

MT= 61 (n,n') Level
Cross Section

48-Cd-109
-0.264 To 0.424 %



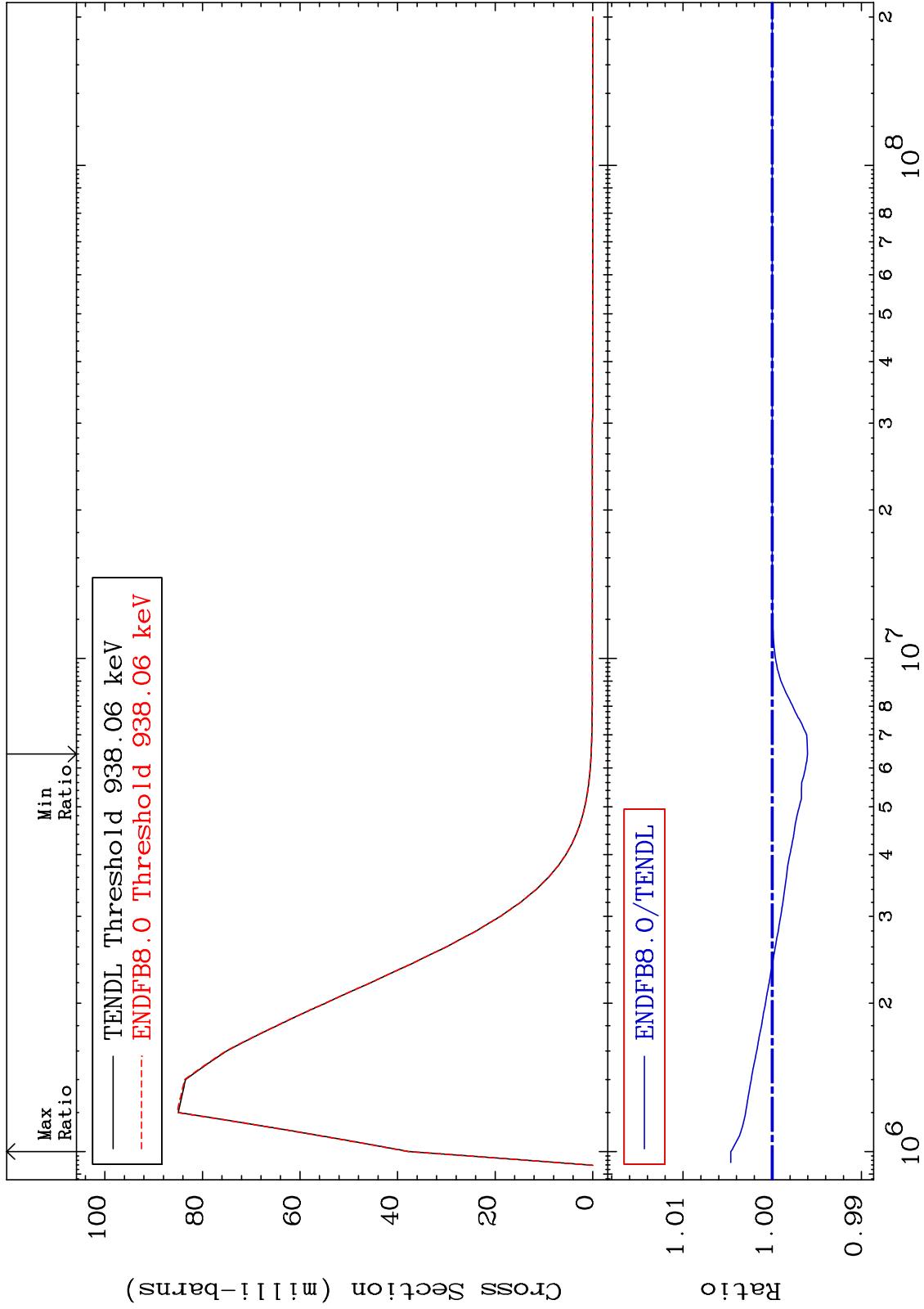
48-Cd-109

48-Cd-109

MAT 4834

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

48-Cd-109
-0.397 To 0.464 %



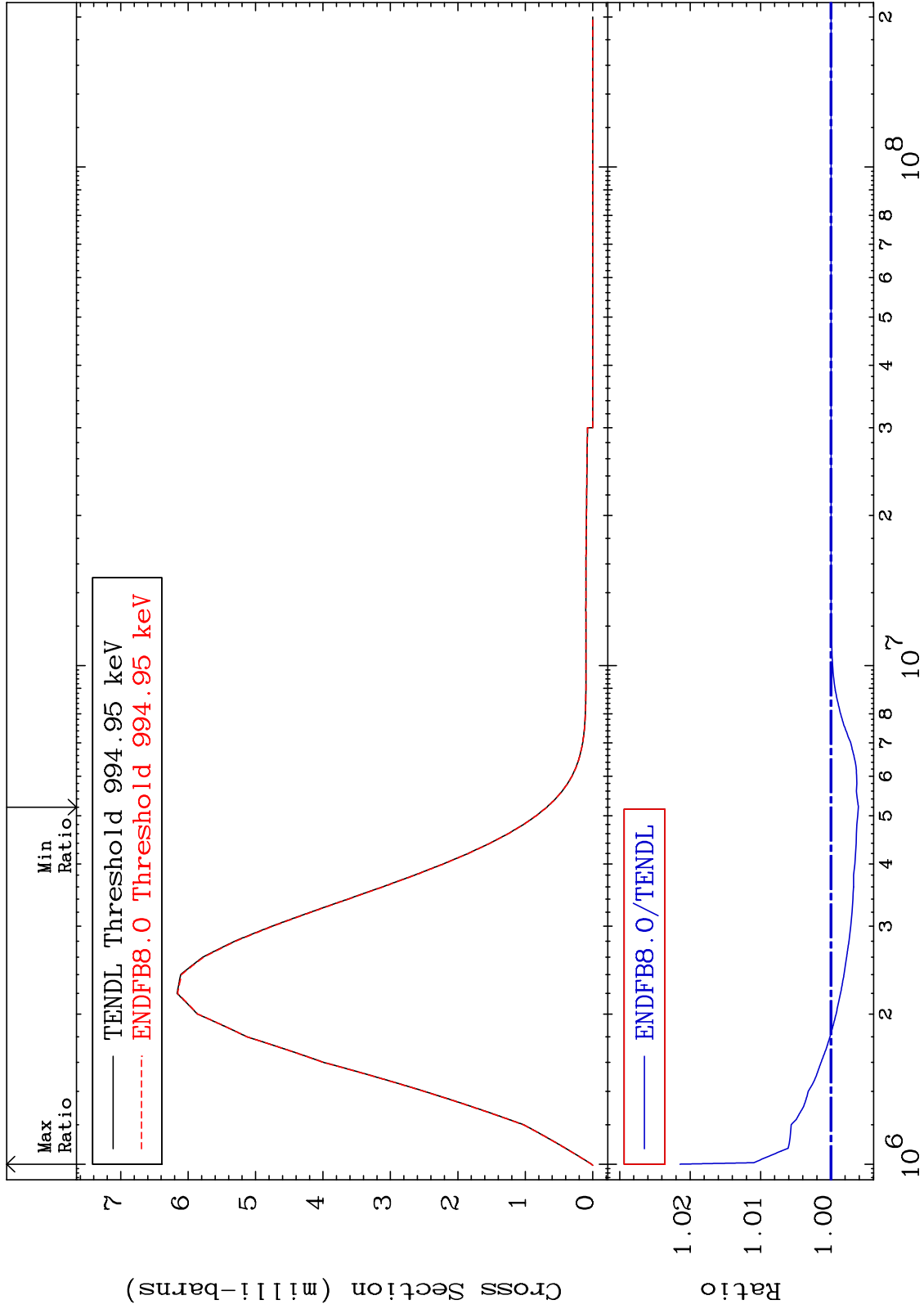
31

48-Cd-109

MAT 4834

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

48-Cd-109
-0.389 To 2.143 %



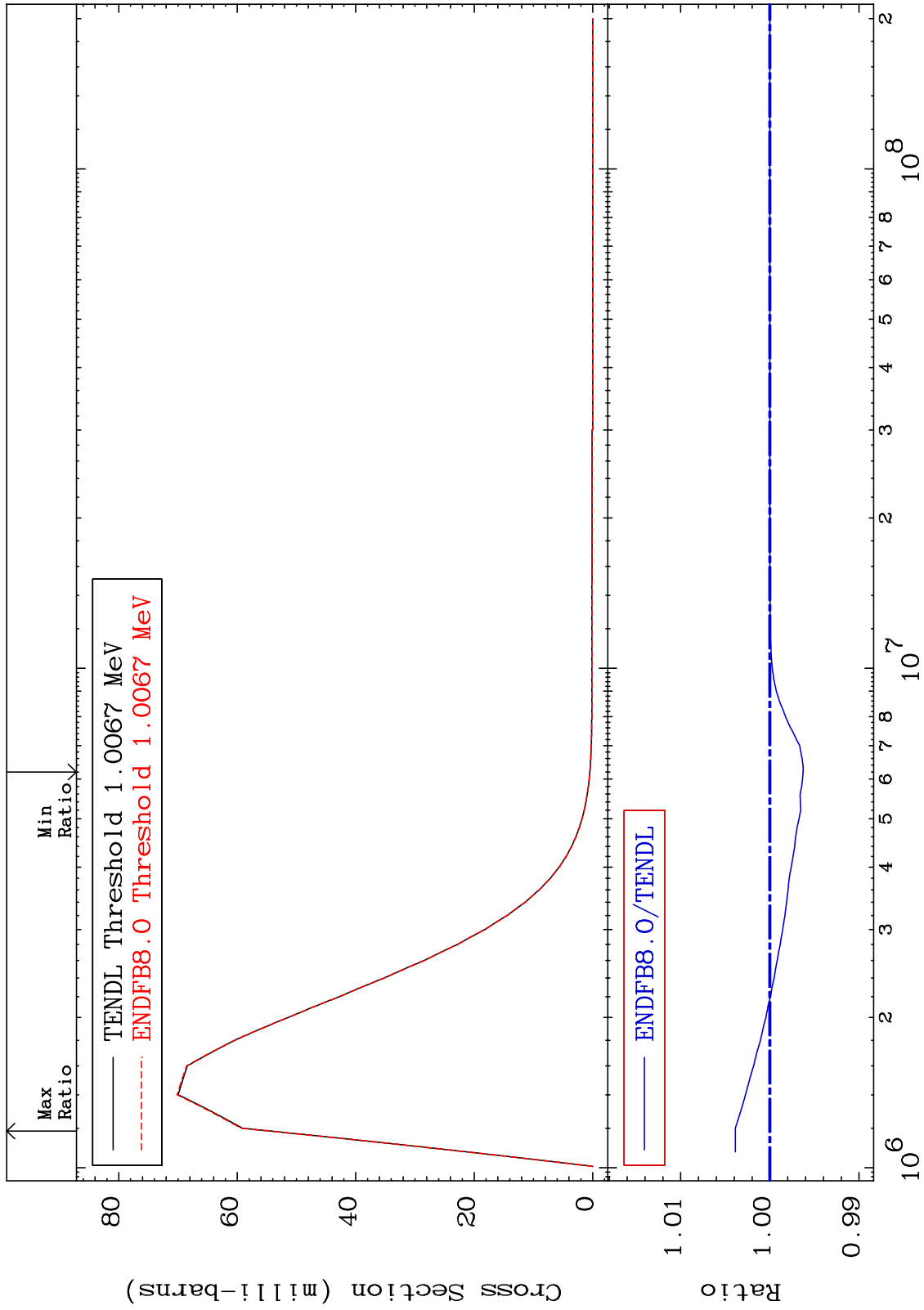
32

48-Cd-109

MAT 4834

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

48-Cd-109
-0.373 To 0.388 %

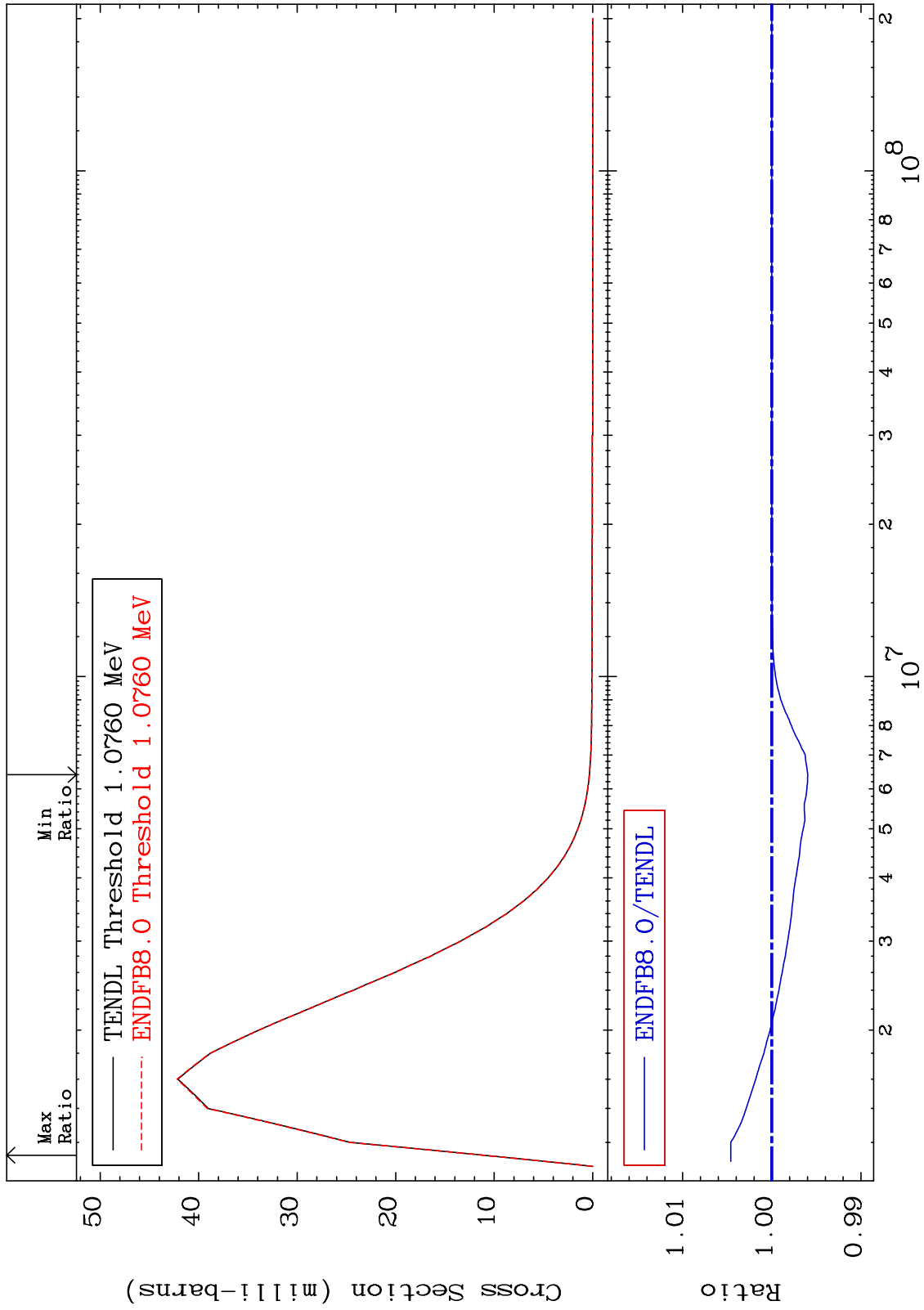


33

Incident Energy (eV)

48-Cd-109

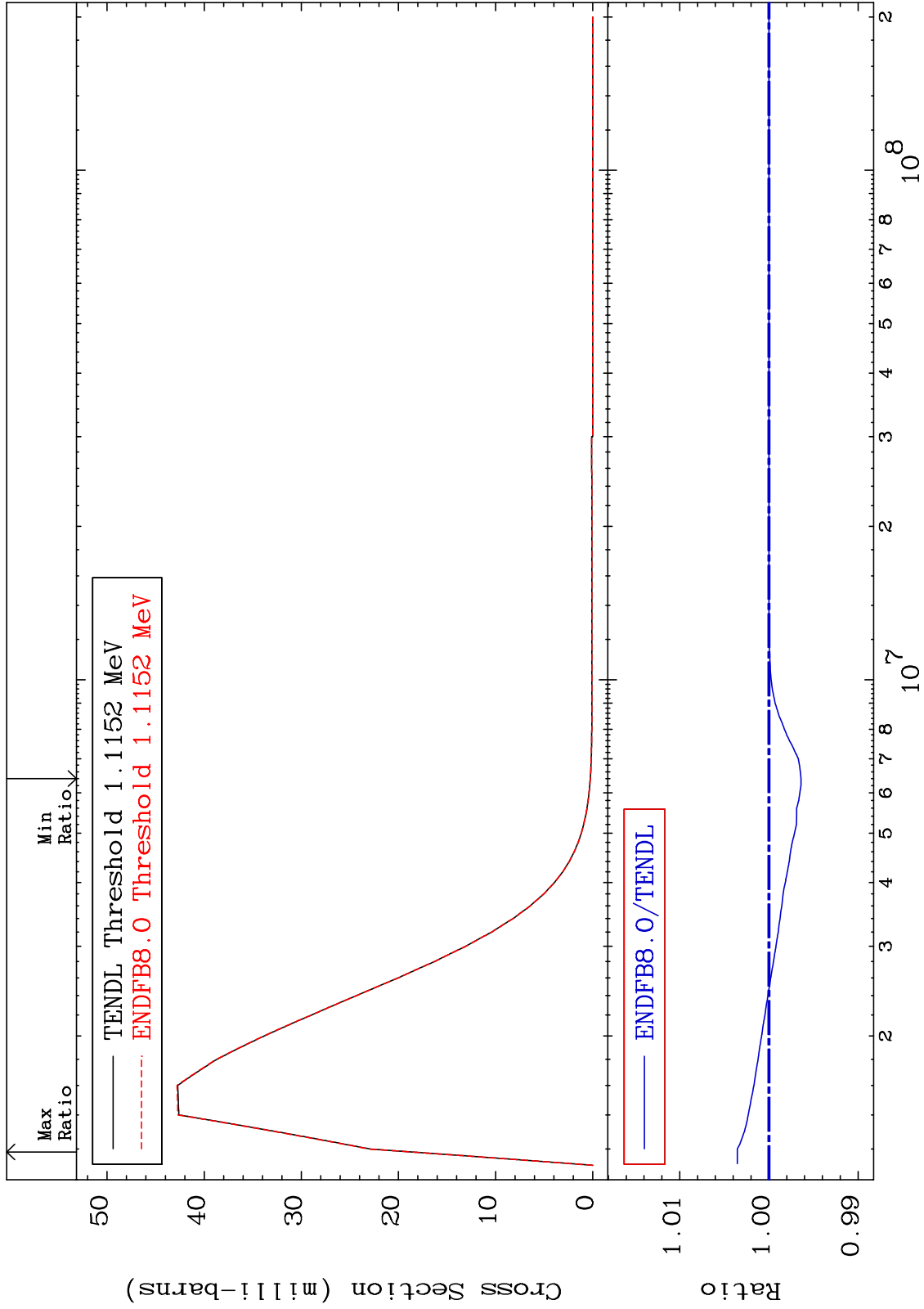
MAT 4834 MT= 65 (n,n') Level
 Cross Section 48-Cd-109
 -0.402 To 0.461 %



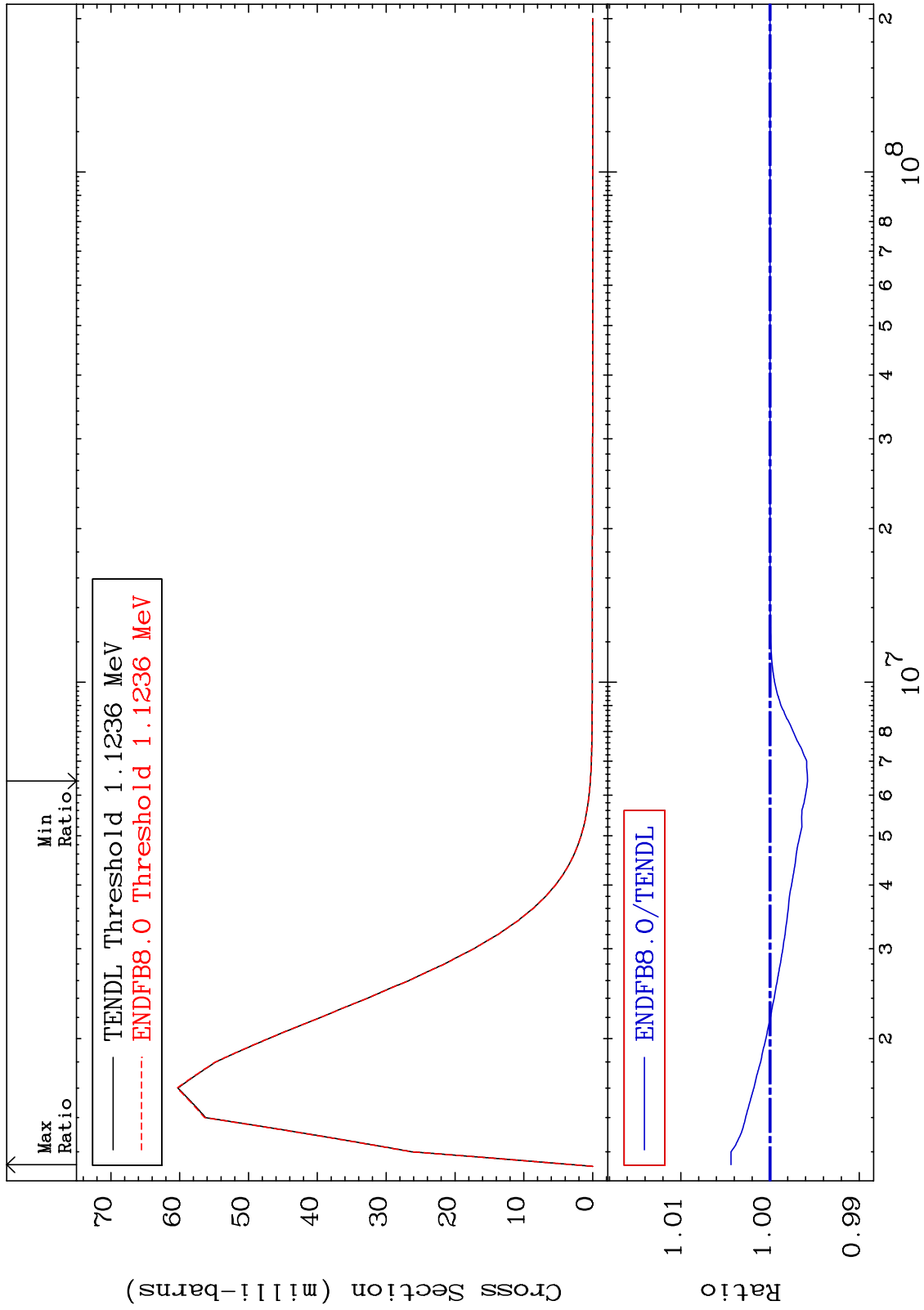
MAT 4834

MT= 66 (n,n') Level
Cross Section

48-Cd-109
-0.360 To 0.354 %



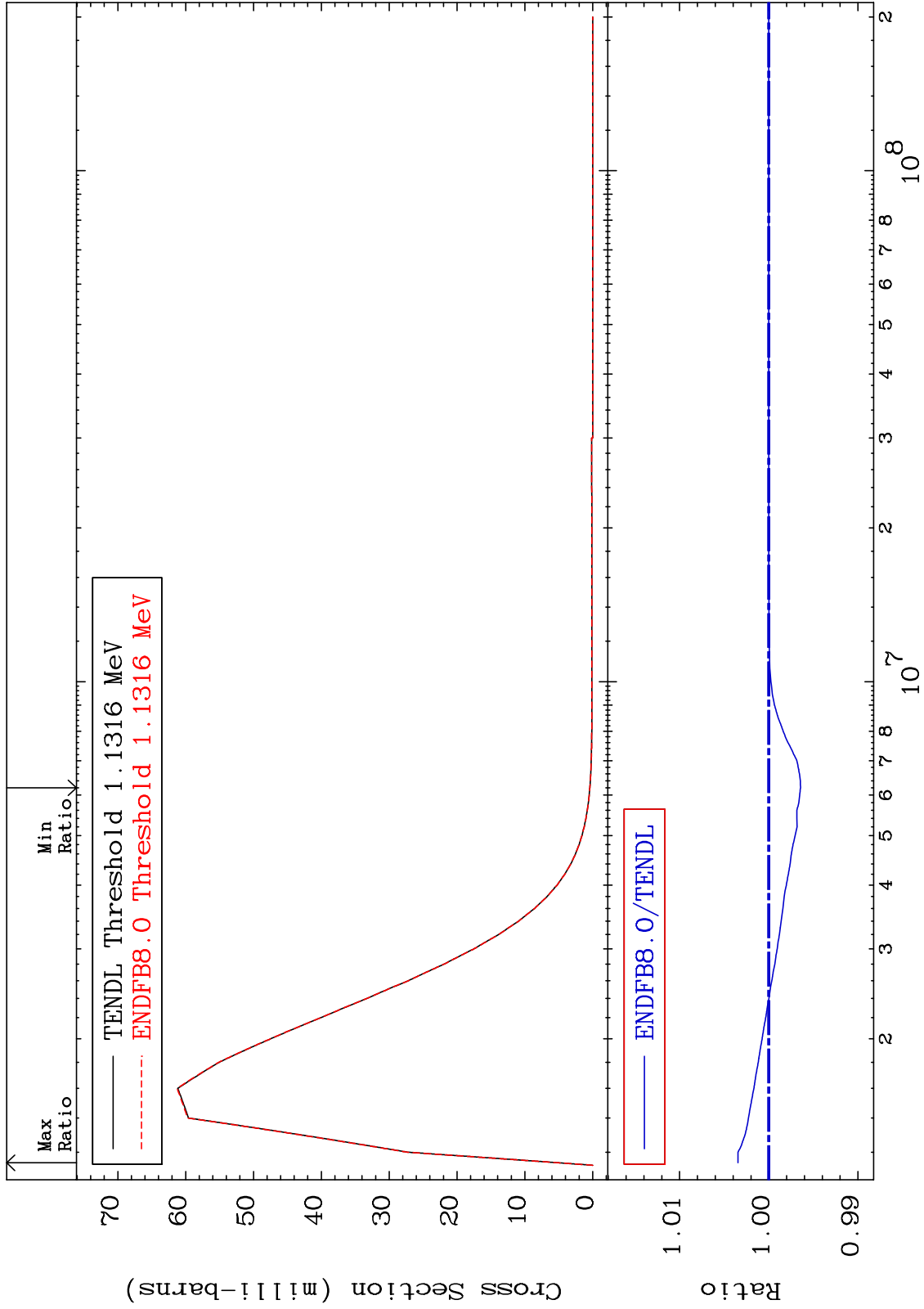
MAT 4834 MT= 67 (n,n') Level Cross Section 48-Cd-109
 -0.420 To 0.437 %



MAT 4834

MT= 68 (n,n') Level
Cross Section

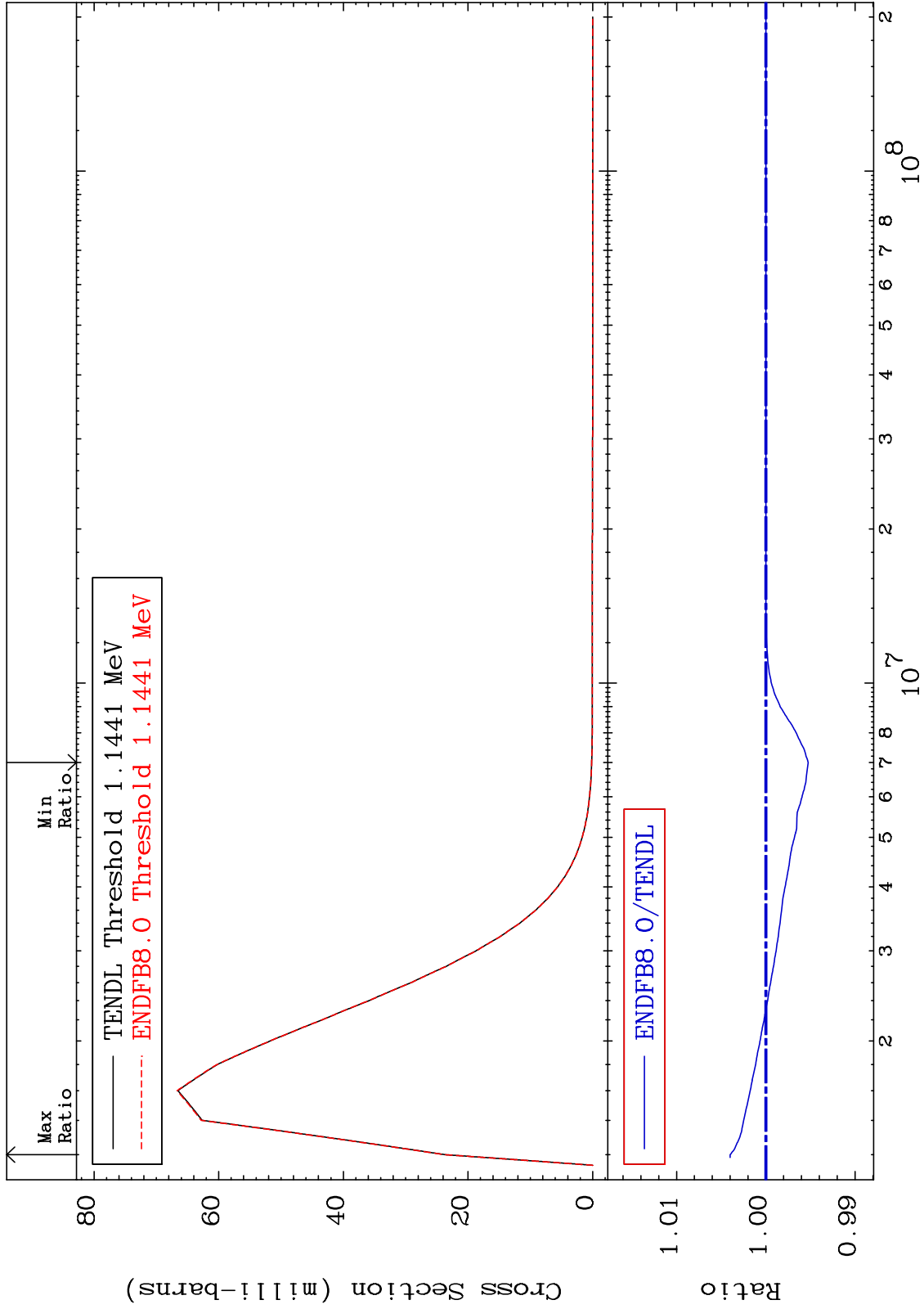
48-Cd-109
-0.355 To 0.346 %



MAT 4834

MT= 69 (n,n') Level
Cross Section

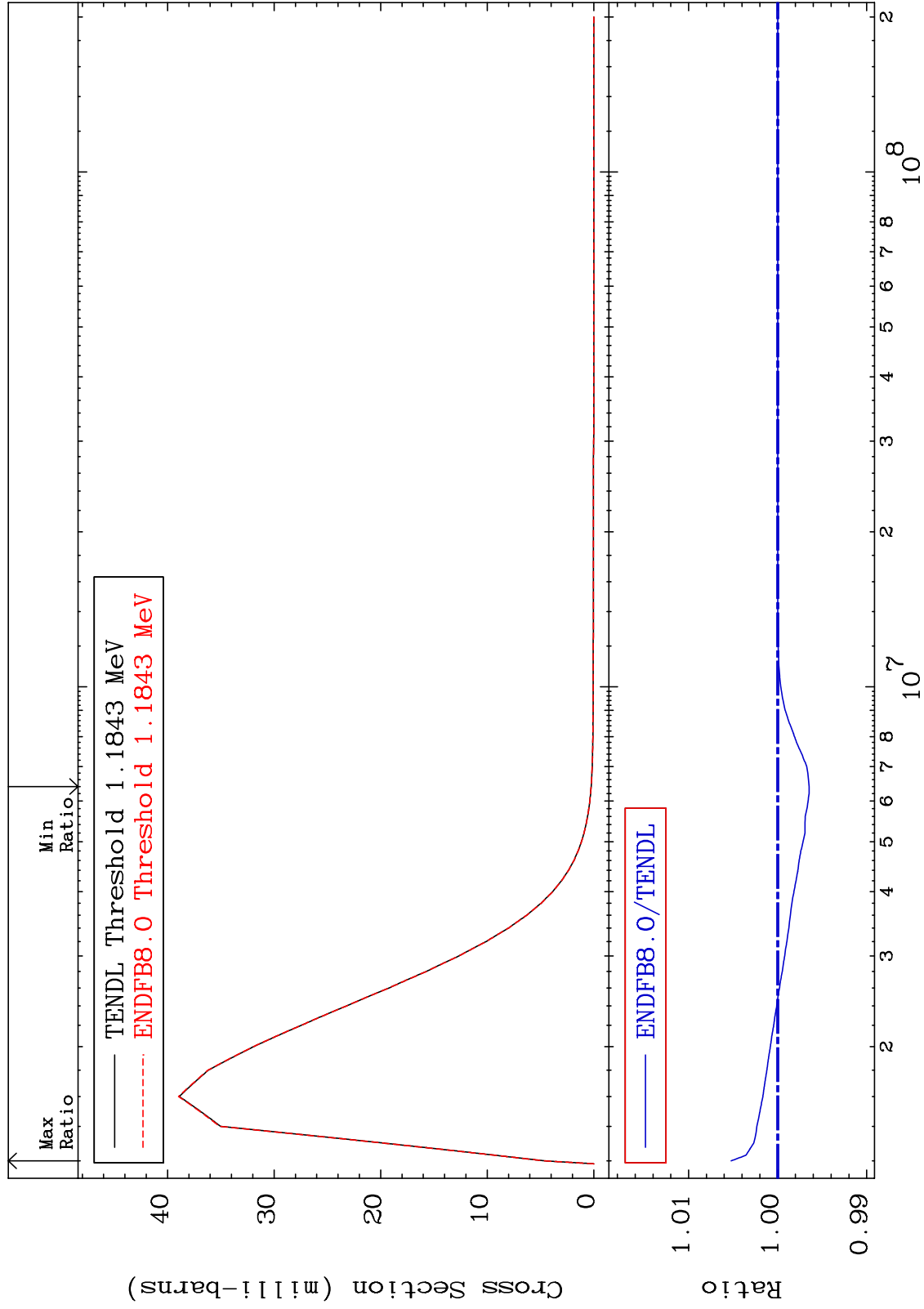
48-Cd-109
-0.475 To 0.399 %



MAT 4834

MT= 70 (n,n') Level
Cross Section

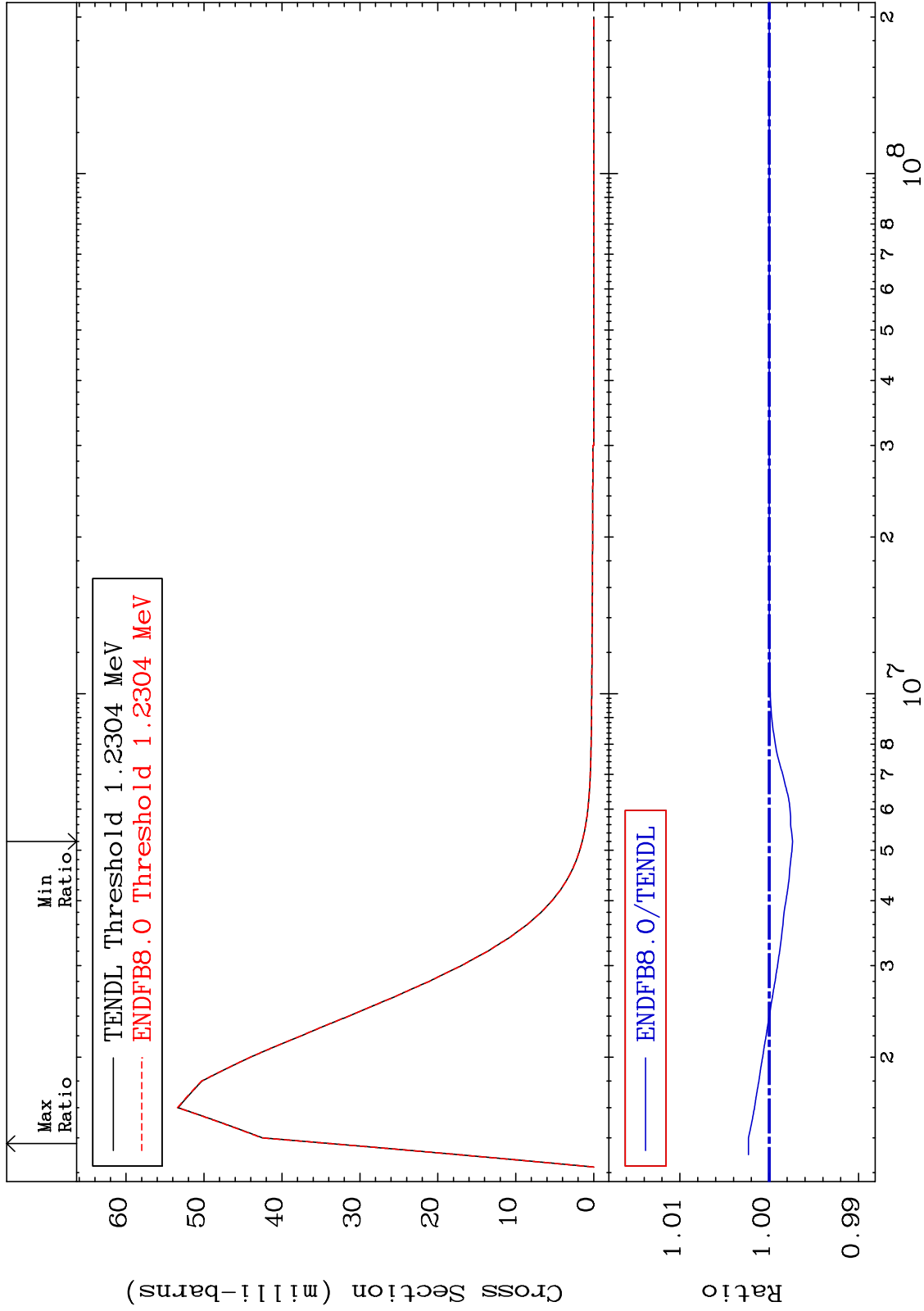
48-Cd-109
-0.354 To 0.522 %



MAT 4834

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

48-Cd-109
-0.262 To 0.233 %



40

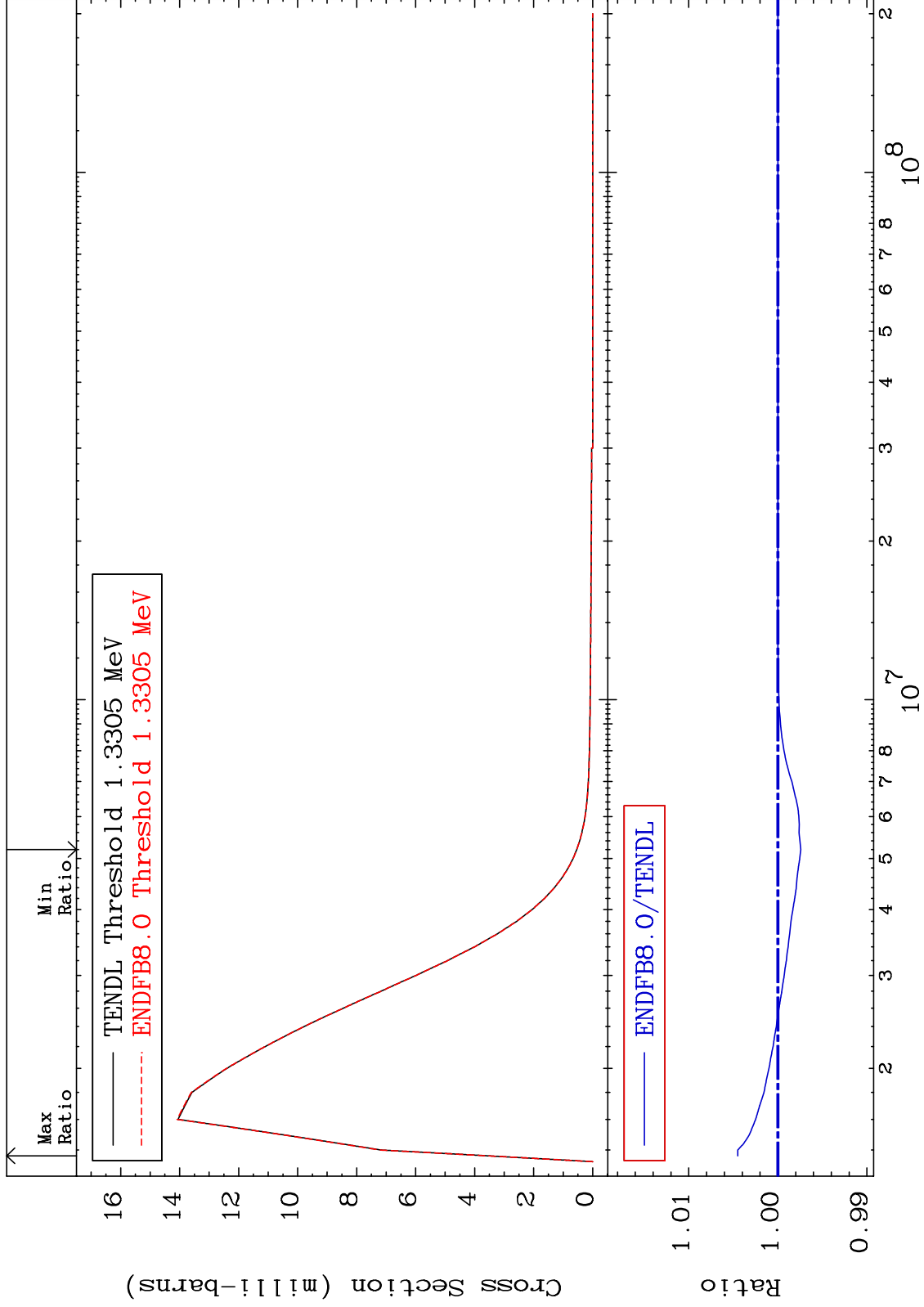
Incident Energy (eV)

48-Cd-109

MAT 4834

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

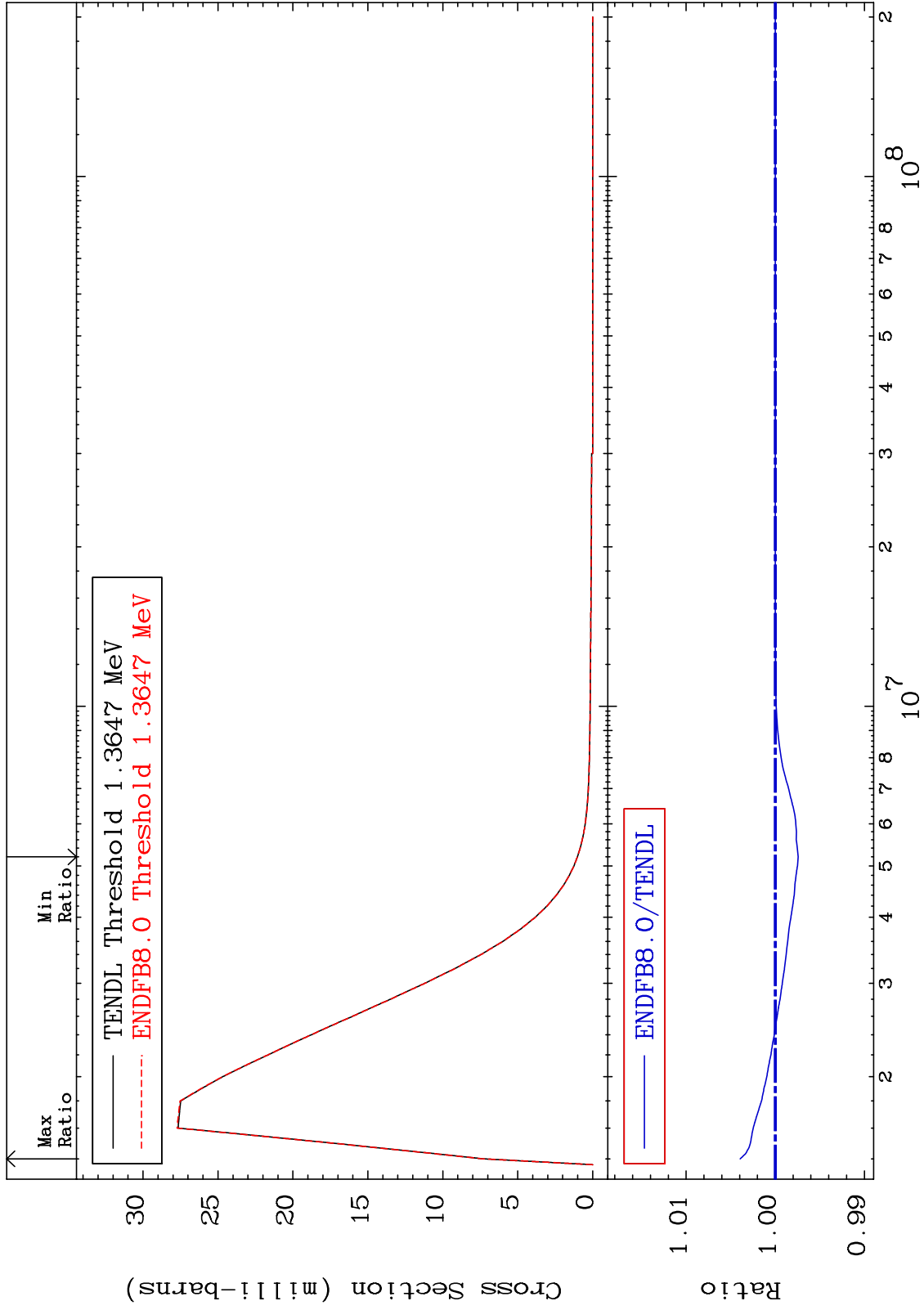
48-Cd-109
-0.257 To 0.451 %



MAT 4834

MT= 73 (n,n') Level
Cross Section

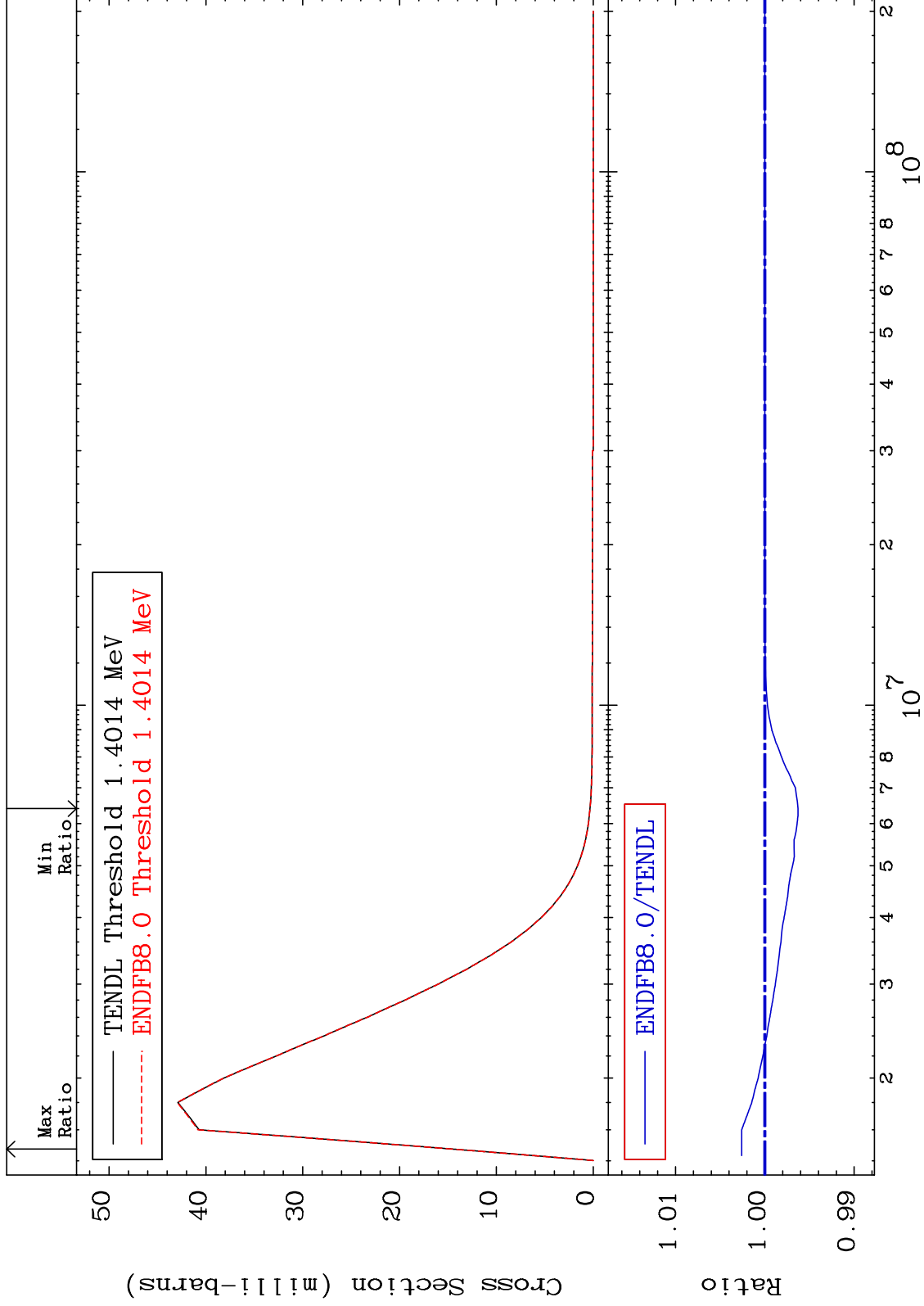
48-Cd-109
-0.257 To 0.393 %



MAT 4834

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

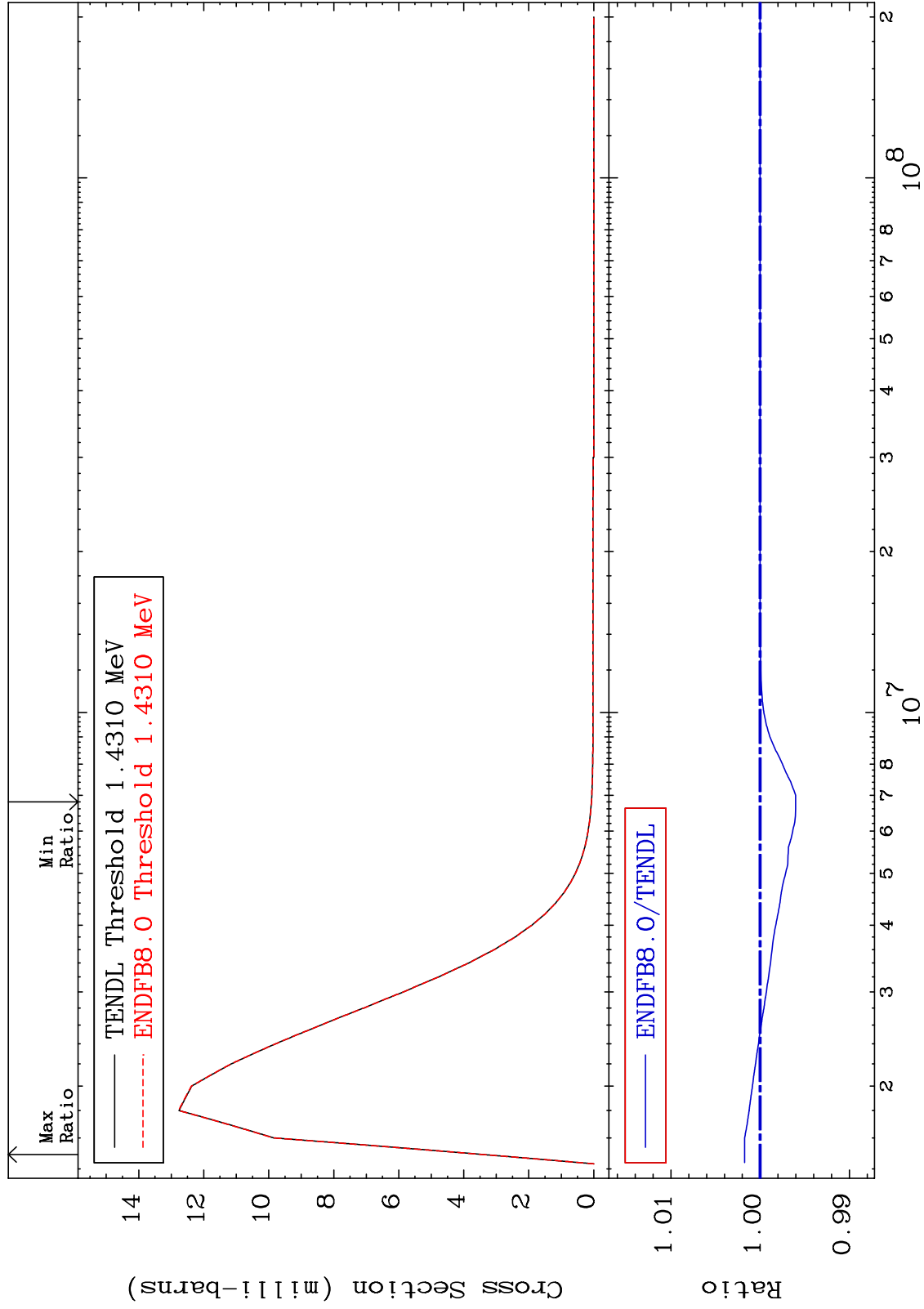
48-Cd-109
-0.372 To 0.259 %



MAT 4834

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

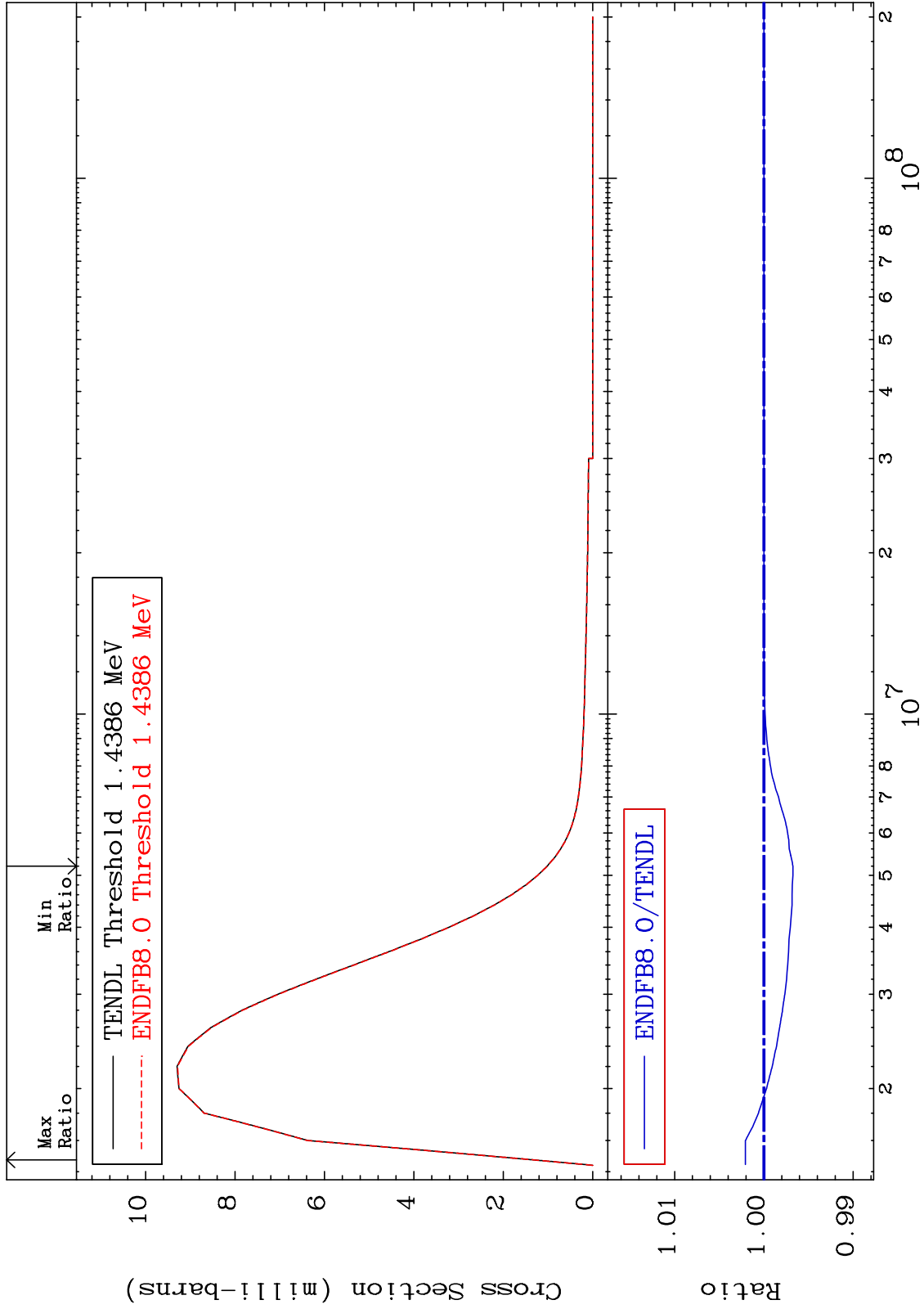
48-Cd-109
-0.398 To 0.174 %



MAT 4834

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

48-Cd-109
-0.327 To 0.207 %



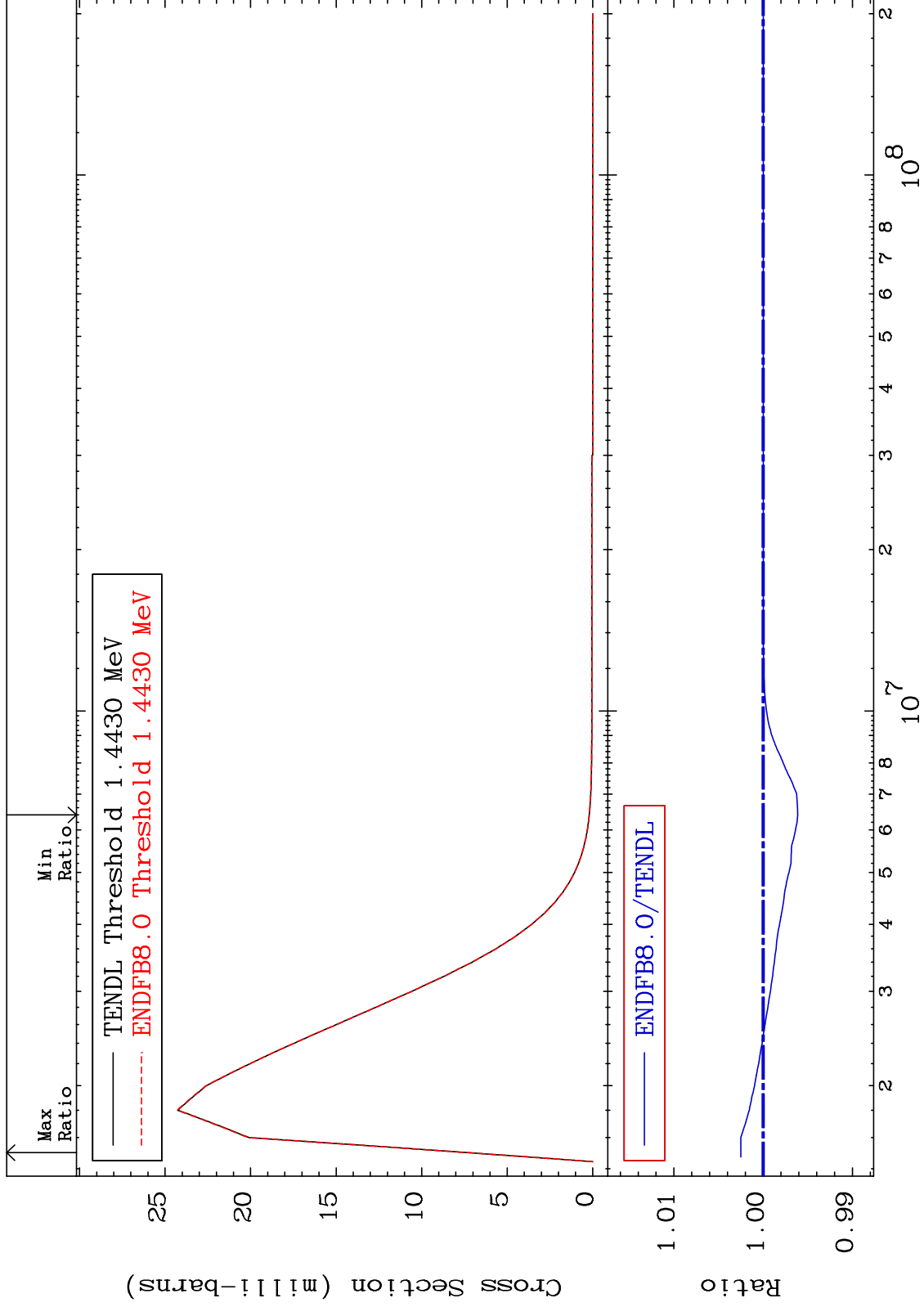
45

48-Cd-109

MAT 4834

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

48-Cd-109
-0.386 To 0.251 %



46

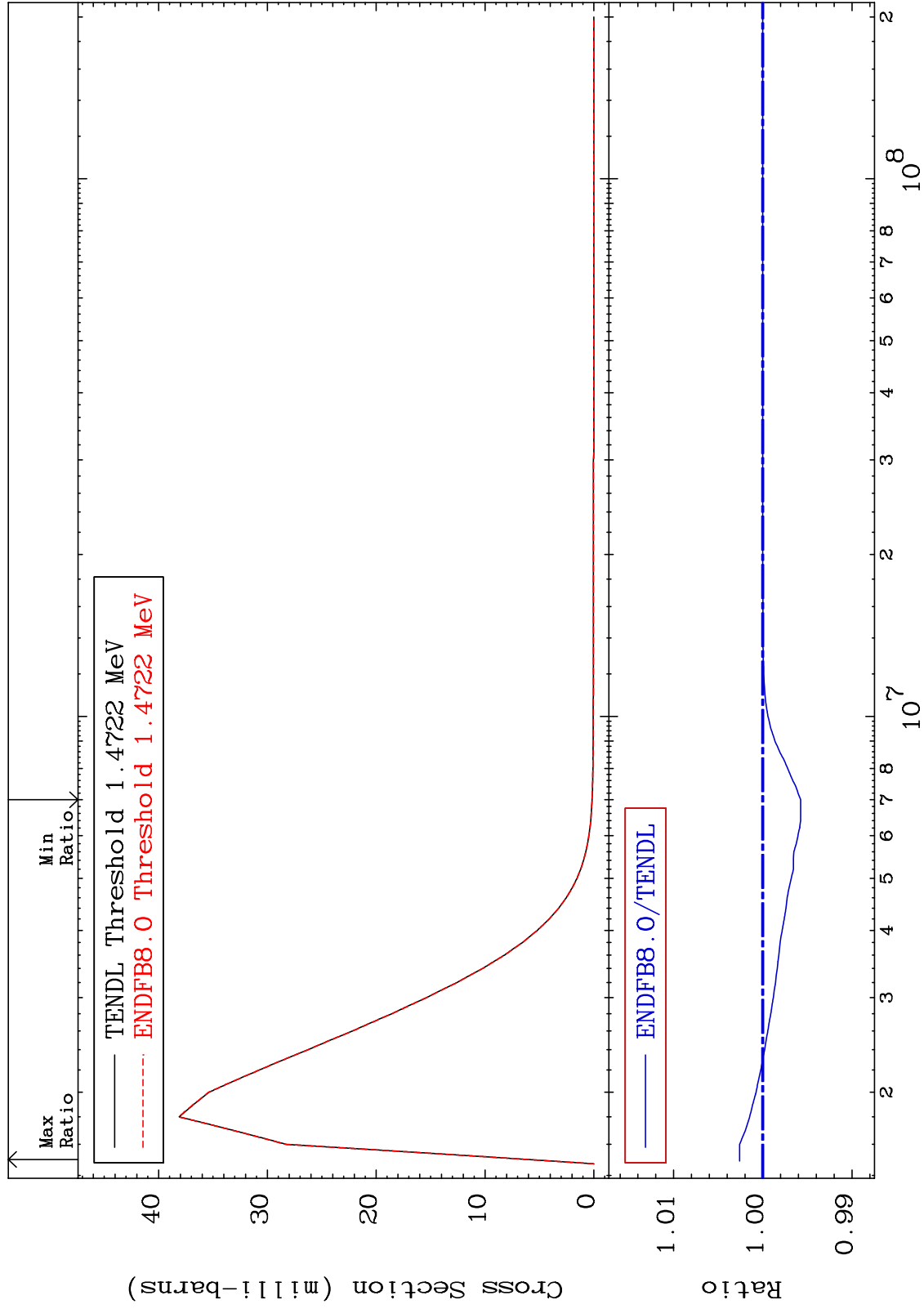
Incident Energy (eV)

48-Cd-109

MAT 4834

MT= 78 (n,n') Level
Cross Section

48-Cd-109
-0.425 To 0.260 %



47

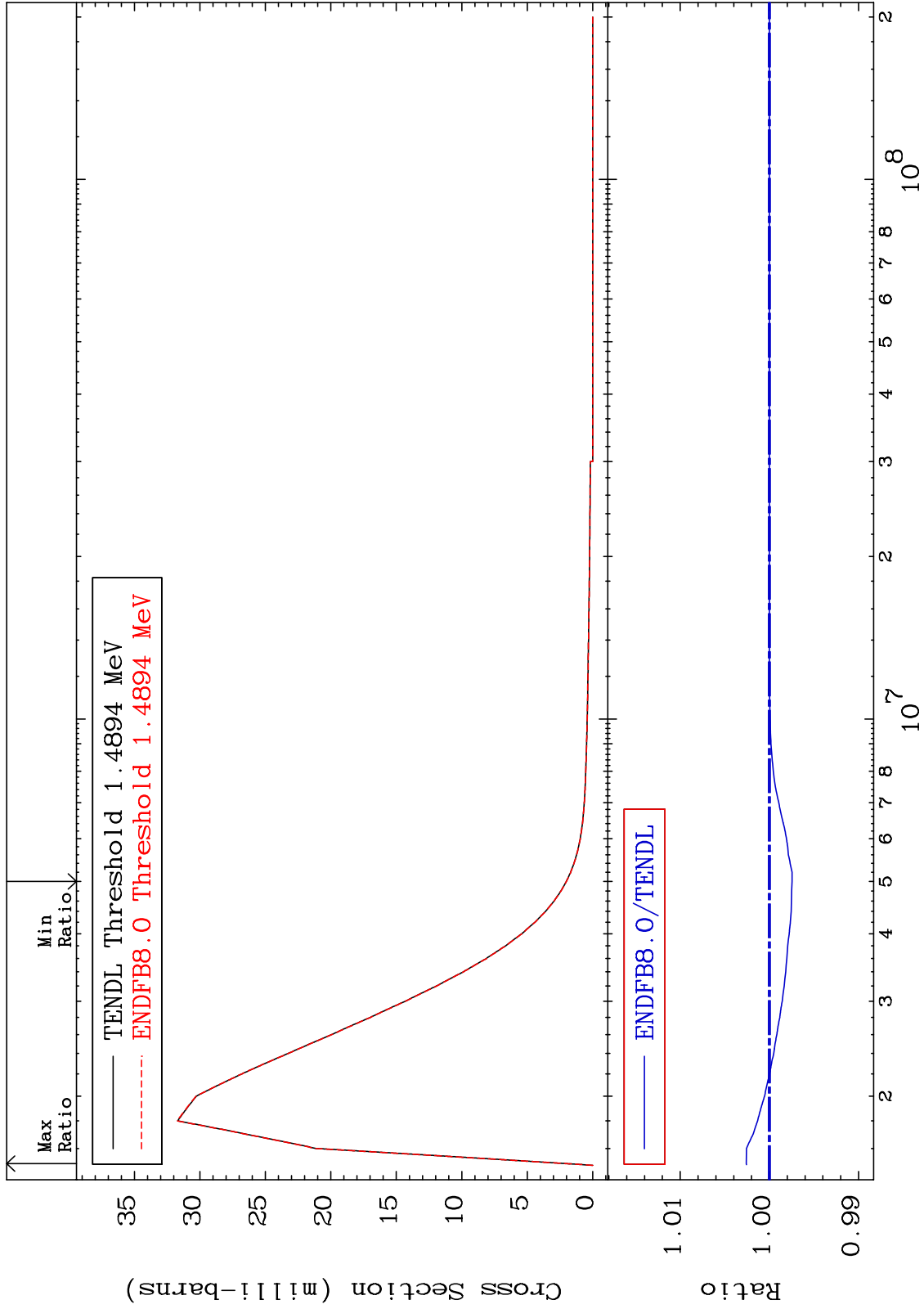
Incident Energy (eV)

48-Cd-109

MAT 4834

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

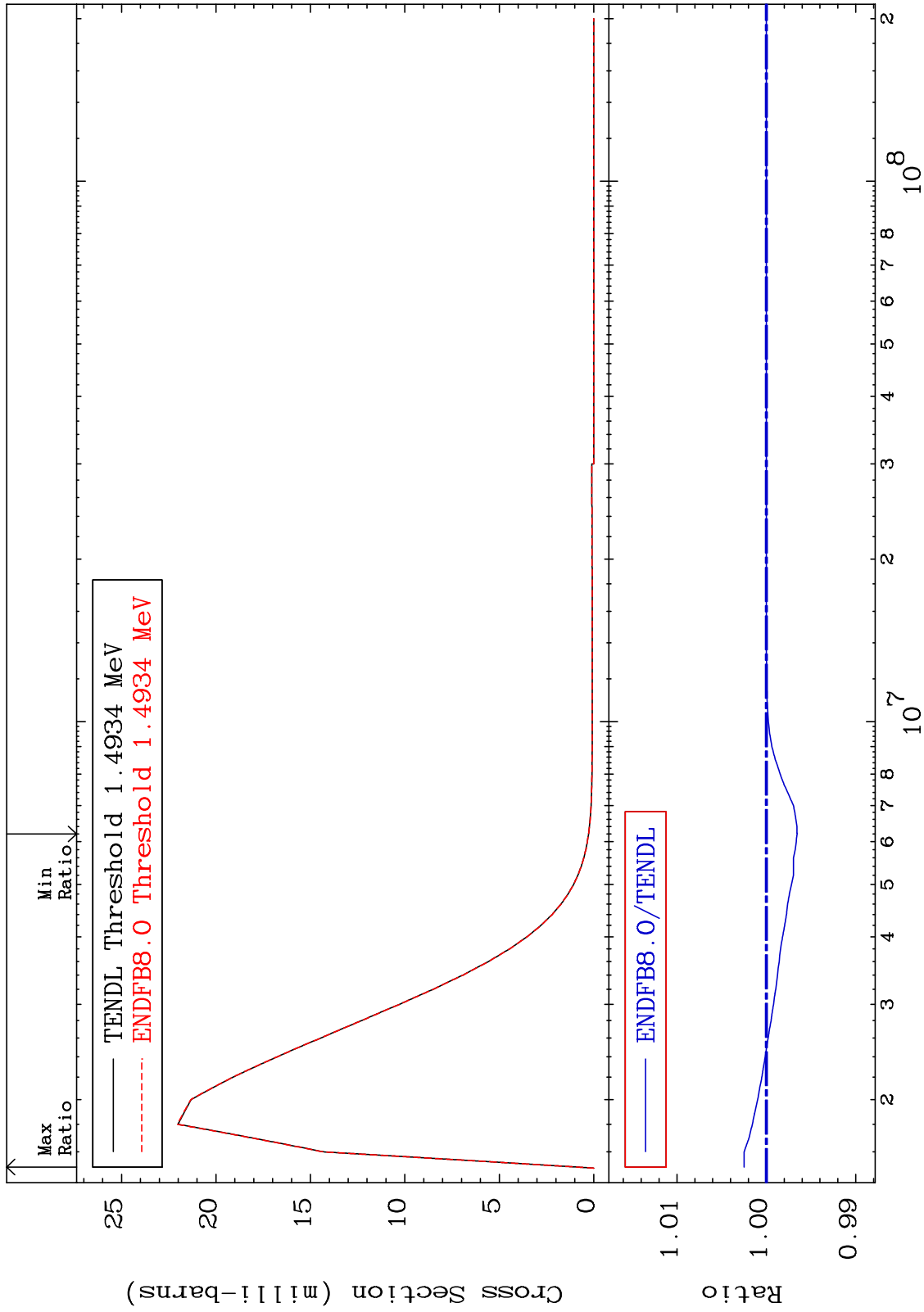
48-Cd-109
-0.254 To 0.258 %



MAT 4834

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

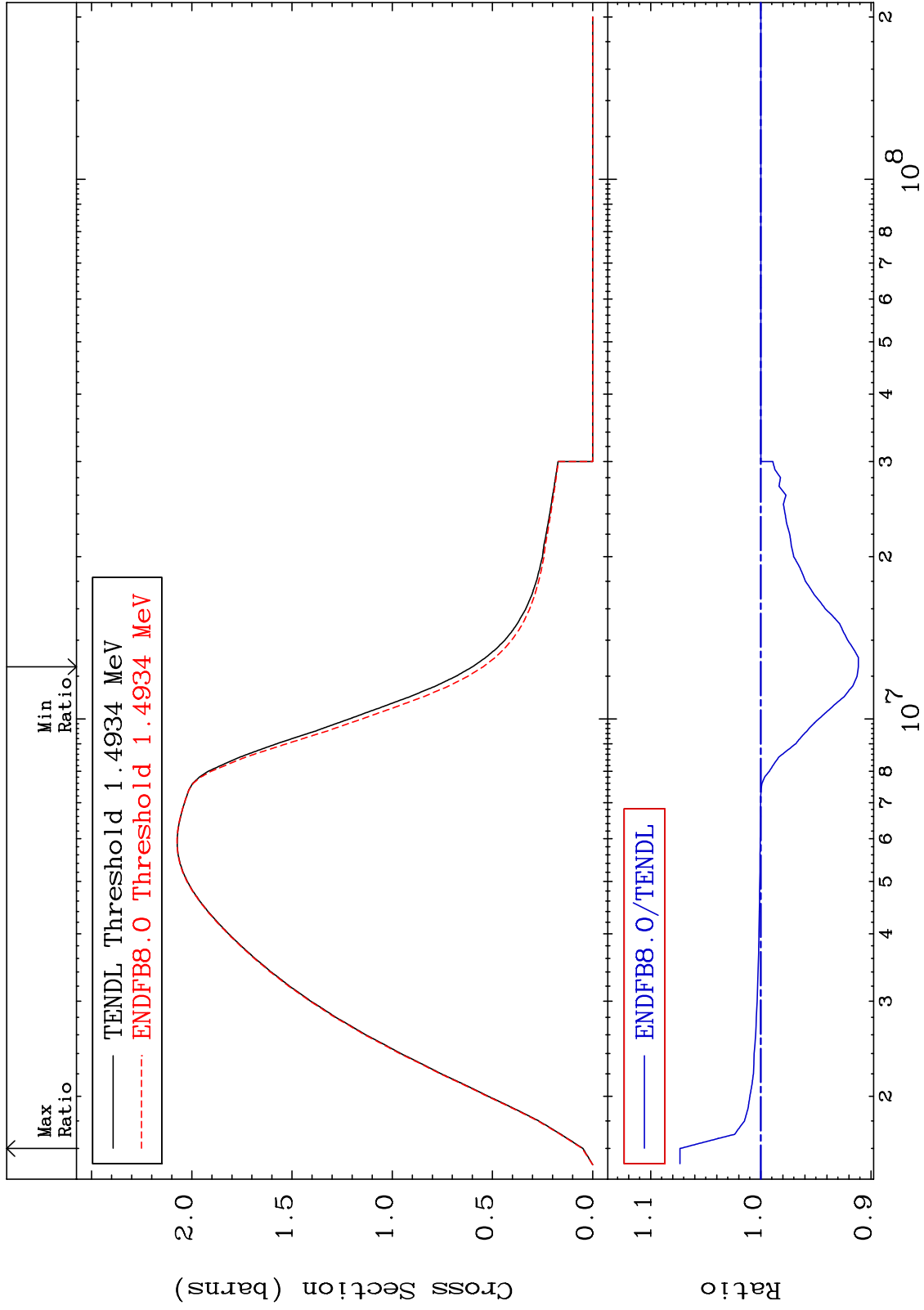
48-Cd-109
-0.344 To 0.249 %



MAT 4834

(n,n') Continuum
Cross Section

48-Cd-109
-8.862 To 7.337 %



50

Incident Energy (eV)

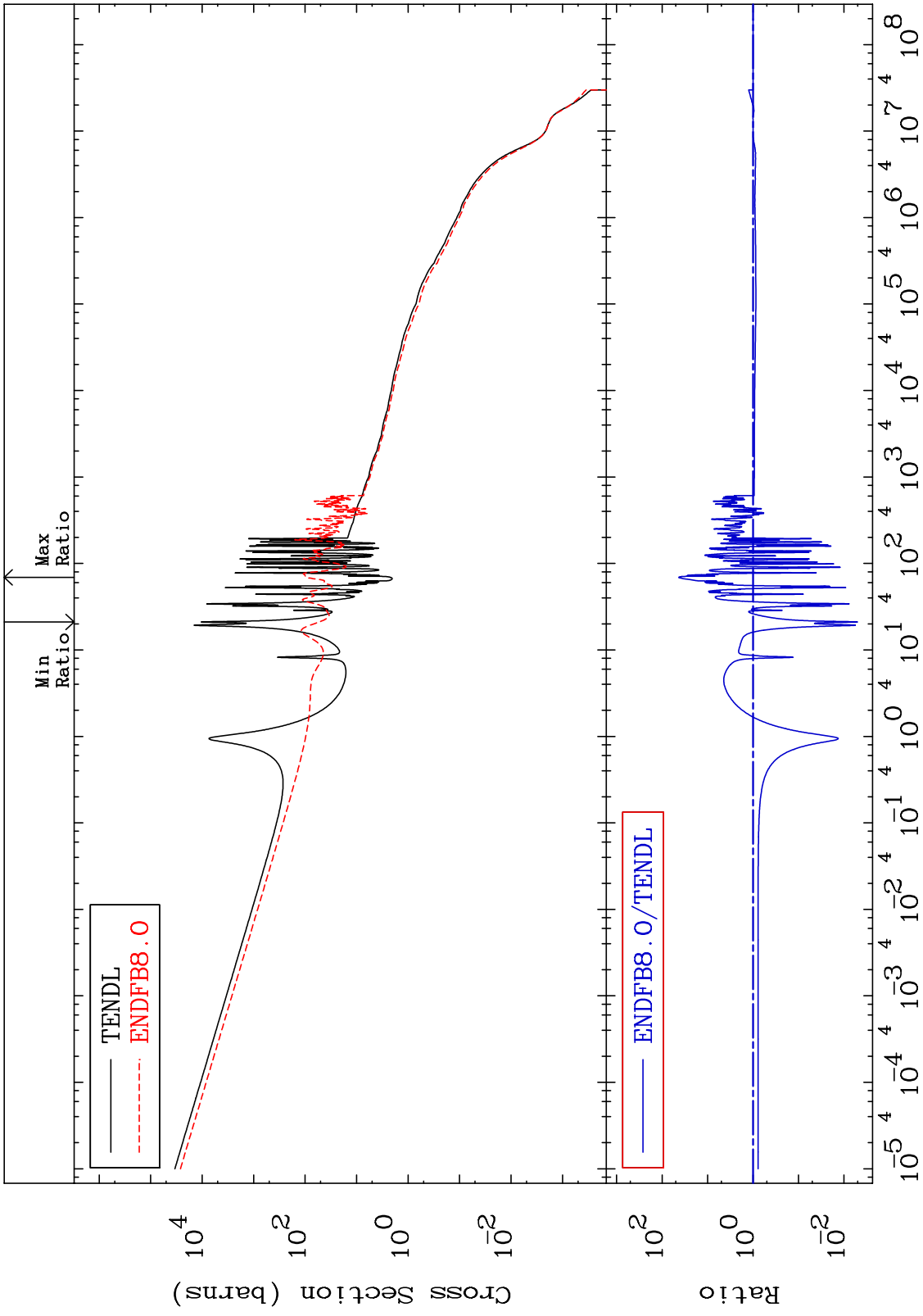
48-Cd-109

MAT 4834

48-Cd-109

-99.49 To 4232. %

(n, γ)
Cross Section



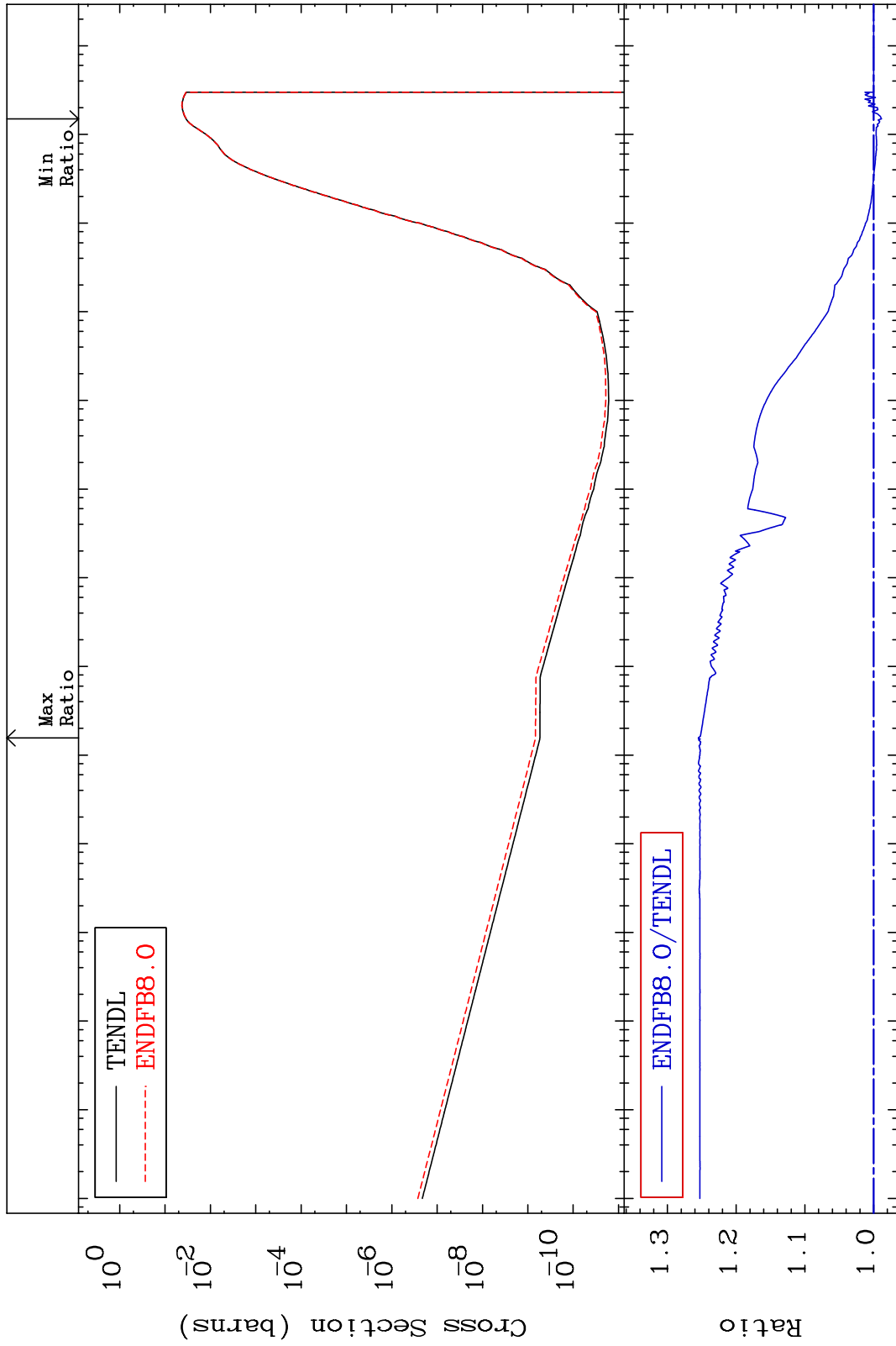
MAT 4834

(n,p)

48-Cd-109

Cross Section

-1.152 To 25.51 %



Incident Energy (eV)

52

48-Cd-109

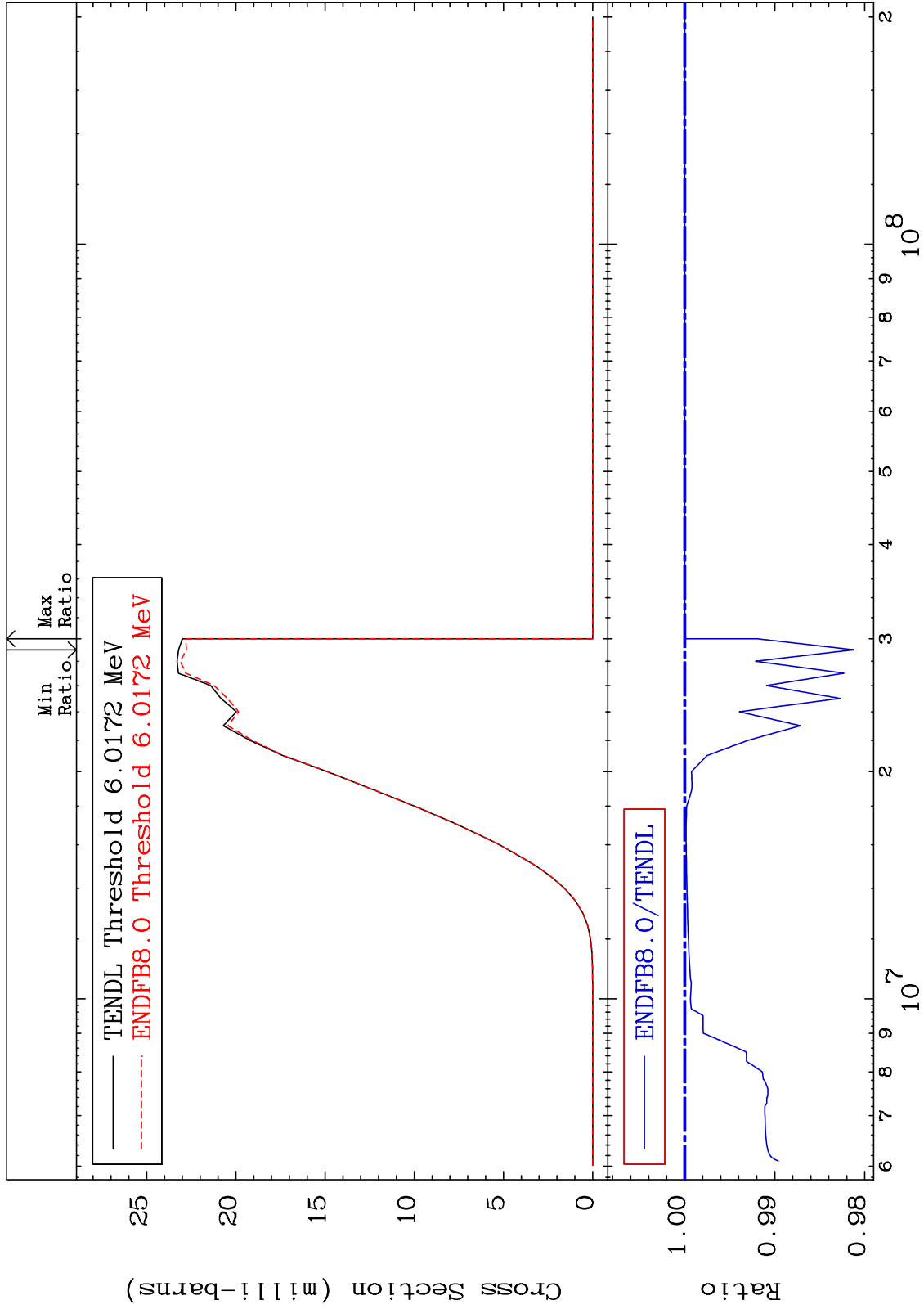
MAT 4834

(n, d)

48-Cd-109

-1.878 To 0.000 %

Cross Section



53

Incident Energy (eV)

48-Cd-109

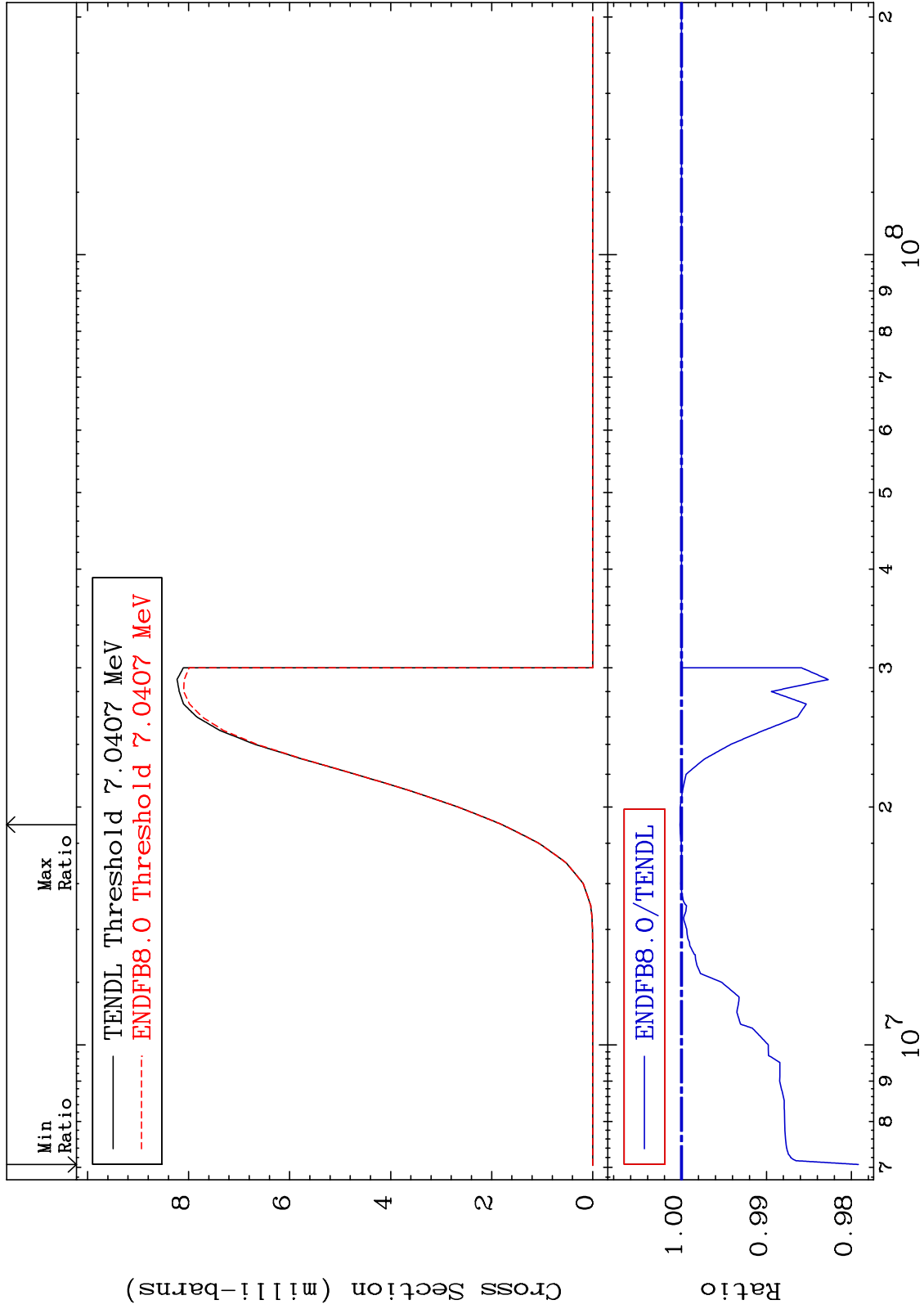
MAT 4834

(n, t)

48-Cd-109

Cross Section

-2.083 To 0.018 %



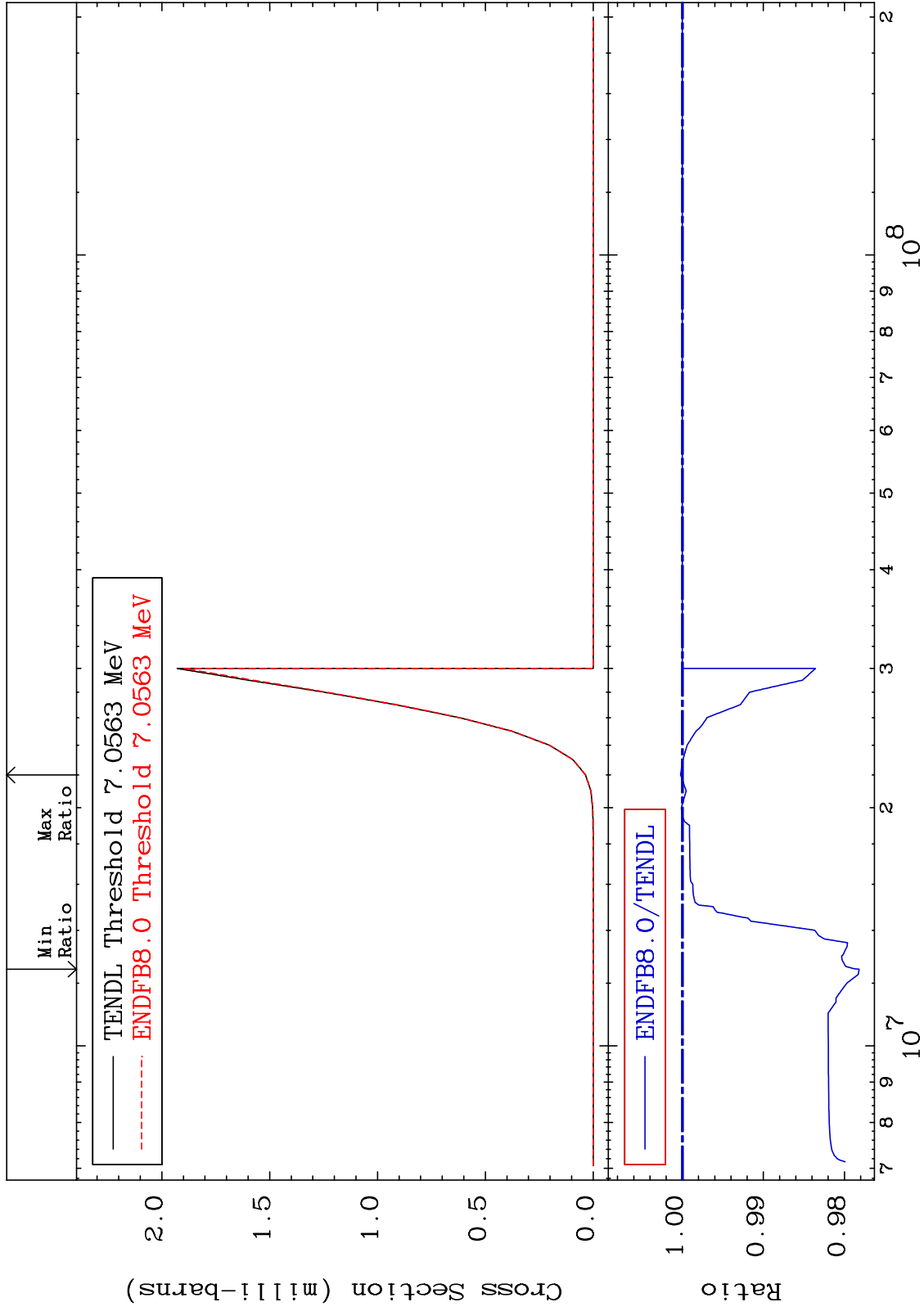
MAT 4834

(n, He-3)

48-Cd-109

Cross Section

-2.182 To 0.021 %



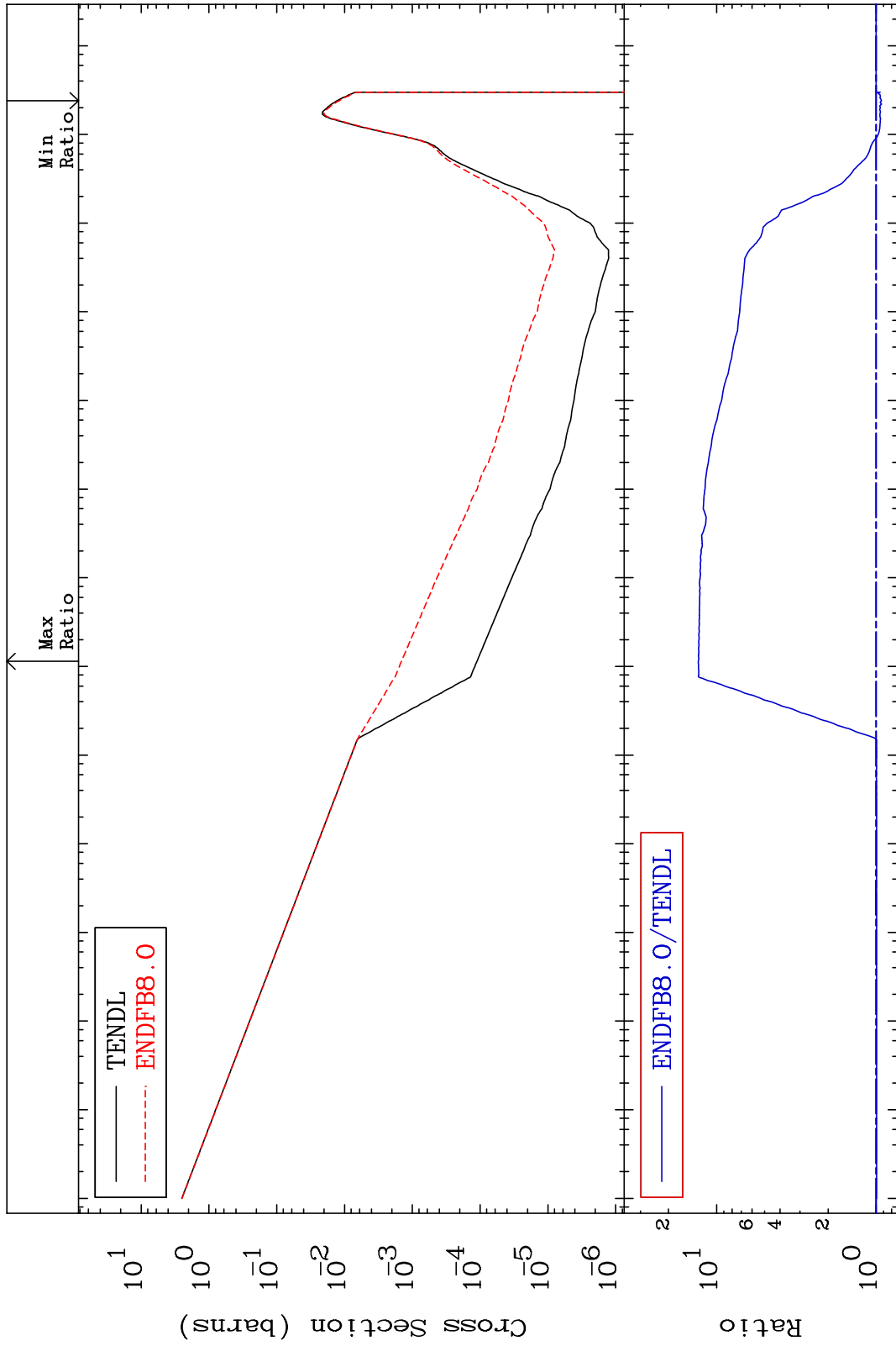
MAT 4834

(n, α)

48-Cd-109

Cross Section

-7.422 To 1201. %



Incident Energy (eV)

48-Cd-109

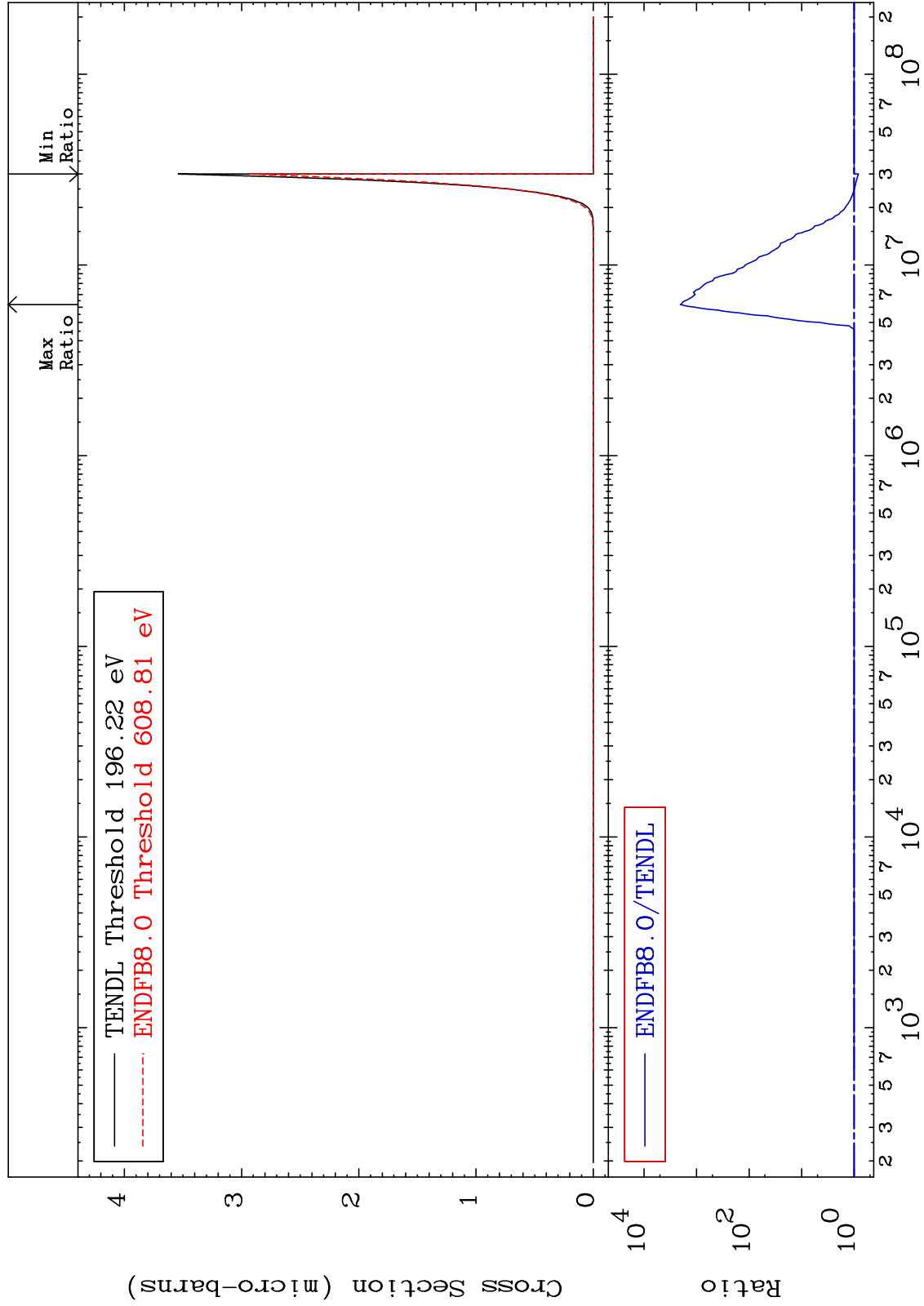
MAT 4834

(n, 2α)

48-Cd-109

Cross Section

-17.26 To 9999. %



57

Incident Energy (eV)

48-Cd-109

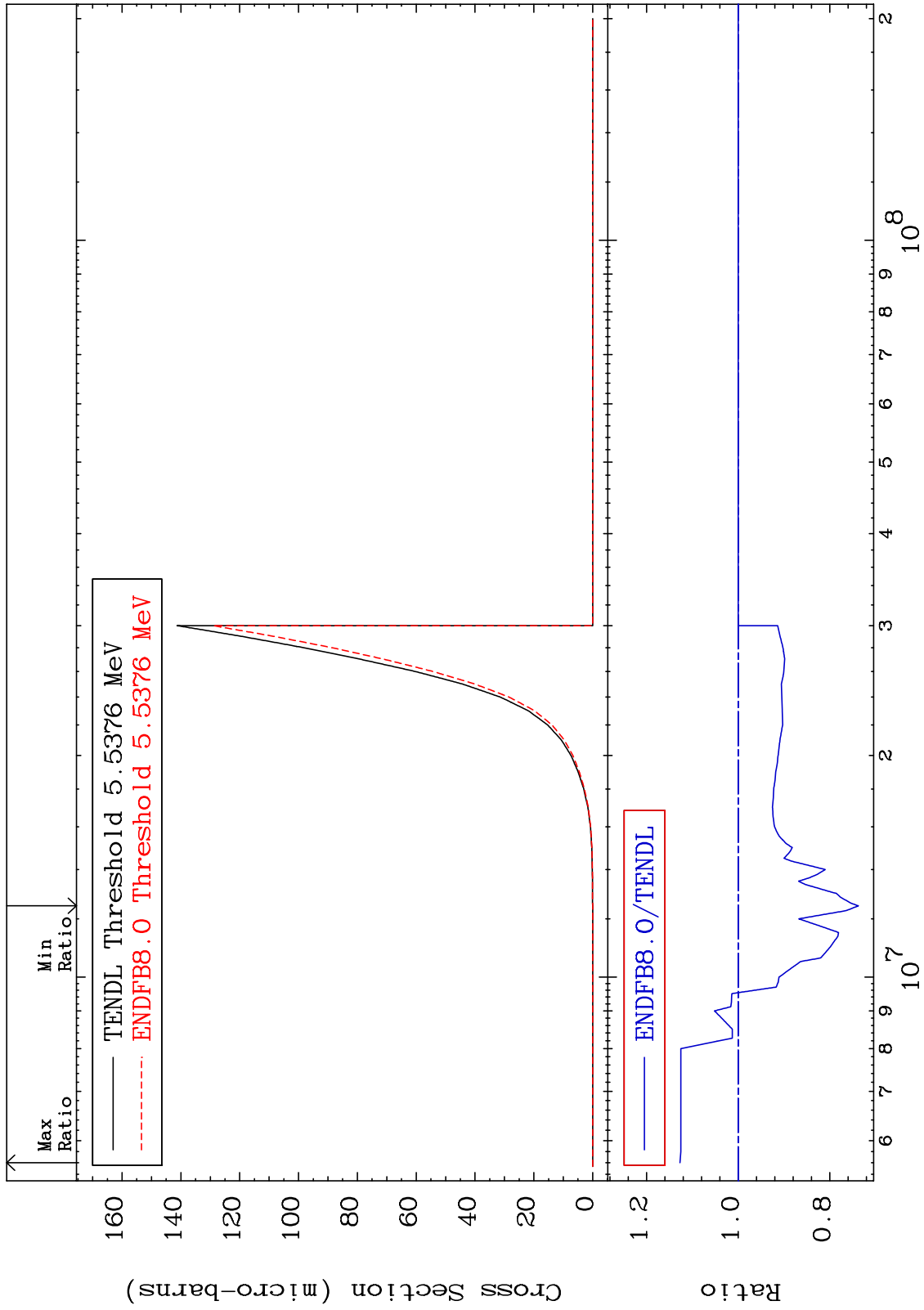
MAT 4834

(n,2p)

48-Cd-109

Cross Section

-26.27 To 12.71 %



58

Incident Energy (eV)

48-Cd-109

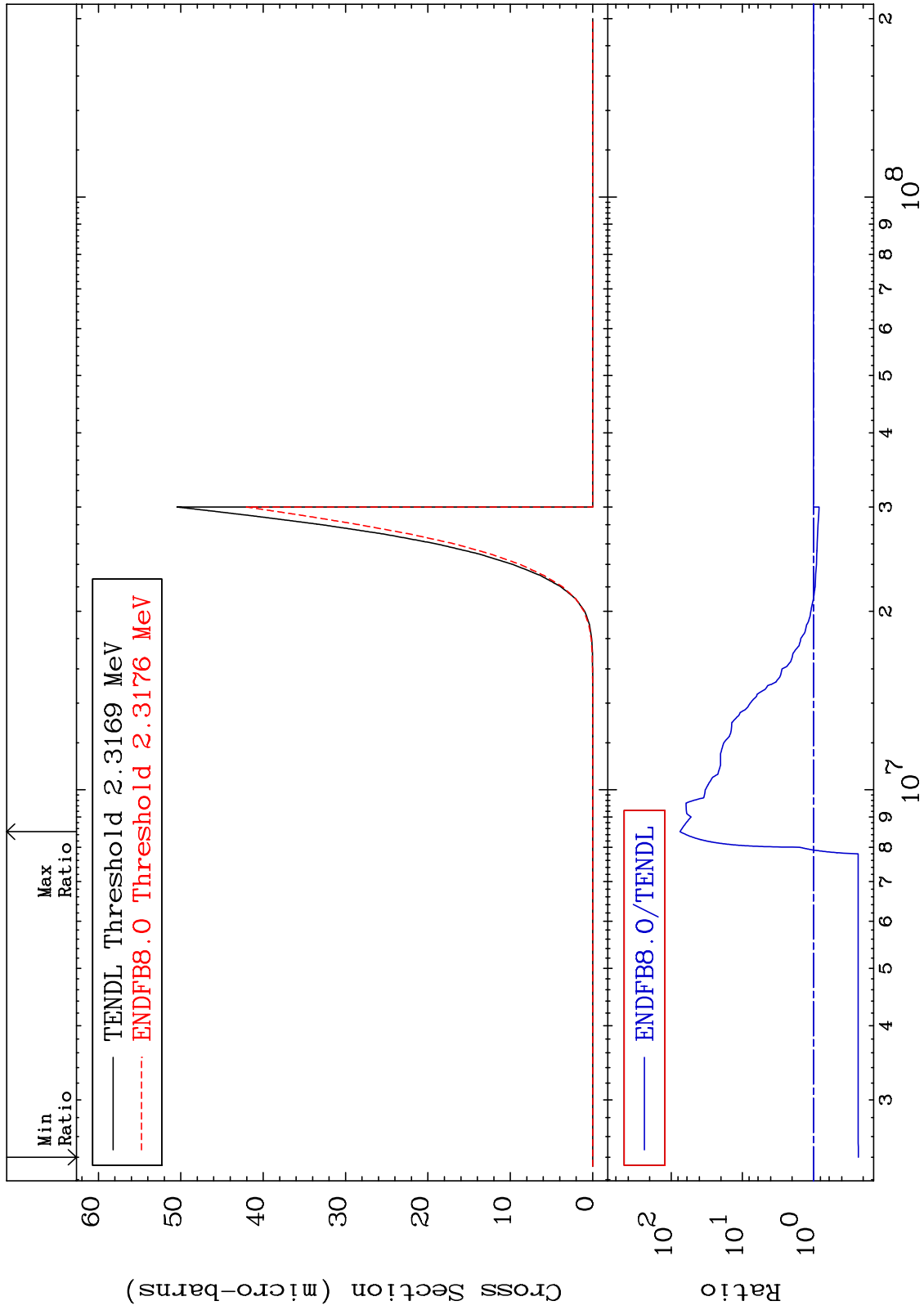
MAT 4834

(n,p) α

48-Cd-109

Cross Section

-76.66 To 7404. %



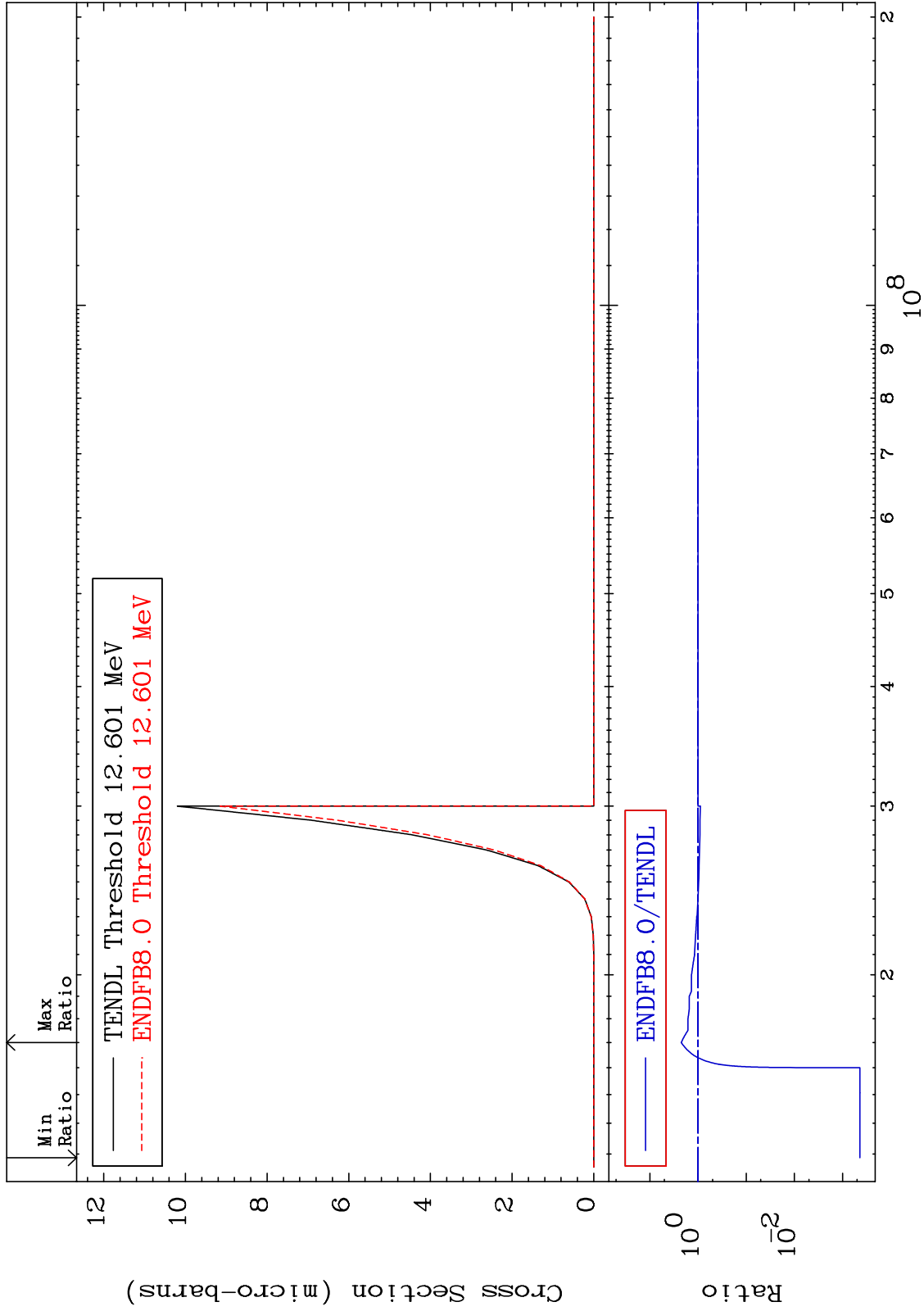
MAT 4834

(n,p) d

48-Cd-109

Cross Section

-99.96 To 123.0 %



60

Incident Energy (eV)

48-Cd-109

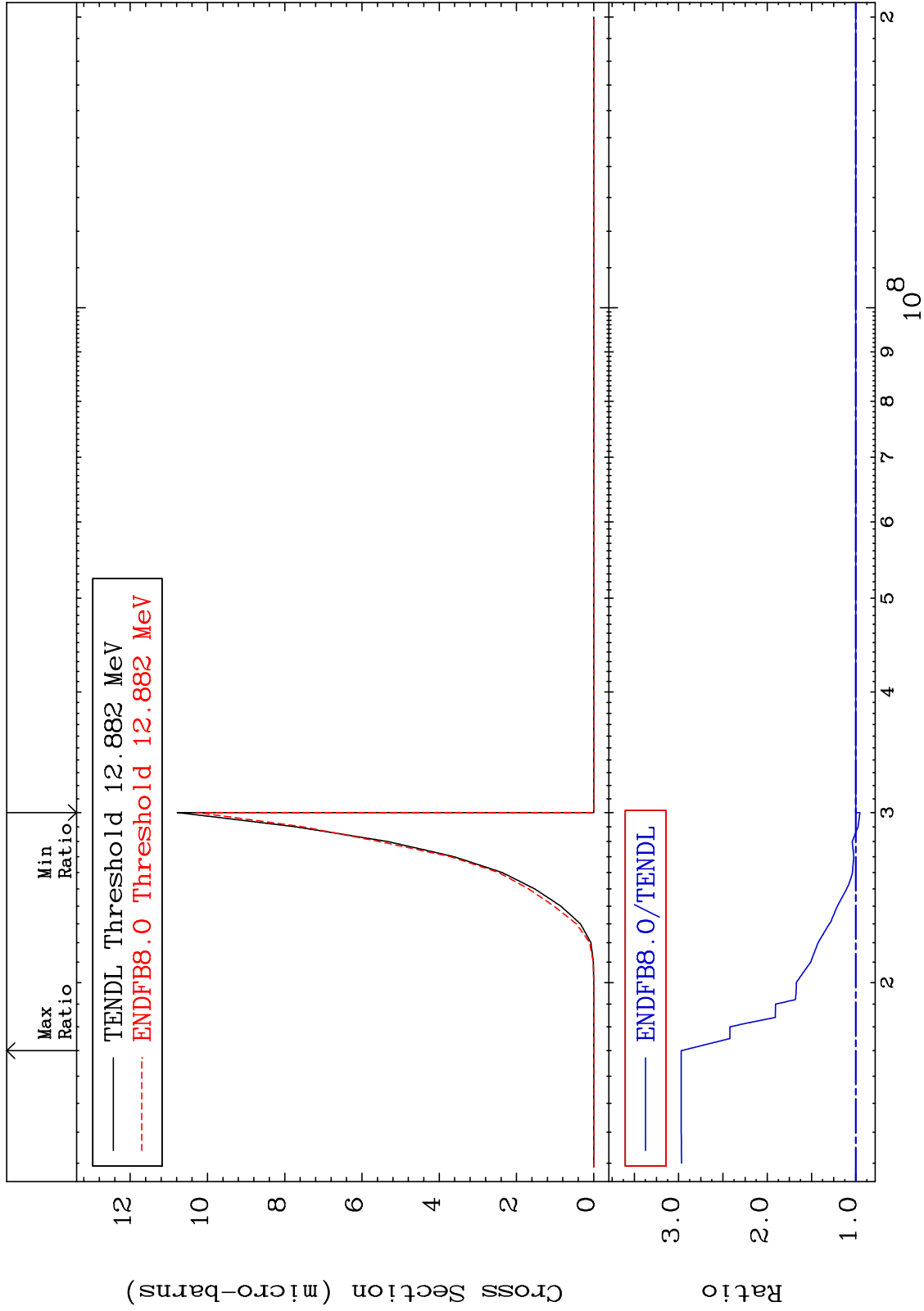
MAT 4834

(n,p) t

48-Cd-109

Cross Section

-4.636 To 197.1 %



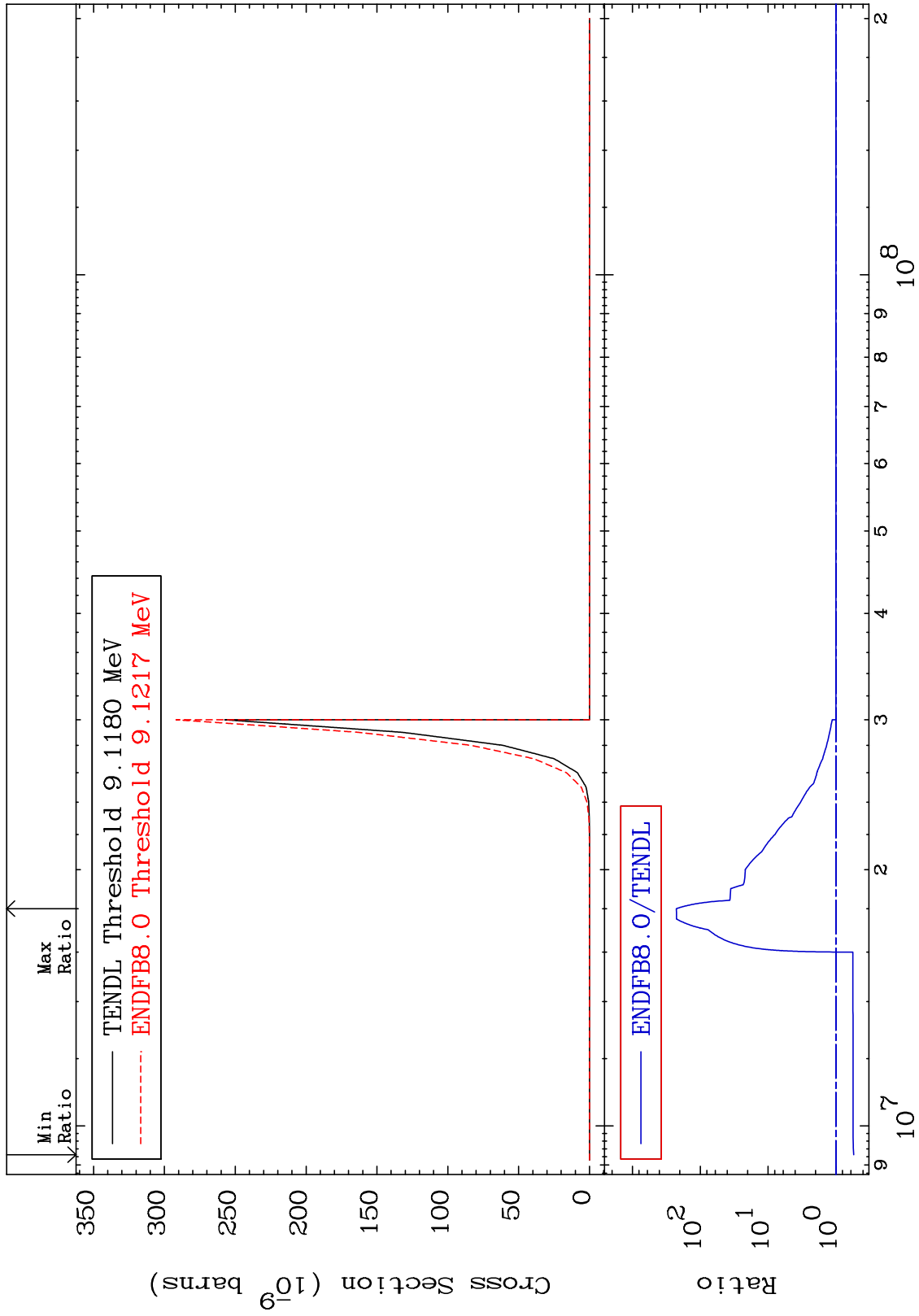
MAT 4834

(n,d) α

48-Cd-109

Cross Section

-45.38 To 9999. %



62

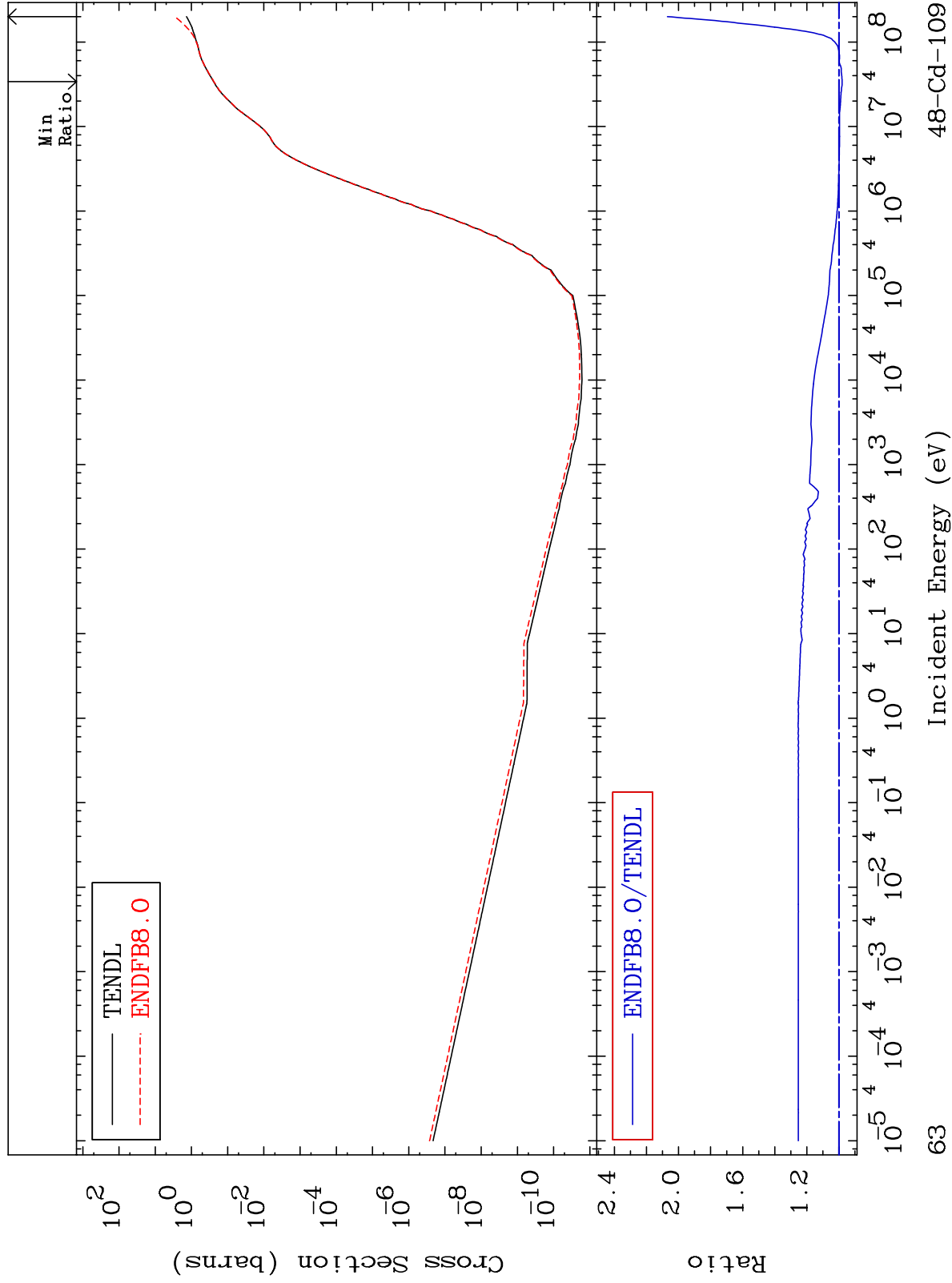
Incident Energy (eV)

48-Cd-109

MAT 4834

Hydrogen Production
Cross Section

48-Cd-109
-1.999 To 106.9 %



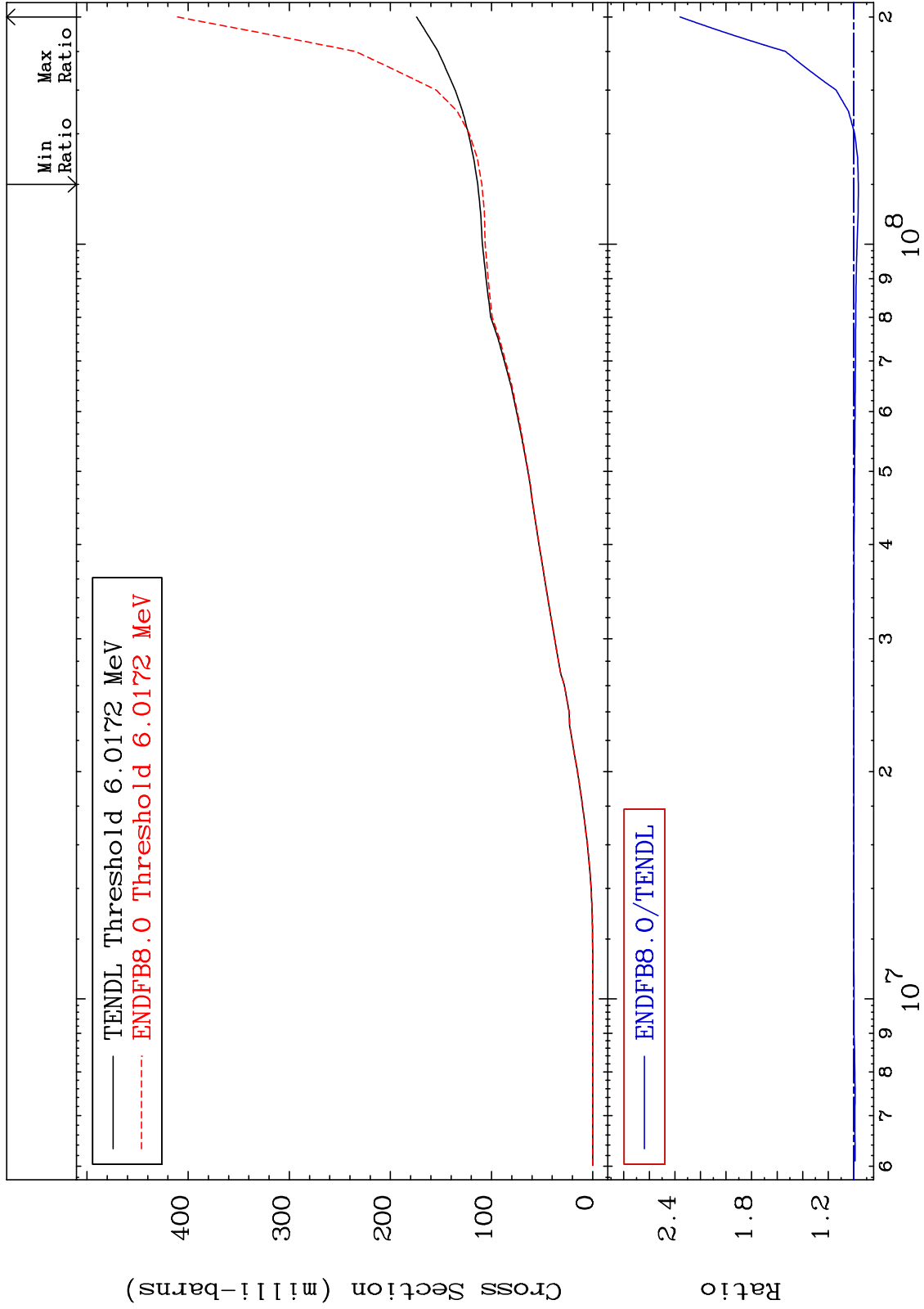
63

48-Cd-109

MAT 4834

Deuterium Production
Cross Section

48-Cd-109
-3.593 To 136.0 %



64

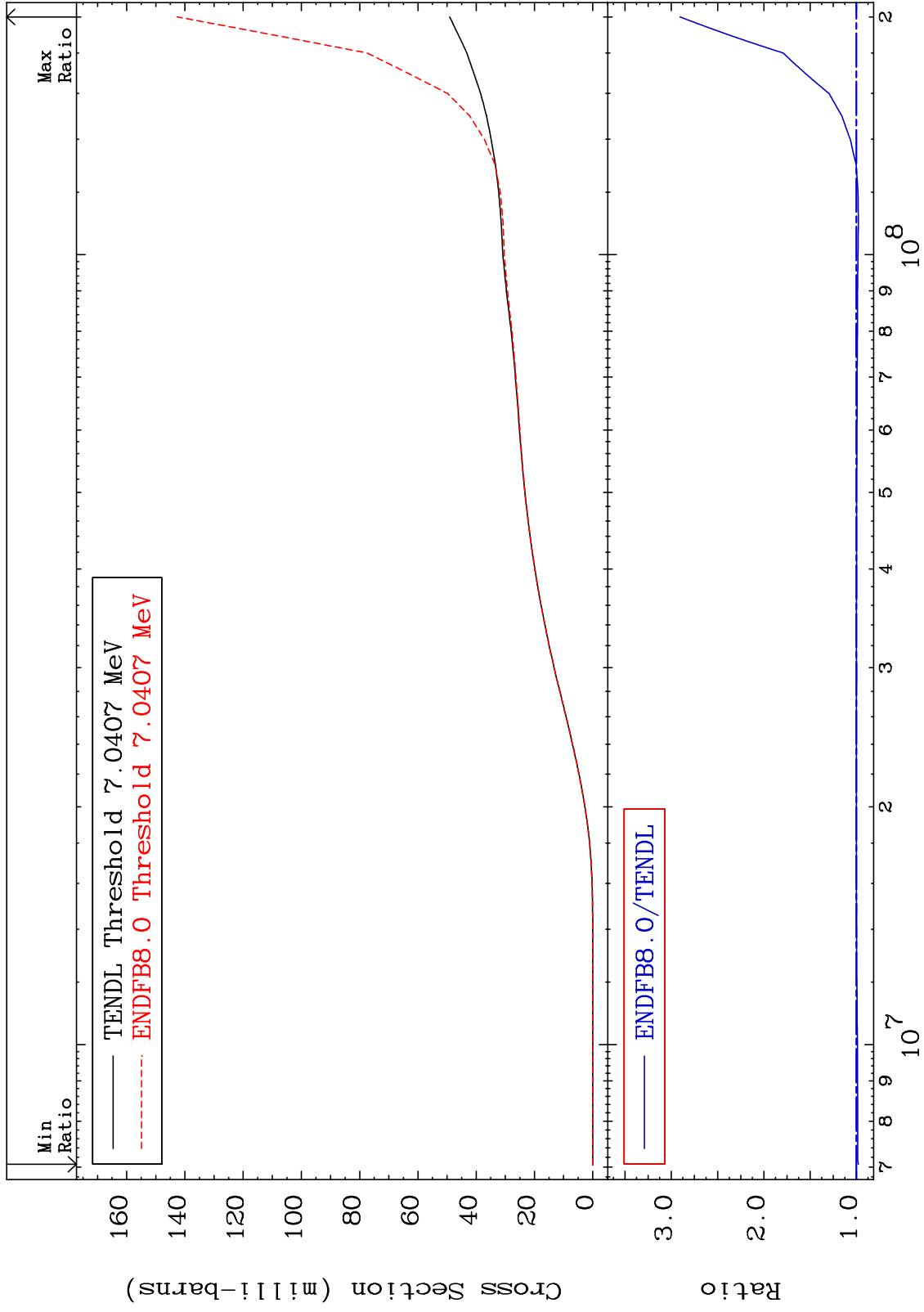
Incident Energy (eV)

48-Cd-109

MAT 4834

Tritium Production
Cross Section

48-Cd-109
-2.083 To 190.6 %



65

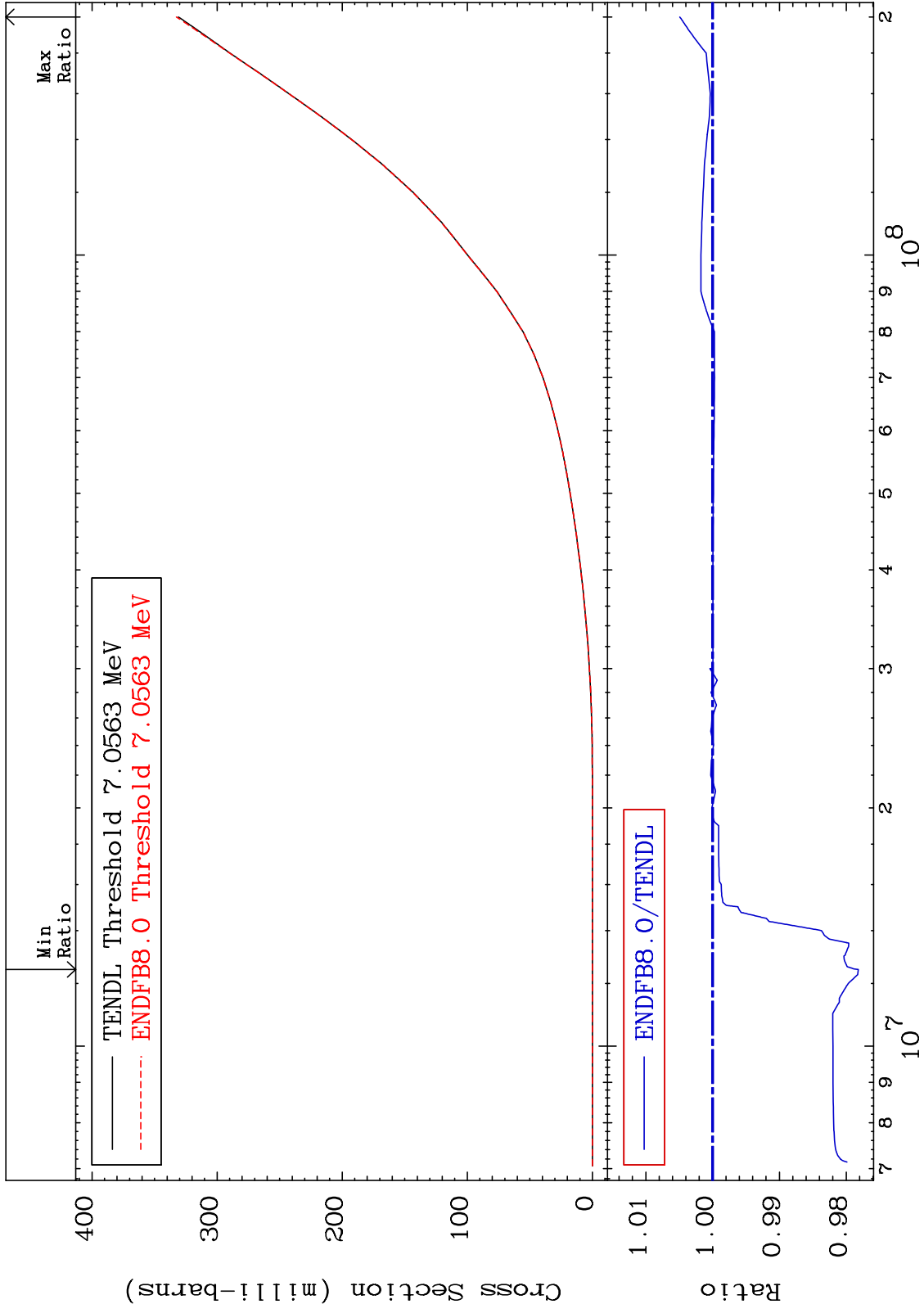
Incident Energy (eV)

48-Cd-109

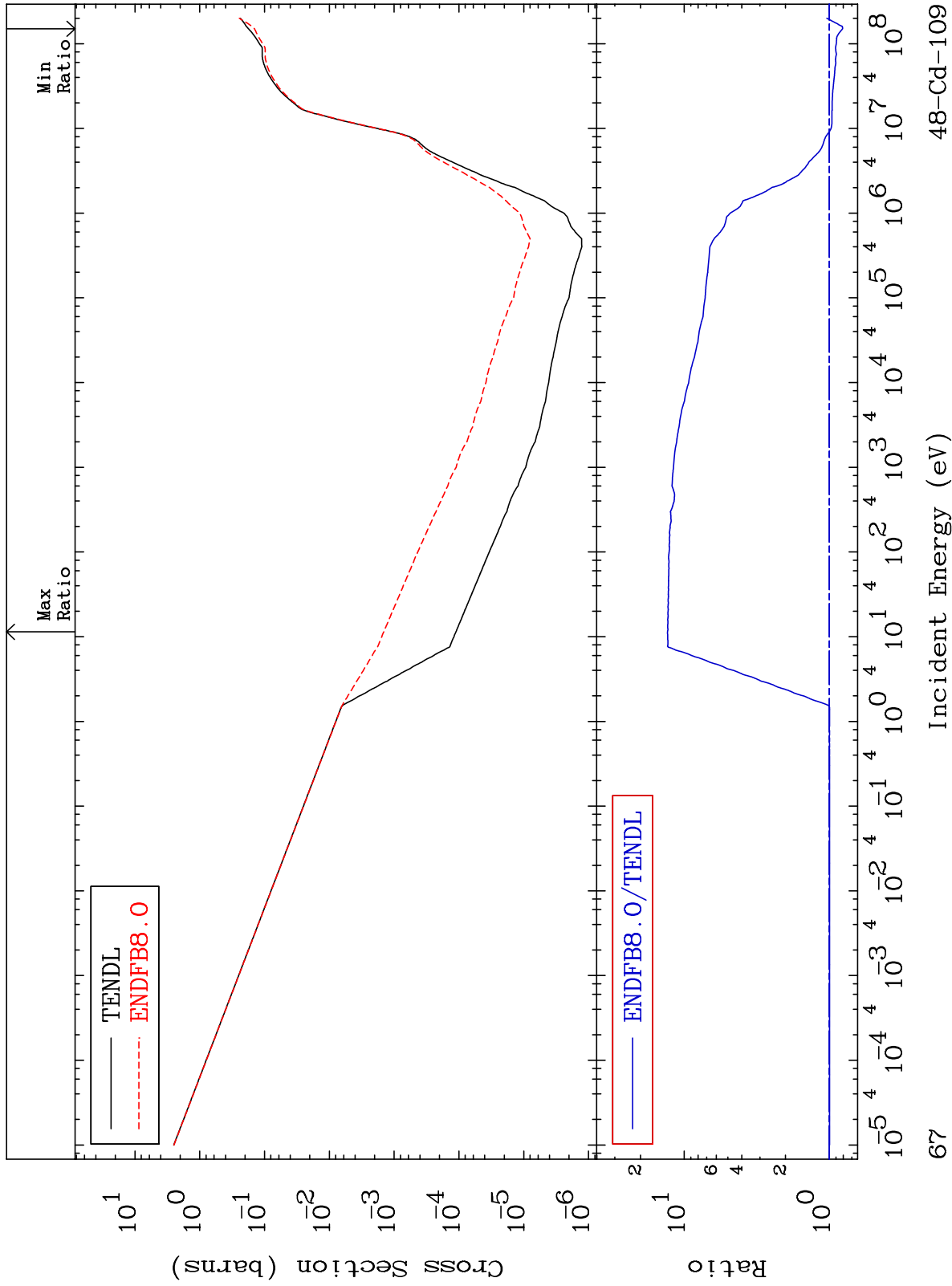
MAT 4834

He-3 Production
Cross Section

48-Cd-109
-2.182 To 0.491 %



MAT 4834 He-4 Production Cross Section 48-Cd-109
 -19.18 To 1201. %

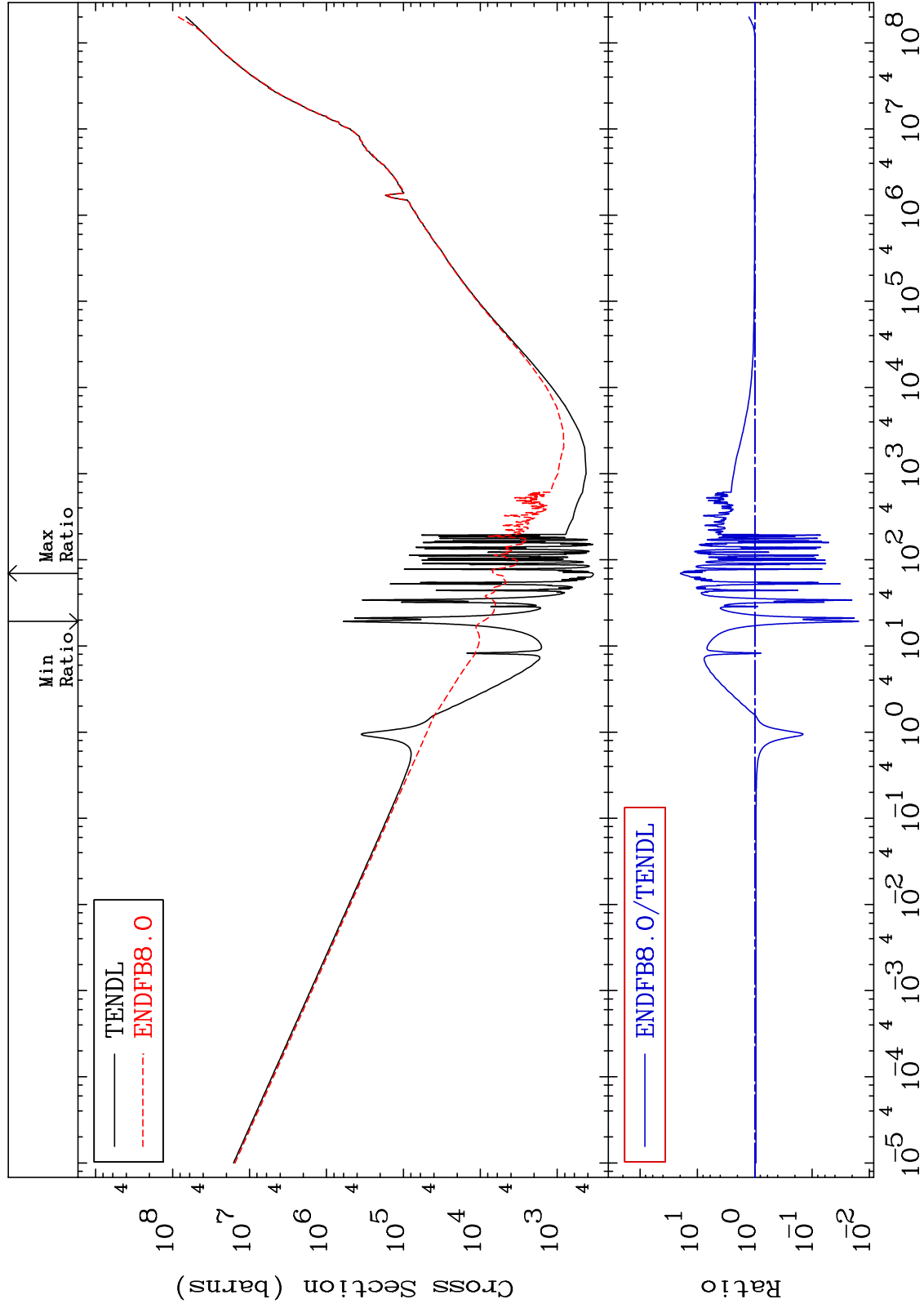


67 48-Cd-109

MAT 4834

Kerma total (eV-barns)
Cross Section

48-Cd-109
-98.45 To 1878. %



68

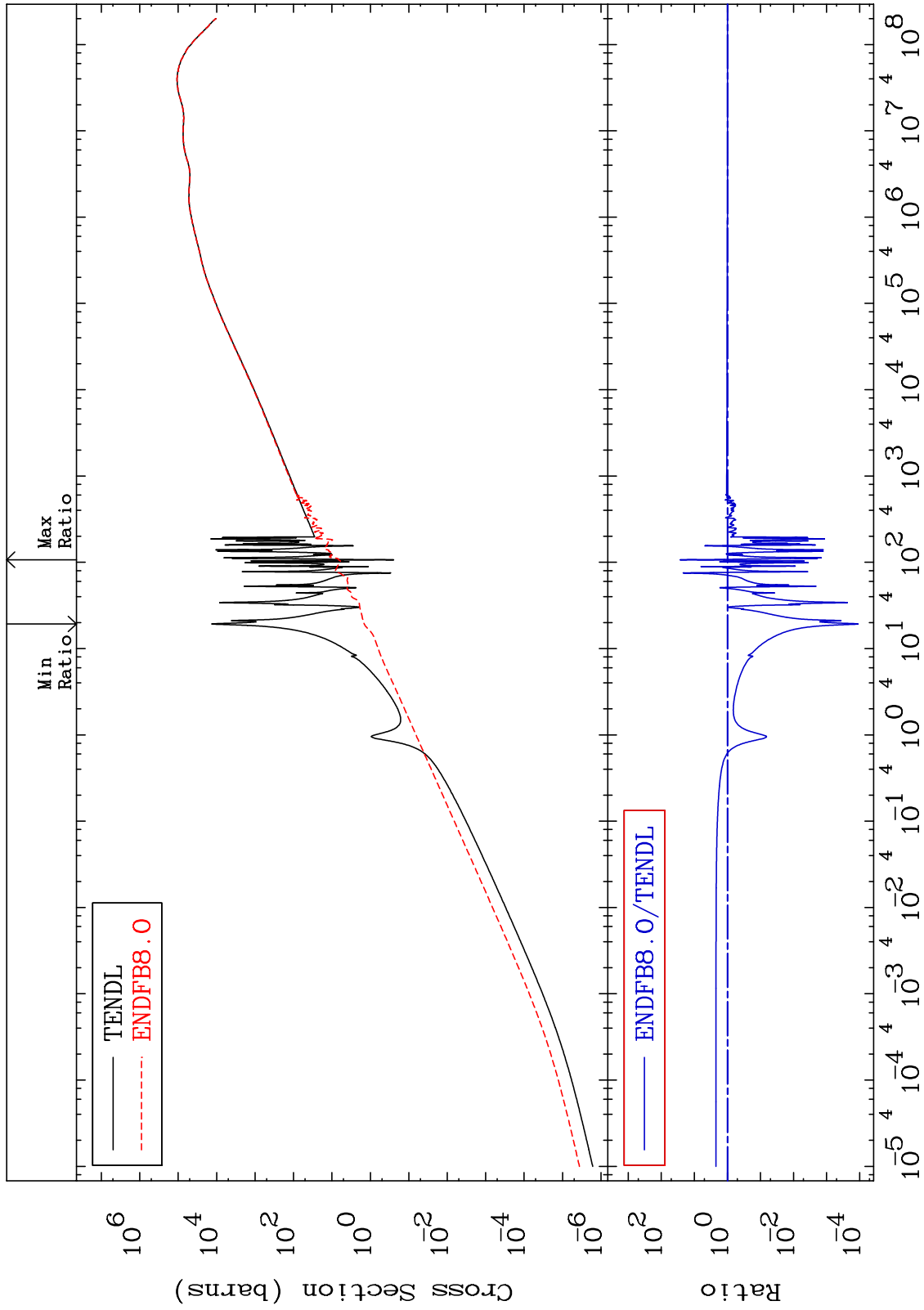
Incident Energy (eV)

48-Cd-109

MAT 4834

Kerma elastic
Cross Section

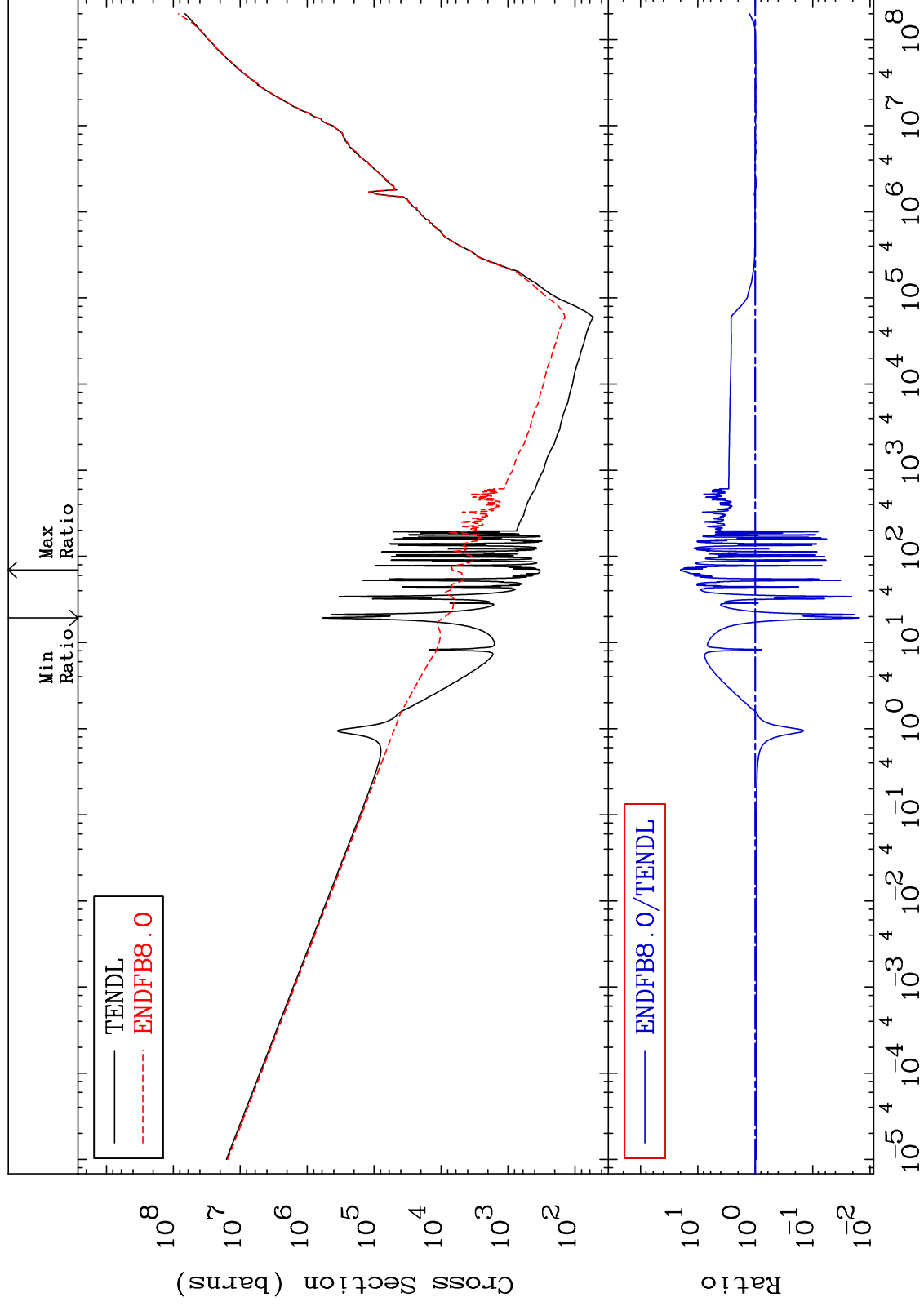
48-Cd-109
-99.99 To 2615. %



MAT 4834

Kerma non-elastic (all but mt2)
Cross Section

48-Cd-109
-98.41 To 1915. %



70

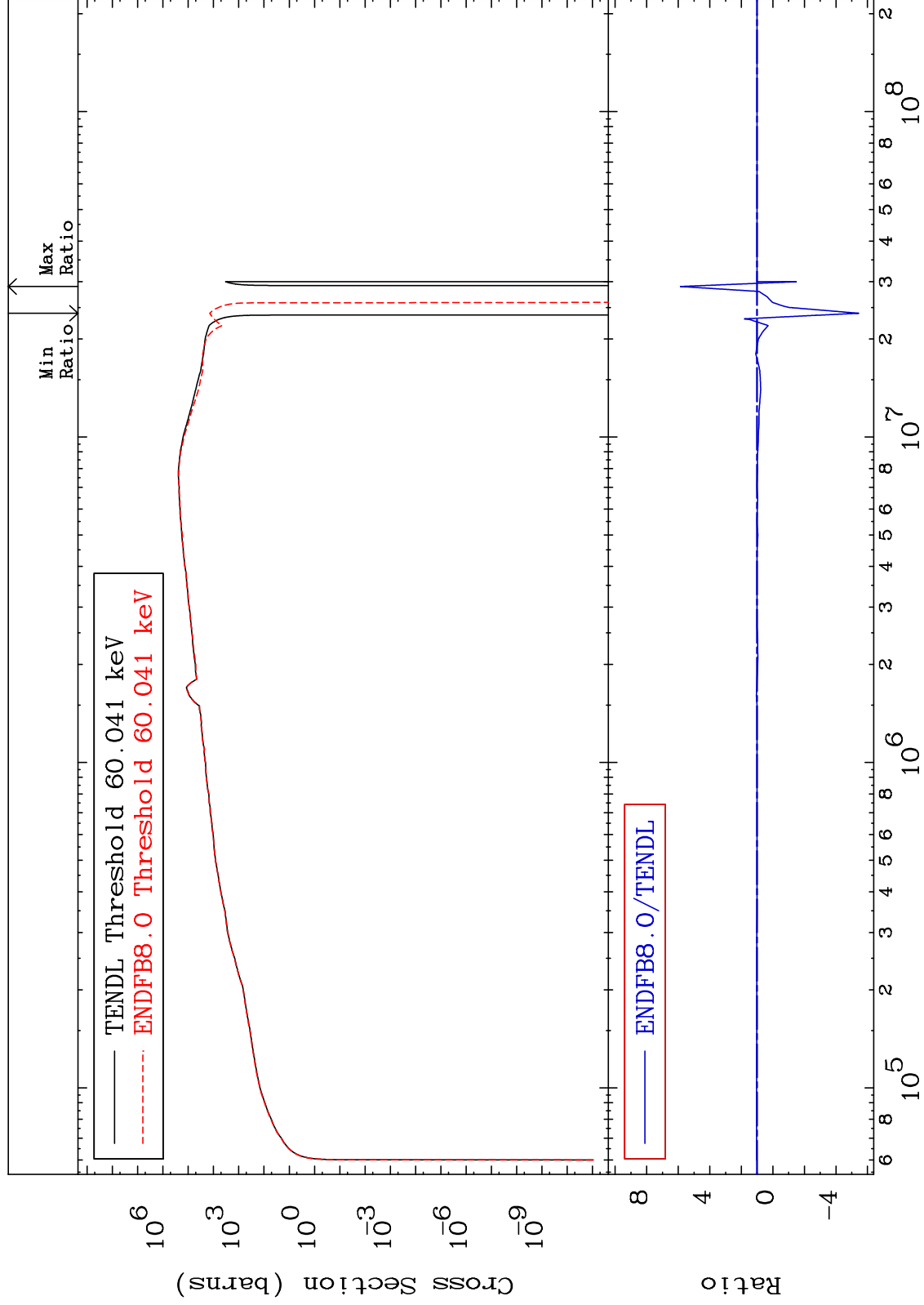
Incident Energy (eV)

48-Cd-109

MAT 4834

Kerma inelastic (mt51-91)
Cross Section

48-Cd-109
-643.1 To 486.1 %



71

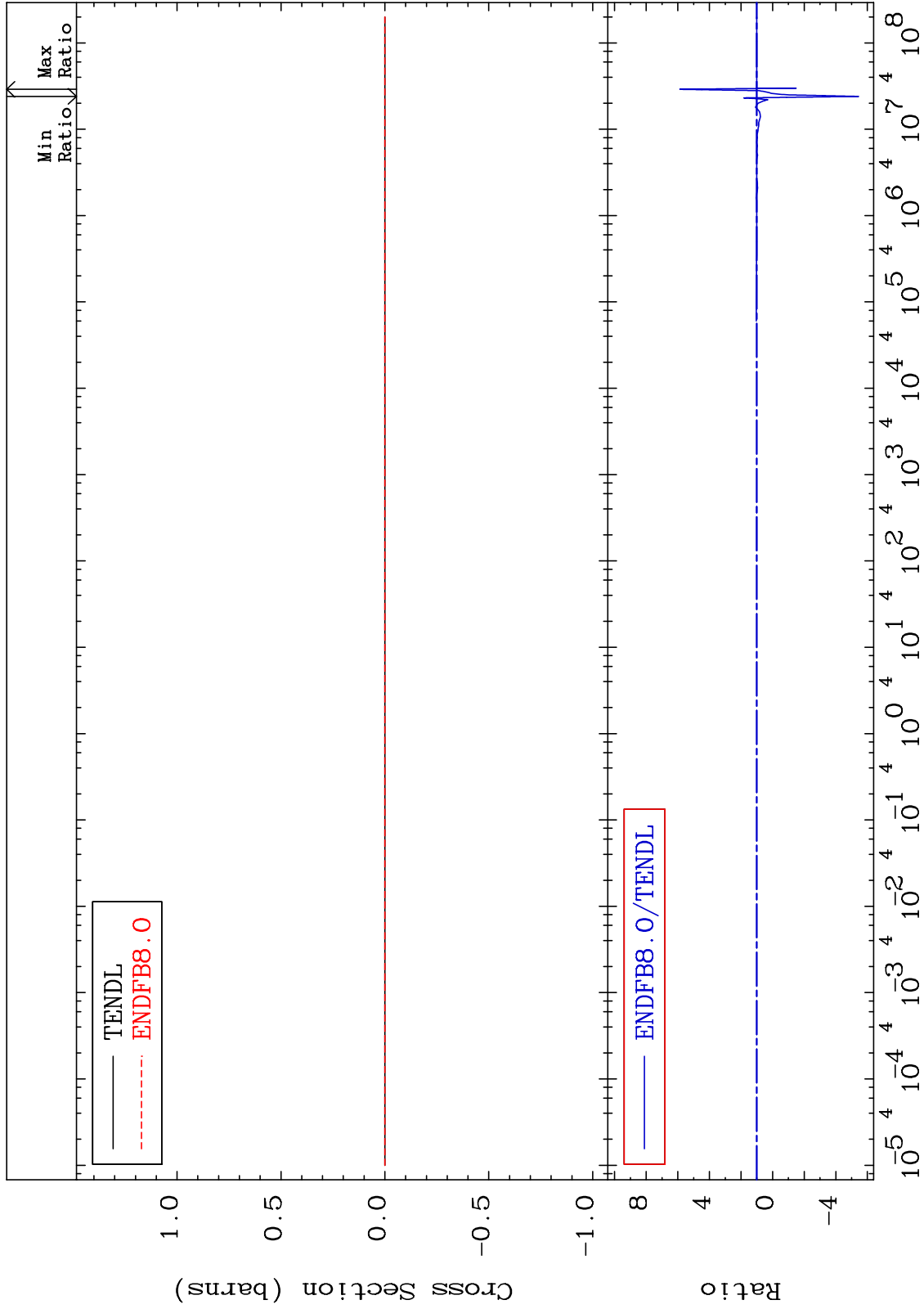
Incident Energy (eV)

48-Cd-109

MAT 4834

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

48-Cd-109
-643.1 To 486.1 %



72

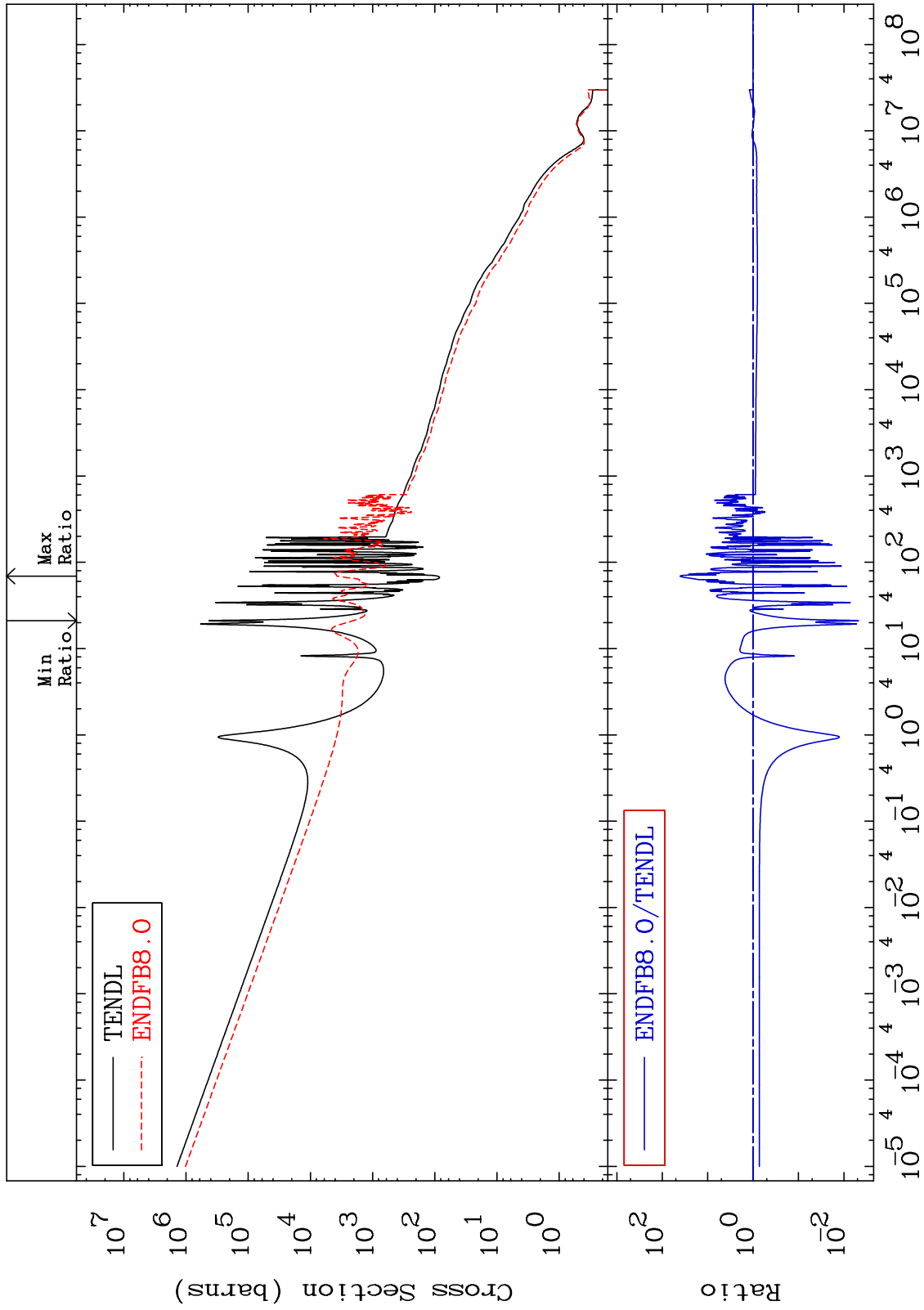
Incident Energy (eV)

48-Cd-109

MAT 4834

Kerma capture (mt102)
Cross Section

48-Cd-109
-99.52 To 3960. %



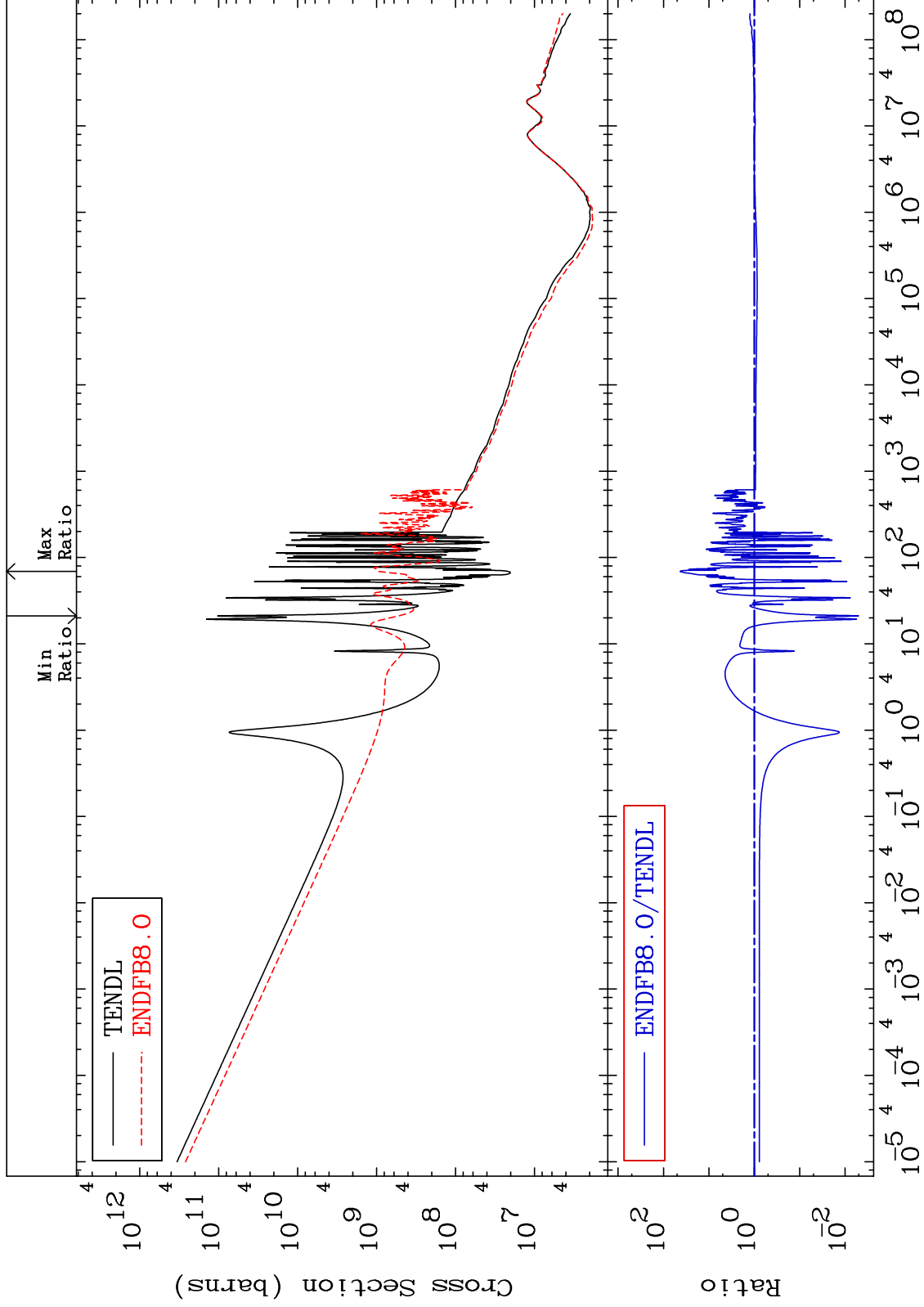
73

48-Cd-109

MAT 4834

Total photon (eV-barns)
Cross Section

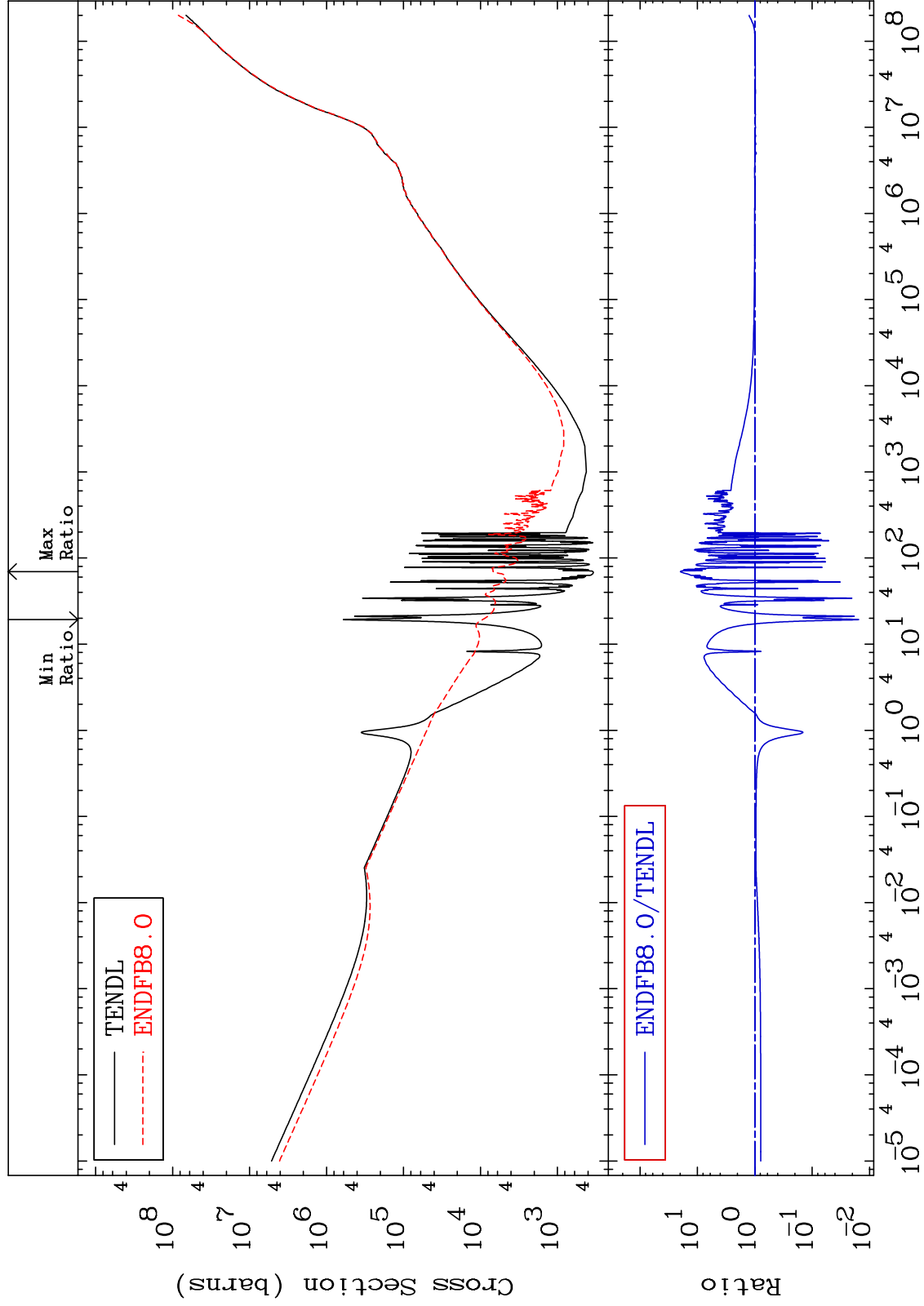
48-Cd-109
-99.49 To 4232. %



MAT 4834

Total kinematic kerma (high limit)
Cross Section

48-Cd-109
-98.44 To 1875. %



75

Incident Energy (eV)

48-Cd-109

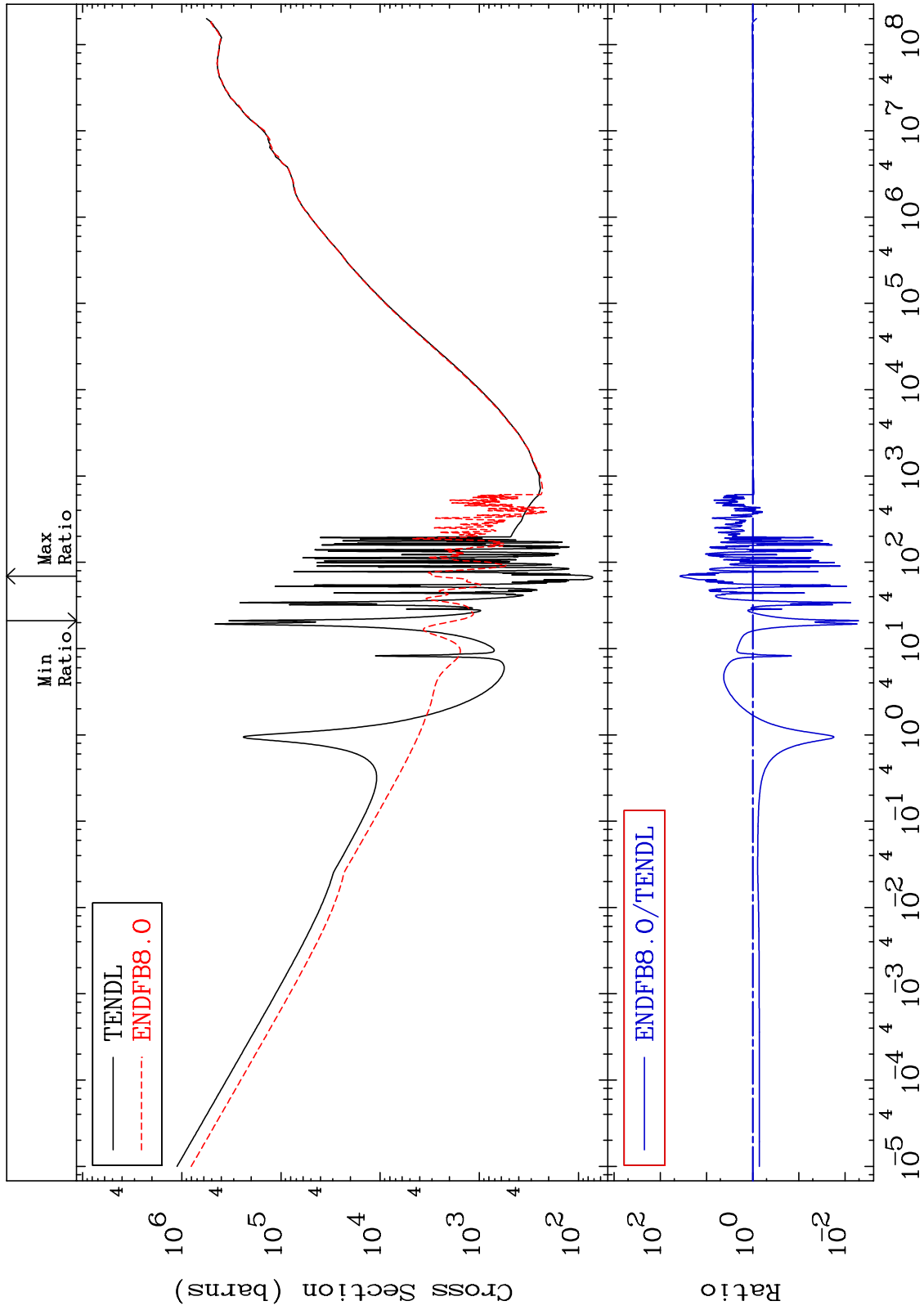
MAT 4834

Dpa total (eV-barns)

48-Cd-109

-99.49 To 3642. %

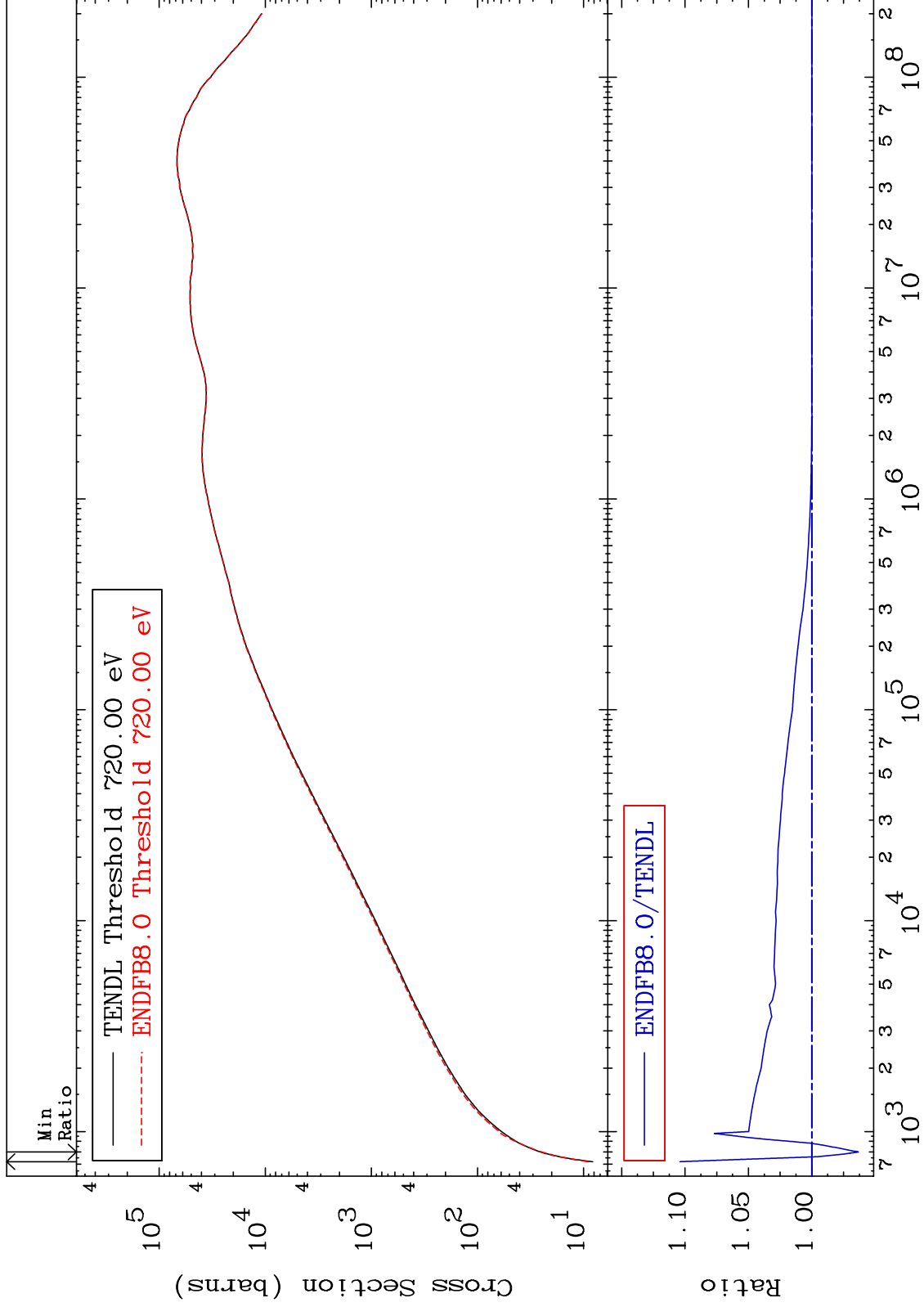
Cross Section



MAT 4834

Dpa elastic (mt2)
Cross Section

48-Cd-109
-3.675 To 10.39 %



77

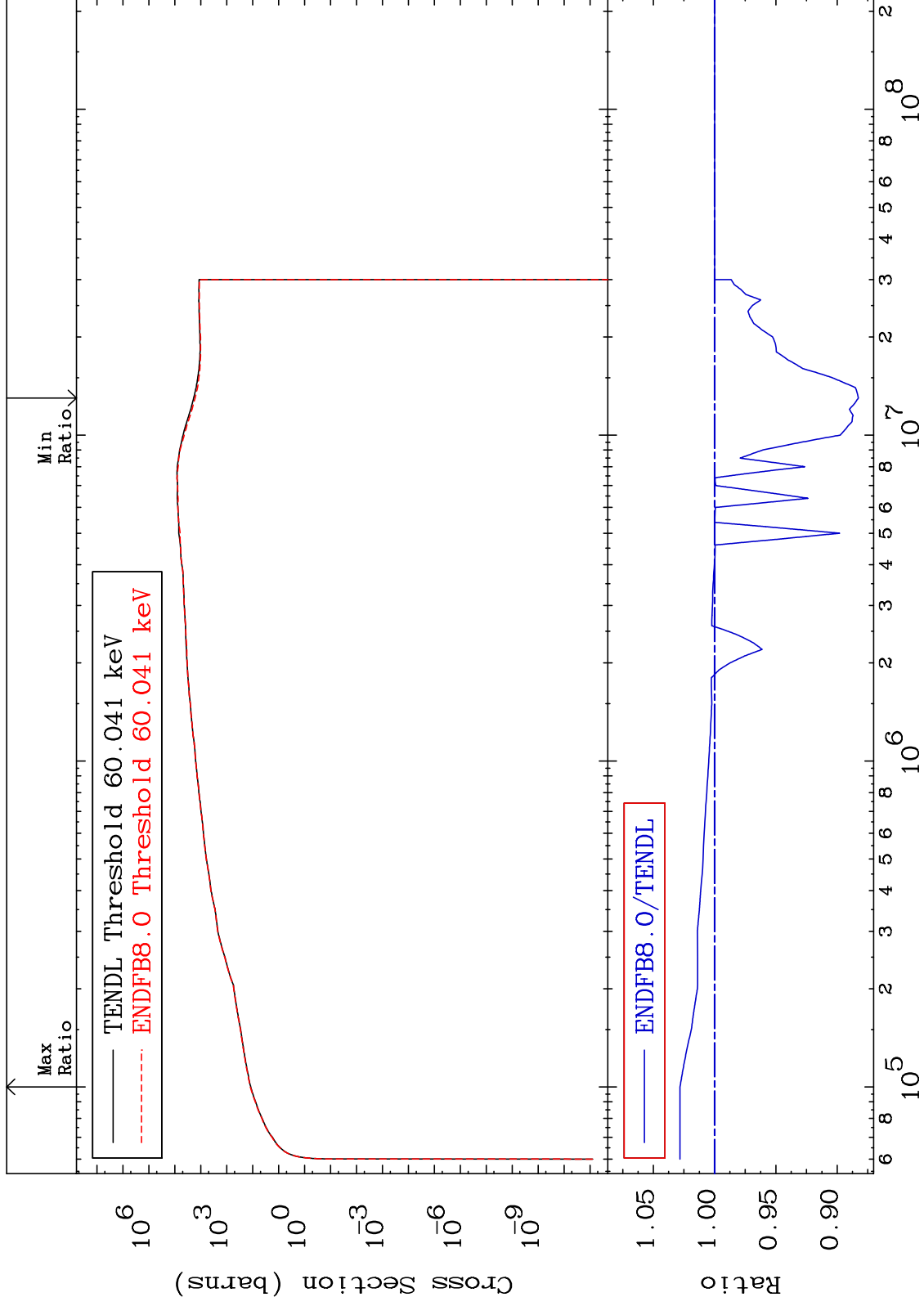
Incident Energy (eV)

48-Cd-109

MAT 4834

Dpa inelastic (mt51-91)
Cross Section

48-Cd-109
-11.73 To 2.824 %



78

48-Cd-109

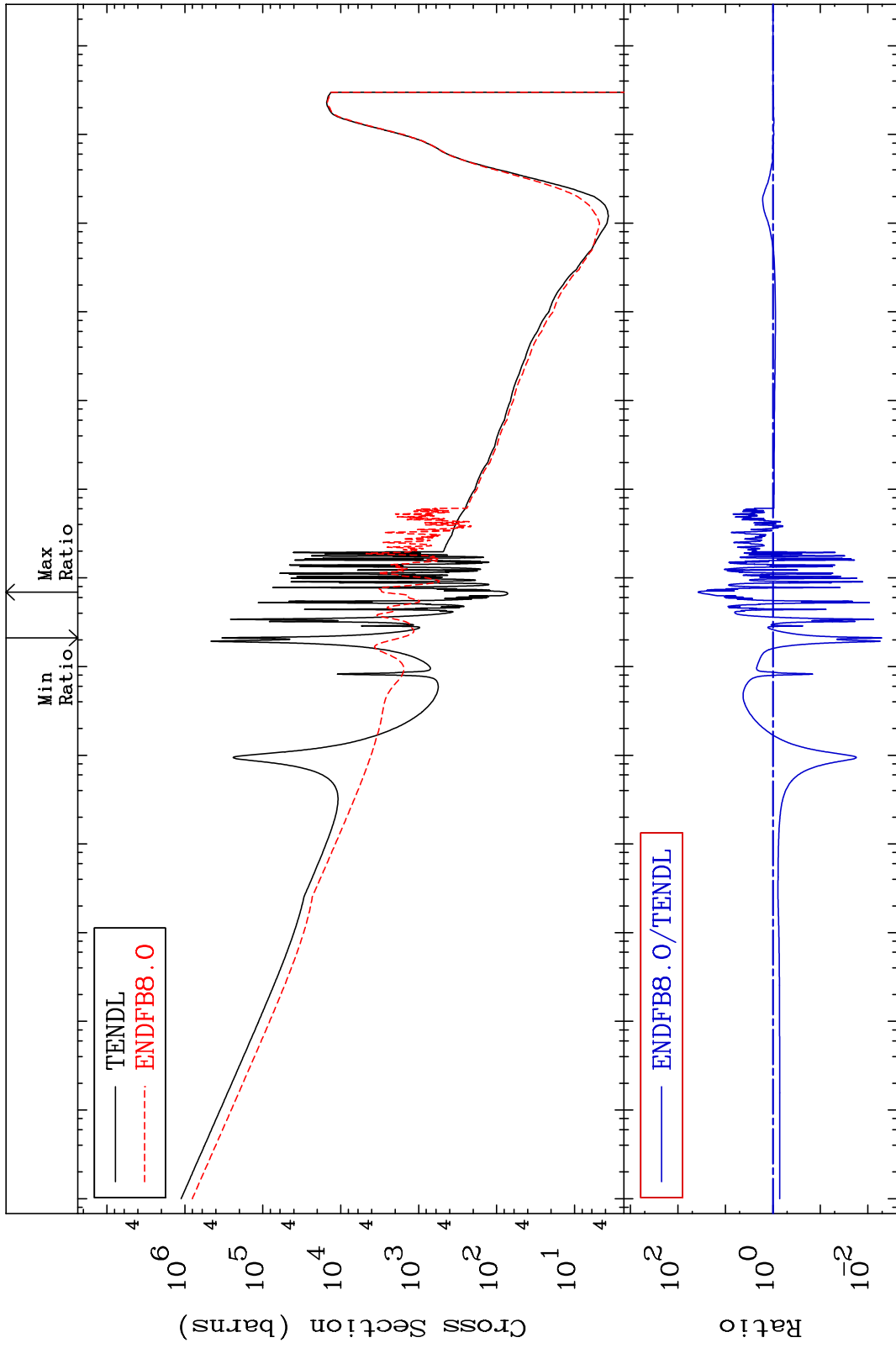
MAT 4834

Dpa disappearance (mt102 -120)

48-Cd-109

-99.49 To 3642. %

Cross Section



79

Incident Energy (eV)

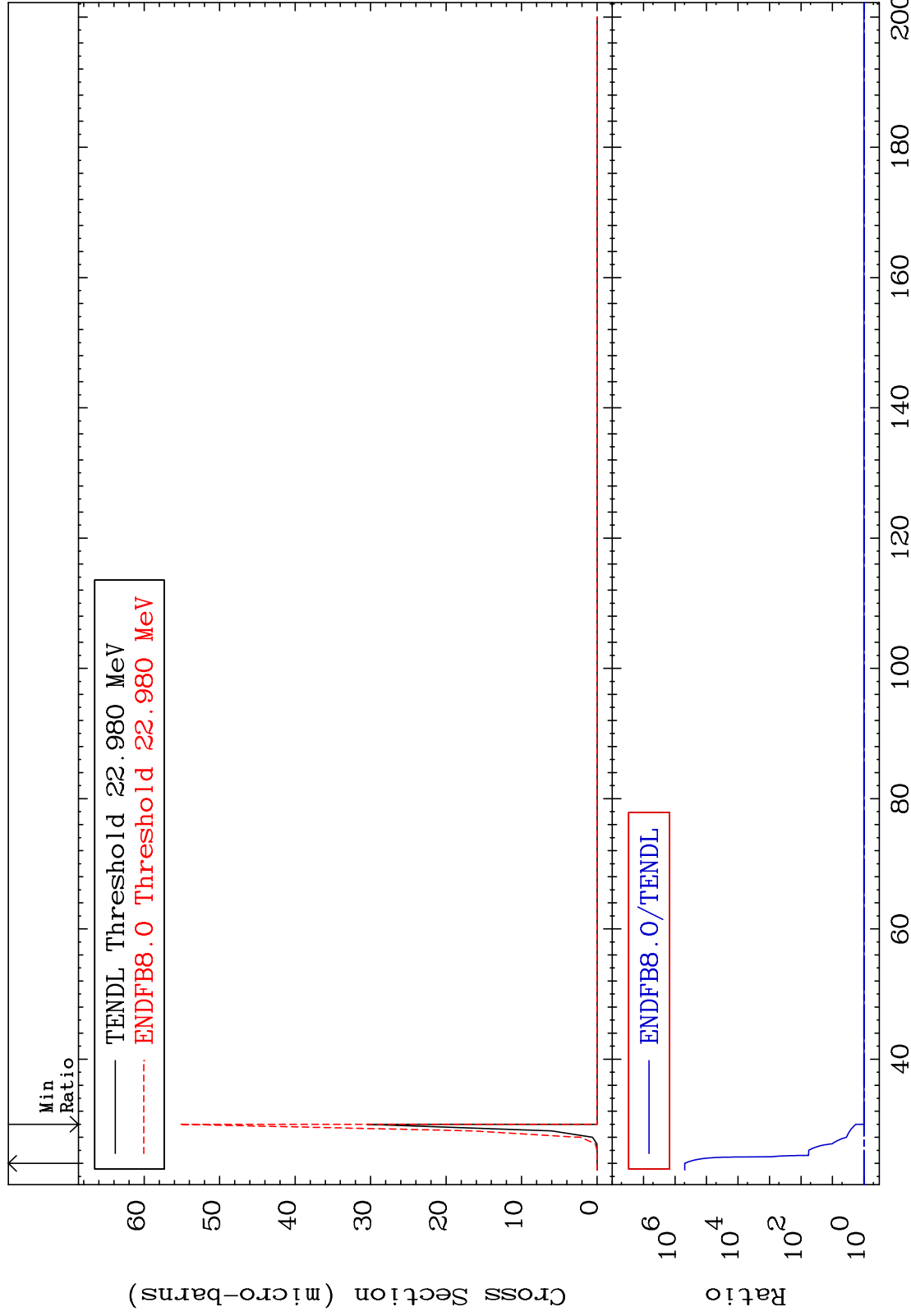
48-Cd-109

MAT 4834

(n,2n) d:47-Ag-106g

48-Cd-109

Radionuclide Production Cross Section 0.000 To 9999. %



80

Incident Energy (MeV)

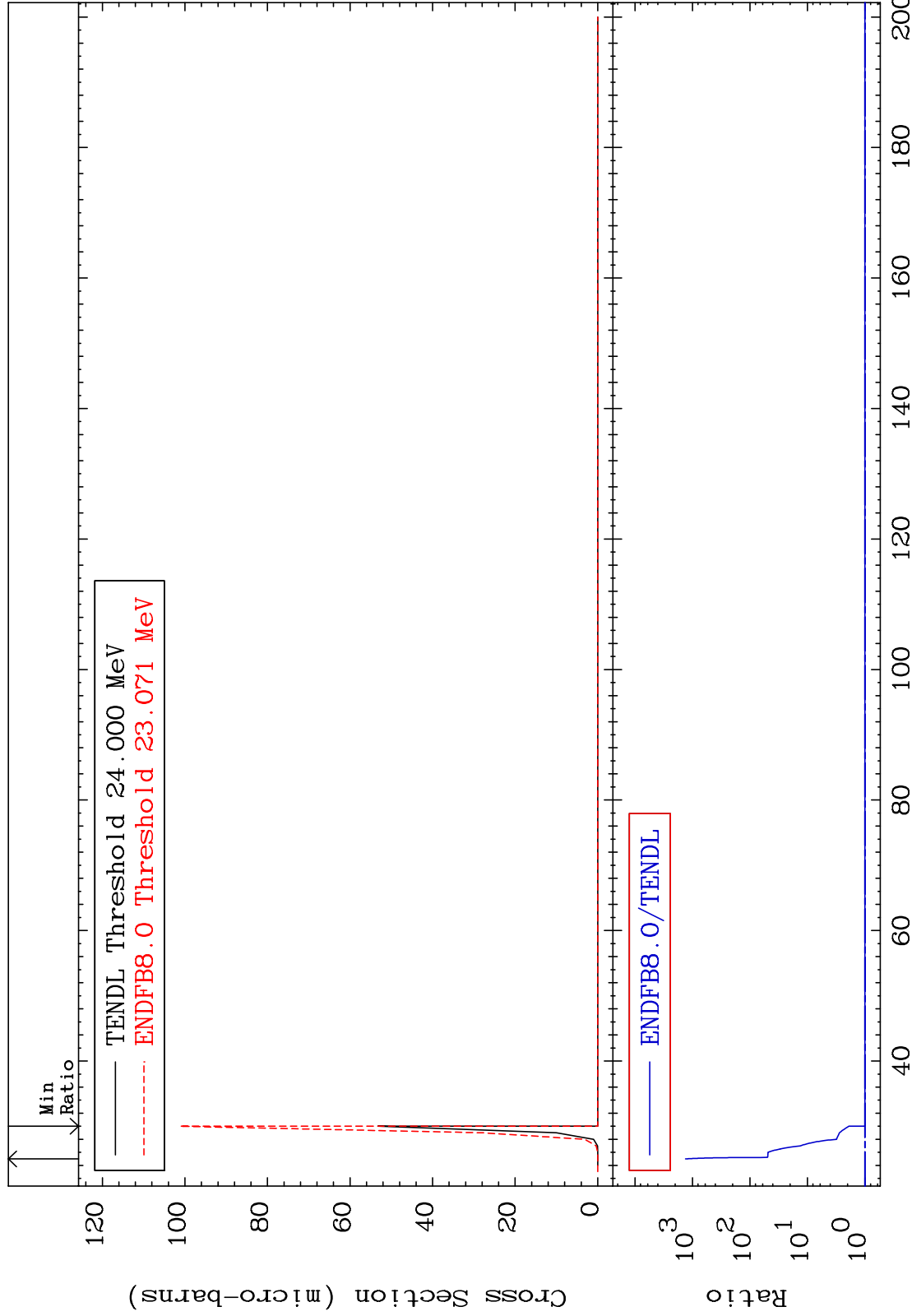
48-Cd-109

MAT 4834

(n,2n) d:47-Ag-106m1

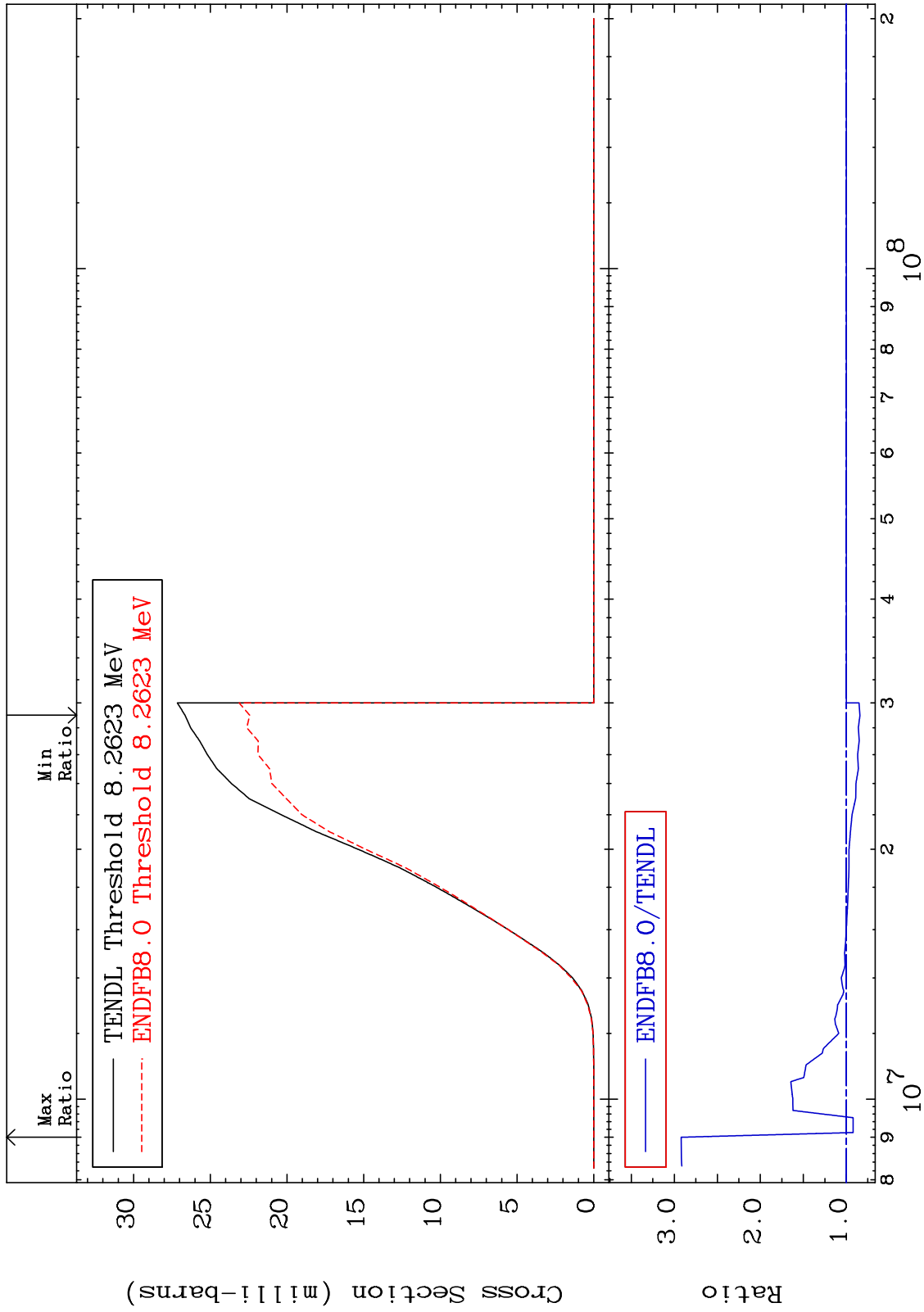
48-Cd-109

Radionuclide Production Cross Section 0.000 To 9999. %



MAT 4834

(n, n') p:47-Ag-108g 48-Cd-109
Radionuclide Production Cross Section -15.80 To 192.0 %



82

Incident Energy (eV)

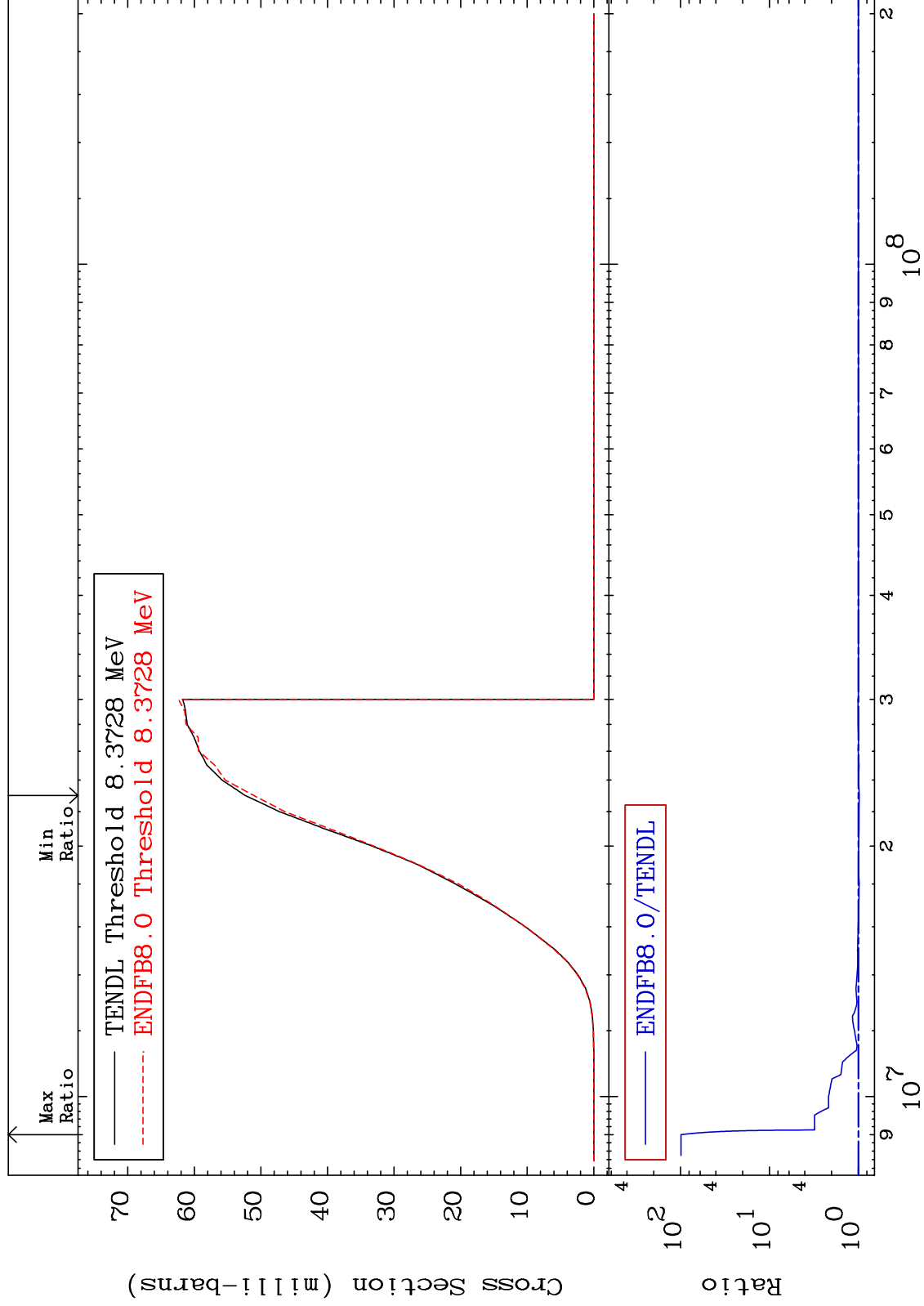
48-Cd-109

MAT 4834

(n, n') p: 47-Ag-108m2

48-Cd-109

Radionuclide Production Cross Section -2.496 To 9761. %



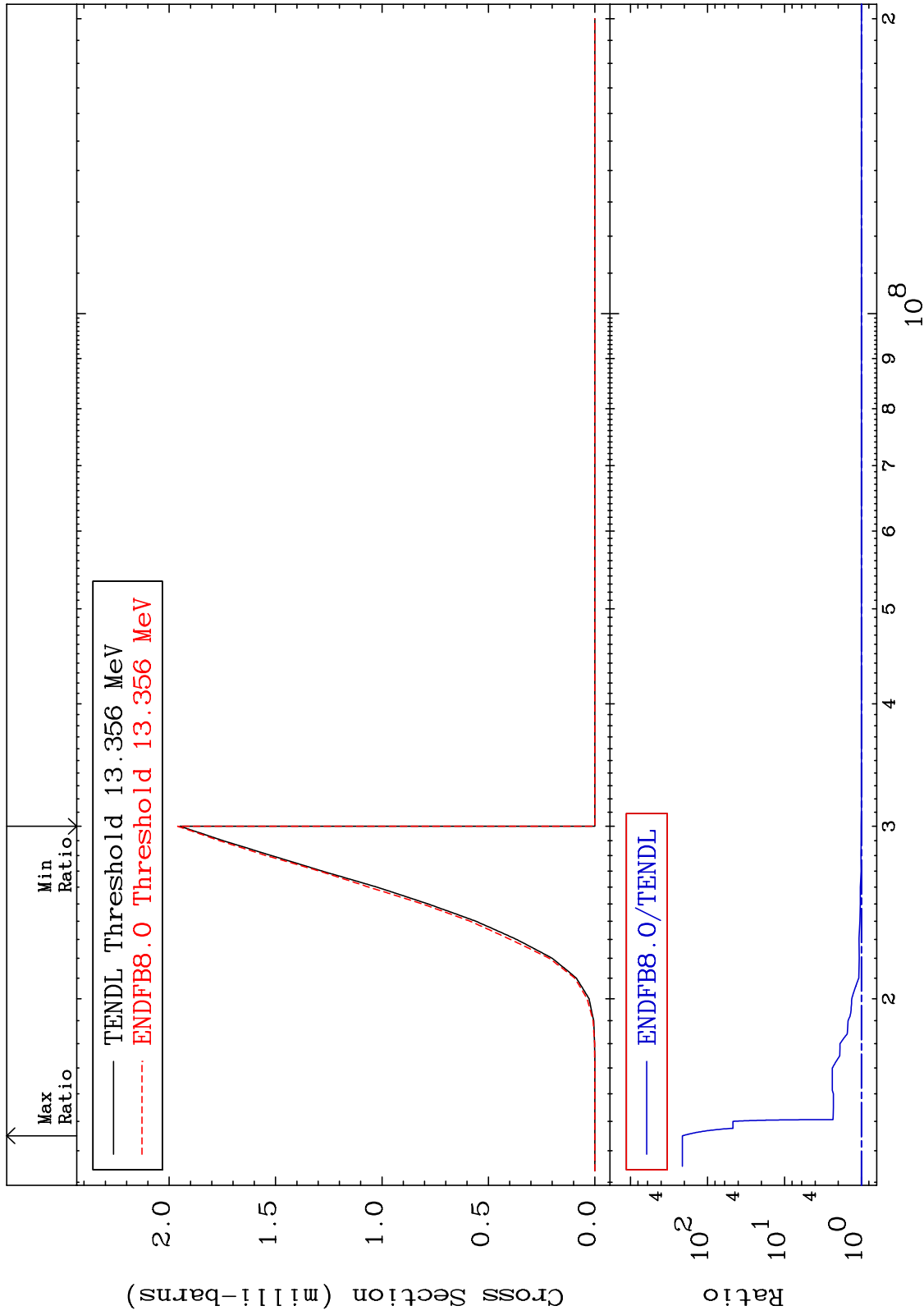
83

Incident Energy (eV)

48-Cd-109

MAT 4834

(n, n') d:47-Ag-107g 48-Cd-109
Radionuclide Production Cross Section 0.000 To 9999. %

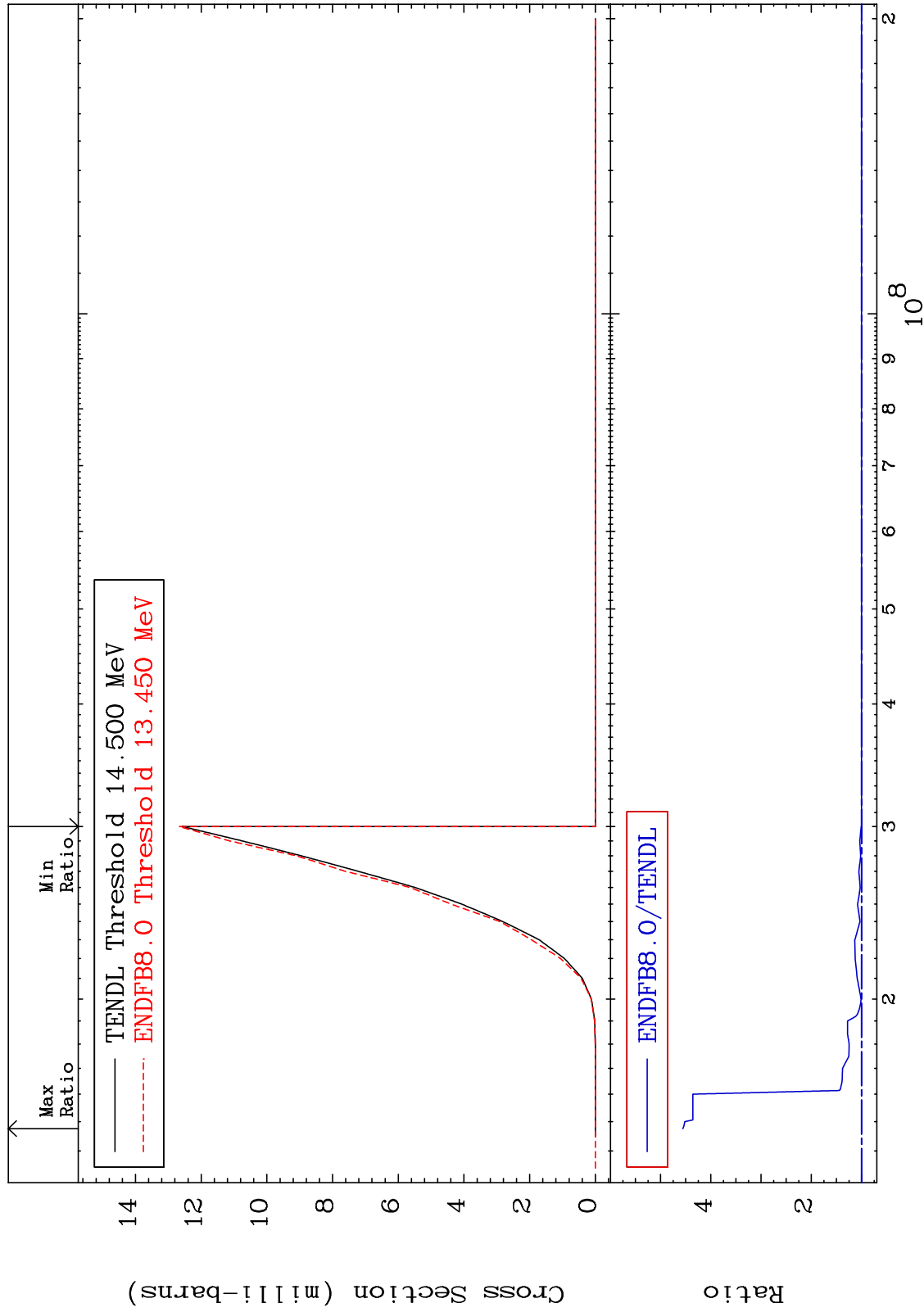


MAT 4834

(n, n') d: 47-Ag-107m1

48-Cd-109

Radionuclide Production Cross Section 0.000 To 355.7 %



85

Incident Energy (eV)

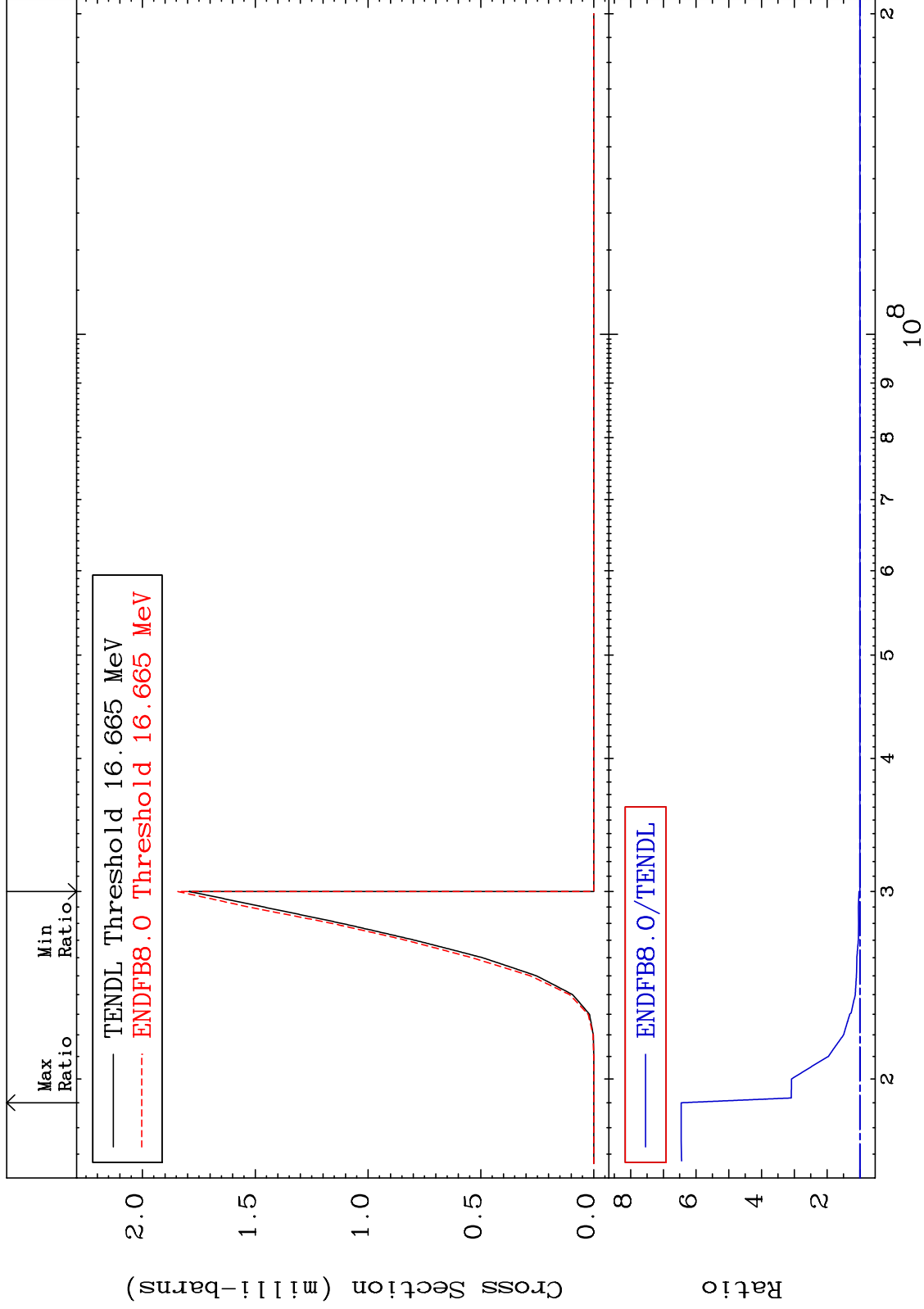
48-Cd-109

MAT 4834

(n, n') t:47-Ag-106g

48-Cd-109

Radionuclide Production Cross Section 0.000 To 545.5 %

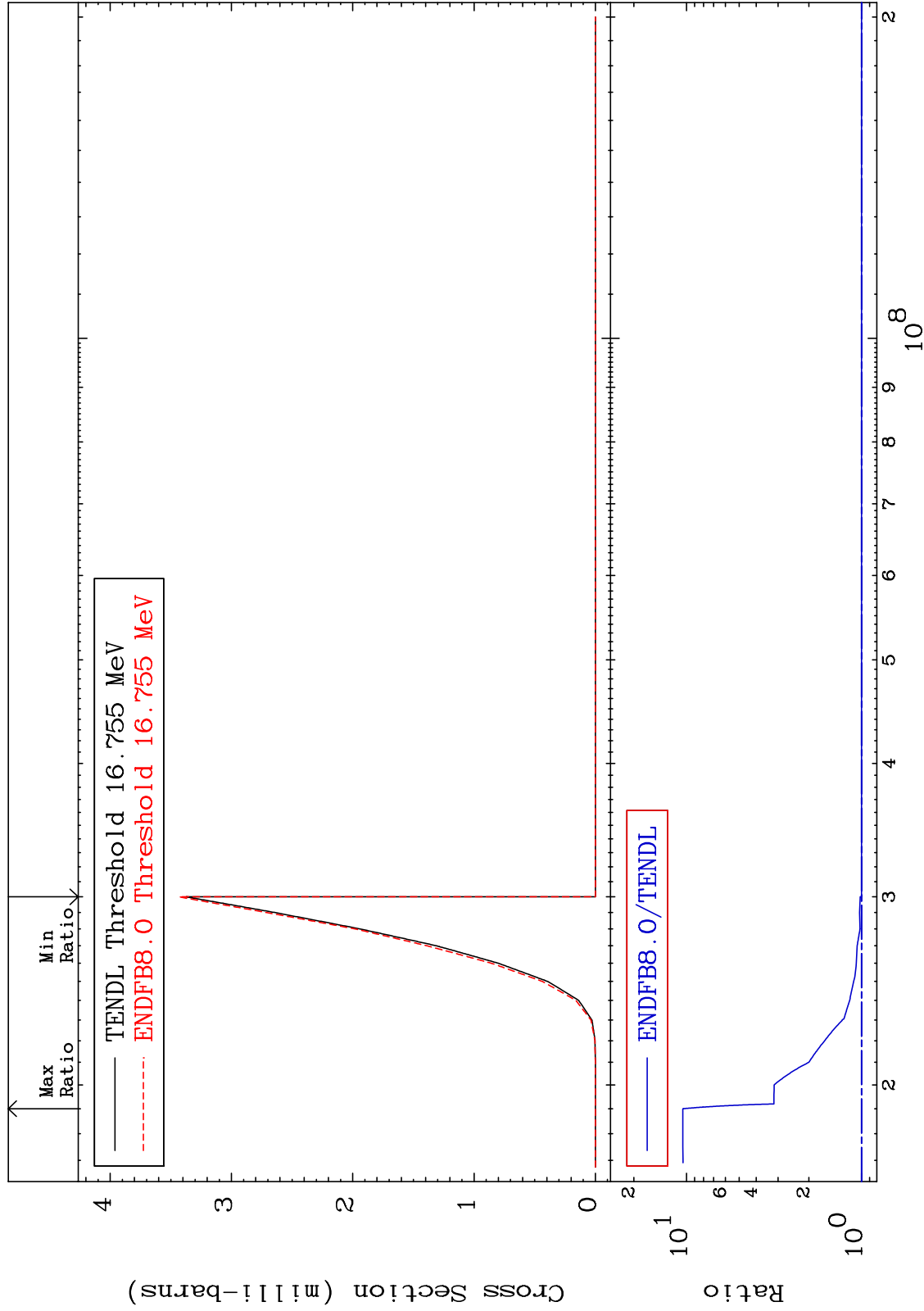


MAT 4834

(n, n') t: 47-Ag-106m1

48-Cd-109

Radionuclide Production Cross Section 0.000 To 949.9 %



87

Incident Energy (eV)

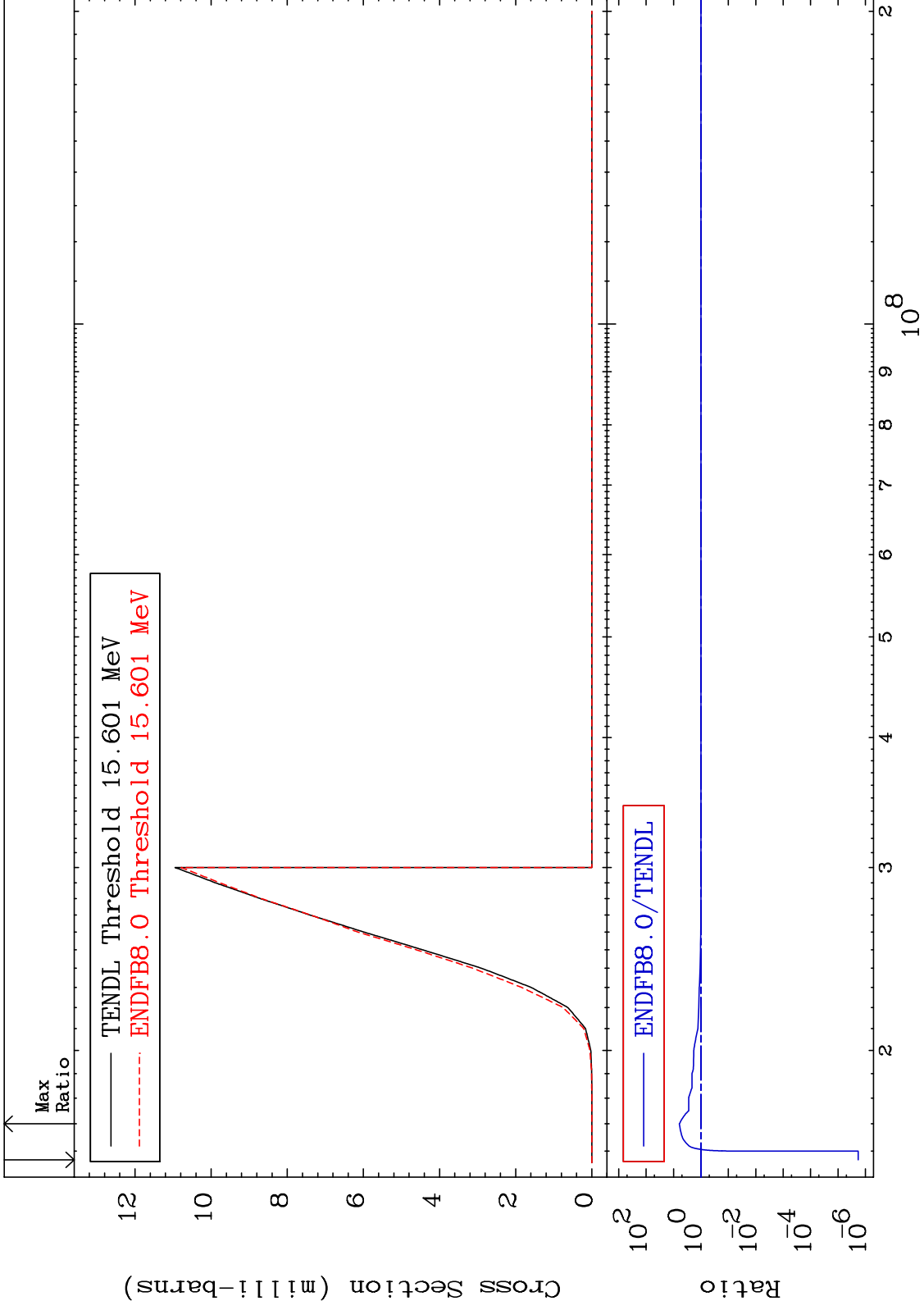
48-Cd-109

MAT 4834

48-Cd-109

(n,2n) p:47-Ag-107g

Radionuclide Production Cross Section -100.0 To 514.7 %

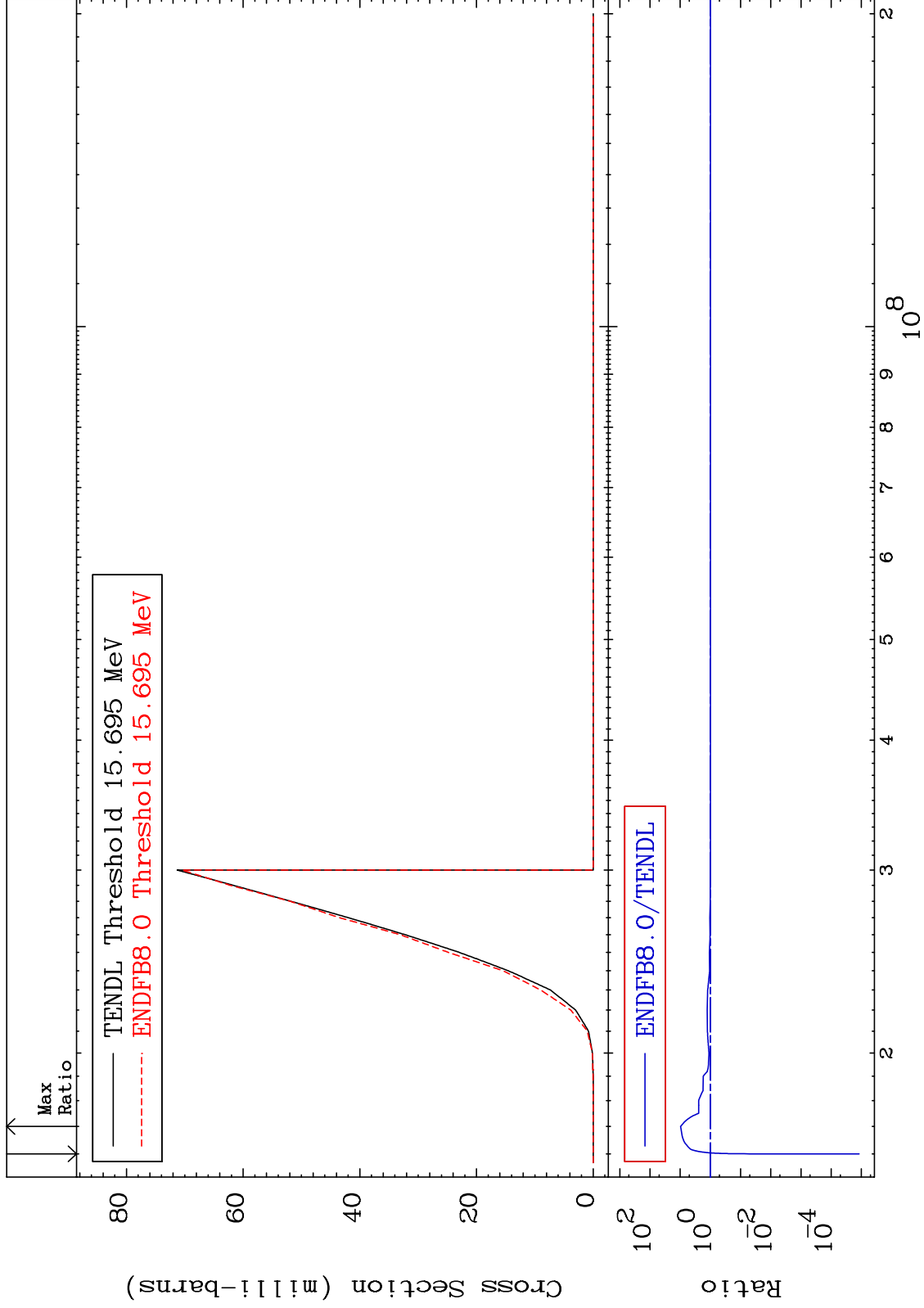


MAT 4834

(n,2n) p:47-Ag-107m1

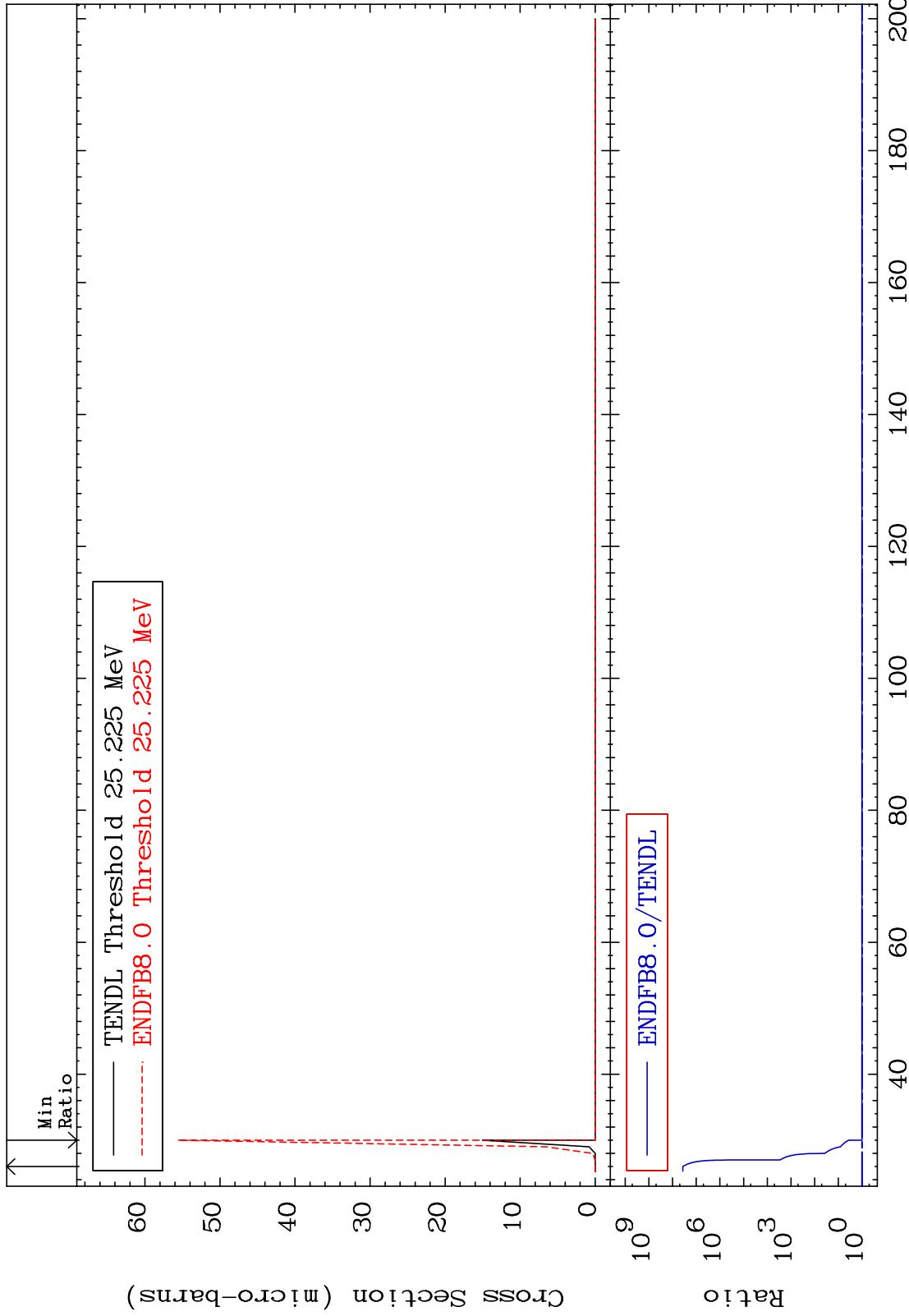
48-Cd-109

Radionuclide Production Cross Section -100.0 To 866.8 %



MAT 4834

(n,3n) p:47-Ag-106g 48-Cd-109
Radionuclide Production Cross Section 0.000 To 9999. %



90

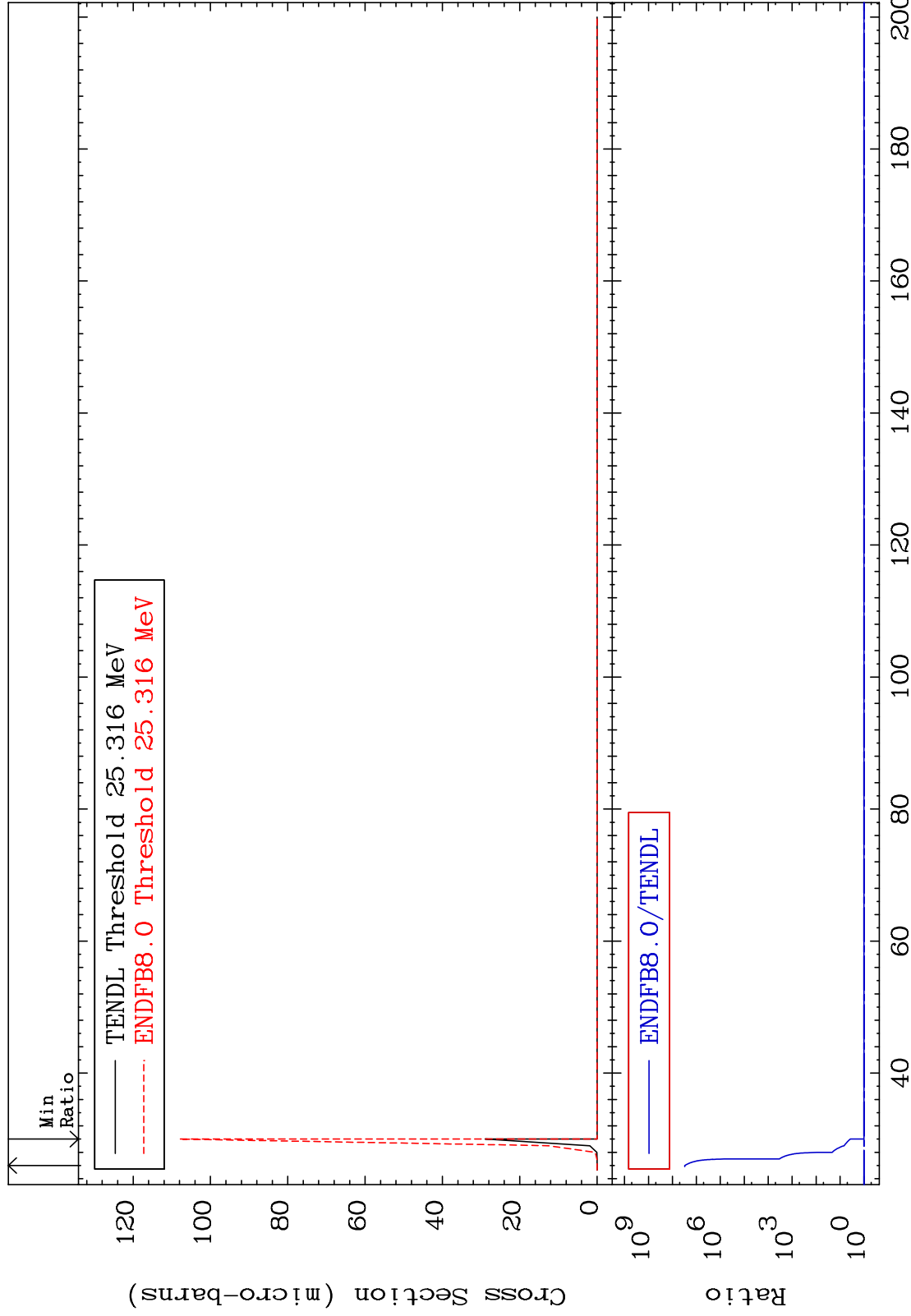
48-Cd-109

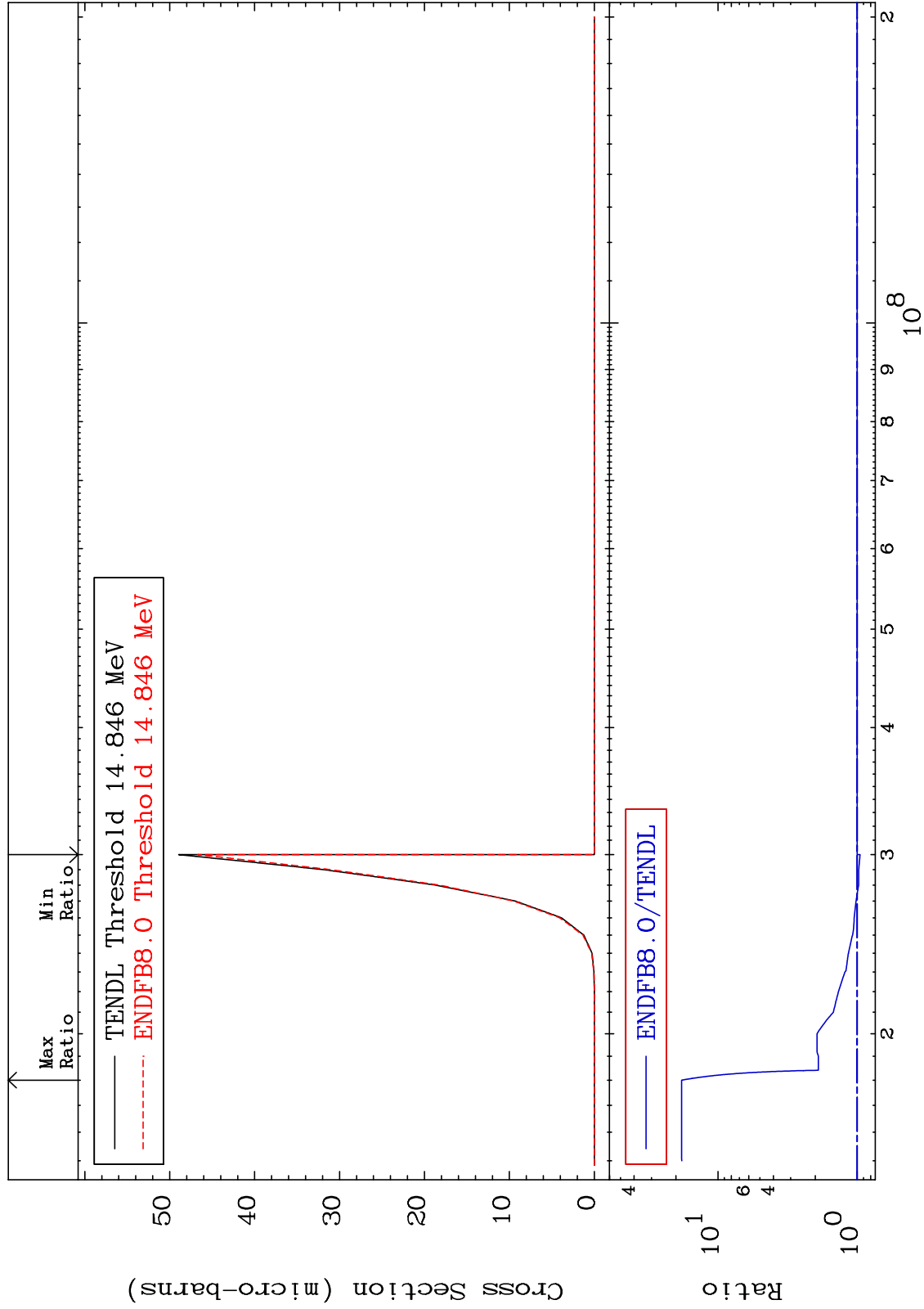
MAT 4834

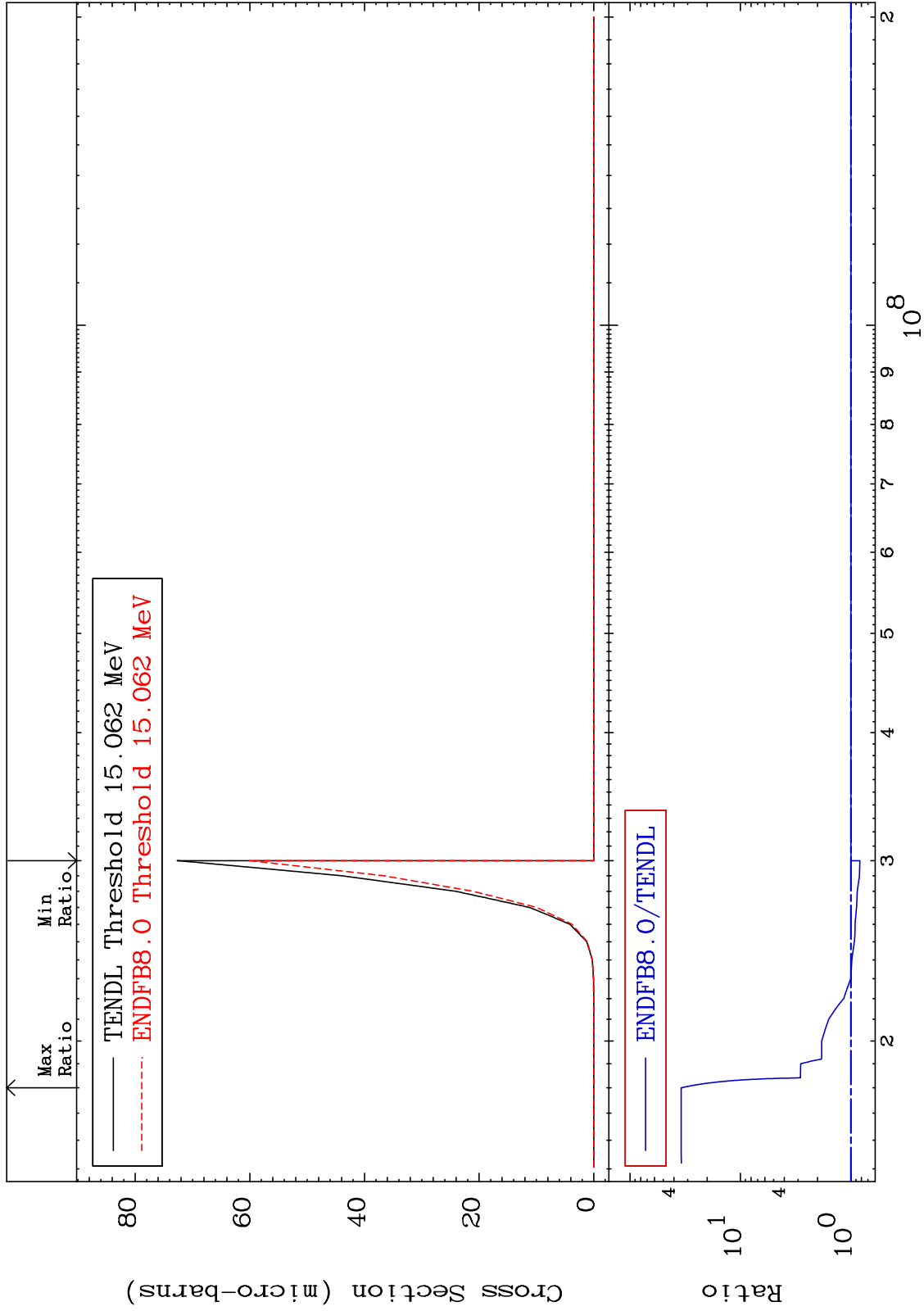
(n,3n) p:47-Ag-106m1

48-Cd-109

Radionuclide Production Cross Section 0.000 To 9999. %





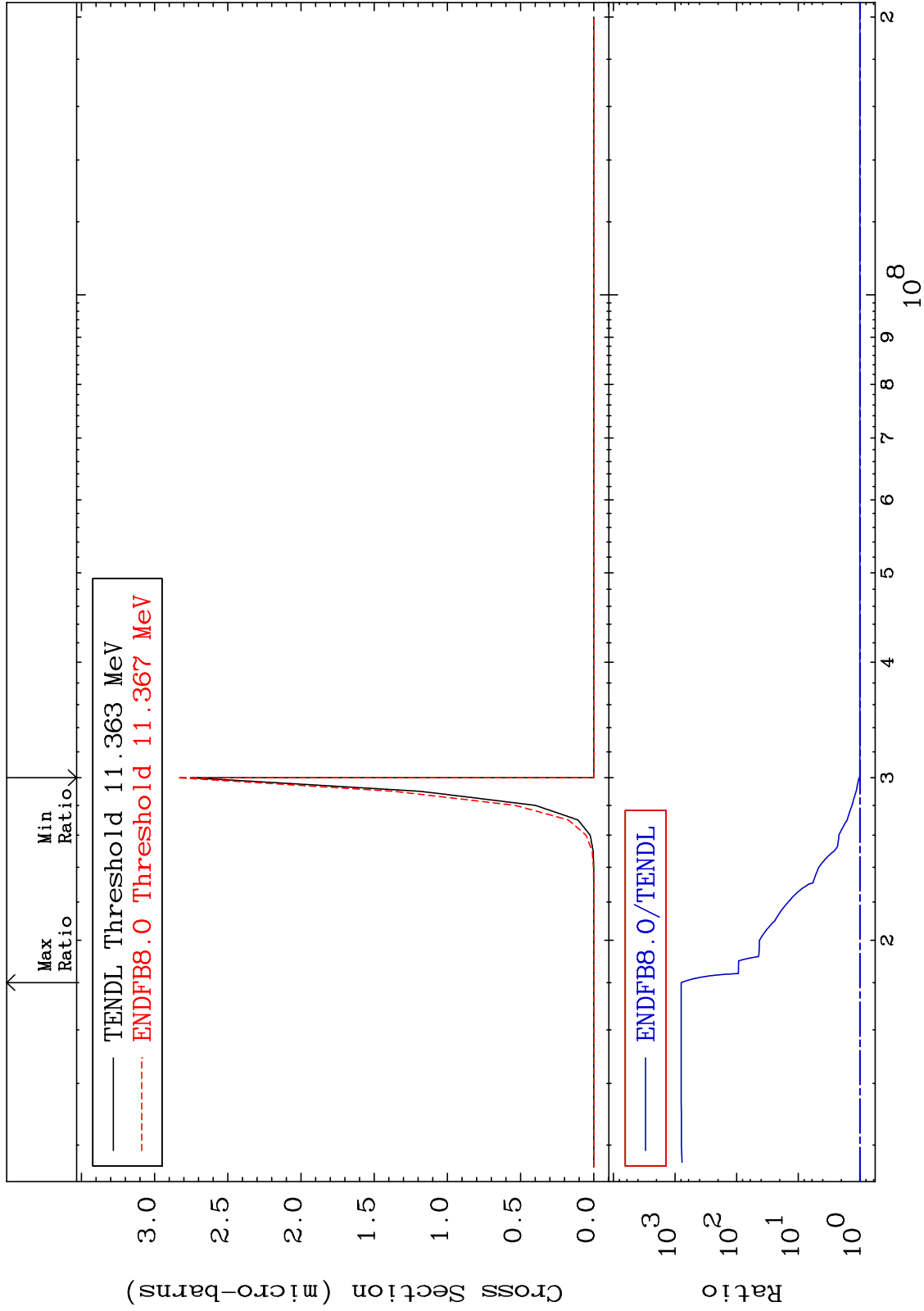


MAT 4834

48-Cd-109

(n, n') p α : 45-Rh-104g

Radionuclide Production Cross Section 0.000 To 9999. %

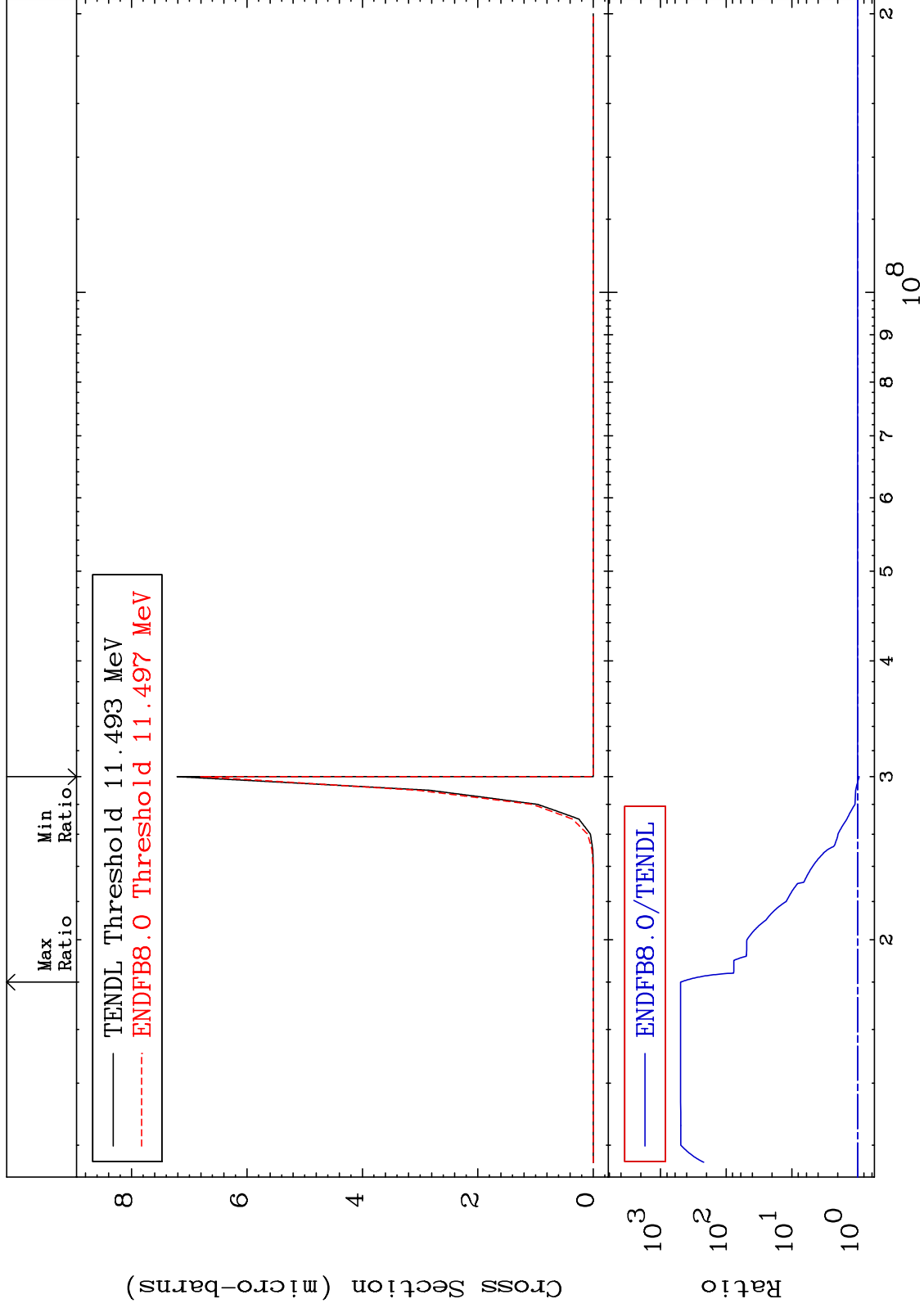


MAT 4834

(n, n') p α : 45-Rh-104m3

48-Cd-109

Radionuclide Production Cross Section -5.550 To 9999. %

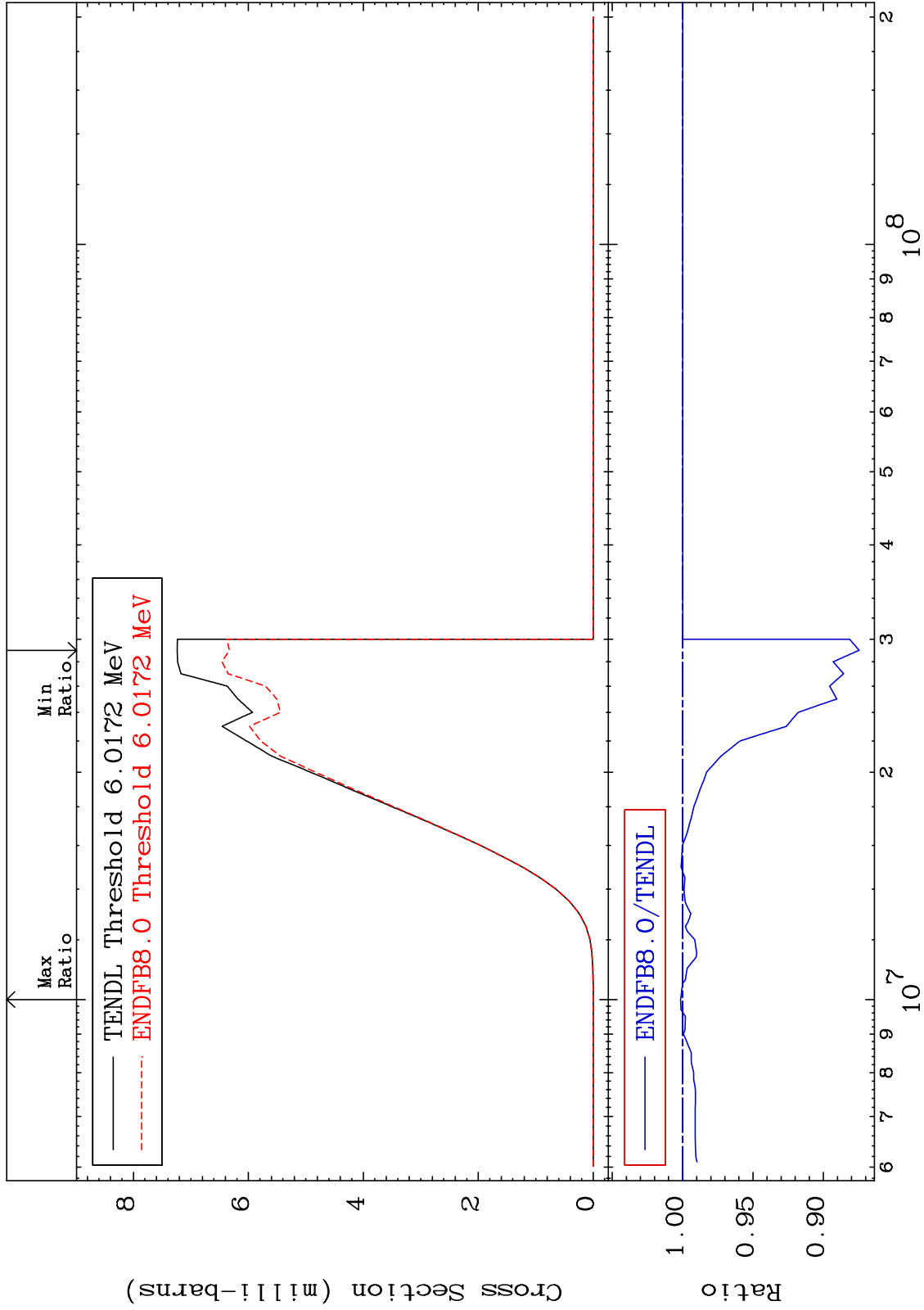


MAT 4834

(n,d) : 47-Ag-108g

48-Cd-109

Radionuclide Production Cross Section -12.55 To 0.146 %



96

48-Cd-109

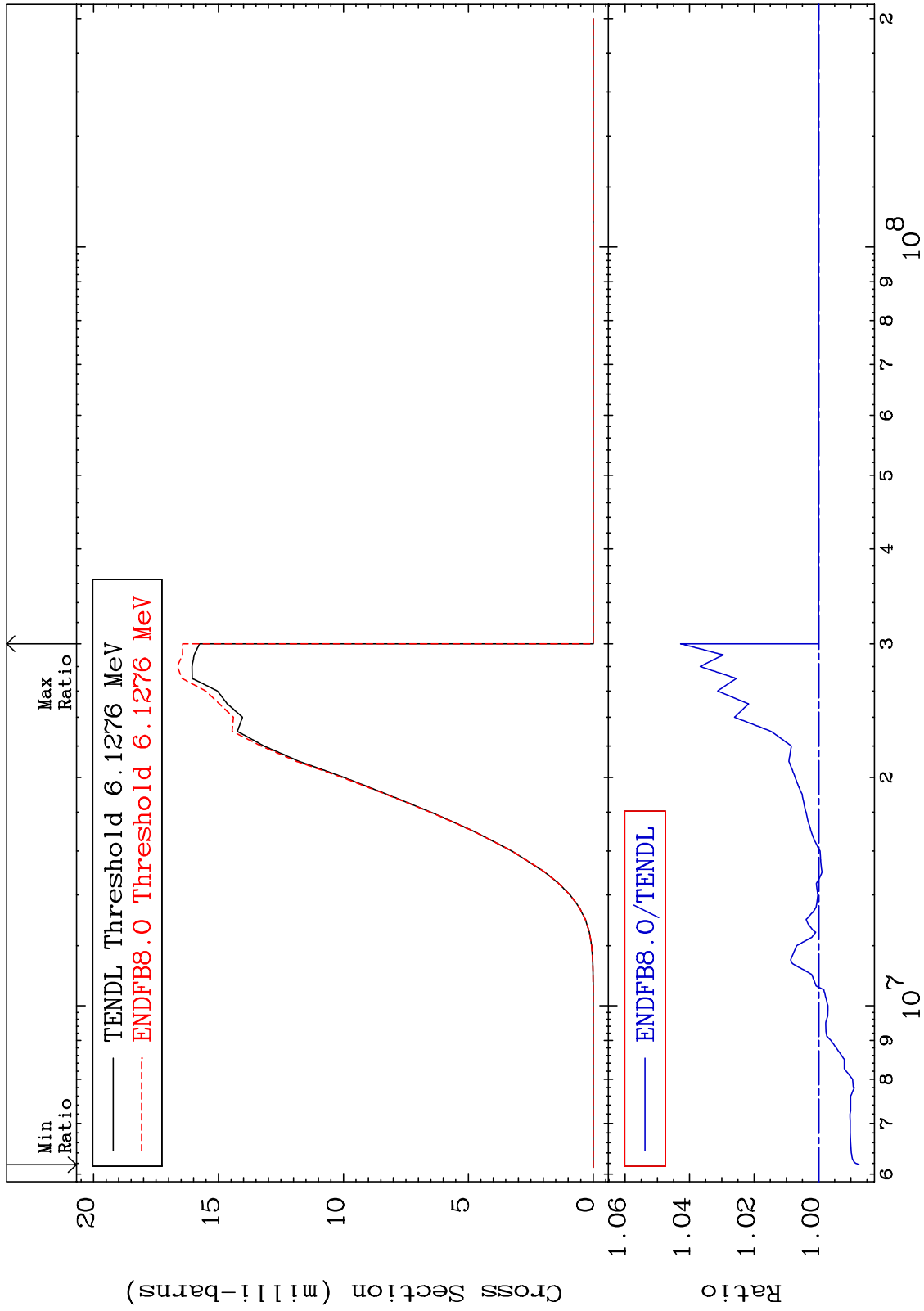
48-Cd-109

MAT 4834

(n, d) : 47-Ag-108m2

48-Cd-109

Radionuclide Production Cross Section -1.259 To 4.278 %



97

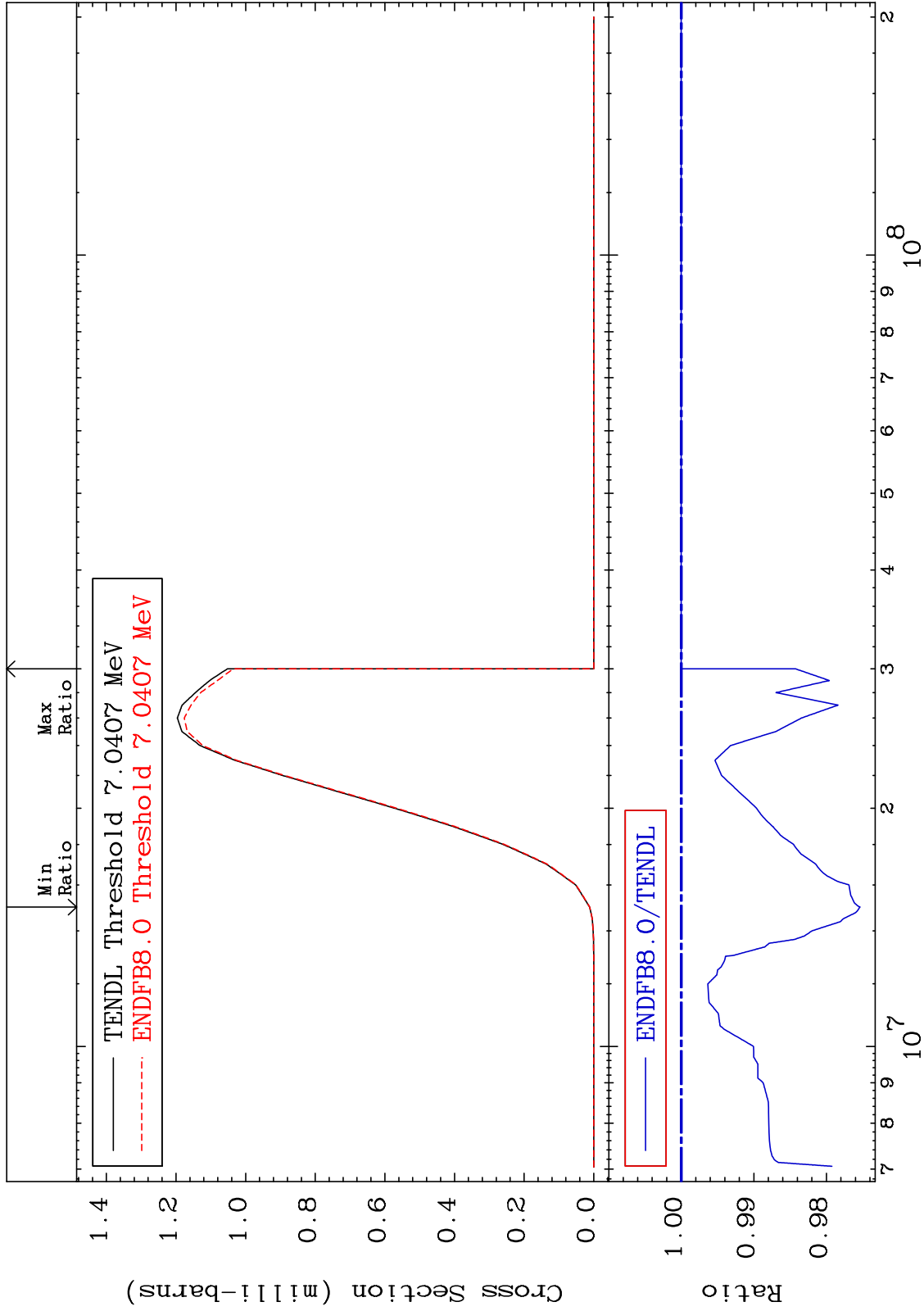
48-Cd-109

MAT 4834

48-Cd-109

(n, t): 47-Ag-107g

Radionuclide Production Cross Section -2.462 To 0.000 %



98

Incident Energy (eV)

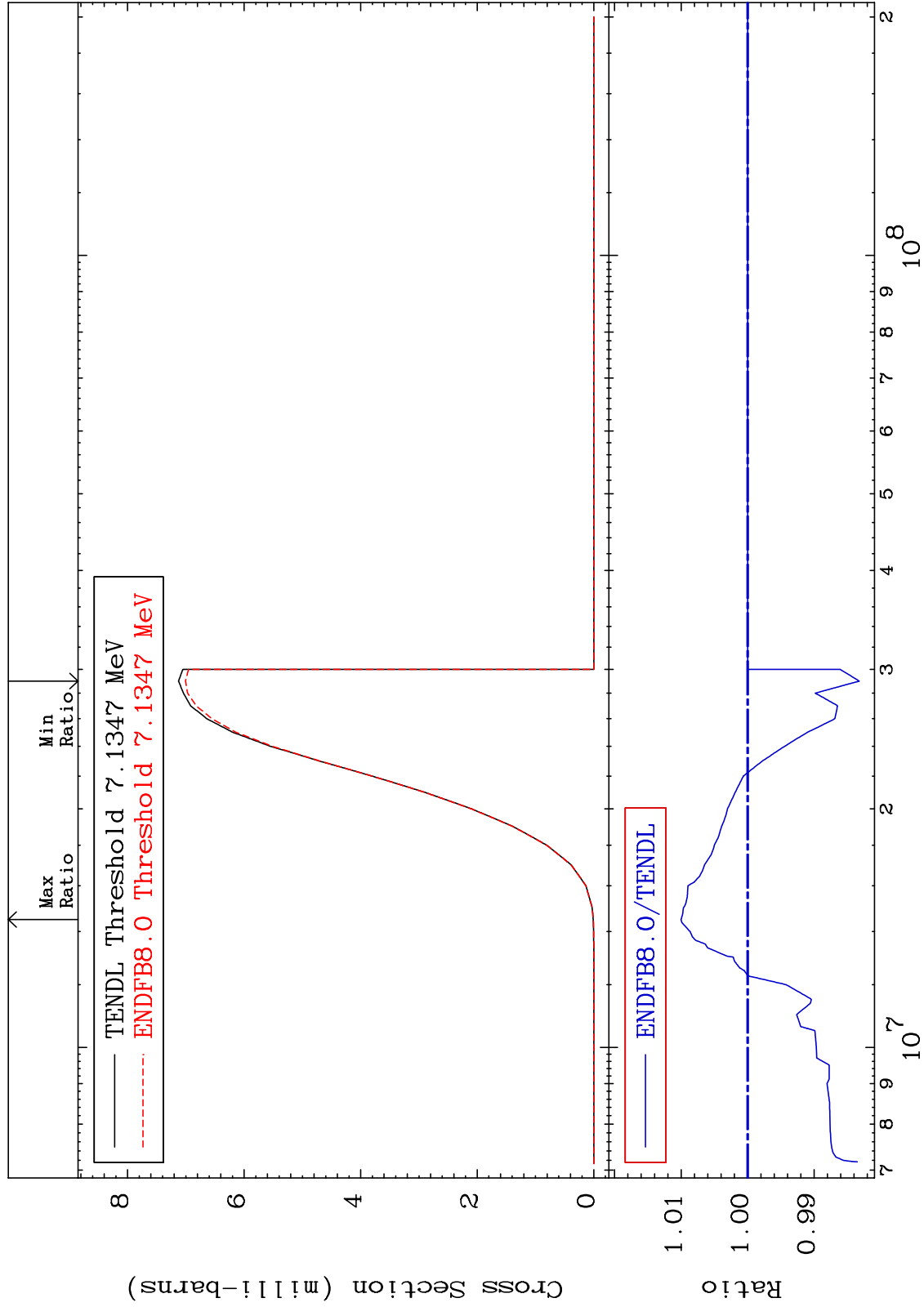
48-Cd-109

MAT 4834

(n, t) : 47-Ag-107m1

48-Cd-109

Radionuclide Production Cross Section -1.679 To 1.001 %



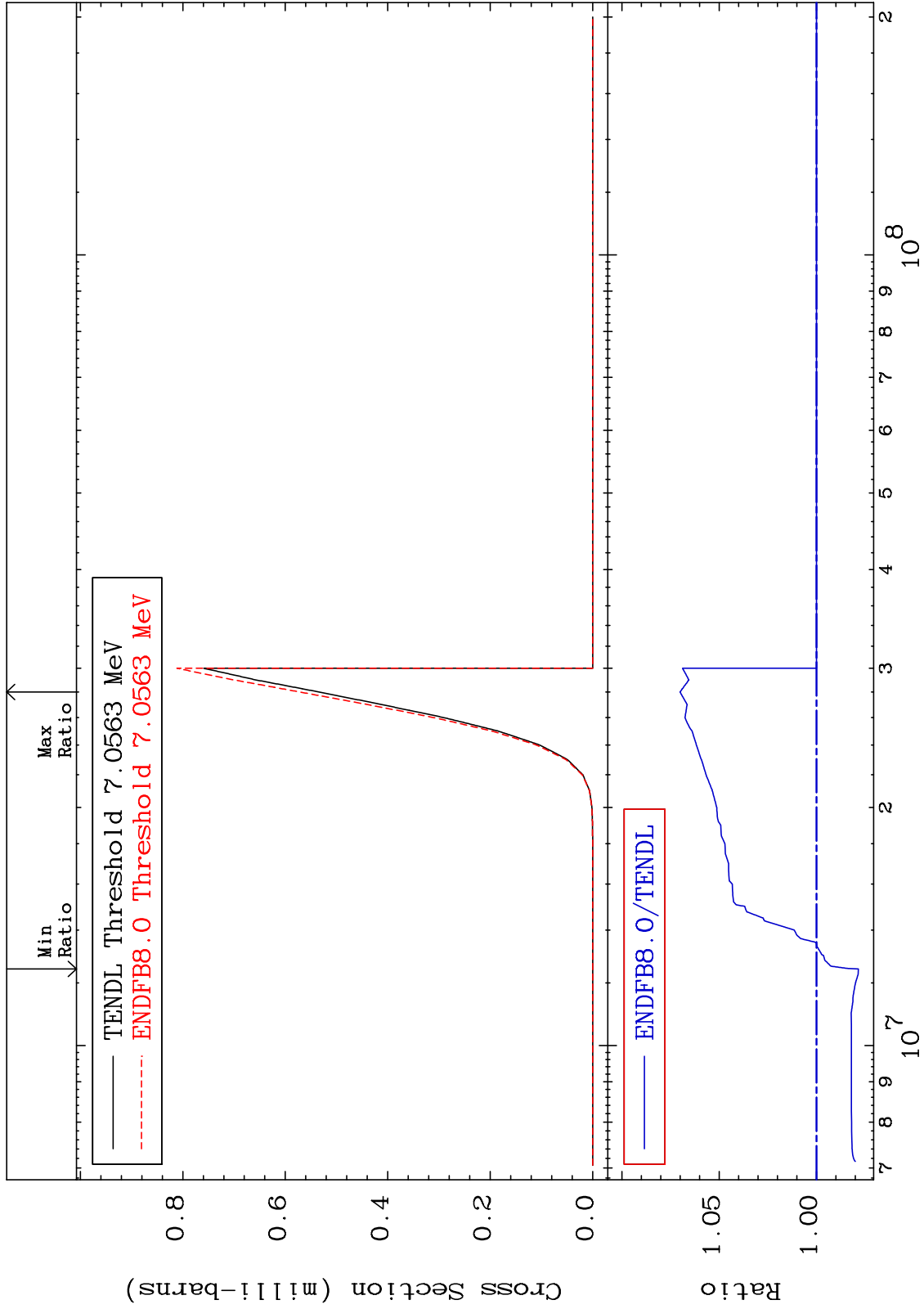
99

Incident Energy (eV)

48-Cd-109

MAT 4834

(n, He-3): 46-Pd-107g 48-Cd-109
Radionuclide Production Cross Section -2.159 To 7.010 %



48-Cd-109

Incident Energy (eV)

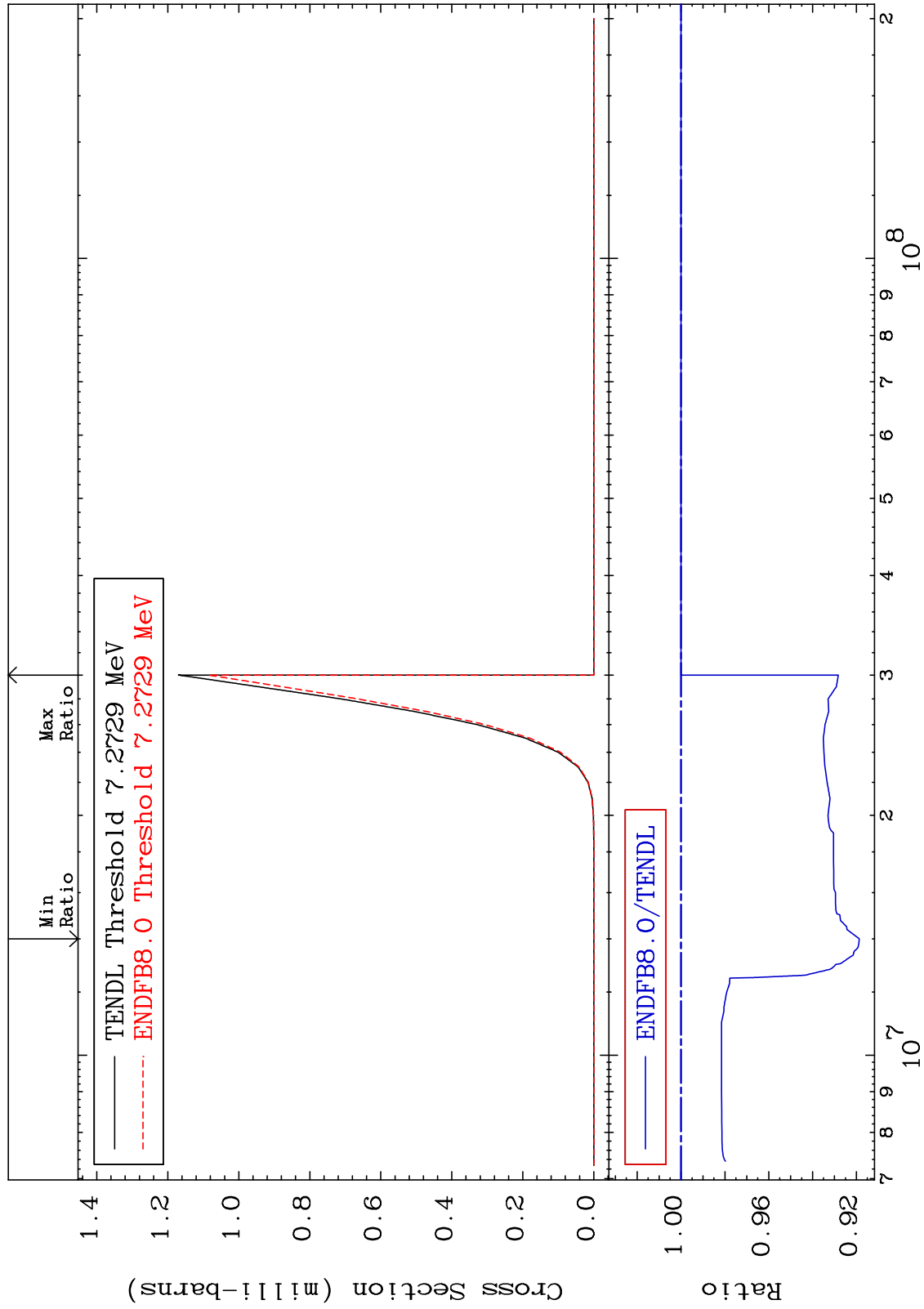
100

MAT 4834

(n, He-3) : 46-Pd-107m2

48-Cd-109

Radionuclide Production Cross Section -8.131 To 0.000 %



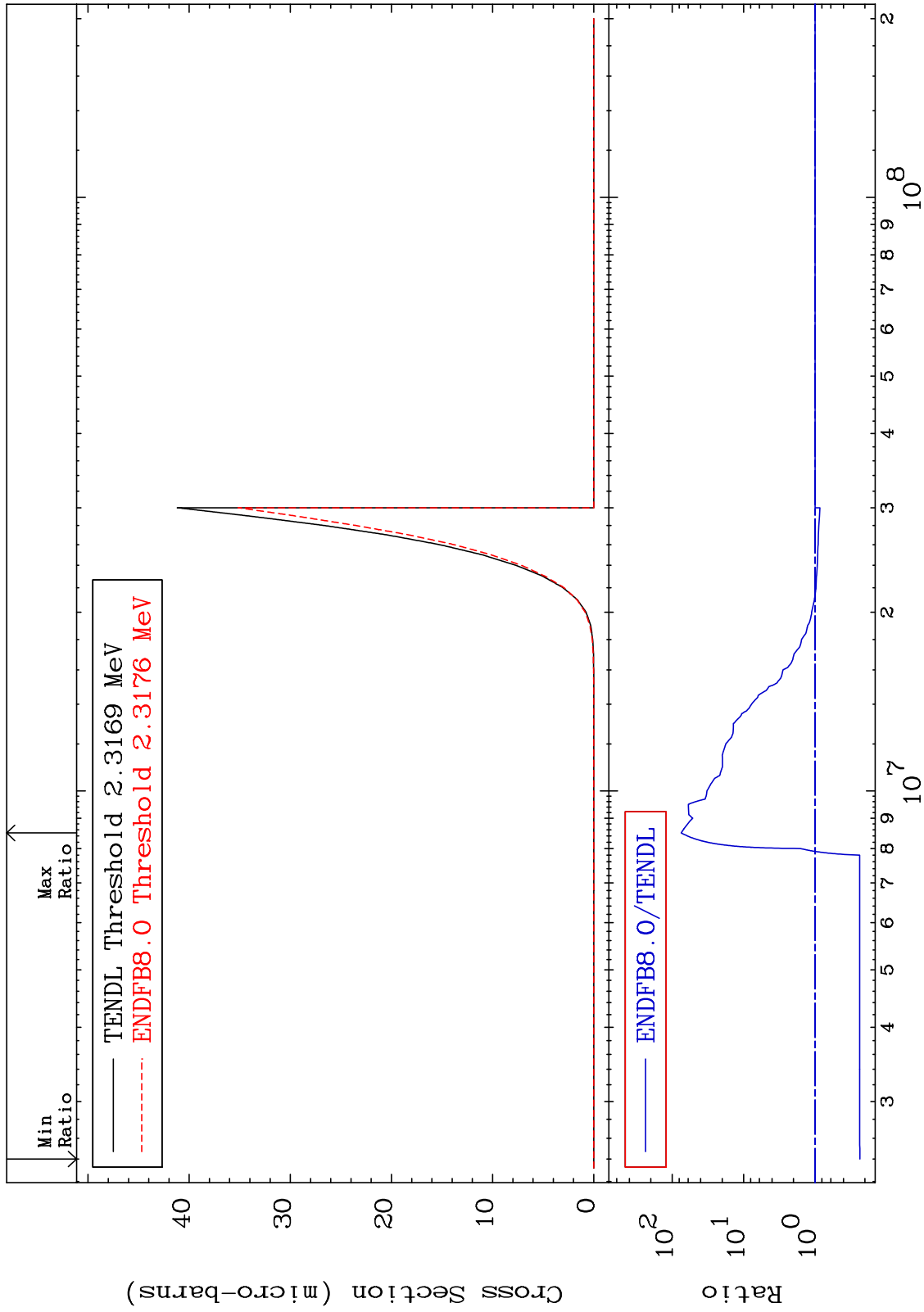
101

Incident Energy (eV)

48-Cd-109

MAT 4834

(n, p) α : 45-Rh-105g 48-Cd-109
Radionuclide Production Cross Section -76.51 To 7392. %



102

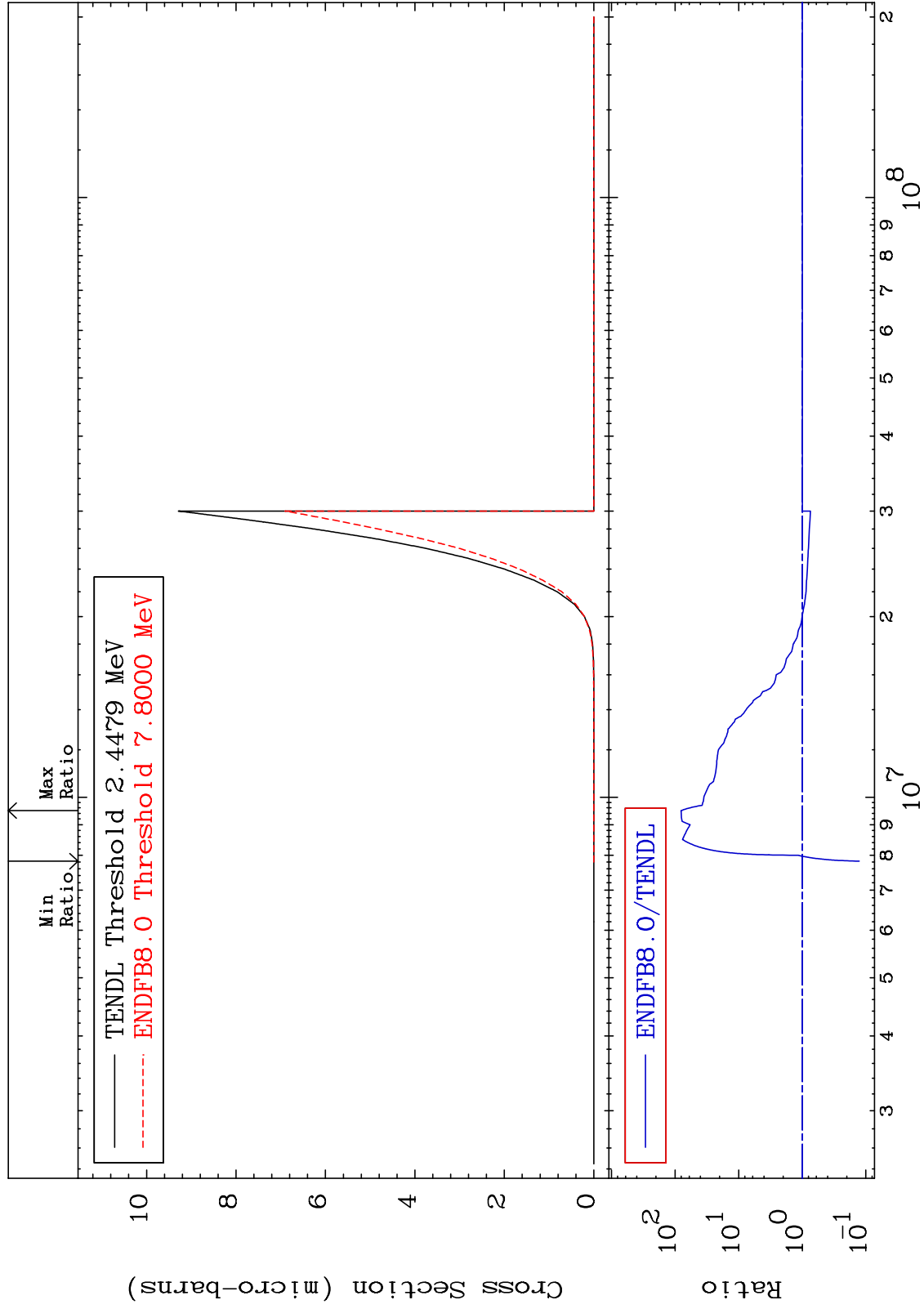
48-Cd-109

MAT 4834

(n, p) α :45-Rh-105m1

48-Cd-109

Radionuclide Production Cross Section -87.31 To 7953. %



103

Incident Energy (eV)

48-Cd-109

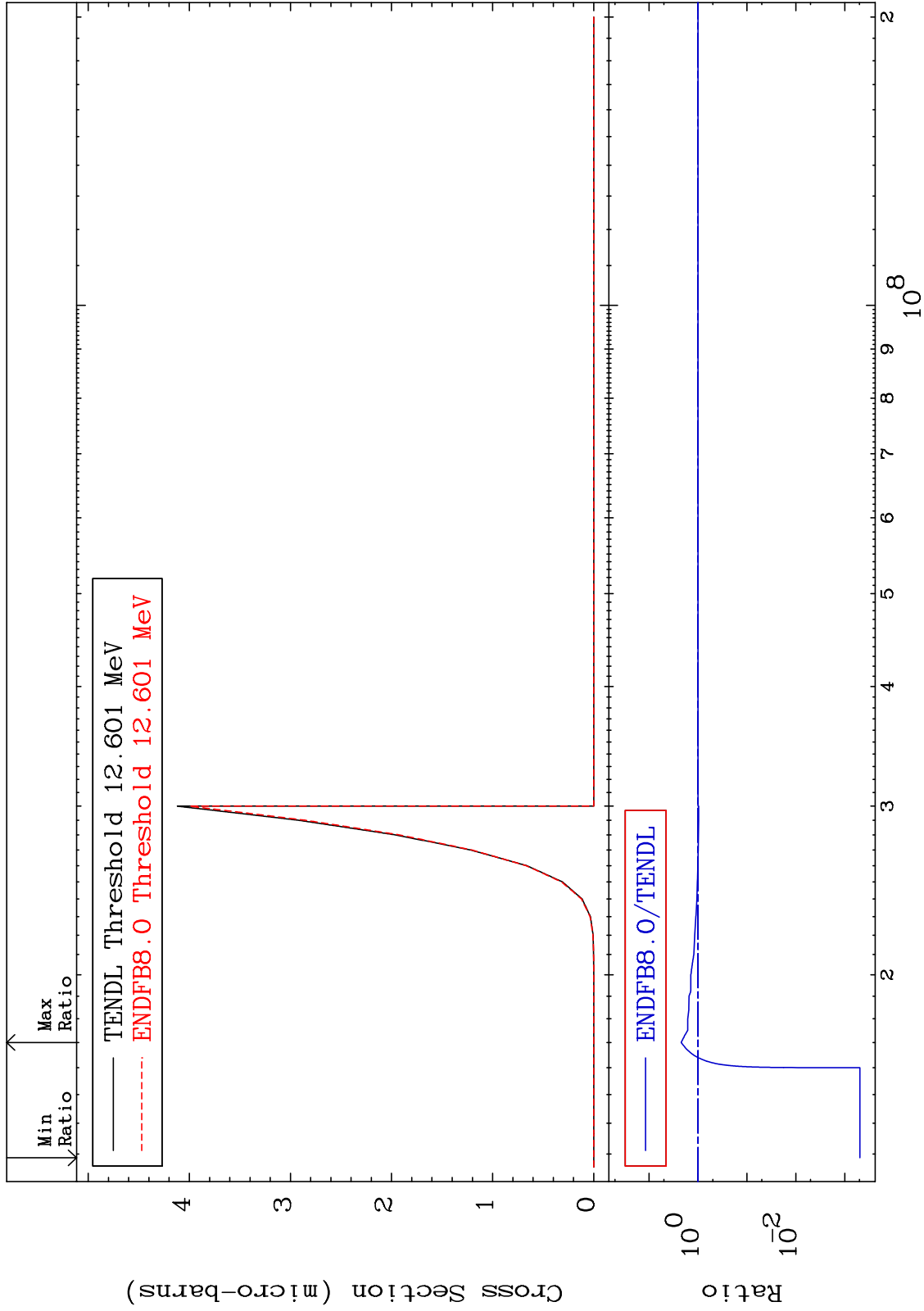
MAT 4834

(n, p) d: 46-Pd-107g

48-Cd-109

Radionuclide Production Cross Section

-99.95 To 120.6 %



104

Incident Energy (eV)

48-Cd-109

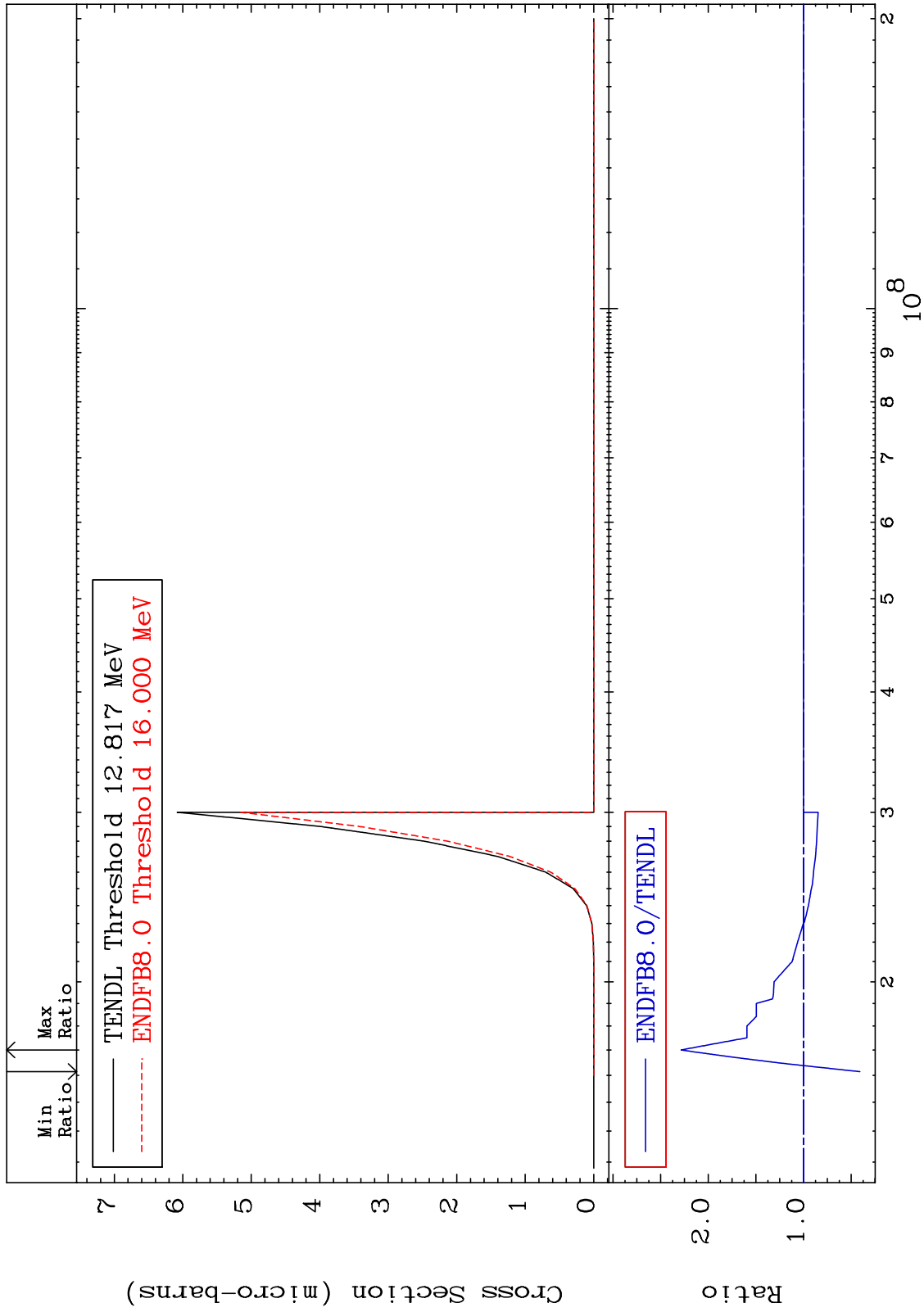
MAT 4834

(n, p) d:46-Pd-107m2

48-Cd-109

Radionuclide Production Cross Section

-59.22 To 128.4 %

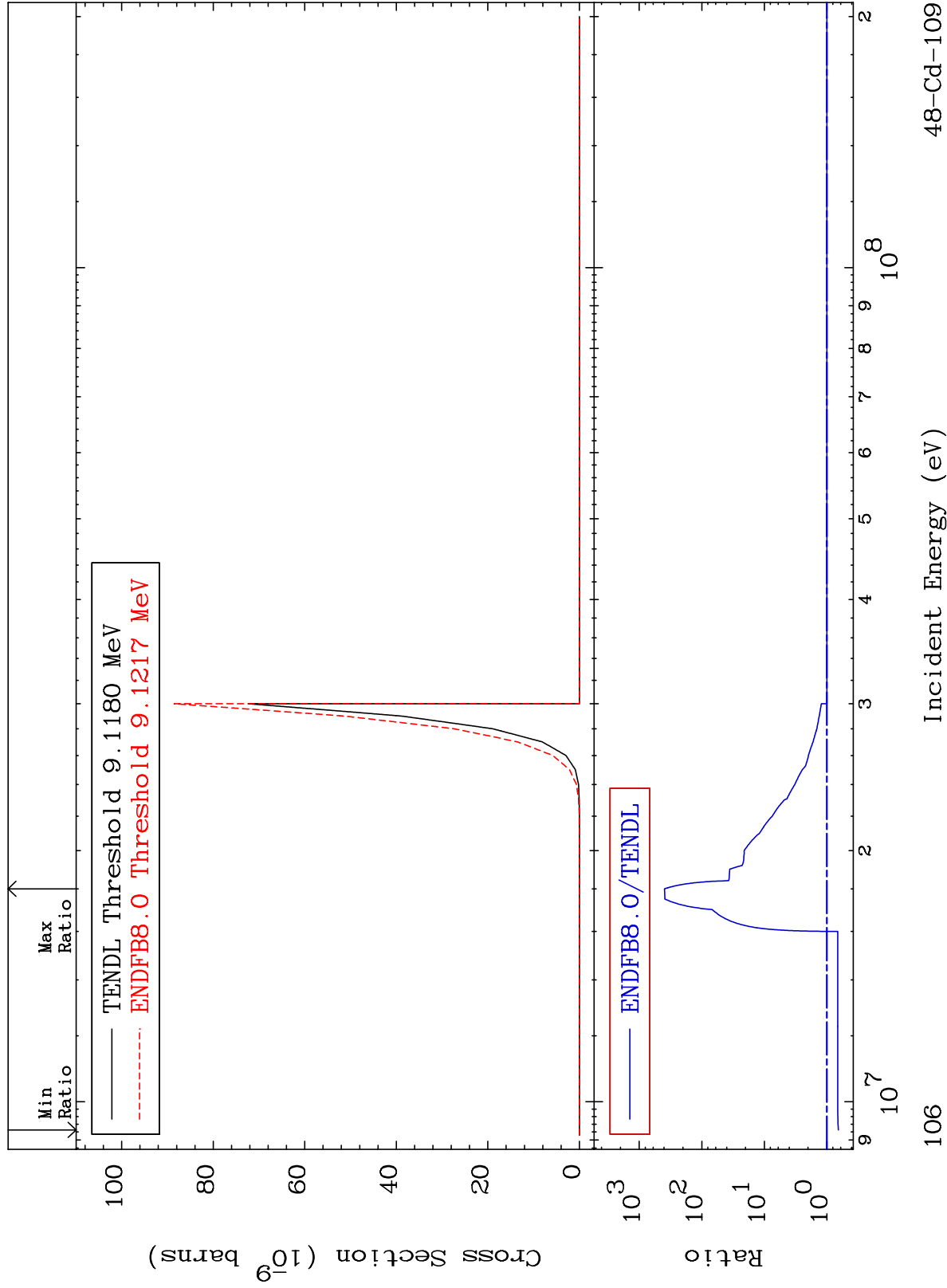


MAT 4834

(n, d) α : 45-Rh-104g

48-Cd-109

Radionuclide Production Cross Section -34.69 To 9999. %



48-Cd-109

Incident Energy (eV)

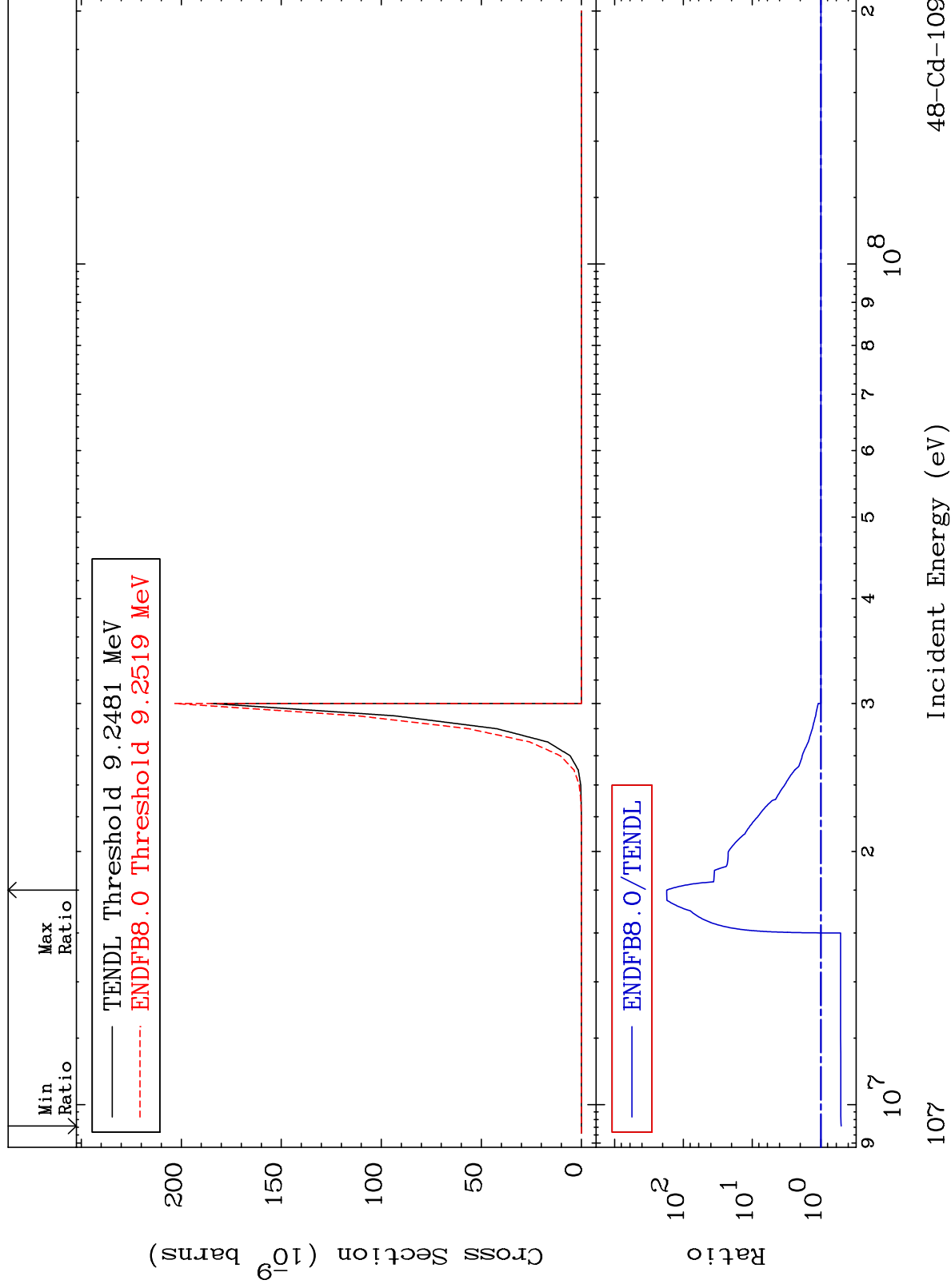
106

MAT 4834

(n, d) α :45-Rh-104m3

48-Cd-109

Radionuclide Production Cross Section -49.32 To 9999. %



48-Cd-109