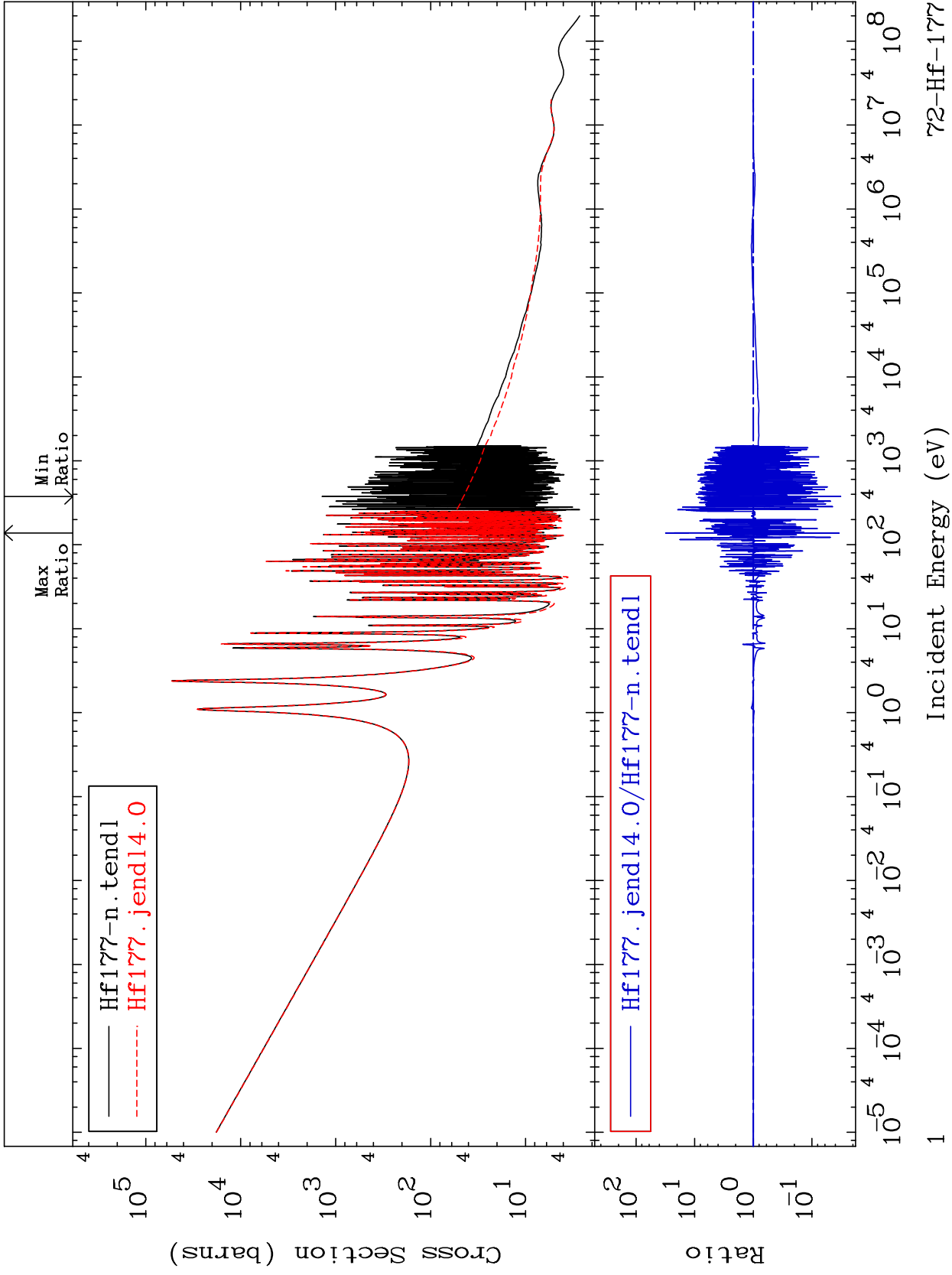


MAT 7234

Total
Cross Section

72-Hf-177
-96.76 To 3050. %



72-Hf-177

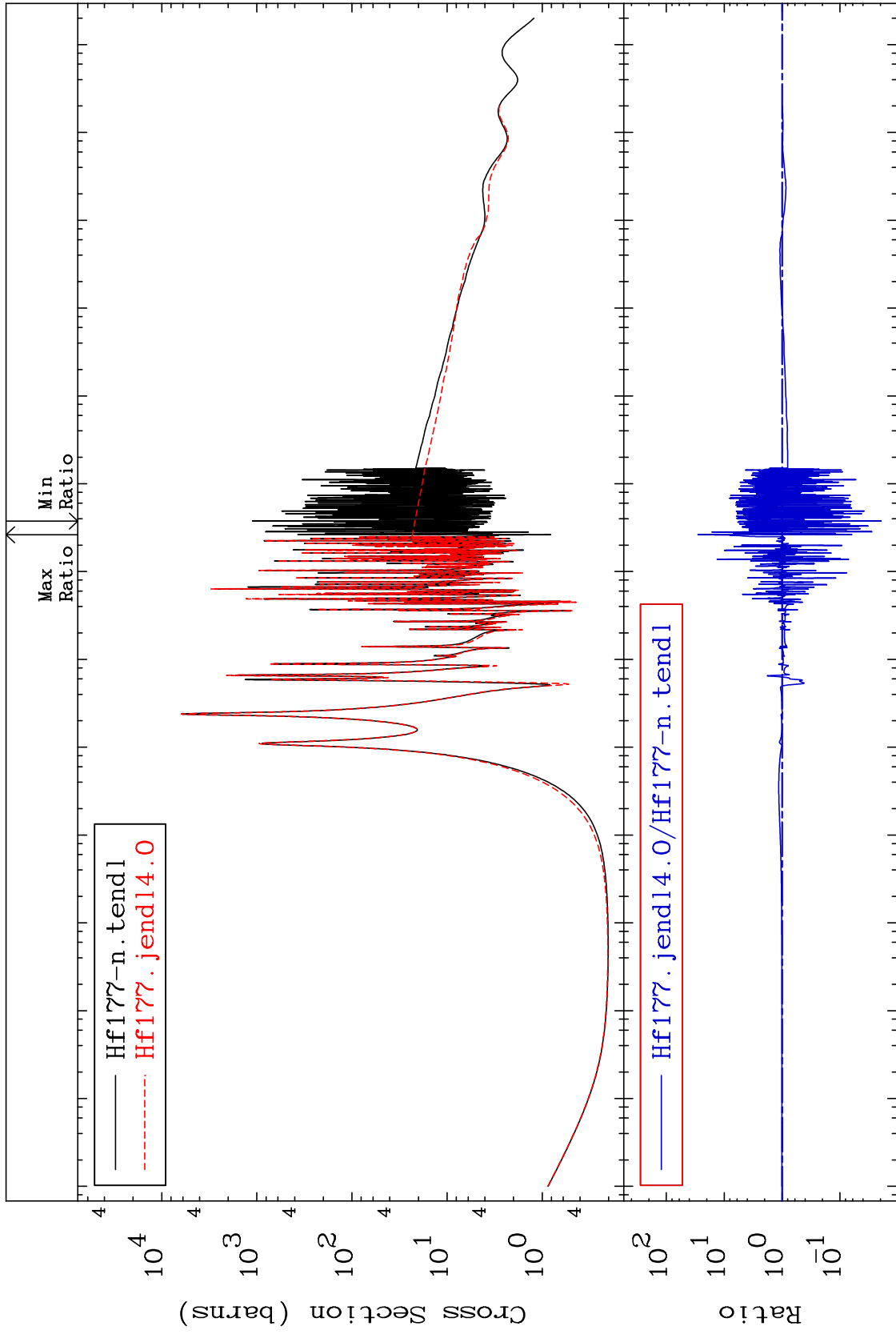
MAT 7234

Elastic

72-Hf-177

Cross Section

-98.06 To 2750. %



Incident Energy (eV)

72-Hf-177

2

MAT 7234

Inelastic
Cross Section

⁷²Hf-177
-3.524 To 57.06 %

Min
Ratio

Max
Ratio

— Hf177-n.tendl Threshold 113.59 keV
- - - Hf177.jendl4.0 Threshold 113.59 keV

Cross Section (barns)

3

2

1

0

— Hf177.jendl4.0/Hf177-n.tendl

1.6

1.4

1.2

1.0

Ratio

10⁶

10⁷

10⁸

3

Incident Energy (eV)

⁷²Hf-177

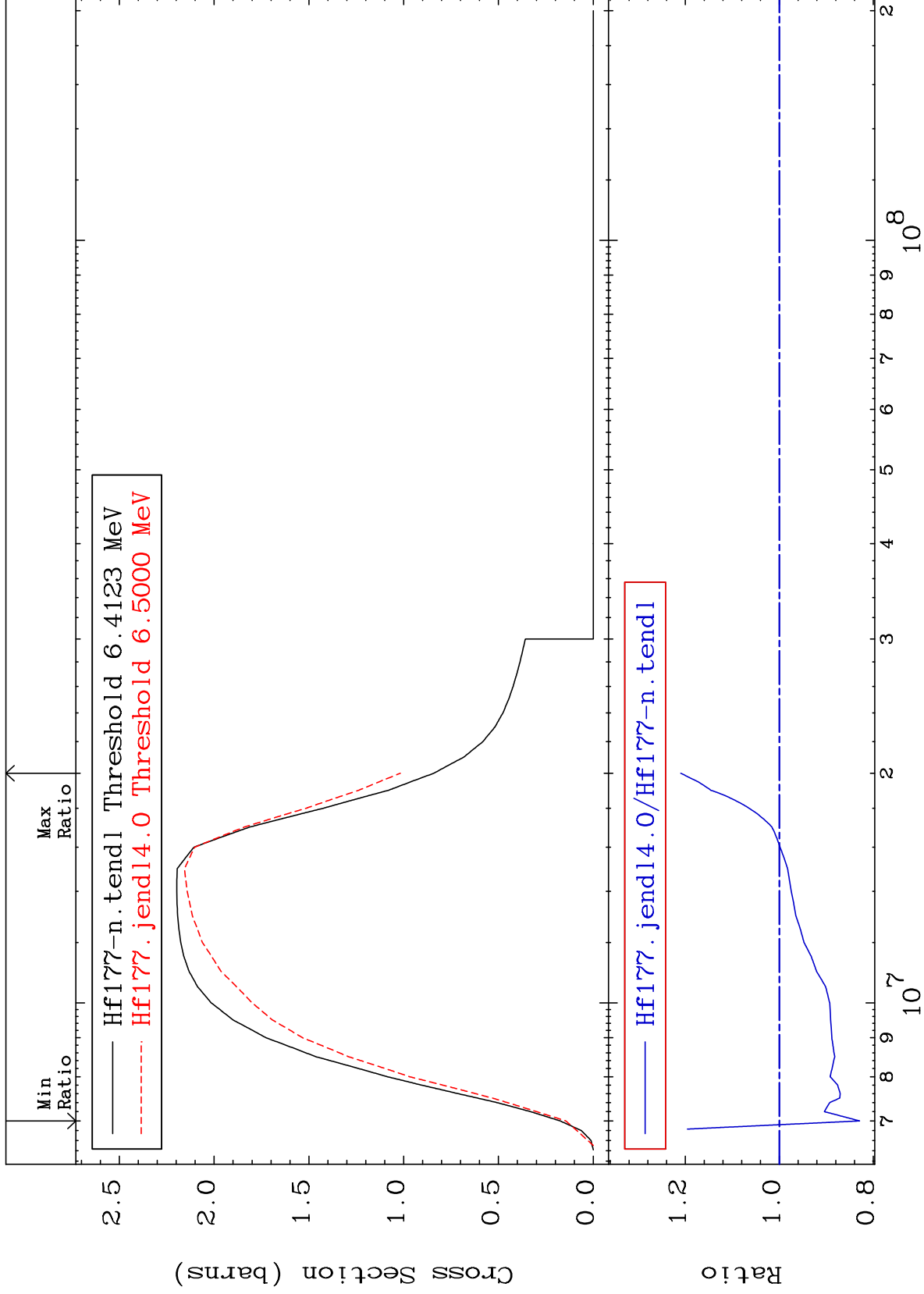
MAT 7234

(n,2n)

⁷²Hf-177

Cross Section

-17.07 To 20.98 %



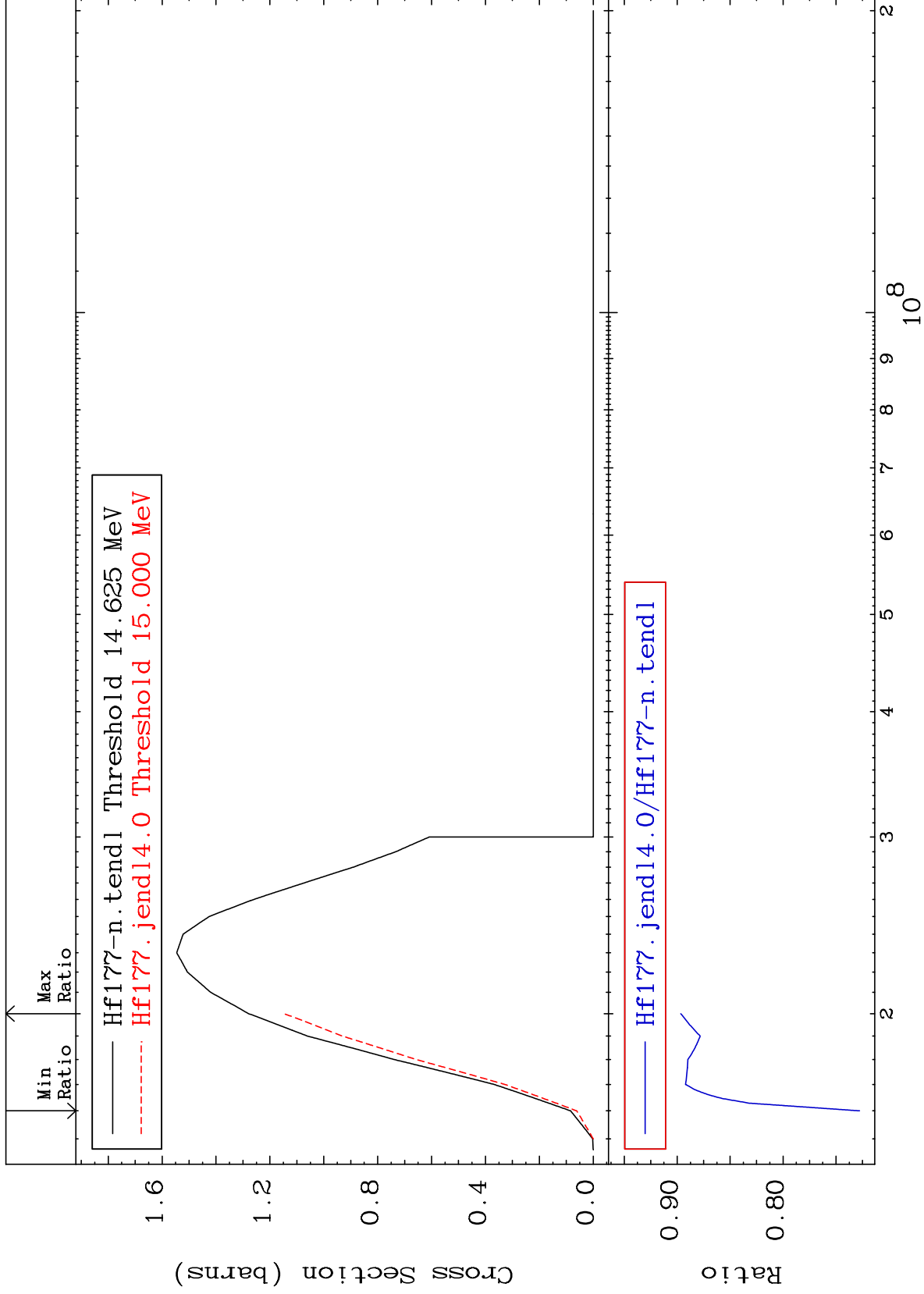
MAT 7234

(n,3n)

⁷²Hf-177

Cross Section

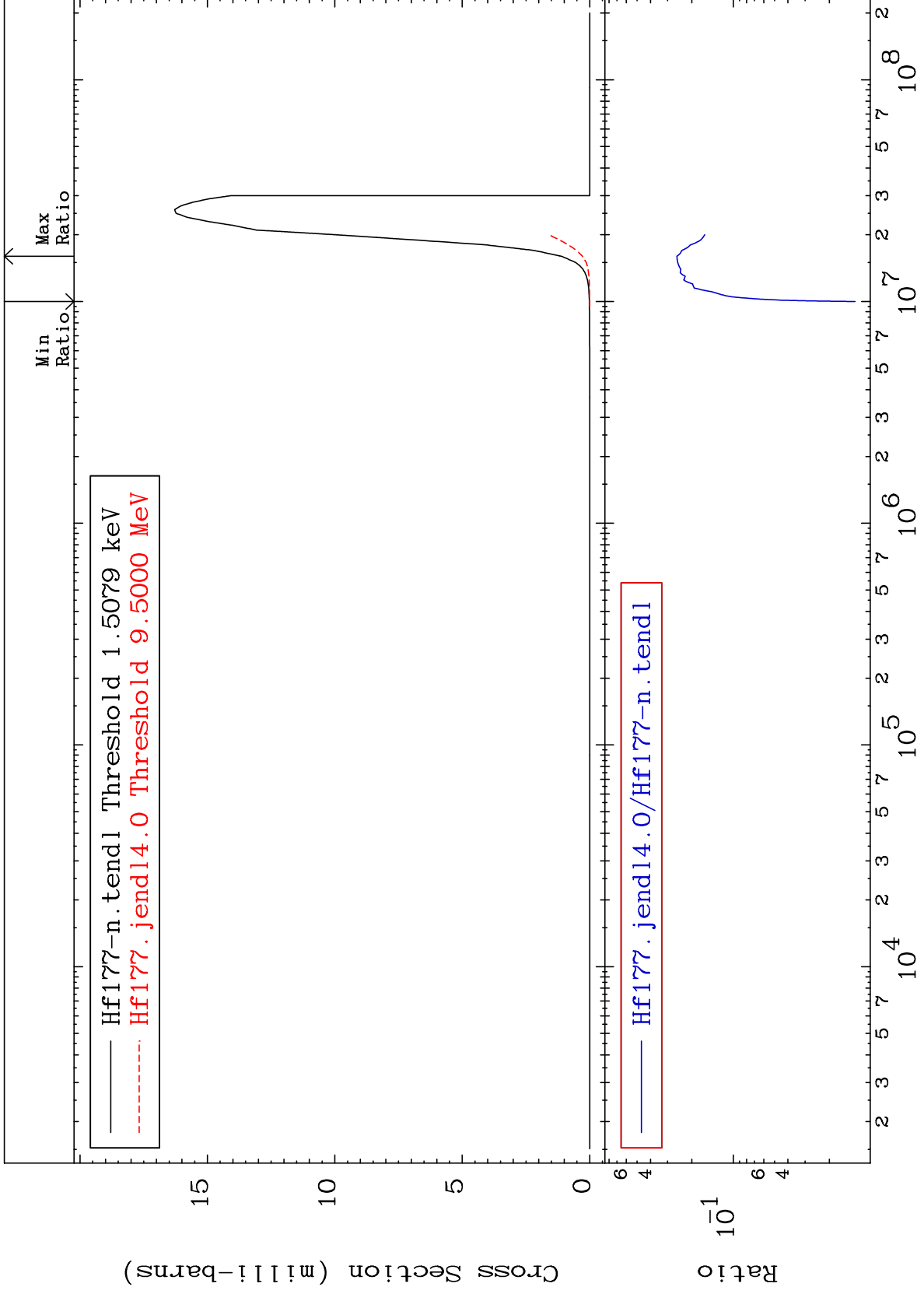
-27.22 To -10.34%



MAT 7234

$(n, n') \alpha$
Cross Section

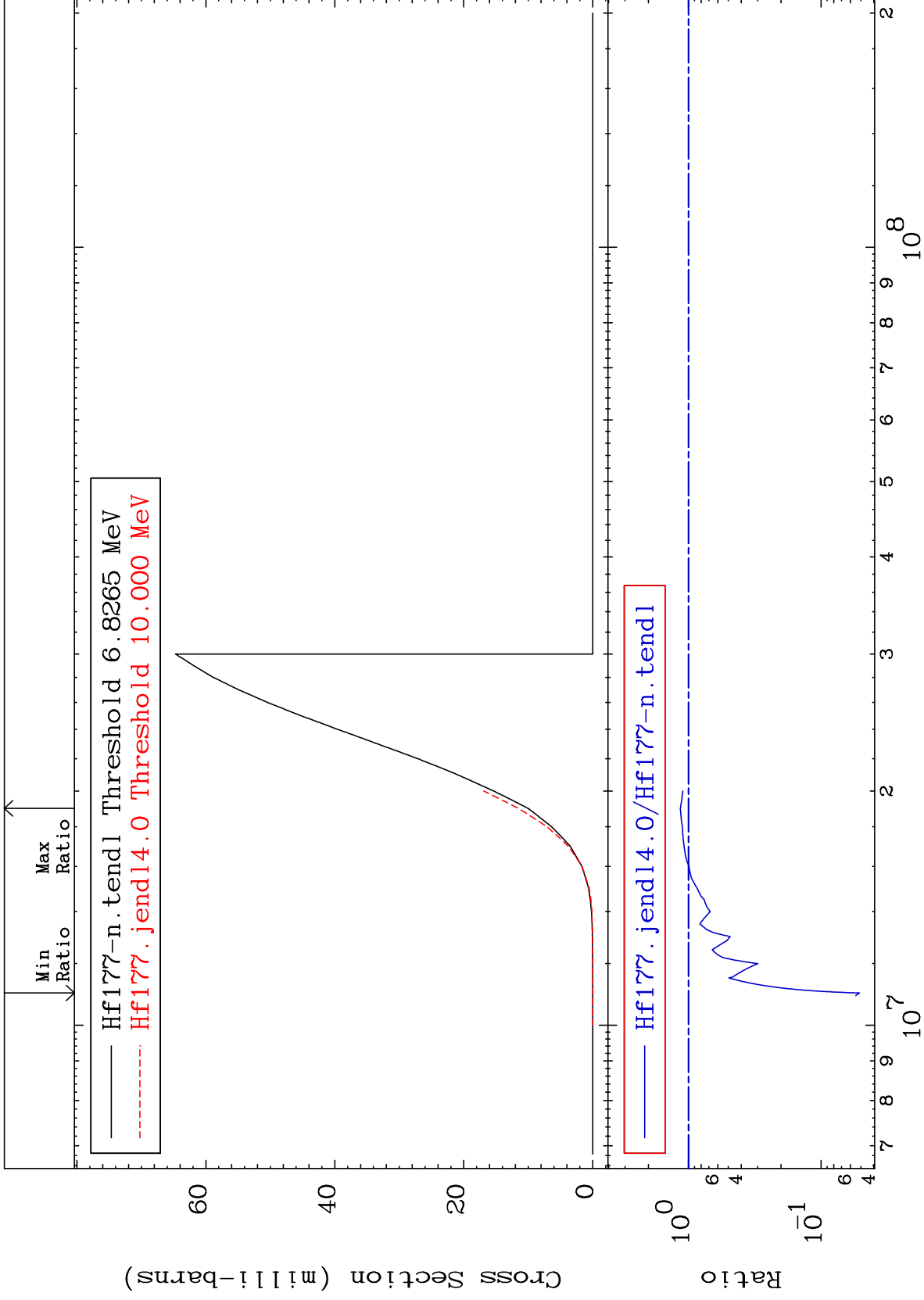
$^{72}\text{Hf}-177$
-98.70 To -74.33%



MAT 7234

(n,n') p
Cross Section

72-Hf-177
-94.87 To 14.99 %



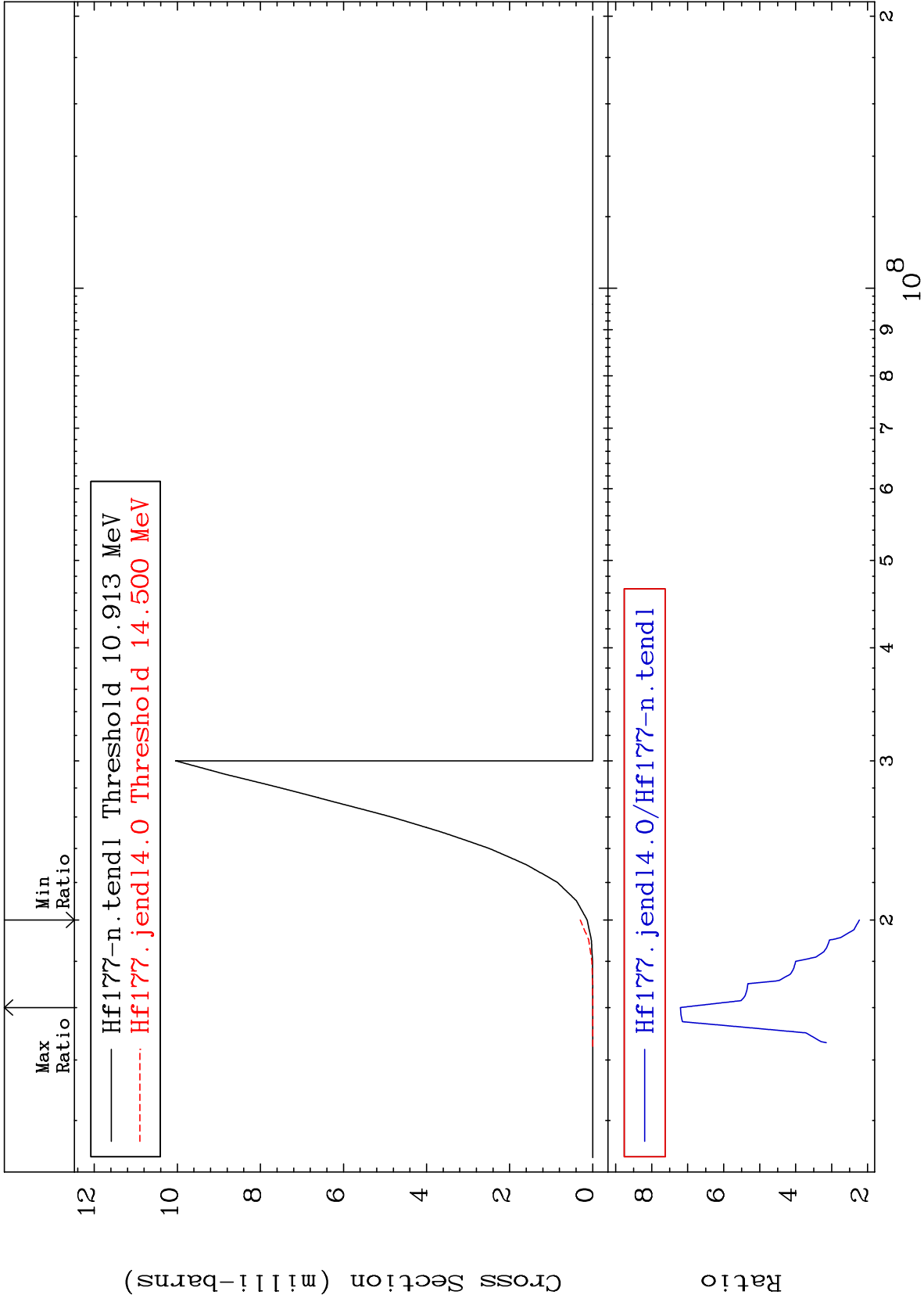
MAT 7234

(n,n') d

72-Hf-177

Cross Section

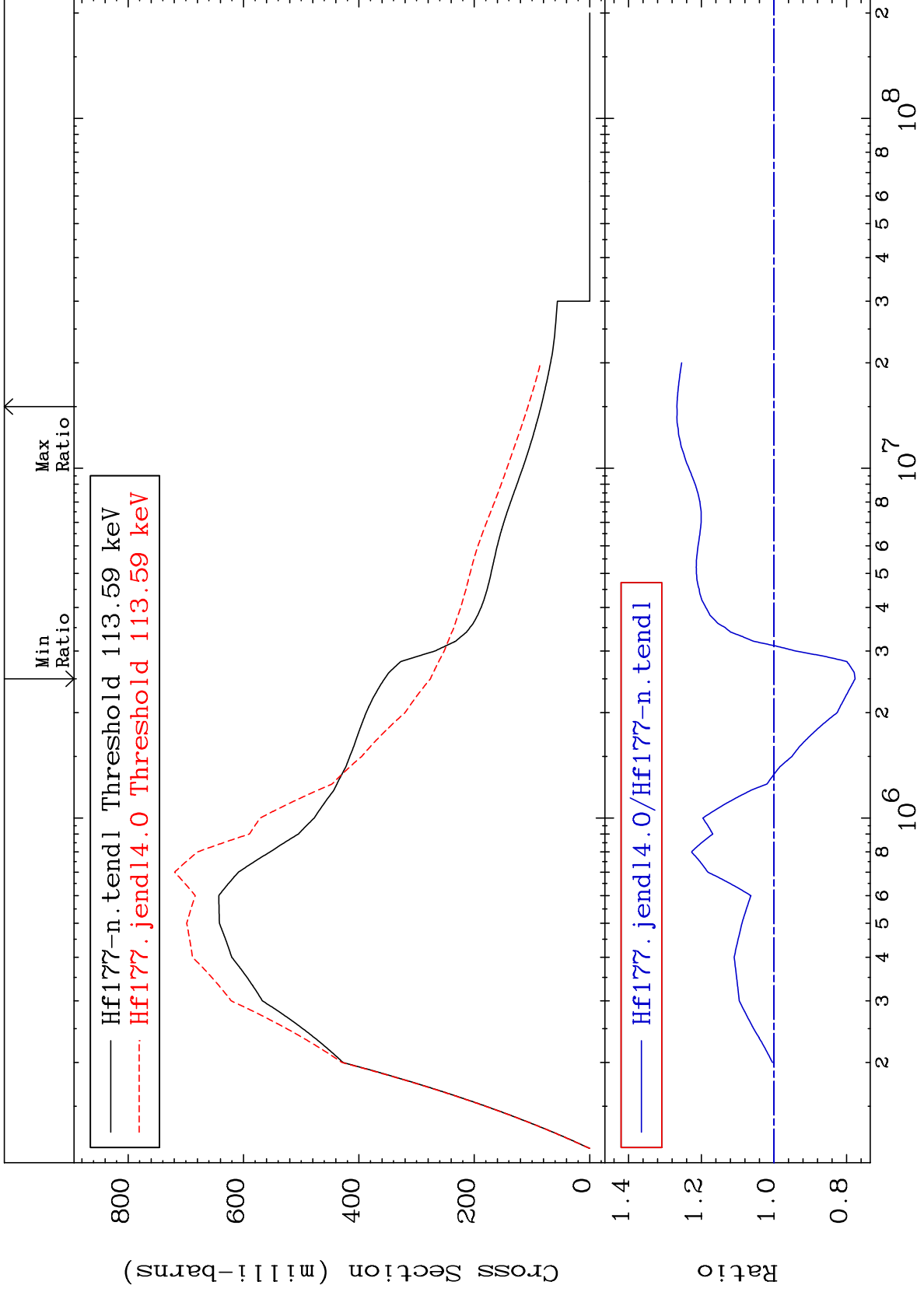
122.8 To 620.4 %



MAT 7234

113.0 keV (n,n') Level
Cross Section

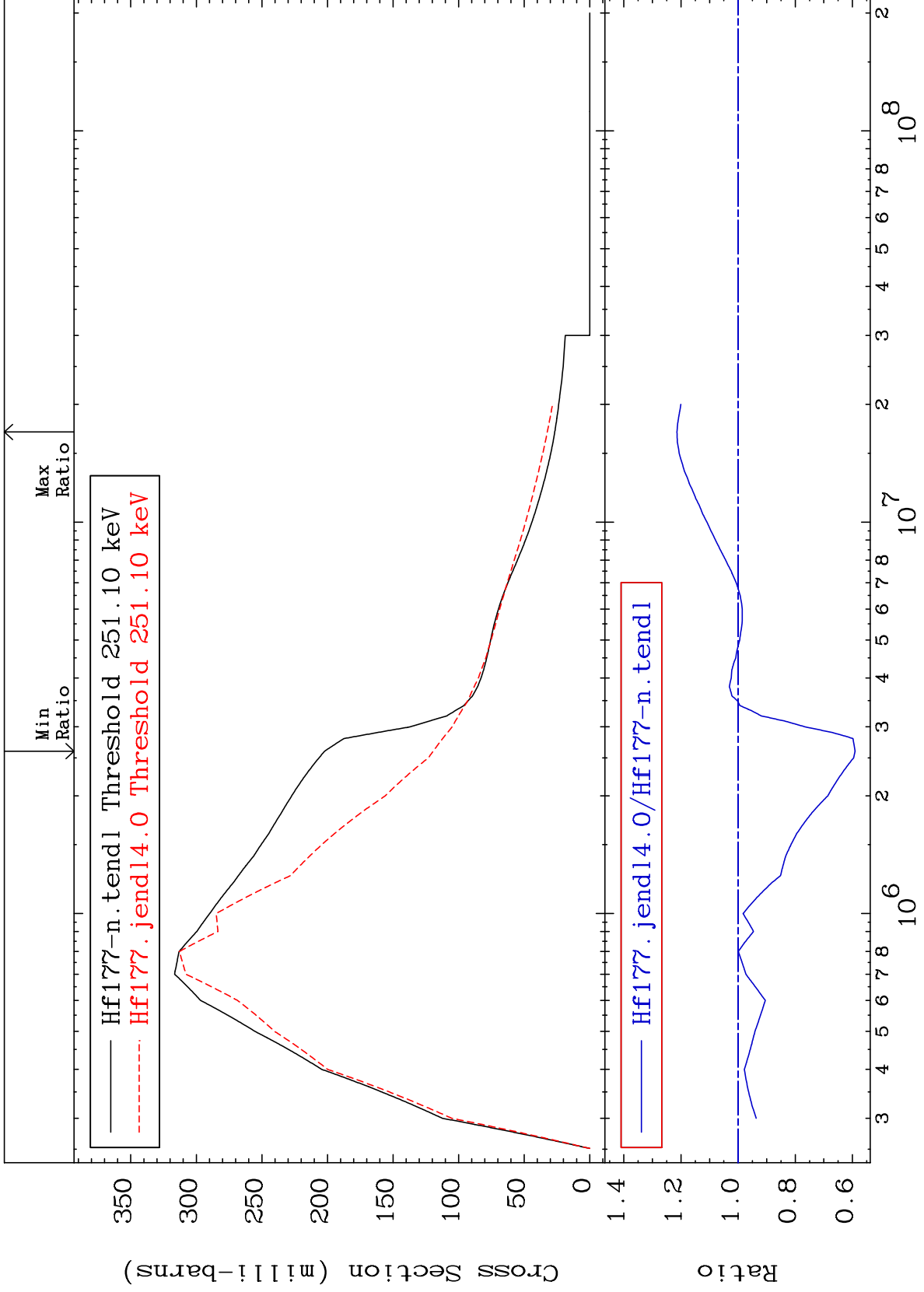
72-Hf-177
-22.33 To 26.70 %



MAT 7234

249.7 keV (n,n') Level
Cross Section

72-Hf-177
-40.94 To 21.43 %



10

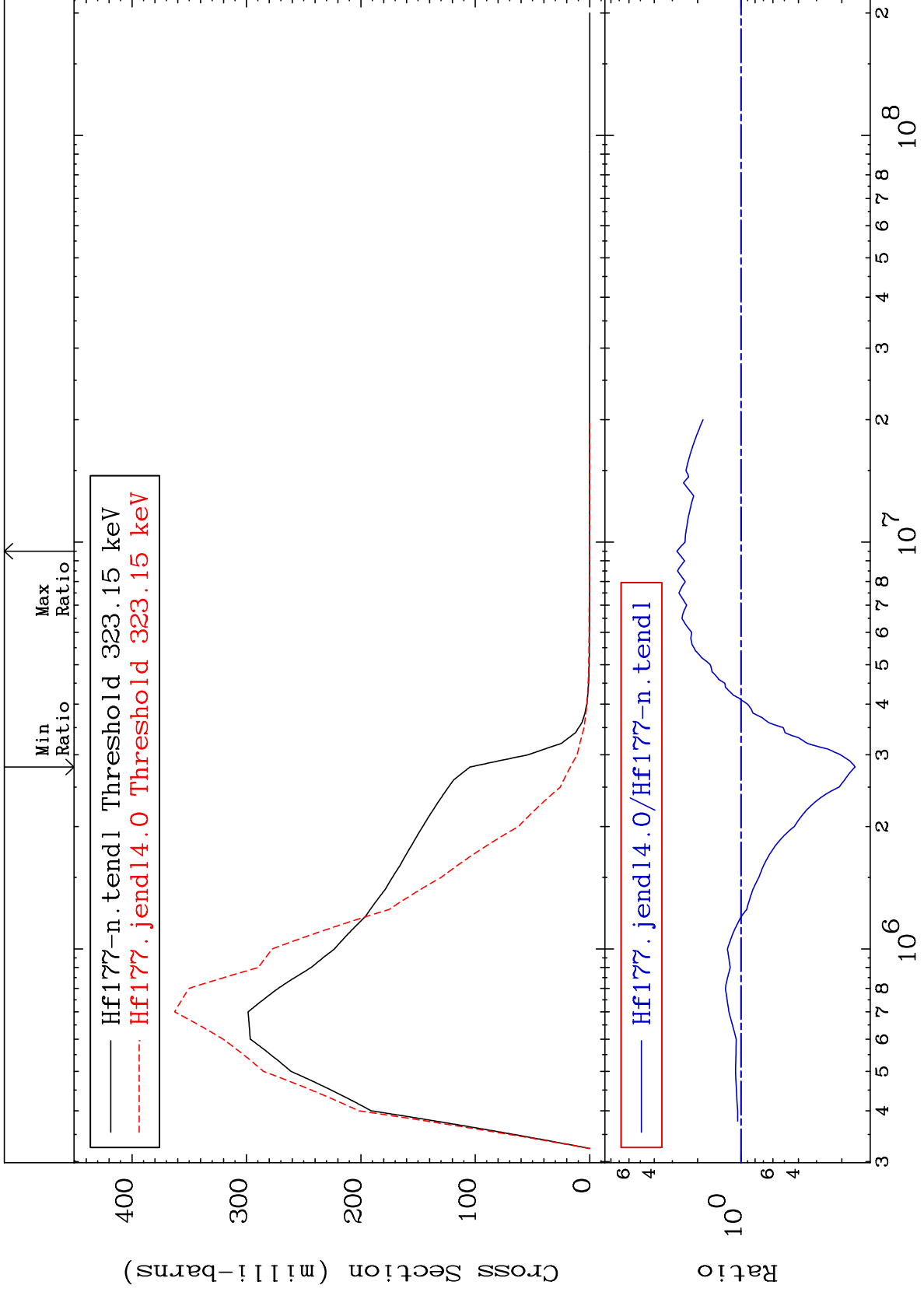
Incident Energy (eV)

72-Hf-177

MAT 7234

321.3 keV (n,n') Level
Cross Section

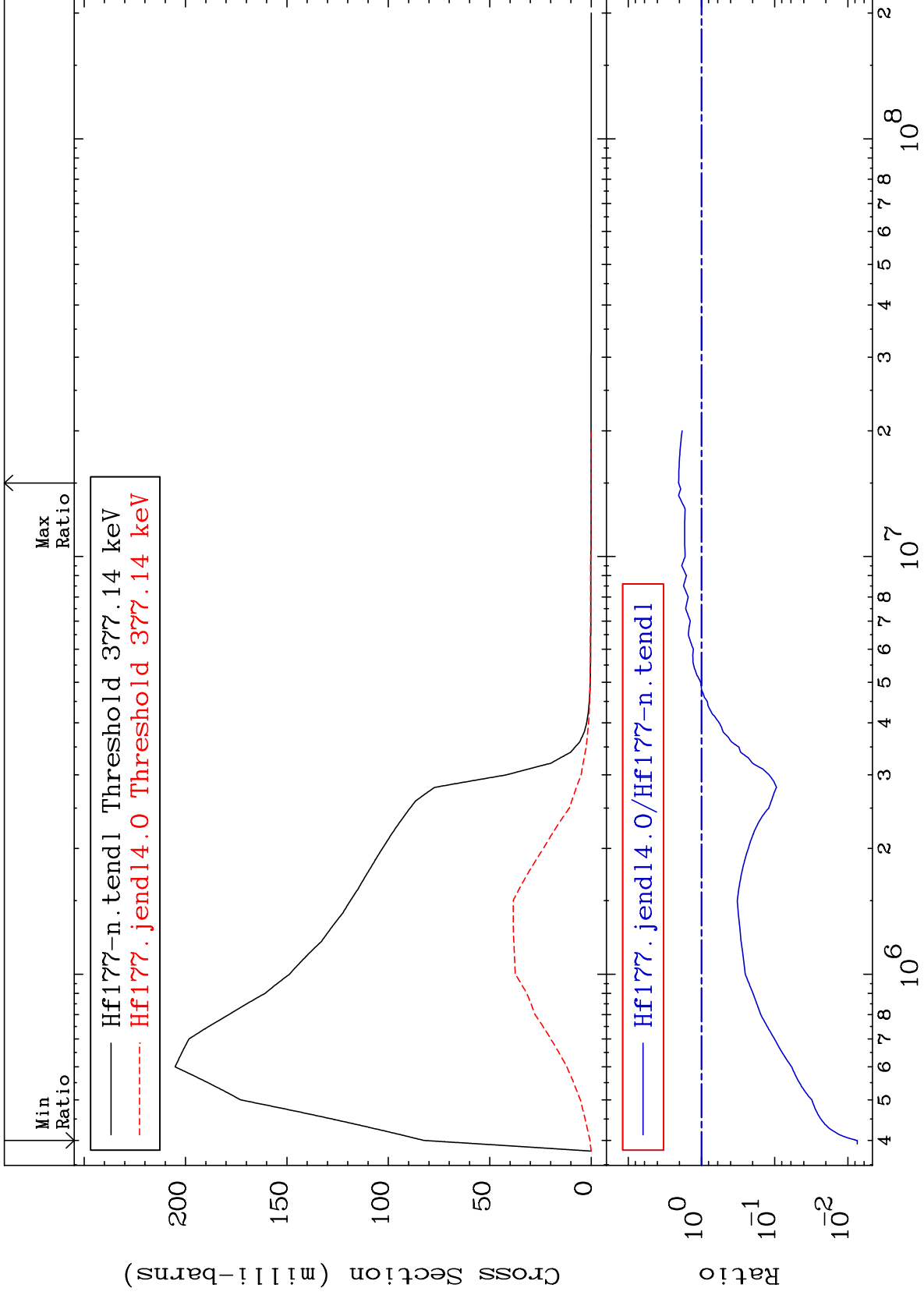
72-Hf-177
-83.83 To 178.6 %



MAT 7234

375.0 keV (n,n') Level
Cross Section

⁷²Hf-177
-99.26 To 104.6 %



12

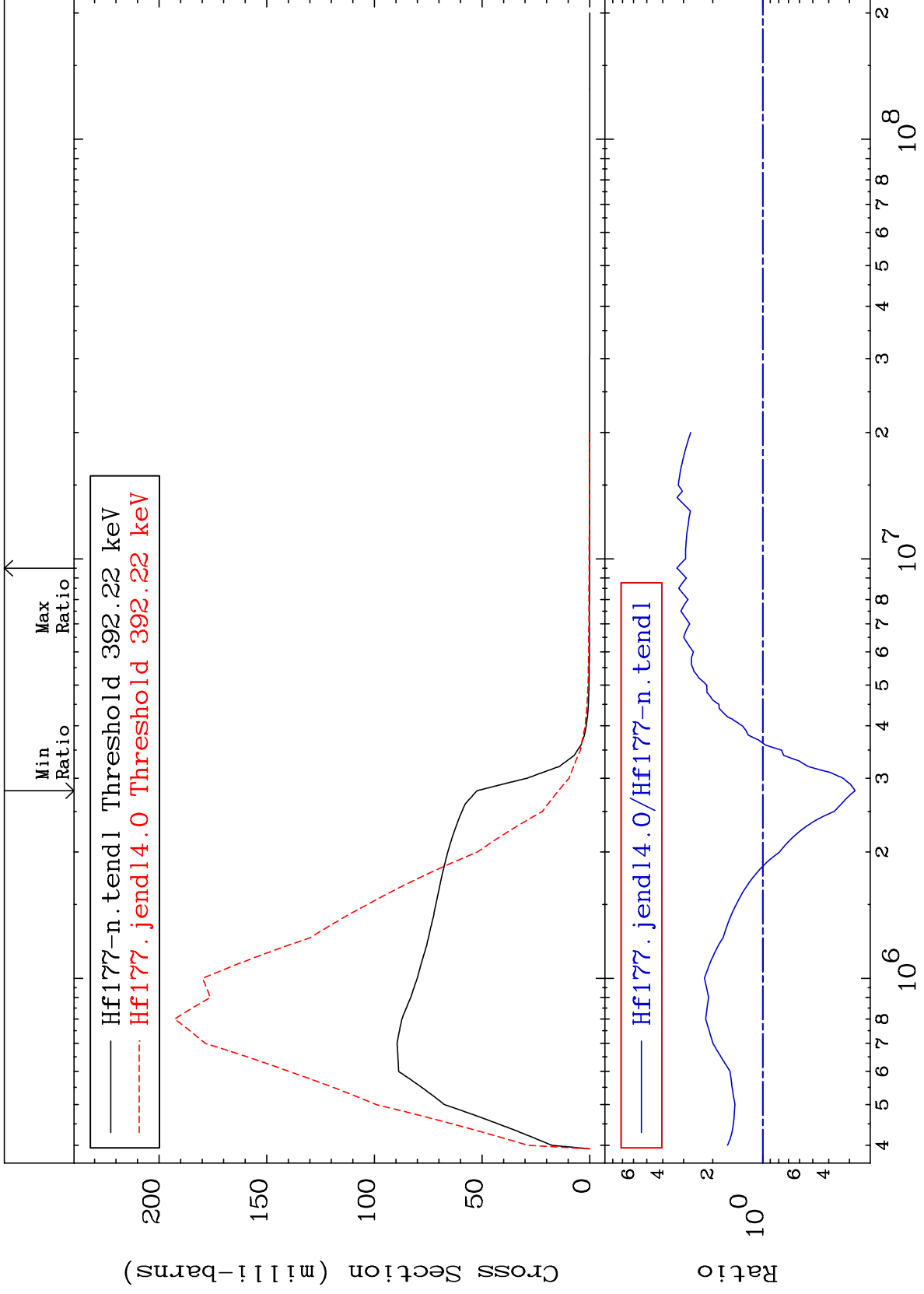
Incident Energy (eV)

⁷²Hf-177

MAT 7234

390.0 keV (n,n') Level
Cross Section

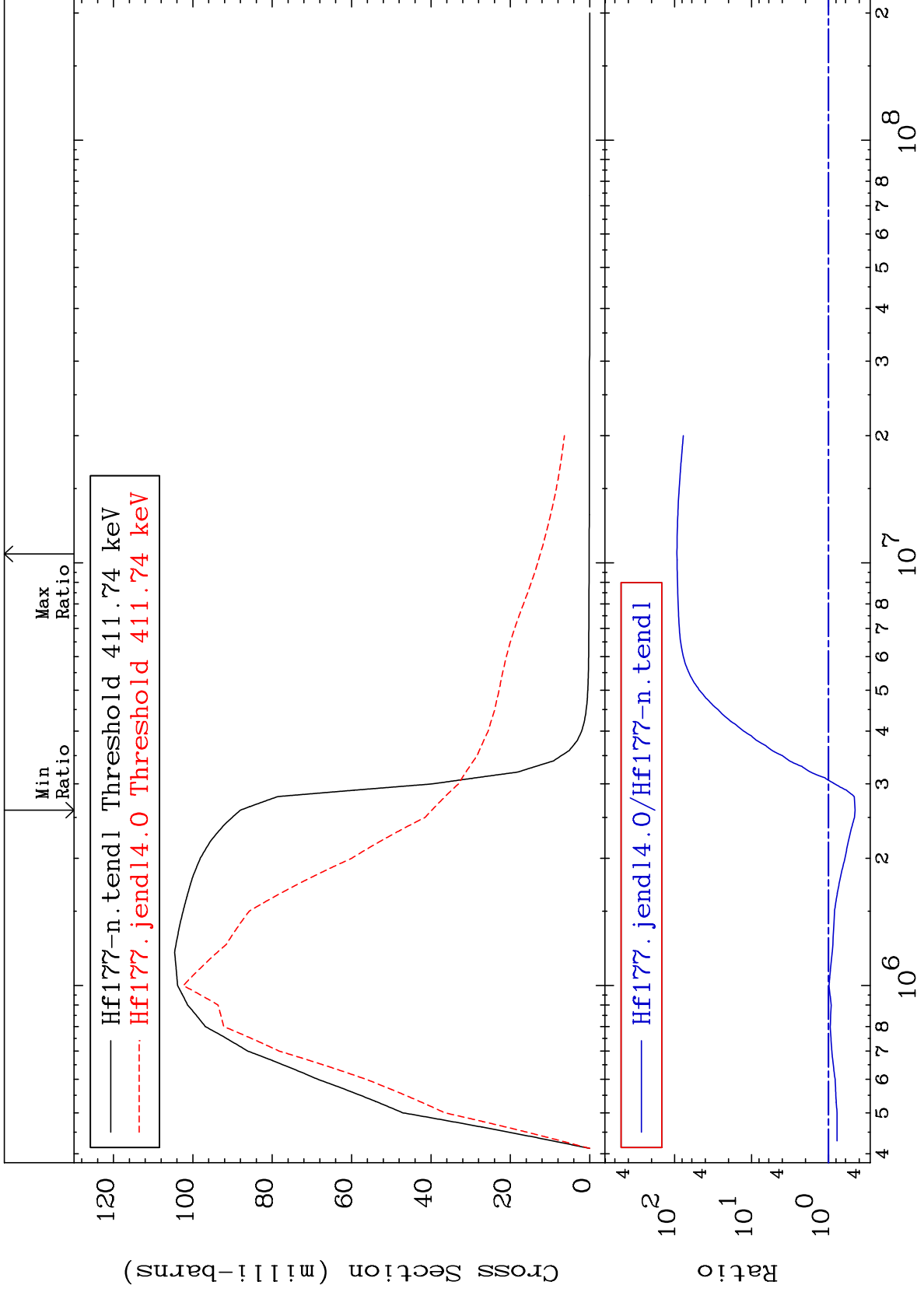
72-Hf-177
-72.25 To 228.9 %



MAT 7234

409.4 keV (n,n') Level
Cross Section

72-Hf-177
-54.80 To 9255. %



14

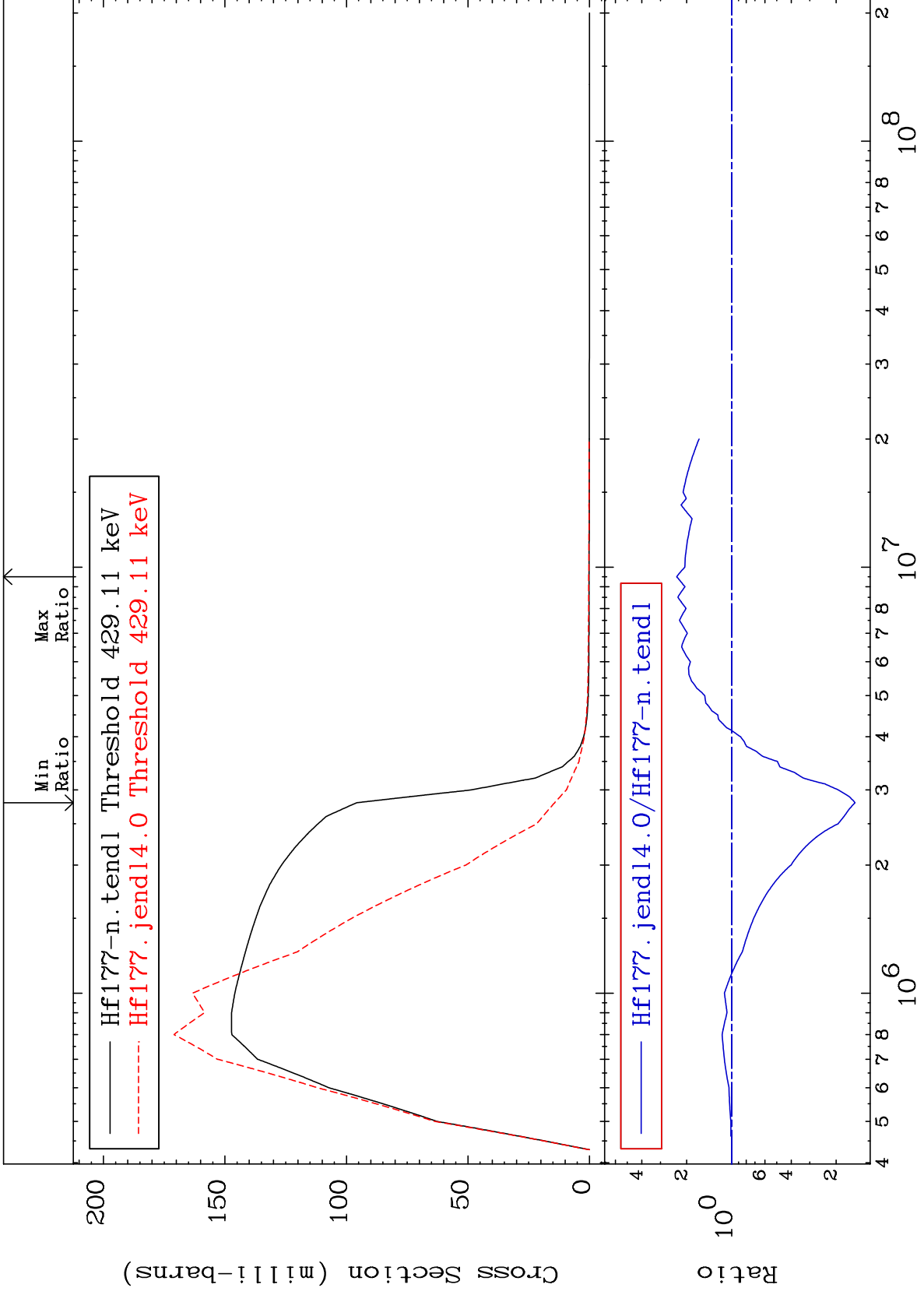
Incident Energy (eV)

72-Hf-177

MAT 7234

426.7 keV (n,n') Level
Cross Section

⁷²Hf-177
-85.04 To 133.4 %



15

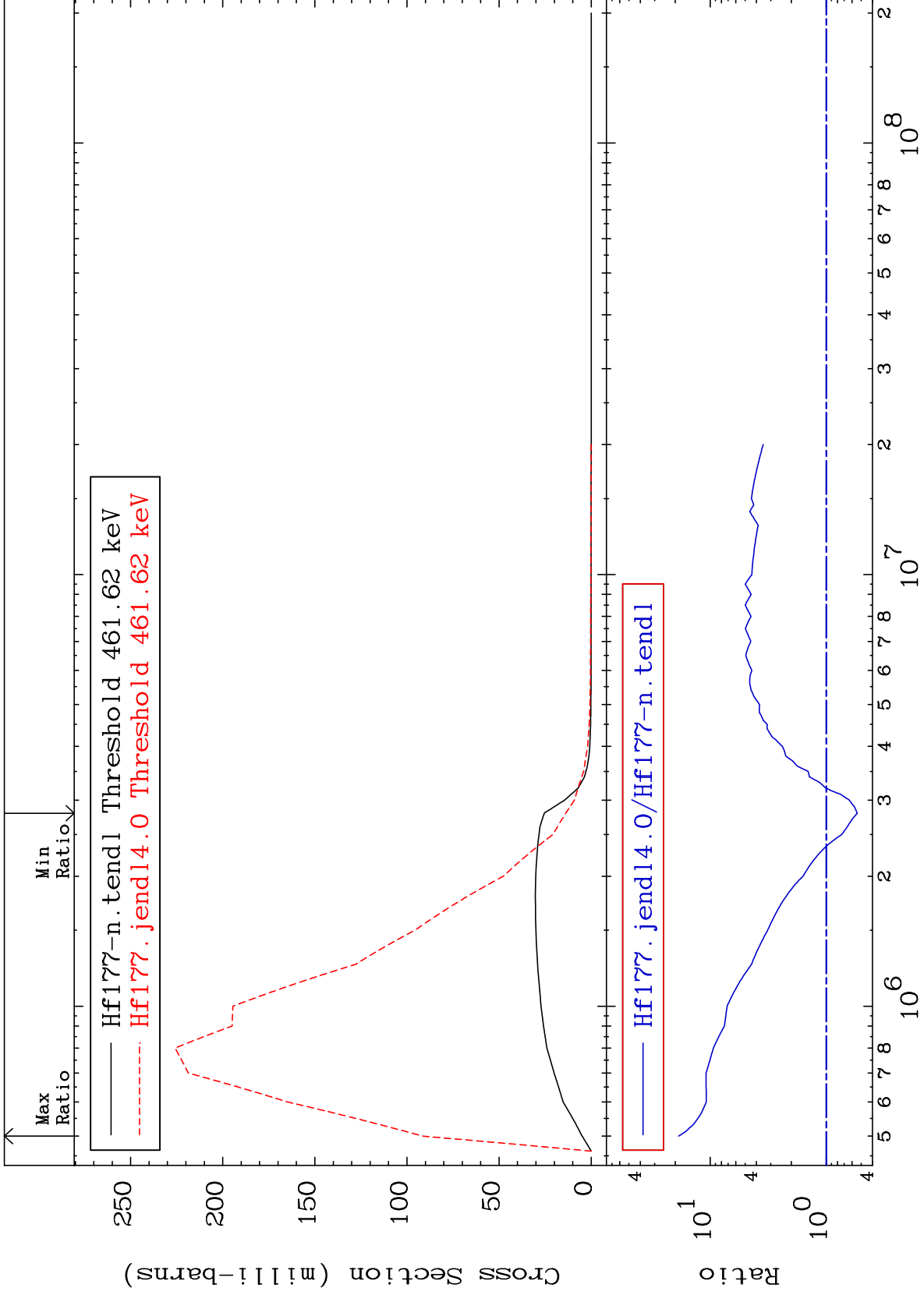
Incident Energy (eV)

⁷²Hf-177

MAT 7234

459.0 keV (n,n') Level
Cross Section

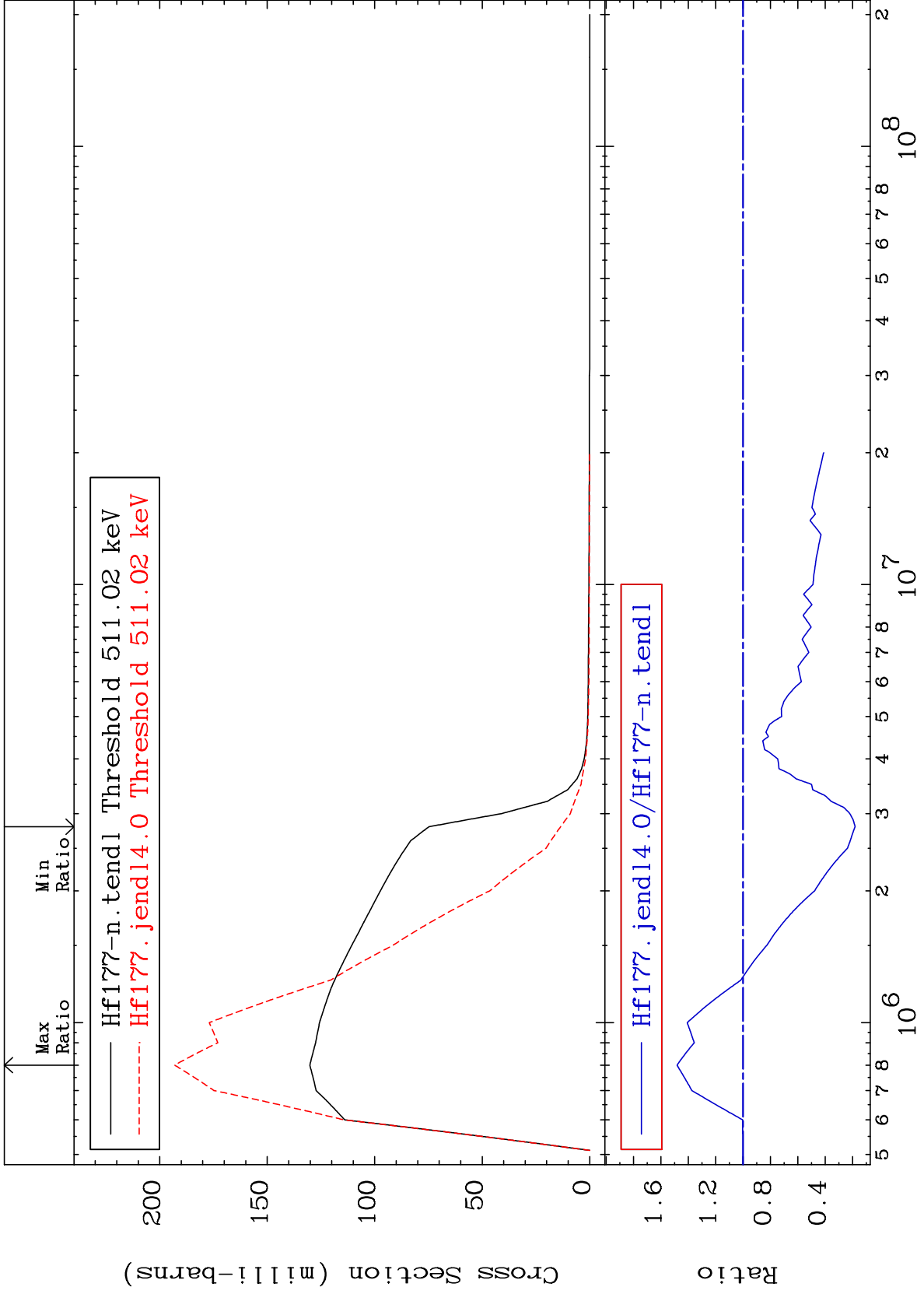
72-Hf-177
-45.97 To 1767. %



MAT 7234

508.1 keV (n,n') Level
Cross Section

⁷²Hf-177
-81.86 To 48.32 %



17

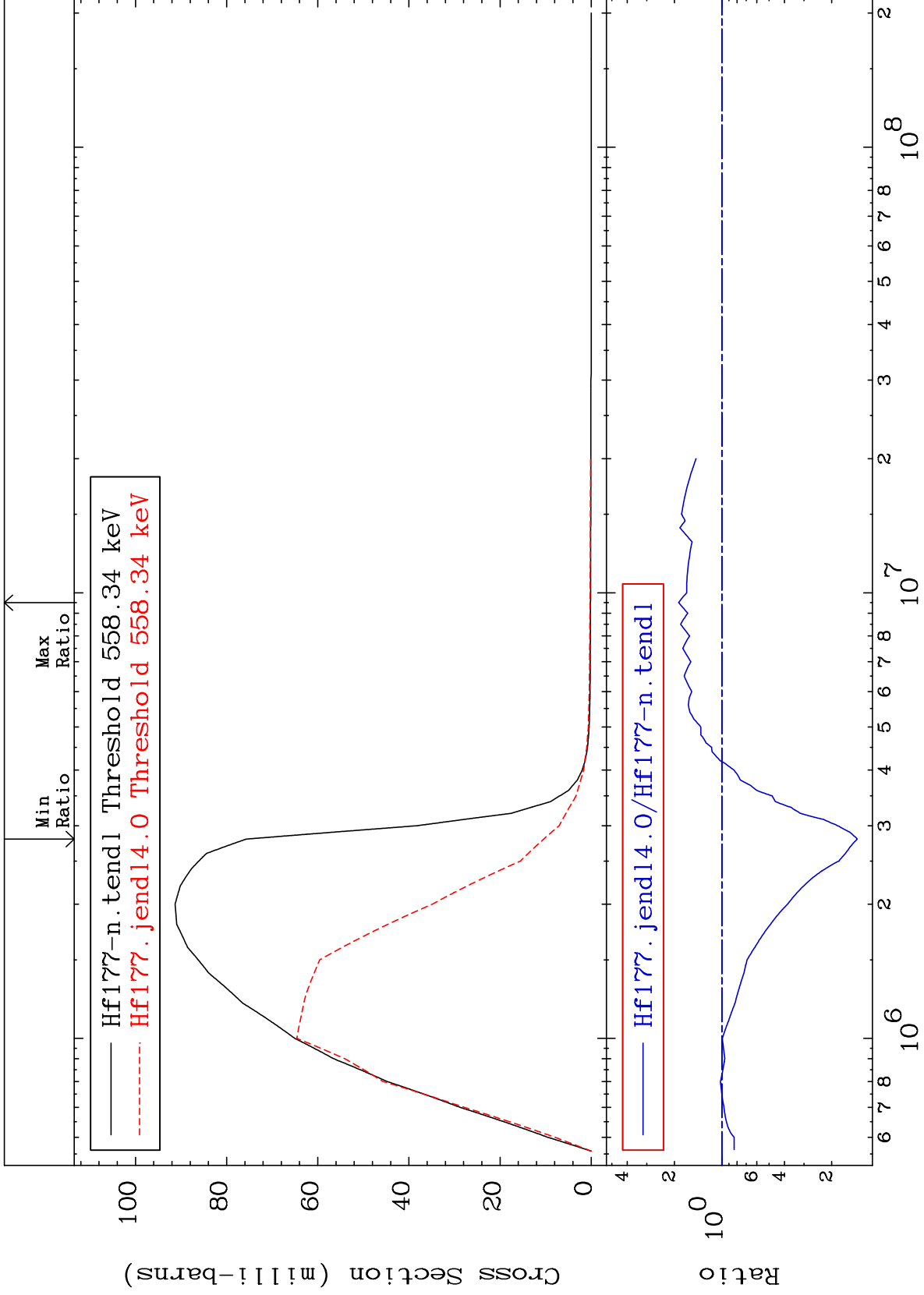
Incident Energy (eV)

⁷²Hf-177

MAT 7234

555.2 keV (n,n') Level
Cross Section

72-Hf-177
-86.23 To 88.17 %



18

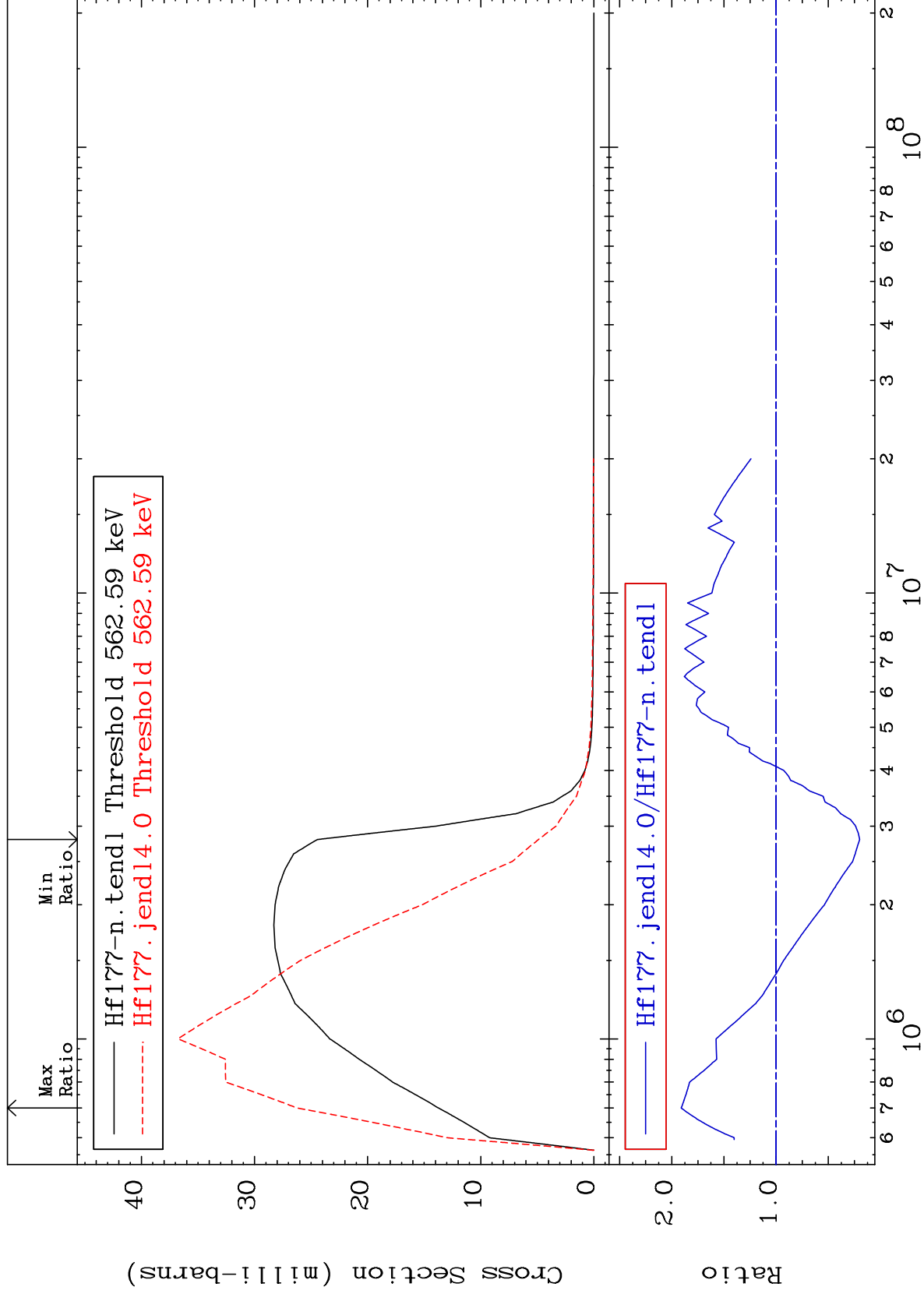
Incident Energy (eV)

72-Hf-177

MAT 7234

559.4 keV (n,n') Level
Cross Section

72-Hf-177
-80.00 To 91.00 %



19

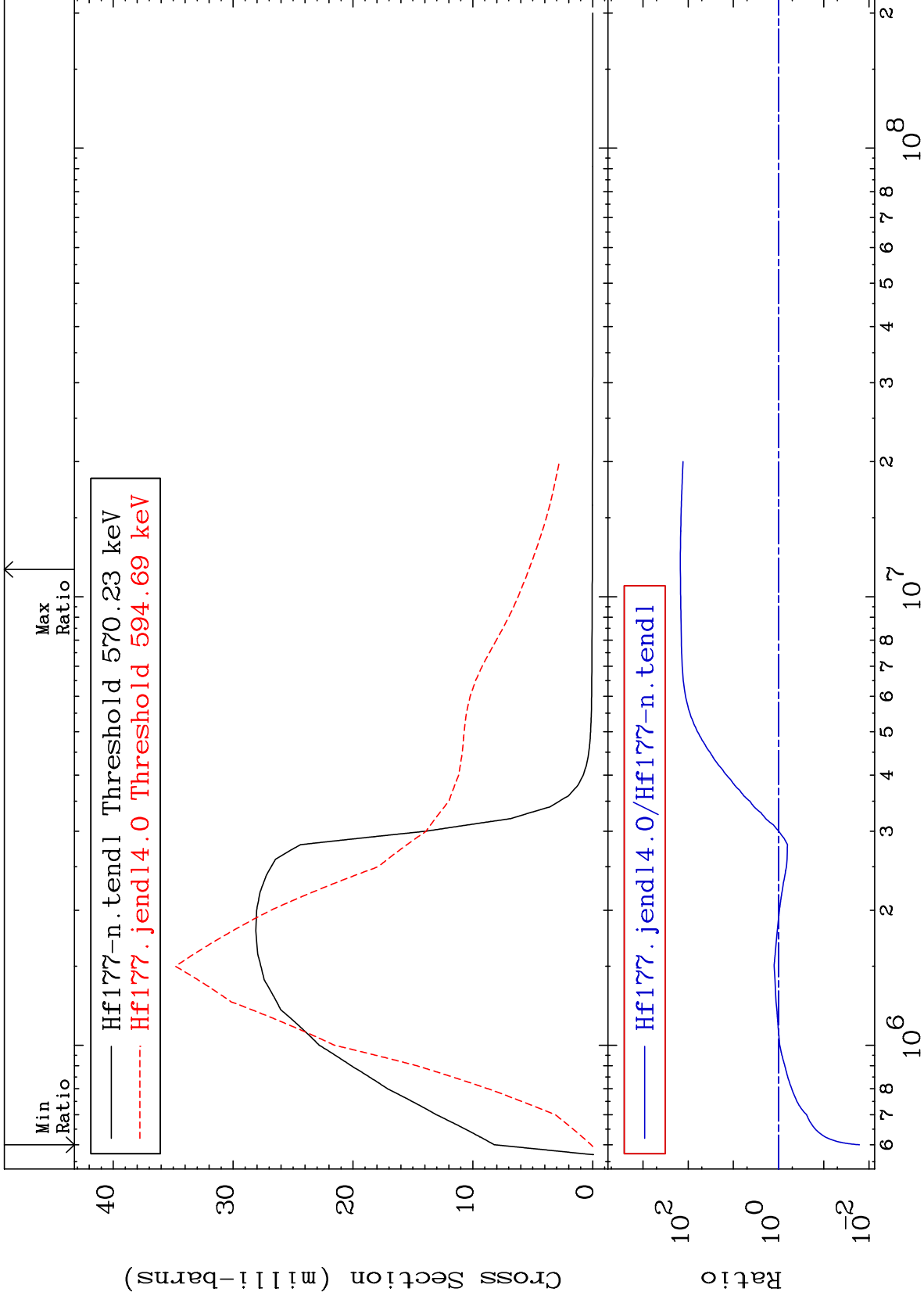
Incident Energy (eV)

72-Hf-177

MAT 7234

567.0 keV (n,n') Level
Cross Section

⁷²Hf-177
-98.37 To 9999. %



20

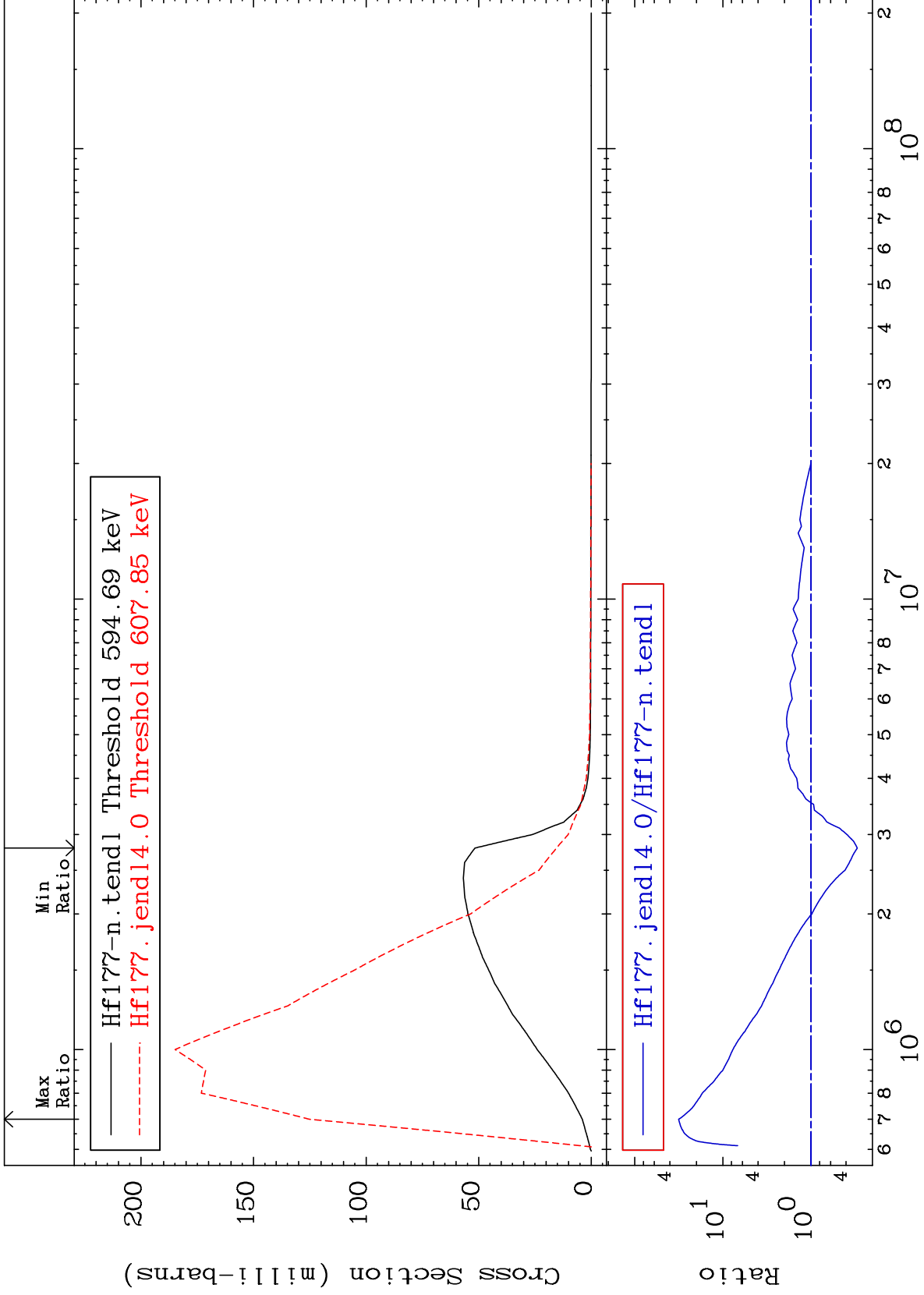
Incident Energy (eV)

⁷²Hf-177

MAT 7234

591.3 keV (n,n') Level
Cross Section

⁷²Hf-177
-70.15 To 3080. %



21

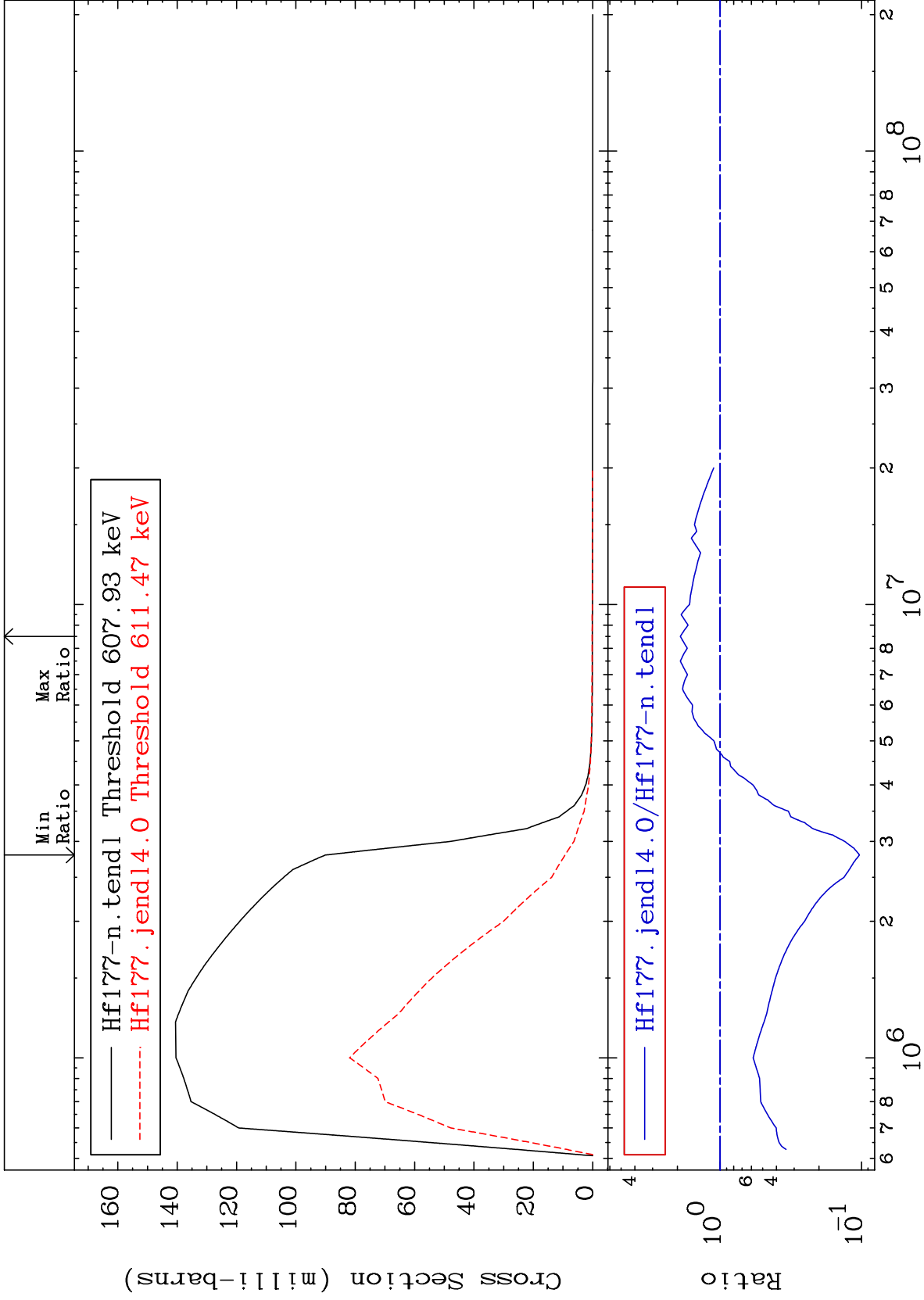
Incident Energy (eV)

⁷²Hf-177

MAT 7234

604.5 keV (n,n') Level
Cross Section

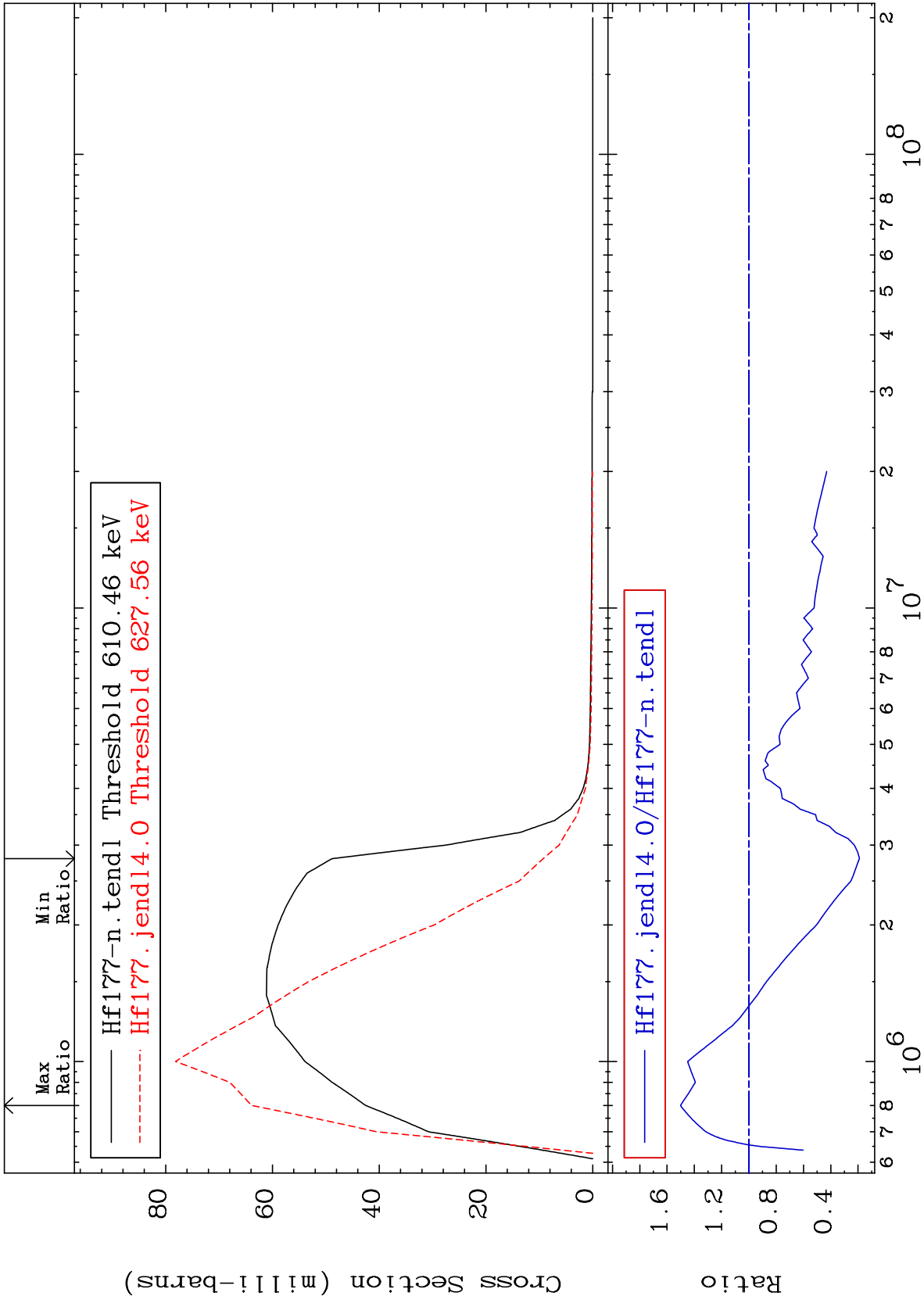
72-Hf-177
-89.64 To 90.75 %



MAT 7234

607.0 keV (n,n') Level
Cross Section

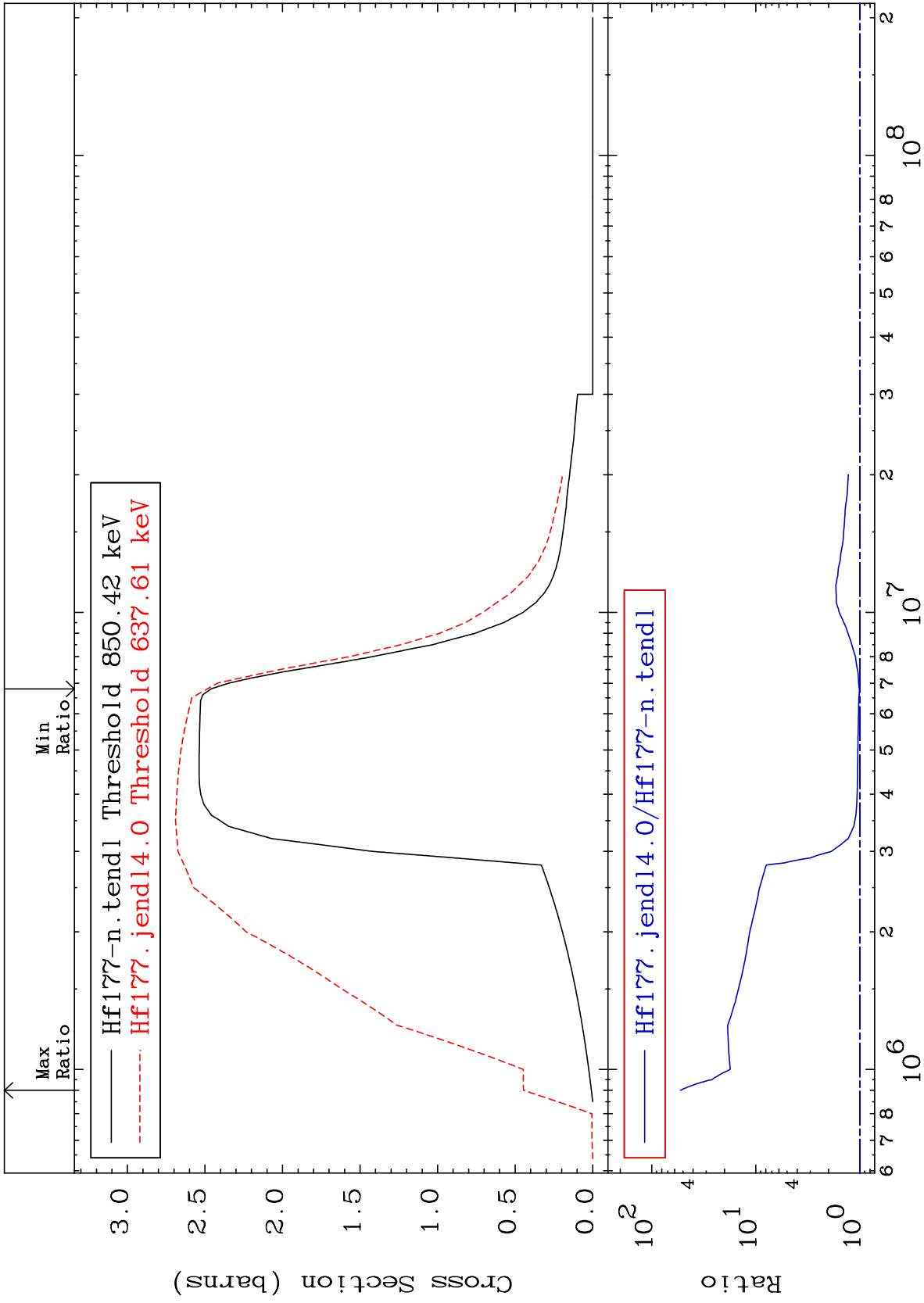
⁷²Hf-177
-81.01 To 50.26 %



MAT 7234

(n, n') Continuum
Cross Section

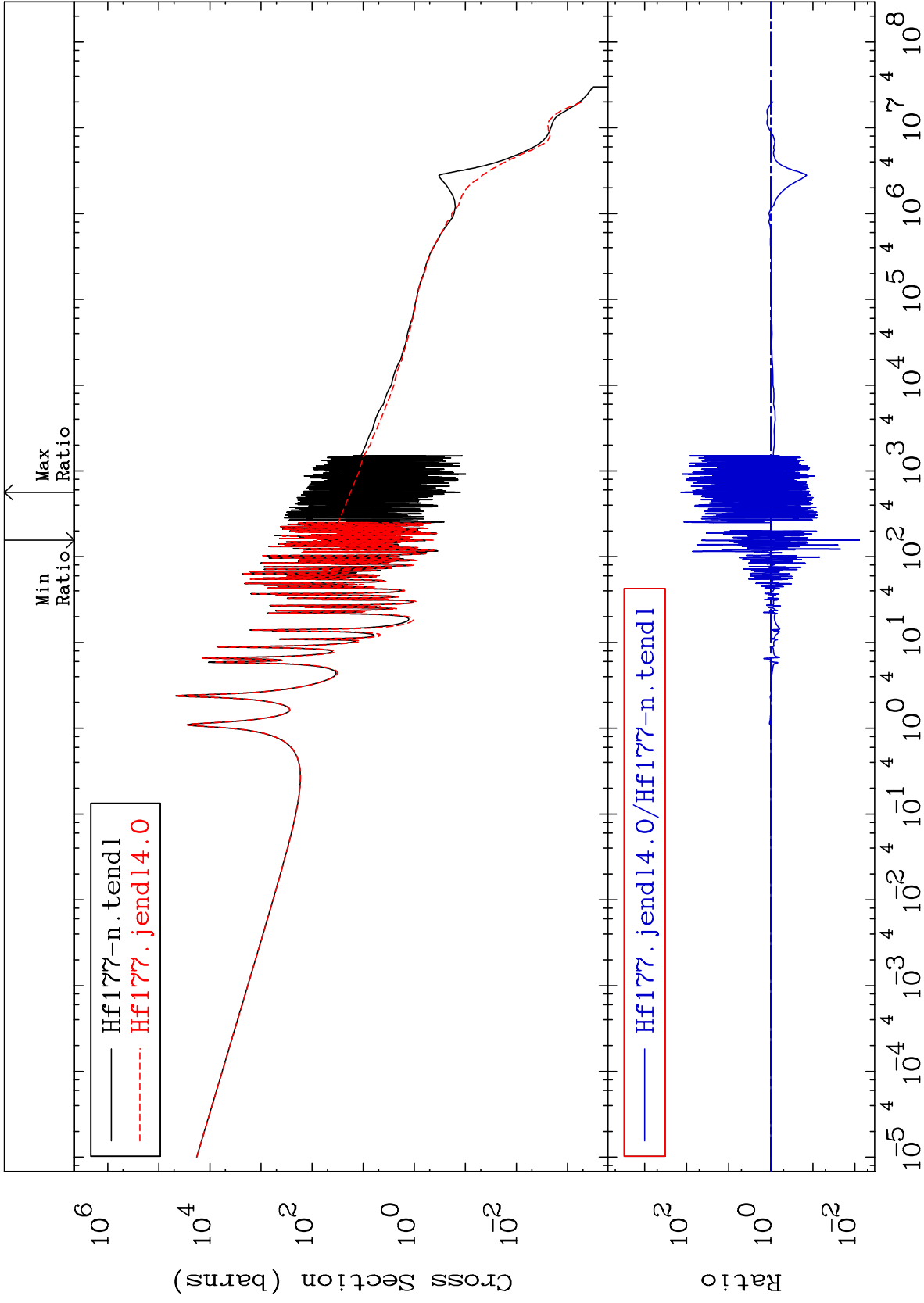
72-Hf-177
0.992 To 5204. %



MAT 7234

(n, γ)
Cross Section

72-Hf-177
-99.22 To 9999. %



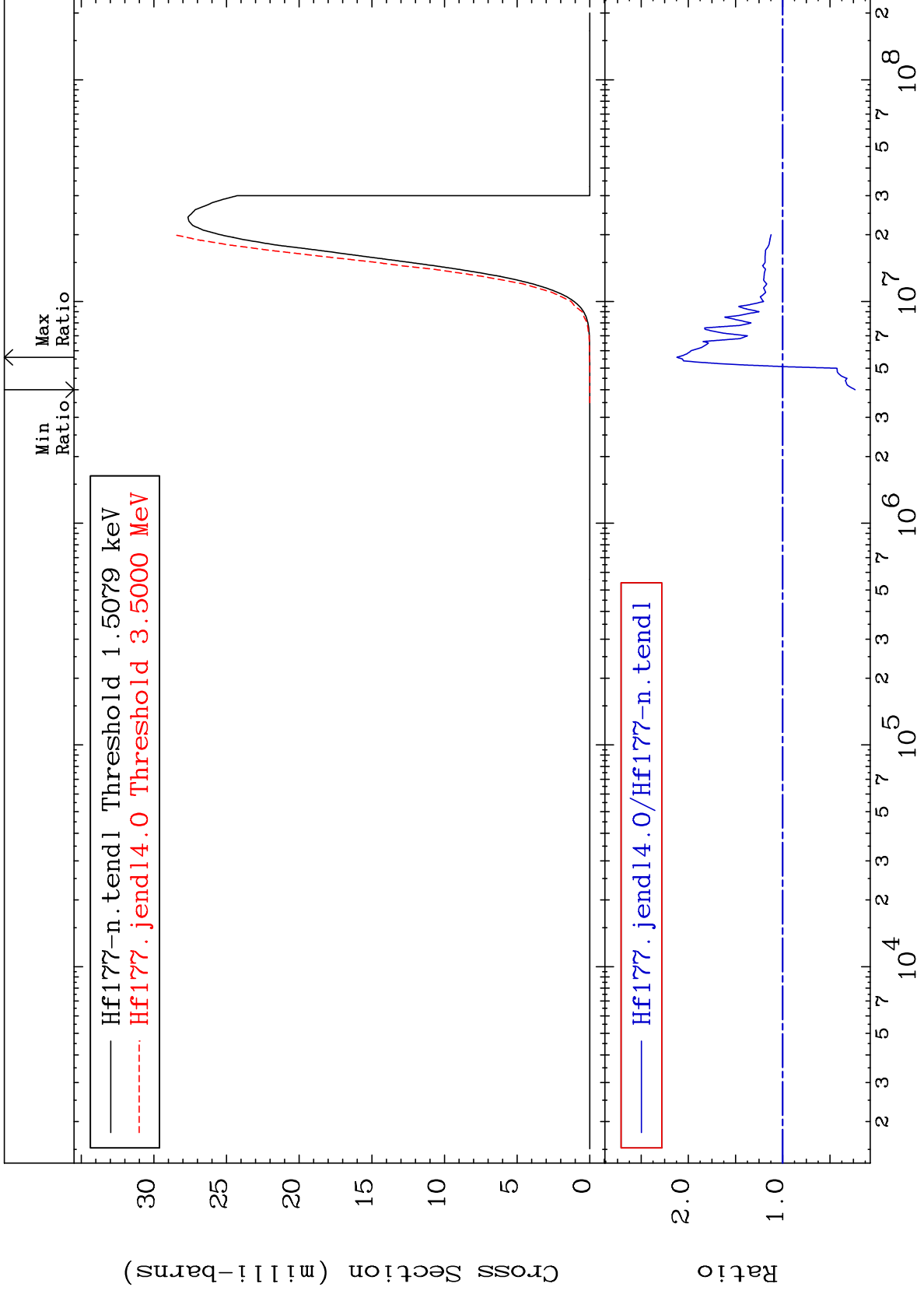
MAT 7234

(n, p)

Cross Section

72-Hf-177

-76.66 To 112.1 %



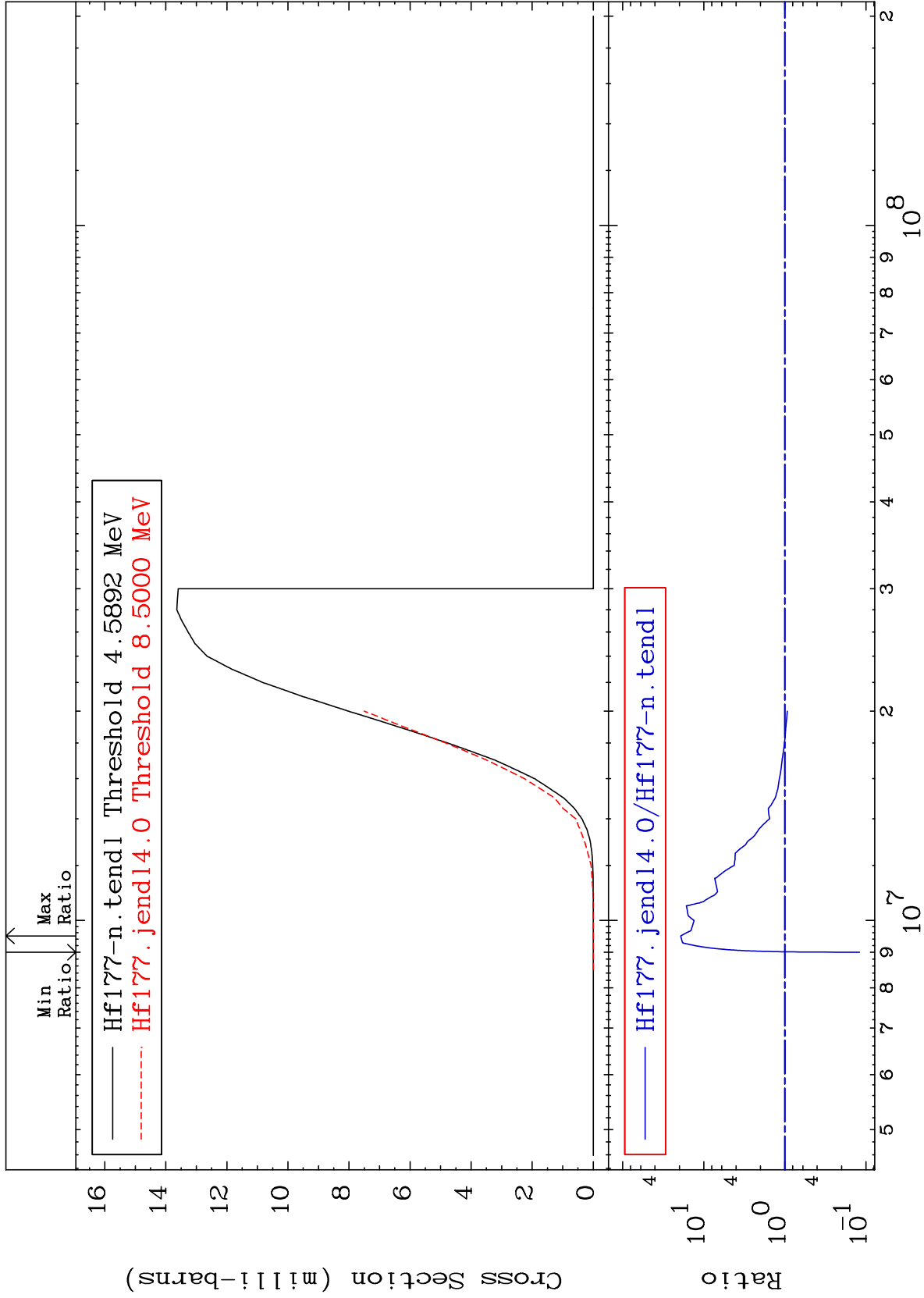
MAT 7234

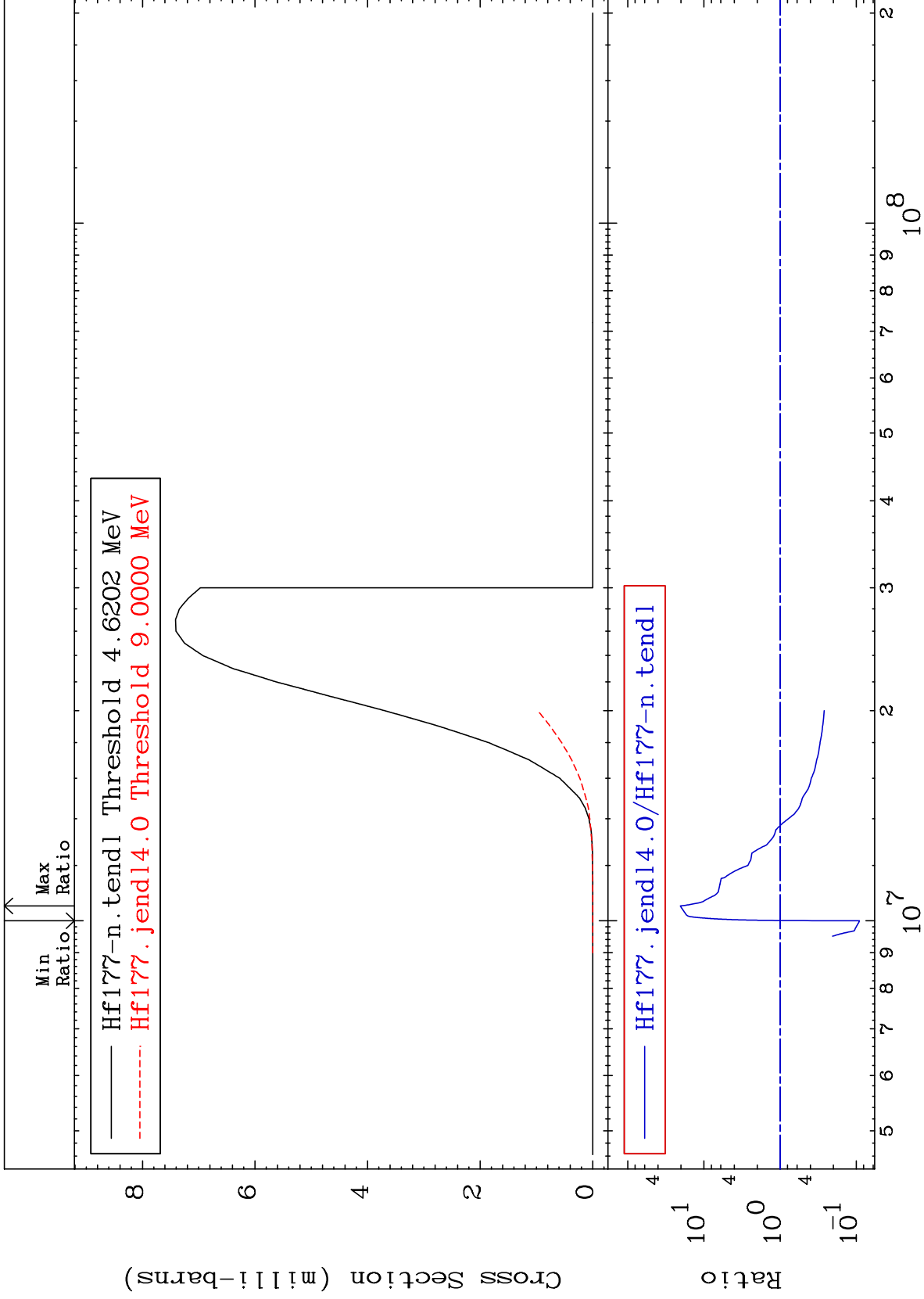
(n, d)

72-Hf-177

Cross Section

-88.00 To 1823. %





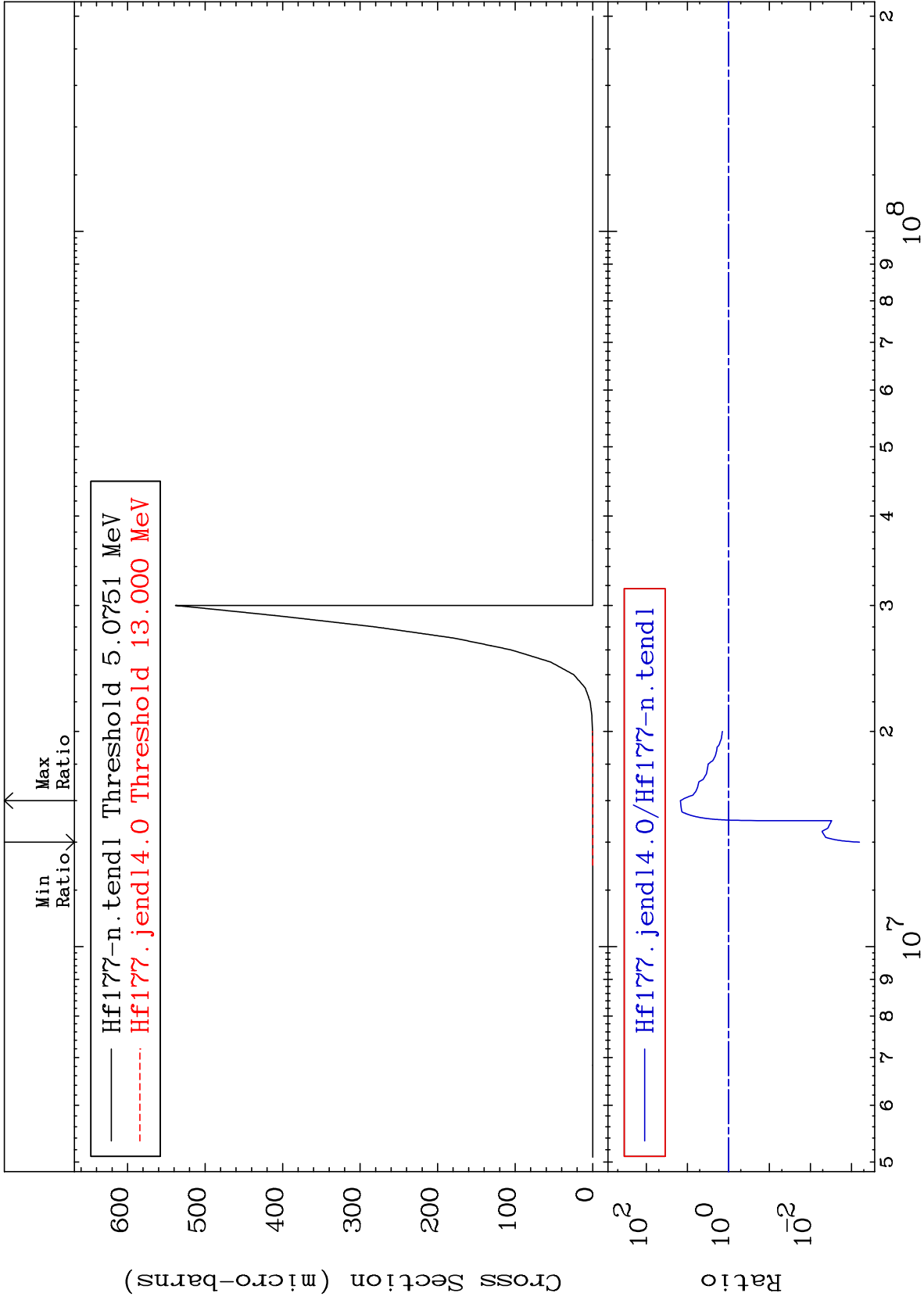
MAT 7234

(n, He-3)

72-Hf-177

Cross Section

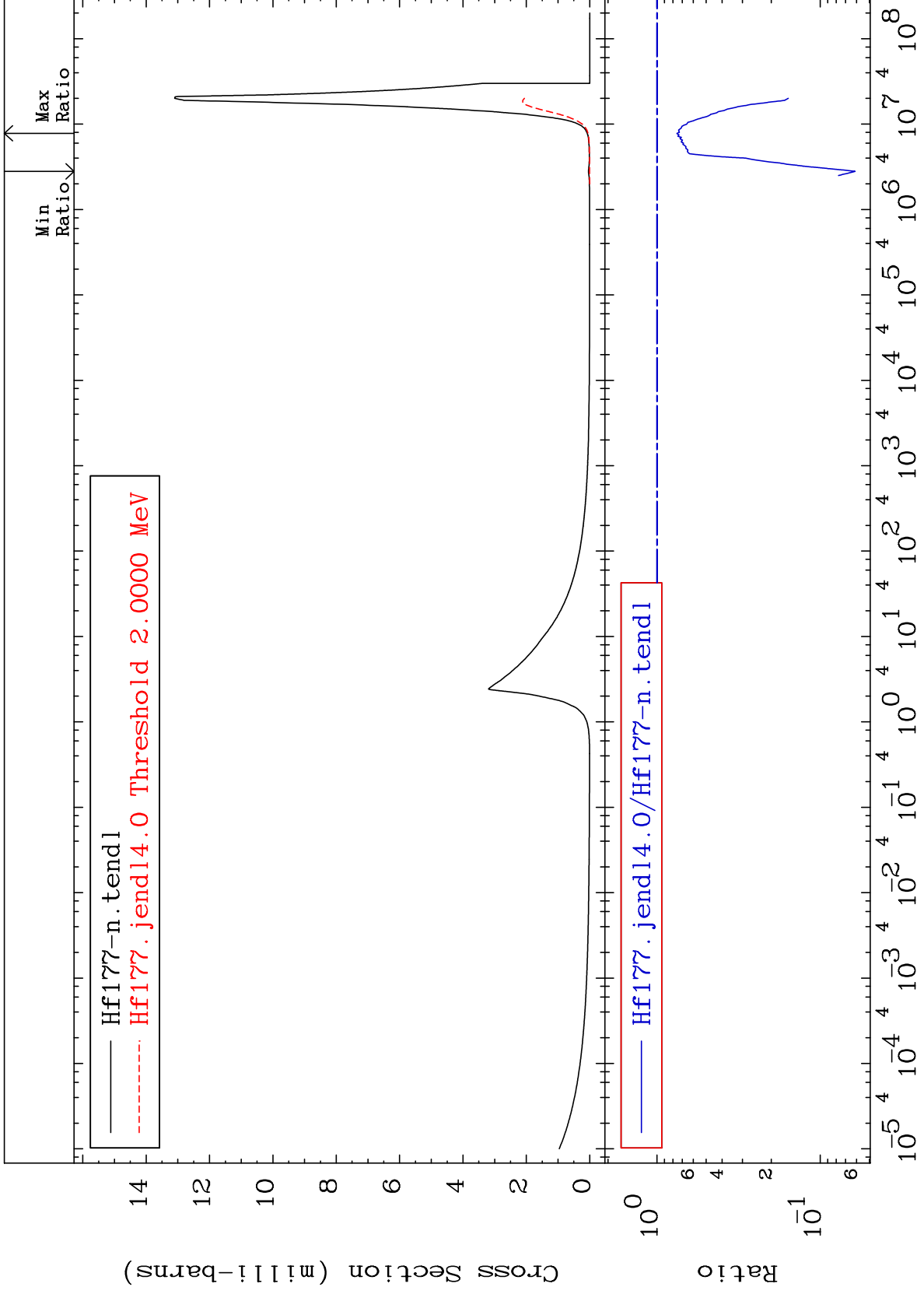
-99.94 To 1386. %



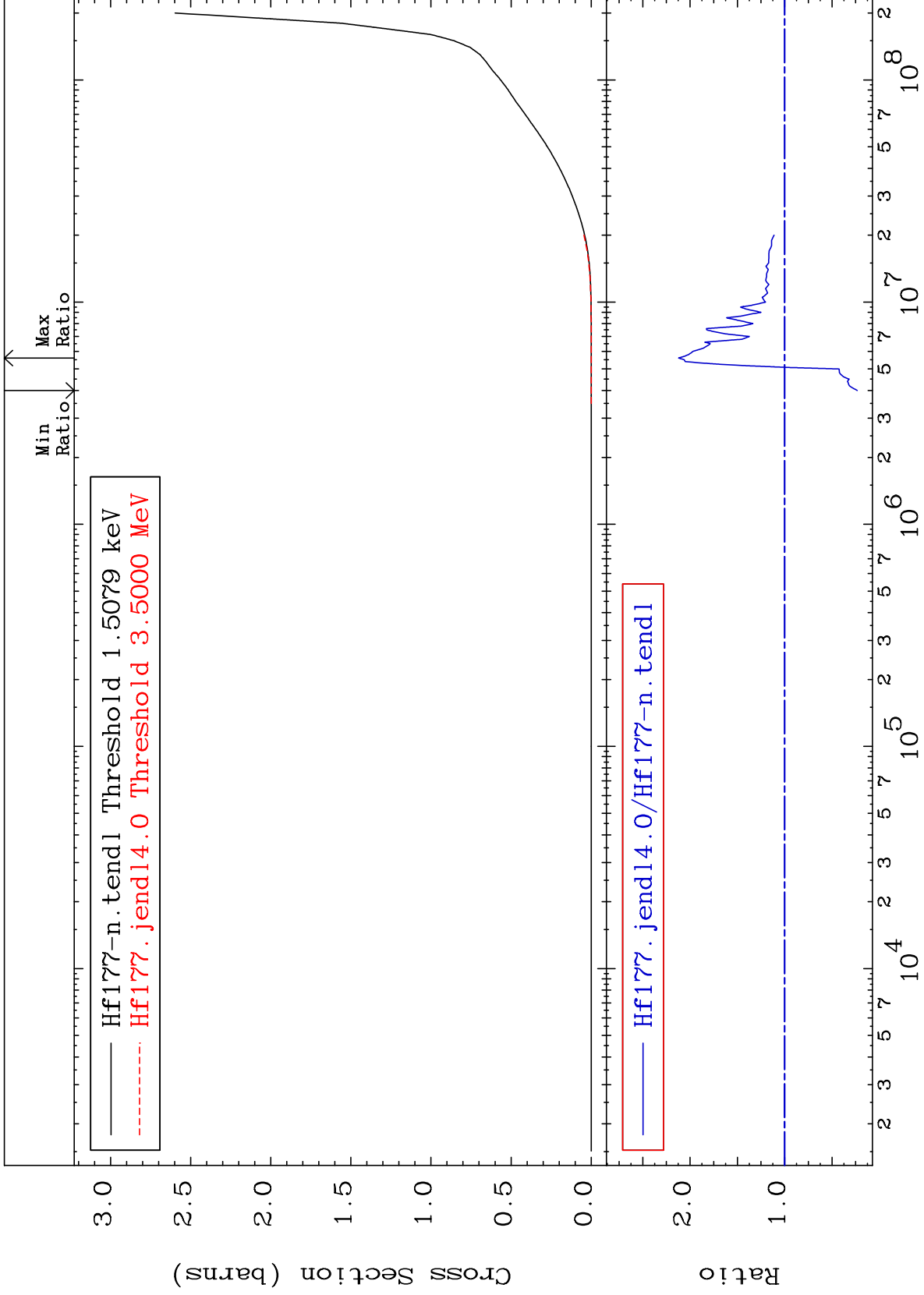
MAT 7234

(n, α)
Cross Section

72-Hf-177
-93.88 To -24.44%



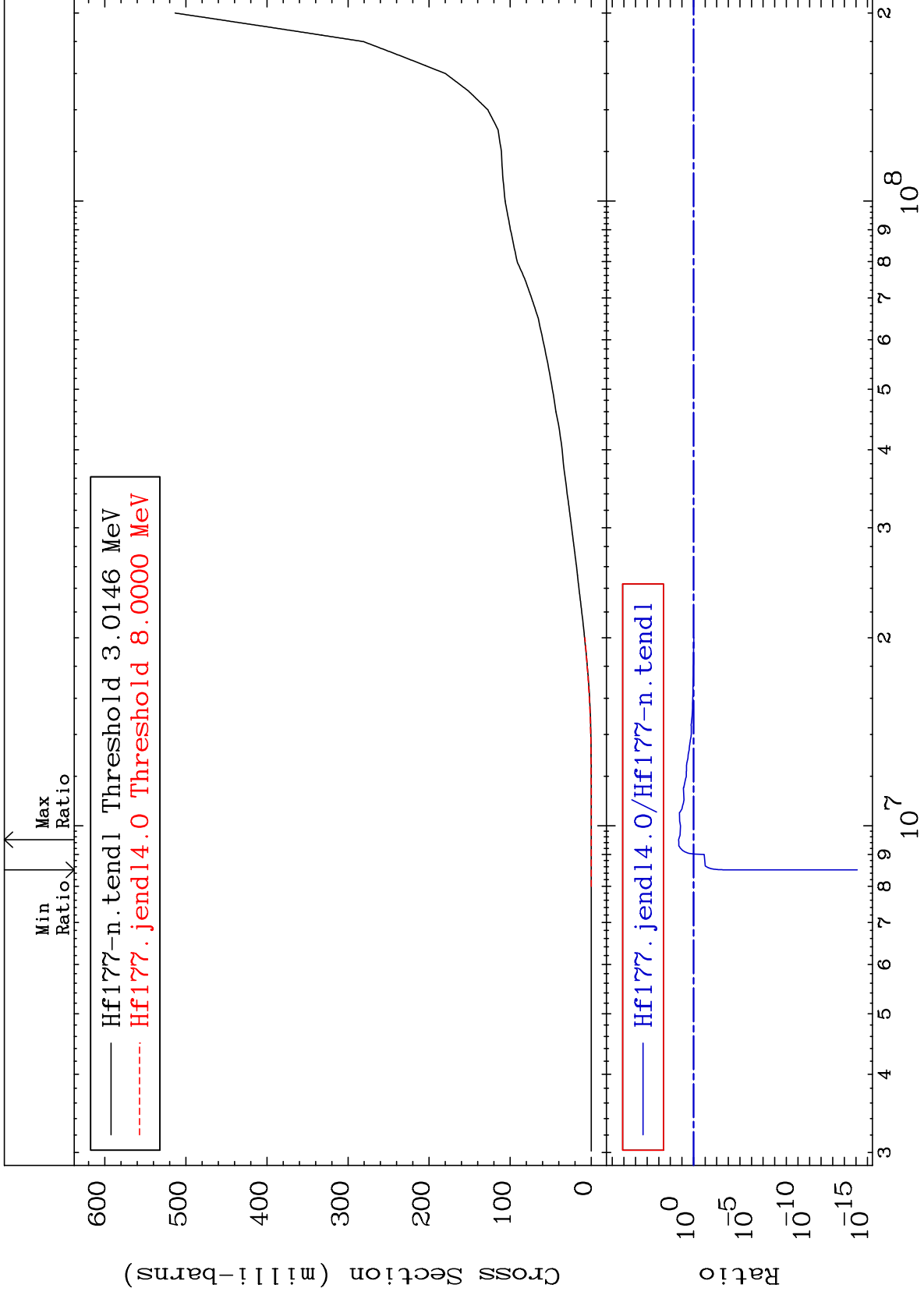
72-Hf-177

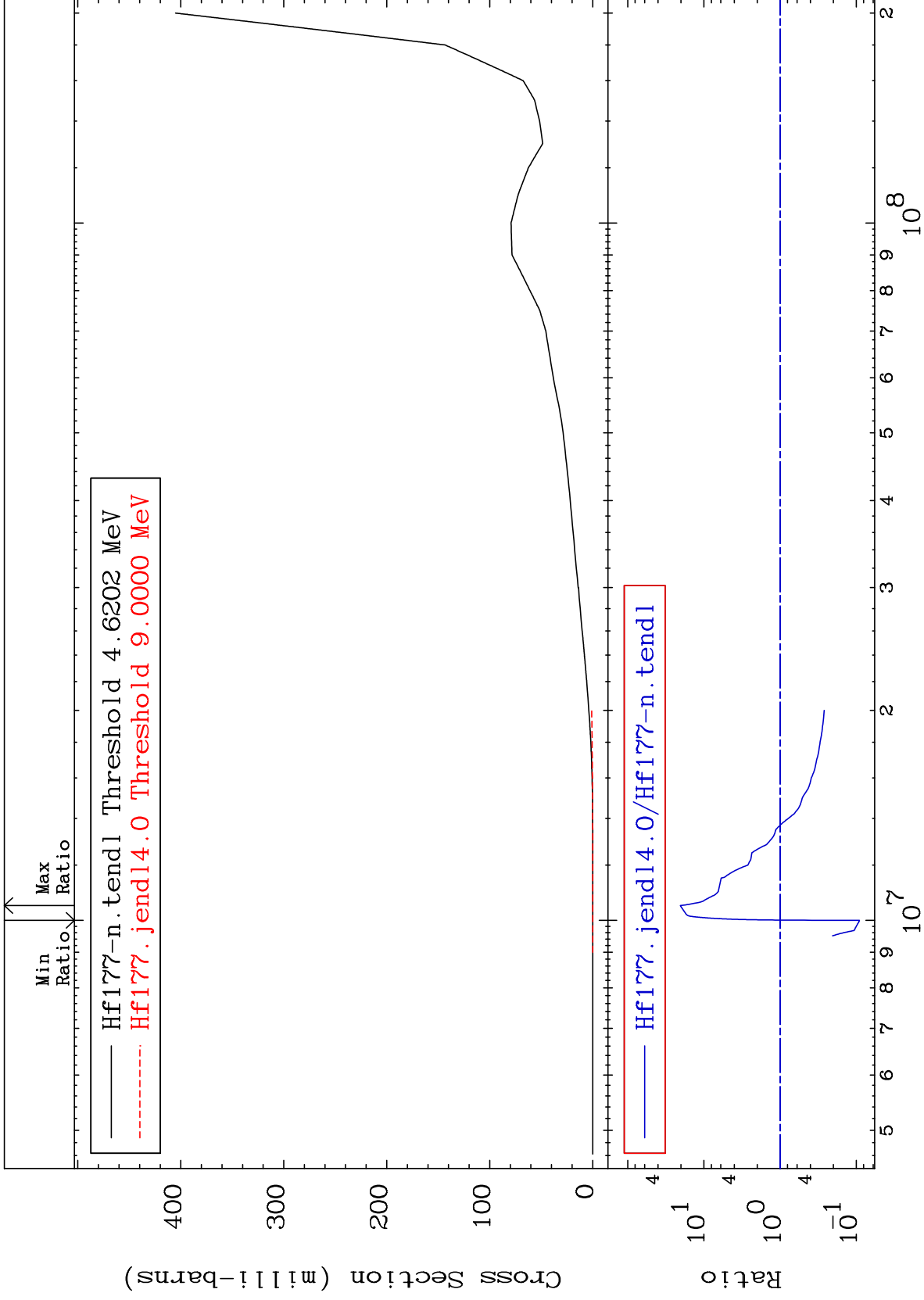


MAT 7234

Deuterium Production
Cross Section

⁷²Hf-177
-100.0 To 1823. %

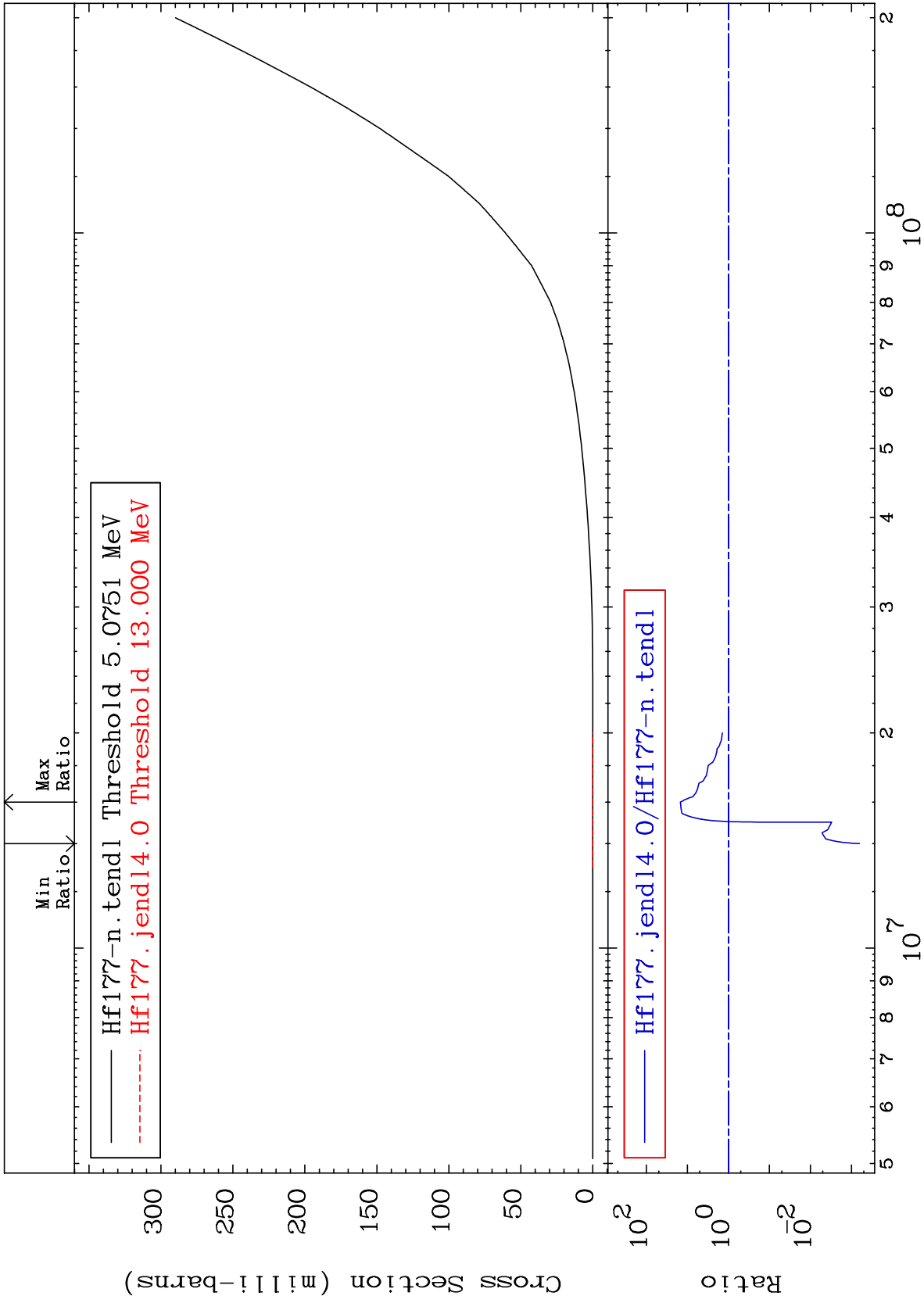




MAT 7234

He-3 Production
Cross Section

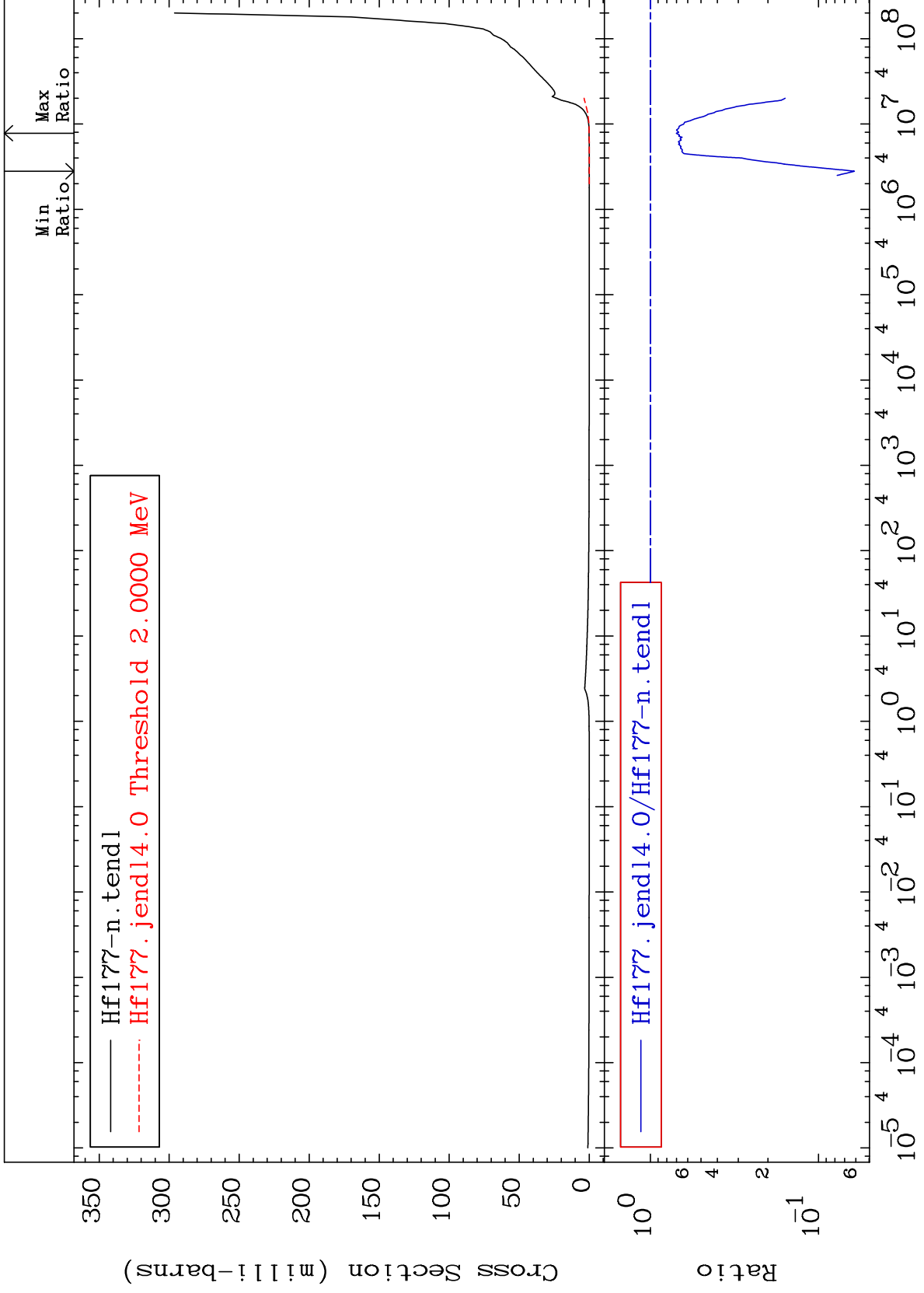
72-Hf-177
-99.94 To 1386. %



MAT 7234

He-4 Production
Cross Section

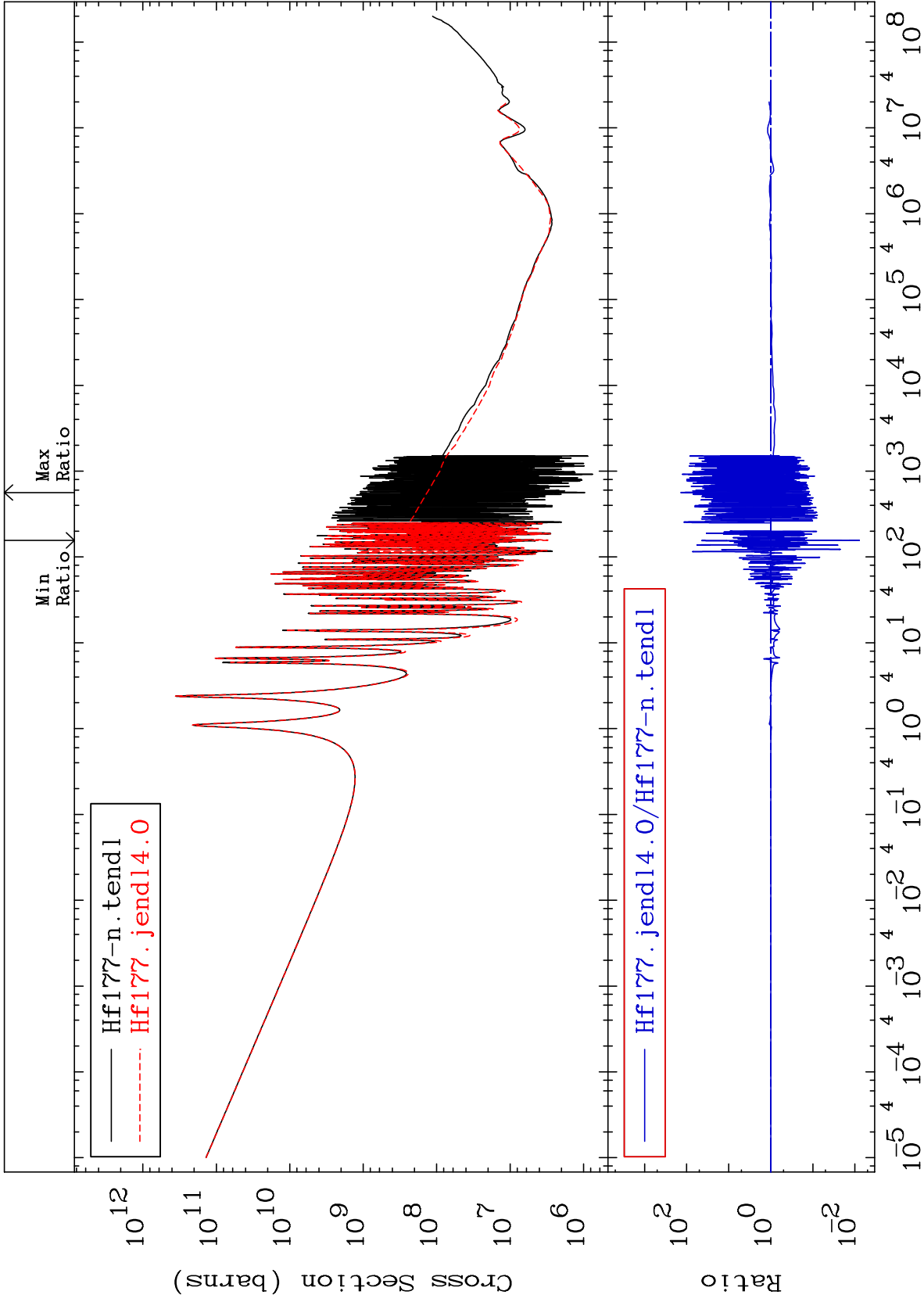
72-Hf-177
-93.88 To -29.86%



Incident Energy (eV)

72-Hf-177

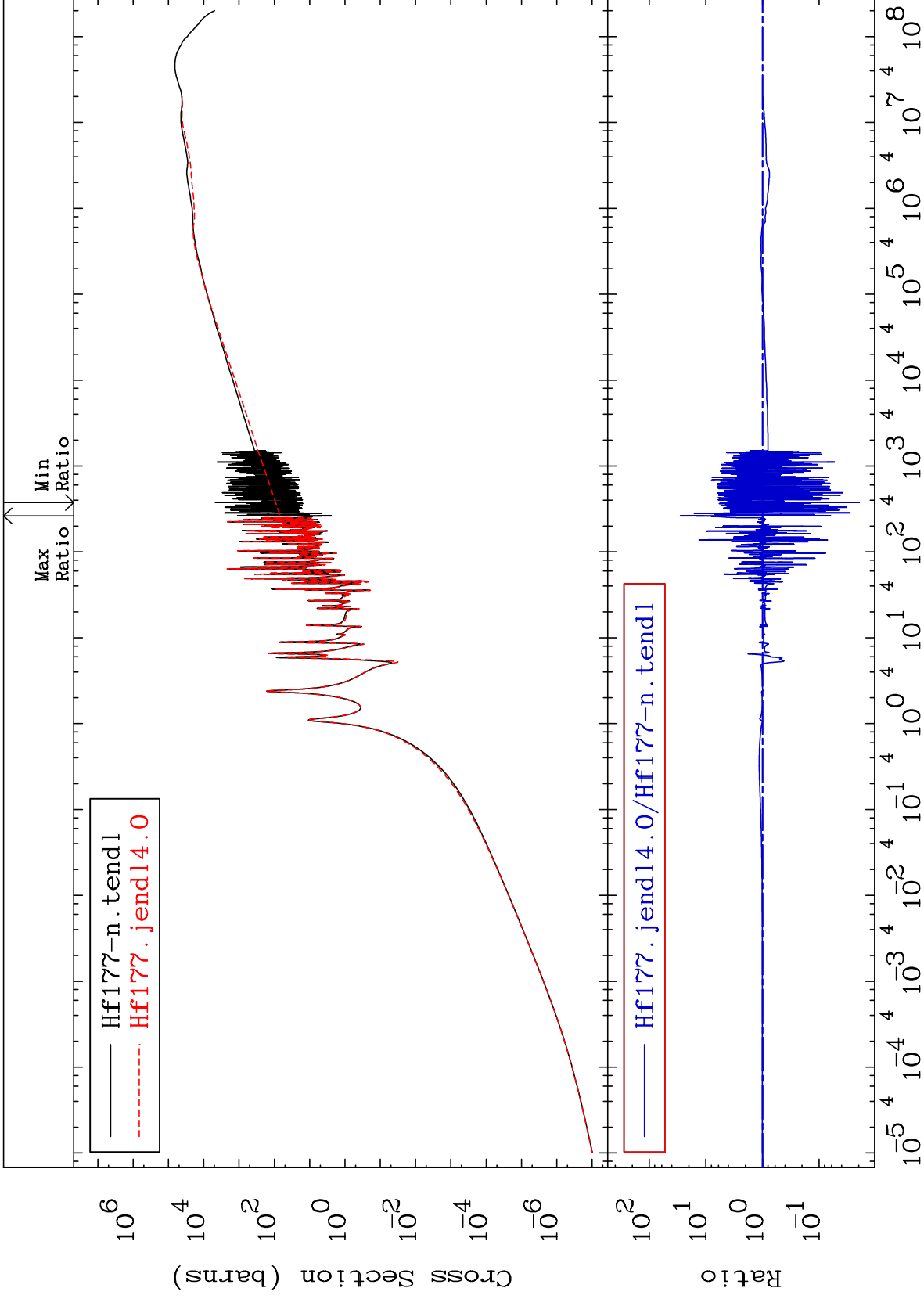
35

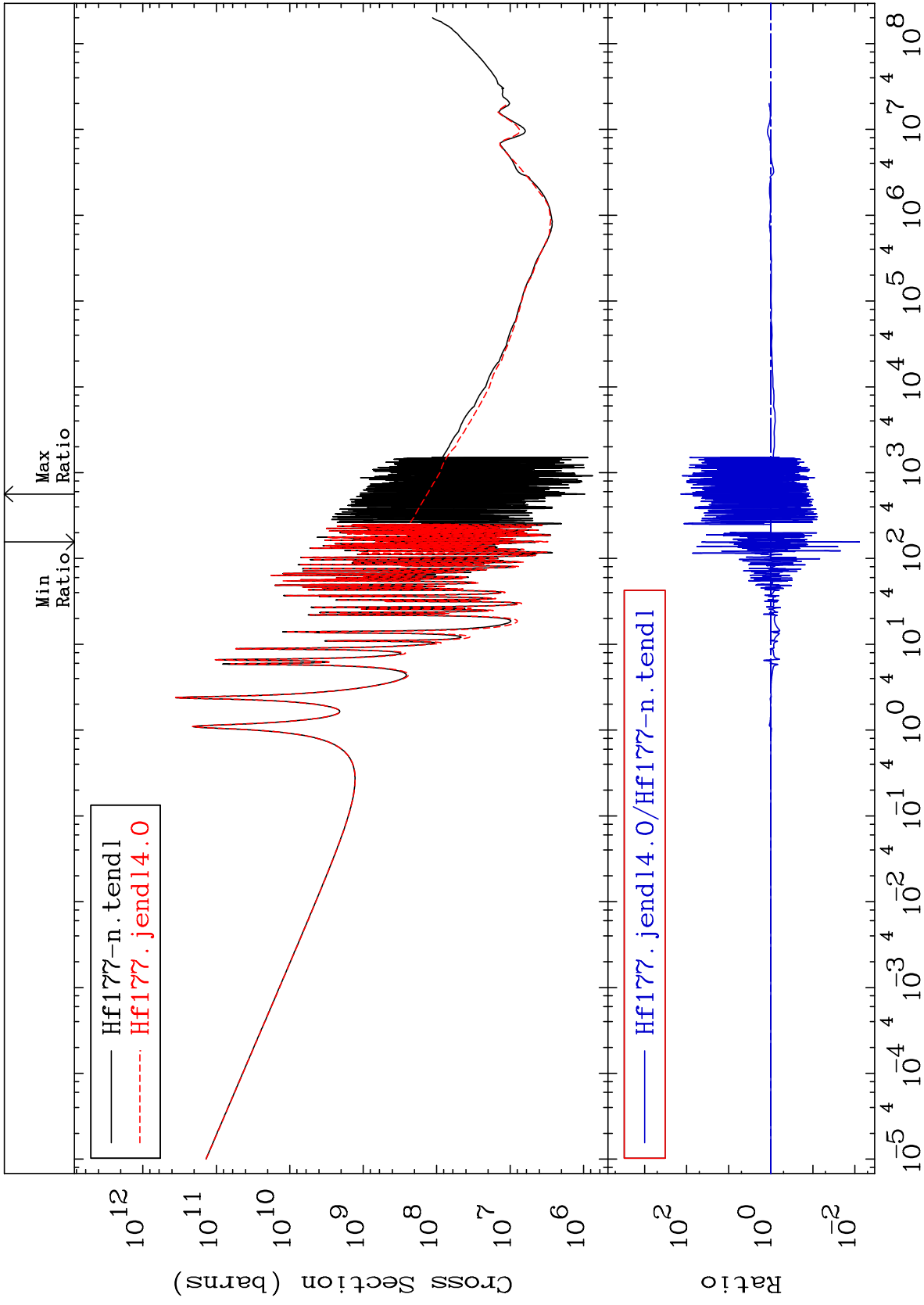


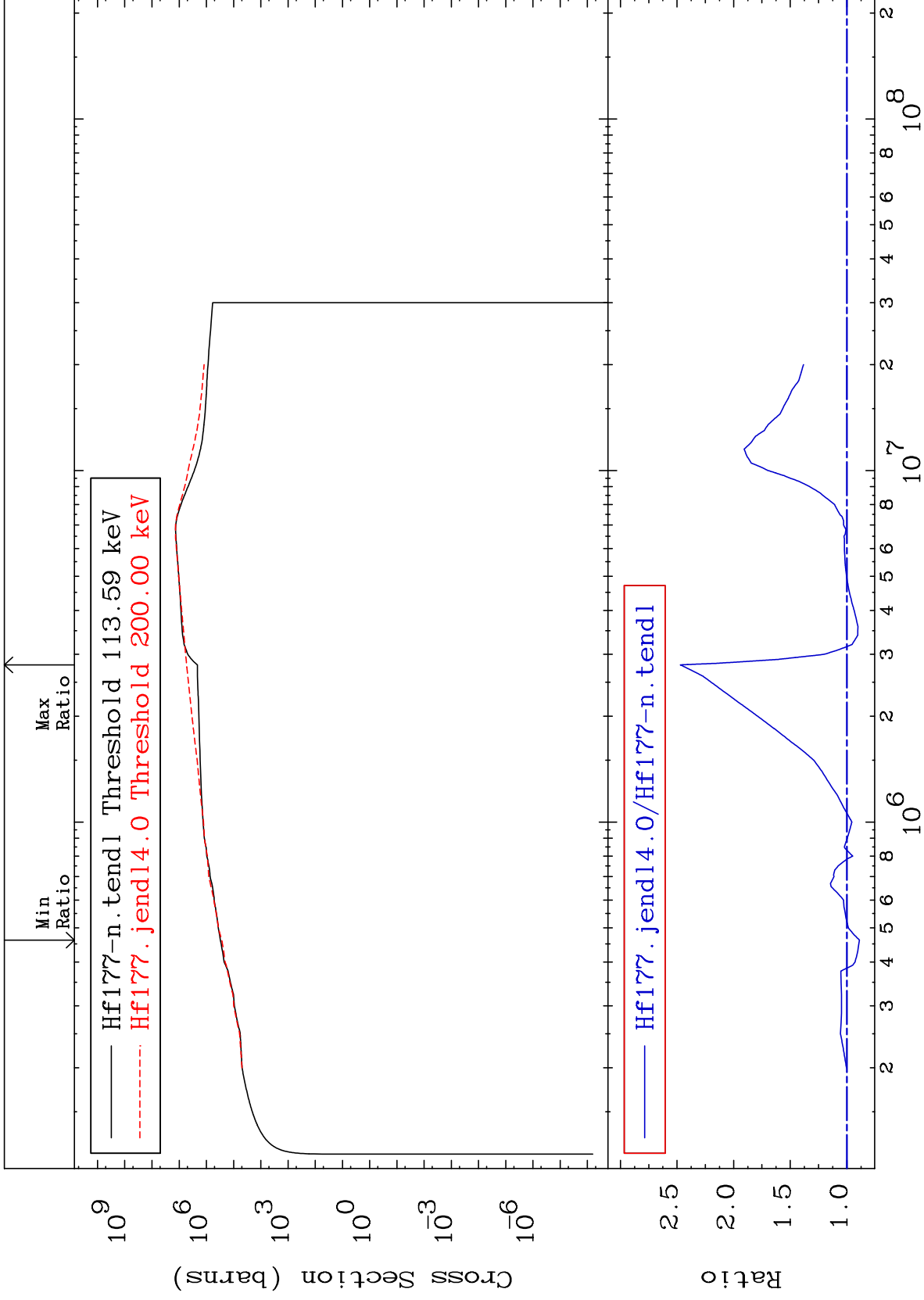
MAT 7234

Kerma elastic
Cross Section

72-Hf-177
-98.06 To 2746. %



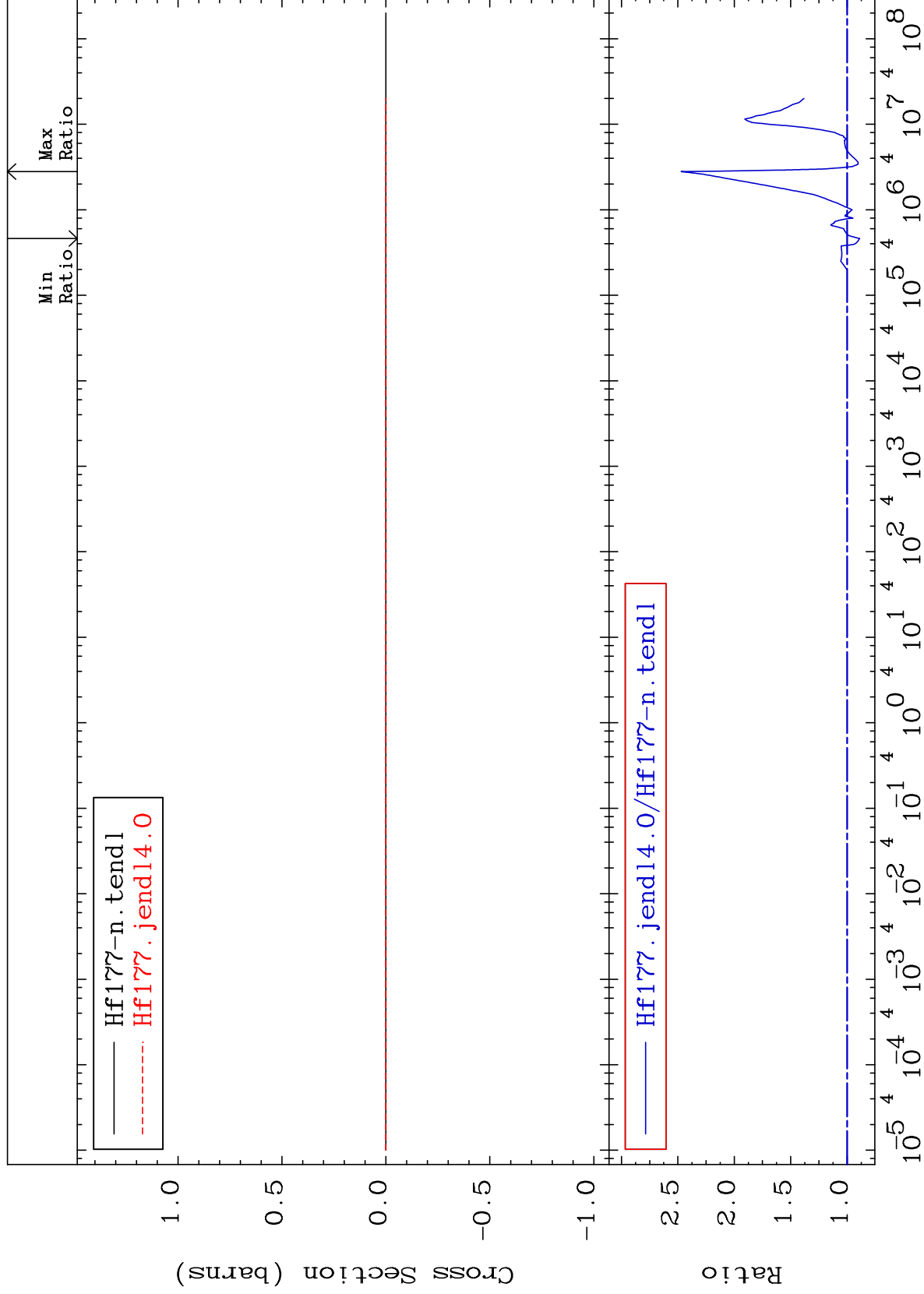




MAT 7234

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

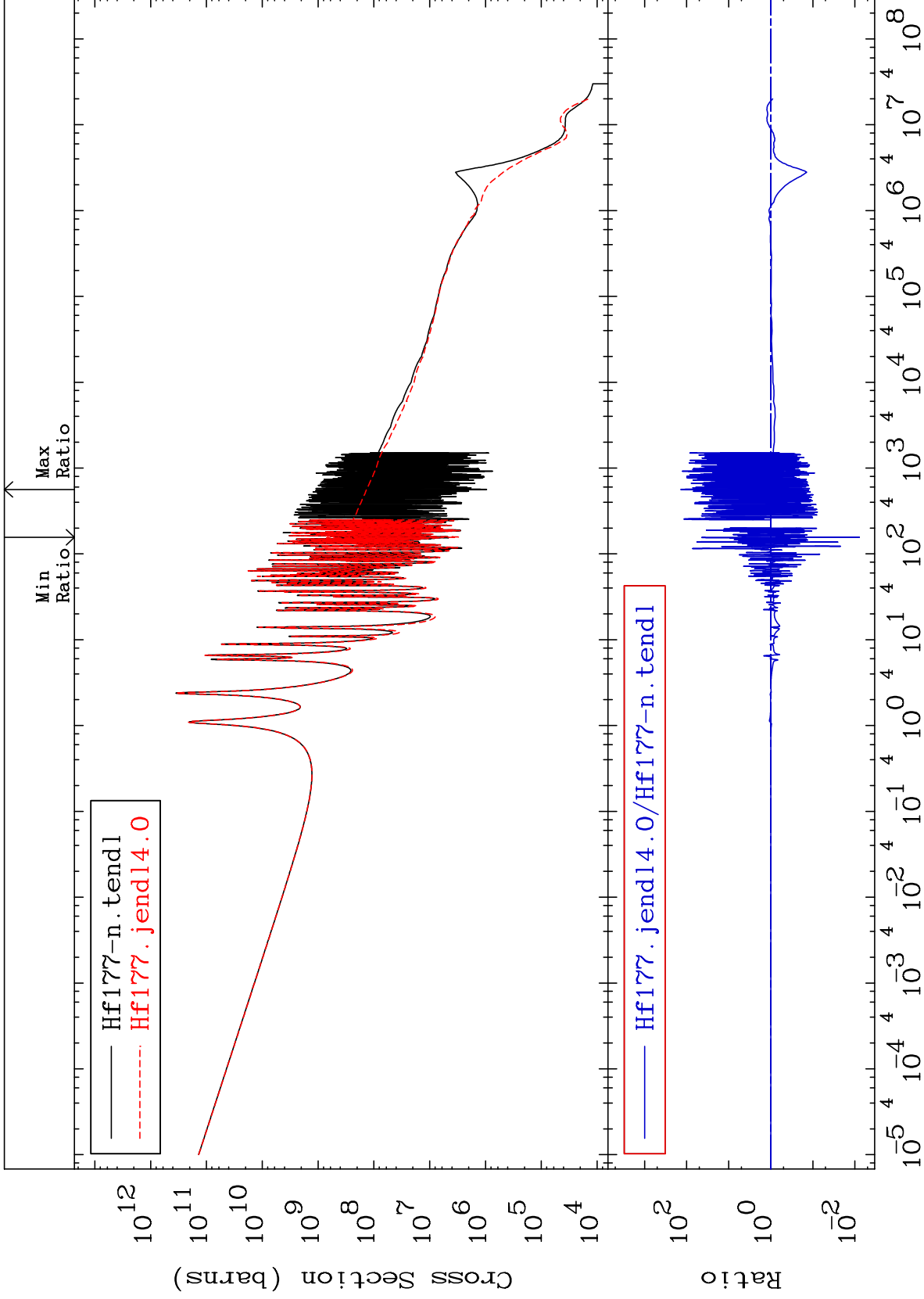
72-Hf-177
-11.11 To 147.1 %



40

Incident Energy (eV)

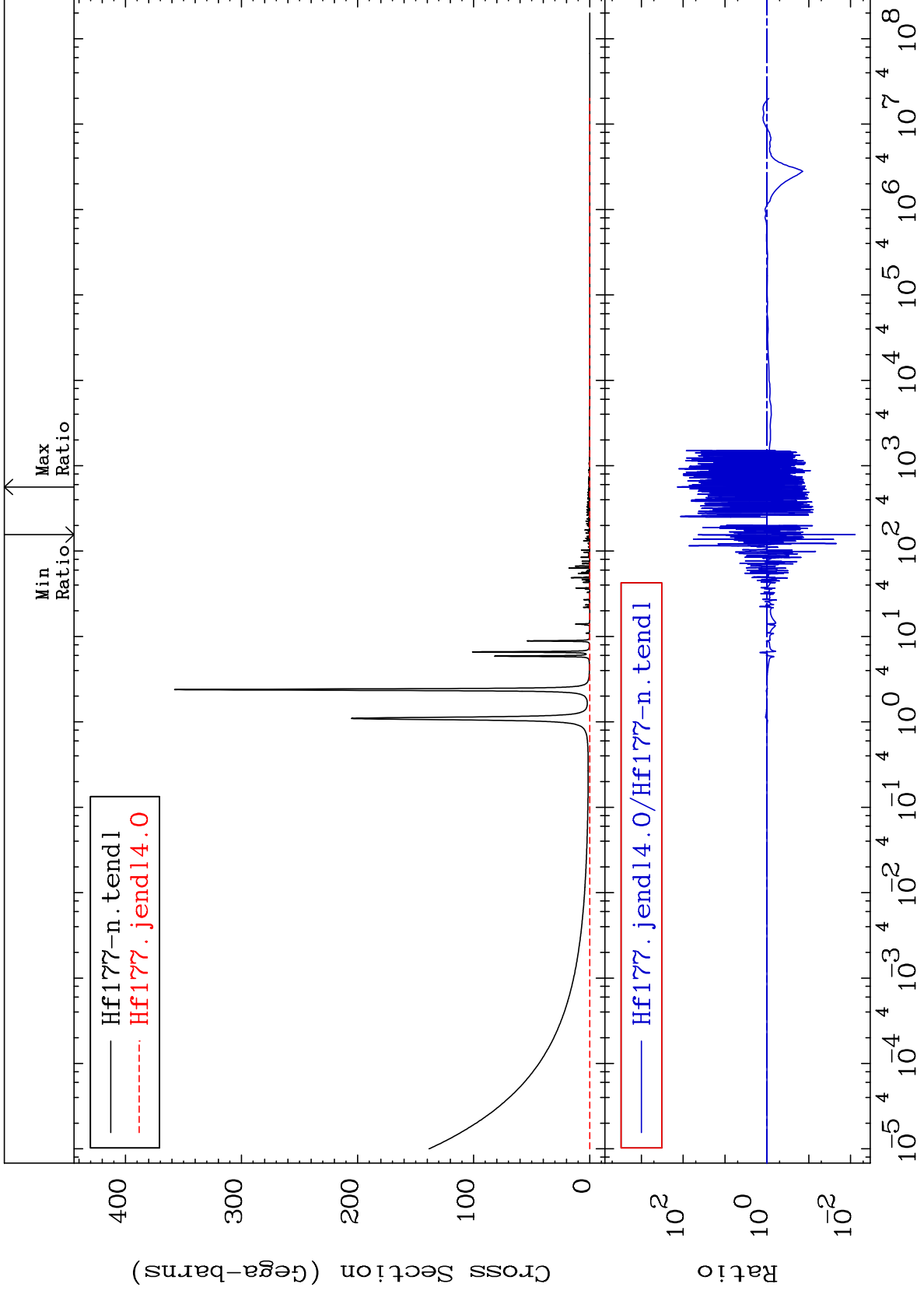
72-Hf-177



MAT 7234

Total photon (eV-barns)
Cross Section

72-Hf-177
-99.22 To 9999. %



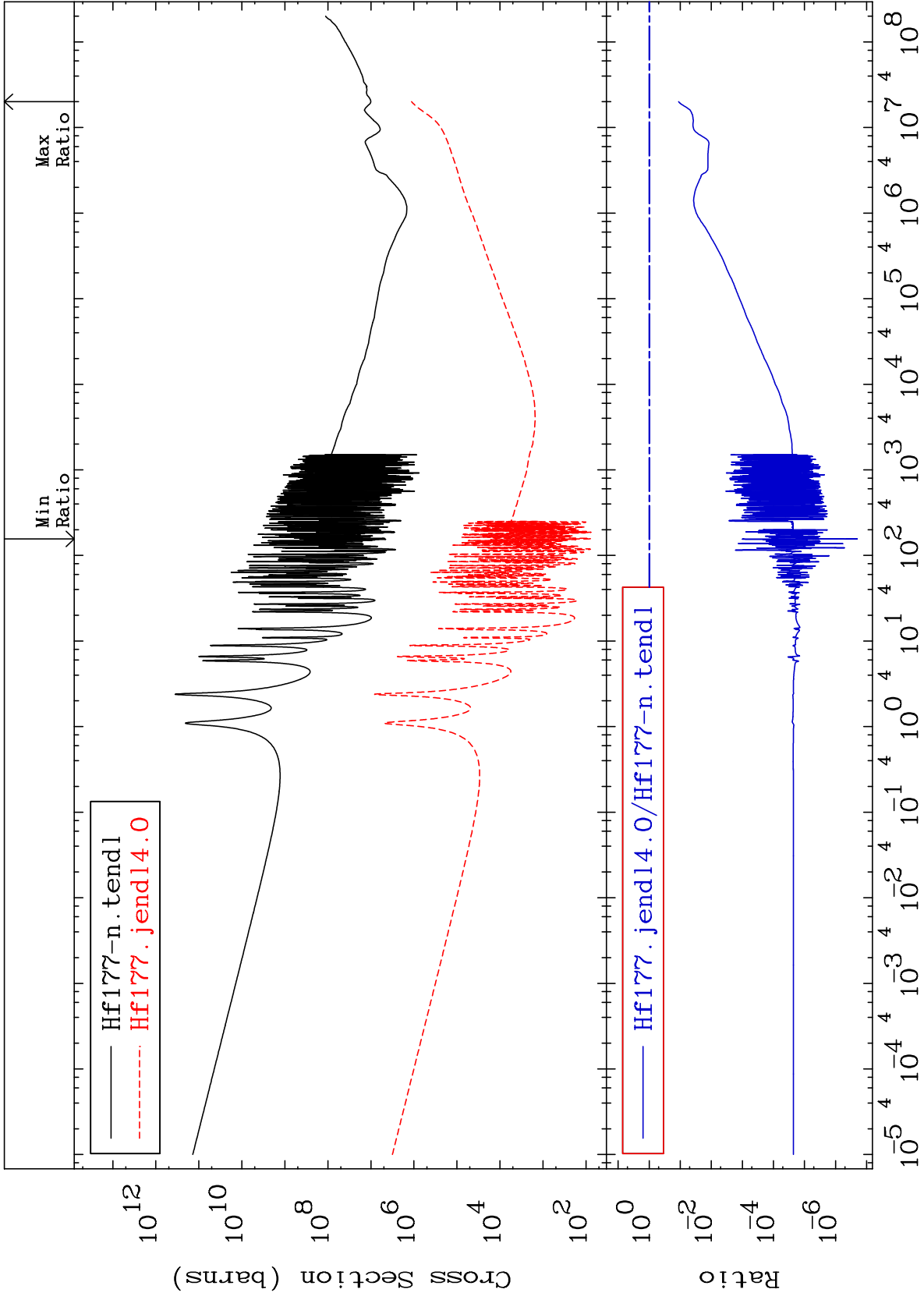
42

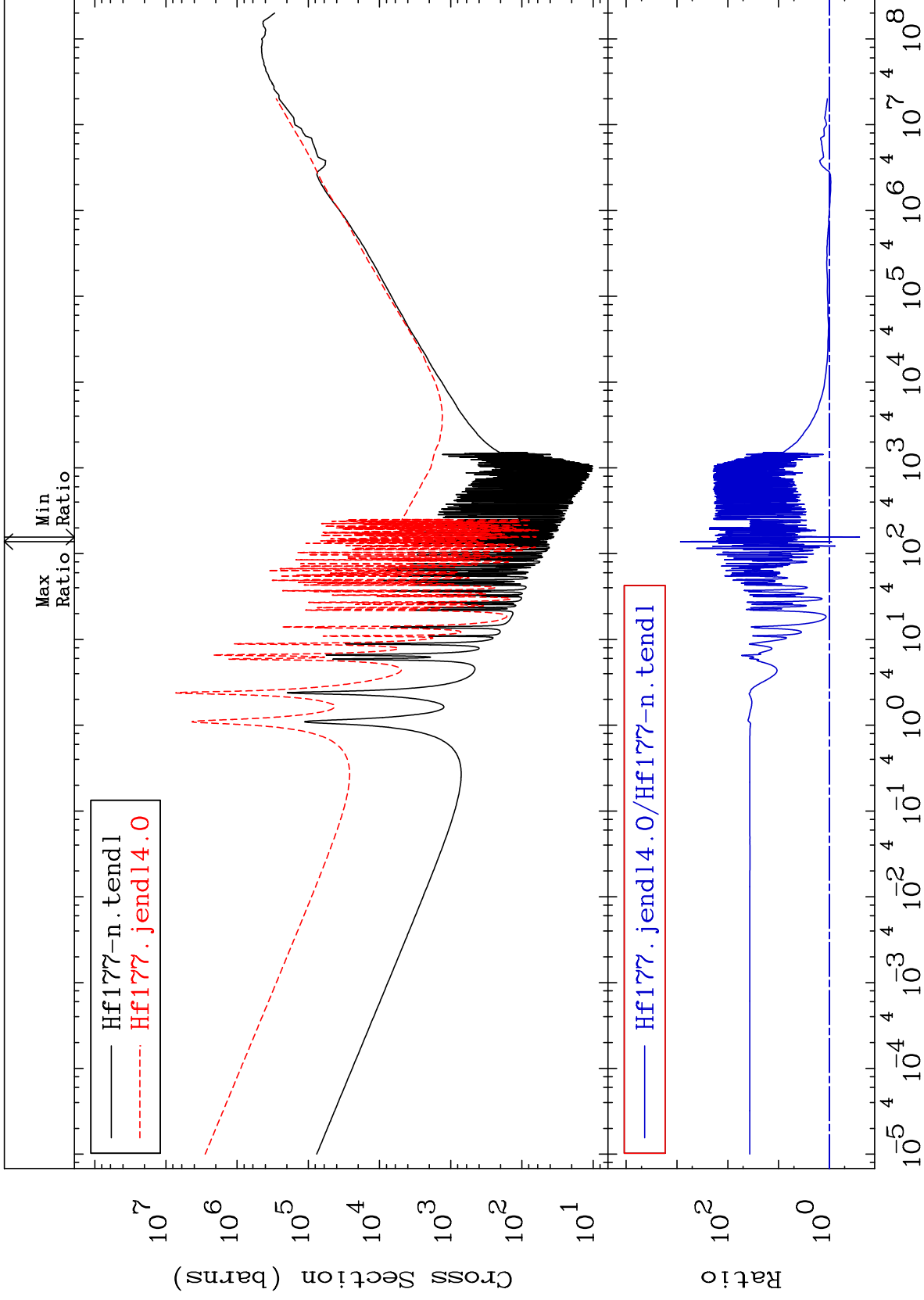
Incident Energy (eV)

72-Hf-177

Cross Section

-100.0 To -88.71%

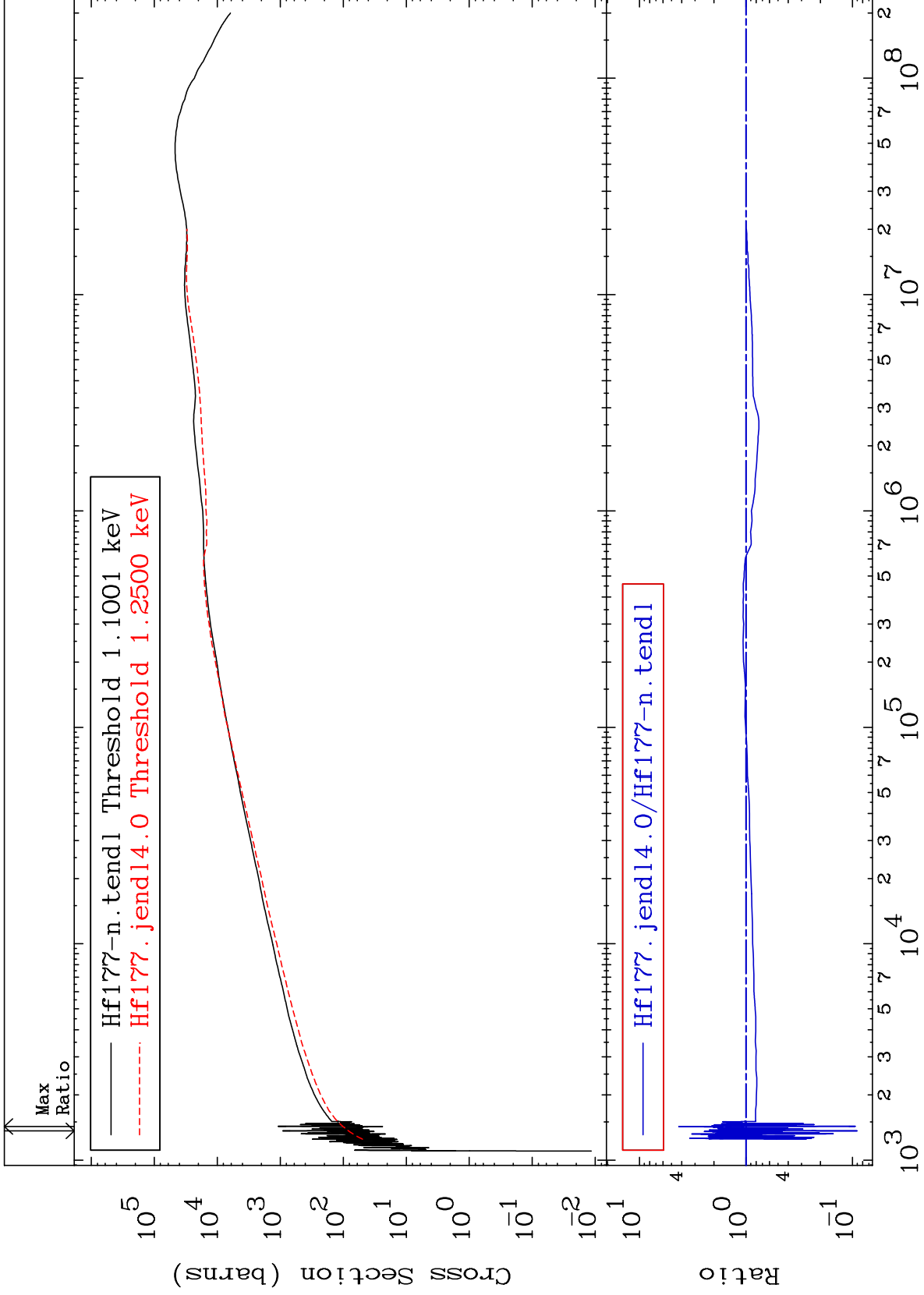




MAT 7234

Dpa elastic (mt2)
Cross Section

72-Hf-177
-91.00 To 328.4 %



45

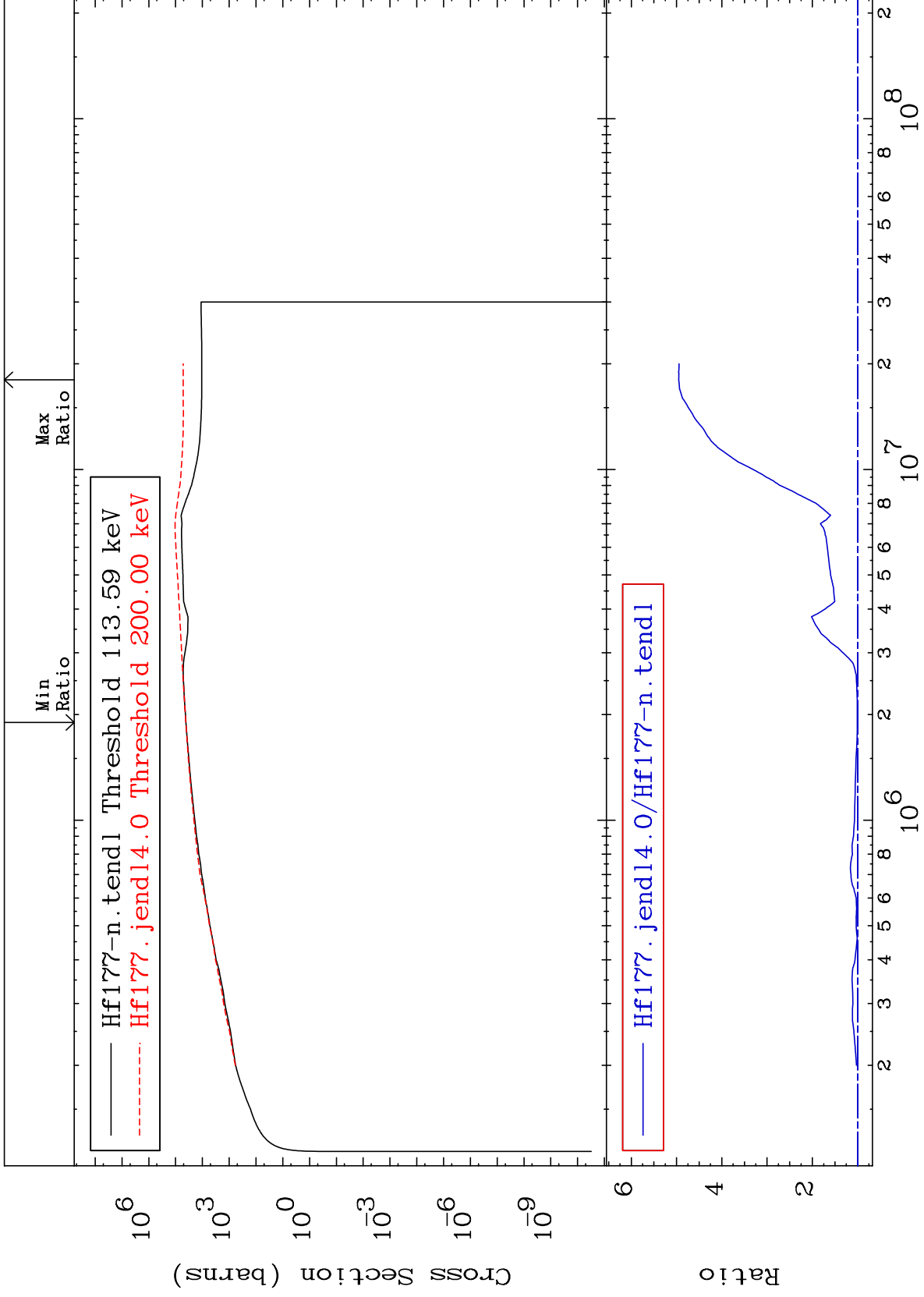
Incident Energy (eV)

72-Hf-177

MAT 7234

Dpa inelastic (mt51-91)
Cross Section

72-Hf-177
0.793 To 395.4 %



MAT 7234

Dpa disappearance (mt102 -120)
Cross Section

72-Hf-177
-74.32 To 9999. %

