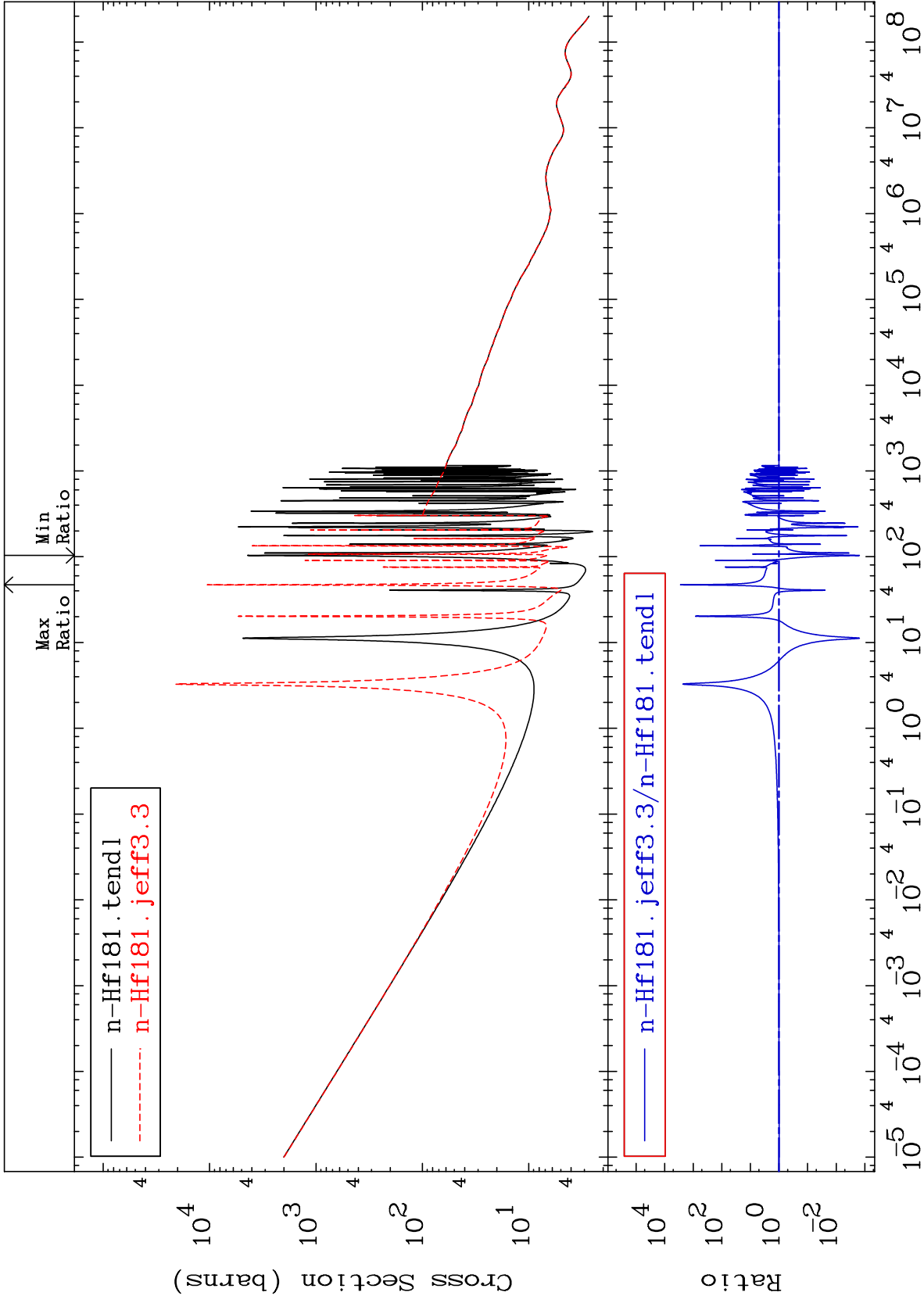


MAT 7246

Total Cross Section  
72-Hf-181  
-99.85 To 9999. %

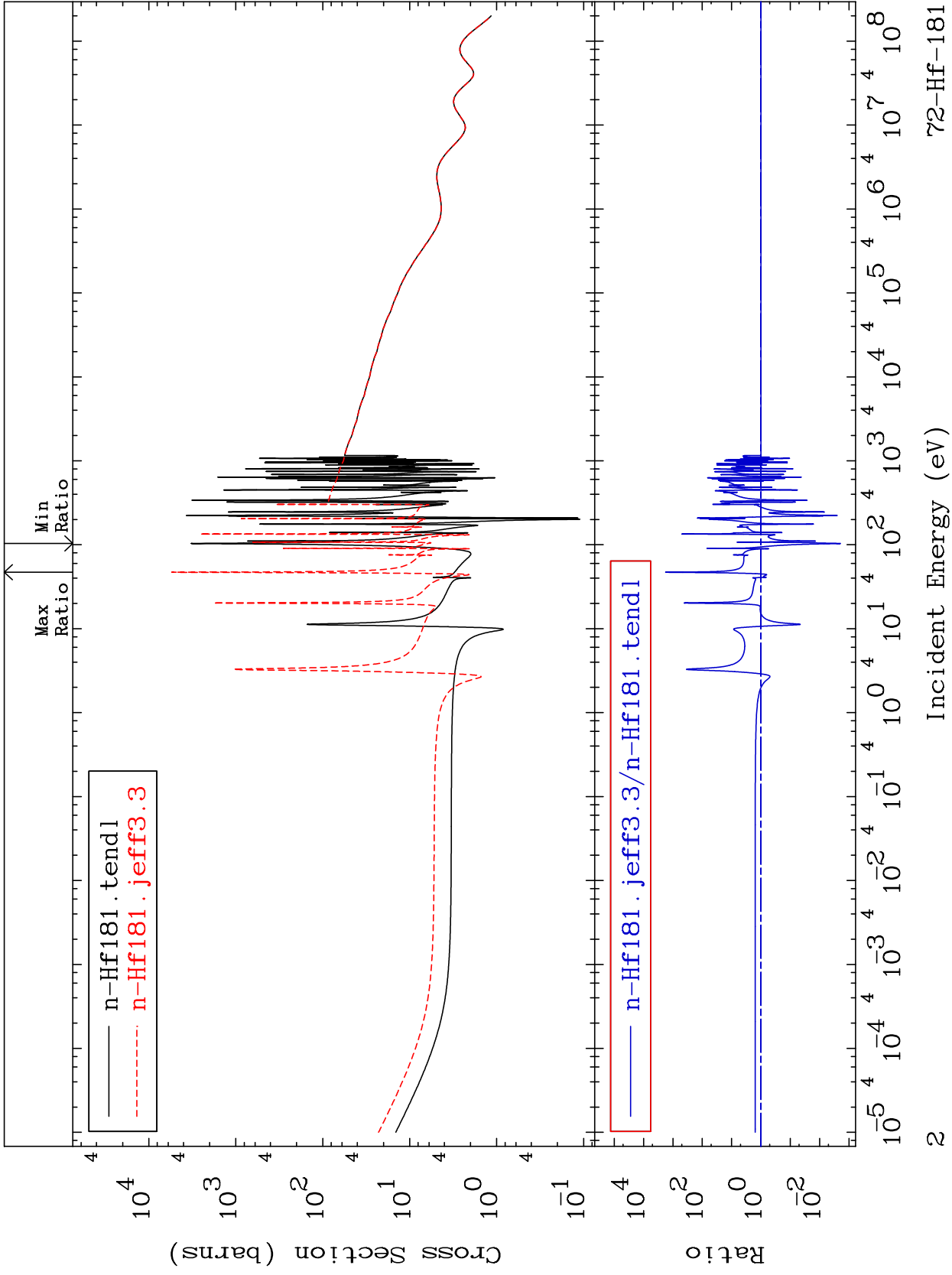


Incident Energy (eV)

72-Hf-181

MAT 7246

Elastic Cross Section  
72-Hf-181  
-99.81 To 9999. %



72-Hf-181

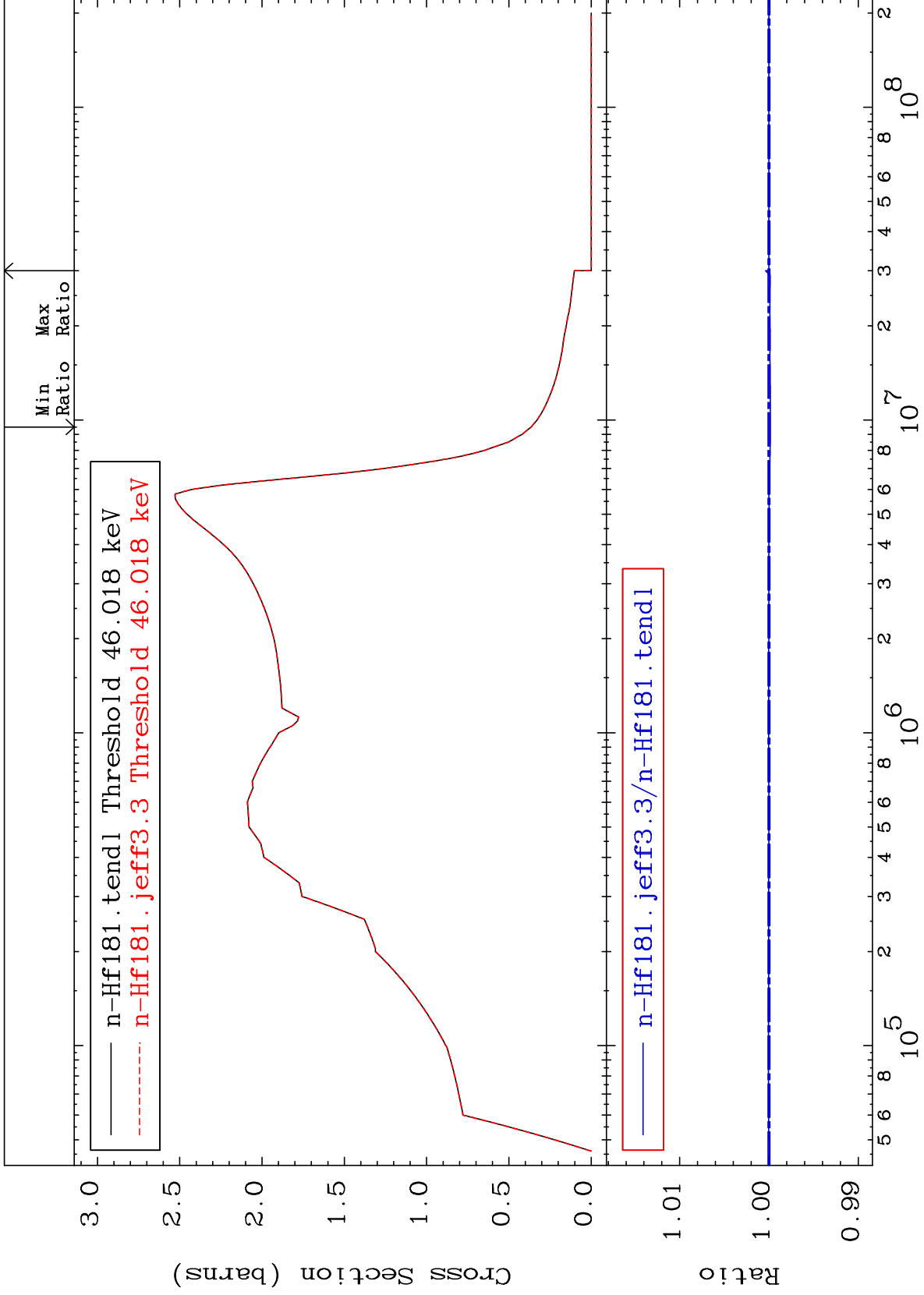
Incident Energy (eV)

2

MAT 7246

Inelastic  
Cross Section

72-Hf-181  
-0.016 To 0.038 %



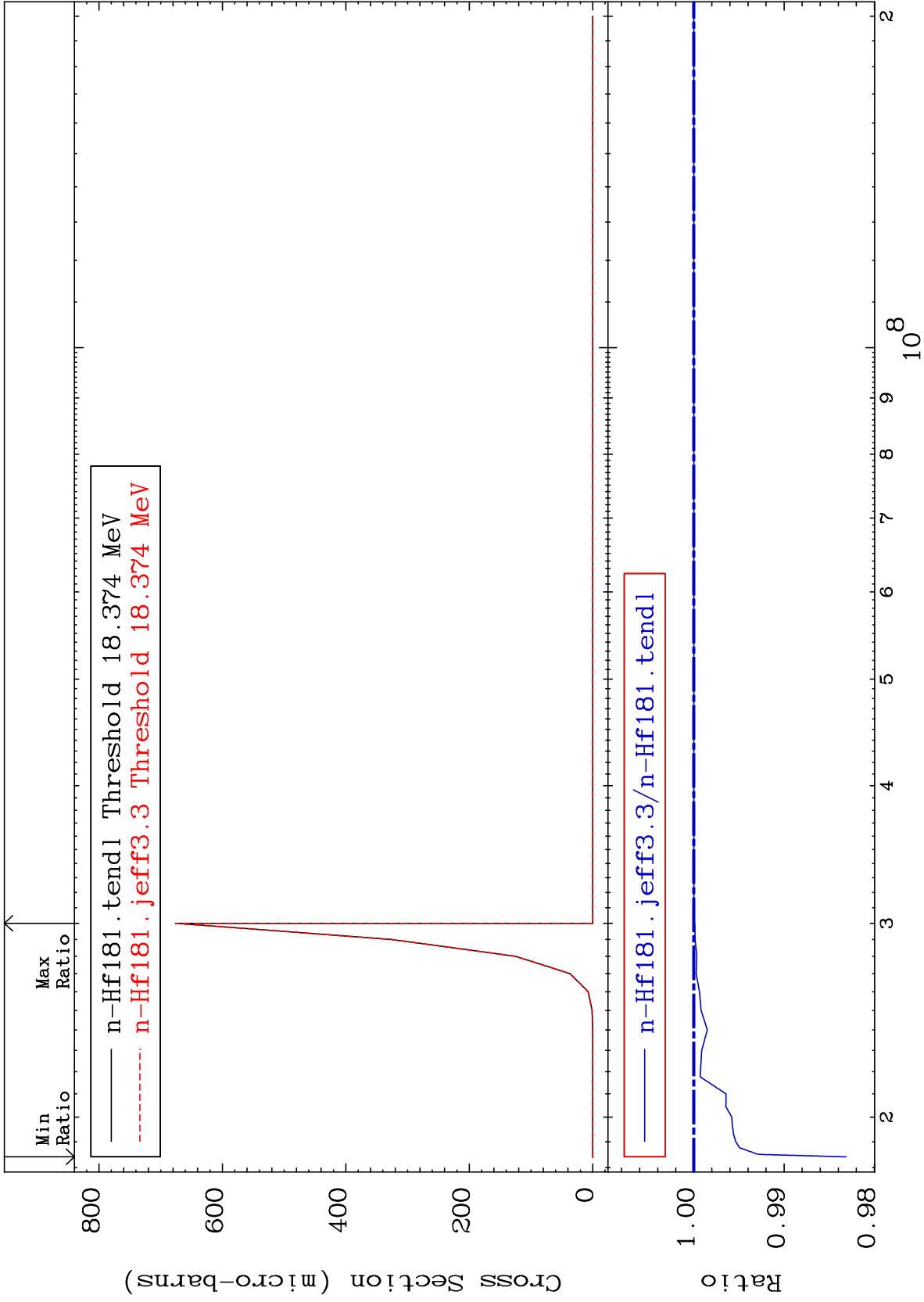
MAT 7246

(n,2n) d

72-Hf-181

Cross Section

-1.685 To 0.000 %



4

72-Hf-181

72-Hf-181

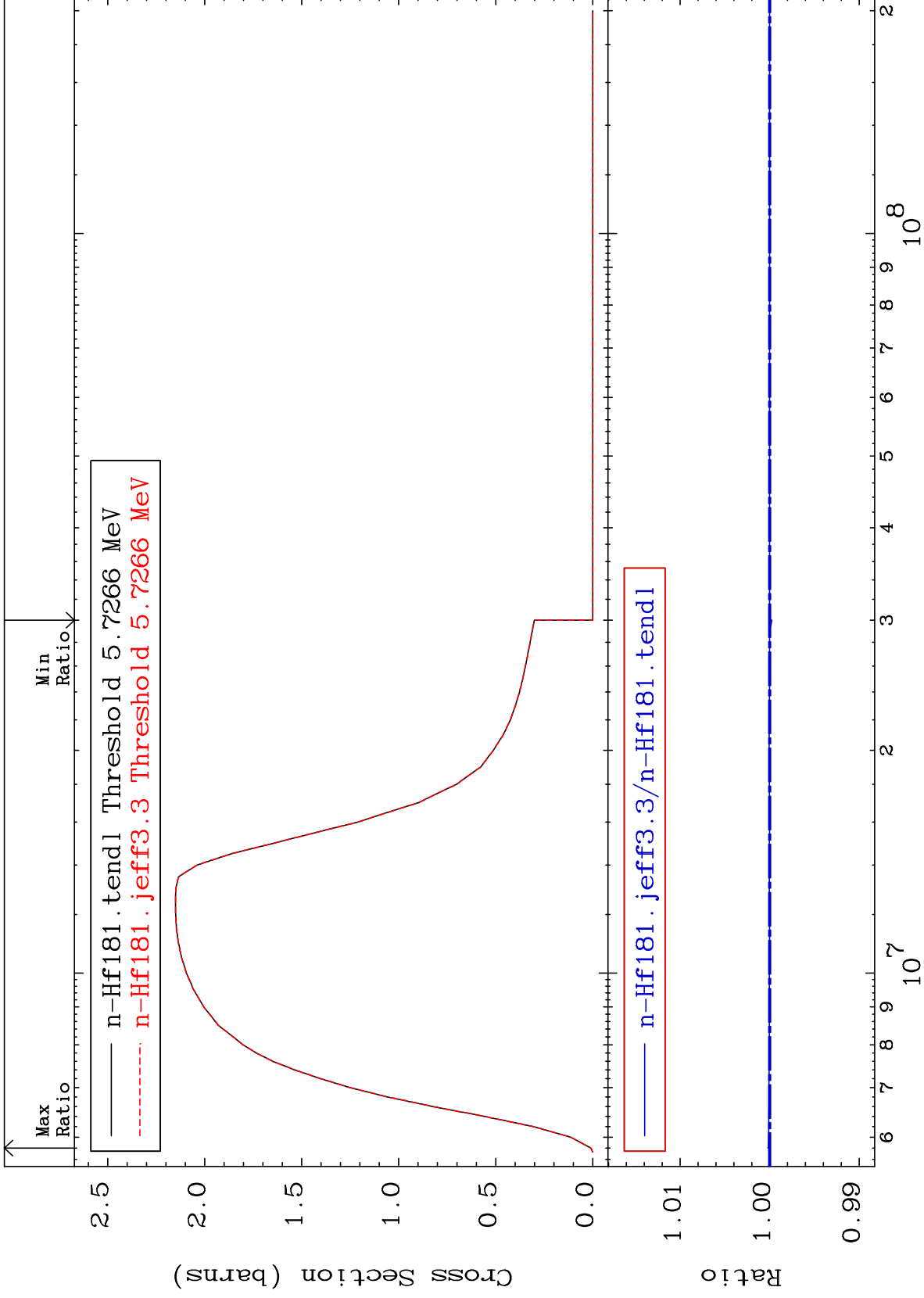
MAT 7246

(n,2n)

<sup>72</sup>Hf-181

Cross Section

-0.025 To 0.020 %



5

Incident Energy (eV)

<sup>72</sup>Hf-181

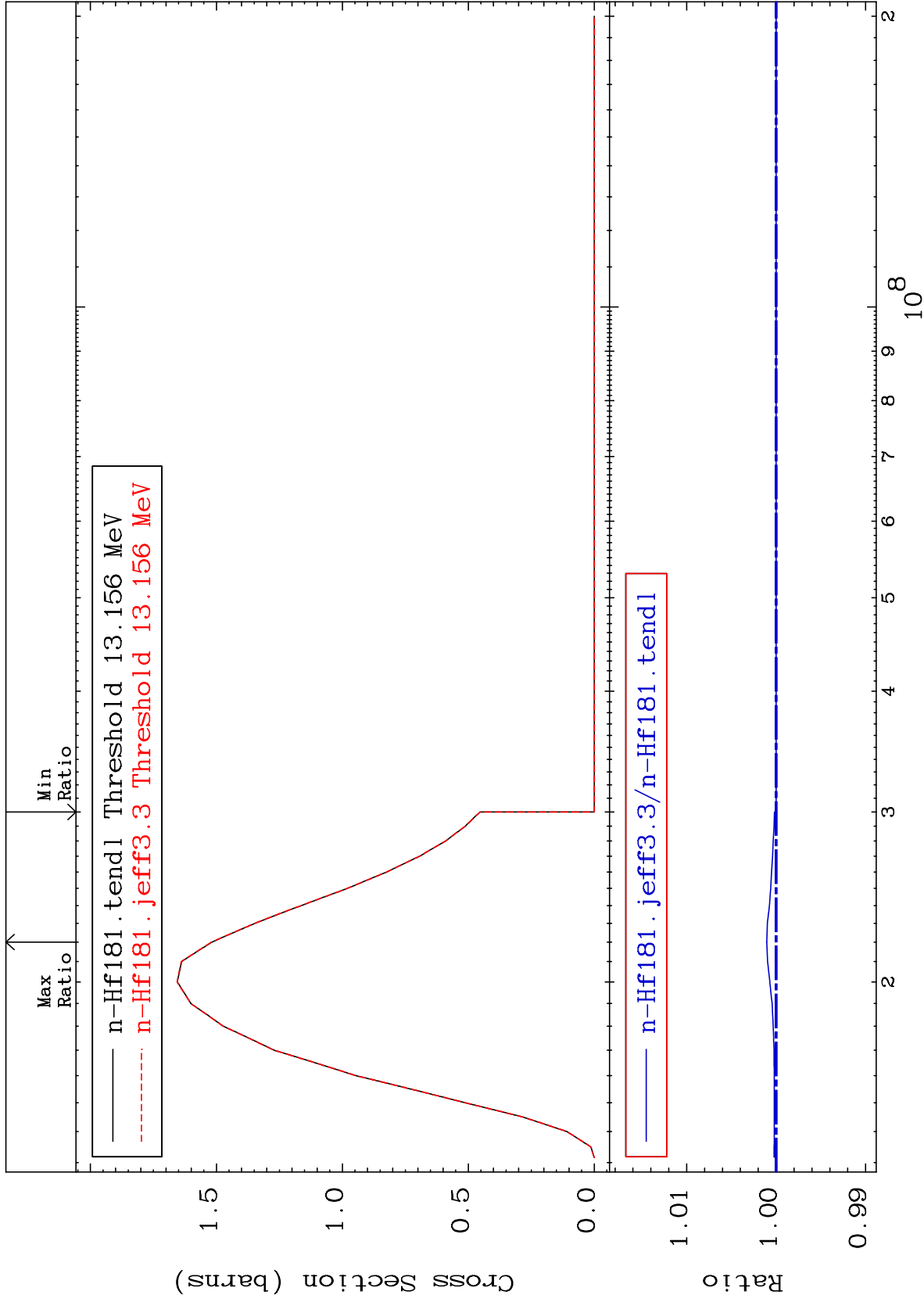
MAT 7246

(n,3n)

<sup>72</sup>Hf-181

Cross Section

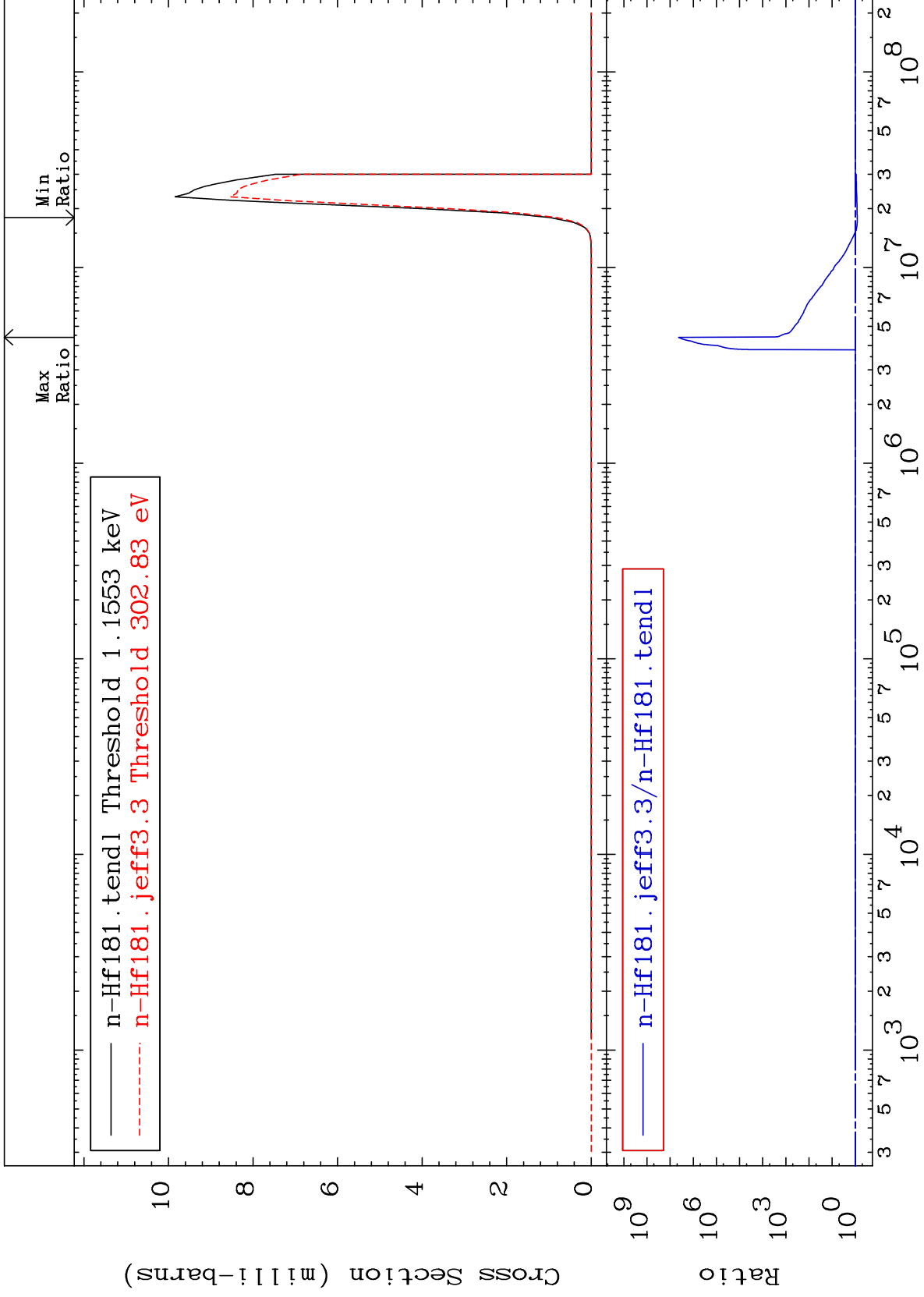
0.000 To 0.105 %

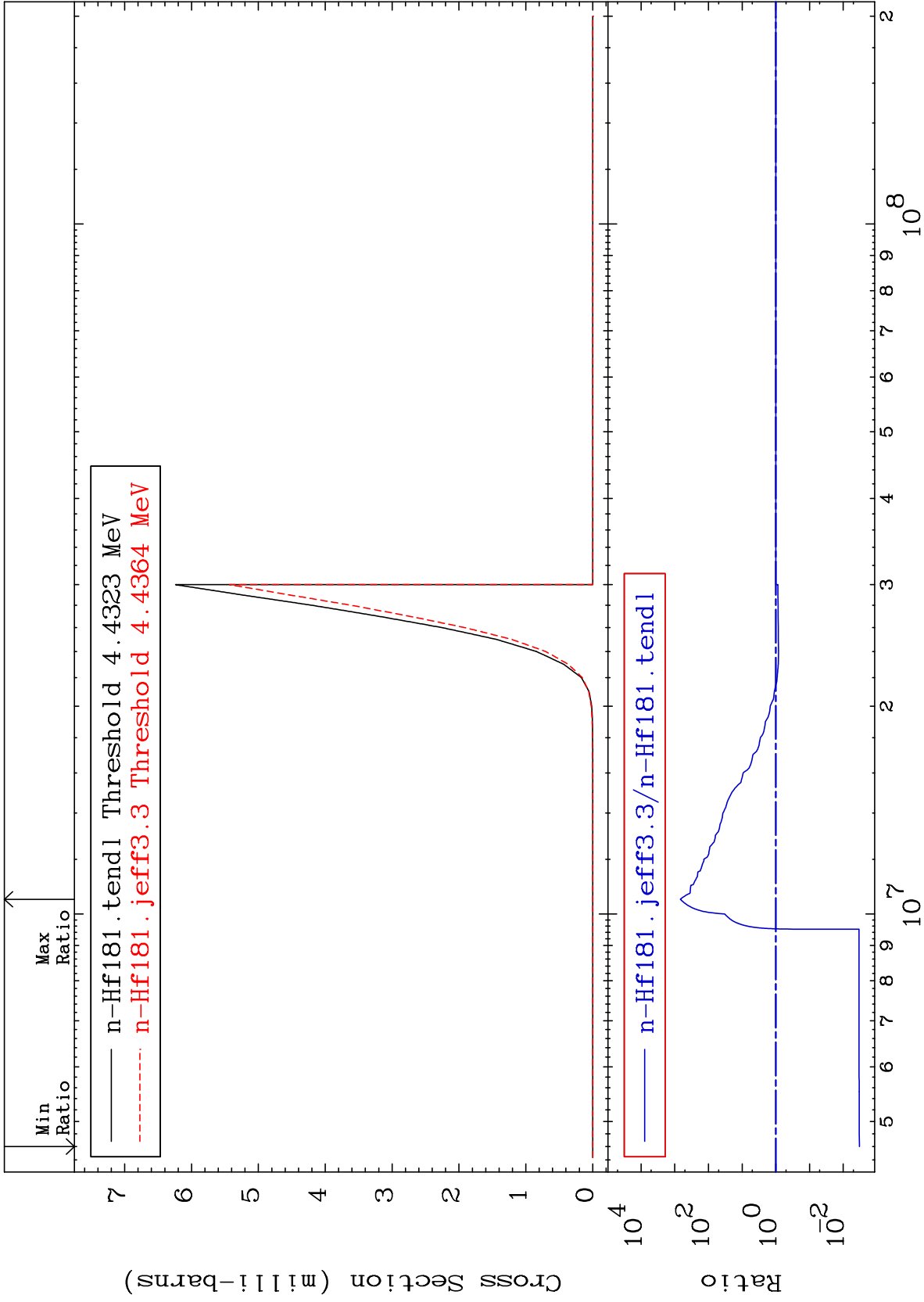


MAT 7246

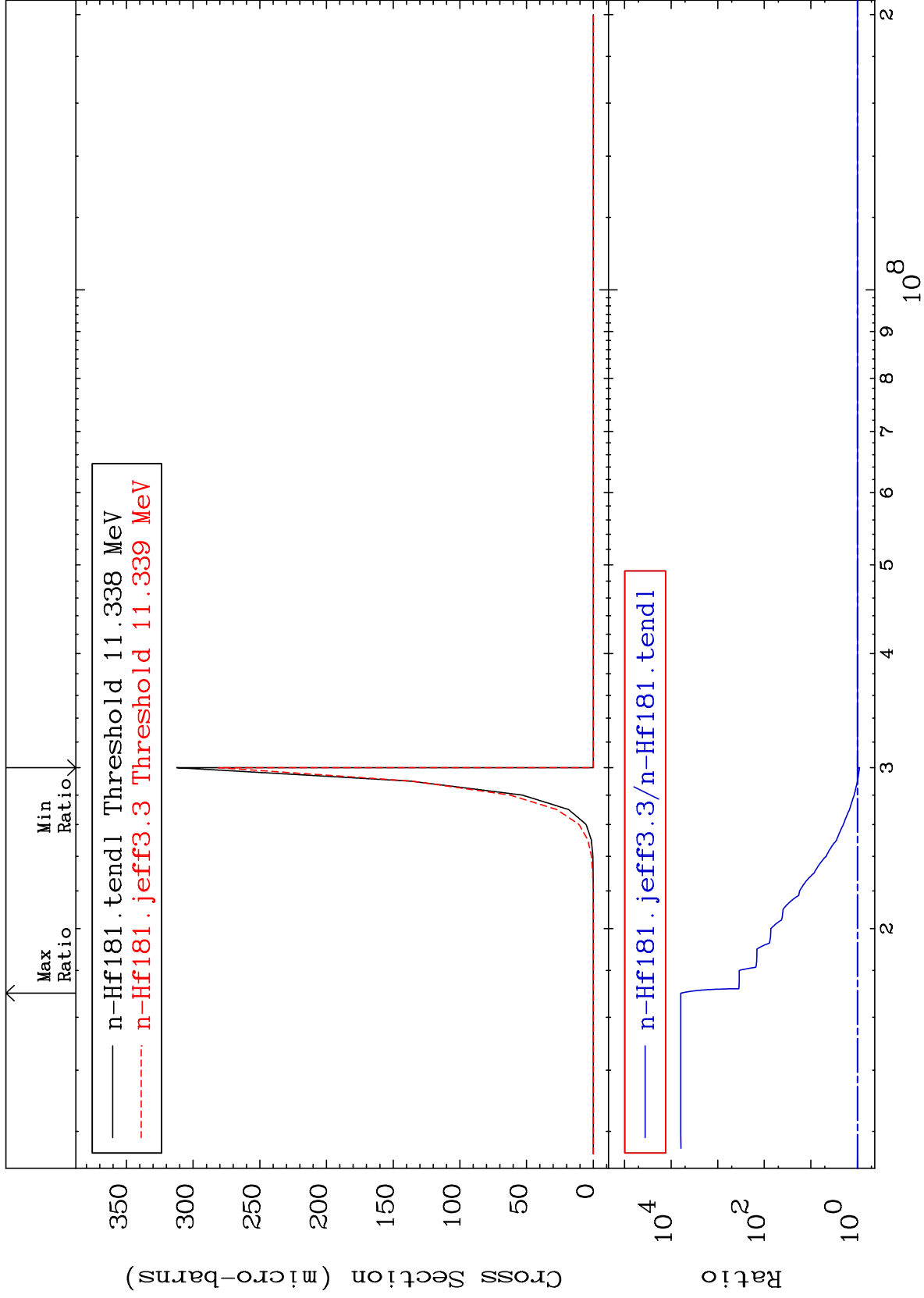
(n, n')  $\alpha$   
Cross Section

72-Hf-181  
-17.49 To 9999. %





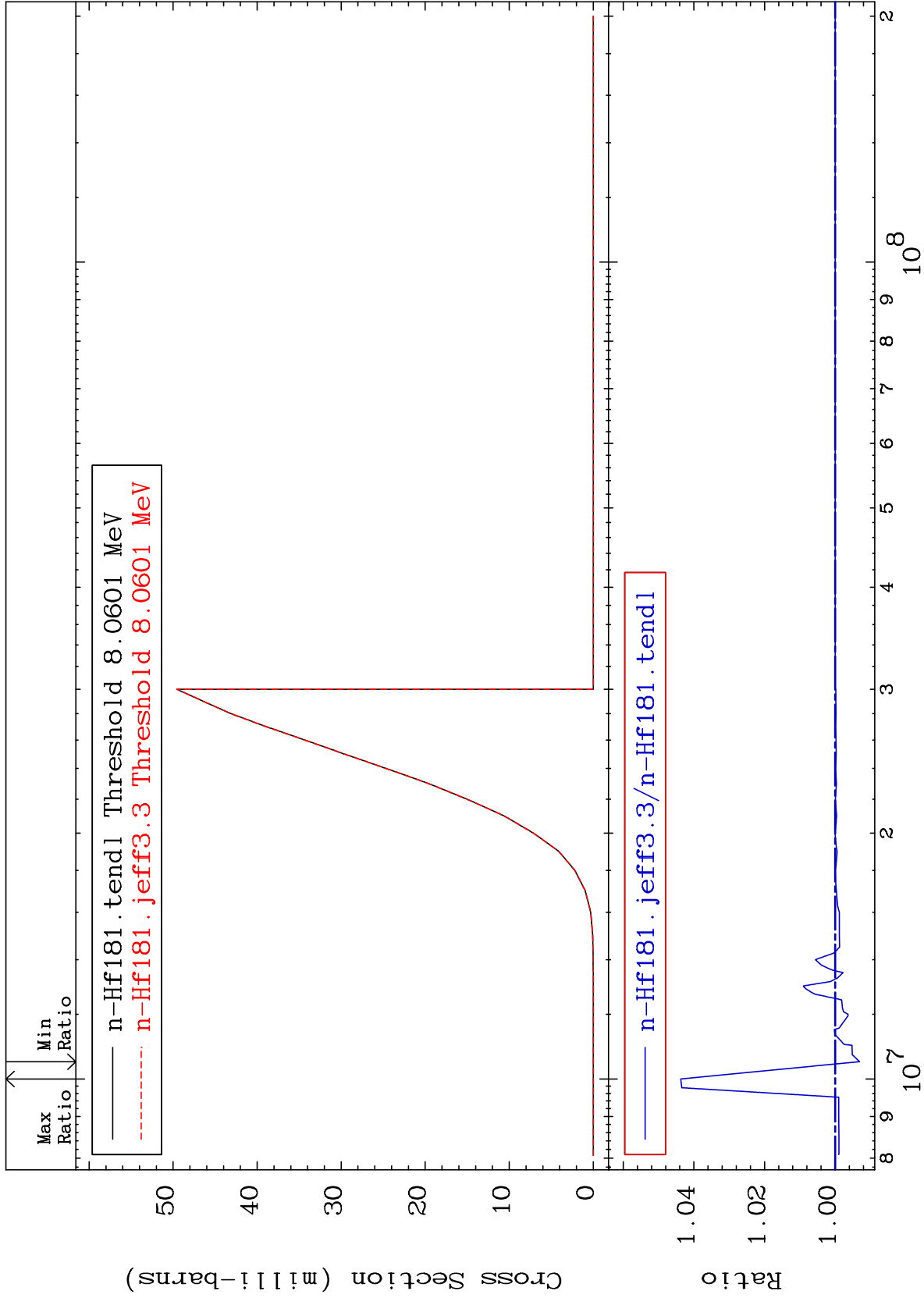




MAT 7246

(n,n') p  
Cross Section

<sup>72</sup>Hf-181  
-0.690 To 4.372 %



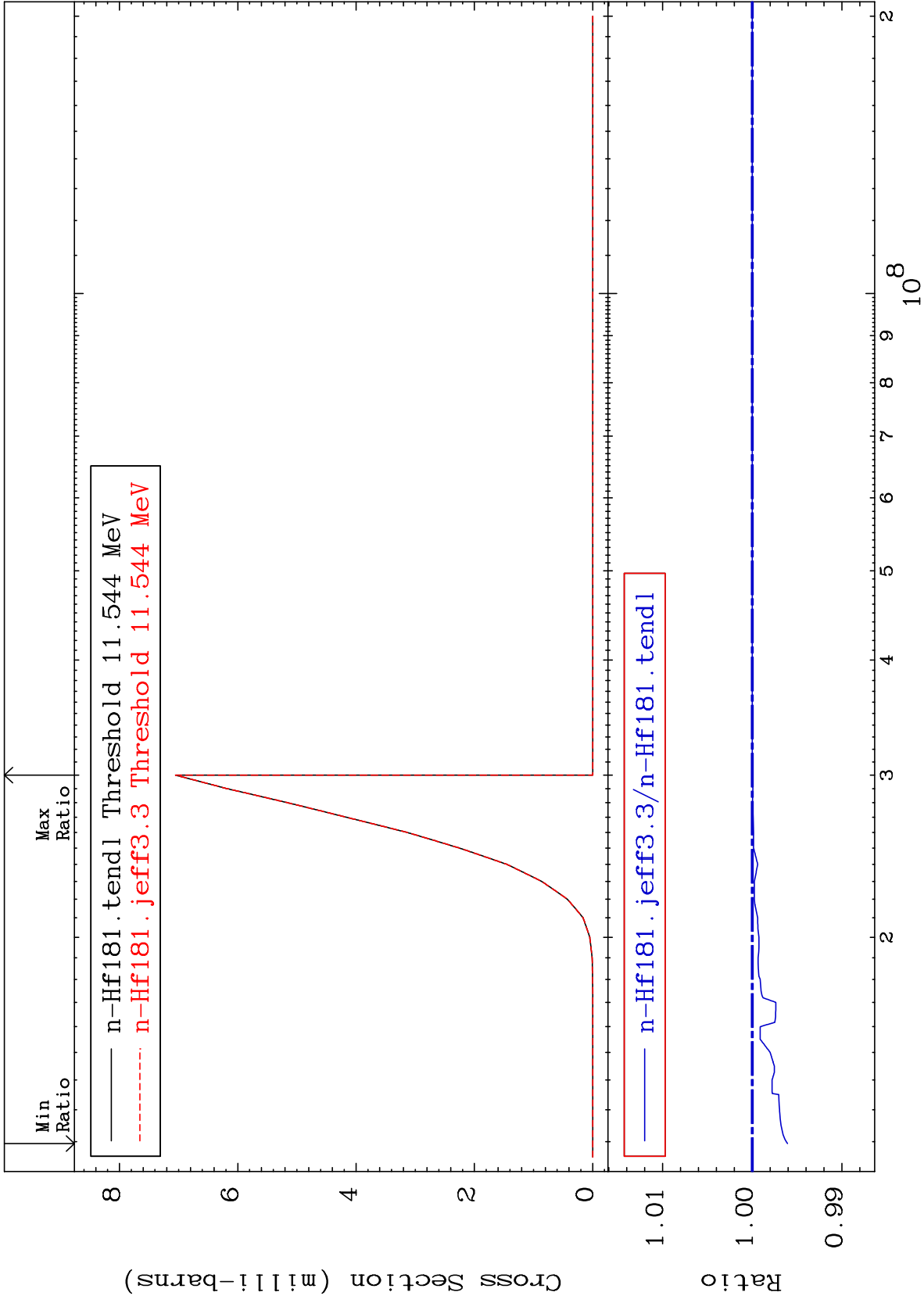
10

Incident Energy (eV)

<sup>72</sup>Hf-181

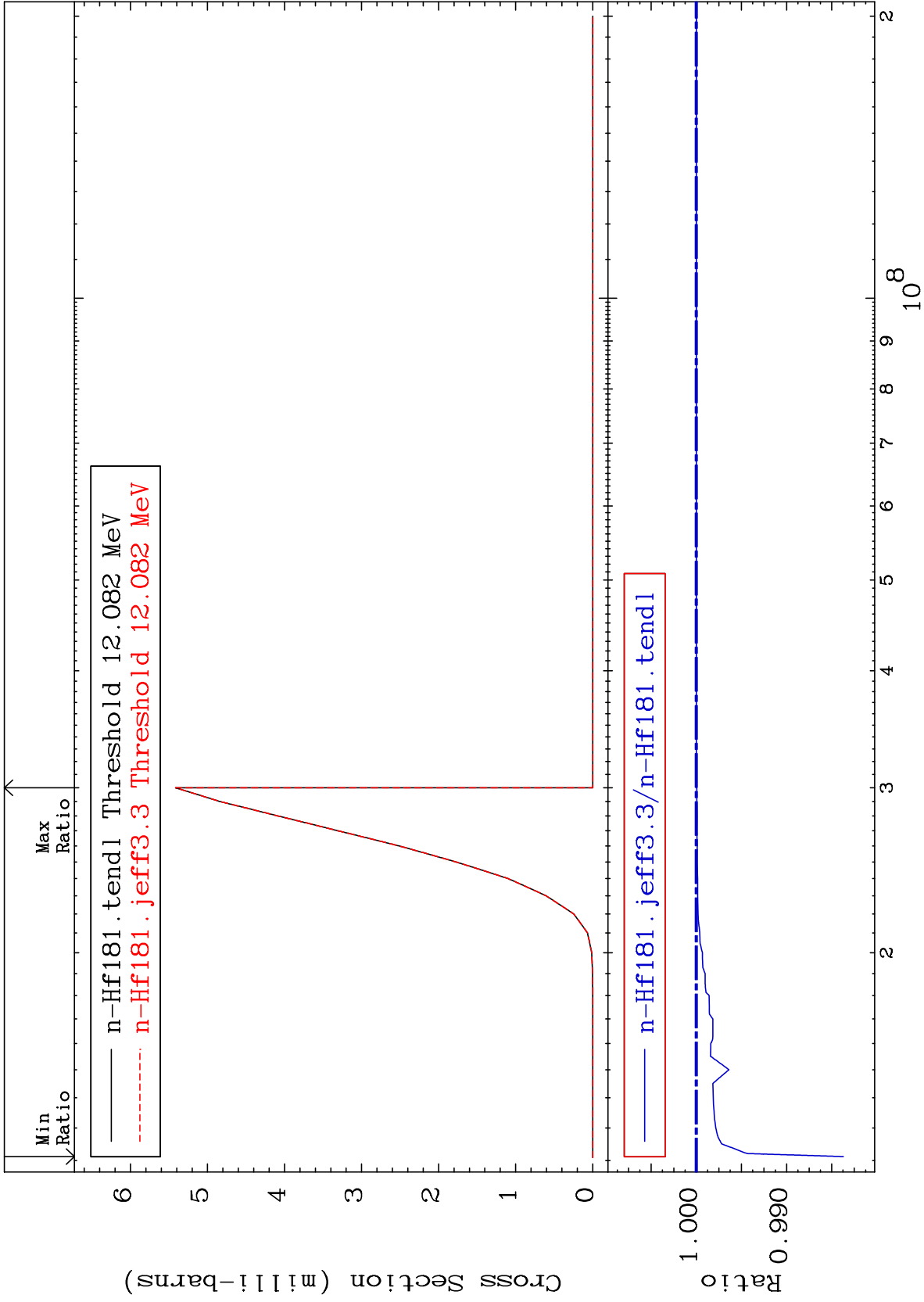
Cross Section

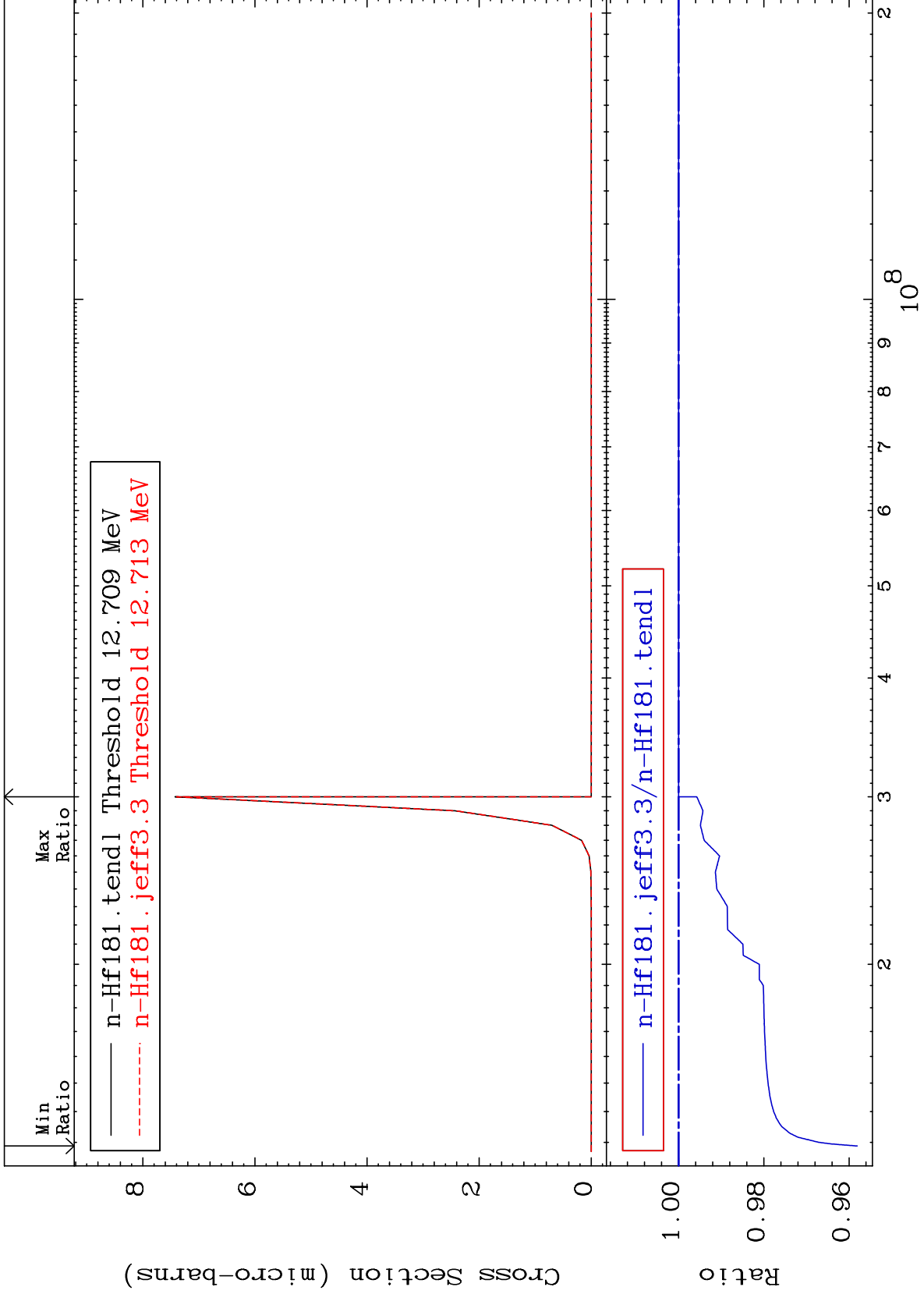
-0.394 To 0.000 %



Cross Section

-1.630 To 0.000 %





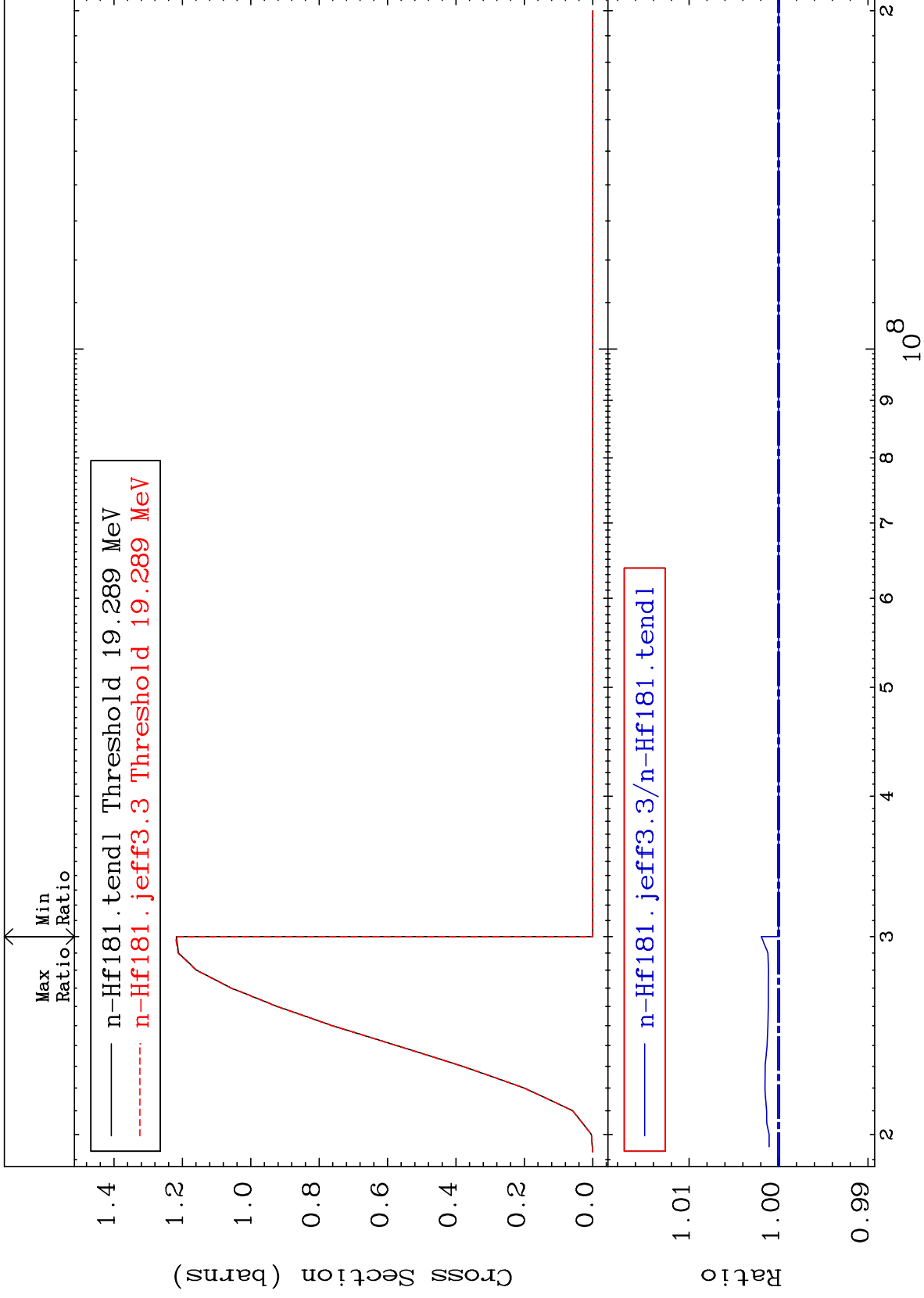
MAT 7246

(n,4n)

<sup>72</sup>Hf-181

Cross Section

0.000 To 0.195 %



14

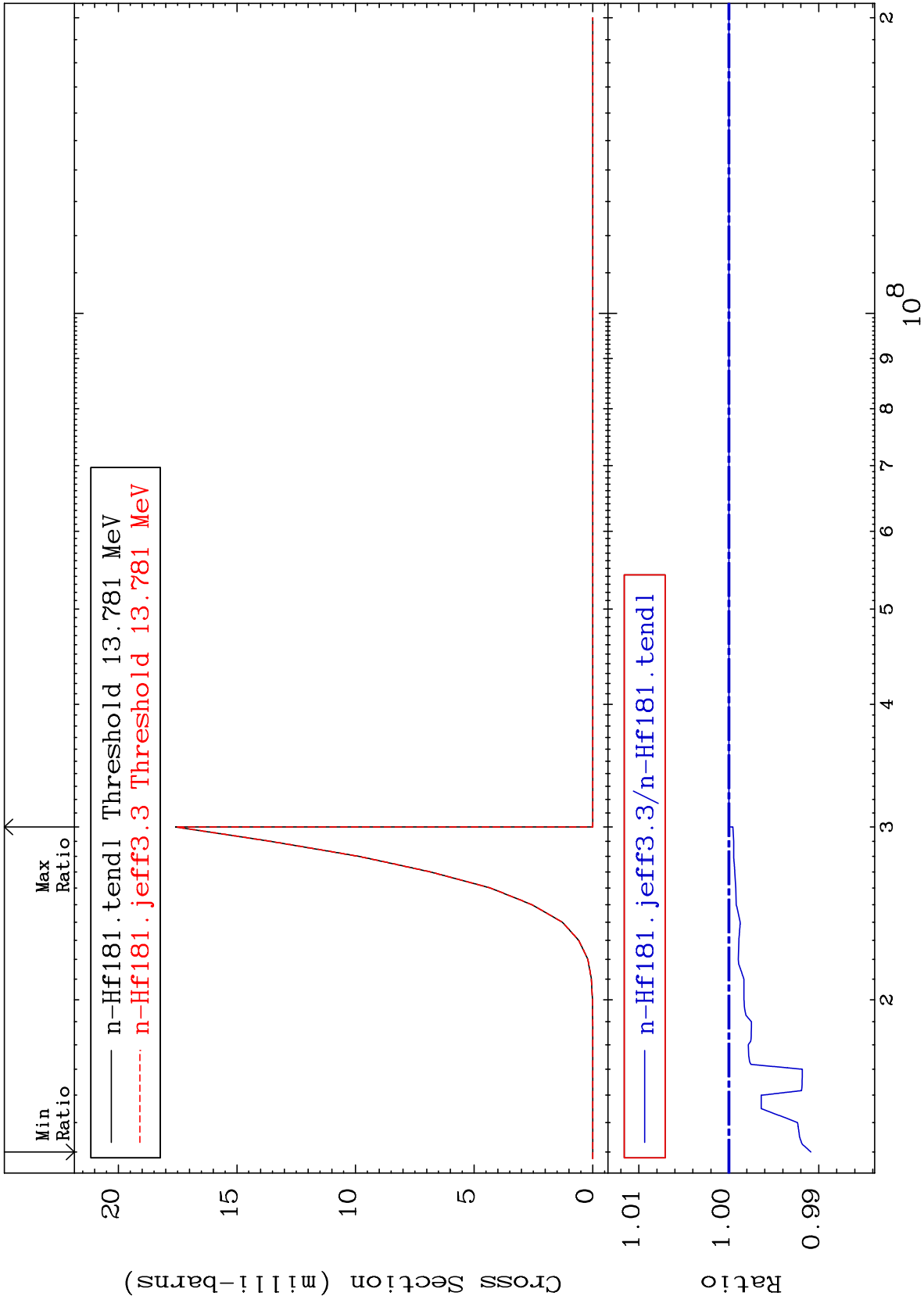
Incident Energy (eV)

<sup>72</sup>Hf-181

MAT 7246

(n,2n) p  
Cross Section

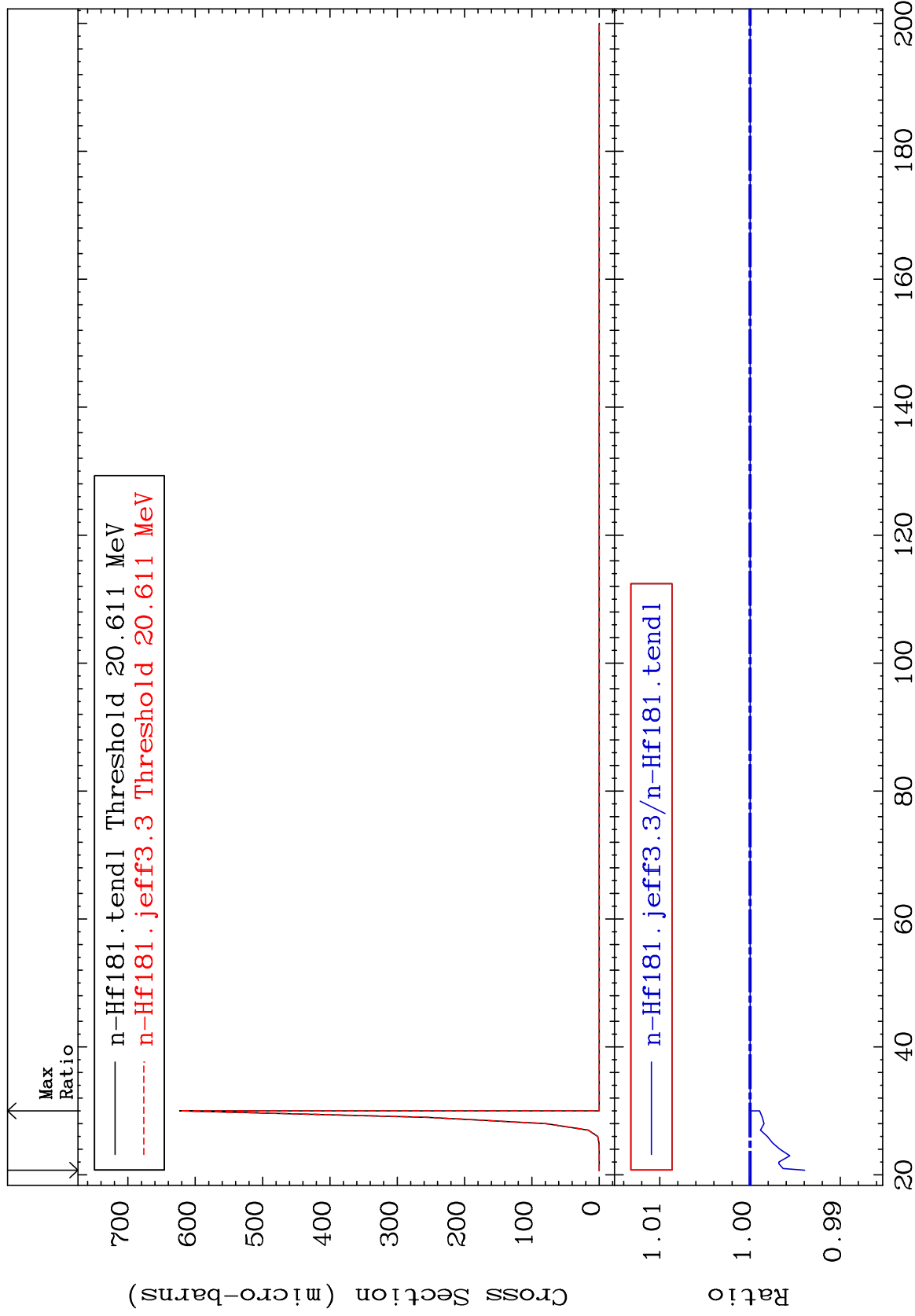
<sup>72</sup>Hf-181  
-0.912 To 0.000 %



MAT 7246

(n,3n) p  
Cross Section

<sup>72</sup>Hf-181  
-0.603 To 0.000 %

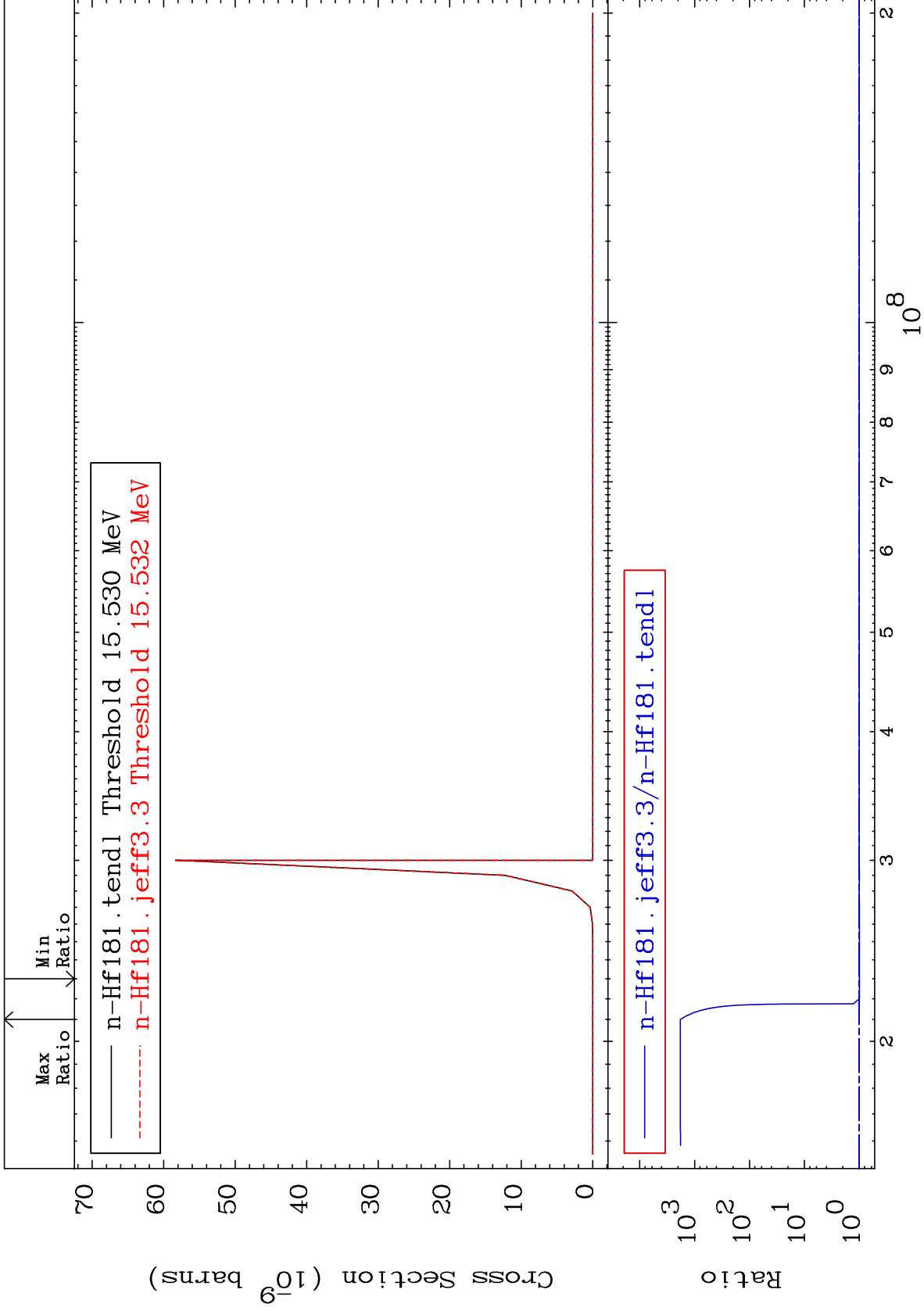




MAT 7246

(n,2n) p  
Cross Section

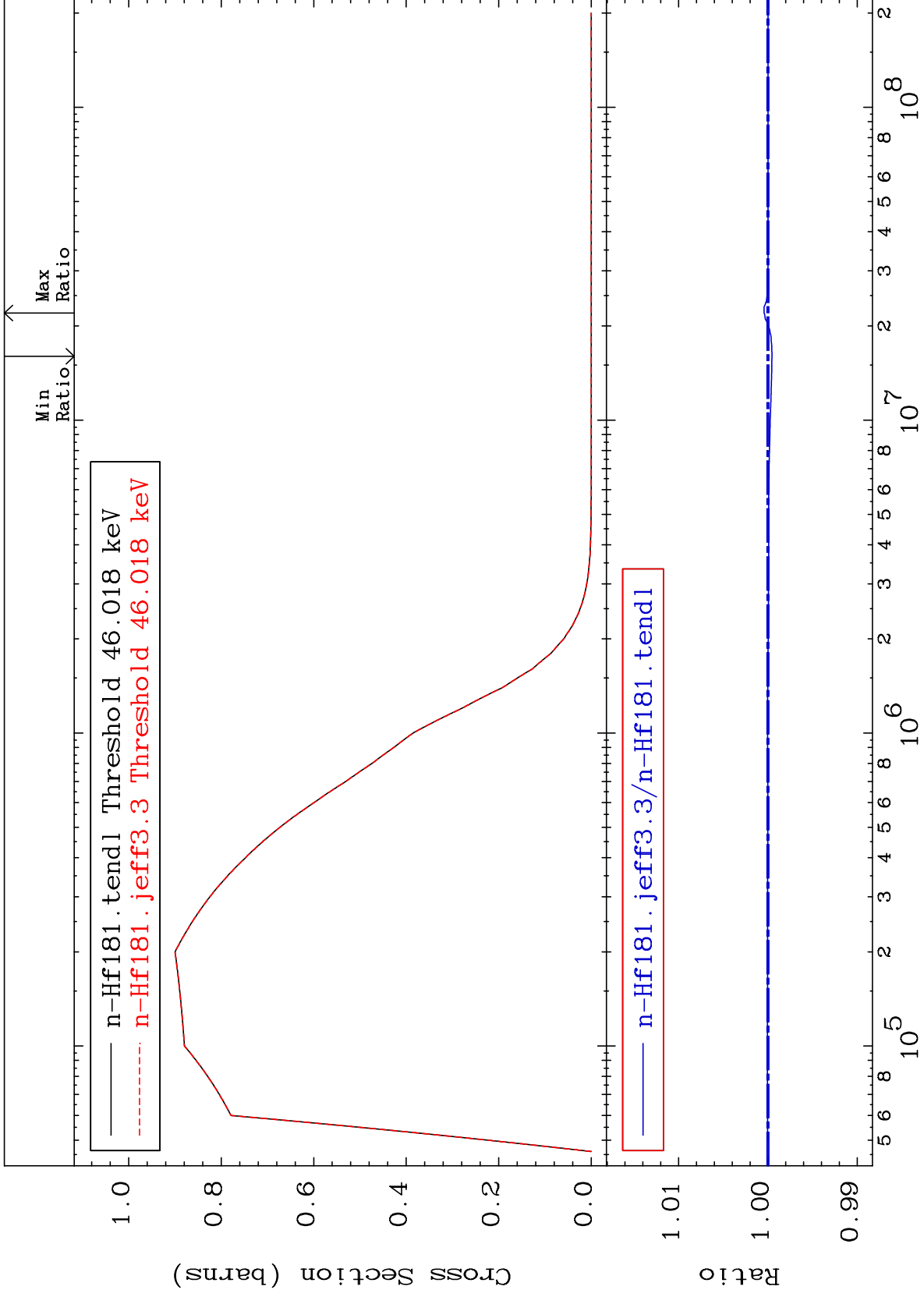
<sup>72</sup>Hf-181  
-0.664 To 9999. %



MAT 7246

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

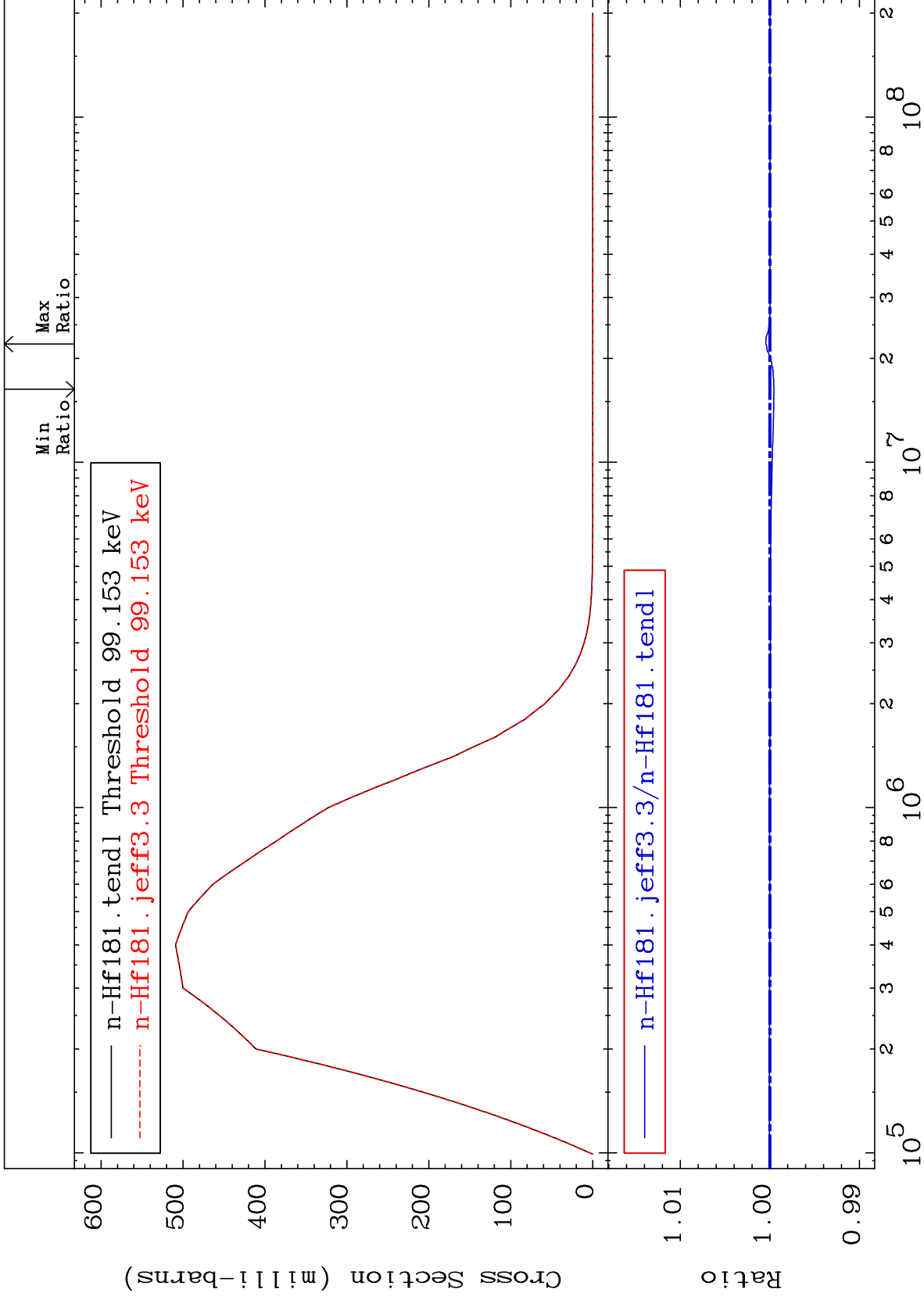
72-Hf-181  
-0.045 To 0.044 %



MAT 7246

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

72-Hf-181  
-0.045 To 0.044 %



19

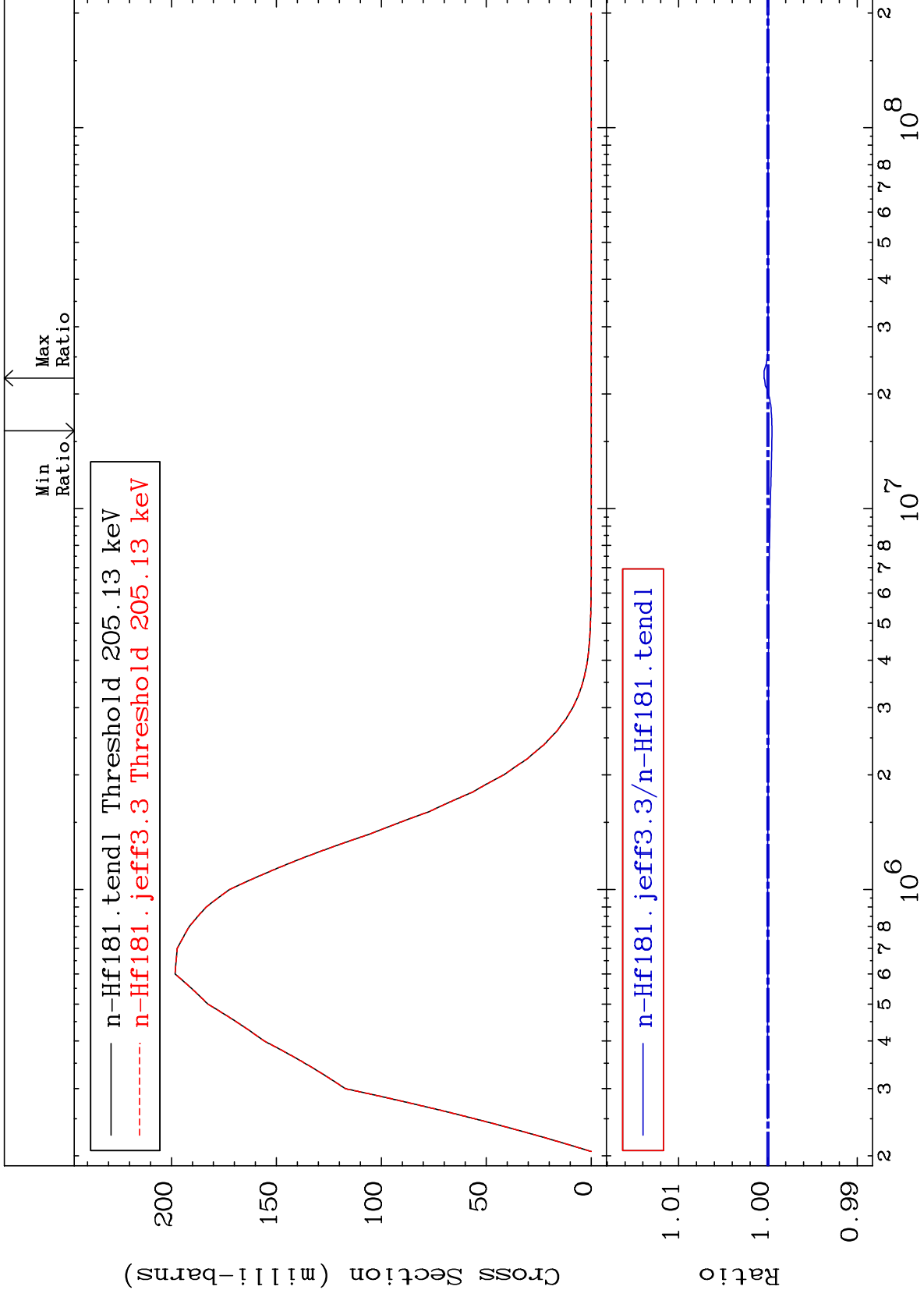
Incident Energy (eV)

72-Hf-181

MAT 7246

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

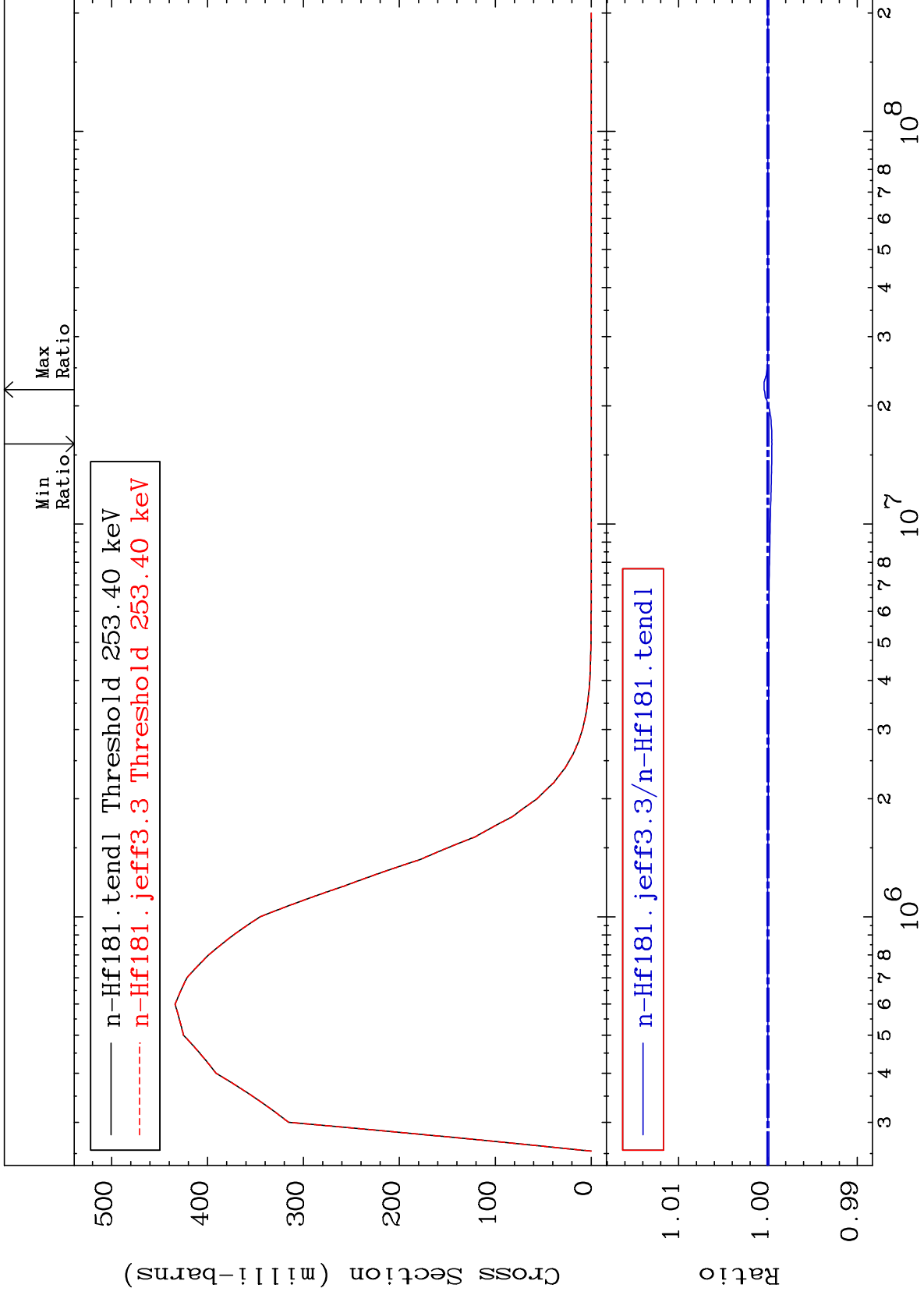
72-Hf-181  
-0.044 To 0.044 %



MAT 7246

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

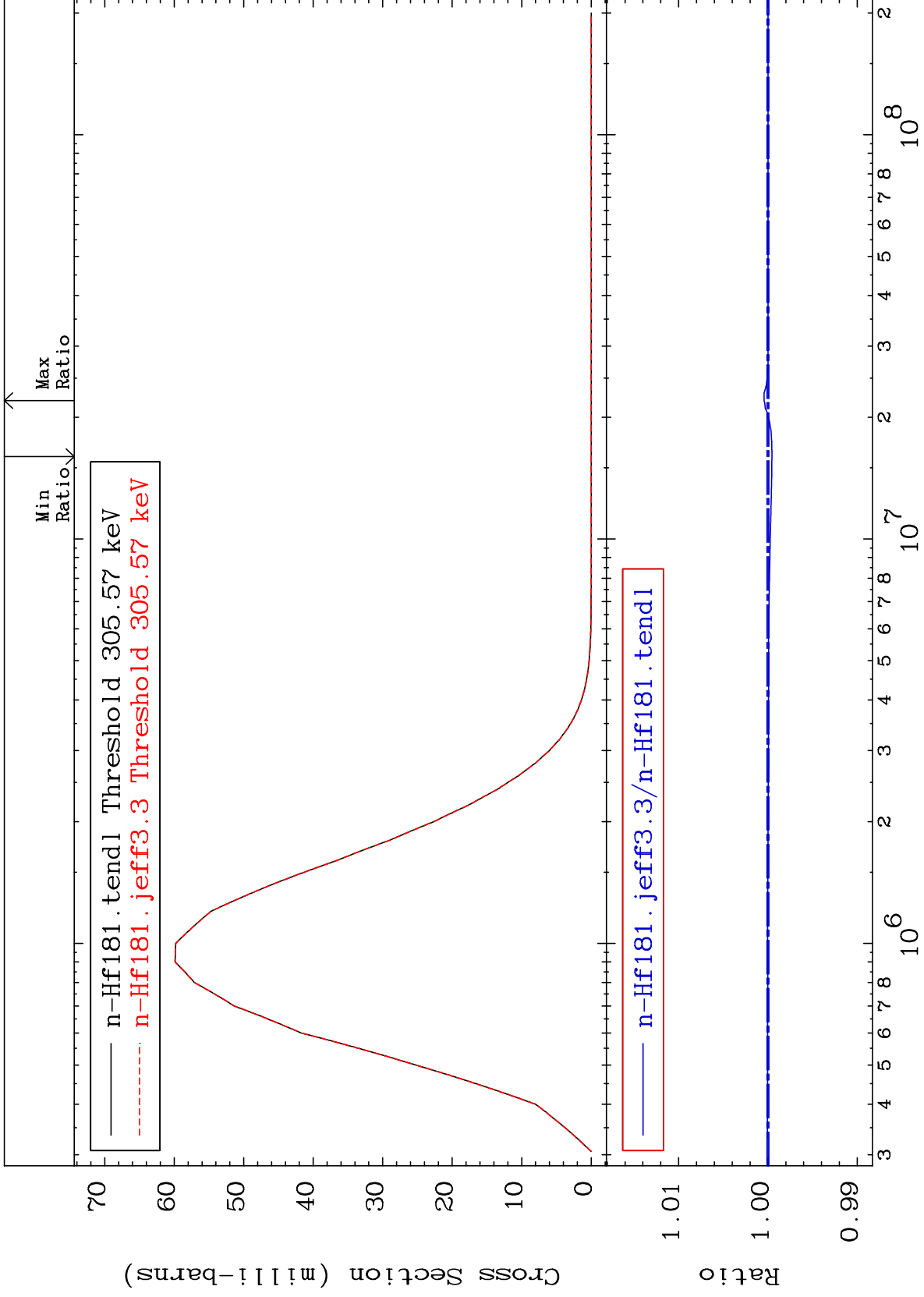
<sup>72</sup>Hf-181  
-0.045 To 0.044 %



MAT 7246

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

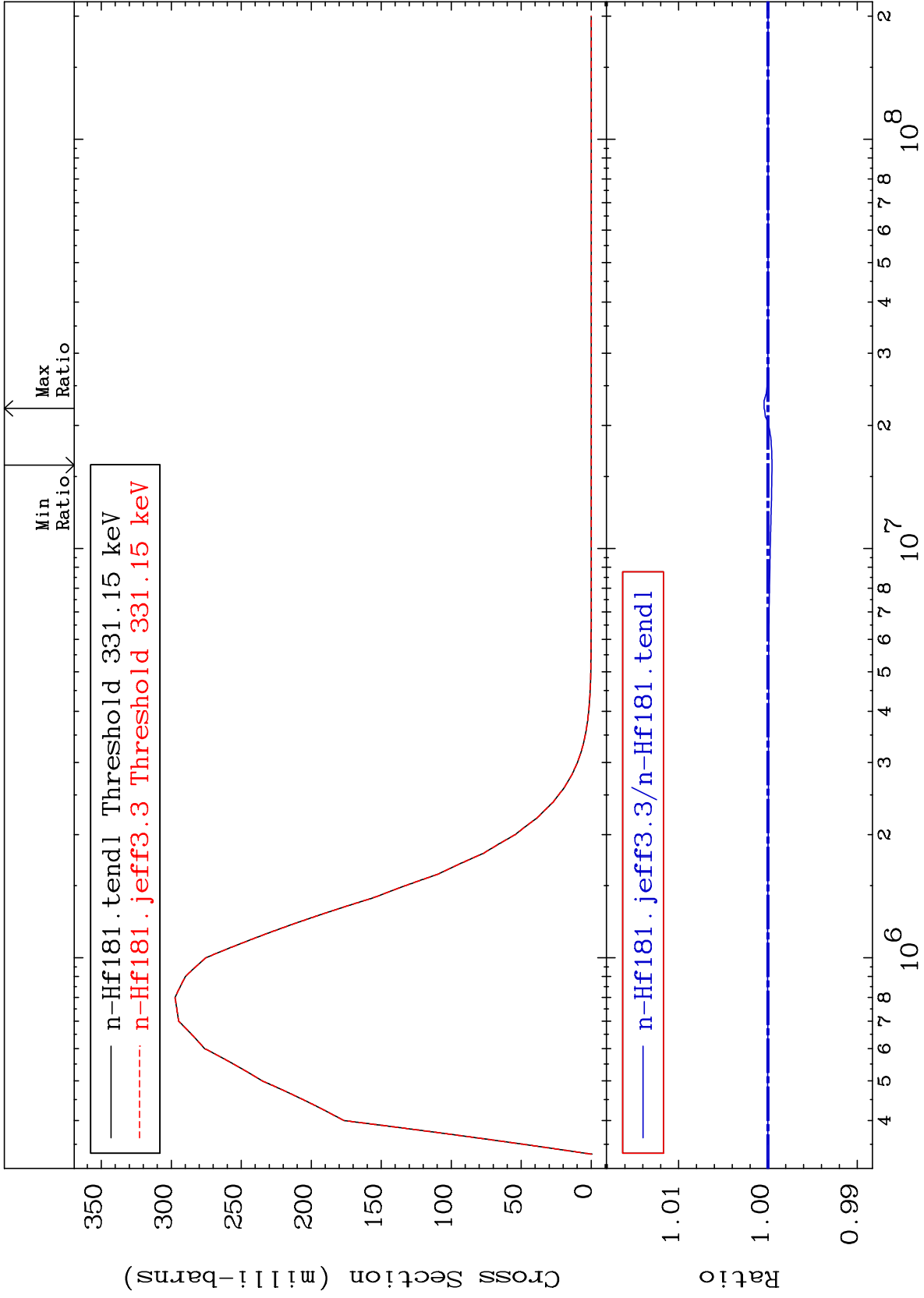
72-Hf-181  
-0.044 To 0.044 %



MAT 7246

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

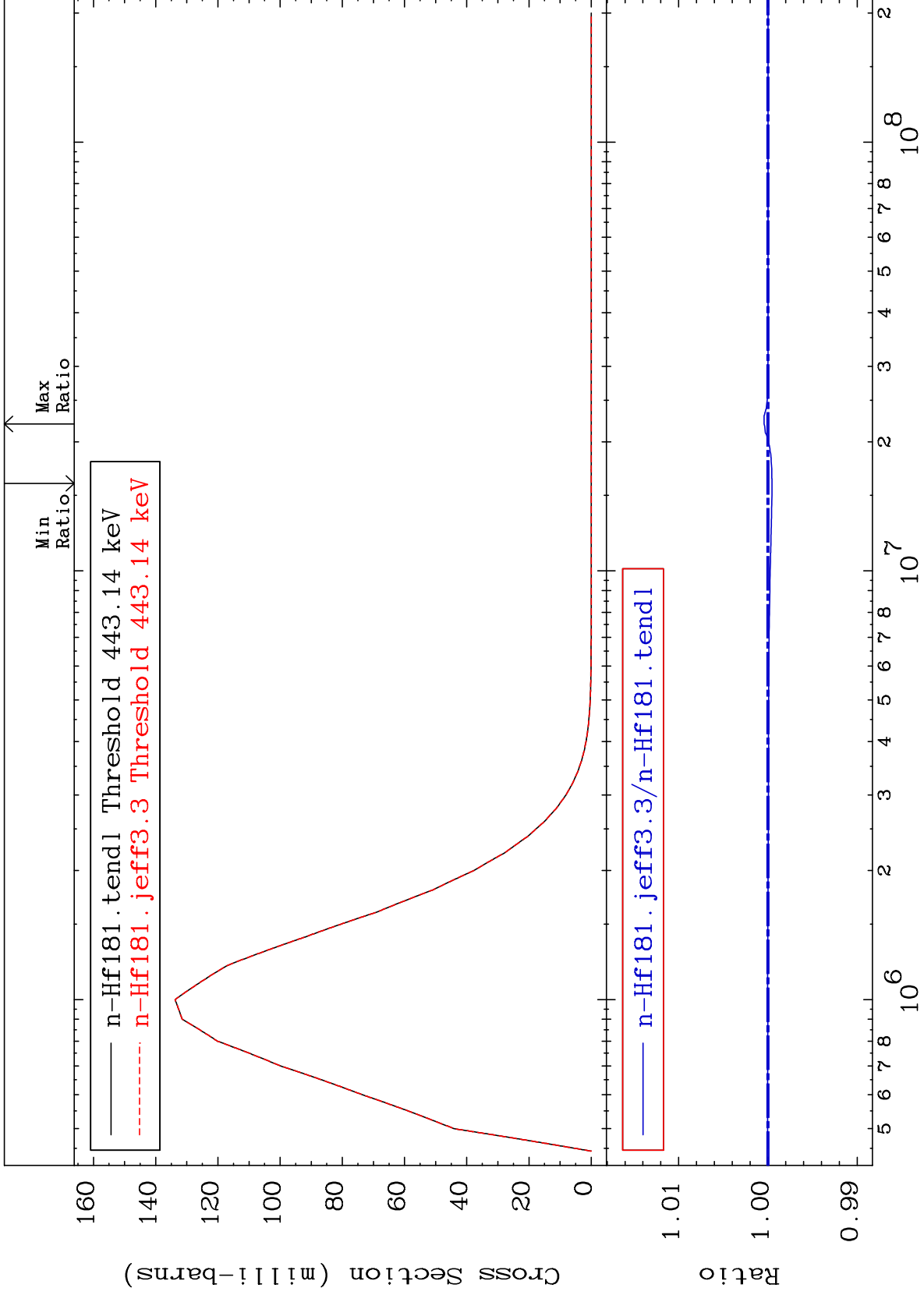
72-Hf-181  
-0.045 To 0.044 %



MAT 7246

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

72-Hf-181  
-0.044 To 0.044 %

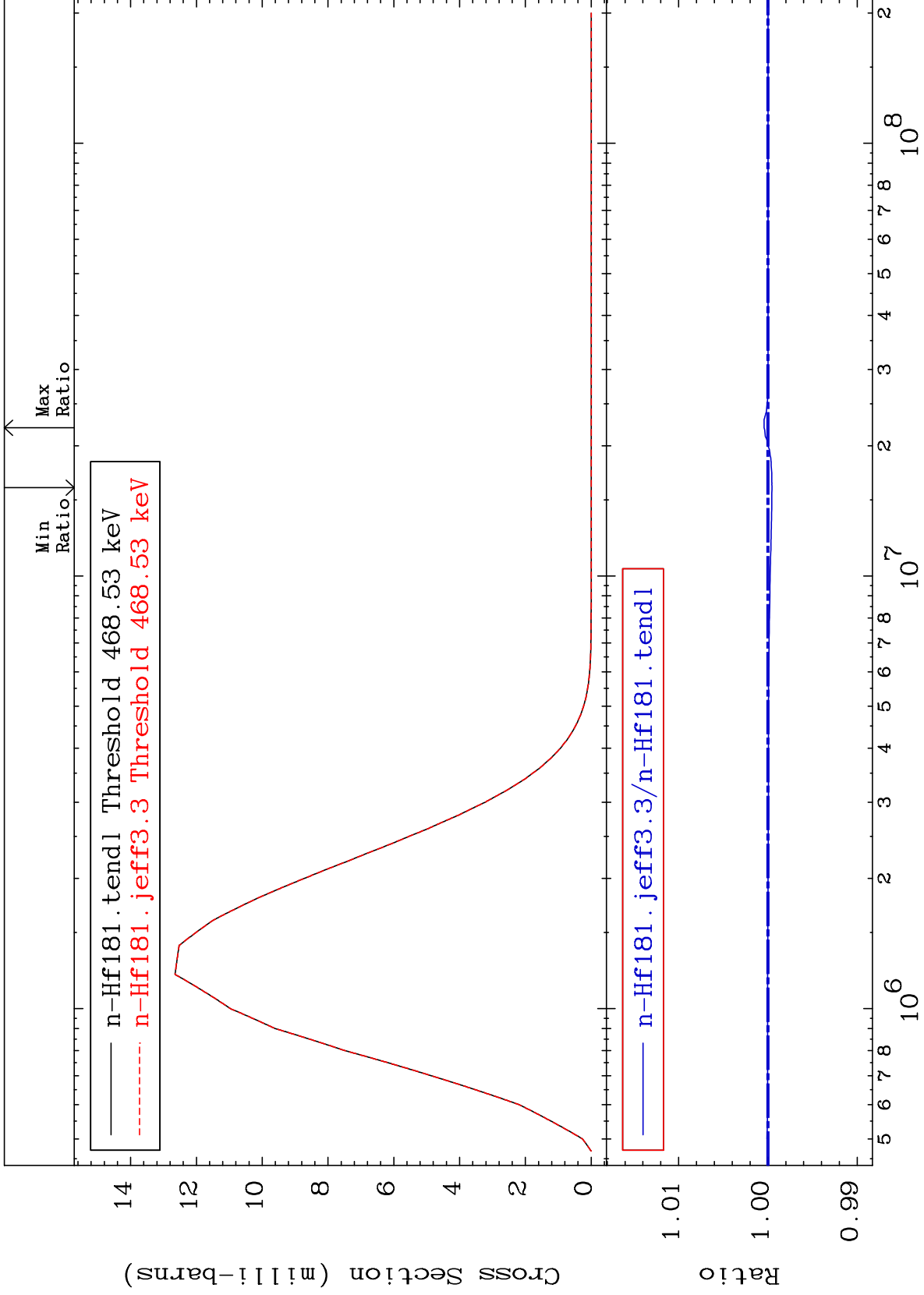




MAT 7246

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

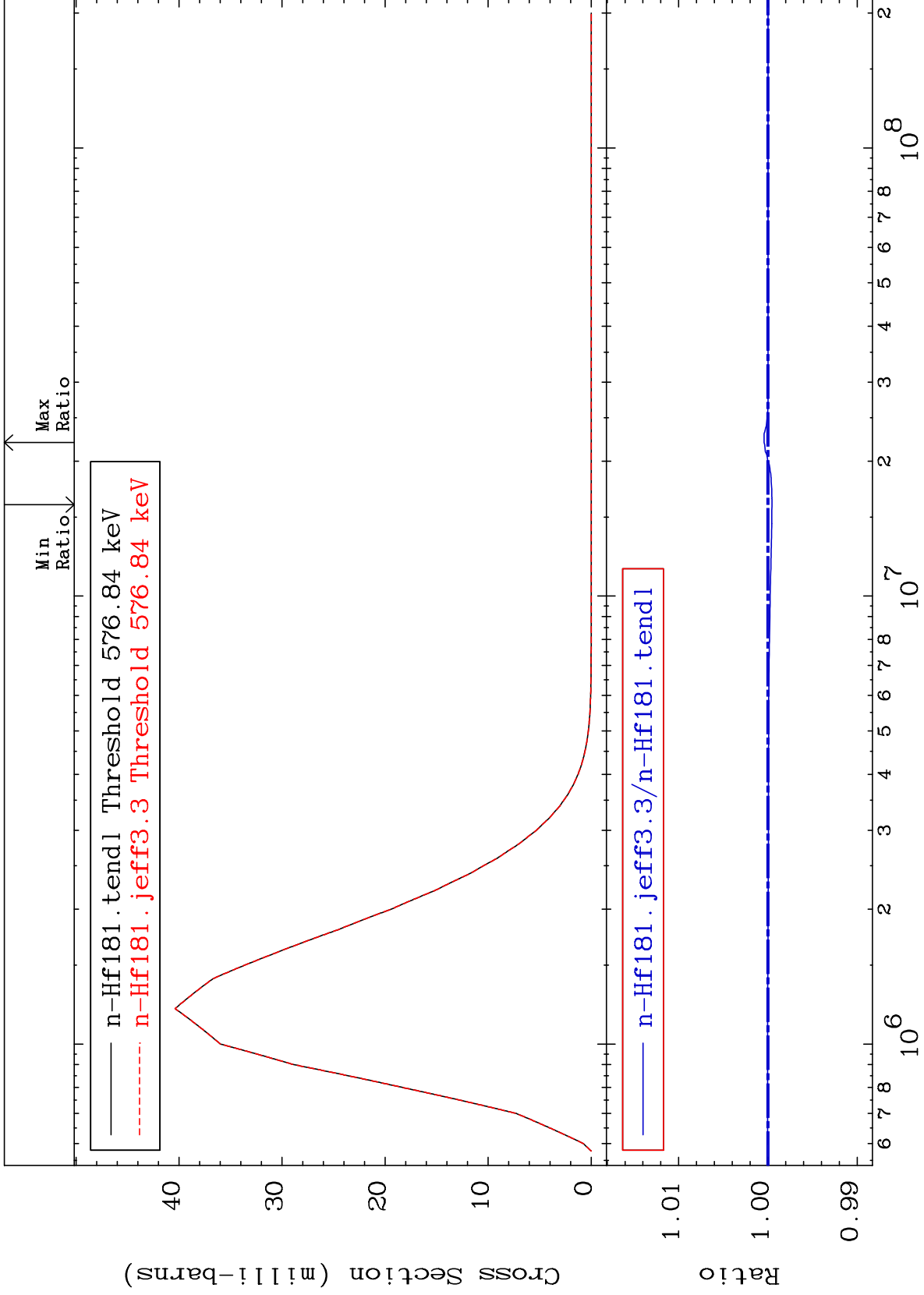
72-Hf-181  
-0.044 To 0.044 %



MAT 7246

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

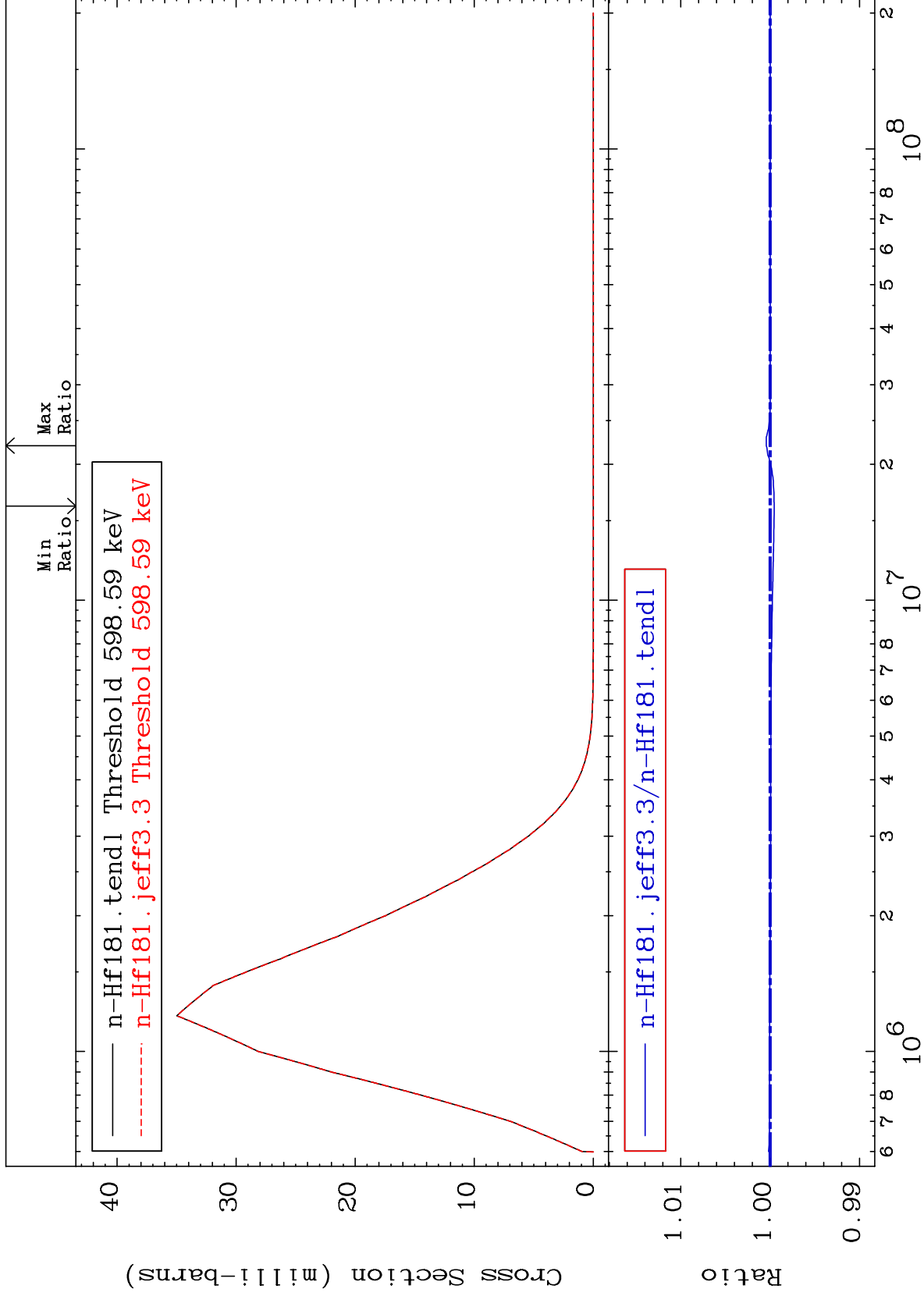
72-Hf-181  
-0.045 To 0.044 %



MAT 7246

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

72-Hf-181  
-0.044 To 0.044 %



27

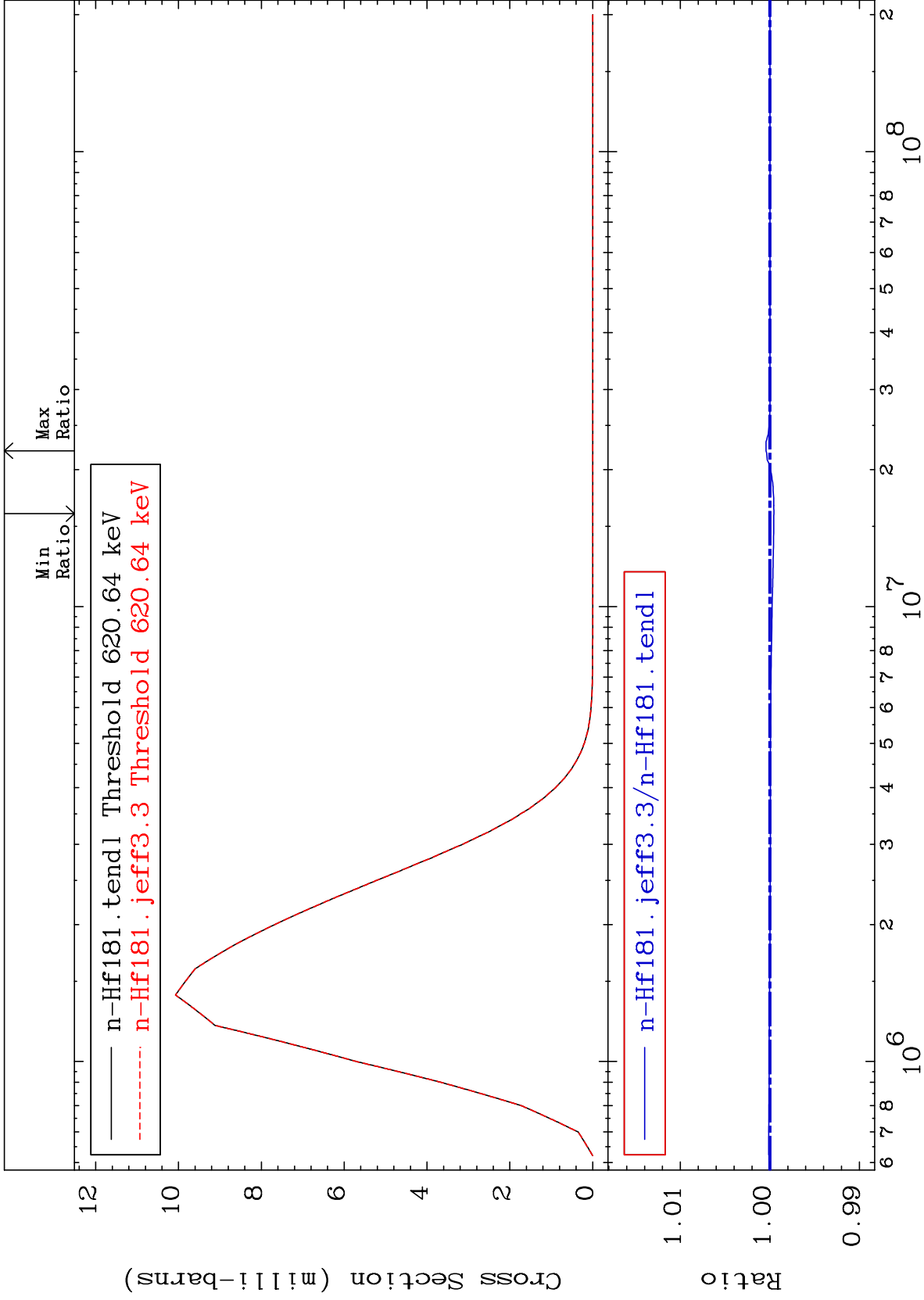
Incident Energy (eV)

72-Hf-181

MAT 7246

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

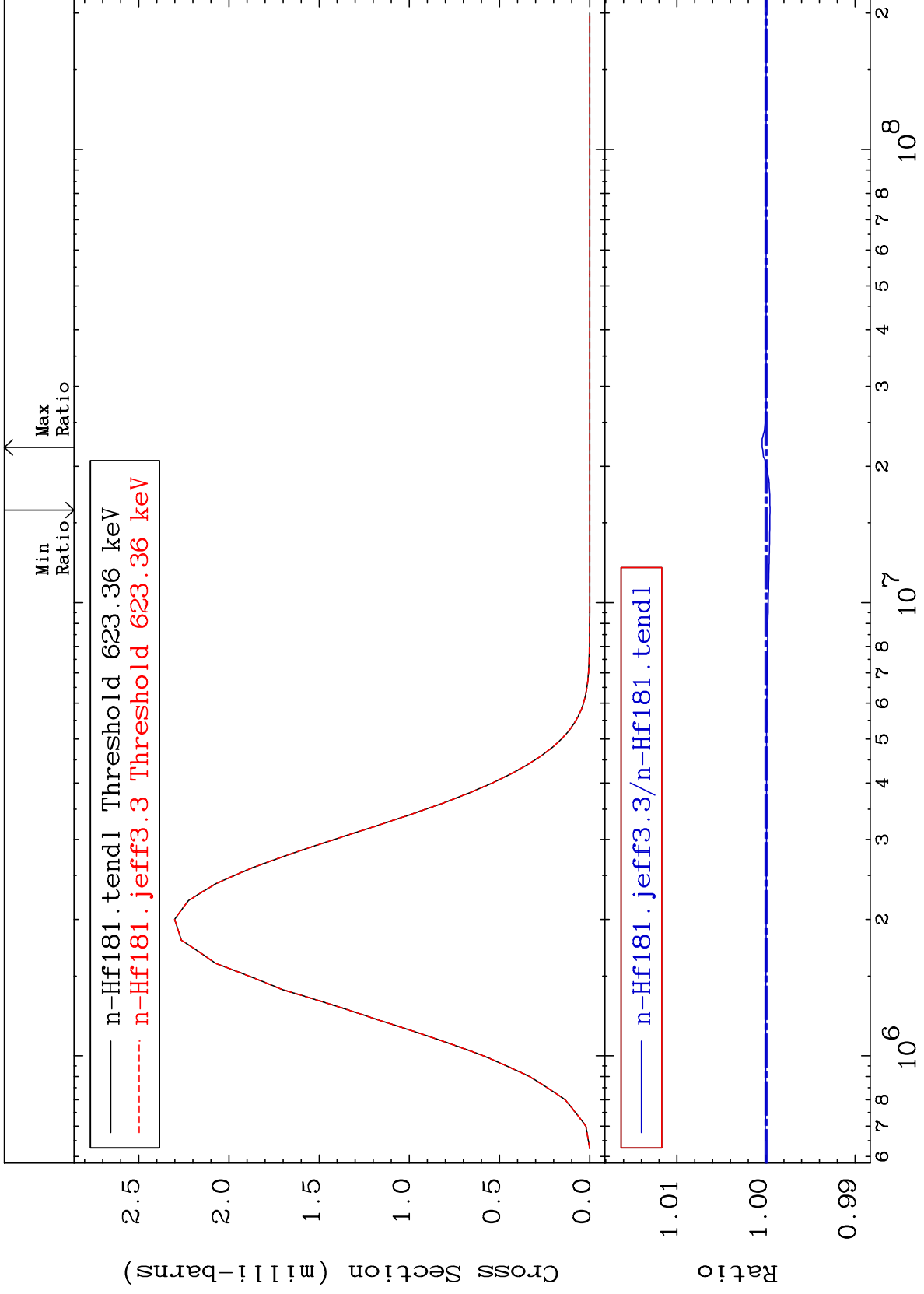
72-Hf-181  
-0.044 To 0.044 %



MAT 7246

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

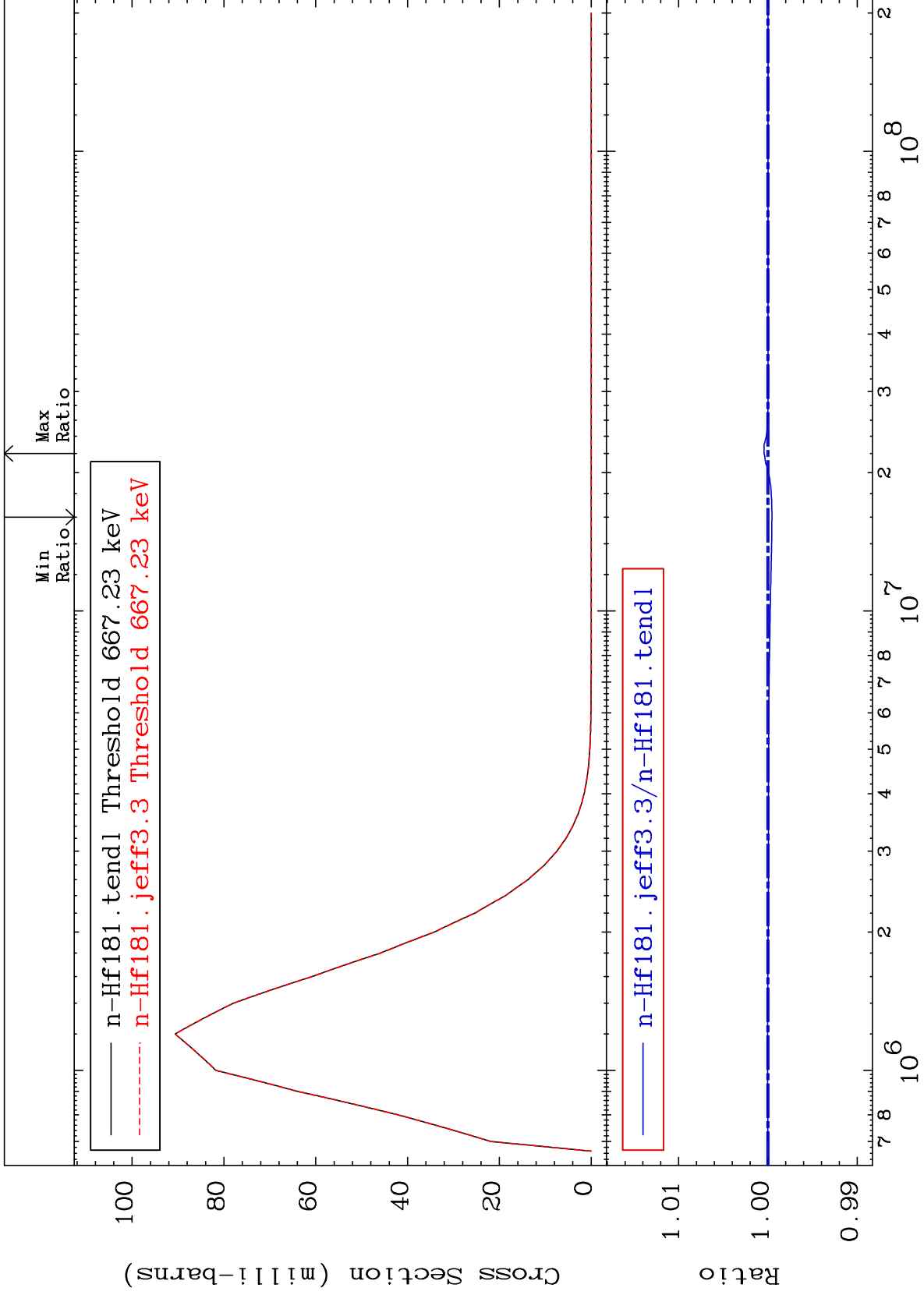
72-Hf-181  
-0.044 To 0.045 %



MAT 7246

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

72-Hf-181  
-0.045 To 0.044 %



30

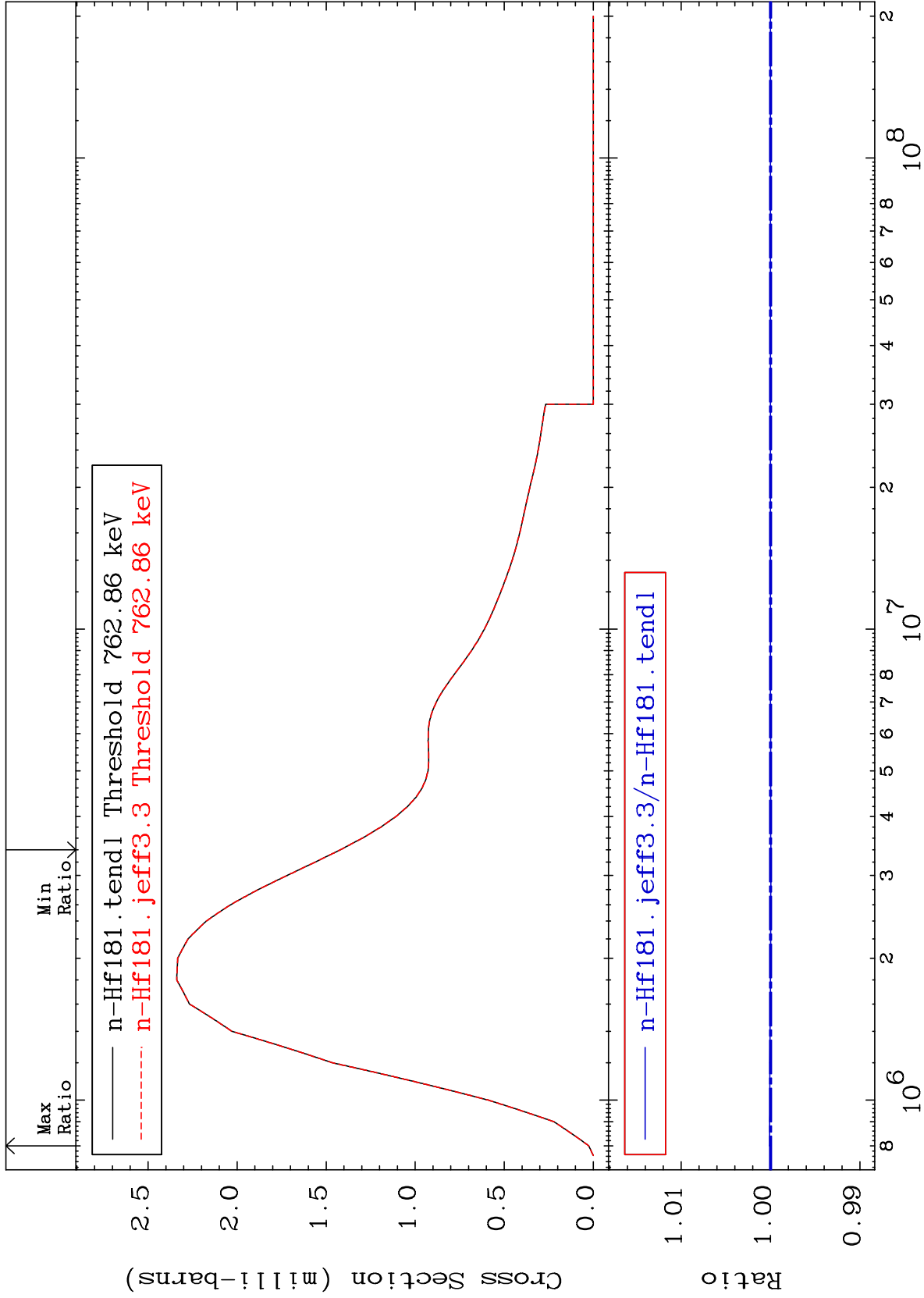
Incident Energy (eV)

72-Hf-181

MAT 7246

MT= 65 (n,n') Level  
Cross Section

72-Hf-181  
-0.004 To 0.012 %



31

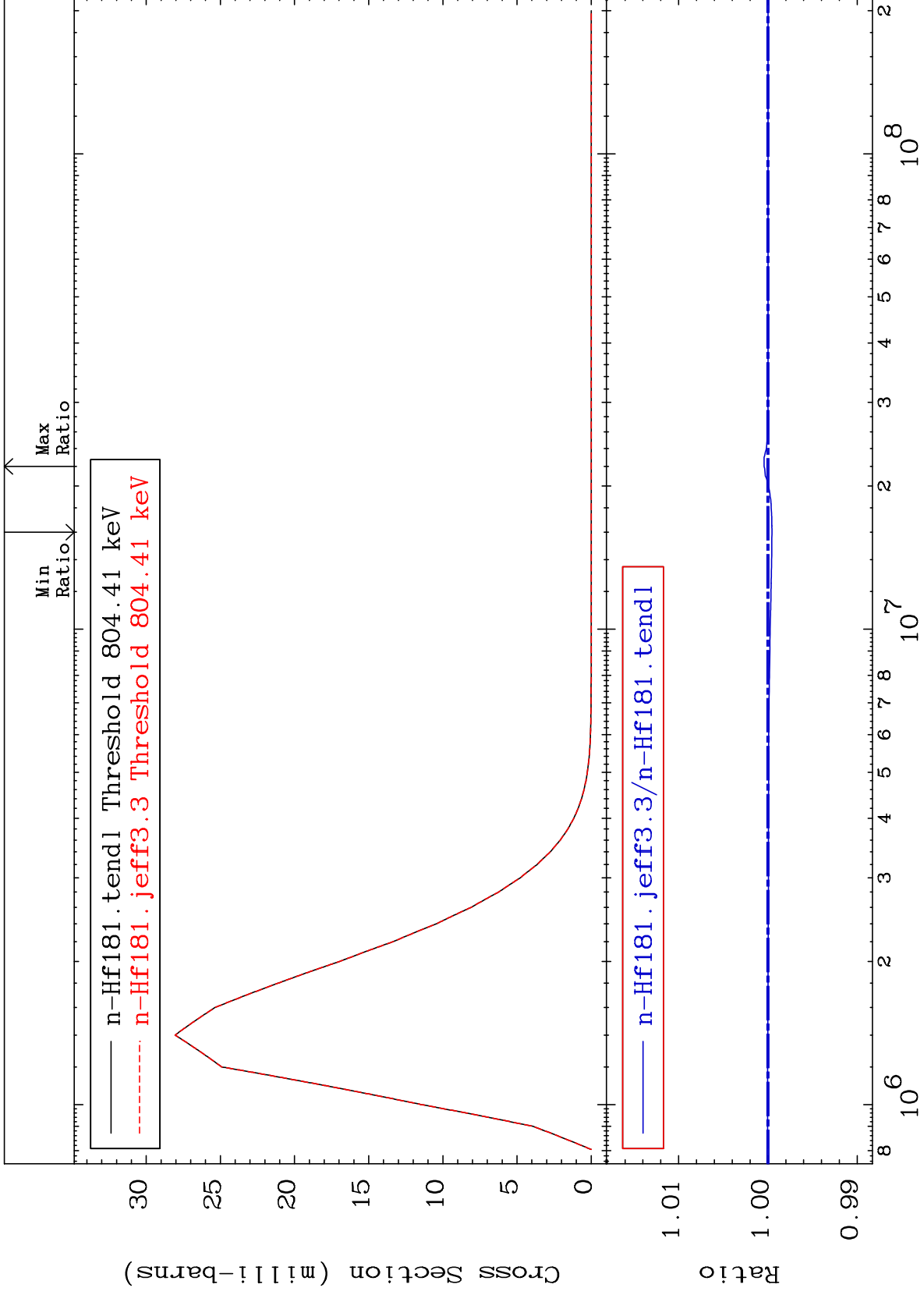
Incident Energy (eV)

72-Hf-181

MAT 7246

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

72-Hf-181  
-0.044 To 0.044 %



32

Incident Energy (eV)

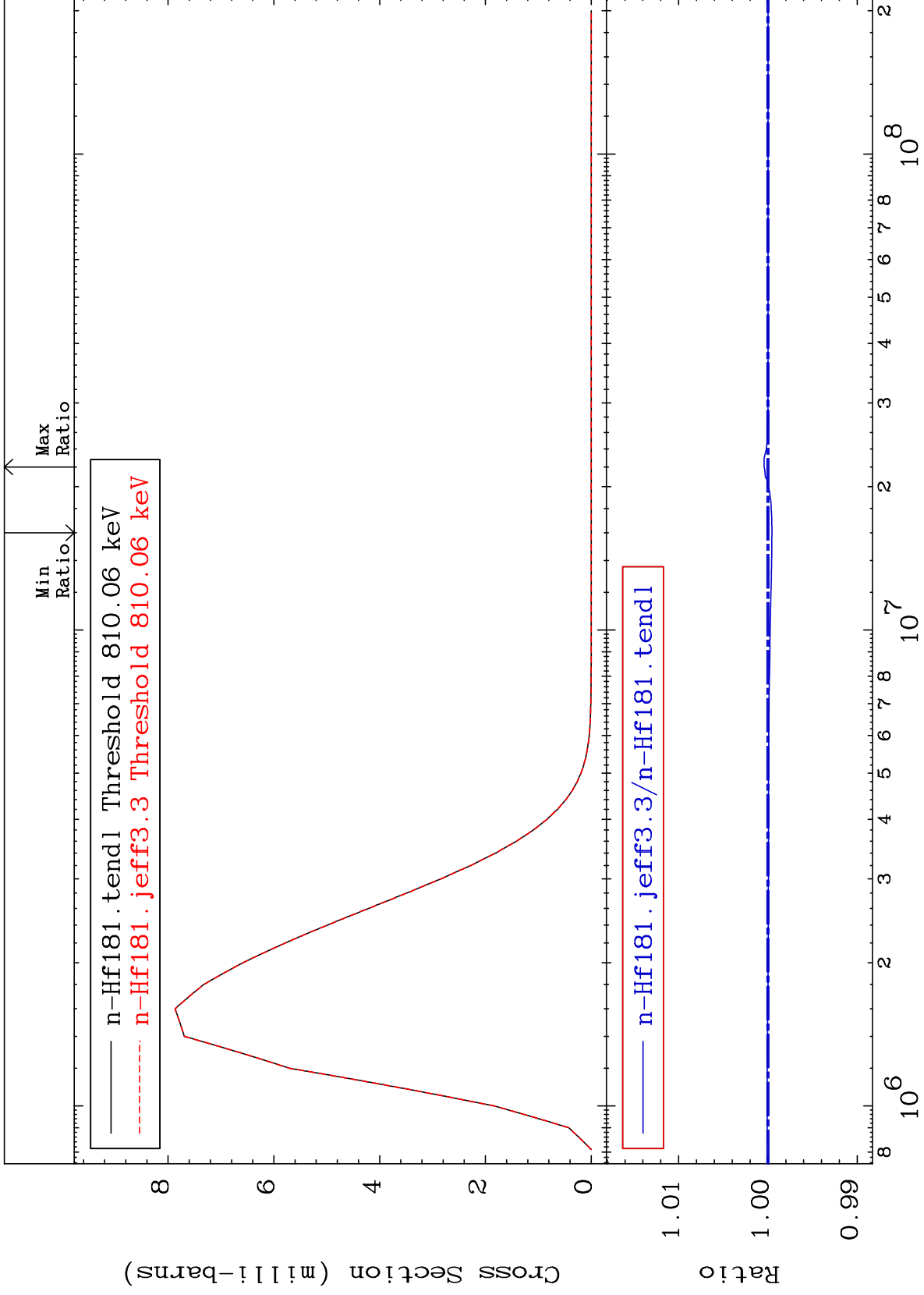
72-Hf-181



MAT 7246

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

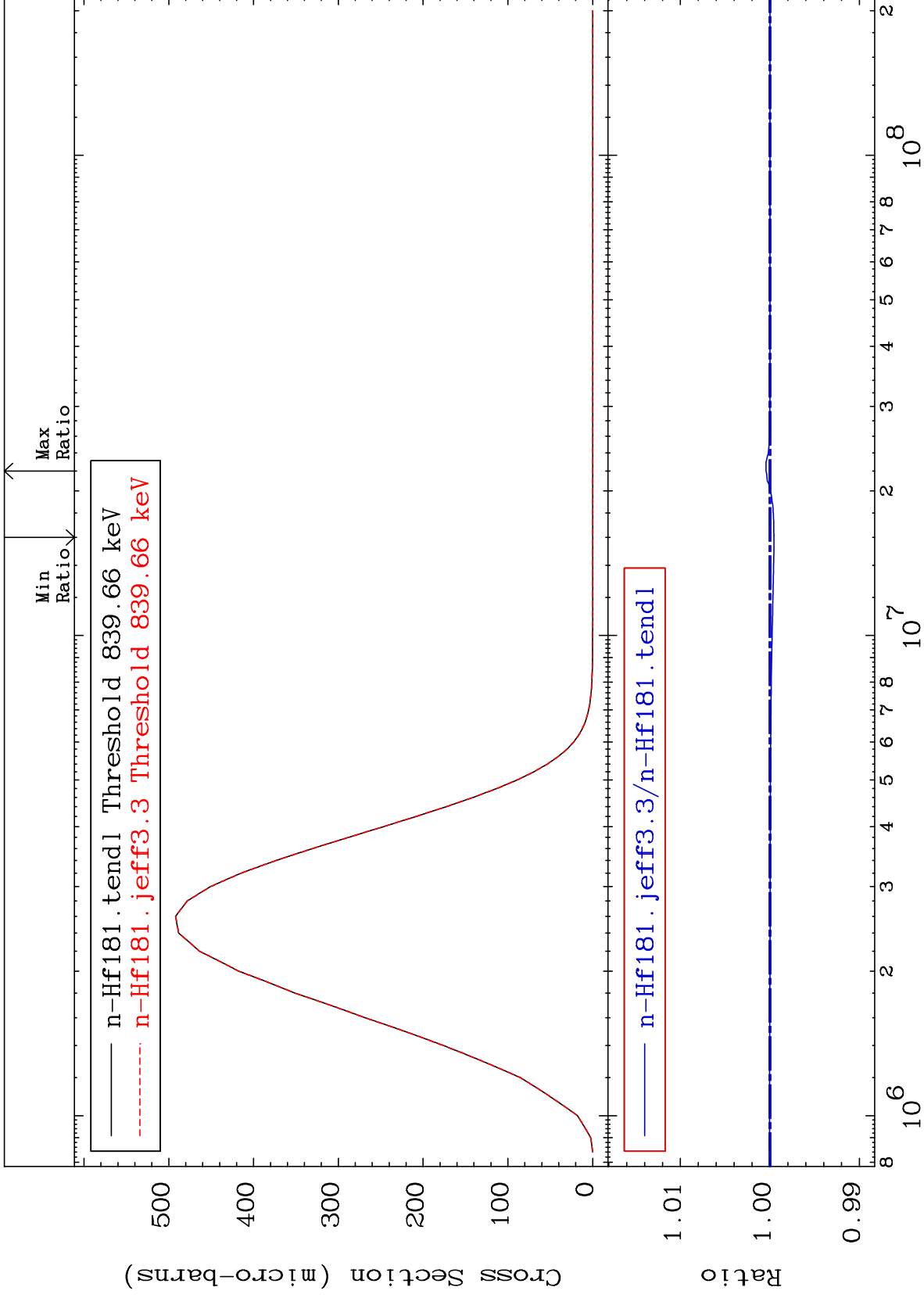
72-Hf-181  
-0.044 To 0.045 %



MAT 7246

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

72-Hf-181  
-0.044 To 0.045 %



34

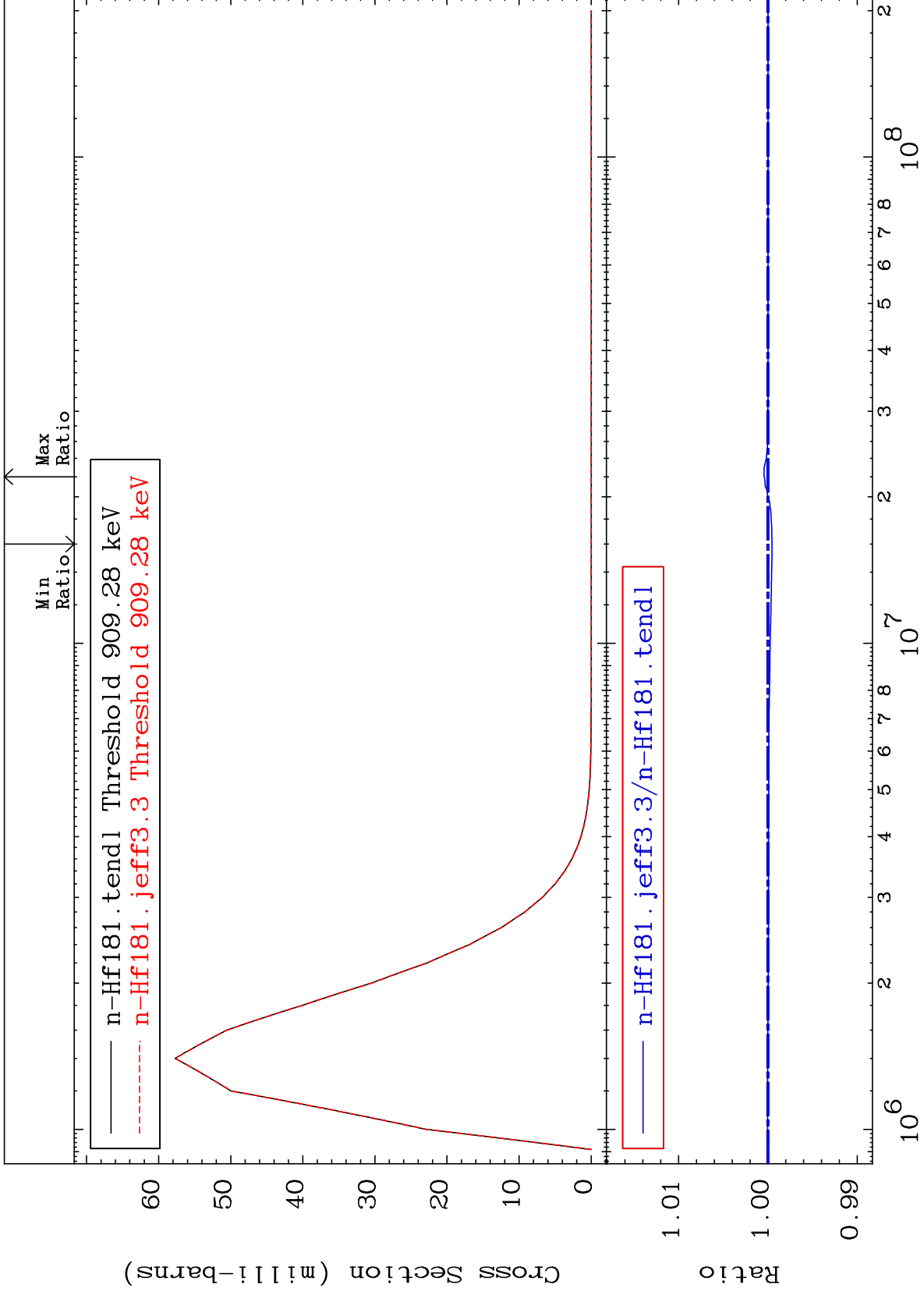
Incident Energy (eV)

72-Hf-181

MAT 7246

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

<sup>72</sup>Hf-181  
-0.045 To 0.044 %



35

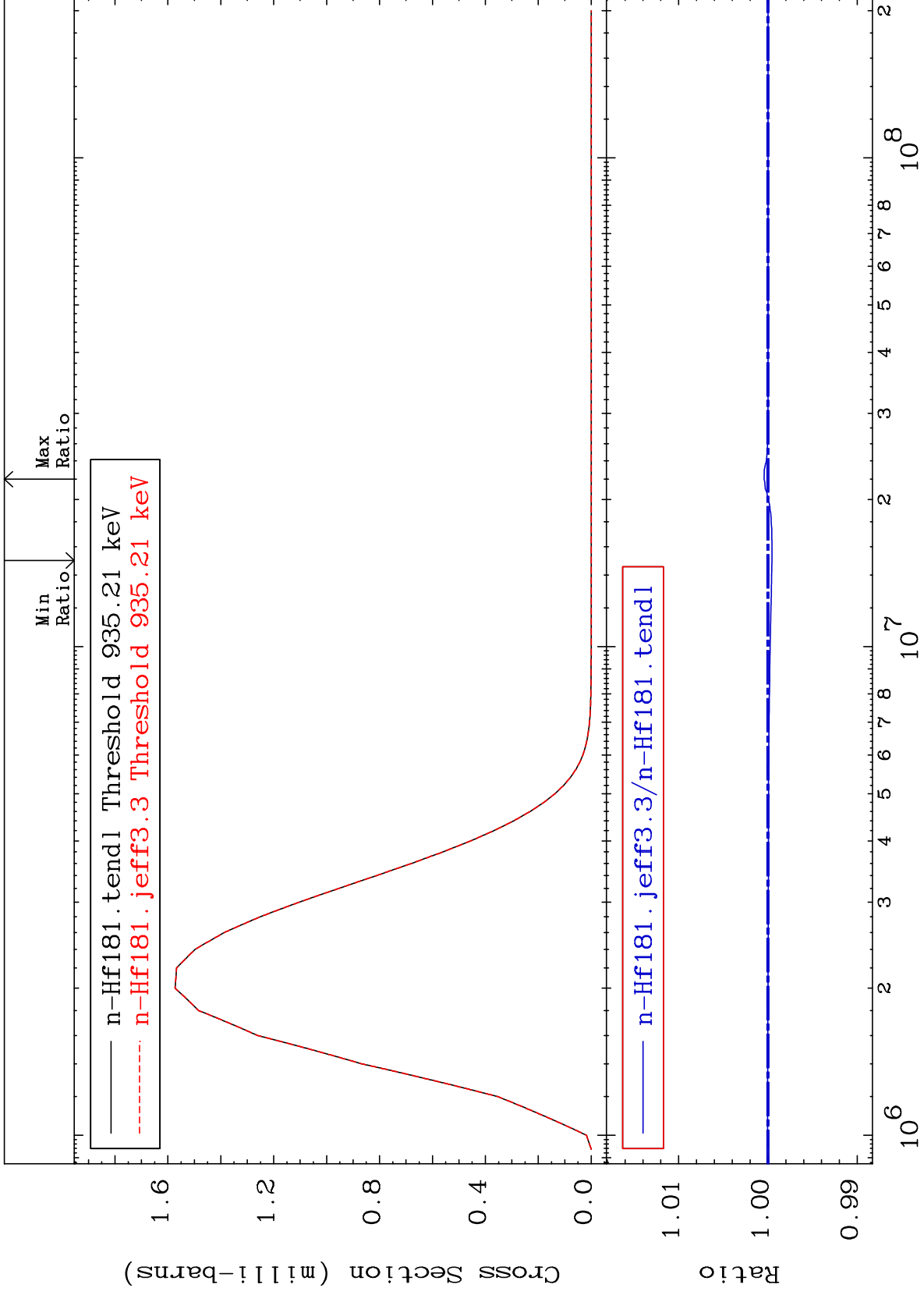
Incident Energy (eV)

<sup>72</sup>Hf-181

MAT 7246

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

72-Hf-181  
-0.044 To 0.045 %



36

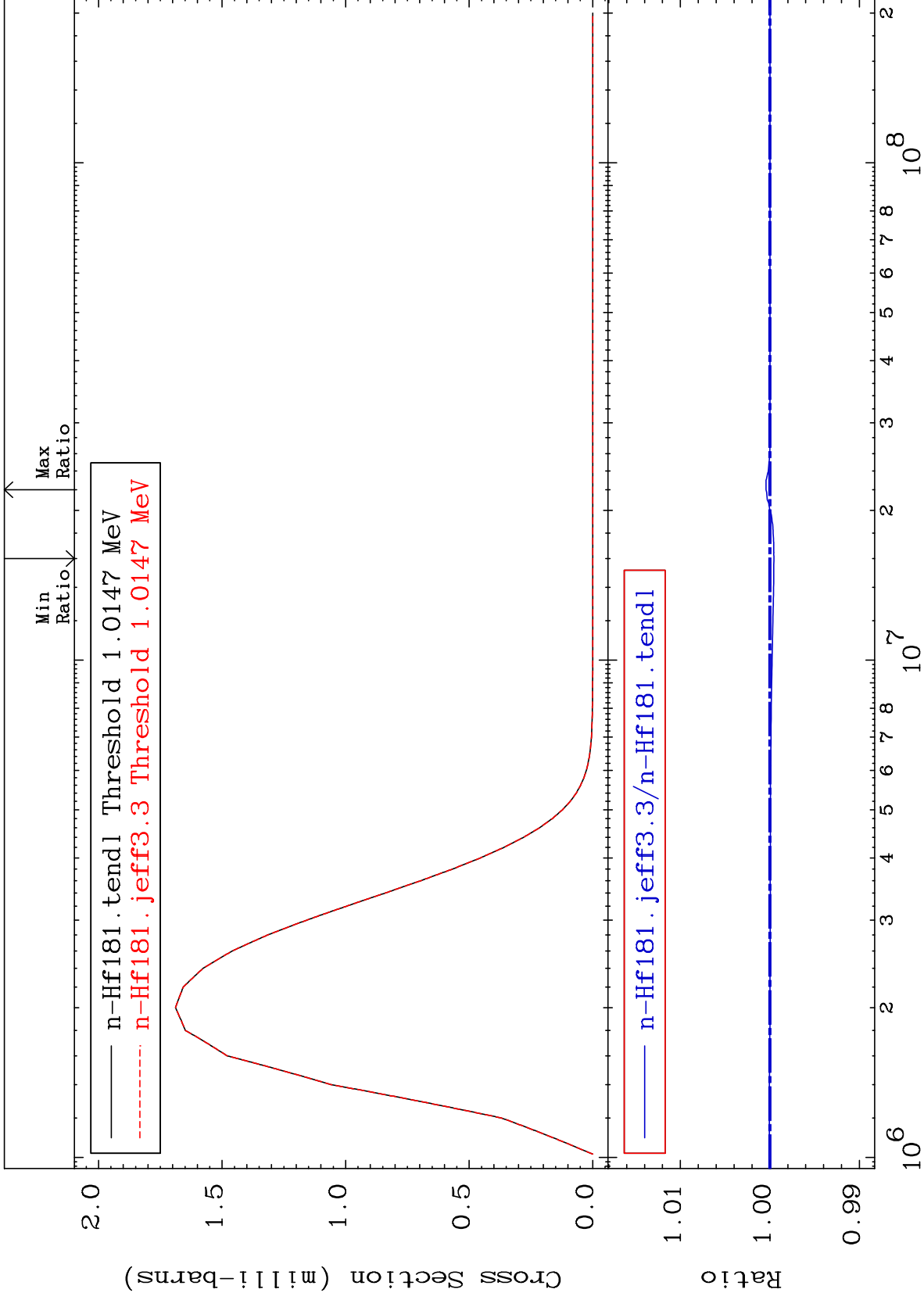
Incident Energy (eV)

72-Hf-181

MAT 7246

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

72-Hf-181  
-0.044 To 0.045 %



37

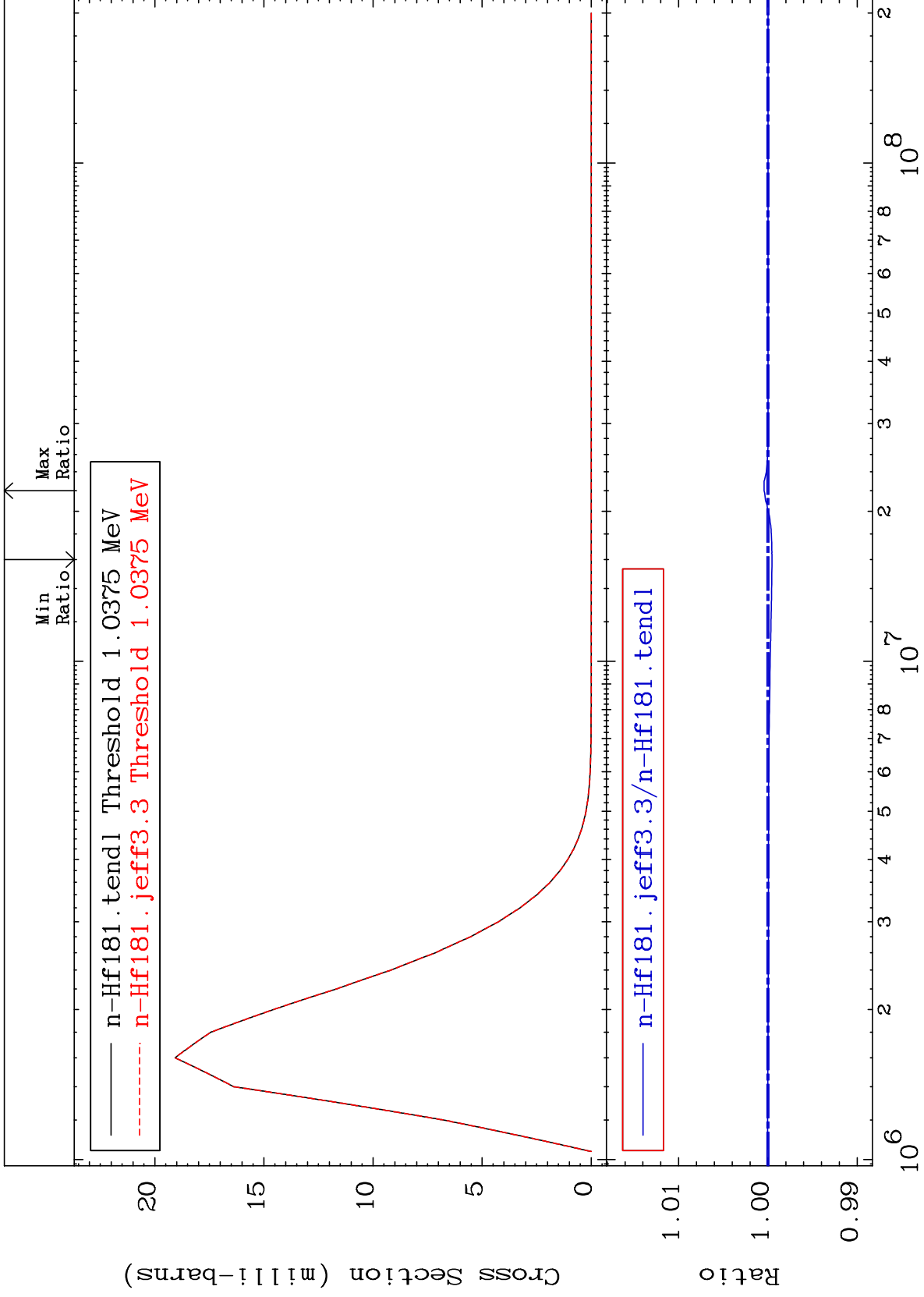
Incident Energy (eV)

72-Hf-181

MAT 7246

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

72-Hf-181  
-0.044 To 0.044 %



38

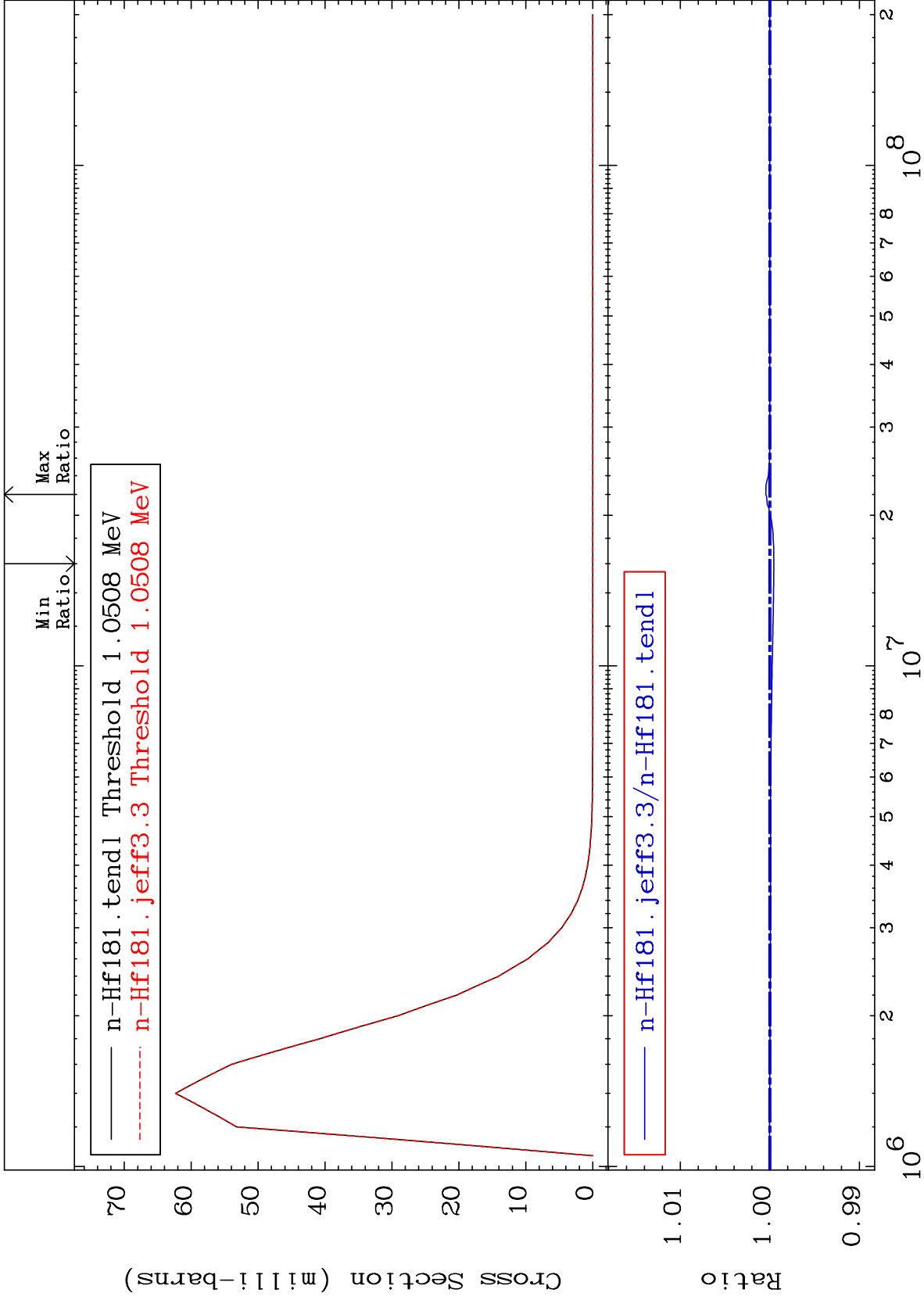
Incident Energy (eV)

72-Hf-181

MAT 7246

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

72-Hf-181  
-0.045 To 0.044 %



39

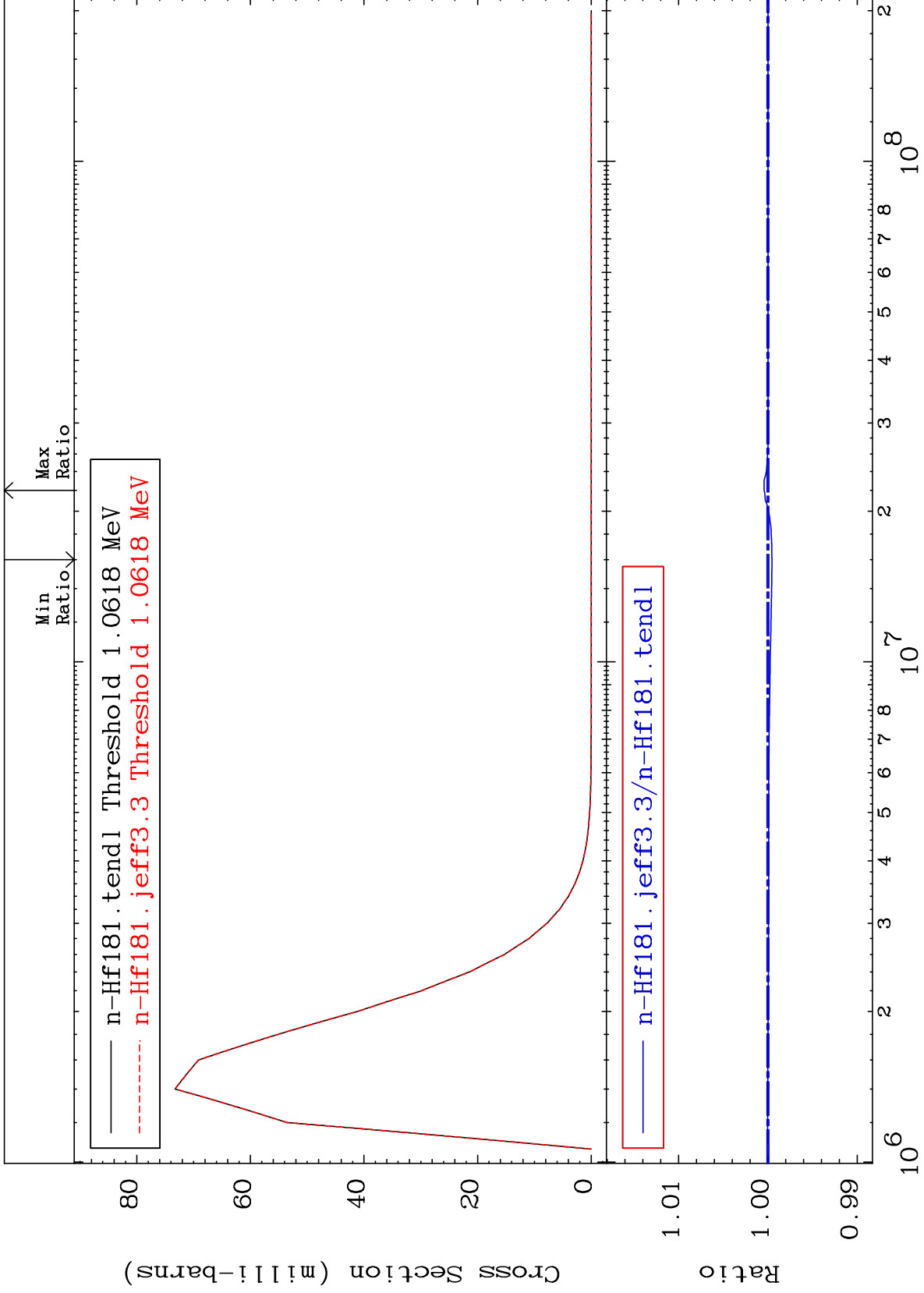
Incident Energy (eV)

72-Hf-181

MAT 7246

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

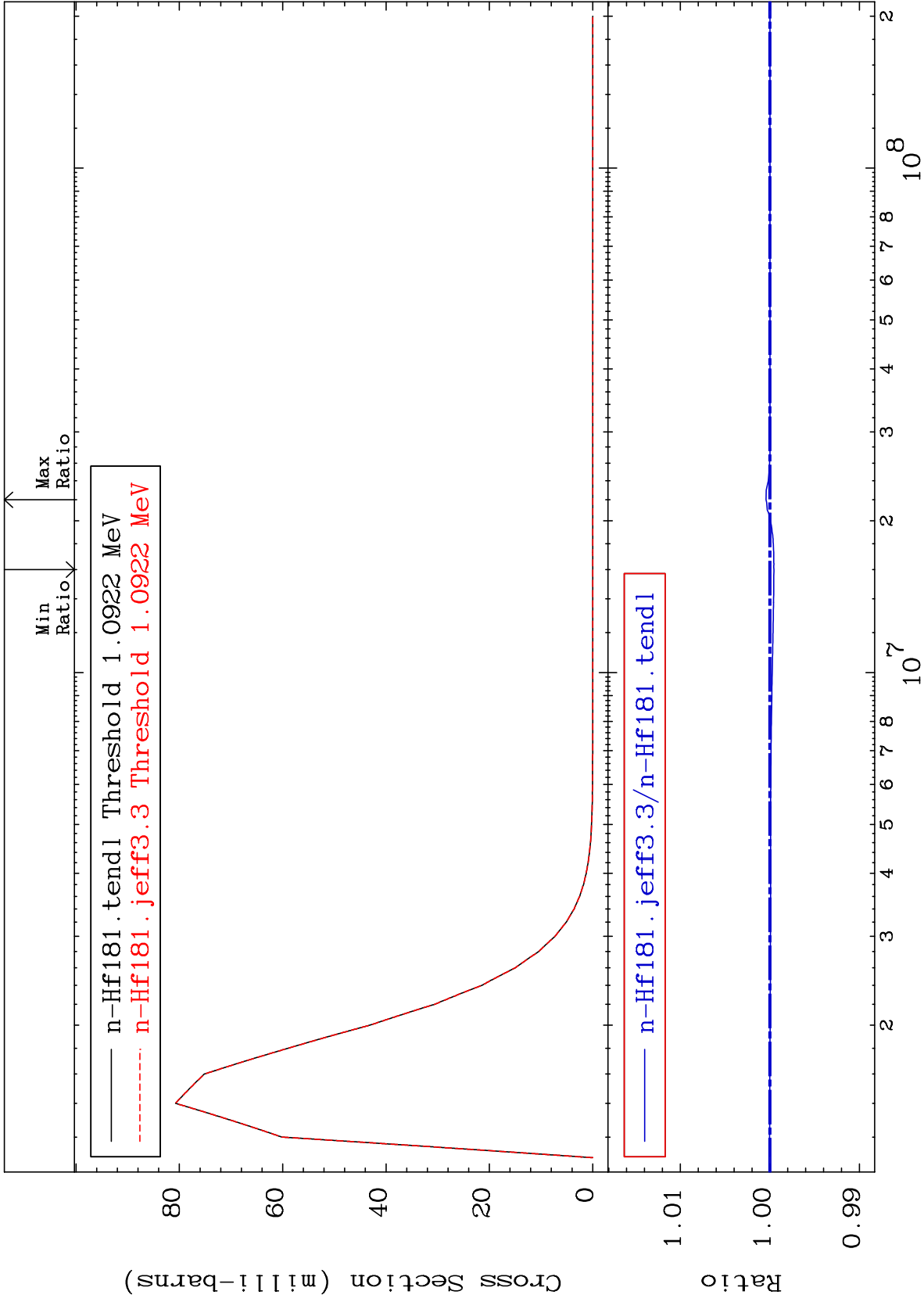
72-Hf-181  
-0.045 To 0.044 %

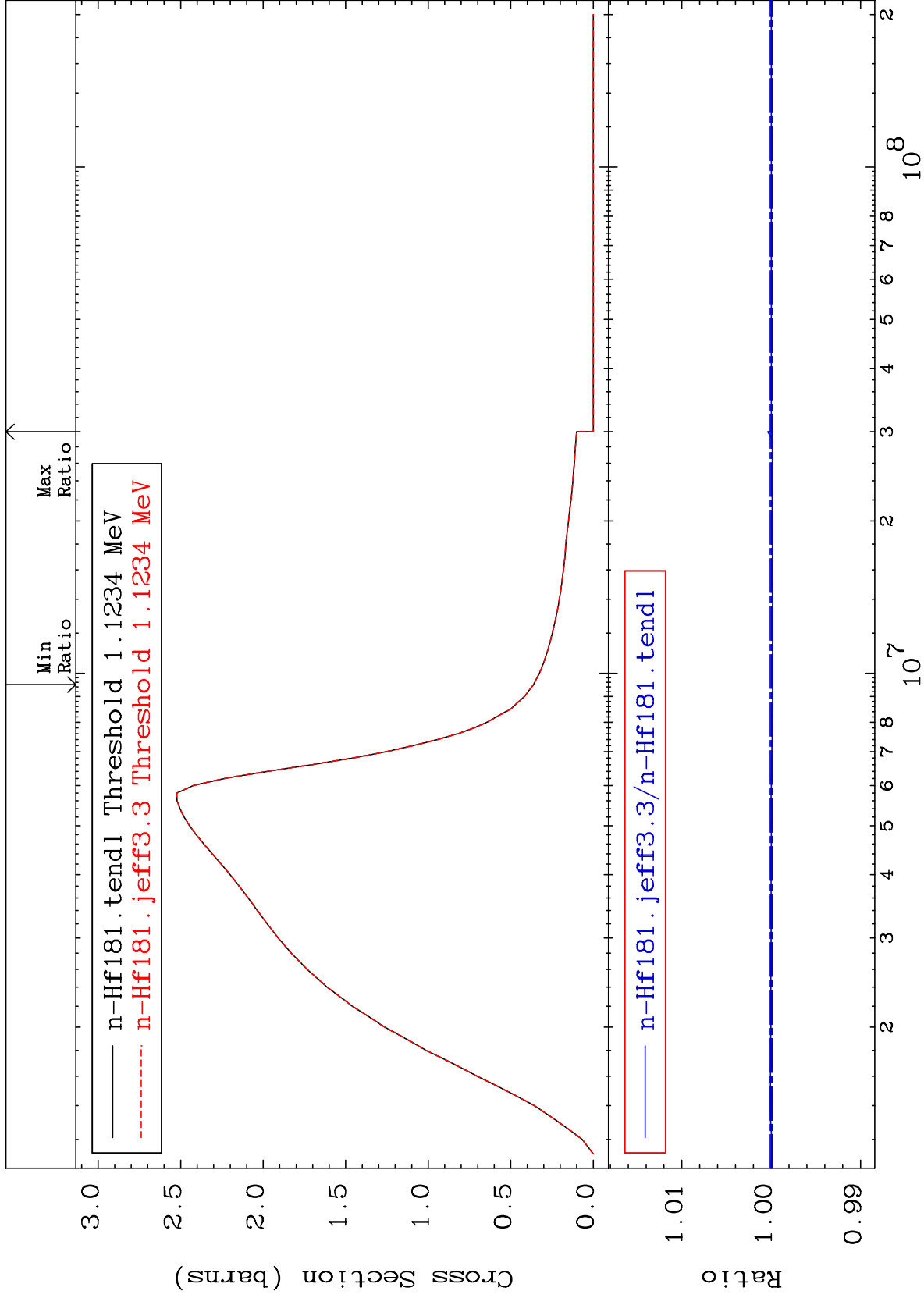


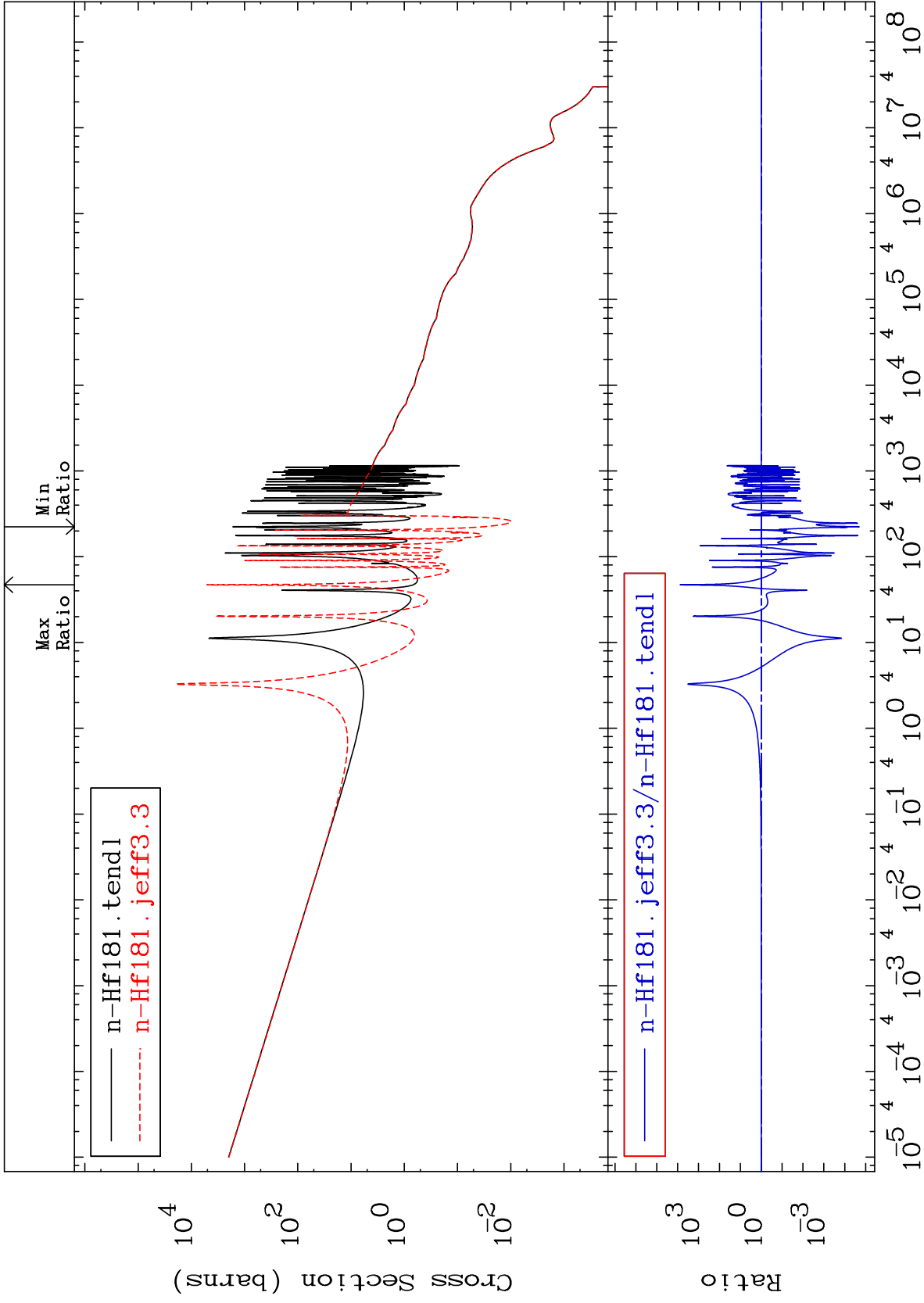
Incident Energy (eV)

72-Hf-181



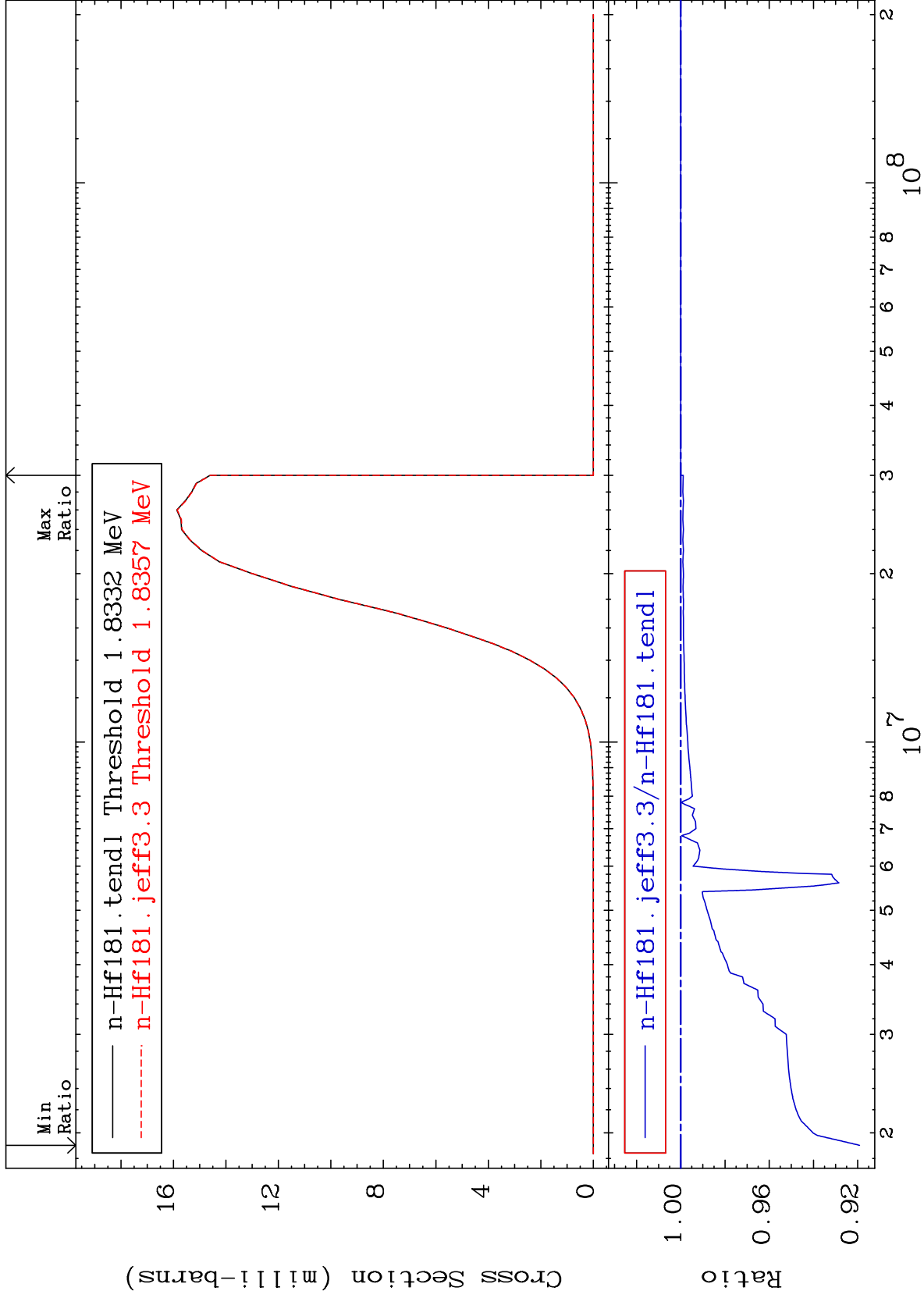






Cross Section

-8.084 To 0.000 %



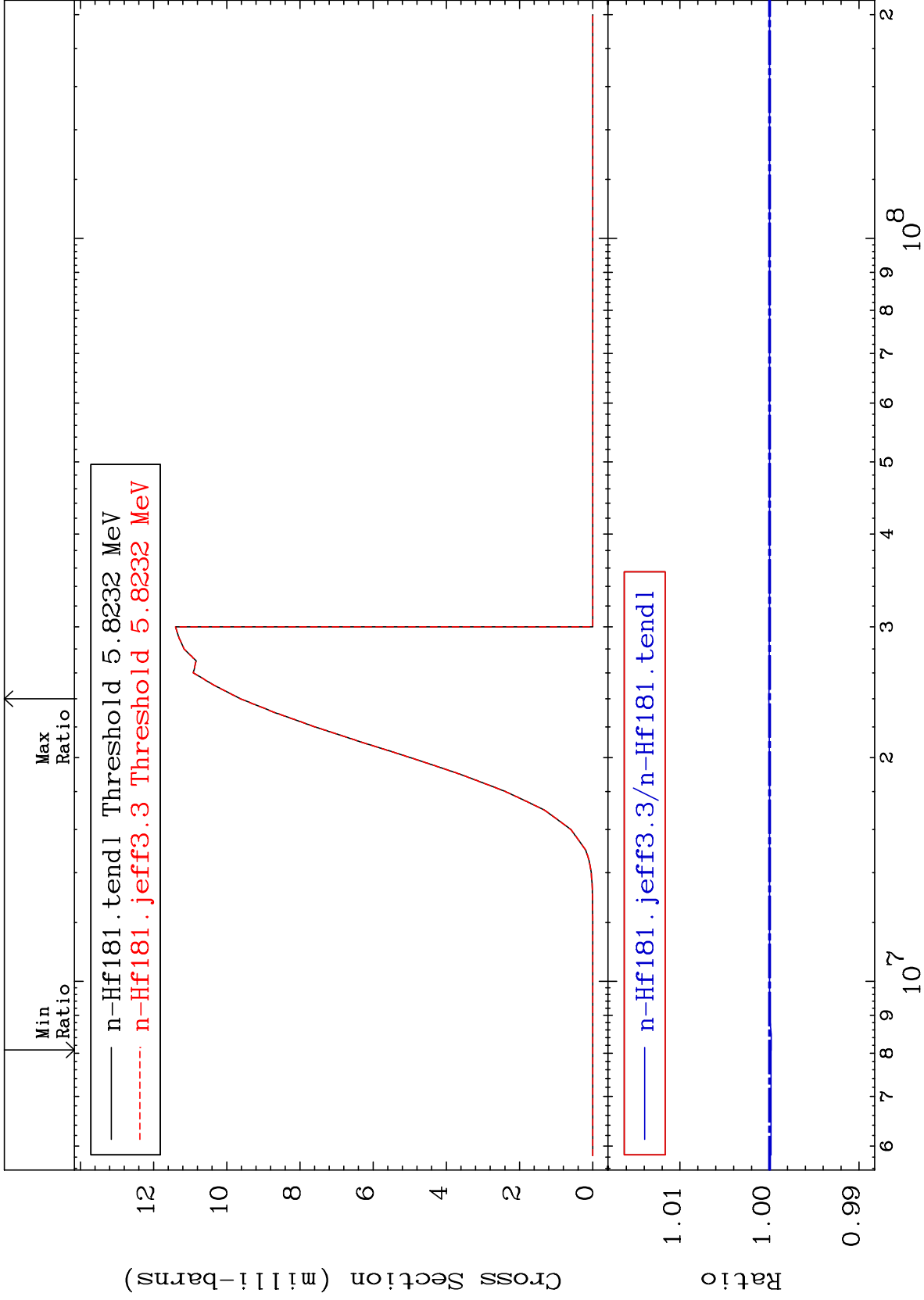
MAT 7246

(n, d)

<sup>72</sup>Hf-181

Cross Section

-0.018 To 0.010 %

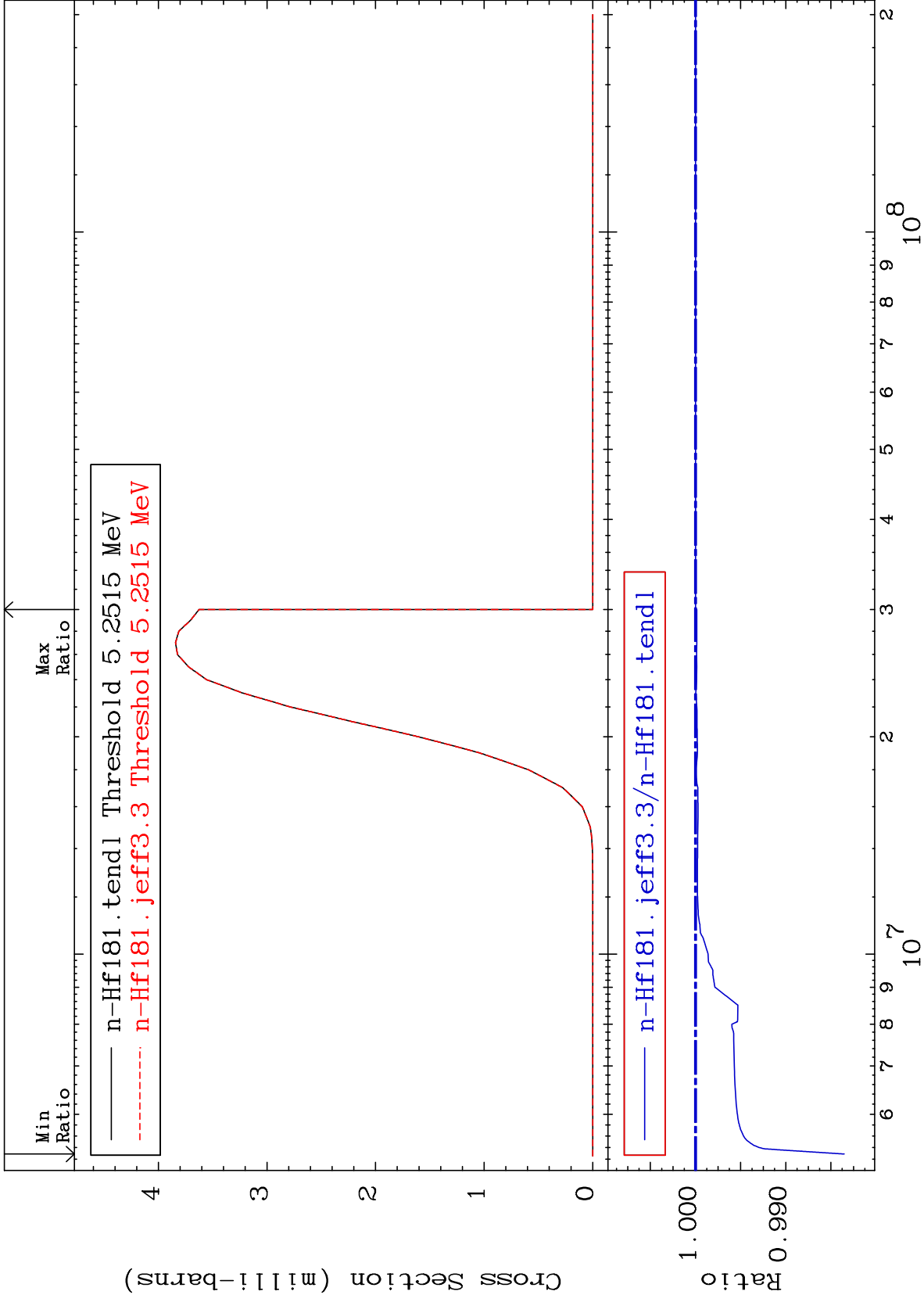


45

Incident Energy (eV)

<sup>72</sup>Hf-181

(n, t)  
Cross Section  
-1.648 To 0.000 %



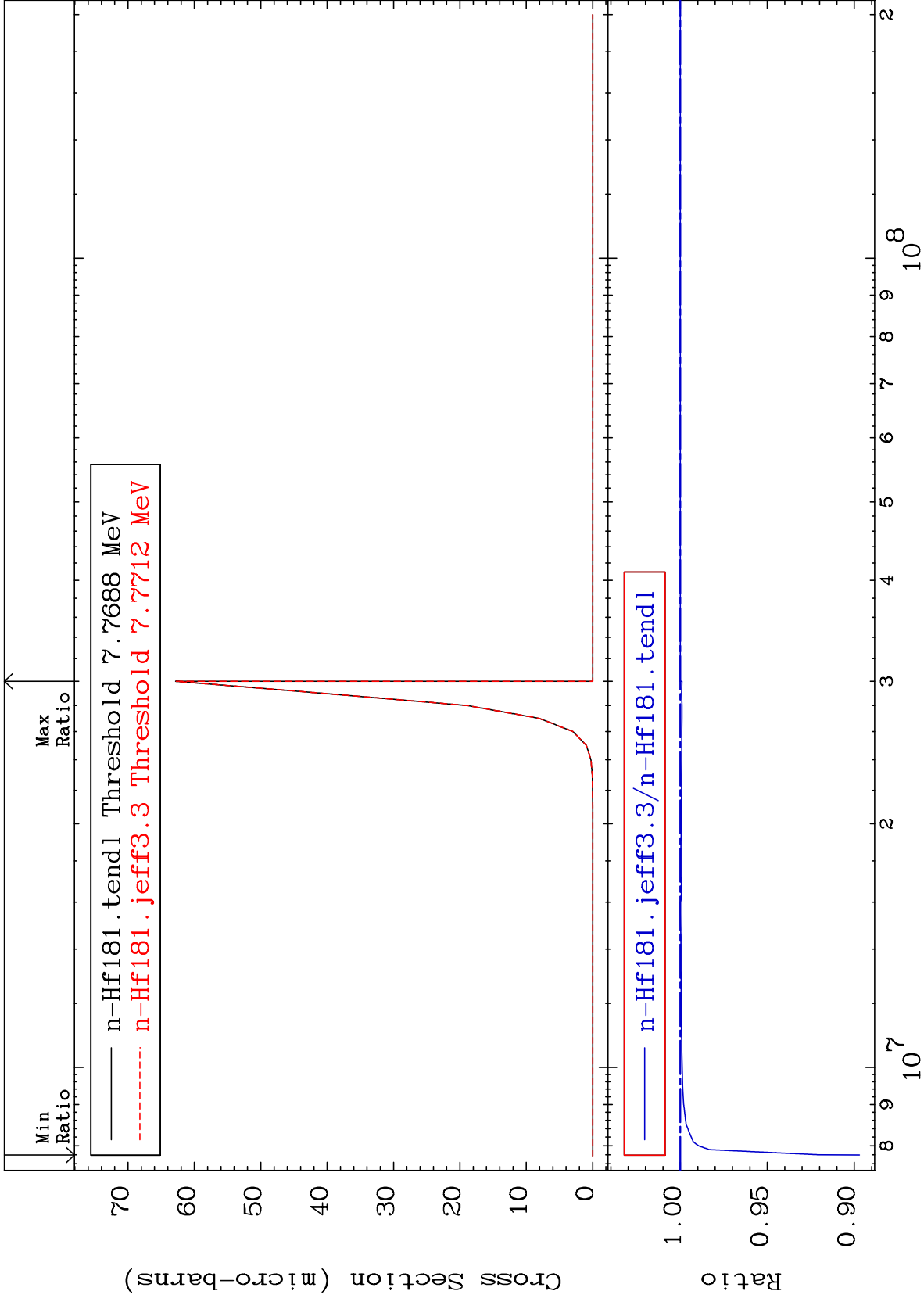
MAT 7246

(n, He-3)

<sup>72</sup>Hf-181

Cross Section

-10.29 To 0.000 %



47

Incident Energy (eV)

<sup>72</sup>Hf-181

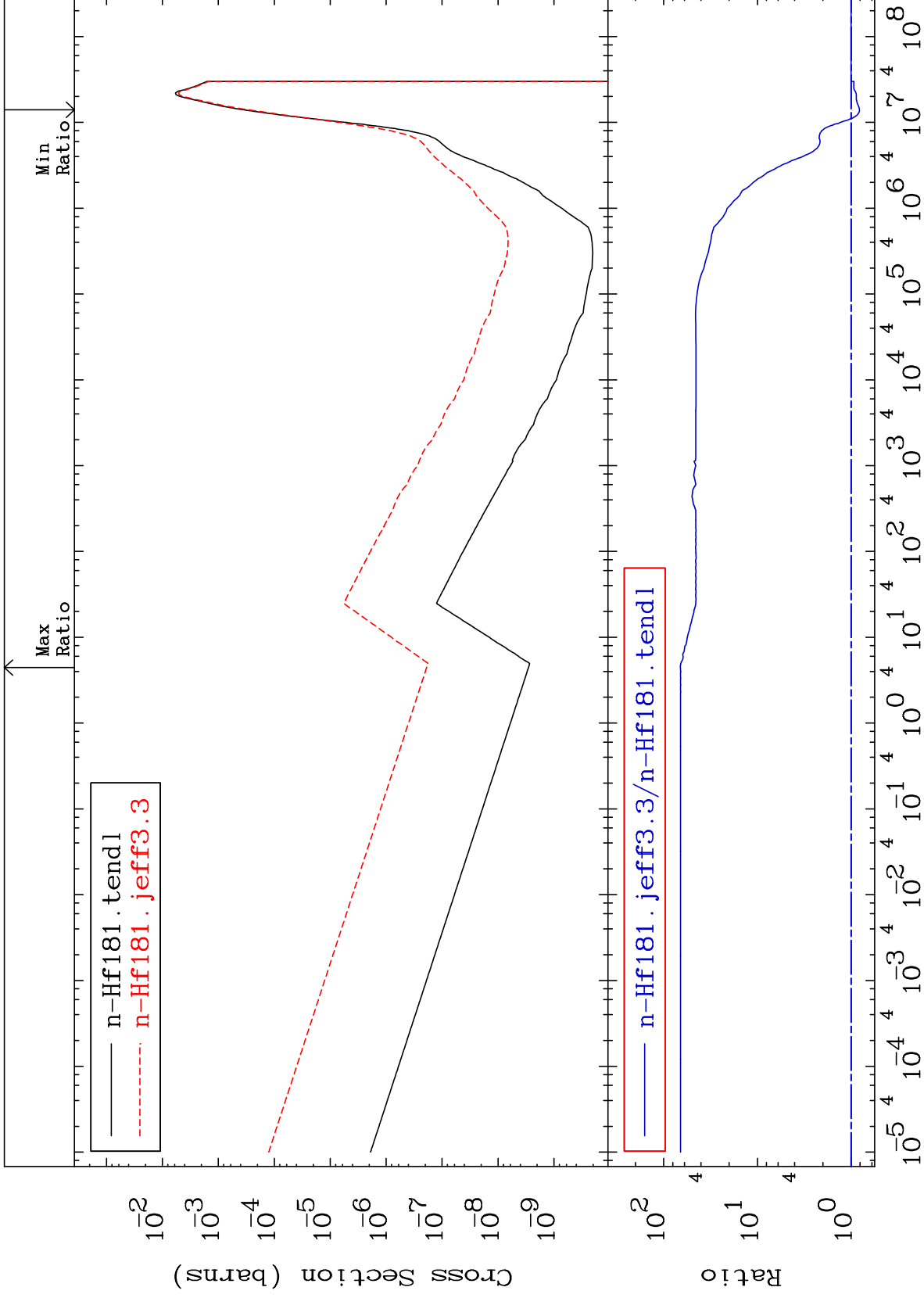
MAT 7246

(n,  $\alpha$ )

72-Hf-181

Cross Section

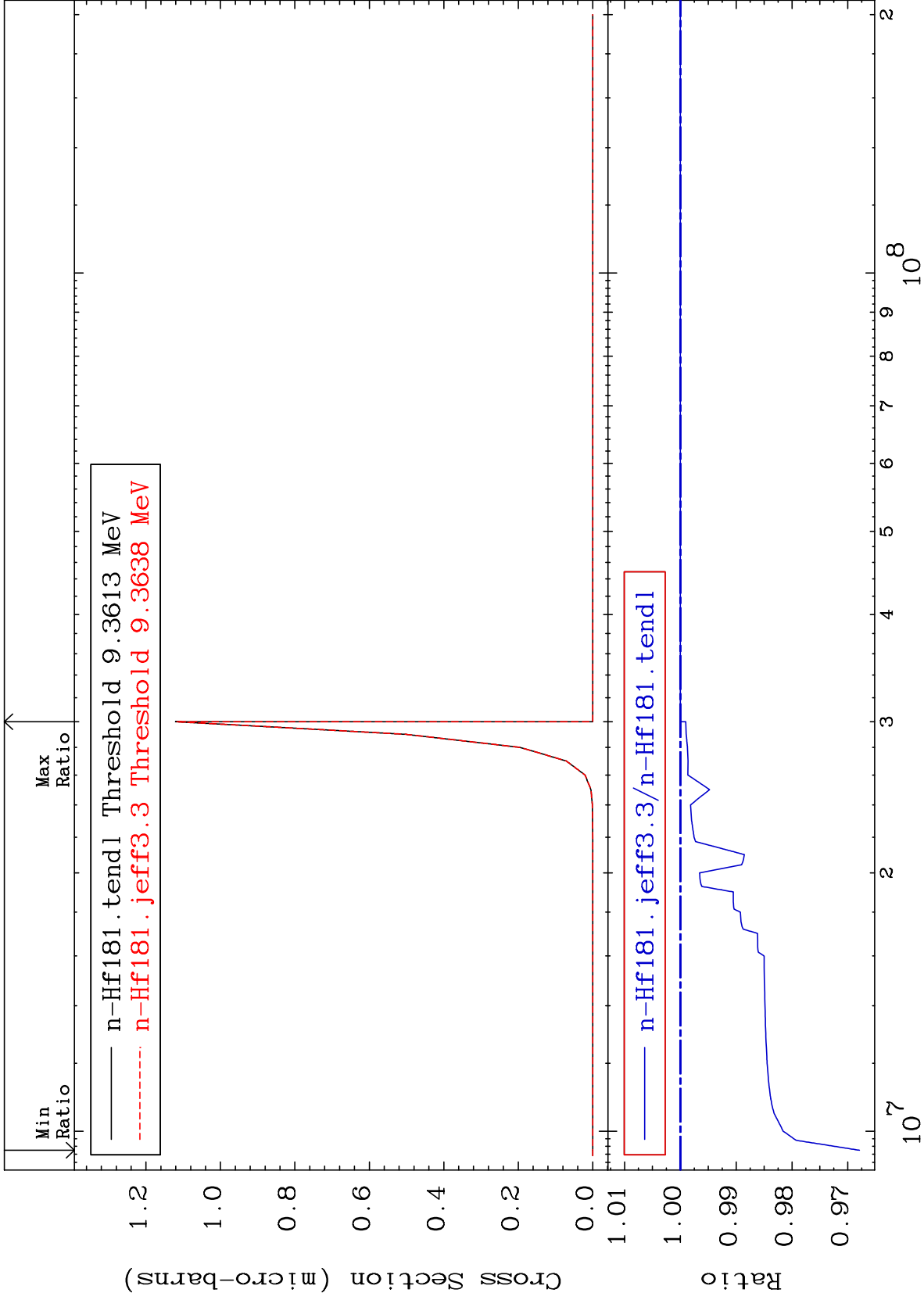
-18.57 To 6542. %





Cross Section

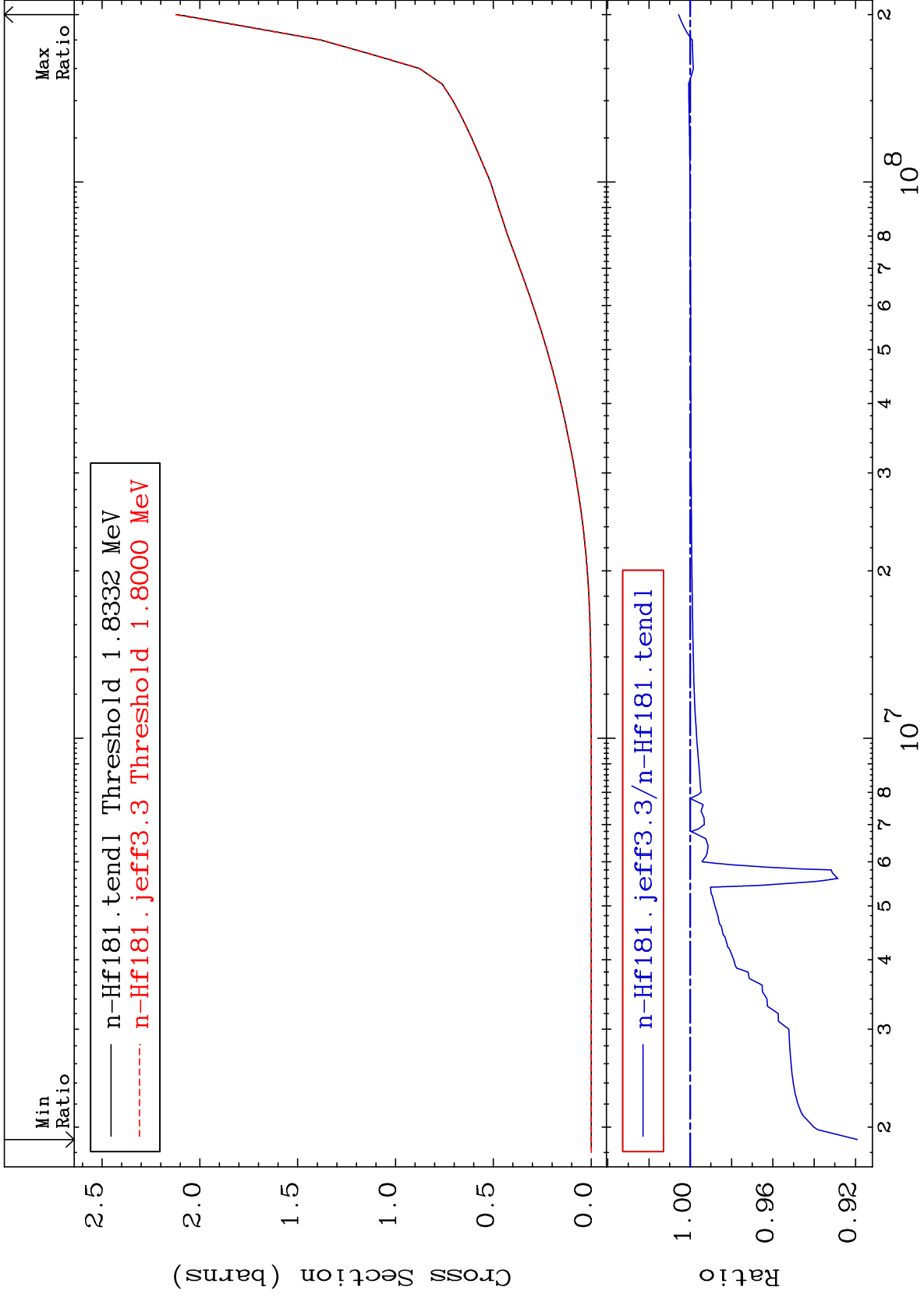
-3.209 To 0.000 %



MAT 7246

Hydrogen Production  
Cross Section

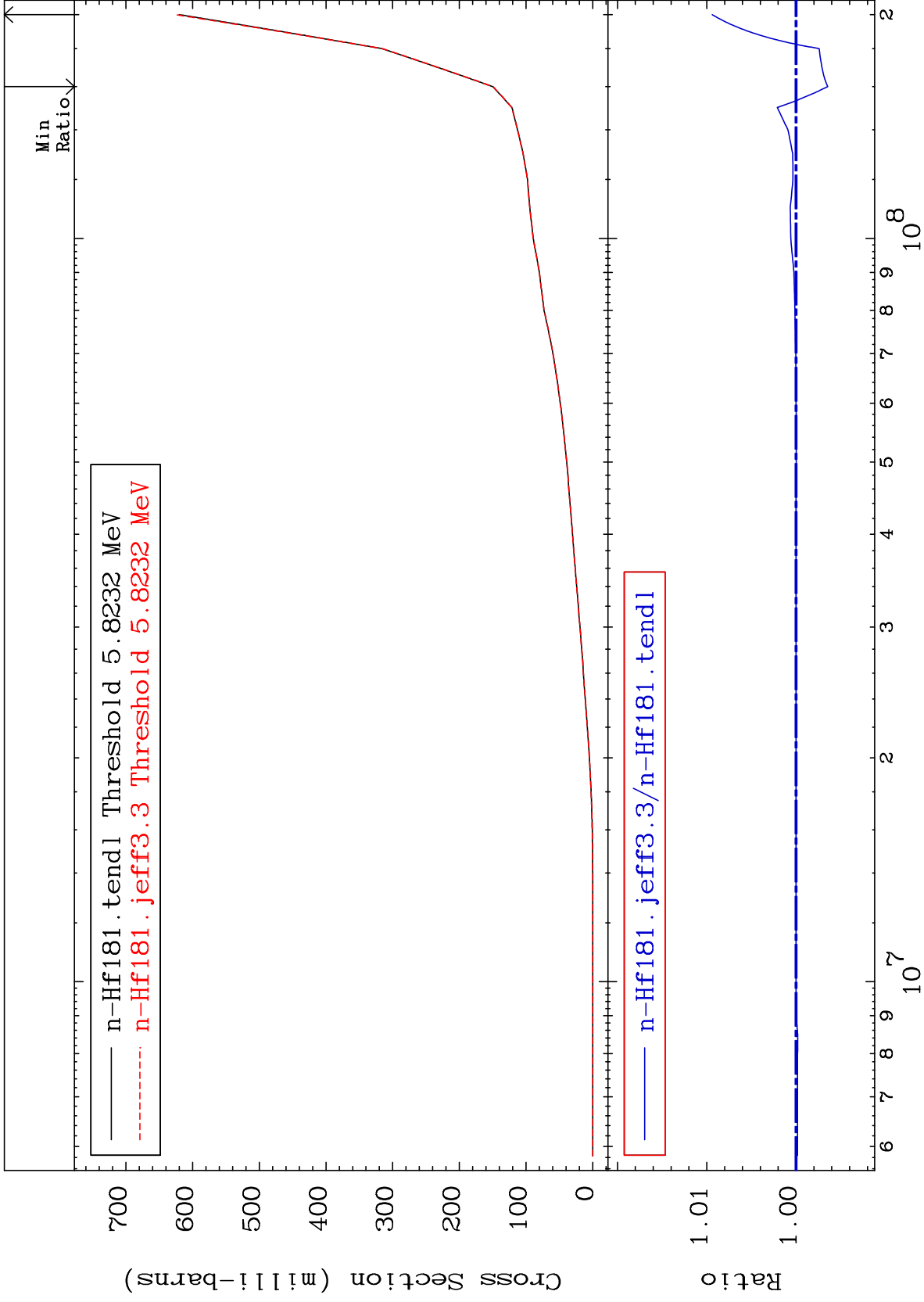
<sup>72</sup>Hf-181  
-8.084 To 0.563 %



MAT 7246

Deuterium Production  
Cross Section

<sup>72</sup>Hf-<sup>181</sup>  
-0.354 To 0.940 %



51

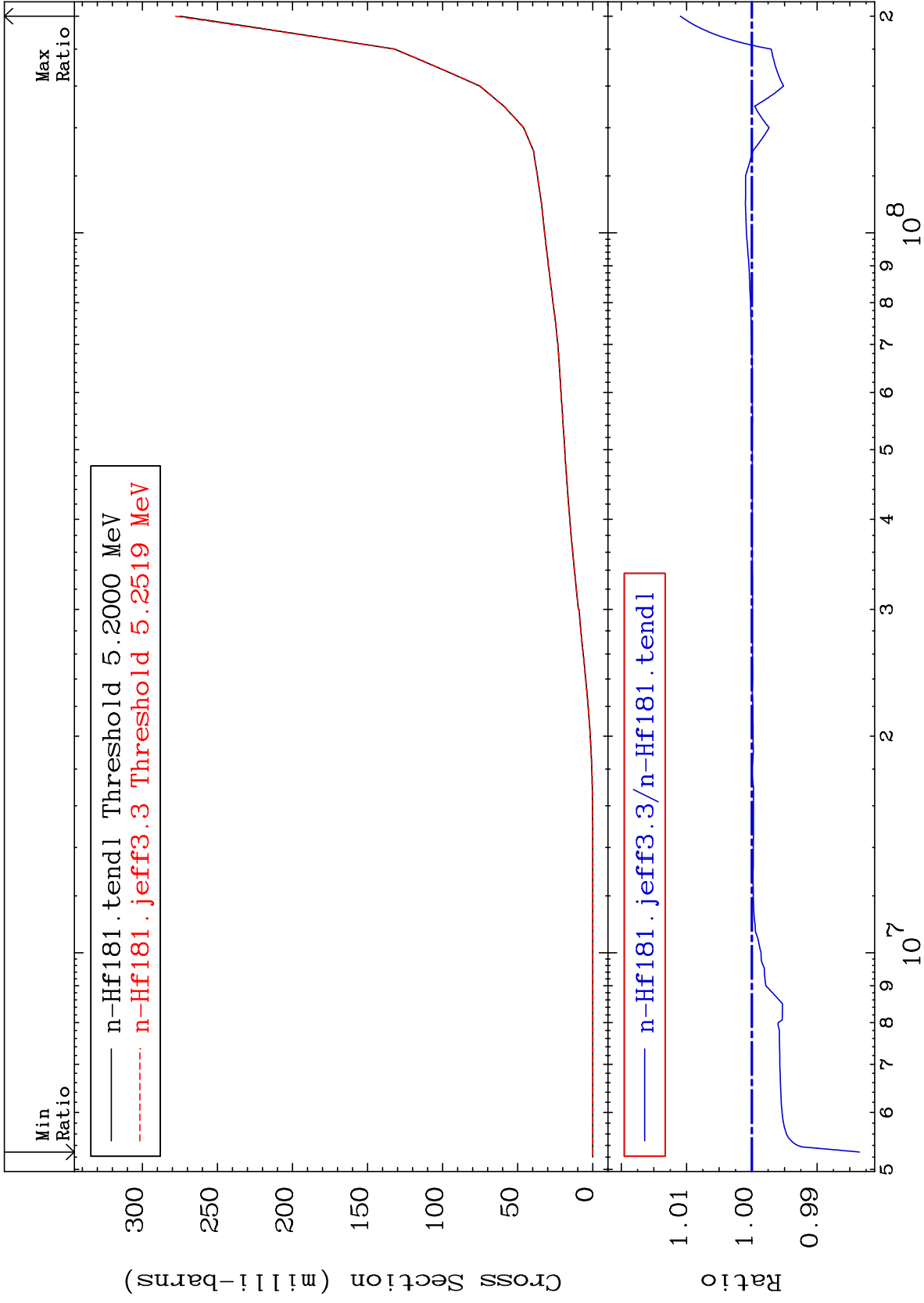
Incident Energy (eV)

<sup>72</sup>Hf-<sup>181</sup>

MAT 7246

Tritium Production  
Cross Section

72-Hf-181  
-1.648 To 1.094 %



52

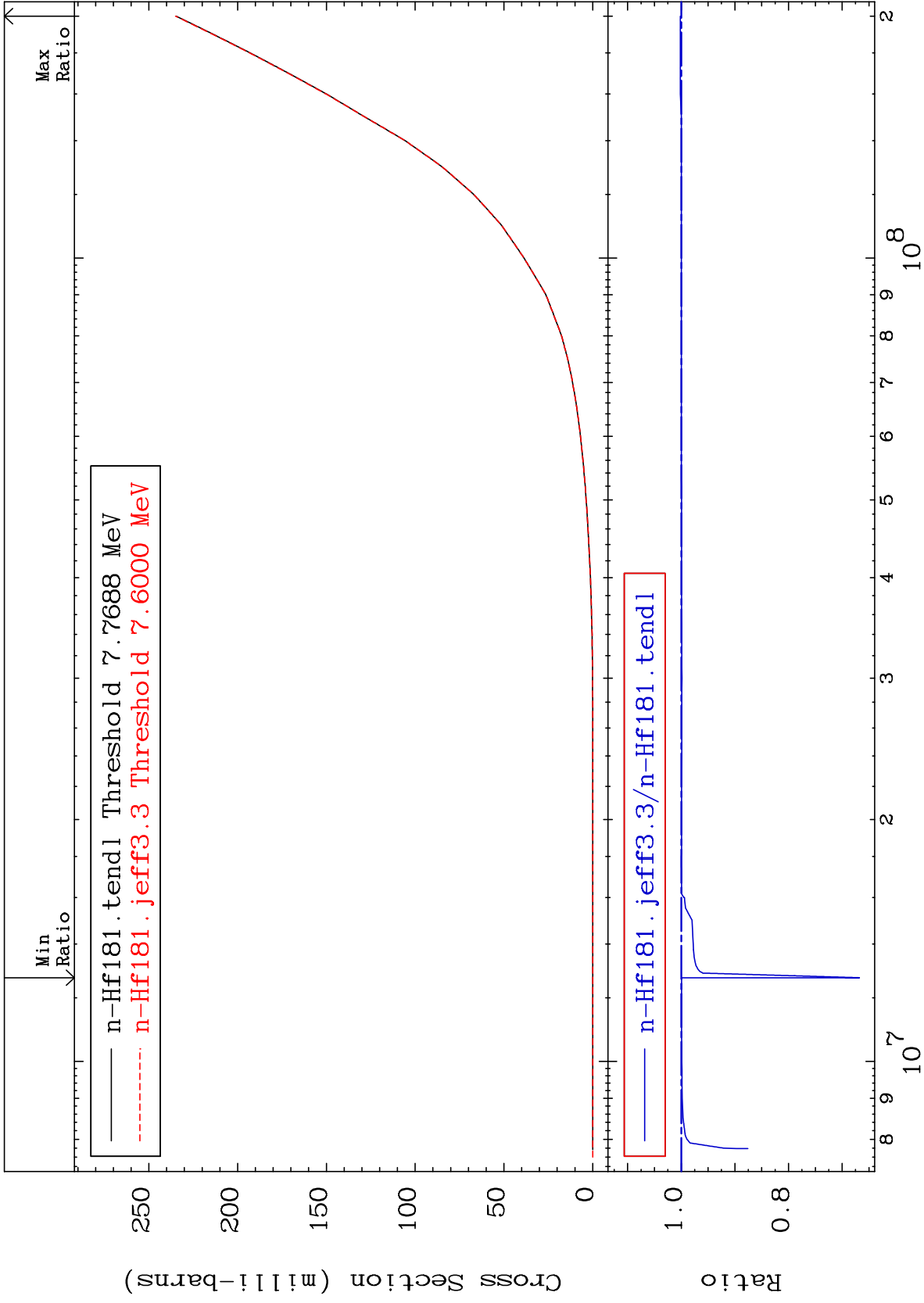
Incident Energy (eV)

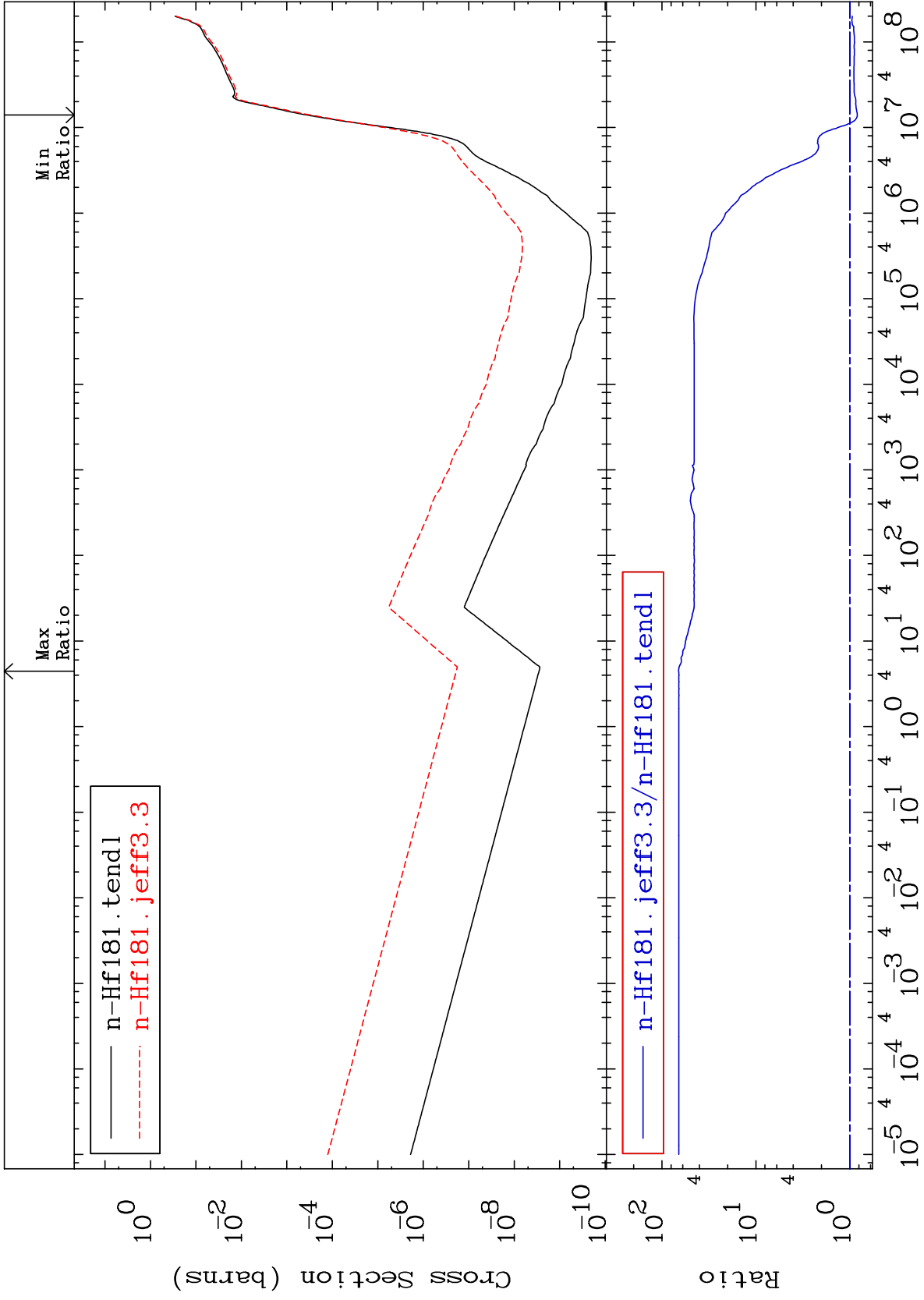
72-Hf-181

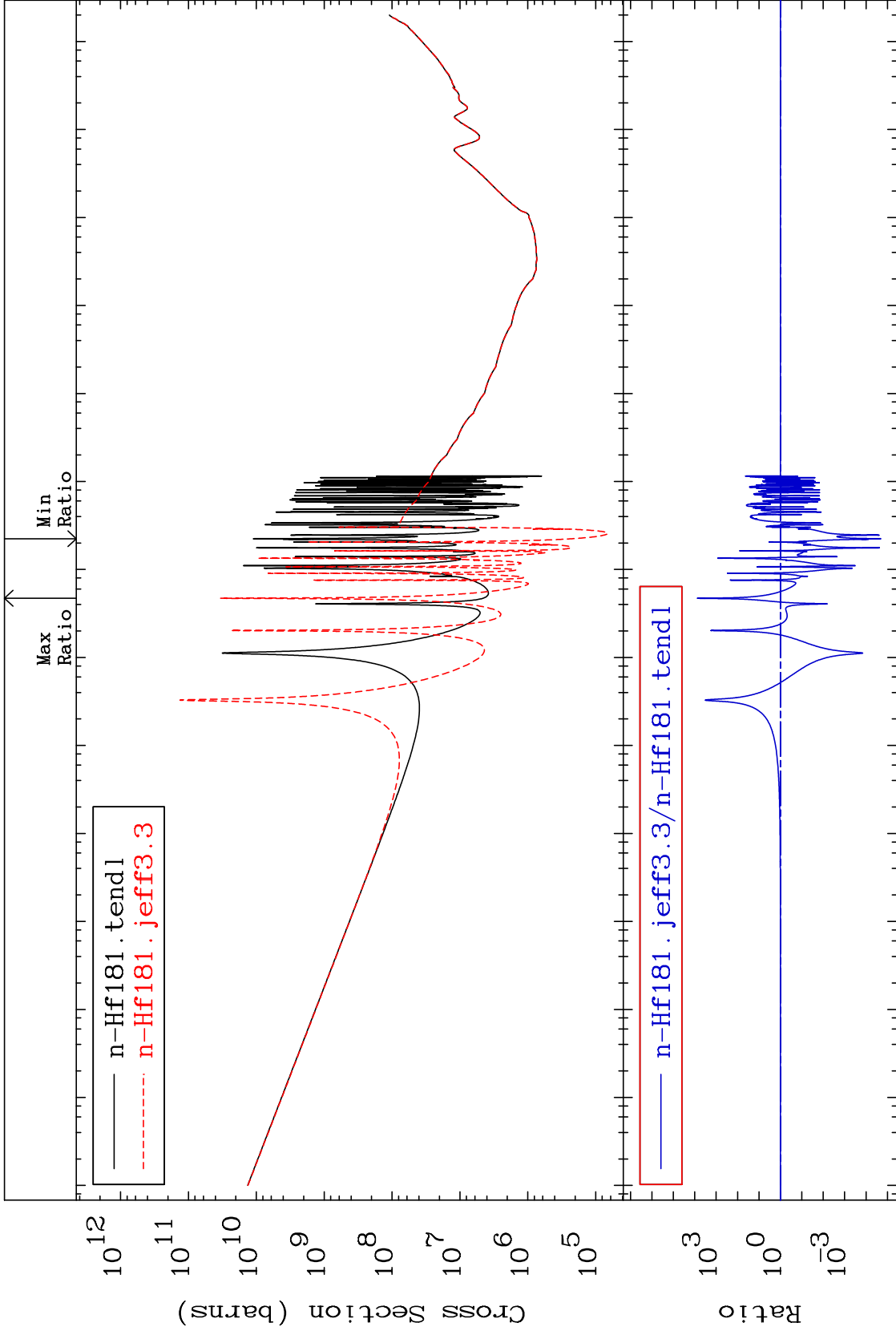
MAT 7246

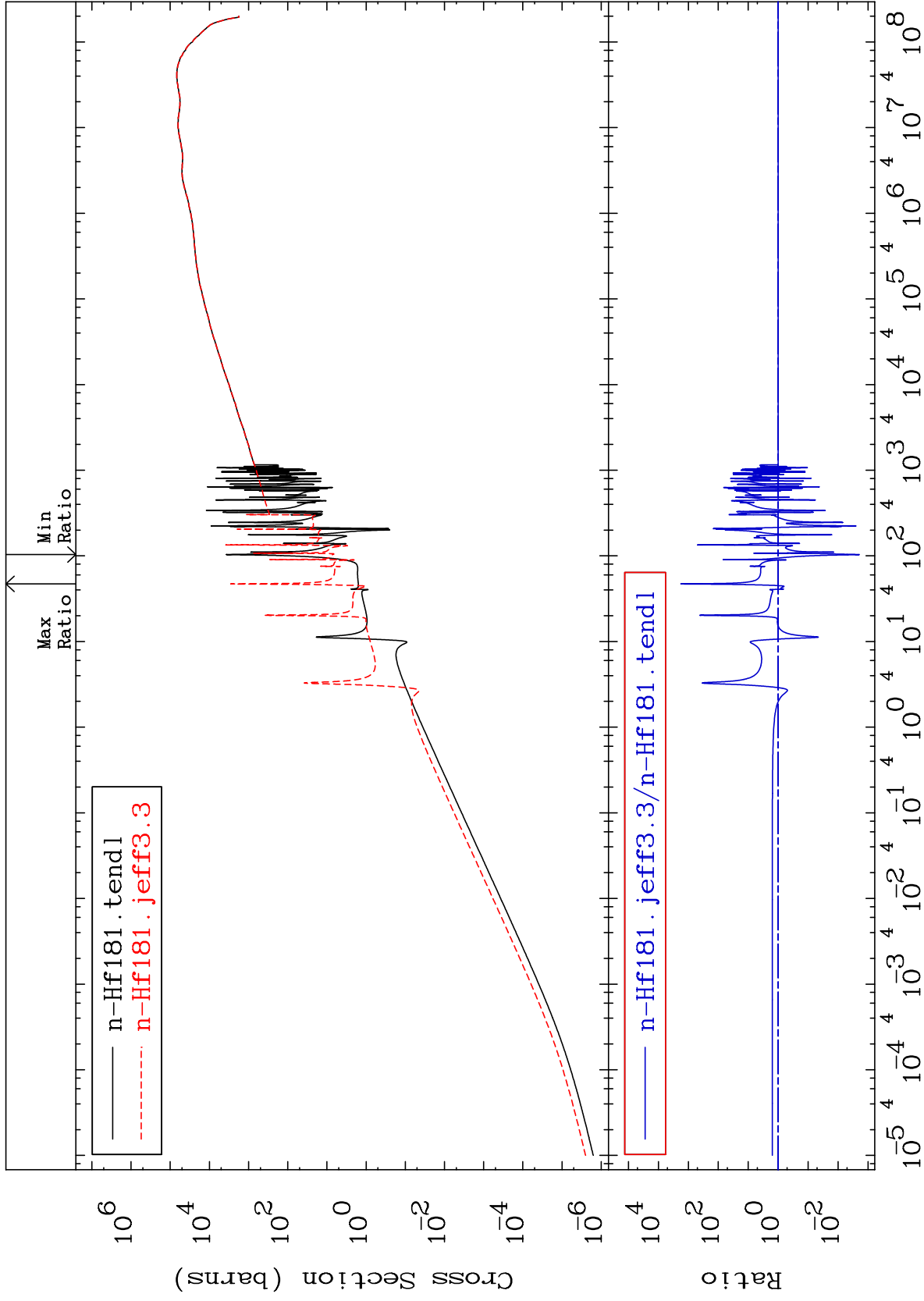
He-3 Production  
Cross Section

72-Hf-181  
-33.22 To 0.168 %

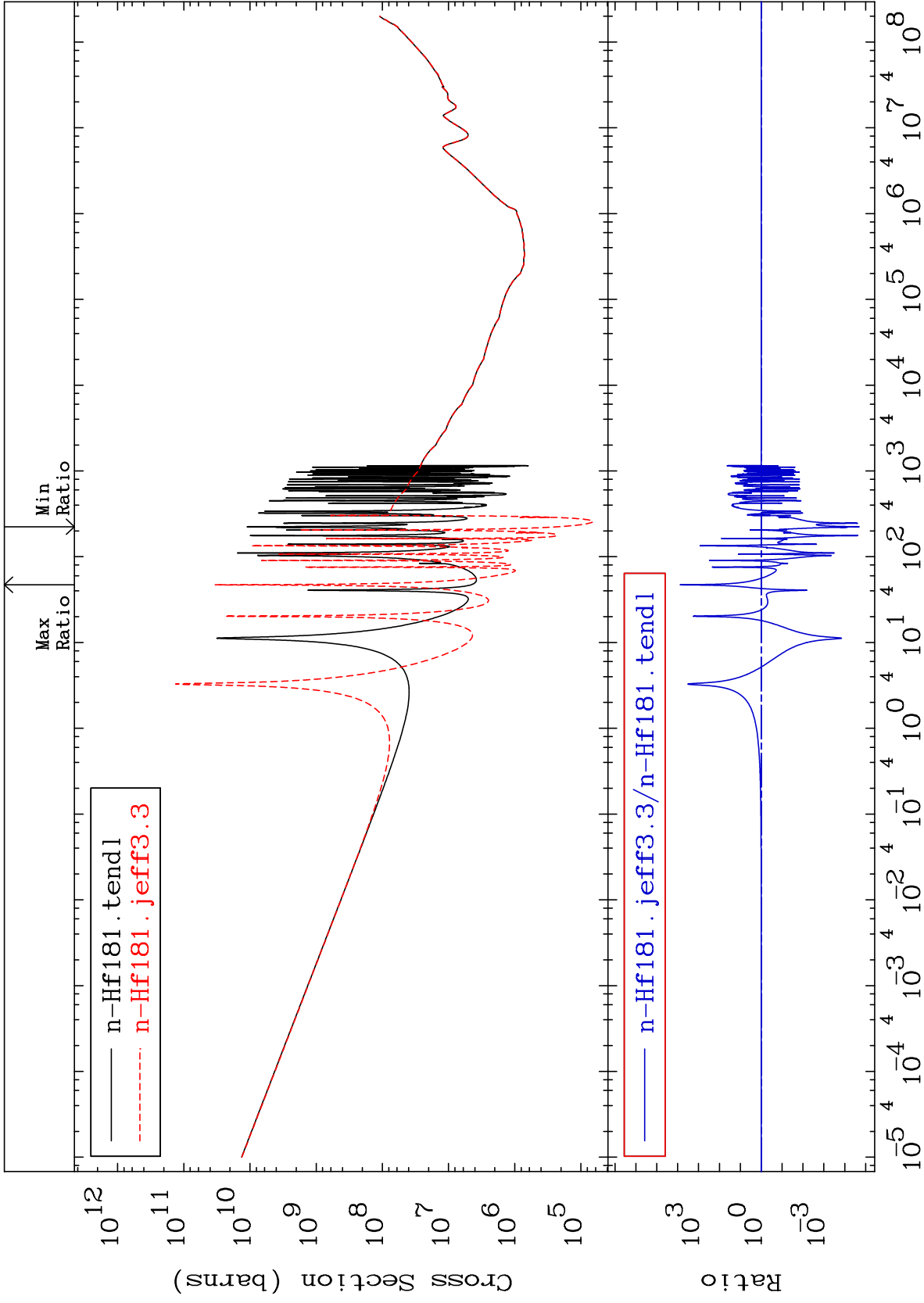


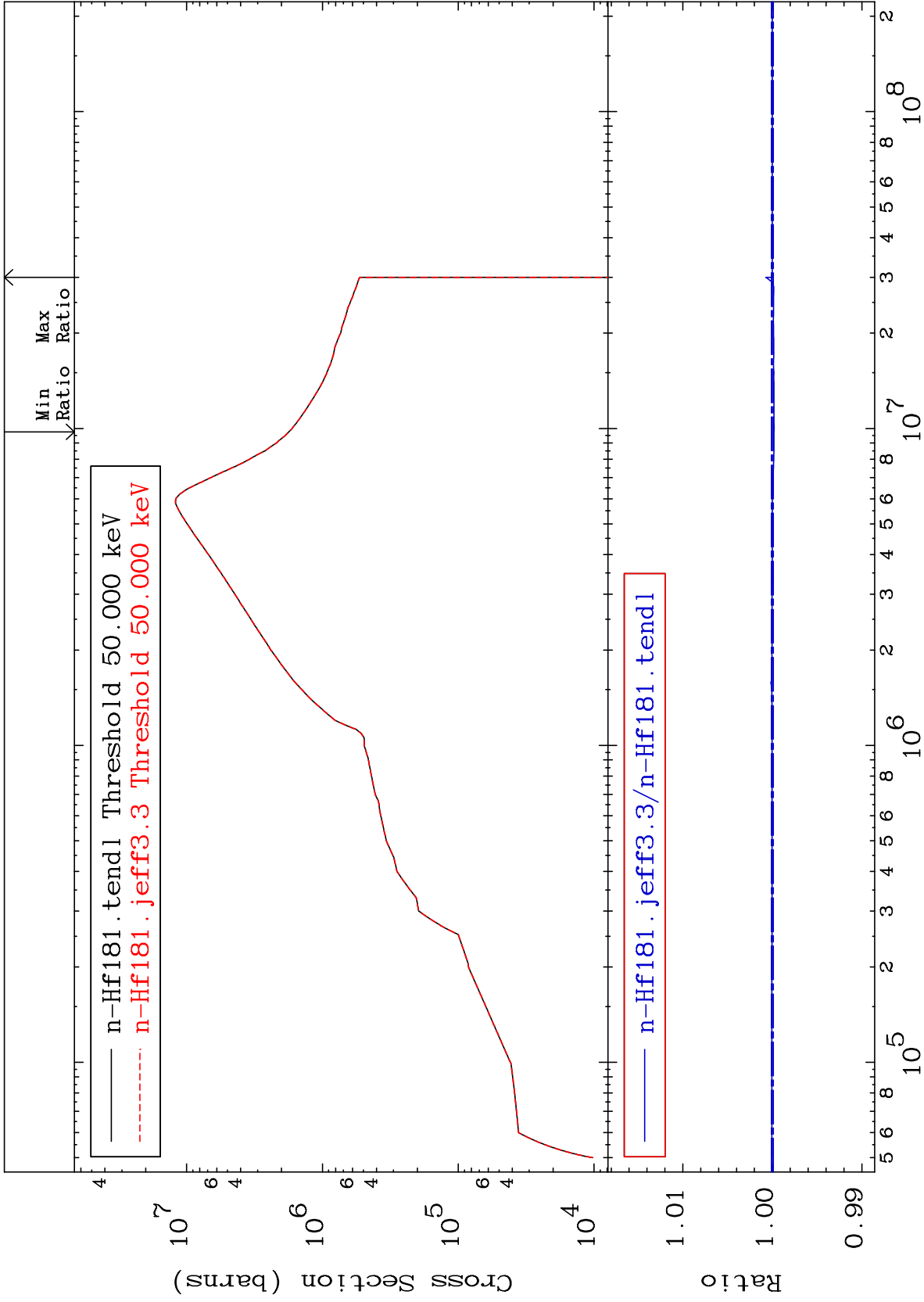


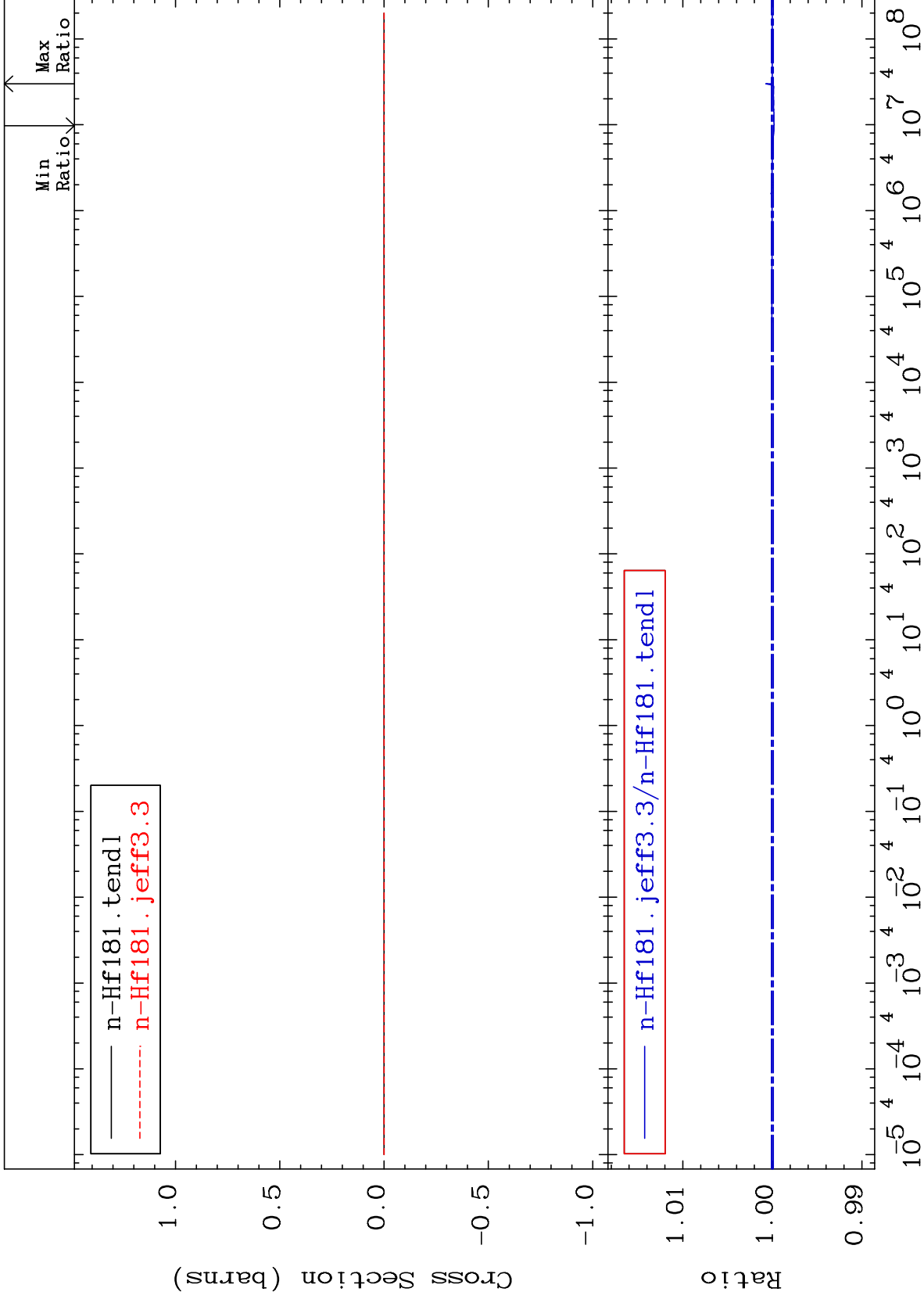


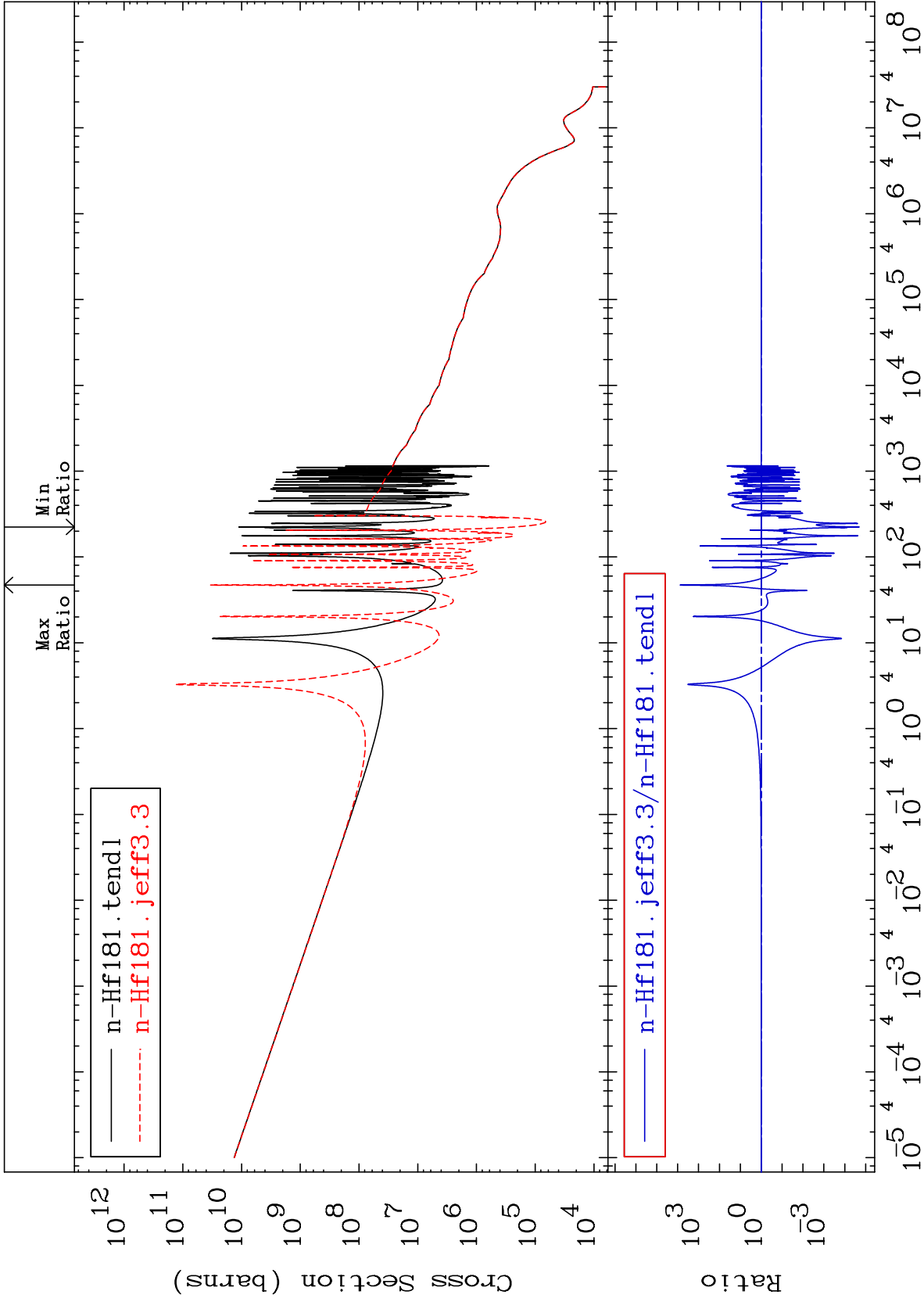


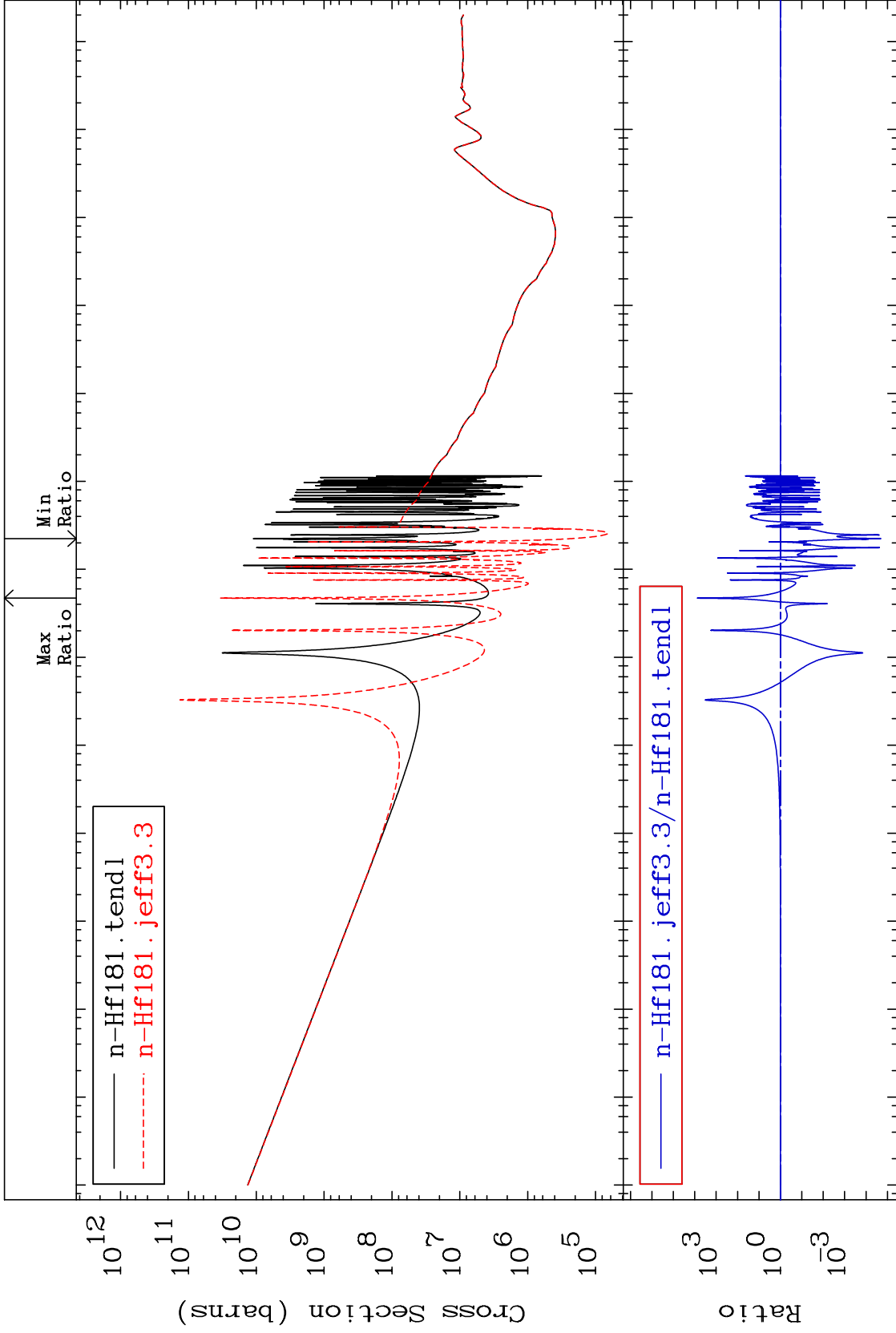


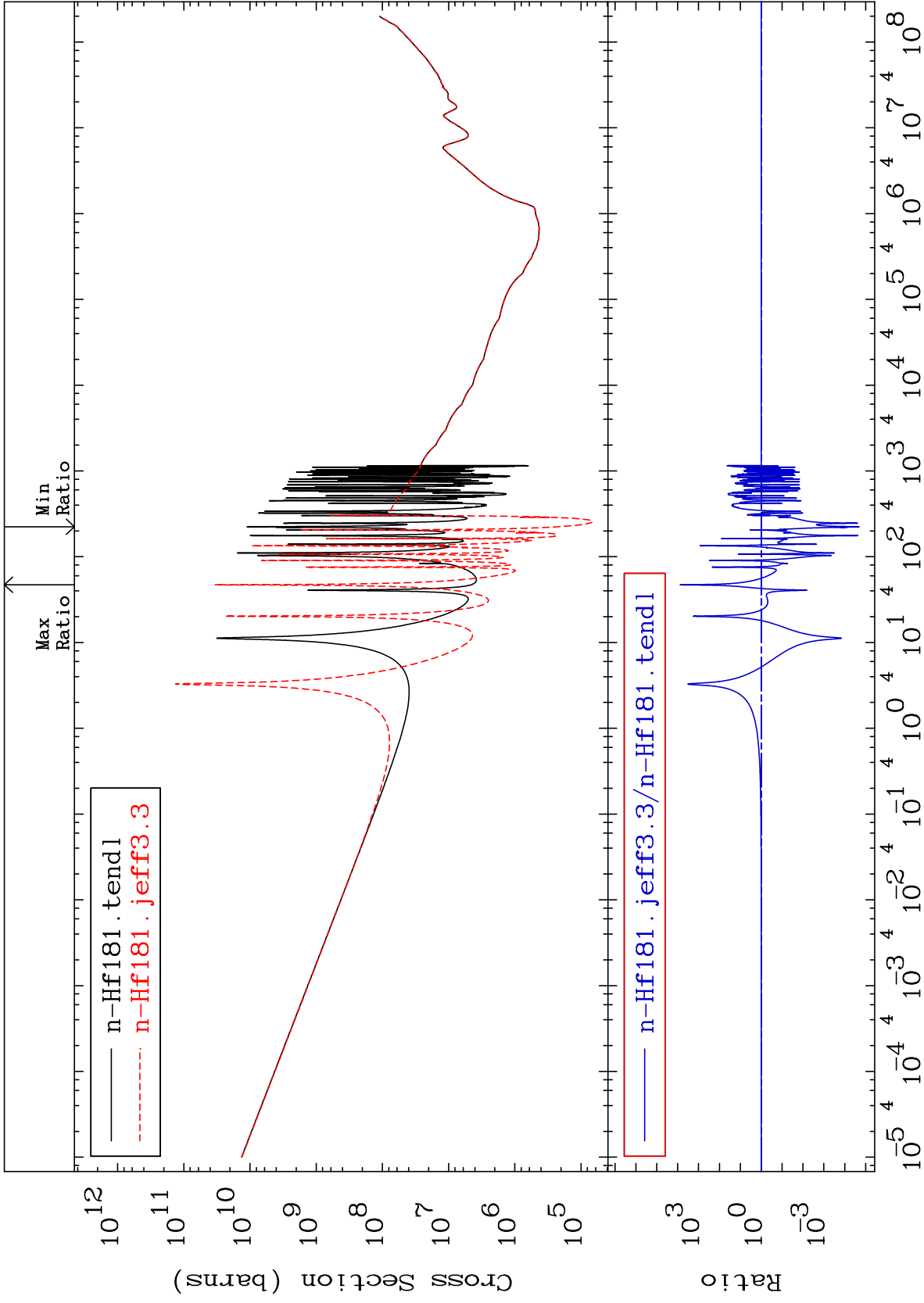


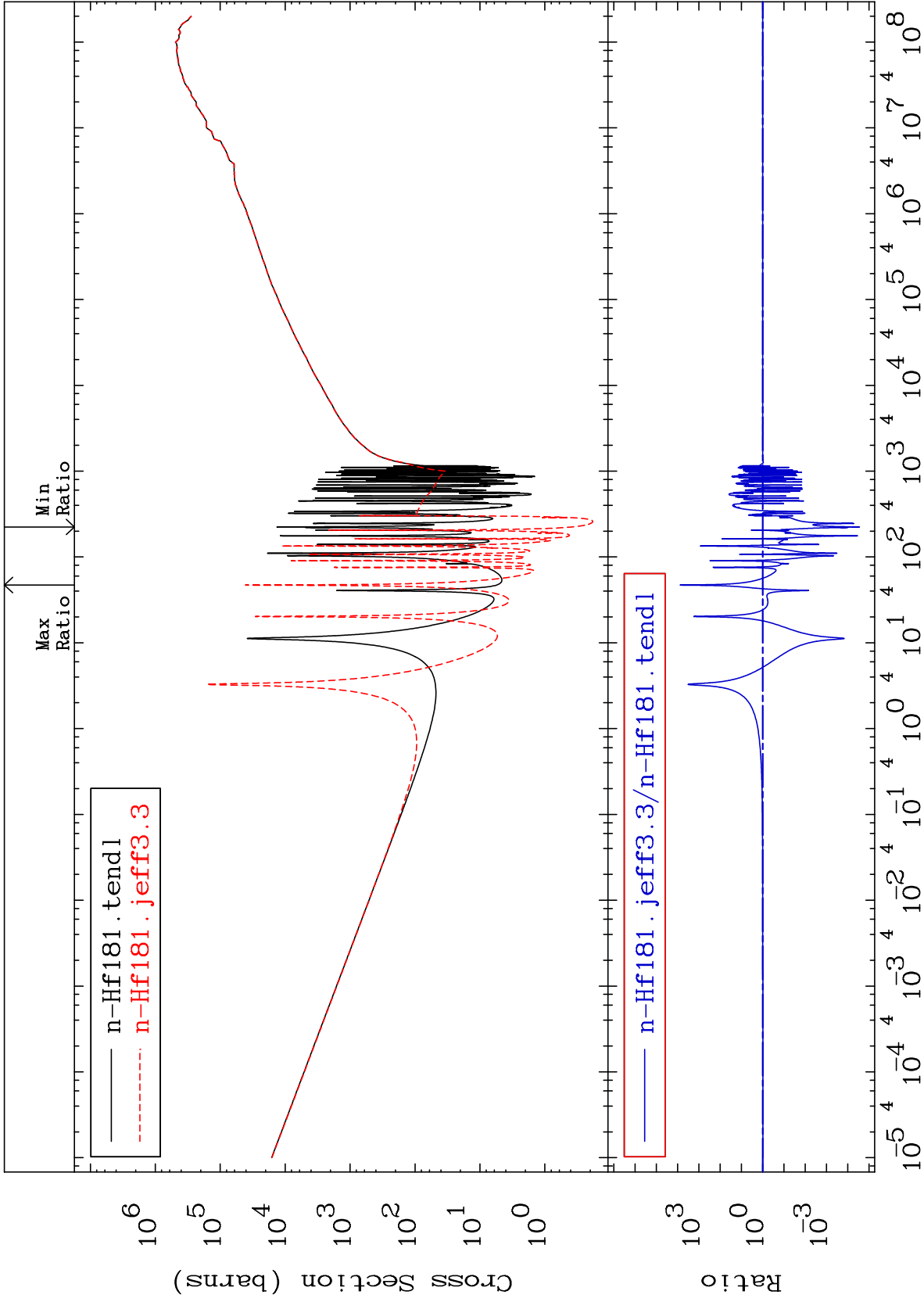








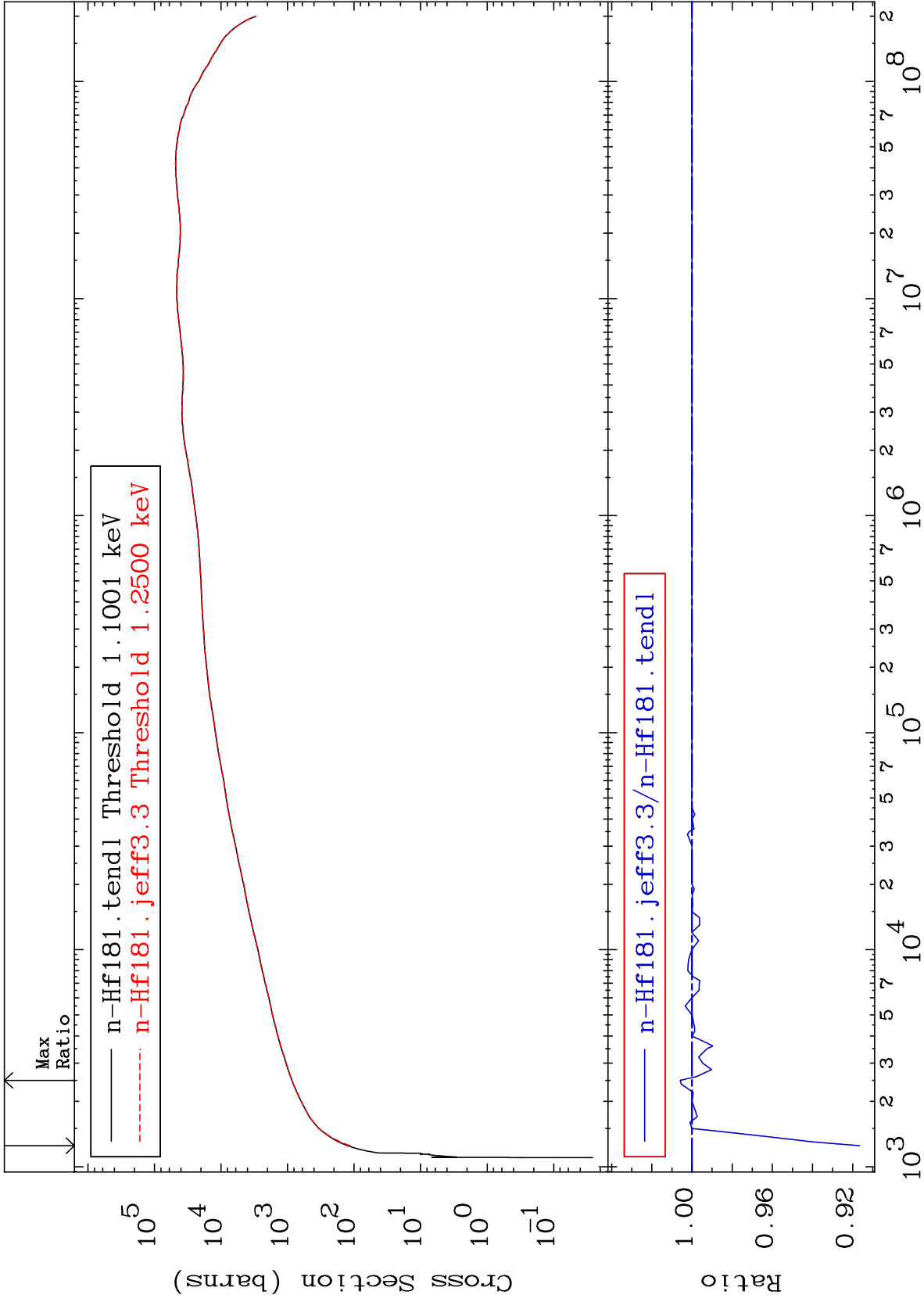




MAT 7246

Dpa elastic (mt2)  
Cross Section

72-Hf-181  
-8.334 To 0.579 %

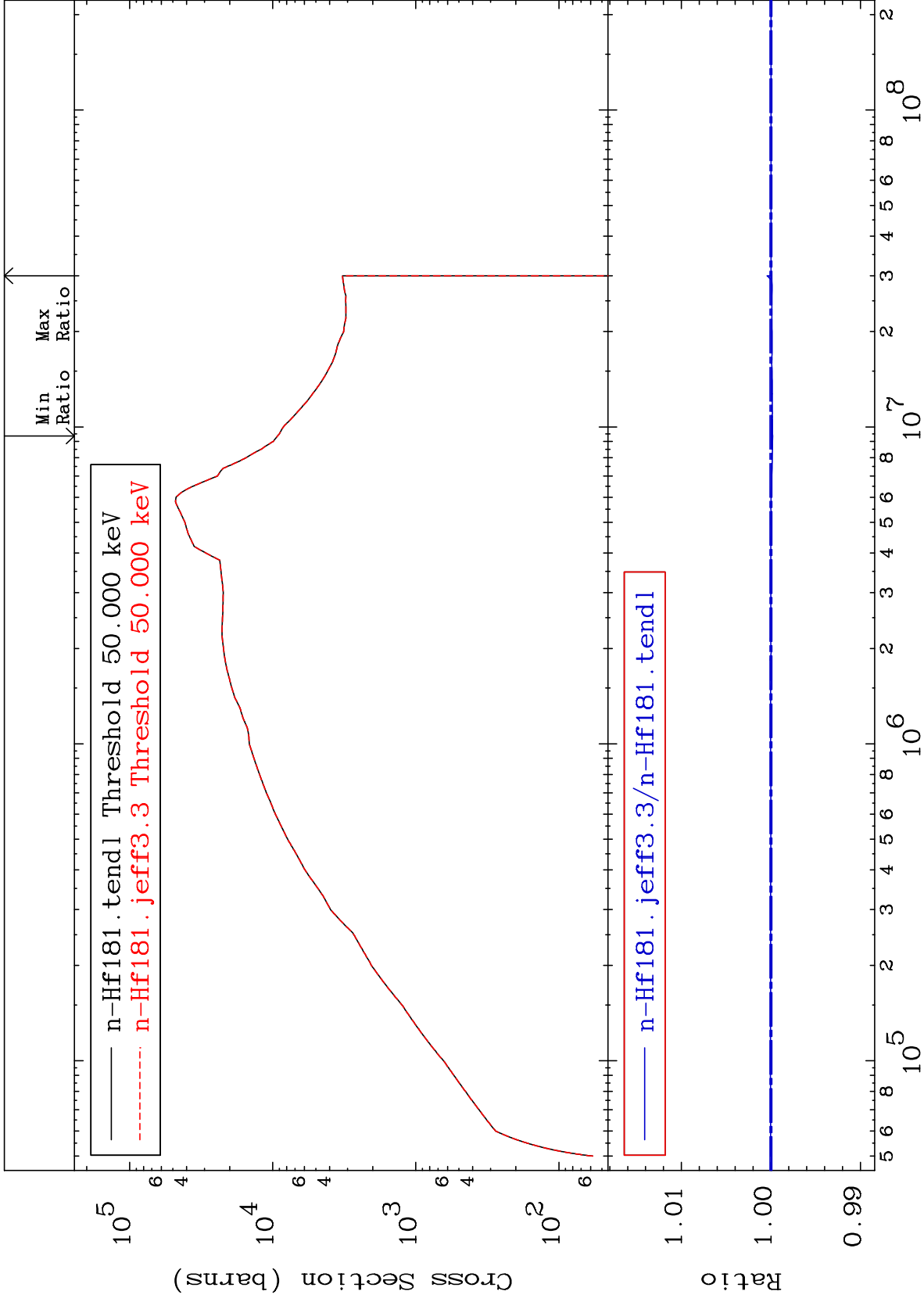


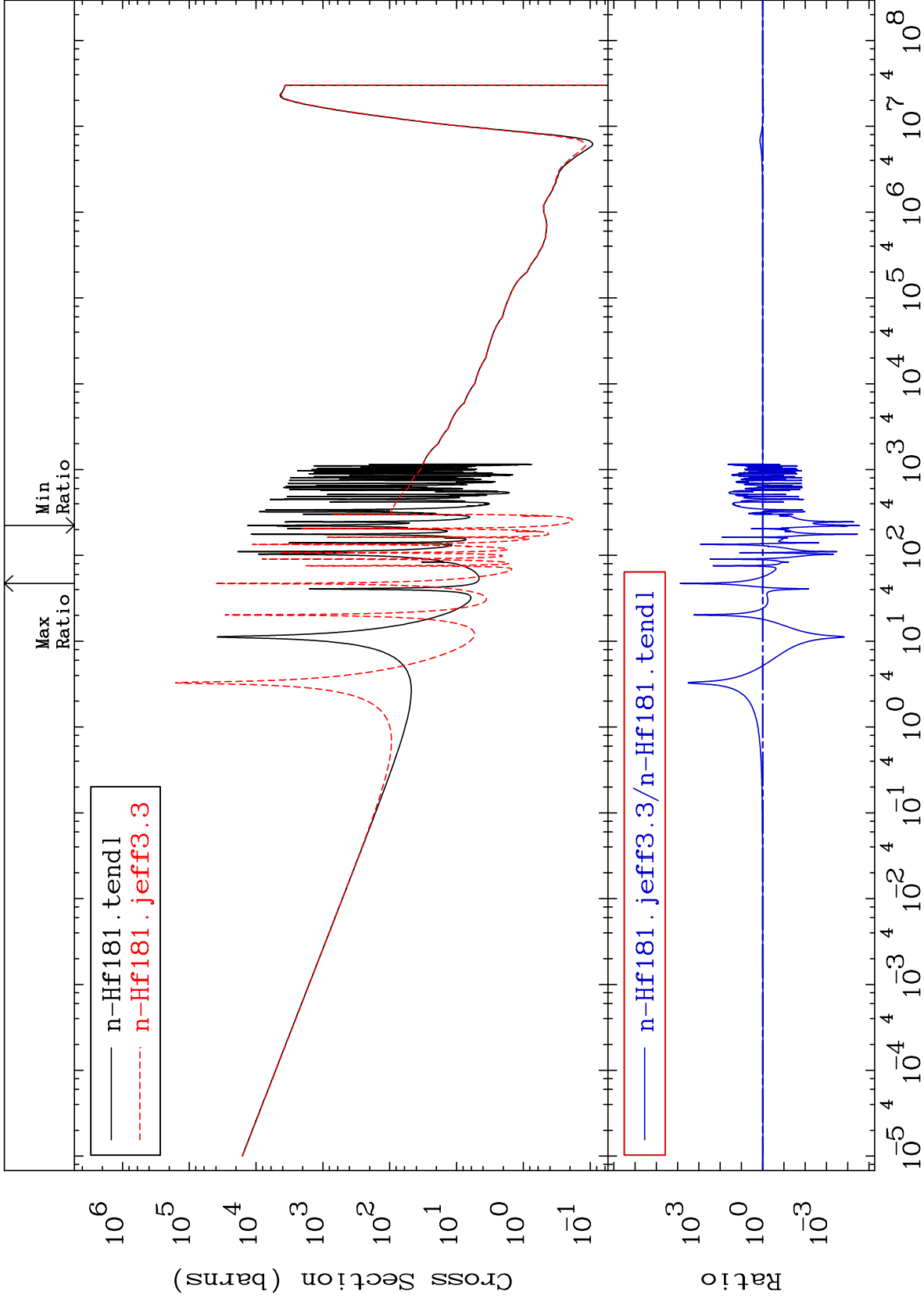
64

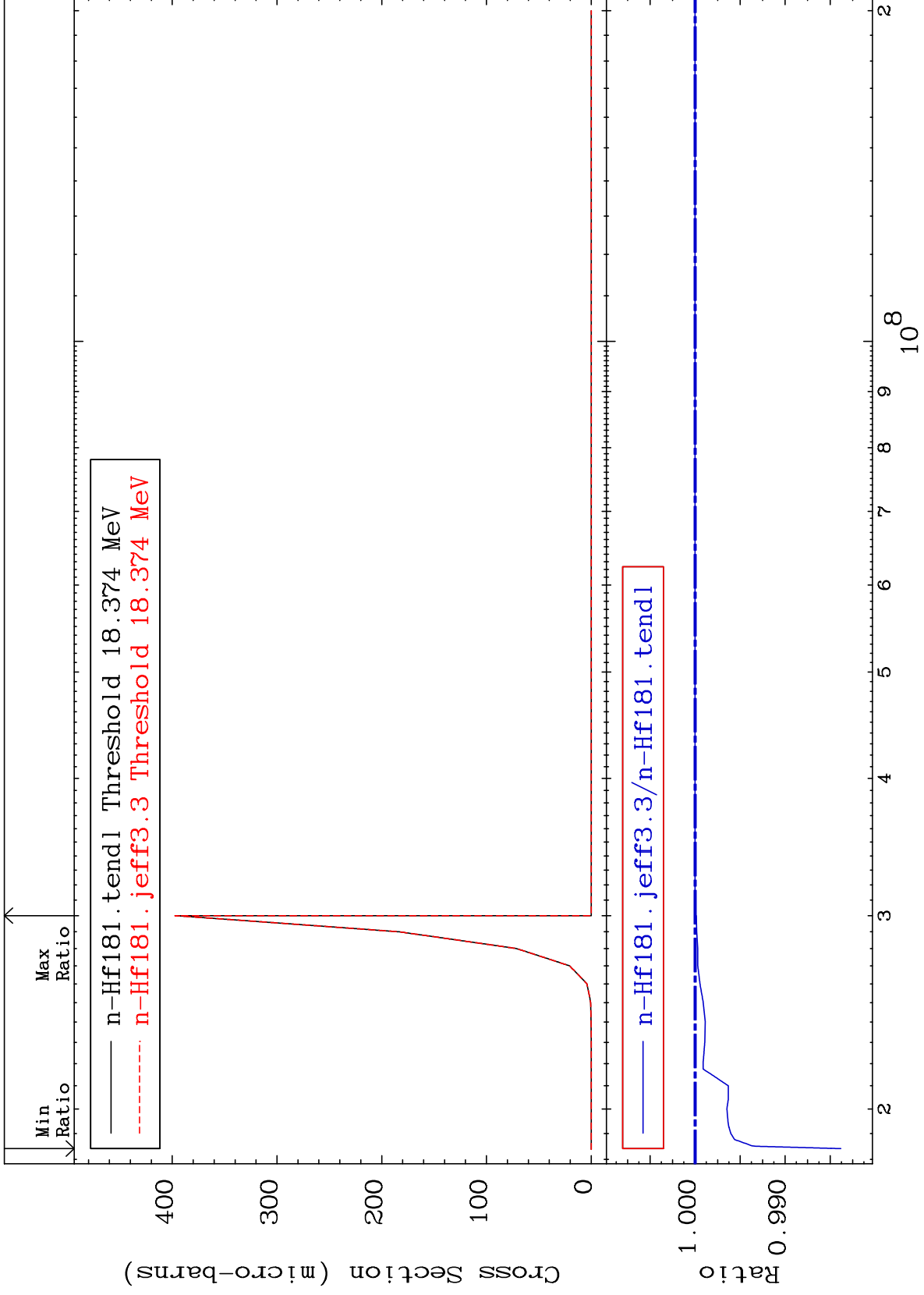
Incident Energy (eV)

72-Hf-181

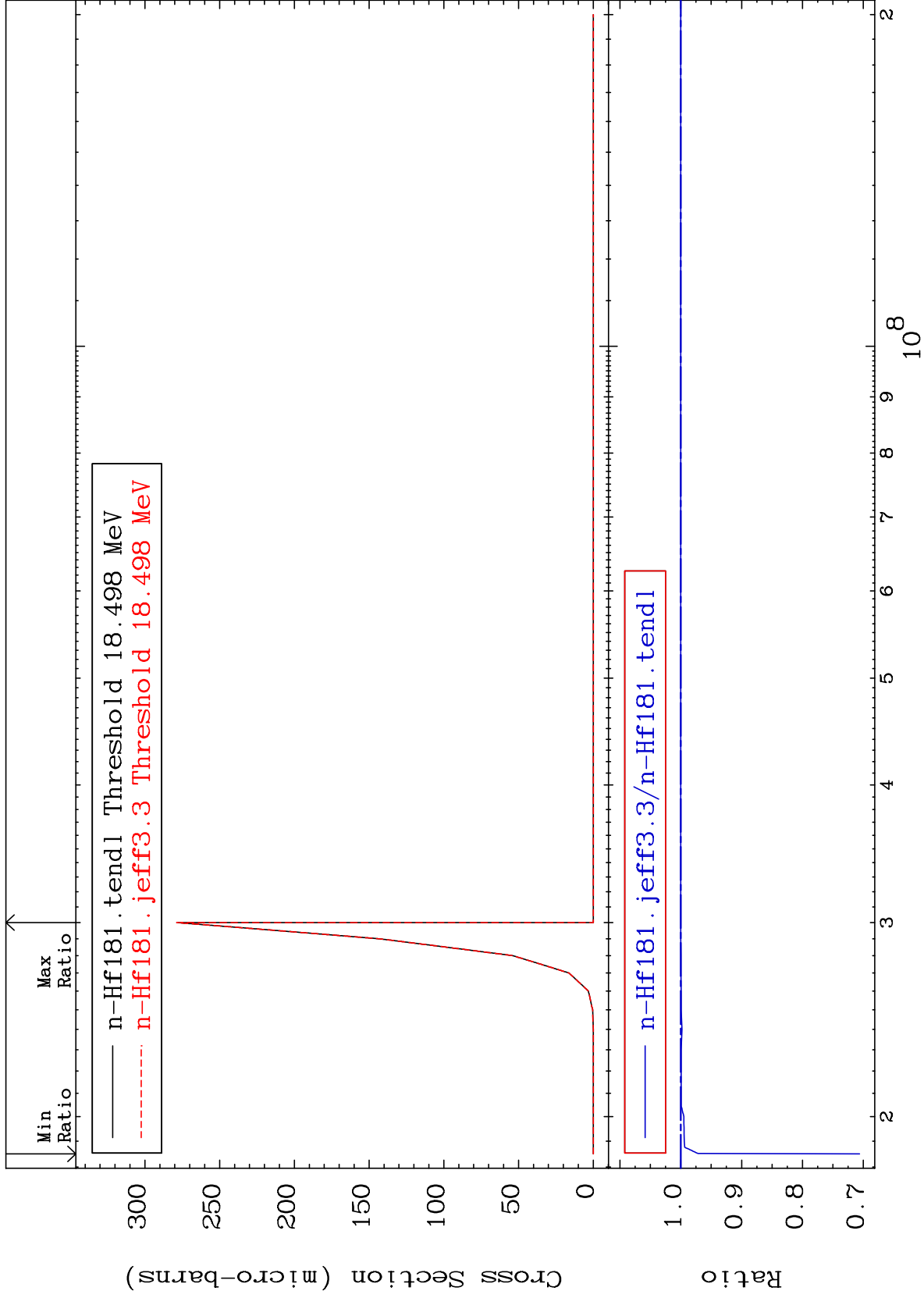




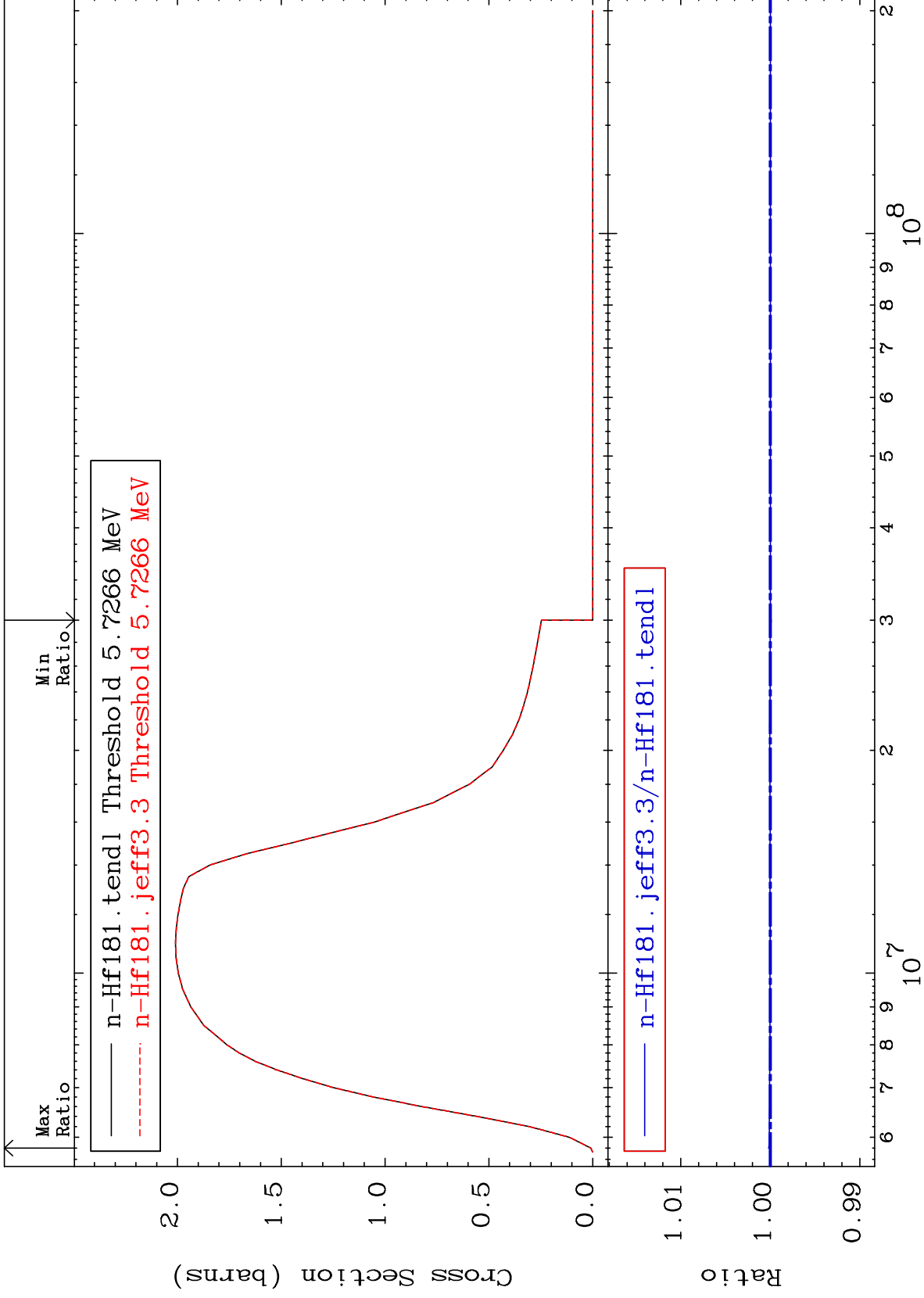




Radionuclide Production Cross Section -29.37 To 0.000 %



Radionuclide Production Cross Section -0.011 To 0.020 %

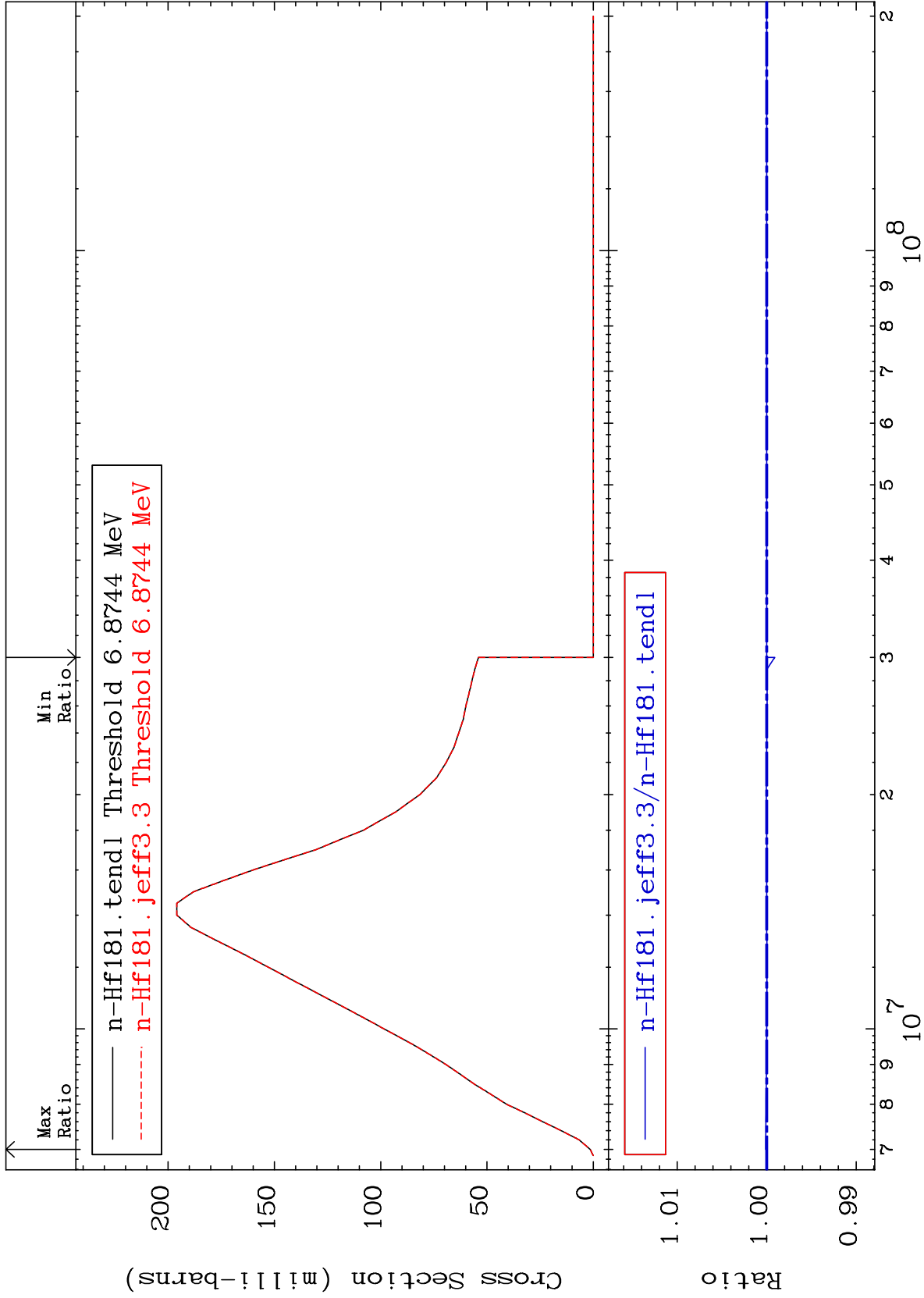


MAT 7246

(n,2n):72-Hf-180m7

72-Hf-181

Radionuclide Production Cross Section -0.090 To 0.013 %

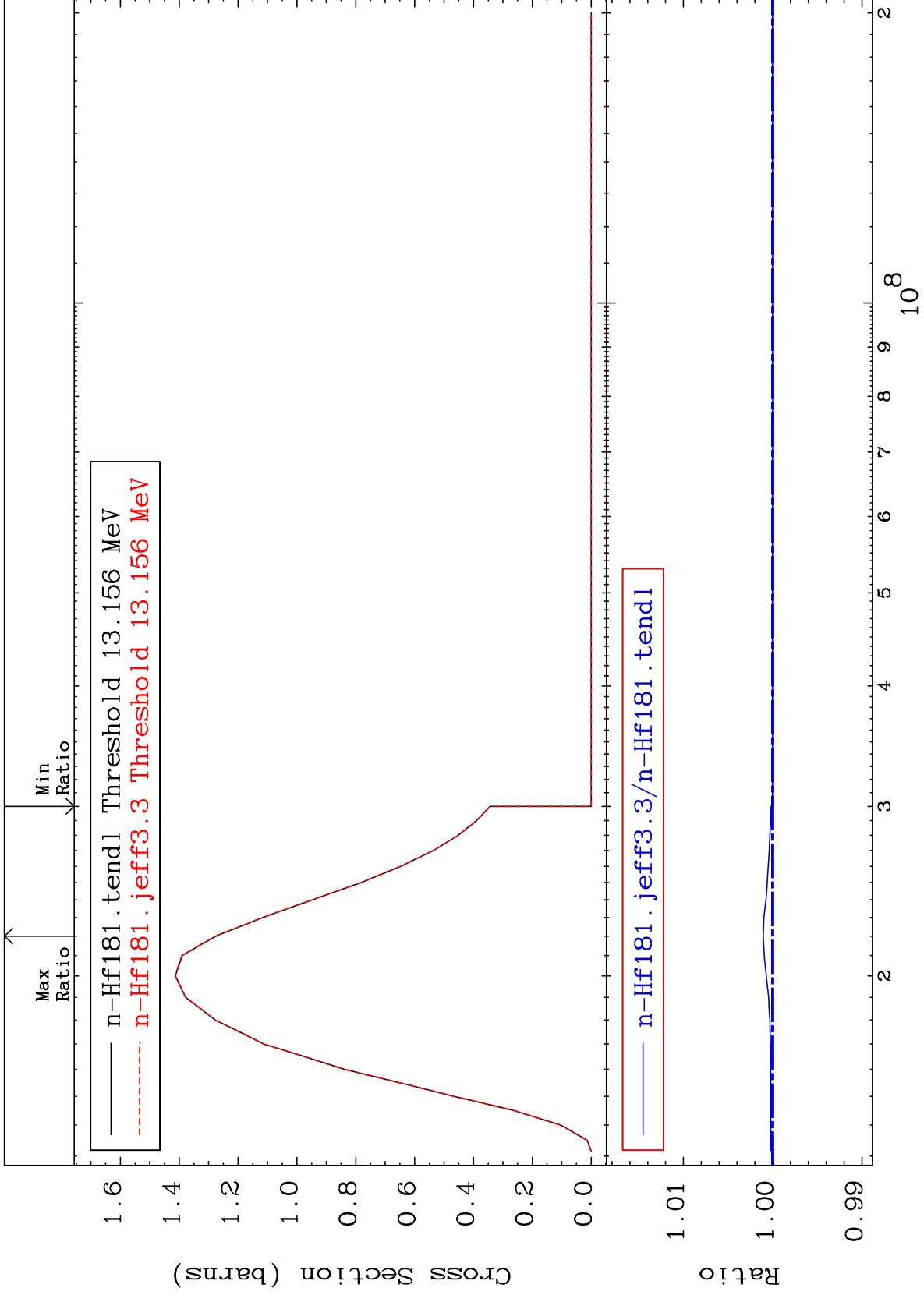


70

Incident Energy (eV)

72-Hf-181

Radionuclide Production Cross Section 0.000 To 0.106 %

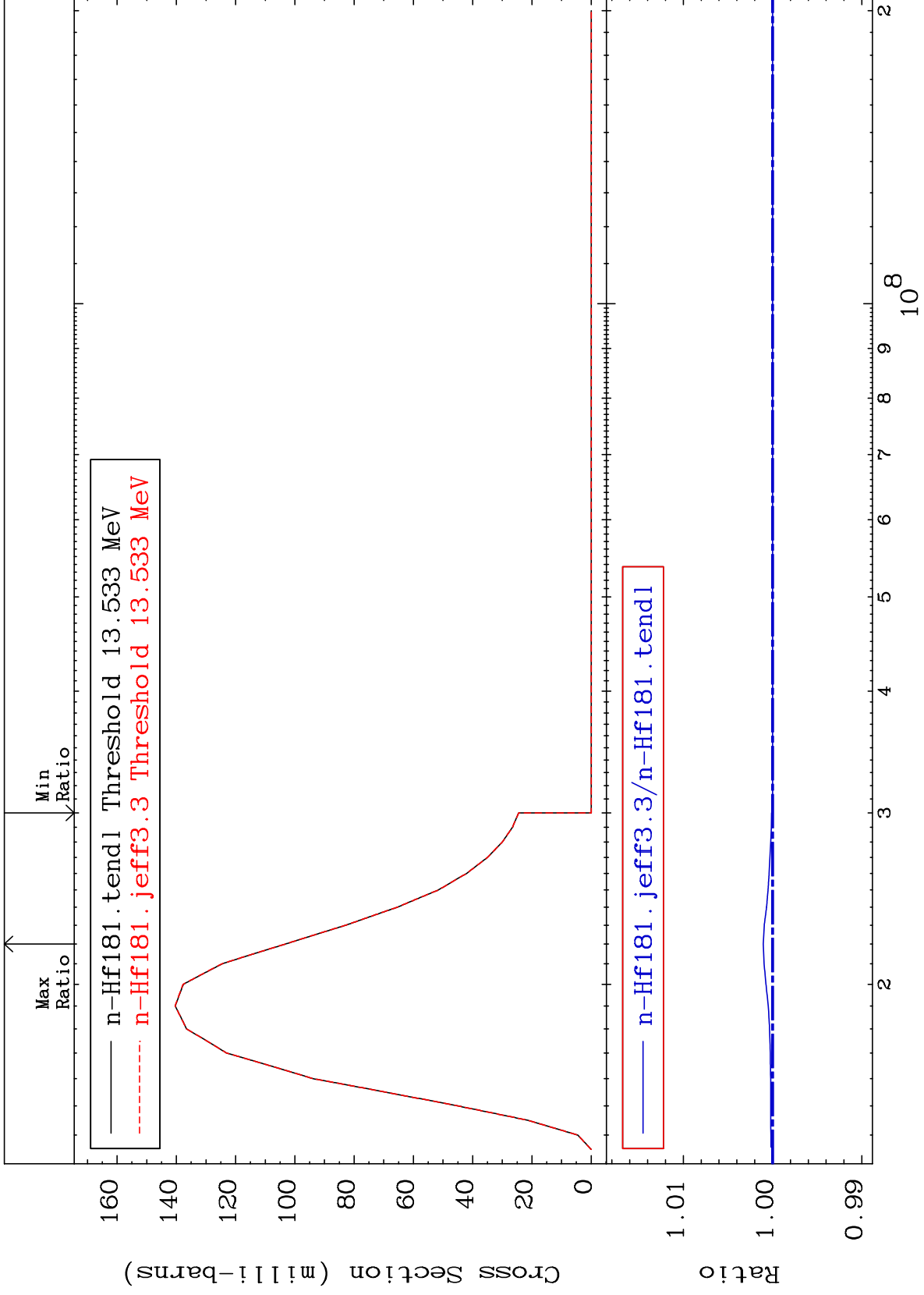


MAT 7246

(n, 3n) : 72-Hf-179m5

72-Hf-181

Radionuclide Production Cross Section 0.000 To 0.104 %



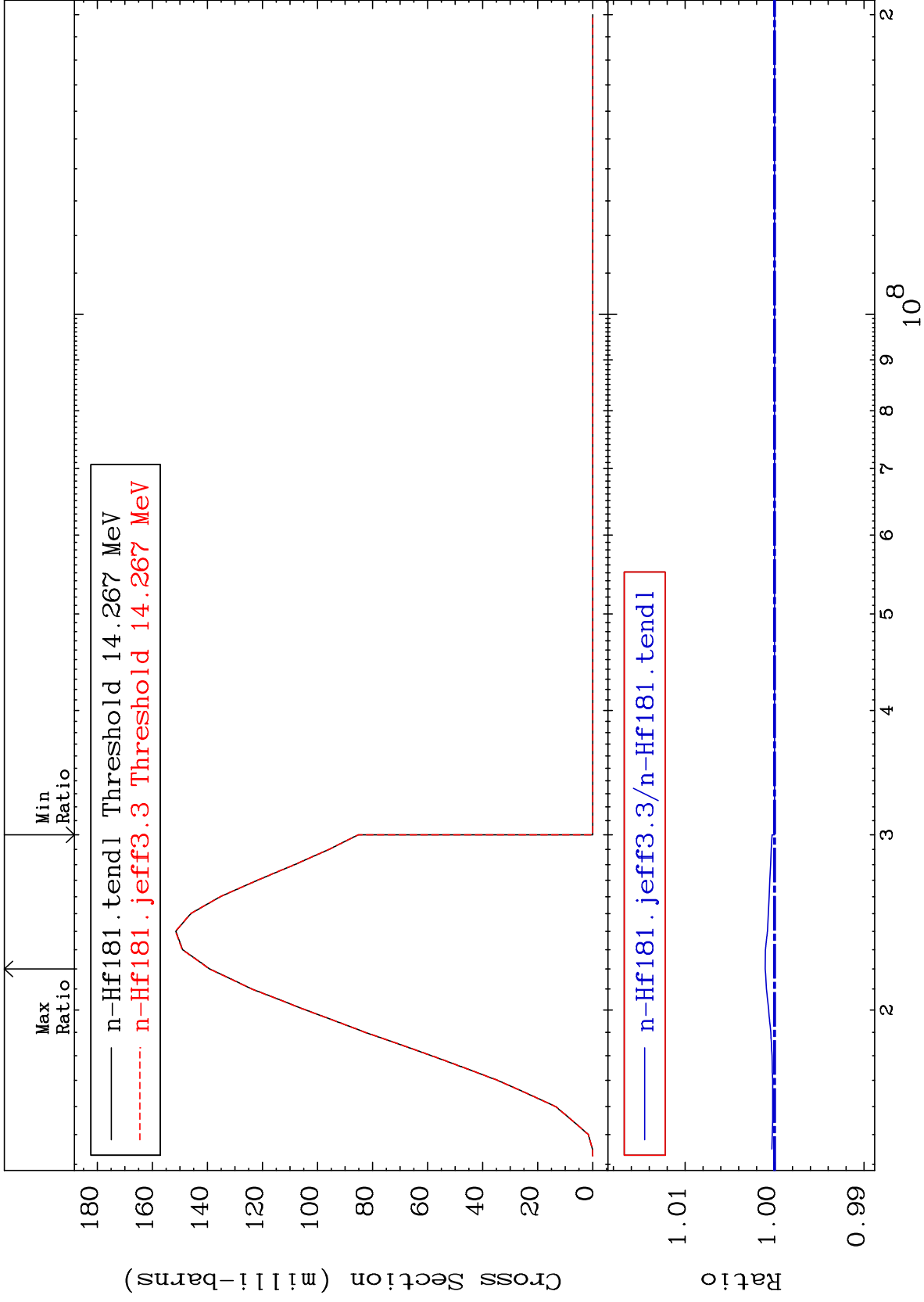
72

Incident Energy (eV)

72-Hf-181



Radionuclide Production Cross Section 0.000 To 0.104 %



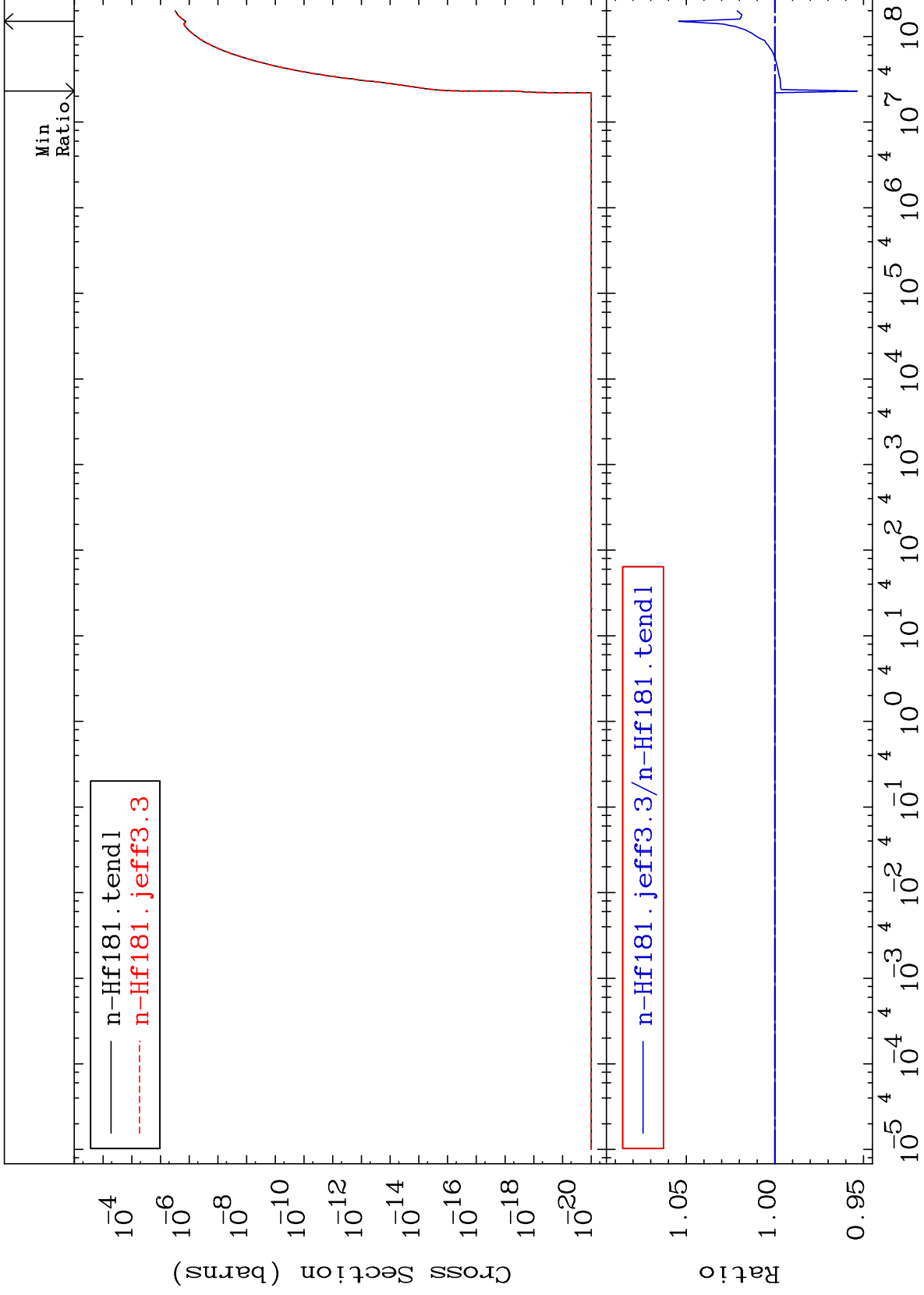
MAT 7246

Fission: Photon

72-Hf-181

Radionuclide Production Cross Section

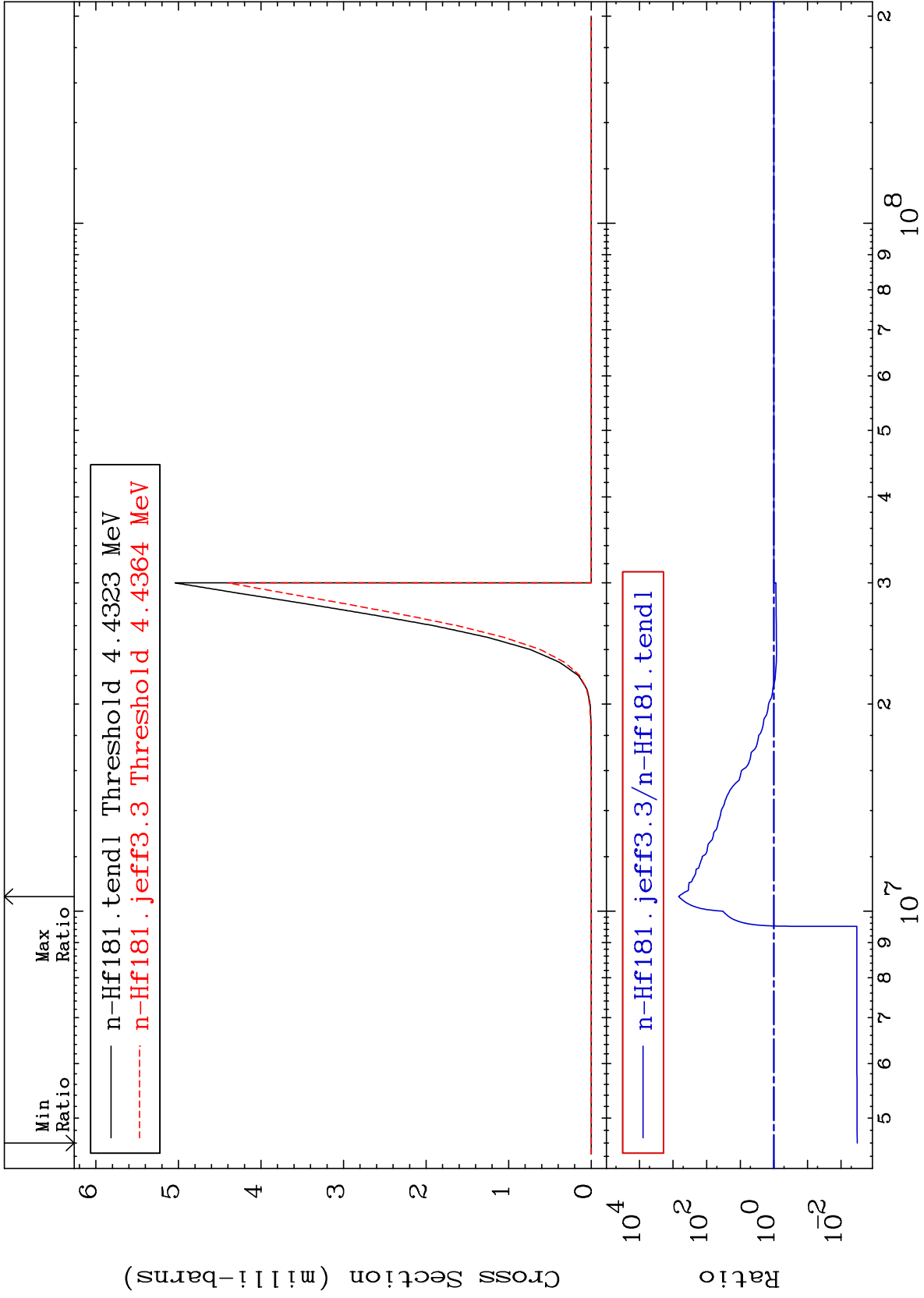
-4.646 To 5.427 %



74

Incident Energy (eV)

72-Hf-181

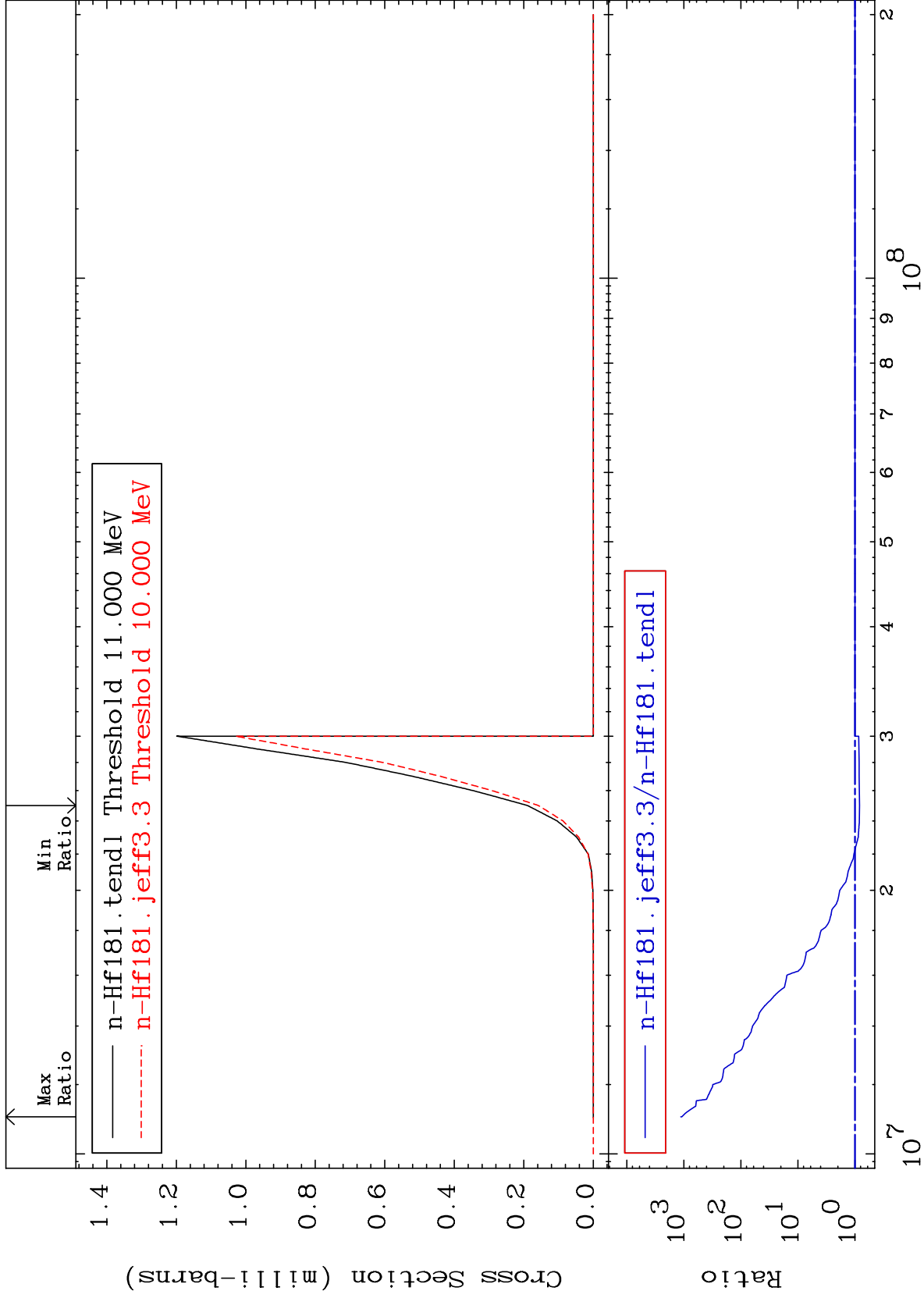


MAT 7246

(n,2n)  $\alpha$ : 70-Yb-176m5

72-Hf-181

Radionuclide Production Cross Section -16.60 To 9999. %

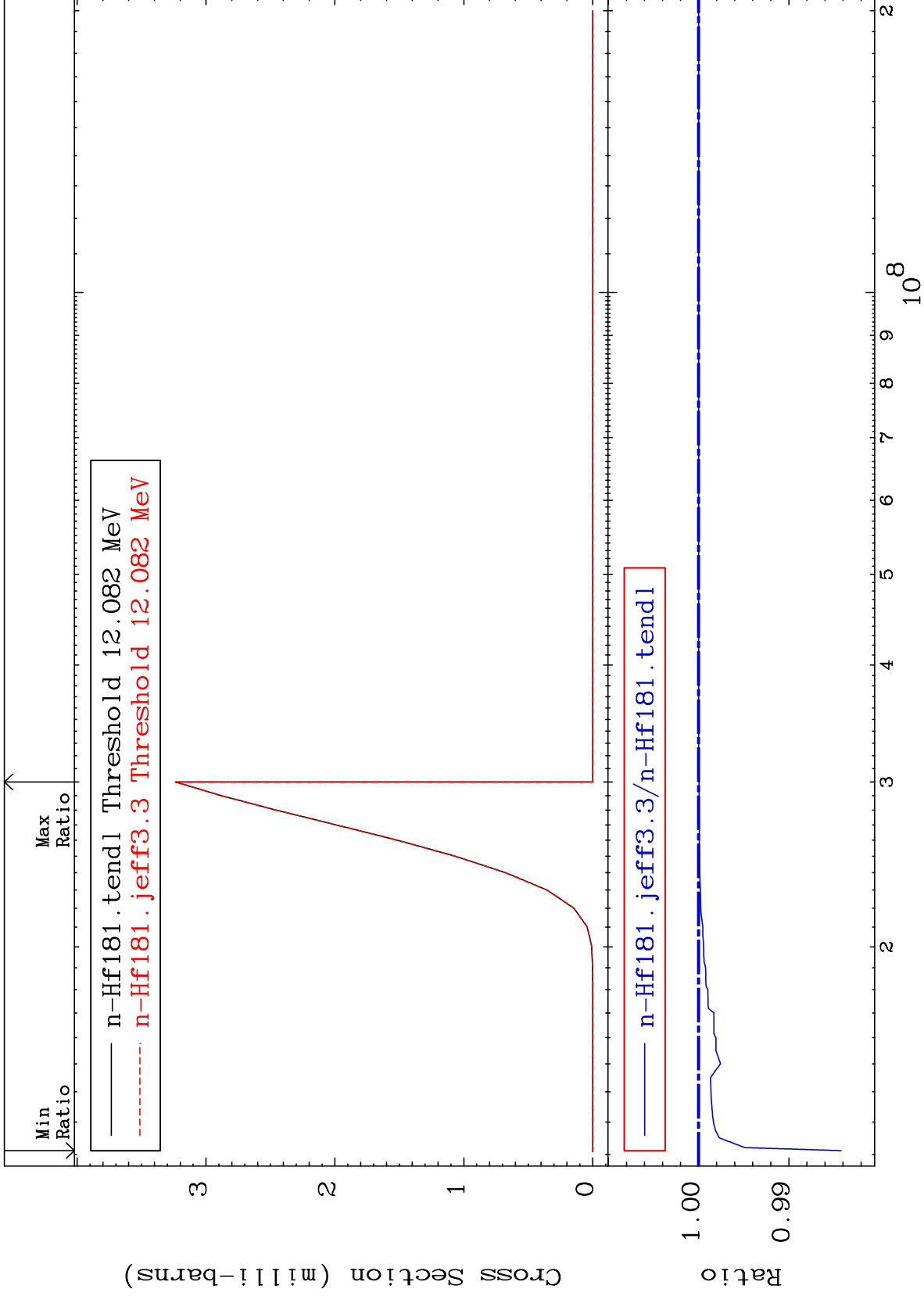


76

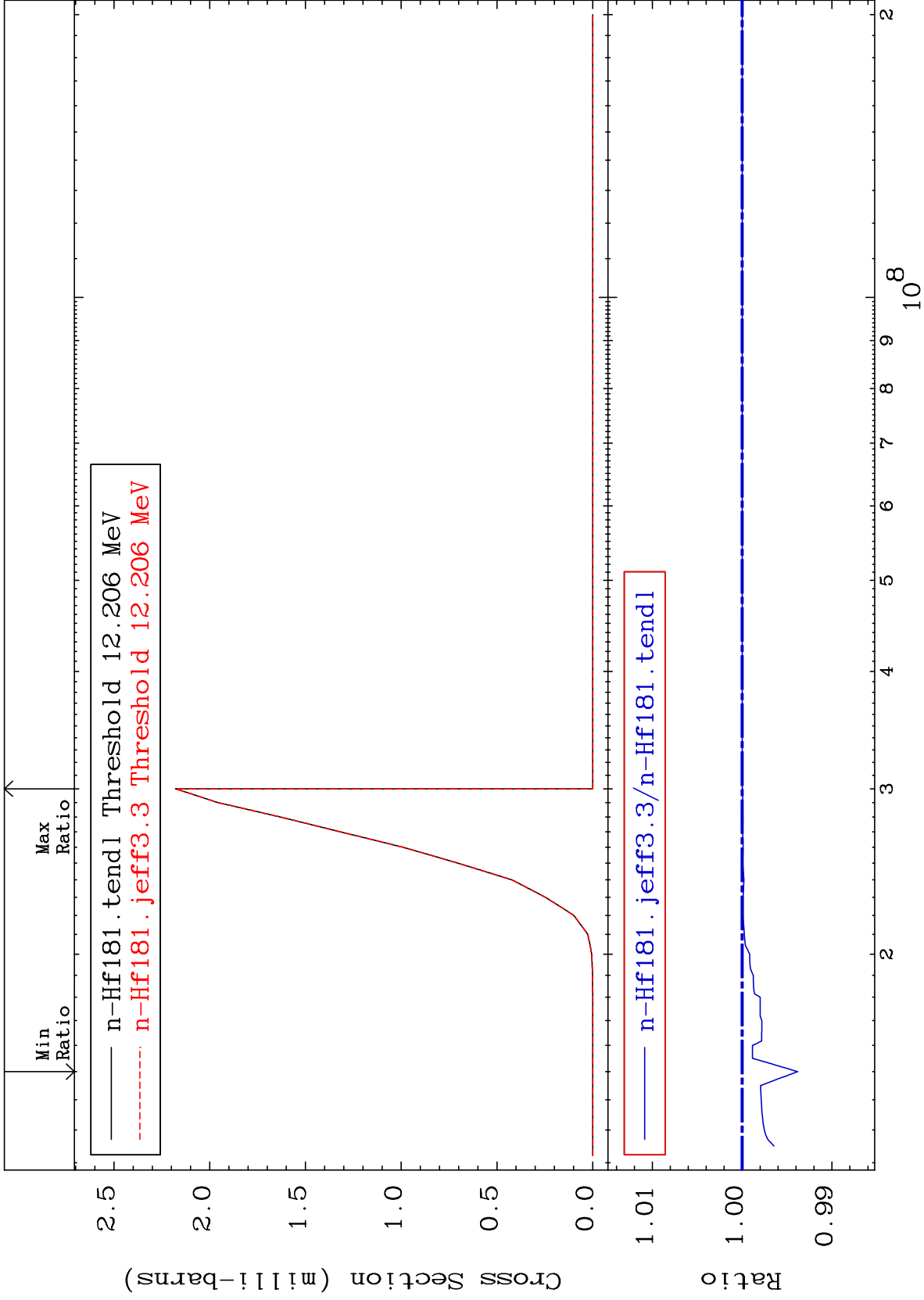
Incident Energy (eV)

72-Hf-181

Radionuclide Production Cross Section -1.580 To 0.000 %



Radionuclide Production Cross Section -0.618 To 0.000 %

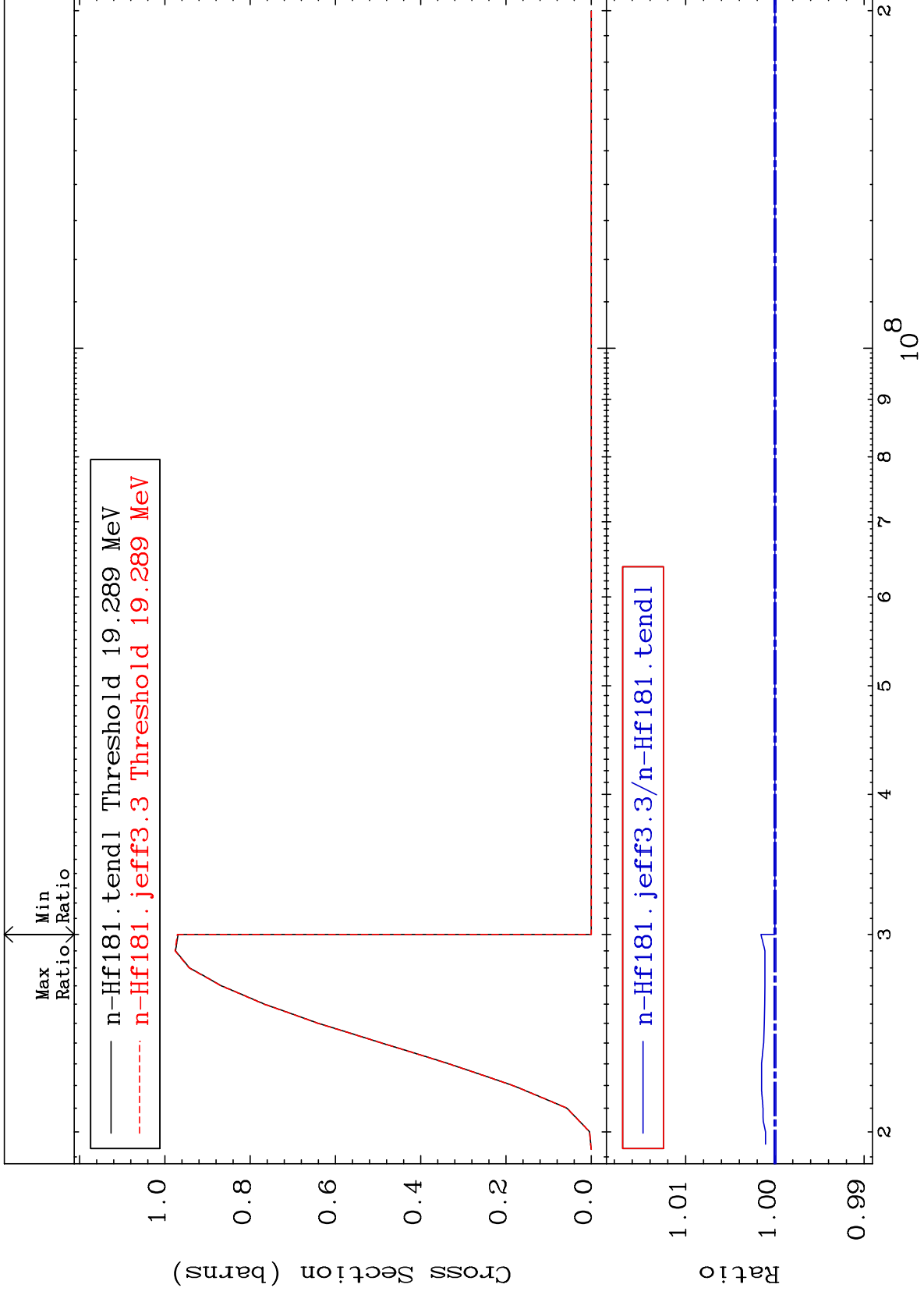


MAT 7246

(n, 4n) : 72-Hf-178g

72-Hf-181

Radionuclide Production Cross Section 0.000 To 0.157 %



79

Incident Energy (eV)

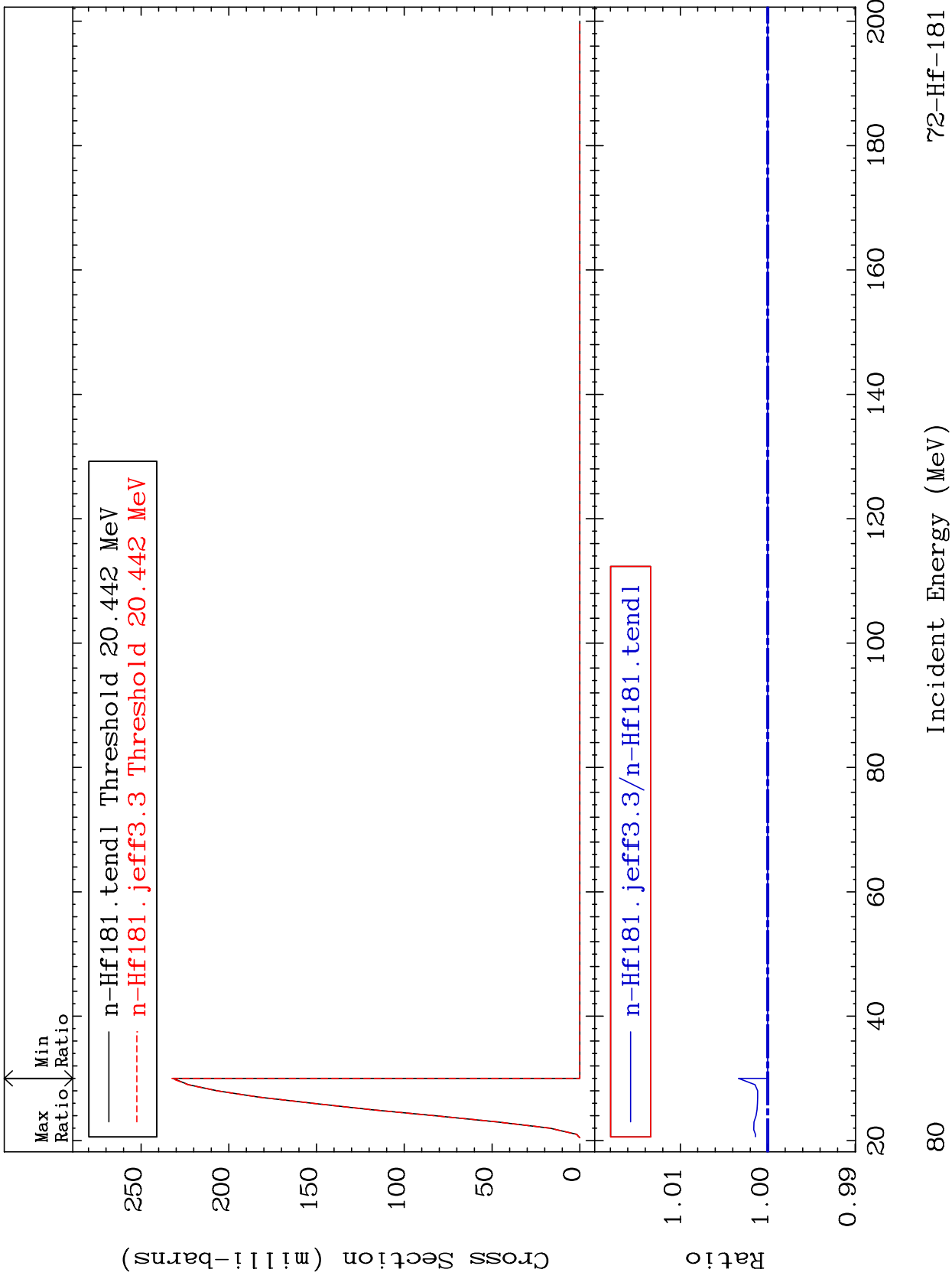
72-Hf-181

MAT 7246

(n, 4n) : 72-Hf-178m5

72-Hf-181

Radionuclide Production Cross Section 0.000 To 0.334 %



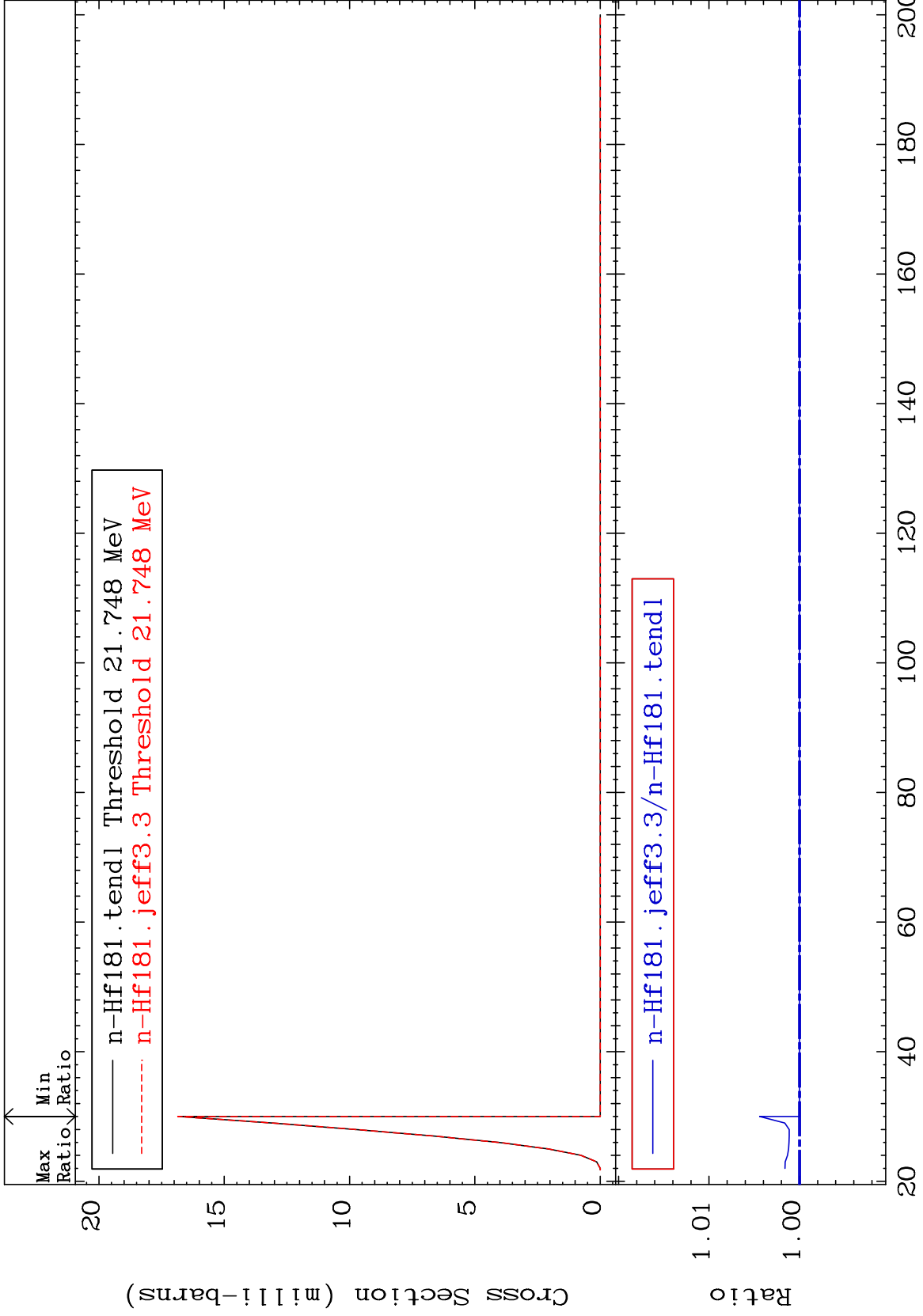


MAT 7246

(n, 4n) : 72-Hf-178m10

72-Hf-181

Radionuclide Production Cross Section 0.000 To 0.440 %

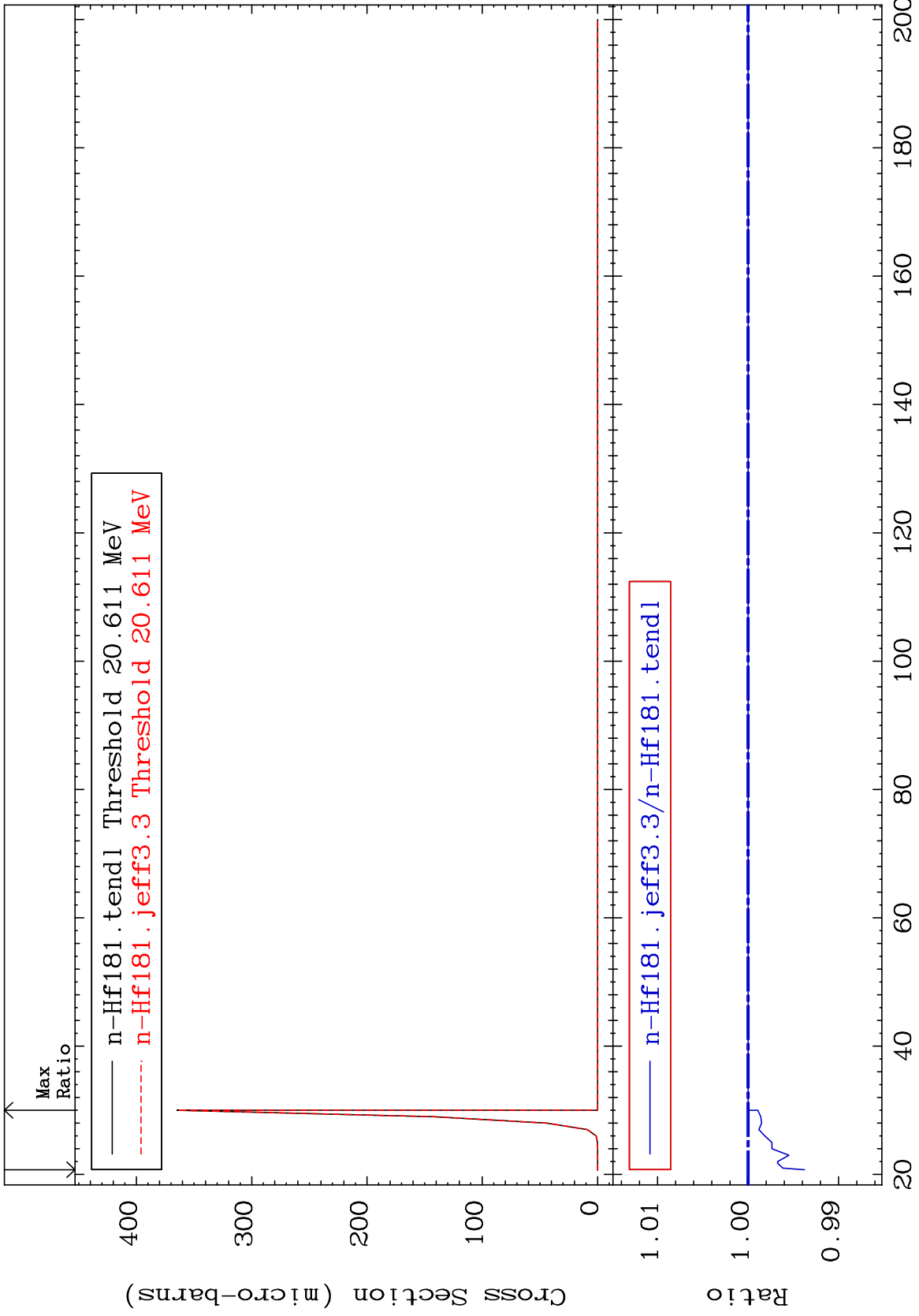


MAT 7246

(n,3n) p:71-Lu-178g

72-Hf-181

Radionuclide Production Cross Section -0.622 To 0.000 %



MAT 7246

(n,3n) p:71-Lu-178m3

72-Hf-181

Radionuclide Production Cross Section -0.444 To 0.000 %

