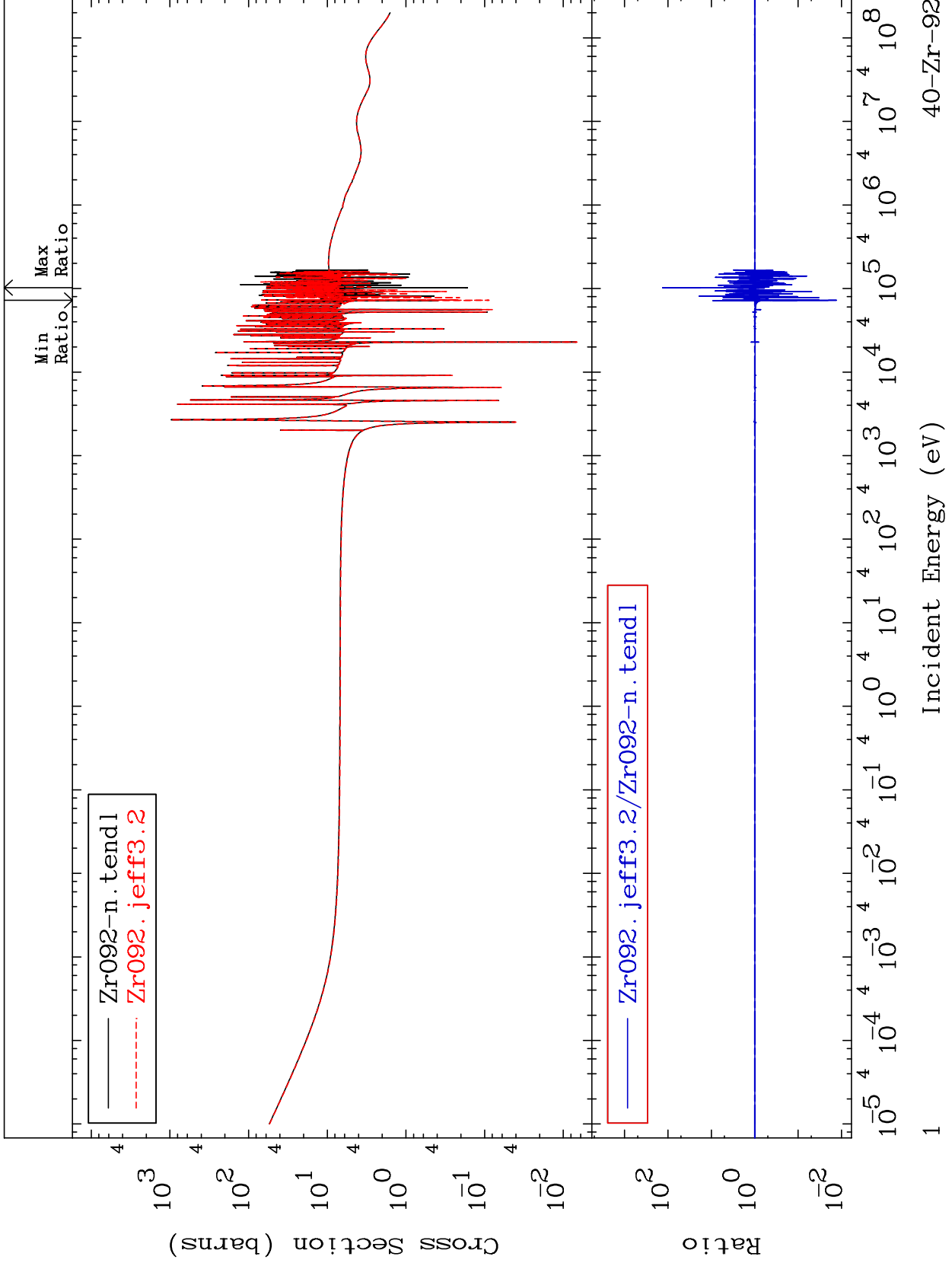


MAT 4031

Total  
Cross Section

40-Zr-92  
-98.70 To 9999. %



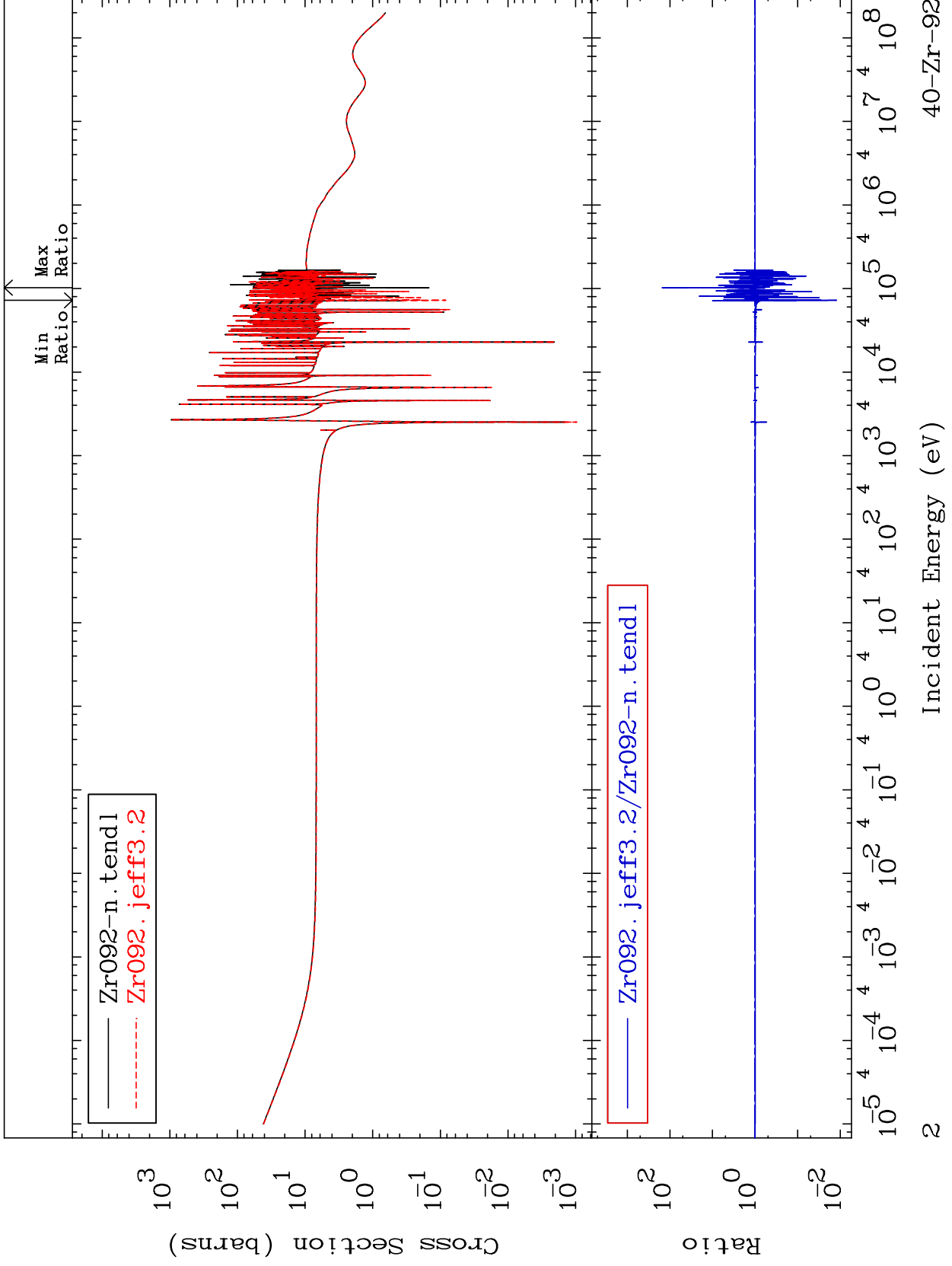
40-Zr-92

Incident Energy (eV)

MAT 4031

Elastic  
Cross Section

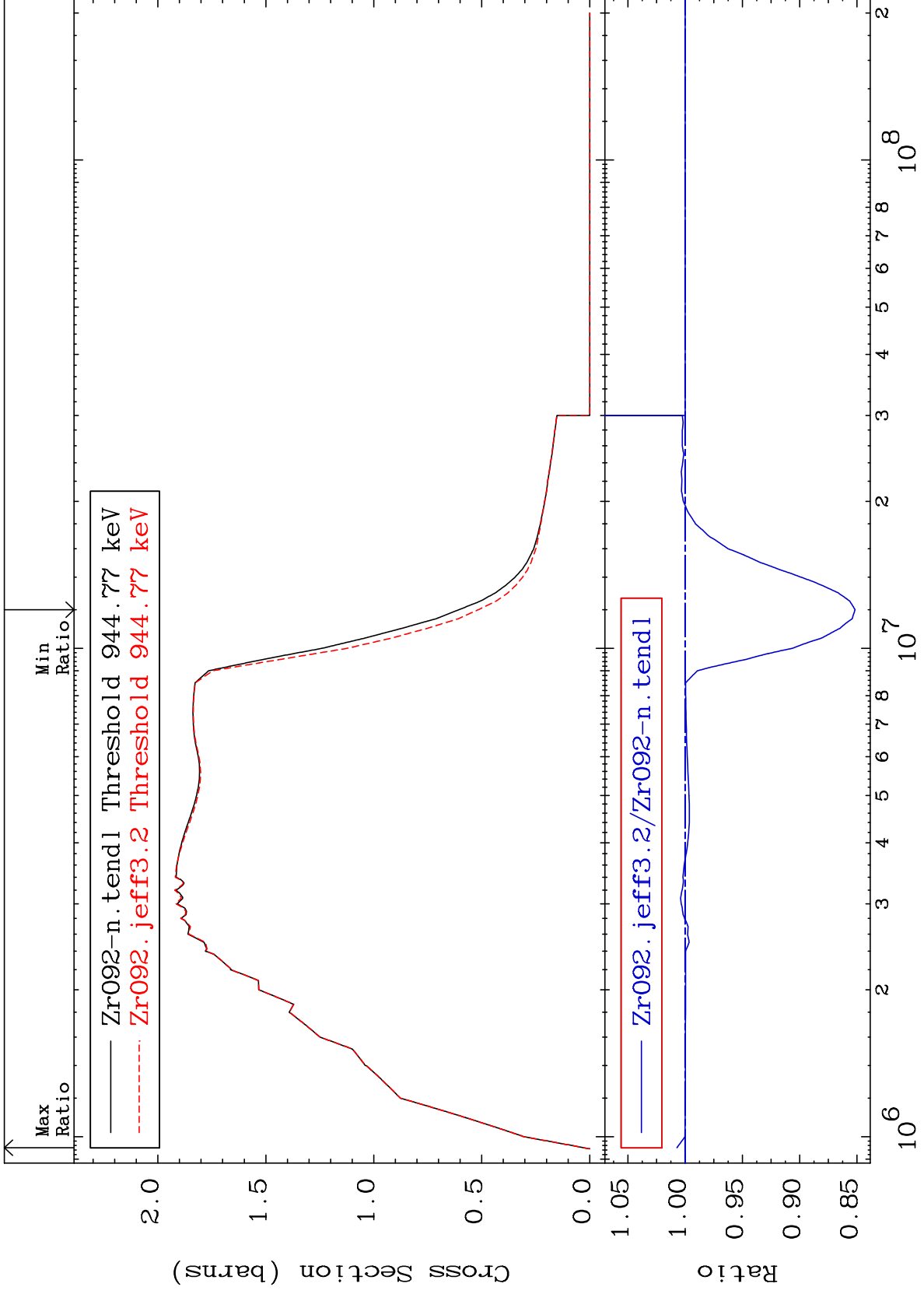
40-Zr-92  
-98.78 To 9999. %



MAT 4031

Inelastic  
Cross Section

40-Zr-92  
-14.84 To 0.719 %



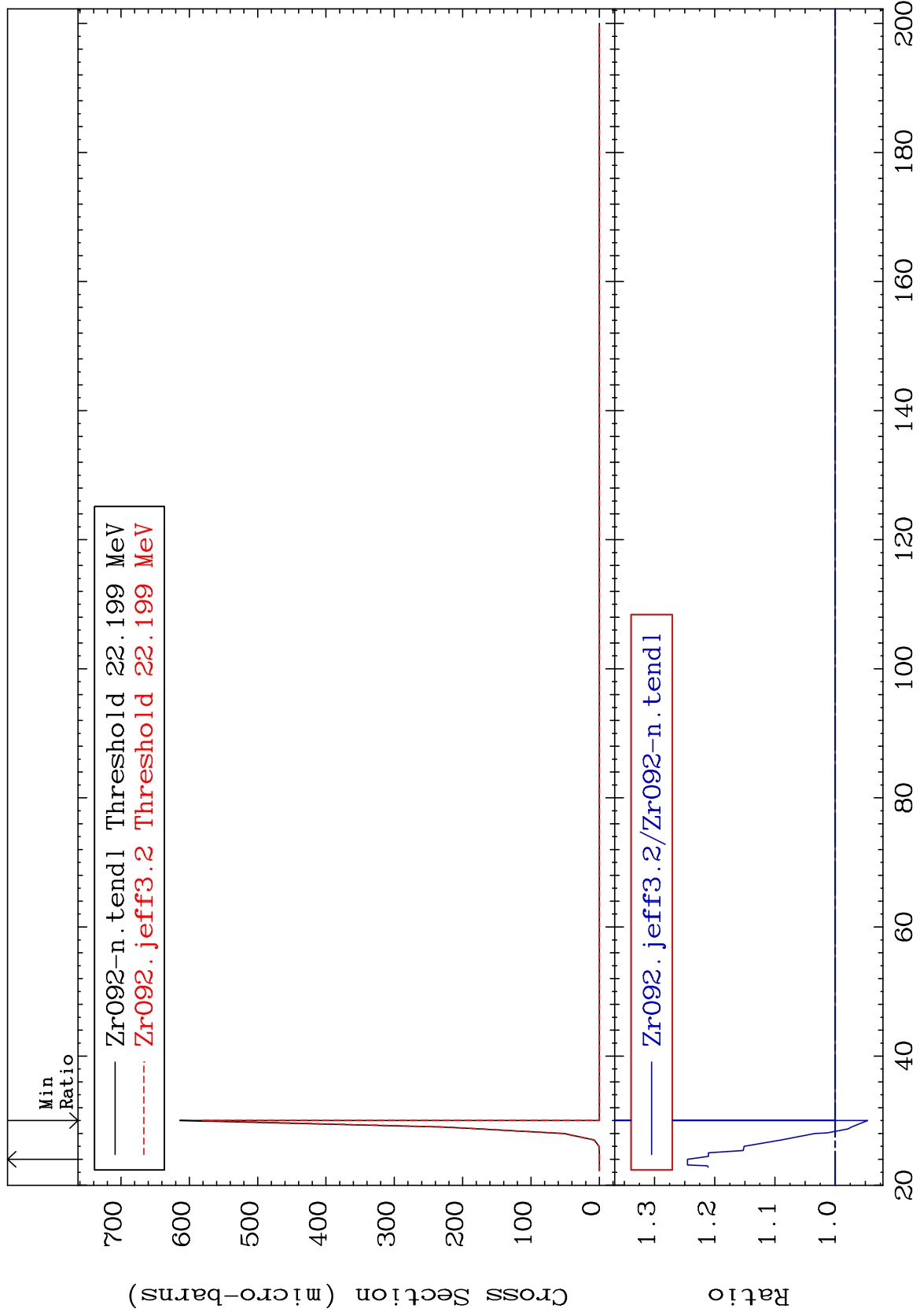
Incident Energy (eV)

40-Zr-92

MAT 4031

(n,2n) d  
Cross Section

40-Zr-92  
-5.390 To 24.52 %



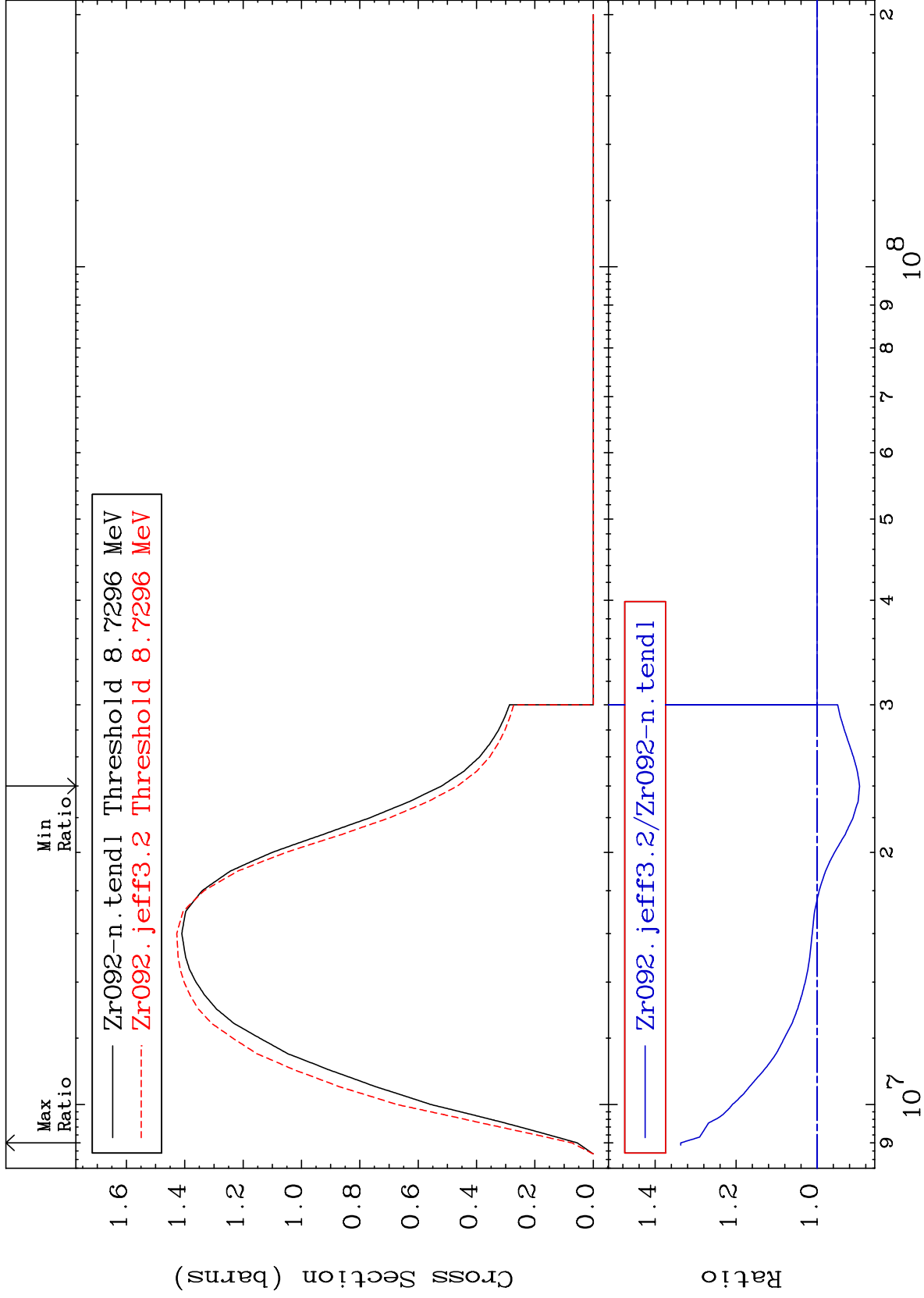
Incident Energy (MeV)

40-Zr-92

MAT 4031

(n,2n)  
Cross Section

40-Zr-92  
-10.47 To 33.69 %



40-Zr-92

40-Zr-92

MAT 4031

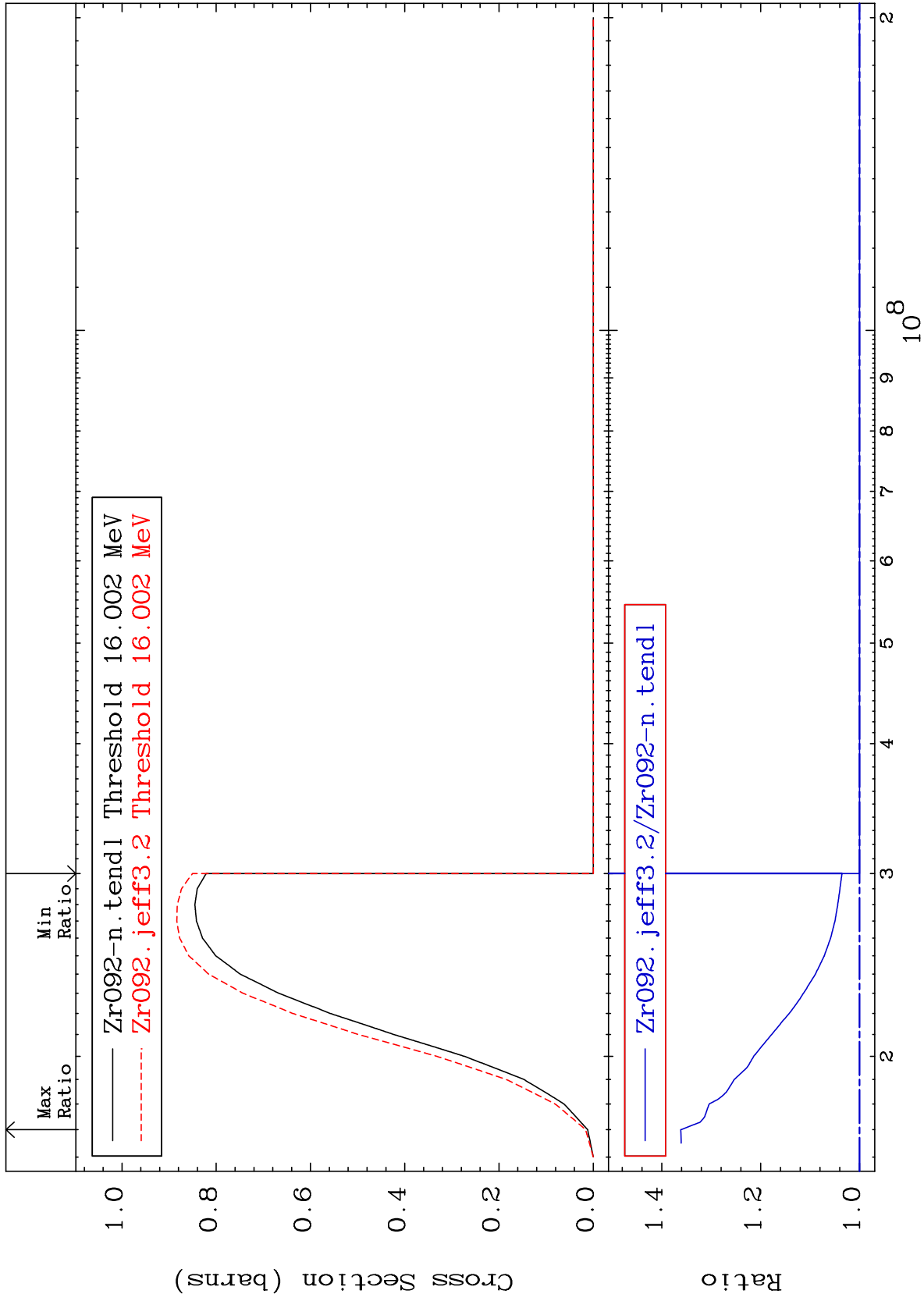
(n,3n)

40-Zr-92

Cross Section

0.000

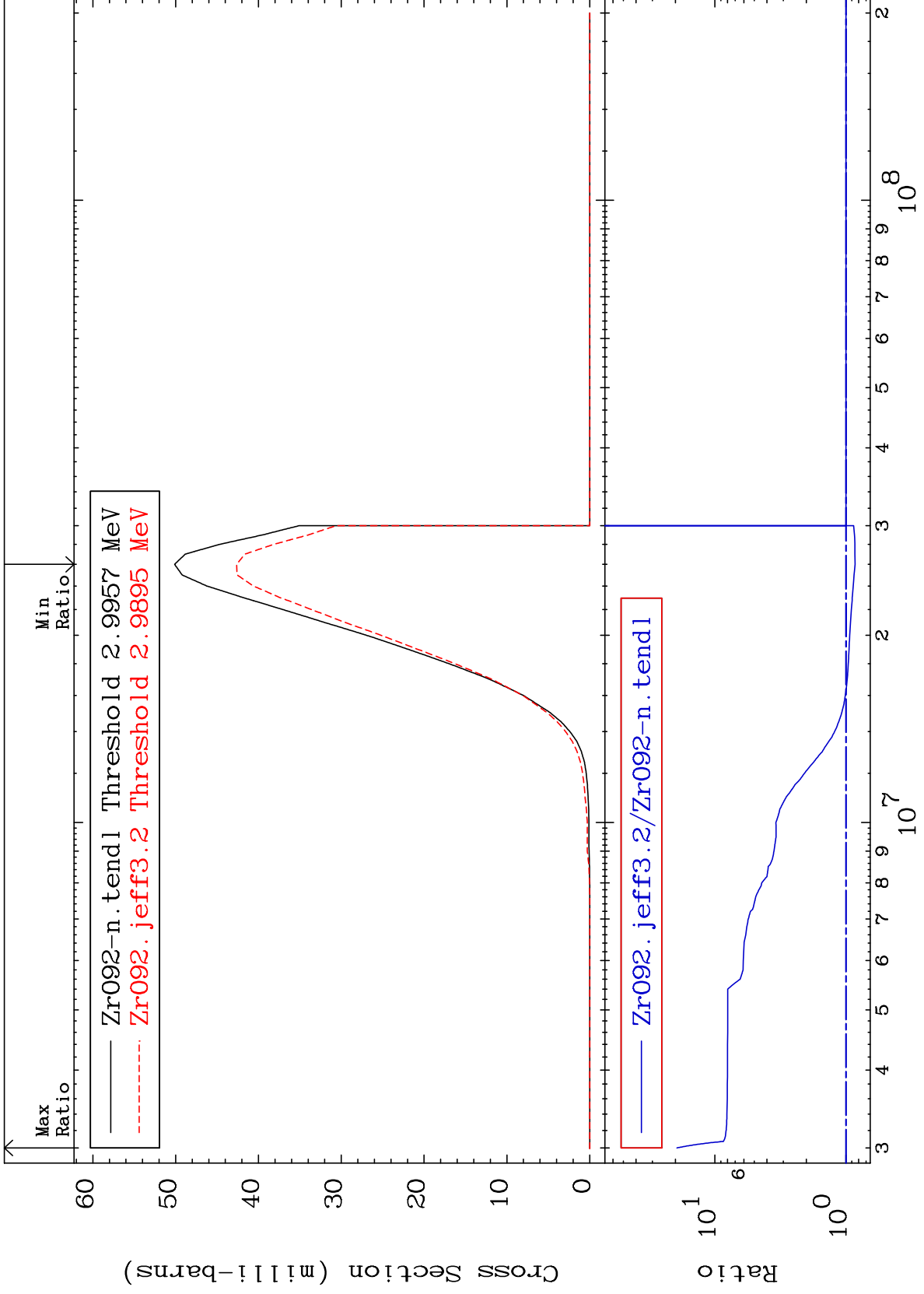
To 36.15 %



MAT 4031

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

40-Zr-92  
-14.95 To 1848. %



7

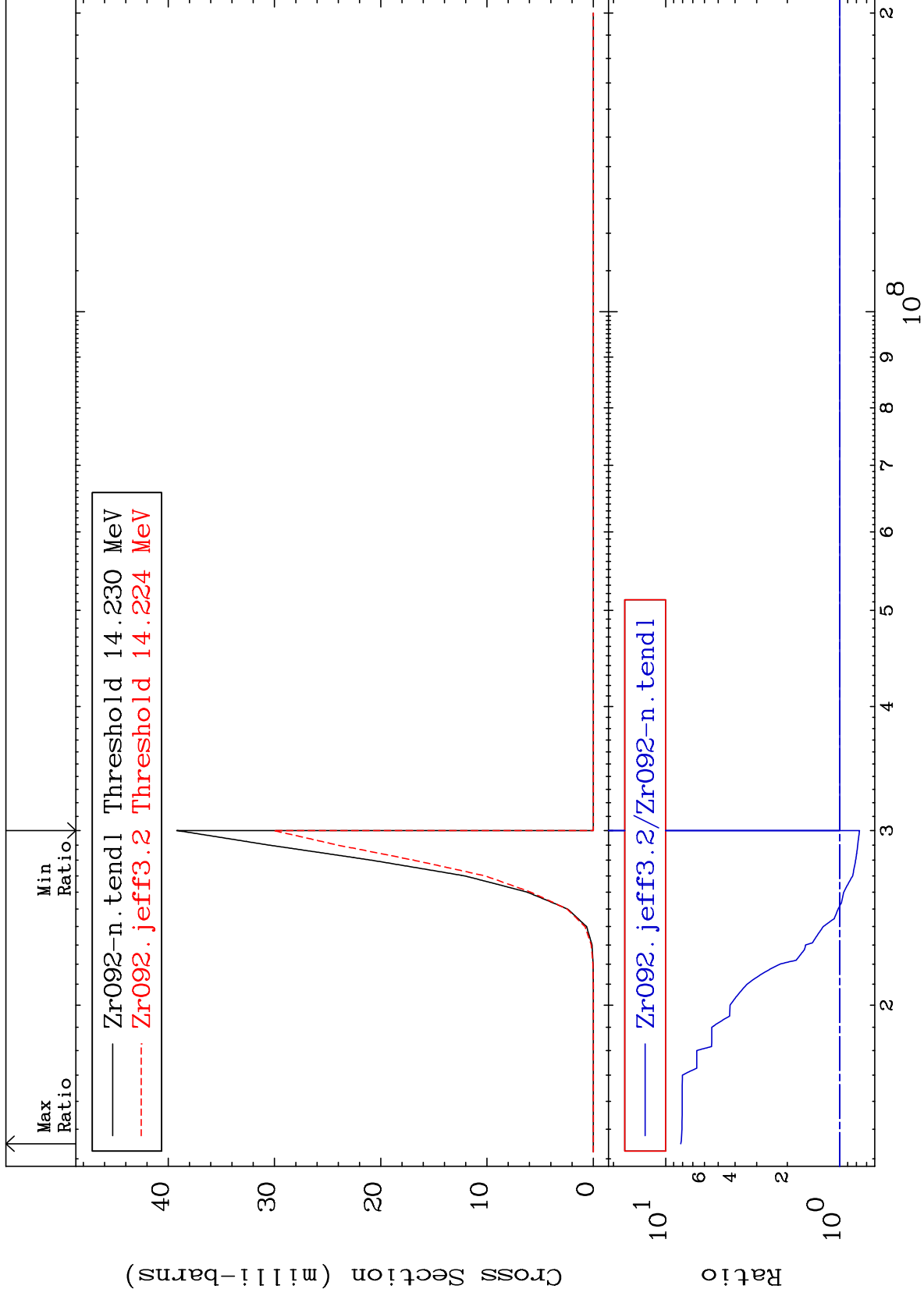
Incident Energy (eV)

40-Zr-92

MAT 4031

(n,2n)  $\alpha$   
Cross Section

40-Zr-92  
-23.14 To 720.1 %

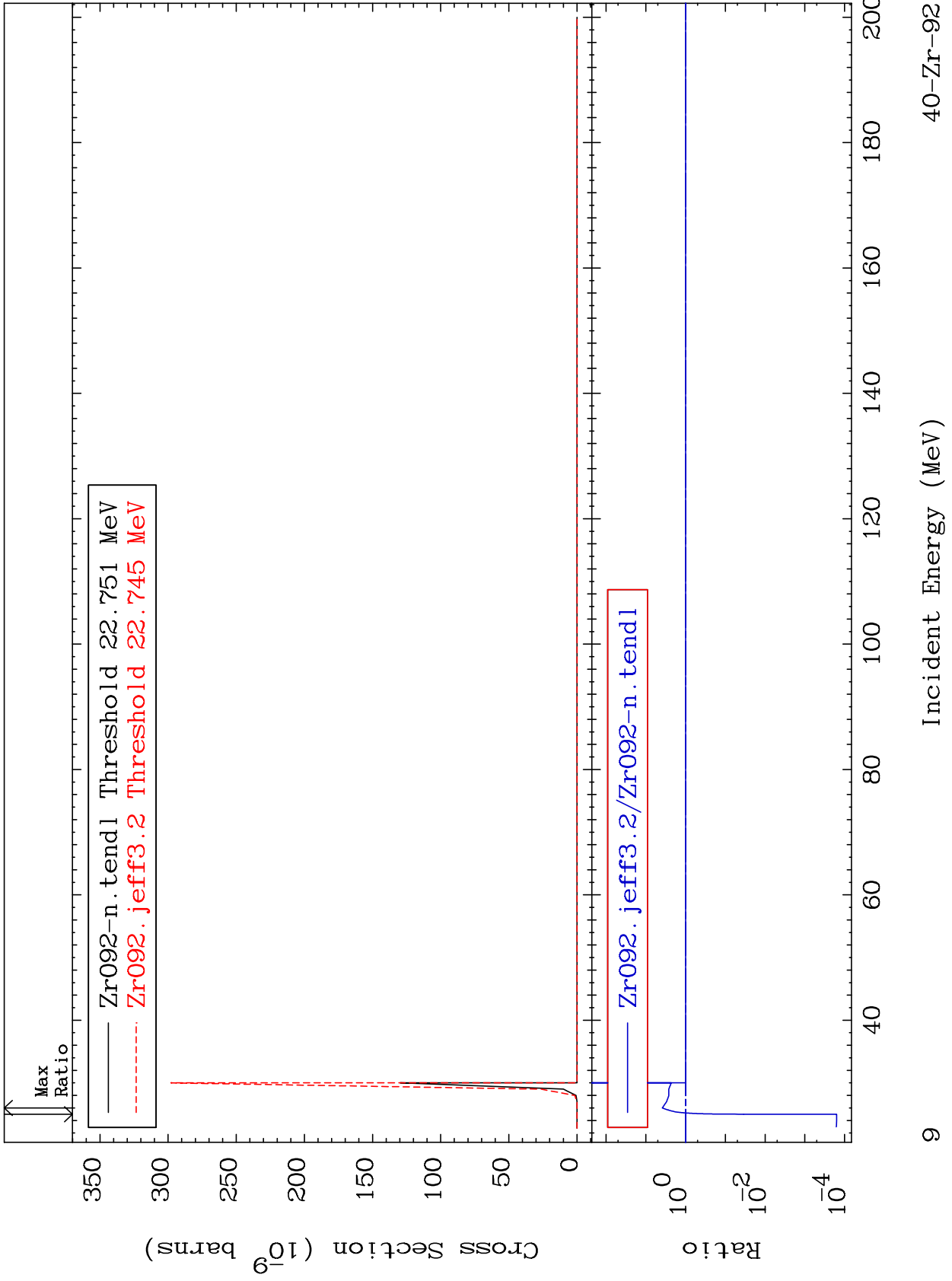




MAT 4031

(n,3n)  $\alpha$   
Cross Section

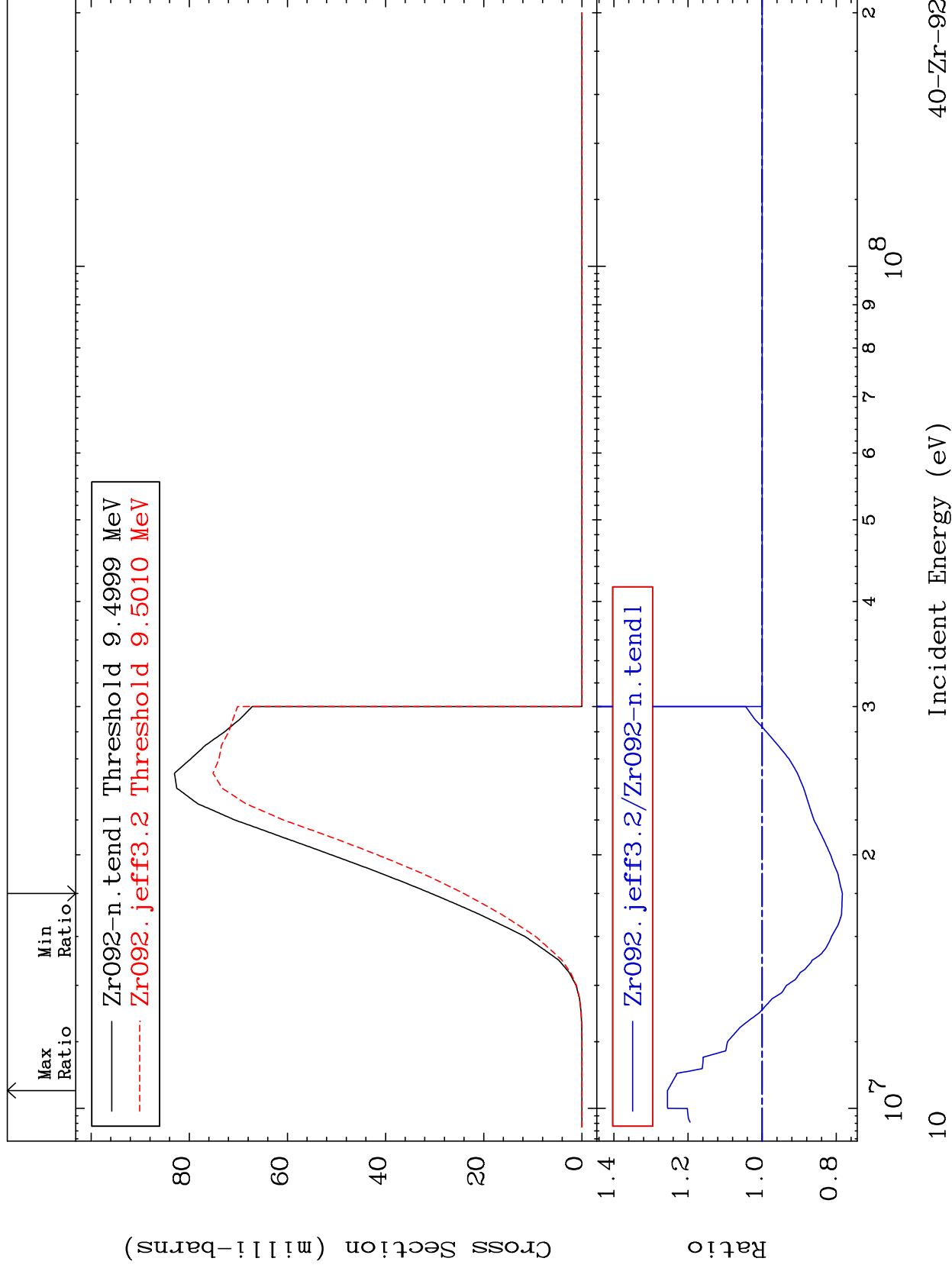
40-Zr-92  
-99.98 To 285.8 %



MAT 4031

(n, n') p  
Cross Section

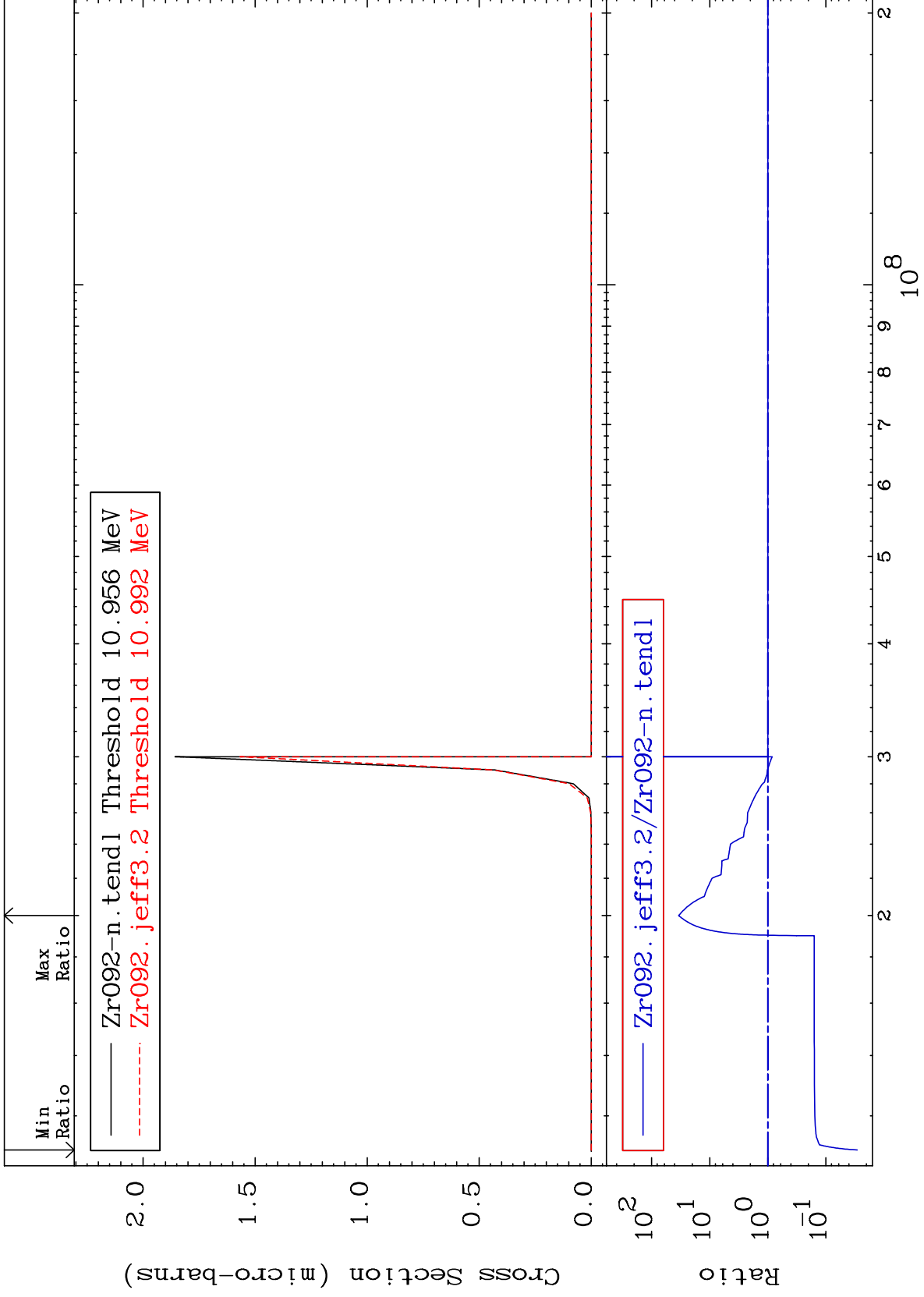
40-Zr-92  
-21.63 To 25.54 %



MAT 4031

(n, n')  $2\alpha$   
Cross Section

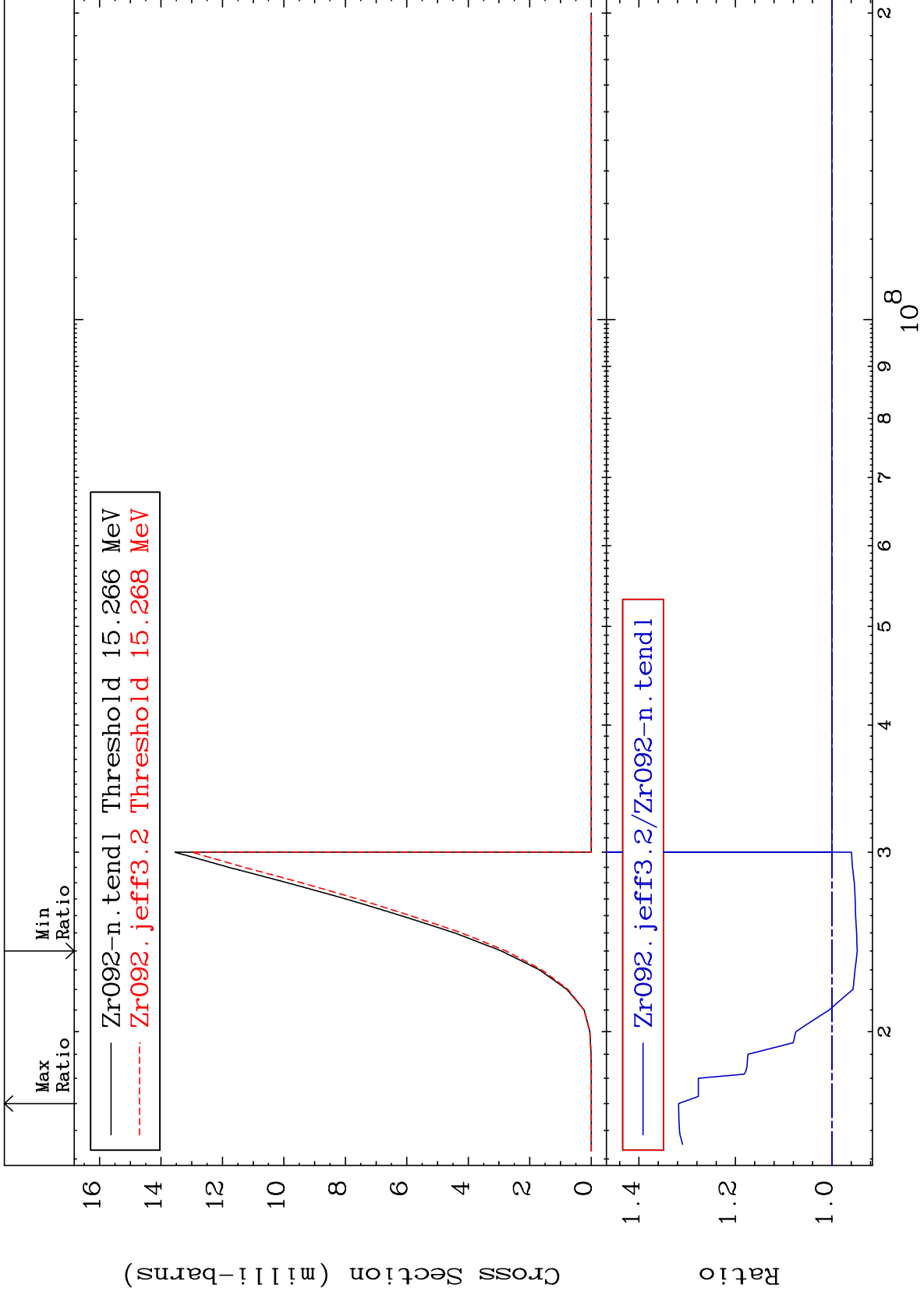
40-Zr-92  
-97.11 To 3327. %



MAT 4031

(n, n') d  
Cross Section

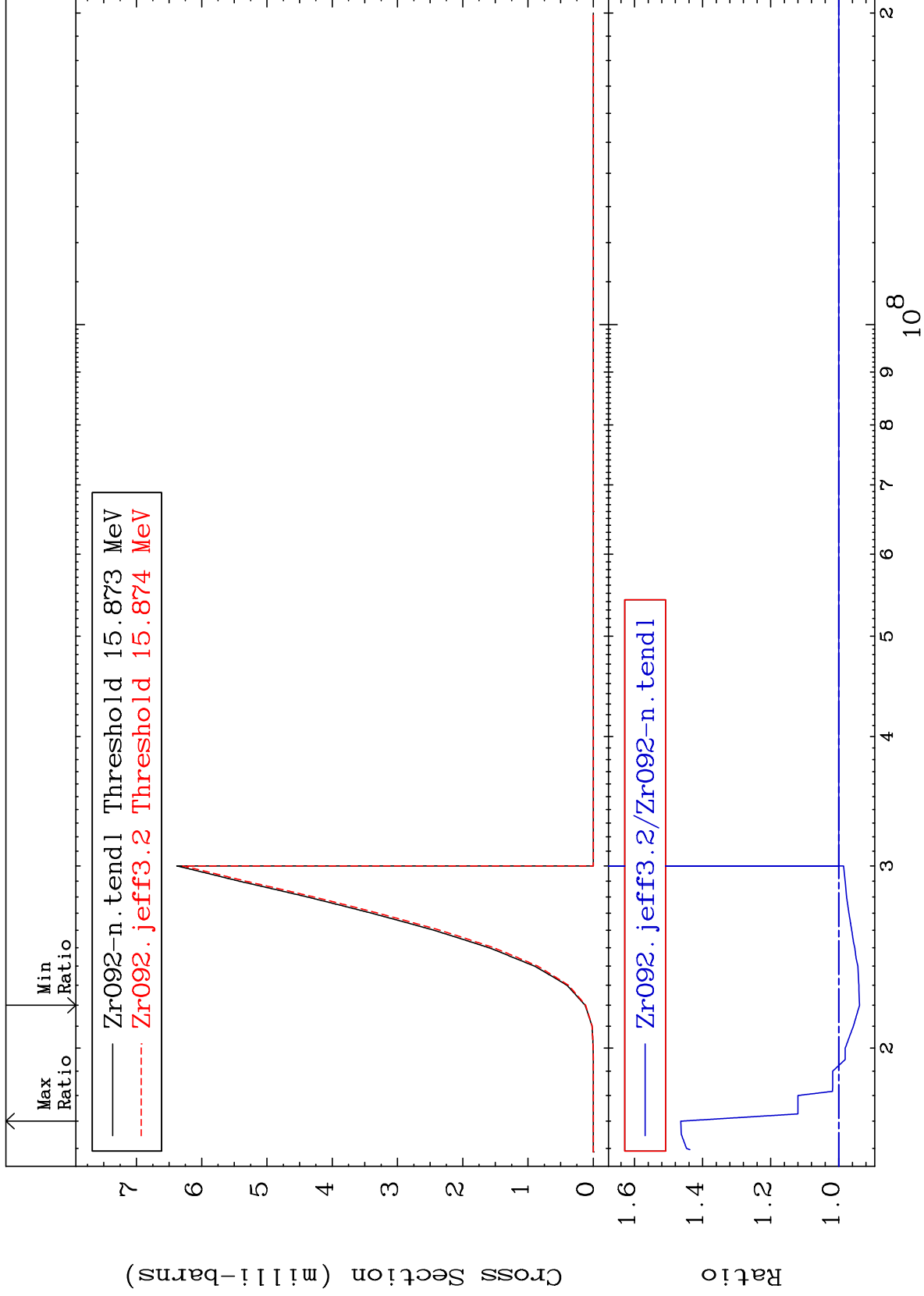
40-Zr-92  
-5.254 To 31.77 %



MAT 4031

(n,n') t  
Cross Section

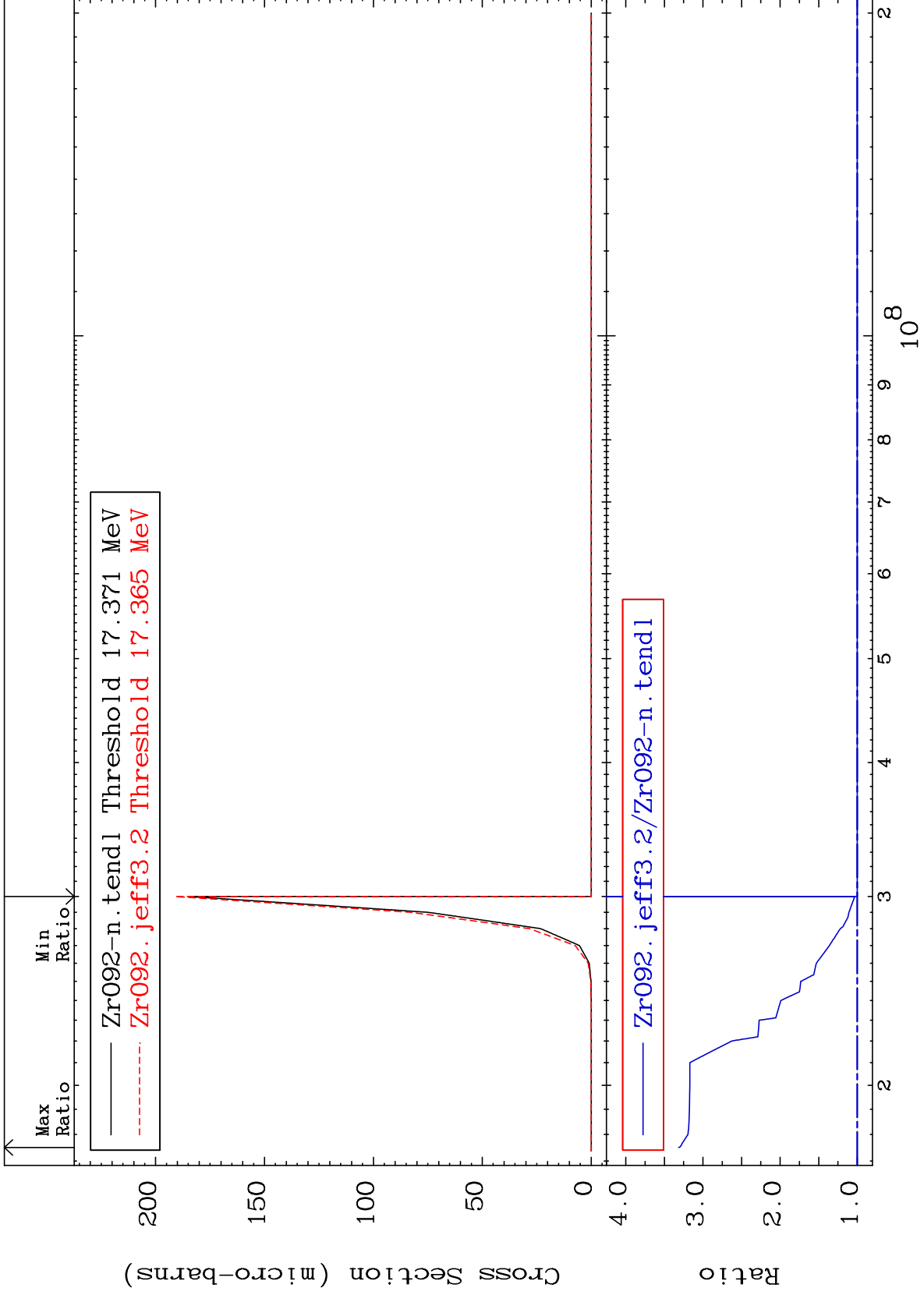
40-Zr-92  
-6.106 To 46.42 %



MAT 4031

(n, n') He-3  
Cross Section

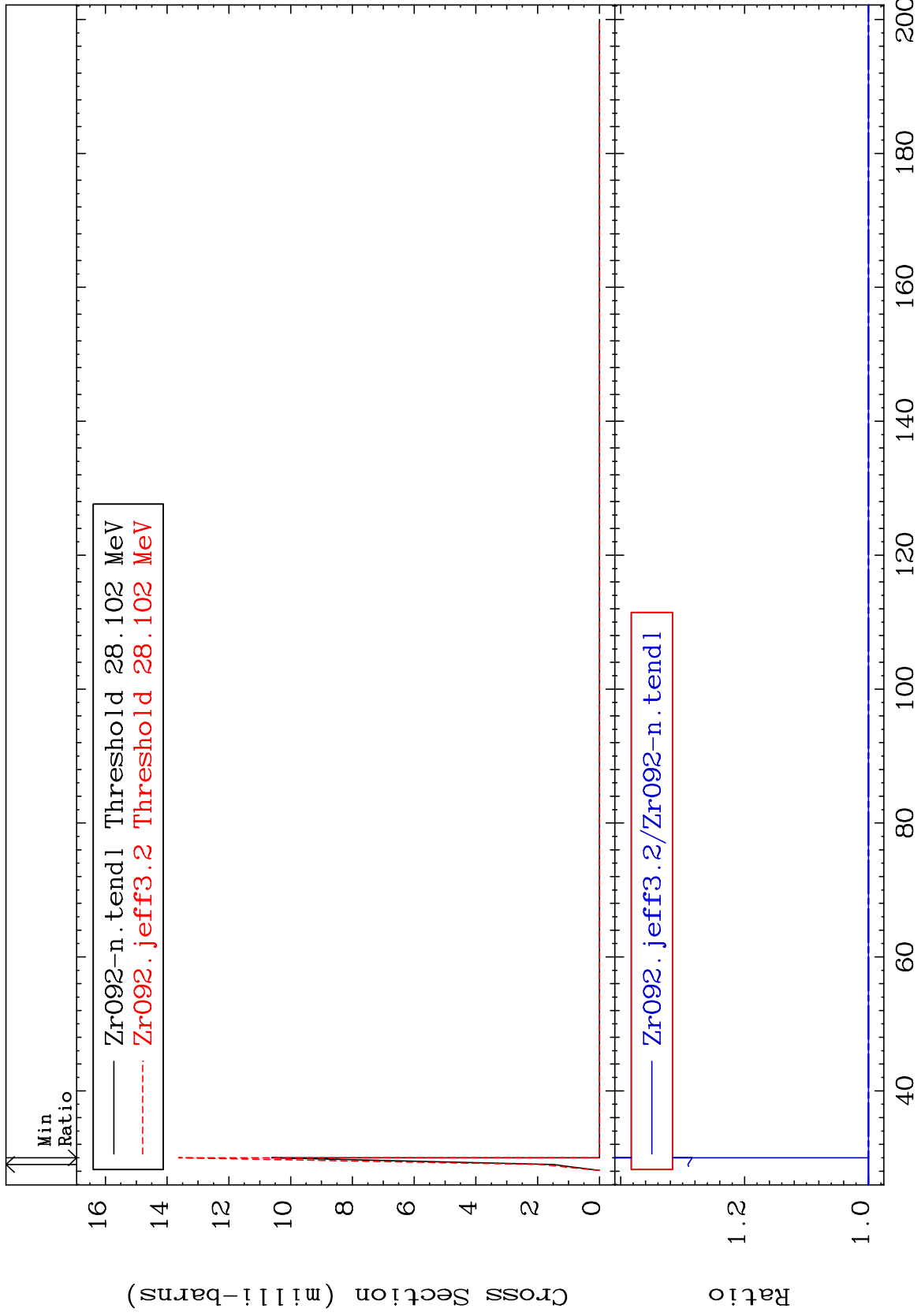
40-Zr-92  
To 231.5 %



MAT 4031

(n,4n)  
Cross Section

40-Zr-92  
To 29.16 %  
0.000



15

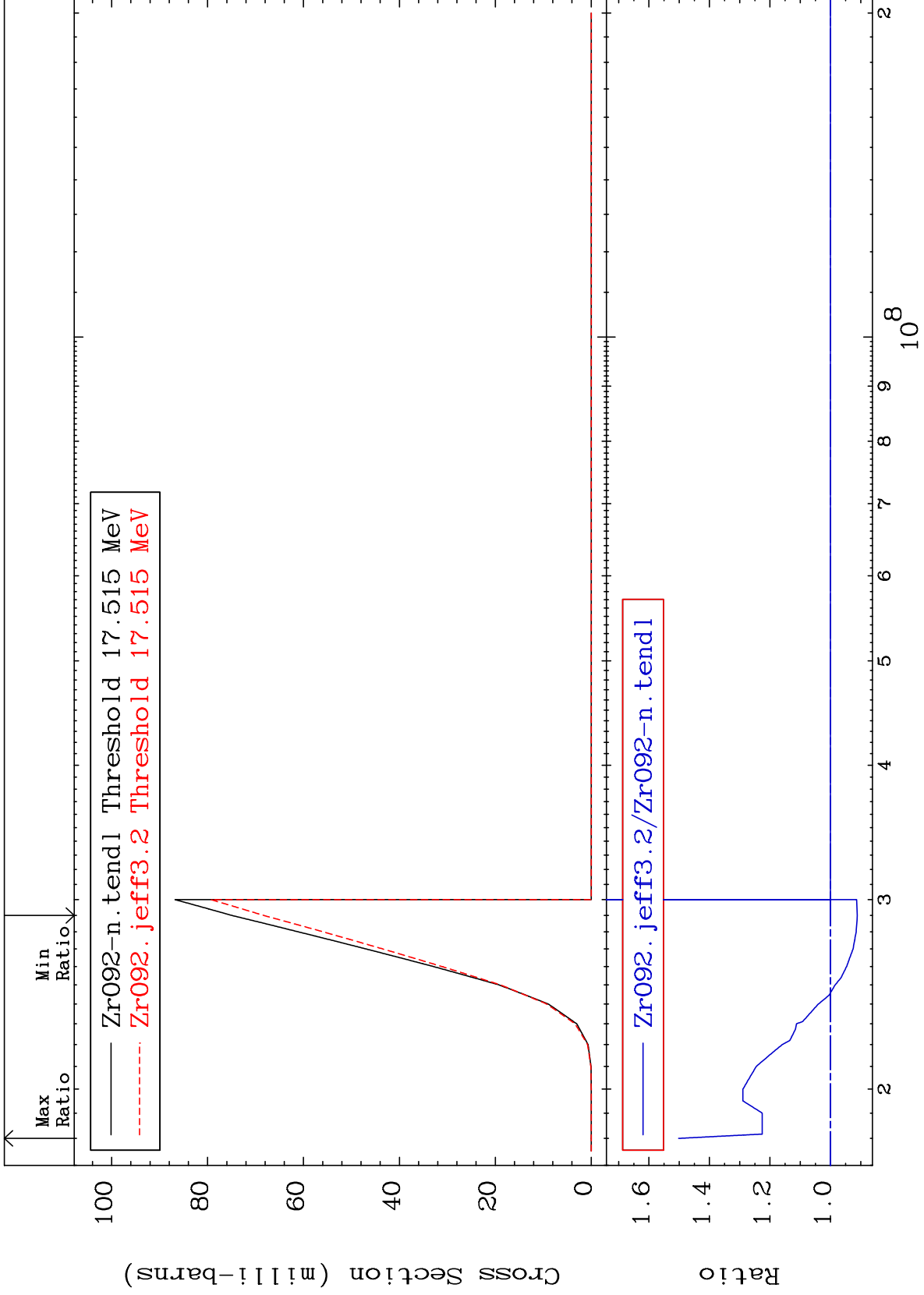
Incident Energy (MeV)

40-Zr-92

MAT 4031

(n,2n) p  
Cross Section

40-Zr-92  
-8.847 To 50.18 %

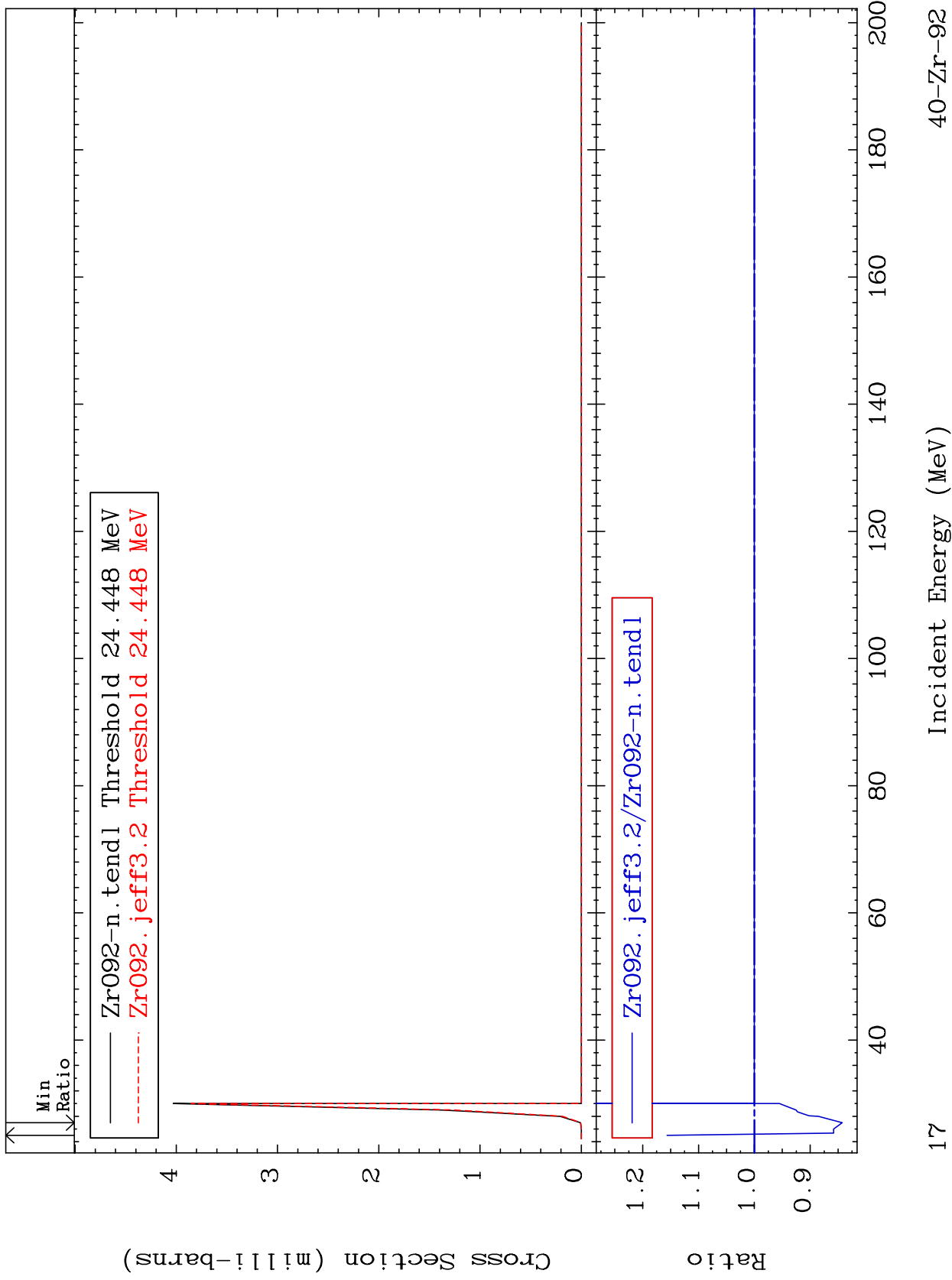




MAT 4031

(n,3n) p  
Cross Section

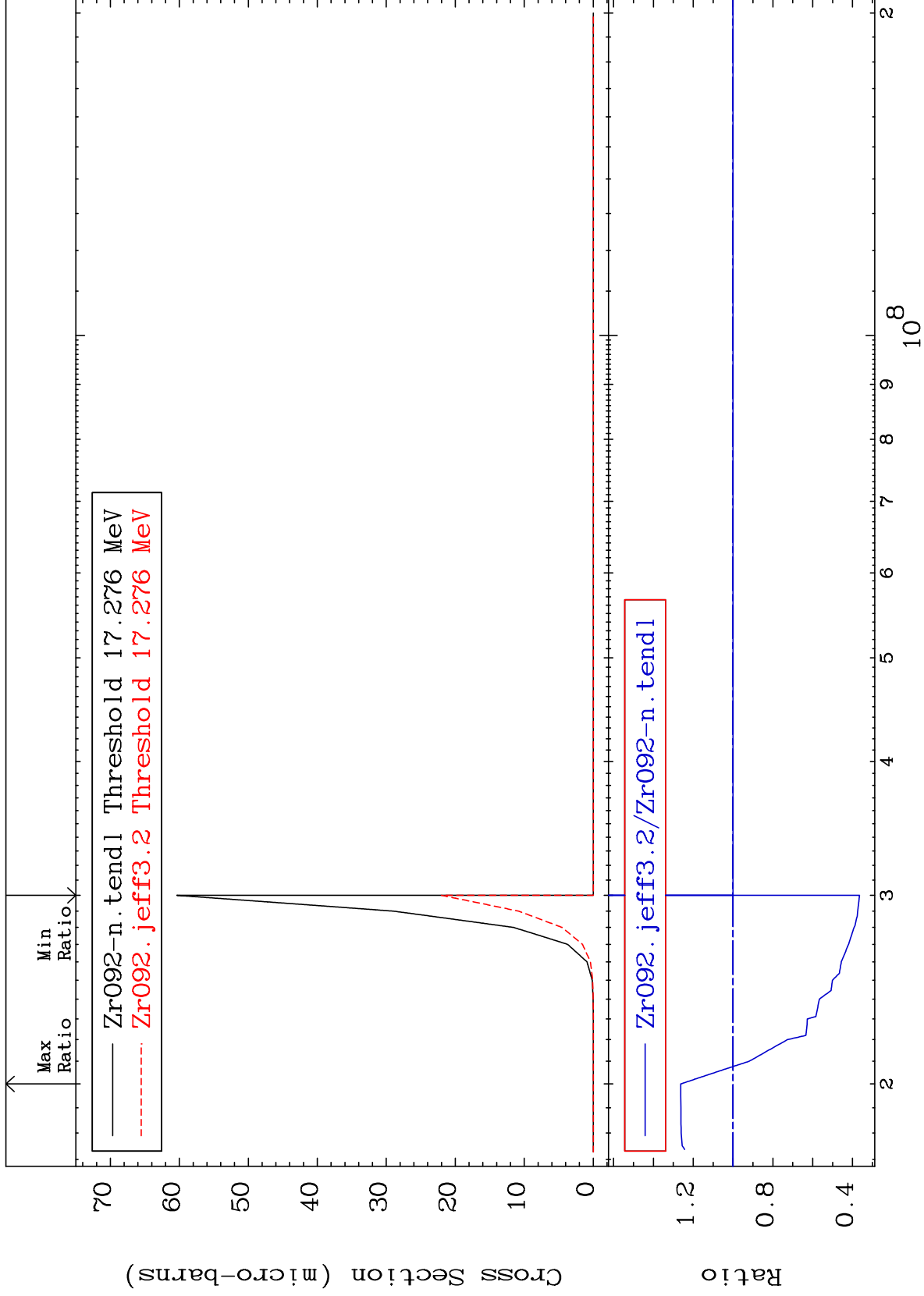
40-Zr-92  
-15.73 To 15.64 %



MAT 4031

(n,2n) p  
Cross Section

40-Zr-92  
-63.52 To 26.25 %



18

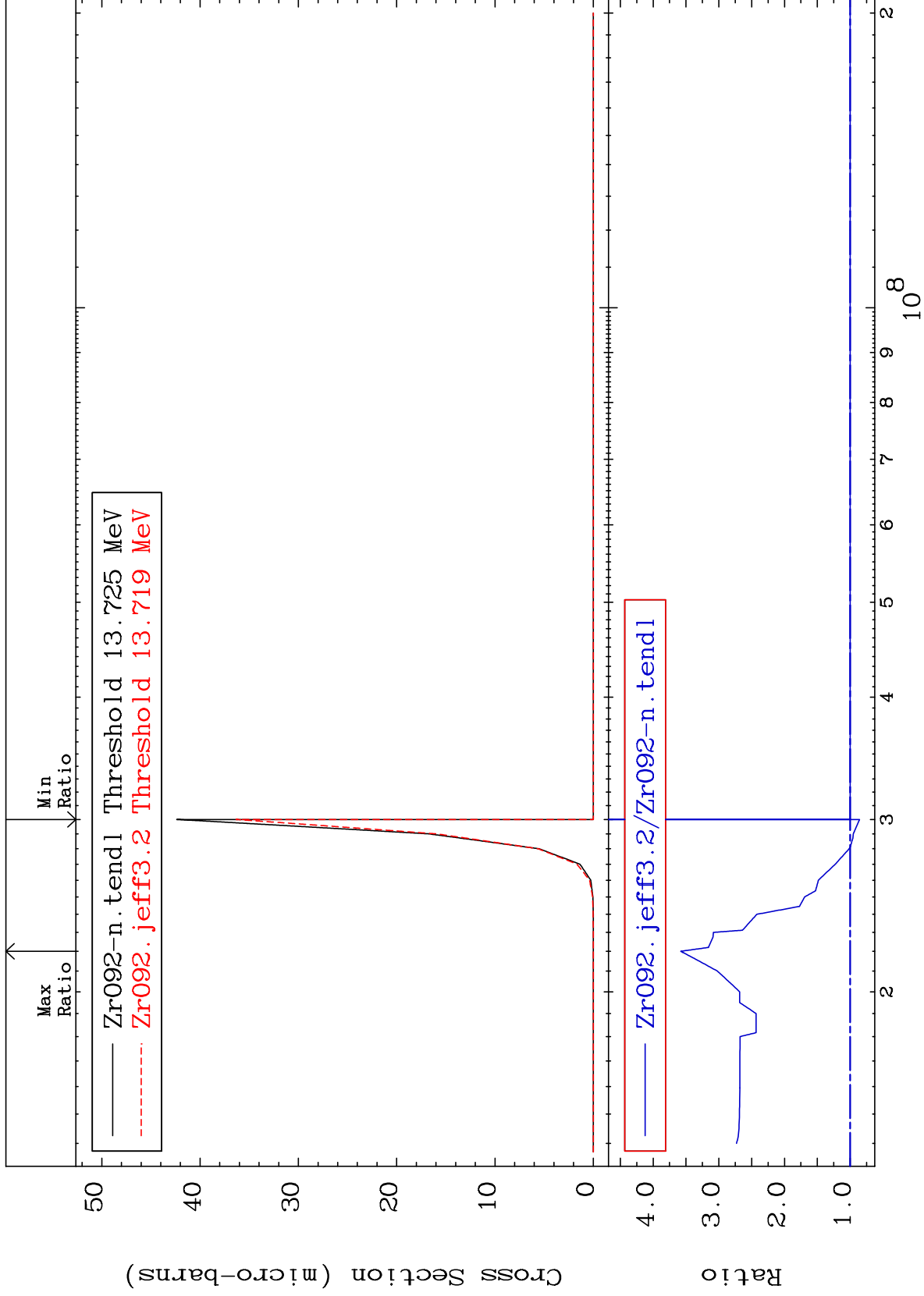
Incident Energy (eV)

40-Zr-92

MAT 4031

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

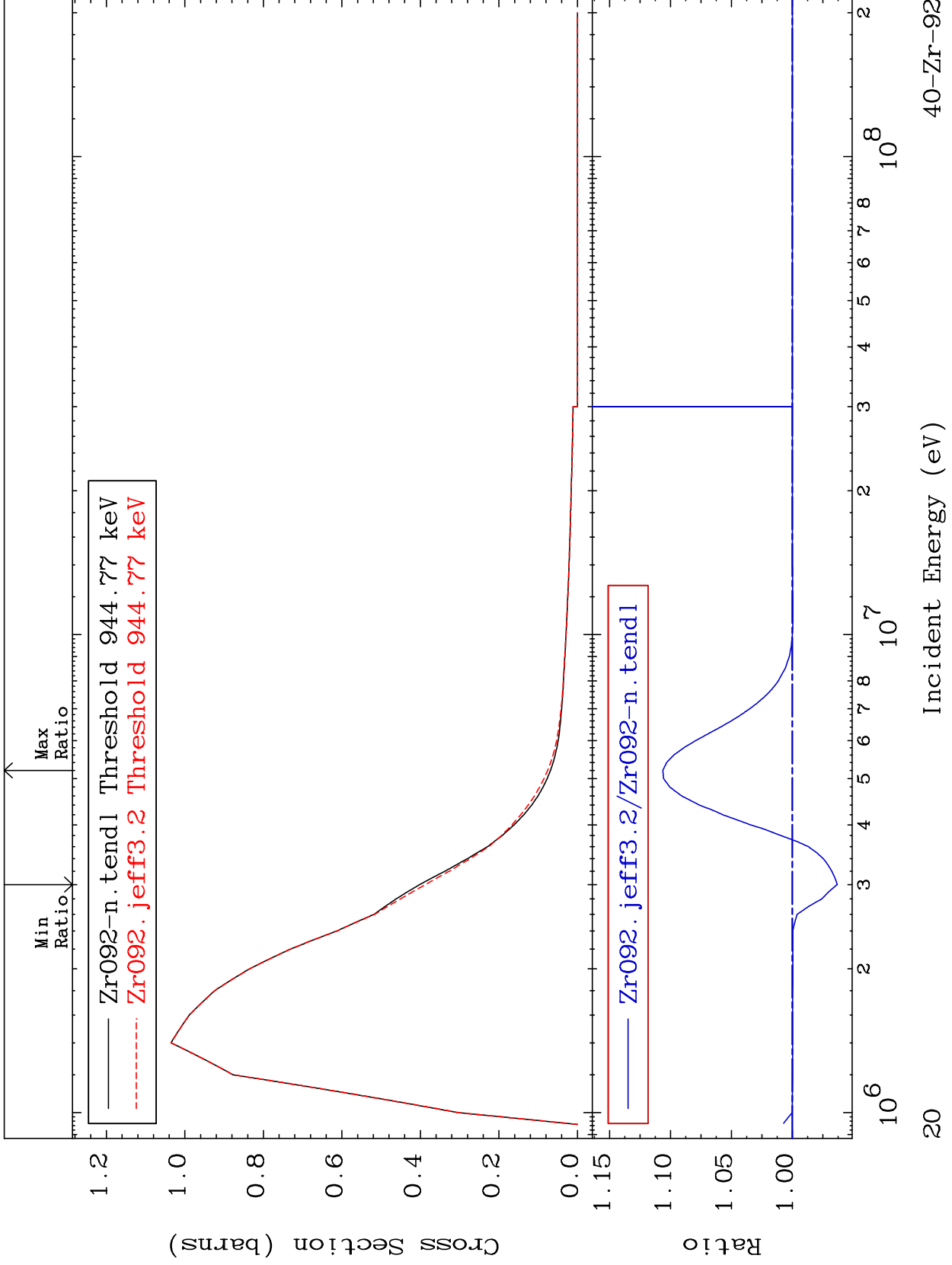
40-Zr-92  
-14.26 To 258.0 %



MAT 4031

934.5 keV (n,n') Level  
Cross Section

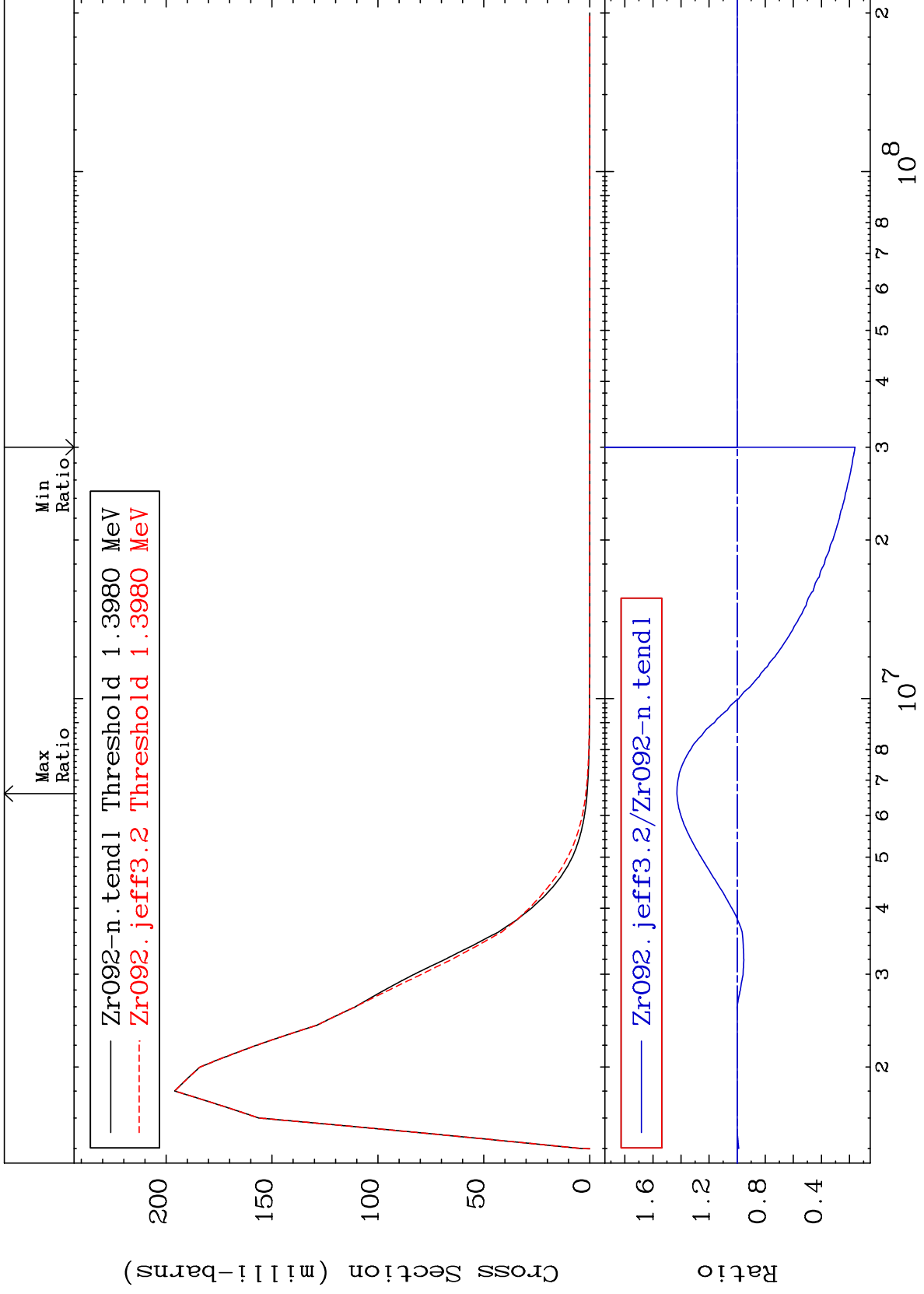
40-Zr-92  
-3.690 To 10.63 %



MAT 4031

1.383 MeV (n,n') Level  
Cross Section

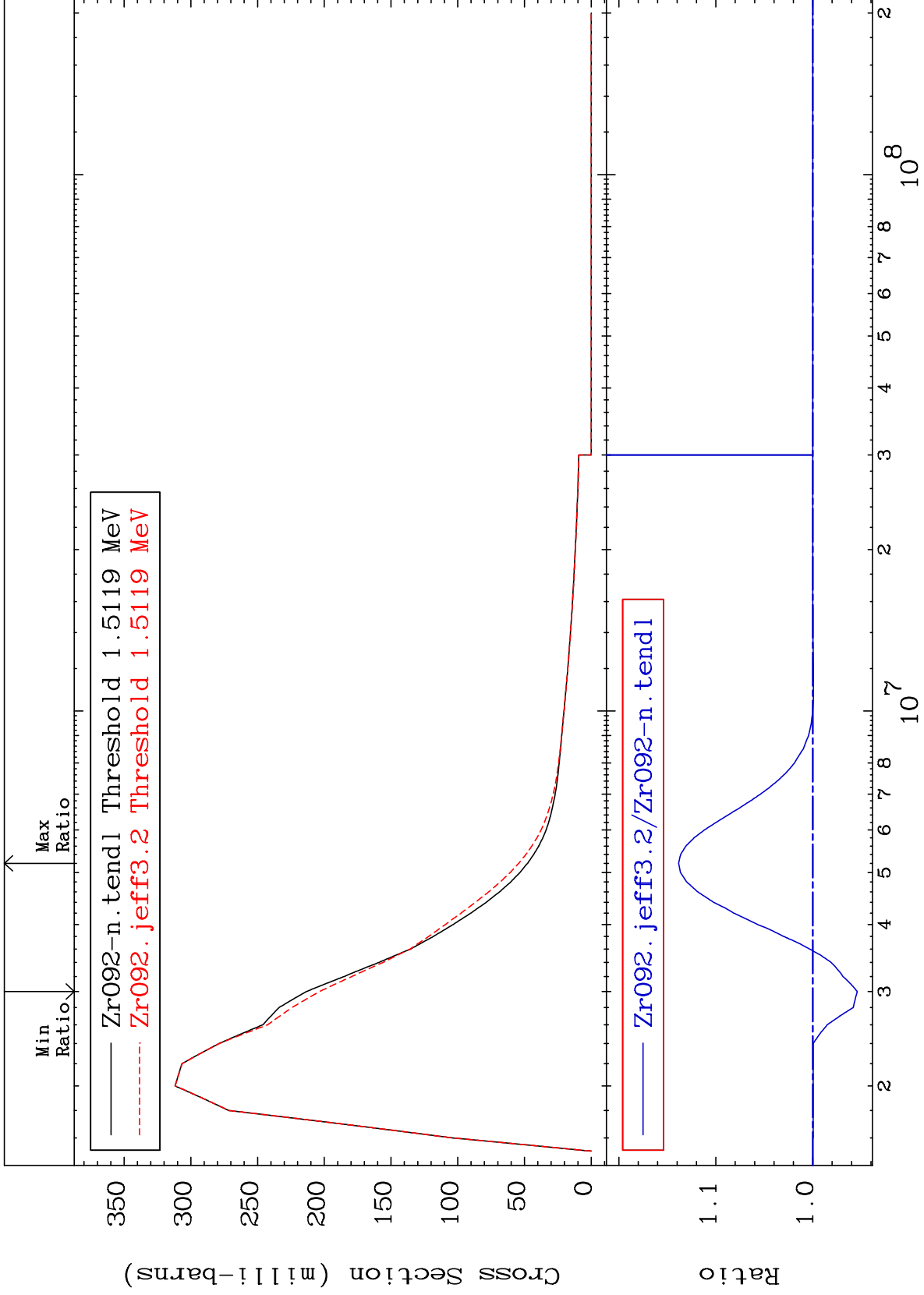
40-Zr-92  
-83.96 To 42.92 %



MAT 4031

1.495 MeV (n,n') Level  
Cross Section

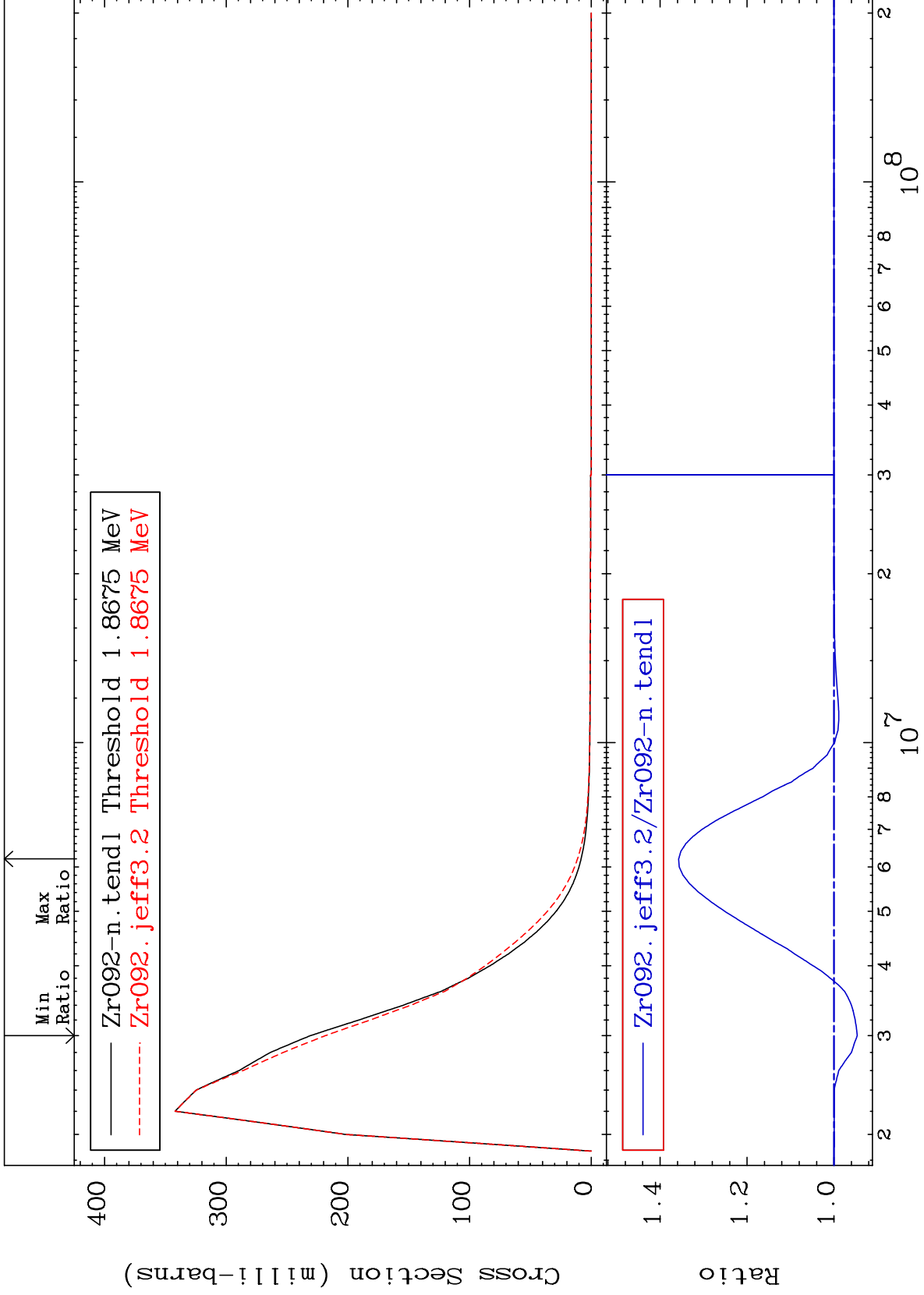
40-Zr-92  
-4.589 To 13.84 %



MAT 4031

1.847 MeV (n,n') Level  
Cross Section

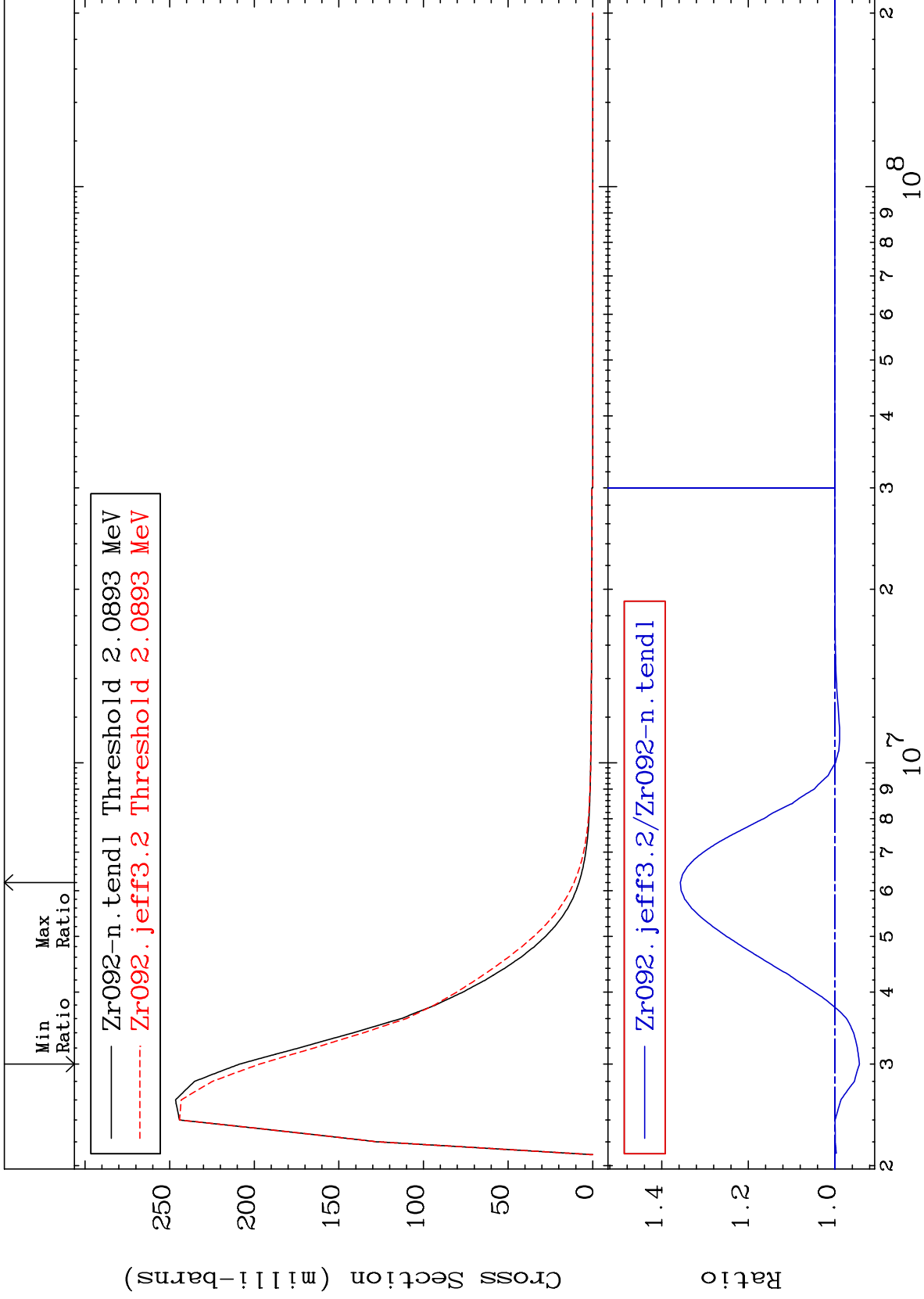
40-Zr-92  
-5.348 To 35.73 %



MAT 4031

2.067 MeV (n,n') Level  
Cross Section

40-Zr-92  
-5.661 To 35.70 %

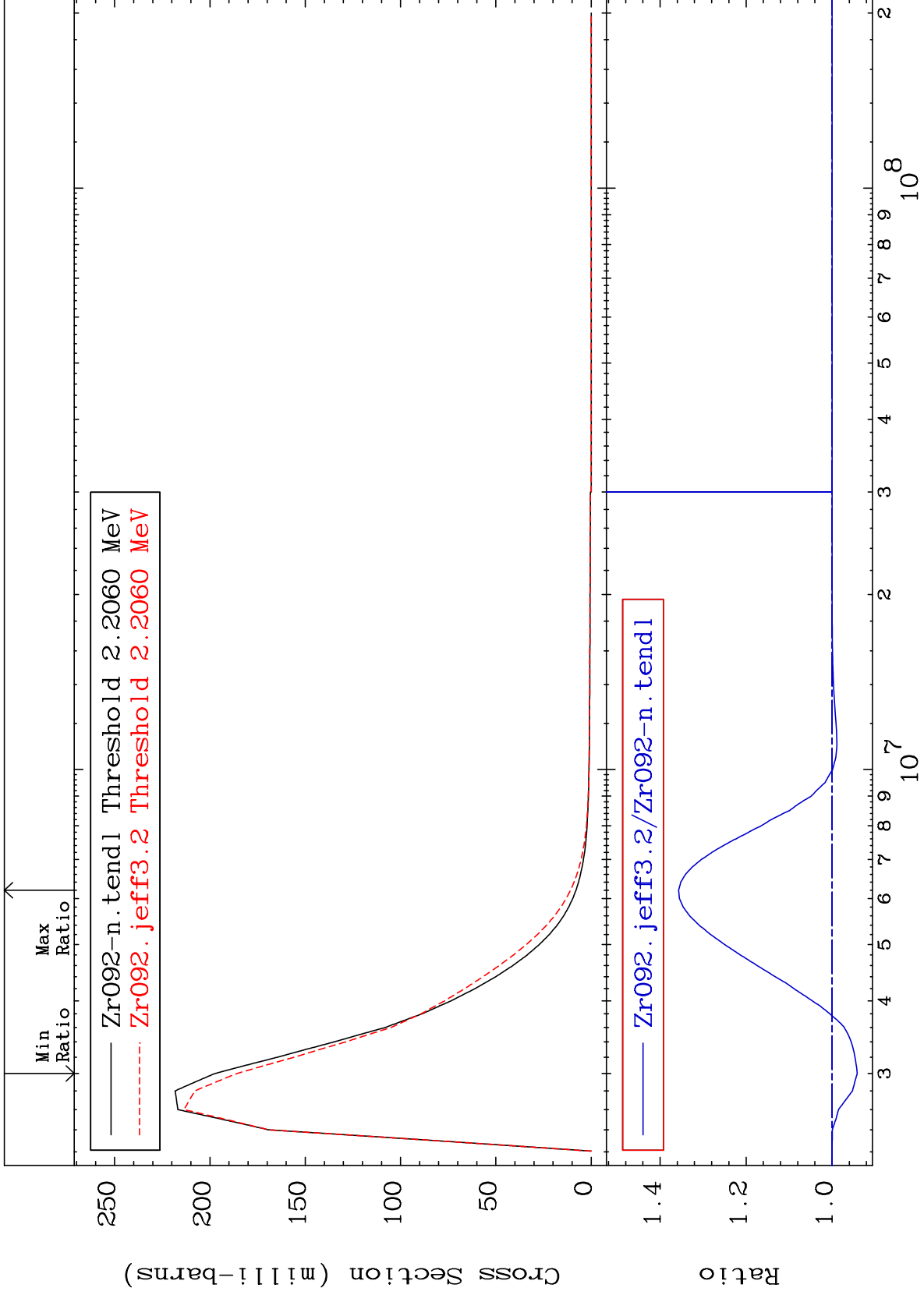




MAT 4031

2.182 MeV (n,n') Level  
Cross Section

40-Zr-92  
-5.856 To 35.69 %



25

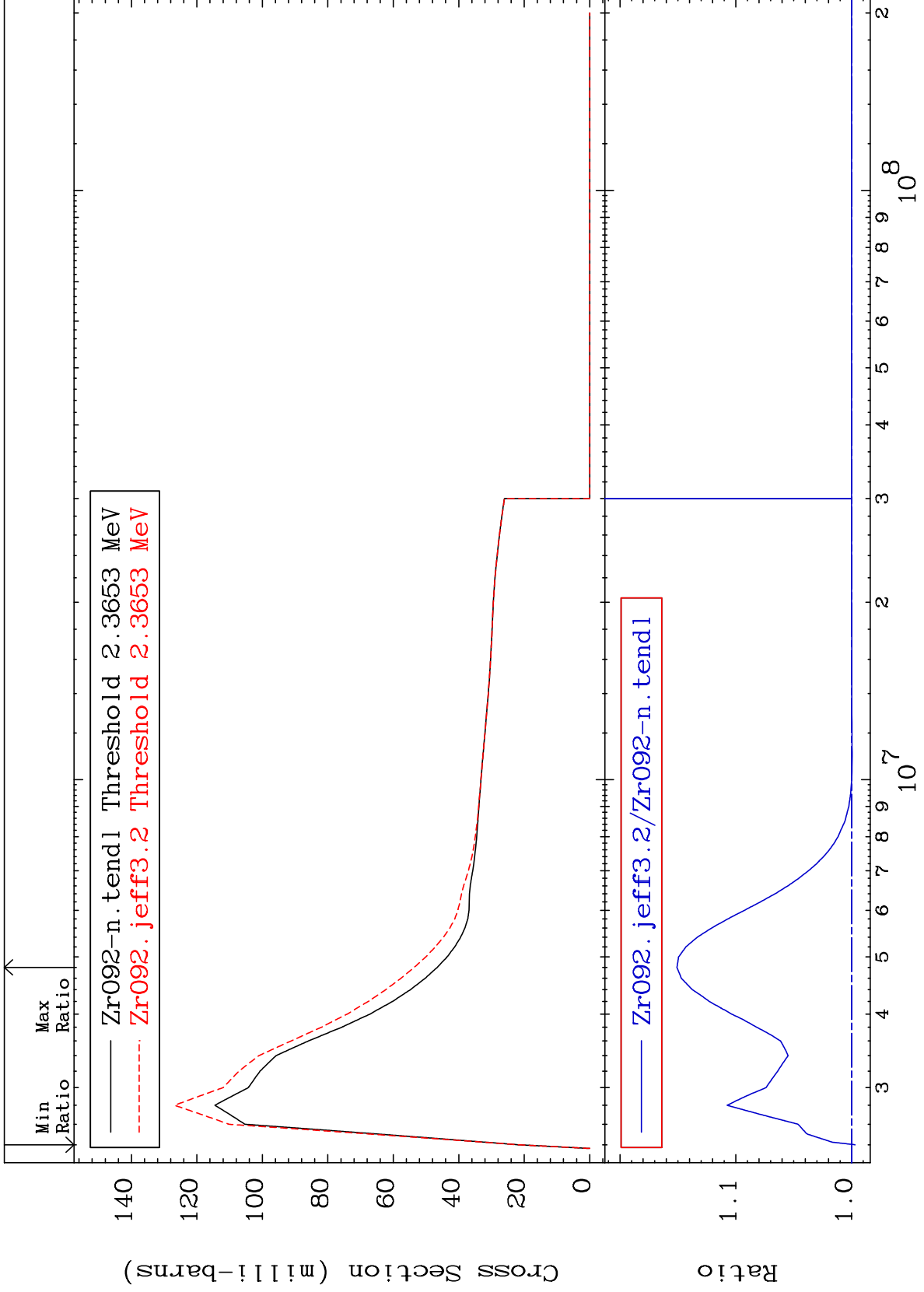
Incident Energy (eV)

40-Zr-92

MAT 4031

2.340 MeV (n,n') Level  
Cross Section

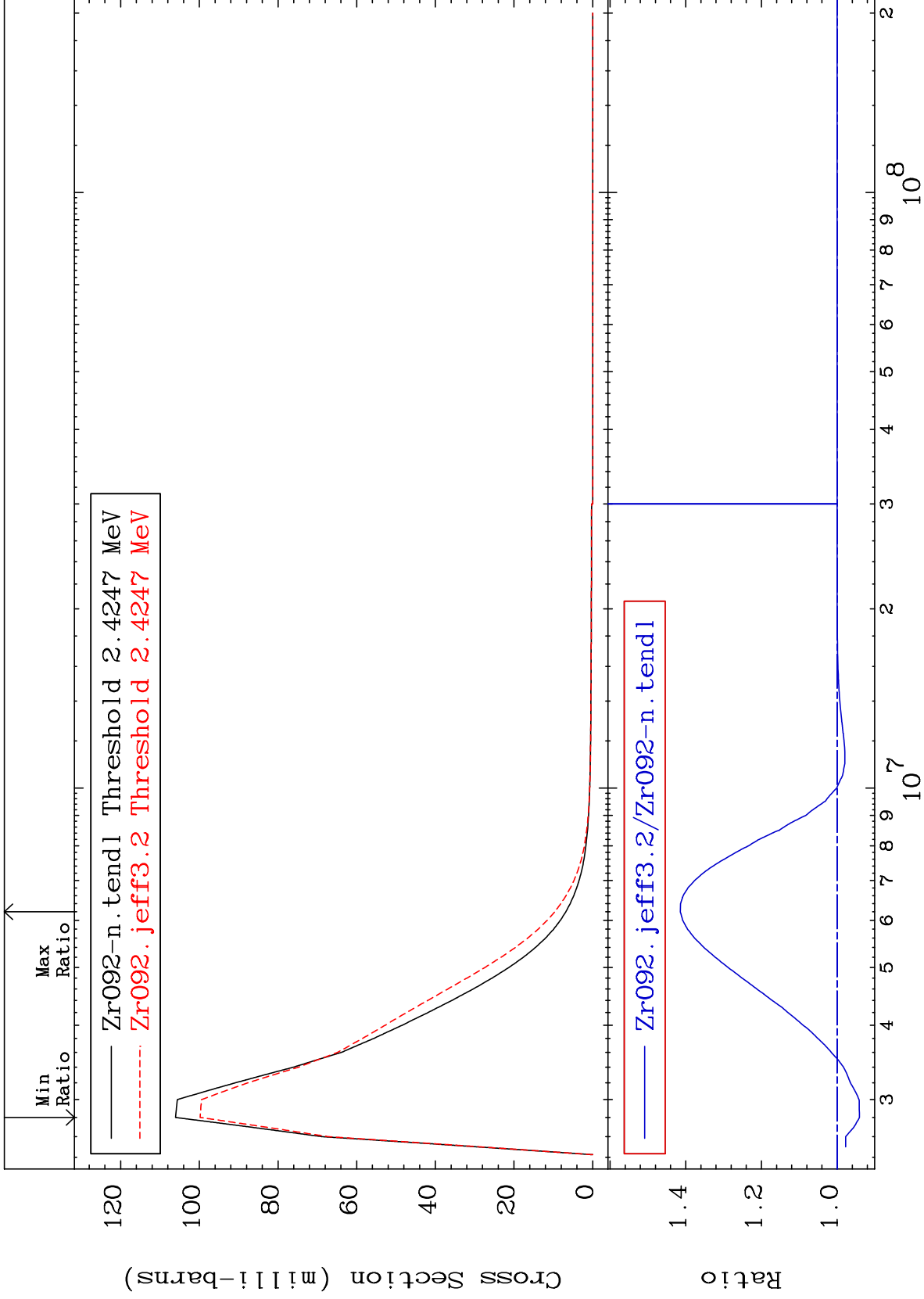
40-Zr-92  
-0.297 To 15.08 %



MAT 4031

2.398 MeV (n,n') Level  
Cross Section

40-Zr-92  
-5.896 To 41.42 %

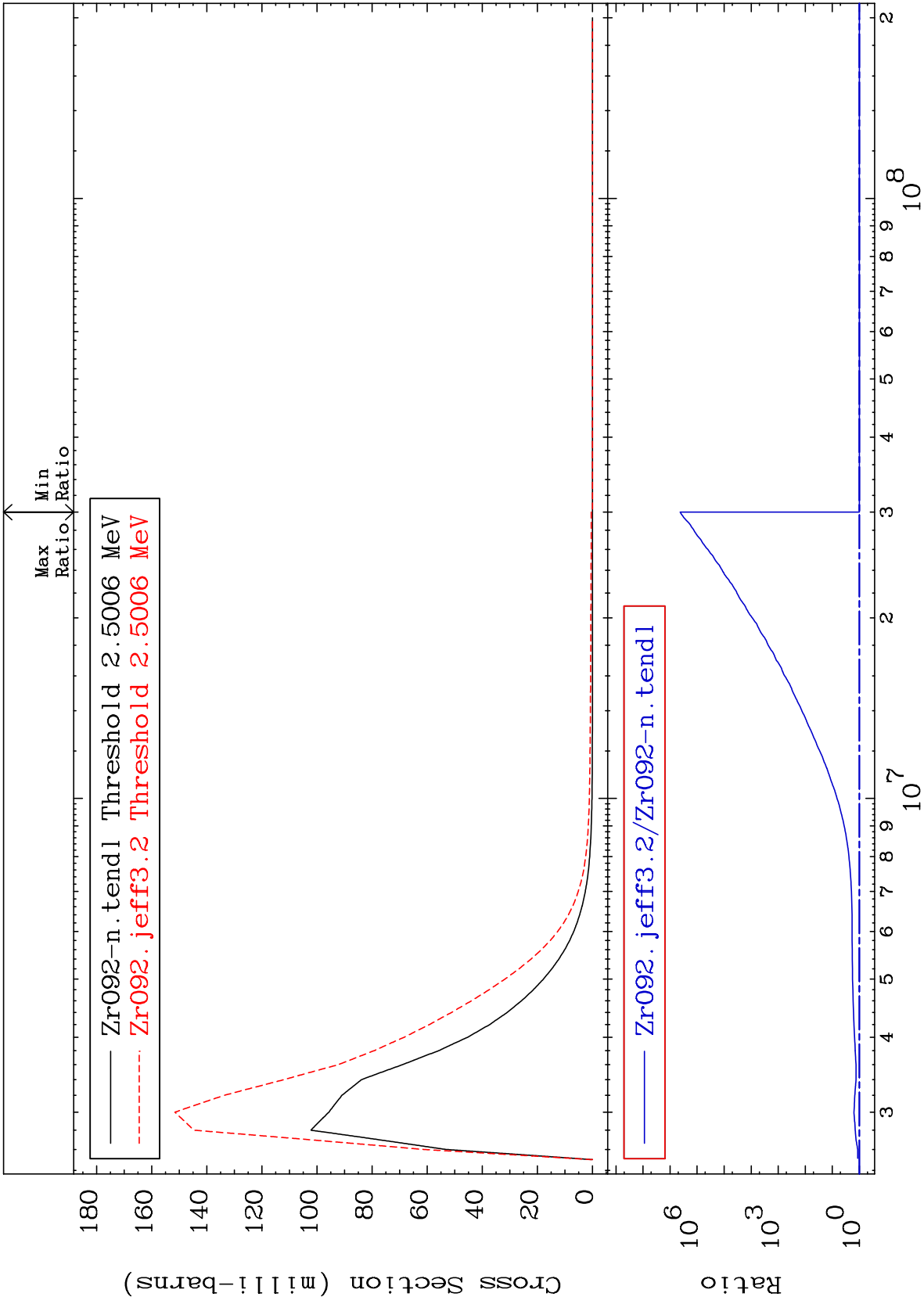


MAT 4031

2.473 MeV (n,n') Level

40-Zr-92

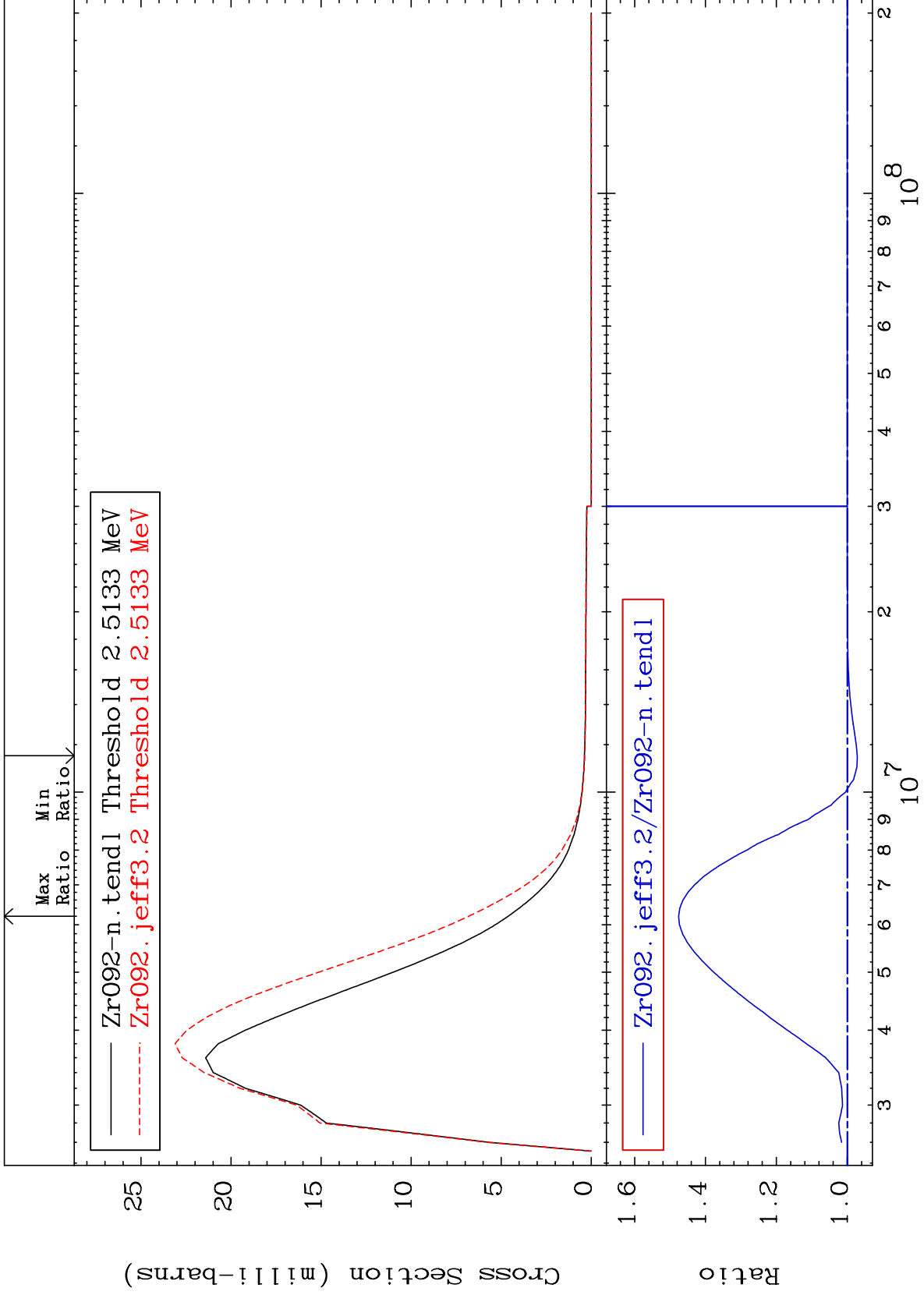
Cross Section  
0.000 To 9999. %



MAT 4031

2.486 MeV (n,n') Level  
Cross Section

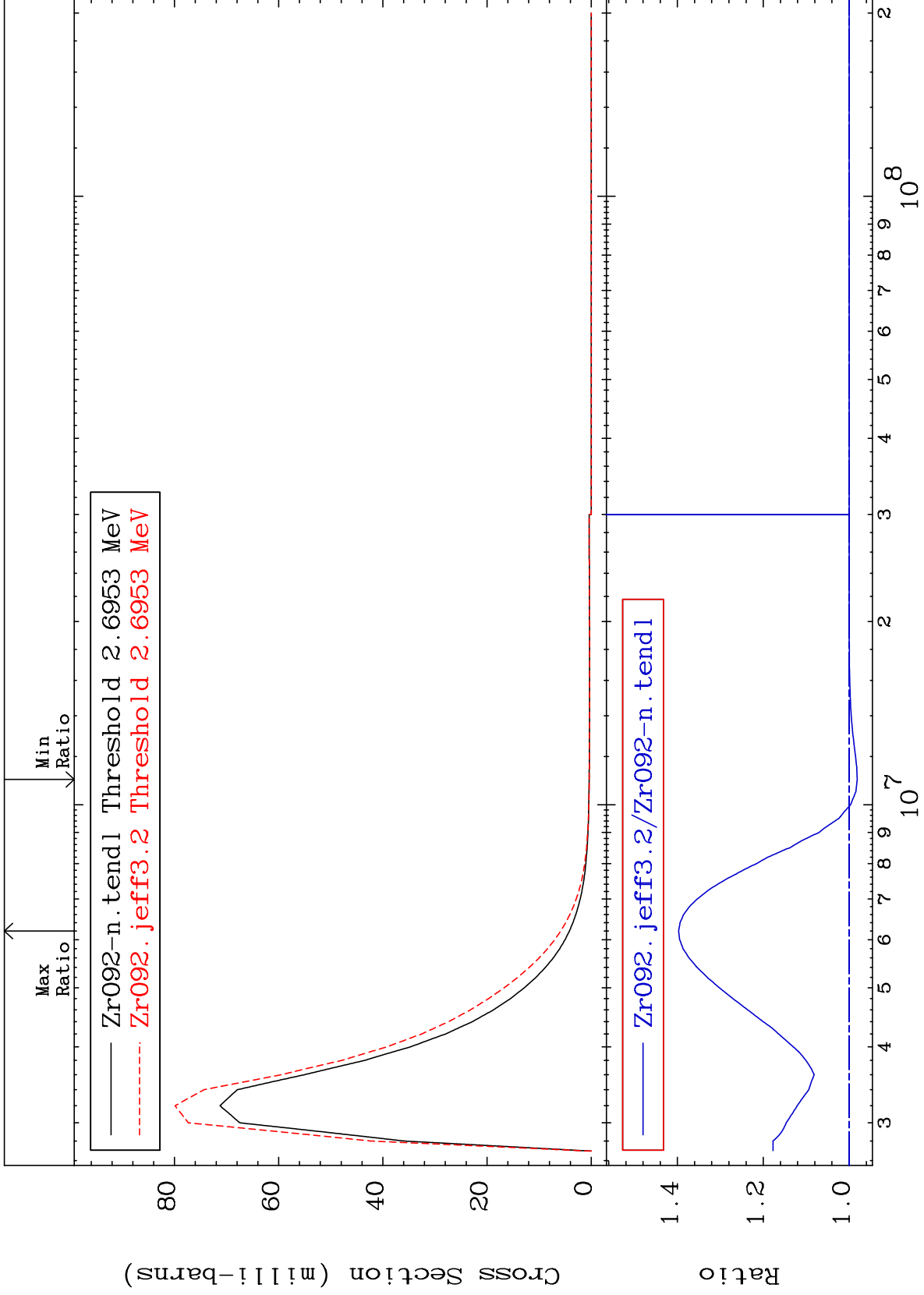
40-Zr-92  
-2.793 To 47.58 %



MAT 4031

2.666 MeV (n,n') Level  
Cross Section

40-Zr-92  
-1.893 To 39.72 %



30

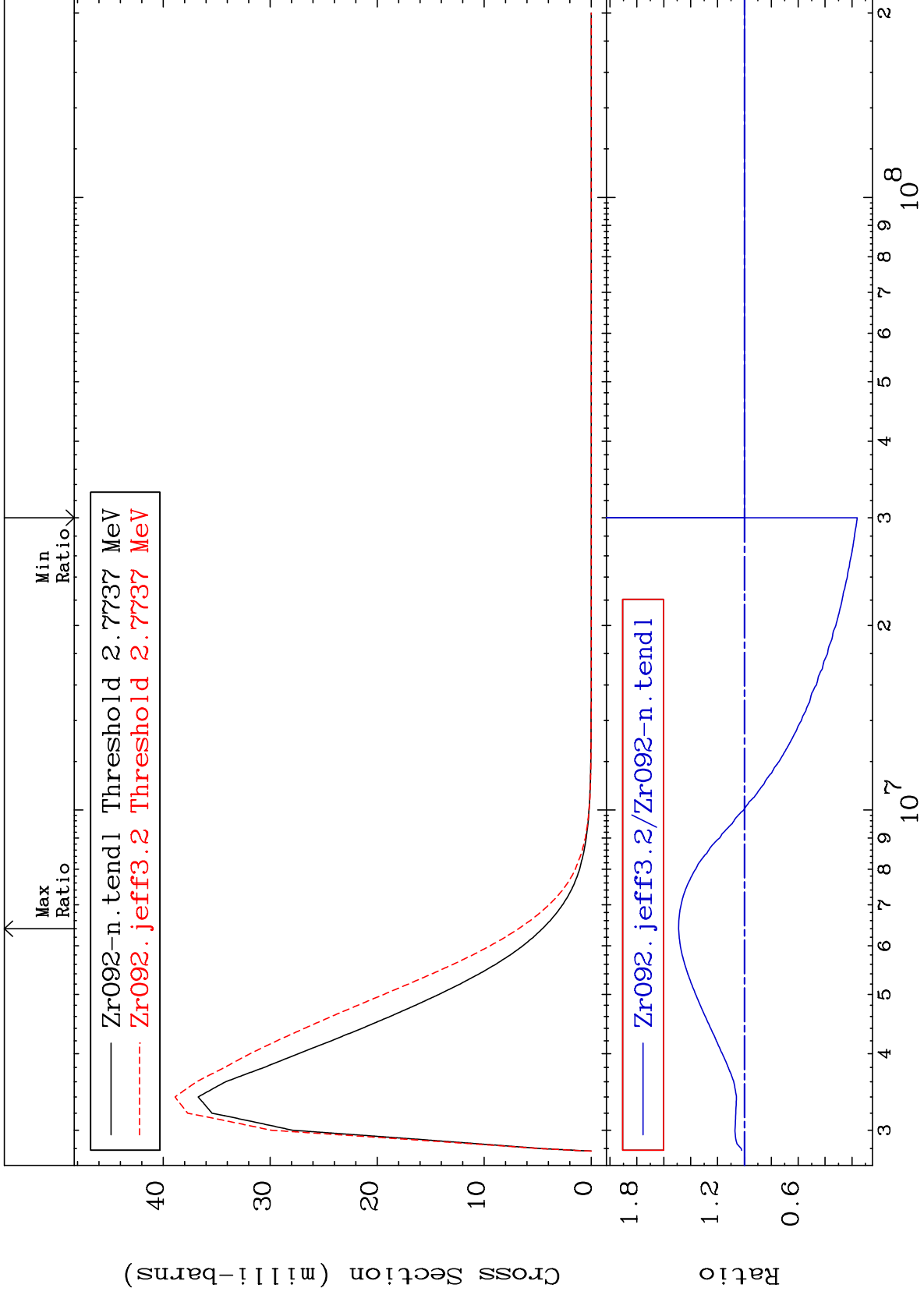
Incident Energy (eV)

40-Zr-92

MAT 4031

2.744 MeV (n,n') Level  
Cross Section

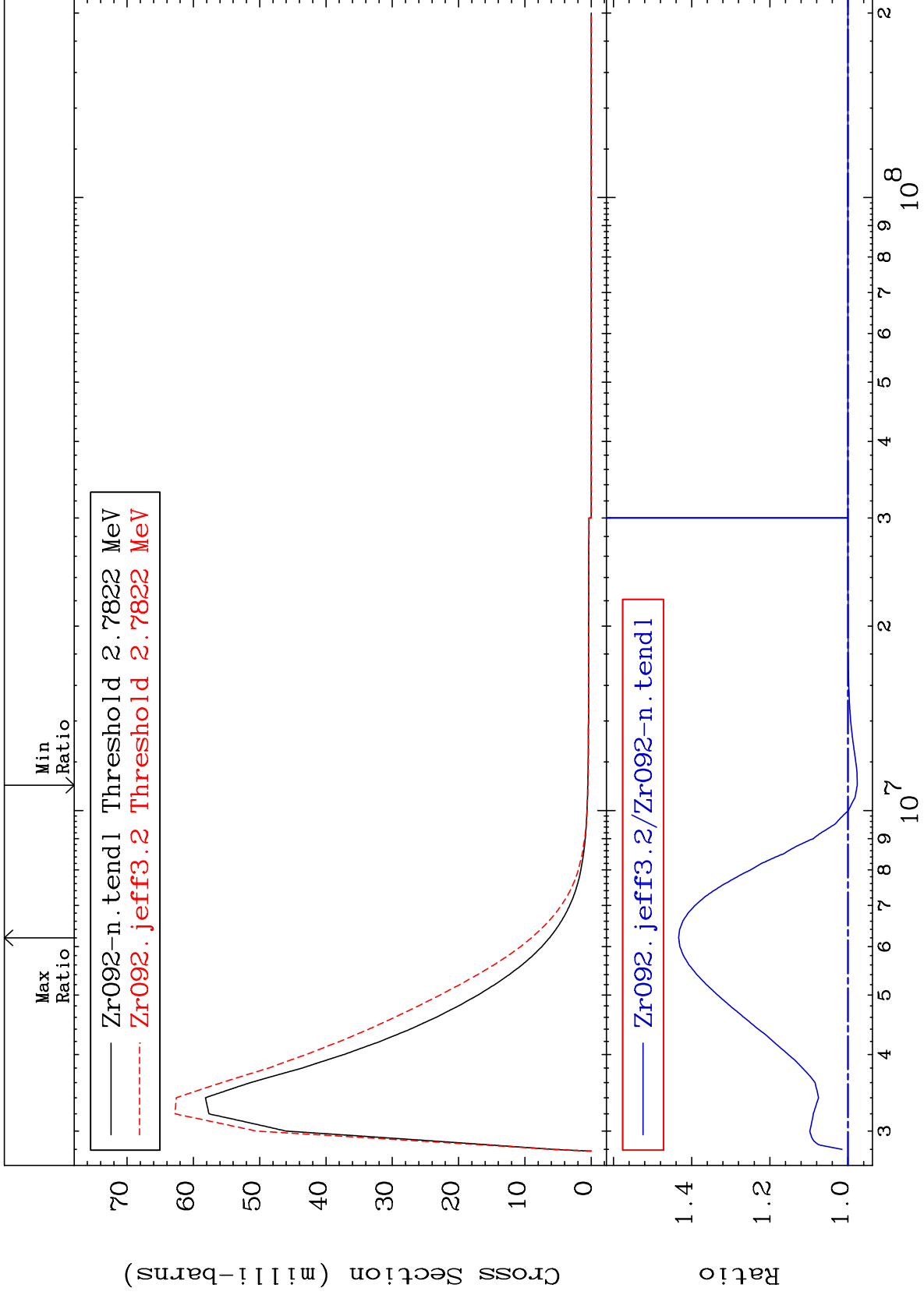
40-Zr-92  
-83.92 To 48.92 %



MAT 4031

2.752 MeV (n,n') Level  
Cross Section

40-Zr-92  
-2.373 To 43.33 %

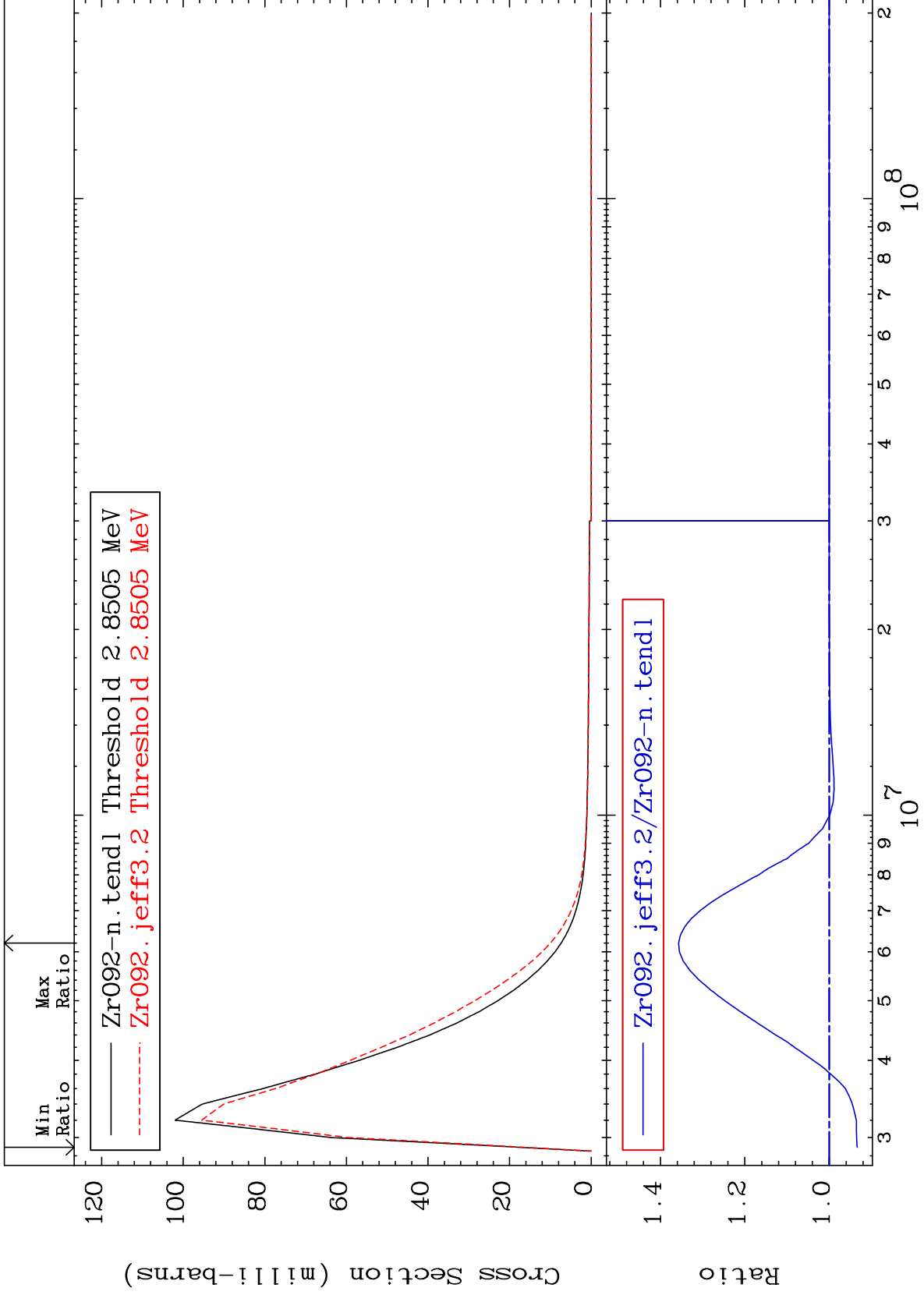




MAT 4031

2.820 MeV (n,n') Level  
Cross Section

40-Zr-92  
-6.633 To 35.68 %



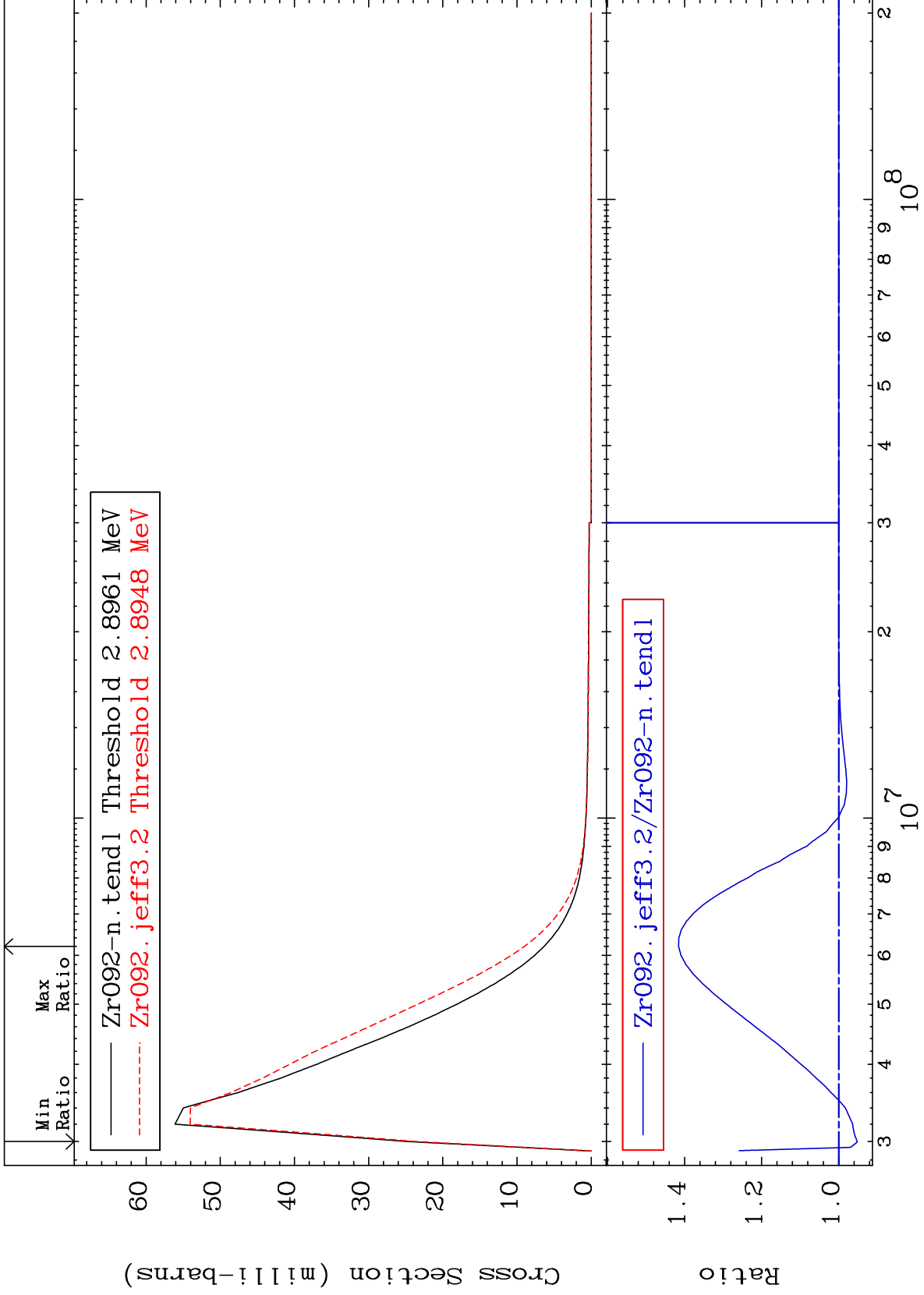
33

40-Zr-92

MAT 4031

2.865 MeV (n,n') Level  
Cross Section

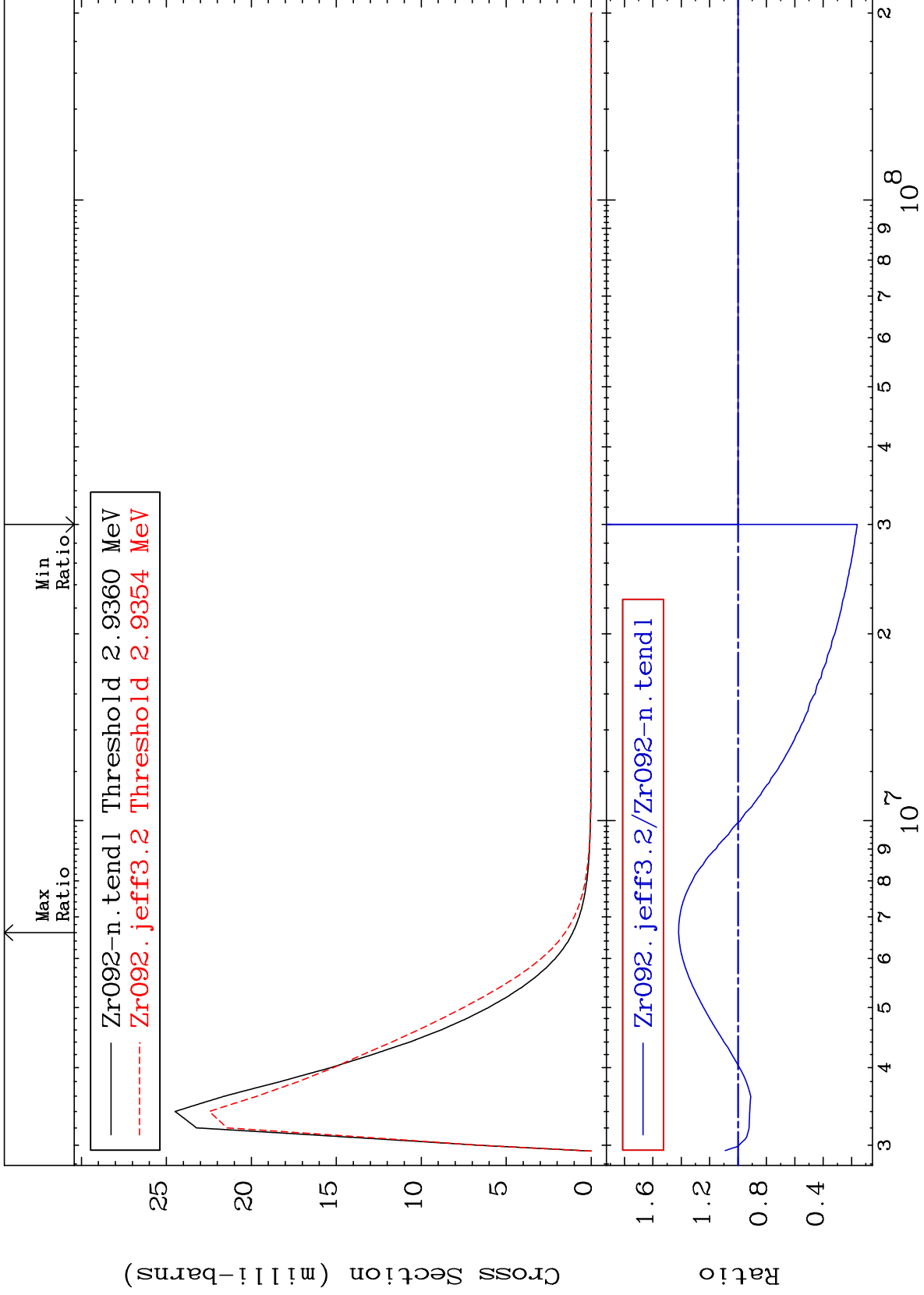
40-Zr-92  
-4.821 To 41.54 %



MAT 4031

2.904 MeV (n,n') Level  
Cross Section

40-Zr-92  
-83.98 To 41.84 %



35

Incident Energy (eV)

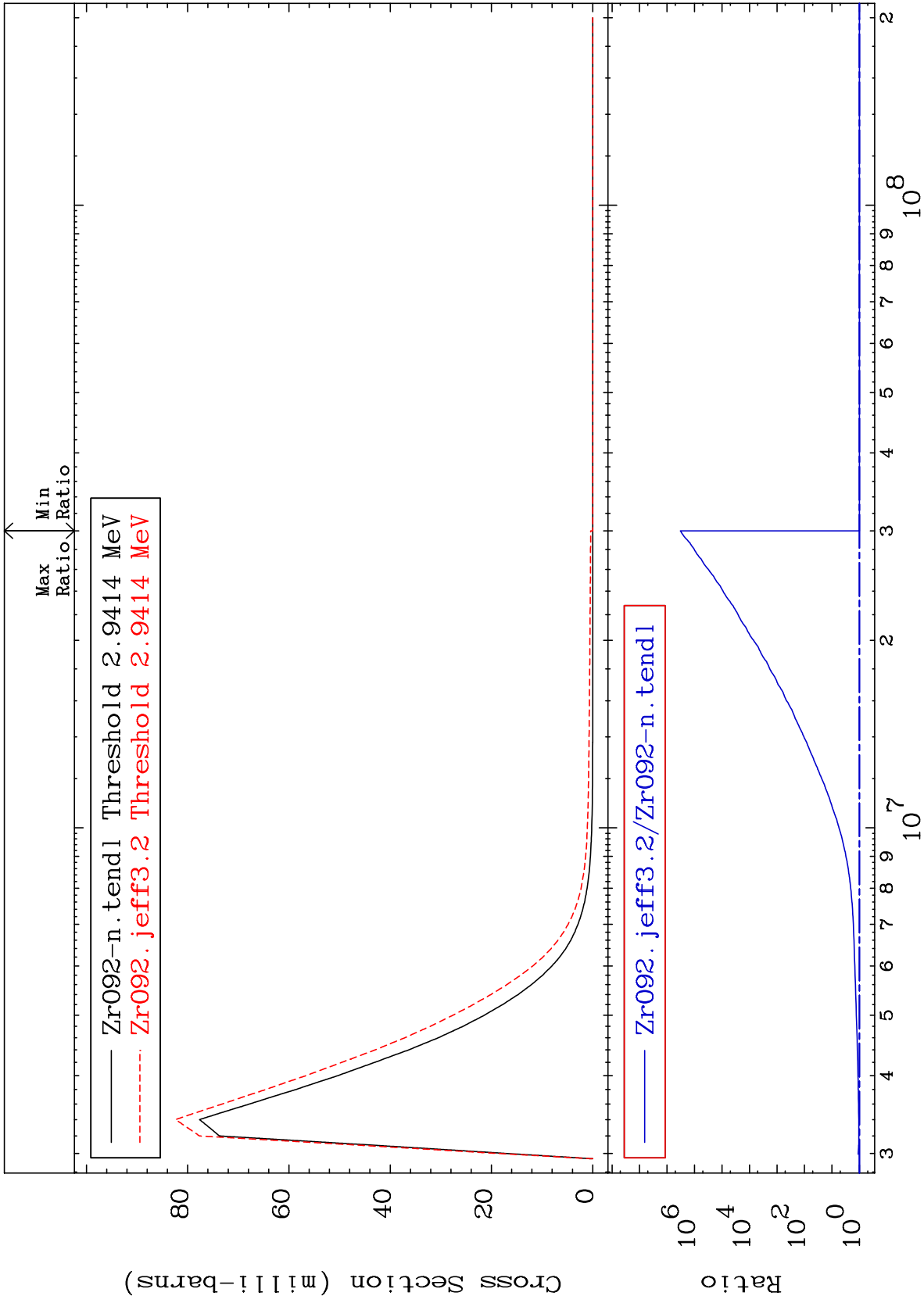
40-Zr-92

MAT 4031

2.909 MeV (n,n') Level

40-Zr-92

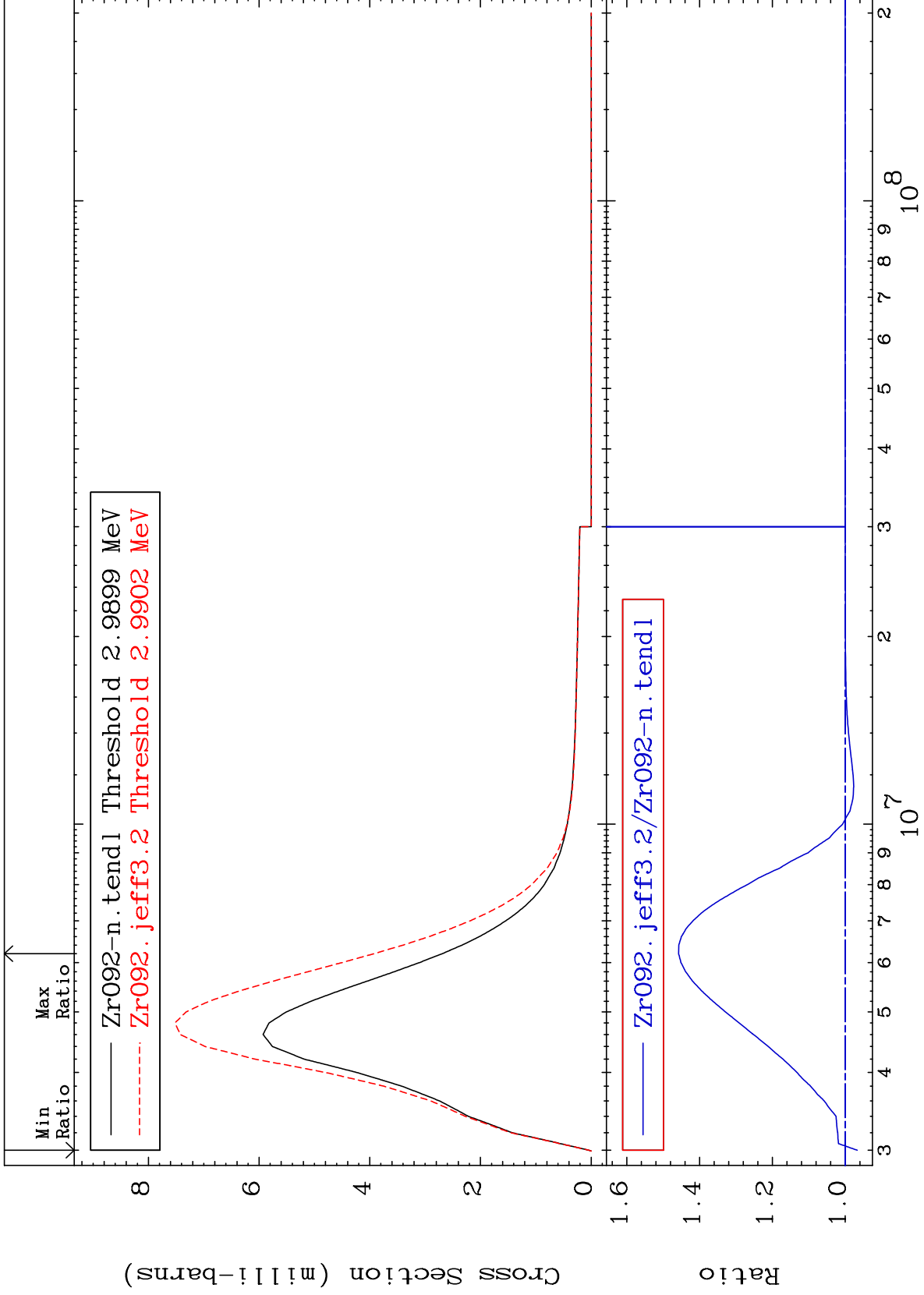
Cross Section To 9999. %



MAT 4031

2.957 MeV (n,n') Level  
Cross Section

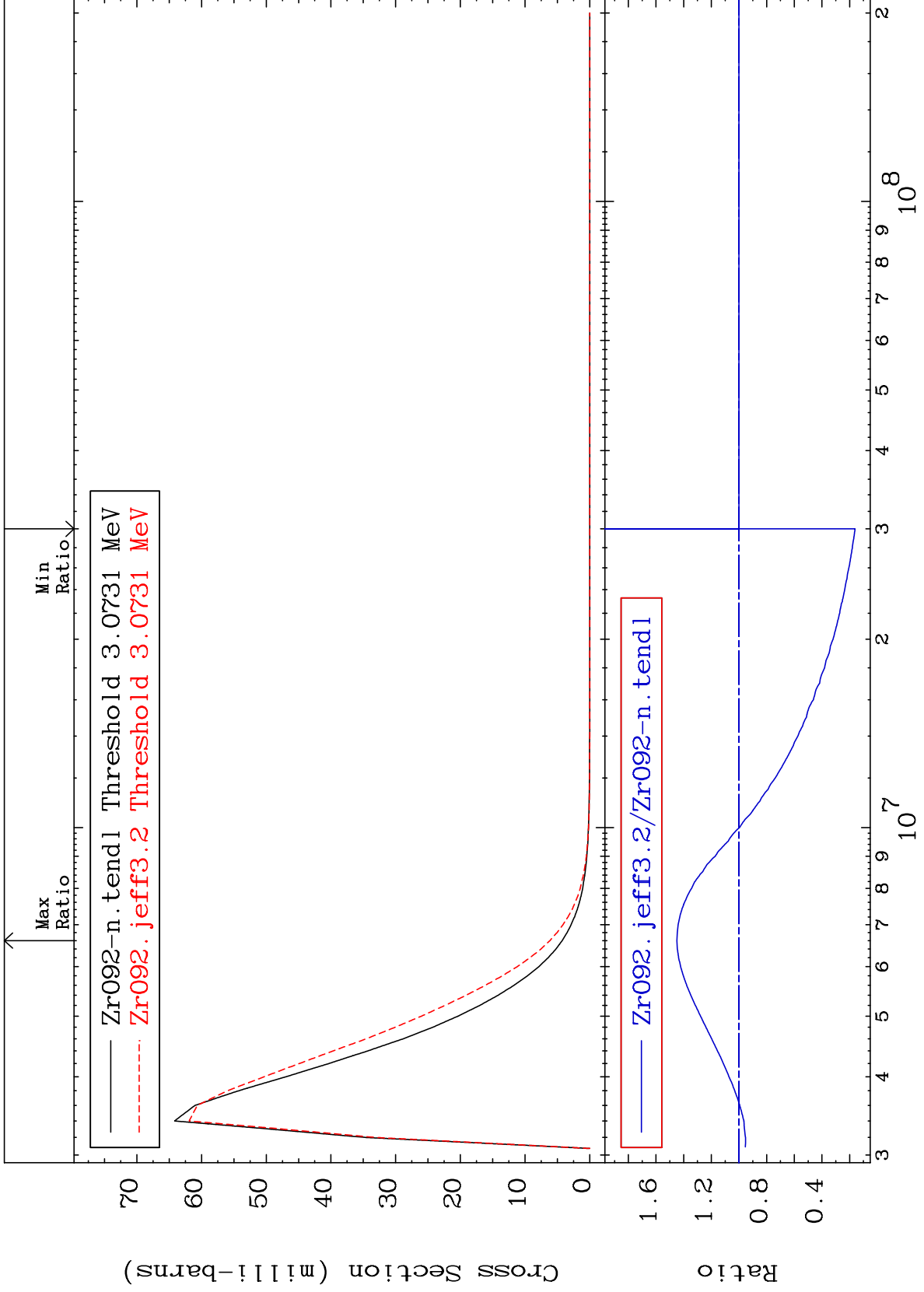
40-Zr-92  
-3.286 To 45.76 %



MAT 4031

3.040 MeV (n,n') Level  
Cross Section

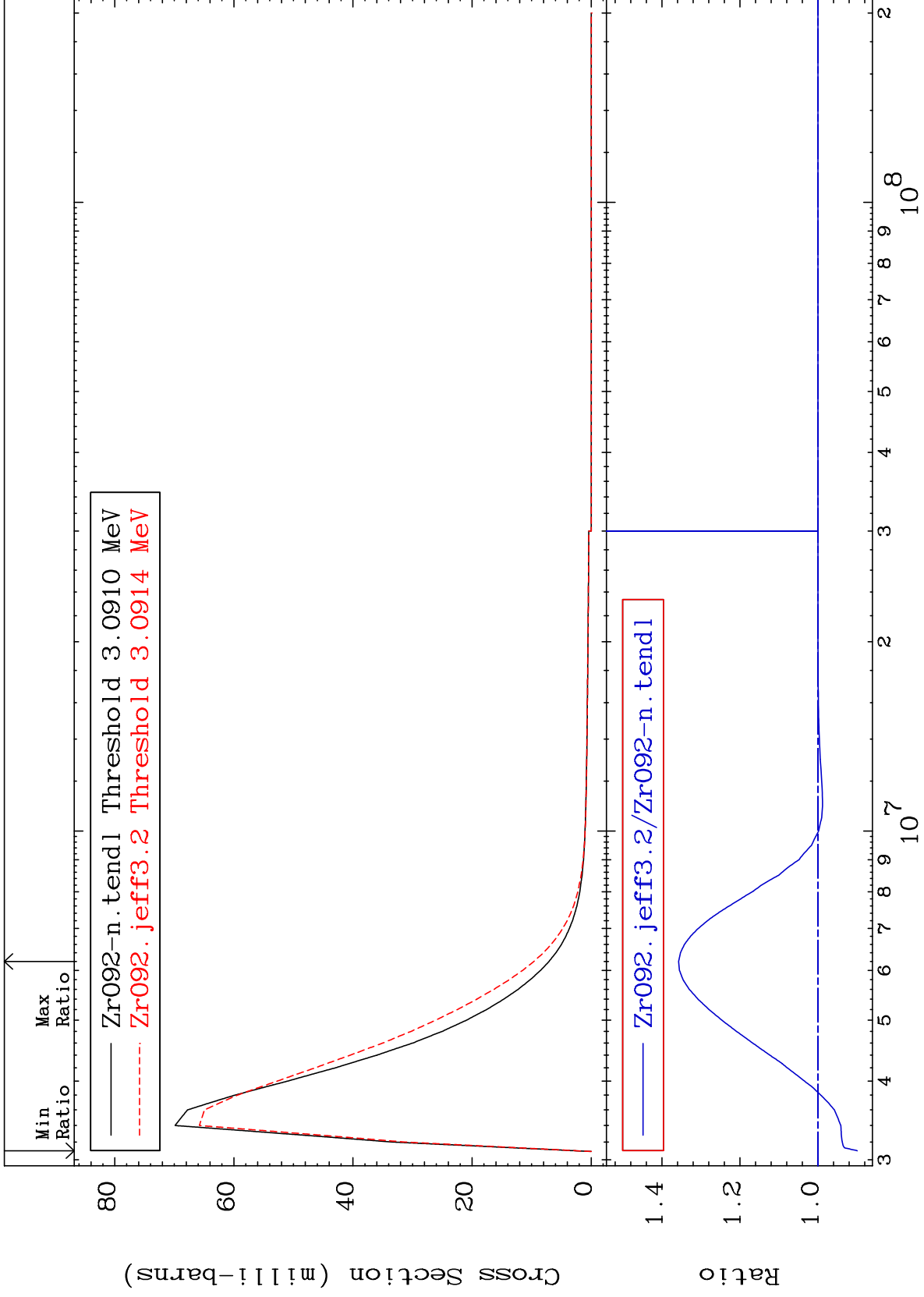
40-Zr-92  
-83.95 To 44.89 %



MAT 4031

3.057 MeV (n,n') Level  
Cross Section

40-Zr-92  
-10.06 To 35.72 %



39

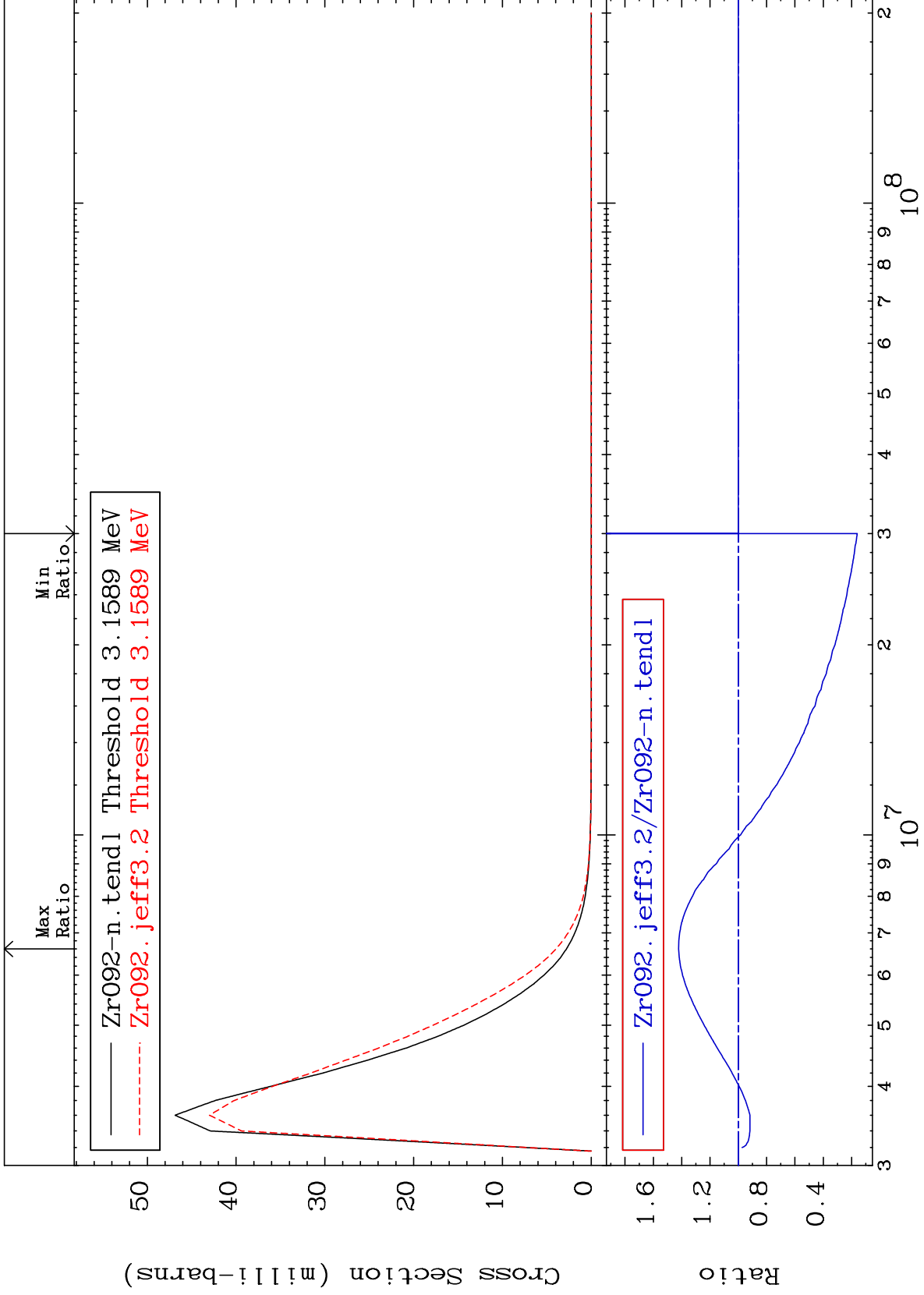
Incident Energy (eV)

40-Zr-92

MAT 4031

3.125 MeV (n,n') Level  
Cross Section

40-Zr-92  
-84.00 To 42.14 %



40

Incident Energy (eV)

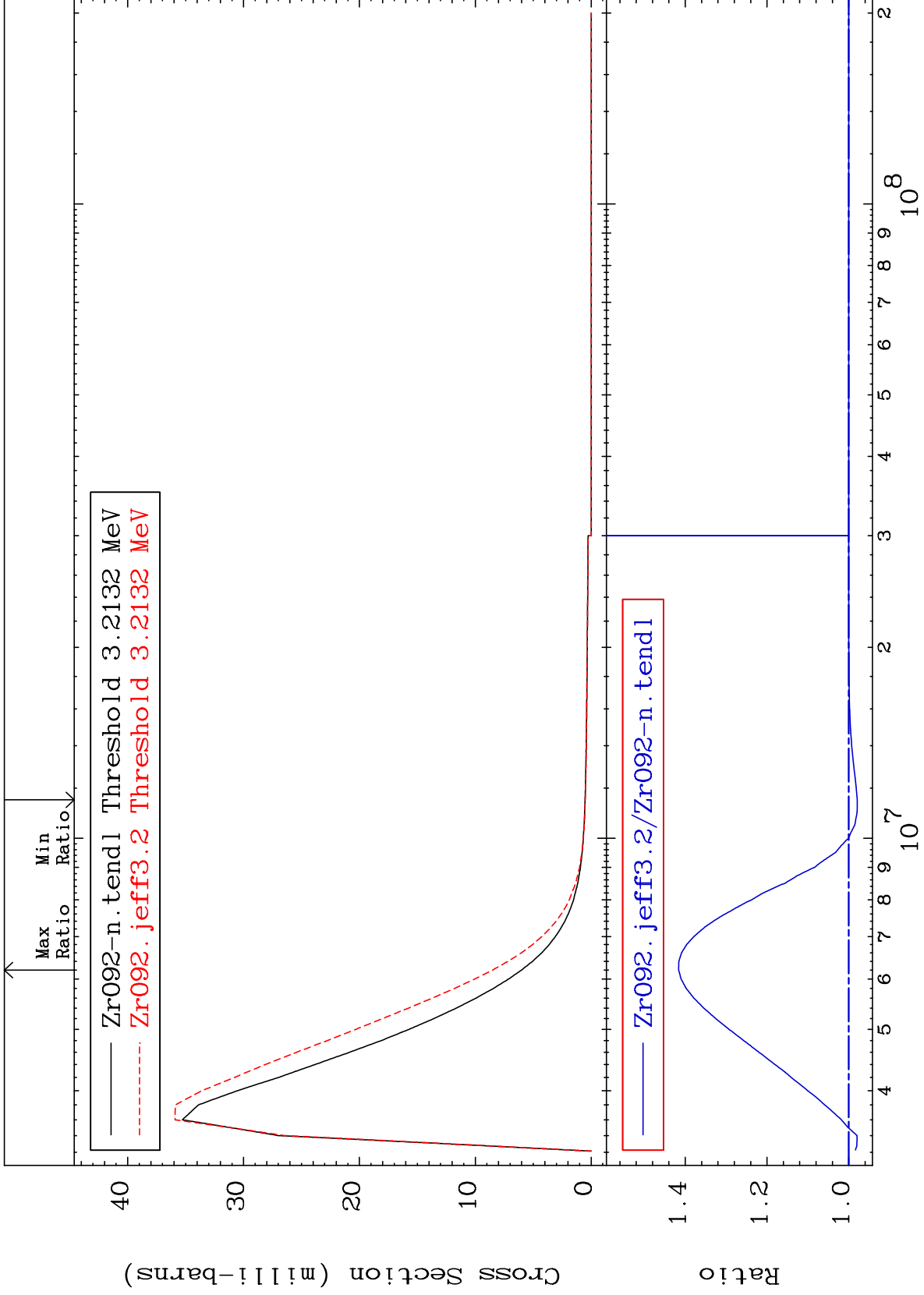
40-Zr-92



MAT 4031

3.178 MeV (n,n') Level  
Cross Section

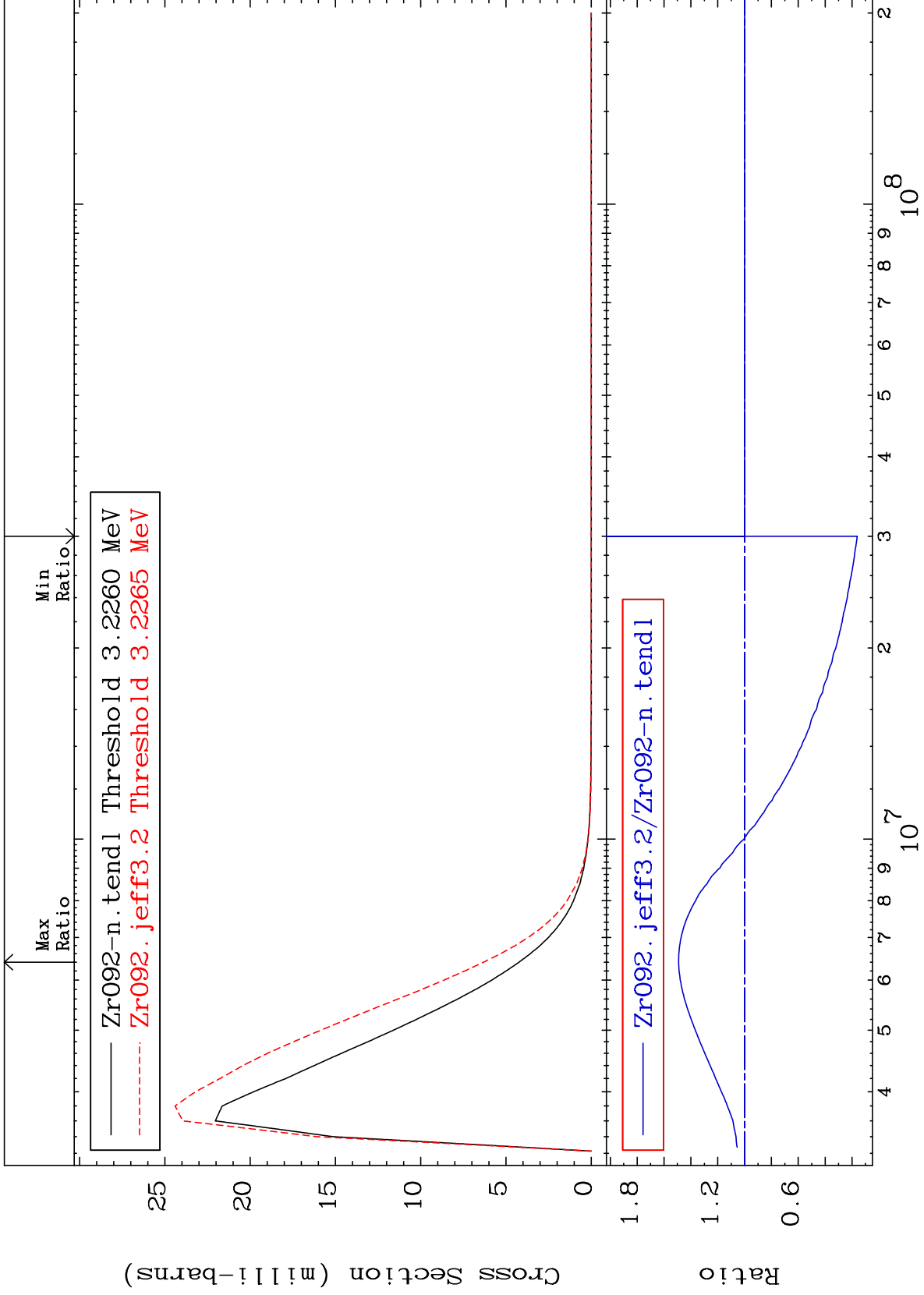
40-Zr-92  
-2.080 To 41.62 %



MAT 4031

3.191 MeV (n,n') Level  
Cross Section

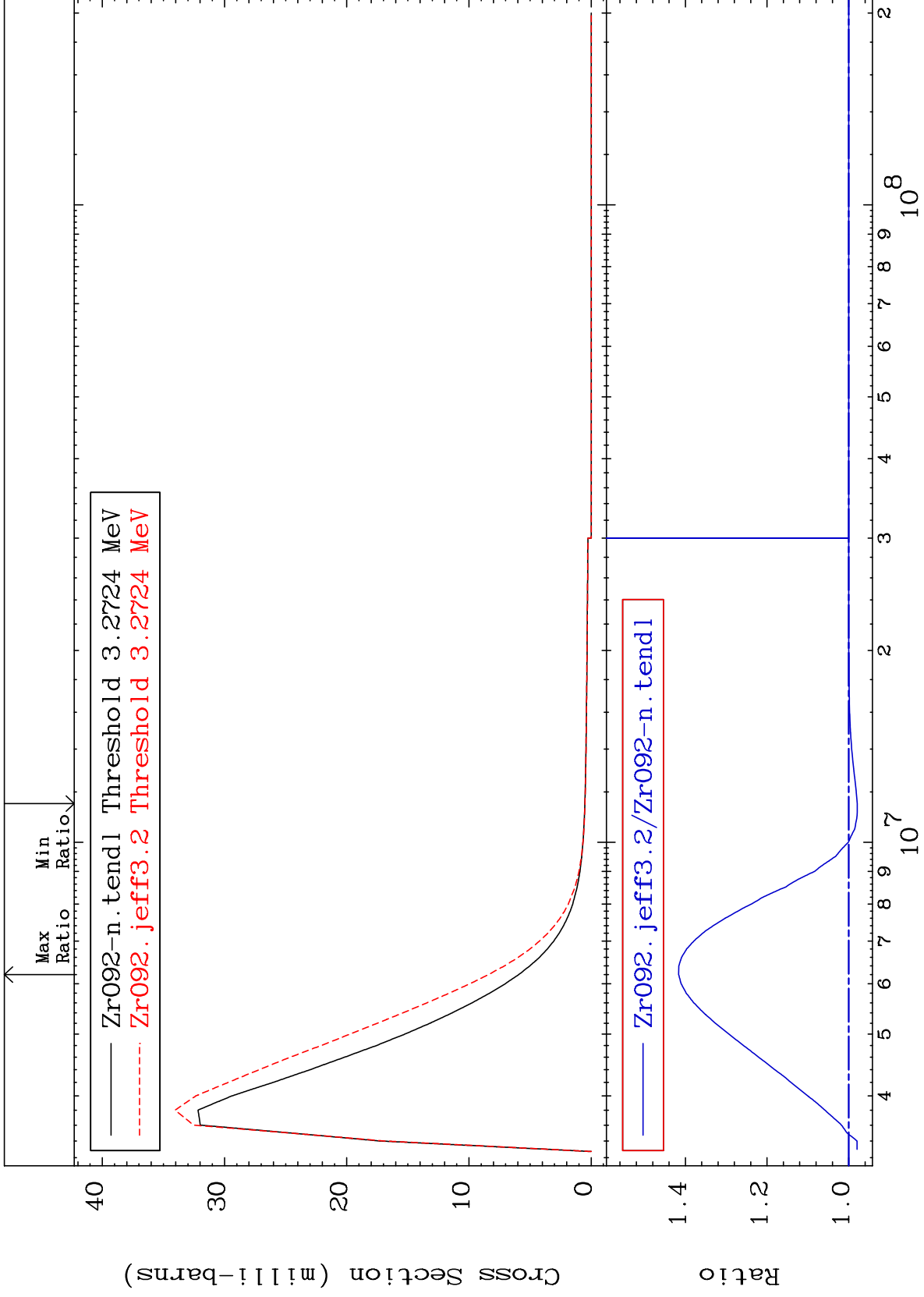
40-Zr-92  
-83.92 To 49.10 %



MAT 4031

3.237 MeV (n,n') Level  
Cross Section

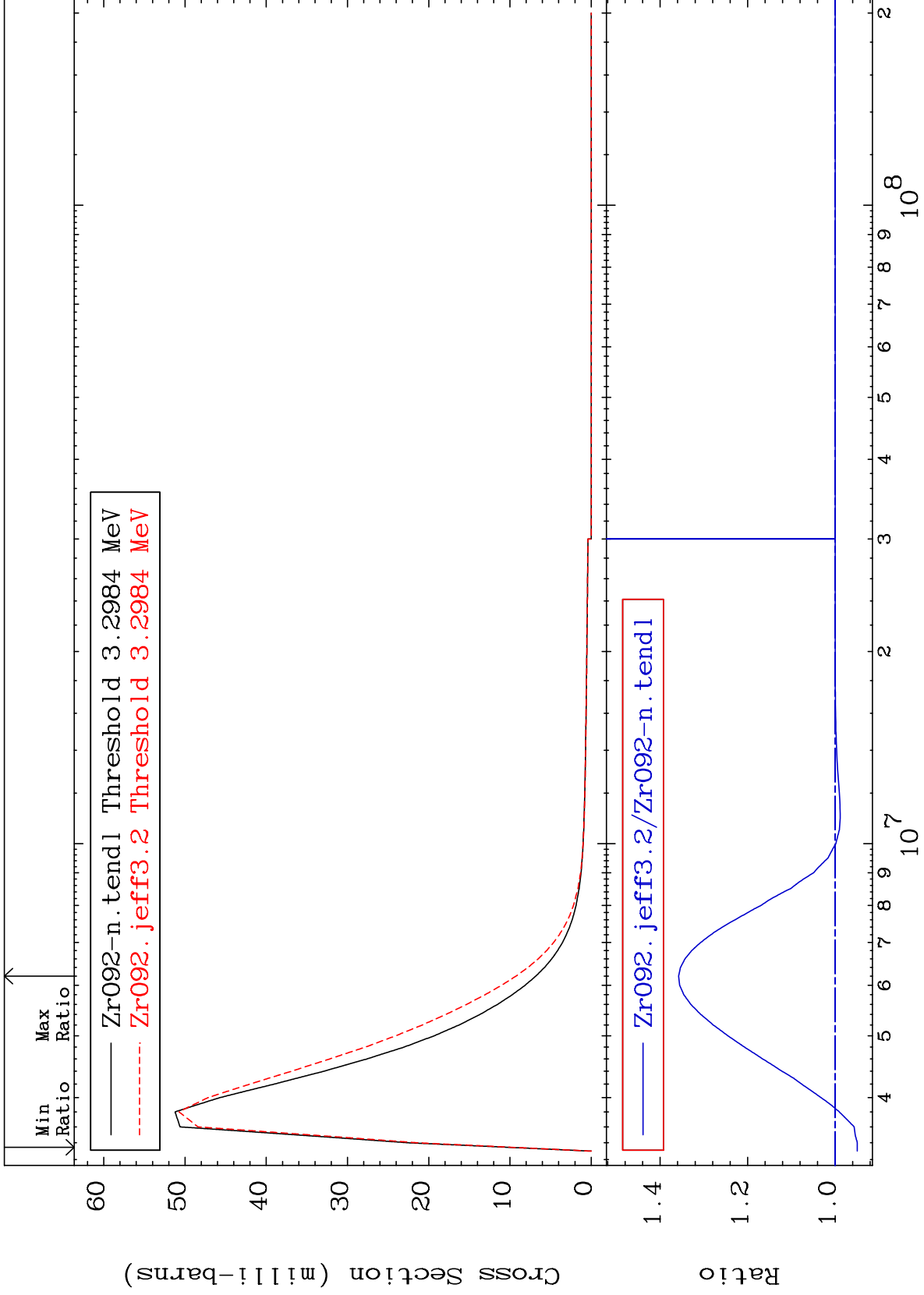
40-Zr-92  
-2.084 To 41.65 %



MAT 4031

3.263 MeV (n,n') Level  
Cross Section

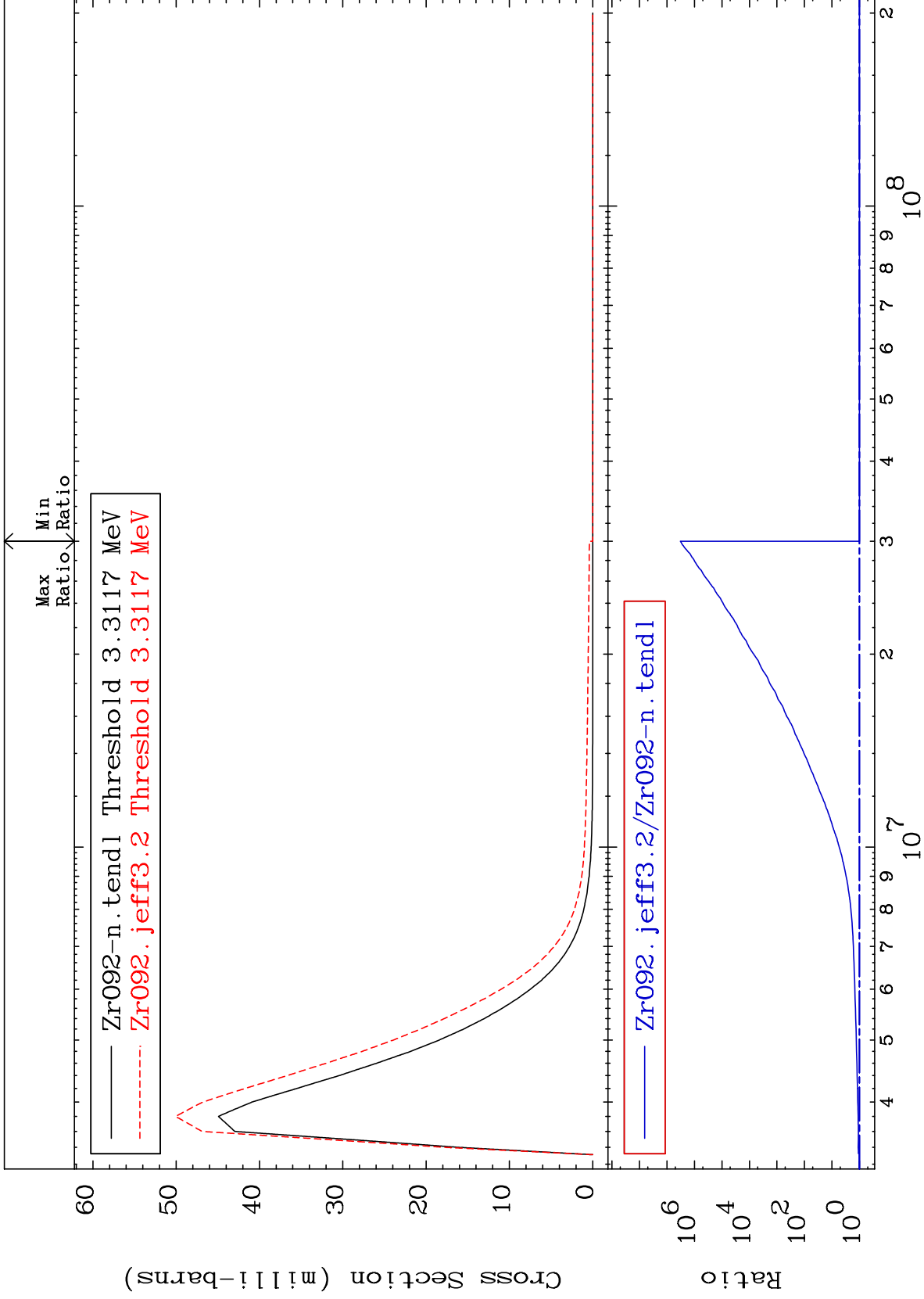
40-Zr-92  
-5.061 To 35.77 %



MAT 4031

3.276 MeV (n,n') Level  
Cross Section

40-Zr-92  
0.000 To 9999. %



45

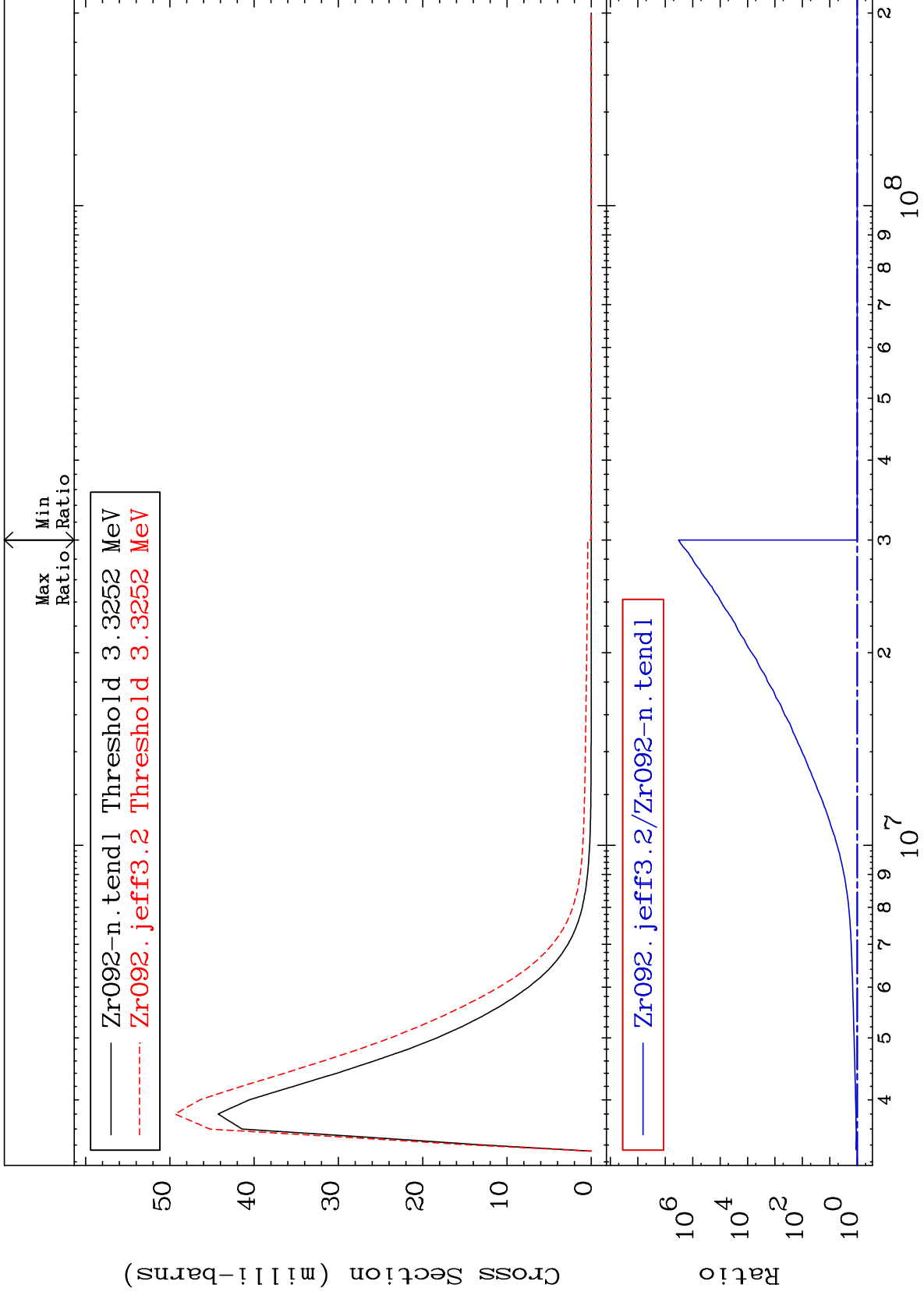
Incident Energy (eV)

40-Zr-92

MAT 4031

3.289 MeV (n,n') Level  
Cross Section

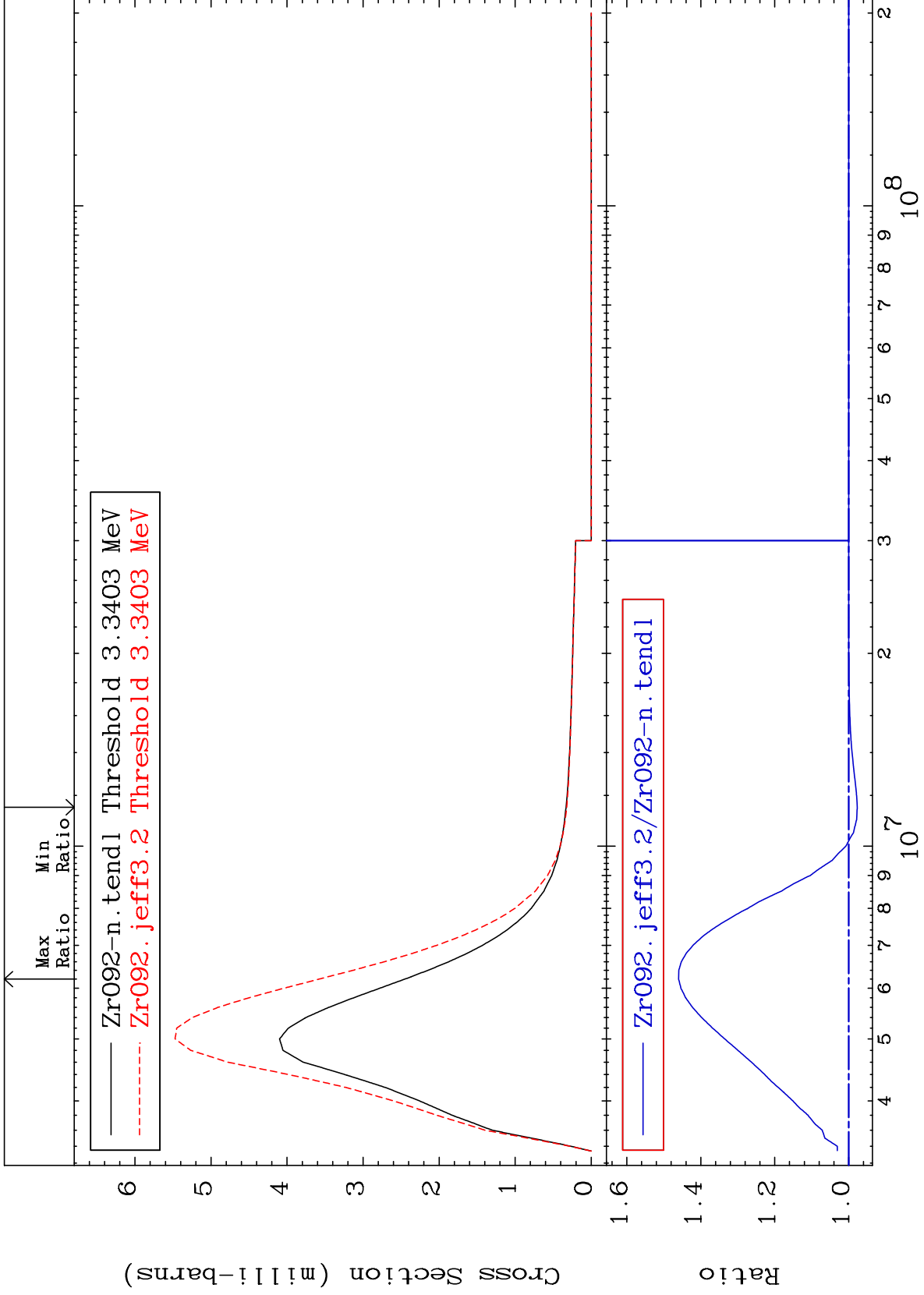
0.000 To 9999. %  
40-Zr-92



MAT 4031

3.304 MeV (n,n') Level  
Cross Section

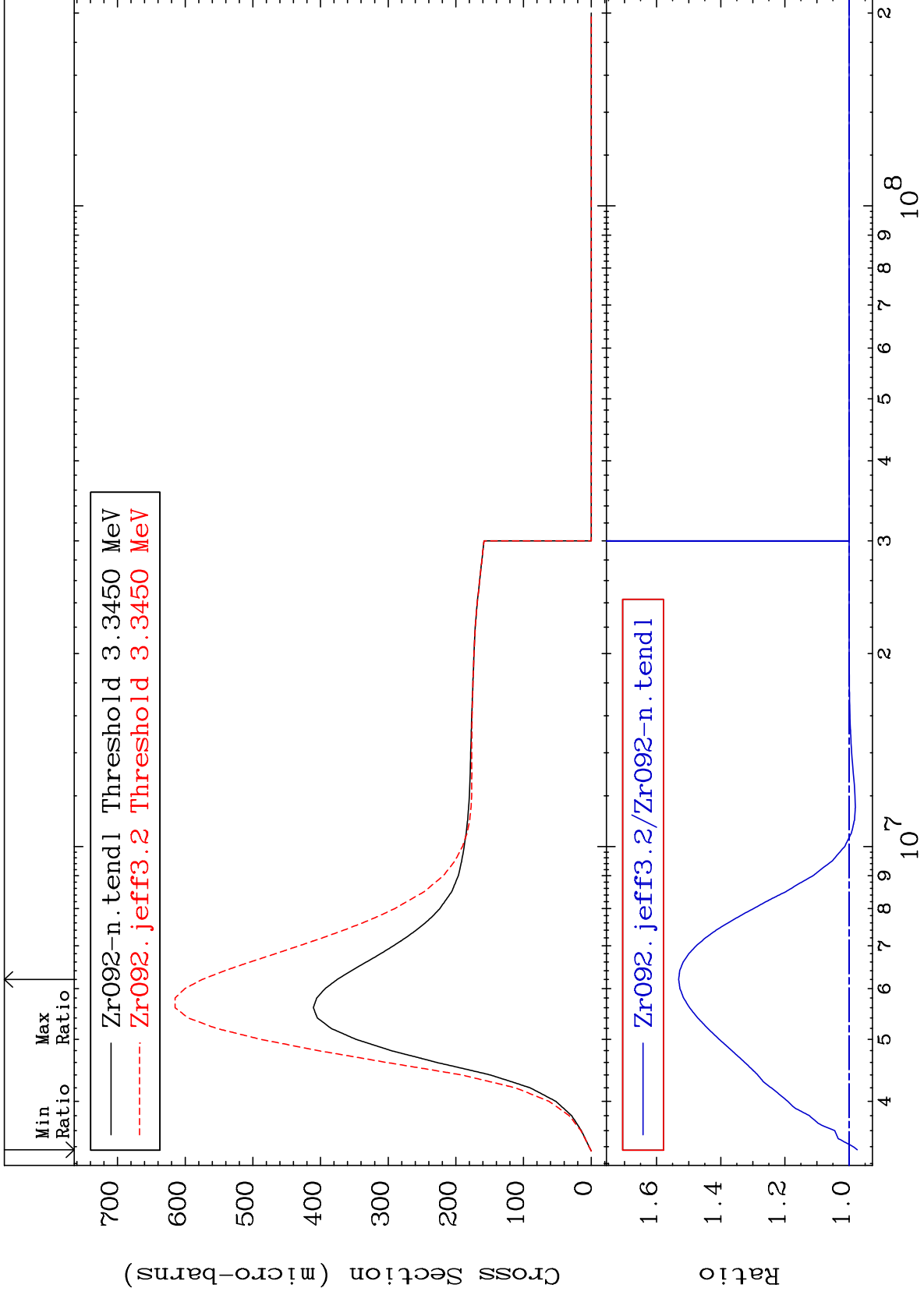
40-Zr-92  
-2.303 To 45.98 %



MAT 4031

3.309 MeV (n,n') Level  
Cross Section

40-Zr-92  
-2.562 To 53.13 %

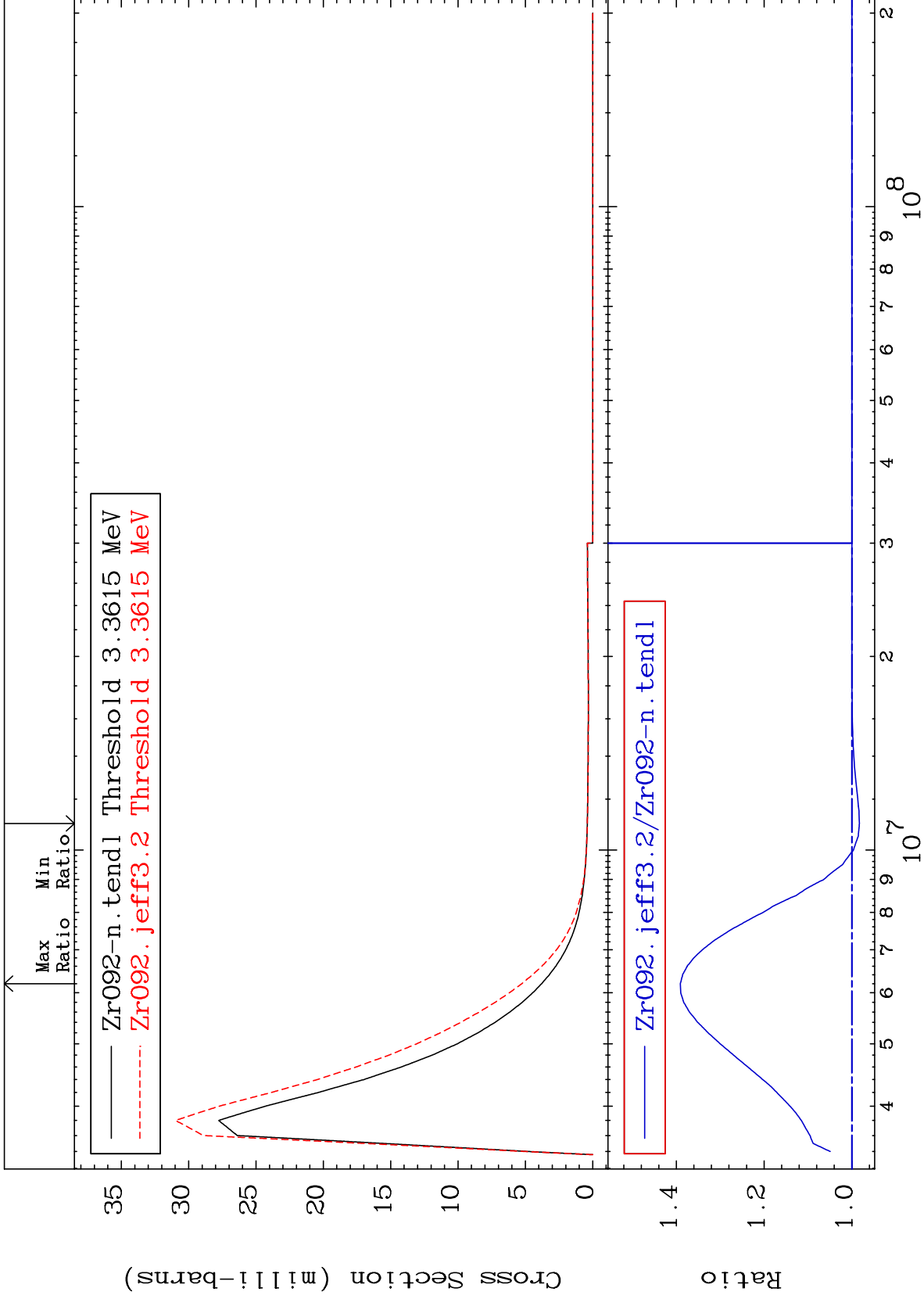




MAT 4031

3.325 MeV (n,n') Level  
Cross Section

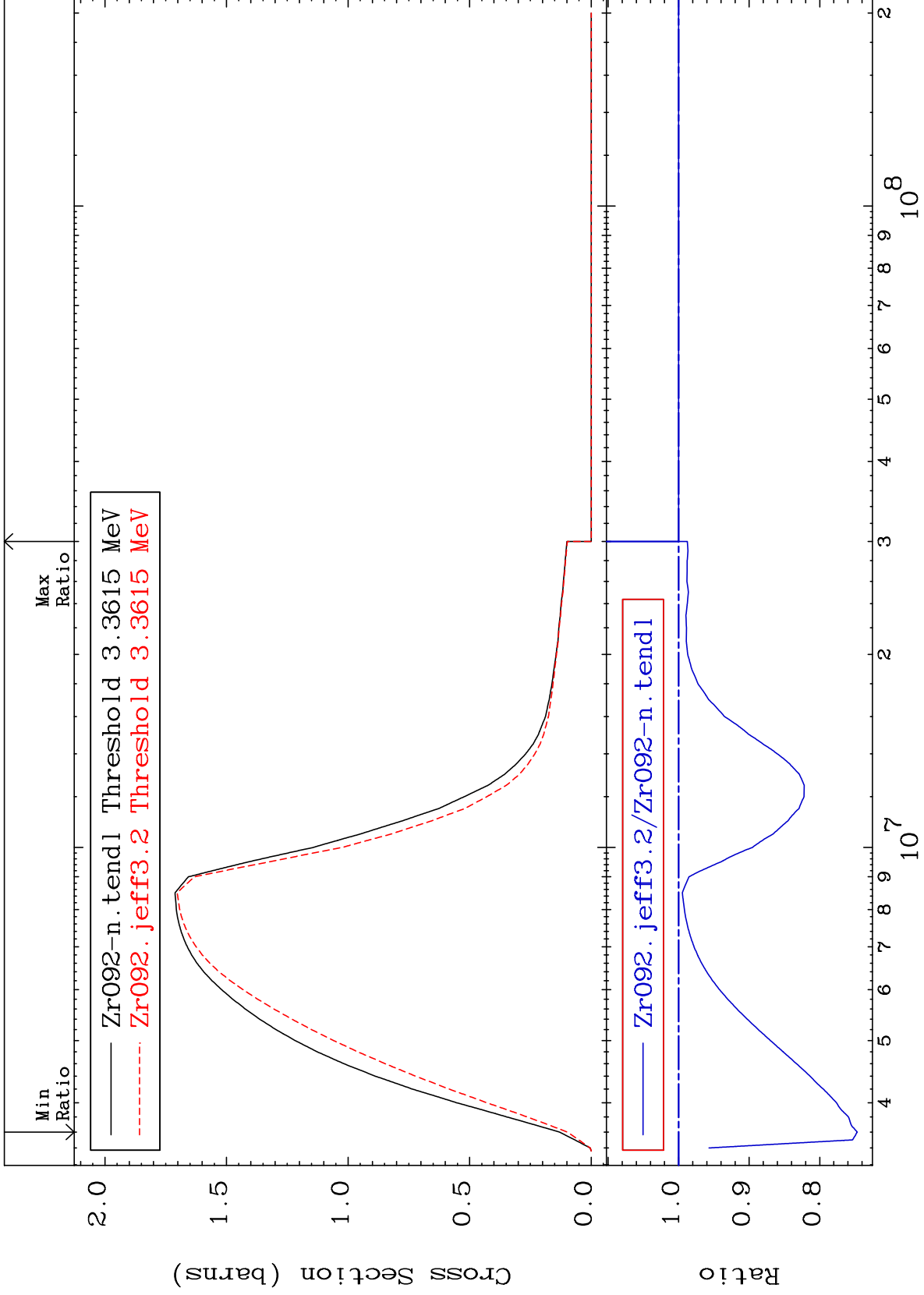
40-Zr-92  
-1.736 To 39.09 %



MAT 4031

(n, n') Continuum  
Cross Section

40-Zr-92  
-25.32 To 0.000 %



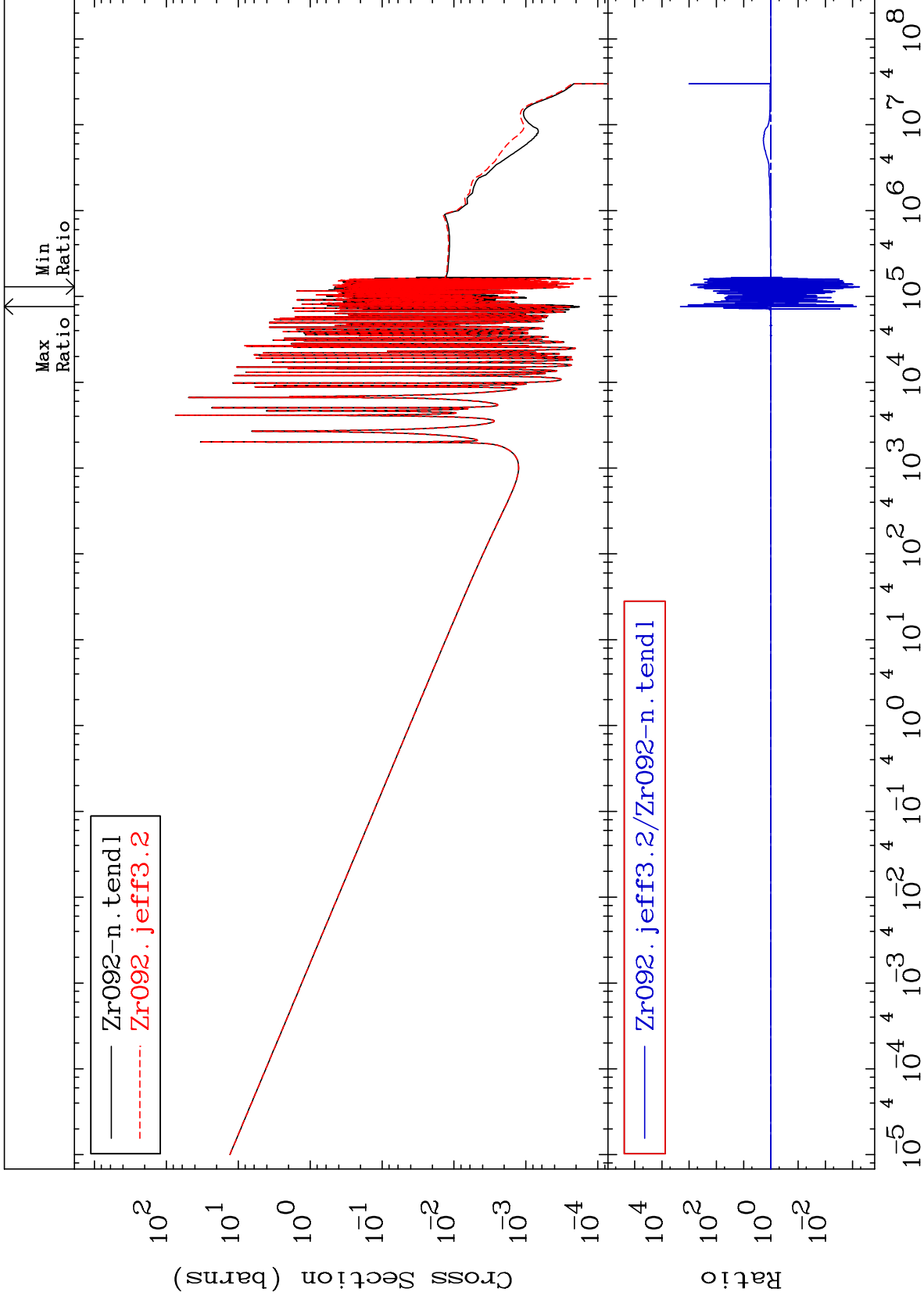
MAT 4031

(n,  $\gamma$ )

40-Zr-92

Cross Section

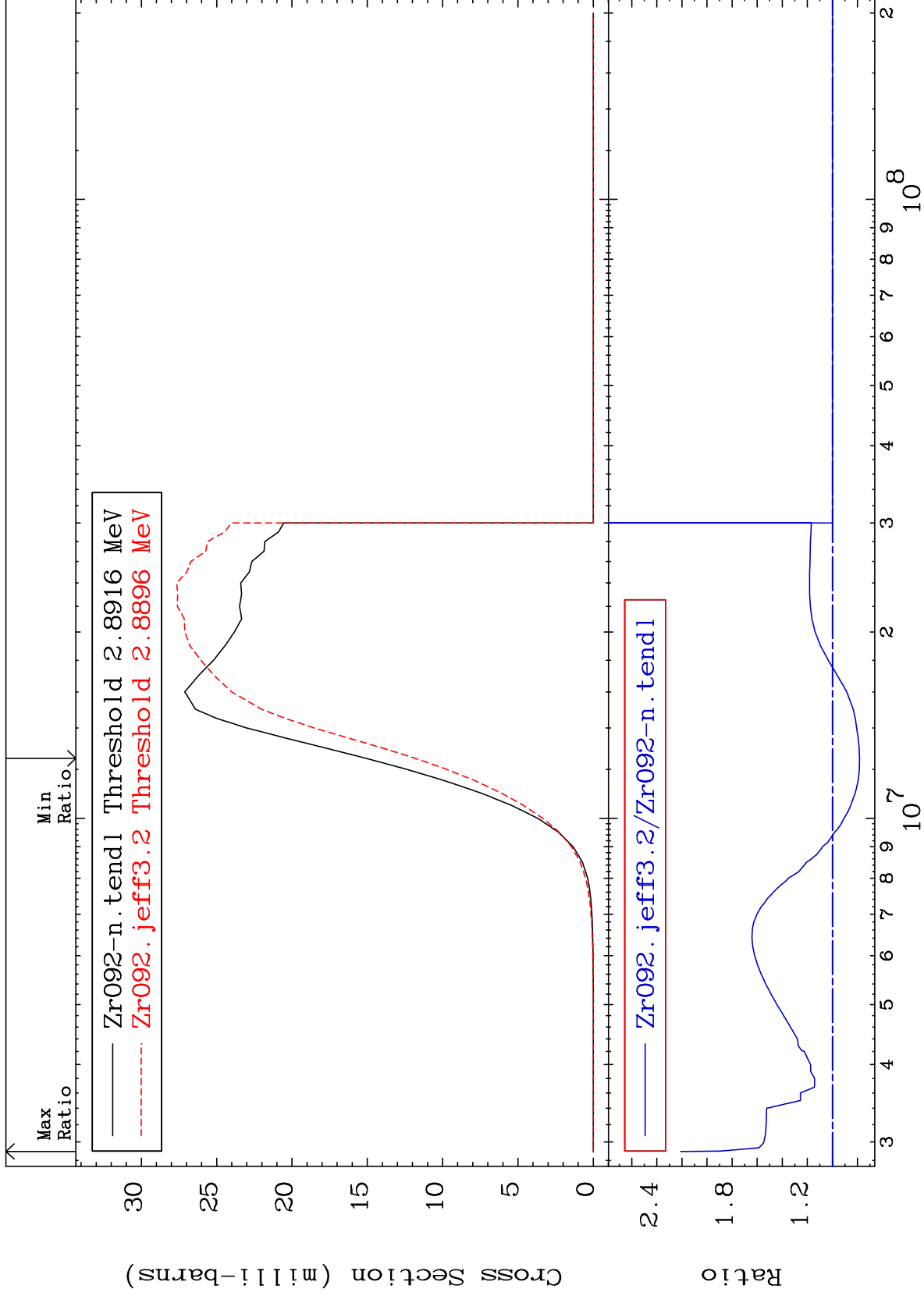
-99.94 To 9999. %



MAT 4031

(n,p)  
Cross Section

40-Zr-92  
-21.65 To 120.9 %



52

Incident Energy (eV)

40-Zr-92

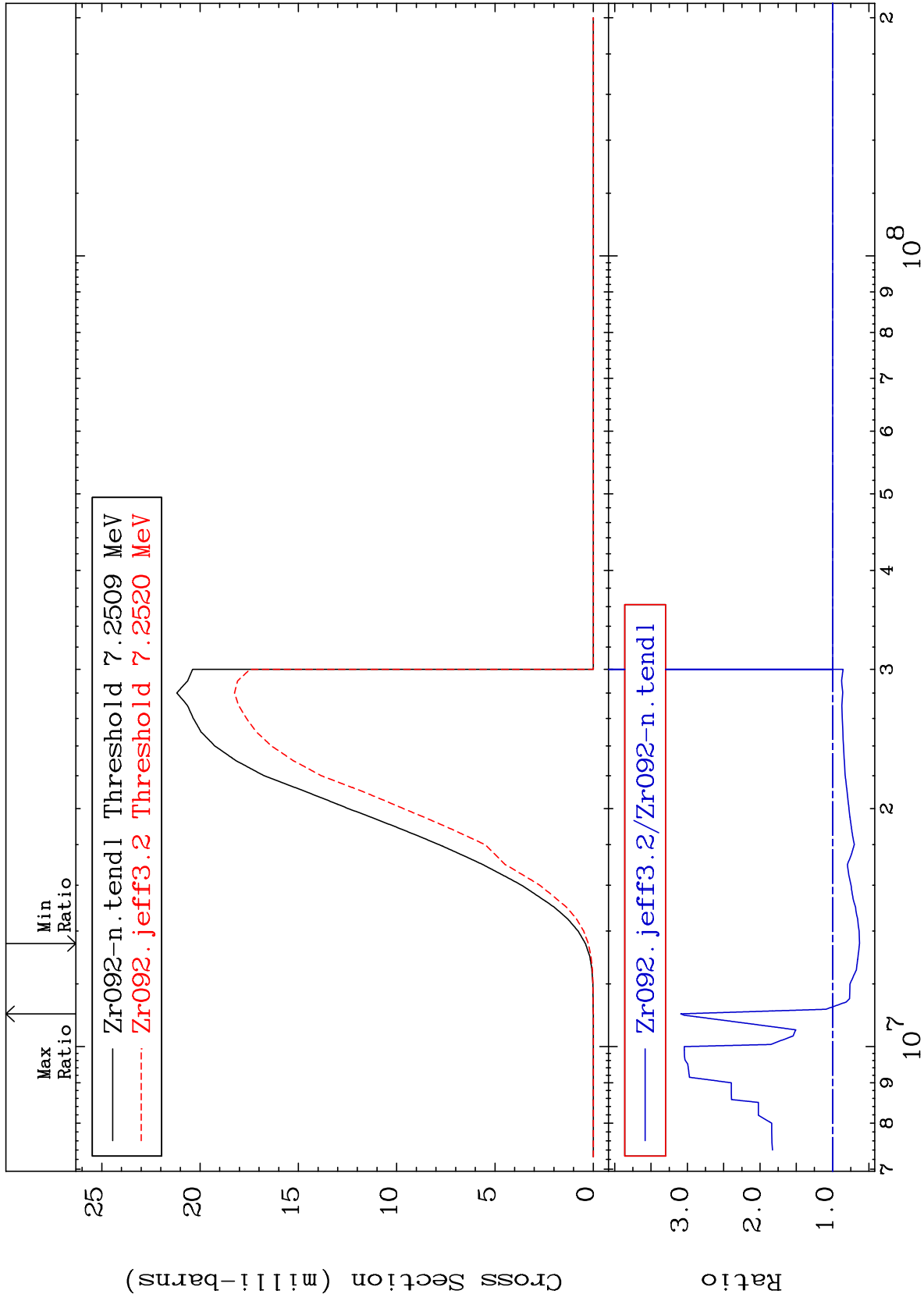
MAT 4031

(n, d)

40-Zr-92

Cross Section

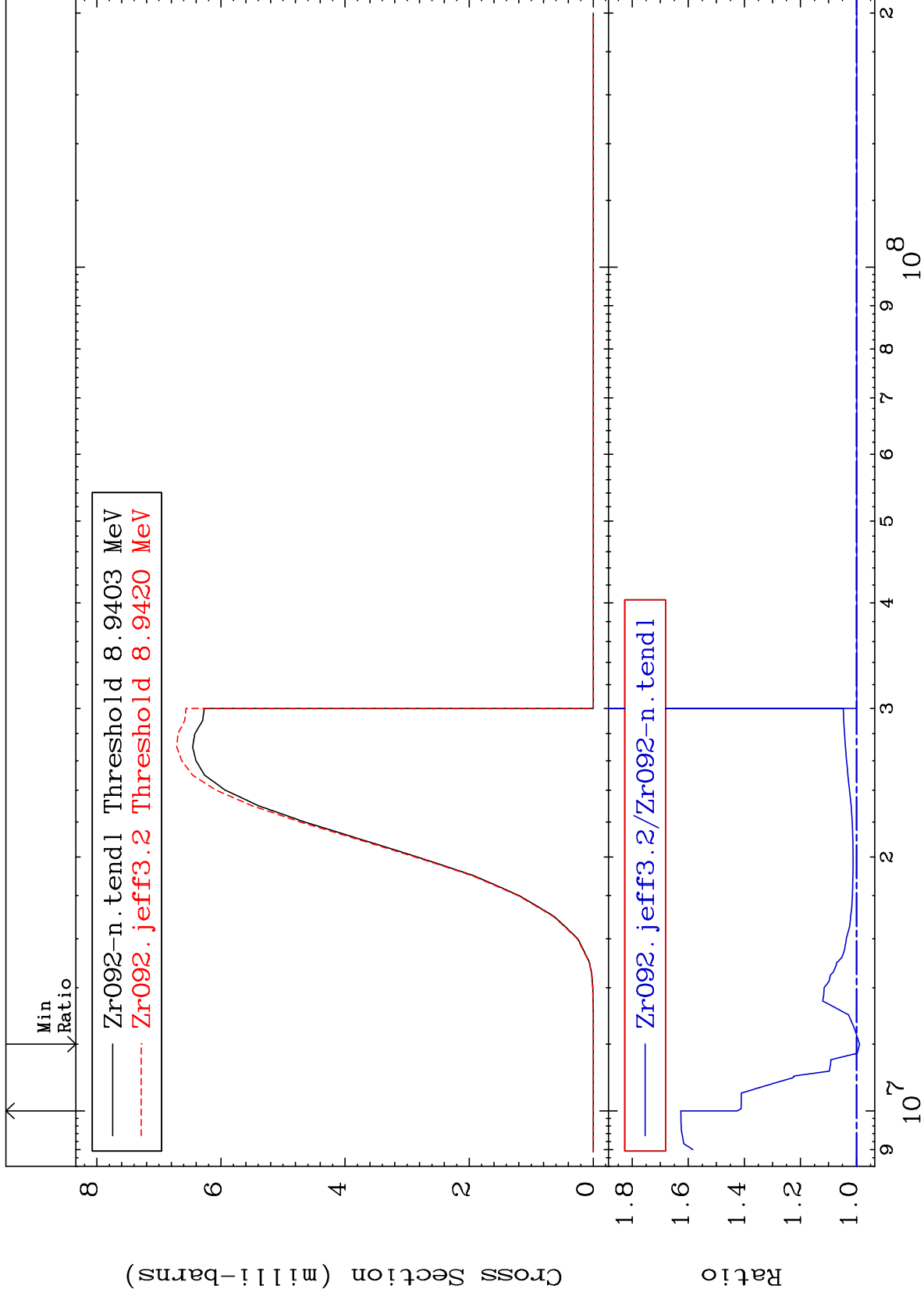
-37.07 To 209.1 %



MAT 4031

(n, t)  
Cross Section

40-Zr-92  
-1.071 To 62.69 %



54

Incident Energy (eV)

40-Zr-92

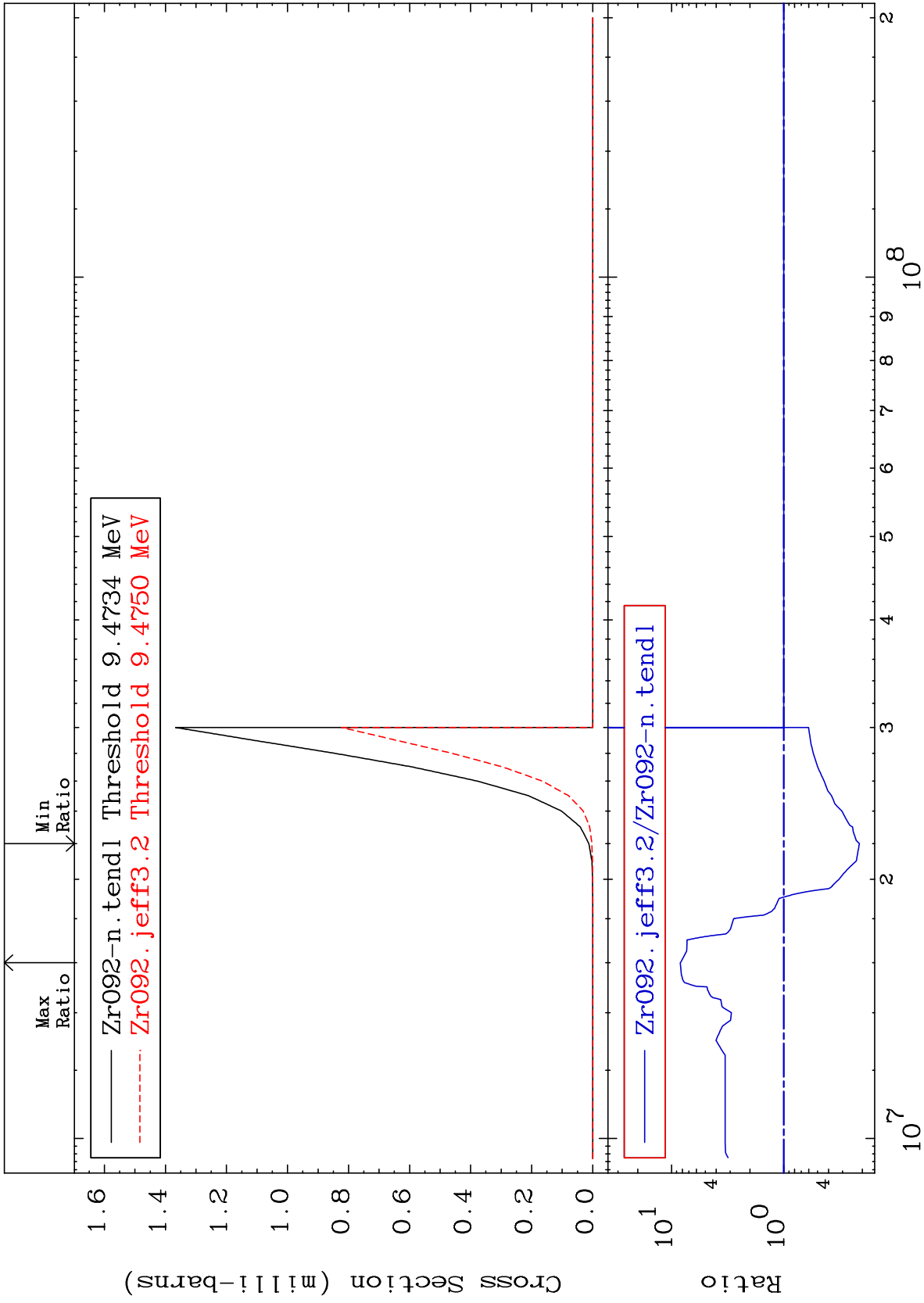
MAT 4031

(n, He-3)

40-Zr-92

Cross Section

-78.80 To 734.1 %



55

Incident Energy (eV)

40-Zr-92

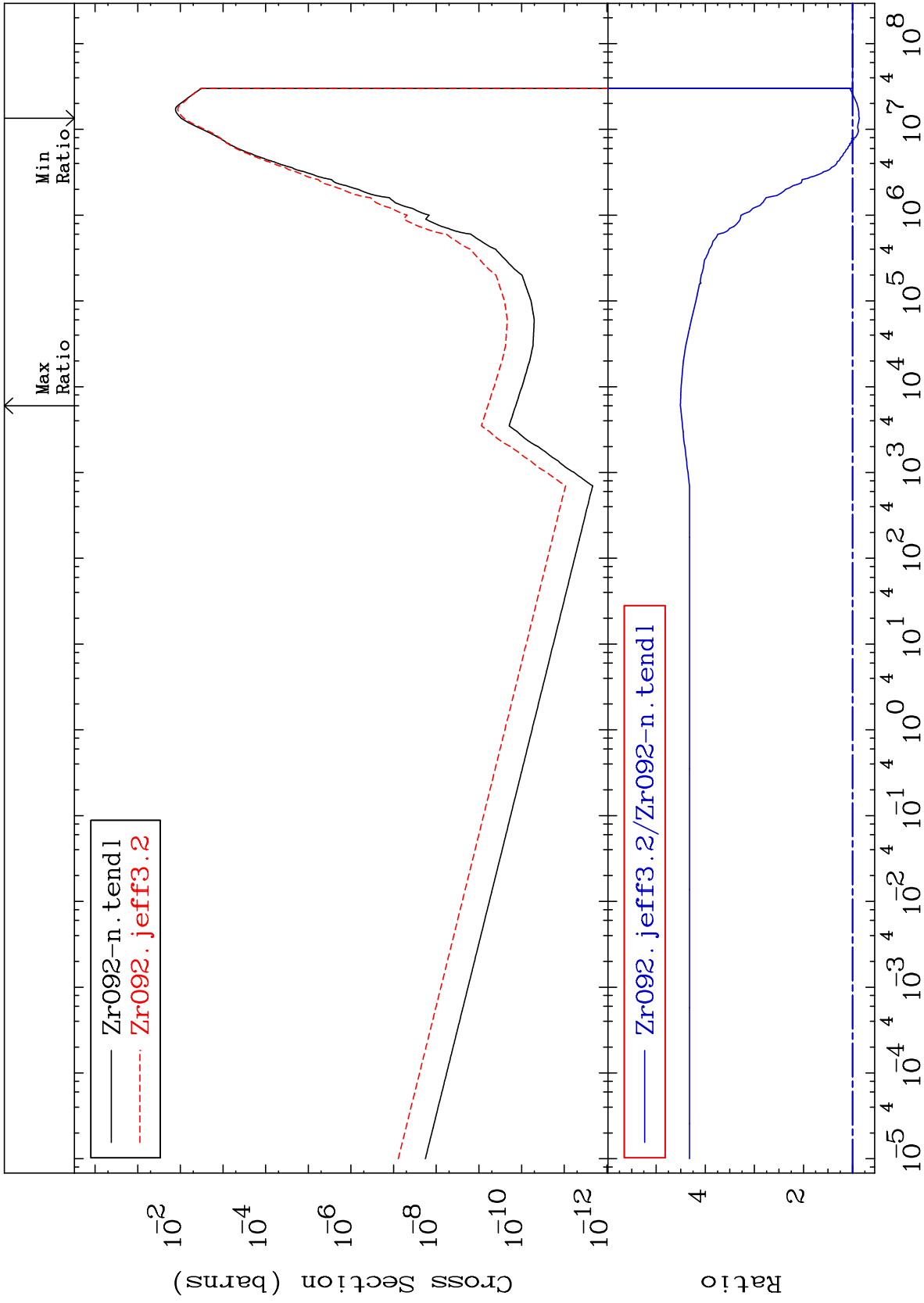
MAT 4031

(n,  $\alpha$ )

Cross Section

40-Zr-92

-14.07 To 350.8 %





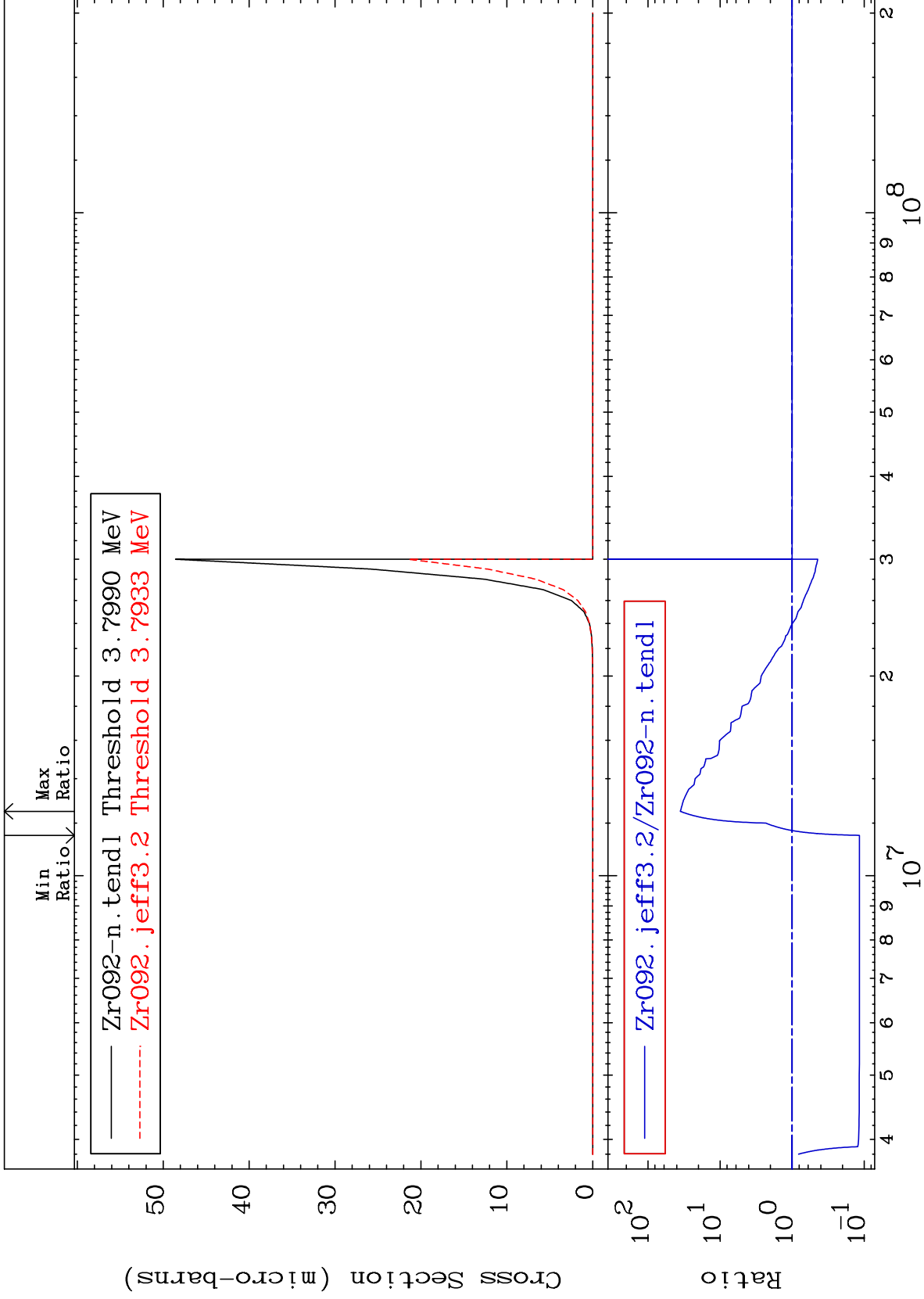
MAT 4031

(n,2α)

40-Zr-92

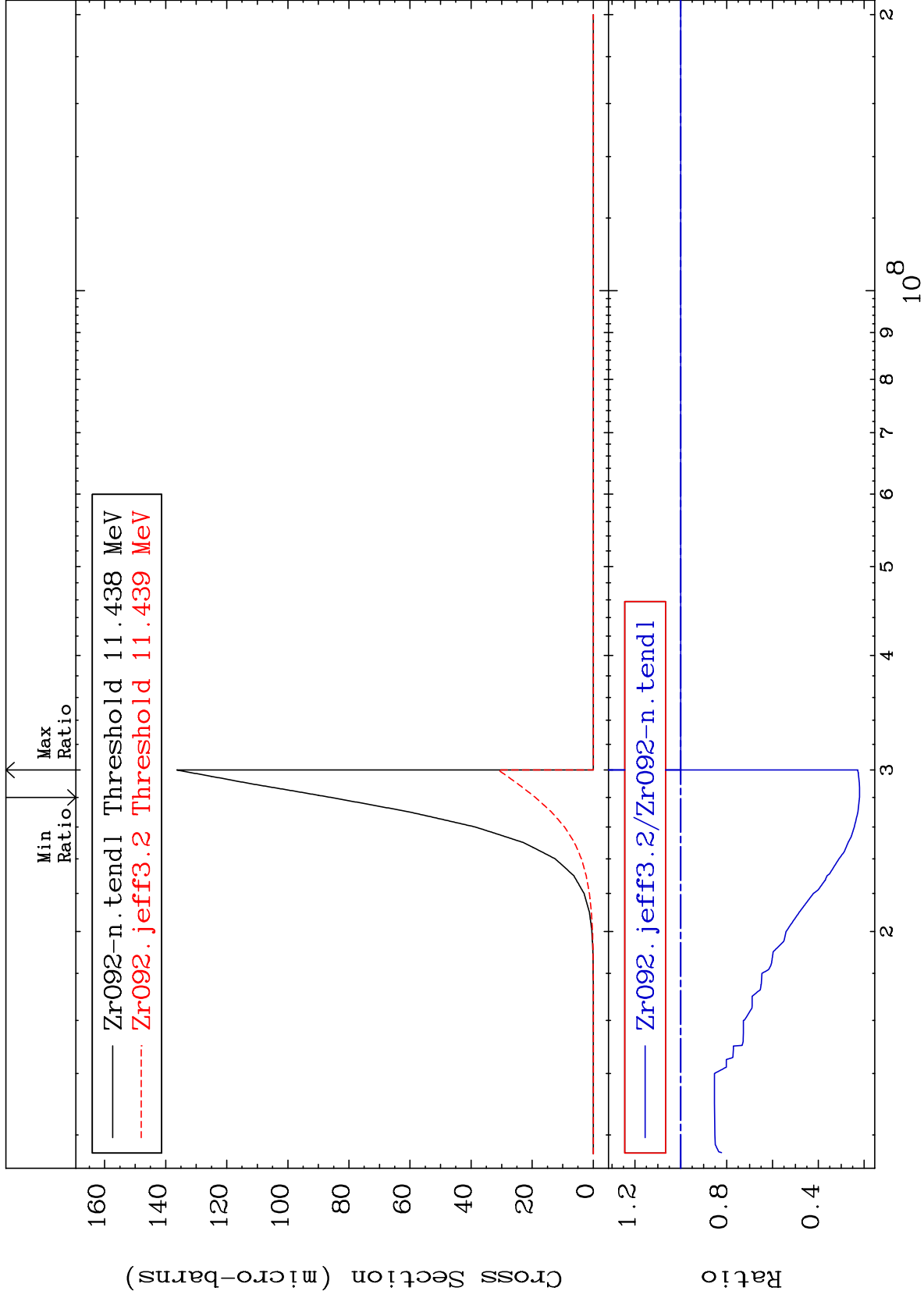
Cross Section

-88.36 To 3456. %



MAT 4031

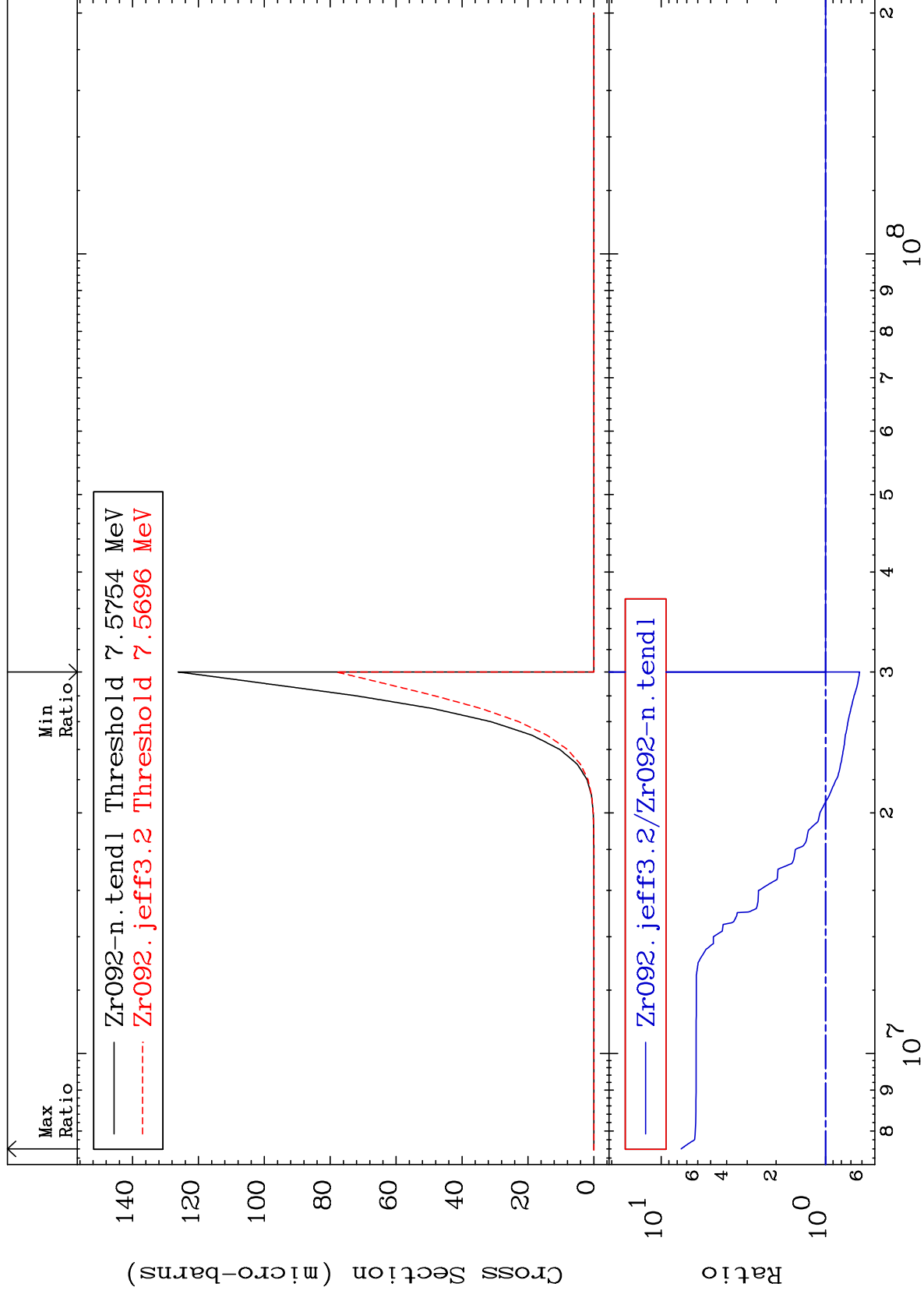
(n,2p) Cross Section  
40-Zr-92  
-77.96 To 0.000 %



MAT 4031

(n, p)  $\alpha$   
Cross Section

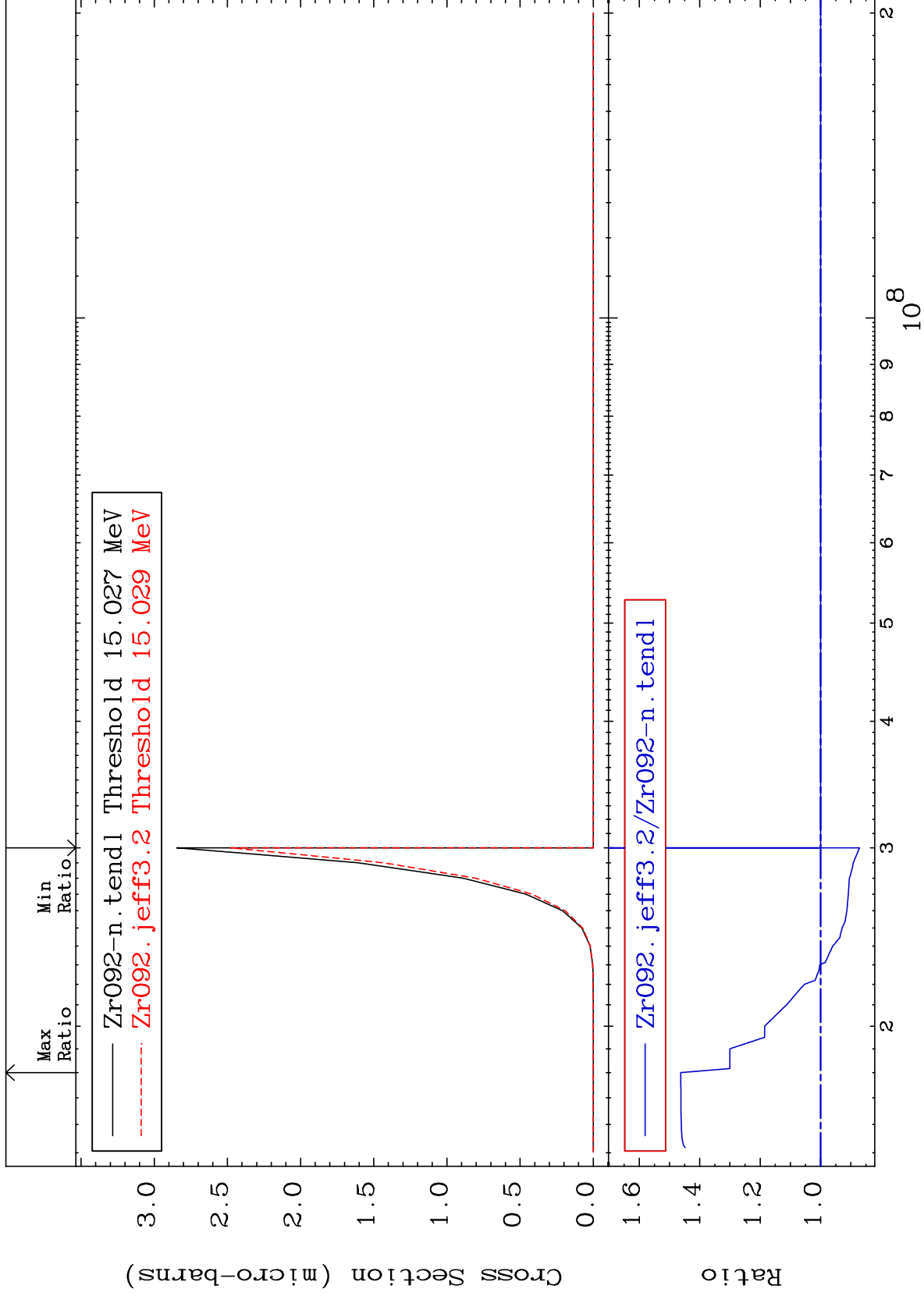
40-Zr-92  
-38.05 To 656.3 %



MAT 4031

(n,p) d  
Cross Section

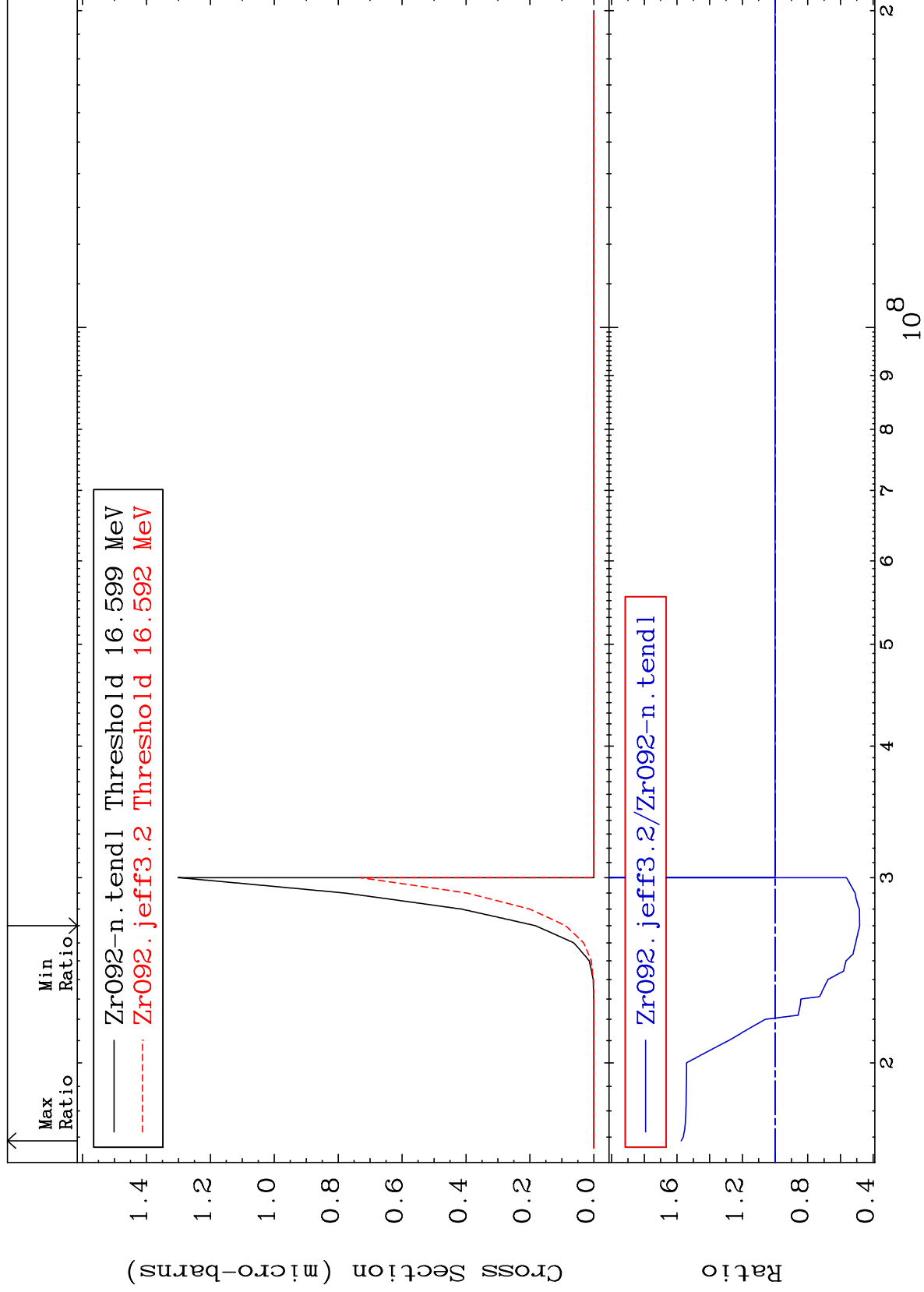
40-Zr-92  
-12.89 To 46.27 %



MAT 4031

(n, p) t  
Cross Section

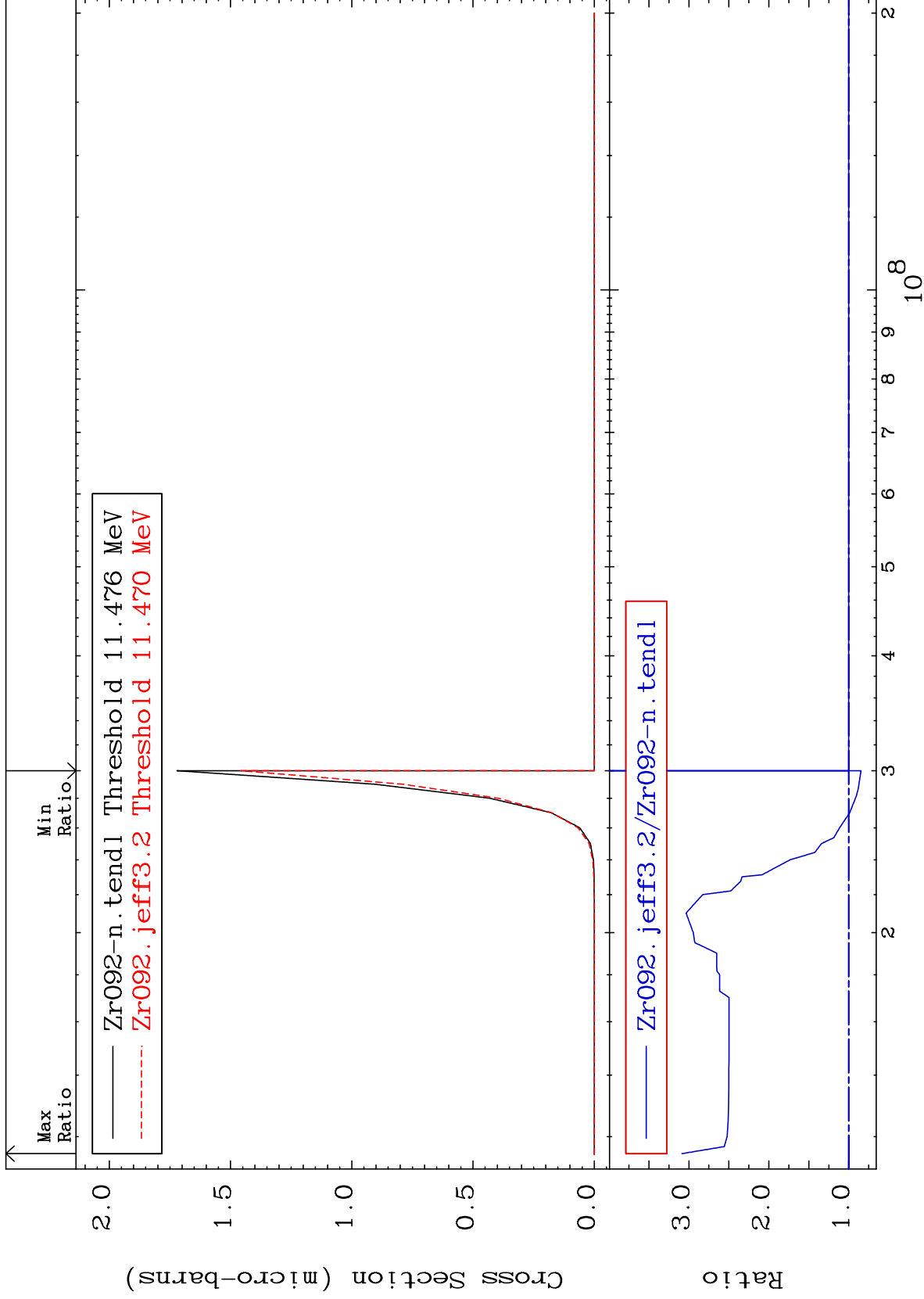
40-Zr-92  
-51.76 To 57.42 %



MAT 4031

(n, d)  $\alpha$   
Cross Section

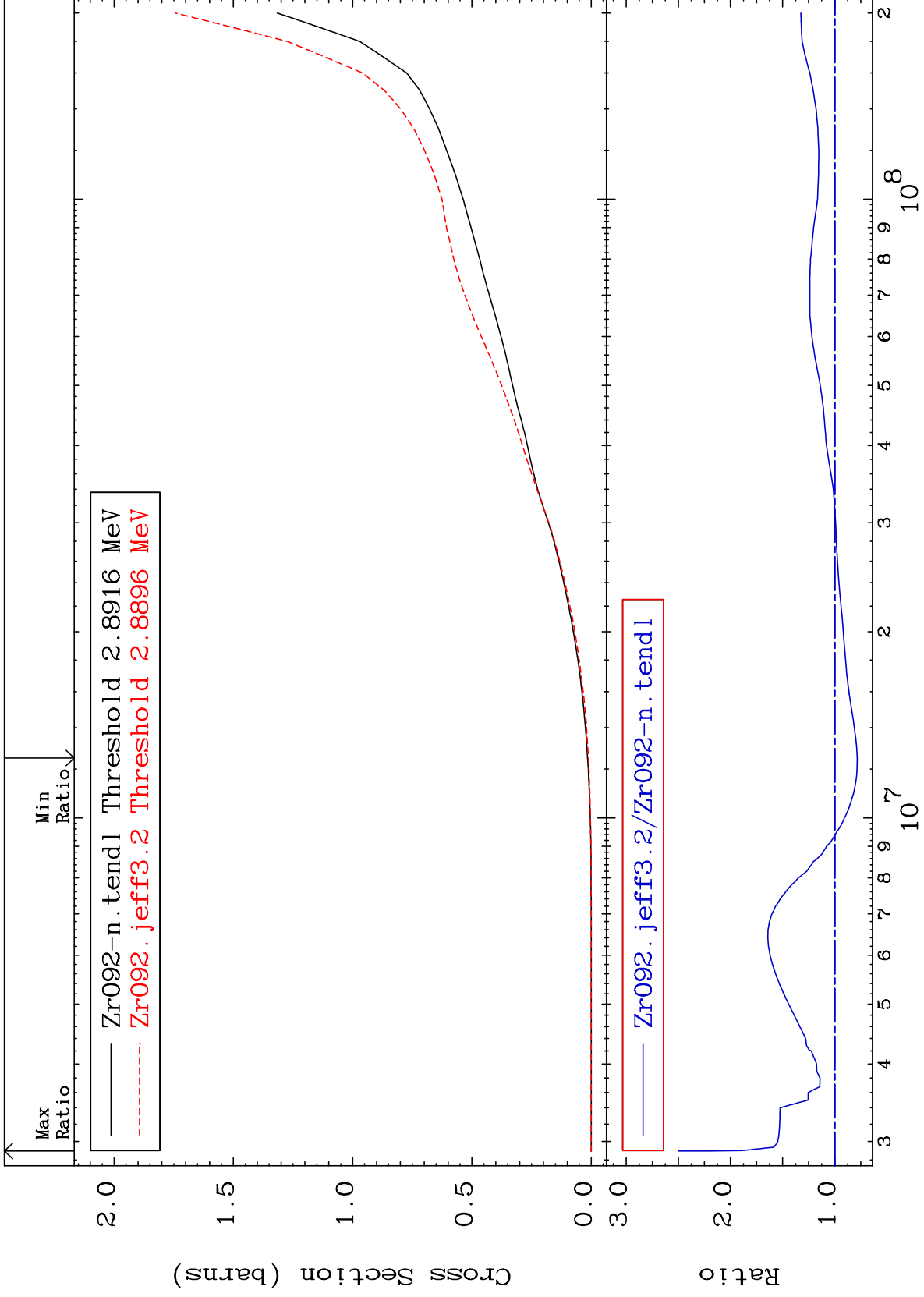
40-Zr-92  
-15.29 To 208.7 %



MAT 4031

Hydrogen Production  
Cross Section

40-Zr-92  
-21.60 To 149.7 %



63

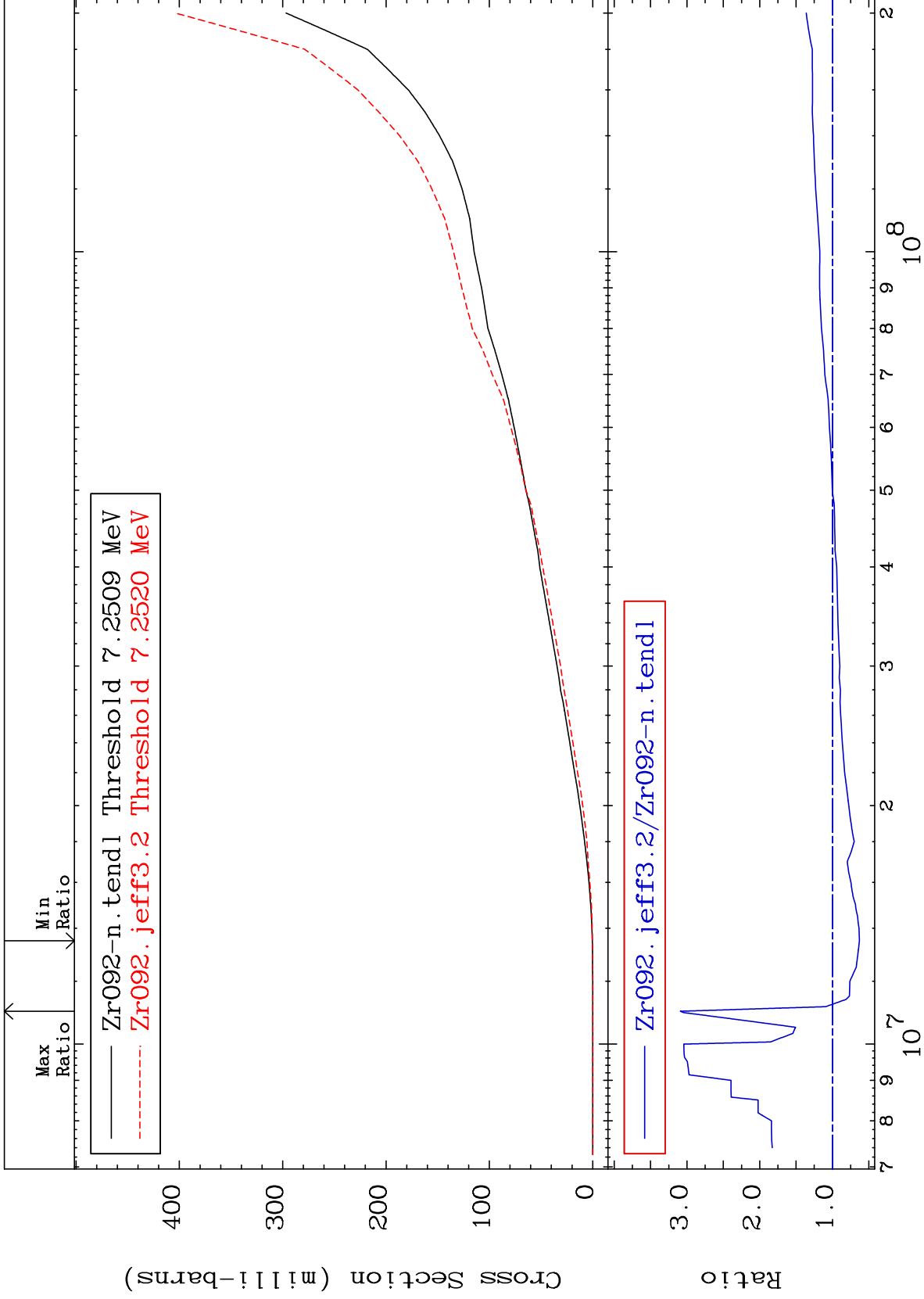
Incident Energy (eV)

40-Zr-92

MAT 4031

Deuterium Production  
Cross Section

40-Zr-92  
-37.07 To 209.1 %



64

Incident Energy (eV)

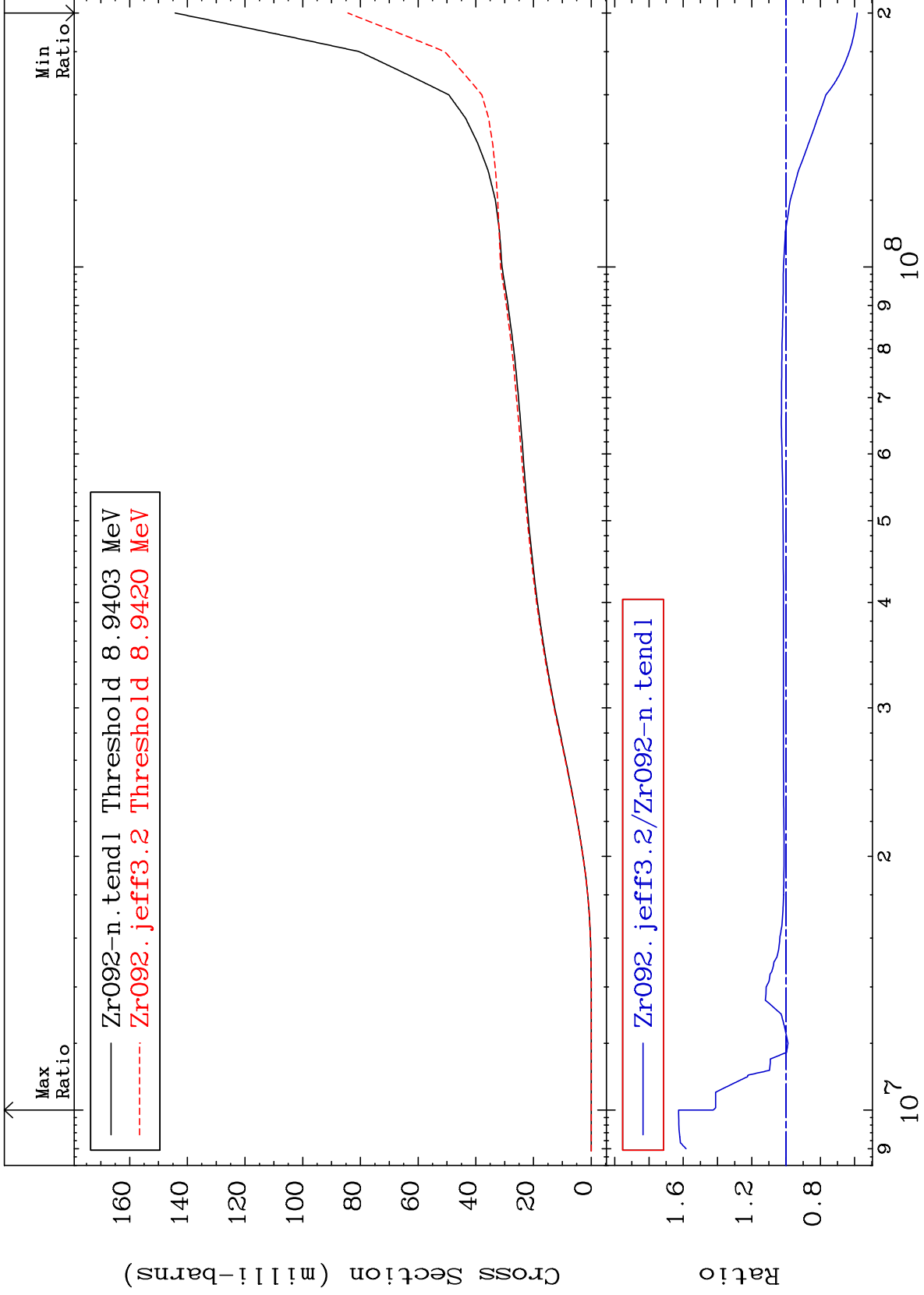
40-Zr-92



MAT 4031

Tritium Production  
Cross Section

40-Zr-92  
-41.52 To 62.69 %



65

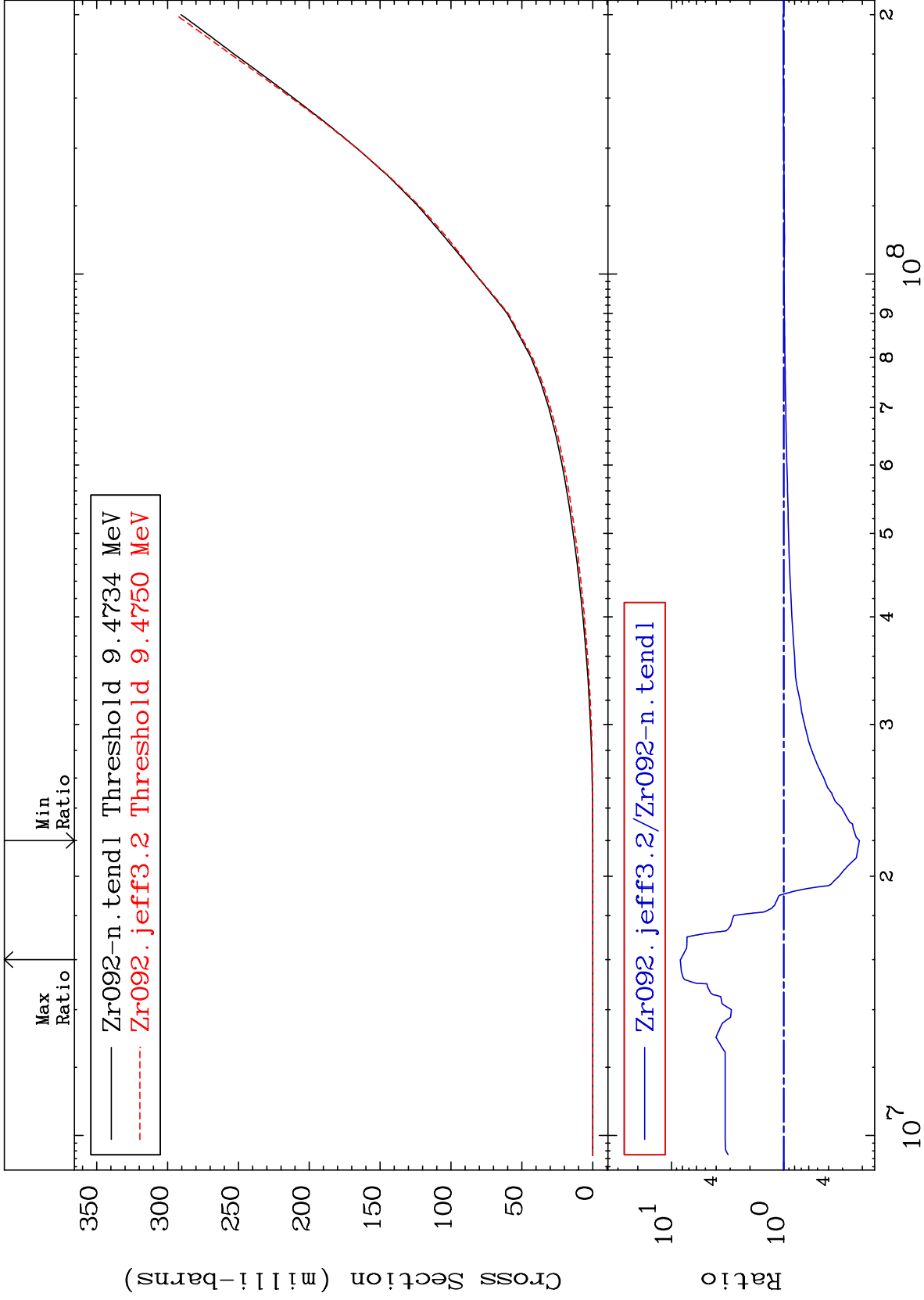
Incident Energy (eV)

40-Zr-92

MAT 4031

He-3 Production  
Cross Section

40-Zr-92  
-78.80 To 734.1 %



66

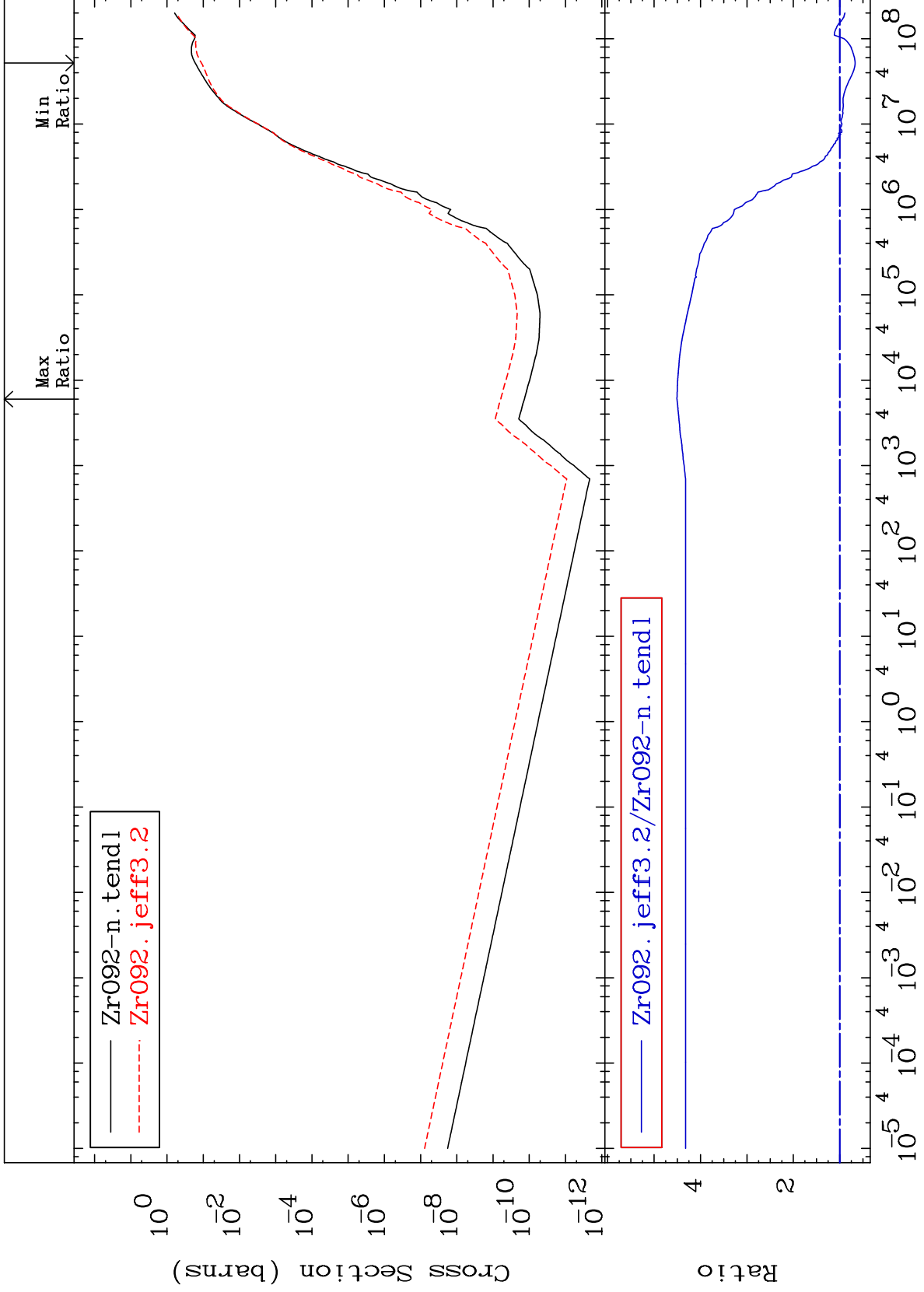
Incident Energy (eV)

40-Zr-92

MAT 4031

He-4 Production  
Cross Section

40-Zr-92  
-32.93 To 350.8 %



67

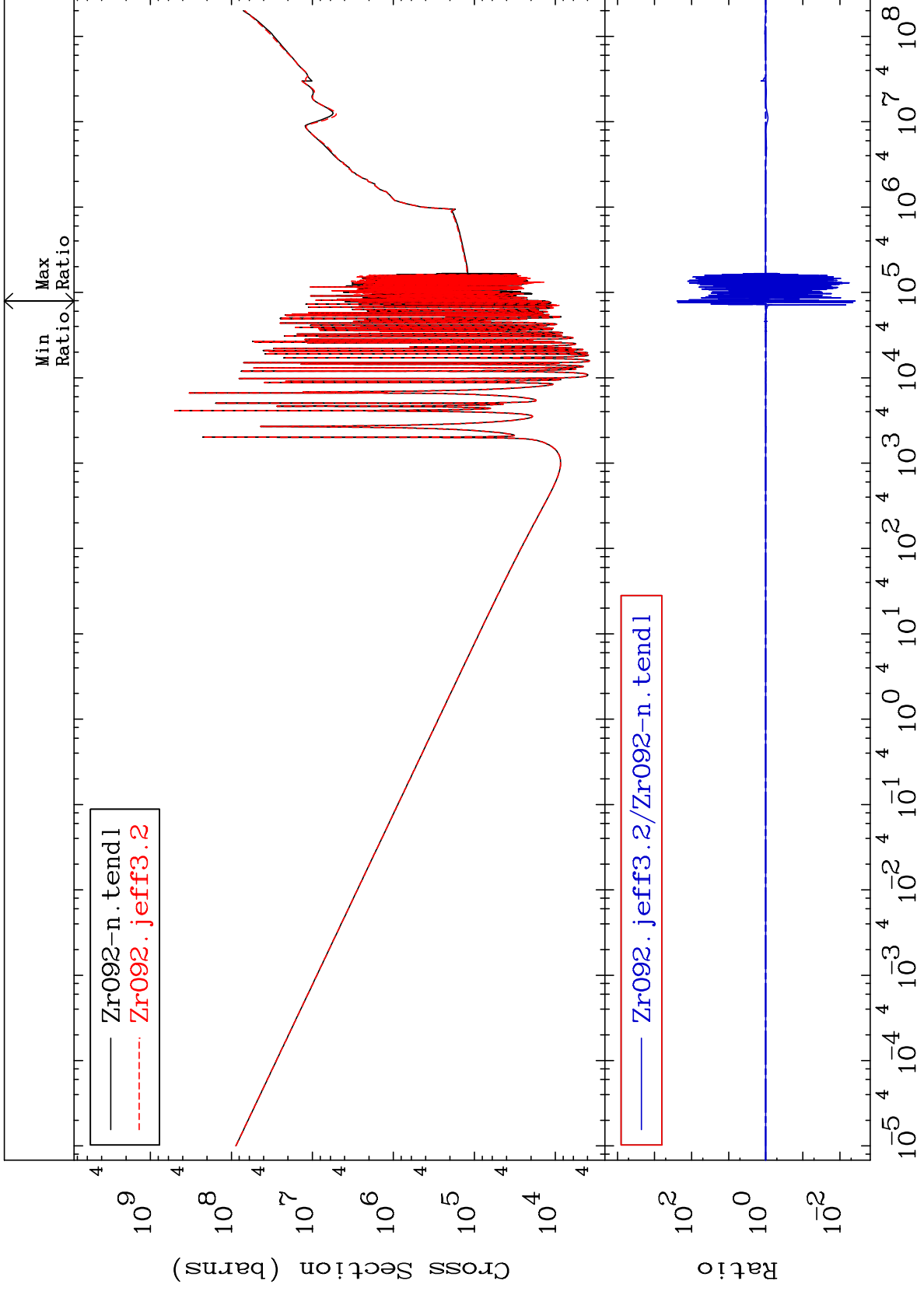
Incident Energy (eV)

40-Zr-92

MAT 4031

Kerma total (eV-barns)  
Cross Section

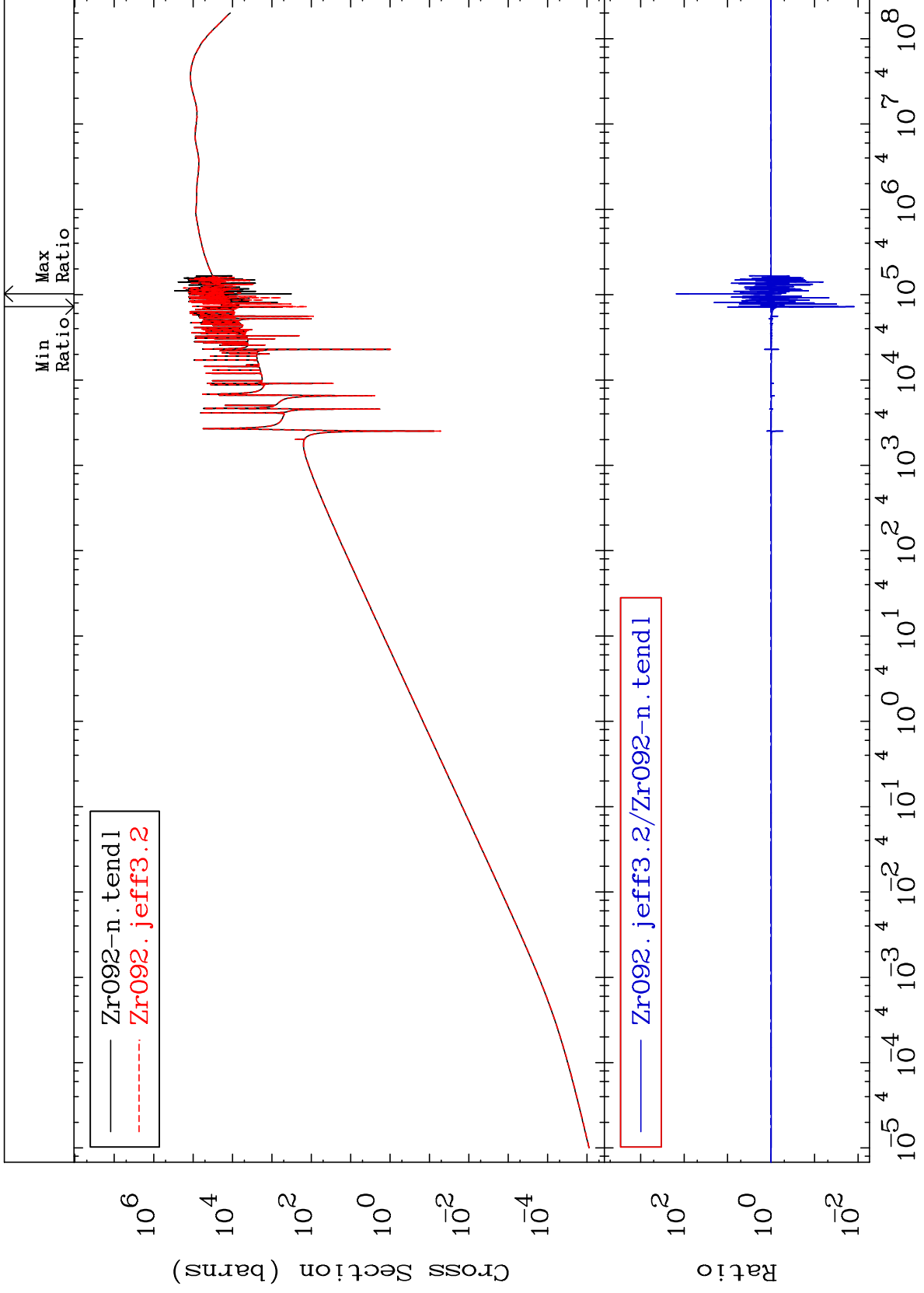
40-Zr-92  
-99.61 To 9999. %



MAT 4031

Kerma elastic  
Cross Section

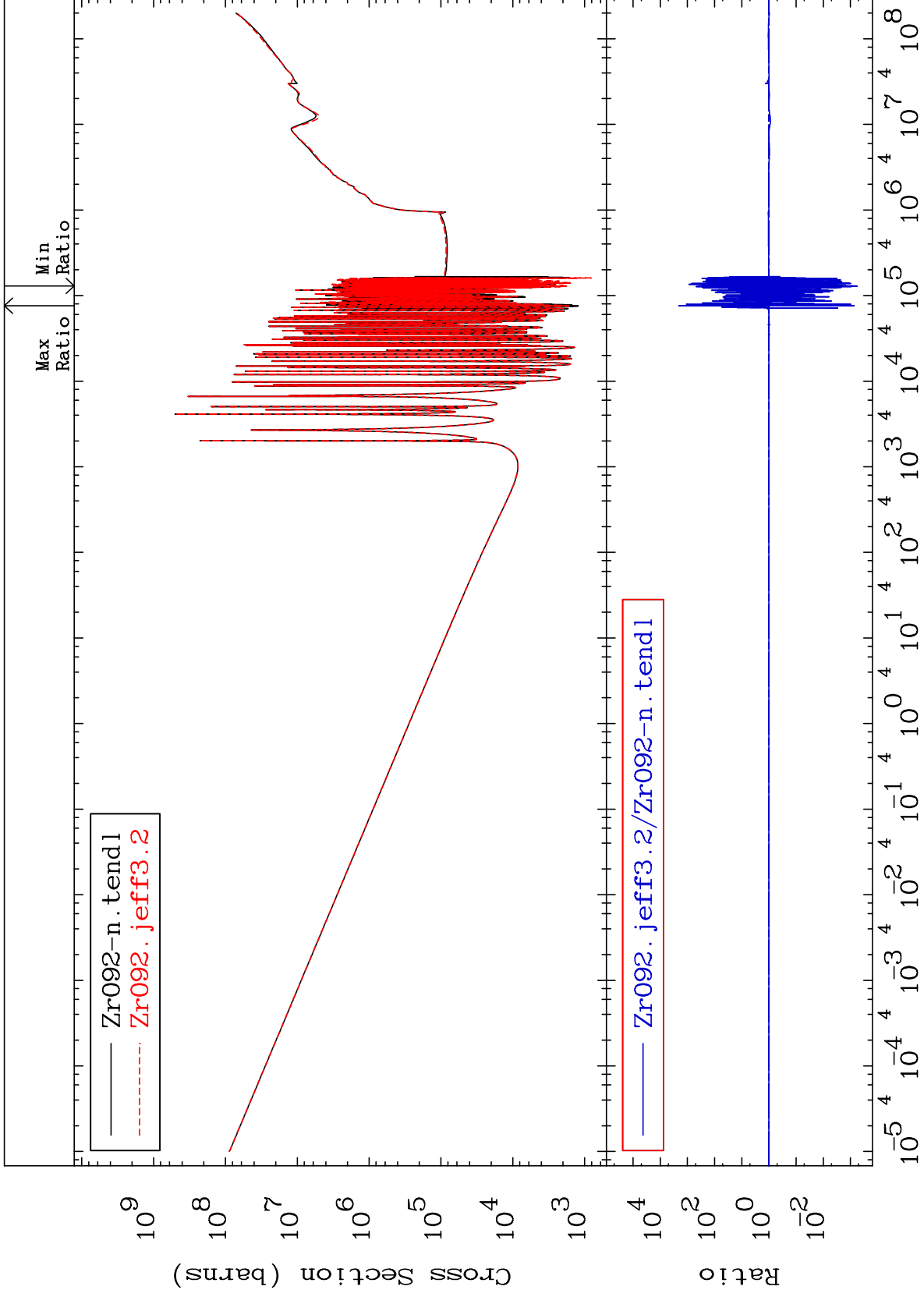
40-Zr-92  
-98.78 To 9999. %



MAT 4031

Kerma non-elastic (all but mt2)  
Cross Section

40-Zr-92  
-99.94 To 9999. %



70

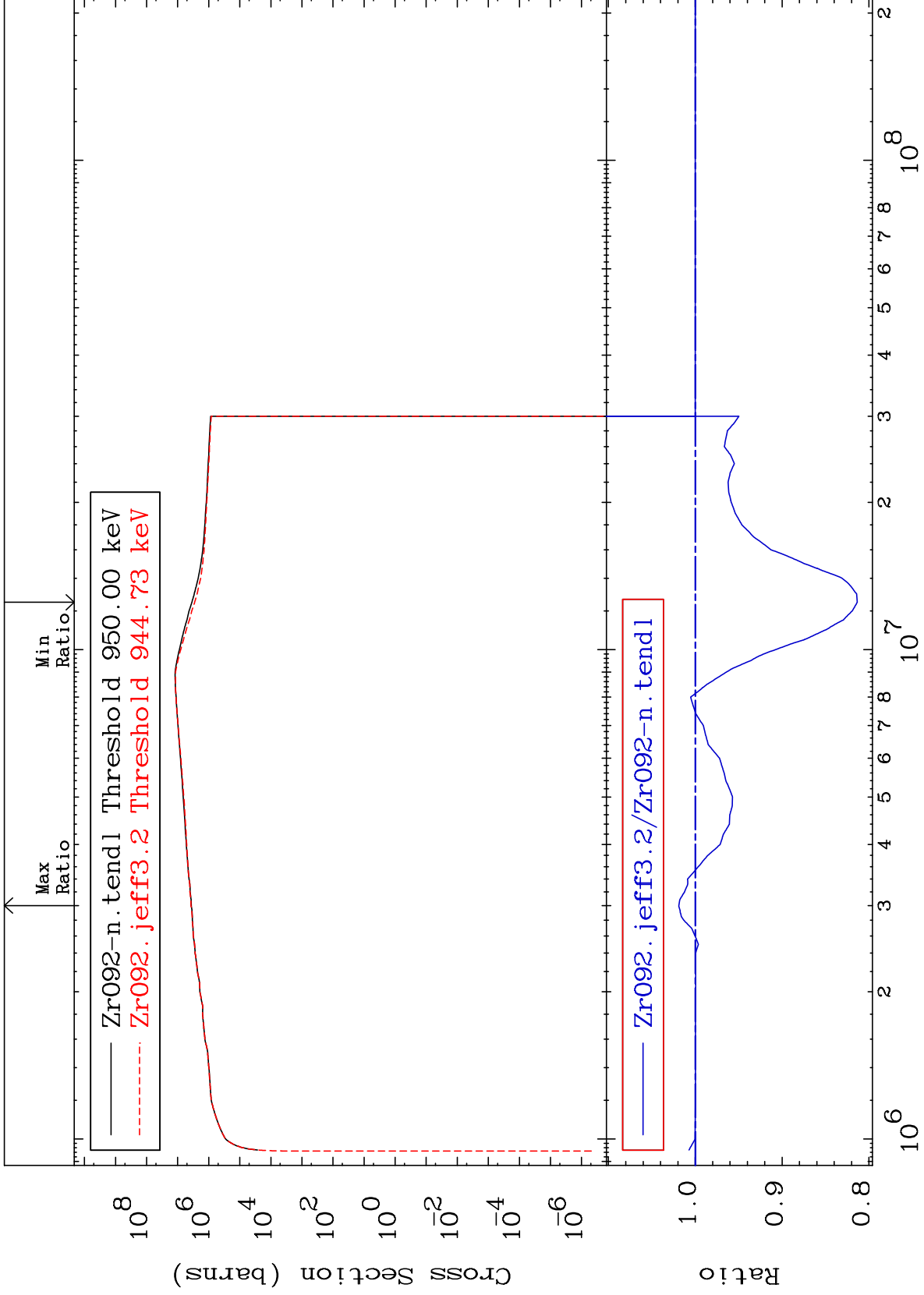
Incident Energy (eV)

40-Zr-92

MAT 4031

Kerma inelastic (mt51-91)  
Cross Section

40-Zr-92  
-18.65 To 1.913 %



71

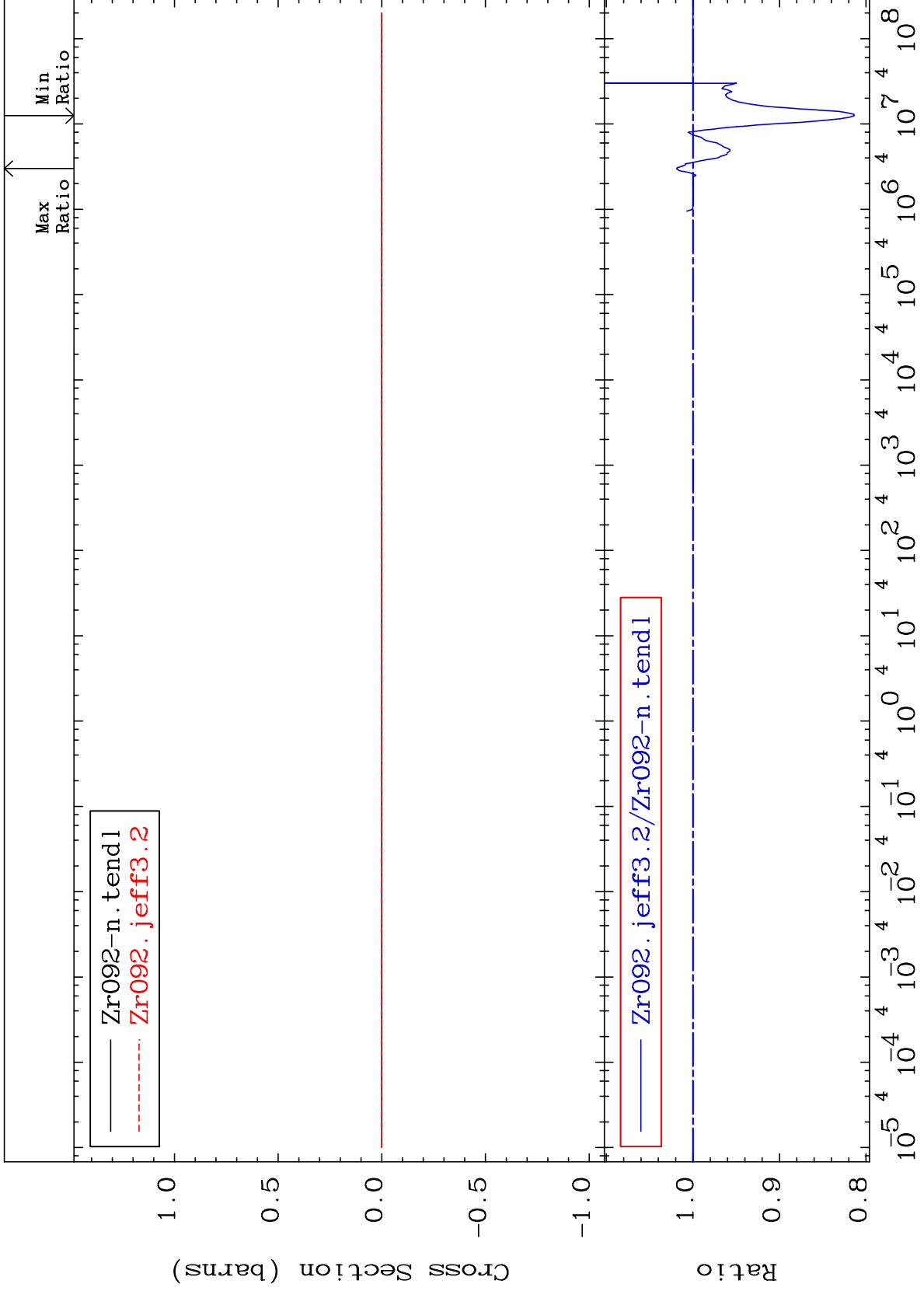
Incident Energy (eV)

40-Zr-92

MAT 4031

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

40-Zr-92  
-18.65 To 1.913 %



72

Incident Energy (eV)

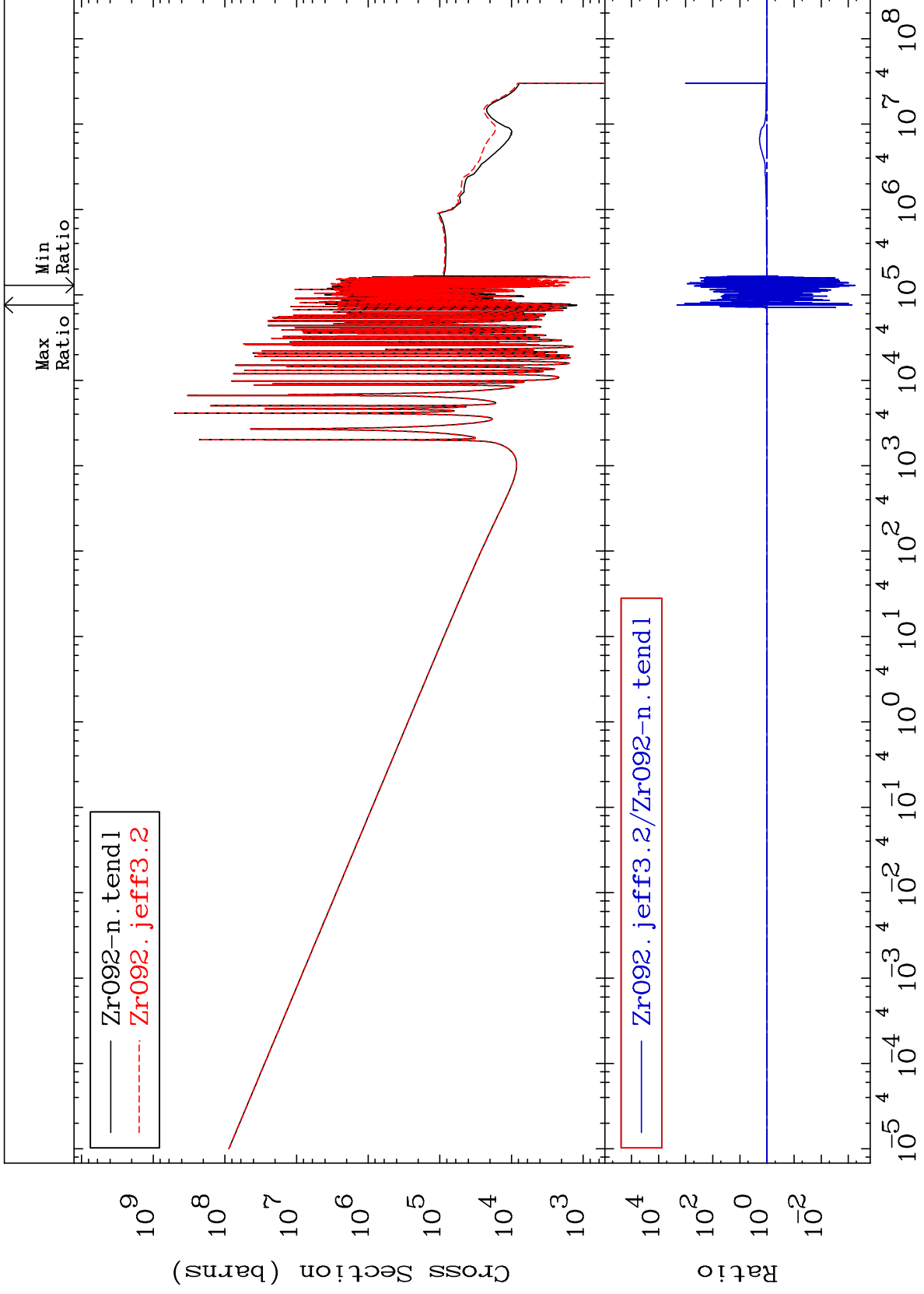
40-Zr-92



MAT 4031

Kerma capture (mt102)  
Cross Section

40-Zr-92  
-99.94 To 9999. %



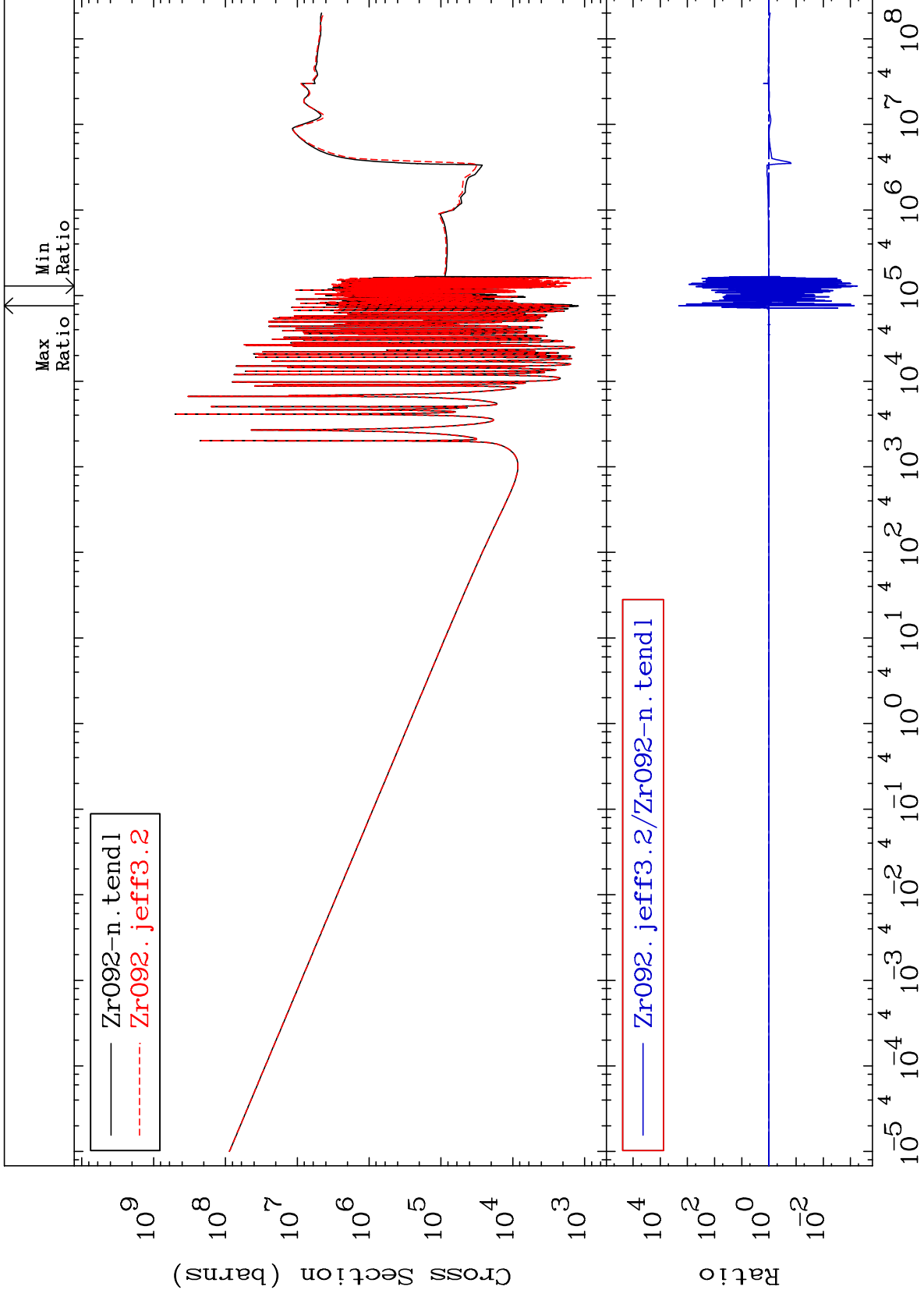
73

40-Zr-92

MAT 4031

Total photon (eV-barns)  
Cross Section

40-Zr-92  
-99.94 To 9999. %



74

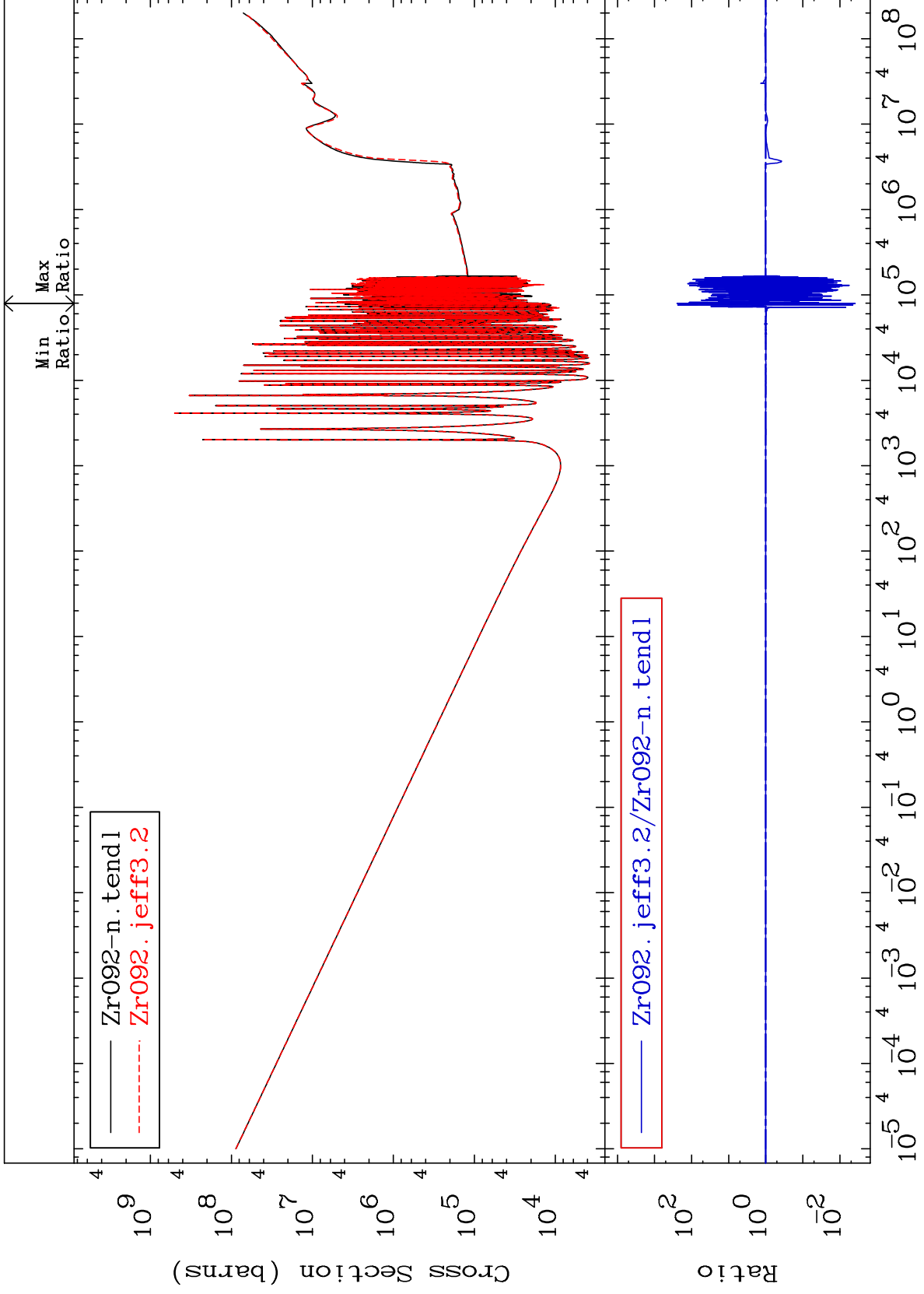
Incident Energy (eV)

40-Zr-92

MAT 4031

Total kinematic kerma (high limit)  
Cross Section

40-Zr-92  
-99.61 To 9999. %



75

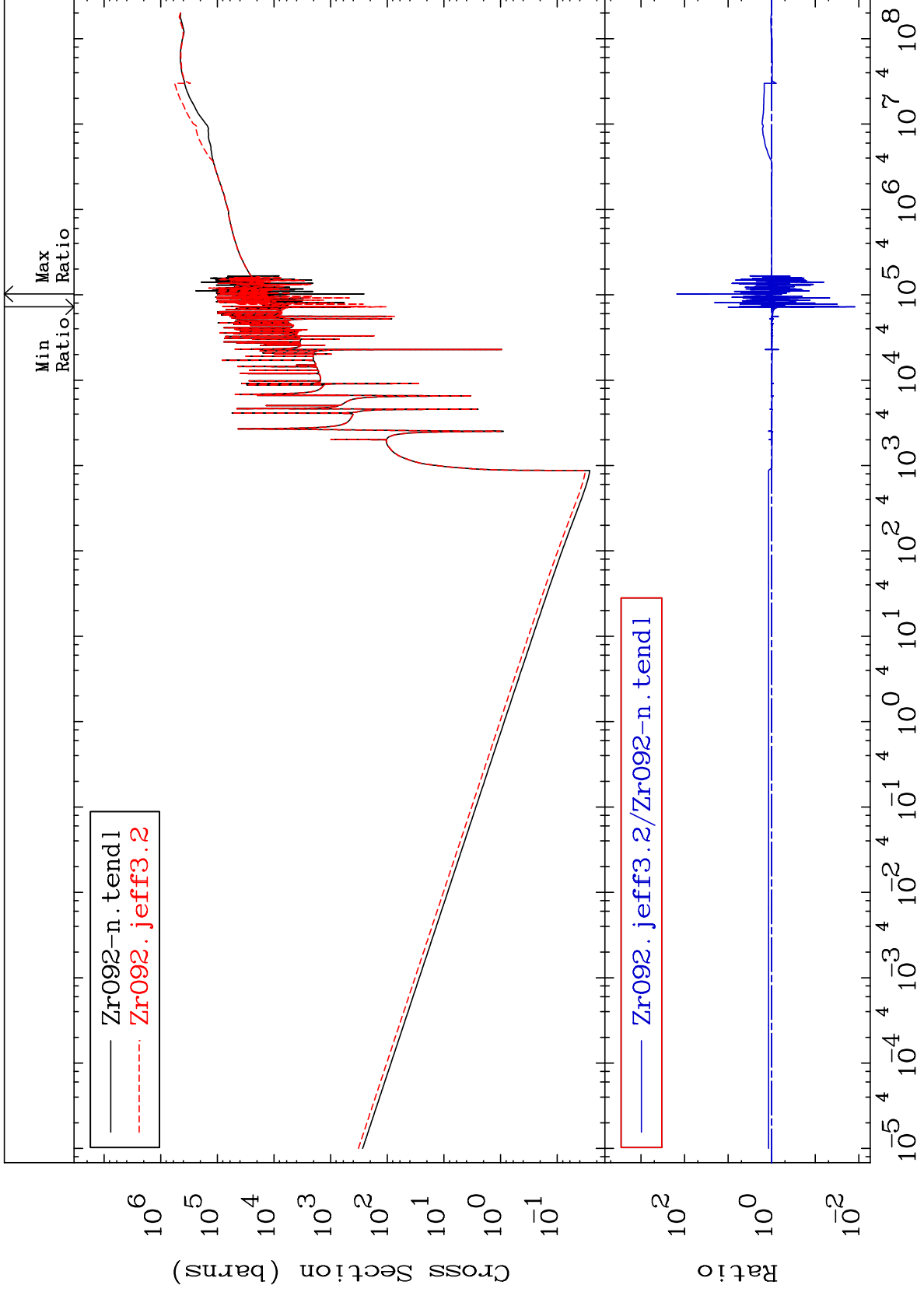
Incident Energy (eV)

40-Zr-92

MAT 4031

Dpa total (eV-barns)  
Cross Section

40-Zr-92  
-98.78 To 9999. %



76

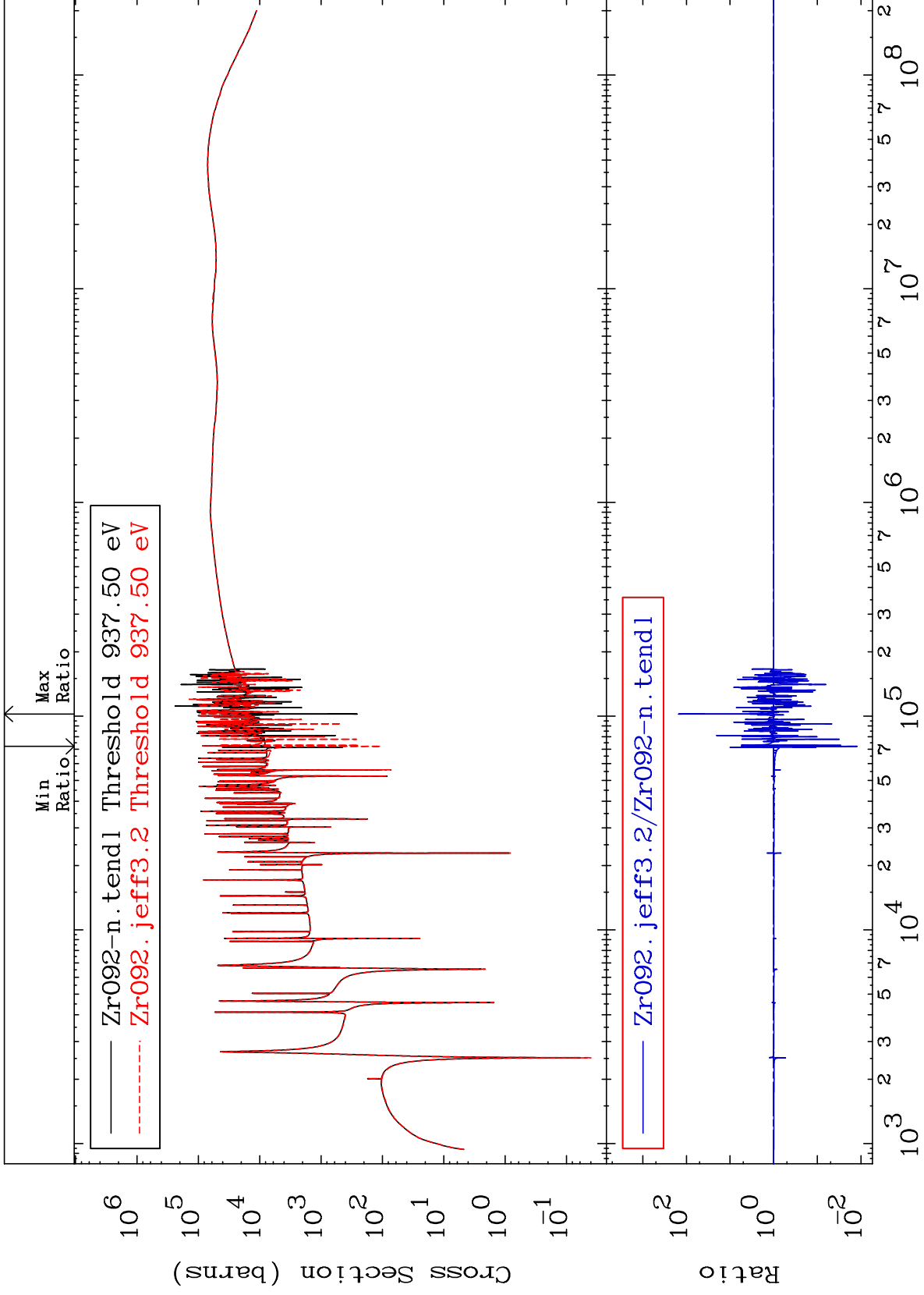
Incident Energy (eV)

40-Zr-92

MAT 4031

Dpa elastic (mt2)  
Cross Section

40-Zr-92  
-98.78 To 9999. %



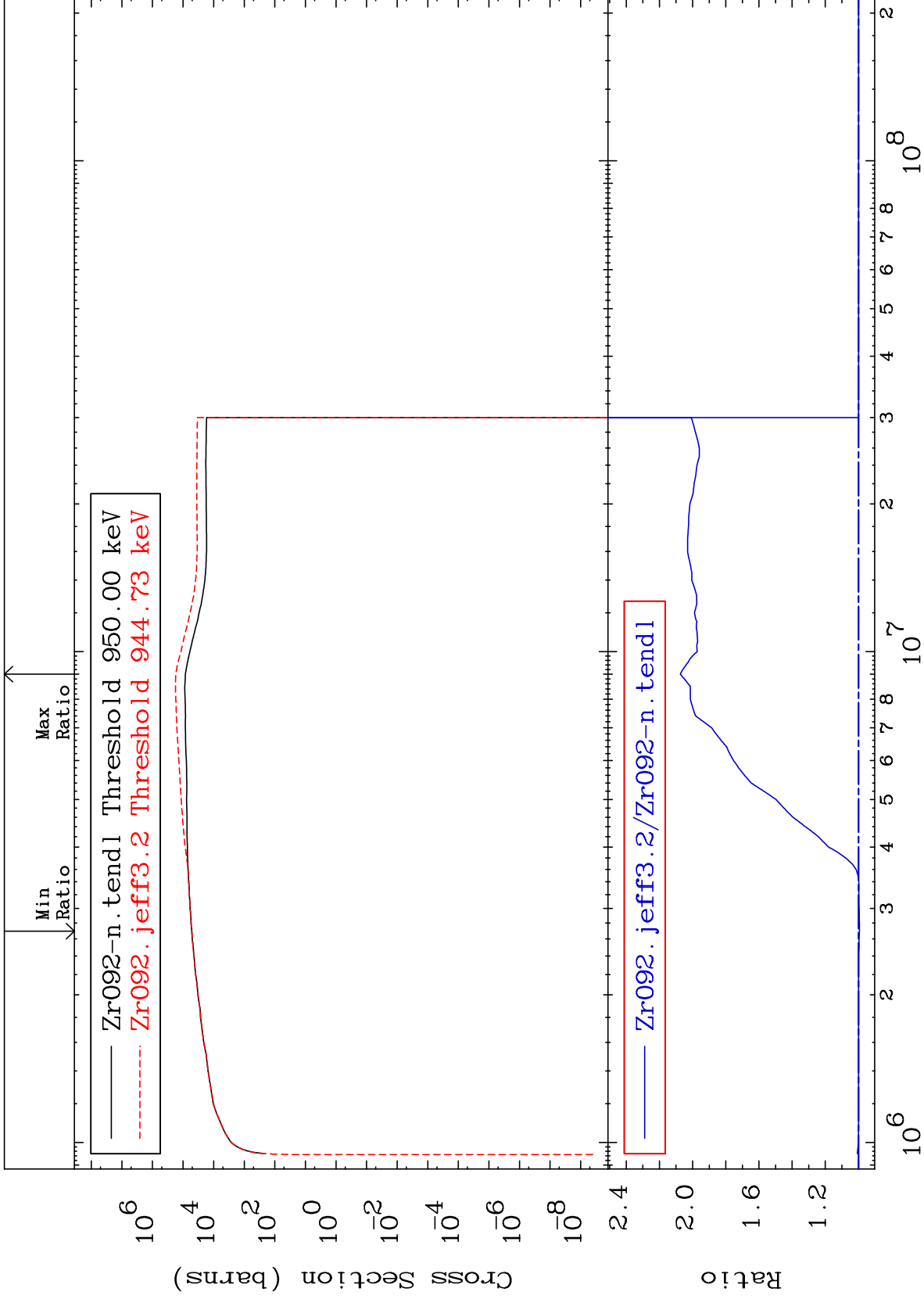
77

40-Zr-92

MAT 4031

Dpa inelastic (mt51-91)  
Cross Section

40-Zr-92  
-0.554 To 107.4 %



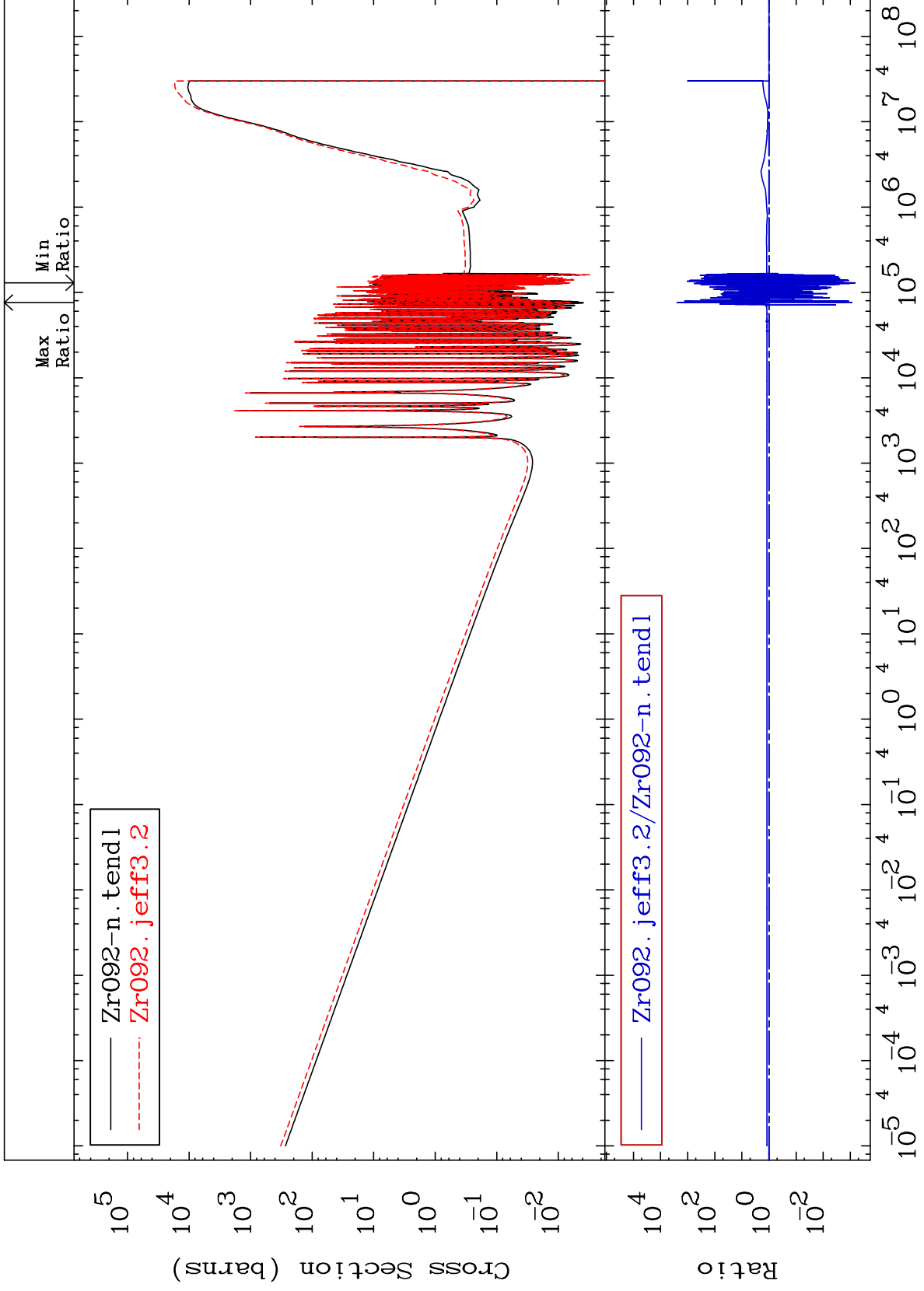
78

40-Zr-92

MAT 4031

Dpa disappearance (mt102 -120)  
Cross Section

40-Zr-92  
-99.93 To 9999. %



79

Incident Energy (eV)

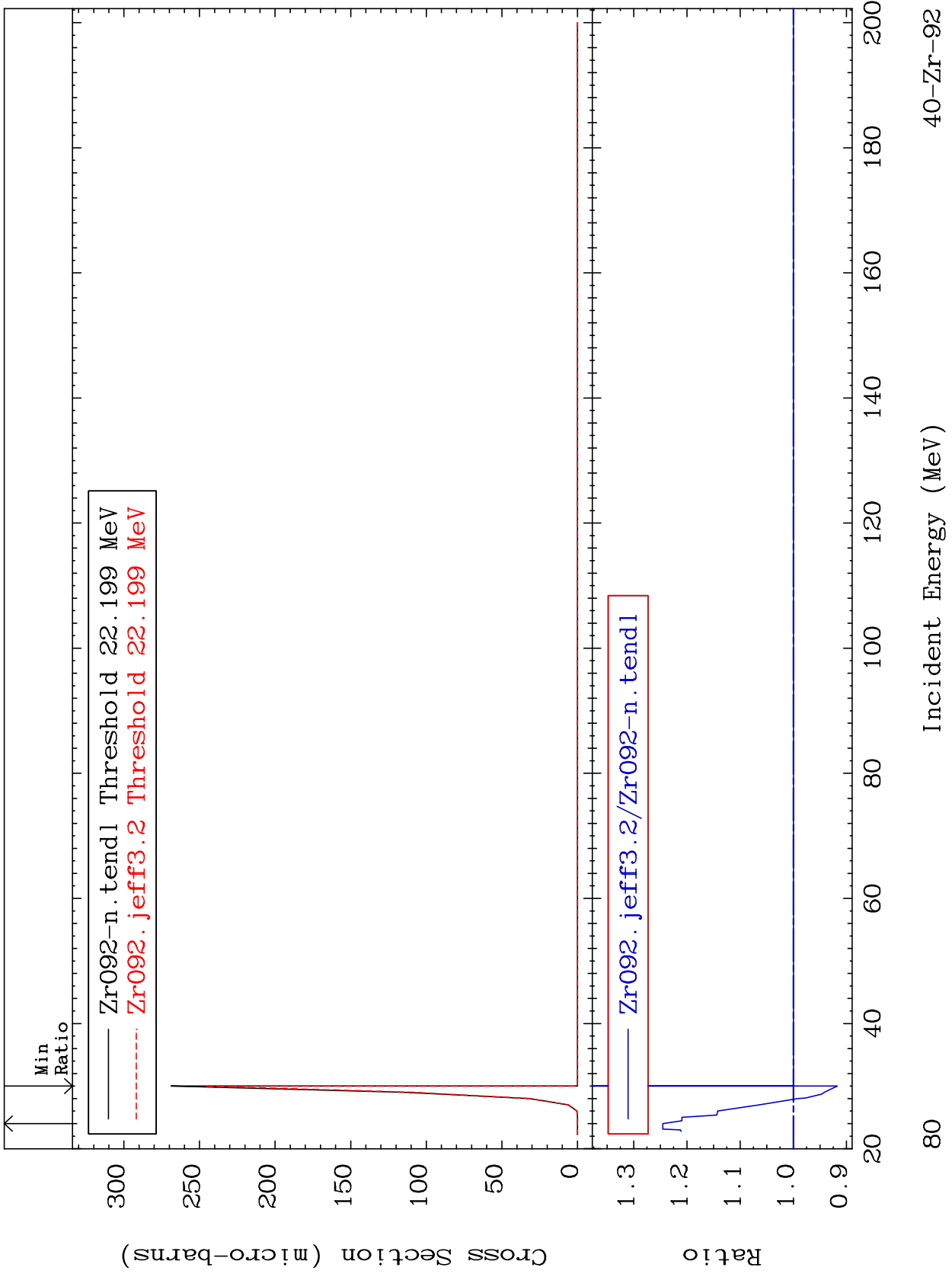
40-Zr-92

MAT 4031

(n,2n) d:39-Y -89g

40-Zr-92

Radionuclide Production Cross Section -8.264 To 24.52 %



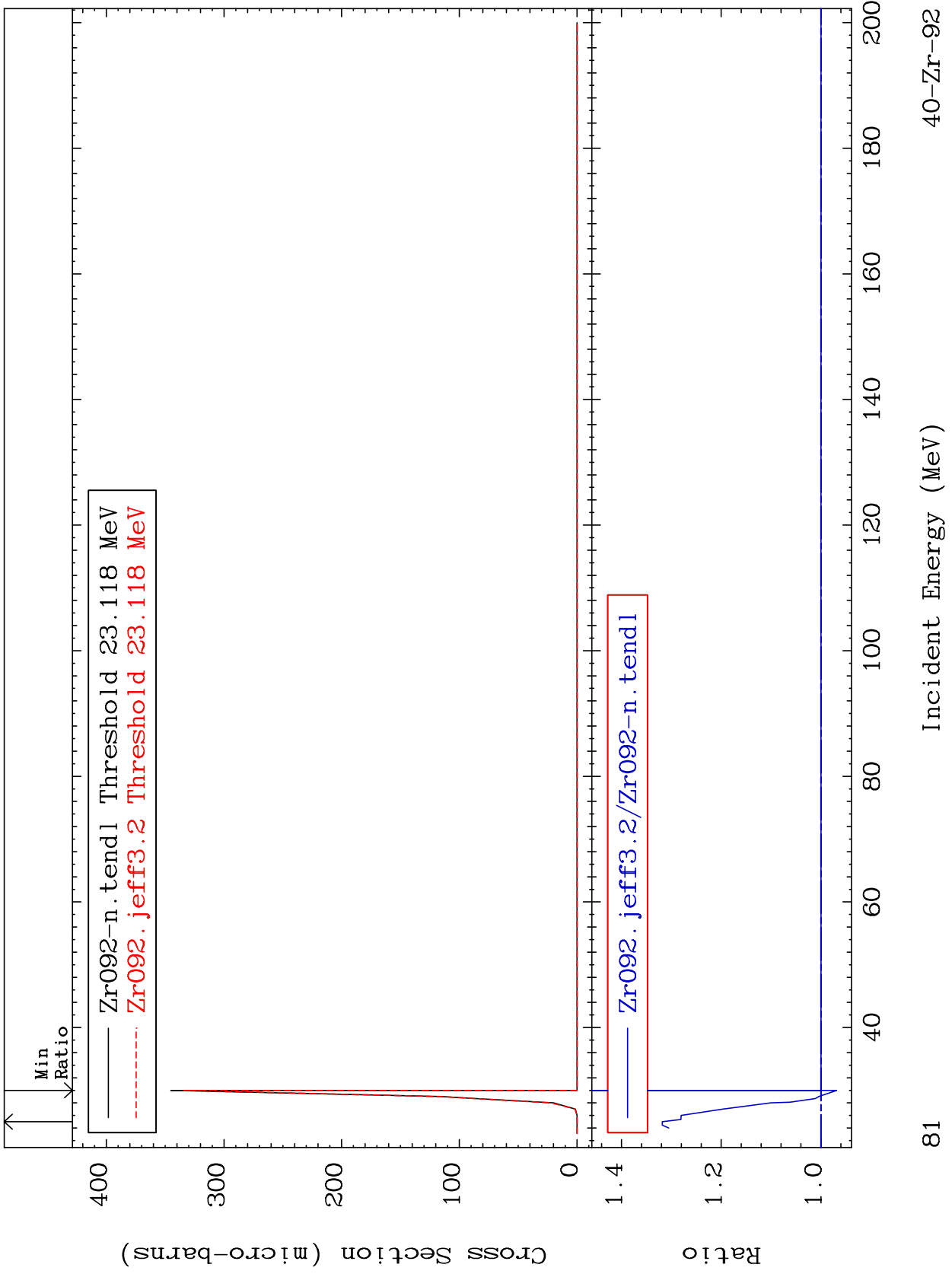


MAT 4031

(n,2n) d:39-Y -89m1

40-Zr-92

Radionuclide Production Cross Section -3.150 To 31.82 %

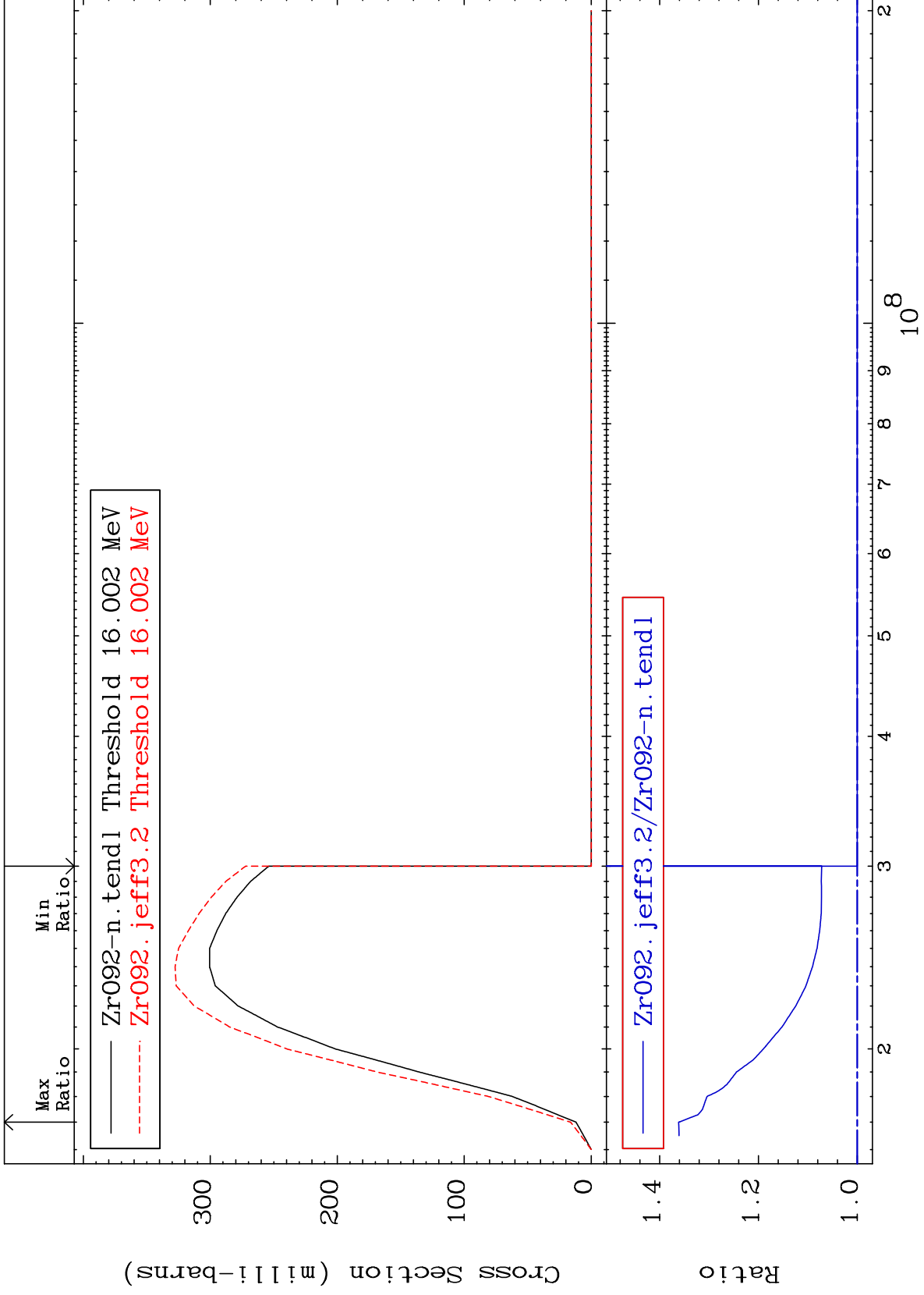


MAT 4031

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

40-Zr-92  
To 36.15 %

Radionuclide Production Cross Section 0.000

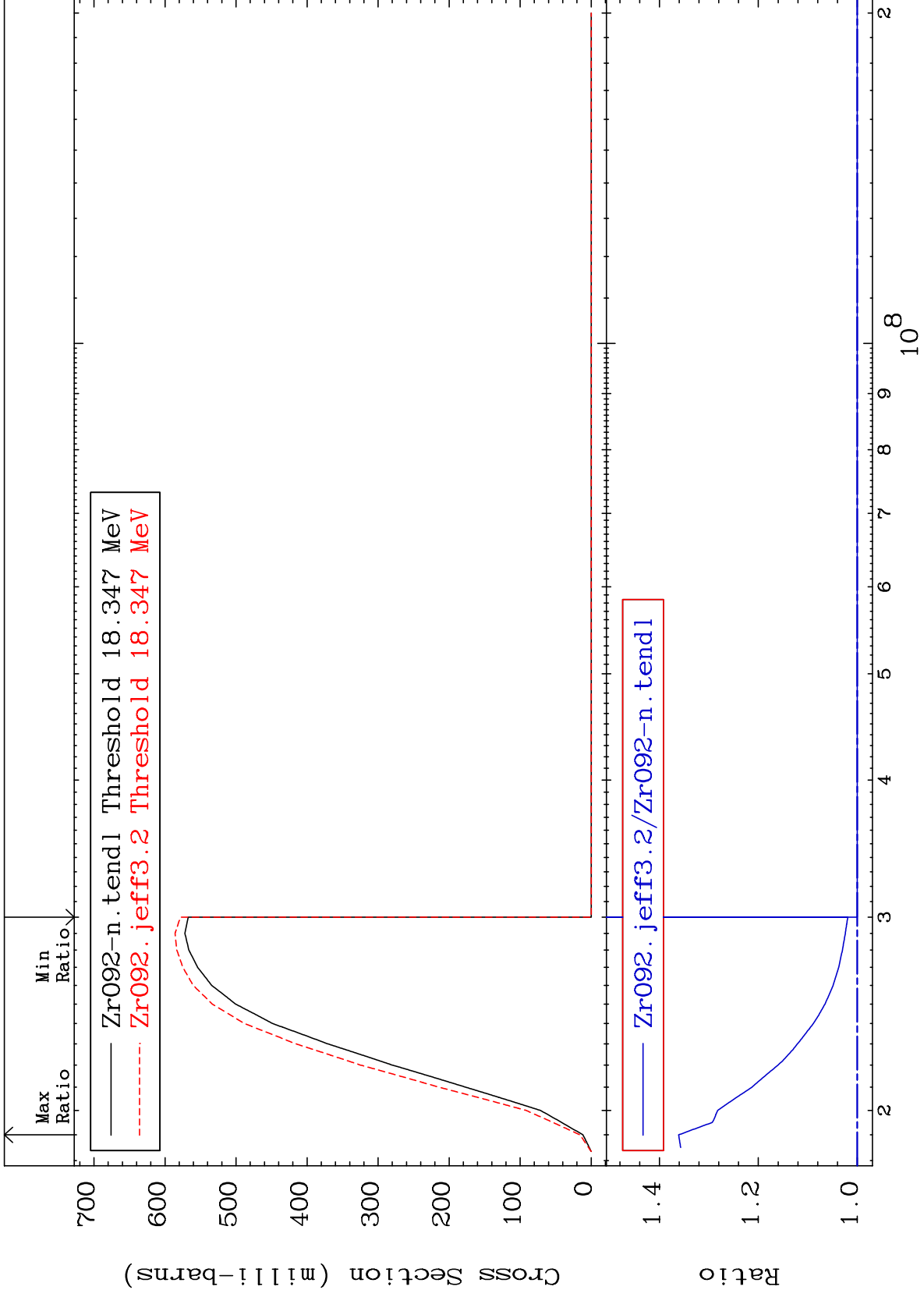


MAT 4031

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

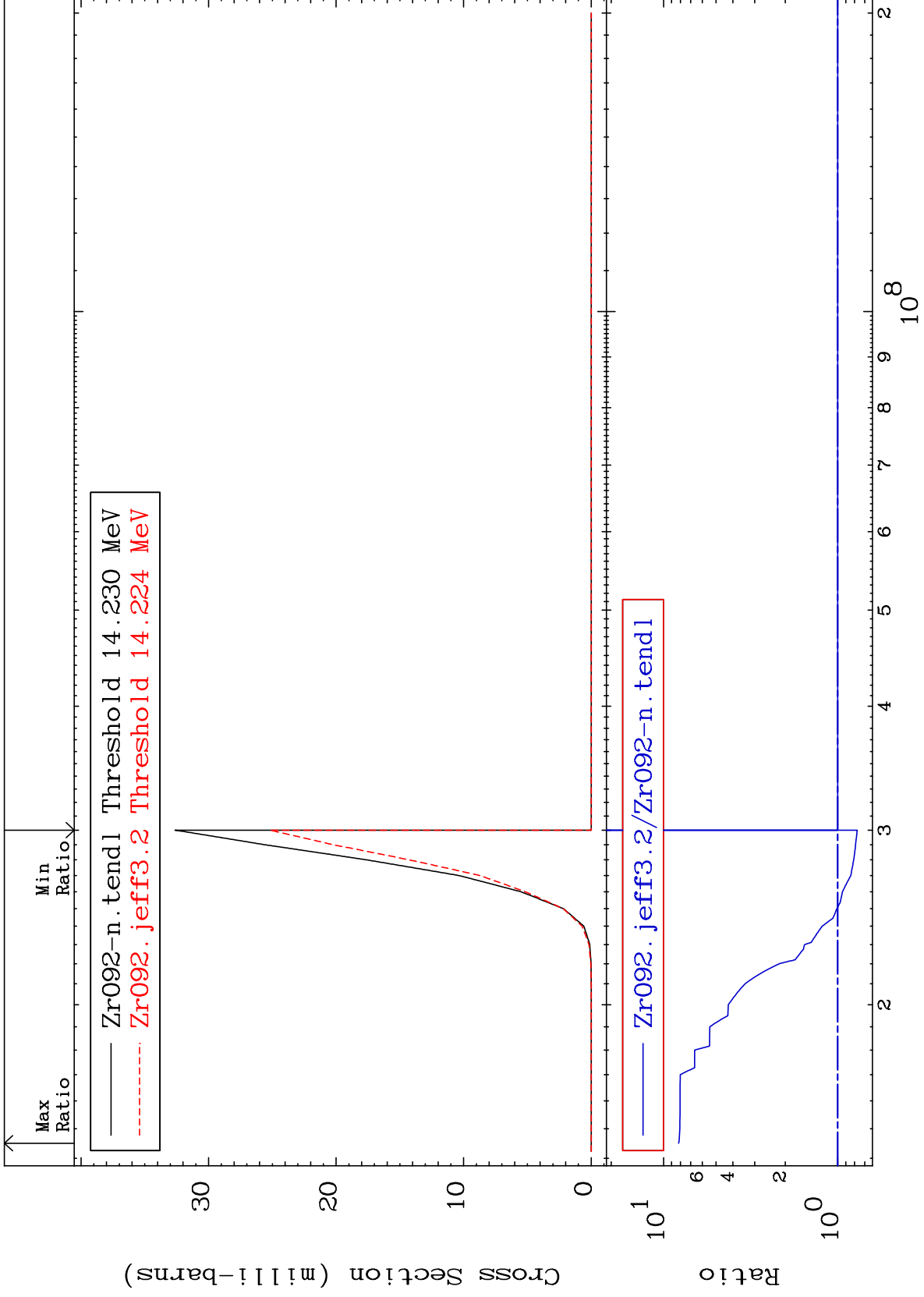
40-Zr-92

Radionuclide Production Cross Section 0.000 To 36.12 %



MAT 4031

(n,2n)  $\alpha$ :38-Sr-87g 40-Zr-92  
Radionuclide Production Cross Section -22.74 To 720.1 %

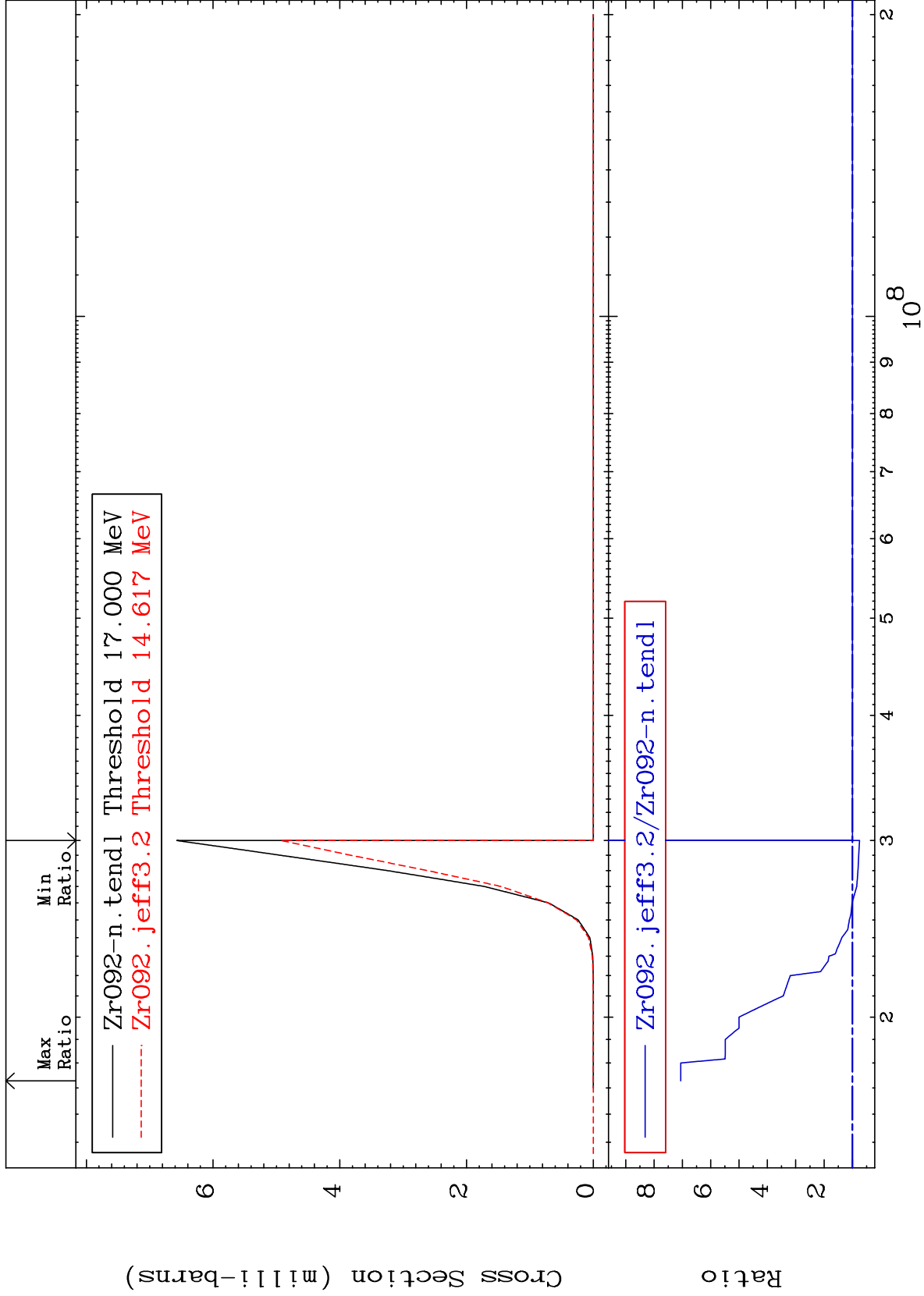


MAT 4031

(n,2n)  $\alpha$ :38-Sr-87m1

40-Zr-92

Radionuclide Production Cross Section -25.13 To 605.6 %

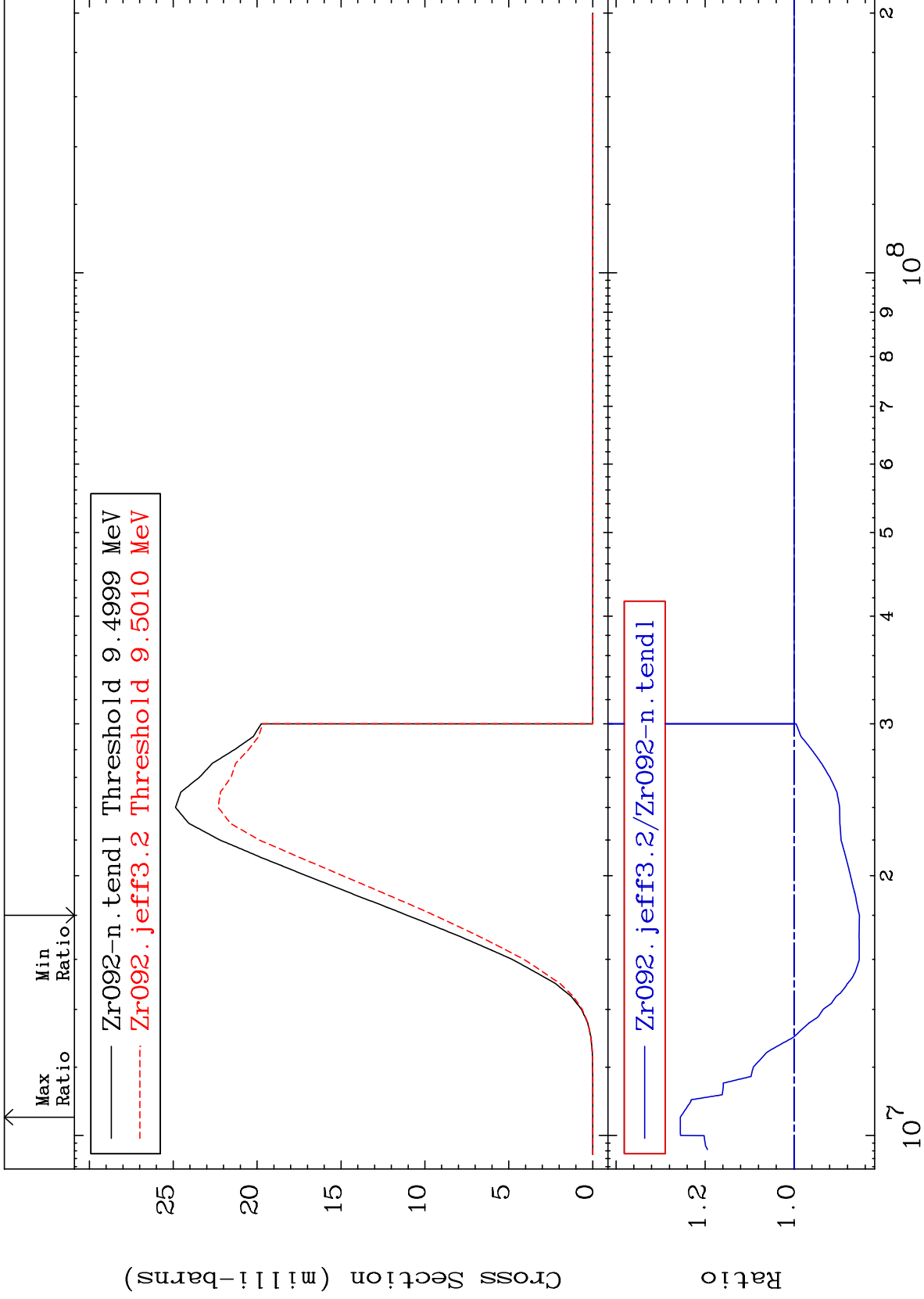


MAT 4031

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

40-Zr-92

Radionuclide Production Cross Section -14.68 To 25.54 %



86

Incident Energy (eV)

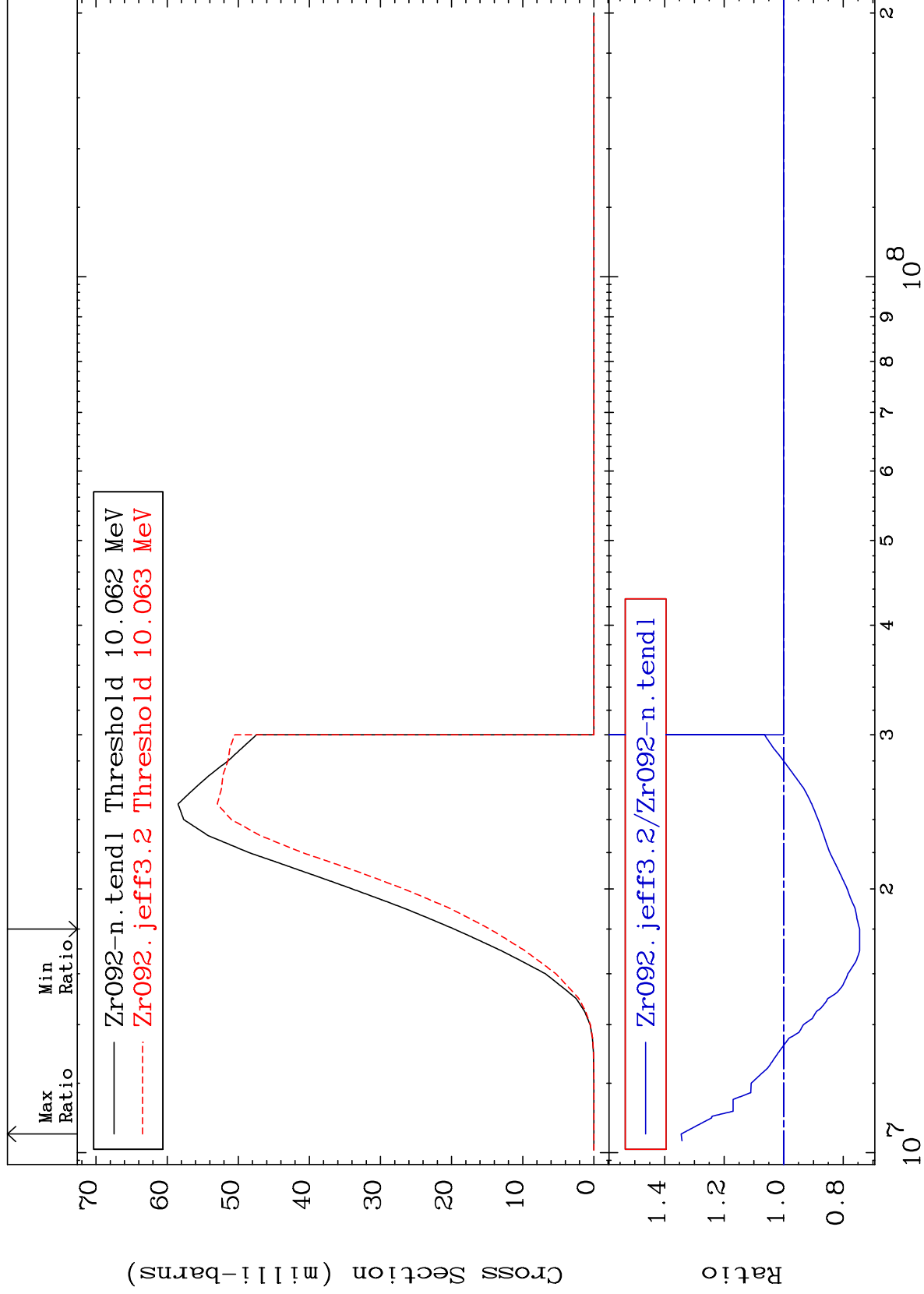
40-Zr-92

MAT 4031

(n, n') p:39-Y -91m1

40-Zr-92

Radionuclide Production Cross Section -25.54 To 34.44 %



87

Incident Energy (eV)

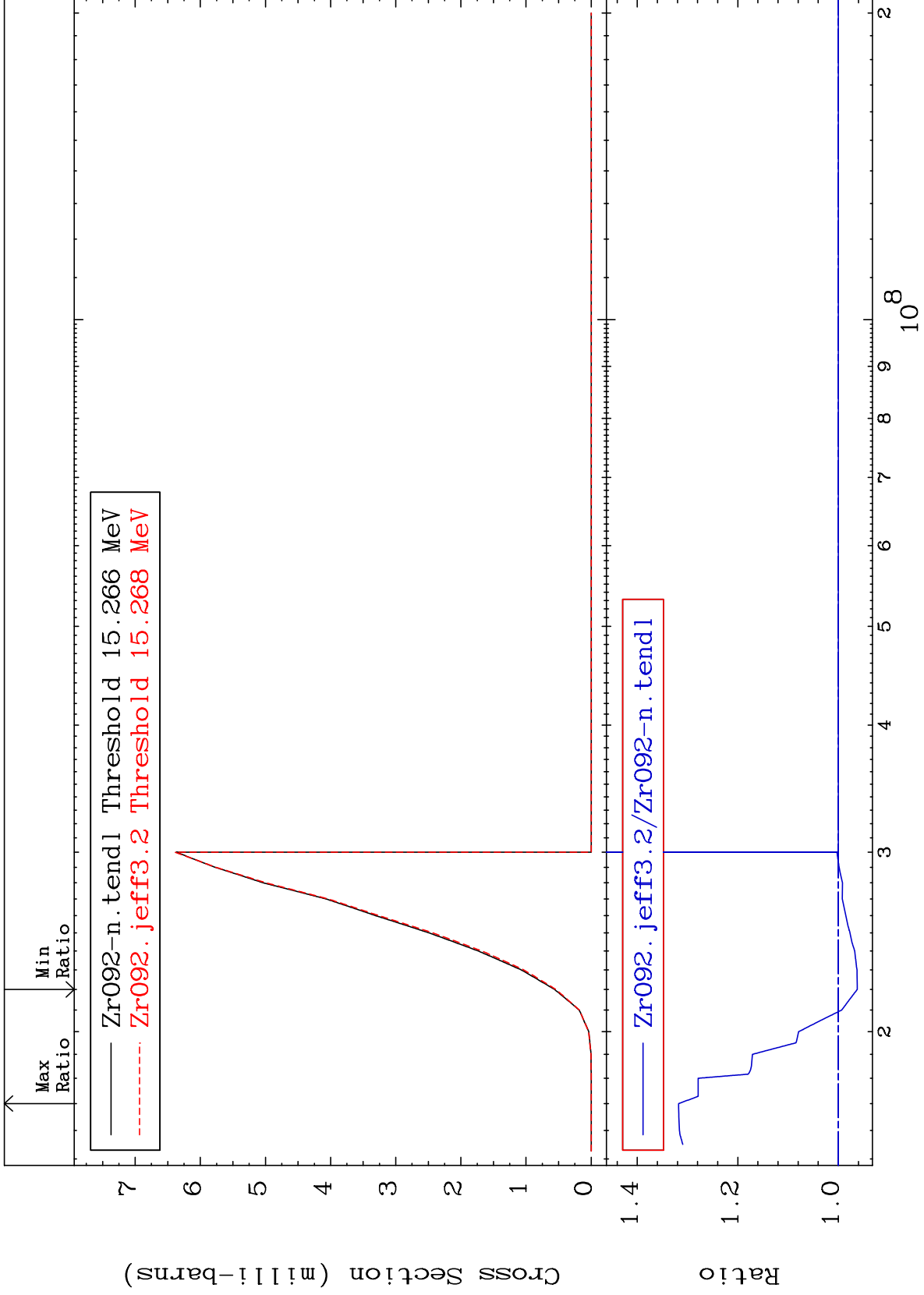
40-Zr-92

MAT 4031

(n, n') d:39-Y -90g

40-Zr-92

Radionuclide Production Cross Section -3.764 To 31.77 %



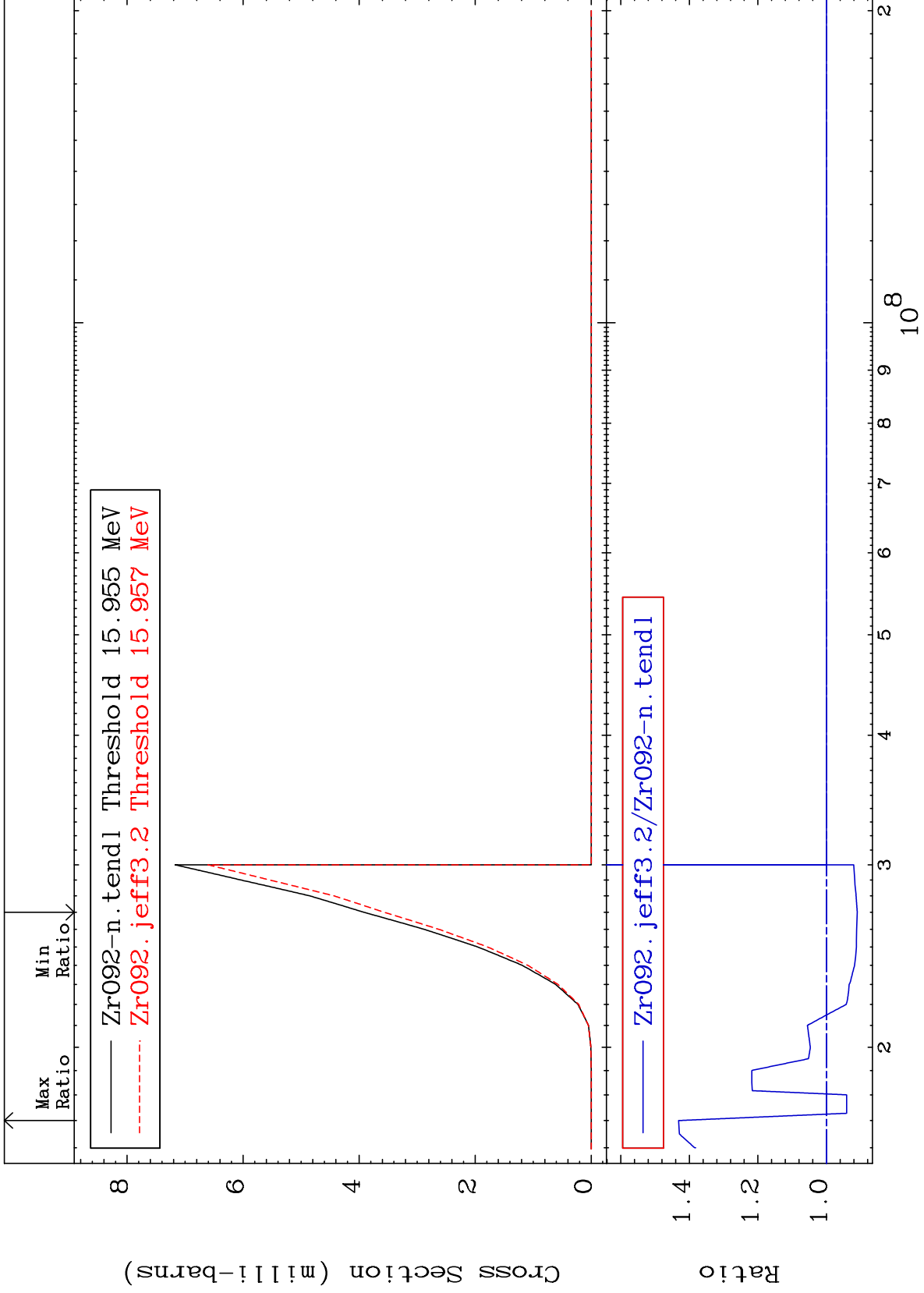


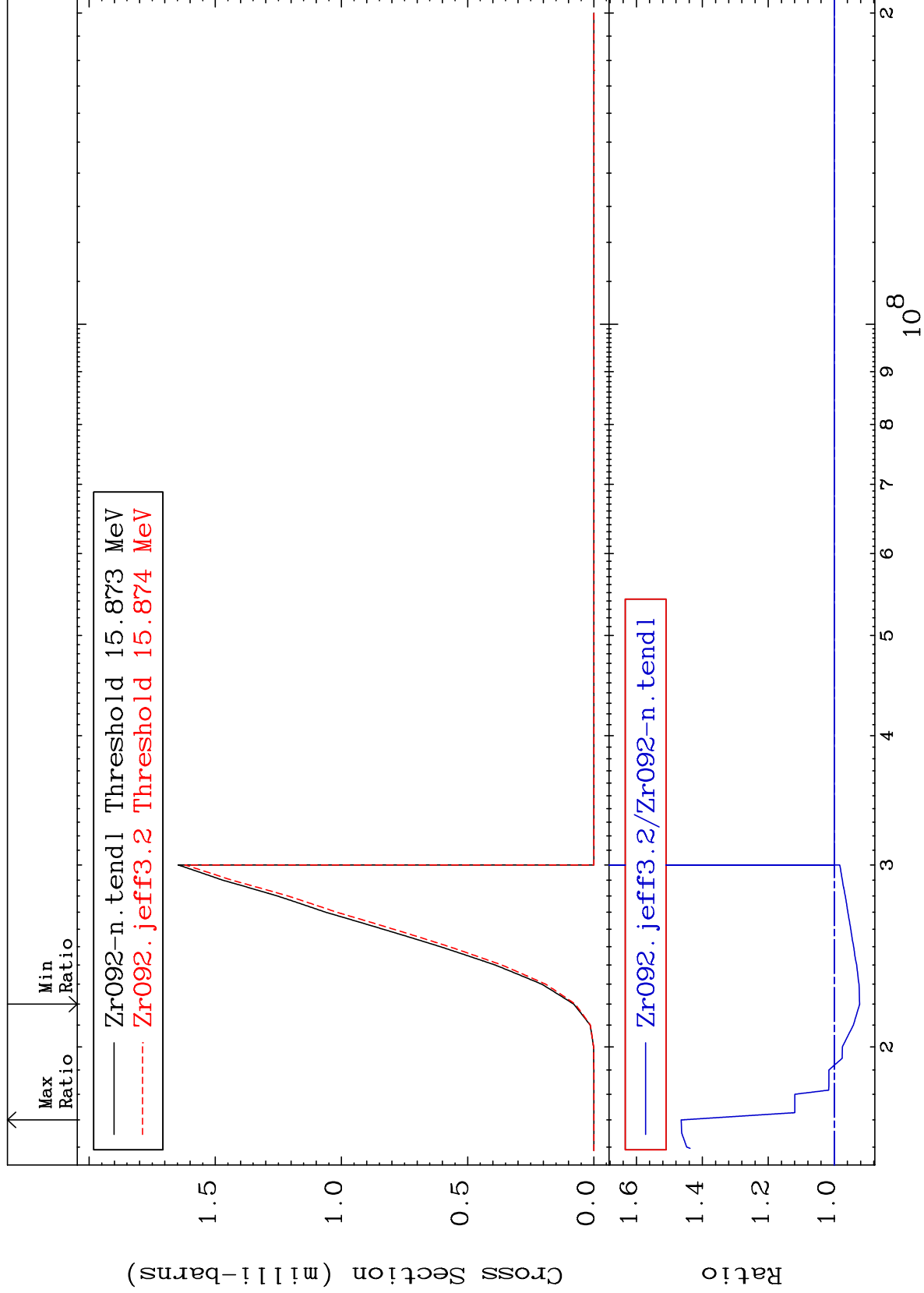
MAT 4031

(n, n') d:39-Y -90m2

40-Zr-92

Radionuclide Production Cross Section -8.964 To 43.12 %



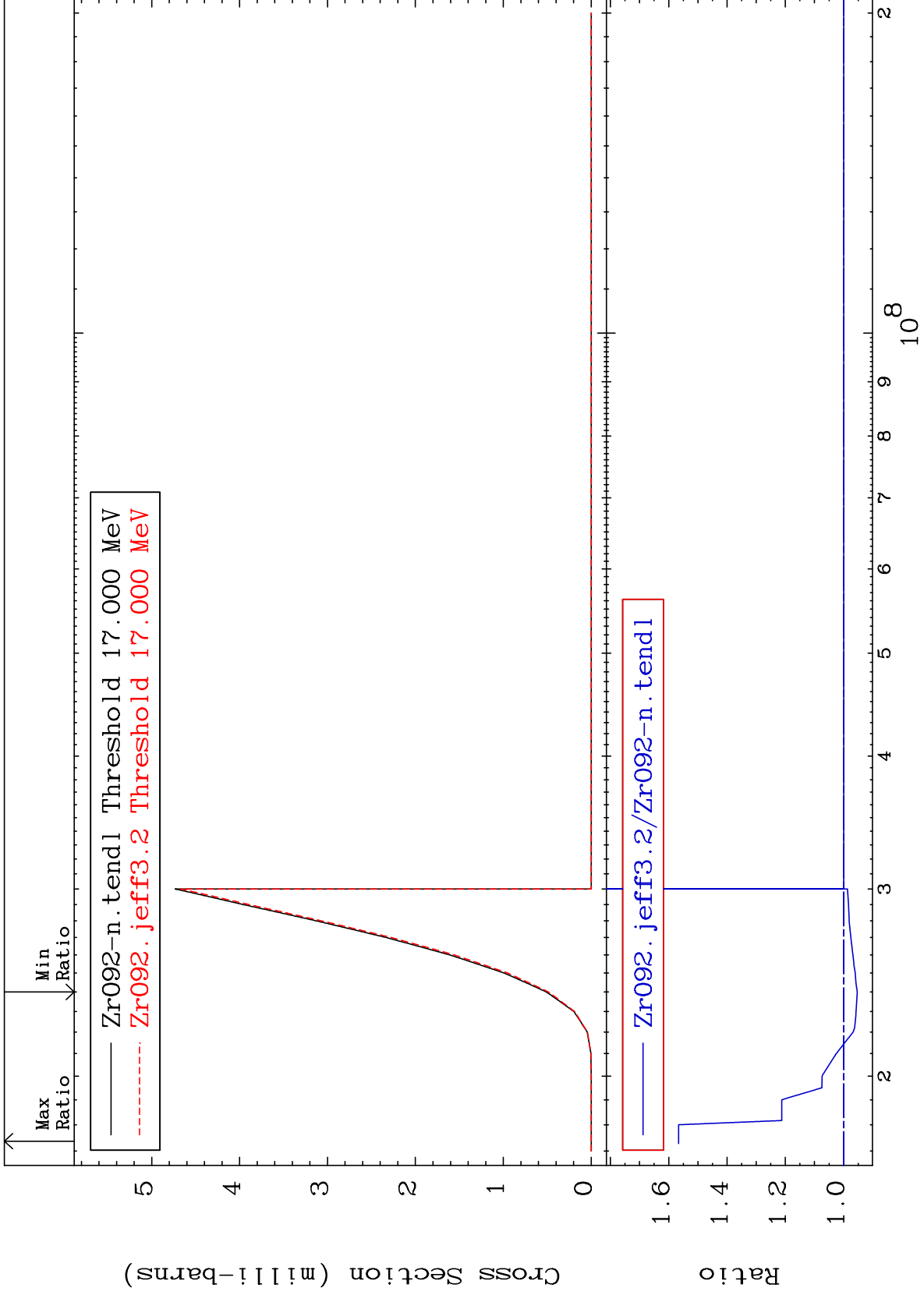


MAT 4031

(n, n') t:39-Y -89m1

40-Zr-92

Radionuclide Production Cross Section -4.661 To 56.60 %

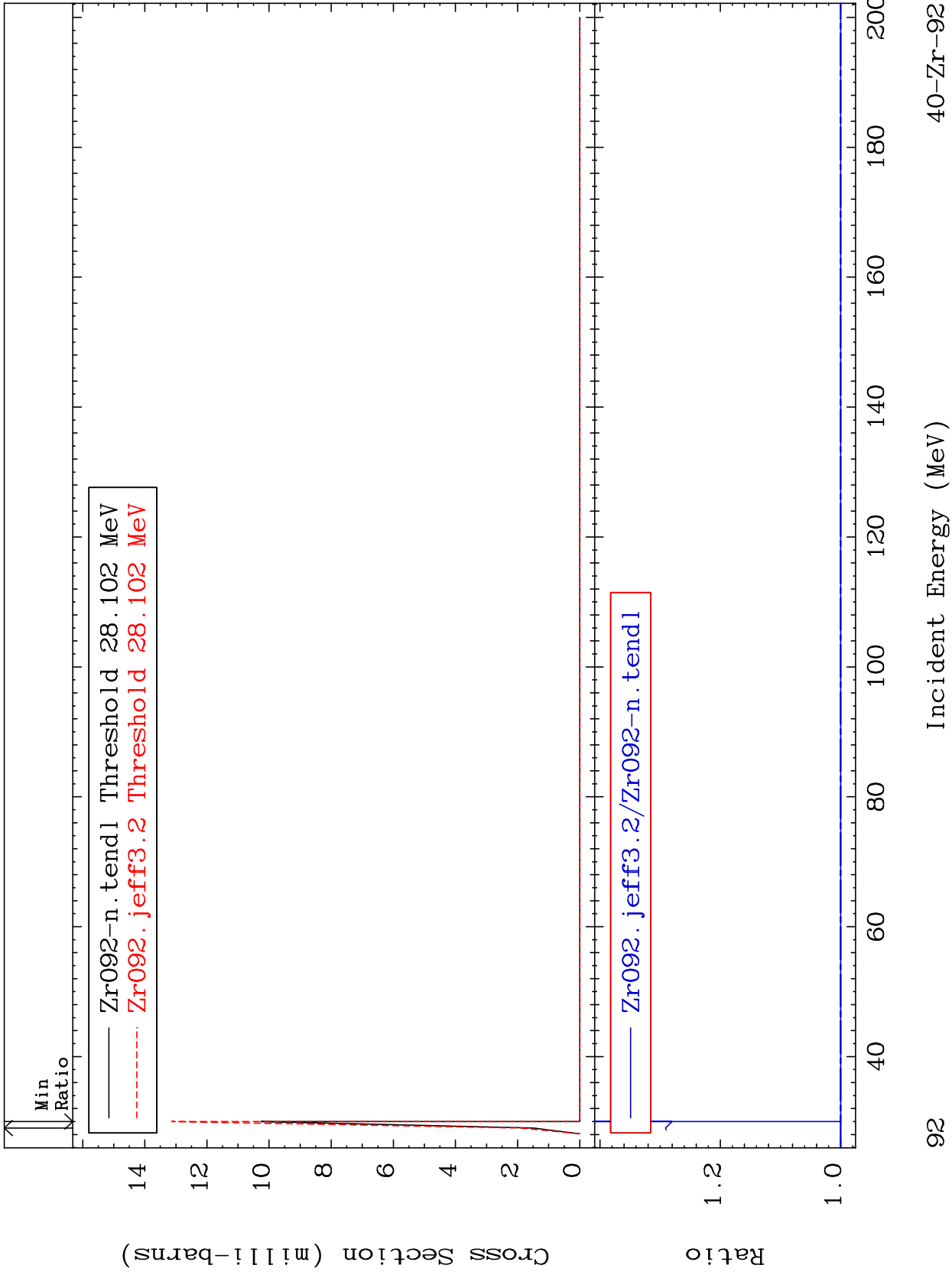


MAT 4031

(n, 4n) : 40-Zr-89g

40-Zr-92

Radionuclide Production Cross Section 0.000 To 29.11 %

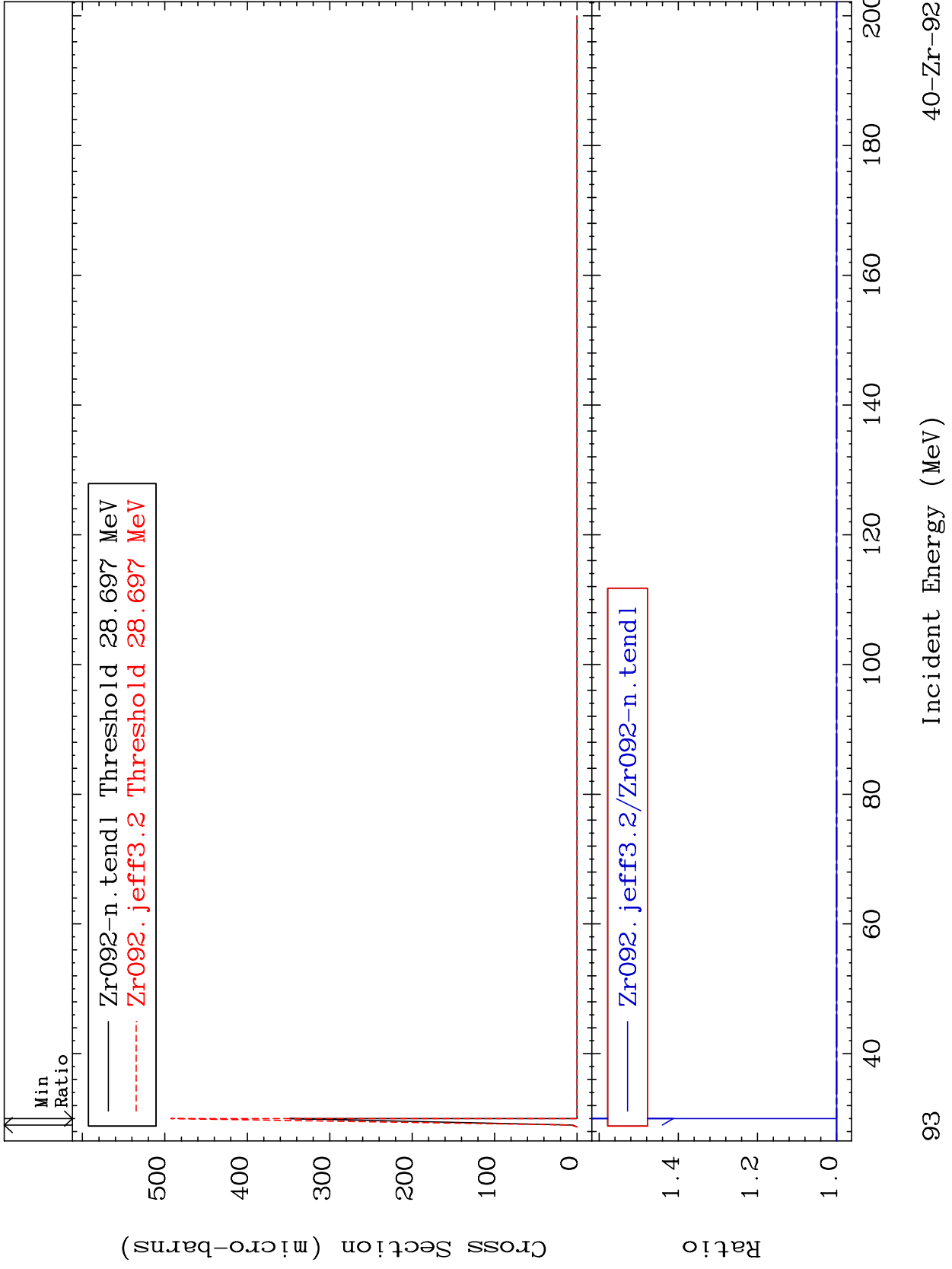


MAT 4031

(n, 4n) : 40-Zr-89m1

40-Zr-92

Radionuclide Production Cross Section 0.000 To 44.06 %

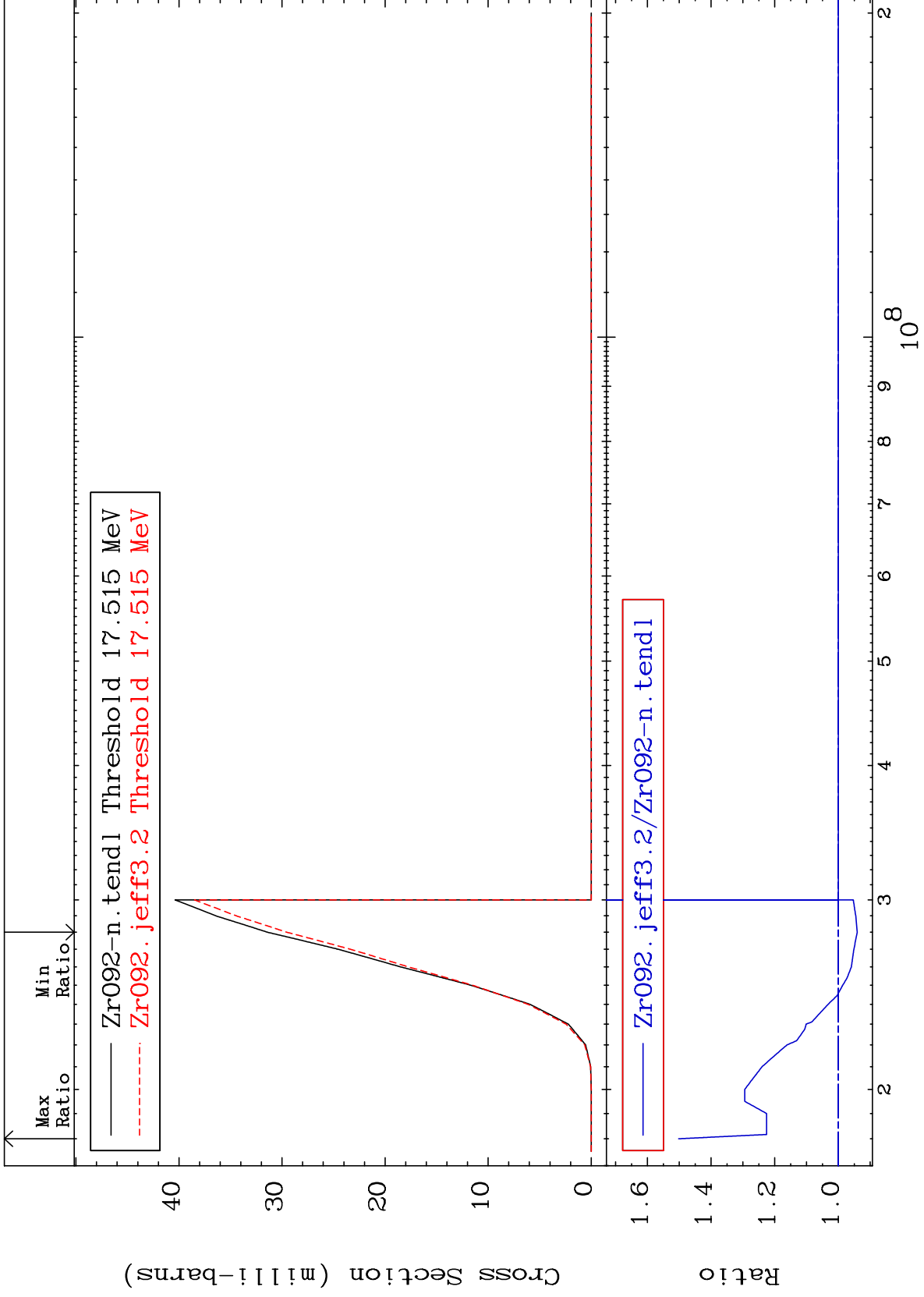


MAT 4031

(n,2n) p:39-Y -90g

40-Zr-92

Radionuclide Production Cross Section -5.946 To 50.18 %



94

40-Zr-92

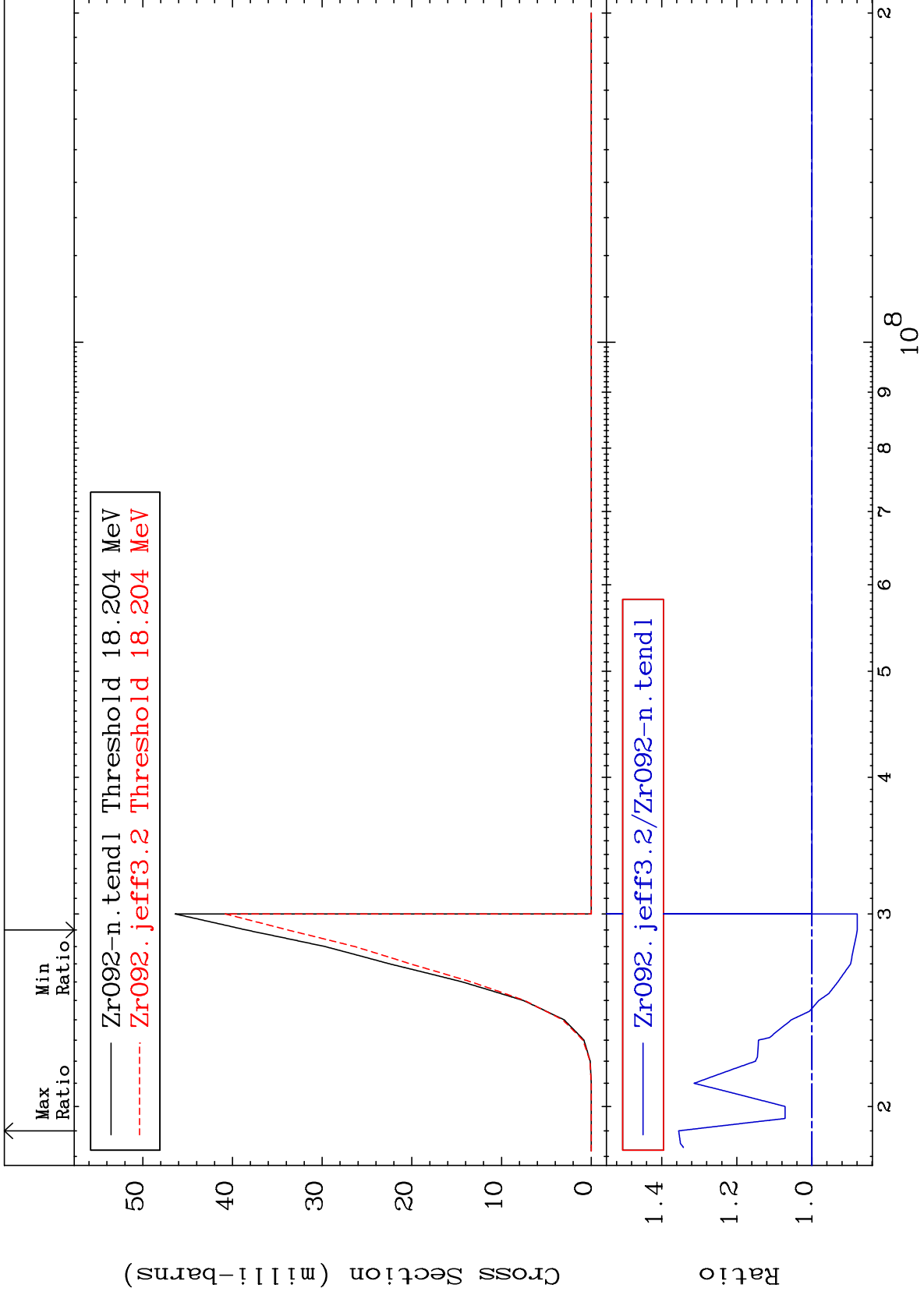
40-Zr-92

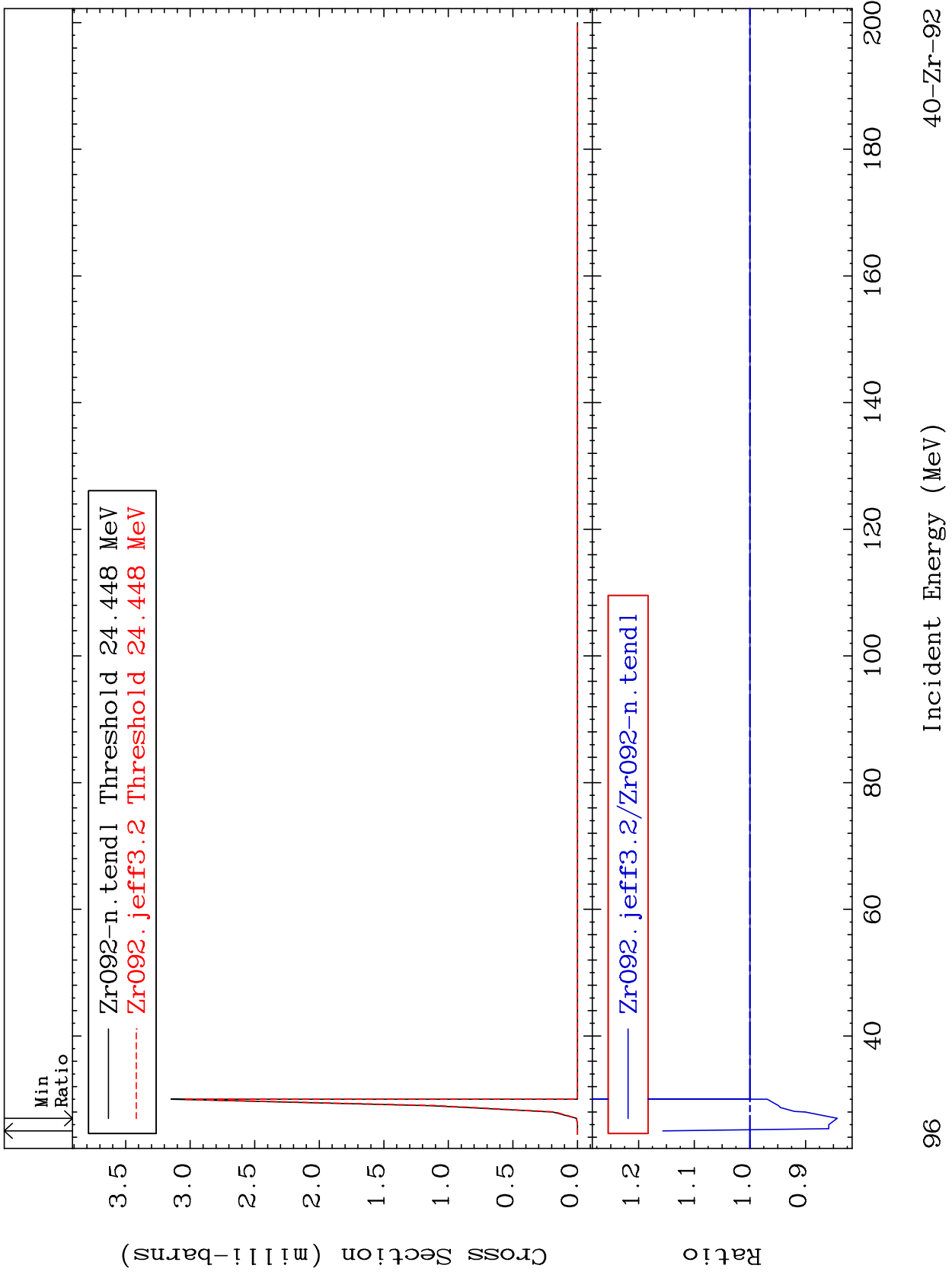
MAT 4031

(n,2n) p:39-Y -90m2

40-Zr-92

Radionuclide Production Cross Section -12.06 To 35.48 %







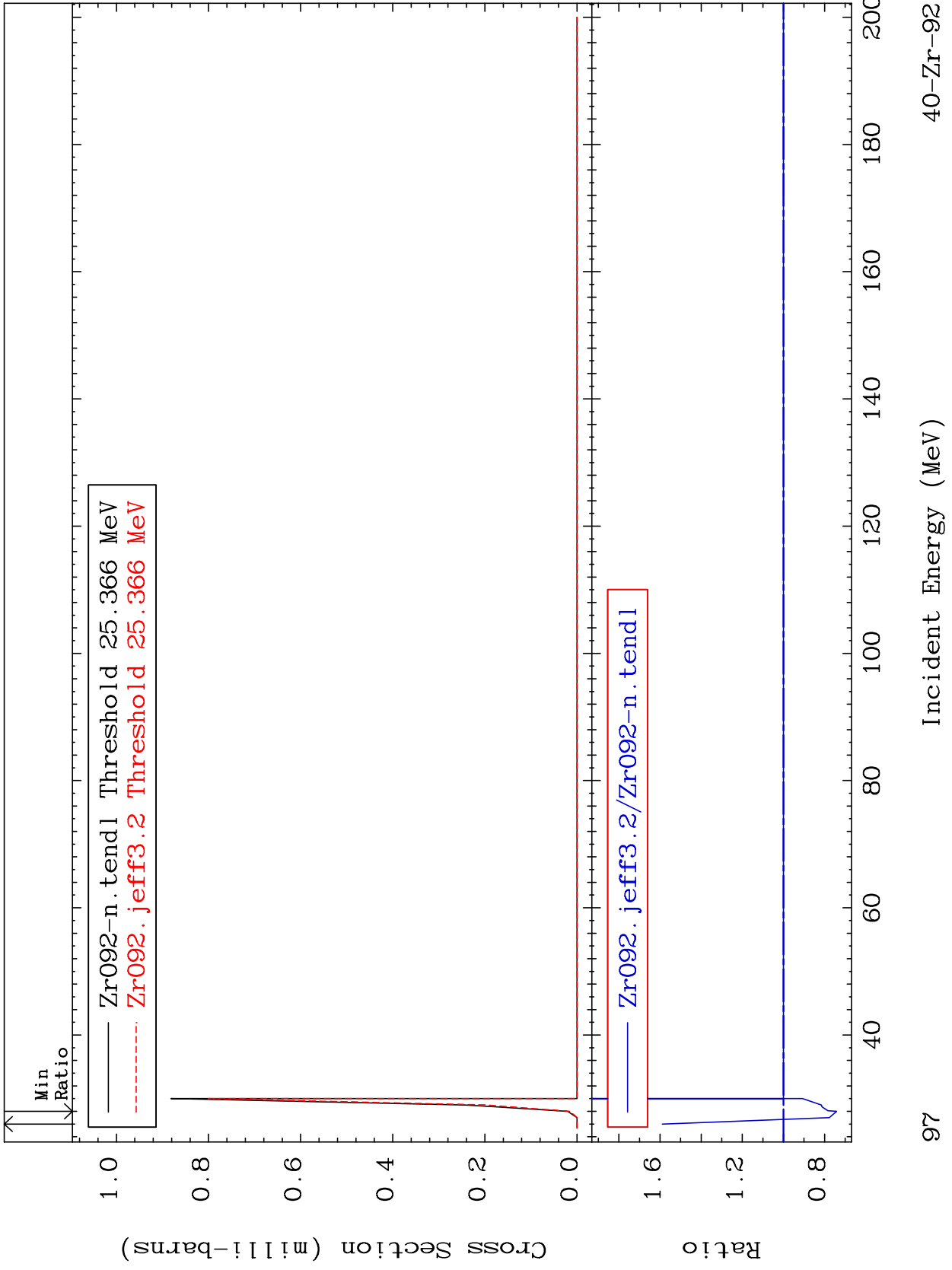
MAT 4031

(n,3n) p:39-Y -89m1

40-Zr-92

Radionuclide Production Cross Section

-25.85 To 58.90 %

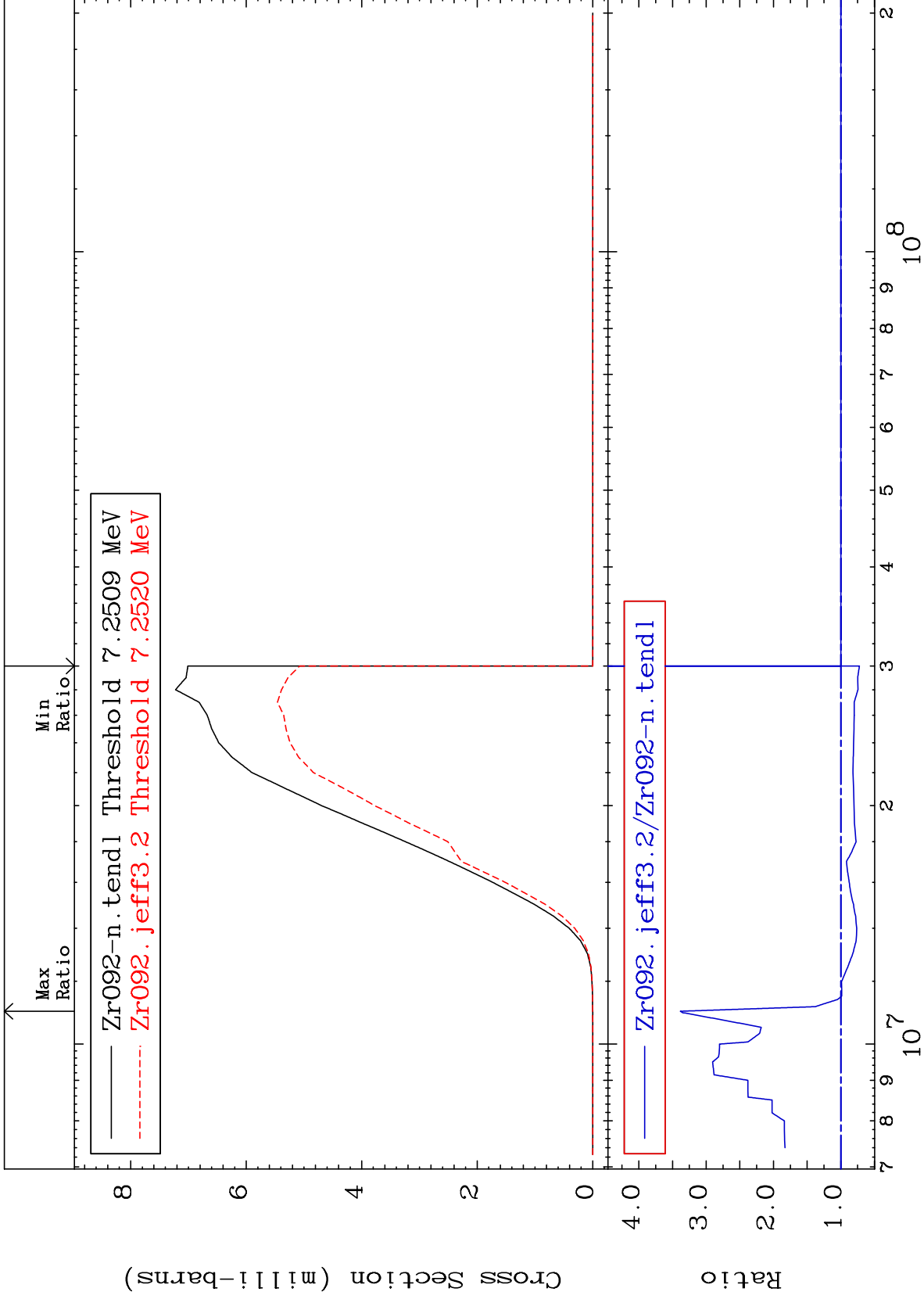


MAT 4031

(n, d):39-Y -91g

40-Zr-92

Radionuclide Production Cross Section -27.65 To 238.3 %

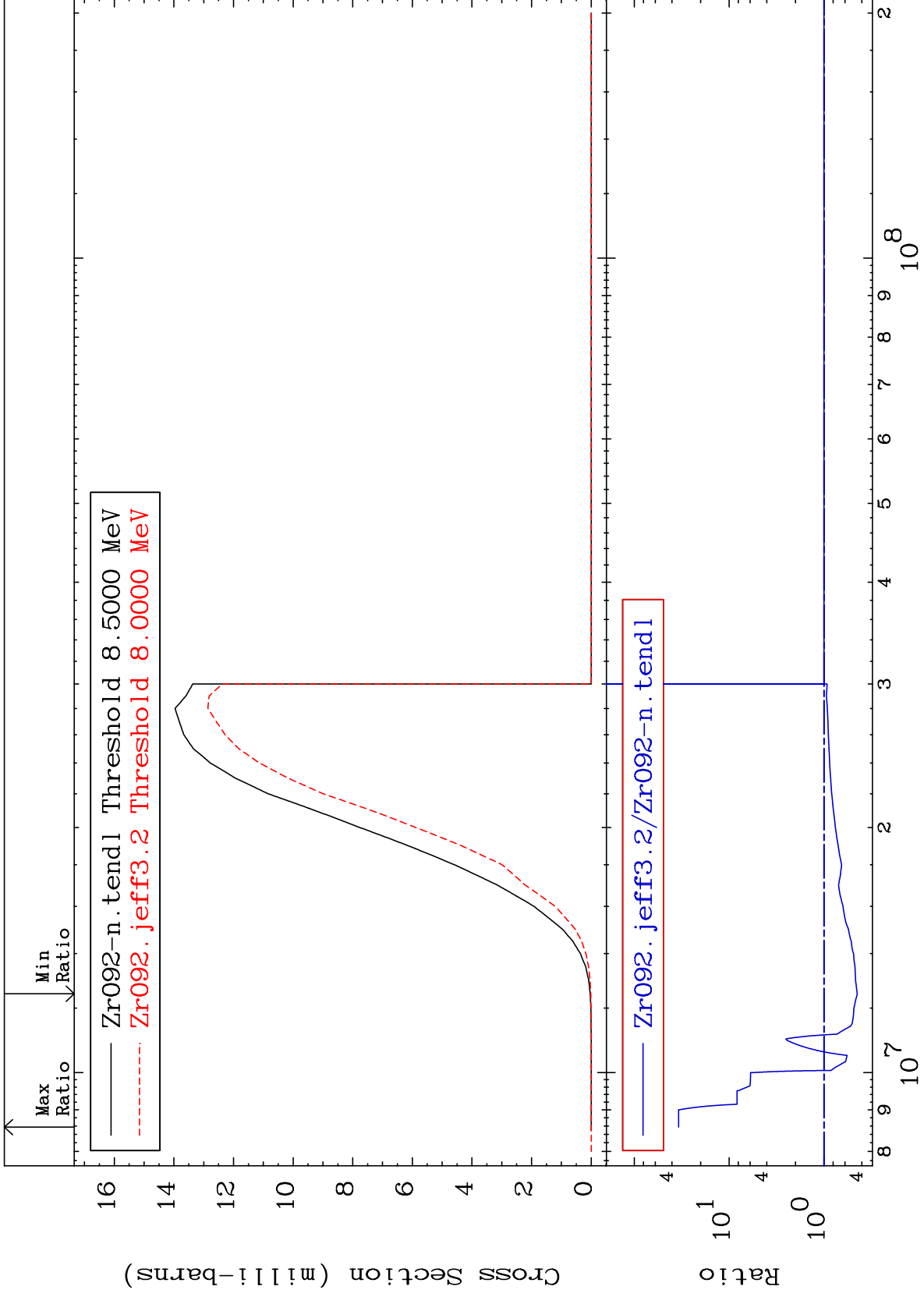


MAT 4031

(n,d):39-Y -91m1

40-Zr-92

Radionuclide Production Cross Section -55.37 To 3303. %



99

Incident Energy (eV)

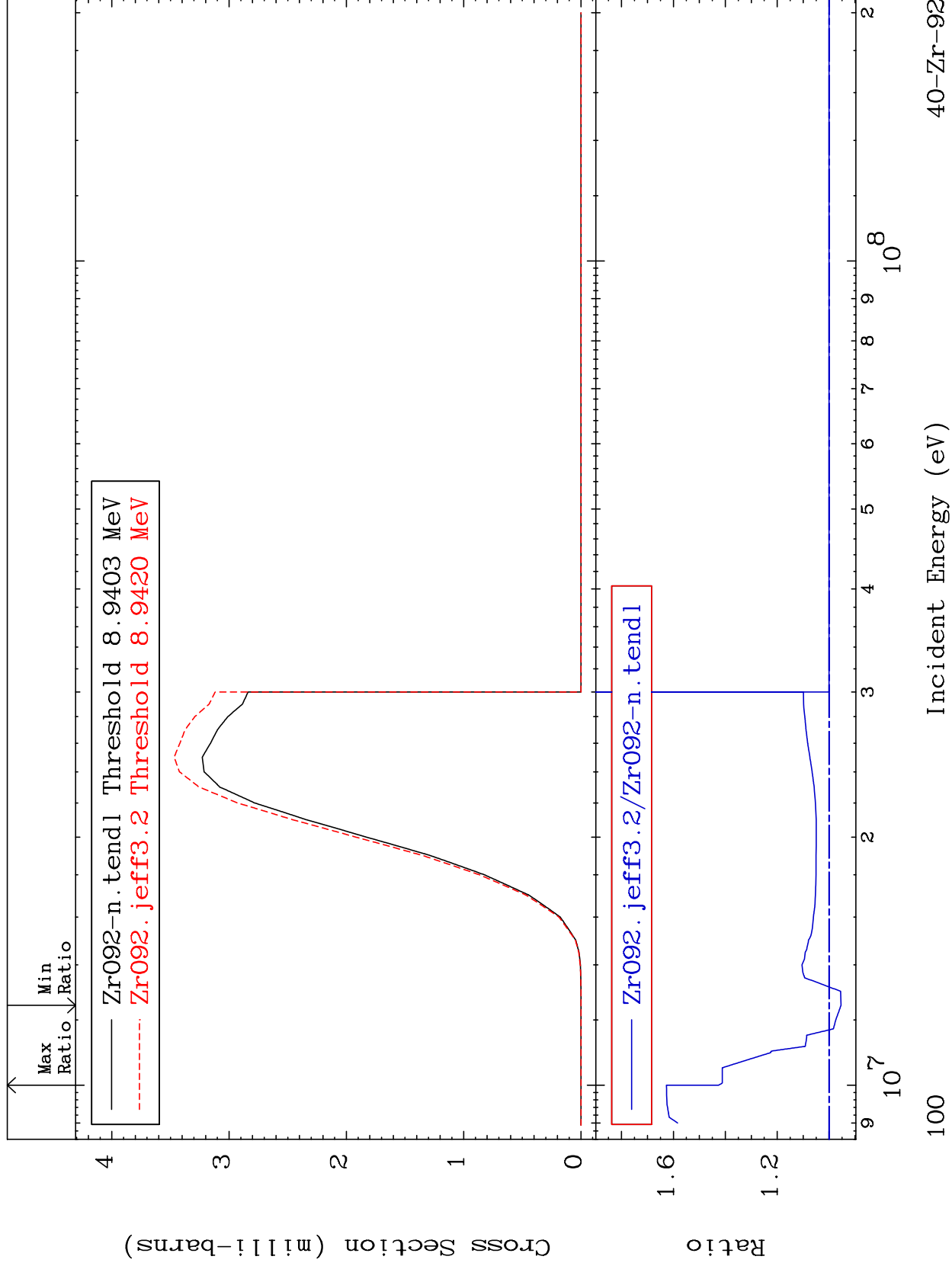
40-Zr-92

MAT 4031

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

40-Zr-92

Radionuclide Production Cross Section -4.588 To 62.69 %

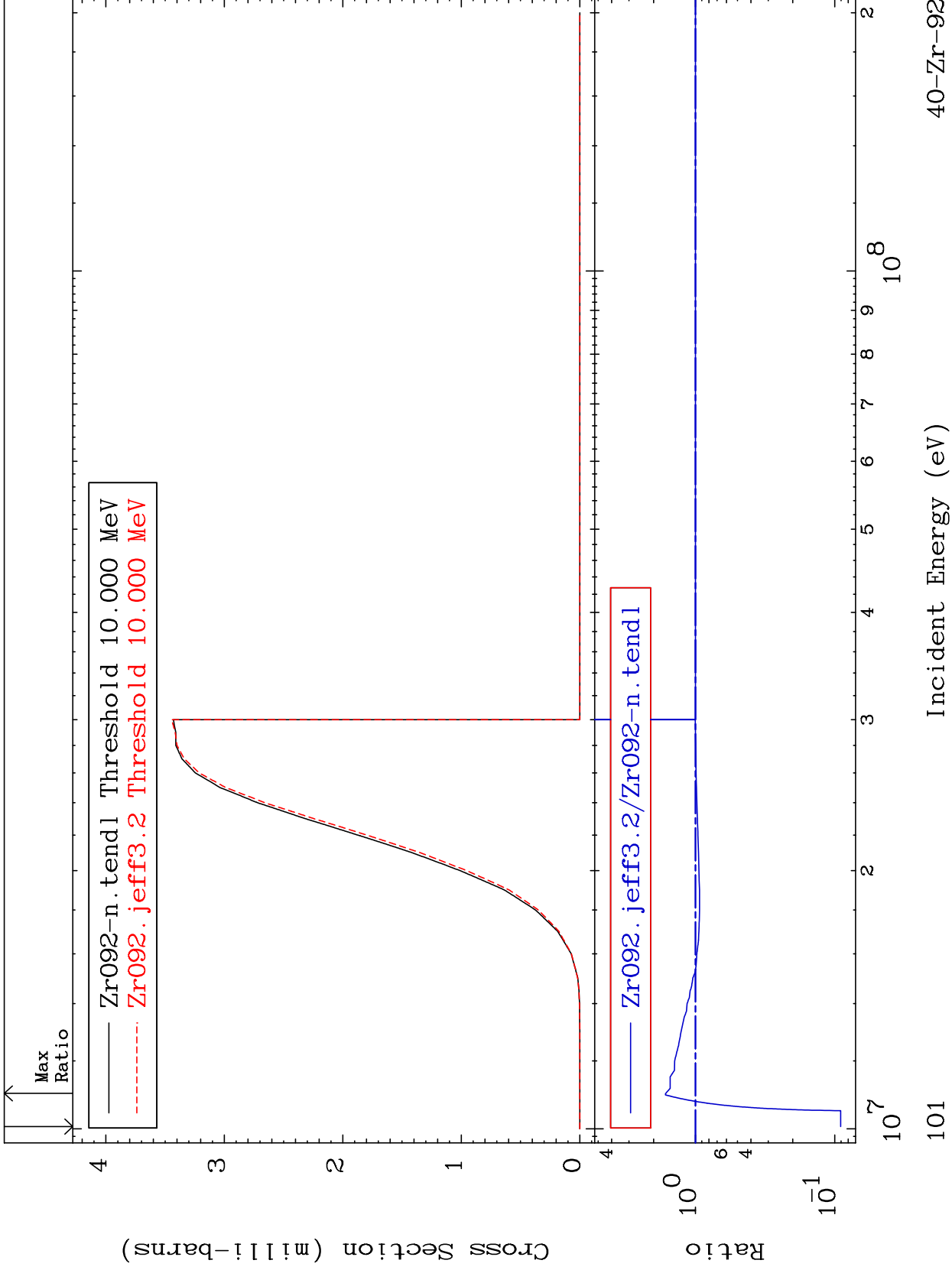


MAT 4031

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

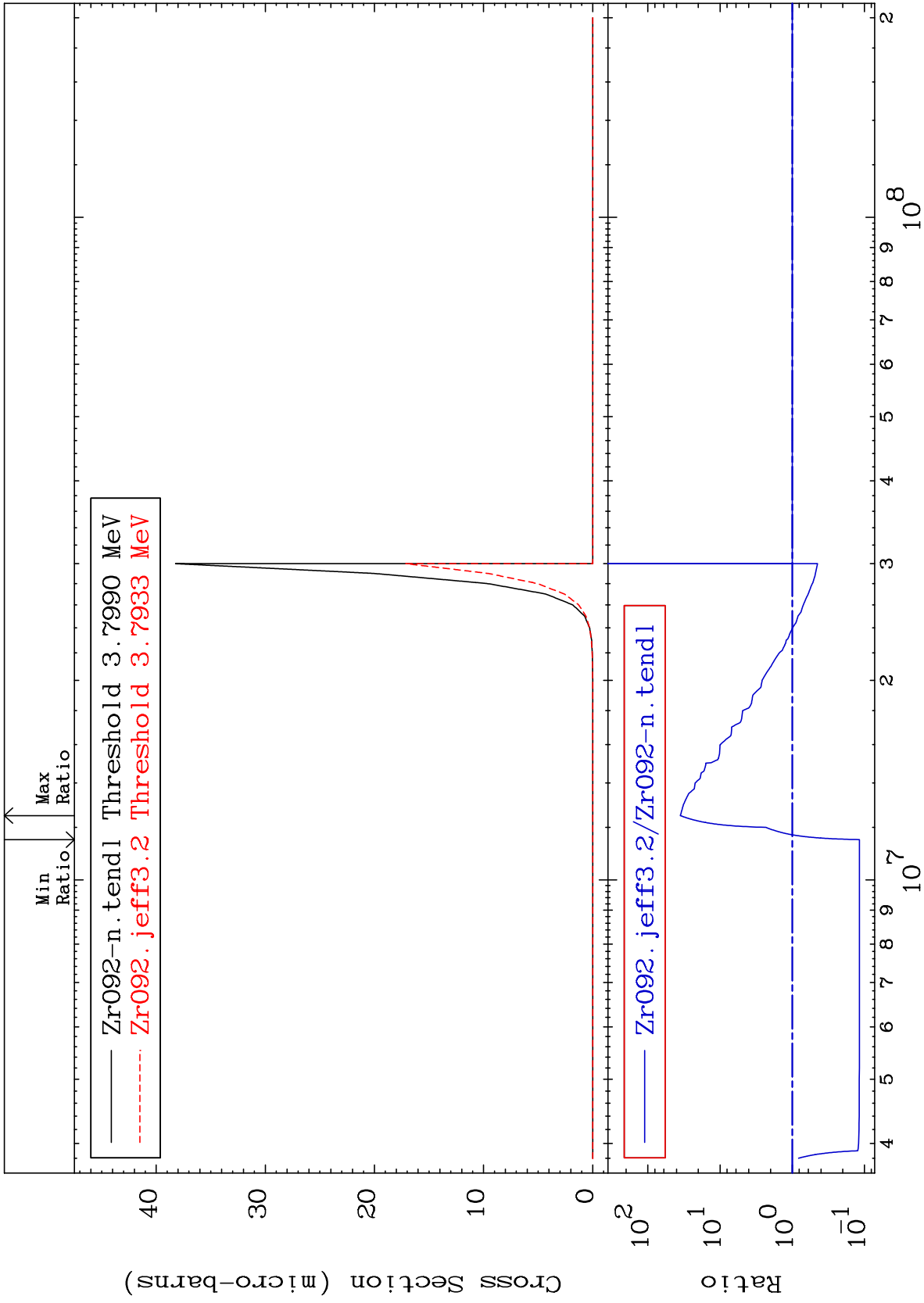
40-Zr-92

Radionuclide Production Cross Section -90.94 To 64.17 %



MAT 4031

(n,2α) : 36-Kr-85g 40-Zr-92  
Radionuclide Production Cross Section -88.27 To 3448. %



102

Incident Energy (eV)

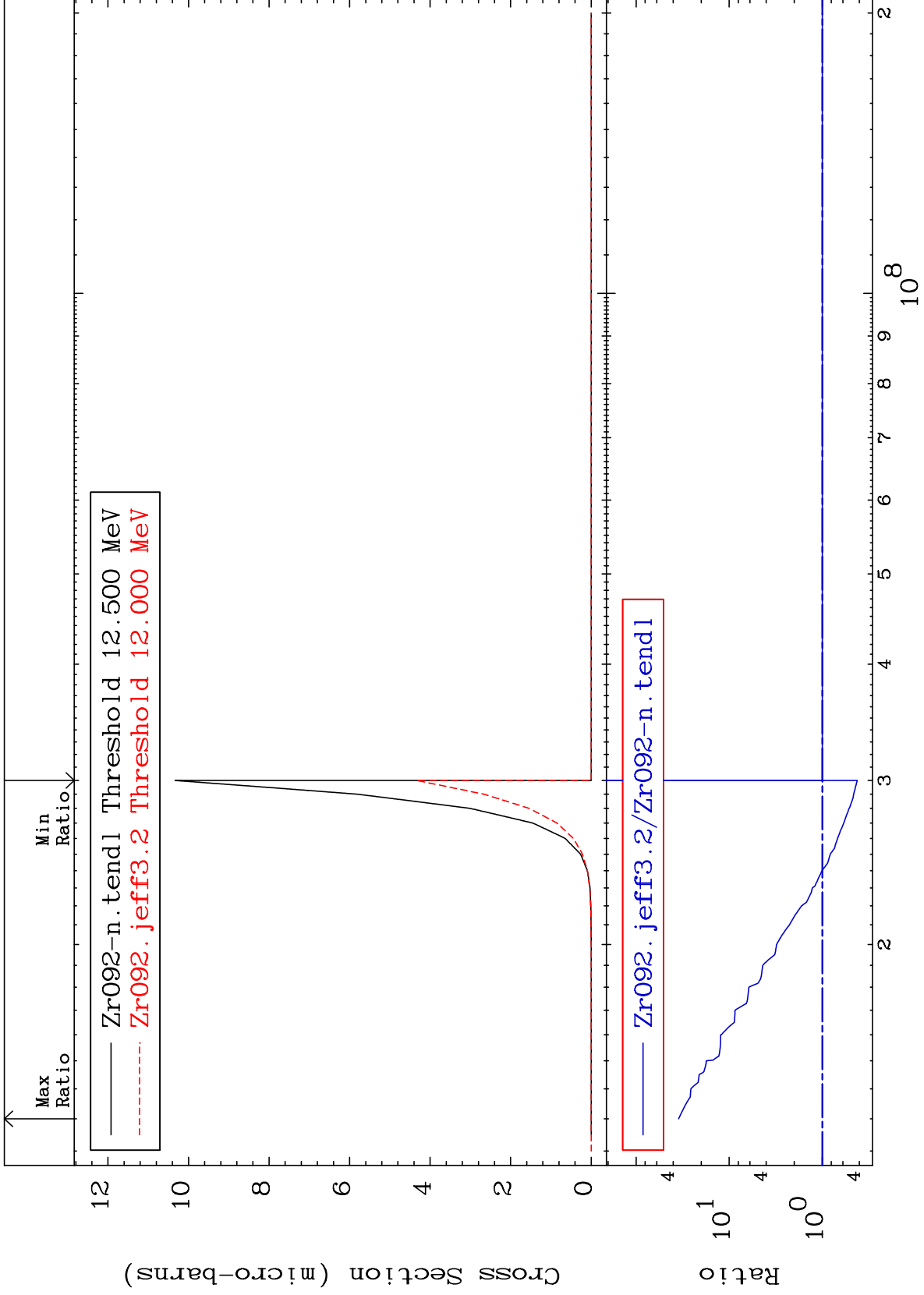
40-Zr-92

MAT 4031

(n,2α):36-Kr-85m1

40-Zr-92

Radionuclide Production Cross Section -58.00 To 3396. %



103

Incident Energy (eV)

40-Zr-92