(a)

```
File Edit Options Buffers Tools Help
    Input file > Reading   50 bands at    321 k-points
Range: -117.9690   59.4400eV  Emin, Emax > high-symmetry point:  0.0000 0.0000 0.0000   x coordinate   0.0000
high-symmetry point: -1.0000 0.0000 0.0000   x coordinate   1.0000
high-symmetry point: -1.0000 0.5000 0.0000   x coordinate   1.5000
high-symmetry point: -0.7500 0.7500 0.0000   x coordinate   1.8536
high-symmetry point:  0.0000 0.0000 0.0000   x coordinate   2.9142
high-symmetry point: -0.5000 0.5000 0.5000   x coordinate   3.7802
high-symmetry point: -1.0000 0.2500 0.2500   x coordinate   4.3926
high-symmetry point: -1.0000 0.5000 0.0000   x coordinate   4.7462
high-symmetry point: -0.5000 0.5000 0.5000   x coordinate   5.4533
high-symmetry point: -0.7500 0.7500 0.0000   x coordinate   6.0656
high-symmetry point: -1.0000 0.2500 0.2500   x coordinate   6.6780
high-symmetry point: -1.0000 0.0000 0.0000   x coordinate   7.0316
output file (gnuplot/xmgr) > bands in gnuplot/xmgr format written to file bands.xmgr


output file (ps) > Efermi > deltaE, reference E (for tics) bands in PostScript format written to file bands.ps



-UU-:----F1  ZnS.plotband.out   All L1     (Fundamental) ----------
```

ZnS.plotband.out

(b)

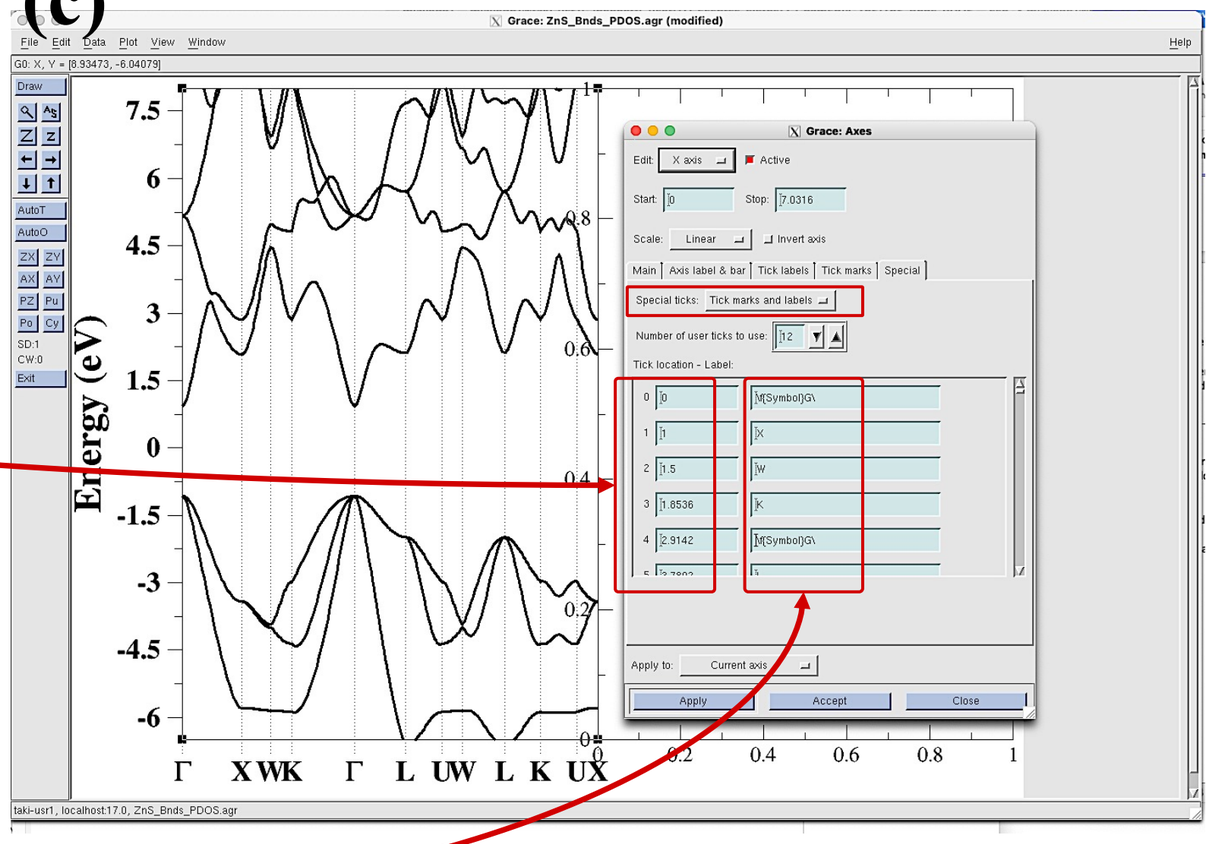
```
File Edit Options Buffers Tools Help
ATOMIC_SPECIES
Zn   65.380   zn_pbe_v1.uspp.F.UPF
S    32.066   s_pbe_v1.4.uspp.F.UPF


ATOMIC_POSITIONS {crystal}
Zn        0.000000000   0.000000000   0.000000000
S         0.250000000   0.250000000   0.250000000


K_POINTS crystal_b
12
  0.0000  0.0000  0.0000  30    Γ to X
  0.5000  0.0000  0.5000  40    X to W
  0.5000  0.2500  0.7500  20    W to K
  0.3750  0.3750  0.7500  40    K to Γ
  0.0000  0.0000  0.0000  40    Γ to L
  0.5000  0.5000  0.5000  30    L to U
  0.6250  0.2500  0.6250  20    U to W
  0.5000  0.2500  0.7500  20    W to L
  0.5000  0.5000  0.5000  30    L to K
  0.3750  0.3750  0.7500  20    K to U
  0.6250  0.2500  0.6250  30    U to X
  0.5000  0.0000  0.5000  30    X to Γ
```

ZnS.bands.in

(c)



(d)