

- Problems **9.2, 9.4 and 9.7** from the textbook.

- And **this problem:**

a) Within the tight-binding approximation find the energy dispersion for electrons moving in BCC and FCC lattices. Assume one s-wave orbital per lattice site and consider only on-site and nearest neighbor overlap integrals α and γ respectively.

b) From the above energy dispersions determine the bandwidth and the effective mass (near the bottom of the band) for the two lattice structures.