

Lecture 9: Tight Binding and van Hove Singularity

The tight binding method is formulated and its relation to the chemist's notion of molecular orbital emphasized, hence the name LCAO, linear combination of atomic orbitals. An example involving s and p orbitals is given. The density of states is defined and van Hove singularity identified.

Reading: Mardar 10.2.2, 6.3.1, and 7.2.1