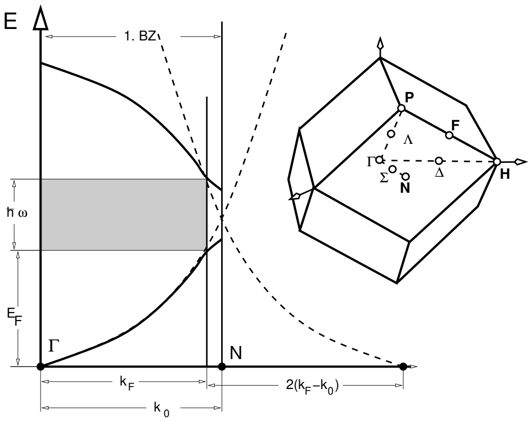
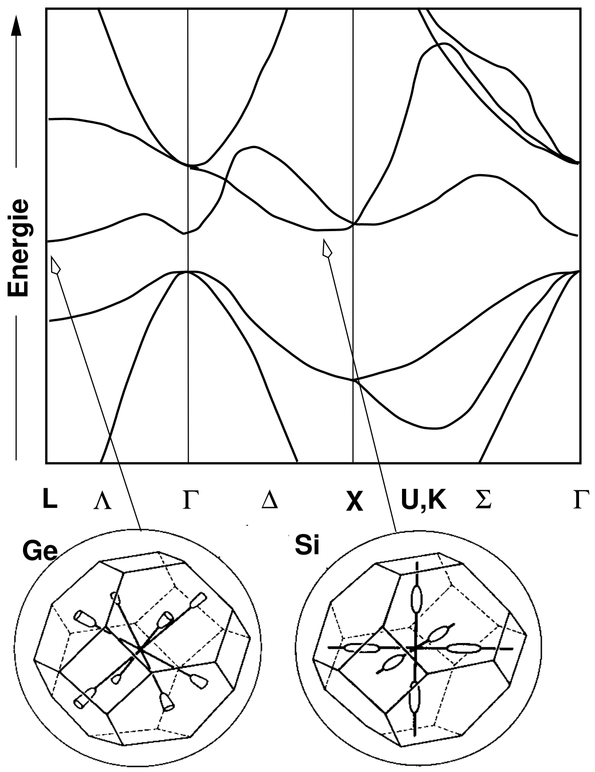
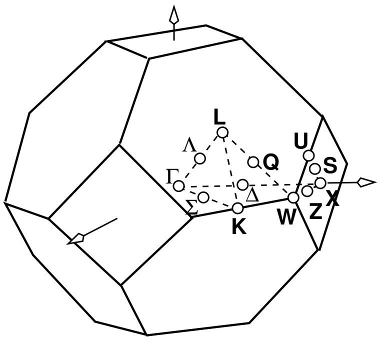
5. Bandstruktur und Eigenschaft

5.1/5.2. Metallische Leiter/Halbleiter



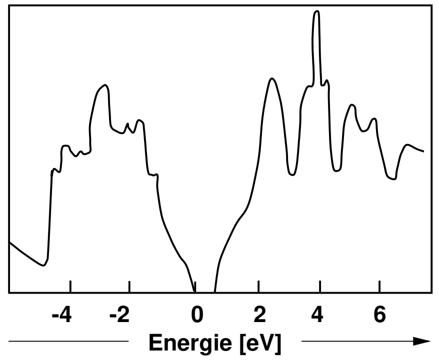
Alkalimetalle: Interbandabsorption





fcc: Brillouin-Zone

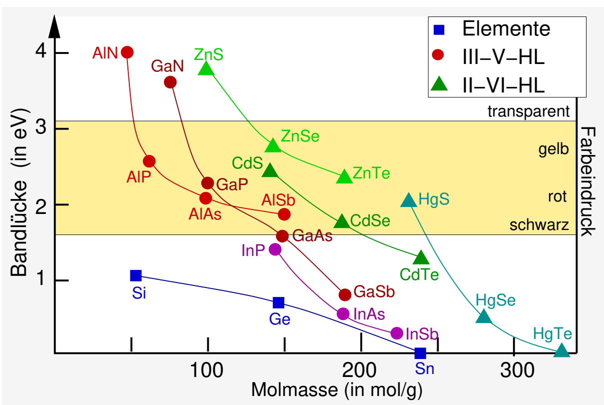
Halbleiter: charakteristische Bandstruktur



Zustandsdichte von Si

Substanz	Bandlücke	E_g [eV] bei 0 K
C (Diamant)	i	5.4
Si	i	1.17
Ge	i	0.744
Sn (α)	d	0
As		klein
Sb	d	0
Bi	d	0
Se		2.2
Te	d	0.33

Bandlücken



Bandlücke bei Verbindungshalbleitern