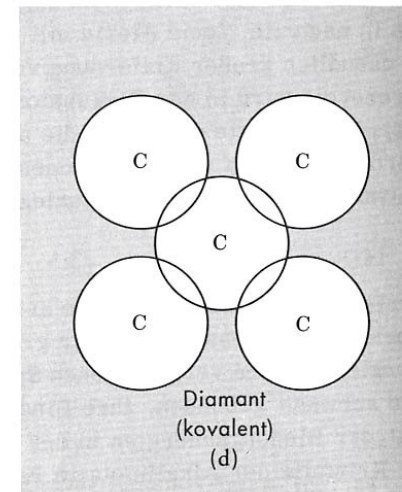
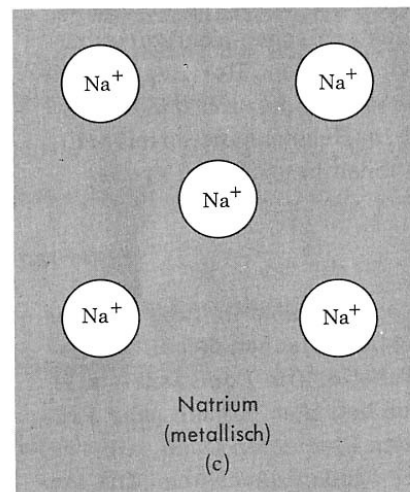
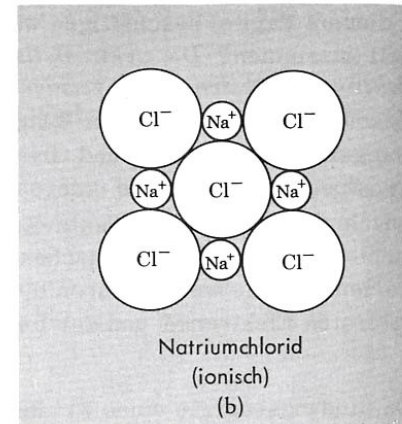
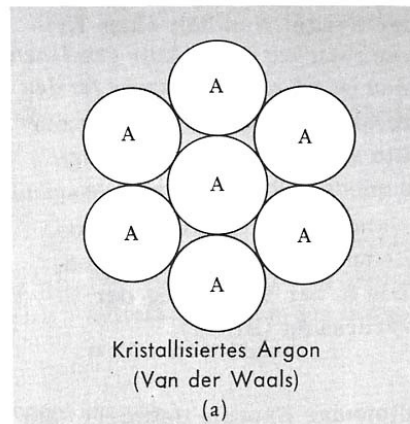
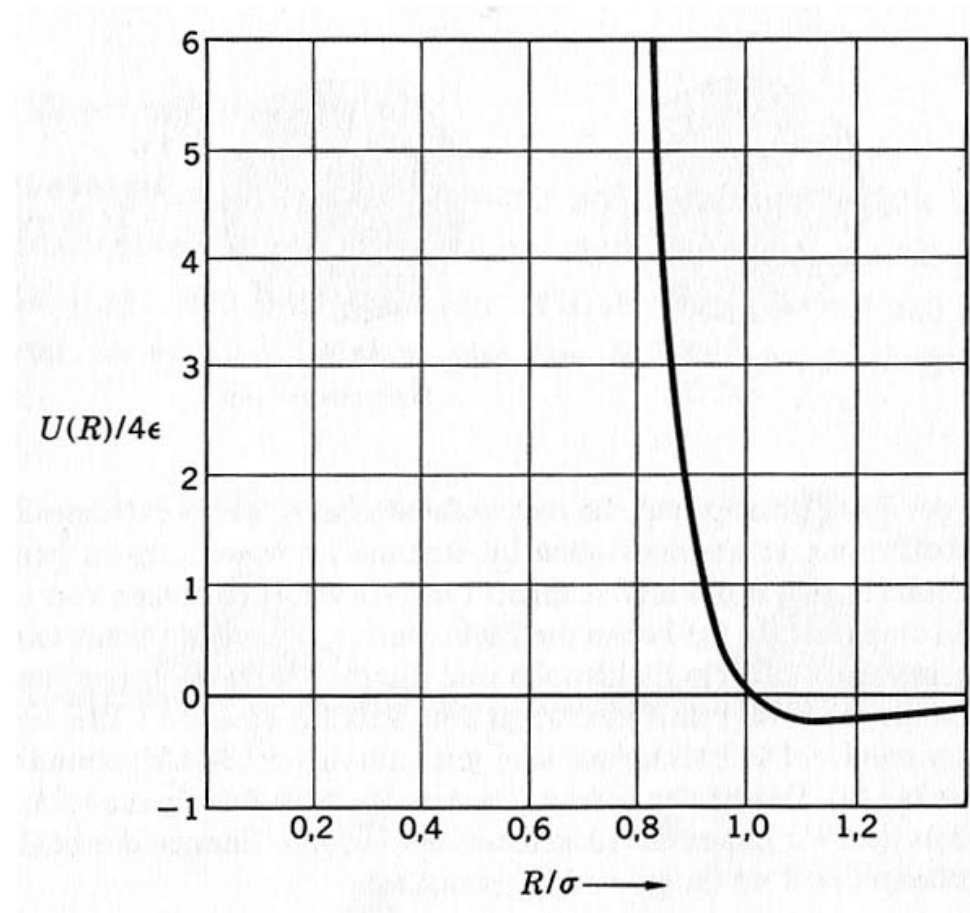


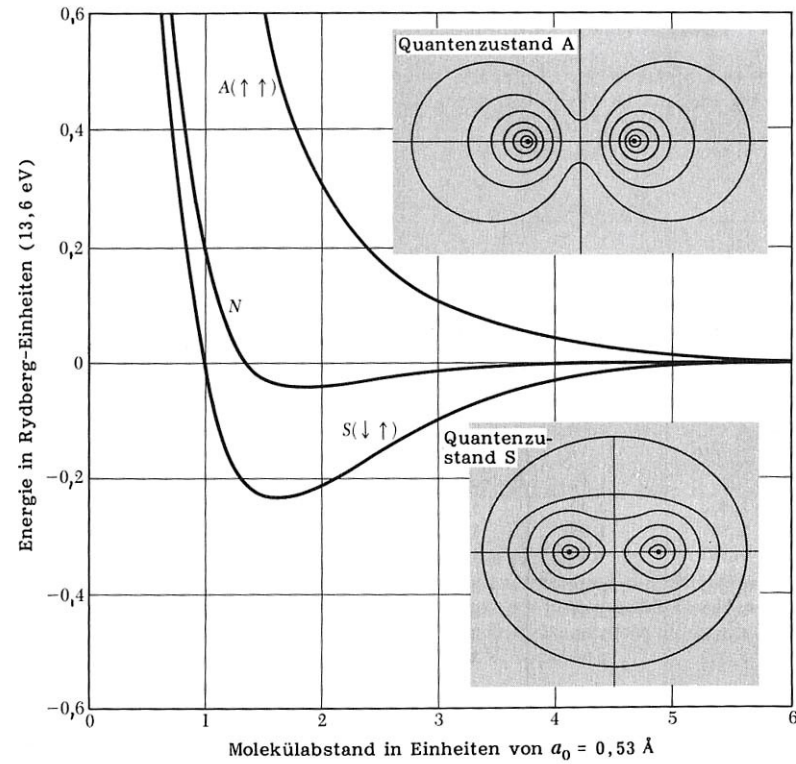
Kristallbindung



Übersicht über die Bindungstypen

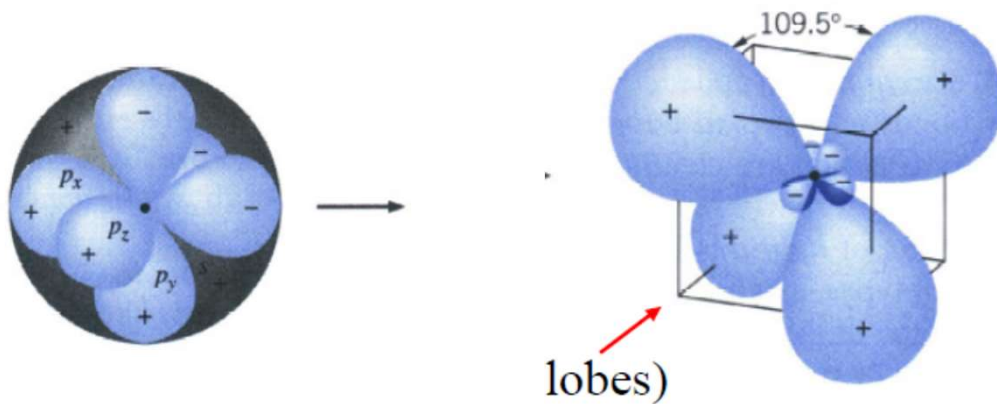


Van der Waals-Bindung:
Lennard-Jones-Potential



Potential bei der kovalenten Bindung

Diamant: LCAO führt zu sp³-Hybridisierung

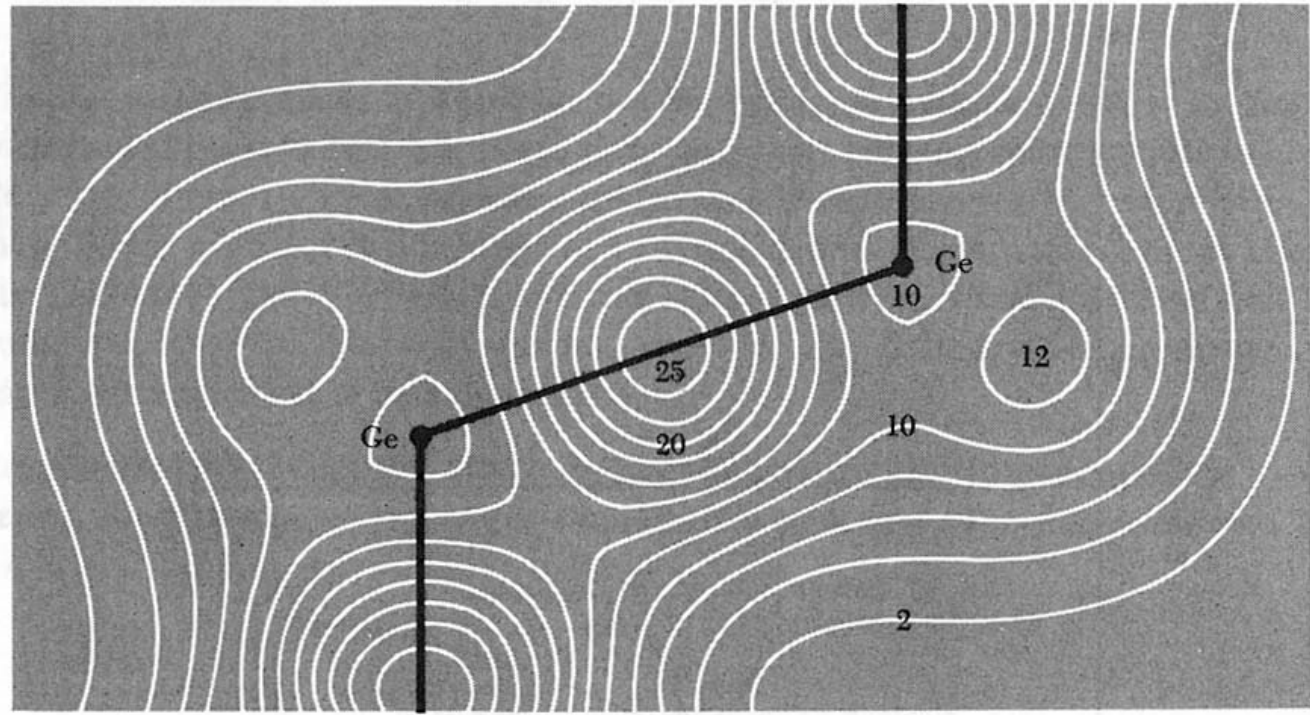


$$\psi_1 = \frac{1}{2}(\psi_s + \psi_{p_x} + \psi_{p_y} + \psi_{p_z})$$

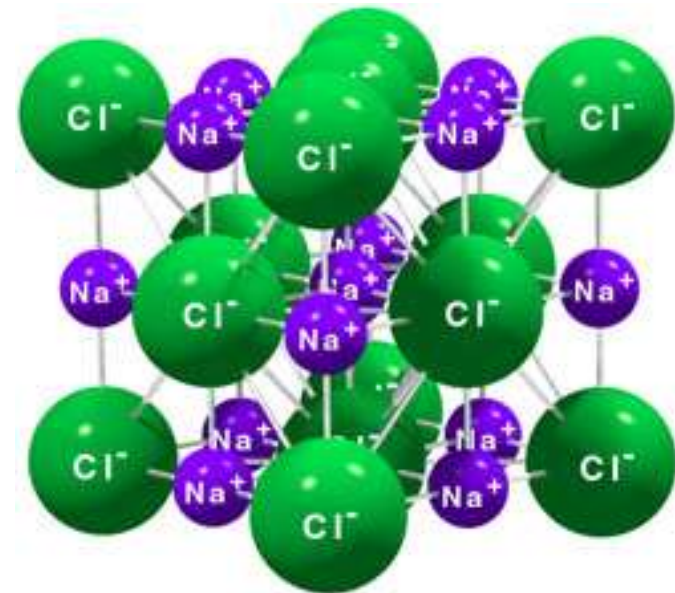
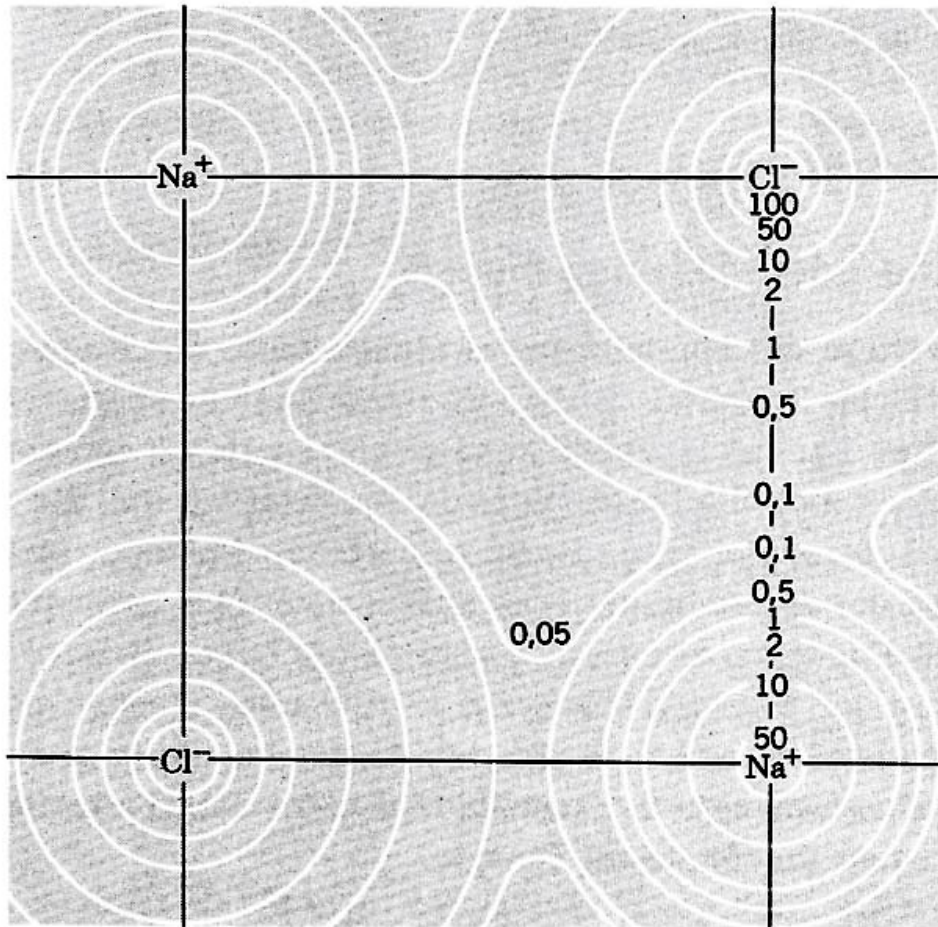
$$\psi_2 = \frac{1}{2}(\psi_s - \psi_{p_x} - \psi_{p_y} + \psi_{p_z})$$

$$\psi_3 = \frac{1}{2}(\psi_s + \psi_{p_x} - \psi_{p_y} - \psi_{p_z})$$

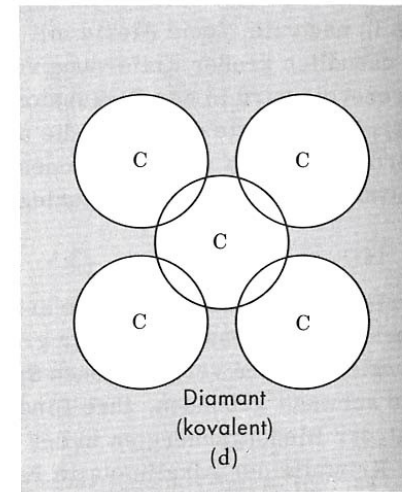
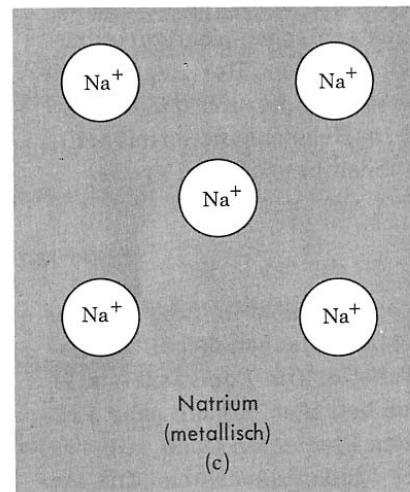
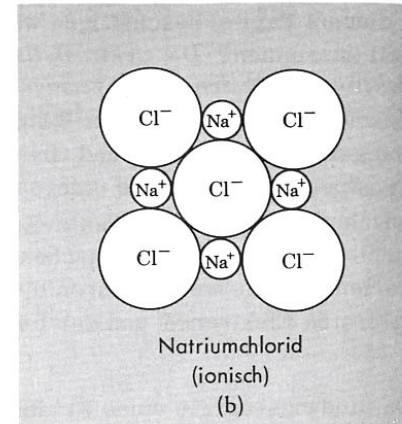
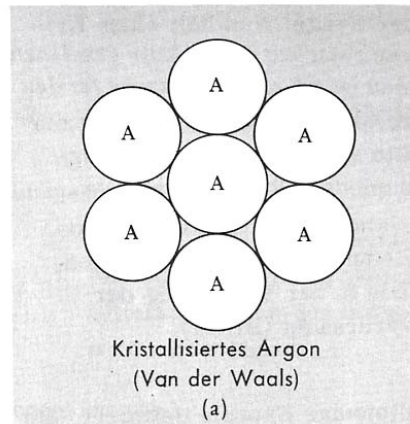
$$\psi_4 = \frac{1}{2}(\psi_s - \psi_x + \psi_{p_y} - \psi_{p_z})$$



Elektronenverteilung bei der kovalenten Bindung



Elektronenverteilung bei der ionischen Bindung



Übersicht über die Bindungstypen