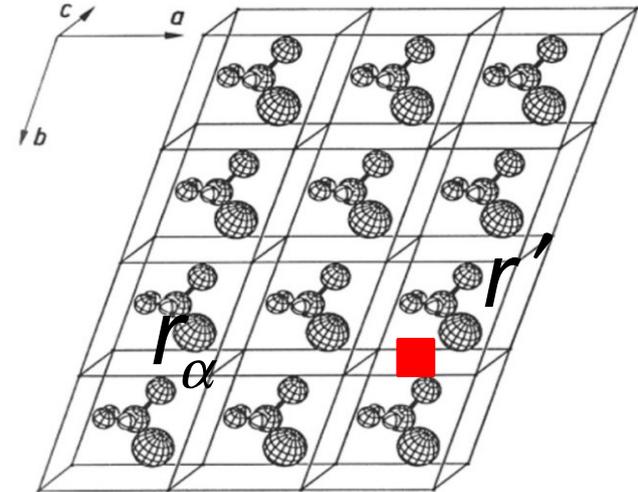
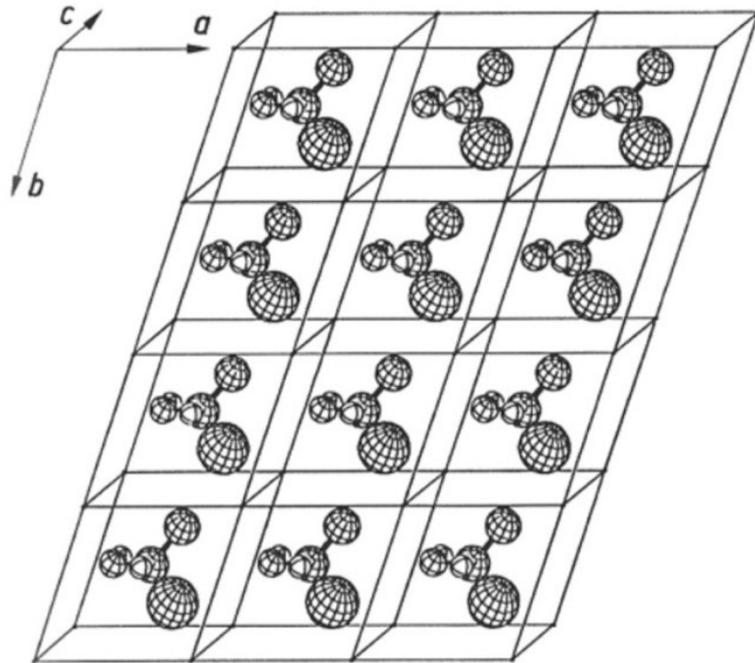


Strukturfaktor und mehratomige Basis



R_m

r

Fig. 2.2g

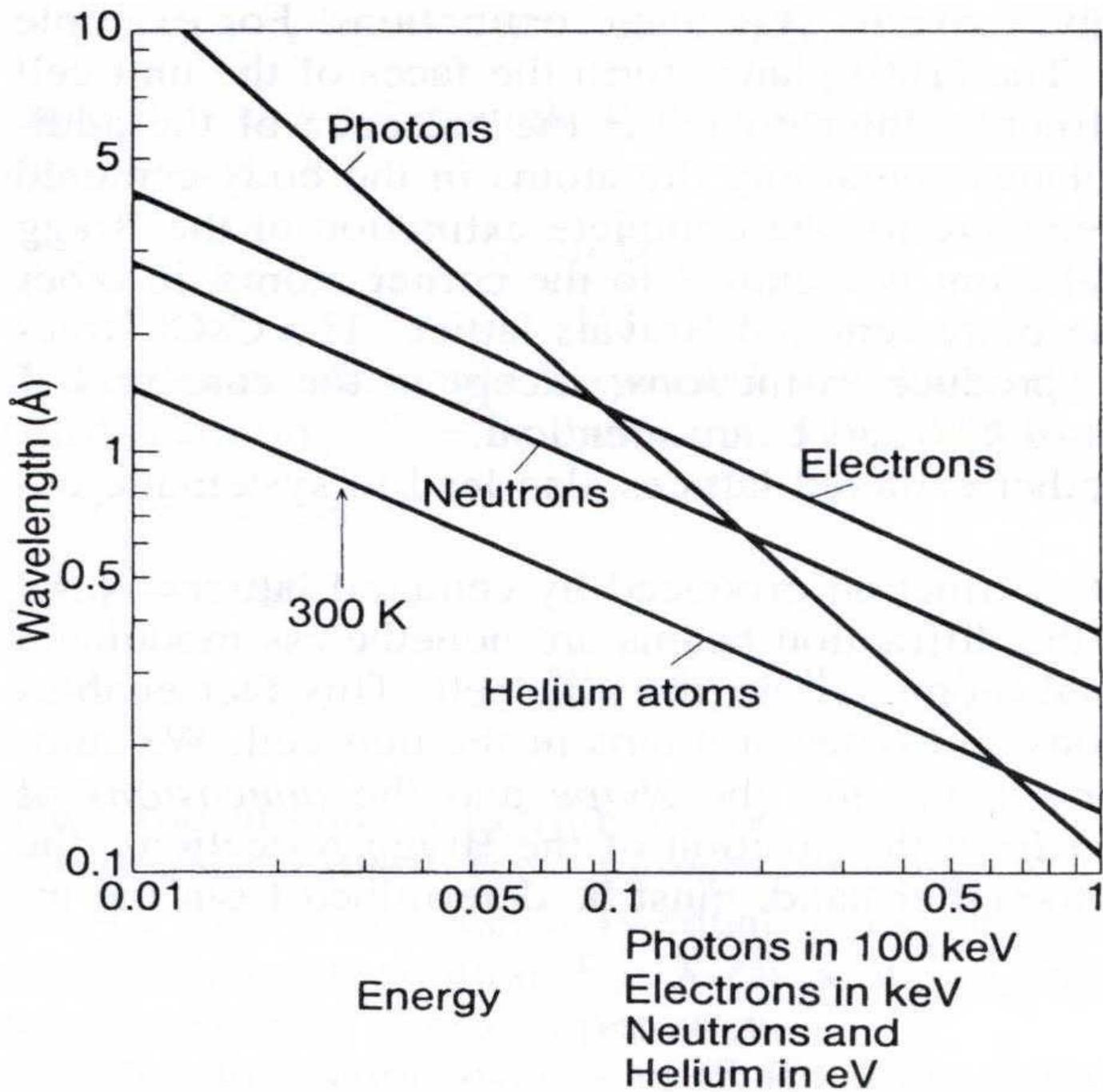


Fig. 2-3a

Spektrum Synchrotronstrahlung

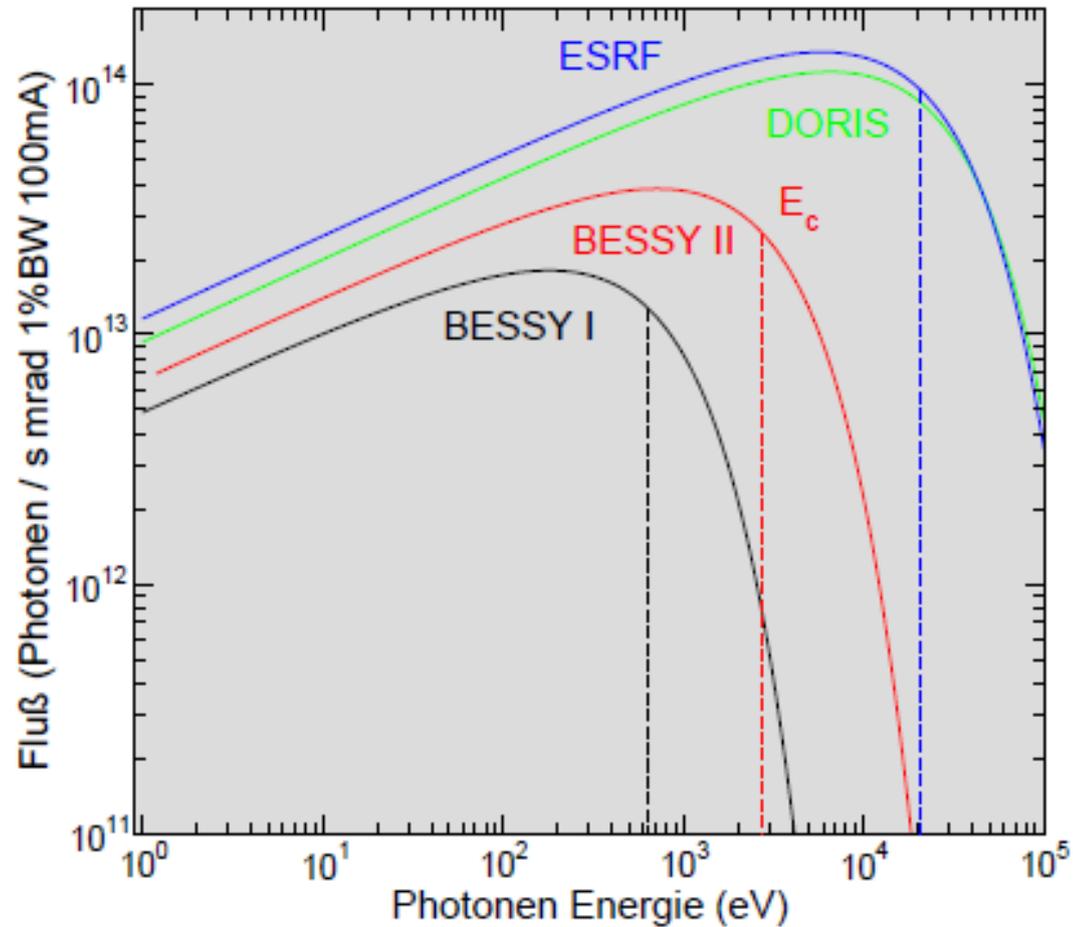
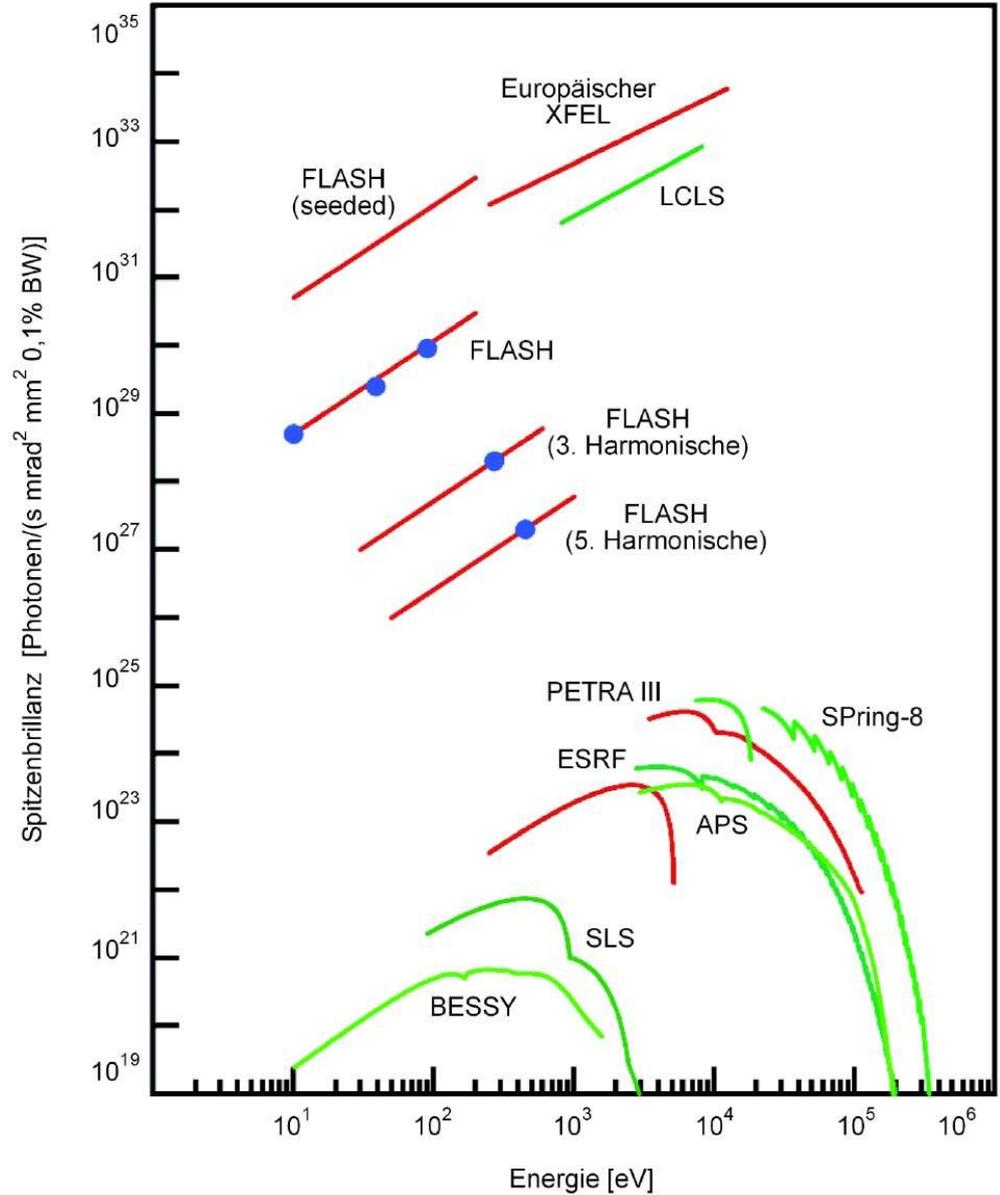
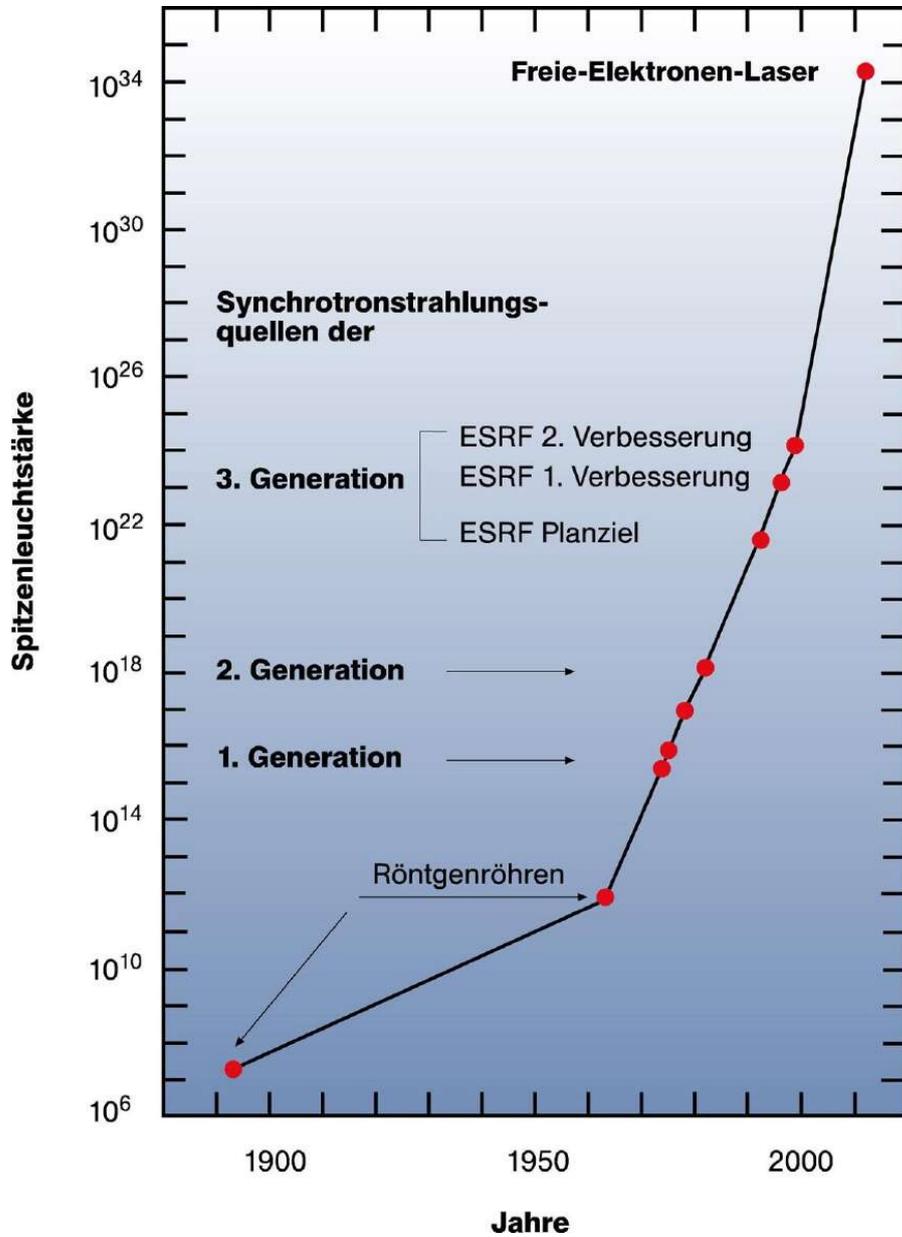


Fig. 2-3b

Röntgenlaser

Fig. 2-3c



Drehkristall- oder Bragg-Verfahren

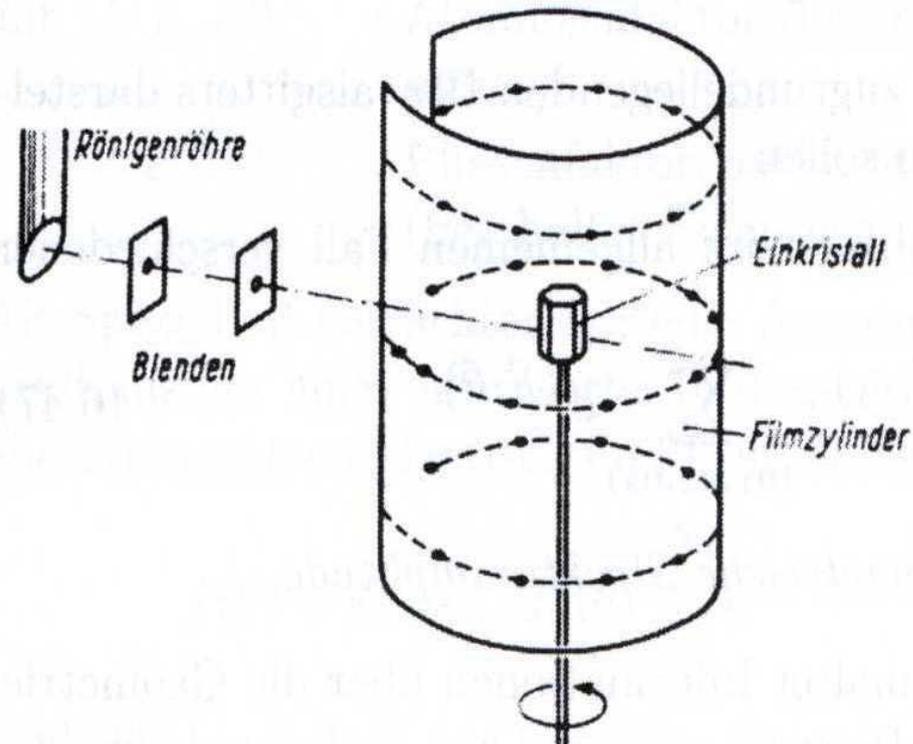
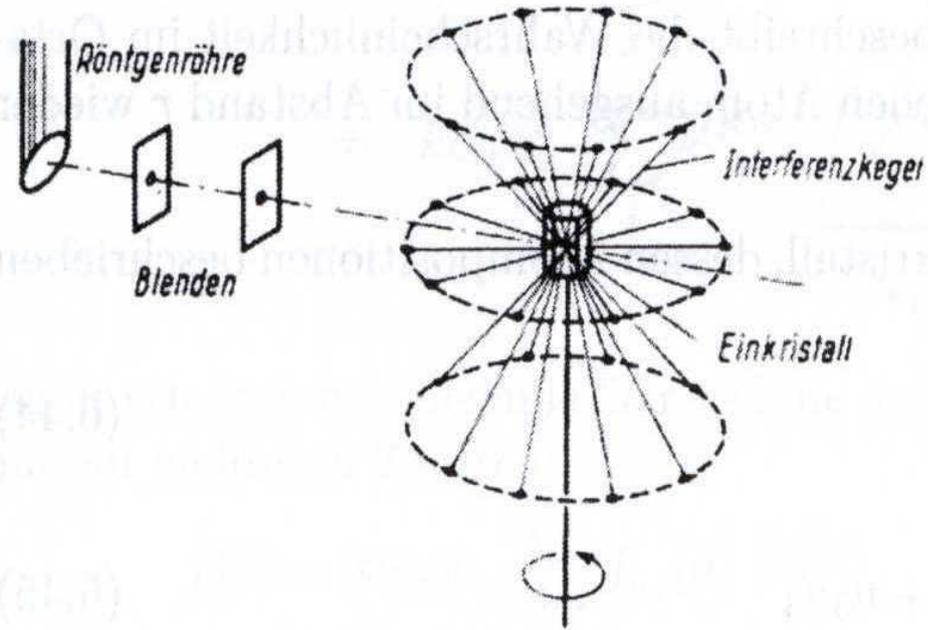


Fig. 2-3d

Debye-Scherrer-Verfahren

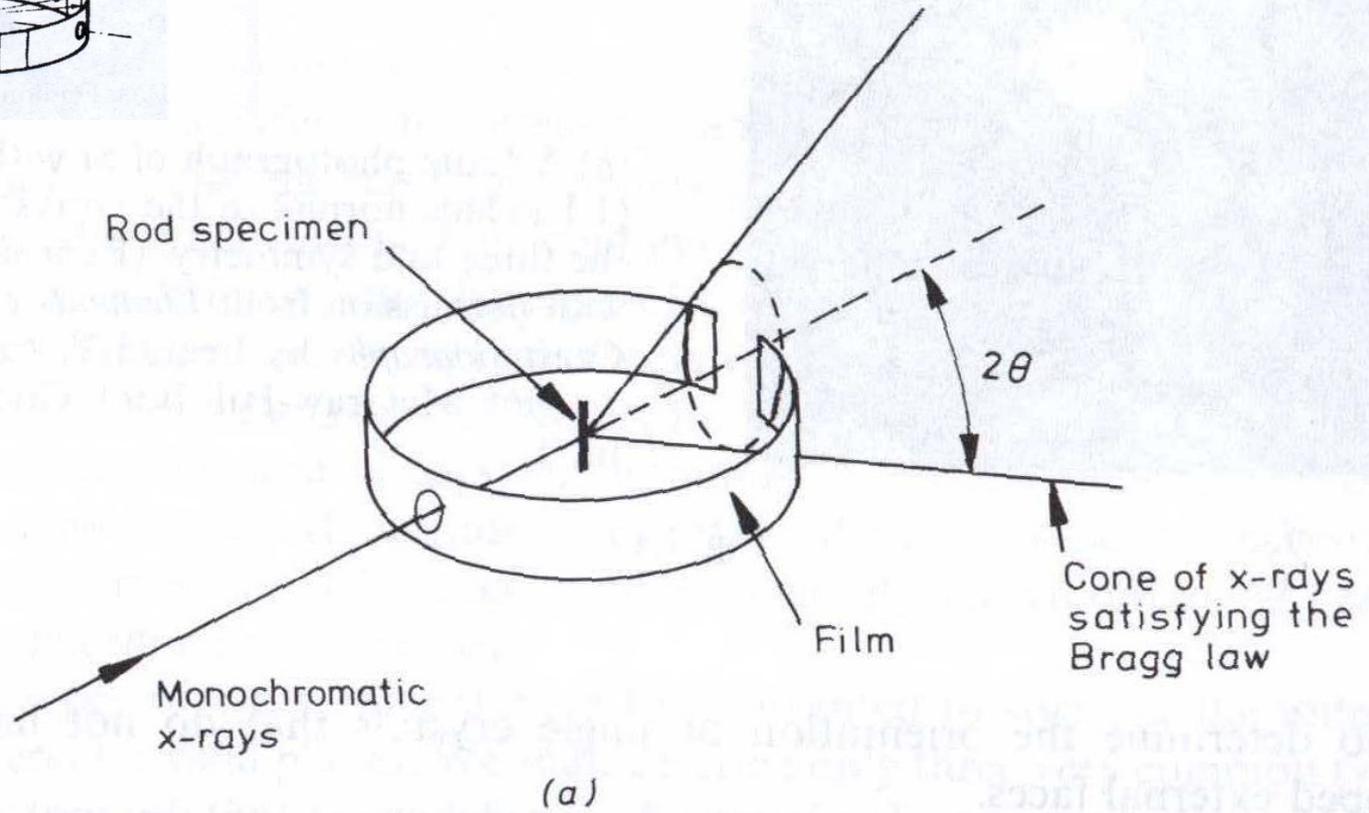
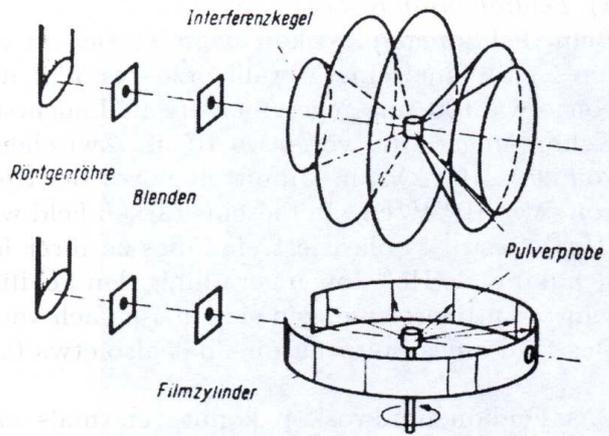


Fig. 2-3e

(b)

von-Laue-Verfahren

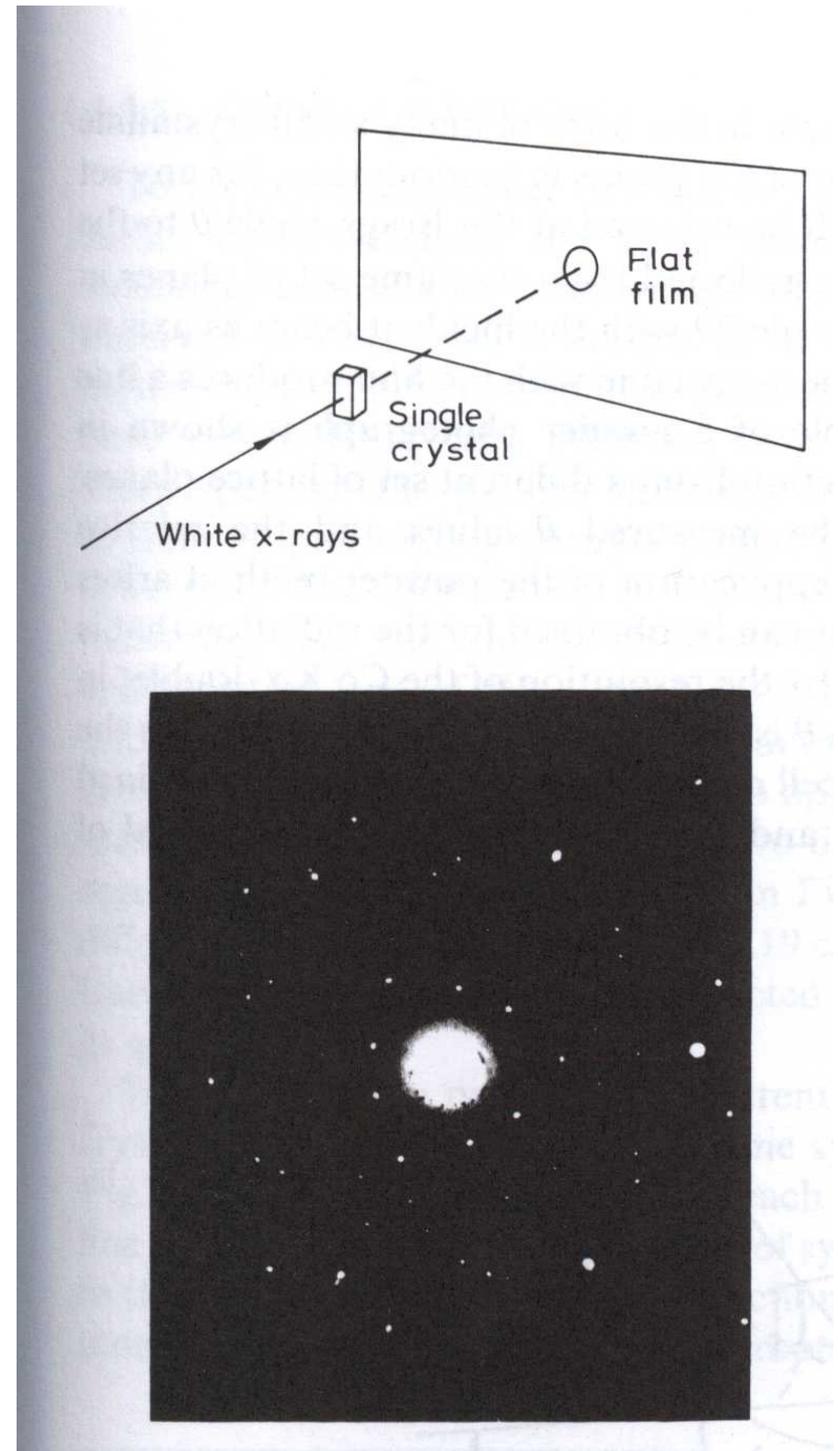
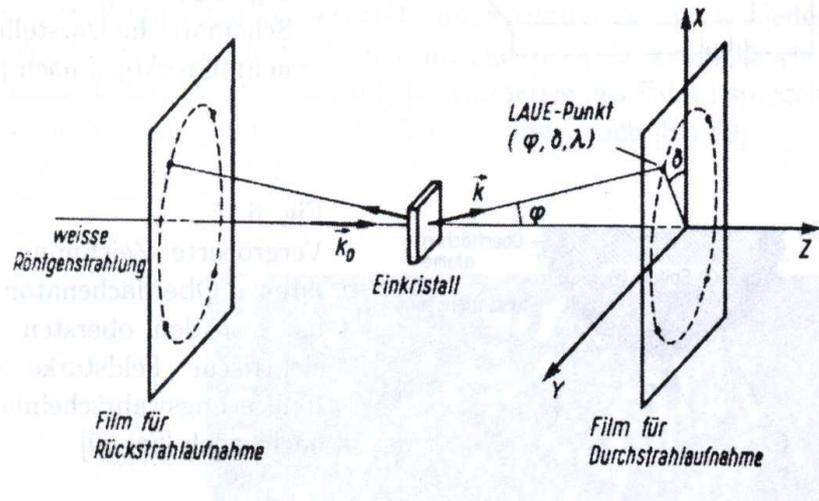
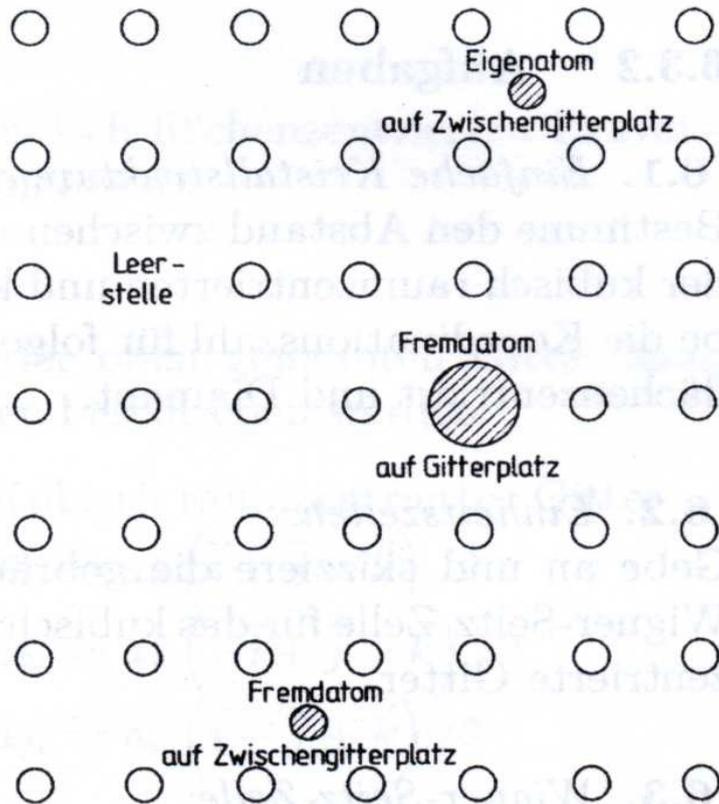


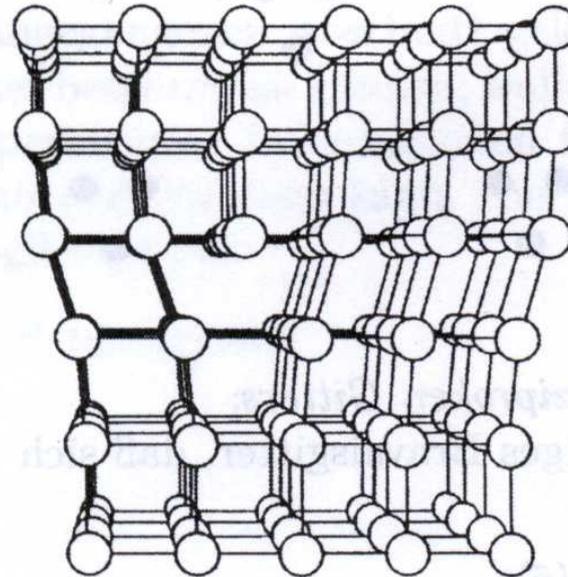
Fig. 2-3f

Defekte im Kristallgitter

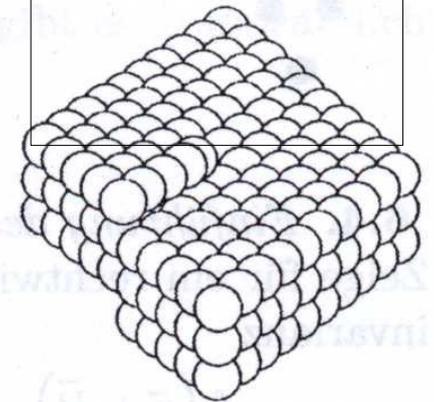
Punktdefekte



Stufenversetzung



Schraubenversetzung



Flächendefekte: Korngrenzen

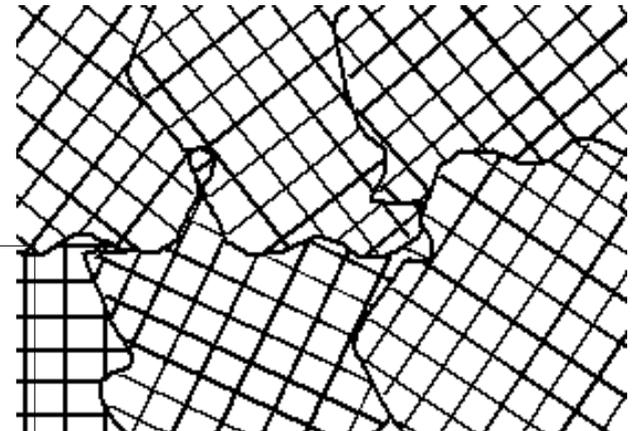
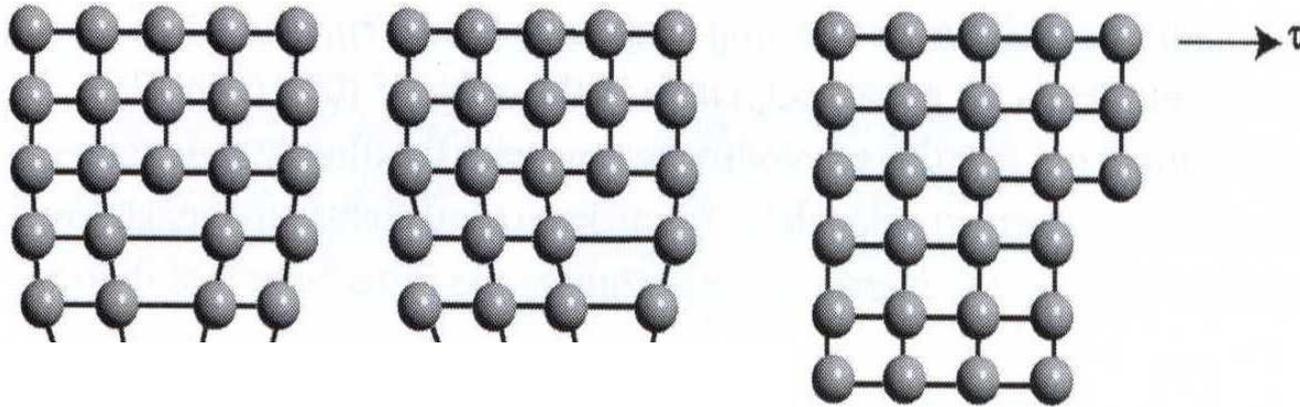


Fig. 2-4a, 2-4b, 2-4c

Liniendefekt wandert unter Scherspannung durch Gitter



wenn er nicht von einer Verunreinigung aufgehalten wird: "pinning"

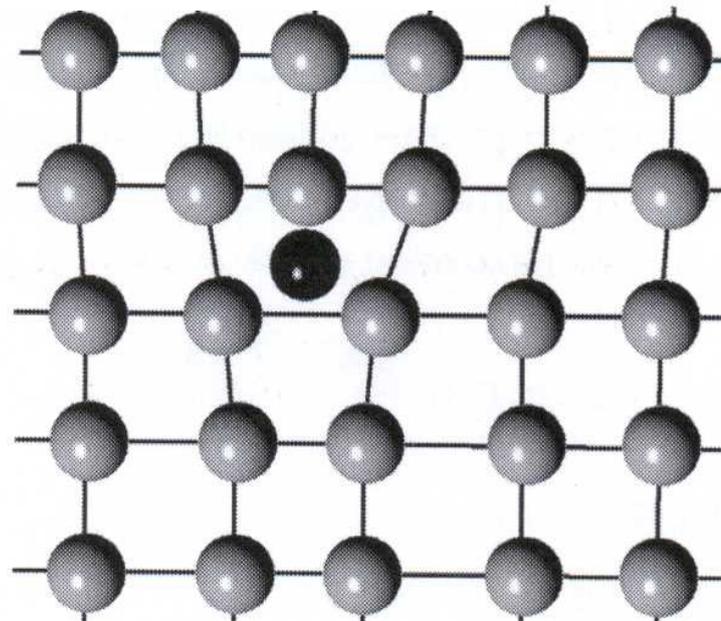


Fig. 2-4d

Kette mit 1 Atom pro Einheitszelle

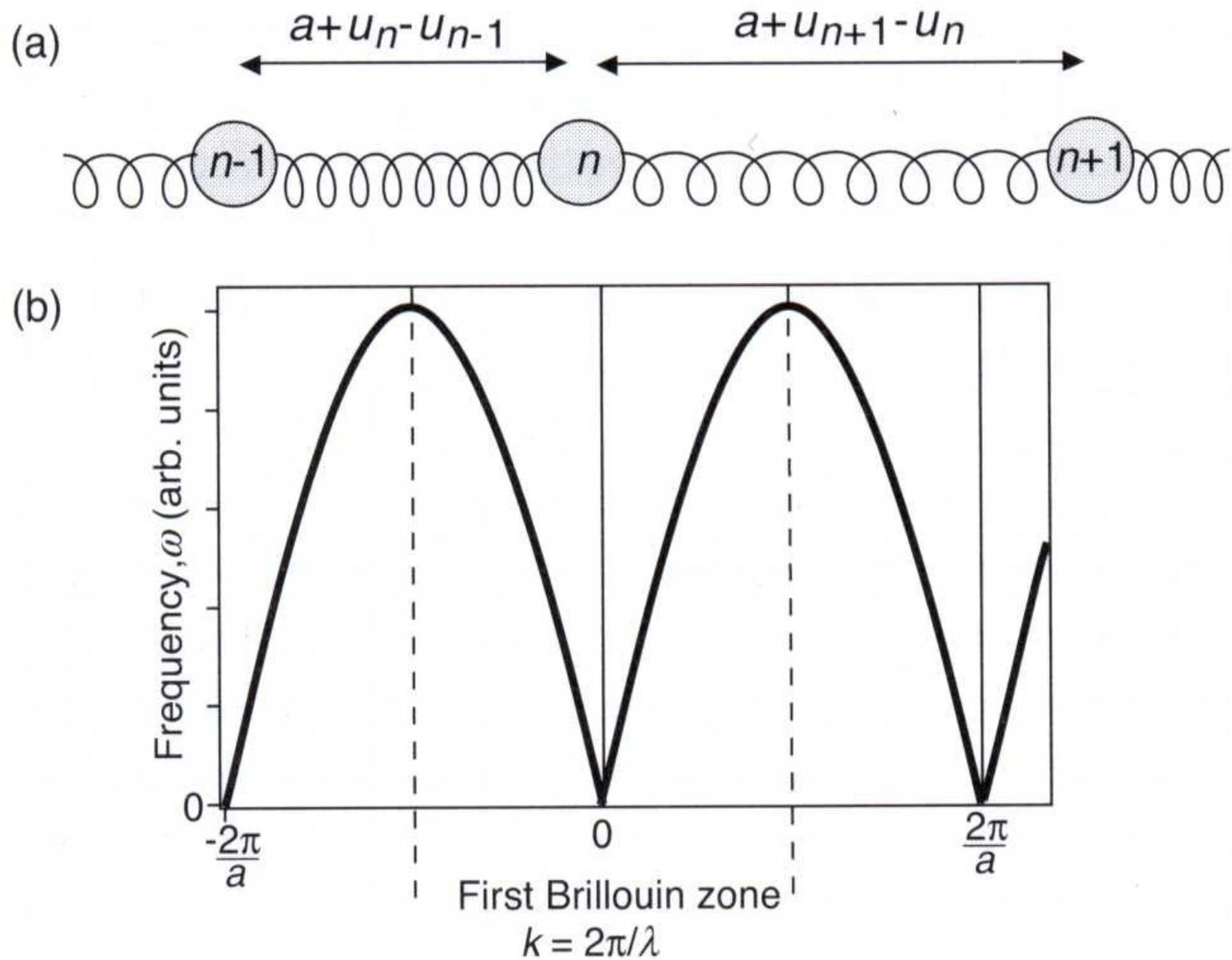


Fig. 3-1

Kette mit 10 Atomen \rightarrow 10 verschiedene Frequenzen

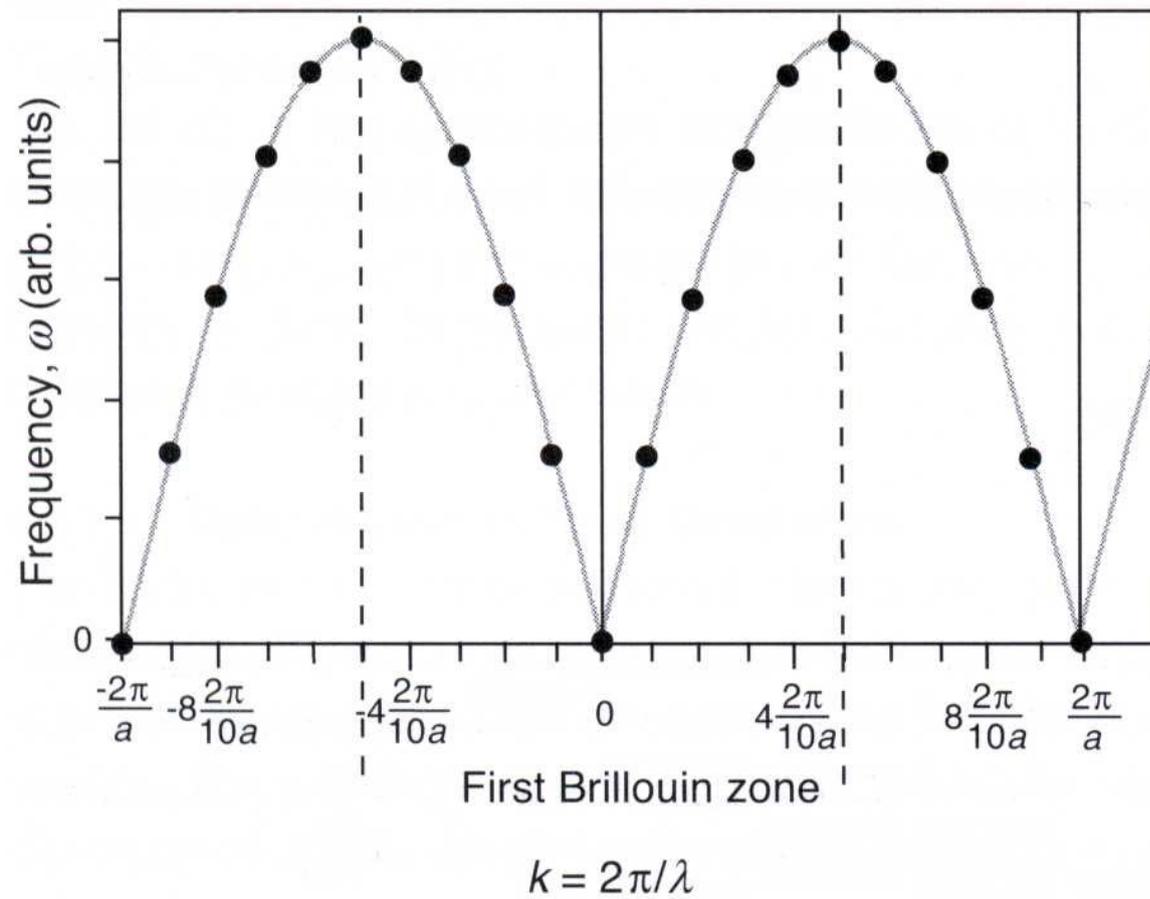
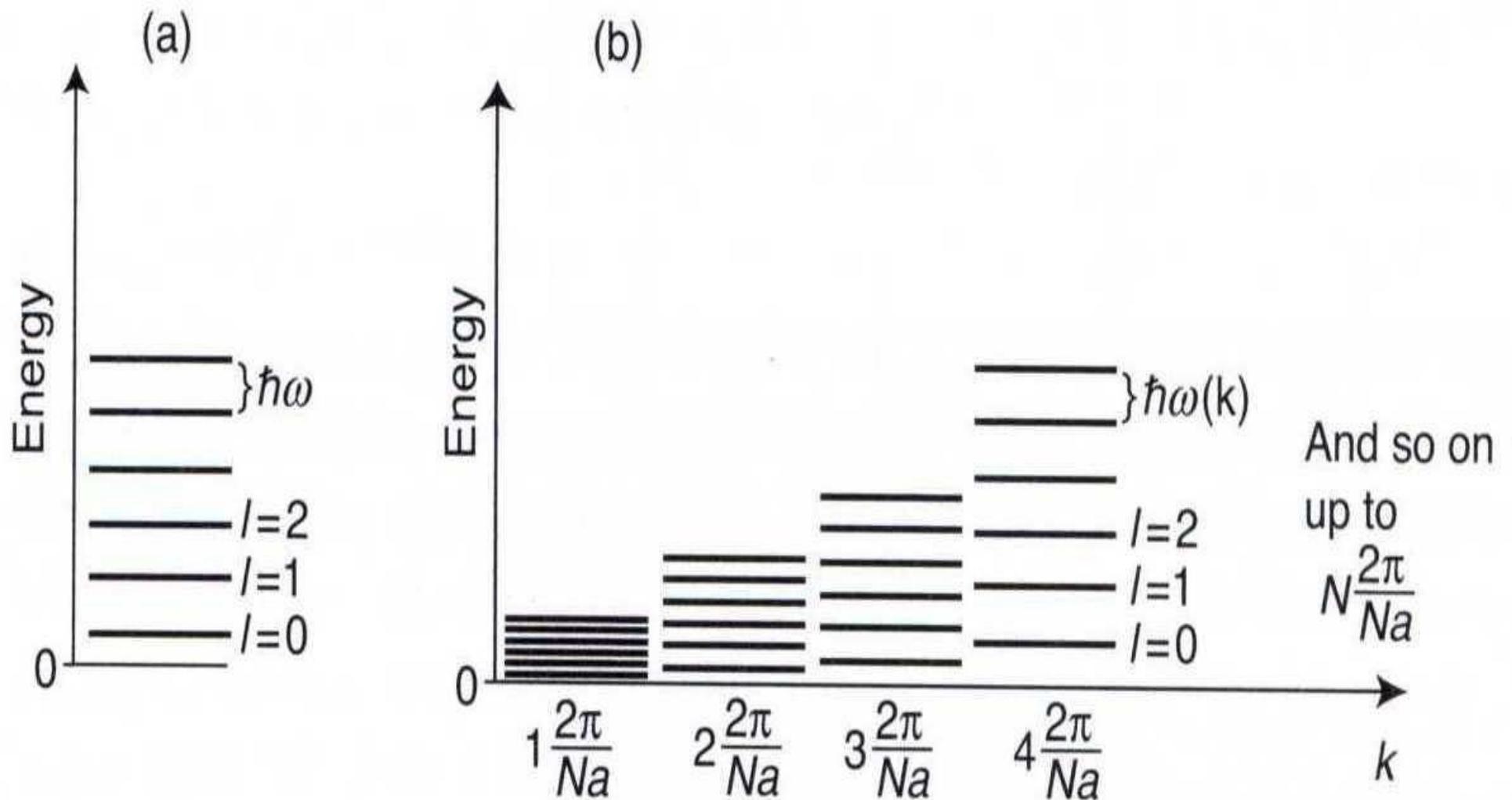


Fig. 3-2

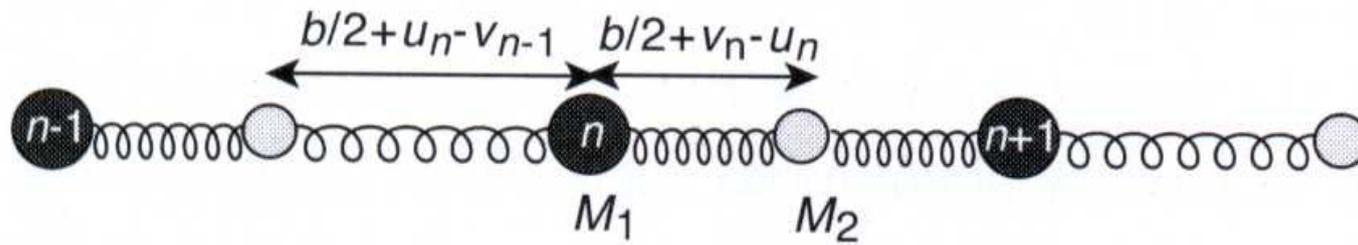


auf jeder der Oszillatorfrequenzen baut sich harmonisches Spektrum quantisierter Eigenzustände auf

Fig. 3-3

Kette mit 2 Atomen pro Einheitszelle

(a)



(b)

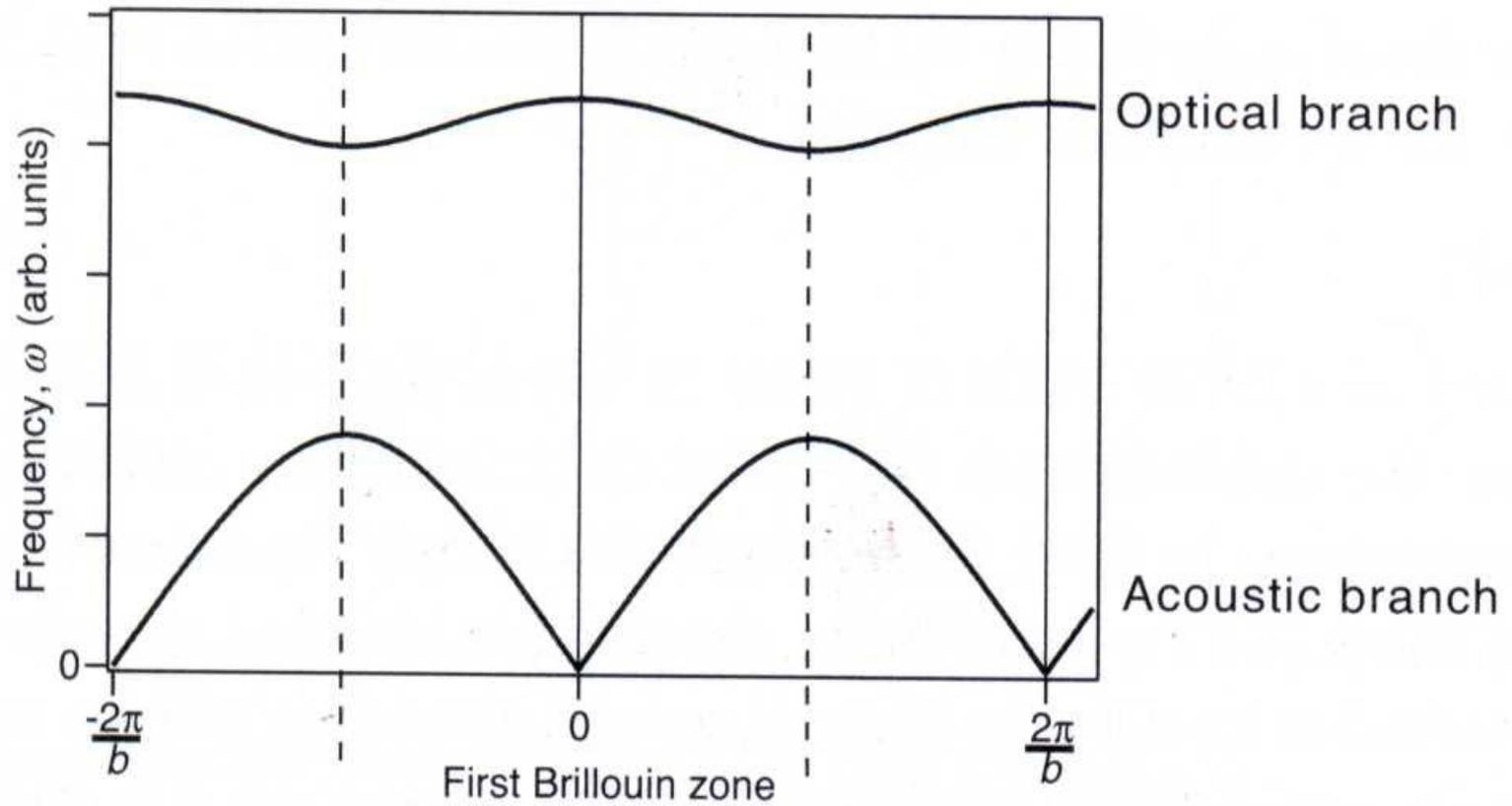


Fig. 3-4

3-dimensionales Gitter mit 2 Atomen pro Einheitszelle

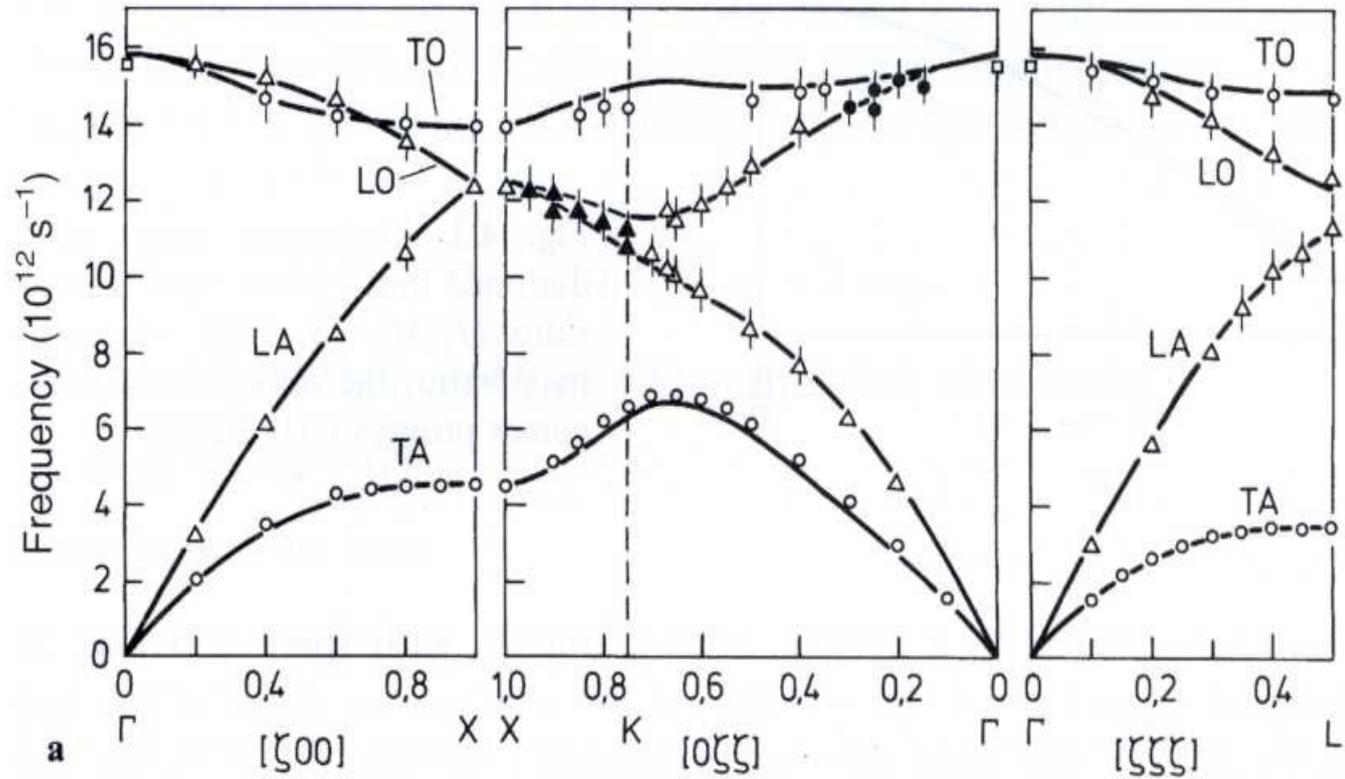
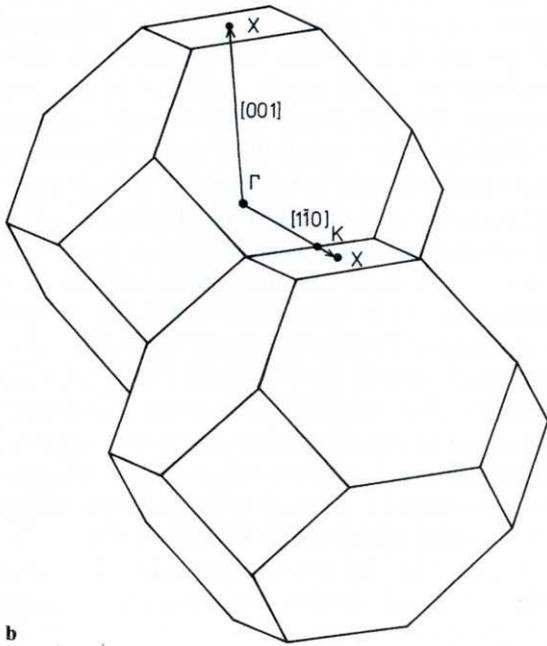


Fig. 3-4a

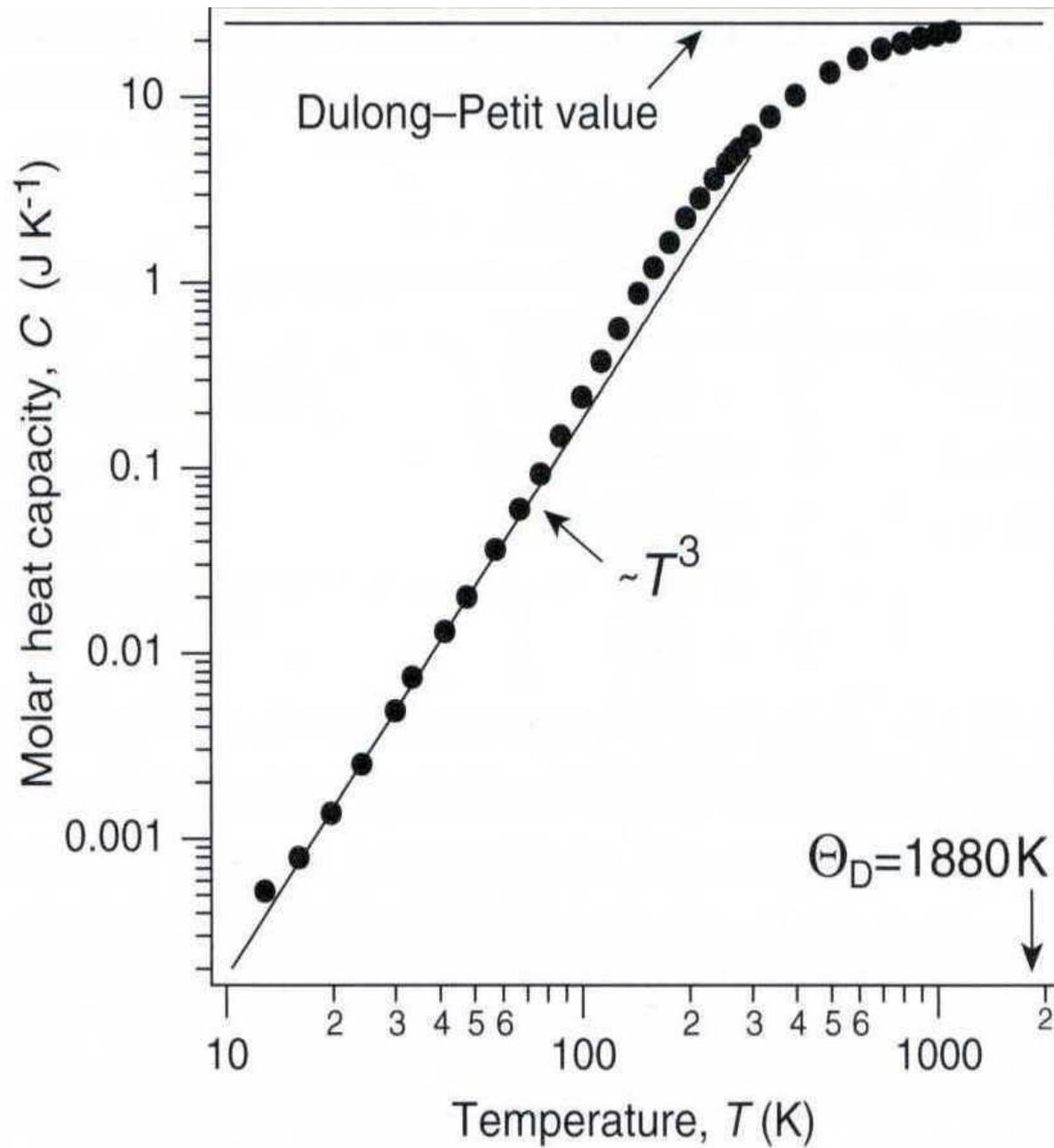


Fig. 3-5