

## Kossel Crystal: Surface Free Energy of a Vicinal a

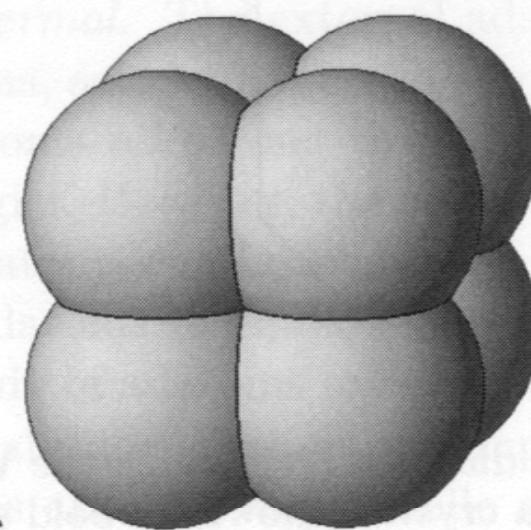
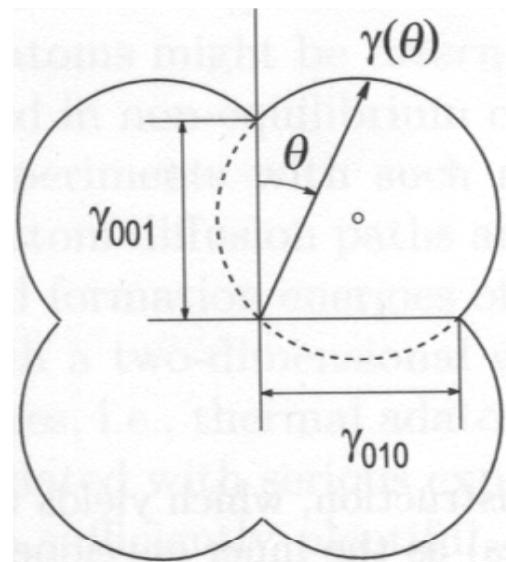
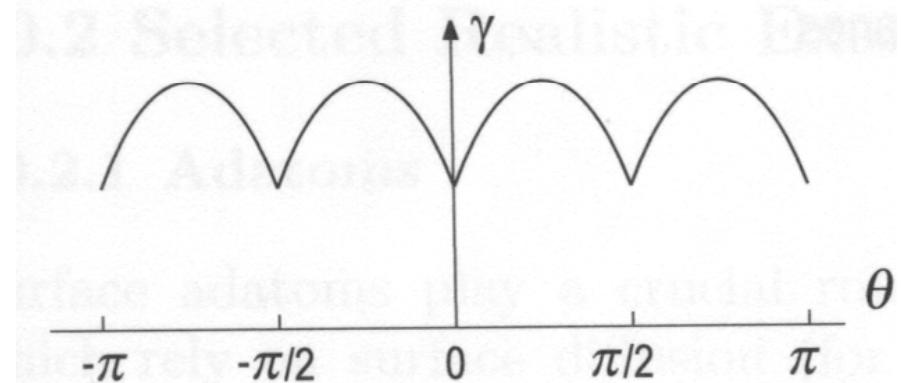
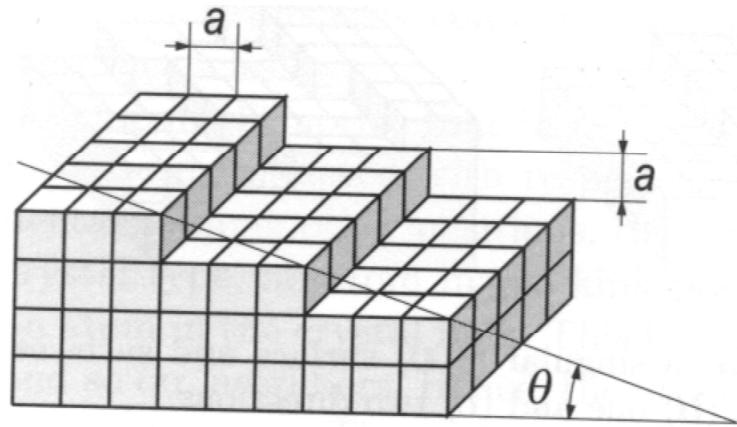


Fig. 4.8

## Wulff-Construction

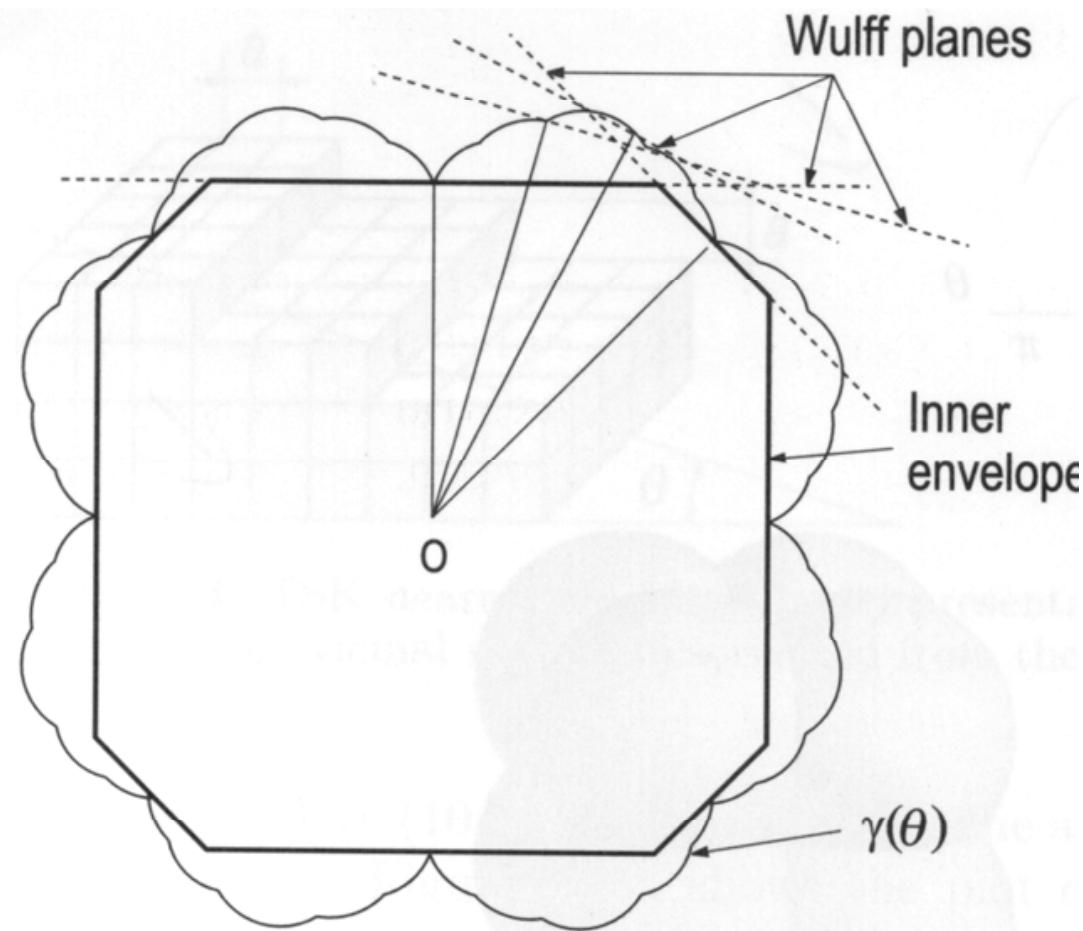


Fig. 4.9

## 3-Dimensional Equilibrium Shape of Au at 1000°C

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J.C. Heyraud, J.J. Métois / Equilibrium shape of metal crystallites

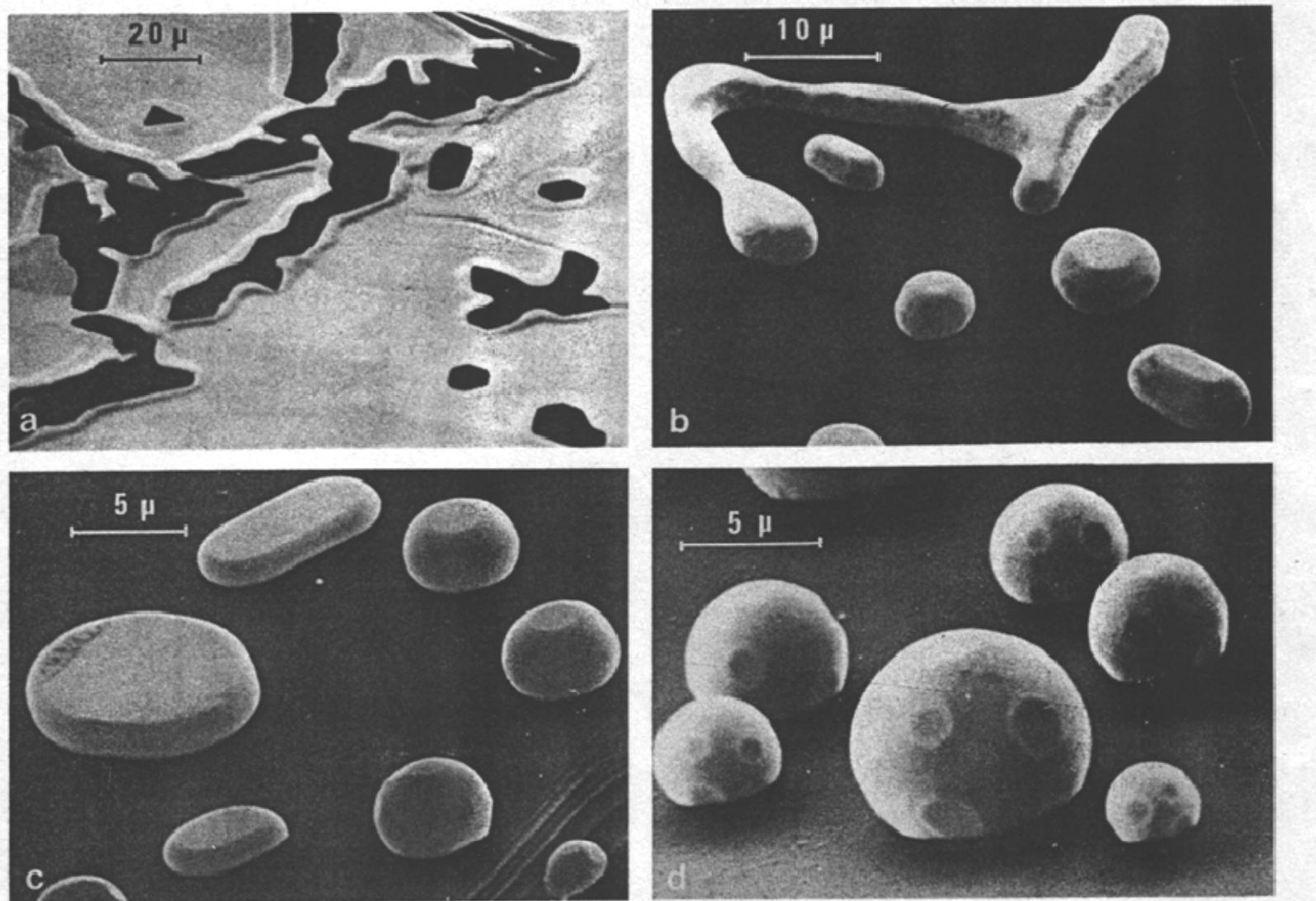


Fig. 1. Evolution of a gold film, 3000 Å thick, annealed under ultrahigh vacuum at 1000°C for: (a) 15 min, (b) 10 h, (c) 50 h, (d) 70 h.

Fig. 4.10

## 2-Dimensional Equilibrium Shape of Monolayer Pt-Islands on Pt(111)

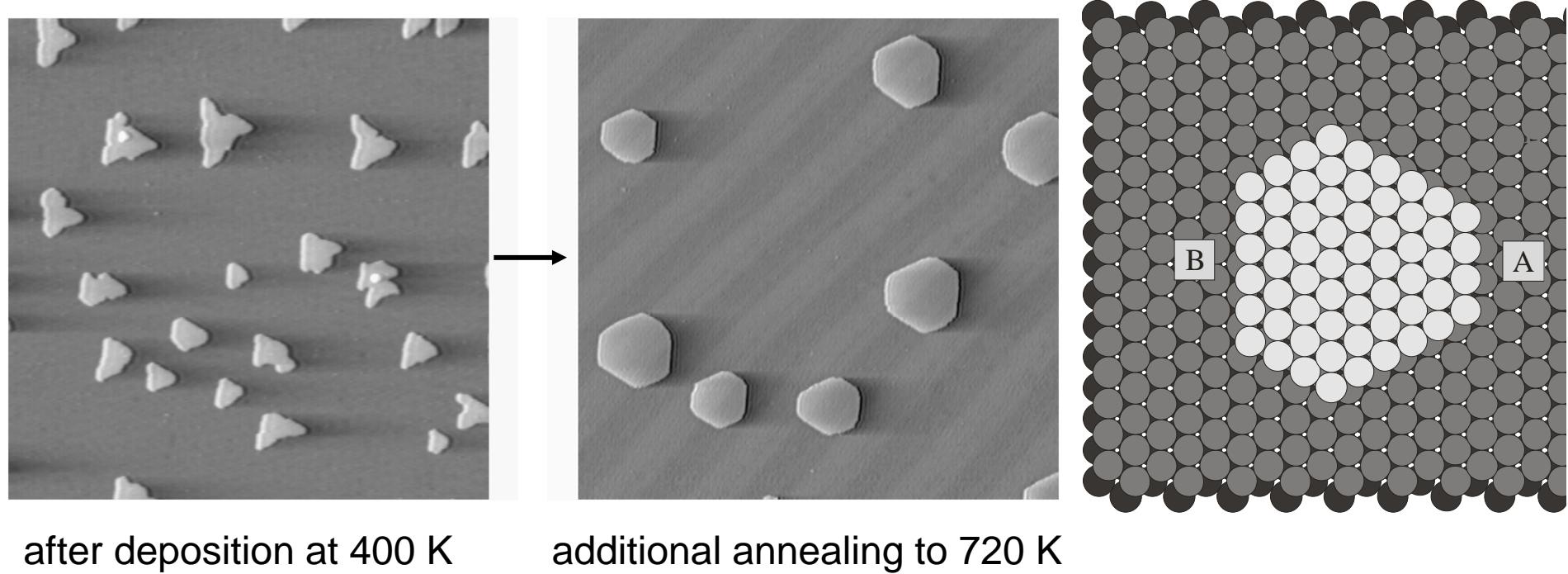
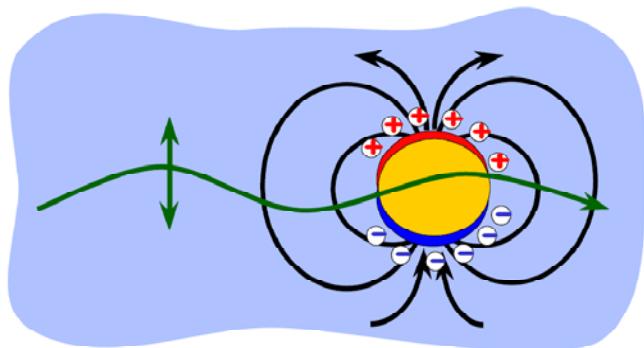


Fig. 4.11

## Figures of Chapter 5: Clusters

## Clusters in Glass: Lycurgus Cup



principle of plasmon resonance

AuAg alloy particle  
in the Lycurgus cup

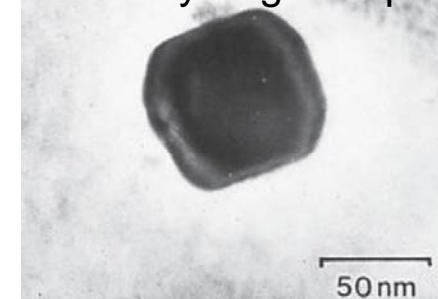


Fig. 5.1

Table: Fraction of Surface Atoms as Function of Cluster Size

**Tab. 9.1** Ein kugelförmig angenommener Cluster mit dem Radius  $R$  enthält etwa  $N$  Atome, von denen  $N_s$  an der Oberfläche liegen. Für den Radius eines Atoms wurde  $r = 0.2 \text{ nm}$  angenommen. Mit den Gl. (9.1) und (9.2) lassen sich die Werte leicht auf andere Atome oder Moleküle umrechnen.

| $R/\text{nm}$ | $N$       | $N_s/N$   |
|---------------|-----------|-----------|
| 1             | 125       | 0.8       |
| 2             | $10^3$    | 0.4       |
| 10            | $10^5$    | 0.08      |
| 100           | $10^8$    | 0.008     |
| $10^7$        | $10^{23}$ | $10^{-7}$ |

Fig. 5.2

## Noble Gas Clusters: Ikosaeder Shell Structure

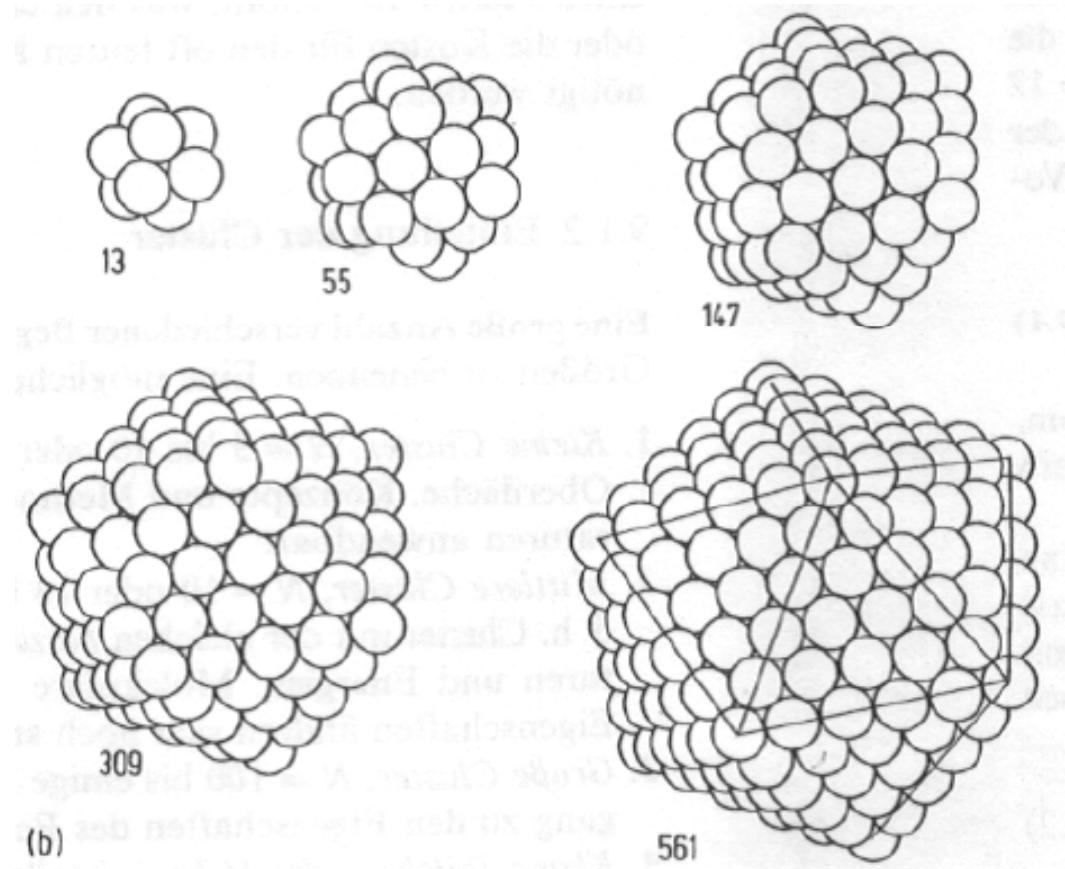
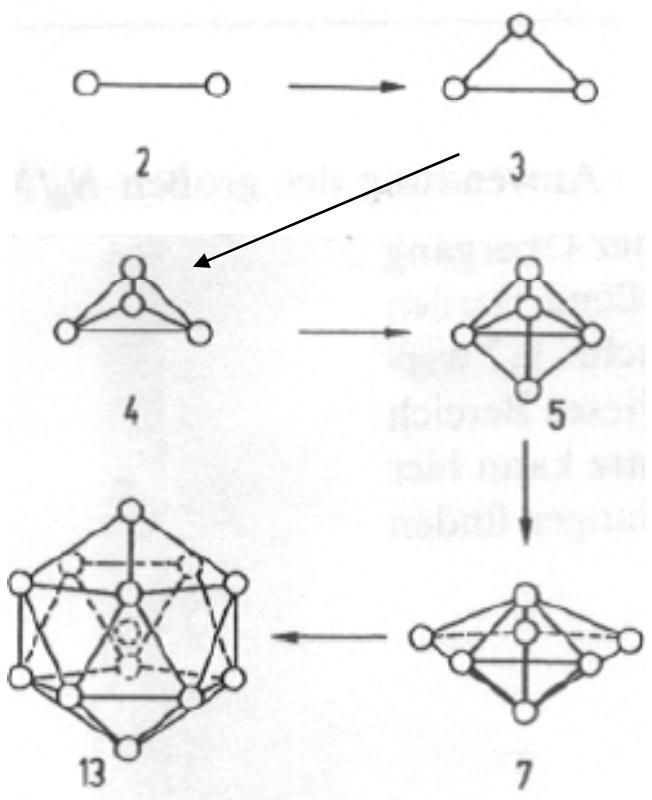


Fig. 5.3

## Mg Clusters: Complex Evolution of Shape and Cohesive Energy per Particle

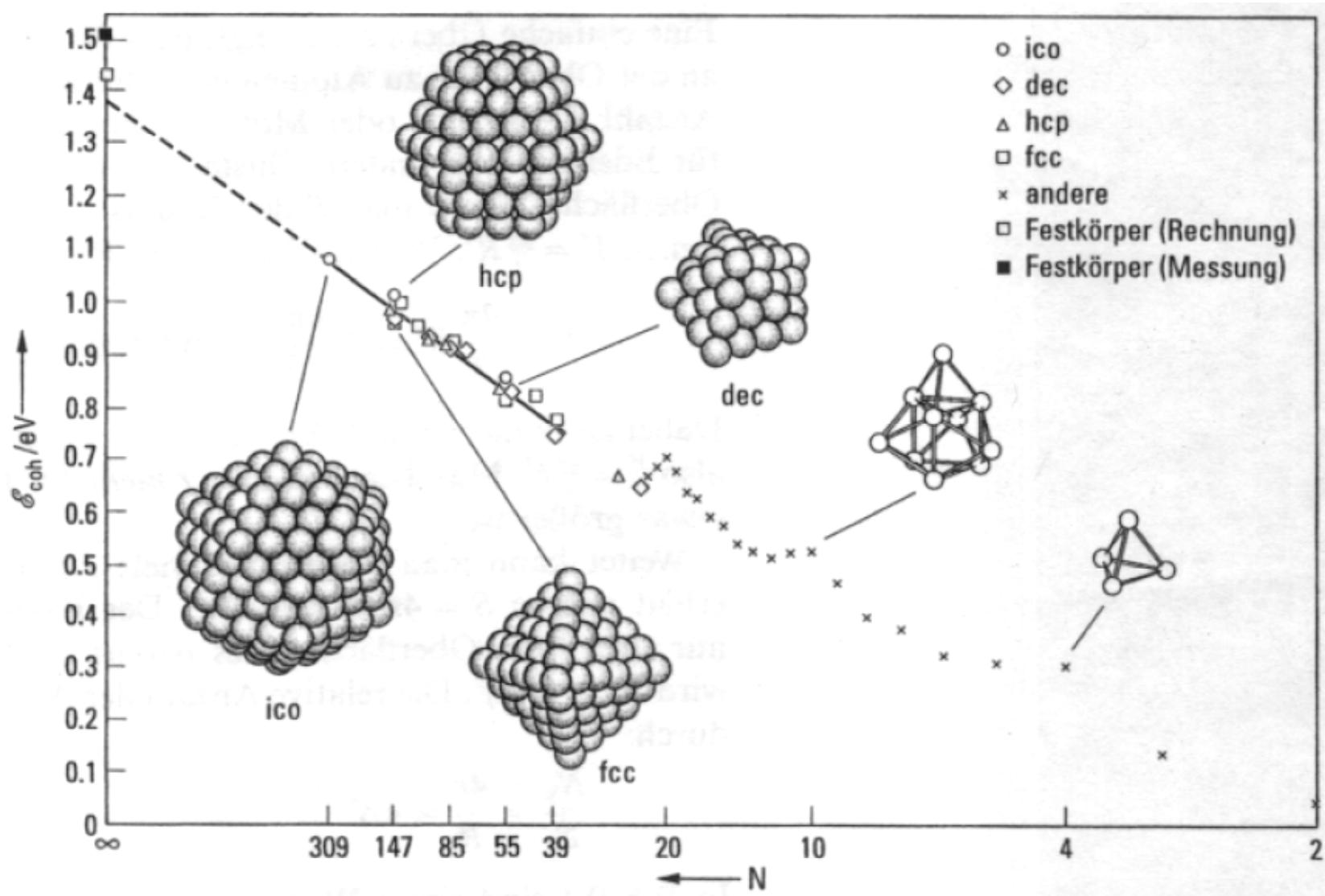


Fig. 5.4

## Preparation of Mass-Selected Free Clusters

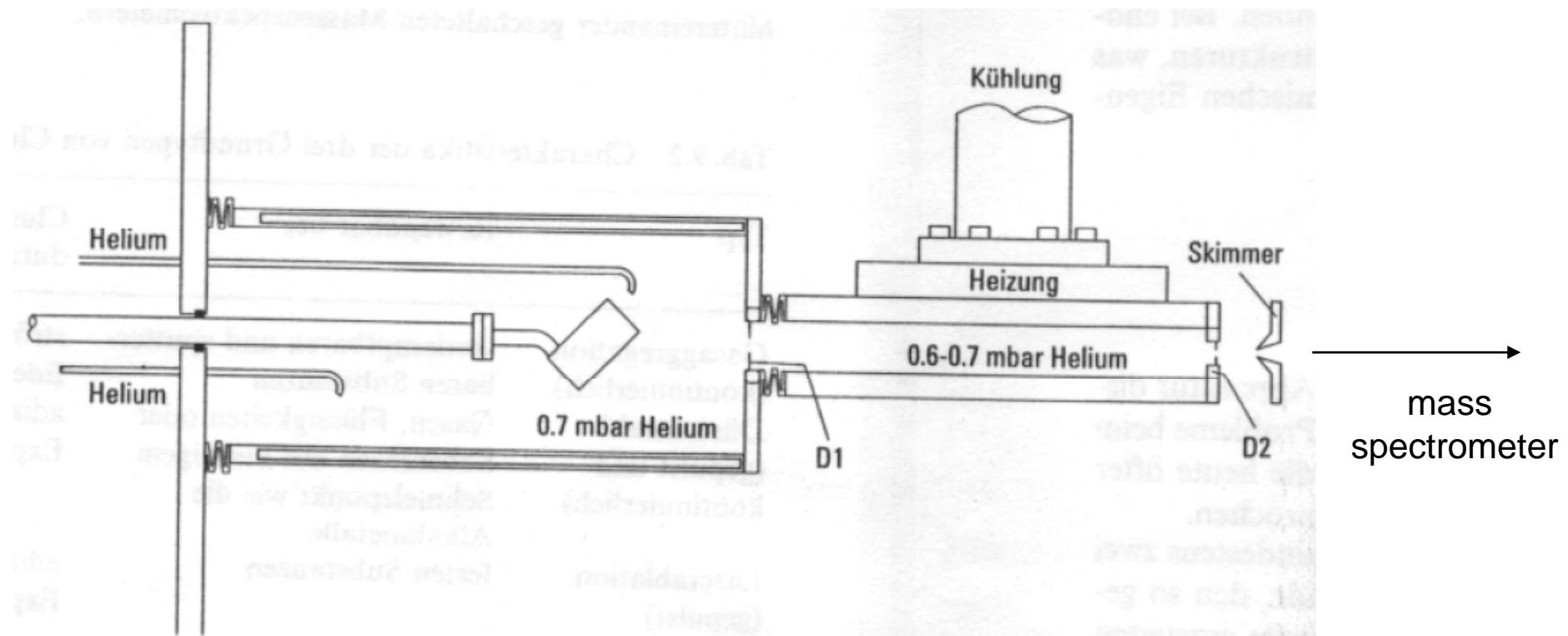


Fig. 5.5