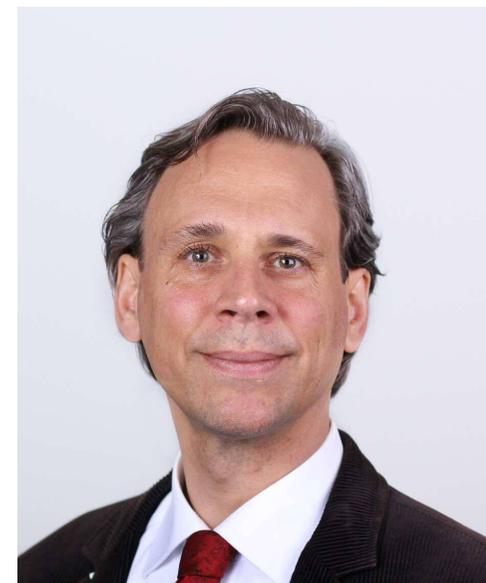
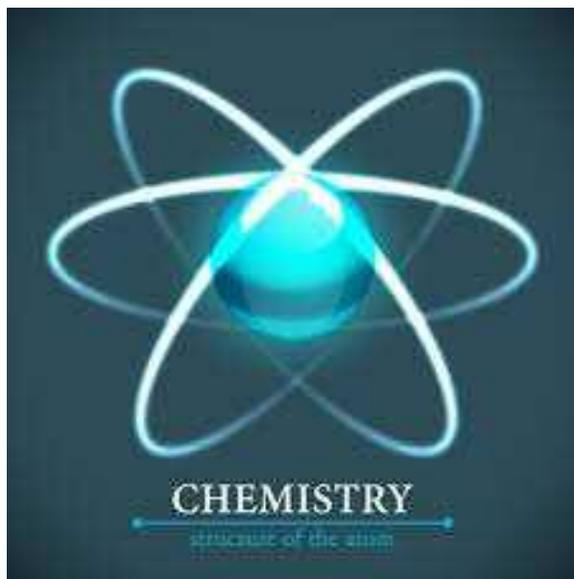


Atome und Periodensystem



Prof. S. Schlücker

1. Wie kann man Atome sehen?



2. Wie kann man Atome wiegen?



3. Wie bestimmt man die Position eines Elementes im Periodensystem?



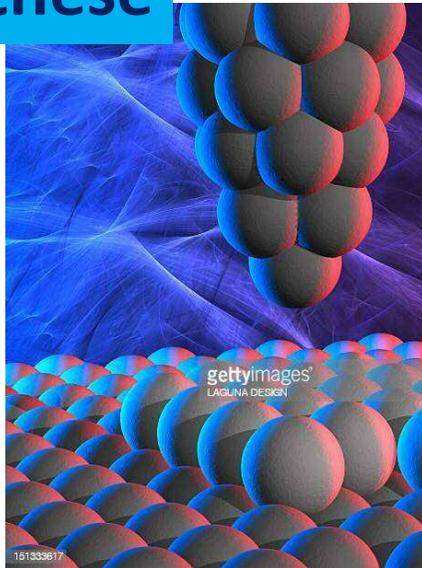
Frage

1. Wie kann man Atome sehen?

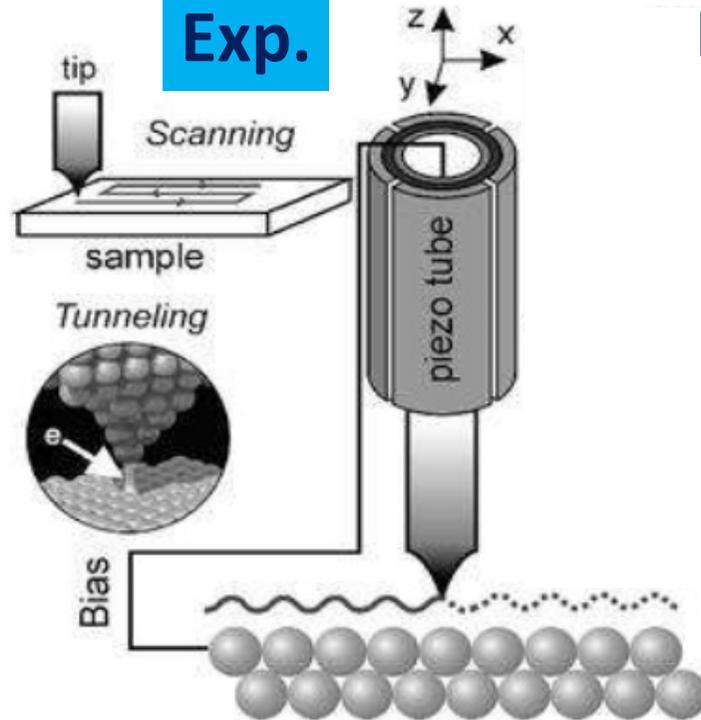
Rastertunnelmikroskop

(STM = Scanning Tunneling Microscope)

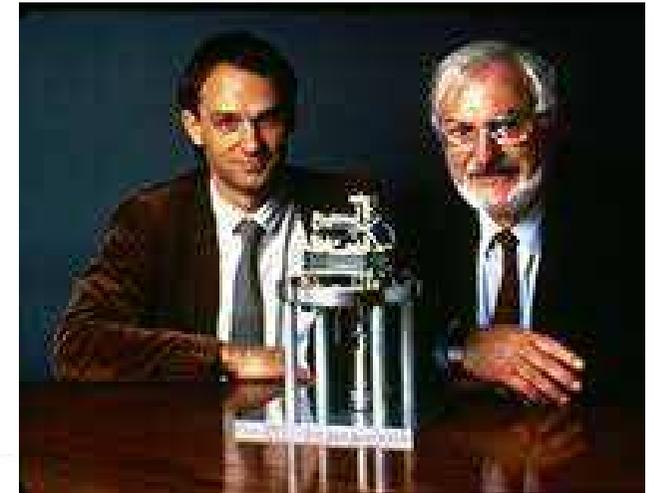
Hypothese



Exp.



Nobelpreis Physik 1986
für Binnig und Rohrer:

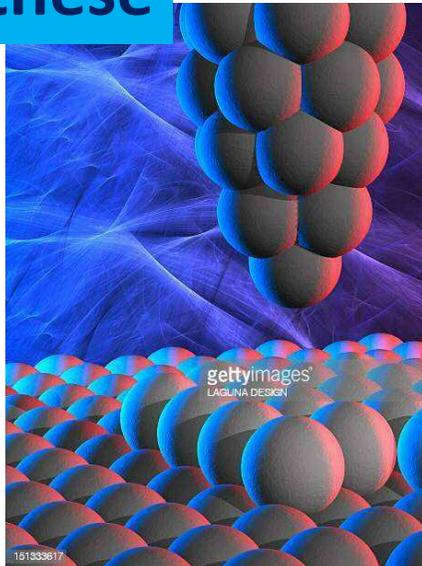


Frage

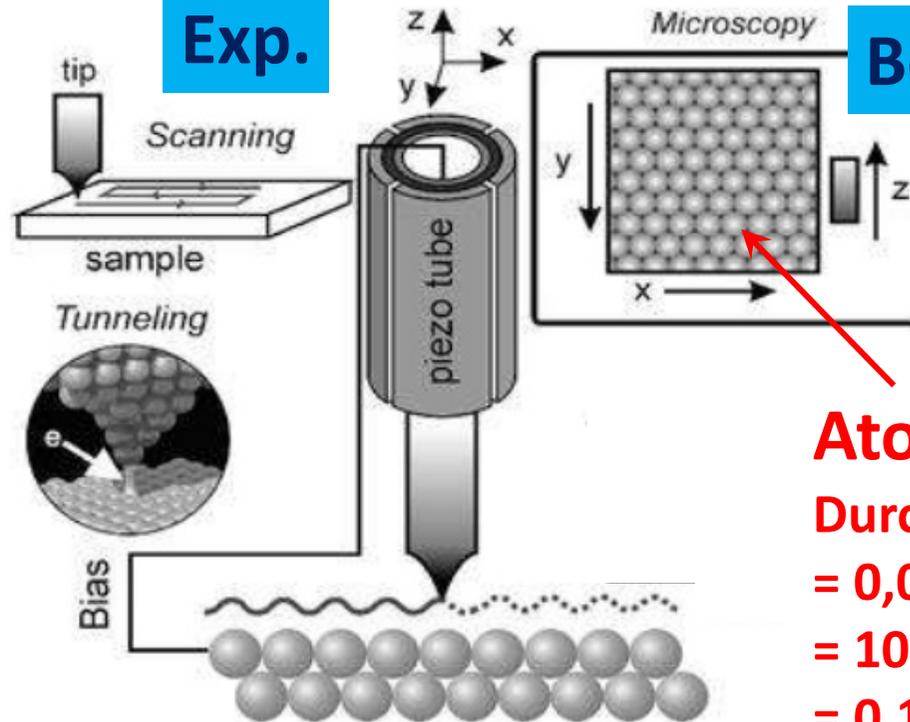
1. Wie kann man Atome sehen?

Rastertunnelmikroskop (STM = Scanning Tunneling Microscope)

Hypothese



Exp.



Beob.

Erklärung

Atome sichtbar!
Durchmesser ca.
= 0,000.000.000.1 m
= 10^{-10} m
= 0,1 nm = 100 pm