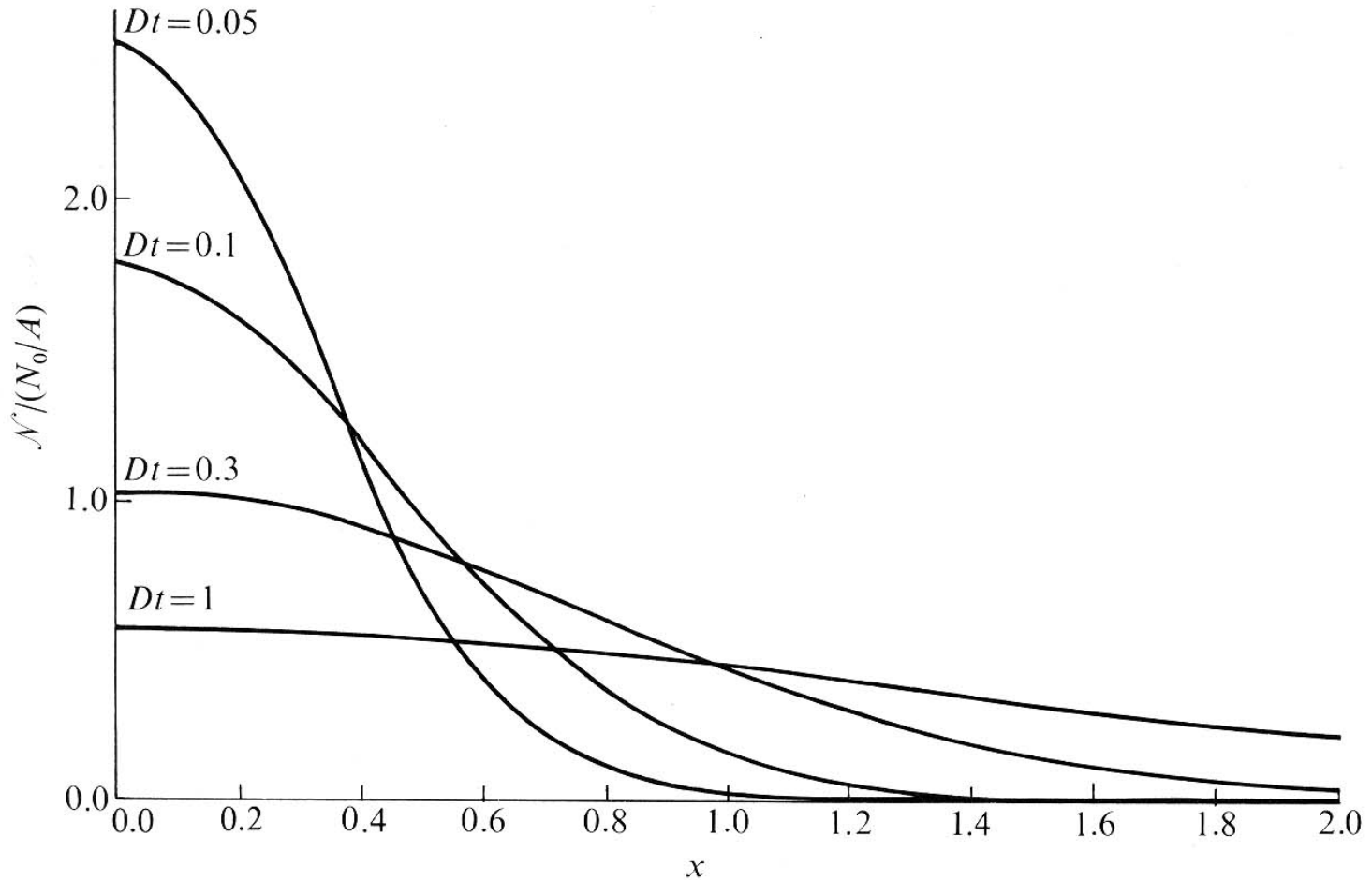
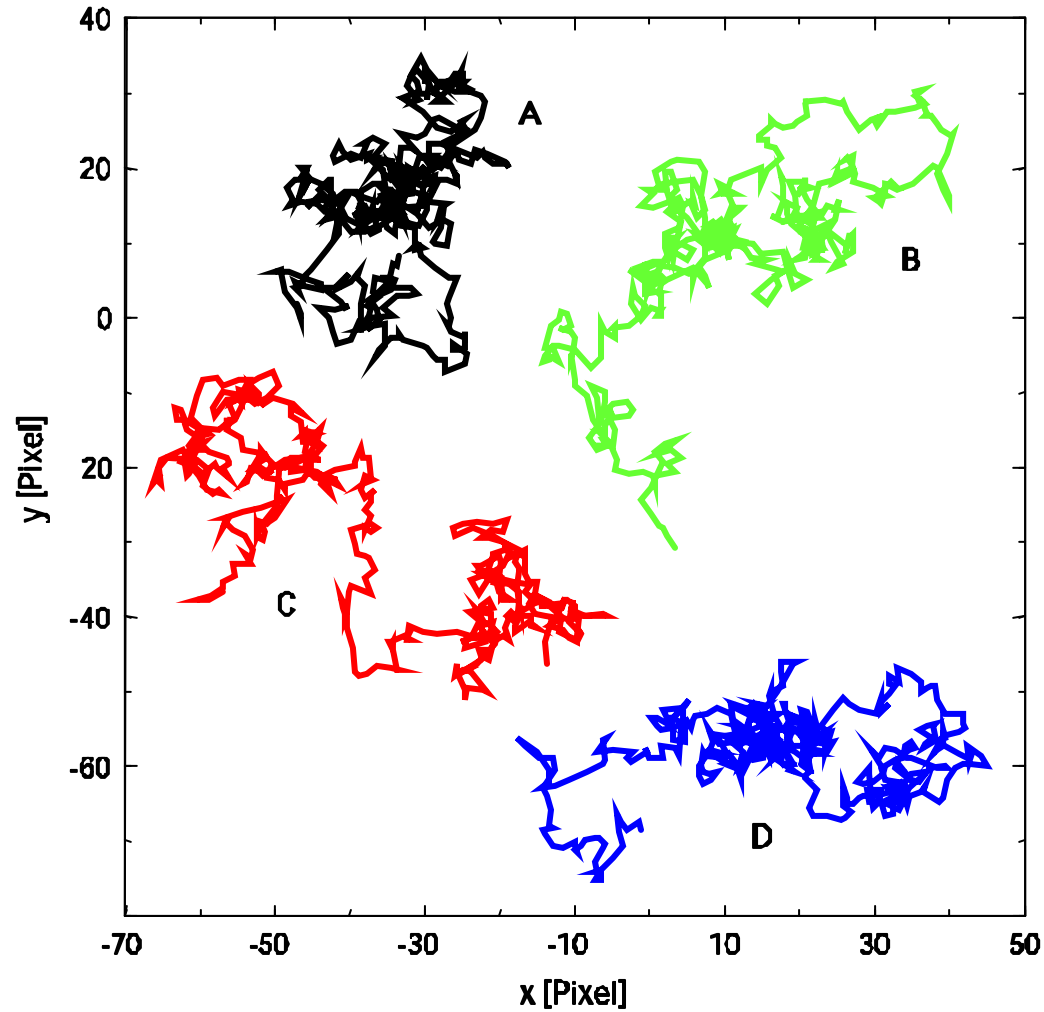


# Lösungen der Diffusionsgleichung

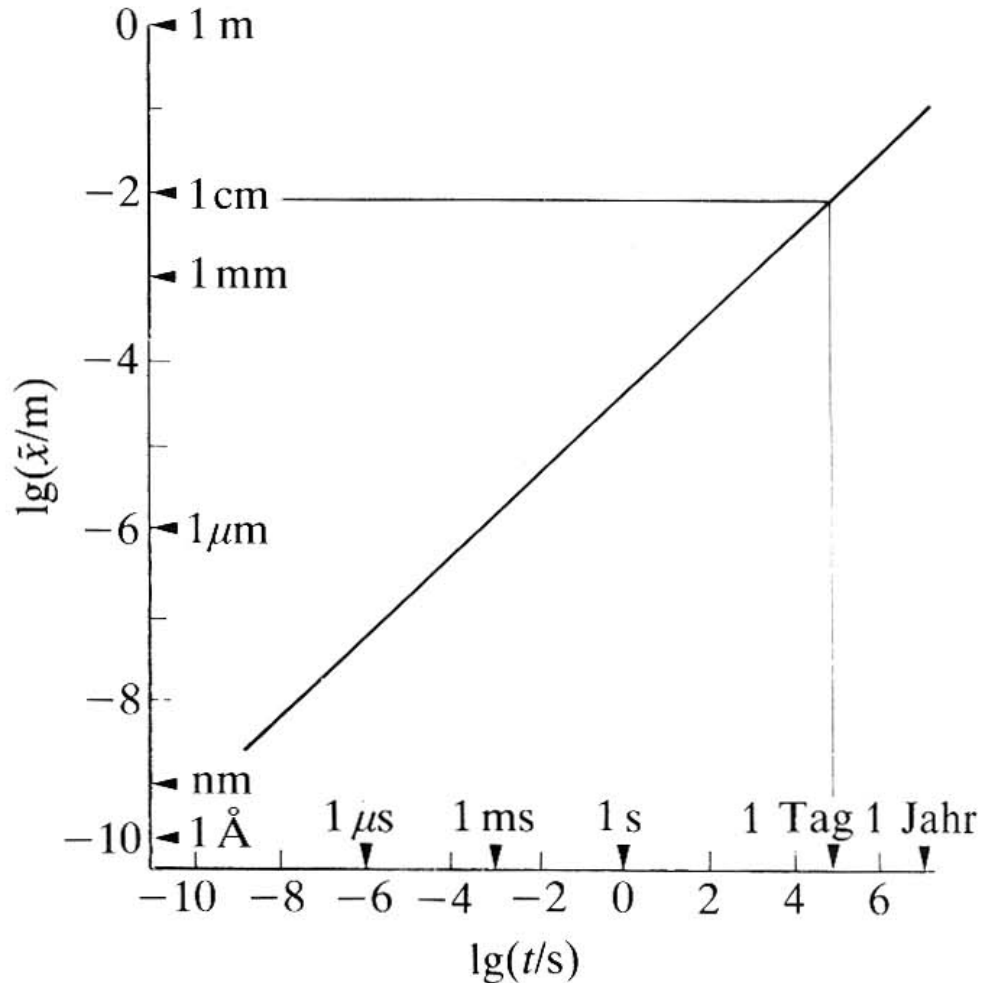


Aus: P. W. Atkins: Physikalische Chemie

# Random Walks: Trajektorien (2D)



# Zeitskalen von Diffusionsprozessen



Aus: P. W. Atkins: Physikalische Chemie

## Fluorescence Recovery After Photobleaching

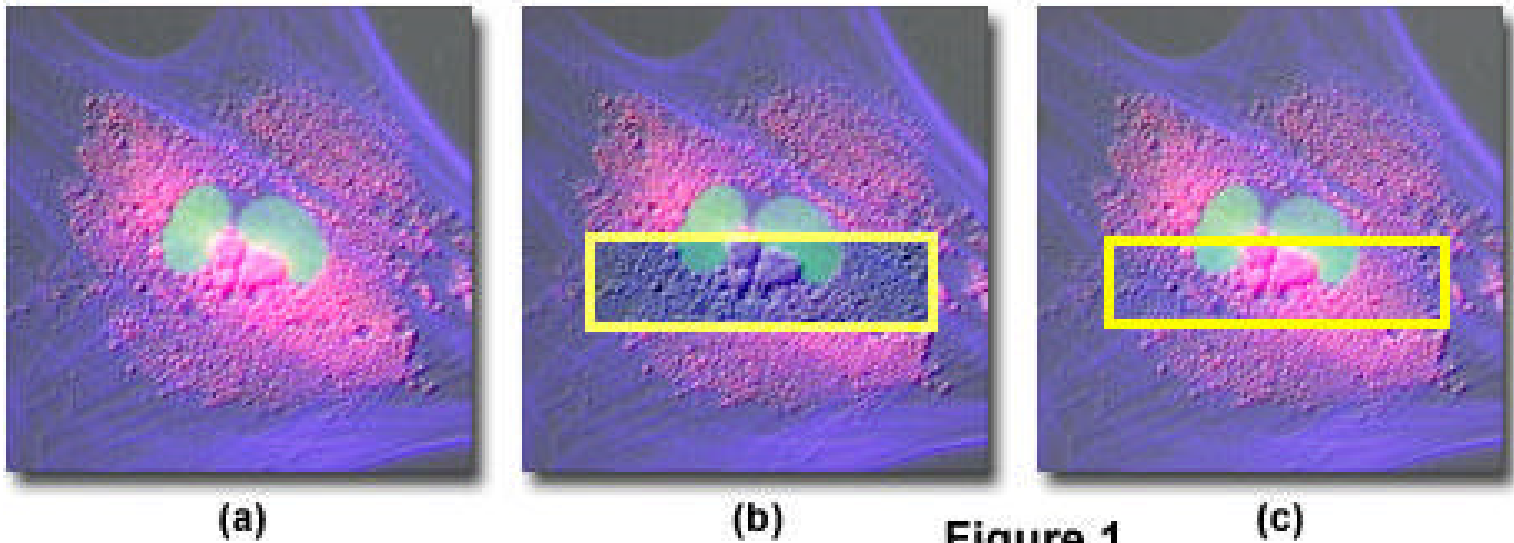
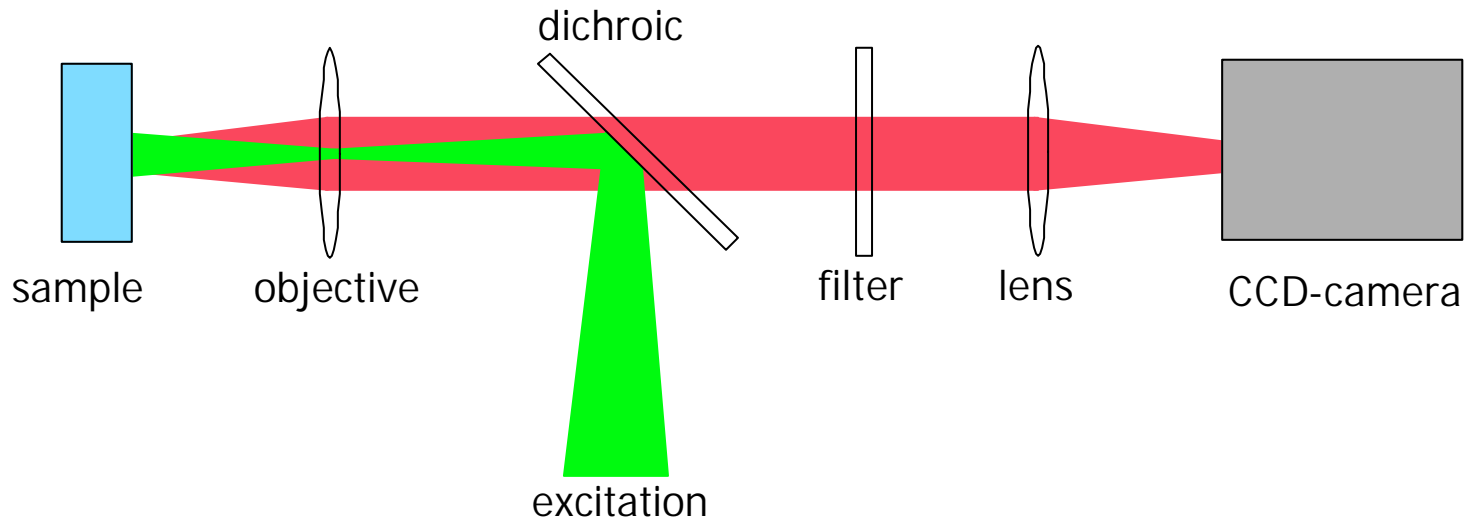


Figure 1

Quelle: Olympus, [www.olympusfluoview.com/applications](http://www.olympusfluoview.com/applications)



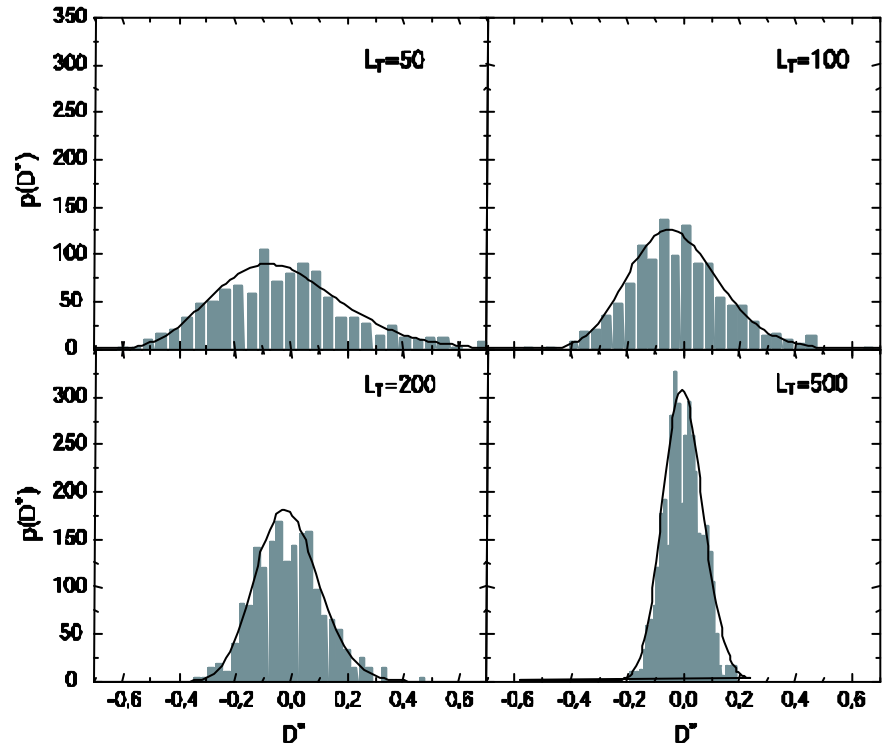
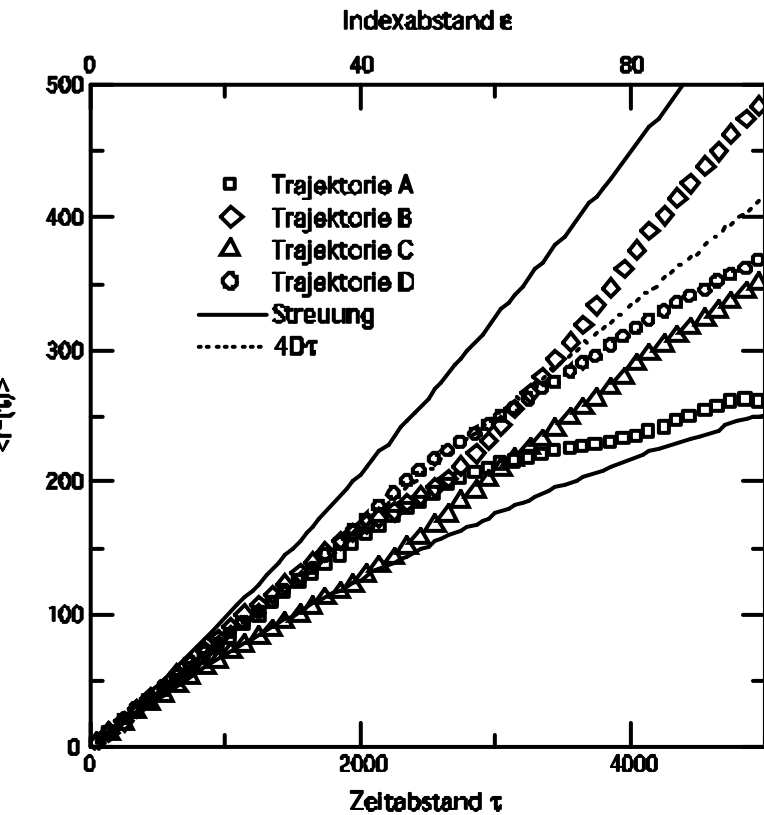
# Single Molecule Tracking - Setup



Mehr Informationen: Arbeitsgruppen OSMP (Schuster), POM (Cichos)

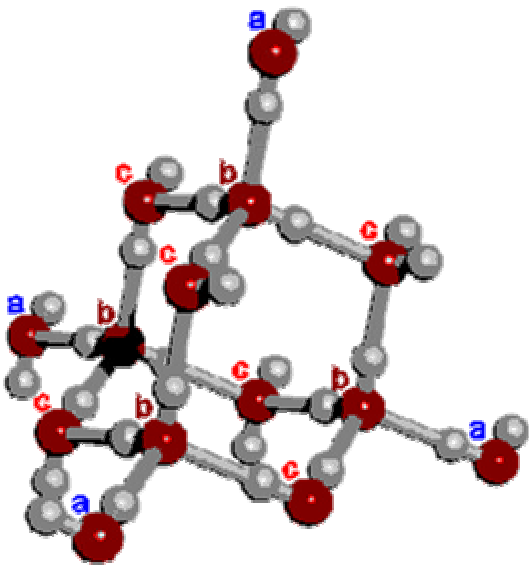
Video diffundierende Moleküle als externe Datei: [diffusion.mov](#)

# Berechnung der mittleren quadratischen Verschiebung für Trajektorien endlicher Länge

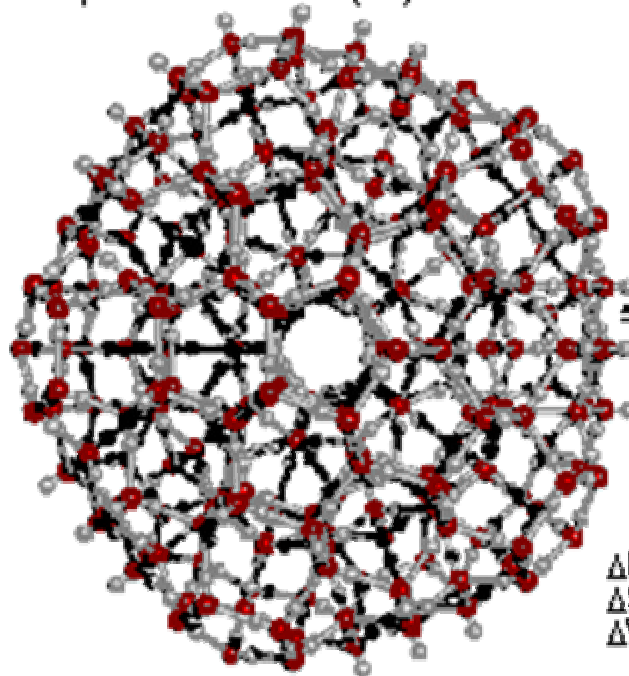


# Wasser-Cluster

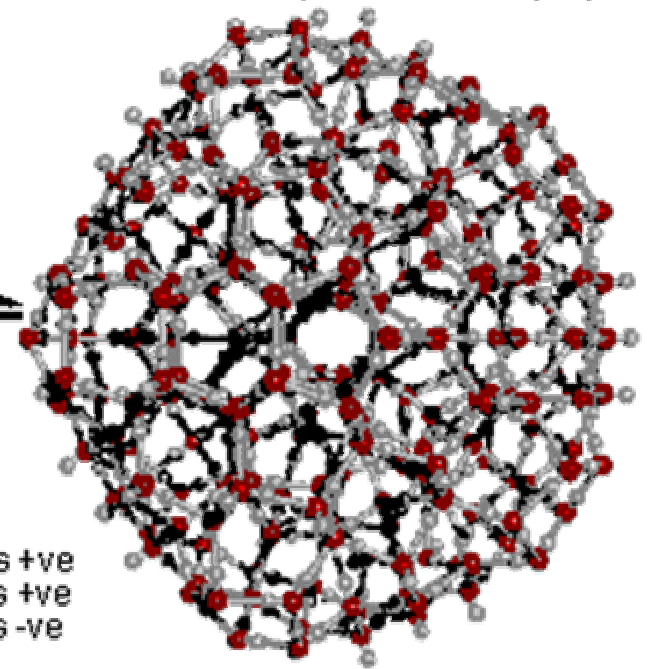
Quelle: [www.lsbu.ac.uk/water](http://www.lsbu.ac.uk/water)  
(Forty-one anomalies of water)



Expanded structure (ES)

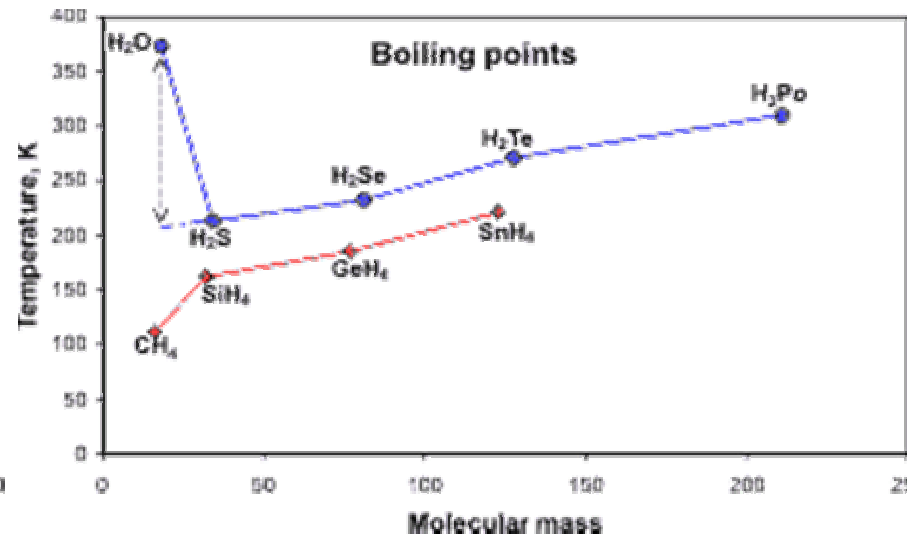
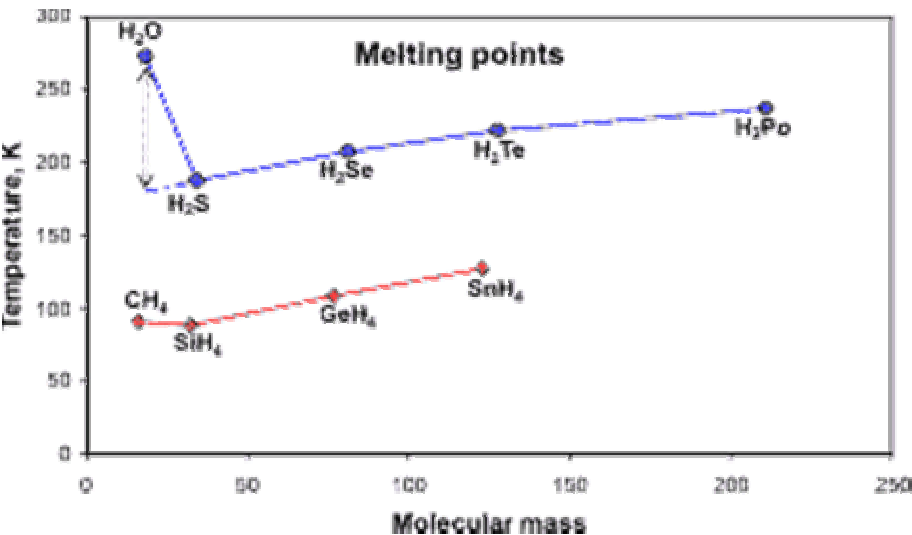


Collapsed structure (CS)



$\Delta H$  is +ve  
 $\Delta S$  is +ve  
 $\Delta V$  is -ve

# Wasser: Schmelzpunkt/Siedepunkt



Quelle: [www.lsbu.ac.uk/water](http://www.lsbu.ac.uk/water)  
(Forty-one anomalies of water)