

Qualitative understanding of partition preferences

- Introduction
- ▶ Cavity model
- ▶ Rules for partitioning
- The cavity model in quantitative terms
- ▶ Selftest
- ▼ Problems
 - ↓ ● 1) Give a qualitative explanation
 - ↓ ● 2) Estimate the extraction efficiency
 - ↓ ● Answer
 - ↓ ● 3) Assign partition constants to substances
 - ↓ ● Answer
 - ↓ ● 4) Fuel accident
 - ↓ ● Answer
 - ↓ ● 5) Mixture of similar isomeres ... ?
 - ↓ ● Answer
 - ↓ ● 6) Extraction with pentane or diethyl ether?
 - ↓ ● 7) Prediction of partition constants
 - ↓ ● Answer
 - ↓ ● 8) Assign data to substances
 - ↓ ● Answer
 - ↓ ● 9) Explain saturated vapor pressure
 - ↓ ● **10) Apolar surface**
- ▶ Intermolecular interactions in every day life
- FAQ

10) Apolar surface

Question:

How would the figure below – with adsorption constants at the quartz/ air interface – look like for an apolar surface with the same van der Waals interaction property as quartz?

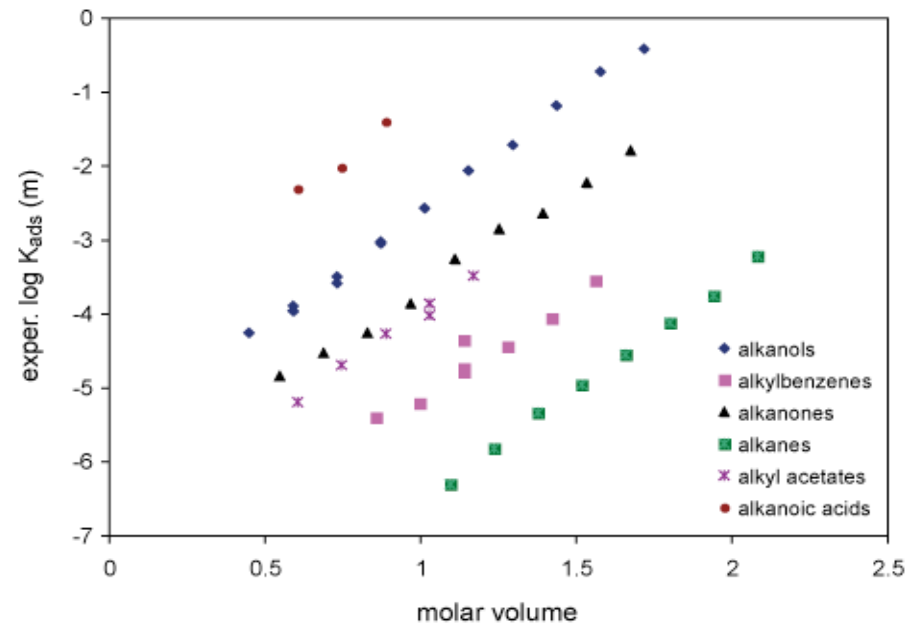


Figure 20. Adsorption constants of various compounds on quartz at 15 °C and 90% relative humidity (data from Environ. Toxicol. Chem., 2006, 25(1): 45–51) [Journal link](#) [Download pdf](#).
For details on the influence of relative humidity see Crit. Rev. Environ. Sci. Technol., 2004, 34: 339–389 [Journal link](#) [Download pdf](#).

You can check your answer in the next lesson.



