## Equilibrium partitioning of organic compounds

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- Summary and further information

Self test

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## **Sorption isotherm**

**Answer:**The experiment will result in a linear relationship (i.e., constant slope of the curve) with zero as the ordinate intercept (Note that zero concentration in phase 1 must correspond to zero concentration in phase 2).



The partition constant is identical to the slope of this curve because K equals  $c_{i1}^*/c_{i2}^*$ .

If *i* was a volatile compound and the bottle also contained 1 L of air while the same amounts of *i* were added to the system like before, then the measured concentrations in phase 1 and 2 would be smaller than in the absence of air in the system. However, the data points would still lie on the same straight line as the one shown above.

