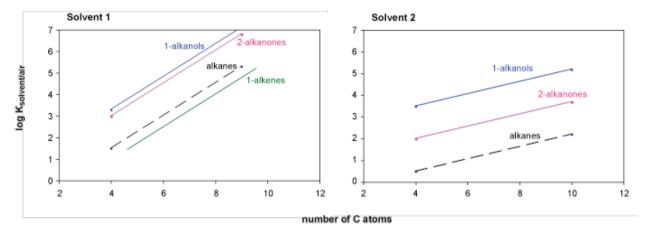
Quantitative prediction of K values

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Problem 8

In the figures below you can see experimental data for the equilibrium partitioning of organic compounds from air to two solvents at 25°C (only the regression lines through the measured values are depicted, not the values themselves).



- a) The measurements of the 1-alkenes in solvent 1 come from a different source than the rest of the data. Are they consistent with the rest of the data?
- b) What can you say about the differences between the two solvents?
- c) Mark where you would expect the experimental values for 1,4-butanediol and di-n-propylether in solvent 2. Explain your choice!

1-Alkanole:
$$C_nH_{2n+1}$$
 C OH

Alkane: C_nH_{2n+2}

1-Alkene: C_nH_{2n}=CH₂

Di-n-propylether: C₃H₇-O-C₃H₇

