

Partition constants of α -aminophosphonates in two-phase aqueous-organic solvent systems

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Abstract

Two-phase potentiometric titration was used to determine partition constants for a series of α -aminophosphonates $(RO)_2P(O)CH_2NR_1R_2$ [$R = \text{Alk (C2-C5)}$, $R_1, R_2 = \text{Me, Et, (CH}_2)_5$] between water and organic solvents, such as chloroform, carbon tetrachloride, toluene, octane, n-octanol, nitrobenzene, o-xylene, and cyclohexane. Correlations between the partition constants and the number of carbon atoms in substrate molecules were obtained. Solvent effects on partition constants were discussed, and solution parameters of α -aminophosphonates were calculated. ©2004 MAIK "Nauka/Interperiodica".

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