

Russian Journal of General Chemistry 2004 vol.74 N12, pages 1885-1889

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

Garifzyanov A., Nuriyazdanova G., Zakharov S., Cherkasov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

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".

<http://dx.doi.org/10.1007/s11176-005-0112-6>
