

Synthesis of β -aminophosphonates and study of their acid-base properties and phase distribution in water-organic solvent systems

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Abstract

New and previously known β -aminoethylphosphonates were synthesized by addition of primary and secondary amines to vinylphosphonates, and their IR and NMR spectra were examined. Diethyl 2-diethyl-aminoethylphosphonate and diethyl 2-morpholinoethylphosphonate were found to be stronger bases than the corresponding aminomethylphosphonates, but all these are weaker bases than their precursors, nonphosphorylated amines. Distribution constants of β -aminophosphonates between water and some organic solvents were determined and compared with those of their α -amino homologs. © 2005 Pleiades Publishing, Inc.

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