

Membrane Extraction of Organic Compounds. I. α -Amino Phosphonates as Carriers for α -Hydroxy- and α -Aminoacids

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Abstract

The lipophilic α -aminophosphonate, dipentyl 1-(N-benzyl)aminocyclopentylphosphonate was synthesized. The kinetics of membrane transport of a series of α -hydroxy and α -aminoacids across a Teflon matrix impregnated with the α -aminophosphonate solution in o-nitrophenyl octyl ether was studied. The rate-determining stage of the process was established from the dependence of the rate of mass transfer on the concentration of transported compounds in the source phase. The mechanism of the α -aminophosphonate complexation with α -aminoacids was proposed.
