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Kinetics and mechanism of triphenylphosphine quarternization with unsaturated carboxylic acids in the medium of acetic acid

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Abstract

Kinetics of reaction of triphenylphosphine with a series of unsaturated carboxylic acids and related esters in the medium of acetic acid as well as in mixtures of acetic acid and acetonitrile was studied by spectrophotometry. The data obtained show that the process of quarternization should be described by kinetic equation of third order, the proton transfer occurs from the solvent. A stepwise mechanism of interaction including formation of prereaction complex on the reaction pathway is proposed. © 2009 Pleiades Publishing, Ltd.

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