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Kinetics and mechanism of the aminolysis of ethylene carbonate with *n*-butylamine in in the medium acetonitrile – ethylene carbonate

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Abstract

Kinetics and mechanism of the aminolysis of ethylene carbonate with *n*-butylamine in acetonitrile – ethylene carbonate (50% vol.) at 26.0-50.0 °C were studied. It is found that the reaction is complex and consists of two parallel reactions: amine-catalyzed and autocatalytic. Reactions rate constants and effective activation energies were calculated.These results allow to make assumption about reaction mechanism through nucleophilic attack of bimolecular associates (amine-amine, amine-carbamate), and six-member cyclic transition state.