

Kinetics of alkylation of phenol with 1-nonen using sulphocationite catalyst Amberlyst 36 Dry at the conditions of operating plant

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Abstract

The kinetic analysis of alkylation of phenol with 1-nonen using the sulphocationite catalyst Amberlyst 36 Dry at the temperature range of 353.2-411.5 K and 3% of water in the reaction mass was performed on the basis of experimental data. The form of kinetic model which describes the system of complex consecutive-parallel reactions adequately was found to be dependent on the process temperature. The values of the rate constants of all the reactions were calculated. The recommendations on the process conditions were given.