Liquid-phase oxidation of 2,6-di-*tert*-butylphenol in alkaline medium with sulfuric oxygen-containing organic compounds

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Abstract

The oxidation of 2,6-di-*tert*-butylphenol to 3,3',5,5'-tetra-*tert*-butyl-diphenoquinone in alkaline medium with sulfuric oxygen-containing organic compounds (dimethylsulfoxide, dimethyl sulfone) and aqueous solution of potassium hydroxide has been studied. An effective alkaline catalyst for 2,6-di-*tert*-butylphenol oxidation is considered. The alkaline catalyst is based on products of mercaptides oxidation, obtained in process of caustic regeneration of liquefied petroleum gases sweetening from mercaptanes. Elementary and fractional analyses of catalyst has been defined. A comparative analysis of the kinetics of oxidation of 2,6-di-*tert*-butyl phenol with model reactions have been investigated.

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