

Electrochemical amination. Dilute aqueous organic solutions of sulfuric acid

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Abstract

The electrochemical process of anisole amination is studied in 1.5-9 M H₂SO₄ solutions containing acetonitrile or acetic acid. It is shown that the synthesis of aromatic monoamino compounds is better performed in moderately acidic media with high concentrations of organic solvents. Due to the chain mechanism of the electrochemical process, the current efficiency of amines can exceed 150% under these conditions. © 2009 Pleiades Publishing, Ltd.

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Keywords

Cathode, Electrophilic amination, Hydroxylamine, Radical aromatic substitution, Ti(IV)/Ti(III) mediator system