Kinetic Features of *N*-Ethylaniline Polymerization

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Abstract—Kinetics of polymerization of *N*-ethylaniline hydrochloride initiated in aqueous solution by ammonium persulfate has been studied. The auto-catalytic nature of the reaction has been revealed; the order of the catalytic stage has been determined; the rate constants of single-electron transfer and the complex formation have been calculated. Quinonediimine fragments have been found in the poly-*N*-ethylaniline; their formation mechanism has been suggested.

Keywords: aromatic amine, oxidative polymerization, kinetics, mechanism

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