Electrodegradation of Phenol Through Continuous Electrolysis of Synthetic Wastewater on Platinized Titanium and Stainless Steel Anodes

Grazyna Piotrowska and Boguslaw Pierozynski*

Department of Chemistry, Faculty of Environmental Management and Agriculture, University of Warmia and Mazury in Olsztyn, Plac Lodzki 4, 10-727 Olsztyn, Poland

*E-mail: bogpierzynski@yahoo.ca, boguslaw.pierzynski@uwm.edu.pl

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This paper reports on the process of phenol electrodegradation realized through continuous electrolysis of synthetic wastewater. Oxidative degradation of phenol is examined by means of a laboratory size, self-made electrolyser for different anode/cathode configurations, various electrical parameters and phenolic wastewater compositions. Monitoring of phenol decomposition (along with quantitative identification of reaction products) in wastewater is carried-out by means of instrumental HPLC/MS method in function of electrolysis time, also in relation to specific energy consumption.

Keywords: Phenol electrodegradation; Phenol electrooxidation; PhER; Wastewater electrolysis; HPLC/MS analysis

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