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STUDY OF PLATINUM ELECTRODES APPLIED IN THE TREATMENT OF PHENOLIC WASTEWATER

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Abstract

Wastewater treatment by electrochemical oxidation of soluble organic wastes represents an attractive way of water purification, using only electrons as a reactant and is thus of major importance to the environmental science. For this purpose, the electrochemical behaviour of phenol in diluted aqueous acid and alkaline solutions was studied. Phenol was chosen as a test compound, because pollutants such as phenols and their derivatives are very common and present a low biodegradation character. Cyclic voltammetry on the platinum and platinum oxide electrodes and absorption spectrophotometry were used as investigation methods.

Keywords: phenol, wastewater, purification, anodic oxidation, cyclic-voltammetry

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