

Electrochemical Regeneration of GIC Adsorbent in a Continuous Electrochemical Reactor

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Abstract : Arvia™ introduced a novel technology consisting of adsorption followed by electrochemical regeneration with a graphite intercalation compound adsorbent that takes place in a single unit. The adsorbed species may lead to the formation of intermediate by-products products due to incomplete mineralization during electrochemical regeneration. Therefore, the investigation of breakdown products due to incomplete oxidation is of great concern regarding the commercial applications of this process. In the present paper, the formation of the chlorinated breakdown products during continuous process of adsorption and electrochemical regeneration based on a graphite intercalation compound adsorbent has been investigated.

Keywords : GIC, adsorption, electrochemical regeneration, chlorphenols

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