

**REMOVAL OF METAL (CADMIUM AND ZINC)  
BY GALVANO-CHEMICAL TREATMENT**

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**ABSTRACT**

The possibility of cadmium ( $\text{Cd}^{2+}$ ) and zinc ( $\text{Zn}^{2+}$ ) toxic cations removal from simulated liquid effluents by a relatively innovated treatment, named galvanochemical, using using the galvanic pair iron-carbon, was investigated. Galvanic oxidation is a simple, economic, friendly to the environment process, which does not create end-products harmful for the environment. Synthetic wastewaters were examined, containing cadmium and zinc in concentrations commonly found in real wastewaters from small-to-medium industrial units, such as metal plating or metal treatment plants. These liquid wastes consist an important environmental problem especially for the case of Greece. The examined method is mainly based on the absorption of inorganics on the surface of active iron hydroxide formed as a result of galvano-chemical reactions, applying the pair iron-coke.