

RECOVERING / REMOVING OF HEAVY METALS FROM WASTE WATER BY ELECTROCHEMICAL TECHNOLOGY



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ABSTRACT

The Applied Electrochemical and Electrocatalysis Group (LEQA) at the University of Alicante has a high experience, expertise and know-how to develop and carry out the effective recovering and removing of heavy metal in waste water by electrochemical technology. The Group also has a pilot plant fully equipped with the necessary infrastructure in order to development the pre-industrial phase and scaling-up of the processes.

TECHNOLOGY ADVANTAGES AND INNOVATIVE ASPECTS

- The use of electrochemical processes allows to obtain metals of a bigger purity and in consequence much less polluting than the traditional treatments.
- It is a environmentally friendly technology since it avoids the emission of gases, sulphur and metal particles.
- This electrochemical treatment effectively solves one of the most important problems of environment pollution at present.
- It is a cost and safety effective technology.

MARKET APPLICATIONS

This treatment methods could be of interest to:

- Industries with waste waters with high concentration of heavy metals as described above. Potential clients could be textile industry, metal - processing industry, chemical industry, etc.
- Consultancy companies from the environmental sector with activities in the effluents treatment which would like to add new effective methods to their capability.

COLLABORATION SOUGHT

The Applied Electrochemical and Electrocatalysis Group (LEQA) at the University of Alicante has a high experience and know-how as well as the installations required to develop new the industrial treatments of high polluted effluents. The Group could:

- develop electrochemical processes for the recovering and removing of heavy metals in waste water at laboratory, pre-industrial and industrial level.
- design and build of pilot industrial electrochemical plants included their automation according with the specifications of the client

In this sense, this research centre seeks to transfer the technology and know-how on electrochemical field to companies by mean of patent licence or know-how agreements.