



PROTECTING MAN AND ENVIRONMENT

Regeneration of chemical oxidants and reducers

Abstract

A research group of a Spanish University has a high experience to develop and carry out the regeneration of chemical oxidants and reducers (removing of Cr(III) and/or regeneration of $\text{Cr}_2\text{O}_7^{2-}$, regeneration of Sn(II) from spent Sn(IV) solutions) in a fully equipped pilot plant.

This technology could be of interest to several industries: chemical, tannery, metal-processing, etc. Partners interested in establish know-how agreements or technical projects for that purpose are sought.

Description

Applied Electrochemistry is the employment of electrochemical processes in any type of industrial application as synthesis of pharmaceutical products, nanotechnologies, waste treatment, heavy metals recovering, metallic depositions, etc. This department at the Spanish University is focused since several years on the investigation of new electrochemical processes and the transfer of knowledge and technology to the industry.



In this sense, this research group is able to perform the regeneration of chemical oxidants and reducers (e.g. removing of chrome (III) and/or regeneration of dichromate, regeneration of Sn (II) from spent Sn (IV) solutions) in its completely equipped pilot plant. This know-how is offered in order to build personalised pilot plants or to develop technical projects on that kind of regeneration process.

PILOT PLANT

The Department has a pilot plant fully equipped with the necessary infrastructure in order to development the pre-industrial phase and scaling-up of the processes. The pilot plant has developed several electrochemical reactors to produce chemicals at pre-industrial and industrial level.

Innovations and advantages of the offer

- It is a environmentally friendly technology.
- It is a cost and safety effective technology.

Current and Potential Domain of Application

The technology has been already tested at laboratory and pre-industrial level and the research team has several years of experience in this field. Amounts higher than 25-50 kg/day can be obtained.

The installations of the pilot plant are already being working and some projects for Spanish and European clients have been carried out successfully. All the technicians and management staff have the necessary experience to guarantee the success of the projects.



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