

Title	ELECTROLYTIC REACTOR FOR PURIFICATION OF INDUSTRIAL EFFLUENTS
Description	The electrolytic reactor is useful for the purification of industrial effluents / wastewater generated from tanneries, textile units and metal finishing & processing industries. The dissolved inorganic and organic pollutants and suspended solids can be removed. Even colloidal particles could be effectively coagulated and separated by floatation. Most of the water can be recovered and reused.
Area of Application	Effluents from tannery, textile, restaurants, paint and printing etc.,
Keywords	Electrochemical reactor, wastewater, effluent, coagulation, floatation, Purification, separation, suspended solids, dyes, tannins, organic material
Advantages	Easy construction, Separation is faster compared to conventional coagulation and floatation. Even colloidal particles could be effectively coagulated and separated. Dissolved organics could be mineralized without the addition of oxidants externally.
Environmental Aspects	Since the electron is the main reagent, the secondary contamination could be avoided by electrocoagulation. The oxidants ozone, hypochlorite and Fenton reagent, nascent oxygen necessary for the mineralization of organic compounds could be generated insitu.
Development Status	Pilot scale test reactor was designed and extensively field tested for the treatment of tannery effluents.
Legal Protection	A Patent was filed in 2004.
Technical specifications	Electrolytic reactor consists of number of chambers. The flow of the wastewater could be directed either horizontally or by vertically. Depending on the application, these chambers could be fitted with electrodes and the leads of these electrodes are connected to the terminals of a D.C rectifier through bus bars. Contaminants collected as froth is mechanically removed in to a separate launder.
Transfer Terms	Patent/Technology Licensing, Others

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Name	
* Your Email ID	gbraju55@gmail.com
* Subject	Mineral processing and environment
* Message (Please limit to 500 characters)	Purification of industrial effluents containing both suspended solids and dissolved inorganic and organic pollutants could be effectively removed by this electrochemical reactor. This is particularly effective to remove hydrophobic colloids. Dissolved organics can be mineralized by the oxidants generated insitu.