

Title (en)
METHOD AND DEVICE FOR RECOVERING METALS WITH PULSATING CATHODE CURRENTS ALSO COMBINED WITH ANODE COUPLING PROCESSES

Title (de)
VERFAHREN UND VORRICHTUNG ZUR RÜCKGEWINNUNG VON METALLEN MIT PULSIERENDEN KATHODISCHEN STRÖMEN, AUCH IN KOMBINATION MIT ANODISCHEN KOPPELPROZESSEN

Title (fr)
PROCEDE ET DISPOSITIF DE RECUPERATION DE METAUX AVEC DES COURANTS CATHODIQUES PULSATOIRES, EN COMBINAISON AVEC DES TRAITEMENTS ANODIQUES COUPLE

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Application
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Abstract (en)
[origin: US2004079642A1] The invention aims to achieve effective recovery of metals from process solutions and effluents by means of pulsating cathode currents, preferably with coupled anodic processes. To precipitate metals by means of direct current in electrolysis cells which are undivided or are divided by separators, the pulsating cathode currents are generated by the anodes being divided into stationary strips past which the undivided cathode surface is guided. The current pulses formed on the cathode surface as a result can be varied in form and frequency by the arrangement of the anode strips and by current diaphragms. An apparatus with rotating cylinder cathodes and concentrically arranged anode pockets, the side walls of which function as current diaphragms and flow breakers, is preferred. Not only does the invention allow efficient recovery of metals, but also it allows coupling to various anode processes, e.g. for regeneration of peroxide sulfates and for breaking down inorganic or organic pollutants by oxidation.

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