

Title (en)

COATING FOR METALLIC CELL-ELEMENT MATERIALS OF AN ELECTROLYTIC CELL

Title (de)

BESCHICHTUNG FÜR METALLISCHE ZELLELEMENT-WERKSTOFFE EINER ELEKTROLYSEZELLE

Title (fr)

REVÊTEMENT POUR DES MATÉRIAUX MÉTALLIQUES D'ÉLÉMENT DE CELLULE D'UNE CELLULE ÉLECTROLYTIQUE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2012095126A1] The invention relates to a cathode half-shell of an electrolytic cell, comprising metallic cell-element components, comprising ° a metallic support structure (2) welded to the rear wall of the cathode half shell (1), and at least one metallic spring element (4) arranged thereon in a plane-parallel manner, ° an oxygen-consuming cathode arranged on the at least one metallic spring element and comprising a perforated metallic carrier (5) and a catalyst strip (6), mechanically pressed thereonto, consisting of PTFE and silver oxide, the silver oxide being reduced in the electrolysis operation to obtain silver and therefore producing a uniform connection, characterised in that it is highly conductive, between the components of the oxygen-consuming cathode and the at least one spring element, at least one of the metallic components being provided with an electrically conductive coating comprising at least two layers, ° one first layer, which is applied directly to the cell-element materials, being selected from a group which contains Au, B-doped nickel, Ni-sulphide, and mixtures thereof, this first layer having a layer thickness of between 0.005 and 0.2 µm, and ° a second layer, applied to the first layer, consisting of silver and having a layer thickness of between 0.1 to 30 µm.

IPC 8 full level

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