

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

**EP 2663669 A1 20131120 (DE)**

Application

**EP 11793333 A 20111129**

Priority

- DE 102011008163 A 20110110
- EP 2011005965 W 20111129

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

**C25B 9/17** (2021.01)

CPC (source: EP KR)

**C25B 1/26** (2013.01 - KR); **C25B 1/46** (2013.01 - EP); **C25B 9/17** (2021.01 - KR); **C25B 9/19** (2021.01 - EP); **C25B 9/65** (2021.01 - EP KR); **C25B 11/03** (2013.01 - KR); **C25B 11/04** (2013.01 - KR)

Citation (search report)

See references of WO 2012095126A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2012095126 A1 20120719**; CA 2824173 A1 20120719; CN 103492616 A 20140101; DE 102011008163 A1 20120712; EP 2663669 A1 20131120; EP 2663669 B1 20150429; JP 2014505793 A 20140306; KR 20140034138 A 20140319; RU 2013134646 A 20150220; RU 2573558 C2 20160120

DOCDB simple family (application)

**EP 2011005965 W 20111129**; CA 2824173 A 20111129; CN 201180063955 A 20111129; DE 102011008163 A 20110110; EP 11793333 A 20111129; JP 2013547813 A 20111129; KR 20137020506 A 20111129; RU 2013134646 A 20111129