

Title (en)

Zinc-nickel electrolyte free of boric acid

Title (de)

Borsäurefreier Zink-Nickel-Elektrolyt

Title (fr)

Electrolyte zinc-nickel sans acide borique

Publication

**EP 2706132 A1 20140312 (DE)**

Application

**EP 13182668 A 20130902**

Priority

DE 102012216011 A 20120910

Abstract (en)

Method for acidic and boronic acid-free galvanic deposition of zinc-nickel at a pH of 4.5-6.5 using an electrolyte comprising a wetting agent, basic brightener, brightener, complexing agent, buffer, preferably an organic acid which comprises adipic acid, succinic acid, glutaric acid, sulfosuccinic acid, propionic acid and/or their alkali metal salts, and an auxiliary substance, is claimed.

Abstract (de)

Gegenstand der Erfindung ist ein Verfahren zur sauren borsäurefreien galvanischen Zink-Nickel-Abscheidung unter Einsatz eines Elektrolyten enthaltend, Netzmittel, Grundglänzer, Glanzbildner, Komplexbildner und Puffer, insbesondere organische Säuren.

IPC 8 full level

**C25D 3/56** (2006.01)

CPC (source: EP)

**C25D 3/562** (2013.01); **C25D 3/565** (2013.01)

Citation (search report)

- [X1] JP 2007308761 A 20071129 - FUJIFILM CORP
- [AD] JP 2001107284 A 20010417 - SHIMIZU KK
- [A] US 2006283715 A1 20061221 - DIADDARIO LEONARD L JR [US], et al
- [A] US 2006096868 A1 20060511 - BUNCE SIONA [GB], et al

Cited by

DE102014118614A1; EP2878711A1; EP2980279A4; US9644279B2; DE102014019753A1; WO2016095896A1; EP3666929A1; WO2020120388A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2706132 A1 20140312**; DE 102012216011 A1 20140313

DOCDB simple family (application)

**EP 13182668 A 20130902**; DE 102012216011 A 20120910