

Title (en)

Electroplating process and apparatus, particularly for plating or forming parts made of electrically conducting materials by electrodeposition

Title (de)

Elektroplattierungsverfahren und Vorrichtung, insbesondere zum Galvanisieren oder Formen von Teilen aus elektrisch leitfähigen Materialien durch Elektroabscheidung

Title (fr)

Appareil et procédé de galvanoplastie, particulièrement pour placage ou de formage de pièces en matériaux électroconducteurs par électrodéposition

Publication

**EP 2907900 A1 20150819 (EN)**

Application

**EP 14186138 A 20140924**

Priority

IT AR20140011 A 20140218

Abstract (en)

An electroplating process and apparatus (1a, 1b), particularly for plating or forming parts made of electrically conducting materials. More precisely, the apparatus (1a, 1b) comprises a tank (3), intended to contain a galvanic bath (4) that contains an aqueous solution of the salt of the metal to be deposited, or of the salts of the metals forming the metal alloy to be deposited, and a supporting frame (5), intended to support the parts to be plated (6) and to be connected electrically to the negative pole of at least one power supply (7), the parts to be plated (6) being immersible in the galvanic bath (4). The particularity of the invention resides in the fact that it comprises a plurality of electrodes (15a, 15b) that can be immersed in the galvanic bath (4) and are connected electrically to a plurality of positive poles of the power supply (7), so as to form a plurality of anodes that are supplied with direct current and independently of each other to generate a flow of a plurality of electric currents, between the electrodes (15a, 15b) and the parts to be plated (6), which is controlled and balanced, with a consequent homogeneity of the thickness of the layer of deposited metal and/or of the titer of the alloy deposited by galvanic effect on the parts to be plated (6).

IPC 8 full level

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Citation (search report)

- [X] US 2010170801 A1 20100708 - METZGER HUBERT F [US]
- [XY] US 3706651 A 19721219 - LELAND JAMES M
- [XI] US 2013081939 A1 20130404 - NODA TOMOHIRO [JP]
- [X] DE 102011113976 A1 20130425 - SCHADE CHARLOTTE [DE]
- [Y] US 3915832 A 19751028 - RACKUS JOHN JOSEPH, et al

Cited by

CN113293425A; CN116162997A; CN114525571A; IT201900007878A1

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