

Title (en)

Process for obtaining a gold alloy deposit of 18 carat 3N

Title (de)

Verfahren zur Herhaltung einer Beschichtung aus einer Goldlegierung 18 Karat 3N

Title (fr)

Procédé d'obtention d'un dépôt d'alliage d'or 18 carats 3N

Publication

EP 2505691 A1 20121003 (FR)

Application

EP 11160669 A 20110331

Priority

EP 11160669 A 20110331

Abstract (en)

The electroplating process for the deposition of a yellow gold alloy on an electrode immersed in a bath comprising a gold metal (1-10 g/l), an organometallic compound, a wetting agent, a chelating agent and a free cyanide, is claimed. The metal alloy includes copper (78.31 wt.%), and silver (0.16 wt.%), and a content of gold is 21.53 wt.%. A concentration of the wetting agent is 0.05-10 ml/l. A temperature of the bath is maintained at 50-90[deg] C, and a pH of the bath is 8-12. The process is carried out at a current density of 0.05-1.5 A.dm⁻². An independent claim is included for an electroplating device.

Abstract (fr)

L'invention se rapporte à un procédé de dépôt galvanoplastique d'un alliage d'or sur une électrode plongée dans un bain comportant de l'or métal, des composés organométalliques, un mouillant, un complexant, du cyanure libre, les métaux d'alliage sont du cuivre métal et de l'argent métal permettant de déposer sur l'électrode un alliage d'or du type jaune miroir brillant. Selon l'invention, le bain respecte une proportion en masse d'environ 21,53% d'or, 78,31 % de cuivre et 0,16% d'argent. L'invention concerne le domaine des dépôts galvaniques.

IPC 8 full level

C25D 3/62 (2006.01)

CPC (source: EP US)

C25D 3/62 (2013.01 - EP US)

Citation (search report)

- [X] EP 1728898 A2 20061206 - ROHM & HAAS ELECT MAT [US]
- [X] EP 0566054 A1 19931020 - LEARNAL INC [US]
- [X] EP 0416342 A1 19910313 - DEGUSSA [DE]
- [A] JP S62164890 A 19870721 - SEIKO INSTR & ELECTRONICS & MAEDA S ET AL: "Gold-silver-copper alloy plating soln. - contg. cyanide of alkali gold, silver and copper, potassium citrate, potassium thiosulphate and nonionic surfactant", WPI / THOMSON., 21 July 1987 (1987-07-21), XP002574602
- [ED] EP 2312021 A1 20110420 - SWATCH GROUP RES & DEV LTD [CH]

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 2505691 A1 20121003; EP 2505691 B1 20140312; CN 102732920 A 20121017; CN 102732920 B 20150722; HK 1177235 A1 20130816; JP 2012214899 A 20121108; JP 5627629 B2 20141119; US 10053789 B2 20180821; US 10793961 B2 20201006; US 2012247968 A1 20121004; US 2018320283 A1 20181108

DOCDB simple family (application)

EP 11160669 A 20110331; CN 201210113840 A 20120330; HK 13104533 A 20130415; JP 2012083556 A 20120402; US 201213427558 A 20120322; US 201816038662 A 20180718