

Title (en)

System for electrowinning silver and/or copper out of a gold alloy

Title (de)

Vorrichtung zum Scheiden von Silber und/oder Kupfer aus einer Goldlegierung

Title (fr)

Dispositif de séparation d'argent et/ou de cuivre à partir d'un alliage d'or

Publication

EP 2690199 A3 20160601 (DE)

Application

EP 13162781 A 20130408

Priority

DE 102012015015 A 20120728

Abstract (en)

[origin: EP2690199A2] The device comprises an anode (7), a cathode (10) and electrolytes. The anode is formed by a gold alloy to be separated. The cathode is formed by a copper sheet. A unit is provided for warming the electrolyte to 30[deg] C. The electrolyte is copper sulfate dissolved in distilled water, where the copper sulfate is converted, according to a linkage of the copper ions at cathode, into sulfuric acid. A magnetic swirl is produced and provided in the sulfuric acid surrounded with the silver ions enriched by an effect of magnetic field. A silver filter is provided for filtering the metallic silver. The device comprises an anode (7), a cathode (10) and electrolytes. The anode is formed by a gold alloy to be separated. The cathode is formed by a copper sheet. A unit is provided for warming the electrolyte to 30[deg] C. The electrolyte is copper sulfate dissolved in distilled water, where the copper sulfate is converted, according to a linkage of the copper ions at cathode, into sulfuric acid. A magnetic swirl is produced and provided in the sulfuric acid surrounded with the silver ions enriched by an effect of magnetic field. A silver filter is provided for filtering the metallic silver from the pumped electrolyte enriched with the silver ions. The pump is a magnetic coupling pump. The silver filter consists of copper plates (2) arranged in a separate space. The anode is hung up in a lateral perforated container (8) from an acid-resistant material, at whose bottom the material accumulates divorced gold.

IPC 8 full level

C25C 7/00 (2006.01); **C25C 1/12** (2006.01)

CPC (source: EP)

C25C 1/12 (2013.01); **C25C 1/20** (2013.01); **C25C 7/00** (2013.01); **C25C 7/06** (2013.01)

Citation (search report)

- [AD] CH 426278 A 19661215 - DEMAG ELEKTROMETALLURGIE GMBH [DE]
- [A] US 4287044 A 19810901 - BILES DON L, et al
- [A] DATABASE WPI Week 201232, Derwent World Patents Index; AN 2012-E92781, XP002756471

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)

DE 102012015015 B3 20130418; EP 2690199 A2 20140129; EP 2690199 A3 20160601

DOCDB simple family (application)

DE 102012015015 A 20120728; EP 13162781 A 20130408