

Title (en)

PULSE REVERSE ELECTROLYSIS OF ACIDIC COPPER ELECTROPLATING SOLUTIONS

Title (de)

PULSUMKEHRELEKTROLYSE VON SAUREN KUPFERGALVANISIERUNGSLÖSUNGEN

Title (fr)

ELECTROLYSE A IMPULSIONS INVERSEES DE SOLUTIONS ACIDES DE GALVANOPLASTIE DU CUIVRE

Publication

EP 1766106 A4 20070905 (EN)

Application

EP 05725574 A 20050315

Priority

- US 2005008502 W 20050315
- US 87679504 A 20040625

Abstract (en)

[origin: US2005284766A1] Pulse reverse electrolysis of acid copper solutions is used for applying copper to printing cylinders, especially gravure printing cylinders. The plating composition generally comprising copper ions, counter ions, chloride ions, a polyalkylene glycol, and a bath-soluble divalent sulfur compound. The benefits include an improved thickness distribution of the copper electrodeposited on the plated article, reduced metal waste, reduced plating times and increased production capacity.

IPC 8 full level

C25D 7/04 (2006.01); **C25D 3/38** (2006.01); **C25D 5/18** (2006.01)

CPC (source: EP US)

C25D 3/38 (2013.01 - EP US); **C25D 5/18** (2013.01 - EP US); **C25D 5/627** (2020.08 - EP US)

Citation (search report)

- [Y] DD 264030 A1 19890118 - LEIPZIG GALVANOTECHNIK [DD]
- [Y] US 3923610 A 19751202 - BERGIN MICHAEL J, et al
- See references of WO 2006011922A2

Designated contracting state (EPC)

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Designated extension state (EPC)

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US 2005284766 A1 20051229; CN 101044269 A 20070926; EP 1766106 A2 20070328; EP 1766106 A4 20070905; JP 2008504435 A 20080214; US 2009223827 A1 20090910; WO 2006011922 A2 20060202; WO 2006011922 A3 20070222

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US 87679504 A 20040625; CN 200580020350 A 20050315; EP 05725574 A 20050315; JP 2007518029 A 20050315; US 2005008502 W 20050315; US 46976009 A 20090521