

Title (en)

Pyrophosphate-containing bath for cyanide-free electroplating of copper- tin alloys

Title (de)

Pyrophosphathaltiges Bad zur cyanidfreien Abscheidung von Kupfer-Zinn-Legierungen

Title (fr)

Bain contenant du pyrophosphate destiné au dépôt électrolytique d'alliages cuivre-étain sans cyanure

Publication

EP 2130948 B1 20101222 (DE)

Application

EP 08010058 A 20080602

Priority

EP 08010058 A 20080602

Abstract (en)

[origin: EP2130948A1] Pyrophosphate containing bath (I) comprises a reaction product of a secondary monoamine with a diglycidyl ether, where the secondary monoamine is morpholine and the diglycidyl ether is glycerol diglycidyl ether, poly(propyleneglycol)diglycidylether, and/or poly(ethyleneglycol)diglycidylether. Independent claims are included for: (1) the galvanic separation of brightener and copper-tin-alloy coatings comprising contacting a substrate to be coated and an aqueous cyanide free (I) and separating the copper-tin-alloy coating on the substrate; and (2) the reaction product.

IPC 8 full level

C25D 3/58 (2006.01); **C25D 3/60** (2006.01)

CPC (source: EP KR US)

C25D 3/58 (2013.01 - EP KR US); **C25D 3/60** (2013.01 - EP US)

Cited by

US8262895B2; US8268157B2; US2011220513A1; US2011220514A1; EP2366686A3; DE102012218134B4

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 2130948 A1 20091209; EP 2130948 B1 20101222; AT E492665 T1 20110115; BR PI0912309 A2 20151013; BR PI0912309 B1 20191210; CA 2724211 A1 20091210; CA 2724211 C 20161025; CN 102046852 A 20110504; CN 102046852 B 20130612; DE 502008002080 D1 20110203; ES 2354395 T3 20110314; JP 2011522116 A 20110728; JP 5735415 B2 20150617; KR 101609171 B1 20160405; KR 20110022558 A 20110307; PL 2130948 T3 20110531; SI 2130948 T1 20110429; TW 201011130 A 20100316; TW I441958 B 20140621; US 2010326838 A1 20101230; US 2014124376 A1 20140508; US 9399824 B2 20160726; WO 2009146865 A1 20091210

DOCDB simple family (application)

EP 08010058 A 20080602; AT 08010058 T 20080602; BR PI0912309 A 20090529; CA 2724211 A 20090529; CN 200980120470 A 20090529; DE 502008002080 T 20080602; EP 2009003886 W 20090529; ES 08010058 T 20080602; JP 2011510900 A 20090529; KR 20107019214 A 20090529; PL 08010058 T 20080602; SI 200830180 T 20080602; TW 98117986 A 20090601; US 201314100633 A 20131209; US 86699609 A 20090529