

Title (en)
Plating apparatus and plating solution management method

Title (de)
Plattierungsvorrichtung und Plattierungslösungs-Verwaltungsverfahren

Title (fr)
Appareil de placage et procédé de gestion de solution de placage

Publication
EP 2664692 A3 20170215 (EN)

Application
EP 13020015 A 20130514

Priority
JP 2012111115 A 20120515

Abstract (en)
[origin: EP2664692A2] A plating apparatus plates a substrate with Sn alloy to form an Sn alloy film on a surface of the substrate. The apparatus includes: a plating bath for retaining a plating solution therein, the substrate being immersed in the plating solution in a position opposite to an insoluble anode; a plating solution dialysis line for extracting the plating solution from the plating bath and returning the plating solution to the plating bath; a dialysis cell provided in the plating solution dialysis line and configured to remove a free acid from the plating solution by dialysis using an anion exchange membrane; a free acid concentration analyzer; and a controller for controlling a flow rate of the plating solution flowing through the plating solution dialysis line based on the concentration of the free acid measured by the free acid concentration analyzer.

IPC 8 full level
C25D 3/30 (2006.01); **C25D 3/60** (2006.01); **C25D 21/12** (2006.01); **C25D 21/14** (2006.01); **C25D 21/22** (2006.01); **C25D 17/00** (2006.01)

CPC (source: EP KR US)
C25D 3/30 (2013.01 - KR); **C25D 3/60** (2013.01 - KR); **C25D 21/12** (2013.01 - EP KR US); **C25D 21/14** (2013.01 - EP KR US); **C25D 21/22** (2013.01 - EP KR US); **C25D 3/30** (2013.01 - EP US); **C25D 3/60** (2013.01 - EP US); **C25D 17/001** (2013.01 - EP US); **C25D 17/008** (2013.01 - EP US)

Citation (search report)

- [XDYI] JP S5729600 A 19820217 - SUMITOMO METAL IND
- [XII] US 5312539 A 19940517 - THOMSON DONALD [US]
- [XII] JP 2002241991 A 20020828 - CANON KK
- [XI] GB 2111080 A 19830629 - PPG INDUSTRIES INC
- [Y] JP 2005139474 A 20050602 - ISHIHARA CHEMICAL CO LTD, et al

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 2664692 A2 20131120; **EP 2664692 A3 20170215**; CN 103422140 A 20131204; JP 2013237894 A 20131128; JP 5876767 B2 20160302; KR 20130127921 A 20131125; KR 20160098144 A 20160818; TW 201350625 A 20131216; TW I560325 B 20161201; US 2013306483 A1 20131121

DOCDB simple family (application)
EP 13020015 A 20130514; CN 201310180239 A 20130515; JP 2012111115 A 20120515; KR 20130052387 A 20130509; KR 20160100330 A 20160805; TW 102115693 A 20130502; US 201313893940 A 20130514