

Title (en)
PROCESS FOR PRODUCING COMPOSITE-PLATED MATERIAL

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES VERBUNDPLATTIERTEN MATERIALS

Title (fr)
PROCÉDÉ SERVANT À PRODUIRE UNE MATIÈRE RECOUVERTE D'UN COMPOSITE PAR ÉLECTRODÉPOSITION

Publication
EP 1939331 A4 20120104 (EN)

Application
EP 06798083 A 20060912

Priority
• JP 2006318472 W 20060912
• JP 2005284303 A 20050929

Abstract (en)
[origin: EP1939331A1] There is provided a method for producing a composite plated product wherein a coating of a composite material containing carbon particles in a silver layer is formed on a substrate by using a composite plating solution wherein carbon particles treated by an oxidation treatment and a silver matrix orientation adjusting agent are added to a silver plating solution, the method being capable of preventing the wear resistance of the composite plated product from being deteriorated even if the current density in a plating process is increased. The molar ratio of silver to free cyanogen in the composite plating solution is adjusted so as not to be less than 0.7, preferably so as to be in the range of from 0.7 to 1.3. The silver matrix orientation adjusting agent contains selenium ions, and is preferably potassium selenocyanate. The concentration of the silver matrix orientation adjusting agent in the composite plating solution is adjusted so as to be in the range of from 5 mg/l to 20 mg/l.

IPC 8 full level
C25D 15/02 (2006.01); **C25D 3/46** (2006.01)

CPC (source: EP US)
C25D 3/46 (2013.01 - EP US); **C25D 15/02** (2013.01 - EP US)

Citation (search report)
• [XP] EP 1609888 A2 20051228 - DOWA MINING CO [JP]
• [Y] DE 2543082 A1 19770331 - SIEMENS AG
• [Y] US 5967860 A 19991019 - RICKETTS MARK [CA], et al
• [Y] WO 9114808 A1 19911003 - SIEMENS AG [DE]
• See references of WO 2007037144A1

Cited by
EP3636804A1; EP2902533A4; EP2749673A4; US9646739B2; US11542616B2; WO2020074552A1; US9534307B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1939331 A1 20080702; EP 1939331 A4 20120104; EP 1939331 B1 20130220; CN 101287862 A 20081015; CN 101287862 B 20100908; JP 2007092141 A 20070412; JP 4862192 B2 20120125; US 2009229987 A1 20090917; WO 2007037144 A1 20070405

DOCDB simple family (application)
EP 06798083 A 20060912; CN 200680036291 A 20060912; JP 2005284303 A 20050929; JP 2006318472 W 20060912; US 8844806 A 20060912