

Title (en)
Composite material for manufacturing electrical contacts and process for its preparation

Title (de)
Verbundmaterial zur Herstellung elektrischer Kontakte und Verfahren zu dessen Herstellung

Title (fr)
Matériau composite pour la fabrication de contacts électriques et son procédé de préparation

Publication
EP 1433867 B1 20091014 (DE)

Application
EP 03025163 A 20031104

Priority
DE 10261303 A 20021227

Abstract (en)
[origin: EP1433867A2] Electrically conducting composite material comprises a metal strip and a contact layer formed on one side. The contact layer is made from a silver or tin material additionally containing 0.5-60 wt.% carbon powder in the form of fine particles having a diameter of 5-200 nm and 0.5-60 wt.% of a further additive in the form of particles for improving the electrical conductivity, hardness and abrasion resistance and having a diameter of 5-200 nm. Independent claims are also included for the following: (1) Device for the gas sputtering of a liquid material; and (2) Process for the production of a composite material.

IPC 8 full level
B22F 3/115 (2006.01); **C22C 32/00** (2006.01); **B22F 7/00** (2006.01); **B22F 7/02** (2006.01); **B22F 9/08** (2006.01); **C22C 1/05** (2006.01); **C22C 1/10** (2006.01); **C23C 4/04** (2006.01); **C23C 4/06** (2006.01); **C23C 4/12** (2006.01); **C23C 28/00** (2006.01); **C23C 28/02** (2006.01); **H01B 1/02** (2006.01); **H01H 1/02** (2006.01); **H01H 1/023** (2006.01); **H01H 1/025** (2006.01); **H01H 1/04** (2006.01); **H01H 1/06** (2006.01); **H01H 11/04** (2006.01); **H01R 4/62** (2006.01); **H01R 13/03** (2006.01); **H01R 43/16** (2006.01); **H01H 1/0237** (2006.01); **H01H 1/027** (2006.01)

CPC (source: EP KR US)
B22F 7/004 (2013.01 - EP US); **B22F 7/02** (2013.01 - EP US); **C22C 1/1042** (2013.01 - EP US); **C23C 4/06** (2013.01 - EP US); **C23C 4/123** (2016.01 - EP US); **C23C 28/00** (2013.01 - EP US); **C23C 28/021** (2013.01 - EP US); **C23C 28/023** (2013.01 - EP US); **H01R 4/62** (2013.01 - KR); **B22F 2009/0832** (2013.01 - EP US); **B22F 2009/0892** (2013.01 - EP US); **B22F 2999/00** (2013.01 - EP US); **C22C 2204/00** (2013.01 - EP US); **H01H 1/0237** (2013.01 - EP US); **H01H 1/027** (2013.01 - EP US); **H01H 2300/036** (2013.01 - EP US); **Y10T 428/12063** (2015.01 - EP US); **Y10T 428/12083** (2015.01 - EP US); **Y10T 428/12104** (2015.01 - EP US); **Y10T 428/12139** (2015.01 - EP US); **Y10T 428/12708** (2015.01 - EP US); **Y10T 428/12896** (2015.01 - EP US)

C-Set (source: EP US)
B22F 2999/00 + B22F 7/02 + B22F 3/115 + C22C 1/1042

Cited by
FR2931303A1; DE102013014915A1; US7939777B2; WO2006056346A1; WO2007031202A1; EP4083274A2; DE102021110587A1

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

DOCDB simple family (publication)
EP 1433867 A2 20040630; EP 1433867 A3 20060517; EP 1433867 B1 20091014; AT E445719 T1 20091015; CN 1519991 A 20040811; CN 1519991 B 20110518; DE 10261303 B3 20040624; DE 50312017 D1 20091126; JP 2004214183 A 20040729; JP 4571397 B2 20101027; KR 101090190 B1 20111206; KR 20040060753 A 20040706; US 2004202884 A1 20041014; US 7132172 B2 20061107

DOCDB simple family (application)
EP 03025163 A 20031104; AT 03025163 T 20031104; CN 200310121508 A 20031216; DE 10261303 A 20021227; DE 50312017 T 20031104; JP 2003419166 A 20031217; KR 20030095622 A 20031223; US 74490803 A 20031223