

Title (en)
CONTACT MATERIALS FOR USE IN ON-BOARD HIGH-VOLTAGE DIRECT-CURRENT SYSTEMS

Title (de)
KONTAKTWERKSTOFFE FÜR HOCHSPANNUNGS- GLEICHSTROMBORDSYSTEME

Title (fr)
MATERIAUX DE CONTACT POUR UTILISATION DANS DES SYSTEMES DE HAUTE TENSION ET COURANT CONTINUE EMBARQUÉS

Publication
EP 2849185 A1 20150318 (DE)

Application
EP 14002972 A 20140828

Priority
DE 102013014915 A 20130911

Abstract (en)
[origin: US2015069020A1] A contact element for high voltage direct current switches includes a matrix made of a first material selected from the group comprising copper, silver, palladium, platinum, tungsten, molybdenum, rhenium, nickel, gold, and alloys thereof. The contact element also includes a foreign phase, which is dispersed in the matrix and is made of a second material selected from the group comprising carbon, tin(II) oxide, tin(IV) oxide, zinc(II) oxide, tungsten, nickel and mixtures thereof. The contact element has a porosity of $\leq 1.0\%$ by volume, based on a total volume of the contact element.

Abstract (de)
Die vorliegende Erfindung betrifft ein Kontaktelement für Hochspannungs-Gleichstromschalter, ein Verfahren zur Herstellung eines solchen Kontaktelements sowie die Verwendung des Kontaktelements in einem Hochspannungs-Gleichstromschalter.

IPC 8 full level
H01B 1/02 (2006.01); **C23C 4/08** (2006.01); **H01H 1/02** (2006.01); **H01H 1/0237** (2006.01); **H01H 1/025** (2006.01); **H01H 11/04** (2006.01); **H01H 33/59** (2006.01); **H05H 1/36** (2006.01)

CPC (source: EP US)
H01B 1/02 (2013.01 - EP US); **H01H 1/02372** (2013.01 - EP US); **H01H 1/025** (2013.01 - EP US); **H01H 11/048** (2013.01 - EP US); **H01H 33/10** (2013.01 - US); **C23C 4/08** (2013.01 - US); **H01H 2001/0208** (2013.01 - EP US); **H01H 2201/024** (2013.01 - US); **H01H 2201/026** (2013.01 - US); **H01H 2201/03** (2013.01 - US); **H01H 2239/044** (2013.01 - US); **H01H 2300/036** (2013.01 - EP US)

Citation (search report)
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• [A] GB 2123033 A 19840125 - CHUGAI ELECTRIC IND CO LTD
• [A] US 4131458 A 19781226 - SATOH MITSUNORI, et al
• [XAI] LU WANG ET AL: "A New Silver-Based Graded Composite as Electrical Contact Material", KEY ENGINEERING MATERIALS, vol. 336-338, 1 January 2007 (2007-01-01), pages 2616 - 2618, XP055165744, DOI: 10.4028/www.scientific.net/KEM.336-338.2616
• [XAI] F.L. MIGUEL ET AL: "Electroless deposition of a Ag matrix on semiconducting one-dimensional nanostructures", THIN SOLID FILMS, vol. 536, 2 April 2013 (2013-04-02), pages 54 - 56, XP055165650, ISSN: 0040-6090, DOI: 10.1016/j.tsf.2013.03.054

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BA ME

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DOCDB simple family (application)
EP 14002972 A 20140828; DE 102013014915 A 20130911; US 201414482873 A 20140910