

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 B1 20161207 (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 $\geq 1.0\%$ by volume, based on a total volume of the contact element.

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)

Cited by
EP4276864A1

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

DOCDB simple family (publication)
EP 2849185 A1 20150318; EP 2849185 B1 20161207; DE 102013014915 A1 20150312; US 2015069020 A1 20150312

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