Title (en)

SINTERED MATERIAL FOR ELECTRICAL CONTACTS AND ITS METHOD OF MANUFACTURE

Publication

EP 0118717 B2 19910220 (DE)

Application

EP 84101010 A 19840201

Priority

DE 3305270 A 19830216

Abstract (en)

[origin: US4551301A] AgCdO based contact elements are replaced in contactors and small circuit breakers with CdO-less type elements which exhibit little burn-off in the arc, a low welding force and minimal heating when carrying continuous current. However, known AgSnO2 contact materials do not have optimum values in all operationally important properties. In these contact materials a more firmly adhering oxide layer occurs as compared with AgCdO. The invention relates to a sintered compound material for electrical contacts, consisting of AgSnO2Bi2O3CuO and containing at least one other metal oxide additive which sublimes below the melting temperature of silver. The SnO2, Bi2O3 and CuO are globularly precipitated in silver material structure zones having a maximum diameter of 200 mu m, and the metal oxide additive is distributed on the surfaces of the boundary regions of these microscopic silver zones.

IPC 1-7

H01H 1/02; C22C 5/06

IPC 8 full level

C22C 5/06 (2006.01); **C22C 32/00** (2006.01); **H01H 1/02** (2006.01); **H01H 1/023** (2006.01); **H01H 1/0237** (2006.01); **H01H 11/04** (2006.01)

CPC (source: EP US)

C22C 32/0021 (2013.01 - EP US); **H01H 1/02376** (2013.01 - EP US); B22F 2998/10 (2013.01 - EP US); Y10S 428/929 (2013.01 - EP US); Y10T 428/12174 (2015.01 - EP US)

Cited by

US5486222A; WO9315517A1

Designated contracting state (EPC)

AT CH DE FR GB IT LI NL

DOCDB simple family (publication)

US 4551301 A 19851105; AT E20506 T1 19860715; DE 3305270 A1 19840816; DE 3460230 D1 19860724; EP 0118717 A1 19840919; EP 0118717 B1 19860618; EP 0118717 B2 19910220; JP H0586006 B2 19931209; JP S59173910 A 19841002

DOCDB simple family (application)

US 57774884 A 19840207; AT 84101010 T 19840201; DE 3305270 A 19830216; DE 3460230 T 19840201; EP 84101010 A 19840201; JP 1981684 A 19840206