

Title (en)

Process for preparing composite silver-tin oxide powders and their use for the preparation of contact material

Title (de)

Verfahren zur Herstellung von Verbundpulvern auf Basis Silber-Zinnoxid und deren Verwendung zur Herstellung von Kontaktwerkstoffen

Title (fr)

Procédé de préparation de poudres composites à base d'argent-oxyde d'étain et leur utilisation pour la préparation de matériaux de contact

Publication

EP 1142661 A3 20030528 (DE)

Application

EP 01107637 A 20010328

Priority

DE 10017282 A 20000406

Abstract (en)

[origin: EP1142661A2] Production of composite powders based on silver-tin oxide comprises continuously adding a solution of a silver compound and a solution of a reductant in a reaction cycle to a solution of zinc oxide with intensive mixing to precipitate the silver. Preferred Features: The silver compound is silver nitrate, acetate, carbonate, citrate or oxalate. The reductant is ascorbic acid, citric acid, oxalic acid, formic acid or hydroxylamine. In₂O₃, Bi₂O₃, CuO, WO₃ or MoO₃ is contained in the aqueous dispersion of tin oxide.

IPC 1-7

B22F 9/24; **C22C 32/00**; **H01H 1/02**; **B22F 1/02**; **C23C 18/16**

IPC 8 full level

B22F 1/18 (2022.01); **B22F 9/24** (2006.01); **C22C 32/00** (2006.01); **C23C 18/16** (2006.01); **H01H 1/02** (2006.01); **H01H 1/0237** (2006.01)

CPC (source: EP US)

B22F 1/18 (2022.01 - EP US); **B22F 3/12** (2013.01 - US); **B22F 9/24** (2013.01 - EP US); **C22C 32/0021** (2013.01 - EP US); **H01H 1/02376** (2013.01 - EP US)

Citation (search report)

- [A] EP 0369282 A2 19900523 - SIEMENS AG [DE]
- [XY] CHANG H ET AL: "NOVEL METHOD FOR PREPARATION OF SILVER-TIN OXIDE ELECTRICAL CONTACTS", JOURNAL OF HEAT TREATING, SPRINGER VERLAG, NEW YORK, US, vol. 1, no. 2, 1 April 1992 (1992-04-01), pages 255 - 260, XP000277287, ISSN: 0190-9177
- [Y] BEHRENS V ET AL: "AN ADVANCED SILVER/TIN OXIDE CONTACT MATERIAL", PROCEEDINGS OF THE HOLM CONFERENCE ON ELECTRICAL CONTACTS. PITTSBURGH, SEPT. 27 - 29, 1993, NEW YORK, IEEE, US, vol. CONF. 39, 27 September 1993 (1993-09-27), pages 19 - 25, XP000419850

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DE102010014745A1; CN100452259C; CN102528055A; DE102010014745B4; WO2011086167A1; US8749330B2

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