Title (en)

COMPOSITE COPPER PARTICLES AND PRODUCTION METHOD THEREFOR

Title (de)

VERBUNDKUPFERPARTIKEL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

PARTICULES DE CUIVRE COMPOSITES ET PROCÉDÉ DE PRODUCTION DE CELLES-CI

Publication

EP 3031551 A4 20170426 (EN)

Application

EP 14834408 A 20140801

Priority

- JP 2013164445 A 20130807
- JP 2014070346 W 20140801

Abstract (en)

[origin: EP3031551A1] The composite copper particle of the invention is a composite copper particle including a flake-like copper particle and a plurality of inorganic oxide particles which are finer than the flake-like copper particle. The inorganic oxide particles are unevenly distributed on a surface of the flake-like copper particle. The composite copper particle preferably has a volume cumulative particle diameter D 50 at a cumulative volume of 50 vol% as measured by a laser diffraction scattering method of 0.1 μm to 10 μm. An aspect ratio of the maximum diameter d of a plane of the composite copper particle to the maximum thickness t of the composite copper particle, d/t, is preferably 5 to 30. The inorganic oxide particles preferably have a higher hardness than copper.

IPC 8 full level

B22F 1/068 (2022.01); **B22F 1/16** (2022.01); **C22C 9/00** (2006.01); **C22C 9/01** (2006.01); **C22C 9/10** (2006.01); **H01B 1/00** (2006.01); **H01B 1/22** (2006.01); **H01B 5/00** (2006.01); **H01B 13/00** (2006.01)

CPC (source: EP US)

B22F 1/068 (2022.01 - EP US); **B22F 1/16** (2022.01 - EP US); **C22C 9/01** (2013.01 - EP); **H01B 1/16** (2013.01 - EP); **H01B 1/22** (2013.01 - EP US); C22C 9/00 (2013.01 - EP)

Citation (search report)

- [IY] JP 2011006770 A 20110113 - MITSUI MINING & SMELTING CO
- [YA] US 2006137488 A1 20060629 - SAKAUE TAKAHIKO [JP], et al
- [YA] JP 2000345201 A 20001212 - MITSUI MINING & SMELTING CO
- [A] WO 2006099510 A2 20060921 - NANODYNAMICS INC [US], et al
- See references of WO 2015019959A1

Designated contracting state (EPC)

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