

Title (en)

PARTICLES FOR JOINING MATERIAL AND PRODUCTION METHOD THEREOF, JOINING PASTE AND PREPARATION METHOD THEREOF, AND PRODUCTION METHOD OF JOINED BODY

Title (de)

PARTIKEL ZUM VERBINDEN VON MATERIAL UND VERFAHREN ZU DEREN HERSTELLUNG, VERBINDUNGSPASTE UND VERFAHREN ZU DEREN HERSTELLUNG UND VERFAHREN ZUR HERSTELLUNG EINES VERBUNDKÖRPERS

Title (fr)

PARTICULES POUR MATÉRIAU DE JONCTION ET LEUR PROCÉDÉ DE PRODUCTION, PÂTE DE JONCTION ET SON PROCÉDÉ DE PRÉPARATION, ET PROCÉDÉ DE PRODUCTION DE CORPS JOINT

Publication

EP 3862111 A1 20210811 (EN)

Application

EP 19868689 A 20191002

Priority

- JP 2018188905 A 20181004
- JP 2018245662 A 20181227
- JP 2019038945 W 20191002

Abstract (en)

Particles for joining material are such that an organic protective film is formed on the surface of copper nanoparticles, and have a BET specific surface area in a range of $3.5 \text{ m}^2/\text{g}$ to $8 \text{ m}^2/\text{g}$, and a BET diameter in a range of 80 nm to 200 nm, wherein the organic protective film is included in a range of 0.5% to 2.0% by mass with respect to the particles for joining material. When the particles for joining material are analyzed by using the Time-Of-Flight Secondary Ion Mass Spectrometry (TOF-SIMS) method, respective detected amounts of $\text{C}_3\text{H}_4\text{O}_2$ ions and $\text{C}_3\text{H}_4\text{O}_2$ ions are in a range of 0.05 times to 0.2 times a detected amount of Cu^+ ions, and a detected amount of ions of C_5 or more is in a range less than 0.005 times the detected amount of Cu^+ ions.

IPC 8 full level

B22F 1/05 (2022.01); **B22F 1/102** (2022.01); **B22F 9/00** (2006.01); **B22F 9/24** (2006.01); **H01B 1/22** (2006.01); **H01B 13/00** (2006.01)

CPC (source: EP KR US)

B22F 1/05 (2022.01 - EP KR US); **B22F 1/102** (2022.01 - EP KR US); **B22F 7/064** (2013.01 - EP); **B22F 7/08** (2013.01 - EP); **B22F 9/24** (2013.01 - EP KR); **H01B 1/22** (2013.01 - EP KR US); **H01B 13/00** (2013.01 - KR)

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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