

Title (en)  
METALLIC COPPER PARTICLES, AND PRODUCTION METHOD THEREFOR

Title (de)  
METALLISCHE KUPFERPARTIKEL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
PARTICULES DE CUIVRE MÉTALLIQUE ET LEUR PROCÉDÉ DE PRODUCTION

Publication  
**EP 3187288 A4 20180411 (EN)**

Application  
**EP 15835228 A 20150826**

Priority

- JP 2014174251 A 20140828
- JP 2015081081 A 20150410
- JP 2015074025 W 20150826

Abstract (en)  
[origin: EP3187288A1] Provided are: metallic copper particles exhibiting excellent low-temperature sintering properties at temperatures equal to or lower than 300 °C; and a production method therefor. In these metallic copper particles, metallic copper fine particles are adhered to the surfaces of large-diameter metallic copper particles. With regard to the metallic copper particles to be produced, copper oxide and hypophosphoric acid and/or a salt thereof are mixed and reduced, preferably in the presence of 1-500 mass% of gelatin and/or collagen peptide. The reduction reaction temperature is preferably in the range of 20-100 °C. The produced metallic copper particles have a volume resistivity value when heated to a temperature of 300 °C under a nitrogen atmosphere of  $1 \times 10^{-2} \text{ } \Omega \cdot \text{cm}$  or less.

IPC 8 full level  
**B22F 1/052** (2022.01); **B22F 1/102** (2022.01); **B22F 1/105** (2022.01); **B22F 1/17** (2022.01); **B22F 9/24** (2006.01); **B22F 1/06** (2022.01); **B22F 1/068** (2022.01)

CPC (source: EP KR US)  
**B22F 1/052** (2022.01 - EP KR US); **B22F 1/09** (2022.01 - EP KR US); **B22F 1/102** (2022.01 - EP KR US); **B22F 1/105** (2022.01 - EP KR US); **B22F 1/17** (2022.01 - EP KR US); **B22F 9/20** (2013.01 - KR); **B22F 9/24** (2013.01 - EP US); **H01B 1/22** (2013.01 - KR); **H01B 5/00** (2013.01 - EP KR US); **H01B 13/00** (2013.01 - EP KR US); **B22F 1/06** (2022.01 - EP KR US); **B22F 1/068** (2022.01 - EP KR US); **B22F 2009/245** (2013.01 - US); **B22F 2301/10** (2013.01 - KR US); **B22F 2998/10** (2013.01 - US)

Citation (search report)

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Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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