

Title (en)  
SILVER-COATED FLAKE-FORM COPPER POWDER, AND METHOD FOR MANUFACTURING SAME

Title (de)  
SILBERBESCHICHTETES FLOCKENFÖRMIGES KUPFERPULVER UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)  
POUDRE DE CUIVRE SOUS FORME DE PAILLETES REVÊTUES D'ARGENT ET PROCÉDÉ POUR LA FABRICATION DE CELLE-CI

Publication  
**EP 4205886 A4 20240124 (EN)**

Application  
**EP 21861104 A 20210728**

Priority  
• JP 2020142319 A 20200826  
• JP 2021027964 W 20210728

Abstract (en)  
[origin: EP4205886A1] Provided is a silver-coated copper flake powder, wherein a ratio of the brightness L\* of the silver-coated copper flake powder to the dispersity of the silver-coated copper flake powder is 13 or more, where the dispersity is defined as  $D_{90}/D_{10}$  and the  $D_{90}$  and the  $D_{10}$  are the 90th percentile particle diameter ( $\mu\text{m}$ ) and the 10th percentile particle diameter ( $\mu\text{m}$ ), respectively, of the silver-coated copper flake powder in volume-weighted particle size distribution thereof as measured by laser diffraction scattering method. This powder is manufactured using a method including: the step of treating a dispersion containing a copper base powder and a first complexing agent in a stirred media mill, thereby deforming copper base particles constituting the copper base powder into flakes; and the step of treating the copper base powder containing the copper base particles deformed into flakes, with an aqueous solution containing silver ions and a second complexing agent, thereby precipitating silver on the surface of the copper base particles.

IPC 8 full level  
**B22F 9/04** (2006.01); **B22F 1/00** (2022.01); **B22F 1/068** (2022.01); **B22F 1/145** (2022.01); **B22F 1/17** (2022.01); **C22C 1/04** (2023.01); **C23C 18/31** (2006.01); **C23C 18/42** (2006.01); **C23C 18/54** (2006.01); **C25C 1/12** (2006.01); **C25C 5/02** (2006.01); **H01B 5/00** (2006.01); **B22F 9/24** (2006.01); **C22C 5/06** (2006.01); **C22C 9/00** (2006.01)

CPC (source: EP KR)  
**B22F 1/068** (2022.01 - EP KR); **B22F 1/145** (2022.01 - EP); **B22F 1/17** (2022.01 - EP KR); **B22F 9/04** (2013.01 - KR); **C22C 1/0425** (2013.01 - EP); **C22C 1/0466** (2013.01 - EP); **C23C 18/31** (2013.01 - KR); **C23C 18/42** (2013.01 - EP KR); **C23C 18/54** (2013.01 - EP); **C25C 1/12** (2013.01 - EP); **C25C 5/02** (2013.01 - EP KR); **H01B 5/00** (2013.01 - KR); **B22F 9/04** (2013.01 - EP); **B22F 9/24** (2013.01 - EP); **B22F 2301/10** (2013.01 - KR); **B22F 2999/00** (2013.01 - EP); **C22C 5/06** (2013.01 - EP); **C22C 9/00** (2013.01 - EP)

Citation (search report)  
• [X1] JP 2006161081 A 20060622 - DOWA MINING CO  
• [X1] JP 2015071819 A 20150416 - DOWA ELECTRONICS MATERIALS CO  
• [X1] WO 2007040195 A1 20070412 - MITSUI MINING & SMELTING CO [JP], et al  
• [T] RENLIANG XU ET AL: "Comparison of sizing small particles using different technologies", POWDER TECHNOLOGY, ELSEVIER, BASEL (CH), vol. 132, no. 2-3, 24 June 2003 (2003-06-24), pages 145 - 153, XP002711749, ISSN: 0032-5910, DOI: 10.1016/S0032-5910(03)00048-2  
• See references of WO 2022044676A1

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

DOCDB simple family (publication)  
**EP 4205886 A1 20230705; EP 4205886 A4 20240124**; CN 116075380 A 20230505; JP 7018551 B1 20220210; JP WO2022044676 A1 20220303; KR 20230057342 A 20230428; WO 2022044676 A1 20220303

DOCDB simple family (application)  
**EP 21861104 A 20210728**; CN 202180058151 A 20210728; JP 2021027964 W 20210728; JP 2021568064 A 20210728; KR 20237004240 A 20210728