

Title (en)

METHOD FOR PRODUCING FINE PARTICLES OF SILVER

Title (de)

VERFAHREN ZUR HERSTELLUNG VON FEINEN SILBERPARTIKELN

Title (fr)

PROCÉDÉ DE PRODUCTION DE FINES PARTICULES D'ARGENT

Publication

**EP 4066968 A4 20230802 (EN)**

Application

**EP 19954569 A 20191128**

Priority

JP 2019046681 W 20191128

Abstract (en)

[origin: EP4066968A1] The present application provides a method of producing silver fine particles, comprising continuously reducing silver ions contained in a silver compound to precipitate silver fine particles by introducing at least two fluids from separate flow paths and mixing the fluids, wherein one fluid of the at least two fluids contains the silver compound, and another fluid contains a reducing agent, and at least one fluid of the at least two fluids contains an amino acid. By the present invention, silver fine particles can be produced with sufficient continuous productivity and quality uniformity, without problems of deterioration of working environment and generation of explosive fulminating silver due to the use of a large amount of ammonia.

IPC 8 full level

**B22F 9/24** (2006.01)

CPC (source: EP KR US)

**B22F 1/107** (2022.01 - KR US); **B22F 9/24** (2013.01 - EP KR US); **C22C 1/0466** (2013.01 - KR); **B22F 1/05** (2022.01 - EP); **B22F 2301/255** (2013.01 - US)

Citation (search report)

- [XI] JP 2005254179 A 20050922 - BANDO CHEMICAL IND
- [XYI] WO 2007118669 A1 20071025 - BAYER TECHNOLOGY SERVICES GMBH [DE], et al
- [YD] WO 2012165000 A1 20121206 - M TECH CO LTD [JP], et al
- [XA] US 2017173698 A1 20170622 - GONG QIANG [CN], et al
- See references of WO 2021106171A1

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 4066968 A1 20221005**; **EP 4066968 A4 20230802**; CN 114728339 A 20220708; JP 7406834 B2 20231228; JP WO2021106171 A1 20210603; KR 20220106128 A 20220728; US 2023001482 A1 20230105; WO 2021106171 A1 20210603

DOCDB simple family (application)

**EP 19954569 A 20191128**; CN 201980102209 A 20191128; JP 2019046681 W 20191128; JP 2021561089 A 20191128; KR 20227017560 A 20191128; US 201917780578 A 20191128