

Title (en)

SYNTHESIS OF AU, PD, PT OR AG NANO- OR MICROCRYSTALS VIA REDUCTION OF METAL SALTS BY CELLULOSE IN THE IONIC LIQUID 1-BUTYL-3-METHYL IMIDAZOLIUM CHLORIDE

Title (de)

SYNTHESE VON AU-, PD-, PT- ODER AG-NANO- BZW. MIKROKRISTALLEN MITTELS METALLSALZREDUKTION DURCH CELLULOSE IN DER IONISCHEN FLÜSSIGKEIT 1-BUTYL-3-METHYLIMIDAZOLIUMCHLORID

Title (fr)

SYNTHÈSE DE NANO OU MICROCRISTAUX DE AU, PD, PT OU AG PAR LA RÉDUCTION DES SELS MÉTALLIQUES PAR LA CELLULOSE DANS LE LIQUIDE IONIQUE CHLORURE DE 1-BUTYL-3-MÉTHYL-IMIDAZOLIUM

Publication

**EP 2222883 B1 20120704 (EN)**

Application

**EP 08865205 A 20081210**

Priority

- EP 2008067216 W 20081210
- EP 07150120 A 20071219
- EP 08865205 A 20081210

Abstract (en)

[origin: WO2009080522A1] The invention refers to a preparation method for nano- or microcrystals of Au, Pd, Pt or Ag comprising the steps of: a) preparing an ionic liquid mixture of cellulose and at least one metal salt selected from the group consisting of Au, Pd, Pt and Ag in 1-butyl-3-methylimidazolium chloride; and b) (i) thermally inducing a reduction of the metal salt with cellulose by heating of the mixture to a temperature in the range of 50 to 250 °C; or (ii) photoreduction of the metal salt by irradiation of the mixture with light having a wave length in the range of 200 to 800 nm.

IPC 8 full level

**C22B 11/00** (2006.01); **B22F 1/068** (2022.01); **B22F 9/24** (2006.01); **C01G 7/00** (2006.01); **C22B 5/00** (2006.01)

CPC (source: EP US)

**B22F 1/068** (2022.01 - EP US); **B22F 9/24** (2013.01 - EP); **C22B 5/00** (2013.01 - EP); **C22B 11/04** (2013.01 - EP US); **B22F 2009/245** (2013.01 - EP); **B22F 2998/00** (2013.01 - EP); **B22F 2999/00** (2013.01 - EP)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2009080522 A1 20090702**; EP 2222883 A1 20100901; EP 2222883 B1 20120704

DOCDB simple family (application)

**EP 2008067216 W 20081210**; EP 08865205 A 20081210