

Title (en)

PRODUCTION OF NANOPARTICLES, ESPECIALLY NANOPARTICLE COMPOSITES, FROM POWDER AGGLOMERATES

Title (de)

HERSTELLUNG VON NANOPARTIKELN, INSBESONDERE NANOPARTIKELKOMPOSITEN, AUSGEHEND VON PULVERAGGLOMERATEN

Title (fr)

PRODUCTION DE NANOPARTICULES, NOTAMMENT DE MATÉRIAUX COMPOSITES EN FORME DE NANOPARTICULES, À PARTIR D'AGGLOMÉRATS DE POUDRE

Publication

EP 2021114 A2 20090211 (DE)

Application

EP 07703457 A 20070214

Priority

- EP 2007001270 W 20070214
- DE 102006014786 A 20060329
- DE 102006025848 A 20060602

Abstract (en)

[origin: DE102006025848A1] u A method (M1) for the production of particles of composite material (I) involves pulverising solid inorganic or organic particle agglomerates or aggregates (II) in the dry state (preferably as powder) in the gas phase or in a carrier gas and in presence of organic matrix particles (III) with the input of energy, and then dispersing the pulverised particles in the matrix particles, especially by deposition thereon and/or intercalation therein. u Independent claims are included for (1) particulate composite materials (I) obtained by this method (2) composite particles (I), preferably in the form of powder, comprising inorganic or organic particles with an average particle size (d50) of 1-500 nm, preferably dispersed in homogeneous and/or finely-divided form as above on and/or in organic matrix particles with a d50 of 0.1-500 microns (3) a method (M2) for the pulverisation of particle agglomerates or aggregates (II) and/or for the production of stable nano-particles, by pulverising solid powdered (II) with a d50 of 0.1-2000 microns as in M1 to give nano-particles with a d50 of less than 500 (preferably 1-500) nm .

IPC 8 full level

B01J 2/10 (2006.01); **C09D 7/61** (2018.01)

CPC (source: EP KR US)

B01J 2/10 (2013.01 - EP KR US); **B02C 7/02** (2013.01 - KR); **B02C 13/12** (2013.01 - EP US); **C08J 3/20** (2013.01 - EP US); **C08J 3/226** (2013.01 - EP US); **C08K 9/08** (2013.01 - EP US); **C09D 5/03** (2013.01 - EP US); **C09D 5/033** (2013.01 - EP US); **C09D 7/61** (2017.12 - EP US); **C09D 7/67** (2017.12 - EP US); **C09D 7/68** (2017.12 - EP US); **C09D 7/70** (2017.12 - EP US); **B82Y 40/00** (2013.01 - KR); **Y10S 977/773** (2013.01 - EP US); **Y10S 977/783** (2013.01 - EP US)

Citation (search report)

See references of WO 2007112805A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

DE 102006025848 A1 20071004; CA 2647178 A1 20071011; CA 2647178 C 20120703; CN 101454074 A 20090610; CN 101454074 B 20111116; EP 2021114 A2 20090211; JP 2009531197 A 20090903; JP 5528102 B2 20140625; KR 100991394 B1 20101102; KR 20090005339 A 20090113; US 2010034857 A1 20100211; US 8956660 B2 20150217; WO 2007112805 A2 20071011; WO 2007112805 A3 20080228

DOCDB simple family (application)

DE 102006025848 A 20060602; CA 2647178 A 20070214; CN 200780019508 A 20070214; EP 07703457 A 20070214; EP 2007001270 W 20070214; JP 2009501877 A 20070214; KR 20087026329 A 20070214; US 29470907 A 20070214