

Title (en)
NANOPARTICLE, PERMANENT MAGNET, MOTOR, AND GENERATOR

Title (de)
NANOPARTIKEL, PERMANENTMAGNET, MOTOR UND GENERATOR

Title (fr)
NANOPARTICULE, AIMANT PERMANENT, MOTEUR ET GÉNÉRATEUR

Publication
EP 2798649 A1 20141105 (DE)

Application
EP 13704408 A 20130211

Priority
• DE 102012204083 A 20120315
• EP 2013052659 W 20130211

Abstract (en)
[origin: WO2013135446A1] The nanoparticle (5) has at least one elongated core (10), which is made of at least one first magnetizable and/or magnetic material, and a shell (20), which surrounds the core and which is made of at least one second magnetocrystalline anisotropic material. The permanent magnet (40) comprises a plurality (30) of such nanoparticles. The motor or generator (60) has at least one such permanent magnet (40).

IPC 8 full level
H01F 1/06 (2006.01); **B22F 1/17** (2022.01); **H01F 1/00** (2006.01); **H01F 1/08** (2006.01)

CPC (source: EP KR US)
B22F 1/0547 (2022.01 - EP KR US); **B22F 1/17** (2022.01 - EP KR US); **B32B 15/01** (2013.01 - EP KR US); **B32B 15/013** (2013.01 - EP KR US); **C22C 19/05** (2013.01 - EP US); **C22C 19/07** (2013.01 - EP US); **C22C 22/00** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US); **C22C 38/10** (2013.01 - EP US); **H01F 1/0054** (2013.01 - EP KR US); **H01F 1/0302** (2013.01 - KR US); **H01F 1/0579** (2013.01 - KR); **H01F 1/068** (2013.01 - EP KR US); **H01F 1/08** (2013.01 - EP KR US); **H01F 1/14741** (2013.01 - KR); **H02K 1/02** (2013.01 - KR); **C22C 33/02** (2013.01 - EP US); **H01F 1/0579** (2013.01 - EP US); **H01F 1/14741** (2013.01 - EP US)

Citation (search report)
See references of WO 2013135446A1

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)
WO 2013135446 A1 20130919; CN 104170032 A 20141126; DE 102012204083 A1 20130919; EP 2798649 A1 20141105; JP 2015518266 A 20150625; KR 20140143405 A 20141216; US 2015034856 A1 20150205

DOCDB simple family (application)
EP 2013052659 W 20130211; CN 201380014238 A 20130211; DE 102012204083 A 20120315; EP 13704408 A 20130211; JP 2014561339 A 20130211; KR 20147028802 A 20130211; US 201314383454 A 20130211