

Title (en)
SUBSTRATES COMPRISING SWITCHABLE FERROMAGNETIC NANOPARTICLES

Title (de)
SCHALTBARE FERROMAGNETISCHE NANOTEILCHEN ENTHALTENDE SUBSTRATE

Title (fr)
SUBSTRATS CONTENANT DES NANOPARTICULES FERROMAGNÉTIQUES COMMUTABLES

Publication
EP 2481061 A1 20120801 (DE)

Application
EP 10762617 A 20100917

Priority

- EP 09170811 A 20090921
- EP 2010063733 W 20100917
- EP 10762617 A 20100917

Abstract (en)
[origin: US2011070620A1] In a process for producing organic substrate particles bonded to switchable ferromagnetic nanoparticles with a mean particle diameter in the range from 10 to 1000 nm, the ferromagnetic nanoparticles used are those nanoparticles which are nonferromagnetic at first, but become ferromagnetic when the temperature is lowered, these at first nonferromagnetic nanoparticles in dispersed form are bonded to the organic substance particles, and then the nanoparticles bonded to the substrate particles are made ferromagnetic as a result of the temperature being lowered.

IPC 8 full level
A61K 41/00 (2006.01); **B22F 1/02** (2006.01); **B22F 1/054** (2022.01); **C22C 1/04** (2006.01); **H01F 1/01** (2006.01); **B22F 1/142** (2022.01)

CPC (source: EP KR US)
A61K 41/0052 (2013.01 - EP KR US); **A61P 35/00** (2017.12 - EP); **B22F 1/054** (2022.01 - EP KR US); **B22F 3/1039** (2013.01 - KR); **B82Y 30/00** (2013.01 - EP US); **C07H 23/00** (2013.01 - US); **C07K 14/00** (2013.01 - US); **C07K 14/825** (2013.01 - US); **C07K 16/00** (2013.01 - US); **C12N 11/14** (2013.01 - US); **C22C 33/0207** (2013.01 - EP KR US); **H01F 1/015** (2013.01 - EP KR US); **B22F 1/142** (2022.01 - EP KR US); **B22F 3/1039** (2013.01 - EP US); **B22F 2998/00** (2013.01 - EP KR US); **Y10T 428/2982** (2015.01 - US)

Citation (search report)
See references of WO 2011033084A1

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 SE SI SK SM TR

DOCDB simple family (publication)
US 2011070620 A1 20110324; **US 8632814 B2 20140121**; AU 2010297237 A1 20120503; AU 2010297237 B2 20150820; BR 112012006267 A2 20160531; CN 102714080 A 20121003; EP 2481061 A1 20120801; JP 2013505569 A 20130214; JP 6037831 B2 20161207; KR 20120070590 A 20120629; RU 2012115915 A 20131027; RU 2554496 C2 20150627; RU 2554496 C9 20160620; TW 201116285 A 20110516; TW I504397 B 20151021; US 2014093934 A1 20140403; WO 2011033084 A1 20110324

DOCDB simple family (application)
US 88713810 A 20100921; AU 2010297237 A 20100917; BR 112012006267 A 20100917; CN 201080047135 A 20100917; EP 10762617 A 20100917; EP 2010063733 W 20100917; JP 2012529291 A 20100917; KR 20127010341 A 20100917; RU 2012115915 A 20100917; TW 99132057 A 20100921; US 201314099176 A 20131206