

Title (en)  
METHOD AND APPARATUS FOR ORIENTING PARTICLES IN A PASTE

Title (de)  
VERFAHREN UND VORRICHTUNG ZUR AUSRICHTUNG VON PARTIKELN IN EINER PASTE

Title (fr)  
PROCÉDÉ ET APPAREIL POUR ORIENTER DES PARTICULES DANS UNE PÂTE

Publication  
**EP 4076773 A1 20221026 (DE)**

Application  
**EP 20833741 A 20201211**

Priority  
• DE 102019135308 A 20191219  
• EP 2020085676 W 20201211

Abstract (en)  
[origin: WO2021122348A1] The invention relates to a method for orienting particles in a paste (13a, 23a), comprising: providing the paste (13a, 23a), which comprises particles that can be oriented in the paste, wherein the paste comprises, in particular, carbon-based particles, preferably graphite, and/or a volatile substance, and exposing the paste (13a, 23a) to the influence of a force field such that the particles experience a force due to the interaction with the force field, by means of which the particles are oriented relative to the field lines of the force field. For cost savings and improvement to productivity, the paste (13a, 23a) is heated in order to at least temporarily reduce the viscosity of the paste (13a, 23a) and to reduce the orientation time required for orienting the particles in the force field, wherein the paste (13a, 23a) is heated before exposing and/or while exposing the paste to the influence of the force field.

IPC 8 full level  
**B05D 3/00** (2006.01); **H01M 4/133** (2010.01); **H01M 4/1393** (2010.01); **H01M 4/583** (2010.01); **H01M 4/62** (2006.01); **H01M 10/052** (2010.01)

CPC (source: EP KR US)  
**B05D 3/207** (2013.01 - KR); **H01M 4/0471** (2013.01 - US); **H01M 4/133** (2013.01 - EP KR US); **H01M 4/1393** (2013.01 - EP KR US); **H01M 4/366** (2013.01 - US); **H01M 4/583** (2013.01 - EP KR); **H01M 4/587** (2013.01 - US); **H01M 4/625** (2013.01 - EP); **H01M 10/052** (2013.01 - EP KR); **H01M 10/0525** (2013.01 - US); **B05D 3/207** (2013.01 - EP); **H01M 2004/027** (2013.01 - US); **Y02E 60/10** (2013.01 - EP KR)

Citation (search report)  
See references of WO 2021122348A1

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

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**DE 102019135308 A1 20210624**; CN 114829022 A 20220729; EP 4076773 A1 20221026; JP 2023507213 A 20230221; KR 20220127835 A 20220920; US 2022384777 A1 20221201; WO 2021122348 A1 20210624

DOCDB simple family (application)  
**DE 102019135308 A 20191219**; CN 202080088838 A 20201211; EP 2020085676 W 20201211; EP 20833741 A 20201211; JP 2022538240 A 20201211; KR 20227025013 A 20201211; US 202217806962 A 20220615