

Title (en)
DEVICES FOR ALIGNING MAGNETIC OR MAGNETIZABLE PARTICLES AND MACHINE FOR GENERATING OPTICALLY VARIABLE IMAGE ELEMENTS

Title (de)
VORRICHTUNGEN ZUM AUSRICHTEN VON MAGNETISCHEN ODER MAGNETISIERBAREN PARTIKELN SOWIE MASCHINE ZUR ERZEUGUNG OPTISCH VARIABLER BILDELEMENTE

Title (fr)
DISPOSITIFS D'ORIENTATION DE PARTICULES MAGNÉTIQUES OU MAGNÉTISABLES ET MACHINE DE PRODUCTION D'ÉLÉMENTS D'IMAGE OPTIQUEMENT VARIABLES

Publication
EP 3826852 B1 20220803 (DE)

Application
EP 19725147 A 20190517

Priority
• DE 102018212429 A 20180725
• DE 102018212427 A 20180725
• EP 2019062812 W 20190517

Abstract (en)
[origin: WO2020020507A1] The invention relates to devices for aligning magnetic or magnetizable particles, which are contained in a coating means (06) applied on one side of a substrate (02), which is in the form of a web or sheet, having a magnet cylinder (33), which is arranged in the transport path of the substrate (02) to be conveyed and, in the region of the outer circumference thereof, has a plurality of devices (34) effecting a magnetic field, or magnet devices (34) for short, wherein some or all of the magnet devices (34) comprise a magnet (44) which is rotatable by an associated motor (46). The magnet cylinder (33) is rotatably arranged in frame walls (38; 39) of a frame, and at least one transducer (63) for contactless transfer of electrical energy and/or control signals from the outside is provided in or on the rotating magnet cylinder (33), which comprises a transducer part (64) fixed to the frame and a transducer part (66) fixed to the cylinder during operation.

IPC 8 full level
B41F 11/02 (2006.01); **B41F 19/00** (2006.01)

CPC (source: EP KR RU US)
B41F 11/02 (2013.01 - EP KR RU); **B41F 13/16** (2013.01 - US); **B41F 19/005** (2013.01 - EP KR); **B41F 23/0409** (2013.01 - KR); **B41F 23/0453** (2013.01 - KR); **B41F 27/005** (2013.01 - US); **B41F 23/0409** (2013.01 - EP); **B41F 23/0453** (2013.01 - EP); **B41P 2213/91** (2013.01 - US)

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 2020020507 A1 20200130; AU 2019311143 A1 20201126; AU 2019311143 B2 20210812; BR 112020022029 A2 20210209; CA 3102942 A1 20200130; CA 3102942 C 20220405; CL 2020003210 A1 20210524; CN 112533760 A 20210319; CN 112533760 B 20220701; CO 2020014141 A2 20201130; EP 3826852 A1 20210602; EP 3826852 B1 20220803; ES 2929050 T3 20221124; JP 2021511987 A 20210513; JP 6935025 B2 20210915; KR 102361940 B1 20220214; KR 20210005645 A 20210114; MX 2020013508 A 20211123; MY 184749 A 20210420; PL 3826852 T3 20221212; PT 3826852 T 20220906; RU 2752130 C1 20210723; UA 127287 C2 20230712; US 11072164 B2 20210727; US 2021053339 A1 20210225; ZA 202006733 B 20220126

DOCDB simple family (application)
EP 2019062812 W 20190517; AU 2019311143 A 20190517; BR 112020022029 A 20190517; CA 3102942 A 20190517; CL 2020003210 A 20201210; CN 201980022257 A 20190517; CO 2020014141 A 20201112; EP 19725147 A 20190517; ES 19725147 T 20190517; JP 2020555054 A 20190517; KR 20207033198 A 20190517; MX 2020013508 A 20190517; MY PI2020005698 A 20190517; PL 19725147 T 20190517; PT 19725147 T 20190517; RU 2020132883 A 20190517; UA A202006481 A 20190517; US 201917045818 A 20190517; ZA 202006733 A 20201028