

Title (en)  
MAGNET DEVICE BASED ON THE BITTER PRINCIPLE AND USE OF A MAGNET DEVICE BASED ON THE BITTER PRINCIPLE

Title (de)  
BITTERPRINZIPBASIERTE MAGNETVORRICHTUNG UND VERWENDUNG EINER BITTERPRINZIPBASIERTEN MAGNETVORRICHTUNG

Title (fr)  
DISPOSITIF MAGNÉTIQUE À BASE DE PRINCIPE AMER ET UTILISATION D'UN DISPOSITIF MAGNÉTIQUE À BASE DE PRINCIPE AMER

Publication  
**EP 4218035 A1 20230802 (DE)**

Application  
**EP 21766121 A 20210818**

Priority  
• DE 102020124852 A 20200924  
• EP 2021025312 W 20210818

Abstract (en)  
[origin: WO2022063425A1] The present invention provides a magnet device (1) based on the Bitter principle, which is made of an assembly of a plurality of conductor layers (2) and a plurality of substrate layers (3). One substrate layer (3) supports one conductor layer (2) and is formed together with the latter as a ring (4) having a radial slit (5) extending through the entire ring (4). Three or more rings (4) form a spiral arrangement with in each case a start ring (41) and an end ring (42) and one or more middle rings (43). The start ring (41) and the end ring (42) are each in current-conductive contact, by one of their ends (51, 52) adjacent to the slit (5), with a middle ring (43) at its end (51, 52) adjacent to the slit, by means of a contact portion, and both ends (51, 52) adjacent to the slit (5) of each middle ring (43) are in current-conductive contact with two other rings (4, 41, 42, 43) by means of a contact portion. Furthermore, the rings (4, 41, 42, 43) are arranged alternately in the arrangement in that a ring (4, 41, 42, 43) with a downward facing conductor layer (2) follows a ring (4, 41, 42, 43) with an upward facing conductor layer (2).

IPC 8 full level  
**H01F 6/06** (2006.01); **H01F 7/20** (2006.01); **H02K 1/06** (2006.01)

CPC (source: EP US)  
**H01F 1/16** (2013.01 - US); **H01F 6/06** (2013.01 - EP); **H01F 7/20** (2013.01 - EP US); **H02K 1/02** (2013.01 - US)

Citation (search report)  
See references of WO 2022063425A1

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 102020124852 A1 20220324**; EP 4218035 A1 20230802; US 2023377785 A1 20231123; WO 2022063425 A1 20220331

DOCDB simple family (application)  
**DE 102020124852 A 20200924**; EP 2021025312 W 20210818; EP 21766121 A 20210818; US 202118245899 A 20210818