

Title (en)

ALLOY, MAGNET CORE AND PROCESS FOR PRODUCING A STRIP MADE OF AN ALLOY

Title (de)

LEGIERUNG, MAGNETKERN UND VERFAHREN ZUM HERSTELLEN EINES BANDES AUS EINER LEGIERUNG

Title (fr)

ALLIAGE, NOYAU MAGNÉTIQUE ET PROCÉDÉ POUR FABRIQUER UNE BANDE D'UN ALLIAGE

Publication

EP 2697399 A1 20140219 (DE)

Application

EP 12720963 A 20120405

Priority

- DE 102011002114 A 20110415
- IB 2012051682 W 20120405

Abstract (en)

[origin: WO2012140550A1] Provision is made of an alloy consisting of $\text{Fe}_{100-a-b-c-d-x-y-z}\text{Cu}_a\text{Nb}_b\text{Mc}_c\text{Td}_d\text{SixByZz}$ and up to 1 atom% impurities, where M is one or more of the elements Mo, Ta or Zr, T is one or more of the elements V, Mn, Cr, Co or Ni and Z is one or more of the elements C, P or Ge, and 0 atom% = $a < 1.5$ atom%, 0 atom% = $b < 2$ atom%, 0 atom% = $(b+c) < 2$ atom%, 0 atom% = $d < 5$ atom%, 10 atom% $< x < 18$ atom%, 5 atom% $< y < 11$ atom% and 0 atom% = $z < 2$ atom%. The alloy is in the form of a strip and has a nanocrystalline microstructure, in which at least 50% by volume of the grains have a mean size of smaller than 100 nm, a hysteresis loop with a central linear part, a remanence ratio, J_r/J_s , c, to anisotropy field strength, H_a , $< 10\%$.

IPC 8 full level

H01F 41/02 (2006.01); **C21D 1/04** (2006.01); **C21D 1/26** (2006.01); **C21D 8/12** (2006.01); **C22C 38/02** (2006.01); **C22C 38/12** (2006.01); **C22C 45/02** (2006.01); **H01F 1/153** (2006.01)

CPC (source: EP KR)

C21D 1/04 (2013.01 - EP); **C21D 1/26** (2013.01 - KR); **C21D 8/12** (2013.01 - EP KR); **C21D 8/1244** (2013.01 - EP); **C21D 8/1272** (2013.01 - EP); **C22C 38/02** (2013.01 - EP KR); **C22C 38/12** (2013.01 - EP KR); **C22C 45/02** (2013.01 - EP KR); **H01F 1/14** (2013.01 - KR); **H01F 1/15308** (2013.01 - EP); **H01F 1/15333** (2013.01 - EP); **H01F 41/0226** (2013.01 - EP); **C21D 1/26** (2013.01 - EP); **C21D 2201/03** (2013.01 - EP)

Citation (search report)

See references of WO 2012140550A1

Cited by

CN105321669A

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