

Title (en)

METHOD FOR PRODUCING PERMANENT MAGNETS ON THE BASIS OF BORON-LOW Nd-Fe-B ALLOY

Title (de)

VERFAHREN ZUR HERSTELLUNG VON DAUERMAGNETEN AUS BORARMEN Nd-Fe-B-LEGIERUNG

Title (fr)

PROCEDE DE PRODUCTION D'AIMANTS PERMANENTS A PARTIR D'ALLIAGE Nd-Fe-B A FAIBLE TENEUR EN BORE

Publication

EP 1214720 B1 20050309 (DE)

Application

EP 00962502 A 20000918

Priority

- DE 19945942 A 19990924
- EP 0009128 W 20000918

Abstract (en)

[origin: DE19945942A1] The invention relates to boron-low Nd-Fe-B permanent magnets that have high coercive forces. To this end, the concentrations have to meet the following requirements: 26.9 wt.-% \leq [SE]eff \leq 33 wt.-%; 2.185 - 0.0442 [SE]eff \leq [B]eff \leq 1.363 - 1.0136 [SE]eff [Dy + Tb + Ho] \leq 50 % [SE]eff; 0.5 wt.-% \leq [Co] \leq 5 wt.-%; 0.05 wt.-% \leq [Cu] \leq 0.3 wt.-%; 0.05 wt.-% \leq [Ga] \leq 0.35 wt.-%; 0.02 wt.-% \leq [Al] \leq 0.3 wt.-%.

IPC 1-7

H01F 1/057

IPC 8 full level

B22F 3/00 (2006.01); **B22F 3/02** (2006.01); **B22F 3/24** (2006.01); **C21D 6/00** (2006.01); **C22C 33/02** (2006.01); **C22C 38/00** (2006.01); **H01F 1/053** (2006.01); **H01F 1/057** (2006.01)

CPC (source: EP)

H01F 1/057 (2013.01); **H01F 1/0577** (2013.01)

Cited by

CN106024254A; EP3076408A1; US9892831B2; EP3179487A1; US10573438B2; EP3309801A1; US10720271B2; US11410805B2; EP3264429A1; US11315710B2; EP3076407A1; US10515747B2; EP3076406A1; EP3309803A1; US10410775B2; US10937578B2

Designated contracting state (EPC)

DE FI

DOCDB simple family (publication)

DE 19945942 A1 20010412; **DE 19945942 C2 20030717**; DE 50009741 D1 20050414; EP 1214720 A1 20020619; EP 1214720 B1 20050309; JP 2003510467 A 20030318; WO 0124203 A1 20010405

DOCDB simple family (application)

DE 19945942 A 19990924; DE 50009741 T 20000918; EP 0009128 W 20000918; EP 00962502 A 20000918; JP 2001527302 A 20000918