

Title (en)
Permanent magnets.

Title (de)
Dauermagnete.

Title (fr)
Aimants permanents.

Publication
EP 0338597 A2 19891025 (EN)

Application
EP 89111005 A 19850227

Priority

- EP 85102200 A 19850227
- JP 3692384 A 19840228
- JP 3692484 A 19840228
- JP 3692584 A 19840228
- JP 3692684 A 19840228

Abstract (en)
Permanent magnet materials, produced according to the following steps: forming an alloy powder having a mean particle size of 0.3-80 μm and composed of, in atomic percentage, 8-30 % R (provided that R is at least one of rare earth elements including Y), 2-28 % B, and the balance Fe and inevitable impurities, sintering the formed body at a temperature of 900-1200 DEG C, subjecting the sintered body to a primary heat treatment at a temperature of 750-1000 DEG C, then cooling the resultant body to a temperature of no higher than 680 DEG C at a cooling rate of 3-2000 DEG C/min, and further subjecting the thus cooled body to a secondary heat treatment at a temperature of 480-700 DEG C. Magnets having an energy product (BH)_{max} of at least 20 MGOe and a coercitive force (iH_c) of at least 10 kOe or magnets having an energy product (BH)_{max} of 40 MGOe or more can be obtained by specific compositions.

IPC 1-7
B22F 3/24; **C22C 1/04**; **H01F 1/053**; **H01F 1/08**

IPC 8 full level
B22F 3/24 (2006.01); **C22C 1/04** (2006.01); **H01F 1/057** (2006.01)

CPC (source: EP)
B22F 3/24 (2013.01); **C22C 1/0441** (2013.01); **H01F 1/0577** (2013.01)

Cited by
ES2164528A1; GB2308384A; GB2308384B

Designated contracting state (EPC)
BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0338597 A2 19891025; **EP 0338597 A3 19911113**; **EP 0338597 B1 19950111**

DOCDB simple family (application)
EP 89111005 A 19850227