

Title (en)

Iron-rare earth-boron permanent magnets by hot working.

Title (de)

Permanente Magnete aus Eisen, Metallen aus seltenen Erden und Bor durch Wärmebehandlung.

Title (fr)

Aimants permanents à partir de fer, de métaux de terres rares et de bore, par traitement thermique.

Publication

EP 0133758 A2 19850306 (EN)

Application

EP 84304731 A 19840711

Priority

US 52017083 A 19830804

Abstract (en)

High energy product, magnetically anisotropic permanent magnets are produced by hot working over-quenched or fine grained, melt-spun materials comprising iron, neodymium and/or praseodymium, and boron to produce a fully densified, fine grained body that has undergone plastic flow.

IPC 1-7

H01F 1/04

IPC 8 full level

C22C 38/00 (2006.01); **C21D 8/12** (2006.01); **H01F 1/057** (2006.01); **H01F 1/08** (2006.01)

CPC (source: EP)

H01F 1/0576 (2013.01)

Cited by

US4985085A; US5100741A; US5026419A; US4867809A; EP0334478A3; NL8701452A; EP0306981A1; US5292380A; US4842656A; EP0306599A3; US4985086A; DE3514516A1; US5098486A; USRE38042E; US5529854A; CN105312575A; US4892596A; DE3626406A1; FR2586323A1; CN103403815A; US4919732A; US6136099A; EP0231620A3; US4921551A; US5000796A; US5162063A; US5286308A; CN108428541A; US4895607A; EP0331286A3; EP0261292A3; US4881984A; US5460662A; US5536334A; US4952251A; FR2598949A1; US5055142A; US4978398A; US5125990A; EP0288637A3; US5076861A; EP0274034A3; US4983232A; EP0378698A4; US5100485A; US5538565A; US5560784A; US5597425A; US5186761A; US5565043A; USRE38021E; US10460871B2; US9111679B2; US4881985A; US4920009A; DE3839545A1; US4960469A; US5039292A; EP0253521A3; EP0239031A1; US4921553A; US4952239A; US5085715A; WO8707425A1; WO2012114192A1; EP0339767B1; EP0306928B1

Designated contracting state (EPC)

DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0133758 A2 19850306; EP 0133758 A3 19870520; EP 0133758 B1 19900919; AU 3096284 A 19850207; AU 574697 B2 19880714; BR 8403875 A 19850709; CA 1236381 A 19880510; DE 3483226 D1 19901025; ES 534879 A0 19850816; ES 8507289 A1 19850816; JP H0420242 B2 19920402; JP S60100402 A 19850604; MX 167658 B 19930401

DOCDB simple family (application)

EP 84304731 A 19840711; AU 3096284 A 19840723; BR 8403875 A 19840803; CA 451851 A 19840412; DE 3483226 T 19840711; ES 534879 A 19840803; JP 16348684 A 19840804; MX 2660784 A 19840803