

Title (en)

Sintered permanent magnet or permanent magnetic material and process for production thereof.

Title (de)

Gesinterter Permanentmagnet(-werkstoff) sowie Verfahren zu dessen Herstellung.

Title (fr)

Aimant permanent fritté ou une matière première pour cet aimant et son procédé de fabrication.

Publication

EP 0499600 B1 19941123 (DE)

Application

EP 92890030 A 19920210

Priority

AT 28791 A 19910211

Abstract (en)

[origin: EP0499600A1] The invention relates to a sintered permanent magnet (material) and a process for its production using a magnetic phase of the type $\text{Se}_2(\text{FeCO})_{14}\text{B}$ and at least one further sinter-active or particle-combining phase. In order to achieve a high saturation magnetisation, high coercive force and high energy product with good temperature stability and high Curie point of the permanent magnet (material), it is proposed according to the invention that the magnetic phase is formed of diffusion-moulded particles, which are decreased in their surface energy, having a diameter of at most 60 μm , the magnetic phase has contents of Co and heavy rare earths (HRE) in a certain ratio to one another, the HRE concentration being inhomogeneous over the particle cross-section and the particle-binding phase having a higher activity of the HRE at the diffusion temperature compared to the magnetic phase.

IPC 1-7

H01F 1/08; **C22C 38/10**

IPC 8 full level

H01F 1/06 (2006.01); **C22C 38/10** (2006.01); **H01F 1/057** (2006.01); **H01F 1/08** (2006.01)

CPC (source: EP)

H01F 1/0577 (2013.01)

Citation (examination)

- EP 0395625 A2 19901031 - BOEHLER GMBH [AT]
- Handbuch der Sonderstahlkunde, E. Houdremont, Erster Band, 1956, Springer Verlag, Seiten 124-128

Cited by

DE4331563A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0499600 A1 19920819; **EP 0499600 B1 19941123**; AT 398861 B 19950227; AT A28791 A 19940615; AT E114383 T1 19941215; CZ 281161 B6 19960717; CZ 39292 A3 19931215; DE 59200795 D1 19950105; HU 213284 B 19970428; HU 9200403 D0 19920428; HU T64108 A 19931129; PL 169844 B1 19960930; PL 293427 A1 19921019

DOCDB simple family (application)

EP 92890030 A 19920210; AT 28791 A 19910211; AT 92890030 T 19920210; CS 39292 A 19920210; DE 59200795 T 19920210; HU 9200403 A 19920210; PL 29342792 A 19920210