

Title (en)

R-T-B BASED RARE EARTH ELEMENT PERMANENT MAGNET

Title (de)

SELTENERDELEMENT-PERMANENTMAGNET AUF R-T-B-BASIS

Title (fr)

AIMANT PERMANENT A ELEMENTS DES TERRES RARES EN ALLIAGE DE R-T-B

Publication

EP 1460650 A4 20050330 (EN)

Application

EP 03748612 A 20030930

Priority

- JP 0312491 W 20030930
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- JP 2003092890 A 20030328

Abstract (en)

[origin: EP1460651A1] A method for manufacturing an R-T-B system rare earth permanent magnet that is a sintered body comprising a main phase consisting of an R2T14B phase (wherein R represents one or more rare earth elements (providing that the rare earth elements include Y), and T represents one or more transition metal elements essentially containing Fe, or Fe and Co), and a grain boundary phase containing a higher amount of R than the above main phase, wherein a product that is rich in Zr exists in the above R2T14B phase, the above manufacturing method comprising the steps of: preparing an R-T-B alloy containing as a main component the R2T14B phase and also containing Zr, and an R-T alloy containing R and T as main components, wherein the amount of R is higher than that of the above R-T-B alloy; obtaining a mixture of the R-T-B alloy powder and the R-T alloy powder; preparing a compacted body with a certain form from the above mixture; and sintering the above compacted body, wherein, in the above sintering step, the above product is generated in the above R2T14B phase. <IMAGE>

IPC 1-7

C22C 1/04; **C22C 33/02**; **H01F 1/057**; **H01F 1/053**; **H01F 1/047**

IPC 8 full level

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CPC (source: EP)

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