

Title (en)

A process for preparing R-Fe-B type sintered magnets employing the injection molding method.

Title (de)

Verfahren zur Herstellung von R-Fe-B-Typ Sintermagneten durch Einspritzgiessformen.

Title (fr)

Procédé de préparation d'aimants frittés du type R-Fe-B utilisant moulage pour injection.

Publication

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Application

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Priority

- JP 4601093 A 19930209
- JP 9719093 A 19930330
- JP 12489393 A 19930428
- JP 19172792 A 19920624
- JP 19172892 A 19920624
- JP 28942092 A 19921001
- JP 28942192 A 19921001
- JP 28942292 A 19921001

Abstract (en)

The object of the invention is to provide a manufacturing method of a complex shaped R-Fe-B type sintered anisotropic magnet improved the moldability of injection molding and preventing the reaction between R ingredients and binder and controlled the degradation of magnetic characteristics due to residual carbon and oxygen. Utilizing the R-Fe-B type alloy powder or the resin coated said alloy powder, and methylcellulose and/or agar and water, instead of the usual thermoplastic binder, it is mixed and injection molded. The molded body is dehydrated by the freeze vacuum dry method to control the reaction between R ingredients and of the R-Fe-B alloy powder and water; furthermore, by administering the de-binder treatment in the hydrogen atmosphere, and sintering it after the dehydrogen treatment, residual oxygen and carbon in the R-Fe-B sintered body is drastically reduced, improving the moldability during the injection molding to obtain a three dimensionally complex shape sintered magnet.

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IPC 8 full level

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Cited by

US6126873A; CN106938332A; EP1199124A4; EP0778594A4; EP2685472A4; EP1365422A4; CN103081038A; EP2685474A4; EP3786989A1; US6669898B2; US6861028B2; WO9962660A1; WO9734720A1; WO0012248A1; US9281107B2; US9991034B2; US9991033B2

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