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

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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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 127 (E-602)20 April 1988 & JP-A-62 252 919 (SEIKO EPSON) 4 November 1987 * abstract *	1	H01F41/02 H01F1/053
A	--- PATENT ABSTRACTS OF JAPAN vol. 13, no. 410 (E-819)11 September 1989 & JP-A-01 150 303 (MITSUBISHI STEEL) 13 June 1989 * abstract *	1	
A	--- PATENT ABSTRACTS OF JAPAN vol. 10, no. 121 (E-401)7 May 1986 & JP-A-60 254 603 (HITACHI KINZOKU) * abstract *		
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
			H01F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21 January 1994	Examiner Marti Almeda, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application I : document cited for other reasons & : member of the same patent family, corresponding document			

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