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Process for modifying magnetic materials and magnetic materials therefrom.

A process is provided for modifying the magnetic properties of an intermetallic compound comprising at least iron, or a combination of iron with at least one transition metal, and at least one rare earth element. The process comprises heating the intermetallic compound in a reaction gas containing at least one element of groups IIIA, IVA or VIA of the Periodic Table in the gaseous phase to interstitially incorporate the element or elements of these groups into the crystal lattice of the intermetallic compound. Novel magnetic materials showing easy uniaxial anisotropy, increased spontaneous magnetization and Curie temperatures are produced by the process.



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EUROPEAN SEARCH REPORT

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EP 91 31 1867

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)
X	EP-A-0 356 279 (BULL S.A.) * column 4, line 33 - line 41 * * column 5, line 16 - line 50; figure 2 * * claims 1-3 * ---	1, 12, 24	H01F1/053 H01F41/02
X	EP-A-0 190 461 (SUMITOMO SPECIAL METALS CO) * claims 1-4, 13 * * page 18, paragraph 2 * * page 27, paragraph 2 * ---	1, 11-14, 31, 32	
A	PATENT ABSTRACTS OF JAPAN vol. 4, no. 109 (E-20)(591) 6 August 1980 & JP-55 067 110 (SUWA SEIKOSHA K.K.) 21 May 1980 * abstract * ---	1, 3, 4, 6-8, 10, 11, 13, 15, 17-20, 22, 23, 28, 30	
A	US-A-4 753 675 (S. R. OVSHINSKY ET AL) * claims 1, 2 * ---	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
X	EP-A-0 344 018 (SHIN-ETSU CHEMICAL CO.) * claim 1 * ---	27, 28, 30	H01F
D, X	EP-A-0 397 264 (N. V. PHILIPS GLOEILAMPENFABRIEKEN) * column 3, line 7 - line 13 * * column 3, line 54 - column 4, line 13; claims 1, 2 * -----	28-30	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11 SEPTEMBER 1992	Examiner DECANNIERE L.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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 L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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