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EUROPEAN PATENT APPLICATION

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⑤④ **Article comprising a magnetic component consisting essentially of an alloy comprising Fe, Cr and Co.**

⑤⑦ This invention relates to magnetic Fe-Cr-Co alloys which additionally contain Cu. Disclosed are permanent magnet Fe-Cr-Co-Cu alloys which preferably contain 22–38 weight percent Cr, 3–30 weight percent Co, 0.2–5 weight percent Cu, and remainder essentially iron. Presence of limited amounts of other elements such as, e.g., ferrite stabilizing elements or rare earth elements is not precluded. The new alloys have superior magnet properties such as, typically, remanence B_r in a range of 8000–14 000 gauss, coercive force H_c in a range of 200–1500 oersted (15,920–119,400 A/m), and energy product $(BH)_{\max}$ in a range of 1.0–15.0 million gauss-oersted (79.6–1194 MG·A/m). Alloys of the invention may be processed to yield either isotropic or anisotropic magnet properties.



European Patent
Office

EUROPEAN SEARCH REPORT

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Application Number
EP 80 10 4952

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	<p>FR - A - 2 415 145 (AIMANTS UGIMAG S.A.)</p> <p>* Claims 1 and 5 *</p> <p>& EP - A - 0 003 466</p> <p>& US - A - 4 246 049</p> <p>--</p> <p>CHEMICAL ABSTRACTS, vol. 86, no. 16, April 1977 page 569, abstract 114647x Columbus, Ohio, USA</p> <p>& JP - 76 18 884 (NIPPON GAKKI CO. LTD. (14-06-1976)</p> <p>* Abstract *</p> <p>----</p>	<p>1,2,4,6,7</p> <p>1,2,7</p>	<p>H 01 F 1/04</p> <p>C 22 C 38/30</p> <p>TECHNICAL FIELDS SEARCHED (Int. Cl.)</p> <p>H 01 F 1/04</p> <p>C 22 C 38/30</p> <p>38/20</p> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X: particularly relevant</p> <p>A: technological background</p> <p>O: non-written disclosure</p> <p>P: intermediate document</p> <p>T: theory or principle underlying the invention</p> <p>E: conflicting application</p> <p>D: document cited in the application</p> <p>L: citation for other reasons</p> <p>&: member of the same patent family.</p> <p>corresponding document</p>
<p><input checked="" type="checkbox"/> The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
The Hague	15-05-1981	VITZTHUM	