

Title (en)

ADDITIVE AND APPLICATION THEREOF, AND SAMARIUM-COBALT 2: 17 TYPE MAGNET AND PREPARATION METHOD THEREOF

Title (de)

ADDITIV UND ANWENDUNG DAVON SOWIE SAMARIUM-KOBALT2:17-TYP-MAGNET UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

ADDITIF ET SON APPLICATION, ET AIMANT DE TYPE SAMARIUM-COBALT 2: 17 ET SON PROCÉDÉ DE PRÉPARATION

Publication

EP 4187558 A1 20230531 (EN)

Application

EP 22206155 A 20221108

Priority

CN 202111444382 A 20211130

Abstract (en)

Disclosed are an additive and application thereof, and a samarium-cobalt 2: 17 type magnet and a preparation method thereof. The additive includes the following components by mass percentage: 20-30% of organocopper complex, 0.5-1% of plasticizer, and an organic solvent, and the sum of the mass percentages of the components is 100%. The organocopper complex is an oil-soluble substance, the mass percentage of Cu in the organocopper complex is greater than 10%, and the organocopper complex contains a polar group and/or an alkyl chain having more than 3 C atoms. The preparation method of a Sm₂Co₁₇ permanent magnet of the present invention can greatly eliminate adverse effects brought by the phenomenon of copper depletion at grain boundaries without reducing the remanence, thereby improving the coercivity, squareness, and magnetic energy product of products.

IPC 8 full level

H01F 1/01 (2006.01); **B22F 1/10** (2022.01); **H01F 1/055** (2006.01); **H01F 7/02** (2006.01); **H01F 41/02** (2006.01)

CPC (source: CN EP)

B22F 1/10 (2022.01 - EP); **H01F 1/015** (2013.01 - CN); **H01F 1/055** (2013.01 - CN); **H01F 1/0557** (2013.01 - EP); **H01F 7/02** (2013.01 - CN); **H01F 41/02** (2013.01 - CN); **H01F 41/0273** (2013.01 - EP); **B22F 2998/10** (2013.01 - EP); **B22F 2999/00** (2013.01 - EP)

C-Set (source: EP)

1. **B22F 2998/10 + B22F 9/04 + B22F 1/09 + B22F 1/10 + B22F 3/02 + B22F 3/10 + B22F 2003/242 + B22F 2003/248**
2. **B22F 2999/00 + B22F 3/02 + B22F 2202/05**

Citation (applicant)

CN 111145973 A 20200512 - NINGBO INST MATERIALS TECH & ENG CAS

Citation (search report)

- [IA] US 2021079248 A1 20210318 - KELL ARNOLD J [CA], et al
- [XA] CN 111145973 A 20200512 - NINGBO INST MATERIALS TECH & ENG CAS
- [A] US 2020243232 A1 20200730 - TAKEZAWA MASAOKI [JP], et al
- [A] US 2020243233 A1 20200730 - ZHANG BINGJUN [CN], et al
- [A] CN 111370191 A 20200703 - HANGZHOU PERMANENT MAGNET GROUP CO LTD
- [A] CN 113593882 A 20211102 - FUJIAN CHANGTING ZORR TECH CO LTD, et al

Designated contracting state (EPC)

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Designated extension state (EPC)

BA

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