Title (en)

RARE EARTH MAGNET

Title (de)

SELTENERDMAGNET

Title (fr)

AIMANT AUX TERRES RARES

Publication

EP 3462465 A1 20190403 (EN)

Application

EP 18194093 A 20180912

Priority

- JP 2017191466 A 20170929
- JP 2018027405 A 20180219

Abstract (en)

[PROBLEM TO BE SOLVED] To provide a rare earth magnet in which 1-5 phase is stabilized even when Ce is used for at least part of the rare earth element and part of Co is replaced with Fe, and a production method thereof. [MEANS TO SOLVE THE PROBLEM] A rare earth magnet having a composition represented by the formula: (Ce x La (1-x-w) R' w) v (Co y Fe (1-y)) (100-v-z) M z , wherein R' is one or more rare earth elements other than Ce and La, M represents one or more members selected from the group consisting of a transition metal element other than Co and Fe, Ga, Al, Zn, and In, and an unavoidable impurity element, 0<x<1.0, 0<y<1.0, 0#¤w#¤0.1, 7.1#¤v#¤20.9, and 0#¤z#¤8.0, and satisfying, in the formula, the relationship of y#¥-3x+1.7, and a production method thereof.

IPC 8 full level

H01F 1/055 (2006.01)

CPC (source: CN EP KR)

C22C 1/02 (2013.01 - CN); **C22C 19/07** (2013.01 - CN); **C22C 33/04** (2013.01 - CN); **C22C 38/005** (2013.01 - CN KR); **C22C 38/10** (2013.01 - CN); **H01F 1/0551** (2013.01 - EP); **H01F 1/0557** (2013.01 - CN); **H01F 1/0558** (2013.01 - CN); **H01F 1/0575** (2013.01 - KR); **H01F 41/0253** (2013.01 - EP); H01F 1/0555 (2013.01 - EP)

Citation (applicant)

- JP H04371556 A 19921224 - SHINETSU CHEMICAL CO
- J.J. ZHANG ET AL., JMMM, vol. 324, 2012, pages 3272 - 3275

Citation (search report)

- [IY] US 4087291 A 19780502 - GAIFFI SEVI, et al
- [Y] JP H08191006 A 19960723 - TOSHIBA CORP
- [A] US 4664723 A 19870512 - ISHII JUNICHI [JP], et al
- [A] NL 7217038 A 19730618

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3462465 A1 20190403; **EP 3462465 B1 20220216**; CN 109585107 A 20190405; CN 109585107 B 20210126; KR 102077147 B1 20200213; KR 20190038299 A 20190408

DOCDB simple family (application)

EP 18194093 A 20180912; CN 201810986716 A 20180828; KR 20180091784 A 20180807