

Title (en)

Co BASED ALLOY AND PROCESS FOR PRODUCING THE SAME

Title (de)

LEGIERUNG AUF KOBALTBASIS UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

ALLIAGE A BASE DE Co ET SON PROCEDE DE FABRICATION

Publication

EP 1959024 A4 20091223 (EN)

Application

EP 06833680 A 20061122

Priority

- JP 2006323877 W 20061122
- JP 2005350431 A 20051205

Abstract (en)

[origin: EP1959024A1] A Co based alloy including at least one member selected from among 0.01 to 10% Fe, 0.01 to 30% Ni and 0.01 to 25% Mn, which Co based alloy has a metal structure wherein μ -phase of h.c.p. structure having been generated by heat-induced or stress-induced transformation is formed in a ratio of 10 vol.% or more. According to necessity, there may be added at least one member selected from among 0.01 to 10% Al, 0.01 to 35% Cr, 0.01 to 20% V, 0.01 to 15% Ti, 0.01 to 30% Mo, 0.01 to 10% Nb, 0.01 to 3% Zr, 0.01 to 30% W, 0.01 to 10% Ta, 0.01 to 5% Hf, 0.01 to 8% Si, 0.001 to 3% C, 0.001 to 3% B, 0.001 to 3% P and 0.001 to 3% misch metal. The Co based alloy exhibits high elastic deformation capability and is good in ductility and workability. The Co based alloy is used as a functional material of, for example, sensor or actuator capable of displacement control by magnetic field application.

IPC 8 full level

C22C 19/07 (2006.01); **C22F 1/00** (2006.01); **C22F 1/10** (2006.01)

CPC (source: EP US)

C22C 19/07 (2013.01 - EP US); **C22F 1/10** (2013.01 - EP US)

Citation (search report)

- [X] JP 2004269994 A 20040930 - JAPAN SCIENCE & TECH AGENCY
- [XD] JP 2004238720 A 20040826 - ISHIDA KIYOHITO, et al
- [AD] JP 2002129273 A 20020509 - ISHIDA KIYOHITO, et al
- [X] MASSALSKI: "Binary Alloy Phase Diagrams", 1990, ASM, USA, XP002554606
- See references of WO 2007066555A1

Cited by

CN110592432A; EP2055797A4

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1959024 A1 20080820; **EP 1959024 A4 20091223**; JP WO2007066555 A1 20090514; US 2008289730 A1 20081127; WO 2007066555 A1 20070614

DOCDB simple family (application)

EP 06833680 A 20061122; JP 2006323877 W 20061122; JP 2007549087 A 20061122; US 11251308 A 20080430