

Title (en)

MEDIUM-ENTROPY ALLOY HAVING EXCELLENT CRYOGENIC CHARACTERISTICS

Title (de)

LEGIERUNG MIT MITTELHOHER ENTROPIE UND HERVORRAGENDEN KRYOGENEN EIGENSCHAFTEN

Title (fr)

ALLIAGE À ENTROPIE MOYENNE AYANT D'EXCELLENTE CARACTÉRISTIQUES CRYOGÉNIQUES

Publication

**EP 3660178 A4 20200603 (EN)**

Application

**EP 17912348 A 20170828**

Priority

- KR 20170094759 A 20170726
- KR 2017009364 W 20170828

Abstract (en)

[origin: EP3660178A1] Disclosed is a medium-entropy alloy, which is further improved in cryogenic mechanical properties of an existing FCC-based high-entropy alloy and is capable of ensuring price competitiveness, the medium-entropy alloy including 6 to 15 at% of Cr, 50 to 64 at% of Fe, 13 to 25 at% of Co, 13 to 25 at% of Ni, and the remainder of inevitable impurities, wherein the medium-entropy alloy includes a metastable FCC phase, whereby deformation-induced phase transformation from an FCC phase into a BCC phase occurs upon plastic deformation of the alloy, thus manifesting excellent cryogenic mechanical properties.

IPC 8 full level

**C22C 38/52** (2006.01); **C22C 38/06** (2006.01); **C22C 38/22** (2006.01); **C22C 38/30** (2006.01); **C22C 38/38** (2006.01); **C22C 38/44** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR US)

**C22C 38/06** (2013.01 - EP); **C22C 38/08** (2013.01 - US); **C22C 38/10** (2013.01 - US); **C22C 38/105** (2013.01 - US); **C22C 38/18** (2013.01 - US); **C22C 38/22** (2013.01 - EP); **C22C 38/30** (2013.01 - EP US); **C22C 38/38** (2013.01 - EP US); **C22C 38/40** (2013.01 - US); **C22C 38/44** (2013.01 - EP); **C22C 38/52** (2013.01 - EP KR US); **C22C 38/58** (2013.01 - EP)

Citation (search report)

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