

Title (en)
PRECIPITATION HARDENED FE-NI ALLOY

Title (de)
AUSSCHIEDUNGSGEHÄRTETE FE-NI-LEGIERUNG

Title (fr)
ALLIAGE FE-NI DURCI PAR PRÉCIPITATION

Publication
EP 2806047 A1 20141126 (EN)

Application
EP 14169160 A 20140520

Priority
• JP 2013106957 A 20130521
• JP 2014039222 A 20140228

Abstract (en)
Provided is a precipitation hardened Fe-Ni alloy having the following constitutions: (1) the precipitation hardened Fe-Ni alloy including: from 0.01 to 0.08% by mass of C, from 0.02 to 1.0% by mass of Si, not more than 1.0% by mass of Mn, from 36.0 to 41.0% by mass of Ni, 14.0 or more and less than 20.0% by mass of Cr, from 0.01 to 3.0% by mass of Mo, from 0.1 to 1.0% by mass of Al, from 1.0 to 2.5% by mass of Ti, and from 2.0 to 3.5% by mass of Nb, with the balance being Fe and unavoidable impurities; (2) the precipitation hardened Fe-Ni alloy satisfying the following formulae:
$$\text{Ni} \times 6 \times \text{Nb} + 17 \text{ and } \text{Nb} / (\text{Ti} + \text{Al}) 0.8.$$

IPC 8 full level
C22C 38/42 (2006.01); **C21D 6/00** (2006.01); **C21D 6/02** (2006.01); **C22C 19/05** (2006.01); **C22C 30/00** (2006.01); **C22C 30/02** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01); **C22F 1/10** (2006.01); **C21D 1/18** (2006.01)

CPC (source: EP US)
C21D 6/004 (2013.01 - EP US); **C21D 6/02** (2013.01 - EP US); **C22C 19/056** (2013.01 - EP US); **C22C 30/00** (2013.01 - EP US); **C22C 30/02** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/46** (2013.01 - EP US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/54** (2013.01 - EP US); **C22F 1/10** (2013.01 - EP US); **C21D 1/18** (2013.01 - EP US)

Citation (applicant)
• JP S4742414 A
• JP H0397823 A 19910423 - KOBE STEEL LTD
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Citation (search report)
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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

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