

Title (en)

Two-way shape-recovery alloy

Title (de)

Zweiwege Formwiederherstellungslegierung

Title (fr)

Alliage à récupération de forme bidirectionnelle

Publication

**EP 2194154 A1 20100609 (EN)**

Application

**EP 09015086 A 20091204**

Priority

- JP 2008309262 A 20081204
- JP 2009266700 A 20091124

Abstract (en)

The present invention provides a two-way shape-recovery alloy, which contains less than 0.20 mass% of C, 13.00 to 30.00 mass% of Mn, 0.10 to 6.00 mass% of Si, 0.05 to 12.00 mass% of Cr, 0.01 to 3.00 mass% of Ni, and less than 0.100 mass% of N, with the remainder being Fe and unavoidable impurities, in which the contents of Mn, Si, Cr and Ni satisfy the following expression (1):  $600 \# \# 33 \# \# \text{Mn} + 11 \# \# \text{Si} + 28 \# \# \text{Cr} + 17 \# \# \text{Ni} \# \# 1050$

IPC 8 full level

**C22C 38/02** (2006.01); **C21D 6/00** (2006.01); **C22C 38/04** (2006.01); **C22C 38/18** (2006.01); **C22C 38/34** (2006.01); **C22C 38/38** (2006.01)

CPC (source: EP US)

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**C21D 2201/01** (2013.01 - EP US); **C21D 2211/001** (2013.01 - EP US); **C21D 2211/004** (2013.01 - EP US); **C21D 2211/005** (2013.01 - EP US);  
**C21D 2211/008** (2013.01 - EP US)

Citation (search report)

- [X] EP 0430754 A1 19910605 - UGINE ACIERS [FR]
- [X] WO 9703215 A1 19970130 - ULLAKKO KARI MARTTI [FI], et al
- [XD] JP H1036943 A 19980210 - PACIFIC METALS CO LTD, et al
- [A] EP 0489160 A1 19920610 - NISSHIN STEEL CO LTD [JP]
- [A] JP H04365837 A 19921217 - NIPPON STEEL CORP

Cited by

DE102012113053A1; WO2014146733A1; WO2020108754A1; WO2014135530A1

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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 SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

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