

Title (en)
NICKEL-BASED ALLOY WITH SILICON, ALUMINUM, AND CHROMIUM

Title (de)
NICKELBASISLEGIERUNG MIT SILIZIUM, ALUMINIUM UND CHROM

Title (fr)
ALLIAGE À BASE DE NICKEL CONTENANT DU SILICIUM, DE L'ALUMINIUM ET DU CHROME

Publication
EP 2971204 B1 20170906 (DE)

Application
EP 14709528 A 20140128

Priority
• DE 102013004365 A 20130314
• DE 2014000034 W 20140128

Abstract (en)
[origin: WO2014139490A1] The invention relates to a nickel-based alloy, consisting of (in mass%) 1.5 - 3.0% Si, 1.5 - 3.0% Al, and > 0.1 - 3.0% Cr, where Al + Si + Cr is ≥ 4.0 and ≤ 8.0 for the contents of Si, Al, and Cr in %; 0.005 - 0.20% Fe, 0.01 - 0.20% Y, and < 0.001 - 0.20% of one or more the elements Hf, Zr, La, Ce, Ti, where $Y + 0.5 \cdot \text{Hf} + \text{Zr} + 1.8 \cdot \text{Ti} + 0.6 \cdot (\text{La} + \text{Ce})$ is ≥ 0.02 and ≤ 0.30 for the contents of Y, Hf, Zr, La, Ce, and Ti in %; 0.001 - 0.10% C; 0.0005 - 0.10% N; 0.001 - 0.20% Mn; 0.0001 - 0.08 % Mg; 0.0001 - 0.010% O; max. 0.015% S; max. 0.80% Cu; Ni remainder; and the usual production-related impurities.

IPC 8 full level
C22C 19/03 (2006.01); **H01T 13/39** (2006.01)

CPC (source: EP RU US)
C22C 19/057 (2013.01 - EP RU US); **C22C 19/058** (2013.01 - EP RU US); **H01T 13/39** (2013.01 - EP RU US)

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

DOCDB simple family (publication)
DE 102013004365 A1 20140918; DE 102013004365 B4 20150924; BR 112015018192 A2 20170718; BR 112015018192 B1 20210126; CN 105008562 A 20151028; EP 2971204 A1 20160120; EP 2971204 B1 20170906; JP 2016516127 A 20160602; JP 6150910 B2 20170621; KR 20150114543 A 20151012; MX 2015010814 A 20151126; MX 358313 B 20180814; RU 2610990 C1 20170217; SI 2971204 T1 20171130; US 2016032425 A1 20160204; US 9932656 B2 20180403; WO 2014139490 A1 20140918

DOCDB simple family (application)
DE 102013004365 A 20130314; BR 112015018192 A 20140128; CN 201480008111 A 20140128; DE 2014000034 W 20140128; EP 14709528 A 20140128; JP 2015560547 A 20140128; KR 20157023731 A 20140128; MX 2015010814 A 20140128; RU 2015143912 A 20140128; SI 201430413 T 20140128; US 201414772161 A 20140128