

Title (en)

Ni-BASE SINGLE CRYSTAL SUPERALLOY

Title (de)

MONOKRISTALLINE NICKEL-BASIS-SUPERLEGIERUNG

Title (fr)

SUPERALLIAGE A CRISTAL UNIQUE A BASE DE NI

Publication

**EP 1568794 B1 20090204 (EN)**

Application

**EP 03777308 A 20031205**

Priority

- JP 0315619 W 20031205
- JP 2002355756 A 20021206

Abstract (en)

[origin: EP1568794A1] The object of the present invention is to provide an Ni-based single crystal super alloy capable of improving strength by preventing precipitation of a TCP phase at high temperatures. This object is achieved by an Ni-based single crystal super alloy having a composition comprising 5.0-7.0 wt% of Al, 4.0-10.0 wt% of Ta, 1.1-4.5 wt% of Mo, 4.0-10.0 wt% of W, 3.1-8.0 wt% of Re, 0-0.50 wt% of Hf, 2.0-5.0 wt% of Cr, 0-9.9 wt% of Co and 4.1-14.0 wt% of Ru in terms of its weight ratio, with the remainder consisting of Ni and unavoidable impurities.

IPC 8 full level

**C22C 19/05** (2006.01)

CPC (source: EP US)

**C22C 19/057** (2013.01 - EP US)

Cited by

EP1760164A1; EP2006402A4; EP1997923A4; EP1930455A4; EP1498503A4; EP1990434A1; WO2011041183A1; WO2010111200A1; US7704332B2; US8366838B2

Designated contracting state (EPC)

CH DE FR GB LI

DOCDB simple family (publication)

**EP 1568794 A1 20050831; EP 1568794 A4 20061102; EP 1568794 B1 20090204;** AU 2003289214 A1 20040630; AU 2003289214 A8 20040630; CA 2508698 A1 20040624; CA 2508698 C 20120515; CN 100357467 C 20071226; CN 1745186 A 20060308; DE 60326083 D1 20090319; JP 3814662 B2 20060830; JP WO2004053177 A1 20060413; US 2006011271 A1 20060119; WO 2004053177 A1 20040624

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