

Title (en)

LOWER COST HIGH STRENGTH SINGLE CRYSTAL SUPERALLOYS WITH REDUCED RE AND RU CONTENT

Title (de)

KOSTENGÜNSTIGE HOCHFESTE EINZELKRISTALL-SUPERLEGIERUNGEN MIT VERRINGERTEM RE- UND RU-GEHALT

Title (fr)

SUPERALLIAGES MONOCRISTALLINS HAUTEMENT RÉSISTANTS ET À TENEUR RÉDUITE EN RE ET EN RU

Publication

**EP 3141623 B1 20190529 (EN)**

Application

**EP 16181107 A 20091201**

Priority

- US 11871408 P 20081201
- EP 09252708 A 20091201

Abstract (en)

[origin: US2010135846A1] A first embodiment of a nickel based alloy consists essentially of from 3.0 to 5.2 wt % chromium, from 1.5 to 3.0 wt % molybdenum, from 6.0 to 12.5 wt % tungsten, from 5.0 to 11 wt % tantalum, from 5.5 to 6.5 wt % aluminum, from 11 to 14 wt % cobalt, from 0.001 to 1.75 wt % rhenium, from 0.2 to 0.6 wt % hafnium, up to 0.05 wt % yttrium, up to 3.0 wt % ruthenium, and the balance nickel. Another embodiment of a nickel based alloy consists essentially of from 1.0 to 3.0 wt % chromium, up to 2.5 wt % molybdenum, from 11 to 16 wt % tungsten, from 4.0 to 8.0 tantalum, from 5.7 to 6.5 wt % aluminum, from 11 to 15 wt % cobalt, from 2.0 to 4.0 wt % rhenium, from 0.2 to 0.6 wt % hafnium, up to 0.05 wt % yttrium, up to 3.0 wt % ruthenium, and the balance nickel.

IPC 8 full level

**C22C 19/05** (2006.01)

CPC (source: EP US)

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

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**US 2010135846 A1 20100603**; EP 2218798 A2 20100818; EP 2218798 A3 20111123; EP 2218798 B1 20160914; EP 3141623 A1 20170315; EP 3141623 B1 20190529

DOCDB simple family (application)

**US 62723209 A 20091130**; EP 09252708 A 20091201; EP 16181107 A 20091201