

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 A1 20170315 (EN)

Application

EP 16181107 A 20091201

Priority

- US 11871408 P 20081201
- EP 09252708 A 20091201

Abstract (en)

An 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)

Citation (search report)

- [A] EP 1571297 A2 20050907 - UNITED TECHNOLOGIES CORP [US]
- [A] EP 1057899 A2 20001206 - GEN ELECTRIC [US]
- [A] EP 1930455 A1 20080611 - NAT INST FOR MATERIALS SCIENCE [JP]
- [A] EP 1184473 A2 20020306 - TOSHIBA KK [JP], et al
- [A] EP 0362661 A1 19900411 - GEN ELECTRIC [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