

Title (en)

HIGH-TEMPERATURE NICKEL-BASED ALLOYS

Title (de)

NICKELBASIERTE HOCHTEMPERATURLEGIERUNGEN

Title (fr)

ALLIAGES À BASE DE NICKEL À HAUTE TEMPÉRATURE

Publication

EP 3565914 A1 20191113 (EN)

Application

EP 18716784 A 20180322

Priority

- US 201762479573 P 20170331
- US 2018023677 W 20180322

Abstract (en)

[origin: WO2018183066A1] The present disclosure relates to novel nickel-base alloy compositions including 7.25-7.75 wt% Cr, 0.6-1.0 wt% Mo, 8.5-9.1 wt% W, 6.0-6.4 wt% Al, 0.6-1.0 wt% Ti, 0.06-0.10 wt% C, 0.01-0.02 wt% B, 0.4-0.6 wt% Hf, and at least one of: 8.6-9.6 wt% Co and 4.0-4.8 wt% Ta; or 8.6-9.4 wt% Co, 3.8-4.4 wt% Ta, and 0.4-0.6 wt% Re, with the balance being nickel and trace impurities. Gas turbine blades or guide vanes are also provided, where the blades or vanes are formed using an alloy having such compositions.

IPC 8 full level

C22C 19/05 (2006.01)

CPC (source: EP US)

C22C 19/05 (2013.01 - EP); **C22C 19/057** (2013.01 - US); **F01D 5/28** (2013.01 - US)

Citation (search report)

See references of WO 2018183066A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2018183066 A1 20181004; EP 3565914 A1 20191113; EP 3565914 B1 20201216; US 2020102628 A1 20200402

DOCDB simple family (application)

US 2018023677 W 20180322; EP 18716784 A 20180322; US 201816499603 A 20180322