

Title (en)

Single crystal nickel-base alloy

Title (de)

Monokristalline Legierung auf Nickelbasis

Title (fr)

Alliage monocristallin à base de nickel

Publication

EP 1038983 A1 20000927 (EN)

Application

EP 00106211 A 20000322

Priority

US 27685899 A 19990326

Abstract (en)

A single crystal casting is cast from a nickel base superalloy including Cr, Co, Mo, W, Ta, Al, Ti, Re and Hf as alloying elements with C increased effective to substantially reduce formation of a solidification-driven, as-cast eutectic/secondary phase scale metallurgically bonded to the casting when the alloy is cast as a single crystal and to reduce recrystallized grains when the casting is solution heat treated. <IMAGE>

IPC 1-7

C22C 19/05; C30B 11/00; C30B 29/52

IPC 8 full level

B22D 21/00 (2006.01); **B22D 27/04** (2006.01); **C22C 19/03** (2006.01); **C22C 19/05** (2006.01); **C22F 1/00** (2006.01); **C22F 1/10** (2006.01)

CPC (source: EP US)

C22C 19/057 (2013.01 - EP US)

Citation (search report)

- [DA] EP 0763604 A1 19970319 - HOWMET CORP [US]
- [DA] US 5759301 A 19980602 - KONTER MAXIM [CH], et al

Cited by

CN114921706A; EP1201778A3; FR3100144A1; CN114364470A; FR2854165A1; GB2401113A; GB2401113B; US8876989B2; US11772155B2; WO2021044105A1; WO2009032579A1; KR100508629B1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1038983 A1 20000927; JP 2000312964 A 20001114; US 2002007877 A1 20020124; US 2004007296 A1 20040115

DOCDB simple family (application)

EP 00106211 A 20000322; JP 2000084436 A 20000324; US 27685899 A 19990326; US 61805403 A 20030711