

Title (en)
Process for producing coarse columnar grains directionally oriented along their length in an oxide dispersion hardened nickel base superalloy.

Title (de)
Verfahren zur Erzeugung grober längsgerichteter Stengelkristalle in einer oxyddispersionsgehärteten Nickelbasis-Superlegierung.

Title (fr)
Procédé de fabrication de grains basaltiques grossiers orientés longitudinalement dans un superalliage à base de nickel durci par dispersion d'oxyde.

Publication
EP 0398121 B1 19941123 (DE)

Application
EP 90108578 A 19900507

Priority
CH 181989 A 19890516

Abstract (en)
[origin: EP0398121A1] Process for producing coarse columnar crystals oriented along their length having improved stability to thermal cycling and improved ductility in the transverse direction in a workpiece of any cross-section consisting of oxide dispersion hardened nickel-based superalloy present in a fine-grained form, by annealing in the temperature range between 1000 and 1200 DEG C, cooling to room temperature and isothermal annealing to give coarse grain in the range between 1230 DEG C and 1280 DEG C. <IMAGE>

IPC 1-7
C22F 1/10

IPC 8 full level
C22C 19/05 (2006.01); **C22C 29/12** (2006.01); **C22C 32/00** (2006.01); **C22F 1/00** (2006.01); **C22F 1/10** (2006.01)

CPC (source: EP US)
C22C 32/0026 (2013.01 - EP US); **C22F 1/10** (2013.01 - EP US)

Cited by
EP0761826A3; EP0442545A1; EP0507364A1; WO9321357A1

Designated contracting state (EPC)
CH DE FR GB LI SE

DOCDB simple family (publication)
EP 0398121 A1 19901122; EP 0398121 B1 19941123; DE 59007734 D1 19950105; JP H03115548 A 19910516; US 5067986 A 19911126

DOCDB simple family (application)
EP 90108578 A 19900507; DE 59007734 T 19900507; JP 12141790 A 19900514; US 52427390 A 19900515