

Title (en)

High-melting superalloy and method of producing the same

Title (de)

Superlegierung mit hoher Schmelztemperatur und Verfahren zu ihrer Herstellung

Title (fr)

Superaliage à température de fusion élevée et procédé pour sa fabrication

Publication

EP 1026269 A1 20000809 (EN)

Application

EP 00300755 A 20000201

Priority

JP 2554099 A 19990202

Abstract (en)

A high-melting superalloy made of iridium or rhodium or both thereof as a base and containing at least nickel together with at least one a metal selected from the metal group consisting of titanium, zirconium, hafnium, vanadium, niobium, and tantalum, wherein at least both phases of an fcc phase and an L12 phase are formed in the texture, and an amount of the L12 phase from 20 to 80% by volume. <IMAGE>

IPC 1-7

C22C 19/03; **C22C 5/04**

IPC 8 full level

C22C 5/04 (2006.01); **C22C 19/03** (2006.01)

CPC (source: EP US)

C22C 5/04 (2013.01 - EP US); **C22C 19/03** (2013.01 - EP US)

Citation (search report)

- [A] EP 0732416 A1 19960918 - NAT RES INST METALS [JP]
- [A] US 3961910 A 19760608 - BALADJANIAN GREGOR, et al
- [XA] YUEFENG GU ET AL: "MICROSTRUCTURES AND COMPRESSIVE PROPERTIES OF Ir-15Nb REFRACTORY SUPERALLOY CONTAINING NICKEL", SCRIPTA MATERIALIA, vol. 39, no. 6, 11 August 1998 (1998-08-11), USA, pages 723 - 728, XP000901810
- [PXA] XIHONG YU ET AL: "DEVELOPMENT OF QUATERNARY Ir-Ta-Ni-Al REFRACTORY SUPERALLOYS", SCRIPTA MATERIALIA, vol. 41, no. 6, 20 August 1999 (1999-08-20), USA, pages 651 - 657, XP000901806
- [PXA] Y.F. GU ET AL: "PROPERTIES OF THE Ir85Nb15 TWO-PHASE REFRACTORY SUPERALLOYS WITH NICKEL ADDITIONS", METALLURGICAL AND MATERIALS TRANSACTIONS A, vol. 30A, October 1999 (1999-10-01), pages 2629 - 2639, XP000865336
- [PXA] Y.F. GU ET AL: "MICROSTRUCTURES AND COMPRESSIVE PROPERTIES OF Ni-ALLOYED Rh-15 at% Nb TWO PHASE REFRACTORY SUPERALLOYS", MATERIALS LETTERS, vol. 41, no. 2, October 1999 (1999-10-01), pages 45 - 51, XP000901898
- [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 259 (C - 1061) 21 May 1993 (1993-05-21)

Cited by

EP1983067A4; US2013216846A1; CN114107722A; CN113249608A; EP3124630A4; US10094012B2

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