Title (en)

HIGH-POWER TUNGSTEN-BASED SINTERED ALLOY

Title (de)

HOCHLEISTUNGS-GESINTERTE LEGIERUNG AUF WOLFRAMBASIS

Title (fr)

ALLIAGE BASE TUNGSTENE FRITTE A HAUTE PUISSANCE

Publication

EP 1432838 A1 20040630 (FR)

Application

EP 02783189 A 20020920

Priority

- FR 0203229 W 20020920
- FR 0112376 A 20010926

Abstract (en)

[origin: WO03027340A1] The invention concerns a material sintered under high-power sintering of tungsten-based alloys capable of containing soluble additive elements in the nickel selected among the group consisting for example of rhenium, molybdenum, tantalum, niobium, and vanadium or a mixture thereof. Said material exhibits after sintering in liquid phase at a temperature of the order of 1500 DEG C: a two-phase alpha - gamma microstructure completely densified free of porosity or with hardly any porosity whereof the average grain size (L alpha) is low and a very low contiguity (C alpha alpha) relative to the size of the tungsten crystals; and a micro-oxide dispersion without loss of ductility properties.

IPC 1-7

C22C 1/04; B22F 3/10; C22C 27/04

IPC 8 full level

C22C 1/04 (2006.01); **C22C 27/04** (2006.01); **F42B 12/74** (2006.01)

CPC (source: EP US)

C22C 1/045 (2013.01 - EP US); **C22C 27/04** (2013.01 - EP US); **F42B 12/74** (2013.01 - EP US); B22F 2998/10 (2013.01 - EP US); B22F 2999/00 (2013.01 - EP US)

C-Set (source: EP US)

1. B22F 2998/10 + B22F 3/1035
2. B22F 2999/00 + B22F 1/145 + B22F 2201/013
3. B22F 2998/10 + B22F 1/09 + B22F 1/145 + B22F 3/02

Citation (search report)

See references of WO 03027340A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03027340 A1 20030403; EP 1432838 A1 20040630; FR 2830022 A1 20030328; FR 2830022 B1 20040827; US 2005103158 A1 20050519; US 7226492 B2 20070605

DOCDB simple family (application)

FR 0203229 W 20020920; EP 02783189 A 20020920; FR 0112376 A 20010926; US 49096205 A 20050103