

Title (en)

METHOD OF PRODUCING TITANIUM COMPOSITE PARTS BY MEANS OF CASTING

Title (de)

VERFAHREN ZUR HERSTELLUNG VON TITANVERBUNDWERKSTOFFTEILEN MITTELS GIESSEN

Title (fr)

PROCEDE D OBTENTION DE PIECES DE COMPOSITE DE TITANE PAR FUSION

Publication

EP 1715070 A1 20061025 (EN)

Application

EP 03773740 A 20031125

Priority

ES 0300596 W 20031125

Abstract (en)

This method enables us to produce reinforced titanium composite parts with a low manufacturing cost and in which it is possible to control the percentage of reinforcement achieved on the basis of obtaining a titanium composite reinforcement material, formed preferably of titanium borides and/or carbides, by means of SHS techniques, and which is melted together with a consumable ingot of titanium or non-reinforced titanium alloy. The parts produced have a proportion of titanium boride and/or carbide which may range from 0% to 70% by weight.

IPC 8 full level

C22C 32/00 (2006.01); **B22D 21/00** (2006.01); **B22F 3/23** (2006.01); **C22C 1/05** (2006.01); **C22C 1/10** (2006.01); **C22C 29/06** (2006.01); **C22C 29/14** (2006.01); **C22C 47/08** (2006.01); **C22C 49/11** (2006.01)

CPC (source: EP US)

B22D 21/005 (2013.01 - EP US); **C22C 1/1036** (2013.01 - EP US); **C22C 1/1052** (2023.01 - EP); **C22C 29/067** (2013.01 - EP US); **C22C 29/14** (2013.01 - EP US); **C22C 32/0047** (2013.01 - EP US); **C22C 47/08** (2013.01 - EP US); **C22C 49/11** (2013.01 - EP US); **B22F 2998/00** (2013.01 - EP US); **C22C 1/1052** (2023.01 - US)

Citation (search report)

See references of WO 2005054525A1

Cited by

CN103710554A; CN109930029A; AU2017306581B2; WO2018023171A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1715070 A1 20061025; **EP 1715070 B1 20121107**; AU 2003282124 A1 20050624; AU 2003282124 A8 20050624; US 2007068603 A1 20070329; WO 2005054525 A1 20050616; WO 2005054525 A8 20050714

DOCDB simple family (application)

EP 03773740 A 20031125; AU 2003282124 A 20031125; ES 0300596 W 20031125; US 57998303 A 20031125