

Title (en)

METHOD FOR MANUFACTURING TITANIUM ALLOY WIRE WITH ENHANCED PROPERTIES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON TITANLEGIERUNGSDRAHT MIT VERBESSERTEN EIGENSCHAFTEN

Title (fr)

PROCEDE DE FABRICATION DE FIL EN ALLIAGE DE TITANE PRESENTANT DES PROPRIETES AMELIOREES

Publication

EP 1784269 A4 20080305 (EN)

Application

EP 05755493 A 20050525

Priority

- US 2005018492 W 20050525
- US 89588504 A 20040722

Abstract (en)

[origin: US2006016521A1] A method for producing reinforced titanium alloy wire, comprising forming a billet of titanium alloy with grains of a precipitated discontinuous reinforcement material such as TiB and/or TiC. The billet may be formed by the hot consolidation of a titanium alloy powder formed by gas atomization. The billet is then hot formed to reduce it to rod or coil form. The rod or coil is then subjected to successive cold drawing operations to form a reinforced titanium alloy wire of reduced diameter. The cold drawing includes periodic annealing operations under low oxygen conditions to relieve work hardening and to recrystallize the reinforcement material grains to reduce the size thereof.

IPC 8 full level

C22F 1/00 (2006.01)

CPC (source: EP KR US)

B21C 1/00 (2013.01 - KR); **B22F 3/10** (2013.01 - KR); **B22F 3/17** (2013.01 - KR); **B22F 5/12** (2013.01 - KR); **C22C 1/1042** (2013.01 - EP US); **B22F 2998/00** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US)

C-Set (source: EP US)

1. **B22F 2998/00 + B22F 5/12 + C22C 32/0031**
2. **B22F 2998/10 + B22F 9/08 + B22F 3/15 + B22F 3/17 + B22F 3/24**

Citation (search report)

- [A] US 5799238 A 19980825 - FISHER II GEORGE T [US], et al
- [A] US 4731115 A 19880315 - ABKOWITZ STANLEY [US], et al
- See references of WO 2006022951A2

Cited by

CN107214474A

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

US 2006016521 A1 20060126; CN 101068945 A 20071107; CN 101068945 B 20100714; EP 1784269 A2 20070516; EP 1784269 A4 20080305; EP 1784269 B1 20111214; ES 2385086 T3 20120718; JP 2008507624 A 20080313; JP 5037340 B2 20120926; KR 101184464 B1 20120921; KR 20070035042 A 20070329; WO 2006022951 A2 20060302; WO 2006022951 A3 20070802

DOCDB simple family (application)

US 89588504 A 20040722; CN 200580024312 A 20050525; EP 05755493 A 20050525; ES 05755493 T 20050525; JP 2007522498 A 20050525; KR 20077001471 A 20050525; US 2005018492 W 20050525