

Title (en)
Titanium-containing Article and its method of manufacture

Title (de)
Titan-haltiges Artikel und verfahren zur dessen Herstellung

Title (fr)
Objet contenant du titane et son procédé de fabrication

Publication
EP 2281906 A1 20110209 (EN)

Application
EP 10161351 A 20100428

Priority
US 49440509 A 20090630

Abstract (en)
An article made of an alloy, and a method for making the article, are presented. The alloy is substantially free of martensite, and comprises the following composition: at least about 75 weight percent titanium; up to about 10 weight percent of a beta stabilizing component; from about 3 weight percent to about 15 weight percent of an alpha stabilizing component; and from about 0.05 weight percent to about 5 weight percent germanium. Another embodiment is a method for fabricating an article. The method comprises providing a billet made of an alloy as described above, and stabilizing the billet microstructure to form a stabilized billet; the method may further comprise superplastically processing the stabilized billet to form a processed item.

IPC 8 full level
C22C 1/02 (2006.01); **C22C 14/00** (2006.01)

CPC (source: EP US)
C22C 1/02 (2013.01 - EP US); **C22C 14/00** (2013.01 - EP US); **C22F 1/183** (2013.01 - EP US)

Citation (applicant)

- US 6921441 B2 20050726 - TANAKA TOYONOBU [JP], et al
- A. S. RAMOS ET AL., INTERMETALLICS, vol. 12, 2004, pages 487 - 91
- D. B. BORISOV ET AL., POWDER METALLURGY AND METAL CERAMICS, vol. 46, 2007, pages 153 - 162

Citation (search report)

- [X] EP 1352979 A1 20031015 - FURUKAWA TECHNO MAT CO LTD [JP], et al
- [X] EP 0243056 A1 19871028 - IMI TITANIUM LTD [GB]
- [X] JP 2009052092 A 20090312 - MAKE KK J
- [X] US 5830288 A 19981103 - GIGLIOTTI JR MICHAEL FRANCIS X [US], et al

Cited by
CN108950303A

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)
AL BA ME RS

DOCDB simple family (publication)
US 2010326571 A1 20101230; CA 2701314 A1 20101230; EP 2281906 A1 20110209; JP 2011012340 A 20110120

DOCDB simple family (application)
US 49440509 A 20090630; CA 2701314 A 20100422; EP 10161351 A 20100428; JP 2010099401 A 20100423