

Title (en)
PARTICULATE STRENGTHENED ALLOY ARTICLES AND METHODS OF FORMING

Title (de)
TEILCHENVERSTÄRKTE LEGIERUNGSARTIKEL UND VERFAHREN ZUR HERSTELLUNG

Title (fr)
ARTICLES EN ALLIAGE DURCI PAR PARTICULES ET PROCÉDÉS DE FORMATION

Publication
EP 2886672 A3 20150812 (EN)

Application
EP 14197223 A 20141210

Priority
US 201314103895 A 20131212

Abstract (en)
[origin: EP2886672A2] An article and a method for forming the article are presented. The article includes a material comprising a metal matrix and a first population of particulate phases disposed macroscopically non-uniformly within the matrix. The particulate phases include an oxide phase. Further embodiments include articles, such as turbomachinery components, fasteners, and pipes, for example, and methods for forming the articles.

IPC 8 full level
C22C 32/00 (2006.01); **B22F 1/052** (2022.01); **B22F 3/15** (2006.01); **B22F 5/00** (2006.01); **B22F 5/10** (2006.01); **B22F 7/06** (2006.01); **C22C 1/10** (2006.01); **C22C 33/02** (2006.01)

CPC (source: EP US)
B22F 1/052 (2022.01 - EP US); **B22F 5/106** (2013.01 - EP US); **B22F 7/06** (2013.01 - EP US); **C22C 32/0005** (2013.01 - EP US); **C22C 32/001** (2013.01 - EP US); **C22C 33/02** (2013.01 - EP US); **B22F 3/15** (2013.01 - EP US); **B22F 3/17** (2013.01 - EP US); **B22F 3/20** (2013.01 - EP US); **Y10T 428/13** (2015.01 - EP US); **Y10T 428/21** (2015.01 - EP US)

Citation (search report)

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- [X] EP 2335849 A1 20110622 - GEN ELECTRIC [US]
- [XA] US 2012107603 A1 20120503 - DIDOMIZIO RICHARD [US], et al
- [A] EP 2090752 A2 20090819 - UNITED TECHNOLOGIES CORP [US]
- [XA] YOSHIFUMI INAGUMA, HISASHI SATO, AND YOSHIMI WATANABE: "Fabrication of Al-based FGM Containing TiO₂ Nano-Particles by a Centrifugal Mixed-Powder Method", MATERIALS SCIENCE FORUM, vol. 631-632, 8 October 2009 (2009-10-08), pages 441 - 447, XP002741264
- [XA] NAVNEET SINGH, HITESH UPPAL, RETAISH UPPAL AND KARAMJEET SINGH: "FGM ROTATING DISC FABRICATE BY Al/Al₂O₃", INTERNATIONAL JOURNAL OF IT, ENGINEERING AND APPLIED SCIENCES RESEARCH (IJIEASR), vol. 1, no. 3, December 2012 (2012-12-01), pages 33 - 37, XP002741265

Designated contracting state (EPC)
AL 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 RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2886672 A2 20150624; EP 2886672 A3 20150812; CN 104711441 A 20150617; US 2015167129 A1 20150618

DOCDB simple family (application)
EP 14197223 A 20141210; CN 201410768735 A 20141212; US 201314103895 A 20131212