Title (en)

ALUMINIUM-BASED GRAIN REFINER

Title (de)

AUF ALUMINIUM BASIERENDES KORNVERFEINERUNGSMITTEL

Title (fr)

AFFINEUR DE GRAIN À BASE D'ALUMINIUM

Publication

EP 2295608 A4 20120808 (EN)

Application

EP 09765942 A 20090610

Priority

- ES 2009000326 W 20090610
- ES 200801768 A 20080611

Abstract (en)

[origin: EP2295608A1] ALUMINIUM-BASED GRAIN REFINER, which contains zinc, titanium and carbon, synthesized by means of aluminium fusion and the subsequent addition of titanium, zinc and carbon. The microstructure of the master alloy is comprised by an alpha-aluminium matrix, intermetallic phase of TiAl 3 and fine particles of a ternary compound of titanium-zinc-carbide. The titanium content is at least 1% and at the most 20%, the carbon content is at least 0.01% (100 ppm) and at the most 3% and the zinc content is equal to or over 1%.

IPC 8 full level

C22C 1/02 (2006.01); **C22C 21/00** (2006.01)

CPC (source: EP ES US)

C22C 1/02 (2013.01 - EP ES US); **C22C 1/026** (2013.01 - EP US); **C22C 21/00** (2013.01 - EP ES US); **C22C 21/10** (2013.01 - EP US)

Citation (search report)

- [X] US 2005238529 A1 20051027 - LIN JEN C [US], et al
- [A] YU L ET AL: "Instability of TiC and TiAl3 compounds in Al-10Mg and Al-5Cu alloys by addition of Al-Ti-C master alloy", JOURNAL OF UNIVERSITY OF SCIENCE AND TECHNOLOGY BEIJING, MINERAL, METALLURGY, MATERIAL,, vol. 13, no. 2, 1 April 2006 (2006-04-01), pages 144 - 148, XP022934593, ISSN: 1005-8850, [retrieved on 20060401], DOI: 10.1016/S1005-8850(06)60032-7
- See also references of WO 2009153369A1

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 TR

DOCDB simple family (publication)

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EP 09765942 A 20090610; BR PI0915361 A 20090610; CN 200980122128 A 20090610; ES 200801768 A 20080611; ES 2009000326 W 20090610; US 99724309 A 20091006