

Title (en)

POWDER-METALLURGICAL METHOD FOR PRODUCING METAL FOAM

Title (de)

PULVERMETALLURGISCHES VERFAHREN ZUR HERSTELLUNG VON METALLSCHAUM

Title (fr)

PROCÉDÉ DU DOMAINE DE LA MÉTALLURGIE DES POUDRES POUR FABRIQUER UNE MOUSSE MÉTALLIQUE

Publication

EP 2427284 B1 20141231 (DE)

Application

EP 10736959 A 20100430

Priority

- DE 2010000512 W 20100430
- DE 102009020004 A 20090505

Abstract (en)

[origin: WO2010127668A2] The powder-metallurgical method according to the invention for producing metal foam, which can only be implemented with alloy-inherent components, comprises at least the steps of mixing a powder made of at least the underlying metal of the metal foam, or the underlying metals of the metal foam, with Al(1-x)Mg(x) having 10 mass percent = x = 100 mass percent as a gas-forming agent in the form of metal powder in a concentration of 4 to 50 mass percent; subsequent compacting of the metal powder mixture, then heating the pressed body at atmospheric pressure to a temperature above the melting point of the metal matrix in order to generate a liquid metal foam, and subsequent cooling of the resulting microcellular metal foam at a temperature below the solidus temperature of the metal matrix.

IPC 8 full level

B22F 3/11 (2006.01); **C22C 1/04** (2006.01); **C22C 18/04** (2006.01)

CPC (source: EP)

B22F 3/1121 (2013.01); **C22C 1/0416** (2013.01); **C22C 1/08** (2013.01); **C22C 1/11** (2023.01)

Cited by

CN107763371A

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

DOCDB simple family (publication)

DE 102009020004 A1 20101111; EP 2427284 A2 20120314; EP 2427284 B1 20141231; WO 2010127668 A2 20101111; WO 2010127668 A3 20110324

DOCDB simple family (application)

DE 102009020004 A 20090505; DE 2010000512 W 20100430; EP 10736959 A 20100430