

Title (en)  
PRODUCTION METHOD FOR ALUMINUM ALLOY-BASED COMPOSITE MATERIAL, AND ALUMINUM ALLOY-BASED COMPOSITE MATERIAL

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON VERBUNDWERKSTOFF AUF ALUMINIUMLEGIERUNGSBASIS UND VERBUNDWERKSTOFF AUF ALUMINIUMLEGIERUNGSBASIS

Title (fr)  
PROCÉDÉ DE PRODUCTION D'UN MATÉRIAU COMPOSITE À BASE D'ALLIAGE D'ALUMINIUM, ET MATÉRIAU COMPOSITE À BASE D'ALLIAGE D'ALUMINIUM

Publication  
**EP 3719151 A4 20210825 (EN)**

Application  
**EP 18884716 A 20181130**

Priority  
• JP 2017229851 A 20171130  
• JP 2018044170 W 20181130

Abstract (en)  
[origin: EP3719151A1] Provided is a method for producing an aluminum alloy-based composite material, the method enabling uniform impregnation with an aluminum alloy. The present invention provides a method for producing an aluminum alloy-based composite material containing a ceramic powder being a reinforcement material composited in an aluminum alloy, the method including: a filling step of filling the ceramic powder into a porous container formed of a porous material, and tightly closing the porous container with a lid part; a step of placing the porous container in a mold, and pouring a melt of the aluminum alloy into the mold; and an impregnation step of applying pressure to the melt in the mold, thereby impregnating the ceramic powder inside the porous container with the melt through the porous container, and also provides an aluminum alloy-based composite material.

IPC 8 full level  
**B22D 18/02** (2006.01); **B22D 19/00** (2006.01); **B22D 19/14** (2006.01); **C22C 1/10** (2006.01)

CPC (source: EP)  
**B22D 18/02** (2013.01); **B22D 19/0081** (2013.01); **B22D 19/02** (2013.01); **B22D 19/14** (2013.01); **C22C 1/0416** (2013.01); **C22C 1/1036** (2013.01); **C22C 1/1073** (2023.01)

Citation (search report)  
• [XY] JP H11170027 A 19990629 - TAIHEIYO CEMENT CORP  
• [X] US 3877884 A 19750415 - TAWARADA TAKESHI, et al  
• [Y] JP S60115361 A 19850621 - TOYOTA MOTOR CO LTD  
• [AD] JP 2008038172 A 20080221 - TAIHEIYO CEMENT CORP  
• [A] US 2004130018 A1 20040708 - SUGIYAMA TOMOHEI [JP], et al  
• See references of WO 2019107541A1

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

DOCDB simple family (publication)  
**EP 3719151 A1 20201007**; **EP 3719151 A4 20210825**; **EP 3719151 B1 20230607**; **EP 3719151 C0 20230607**; CN 111479940 A 20200731; CN 111479940 B 20210511; JP 2019099850 A 20190624; JP 6681079 B2 20200415; WO 2019107541 A1 20190606

DOCDB simple family (application)  
**EP 18884716 A 20181130**; CN 201880077344 A 20181130; JP 2017229851 A 20171130; JP 2018044170 W 20181130