

Title (en)
METHOD FOR THE LAYER-BY-LAYER ADDITIVE MANUFACTURING OF A COMPOSITE MATERIAL

Title (de)
VERFAHREN ZUR SCHICHTWEISEN ADDITIVEN HERSTELLUNG EINES VERBUNDWERKSTOFFS

Title (fr)
PROCÉDÉ DE FABRICATION ADDITIVE D'UN MATÉRIAU COMPOSITE COUCHE PAR COUCHE

Publication
EP 4031310 A1 20220727 (DE)

Application
EP 20789467 A 20200925

Priority
• DE 102019217434 A 20191112
• EP 2020076841 W 20200925

Abstract (en)
[origin: WO2021094026A1] The invention relates to a method for the layer-by-layer additive manufacturing of a composite material (V), comprising the selective irradiation of a base material (P) to produce a first, dense material phase (1) and to produce a second, porous material phase (2), wherein the production of the first material phase (1) and the production of the second material phase (2) take place alternately. The invention also relates to a correspondingly produced composite material and to a component comprising the composite material.

IPC 8 full level
B22F 3/105 (2006.01); **B29C 64/153** (2017.01); **B33Y 10/00** (2015.01); **B33Y 80/00** (2015.01); **F01D 5/12** (2006.01)

CPC (source: EP US)
B22F 5/009 (2013.01 - EP); **B22F 5/04** (2013.01 - EP); **B22F 10/20** (2021.01 - EP); **B22F 10/28** (2021.01 - EP US); **B22F 10/64** (2021.01 - EP US); **B23K 26/342** (2015.10 - US); **B29C 64/10** (2017.07 - EP); **B33Y 10/00** (2014.12 - EP US); **B33Y 40/20** (2020.01 - EP US); **B33Y 80/00** (2014.12 - EP US); **C22C 1/0433** (2013.01 - EP); **F01D 25/005** (2013.01 - EP); **F01D 25/12** (2013.01 - EP); **B22F 2003/248** (2013.01 - EP); **B22F 2207/11** (2013.01 - EP); **B22F 2207/17** (2013.01 - EP); **B22F 2301/15** (2013.01 - US); **B23K 2101/001** (2018.07 - US); **F01D 25/005** (2013.01 - US); **F05D 2230/31** (2013.01 - EP US); **F05D 2260/231** (2013.01 - EP); **Y02P 10/25** (2015.11 - EP)

Citation (search report)
See references of WO 2021094026A1

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)
DE 102019217434 A1 20210512; EP 4031310 A1 20220727; US 2022388064 A1 20221208; WO 2021094026 A1 20210520

DOCDB simple family (application)
DE 102019217434 A 20191112; EP 2020076841 W 20200925; EP 20789467 A 20200925; US 202017775280 A 20200925