

Title (en)

COMPOSITE MATERIAL PRODUCTION METHOD

Title (de)

VERBUNDSTOFFMATERIALHERSTELLUNGSVERFAHREN

Title (fr)

PROCÉDÉ DE PRODUCTION DE MATÉRIAU COMPOSITE

Publication

EP 3279394 B1 20200212 (EN)

Application

EP 16773003 A 20160330

Priority

- JP 2015073674 A 20150331
- JP 2016060464 W 20160330

Abstract (en)

[origin: EP3279394A1] There are provided a method for producing a composite material (10) from which a high-strength prepreg having CNT-derived properties fully exerted is obtained, comprising a step of immersing a carbon fiber bundle (12) including a plurality of continuous carbon fibers (12a) in a carbon-nanotubes-isolated dispersion containing a plurality of isolatedly-dispersed carbon nanotubes (14a) and applying ultrasonic vibrations at a frequency of more than 40 kHz and 180 kHz or less to form a structure comprising a plurality of carbon nanotubes (14a) on the surface of each of the plurality of carbon fibers (12a), wherein the structures are directly attached to the surface of each of the plurality of carbon fibers (12a) and form together a network structure in which the carbon nanotubes (14a) are directly connected to one another, and such a composite material (10) .

IPC 8 full level

D06M 11/74 (2006.01); **D06M 10/02** (2006.01); **D06M 101/40** (2006.01)

CPC (source: EP KR US)

D06M 10/02 (2013.01 - EP KR US); **D06M 11/74** (2013.01 - EP KR US); **D06M 2101/40** (2013.01 - EP US)

Cited by

EP3819424A4; EP3211131A4; EP3584272A4; US11370192B2

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DOCDB simple family (publication)

EP 3279394 A1 20180207; **EP 3279394 A4 20180905**; **EP 3279394 B1 20200212**; CN 107429477 A 20171201; CN 107429477 B 20210326; JP 2016194165 A 20161117; JP 6521701 B2 20190529; KR 20170131391 A 20171129; TW 201702292 A 20170116; US 2018119332 A1 20180503; WO 2016159122 A1 20161006

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