

Title (en)
NANOFIBER STRUCTURE CONSTITUTED OF POLYHYDROXYALKANOIC ACID, AND NON-WOVEN FABRIC

Title (de)
NANOFASERSTRUKTUR AUS POLYHYDROXYALKANSÄURE UND VLIESTOFF

Title (fr)
STRUCTURE DE NANOFIBRES CONSTITUÉE D'ACIDE POLYHYDROXYALCANOÏQUE ET TISSU NON TISSÉ

Publication
EP 3467176 B1 20210818 (EN)

Application
EP 16904579 A 20160607

Priority
JP 2016066904 W 20160607

Abstract (en)
[origin: EP3467176A1] The biodegradability of a nanofiber film (a nanofiber structure) produced in example 1 by microorganisms or the like when the nanofiber film is allowed to leave in soil is examined. Fig. 4 (a) shows a photograph of the nanofiber film immediately after the nanofiber film is placed in soil. Fig. 4(b) shows a photograph of the nanofiber film (a) that is allowed to leave as it for 12 days. As is obvious from the comparison between these photographs, a polyhydroxyalkanoic acid nanofiber film can be degraded in soil remarkably rapidly. Therefore, PHA can be produced from a plant-derived resource occurring in nature, can be degraded by microorganisms in soil to return to nature, and can be used as a resource material which can overcome the disadvantages of the conventional PP non-woven fabrics (e.g., the generation of CO₂ upon incineration) and which can be used permanently, thereby enabling the production of a novel non-woven fabric.

IPC 8 full level
D04H 1/435 (2012.01); **D04H 1/4382** (2012.01)

CPC (source: EP KR US)
D01F 6/62 (2013.01 - KR US); **D04H 1/435** (2013.01 - EP KR US); **D04H 1/4382** (2013.01 - KR); **D04H 1/43838** (2020.05 - EP US); **D10B 2401/021** (2013.01 - KR US); **D10B 2401/022** (2013.01 - KR US); **D10B 2401/12** (2013.01 - KR US)

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 3467176 A1 20190410; EP 3467176 A4 20191225; EP 3467176 B1 20210818; CN 109563660 A 20190402; JP 7199702 B2 20230106; JP WO2017212544 A1 20190404; KR 20190016073 A 20190215; MY 191871 A 20220718; US 2020181818 A1 20200611; WO 2017212544 A1 20171214

DOCDB simple family (application)
EP 16904579 A 20160607; CN 201680088059 A 20160607; JP 2016066904 W 20160607; JP 2018522202 A 20160607; KR 20197000244 A 20160607; MY PI2019000641 A 20160607; US 201616315985 A 20160607