

Title (en)

DEVICE AND METHOD FOR COOLING A HOT TUBULAR BODY

Title (de)

VORRICHTUNG UND VERFAHREN ZUM KÜHLEN EINES HEISSEN ROHRKÖRPERS

Title (fr)

DISPOSITIF ET PROCÉDÉ DE REFROIDISSEMENT D'UN CORPS TUBULAIRE CHAUD

Publication

**EP 4330044 A1 20240306 (EN)**

Application

**EP 22707053 A 20220214**

Priority

- EP 21315022 A 20210215
- EP 2022053547 W 20220214

Abstract (en)

[origin: WO2022171875A1] The invention relates to a device for making a tubular composite body, comprising: - a cylindrical platform, - an internal cylinder having an external diameter which is the same as the internal diameter of the cylindrical platform, - an external cylinder having an internal diameter which is the same of the external diameter of the cylindrical platform, - a 3D printer having an internal nozzle and an external nozzle and means for rotating the internal nozzle along a first circle and the external nozzle along a second circle greater than the first circle, - a movable structure to which the internal and external cylinders are removably fixed and the nozzles are fixed, and further comprising - means for moving the movable structure upwards in a direction parallel to the axis of the cylindrical platform, and - means for guiding the external and internal cylinders when they move upwards with the movable structure and the nozzles. The invention also pertains to a method for making a tubular composite body, like a tubular composite ceramic body, which can be used for example as a filter, in particular a MIEC-ceramic filter.

IPC 8 full level

**B33Y 10/00** (2015.01); **B01D 63/06** (2006.01); **B01D 67/00** (2006.01); **B01D 69/04** (2006.01); **B01D 71/02** (2006.01); **B29C 64/227** (2017.01);  
**B29C 64/241** (2017.01); **B29C 64/245** (2017.01); **B33Y 30/00** (2015.01); **C04B 35/01** (2006.01); **C04B 35/26** (2006.01); **C04B 35/80** (2006.01);  
**F26B 3/347** (2006.01); **F27B 9/12** (2006.01); **F27B 9/36** (2006.01); **F27D 9/00** (2006.01); **F27D 99/00** (2010.01); **H05B 6/70** (2006.01)

CPC (source: EP)

**B01D 63/061** (2013.01); **B01D 63/062** (2013.01); **B01D 67/00411** (2022.08); **B01D 67/00415** (2022.08); **B01D 69/04** (2013.01);  
**B01D 71/0215** (2022.08); **B01D 71/024** (2013.01); **B29C 64/241** (2017.07); **B29C 64/245** (2017.07); **B33Y 10/00** (2014.12); **B33Y 30/00** (2014.12);  
**C04B 35/01** (2013.01); **C04B 35/26** (2013.01); **C04B 35/80** (2013.01); **C04B 2235/5244** (2013.01); **C04B 2235/5252** (2013.01);  
**C04B 2235/6028** (2013.01); **C04B 2235/9607** (2013.01); **F26B 3/347** (2013.01)

Citation (search report)

See references of WO 2022171879A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022171875 A1 20220818**; EP 4330043 A1 20240306; EP 4330044 A1 20240306; EP 4330045 A1 20240306;  
WO 2022171873 A1 20220818; WO 2022171879 A1 20220818

DOCDB simple family (application)

**EP 2022053542 W 20220214**; EP 2022053537 W 20220214; EP 2022053547 W 20220214; EP 22705775 A 20220214;  
EP 22707053 A 20220214; EP 22708083 A 20220214