

Title (en)

METHOD FOR CONTINUOUS SUPERCRITICAL DRYING OF AEROGEL PARTICLES

Title (de)

VERFAHREN ZUR KONTINUIERLICHEN ÜBERKRITISCHEN TROCKNUNG VON AEROGELPARTIKELN

Title (fr)

PROCÉDÉ POUR LE SÉCHAGE SUPERCRITIQUE CONTINU DE PARTICULES D'AÉROGEL

Publication

**EP 3849697 A1 20210721 (DE)**

Application

**EP 19766026 A 20190912**

Priority

- EP 18193962 A 20180912
- EP 2019074394 W 20190912

Abstract (en)

[origin: WO2020053349A1] The present invention relates to methods for drying gel particles, in particular for producing aerogels, comprising: providing a suspension containing gel particles (P1) and a solvent (LM); filling the suspension into a column through which carbon dioxide is passed in counter-current; and separating the dried aerogel particles from the column, the suspension being filled in the head region of the column and the dried aerogel particles being separated in the lower region of the column, and wherein pressure and temperature are set in the column such that the mixture of carbon dioxide and solvent is practically supercritical or is supercritical. The aerogel particles can be discharged both via discharge containers and via a continuous expansion. The present invention also relates to aerogel particles obtainable or obtained according to such a method, and to the use of the aerogel particles according to the invention for medical and pharmaceutical applications, as additive or carrier material for additives for foods, as catalyst support, for cosmetic, hygiene, washing and cleaning applications, for the production of sensors, for heat insulation or as core material for VIPs.

IPC 8 full level

**B01J 13/00** (2006.01); **A61K 8/02** (2006.01); **C01B 33/158** (2006.01); **F16L 59/02** (2006.01); **F26B 17/14** (2006.01); **F26B 21/14** (2006.01)

CPC (source: EP KR US)

**A61K 8/0279** (2013.01 - EP KR); **B01J 3/008** (2013.01 - US); **B01J 13/0091** (2013.01 - EP KR); **C01B 33/1585** (2013.01 - EP KR); **C08J 3/075** (2013.01 - US); **C08J 9/28** (2013.01 - US); **C08L 5/04** (2013.01 - US); **F16L 59/02** (2013.01 - EP KR); **F26B 17/14** (2013.01 - EP KR US); **F26B 21/14** (2013.01 - EP KR US); **C08J 2205/026** (2013.01 - US); **C08J 2305/04** (2013.01 - US); **F16L 59/02** (2013.01 - US)

Citation (search report)

See references of WO 2020053349A1

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)

**WO 2020053349 A1 20200319**; CN 112672819 A 20210416; EP 3849697 A1 20210721; JP 2022500536 A 20220104; JP 7500080 B2 20240617; KR 20210056417 A 20210518; US 2022041817 A1 20220210

DOCDB simple family (application)

**EP 2019074394 W 20190912**; CN 201980059242 A 20190912; EP 19766026 A 20190912; JP 2021514077 A 20190912; KR 20217010724 A 20190912; US 201917275151 A 20190912