

Title (en)

PROCESS FOR THE PRODUCTION OF AN AEROGEL MATERIAL

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES AEROGELMATERIALS

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN MATÉRIAUX AÉROGEL

Publication

EP 3027558 A1 20160608 (DE)

Application

EP 14744131 A 20140728

Priority

- EP 13179185 A 20130802
- EP 2014066213 W 20140728
- EP 14744131 A 20140728

Abstract (en)

[origin: WO2015014813A1] A process for the production of an aerogel material comprises the following steps: a) preparation of a silicon oxide sol in an alcoholic solvent mixture; b) triggering of the gelation of the sol by adding base, giving a gel, and optionally ageing of the gel; c) hydrophobicization of the optionally aged gel; d) removal of the solvent mixture by subcritical drying, during which the aerogel material is formed. The silicon oxide sol formed in step a) comprises at least one acid-catalytically activatable hydrophobicization agent, where the volume fraction of the hydrophobicization agent in the sol is 5 to 60%. The hydrophobicization in step c) is induced as a result of release or addition of at least one hydrophobicization catalyst acting in combination with the hydrophobicization agent.

IPC 8 full level

C01B 33/145 (2006.01); **C01B 33/155** (2006.01); **C01B 33/158** (2006.01)

CPC (source: EP US)

C01B 33/145 (2013.01 - EP US); **C01B 33/155** (2013.01 - EP US); **C01B 33/1585** (2013.01 - EP US); **E04B 1/78** (2013.01 - US)

Citation (search report)

See references of WO 2015014813A1

Citation (examination)

- EP 2119731 A1 20091118 - NISSAN CHEMICAL IND LTD [JP]
- EP 3009480 A1 20160420 - NISSAN CHEMICAL IND LTD [JP]

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)

EP 2832690 A1 20150204; AU 2014298538 A1 20160225; AU 2014298538 B2 20180222; BR 112016002360 A2 20170801;
CN 105555710 A 20160504; CN 114408931 A 20220429; EP 3027558 A1 20160608; JP 2016530199 A 20160929; JP 6449279 B2 20190109;
KR 101813898 B1 20180102; KR 20160054462 A 20160516; US 2016258153 A1 20160908; WO 2015014813 A1 20150205

DOCDB simple family (application)

EP 13179185 A 20130802; AU 2014298538 A 20140728; BR 112016002360 A 20140728; CN 201480050734 A 20140728;
CN 202111139256 A 20140728; EP 14744131 A 20140728; EP 2014066213 W 20140728; JP 2016530481 A 20140728;
KR 20167003001 A 20140728; US 201414908601 A 20140728