Title (en)
TEMPLATE-FREE CLATHRASILS AND CLATHRASIL MEMBRANES

Title (de)
TEMPLATFREIE CLATHRASILE UND CLATHRASIL-MEMBRANEN

Title (fr)
CLATHRASILE EXEMPT DE MATRICE ET MEMBRANES DE CLATHRASIL

Publication
EP 2340231 A1 20110706 (DE)

Application
EP 09783447 A 20090928

Priority
- EP 2009062479 W 20090928
- EP 08165789 A 20081002
- EP 09783447 A 20090928

Abstract (en)
[origin: EP2172426A1] The template-free clathrasils, whose structure consists of silicon dioxide, where crystals of the clathrasil have plate-shaped morphology of layer silicates from which the clathrasil is formed is claimed. The plates have a thickness of 5-100 nm and a diameter of 80-2000 nm, where the ratio of the diameter and the thickness is 15:30. The clathrasil stands for sodalite receiving from RUB-15. Independent claims are included for: (1) a method for the production of template-free clathrasils; (2) a clathrasil membrane; (3) a method for the production of clathrasil membrane; and (4) a method for extracting gases with a kinetic gas diameter.

IPC 8 full level
C01B 37/00 (2006.01); **B01J 29/03** (2006.01); **C01B 37/02** (2006.01); **C01B 39/52** (2006.01)

CPC (source: EP US)
B01D 53/228 (2013.01 - EP US); **B01D 67/0051** (2013.01 - EP US); **B01D 69/02** (2013.01 - EP US); **B01D 71/027** (2013.01 - EP US); **B01D 71/0281** (2022.08 - EP US); **C01B 37/00** (2013.01 - EP US); **C01B 37/02** (2013.01 - EP US); **C01B 39/52** (2013.01 - EP US); B01D 53/047 (2013.01 - EP US); B01D 2253/106 (2013.01 - EP US); B01D 2256/24 (2013.01 - EP US); B01D 2257/108 (2013.01 - EP US); B01D 2257/11 (2013.01 - EP US); B01D 2257/406 (2013.01 - EP US); B01D 2257/80 (2013.01 - EP US); B01D 2323/081 (2022.08 - EP US); B01D 2323/10 (2013.01 - EP US); Y10T 428/2982 (2015.01 - US)

Designated contracting state (EPC)
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 SE SI SK SM TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2172426 A1 20100407; CN 102171145 A 20110831; CN 102171145 B 20140115; EP 2340231 A1 20110706; EP 2597069 A1 20130529; JP 2012504541 A 20120223; US 2011197762 A1 20110818; US 8574344 B2 20131105; WO 2010037690 A1 20100408

DOCDB simple family (application)
EP 08165789 A 20081002; CN 200980139283 A 20090928; EP 09783447 A 20090928; EP 12194456 A 20090928; EP 2009062479 W 20090928; JP 2011529510 A 20090928; US 200913121839 A 20090928