Title (en)

METHOD FOR SYNTHESIZING AN AFX-STRUCTURE ZEOLITE OF VERY HIGH PURITY IN THE PRESENCE OF AN ORGANIC NITROGEN-CONTAINING STRUCTURING AGENT

Title (de)

VERFAHREN ZUR SYNTHESE EINES ZEOLITHEN MIT AFX-STRUKTUR MIT SEHR HOHER REINHEIT IN GEGENWART EINES ORGANISCHEN STICKSTOFFHALTIGEN STRUKTURIERUNGSMITTELS

Title (fr)

PROCEDE DE SYNTHESE D'UNE ZEOLITHE DE TYPE STRUCTURAL AFX DE TRES HAUTE PURETE EN PRESENCE D'UN STRUCTURANT ORGANIQUE AZOTE

Publication

EP 3801893 A1 20210414 (FR)

Application

EP 19724489 A 20190516

Priority

- FR 1854389 A 20180524
- EP 2019062560 W 20190516

Abstract (en)

[origin: WO2019224088A1] The invention relates to a method for preparing an AFX-structure zeolite, said method comprising at least the following steps: i) in an aqueous medium, mixing an FAU-structure zeolite having a molar ratio SiO2 (FAU)/Al2O3 (FAU) of between 6.00 and 200 inclusive, an organic nitrogen-containing compound R, at least one source of at least one alkali and/or alkaline-earth metal M, the reaction mixture having the following molar composition: (SiO2 (FAU))/(Al2O3 (FAU)) of between 6.00 and 200, H2O/(SiO2 (FAU)) of between 1.00 and 100, R/(SiO2 (FAU)) of between 0.01 and 0.60, M2/nO/(SiO2 (FAU)) of between 0.005 and 0.45, limits included, until a homogeneous precursor gel is obtained; and ii) subjecting the precursor gel resulting from step (i) to hydrothermal treatment at a temperature of between 120°C and 220° C for a period of between 12 hours and 15 days.

IPC 8 full level

B01J 29/70 (2006.01); **C01B 39/48** (2006.01)

CPC (source: EP KR US)

B01J 20/18 (2013.01 - KR); **B01J 20/305** (2013.01 - KR); **B01J 20/3078** (2013.01 - KR); **B01J 29/70** (2013.01 - EP KR); **B01J 37/0018** (2013.01 - KR); **B01J 37/10** (2013.01 - KR); **C01B 39/026** (2013.01 - EP KR); **C01B 39/48** (2013.01 - EP KR US); **C07D 211/14** (2013.01 - US); C01P 2002/72 (2013.01 - US); C01P 2002/74 (2013.01 - US); C01P 2004/03 (2013.01 - 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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2019224088 A1 20191128; CN 112203763 A 20210108; EP 3801893 A1 20210414; FR 3081345 A1 20191129; FR 3081345 B1 20231110; JP 2021524431 A 20210913; JP 7493461 B2 20240531; KR 20210013692 A 20210205; US 11560317 B2 20230124; US 2021188651 A1 20210624

DOCDB simple family (application)

EP 2019062560 W 20190516; CN 201980034753 A 20190516; EP 19724489 A 20190516; FR 1854389 A 20180524; JP 2020565770 A 20190516; KR 20207033706 A 20190516; US 201917057364 A 20190516