

Title (en)

METHOD AND DEVICE FOR INCORPORATING A COMPOUND IN THE PORES OF A POROUS MATERIAL AND USES THEREOF

Title (de)

VERFAHREN UND VORRICHTUNG ZUR INKORPORIERUNG EINER VERBINDUNG IN DIE POREN EINES PORÖSEN MATERIALS UND DEREN ANWENDUNGEN

Title (fr)

PROCEDE ET DISPOSITIF D'INCORPORATION D'UN COMPOSE DANS LES PORES D'UN MATERIAU POREUX ET LEURS UTILISATIONS

Publication

EP 1511875 A2 20050309 (FR)

Application

EP 03757115 A 20030606

Priority

- FR 0301696 W 20030606
- FR 0207135 A 20020611

Abstract (en)

[origin: FR2840547A1] To incorporate a compound into the pores of a microporous or mesoporous material (30), obtained by a sol-gel process, it is contained within a transparent quartz chamber for vaporizing or sublimation at a temperature of at least 30degreesC and preferably at least 50degreesC up to 200degreesC. The compound is vaporized in a vacuum chamber (11), in the apparatus (10), and the porous material is frozen at a temperature at most 40degreesC before it is placed under a vacuum. For vaporizing, the chamber containing the compound and the porous material is heated by immersion in a heated oil bath, while the porous material is separated from the container base (13) by thermal insulation (14). The compound is a marker or a liquid coupled to a marker, a fluorophore, luminophore or a chromophore.

IPC 1-7

C23C 14/04; **C23C 14/12**

IPC 8 full level

G01N 31/22 (2006.01); **B01J 20/282** (2006.01); **B01J 20/286** (2006.01); **B01J 20/32** (2006.01); **B82B 3/00** (2006.01); **C23C 14/04** (2006.01); **C23C 14/12** (2006.01)

CPC (source: EP US)

B01J 20/103 (2013.01 - EP US); **B01J 20/2808** (2013.01 - EP US); **B01J 20/28083** (2013.01 - EP US); **B01J 20/28097** (2013.01 - EP US); **B01J 20/282** (2013.01 - EP US); **B01J 20/286** (2013.01 - EP US); **B01J 20/3078** (2013.01 - EP); **B01J 20/3085** (2013.01 - EP); **B01J 20/3204** (2013.01 - EP US); **B01J 20/3242** (2013.01 - EP US); **B01J 20/3246** (2013.01 - EP US); **B01J 20/3253** (2013.01 - EP US); **B01J 20/3289** (2013.01 - EP); **B01J 20/3293** (2013.01 - EP); **B01J 20/3297** (2013.01 - EP); **C23C 14/046** (2013.01 - EP US); **C23C 14/12** (2013.01 - EP US); **B01J 2220/46** (2013.01 - EP); **B01J 2220/49** (2013.01 - EP US); **B01J 2220/54** (2013.01 - EP US)

Citation (search report)

See references of WO 03104517A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2840547 A1 20031212; **FR 2840547 B1 20050304**; AU 2003251111 A1 20031222; AU 2003251111 A8 20031222; CN 1668775 A 20050914; EP 1511875 A2 20050309; JP 2005529320 A 20050929; US 2006051826 A1 20060309; WO 03104517 A2 20031218; WO 03104517 A3 20040401

DOCDB simple family (application)

FR 0207135 A 20020611; AU 2003251111 A 20030606; CN 03816585 A 20030606; EP 03757115 A 20030606; FR 0301696 W 20030606; JP 2004511573 A 20030606; US 51771904 A 20041210