

Title (en)

ORGANOMETALLIC FRAMEWORK MATERIALS OF TRANSITION GROUP III

Title (de)

METALLORGANISCHE GERÜSTMATERIALIEN DER III. NEBENGRUPPE

Title (fr)

MATERIAUX STRUCTURELS METALLO-ORGANIQUES DU SOUS-GROUPE III

Publication

**EP 1954395 A1 20080813 (DE)**

Application

**EP 06819465 A 20061114**

Priority

- EP 2006068446 W 20061114
- DE 102005054636 A 20051116

Abstract (en)

[origin: CA2630035A1] The present invention relates to processes for preparing a porous organometallic framework material, comprising the step of reacting at least one metal compound with at least one at least bidentate organic compound which can bond coordinatively to the metal, in the presence of a non-aqueous organic solvent, the metal being ScIII, YIII or a trivalent lanthanide, and the organic compound having at least two atoms each selected independently from the group consisting of oxygen, sulphur and nitrogen, and via which the organic compound can bond coordinatively to the metal, the reaction taking place with stirring and at a pressure of not more than 2 bar (absolute). The invention further relates to porous organometallic framework materials which have been prepared by this process, and also to their use.

IPC 8 full level

**B01J 31/16** (2006.01); **B01J 23/60** (2006.01); **B01J 31/04** (2006.01); **B01J 35/00** (2006.01); **C07F 19/00** (2006.01)

CPC (source: EP KR US)

**B01J 23/10** (2013.01 - EP US); **B01J 31/04** (2013.01 - KR); **B01J 31/16** (2013.01 - KR); **B01J 31/1691** (2013.01 - EP US);  
**B01J 31/223** (2013.01 - EP US); **B01J 31/226** (2013.01 - EP US); **B01J 35/00** (2013.01 - KR); **B01J 35/30** (2024.01 - EP US);  
**C01B 3/0015** (2013.01 - EP US); **C01B 3/0026** (2013.01 - EP US); **C07C 51/418** (2013.01 - EP US); **C07F 5/003** (2013.01 - EP US);  
**C07F 19/00** (2013.01 - KR); **B01J 2531/35** (2013.01 - EP US); **B01J 2531/36** (2013.01 - EP US); **B01J 2531/38** (2013.01 - EP US);  
**Y02C 20/20** (2013.01 - EP US); **Y02E 60/32** (2013.01 - EP US)

Citation (search report)

See references of WO 2007057391A1

Citation (examination)

- PITOIS C ET AL: "Lanthanide-cored fluorinated dendrimer complexes: synthesis and luminescence characterization", JOURNAL OF LUMINESCENCE, ELSEVIER BV NORTH-HOLLAND, NL, vol. 111, no. 4, 1 March 2005 (2005-03-01), pages 265 - 283, XP027659748, ISSN: 0022-2313, [retrieved on 20050301]
- WANG J ET AL: "Synthesis, reactivity and structural characterization of linked bis(amidinate) ytterbium complexes", JOURNAL OF MOLECULAR STRUCTURE, ELSEVIER, AMSTERDAM, NL, vol. 743, no. 1-3, 31 May 2005 (2005-05-31), pages 229 - 235, XP027660035, ISSN: 0022-2860, [retrieved on 20050531]
- BARRERA A ET AL: "Radial distribution function studies of Al2O3-La2O3 binary oxides prepared by sol-gel", CATALYSIS COMMUNICATIONS, ELSEVIER SCIENCE, AMSTERDAM, NL, vol. 5, no. 10, 1 October 2004 (2004-10-01), pages 569 - 574, XP027080690, ISSN: 1566-7367, [retrieved on 20040915], DOI: 10.1016/J.CATCOM.2004.07.007

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**DE 102005054636 A1 20070524**; CA 2630035 A1 20070524; CN 101326008 A 20081217; EP 1954395 A1 20080813;  
JP 2009515930 A 20090416; KR 20080081273 A 20080909; US 2008300387 A1 20081204; WO 2007057391 A1 20070524

DOCDB simple family (application)

**DE 102005054636 A 20051116**; CA 2630035 A 20061114; CN 200680046676 A 20061114; EP 06819465 A 20061114;  
EP 2006068446 W 20061114; JP 2008540602 A 20061114; KR 20087014292 A 20080613; US 9396106 A 20061114