

Title (en)
PROCESS FOR PREPARING MATERIALS BY GRAFTING HALOGENATED PHOSPHORUS GROUPS ONTO AN INORGANIC SURFACE

Title (de)
VERFAHREN FÜR DIE HERSTELLUNG VON MATERIALIEN DURCH EINPFLANZEN VON HALOGENISIERTEN PHOSPHORGRUPPEN AUF EINE ANORGANISCHE OBERFLÄCHE

Title (fr)
PROCÉDÉ DE PRÉPARATION DE MATÉRIAUX PAR GREFFAGE DE GROUPEMENTS PHOSPHORES HALOGÈNES SUR UNE SURFACE INORGANIQUE

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EP 2049257 A1 20090422 (FR)

Application
EP 07823262 A 20070706

Priority
• FR 2007001167 W 20070706
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Abstract (en)
[origin: FR2904241A1] Preparing an organic-inorganic hybrid material comprises heat treatment of an inorganic substrate at 20-300[deg]C at an absolute gas pressure of 0.01 Pa to 0.2 MPa for 1-20 hours, contacting the pretreated substrate with an anhydrous organic solution (which has an organophosphorous acid halide group) to form a covalent bond between the organic-inorganic phases by a phosphorus atom, filtering and washing of the obtained solid and heat treatment of the obtained solid 25-500[deg]C at an absolute pressure of air 0.01 Pa to 0.2 MPa. Preparing an organic-inorganic hybrid material of formula M-O-P-R comprises heat treatment of an inorganic substrate at 20-300[deg]C at an absolute gas pressure of 0.01 Pa to 0.2 MPa for 1-20 hours, contacting the pretreated substrate with an anhydrous organic solution to form a covalent bond between the organic-inorganic phases, filtering and washing the obtained solid and heat treatment of the obtained solid at 25-500[deg]C under an absolute air pressure of 0.01 Pa to 0.2 MPa. The process provides phosphorus atom to bridge the surface of an inorganic substrate having an element (M) with organic groups (R) by covalent bond in which a precursor or the organic groups has at least an organophosphorous acid halide group of formula R xP(O)X y. R : organic group like alkyl, aryl or aryl-alkyl, preferably carboxylic acid, amine, sulfonic acid, thiol, polysulfide or its derivatives; M : element, preferably elements of group IB-VIIB, VIII, IIIA-VA, lanthanide or actinides of periodic classification.; P : phosphorous; O : oxygen; x : 1 or 2; y : 3-x; and X : halide, preferably Cl.

IPC 8 full level
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Citation (search report)
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