

Title (en)
METHOD FOR PRODUCING AMORPHOUS METAL ORGANIC MACROMOLECULES, MATERIAL OBTAINED BY SAID METHOD, AND USE THEREOF

Title (de)
VERFAHREN ZUR HERSTELLUNG VON AMORPHEN METALLOORGANISCHEN MAKROMOLEKÜLEN, MIT DIESEM VERFAHREN ERHALTENES MATERIAL UND SEINE VERWENDUNG

Title (fr)
PROCÉDÉ DE FABRICATION DE MACROMOLÉCULES MÉTALLO-ORGANIQUES AMORPHES, MATÉRIAU OBTENU AVEC CE PROCÉDÉ ET SON UTILISATION

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Abstract (en)
[origin: WO2009019234A1] The present invention relates to a method for producing a material suitable for producing ceramic oxide coatings, comprising the following steps: (a) preparing at least one first compound of a metal cation, selected from the cations of manganese, cerium, gadolinium, and/or yttrium, having at least one organic anion or an anion comprising an organic part, (b) dissolving or suspending the compound(s) prepared according to (a) in a protic, hydrolytically active solvent, such that the compound(s) is (are) present in a completely dissolved or colloiddally dispersed form, (c) heating the suspension or solution thus formed in a closed vessel to at least 80 °C, and (d) expanding and cooling the suspension or solution thus formed. Using said method, amorphous macromolecules are obtained, comprising molecular or polycyclic complexes having a primary particle size of <1 nm and an agglomerate size of 5 to 120 nm, preferably 10 to 80 nm. Applied to a substrate as a solution or suspension, said particles yield a coating material by means of which dense oxide coatings can be obtained even at relatively low temperatures.

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