

Title (en)
MODIFIED ZNO NANOPARTICLES

Title (de)
MODIFIZIERTE ZNO-NANOPARTIKEL

Title (fr)
NANOPARTICULES DE ZNO MODIFIÉES

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Abstract (en)

[origin: WO2010149646A1] The invention relates to a method for producing modified zinc oxide nanoparticles, characterized in that the zinc oxide nanoparticles, which are dissolved in a solvent, are reacted in the presence of ammonia or amines with a tetraalkyl-orthosilicate, and optionally with an organosilane, under the proviso that the reaction takes place at a content of less than 5% by weight water, relative to the total quantity of solvent and water. Said production method can be used to obtain modified zinc oxide nanoparticles, which comprise Si-O-alkyl groups and can be solved in organic solvents. In addition, liquid or solid formulations containing modified ZnO nanoparticles can be obtained. Inanimate organic materials, such as plastics or paints, containing modified ZnO nanoparticles may also be obtained. The invention further relates to a method for stabilizing inanimate organic materials against the effects of light, radicals or heat, wherein modified ZnO nanoparticles, which optionally comprise UV absorbers and/or stabilizers as further additives, are added to the materials.

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