

Title (en)  
ORGANICALLY FUNCTIONALIZED POLYSILOXANE NANOPARTICLES, METHOD FOR THE PRODUCTION THEREOF, AND USE THEREOF

Title (de)  
ORGANISCH FUNKTIONALISIERTE POLYSILOXAN-NANOPARTIKEL, VERFAHREN ZU IHRER HERSTELLUNG UND IHRE VERWENDUNG

Title (fr)  
NANOPARTICULES DE POLYSILOXANE À FONCTIONNALITÉ ORGANIQUE, LEUR PROCÉDÉ DE FABRICATION ET LEUR UTILISATION

Publication  
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Application  
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Abstract (en)  
[origin: WO2010142769A1] The present invention relates to polysiloxane nanoparticles having the following properties: an average particle size d<sub>50</sub> (measured using REM recordings) in the range of 10-200 nm, a specific surface area A<sub>o</sub> of at least 50 m<sup>2</sup>/g, a pore volume of at least 0.2 cm<sup>3</sup>/g, an average pore volume d<sub>50</sub> of at least 0.8 nm, wherein the particles have groups that contain carbon, which groups are bonded to the silicon at least partially in the form of unsubstituted or substituted alkyl, alkenyl, aryl, arylalkyl, or alkylaryl groups. Said polysiloxane nanoparticles can be produced, among other things, in that either a silazane or a mixture of different silazanes having one or more -[Si(R)(R<sub>1</sub>)-NR<sub>2</sub>]- units and/or a silane or a mixture of different silanes having the formula R<sup>a</sup>SiX<sub>4-a</sub> or an oligosiloxane obtainable by means of hydrolytic condensation of said silane/said silanes or a mixture of such oligosiloxanes are provided in a solvent and brought in contact with a strongly alkaline medium in such a way that the pH is not below 13 after the addition thereof. In specific embodiments, synthesis in acid is also successful.

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