

ABSTRACT

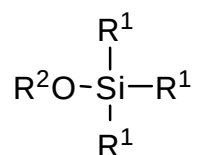
METHOD FOR PRODUCING SURFACE-MODIFIED SILICA
NANOPARTICLES, AND SURFACE-MODIFIED SILICA
NANOPARTICLES

[Problem]

To provide a dispersion containing surface-modified silica nanoparticles highly dispersed in an organic dispersion medium and also having high transparency and storage stability.

[Solution]

Disclosed is a method for producing surface-modified silica nanoparticles comprising: preparing a first silica nanoparticle dispersion containing silica nanoparticles and an aqueous dispersion medium; replacing the aqueous dispersion medium in the first silica nanoparticle dispersion with an organic dispersion medium comprising at least one selected from cyclic esters or cyclic amides, to obtain a second silica nanoparticle dispersion; and mixing the second silica nanoparticle dispersion with a silane coupling agent represented by the formula (1):



(each R^1 is independently a hydrocarbon group of C_1 to C_{20} and R^2 is a hydrocarbon group of C_1 to C_3), to modify the surface of the silica nanoparticles.

(NO SUITABLE FIGURE)