

ABSTRACT

A novel nodular silica sol adapted to use as a polishing material for polishing, for instance, CMP.

The nodular silica sol has a ratio of an average particle diameter (r) measured by the dynamic light scattering method versus a particle diameter (r') converted to that of an equivalent sphere computed from an average specific surface area measured by means of the nitrogen absorption method (r/r' , referred to as "association ratio") in a range from 1.2 to 10, the particle diameter (r') in a range from 5 to 200 nm, and the specific surface area in a range from 13 to 550 m²/g. The nodular silica particles have heterogeneous forms, and contents of Ca and Mg contained in the nodular silica particles are below 1000 ppm against SiO₂ respectively.