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(54) Title: USE OF MULTIFUNCTIONAL SI-BASED OLIGOMER/POLYMER FOR THE SURFACE MODIFICATION OF NANOPOROUS SILICA FILMS

(57) Abstract

A process for treating a silica film on a substrate, which includes reacting a suitable silica film with an effective amount of a surface modification agent, wherein the silica film is present on a substrate. The reaction is conducted under suitable conditions and for a period of time sufficient for the surface modification agent to form a hydrophobic coating on the film. The surface modification agent includes at least one type of oligomer or polymer reactive with silanols on the silica film. Dielectric films and integrated circuits including such films are also disclosed.