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(71) Applicant (for all designated States except US): **DOW CORNING CORPORATION** [US/US]; 2200 West Salzburg Road, Midland, MI 48686-0994 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BRADFORD, Michael, L.** [US/US]; 3923 East Patrick Street, Midland, MI 48642 (US). **MOYER, Eric, Scott** [US/US]; 4500 Andre Street, Midland, MI 48642 (US). **TAKEUCHI, Kasumi** [JP/US]; 6120 Summerset Drive, Midland, MI

48640 (US). **WANG, Sheng** [CN/US]; 1505 Settlers Passage, Midland, MI 48642 (US). **YEAKLE, Craig** [US/US]; 181 Yendor, Midland, MI 48640 (US).

(74) Agent: **BRADY, Sharon, K.**; Dow Corning Corporation, IP Department - CO1232, 2200 West Salzburg Road, Midland, MI 48686-0994 (US).

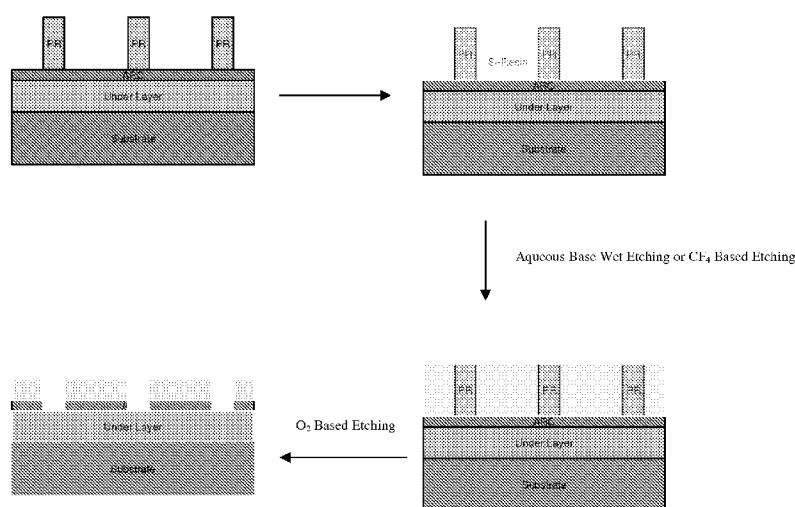
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(54) Title: METHOD AND MATERIALS FOR REVERSE PATTERNING

Figure 1



(57) Abstract: A silsesquioxane resin is applied on top of the patterned photo-resist and cured to produce a cured silsesquioxane resin on top of the pattern surface. Subsequently, an aqueous base stripper or a reactive ion etch recipe containing CF_4 is used to "etch back" the silicon resin to the top of the photoresist material, exposing the entire top surface of the photoresist. Then, a second reactive ion etch recipe containing O_2 to etch away the photoresist. The result is a silicon resin film with via holes with the size and shape of the post that were patterned into the photoresist. Optionally, the new pattern can be transferred into the underlying layer(s).



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