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(71) Applicant (for all designated States except US): **APPLIED MATERIALS, INC.** [US/US]; 3050 Bowers Avenue, Santa Clara, CA 95054 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **YOKOTA, Yoshitaka** [JP/US]; 3602 Ivalynn Circle, San Jose, CA 95132 (US). **OLSEN, Christopher, S.** [US/US]; 38642 Moore Drive, Fremont, CA 94536 (US). **TJANDRA, Agus, Sofian** [ID/US]; 1842 Sheri Ann Circle, San Jose, CA 95131 (US). **CHO, Yonah** [US/US]; 880 E. Fremont Avenue #427, Sunnyvale, CA 94087 (US). **ROGERS,**

Matthew S. [US/US]; 444 Saratoga Avenue, Apt. 3B, Santa Clara, CA 95050 (US).

(74) Agent: **TABOADA, Alan**; Moser IP Law Group, 1030 Broad Street, Suite 203, Shrewsbury, NJ 07702 (US).

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(54) Title: METHODS OF FORMING OXIDE LAYERS ON SUBSTRATES

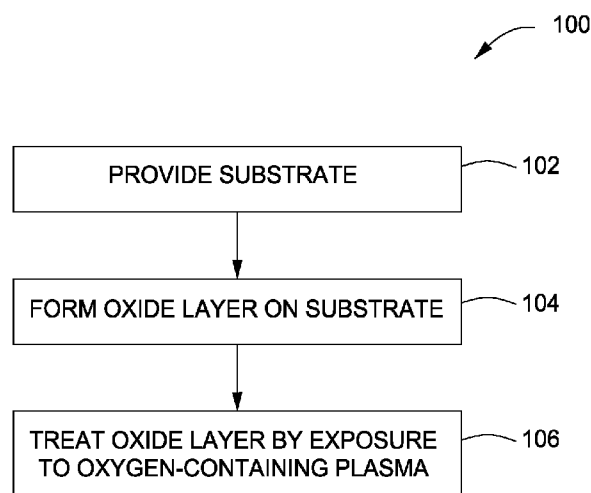


FIG. 1

(57) Abstract: Methods for processing substrates are provided herein. In some embodiments, a method for processing a substrate includes providing a substrate having an oxide layer disposed thereon, the oxide layer including one or more defects; and exposing the oxide layer to a plasma formed from a process gas comprising an oxygen-containing gas to repair the one or more defects. In some embodiments, the oxide layer may be formed on the substrate. In some embodiments, forming the oxide layer further comprises depositing the oxide layer atop the substrate. In some embodiments, forming the oxide layer further comprises thermally oxidizing the surface of the substrate to form the oxide layer. In some embodiments, a processing temperature is maintained at about 700 degrees Celsius or below during the thermal oxidation of the surface.

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