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

(72) Inventors: **LI, Wenguang**; 3050 Bowers Avenue, Santa
Clara, CA 95054 (US). **PAPANU, James S.**; 351 Holly Drive,
San Rafael, CA 94903 (US).

(74) Agent: **BERNADICOU, Michael A.** et al.; SCHWABE,
WILLIAMSON & WYATT, P.C., 1211 SW 5th Avenue,
Suite 1900, Portland, OR 97204 (US).

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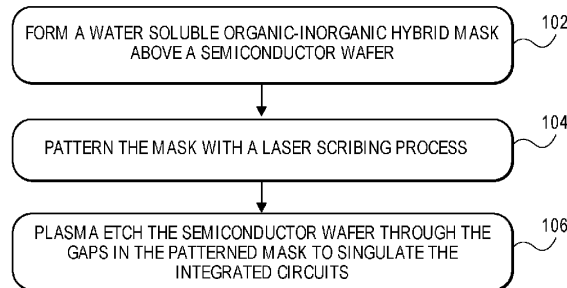


FIG. 1

(57) Abstract: Water soluble organic-inorganic hybrid masks and mask formulations, and methods of dicing semiconductor wafers are described. In an example, a mask for a wafer singulation process includes a water-soluble matrix based on a solid component and water. A p-block metal compound, an s-block metal compound, or a transition metal compound is dissolved throughout the water-soluble matrix.

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