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- (54) **Title:** ETCH MASK FOR HYBRID LASER SCRIBING AND PLASMA ETCH WAFER SINGULATION PROCESS

FLOWCHART 100

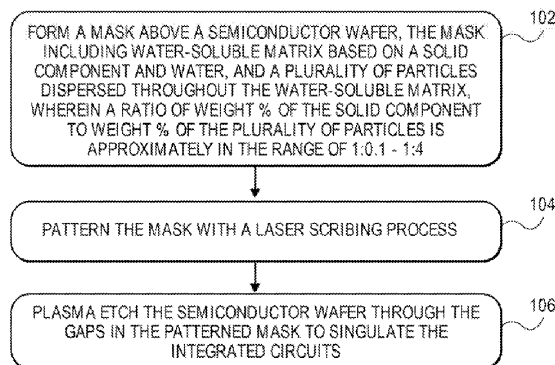


FIG. 1

- (57) **Abstract:** Etch masks and methods of dicing semiconductor wafers are described. In an example, an etch mask for a wafer singulation process includes a water-soluble matrix based on a solid component and water. The etch mask also includes a plurality of particles dispersed throughout the water-soluble matrix. The plurality of particles has an average diameter approximately in the range of 5-100 nanometers. A ratio of weight % of the solid component to weight % of the plurality of particles is approximately in the range of 1:0.1 - 1:4.

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