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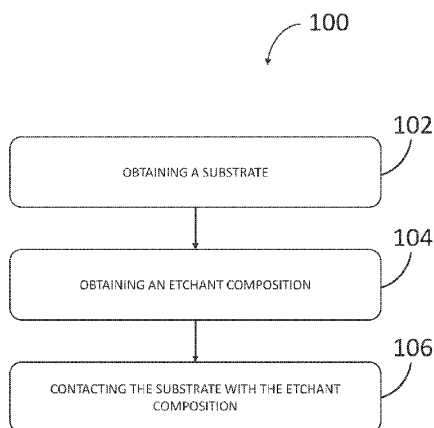
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(57) Abstract: Etchant compositions for selective etching of silicon germanium in the presence of silicon oxide and/or silicon nitride are provided. The etchant compositions may achieve passivation of at least one of silicon oxide, silicon nitride, or any combination thereof, while selectively etching silicon germanium, in a single step by applying the etchant composition to a substrate. The etchant compositions may comprise a halide compound; an oxidizing agent; a glycol solvent; 0.1% to 20% by weight of a surfactant based on a total weight of the etchant composition; and 0.01% to 10% by weight of an inhibitor based on the total weight of the etchant composition.

FIG. 1

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