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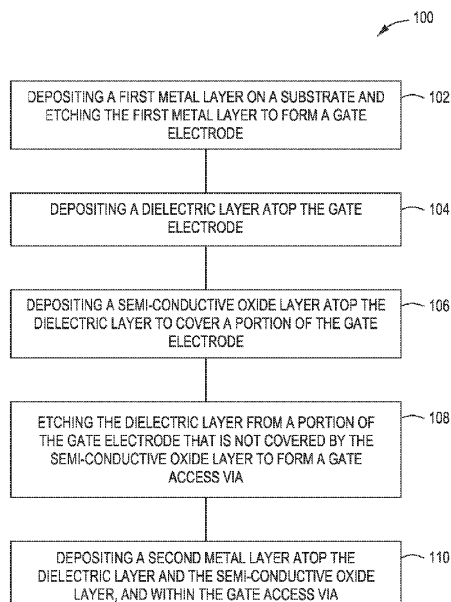


FIG. 1

(57) Abstract: Methods and apparatus for processing a substrate are provided herein. For example, a method can include depositing a first metal layer on a substrate and etching the first metal layer to form a gate electrode, depositing a dielectric layer atop the gate electrode, depositing a semi-conductive oxide layer atop the dielectric layer to cover a portion of the gate electrode, etching the dielectric layer from a portion of the gate electrode that is not covered by the semi-conductive oxide layer to form a gate access via, and depositing a second metal layer atop the dielectric layer and the semi-conductive oxide layer, and within the gate access via.

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