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(54) Title: LARGE AREA GAPFILL USING VOLUMETRIC EXPANSION

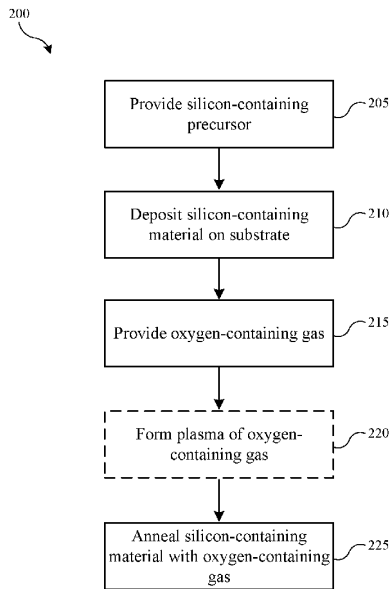


FIG. 2

(57) Abstract: Exemplary methods of semiconductor processing may include providing a silicon-containing precursor to a processing region of a semiconductor processing chamber. A substrate may be disposed within the processing region of the semiconductor processing chamber. The substrate may define one or more features along the substrate. The methods may include depositing a silicon-containing material on the substrate. The silicon-containing material may extend within the one or more features along the substrate. The methods may include providing an oxygen-containing precursor. The methods may include annealing the silicon-containing material with the oxygen-containing precursor. The annealing may cause the silicon-containing material to expand within the one or more features. The methods may include repeating one or more of the operations to iteratively fill the one or more features on the substrate.