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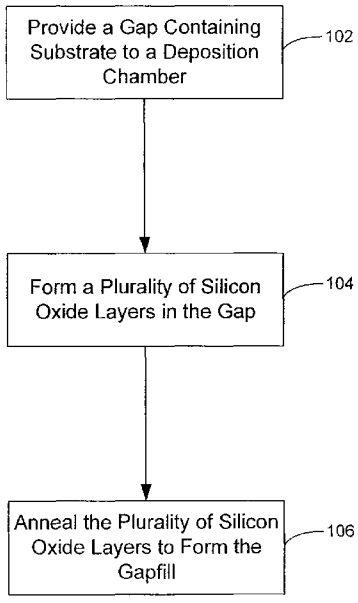
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(54) Title: A NOVEL DEPOSITION-PLASMA CURE CYCLE PROCESS TO ENHANCE FILM QUALITY OF SILICON DIOXIDE



(57) Abstract: Methods of filling a gap on a substrate with silicon oxide are described. The methods may include the steps of introducing an organo-silicon precursor and an oxygen precursor to a deposition chamber, reacting the precursors to form a first silicon oxide layer in the gap on the substrate, and etching the first silicon oxide layer to reduce the carbon content in the layer. The methods may also include forming a second silicon oxide layer on the first layer, and etching the second layer to reduce the carbon content in the second layer. The silicon oxide layers are annealed after the gap is filled.

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