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(54) Title: SEAM PERFORMANCE IMPROVEMENT FOR LARGE AREA GAPFILL

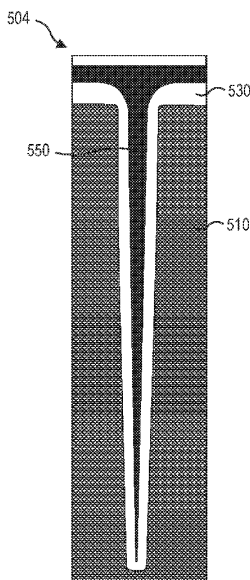


FIG. 5B

(57) Abstract: Methods of filling a feature on a semiconductor substrate may include performing a process to fill the feature on the semiconductor substrate by repeatedly performing first operations. First operations can include providing a silicon-containing precursor. First operations can include contacting the substrate with the silicon-containing precursor to form a silicon-containing material within the feature defined on the substrate. First operations can include purging the semiconductor processing chamber. First operations can include providing an oxygen-containing precursor. First operations can include contacting the substrate with the oxygen-containing precursor to form a silicon-and-oxygen-containing material within the feature defined on the substrate. At least some portions of the first operations can be performed with a frequency characteristic, a power characteristic, and a pressure characteristic.

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