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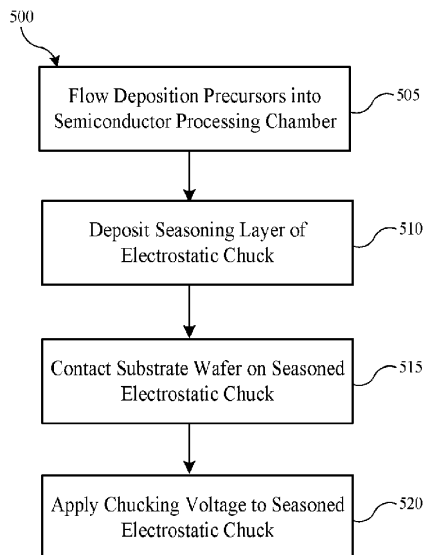


FIG. 5

(57) Abstract: Semiconductor processing systems and method are described that may include flowing deposition precursors into a substrate processing region of a semiconductor processing chamber, where the substrate processing region includes an electrostatic chuck. The methods may further include depositing a seasoning layer on the electrostatic chuck from the deposition precursors to form a seasoned electrostatic chuck. The seasoning layer may be characterized by a dielectric constant greater than or about 3.5. The methods may still further include applying a voltage to the seasoned electrostatic chuck of greater than or about 500 V. The seasoned electrostatic chuck may be characterized by a leakage current of less than or about 25 mA when the voltage is applied.

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