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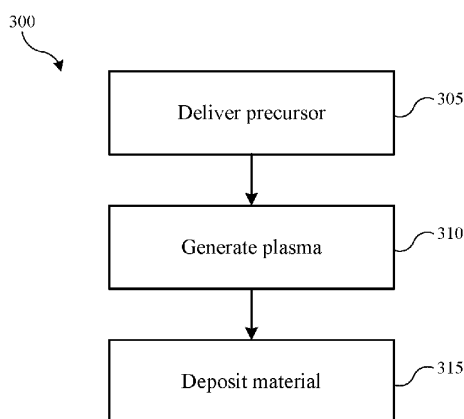


FIG. 3

(57) Abstract: Exemplary methods of forming a silicon-and-carbon-con-
taining material may include flowing a silicon-oxy-gen-and-carbon-con-
taining precursor into a processing region of a semiconductor processing
chamber. A substrate may be housed within the processing region of the
semiconductor processing chamber. The methods may include forming a
plasma within the processing region of the silicon-and-carbon-containing
precursor. The plasma may be formed at a frequency less than 15 MHz
(e.g., 13.56 MHz). The methods may include depositing a silicon-and-
carbon-containing material on the substrate. The silicon-and-carbon-con-
taining material as-deposited may be characterized by a dielectric con-
stant below or about 3.5 and a hardness greater than about 3 Gpa.