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(54) Title: PRECURSORS FOR LOW DIELECTRIC FILM DEPOSITION

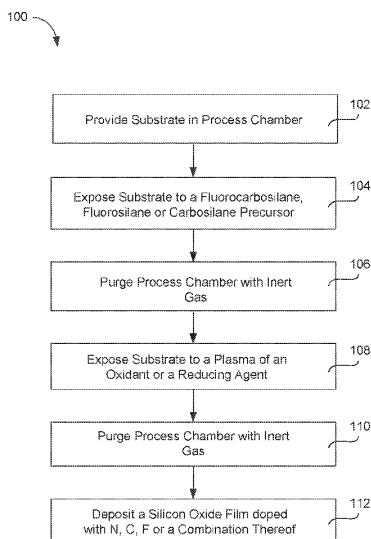


FIG. 1

(57) Abstract: Plasma enhanced atomic layer deposition methods and apparatuses for depositing low dielectric constant doped silicon oxide films from fluorocarbosilane, fluorosilane or carbosilane precursors which are a single source of the desired dopants are provided. Conformal deposition may be achieved by utilization of silicon precursors having at least one direct silicon-fluorine bond or fluorine connected to silicon through a linker. The methods may also include fluoro carboaminosilanes or fluoroaminosilanes.

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