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(54) Title: METHODS OF FORMING HARDMASKS

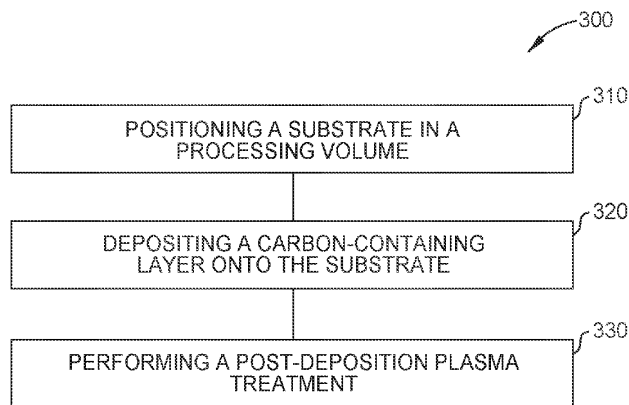


FIG. 3

(57) Abstract: Embodiments of the present disclosure generally relate to methods of forming hardmasks. Embodiments described herein enable, e.g., formation of carbon-containing hardmasks having reduced film stress. In an embodiment, a method of processing a substrate is provided. The method includes positioning a substrate in a processing volume of a processing chamber and depositing a diamond-like carbon (DLC) layer on the substrate. After depositing the DLC layer, the film stress is reduced by performing a plasma treatment, wherein the plasma treatment comprises applying a radio frequency (RF) bias power of about 100 W to about 10,000 W.

[Continued on next page]

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