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(54) **Title**: METHODS FOR DEPOSITING BEVEL PROTECTIVE FILM

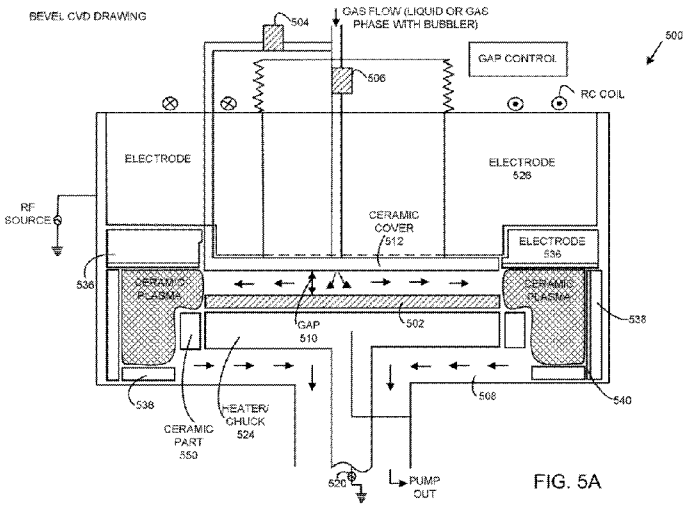


FIG. 5A

(57) **Abstract**: A method of film deposition using localized plasma to protect bevel edge of a wafer in a plasma chamber. The method includes adjusting an electrode gap between a movable electrode and a stationary electrode, the wafer being disposed on one of the movable electrode and the stationary electrode, to a gap distance configured to prevent plasma formation over a center portion of the wafer, the gap distance also dimensioned such that a plasma-sustainable condition around the bevel edge of the wafer is formed after the adjusting. The method also includes flowing deposition gas into the plasma chamber. The method includes maintaining, using a heater, a chuck temperature that is configured to facilitate film deposition on the bevel edge. The method further includes generating the localized plasma from the deposition gas for depositing a film on the bevel edge.

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