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(54) Title: METHOD AND APPARATUS FOR PROCESSING BEVEL EDGE

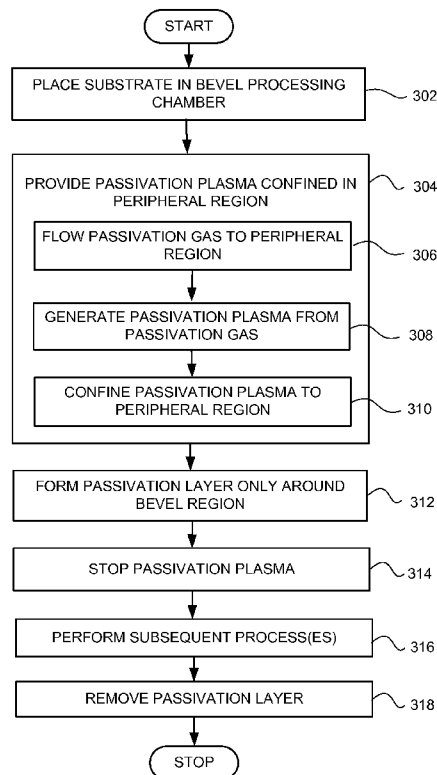


FIG. 3

(57) Abstract: A method and apparatus for processing a bevel edge is provided. A substrate is placed in a bevel processing chamber and a passivation layer is formed on the substrate only around a bevel region of the substrate using a passivation plasma confined in a peripheral region of the bevel processing chamber. The substrate may undergo a subsequent semiconductor process, during which the bevel edge region of the substrate is protected by the passivation layer. Alternatively, the passivation layer may be patterned using a patterning plasma formed in an outer peripheral region of the processing chamber, the patterning plasma being confined by increasing plasma confinement. The passivation layer on outer edge portion of the bevel region is removed, while the passivation layer on an inner portion of the bevel region is maintained. The bevel edge of the substrate may be cleaned using the patterned passivation layer as a protective mask.



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