

ABSTRACT

ARRANGEMENTS FOR MANIPULATING PLASMA CONFINEMENT WITHIN A PLASMA PROCESSING SYSTEM AND METHODS THEREOF

An arrangement for controlling bevel etch rate during plasma processing within a processing chamber. The arrangement includes a power source and a gas distribution system. The arrangement also includes a lower electrode, which is configured at least for supporting a substrate. The arrangement further includes a top ring electrode positioned above the substrate and a bottom ring electrode positioned below the substrate. The arrangement yet also includes a first match arrangement coupled to the top ring electrode and configured at least for controlling current flowing through the top ring electrode to control amount of plasma available for etching at least a part of the substrate top edge. The arrangement yet further includes a second match arrangement configured to control the current flowing through the bottom ring electrode to control amount of plasma available for at least etching at least a part of the substrate bottom edge.

FIG. 1