

METHODS AND ARRANGEMENTS FOR MANAGING PLASMA CONFINEMENT

ABSTRACT

A method for confining plasma within a plasma processing chamber while processing a substrate is provided. The method includes igniting the plasma within a plasma generating area, wherein the plasma generating area is surrounded by a set of confinement rings. The method also includes providing a chamber wall outside of the set of confinement rings. The method further includes providing a dielectric liner electrode arrangement positioned between the chamber wall and the set of confinement rings, wherein the dielectric liner electrode arrangement having an electrode encapsulated within a dielectric liner, the dielectric liner electrode arrangement being coupled with the chamber wall to create a modified chamber wall. The method yet also includes providing a parallel LC circuit arrangement, the parallel LC circuit arrangement being coupled between the dielectric liner electrode arrangement and the chamber wall.

Figure 2A