PLASMA PROCESSING APPARATUS

Abstract

To provide a technique for appropriately performing plasma processing using a pulsed DC signal. A plasma processing apparatus includes a plasma processing chamber; a substrate support that is disposed in the plasma processing chamber, the substrate support including a conductive base, an electrostatic chuck disposed on the conductive base, a chuck electrode disposed in the electrostatic chuck, and a bias electrode disposed below the chuck electrode in the electrostatic chuck; an upper electrode that is disposed above the substrate support; an RF generator that is electrically connected to the conductive base, the bias electrode, or the upper electrode and is configured such that an RF signal is generated; a pulsed DC generator that is electrically connected to the bias electrode and is configured to generate a pulsed DC signal; an RF filter that is connected between the bias electrode and the pulsed DC generator; and a ringing suppression circuit that is connected between the bias electrode and the pulsed DC generator and is configured to suppress ringing superimposed on the pulsed DC signal.

Fig. 3