

PLASMA PROCESSING APPARATUS AND SUBSTRATE SUPPORTER

Abstract

Even when a pulsed DC signal is supplied, fluctuation in the base potential is suppressed. A plasma processing apparatus includes a chamber, a bias power supply configured to supply a pulsed bias DC signal, a substrate supporter configured to support a substrate and an edge ring in the chamber, and an electrical path. The substrate supporter is configured to have an electrostatic chuck that includes a first region configured to hold the substrate and a second region provided around the first region and configured to hold the edge ring, and is formed from a dielectric, a base configured to support a first bias electrode provided inside the first region, a second bias electrode provided inside the second region, and the electrostatic chuck, and a first impedance adjustment mechanism configured to have a first variable capacitor connected between the second bias electrode and the base. The electrical path has a first electrical path configured to connect the bias power supply, the base, and the first bias electrode, and a second electrical path configured to connect the bias power supply, the base, the first impedance adjustment mechanism, and the second bias electrode.

[Fig. 1]