

ABSTRACT

A substrate processing apparatus, comprising: an RF power supply (100), including a high-frequency RF power supply (111) and a low-frequency RF power supply (121); an upper electrode (200), coupled to the RF power supply (100); a lower electrode (300), including a plurality of electrode segments, the RF power supply (100) applying power to the plurality of electrode segments via the upper electrode, respectively; a power measurement module, used for measuring the high-frequency power and the low-frequency power applied by the high-frequency RF power supply (111) and the low-frequency RF power supply (121) to each electrode segment; and an electrode impedance adjustment module, used for adjusting the high-frequency impedance and the low-frequency impedance from each electrode segment to a ground terminal on the basis of a measurement signal from the power measurement module.