PLASMA PROCESSING APPARATUS AND PLASMA PROCESSING METHOD

Abstract

Disclosed is a plasma treatment device comprising a high-frequency power supply that adjusts the frequency of high-frequency power within a bias cycle of electrical bias energy. The high-frequency power supply uses a basic time series as the time series of the frequency of the high-frequency power within the bias cycle. The high-frequency power supply repeats using a modified time series as the time series of the frequency of the high-frequency power within the bias cycle so as to improve the matching level on the basis of evaluated values. The modified time series is obtained by giving a phase shift amount to the basic time series, by scaling the basic time series in the frequency direction, or by scaling two or more of a plurality of time zones of the basic time series in the time direction.

Fig. 2