

PLASMA PROCESSING METHOD**ABSTRACT**

In a plasma processing method of sequentially performing multiple cycles, each of which includes plural stages which generate plasma of different processing gases within a processing vessel and which are performed in sequence, a setting of a high frequency power and/or a setting of a level of a DC voltage is changed at an appropriate time point after transitioning from a preceding stage to a succeeding stage. The high frequency power is supplied to one of a first electrode and a second electrode of a plasma processing apparatus, and the processing gas output from a gas supply system is changed when transitioning from the preceding stage to the succeeding stage. Thereafter, the setting of the high frequency power and/or the setting of the level of the negative DC voltage is changed at a time point when a parameter reflecting an impedance of the plasma exceeds a threshold value.

Figure 1