ABSTRACT

There is provided a ~~Provided is a~~ technology that includes: a process chamber in which at least one substrate is processed; and at least one buffer chamber in which plasma is formed, wherein the at least one buffer chamber includes at least two application electrodes of different lengths to which high frequency electric power is applied, a reference electrode subjected to a reference potential.~~enables reduction of variation in substrate processing performance with respect to a plurality of substrates. The technology provided herein is equipped with: a reaction tube that has a process chamber for processing a substrate and a buffer chamber for forming plasma; and a heater for heating the reaction tube. The buffer chamber is equipped with: at least two application electrodes of different lengths to which high frequency electric power is applied; a reference electrode subjected to a reference potential; and an electrode protection tube which provides protection for the application electrodes and the reference electrode.~~