

Abstract

Provided is a technique for facilitating the temperature control of a wafer in a processing chamber into which a gas is introduced.

A semiconductor manufacturing apparatus includes a wafer heater using an electromagnetic wave, and a control circuit. The control circuit uses information representing the relation between the species of a gas introduced into a processing chamber, the pressure of the gas in the periphery of a wafer, the height of a pusher pin determining the distance between the wafer and a stage, the output of the heater, the target temperature of the wafer, and a target temperature reaching time until the temperature of the wafer reaches the target temperature to previously determine the height of the pusher pin such that the target temperature reaching time is an allowable time or less with respect to the set species of the gas, the set pressure of the gas, and the set target temperature of the wafer. The control circuit controls the height of the pusher pin to the determined height, and then controls at least one of the output of the heater and the height of the pusher pin.