SUBSTRATE TREATMENT APPARATUS, METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE, AND RECORDING MEDIUM

ABSTRACT

Provided is a substrate treatment apparatus having: a treatment chamber that stores a substrate; a vaporizer, which generates a reaction gas by vaporizing a liquid starting material, and sends, as a treatment gas, the reaction gas with a carrier gas, and which is provided with a vaporizing container, a liquid starting material introducing unit, a carrier gas introducing unit, and a heater that heats the liquid starting material; a carrier gas supply control unit that controls the supply quantity of the carrier gas; a liquid starting material supply control unit that controls the supply quantity of the liquid starting material; a treatment gas supply tube that introduces the treatment gas to the inside of the treatment chamber; a treatment gas temperature sensor that detects the temperature of the treatment gas sent into the treatment gas supply tube from the vaporizer; and a control unit that adjusts the temperature of the heater on the basis of the treatment gas temperature detected by the treatment gas temperature sensor. Consequently, the treatment gas is prevented from turning into liquid droplets and mist in the treatment chamber even under low temperature conditions, and the qualities of a film to be formed on the substrate treated by the treatment gas can be improved.

Figure 1