SUBSTRATE TREATMENTAPPARATUS, METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE, AND RECORDING MEDIUM

ABSTRACT

A substrate processing apparatus, includes: a process chamber accommodating a substrate; a vaporizer vaporizing a liquid precursor to generate reaction gas and deliver a processing gas containing the reaction gas and a carrier gas, the vaporizer including: a vaporization vessel; and a heater heating the liquid precursor introduced into the vessel; a carrier gas flow rate controller controlling flow rate of the carrier gas supplied to the vaporizer; a liquid precursor flow rate controller controlling flow rate of the liquid precursor; a processing gas supply pipe introducing the processing gas delivered from the vaporizer into the process chamber; and a gas concentration sensor detecting a gas concentration of the reaction gas contained in the processing gas delivered from the vaporizer into the processing gas supply pipe.

Figure 1.