

ABSTRACT

SUBSTRATE PROCESSING UNIT

A substrate processing unit 10 capable of restraining contaminants such as particles, watermarks and the like from being adhered to a substrate such as a semiconductor wafer and the like, wherein the substrate processing unit 10 comprises a processing bath 11 for accommodating the substrates (e.g., wafer W) to be processed, a processing fluid introduction pipe 21 for supplying processing fluid (e.g., purified water J) to the processing bath 11, a vapor generating bath 61 for accommodating an organic solvent S (e.g., IPA fluid), a processing fluid discharge section 30 for discharging processing fluid from the processing bath 11, and a solvent heating unit 62 for heating the organic solvent S inside the vapor generating bath 61, wherein the vapor generating bath 61 introduces vapor generated from the organic solvent S to the inside of the processing bath 11, and the solvent heating unit 62 heats the organic solvent S inside the vapor generating bath 61 at a temperature in the range of $50^{\circ}\text{C} \pm 5^{\circ}\text{C}$ if a surface of the wafer W is hydrophobic and heats the organic solvent S at a temperature in the range of $70^{\circ}\text{C} \pm 5^{\circ}\text{C}$ if the surface of the wafer W is hydrophilic.

Fig. 1