

ABSTRACT

Provided is a substrate processing device, comprising a control mechanism; a clamping mechanism; a nozzle mechanism; a rotation drive mechanism; a heating mechanism; and a temperature monitoring mechanism, wherein the temperature monitoring mechanism includes a first temperature monitoring unit, the first temperature monitoring unit is configured to: during a process in which the liquid nozzle of the nozzle mechanism moves radially from the substrate center toward the substrate edge and continuously dispenses liquid onto the substrate surface, when the liquid nozzle moves to a specific region above the substrate, monitor the temperature of the liquid film formed in the substrate surface region corresponding to the specific region, and send the temperature to the control mechanism; the control mechanism is configured to receive the temperature and, based on the temperature, regulate the heating temperature of the heating mechanism for the substrate surface region corresponding to the specific region. By providing the temperature monitoring unit for temperature monitoring, the present invention prevents damage to feature pattern structures on the substrate during the drying process, improves precise control of surface tension and evaporation rate of isopropyl alcohol or other drying formulation liquids on the substrate surface during the drying process, and ensures drying effect.