

ABSTRACT

SUBSTRATE PROCESSING APPARATUS

A substrate processing apparatus includes a polishing head defining plural pressure chambers D1 to D5 for pressing a wafer W on a polishing pad 42, a pressure control unit performing pressure feedback control by individually controlling pressures in the pressure chambers D1 to D5, a film thickness measurement unit measuring a film thickness distribution of the wafer W being polished, a storage unit storing multiple pieces of information on a preset pressure of the pressure chambers D1 to D5, and a response characteristic acquisition unit changing the preset pressure every time a predetermined condition is satisfied during polishing of the wafer W, measuring a polishing rate applied to the wafer W, and acquiring a response characteristic of the polishing of the wafer W. The response characteristic indicates responsiveness of the polishing of the wafer W to the pressure feedback. The response characteristic is acquired based on the obtained polishing rates.

Figure 7