

## ABSTRACT

The method of creating a correlation relational formula for determining a polishing condition, the method including: polishing semiconductor wafers under a plurality of polishing conditions including a plurality of polishing parameters, and acquiring, by actual measurement, in-plane polishing amount distribution information on the semiconductor wafers in polishing under the plurality of polishing conditions; polishing semiconductor wafers under a plurality of polishing conditions including a plurality of polishing parameters, and acquiring, by actual measurement, in-plane temperature distribution information during semiconductor wafer polishing in polishing under the plurality of polishing conditions, or creating in-plane temperature distribution information during semiconductor wafer polishing under polishing conditions including a plurality of polishing parameters by heat transfer analysis; creating correlation relational formula 1 between a semiconductor wafer in-plane temperature distribution parameter and a plurality of polishing parameters on the basis of the in-plane temperature distribution information during polishing; creating correlation relational formula 2 between a semiconductor wafer in-plane polishing amount distribution parameter and a plurality of polishing parameters on the basis of the in-plane polishing amount distribution information; and creating correlation relational formula 3 between a semiconductor wafer in-plane polishing amount distribution parameter and a plurality of polishing parameters on the basis of the correlation relational formula 1 and the correlation relational formula 2, wherein the correlation relational formula 3 is a correlation relational formula to be used to determine a polishing condition in semiconductor wafer actual polishing.