

ABSTRACT

SUBSTRATE POLISHING APPARATUS AND METHOD

A substrate polishing apparatus includes a top ring for pressing a substrate against a polishing pad to perform substrate polishing; a spectrum generating unit that directs light onto a surface of the substrate of interest for polishing, receives reflected light, and calculates a reflectivity spectrum corresponding to the wavelength of the reflected light; and a storage that stores a plurality of thickness estimating algorithms for estimating the thickness of the polished surface in accordance with the reflectivity spectrum. A plurality of thickness estimating algorithms is selected among the thickness estimating algorithms stored in the storage, and a switching condition is set. The thickness of the polished surface is estimated by using the set thickness estimating algorithms, and if the switching condition is satisfied, the thickness estimating algorithm to be applied is switched.

Figure 7