

ABSTRACT OF THE DISCLOSURE

POLISHING APPARATUS AND POLISHING METHOD

5 A polishing apparatus capable of accurately determining a service life of a light source, and further capable of accurately measuring a film thickness of a substrate, such as a wafer, without calibrating an optical film-thickness measuring device, is disclosed.

The polishing apparatus includes: a light source configured to emit light; an illuminating fiber having a distal end arranged at a predetermined position in the polishing table, the illuminating fiber being coupled to the light source; a spectrometer
10 configured to decompose reflected light from the wafer in accordance with wavelength and measure an intensity of the reflected light at each of wavelengths; a light-receiving fiber having a distal end arranged at the predetermined position in the polishing table, the light-receiving fiber being coupled to the spectrometer; a processor configured to determine a film thickness of the wafer based on a spectral waveform indicating a
15 relationship between the intensity of the reflected light and wavelength; an internal optical fiber coupled to the light source; and an optical-path selecting mechanism configured to selectively couple either the light-receiving fiber or the internal optical fiber to the spectrometer.

20 FIG. 1