

Abstract

Prior to the polishing of the wafer 4, a reflective body which has the same shape and dimensions as the wafer 4 is held on the polishing head 2 instead of the wafer 4. A polishing agent 5 is interposed between the window 15 of the polishing head 13 and the reflective body, and the reflective body is pressed against the polishing pad 13 with the same pressure as that applied during the polishing of the wafer 4. In this state, the reflective body is irradiated via the window 15 with a probe light emitted from the light source 31, and the spectroscopic intensity of the reflected light is obtained from the sensor 43 as a reference spectrum. During the polishing of the wafer 4, the spectroscopic intensity of the reflected light from the wafer 4 is successively obtained as measured spectra from sensor 43; the intensity ratio of these measured spectra to the above-mentioned reference spectrum is determined, and the polishing state of the wafer 4 is monitored on the basis of this intensity ratio.