

ABSTRACT OF THE DISCLOSURE

METHOD OF PRODUCING REFERENCE-SPECTRUM LIBRARY FOR USE IN ESTIMATION OF FILM THICKNESS OF WORKPIECE

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A method of producing a reference-spectrum library that can improve an accuracy of film thicknesses corresponding to reference spectra is disclosed. The method includes: generating reference spectra of reflected light from the reference workpiece obtained at polishing times during polishing of the reference workpiece; calculating polishing index
10 values indicative of a progress of polishing of the reference workpiece from the reference spectra; determining a polishing-rate line indicative of a relationship between film thickness and polishing time of the reference workpiece from the initial film thickness, the polishing index values, and the final film thickness; determining reference film thicknesses corresponding to the polishing index values based on the polishing-rate line; and producing
15 the reference-spectrum library by associating the reference film thicknesses with the reference spectra, respectively.

FIG. 9