

Title (en)

METHOD OF PERFORMING OPTICAL MEASUREMENT ON A SAMPLE

Title (de)

VERFAHREN ZUR DURCHFÜHRUNG EINER OPTISCHEN MESSUNG AN EINER PROBE

Title (fr)

PROCEDE PERMETTANT D'EFFECTEUR UNE MESURE OPTIQUE SUR UN ECHANTILLON

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Abstract (en)

[origin: WO2004070365A1] The invention relates to a method of performing an optical measurement on a sample, such as an ellipticity measurement. The sample is irradiated with a polarized irradiation beam and a return beam is linearly polarized. The irradiation or return beam is modulated with a birefringence modulator, such as a photoelastic modulator, in accordance with a primary modulation signal. The return beam is directed onto a multichannel detector. Typically the detector is a slow detector, such as a CCD, having a response time greater than a period of the primary modulation signal. Detection values are generated simultaneously at each detection element and processed to determine a plurality of measurements. Various measurement techniques are described, including detector signal averaging over gated intervals; a design employing coherent modulation of the gain of an ICCD, and a modulator-coherent flash lamp design.

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