

Measurement of Circularly Polarized Filter

INTRODUCTION

Circularly polarized plates are structured by combining polarized filters with 1/4 wavelength plates. Because of the optical properties, circularly polarized plates are widely used in photo image sharpening, 3D image glasses, and the prevention of the feedback light from a monitor screen.

This time, clockwise circularly polarized filter (R) and counterclockwise circularly polarized filter (L) were analyzed by using the polarization sample measurement accessory. The analysis of each filter showed a transmittance of more than 40% in the visible range. On the other hand, when the clockwise circularly polarized filter (R) and counterclockwise circularly polarized filter (L) were imposed, the transmittance was almost 0%. By using the polarization sample measurement accessory, different types of polarized filters can be analyzed.

SAMPLE

Sample : Circularly polarized filter

INSTRUMENT CONDITIONS

Instrument : U-4100 spectrophotometer
(Solid sample measurement system)

[UV/VIS]

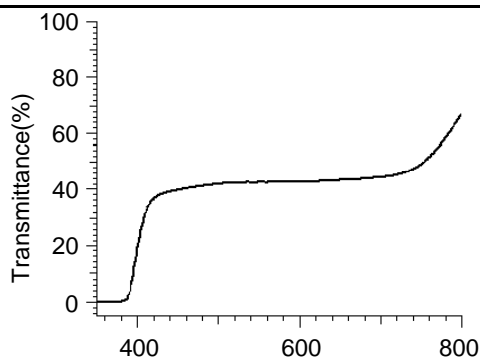
Scan speed : 300 nm/min

Slit : 8 nm

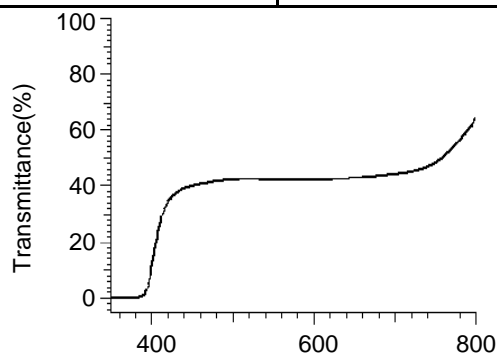
Sampling interval : 1 nm

OTHER NECESSARIES

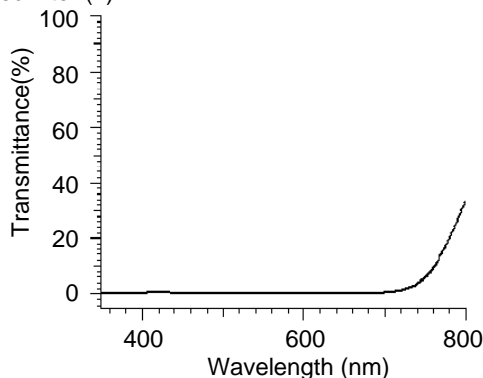
Polarization sample measurement accessory
(P/N : 1J0-0208)



Transmission spectrum of counterclockwise circularly polarized filter (L)



Transmission spectrum of clockwise circularly polarized filter (R)



Transmission Spectrum of L+R (L and R were superimposed for the analysis)

KEY WORDS

Material-Processing Material Related, Composite Material-Thin-film Crystal, Circularly Polarized Filter, Transmission Spectrum, Transmittance, Polarization, U-4100

Spectrophotometer (UV)

Sheet No. UV100015-01