

Developments of cellulose based polymer dispersed liquid crystal devices

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We used cellulose based PDLC obtained by electro-spinning deposition of cellulose derivative on ITO covered glass plates(1,2). The electro-optic device is formed by two such plates filled with nematic liquid crystal. We studied the optical transmission when applying continuous and alternative electric fields, at different temperatures and the commutation times for continuous and alternative signals. Thermally Stimulated Depolarization Currents measurements have been performed and simultaneously the optical transmission was measured (3).

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