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Holographic gratings recorded in PDLC mixed with crystal violet dye

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Abstract

Optical characterization of a doped-Polymer Dispersed Liquid Crystal, which was made by mixing Norland Optical Adhesive no. 65©, nematic liquid crystal E7 and crystal violet dye deposited between two glass plates coated with Indium Tin Oxide, is presented. In this device a phase holographic grating (PHG) was recorded with a laser beam from an Ar laser with wavelength 532 nm in emission line. The Diffraction Efficiency (DE) behavior of the PHG was measured obtaining

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