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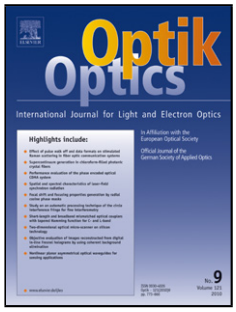

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Holographic gratings recorded in PDLC mixed with crystal violet dye

José Fabián Villa-Manríquez[1], Mauricio Ortiz-Gutiérrez[1], Mario Pérez-Cortés[2], Juan Carlos Ibarra-Torres[3], Arturo Olivares-Pérez[4]

[1] Facultad de Ciencias Físico Matemáticas,
Universidad Michoacana de San Nicolás de Hidalgo.
Francisco J. Mújica s/n. Col. Felícitas de Río,
Morelia Michoacán, México, C. P. 58040.

[2] Facultad de Ingeniería,
Universidad Autónoma de Yucatán,
Av. Industrias no contaminantes s/n x anillo periférico norte,
Mérida Yucatán, México. C. P. 97000

[3] Centro Universitario de Ciencias Exactas e Ingenierías,
Universidad de Guadalajara.
Blvd. Marcelino García Barragán # 1421, esq. Calzada Olímpica, Guadalajara Jalísco, México. C.P. 44430

[4] Instituto Nacional de Astrofísica, Óptica y Electrónica.
Luis Enrique Erro #1, Tonantzintla, Puebla México. C. P. 72000

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