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Dynamics of pulse laser induced holographic grating in azo-dye doped nematic liquid crystal host CHIE-TONG KUO, SHUAN-YU HUANG, Department of Physics and Center for Nanoscience and Nanotechnology, National Sun Yat-sen University, Kaohsiung, 804 Taiwan, Republic of China — Dynamics of pulse laser induced holographic grating in azo-dye doped nematic liquid crystals has been investigated. The dependence of diffraction efficiency on the temperature and the dye concentration is characterized using a single exponential function. The diffusion coefficients of dye in the directions parallel and perpendicular to the LC director are determined.

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