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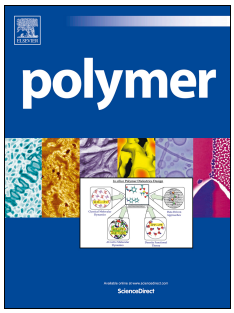

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Programmable Electro-Optical Performances in a Dual-Frequency Liquid Crystals / Polymer Composite System

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Keywords: liquid crystals; electro-optical property; polymer microstructure

Abstract

Liquid crystals (LCs) / polymer composites are promising candidates for the next-generation of large-area processible and flexible electro-optical (E-O) materials due to their combination of the fast-responsive characteristics of LCs and the excellent physical properties of polymer. However, the current LCs / polymer system, represented by the polymer dispersed liquid crystals (PDLC), are suffering from limitations of their normally opaque optical states, because the porous polymer matrix in PDLCs are