

# Accepted Manuscript

Programmable electro-optical performances in a dual-frequency liquid crystals / polymer composite system

Xiao Liang, Mei Chen, Shumeng Guo, Xiao Wang, Shuaifeng Zhang, Lanying Zhang, Huai Yang



PII: S0032-3861(18)30594-9

DOI: [10.1016/j.polymer.2018.06.081](https://doi.org/10.1016/j.polymer.2018.06.081)

Reference: JPOL 20718

To appear in: *Polymer*

Received Date: 1 May 2018

Revised Date: 13 June 2018

Accepted Date: 30 June 2018

Please cite this article as: Liang X, Chen M, Guo S, Wang X, Zhang S, Zhang L, Yang H, Programmable electro-optical performances in a dual-frequency liquid crystals / polymer composite system, *Polymer* (2018), doi: 10.1016/j.polymer.2018.06.081.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

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

*Xiao Liang,<sup>a</sup> Mei Chen,<sup>a</sup> Shumeng Guo,<sup>b</sup> Xiao Wang,<sup>c</sup> Shuailong Zhang,<sup>b</sup> Lanying Zhang<sup>a</sup> and Huai Yang<sup>a\*</sup>*

<sup>a</sup> Department of Materials Science and Engineering, College of Engineering, Peking University, Beijing 100871, People's Republic of China.

<sup>b</sup> Department of Materials Physics and Chemistry, School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing 100083, People's Republic of China.

<sup>c</sup> State Key Laboratory of Metastable Materials Science and Technology, Yanshan University, Qinhuangdao 066004, People's Republic of China.

**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

Download English Version:

<https://daneshyari.com/en/article/7819025>

Download Persian Version:

<https://daneshyari.com/article/7819025>

[Daneshyari.com](https://daneshyari.com)