## **Accepted Manuscript**

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

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PII: S0032-3861(18)30594-9

DOI: 10.1016/j.polymer.2018.06.081

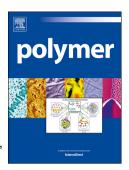
Reference: JPOL 20718

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.

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CCEPTED MANUSCRIPT

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

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