

## Supporting Information

### Self-Assembled Liquid Crystal Gels in Emulsion

Xia Tong,<sup>1</sup> Jong Won Chung,<sup>2</sup> Soo Young Park,<sup>2</sup> Yue Zhao<sup>1,\*</sup>

1. Département de chimie, Université de Sherbrooke, Sherbrooke, Québec, Canada J1K 2R1

2. School of Materials Science and Engineering, ENG445, Seoul National University, San 56-1, Shillim-dong, Kwanak-ku, Seoul 151-744, Korea

#### 1. Optical and fluorescence microscope images of a LC gel emulsion.

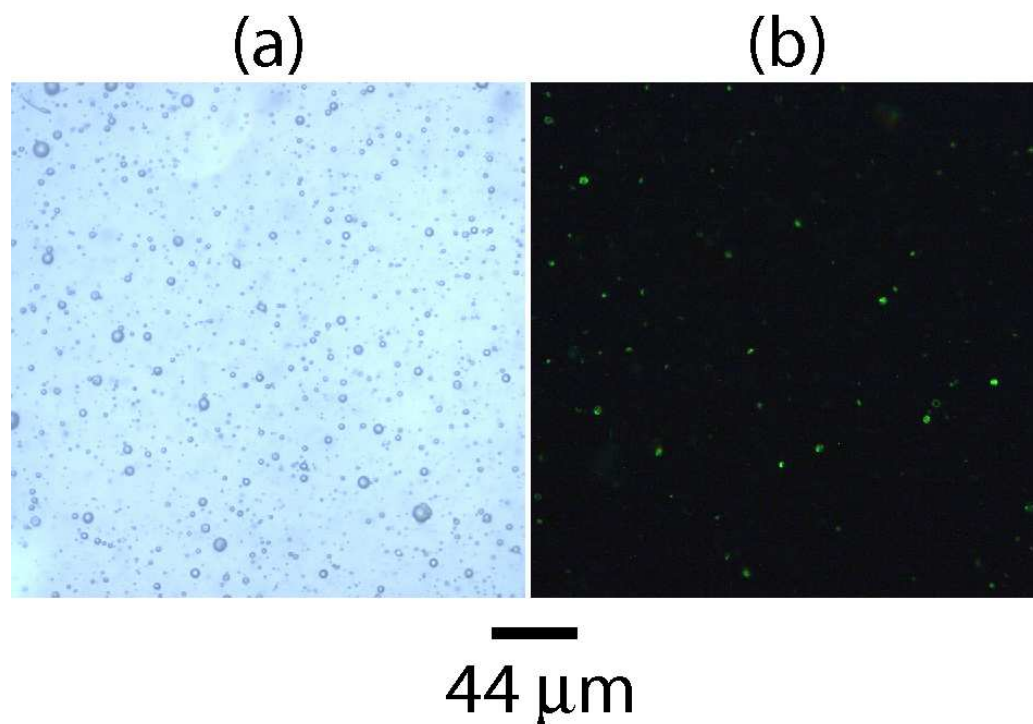


Fig. S1. Image *a* is the photomicrograph (reflection mode) of an emulsion cast on a glass slide; most of dispersed LC droplets have diameters in the range of 2-5  $\mu\text{m}$ . Image *b* was recorded with the same dispersion using a fluorescence microscope. The fluorescence emission from the droplets indicates that CN-TFMBE molecules are in an aggregated state inside the LC cavities.

## 2. Polarizing Optical Micrographs

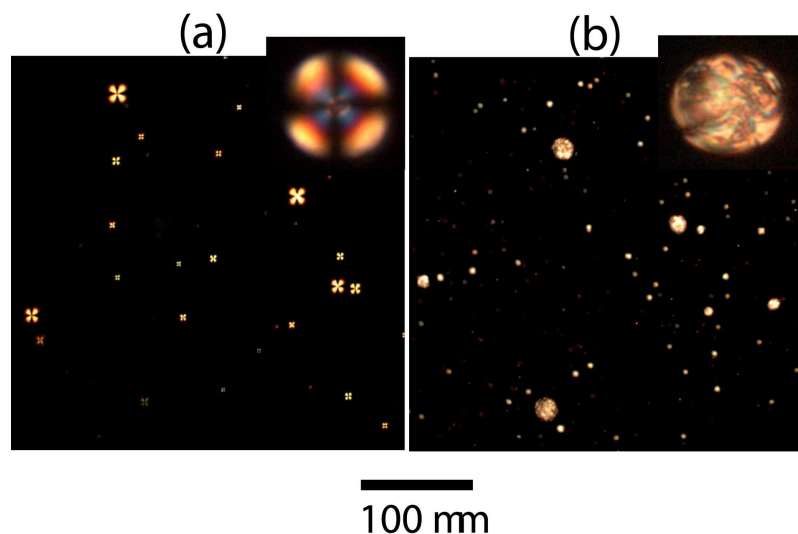


Fig. S2. Polarizing photomicrographs showing (a) the droplets of liquid crystal emulsion without gelator and (b) the droplets of liquid crystal gel emulsion. The insets are magnified images of two large droplets ( $\sim 20 \mu\text{m}$  in diameter) showing the radial configuration for the droplet without gelator (a) and the disrupted LC director in the gel droplet (b).

## 3. Electrooptical switching of a single LC gel droplet

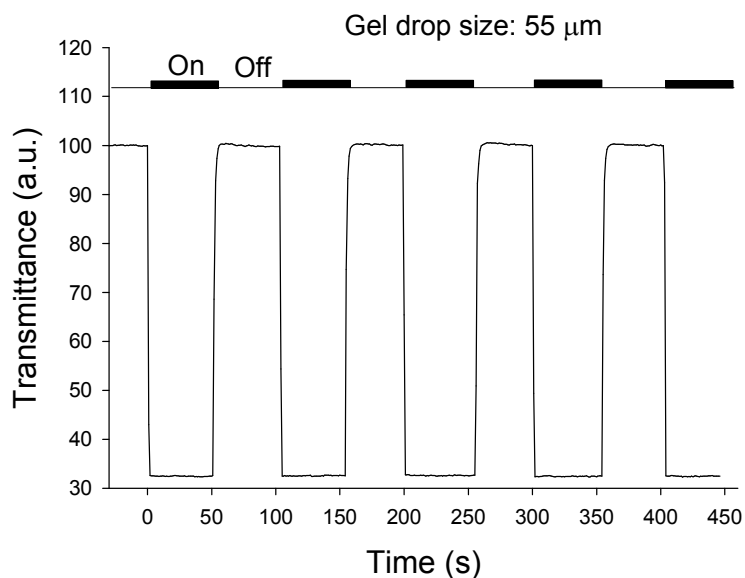


Fig. S3. Repeated switching of transmittance for a single liquid crystal gel droplet (55  $\mu\text{m}$  in diameter) at the field-on (5.3 V/ $\mu\text{m}$ ) and field-off (0 V/ $\mu\text{m}$ ) state (a.c field, 1000 Hz, peak-to-peak).