Laser irradiation durability of photorefractive ferroelectric liquid crystal blends containing terthiophene photoconductive chiral dopants

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Supplementary Information

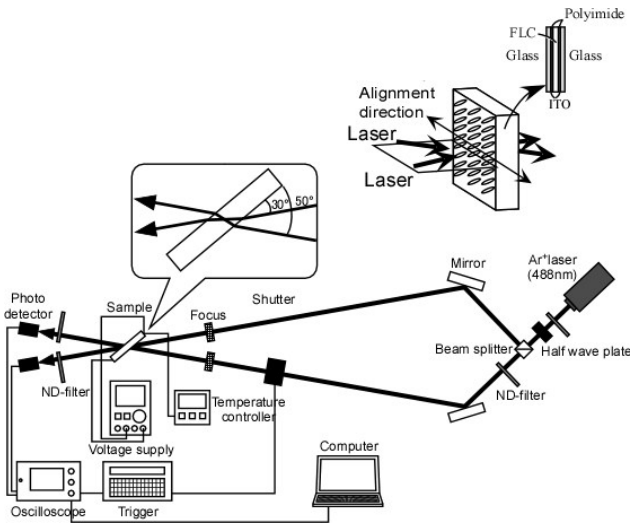

Figure S1. Schematic illustration of the beam incidence condition in the two-beam coupling experiment. A linearly polarized beam from a DPSS laser (Cyan Model PC13589, Spectra-Physics; 488 nm, continuous wave) was divided in two by a beam splitter, which were then interfered in the sample film. A p-polarized beam was used in most of the experiments in this study. The laser intensity was 2.5 mW for each beam (1 mm diameter). The incident beam angles to the glass plane were 30° and 50°. Each interval of the interference fringe was 1.87 μm. An electric field of 0 to 10 V/μm was applied to the sample from a regulated DC power supply (Kenwood DW36-1), and the change in the transmitted beam intensity was monitored by photodiodes (ET-2040, Electro-Optics Technology, Inc.) and recorded by a computer.

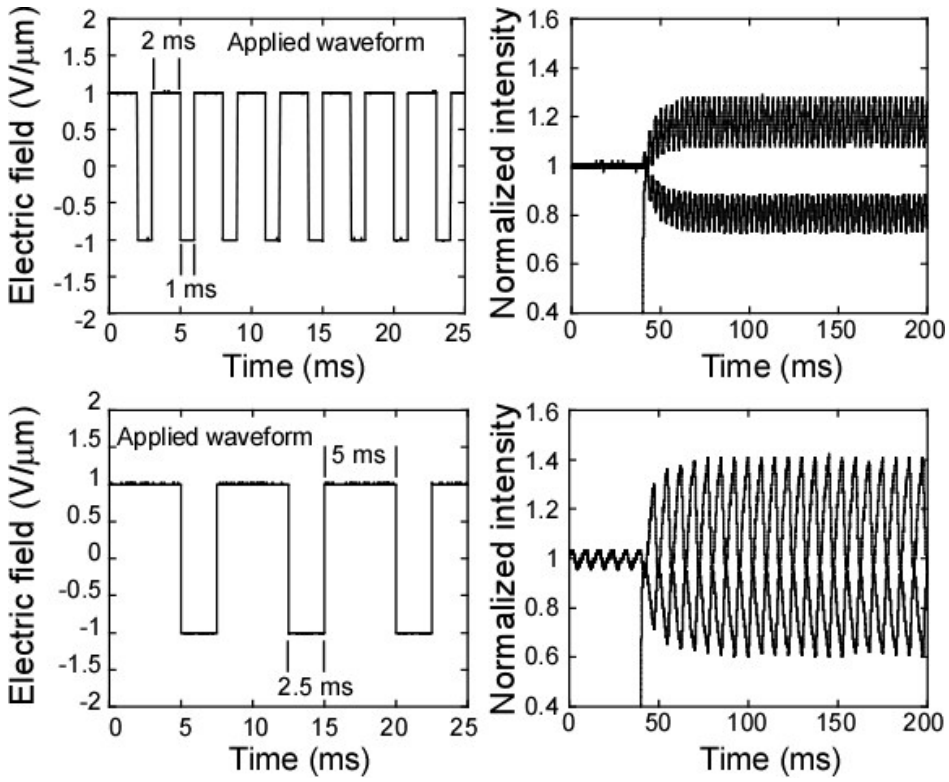

Figure S2. Bipolar electric field and two-beam coupling signals obtained from an FLC blend with 6 and 0.1 wt% 3T-2MB and TNF.