

ARTICLE

Supporting Information

Stress-Induced and Anchoring-Programmed Smectic Layer Architectures

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I. Supplementary Figures

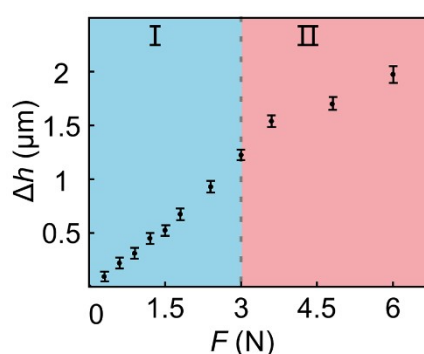


Figure S1. The relationship between the cell thickness variation Δh and the applied stress F .

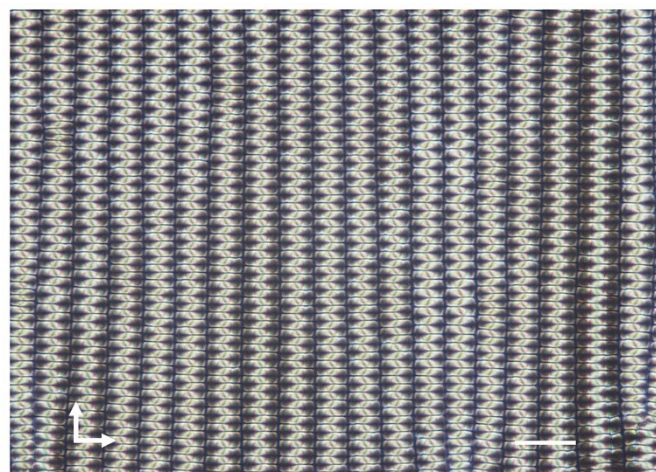


Figure S2. Micrograph of large-area ordered ZFCDs. The white arrows denote the directions of crossed polarizers. The scale bar indicates 30 μm .

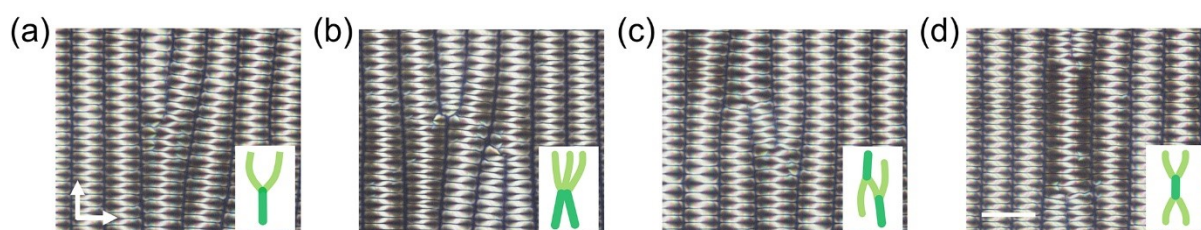


Figure S3. Special arrangements of ZFCDs: (a) Y-shaped, (b) opposite Y-shaped, (c) N-shaped and (d) X-shaped. The white arrows denote the directions of crossed polarizers. The scale bar indicates 30 μm .

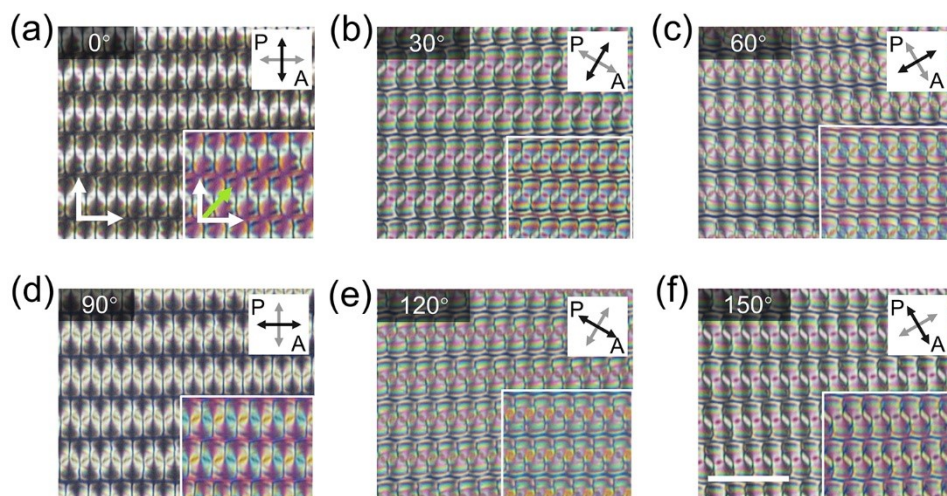


Figure S4. ZFCD textures observed at different rotation angles α of the polarizers. (a) $\alpha = 0^\circ$, (b) $\alpha = 30^\circ$, (c) $\alpha = 60^\circ$, (d) $\alpha = 90^\circ$, (e) $\alpha = 120^\circ$, and (f) $\alpha = 150^\circ$. The white arrows denote the directions of a pair of crossed polarizers. The green arrow denotes the direction of the λ plate. The scale bar indicates 30 μm for all micrographs.

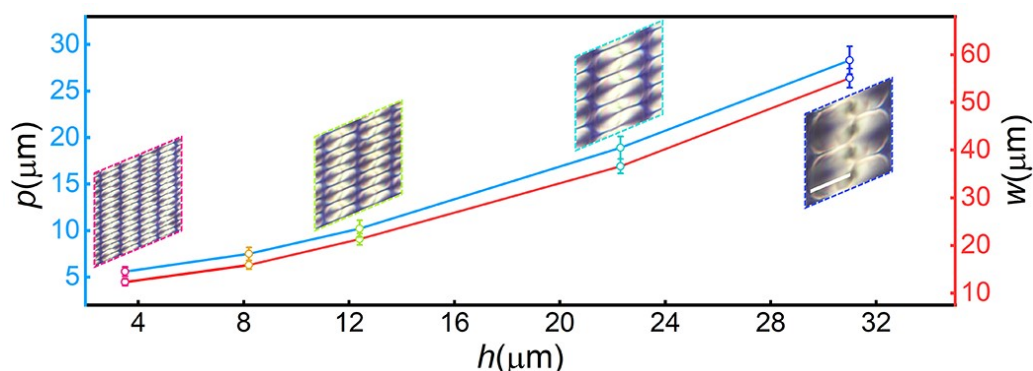


Figure S5. Dependencies of the unit width w and unit length p on the cell gap h . The scale bar indicates 30 μm for all the inset micrographs.

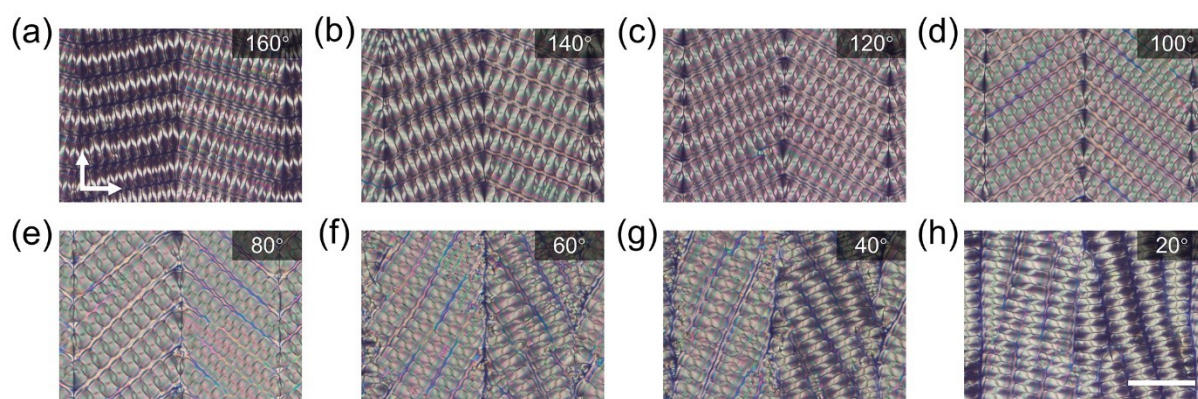


Figure S6. ZFCDs guided by alternative different directional regions with various angles θ . The white arrows denote the directions of a pair of crossed polarizers. The scale bar indicates 30 μm for all micrographs.

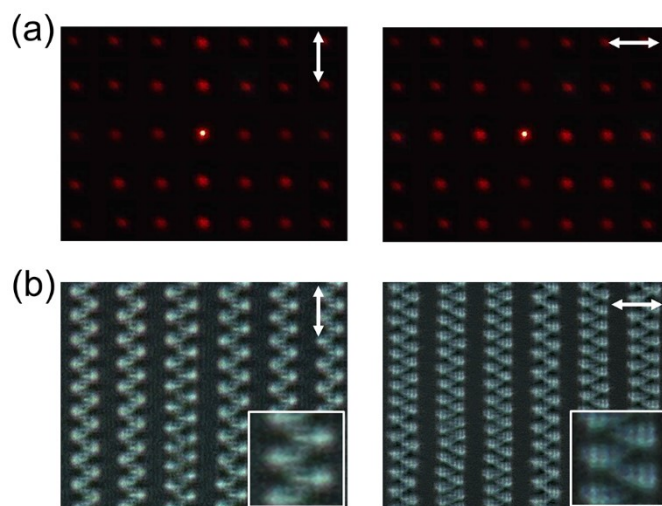


Figure S7. Polarization-dependent (a) diffraction patterns and (b) imaging functions.

II. Supplementary Movie

Supplementary movie S1: The detailed texture evolution from FCDs to ZFCDs under mechanical stress.