

Supplementary Material (ESI) for Soft Matter
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Supporting Information for:

Self-organized wrinkling patterns of liquid crystalline polymer in surface wetting confinement

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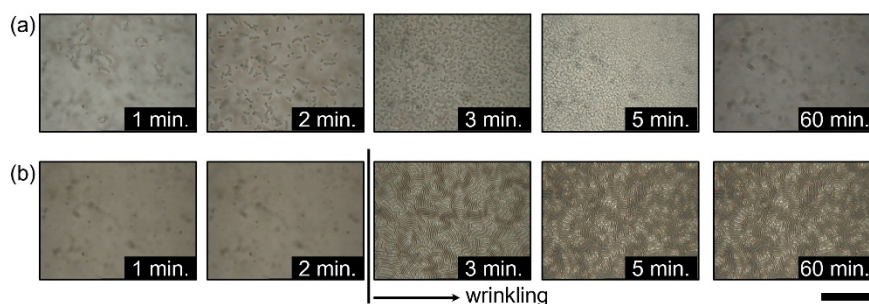


Figure S1. Wrinkle formation by UV irradiation.

The wrinkle formation was examined under different conditions of the UV irradiation. Microscopic images of the solidified RM films were shown as a function of the UV exposure time for two different values of the UV intensity: (a) 5 mW/cm² and (b) 100 mW/cm². It was found that the even for the prolonged exposure time, essentially no wrinkle was formed at a low value of the UV intensity.

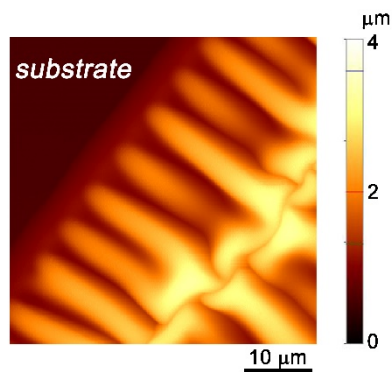


Figure S2. Image of fishbone wrinkles by atomic force microscopy.

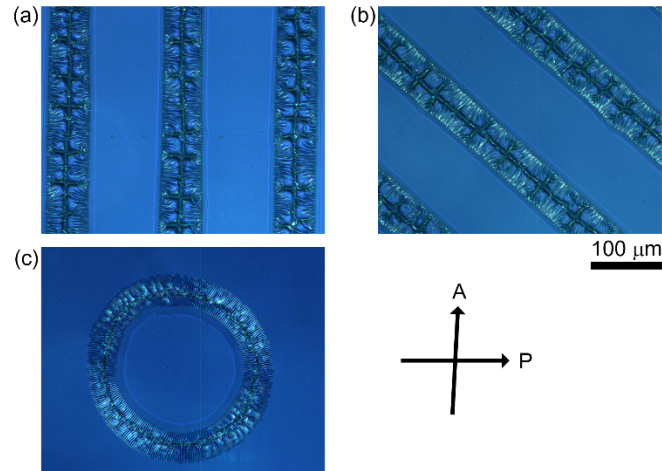


Figure S3. Birefringent patterns of the wrinkled structure

The birefringent patterns of the wrinkled structures in two different confinement geometries were observed under nearly crossed polarizers: (a) the striped confinement whose boundaries were parallel to the analyzer, (b) the striped confinement whose boundaries made an angle of 45° with respect to the analyzer, and (c) the ring-type confinement. Since the amount of the birefringence of a thin film (about $0.5 \mu\text{m}$ in our case) was quite small, the angle between the analyzer (A) and the polarizer (P) in a polarizing optical microscope was set as 87° and the light source power was sufficiently high to observe the birefringent patterns.