

## Supplementary Information

### Synergistic assembly of nanoparticles in smectic liquid crystals

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**Video S1.** *In situ* observation of the mixture of F-SiO<sub>2</sub> NP (100 nm)/F-LC cooled from isotropic phase (200 °C) to SmA phase (114 °C) under polarized optical microscope (POM), revealing a gradual transformation from an array of TFCDs to intermediate states of mixed TFCDs and fan textures to eventually fan textures.