

Nanoconfined heliconical structure of twist-bend nematic liquid crystal phase

Supplementary information

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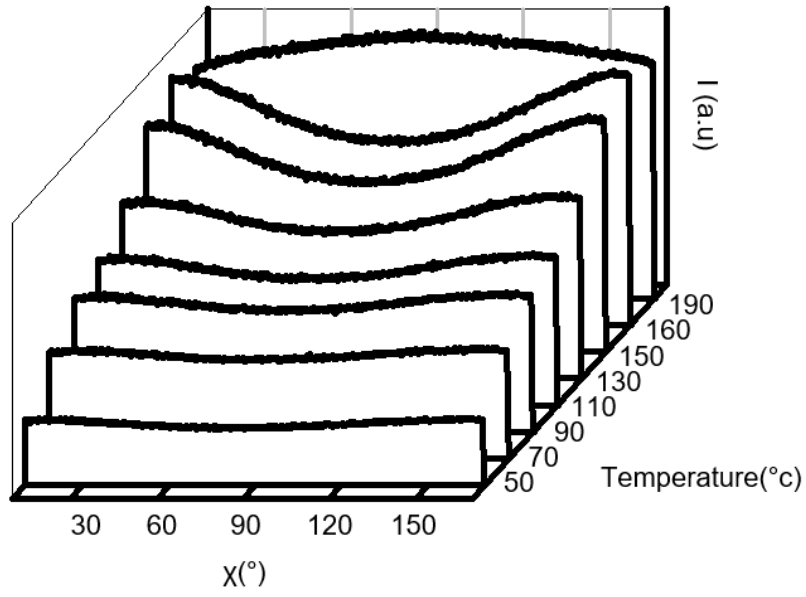
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(a) FOTS



(b) PEG 6/9

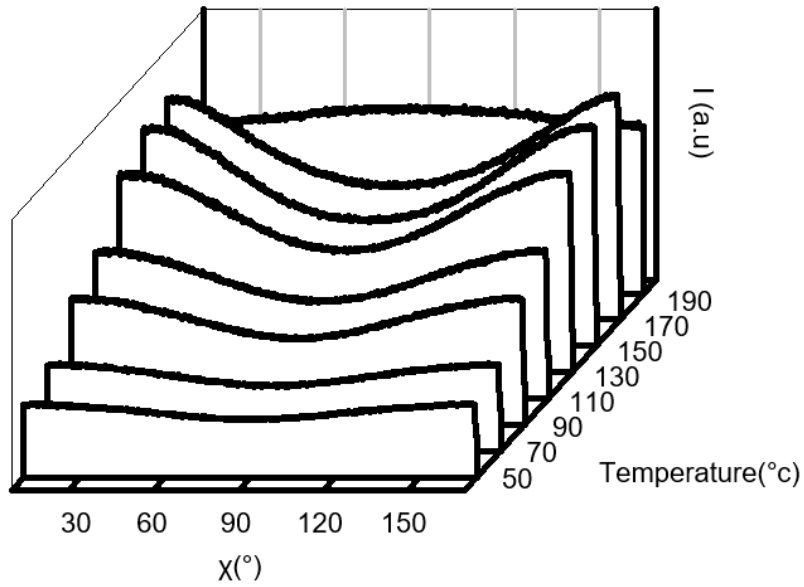


Figure S1. Azimuthal angle-varied intensities as a function of temperature at the wide-angle region at $q_2 = 0.52 \pm 0.02 \text{ \AA}^{-1}$ for the (a) FOTS- and (b) PEG-treated samples. The AAO pore is fixed at 100nm.

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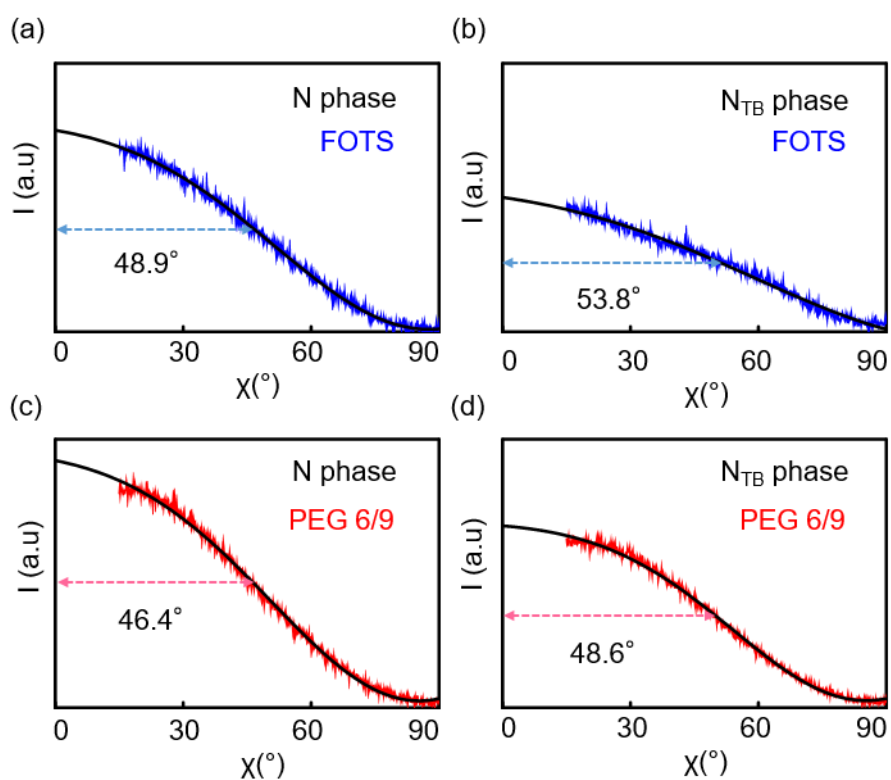


Figure S2. Gaussian fit curves of the wide-angle intensities at $q_1 = 1.42 \pm 0.01 \text{ \AA}^{-1}$ for the (a) FOTS- and (c) PEG-treated case at the N phase and for the (b) FOTS- and (d) PEG-treated case at the N_{TB} phase

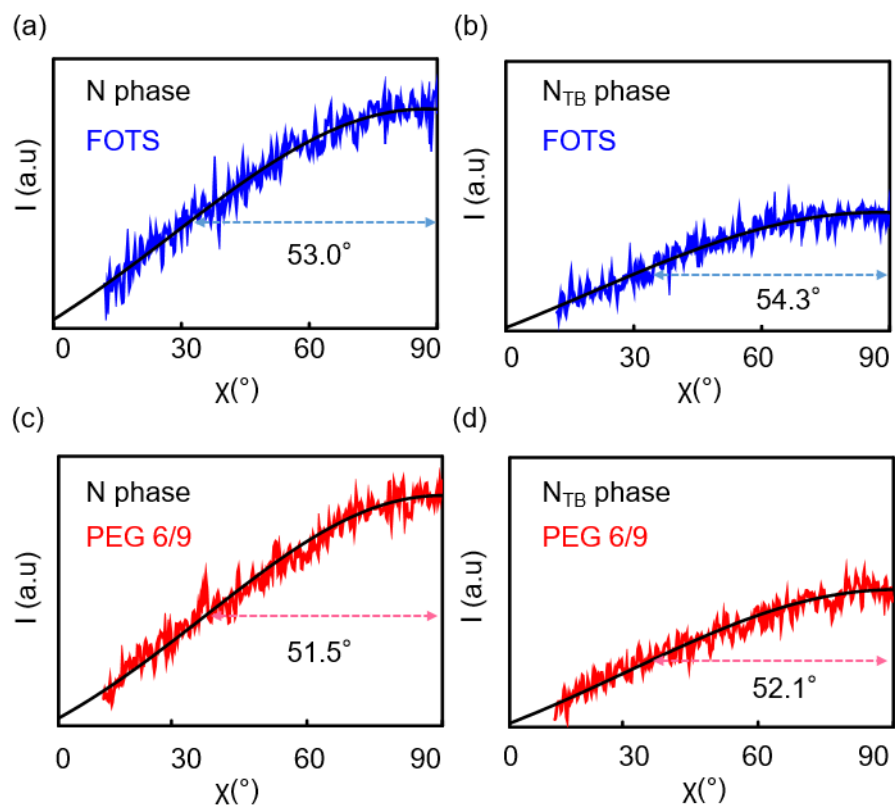
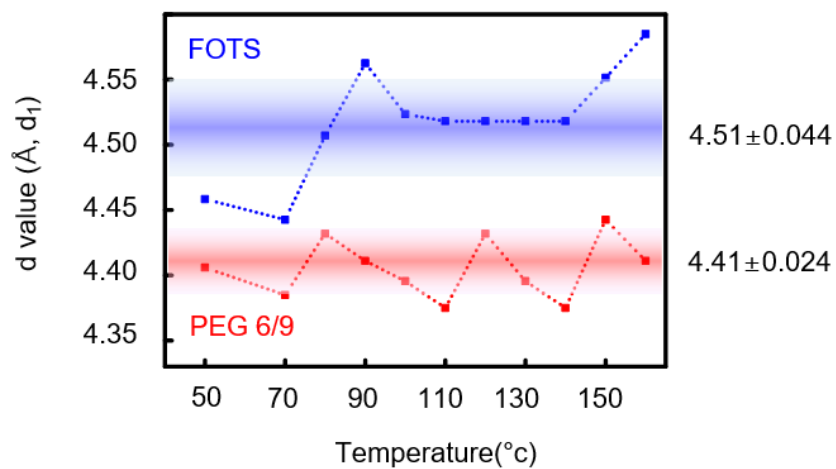


Figure S3. Gaussian fit curves of the wide-angle intensities at $q_2 = 0.52 \pm 0.02 \text{ \AA}^{-1}$ for the (a) FOTS- and (c) PEG-treated case at the N phase and for the (b) FOTS- and (d) PEG-treated case at the N_{TB} phase

(a) Intermolecular distance



(b) Intercalated distance

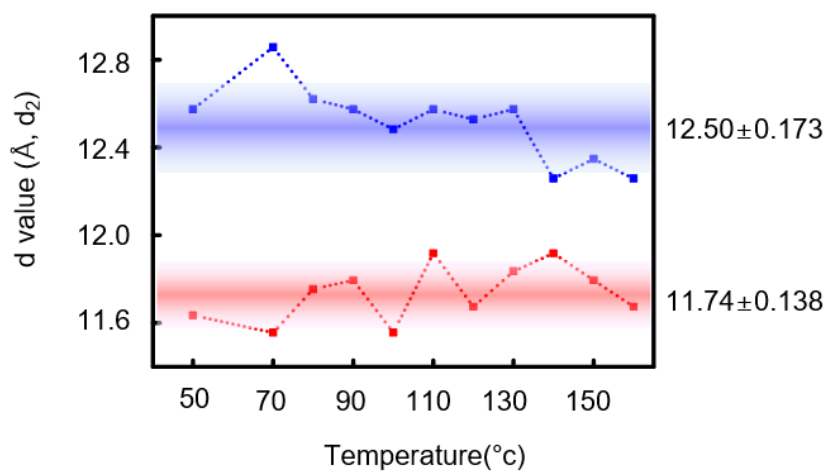


Figure S4. Calculated d values based on the 1D line-cut analysis with varying temperatures. The intermolecular and the intercalated distances are calculated in the wide-angle region at $\chi = 10^\circ$ (a) and in the small-angle region at $\chi = 90^\circ$ (b), respectively. The blue and red dots indicate d values of the FOTS-treated and PEG 6/9-treated samples, respectively. The coloured regions represent the normal distribution of d values.