

Supporting Information for

**High-performance dielectric block copolymer with self-assembled
superhelical nanotube morphology**

Wenmei Liu, Jie Chen, Dandan Zhou, Xiaojuan Liao, Meiran Xie* and Ruyi Sun*

School of Chemistry and Molecular Engineering, East China Normal University, Shanghai 200241,
China

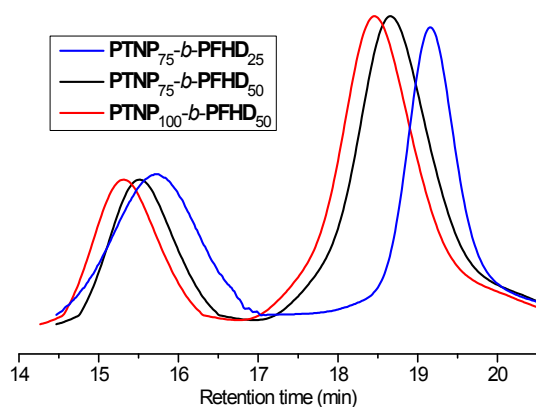


Figure S1. GPC traces of block copolymers.

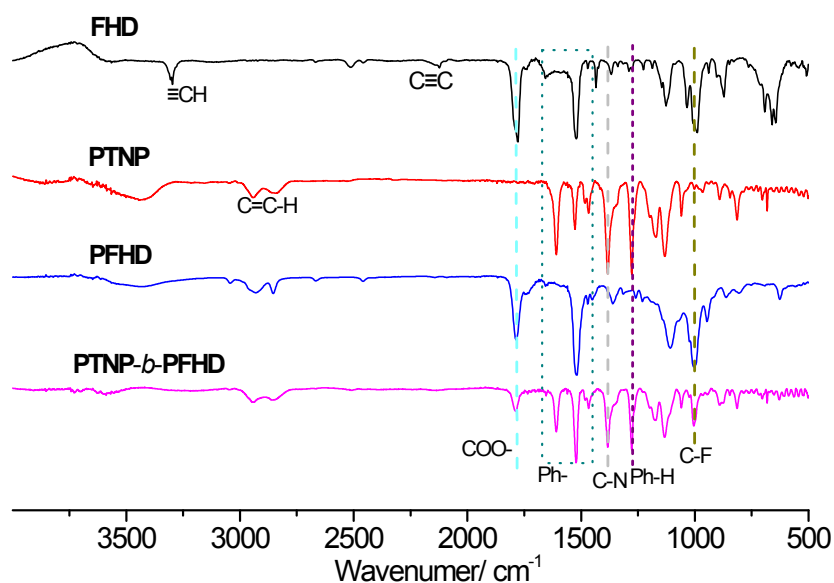


Figure S2. IR spectra of **FHD**, **PTNP**, **PFHD**, and **PTNP-*b*-PFHD**.

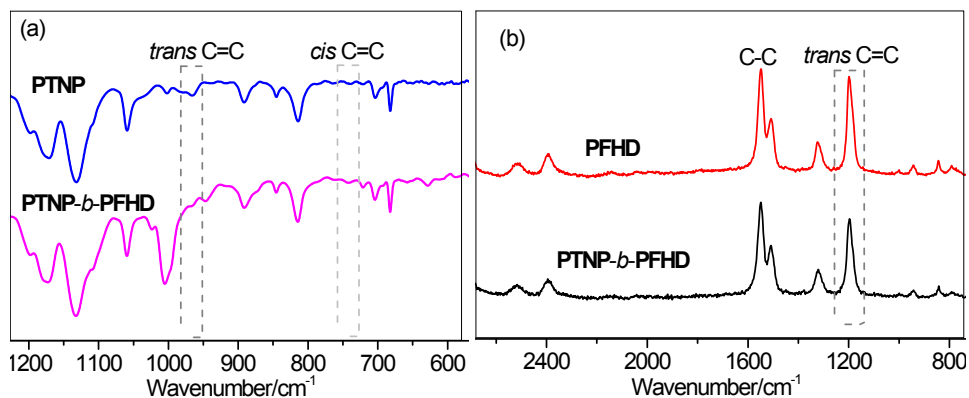


Figure S3. (a) Amplified IR spectra of **PTNP** and **PTNP-*b*-PFHD**; (b) Raman spectra of **PFHD** and **PTNP-*b*-PFHD**.

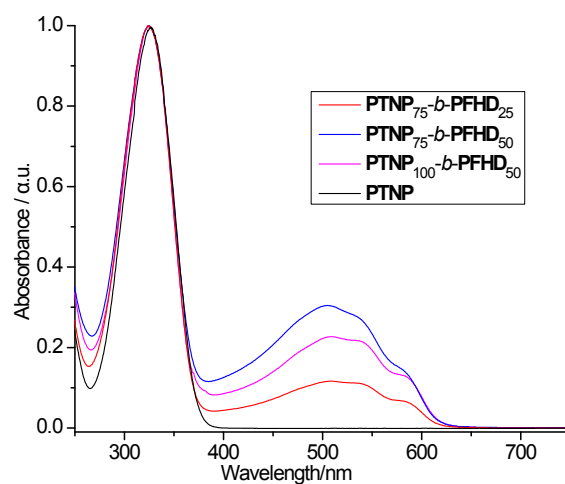


Figure S4. UV-vis absorption spectra of copolymers with different **PFHD** lengths at the concentration of 1.0×10^{-3} mg/mL in CHCl_3 .

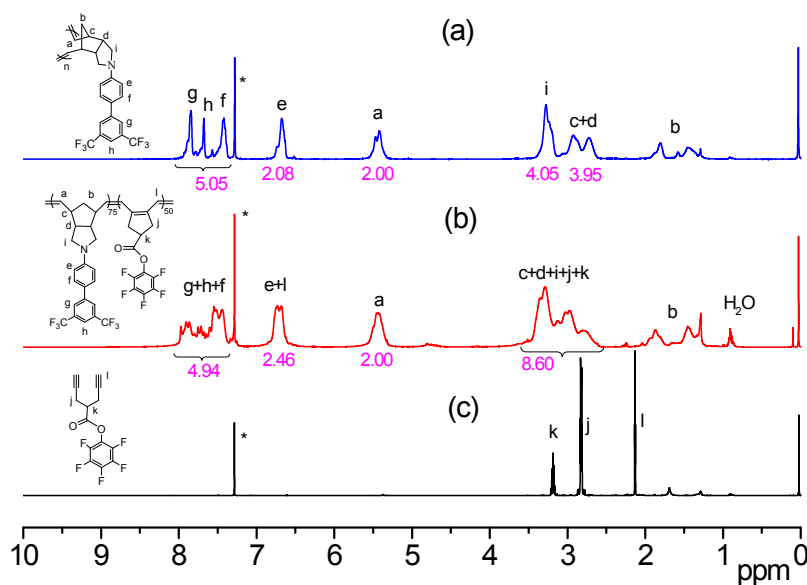


Figure S5. ^1H NMR spectra of (a) **PTNP**, (b) **PTNP-*b*-PFHD**, and (c) **FHD**.

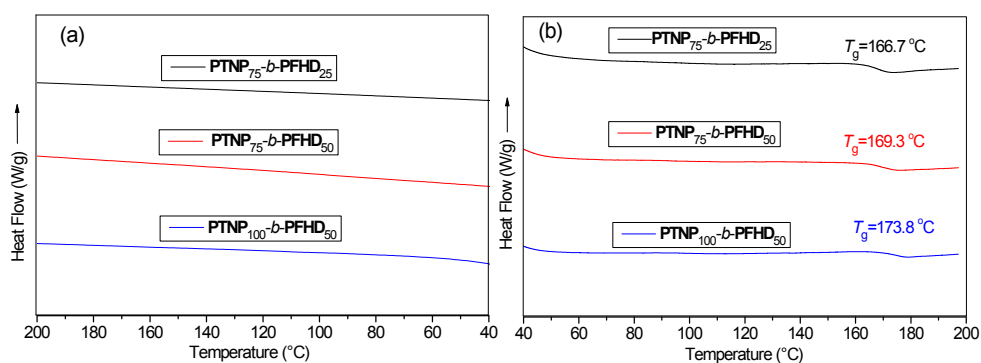


Figure S6. DSC curves of copolymers in (a) the cooling process and (b) the second heating process.

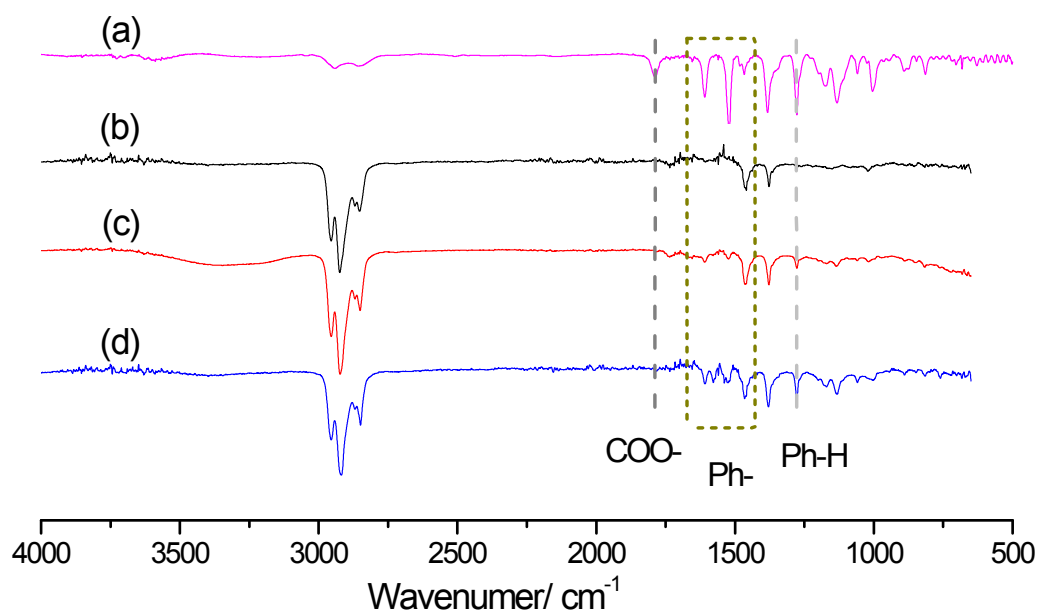


Figure S7. IR spectrum of **PTNP₇₅-*b*-PFHD₂₅** in solid state (a); ATR-IR spectra of **PTNP₇₅-*b*-PFHD₂₅** in CHCl_3 solution at concentration of (b) 0.05, (c) 0.1, and (d) 0.2 mg/mL.

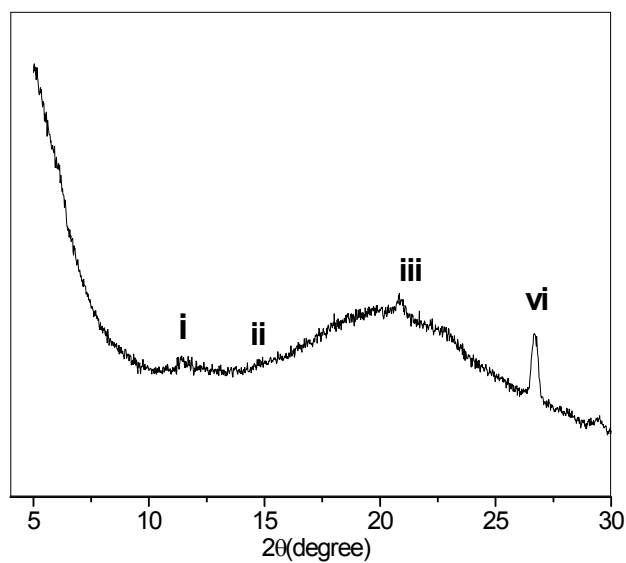


Figure S8. XRD pattern for spin-coating film of **PTNP₇₅-*b*-PFHD₂₅**.