

Electronic Supplementary Information (ESI) for

Hierarchically ordered nanostructures of a supramolecular rod–coil block copolymer with a hydrogen-bonded discotic mesogen

Hongbing Pan, Wei Zhang, Anqi Xiao, Xiaolin Lyu, Pingping Hou, Zhihao Shen,* and Xinghe Fan*

Beijing National Laboratory for Molecular Sciences, Key Laboratory of Polymer Chemistry and Physics of Ministry of Education, Center for Soft Matter Science and Engineering, College of Chemistry and Molecular Engineering, Peking University, Beijing 100871, China. Email: zshen@pku.edu.cn, fanxh@pku.edu.cn

Table of Contents

Figure S1	FT-IR spectra of the precursor, donor and complexes	S2
Figure S2	TGA traces of the donor samples	S2
Figure S3	Variable-temperature FT-IR spectra of the complexes	S3
Figure S4	SAXS and WAXS profiles of D ₁₂₀ M ₃ H ₄₅ (PHTC6) _x samples	S3
Figure S5	Apparent phase diagram of the complex	S4
Figure S6	Variable-temperature SAXS profiles of the complexes	S4
Figure S7	2D SAXS pattern of D ₁₂₀ M ₃ H ₃₁ (PHTC6) _{1.0}	S5

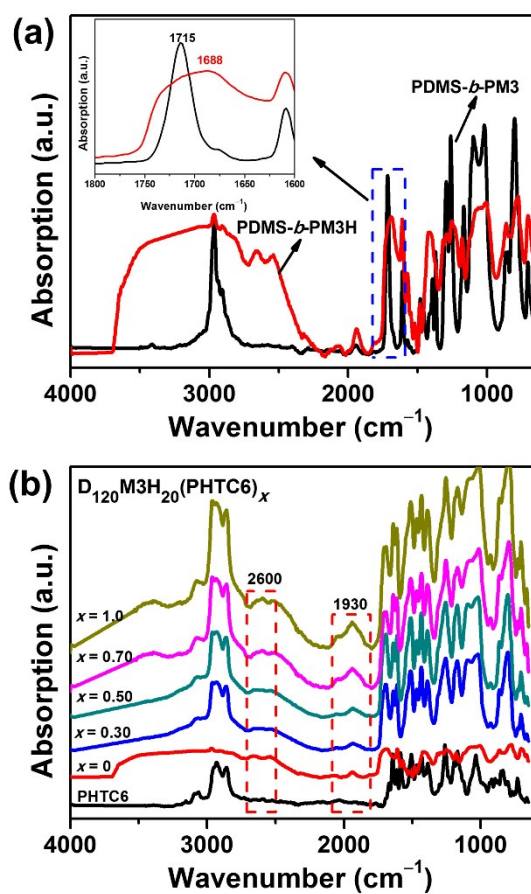


Figure S1. FT-IR spectra of the donor PDMS-*b*-PM3H and its precursor PDMS-*b*-PM3 (a) and those of the complexes $D_{120}M_3H_{20}(PHTC6)_x$ with different x and the acceptor (b).

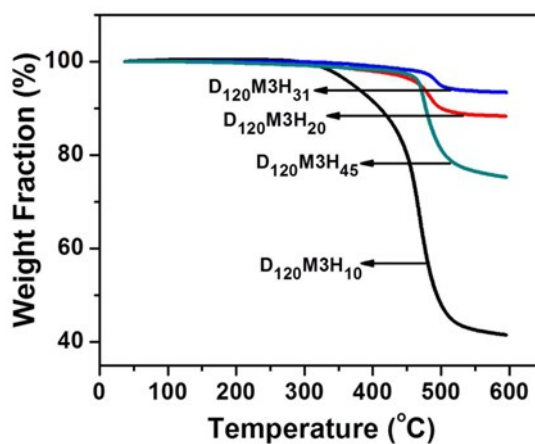


Figure S2. TGA traces of the donors during heating at 10 °C/min in a nitrogen atmosphere.

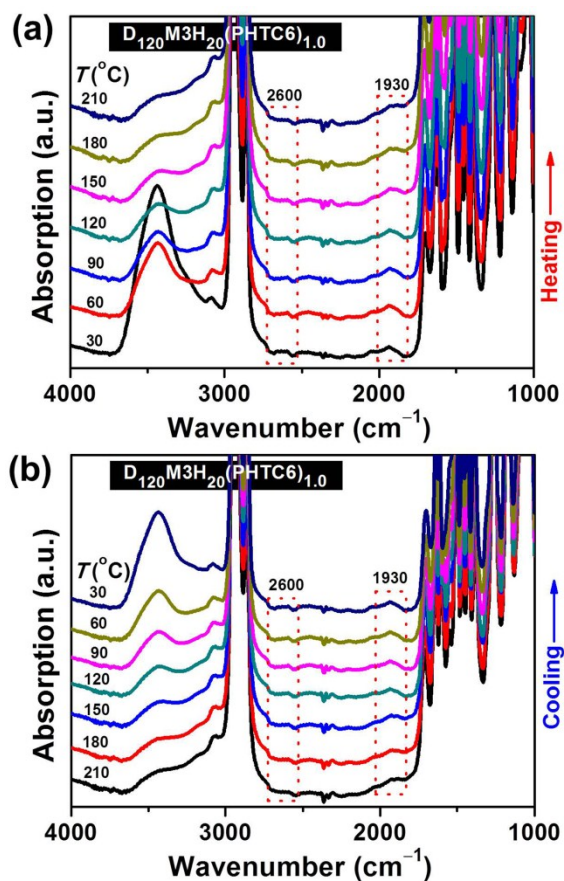


Figure S3. Variable-temperature FT-IR spectra of the complex $D_{120}M3H_{20}(PHTC6)_{1.0}$ during heating (a) and cooling (b).

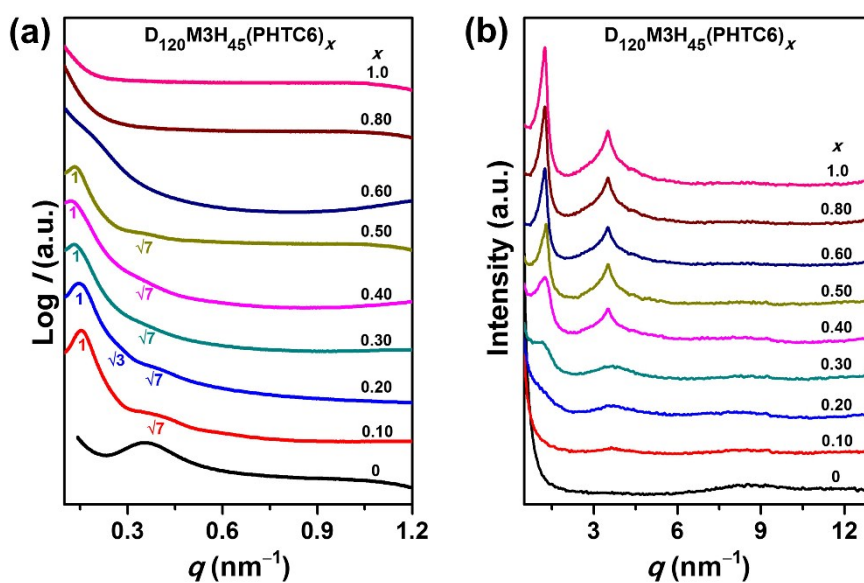


Figure S4. SAXS (a) and WAXS (b) profiles of the complexes $D_{120}M3H_{20}(PHTC6)_x$ and the donor $D_{120}M3H_{20}$.

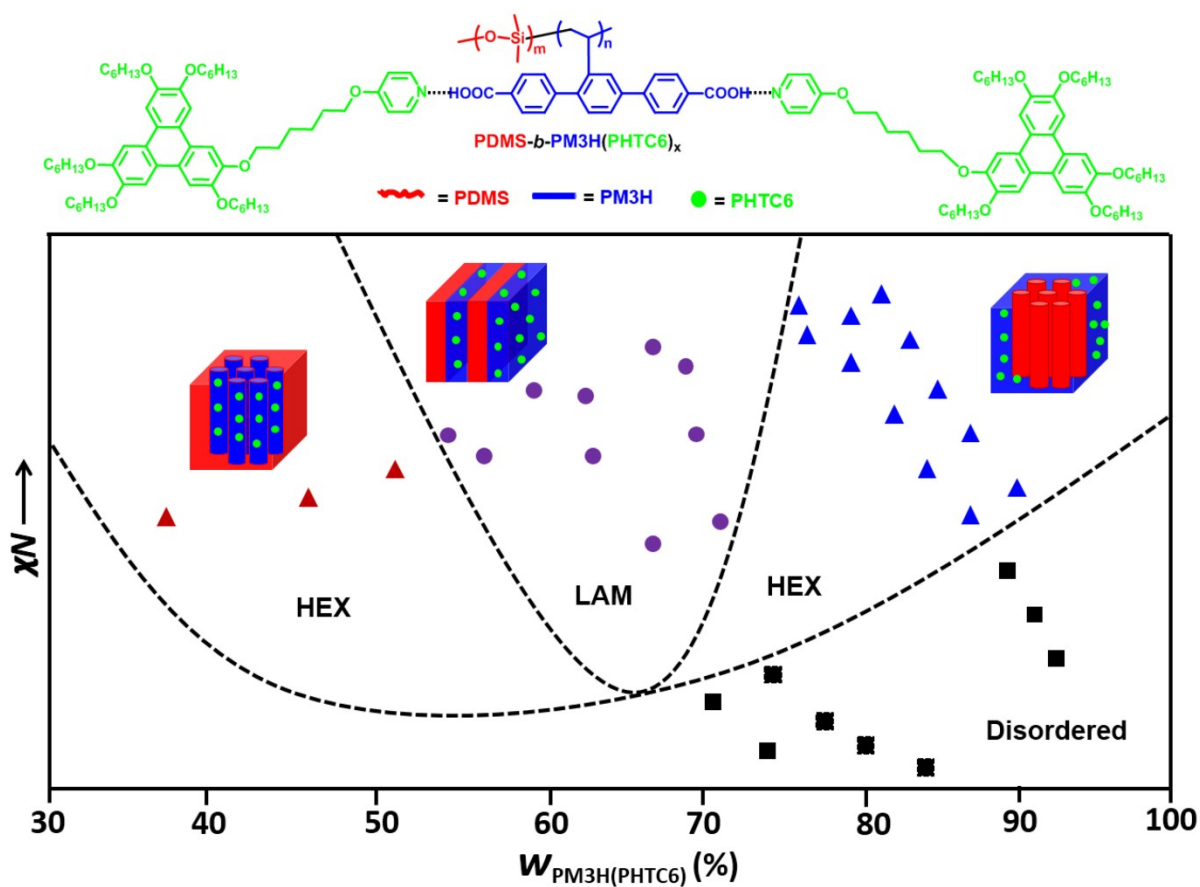


Figure S5. Apparent phase diagram, χN vs $w_{\text{PM3H(PHTC6)}}$, of the complex. The values of χN and the phase boundaries are rather arbitrary and hypothetical, without experimental proof.

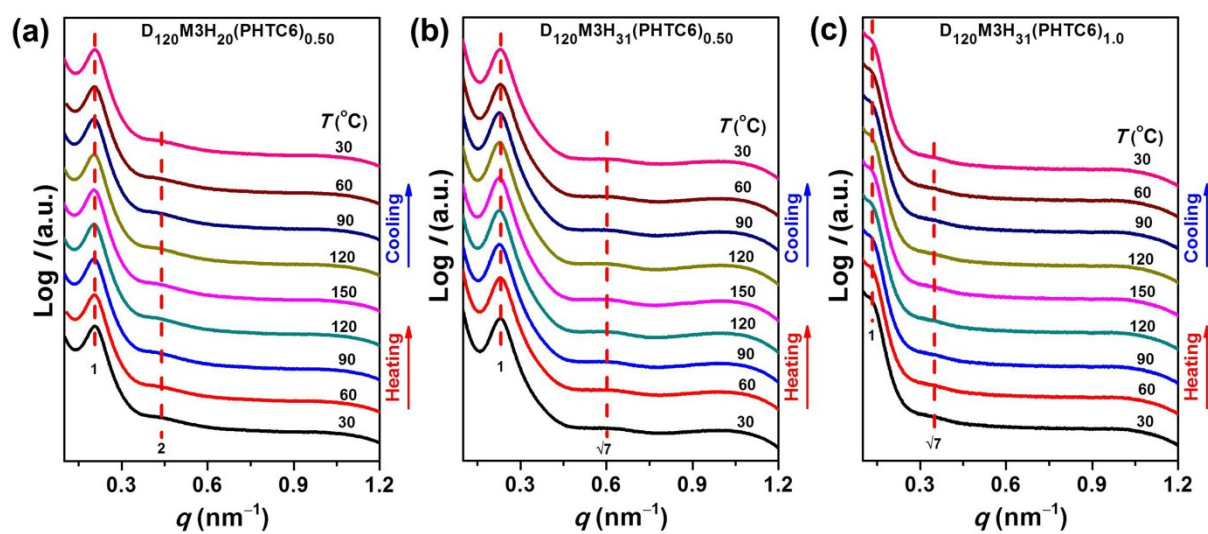


Figure S6. Variable-temperature SAXS profiles of the complexes (a: $\text{D}_{120}\text{M3H}_{20}(\text{PHTC6})_{0.50}$; b: $\text{D}_{120}\text{M3H}_{31}(\text{PHTC6})_{0.50}$; c: $\text{D}_{120}\text{M3H}_{31}(\text{PHTC6})_{1.0}$).

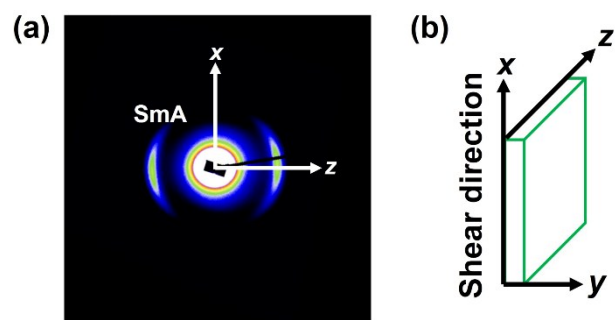


Figure S7. 2D SAXS pattern of $D_{120}M_{3H_{31}}(PHTC6)_{1.0}$ (a) with the X-ray beam along the y direction and the shearing geometry (b).