

Electronic Supplementary Information (ESI)

for

Multicompartment Morphologies Self-Assembled from

Fluorinated ABC Triblock Terpolymers: Effects of Flexible and

Rigid Hydrophobic Moieties

Sen Li, Jinlin He, Mingzu Zhang, Hairong Wang and Peihong Ni**

College of Chemistry, Chemical Engineering and Materials Science, State and Local Joint
Engineering Laboratory for Novel Functional Polymeric Materials, Suzhou Key Laboratory of
Macromolecular Design and Precision Synthesis, Jiangsu Key Laboratory of Advanced
Functional Polymer Design and Application, Soochow University, Suzhou 215123, P. R. China

E-mail: phni@suda.edu.cn (P. H. Ni); jlhe@suda.edu.cn (J. L. He). Tel: +86-512-65882047

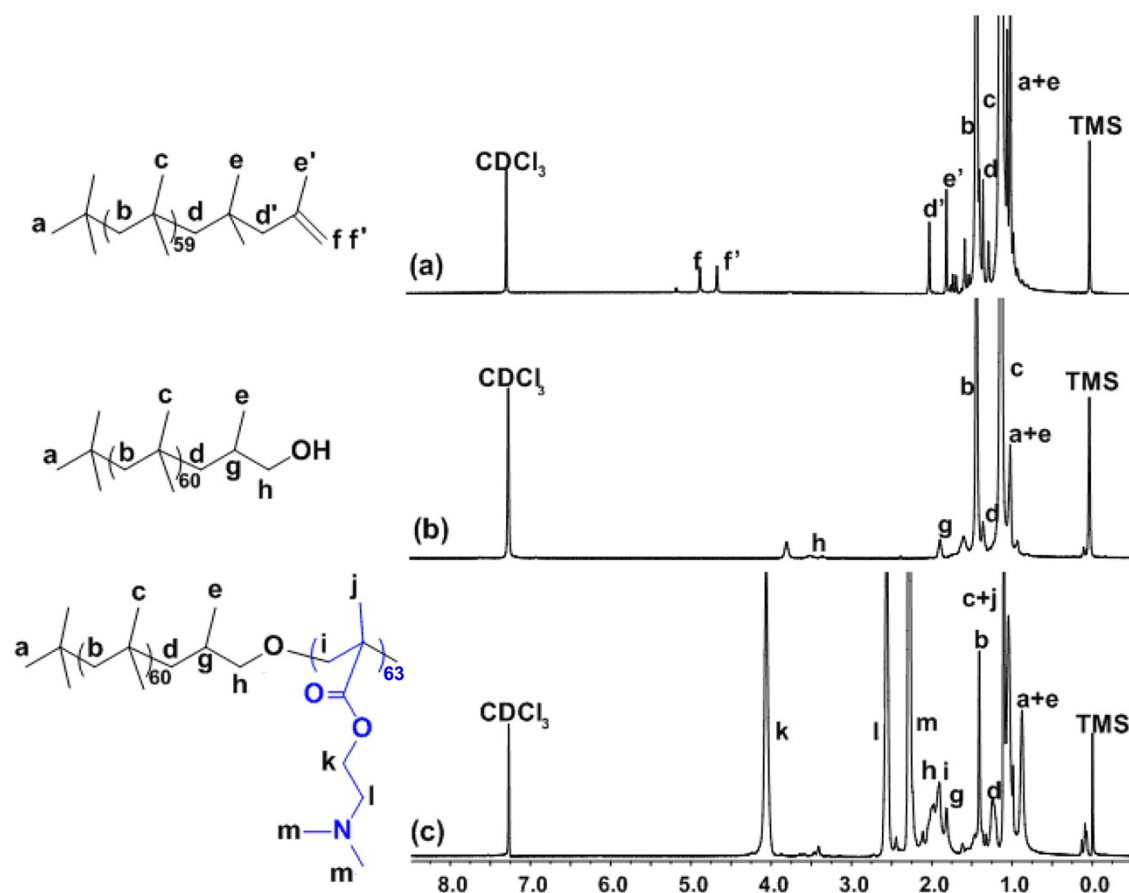


Fig. S1 ^1H NMR spectra of (a) HRPIB, (b) $\text{I}_{60}\text{-OH}$, and (c) $\text{I}_{60}\text{D}_{63}$ in CDCl_3 .

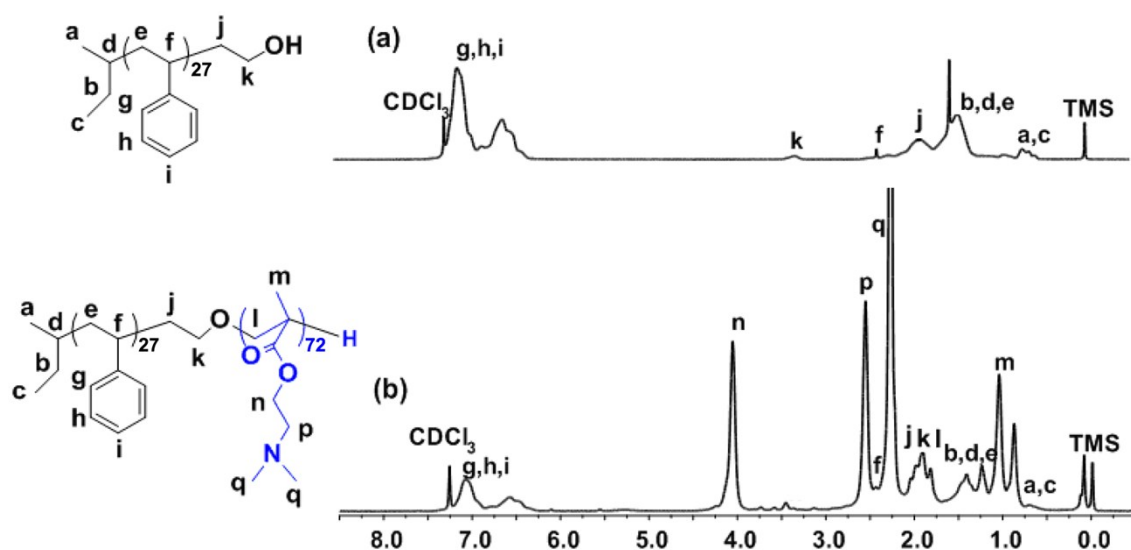


Fig. S2 ^1H NMR spectra of (a) $\text{S}_{27}\text{-OH}$, and (b) $\text{S}_{27}\text{D}_{72}$ in CDCl_3 .

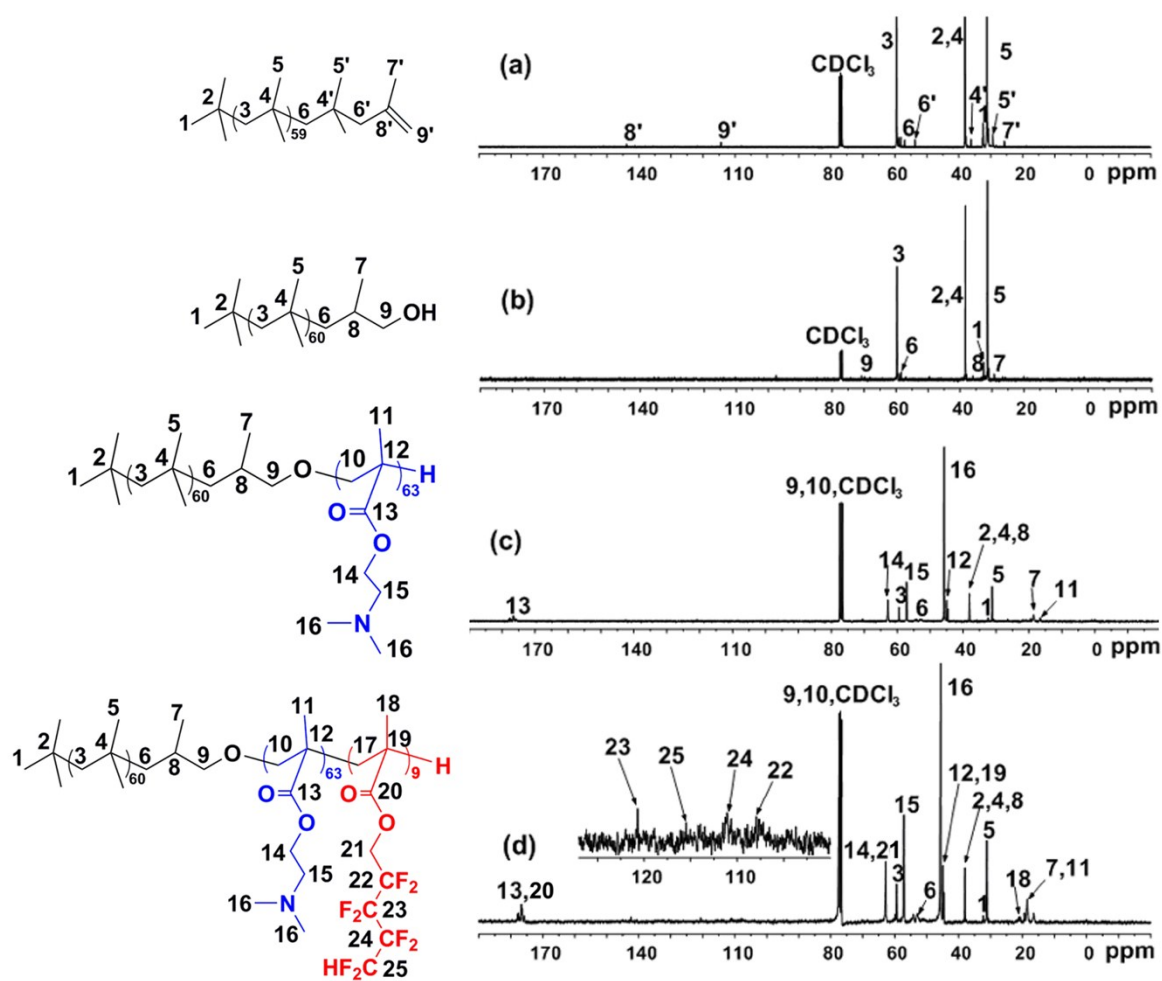


Fig. S3 ^{13}C NMR spectra of (a) HRPIB, (b) $\text{I}_{60}\text{-OH}$, (c) $\text{I}_{60}\text{D}_{63}$, and (d) $\text{I}_{60}\text{D}_{63}\text{F}_9$ in CDCl_3 .

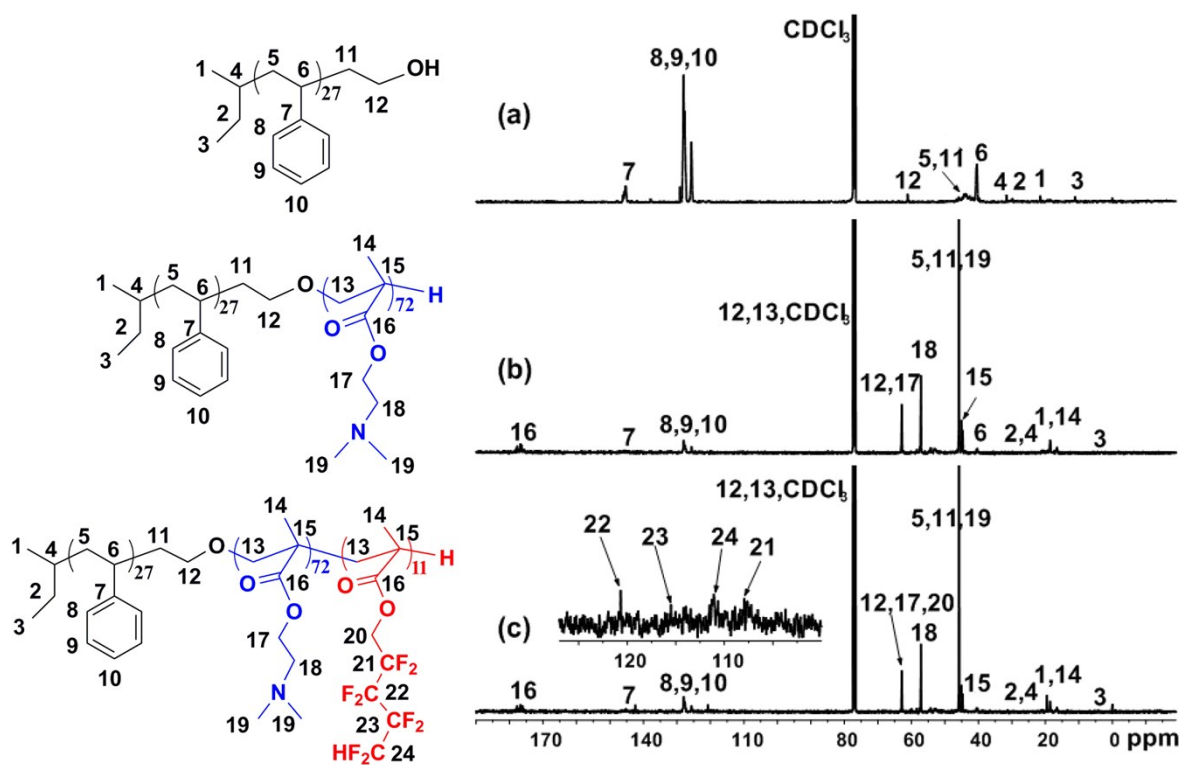


Fig. S4 ^{13}C NMR spectra of (a) $\text{S}_{27}\text{-OH}$, (b) $\text{S}_{27}\text{D}_{72}$, and (c) $\text{S}_{27}\text{D}_{72}\text{F}_{11}$ in CDCl_3 .

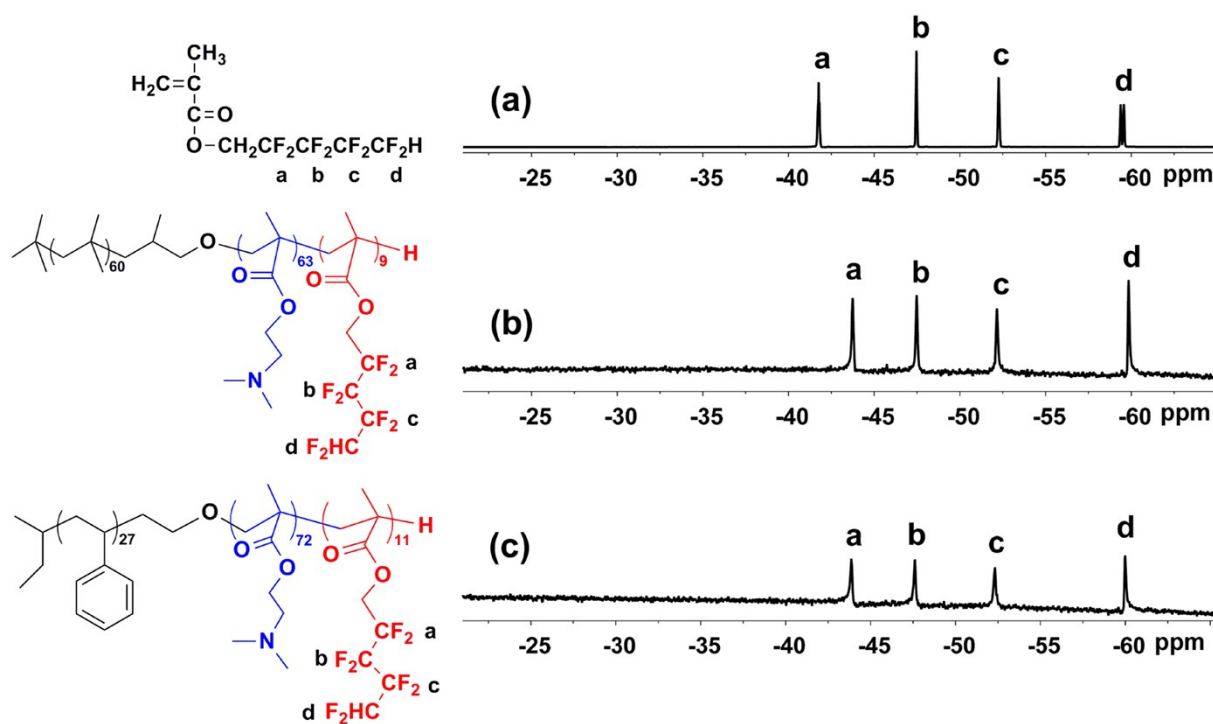


Fig. S5 ^{19}F NMR spectra of (a) OFPMA, (b) $\text{I}_{60}\text{D}_{63}\text{F}_9$, and (c) $\text{S}_{27}\text{D}_{72}\text{F}_{11}$ in CDCl_3 .

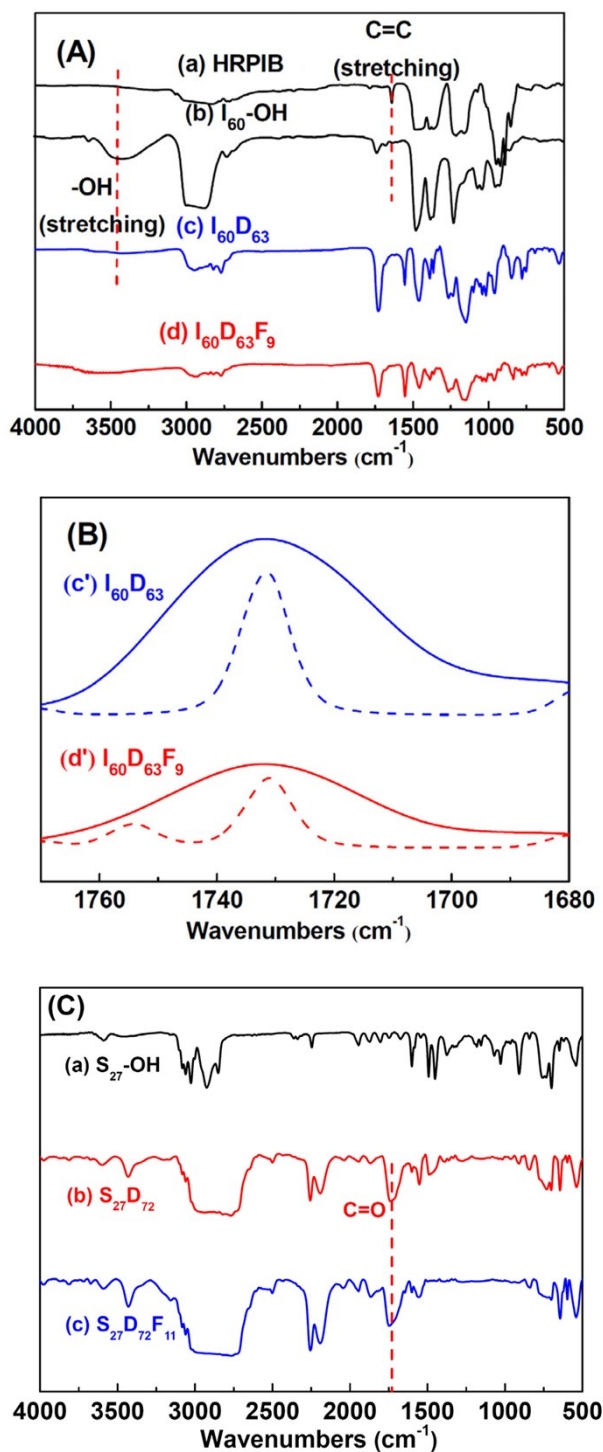


Fig. S6 (A) FT-IR spectra of different polymers for (a) HRPIB, (b) $\text{I}_{60}\text{-OH}$, (c) $\text{I}_{60}\text{D}_{63}$, and (d) $\text{I}_{60}\text{D}_{63}\text{F}_9$; (B) Scale-expanded FT-IR spectra (solid curve) and schematic of curve-fitting (dashed curve) in the region of 1770-1680 cm^{-1} for (c') $\text{I}_{60}\text{D}_{63}$, and (d') $\text{I}_{60}\text{D}_{63}\text{F}_9$; (C) FT-IR spectra of various polymers for (a) $\text{S}_{27}\text{-OH}$, (b) $\text{S}_{27}\text{D}_{72}$, (c) $\text{S}_{27}\text{D}_{72}\text{F}_{11}$.

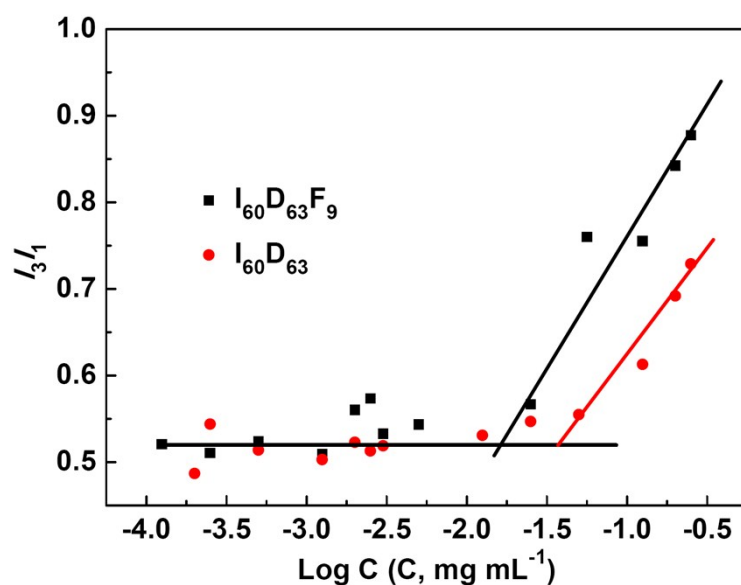


Fig. S7 Intensity ratios (I_3/I_1) as a function of logarithm concentrations of $I_{60}D_{63}$ and $I_{60}D_{63}F_9$.

The pH values for all the solutions were kept at 3.0.

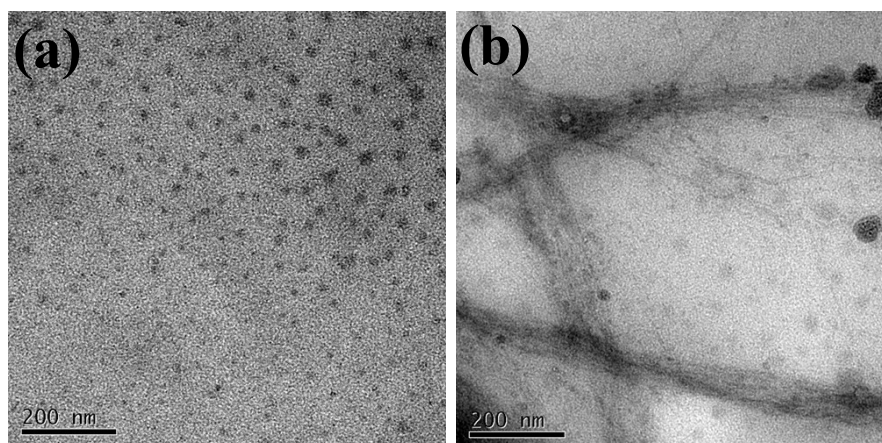


Fig. S8 TEM images of (a) spherical micelles and (b) fiber-like aggregates self-assembled from $I_{60}D_{63}F_9$ at a concentration of 2.5 mg mL^{-1} (bar = 200 nm).

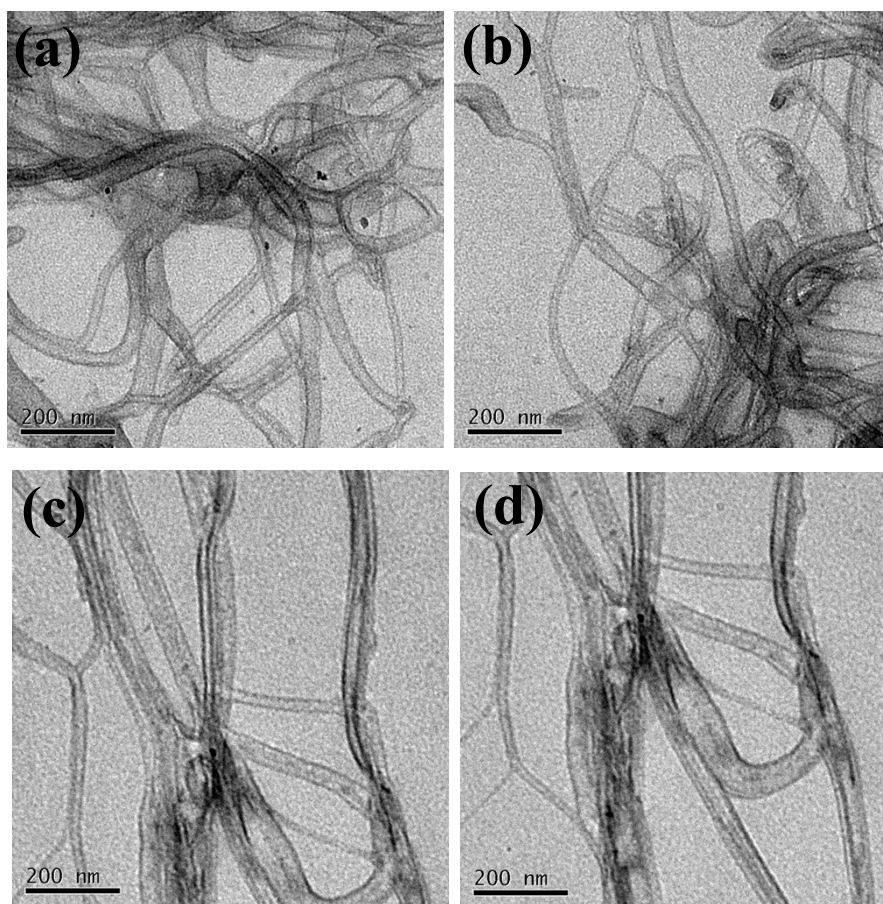


Fig. S9 TEM images of the reproducible nanotubules self-assembled from I₆₀D₆₃F₉ at a concentration of 5.0 mg mL⁻¹ (bar = 200 nm).