## **Electronic supplementary information (ESI)**

## Synthesis of [60]Fullerene-End-Capped Polyacetylene Derivative -

## A "Rod-Sphere" Molecule from "Coil-Sphere" Precursor

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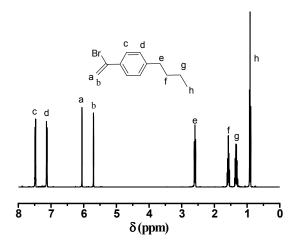


Figure S1. <sup>1</sup>H NMR spectrum of 1-(1'-bromovinyl)-4-butylbenzene (400 MHz).

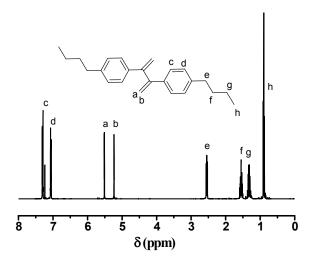


Figure S2. <sup>1</sup>H NMR spectrum of diBPBd (400 MHz).

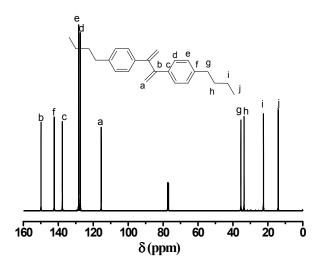


Figure S3. <sup>13</sup>C NMR spectrum of diBPBd (400 MHz).

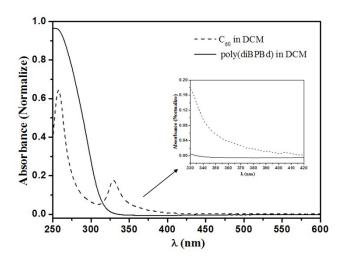


Figure S4. UV spectra of poly(diBPBd) and  $C_{60}$  in DCM.

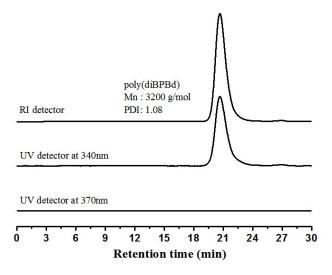


Figure S5. GPC curves of poly(diBPBd) using different UV detectors.

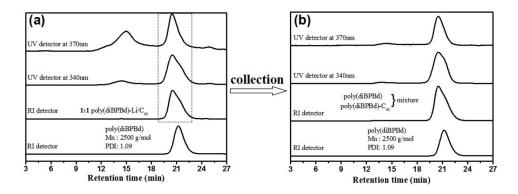


Figure S6. GPC traces of fractions collected by preparative GPC (step 1).

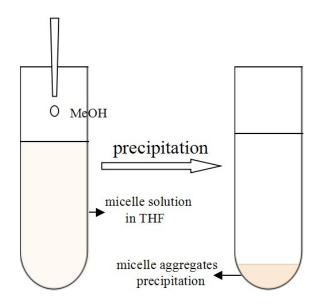


Figure S7. The general precipitation process (step 2).

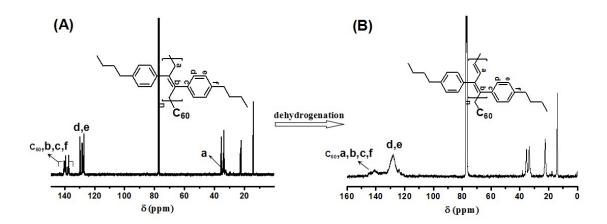


Figure S8. <sup>13</sup>C NMR spectra of (A) poly(diBPBd)-C<sub>60</sub> and (B) sPA-C<sub>60</sub>.

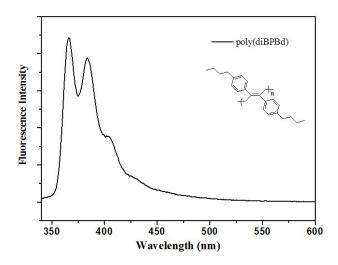


Figure S9. Emission spectrum of poly(diBPBd) in DCM under the excitation at 320 nm.