

# *Supporting Information*

## **Photo-induced conversion from supramolecular to covalently linked polymers based on anthracene-appended amphiphile**

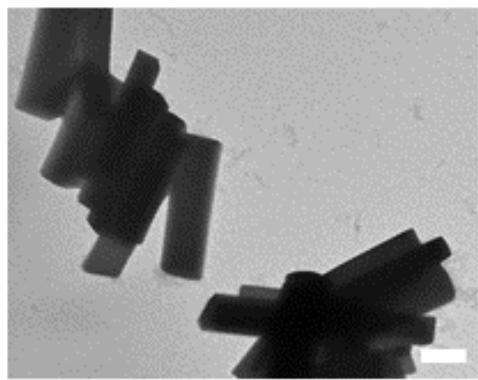
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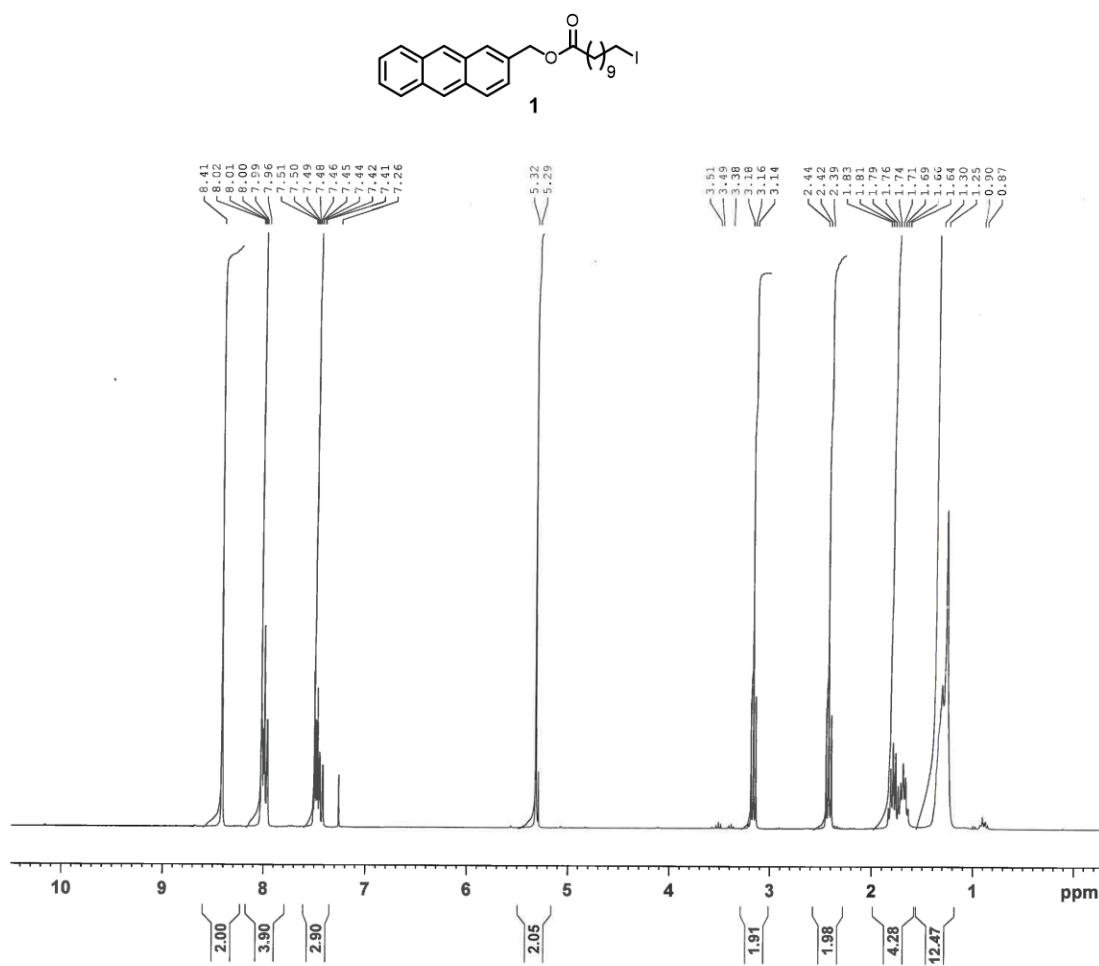
<sup>b</sup> State Key Lab of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, China; E-mail: jhu@ciac.ac.cn.

### **Content**

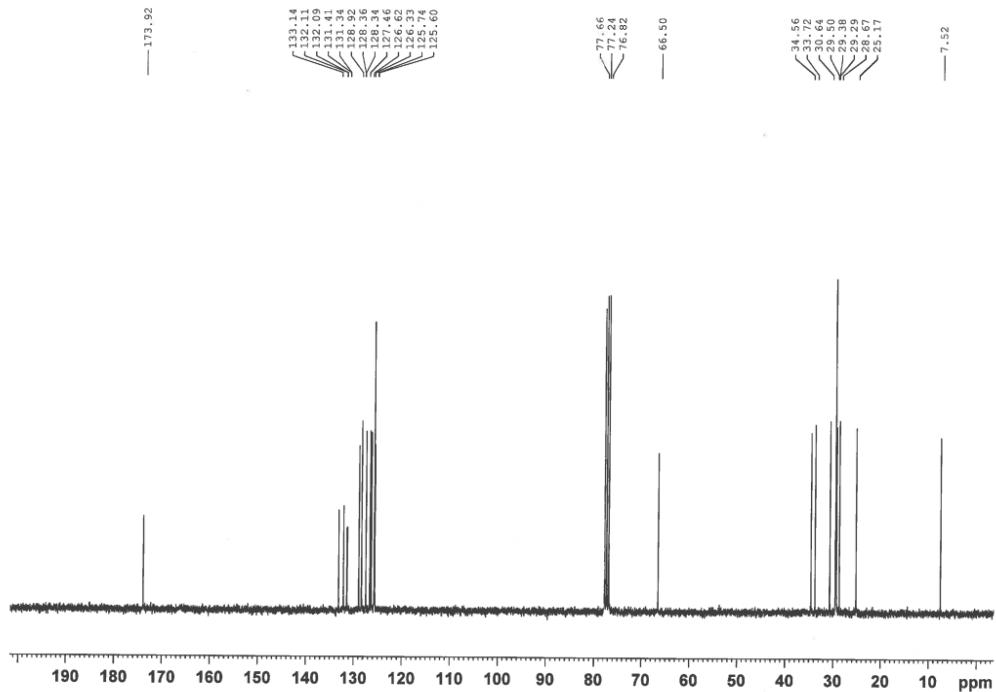
<b>1. TEM image of amphiphilic monomer <b>2</b></b>	<b>2</b>
<b>2. Characterization of compound <b>1</b></b>	<b>2</b>
(1) <sup>1</sup> H NMR spectrum of compound <b>1</b>	2
(2) <sup>13</sup> C NMR spectrum of compound <b>1</b>	3
(3) EI-MS (+) spectrum of compound <b>1</b>	3
<b>3. Characterization of compound <b>2</b></b>	<b>4</b>
(1) <sup>1</sup> H NMR spectrum of compound <b>2</b>	4
(2) <sup>13</sup> C NMR spectrum of compound <b>2</b>	4
(3) ESI-MS (+) spectrum of compound <b>2</b>	5



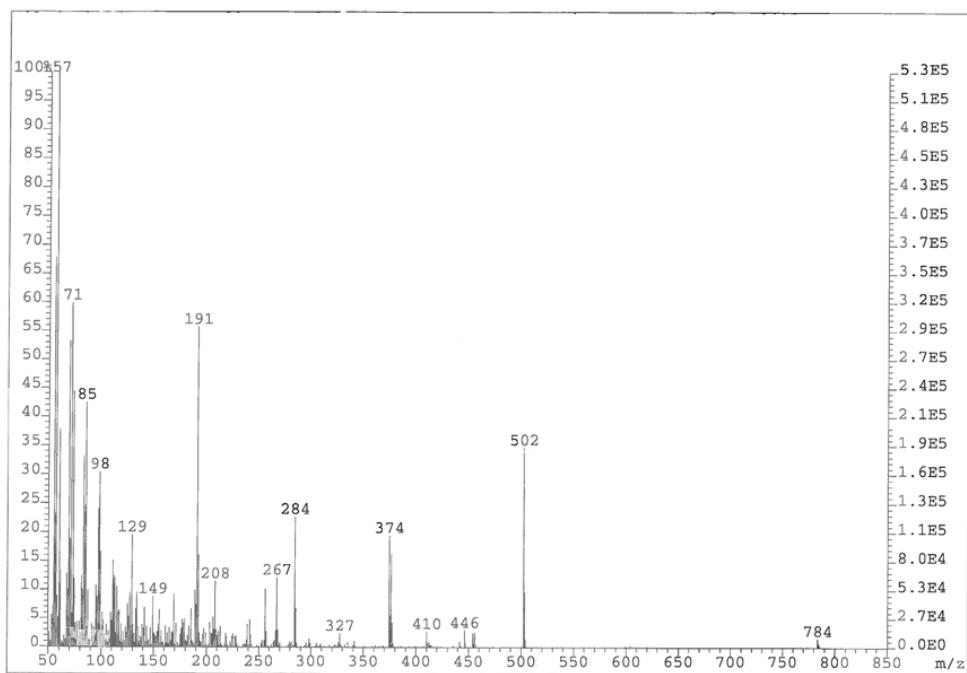
**Fig. S1** TEM images of amphiphilic monomer **2** (0.05 mM). Scale bar is 200 nm.



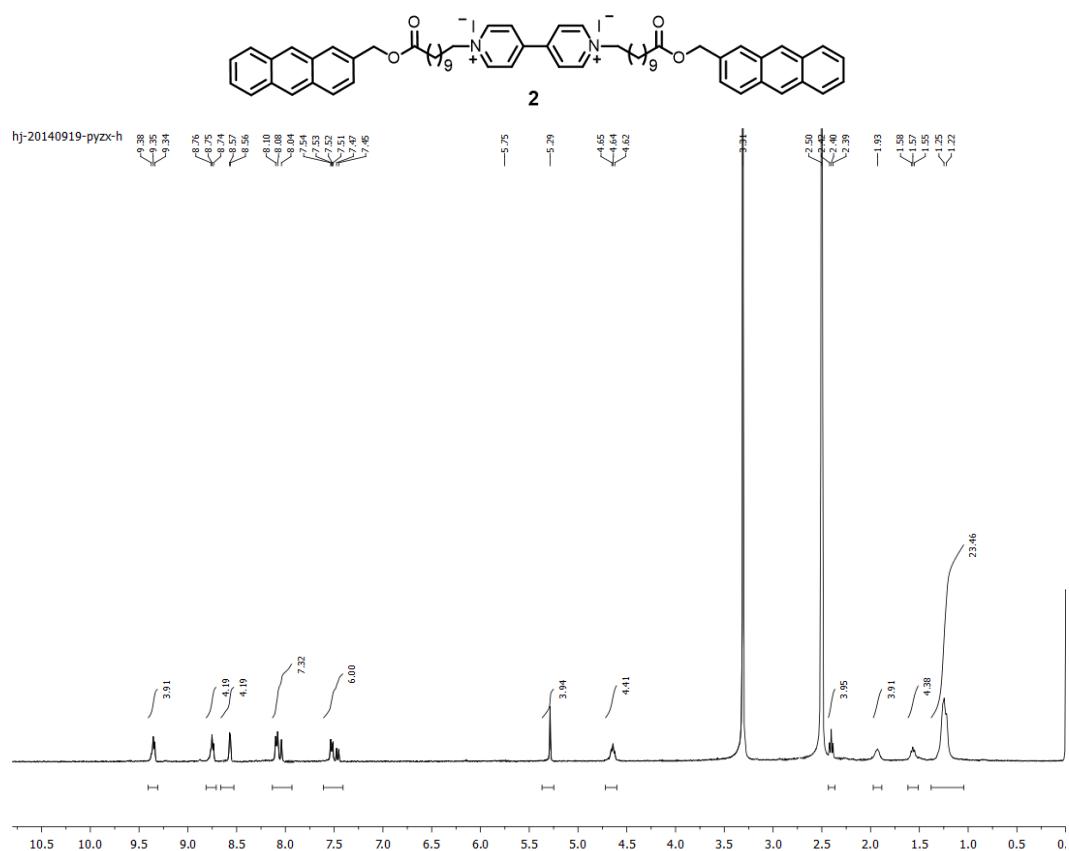
**Fig. S2** <sup>1</sup>H NMR spectrum of compound **1** (300 MHz,  $\text{CDCl}_3$ )



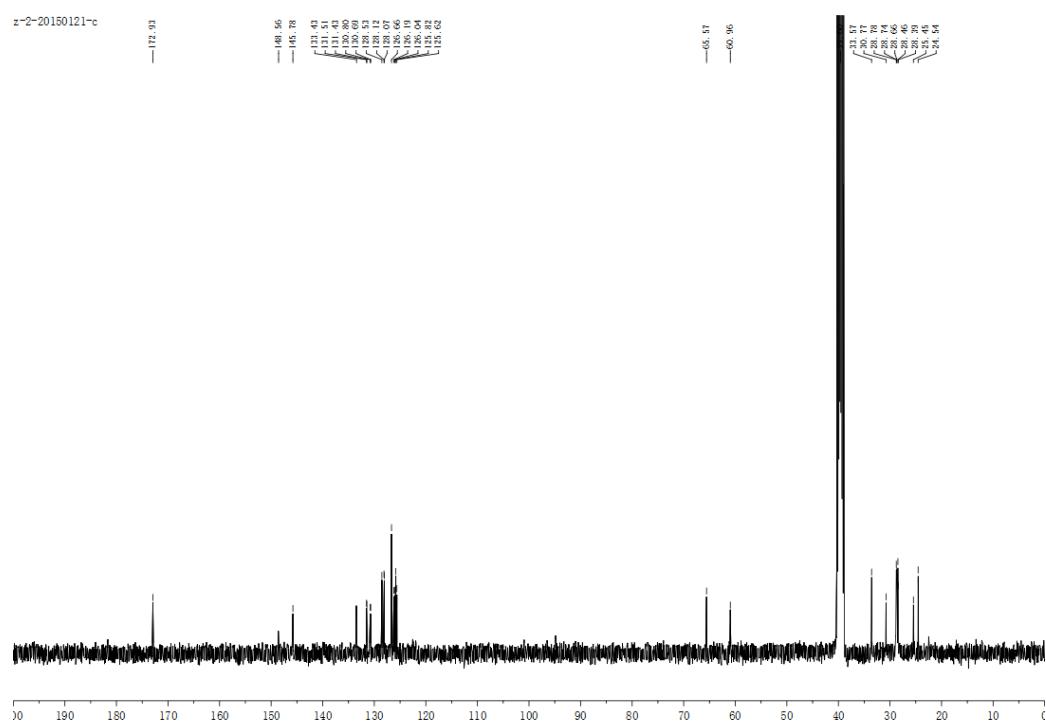
**Fig. S3**  $^{13}\text{C}$  NMR spectrum of compound **1** (75 MHz,  $\text{CDCl}_3$ )



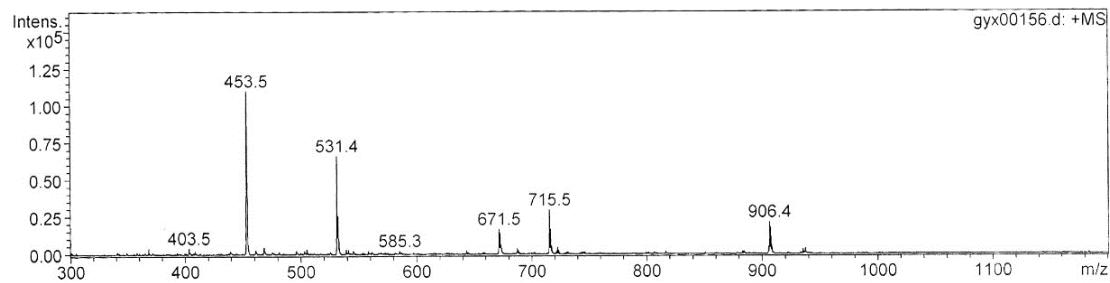
**Fig. S4** EI-MS (+) spectrum of compound **1**



**Fig. S5**  $^1\text{H}$  NMR spectrum of compound **2** (400 MHz,  $d_6$ -DMSO)



**Fig. S6**  $^1\text{H}$  NMR spectrum of compound **2** (100 MHz,  $d_6$ -DMSO)



**Fig. S7** ESI-MS (+) spectrum of compound 2