

Supporting Information

Synthesis of Supramolecular Polymer Based on Noncovalent “Host–Guest”

Inclusion Complexation and Its Self-Assembly

Long Yang,^a Ming Lei,^b Min Zhao,^a Hong Yang,^c Kehu Zhang,^a Hong Zhang,^a Yan Li,^a
Zhongli Lei *^a

^a Key Laboratory of Applied Surface and Colloid Chemistry, Ministry of Education, School of Chemistry & Chemical Engineering, Shaanxi Normal University, Xi'an, 710062, China

^b School of Material Science and Engineering, Shaanxi Normal University, Xi'an 710062, China

^c Basic Experimental Teaching Center, Shaanxi Normal University, Xi'an 710062, China

Correspondence to: Zhongli Lei (E-mail: zhlllei@snnu.edu.cn)

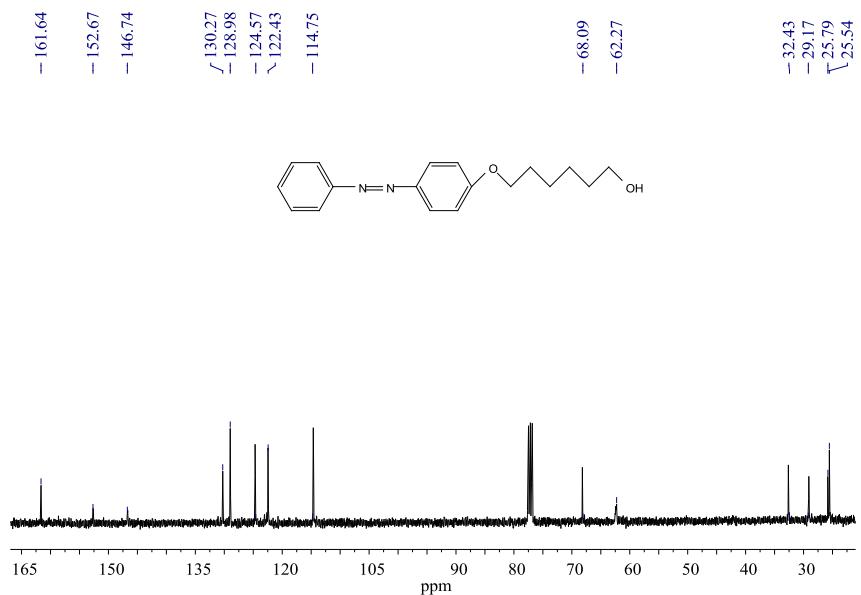


Fig. S1 The ^{13}C NMR spectrum of 6-(4-(phenyldiazenyl) phenoxy) hexan-1-ol (400 MHz, CDCl_3 , 25 °C).

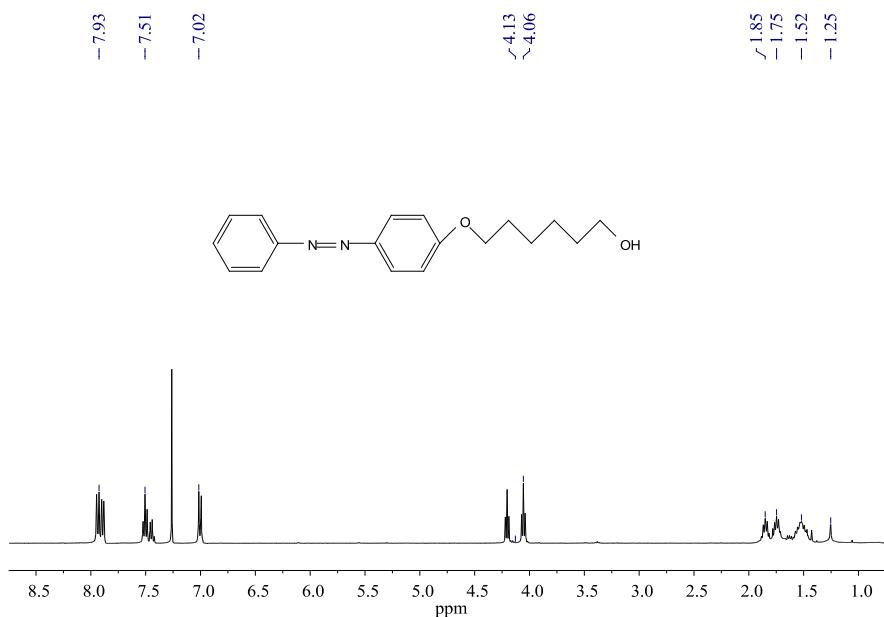


Fig. S2 The ^1H NMR spectrum of 6-(4-(phenyldiazenyl) phenoxy) hexan-1-ol (400 MHz, CDCl_3 , 25 °C).

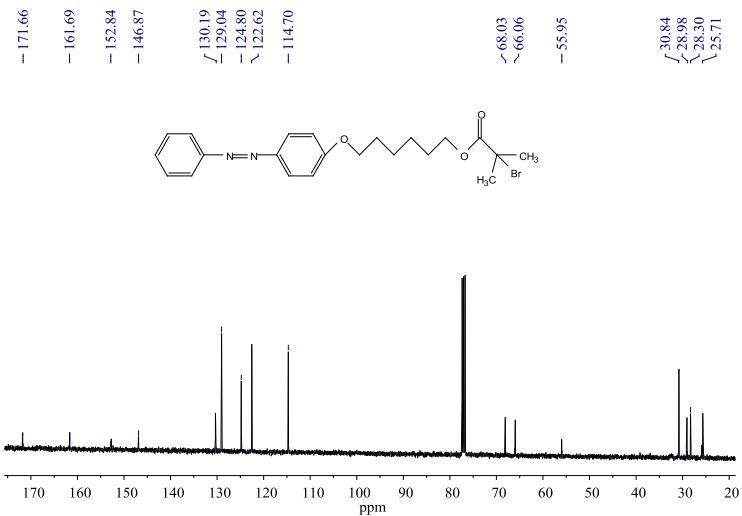


Fig. S3 The ^{13}C NMR spectrum of BPAHE (400 MHz, CDCl_3 , 25 °C).

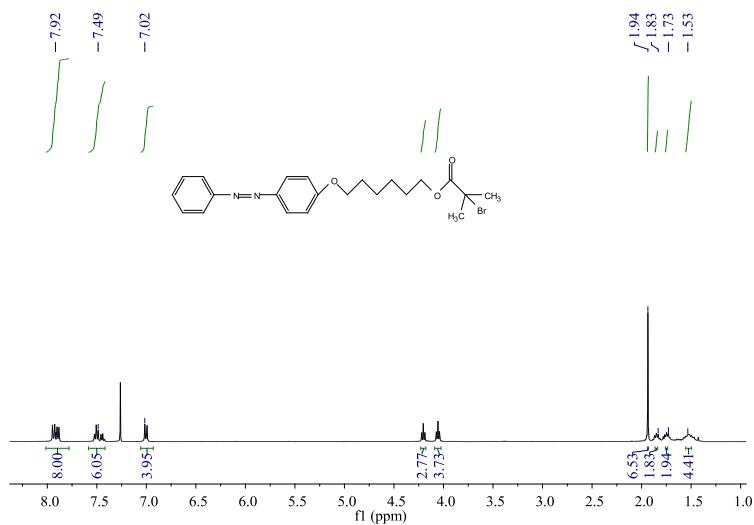


Fig. S4 The ^1H NMR spectrum of BPAHE (400 MHz, CDCl_3 , 25 °C).

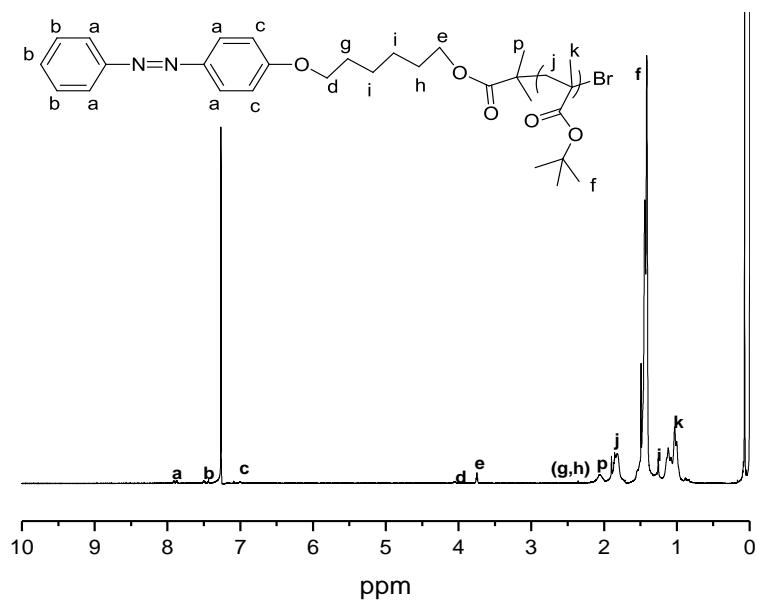


Fig. S5 The ^1H NMR spectrum of Azo-PtBMA (400 MHz, CDCl_3 , 25 °C).

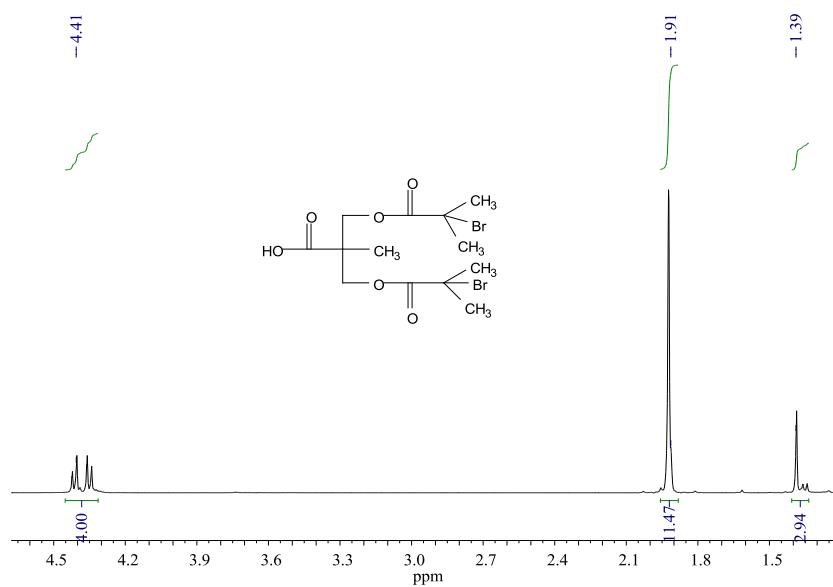


Fig. S6 The ^1H NMR spectrum of BPA (400 MHz, CDCl_3 , 25 °C).

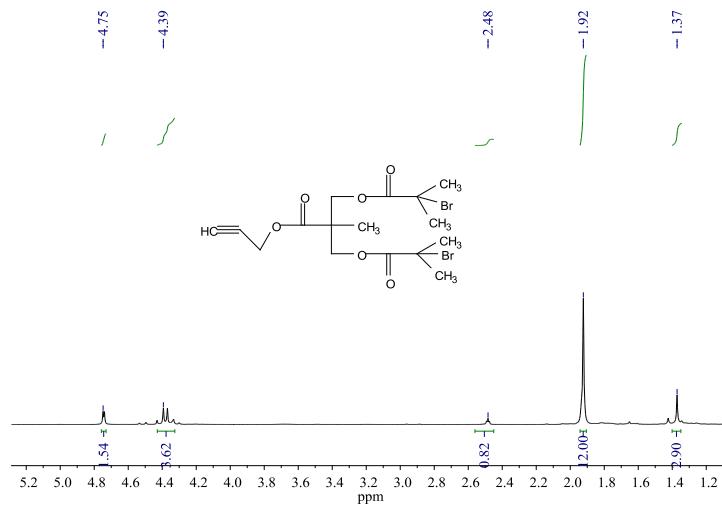


Fig. S7 The ¹H NMR spectrum of PBMP (400 MHz, CDCl₃, 25 °C).

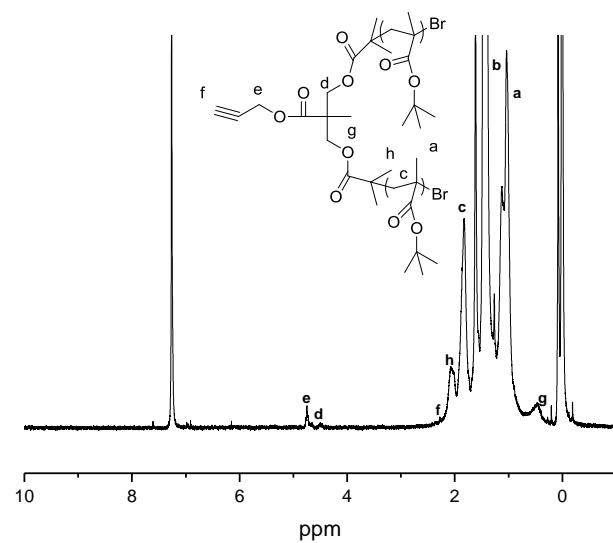


Fig. S8 The ¹H NMR spectrum of alkyne-(PtBMA-Br)₂ (400 MHz, CDCl₃, 25 °C).

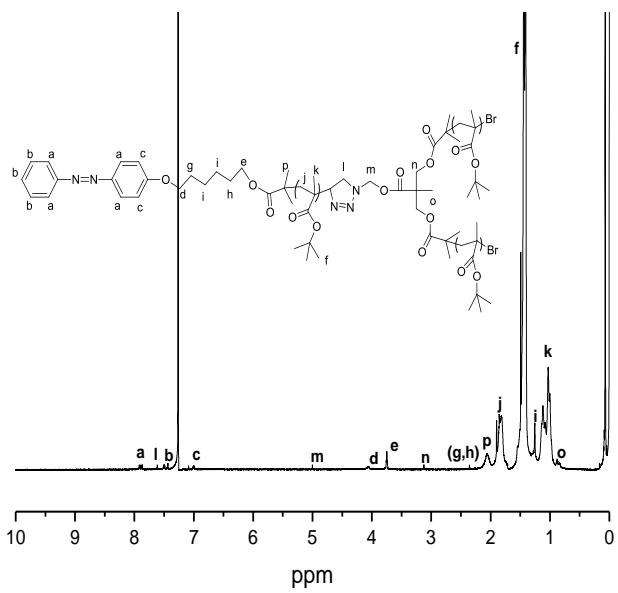


Fig. S9 The ^1H NMR spectrum of Azo-(PtBMA)₃(400 MHz, CDCl_3 , 25 °C)

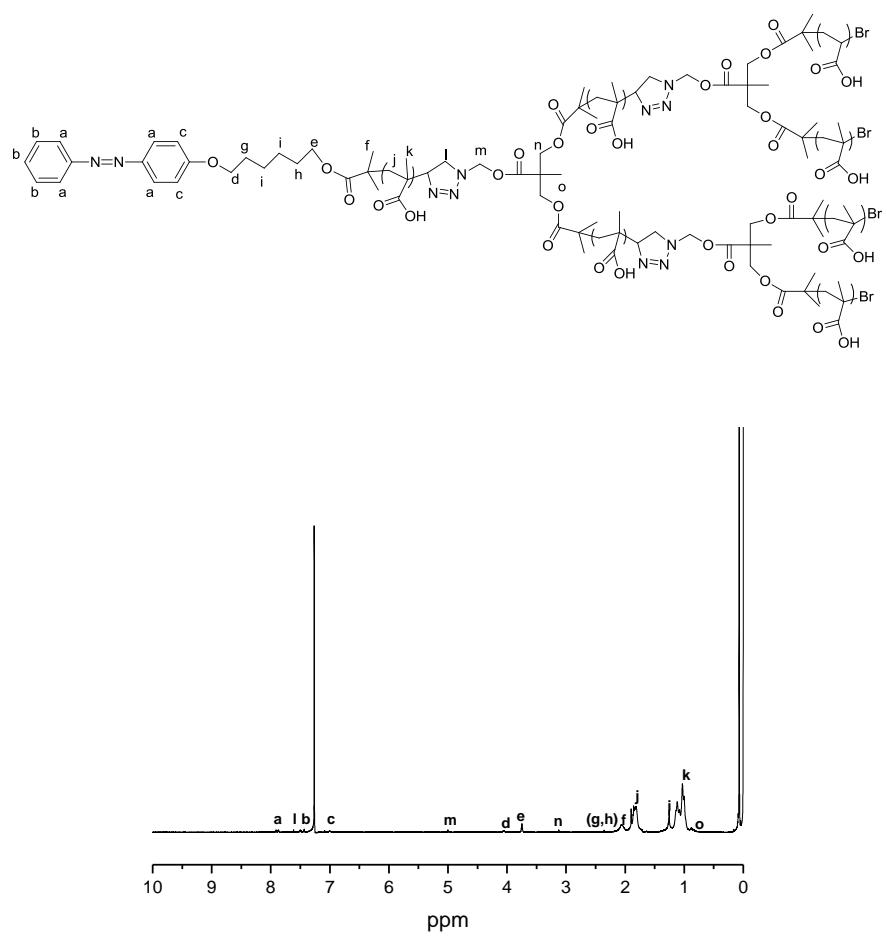


Fig. S10 The ^1H NMR spectrum of Azo-(PtBMA)₃(400 MHz, CDCl_3 , 25 °C)

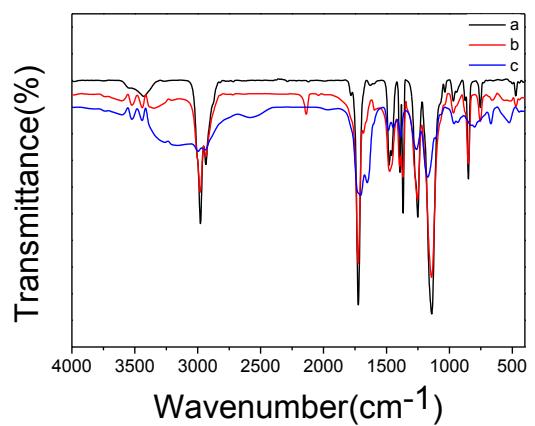


Fig. S11 The IR spectrum of polymers (a)Azo-PtBMA-Br; (b)Azo-PtBMA-N₃; and (c) Azo-(PMAA)₇

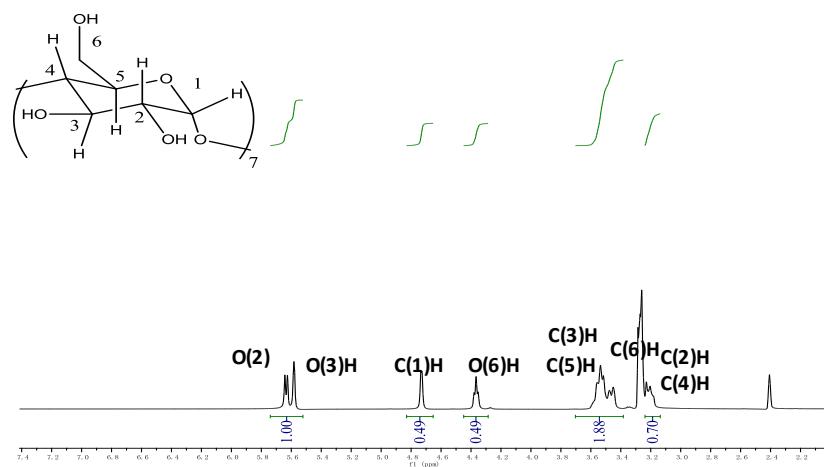


Fig. S12 The ¹H NMR spectrum of β-CD (400 MHz, DMSO-d₆, 25 °C).

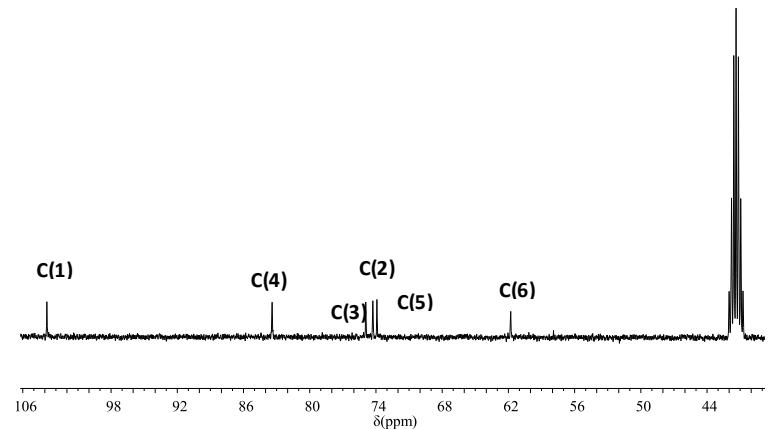


Fig. S13 The ^{13}C NMR spectrum of β -CD (400 MHz, DMSO-d_6 , 25 °C).

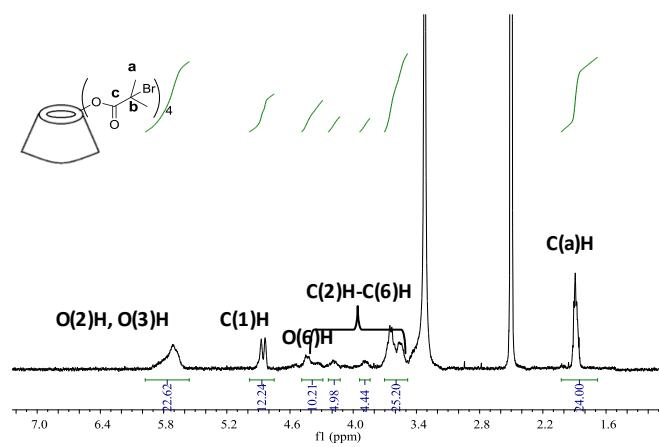


Fig. S14 The ^1H NMR spectrum of β -CD-4Br (400 MHz, DMSO-d_6 , 25 °C).

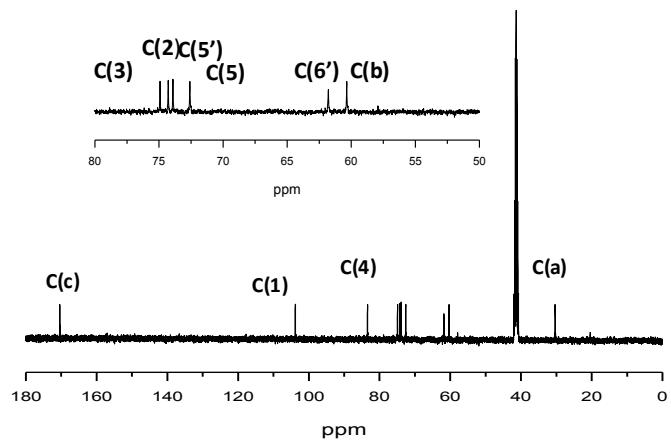


Fig. S15 The ¹³C NMR spectrum of β-CD-4Br (400 MHz, DMSO-d₆, 25 °C).

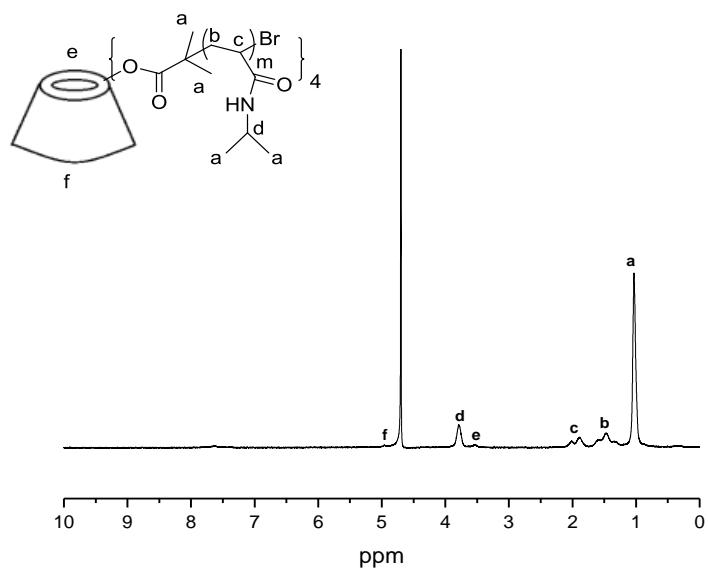


Fig. S16 The ¹H NMR spectrum of β-CD-(PNIPAAm)₄ (400 MHz, DMSO-d₆, 25 °C)

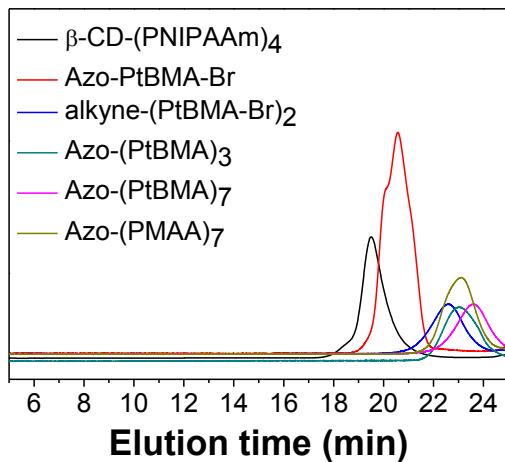


Fig. S17 The GPC traces of corresponding polymers.

pH	Micelle size (nm)	PDI
2.2	1220	0.202
4.0	1030	0.205
5.4	105	0.137

TABLE S1 The sizes and distributions of supramolecular β -CD-PNIPAAm- Azo-PMAA polymer micelles determined by DLS in different pH.

Temperature	Micelle size (nm)	PDI
35 °C	115	0.213
40 °C	1340	0.295

TABLE S2 The sizes and distributions of supramolecular β -CD-PNIPAAm- Azo-PMAA polymer micelles determined by DLS in different temperature.

UV irradiation	Micelle size (nm)	PDI
365nm	115	0.243
450 nm	108	0.251

TABLE S3 The sizes and distributions of supramolecular β -CD-PNIPAAm- Azo-PMAA polymer micelles determined by DLS in UV irradiation.