Electronic Supplementary Material (ESI) for Polymer Chemistry.

Supporting Information

Facile synthesis of thermo-, pH-, CO_2- and oxidation-responsive poly(amido thioether)s with tunable LCST and UCST behaviors

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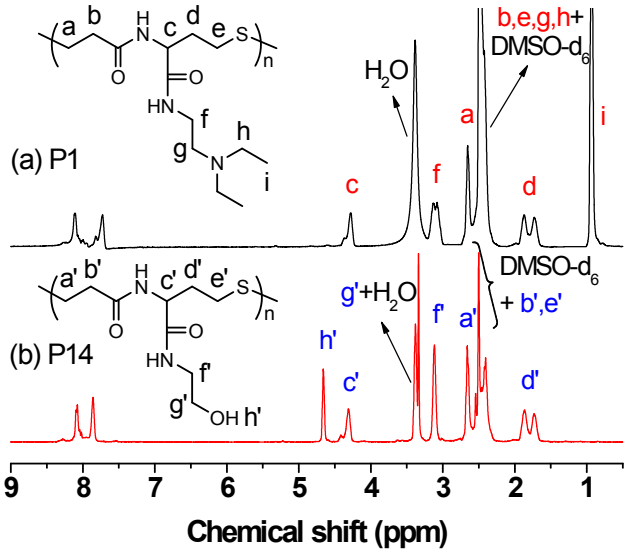

Fig. S1 ^{1}H NMR spectra of poly(amido thioether)s bearing *N*-diethylaminoethylamido (a) or *N*-hydroxyethylamido (b) side group.

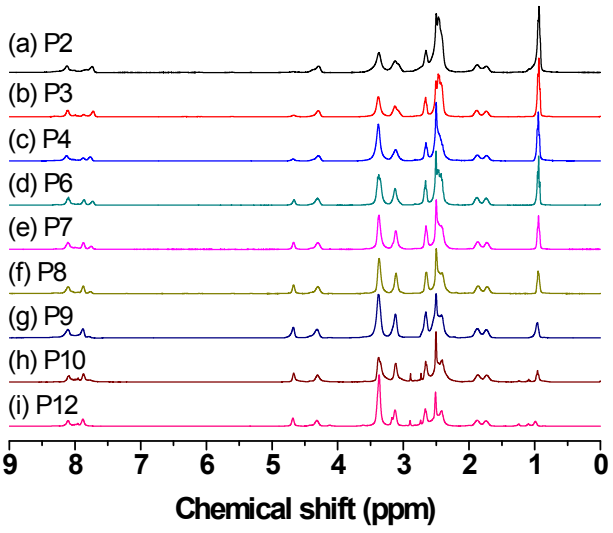

Fig. S2 ^{1}H NMR spectra of other poly(amido thioether)s with *N*-diethylaminoethylamido and *N*-hydroxyethylamido side groups in DMSO-d_6.

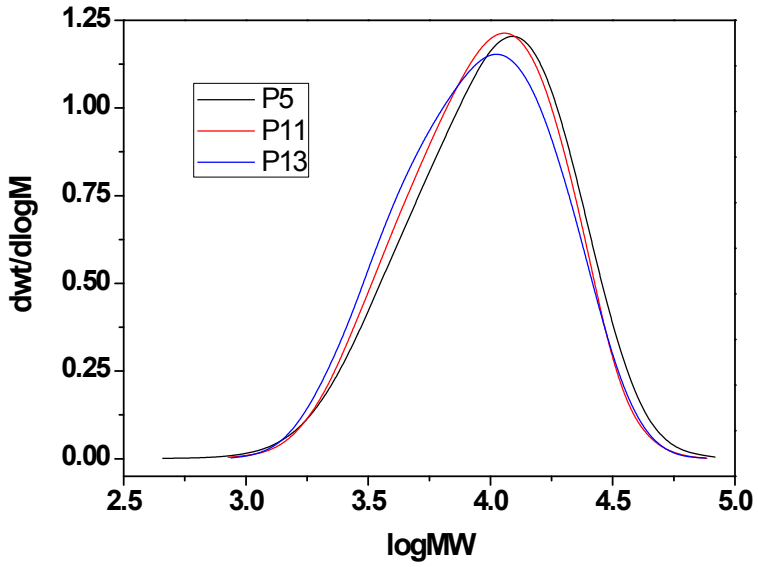

Fig. S3 GPC traces of typical poly(amido thioether) copolymers.

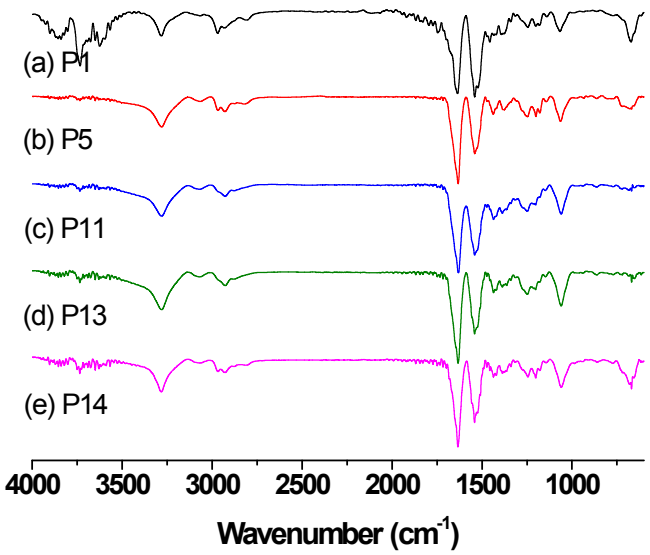

Fig. S4 FT-IR spectra of various poly(amido thioether) copolymers.

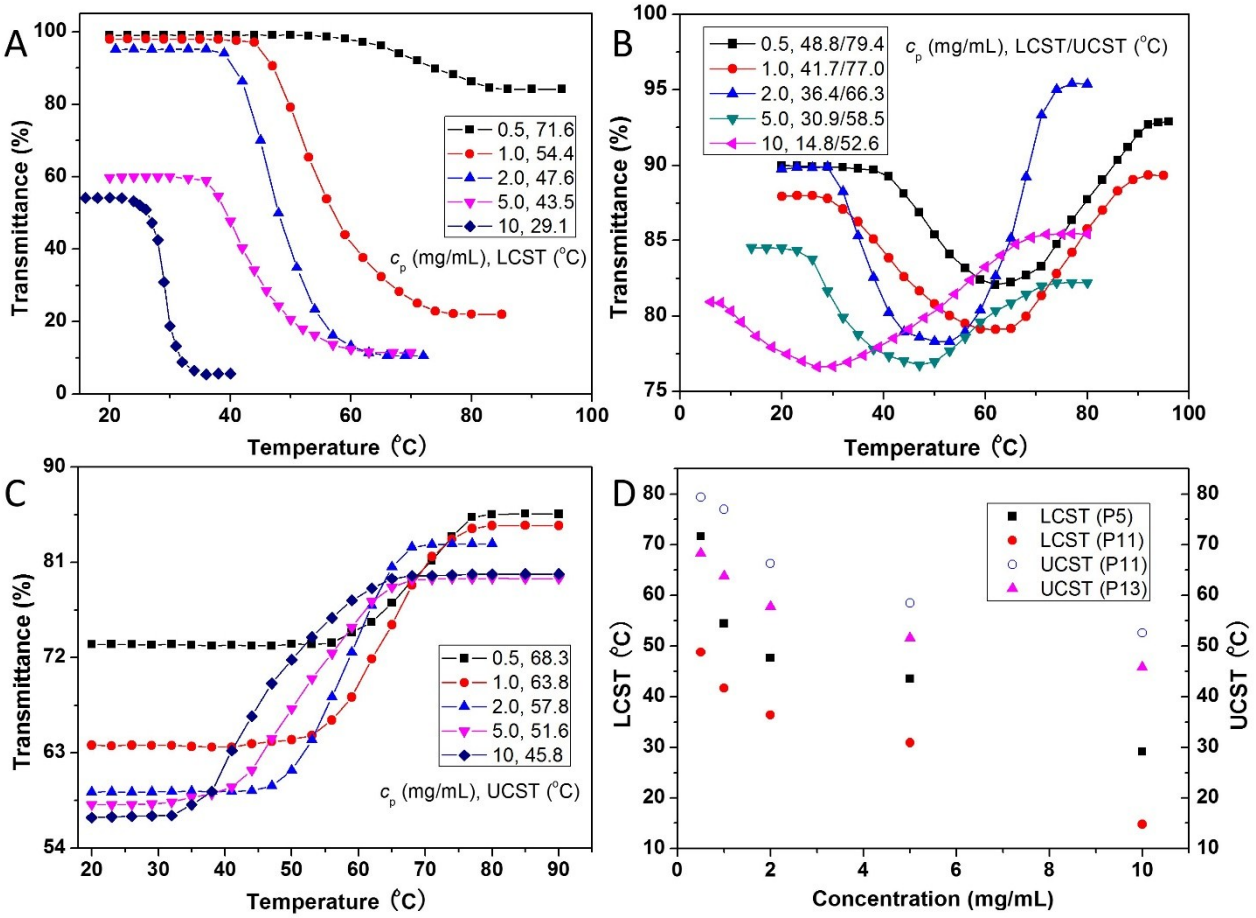

Fig. S5 Dependence of transmittances (A, P5; B, P11; C, P13) and cloud points (D) of copolymer aqueous solutions on concentration.

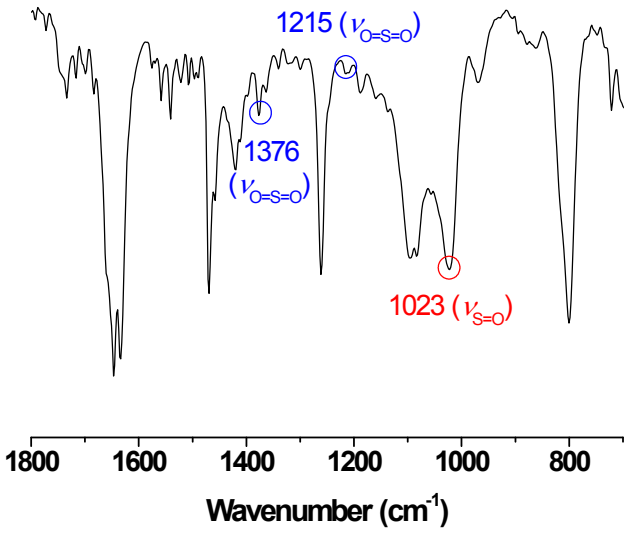

Fig. S6 FT-IR spectrum of P5'' in the range of 700−1800 cm^{-1}, in which the copolymer was obtained by oxidation of P5 using 100-fold H_2O_2 at 25 °C overnight.

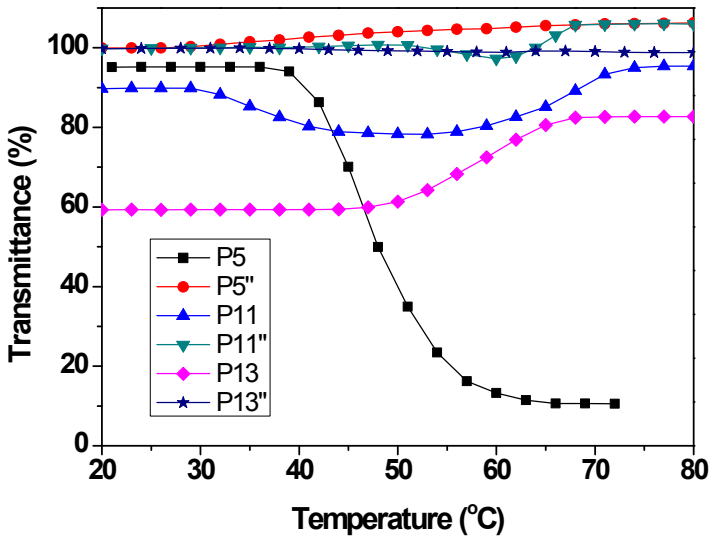

Fig. S7 Temperature-dependent transmittances of copolymer aqueous solutions (c_p = 2.0 mg mL^{-1}) before and after oxidation using 100-fold H_2O_2.