CSupporting Information

Diverse Nanostructures and Gel Behaviours Contained in A Thermo- and Dual-pH-sensitive ABC (PNIPAM-PAA-P4VP) Terpolymer in Aqueous Solution

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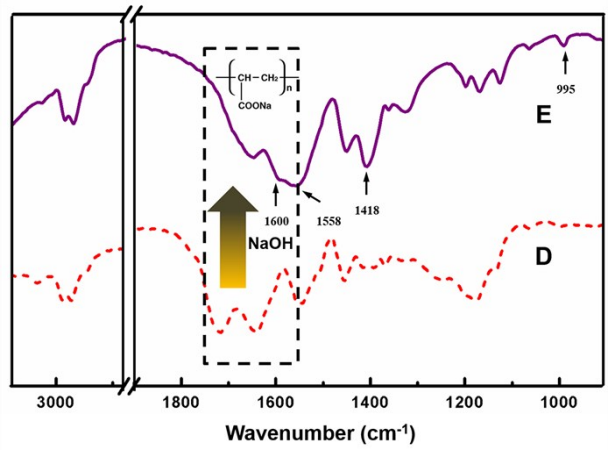

Figure. S1 Spectra D and E are FT-IR spectra of NAV (PNIPAM-*b*-PAA-*b*-P4VP) and sodium PAA-copolymer (PNIPAM-*b*-PAAS-*b*-P4VP).

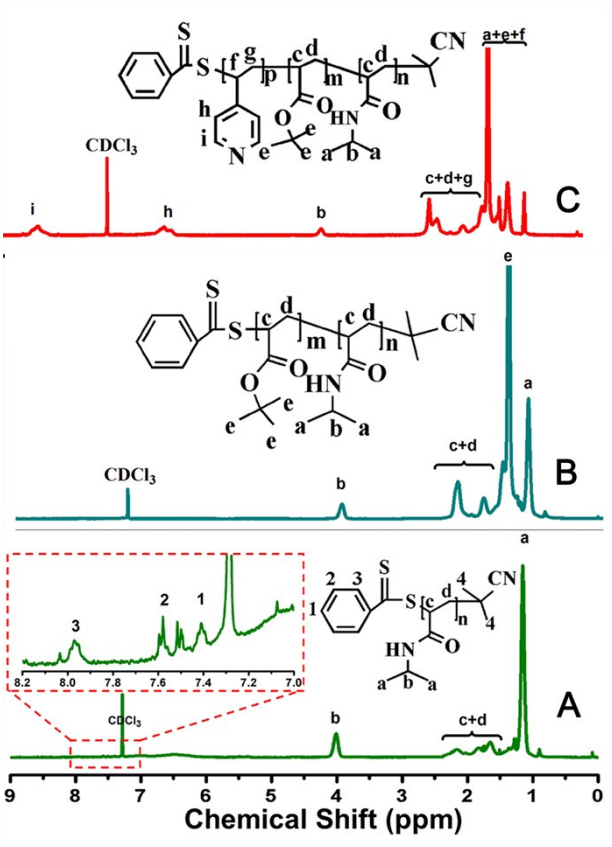

Figure. S2 ^{1}H NMR spectrum in $CDCl_3$: (A) CPDB-PNIPAM, (B) PNIPAM-*b*-PtBA, and (C) PNIPAM-*b*-PtBA-*b*-P4VP.

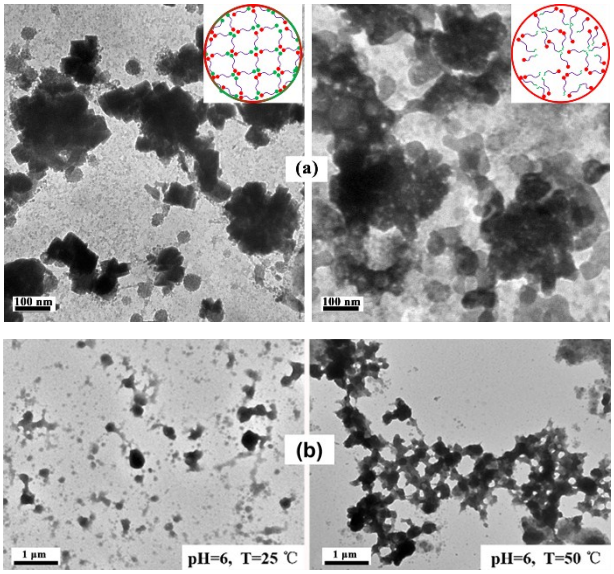

Figure. S3 TEM images of NAV triblock copolymer with different structure at 25°C and 50°C, respectively: (a) LCM_1 nanostructure under pH=1 ;(b) Crosslinking structure under pH=6.

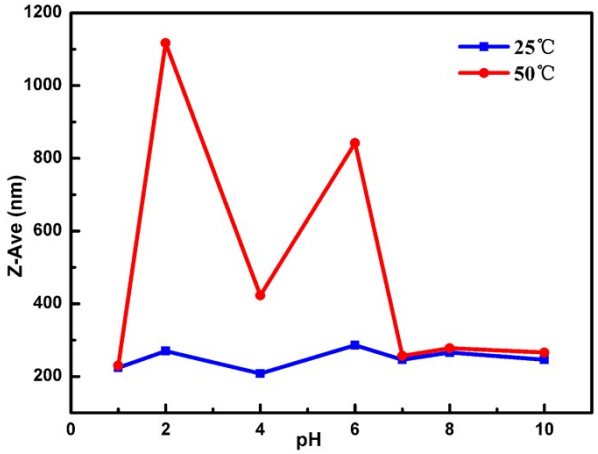

Figure. S4 Z-Ave (average hydrodynamic diameter) of NAV triblock copolymer in aqueous solutions with pH values range 1 to 10 at 25°C and 50°C, respectively.

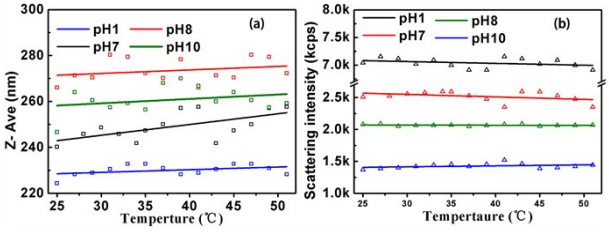

Figure. S5 In aqueous solutions of pH 1, 7, 8, 10, (a) The change of average hydrodynamic diameter (Z-Ave) with temperature. (b) The change of derived count rate with temperature.

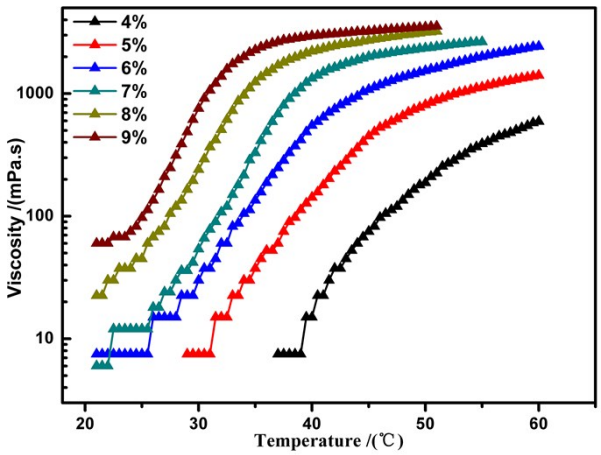

Figure. S6 Viscosity curves of NAV system depend on temperature with different copolymer concentrations in an aqueous solution of pH 7.4. The viscosity measurements were carried out using 64# spindle with a constant rotate speed of 100RPM and a constant heating/cooling rate of 1.0 °C/min, and the viscosity and temperature of NAV concentrated solutions were read on viscometer.