SUPPORTING INFORMATION

Thermoresponsive Polymers Based on Ring-Opening Metathesis Polymerization

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Figure S1. $^1$H-NMR spectra of (A) M1 and (B) the corresponding raw P1 polymerization solution without precipitation, in which CDCl$_3$ was used as deuterated solvent.
Figure S2. $^1$H-NMR spectra of (A) M2 and (B) the corresponding raw P2 polymerization solution without precipitation, in which CDCl$_3$ was used as deuterated solvent.
Figure S3. $^1$H-NMR spectra of (A) M4 and (B) the corresponding raw P4 polymerization solution without precipitation, in which CDCl$_3$ was used as deuterated solvent.
**Figure S4.** GPC curves of P2, in which THF was used as the eluent at a flow rate of 1.0 mL/min and PS standards were used for the calibration.
Figure S5. $^1$H-NMR spectra of (A) P1a, (B) P1b, (C) P1c, (D) P1d, (E) P1e, (F) P1g, and (G) P1h, in which DMSO-$d_6$ was used as deuterated solvent.
Figure S6. FT-IR spectra of (A) P1 and P1a, (B) P1 and P1b, (C) P1 and P1c, (D) P1 and P1d, (E) P1 and P1e, (F) P1 and P1g, and (G) P1 and P1h.
**Figure S7.** GPC curves of (A) P1a-e, g, h, (B) P2d, e, g, h, and (C) P4a-d, g, h, in which DMF with 0.01 M LiBr was used as the eluent at a flow rate of 1.0 mL/min and PS standards were used for the calibration.
Figure S8. $^1$H-NMR spectra of (A) P2d, (B) P2e, (C) P2g, and (D) P2h, in which DMSO-d$_6$ was used as deuterated solvent.
Figure S9. $^1$H-NMR spectra of (A) P4a, (B) P4b, (C) P4c, (D) P4d, (E) P4e, (F) P4g, and (G) P4h, in which DMSO-d$_6$ was used as deuterated solvent.
Figure S10. FT-IR spectra of (A) P2 and P2a, (B) P2 and P2b, (C) P2 and P2c, (D) P2 and P2d, (E) P2 and P2e, (F) P2 and P2g, and (G) P2 and P2h.
Figure S11. FT-IR spectra of (A) P4 and P4a, (B) P4 and P4b, (C) P4 and P4c, (D) P4 and P4d, (E) P4 and P4e, (F) P4 and P4g, and (G) P4 and P4h.