

Supplementary Materials: The Synthesis of Backbone Thermo and pH Responsive Hyperbranched Poly(Bis(*N,N*-Propyl Acryl Amide))s by RAFT

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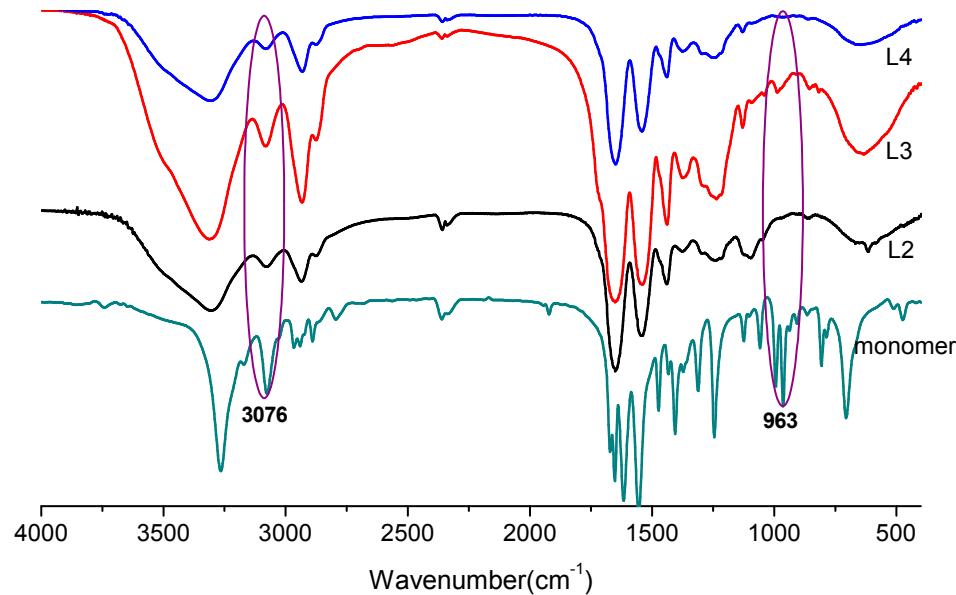


Figure S1. FTIR spectra of monomer and hyperbranched polymers.

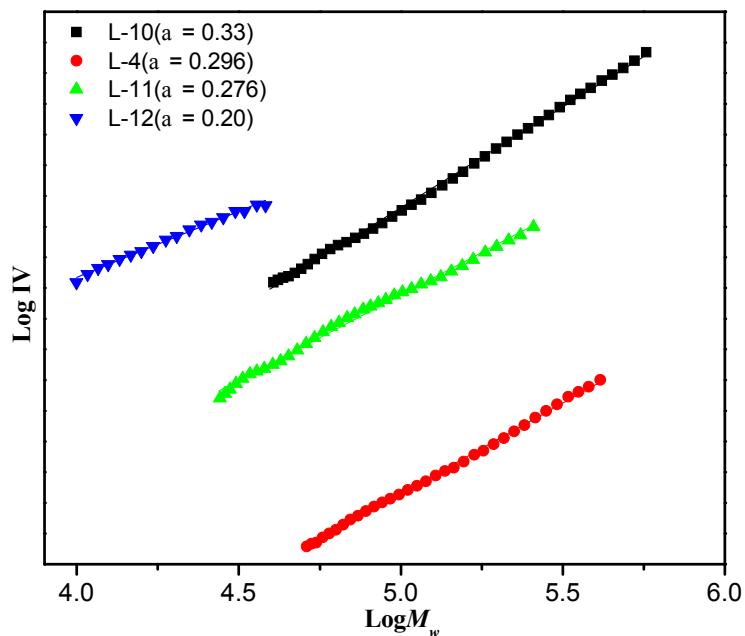


Figure S2. The plots of $\text{Log} M_w$ vs. $\text{Log} \eta$ (L10 $\alpha = 0.44$, L4 $\alpha = 0.29$, L11 $\alpha = 0.276$, L12 $\alpha = 0.20$).

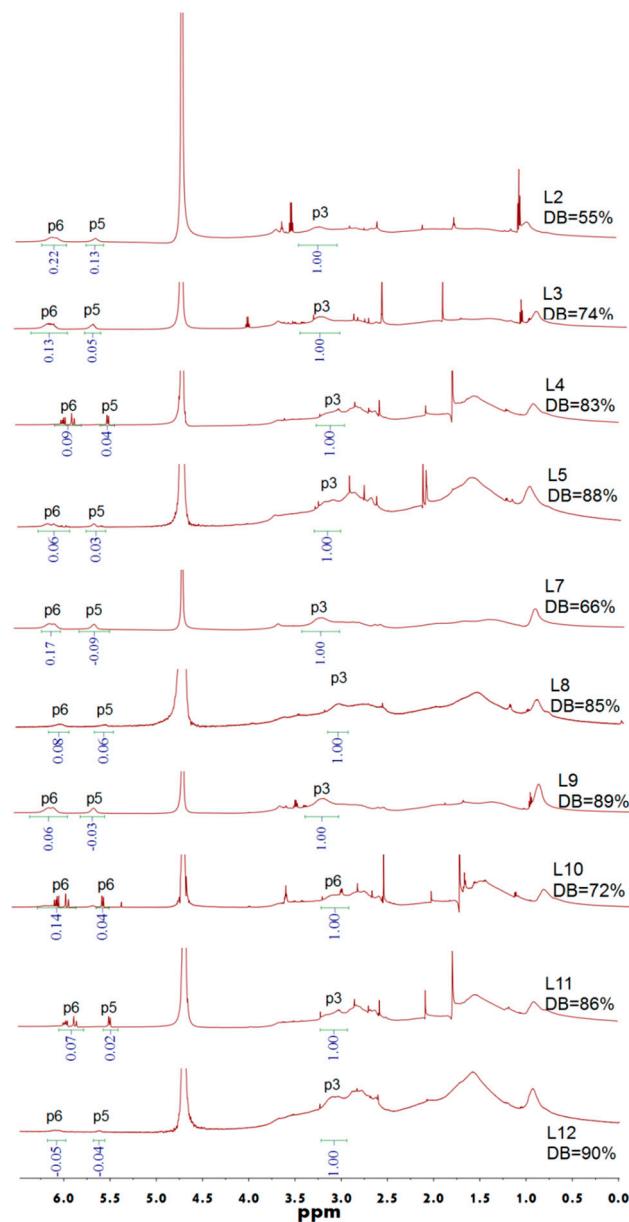


Figure S3. ¹H NMR spectra of L2, L3, L4, L5, L7, L8, L9, L10, L11, L12.

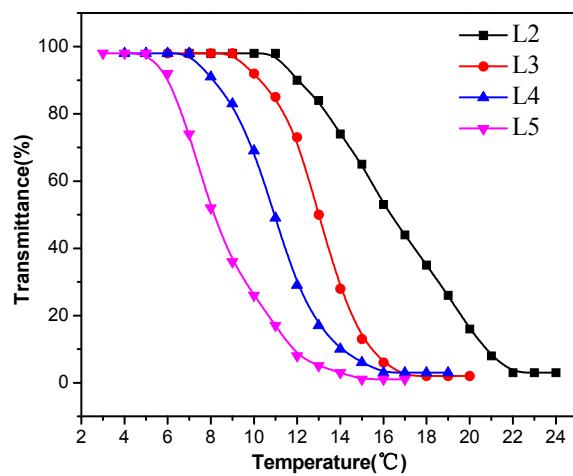


Figure S4. The curves of transmittance versus temperature of L2, L3, L4 and L5. Reaction temperature: L2 = 50 °C, L3 = 70 °C, L4 = 80 °C, L5 = 90 °C.

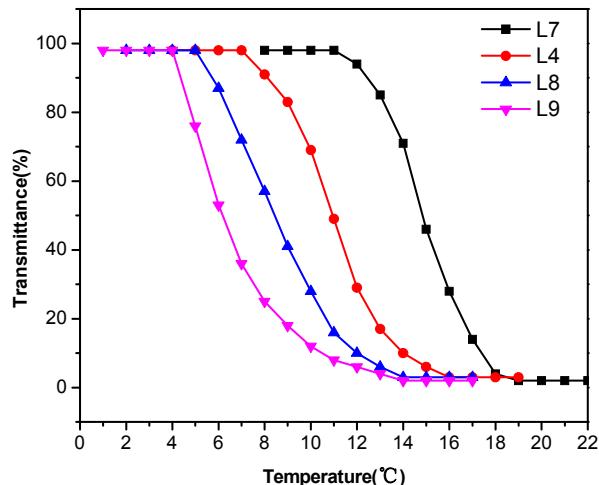


Figure S5. The curves of transmittance versus temperature of L7, L4, L8 and L9. Reaction time: L7 = 24 h, L4 = 48 h, L8 = 72 h, L9 = 96 h.

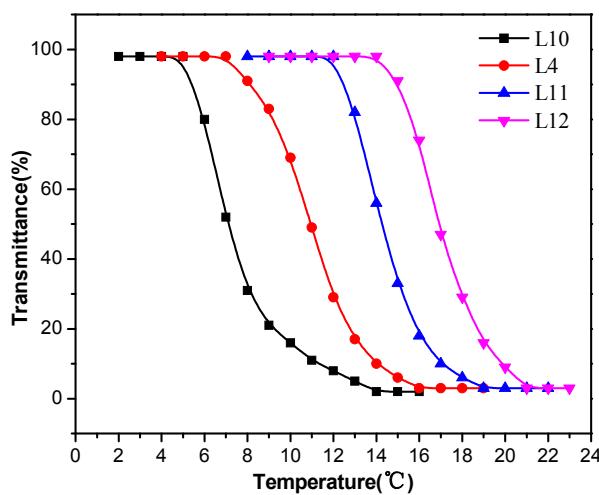


Figure S6. The curves of transmittance versus temperature of L10, L4, L11 and L12. (Monomer:CTA:I):L10 = (20:0.5:1), L4 = (20:1:1), L11 = (20:1.5:1), L12 = (20:2:1).



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