

# Supporting Information

## Effects of Syndiotacticity on the Dynamic and Static Phase Separation Properties of Poly(*N*-isopropylacrylamide) in Aqueous Solution

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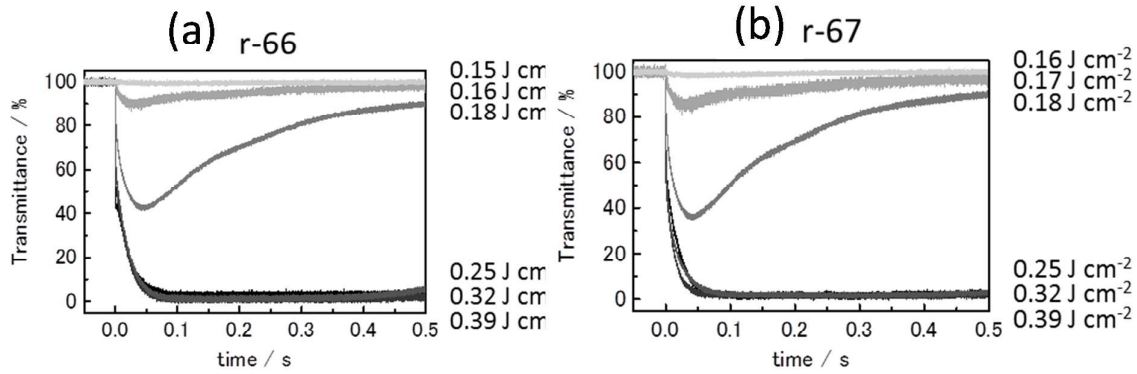
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**Dynamic phase separation behavior in r-66 and r-67**

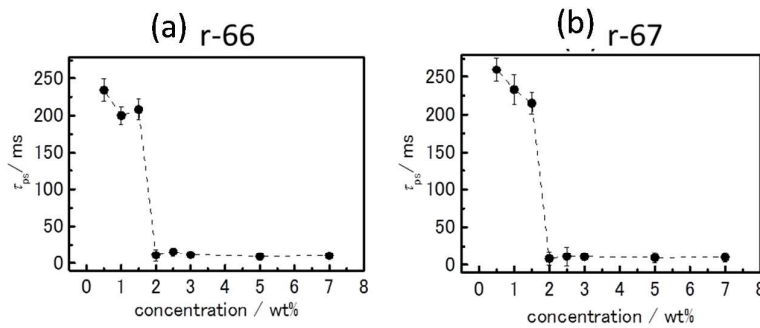
The Dynamic phase separation behavior in r-66 and r-67 was qualitatively similar to that of r-68, and briefly presented here. Figure S1 shows transient changes in optical transmittance (obtained by method (ii) laser T-jump experiments) by varying laser fluence.



**Figure S1.** Transient changes in optical

transmittance for 5.0 wt% aqueous solutions of (a) r-66 and (b) r-67.

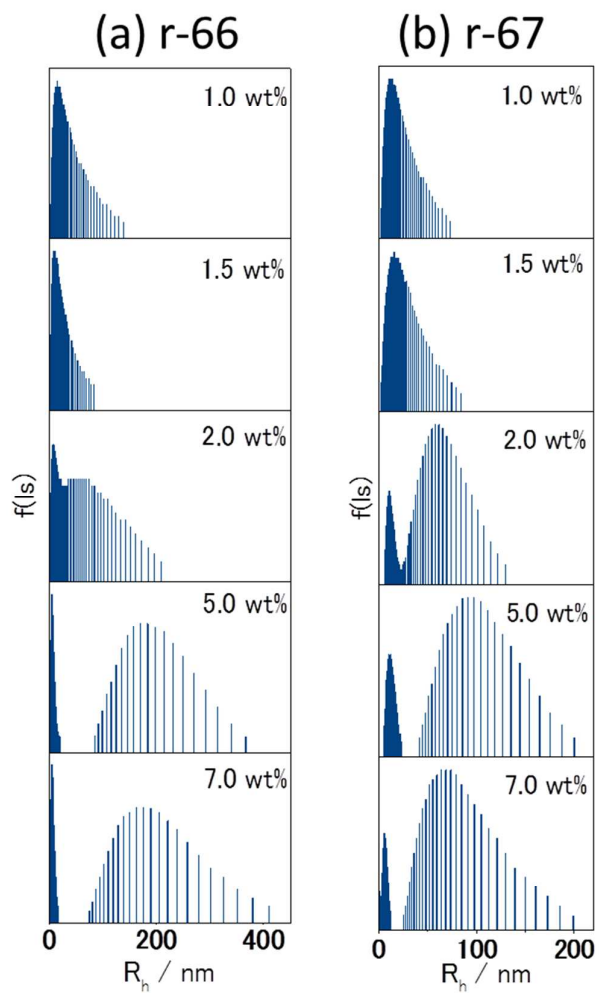
Analysis of Figure S1 gave us time  $\tau_{ps}$  (time constant of phase separation), which is plotted against polymer concentration for (a) r-66 and (b) r-67 in Figure S2.



**Figure S2.** Phase separation constants as a function of concentration for (a) r-66 and (b) r-67.

**DLS**

To investigate aspects of polymer aggregation, DLS was measured for r-66 and r-67.



**Figure S3.** Hydrodynamic radius distribution as a function of polymer concentration for (a) r-66 and (b) r-67.