

**Effects of Hofmeister Anions on the LCST of PNIPAM as a Function of  
Molecular Weight**

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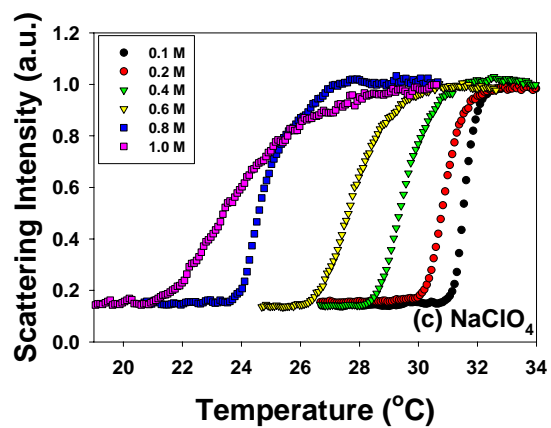
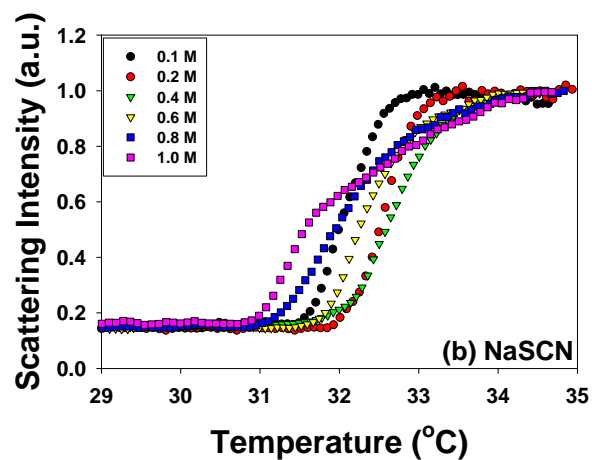
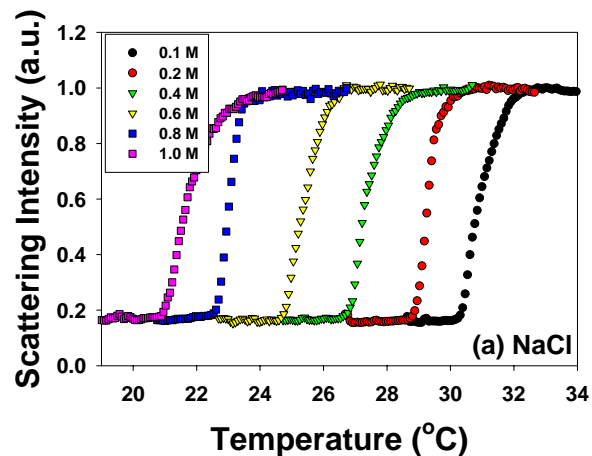
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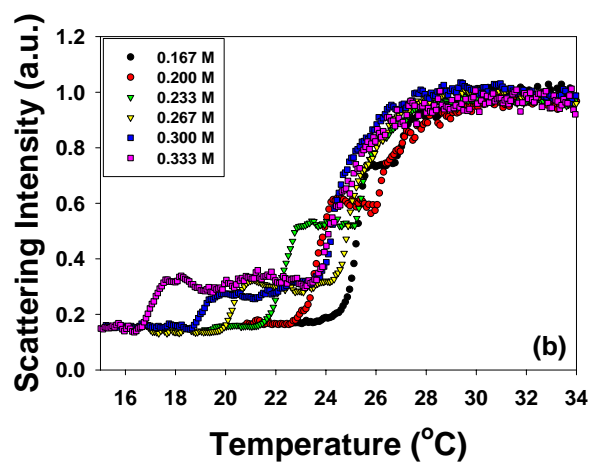
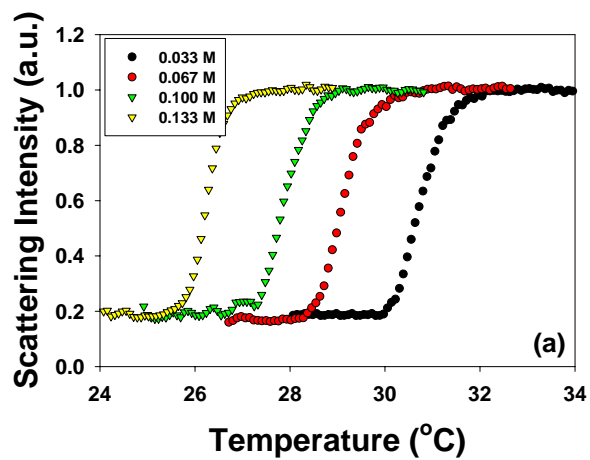
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**Supporting Information**

Figures S1 and S2 show representative light scattering data obtained from experiments presented in this paper. These are raw data which are representative of the signal-to-noise obtained in these experiments.



**Figure S1.** Light scattering curves for PNIPAM with  $M_n$  121,000 Da in salt solutions with chaotropic anions at concentrations from 0 to 1.0 M: (a) NaCl, (b) NaSCN, and (c) NaClO<sub>4</sub>.



**Figure S2.** Light scattering curves for PNIPAM with  $M_n$  121,000 Da in  $\text{Na}_2\text{SO}_4$  at concentrations from 0.033 to 0.333 M. (a) A one-step phase transition is observed from 0.033 to 0.133 M and (b) a two-step phase transition is found from 0.167 M to 0.333 M.

Note: The anions employed in these studies can affect the pH of the polymer solutions. In particular  $\text{H}_2\text{PO}_4^-$ ,  $\text{CO}_3^{2-}$ , and  $\text{F}^-$  are known to alter the solution pH value. Also, a small amount of atmospheric  $\text{CO}_2$  dissolves in solution during these experiments. None of these effects have any measurable influence on the LCST of PNIPAM.<sup>1</sup> This is because the LCST is essentially pH insensitive between 4 to 12. The point is discussed in greater detail in the supplemental materials of ref 1.

### References

- (1) Zhang, Y. J.; Furyk, S.; Bergbreiter, D. E.; Cremer, P. S. *J. Am. Chem. Soc.* **2005**, *127*, 14505.