

Supplemental Information for

**Liquid-liquid phase separation of N-isopropylpropionamide aqueous solutions  
above the lower critical solution temperature**

K. Mochizuki, T. Sumi and K. Koga

Department of Chemistry, Faculty of Science, Okayama University,  
Okayama 700-8530, Japan

### **Supplemental Movie S1**

This movie shows the aggregation dynamics of NiPPA molecules in the aqueous 30 wt% solution at 320 K. The MD trajectory is the same as used to draw Fig. 2b. Water molecules are not shown in the movie. The initial configuration is a homogeneous mixture. After 85 ns (19s in the video), one can see that NiPPA molecules start to aggregate around the center of the simulation box.

### **Supplemental Movie S2**

This movie shows the dispersion dynamics of NiPPA molecules in the aqueous 30 wt% solution at 300 K. The MD trajectory is the same as used to draw Fig. 2f. Water molecules are not shown in the movie. The initial configuration is a phase separated one. One can see the aggregated molecules in the middle of the box are gradually dispersed and ultimately there appears a homogeneous solution.