

Electronic supplementary information for:

**Molecular-Level Pictures of the Phase Transitions of Saturated and Unsaturated
Phospholipid Binary Mixtures†**

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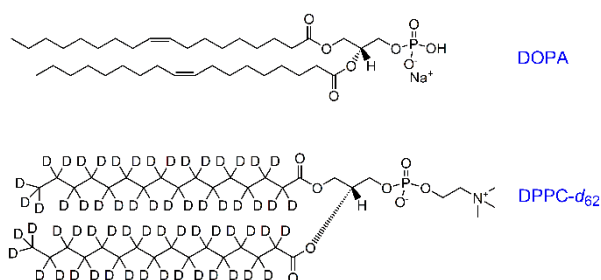


Fig. S1. Molecular structures of DOPA and DPPC-*d*₆₂.

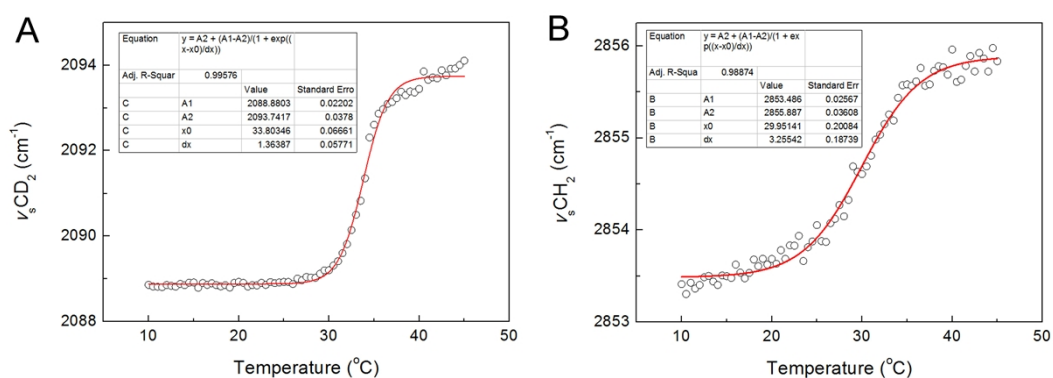


Fig. S2. Sigmoidal fitting of the temperature-dependent wavenumber changes of $\nu_s\text{CH}_2$ (in DOPA) and $\nu_s\text{CD}_2$ (in DPPC- d_{62}) in 10% DOPA sample to determine the transition temperatures of the two respective lipids (DPPC- d_{62} and DOPA).

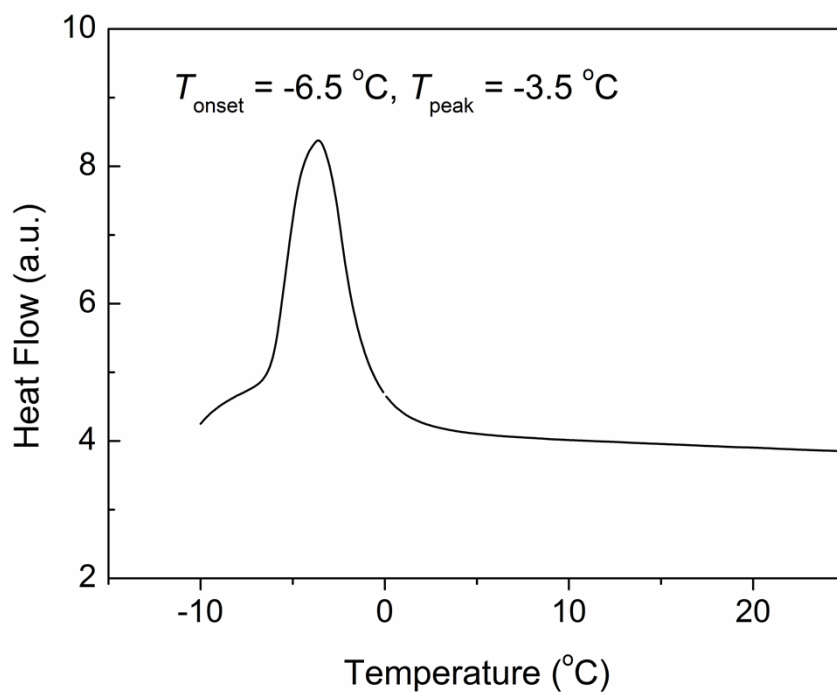


Fig. S3. DSC curve for a pure DOPA aqueous dispersion (DOPA : $\text{H}_2\text{O} = 1/3$, wt/wt).

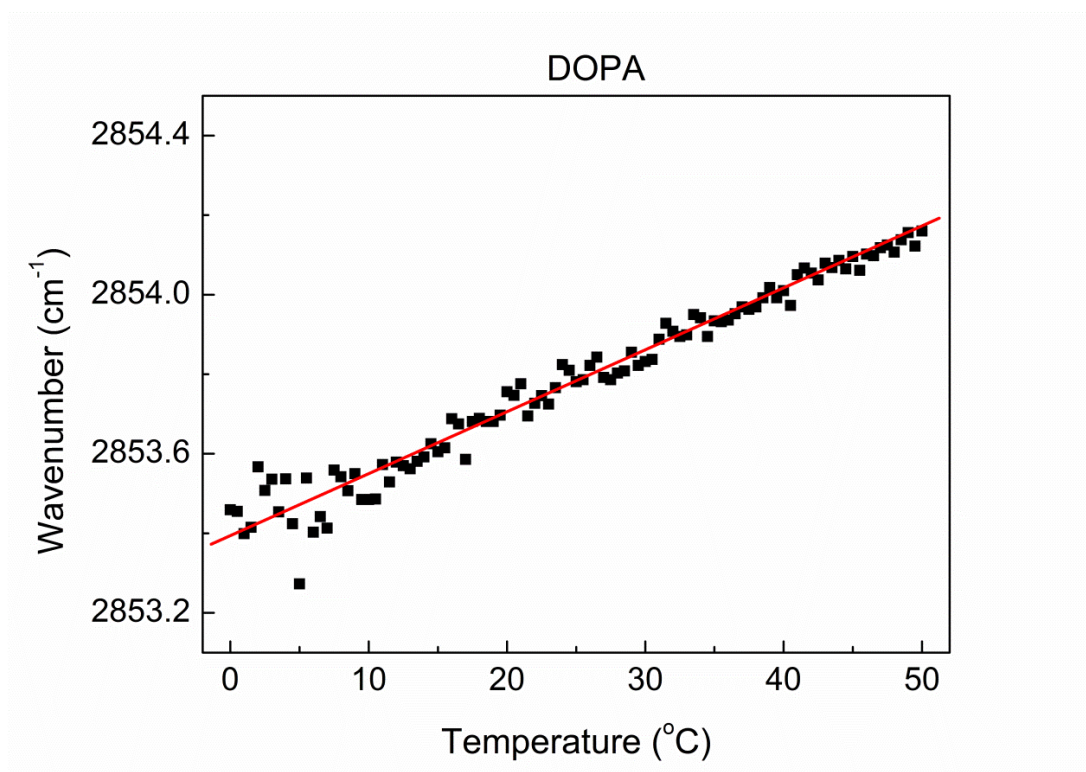


Fig. S4. Dependence of FTIR peak positions of $\nu_s\text{CH}_2$ in DOPA on temperature in a pure DOPA aqueous dispersion (DOPA : H_2O = 1/3, wt/wt). The DOPA sample was in fluid phase throughout the temperature of 0–50 °C, as has been demonstrated from the DSC result in Figure S1.