Supporting Information

Mechanism for Transition of Reverse Cylindrical Micelles to Spherical Micelles Induced by Diverse Alcohols

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1. **Zero-shear viscosity of the lecithin/$CaCl_2$ solutions in decane**

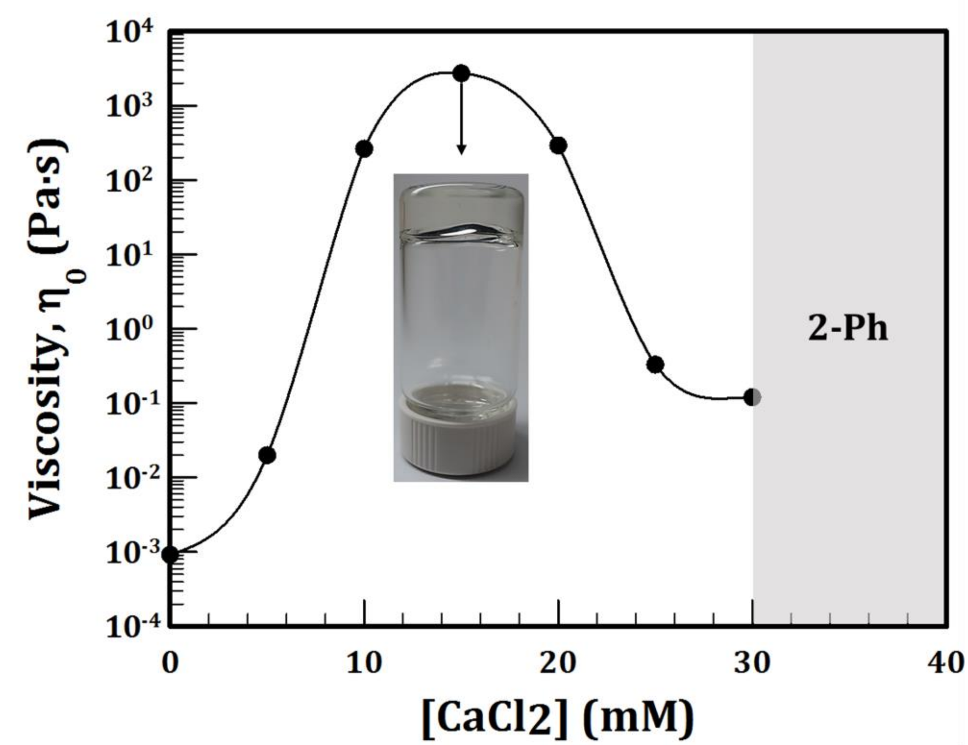

Figure S1. Zero-shear viscosity (η_0) of the lecithin/$CaCl_2$ solutions in decane. The solution consists of 40 mM lecithin and varying concentrations of $CaCl_2$. At 15 mM $CaCl_2$, the viscosity is at its maximum and the sample has gel-like properties. Phase separation occurs at $CaCl_2$ concentrations >30 mM.

2. Steady-shear rheology of lecithin/$CaCl_2$ gel with various alcohols

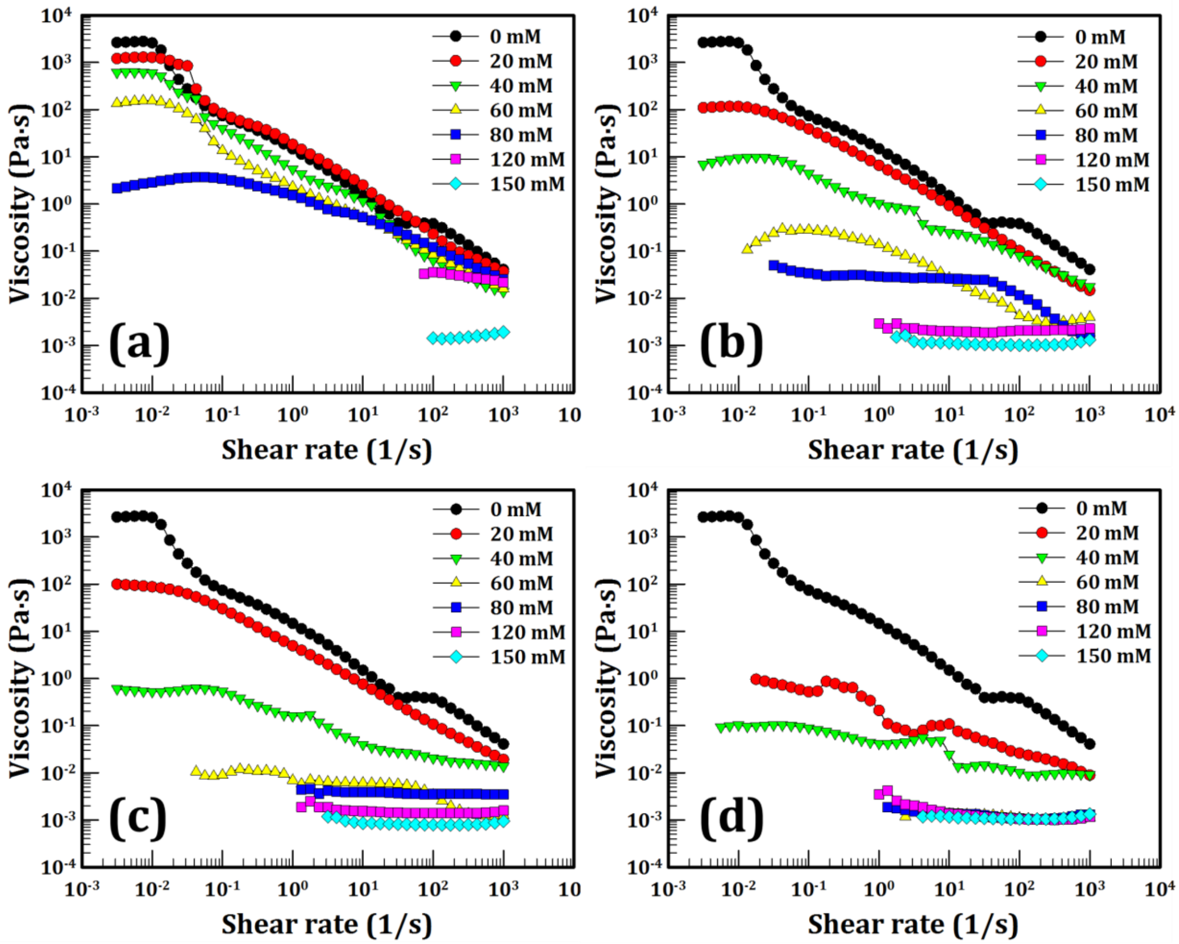

Figure S2. Steady-shear rheology of lecithin/$CaCl_2$ gel containing (a) propanol, (b) pentanol, (c) hexanol, and (d) octanol.

3. FT-IR measurements of the lecithin/$CaCl_2$ gels containing various concentration of propanol

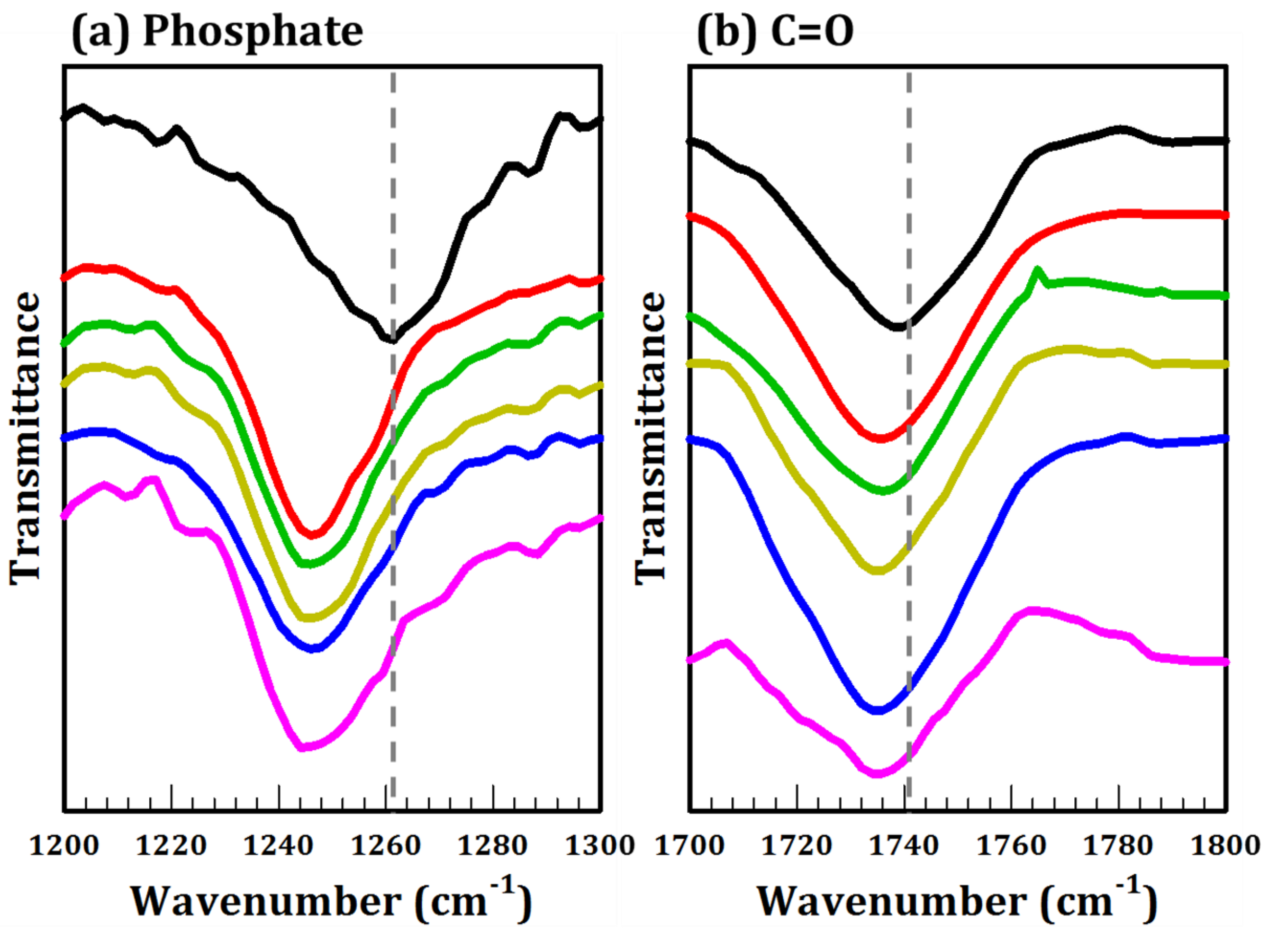

Figure S3. FT-IR absorption bands corresponding to (a) phosphate and (b) C=O observed for the lecithin/$CaCl_2$ gels containing propanol (lecithin (−), lecithin/$CaCl_2$ (−), lecithin/$CaCl_2$/propanol 20 mM (−), lecithin/$CaCl_2$/propanol 60 mM (−), lecithin/$CaCl_2$/propanol 120 mM (−) and lecithin/$CaCl_2$/propanol 150 mM (−)). The sample concentration was 100 mM lecithin and 37.5 mM $CaCl_2$ in decane.

4. FT-IR measurements of the lecithin/$CaCl_2$ gels containing various concentration of pentanol

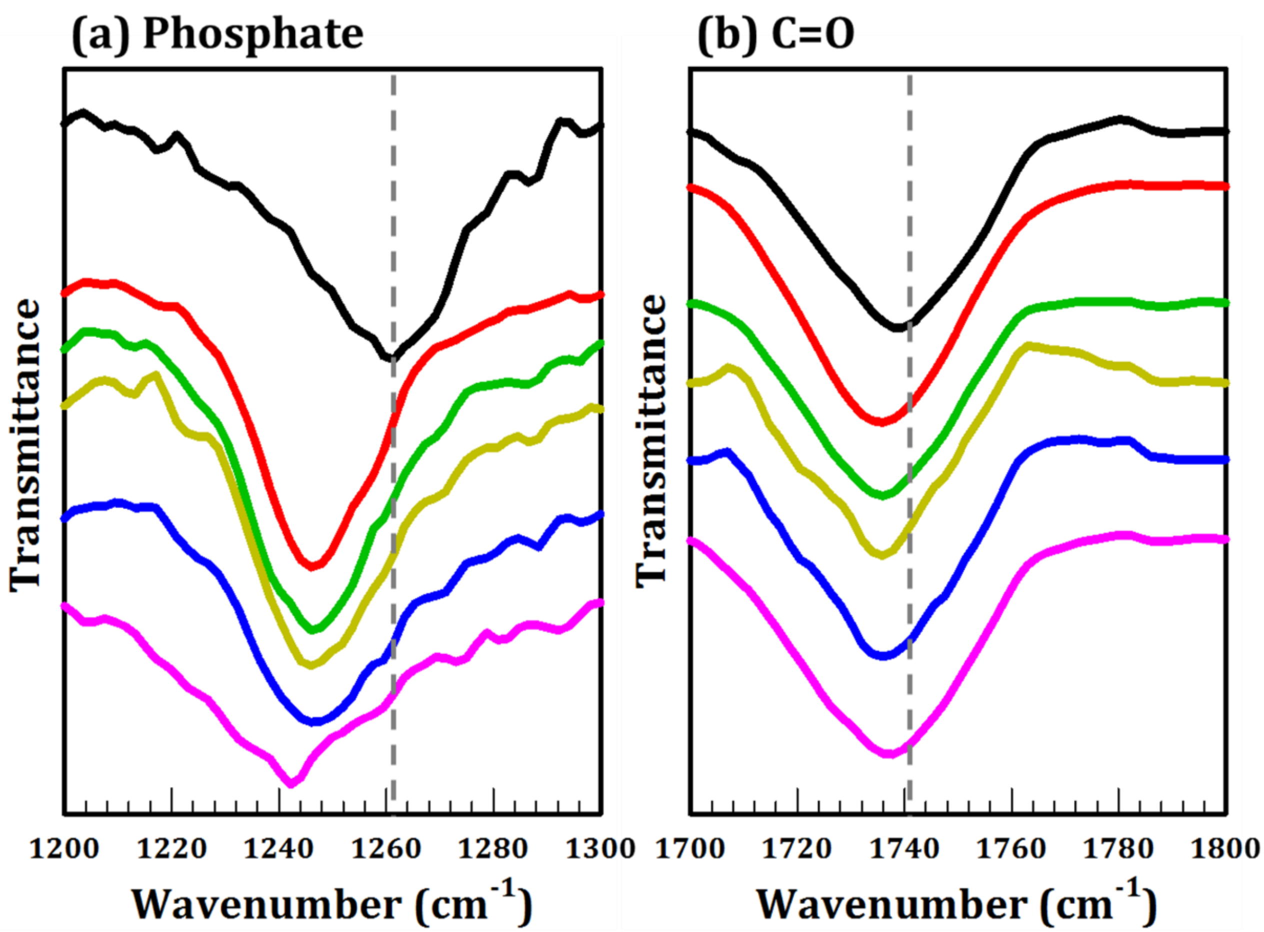

Figure S4. FT-IR absorption bands corresponding to (a) phosphate and (b) C=O observed for the lecithin/$CaCl_2$ gels containing pentanol (lecithin (−), lecithin/$CaCl_2$ (−), lecithin/$CaCl_2$/pentanol 20 mM (−), lecithin/$CaCl_2$/pentanol 60 mM (−), lecithin/$CaCl_2$/pentanol 120 mM (−) and lecithin/$CaCl_2$/pentanol 150 mM (−)). The sample concentration was 100 mM lecithin and 37.5 mM CaCl2 in decane.

5. **FT-IR measurements of the lecithin/$CaCl_2$ gels containing various concentration of octanol**

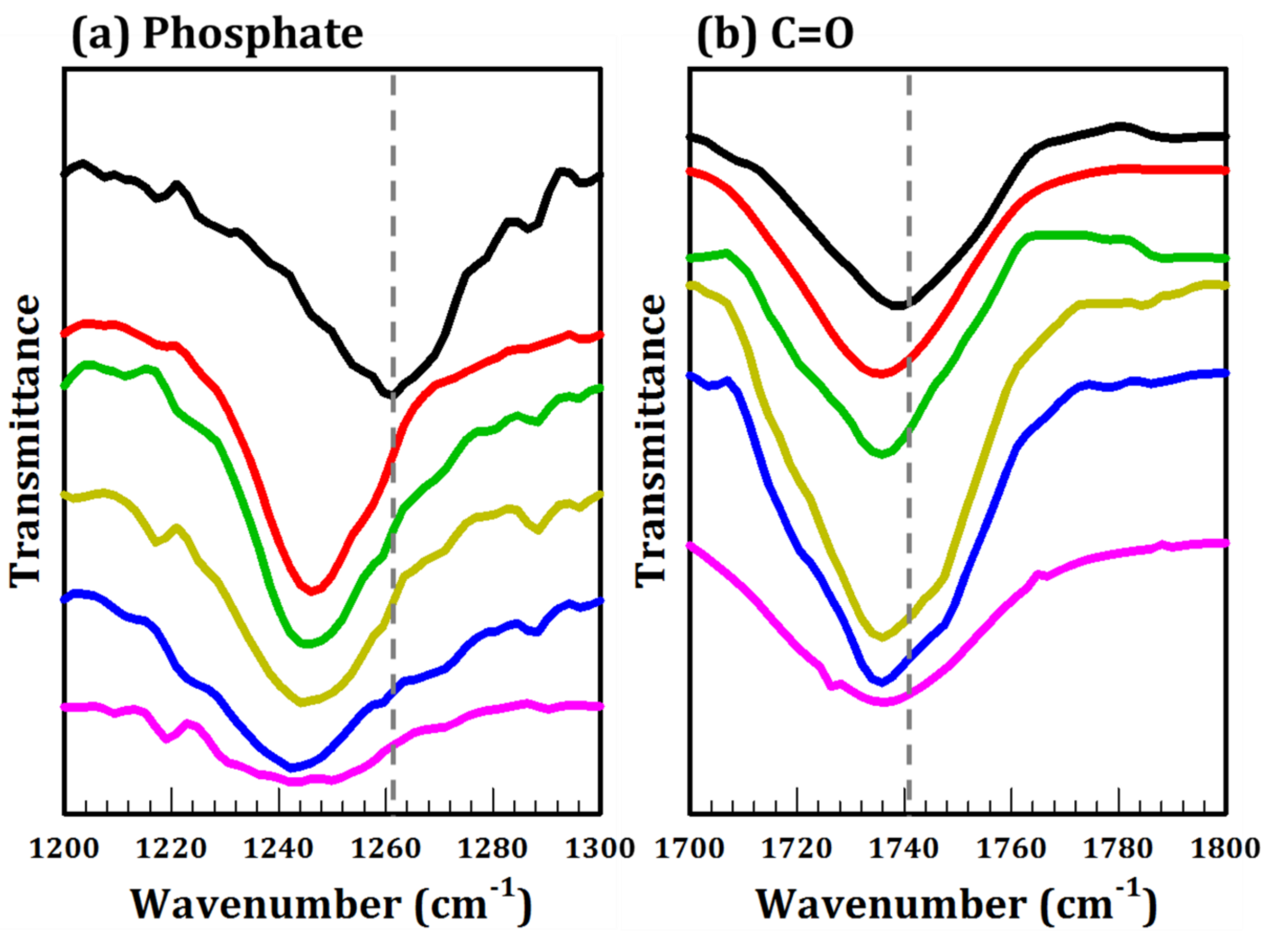

Figure S5. FT-IR absorption bands corresponding to (a) phosphate and (b) C=O observed for the lecithin/$CaCl_2$ gels containing octanol (lecithin (−), lecithin/$CaCl_2$ (−), lecithin/$CaCl_2$/octanol 20 mM (−), lecithin/$CaCl_2$/octanol 60 mM (−), lecithin/$CaCl_2$/octanol 120 mM (−) and lecithin/$CaCl_2$/octanol 150 mM (−)). The sample concentration was 100 mM lecithin and 37.5 mM CaCl2 in decane.