Supporting Information for:

Extremely pH-Sensitive Fluids Based on a Rationally Designed Simple Amphiphile

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Fig.S1 The composition-pH plot of CDHEAB.



Fig. S2. Dynamic light scattering results for 10 mM mM CDHEAB at different pH (left) and FF-TEM image of the vesicles formed at pH 5.44.



Fig. S3. ATR-IR spectra for the gels at pH 5.6.



Fig. S4. Steady-shear rheology data (left) and cole-cole plot (solid lines indicates the best fitting of Maxwell model of 100mM and 200mM) (right) of 100mM CDHEAB aqueous solution at pH=3.31 with various concentrations of NaBr.



Fig. S5. Steady-shear rheology data (left) and cole-cole plot (right) of 100mM CDHEAB aqueous solution at pH=4.97 with various concentrations of NaBr.



Fig. S6. Birefringent phenomenons of upper phase at pH=5.78 (left) and pH=6.00

(right).