

Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

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**Supporting information: Different Submicellar Solubilization
Mechanisms Revealed by ^1H NMR and 2D Diffusion Ordered
Spectroscopy (DOSY)**

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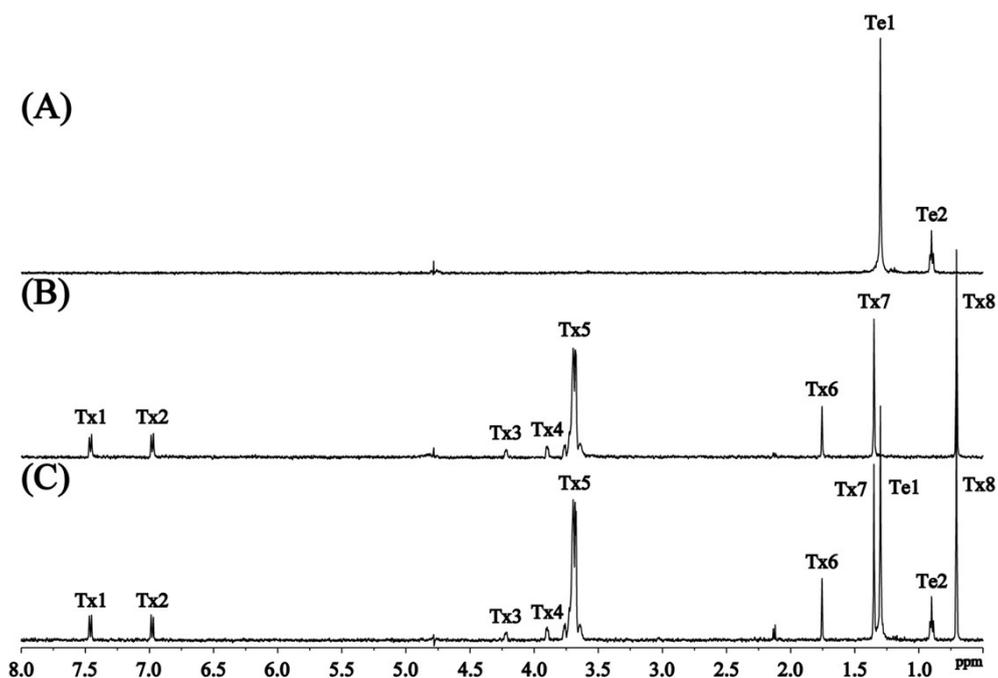


Fig. S1. ^1H NMR spectra of the pure tetradecane saturated solution at the concentration of 0.0252 mM (A), the pure TX-100 solution at the concentration of 0.0771 mM (B) and the TX-100/tetradecane solution with the TX-100 concentration of 0.0842 mM (C).

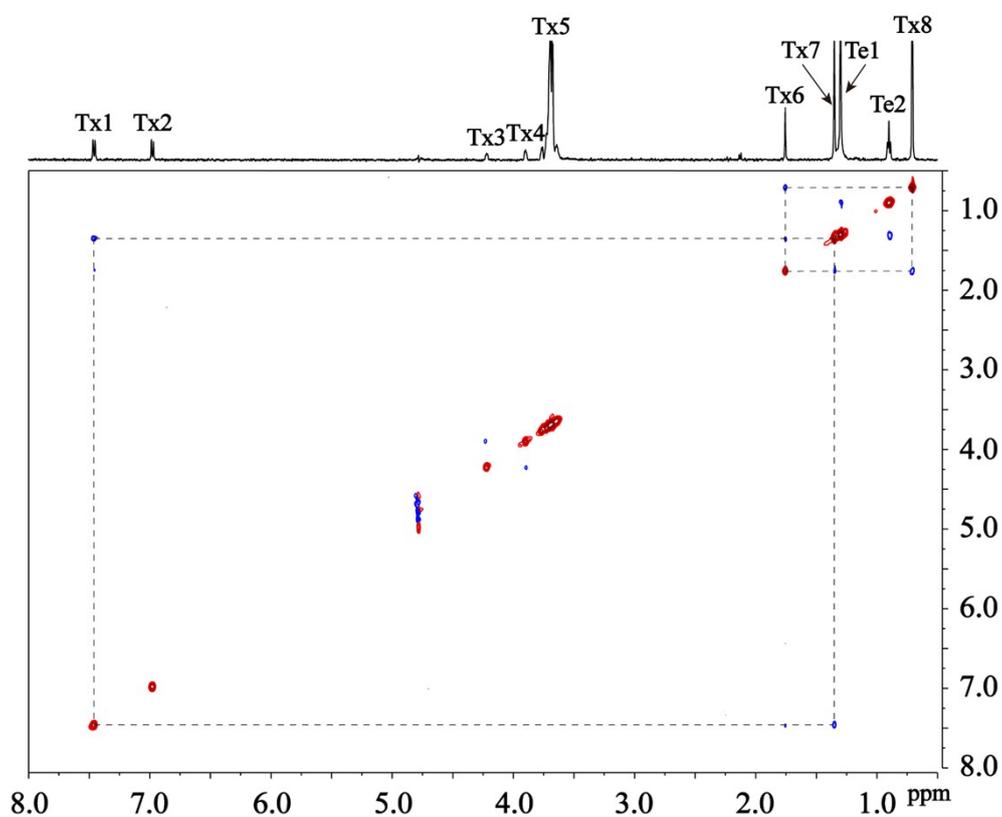


Fig. S2. 2D NOESY spectrum with a mixing time of 0.5 s for the TX-100/tetradecane solution with the TX-100 concentration of 0.114 mM.

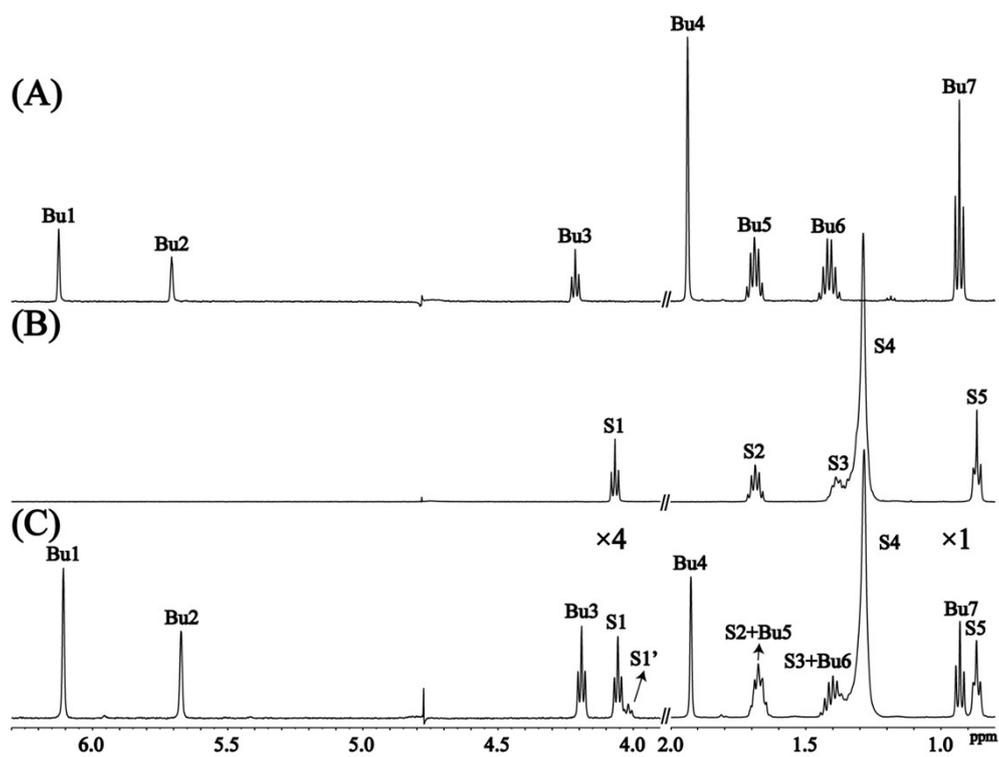


Fig. S3. ^1H NMR spectra of the pure butyl methacrylate saturated solution at the concentration of 2.24 mM (A), the pure SDS solution at the concentration of 1.87 mM (B) and the SDS/butyl methacrylate solution with the SDS concentration of 4.43 mM (C).

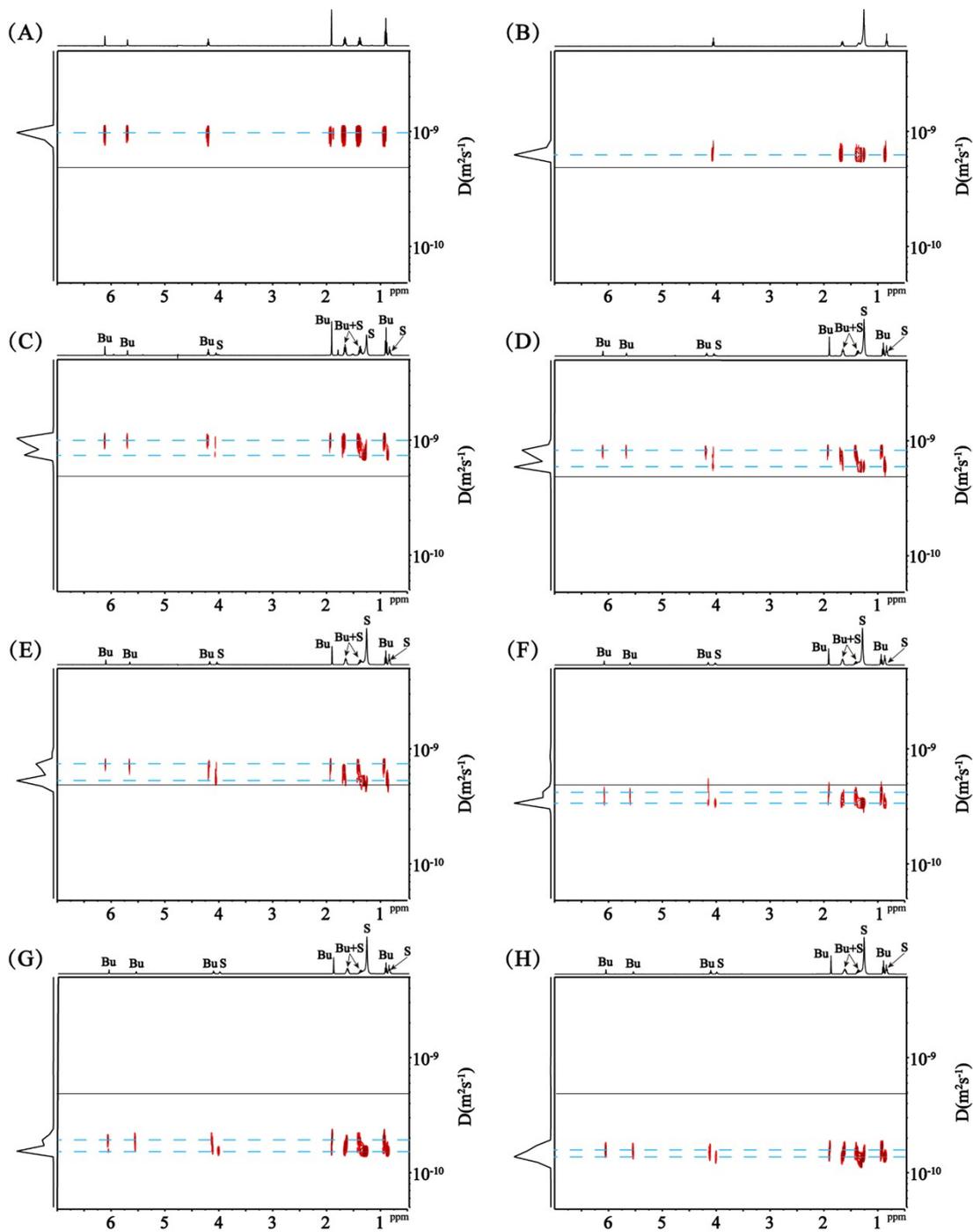


Fig. S4. 2D DOSY plots for the pure butyl methacrylate saturated solution at the concentration of 2.24 mM (A), the pure SDS solution at the concentration of 0.954 mM (B), and SDS/butyl methacrylate solutions with SDS concentrations of 1.47 (C), 4.43 (D), 5.86 (E), 17.0 (F), 51.9 (G) and 70.5 (H) mM. The black horizontal line at the D value of $5.0 \times 10^{-10} \text{ m}^2 \text{ s}^{-1}$ of the diffusion dimension is a reference to mark the variation of the diffusion coefficients.

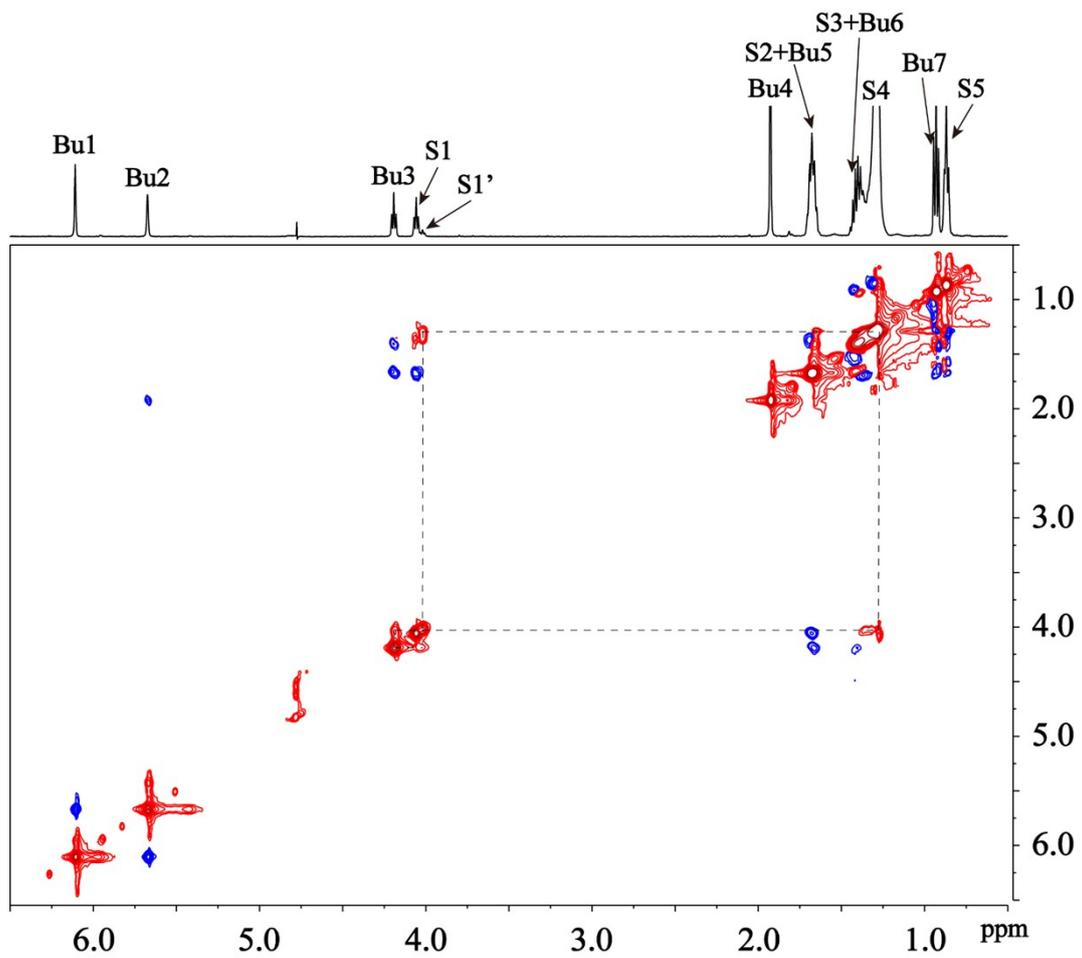


Fig. S5. 2D NOESY spectrum with a mixing time of 0.5 s for the SDS/butyl methacrylate solution with the SDS concentration of 4.43 mM.

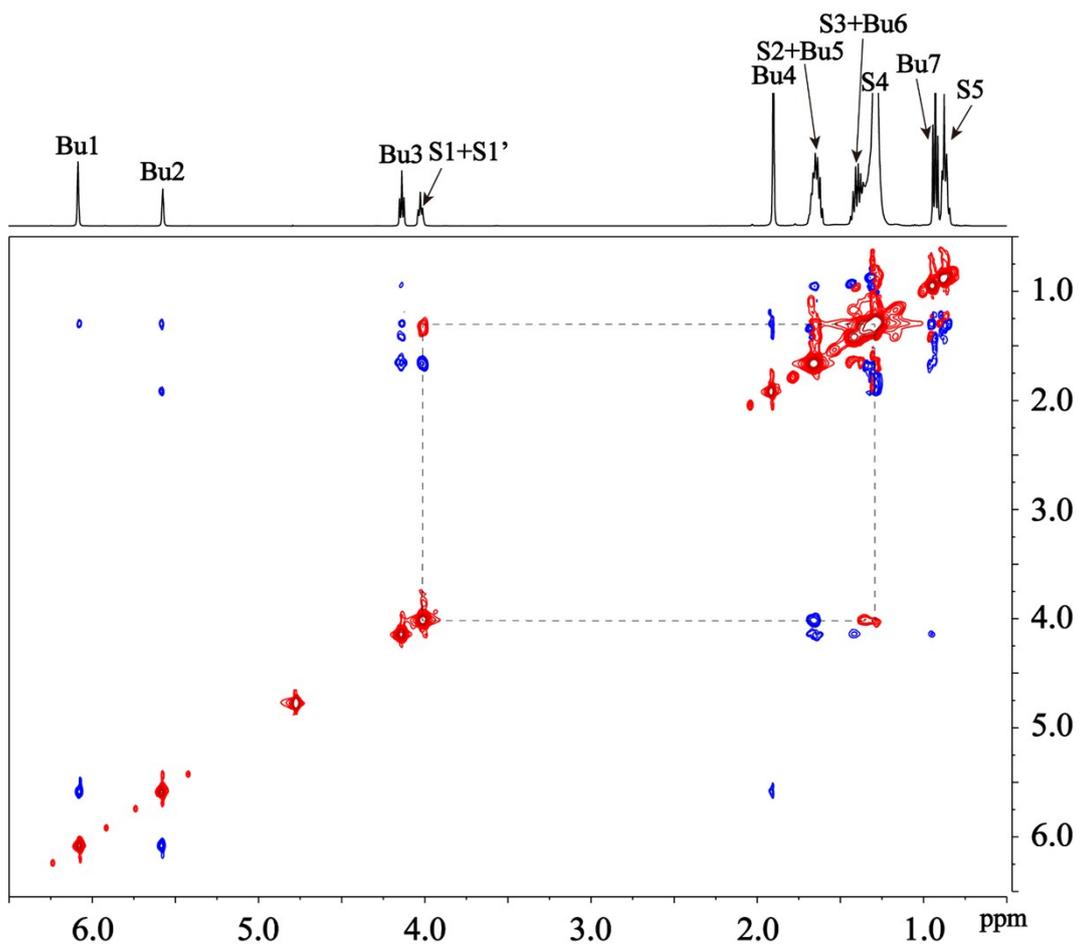


Fig. S6. 2D NOESY spectrum with a mixing time of 0.5 s for the SDS/butyl methacrylate solution with the SDS concentration of 70.5 mM.