

## Supporting Information

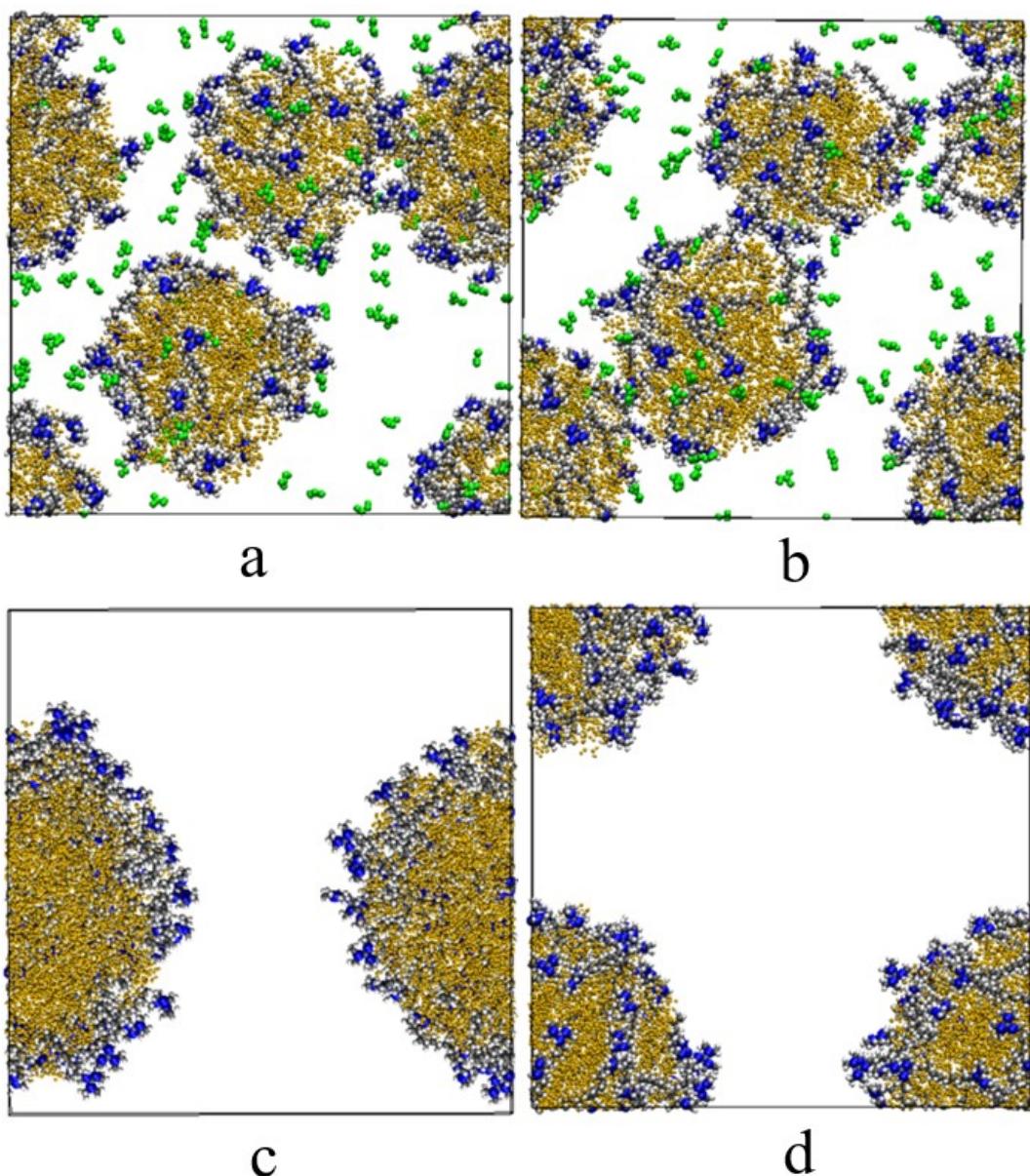


Figure S1. Final configurations of the DTMGH and DTMG systems in the emulsion model, where a, b are the front view and top view of the DTMGH system, respectively, and c, d are the front view and top view of the DTMG system, respectively. Yellow represents the oil phase, green represents the carbonate ion, and the carbon, nitrogen, and hydrogen atoms in the surfactant are grey, blue, and white, respectively. Water molecules are hidden.