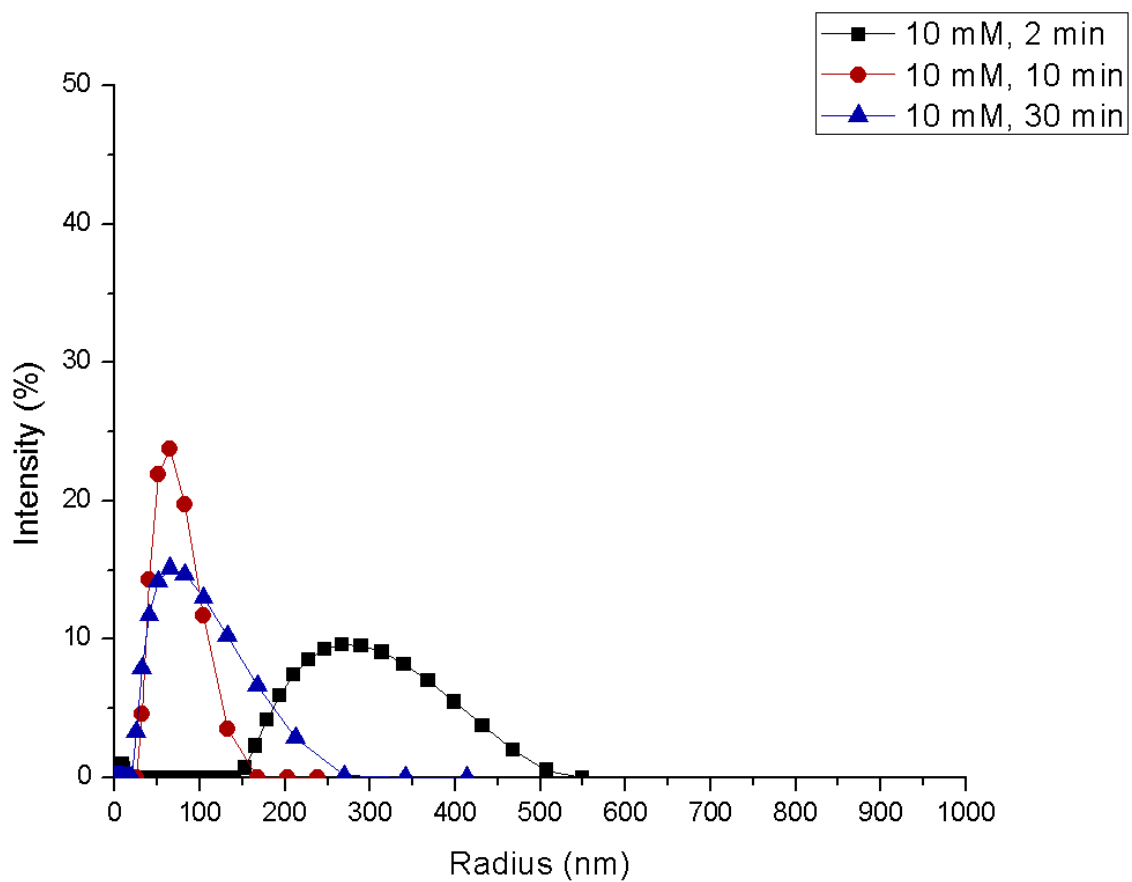
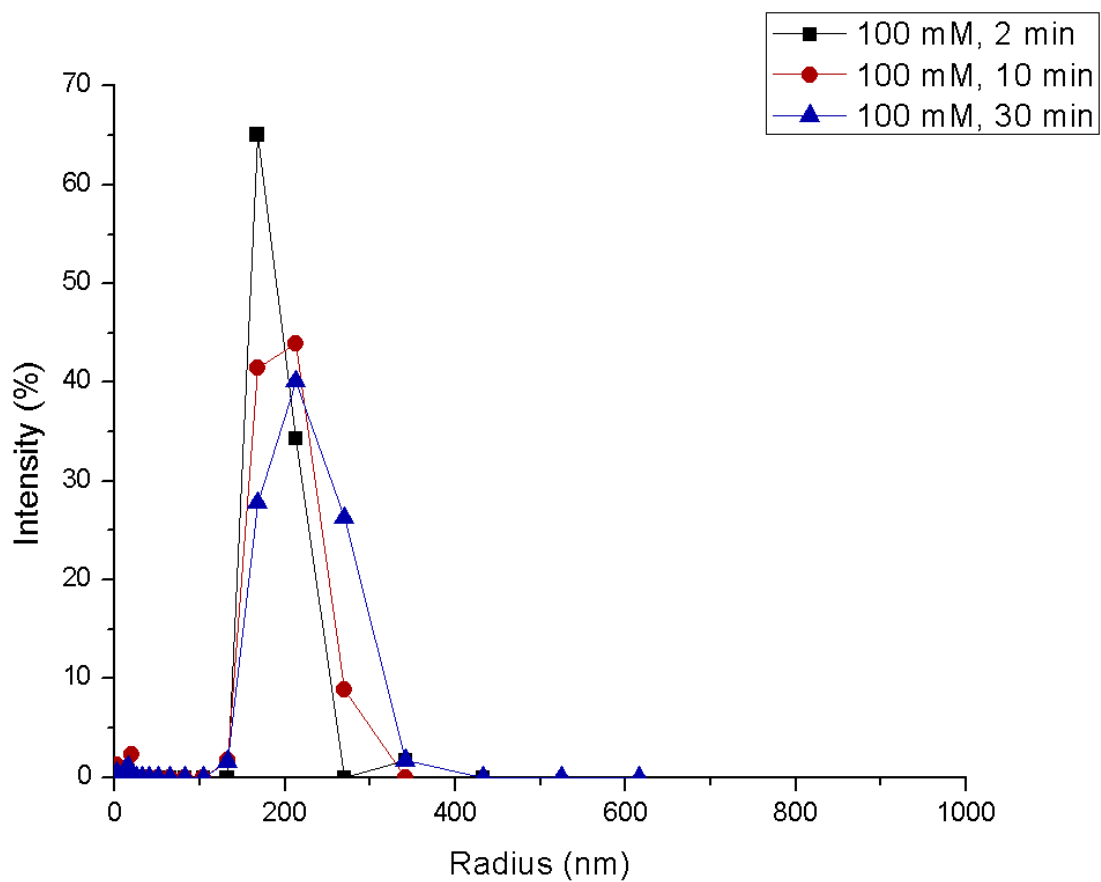


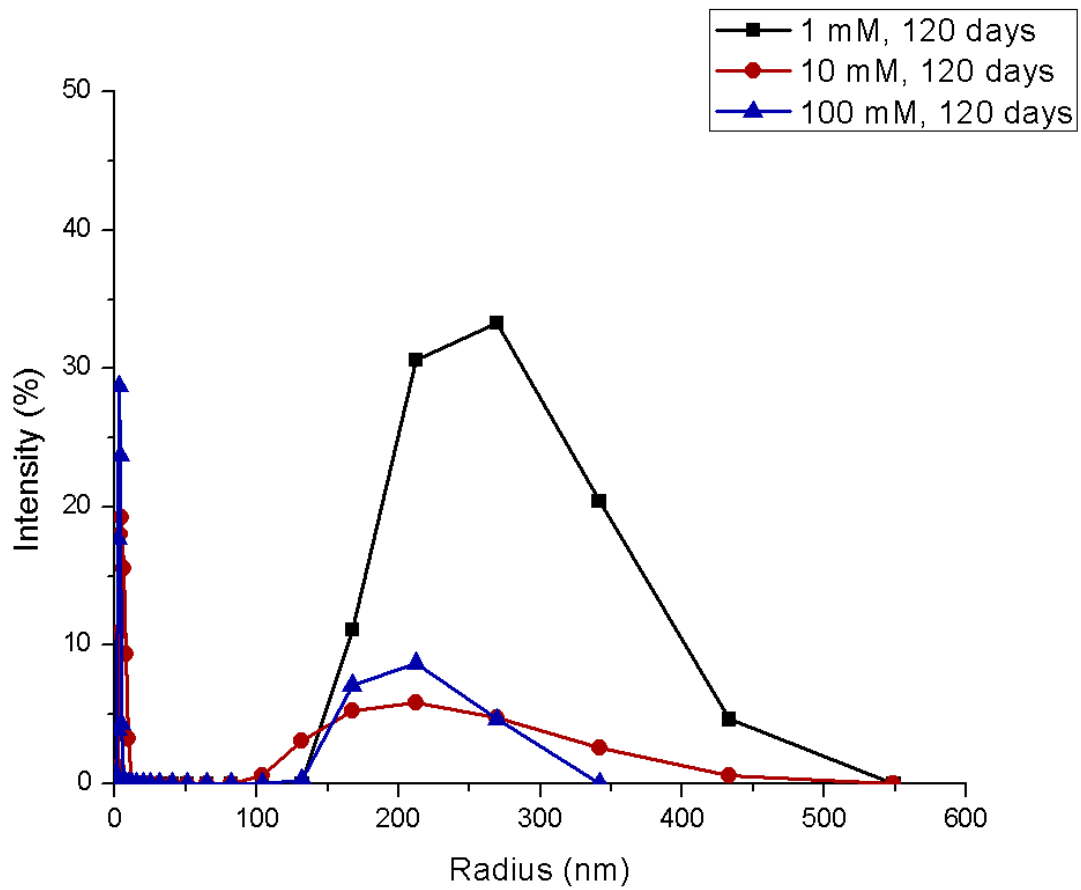
Supplementary Figure 1 | DLS measurements of emulsions formed by condensing water vapor onto dodecane containing 1 mM Span 80 for different condensation times. All experiments were performed at a relative humidity of 75-80% with the peltier cooler temperature set to 2 °C. The oil (8 mL) was kept in a copper bath with Teflon side-walls (to decrease the condensation rate on the side walls).



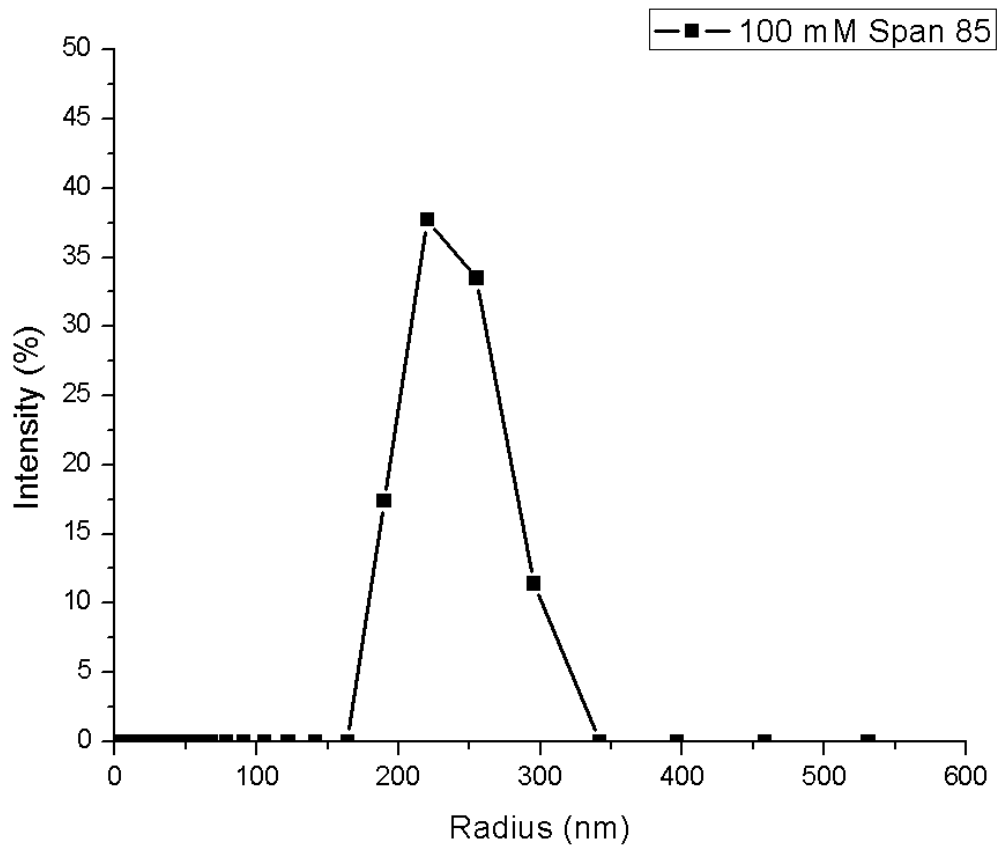
Supplementary Figure 2 | DLS measurements of emulsions formed by condensing water vapor onto dodecane containing 10 mM Span 80 for different condensation times.



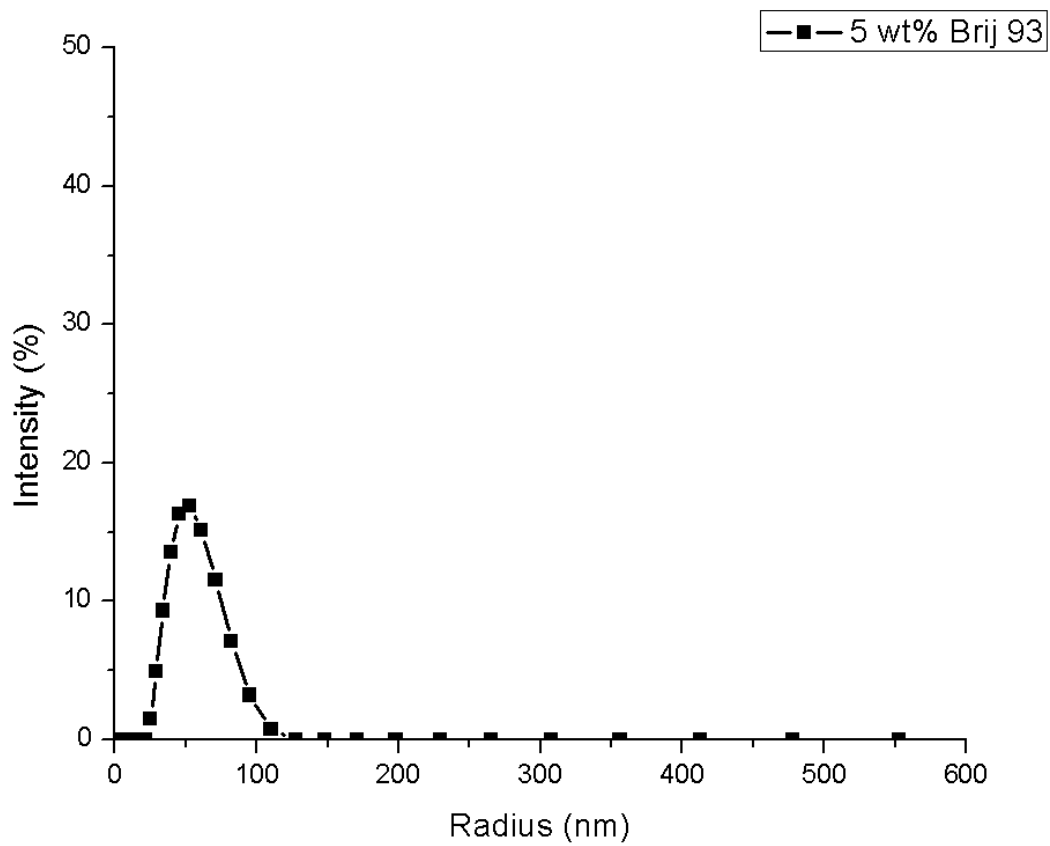
Supplementary Figure 3 | DLS measurements of emulsions formed by condensing water vapor onto dodecane containing 100 mM Span 80 for different condensation times.



Supplementary Figure 4 | DLS measurements of emulsions formed 120 days previously by condensing water vapor onto dodecane containing 1 mM, 10 mM, and 100 mM Span 80 (condensation time: 2 min).



Supplementary Figure 5 | DLS measurement of emulsion formed by condensing water vapor onto dodecane containing 100 mM Span 85 (condensation time: 5 min).



Supplementary Figure 6 | DLS measurement of emulsion formed by condensing water vapor onto dodecane containing 5 wt% Brij 93 (condensation time: 5 min)