

Carbon Nanotubes for Stabilization of Nanostructured Lipid Particles

Nicholas P. Gaunt^a, Yogita Patil-Sen^a, Matthew J. Baker^{a,b}, Chandrashekhar V. Kulkarni^{a*}

Raman spectra for dehydrated lipid particles stabilized by varying concentrations of CNTs are shown in Supplementary Fig. S1.

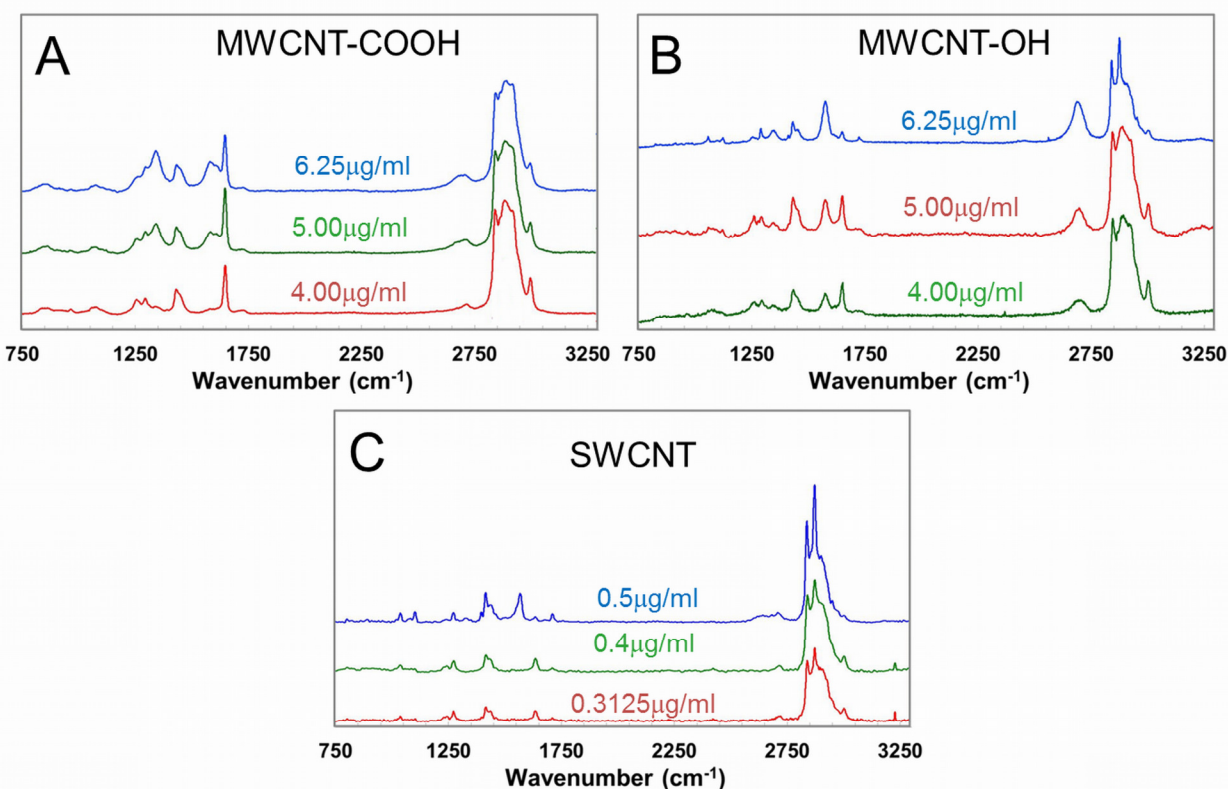


Fig. S1. Raman spectra for freeze dried lipid particles along with CNTs used to stabilize them in solution conditions.

Small Angle X-ray Scattering

Small angle x-ray scattering measurements (1.2-10 degrees) on dehydrated/freeze-dried samples were performed using D2 Phaser (Bruker Instruments, UK). Typical settings of 0.1mm slit and 0.1 mm knife edge distance were used to acquire 1-dimensional data (integrated using DIFFRAC.SUITE over intensity) with LYNXEYETM detector.

Measurements were performed at ambient temperature (20 °C). Small angle x-ray scattering measurements acquired for 20 minutes each as shown in Supplementary Fig. S2.

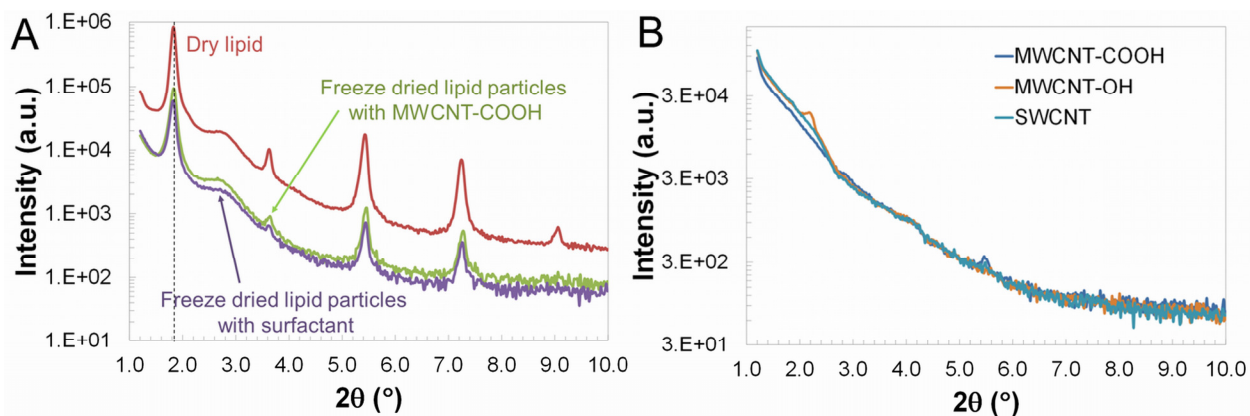


Fig. S2. Small angle x-ray scattering patterns of A) dehydrated lipid, MWCNT-COOH stabilized lipid particles and surfactant stabilized lipid particles showing lamellar type of nanostructures and B) powdered CNTs.