

Vesicle generation from Microfluidic System

Journal of the American Chemical Society, vol. 128(17), pp. 5656 - 5658, 2006

1. Dissolve lipid in oleic acid
(may require heating of the solution to 40C° to 60 C°)
2. Generate coated droplets in microfluidic system
(Figure 1). Coated droplets should be thick and viscous.
3. Extract 100uL of coated droplets and disperse it in 5-10ml of 30% ethanol water mixture.
Vortex and centrifuge the mixture then extract the bottom fluidic phase. Disperse the bottom fluidic phase in water. (Figure 2)

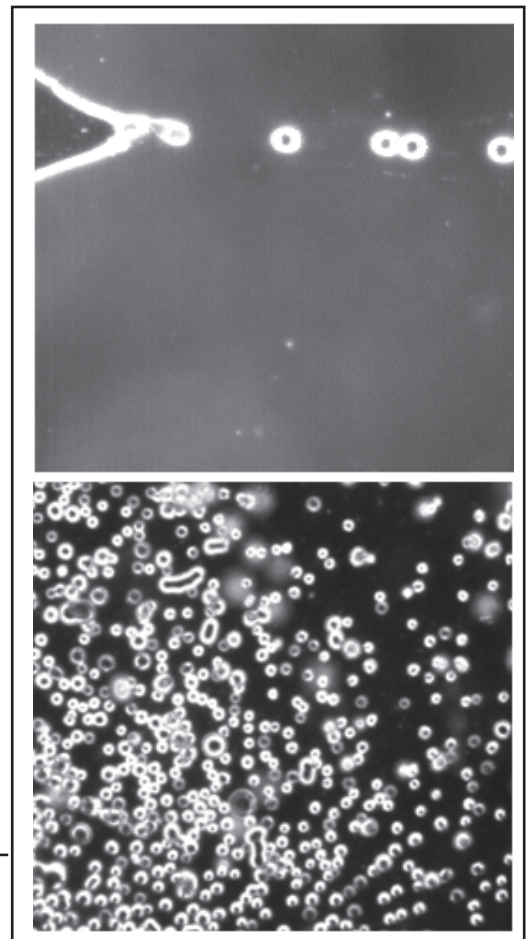


Figure 1 (right).
(Top) Coated droplets generated in the fluidic channel
(Bottom) Coated droplets in the collected reservoir

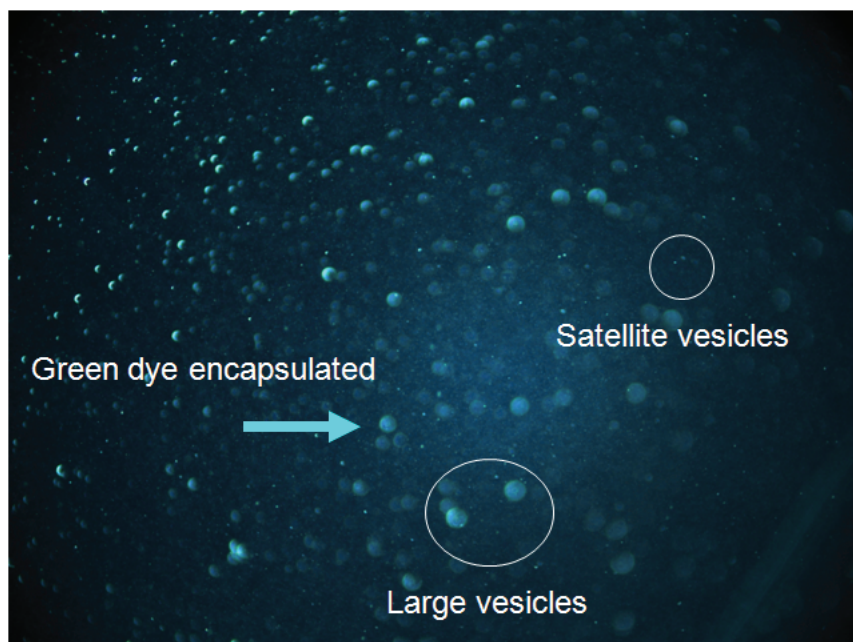


Figure 2 (left)
Collected vesicles after the dissolution process.