Supporting Information

Soysome: A Surfactant-free, Fully Biobased, Self-assembled Platform for Nanoscale Drug Delivery Applications

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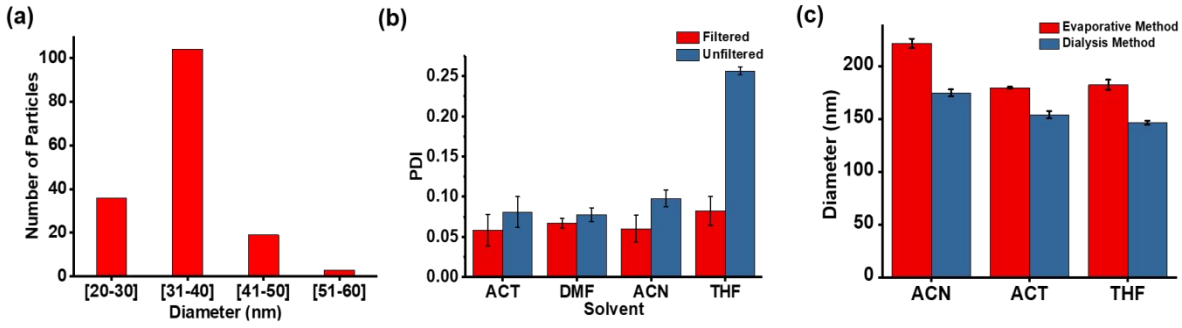

Figure S1. (a) TEM histograms showing particle size distribution of MSSP soysomes in water (b) effect of filtration on polydispersity indices of MSSP soysomes prepared in water and (c) effect of varying the preparative methods

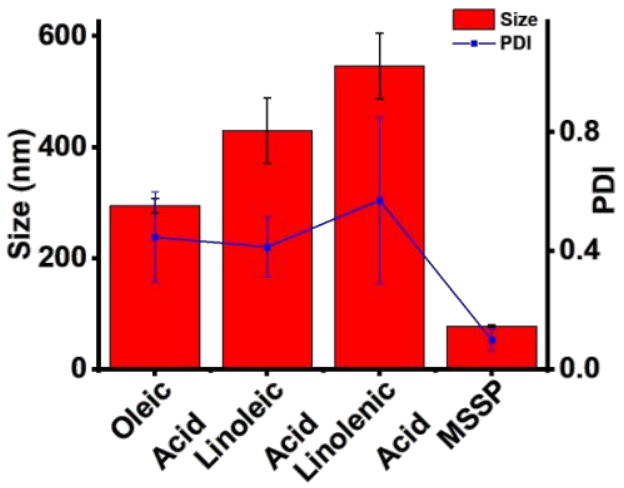

Figure S2. Particle size and PDI obtained from nanoprecipitation of fatty acids composing MSSP

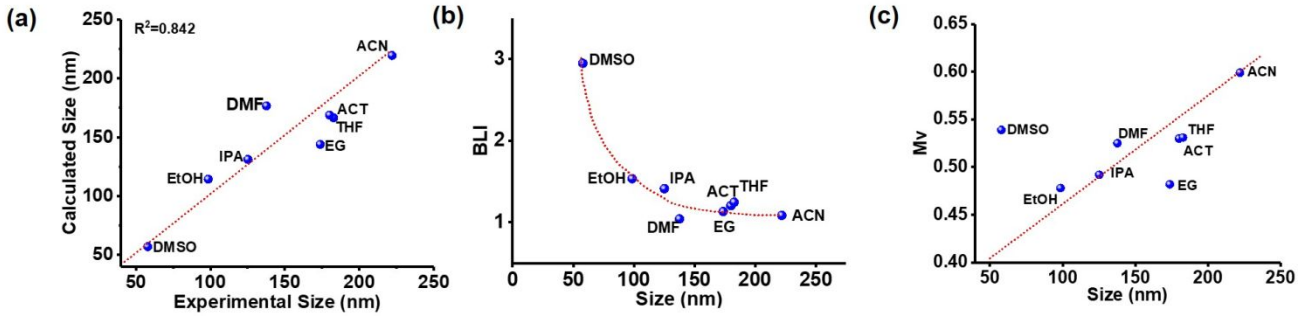

Figure S3.Computational model showing correlation between soysome size obtained experimental and (a) size predicted using QSAR model (b) mean atomic van der

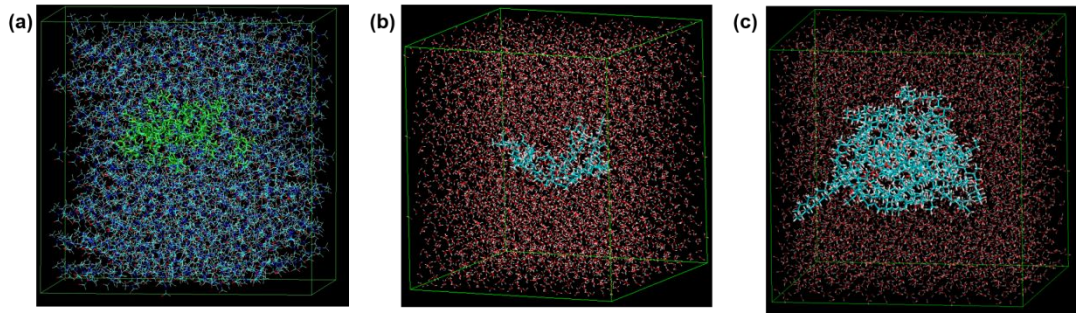

Figure S4. Computational structural model of (a) a single molecule of MSSP in DMF (b) a single molecule of MSSP in water and (c) four

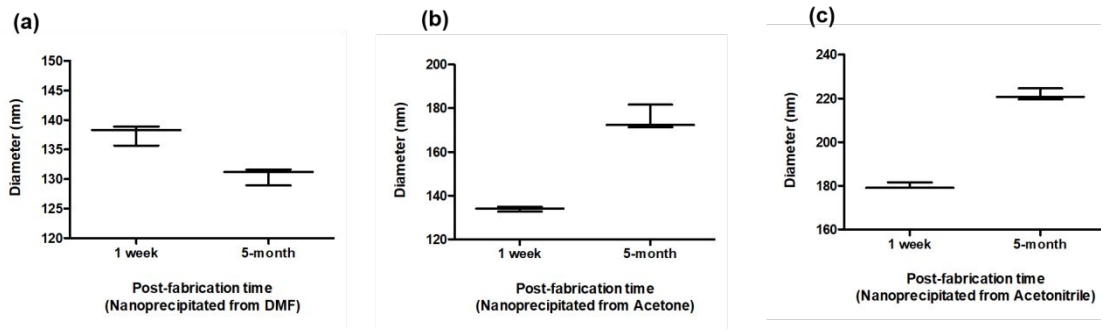

Figure S5. Effect of long-term (5 months) storage at 4°C on particle diameter of soysomes prepared from (a) DMF (b) acetonitrile and (c)

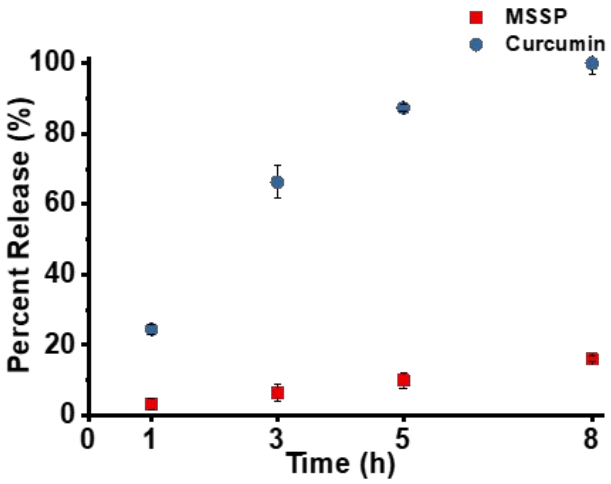

Figure S6. Comparative percent transfer of MSSP and Curcumin into the octanol phase during drug release study.

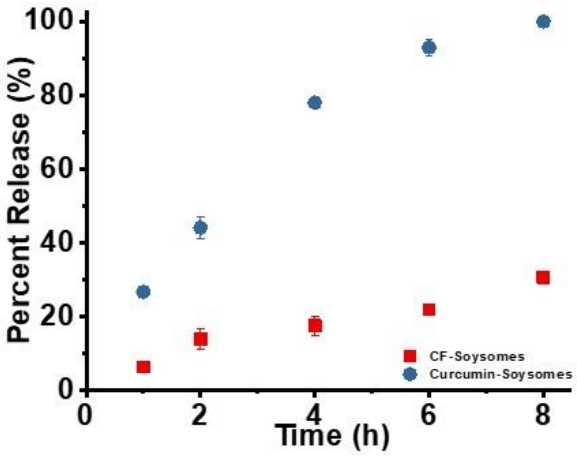

Figure S7. Comparative percent release of carboxyfluorescein and curcumin from Soysomes in octanol-water biphasic system

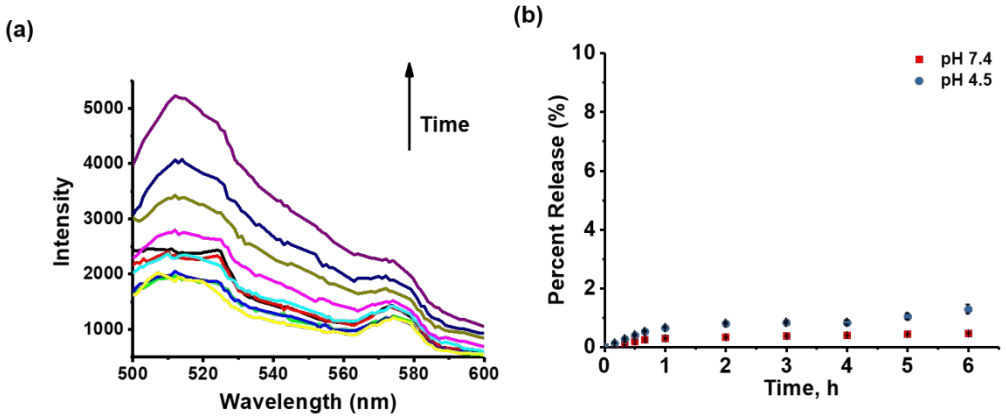

Figure S8. (a) Evolution of fluorescence spectra of carboxyfluorescein encapsulated in soysomes in water with time and (b) release of carboxyfluorescein encapsulated in soysomes in water at different pH.

Loading efficiency = drug loaded in nanoparticles/initial drug in solution-drug loss in manufacturing process

$$\text{Loading efficiency} = \frac{drug\ loaded}{(initial\ drug\ in\ solution - loss)} \quad (6)$$