Controlled Dye Aggregation in SDS Stabilized PMMA Nanoparticles as Fluorescent Imaging Probes

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Supporting Information

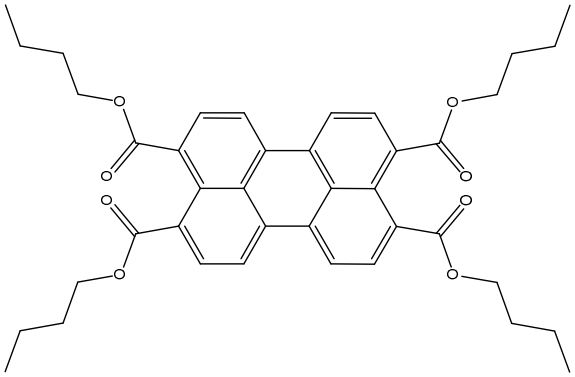

Figure S1: Structure of Perylene Tetrabutylester (PTE).

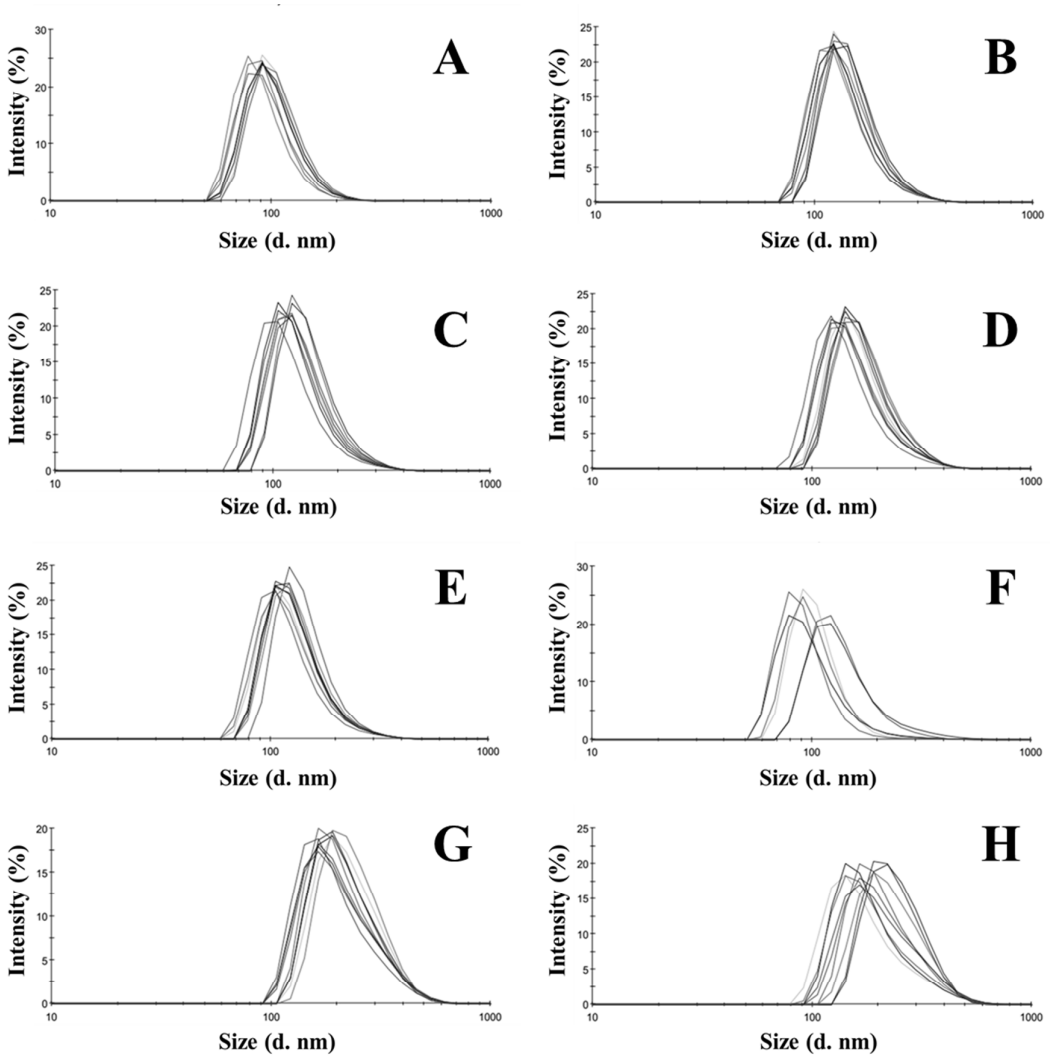

Figure S2: Dynamic Light Scattering graphs of PMMA nanoparticles with variable quantities of SDS used to stabilize particles. The nanoparticles were prepared using 50 mL stock solutions with a 200 mg basis of PMMA with (A) 0 wt% SDS, (B) 0.19 wt% SDS, (C) 0.38 wt% SDS, (D) 0.95 wt% SDS, (E) 1.89 wt% SDS, (F) 3.7 wt% SDS, (G) 8.77 wt% SDS, (H) 16.12 wt% SDS.

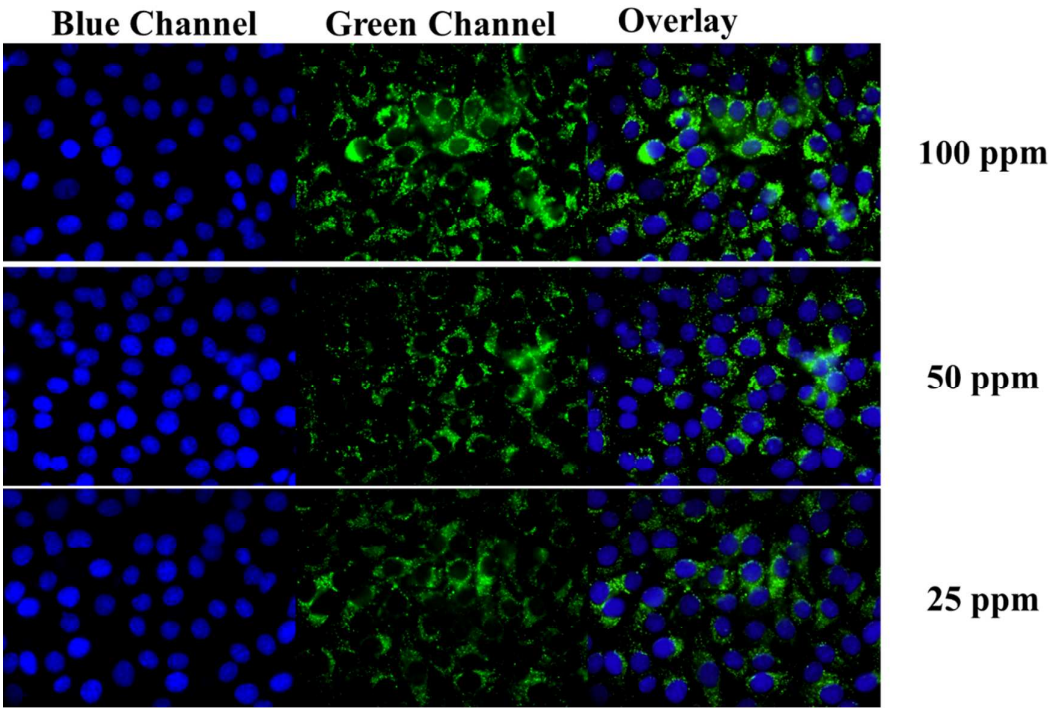

Figure S3: Exposure to nanoparticles at varying concentrations. Blue signals from DAPI statin and green signals from nanoparticles.

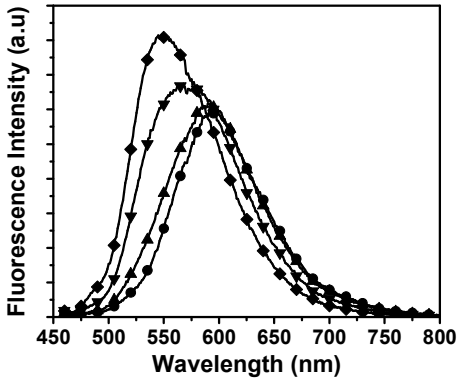

Figure S4: Fluorescence of dilute nanoparticle solutions (20 ppm) shows minor differences in trend between the concentrated solution and diluted nanoparticle solution with PTE loading varied from (-♦-) 5 wt%, (-▼-) 10 wt%, (-▲-) 17.5 wt% and (-●-) 25 wt%.

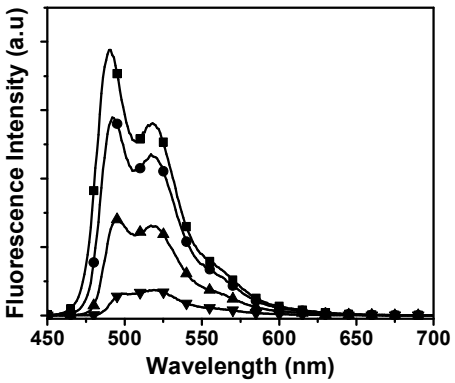

Figure S5: Fluorescence of PTE dye in DCM at concentrations of 25 μM (-▼-), 50 μM (-▲-), 100 μM (-●-), 200 μM (-■-). The effective concentration of PTE in the PTE-PMMA nanoparticles was 3 μM – 150 μM (0.5 wt% - 25 wt%).