

Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.  
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## Supporting information

# Self-Assembly Based on Hydrogel Interface: Rapid and Large-Scale Preparation of Colloidal Photonic Crystals Made Easy

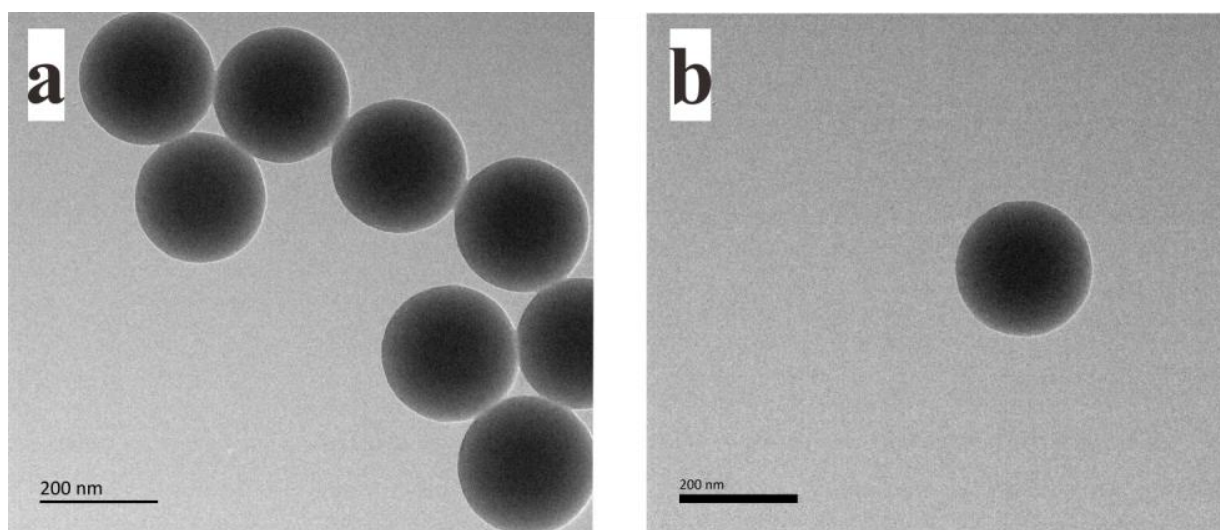
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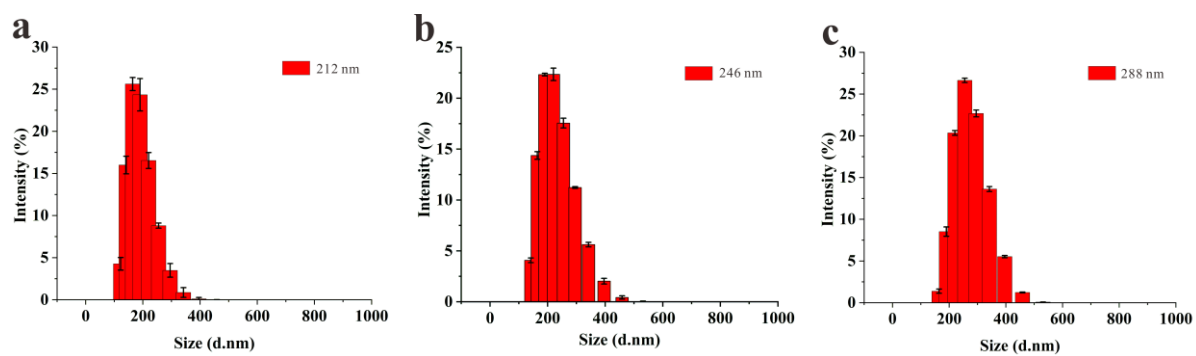
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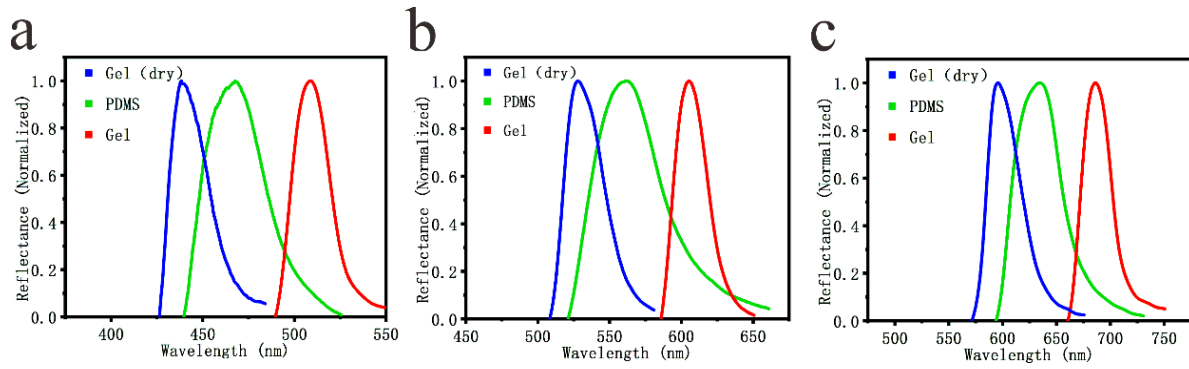


**Figure S1.** TEM image of monodisperse PS nanoparticles with diameters of 246 nm.



**Figure S2.** Monodispersed latex spheres polystyrene (PS) with diameter of 212 nm (a), 246 nm (b) and 288 nm (c) obtained by dynamic light scattering (DSL) analysis using a Malvern Zetasizer Nano ZS90.

As shown in Figure S2, the polydispersity index (PDI) for size 212, 246 and 288 nm PS nanoparticles are 0.05, 0.07 and 0.02, respectively.



**Figure S3.** The normalized reflection spectra of PCs assembled by PS nanoparticles with diameters of (a) 212 nm, (b) 246 nm, and (c) 288 nm on the substrates materials of PDMS and hydrogel.