

Supporting information for

Large-area 2D microgel colloidal crystals fabricated via benzophenone-based photochemical reaction

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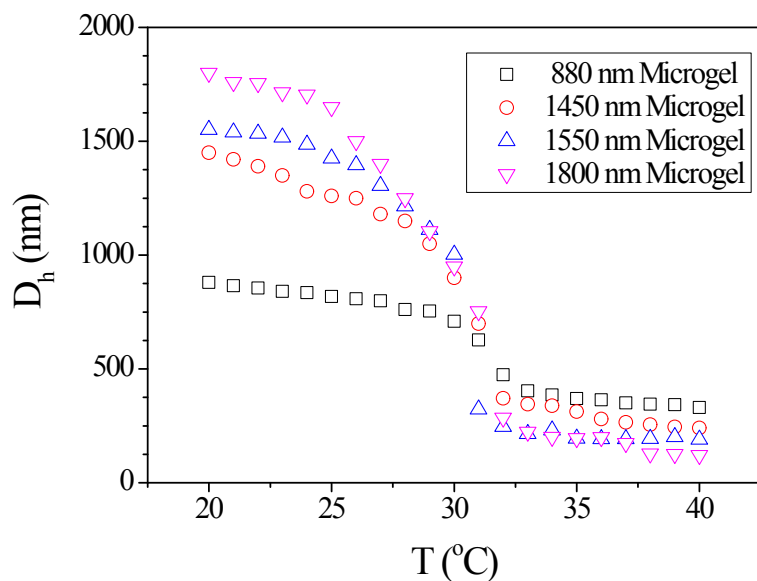


Fig. S1. Hydrodynamic diameter (D_h) of the microgels measured at various temperatures. pH=3.5.

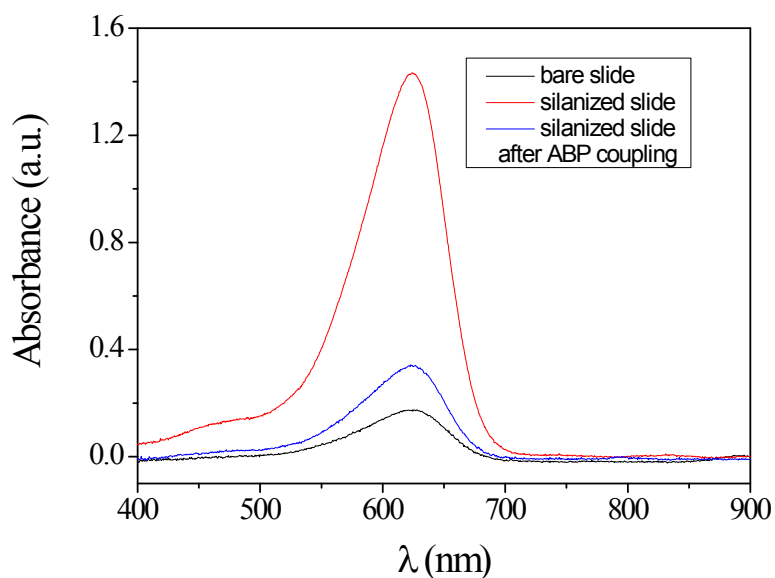


Fig. S2. Absorption spectra of the desorbed Toluidine Blue O dye from bare quartz slide (black), and the silanized slide before (red) and after coupling with 4-aminobenzophenone (blue).

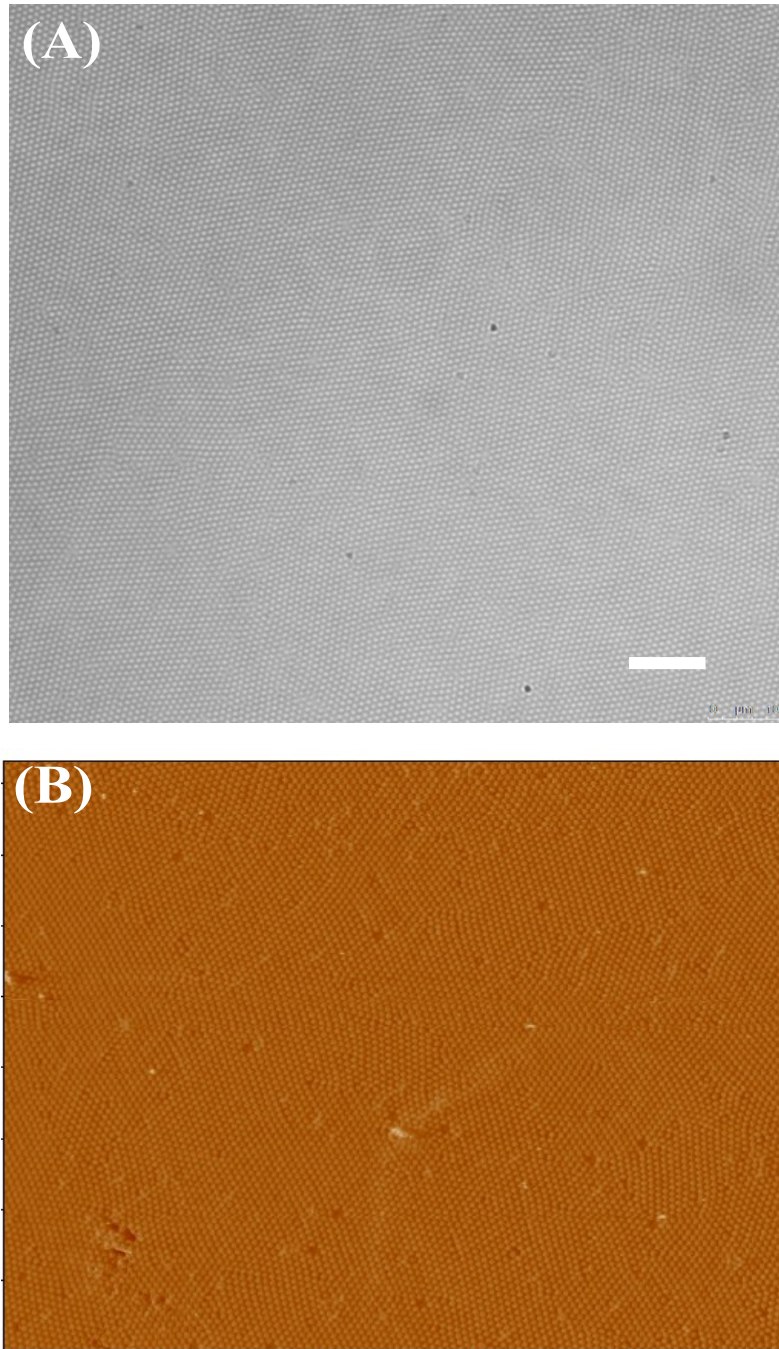


Fig. S3. Large area optical microscopy image (A) and AFM image (B) of a 2D CC fabricated from the 1450 nm microgel. The scale bar is 10 μm. Scanning size of the AFM image is 100.143 μm × 89.164 μm.

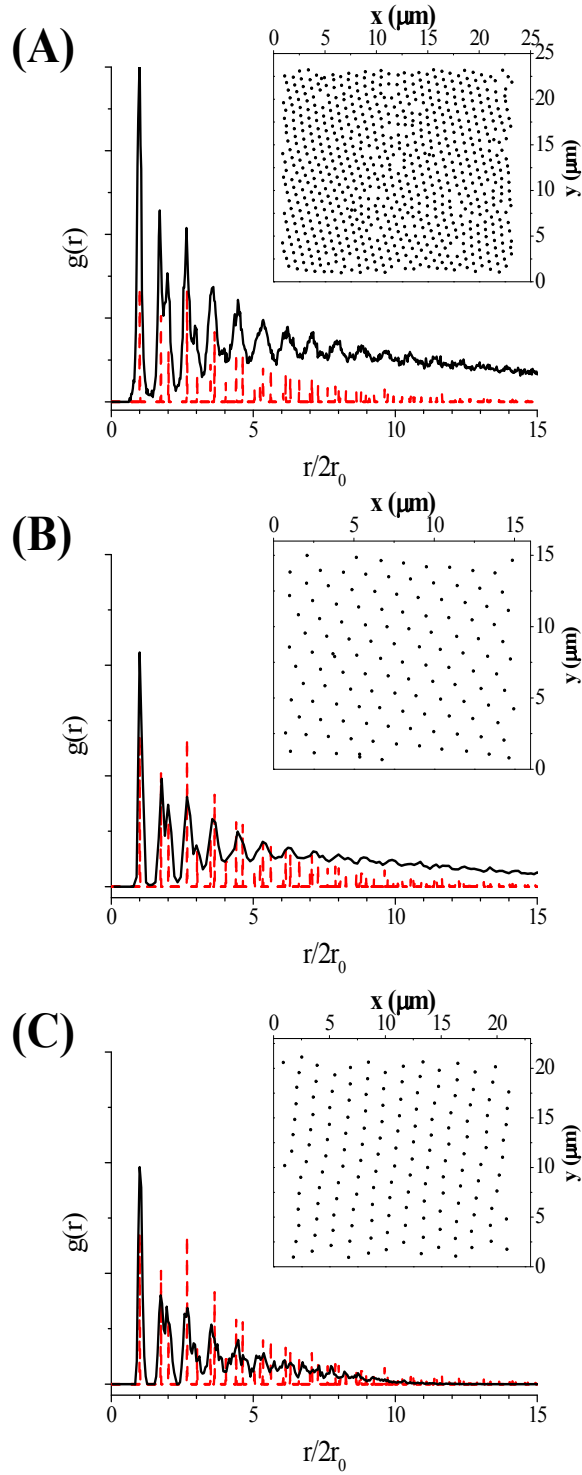


Fig. S4. Pair correlation function, $g(r)$, of the 2D CC from 880 (A), 1550 (B) and 1800 nm microgel (C). Dash vertical lines indicate the peaks of $g(r)$ of an ideal hexagonally packed monolayer generated numerically. The inset highlights the centers of the particles as found from the automated particle location procedure.

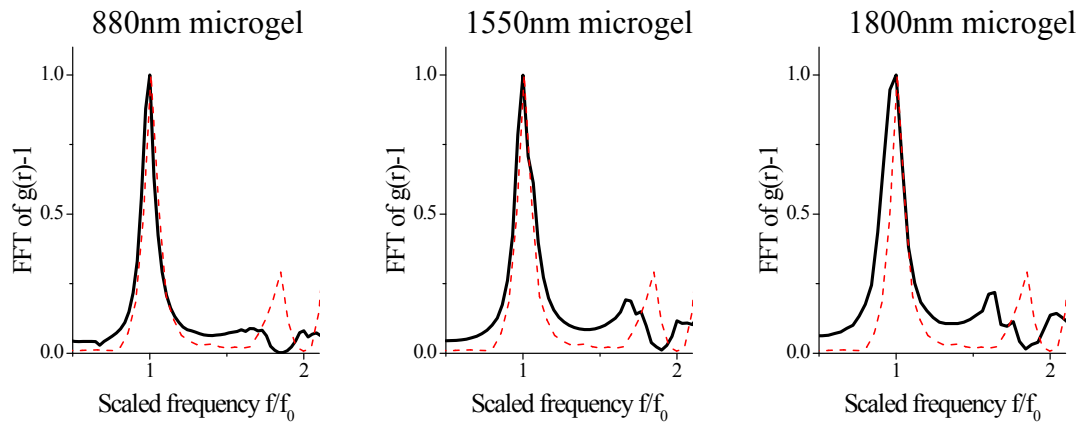


Fig. S5. Single-sided power spectra Fourier transforms (FT) of $g(r)$ compared to FT of the corresponding perfectly ordered arrays (dash line). The power spectra were scaled to have identical maxima at $f/f_0 = 1.0$.