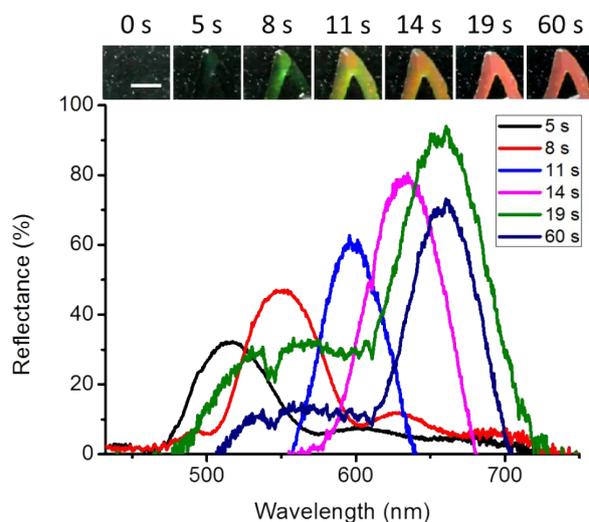
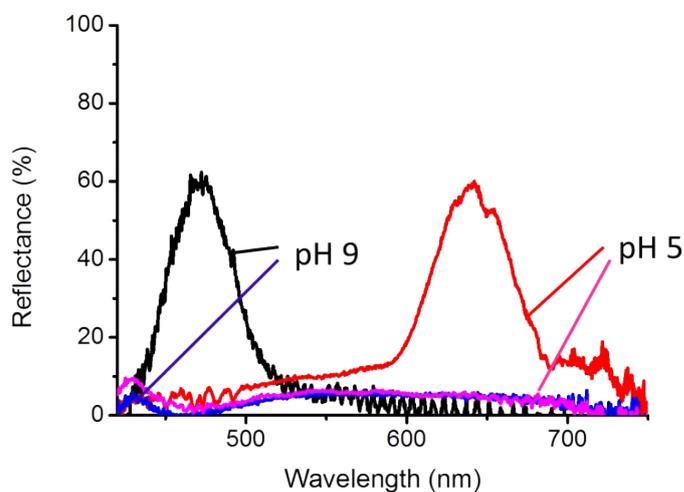


## Water as a colorful ink: transparent, rewritable photonic coatings based on colloidal crystals embedded in chitosan hydrogel

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**Fig. S1** The reflection spectra of dynamic writing processes of the photonic coatings with particle size of *ca.* 225 nm. The scale bar is 0.5 mm.



**Fig. S2** The reflection spectra of the photonic coatings with particle size of *ca.* 174 nm after writing with various aqueous buffers of pH 5 (red line), pH 9 (black line), and erasing after water evaporated (purple line and blue line).