

Supporting information

Construction of cellulose-phosphor hybrid hydrogels and their application for bioimaging

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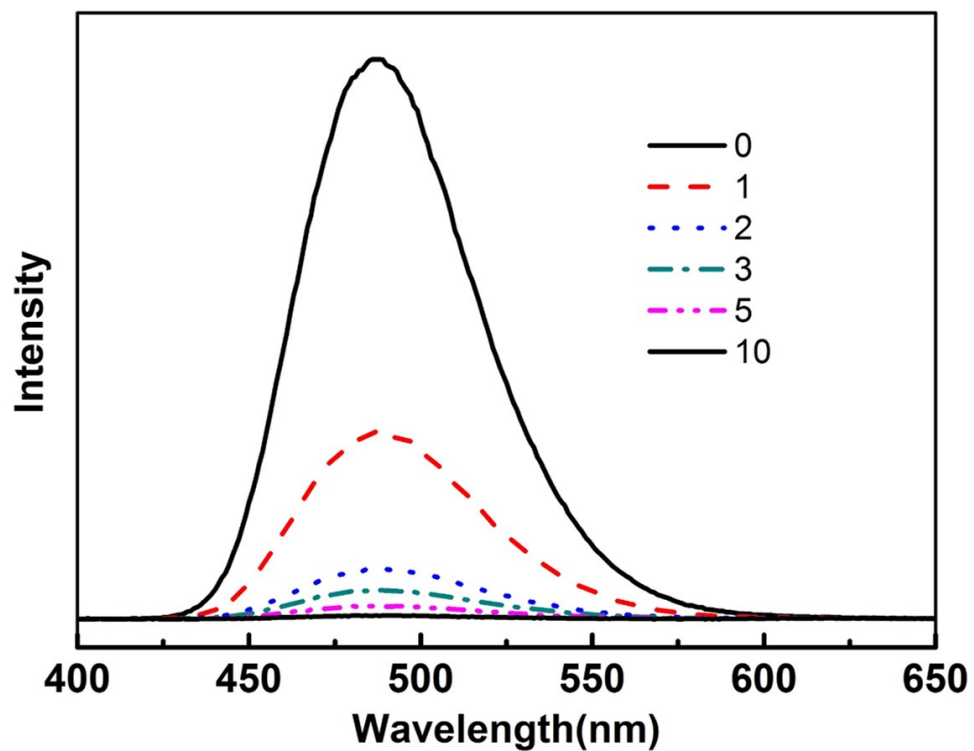


Figure. S1 Fluorescent spectra of CPH5 0 min, 1 min, 3 min, 5 min and 30 min after excited. The samples were excited under a 365 nm UV lamp for 1 min before and test without a laser line for excitation.

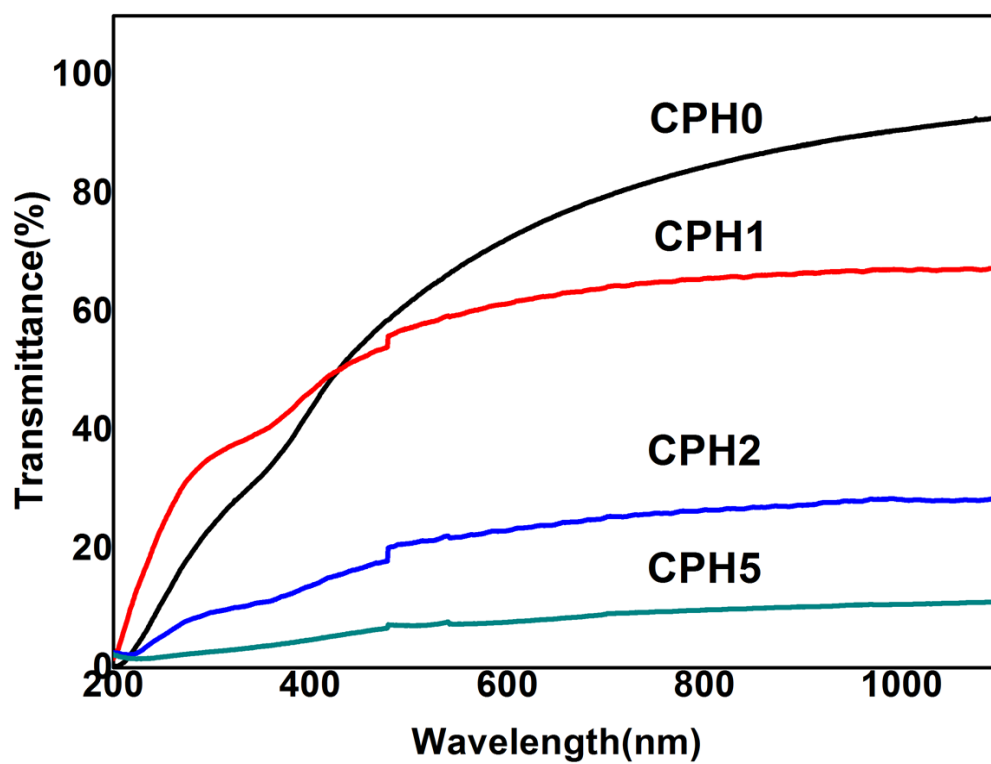


Figure. S2 UV-vis spectra of the CPH0 CPH1, CPH2 and CPH5.

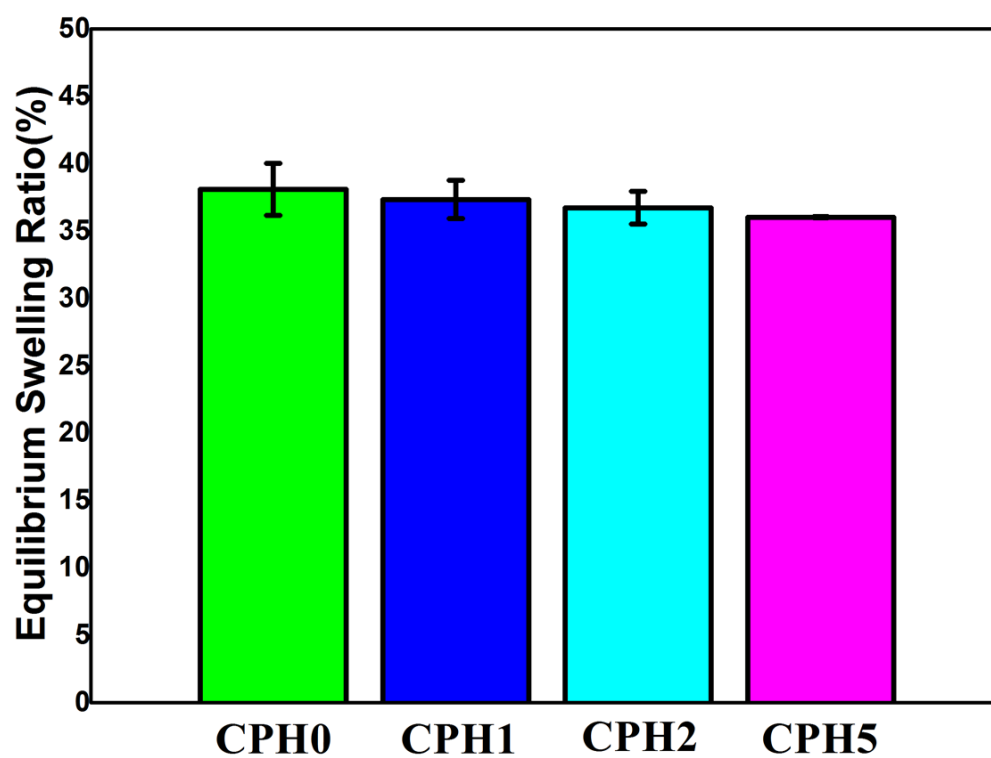


Figure. S3 Equilibrium swelling ratio of the CPH after immersing in distilled water for a week, as a function of the composition of CPH at 25 °C.

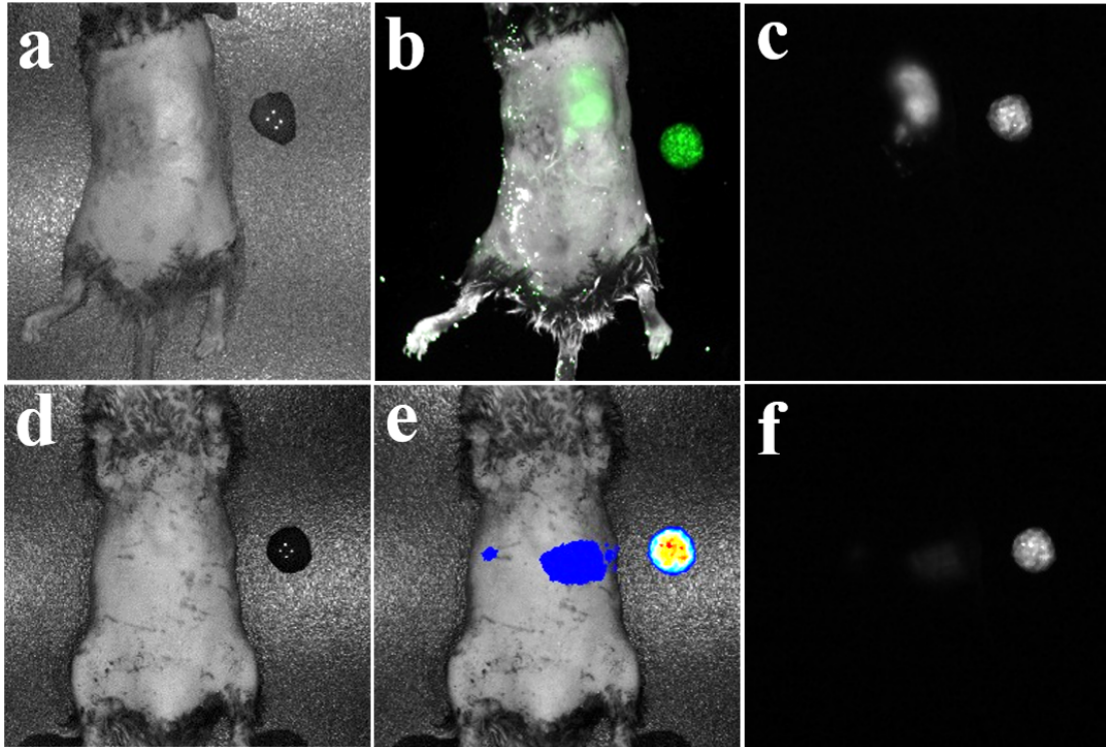


Figure. S4 The images of a living nude mouse after injection of CPH5 under skin (a-c) and intragastric administrated (d-e): (a, d) images in bright-field; (b) fluorescent image under 455 nm excitation light; (c, f) images of autofluorescence without a excitation light; (e) merged image of the bright-field and the threshold false color of autofluorescence without a excitation light

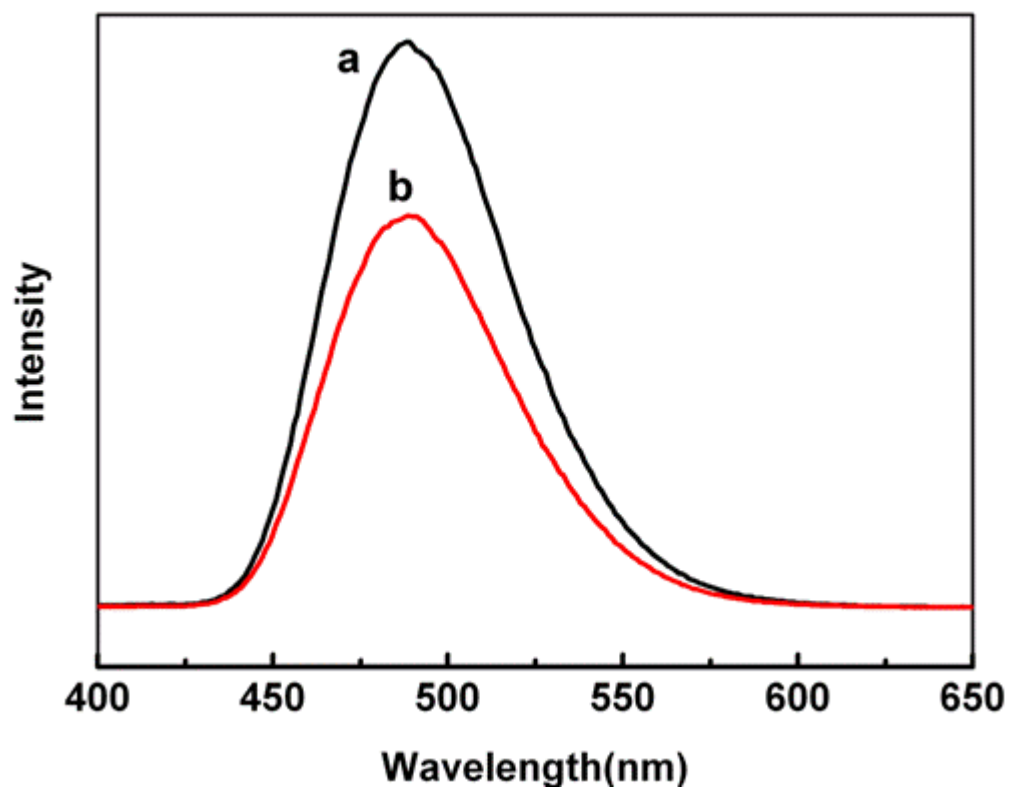


Figure. S5 Fluorescent spectra of CPH5 in deionized water (a) and HCl aqueous solution with pH=2 (b). The samples were immersed in the solution for 24h respectively before test and excited under a 365 nm UV lamp for 1 min before and test without a laser line for excitation.

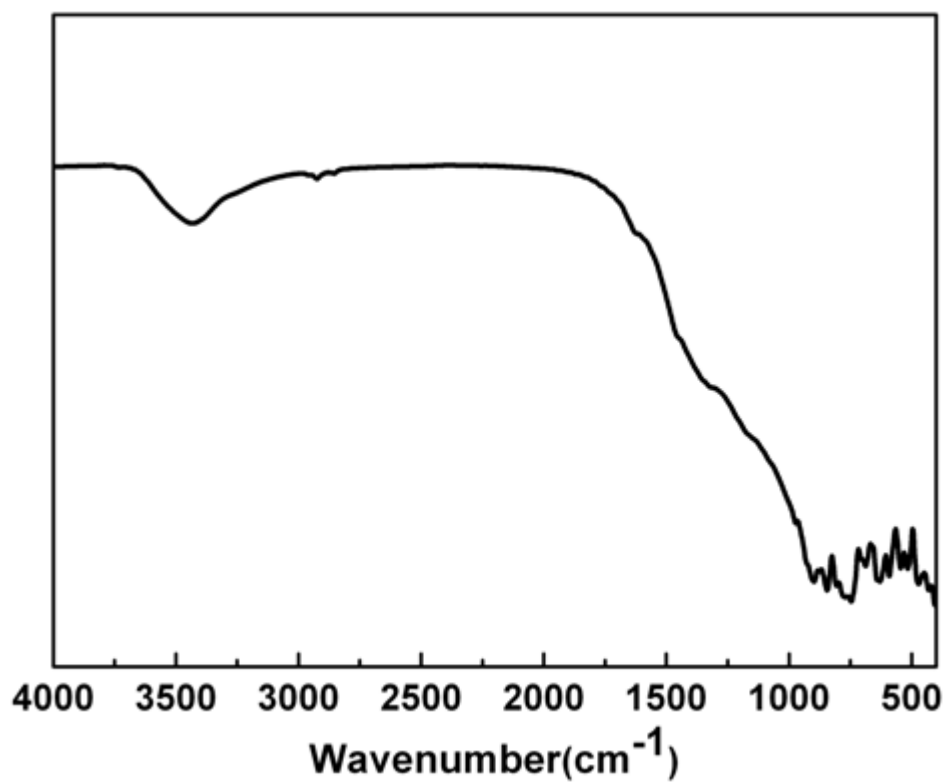


Figure. S6 FT-IR spectra of PP.

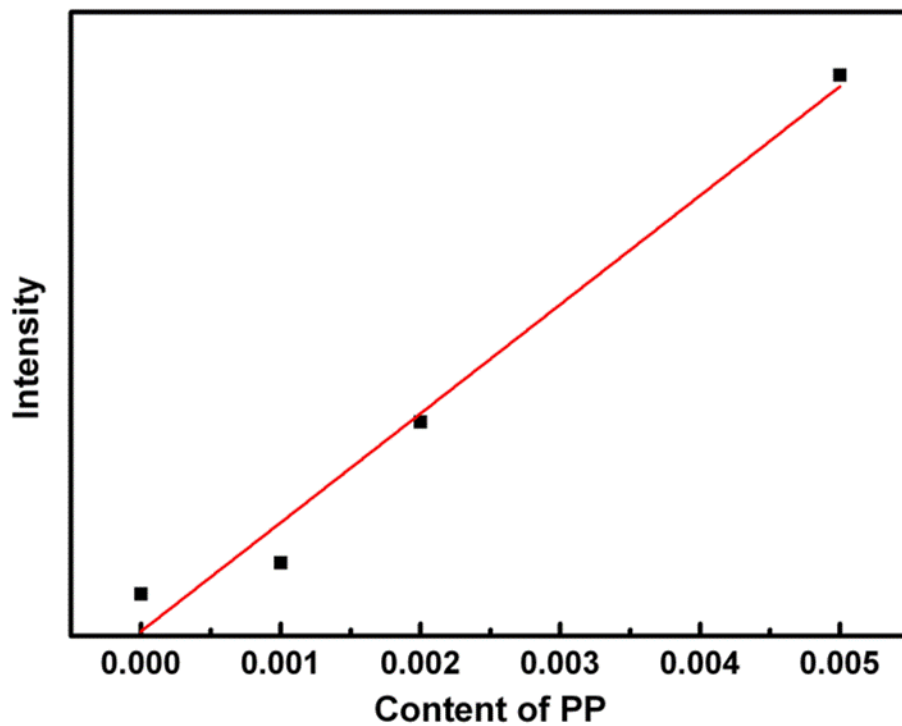


Figure. S7 Intensity of fluorescence with different content of PP.