

## Supporting Information

### In-Situ Formation of pH-Responsive Prussian Blue for Photoacoustic Imaging and Photothermal Therapy of Cancer

Ming Cheng,<sup>‡a</sup> Wei Peng,<sup>‡a</sup> Peng Hua,<sup>a</sup> Zhengrong Chen,<sup>\*a</sup> Jia Sheng,<sup>a</sup> Juan Yang,<sup>\*b</sup> and Yongyou Wu<sup>\*a</sup>

<sup>a</sup>Department of general surgery, The Second Affiliated Hospital of Soochow University, Suzhou 215007, China

<sup>b</sup>Sanitation & Environment Technology Institute, Soochow University, Suzhou 215123, China

\*Address correspondence to: chen\_zr@126.com; yang\_juan8726@163.com; wuyoyo@aliyun.com

#### Supplementary Results

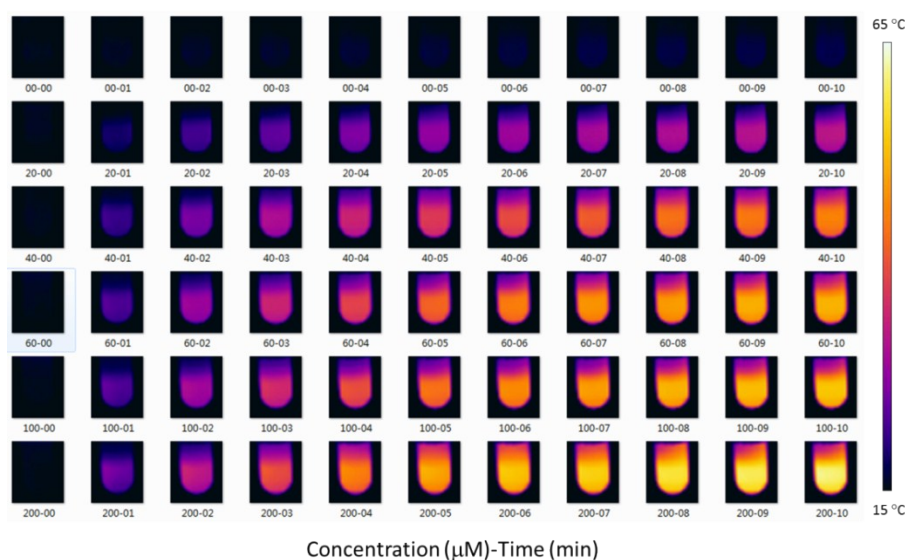


Figure S1. Thermal images of prussian blue solution with different concentrations under 808-nm laser irradiation at a power density of 0.5 W/cm<sup>2</sup> for 10 min.

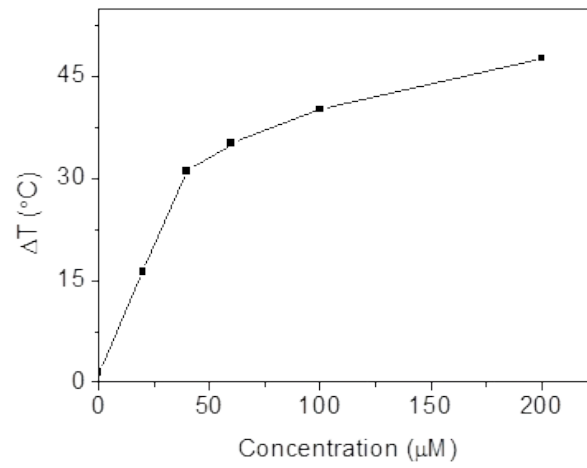


Figure S2. Temperature increment ( $\Delta T$ ) of solutions irradiated by 808 nm laser for 10 min against the prussian blue concentration.

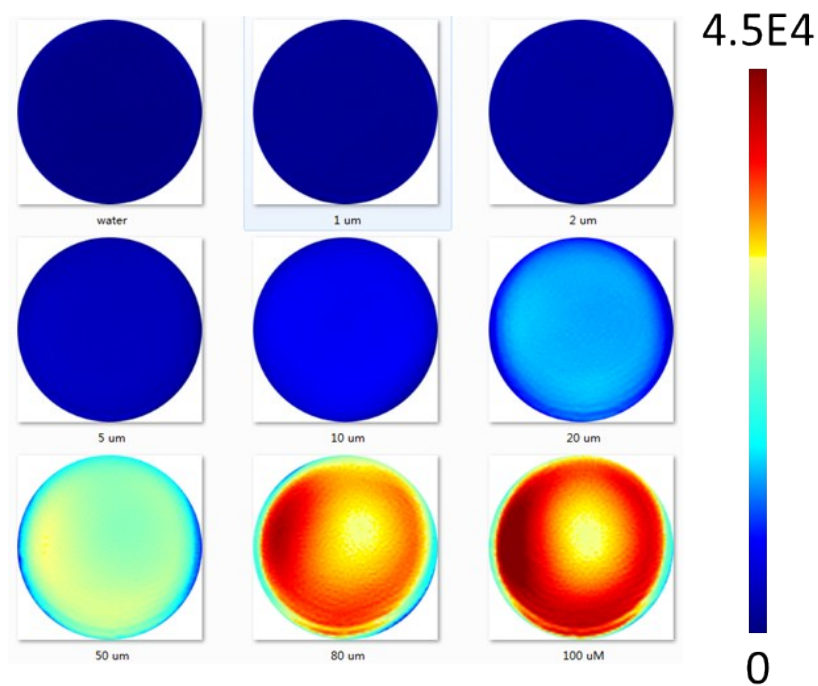


Figure S3. Photoacoustic images of prussian blue solution with different concentration in phantom.

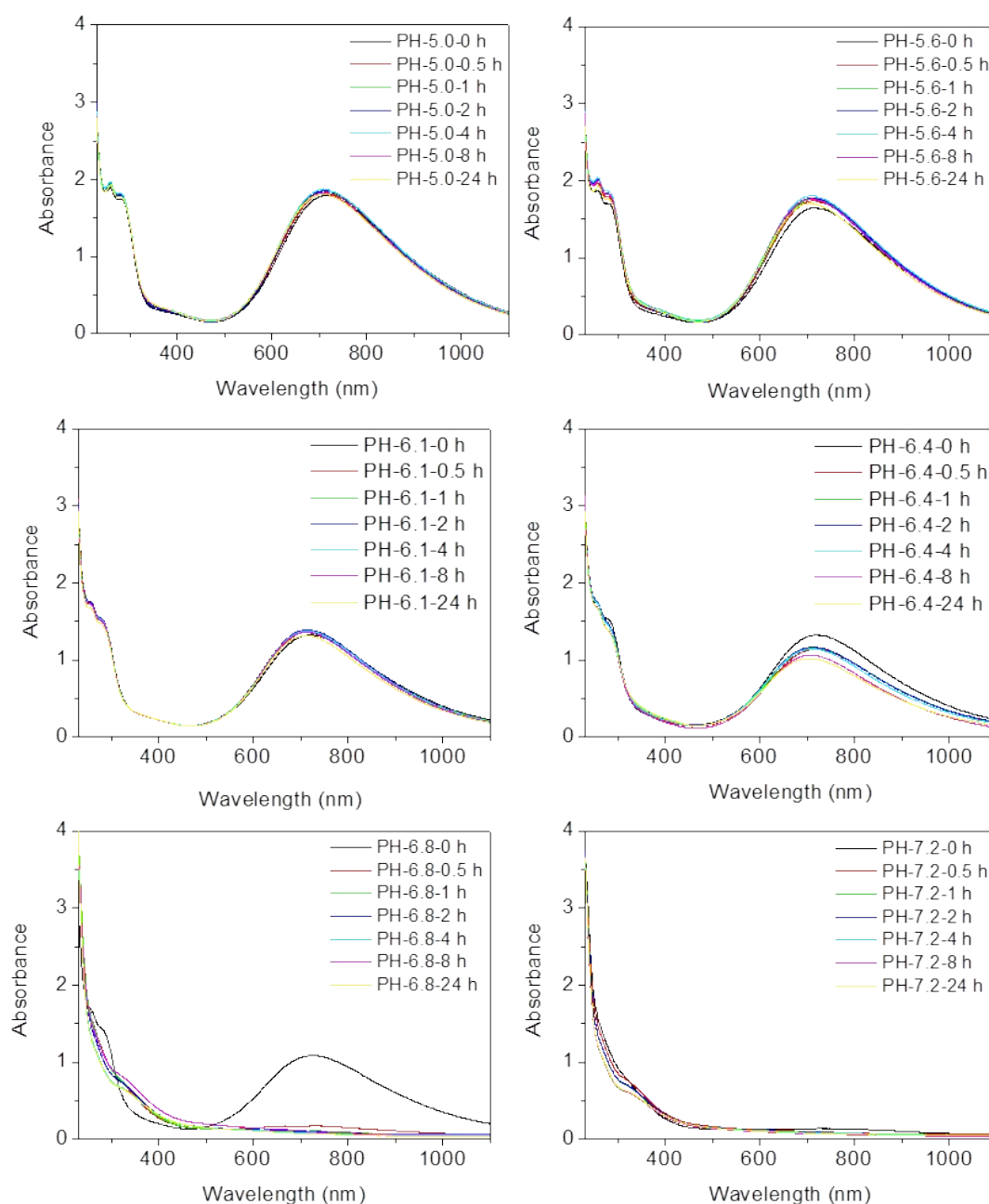


Figure S4. UV-Vis-NIR absorbance spectra of prussian blue (100  $\mu$ M) stored in buffer solutions with different pH for different period of time.

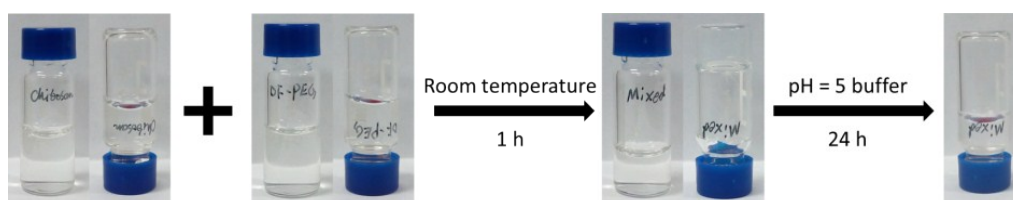


Figure S5. Illustration of the formation and degradation of pH-responsive hydrogel.

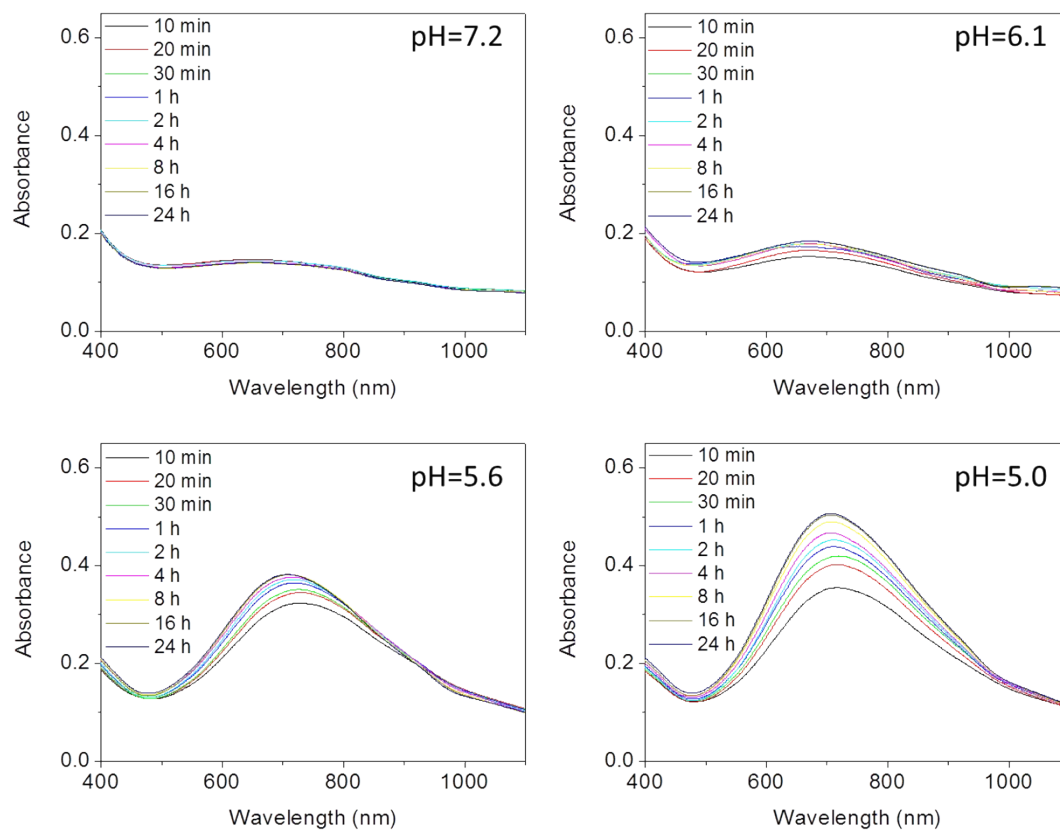


Figure S6. UV-Vis-NIR absorbance spectra of hydrogel mixture after being incubated in buffer solution with different pH values for different period of time.

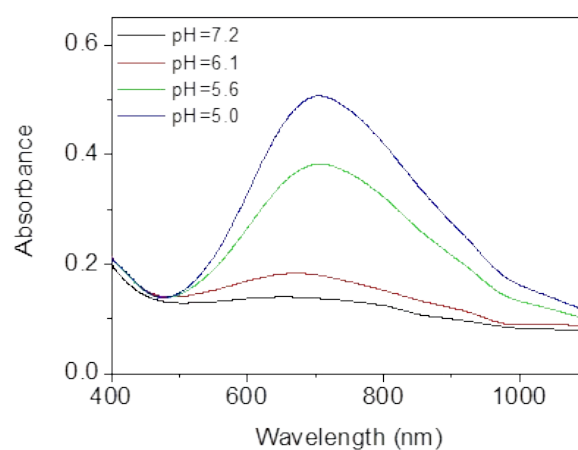


Figure S7. Comparison of the UV-Vis-NIR absorbance spectra of hydrogel mixture after being incubated in buffer with different pH values for 24 h.