Supporting Information for

Nanoporous photosensitizing hydrogel based on chitosan cross-linked by zinc phthalocyanine: An injectable and pH-stimuli responsive system for effective cancer therapy

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1) The IR spectra of FPPht and TA-ZnPc

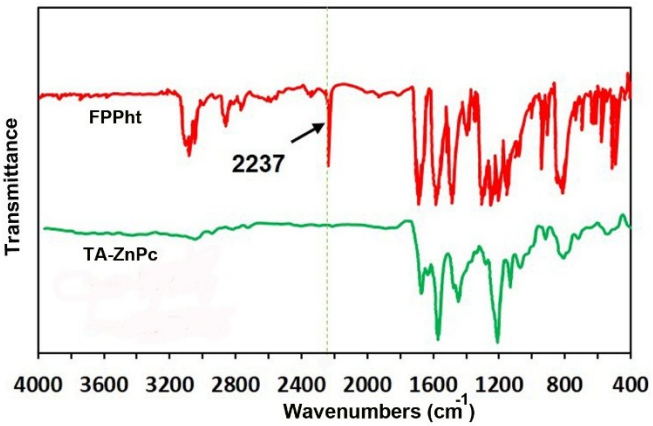

Fig. S1. FT-IR spectra of FPPht and TA-ZnPc

2) The MALDI-TOF mass spectrum of the TA-ZnPc

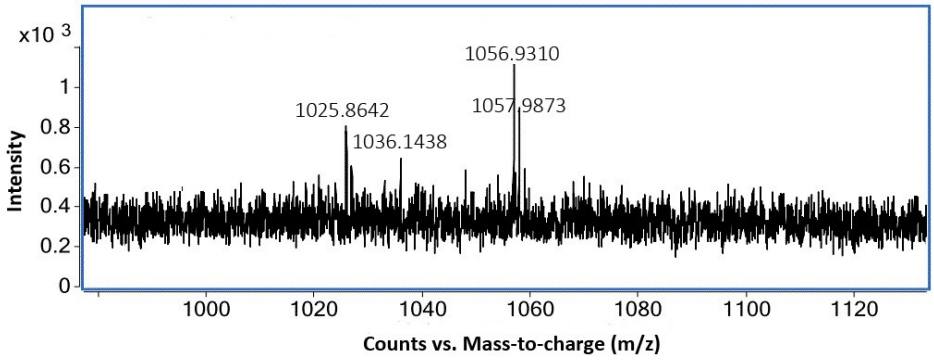

Fig. S2. MALDI-TOF mass spectrum of TA-ZnPc

3) FT-IR analysis of TA-ZnPc, pure CS and TA-ZnPc/CS hydrogel

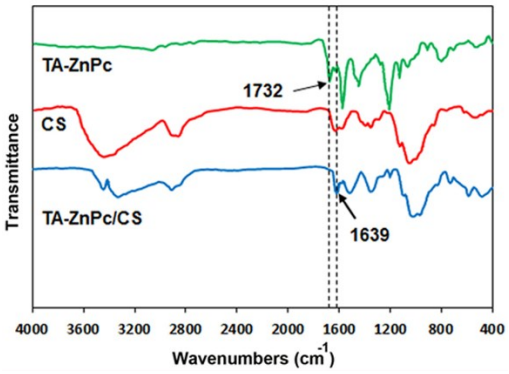

Fig. S3. FT-IR spectra of TA-ZnPc, pristine CS, TA-ZnPc/CS hydrogel

4) ^{1}HNMR spectra of FPPht and TA-ZnPc

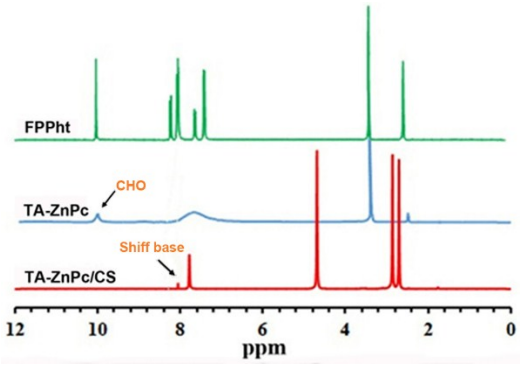

Fig. S4. ^{1}HNMR spectra of FPPht and TA-ZnPc at room temperature in DMSO-d_6 and TA-ZnPc/CS hydrogel in D_2O.

5) Macroscopic and microscopic self-healing behavior of the TA-ZnPc/CS hydrogel

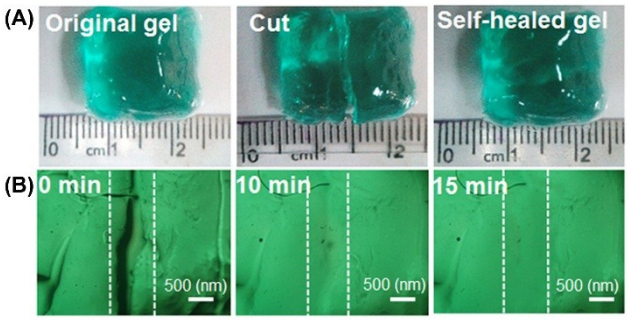

Fig. S5. (A) Macroscopic and (B) Microscopic self-healing property of TA-ZnPc/CS hydrogel at neutral pH.

6) Absorption spectra of TA-ZnPc/CS hydrogel in response to the decreasing pH

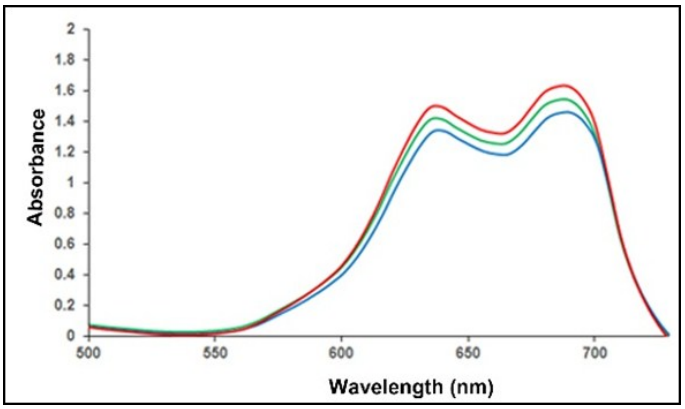

Fig. S6. Absorption spectra of TA-ZnPc/CS hydrogel in response to the decreasing pH in H_2O. pH 7.4 (blue), pH 6.8 (green) and pH 5.0 (red) (c = 10 μM).

7) The linear plot of absorbance of DPBF (c = 100 μM) in the presence of TA-ZnPc conjugated chitosan

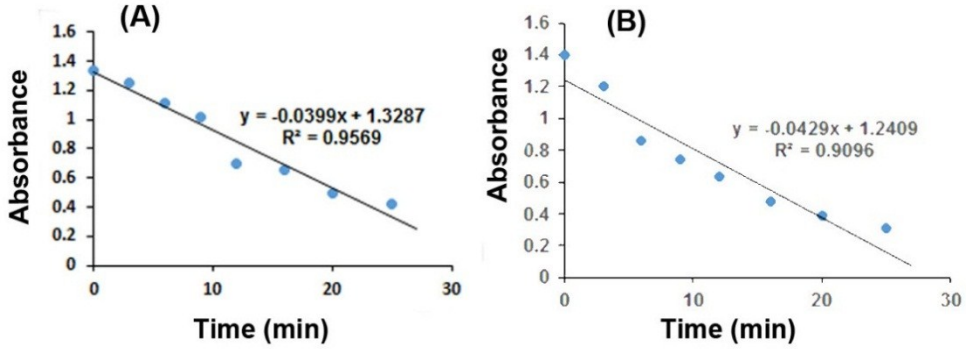

Fig. S7. The linear plot of absorbance of DPBF (c = 100 μM) in the presence of TA-ZnPc conjugated chitosan (c = 20 μM) at 417 nm against irradiation time (660 nm) at pH 7.4 (A) and (B) pH 5.0.

8) The standard concentration–absorbency curve of TA-ZnPc at different pH

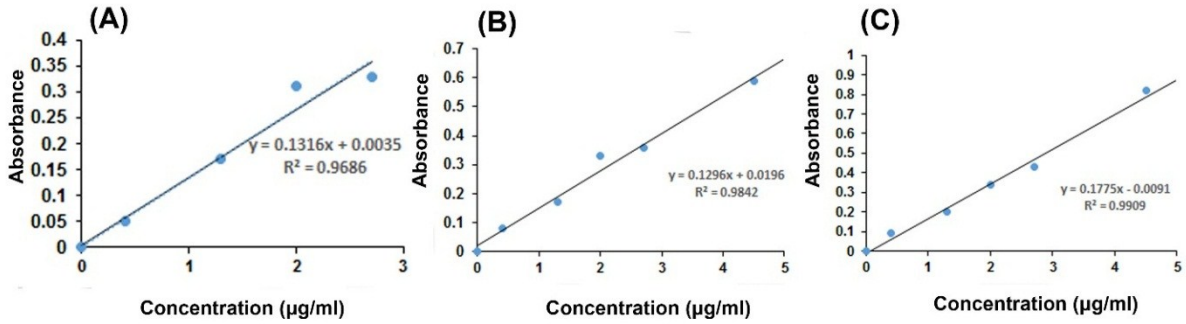

Fig. S8. Standard curves of TA-ZnPc in (A); pH 7.4; (B) pH 6.8 and (C) pH 5.0.

9) The singlet oxygen quantum yields of the TA-ZnPc/CS, TA-NiPc and TA-CuPc/CS hydrogels

Table S1. The singlet oxygen quantum yield for synthesized hydrogels in DMF at pH 5.0.

No	Compound	Singlet oxygen quantum yield (Φ_{Δ})
1	TA-ZnPc/CS	0.49
2	TA-CuPc/CS	0.16
3	TA-NiPc/CS	0.09