

Supporting Information

pH-responsive AIE nanogels for synergistic chemo-photodynamic cancer therapy with imaging guidance

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Figures

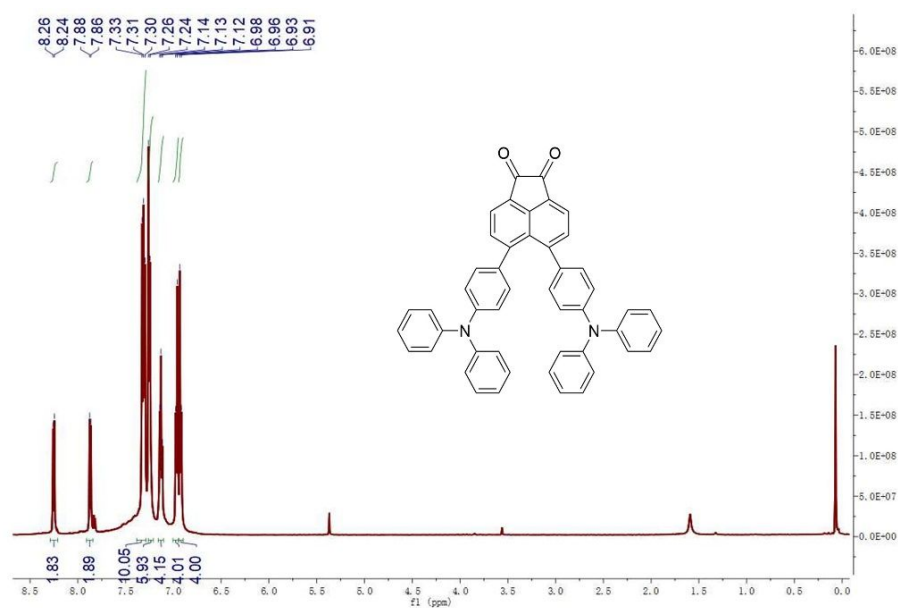


Figure S1. ¹H NMR (CDCl₃) spectrum of BTAN.

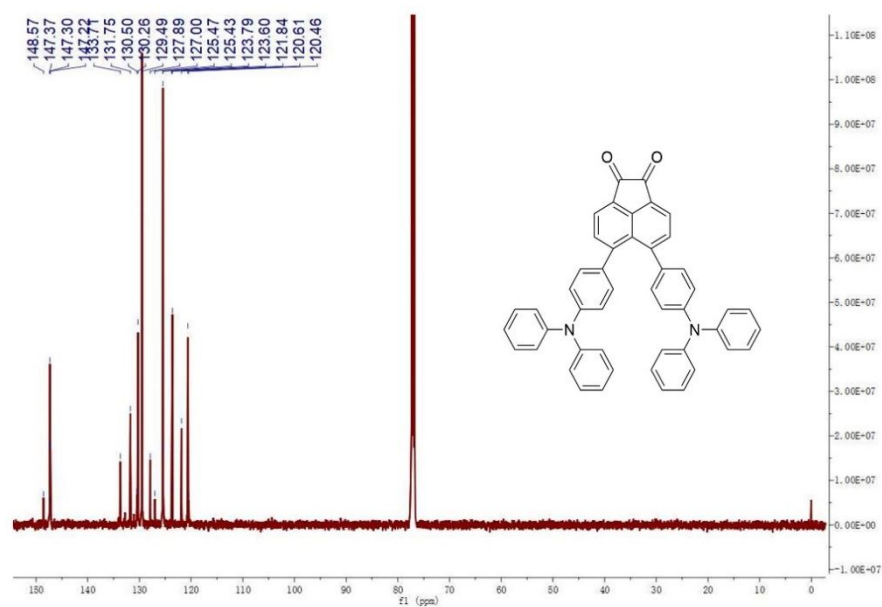


Figure S2. ¹³C NMR (CDCl₃) spectrum of BTAN.

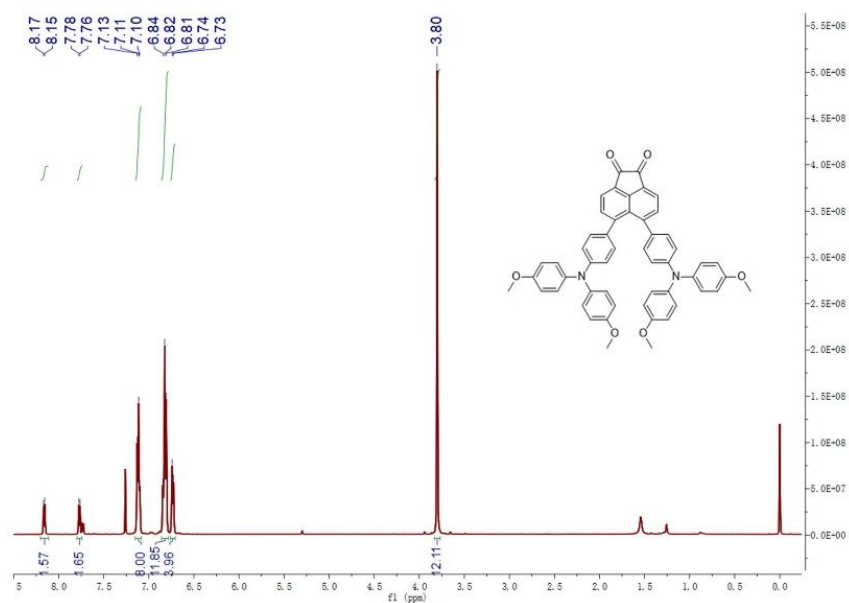


Figure S3. ¹H NMR (CDCl₃) spectrum of BTAON.

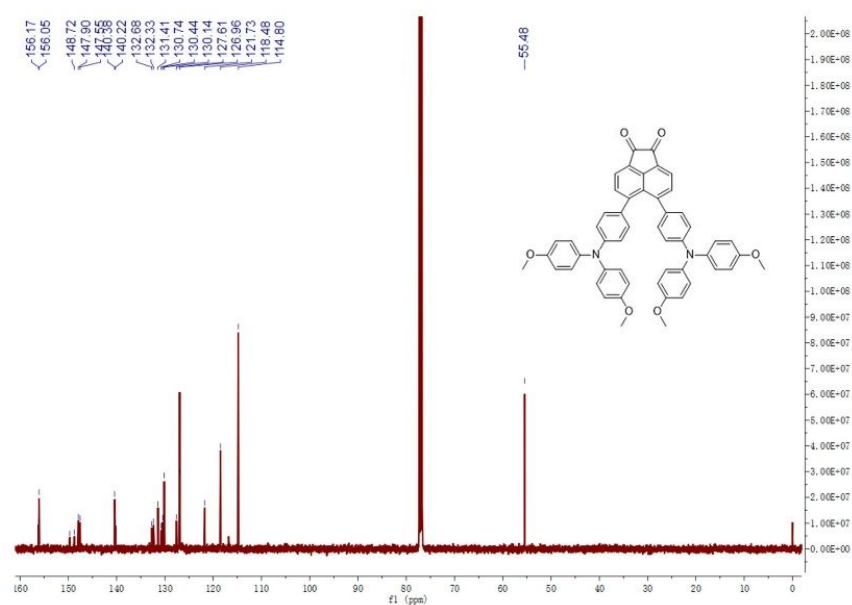


Figure S4. ¹³C NMR (CDCl₃) spectrum of BTAON.

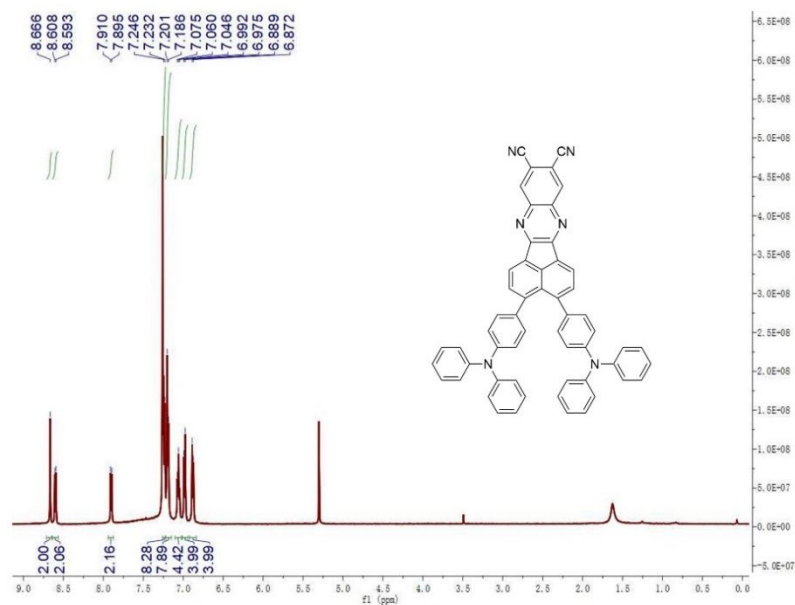


Figure S5. ¹H NMR (CDCl₃) spectrum of BAQ.

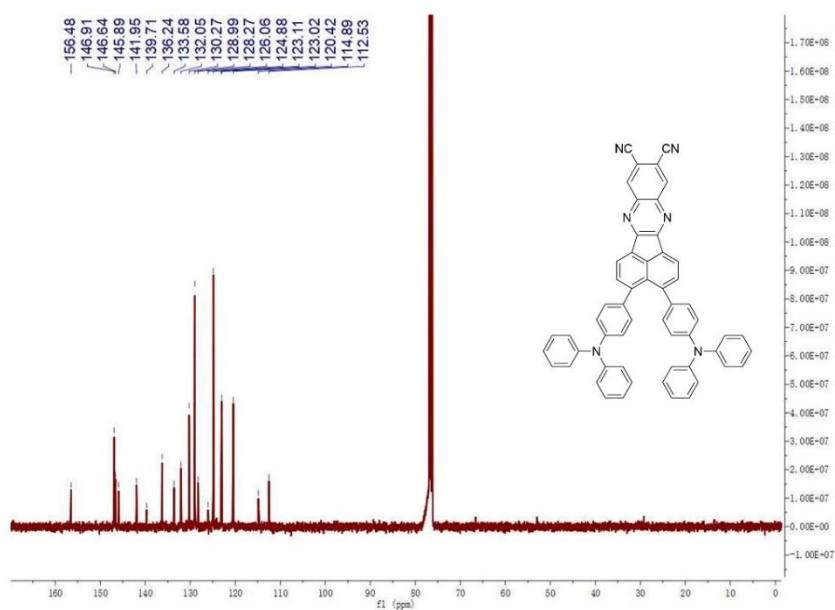


Figure S6. ¹³C NMR (CDCl₃) spectrum of BAQ.

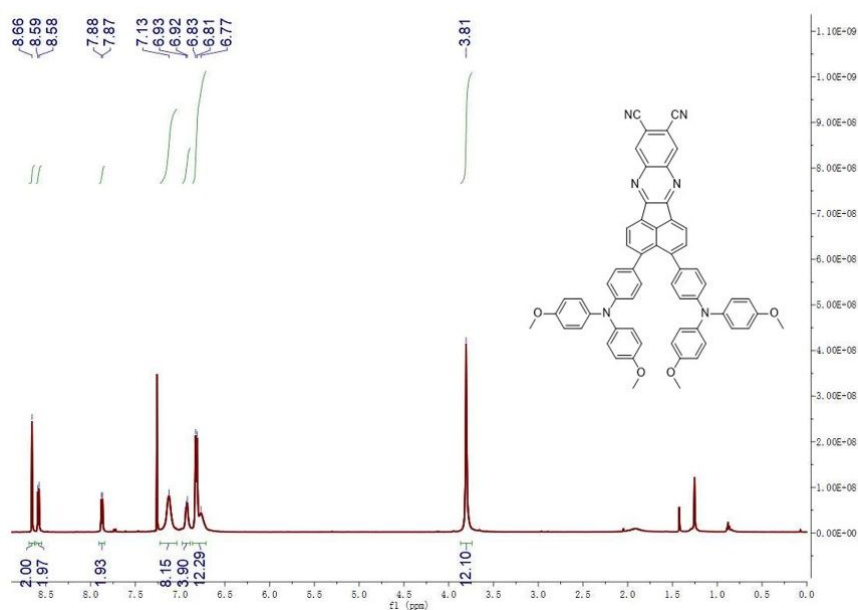


Figure S7. ¹H NMR (CDCl₃) spectrum of BAQ.

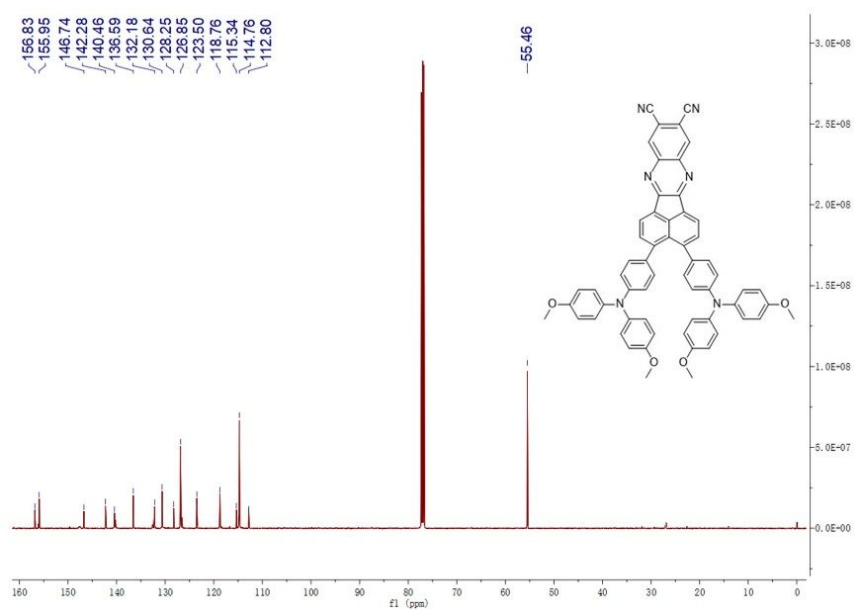


Figure S8. ¹³C NMR (CDCl₃) spectrum of BAQ.

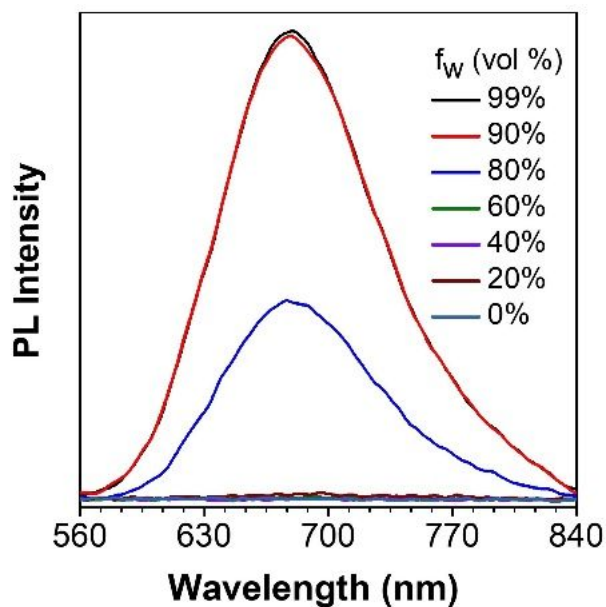


Figure S9. PL spectra of BAQ in THF/water mixtures with different water fractions ($c = 10^{-5}$ M).

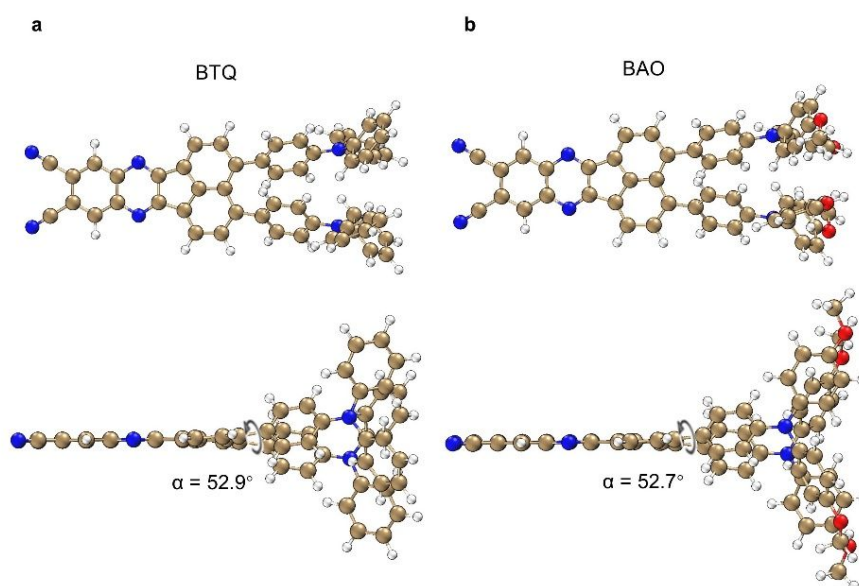


Figure S10. The dihedral angle of (a) BAQ and (b) BAO using DFT calculation.

$$k_{isc} \propto \frac{\langle T_1 | H_{SO} | S_1 \rangle}{(\Delta E_{S1-T1})} \quad (S1)$$

where H_{so} is the Hamiltonian for the spin-orbit perturbations (SOP) and ΔE_{S1-T1} is the energy gap between the S1 and T1 states.

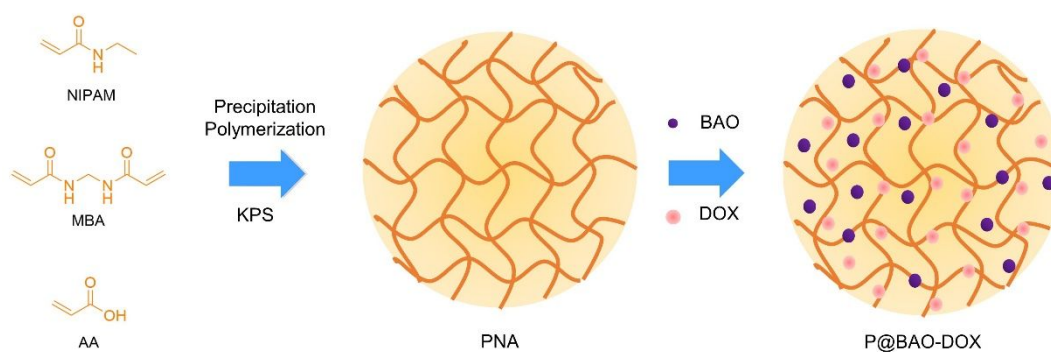


Figure S11. The synthesis process of PNA and P@BAO-DOX nanogels.

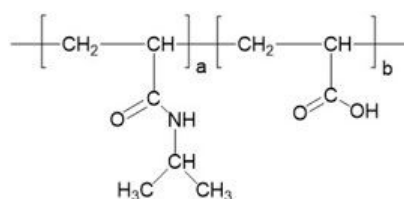


Figure S12. The structure of poly(*N*-isopropylacrylamide-*co*-acrylic acid) (PNA).

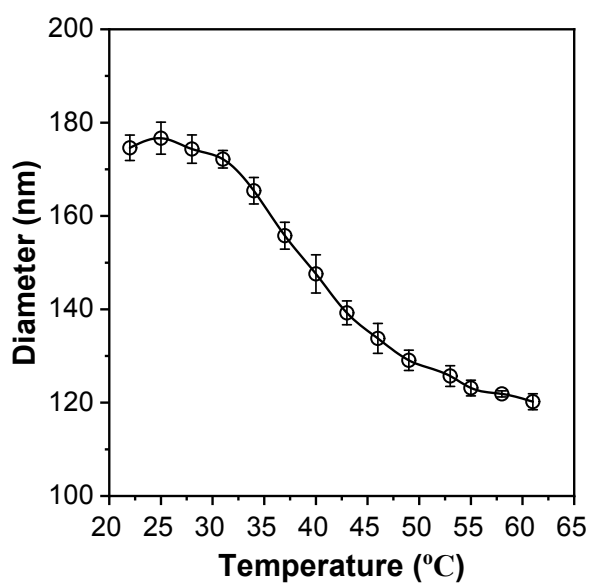


Figure S13. Temperature-dependent variations in the hydrodynamic diameter of P@BAO-DOX nanogels.

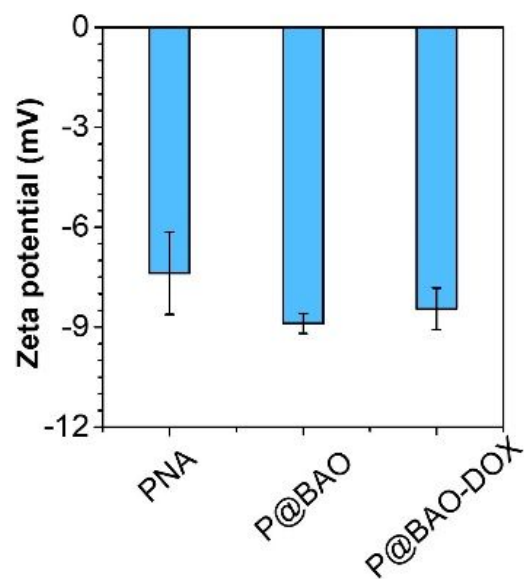


Figure S14. Zeta potential of PNA, P@BAO, and P@BAO-DOX.

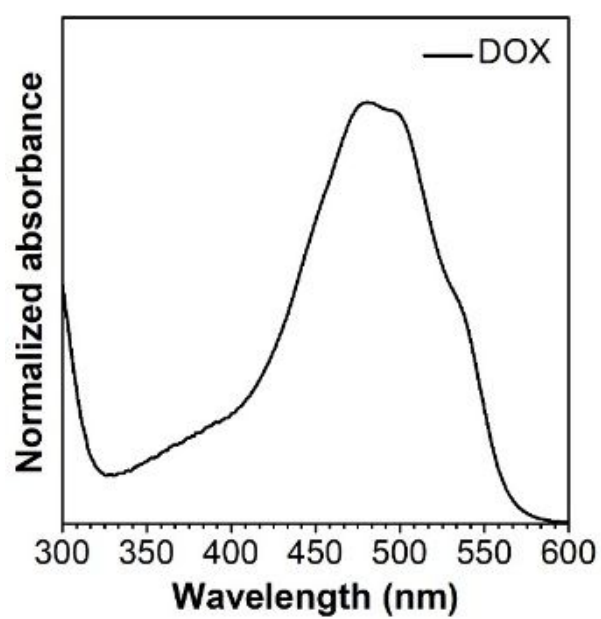


Figure S15. Absorption spectrum of DOX in water.

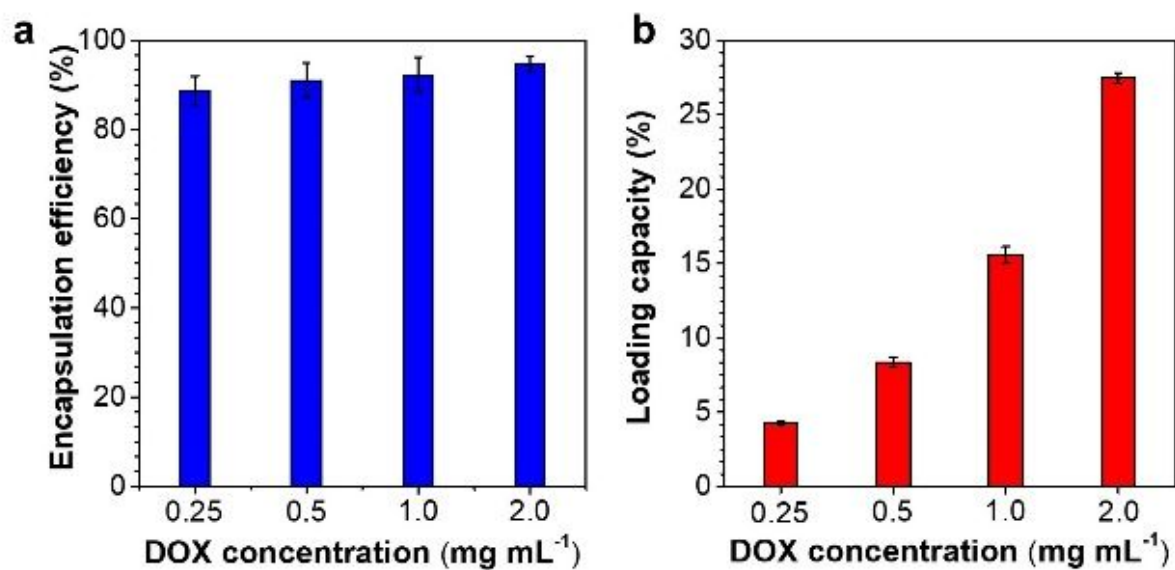


Figure S16. The encapsulation efficiency (a) and loading capacity (b) of P@BAO-DOX nanogels with different initial concentrations of DOX.

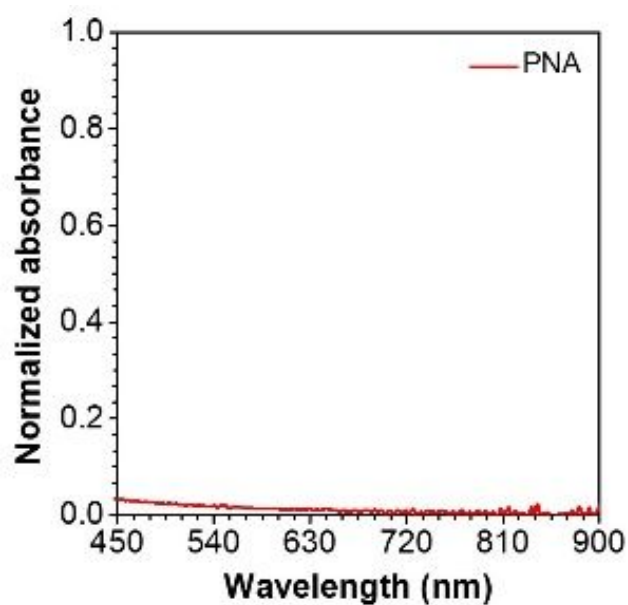


Figure S17. UV-vis absorption spectrum of PNA nanogels dispersed in water.

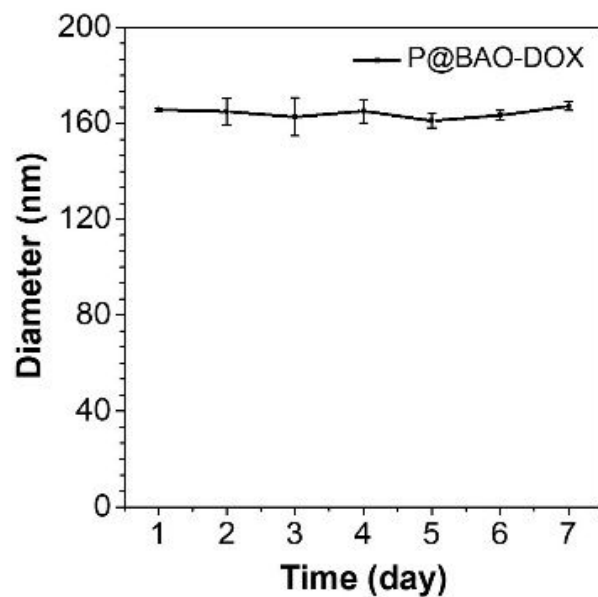


Figure S18. DLS profile of P@BAO-DOX for 7 days.

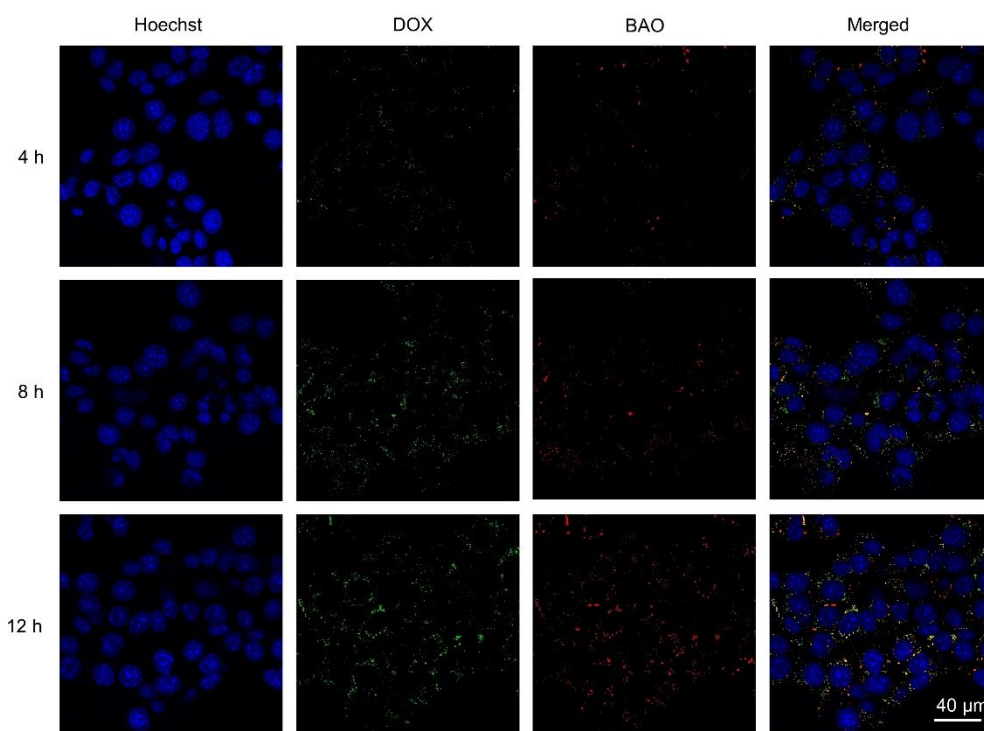


Figure S19. Fluorescence imaging of P@BAO-DOX nanogels uptake by 4T1 cells at different time points (4 h, 8 h, and 12 h) (Scale bar = 40 μm).

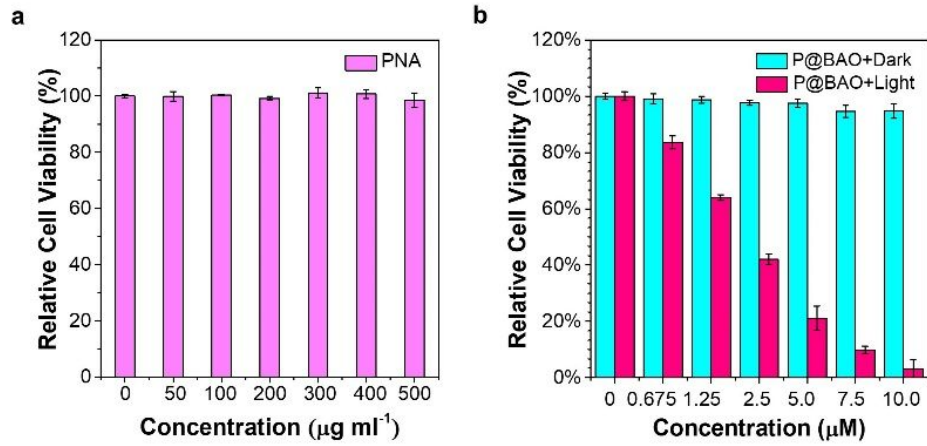


Figure S20. Viability of 4T1 cells incubated with (a) PNA and (b) P@BAO upon dark environment or white light irradiation.

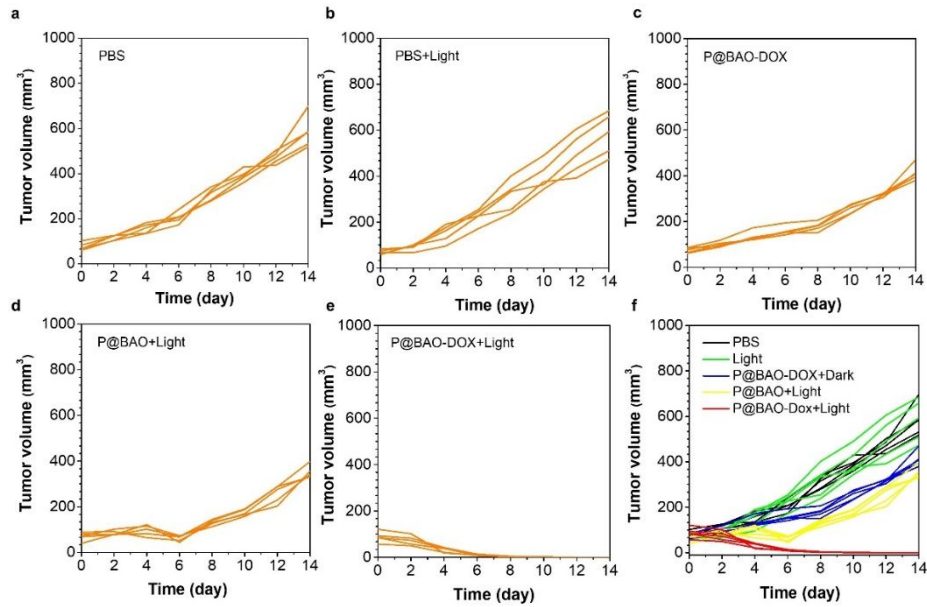


Figure S21. Tumor growth curves of mice in each group: (a) PBS group; (b) PBS+Light group; (c) P@BAO-DOX group; (d) P@BAO + Light group; (e) P@BAO-DOX + Light group; (f) totally control and experiment groups. (n = 5)

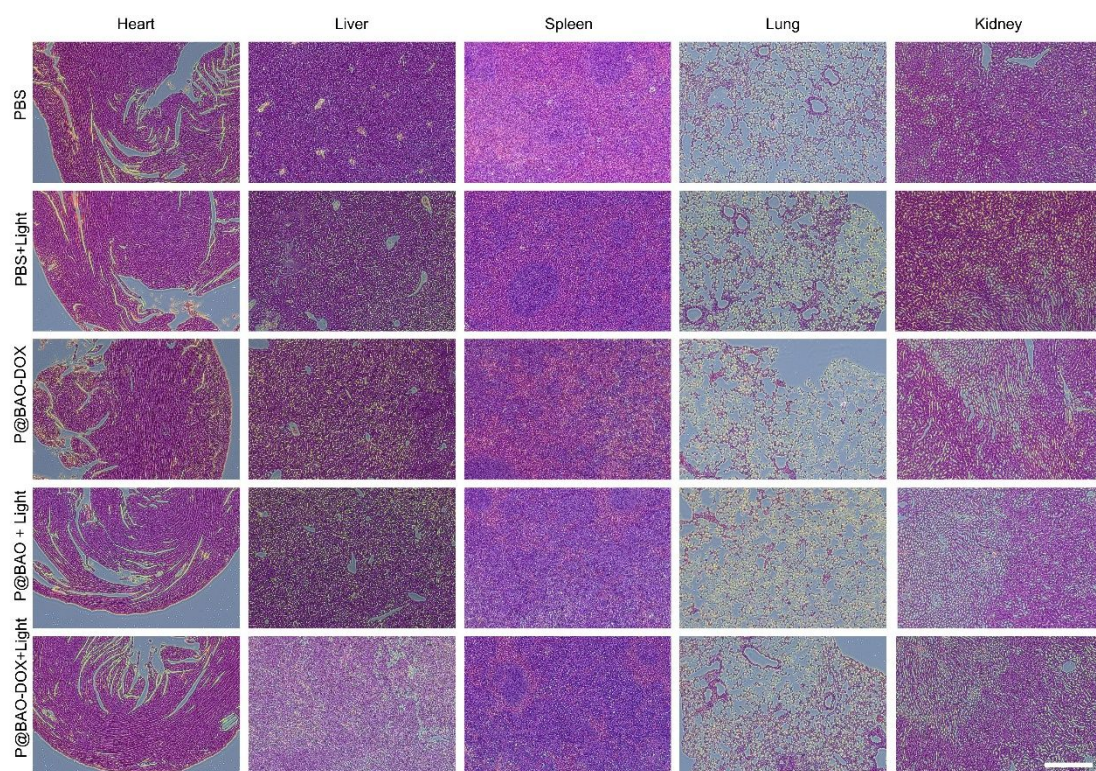


Figure S22. H&E staining of major organs from mice in different treatment groups after 14 days of treatment. Scale bar = 200 μm .