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Supporting Information for

Hypochlorite-Activatable Persistent Luminescence Nanoprobe for Assisted Tumor Resection

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1. Experimental Procedures

Calculation of A690 adsorption capacity. The amount of A690 adsorbed on ZGC@P was calculated by using UV-Vis spectrophotometry. Firstly, 1 mL aqueous solution of A690 (1 mg/mL, 1% DMSO) was diluted to 10 mL and measured the absorbance at 690 nm and labeled it as A_0. After adding 10 mg of ZGC@P and allowing complete adsorption, the supernatant was collected after centrifugation at 12,000 rpm and measured the absorbance at 690 nm and labeled it as A_1.

$$m_a = \left(1 - \frac{A_1}{A_0}\right) m_{A690}$$

Where m_{A690} was the mass before adsorption, m_a was the mass of A690 adsorbed by ZGC@P.

2. Supporting Figures

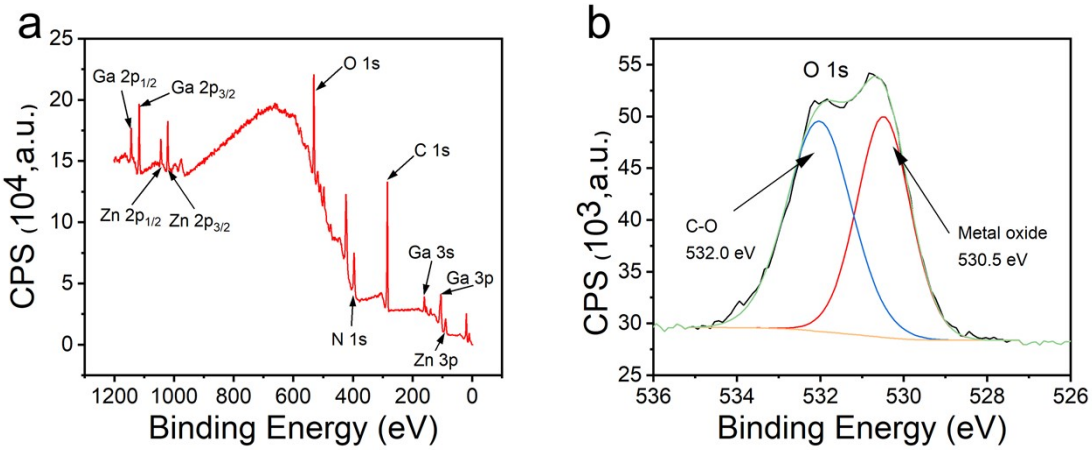

Figure S1. (a) XPS wide spectra of ZGC@P&A. (b) XPS O 1s spectra of ZGC@P&A

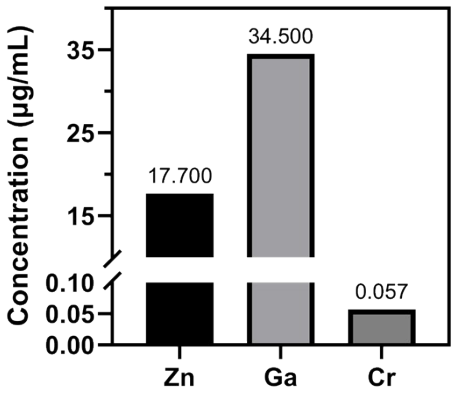

Figure S2. ICP outcomes of metallic elements concentrations.

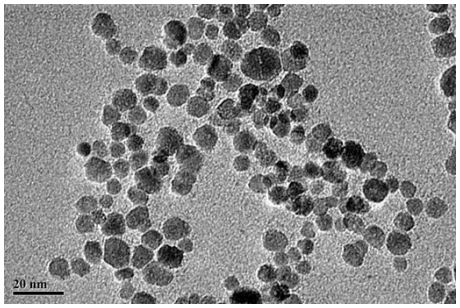

Figure S3. TEM image of ZGC@P&A (scale bar = 20 nm).

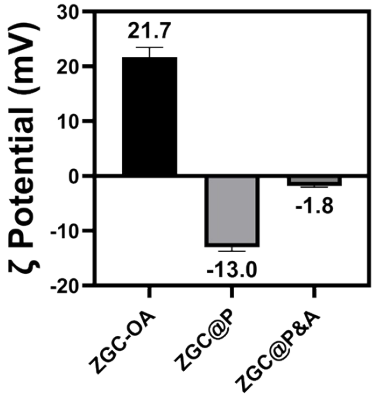

Figure S4. Surface potential of ZGC-OA, ZGC@P and ZGC@P&A.

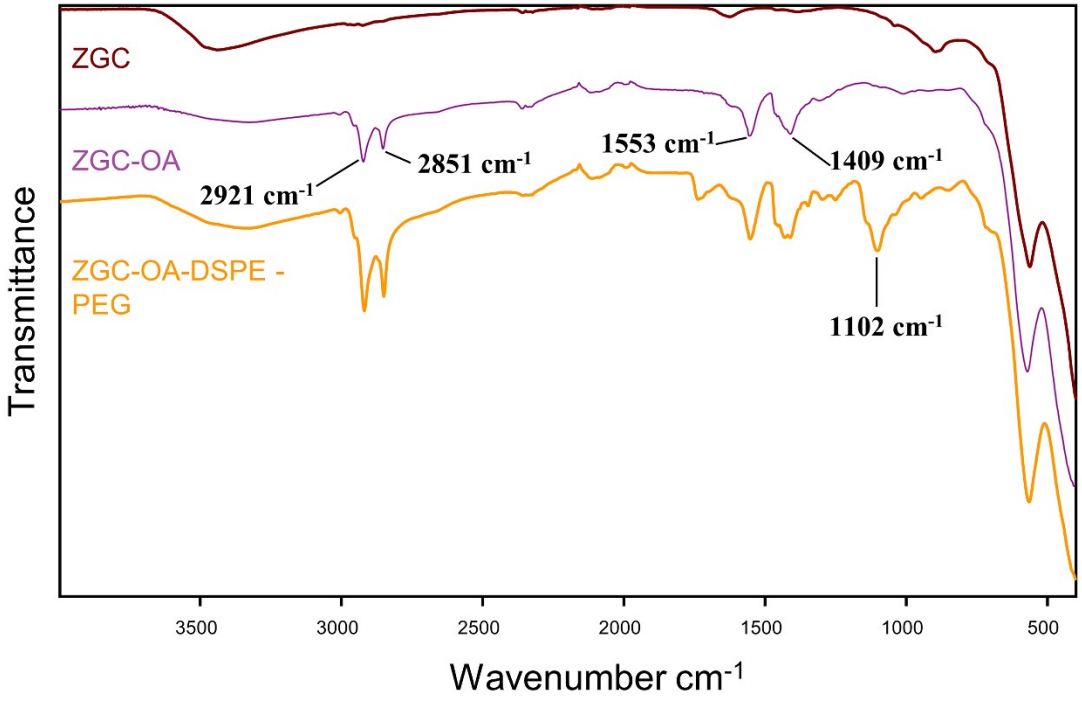

Figure S5. Infrared spectroscopy of various ZGC PLNPs.

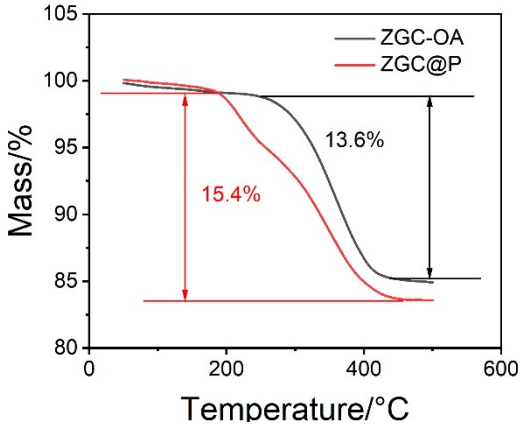

Figure S6. Thermogravimetric analysis of ZGC@P.

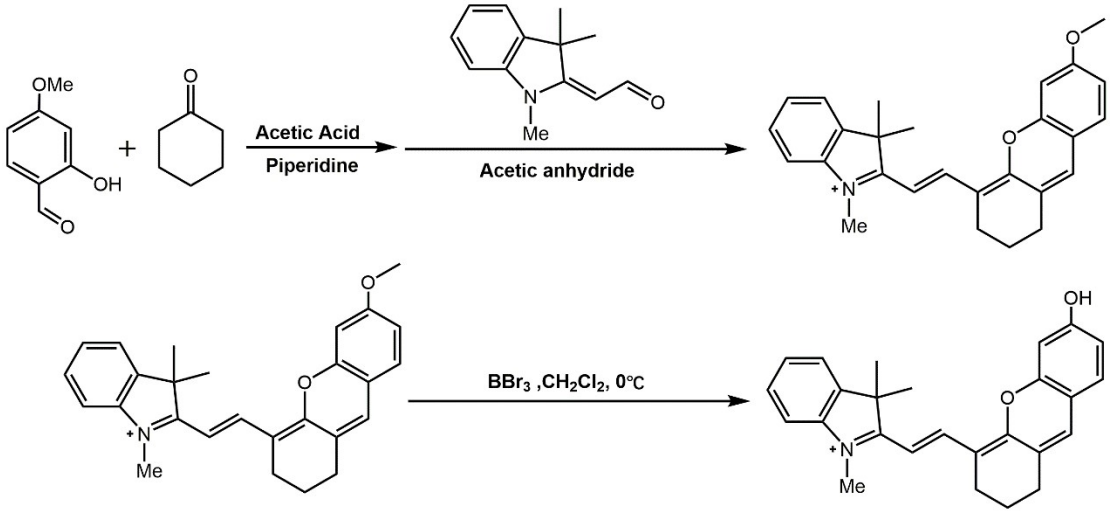

Figure S7. Synthetic processes of A690.

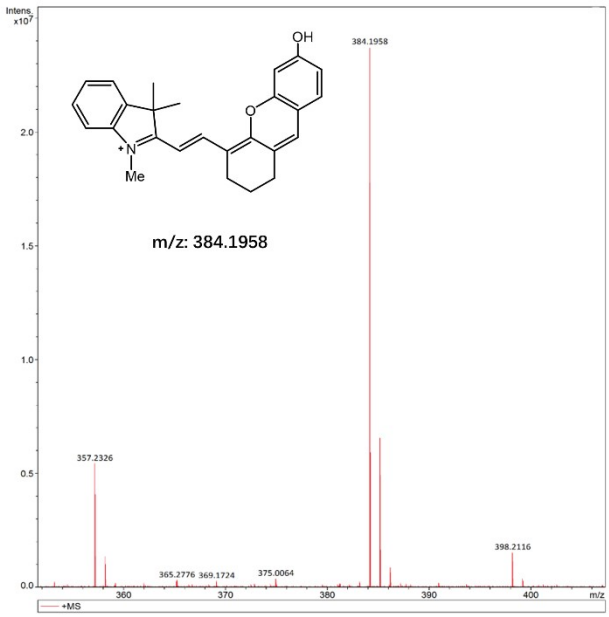

Figure S8. Mass spectrum of compound A690 in dichloromethane.

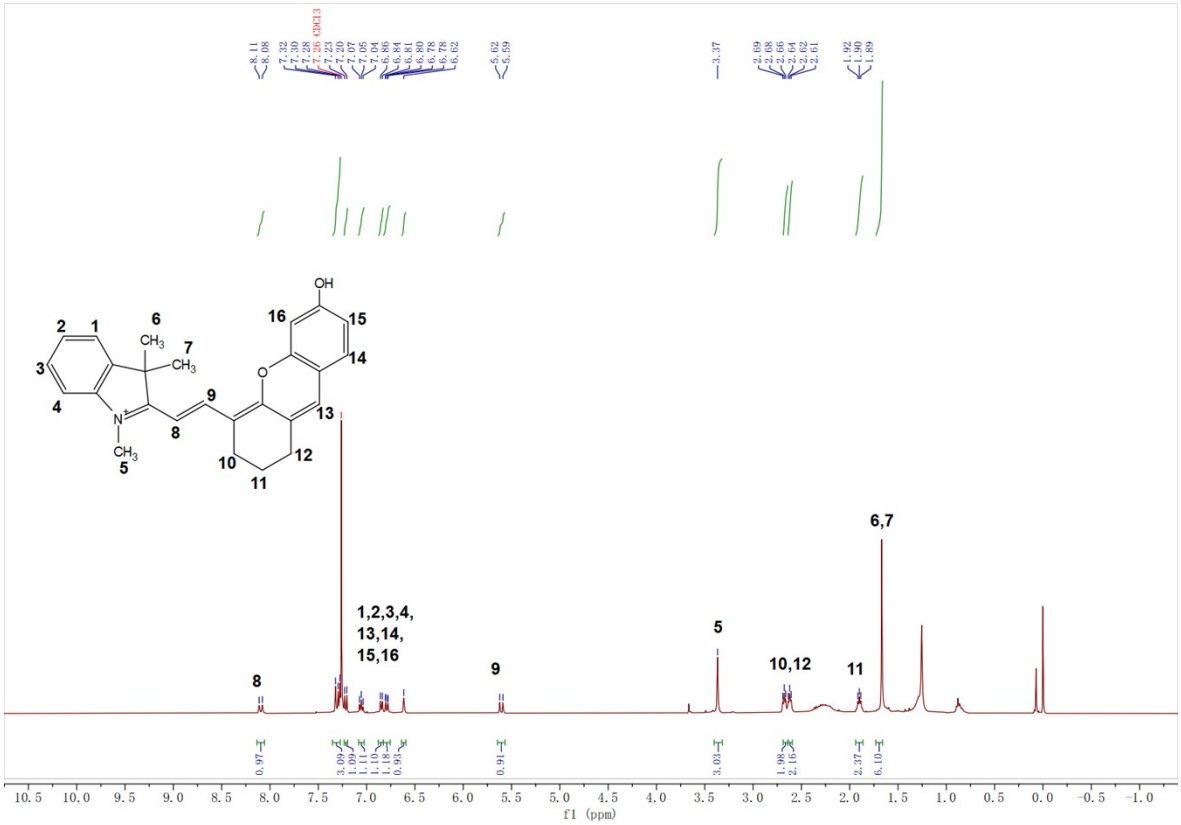

Figure S9. ^{1}H NMR spectrum of A690 in $CDCl_3$.

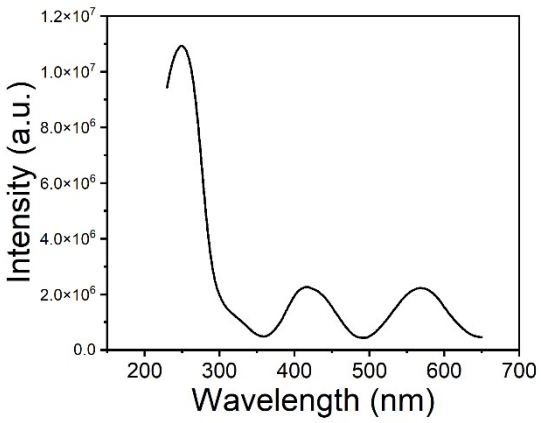

Figure S10. Excitation (λ_{em} = 695 nm) spectra of ZGC@P.

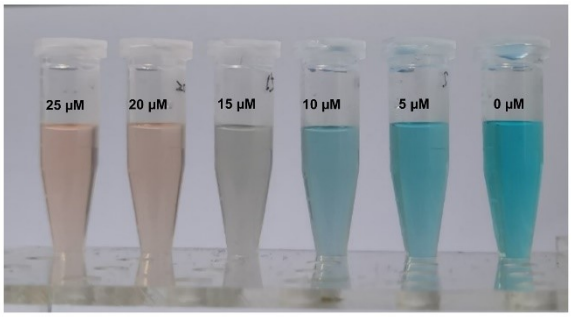

Figure S11. The color photos of A690 upon gradient concentrations of ClO^- ranging from 0 to 25 μM.

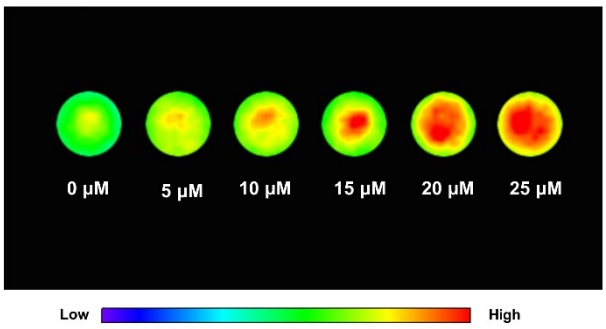

Figure S12. The PersL image of ZGC@P&A upon gradient concentrations of ClO^- ranging from 0 to 25 μM.

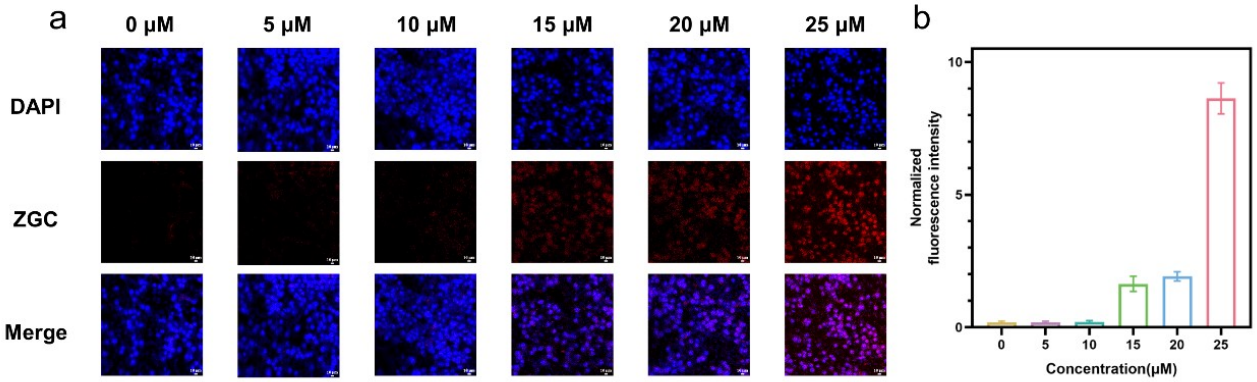

Figure S13. (a) Confocal laser-scanning microscopic photograph of ZGC@P&A exogenous response performances *in vitro* (scale bar = 10 μm). (b) Normalized fluorescence intensity of corresponding ZGC@P&A image.

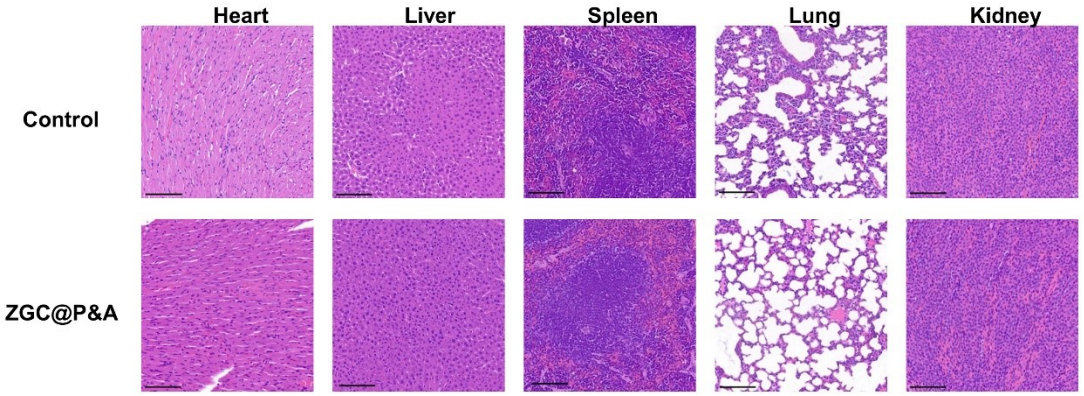

Figure S14. H&E staining of the main organs slice. Scale bar: 100 μm

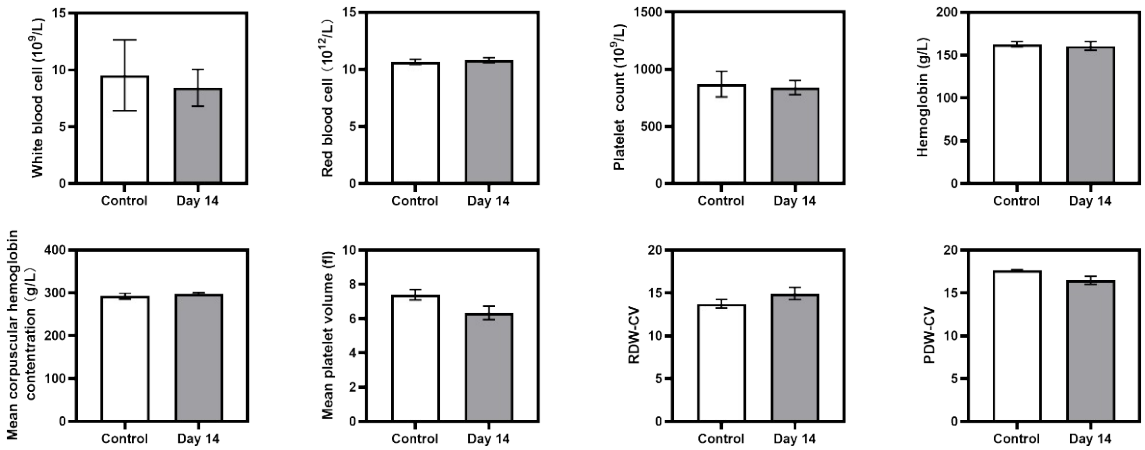

Figure S15. Hematology data of Balb/c mice treated with ZGC@P&A (2 mg/mL, 200 μL) at 14 days post-injection.

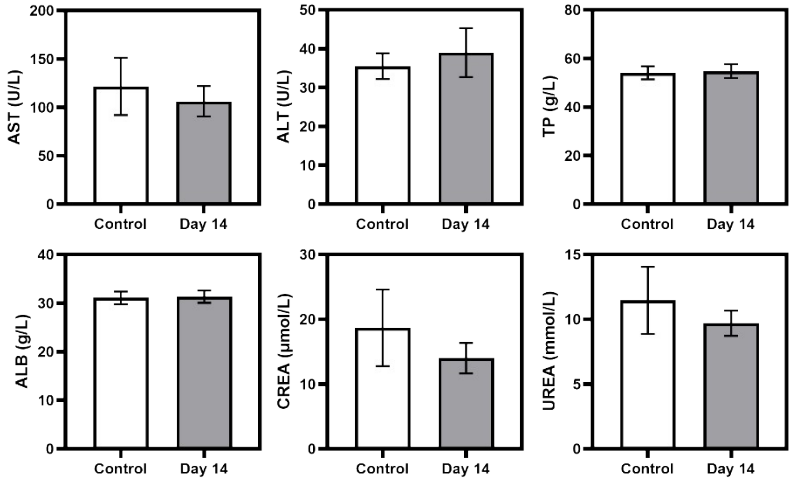

Figure S16. Blood biochemistry data of Balb/c mice treated with ZGC@P&A (2 mg/mL, 200 μL) at 14 days post-injection.