

Electronic Supplementary Information

Upconversion-mediated ZnFe_2O_4 nanoplatform for NIR-enhanced chemodynamic and photodynamic therapy

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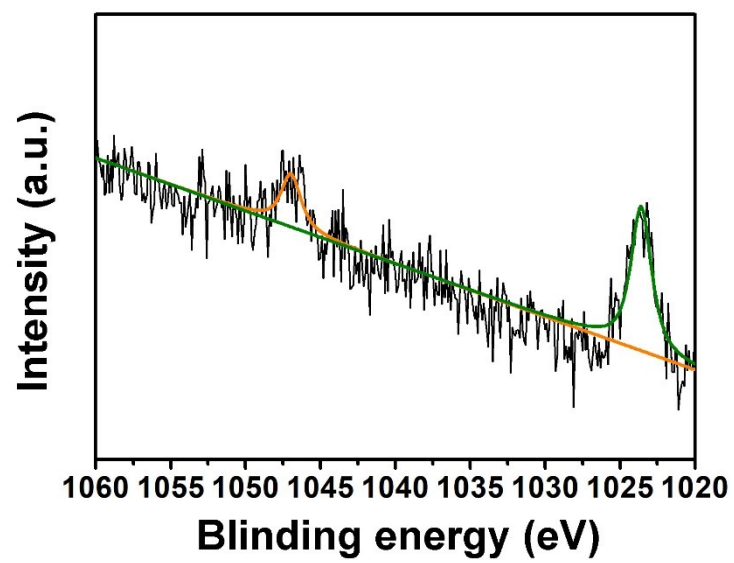


Fig. S1 XPS spectrum of Zn 2p in PEG/Y-UCSZ.

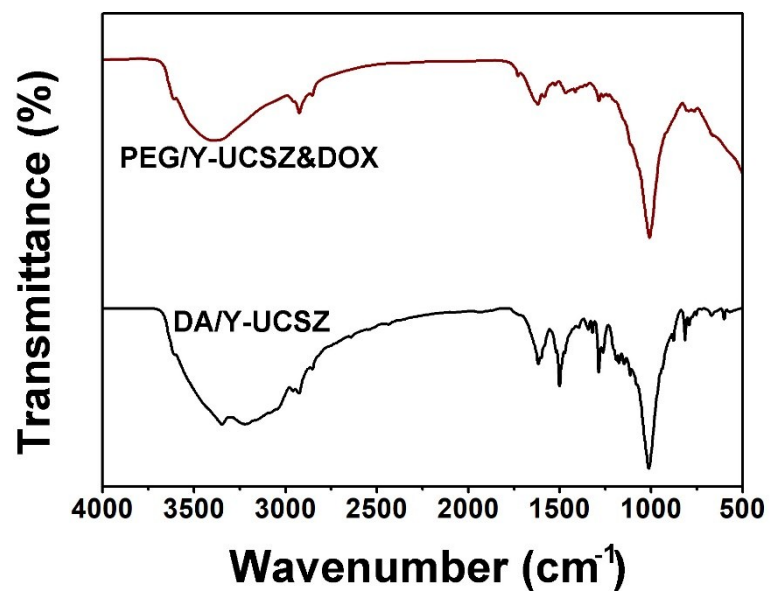


Fig. S2 FT-IR spectra of the DA/Y-UCSZ and DOX loaded PEG/Y-UCSZ samples.



Fig. S3 The zeta potentials of the Y-UCSZ, DA/Y-UCSZ and PEG/Y-UCSZ samples.

Data are presented as means $\pm$ standard deviation (s. d.) (n = 3)

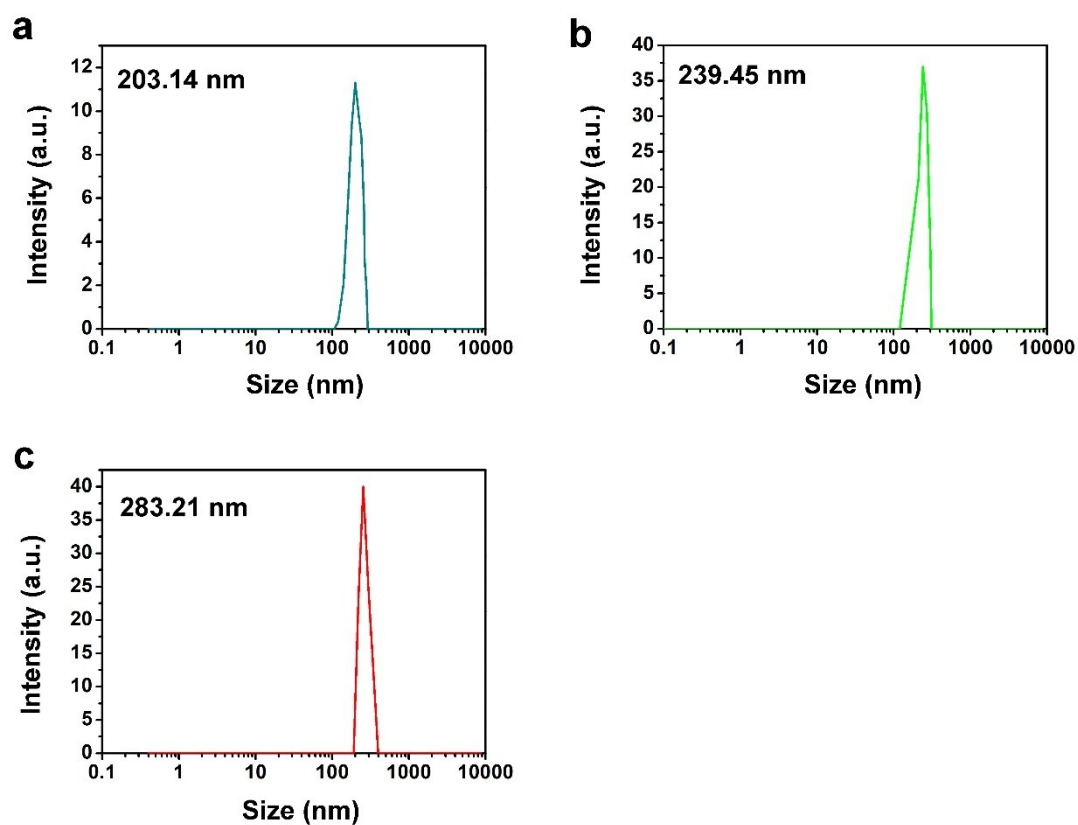


Fig. S4 DLS measurements of Y-UCSZ (a), DA-Y-UCSZ (b), and PEG/Y-UCSZ (c).

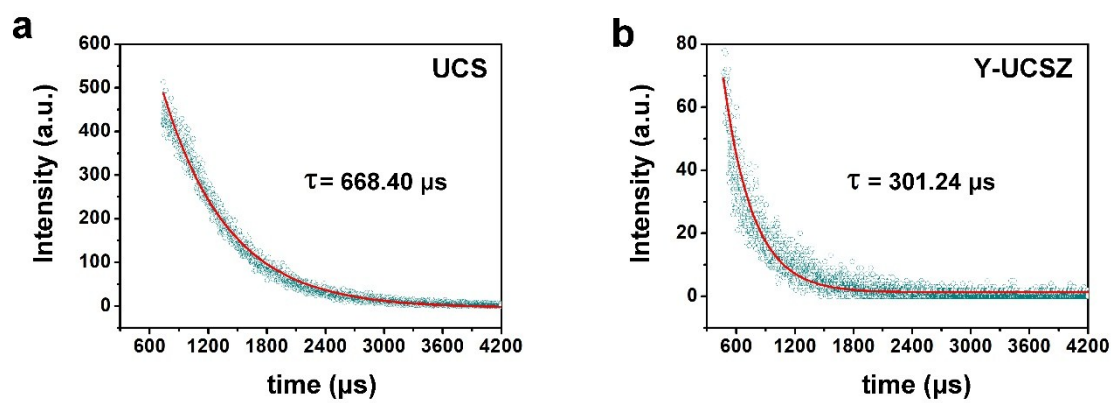


Fig. S5 Decay curves for $^1G_4 \rightarrow ^3H_6$ emission (475 nm) of Tm^{3+} in UCS (a) and Y-UCSZ (b).

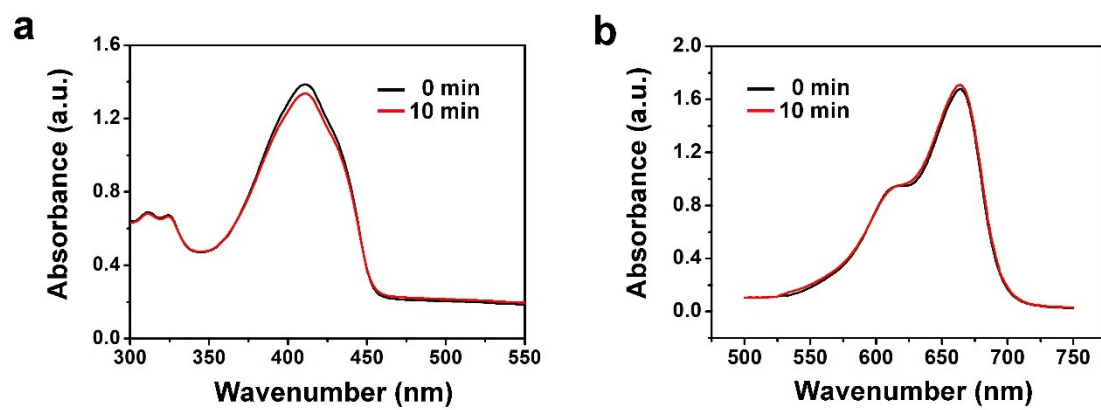


Fig. S6 Absorption spectra of DPBF (a) and MB (b) solutions under 980 nm laser irradiation.

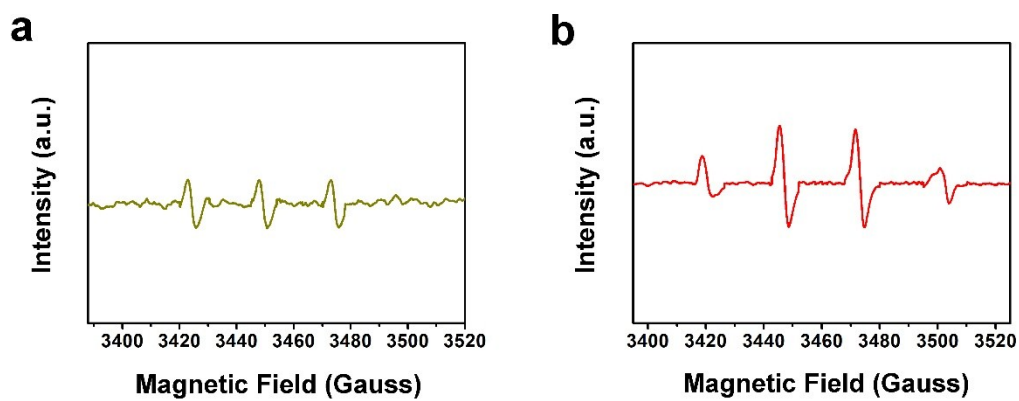


Fig. S7 EPR spectra of $^1\text{O}_2$ (a) and $\cdot\text{OH}$ (b) in the PEG/Y-UCSZ aqueous solution (5 mg mL^{-1}) with 980 nm laser irradiation in the presence of the spin trap TEMP and DMPO.

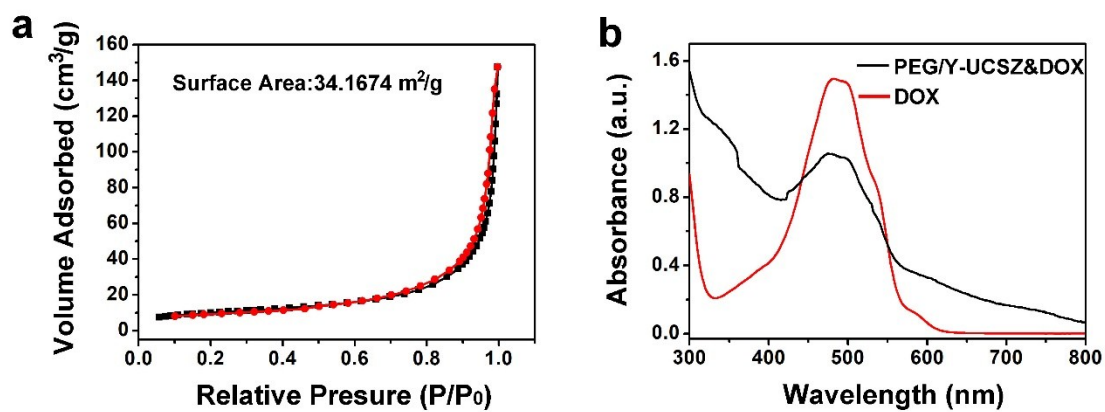


Fig. S8 N₂ adsorption-desorption isotherm of DOX loaded PEG/Y-UCSZ (a). UV-Vis absorption spectra of the DOX molecules and the final PEG/Y-UCSZ&DOX (b).

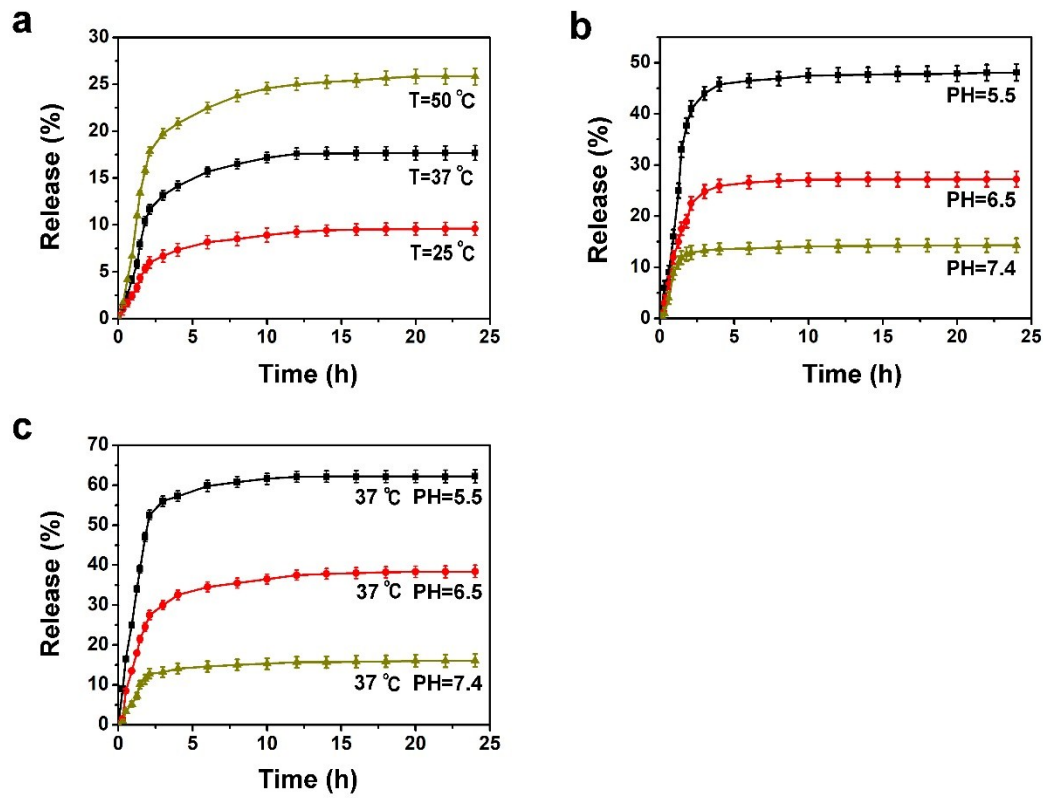


Fig. S9 DOX release efficiency from PEG/Y-UCSZ&DOX in PBS at varied temperatures (pH = 7.4) (a), pH values ($T = 37\text{ }^{\circ}\text{C}$) (b), and combined acidic and temperature conditions (c).

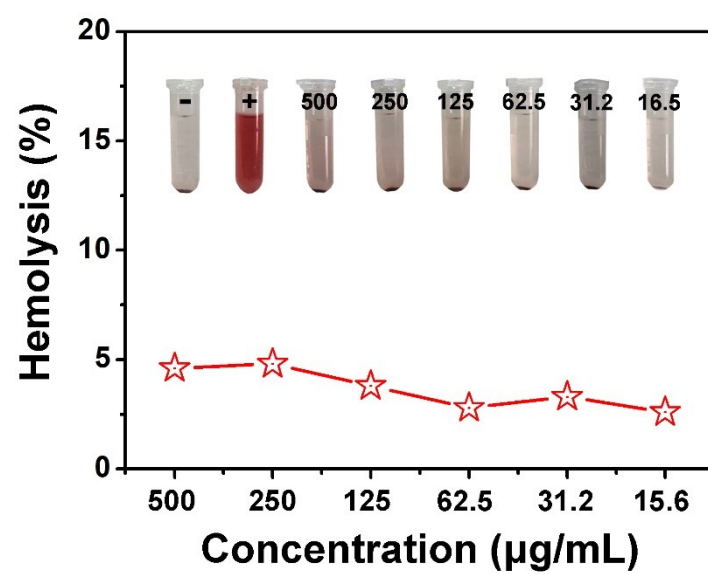


Fig. S10 The hemolytic percentage of PEG/Y-UCSZ to human red blood cells.

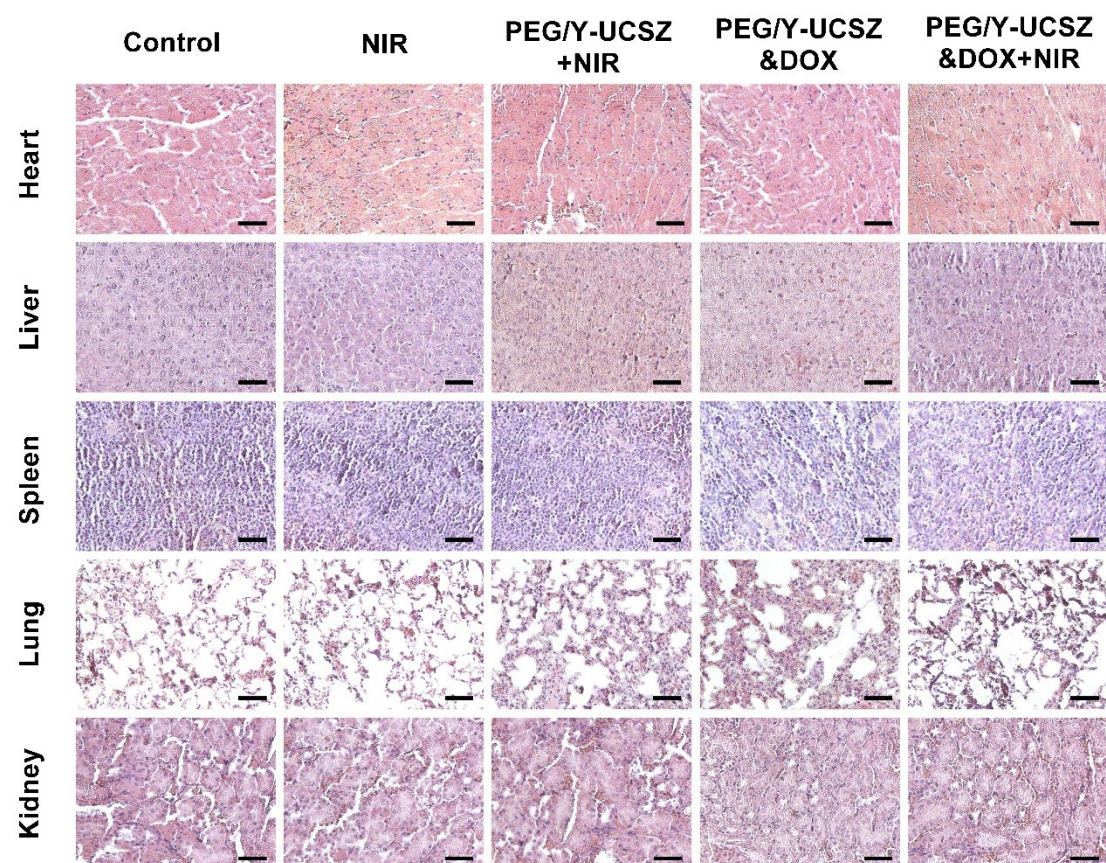


Fig. S11 H&E stained images of liver, lung, kidney, heart and spleen achieved from different groups after 14 days treatment. Scale bar: 50 μ m.