

## Supplementary Information

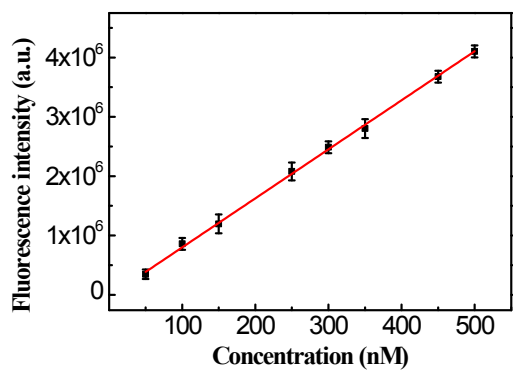
### A GSH-responsive nanophotosensitizer for efficient photodynamic therapy

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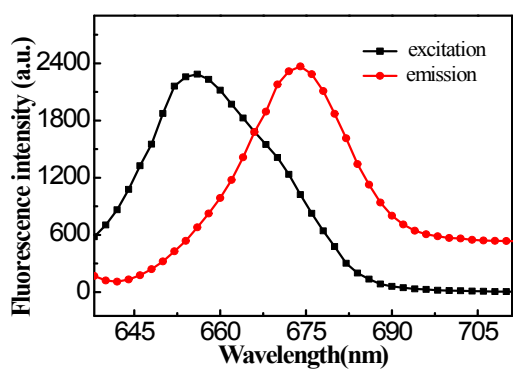
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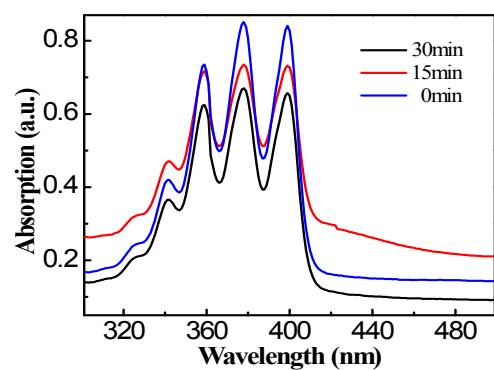
<sup>‡</sup>These authors contributed equally to this paper.



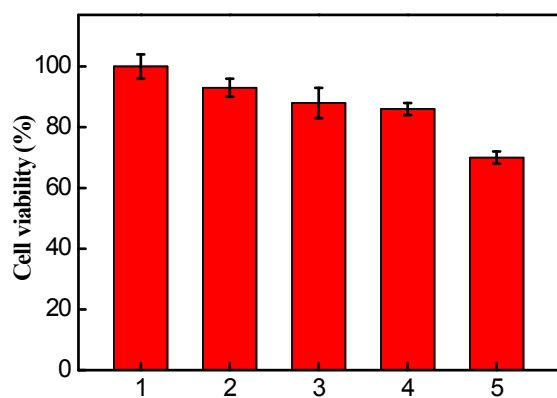
**Fig. S1** Fluorescence intensity standard linear curve of Ce6.



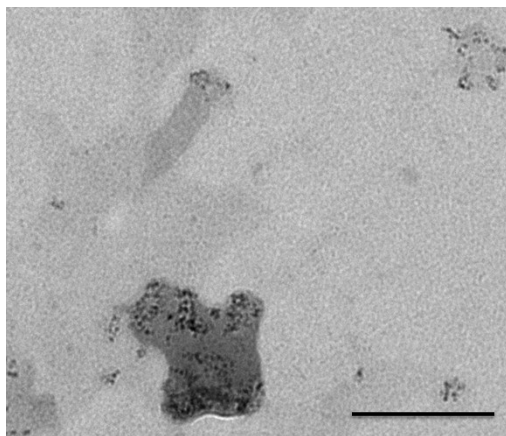
**Fig. S2** Excitation and emission wavelengths of Ce6.



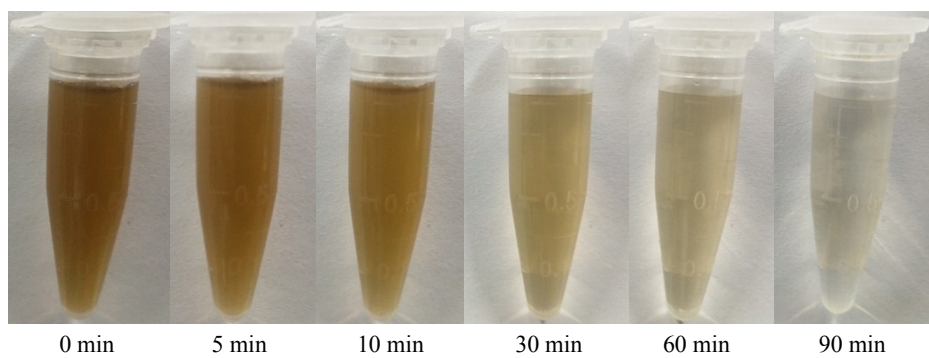
**Fig. S3** The absorbance values of ABMD were measured by irradiating the photosensitizer Ce6 with 655 nm laser irradiation for 0 min, 15 min, and 30 min, respectively.



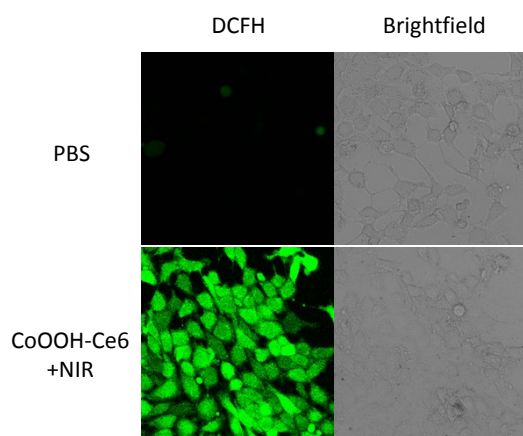
**Fig. S4** The cell viability of 4T1 cell after different treatments: PBS as control (1), incubated with the CoOOH ( $20 \mu\text{g}\cdot\text{mL}^{-1}$  (2);  $40 \mu\text{g}\cdot\text{mL}^{-1}$  (3);  $60 \mu\text{g}\cdot\text{mL}^{-1}$  (4)  $80 \mu\text{g}\cdot\text{mL}^{-1}$  (5)) with 655 nm laser at the intensity of irradiation  $50 \text{ mW}\cdot\text{cm}^{-2}$  for 30 min.



**Fig. S5** TEM image of the CoOOH nanosheets after incubated in GSH solution (scale bar : 100 nm)

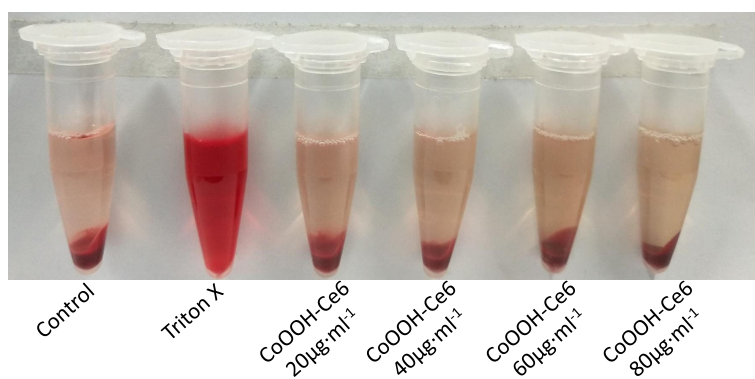


**Fig. S6** Color changes of the CoOOH nanosheets after incubated in GSH solution at different time points.

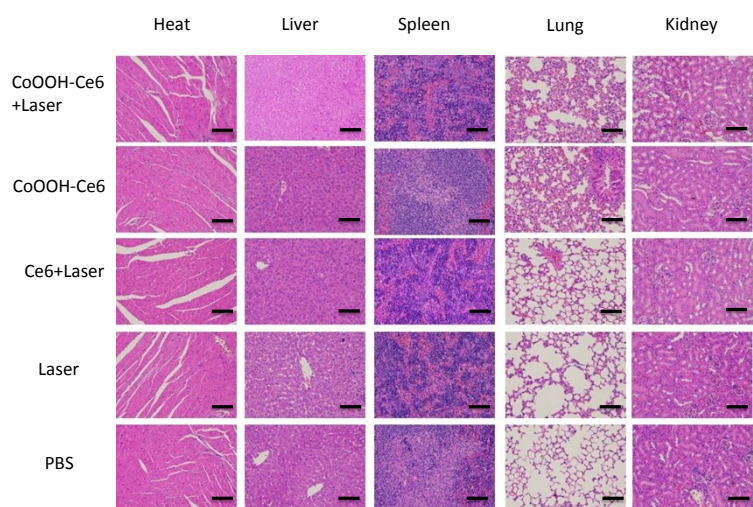


**Fig. S7** Confocal imaging of 4T1 cells after incubated with different treatments.





**Fig. S8** Hemolytic assay of the CoOOH-Ce6.



**Fig. S9** Biocompatibility of the nanoparticles. H&E staining images (200 $\times$ , scale bars are 100  $\mu\text{m}$ .) of five major organs (heart, liver, spleen, lung, and kidney) at 7 day after different treatment groups: PBS only; laser only; Ce6 with laser; CoOOH without laser; CoOOH-Ce6 with laser.