Electronic Supplementary Material (ESI) for Biomaterials Science.

Supporting Information

Manganese Self-boosting Hollow Nanoenzymes with Glutathione Depletion for Synergistic Cancer Chemo-chemodynamic Therapy

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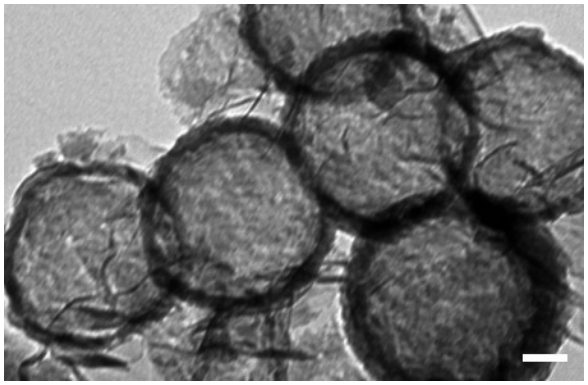

Figure S1. TEM image of $HMnO_2$. Scale bar: 50 nm

Table S1. Drug content in $HMnO_2$@CDDP determined by ICP.

CDDP used for synthesis [mg]	Remaining CDDP content after synthesis [mg]	CDDP loading efficiency [%]	Average loading efficiency [%]
5	1.91	61.80%	62.70%
	1.83	63.40%	
	1.85	63.00%	

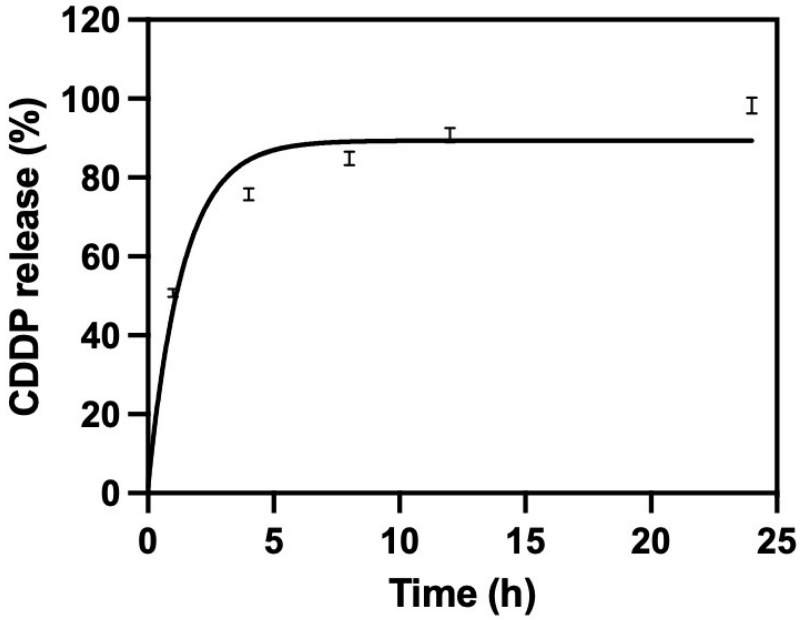

Figure S2. CDDP release profiles of $HMnO_2$@CDDP at different time points.

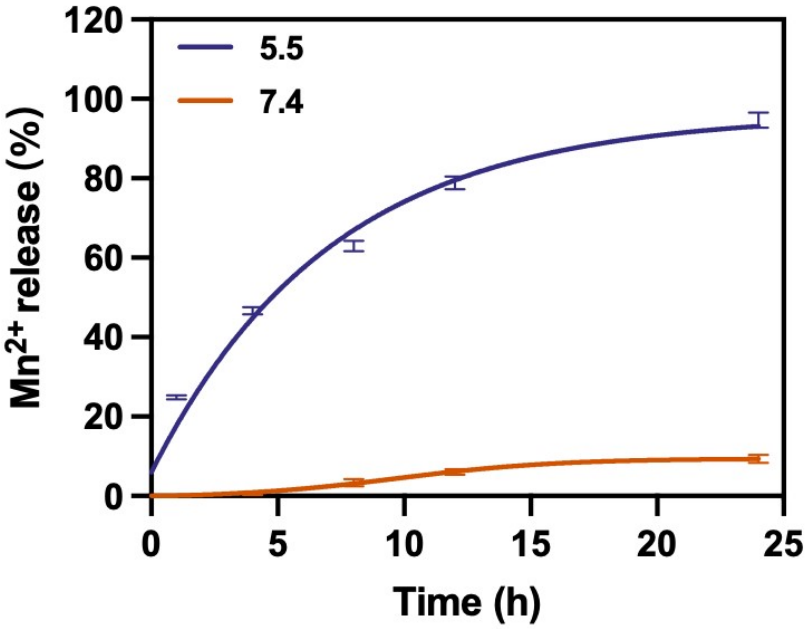

Figure S3. Mn^{2+} release profiles of $HMnO_2$@CDDP at different pH values.

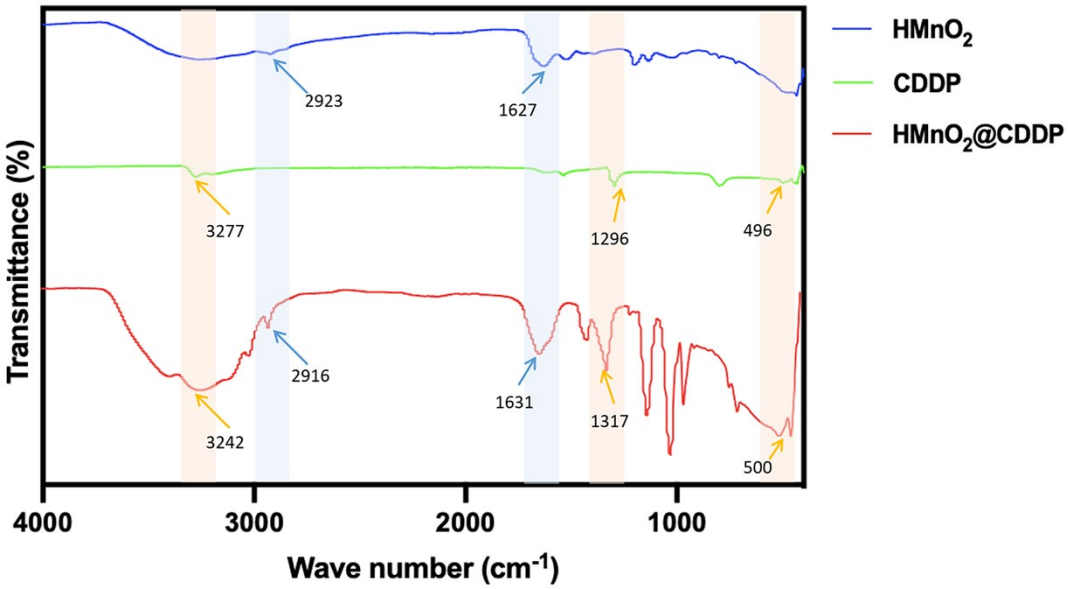

Figure S4. FTIR spectra of $HMnO_2$, CDDP and $HMnO_2$@CDDP.

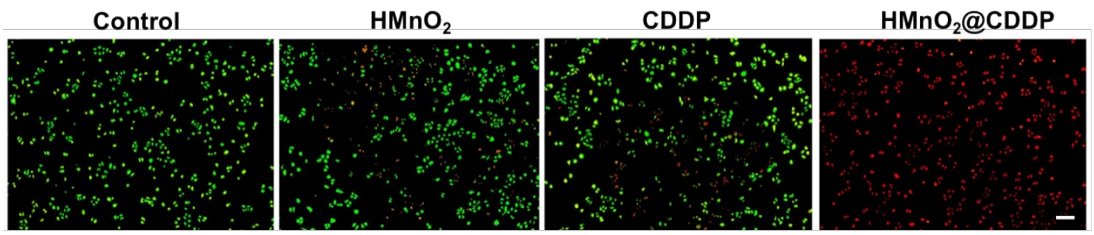

Figure S5. Fluorescence images of Calcein AM (green, live cells) and PI (red, dead cells) co-stained A549 cells treated by different formulations. Scale bar: 100 μm.

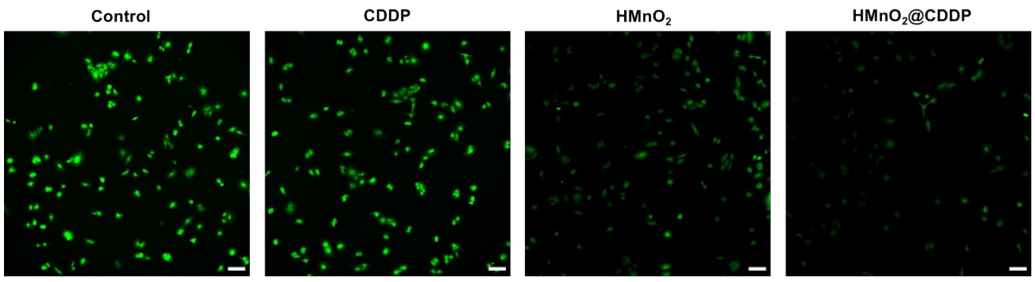

Figure S6. Fluorescence images of intracellular GSH in A549 cells after treated by different formulations for 12 h. Scale bar: 100 μm.

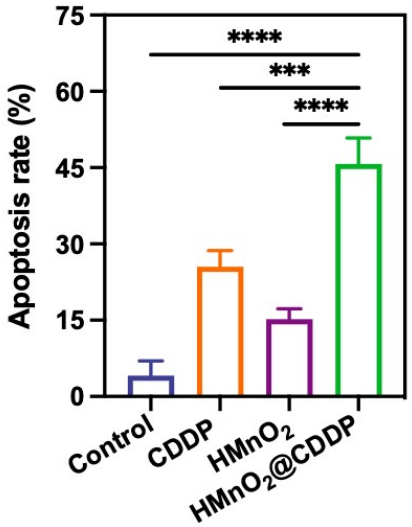

Figure S7. Quantitative analyses of apoptosis in A549 cells treated by different formulations for 12 h. The results are represented as mean ± standard deviation (n = 3 per group).

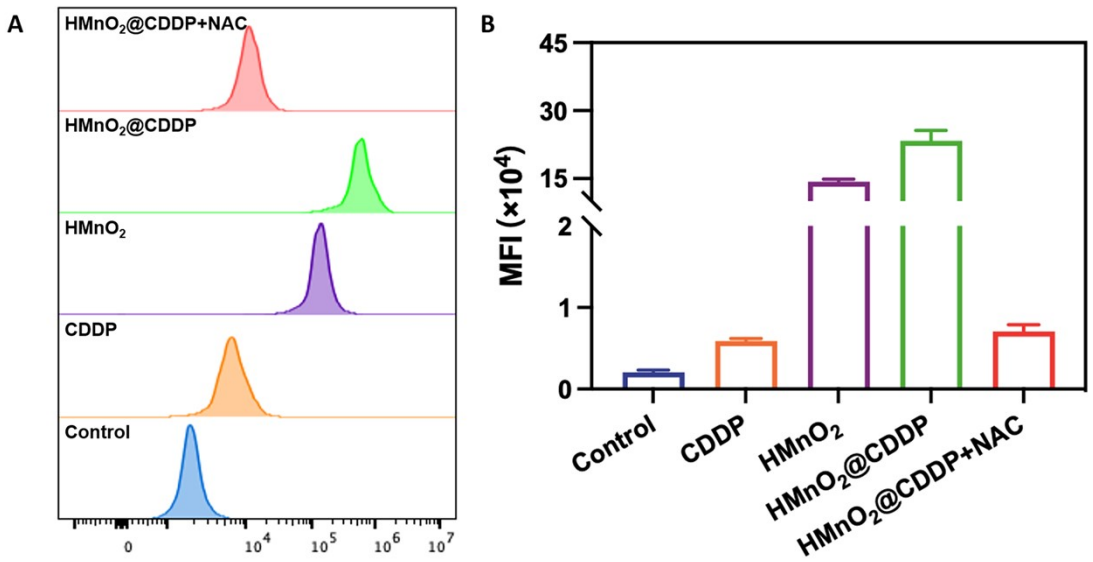

Figure S8. Flow cytometric and quantitative analyses of intracellular ·OH level for A549 cells after being treated by different formulations for 12 h.

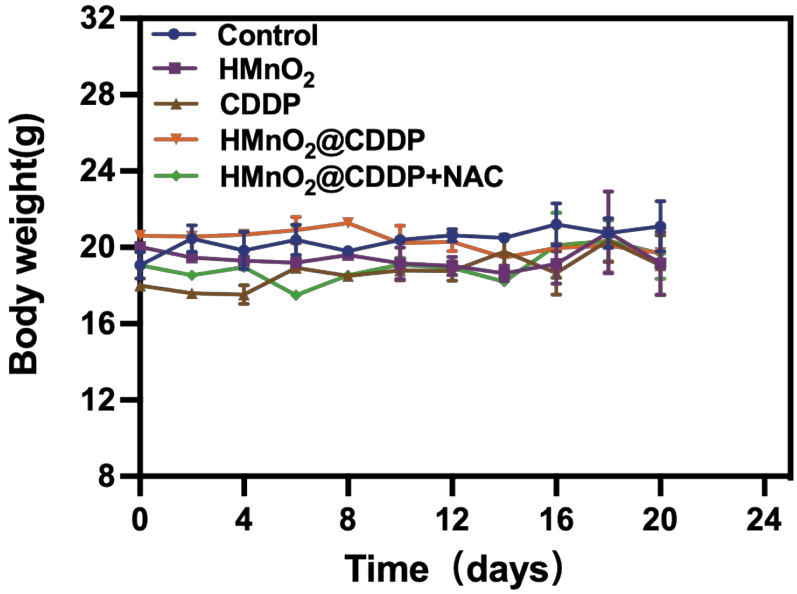

Figure S9. Body weight changes of mice with different treatments.