

Supplementary Information

Single Nano-Sized Metal–Organic Framework for Bio-Nanoarchitectonics with In Vivo Fluorescence Imaging and Chemo-Photodynamic Therapy

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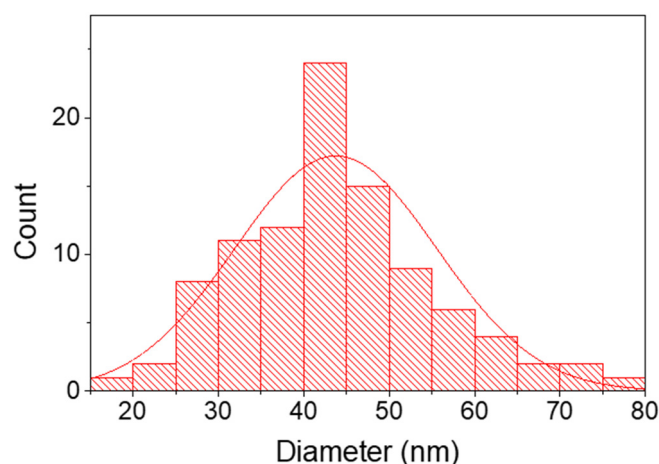


Figure S1. Size distribution obtained from SEM images of H₂L-MOFs.

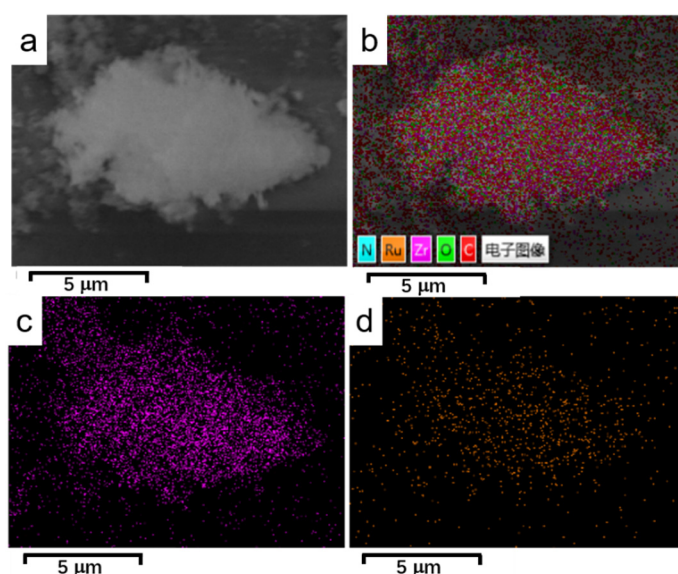


Figure S2. (a) SEM image and elemental mapping of (b) overlapped, (c) Zr, (d) Ru of the H₂L-MOFs.

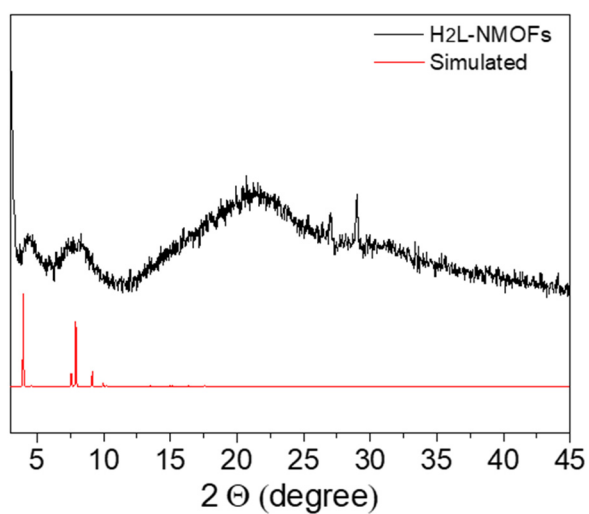


Figure S3. XRD of H₂L-MOFs.

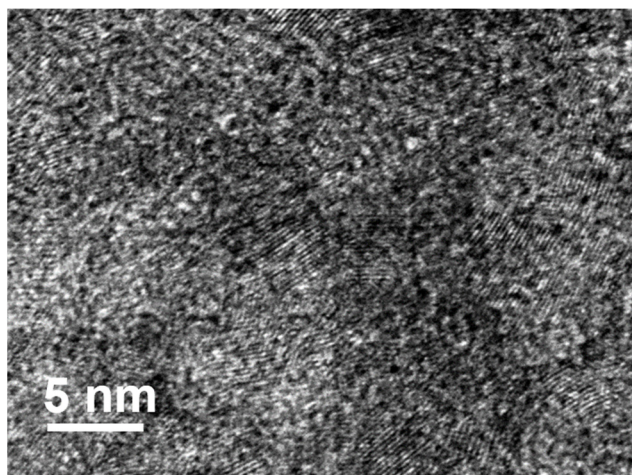


Figure S4. High Resolution Transmission Electron Microscope (HRTEM) image of H₂L-MOFs nanoparticles.

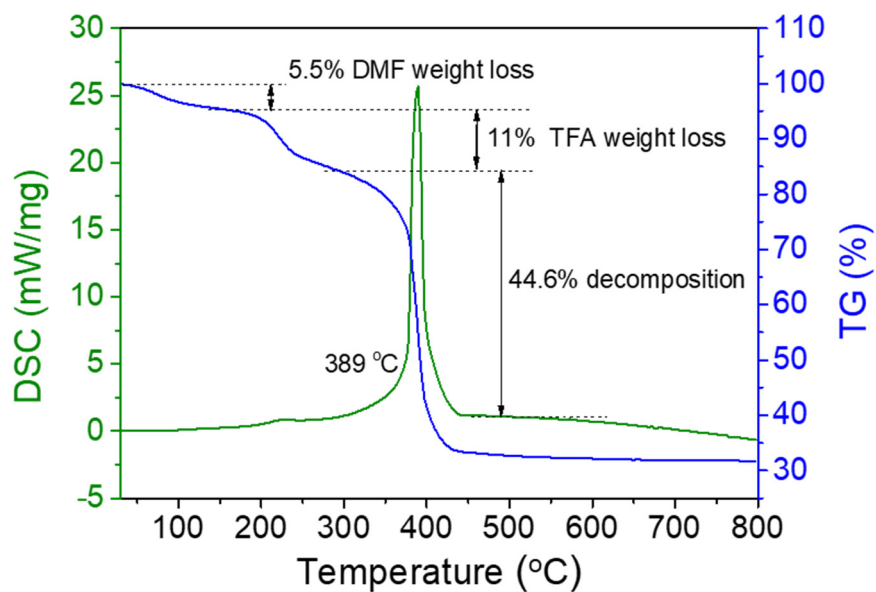
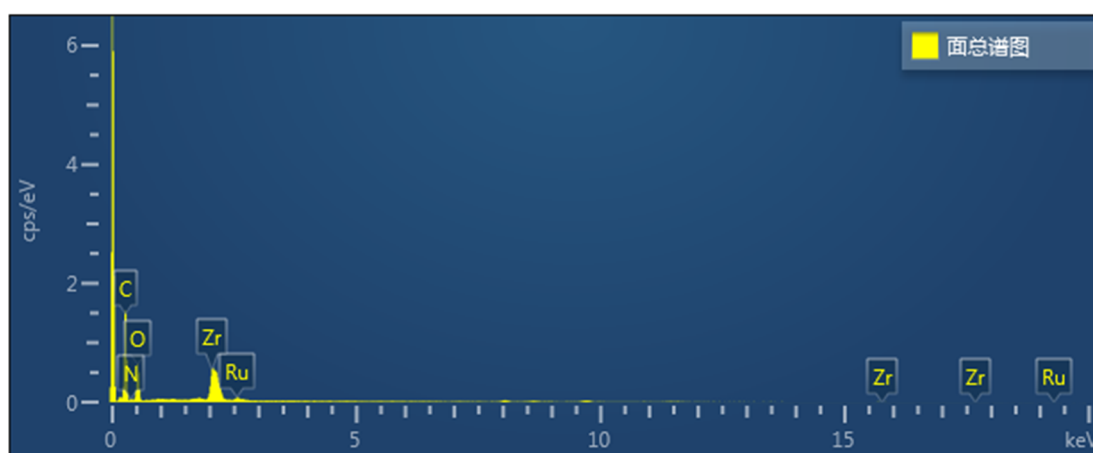
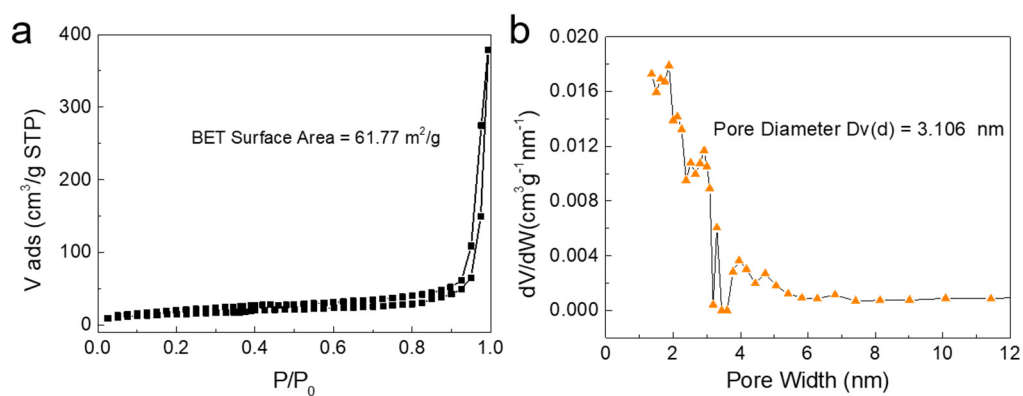


Figure S5. TGA plots of H₂L-MOFs.

Table S1. Relative element content obtained by EDS.

Element	Series	Apparent concentration	k ratio	wt%	wt% Sigma	Atomic percentage
C	K-series	30.54	0.30541	57.19	1.08	68.37
N	K-series	1.63	0.00290	2.61	1.49	2.67
O	K-series	17.47	0.05878	30.59	0.77	27.46
Zr	L-series	10.85	0.10855	8.67	0.34	1.36
Ru	L-series	1.07	0.01071	0.94	0.16	0.13
Total				100.00		100.00

**Figure S6.** EDS spectrum of H₂L-MOFs.**Figure S7.** N₂ adsorption isotherms for H₂L-MOFs at 77 K. (a) N₂ adsorption isotherms and (b) DFT pore size distribution for H₂L-MOFs using data measured with N₂ at 77 K.

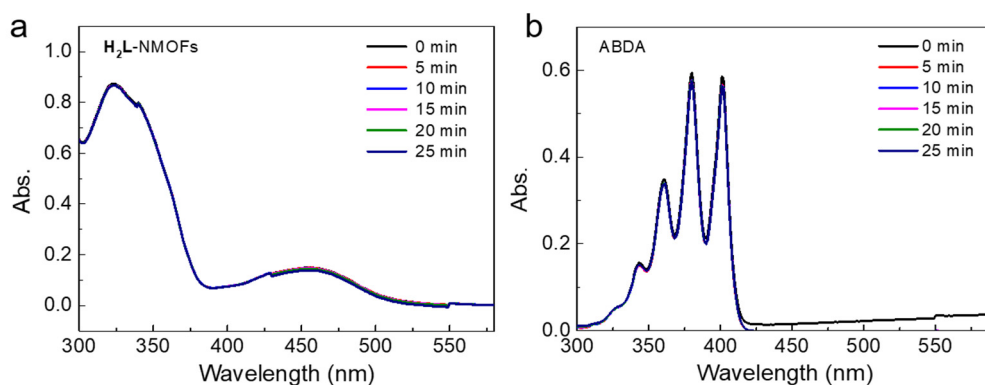


Figure S8. Control groups of (a) 200 μM ABDA and (b) 80 μM H₂L-MOFs with the irradiation over a period of 25 min.

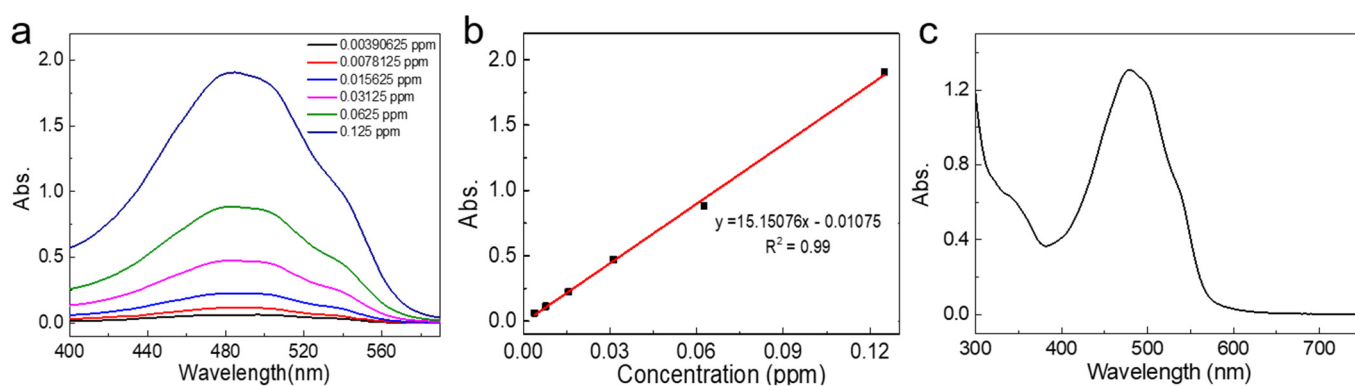


Figure S9. DOX adsorption of MOFs. (a) Absorbance of DOX with different concentrations. (b) Standard curve of DOX solution. (c) DOX absorbance spectrum of H₂L-MOFs after 48 h DOX adsorption.

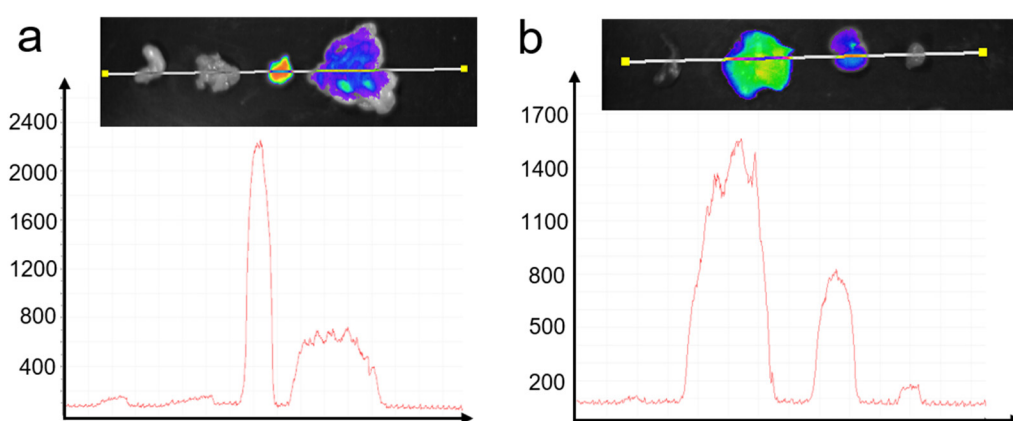


Figure S10. Fluorescence and intensity diagrams of various organs in nude mice bearing tumor. (a) stomach, lung, tumor, and intestine. (b) spleen, liver, kidney, and heart.