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## Polyoxometalate-Covalent Organic Framework Hybrid Materials for the pH-Responsive Photothermal Tumor Therapy

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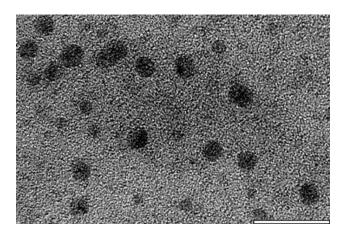


Figure S1. The TEM image of HPB. The scale bar =20 nm

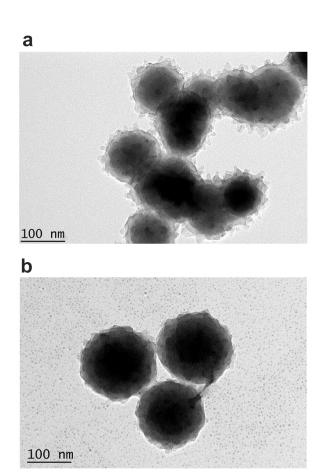


Figure S2 The TEM images of HPB@COF before stirring(a) and after stirring for 24 h at pH=5(b)

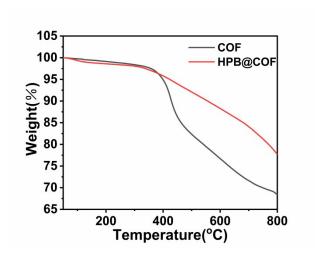


Figure S3. The TGA curves for COF and HPB@COF, respectively

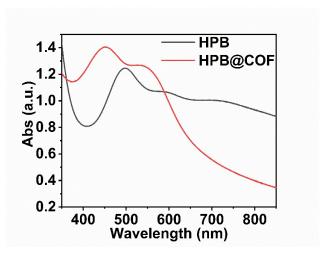


Figure S4. The UV-Vis spectra of HPB and HPB@COF

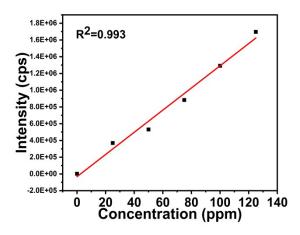


Figure S5. The standard curve fitting of tungsten in HPB by the ICP analysis

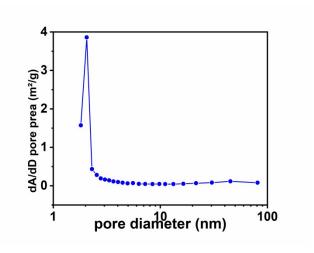
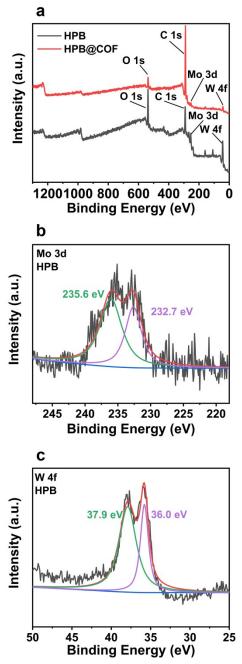


Figure S6. The pore size distribution curve of COF.



**Figure S7.** (a) the XPS spectra of HPB and HPB@COF; (b) the XPS spectra of Mo 3d in HPB; (c) the XPS spectra of W 4f in HPB

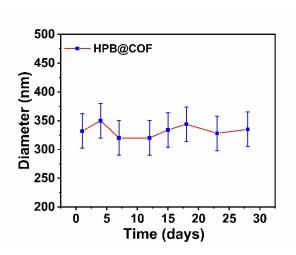
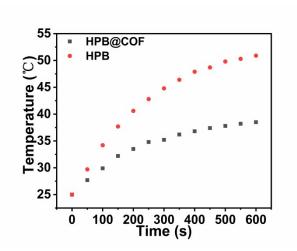
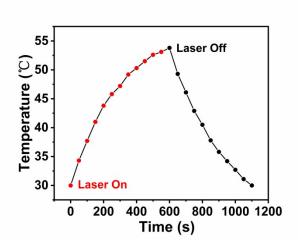


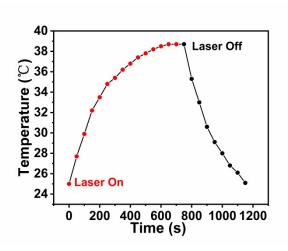
Figure S8. The average diameter of the HPB@COF NPs dispersed in water for 28 d



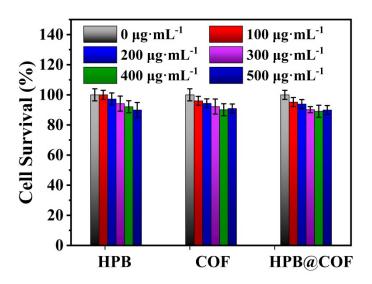
**Figure S9.** The corresponding temperature vs the time curves of HPB (250  $\mu$ g/mL,1.0 mL) and HPB@COF (500  $\mu$ g/mL,1.0 mL) illuminated with a NIR laser (808 nm, 1.5W·cm<sup>-2</sup>)



**Figure S10.**The photothermal profile of the HPB dispersion (250  $\mu$ g/mL, 1.0 mL) illuminated with NIR laser (808 nm, 1.5 W) for 15 min in order to reach a plateau, following natural cooling under ambient temperature



**Figure S11.** The photothermal profile of HPB@COF dispersion (500  $\mu$ g/mL, 1.0 mL) illuminated with NIR laser (808 nm, 1.5 W) for 15 min in order to reach a plateau, following natural cooling under ambient temperature



**Figure S12.** The cell viability of C929 cells after incubation with different concentrations of HPB, COF and HPB@COF NPs, respectively

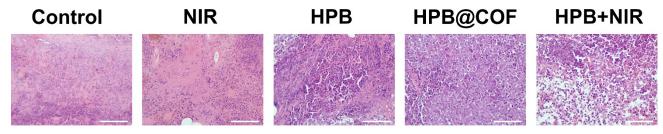


Figure S13. The H&E images of tumor slices after different treatments. The scale bar =200  $\mu m$