

Supplementary Materials

Table S1 The loading capacity and efficiency of $\text{Fe}_3\text{O}_4@\text{ZIF-8}@MBLs$ with different amount of added enzymes (n=3)

Amount of added enzymes (mg)	Loading capacity (mg, mean \pm SD)	Loading efficiency (% , mean \pm SD)
2.50	2.30 \pm 0.06	91.97 \pm 2.40
5.00	4.66 \pm 0.25	93.22 \pm 4.92
10.00	8.28 \pm 0.12	82.83 \pm 1.20

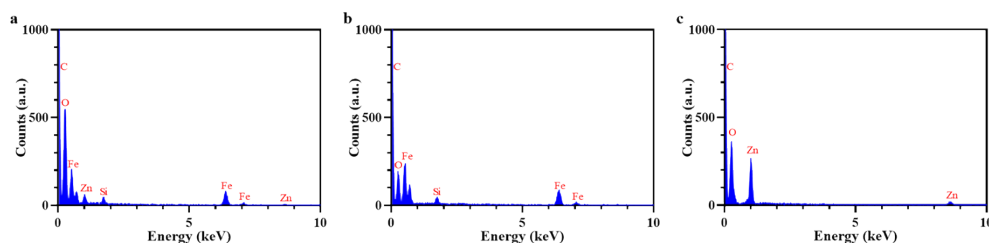


Fig. S1 EDS spectrum of $\text{Fe}_3\text{O}_4@\text{ZIF-8}@MBLs$ (a), Fe_3O_4 (b), and ZIF-8 (c)

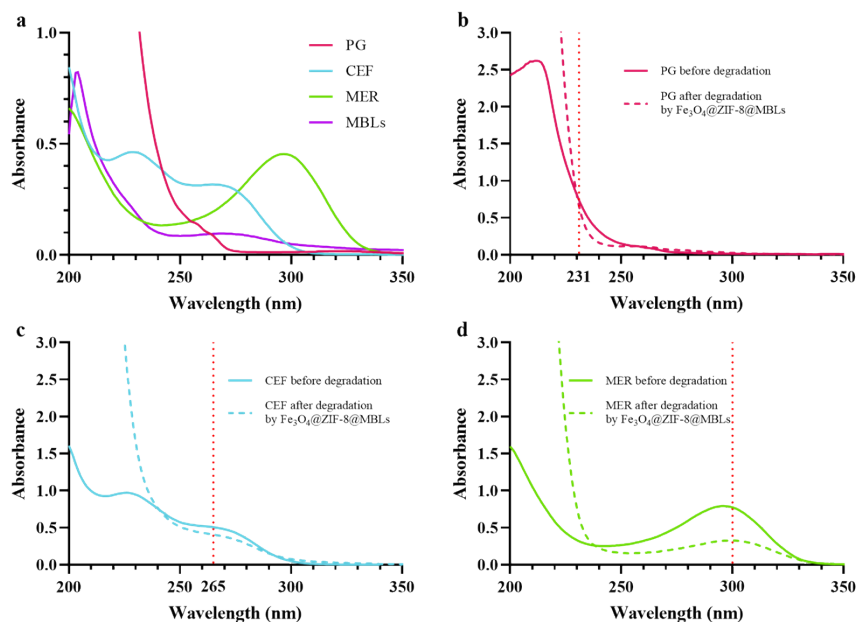


Fig. S2 (a) Full wavelength scan spectrum of PG, CEF, MER, and MBLs; full wavelength scan spectrum of PG (b), CEF (c), and MER(d) before and after degradation

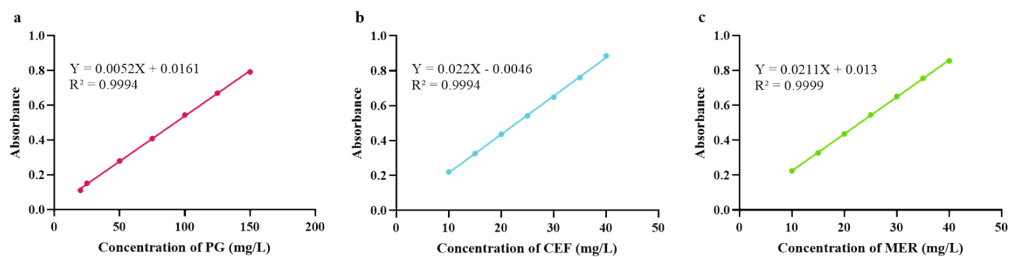


Fig. S3 Standard curve of PG (a), CEF(b), and MER(c) at 231 nm, 265 nm, and 300 nm, respectively

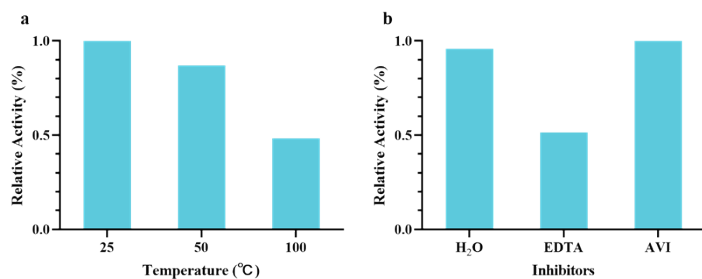


Fig. S4 Relative activity of free MBLs to hydrolyze CEF after treatment with different temperatures (a) and inhibitors (b) for 1 h