SUPPORTING INFORMATION

For

Highly effective removal of pharmaceutical compounds from aqueous solution by magnetic Zr-based MOFs composites

Ruiqi Zhang, Zhen Wang, Zixin Zhou, Di Li, Tiefeng Wang, Ping Su*, and Yi Yang*

Beijing Key Laboratory of Environmentally Harmful Chemical Analysis, College of Science,

Beijing University of Chemical Technology, Beijing 100029, China

$$\frac{t}{Q_t} = \frac{1}{k_2 Q_e^2} + \frac{1}{Q_e} t$$

where k_2 (g mg⁻¹min⁻¹) is the kinetic constant of pseudo-second-order adsorption. Q_e and Q_t (mg g⁻¹) are the amount of the target absorbed at equilibrium time e and any time t (min).

Figure S1. Structures of salicylic acid and acetylsalicylic acid.

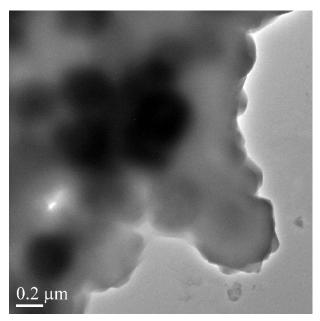


Figure S2. TEM images of Fe₃O₄@SiO₂@UiO-66-NH₂.

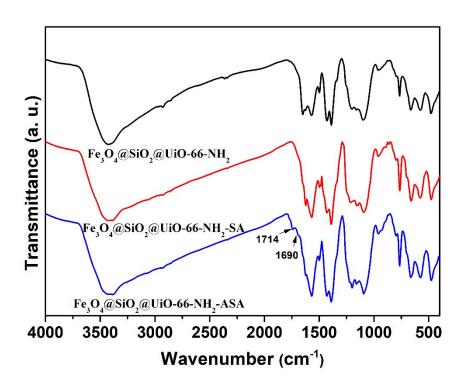


Figure S3. FTIR spectra of the magnetic UiO-66- NH_2 before and after adsorption of SA and ASA.

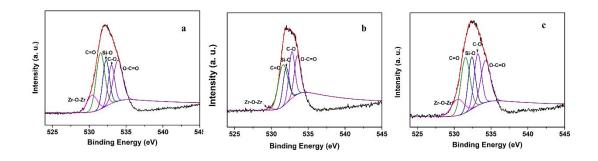


Figure S4. The O1s XPS spectra of the magnetic UiO-66- NH_2 before (a) and after adsorption of SA (b) and ASA (c).

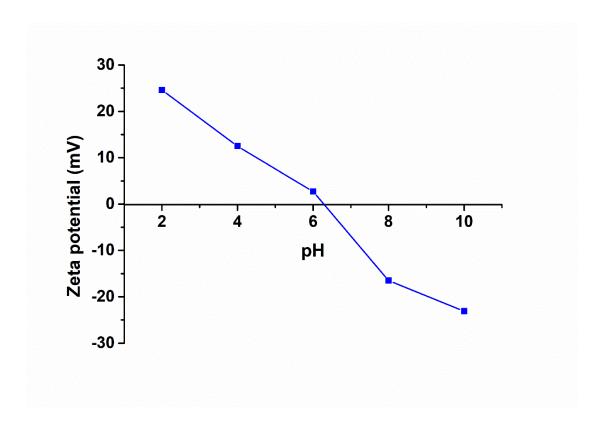


Figure S5. The zeta potential of the magnetic UiO-66-NH₂ as a function of pH.

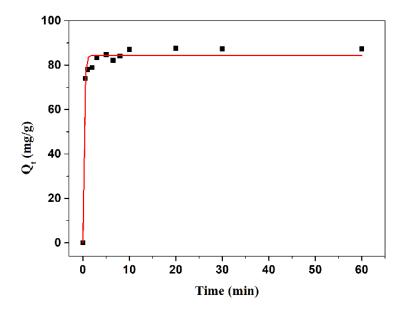


Figure S6. Pseudo-first-order kinetics of SA and adsorption on magnetic UiO-66-NH $_{\! 2}.\,$

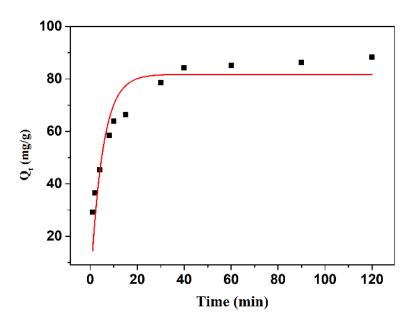


Figure. S7. Pseudo-first-order kinetics of ASA and adsorption on magnetic UiO-66-NH_2 .