Supporting Information

Construction of core-shell magnetic meatal-organic framework composites Fe_3O_4@MIL-101(Fe, Co) for degradation of RhB by efficiently activating PMS

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The Supporting Information included:

7 Figures

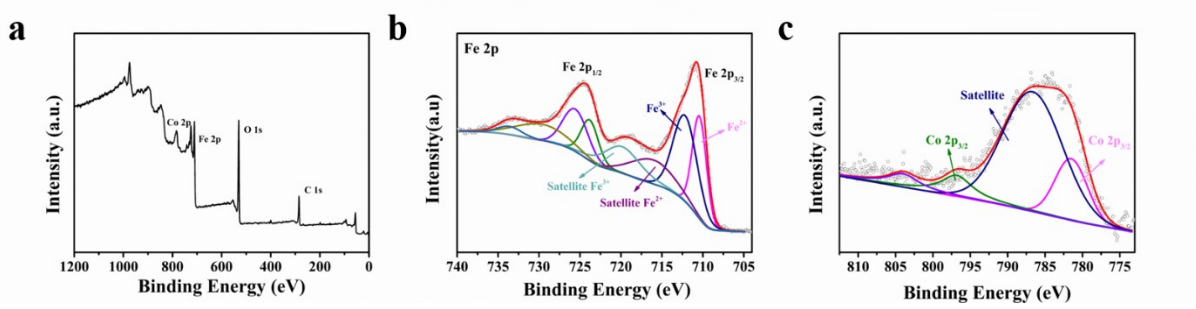

Figure S1. XPS spectra of the Fe_3O_4@MIL-101(Fe, Co) (a) full-range scan of the samples, (b) Fe 2p (c) Co 2p.

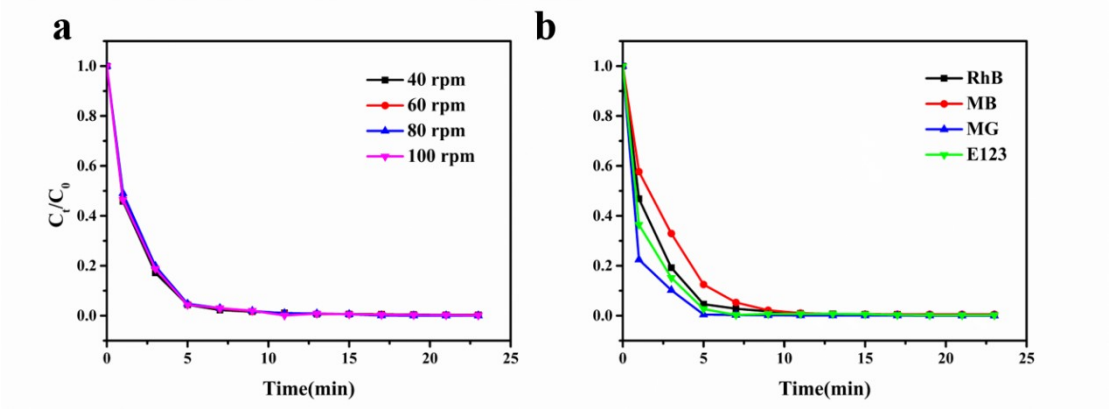

Figure S2. Effect of different stirring rate on RhB degradation (a). Degradation of different dyes by Fe_3O_4@MIL-101(Fe, Co) (b). Concentration: [dyes] = 10 mg/L, [PMS] = 0.4 g/L, [catalyst] = 0.2 g/L, Volume: 20 mL; Temperature: 25 ; Initial solution pH: 7.0.

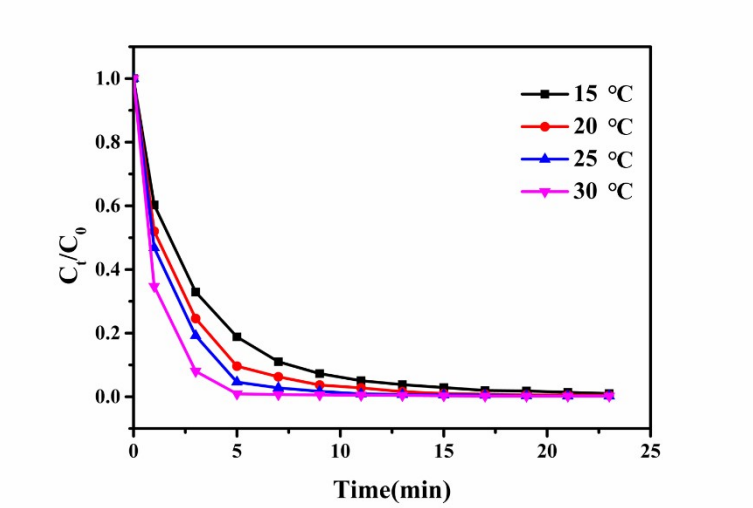

Figure S3. Effect of different temperature on RhB degradation (a). Degradation of different dyes by Fe_3O_4@MIL-101(Fe, Co) (b). Concentration: [RhB], [PMS] = 0.4 g/L [catalyst] = 0.2 g/L, Volume: 20 mL; Initial solution pH: 7.0.

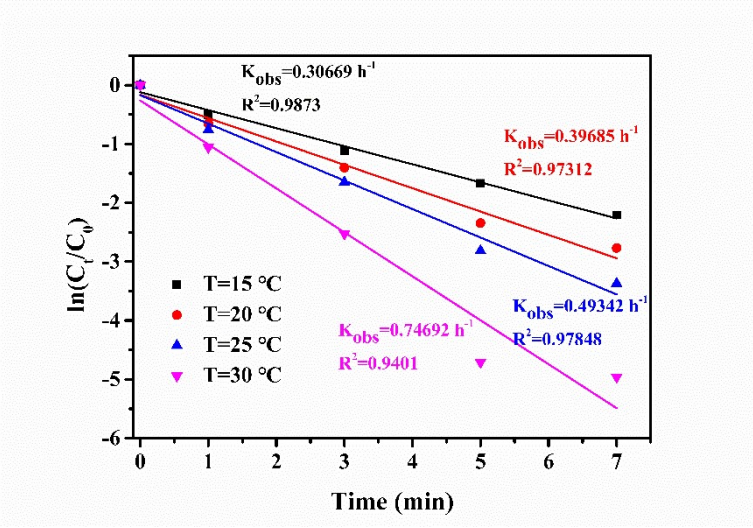

Figure S4. The kinetics simulation results of the degradation reaction at different temperature.

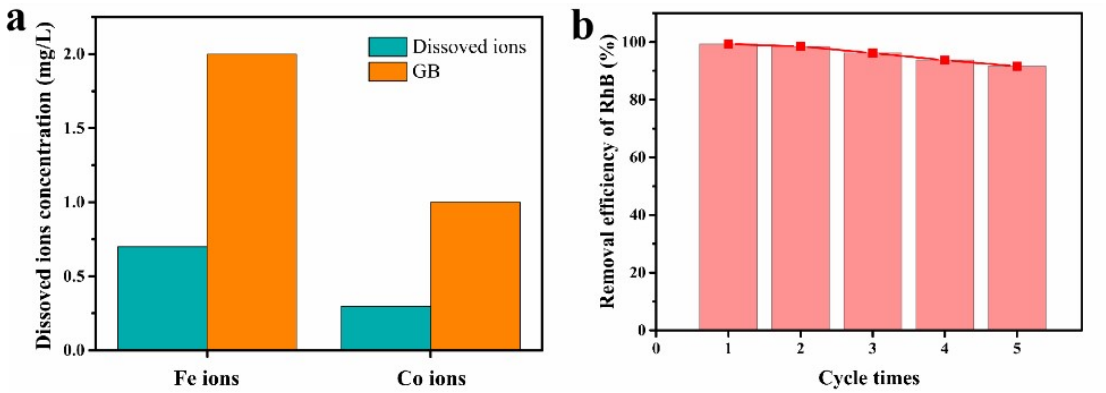

Figure S5. Dissolution of Fe and Co ions in Fe_3O_4@MIL-101(Fe, Co) within 15 min after reaction (a). Degradation efficiency of RhB in five recycling of Fe_3O_4@MIL-101(Fe, Co) (b). Concentration: [RhB] = 10 mg/L, [PMS] = 0.4 g/L, [catalyst] = 0.2 g/L, Volume: 20 mL; Temperature: 25 °C; Initial solution pH: 7.0.

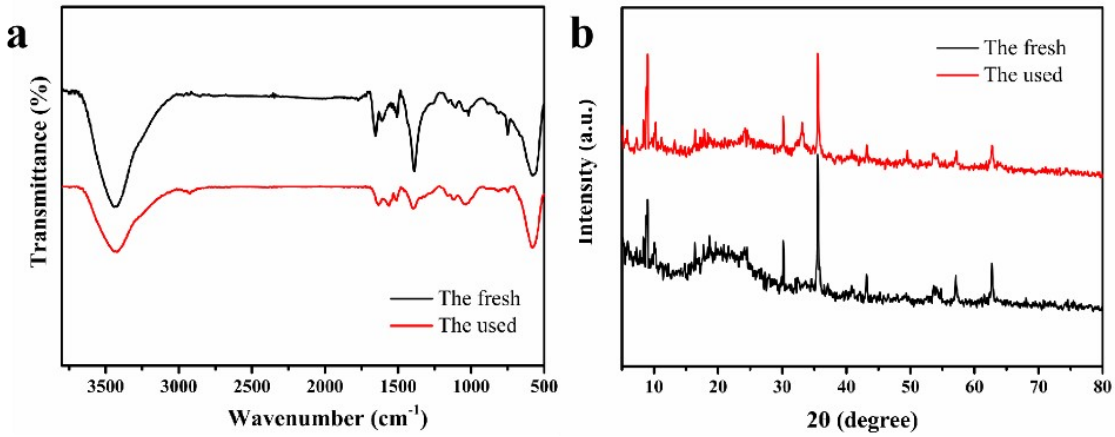

Figure S6. XRD (a) and FT-IR (b) patterns of Fe_3O_4@MIL-101(Fe, Co) before and after Fenton-like reaction.

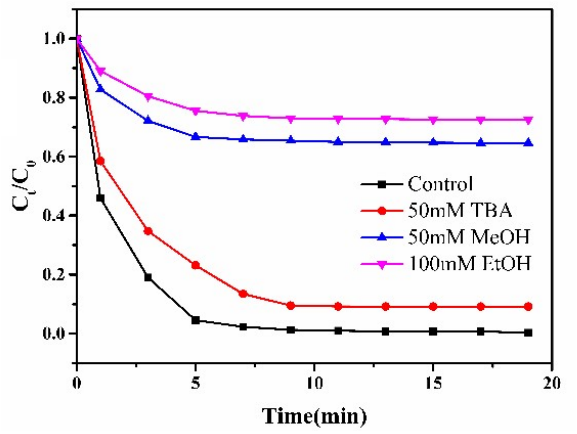

Figure S7. Quenching experiment on RhB degradation. Concentration: [RhB] = 10 mg/L, [PMS] = 0.4 g/L, [catalyst] = 0.2 g/L, Volume: 20 mL; Temperature: 25 ℃; Initial solution pH: 7.0.