

# Electronic Supplementary information

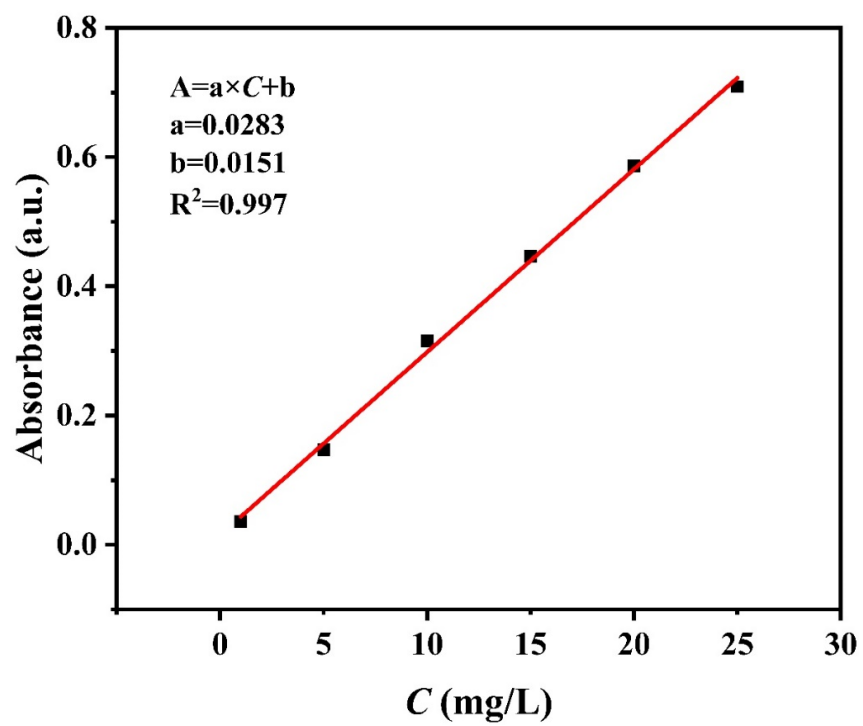
## **Fabrication of a Fe-Doped ZIF-67 Derived Magnetic Fe/Co/C Composite for Effective Removal of Congo Red**

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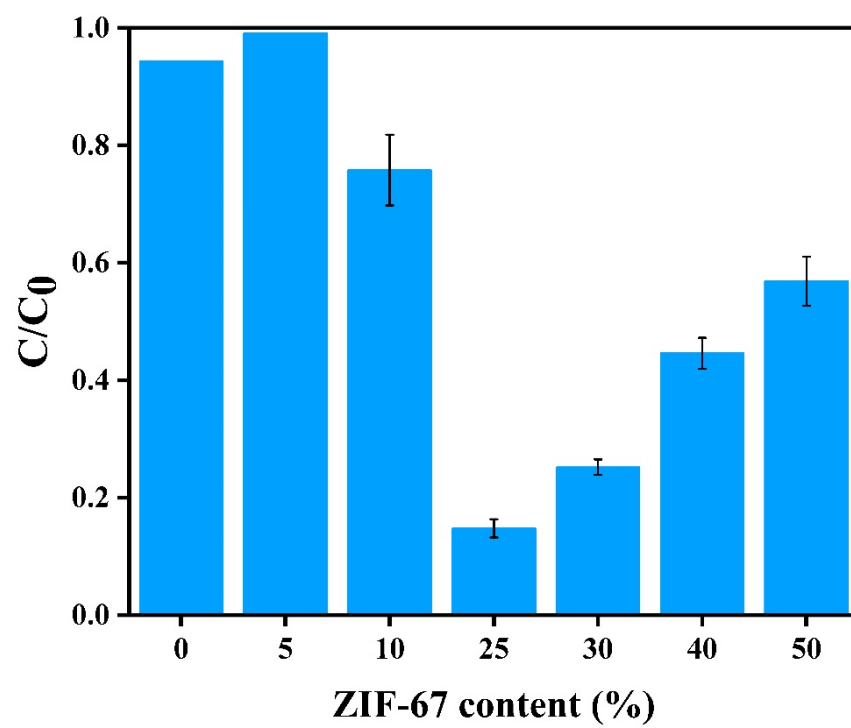
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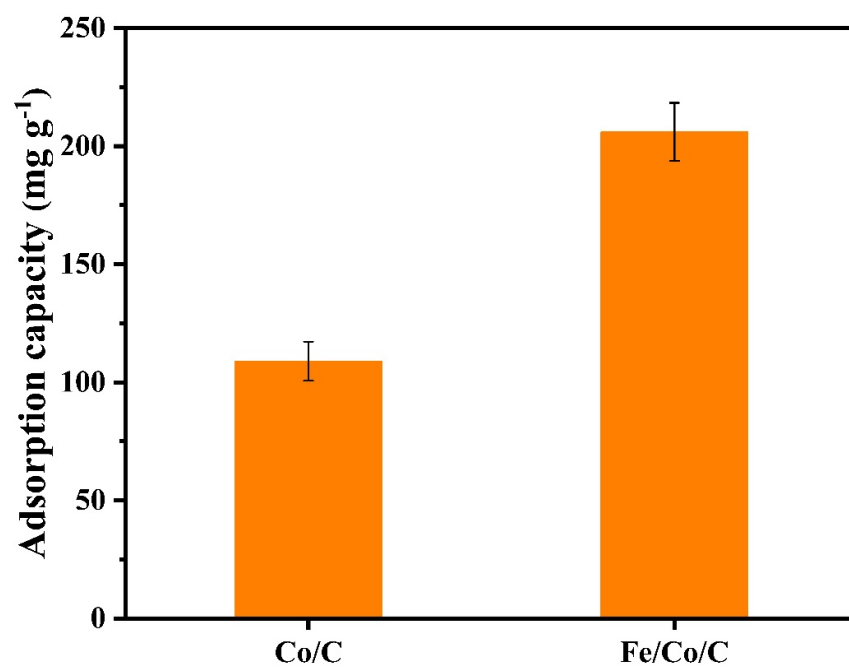
**Figure S1.** Standard curve of CR.



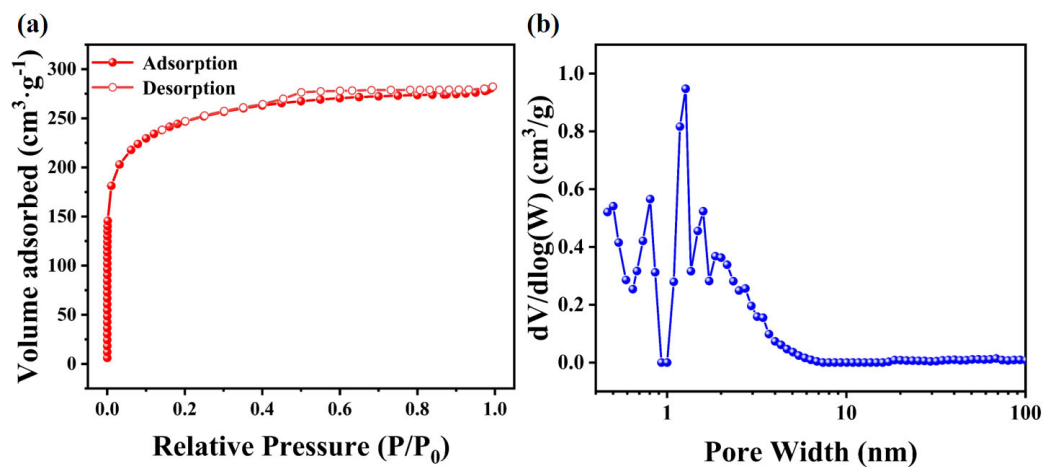
**Figure S2.** Effects of different ZIF-67 content on CR treatment.



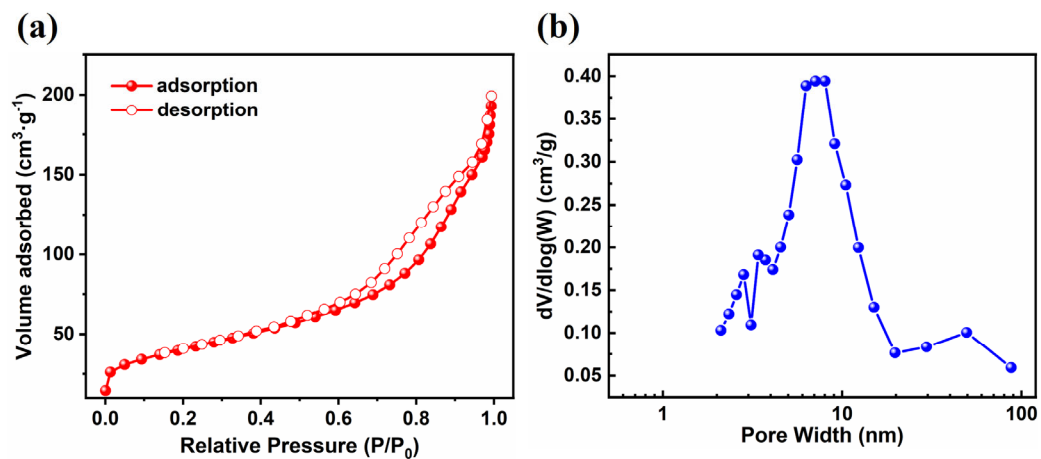
**Figure S3.** Image of material after solution evaporation.



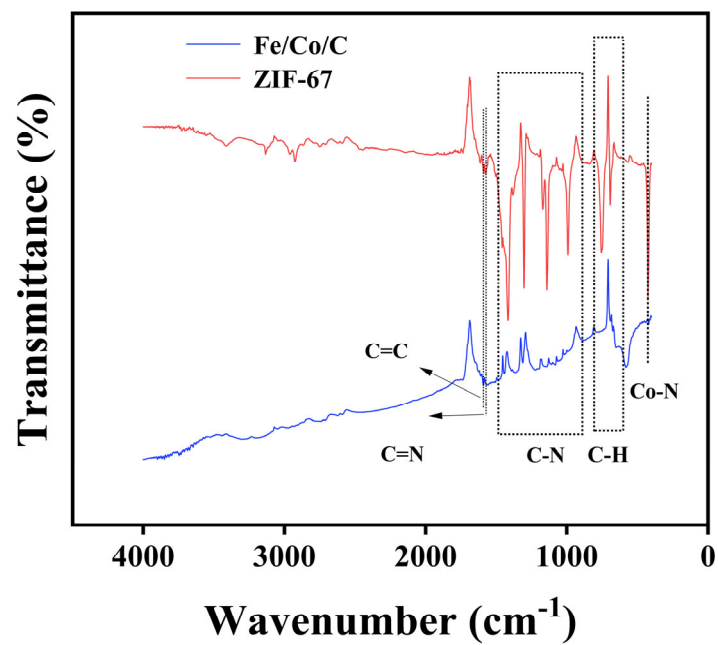
**Figure S4.** Comparison of the adsorption capacity of Co/C and Fe/Co/C.



**Figure S5.** (a) Adsorption/desorption curves of Fe/Co/C material and (b) Pore size distribution of Fe/Co/C material.

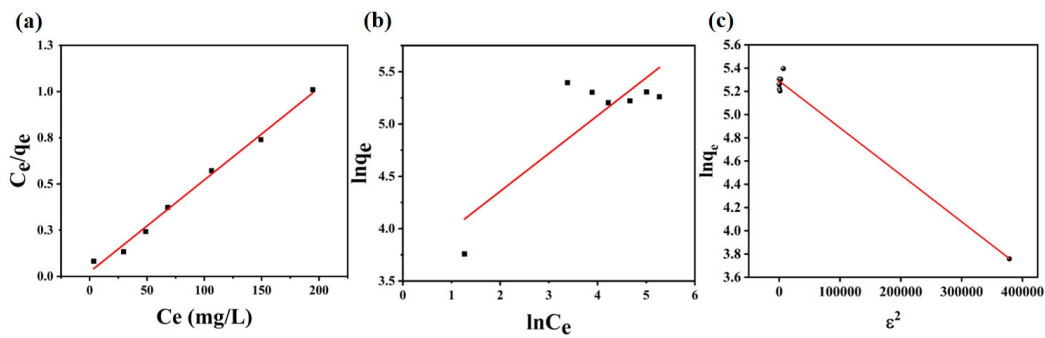


**Figure S6.** (a) Adsorption/desorption curves of Co/C material and (b) Pore size distribution of Co/C material.

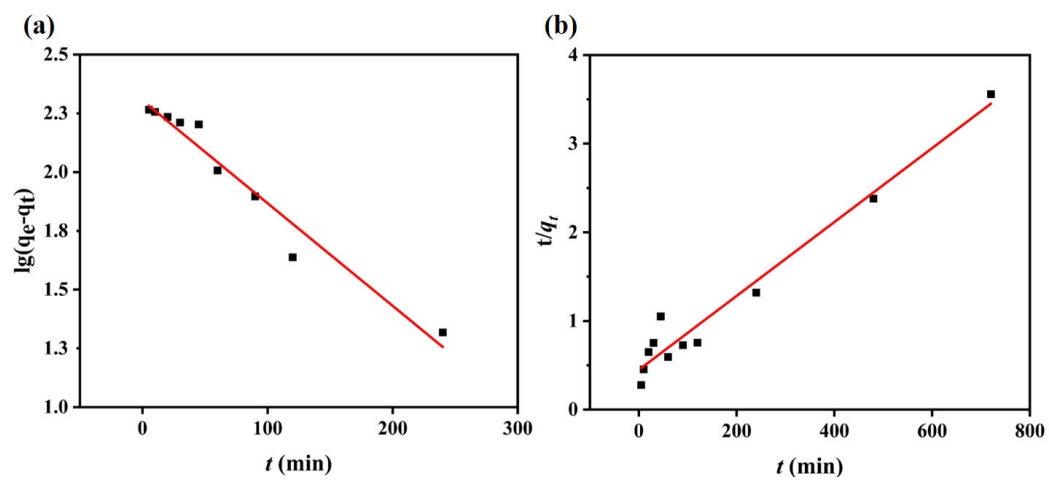


**Figure S7.** FTIR patterns of ZIF-67 and Fe/Co/C.

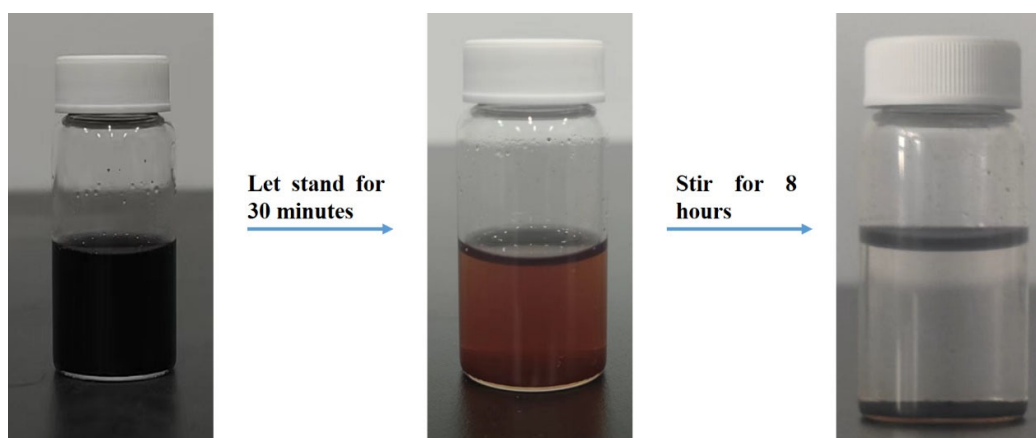




**Figure S8.** (a) Fitting of adsorption isotherms for linear Fe/Co/C Langmuir model. (b) Fitting of adsorption isotherms for linear Fe/Co/C Freundlich model. (c) Fitting of adsorption isotherms for linear Fe/Co/C Dubinin-Radushkevich model.



**Figure S9.** (a) Pseudo-first-order kinetic fitting. (b) Pseudo-second-order kinetic fitting.



**Figure S10.** Removal process changes image.

**Table S1.** Comparison of other materials.

Name	Material classification	Saturation magnetization	Target pollution	$q_m$ (mg·L <sup>-1</sup> )	Ref
Fe/Co/C	MOF-derived materials	84. emu g <sup>-1</sup>	Congo red	200.8	<b>This work</b>
m-CS-c-PAM	composite material	5.74 emu g <sup>-1</sup>	Sunset Yellow	359.71	48
MSPA	activated carbon	4.58 emu g <sup>-1</sup>	Rhodamine B	475.49	49
nZVI/BC	composite material	38.7 emu g <sup>-1</sup>	Malachite green	515.77	50
Gel-CNT-MNPs	composite material	31 emu g <sup>-1</sup>	methylene blue	465.5	51
chitosan@Fe <sub>3</sub> O <sub>4</sub>	composite material	4.85 emu g <sup>-1</sup>	Congo red	727.8	52
A. sphaerica-Fe <sub>3</sub> O <sub>4</sub> (algalbased)	surface-modified Anabaena sphaerica biomass	2.76 emu g <sup>-1</sup>	Remazol Red F3B	63.9	53

## References (the serial number of the references corresponds to the order in the main article)

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