

## Polyacrylonitrile/polybenzoxazine-based $\text{Fe}_3\text{O}_4@\text{Carbon}$ nanofibers: hierarchical porous structure and magnetic adsorption property

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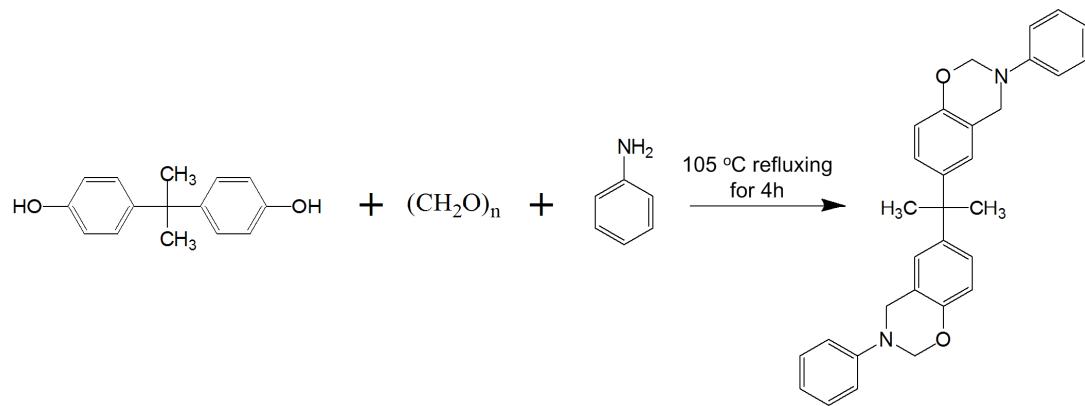
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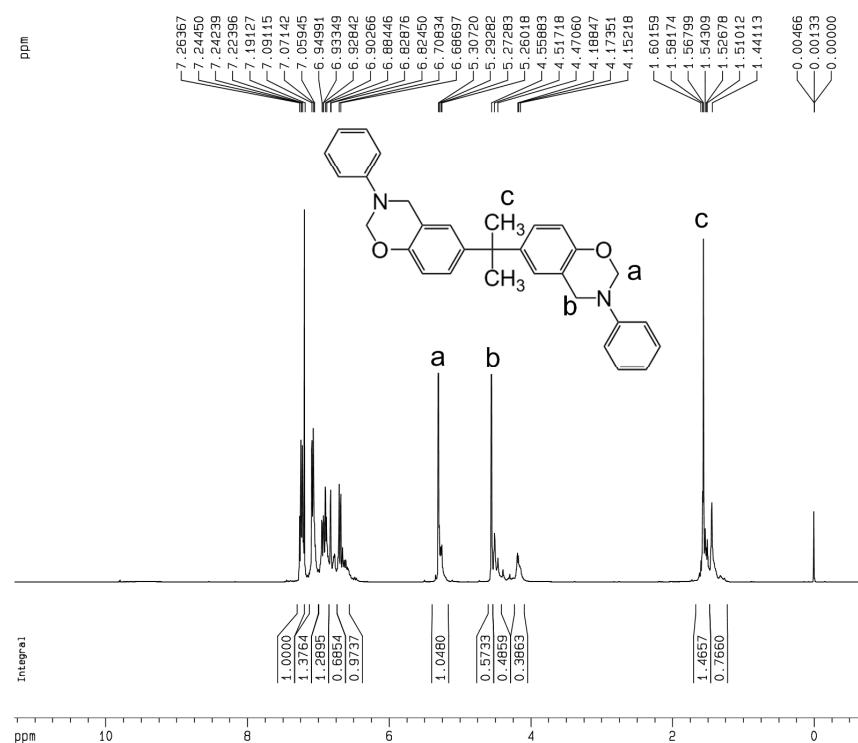
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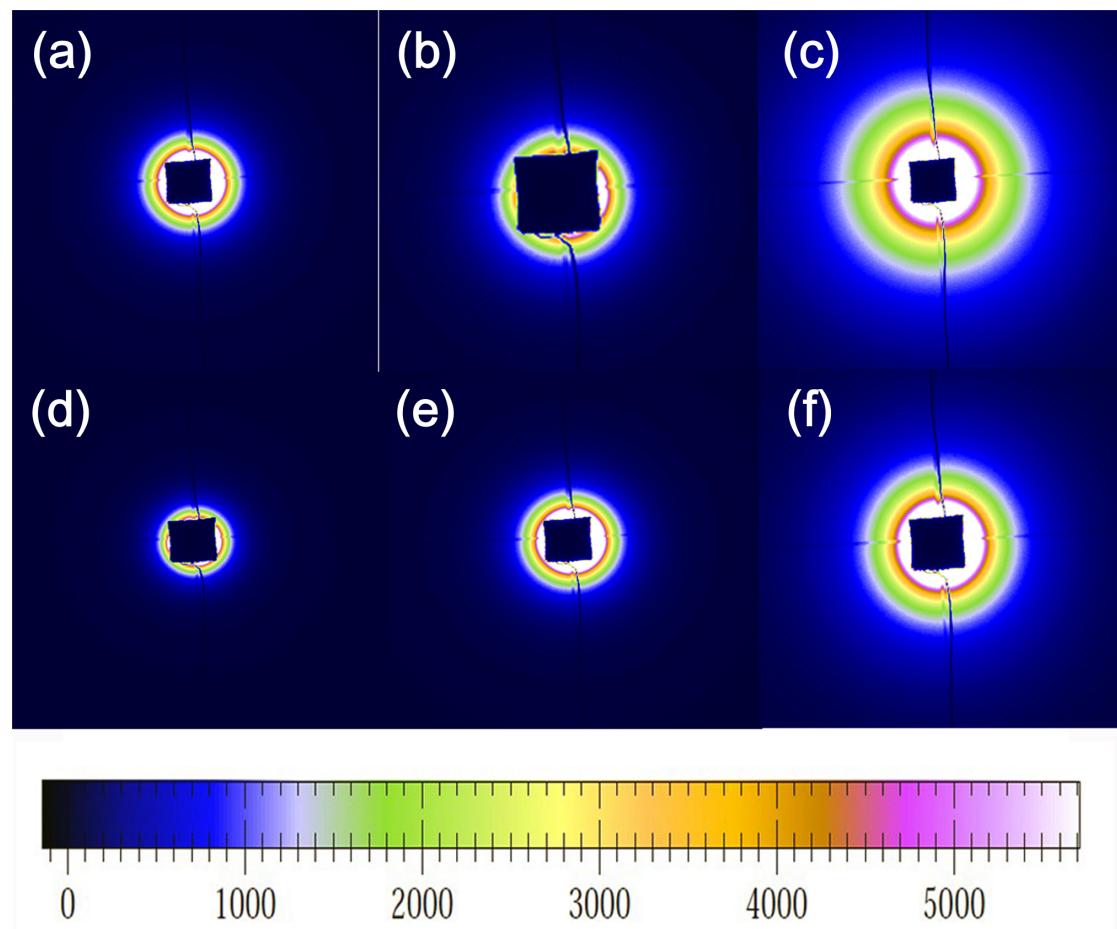
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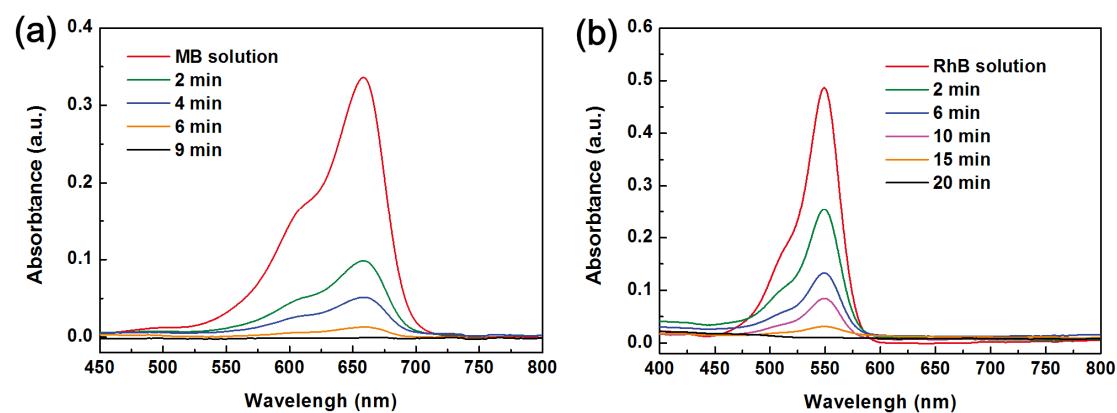
**Fig. S1** Illustration showing the synthesis of BA-a via Mannich reaction.



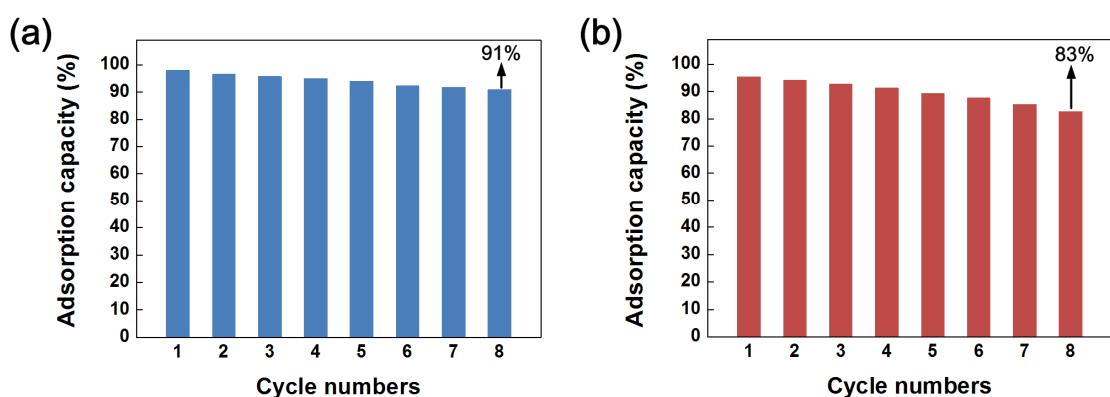
**Fig. S2**  $^1\text{H}$  NMR spectrum of as-synthesized BA-a,  $d\text{-CHCl}_3$  was used as the solvent.



**Fig. S3** Synchrotron radiation SAXS 2-dementional patterns of (a) A-FeCNF-1, (b) A-FeCNF-2, (c) A-FeCNF-3, (d) FeCNF-1, (e) FeCNF-2 and (f) FeCNF-3.



**Fig. S4** UV-Vis spectra of (a) MB solution ( $1 \times 10^{-5}$  M) and (b) RhB solution ( $1 \times 10^{-5}$  M) after treatment with A-FeCNF-3 for various time.



**Fig. S5** 8 cycles of adsorption capacities of (a) MB solution ( $1 \times 10^{-5}$  M, 10 min) and (b) RhB solution ( $1 \times 10^{-5}$  M, 20 min) using A-FeCNF-3.