

Supporting Information

g-C₃N₄ Modified Zr-Fc MOFs as a Novel Photocatalysis-self-Fenton System towards Direct Hydroxylation of Benzene to Phenol

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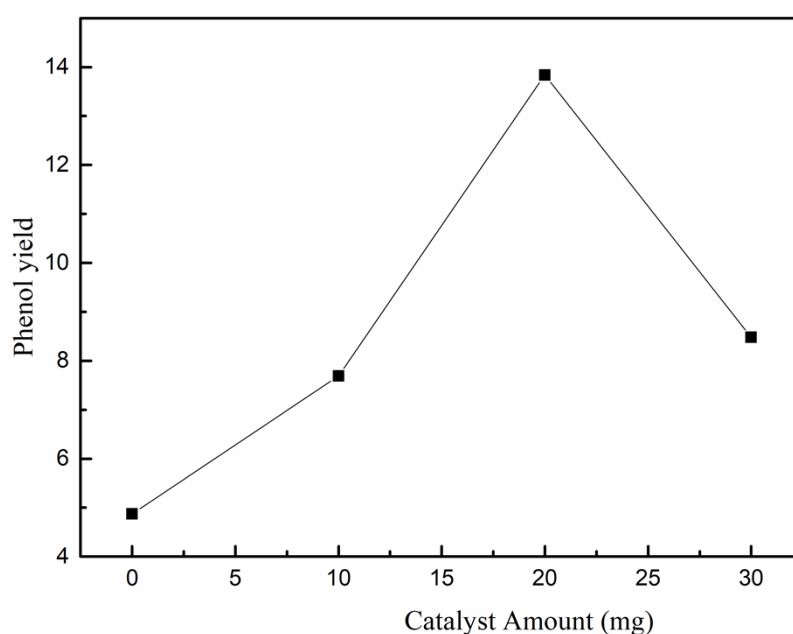


Fig. S1 Effect of the catalyst dosage on the direct hydroxylation of benzene

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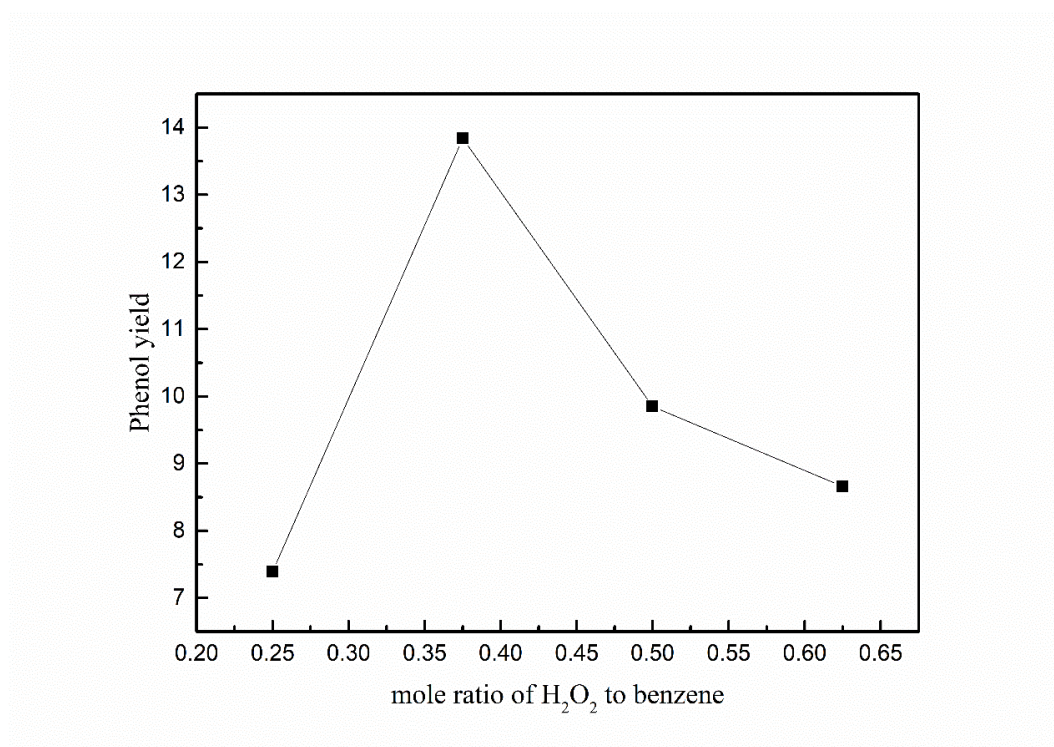


Fig. S2 Effect of the amount of H_2O_2 on the direct hydroxylation of benzene

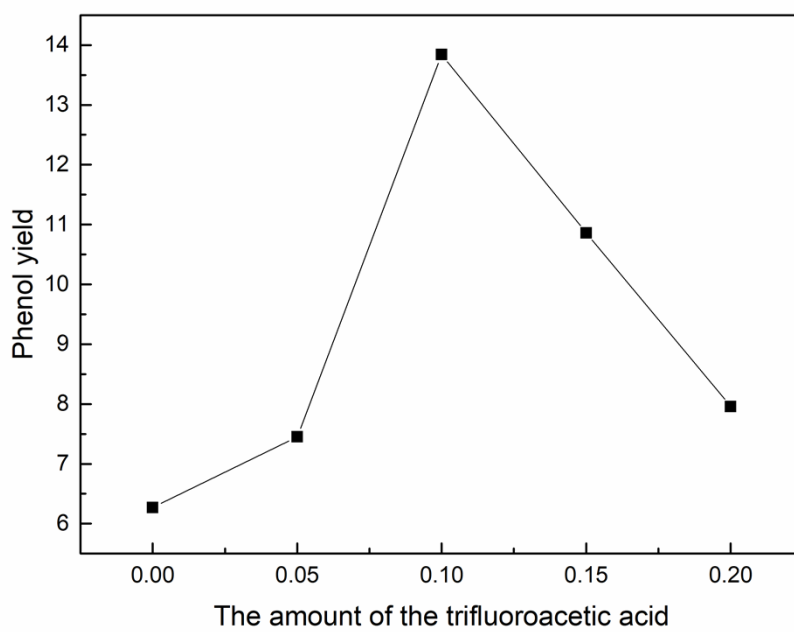


Fig. S3 Effect of the amount of trifluoroacetic acid on the catalytic hydroxylation of benzene to phenol

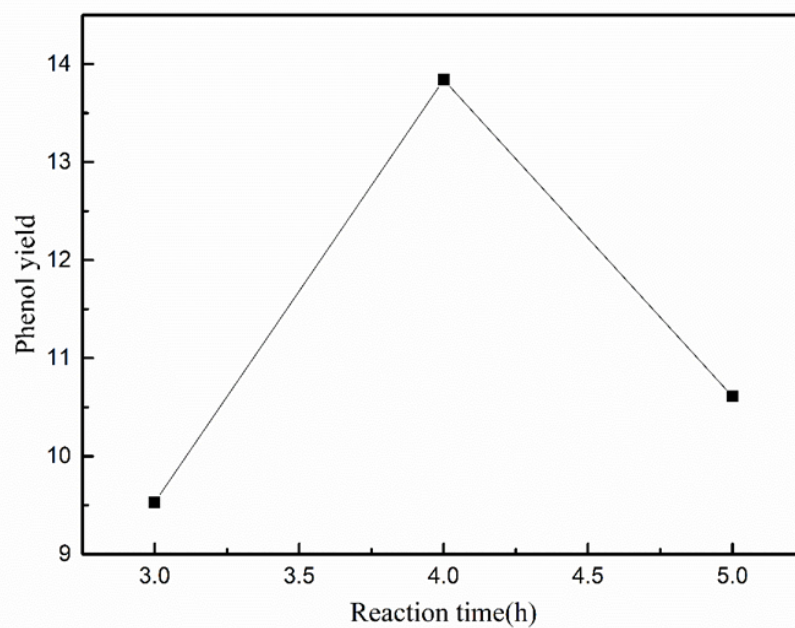


Fig. S4 Effect of the reaction time on the catalytic hydroxylation of benzene to phenol

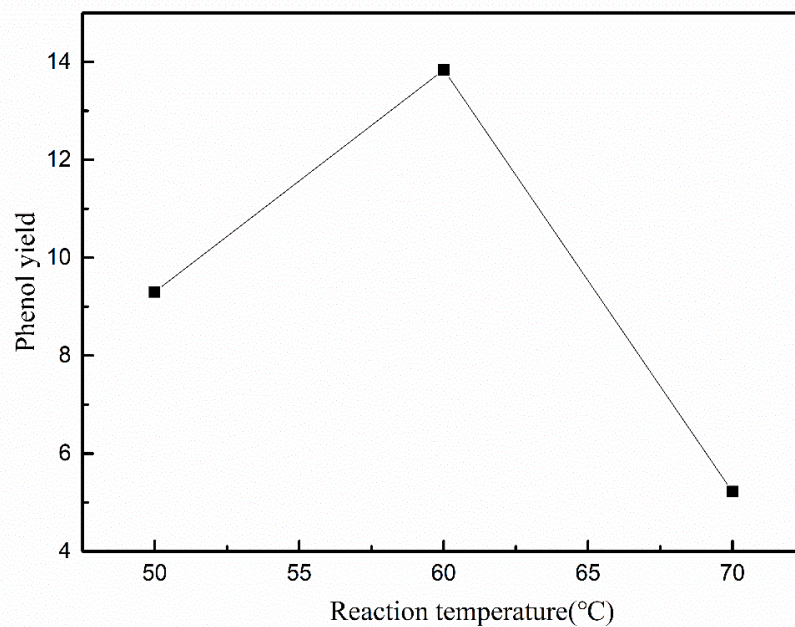
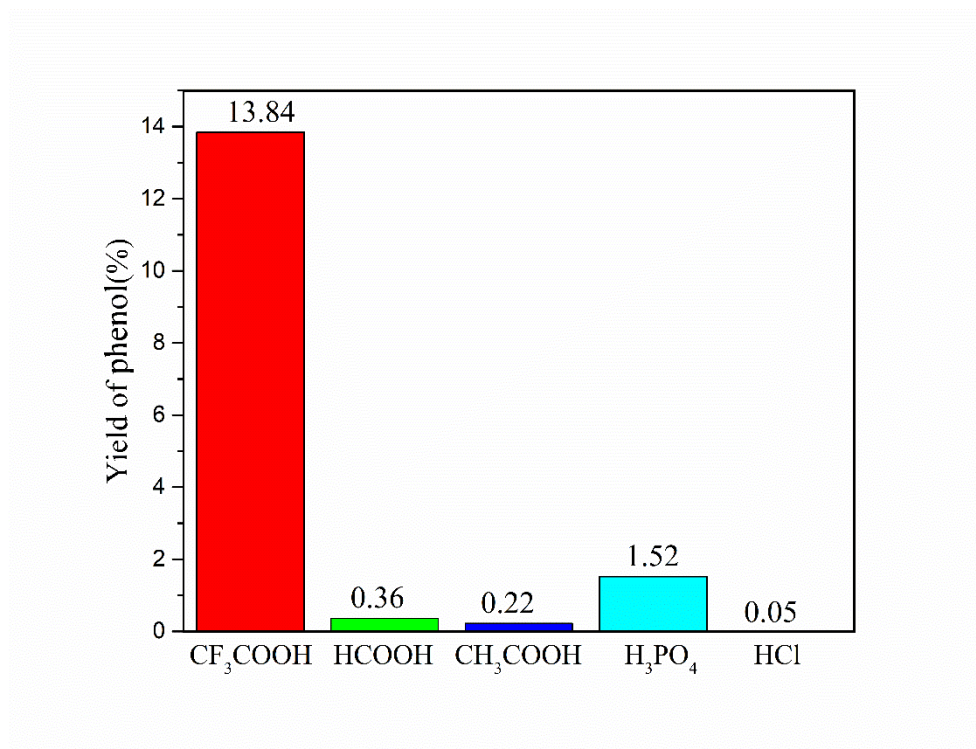


Fig. S5 Effect of the reaction temperature on the catalytic hydroxylation of benzene to phenol



Reaction condition: catalyst (1.5mg/mL), benzene (1.6 mL, 18.05 mmol), H_2O_2 (30 wt. %) (0.6 mL), solvent: (acetonitrile: 11 mL), acid (0.88 mmol), $t=4$ h and $T=333$ K

Fig. S6 Effect of acid on the catalytic benzene hydroxylation

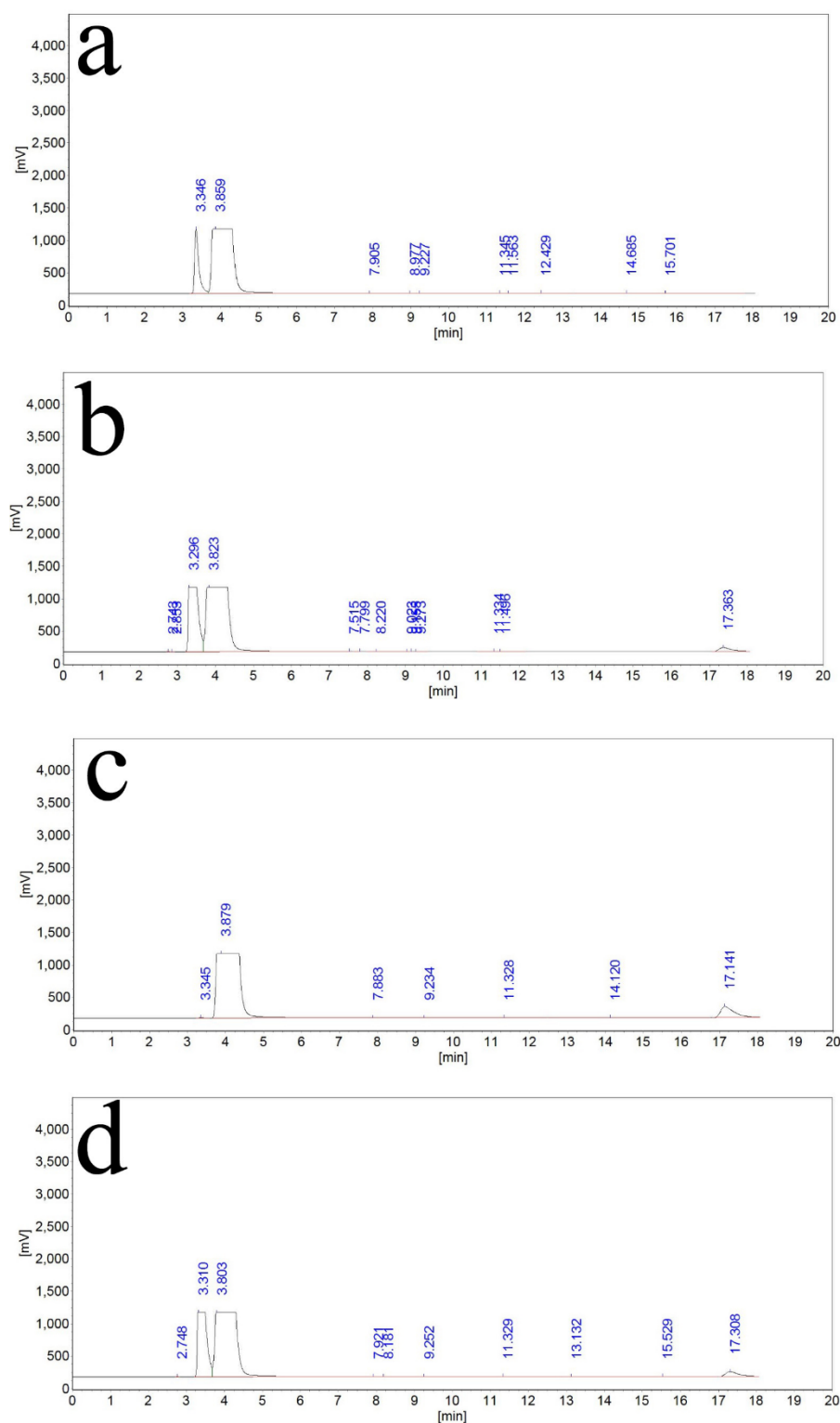


Fig. S7 The gas chromatograms of the pre-reaction system (a), the post-reaction system (b), phenol (c) and the mixture of post-reaction system and phenol (d).