

Supporting Information for

Ferrocene Particles Incorporated into Zr-based Metal-Organic Frameworks for Selective Phenol Hydroxylation to Dihydroxybenzenes

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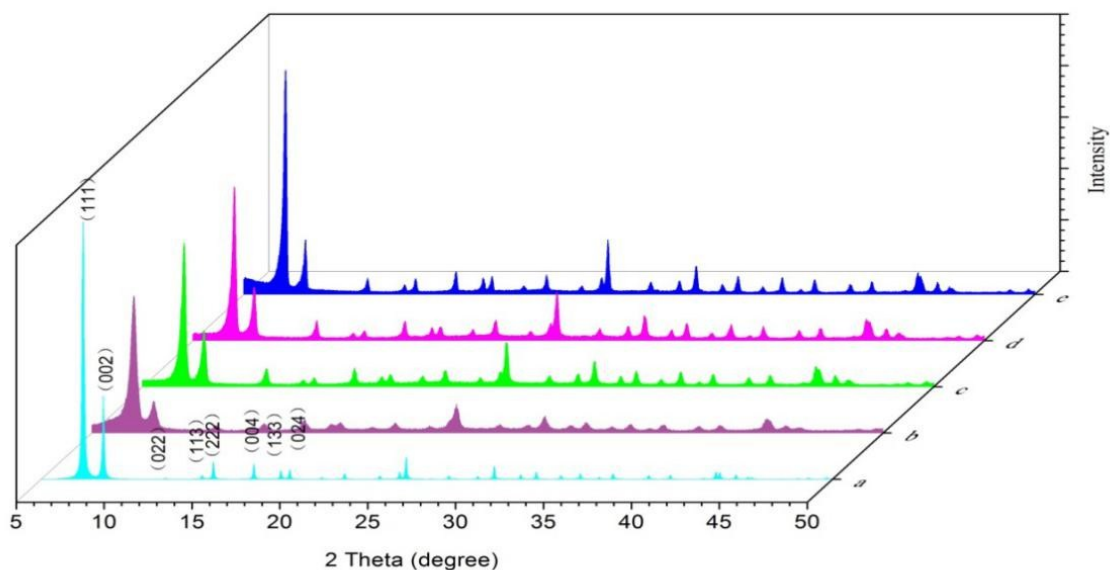


Fig. S1 Comparisons of powder X-ray diffraction patterns. (a): Simulated pattern based from crystallographic data of UiO-66^{S1}; (b), (c), (d), (e): Experimental patterns from as-synthesize UiO-66 with 0 eq, 12.5 eq, 25 eq, 50 eq of modulator (benzoic acid), respectively.

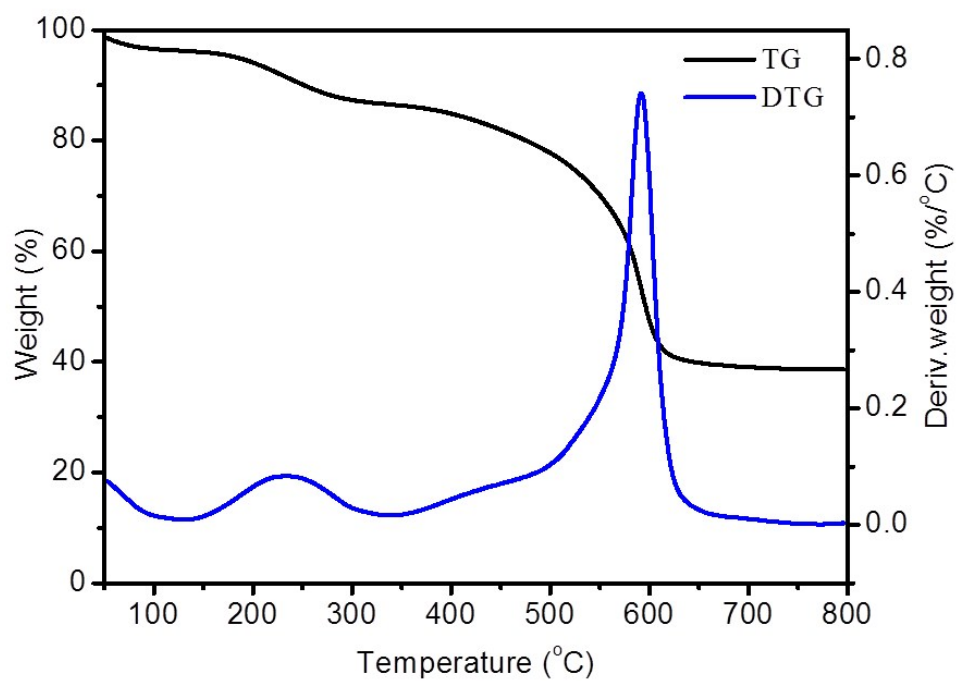


Fig.S2 TG and DTG of as-synthesized UiO-66

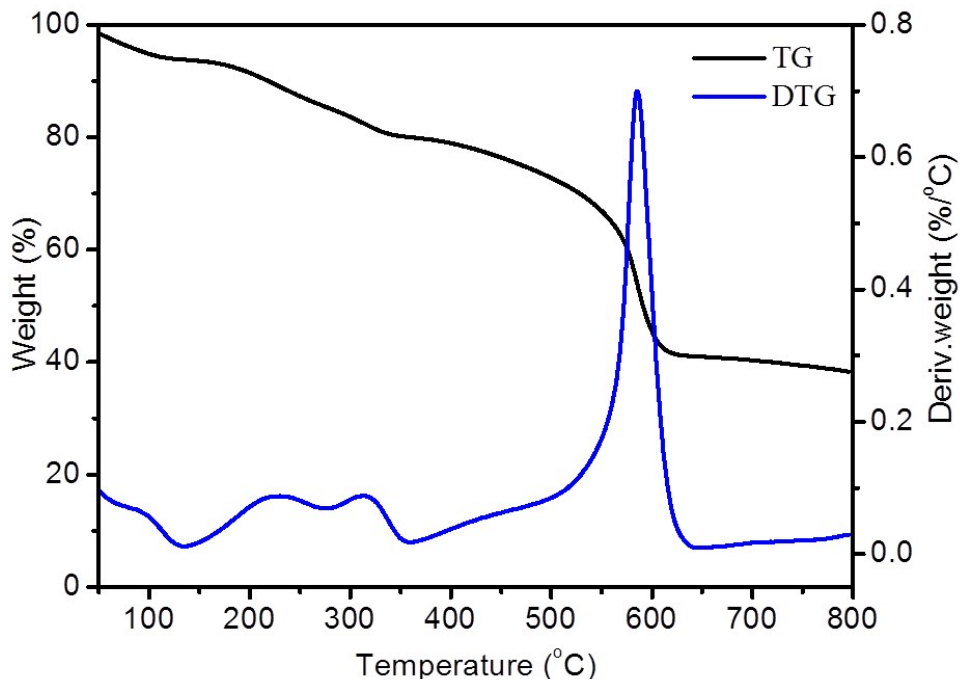


Fig.S3 TG and DTG of as-synthesized FU-1

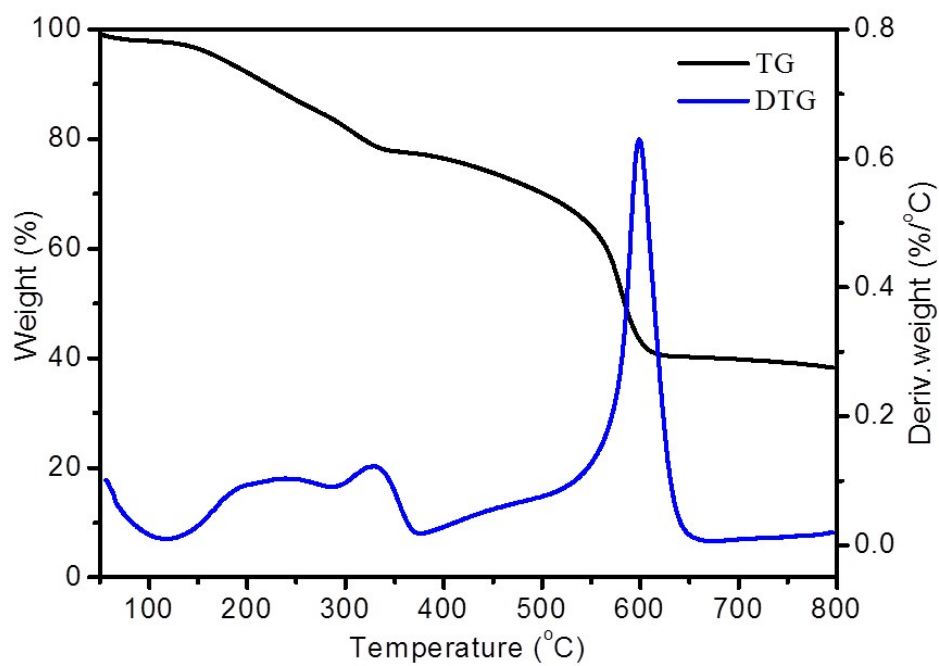


Fig.S4 TG and DTG of as-synthesized FU-5

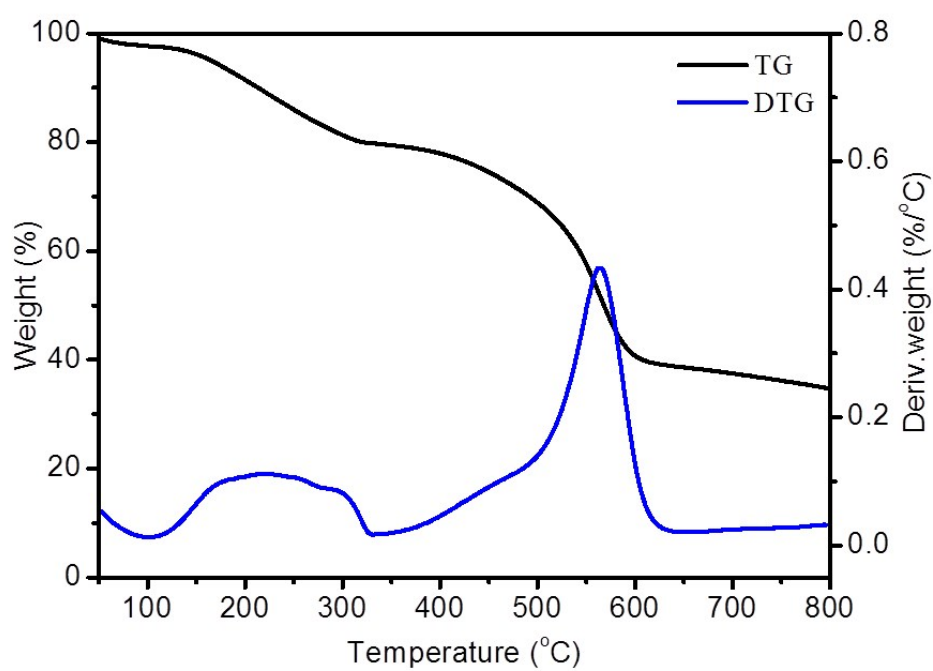


Fig.S5 TG and DTG of as-synthesized FU-10

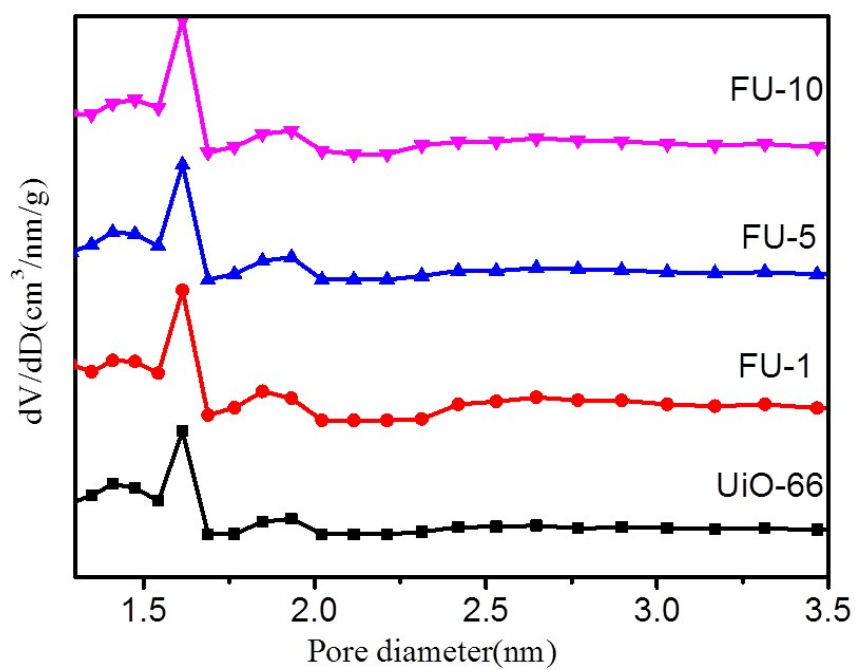


Fig.S6 Pore diameter of as-synthesized samples

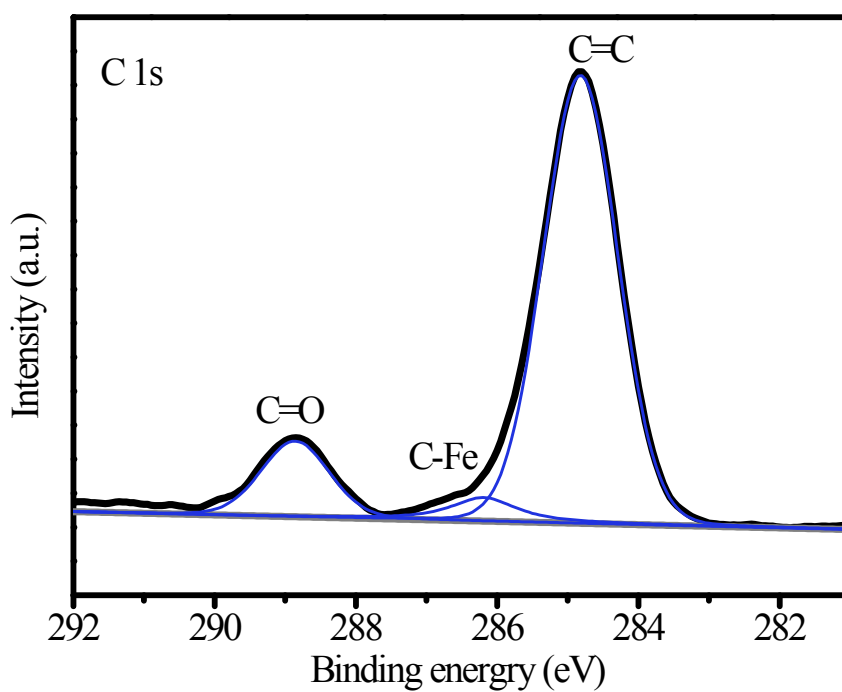


Fig.S7 XPS spectra of FU-5 (C 1s)

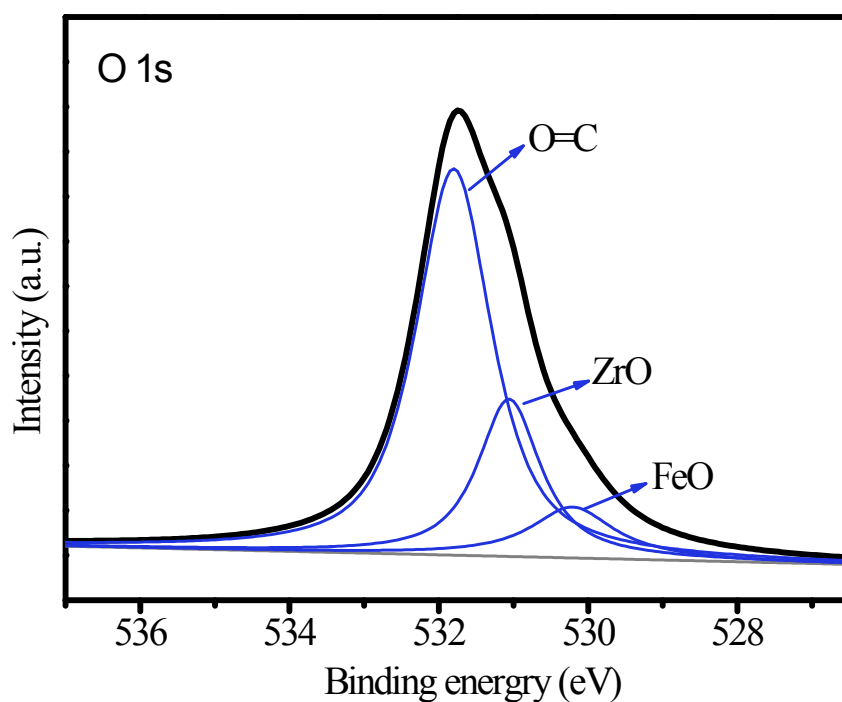


Fig.S8 XPS spectra of FU-5 (O 1s)

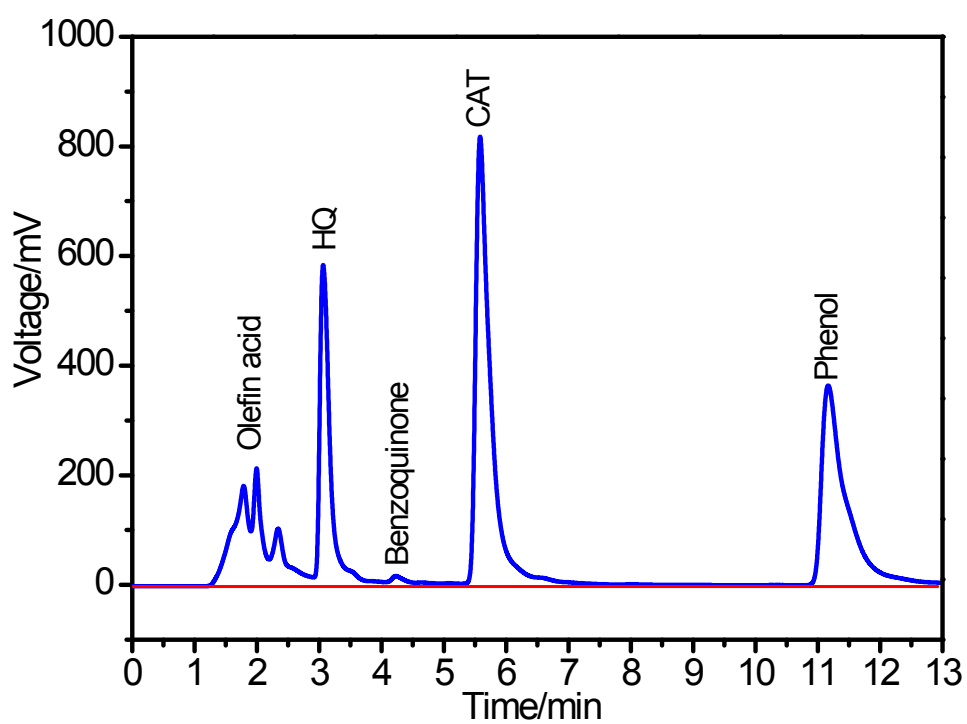


Fig.S9 Chromatogram of an example

(10 mg of FU-5, 20 mL of distilled water, 100 mg of phenol (1 mmol), 0.112 mL of 30 wt.% H_2O_2 (1 mmol), 30 °C, 3 h)

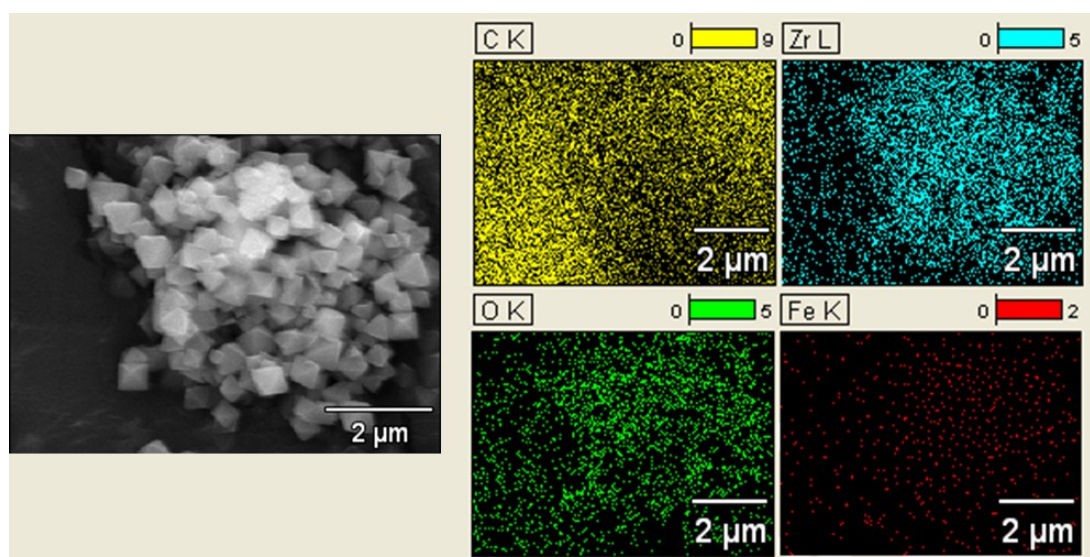


Fig.S10 SEM mapping of FU-5 after reaction

Reference

S1 F. Trouselet, A. Archereau, A. Boutin, and F. X. Coudert, J. Phys. Chem. C, 2016, 120, 24885-24894.