

Supporting Information

Highly selective reduction of bio-based furfural to furfuryl alcohol catalyzed by supported KF with polymethylhydrosiloxane (PMHS)

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Characterization of catalysts

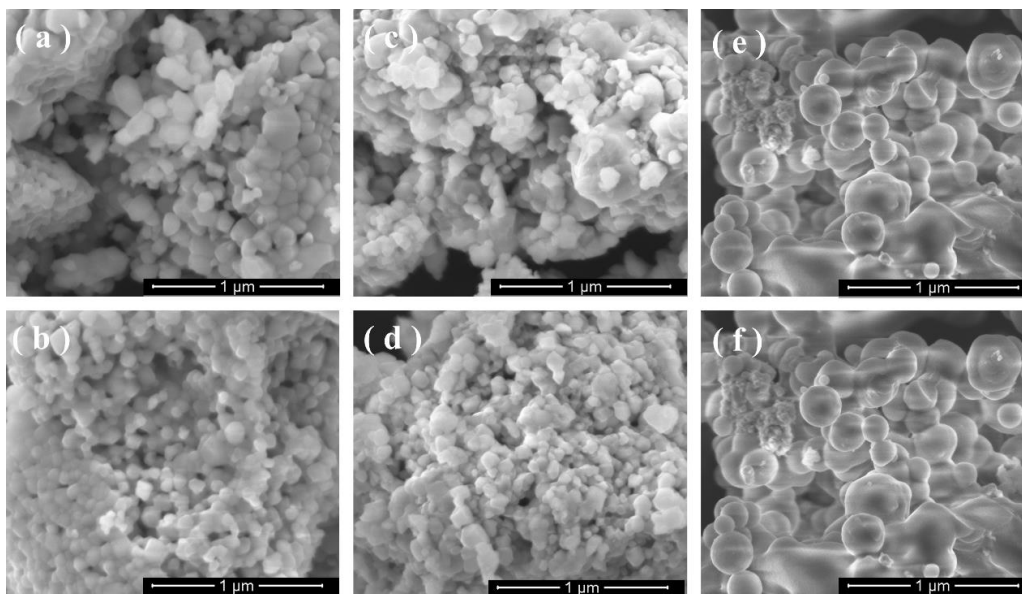


Fig. S1. SEM images of (a) ZrO₂, (b) ZrO₂, (c) 5wt% KF/ZrO₂, (d) 5wt% KF/ZrO₂, (e) 5wt% KF/ZrO₂ (after recycling 5 times), and (f) 5wt% KF/ZrO₂ (after recycling 5 times)

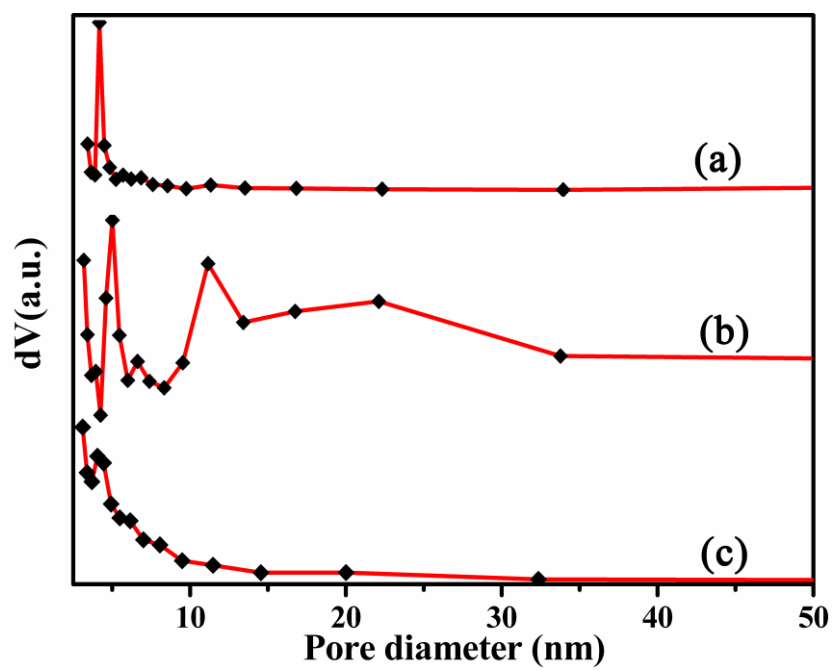


Fig. S2. Pore distribution analysis of (a) ZrO_2 , (b) 5wt% KF/ZrO_2 , and (c) 5wt% KF/ZrO_2 (after recycling 5 times).

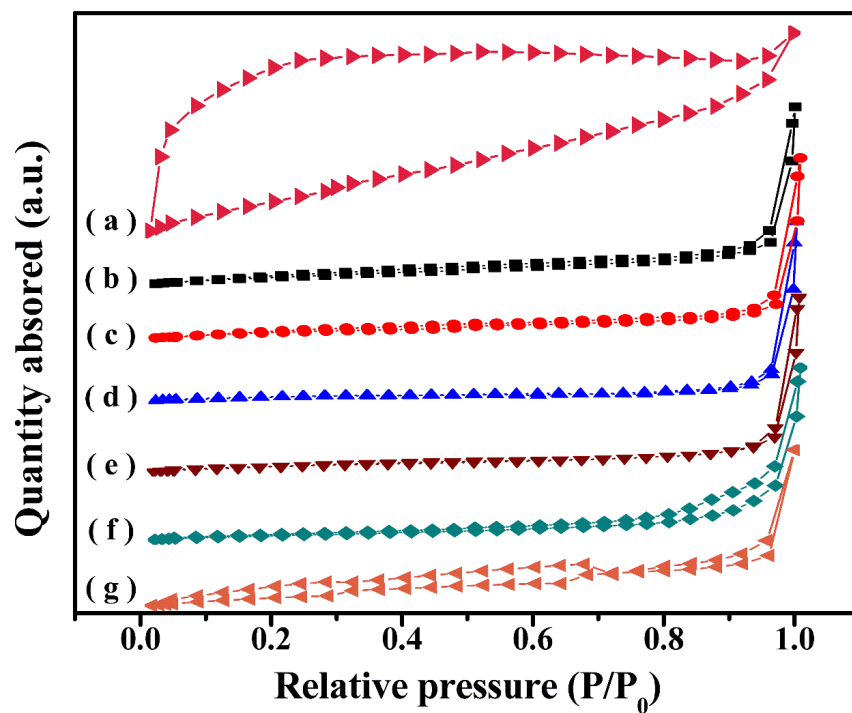


Fig. S3. N₂ adsorption-desorption isotherms of (a) 5wt% KF/ZrO₂ (after 5 times of repeated use) (b) ZrO₂; (c) 1wt% KF/ZrO₂ (d) 2wt% KF/ZrO₂ (e) 3wt% KF/ZrO₂ (f) 5wt% KF/ZrO₂ (g) 15wt% KF/ZrO₂

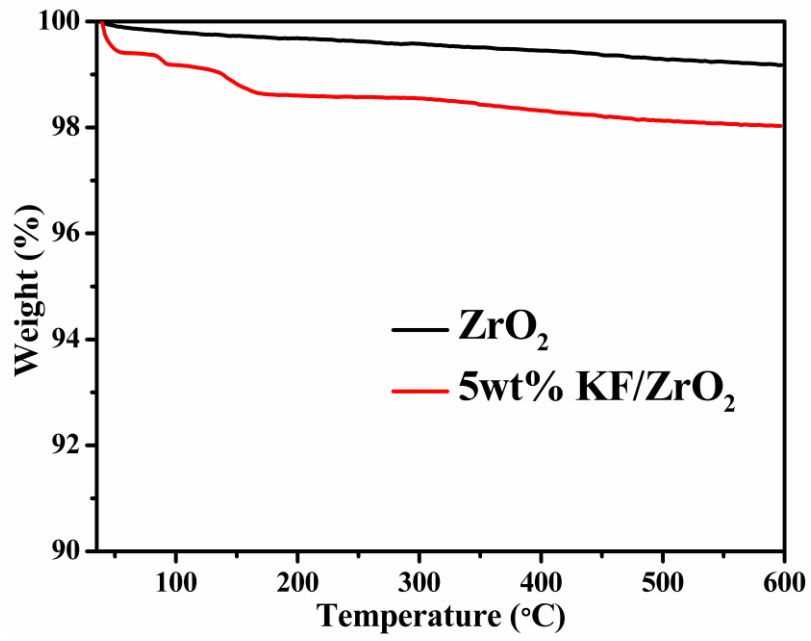


Fig. S4. TGA curves of ZrO_2 and 5wt% KF/ZrO_2 .

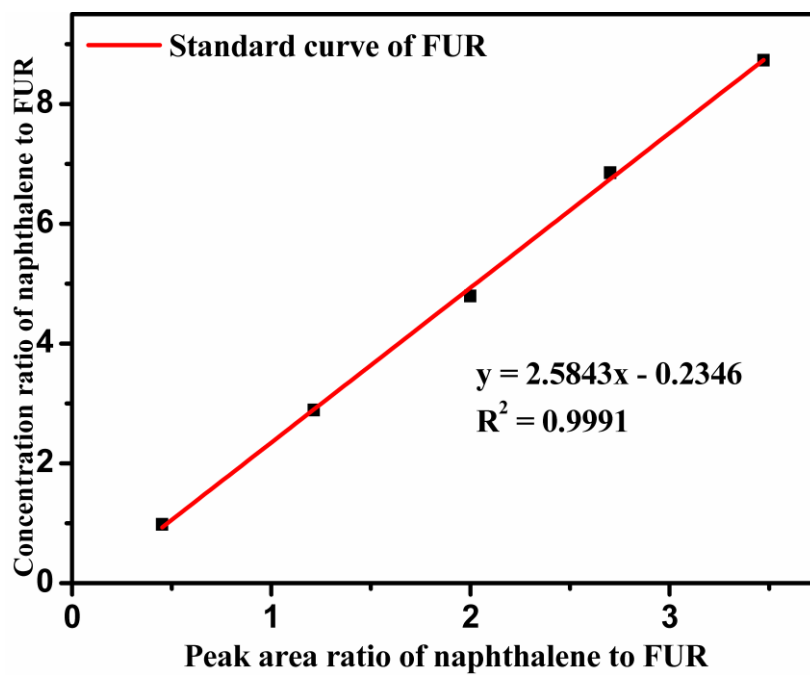


Fig. S5. Standard curve of FUR for GC analysis.

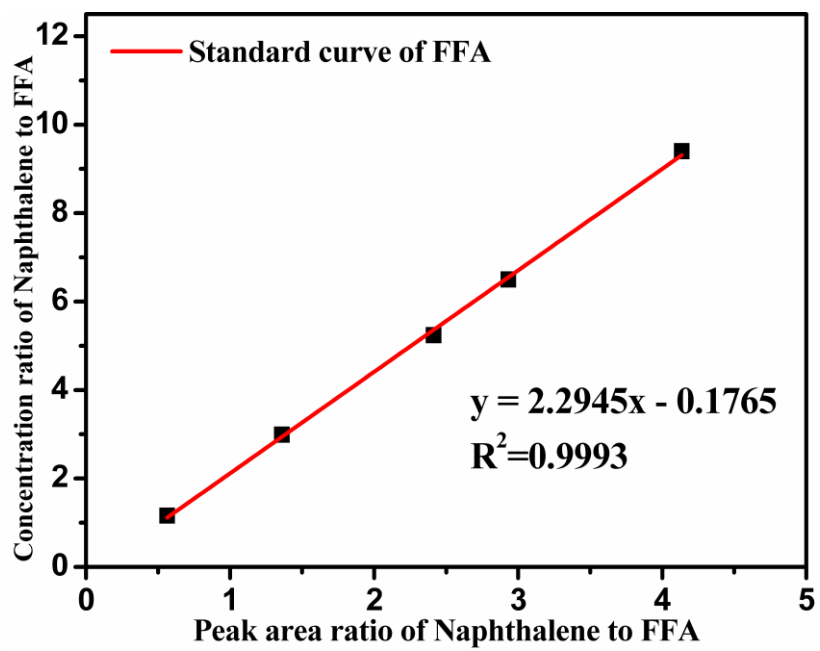


Fig. S6. Standard curve of FFA for GC analysis.