

Supplementary Information

Highly efficient catalytic transfer hydrogenation of furfural over defect-rich amphoteric ZrO₂ with abundant surface acid-base sites

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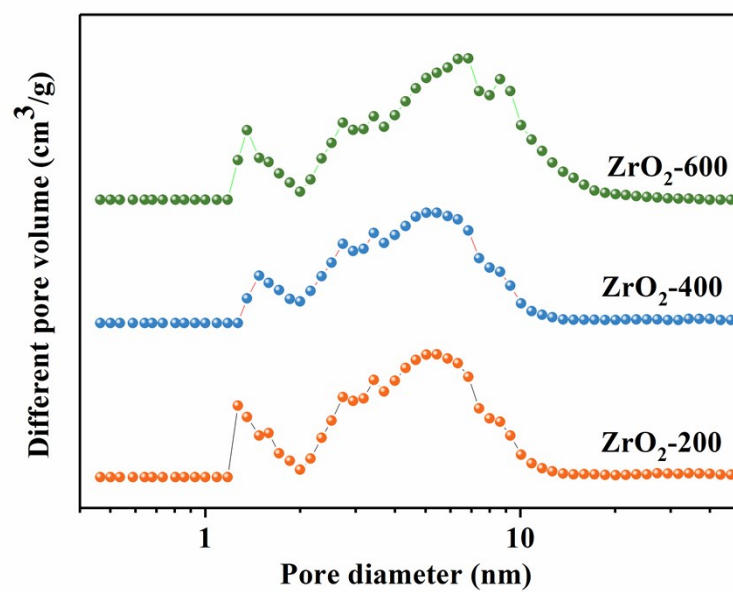


Fig. S1 Pore size distribution of ZrO₂ calcinated at different temperature.

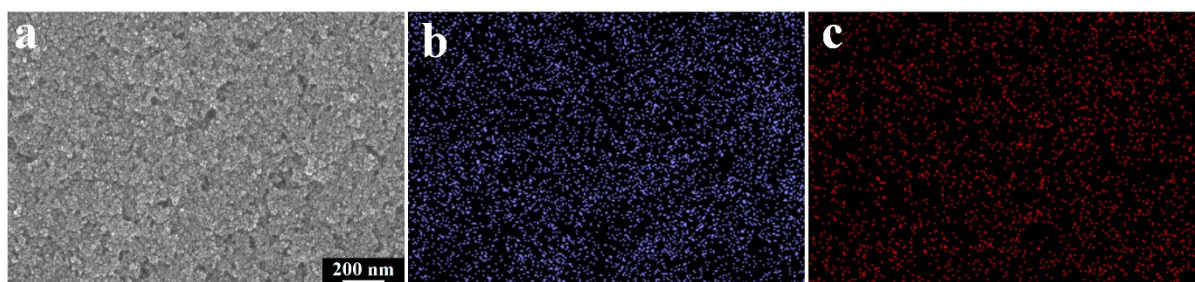


Fig. S2 SEM image (a) of as-prepared ZrO₂, and corresponding elemental mapping of Zr (b) and O (c).

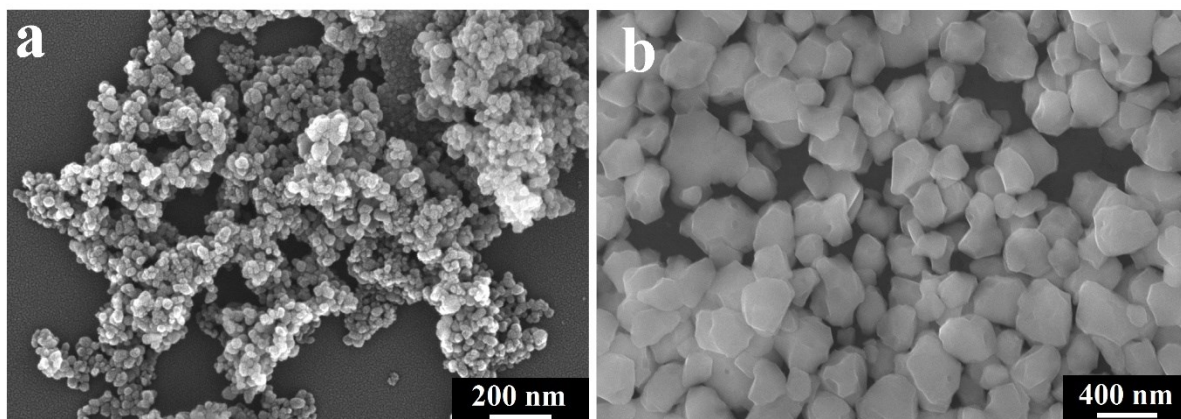


Fig. S3 SEM images of ZrO_2 samples: ZrO_2 -S (a) and ZrO_2 -C (b).

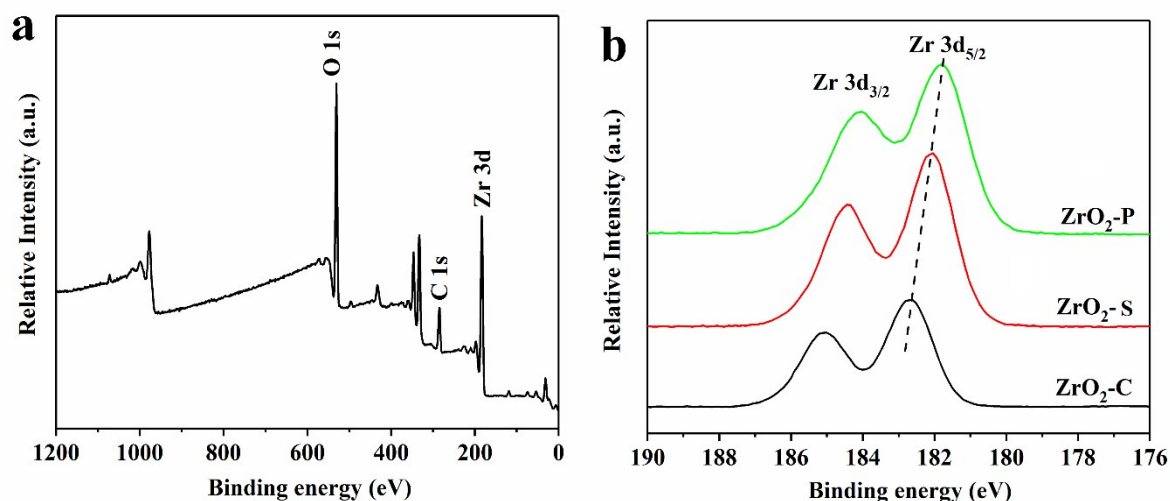


Fig. S4 XPS survey of as-prepared ZrO_2 sample (a) Zr 3d of ZrO_2 -P, ZrO_2 -S, and ZrO_2 -C samples (b).

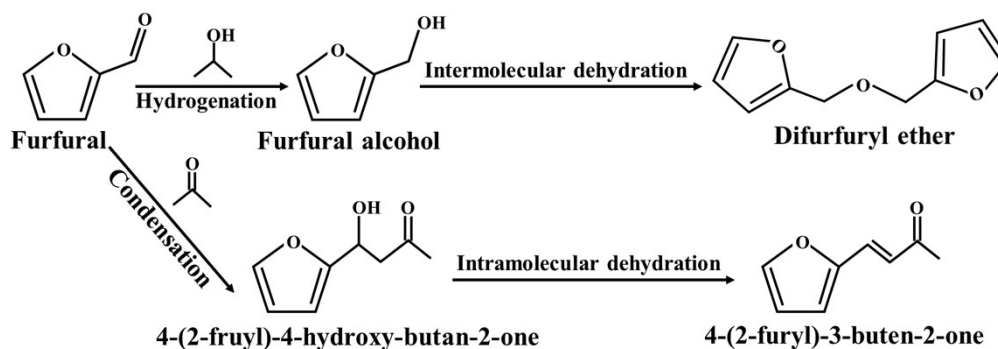


Fig. S5 Possible reactions in the catalytic transfer hydrogenation of furfural over as-prepared defect-rich amphoteric ZrO_2 .