

Supplementary Information

Coupling of oxygen storage and catalysis to design redox catalyst for efficient ethylbenzene dehydrogenation

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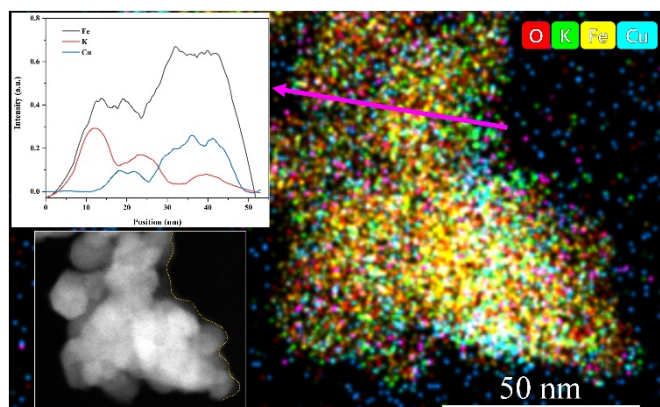


Fig. S1 HRTEM-EDS and line scan images for the $\text{CuFe}_2\text{O}_4@\text{KFeO}$ redox catalyst.

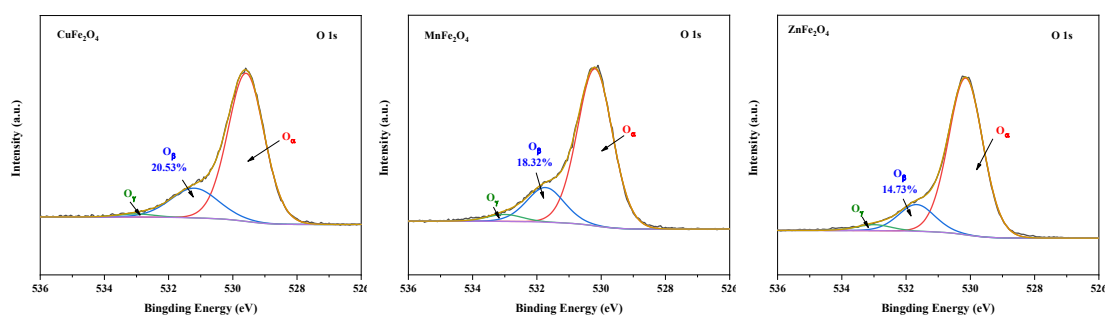


Fig S2. The XPS spectra of O 1s for CuFe_2O_4 , MnFe_2O_4 and ZnFe_2O_4 .

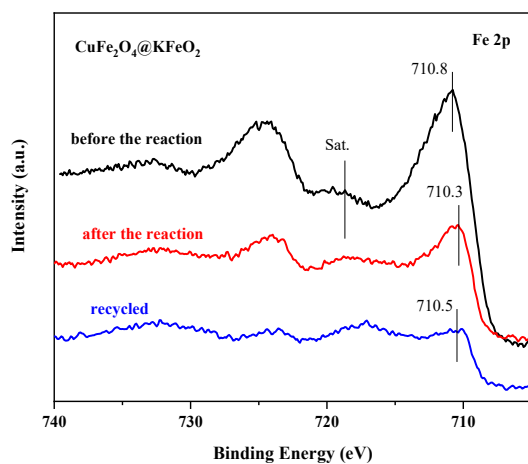


Fig. S3 Fe 2p XPS spectra of the $\text{CuFe}_2\text{O}_4@\text{KFeO}$.

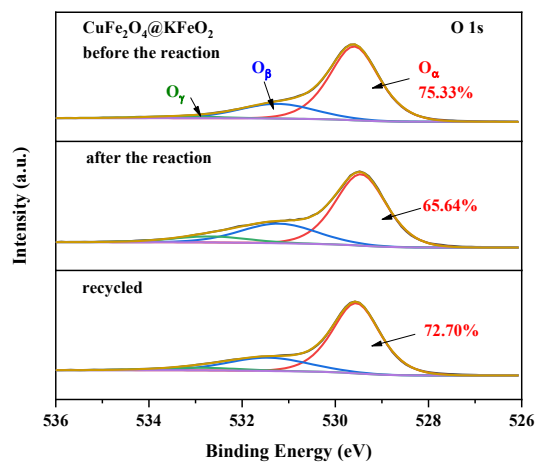


Fig. S4 O 1s XPS spectra of the CuFe₂O₄@KFeO.

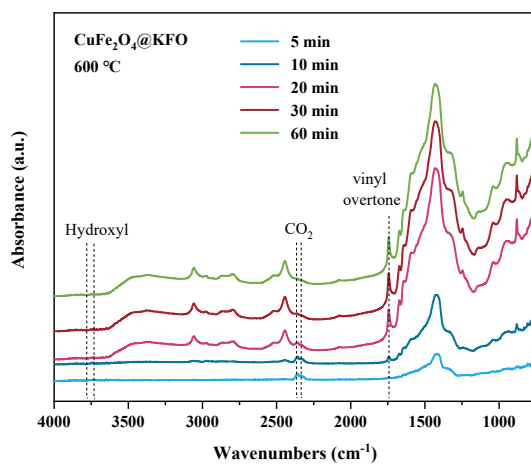


Fig. S5 In situ DRIFTS spectra of ODH reaction of isothermal experiment over CuFe₂O₄@KFeO.