

Efficient catalytic oxidation of alcohol to carbonyl compounds over CoFe hydrotalcites

Weiyou Zhou, Jiugao Pan, Zhong Wu, Junfeng Qian, Mingyang He, Qun Chen

Jiangsu Key Laboratory of Advanced Catalytic Materials and Technology, Changzhou University, Changzhou 213164, China

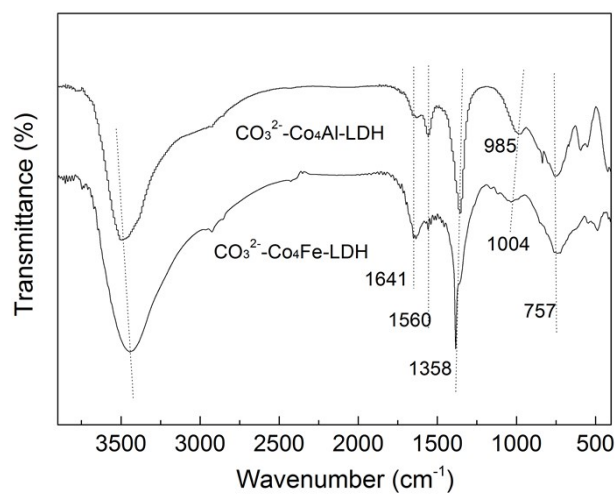


Fig. S1. FTIR spectra of $\text{CO}_3^{2-}\text{-Co}_4\text{Fe-LDH}$ and $\text{CO}_3^{2-}\text{-Co}_4\text{Al-LDH}$

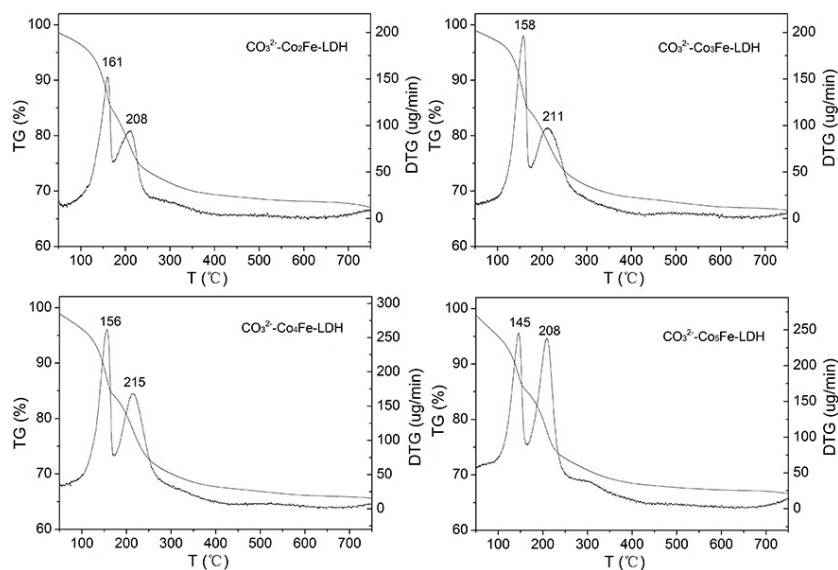


Fig. S2. TG/DTG curves of $\text{CO}_3^{2-}\text{-Co}_x\text{Fe-LDHs}$ ($x=2, 3, 4$ and 5)

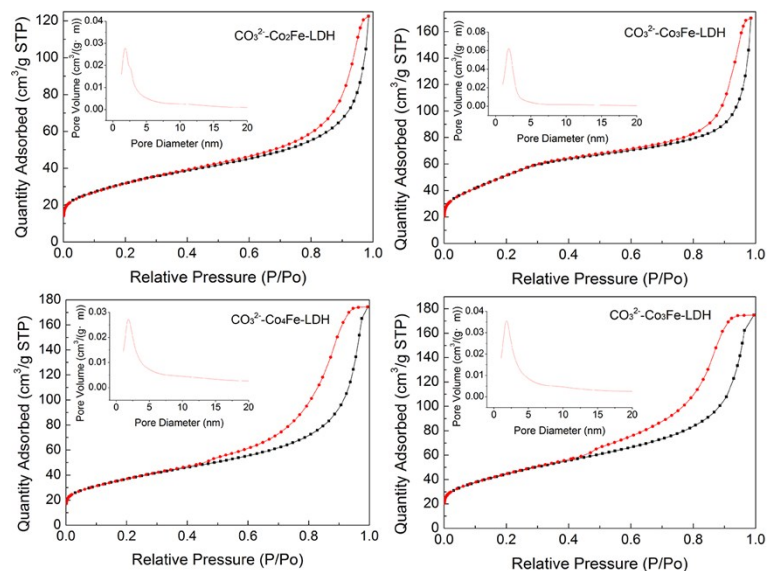


Fig. S3. N_2 adsorption/desorption isotherms and pore size distribution (inserted picture) of $CO_3^{2-}-Co_xFe-LDH$ s

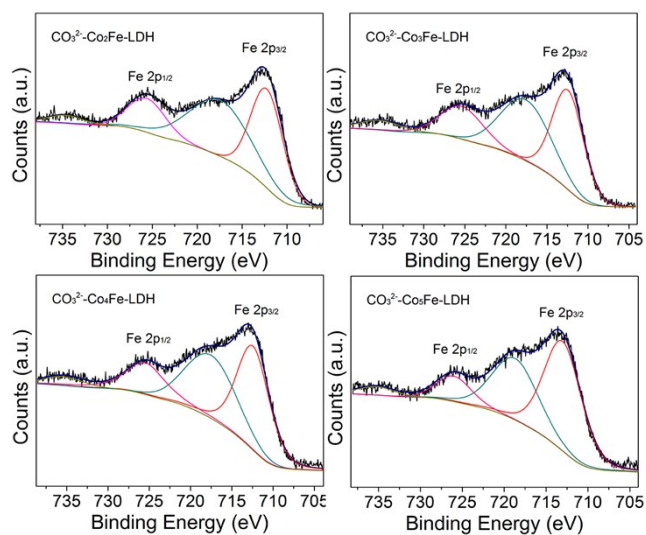


Fig. S4. The Fe 2p XPS spectra of $CO_3^{2-}-Co_xFe-LDH$ s ($x=2, 3, 4$ and 5)

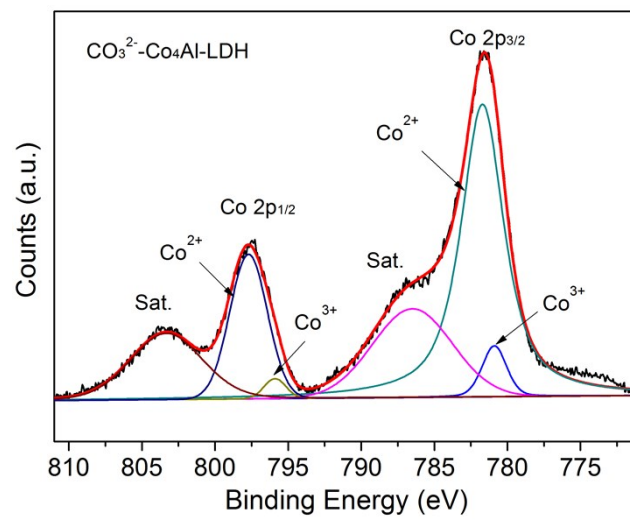


Fig. S5. The Co 2p XPS spectra of $\text{CO}_3^{2-}\text{-Co}_4\text{Al-LDHs}$

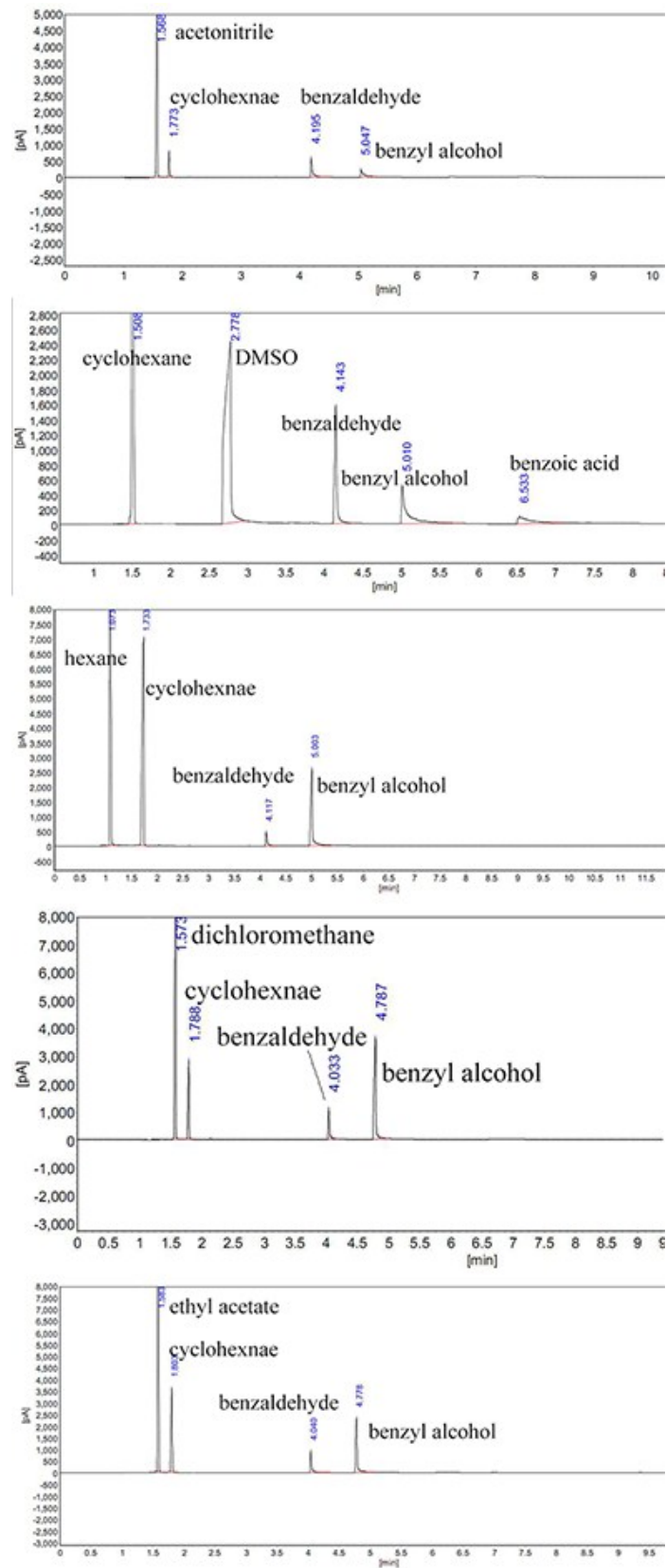


Fig. S6. The GC graph analysis of the oxidation of benzyl alcohol with different solvent

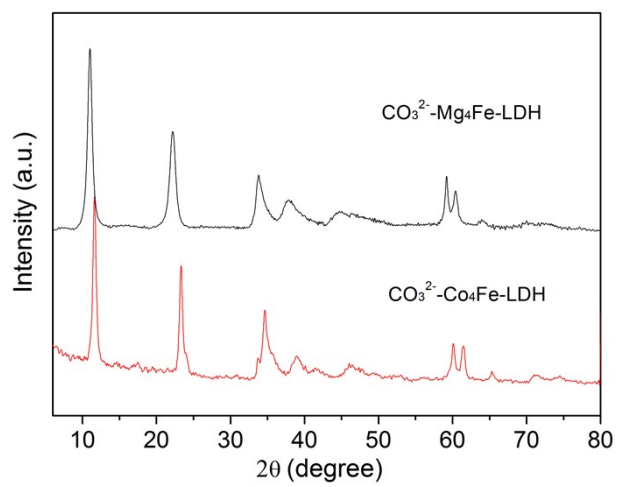


Fig. S7. XRD patterns of $\text{CO}_3^{2-}\text{-Co}_4\text{Al-LDH}$ and $\text{CO}_3^{2-}\text{-Mg}_4\text{Al-LDH}$

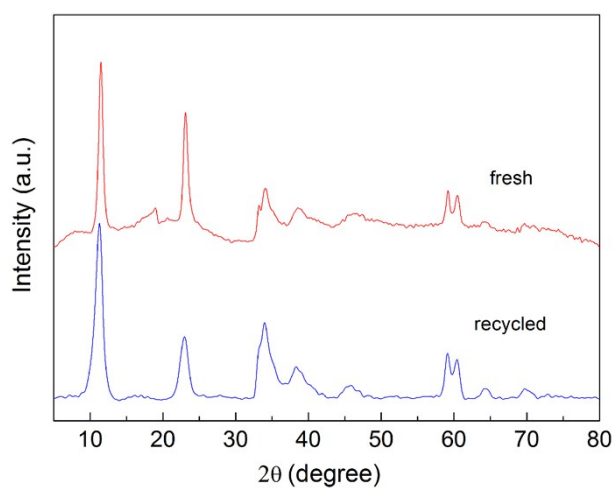


Fig. S8. The XRD pattern of recycled $\text{CO}_3^{2-}\text{-Co}_4\text{Fe-LDH}$

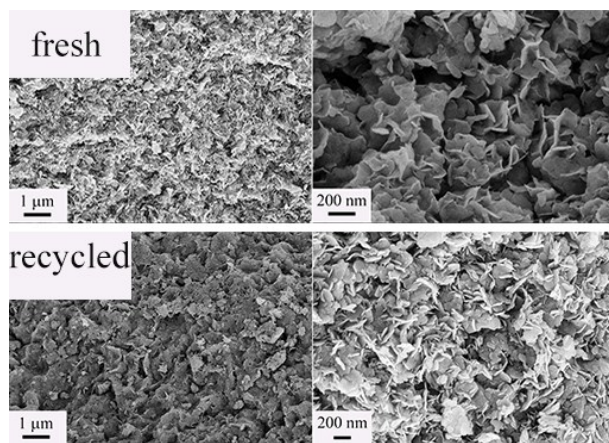


Fig. S9. SEM images of recycled $\text{CO}_3^{2-}\text{-Co}_4\text{Fe-LDH}$