

Supporting Information

The cooperation effect in the Au-Pd/LDH for promoting photocatalytic selective oxidation of benzyl alcohol

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1. Supporting Figures

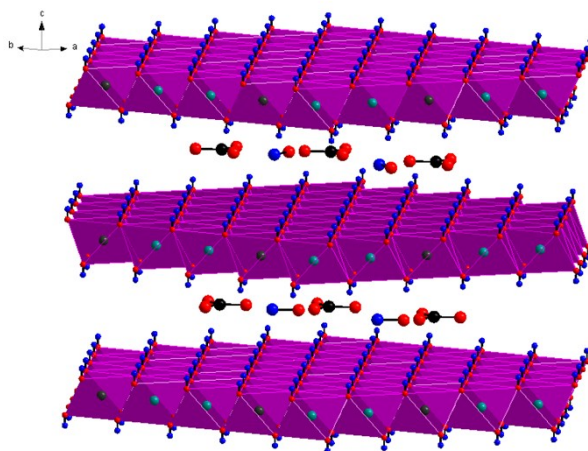


Figure S1. idealized structure of carbonate-intercalated LDHs (dark brown : trivalent metals; light green : divalent metals; red : oxygen atom; blue : hydrogen atom; dark : carbon atom)

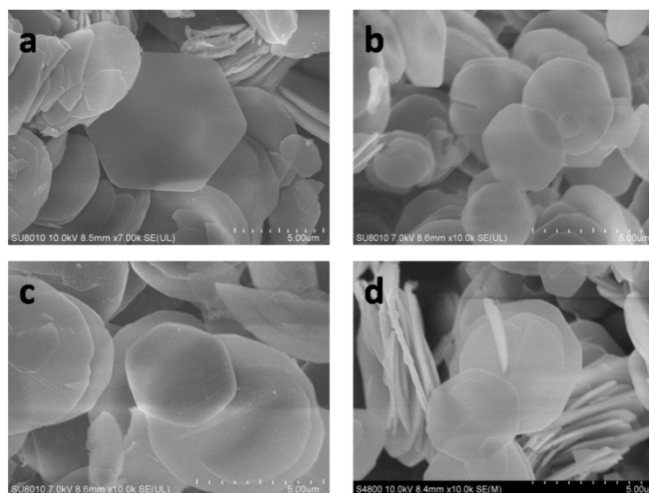


Figure S2. SEM images of LDH (a), Au/LDH (b), Pd/LDH (c) and Au₉-Pd₁/LDH (d).

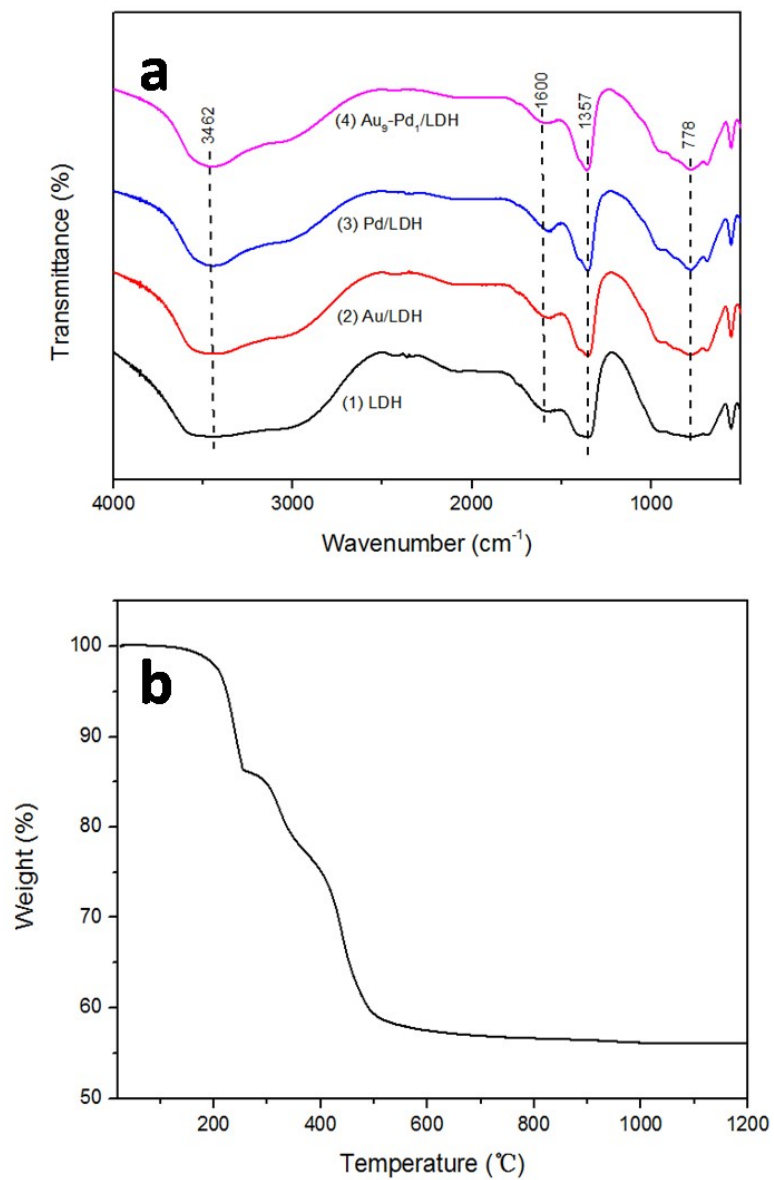


Figure S3. (a) FT-IR spectra of the LDH (1), Au/LDH (2), Pd/LDH (3) and Au₉-Pd₁/LDH (4).

(b) TG analysis of LDH.

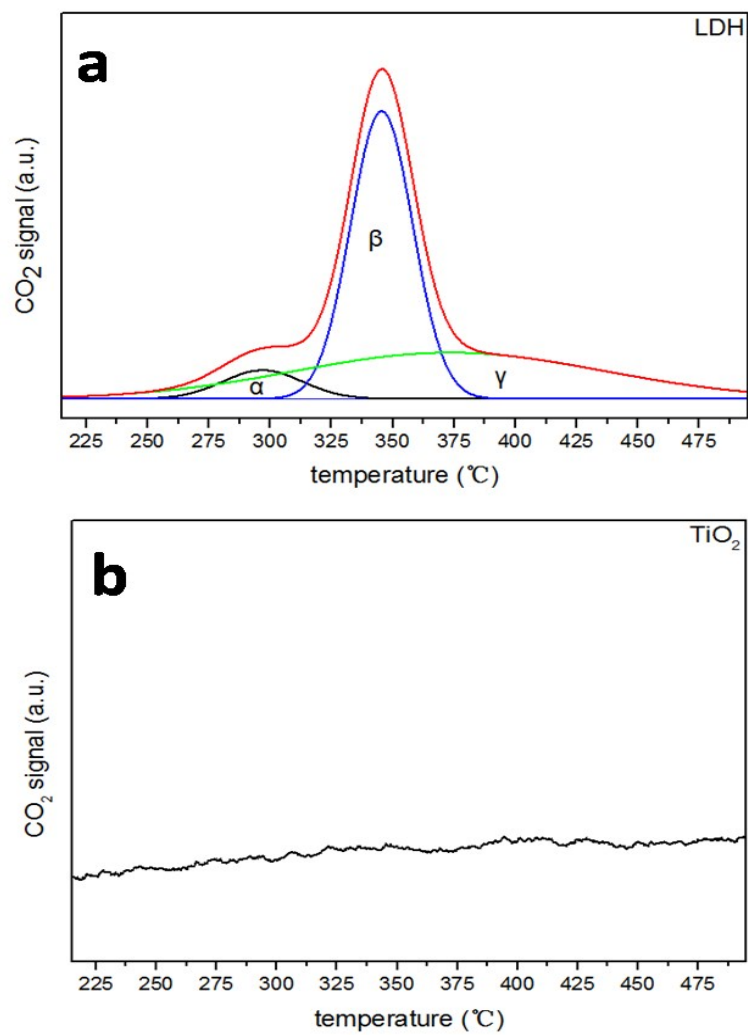


Figure S4. CO₂-TPD curves of the LDH and TiO₂.

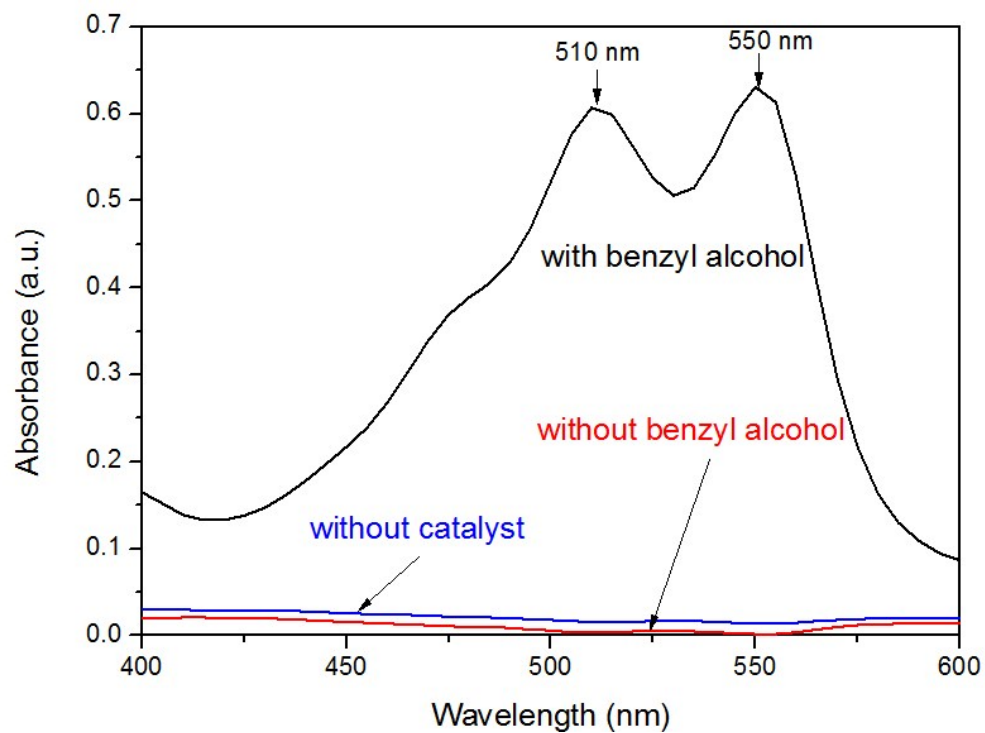


Figure S5. Absorption spectra of the DPD/POD reagent. The characteristic absorption peaks at $\lambda = 510$ and $\lambda = 550$ nm indicated that H_2O_2 was generated.

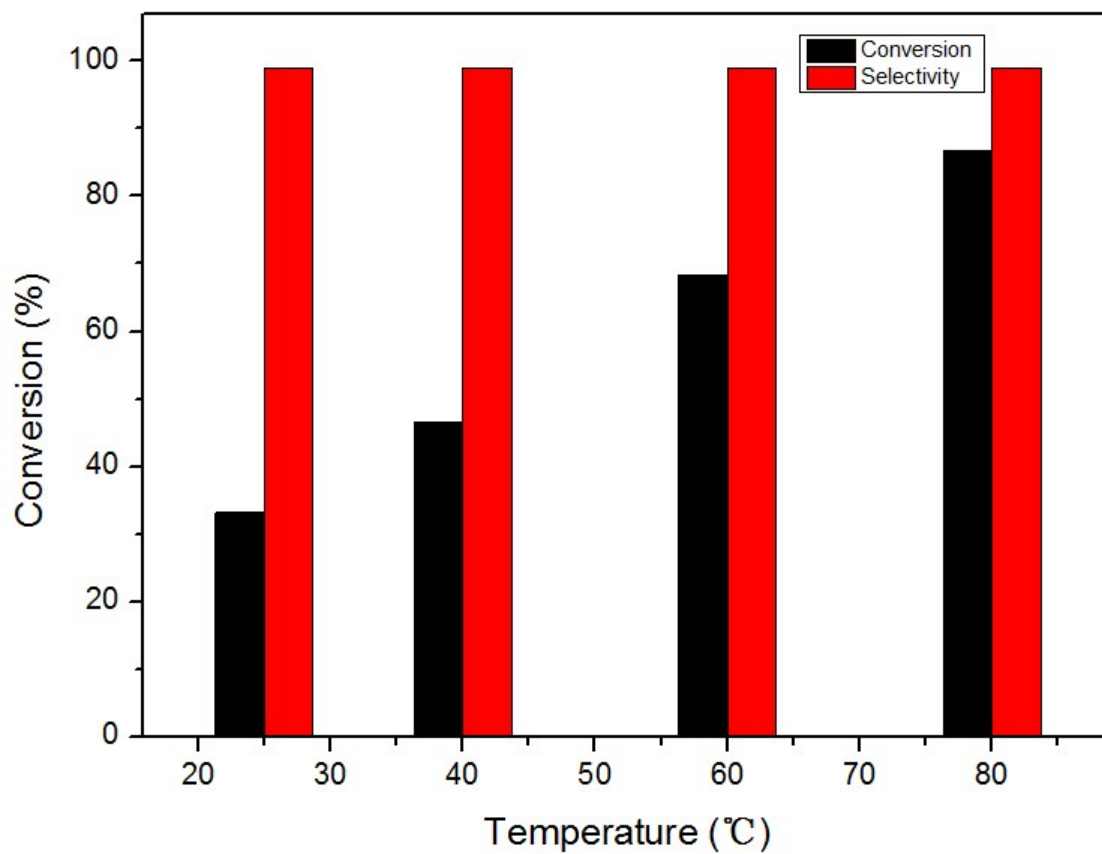


Figure S6. The result of thermocatalytic oxidation of BA to BAD over the Au₉-Pd₁/LDH under different temperatures.