

## Supporting Information

### **Catalytic oxidation of ethyl acetate over LaBO<sub>3</sub> (B=Co, Mn, Ni, Fe) perovskites supported silver catalysts**

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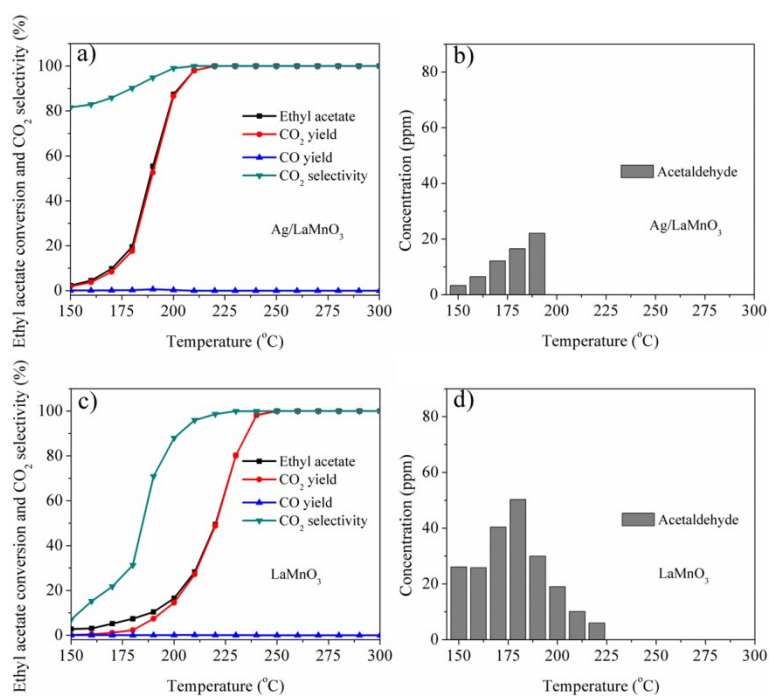
E-mail address: liuxl@ipe.ac.cn

Table S1 Specific surface areas of Ag/LaBO<sub>3</sub> (B = Co, Mn, Ni, Fe).

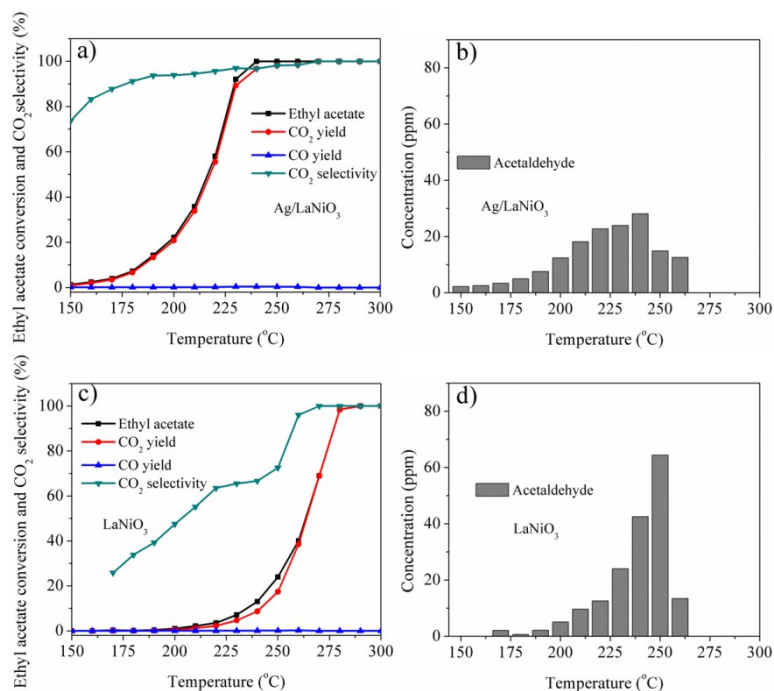
| Sample                | S <sub>BET</sub> (m <sup>2</sup> /g) |
|-----------------------|--------------------------------------|
| Ag/LaCoO <sub>3</sub> | 14.5                                 |
| Ag/LaMnO <sub>3</sub> | 19.3                                 |
| Ag/LaNiO <sub>3</sub> | 12.5                                 |
| Ag/LaFeO <sub>3</sub> | 14.0                                 |

Table S2 H<sub>2</sub> consumption of LaBO<sub>3</sub> and Ag/LaBO<sub>3</sub> (B = Co, Mn, Ni, Fe) from H<sub>2</sub>-TPR results.

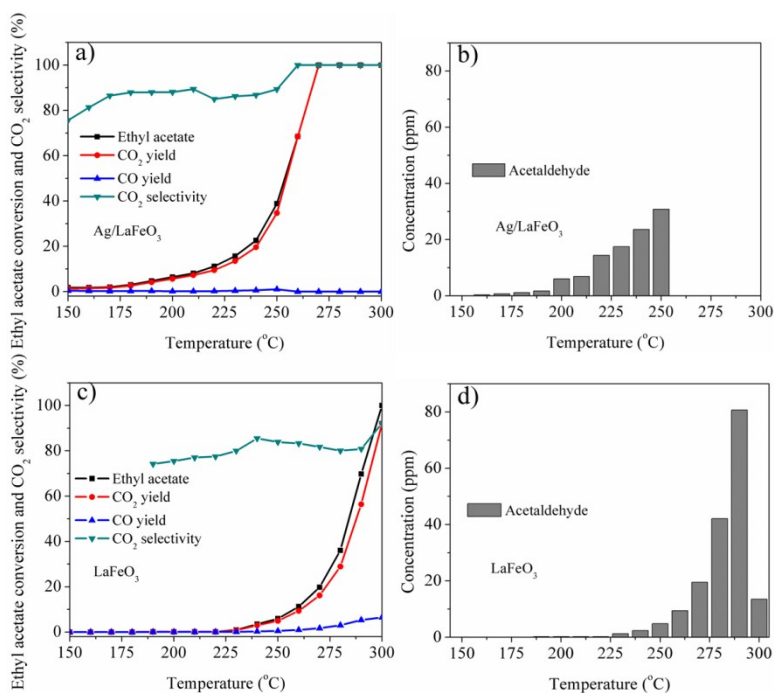
| Sample                | H <sub>2</sub> consumption (mol/g) |
|-----------------------|------------------------------------|
| Ag/LaCoO <sub>3</sub> | 2.04                               |
| LaCoO <sub>3</sub>    | 1.98                               |
| Ag/LaMnO <sub>3</sub> | 0.61                               |
| LaMnO <sub>3</sub>    | 0.45                               |
| Ag/LaNiO <sub>3</sub> | 1.80                               |
| LaNiO <sub>3</sub>    | 1.70                               |
| Ag/LaFeO <sub>3</sub> | 0.05                               |
| LaFeO <sub>3</sub>    | 0.05                               |



**Fig. S1** Evolution of ethyl acetate conversion, CO<sub>2</sub> selectivity, CO<sub>x</sub> yields, distributions of the organic byproduct in function of temperature on Ag/LaMnO<sub>3</sub> (a, b), LaMnO<sub>3</sub> (c, d). Ethyl acetate concentration: 500 ppm; ethyl acetate/O<sub>2</sub> molar ratio: 1/400; WHSV: 60,000 mL/(g h).



**Fig. S2** Evolution of ethyl acetate conversion, CO<sub>2</sub> selectivity, CO<sub>x</sub> yields, distributions of the organic byproduct in function of temperature on Ag/LaNiO<sub>3</sub> (a, b), LaNiO<sub>3</sub> (c, d). Ethyl acetate concentration: 500 ppm; ethyl acetate/O<sub>2</sub> molar ratio: 1/400; WHSV: 60,000 mL/(g h).



**Fig. S3** Evolution of ethyl acetate conversion, CO<sub>2</sub> selectivity, CO<sub>x</sub> yields, distributions of the organic byproduct in function of temperature on Ag/LaFeO<sub>3</sub> (a, b), LaFeO<sub>3</sub> (c, d). Ethyl acetate concentration: 500 ppm; ethyl acetate/O<sub>2</sub> molar ratio: 1/400; WHSV: 60,000 mL/(g h).