Supplementary Material (ESI) for *Physical Chemistry Chemical Physics*

Supplementary information (SI):

The Role of Acidic Sites and the Catalytic Reaction Pathways on the Rh/ZrO_2 Catalysts for Ethanol Steam Reforming

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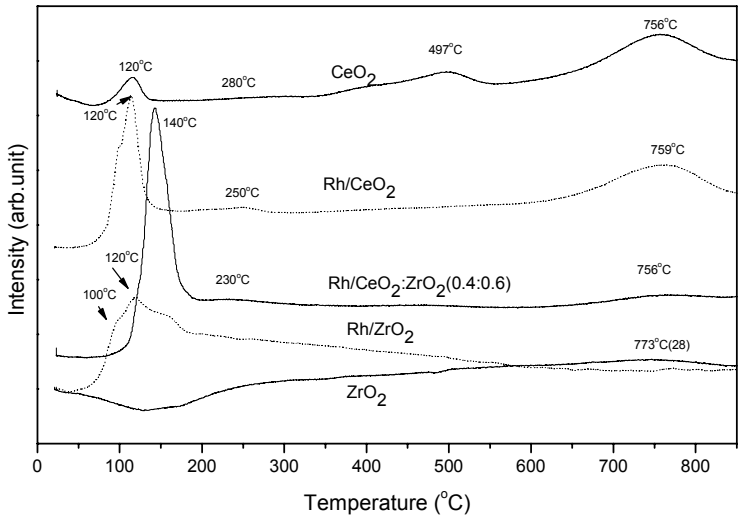
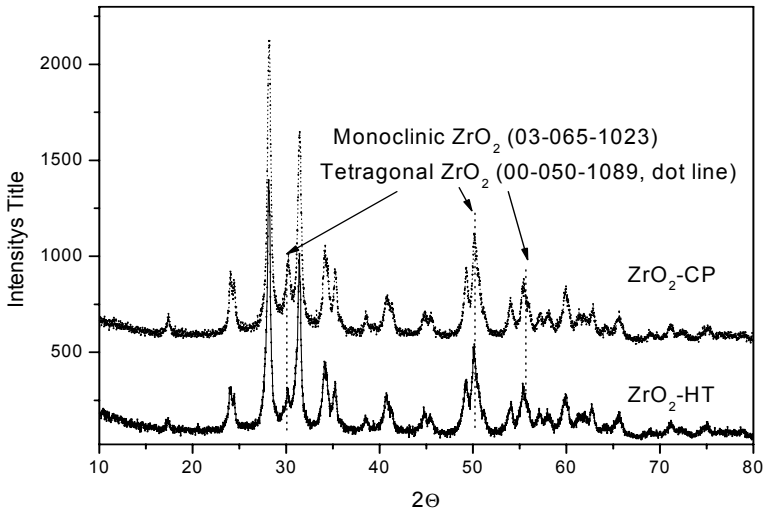
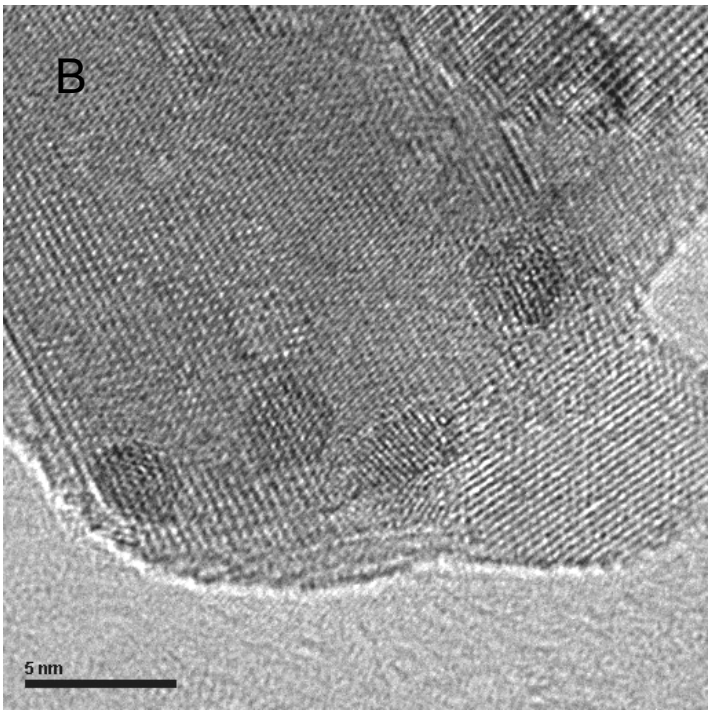
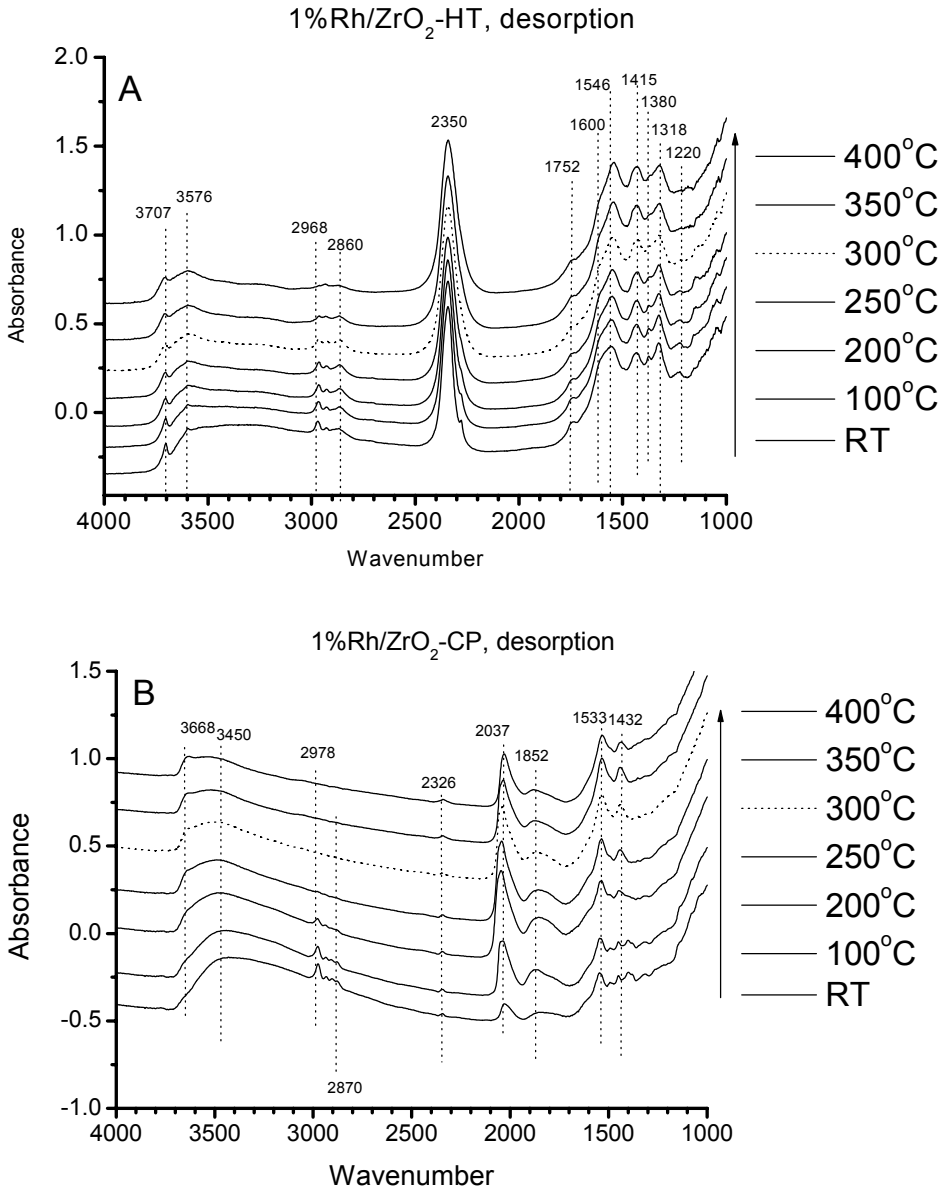


SI-1. TRP profiles of the 1%Rh/ZrO_2 catalysts decorated with CeO_2. The catalyst support was prepared by the CP method.





SI-2. XRD patterns of the two ZrO_2 -HT and ZrO_2-CP supports calcined at 680^{o}C for 5hrs and the HRTEM image of the 1%Rh/ZrO_2 (HT) catalyst after the aging test shown in Fig.3.



SI-3. Desorption and reaction behaviors of the EtOH molecules on the two 1wt%Rh/ZrO_2 catalysts at various temperatures.