Synthesis of Co-Precipitated CeO_2-ZrO_2 Supports with High Oxygen Storage Capacity for Water-Gas Shift Reaction

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To produce highly active catalysts for water-gas shift (WGS) reaction, it is required to develop of the catalyst with high oxygen storage capacity (OSC) and high redox property. $Ce_{(1-X)}Zr_{(x)}O_2$ catalytic system leads to improvements in oxygen storage capacity of CeO_2 , redox property and structural stability. *Roh et al.* reported that cubic $Ce_{0.8}Zr_{0.2}O_2$ supports exhibit the high oxygen storage capacity and high redox property. Thus, in this study, Ce/Zr ratio of supports has been fixed at 8/2. Variable parameters such as calcination temperature, support yield (g support/batch) and pH have been systematically changed. All the supports were prepared by co-precipitation method and characterized by XRD, TPR, BET analysis.

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