

The effect of co-precipitation pH on physico-chemical properties of CuO-ZnO-Al<sub>2</sub>O<sub>3</sub> catalyst for the low temperature water-gas shift reaction

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The low temperature water-gas shift (LT-WGS) reaction has been carried out at gas hourly space velocity (GHSV) of 8,001 h<sup>-1</sup> over CuO-ZnO-Al<sub>2</sub>O<sub>3</sub> catalyst. To investigate the effect of co-precipitation pH on physico-chemical properties of CuO-ZnO-Al<sub>2</sub>O<sub>3</sub> catalyst for the low temperature water-gas shift reaction, pH values of co-precipitation solution were systemically changed. The effect of pH on co-precipitated CuO-ZnO-Al<sub>2</sub>O<sub>3</sub> catalyst has been interpreted through characterization of BET, TPR, XRD, N<sub>2</sub>O chemisorption and related to catalytic activity results in the LT-WGS reaction.