An investigation of synthesis parameters on $CuO-ZnO-Al_2O_3$ 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 8,000 mL/g·h over $CuO-ZnO-Al_2O_3$ catalyst. $CuO-ZnO-Al_2O_3$ catalysts were prepared by co-precipitation method. The co-precipitation pH and injection rate were systematically changed to investigate the effect of synthesis parameters on $CuO-ZnO-Al_2O_3$ catalyst for the low temperature water-gas shift reaction. The effect of synthesis parameters on $CuO-ZnO-Al_2O_3$ catalyst has been interpreted through various characterization techniques and related to catalytic activity results in the LT-WGS reaction.