Penggunaan Metode Gas Injeksi dengan NH3 dan CO2 sebagai Precipitating Agent pada Preparasi Katalis CuO/ZnO/Al2O3

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Abstrak

Performance of hydrogenation catalyst at lower pressure and temperature to produce methanol from CO2 is expected to be improved It is needed to utilize a preparation method such gas injection to give eject in preparation step. Gas injection method can improve the diffusion property of the precipitating agent and gives more smaller particle size of active site.

In this work, catalyst CuO/ZnO/Al2O3 (50:45:5 wt%) was prepared by co-precipitation to combine with injection of NH3 to the preparation step. As precipitating agent, NHL came from evaporation of its solution heated at 60° C in CO2 flow or precipitating agent of CO2 with N, carrier.

As a result, mixture of NH, and CO2 or with N, carrier deposited metal cations (Cu, Zn and Al) at ambient temperature and pressure. Injection of NH3 and CO2 gave deposit as carbonate or hydroxide soft, on the other hand injection of NH3 gave hydroxide salt. This method resulted catalyst with higher surface area but tower dispersion in comparison to conventional co-precipitation method.