

## The Effect of Temperature and Pressure about Product Distribution in the K/Fe-Cu-Al Catalysts for the Fischer-Tropsch Synthesis

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Nowadays increasing crude oil prices may cause interesting more specifically clean fuels and chemical feedstock via Fischer-Tropsch synthesis (FTS) processes, which converts syngas (CO + H<sub>2</sub>) to hydrocarbons. Especially, it was known that Fe catalysts have high activity for high temperature FTS. In this study, we prepared Fe-Cu-Al catalysts by co-precipitation method and K/Fe-Cu-Al catalysts by wet-impregnation method. The Fischer-Tropsch reaction has been carried out using CO/H<sub>2</sub>/Ar (29/58/13 vol.%) mixture as a model in a fixed bed reactor with different temperature and pressure conditions. We found the product distribution by using Anderson-Schulz-Flory (ASF) plot. Also, increasing of temperature and pressure caused  $\alpha$ -olefin production decreasing.