

## Jet Fuel Selective Hydrocracking of Paraffin Wax Using a Silica-alumina Supported Noble Metal Catalysts

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This study focuses on production of jet fuel ( $C_{10}\sim C_{17}$ ) from paraffin wax ( $C_{23}$ ) through hydrocracking process using silica-alumina supported platinum and palladium catalysts. Catalyst characterizations of the catalysts were performed by X-ray powder diffraction pattern, ammonia temperature programmed desorption,  $N_2$  sorption, and  $H_2$  chemisorption techniques. The effect of catalytic properties such as amount of noble metal loading, metal particle size, metal dispersion, and acidity of silica-alumina supports were investigated. A stainless steel autoclave reactor was used to study jet fuel selectivity of hydrocracking of paraffin wax.