



Naphtha Reforming on Trimetallic Catalyst for Production of Environmentally Friendly Gasoline

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Abstract: This study is conducted to focus on influence of Ga and Re addition on the catalytic activity of Pt–Re/Al₂O₃ naphtha reforming catalysts. Incipient wetness Impregnation method was to prepare Ga-Re-Pt supported γ -Al₂O₃. Many characterization methods were implanted such as BET surface area, X-ray diffraction, temperature programmed desorption, and scanning electron microscopy. PONA test was used as a test of the liquid product yield. Benzene content was used as main performance criteria in this study throughout many experiments performed at different operating temperature, hydrogen/hydrocarbon ratios and liquid hourly space velocity. It is found that coimpregnation method resulted in a good catalyst performance and properties according to the characterization tests. The catalyst exhibited good liquid product distribution and distinguished minimization of benzene content.

Keywords: *Galium, naphtha reforming, catalyst, Octane number*

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