[Desember 10th, 2021]

**Prof. Dr.rer.nat. Nuryono, M.S**

Editor-In-Chief

*Indonesian Journal of Chemistry*

Dear Prof. Nuryono:

I would like to submit an article, titled “Ion Impregnation Effect of Fe, Cu, Cr-attributed Mordenite on Stearic Acid Cracking”, for consideration for publication as article in Bulletin of Chemical Reaction Engineering & Catalysis (word count: 4.362 figures 7; references 26). The paper was co-authored by Abdulloh Abdulloh, Ulfa Rahmah, Satya Candra Wibawa Sakti, Alfa Akustia Widati, Ahmadi Jaya Permana, Rochadi Prasetya, Titah Aldila Budiastanti, Mochamad Zakki Fahmi.

Avtur is synthesized by mordenite. In this study, zeolite hasn’t been impregnated with three metals. The present study will overcome above missing by modify raw mordenite (as zeolite class abundantly in nature) from commercial cat sand with simple metal impregnation. Trimetallic catalysts made from transition metals are common. Some metals such Iron (Fe), Copper (Cu), and Chromium (Cr) were introduced to mordenite to support cracking process of stearic acid on obtaining aviation fuel components. Data on the characterizations validate ionic impregnation of Fe, Cu, Cr, and size-reduction has supported the mordenite to perform better efficiency and activity on catalyzing the cracking process of stearic acid. catalytic activity was carried out by simply reacting the catalyst with stearic acid at 190°C and investigating cracking products with Gas Chromatography-Mass Spectroscopy. The chromatography results indicate the formation of compounds on bioavture groups, such as hydrocarbons in the form of alkanes-alkenes, the cyclical and carboxylic acids that have a shorter carbon chain stearic acid.

We further believe that the findings of this study are relevant to the scope of your journal and will be of interest to its readership. This manuscript has not been published or presented elsewhere in part or in entirety, and is not under consideration by another journal. All the authors have approved the manuscript and agree with submission to your esteemed journal. There are no conflicts of interest to declare

Thank you for your consideration. We hope our manuscript is suitable for publication in your journal.

Sincerely,

**​**

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