Dear Editor

We hereby submit a manuscript entitled “Kinetic study of propane aromatization over Zn/HZSM-5 zeolite under conditions of catalyst deactivation using genetic algorithm” by Abbas Roshanaei and Seyed Mehdi Alavi to be considered for publication as a research article in the Journal of the Serbian Chemical Society, an international journal.

However to our knowledge, a lump kinetic model has not been investigated for the propane aromatization over Zn/HZSM-5 zeolite catalyst under deactivating conditions until now. In this work, for the first time, Kinetic studies of propane aromatization reaction over Zn/HZSM-5 zeolite under conditions of catalyst deactivation were performed. The results were obtained at temperature of *500-560*°C and space velocity of *500-2500* cc gcat-1h-1 in a plug flow reactor. A lump kinetic model consisting of six lumped components and six reaction steps was proposed to describe aromatization of propane. The kinetic model involves 18 kinetic parameters and one catalyst deactivation constant. The reaction steps orders were obtained by power law model. Frequency factors and apparent activation energies of reaction steps were calculated based on the Arrhenius equation. An exponential function depending on time-on-stream was applied for the catalyst deactivation model and the kinetic parameters were calculated via genetic algorithm. The kinetic results indicated that lumped kinetic model can well estimate the products yields of propane aromatization.

**Suggested Reviewers:**

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We declare that this manuscript is original, has not been published before and is not currently being considered for publication elsewhere. We hope you find our manuscript suitable for publication and look forward to hearing from you.

Sincerely,

Seyed Mehdi Alavi

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