

[Catalysts] Manuscript ID: catalysts-2029380 - Review Application for Manuscript

1 pesan

catalysts@mdpi.com <catalysts@mdpi.com> Balas Ke: hasanudin@mipa.unsri.ac.id Kepada: Hasanudin Hasanudin <hasanudin@mipa.unsri.ac.id> Cc: Cathy Yang <cathy.yang@mdpi.com>, catalysts@mdpi.com

Dear Dr. Hasanudin,

Thanks for your application as a reviewer for the following manuscript:

Manuscript ID: catalysts-2029380 Type of manuscript: Article Title: Hydrodeoxygenation-isomerization of methyl palmitate over SAPO-11 supported Ni-phosphide catalysts Authors: Ivan V. Shamanaev *, Irina A. Shamanaeva, Ekaterina V. Parkhomchuk, Galina A. Bukhtiyarova *

We will contact and send you a reviewing link once your application is approved.

Do not hesitate to contact us if you have any questions.

Kind regards, Catalysts Editorial Office Postfach, CH-4020 Basel, Switzerland Office: St. Alban-Anlage 66, CH-4052 Basel Tel. +41 61 683 77 34 (office) E-mail: catalysts@mdpi.com https://www.mdpi.com/journal/catalysts/ 2 November 2022 pukul 12.53



2 November 2022 pukul 13.12

[Catalysts] Manuscript ID: catalysts-2029380 - Review Request Approved

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Dear Dr. Hasanudin,

Thank you very much for applying to review the following manuscript:

Type of manuscript: Article Title: Hydrodeoxygenation-isomerization of methyl palmitate over SAPO-11 supported Ni-phosphide catalysts

We are pleased to accept your review application. The manuscript and review report form can be found at the following link: https://susy.mdpi.com/user/review/review/32365096/NVJq175X

The due date for the review report is 9 November 2022.

We look forward to receiving your valuable comments.

Kind regards, Ms. Cathy Yang Section Managing Editor E-Mail: cathy.yang@mdpi.com

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Manuscript details: Journal: Catalysts Manuscript ID: catalysts-2029380 Type of manuscript: Article Title: Hydrodeoxygenation-isomerization of methyl palmitate over SAPO-11 supported Ni-phosphide catalysts Authors: Ivan V. Shamanaev *, Irina A. Shamanaeva, Ekaterina V. Parkhomchuk, Galina A. Bukhtiyarova * Submitted to section: Biomass Catalysis, https://www.mdpi.com/journal/catalysts/sections/biomass_catalysis Catalysis in Biomass Valorization for Fuel and Chemicals https://www.mdpi.com/journal/catalysts/special_issues/1060243_biomasscatalysis

Abstract: Ni-phosphide catalysts on SAPO-11 were studied in hydrodeoxygenation-isomerization of methyl palmitate (C15H31COOCH3 – MP). The catalysts were synthesized using temperature-programmed reduction (TPR) of phosphate precursor ((NH4)2HPO4 and Ni(OAc)2), TPR of phosphite precursor (H3PO3 and Ni(OH)2), and using phosphidation of Ni/SAPO-11 by PPh3 in liquid phase. The samples were characterized by ICP-AES chemical analysis, N2 physisorption, NH3-TPD, XRD, and TEM. First, the screening of the catalysts prepared by TPR method was carried out in semi-batch autoclave to determine influence of preparation method and conditions on one-pot HDO-isomerization (290–380 °C, 2–3 MPa). The precursor nature and the amount of phosphorus strongly influenced the activity of the catalysts and their surface area and acidity. Isomerization occurred only at low P content (Ni/P=2/1) and blocking of the SAPO-11 channels by unreduced phosphates at higher P content did not allow us to obtain iso-alkanes. Experiments with liquid phosphidation samples in continuous-flow reactor also showed strong dependence of activity on phosphidation duration as well as on Ni content. The highest yield of isomerized products (66% iso-C15-16 hydrocarbons, at complete conversion of O-containing compounds, 340 °C, 2 MPa, LHSV = 5.3 h-1) was obtained over 7% Ni2P/SAPO-11 prepared by liquid phosphidation method.

Keywords: hydrodeoxygenation; isomerization; Ni-phosphide; SAPO-11; methyl palmitate; biofuel; green diesel











3 November 2022 pukul 15.53

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Dear Dr. Hasanudin,

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Our Editorial Office and Academic Editors will contact you if they have any questions about your review report. We ask that you remain available, as far as possible, during the peer-review process in case of follow-up questions. To help us improve our services, we kindly ask you to fill in our online survey on the peer-review process at https://www.surveymonkey.com/r/reviewerfeedbackmdpi

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[Catalysts] Manuscript ID: catalysts-2029380 - Revised Version Review Request

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Dear Dr. Hasanudin,

You recently kindly reviewed the original version of the following manuscript, submitted to Catalysts:

Title: Hydrodeoxygenation-isomerization of methyl palmitate over SAPO-11 supported Ni-phosphide catalysts Authors: Ivan V. Shamanaev *, Irina A. Shamanaeva, Ekaterina V. Parkhomchuk, Galina A. Bukhtiyarova *

The authors have now provided a revised version along with a cover letter in which they address the referees' comments.

Please let us know, within 3 days, if you believe the manuscript has been sufficiently improved to warrant publication in Catalysts. If you need more time to check the revised version, please let the Editorial Office know in advance. Please click on the link below to access the revised manuscript and the review report form:

https://susy.mdpi.com/user/review/review/32365096/NVJq175X

We look forward to hearing from you soon.

Kind regards,

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 Cc: Catalysts Editorial Office <catalysts@mdpi.com>, Cathy Yang <cathy.yang@mdpi.com>, Aline Pan

 <aline.pan@mdpi.com>

Dear Dr. Hasanudin,

We are writing to inform you that the following paper which you kindly reviewed has been published: https://www.mdpi.com/2073-4344/12/11/1486

Thank you for your participation in the peer-review process. The paper was accepted by the Academic Editor following the peer review process, in which review reports were received from 2 reviewers. To see comments from the manuscript's other reviewers please create an account on our submission system at https://susy.mdpi.com with your review email, hasanudin@mipa.unsri.ac.id, and visit the "Reviews" Section.

You may also download a PDF certificate (https://susy.mdpi.com/reviewer/certificate/displayFIIe/14887860) of your review record.

All review reports were made available for the Academic Editor to support their final decision. We acknowledge your efforts to review this article and support the author to improve their manuscript. We look forward to your future participation in the review process.

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REVIEW CONFIRMATION CERTIFICATE

We are pleased to confirm that

Hasanudin Hasanudin

has reviewed 2 papers for the following MDPI journals in 2022:

Energies, Catalysts

Dr. Shu-Kun Lin, Publisher and President Basel, 22 December 2022



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