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Journal of Science and Technology - Manuscript ID JST-3662-2022

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19-May-2022

Dear Dr. Hasanudin,

Your manuscript entitled "Conversion of Free Fatty Acid from Waste Cooking Oil Catalyze by Montmorillonite-Sulfonated Carbon and Its Potential as Diesel Blends" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Science and Technology.

Your manuscript ID is JST-3662-2022.

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Thank you for submitting your manuscript to the Journal of Science and Technology.

Sincerely,
Journal of Science and Technology Editorial Office

Hasanudin Hasanudin <hasanudin@mipa.unsri.ac.id>

Journal of Science and Technology - Decision on Manuscript ID JST-3662-2022 (AA)

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28-Jun-2022

Dear Dr. Hasanudin,

Manuscript ID JST-3662-2022 entitled "Conversion of Free Fatty Acid from Waste Cooking Oil Catalyze by Montmorillonite-Sulfonated Carbon and Its Potential as Diesel Blends" which you submitted to the Journal of Science and Technology, has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter. I invite you to respond to the reviewer(s)' comments and revise your manuscript.

To revise your manuscript, log into https://mc.manuscriptcentral.com/upm-jst and enter your Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

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Because we are trying to facilitate timely publication of manuscripts submitted to the Journal of Science and Technology, your revised manuscript should be submitted BEFORE 12 July 2022. If it is not possible for you to submit your revision by this date, we may have to consider your paper as REJECT.

Once again, thank you for submitting your manuscript to the Journal of Science and Technology and I look forward to receiving your revision.

Sincerely,
Chief Executive Editor, Journal of Science and Technology

Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Corresponding Author
This is a typical preparation of biodiesel employing heterogeneous catalyst. Some important modification is recommended as follows
1. Indicate the reusability of the catalyst to how many cycle? Authors are suggested to perform these analyses to indicate the stability of the catalyst.
2. SEM micrograph of the catalyst after recycle
3. Catalyst comparison is missing in the results and discussion? A table containing comparison of this catalyst with reported carbon based catalysts should be presented and should be discussed why this catalyst is important and the yield different. So you can perform that your catalyst is better than others.
4. Whether any attempt is made to isolate the by-product glycerol? If it is done how much glycerol is obtained?
5. What is the Calorific Value of all the biodiesel blends compare to the commercial diesel

Reviewer: 2

Comments to the Corresponding Author
Review comments:
After a careful evaluation of the review manuscript, it is observed that the work addressed by the author is imperative in the present scenario. However, authors could have presented the content of the paper somewhere in impressive form. They need proper presentation. The MS can be reviewed further for possible publication subject to the pointwise rebuttal. The following points are requested to be considered for improvisation of MS.
1. English language and grammatical mistakes should be carefully taken to make the manuscript with easy flow of reading. There are several grammatical mistakes in the MS. Authors should take help of native speaker for correcting the mistakes.
2. Title of the article should be corrected…….instead of ‘catalyze’, it should be ‘catalyzed’. Secondly, the prime objective is not reflected in the title. Title needs little modification. Whoose potential as diesel blends……is it FFA or produced biodiesel? Highlight that in the title.
3. In Abstract, spell out the term while being used first time like SEM, FTIR
4. How this line is linking with the next sentence?.....The study showed that the weight ratio of montmorillonite to sulfonated carbon of 1:3 generated the highest acidity of 9.79 mmol/g.
5. There must be one more keyword on biodiesel blending with conventional petro-fuel as it is one of the important studies in this work.
6. Abstract lacks in some important quantitative information like surface characteristics of catalyst (like surface area, micro-pore volume), reusability, catalyst cost etc..
7. Complete the sentence…The homogenous catalyst such as sulfuric acid has high FFA conversion and biodiesel yield (Ding et al., 2012)……should be ‘FFA conversion capability’
8. Why RSM-CCD is opted for the optimization study? It should be appraised with proper reference. Authors can follow this article to enrich: http://dx.doi.org/10.1016/j.enconman.2015.04.083 https://doi.org/10.1016/j.enconman.2021.114733
9. Objective of the present study should be presented in a separate paragraph at the end of Introduction
10. How did you choose the carbonization condition? Put suitable reference.
11. I am wondering that why such low conversion of FFA-74.01% was achieved? Then what is the need of introducing montmorillonite?
12. Insert a section on ‘Catalyst reusability’ to check its repeated application effectiveness
13. If possible, Cost estimation, an another section can be incorporated here.
14. Authors can retrieve some information on reusability and cost estimation from the following articles:
http://dx.doi.org/10.1016/j.renene.2015.12.027
https://doi.org/10.1016/j.enconman.2018.04.073
15. Figure 7 shows that the density increased with the increasing volume of methyl ester added to diesel fuel…….Density of what, please mention.
16. Check English…The density all blends were ranging from 0.8507 to 0.8615 Kg/L, revealed in accordance with the diesel fuel standards.
17. Figure 2 shows that acidity increases with increase in ratio of montmorillonite to sulfonated carbon. Will it keep on increasing? Then the study should be continued for another ratio to check. Similar trend for figure 7, 8 and 10 then how should you conclude?

Hasanudin Hasanudin <hasanudin@mipa.unsri.ac.id>

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05-Jul-2022

Dear Dr. Hasanudin,

Recently, you received a decision on Manuscript ID JST-3662-2022, entitled "Conversion of Free Fatty Acid from Waste Cooking Oil Catalyze by Montmorillonite-Sulfonated Carbon and Its Potential as Diesel Blends." The manuscript and decision letter are located in your Author Center at https://mc.manuscriptcentral.com/upm-jst.

This e-mail is simply a reminder that your revision is due in one week. If it is not possible for you to submit your revision within the due date, we will consider your paper as REJECT.

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Title : Conversion of Free Fatty Acid from Waste Cooking Oil Catalyze by Montmorillonite-Sulfonated Carbon and Its Potential as Diesel Blends Manuscript ID : JST-3662-2022 Author name : Hasanudin Hasanudin, Wan Ryan Asri, Firda Rahmania Putri, Fahma Riyanti, Zainal Fanani, Addy Rachmat, Novia Novia, & Tuty Emilia Agustina		
	Thank you for giving us the opportunity to submit a manuscript titled "Conversion of Free Fatty Acid from Waste Cooking Oil Catalyze by Montmorillonite-Sulfonated Carbon and Its Potential as Diesel Blends" for publication in the Pertanika Journal of Science and Technology. We appreciate the time and effort that you dedicated to providing feedback on our manuscript and are grateful for the insightful comments and valuable improvements to our paper. We have incorporated the suggestions made by the reviewers. Those changes are written in yellow highlighted text within the manuscript.	
	REVIEWER 1 This is a typical preparation of biodiesel employing heterogeneous catalyst. Some important modification is recommended as follows	
No	**Comment from Reviewer**	**List of Rebuttals**
1	Indicate the reusability of the catalyst to how many cycle? Authors are suggested to perform these analyses to indicate the stability of the catalyst.	Thank for pointing this out. We have added an explanation regarding the reusability of catalyst in the experimental and results and discussion sections. The revised text as follows: "Regarding the catalyst reusability study, the spent catalyst after the esterification reaction was vacuum filtered and washed with alcohol four times. The catalyst was later dried and stored for employment in the next cycle of esterification at optimum conditions."

		"The study of catalyst reusability was conducted under the optimized condition obtained from RSM-CCD. Figure 6 represents montmorillonite-sulfonated carbon's reusability performance in FFA conversion at three consecutive runs. It can be noticed that the FFA conversion was slightly decreased in the first cycle. In this first cycle, 70.25 % of FFA conversion was achieved, indicating a decrease in the catalyst performance up to 5.07 % relative to the fresh catalyst (74 % FFA conversion). Moreover, the catalyst's performance was shown significantly reduced up to 9.55 % in the second cycle and noticeably decreased in the three consecutive runs, which only generated 60.23 % FFA conversion. The decrease in FFA conversion could presumably be due to the active site's leaching, i.e., the sulfonate group (Dhawane et al., 2016). A similar finding was also consistently reported by another study (Farabi et al., 2019; Tang et al., 2020). This leaching was likely due to insufficient and ineffective regeneration through the alcohol washing process (Ngaosuwan et al., 2016). In this regard, catalyst regeneration by performing a sulfonation process on the spent catalyst was necessary to return the catalytic activity".
2	SEM micrograph of the catalyst after recycle	Thank you for this suggestion. It would have been interesting to explore this aspect. However, in our study, this would not be possible due to the covid pandemic, which limits working hours, it takes a relatively long time to be analyzed with a long queue in our region. Furthermore, the sample must be sent to the outer region, which takes a relatively long time. The SEM micrograph before recycling showed an adequate change due to catalyst modification.

		Nevertheless, according to our reusability of catalyst results, after recycling the catalyst, the FFA conversion tended to decrease, presumably due to the leaching of the active site of the sulfonated group.
3	Catalyst comparison is missing in the results and discussion? A table containing comparison of this catalyst with reported carbon based catalysts should be presented and should be discussed why this catalyst is important and the yield different. So you can perform that your catalyst is better than others.	Thank you for pointing this out. We have added the comparison of other catalyst performance, as suggested by the reviewer. The revised text as follows: "Gan et al. (2012) reported that the highest conversion of FFA on WCO was achieved up to 60.2 % at a temperature of 65 ˚C and a concentration catalyst of 4 wt.% using Amberlyst-15 catalyst. Özbay et al. (2008) used a series of ion-exchange resins such as an Amberlyst-based catalyst and showed the FFA conversion was achieved up to 45.7 % when the temperature was 60 ˚C with 2 %wt catalyst concentration. Sulfonated nanomagnetic biochar derived from oil palm empty fruit bunch was employed by Jenie et al. (2020), which revealed that at 2.5 %wt catalyst concentration, the oleic acid conversion was exhibited up to 71.2 %. The montmorillonite-sulfonated carbon derived from the molasse catalyst was likely promising in catalyzing the FFA esterification in WCO relative to previously reported catalysts." "Suresh et al. (2017) utilized sulfonated polystyrene (PSS) for esterification of FFA in WCO and reported that at a reaction temperature of 75 ˚C and PSS concentration of 2 %w/w, the conversion exhibited up to 80.8 %. Zhang et al. (2015) used sulfonated mesoporous carbon for esterification of FFA and showed

		that a prolonged reaction time of up to 3 hours would produce high FFA conversion than 80%, whereas Dawodu et al. (2014) generated high FFA conversion derived from sludge palm oil at 4 hours reaction when employing sulfonated carbon from glucose with C. inophyllum seed cake."
4	Whether any attempt is made to isolate the by-product glycerol? If it is done how much glycerol is obtained?	Thank you for pointing this out. In this study, we did not isolate the by-product glycerol accordingly.
5	What is the Calorific Value of all the biodiesel blends compare to the commercial diesel	Thank you for this suggestion. It would have been interesting to explore this variable. However, in our research, we did not calculate the calorific value of all the biodiesel blends. Instead, we have calculated the crucial fuel parameters, such as cetane index, kinetic viscosity, etc. The study showed that biodiesel blends' cetane index was feasible compared to commercial diesel.
	REVIEWER 2 After a careful evaluation of the review manuscript, it is observed that the work addressed by the author is imperative in the present scenario. However, authors could have presented the content of the paper somewhere in impressive form. They need proper presentation. The MS can be reviewed further for possible publication subject to the pointwise rebuttal. The following points are requested to be considered for improvisation of MS.	
1	English language and grammatical mistakes should be carefully taken to make the manuscript with easy flow of reading. There are several grammatical mistakes in the MS. Authors should take help of native speaker for correcting the mistakes.	Thank you for pointing this out. All spelling and grammatical errors have been corrected. The native speaker has read the manuscript to correct the mistakes.
2	Title of the article should be corrected…….instead of 'catalyze', it should be 'catalyzed'. Secondly, the prime objective is not	Thank you for pointing this out. Sorry for the grammar mistakes. We have agreed with the reviewer. The word catalyze should be written

	reflected in the title. Title needs little modification. Whoose potential as diesel blends……is it FFA or produced biodiesel? Highlight that in the title.	as catalyzed. Regarding the title, we have considered changing the title to be more accurate, as we focused on studying the potential of FAME as diesel blends. The revised title as follows: "Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil catalyzed by Montmorillonite-Sulfonated Carbon"
3	In Abstract, spell out the term while being used first time like SEM, FTIR	Thank you for marking this error. We have added the terms SEM and FTIR before using the abbreviation in the abstract. The revised text as follows: "The catalyst was assessed by Fourier-transform infrared spectroscopy (FTIR), scanning electron microscope (SEM)…"
4	How this line is linking with the next sentence?.....The study showed that the weight ratio of montmorillonite to sulfonated carbon of 1:3 generated the highest acidity of 9.79 mmol/g.	Thank you for pointing this out. Sorry for the unclear sentence. In this context, the highest catalyst acidity was further used to optimize the esterification reaction using RSM-CCD. The revised text as follows: "The study showed that the weight ratio of montmorillonite to sulfonated carbon of 1:3 generated the highest acidity of 9.79 mmol/g and was further employed to optimize the esterification reaction."

5	There must be one more keyword on biodiesel blending with conventional petro-fuel as it is one of the important studies in this work.	Thank you for noticing this important aspect. We have added biodiesel blends as an additional keyword in this manuscript. The revised keywords as follows: "Keywords: free fatty acid conversion, waste cooking oil, sulfonated carbon, montmorillonite, optimization, biodiesel blends"
6	Abstract lacks in some important quantitative information like surface characteristics of catalyst (like surface area, micro-pore volume), reusability, catalyst cost etc..	Thank you for pointing this out. We have added a section regarding the N_2 adsorption-desorption isotherm and the reusability catalyst study, as suggested by the reviewer. The revised text as follows: "Figure 4 shows the N_2 adsorption-desorption of montmorillonite and montmorillonite-sulfonated carbon catalysts. Montmorillonite and montmorillonite-sulfonated carbon revealed type IV isotherm, which had a wide pore distribution (Rabie et al., 2018). A similar finding also had been reported by another study (Lin et al., 2018). It also can be noticed that all catalysts had an H4 hysteresis that corresponded to the aggregates of laminar, which was nearly associated with the layer structure of bentonite (Amaya et al., 2020). Moreover, The typical adsorption-desorption curve at a relative pressure (~0.45) was attributed to the existence of small mesopores on the catalyst (Oliveira et al., 2019). This small mesopore could promote the high accessibility of the active site. N_2 adsorption-desorption isotherm in Figure 4b revealed a distinctive curve at high relative pressure compared with montmorillonite, and this condition occurred presumably due to the sulfonated carbon effect. This curve was consistent with Lathiya et al. (2018), which utilized the

		sulfonated carbon catalyst derived from the waste orange peel for esterifying corn acid oil. Table 3 represents the textural properties of montmorillonite and montmorillonite-sulfonated carbon. It can be seen that the montmorillonite-sulfonated carbon catalyst exhibited high surface area than montmorillonite. The montmorillonite was introduced to the sulfonated carbon, thereby increasing the surface area. A High surface area promoted the extent of the functional group (-SO_3H) to occupy the catalyst surface (Farabi et al., 2019). Furthermore, the increase in surface area was might presumably due to the repulsion force between SO_3H and other groups induced on the catalyst surface (Rahimzadeh et al., 2018)" "The study of catalyst reusability was conducted under the optimized condition obtained from RSM-CCD. Figure 7 represents montmorillonite-sulfonated carbon's reusability performance in FFA conversion at three consecutive runs. It can be noticed that the FFA conversion was slightly decreased in the first cycle. In this first cycle, 70.25 % of FFA conversion was achieved, indicating a decrease in the catalyst performance up to 5.07 % relative to the fresh catalyst (74 % FFA conversion). Moreover, the catalyst's performance was shown significantly reduced up to 9.55 % in the second cycle and noticeably decreased in the three consecutive runs, which only generated 60.23 % FFA conversion. The decrease in FFA conversion could presumably be due to the active site's leaching, i.e., the sulfonate group (Dhawane et al., 2016). A similar finding was also consistently reported by another study (Farabi et al., 2019; Tang et al., 2020). This leaching was likely due to

		insufficient and ineffective regeneration through the alcohol washing process (Ngaosuwan et al., 2016). In this regard, catalyst regeneration by performing a sulfonation process on the spent catalyst was necessary to return the catalytic activity." It would have been interesting to explore the catalyst cost aspect. However, in our research, we focused on optimizing the esterification reaction and studying the effect of the addition of FAME to the diesel fuel on the properties of the fuel. It is very interesting and necessary to explore this aspect in the other study.
7	Complete the sentence…The homogenous catalyst such as sulfuric acid has high FFA conversion and biodiesel yield (Ding et al., 2012)……should be 'FFA conversion capability'	We thank the reviewer for correcting the ambiguous sentences. We have completed the sentence as the reviewer suggested. The revised text as follows: "The homogeneous catalyst such as sulfuric acid has high FFA conversion capability and exhibits high biodiesel yield"
8	Why RSM-CCD is opted for the optimization study? It should be appraised with proper reference. Authors can follow this article to enrich: http://dx.doi.org/10.1016/j.enconman.2015.04.083 https://doi.org/10.1016/j.enconman.2021.114733	Thank you for pointing this out. We have incorporated the reference, as the reviewer suggested. The revised text as follows: "The RSM-CCD is highly efficient for demonstrating the second-order model of experimental data and provides adequate estimation (Dhawane et al., 2015; Karmakar & Halder, 2021)."
9	Objective of the present study should be presented in a separate paragraph at the end of Introduction	Thank you for pointing this out. The purpose of this study was to optimize the FFA conversion from WCO using montmorillonite-

		sulfonated carbon derived from molasse catalyst by RSM-CCD, as well as the study the potential of FAME produced as diesel blends.
10	How did you choose the carbonization condition? Put suitable reference.	Thank you for pointing this out. We have added the reference regarding the carbonization condition. The revised text as follows: "The carbonization was conducted according to Suganuma et al. (2012) with some modifications by employing a carbonization temperature of 400 ˚C for 15 hours in the N_2 atmosphere."
11	I am wondering that why such low conversion of FFA-74.01% was achieved? Then what is the need of introducing montmorillonite?	Thank you for pointing this out. The low conversion was achieved presumably because the level range selection in the experimental design is not optimal. The screening study might be conducted prior to optimization. Regarding the need of introduction montmorillonite, clay material such as montmorillonite has Bronsted as well as Lewis acid, which could promote the high conversion and catalytic activity. A combination of montmorillonite with sulfonated carbon derived from molasses potentially exhibits a synergetic effect on the FFA conversion from WCO.
12	Insert a section on 'Catalyst reusability' to check its repeated application effectiveness	Thank for pointing this out. We have added an explanation regarding the reusability of catalyst in the experimental and results and discussion sections. The revised text as follows: "Regarding the catalyst reusability study, the spent catalyst after the esterification reaction was vacuum filtered and washed with alcohol

		four times. The catalyst was later dried and stored for employment in the next cycle of esterification at optimum conditions." "The study of catalyst reusability was conducted under the optimized condition obtained from RSM-CCD. Figure 6 represents montmorillonite-sulfonated carbon's reusability performance in FFA conversion at three consecutive runs. It can be noticed that the FFA conversion was slightly decreased in the first cycle. In this first cycle, 70.25 % of FFA conversion was achieved, indicating a decrease in the catalyst performance up to 5.07 % relative to the fresh catalyst (74 % FFA conversion). Moreover, the catalyst's performance was shown significantly reduced up to 9.55 % in the second cycle and noticeably decreased in the three consecutive runs, which only generated 60.23 % FFA conversion. The decrease in FFA conversion could presumably be due to the active site's leaching, i.e., the sulfonate group (Dhawane et al., 2016). A similar finding was also consistently reported by another study (Farabi et al., 2019; Tang et al., 2020). This leaching was likely due to insufficient and ineffective regeneration through the alcohol washing process (Ngaosuwan et al., 2016). In this regard, catalyst regeneration by performing a sulfonation process on the spent catalyst was necessary to return the catalytic activity".
13	If possible, Cost estimation, another section can be incorporated here.	Thank you for this suggestion. It would have been interesting to explore this aspect. However, in our research, we focused on optimizing the esterification reaction and studying the effect of the addition of FAME to the diesel fuel on the properties of the fuel. It

		is very interesting and necessary to explore this aspect in the other study.
14	Authors can retrieve some information on reusability and cost estimation from the following articles: http://dx.doi.org/10.1016/j.renene.2015.12.027 https://doi.org/10.1016/j.enconman.2018.04.073	Thank you for suggesting the articles regarding reusability and cost estimation. We have cited the article as the reviewer suggested.
15	Figure 7 shows that the density increased with the increasing volume of methyl ester added to diesel fuel…….Density of what, please mention.	Thank you for pointing this out. The density was meant as the density of diesel blended. The revised text as follows: "Figure 7 shows that the density of diesel blended increased with the increasing volume of methyl ester added to diesel fuel."
16	Check English…The density all blends were ranging from 0.8507 to 0.8615 Kg/L, revealed in accordance with the diesel fuel standards	Thank for pointing this out. Sorry for the grammar mistake. We have corrected the sentences accordingly. The revised text as follows: "It can be seen that the density of the diesel composition blend ranged from 0.8507 to 0.8615 Kg/L, these indicated that the results follow the density of diesel fuel standards."

17	Figure 2 shows that acidity increases with increase in ratio of montmorillonite to sulfonated carbon. Will it keep on increasing? Then the study should be continued for another ratio to check. Similar trend for figure 7, 8 and 10 then how should you conclude?	Thank you for pointing this out. We have added more points regarding the weight ratio of montmorillonite to sulfonated carbon (1:4). We found that at 1:4 ratio generated relatively constant catalyst acidity (9.75 mmol/g). This condition was presumably because the sulfonation process had already saturated, whereby the hydroxyl groups present in the carbon framework had been sulfonated and reached a maximum so that the acidity of the catalyst tends to remain constant. Hence, we can conclude that a 1:3 ratio achieved the highest catalyst acidity. Regarding trends for Figures 7, 8, and 10, we used the blend composition of FAME and diesel fuel (B5, B10, B15, B20) since those compositions are standard in the industry and well established. When the composition is increased up to B30, presumably, it might also increase the corresponding value since the quality of FAME is better than diesel fuel. However, as we said earlier, in this study, we focus the study in the range from B5-B20.
	Additional Clarifications	
	1. We have added new Figures and a Table. Hence, we changed the sequence of Figures and Tables. 2. We have revised sentences in the acknowledgment section from “Department of Chemistry, Sriwijaya University” to “Faculty of Mathematics and Natural Science, Universitas Sriwijaya.” 3. We have changed the running title to “FAME as Diesel Blends from FFA in WCO” 4. We have changed the structure of the abstract to be more appropriate 5. We have changed the affiliation of authors due to misinform affiliation from:	

[1]Biofuel Research Group, Department of Chemistry, Laboratory of Physical Chemistry, Faculty of Mathematics and Natural Science, Universitas Sriwijaya, Indralaya 30662, Indonesia
[2]Department of Chemistry, Magister Program, Faculty of Mathematics and Natural Science, Universitas Sriwijaya, Indralaya 30662, Indonesia
To:
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[2]Biofuel Research Group, Laboratory of Physical Chemistry, Faculty of Mathematics and Natural Science, Universitas Sriwijaya, Indralaya 30662, Indonesia

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08-Jul-2022

Dear Dr. Hasanudin,

Your manuscript entitled "Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil catalyzed by Montmorillonite-Sulfonated Carbon" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Science and Technology.

Your manuscript ID is JST-3662-2022.R1.

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Thank you for submitting your manuscript to the Journal of Science and Technology.

Sincerely,
Journal Officer
Journal of Science and Technology Editorial Office

Hasanudin Hasanudin <hasanudin@mipa.unsri.ac.id>

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Cc: hasanudin@mipa.unsri.ac.id, hasanudinkf@gmail.com, wanryanryan@gmail.com, 08031281722023@student.unsri.ac.id, fatechafj@unsri.ac.id, zainalf313@unsri.ac.id, addy.tea@gmail.com, novia@ft.unsri.ac.id, tuty_agustina@unsri.ac.id

18-Jul-2022

Dear Dr. Hasanudin,

Manuscript ID JST-3662-2022.R1 entitled "Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil catalyzed by Montmorillonite-Sulfonated Carbon" which you submitted to the Journal of Science and Technology, has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter. I invite you to respond to the reviewer(s)' comments and revise your manuscript.

To revise your manuscript, log into https://mc.manuscriptcentral.com/upm-jst and enter your Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

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IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

Because we are trying to facilitate timely publication of manuscripts submitted to the Journal of Science and Technology, your revised manuscript should be submitted BEFORE 25 July 2022. If it is not possible for you to submit your revision by this date, we may have to consider your paper as REJECT.

Once again, thank you for submitting your manuscript to the Journal of Science and Technology and I look forward to receiving your revision.

Sincerely,
Chief Executive Editor, Journal of Science and Technology

Reviewer(s)' Comments to Author:

Reviewer: 2

Comments to the Corresponding Author
If possible, authors can put standard deviation for Fig.7 (Reusability study).

Hasanudin Hasanudin <hasanudin@mipa.unsri.ac.id>

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18-Jul-2022

Dear Dr. Hasanudin,

Recently, you received a decision on Manuscript ID JST-3662-2022.R1, entitled "Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil catalyzed by Montmorillonite-Sulfonated Carbon." The manuscript and decision letter are located in your Author Center at https://mc.manuscriptcentral.com/upm-jst.

This e-mail is simply a reminder that your revision is due in one week. If it is not possible for you to submit your revision within the due date, we will consider your paper as REJECT.

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18-Jul-2022

Dear Dr. Hasanudin,

Your manuscript entitled "Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil catalyzed by Montmorillonite-Sulfonated Carbon" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Science and Technology.

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Journal of Science and Technology Editorial Office

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18-Jul-2022

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Thank you for submitting your manuscript to the Journal of Science and Technology.

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22-Jul-2022

Dear Dr. Hasanudin:

It is a pleasure to accept your manuscript entitled "Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil catalyzed by Montmorillonite-Sulfonated Carbon" in its current form for publication in the Journal of Science and Technology.

You are now required to duly complete the attached “Copyright Agreement” and return it to journal.officer-2@upm.edu.my. Please refer to http://www.pertanika.upm.edu.my/pjst/publishing-charge to make payment (Pertanika Journal Processing Fee - USD 250). After the Copyright Agreement & Proof of Payment is received by our office, you shall then receive an official acceptance letter in due course of time.

Thank you for your fine contribution. On behalf of the Editors of the Journal of Science and Technology, we look forward to your continued contributions to the Journal.

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Chief Executive Editor, Journal of Science and Technology

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Best regards,
Hasanudin
Corresponding author

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Dear Author,

I acknowledge receipt of your email and the attachments (*copyright & proof of payment*). Your Manuscript ID. JST-3662-2022 is tentatively queued for publication in JST Vol. 31 (2) Apr. 2023. Hence, an official acceptance email will be issued in mid March 2023.

Do let me know if you need the official acceptance email earlier.

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>
> Best regards,
> Hasanudin
> Corresponding author

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23-Feb-2023

Dear Author(s),

I am writing to you in reference to an article entitled, “Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil catalyzed by Montmorillonite-Sulfonated Carbon” author(s): Hasanudin Hasanudin, Wan Ryan Asri, Firda Rahmania Putri, Fahma Riyanti, Zainal Fanani, Addy Rachmat, Novia Novia & Tuty Emilia Agustina submitted to Pertanika on 19-May-2022 for intended publication in JST.

Your paper has been anonymously peer-reviewed by two to three referees competent in the specialized areas appropriate to your manuscript independently evaluating the scientific quality of the manuscript.

I am pleased to tell you that based on the clarity, technical approach and scientific validity presented; your paper has been accepted by the Editorial Board on 22-Jul-2022, and is TENTATIVELY scheduled for publication in JST Vol. 31 (2) Mar. 2023.

I thank you for considering Pertanika as your preferred Journal.

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Chief Executive Editor (CEE)
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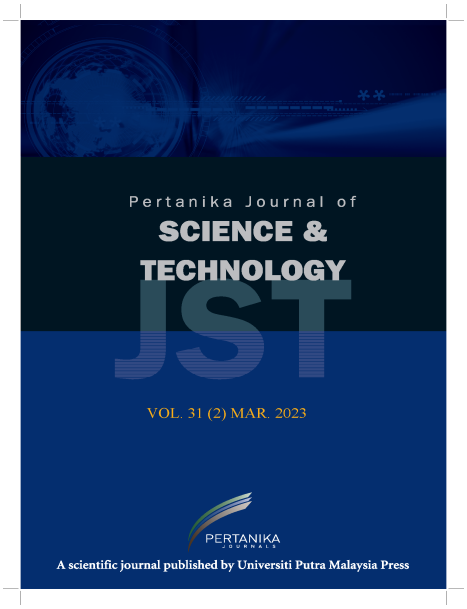

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Vol. 31 | No. 2 | Mar. 2023
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VIEW JOURNAL

WE'VE PUBLISHED THE LATEST ISSUE OF THE JOURNAL IN OUR WEBSITE

Dear Dr.Hasanudin Hasanudin,

Greetings from Pertanika Journals.

We are pleased to announce that your paper titled **Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil catalyzed by Montmorillonite-Sulfonated Carbon** has been published on 20 March 2023 in the Pertanika Journal of Science & Technology (PJST), **Volume 31 (2) Mar. 2023** and is now live on the Pertanika Journal's website.

You may view or download the complete issue here. You are encouraged to share this information with interested parties. I shall be happy to have your comments and suggestions.

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8. Potential of Fatty Acid Methyl Ester as Diesel Blends Produced from Free Fatty Acid in Waste Cooking Oil Catalyzed by Montmorillonite-Sulfonated Carbon

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