



TEKNIKA: JURNAL SAINS DAN TEKNOLOGI

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Surat Penerimaan

Dengan ini menerangkan bahwa artikel berikut:

Judul : Optimization of activated carbon yield using the Taguchi method in synthesizing activated carbon from wood charcoal

Penulis : Barlin Barlin, Wei-Chin Chang

Instansi: Universitas Sriwijaya dan *Southern Taiwan University of Science and Technology*

Diajukan pada tanggal **25 Januari 2020**

Lolos pemeriksaan awal pada **1 Februari 2021**

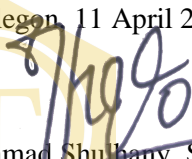
Mengirim revisi pemeriksaan awal pada **9 Februari 2021**

Lolos pemeriksaan reviewer pada **9 April 2021**

Diterima untuk diterbitkan pada **11 April 2021**

Dinyatakan **diterima** pada tahap **Pemeriksaan Reviewer**. Artikel akan diterbitkan pada **Edisi 17 Nomor 1 Bulan Juni 2021**. Penulis artikel harap mengirimkan semua dokumen yang kurang lengkap. Dokumen yang kurang lengkap, tidak mengirimkan revisi sesuai saran editor dan reviewer, dan mengirimkan revisi lebih dari deadline akan menyebabkan terhambatnya publikasi atau ditariknya surat penerimaan ini. Informasi lebih lanjut silahkan hubungi teknika@untirta.ac.id.

Cilegon, 11 April 2021



Ahmad Shulhany, S.Pd., M.Si.
Ketua Pengelola
Teknika: Jurnal Sains dan Teknologi



Manuscript Evaluation

Manuscript Information

| | |
|---------------------------|---|
| Date of review completion | 14.03.2021 |
| Manuscript Title: | Optimization of activated carbon yield using the Taguchi method in synthesizing activated carbon from wood charcoal |

Evaluation Report

Kindly enter comments per section of the manuscript (**All comments should be detailed to provide adequate information for authors**)

| | |
|-------------------------|--|
| General comment | This is very good research work in the field of industrial engineering. Taguchi method is well used for synthesizing activated carbon from wood charcoal as a raw material. |
| Introduction | Is well organized but is very short. Please extend your introduction by giving more information what the other researchers have done. |
| Methodology | Is well organized by using ANOVA analysis and Taguchi method. |
| Results | The optimum conditions for preparing activated carbon were found as follows: KOH concentration of 50 wt. %, activation temperature of 700 °C, and activation time of 2.5 hours. The predicted and experimental results for optimum activated carbon yield were 87.3% and 67.6 %, respectively. |
| Discussion | Please add your future research work. |
| Bibliography/References | Please add 1 citation paper from TEKNIKA: JURNAL SAINS DAN TEKNOLOGI |
| Others | - |
| Final Note | Please accept the paper with minor revisions. <ol style="list-style-type: none">1. Extend introduction2. Future research work3. Citation from Jurnal Sains Dan Teknologi4. Similarity index should be less than 20% |



Please rate the following: (1 = Excellent) (2 = Good) (3 = Fair) (4 = poor)

| | |
|---------------------------|-------------------------|
| Originality | 32 % (Similarity Index) |
| Contribution To The Field | 1 |
| Technical Quality | 1 |
| Clarity Of Presentation | 2 |
| Depth Of Research | 2 |

Recommendations

Kindly mark with an X

| | |
|----------------------------|----------|
| Accept As It Is | |
| Requires Minor Corrections | X |
| Requires Moderate Revision | |
| Requires Major Revision | |
| Decline submissin | |

Additional Comments

Please add any additional comments (Including comments/suggestions regarding online supplementary materials) if any:

Tirana, 14 March 2021

Assist. Prof. Klodian Dhoska
Senate Member
Polytechnic University of Tirana



Manuscript Evaluation

Manuscript Information

| | |
|---------------------------|---|
| Date of review completion | 30/03/2021 |
| Manuscript Title: | Optimization of activated carbon yield using the Taguchi method in synthesizing activated carbon from wood charcoal |

Evaluation Report

Kindly enter comments per section of the manuscript (**All comments should be detailed to provide adequate information for authors**)

| | |
|-----------------|--|
| General comment | <p>- In general, the article demonstrated a interesting contribution to its area of research, in addition, it presented clear objectives and an organized methodology, in which resources such as tables and figures that illustrated and facilitated the understanding of the text were evidenced. On the other hand, the results presented were consistent with the conclusions made. In addition, this research followed ethical guidelines, since no evidence of plagiarism was evident in Turnitin with the references taken. However, in the revision of this document, the pertinent suggestions were made so that corrections could be made to make the text clearer and more precise.</p> <p>-The abstract has 1456 characters with spaces, with its length it is concrete, as it manages to be descriptive enough to globally illustrate the subject of the article.</p> <p>-Acronyms are used in academic writing to avoid semantic saturation or other language vices, however, in the article it is observed that these do not fulfill their purpose, since they are stated more than once in the text next to the word, for example: activated carbon (AC), impregnation-activation (IA) and activated carbon yield (AC yield). Therefore, it is advisable to make a revision in the text to avoid this situation, since once the acronym or acronym is evidenced is enough to illustrate the reader. In addition, the use of abbreviations should be avoided in the abstract, for example, in the eleventh line, (AC yield), as well as the use of abbreviations in titles, specifically in the case of the methodology with "Analysis of the signal to noise (S/N) ratio".</p> |
| Introduction | <p>The introduction of the article allowed knowing the context of the research because it places the reader in perspective of what he/she will find in the text, since the objectives of the research, the materials and methods to carry it out, as well as the relevance of the study were evidenced. In this section, the importance of the research was manifested, due to the fact that the most sustainable type of activated carbon, its applications in several fields of the industry and the method used for its activation was also justified. However, the repetitive use of words should be avoided in order to obtain a more understandable reading, especially in the second paragraph of the introduction with the word "activation". On the other hand, cacophony was detected, which is the dissonance produced by an unpleasant or repetitive combination of sounds in a text, this occurs in the last paragraph of the introduction, when using the words impregnation, concentrations, activation repeatedly, so it is recommended to reformulate the writing, keeping the initial meaning of the text. Finally, in order for the first paragraph to have a better agreement between subjects and verbs, the proper use of plurals should be reviewed, for example in the word "raw material i.e.".</p> |



| | |
|-------------|---|
| Methodology | <p>-In general, the methodology presented the steps to be followed in an orderly and coherent manner, as well as the materials necessary to carry out the research, however, in section "2.2 Preparation of the activated carbon", the activities mentioned therein should offer more details to optimally illustrate the process. Specifically, in the fifth line (The mixed KOH solution wood charcoal was then dehydrated in the oven overnight at 120oC), the time was not presented precisely, and the type of oven used was not specified, so the methodology cannot be reproduced by other researchers since they would not obtain the same results. It should be noted that the representation of the degree symbol in the temperature should also be improved, in order to adequately express the scale.</p> <p>-In section 2.2 "Preparation of the activated carbon", it is recommended to take into account the use of plurals to have a good writing, this situation can be contemplated in the sixth line with the words "temperature" and "time", since they do not coincide in number with other words in the sentence.</p> <p>-In section 2.4 "Experimental design and optimization", in the first paragraph it is advised to avoid redundancy, which was generated by the dilation of the expression, in the search of defining Taguchi's method, thus, it is suggested to maintain the virtues of precision and clarity in the writing, without attacking the linguistic economy. On the other hand, in the second paragraph it is recommended to use more logical connectors so that the text has greater cohesion, and thus is more than a set of independent and autonomous sentences.</p> <p>- In section "2.4. Experimental design and optimization" the use of articles in the second paragraph should be noted, (Design for experimental was developed with Taguchi method. Taguchi method with an L9 orthogonal array...). An article is a word that is placed before a countable noun and sometimes necessary in uncountable nouns, all this is suggested for good grammar.</p> <p>-Table 1, which is found in the methodology section, should contain in the activation time the same number of significant figures in all the data found there, as was done in Table 2 in the activation time.</p> |
| Results | <p>-The results of the research were illustrated in tables in an organized manner, which facilitated the reading of the data and allowed for greater clarity of the work; however, in Table 3 it is advisable to place the same number of significant figures in the entire column "Activated carbon yield (wt. %)".</p> <p>- In the second paragraph of section " 3.1. Analysis of the signal to noise (S/N) ratio", it is recommended to use synonyms for the word "based" or to reorganize the grapheme, since it is repeated in more than one occasion, this is suggested in order to preserve the good style of the text.</p> <p>-In section "3.1. Analysis of the signal to noise (S/N) ratio", in the first and second line of the first paragraph it is advised to avoid redundancy, ("The higher-the better response was selected to determine the optimum parameters condition in resulting the highest activated carbon yield"). As can be seen, there was much emphasis on what was reported and no new information was added to the message conveyed. On the other hand, this first paragraph needs to be more concise, without insisting on the same message in order to provide greater textual clarity.</p> <p>- In this text fragment 3.1 it is also relevant to indicate that Native American speakers often avoid the use of prepositions in some sentences because the language does not need many words to be concise, a desired language setting requires that a message can be understood by anyone briefly.</p> |
| Discussion | <p>-In this part of the research, the authors critically reviewed the information that allowed them to know what the key findings were, and reported on the importance and validity of the research.</p> |



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| Bibliography/References | -Although it is true that the references used in the article were coherent with the research topic due to their subject matter, since they correctly report on relevant previous works that have an impact on the work reviewed, it is recommended that some of these articles be replaced by more current research products, that is, by references from the last 5 years, given that updating is an evaluation criterion that guarantees that the research is a current focus, which still generates great impact on society and science. This suggestion can be carried out in some of the following cases: the second reference corresponds to an article from 2013; the third corresponds to 2008; the fifth is from 2013; the sixth is from 2013; the eighth corresponds to 2013; the ninth is from 2007; the tenth is from 2012 and the twelfth is from 2007. |
| Others | The other sections are clear and concise, do not need any corrections and the article is adapted to the format of the journal. |
| Final Note | The article has a solid methodology, accurate conclusions and an impact on the research area, however, it requires moderate corrections in order to offer greater clarity to the reader and a greater amount of details so that this research can be understood and reproduced. |

Please rate the following: (1 = Excellent) (2 = Good) (3 = Fair) (4 = poor)

| | |
|---------------------------|------------------------|
| Originality | 32% (Similarity Index) |
| Contribution To The Field | 2 |
| Technical Quality | 2 |
| Clarity Of Presentation | 2 |
| Depth Of Research | 2 |

Recommendations

Kindly mark with an X

| | |
|----------------------------|----------|
| Accept As It Is | |
| Requires Minor Corrections | |
| Requires Moderate Revision | x |
| Requires Major Revision | |
| Decline submissin | |

Additional Comments

Please add any additional comments (Including comments/suggestions regarding online supplementary materials) if any:

Belo Horizonte, Brasil, April 07th 2021

ANDRÉS MAURICIO MORENO URIBE