

## Bukti korespondensi proses untuk publikasi

Tahapan proses

7 September 2023	Submit
29 September 2023	Revisi
15 Oktober 2023	Accepted
16 November 2023	Published (in progress)

External



**Dr. Qing Wang** [ijaas.iaes@gmail.com](mailto:ijaas.iaes@gmail.com)

Wed, 18 Oct,  
15:18

to me

The following message is being delivered on behalf of International Journal of Advances in Applied Sciences.

- 
- Paper ID# 20975
  - Please submit your final paper within 3 weeks!
  - The guide of authors: <http://iaescore.com/gfa/ijaas.docx>
  - We will usually expect a minimum of 20 references primarily to recently journal articles.

Dear Prof/Dr/Mr/Mrs. Endah Sulistiawati,

It is my great pleasure to inform you that your paper entitled "Double step method in lipid extraction from biomass *Aurantiochytrium* sp powder" is ACCEPTED and will be published on the International Journal of Advances in Applied Sciences (IJAAS), an Open Access Journal and Peer-Reviewed. This journal is recognized (accredited) "S2 (SINTA 2)" by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia. The IJAAS has just been accepted for inclusion in Scopus (<https://suggestor.step.scopus.com/progressTracker/?trackingID=06FFBCAF258793EA>) by the Content Selection and Advisory Board (CSAB). The IJAAS will be indexed in Scopus beginning with articles published in 2019. Some of the papers in the issues have now been published in Scopus (<https://ijaas.iaescore.com/index.php/IJAAS/pages/view/scopusindexed>). Congratulations!

Please submit your:

1. Final paper (read:

<https://ijaas.iaescore.com/index.php/IJAAS/about/editorialPolicies#custom-1>)

2. Similarity report (by iThenticate/Turnitin), along with

3. Payment evidence

within 3 weeks by replying to this email.

Your cooperation is very appreciated.

Thank you

Best Regards,

Dr. Qing Wang

Intelektual Pustaka Media Utama

[ijaas@iaescore.com](mailto:ijaas@iaescore.com)

The screenshot shows a Gmail interface with a search bar containing 'in:sent'. The left sidebar shows the 'Sent' folder selected. The main content area displays an email from Dr. Qing Wang (ijaas.iaes@gmail.com) dated Wednesday, October 18, 2023. The email body contains the following text:

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Please submit your:

1. Final paper (read: <https://jaas.iaascore.com/index.php/IAAS/about/editorialPolicies#custom-1>)
2. Similarity report (by iThenticate/Turnitin), along with
3. Payment evidence within 3 weeks by replying to this email.

Your cooperation is very appreciated.

Thank you

Best Regards,  
Dr. Qing Wang  
Intelektual Pustaka Media Utama  
[ijaas@iaascore.com](mailto:ijaas@iaascore.com)

**Dr. Qing Wang** 18 Oct 2023, 15:18 (8 days ago)

The following message is being delivered on behalf of International Journal of Advances in Applied Sciences.

**Endah Sulistiawati** <endahsulistiawati@che.uad.ac.id> 13:47 (13 minutes ago)

Dear Dr. Qing Wang  
Thank you for the information and the opportunity to publish our paper entitled "Double step method in lipid extraction from biomass *Aurantiochytrium sp powder*" in this journal. According to the instructions, we are sending our final article, similarity report (Turnitin), and evidence of payment below.

Best regards,  
Endah Sulistiawati

3 Attachments • Scanned by Gmail

Detail	ENDAH SULISTIAWATI
Nama Pengirim	ENDAH SULISTIAWATI
Rekening Sumber	80131007438
Jumlah	RP 2.587.381,00
Biaya Admin	RP 2.500,00
Total	RP 2.587.381,00
Tujuan Transaksi	Transfer Dgn...

20975-40188-1-E...

Cek Plagiarisme

Hasil Cek Plagiaris...

Transfer BI FAST

Bank Tujuan  
**BANK MANDIRI**  
**LEMBAGA INSTITUTE OF**  
**1370011829203**

No Resi **081646**  
Waktu **25 Oktober 2023 17:35**

Detail

Nama Pengirim **ENDAH SULSTIAWATI**  
Rekening Sumber **801211007436**  
Jumlah **RP 2.684.881,00**  
Biaya Admin **RP 2.500,00**  
Total **RP 2.687.381,00**  
Tujuan Transaksi **Transfer Dana**

Keterangan

**article processing charge of  
paper id#20975**

Status **SUKSES**

# [IJAAS] Editor Decision - Resubmit for review

External

Inbox

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Remove label Inbox from this conversation



**Dr. Qing Wang** [ijaas.iaes@gmail.com](mailto:ijaas.iaes@gmail.com) **via** [kirimdata.id](mailto:kirimdata.id)

15 Sept 2023,  
23:52

to me, suhendra, anis003, martomo

The following message is being delivered on behalf of International Journal of Advances in Applied Sciences.

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-- Paper ID# 20975

-- Authors must strictly adhere to the guide for authors, MS Word:

<http://iaescore.com/qfa/ijaas.docx>; LaTeX format:

<http://iaescore.com/qfa/ijaas.rar>

-- Research Paper: min 25 references (primarily to journal papers) !!

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Dear Prof/Dr/Mr/Mrs. Endah Sulistiawati,

We have reached an initial decision regarding your paper submission entitled "Double step method in lipid extraction from biomass *Aurantiochytrium* sp powder" to International Journal of Advances in Applied Sciences, a Scopus indexed journal.

Our decision is: Resubmit for review

1. Authors should have made substantial/intellectual contribution (the new findings with contrast to the existing works). Highlight the main theme of the work with the specific goals of the design and development approach. For preparing your paper strictly adhere to the guide of authors, please read the checklist for preparing your paper for publication at:

<https://ijaas.iaescore.com/index.php/IJAAS/about/editorialPolicies#custom-1>.

Please try to follow the format as closely as possible.

2. Attention Please! Method section

The experimental/method section is a straightforward description of what you did in your research and how you did it, clear and detailed at every stage.

A detailed method section will make your article reproducible by other researchers, allowing them to trust and build on your work.

- A detailed explanation of all methodologies, instruments, materials, procedures, measurements, and other variables used in the investigation.

- A thorough description of the data analysis and decisions for excluding

some data and including others.

Please submit your revised paper in MS Word file format (or LATEX source files; ZIP your files if you present your paper in LaTeX). Refer to materials at: <https://bit.ly/35R6JTs> and <https://bit.ly/2DxU9MI> for further guidelines, and submit the revised paper within 8 weeks through our online system at the same ID number (NOT as a new submission) on Tab "Review" as an "Author Version" file for re-review by Reviewers. Then, your revised paper will be judged for acceptance, revision, or rejection based on the editor's and Reviewers comments.

I look forward for hearing from you

Thank you

Best Regards,  
Dr. Qing Wang  
Intelektual Pustaka Media Utama  
[ijaas@iaescore.com](mailto:ijaas@iaescore.com)

-----  
Reviewer A:

As far as your knowledge, have the authors already published a very similar paper?:

Yes

If yes, kindly please cite below::

-

Does the title of the paper accurately reflect the major focus contribution of this paper?:

Yes

If No, Please suggest change of the title as appropriate::

-

Is the abstract a clear description of the paper?:

Yes

If No, Please suggest change of the abstract as appropriate::

-

Are the equations, figures and tables in this journal style, clear, relevant, and are the captions adequate?:

Yes

Is the paper written in correct English? Is the paper free from obvious errors, misconceptions, or ambiguity?:

Yes

If No, please note obvious errors, misconceptions, ambiguity, grammatical errors and suggest corrections::

-

Please score the paper on a scale of 0 - 10 as per the directions below:

9-10 Excellent - Outstanding

7-8 Good

5-6 Average

3-4 Poor

0-2 Very Poor

:

7

Comments to the Authors:

:

Hopefully, these suggestions for improvement can improve your paper:

#### PARAGRAPH

Avoid using unfinished paragraphs.

Every paragraph should contain at least three sentences, with one sentence serving as the main or key sentence and at least two serving as supporting sentences. As in section:

- Section 3.1 paragraph before and after figure 3,
- Section 3.5 paragraph before and after figure 6, and paragraph after figure 7,
- Section 3.3 paragraph before Table 1,
- Please re-check all paragraphs/sections and correct

#### FIGURE

-A figure (including EACH of the subfigures) must be mentioned and explained in the body text before it appears; please cite figure and sub-figure 2, figure and sub-figure 5, figure 6, figure and sub-figure 7.

- Many text in the figure is not visible. Please enhance image into a better quality/resolution so that the text is readable. Please re-check and correct all figures.

## REFERENCES

- There are still many journals from Indonesia ref [6], [7], [8], [13], [16], I recommend you use a credible source, use database a like ScienceDirect, etc.

- We found that the standard number of references in the journal template is 25 references, please increase it

- You can use IEEE style for references consistently. Learn more:

<https://ieeauthorcenter.ieee.org/wp-content/uploads/IEEE-Reference-Guide.pdf> and please provide the DOIs.

## BIOGRAPHY

If look at the journal template, papers must have social media accounts for researchers. please complete as possible: Scopus, ORCID (required), Google Scholar, and Web of Science(WoS). Photo of authors (make sure all photos are in good resolution). And please elaborate the biographies into min. 3 sentences.

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Reviewer B:

As far as your knowledge, have the authors already published a very similar paper?:

No

If yes, kindly please cite below::

Does the title of the paper accurately reflect the major focus contribution of this paper?:

Yes

If No, Please suggest change of the title as appropriate::

Is the abstract a clear description of the paper?:

No

If No, Please suggest change of the abstract as appropriate::



The abstract, limited to a maximum of 200 words, should aim to be informative and self-contained. It should not include any citations and must effectively communicate the problem statement, the proposed approach or solution, and highlight the significant findings and conclusions of the study.

---->> ??

Aurantiochytrium sp is a marine microalgae species that exhibits a high lipid content. The process of extracting lipids from microalgae necessitates careful consideration in the selection of an appropriate solvent and extraction technique. The present study employed a dual-stage extraction technique to investigate the utilization of a solvent mixture comprising n-hexane and methanol. The variables examined in this study were the ratio of n-hexane to methanol in the mixture (H/M) and the ratio of solvent to biomass (S/B). The findings of this study indicate that the optimal solvent mixture consists of n-hexane and methanol in a volume ratio of 1:1. The optimal ratio of solvent to biomass was determined to be 20 mL/g of dry microalgae. In the given circumstances, the oil yield amounted to 87.8%. The implementation of double-step extraction has the potential to enhance the yield by a range of 10-40%.

Are the equations, figures and tables in this journal style, clear, relevant, and are the captions adequate?:

Yes

Is the paper written in correct English? Is the paper free from obvious errors, misconceptions, or ambiguity?:

Yes

If No, please note obvious errors, misconceptions, ambiguity, grammatical errors and suggest corrections::

Please score the paper on a scale of 0 - 10 as per the directions below:

9-10 Excellent - Outstanding

7-8 Good

5-6 Average

3-4 Poor

0-2 Very Poor

:

7

Comments to the Authors:

:

## 1. INTRODUCTION

In conjunction with the heightened public consciousness regarding the significance of post-pandemic health maintenance, there has been a corresponding surge in demand for raw materials utilized in the production of dietary supplements. The extraction of Omega 3 (docosahexaenoic acid or DHA) and squalene compounds from *Aurantiochytrium* sp microalgae has garnered significant interest among researchers and industrial professionals due to its numerous advantages in comparison to alternative sources. The advantages of *Aurantiochytrium* encompass its notable lipid productivity, rapid cell growth, utilization of non-fish raw materials, high purity, and absence of heavy metal content. The utilization of *Aurantiochytrium* microalgae has been identified as a viable means of obtaining squalene raw materials and biofuels [1,2]. The microalgae species *Aurantiochytrium* sp. is found in significant quantities within mangrove forests [3,4]. Globally, there have been various research endeavors exploring the utilization of *Aurantiochytrium* sp. in diverse applications such as fish and livestock feed, cosmetics, antioxidants, and biofuels. Additionally, investigations have been conducted to assess its potential as a COVID-19 vaccine adjuvant [5]. Regrettably, despite Indonesia's renowned status as the home of the world's largest mangrove forest, research on the production and utilization of products derived from *Aurantiochytrium* sp microalgae remains limited within the country [6,7].

Biocomponents, namely docosahexaenoic acid (DHA) and squalene, are constituents present in lipids derived from the microalga *Aurantiochytrium* sp. The extraction of biocomponents (specifically lipids) from microalgae presents a significant challenge due to the robust nature of microalgae cell walls [8]. Various methods have been employed to extract lipids from microalgae and disrupt the cell wall. These methods include hydrodynamic cavitation [8], stirring (homogenization), ultrasonication, microwave [9], and high-shear mixer [10].

The stirring method is particularly well-suited for implementation on an industrial scale due to its inherent simplicity. However, it is imperative to conduct a range of experiments utilizing solvents such as n-hexane and methanol in order to achieve optimal outcomes. One of the challenges encountered during the extraction process involves the mass transfer of the solvent into the cells, which necessitates the initial breakdown of the cell walls. Hence, it is imperative to carry out experiments employing cost-effective and non-hazardous solvents. The one-step extraction process typically results in the retention of lipids within the biomass residue, necessitating the investigation of a two-step extraction method. The objective of this study was to gather data regarding the most effective

utilization of n-hexane and methanol solvents during the lipid extraction procedure from dehydrated biomass of *Aurantiochytrium* sp. The variables under investigation encompassed the ratio of n-hexane to methanol (H/M) in the mixture, as well as the ratio of solvent quantity to biomass (S/B).

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## 2. RESEARCH METHOD

The lipid (oil) extraction process from the dry biomass of *Aurantiochytrium* sp was conducted at the Bioprocess Laboratory of the Chemical Engineering Study Program, Universitas Ahmad Dahlan, located in Yogyakarta. The material employed in this study was *Aurantiochytrium* sp powder, which was procured from Xi'an Taian Biotechnology Co., Ltd. The powder had a moisture content of 6.03% and an ash content of 3.54%. The solvents employed in this study were n-hexane (technical grade, with a density range of 0.670-0.683 g/mL) and methanol (technical grade, with a density of 0.77 g/mL). Both solvents were procured from PT. Brataco, Yogyakarta. The experimental setup comprises a magnetic stirrer, centrifuge, and a set of distillation apparatus. A quantity of 2-5 grams of desiccated microalgae was introduced into a 250 mL Erlenmeyer flask, along with n-hexane and methanol as the chosen solvents. The process of magnetic stirring was conducted at a temperature of 40 °C for a duration of 30 minutes, with a stirring rate of 250 revolutions per minute (rpm). Following this, the mixture was carefully transferred into a centrifuge tube and subjected to centrifugation for a duration of 15 minutes at a rotational speed of 2400 revolutions per minute (rpm). Following the process of centrifugation, the mixture underwent separation into two distinct components, namely the supernatant and the residue. The liquid portion, known as the supernatant, was carefully transferred into a distillation flask in order to initiate the distillation procedure. This process was conducted within a temperature range of 69-72 °C, ensuring that the solvent was completely converted into vapor. The residual oil present in the flask is measured by determining its weight (W1) using an analytical balance. The identical methodology was implemented for the biomass residue in order to enhance the lipid yield, as depicted in Figure 1. The total lipid acquired was calculated by adding the yields of lipids (oil) obtained from the initial extraction (W1) and the subsequent extraction (W2). The fatty acid content of certain oil samples was analyzed using the Gas Chromatography Mass Spectrometry (GCMS) and Fourier Transform Infrared (FTIR) methods.

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The sizes of Figure 1 and Figure 4 are insufficient. Figures 5, 6, and 7 are presented improperly.

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The present conclusion is insufficient in length and lacks clarity.

Conclusion section: In a paragraph, summarize the main findings of the study in sentences. Are the claims in this section supported by the results, and do they appear reasonable? Have the authors indicated how the findings compare to expectations and previous research? Does the article support or refute previous theories? Does the conclusion explain how the research has advanced the body of scientific knowledge? Language. If an article is poorly written due to grammatical errors, it may make it more difficult to understand the science.

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#### # EDITOR-IN-CHIEF COMMENTS:

1. The introduction should contextualize your study and give any specialized information the general measurement or control reader may require to understand what follows. It must describe the importance of relevant earlier work and the challenges your work solves. It should also list your work's comparators. The introduction should define the article's contribution(s) and show how it's shown in the rest of the manuscript. A typical introduction should be as brief as possible and would contain the following:
    - a. An outline of the problem.
    - b. A review of the relevant literature, noting briefly the major contributors and indicating:
      - What the main contributors did?
      - What the main contributors found?
    - c. A statement of unsolved problems and/or areas requiring improvement; particularly the one(s) considered in your manuscript.
    - d. In regard to the above, describe what you will perform that has not been done before (what are your new contributions?).
    - e. An outline of how the following sections show what you did and how its relevance will be demonstrated.
  2. This paper contains no critical discussion, comparison, or interpretation. What are the ramifications of your findings? What will come in handy in the future?
- 

#### # ASSOCIATE EDITORS COMMENTS:

1. The method section is a detailed step-by-step description of the experimental procedure that includes all of the information needed to replicate the work described in the paper. The Method must include a

description of both novel and standard experimental approaches, as well as whatever minimal justification is required to persuade the reader that the methods are correct.

A well-written Method section:

1. Is the "how-to" section of your paper, containing all of the pertinent details for producing your results.
  2. Persuades the reader that your approach is correct by providing justification for selecting your methodology, which may include analysis or theoretical justification.
  3. Gives readers the details, algorithms, and techniques necessary to confirm and/or replicate your findings
- The Methods section's purpose is to describe how the questions and knowledge gaps raised in the Introduction will be addressed in the Results section.

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