



Rozirwan unsri &lt;rozirwan@unsri.ac.id&gt;

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## [TJNPR] Submission Acknowledgement

1 pesan

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**editor@tjnpr.org** <editor@tjnpr.org>

27 Juni 2023 pukul 16.50

Balas Ke: Prof Abiodun Falodun <editor@tjnpr.org>

Kepada: rozirwan rozirwan <rozirwan@unsri.ac.id>

rozirwan rozirwan:

Thank you for submitting the manuscript, "Antioxidant Activity, Total Phenolic, Phytochemical Content, and HPLC Profile of Several Mangrove Species from Tanjung Api-Api Port Area, South Sumatra, Indonesia" to Tropical Journal of Natural Product Research (TJNPR). With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal web site:

Submission URL: <https://www.tjnpr.org/index.php/home/authorDashboard/submission/2057>

Username: rozirwantjnpr

If you have any questions, please contact me. Thank you for considering this journal as a venue for your work.

Prof Abiodun Falodun

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[Tropical Journal of Natural Product Research \(TJNPR\)](#)

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Rozirwan unsri &lt;rozirwan@unsri.ac.id&gt;

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**{TJNPR} Manuscript information required**

2 pesan

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**Editor-in-Chief Tjnpr** <editor.tjnpr@gmail.com>

27 Juni 2023 pukul 20.45

Kepada: rozirwan@unsri.ac.id

Thank you for submitting your original manuscript to the Tropical Journal of Natural Product Research ([www.tjnpr](http://www.tjnpr)) <https://www.scopus.com/sourceid/21100933230> SCOPUS [., published by the University of Benin and Natural Product Research Group.](#)

Kindly send the names, affiliation and VALID email addresses and the URL of four potential reviewers, two from your country and two foreign/international. The email addresses of the co-authors are also needed, stating also their roles in the study.

The peer-review process will commence immediately, as the manuscript will be passed to an editor for initial assessment as soon as possible. If there are any problems with your submission, we will contact you. Also, note that manuscripts submitted and undergoing peer review will not be accepted for withdrawal or retraction.

**Title: Antioxidant Activity, Total Phenolic, Phytochemical Content, and HPLC Profile of Several Mangrove Species from Tanjung Api-Api Port Area, South Sumatra, Indonesia**

TJNPR is now Q3



# <https://www.scimagojr.com/journalsearch.php?q=21100933230&tip=sid>

Best regards

Abiodun

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**Professor Abiodun Falodun, PhD; FAAS, FISPON**

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28 Juni 2023 pukul 05.54

Dear Editor  
Thank you for your advice

Here we send some information you need

### **The four the potential of reviewer**

#### **Local Reviewer**

1. Prof. Dr. Noverita Dian Takarina

Department of Biologi, Faculty of math and natural science, University of Indonesia

[noverita.dian@sci.ui.ac.id](mailto:noverita.dian@sci.ui.ac.id)

Her skills and expertise in chemical exploration in marine biota and vegetation is very helpful for reviewing our articles

2. Prof. Dr. Bintal Amin

Marine Science Department, Faculty of fisheries and marine Science, University of Riau

[bintal.amin@lecturer.unri.ac.id](mailto:bintal.amin@lecturer.unri.ac.id)

His skills and expertise in chemical exploration in marine biota and vegetation is very helpful for reviewing our articles

#### **International Reviewer**

1. Prof. Che Abd Rahim Mohamed

Faculty of Science and Technology, Universiti Kebangsaan Malaysia, 43600 UKM Bangi, Selangor, Malaysia

Email [carmohd@ukm.edu.my](mailto:carmohd@ukm.edu.my)

His skills and expertise in chemical exploration in marine biota and vegetation is very helpful for reviewing our articles

2. Mohamad Fawzi Mahomoodally

Department of Health Sciences, Faculty of Science, University of Mauritius, 230 Réduit, Mauritius

Email [f.mahomoodally@uom.ac.mu](mailto:f.mahomoodally@uom.ac.mu)

His skills and expertise in Phytochemicals, Natural Products, Medicinal Plants is very helpful for reviewing our articles

#### **Email addresses and roles in the study of Co-Author**

**Rozirwan** [rozirwan@unsri.ac.id](mailto:rozirwan@unsri.ac.id) contributed to the design of the research and supervised the findings of this work

**Hamid Hananda** [hamidhananda05@gmail.com](mailto:hamidhananda05@gmail.com) developed the theory and performed the computations

**Redho Yoga Nugroho** [redhoyn.29@gmail.com](mailto:redhoyn.29@gmail.com) contributed to the analysis of the results and to the writing of the manuscript

**Rezi Apri** [rezi\\_apri@unsri.ac.id](mailto:rezi_apri@unsri.ac.id) contributed to the design of the research and supervised the findings of this work

**Nadila Nur Khotimah** [nadilakhotimah1142@gmail.com](mailto:nadilakhotimah1142@gmail.com) contributed to the analysis of the results and to the writing of the manuscript

**Fauziyah** [fauziyah@unsri.ac.id](mailto:fauziyah@unsri.ac.id) contributed to the design of the research and supervised the findings of this work

**Wike Ayu Eka Putri** [wike\\_ayu\\_ep@unsri.ac.id](mailto:wike_ayu_ep@unsri.ac.id) contributed to the design of the research and supervised the findings of this work

**Riris Aryawati** [wike\\_ayu\\_ep@unsri.ac.id](mailto:wike_ayu_ep@unsri.ac.id) contributed to the design of the research and supervised the findings of this work

[Kutipan teks disembunyikan]

7/25/23, 10:21 AM

Email Sriwijaya University - {TJNPR} Manuscript information required

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**Dr. Rozirwan**

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**(TJNPR) Editor Decision**

4 pesan

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**Editor-in-Chief Tjnpr** <editor.tjnpr@gmail.com>

9 Juli 2023 pukul 18.37

Kepada: rozirwan@unsri.ac.id

Dear Dr Rozirwan,

The manuscript submitted to the Tropical Journal of Natural Product Research [www.tjnpr.org](http://www.tjnpr.org)  
<https://www.scopus.com/sourceid/21100933230> has been carefully reviewed by competent experts.

I am pleased to inform you that the manuscript has been accepted for publication in Tropical Journal of Natural Product Research.

Find attached the details of the decision.

Please send your response urgently to the Editor-in-Chief, to enable us to process your manuscript for the next issue Vol 7 issue 7, 2023.  
Kindly acknowledge the receipt of the mail.

**Title:** Antioxidant Activity, Total Phenolic, Phytochemical Content, and HPLC Profile of Several Mangrove Species from Tanjung Api-Api Port Area, South Sumatra, Indonesia

**Authors:** Rozirwan\*, Hamid Hananda, Redho Yoga Nugroho, Rezi Apri, Nadila Nur Khotimah, Fauziyah, Wike Ayu Eka Putri and Riris Aryawati

TJNPR Editorial Decision: accepts with major revisions

Thank you very much for choosing to publish with Tropical Journal of Natural Product Research.

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Best regards

Abiodun

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Kepada: Editor-in-Chief Tjnpr <[editor.tjnpr@gmail.com](mailto:editor.tjnpr@gmail.com)>

9 Juli 2023 pukul 19.19

Yes, I accept.

Thank you very much

[Kutipan teks disembunyikan]

--

**Dr. Roziwan**

Head of Marine Bioecology Laboratory

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11 Juli 2023 pukul 11.26

Dear Editor

Based on your email, our article **TJNPR MY222ARN** has been accepted with major revisions. We accept to process our manuscript publication for the next issue Vol 7 issue 7. Here we would like to attach the invoice of the publication charge 280 USD. We are looking forward to the results of our article review.

Thank you very much

Warm regards



Pada tanggal Min, 9 Jul 2023 pukul 18.38 Editor-in-Chief Tjnpr <editor.tjnpr@gmail.com> menulis:

[Kutipan teks disembunyikan]

[Kutipan teks disembunyikan]

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**Editor-in-Chief Tjnpr** <editor.tjnpr@gmail.com>  
Kepada: Rozirwan unsri <rozirwan@unsri.ac.id>

11 Juli 2023 pukul 13.17

Thanks for the payment. The Review comments will be sent soonest

Best regards

Abiodun

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**Professor Abiodun Falodun, PhD; FAAS, FISPON**

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## Editorial and Reviewer comments

5 pesan

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**Editor-in-Chief Tjnpr** <editor.tjnpr@gmail.com>

11 Juli 2023 pukul 23.33

Kepada: Rozirwan unsri <rozirwan@unsri.ac.id>

Please see the editorial comments (below) and attached copies of the reviewer comments for manuscript title "**Antioxidant Activity, Total Phenolic, Phytochemical Content, and HPLC Profile of Several Mangrove Species from Tanjung Api-Api Port Area, South Sumatra, Indonesia.**"

### Editorial comments to authors

**Title: Names (First and Last name in full, middle name as initials) and affiliations of authors should be written correctly. Correspondence authors' contact address (email and telephone number) should also be stated.**

**Abstract:** format to section to accommodate the required word (250) limit.

Include the voucher number of the plant material.

Materials and Methods: Include section for statistical analysis.

Combine the results and discussion into a single section.

Graphics under the same tiles should be grouped into a single figure representation.

**In-text references should be in superscript numerals without brackets, and placed after commas or full-stop.**

**All botanical and zoological names should be *italicized***

**References:** Cite relevant and related references from the published articles of TJNPR [www.tjnpr.org](http://www.tjnpr.org)

**Adhere strictly to the Journal's style for listing references. Abbreviate all journal names, without italics;**

[Falodun A, Siraj R, Choudhary MI. GC-MS Insecticidal Leaf essential oil of \*P. staudtii\* Hutch and Dalz \(Icacinaceae\). Trop J. Pharm Res. 2009; 82:139-143.](#)

[Okolie NP, Falodun A, Oluseyi D. Evaluation of the antioxidant activity of root extract of pepper fruit \(\*Dennetia tripetala\*\), and its potential for the inhibition of Lipid peroxidation. Afr J. Trad Compl and Altern Med. 2014; 11\(3\):221-227. Doi: 10.4314/ajtcam. v11i3.31](#)

**Conflict of interest** session should be included, and if there is no conflict of interest, this should be stated clearly as follows; **The authors declare no conflict of interest.**

**A declaration of the liability** of the authors for claims relating to the content of this article should also be included when submitting the revised manuscript. This should be stated as follows;

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The authors hereby declare that the work presented in this article are original and that any liability for claims relating to the content of this article will be borne by them.

**All comments/corrections made by reviewers should be completely addressed, point by point, and make appropriate changes in the manuscript, or provide a suitable rebuttal to any specific request for change that has not been made.**

**All corrections/changes** made in the manuscript should be **highlighted in yellow** when submitting the manuscript in the revised form.

The authors should carefully revise and correct the manuscript taking into consideration the comments of all the reviewers. 50% of the references cited should be between 2016-2020. The revised and corrected manuscript should be subjected to plagiarism checker (17% allowed in TJNPR) and English language editing.

Evidence of the checks should be attached when submitting the revised/corrected manuscript.

During submission of the revised manuscript include another file labelled "**Responses to reviewers' comments**" (a matrix) clearly showing your responses to each of the issues raised by the reviewers; mention the section, page and paragraph/lines where and how the changes/corrections have been made.

Strictly adhere to the author guidelines. Make sure that all the facts and information provided in the manuscript are correct. Check grammar, spelling, spacing, other information and facts including scientific names, formulae, symbols, equations, etc.

Ensure that all the references are correctly cited in the text and list. Verify all the references from their original sources. Confirm correctness of the citation info such as authors' names (surnames, initials, spelling, arrangements, etc), year, title, journal, volume, pages, punctuation, etc. The numbers and units must be presented according to the journal style. Use clearly distinguishable patterns for the illustrations/figures (e.g., graphs and charts) such that they should be legible even for black and white printing or when reduced in size.

Proofread the whole document after effecting all the corrections. The revised version should be approved by all the co-authors before submitting it.

A manuscript not complying with these and other instructions will not be processed and may be rejected.

Please find the attached review comments for your revisions.

Best regards

Abiodun

---

## Professor Abiodun Falodun, PhD; FAAS, FISPON

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**Rozirwan unsri** <rozirwan@unsri.ac.id>

Kepada: Editor-in-Chief Tjnpr <editor.tjnpr@gmail.com>

Dear Editor

Thank you for the suggestions on our article. We have carefully reviewed and refined our articles. Hopefully the major improvements we've made are acceptable.

Thank you very much

Warm regards

[Kutipan teks disembunyikan]

--

**Dr. Rozirwan**

Head of Marine Bioecology Laboratory

Department of Marine Science

Faculty of Mathematics and Natural Sciences

Sriwijaya University

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14 Juli 2023 pukul 23.25

[Make the corrections and resubmit all the files](#)

Best regards

Abiodun

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15 Juli 2023 pukul 09.30

Dear Editor

Here is our improvements

Thank you

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15 Juli 2023 pukul 14.08

Received

Best regards

Abiodun

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**Professor Abiodun Falodun**, PhD; FAAS, FISPON

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University of Benin TJNPR **SCOPUS Q4**

## Response to Reviewers

<b>Editorial Comments #af1</b>	We have corrected it
<b>Reviewer #af2</b>	<b>Response to Reviewer</b>
<b>Introduction</b>	
The title is did not capture critical aspect of the study therefore should be rephrased	Thank you for your advice
The units for Mg GAE/g should be changed to mg GAE/g. the antioxidant methods should be mentioned in the abstract. The abstract should be concise and explicit. Grammatical, spelling and punctuation errors should be corrected	We have changed the mg. We have mentioned antioxidants method in abstract and corrected the abstract.
The literature should be comparative with both recent and previous research either from the study location or from other areas	We have updated the literature
The methodologies and their appropriateness for the study should be discussed explicitly	We have corrected
The phytochemicals previous or recently identified from each of the study plants should be discussed in brief	We have corrected
The medicinal attributes of each phytochemical and the plants studied as it relates to the purpose of the research should be discussed.	We have corrected
The aim and objectives of the research should be made more obvious. All errors should be corrected and bogus statements rephrased so as to be comprehensive	this study aimed to characterized the antioxidants of several mangrove species, such as <i>A. marina</i> , <i>B. gymnorrhiza</i> , and <i>S. alba</i> , from the port area.
<b>Methodology</b>	
The reason behind the selected plant from the studied mangrove should be mentioned. Since the authors kept mentioning the pollutant nature of the studied mangrove, then, are they any correlation between the studied species and pollution?	We have corrected it
Does their antioxidant activity correlate with the anthropogenic activity?	Exposure to pollutants encourages an increase in the body's antioxidant defense system in mangrove exposure by producing bioactive compounds
Mention model, manufacturer and country of instruments/equipment used. Manufacturer, purity and specificity of all chemicals and reagents should be mentioned.	We have corrected it
Preparation of reagents should be explicit. The methodology should be concise with citations given where appropriate.	We have corrected it



The antioxidant (DPPH) methodology is vague and she be rephrased. The methodology should be reported based on the journal guideline.	We have corrected it
Bogus statements should be rephrased and made comprehensive. Remove all hyphen between numbers and units as in 13-mm etc. citations should be provided were necessary.	We have corrected it
<b>Results and Discussion</b>	
The results were not captured as a subheading. The authors claimed that “The yield produced compares the crude extract obtained with the initial filtrate results” explain?	it is known that the proportion of the extract obtained from the extraction of sample powder using methanol solution
Authors should be consistent in the use of mg GAE/gr and mg GAE/g	use mg GAE/g
What is the concentration of the standard?	standard is the standard of pure ascorbid acid
All the supporting data such as the HPLC spectra as well as the graphs used to calculate the IC50 should be given as a supplementary document	Done
The authors should give a holistic discussion of the obtained results	We have corrected it
<b>Conclusion</b>	
The conclusion is not sequential and didn’t capture the entirety of the research. The future prospect of the research was not captured	Based on that, by taking the basic physiological properties into account on a more practical ecological scale, it is believed that our research findings can help advance understanding of antioxidant bioactive chemicals derived from mangrove plants.
<b>References</b>	
The referencing wasn’t based on the journal guideline. The authors should ensure that the cited references matched those at the reference section	we have corrected it
<b>Figures</b>	
Figure 2 appeared twice for HPLC and Morphology. Figures should be reported and presented based on journal guideline	we have corrected it
<b>Tables</b>	
Footnotes should be inserted were necessary. Tables should be reported and presented based on journal guideline	We have corrected it
<b>Reviewer #af3</b>	
<b>Abstract</b>	
rephrase on some parts of the paragraph and correct grammar	We have corrected it

<b>Introduction</b>	
rephrase on some parts of the paragraph	We have corrected it
<b>Methodology</b>	
rephrase on some parts of the paragraph	We have corrected it
mention model, manufacturer and country of instruments/equipment used	We have mentioned it
<b>Results and Discussion</b>	
Correct on some sentences	Done
specify concentration of standard	We have corrected
while the content of phenolic compounds and flavonoids in old leaves is higher than that of young leaves (was this part of the study?)	We have deleted it
Meanwhile, <i>A. marina</i> and <i>S. alba</i> had lower concentrations than the standard specificity of the HPLC method (specify the value of this standard)	100 ppm was the value standard concentration
<b>Reviewer #af5</b>	
<b>Materials and Methods</b>	
The name and affiliation of the scientist who identified the plant. The herbarium number should be stated	Mangrove leaves were identified in Marine Bioecology Laboratorium, Sriwijaya University, Indonesia
<b>Results and Discussion</b>	
Results and discussion should be merged together	We have corrected



Rozirwan unsri &lt;rozirwan@unsri.ac.id&gt;

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Dear Author,

See the attached **galley proof** manuscript with title "**Antioxidant Activity, Total Phenolic, Phytochemical Content, and HPLC Profile of Selected Mangrove Species from Tanjung Api-Api Port Area, South Sumatra, Indonesia**" for authors perusal

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Dear Editor

Here we would like to submit our revised manuscript

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**Dr. Rozirwan**

Head of Marine Bioecology Laboratory

Department of Marine Science

Faculty of Mathematics and Natural Sciences

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7/25/23, 10:25 AM

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## Antioxidant Activity, Total Phenolic, Phytochemical Content, and HPLC Profile of Selected Mangrove Species from Tanjung Api-Api Port Area, South Sumatra, Indonesia

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### ABSTRACT

The development of bioactive chemicals in response to mangroves self-defense mechanisms and environmental adaptation has led to an improvement in antioxidant capacity. This study aims to determine the antioxidant activity (DPPH method), total phenol, phytochemical content, and HPLC profile of some mangrove species. Samples were taken in the mangrove area around the port of Tanjung Api-Api in South Sumatra, Indonesia. Maceration and extraction of all samples was done using methanol as a solvent. Samples were tested for antioxidant against DPPH free radicals, total phenol with Folin-Ciocalteu method, preliminary phytochemical qualitatives, and measuring antioxidant compounds with HPLC. Based on the results, the IC<sub>50</sub> of antioxidants of all samples revealed that *A. marina* (171.16 g/mL) (low), *B. gymnorhiza* (105.09 g/mL) (moderate), and *S. alba* (28.064 g/mL) (very strong) had antioxidant activity. Furthermore, the phenolic content of *A. marina* is 9.0258 mg GAE/g, that of *B. gymnorhiza* is 13.8222 mg GAE/g, and that of *S. alba* is 9.4969 mg GAE/g. A phytochemical test of *A. marina* revealed flavonoids, steroids, and saponins. *B. gymnorhiza* revealed alkaloids, terpenoids, steroids, and saponins. *S. alba* revealed flavonoids, terpenoids, steroids, saponins, and tannins. The HPLC profile of antioxidant activity using ascorbic acid showed that *A. marina* and *S. alba* were lower than the standards of 64.224 ppm and 67.640 ppm, while *B. gymnorhiza* was higher than the standard of 109.510 ppm. All three species of mangroves had potential to inhibit free radical reactions in the low, moderate, and very strong categories.

**Keywords:** antioxidant, HPLC profile, mangrove, phytochemical, total phenol.

### Introduction

Ecologically, mangrove vegetation provides many benefits for aquatic ecosystems.<sup>1,2</sup> Plants spread in the intertidal zone in the tropics and subtropics can act as a barrier for tsunamis and strong currents from the waters towards land.<sup>3</sup> Mangroves are also spawning grounds and foraging grounds for aquatic biota and migratory birds.<sup>4</sup> As a plant that grows in estuary areas, mangroves have unique adaptations to deal with environmental pressures in the form of salinity, temperature, nutrients, and solar radiation.<sup>5</sup> The ability to adapt is not only due to intrinsic factors but also to extrinsic factors such as port activity.<sup>6</sup> The port is a hub of sea transport traffic and fishermen's activities in catching fish, so the waters in the area have the potential to accumulate pollutants in the water column.<sup>7</sup> As a result of environmental pressure factors, mangroves can naturally produce secondary metabolites as a form of self-defense.

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Due to environmental changes, the self-defense mechanism can be found in bioactive compounds production. As a potential resource, the activity of bioactive compounds contained in mangroves can produce a variety of natural products that are widely used in pharmaceuticals and food supplements.<sup>3</sup> Secondary metabolites in mangrove plants include alkaloids, phenolics, steroids, terpenoids, and other compounds.<sup>8</sup> These compounds have important toxic, pharmacological, and ecological effects.<sup>5</sup> Mangrove plant extracts show biological activities such as antioxidants, antibacterials, and antimalarials.<sup>9</sup> The activity of antioxidant compounds can play a role in inhibiting free radicals that cause cell damage or slow oxidation reactions, even at small concentrations. Because of its association with beneficial health effects against a variety of diseases, there has been an increase in interest in the application of this antioxidant in the field of medicine in recent years, such as cardiovascular, cancer, cataract, atherosclerosis, retinopathy, arthritis, emphysema, and neuro-degenerative.<sup>10</sup> In addition, natural antioxidant compounds are significant in the health sector and have a direct effect on the food industry as natural preservatives for food products.

Research on the activity of bioactive compounds in mangrove leaves has been carried out in recent years, phytochemical content and toxicity effects to *Avicennia marina*,<sup>7</sup> and utilization of mangrove leaf extract of *Bruguiera gymnorhiza* with various solvents has been studied as an antibacterial, antifungal, and antioxidant.<sup>11</sup> antioxidant activity of from *Sonneratia caseolaris* extract has been studied as super antioxidant.<sup>12</sup> Moreover, the phenolic properties of mangrove plants and the activity of their strong bioactive compounds have been discussed in many studies.

However, polycyclic aromatic hydrocarbons (PAHs) have caused organic contamination in the Tanjung Api-Api Port area. In water,