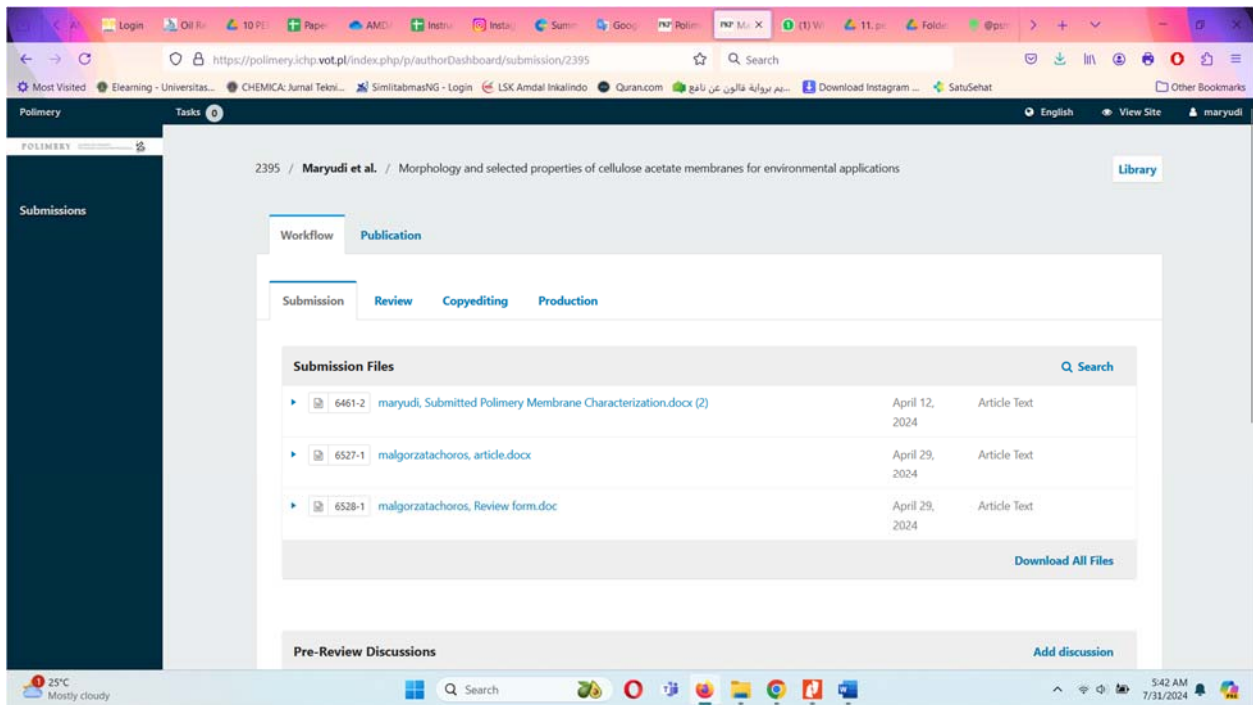
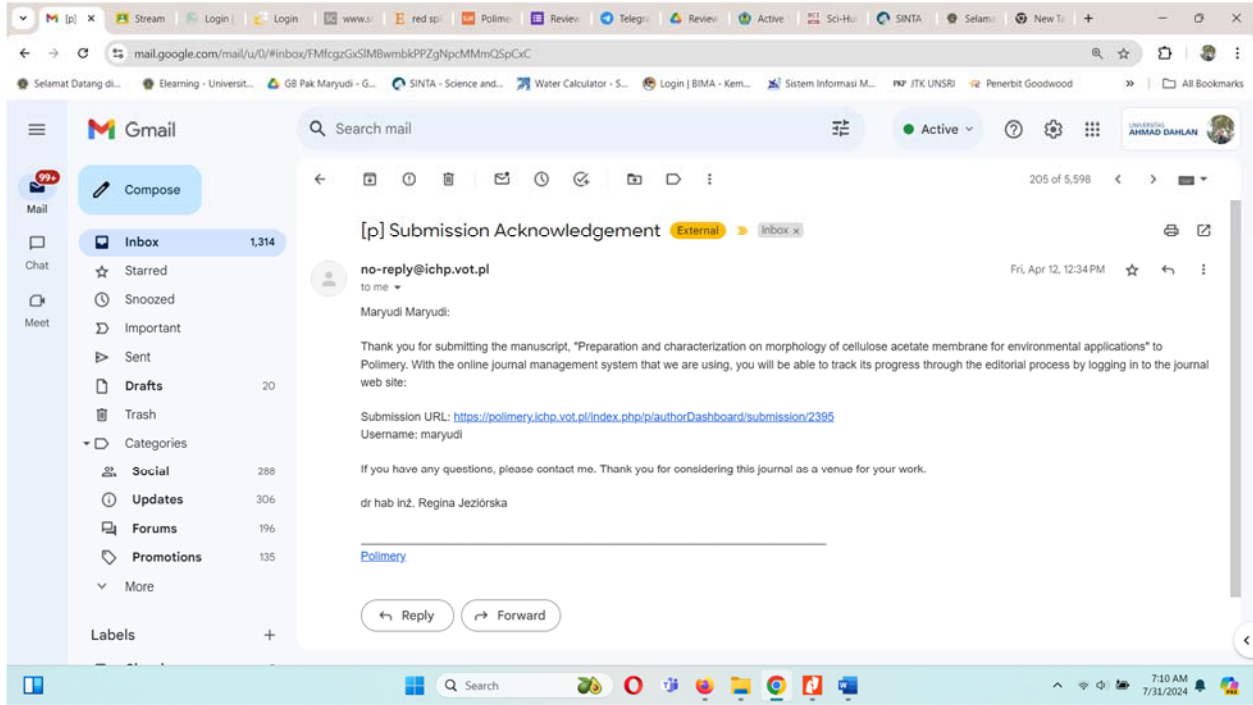
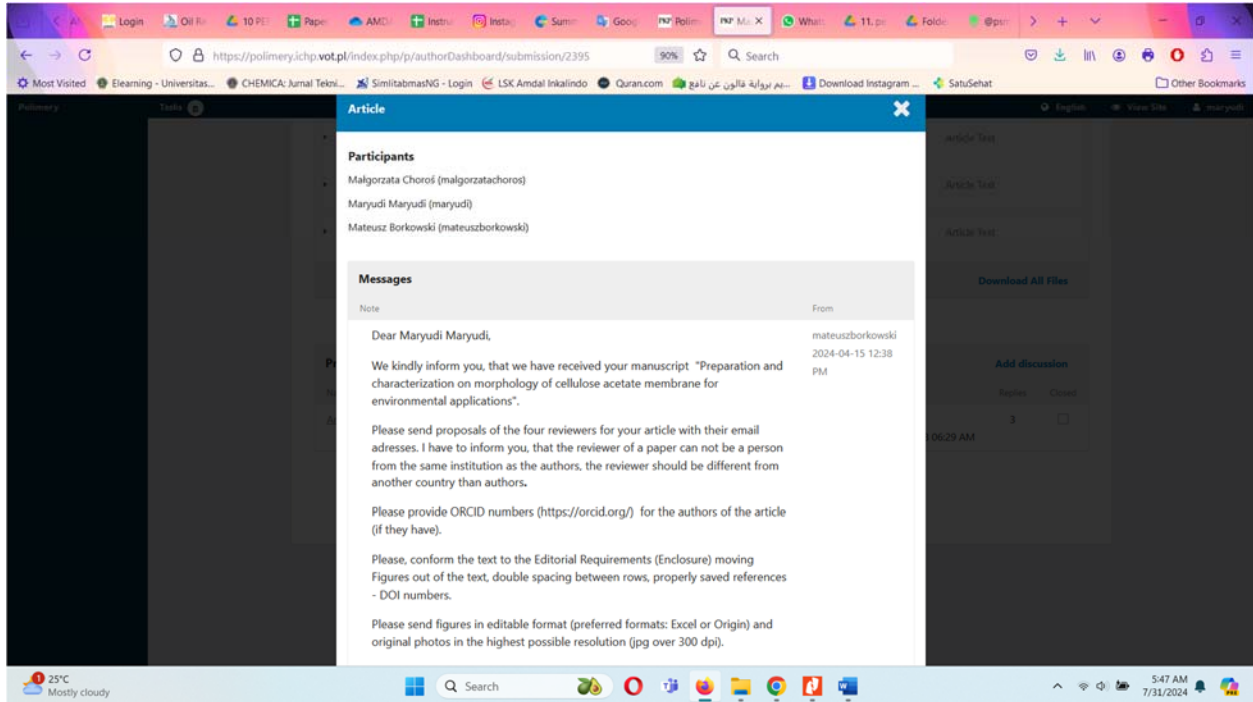


# Proses Review artikel: **Morphology and selected properties of cellulose acetate membranes for environmental applications**

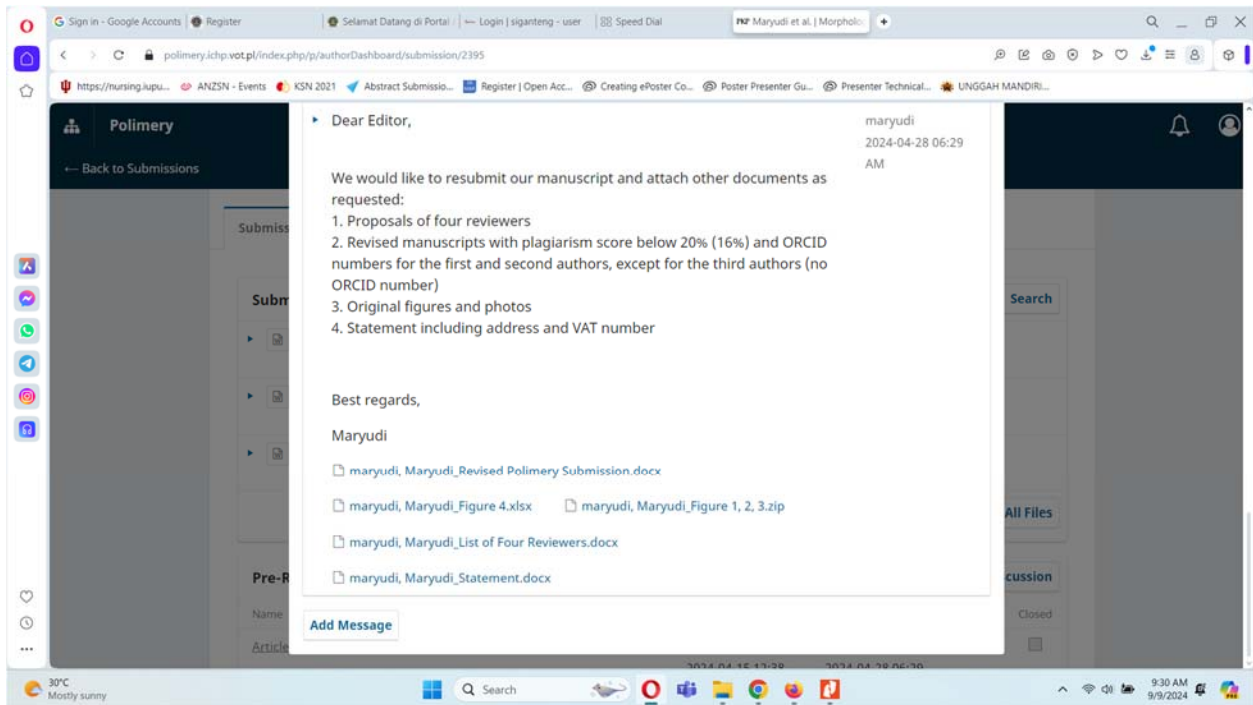
**12 April 2024: submit**



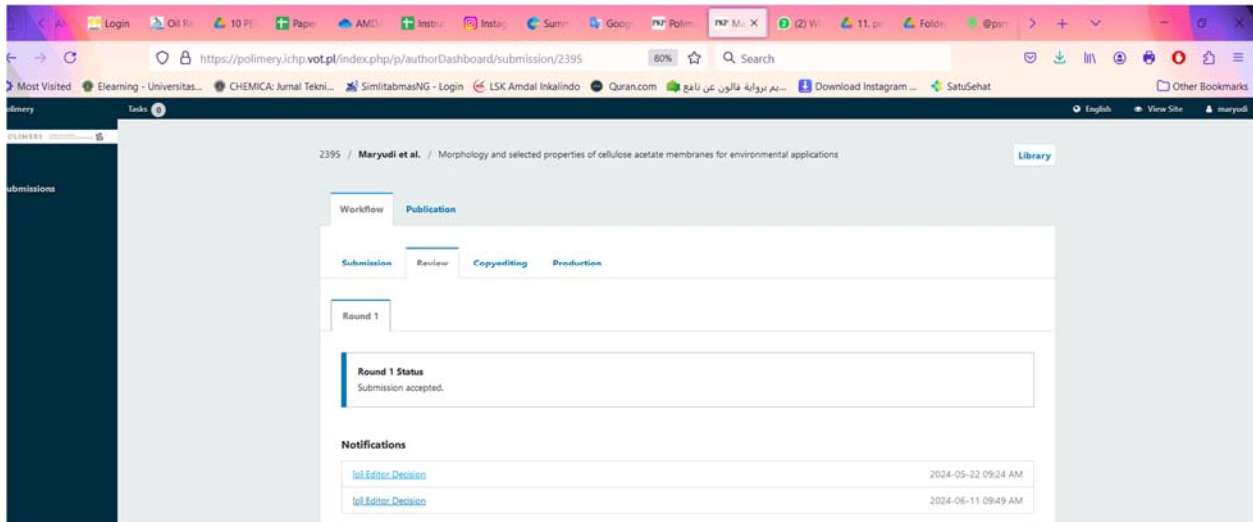
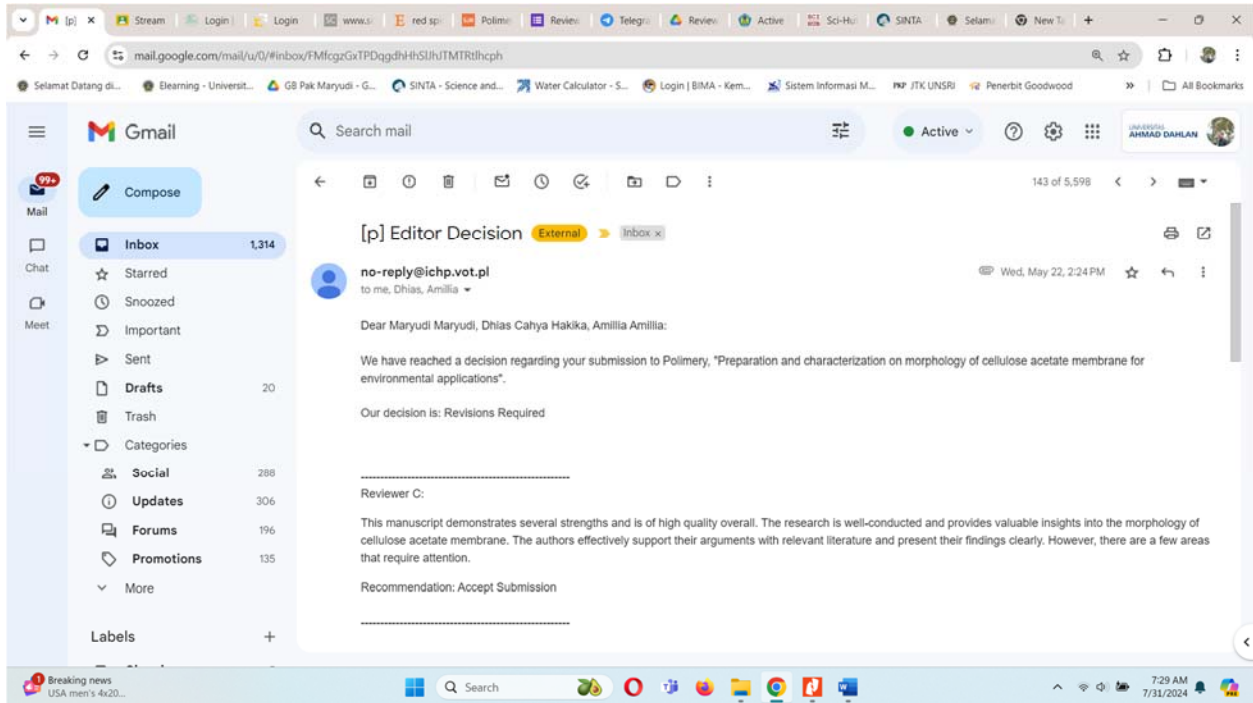
## 15 April 2024: pre-review

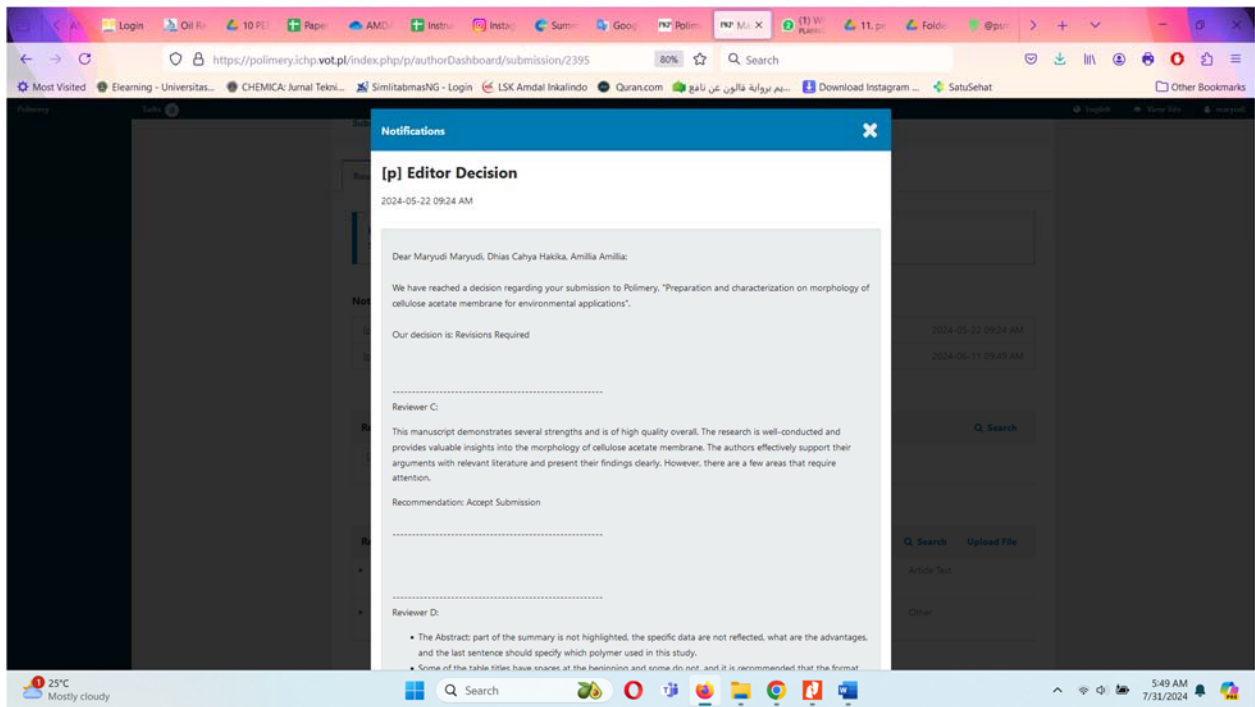


## 28 April 2024: resubmit paper setelah pre-review



## 22 Mei 2024: review





30 Mei 2024: submit revisi

Revisions		Q Search	Upload File
▶ 6600-1	Article Text, SUBMITTED Revised Manuscript.docx	May 30, 2024	Article Text
▶ 6601-1	Other, SUBMITTED Review Form-Polimery.pdf	May 30, 2024	Other

Title of the article: **Preparation and characterization on morphology of cellulose acetate membrane for environmental applications**

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

**PART 1.** We kindly ask you to assess whether the article reviewed fulfils the editorial requirements concerning the publications issued in "Polimery":

	Reviewer's comment	Author's comment ( <i>if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here</i> )
Does the subject of an article agree with the journal profile?	<b>Yes, it suits properly with the journal profile</b>	Thank you for the comment.
Does the title agree with the subject of paper?	<b>The title aptly reflects the subject matter of the paper and effectively communicates the essence of the research. It provides a clear indication of the content and scope of the study, which will help attract the intended audience. Overall, the title is well-suited to the manuscript and requires no further modification</b>	Thank you for the comment.
Is the division into: a) literature review, b) experimental part, c) results and their discussion, d) recapitulation of the results, clearly kept?	<b>The division into sections (a) literature review, (b) experimental part, (c) results and their discussion, and (d) recapitulation of the results is clearly maintained throughout the manuscript. Each section is well-defined and logically structured, facilitating a cohesive flow of information. The literature review provides a comprehensive overview of relevant prior research, the experimental part outlines the methodology employed, and the results and discussion section effectively analyzes and interprets the findings in relation to the research objectives. The recapitulation of the results succinctly summarizes the key findings and their implications. Overall, the manuscript's</b>	Thank you for the comment.

# P O L I M E R Y

	<b>organization enhances clarity and comprehension for the reader.</b>	
Does the work present an original and coherent research conception of cognitive and/or applied character?	<b>The manuscript demonstrates an original and coherent research conception with both cognitive and applied characteristics. The authors have developed a clear framework that integrates theoretical insights with practical applications, contributing significantly to the understanding of morphology. The work effectively bridges theoretical concepts with real-world implications, making it a valuable contribution to the field.</b>	Thank you for the comment.
Is the content of work even partially replicated in other publications?	<b>After reviewing the manuscript, I have not found any indication of partial replication of the content in other publications. The work appears to offer novel insights and findings that contribute to the existing body of knowledge in the field of morphology of cellulose acetate membrane for environmental applications</b>	Thank you for the comment.
In case of reviews: whether the subject proposed presents the recent development in research directions of polymer science?	<b>I have carefully assessed the manuscript with regard to its treatment of recent developments in research directions within polymer science. While the authors have provided a comprehensive overview of the subject matter, there are areas where further integration of recent advancements could enhance the relevance and timeliness of the discussion. I recommend that the authors consider discussing their implications on the broader landscape of polymer science.</b>	Thank you for the comment. We have added more sentences about the implications of this study in the field of polymer science.
Are the sources from last 5 years cited in the literature review?	<b>Yes. It contains 12 (48%) references cited from last 5 years.</b>	Thank you for the comment.
Was the aim of work clearly formulated?	<b>Yes, the methodology was clearly explained</b>	Thank you for the comment.
Was the short characteristics of raw materials and equipment used (with producers given) presented?	<b>Yes</b>	Thank you for the comment.

# P O L I M E R Y

<p>Does experimental part cover all the operations and methods mentioned in the further text?</p>	<p><b>The manuscript effectively explains the characteristics of the raw materials and equipment used, providing valuable insights into the experimental setup. However, it is important to include references for the methodology employed to ensure transparency and enable readers to verify the validity of the experimental procedures. I recommend that the authors add references to reputable sources or previously published methodologies to support their approach and enhance the credibility of the study</b></p>	<p>Thank you for the comment. We have added more information in methodology section.</p>
<p>Does the discussion of results take into consideration <b>all</b> the figures and tables presented?</p>	<p><b>Figure 3 is confusing. It's better to write 3a (i) rather than 3(i). This makes it easy for the reader to understand and follow the explanation.</b></p>	<p>Thank you for the comment. We have added more detailed information in Figure 3 to make it clearer.</p>
<p>Linguistic correctness in case of the articles in the English language</p>	<p><b>The manuscript demonstrates a high level of linguistic correctness in terms of grammar, syntax, and adherence to conventions of the English language. The text is clear and concise and effectively communicates the research findings to the reader. However, I recommend thorough proofreading to address any minor grammatical errors or inconsistencies that may detract from the overall clarity and professionalism of the manuscript</b></p>	<p>Thank you for the comment. We have checked the manuscript thoroughly to minimize the grammatical errors.</p>
<p>Are there ethical issues in this manuscript?</p>	<p><b>No.</b> <i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	<p>Thank you for the comment.</p>
<p>Are there competing interest issues in this manuscript?</p>	<p><b>No.</b></p>	<p>Thank you for the comment.</p>
<p>If plagiarism is suspected, <u>please provide related proofs or web links</u></p>	<p><b>No</b></p>	<p>Thank you for the comment.</p>

# P O L I M E R Y

## PART 2. Additional comments for the review

	Reviewer's comment	Author's comment ( <i>if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here</i> )
<b>Compulsory</b> REVISION comments		
<b>Minor</b> REVISION comments	<b>The format of writing the chemical bond is not synchronized. Some have a spacebar before the bond (-), and some do not.</b>	Thank you for the comment. We have edited all chemical bonds and make it consistent.
<b>Optional/General</b> comments	<b>Figure 4. It should be more presentable if the error bar is shown for membrane porosity.</b>	Thank you for the comment. We have added error bar for Figure 4 and updated the graph.

## PART 3. Objective evaluation

Give OVERALL MARKS you want to give to this manuscript  
( Highest: 10 Lowest: 0 )

You are asked to end with one of the following statements:

		MARKS of this manuscript
A)	The article needs the editorial corrections <b>(8-10)</b>	
B)	The article needs author's corrections and supplements <b>(6-7)</b>	<b>7.5</b>
C)	The article should be returned to author and after correction sent again to reviewer <b>(5-4)</b>	
D)	The article is not recommended to publish even after eventual author's corrections <b>(3-0)</b>	

In case of C) or D) please give short comments and reasons.

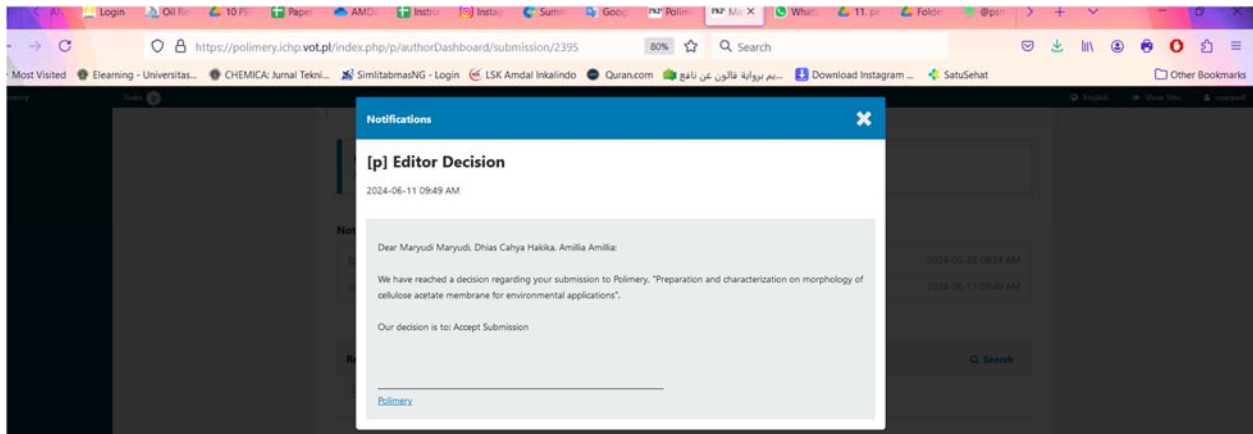
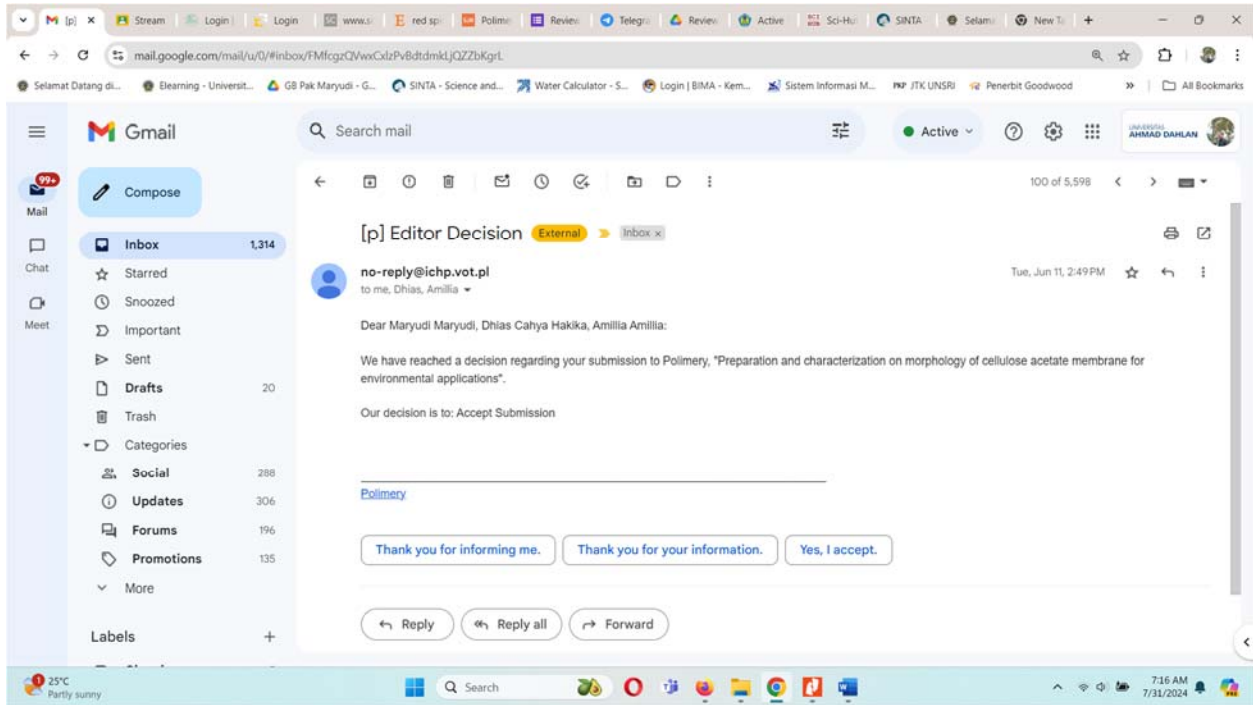
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**RESPONSE TO REVIEWER'S COMMENT**  
*(Highlighted in Yellow)*

No.	Location	Comment	Response to Comment
<b>REVIEWER C</b>			
1		This manuscript demonstrates several strengths and is of high quality overall. The research is well-conducted and provides valuable insights into the morphology of cellulose acetate membrane. The authors effectively support their arguments with relevant literature and present their findings clearly. However, there are a few areas that require attention.	Thank you for the appreciation. Authors has made an update on data and improved discussion.
<b>REVIEWER D</b>			
1	Abstract	Part of the summary is not highlighted, the specific data are not reflected, what are the advantages, and the last sentence should specify which polymer used in this study.	Thank you for the suggestion. We have revised the abstract and added more specific data.
2	Table	Some of the table titles have spaces at the beginning and some do not, and it is recommended that the format be consistent.	Table titles have been formatted consistently.
3	Figure	The SEM results in FIG2 is too blurred and it is recommended to replace it.	Figure has been replaced with the proper one.
4	Figure (SEM)	The roughness mentioned in FIG2, what exactly is it, what is the difference, what are the advantages of the material in this paper, and what do the data reflect.	We have added more information and explanation about surface roughness on this section.
5	Discussion	BASED on the result showed .... In this paragraph, it should be specifically mentioned what the pore size of each component is, what is the advantage of the experimental group, and what are the specific figures embodied.	Thank you for the suggestion. We have added more description about the pore size. The pore size has been mentioned based on SEM test results.
6	Results	It is recommended to supplement the characterization of tensile and compressive mechanical properties.	Thank you for the suggestion. The tensile properties of membrane have been added. While compressive test wasn't conducted since it was not suitable for this membrane.
7	Figure	Fig 4 Bar graph numbers are improperly labeled and have no error bars.	The graph has been updated and error bars have been added.
8	Conclusions	Conclusions lack specific data.	The data have been added in the conclusions.

11 Juni 2024: accepted



04 Juli 2024 Published

The screenshot shows a web browser window displaying the article page for "Morphology and selected properties of cellulose acetate membranes for environmental applications" in the journal "POLIMERY". The browser's address bar shows the URL "https://polimery.ichp.vot.pl/index.php/article/view/2395". The page features the journal's logo and title, "POLIMERY JOURNAL ON CHEMISTRY, TECHNOLOGY AND POLYMER PROCESSING", and the publisher's logo, "Lukasiewicz ICHP". The article title is prominently displayed, along with the authors' names: Maryudi Maryudi, Dhas Cahya Hakika, and Amilia Amilia. The abstract and keywords are also visible. The browser's taskbar at the bottom shows the system tray with a temperature of 25°C and a time of 6:07 AM on 7/31/2024.

The screenshot shows a web browser window displaying the issue page for "Vol. 69 No. 5 (2024)" in the journal "POLIMERY". The browser's address bar shows the URL "https://polimery.ichp.vot.pl/index.php/p/issue/view/251". The page features the journal's logo and title, "POLIMERY JOURNAL ON CHEMISTRY, TECHNOLOGY AND POLYMER PROCESSING", and the publisher's logo, "Lukasiewicz ICHP". The issue title is prominently displayed, along with the publication date "Published: 2024-05-29". Below the issue information, there is a section titled "Articles" which lists three articles with their titles, authors, and page numbers. The first article is "Liquid heat capacity of an amorphous poly(lactic acid)" by Marcin Skolnicki, Anna Czermecka-Kubicka, Iwona Zarzyka, and Marek Pyda, pages 283-291. The second article is "Morphology and selected properties of cellulose acetate membranes for environmental applications" by Maryudi Maryudi, Dhas Cahya Hakika, and Amilia Amilia, pages 292-299. The third article is "Synthesis of double network nanohydrogel and its performance in release of doxorubicin" by Ghasem Rezanajade Bardajee, Maede Noruzian, and Khadijeh Didehban, pages 300-311. The browser's taskbar at the bottom shows the system tray with a temperature of 25°C and a time of 6:06 AM on 7/31/2024.

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## Morphology and selected properties of cellulose acetate membranes for environmental applications

Maryudi Maryudi<sup>1b, \*\*</sup> (ORCID ID: 0000-0001-9218-1479), Dhias Cahya Hakika<sup>2b</sup> (ORCID ID: 0000-0002-7185-4805), Amillia Amillia<sup>3b</sup>  
DOI: <https://doi.org/10.14314/polimery.2024.52>

**Abstract:** Microporous membranes were obtained by dry-wet phase inversion from a solution of cellulose acetate (CA) in acetone (13, 14 and 15 wt%). Polyethylene glycol was used as a blowing agent. The structure and mechanical properties were examined. FT-IR spectra show that the addition of polyethylene glycol improves the thermodynamics of the solution and increases the hydrophilicity of the membrane. The SEM method confirmed the microporous structure of membranes with an asymmetric structure and various pore sizes and porosities. Higher CA concentration resulted in better tensile properties.  
**Keywords:** biopolymers, cellulose acetate, membrane, phase inversion.

**Struktura i wybrane właściwości membran z octanu celulozy do zastosowań środowiskowych**

**Streszczenie:** Mikroporowate membrany otrzymano metodą inwersji fazy sucho-mokrej z roztworu octanu celulozy (CA) w acetonie (13, 14 i 15% mas.). Jako środek porotwórczy zastosowano glikol polietylenowy. Zbadano strukturę i właściwości mechaniczne. Widma FT-IR pokazują, że dodatek glikolu polietylenowego poprawia termodynamikę roztworu i zwiększa hydrofilność membrany. Metodą SEM potwierdzono mikroporowatą strukturę membran o asymetrycznej budowie i różnej wielkości porów oraz porowatości. Większe stężenie CA skutkowało lepszymi właściwościami mechanicznymi przy rozciąganiu.  
**Słowa kluczowe:** biopolimery, octan celulozy, membrany, inwersja faz.

25°C Mostly cloudy 6:08 AM 7/31/2024